VERLIN
SOLUÇÕES EM TI

Serra, segunda-feira, 19 de maio de 2025

PROPOSTA FINANCEIRA

A
CÂMARA MUNICIPAL DE NOVO HAMBURGO/RS
PREGÃO ELETRÔNICO Nº 50/2026
A/C PREGOEIRO OFICIAL

Lote	Item	Qtd	UND	Marca	Modelo	Descrição do Produto	Valor Unitário	Valor Total
1	1	140	UND	HP	Prodesk 2 G1I SFF (i5-14500) + BlackWire 3210 + P22a G5 + WXP + Care Pack	Descrição do Produto Conforme Anexo de Referência deste Edital ou Anexo de Referencia contido nesta proposta.	R$ 242,00	R$ 33.880,00
1	2	10	UND	HP	Work Z2 TWR G1i (U7-265) + BlackWire 3210 + P24a G5 + WXP + Care Pack	Descrição do Produto Conforme Anexo de Referência deste Edital ou Anexo de Referencia contido nesta proposta.	R$ 741,50	R$ 7.415,00
1	3	25	UND	HP	250R G9 (i5-1334U) + BlackWire 3210 + WXP + Care Pack	Descrição do Produto Conforme Anexo de Referência deste Edital ou Anexo de Referencia contido nesta proposta.	R$ 255,00	R$ 6.375,00
1	4	10	UND	HP	EliteBook 840 G11 (U7-165U) + BlackWire 3210 + WXP + Care Pack	Descrição do Produto Conforme Anexo de Referência deste Edital ou Anexo de Referencia contido nesta proposta.	R$ 510,00	R$ 5.100,00
1	5	5	UND	Pichau	Cepheus S49 Neo	Descrição do Produto Conforme Anexo de Referência deste Edital ou Anexo de Referencia contido nesta proposta.	R$ 275,66	R$ 1.378,30
VALOR TOTAL LOTE 1 (MENSAL): R$ 54.148,30								
VALOR TOTAL LOTE 1 (60 MESES): R$ 3.248.898,00								

Preços cotados para entrega e instalação conforme edital;

1. **Prazo de entrega: Conforme Edital;**
2. **Período de Garantia e Assistência Técnica Conforme Edital;**
   a. **A Verlin dispõe de Serviço 0800 para chamadas gratuitas, para fins de esclarecimentos técnicos e abertura de atendimentos e chamados através do número 0800 887 8800.**
3. **Prazo de pagamento conforme termos do edital;**
4. **Cumpre-nos informar-lhes ainda que examinamos os documentos da licitação, inteirando-nos dos mesmos para elaboração da presente proposta. E em consonância aos referidos documentos, declaramos:**

a. **Que estamos cientes e concordamos com os Termos do Edital em epígrafe e das cláusulas da minuta do contrato em anexo;**
b. **Que o prazo de validade da presente proposta, contados a partir da data de abertura do conjunto proposta, é de 60 (sessenta) dias ou conforme edital;**
c. **Que nos preços apresentados já estão contemplados todos os encargos, principalmente os impostos e ou descontos ou vantagens, e frete para a entrega dos materiais.**

5. **Obs.: O preenchimento da presente proposta acarretará na íntegra conformidade de nossa empresa com todas as características do objeto e exigências constantes no edital.**
6. **Contas Bancárias**
   a. **Sicoob, Agência: 3037, Conta Corrente: 38.801-7;**
   b. **Caixa Econômica Federal, Agência: 6395, Conta Corrente: 933-4 OP: 003;**
7. **O responsável pela assinatura do contrato é o representante legal Willian Verlin de Oliveira, CPF: 754.636.012-91, RG: 001244674 SSP/MS, residente na Rua Antônio Michelon, 722 Apto 2, bairro Santa Rita na cidade de Bento Gonçalves/RS.**

WILLIAN VERLIN DE OLIVEIRA:75463601291

Assinado de forma digital por WILLIAN VERLIN DE OLIVEIRA:75463601291
Dados: 2026.10.26 18:31:06 -03'00'

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DESCRIÇÃO GERAL DOS ITENS OFERTADOS

ITEM 1

Desktop HP Pro 2 G1i SFF

- **Processador Intel® Core™ i5-14500 cache de 24 M, até 5,00 GHz**
- **Memória RAM de 16 GB DDR5-4800 MHz**
- **Unidade de armazenamento SSD PCIe® NVMe™ M.2 de 512GB – L85364-001**
- **Combo Card Realtek Wi-Fi6E RTL8852CE 802.11ax 2x2 e Bluetooth® 5.3**
- **Sistema Operacional Microsoft Windows 11 Pro com chave de ativação na BIOS**
- **FONTE Com potência de 180 watts, suficiente para suportar todos os dispositivos internos na configuração ofertada (placa principal, interfaces, discos rígidos, memória ram e demais periféricos); A fonte possui eficiência de 90%.**
- **Acompanha Teclado HP ABNT-II, com conector USB e Mouse Ótico HP com conector USB dotado com 3 botões (sendo um botão para rolagem de telas - "scroll").**

ACOMPANHA HEADSET POLY BLACKWIRE 3210 USB-C/A - 8X214AA
ACOMPANHA MONITOR HP P22a G5 - 8D5J1AA#AC4
ACOMPANHA SOFTWARE HP WORKFORCE EXPERIENCE PRO 5 ANOS – UG1U1AAE

5.4. Durante toda a vigência da locação, deverá ser fornecida solução do mesmo fabricante do equipamento ou por ele homologada, permitindo o monitoramento remoto em tempo real por meio de console centralizada, contemplando, no mínimo: • identificação patrimonial (número de série); • geolocalização, contendo a última localização conhecida do dispositivo; • suporte à assistência remota; • atualização automática de drivers e BIOS; • execução remota de scripts em PowerShell; • resolução proativa de problemas por meio de alertas e automações baseadas em inteligência artificial; • integração com Microsoft Intune e Microsoft Power BI; • visualização de métricas dos dispositivos e da experiência do usuário; • pontuação de desempenho; • alertas em tempo real classificados por gravidade, com ações recomendadas; • medição do tempo de utilização de softwares; • relatórios integrados e personalizados; • gerenciamento de inventário e desempenho de todos os dispositivos.

Links de comprovações Desktop:
Links de comprovações Desktop:
QuickSpec: https://h20195.www2.hp.com/v2/GetDocument.aspx?docname=c09083467
Datasheet: https://support.hp.com/za-en/document/ish_11799076-11799120-16
INTEL: https://www.intel.com.br/content/www/br/pt/products/sku/236784/intel-core-i5-processor-14500-24m-cache-up-to-5-00-ghz/specifications.html
PassMark: https://www.cpubenchmark.net/cpu.php?cpu=Intel+Core+i5-14500&id=5835
HCL MICROSOFT: https://partner.microsoft.com/en-us/dashboard/hardware/search/cpl
Energy Star: https://www.energystar.gov/productfinder/product/certified-computers/details/4471356
EPEAT: https://www.epeat.net/product-details/60a0e47bc9c84124bd395b9286e8b0bf?backUrl=%2Fproduct-finder%3Fquery%3DProDesk%25202%2520SFF
IT ECO Declarations: https://h20195.www2.hp.com/v2/GetDocument.aspx?docname=c09245438
80 PLUS: https://www.clearesult.com/80plus/sites/80plus/files/manufacturer-certificate/HP%20INC._D23-180P1A_180W_SOCE%207569_Report.pdf
ROHS: https://h20195.www2.hp.com/v2/GetDocument.aspx?docname=c09124640
EC 60950/ EN 61000: https://www8.hp.com/h20195/v2/GetDocument.aspx?docname=c06505012&search=280%20G9
TCO: https://tcocertified.com/product-finder/?product=C10250600044HPProDesk2SFFG1iDesktopPC
MIL-STD-810: https://h20195.www2.hp.com/v2/GetDocument.aspx?docname=4AA6-0823ENW
MCTIC PPB:
https://inovacaodigital.mcti.gov.br/leiDeInformatica/empresasHabilitadas/pesquisarRelacaoEmpresasProdutosModelos?empresa=&cnpj=74.404.229/0005-51&produto=&page=4

HP P22a G5 - 8D5J1AA#AC4
Especificações:https://support.hp.com/br-pt/product/product-specs/hp-p22a-g5-fhd-monitor/2101848676
Energy Star: https://www.energystar.gov/productfinder/product/certified-displays/details/2380525
EPEAT:https://epeat.net/product-details/efa8abb3af2441768ba5b5e8f4c1a62c?backUrl=%252Fcomputers-and-displays-search-result%252Fpage-1%252Fsize-25%253FcountryId%253D103%2526productName%253Dp22a%252520G5

Links de comprovações fabricante:
Membership List UEFI: https://uefi.org/members
Members List DMTF: https://www.dmtf.org/about/list
RBA: http://www.responsiblebusiness.org/about/members/
Trusted Computing Group: https://trustedcomputinggroup.org/membership/member-companies/
0800 HP: https://www.hp.com/br-pt/contact-hp/phone-assist.html
https://support.hp.com/br-pt/contact-hp
https://support.hp.com/br-pt/drivers
https://support.hp.com/br-pt/eas/failureid
https://gncpgslbpro1.houston.hp.com/Cso_Status/CsoStatus.aspx?lc=pt&cc=br

4.1. Especificações técnicas 4.1.1. DESKTOP CORPORATIVO 4.1.1.1. Os equipamentos devem pertencer à linha corporativa, serem novos e sem uso, apresentar comprovação do fabricante junto a proposta, com validade não inferior a 30 dias. 4.1.1.2. Processador com 6 núcleos físicos e 12 threads, frequência turbo de 4,8 GHz, com características e desempenho equivalente ou superior ao índice de 21.000 pontos registrados no PassMark – CPU Benchmarks, disponível no site http://www.cpubenchmark.net/cpu_list.php. O processador deverá ter sido introduzido em ou após 2023. 4.1.1.3. Memória de 16 GB DDR4 instalada, operando a 3.200 MHz, suportando upgrade para 64 GB. 4.1.1.4. Unidade de armazenamento do tipo SSD M.2 2280 PCIe NVMe, com capacidade mínima de 256 GB, do próprio fabricante ou homologada para o equipamento. Apresentar o part number junto a proposta. 4.1.1.5. Placa principal da mesma marca do fabricante do equipamento, desenvolvida especificamente para o modelo ofertado, não sendo aceitas soluções em regime de OEM ou customizadas. BIOS com direitos de copyright, em português, em conformidade com as especificações UEFI 2.1 ou superior, na categoria Promoters. Deverá possuir: Mínimo 2 (dois) slots M.2; • Mínimo 2 (dois) slots para memória; • Mínimo 4 (quatro) interfaces USB 3.2 nativas do tipo A, não sendo aceito o uso de adaptadores; • Chip ou firmware TPM 2.0; • Mínimo 2 (duas) portas de vídeo nativas, suportando 2 (dois) monitores simultaneamente; • Conectividade cabeada Gigabit Ethernet; • Wi-Fi 6 (802.11ax 2x2) e Bluetooth 5.2 integrados à placa-mãe. 4.1.1.6. Gabinete com volume não superior a 9 litros. Deverá possuir tecnologia tool-less para abertura do equipamento, remoção do painel frontal e da memória. 4.1.1.7. Fonte de alimentação com tensão de entrada automática, eficiência energética comprovada de 89% e potência máxima de 260 W. 4.1.1.8. Teclado USB padrão ABNT-2, com ajuste de inclinação e cabo de 1,5 metro. Mouse laser USB com 3 botões (incluindo scroll) e resolução mínima de 1.000 dpi. Headset monaural com supressão passiva de ruído nos alto-falantes e microfone com supressão de ruído. Todos os periféricos deverão ser da mesma marca do computador ofertado, não sendo aceitas soluções em regime de OEM. 4.1.1.9. Sistema operacional Microsoft Windows 11 Professional 64 bits instalado em fábrica, licenciado e com ativação através da BIOS do computador. 4.1.1.10. Monitor IPS WLED de no mínimo 21,4", com ângulo de visão de 178°, resolução Full HD (1920 × 1080), ajustes de altura, inclinação e rotação. Deverá possuir portas HDMI, DisplayPort, VGA e mínimo 4 portas USB integradas, padrão VESA de 100 mm, alimentação bivolt e acompanhar cabos e manual. O monitor deverá ser da mesma marca e fabricante do computador ofertado. 4.1.1.11. O fabricante deverá possuir site na internet para download de drivers e dos softwares originais instalados em fábrica. 4.1.1.12. Acompanhar solução do mesmo fabricante para gerenciamento de dispositivos externos, monitores e periféricos de sua fabricação, permitindo personalização da interação com os dispositivos, comprovada por documentação oficial do fabricante. 4.1.1.13. O computador ofertado deverá estar em conformidade com as diretivas RoHS, ENERGY STAR, EPEAT Silver, TCO, DMTF Board ou CIM, sendo compatível com os sistemas operacionais Windows e Ubuntu, comprovado por certificação HCL dos respectivos desenvolvedores ou por declaração do fabricante. 4.1.1.14. A proposta deverá destacar claramente a marca, o modelo e o processador dos equipamentos ofertados, devendo apresentar documentação oficial do fabricantecontendo o modelo, componentes, acessórios e garantia. Quando as certificações forem extraídas da internet, deverá ser apresentada a página impressa contendo a informação e o respectivo endereço eletrônico, permitindo à Comissão de Licitação verificar o atendimento integral das especificações técnicas previstas no edital e seus anexos, sob pena de desclassificação da proposta.

ITEM 2

WORKSTATION Z2 TWR G1i

- **Processador Intel® Core™ Ultra 7 265 cache de 30 M, até 5,30 GHz**
- **Memória RAM de 32 GB DDR5-4800 MHz**
  Unidade de armazenamento SSD PCIe® NVMe™ M.2 de 512 GB - N04490-001
- **Sistema Operacional Microsoft Windows 11 Pro**
- **FONTE Com potência de 700 watts, suficiente para suportar todos os dispositivos internos na configuração ofertada (placa principal, interfaces, discos rígidos, memória ram e demais periféricos); A fonte possui eficiência de 92%.**
- **Acompanha Placa de Vídeo GFX NVIDIA GeF RTX5060 8GB GDDR7 FH - P47615-001**
- **Acompanha Teclado HP ABNT-II, com conector USB e Mouse óptico HP com conector USB dotado com 3 botões (sendo um botão para rolagem de telas - "scroll").**

ACOMPANHA HEADSET POLY BLACKWIRE 3210 USB-C/A - 8X214AA
ACOMPANHA MONITOR HP P24a G5 - 8D5J5AA#AC4
ACOMPANHA SOFTWARE HP WORKFORCE EXPERIENCE PRO 5 ANOS – UG1U1AAE

5.4. Durante toda a vigência da locação, deverá ser fornecida solução do mesmo fabricante do equipamento ou por ele homologada, permitindo o monitoramento remoto em tempo real por meio de console centralizada, contemplando, no mínimo: • identificação patrimonial (número de série); • geolocalização, contendo a última localização conhecida do dispositivo; • suporte à assistência remota; • atualização automática de drivers e BIOS; • execução remota de scripts em PowerShell; • resolução proativa de problemas por meio de alertas e automações baseadas em inteligência artificial; • integração com Microsoft Intune e Microsoft Power BI; • visualização de métricas dos dispositivos e da experiência do usuário; • pontuação de desempenho; • alertas em tempo real classificados por gravidade, com ações recomendadas; • medição do tempo de utilização de softwares; • relatórios integrados e personalizados; • gerenciamento de inventário e desempenho de todos os dispositivos.

Links de comprovações Desktop:
QuickSpec: https://h20195.www2.hp.com/v2/GetPDF.aspx/c08621400.pdf
Datasheet: https://h20195.www2.hp.com/v2/GetPDF.aspx/c08109687.pdf
INTEL: https://www.intel.com.br/content/www/br/pt/products/sku/241068/intel-core-ultra-7-processor-265-30m-cache-up-to-5-30-ghz/specifications.html
PassMark: https://www.cpubenchmark.net/cpu.php?cpu=Intel+Core+Ultra+7+265&id=6423
HCL MICROSOFT: https://partner.microsoft.com/en-us/dashboard/hardware/search/cpl
HCL UBUNTU: https://ubuntu.com/certified/202501-36173
Energy Star: https://www.energystar.gov/productfinder/product/certified-computers/details/4429284
EPEAT: https://www.epeat.net/product-details/415ee3d89da5451eb5e52560931b365d?backUrl=%2Fproduct-finder%3Fquery%3DZ2%2520TOWER%2520G1i
IT ECO Declarations:https://h20195.www2.hp.com/v2/GetDocument.aspx?docname=c09146374
80 PLUS: https://www.clearesult.com/80plus/sites/80plus/files/manufacturer-certificate/hp-inc-d19700p1a-1511.pdf
TCO: https://tcocertified.com/product-finder/?query=Z2%20tower%20G1i&tq=&pp=1
ROHS: https://h20195.www2.hp.com/v2/GetDocument.aspx?docname=c09146376
EC 60950/ EN 61000: https://www8.hp.com/h20195/v2/GetDocument.aspx?docname=c09149374
MIL-STD-810: https://h20195.www2.hp.com/v2/GetDocument.aspx?docname=4AA6-0823ENW
MCTIC PPB:
https://inovacaodigital.mcti.gov.br/leiDeInformatica/empresasHabilitadas/pesquisarRelacaoEmpresasProdutosModelos?empresa=&cnpj=74.404.229/0005-51&produto=&page=4
Manuais: https://kaas.hpcloud.hp.com/pdf-public/pdf_2096027_pt-BR-1.pdf
http://h10032.www1.hp.com/ctg/Manual/c08149519.pdf

HP P24a G5 - 8D5J5AA#AC4
Especificações: https://h20195.www2.hp.com/v2/GetPDF.aspx/c08876361.pdf
Energy Star: https://www.energystar.gov/productfinder/product/certified-displays/details/2380796
EPEAT: https://epeat.net/product-details/088d3d144ef745caa7d9ecc5fa00f8b4?backUrl=%252Fcomputers-and-displays-search-result%252Fpage-1%252Fsize-25%253FproductName%253Dp24a%252520g5

Links de comprovações fabricante:
Membership List UEFI: https://uefi.org/members
Members List DMTF: https://www.dmtf.org/about/list
RBA: http://www.responsiblebusiness.org/about/members/
Trusted Computing Group: https://trustedcomputinggroup.org/membership/member-companies/
0800 HP: https://www.hp.com/br-pt/contact-hp/phone-assist.html
https://support.hp.com/br-pt/contact-hp
https://support.hp.com/br-pt/drivers
https://support.hp.com/br-pt/eas/failureid
https://gncpgslbpro1.houston.hp.com/Cso_Status/CsoStatus.aspx?lc=pt&cc=br

4.1.2. ESTAÇÃO DE TRABALHO (WORKSTATION) 4.1.2.1. Os equipamentos devem pertencer à linha corporativa, serem novos, sem uso, não sendo aceitos equipamentos destinados ao uso doméstico ou gamer. Apresentar declaração do fabricante junto a proposta, com emissão não superior a 30 dias. 4.1.2.2. Processador com 20 núcleos físicos e 20 threads, frequência base de 2,1 GHz, com características e desempenho equivalente ou superior ao índice de 41.700 pontos registrados no PassMark – CPU Benchmarks, disponível no site http://www.cpubenchmark.net/cpu_list.php. Deverá possuir NPU integrada de, no mínimo, 11 TOPS. 4.1.2.3. Memória de 32 GB (2x16 GB ou 1x32 GB) DDR5 instalada, operando a 4.400 MHz, devendo disponibilizar pelo menos 2 (dois) slots livres para expansão futura e suportar upgrade para 128 GB. 4.1.2.4. Unidade de armazenamento instalada internamente ao equipamento, do tipo SSD NVMe, com capacidade mínima de 512 GB, do mesmo fabricante ou homologada por ele. Apresentar o part number na proposta, sob pena de desclassificação. 4.1.2.5. Placa principal da mesma marca do fabricante do equipamento, desenvolvida especificamente para o modelo ofertado, não sendo aceitas soluções em regime de OEM ou customizadas. BIOS com direitos de copyright, em português, em conformidade com as especificações UEFI 2.1 ou superior, na categoria Promoters. Deverá possuir: • Mínimo 8 (oito) slots de expansão, contemplando PCIe x4 (Gen3), PCIe x16 (Gen5), M.2 WLAN e 3 (três) conectores M.2 2242/2280 para armazenamento; • Mínimo 4 (quatro) slots para memória, permitindo expansão para até 128 GB; • Mínimo 10 (dez) interfaces USB, sendo no mínimo 8 (oito) USB 3.2 nativas, incluindo pelo menos 1 (uma) USB Tipo C de 20 Gbps na parte frontal do gabinete; • TPM integrado para criptografia de dados; • Suporte a RAID 0 e RAID 1; • Porta de rede LAN 10/100/1000 Mbps com conector RJ-45; • Interface de áudio integrada; • Chipset específico para aplicações de Arquitetura, Engenharia e Construção (AEC), pertencente à geração mais recente disponibilizada pelo fabricante da workstation e compatível com o processador ofertado; • Recursos de segurança baseados em hardware; Sensor de intrusão instalado no gabinete. Não serão aceitas adaptações. 4.1.2.6. Gabinete do tipo torre ou microtorre, com volume não superior a 24.600 cm³. Deverá possuir tecnologia tool-less para abertura do equipamento, remoção de memórias e unidades de armazenamento (HDs, SSDs ou drive cages), exceto unidades M.2. Deverá suportar pelo menos 3 (três) discos rígidos de 2,5" ou 3,5". 4.1.2.7. Fonte de alimentação com potência mínima de 400 W, seleção automática de tensão de entrada (100 a 240 V), eficiência comprovada de 90% e certificação 80 Plus Gold. 4.1.2.8. Placa de vídeo com, no mínimo: • Placa gráfica profissional com desempenho mínimo equivalente a 19.000 pontos no PassMark G3D ou benchmark equivalente; • Performance FP32 de 19,0 TFLOPS; • Memória de vídeo de 8 GB GDDR6; • Interface de memória de 128 bits; • Resolução máxima de 7680 × 4320; • Suporte para até 4 (quatro) monitores; • Saídas HDMI, Display Port ou mini DisplayPort. A placa deverá ser do próprio fabricante do computador ou homologada por ele, devendo ser apresentado o respectivo part number junto a proposta. 4.1.2.9. Sistema operacional Microsoft Windows 11 Professional 64 bits OEM, com licença e ativação através da BIOS. 4.1.2.10. Teclado padrão ABNT-2 e mouse óptico USB, ambos da mesma marca e fabricante do computador. Headset monaural com supressão passiva de ruído nos alto-falantes e microfone com supressão de ruído. Não serão aceitas soluções em regime de OEM. 4.1.2.11. Monitor IPS WLED de 23,8", com ângulo de visão de 178°, resolução Full HD (1920 × 1080), ajustes de altura, inclinação, rotação e pivô. Deverá possuir conexões HDMI, DisplayPort e VGA, padrão VESA de 100 mm, alimentação bivolt e acompanhar cabos e manual. O monitor deverá ser da mesma marca e fabricante do computador ofertado. 4.1.2.12. O fabricante deverá possuir site na internet para download de drivers e dos softwares originais instalados em fábrica. 4.1.2.13. Acompanhar solução do mesmo fabricante do equipamento para gerenciamento de dispositivos externos, monitores e periféricos de sua fabricação, permitindo a personalização da interação com os dispositivos, comprovada por documentação oficial do fabricante. 4.1.2.14. O computador e o monitor ofertados deverão estar em conformidade com as diretivas RoHS, ENERGY STAR, EPEAT Gold, TCO 9.0, certificação militar STD-810H, DMTF Board ou CIM, além de serem compatíveis com os sistemas operacionais Windows e Ubuntu, comprovado mediante certificação HCL do respectivo desenvolvedor.

ITEM 3

Notebook HP 200 G2i

- **Processador Intel® Core™ 5 120U cache de 12 M, até 5,00 GHz**
- **Memória RAM HP de 16 GB DDR4-5200 MHz**
- **Unidade de armazenamento HP SSD PCIe® NVMe™ de 256GB - N45477-005**
- **Sistema operacional Windows 11 PRO instalado em fábrica com ativação pela BIOS**
- **Tela de 40,6 cm (16 pol.) na diagonal, WUXGA (1920 x 1200), IPS, antirreflexo, 300 nits, 62,5% sRGB**

ACOMPANHA HEADSET POLY BLACKWIRE 3210 USB-C/A - 8X214AA
ACOMPANHA SOFTWARE HP WORKFORCE EXPERIENCE PRO 5 ANOS – UG1U1AAE

5.4. Durante toda a vigência da locação, deverá ser fornecida solução do mesmo fabricante do equipamento ou por ele homologada, permitindo o monitoramento remoto em tempo real por meio de console centralizada, contemplando, no mínimo: • identificação patrimonial (número de série); • geolocalização, contendo a última localização conhecida do dispositivo; • suporte à assistência remota; • atualização automática de drivers e BIOS; • execução remota de scripts em PowerShell; • resolução proativa de problemas por meio de alertas e automações baseadas em inteligência artificial; • integração com Microsoft Intune e Microsoft Power BI; • visualização de métricas dos dispositivos e da experiência do usuário; • pontuação de desempenho; • alertas em tempo real classificados por gravidade, com ações recomendadas; • medição do tempo de utilização de softwares; • relatórios integrados e personalizados; • gerenciamento de inventário e desempenho de todos os dispositivos.

Links de comprovações Desktop:
QuickSpec: https://h20195.www2.hp.com/v2/GetDocument.aspx?docname=c09219541
Datasheet: https://h20195.www2.hp.com/v2/GetPDF.aspx/c09239570?utm_uptracs=null
Intel:https://www.intel.com/content/www/us/en/products/sku/236796/intel-core-5-processor-120u-12m-cache-up-to-5-00-ghz/specifications.html
PassMark: https://www.cpubenchmark.net/cpu.php?cpu=Intel+Core+5+120U&id=5892
HCL MICROSOFT:
Energy Star: https://www.energystar.gov/productfinder/product/certified-computers/details/4515114
EPEAT: https://www.epeat.net/v2/product-details/5d06b067035e4a3aba23b275168bdb19?backUrl=%2Fproduct-finder%3Fquery%3D200%2520G2i
IT ECO Declarations: https://h20195.www2.hp.com/v2/GetDocument.aspx?docname=c09260706
TCO: https://tcocertified.com/product-finder/?tq=200%20G2i&pp=1
ROHS: https://h20195.www2.hp.com/v2/GetDocument.aspx?docname=c09260705
EC 60950/ EN 61000: https://www8.hp.com/h20195/v2/GetDocument.aspx?docname=c09255903

Links de comprovações fabricante:
Membership List UEFI: https://uefi.org/members
Members List DMTF: https://www.dmtf.org/about/list
RBA: http://www.responsiblebusiness.org/about/members/
Trusted Computing Group: https://trustedcomputinggroup.org/membership/member-companies/
0800 HP: https://www.hp.com/br-pt/contact-hp/phone-assist.html
https://support.hp.com/br-pt/contact-hp
https://support.hp.com/br-pt/drivers
https://support.hp.com/br-pt/eas/failureid
https://gncpgslbpro1.houston.hp.com/Cso_Status/CsoStatus.aspx?lc=pt&cc=br

4.1.3.1. Os equipamentos devem pertencer à linha corporativa, serem novos e sem uso, devendo ser apresentada declaração do fabricante junto a proposta, com emissão não superior a 30 dias. 4.1.3.2. Processador com 10 núcleos físicos e 12 threads, frequência turbo de 4,6 GHz, com características e desempenho equivalente ou superior ao índice de 12.800 pontos registrados no PassMark – CPU Benchmarks, disponível no site http://www.cpubenchmark.net/cpu_list.php. O processador deverá ter sido lançado após 2023 ou pertencer à geração mais recente disponibilizada pelo fabricante do computador. 4.1.3.3. Memória de 16 GB DDR4, operando a 3.200 MHz, com suporte à tecnologia Dual Channel e possibilidade de expansão para até 32 GB. 4.1.3.4. Unidade de armazenamento instalada internamente, composta por 1 (uma) unidade SSD NVMe com capacidade mínima de 256 GB, do mesmo fabricante do equipamento ou por ele homologada. Deverá ser apresentado o respectivo part number na proposta, sob pena de desclassificação. 4.1.3.5. Placa principal da mesma marca do fabricante do equipamento, desenvolvida especificamente para o modelo ofertado. Não serão aceitas soluções em regime de OEM ou customizadas. A BIOS deverá possuir direitos de copyright, estar em português e ser compatível com a especificação UEFI 2.1 ou superior, categoria Promoters. O equipamento deverá possuir: • Chipset desenvolvido para o mercado móvel, integrado ao processador em arquitetura SoC (System on Chip); • Conectividade cabeada Gigabit Ethernet; • Conectividade sem fio padrão IEEE 802.11ac; • Bluetooth 5.3 integrado; • 1 (uma) saída de vídeo digital nativa, sem utilização de adaptadores; • Mínimo 2 (duas) portas USB 3.1 de 5 Gbps; • Mínimo 1 (uma) porta USB 3.1 Gen2 de 10 Gbps com suporte a DisplayPort 1.4; • Leitor de cartões integrado ao gabinete; • Segurança por fTPM integrada para criptografia de dados. 4.1.3.6. Tela LED de 15,6 polegadas, resolução mínima de 1920 x 1080 pixels. 4.1.3.7. Sistema multimídia com controle de volume, alto-falantes estéreo de 16 bits integrados à placa-mãe, conectores de entrada e saída de áudio, microfone e webcam integrados ao gabinete. 4.1.3.8. Teclado padrão ABNT-2 (Português Brasil), com gravação permanente dos caracteres nas teclas, resistente ao desgaste por abrasão e uso contínuo. 4.1.3.9. Dispositivo apontador (touchpad) integrado, com no mínimo 2 (dois) botões. 4.1.3.10. Headset monaural com alto-falantes de supressão passiva de ruído e microfone com supressão de ruído. Todos os periféricos deverão ser da mesma marca do computador ofertado, não sendo aceitas soluções em regime de OEM. 4.1.3.11. Fonte de alimentação bivolt automática e bateria recarregável de íons de lítio (Li-ion), com capacidade mínima de 41 Whr e autonomia mínima de 7 (sete) horas. 4.1.3.12. Sistema operacional Microsoft Windows 11 Professional 64 bits, instalado em fábrica, licenciado e ativado por meio da BIOS do equipamento. 4.1.3.13. O fabricante deverá disponibilizar site na internet para download de drivers e dos softwares originais instalados em fábrica. 4.1.3.14. Deverá acompanhar solução do mesmo fabricante do equipamento para gerenciamento de dispositivos externos, monitores e periféricos de sua fabricação, permitindo a personalização da interação com esses dispositivos, comprovada por documentação oficial do fabricante. 4.1.3.15. O computador ofertado deverá estar em conformidade com as diretivas RoHS, ENERGY STAR, EPEAT Gold, TCO 9.0, certificação militar STD-810H, DMTF Board ou CIM, sendo compatível com o sistema operacional Windows, comprovado mediante certificação HCL do respectivo desenvolvedor. 4.1.3.16. A proposta deverá destacar claramente a marca, o modelo e o processador dos equipamentos ofertados, devendo apresentar, junto a proposta, documentação oficial do fabricante contendo o modelo ofertado, componentes, acessórios e garantia. Quando as certificações forem extraídas da internet, deverá ser apresentada a respectiva página impressa contendo a informação e o endereço

eletrônico da fonte, permitindo à Comissão de Licitação verificar o atendimento integral das especificações técnicas constantes do edital e de seus anexos, sob pena de desclassificação da proposta.

ITEM 4

Notebook HP EliteBook 840 G11

- **Processador Intel® Core™ Ultra 7 Processor 165U (12M Cache, up to 4.90 GHz)**
- **Memória RAM HP de 32GB DDR5 MHz (2 x 16 GB)**
- **Unidade de armazenamento HP SSD PCIe® NVMe™ de 512GB - N45476-00**
- **Sistema operacional Windows 11 PRO instalado em fábrica com ativação pela BIOS**
- **Tela FHD (1920 x 1200) 35.6 cm (14") na diagonal, moldura estreita, antirreflexo, 300 nits, 45% NTSC**

ACOMPANHA HEADSET POLY BLACKWIRE 3210 USB-C/A - 8X214AA
ACOMPANHA SOFTWARE HP WORKFORCE EXPERIENCE PRO 5 ANOS – UG1U1AAE

5.4. Durante toda a vigência da locação, deverá ser fornecida solução do mesmo fabricante do equipamento ou por ele homologada, permitindo o monitoramento remoto em tempo real por meio de console centralizada, contemplando, no mínimo: • identificação patrimonial (número de série); • geolocalização, contendo a última localização conhecida do dispositivo; • suporte à assistência remota; • atualização automática de drivers e BIOS; • execução remota de scripts em PowerShell; • resolução proativa de problemas por meio de alertas e automações baseadas em inteligência artificial; • integração com Microsoft Intune e Microsoft Power BI; • visualização de métricas dos dispositivos e da experiência do usuário; • pontuação de desempenho; • alertas em tempo real classificados por gravidade, com ações recomendadas; • medição do tempo de utilização de softwares; • relatórios integrados e personalizados; • gerenciamento de inventário e desempenho de todos os dispositivos.

Links de comprovações Desktop:
QuickSpec: https://h20195.www2.hp.com/v2/GetDocument.aspx?docname=c08880575
Datasheet: https://h20195.www2.hp.com/v2/GetPDF.aspx/c08903294.pdF
Intel: https://www.intel.com/content/www/us/en/products/sku/237329/intel-core-ultra-7-processor-165u-12m-cache-up-to-4-90-ghz/specifications.html
PassMark: https://www.cpubenchmark.net/cpu.php?cpu=Intel+Core+Ultra+7+165U&id=5825
HCL MICROSOFT: https://partner.microsoft.com/en-us/dashboard/hardware/driver/downloadCertificationReport/30089880/13738591602643424/11529215056972 59305
HCL UBUNTU: https://ubuntu.com/certified/202312-33280
Energy Star: https://www.energystar.gov/productfinder/product/certified-computers/details/4480297
EPEAT: https://www.epeat.net/product-details/75d6ce9e2268442283f49a7ba98c37b7?backUrl=%2Fproduct-finder%3Fquery%3D840%2520G11
IT ECO Declarations: https://h20195.www2.hp.com/v2/GetDocument.aspx?docname=c08938467
TCO: https://tcocertified.com/product-finder/?category=Notebooks&tq=ELITEBOOK%20&pp=1&product=N924030434HPEliteBook84014inchG11NotebookPC
ROHS: https://h20195.www2.hp.com/v2/GetDocument.aspx?docname=c08938469
EC 60950/ EN 61000: https://www8.hp.com/h20195/v2/GetDocument.aspx?docname=c08881781

Links de comprovações fabricante:
Membership List UEFI: https://uefi.org/members
Members List DMTF: https://www.dmtf.org/about/list
RBA: http://www.responsiblebusiness.org/about/members/
Trusted Computing Group: https://trustedcomputinggroup.org/membership/member-companies/
0800 HP: https://www.hp.com/br-pt/contact-hp/phone-assist.html
https://support.hp.com/br-pt/contact-hp
https://support.hp.com/br-pt/drivers
https://support.hp.com/br-pt/eas/failureid

https://gncpgslbpro1.houston.hp.com/Cso_Status/CsoStatus.aspx?lc=pt&cc=br

4.1.4.1. Os equipamentos devem pertencer à linha corporativa, serem novos, sem uso e estar em linha de produção, não sendo aceitos equipamentos destinados ao uso doméstico, comprovado mediante declaração do fabricante apresentada junto a proposta 4.1.4.2. Processador com 12 núcleos físicos e 14 threads, frequência base de 1,7 GHz e cache de 12 MB, com características e desempenho igual ou superior ao índice de 16.400 pontos registrados no PassMark CPU Benchmarks, disponível no site http://www.cpubenchmark.net/cpu_list.php. Deverá possuir NPU integrada de, no mínimo, 11TOPS. O processador deverá ter sido lançado após 2023 ou pertencer à geração mais recente disponibilizada pelo fabricante do computador. 4.1.4.3. Memória de 32 GB DDR5 instalada, operando a 5.600 MHz, com suporte à tecnologia Dual Channel e possibilidade de expansão para até 64 GB. 4.1.4.4. Unidade de armazenamento instalada internamente, composta por 1 (uma) unidade SSD NVMe com capacidade mínima de 512 GB, do mesmo fabricante do equipamento ou por ele homologada. Deverá ser apresentado o respectivo part number na proposta, sob pena de desclassificação. 4.1.4.5. Placa principal da mesma marca do fabricante do equipamento, desenvolvida especificamente para o modelo ofertado, não sendo aceitas soluções em regime de OEM ou customizadas, comprovado mediante declaração oficial do fabricante apresentada juntamente com a proposta. O equipamento deverá possuir: • Chipset desenvolvido para o mercado móvel, integrado ao processador em arquitetura SoC (System on Chip); • Conectividade cabeada Gigabit Ethernet; • Conectividade sem fio padrão IEEE 802.11ax (2x2) Wi-Fi 6E; • Bluetooth 5.3 integrado à placa-mãe; • 1 (uma) saída de vídeo DisplayPort ou HDMI, sem utilização de adaptadores; • Mínimo 2 (duas) portas USB 3.2 Tipo A, sendo pelo menos 1 (uma) com alimentação de 5 V para carregamento de dispositivos; • Mínimo 2 (duas) portas USB Tipo-C de 40 Gbps, com suporte a DisplayPort 2.1; • Leitor de impressão digital integrado; • Chip TPM integrado à placa-mãe para criptografia de dados. 4.1.4.6. BIOS desenvolvida pelo mesmo fabricante do computador, com direitos de copyright, em português e em conformidade com as especificações UEFI 2.1, comprovada pela nomeação do fabricante no site http://www.uefi.org/members, na categoria Promoters. As atualizações, quando necessárias, deverão estar disponíveis no site do fabricante. 4.1.4.7. Tela LED de 14 polegadas, resolução WUXGA (1920 × 1200) e tecnologia antirreflexo (Anti-Glare). 4.1.4.8. Sistema multimídia com controle de volume, alto-falantes estéreo de 16 bits integrados à placa-mãe, conectores de entrada e saída de áudio, microfone e webcam HD de 5 MP com sensor infravermelho (IR), integrada ao gabinete. 4.1.4.9. Deverá possuir slot para trava de segurança integrado à carcaça do equipamento, não sendo aceito qualquer tipo de adaptação para disponibilização desse recurso. 4.1.4.10. Teclado retroiluminado, padrão ABNT-2 (Português Brasil), com gravação permanente dos caracteres nas teclas, resistente ao desgaste por abrasão e ao derramamento de líquidos. 4.1.4.11. Dispositivo apontador (touchpad) com suporte a funções multitoque. 4.1.4.12. Headset monaural com supressão passiva de ruído nos alto-falantes e microfone com supressão de ruído. Todos os periféricos e acessórios deverão ser da mesma marca do computador ofertado, não sendo aceitas soluções em regime de OEM. 4.1.4.13. Fonte de alimentação bivolt automática e bateria recarregável de íons de lítio (Li-ion), com 3 (três) células e capacidade mínima de 56 Whr. 4.1.4.14. Sistema operacional Microsoft Windows 11 Professional 64 bits instalado em fábrica, licenciado, com ativação por meio da BIOS do computador e partição específica para recuperação. 4.1.4.15. O fabricante deverá disponibilizar site na internet para download de drivers e dos softwares originais instalados em fábrica. 4.1.4.16. Deverá acompanhar solução do mesmo fabricante do equipamento para gerenciamento de dispositivos externos, monitores e periféricos de sua fabricação, permitindo a personalização da interação com esses dispositivos, comprovada mediante documentação oficial do fabricante. 4.1.4.17. O computador ofertado deverá estar em conformidade com as diretivas RoHS, ENERGY STAR, EPEAT Gold, TCO 9.0, certificação militar STD-810H, DMTF Board ou CIM, sendo compatível com os sistemas operacionais Windows e Ubuntu, comprovado mediante certificação HCL do respectivo desenvolvedor. 4.1.4.18. A proposta deverá destacar claramente a marca, o modelo e o processador dos equipamentos ofertados, devendo apresentar, junto a proposta, documentação oficial do fabricante contendo o modelo ofertado, componentes, acessórios e garantia. Quando as certificações forem extraídas da internet, deverá ser apresentada a respectiva página contendo a informação e o endereço eletrônico da fonte, permitindo à Comissão de Licitação verificar o atendimento integral das especificações técnicas constantes do edital e de seus anexos, sob pena de desclassificação da proposta.

ITEM 5

MONITOR PICHAU CEPHEUS S49 NEO CURVO 49 POL

4.1.5.1. Especificações: • Tela LED ou tecnologia superior; • Tamanho da tela: 49 polegadas, admitindo variação de ±1"; • Formato de tela: 32:9 (Super Ultrawide); • Curvatura: 1500R ou superior; • Resolução nativa mínima: 5120 × 1440 pixels (DQHD); • Taxa de atualização mínima: 120 Hz; • Tempo de resposta máximo: 5 ms (GtG); • Brilho mínimo: 300 cd/m²; • Taxa de contraste estático mínima: 3.000:1; • Ângulo de visão mínimo: 178° horizontal e 178° vertical; • Suporte a exibição de, no mínimo, 16,7M (8 bits) • Cobertura mínima de cores: 72% DCI-P3 ou equivalente superior; • Tecnologia de sincronização adaptativa compatível com FreeSync ou equivalente. 4.1.5.2. Conectividade: • 2 (duas) entradas HDMI; • 1 (uma) entrada DisplayPort; • Saída para fones de ouvido (P2 3,5 mm), quando aplicável. 4.1.5.3. Recursos: • Suporte às funções Picture-by-Picture (PBP) e Picture-in-Picture (PIP); • Compatibilidade com sistemas operacionais Windows e Linux; • Menu de configuração em tela (OSD); • Redução de emissão de luz azul; • Ajuste de inclinação (Tilt), altura , ou compatibilidade com suporte padrão VESA 75 × 75 mm. 4.1.5.4.Alimentação: • Fonte interna ou externa bivolt automática (100–240 V, 50/60 Hz). 4.1.5.5. Itens inclusos: • Cabo de alimentação; • Cabo HDMI ou DisplayPort; • Base original do fabricante; • Manual do usuário em português ou inglês.

11. DA ASSISTÊNCIA TÉCNICA E DOS NÍVEIS DE SERVIÇO (SLA) 11.1. A CONTRATADA deverá prestar, durante toda a vigência, assistência técnica preventiva e corretiva a todos os equipamentos, incluindo a

substituição de peças, componentes ou equipamentos quando necessária, sem custo adicional para a CONTRATANTE. 11.2. A assistência técnica compreenderá a análise e inspeção dos equipamentos e, quando constatada qualquer irregularidade, o restabelecimento de seu pleno funcionamento, incluindo ajustes, correções e, quando necessário, substituição de peças ou componentes, observando-se as recomendações técnicas do fabricante. 11.3. A manutenção preventiva deverá ser realizada periodicamente, em intervalo máximo de 12 (doze) meses, visando preservar o perfeito funcionamento dos equipamentos e prevenir falhas. 11.4. Durante a manutenção preventiva deverão ser executados, no mínimo, os seguintes procedimentos: 11.4.1. Verificação da integridade e funcionamento de peças e componentes. 11.4.2. Montagem, desmontagem e organização do cabeamento interno do equipamento. 11.4.3. Limpeza interna e externa de coolers, gabinete, componentes e demais peças, incluindo remoção de poeira, lubrificação, ajustes e regulagens, quando necessários. 11.4.4. Substituição da pasta térmica do processador, quando necessária. 11.4.5. Testes de funcionamento, monitoramento de temperatura, verificação da rotação dos coolers e demais rotinas preventivas. 11.4.6. Correção de defeitos mecânicos, elétricos e eletrônicos. 11.4.7. Substituição de componentes danificados. 11.4.8. Substituição preventiva de componentes cuja vida útil indique possibilidade de falha antes da próxima manutenção programada. 11.4.9. Todos os procedimentos deverão observar rigorosamente as recomendações, normas e manuais técnicos expedidos pelo fabricante do equipamento. 11.5. As manutenções preventivas deverão ser realizadas exclusivamente nas dependências da CONTRATANTE, sendo vedada a remoção dos equipamentos para outro local. 11.6. As manutenções preventivas serão previamente agendadas entre a CONTRATADA, o Setor de Tecnologia da Informação da CONTRATANTE e os respectivos setores envolvidos. 11.7. Após cada manutenção preventiva, a CONTRATADA deverá fornecer relatório técnico contendo, no mínimo: 11.7.1. Identificação e localização do equipamento. 11.7.2. Descrição detalhada dos procedimentos executados. 11.7.3. Data e horário de início e término da manutenção. 11.7.4. Nome e assinatura do técnico da CONTRATADA e do servidor da CONTRATANTE que acompanhou os serviços. 11.8. A CONTRATADA deverá realizar manutenção corretiva sempre que ocorrer defeito físico ou lógico em qualquer equipamento que demande assistência técnica. 11.9. A abertura de chamados para manutenção corretiva será realizada exclusivamente pelo Setor de Tecnologia da Informação da CONTRATANTE, não havendo limitação quanto à quantidade de chamados, sem qualquer custo adicional. 11.10. É vedada a abertura de chamados por pessoas que não pertençam ao Setor de Tecnologia da Informação da CONTRATANTE. 11.11. Para fins de atendimento e cumprimento dos níveis mínimos de serviço (SLA), as manutenções corretivas serão classificadas em 3 (três) níveis de severidade, conforme o impacto causado ao funcionamento dos serviços, observando-se os prazos estabelecidos nos itens subsequentes deste Termo de Referência

Barueri, 21.10.2026
Reg. #: LATAM-LETTERS-STANDARD00157413

HP Brasil Indústria e Comércio de Equipamentos Eletrônicos Ltda.
Alameda Xingu, n.º 350, 8º andar
Alphaville Industrial, Barueri/SP
CEP: 06455-030
Brasil

Anexo C

Verlin Tecnologia da Informacao Ltda

A **HP Brasil Indústria e Comércio de Equipamentos Eletrônicos Ltda. (HP)**, em atendimento ao quanto solicitado pelo Parceiro HP, declara que:

A empresa Verlin Tecnologia da Informacao Ltda, inscrita no CNPJ 10.894.828/0003-56, sediada na R Pinto Bandeira, 45 - Salas 01 e 02 Bairro Botafogo, 95700-570, RIO GRANDE DO SUL, Bento Goncalves, Brazil, é um **PARCEIRO AUTORIZADO HP, PARA COMPRA DIRETA DE PRODUTOS DA HP**, estando apto a comercializar as linhas de produtos HP de nossa fabricação descritas abaixo.

Durante o período de garantia do Produto HP, a Fabricante HP responsabiliza-se pela garantia no prazo e condições padrão HP, conforme especificado no termo de garantia que acompanha o Produto HP e no manual técnico do Produto HP.

Serviços adicionais ao especificado na garantia padrão da Fabricante HP poderá ser adquiridos pelo Parceiro HP, com prazos e condições customizados.

Declaramos que os equipamentos fabricados pela HP são novos, que não foram submetidos a uso, nem recondicionamento, ressalvados os testes de fábrica.

Os Produtos da marca HP são de fabricação própria ou homologados por regime de O&M e estão em linha de produção atual.

Declaramos, ainda, que a HP possui site na internet - www.hp.com.br - onde pode ser efetuado download de drivers para os Produtos HP e número de telefone para Grande São Paulo São Paulo (11) 3878-8338 / Demais Localidades: 0800-709-7751 / Whats app (11) +55 11 3230 4672 para informações e aberturas de chamados técnicos.

A Rede de Serviços Autorizados HP é amplamente distribuída em todo o território nacional, e conta com parceiros altamente qualificados relacionados abaixo. Trata-se de rede de parceiros com técnicos devidamente treinados e certificados pela HP, garantindo assim a excelência e a qualidade dos serviços prestados:

Unisys:	**Unisys:**	**Procedata:**
Acre	Paraíba	Minas Gerais
Alagoas	Paraná	
Amapá	Pernambuco	**Simpress:**
Amazonas	Piauí	Cidade: Vitoria
Bahia	Rio Grande do Norte	Cidade: Brasilia
Ceará	Rio Grande do Sul	Cidade: Recife
Espírito Santo	Rondônia	Cidade: Fortaleza
Goiás	Roraima	
Maranhão	Santa Catarina	**Técnicos HP:**
Mato Grosso	Sergipe	São Paulo (Capital)
Mato Grosso do Sul	Tocantins	Rio de Janeiro
Pará	Distrito Federal	Bahia (Salvador)

Barueri, 21.10.2026
Reg. #: LATAM-LETTERS-STANDARD00157413

HP Brasil Indústria e Comércio de Equipamentos Eletrônicos Ltda.
Alameda Xingu, n.º 350, 8º andar
Alphaville Industrial, Barueri/SP
CEP: 06455-030
Brasil

Paraíba São Paulo (Interior) Paraná (Curitiba)

Esta declaração é válida por 90 (noventa) dias corridos, a contar da data de sua emissão.

Atenciosamente,

Jhenifer Cristina Araujo de Jesús
CPF: 352.533.778-75
Representante Legal

Anexo C
Ref. OPD-0005443624
Verifique a autenticidade:

Barueri, 21.10.2026
Reg. #: LATAM-LETTERS-STANDARD00157414

HP Brasil Indústria e Comércio de Equipamentos Eletrônicos Ltda.
Alameda Xingu, n.º 350, 8º andar
Alphaville Industrial, Barueri/SP
CEP: 06455-030
Brasil

Anexo G

CAMARA MUNICIPAL DE NOVO HAMBURGO

Pregão Eletrônico Nº 50/2026

A **HP Brasil Indústria e Comércio de Equipamentos Eletrônicos Ltda. (HP)**, em atendimento ao quanto solicitado pelo Parceiro HP Verlin Tecnologia da Informacao Ltda, declarada que:

A empresa Verlin Tecnologia da Informacao Ltda, inscrita no CNPJ 10.894.828/0003-56, sediada na R Pinto Bandeira, 45 - Salas 01 e 02 Bairro Botafogo, 95700-570, RIO GRANDE DO SUL, Bento Goncalves, Brazil, é um **PARCEIRO AUTORIZADO HP PARA COMPRA DE PRODUTOS HP DE DISTRIBUIDORES AUTORIZADOS HP**, estando apto a comercializar Produtos HP. As linhas de produtos HP de nossa fabricação descritas abaixo, as mesmas possuem garantia padrão do fabricante:

Produtos:

Commercial Notebooks, Commercial Displays (L5), Commercial Desktops, Workstations

As declarações dos produtos acima estão contidas no(s) arquivo(s) anexos.

Durante o período de garantia do Produto HP, a Fabricante HP responsabiliza-se pela garantia no prazo e condições padrão HP, conforme especificado no termo de garantia que acompanha o Produto HP e no manual técnico do Produto HP.

Serviços adicionais ao especificado na garantia padrão da Fabricante HP poderá ser adquiridos pelo Parceiro HP, com prazos e condições customizados.

Declaramos que os equipamentos fabricados pela HP são novos, que não foram submetidos a uso, nem recondicionamento, ressalvados os testes de fábrica.

Os Produtos da marca HP são de fabricação própria ou homologados por regime de O&M e estão em linha de produção atual.

Declaramos, ainda, que a HP possui site na internet - www.hp.com.br - onde pode ser efetuado download de drivers para os Produtos HP e número de telefone para Grande São Paulo São Paulo (11) 3878-8338 / Demais Localidades: 0800-709-7751 / Whats app (11) +55 11 3230 4672 para informações e aberturas de chamados técnicos.

A Rede de Serviços Autorizados HP é amplamente distribuída em todo o território nacional, e conta com parceiros altamente qualificados relacionados abaixo. Trata-se de rede de parceiros com técnicos devidamente treinados e certificados pela HP, garantindo assim a excelência e a qualidade dos serviços prestados:

Unisys:	**Unisys:**	**Procedata:**
Acre	Paraíba	Minas Gerais
Alagoas	Paraná	
Amapá	Pernambuco	**Simpress:**
Amazonas	Piauí	Cidade: Vitoria
Bahia	Rio Grande do Norte	Cidade: Brasilia
Ceará	Rio Grande do Sul	Cidade: Recife
Espírito Santo	Rondônia	Cidade: Fortaleza
Goiás	Roraima	

Barueri, 21.10.2026
Reg. #: LATAM-LETTERS-STANDARD00157414

HP Brasil Indústria e Comércio de Equipamentos Eletrônicos Ltda.
Alameda Xingu, n.º 350, 8º andar
Alphaville Industrial, Barueri/SP
CEP: 06455-030
Brasil

Maranhão	Santa Catarina	**Técnicos HP:**
Mato Grosso	Sergipe	São Paulo (Capital)
Mato Grosso do Sul	Tocantins	Rio de Janeiro
Pará	Distrito Federal	Bahia (Salvador)
Paraíba	São Paulo (Interior)	Paraná (Curitiba)

Esta declaração é válida por 30 (trinta) dias corridos, a contar da data de sua emissão.

Atenciosamente,

Jhenifer Cristina Araujo de Jesús
CPF: 352.533.778-75
Representante Legal

Anexo G
Ref. OPD-0005443624
Verifique a autenticidade:

Barueri, 21.10.2026
Reg. #: LATAM-LETTERS-STANDARD00157415

HP Brasil Indústria e Comércio de Equipamentos Eletrônicos Ltda.
Alameda Xingu, n.º 350, 8º andar
Alphaville Industrial, Barueri/SP
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Brasil

Anexo J

CAMARA MUNICIPAL DE NOVO HAMBURGO

Pregão Eletrônico Nº 50/2026

A **HP Brasil Indústria e Comércio de Equipamentos Eletrônicos Ltda. (HP)**, em atendimento ao quanto solicitado pelo Parceiro HP **Verlin Tecnologia da Informacao Ltda**, declarada que:

Os Produtos HP atendem aos requisitos de Sustentabilidade Ambiental conforme exigido na legislação vigente aplicável.

A **Verlin Tecnologia da Informacao Ltda**, - **CNPJ 10.894.828/0003-56, É UM PARCEIRO AUTORIZADO HP PARA COMPRA DE SUPRIMENTOS DE TINTA E TONER ORIGINAIS HP DE DISTRIBUIDORES AUTORIZADOS HP**, e revenda em todo o país.

Os produtos originais HP são elegíveis ao programa de sustentabilidade ambiental e logística reversa HP Planet Partners.

Ademais, a HP declara expressamente que tem ciência do prescrito na IN 01/2010-SLTI, sendo que os cartuchos originais HP:

a. são acondicionados em embalagens individuais adequadas, com o menor volume possível, as quais utiliza materiais recicláveis, de forma a garantir a máxima proteção durante o transporte e o armazenamento;
b. não contém substâncias perigosas em concetração acima da recomendada na diretiva RoHS (Restriction of Certain Hazardous Substances), tais como mercúrio (Hg), chumbo (Pb), cromo hexavalente (Cr(VI)), cádmio (Cd), bifenil-polibromados (PBBs), éteres difenil-polibromados (PBDEs);
c. são constituídos, no todo ou em parte, por material reciclado, atóxico, biodegradável;
d. desde sua concepção até a fase final de produção e reciclagem dos produtos, são observados todos os requisitos ambientais legais;
e. em atendimento à norma ABNT NBR - 14725- 4:2012, a HP atualiza regularmente a Ficha de Informações sobre Segurança, Saúde e Meio ambiente (FISPQ). Disponíveis em http://www8.hp.com/us/en/hp-information/environment/msds-specs.html#.UkBwRYakquw.

A HP Brasil está regularmente cadastrada junto ao Cadastro Técnico Federal do IBAMA, para fabricação de eletroeletrônicos e atividades de manuseio de substâncias potencialmente poluidoras, conforme certificado disponível em https://servicos.ibama.gov.br/ctf/publico/certificado_regularidade.php

Para a devolução dos resíduos sólidos dos cartuchos de tinta e toners originais HP, pelo programa de Sustentabilidade Ambiental e Logística Reversa HP Planet Partners, o cliente deverá acionar diretamente o fabricante HP, através do website www.hp.com.br/reciclar, ou enviar e-mail com a solicitação de recolha dos resíduos para recoleta.cartuchos@hp.com. A retirada dos resíduos no local é gratuita, limitada à quantidade mínima de 5 (cinco) carcaças de cartucho de toner e/ou 10 (dez) carcaças de cartucho de tinta originais HP. O cliente deve informar Razão social, CNPJ, endereço, dados de contato e quantidade de volumes a serem recolhidos de cada tipo de suprimento (toner e/ou tinta).

O processo de reciclagem deste programa consiste na separação dos metais, papel plastificado, espumas e partes plásticas, destinando-os da forma ambientalmente correta, ou seja, que causa o menor impacto possível no meio ambiente, bem como permite reduzir o consumo de recursos naturais e a pegada de matéria-prima na natureza para a fabricação de novos produtos. Os metais são destinados à indústria de recuperação de metais preciosos, as espumas destinadas à geração de energia na fabricação de cimento, as etiquetas de papel-plastificado destinadas para a indústria produtora desse tipo de papel. As partes plásticas do corpo dos cartuchos passam por um processo diferenciado de lavagem, em seguida são trituradas junto a garrafas pet, e a liga plástica produzida utilizada em até 70% da composição de novos cartuchos para impressoras, bem como partes plásticas de novos equipamentos de impressão. O processo não envolve reenvazamento ou remanufatura, pois os cartuchos genuínos HP são usados uma única, e sempre somente uma única vez.

Mais informações sobre esse processo estão disponíveis no website acima, bem como vídeos sobre as fases de reciclagem realizadas na HP Brasil.

Barueri, 21.10.2026
Reg. #: LATAM-LETTERS-STANDARD00157415

HP Brasil Indústria e Comércio de Equipamentos Eletrônicos Ltda.
Alameda Xingu, n.º 350, 8º andar
Alphaville Industrial, Barueri/SP
CEP: 06455-030
Brasil

Esta declaração é válida por 90 (noventa) dias corridos, a contar da data de sua emissão.

Atenciosamente,

Jhenifer Cristina Araujo de Jesús
CPF: 352.533.778-75
Representante Legal

Anexo J
Ref. OPD-0005443624
Verifique a autenticidade:

Barueri, 21.10.2026
Reg. #: LATAM-LETTERS-STANDARD00157420

HP Brasil Indústria e Comércio de Equipamentos Eletrônicos Ltda.
Alameda Xingu, n.º 350, 8º andar
Alphaville Industrial, Barueri/SP
CEP: 06455-030
Brasil

IL-HP-Z2-G9G1i-Workstation

MUNICIPIO DE PAROBE

Pregão Eletrônico Nº 50/2026

PL IL
HP Z2 Tower G9
HP Z2 Tower G1i

Além de possuir equipamentos com configurações padrão de fábrica a HPI realiza customizações para atendimento as necessidades dos clientes. Para atendimento a este edital a CONTRATADA fará as solicitações de customização à HP de modo a atender plenamente as exigências edilícias. Estas customizações deverão estar descritas na proposta comercial emitida pela CONTRADA. As declarações a seguir, se aplicam aos modelos de equipamento mencionados, independentemente das customizações a serem realizadas;

Informações técnicas básicas como modelo do processador, capacidade de memória instalada, capacidade e tipo do dispositivo de armazenamento, versão do sistema operacional e garantia padrão de fábrica estarão descritas na proposta comercial emitida pela CONTRADA;

Modelo de equipamento ofertado é a mais recente geração disponibilizada pela HP com comercialização no Brasil;

A HP disponibiliza a ferramenta HP Support Assistant que permite a verificação e instalação das últimas atualizações de todas as ferramentas e drivers disponibilizadas pela HP para o equipamento. Sendo capaz de monitorar o sistema, realizar diagnósticos, emitir alertas e ajudar a reparar erros do sistema, ajudando assim a manter a saúde e segurança do sistema. Permite verificar o status da garantia pela ferramenta;

Possui BIOS da HP, desenvolvida pela HP, em conformidade com a especificação minima UEFI 2.7 (https://www.uefi.org/) e capturáveis pela aplicação de inventário como por exemplo SCCM (System Center Configuration Manager), Landesk, Microsoft End Point Manager, etc;

Possui BIOS com descrição do modelo, número de série e função de registro de número de patrimônio com extensão mínima de 15 dígitos, todos gravados em memória não volátil e sendo estas capturáveis por aplicações de inventario como por exemplo SCCM, Landesk, Microsoft End Point Manager, etc;

Possui BIOS com interface gráfica com navegação utilizando mouse ou teclado, disponível em mais de 3 idiomas (por exemplo: portugues, espanhol, inglês etc.);

Possui BIOS atualizável com opção de recuperação de falha, a partir de arquivo de recuperação no disco rígido ou USB externa;

Possui BIOS com suporte à verificação de integridade, através do recurso HP Sure Start;

As atualizações da BIOS, quando necessárias, são disponibilizadas no site da HP Inc., com atualização via download na internet diretamente na interface de configuração da BIOS também;

Possui BIOS implementada em “flash ROM” atualizável diretamente pelo microcomputador, utilizando memória não volátil e reprogramável, Plug and Play, entregue na versão mais atual disponibilizada pela HP. Podendo ser atualizada por software de gerenciamento remoto;

Possui BIOS com capacidade de habilitar / desabilitar portas USB;

Possui BIOS com possibilidade de configuração de senhas para Power On, Administrador e unidade de armazenamento;

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Possui BIOS com suporte à tecnologia de previsão/contingenciamento de falhas de disco rígido S.M.A.R.T habilitada;

Possui BIOS com suporte a boot por pendrive ou unidade de armazenamento externo, conectado a uma porta USB 2.0 ou superior;

Possui BIOS compatível com o padrão minimo ACPI 6.0, E também compatível com os padrões: DMI, SNMP, WMI e SMBIOS;

Possui BIOS em conformidade com a normativa NIST 800-147 e NIST 800-193 (HP Sure Start);

Possui a ferramenta HP Secure Erase integrada na BIOS, que possibilita apagar de forma definitiva e irrecuperável todos os dados da unidade de armazenamento, permitindo o descarte seguro de seus equipamentos (NIST 800-88);

Possui BIOS com ferramenta de diagnóstico UEFI de componentes internos de hardware (processador, memória, unidade de armazenamento, áudio, teclado, rede, placa mãe, portas USB e vídeo). Acessível via BIOS ou teclas de atalho (F1...F12). A mensagem de erro é suficiente para abertura de chamado em garantia;

Possui sistema de monitoramento de temperatura controlada pela BIOS, adequado ao processador, fonte e demais componentes internos ao gabinete;

Possui recurso para realizar downgrade de BIOS e replicação de configurações de BIOS em escala utilizando um arquivo referência ou via Powershell;

Possui placa mãe fabricada e desenvolvida pela HP, exclusiva para o modelo, com o nome da HP identificado na mesma (serigrafia);

Possui placa mãe com capacidade de desligamento do vídeo e da unidade de armazenamento após tempo determinado pelo usuário e reiniciar por acionamento de teclado ou pela movimentação do mouse e possui função de economia de energia;

Possui chip TPM integrado, acompanhado de drivers e a ferramenta nativa do Windows (tpm.msc) para utilização do chip e possibilitando a utilização de todos os recursos de segurança e criptografia (A ferramenta tpm.msc é fornecida com os equipamentos adquiridos com o Sistema Operacional Windows 10 / 11 Pro);

O chipset é do mesmo fabricante do processador, com tecnologia que permite que o sistema retome rapidamente do estado de hibernação tanto para unidades de armazenamento do tipo SATA e do tipo PCIe;

Sempre que o equipamento for inicializado, será mostrado no monitor de vídeo o nome da HP;

Possuem os mesmos padrões de cores, sendo o preto ou cinza escuro a cor predominante e com o logotipo da HP impresso;

Possui acabamento interno composto de superfícies não cortantes;

O gabinete possui tratamento anticorrosivo;

O gabinete possui base/superfície antiderrapante;

Possui gabinete feito em liga metálica e front bezel de ABS

O equipamento pode funcionar na posição horizontal ou vertical.

Possui afixado no gabinete do equipamento, o Selo Certificado de Autenticidade (COA – Certificate of Authenticity) do software Windows na versão instalada e com serial de ativação do sistema operacional gravado no BIOS, quando adquirido com o sistema operacional Windows 11 conforme descrito na proposta comercial;

O fluxo do ar interno segue as orientações do fabricante do microprocessador;

Possui processador da geração mais recente fabricada pela HP no Brasil para este modelo de desktop de uso corporativo;

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Possui tecnologia implementada que controle o nível de desempenho do processador automaticamente, ajustando dinamicamente a frequência e a voltagem a cada a necessidade requerida pela atividade do momento para que seja otimizada a autonomia de bateria do equipamento;

Possui suporte a implementação de tecnologia dual-channel para a memória RAM;

As unidades de armazenamento disponíveis para fabricação do modelo, possuem suporte à tecnologia de segurança SMART e NCQ;

Todos os conectores das portas de entrada/saída são identificados por cores ou símbolos, de acordo com o padrão PC'99 System Design Guide;

Possui controladora de áudio onboard, com entrada e saída de áudio estéreo (combo jack), capaz de reproduzir os sons gerados pelo sistema (como músicas e beeps de alerta de diagnósticos), e está conectado diretamente a placa mãe sem uso de adaptadores, com suporte a 16bits;

O sistema de áudio onboard possui a possibilidade de desativação por software ou automaticamente quando houver conexão com a caixa de som ou fone de ouvido;

Possui controladora de rede Gigabit Ethernet 10/100/1000 Mbps com reconhecimento automático da velocidade da rede, com capacidade de operar no modo full-duplex, autosense, plug and play, com suporte ao protocolo SNMP, totalmente configurável por software, com suporte a VLAN, com suporte a PXE 2.1 e com função Wake-On-Lan instalada e em funcionamento. Com conector RJ-45 com LEDs de diagnostico;

Possui interface de comunicação wireless integrada desde que a CONTRATADA incluía este item na proposta comercial. Esta placa wireless tem suporte aos padrões 802.11ax, 802.11ac, 802.11a, 802.11b, 802.11g e 802.11n, com suporte aos protocolos 802.11i (WLAN security, TKIP e AES), WPA, WPA2, WEP 64 e 128, IEEE 802.11 (Wired Equivalent Privacy), IEEE 802.1x. Com certificado de homologação válido da ANATEL, e no Wi-fi Certified Aliance. O ajuste da potência é de acordo com a recepção do sinal, de forma a proporcionar economia de bateria;

Possui teclado da HP, desde que a CONTRATADA inclua este item na proposta comercial. Teclado HP com com todos os caracteres da língua portuguesa incluindo Ç, com teclado numérico embutido, com teclas Windows Logo (acesso ao menu iniciar), com LEDs indicativos de “caps lock” e “num lock”. A impressão sobre as teclas é do tipo permanente, não apresentando desgaste por abrasão ou uso prolongado. Possui sistema de proteção contra derramamento acidental de pequenas quantidades de líquidos. Possui sistema para ajuste de inclinação e cabo USB de no mínimo 1.5m. Não possui teclas dedicadas de funções multimedia, desligar, hibernar ou standby.

Possui mouse óptico da HP, desde que a CONTRATADA incluía este item na proposta comercial. Mouse HP com conector USB, cabo com comprimento mínimo de 1.8m, com resolução de 1000dpi, com 03 botões (esquerdo, direito e central próprio para rolagem (scrol)), formato ergonômico e de conformação ambidestra;

Fonte externo com ajuste automático 100~240v / 50-60Hz (bivolt), suficiente para suportar todas as configurações do equipamento conforme as especificações técnicas contidas no catálogo técnico do mesmo, permitindo o funcionamento por no mínimo 10 horas por dia e 5 dias por semana;

Possui cabo de energia para a fonte de alimentação de acordo com o novo padrão ABNT (NBR 14136), com comprimento total de no minimo 1.5m;

Todos os componentes do produto são novos (sem uso, reforma ou recondicionamento) e estão em linha de fabricação;

Pertence a linha corporativa da HP;

A HP possui programas de Logística Reversa (https://www.hp.com/br-pt/hp-information/sustainable-impact/planet-product-recycling.html);

São bens constituídos em parte, por material reciclado, atóxico, biodegradável e atendem a diretiva RoHS;

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Brasil

Todos os itens e seus acessórios são novos, não recondicionados, de primeiro uso, em pleno estado de funcionamento, livres de arranhões, amassados, frisagens, furações, fitas adesivas, marcas, falhas de fabricação ou qualquer outro procedimento ou emprego de materiais inadequados que adaptem forçadamente o equipamento ou suas partes que sejam fisicamente ou logicamente incompatíveis;

As unidades dos equipamentos serão entregues devidamente acondicionadas em embalagens individuais adequadas, utilizando sempre que possível de materiais recicláveis, de forma a garantir a máxima proteção durante o transporte e a armazenagem;

Cada equipamento possui um número de série único, afixado em local visível em etiqueta de difícil remoção ou impresso a laser, constando a marca, o modelo e o número de série do equipamento e também na embalagem;

A HP possui pagina na Internet no qual pelo número de série é possível verificar o início e fim do período de garantia do equipamento;

Os drivers, softwares e sistema operacional fornecido com o equipamento da HP estão disponíveis para download no site da HP, permitindo a instalação e recuperação do sistema operacional ao padrão de fábrica.

A HP disponibiliza a ferramenta HP Cloud Recovery que permite realizar o download dos Drivers e do Sistema Operacional de forma automatizada para gerar pendrive de reinstalação;

É disponibilizada documentação técnica necessária à instalação e operação do equipamento em português;

A HP Disponibiliza “Central de atendimento telefônico” com número de telefone 0800 ou Whatsapp para abertura de chamado, em dias úteis, (segunda-feira a sexta-feira), em horário comercial (das 8h às18h) e “Central de atendimento via sistema web” para abertura de chamado 24x07, (domingo a domingo), a qualquer horário (das 00:00h às 23:59h);

A HP Mantém os registros dos chamados que foram abertos, mantendo as informações que foram registradas sobre o mesmo;

A ferramenta Web de abertura de chamados da HP permite que o cliente a visualize e acompanhe os chamados abertos anteriormente;

Possui garantia padrão de fábrica de 01 ano para reposição de peças, mão de obra, com atendimento "on-site", conforme descrito na proposta comercial emitida pela CONTRATADA;

Permite a extensão de garantia para 03, 04 ou 05 anos para reposição de peças, mão de obra, para o monitor, com atendimento do tipo "on-site" através de aquisição da CONTRADA de carepack de extensão de garantia, devendo descrever em sua proposta comercial a descrição da extensão da garantia (HP Carepack);

A assistência técnica “on-site” será realizada, durante todo o período de garantia dos equipamentos, pela própria HP ou por empresa de Assistência Técnica Autorizada da HP, a fim de que sejam mantidos válidos todos os direitos oriundos da garantia;

Durante o prazo de garantia será substituída sem ônus para a contratante, a parte ou peça defeituosa, salvo quando o defeito for provocado por uso inadequado dos equipamentos;

Certificado de Garantia é válido em todo o território nacional;

Abertura do equipamento para limpeza, adição de memória ou SSD pela CONTRATANTE não implicará em perca da garantia desde que não cause mau uso. A garantia da HP não cobrirá o suporte destas peças.

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Alameda Xingu, n.º 350, 8º andar
Alphaville Industrial, Barueri/SP
CEP: 06455-030
Brasil

Atenciosamente,



Jhenifer Cristina Araujo de Jesús
CPF: 352.533.778-75
Representante Legal

PL IL.
Ref. OPD-0005403976
Verifique a autenticidade:

Barueri, 21.10.2026
Reg. #: LATAM-LETTERS-STANDARD00157418

HP Brasil Indústria e Comércio de Equipamentos Eletrônicos Ltda.
Alameda Xingu, n.º 350, 8º andar
Alphaville Industrial, Barueri/SP
CEP: 06455-030
Brasil

DG-HP-SFF-280-G9-2 SFF G1i

CAMARA MUNICIPAL DE NOVO HAMBURGO

Pregão Eletrônico Nº 50/2026

PL DG
HP Pro SFF 280 G9
HP Pro SFF 2 G1i

Além de possuir equipamentos com configurações padrão de fábrica a HPI realiza customizações para atendimento as necessidades dos clientes. Para atendimento a este edital a CONTRATADA fará as solicitações de customização à HP de modo a atender plenamente as exigências edilícias. Estas customizações deverão estar descritas na proposta comercial emitida pela CONTRADA. As declarações a seguir, se aplicam aos modelos de equipamento mencionados, independentemente das customizações a serem realizadas;

Informações técnicas básicas como modelo do processador, capacidade de memória instalada, capacidade e tipo do dispositivo de armazenamento, versão do sistema operacional e garantia padrão de fábrica estarão descritas na proposta comercial emitida pela CONTRADA;

Modelo de equipamento ofertado é a mais recente geração disponibilizada pela HP com comercialização no Brasil;

A HP disponibiliza a ferramenta HP Support Assistant que permite a verificação e instalação das últimas atualizações de todas as ferramentas e drivers disponibilizadas pela HP para o equipamento. Sendo capaz de monitorar o sistema, realizar diagnósticos, emitir alertas e ajudar a reparar erros do sistema, ajudando assim a manter a saúde e segurança do sistema. Permite verificar o status da garantia pela ferramenta;

Possui BIOS HP com direitos de copyrights, em conformidade com a especificação minima UEFI 2.6 (https://www.uefi.org/) e capturáveis pela aplicação de inventário como por exemplo SCCM (System Center Configuration Manager), Landesk, Microsoft End Point Manager, etc;

Possui BIOS com descrição do modelo, número de série e campo de registro de número de patrimônio com extensão mínima de 15 dígitos, todos gravados em memória não volátil e sendo estas capturáveis por aplicações de inventario como por exemplo SCCM (System Center Configuration Manager), Landesk, Microsoft End Point Manager, etc;

Possui BIOS com interface gráfica com navegação utilizando mouse ou teclado, disponível em mais de 2 idiomas (por exemplo espanhol, inglês etc.);

Possui BIOS atualizável com opção de recuperação de falha, a partir de arquivo de recuperação no disco rígido ou USB externa;

Possui BIOS com suporte à verificação de integridade (NIST-800-147);

As atualizações da BIOS, quando necessárias, são disponibilizadas no site da HP Inc.;

Possui BIOS implementada em “flash ROM” atualizável diretamente pelo microcomputador, utilizando memória não volátil e reprogramável, Plug and Play, entregue na versão mais atual disponibilizada pela HP. Podendo ser atualizada por software de gerenciamento remoto;

Possui BIOS com possibilidade de configuração de senhas para Power On, Administrador;

Possui BIOS com suporte à tecnologia de previsão/contingenciamento de falhas de disco rígido S.M.A.R.T habilitada;

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Alphaville Industrial, Barueri/SP
CEP: 06455-030
Brasil

Possui BIOS com suporte a boot por pendrive ou unidade de armazenamento externo, conectado a uma porta USB 2.0 ou superior;

Possui BIOS compatível com o padrão ACPI 6.0. E também compatível com os padrões: DMI, SNMP, WMI e SMBIOS;

Possui BIOS em conformidade com a normativa NIST 800-147;

Possui BIOS com ferramenta de diagnóstico UEFI de componentes internos de hardware (processador, memória, unidade de armazenamento, áudio, teclado, rede, placa mãe, portas USB e vídeo). Acessível via BIOS ou teclas de atalho (F1...F12). A mensagem de erro é suficiente para abertura de chamado em garantia;

Possui sistema de monitoramento de temperatura controlada pela BIOS, adequado ao processador, fonte e demais componentes internos ao gabinete;

Possui recurso para realizar downgrade de BIOS e replicação de configurações de BIOS em escala utilizando um arquivo referência;

Possui placa mãe fabricada e desenvolvida pela HP, exclusiva para o modelo, com o nome da HP identificado na mesma (serigrafia);

Possui placa mãe com capacidade de desligamento do vídeo e da unidade de armazenamento após tempo determinado pelo usuário e reiniciar por acionamento de teclado ou pela movimentação do mouse e possui função de economia de energia;

Possui firmware TPM integrado, acompanhado de drivers e a ferramenta nativa do Windows (tpm.msc) para utilização do chip e possibilitando a utilização de todos os recursos de segurança e criptografia (A ferramenta tpm.msc é fornecida com os equipamentos adquiridos com o Sistema Operacional Windows 10 / 11 Pro);

O chipset é do mesmo fabricante do processador, com tecnologia que permite que o sistema retome rapidamente do estado de hibernação tanto para unidades de armazenamento do tipo SATA e do tipo PCIe;

Sempre que o equipamento for inicializado, será mostrado no monitor de vídeo o nome da HP;

Possuem os mesmos padrões de cores, sendo o preto ou cinza escuro a cor predominante e com o logotipo da HP impresso;

Possui acabamento interno composto de superfícies não cortantes;

O gabinete possui tratamento anticorrosivo;

O gabinete possui base/superfície antiderrapante;

Possui gabinete feito em liga metálica e front bezel de ABS

O equipamento pode funcionar na posição horizontal ou vertical.

Possui afixado no gabinete do equipamento, o Selo Certificado de Autenticidade (COA – Certificate of Authenticity) do software Windows na versão instalada e com serial de ativação do sistema operacional gravado no BIOS, quando adquirido com o sistema operacional Windows 11 conforme descrito na proposta comercial;

O fluxo do ar interno segue as orientações do fabricante do microprocessador;

Possui tecnologia implementada que controle o nível de desempenho do processador automaticamente, ajustando dinamicamente a frequência e a voltagem a cada a necessidade requerida pela atividade do momento para que seja otimizada a autonomia de bateria do equipamento;

Possui suporte a implementação de tecnologia dual-channel para a memória RAM;

As unidades de armazenamento disponíveis para fabricação do modelo, possuem suporte à tecnologia de segurança SMART e NCQ;

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Todos os conectores das portas de entrada/saída são identificados por cores ou símbolos, de acordo com o padrão PC'99 System Design Guide;

Possui controladora de áudio onboard, com entrada e saída de áudio estéreo (combo jack), capaz de reproduzir os sons gerados pelo sistema (como músicas e beeps de alerta de diagnósticos), e está conectado diretamente a placa mãe sem uso de adaptadores, com suporte a 16bits;

O sistema de áudio onboard possui a possibilidade de desativação por software ou automaticamente quando houver conexão com a caixa de som ou fone de ouvido;

Possui controladora de vídeo integrada, com suporte a até 02 monitores simultaneamente, de forma estendida ou espelhada, com capacidade de alocar no mínimo 1.5GB de memória de vídeo, compartilhada de forma dinâmica com a memória RAM. Possui suporte para DirectX 12 e Open GL 4.5 e compatibilidade do driver com o padrão WDDM (Windows Display Driver Model);

Possui controladora de rede Gigabit Ethernet 10/100/1000 Mbps com reconhecimento automático da velocidade da rede, com capacidade de operar no modo full-duplex, autosense, plug and play, com suporte ao protocolo SNMP, totalmente configurável por software, com suporte a VLAN, com suporte a PXE 2.1 e com função Wake-On-Lan instalada e em funcionamento. Com conector RJ-45 com LEDs de diagnostico;

Possui interface de comunicação wireless integrada desde que a CONTRATADA incluía este item na proposta comercial. Esta placa wireless tem suporte aos padrões 802.11ac, 802.11a, 802.11b, 802.11g e 802.11n, com suporte aos protocolos 802.11i (WLAN security, TKIP e AES), WPA, WPA2, WEP 64 e 128, IEEE 802.11 (Wired Equivalent Privacy), IEEE 802.1x. Com certificado de homologação válido da ANATEL, e no Wi-fi Certified Aliance. O ajuste da potência é de acordo com a recepção do sinal, de forma a proporcionar economia de bateria;

Possui teclado da HP, desde que a CONTRATADA inclua este item na proposta comercial. Teclado HP com com todos os caracteres da língua portuguesa incluindo Ç, com teclado numérico embutido, com teclas Windows Logo (acesso ao menu iniciar), com LEDs indicativos de “caps lock” e “num lock”. A impressão sobre as teclas é do tipo permanente, não apresentando desgaste por abrasão ou uso prolongado. Possui sistema de proteção contra derramamento acidental de pequenas quantidades de líquidos. Possui sistema para ajuste de inclinação e cabo USB de no mínimo 1.5m. Não possui teclas dedicadas de funções multimedia, desligar, hibernar ou standby.

Possui mouse óptico da HP, com conector USB, cabo com comprimento mínimo de 1.8m, com 03 botões (esquerdo, direito e central próprio para rolagem (scroll), com resolucao mínima de 800dpi formato ergonômico e de conformação ambidestra;

Fonte interno com ajuste automático 100~240v / 50-60Hz (bivolt), suficiente para suportar todas as configurações do equipamento conforme as especificações técnicas contidas no catálogo técnico do mesmo, permitindo o funcionamento por no mínimo 10 horas por dia e 5 dias por semana;

Possui cabo de energia para a fonte de alimentação de acordo com o novo padrão ABNT (NBR 14136), com comprimento minimo de 1,5m;

Todos os componentes do produto são novos (sem uso, reforma ou recondicionamento) e estão em linha de fabricação;

Pertence a linha corporativa da HP;

A HP possui programas de Logística Reversa (https://www.hp.com/br-pt/hp-information/sustainable-impact/planet-product-recycling.html);

São bens constituídos em parte, por material reciclado, atóxico, biodegradável e atendem a diretiva RoHS;

Todos os itens e seus acessórios são novos, não recondicionados, de primeiro uso, em pleno estado de funcionamento, livres de arranhões, amassados, frisagens, furações, fitas adesivas, marcas, falhas de fabricação ou qualquer outro procedimento ou emprego de materiais inadequados que adaptem forçadamente o equipamento ou suas partes que sejam fisicamente ou logicamente incompatíveis;

Barueri, 21.10.2026
Reg. #: LATAM-LETTERS-STANDARD00157418

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As unidades dos equipamentos serão entregues devidamente acondicionadas em embalagens individuais adequadas, utilizando sempre que possível de materiais recicláveis, de forma a garantir a máxima proteção durante o transporte e a armazenagem;

Cada equipamento possui um número de série único, afixado em local visível em etiqueta de difícil remoção ou impresso a laser, constando a marca, o modelo e o número de série do equipamento e também na embalagem;

A HP possui pagina na Internet no qual pelo numero de serie é possível verificar o inicio e o fim do período de garantia do equipamento. Os drivers, softwares e sistema operacional fornecido com o equipamento da HP estão disponíveis para download no site da HP, permitindo a instalação e recuperação do sistema operacional ao padrão de fábrica.

A HP disponibiliza a ferramenta HP Cloud Recovery que permite realizar o download dos Drivers e do Sistema Operacional de forma automatizada para gerar pendrive de reinstalação;

É disponibilizada documentação técnica necessária à instalação e operação do equipamento em português;

A HP Disponibiliza “Central de atendimento telefônico” com número de telefone 0800 ou Whatsapp para abertura de chamado, em dias úteis, (segunda-feira a sexta-feira), em horário comercial (das 8h às18h) e “Central de atendimento via sistema web” para abertura de chamado 24x07, (domingo a domingo), a qualquer horário (das 00:00h às 23:59h);

A HP Mantém os registros dos chamados que foram abertos, mantendo as informações que foram registradas sobre o mesmo;

A ferramenta Web de abertura de chamados da HP permite que o cliente a visualize e acompanhe os chamados abertos anteriormente;

Possui garantia padrão de fábrica de 01 ano para reposição de peças, mão de obra, com atendimento "on-site", conforme descrito na proposta comercial emitida pela CONTRATADA;

Permite a extensão de garantia para 03, 04 ou 05 anos para reposição de peças, mão de obra, com atendimento do tipo "on-site" através de aquisição da CONTRADA de carepack de extensão de garantia, devendo descrever em sua proposta comercial a descrição da extensão da garantia (HP Carepack);

A assistência técnica “on-site” será realizada, durante todo o período de garantia dos equipamentos, pela própria HP ou por empresa de Assistência Técnica Autorizada da HP, a fim de que sejam mantidos válidos todos os direitos oriundos da garantia;

Durante o prazo de garantia será substituída sem ônus para a contratante, a parte ou peça defeituosa, salvo quando o defeito for provocado por uso inadequado dos equipamentos;

Certificado de Garantia é válido em todo o território nacional;

Abertura do equipamento para limpeza, adição de memória ou SSD pela CONTRATANTE não implicará em perca da garantia desde que não cause mau uso. A garantia da HP não cobrirá o suporte destas peças.

Atenciosamente,

Jhenifer Cristina Araujo de Jesús
CPF: 352.533.778-75
Representante Legal

PL DG.
Ref. OPD-0005443624
Verifique a autenticidade:

Barueri, 21.10.2026
Reg. #: LATAM-LETTERS-STANDARD00157419

HP Brasil Indústria e Comércio de Equipamentos Eletrônicos Ltda.
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CEP: 06455-030
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BO-HP-P22a-P24a-P22vb

CAMARA MUNICIPAL DE NOVO HAMBURGO

Pregão Eletrônico Nº 50/2026

PL BO
HP P22a G5
HP P24a G5

Possui tela 100% plana com retro iluminação de LED;

É capaz de reconhecer sinais da controladora de vídeo para auto- desligamento e economia de energia elétrica;

O monitor irá registrar informações de "Número de Série", "Fabricante" e "Modelo" no formato EDID (Extended Display Identification Data-- padrão definido pela VESA) para o sistema operacional ao qual está conectado, facilitando assim o inventário eletrônico dos equipamentos;

Fonte com ajuste automático bivolt (100~240v/50-60Hz), suficiente para suportar todas as configurações do monitor conforme as especificações técnicas contidas no catálogo técnico do mesmo, permitindo o funcionamento por no mínimo 9 horas por dia e 5 dias por semana;

Possui cabo de energia (minimo de 1,5m) para a fonte de alimentação de acordo com o novo padrão ABNT (NBR 14136);

Possui suporte para os sistemas operacionais: Windows, Linux e FreeDos;

Todos os componentes do produto são novos (sem uso, reforma ou recondicionamento) e estão em linha de fabricação;

Possui os mesmos padrões de cores, sendo o preto a cor predominante e com o logotipo da HP presente no corpo do monitor;

Pertence a linha corporativa da HP;

A HP possui programas de Logística Reversa (https://www.hp.com/br-pt/hp-information/sustainable-impact/planet-product-recycling.html);

São bens constituídos em parte, por material reciclado, atóxico, biodegradável e atendem a diretiva RoHS;

Todos os itens e seus acessórios são novos, não recondicionados, de primeiro uso, em pleno estado de funcionamento, livres de arranhões, amassados, frisagens, furações, fitas adesivas, marcas, falhas de fabricação ou qualquer outro procedimento ou emprego de materiais inadequados que adaptem forçadamente o equipamento ou suas partes que sejam fisicamente ou logicamente incompatíveis;

As unidades dos equipamentos serão entregues devidamente acondicionadas em embalagens individuais adequadas, utilizando sempre que possível de materiais recicláveis, de forma a garantir a máxima proteção durante o transporte e a armazenagem;

Cada monitor possui um número de série único, afixado em local visível na parte traseira do monitor em etiqueta de difícil remoção, constando a marca, o modelo e o número de série do equipamento e também na embalagem.

A HP possui página na Internet no qual pelo número de série é possível verificar o início e fim do período de garantia do equipamento;

Os drivers, softwares complementares estão disponíveis para download no site da HP quando necessário para o sistema operacional Windows;

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Reg. #: LATAM-LETTERS-STANDARD00157419

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É disponibilizada documentação técnica necessária à instalação e operação do equipamento em português;

A HP Disponibiliza “Central de atendimento telefônico” com número de telefone 0800 ou Whatsapp para abertura de chamado, em dias úteis, (segunda-feira a sexta-feira), em horário comercial (das 8h às18h) e “Central de atendimento via sistema web” para abertura de chamado 24x07, (domingo a domingo), a qualquer horário (das 00:00h às 23:59h);

A HP Mantém os registros dos chamados que foram abertos, mantendo as informações que foram registradas sobre o mesmo;

A ferramenta Web de abertura de chamados da HP permite que o cliente a visualize e acompanhe os chamados abertos anteriormente;

Possui garantia padrão de fábrica de 01 ou 03 anos para reposição de peças, mão de obra, com atendimento "unit change", conforme descrito na proposta comercial emitida pela CONTRATADA;

Permite a extensão de garantia para 04 ou 05 anos para reposição de peças, mão de obra, para o monitor, com atendimento do tipo "unit change" através de aquisição da CONTRADA de carepack de extensão de garantia, devendo descrever em sua proposta comercial a descrição da extensão da garantia (HP Carepack);

Declaramos que a garantia do monitor cobri ainda o reparo ou substituição do monitor no caso do aparecimento de deadpixel conforme a politica da HP, conforme a URL: Monitores LCD HP e Compaq e computadores HP TouchSmart e All-in-One - Política de pixels da HP | Suporte ao cliente HP®

A assistência técnica “unit chage” será realizada, durante todo o período de garantia dos equipamentos, pela própria HP ou por empresa de Assistência Técnica Autorizada da HP, a fim de que sejam mantidos válidos todos os direitos oriundos da garantia;

Durante o prazo de garantia será substituída sem ônus para a contratante, a parte ou peça defeituosa, salvo quando o defeito for provocado por uso inadequado dos equipamentos;

Certificado de Garantia é válido em todo o território nacional;

Atenciosamente,

Jhenifer Cristina Araujo de Jesús
CPF: 352.533.778-75
Representante Legal

PL BO.
Ref. OPD-0005443624
Verifique a autenticidade:

Barueri, 21.10.2026
Reg. #: LATAM-LETTERS-STANDARD00157416

HP Brasil Indústria e Comércio de Equipamentos Eletrônicos Ltda.
Alameda Xingu, n.º 350, 8º andar
Alphaville Industrial, Barueri/SP
CEP: 06455-030
Brasil

AN-800G10G11 - 1040G11

CAMARA MUNICIPAL DE NOVO HAMBURGO

Pregão Eletrônico Nº 50/2026

PL AN
HP Elitebook 830 G10/G11
HP Elitebook 840 G10/G11
HP Elitebook 860 G10/G11
HP Elitebook 8 G1i
HP Elitebook 1040 G11
HP Elitebook x360 1040 G11

Além de possuir equipamentos com configurações padrão de fábrica a HPI realiza customizações para atendimento as necessidades dos clientes. Para atendimento a este edital a CONTRATADA fará as solicitações de customização à HP de modo a atender plenamente as exigências edilícias. Estas customizações deverão estar descritas na proposta comercial emitida pela CONTRADA. As declarações a seguir, se aplicam aos modelos de equipamento mencionados, independentemente das customizações a serem realizadas;

Informações técnicas básicas como modelo do processador, capacidade de memória instalada, capacidade e tipo do dispositivo de armazenamento, versão do sistema operacional, tamanho e especificação da tela do notebook e garantia padrão de fábrica estarão descritas na proposta comercial emitida pela CONTRADA;

Modelo de equipamento ofertado é a mais recente geração disponibilizada pela HP com comercialização no Brasil;

A HP disponibiliza a ferramenta HP Support Assistant que permite a verificação e instalação das últimas atualizações de todas as ferramentas e drivers disponibilizadas pela HP para o equipamento. Sendo capaz de monitorar o sistema, realizar diagnósticos, emitir alertas e ajudar a reparar erros do sistema, ajudando assim a manter a saúde e segurança do sistema. Permite verificar o status da garantia pela ferramenta;

Possui BIOS da HP, desenvolvida pela HP, em conformidade com a especificação minima UEFI 2.7 (https://www.uefi.org/) e capturáveis pela aplicação de inventário como por exemplo SCCM (System Center Configuration Manager), Landesk, Microsoft End Point Manager, etc;

Possui BIOS com descrição do modelo, número de série e campo de registro de número de patrimônio com extensão mínima de 15 dígitos, todos gravados em memória não volátil e sendo estas capituraveis por aplicações de inventario como por exemplo SCCM, Landesk, Microsoft End Point Manager, etc;

Possui BIOS com interface gráfica com navegação utilizando mouse ou teclado, disponível em mais de 3 idiomas (por exemplo: português, espanhol, inglês etc.);

Possui BIOS atualizável com opção de recuperação de falha, a partir de arquivo de recuperação no disco rígido ou USB externa;

Possui BIOS com suporte à verificação de integridade, através do recurso HP Sure Start;

As atualizações da BIOS, quando necessárias, são disponibilizadas no site da HP Inc., com atualização via download na internet diretamente na interface de configuração da BIOS também;

Possui BIOS implementada em “flash ROM” atualizável diretamente pelo microcomputador, utilizando memória não volátil e reprogramável, Plug and Play, entregue na versão mais atual disponibilizada pela HP. Podendo ser atualizada por software de gerenciamento remoto;

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Possui BIOS com capacidade de habilitar / desabilitar portas USB, webcam, microfone, WiFi;

Possui BIOS com possibilidade de configuração de senhas para Power On, Administrador e unidade de armazenamento;

Possui BIOS com suporte à tecnologia de previsão/contingenciamento de falhas de disco rígido S.M.A.R.T habilitada;

Possui BIOS com suporte a boot por pendrive ou unidade de armazenamento externo, conectado a uma porta USB 2.0 ou superior;

Possui BIOS compatível com o padrão mínimo ACPI 6.0. E também compatível com os padrões: DMI, SNMP, WMI, SMBIOS;

Possui BIOS em conformidade com a normativa NIST 800-147 e NIST 800-193 (HP Sure Start);

Possui a ferramenta HP Secure Erase integrada na BIOS, que possibilita apagar de forma definitiva e irrecuperável todos os dados da unidade de armazenamento, permitindo o descarte seguro de seus equipamentos (NIST 800-88);

Possui BIOS com ferramenta de diagnóstico UEFI de componentes internos de hardware (processador, memória, unidade de armazenamento, áudio, teclado, rede, placa mae, portas USB e vídeo). Acessivel via BIOS ou teclas de atalho (F1...F12). A mensagem de erro é suficiente para abertura de chamado em garantia;

Possui sistema de monitoramento de temperatura controlada pela BIOS, adequado ao processador, fonte e demais componentes internos ao gabinete;

Possui recurso para realizar downgrade de BIOS e replicação de configurações de BIOS em escala utilizando um arquivo referencia ou via Powershell;

Possui placa mãe fabricada e desenvolvida pela HP, exclusiva para o modelo, com o nome da HP identificado na mesma (serigrafia);

Possui placa mãe com capacidade de desligamento do vídeo e da unidade de armazenamento após tempo determinado pelo usuário e reiniciar por acionamento de teclado ou pela movimentação do mouse e possui função de economia de energia;

Possui chip TPM integrado (versão mínima 2.0), acompanhado de drivers e a ferramenta nativa do Windows (tpm.msc) para utilização do chip e possibilitando a utilização de todos os recursos de segurança e criptografia (A ferramenta tpm.msc é fornecida com os equipamentos adquiridos com o Sistema Operacional Windows 10 / 11 Pro);

O chipset é do mesmo fabricante do processador, com tecnologia que permite que o sistema retome rapidamente do estado de hibernação para unidades de armazenamento do tipo PCIe;

Sempre que o equipamento for inicializado, será mostrado no monitor de vídeo o nome da HP;

Possuem os mesmos padrões de cores, sendo a prata ou cinza escuro a cor predominante e com o logotipo da HP impresso;

Possui acabamento interno composto de superfícies não cortantes;

O gabinete possui tratamento anticorrosivo;

O gabinete possui base/superfície antiderrapante;

Possui gabinete feito em liga metálica e dobradiças em liga metálica para maior resistência.

Possui afixado no gabinete do equipamento, o Selo Certificado de Autenticidade (COA – Certificate of Authenticity) do software Windows na versão instalada e com serial de ativação do sistema operacional gravado no BIOS, quando adquirido com o sistema operacional Windows 11, conforme descrito na proposta comercial;

O fluxo do ar interno segue as orientações do fabricante do microprocessador;

Possui processador da geração mais recente fabricada pela HP no Brasil para este modelo de notebook de uso corporativo;

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Possui tecnologia implementada que controle o nível de desempenho do processador automaticamente, ajustando dinamicamente a frequência e a voltagem a cada a necessidade requerida pela atividade do momento para que seja otimizada a autonomia de bateria do equipamento;

Possui suporte a implementação de tecnologia dual-channel para a memória RAM;

As unidades de armazenamento disponíveis para fabricação do modelo, possuem suporte à tecnologia de segurança SMART e NCQ;

Todos os conectores das portas de entrada/saída são identificados por cores ou símbolos, de acordo com o padrão PC'99 System Design Guide;

Possui controladora de áudio onboard, com entrada e saída de áudio estéreo (combo jack), capaz de reproduzir os sons gerados pelo sistema (como musicas e beeps de alerta de diagnósticos), e está conectado diretamente a placa mãe sem uso de adaptadores, com suporte a 16bits;

O sistema de áudio onboard possui a possibilidade de desativação por software ou automaticamente quando houver conexão com a caixa de som ou fone de ouvido;

Possui controladora de vídeo integrada, com suporte a até 03 monitores simultaneamente (terceiro monitor através da porta USB tipo C), de forma estendida ou espelhada, com capacidade de alocar no mínimo 1.5GB de memória de vídeo, compartilhada de forma dinâmica com a memória RAM. Possui suporte para DirectX 12 e Open GL 4.5 e compatibilidade do driver com o padrão WDDM (Windows Display Driver Model);

Possui interface de comunicação wireless integrada, com suporte aos padrões WiFi6, 802.11ax, 802.11ac, 802.11a, 802.11b, 802.11g e 802.11n, com suporte aos protocolos 802.11i (WLAN security, TKIP e AES), WPA, WPA2, WEP 64 e 128, IEEE 802.11 (Wired Equivalent Privacy), IEEE 802.1x. Com certificado de homologação válido da ANATEL, e no Wi-fi Certified Aliance. O ajuste da potência é de acordo com a recepção do sinal, de forma a proporcionar economia de bateria;

Possui teclado da HP integrado, com todos os caracteres da língua portuguesa incluindo ç, com 83 teclas, com teclado numérico embutido na fileira superior, com teclas Windows Logo (acesso ao menu iniciar) e Aplicação (acesso ao menu de atalhos, equivalente ao botão direito do mouse), com LEDs indicativos de “caps lock”. A impressão sobre as teclas é do tipo permanente, não apresentando desgaste por abrasão ou uso prolongado e com sistema de proteção contra derramamento acidental de líquidos;

Possui dispositivo apontador integrado, do tipo “touchpad”, integrado no gabinete, com dois botões integrados e uma área para a função “scroll” (botão de rolagem), com suporte a múltiplos gestos tais como pinça e zoom;

Fonte externo com ajuste automático 100~240v / 50-60Hz (bivolt), suficiente para suportar todas as configurações do equipamento conforme as especificações técnicas contidas no catálogo técnico do mesmo, permitindo o funcionamento por no mínimo 10 horas por dia e 5 dias por semana;

Possui cabo de energia para a fonte de alimentação de acordo com o novo padrão ABNT (NBR 14136), com comprimento minimo de 1,5m (total fonte mais cabo de energia);

Todos os componentes do produto são novos (sem uso, reforma ou recondicionamento) e estão em linha de fabricação;

Pertence a linha corporativa da HP;

A HP possui programas de Logística Reversa (https://www.hp.com/br-pt/hp-information/sustainable-impact/planet-product-recycling.html);

São bens constituídos em parte, por material reciclado, atóxico, biodegradável e atendem a diretiva RoHS;

Todos os itens e seus acessórios são novos, não recondicionados, de primeiro uso, em pleno estado de funcionamento, livres de arranhões, amassados, frisagens, furações, fitas adesivas, marcas, falhas de fabricação ou qualquer outro procedimento ou emprego de materiais inadequados que adaptem forçadamente o equipamento ou suas partes que sejam fisicamente ou logicamente incompatíveis;

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Reg. #: LATAM-LETTERS-STANDARD00157416

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CEP: 06455-030
Brasil

As unidades dos equipamentos serão entregues devidamente acondicionadas em embalagens individuais adequadas, utilizando sempre que possível de materiais recicláveis, de forma a garantir a máxima proteção durante o transporte e a armazenagem;

Cada equipamento possui um número de série único, afixado em local visível em etiqueta de difícil remoção ou impresso a laser, constando a marca, o modelo e o número de série do equipamento e também na embalagem;

A HP possui página na Internet no qual pelo número de série é possível verificar o início e fim do período de garantia do equipamento;

Os drivers, softwares e sistema operacional fornecido com o equipamento da HP estão disponíveis para download no site da HP, permitindo a instalação e recuperação do sistema operacional ao padrão de fábrica.

A HP disponibiliza a ferramenta HP Cloud Recovery que permite realizar o download dos Drivers e do Sistema Operacional de forma automatizada para gerar pendrive de reinstalaçao;

É disponibilizada documentação técnica necessária à instalação e operação do equipamento em português;

A HP Disponibiliza “Central de atendimento telefônico” com número de telefone 0800 ou Whatsapp para abertura de chamado, em dias úteis, (segunda-feira a sexta-feira), em horário comercial (das 8h às18h) e “Central de atendimento via sistema web” para abertura de chamado 24x07, (domingo a domingo), a qualquer horário (das 00:00h às 23:59h);

A HP Mantém os registros dos chamados que foram abertos, mantendo as informações que foram registradas sobre o mesmo;

A ferramenta Web de abertura de chamados da HP permite que o cliente a visualize e acompanhe os chamados abertos anteriormente;

Possui garantia padrão de fábrica de 01 ano para reposição de peças, mão de obra, com atendimento "on-site", conforme descrito na proposta comercial emitida pela CONTRATADA;

Permite a extensão de garantia para 03, 04 ou 05 anos para reposição de peças, mão de obra, com atendimento do tipo "on-site" através de aquisição da CONTRADA de carepack de extensão de garantia, devendo descrever em sua proposta comercial a descrição da extensão da garantia (HP Carepack);

A assistência técnica “on-site” será realizada, durante todo o período de garantia dos equipamentos, pela própria HP ou por empresa de Assistência Técnica Autorizada da HP, a fim de que sejam mantidos válidos todos os direitos oriundos da garantia;

Durante o prazo de garantia será substituída sem ônus para a contratante, a parte ou peça defeituosa, salvo quando o defeito for provocado por uso inadequado dos equipamentos;

Certificado de Garantia é válido em todo o território nacional;

Abertura do equipamento para limpeza, adição de memória ou SSD pela CONTRATANTE não implicará em perca da garantia desde que não cause mau uso. A garantia da HP não cobrirá o suporte destas peças.

Atenciosamente,

Jhenifer Cristina Araujo de Jesús
CPF: 352.533.778-75
Representante Legal

PL AN.
Ref. OPD-0005443624
Verifique a autenticidade:

Barueri, 21.10.2026
Reg. #: LATAM-LETTERS-STANDARD00157417

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6U-4G1iR-6G1i-440G10-445G9G10G11-640G10G11-645G11-660G11

CAMARA MUNICIPAL DE NOVO HAMBURGO

Pregão Eletrônico Nº 50/2026

PL 6U
HP Elitebook 640 G10/G11
HP Elitebook 645 G11
HP Elitebook 660 G11
HP Elitebook 6 G1i
HP Probook 445 G9/G10/G11
HP Probook 440 G10
HP Probook 4 G1iR

Além de possuir equipamentos com configurações padrão de fábrica a HPI realiza customizações para atendimento as necessidades dos clientes. Para atendimento a este edital a CONTRATADA fará as solicitações de customização à HP de modo a atender plenamente as exigências edilícias. Estas customizações deverão estar descritas na proposta comercial emitida pela CONTRADA. As declarações a seguir, se aplicam aos modelos de equipamento mencionados, independentemente das customizações a serem realizadas;

Informações técnicas básicas como modelo do processador, capacidade de memória instalada, capacidade e tipo do dispositivo de armazenamento, versão do sistema operacional, tamanho da tela do notebook e garantia padrão de fábrica estarão descritas na proposta comercial emitida pela CONTRADA;

Modelo de equipamento ofertado é a mais recente geração disponibilizada pela HP com comercialização no Brasil;

A HP disponibiliza a ferramenta HP Support Assistant que permite a verificação e instalação das últimas atualizações de todas as ferramentas e drivers disponibilizadas pela HP para o equipamento. Sendo capaz de monitorar o sistema, realizar diagnósticos, emitir alertas e ajudar a reparar erros do sistema, ajudando assim a manter a saúde e segurança do sistema. Permite verificar o status da garantia pela ferramenta;

Possui BIOS da HP, desenvolvida pela HP, em conformidade com a especificação minima UEFI 2.7 (https://www.uefi.org/) e capturáveis pela aplicação de inventário como por exemplo SCCM (System Center Configuration Manager), Landesk, Microsoft End Point Manager, etc;

Possui BIOS com descrição do modelo, número de série e campo de registro de número de patrimônio com extensão mínima de 15 digitos, todos gravados em memória não volátil e sendo estas capituraveis por aplicações de inventario como por exemplo SCCM, Landesk, Microsoft End Point Manager, etc;

Possui BIOS com interface gráfica com navegação utilizando mouse ou teclado, disponível em mais de 3 idiomas (por exemplo: português, espanhol, inglês etc.);

Possui BIOS atualizável com opção de recuperação de falha, a partir de arquivo de recuperação no disco rígido ou USB externa;

Possui BIOS com suporte à verificação de integridade, através do recurso Hp Sure Start;

As atualizações da BIOS, quando necessárias, são disponibilizadas no site da HP Inc., com atualização via download na internet diretamente na interface de configuração da BIOS também;

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Possui BIOS implementada em “flash ROM” atualizável diretamente pelo microcomputador, utilizando memória não volátil e reprogramável, Plug and Play, entregue na versão mais atual disponibilizada pela HP. Podendo ser atualizada por software de gerenciamento remoto;

Possui BIOS com capacidade de habilitar / desabilitar portas USB, webcam, microfone, WiFi;

Possui BIOS com possibilidade de configuração de senhas de Setup para Power On, Administrador e unidade de armazenamento;

Possui BIOS com suporte à tecnologia de previsão/contingenciamento de falhas de disco rígido S.M.A.R.T habilitada;

Possui BIOS com suporte a boot por pendrive ou unidade de armazenamento externo, conectado a uma porta USB 2.0 ou superior;

Possui BIOS compatível com o padrão mínimo ACPI 6.0. E também compatível com os padrões: DMI, SNMP, WMI, SMBIOS;

Possui BIOS em conformidade com a normativa NIST 800-147 e NIST 800-193 (HP Sure Start);

Possui a ferramenta HP Secure Erase integrada na BIOS, que possibilita apagar de forma definitiva e irrecuperável todos os dados da unidade de armazenamento, permitindo o descarte seguro de seus equipamentos (NIST 800-88);

Possui BIOS com ferramenta de diagnóstico UEFI de componentes internos de hardware (processador, memória, unidade de armazenamento, áudio, teclado, rede, placa mae, portas USB e vídeo). Acessivel via BIOS ou teclas de atalho (F1...F12). A mensagem de erro é suficiente para abertura de chamado em garantia;

Possui sistema de monitoramento de temperatura controlada pela BIOS, adequado ao processador, fonte e demais componentes internos ao gabinete;

Possui recurso para realizar downgrade de BIOS e replicação de configurações de BIOS em escala utilizando um arquivo referencia ou via Powershell;

Possui placa mãe fabricada e desenvolvida pela HP, exclusiva para o modelo, com o nome da HP identificado na mesma (serigrafia);

Possui placa mãe com capacidade de desligamento do vídeo e da unidade de armazenamento após tempo determinado pelo usuário e reiniciar por acionamento de teclado ou pela movimentação do mouse e possui função de economia de energia;

Possui chip TPM integrado (versão mínima 2.0), acompanhado de drivers e a ferramenta nativa do Windows (tpm.msc) para utilização do chip e possibilitando a utilização de todos os recursos de segurança e criptografia (A ferramenta tpm.msc é fornecida com os equipamentos adquiridos com o Sistema Operacional Windows 10 / 11 Pro);

O chipset é do mesmo fabricante do processador, com tecnologia que permite que o sistema retome rapidamente do estado de hibernação tanto para unidades de armazenamento do tipo SATA e do tipo PCIe;

Sempre que o equipamento for inicializado, será mostrado no monitor de vídeo o nome da HP;

Possuem os mesmos padrões de cores, sendo a prata ou cinza escuro a cor predominante e com o logotipo da HP impresso;

Possui acabamento interno composto de superfícies não cortantes;

O gabinete possui tratamento anticorrosivo;

O gabinete possui base/superfície antiderrapante;

Possui gabinete feito em liga metálica de alumínio e dobradiças em liga metálica para maior resistência.

Possui afixado no gabinete do equipamento, o Selo Certificado de Autenticidade (COA – Certificate of Authenticity) do software Windows na versão instalada e com serial de ativação do sistema operacional gravado no BIOS, quando adquirido com o sistema operacional Windows 11, conforme descrito na proposta comercial;

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O fluxo do ar interno segue as orientações do fabricante do microprocessador;

Possui processador da geração mais recente fabricada pela HP no Brasil para este modelo de notebook de uso corporativo;

Possui tecnologia implementada que controle o nível de desempenho do processador automaticamente, ajustando dinamicamente a frequência e a voltagem a cada a necessidade requerida pela atividade do momento para que seja otimizada a autonomia de bateria do equipamento;

Possui suporte a implementação de tecnologia dual-channel para a memória RAM;

As unidades de armazenamento disponíveis para fabricação do modelo, possuem suporte à tecnologia de segurança SMART e NCQ;

Todos os conectores das portas de entrada/saída são identificados por cores ou símbolos, de acordo com o padrão PC'99 System Design Guide;

Possui controladora de áudio onboard, com entrada e saída de áudio estéreo (combo jack), capaz de reproduzir os sons gerados pelo sistema (como musicas e beeps de alerta de diagnósticos), e está conectado diretamente a placa mãe sem uso de adaptadores, com suporte a 16bits;

O sistema de áudio onboard possui a possibilidade de desativação por software ou automaticamente quando houver conexão com a caixa de som ou fone de ouvido;

Possui controladora de vídeo integrada, com suporte a até 03 monitores simultaneamente (terceiro monitor através da porta USB tipo C), de forma estendida ou espelhada, com capacidade de alocar no mínimo 1.5GB de memória de vídeo, compartilhada de forma dinâmica com a memória RAM. Possui suporte para DirectX 12 e Open GL 4.5 e compatibilidade do driver com o padrão WDDM (Windows Display Driver Model);

Possui controladora de rede Gigabit Ethernet 10/100/1000 Mbps com reconhecimento automático da velocidade da rede, com capacidade de operar no modo full-duplex, autosense, plug and play, com suporte ao protocolo SNMP, totalmente configurável por software, com suporte a VLAN, com suporte a PXE 2.1 e com função Wake-On-Lan instalada e em funcionamento. Com conector RJ-45 com LEDs de diagnostico;

Possui interface de comunicação wireless integrada, com suporte aos padrões WiFi6, 802.11ax, 802.11ac, 802.11a, 802.11b, 802.11g e 802.11n, com suporte aos protocolos 802.11i (WLAN security, TKIP e AES), WPA, WPA2, WEP 64 e 128, IEEE 802.11 (Wired Equivalent Privacy), IEEE 802.1x. Com certificado de homologação válido da ANATEL, e no Wi-fi Certified Aliance. O ajuste da potência é de acordo com a recepção do sinal, de forma a proporcionar economia de bateria;

Possui teclado da HP integrado, com todos os caracteres da língua portuguesa incluindo ç, com 83 teclas, com teclado numérico embutido na fileira superior, com teclas Windows Logo (acesso ao menu iniciar), e Aplicação (acesso ao menu de atalhos, equivalente ao botão direito do mouse) com LEDs indicativos de “caps lock”. A impressão sobre as teclas é do tipo permanente, não apresentando desgaste por abrasão ou uso prolongado e com sistema de proteção contra derramamento acidental de líquidos;

Possui dispositivo apontador integrado, do tipo “touchpad”, integrado no gabinete, com dois botões integrados e uma área para a função “scroll” (botão de rolagem), com suporte a múltiplos gestos tais como pinça e zoom;

Fonte externo com ajuste automático 100~240v (bivolt), suficiente para suportar todas as configurações do equipamento conforme as especificações técnicas contidas no catálogo técnico do mesmo, permitindo o funcionamento por no mínimo 10 horas por dia e 5 dias por semana;

Possui cabo de energia para a fonte de alimentação de acordo com o novo padrão ABNT (NBR 14136), com comprimento minimo de 1,5m (total fonte mais cabo de energia);

Todos os componentes do produto são novos (sem uso, reforma ou recondicionamento) e estão em linha de fabricação;

Pertence a linha corporativa da HP;

Barueri, 21.10.2026
Reg. #: LATAM-LETTERS-STANDARD00157417

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A HP possui programas de Logística Reversa (https://www.hp.com/br-pt/hp-information/sustainable-impact/planet-product-recycling.html);

São bens constituídos em parte, por material reciclado, atóxico, biodegradável e atendem a diretiva RoHS;

Todos os itens e seus acessórios são novos, não recondicionados, de primeiro uso, em pleno estado de funcionamento, livres de arranhões, amassados, frisagens, furações, fitas adesivas, marcas, falhas de fabricação ou qualquer outro procedimento ou emprego de materiais inadequados que adaptem forçadamente o equipamento ou suas partes que sejam fisicamente ou logicamente incompatíveis;

As unidades dos equipamentos serão entregues devidamente acondicionadas em embalagens individuais adequadas, utilizando sempre que possível de materiais recicláveis, de forma a garantir a máxima proteção durante o transporte e a armazenagem;

Cada equipamento possui um número de série único, afixado em local visível em etiqueta de difícil remoção ou impresso a laser, constando a marca, o modelo e o número de série do equipamento e também na embalagem;

A HP possui página na Internet no qual pelo número de série é possível verificar o início e fim do período de garantia do equipamento;

Os drivers, softwares e sistema operacional fornecido com o equipamento da HP estão disponíveis para download no site da HP, permitindo a instalação e recuperação do sistema operacional ao padrão de fábrica.

A HP disponibiliza a ferramenta HP Cloud Recovery que permite realizar o download dos Drivers e do Sistema Operacional de forma automatizada para gerar pendrive de reinstalaçao;

É disponibilizada documentação técnica necessária à instalação e operação do equipamento em português;

A HP Disponibiliza “Central de atendimento telefônico” com número de telefone 0800 ou Whatsapp para abertura de chamado, em dias úteis, (segunda-feira a sexta-feira), em horário comercial (das 8h às18h) e “Central de atendimento via sistema web” para abertura de chamado 24x07, (domingo a domingo), a qualquer horário (das 00:00h às 23:59h);

A HP Mantém os registros dos chamados que foram abertos, mantendo as informações que foram registradas sobre o mesmo;

A ferramenta Web de abertura de chamados da HP permite que o cliente a visualize e acompanhe os chamados abertos anteriormente;

Possui garantia padrão de fábrica de 01 ano para reposição de peças, mão de obra, com atendimento "on-site", conforme descrito na proposta comercial emitida pela CONTRATADA;

Permite a extensão de garantia para 03, 04 ou 05 anos para reposição de peças, mão de obra, com atendimento do tipo "on-site" através de aquisição da CONTRADA de carepack de extensão de garantia, devendo descrever em sua proposta comercial a descrição da extensão da garantia (HP Carepack);

A assistência técnica “on-site” será realizada, durante todo o período de garantia dos equipamentos, pela própria HP ou por empresa de Assistência Técnica Autorizada da HP, a fim de que sejam mantidos válidos todos os direitos oriundos da garantia;

Durante o prazo de garantia será substituída sem ônus para a contratante, a parte ou peça defeituosa, salvo quando o defeito for provocado por uso inadequado dos equipamentos;

Certificado de Garantia é válido em todo o território nacional;

Abertura do equipamento para limpeza, adição de memória ou SSD pela CONTRATANTE não implicará em perca da garantia desde que não cause mau uso. A garantia da HP não cobrirá o suporte destas peças.

Barueri, 21.10.2026
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Alameda Xingu, n.º 350, 8º andar
Alphaville Industrial, Barueri/SP
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Brasil

Atenciosamente,



Jhenifer Cristina Araujo de Jesús
CPF: 352.533.778-75
Representante Legal

PL 6U.
Ref. OPD-0005443624
Verifique a autenticidade:

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Alphaville Industrial, Barueri/SP
CEP: 06455-030
Brasil

declaração

Barueri, 19 de outubro de 2026

Ao/À
CAMARA MUNICIPAL DE NOVO HAMBURGO

Assunto:
Pregão Eletrônico Nº 50/2026

BDI 23537

A **HP BRASIL INDÚSTRIA E COMÉRCIO DE EQUIPAMENTOS ELETRÔNICOS LTDA**. (**HP**), em atendimento ao quanto solicitado pelo Parceiro HP **VERLIN TECNOLOGIA DA INFORMAÇÃO LTDA**, declara que:

A empresa **VERLIN TECNOLOGIA DA INFORMAÇÃO LTDA (10894828000356)**, inscrita no CNPJ **10.894.828/0001-94** sediada na Rua Pinto Bandeira, nº 45 – Salas 01 e 02, Botafogo, Bento Gonçalves, RS, CEP: 95700-570, é um **PARCEIRO AUTORIZADO HP PARA COMPRA DE PRODUTOS HP DE DISTRIBUIDORES AUTORIZADOS HP**, estando apto a comercializar Produtos HP.

Produtos:

BT5T8AT#AK4 280 G9 SFF- Garantia padrão do fabricante
CL4U4LT#AK4 Z2 TWR G1i- Garantia padrão do fabricante
8D5J1AA#AC4 MNTR P22a G5- Garantia padrão do fabricante
8D5J5AA#AC4 MNTR P24a G5- Garantia padrão do fabricante
E11WHAT#AK4 HP 200 G2i- Garantia padrão do fabricante
AM8K9LA#AK4 EliteBook 840 G11- Garantia padrão do fabricante

Declaramos ainda que, os produtos **BT5T8AT#AK4** 280 G9 SFF são vendidos pela **HP** a seus **Distribuidores Autorizados**:

- Além de possuir equipamentos com configurações padrão de fábrica a HPI realiza customizações para atendimento as necessidades dos clientes. Para atendimento a este edital a CONTRATADA fará as solicitações de customização à HP de modo a atender plenamente as exigências edilícias. Estas customizações deverão estar descritas na proposta comercial emitida pela CONTRADA. As declarações a seguir, se aplicam aos modelos de equipamento mencionados, independentemente das customizações a serem realizadas;
- Informações técnicas básicas como modelo do processador, capacidade de memória instalada, capacidade e tipo do dispositivo de armazenamento, versão do sistema operacional e garantia padrão de fábrica estarão descritas na proposta comercial emitida pela CONTRADA;

- Modelo de equipamento ofertado é a mais recente geração disponibilizada pela HP com comercialização no Brasil;
- A HP disponibiliza a ferramenta HP Support Assistant que permite a verificação e instalação das últimas atualizações de todas as ferramentas e drivers disponibilizadas pela HP para o equipamento. Sendo capaz de monitorar o sistema, realizar diagnósticos, emitir alertas e ajudar a reparar erros do sistema, ajudando assim a manter a saúde e segurança do sistema. Permite verificar o status da garantia pela ferramenta;
- Possui BIOS HP com direitos de copyrights, em conformidade com a especificação minima UEFI 2.6 (http://www.uefi.org/) e capturáveis pela aplicação de inventário como por exemplo SCCM (System Center Configuration Manager), Landesk, Microsoft End Point Manager, etc;
- Possui BIOS com descrição do modelo, número de série e campo de registro de número de patrimônio com extensão mínima de 15 dígitos, todos gravados em memória não volátil e sendo estas capturáveis por aplicações de inventario como por exemplo SCCM (System Center Configuration Manager), Landesk, Microsoft End Point Manager, etc;
- Possui BIOS com interface gráfica com navegação utilizando mouse ou teclado, disponível em mais de 2 idiomas (por exemplo espanhol, inglês etc.);
- Possui BIOS atualizável com opção de recuperação de falha, a partir de arquivo de recuperação no disco rígido ou USB externa;
- Possui BIOS com suporte à verificação de integridade (NIST-800-147);
- As atualizações da BIOS, quando necessárias, são disponibilizadas no site da HP Inc.;
- Possui BIOS implementada em "flash ROM" atualizável diretamente pelo microcomputador, utilizando memória não volátil e reprogramável, Plug and Play, entregue na versão mais atual disponibilizada pela HP. Podendo ser atualizada por software de gerenciamento remoto;
- Possui BIOS com possibilidade de configuração de senhas para Power On, Administrador;
- Possui BIOS com suporte à tecnologia de previsão/contingenciamento de falhas de disco rígido S.M.A.R.T habilitada;
- Possui BIOS com suporte a boot por pendrive ou unidade de armazenamento externo, conectado a uma porta USB 2.0 ou superior;
- Possui BIOS compatível com o padrão ACPI 6.0. E também compatível com os padrões: DMI, SNMP, WMI e SMBIOS;
- Possui BIOS em conformidade com a normativa NIST 800-147;
- Possui BIOS com ferramenta de diagnóstico UEFI de componentes internos de hardware (processador, memória, unidade de armazenamento, áudio, teclado, rede, placa mãe, portas USB e vídeo). Acessível via BIOS ou teclas de atalho (F1...F12). A mensagem de erro é suficiente para abertura de chamado em garantia;
- Possui sistema de monitoramento de temperatura controlada pela BIOS, adequado ao processador, fonte e demais componentes internos ao gabinete;
- Possui recurso para realizar downgrade de BIOS
- Possui placa mãe fabricada e desenvolvida pela HP, exclusiva para o modelo, com o nome da HP identificado na mesma (serigrafia);
- Possui placa mãe com capacidade de desligamento do vídeo e da unidade de armazenamento após tempo determinado pelo usuário e reiniciar por acionamento de teclado ou pela movimentação do mouse e possui função de economia de energia;
- Possui firmware TPM integrado, acompanhado de drivers e a ferramenta nativa do Windows (tpm.msc) para utilização do chip e possibilitando a utilização de todos os recursos de segurança e criptografia (A ferramenta tpm.msc é fornecida com os equipamentos adquiridos com o Sistema Operacional Windows 10 / 11 Pro);
- O chipset é do mesmo fabricante do processador, com tecnologia que permite que o sistema retome rapidamente do estado de hibernação tanto para unidades de armazenamento do tipo SATA e do tipo PCIe;
- Sempre que o equipamento for inicializado, será mostrado no monitor de vídeo o nome da HP;
- Possuem os mesmos padrões de cores, sendo o preto ou cinza escuro a cor predominante e com o logotipo da HP impresso;
- Possui acabamento interno composto de superfícies não cortantes;
- O gabinete possui tratamento anticorrosivo;

- O gabinete possui base/superfície antiderrapante;
- Possui gabinete feito em liga metálica e front bezel de ABS
- O equipamento pode funcionar na posição horizontal ou vertical.
- Possui afixado no gabinete do equipamento, o Selo Certificado de Autenticidade (COA – Certificate of Authenticity) do software Windows na versão instalada e com serial de ativação do sistema operacional gravado no BIOS, quando adquirido com o sistema operacional Windows 11 conforme descrito na proposta comercial;
- O fluxo do ar interno segue as orientações do fabricante do microprocessador;
- Possui tecnologia implementada que controle o nível de desempenho do processador automaticamente, ajustando dinamicamente a frequência e a voltagem a cada a necessidade requerida pela atividade do momento para que seja otimizada a autonomia de bateria do equipamento;
- Possui suporte a implementação de tecnologia dual-channel para a memória RAM;
- As unidades de armazenamento disponíveis para fabricação do modelo, possuem suporte à tecnologia de segurança SMART e NCQ;
- Todos os conectores das portas de entrada/saída são identificados por cores ou símbolos, de acordo com o padrão PC'99 System Design Guide;
- Possui controladora de áudio onboard, com entrada e saída de áudio estéreo (combo jack), capaz de reproduzir os sons gerados pelo sistema (como músicas e beeps de alerta de diagnósticos), e está conectado diretamente a placa mãe sem uso de adaptadores, com suporte a 16bits;
- O sistema de áudio onboard possui a possibilidade de desativação por software ou automaticamente quando houver conexão com a caixa de som ou fone de ouvido;
- Possui controladora de vídeo integrada, com suporte a até 02 monitores simultaneamente, de forma estendida ou espelhada, com capacidade de alocar no mínimo 1.5GB de memória de vídeo, compartilhada de forma dinâmica com a memória RAM. Possui suporte para DirectX 12 e Open GL 4.5 e compatibilidade do driver com o padrão WDDM (Windows Display Driver Model);
- Possui controladora de rede Gigabit Ethernet 10/100/1000 Mbps com reconhecimento automático da velocidade da rede, com capacidade de operar no modo full-duplex, autosense, plug and play, com suporte ao protocolo SNMP, totalmente configurável por software, com suporte a VLAN, com suporte a PXE 2.1 e com função Wake-On-Lan instalada e em funcionamento. Com conector RJ-45 com LEDs de diagnostico;
- Possui interface de comunicação wireless integrada desde que a CONTRATADA incluía este item na proposta comercial. Esta placa wireless tem suporte aos padrões 802.11ac, 802.11a, 802.11b, 802.11g e 802.11n, com suporte aos protocolos 802.11i (WLAN security, TKIP e AES), WPA, WPA2, WEP 64 e 128, IEEE 802.11 (Wired Equivalent Privacy), IEEE 802.1x. Com certificado de homologação válido da ANATEL, e no Wi-fi Certified Aliance. O ajuste da potência é de acordo com a recepção do sinal, de forma a proporcionar economia de bateria;
- Possui teclado da HP, desde que a CONTRATADA inclua este item na proposta comercial. Teclado HP com com todos os caracteres da língua portuguesa incluindo Ç, com teclado numérico embutido, com teclas Windows Logo (acesso ao menu iniciar), com LEDs indicativos de "caps lock" e "num lock". A impressão sobre as teclas é do tipo permanente, não apresentando desgaste por abrasão ou uso prolongado. Possui sistema de proteção contra derramamento acidental de pequenas quantidades de líquidos. Possui sistema para ajuste de inclinação e cabo USB de no mínimo 1.5m. Não possui teclas dedicadas de funções multimedia, desligar, hibernar ou standby.
- Possui mouse óptico da HP, com conector USB, cabo com comprimento mínimo de 1.8m, com 03 botões (esquerdo, direito e central próprio para rolagem (scroll), com resolucao mínima de 800dpi formato ergonômico e de conformação ambidestra;
- Fonte interno com ajuste automático 100~240v / 50-60Hz (bivolt), suficiente para suportar todas as configurações do equipamento conforme as especificações técnicas contidas no catálogo técnico do mesmo, permitindo o funcionamento por no mínimo 10 horas por dia e 5 dias por semana;
- Possui cabo de energia para a fonte de alimentação de acordo com o novo padrão ABNT (NBR 14136), com comprimento minimo de 1,5m;

- Todos os componentes do produto são novos (sem uso, reforma ou recondicionamento) e estão em linha de fabricação;
- Pertence a linha corporativa da HP;
- A HP possui programas de Logística Reversa (https://www.hp.com/br-pt/hp-information/sustainable-impact/planet-product-recycling.html);
- São bens constituídos em parte, por material reciclado, atóxico, biodegradável e atendem a diretiva RoHS;
- Todos os itens e seus acessórios são novos, não recondicionados, de primeiro uso, em pleno estado de funcionamento, livres de arranhões, amassados, frisagens, furações, fitas adesivas, marcas, falhas de fabricação ou qualquer outro procedimento ou emprego de materiais inadequados que adaptem forçadamente o equipamento ou suas partes que sejam fisicamente ou logicamente incompatíveis;
- As unidades dos equipamentos serão entregues devidamente acondicionadas em embalagens individuais adequadas, utilizando sempre que possível de materiais recicláveis, de forma a garantir a máxima proteção durante o transporte e a armazenagem;
- Cada equipamento possui um número de série único, afixado em local visível em etiqueta de difícil remoção ou impresso a laser, constando a marca, o modelo e o número de série do equipamento e também na embalagem;
- A HP possui pagina na Internet no qual pelo numero de serie é possível verificar o inicio e o fim do período de garantia do equipamento. Os drivers, softwares e sistema operacional fornecido com o equipamento da HP estão disponíveis para download no site da HP, permitindo a instalação e recuperação do sistema operacional ao padrão de fábrica.
- A HP disponibiliza a ferramenta HP Cloud Recovery que permite realizar o download dos Drivers e do Sistema Operacional de forma automatizada para gerar pendrive de reinstalação;
- É disponibilizada documentação técnica necessária à instalação e operação do equipamento em português;
- A HP Disponibiliza “Central de atendimento telefônico” com número de telefone 0800 ou Whatsapp para abertura de chamado, em dias úteis, (segunda-feira a sexta-feira), em horário comercial (das 8h às18h) e “Central de atendimento via sistema web” para abertura de chamado 24x07, (domingo a domingo), a qualquer horário (das 00:00h às 23:59h);
- A HP Mantém os registros dos chamados que foram abertos, mantendo as informações que foram registradas sobre o mesmo;
- A ferramenta Web de abertura de chamados da HP permite que o cliente a visualize e acompanhe os chamados abertos anteriormente;
- Possui garantia padrão de fábrica de 01 ano para reposição de peças, mão de obra, com atendimento "on-site", conforme descrito na proposta comercial emitida pela CONTRATADA;
- Permite a extensão de garantia para 03, 04 ou 05 anos para reposição de peças, mão de obra, com atendimento do tipo "on-site" através de aquisição da CONTRADA de carepack de extensão de garantia, devendo descrever em sua proposta comercial a descrição da extensão da garantia (HP Carepack);
- A assistência técnica “on-site” será realizada, durante todo o período de garantia dos equipamentos, pela própria HP ou por empresa de Assistência Técnica Autorizada da HP, a fim de que sejam mantidos válidos todos os direitos oriundos da garantia;
- Durante o prazo de garantia será substituída sem ônus para a contratante, a parte ou peça defeituosa, salvo quando o defeito for provocado por uso inadequado dos equipamentos;
- Certificado de Garantia é válido em todo o território nacional;
- Abertura do equipamento para limpeza, adição de memória ou SSD pela CONTRATANTE não implicará em perca da garantia desde que não cause mau uso. A garantia da HP não cobrirá o suporte destas peças.
- Possui garantia padrão do fabricante.
- A Verlin Tecnologia da Informação Ltda está autorizada a fazer upgrades de unidades de armazenamento, memória e processamento, mantendo-se a garantia padrão HP. A garantia dos componentes utilizados no upgrade possuem a sua própria politica de garantia, não sendo “absorvida” pela garantia padrão (ou carepack) do equipamento.

- Declaramos ainda que a VERLIN TECNOLOGIA DA INFORMAÇÃO LTDA, é o parceiro de serviços do programa AMPLIFY, autorizado a prestar serviço de assistência técnica dos produtos que comercializa no telefone 0800 887 8800.
- Equipamento possui compatibilidade com sistemas operacionais Windows e Ubuntu;

Declaramos ainda que, os produtos **CL4U4LT#AK4** Z2 TWR G1i são vendidos pela **HP** a seus **Distribuidores Autorizados**:

- Além de possuir equipamentos com configurações padrão de fábrica a HPI realiza customizações para atendimento as necessidades dos clientes. Para atendimento a este edital a CONTRATADA fará as solicitações de customização à HP de modo a atender plenamente as exigências edilícias. Estas customizações deverão estar descritas na proposta comercial emitida pela CONTRADA. As declarações a seguir, se aplicam aos modelos de equipamento mencionados, independentemente das customizações a serem realizadas;
- Informações técnicas básicas como modelo do processador, capacidade de memória instalada, capacidade e tipo do dispositivo de armazenamento, versão do sistema operacional e garantia padrão de fábrica estarão descritas na proposta comercial emitida pela CONTRADA;
- Modelo de equipamento ofertado é a mais recente geração disponibilizada pela HP com comercialização no Brasil;
- A HP disponibiliza a ferramenta HP Support Assistant que permite a verificação e instalação das últimas atualizações de todas as ferramentas e drivers disponibilizadas pela HP para o equipamento. Sendo capaz de monitorar o sistema, realizar diagnósticos, emitir alertas e ajudar a reparar erros do sistema, ajudando assim a manter a saúde e segurança do sistema. Permite verificar o status da garantia pela ferramenta;
- Possui BIOS da HP, desenvolvida pela HP, em conformidade com a especificação minima UEFI 2.7 (http://www.uefi.org/) e capturáveis pela aplicação de inventário como por exemplo SCCM (System Center Configuration Manager), Landesk, Microsoft End Point Manager, etc;
- Possui BIOS com descrição do modelo, número de série e função de registro de número de patrimônio com extensão mínima de 15 dígitos, todos gravados em memória não volátil e sendo estas capturáveis por aplicações de inventario como por exemplo SCCM, Landesk, Microsoft End Point Manager, etc;
- Possui BIOS com interface gráfica com navegação utilizando mouse ou teclado, disponível em mais de 3 idiomas (por exemplo: portugues, espanhol, inglês etc.);
- Possui BIOS atualizável com opção de recuperação de falha, a partir de arquivo de recuperação no disco rígido ou USB externa;
- Possui BIOS com suporte à verificação de integridade, através do recurso HP Sure Start;
- As atualizações da BIOS, quando necessárias, são disponibilizadas no site da HP Inc., com atualização via download na internet diretamente na interface de configuração da BIOS também;
- Possui BIOS implementada em “flash ROM” atualizável diretamente pelo microcomputador, utilizando memória não volátil e reprogramável, Plug and Play, entregue na versão mais atual disponibilizada pela HP. Podendo ser atualizada por software de gerenciamento remoto;
- Possui BIOS com capacidade de habilitar / desabilitar portas USB;
- Possui BIOS com possibilidade de configuração de senhas para Power On, Administrador e unidade de armazenamento;
- Possui BIOS com suporte à tecnologia de previsão/contingenciamento de falhas de disco rígido S.M.A.R.T habilitada;
- Possui BIOS com suporte a boot por pendrive ou unidade de armazenamento externo, conectado a uma porta USB 2.0 ou superior;
- Possui BIOS compatível com o padrão minimo ACPI 6.0, E também compatível com os padrões: DMI, SNMP, WMI e SMBIOS;

- Possui BIOS em conformidade com a normativa NIST 800-147 e NIST 800-193 (HP Sure Start);
- Possui a ferramenta HP Secure Erase integrada na BIOS, que possibilita apagar de forma definitiva e irrecuperável todos os dados da unidade de armazenamento, permitindo o descarte seguro de seus equipamentos (NIST 800-88);
- Possui BIOS com ferramenta de diagnóstico UEFI de componentes internos de hardware (processador, memória, unidade de armazenamento, áudio, teclado, rede, placa mãe, portas USB e vídeo). Acessível via BIOS ou teclas de atalho (F1...F12). A mensagem de erro é suficiente para abertura de chamado em garantia;
- Possui sistema de monitoramento de temperatura controlada pela BIOS, adequado ao processador, fonte e demais componentes internos ao gabinete;
- Possui recurso para realizar downgrade de BIOS e replicação de configurações de BIOS em escala utilizando um arquivo referência ou via Powershell;
- Possui placa mãe fabricada e desenvolvida pela HP, exclusiva para o modelo, com o nome da HP identificado na mesma (serigrafia);
- Possui placa mãe com capacidade de desligamento do vídeo e da unidade de armazenamento após tempo determinado pelo usuário e reiniciar por acionamento de teclado ou pela movimentação do mouse e possui função de economia de energia;
- Possui chip TPM integrado, acompanhado de drivers e a ferramenta nativa do Windows (tpm.msc) para utilização do chip e possibilitando a utilização de todos os recursos de segurança e criptografia (A ferramenta tpm.msc é fornecida com os equipamentos adquiridos com o Sistema Operacional Windows 10 / 11 Pro);
- O chipset é do mesmo fabricante do processador, com tecnologia que permite que o sistema retome rapidamente do estado de hibernação tanto para unidades de armazenamento do tipo SATA e do tipo PCIe;
- Sempre que o equipamento for inicializado, será mostrado no monitor de vídeo o nome da HP;
- Possuem os mesmos padrões de cores, sendo o preto ou cinza escuro a cor predominante e com o logotipo da HP impresso;
- Possui acabamento interno composto de superfícies não cortantes;
- O gabinete possui tratamento anticorrosivo;
- O gabinete possui base/superfície antiderrapante;
- Possui gabinete feito em liga metálica e front bezel de ABS
- O equipamento pode funcionar na posição horizontal ou vertical.
- Possui afixado no gabinete do equipamento, o Selo Certificado de Autenticidade (COA – Certificate of Authenticity) do software Windows na versão instalada e com serial de ativação do sistema operacional gravado no BIOS, quando adquirido com o sistema operacional Windows 11 conforme descrito na proposta comercial;
- O fluxo do ar interno segue as orientações do fabricante do microprocessador;
- Possui processador da geração mais recente fabricada pela HP no Brasil para este modelo de desktop de uso corporativo;
- Possui tecnologia implementada que controle o nível de desempenho do processador automaticamente, ajustando dinamicamente a frequência e a voltagem a cada a necessidade requerida pela atividade do momento para que seja otimizada a autonomia de bateria do equipamento;
- Possui suporte a implementação de tecnologia dual-channel para a memória RAM;
- As unidades de armazenamento disponíveis para fabricação do modelo, possuem suporte à tecnologia de segurança SMART e NCQ;
- Todos os conectores das portas de entrada/saída são identificados por cores ou símbolos, de acordo com o padrão PC'99 System Design Guide;
- Possui controladora de áudio onboard, com entrada e saída de áudio estéreo (combo jack), capaz de reproduzir os sons gerados pelo sistema (como músicas e beeps de alerta de diagnósticos), e está conectado diretamente a placa mãe sem uso de adaptadores, com suporte a 16bits;
- O sistema de áudio onboard possui a possibilidade de desativação por software ou automaticamente quando houver conexão com a caixa de som ou fone de ouvido;

- Possui controladora de rede Gigabit Ethernet 10/100/1000 Mbps com reconhecimento automático da velocidade da rede, com capacidade de operar no modo full-duplex, autosense, plug and play, com suporte ao protocolo SNMP, totalmente configurável por software, com suporte a VLAN, com suporte a PXE 2.1 e com função Wake-On-Lan instalada e em funcionamento. Com conector RJ-45 com LEDs de diagnostico;
- Possui interface de comunicação wireless integrada desde que a CONTRATADA incluía este item na proposta comercial. Esta placa wireless tem suporte aos padrões 802.11ax, 802.11ac, 802.11a, 802.11b, 802.11g e 802.11n, com suporte aos protocolos 802.11i (WLAN security, TKIP e AES), WPA, WPA2, WEP 64 e 128, IEEE 802.11 (Wired Equivalent Privacy), IEEE 802.1x. Com certificado de homologação válido da ANATEL, e no Wi-fi Certified Aliance. O ajuste da potência é de acordo com a recepção do sinal, de forma a proporcionar economia de bateria;
- Possui teclado da HP, desde que a CONTRATADA inclua este item na proposta comercial. Teclado HP com com todos os caracteres da língua portuguesa incluindo Ç, com teclado numérico embutido, com teclas Windows Logo (acesso ao menu iniciar), com LEDs indicativos de "caps lock" e "num lock". A impressão sobre as teclas é do tipo permanente, não apresentando desgaste por abrasão ou uso prolongado. Possui sistema de proteção contra derramamento acidental de pequenas quantidades de líquidos. Possui sistema para ajuste de inclinação e cabo USB de no mínimo 1.5m. Não possui teclas dedicadas de funções multimedia, desligar, hibernar ou standby.
- Possui mouse óptico da HP, desde que a CONTRATADA incluía este item na proposta comercial. Mouse HP com conector USB, cabo com comprimento mínimo de 1.8m, com resolução de 1000dpi, com 03 botões (esquerdo, direito e central próprio para rolagem (scrol)), formato ergonômico e de conformação ambidestra;
- Fonte externo com ajuste automático 100~240v / 50-60Hz (bivolt), suficiente para suportar todas as configurações do equipamento conforme as especificações técnicas contidas no catálogo técnico do mesmo, permitindo o funcionamento por no mínimo 10 horas por dia e 5 dias por semana;
- Possui cabo de energia para a fonte de alimentação de acordo com o novo padrão ABNT (NBR 14136), com comprimento total de no minimo 1.5m;
- Todos os componentes do produto são novos (sem uso, reforma ou recondicionamento) e estão em linha de fabricação;
- Pertence a linha corporativa da HP;
- A HP possui programas de Logística Reversa (https://www.hp.com/br-pt/hp-information/sustainable-impact/planet-product-recycling.html);
- São bens constituídos em parte, por material reciclado, atóxico, biodegradável e atendem a diretiva RoHS;
- Todos os itens e seus acessórios são novos, não recondicionados, de primeiro uso, em pleno estado de funcionamento, livres de arranhões, amassados, frisagens, furações, fitas adesivas, marcas, falhas de fabricação ou qualquer outro procedimento ou emprego de materiais inadequados que adaptem forçadamente o equipamento ou suas partes que sejam fisicamente ou logicamente incompatíveis;
- As unidades dos equipamentos serão entregues devidamente acondicionadas em embalagens individuais adequadas, utilizando sempre que possível de materiais recicláveis, de forma a garantir a máxima proteção durante o transporte e a armazenagem;
- Cada equipamento possui um número de série único, afixado em local visível em etiqueta de difícil remoção ou impresso a laser, constando a marca, o modelo e o número de série do equipamento e também na embalagem;
- A HP possui pagina na Internet no qual pelo número de série é possível verificar o início e fim do período de garantia do equipamento;
- Os drivers, softwares e sistema operacional fornecido com o equipamento da HP estão disponíveis para download no site da HP, permitindo a instalação e recuperação do sistema operacional ao padrão de fábrica.
- A HP disponibiliza a ferramenta HP Cloud Recovery que permite realizar o download dos Drivers e do Sistema Operacional de forma automatizada para gerar pendrive de reinstalação;

- É disponibilizada documentação técnica necessária à instalação e operação do equipamento em português;
- A HP Disponibiliza “Central de atendimento telefônico” com número de telefone 0800 ou Whatsapp para abertura de chamado, em dias úteis, (segunda-feira a sexta-feira), em horário comercial (das 8h às18h) e “Central de atendimento via sistema web” para abertura de chamado 24x07, (domingo a domingo), a qualquer horário (das 00:00h às 23:59h);
- A HP Mantém os registros dos chamados que foram abertos, mantendo as informações que foram registradas sobre o mesmo;
- A ferramenta Web de abertura de chamados da HP permite que o cliente a visualize e acompanhe os chamados abertos anteriormente;
- Possui garantia padrão de fábrica de 01 ano para reposição de peças, mão de obra, com atendimento "on-site", conforme descrito na proposta comercial emitida pela CONTRATADA;
- Permite a extensão de garantia para 03, 04 ou 05 anos para reposição de peças, mão de obra, para o monitor, com atendimento do tipo "on-site" através de aquisição da CONTRADA de carepack de extensão de garantia, devendo descrever em sua proposta comercial a descrição da extensão da garantia (HP Carepack);
- A assistência técnica “on-site” será realizada, durante todo o período de garantia dos equipamentos, pela própria HP ou por empresa de Assistência Técnica Autorizada da HP, a fim de que sejam mantidos válidos todos os direitos oriundos da garantia;
- Durante o prazo de garantia será substituída sem ônus para a contratante, a parte ou peça defeituosa, salvo quando o defeito for provocado por uso inadequado dos equipamentos;
- Certificado de Garantia é válido em todo o território nacional;
- Abertura do equipamento para limpeza, adição de memória ou SSD pela CONTRATANTE não implicará em perca da garantia desde que não cause mau uso. A garantia da HP não cobrirá o suporte destas peças.
- Possui garantia padrão do fabricante.
- A Verlin Tecnologia da Informação Ltda está autorizada a fazer upgrades de unidades de armazenamento, memória e processamento, mantendo-se a garantia padrão HP. A garantia dos componentes utilizados no upgrade possuem a sua própria politica de garantia, não sendo “absorvida” pela garantia padrão (ou carepack) do equipamento.
- Declaramos ainda que a VERLIN TECNOLOGIA DA INFORMAÇÃO LTDA, é o parceiro de serviços do programa AMPLIFY, autorizado a prestar serviço de assistência técnica dos produtos que comercializa no telefone 0800 887 8800.
- Equipamento possui compatibilidade com sistemas operacionais Windows e Ubuntu;

Declaramos ainda que, os produtos **8D5J1AA#AC4** MNTR P22a G5, **8D5J5AA#AC4** MNTR P24a G5são vendidos pela **HP** a seus **Distribuidores Autorizados**:

- Possui tela 100% plana com retro iluminação de LED;
- É capaz de reconhecer sinais da controladora de vídeo para auto- desligamento e economia de energia elétrica;
- O monitor irá registrar informações de "Número de Série", "Fabricante" e "Modelo" no formato EDID (Extended Display Identification Data-- padrão definido pela VESA) para o sistema operacional ao qual está conectado, facilitando assim o inventário eletrônico dos equipamentos;
- Fonte com ajuste automático bivolt (100~240v/50-60Hz), suficiente para suportar todas as configurações do monitor conforme as especificações técnicas contidas no catálogo técnico do mesmo, permitindo o funcionamento por no mínimo 9 horas por dia e 5 dias por semana;
- Possui cabo de energia (minimo de 1,5m) para a fonte de alimentação de acordo com o novo padrão ABNT (NBR 14136);
- Possui suporte para os sistemas operacionais: Windows, Linux e FreeDos;
- Todos os componentes do produto são novos (sem uso, reforma ou recondicionamento) e estão em linha de fabricação;
- Possui os mesmos padrões de cores, sendo o preto a cor predominante e com o logotipo da HP presente no corpo do monitor;

- Pertence a linha corporativa da HP;
- A HP possui programas de Logística Reversa (https://www.hp.com/br-pt/hp-information/sustainable-impact/planet-product-recycling.html);
- São bens constituídos em parte, por material reciclado, atóxico, biodegradável e atendem a diretiva RoHS;
- Todos os itens e seus acessórios são novos, não recondicionados, de primeiro uso, em pleno estado de funcionamento, livres de arranhões, amassados, frisagens, furações, fitas adesivas, marcas, falhas de fabricação ou qualquer outro procedimento ou emprego de materiais inadequados que adaptem forçadamente o equipamento ou suas partes que sejam fisicamente ou logicamente incompatíveis;
- As unidades dos equipamentos serão entregues devidamente acondicionadas em embalagens individuais adequadas, utilizando sempre que possível de materiais recicláveis, de forma a garantir a máxima proteção durante o transporte e a armazenagem;
- Cada monitor possui um número de série único, afixado em local visível na parte traseira do monitor em etiqueta de difícil remoção, constando a marca, o modelo e o número de série do equipamento e também na embalagem.
- A HP possui página na Internet no qual pelo número de série é possível verificar o início e fim do período de garantia do equipamento;
- Os drivers, softwares complementares estão disponíveis para download no site da HP quando necessário para o sistema operacional Windows;
- É disponibilizada documentação técnica necessária à instalação e operação do equipamento em português;
- A HP Disponibiliza “Central de atendimento telefônico” com número de telefone 0800 ou Whatsapp para abertura de chamado, em dias úteis, (segunda-feira a sexta-feira), em horário comercial (das 8h às18h) e “Central de atendimento via sistema web” para abertura de chamado 24x07, (domingo a domingo), a qualquer horário (das 00:00h às 23:59h);
- A HP Mantém os registros dos chamados que foram abertos, mantendo as informações que foram registradas sobre o mesmo;
- A ferramenta Web de abertura de chamados da HP permite que o cliente a visualize e acompanhe os chamados abertos anteriormente;
- Possui garantia padrão de fábrica de 01 ou 03 anos para reposição de peças, mão de obra, com atendimento "unit change", conforme descrito na proposta comercial emitida pela CONTRATADA;
- Permite a extensão de garantia para 04 ou 05 anos para reposição de peças, mão de obra, para o monitor, com atendimento do tipo "unit change" através de aquisição da CONTRADA de carepack de extensão de garantia, devendo descrever em sua proposta comercial a descrição da extensão da garantia (HP Carepack);
- Declaramos que a garantia do monitor cobri ainda o reparo ou substituição do monitor no caso do aparecimento de deadpixel conforme a politica da HP, conforme a URL: Monitores LCD HP e Compaq e computadores HP TouchSmart e All-in-One - Política de pixels da HP | Suporte ao cliente HP®

- A assistência técnica “unit chage” será realizada, durante todo o período de garantia dos equipamentos, pela própria HP ou por empresa de Assistência Técnica Autorizada da HP, a fim de que sejam mantidos válidos todos os direitos oriundos da garantia;
- Durante o prazo de garantia será substituída sem ônus para a contratante, a parte ou peça defeituosa, salvo quando o defeito for provocado por uso inadequado dos equipamentos;
- Certificado de Garantia é válido em todo o território nacional;
- Possui garantia padrão do fabricante.

Declaramos ainda que, os produtos **E11WHAT#AK4** HP 200 G2i- são vendidos pela **HP** a seus **Distribuidores Autorizados**:

- Além de possuir equipamentos com configurações padrão de fábrica a HPI realiza customizações para atendimento as necessidades dos clientes. Para atendimento a este edital a CONTRATADA fará as solicitações de customização à HP de modo a atender plenamente as exigências edilícias. Estas customizações deverão estar descritas na proposta comercial emitida pela CONTRADA. As declarações a seguir, se aplicam aos modelos de equipamento mencionados, independentemente das customizações a serem realizadas;
- Informações técnicas básicas como modelo do processador, capacidade de memória instalada, capacidade e tipo do dispositivo de armazenamento, versão do sistema operacional e garantia padrão de fábrica estarão descritas na proposta comercial emitida pela CONTRADA;
- Modelo de equipamento ofertado é a mais recente geração disponibilizada pela HP com comercialização no Brasil;
- A HP disponibiliza a ferramenta HP Support Assistant que permite a verificação e instalação das últimas atualizações de todas as ferramentas e drivers disponibilizadas pela HP para o equipamento. Sendo capaz de monitorar o sistema, realizar diagnósticos, emitir alertas e ajudar a reparar erros do sistema, ajudando assim a manter a saúde e segurança do sistema. Permite verificar o status da garantia pela ferramenta;
- Possui BIOS HP com direitos de copyrights, em conformidade com a especificação minima UEFI 2.6 (http://www.uefi.org/) e capturáveis pela aplicação de inventário como por exemplo SCCM (System Center Configuration Manager), Landesk, Microsoft End Point Manager, etc;
- Possui BIOS com descrição do modelo, número de série e campo de registro de número de patrimônio com extensão mínima de 15 dígitos, todos gravados em memória não volátil e sendo estas capturáveis por aplicações de inventario como por exemplo SCCM (System Center Configuration Manager), Landesk, Microsoft End Point Manager, etc;
- Possui BIOS com interface gráfica com navegação utilizando mouse ou teclado, disponível em mais de 2 idiomas (por exemplo espanhol, inglês etc.);
- Possui BIOS atualizável com opção de recuperação de falha, a partir de arquivo de recuperação no disco rígido ou USB externa;
- Possui BIOS com suporte à verificação de integridade (NIST-800-147);
- As atualizações da BIOS, quando necessárias, são disponibilizadas no site da HP Inc.;
- Possui BIOS implementada em "flash ROM" atualizável diretamente pelo microcomputador, utilizando memória não volátil e reprogramável, Plug and Play, entregue na versão mais atual disponibilizada pela HP. Podendo ser atualizada por software de gerenciamento remoto;
- Possui BIOS com possibilidade de configuração de senhas para Power On, Administrador;
- Possui BIOS com suporte à tecnologia de previsão/contingenciamento de falhas de disco rígido S.M.A.R.T habilitada;
- Possui BIOS com suporte a boot por pendrive ou unidade de armazenamento externo, conectado a uma porta USB 2.0 ou superior;
- Possui BIOS compatível com o padrão ACPI 6.0. E também compatível com os padrões: DMI, SNMP, WMI e SMBIOS;
- Possui BIOS em conformidade com a normativa NIST 800-147;
- Possui BIOS com ferramenta de diagnóstico UEFI de componentes internos de hardware (processador, memória, unidade de armazenamento, áudio, teclado, rede, placa mãe, portas USB e vídeo). Acessível via BIOS ou teclas de atalho (F1...F12). A mensagem de erro é suficiente para abertura de chamado em garantia;
- Possui sistema de monitoramento de temperatura controlada pela BIOS, adequado ao processador, fonte e demais componentes internos ao gabinete;
- Possui recurso para realizar downgrade de BIOS

- Possui placa mãe fabricada e desenvolvida pela HP, exclusiva para o modelo, com o nome da HP identificado na mesma (serigrafia);
- Possui placa mãe com capacidade de desligamento do vídeo e da unidade de armazenamento após tempo determinado pelo usuário e reiniciar por acionamento de teclado ou pela movimentação do mouse e possui função de economia de energia;
- Possui firmware TPM integrado, acompanhado de drivers e a ferramenta nativa do Windows (tpm.msc) para utilização do chip e possibilitando a utilização de todos os recursos de segurança e criptografia (A ferramenta tpm.msc é fornecida com os equipamentos adquiridos com o Sistema Operacional Windows 10 / 11 Pro);
- O chipset é do mesmo fabricante do processador, com tecnologia que permite que o sistema retome rapidamente do estado de hibernação tanto para unidades de armazenamento do tipo SATA e do tipo PCIe;
- Sempre que o equipamento for inicializado, será mostrado no monitor de vídeo o nome da HP;
- Possuem os mesmos padrões de cores, sendo o preto ou cinza escuro a cor predominante e com o logotipo da HP impresso;
- Possui acabamento interno composto de superfícies não cortantes;
- O gabinete possui tratamento anticorrosivo;
- O gabinete possui base/superfície antiderrapante;
- Possui gabinete feito em liga metálica e front bezel de ABS
- O equipamento pode funcionar na posição horizontal ou vertical.
- Possui afixado no gabinete do equipamento, o Selo Certificado de Autenticidade (COA – Certificate of Authenticity) do software Windows na versão instalada e com serial de ativação do sistema operacional gravado no BIOS, quando adquirido com o sistema operacional Windows 11 conforme descrito na proposta comercial;
- O fluxo do ar interno segue as orientações do fabricante do microprocessador;
- Possui tecnologia implementada que controle o nível de desempenho do processador automaticamente, ajustando dinamicamente a frequência e a voltagem a cada a necessidade requerida pela atividade do momento para que seja otimizada a autonomia de bateria do equipamento;
- Possui suporte a implementação de tecnologia dual-channel para a memória RAM;
- As unidades de armazenamento disponíveis para fabricação do modelo, possuem suporte à tecnologia de segurança SMART e NCQ;
- Todos os conectores das portas de entrada/saída são identificados por cores ou símbolos, de acordo com o padrão PC'99 System Design Guide;
- Possui controladora de áudio onboard, com entrada e saída de áudio estéreo (combo jack), capaz de reproduzir os sons gerados pelo sistema (como músicas e beeps de alerta de diagnósticos), e está conectado diretamente a placa mãe sem uso de adaptadores, com suporte a 16bits;
- O sistema de áudio onboard possui a possibilidade de desativação por software ou automaticamente quando houver conexão com a caixa de som ou fone de ouvido;
- Possui controladora de vídeo integrada, com suporte a até 02 monitores simultaneamente, de forma estendida ou espelhada, com capacidade de alocar no mínimo 1.5GB de memória de vídeo, compartilhada de forma dinâmica com a memória RAM. Possui suporte para DirectX 12 e Open GL 4.5 e compatibilidade do driver com o padrão WDDM (Windows Display Driver Model);
- Possui controladora de rede Gigabit Ethernet 10/100/1000 Mbps com reconhecimento automático da velocidade da rede, com capacidade de operar no modo full-duplex, autosense, plug and play, com suporte ao protocolo SNMP, totalmente configurável por software, com suporte a VLAN, com suporte a PXE 2.1 e com função Wake-On-Lan instalada e em funcionamento. Com conector RJ-45 com LEDs de diagnostico;
- Possui interface de comunicação wireless integrada desde que a CONTRATADA incluía este item na proposta comercial. Esta placa wireless tem suporte aos padrões 802.11ac, 802.11a, 802.11b, 802.11g e 802.11n, com suporte aos protocolos 802.11i (WLAN security, TKIP e AES), WPA, WPA2, WEP 64 e 128, IEEE 802.11 (Wired Equivalent Privacy), IEEE 802.1x. Com certificado de homologação válido da ANATEL, e no Wi-fi Certified Aliance. O ajuste da potência é de acordo com a recepção do sinal, de forma a proporcionar economia de bateria;

- Possui teclado da HP, desde que a CONTRATADA inclua este item na proposta comercial. Teclado HP com com todos os caracteres da língua portuguesa incluindo Ç, com teclado numérico embutido, com teclas Windows Logo (acesso ao menu iniciar), com LEDs indicativos de “caps lock” e “num lock”. A impressão sobre as teclas é do tipo permanente, não apresentando desgaste por abrasão ou uso prolongado. Possui sistema de proteção contra derramamento acidental de pequenas quantidades de líquidos. Possui sistema para ajuste de inclinação e cabo USB de no mínimo 1.5m. Não possui teclas dedicadas de funções multimedia, desligar, hibernar ou standby.
- Possui mouse óptico da HP, com conector USB, cabo com comprimento mínimo de 1.8m, com 03 botões (esquerdo, direito e central próprio para rolagem (scroll), com resolucao mínima de 800dpi formato ergonômico e de conformação ambidestra;
- Fonte interno com ajuste automático 100~240v / 50-60Hz (bivolt), suficiente para suportar todas as configurações do equipamento conforme as especificações técnicas contidas no catálogo técnico do mesmo, permitindo o funcionamento por no mínimo 10 horas por dia e 5 dias por semana;
- Possui cabo de energia para a fonte de alimentação de acordo com o novo padrão ABNT (NBR 14136), com comprimento minimo de 1,5m;
- Todos os componentes do produto são novos (sem uso, reforma ou recondicionamento) e estão em linha de fabricação;
- Pertence a linha corporativa da HP;
- A HP possui programas de Logística Reversa (https://www.hp.com/br-pt/hp-information/sustainable-impact/planet-product-recycling.html);
- São bens constituídos em parte, por material reciclado, atóxico, biodegradável e atendem a diretiva RoHS;
- Todos os itens e seus acessórios são novos, não recondicionados, de primeiro uso, em pleno estado de funcionamento, livres de arranhões, amassados, frisagens, furações, fitas adesivas, marcas, falhas de fabricação ou qualquer outro procedimento ou emprego de materiais inadequados que adaptem forçadamente o equipamento ou suas partes que sejam fisicamente ou logicamente incompatíveis;
- As unidades dos equipamentos serão entregues devidamente acondicionadas em embalagens individuais adequadas, utilizando sempre que possível de materiais recicláveis, de forma a garantir a máxima proteção durante o transporte e a armazenagem;
- Cada equipamento possui um número de série único, afixado em local visível em etiqueta de difícil remoção ou impresso a laser, constando a marca, o modelo e o número de série do equipamento e também na embalagem;
- A HP possui pagina na Internet no qual pelo numero de serie é possível verificar o inicio e o fim do período de garantia do equipamento. Os drivers, softwares e sistema operacional fornecido com o equipamento da HP estão disponíveis para download no site da HP, permitindo a instalação e recuperação do sistema operacional ao padrão de fábrica.
- A HP disponibiliza a ferramenta HP Cloud Recovery que permite realizar o download dos Drivers e do Sistema Operacional de forma automatizada para gerar pendrive de reinstalação;
- É disponibilizada documentação técnica necessária à instalação e operação do equipamento em português;
- A HP Disponibiliza “Central de atendimento telefônico” com número de telefone 0800 ou Whatsapp para abertura de chamado, em dias úteis, (segunda-feira a sexta-feira), em horário comercial (das 8h às18h) e “Central de atendimento via sistema web” para abertura de chamado 24x07, (domingo a domingo), a qualquer horário (das 00:00h às 23:59h);
- A HP Mantém os registros dos chamados que foram abertos, mantendo as informações que foram registradas sobre o mesmo;
- A ferramenta Web de abertura de chamados da HP permite que o cliente a visualize e acompanhe os chamados abertos anteriormente;
- Possui garantia padrão de fábrica de 01 ano para reposição de peças, mão de obra, com atendimento "on-site", conforme descrito na proposta comercial emitida pela CONTRATADA;
- Permite a extensão de garantia para 03, 04 ou 05 anos para reposição de peças, mão de obra, com atendimento do tipo "on-site" através de aquisição da CONTRADA de carepack de

extensão de garantia, devendo descrever em sua proposta comercial a descrição da extensão da garantia (HP Carepack);

- A assistência técnica "on-site" será realizada, durante todo o período de garantia dos equipamentos, pela própria HP ou por empresa de Assistência Técnica Autorizada da HP, a fim de que sejam mantidos válidos todos os direitos oriundos da garantia;
- Durante o prazo de garantia será substituída sem ônus para a contratante, a parte ou peça defeituosa, salvo quando o defeito for provocado por uso inadequado dos equipamentos;
- Certificado de Garantia é válido em todo o território nacional;
- Abertura do equipamento para limpeza, adição de memória ou SSD pela CONTRATANTE não implicará em perca da garantia desde que não cause mau uso. A garantia da HP não cobrirá o suporte destas peças
- Possui garantia padrão do fabricante.
- A Verlin Tecnologia da Informação Ltda está autorizada a fazer upgrades de unidades de armazenamento, memória e processamento, mantendo-se a garantia padrão HP. A garantia dos componentes utilizados no upgrade possuem a sua própria politica de garantia, não sendo "absorvida" pela garantia padrão (ou carepack) do equipamento.
- Declaramos ainda que a VERLIN TECNOLOGIA DA INFORMAÇÃO LTDA, é o parceiro de serviços do programa AMPLIFY, autorizado a prestar serviço de assistência técnica dos produtos que comercializa no telefone 0800 887 8800.
- Equipamento possui compatibilidade com sistemas operacionais Windows e Ubuntu;

Declaramos ainda que, os produtos **AM8K9LA#AK4** EliteBook 840 G11- são vendidos pela **HP** a seus **Distribuidores Autorizados**:

- Além de possuir equipamentos com configurações padrão de fábrica a HPI realiza customizações para atendimento as necessidades dos clientes. Para atendimento a este edital a CONTRATADA fará as solicitações de customização à HP de modo a atender plenamente as exigências edilícias. Estas customizações deverão estar descritas na proposta comercial emitida pela CONTRADA. As declarações a seguir, se aplicam aos modelos de equipamento mencionados, independentemente das customizações a serem realizadas;
- Informações técnicas básicas como modelo do processador, capacidade de memória instalada, capacidade e tipo do dispositivo de armazenamento, versão do sistema operacional, tamanho e especificação da tela do notebook e garantia padrão de fábrica estarão descritas na proposta comercial emitida pela CONTRADA;
- Modelo de equipamento ofertado é a mais recente geração disponibilizada pela HP com comercialização no Brasil;
- A HP disponibiliza a ferramenta HP Support Assistant que permite a verificação e instalação das últimas atualizações de todas as ferramentas e drivers disponibilizadas pela HP para o equipamento. Sendo capaz de monitorar o sistema, realizar diagnósticos, emitir alertas e ajudar a reparar erros do sistema, ajudando assim a manter a saúde e segurança do sistema. Permite verificar o status da garantia pela ferramenta;
- Possui BIOS da HP, desenvolvida pela HP, em conformidade com a especificação minima UEFI 2.7 (http://www.uefi.org/) e capturáveis pela aplicação de inventário como por exemplo SCCM (System Center Configuration Manager), Landesk, Microsoft End Point Manager, etc;
- Possui BIOS com descrição do modelo, número de série e campo de registro de número de patrimônio com extensão mínima de 15 dígitos, todos gravados em memória não volátil e sendo estas capituraveis por aplicações de inventario como por exemplo SCCM, Landesk, Microsoft End Point Manager, etc;
- Possui BIOS com interface gráfica com navegação utilizando mouse ou teclado, disponível em mais de 3 idiomas (por exemplo: português, espanhol, inglês etc.);
- Possui BIOS atualizável com opção de recuperação de falha, a partir de arquivo de recuperação no disco rígido ou USB externa;
- Possui BIOS com suporte à verificação de integridade, através do recurso HP Sure Start;

- As atualizações da BIOS, quando necessárias, são disponibilizadas no site da HP Inc., com atualização via download na internet diretamente na interface de configuração da BIOS também;
- Possui BIOS implementada em "flash ROM" atualizável diretamente pelo microcomputador, utilizando memória não volátil e reprogramável, Plug and Play, entregue na versão mais atual disponibilizada pela HP. Podendo ser atualizada por software de gerenciamento remoto;
- Possui BIOS com capacidade de habilitar / desabilitar portas USB, webcam, microfone, WiFi;
- Possui BIOS com possibilidade de configuração de senhas para Power On, Administrador e unidade de armazenamento;
- Possui BIOS com suporte à tecnologia de previsão/contingenciamento de falhas de disco rígido S.M.A.R.T habilitada;
- Possui BIOS com suporte a boot por pendrive ou unidade de armazenamento externo, conectado a uma porta USB 2.0 ou superior;
- Possui BIOS compatível com o padrão mínimo ACPI 6.0. E também compatível com os padrões: DMI, SNMP, WMI, SMBIOS;
- Possui BIOS em conformidade com a normativa NIST 800-147 e NIST 800-193 (HP Sure Start);
- Possui a ferramenta HP Secure Erase integrada na BIOS, que possibilita apagar de forma definitiva e irrecuperável todos os dados da unidade de armazenamento, permitindo o descarte seguro de seus equipamentos (NIST 800-88);
- Possui BIOS com ferramenta de diagnóstico UEFI de componentes internos de hardware (processador, memória, unidade de armazenamento, áudio, teclado, rede, placa mae, portas USB e vídeo). Acessivel via BIOS ou teclas de atalho (F1...F12). A mensagem de erro é suficiente para abertura de chamado em garantia;
- Possui sistema de monitoramento de temperatura controlada pela BIOS, adequado ao processador, fonte e demais componentes internos ao gabinete;
- Possui recurso para realizar downgrade de BIOS e replicação de configurações de BIOS em escala utilizando um arquivo referencia ou via Powershell;
- Possui placa mãe fabricada e desenvolvida pela HP, exclusiva para o modelo, com o nome da HP identificado na mesma (serigrafia);
- Possui placa mãe com capacidade de desligamento do vídeo e da unidade de armazenamento após tempo determinado pelo usuário e reiniciar por acionamento de teclado ou pela movimentação do mouse e possui função de economia de energia;
- Possui chip TPM integrado (versão mínima 2.0), acompanhado de drivers e a ferramenta nativa do Windows (tpm.msc) para utilização do chip e possibilitando a utilização de todos os recursos de segurança e criptografia (A ferramenta tpm.msc é fornecida com os equipamentos adquiridos com o Sistema Operacional Windows 10 / 11 Pro);
- O chipset é do mesmo fabricante do processador, com tecnologia que permite que o sistema retome rapidamente do estado de hibernação para unidades de armazenamento do tipo PCIe;
- Sempre que o equipamento for inicializado, será mostrado no monitor de vídeo o nome da HP;
- Possuem os mesmos padrões de cores, sendo a prata ou cinza escuro a cor predominante e com o logotipo da HP impresso;
- Possui acabamento interno composto de superfícies não cortantes;
- O gabinete possui tratamento anticorrosivo;
- O gabinete possui base/superfície antiderrapante;
- Possui gabinete feito em liga metálica e dobradiças em liga metálica para maior resistência.
- Possui afixado no gabinete do equipamento, o Selo Certificado de Autenticidade (COA – Certificate of Authenticity) do software Windows na versão instalada e com serial de ativação do sistema operacional gravado no BIOS, quando adquirido com o sistema operacional Windows 11, conforme descrito na proposta comercial;
- O fluxo do ar interno segue as orientações do fabricante do microprocessador;
- Possui processador da geração mais recente fabricada pela HP no Brasil para este modelo de notebook de uso corporativo;
- Possui tecnologia implementada que controle o nível de desempenho do processador automaticamente, ajustando dinamicamente a frequência e a voltagem a cada a necessidade

requerida pela atividade do momento para que seja otimizada a autonomia de bateria do equipamento;

- Possui suporte a implementação de tecnologia dual-channel para a memória RAM;
- As unidades de armazenamento disponíveis para fabricação do modelo, possuem suporte à tecnologia de segurança SMART e NCQ;
- Todos os conectores das portas de entrada/saída são identificados por cores ou símbolos, de acordo com o padrão PC'99 System Design Guide;
- Possui controladora de áudio onboard, com entrada e saída de áudio estéreo (combo jack), capaz de reproduzir os sons gerados pelo sistema (como musicas e beeps de alerta de diagnósticos), e está conectado diretamente a placa mãe sem uso de adaptadores, com suporte a 16bits;
- O sistema de áudio onboard possui a possibilidade de desativação por software ou automaticamente quando houver conexão com a caixa de som ou fone de ouvido;
- Possui controladora de vídeo integrada, com suporte a até 03 monitores simultaneamente (terceiro monitor através da porta USB tipo C), de forma estendida ou espelhada, com capacidade de alocar no mínimo 1.5GB de memória de vídeo, compartilhada de forma dinâmica com a memória RAM. Possui suporte para DirectX 12 e Open GL 4.5 e compatibilidade do driver com o padrão WDDM (Windows Display Driver Model);
- Possui interface de comunicação wireless integrada, com suporte aos padrões WiFi6, 802.11ax, 802.11ac, 802.11a, 802.11b, 802.11g e 802.11n, com suporte aos protocolos 802.11i (WLAN security, TKIP e AES), WPA, WPA2, WEP 64 e 128, IEEE 802.11 (Wired Equivalent Privacy), IEEE 802.1x. Com certificado de homologação válido da ANATEL, e no Wi-fi Certified Aliance. O ajuste da potência é de acordo com a recepção do sinal, de forma a proporcionar economia de bateria;
- Possui teclado da HP integrado, com todos os caracteres da língua portuguesa incluindo ç, com 83 teclas, com teclado numérico embutido na fileira superior, com teclas Windows Logo (acesso ao menu iniciar) e Aplicação (acesso ao menu de atalhos, equivalente ao botão direito do mouse), com LEDs indicativos de “caps lock”. A impressão sobre as teclas é do tipo permanente, não apresentando desgaste por abrasão ou uso prolongado e com sistema de proteção contra derramamento acidental de líquidos;
- Possui dispositivo apontador integrado, do tipo “touchpad”, integrado no gabinete, com dois botões integrados e uma área para a função “scroll” (botão de rolagem), com suporte a múltiplos gestos tais como pinça e zoom;
- Fonte externo com ajuste automático 100~240v / 50-60Hz (bivolt), suficiente para suportar todas as configurações do equipamento conforme as especificações técnicas contidas no catálogo técnico do mesmo, permitindo o funcionamento por no mínimo 10 horas por dia e 5 dias por semana;
- Possui cabo de energia para a fonte de alimentação de acordo com o novo padrão ABNT (NBR 14136), com comprimento minimo de 1,5m (total fonte mais cabo de energia);
- Todos os componentes do produto são novos (sem uso, reforma ou recondicionamento) e estão em linha de fabricação;
- Pertence a linha corporativa da HP;
- A HP possui programas de Logística Reversa (https://www.hp.com/br-pt/hp-information/sustainable-impact/planet-product-recycling.html);
- São bens constituídos em parte, por material reciclado, atóxico, biodegradável e atendem a diretiva RoHS;
- Todos os itens e seus acessórios são novos, não recondicionados, de primeiro uso, em pleno estado de funcionamento, livres de arranhões, amassados, frisagens, furações, fitas adesivas, marcas, falhas de fabricação ou qualquer outro procedimento ou emprego de materiais inadequados que adaptem forçadamente o equipamento ou suas partes que sejam fisicamente ou logicamente incompatíveis;
- As unidades dos equipamentos serão entregues devidamente acondicionadas em embalagens individuais adequadas, utilizando sempre que possível de materiais recicláveis, de forma a garantir a máxima proteção durante o transporte e a armazenagem;

- Cada equipamento possui um número de série único, afixado em local visível em etiqueta de difícil remoção ou impresso a laser, constando a marca, o modelo e o número de série do equipamento e também na embalagem;
- A HP possui página na Internet no qual pelo número de série é possível verificar o início e fim do período de garantia do equipamento;
- Os drivers, softwares e sistema operacional fornecido com o equipamento da HP estão disponíveis para download no site da HP, permitindo a instalação e recuperação do sistema operacional ao padrão de fábrica.
- A HP disponibiliza a ferramenta HP Cloud Recovery que permite realizar o download dos Drivers e do Sistema Operacional de forma automatizada para gerar pendrive de reinstalaçao;
- É disponibilizada documentação técnica necessária à instalação e operação do equipamento em português;
- A HP Disponibiliza "Central de atendimento telefônico" com número de telefone 0800 ou Whatsapp para abertura de chamado, em dias úteis, (segunda-feira a sexta-feira), em horário comercial (das 8h às18h) e "Central de atendimento via sistema web" para abertura de chamado 24x07, (domingo a domingo), a qualquer horário (das 00:00h às 23:59h);
- A HP Mantém os registros dos chamados que foram abertos, mantendo as informações que foram registradas sobre o mesmo;
- A ferramenta Web de abertura de chamados da HP permite que o cliente a visualize e acompanhe os chamados abertos anteriormente;
- Possui garantia padrão de fábrica de 01 ano para reposição de peças, mão de obra, com atendimento "on-site", conforme descrito na proposta comercial emitida pela CONTRATADA;
- Permite a extensão de garantia para 03, 04 ou 05 anos para reposição de peças, mão de obra, com atendimento do tipo "on-site" através de aquisição da CONTRADA de carepack de extensão de garantia, devendo descrever em sua proposta comercial a descrição da extensão da garantia (HP Carepack);
- A assistência técnica "on-site" será realizada, durante todo o período de garantia dos equipamentos, pela própria HP ou por empresa de Assistência Técnica Autorizada da HP, a fim de que sejam mantidos válidos todos os direitos oriundos da garantia;
- Durante o prazo de garantia será substituída sem ônus para a contratante, a parte ou peça defeituosa, salvo quando o defeito for provocado por uso inadequado dos equipamentos;
- Certificado de Garantia é válido em todo o território nacional;
- Abertura do equipamento para limpeza, adição de memória ou SSD pela CONTRATANTE não implicará em perca da garantia desde que não cause mau uso. A garantia da HP não cobrirá o suporte destas peças.

Durante o período de garantia do Produto HP, a Fabricante HP responsabiliza-se pela garantia no prazo e condições padrão HP, conforme especificado no termo de garantia que acompanha o Produto HP e no manual técnico do Produto HP.

Serviços adicionais ao especificado na garantia padrão da Fabricante HP poderá ser adquiridos pelo Parceiro HP Autorizado para Compra Direta/Distribuidores Autorizados HP, com prazos e condições customizados.

BT5T8AT#AK4 280 G9 SFF- Careparl Adicional- **UE5V1E** HP Serviço de Suporte no Local para Desktop por 5 anos

CL4U4LT#AK4 Z2 TWR G1i- Careparl Adicional - **UJ0R9E** HP Serviço de Suporte no Local para Workstation por 5 anos

E11WHAT#AK4 HP 200 G2i- Careparl Adicional -**U9EE8E-** HP Serviço de Suporte no Local para Notebook por 5 anos

AM8K9LA#AK4 EliteBook 840 G11- Careparl Adicional- **U85BSE** HP Serviço de Suporte no Local para Notebook por 5 anos

Declaramos que os equipamentos fabricados pela HP são novos, que não foram submetidos a uso, nem recondicionamento, ressalvados os testes de fábrica.

Os Produtos da marca HP são de fabricação própria ou homologados por regime de O&M e estão em linha de produção atual.

Declaramos, ainda, que a HP possui site na internet - www.hp.com.br – onde pode ser efetuado download de drivers para os Produtos HP e número de telefone para Grande São Paulo São Paulo (11) 3878-8338 / Demais Localidades: 0800-709-7751 / Whats app (11) +55 11 3230 4672 para informações e aberturas de chamados técnicos.

A Rede de Serviços Autorizados HP é amplamente distribuída em todo o território nacional, e conta com parceiros altamente qualificados relacionados abaixo. Trata-se de rede de parceiros com técnicos devidamente treinados e certificados pela HP, garantindo assim a excelência e a qualidade dos serviços prestados:

Unisys:	**Unisys:**	**Procedata:**
Acre	Paraíba	Minas Gerais
Alagoas	Paraná	
Amapá	Pernambuco	**Simpress:**
Amazonas	Piauí	Cidade: Vitoria
Bahia	Rio Grande do Norte	Cidade: Brasilia
Ceará	Rio Grande do Sul	Cidade: Recife
Espírito Santo	Rondônia	Cidade: Fortaleza
Goiás	Roraima	
Maranhão	Santa Catarina	**Técnicos HP:**
Mato Grosso	Sergipe	São Paulo (Capital)
Mato Grosso do Sul	Tocantins	Rio de Janeiro
Pará	Distrito Federal	Bahia (Salvador)
Paraíba	São Paulo (Interior)	Paraná (Curitiba)

Esta declaração é válida por 30 (trinta) dias corridos, a contar da data de sua emissão.

Atenciosamente,



Jhenifer Cristina Araujo de Jesus
CPF: 352.533.778-75
Procuradora
HP Indústria e Comércio de Equipamentos Eletrônicos Ltda.



Processador Intel® Core™ i5 14500

24 M de cache, até 5,00 GHz

Processador Intel® Core™ i5 14500
24 M de cache, até 5,00 GHz

Adicionar para comparar

Especificações Pedidos e conformidade Produtos compatíveis Downloads Suporte

Essenciais

Coleção de produtos	Intel® Core™ i5 Processors (14th gen)
Codinome	Products formerly Raptor Lake
Segmento vertical	Desktop
Número do processador	i5-14500
Litografia	Intel 7
Preço recomendado para o cliente	$232.00-$242.00

Especificações da CPU

Número de núcleos	14
Nº de Performance-cores	6
Nº de Efficient-cores	8
Total de threads	20
Frequência turbo max	5 GHz
Frequência turbo máx. do Performance-core	5 GHz
Frequência turbo máx. do Efficient-core	3.7 GHz
Frequência base do Performance-core	2.6 GHz
Frequência base do Efficient-core	1.9 GHz
Cache	24 MB Intel® Smart Cache
Cache L2 total	11.5 MB
Potência básica do processador	65 W
Energia turbo máxima	154 W

Informações complementares

Status	Launched
Data de introdução	Q1'24
Opções integradas disponíveis	Yes

Comentários

Condições de uso	PC/Client/Tablet, Workstation
Ficha técnica	Ver agora

Especificações de memória

Tamanho máximo de memória (de acordo com o tipo de memória)	192 GB
Tipos de memória	Up to DDR5 4800 MT/s Up to DDR4 3200 MT/s
Nº máximo de canais de memória	2
Largura de banda máxima da memória	76.8 GB/s
Compatibilidade com memória ECC ‡	Yes

GPU Specifications

GPU Name‡	Intel® UHD Graphics 770
Máxima frequência dinâmica da placa gráfica	1.55 GHz
Saída gráfica	eDP 1.4b, DP 1.4a, HDMI 2.1
Unidades de Execução	32
Resolução máxima (HDMI)‡	4096 x 2160 @ 60Hz
Resolução máxima (DP)‡	7680 x 4320 @ 60Hz
Resolução máxima (eDP - tela plana integrada)‡	5120 x 3200 @ 120Hz
Suporte para DirectX*	12
Suporte para OpenGL*	4.5
Suporte a OpenCL*	3.0
Mecanismos de Codec Multiformatos	2
Intel® Quick Sync Video	Yes
Tecnologia de Alta Definição Intel® Clear Video	Yes
Nº de monitores aceitos ‡	4
ID do dispositivo	0x4680

Opções de expansão

Revisão da Interface de Mídia Direta (DMI)	4.0
Nº máx. de pistas DMI	8
Escalabilidade	1S Only
Revisão de PCI Express	5.0 and 4.0
Configurações PCI Express ‡	Up to 1x16+4, 2x8+4
Nº máximo de linhas PCI Express	20

Especificações de encapsulamento

Soquetes suportados	FCLGA1700

Comentários

Configuração máxima da CPU	1
Especificação de solução térmica	PCG 2020C
$T_{JUNCTION}$	100°C
Tamanho do pacote	45.0 mm x 37.5 mm
Temperatura máxima de operação	100 °C

Tecnologias avançadas

Acelerador Gaussiano e Neural da Intel®	3.0
Intel® Thread Director	Yes
Intel® Deep Learning Boost (Intel® DL Boost)	Yes
Tecnologia Intel® Speed Shift	Yes
Tecnologia Intel® Turbo Boost ‡	2.0
Tecnologia Hyper-Threading Intel® ‡	Yes
Intel® 64 ‡	Yes
Conjunto de instruções	64-bit
Extensões do conjunto de instruções	Intel® SSE4.1, Intel® SSE4.2, Intel® AVX2
Estados ociosos	Yes
Tecnologia Enhanced Intel SpeedStep®	Yes
Tecnologias de monitoramento térmico	Yes
Intel® Volume Management Device (VMD - Dispositivo de Gerenciamento de Volume)	Yes

Segurança e confiabilidade

Elegibilidade Intel vPro® ‡	Intel vPro® Enterprise, Intel vPro® Essentials, Intel vPro® Platform
Intel® Threat Detection Technology (TDT)	Yes
Intel® Active Management Technology (AMT) ‡	Yes
Intel® Standard Manageability (ISM) ‡	Yes
Intel® Remote Platform Erase (RPE) ‡	Yes
Intel® One-Click Recovery ‡	Yes
Elegibilidade para o Intel® Hardware Shield ‡	Yes
Chave Segura	Yes
Intel® Control-Flow Enforcement Technology	Yes
Intel® Total Memory Encryption - Multi Key	Yes
Novas instruções Intel® AES	Yes
Intel® OS Guard	Yes
Intel® Trusted Execution Technology ‡	Yes
Bit de desativação de execução ‡	Yes

Comentários

Intel® Boot Guard	Yes
Controle de Execução baseado em Modo (MBEC — Mode-based Execute Control)	Yes
Programa Intel® da Plataforma de Imagem Estável (SIPP)	Yes
Tecnologia de Virtualização Intel® com proteção de redirecionamento (VT-rp) ‡	Yes
Tecnologia de virtualização Intel® (VT-x) ‡	Yes
Tecnologia de virtualização Intel® para E/S dirigida (VT-d) ‡	Yes
Intel® VT-x com Tabelas de páginas estendidas (EPT) ‡	Yes

Todas as informações fornecidas estão sujeitas a alterações a qualquer momento, sem aviso prévio. A Intel pode alterar o ciclo de vida da fabricação, as especificações e as descrições dos produtos a qualquer momento, sem aviso prévio. As informações aqui contidas são fornecidas "no estado em que se encontram" e a Intel não atribui qualquer declaração ou garantias relacionadas à precisão das informações, nem sobre os recursos dos produtos, disponibilidade, funcionalidade ou compatibilidade dos produtos listados. Para obter mais informações sobre os produtos ou sistemas, entre em contato com o fornecedor do sistema.

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Consulte a Ficha técnica para obter definições formais de propriedades e recursos de produtos.

‡ Este recurso pode não estar disponível em todos os sistemas de computação. Verifique com o fornecedor do sistema para determinar se seu sistema oferece este recurso ou consulte as especificações de seu sistema (motherboard, processador, chipset, alimentação, HDD, controle gráfico, memória, BIOS, drivers, monitor de máquina virtual [VMM], software de plataforma e/ou sistema operacional) para saber sobre a compatibilidade do recurso. A funcionalidade, o desempenho e outros benefícios deste recurso podem variar, dependendo das configurações do sistema.

Os números dos processadores Intel não são indicação de desempenho. Os números dos processadores diferenciam recursos dentro de cada família de processador, e não entre famílias diferentes de processadores. Consulte https://www.intel.com.br/content/www/br/pt/processors/processor-numbers.html para obter mais detalhes.

O preço recomendado para o cliente (RCP) é um guia de preços apenas para produtos Intel e está sujeito a alterações sem aviso prévio. Listar os índices RCP não constitui uma oferta oficial da Intel. O preço no ponto de venda está sujeito a uma ampla variedade de fatores, incluindo, mas não limitado a tarifas e impostos locais. A disponibilidade das promoções varia. Os clientes podem entrar em contato com seus varejistas ou distribuidores preferidos para obter informações sobre disponibilidade e preço.

SKUs "anunciados" ainda não estão disponíveis. Favor consultar a data de lançamento para a disponibilidade no mercado.

Os gráficos Intel® Arc™ estão disponíveis apenas em sistemas selecionados equipados com processadores Intel® Core™ Ultra série V com design térmico do sistema qualificado ou sistemas selecionados equipados com o processador Intel® Core™ Ultra série H, com pelo menos 16 GB de memória do sistema em uma configuração de canal duplo. É necessária a habilitação do OEM. Outras configurações de sistema com processador Intel® Core™ Ultra apresentam gráficos Intel®. Verifique com o OEM ou varejista os detalhes da configuração do sistema.

Apenas gráficos Intel® Iris® Xe: para usar a marca Intel® Iris® Xe, o sistema deve ser preenchido com memória de 128 bits (canal duplo). Caso contrário, use a marca Intel® UHD.

Frequência máxima de turbo refere-se à frequência máxima do processador de núcleo único que pode ser atingida com a Tecnologia Intel® Turbo Boost. Mais informações estão disponíveis no site https://www.intel.com/content/www/br/pt/architecture-and-technology/turbo-boost/turbo-boost-technology.html.

Consulte https://www.intel.com.br/content/www/br/pt/architecture-and-technology/hyper-threading/hyper-threading-technology.html?wapkw=hyper+threading para obter mais informações, incluindo detalhes sobre quais processadores são compatíveis com a Tecnologia Hyper-Threading Intel®.

Os processadores compatíveis com a computação de 64 bits na arquitetura Intel® requerem BIOS habilitados para arquitetura Intel 64.

Alguns produtos suportam as novas instruções AES com uma atualização da Configuração do processador, em particular, i7-2630QM/i7-2635QM, i7-2670QM/i7-2675QM, i5-2430M/i5-2435M, i5-2410M/i5-2415M. Favor entrar em contato com o OEM para o BIOS que inclui a mais recente atualização da Configuração do processador.

Informações sobre a empresa

Nosso compromisso

Inclusão

Relações com investidores

Fale conosco

Sala de imprensa

Mapa do site

Empregos

Comentários

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*Marcas comerciais

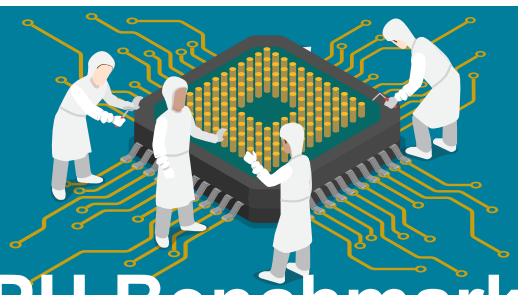
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Comentários



CPU Benchmarks

Over 1,000,000 CPUs Benchmarked

Intel Core i5-14500

Benchmarks for the Intel Core i5-14500 can be found below. Release dates, price and performance comparisons are also listed when available. This is made using thousands of PerformanceTest benchmark results and is updated daily.

- The first graph shows the relative performance of the CPU compared to the 10 other common (single) CPUs in terms of PassMark CPU Mark.
- The 2nd graph shows the value for money, in terms of the CPUMark per dollar.
- The pricing history data shows the price for a single Processor. For multiple Processors, multiply the price shown by the number of CPUs.

Is the Intel Core i5-14500 Good for Gaming?

This is relatively new CPU that contains 14 Cores and 20 Threads. The Intel Core i5-14500 also has reasonable threaded performance that will serve well in games. Paired with a good videocard, *is this CPU Good for Gaming?* Yes, this would be a suitable CPU for gaming. [More ...]

V(https://www.voxus.com.br/empresa/dados-sobre-voce.html?utm_source=ads&utm_medium=choice&utm_campaign=)

Intel Core i5-14500	Average CPU Mark
Description: Intel UHD Graphics 770	
Class: Desktop	**Socket:** FCLGA1700
Total Cores: 14 Cores, 20 Threads	
Performance Cores: 6 Cores, 12 Threads, 2.6 GHz Base, 5.0 GHz Turbo	
Efficient Cores: 8 Cores, 8 Threads, 1.9 GHz Base, 3.7 GHz Turbo	
Typical TDP: 65 W	**TDP Up** : 154 W
Cache per CPU Package:	**Cache per Eff. CPU Package:**
L1 Instruction Cache: 6 x 32 KB L1 Data Cache: 6 x 48 KB	Eff. L1 Instruction Cache: 8 x 64 KB Eff. L1 Data Cache: 8 x 32 KB

Multithread Rating

30745

Single Thread Rating

3950

Samples: 2351*

*Margin for error: Low

+ COMPARE

L2 Cache: 6 x 1280 KB
L3 Cache: 24 MB

Eff. L2 Cache: 2 x 2048 KB

CPU Benchmarks

3200 MT/s)

Other names: Intel(R) Core(TM) i5-14500, Intel Core i5-14500

CPU First Seen on Charts: Q1 2024

CPUmark/$Price: 71.51

Overall Rank:
541st fastest in multithreading out of 5999 CPUs
261st fastest in single threading out of 5999 CPUs
161st fastest in out of 1588 Desktop CPUs

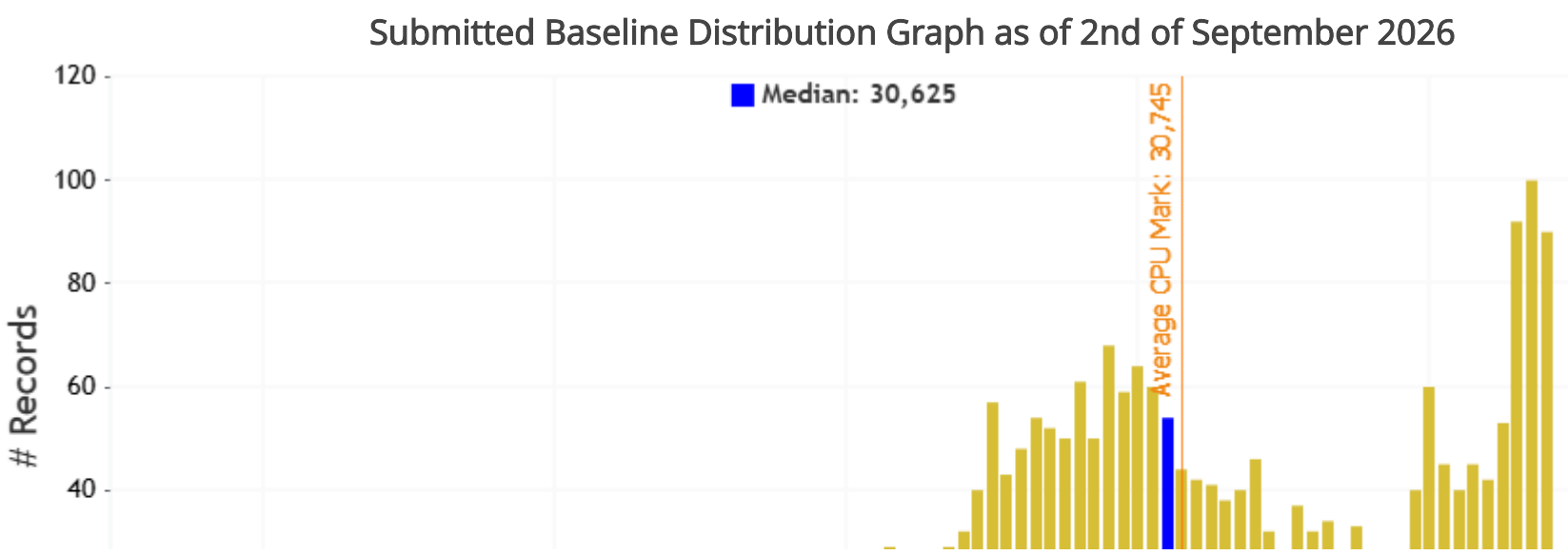
Last Price Change: $429.95 USD (2026-09-02)

CPU Test Suite Average Results for Intel Core i5-14500

Integer Math	108,032 MOps/Sec
Floating Point Math	79,507 MOps/Sec
Find Prime Numbers	106 Million Primes/Sec
Random String Sorting	40,929 Thousand Strings/Sec
Data Encryption	21,434 MBytes/Sec
Data Compression	370,952 KBytes/Sec
Physics	1,742 Frames/Sec
Extended Instructions	22,457 Million Matrices/Sec
Single Thread	3,950 MOps/Sec

From submitted results to PerformanceTest V10 as of 8th of September 2026.

CPU Mark Distribution for Intel Core i5-14500





CPU Benchmarks

From submitted results since PerformanceTest V10 as of 2nd of September 2026.
For distribution graph only: Results are trimmed to exclude outliers by disregarding the bottom 1% and top 1% of submissions.

Merchant	Price	Purchase
amazon	$429.95 USD	BUY NOW!
newegg	NA	CPU Not Available. See Other Models
BEST BUY	NA	CPU Not Available. See Other Models

Note: PassMark Software may earn compensation for sales from links on this site through affiliate programs.

Machines with this CPU (or similar)

	HP Pro 400 G9 SFF Mini PC Desktop Computer Business, 16GB DDR5 RAM, 512GB SSD, Intel Core I5-14500, up to 5.0 GHz, Windows 11 Pro, HDMI, DisplayPort, USB-C, Wi-Fi, Bluetooth, Wired Keyboard&Mouse	$819.99 (www.amazon.com)
	Lenovo ThinkStation P3 Tiny Desktop Computer | Intel Core i5-14500 vPro(14 Cores, Up to 5GHz) | 32GB DDR5 RAM, 1TB SSD | WIFI6 | USB Keyboard & Mouse | Dual 4K Display Support | Windows 11	$1249.99 (www.amazon.com)
	Dell Pro Tower Desktop QCT1250, New OptiPlex Version, with KB & MS	$949.99 (www.amazon.com)
	Dell Business Tower Desktop Computer, Next Gen OptiPlex, 14th Gen i5-14500 (14 Cores, Up to 5.0GHz), 16GB DDR5 RAM, 512GB PCIe, USB-C, HDMI+DP Dual Monitor Support, Wi-Fi 6E, Windows 11 Pro	$809.99 (www.amazon.com)
	Dell Business Tower Desktop Computer, Next Gen OptiPlex, 14th Gen i5-14500 (14 Cores, Up to 5.0GHz), 32GB DDR5 RAM, 1TB PCIe SSD, USB-C, HDMI+DP Dual Monitor Support, Wi-Fi 6E, Windows 11 Pro	$1099.99 (www.amazon.com)

Note: PassMark Software may earn compensation for sales from links on this site through affiliate programs.

CPU Mark Relative to Top 10 Common Desktop CPUs

As of 8th of September 2026 - Higher results represent better performance

Processor	Average CPU Mark	
Intel Core i9-14900K		58,226
Intel Core i9-13900K		58,081
AMD Ryzen 7 7800X3D		34,287
Intel Core i5-14500		30,745
Apple M4 10 Core		23,602

AMD Ryzen 5 5600X		21,825

CPU Benchmarks

Intel Core i9-9900K @ 3.60GHz		18,034
AMD Ryzen 5 3600		17,652
Apple M2 8 Core 3500 MHz		15,653
Apple M1 8 Core 3200 MHz		14,123

CPU Value (CPU Mark / $Price)

As of 8th of September 2026 - Higher results represent better value

Processor	CPU Mark / $Price	
AMD Ryzen 5 3600		162.92
AMD Ryzen 5 5600X		157.02
Intel Core i9-14900K		126.19
Intel Core i5-12400F		122.18
AMD Ryzen 7 7800X3D		114.30
Intel Core i9-13900K		100.14
Intel Core i5-14500		71.51
Intel Core i9-9900K @ 3.60GHz		58.47
Apple M1 8 Core 3200 MHz		NA
Apple M2 8 Core 3500 MHz		NA
Apple M4 10 Core		NA

Single Thread Rating

As of 8th of September 2026 - Higher results represent better performance

Processor	Average Thread Rating	
Intel Core i9-14900K		4,689
Intel Core i9-13900K		4,595
Apple M4 10 Core		4,498
Intel Core i5-14500		3,950

Apple M2 8 Core 3500 MHz		3,883

CPU Benchmarks

Apple M1 8 Core 3200 MHz		3,673
Intel Core i5-12400F		3,485
AMD Ryzen 5 5600X		3,366
Intel Core i9-9900K @ 3.60GHz		2,908
AMD Ryzen 5 3600		2,558

Last 5 Baselines for Intel Core i5-14500

Most recent listed first

Baseline	CPU Mark	
BL3696178 - Sep 05 2026		33056
BL3695516 - Sep 04 2026		32936
BL3692995 - Sep 03 2026		25774
BL3691095 - Sep 03 2026		27378
BL3688060 - Sep 01 2026		27156

Additional baselines can be obtained using Windows version of PerformanceTest's Manage Baselines feature.

Popular comparisons for Intel Core i5-14500

As of 8th of September 2026 - Higher results represent better performance

Processor	Average CPU Mark	
Intel Core i5-14500		30,745
AMD Ryzen 7 5700X3D vs Intel Core i5-14500		26,305 *(-14.4%)*
AMD Ryzen 5 PRO 7645 vs Intel Core i5-14500		27,564 *(-10.3%)*
AMD Ryzen 5 8600G vs Intel Core i5-14500		25,196 *(-18.0%)*
Intel Core i5-13600K vs Intel Core i5-14500		37,459 *(+21.8%)*
Intel Core i5-13600KF vs Intel Core i5-14500		37,322 *(+21.4%)*
AMD Ryzen 7 5800X3D vs Intel Core i5-14500		28,289 *(-8.0%)*
Intel Core i5-14600K vs Intel Core i5-14500		38,408 *(+24.9%)*

Intel Core i7-13700F vs Intel Core i5-14500		37,762 *(+22.8%)*

CPU Benchmarks

Intel Core i7-14700T vs Intel Core i5-14500		30,662 *(-0.3%)*
Intel Core i5-12600K vs Intel Core i5-14500		27,505 *(-10.5%)*
AMD Ryzen 5 7600 vs Intel Core i5-14500		26,967 *(-12.3%)*

Is the Intel Core i5-14500 Good for Gaming?

As of 8th of September 2026 - Higher results represent better performance

Processor	Relative Gaming Score	
AMD Ryzen 9 9950X3D2		15,385
AMD Ryzen 7 9850X3D		12,524
AMD Ryzen 9 9900X3D		12,398
AMD Ryzen 7 9800X3D		12,107
AMD Ryzen 7 PRO 9755X3D		12,028
AMD Ryzen 9 9950X3D		11,254
Intel Core Ultra 7 270K Plus		10,703
Intel Core Ultra 5 250K Plus		10,645
AMD Ryzen 5 7600X3D		10,514
AMD Ryzen 9 7900X3D		10,381
Intel Core Ultra 9 285K		10,352
AMD Ryzen 5 7500X3D		10,058
Intel Core i5-14500		5,376

Software

- BurnInTest
- PerformanceTest
- OSForensics
- MemTest86

Hardware

- USB3.0 Loopback Plugs
- USB2.0 Loopback Plugs
- PCIe Test Cards
- USB Power Delivery Tester

- WirelessMon
- Management Console
- Serial and Parallel Loopback Plugs
- USB Short Circuit Testers

CPU Benchmarks

- Free Software

Benchmarks

- CPU Benchmarks
- Video Card Benchmarks
- Hard Drive Benchmarks
- RAM Benchmarks
- PC Systems Benchmarks
- Software Marketshare
- Database Benchmarks
- Android Benchmarks
- iOS Benchmarks
- Internet Bandwidth

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HP ProDesk 2 SFF G1i E Desktop PC

Large-scale productivity in a small-scale PC for hybrid work

Strategically invest in technology with the stylish HP ProDesk 2 SFF G1i. This compact PC enhances productivity with the latest 14th Gen Intel® processor[2], expands your workspace with plenty of USB ports, and offers the reassurance of crucial security.

Powered-up performance boosts efficiency.

Be confident that you're prepared for work-day challenges. The latest Intel® Gen 14 processor[2], with support for up to 64 GB of DDR5 memory[3], and a super-fast NVMe SSD consolidate to help improve effectiveness and productivity.

Easily expandable with front and rear ports

Easily connect temporary peripherals with four USB ports, including one USB-C™, conveniently located on the front panel of this SFF PC. The four USB ports on the rear panel provide a neat work area when connecting fixed devices.

Help keep hardware and data safe

Help protect your investment and your data with firmware TPM, a padlock loop[4] to protect the chassis from intrusion, and slim cable lock and integrated accessory lock systems to secure your PC and cabled devices.[4]



*Product image may differ from actual product

Sustainability in action

Outer box packaging 100% sustainably sourced

EPEAT® registered[6] and ENERGY STAR® certified–uses 100% sustainably sourced and recyclable outer box packaging.[5]

HP ProDesk 2 SFF G1i E Desktop PC

Featuring

HP Recommends Windows 11 Pro for Business
Work anywhere without compromising on performance with Windows 11 and HP collaboration, security, and connectivity technology. Summarize and rewrite content, get relevant content recommendations, and stay organized with Microsoft Copilot.[1,8]

Latest Intel® multi-core processor
Configure your HP ProDesk 2 SFF's CPU for the perfect combination of power, snappy performance, and value. With up to an Intel® Core™ i7 processor (14th Gen) and up to 64 GB DDR5 memory, handle multiple work tasks smoothly and reliably.[2,3]

Advanced wireless connectivity
Get a great connectivity experience, even in crowded wireless networks, with fast, reliable Wi-Fi 6E. The internal antenna helps improve range and optimize signal strength, especially in larger areas or spaces with obstacles.[9]

Help secure critical data
The firmware Trusted Platform Module (TPM) provides hardware-based encryption keys to help secure your data, e-mail, and user credentials.

Optimized port layout for easy access
Enable use of existing and new peripherals with plenty of ports in an easy-access layout. The layout includes a front USB-C® and 3 USB 3.1 ports and 4 USB 2.0 ports on the back of the SFF PC. A DisplayPort™ and HDMI port provide display flexibility.[10]

Flexible options to meet your computing needs
Add an optional DVD/DVD-RW, 3.5-inch HDD, or serial port when special resources are needed to effectively handle a range of tasks requiring these features.[3]

Expandable, optimized compatibility via PCIe slot
Add more functionality to your PC, increasing input/output options with PCIe, a high-speed interface. Supporting a PS/2 adapter, 4 serial ports, or 4 parallel ports to connect legacy hardware, networking equipment, and more.[11]

Set power efficiency with varied power supply options
Get the power supply that best fits your power requirements and computing needs for expandability and choice of graphics cards. Choose between 180W and 280W, certified as 80 PLUS Platinum, or 180W certified 80 PLUS Gold.[12]

Prevent chassis intrusion with a padlock loop
Keep bad actors from accessing the internal components of this small form factor PC. Simply place a padlock through the loop and lock to keep the chassis cover in place.[4]

Secure your PC hardware and accessories with cable locks
Deter theft of your PC and peripherals with an integrated cable lock slot and a slim cable lock slot on this ProDesk 2 SFF G1i. Simply connect your cable to the integrated slot and lock to help protect your computing investment.[4]

HP ProDesk 2 SFF G1i E Desktop PC

Technical specifications

Available Operating Systems	Windows 11 Pro[1] Windows 11 Home – HP recommends Windows 11 Pro for business[1] Windows 11 Home Single Language – HP recommends Windows 11 Pro for business[1,2,21] FreeDOS
Processor family	Intel® Pentium® processor 13th Generation Intel® Core™ i7 processor 13th Generation Intel® Core™ i5 processor 13th Generation Intel® Core™ i3 processor Intel® Core™ i3 14th generation processor Intel® Core™ i5 14th generation processor Intel® Core™ i7 14th generation processor
Available Processors[3,4,5]	Intel® Core™ i3-13100 (3.4 GHz P-core base frequency, up to 4.5 GHz P-core Max Turbo frequency, 12 MB L3 cache, 4 P-cores and 0 E-cores, 8 threads) Intel® Core™ i5-13400 (1.8 GHz E-core base frequency, 2.5 GHz P-core base frequency, up to 3.3 GHz E-core Max Turbo frequency, up to 4.6 GHz P-core Max Turbo frequency, 20 MB L3 cache, 6 P-cores and 4 E-cores, 16 threads) Intel® Core™ i5-13500 (1.8 GHz E-core base frequency, 2.5 GHz P-core base frequency, up to 3.5 GHz E-core Max Turbo frequency, up to 4.8 GHz P-core Max Turbo frequency, 24 MB L3 cache, 6 P-cores and 8 E-cores, 20 threads) Intel® Core™ i3-14100 (3.5 GHz P-core base frequency, up to 4.7 GHz P-core Max Turbo frequency, 12 MB L3 cache, 4 P-cores and 0 E-cores, 8 threads) Intel® Core™ i7-14700 with Intel UHD Graphics (1.5 GHz E-core base frequency, 2.1 GHz P-core base frequency, up to 4.2 GHz E-core Max Turbo frequency, up to 5.3 GHz P-core Max Turbo frequency, 33 MB L3 cache, 8 P-cores and 12 E-cores, 28 threads) Intel® Pentium® 300 with Intel® UHD Graphics (3.9 GHz base frequency, 6 MB L3 cache, 1 core, 4 threads) Intel® Core™ i5-14500 with Intel UHD Graphics (1.9 GHz E-core base frequency, 2.6 GHz P-core base requency, up to 3.7 GHz E-core Max Turbo frequency, up to 5.0 GHz P-core Max Turbo frequency, 24 MB L3 cache, 6 P-cores and 8 E-cores, 20 threads) Intel® Core™ i5-14400 with Intel UHD Graphics (1.8 GHz E-core base frequency, 2.5 GHz P-core base requency, up to 3.5 GHz E-core Max Turbo frequency, up to 4.7 GHz P-core Max Turbo frequency, 20 MB L3 cache, 6 P-cores and 4 E-cores, 16 threads) Intel® Core™ i7-13700 (1.5 GHz E-core base frequency, 2.1 GHz P-core base frequency, up to 4.1 GHz E-core Max Turbo frequency, up to 5.1 GHz P-core Max Turbo frequency, up to 5.2 GHz with Intel® Turbo Boost Technology, 30 MB L3 cache, 8 P-cores and 8 E-cores, 24 threads)
Chipset[3]	Intel® H770
Product colour	Jack black
Form factor	Small form factor
Maximum memory	64 GB DDR5-5600 MT/s; [6] Transfer rates up to 5600 MT/s.
Memory slots	2 DIMM
Internal storage	up to 2 TB 7200 rpm SATA HDD[7,20] 256 GB up to 2 TB PCIe® NVMe™ M.2 SSD[7,20] 512 GB up to 2 TB PCIe® NVMe™ TLC M.2 SSD[7,20]
Optical drive	HP 9.5 mm Slim DVD-Writer; HP 9.5 mm Slim DVD-ROM [8]
Available Graphics	Integrated: Intel® UHD Graphics 730; Intel® UHD Graphics 770; Intel® UHD Graphics 710 Discrete: AMD Radeon™ RX 6300 Graphics (2 GB GDDR6 dedicated)
Audio	Realtek ALC3602-CG codec, combo audio jack with CTIA and OMTP headset support, audio line in and out, microphone in and re- tasking on jacks.
Expansion slots	2 M.2; 1 PCIe 3 x1; 1 PCIe 4 x16 [9,10,11] (1 M.2 slot for WLAN and 1 M.2 2242/2280 slot for storage.)
Ports and connectors	Front: 1 USB Type-C® 10Gbps signaling rate; 3 USB Type-A 5Gbps signaling rate; 1 headphone/microphone combo ; Rear: 4 USB 2.0 Type-A; 1 HDMI 1.4b; 1 DisplayPort™ 1.4a; 1 RJ-45; 1 power connector; 1 audio line-in/line-out[11] ; Optional Ports: 1 4x serial; 1 parallel; 1 PS/2
Input devices	HP 125 Antimicrobial Wired Keyboard; HP 655 Wireless Keyboard and mouse combo; HP USB 320K Keyboard; HP USB Business Slim Wired SmartCard CCID Keyboard; HP 125 Wired Mouse; HP 128 Laser Wired Mouse; HP 125 Antimicrobial Wired Mouse; HP USB Hardened Optical Wired Mouse; HP Wired 320M Mouse
Communications	LAN: Integrated 10/100/1000M GbE; Intel® I226-T1 PCIe® 2.5 GbE ; WLAN: Realtek Wi-Fi 6E RTL8852CE 802.11a/b/g/n/ax (2x2) and Bluetooth® 5.3 wireless card; Realtek Wi-Fi 6 RTL8852BE-VT 802.11a/b/g/n/ax (2x2) and Bluetooth® 5.4 wireless card
Drive Bays	One 3.5" HDD
Environmental	Operating temperature: 5 to 35°C; Operating humidity: 15 to 80% RH
Software	McAfee LiveSafe™[12]; HP Documentation; HP Setup Integrated OOBE; HP Support Assistant[13]; HP System Event Utility; Buy Microsoft Office (sold separately)
Security management	Padlock loop; Trusted Platform Module (TPM) 2.0; Integrated accessories cable lock; Slim cable lock

HP ProDesk 2 SFF G1i E Desktop PC

Technical specifications

Power	180 W internal power adapter, up to 90% efficiency, active PFC; 280 W internal power adapter, up to 92% efficiency, active PFC[17]
Dimensions	10 x 30.8 x 30.35 cm; (System dimensions may fluctuate due to configuration and manufacturing variances.); 20 x 49.9 x 39.8 cm (Package)
Weight	5.7 kg; (Configured with 1 HDD and 1 ODD. Weight will vary by configuration.)
Ecolabels	CECP; EPEAT® registered; CEL; Ukraine EE; Korea MEPS; Vietnam MEPS; ErP Lot 3[18]
Energy star certified	ENERGY STAR® certified
Sustainable impact specifications	45% post-consumer recycled plastic[19]

HP ProDesk 2 SFF G1i E Desktop PC

Footnotes

Messaging Footnotes

[1] Not all features are available in all editions or versions of Windows. Systems may require upgraded and/or separately purchased hardware, drivers, software or BIOS update to take full advantage of Windows functionality. Windows is automatically updated and enabled. High speed internet and Microsoft account required. ISP fees may apply and additional requirements may apply over time for updates. See http://www.windows.com .
[2] Multicore is designed to improve performance of certain software products. Not all customers or software applications will necessarily benefit from use of this technology. Performance and clock frequency will vary depending on application workload and your hardware and software configurations. Intel's numbering, branding and/or naming is not a measurement of higher performance
[3] Optional feature that must be configured at the time of purchase.
[4] Cables and locks sold separately and not included.
[5] 100 percent outer box packaging made from sustainably sourced certified and recycled fibers. Fiber cushions made from 100 percent recycled wood fiber and organic material. Any plastic cushions are made from >90 percent recycled plastic.
[6] Based on US EPEAT® registration according to IEEE 1680.1-2018 EPEAT®. EPEAT® status varies by country. Visit http://www.epeat.net for more information .
[8] Microsoft Copilot requires Windows 11. Some features require an NPU. Timing and availability will be dependent on Microsoft and varies by market and device. Requires Microsoft account to log in. Where Copilot is not available, the Copilot key will lead to the Bing search engine. See http://aka.ms/WindowsAIFeatures .
[9] Wi-Fi 6E requires a Wi-Fi 6E router, sold separately, to function in the 6GHz band. Availability of public wireless access points limited. Wi-Fi 6E is backwards compatible with prior 802.11 specs and available in countries where Wi-Fi 6E is supported.
[10] DisplayPort and HDMI ports are optional features that must be configured at the time of purchase. Displays not included and sold separately.
[11] I/O port options must be configured at the time of purchase. Hardware and networking equipment sold separately and not included.
[12] Wattage must be configured at the time of purchase.
[14] ENERGY STAR and the ENERGY STAR logo are registered trademarks of the U.S. Environmental Protection Agency.

Specification Footnotes

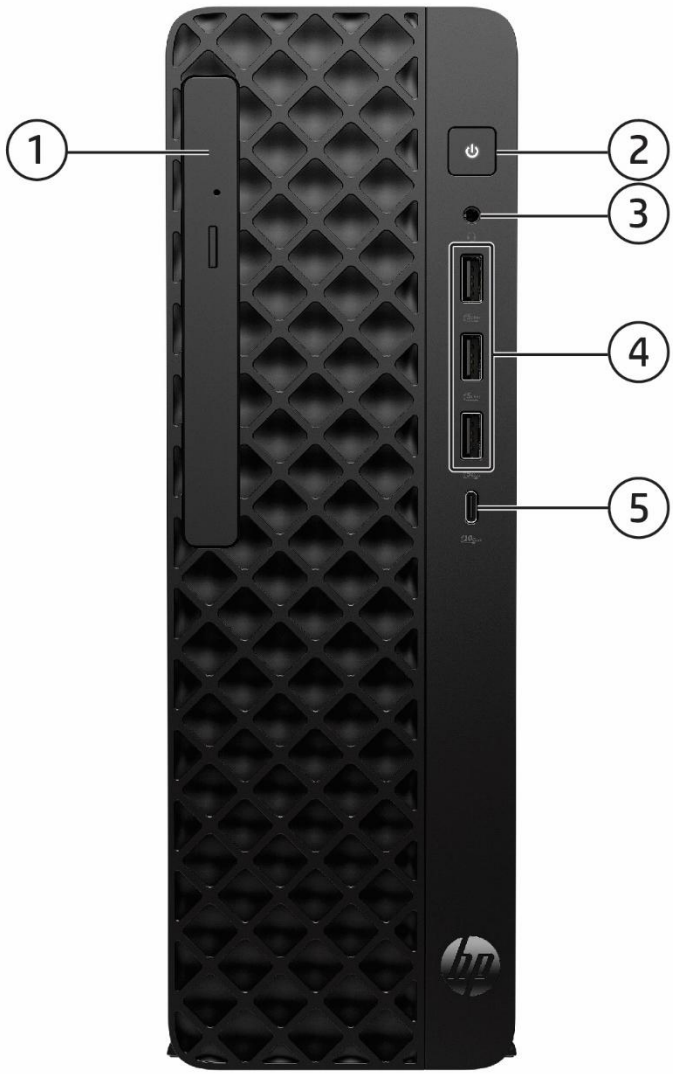
[1] Not all features are available in all editions or versions of Windows. Systems may require upgraded and/or separately purchased hardware, drivers, software or BIOS update to take full advantage of Windows functionality. Windows is automatically updated and enabled. High speed internet and Microsoft account required. ISP fees may apply and additional requirements may apply over time for updates. See http://www.windows.com .
[2] This system is preinstalled with Windows 10 Pro software and also comes with a license for Windows 11 Pro software and provision for recovery software. You may only use one version of the Windows software at a time. Switching between versions will require you to uninstall one version and install the other version. You must back up all data (files, photos, etc.) before uninstalling and installing operating systems to avoid loss of your data.
[3] Intel vPro® requires Windows 11, a vPro supported processor, vPro enabled chipset, vPro enabled wired LAN and/or Wi-Fi 6E WLAN and TPM 2.0. Some functionality requires additional 3rd party software in order to run. Features of vPro® Essentials and Enterprise vary. See http://intel.com/vpro .
[4] Multi-core is designed to improve performance of certain software products. Not all customers or software applications will necessarily benefit from use of this technology. Performance and clock frequency will vary depending on application workload and your hardware and software configurations. Intel's numbering, branding and/or naming is not a measurement of higher performance.
[5] Intel® Turbo Boost technology requires a PC with a processor with Intel Turbo Boost capability. Intel Turbo Boost performance varies depending on hardware, software and overall system configuration. See www.intel.com/technology/turboboost for more information.
[6] Memory modules support data transfer rates up to 5600 MT/s; actual data rate is determined by the system's configured processor. See processor specifications for supported memory data rate.
[7] For storage drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 30 GB (for Windows) of disk is reserved for system recovery software.
[8] Optical drives are optional or add on features. Duplication of copyrighted material is strictly prohibited. Actual speeds may vary. Double Layer media compatibility will widely vary with some home DVD players and DVD-ROM drives.
[9] Card sold separately.
[10] 4 serial port: optional via PCIe slot, and only available for specific region.
[11] HDMI/VGA ports will be covered up when a non-internal graphics processor is configured on shipped machine.
[12] McAfee LiveSafe™: subscription required.
[13] HP Support Assistant is available on Windows. For more information, please visit www.support.hp.com/help/hp-support-assistant .
[14] Security cable lock supported (sold separately).
[15] TPM feature will be supported on machine pre-configured with FreeDOS, and will be default set as enabled in BIOS setup menu if the machine is dTPM, but will be default set as disabled in BIOS setup menu if the machine is fTPM.
[16] Physical cable lock for cable management.
[17] All power supplies are not available in every region.
[18] Based on US EPEAT® registration according to IEEE 1680.1-2018 EPEAT®. EPEAT® status varies by country. Visit www.epeat.net for more information.
[19] Recycled plastic content percentage is based on the definition set in the IEEE 1680.1-2018 standard.
[20] Starting November 1st, 2023, HP PCs with Windows require Windows to be installed on SSD. HDD can only be configured as additional data drives and not as the boot drive.
[21] For select SKU only.
[22] ENERGY STAR and the ENERGY STAR logo are registered trademarks of the U.S. Environmental Protection Agency.

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May 2025

Overview

HP ProDesk 2 SFF G1i E Desktop PC



1. Slim-height Bay - supporting an optical disk drive (optional)
2. Power Button
3. Combo jack, Headphone/ Microphone
4. (3) SuperSpeed USB 5Gbps signaling rate Ports[1]
5. (1) USB-C 3.2 G2 (10G)

Not shown

(1) PCI Express4.0 x16
(1) PCI Express3.0 x1
(1) M.2 for WLAN
(1) M.2 2280 storage

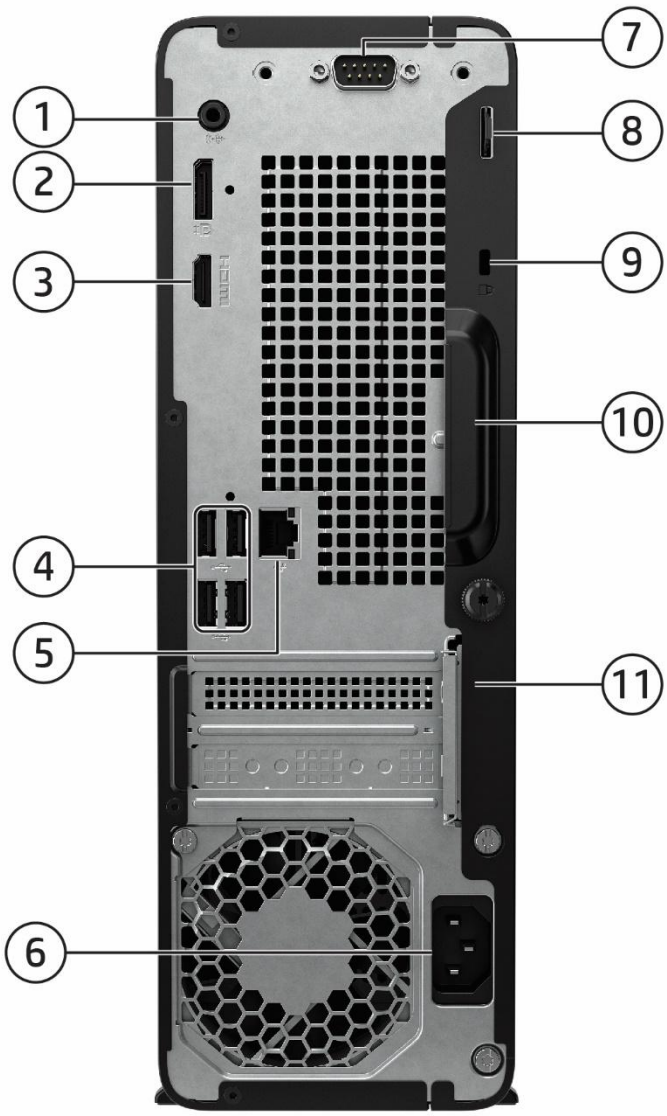
Bays

(1) 3.5 internal HDD +bay (optional)[2,3]
(1) 9.5mm internal optical drive bay (optional)[2,3]

1. SuperSpeed USB 5Gbps = USB3.2 Gen1
2. The system does not come with HDD bay when the hard drive/ODD is not configured.
3. For Future HDD/ODD installation, the HDD expansion module must be added to support a single 3.5” HDD.

Overview

HP ProDesk 2 SFF G1i E Desktop PC



1. Audio Line-out- retask as Line-in
2. DisplayPort 1.4a
3. HDMI 1.4b
4. (4) USB 2.0 ports
5. RJ-45 Network Connector
6. Power Cord Connector
7. Serial port (option)
8. Padlock loop
9. Security cable lock slot
10. Integrated accessories cable lock
11. PCIE lock for Graphic Card

Not Shown

Parallel Port (Optional via PCIex1 slot)
4 Serial Port (Optional via PCIe slot)

Overview

AT A GLANCE

- Windows 11 Pro 64, Win 11 Home 64, Windows 11 Home Single Language, or FreeDOS.
- Intel® H770 chipset supporting Intel® 13th or 14th processors[1] featuring Intel® UHD Graphics.
- Supports an optional discrete graphics card.
- Integrated 10/100/1000 Ethernet Controller or Realtek RTL8852BE-VT 802.11ax 2x2 Wi-Fi 6 + Bluetooth® 5.4 Wireless Card (802.11ax 2x2, supporting gigabit data rate), or Realtek RTL8852CE 802.11ax 2x2 Wi-Fi 6E + Bluetooth® 5.3 Wireless Card (802.11ax 2x2, supporting gigabit data rate).
- Up to 64GB DDR5-5600 Unbuffered Memory (UDIMM).
- Independent monitor support via DP and HDMI interfaces.
- TPM 2.0 support (firmware).
- Supports both Hard Disk Drives and SATA TLC / PCIe® NVMe™ M.2 SSD or PCIe® NVMe™ TLC M.2 SSD.
- 8 USB Ports (including 3 SuperSpeed USB 5Gbps ports, 1 USB-C 3.2 G2 (10G), and 4 USB 2.0 ports).
- 180W 90% HE power supply and 280W 92% HE power supply.
- Security cable lock supported (sold separately).
- Optional HP Care Packs available; terms and conditions vary by country; certain restrictions and exclusions apply[1].

1. HP Care Packs sold separately. Service levels and response times for HP Care Packs may vary depending on your geographic location. Service starts on date of hardware purchase. Restrictions and limitations apply. For details, visit http://www.hp.com/go/cpc. HP services are governed by the applicable HP terms and conditions of service provided or indicated to Customer at the time of purchase. Customer may have additional statutory rights according to applicable local laws, and such rights are not in any way affected by the HP terms and conditions of service or the HP Limited Warranty provided with your HP Product.

NOTE: See important legal disclosures for all listed specs in their respective features sections.

Standard Features and Configurable Modules

OPERATING SYSTEMS

Preinstalled

Windows 11 Pro[1]
Windows 11 Home - HP recommends Windows 11 Pro for Business[1]
Windows 11 Home Single Language - HP recommends Windows 11 Pro for Business[1]
FreeDOS

1. Not all features are available in all editions or versions of Windows. Systems may require upgraded and/or separately purchased hardware, drivers, software or BIOS update to take full advantage of Windows functionality. Windows is automatically updated and enabled. High speed internet and Microsoft account required. ISP fees may apply and additional requirements may apply over time for updates. See http://www.windows.com.
2. This system is preinstalled with Windows 10 Pro software and also comes with a license for Windows 11 Pro software and provision for recovery software. You may only use one version of the Windows software at a time. Switching between versions will require you to uninstall one version and install the other version. You must back up all data (files, photos, etc.) before uninstalling and installing operating systems to avoid loss of your data.

PROCESSORS*

Intel 13th Processors
Intel® Core™ i3[1]
CPU Intel Core i3-13100 4C 3.4GHz 3200MHz 60W (3.4GHz, turbo up to 4.5GHz, 12MB cache, 4 cores).

Intel® Core™ i5[1]
CPU Intel Core i5-13400 10C 2.5GHz 3200MHz 65W (2.5GHz, turbo up to 4.6GHz, 20MB cache, 10 cores).
CPU Intel Core i5-13500 14C 2.5GHz 3200MHz 65W (2.5GHz, turbo up to 4.8GHz, 24MB cache, 14 cores).

Intel® Core™ i7[1]
CPU Intel Core i7-13700 16C 2.1GHz 3200MHz 65W (2.1GHz, Up to 5.2GHz with Intel® Turbo Boost[2], 30MB cache, 16 cores).

Intel 14th Processors
Intel® Core™ 300 with Intel UHD Graphics 710 (3.9 GHz P-core base frequency, 6 MB L3 cache, 2 P-cores, 4 threads).

Intel® Core™ i3[1]
Intel® Core™ i3-14100 with Intel UHD Graphics 730 (3.5 GHz P-core base frequency, up to 4.7 GHz P-core Max Turbo frequency, 12 MB L3 cache, 4 P-cores, 8 threads).

Intel® Core™ i5[1]
Intel® Core™ i5-14400 with Intel UHD Graphics 730 (1.8 GHz E-core base frequency, 2.5 GHz P-core base frequency, up to 3.5 GHz E-core Max Turbo frequency, up to 4.7 GHz P-core Max Turbo frequency, 20 MB L3 cache, 6 P-cores and 4 E-cores, 16 threads).
Intel® Core™ i5-14500 with Intel UHD Graphics 770 (1.9 GHz E-core base frequency, 2.6 GHz P-core base frequency, up to 3.7 GHz E-core Max Turbo frequency, up to 5.0 GHz P-core Max Turbo frequency, 24 MB L3 cache, 6 P-cores and 8 E-cores, 20 threads), supports Intel® vPro® Technology.

Intel® Core™ i7[1]
Intel® Core™ i7-14700 with Intel UHD Graphics 770 (1.5 GHz E-core base frequency, 2.1 GHz P-core base frequency, up to 4.2 GHz E-core Max Turbo frequency, up to 5.3 GHz P-core Max Turbo frequency, 33 MB L3 cache, 8 P-cores and 12 E-cores, 28 threads), supports Intel® vPro® Technology.

1. Your product does not support Windows 8 or Windows 7, In accordance with Microsoft's support policy, HP does not support the Windows® 8 or Windows 7 operating system on products configured with Intel 8th generation and forward processors or provide any Windows® 8 or Windows 7 drivers on http://www.support.hp.com.
***NOTE:** Not all processors are available; it varies by version.

CHIPSET

Intel® H770 Chipset

GRAPHICS

Integrated[1,2]

Intel® UHD
Graphics 770
Graphics 730
Graphics 710

Discrete Graphics

AMD Radeon™ RX 6300 Graphics (2 GB GDDR6)

1. HD content required to view HD images.
2. Integrated Intel software is available on select models only and requires separately purchased projector, tv or computer monitor with an integrated or external receiver. External receivers connect to the projector, tv or computer monitor via a standard VGA, HDMI cable, also sold separately.

MEMORY

Both slots are customer accessible / upgradeable, Supports Dual Channel Memory

Form Factor	Type	Maximum	# of Slots
Small Form Factor	DDR5 4800/5600	64 GB capacity	2 DIMM[1]

8GB DDR5-5600 UDIMM (1x8GB)
8GB DDR5-4800 UDIMM (1x8GB)[1]
16GB DDR5-5600 UDIMM (1x16GB)
16GB DDR5-4800 UDIMM (1x16GB)[1]
16GB DDR5-5600 UDIMM (2x8GB)
16GB DDR5-4800 UDIMM (2x8GB)[1]
24GB DDR5-5600 UDINN NECC(1x24GB)
24GB DDR5-4800 UDINN NECC(1x24GB)
48GB DDR5-5600 UDINN NECC(2x24GB)
48GB DDR5-4800 UDINN NECC(2x24GB)
32GB DDR5-5600 UDIMM (1x32GB)
32GB DDR5-4800 UDIMM (1x32GB)[1]
32GB DDR5-5600 UDIMM (2x16GB)
32GB DDR5-4800 UDIMM (2x16GB)[1]
64GB DDR5-5600 UDIMM (2x32GB)
64GB DDR5-4800 UDIMM (2x32GB)[1]

1. Memory modules supporting data transfer rates up to 5600/MTs requires Intel® Core™ i5-1x600 or i7 CPUs, with other CPUs, memory supports data transfer rates up to 4800 MT/s. When select the WLAN card, the memory modules support data transfer rates up to 4400/MTs
2. Memory speed 5200 MT/s can be achieved when dual-rank (2R) memory UDIMMs when populated with the same part number.

Standard Features and Configurable Modules

STORAGE AND DRIVES

NOTE: Starting from November 1st, 2023, all shipments will require Windows to be installed when selecting a SSD.
HDD can only be configured as additional data drives and not as the boot drive.

SATA3 - 3.5"

2TB 7200 RPM SATA Hard Disk Drive

1TB 7200 RPM SATA Hard Disk Drive

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36GB (for Windows) of system disk is reserved for the system recovery software.

M.2 Solid State Drives

256GB M.2 2280 PCIe NVMe SSD
512GB M.2 2280 PCIe NVMe SSD
1TB M.2 2280 PCIe NVMe SSD
2TB M.2 2280 PCIe NVMe SSD
256GB M.2 2280 PCIe NVMe Three Layer Cell SSD[1]
512GB M.2 2280 PCIe NVMe Three Layer Cell SSD
1TB M.2 2280 PCIe NVMe Three Layer Cell SSD
2TB M.2 2280 PCIe NVMe Three Layer Cell SSD

1. Available on select skus only.
NOTE*: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows) of system disk is reserved for the system recovery software.

OPTICAL DISC DRIVES

DVD-ROM 9.5mm[2]

DVD-Writer 9.5mm[2]

2. Optical drives are optional or add on features. HD-DVD disks cannot be played on this drive. No support for DVD-RAM. Actual speeds may vary. Don't copy copyright-protected materials.

NETWORKING/COMMUNICATIONS

Networking

Integrated 10/100/1000M GbE LAN

Network Adapter Intel FoxPond2 I226-T1 2.5GbE

Wi-Fi® and Bluetooth®

Realtek RTL8852BE-VT 802.11ax 2x2 Wi-Fi 6 + Bluetooth® 5.4 Wireless Card (802.11ax 2x2, supporting gigabit data rate)[1]
Realtek RTL8852CE 802.11ax 2x2 Wi-Fi 6E + B Bluetooth® 5.3 Wireless Card (802.11ax 2x2, supporting gigabit data rate)[1]

1. Wireless cards are optional or add-on features and requires separately purchased wireless access point and internet service. Availability of public wireless access points limited. Wi-Fi 5 (802.11 ac) is backwards compatible with prior 802.11 specs.

AUDIO/MULTIMEDIA

Realtek ALC3602-CG codec

Integrated Hi-Definition Audio

Combo Jack, Headphone / Microphone

Audio Line-out- retask as Line-in

KEYBOARDS/POINTING DEVICES/BUTTONS AND FUNCTIONS KEYS

Keyboard

HP 125 v2 Antimicrobial Wired Keyboard (China only)

HP 320K v2 Keyboard

HP Bus Slim v2 Smart Card Wired Keyboard

HP 655 v2 Black Wireless Keyboard/Mouse Kit

Mouse

HP Wired 320M Mouse

HP Wired 125 Antimicrobial Mouse (China only)

HP Black 125 Wired Mouse

HP Wired 128 LSR Mouse

HP USB Hardened Optical Wired Mouse

NOTE: Keyboards and mouse are optional or add-on features. A keyboard and mouse are required for this device. If you do not already have a keyboard and mouse, please refer to a list of compatible keyboards on the “Recommended Accessories” page.

PORTS

Front

Slim-height Bay - supporting an optical disk drive (option)
(3) SuperSpeed USB 5Gbps signaling rate
Combo Jack Microphone/Headphone
Power Button
(1) USB-C© 10Gbps

Not Shown

(1) PCI Express4.0 x16
(1) PCI Express3.0 x1
(1) M.2 for WLAN
(1) M.2 2280 storage

Rear

Audio Line-out- retask as Line-in
DisplayPort 1.4a
HDMI Port 1.4b
Standard lock slot
(4) USB 2.0 port
RJ-45 Network Connector
Power Cord Connector
Padlock loop
Integrated Accessories Cable Lock
Serial port (option)

Not Shown

(1) Parallel Port (Optional via PCIex1 slot)
(1) 4x Serial port (Optional via PCIex1 slot)[1]
(1) PS/2 Port (Optional)

1. Available for selected regions

BAYS

(1) 3.5" internal storage optional
(1) 9.5mm internal optical drive bay optional

SOFTWARE COMPONENTS AND APPLICATIONS WITH WINDOWS

Security and Protection
McAfee – MLS

HP Utilities and Support
HP Documentation
HP Support Assistant

BTB
HP Setup Integrated OOBE (GDPR)

Hardware Enabling Drivers or software utility
HP System Event Utility

BIOS
Administrator Password
Self recovery
Hard drive utilities
HP Secure erase feature
Secure Boot
Cover Removal Sensor
UEFI Self Certification Level: 2.9

1. Free 1-year subscription of McAfee LiveSafe service included. Internet access required and not included. Subscription required after expiration.

POWER

Power Supply

180 W

EPA90 Power Supply

280W

EPA92 Power Supply

WEIGHT AND DIMENSIONS

(configured with 1 HDD and 1 ODD)

Chassis (W x D x H)	3.94 x 12.13 x 11.95 in (100 x 308 x 304 mm) (w/bezel)
System Weight	12.57 lbs / 5.7 kg*

***NOTE**: Weight varies by configuration and component

UNIT ENVIRONMENTAL AND OPERATING CONDITIONS

General Unit Operating Guidelines

Environmental and Industry	• Keep the computer away from excessive moisture, direct moisture and the extremes of heat and cold, to ensure that unit is operated within the specified operating range. • Leave a 10.2 cm (4 in) clearance on all vented sides of the computer to permit the required airflow. • Never restrict airflow into the computer by blocking any vents or air intakes. • Do not stack computers on top of each other or place computers so near each other that they are subject to each other's re-circulated or preheated air. • Occasionally clean the air vents on the front, back, and any other vented side of the computer. Lint, dust and other foreign matter can block the vents and limit the airflow. • If the computer is to be operated within a separate enclosure, intake and exhaust ventilation must be provided on the enclosure, and the same operating guidelines listed above will still apply.	
Temperature Range	**Operating:**	5° to 35° C[1]
	Non-operating:	-30° to 60°[1]
Relative Humidity	**Operating:**	15% to 80% (non-condensing at ambient)
	Non-operating:	15% to 80% (non-condensing at ambient)
Maximum Altitude (unpressurized)	**Operating:**	5,000 m
	Non-operating:	50,000 ft (15240 m)

1. Operating temperature is de-rated 1.0 deg C per 300 m (1000 ft) to 3000 m (10,000 ft) above sea level, no direct sustained sunlight. Maximum rate of change is 10 deg C/Hr. The upper limit may be limited by the type and number of options installed.

Eco-Label Certifications & declarations	This product has received or is in the process of being certified to the following approvals and may be labeled with one or more of these marks: • IT ECO declaration • TUV ultra-low noise • US ENERGY STAR® • EPEAT Gold* or EPEAT Silver** registered in the United States. See http://www.epeat.net for registration status in your country. • TCO Certified • China Energy Conservation Program (CECP) • Clean Energy Certificates (CEL) • Minimum Energy Performance Standard (Korea/Vietnam/A/Z MEPS) • Ukraine energy • Commission Regulation (EC) No 617/2013 (ErP Lot 3)		
System Configuration	The configuration used for the Energy Consumption and Declared Noise Emissions data for the Desktop model is based on a "Typically Configured Desktop".		
Energy Consumption (in accordance with US ENERGY STAR® test method)	**115VAC, 60Hz**	**230VAC, 50Hz**	**100VAC, 50Hz**
Normal Operation (Short idle)	12.46W	12.51W	12.40W
Normal Operation (Long idle)	10.16W	10.22W	10.02W
Sleep	1.76W	1.75W	1.76W
Off	0.38W	0.41W	0.41W
	NOTE: Energy efficiency data listed is for an ENERGY STAR® compliant product if offered within the model family. HP computers marked with the ENERGY STAR® Logo are compliant with the applicable U.S. Environmental Protection Agency (EPA) ENERGY STAR® specifications for computers. If a model family does not offer ENERGY STAR® compliant configurations, then energy efficiency data listed is for a typically configured PC featuring a hard disk drive, a high efficiency power supply, and a Microsoft Windows® operating system. Search keyword generator on HP's 3rd party option store for solar generator accessories at http://www.hp.com/go/options.		
Heat Dissipation*	**115VAC, 60Hz**	**230VAC, 50Hz**	**100VAC, 50Hz**
Normal Operation (Short idle)	42.49 BTU/hr	42.66 BTU/hr	42.28 BTU/hr
Normal Operation (Long idle)	34.65 BTU/hr	34.85 BTU/hr	34.17 BTU/hr
Sleep	6.00 BTU/hr	5.97 BTU/hr	6.00 BTU/hr
Off	1.30 BTU/hr	1.40 BTU/hr	1.40 BTU/hr
	NOTE: Heat dissipation is calculated based on the measured watts, assuming the service level is attained for one hour.		
Declared Noise Emissions (in accordance with ISO 7779 and ISO 9296)	Sound Power (L_{WAd}, bels)	Sound Pressure (L_{pAm}, decibels)	
Typically Configured – Idle	3.2	19.7	
Fixed Disk – Random writes	3.3	20.7	
Optical Drive – Sequential reads	4.5	38.2	
Longevity and Upgrading	This product can be upgraded, possibly extending its useful life by several years. Upgradeable features and/or components contained in the product may include: Spare parts are available throughout the warranty period and or for up to "3" years after the end of production.		
Batteries	This battery(s) in this product comply with EU Directive 2006/66/EC Batteries used in the product do not contain:		

	Mercury greater the1ppm by weight Cadmium greater than 20ppm by weight Battery size: CR2032 (coin cell) Battery type: Lithium		
Additional Information	• This product is in compliance with the Restrictions of Hazardous Substances (RoHS) directive - 2011/65/EC. • This HP product is designed to comply with the Waste Electrical and Electronic Equipment (WEEE) Directive – 2002/96/EC. • This product is in compliance with California Proposition 65 (State of California; Safe Drinking Water and Toxic Enforcement Act of 1986). • This product is in compliance with the IEEE 1680.1 (EPEAT) standard at the <Silver> level, see http://www.epeat.net • Plastics parts weighing over 25 grams used in the product are marked per ISO11469 and ISO1043. • This product contains 28.2% post-consumer recycled plastic (by wt.) • This product is 91.7% recycle-able when properly disposed of at end of life.		
Packaging Materials	**External:**	PAPER/Corrugated	540 g
	Internal:	PAPER/Molded Pulp	350 g
		PLASTIC/Polyethylene low density - LDPE	30 g
Material Usage	This product does not contain any of the following substances in excess of regulatory limits (refer to the HP General Specification for the Environment at http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/gse.pdf): • Asbestos • Certain Azo Colorants • Certain Brominated Flame Retardants – may not be used as flame retardants in plastics • Cadmium • Chlorinated Hydrocarbons • Chlorinated Paraffins • Formaldehyde • Halogenated Diphenyl Methanes • Lead carbonates and sulfates • Lead and Lead compounds • Mercuric Oxide Batteries • Nickel – finishes must not be used on the external surface designed to be frequently handled or carried by the user. • Ozone Depleting Substances • Polybrominated Biphenyls (PBBs) • Polybrominated Biphenyl Ethers (PBBEs) • Polybrominated Biphenyl Oxides (PBBOs) • Polychlorinated Biphenyl (PCB) • Polychlorinated Terphenyls (PCT) • Polyvinyl Chloride (PVC) – except for wires and cables, and certain retail packaging has been voluntarily removed from most applications. • Radioactive Substances • Tributyl Tin (TBT), Triphenyl Tin (TPT), Tributyl Tin Oxide (TBTO)		

Packaging Usage	HP follows these guidelines to decrease the environmental impact of product packaging: • Eliminate the use of heavy metals such as lead, chromium, mercury and cadmium in packaging materials. • Eliminate the use of ozone-depleting substances (ODS) in packaging materials. • Design packaging materials for ease of disassembly. • Maximize the use of post-consumer recycled content materials in packaging materials. • Use readily recyclable packaging materials such as paper and corrugated materials. • Reduce size and weight of packages to improve transportation fuel efficiency. • Plastic packaging materials are marked according to ISO 11469 and DIN 6120 standards.
End-of-life Management and Recycling	HP Inc. offers end-of-life HP product return and recycling programs in many geographic areas. To recycle your product, please go to: http://www.hp.com/go/reuse-recycle or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner. The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: http://www.hp.com/go/recyclers. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment. Global Citizenship Report http://www.hp.com/hpinfo/globalcitizenship/gcreport/index.html Eco-label certifications http://www8.hp.com/us/en/hp-information/environment/ecolabels.html ISO 14001 certificates: http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/PC_GBU_Product_Design_ISO_14K_Certificate.pdf and http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/cert.pdf

SERVICE AND SUPPORT

On-site Warranty[1]: Available three-year (3-3-3) or one-year (1-1-1) limited warranty (varies by country) delivers on-site, next business day[2] service for parts and labor and complimentary limited technical support[3]. Three-year onsite and labor are not available in all countries. Service offers terms up to 5 years by choosing an optional HP Care Service[4]. To choose the right level of service for your HP product, visit HP Care Pack Central: http://www.hp.com/go/cpc.

1. Terms and conditions may vary by country. Certain restrictions and exclusions apply. Other warranty variations may be offered in your region.
2. On-site service may be provided pursuant to a service contract between HP and an authorized HP third-party provider and is not available in certain countries. Global service response times are based on commercially reasonable best effort and may vary by country.
3. Technical support applies only to HP-configured and third-party HP qualified hardware and software.
4. HP Care Packs are sold separately. Service levels and response times for HP Care Packs may vary depending on your geographic location. Service starts on date of hardware purchase. Restrictions and limitations apply. For details, visit http://www.hp.com/go/cpc. HP services are governed by the applicable HP terms and conditions of service provided or indicated to Customer at the time of purchase. Customer may have additional statutory rights according to applicable local laws, and such rights are not in any way affected by the HP terms and conditions of service or the HP Limited Warranty provided with your HP Product.

GRAPHICS

GRAPHICS

Intel® UHD Graphics (integrated)	
Graphics Controller	Integrated
DisplayPort™	Multimode capable; supports HDCP, Display Port Audio, HBR2 link rates and Multi-Stream Technology for a maximum of 2 displays connected to any output controlled by Intel® Graphics.
HDMI (on board/optional)	Supports HDMI 1.4 features Supports HDCP 2.3 Supports audio over HDMI
Memory	The actual amount of maximum graphics memory can be >4GB. System memory is allocated for graphics as needed using Intel's Dynamic Video Memory Technology (DVMT), to provide an optimal balance between graphics and system memory use.
Maximum Color Depth	up to 16 bits/color
Graphics/Video API Support	HEVC 10b Enc/12b Dec HW VP9 10b Dec HW HDR Rec. 2020 DX12
Max. Resolution (HDMI)	4K x 2K@30Hz
Max. Resolution (DP)	4K x 2K@30Hz

Note: The actual amount of maximum graphics memory can be less than the amounts listed above depending upon your computer's configuration.
Note: Other resolutions may be available but are not recommended as they may not have been tested and qualified by HP
Only supported on displays connected to the external DisplayPort™ connector.

AMD Radeon™ RX 6300 2GB GDDR6 Graphics card

Engine Clock	Base: 1512 Mhz Boost: 2040 Mhz
Memory Size / Width	2GB / 32bits
Graphic Memory Type / Clock	512Mx 32 GDDR6, 1 pcs / 16Gbs
Max. Resolution (HDMI)	7680x4320@60Hz
Max. Resolution (DP)	7680x4320@120Hz
Multi Display Support	2 displays
HDCP Compliance	Yes
Rear I/O connectors (bracket)	HDMIx1+DPx1 (LP)
Cooling (active/passive)	Active
Total power consumption (W)	57W
Form-factor	X:160.2mm/Y:68.9mm/Z: 22.6mm PCB with single slot

STORAGE

NOTE: Starting from November 1st, 2023, all shipments will require Windows to be installed when selecting a SSD.
HDD can only be configured as additional data drives and not as the boot drive.

HP 2TB* 7.2K rpm SATA 6.0Gb/s 3.5" Hard Disk Drive*

Capacity	2TB
Rotational Speed	7,200 rpm
Interface	SATA 6Gb/s NCQ
Buffer Size	64 MB
Logical Blocks	3,907,029,168
Seek Time	Read: <8.5 ms
	Write: <9.5 ms
Height	1.028 in/26.11 mm
Width	4.0 in/101.6 mm
Operating Temperature	32° to 140° F (0° to 60° C)

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36GB (for Windows) of system disk is reserved for the system recovery software.

1TB 7.2K rpm SATA 6.0Gb/s 3.5” Hard Disk Drive

Capacity	1TB
Rotational Speed	7,200 rpm
Interface	Serial ATA 3.0 (6.0 Gb/s)
Buffer Size	32 MB
Logical Blocks	1,953,525,168
Seek Time	Read: <8.5 ms
	Write: <9.5 ms
	Full-Stroke: 21 ms
Height	1 in/2.54 cm
Width	Media diameter: 3.5 in/8.89 cm Physical size: 4 in/10.2 cm
Operating Temperature	41° to 131° F (5° to 55° C)

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36GB (for Windows) of system disk is reserved for the system recovery software.

256GB M.2 2280 PCIe NVMe Three Layer Cell SSD

Drive Weight	< 10g
Capacity	256GB
Height	2.38mm
Length	80mm
Width	22mm
Interface	PCIE Gen3x4
Maximum Sequential Read	Up to 2700MB/s
Maximum Sequential Write	Up to 1000MB/s
Logical Blocks	500,118,192
Operating Temperature	0° to 70°C (32° to 158°F) [ambient temp]
Features	APST; ASPM L1.2; NVME spec 1.2

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36GB (for Windows) of system disk is reserved for the system recovery software.

512GB M.2 2280 PCIe NVMe Three Layer Cell SSD

Drive Weight	< 10g
Capacity	512GB
Height	2.38mm
Length	80mm
Width	22mm
Interface	PCIE Gen3x4
Maximum Sequential Read	Up to 2900MB/s
Maximum Sequential Write	Up to 1100MB/s
Logical Blocks	1,000,215,216
Operating Temperature	0° to 70°C (32° to 158°F) [ambient temp]
Features	APST; ASPM L1.2; NVME spec 1.2

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36GB (for Windows) of system disk is reserved for the system recovery software.

1TB M.2 2280 PCIe NVMe Three Layer Cell SSD

Drive Weight	< 10g
Capacity	1TB
Height	2.3mm
Length	80mm
Width	22mm
Interface	PCIE NVMe
Maximum Sequential Read	Up to 2900MB/s
Maximum Sequential Write	Up to 1100MB/s
Logical Blocks	2,000,409,264
Operating Temperature	0° to 70°C (32° to 158°F) [ambient temp]
Features	Pyrite

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36GB (for Windows) of system disk is reserved for the system recovery software.

2TB M.2 2280 PCIe NVMe Three Layer Cell SSD

Capacity	2TB
Interface	PCIE Gen4x4
Minimum Sequential Read	6400 MB/s ±10%
Minimum Sequential Write	5000 MB/s ±10%
Logical Blocks	4,000,797,360
Features	TRIM; L1.2; Pyrite 2.0

NOTE: For storage drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36GB (for Windows) is reserved for system recovery software.

256GB M.2 2280 PCIe NVMe SSD

Drive Weight	< 10g
Capacity	256GB
Height	2.38mm
Length	80mm
Width	22mm
Interface	PCIE Gen4x4
Minimum Sequential Read	Up to 1600MB/s
Minimum Sequential Write	Up to 780MB/s
Logical Blocks	500,118,192
Operating Temperature	0° to 70°C (32° to 158°F) [ambient temp]
Features	APST; ASPM L1.2; NVME spec 1.2

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36GB (for Windows) of system disk is reserved for the system recovery software.

512GB M.2 2280 PCIe NVMe SSD

Drive Weight	< 10g
Capacity	512GB
Height	2.38mm
Length	80mm
Width	22mm
Interface	PCIE Gen4x4
Minimum Sequential Read	Up to 1600MB/s
Minimum Sequential Write	Up to 860MB/s
Logical Blocks	1,000,215,216
Operating Temperature	0° to 70°C (32° to 158°F) [ambient temp]
Features	APST; ASPM L1.2; NVME spec 1.2

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36GB (for Windows) of system disk is reserved for the system recovery software.

1TB M.2 2280 PCIe NVMe SSD

Capacity	1TB
Interface	PCIE Gen4x4
Minimum Sequential Read	2200 MB/s ±10%
Minimum Sequential Write	1600 MB/s ±10%
Logical Blocks	2,000,409,264
Features	TRIM; L1.2

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36GB (for Windows) of system disk is reserved for the system recovery software.

2TB M.2 2280 PCIe NVMe SSD

Capacity	2TB
Interface	PCIE Gen4x4
Minimum Sequential Read	5400 MB/s ±10%
Minimum Sequential Write	4700 MB/s ±10%
Logical Blocks	4,000,797,360
Features	TRIM; L1.2

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36GB (for Windows) of system disk is reserved for the system recovery software.

OPTICAL DISC DRIVES

HP 9.5mm Slim DVD-ROM Drive

Height	9.5 mm height
Orientation	Either horizontal or vertical
Interface type	SATA/ATAPI
Dimensions (W x H x D)	5.04 x 0.37 x 5.0 in (128 x 9.5 x 127 mm) without bezel
Weight (max)	Up to 0.31 lb (140g) without bezel
Read Speeds	DVD+R/-R/+RW/ -RW/+R DL /-R DL Up to 8X DVD-ROM Up to 8X CD-ROM, CD-R Up to 24X CD-RW Up to 24X
Access time (typical reads, including settling)	Random: DVD-ROM: 170 ms (typical), CD-ROM: 170 ms (typical) Full stroke: DVD-ROM: 320 ms (typical), CD-ROM: 320 ms (typical)
Power	Source Slimline SATA DC power receptacle DC Power Requirement 5 VDC ± 5%-100 mV ripple p-p DC Current 5 VDC (< 1000 mA typical, 1600 mA maximum)
Environmental conditions (operating - non-condensing)	Temperature 41° to 122° F (5° to 50° C) Relative Humidity 10% to 80% Maximum Wet Bulb Temperature 84° F (29° C)

HP 9.5mm Slim DVD Writer Drive

Height	9.5 mm height
Orientation	Either horizontal or vertical
Interface type	SATA/ATAPI
Dimensions (W x H x D)	5.04 x 0.37 x 5.0 in (128 x 9.5 x 127 mm) without bezel
Weight (max)	Up to 0.31 lb (140 g) Without bezel
Write Speeds	DVD-R DL - Up to 6X DVD+R - Up to 8X DVD+RW - Up to 8X DVD+R DL - Up to 6X DVD-R - Up to 8X DVD-RW - Up to 6X CD-R - Up to 24X CD-RW - Up to 10X
Read Speeds	DVD-RW, DVD+RW - Up to 8X DVD-R DL, DVD+R DL - Up to 8X DVD+R, DVD-R - Up to 8X DVD-ROM DL, DVD-ROM - Up to 8X CD-ROM, CD-R - Up to 24X CD-RW - Up to 24X
Access time (typical reads, including settling)	Random DVD-ROM: 170 ms (typical), CD-ROM: 170 ms (typical) Full Stroke DVD-ROM: 320 ms (typical), CD-ROM: 320 ms (typical) Stop Time 6 seconds (typical)

Power	Source Slimline SATA DC power receptacle DC Power Requirement 5 VDC ± 5%-100 mV ripple p-p DC Current 5 VDC (< 1000 mA typical, 1600 mA maximum)
Environmental conditions (operating - non-condensing)	Temperature 41° to 122° F (5° to 50° C) Relative Humidity 10% to 80% Maximum Wet Bulb Temperature 84° F (29° C)

HIGH DEFINITION AUDIO

Type	Integrated
HD Stereo Codec	Realtek ALC3602-CG codec
Audio I/O Ports	Support the combo jack for CTIA
Multi-streaming Capable	Playback multi-streaming can be enabled in the audio control UI to allow independent audio streams to output to the front and rear jacks.
HD Audio Codec	ALC3602-CG
Sampling	DAC supports 16bit ~ 24 bit, sampling rate 44.1K/ 48K/ 96K/ 192K Hz ADC supports 16bit ~ 24 bit, sampling rate 44.1K/ 48K/ 96K/ 192K Hz
Wavetable Syntheses	Yes
Analog Audio	Yes
# of Channels on Line-Out	Stereo
External Speaker Jack*	2W class D mono amplifier only. External speakers must be powered externally.

POWER SUPPLY

Operating Voltage Range	90 – 264 VAC
Rated Voltage Range	100-240V AC
Rated Line Frequency	50/60 HZ
Operating Line Frequency	47 – 63 Hz
Rated Input Current	180 W: <2.3A 280W: <3.3A 400W: <5.2A 500 W: <6A
Rated Input Current with Energy Efficient* Power Supply	**180W** active PFC / **Efficiency at 115Vac** 80PLUS Gold certified 87/90/87% at 20/50/100% load **Efficiency at 230Vac** 90/92/89% at 20/50/100% load Which meet 80PLUS Gold **280W** active PFC / **Efficiency at 115Vac** 80PLUS Platinum certified 90/92/89% efficient at 20/50/100% load **Efficiency at 230Vac** 91/93/90% at 20/50/100% load Which meet 80PLUS Gold
DC Output	+12 V
Current Leakage (NFPA 99: 2102)	Less than 500 microamps of leakage current at 120 Vac with the ground wire disconnected, as required for Non-patient Electrical Appliances and Equipment used in a patient care facility or that contact patients in normal use. Per section 10.3.5.1. Less than 100 microamps of leakage current at 120 Vac with the ground wire intact with normal polarity, as required for Non-patient Electrical Appliances and Equipment used in a patient care facility or that contact patients in normal use. Per section 10.3.5.1.
Power Supply Fan	180 W: 70*25mm (linear type) 280W/400W/500W: 70x25mm (PWM type)

WEIGHTS AND DIMENSIONS

Chassis (W x D x H)	3.94 x 12.13 x 11.95 in (100 x 308 x 304 mm) (w/ bezel)
System Volume	9L
System Weight*	12.57 lbs / 5.7 kg
Packaged (H x W x D)	15.67 x 7.87 x 19.65 in 398 x 200 x 499 mm
Shipping Weight*	16.36 lb / 7.42 kg
Palletization Profile	12-units per layer 5 layer max 60 per pallet Footprint (HxWxD) 83.46 x 39.37 x 47.24 in (2120 x 1000 x 1200 mm)

***NOTE**: Weight varies by configuration and component

NETWORKING

10/100/1000 Integrated NIC	
Ethernet Features	10 Mbit/s operation (10BASE-T; IEEE 802.3i; IEEE 802.3 clauses 13-14) 100 Mbit/s operation (100BASE-TX; IEEE 802.3u; IEEE 802.3 clauses 21-30) 1000 Mbit/s operation (1000BASE-T; IEEE 802.3ab; IEEE 8023 clauses 40) Auto-Negotiation (Automatic Speed Selection) Full Duplex Operation at all Speeds, Half Duplex operation at 10 and 100 Mbit/s
Power Management	ACPI compliant – multiple power modes Situation-sensitive features reduce power consumption Advanced link down power saving for reducing link down power consumption
Performance Features	TCP/IP/UDP Checksum Offload (configurable) Protocol Offload (ARP & NS) Large send offload and Giant send offload Receiving Side Scaling Jumbo Frame 9K
Manageability	Wake-on-LAN from standby and hibernation (Magic Packet and Microsoft Wake-Up Frame); Wake-on-LAN from off (Magic Packet only) PXE 2.1 Remote Boot Statistics Gathering (SNMP MIB II, Ethernet-like MIB, Ethernet MIB (802.3x, clause 30)) Comprehensive diagnostic and configuration software suite Virtual Cable Doctor for Ethernet cable status

Intel I226-T1 2.5GbE Ethernet Network Adapter	
Connector	RJ-45
System Interface	PCI (Intel proprietary) + SMBus
Data rates supported	1. 10 Mbit/s operation (10BASE-T; IEEE 802.3i; IEEE 802.3 clauses 13-14) 2. 100 Mbit/s operation (100BASE-TX; IEEE 802.3u; IEEE 802.3 clauses 21-30) 3. 1000 Mbit/s operation (1000BASE-T; IEEE 802.3ab; IEEE 802.3 clauses 40) 4. 2.5 Gbit/s operation (2.5GBASE-T; IEEE 802.3bz Clause 126) 5. Auto-Negotiation (Automatic Speed Selection) Full Duplex Operation at all Speeds, Half Duplex operation at 10 & 100 Mbit/s
IEEE Compliance	IEEE 802.1p QoS (Quality of Service) Support IEEE 802.1q VLAN support IEEE 802.3x Flow Control (IEEE 802.3 clauses 31-32; configurable) IEEE 802.3az EEE (Energy Efficient Ethernet) IEEE 802.3i 10BASE-T IEEE 802.3u 100BASE-TX IEEE 802.3ab 1000BAE-T IEEE 802.3bz 2.5GBASE-T
Performance	TCP/IP/UDP Checksum Offload (configurable) Protocol Offload (ARP & NS) Large send offload and Giant send offload Receiving Side Scaling(Hash Mode Only) Jumbo Frame 9K

Power consumption	Cable Disconnection: 25mW 100Mbps Full Run: 450mW 1000Mbp Full Run: 1000mW 2500Mbp Full Run: 4500mW WoL Enable(S3/S4/S5): 50mW WoL Disable(S3/S4/S5): 25mW
Power	ACPI compliant – multiple power modes
Management	Situation-sensitive features reduce power consumption Advanced link down power saving for reducing link down power consumption
Management Interface	Auto MDI/MDIX Crossover cable detection
IT Manageability	Wake-on-LAN from modern standby or sleep state (Magic Packet and Microsoft Wake-Up Frame); Wake-on-LAN from off (Magic Packet only) PXE 2.1 Remote Boot Statistics Gathering (SNMP MIB II, Ethernet-like MIB, Ethernet MIB (802.3x, clause 30)) Comprehensive diagnostic and configuration software suite Virtual Cable Doctor for Ethernet cable status

Realtek RTL8852BE-VT 802.11ax 2x2 Wi-Fi 6 + Bluetooth® 5.4 Wireless Card (802.11ax 2x2, supporting gigabit data rate)	
Wireless LAN Standards[1]	IEEE 802.11a IEEE 802.11b IEEE 802.11g IEEE 802.11n IEEE 802.11ac IEEE 802.11ax IEEE 802.11d IEEE 802.11e IEEE 802.11h IEEE 802.11i IEEE 802.11k IEEE 802.11r IEEE 802.11v
Interoperability	Wi-Fi certified modules
Frequency Bands	802.11b/g/n/ax • 2.402 – 2.482 GHz 802.11a/n/ac/ax • 4.9 – 4.95 GHz (Japan) • 5.15 – 5.25 GHz • 5.25 – 5.35 GHz • 5.47 – 5.725 GHz • 5.825 – 5.850 GHz
Data Rates	• 802.11b: 1, 2, 5.5, 11 Mbps • 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps • 802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps • 802.11n: max 300Mbps • 802.11ac: max 866.7Mbps • 802.11ax: max 1201Mbps

Technical Specifications – Networking

Modulation	Direct Sequence Spread Spectrum, OFDM, BPSK, QPSK, CCK, 16-QAM, 64-QAM, 256-QAM, 1024QAM
Security[2]	• IEEE and WiFi certified 64 / 128 bit WEP encryption for a/b/g mode only • AES-CCMP: 128 bit in hardware • 802.1x authentication • WPA, WPA2: 802.1x. WPA-PSK, WPA2-PSK, TKIP, and AES. • WPA2 certification • WPA3 certification • IEEE 802.11i • WAPI
Network Architecture Models	Ad-hoc (Peer to Peer) Infrastructure (Access Point Required)
Roaming	IEEE 802.11 compliant roaming between access points
Output Power[3]	• 802.11b: +18.5dBm minimum • 802.11g: +17.5dBm minimum • 802.11a: +18.5dBm minimum • 802.11n HT20(2.4GHz): +15.5dBm minimum • 802.11n HT40(2.4GHz): +14.5dBm minimum • 802.11n HT20(5GHz): +15.5dBm minimum • 802.11n HT40(5GHz): +14.5dBm minimum • 802.11ac VHT80(5GHz): +11.5dBm minimum • 802.11ax HE40(2.4GHz): +10dBm minimum • 802.11ax HE80(5GHz): +10dBm minimum
Power Consumption	• Transmit mode:2.5 W • Receive mode:2 W • Idle mode (PSP) 180 mW (WLAN Associated) • Idle mode:50 mW (WLAN unassociated) • Connected Standby/Modern Standby: 10mW • Radio disabled: 8 mW
Power Management	ACPI and PCI Express compliant power management 802.11 compliant power saving mode
Receiver Sensitivity[4]	802.11b, 1Mbps: -93.5dBm maximum 802.11b, 11Mbps: -84dBm maximum 802.11a/g, 6Mbps: -86dBm maximum 802.11a/g, 54Mbps: -72dBm maximum 802.11n, MCS07: -67dBm maximum 802.11n, MCS15: -64dBm maximum 802.11ac, MCS0: -84dBm maximum 802.11ac, MCS9: -59dBm maximum •802.11ax, MCS11(HE40): -57dBm maximum •802.11ax, MCS11(HE80): -54dBm maximum

Technical Specifications – Networking

Antenna type	High efficiency antenna with spatial diversity. Two embedded dual band 2.4/5 GHz antennas are provided to the card to support WLAN MIMO communications and Bluetooth communications
Form Factor	PCI-Express M.2 MiniCard
Dimensions	1. Type 2230: 2.4 x 22.0 x 30.0 mm
Weight	1. Type 2230: 2.8g
Operating Voltage	3.3v +/- 9%
Temperature	Operating: 14° to 158° F (–10° to 70° C) Non-operating: –40° to 176° F (–40° to 80° C)
Humidity	Operating: 10% to 90% (non-condensing) Non-operating: 5% to 95% (non-condensing)
Altitude	Operating: 0 to 10,000 ft (3,048 m) Non-operating: 0 to 50,000 ft (15,240 m)
LED Activity	LED Amber – Radio OFF; LED OFF – Radio ON
HP Integrated Module with Bluetooth® 4.0/4.1/4.2/5.0/5.1/5.2/5.3/5.4 Wireless Card Technology	
Bluetooth® Specification	4.0/4.1/4.2/5.0/5.1/5.2/5.3/5.4 Wireless Card Compliant
Frequency Band	2402 to 2480 MHz
Number of Available Channels	Legacy: 0~79 (1 MHz/CH) BLE: 0~39 (2 MHz/CH)
Data Rates and Throughput	Legacy: 3 Mbps data rate; throughput up to 2.17 Mbps BLE: 1 Mbps data rate; throughput up to 0.2 Mbps Legacy: Synchronous Connection Oriented links up to 3, 64 kbps, voice channels Legacy: Asynchronous Connection Less links 2178.1 kbps/177.1 kbps asymmetric (3-DH5) or 864 kbps symmetric (3-EV5)
Transmit Power	The Bluetooth component shall operate as a Class II Bluetooth device with a maximum transmit power of + 4 dBm for BR and EDR.
Power Consumption	Peak (Tx): 330 mW Peak (Rx): 230 mW Selective Suspend: 17 mW
Bluetooth® Software Supported Link Topology	Microsoft Windows Bluetooth Software
Power Management	Microsoft Windows ACPI, and USB Bus Support
Certifications	FCC (47 CFR) Part 15C/E, Section 15.247, 15.249 ETSI 300 328, ETSI 301 893
Bluetooth® Profiles Supported	Bluetooth 4.1-ESR 5/6/7 Compliance LE Link Layer Ping LE Dual Mode LE Link Layer LE Low Duty Cycle Directed Advertising

	LE L2CAP Connection Oriented Channels Train Nudging & Interlaced Scan Bluetooth 4.2 ESR08 Compliance LE Secure Connection- Basic/Full LE Privacy 1.2 –Link Layer Privacy LE Privacy 1.2 –Extended Scanner Filter Policies LE Data Packet Length Extension FAX Profile (FAX) Basic Imaging Profile (BIP)2 Headset Profile (HSP) Hands Free Profile (HFP) Advanced Audio Distribution Profile (A2DP) Bluetooth 5.1 ESR9/10 Compliance LE Advertisement Extensions Channel Selection Algo Limited High Duty Cycle Non-Connectable Advertising 2Mbps LE LE Long Range

1. Wi-Fi 6 is designed to support gigabit data rate when transferring files between two devices connected to the same router. Requires a wireless router, sold separately, that supports 80MHz and higher channels.
Wireless access point and Internet service required and sold separately. Availability of public wireless access points limited. Wi-Fi 6 (802.11ax) is backwards compatible with prior 802.11 specs.
2. The FCC has declared as of September 1, 2014 products that utilize passive scanning on channel 12/13 and are capable of transmitting must fully comply with requirements of 15.247 or otherwise disable those channels.
3. Check latest software/driver release for updates on supported security features.
4. Receiver sensitivity is measured at a packet error rate of 8% for 802.11b (CKK modulation) and a packet error rate of 10% for 802.11a/g (OFDM modulation).

Realtek RTL8852CE 802.11ax 2x2 Wi-Fi 6E + Bluetooth® 5.3 Wireless Card (802.11ax 2x2, supporting gigabit data rate)	
Wireless LAN Standards[1]	IEEE 802.11a IEEE 802.11b IEEE 802.11g IEEE 802.11n IEEE 802.11ac IEEE 802.11ax IEEE 802.11d IEEE 802.11e IEEE 802.11h IEEE 802.11i IEEE 802.11k
Interoperability	Wi-Fi certified
Frequency Band	802.11b/g/n/ax • 2.402 – 2.482 GHz 802.11a/n/ac/ax • 5.15 – 5.25 GHz • 5.25 – 5.35 GHz • 5.47 – 5.725 GHz • 5.825 – 5.850 GHz • 5.955 – 6.415 GHz • 6.435 – 6.515 GHz • 6.535 – 6.875 GHz • 6.895 – 7.115 GHz
Data Rates	• 802.11b: 1, 2, 5.5, 11 Mbps • 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps • 802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps • 802.11n: MCS 0 ~ MCS 15, (20MHz, and 40MHz) • 802.11ac: MCS0 ~ MCS9, (20MHz, 40MHz, ,80MHz & 160MHz) • 802.11ax: MCS0 ~ MCS11, (20MHz, 40MHz, ,80MHz & 160MHz)
Modulation	Direct Sequence Spread Spectrum OFDM, BPSK, QPSK, CCK, 16-QAM, 64-QAM, 256-QAM, 1024QAM
Security[2]	• IEEE and WiFi certified 64 / 128 bit WEP encryption for a/b/g mode only • AES-CCMP: 128 bit in hardware • 802.1x authentication • WPA, WPA2: 802.1x. WPA-PSK, WPA2-PSK, TKIP, and AES. • WPA2 certification • WPA3 (personal) certification • IEEE 802.11i • WAPI • EAP
Network Architecture Models	Ad-hoc (Peer to Peer) Infrastructure (Access Point Required)
Roaming	IEEE 802.11 compliant roaming between access points

Output Power[3]	• 802.11b: +17dBm minimum • 802.11g: +16dBm minimum • 802.11a: +17dBm minimum • 802.11n HT20(2.4GHz): +14dBm minimum • 802.11n HT40(2.4GHz): +13dBm minimum • 802.11n HT20(5GHz): +14dBm minimum • 802.11n HT40(5GHz): +13dBm minimum • 802.11ac VHT80(5GHz): +10dBm minimum • 802.11ac VHT160(5GHz): +10dBm minimum • 802.11ax HE40(2.4GHz): +12dBm minimum • 802.11ax HE80(5GHz): +10dBm minimum • 802.11ax HE160(5GHz): +10dBm minimum • 802.11ax HE80(6GHz): +10dBm minimum • 802.11ax HE160(6GHz): +10dBm minimum
Power Consumption	• Transmit mode: 2.5 W • Receive mode: 2 W • Idle mode (PSP) 180 mW (WLAN Associated) • Idle mode: 50 mW (WLAN unassociated) • Connected Standby/Modern Standby: 10mW • Radio disabled: 8 mW
Power Management	ACPI and PCI Express compliant power management 802.11 compliant power saving mode
Receiver Sensitivity[4]	• 802.11b, 1Mbps: -93.5dBm maximum • 802.11b, 11Mbps: -84dBm maximum • 802.11a/g, 6Mbps: -86dBm maximum • 802.11a/g, 54Mbps: -72dBm maximum • 802.11n, MCS07: -67dBm maximum • 802.11n, MCS15: -64dBm maximum • 802.11ac, MCS0(VHT80): -84dBm maximum • 802.11ac, MCS9(VHT80): -59dBm maximum • 802.11ac, MCS9(VHT160): -58.5dBm maximum • 802.11ax, MCS11(HE40): -57dBm maximum • 802.11ax, MCS11(HE80): -54dBm maximum • 802.11ax, MCS11(HE160): -53.5dBm maximum
Antenna type	High efficiency antenna with spatial diversity Two embedded tri-band 2.4/5/6 GHz antennas are provided to the card to support WLAN MIMO communications and Bluetooth communications
Form Factor	PCI-Express M.2 MiniCard
Dimensions	1. Type 2230: 2.3 x 22.0 x 30.0 mm
Weight	1. Type 2230: 2.8g
Operating Voltage	3.3v +/- 9%
Temperature	Operating: 14° to 158° F (–10° to 70° C) Non-operating: –40° to 176° F (–40° to 80° C)
Humidity	Operating: 10% to 60% (non-condensing) Non-operating: 5% to 95% (non-condensing)
Altitude	Operating: 0 to 10,000 ft (3,048 m) Non-operating: 0 to 50,000 ft (15,240 m)
LED Activity	N/A

Technical Specifications – Networking

HP Integrated Module with Bluetooth® 4.0/4.1/4.2/5.0/5.1/5.2/5.3 Wireless Card Technology	
Bluetooth® Specification	4.0/4.1/4.2/5.0/5.1/5.2/5.3 Wireless Card Compliant
Frequency Band	2402 to 2480 MHz
Number of Available Channels	Legacy: 0~79 (1 MHz/CH) BLE: 0~39 (2 MHz/CH)
Data Rates and Throughput	Legacy: 3 Mbps data rate; throughput up to 2.17 Mbps BLE: 1 Mbps data rate; throughput up to 0.2 Mbps Legacy: Synchronous Connection Oriented links up to 3, 64 kbps, voice channels Legacy: Asynchronous Connection Less links 2178.1 kbps/177.1 kbps asymmetric (3-DH5) or 864 kbps symmetric (3-EV5)
Transmit Power	The Bluetooth component shall operate as a Class II Bluetooth device with a maximum transmit power of + 4 dBm for BR and EDR.
Power Consumption	Peak (Tx): 330 mW Peak (Rx): 230 mW Selective Suspend: 17 mW
Bluetooth® Software Supported Link Topology	Microsoft Windows Bluetooth Software
Power Management	Microsoft Windows ACPI, and USB Bus Support
Certifications	FCC (47 CFR) Part 15C/E, Section 15.247, 15.249, 15.407 ETSI 300 328, ETSI 301 893, ETSI 303 687
Bluetooth® Profiles Supported	Bluetooth 4.1-ESR 5/6/7 Compliance LE Link Layer Ping LE Dual Mode LE Link Layer LE Low Duty Cycle Directed Advertising LE L2CAP Connection Oriented Channels Train Nudging & Interlaced Scan Bluetooth 4.2 ESR08 Compliance LE Secure Connection- Basic/Full LE Privacy 1.2 –Link Layer Privacy LE Privacy 1.2 –Extended Scanner Filter Policies LE Data Packet Length Extension FAX Profile (FAX) Basic Imaging Profile (BIP)2 Headset Profile (HSP) Hands Free Profile (HFP) Advanced Audio Distribution Profile (A2DP) Bluetooth 5.2 ESR9/10 Compliance LE Advertisement Extensions Channel Selection Algo Limited High Duty Cycle Non-Connectable Advertising 2Mbps LE LE Long Range Windows Bluetooth profiles support Bluetooth 5.3

	Periodic Advertisement interval Encryption key size control enhancements

1. Wi-Fi 6E requires a Wi-Fi 6E router, sold separately, to function in the 6GHz band. Availability of public wireless access points limited. Wi-Fi 6E is backwards compatible with prior 802.11 specs. And available in countries where Wi-Fi 6E is supported. Wi-Fi 6E is designed to support gigabit data rate when transferring files between two devices connected to the same router. Requires a wireless router, sold separately, that supports 80MHz and higher channels.
2. Check latest software/driver release for updates on supported security features.
3. The FCC has declared as of September 1, 2014 products that utilize passive scanning on channel 12/13 and are capable of transmitting must fully comply with requirements of 15.247 or otherwise disable those channels.
4. Receiver sensitivity is measured at a packet error rate of 8% for 802.11b (CKK modulation) and a packet error rate of 10% for 802.11a/g (OFDM modulation).

After-Market Options (availability may vary by region)

AFTER MARKET OPTIONS

Type	***Description***	***Part #***
Memory	HP 8GB DDR5-5600 DIMM	A9TF0AA
	HP 16GB DDR5-5600 DIMM	A9TF1AA
	HP 32GB DDR5-5600 DIMM	A9TF3AA
Storage	HP PCIe Gen 4 NVME TLC M.2 512GB SSD	406L8AA
	HP PCIe Gen 4 NVME TLC M.2 1TB SSD	406L7AA
	HP 1TB 7200rpm SATA 6Gb/s 3.5” Hard Drive	QK555AA
Graphics	AMD Radeon RX 6300 2GB GDDR6 DP+HDMI	7Y6P7AA
Networking	Intel I226-T1 2.5GbE Ethernet Network Adapter	9P1U8AA
Security	HP Business PC Security Lock V3 Kit	3XJ17AA
	HP Keyed Cable Lock 10mm kit	T1A62AA
	HP Master Keyed Cable Lock 10mm	T1A63AA
	HP Combination Standard Cable Lock	T0Y15AA
	HP Essential Combination Lock	T0Y16AA
Cables/Adapters	HP HDMI Standard Cable Kit	T6F94AA
	HP USB to Serial Port Adapter	J7B60AA
	HP PCIe x1 Parallel Port Card	N1M40AA
Input	HP Business Slim v2 Smart Card USB Keyboard	A71J9AA
	HP 125 G2 Wired Keyboard	AY2Y7AA
	HP 125 Wired Mouse	265A9AA
	HP 128 Laser Wired Mouse	265D9AA
	HP Wired Desktop 320M Mouse	9VA80AA
	HP 320K G2 Wired Keyboard	9SR37UT
	HP Wired Desktop 320MK G2 Mouse and Keyboard Combo	9SR36UT
	HP 655 Wireless Keyboard and Mouse Combo G2	4R009UT
	HP 405 Multi-Device Wired Backlit Keyboard	7N7C1AA
	HP 455 G2 Programmable WRLS USB Keyboard	B08ZDAA
	HP 475 Dual-Mode Wireless Keyboard	7N7B9AA

Others	HP S101 Speaker bar	5UU40AA
	HP Z G3 Conferencing Speaker Bar wStand	647Y2AA

Change Log

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Wi-Fi® is a registered trademark of Wi-Fi Alliance®.

Date of change:	Version History:		Description of change:
January 17, 2025	From v1 to v2	Correction	DDR4 corrected to DDR5 in Memory section
January 21, 2025	From v2 to v3	Removal	NECC word removed from Memory section
March 28, 2025	From v3 to v4	Correction	Maximum of displays changed to 2 in DisplayPort in Graphics section
April 15, 2025	From v4 to v5	Correction	Internal Speaker values corrected to none.
June 12, 2025	From v5 to v6	Addition	TCO Certification added to Environmental table
July 10, 2025	From v6 to v7	Correction	High-definition audio table values corrected
July 24, 2025	From v7 to v8	Correction	All M.2 2280 PCIe NVMe SSD´s interface and speed based corrected to PCIE Gen4x4 and minimum sequential read/write respectively
October 15, 2025	From v8 to v9	Addition	BIOS added to Software section
November 13,2025	From v9 to v10	Addition	Footnotes 2 and 3 added to front call outs section
December 9, 2025	From v10 to v11	Update	BIOS in SW section updated
February 11, 2026	From v11 to v12	Addition	Memory cards added

ENERGY STAR CERTIFIED
Computers

HP - HP ProDesk 2 SFF G1i Desktop PC ENERGY STAR : TPC-P073-SF

Specifications

ENERGY STAR Unique ID:	4471356
Brand Name:	HP
Model Name:	HP ProDesk 2 SFF G1i Desktop PC ENERGY STAR
Model Number:	TPC-P073-SF
Type:	Desktop
Operating System Name:	Windows 11
Physical CPU Cores (count):	20
Processor Brand:	Intel
Processor Name:	Core i7
System Memory (GB):	64.0
Default Low-power Mode:	Connected Sleep
TEC of Model (kWh):	53.3
Base TEC Allowance (kWh):	41
Functional Adder Allowances (kWh):	46.5
Long Idle (watts):	3.0
Long Idle Power Used for Sleep Mode:	No
Off Mode (watts):	0.5
Short Idle (watts):	14.7
Sleep Mode (watts):	3.0
Ethernet Capability:	Yes
WOL (Wake on LAN) From Sleep:	Shipped Enabled Under All Conditions
Touch Screen:	No
Date Available On Market:	2025-01-10
Date Certified:	2025-07-11
Markets:	United States, Switzerland, Taiwan, Japan, Canada
ENERGY STAR Certified:	Yes

Additional Model Information

HP ProDesk 2 SFF G1i; HP ProDesk 2 SFF G1i E; HP ProDesk 2 SFF G1i E Desktop PC ENERGY STAR

UPC Codes	198415981684, 198415981714, 198415981738, 198701601265

Captured On:
05/15/2026

HP ProDesk 2 SFF G1i Desktop PC ENERGY STAR

Product Summary:

Product Type:	**Desktop**
Registered In:	**Brazil**
Manufacturer:	**HP**
EPEAT Version:	**1.0**
EPEAT Tier:	**Gold**
Registration Date:	**2025-02-14**
Product Status:	**Active**
EPEAT Climate+:	**Achieved February 14, 2025.**
Exceptions:	**Configurations that are not ENERGY STAR qualified do not meet required criterion 4.5.1.1.**
Universal Product Code(s):	**198415981684, 198415981714, 198415981738, 198701601265**

All unique product identifiers existing for this product may not be listed here. If the unique product identifier you are looking for is not listed, please contact EPEAT at EPEAT@GEC.org.

EPEAT Tier Score Detail

For a product to be listed on the EPEAT Registry, it must, at a minimum, meet the applicable "required" criteria. Click here to see a list of the required criteria for this product category.

This product has met the necessary required criteria.

Along with required criteria, products can also meet optional criteria and score optional points. It is not required for a product to achieve any optional points.

Products that meet all required criteria and achieve **less than 50%** of the optional points are rated at **EPEAT Bronze**	Products that meet all required criteria and achieve **50 - 74%** of the optional points are rated at **EPEAT Silver**	Products that meet all required criteria and achieve **75 - 100%** of the optional points are rated at **EPEAT Gold**

The optional criteria for this product category and optional points achieved by this product are listed below.

Optional Criteria	Scores
4.1 Substance Management	**14 / 16**
(4.1.2.1) Restrictions of the use of cadmium	1
(4.1.4.1) Restriction of the use of beryllium	1
(4.1.5.2) Further reduction of bromine and chlorine content of plastic materials	1
(4.1.6.1) Avoidance or elimination of substances on EU REACH Annex XIV (authorization list)	1
(4.1.6.2) Reduction of substances on the EU REACH Candidate List of SVHCs	0
(4.1.8.1) Chemical assessment and selection	2
(4.1.9.1) IEC 62474 declarable substances	1

(4.1.9.2) Requesting substance inventory	1
(4.1.9.3) Acquiring substance inventory	2
(4.1.10.1) Reduce fluorinated gas emissions from flat panel display manufacturing	2
(4.1.10.2) Reduce fluorinated greenhouse emissions from semiconductor production	2

4.2 Materials Selection — 2 / 3

(4.2.1.2) Higher post-consumer recycled, ITE-derived post-consumer recycled plastic, or bio-based content	2
(4.2.1.3) Post-consumer recycled, ITE-derived post-consumer recycled plastic	0

4.4 Product longevity/life-cycle extension — 1 / 2

(4.4.2.2) Publicly available service information	0
(4.4.2.5) Product upgradeability and repairability	1

4.5 Energy Conservation — 3 / 4

(4.5.1.3) Energy efficiency for internal power supplies	2
(4.5.1.5) Product energy consumption less than the ENERGY STAR Maximum Energy Limit	1

4.7 Packaging — 1 / 2

(4.7.3.2) Packaging composed of recycled, and/or biobased, and/or sustainably forested content	1
(4.7.4.1) Offering of a bulk packaging option	0

4.8 Life cycle assessment and carbon — 6 / 6

footprint

(4.8.1.1) Product life cycle assessment and public disclosure of analyses	2
(4.8.1.2) Product specific greenhouse gas emissions—product carbon footprint	2
(4.8.2.1) Corporate carbon footprint	1
(4.8.2.2) Greenhouse gas emissions from product transport	1

4.9 Corporate Environmental Performance

9 / 9

(4.9.1.2) Third party certified environmental management system (EMS) for supplier manufacturing facilities	1
(4.9.2.2) Corporate environmental performance reporting by suppliers	1
(4.9.3.1) Energy management system/energy performance improvement –manufacturers	1
(4.9.3.2) Energy management system/energy performance improvement for suppliers	2
(4.9.4.1) Renewable energy use by manufacturer	2
(4.9.4.2) Renewable energy use by manufacturer suppliers	2

4.10 Corporate social responsibility

4 / 6

(4.10.1.1) Socially responsible manufacturing: Labor	1
(4.10.1.2) Socially responsible manufacturing: OHS	1
(4.10.2.2) Participation in an in-region program that advances responsible sourcing of conflict minerals	1

(4.10.2.3) Smelter and refiner participation in OECD-aligned third party mechanisms	1

TOTAL OPTIONAL CRITERIA SCORE:	**40 / 48**

Please note that it is not required for a product to achieve any optional points.

Some optional criteria may not be applicable to a product. Optional criteria that are not applicable (N/A) to the product are not included in the Total Optional Criteria Score, and are not reflected above.

For any questions, comments, or feedback regarding the EPEAT Registry, please contact us.

Computers & Displays Product Category Required Criteria

(4.1.1)	Product carbon footprint disclosure and assurance
(4.1.1.1)	Conformance with European Union ROHS Directive substance restrictions
(4.1.2)	Corporate GHG Inventory
(4.1.3.1)	Elimination of intentionally added mercury in light sources
(4.1.5.1)	Reduction of bromine and chlorine content in plastic parts >25 grams
(4.1.7.1)	Compliance with provisions of EU Battery Directive
(4.2.1)	Manufacturer GHG reduction target aligned with climate science

(4.2.1.1)	Minimum post-consumer recycled plastic, ITE-derived post-consumer recycled plastic or bio-based plastic content
(4.3.1)	Communication of energy management requirements for key component facilities
(4.3.1.1)	Identification of materials and components requiring selective treatment
(4.3.2.1)	Plastic parts compatible with recycling
(4.3.2.2)	Plastic parts separable for recycling
(4.4.1)	Manufacturer use of renewable electricity
(4.4.1.1)	Service support
(4.4.2.1)	Removal of external enclosure
(4.4.2.3)	Spare parts
(4.4.2.4)	Battery replacement and information
(4.5.1.1)	Conformance to current ENERGY STAR program requirements
(4.5.1.2)	Lowest Power Mode limit
(4.6.1)	Conformance with applicable ENERGY STAR® product eligibility criteria
(4.6.1.1)	Provision of product take-back services
(4.6.2)	External power supply energy efficiency
(4.6.2.1)	Provision of a removable rechargeable battery take-back program
(4.6.3)	Battery charger system energy efficiency
(4.6.3.1)	End-of-life processing
(4.7.1.1)	Elimination of intentionally added heavy metals in packaging
(4.7.1.2)	Elimination of elemental chlorine as a bleaching agent in packaging material

(4.7.2.1)	Separable packaging material
(4.7.2.2)	Plastics marked in packaging materials
(4.7.3.1)	Recycled content in wood-based fiber packaging
(4.9.1.1)	Third party certified environmental management system (EMS) for design and manufacturing organizations
(4.9.2.1)	Corporate environmental performance reporting by manufacturer
(4.10.2.1)	Public Disclosure regarding conflict minerals in products

Microsoft

Hardware certification report **Approved**

Private product ID:	**13693331368309615**
Shared product ID:	**402059734**
Submission ID:	**1152921505698703080**
Submission date:	**12/24/2024**
Completion date:	**12/24/2024**
Company:	**HP Inc.**
Product name:	**Lumiere3 Sonia SKU1 / PR**
Category:	**System**
Product type:	**Desktop**
Qualification level:	**Certified for Microsoft Windows 11 Client family version 24H2, x64**
Marketing name:	**HP ProDesk 2 SFF G1i Desktop PC** **HP ProDesk 2 SFF G1i E Desktop PC**

Microsoft Certified

Annex B2 - Product environmental attributes
Computers and computer monitors

The declaration may be published only when all rows and/or fields marked with * are filled-in (n.a. for not applicable). Additional information regarding each item may be found under P15.

Brand *	***HP***	Logo
Company name *	***HP***	
Contact information * e-mail address	***HP Sustainability and Compliance Center*** ***sustainability@hp.com***	
Internet site *	***http://www.hp.com/hpinfo/globalcitizenship/environment/***	
Additional information		

The company declares (based on product specification or test results based obtained from sample testing), that the product conforms to the statements given in this declaration.	
Type of product *	***Desktop***
Commercial name *	**HP ProDesk 2 SFF G1i / G1i E Desktop PC ENERGY STAR**
Model number *	***ProDesk 2 SFF G1i / G1i E***
Issue date *	***1/10/2025***
Intended market *	☐ **Global** ☐ **Europe** ☒ **Asia, Pacific & Japan** ☐ **Americas** ☐ **Other**
Additional information	

This is an uncontrolled copy when in printed form. Please refer to the contact information for the latest version.

About Annex B2
Annex B2 reflects Product environmental attributes relevant for Computers and Computer Monitors. The following items from the ECMA-370 Main body are not shown in the template:
P4.1 – P4.3 Consumable materials
P9.1 TEC and Print speed
P10.2 - P10.3 Chemical emissions from printing products
P11.1 - P11.3 Consumable materials for printing products.

Model number *	***ProDesk 2 SFF G1i / G1i E***	**Logo**	
Issue date *	***1/10/2025***		

Product environmental attributes - Legal requirements		**Requirement met**		
Item		Yes	No	n.a.
P1	**Hazardous substances and preparations**			
P1.1*	Products do comply with current European RoHS Directive. (See legal reference and NOTE B1)	☒	☐	
P1.2*	Products do not contain Asbestos (see legal reference). Comment: Legal reference has no maximum concentration value.	☒	☐	
P1.3*	Products do not contain Ozone Depleting Substances: Chlorofluorocarbons (CFC), hydrobromofluorocarbons (HBFC), hydrochlorofluorcarbons (HCFC), Halons, carbontetrachloride, 1,1,1-trichloroethane, methyl bromide (see legal reference). Comment: Legal reference has no maximum concentration values.	☒	☐	
P1.4*	Products do not contain more than; 0,005% polychlorinated biphenyl (PCB), 0,005% polychlorinated terphenyl (PCT) in preparations (see legal reference).	☒	☐	
P1.5*	Products do not contain more than 0,1% short chain chloroparaffins (SCCP) with 10-13 carbon atoms in the chain containing at least 48% per mass of chlorine in the SCCP (see legal reference).	☒	☐	
P1.6*	Parts with direct and prolonged skin contact do not release nickel in concentrations above 0,5 μg/cm²/week (see legal reference). Comment: Max limit in legal reference when tested according to EN1811:2011-5.	☒	☐	☐
P1.7*	REACH Article 33 information about substances in articles is available at (add URL or mail contact): REACH Article 33 Declarations (hp.com)	☒	☐	☐
P2	**Batteries**			
P2.1*	If the product contains a battery or an accumulator, the battery/accumulator is labeled with the disposal symbol. Information on proper disposal is provided in user manual. (See legal reference)	☒	☐	☐
P2.2*	Batteries or accumulators do not contain more than 0,0005% of mercury or 0,002% of cadmium. (See legal reference)	☒	☐	☐
P2.3*	Batteries and accumulators are readily removable. (See legal reference)	☐	☐	☒
P2.4*	Documentation includes the number of cycles the (secondary) battery can withstand. (See legal reference)	☐	☐	☒
P2.5*	When internal batteries of a notebook computer cannot be “accessed and replaced by a nonprofessional user”, the related text is present and legible on the external packaging (see legal reference)	☐	☐	☒
P3	**Conformity verification & Eco design (ErP)**			
P3.1*	The product is CE-marked to show conformance with applicable legal requirements (see legal reference). The Declaration of Conformity can be requested at (add link or e-mail address): http://www8.hp.com/uk/en/certifications/technical/regulations-certificates.html sustainability@hp.com	☒	☐	☐
P3.2*	The product complies with the applicable Eco design requirements for energy-related products, (see legal reference).	☒	☐	☐
	Required information is; ☐ given in item P15 or added to this document, ☒ available at (add URL): ***https://h20195.www2.hp.com/v2/library.aspx?doctype=92&footer=88&filter_doctype=no&showregionfacet=yes&filter_country=no&cc=us&lc=en&filter_oid=no&filter_prodtype=rw&prodtype=ij&showproductcompatibility=yes&showregion=yes&showreglangcol=yes&showdescription=yes%23doctype-92&sortorder-popular&teasers-off&isRetired-false&isRHParentNode-false&titleCheck-false#doctype-92&sortorder-popular&teasers-off&isRetired-false&isRHParentNode-false&titleCheck-false***	☒	☐	☐
P5	**Product packaging**			
P5.1*	Packaging and packaging components do not contain more than 0,01% lead, mercury, cadmium and hexavalent chromium by weight of these together.	☒	☐	
P5.2*	The packaging materials are marked with abbreviations and numbers indicating the nature of the material(s) used (see legal reference).	☒	☐	☐
P5.3*	The product packaging material is free from ozone depleting substances as specified in the Montreal Protocol (see legal reference). Comment: Legal reference has no maximum concentration values.	☒	☐	☐
P6	**Treatment information**			
P6.1*	Information for recyclers/treatment facilities is available (see legal reference).	☒	☐	☐

NOTE B1 Restriction applies to the homogeneous material, unless other specified and expressed in weight %. Stating “Yes” means that the product is compliant with the mandatory requirements.

Model number *	*ProDesk 2 SFF G1i / G1i E*	Logo	
Issue date *	*1/10/2025*		

Product environmental attributes - Market requirements (See General NOTE GN below) **- Environmental conscious design**		**Requirement met**		
Item	*=mandatory to fill in. Additional information regarding each item may be found under P14.	Yes	No	n.a.
P7	**Design** **Disassembly, recycling**			
P7.1*	Parts that have to be treated separately are easily separable	☒	☐	☐
P7.2*	Plastic materials in covers/housing have no surface coating.	☒	☐	☐
P7.3*	Plastic parts > 100 g consist of one material or of easily separable materials.	☒	☐	☐
P7.4*	Plastic parts > 25 g have material codes according to ISO 11469 referring ISO 1043-4.	☒	☐	☐
P7.5	Plastic parts are free from metal inlays or have inlays that can be removed with commonly available tools.	☒	☐	☐
P7.6*	Labels are easily separable. (This requirement does not apply to safety/regulatory labels).	☒	☐	☐
	Product lifetime			
P7.7*	Upgrading can be done e.g. with processor, memory, cards or drives	☒	☐	☐
P7.8*	Upgrading can be done using commonly available tools	☒	☐	☐
P7.9	Spare parts are available after end of production for: **5** years			☐
P7.10	Service is available after end of production for: **5** years			☐
	Material and substance requirements			
P7.11*	Product cover/housing material type (e.g. plastics, metal, aluminum): Material type: ***aluminium*** Material type: ***steel*** Material type: ***stainless steel***			
P7.12	Insulation materials of external electrical cables are PVC free.	☐	☒	☐
P7.13	Insulation materials of internal electrical cables are PVC free.	☒	☐	☐
P7.14	External plastic casing/cover parts > 25 g contain no more than 0,1% weight (1000 ppm) bromine and 0,1% weight (1000 ppm) chlorine attributable to brominated flame retardants, chlorinated flame retardants, and polyvinyl chloride or 0,3% weight (3000 ppm) bromine and 0,3% weight (3000 ppm) chlorine in parts containing more than 25% post-consumer recycled content.	☒	☐	☐
P7.15	Printed circuit boards, PCBs (without components) are low halogen: all ☐ PCBs > 25 g ☒ are low halogen as defined in IEC 61249-2-21. (See [5]NOTE B2)	☒	☐	☐
P7.16	Flame retarded plastic parts > 25 g in covers / housings are marked according ISO 1043-4: Marking: ***>PC+ABS-FR(40)<, >PBT-FR(40)<, PBT+PET-GF30 FR(40)(REC25)***	☒	☐	☐
P7.17	Alt. 1: Chemical specifications of flame retardants in printed circuit boards > 25 g (without components): TBBPA (additive) ☐, TBBPA (reactive) ☐ (See NOTE B3), Other; chemical name: , CAS #: Alt. 2: Chemical specifications of flame retardants in printed circuit boards (without components) > 25 g according ISO 1043-4: ***FR(40)***	☐ ☒	☐ ☐	☐ ☐
P7.18	Alt. 1: Flame retarded plastic parts > 25 g contain the following flame retardant substances/preparations in concentrations above 0,1%: 1. Chemical name: , CAS #: (See NOTE B4) 2. Chemical name: , CAS #: " 3. Chemical name: , CAS #: " Alt. 2: Chemical specifications of flame retardants in plastic parts > 25 g according ISO 1043-4: ***>PBT-GF30FR(40)<***	☐ ☒	☐ ☐	☐ ☐
P7.19	In plastic parts > 25 g, flame retardant substances/preparations above 0,1% are used which have been assigned the following Risk phrases; ***R53*** and Hazard statements: ***H413 - May cause long-lasting harmful effects to aquatic life*** The source(s) for these classifications is/are found at (URL(s): ***http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database*** (See NOTE B5)	☒	☐	☐

GENERAL NOTE Standard references should direct to the latest version of a standard. If an older version of a standard is used, section P15 shall be used for explanation.

NOTE B2 IEC 61249-2-21 defines maximum limits of 900 ppm for each of the substances chlorine and bromine and a maximum limit of 1500ppm of these substances combined. The standard does not address fluorine, iodine and astatine which are included in the group of halogens.

NOTE B3 and B4 A Guidance document on Chemical substances is available; see http://www.ecma-international.org/publications/standards/Ecma-370.htm.

NOTE B5 If a certain substance has been assigned a certain risk phrases / hazard statement in the referenced source, this does not necessarily mean the substance has been tested for all of the hazards referred to by a certain customer.

Model number *	*ProDesk 2 SFF G1i / G1i E*	Logo
Issue date *	*1/10/2025*	

Product environmental attributes - Market requirements (continued)		Requirement met		
Item		Yes	No	n.a.
	Material and substance requirements (continued)			
P7.20*	Postconsumer recycled plastic material content is used in the product (See NOTE B6): If YES; at least one of the two alternatives below shall be answered; a) Of total plastic parts' weight > 25 g, the postconsumer recycled plastic material content (calculated as a percentage of total plastic by weight) is ***46.5*%**. or b) The weight of recycled material is g.	☒	☐	☐
P7.21*	Biobased plastic material content is used in the product (See NOTE B7): If YES; at least one of the two alternatives below shall be answered; a) Of total plastic parts' weight > 25 g, the biobased plastic material content (calculated as a percentage of total plastic by weight) is %. or b) The weight of the biobased plastic material is g.	☐	☒	☐
P7.22*	Light sources are free from mercury, i.e. less than 0,1 mg/lamp. If mercury is used specify: Number of lamps: and maximum mercury content per lamp: mg	☐	☐	☒
P7.23*	If product includes an integral display, the total mercury content in the integrated display: mg	☐	☐	☐
P8	**Batteries**			
P8.1*	Battery chemical composition: ***lithium/manganese dioxide***			☐
P9	**Energy consumption (See NOTE B8)**			
P9.1	For the product the following power levels or energy consumptions are reported:			

Energy mode *	Power level at **100** V AC	Power level at **115** V AC	Power level at **230** V AC	Reference/Standard for energy modes and test method *	
EPS No-load (External power supply / charger plugged in the wall outlet but disconnected from the product.)	***N/A***	***N/A***	***N/A***	***EPS Energy Report Data***	
PTEC * Typical Energy Consumption	W	W	W	***N/A***	☒
ETEC * Annual Energy Consumption	***54.52*** kWh/year	***53.34*** kWh/year	***59.48*** kWh/year	***ENERGY STAR® Program Requirements for Computer***	☐
External Power Supply Efficiency Level (International Efficiency Marking Protocol) * :				***ENERGY STAR® Program Requirements for Computer***	☒
Display resolution * : megapixels				***ENERGY STAR® Program Requirements for Computer***	☐
Default time to enter energy save mode: minutes				***ENERGY STAR® Program Requirements for Computer***	☐

P9.2*	Information about the energy save function is provided with the product.	☒	☐	☐
P9.3	Energy efficiency class (monitors only):			☒

NOTE B6 Applies to a product containing plastic parts whose combined weight exceeds 100 g with the exception of printed circuit boards, cables, connectors and electronic components and bio-based plastic material.

NOTE B7 The following is to be excluded from the calculation of percentage: printed circuit boards, labels, cables, connectors and electronic components and postconsumer recycled plastic

NOTE B8 A Guidance document on Energy Efficiency is available;

see http://www.ecma-international.org/publications/standards/Ecma-370.htm.

Model number *	*ProDesk 2 SFF G1i / G1i E*	Logo	
Issue date *	*1/10/2025*		

Product environmental attributes - Market requirements (continued)				Requirement met		
Item				Yes	No	n.a.
P10	**Emissions**					
	Noise emission – Declared according to ISO 9296 (See NOTE **B9**)					
P10.1	Mode	Mode description	Statistical upper limit A-weighted sound power level, $L_{WA,c}$ (B)			
	Idle	* ***Fans on***	* ***3.4***			☐
	Operation	* ***Fans on, HDD spinning***	* ***3.4***			☐
	Other mode					
	Measured according to: ☒ ISO 7779 ☒ ECMA-74 ☐ Other (only if not covered by ECMA-74)					
	Electromagnetic emissions					
P10.4	Computer display meets the requirement for low frequency electromagnetic fields of the following voluntary program(s):			☐	☐	☐
P12	**Ergonomics for computing products**					
P12.1*	The display meets the ergonomic requirements of ISO 9241-307 for visual display technologies.			☐	☐	☒
P12.2*	The physical input device meets the requirements of ISO 9995 and ISO 9241-410.			☒	☐	☐
P13	**Packaging and documentation**					
P13.1*	Product packaging material type(s): ***PAPER/Corrugated*** weight (kg): ***0.854*** Product packaging material type(s): ***PAPER/Molded Pulp*** weight (kg): ***0.230*** Product packaging material type(s): ***OTHER/other*** weight (kg): ***0.022***					
P13.2*	Product plastic primary packaging is free from PVC.			☒	☐	☐
P13.3*	For product primary corrugated fiberboard packaging, specify the contained percentage of minimum post-consumer recovered fiber content: ***90*** %					☐
P13.4*	Specify media for user and product documentation (tick box): Electronic ☐, Paper ☐, Other ☒ 'available in hp.com'					☐
P13.5	(Please only complete this item if paper documentation used) User and product documentation on paper media is chlorine-free: If Yes, please specify:			☒	☐	
	Totally chlorine-free			☒		
	Elemental chlorine-free			☐		
	Processed chlorine-free			☐		
P14	**Voluntary programs**					
P14.1	The product meets the requirements of the following voluntary program(s):					
	ENERGY STAR®	Criteria version: ***9.0***	Date: ***1/10/2025***	Product category: ***Commercial Desktop***		
	Eco-label: ***EPEAT***	Criteria version: ***IEEE 1680.1***	Date: ***1/10/2025***	Product category: ***Commercial Desktop***		
	Eco-label:	Criteria version:	Date:	Product category:		
P15	**Additional information (See NOTE B10)**					
P9	***Energy consumption of computer products; description of the tested product configuration:***					
All Sections	***1. Product environmental information contained in this declaration is valid as of the date the declaration is published. Changes to external standards referenced in the IT Eco-Declaration may invalidate some information contained in this declaration over***					
P1	***1. This product does not include DEHP, BBP, DIBP, or DBP.***					

NOTE B9 A Guidance document on Acoustic Noise is available; see http://www.ecma-international.org/publications/standards/Ecma-370.htm.

NOTE B10 Additional lines may be inserted to declare further items, by positioning the cursor at the far right of the row and hitting the <Enter> key.

P7 ***Product Upgradability and Reparability***

The following table is provided in accordance with IEEE 1680.1-2018[6] criterion 4.4.2.5.

feature	Available [1]	Repairable [2]	Replaceable [3]	Upgradeable [4]
processor	Y	Y	Y	Y
main memory	Y	Y	Y	Y
mass storage (internal)	Y	Y	N	N
wireless networking	Y*	Y	Y	Y
integrated graphics	Y	Y	Y*	Y
discrete graphics	Y*	Y	Y	Y
display panel	N	N/A	N/A	N/A
integrated keyboard	N	N/A	N/A	N/A
batteries	Y	Y	Y	N
power supply	Y	Y	Y	N
fan assemblies	Y	Y	Y	N
speaker(s) (internal)	Y*	Y	N	N
camera	N	N/A	N/A	N/A
touchpad	N	N/A	N/A	N/A
I/O connectors and external power connector	Y	Y	N	N
readers [5]	N	N/A	N/A	N/A

Table notes:
[1] Y* = feature is available, but may not be included in every configuration
[2] Product can be repaired (returned to fully functional state) if feature fails.
[3] Feature can be replaced using only commonly available tools without soldering or de-soldering. Y* = replacement may require replacing an assembly to which the feature is attached.
[4] Base feature may be upgraded by replacing it with a higher performance module or by expanding capacity through use of expansion slots. NOTE: This evaluation does not
account for situations in which the initial configuration purchased is already maximized. Contact HP Sales or an HP authorized reseller to determine the availability of upgrade parts and method to obtain them in your geography.
[5] This feature category includes readers such as fingerprint readers, smart card readers, and other read-only devices, but excludes read/write devices.

P9 ***1. European Union Commission Regulation 2023/826- Energy Efficiency Information:***

Mode / Condition	Power Consumption in Watts at 230 VAC Input Voltage	Default Time to Mode / Conditi (if applicable)
Off Mode (if applicable)		Not Applicable
Standby Mode (if applicable)	Not Applicable	Not Applicable
Network Standby / Sleep / Long Idle Mode if all wired network ports are connected and all wireless network ports are activated (if applicable)		
Network Standby / Sleep / Long Idle Mode (if applicable)		
Technical characteristics of the external power supply to be used with that equipment. (Equipment that needs an external power supply, but it is placed on the market without one) (if applicable)		

2.European Union Commission Regulation 2023/826- Wireless Network Instructions:

Where applicable, activate and deactivate a wireless network using the instructions provided in the product user guide or the operating system. Information is also available at www.hp.com/support.

6 IEEE Standard for Environmental and Social Responsibility Assessment of Computers and Displays

P15.1 ***Critical Mineral Content disclosure***

	Zinc	***Manganese***	***Praseodymium***
Secondary batteries			
Magnets	***>1-5g***	***6-25g***	***101-500mg***
Display panels/ screens			

Note: Report data in mass ranges, such as < 1 mg, 1-100 mg, 101-500 mg, 501-1,000 mg, >1-5 g, 6-25 g, > 25 g.

P10	**Sound Pressure Level**		
	Noise emission – Declared according to ISO 9296 (See NOTE [B9])		
P10.1	Mode	Mode description	Statistical upper limit A-weighted sound pressure level, $L_{pA,m}$ (dB)
	Idle	* ***Fans on***	* ***23.1***
	Operation	* ***Fans on, HDD spinning***	* ***23.9***
	Other mode		
	Measured according to: ☒ ISO 7779 ☒ ECMA-74 ☐ ***Other*** ***(only if not covered by ECMA-74)***		

Legal references Europe Annex B2

Reference	Declaration item
Directive 2011/65/EU (RoHS Directive)* * Specific exemptions apply for certain products and applications.	P1.1, P3.1
Regulation (EC) 1907/2006 (REACH Regulation), annex XVII	P1.2, P1.4, P1.6, P1.7
Regulation (EC) 2037/2000, 2038/2000, 2039/2000 (Marketing and use of Ozone layer depleting substances)	P1.3, P5.3
Norwegian regulation relating to restrictions on the use of certain dangerous chemicals 20.12.2002	P1.5
Directive 2006/66/EC (Battery and accumulators Directive), as amended.* * These provisions shall not apply where, for safety, performance, medical or data integrity reasons, continuity of power supply is necessary and requires a permanent connection between the appliance and the battery or accumulator.	P2.1, P2.2, P2,3, P8.1
Directive 2014/35/EU (Low Voltage Directive)	P3.1
Directive 2014/30/EU (EMC Directive)	P3.1
Directive 2014/53/EU (RE Directive)	P3.1
Regulation (EC) 801/2013 amending Regulation (EC) No 1275/2008 with regard to ecodesign requirements for standby, off mode electric power consumption of electrical and electronic household and office equipment, and amending Regulation (EC) No 642/2009 with regard to ecodesign requirements for televisions	P3.1, P3.2
Commission Regulation (EC) No 278/2009 of 6 April 2009 implementing Directive 2005/32/EC of the European Parliament and of the Council with regard to ecodesign requirements for no-load condition electric power demand and average active efficiency of external power supplies	P3.1, P3.2, P9.1
COMMISSION REGULATION (EU) No 617/2013 of 26 June 2013 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for computers and computer servers	P2.4, P2.5, P3.1, P3.2, P7.23, P9.1
Regulation（EC）No 1272/2008 (CLP Regulation)	P7.19
Directive 2004/12/EC (Packaging Directive)	P5.1
Decision 97/129/EC (Secondary packaging legislation)	P5.2
Directive 2012/19/EU (WEEE directive) Implementing Regulation (EU) 2019/290 establishing the format for registration and reporting of producers of electrical and electronic equipment to the register. Commission Implementing Regulation 2017/699 establishing a common methodology for the calculation of the weight of electrical and electronic equipment (EEE) placed on the national market in each Member State and a common methodology for the calculation of the quantity of waste electrical and electronic equipment (WEEE) generated by weight in each Member State.	P6.1

[별지 제 1 호 서식]

유해물질 함유기준 준수 여부 확인. 평가서

공표자	상 호	에이치피코리아유한회사 (전화: 02-780-6200)	법인등록번호	110114-0158623
	대표자 성명	김 대 환	사업자등록번호	741-81-00060
	주 소	150-724 서울 영등포구 의사당대로 83 (여의도동)		

제 품 정 보

① 제품의 종류	개인용 컴퓨터	제품명 (규격)	HP Compaq Computer
② 세부모델명(번호)	HP ProDesk 2 SFF G1i / G1i E Desktop PC ENERGY STAR	최초 출시일	2025/01/10
제품의 중량	5.80 kg	③ 제조.수입업자	에이치피코리아유한회사

당사는 위 [x] 전기.전자제품 / [ ] 자동차가 "전기.전자제품 및 자동차의 자원순환에 관한 법률 시행령" 제 11조 제1항과 같은 법 시행규칙 제 3조에 따라 사용제한 유해물질의 함유기준을 확인.평가한 결과 [x] 준수 / [ ] 미준수 하였음을 공표합니다.

년 월 일

(주: 본 제품의 확인 평가 내역 공표는 정부 웹사이트 EcoAS 에 온라인으로 제출되었으므로 공표 일자는 생략합니다.)

공표자 김 혜 선

구비서류 : 없음

* 작성요령

① 제품의 종류는 "전기.전자제품 및 자동차의 자원순환에 관한 법률 시행령" 제 8 조 제 1 항 및 제 2 항에 따른 품목별로 구분하여 기재합니다.

② 전기.전자제품의 경우 모델명(번호), 자동차의 경우 제원관리번호를 기재합니다.

③ 해당 제품의 제조업자 또는 수입업자를 기재합니다.

[Appendix Table 1]

Confirmation and Evaluation Form Concerning the Adherence to Acceptable Standards of Hazardous Materials Contained in Product

Statement prepared by	Company Name	HP Korea (Phone No.: 02-780-6200)	Corporate Identification Number	110114-0158623
	Name of Company Representative	Kim, Dae Hwan	Business Registration Number	741-81-00060
	Address	83, Uisadang-daero, Youngdeungpo-gu, Seoul, Republic of Korea		

Product Information

① Product Category	Personal Computer	Name of Product (Specification)	HP Compaq Computer
② Detailed Product Model Name (Model Number)	HP ProDesk 2 SFF G1i / G1i E Desktop PC ENERGY STAR	Date of first market release	2025/01/10
Weight of Product	5.80 kg	③ Manufacturer and/or Importer	HP Korea

This form is to publicly certify that we have undergone the confirmation and evaluation procedures for the acceptable amounts of hazardous materials contained in [x] electrical-electronic products / [ ] vehicles according to the regulations stipulated in Article 3 of the "Statute on the Recycling of Electrical and Electronic Products, and Automobiles" and that the company has [x] Adhered / [ ] Not Adhered to the Enforcement Regulations of Article 11, Item 1 of the Statute.

Date. . . .

(Remark: The declaration date is omitted here, because the actual declaration was made online at the designated Korea government web system "EcoAS")

Authorizing Representative Hyesun Kim 

Attachments: None

* Preparing the Form:

① Please indicate the product category according to the categories listed in Article 8, Items 1 and 2 of the "Enforcement Ordinance of the Statute on the Recycling of Electrical, Electronic and Automobile Materials"

② For electrical and electronic products, please indicate the Model Name (and number). For automobiles, please indicate the Vehicle Identification Number.

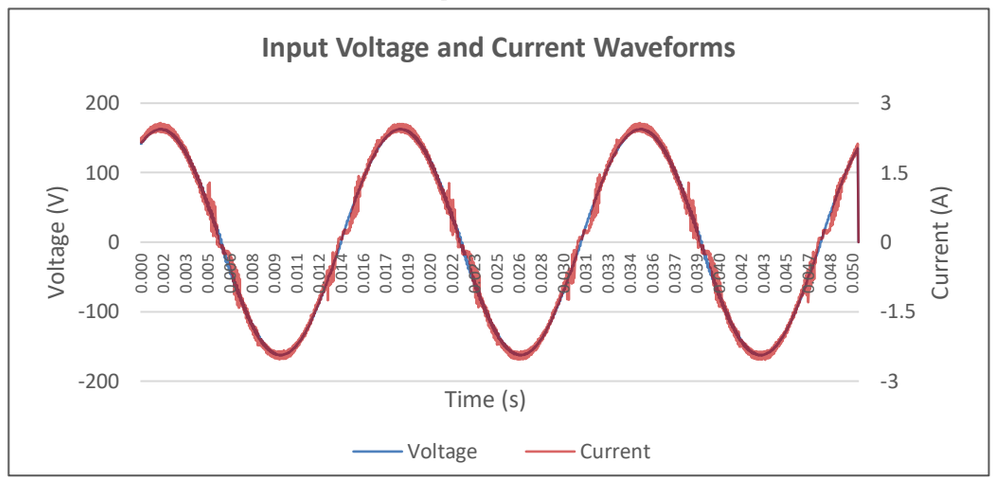
③ Please indicate the name of the manufacturer and/or importer of the product.

80 PLUS Verification and Testing Report

TYPICAL EFFICIENCY (50% Load):	**91.79%**
AVERAGE EFFICIENCY :	**88.12%**
80 PLUS COMPLIANT:	**Gold**



ID Number	7569
Manufacturer	HP, Inc.
Model Number	D23-180P1A
Serial Number	T6O071000165
Type	CUSTOM
Test Date	9/26/24

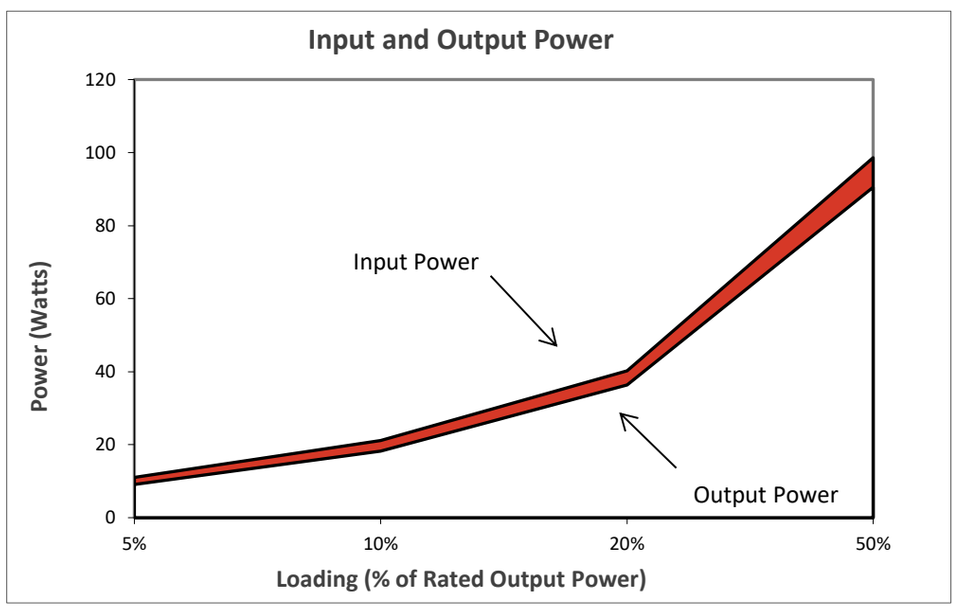


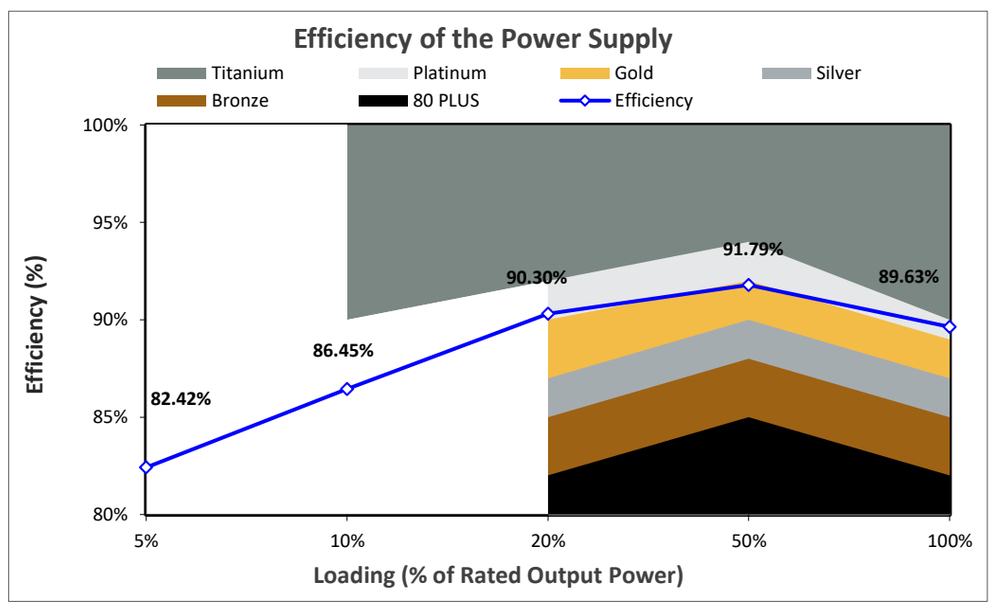
Input AC Current Waveform (ITHD = 5.35%, 50% Load)

Rated Specifications	Value	Units
Input Voltage	100-240	**Volts**
Input Current	2.3	**Amps**
Input Frequency	50-60	**Hz**
Rated Output Power	180	**Watts**

Note: All measurements were taken with input voltage at 115 V nominal at 60 Hz.

I_{RMS} (A)	PF	I_{THD} (%)	Load	Input Watts	DC Terminal Voltage (V)/ DC Load Current (A) 12.1V	Output Watts	Efficiency
0.062	0.0554	2.96	0%	0.73	No-Load		
0.130	**0.7392**	22.45	5%	11.07	12.26/0.75	9.12	**82.42%**
0.205	**0.8937**	15.42	10%	21.08	12.25/1.49	18.22	**86.45%**
0.363	**0.9662**	9.38	20%	40.29	12.23/2.98	36.38	**90.30%**
0.860	**0.9964**	5.35	50%	98.60	12.17/7.44	90.50	**91.79%**
1.744	**0.9975**	4.46	100%	200.04	12.05/14.88	179.29	**89.63%**





These tests were conducted by a third party independent testing firm on behalf of the 80 PLUS Program. 80 PLUS is a certification program to promote highly-efficient power supplies (greater than 80% efficiency in the active mode) in technology applications.
http://www.80plus.org/

HP ProDesk 2 SFF G1i Desktop PC

CLOSE

OPTIONS

HP

C1025060044

SHARE

BRAND NAME	HP
SALES NAME	HP ProDesk 2 SFF G1i Desktop PC
MODEL NAME	TPC-P073-SF
WEIGHT	5.1 kg
SUPPORTED PRODUCT LIFE	5 years
POST-CONSUMER RECYCLED MATERIALS	14 %
ANNUALIZED PRODUCT CARBON FOOTPRINT	80,5 kg CO2e / year
TYPICAL ENERGY CONSUMPTION	59.5 kWh / year
CERTIFICATION	TCO Certified, generation 10, for desktops
CERTIFICATE NUMBER	C1025060044
CERTIFICATION DATE	2025-06-13
EXPIRY DATE	2027-06-13

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HP ProDesk 2 SFF G1i Desktop PC

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Planilha de dados

Monitor HP P22a G5 FHD

Grandes recursos. Grandes vantagens.

Todos os dias, esse monitor FHD proporciona maior produtividade e conforto. Desde a tela IPS nítida de 21,5 polegadas na diagonal, com design de microborda de 3 lados, até a capacidade de ajuste em 3 direções, este monitor ajuda você a trabalhar confortavelmente durante o dia. Facilite o trabalho híbrido por meio de uma tela nítida e suave, que se conecta convenientemente aos dispositivos que você usa com mais frequência.



*A imagem do produto pode ser diferente do produto atual

Mais conforto. Mais produtividade.

- Encontre sua melhor posição com ajustes de inclinação, pivô e altura de 100 mm para ajudar você a se manter produtivo durante todo o dia. Além disso, filtre as emissões de luz azul e mude as cores para um espectro mais quente, tendo uma visualização mais confortável, com o modo de luz azul baixa da HP.

Visualizações suaves de qualquer ângulo.

- Desfrute de vídeos fluidos e visuais nítidos com uma taxa de atualização de 75 Hz[1] e resolução Full HD - tudo de praticamente qualquer ângulo com a tecnologia de painel IPS. Além disso, aumente sua produtividade com visualizações praticamente ininterruptas de uma ou várias telas com uma moldura de microborda de três lados que suporta matrizes praticamente contínuas.

Praticidade plug-and-play

- Este monitor conta com 4 portas USB-A de fácil acesso que facilitam a conexão de vários dispositivos como mouse, teclado e webcam. Além disso, conecte-se rapidamente a dispositivos adicionais, como um PC ou uma fonte de vídeo, usando as portas HDMI, DisplayPort™ e VGA[2].

Recursos

Oferece tranquilidade
Fique tranquilo com a garantia limitada de 3 anos.

Design para consumo eficiente de energia
A eficiência energética está incorporada a este monitor, pois ele tem certificação ENERGY STAR® e TCO, além de registro EPEAT®.[3]

Projetado pensando no meio ambiente
Este monitor é embalado em uma caixa externa 100% reciclável para que você possa se sentir bem com sua compra.[4]

Monitor HP P22a G5 FHD Tabela de especificações





*A imagem do produto pode ser diferente do produto atual

Display size (diagonal, metric)	54,6 cm (21,5")
Tipo do visor	IPS
Área ativa do painel	47,61 x 26,78 cm
@@Brightness@@	250 nits[1]
Contrast ratio (static)	1000:1[1]
Contrast ratio (dynamic)	10000000:1
Taxa de resposta	GtG de 5 ms (com overdrive)[1]
Cor do produto	Preto
Relação largura-altura	16:9[1]
Backlight type	Iluminação de borda
Detachable stand	Yes
Curvature	Plana
Resolução nativa	FHD (1920 x 1080)[1,2]
Resoluções admitidas	640 x 480; 720 x 400; 800 x 600; 1024 x 768; 1280 x 720; 1280 x 800; 1280 x 1024; 1440 x 900; 1600 x 900; 1680 x 1050; 1920 x 1080; 720 x 480
Características do visor	Controles na tela; Rotação em pivô; Modo de luz azul baixa; Antirreflexo; Altura ajustável
Controles do usuário	Gerenciamento; Informações; Sair; Entrada; Cor; Imagem; Alimentação; Menu; Brilho+
Portas e conectores	1 VGA; 1 HDMI 1.4; 1 DisplayPort™ 1.2; 4 SuperSpeed USB Type-A com taxa de sinalização de 5 Gbps; 1 USB-B
HDCP	Sim, DisplayPort™ e HDMI
Ambiental	Temperatura de funcionamento: 5 a 35 °C Umidade de funcionamento: 20 a 80% UR
Alimentação	100 - 240 VCA, 50/60 Hz
Consumo de energia	54 W (máximo), 15 W (típico), 0,5 W (estado de espera)
Dimensões	48,91 x 5,98 x 29,6 cm (sem suporte)
Peso	4,7 kg (com suporte)
Funcionalidades de segurança física	Pronto para bloqueio de segurança[8]
Rótulos ecológicos	Certificação TCO; Registro EPEAT®[4]; Certificado pela ENERGY STAR®
Certificação e conformidade	CB; CE; Certificado livre de Flicker TÜV; Certificação Microsoft WHQL (Windows 11 e Windows 10); TUV - Luz azul baixa; INMETRO (Brasil)
Sustainable impact specifications	85% de plásticos reciclados pós-consumo; A caixa externa é 100% de origem sustentável[5,6]
Conteúdo da caixa	Monitor; Cabo DisplayPort™; Cabo HDMI; Cabo USB Type-A para B; Cabo de alimentação CA; Kit de documentos[7]
Dimensões do palete (Largura x Profundidade x Altura)	120 x 100 x 223,8 cm
Peso da palete	342 kg
Pixels per inch (ppi)	102 ppi
Panel bit depth	8 bits (6 bits + FRC)[1]
Vertical viewing angle	178°[1]
Horizontal viewing angle	178°[1]
Bezel	Microborda de três lados
Tilt	-5 a +23°
Pivot	±90°
Height adjustment range	100 mm
VESA mounting	100 x 100 mm
Hardness	3H[1]
Screen treatment	Anti-reflexo
Flicker-free	Sim
Low blue light modes	Sim (Certificação TÜV)
Mostrar freqüência da tela (vertical)	50 a 75 Hz[1]
Mostrar freqüência da tela (horizontal)	30 a 80 kHz[1]
Espaçamento de pixels	0,25 x 0,25 mm
Cores na tela	Suporte para até 16,7 milhões de cores[3]
Gama de cores do monitor	72% NTSC[1]
Software de gestão	Centro de exibição HP[9]

Monitor HP P22a G5 FHD

Notas de rodapé de mensagens

[1] Todas as especificações de desempenho representam as especificações típicas fornecidas pelos fabricantes dos componentes utilizados nos produtos HP; o desempenho real pode ser maior ou menor.
[2] A caixa inclui cabos HDMI, DisplayPort™.
[3] Com base no registro de EPEAT® EUA de acordo com IEEE 1680.1-2018 EPEAT®. O registro EPEAT® varia conforme o país. Acesse www.epeat.net para obter mais informações.
[4] Os centros de reciclagem não estão disponíveis em todos os lugares.

Notas de rodapé das especificações técnicas

[1] Todas as especificações representam as especificações típicas fornecidas pelos fabricantes dos componentes utilizados nos produtos HP; o desempenho real pode variar para mais ou para menos.
[2] DisplayPort™ 1.2 ou HDMI 1.4 necessário para a tela funcionar na sua resolução nativa. A placa de vídeo do PC conectado deve ser capaz de oferecer suporte a 1920 x 1080 a 60 Hz com cores de 8 bits usando uma DisplayPort™, HDMI. A placa de vídeo do PC conectado deve ser capaz de oferecer suporte a 1920 x 1080 e conter uma saída DisplayPort™ ou uma saída HDMI para o monitor funcionar no Modo preferencial.
[3] Número de cores por meio da tecnologia A-FRC.
[4] Registro EPEAT® quando aplicável. O registro EPEAT® varia conforme o país. Acesse www.epeat.net para ver o status do registro por país. Com base no registro EPEAT® dos EUA de acordo com a IEEE 1680.1-2018 EPEAT®. O status varia de acordo com o país. Acesse www.epeat.net para obter mais informações.
[5] A porcentagem de conteúdo de plástico reciclado é baseada na definição estabelecida no padrão IEEE 1680.1-2018.
[6] 100% da embalagem da caixa externa produzida com fibras certificadas e recicladas de origem sustentável.
[7] Os cabos incluídos podem variar de acordo com o país.
[8] Trava vendida separadamente.
[9] O PC host requer Windows 10 e superior. O HP Display Center está disponível na loja da Microsoft.

Receba atualizações hp.com/go/getupdated

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Dezembro 2023

Technical Specifications

HP P22a G5 FHD Monitor



Front

1. OSD Buttons
2. Power Button
3. Power LED

Technical Specifications

HP P22a G5 FHD Monitor



Back

1. Power Connector
2. DisplayPort™ Connector
3. HDMI Port
4. VGA Port
5. USB-B Port
6. USB-A Ports (2)
7. USB-A Ports (2)
8. Security Cable Slot

Technical Specifications

Model: 8D5J1AA

Panel Specifications	**Display Size (Diagonal)**	21.5 inch (54.61 cm)
	Panel Technology	IPS
	Max Refresh Rate	75 Hz
	Native Resolution	1920 x 1080
	Panel Bit Depth	8 bit (6 bit + FRC)
	Aspect Ratio	16:9
	Brightness (Typical)	250 nits
	Contrast Ratio (Static)	1000:1
	Dynamic Contrast Ratio	10000000 :1
	Flicker Free	Yes
	Pixel Pitch	0.248 x 0.248 (mm)
	Pixels Per Inch (PPI)	102 PPI
	Display colors	Up to 16.7 million colors supported* *Number of colors through A-FRC technology.
	Backlight Lamp Life Minimum (To Half Brightness - In Hours)	30K
	Backlight Type	Edge-lit
	Screen Treatment	Anti-glare
	Hardness	3H
	Haze	25%
	Response Time (Typical)	5ms GtG (with overdrive)
	Horizontal Viewing Angle (Typical Cr>10)	178°
	Vertical Viewing Angle (Typical CR>10)	178°
	Panel Active Area Metric (W x H)	47.606 x 26.779 cm
	Panel Active Area Imperial (W x H)	18.74 x 10.54 inch
	NOTE: Performance specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower.	
Color	**NTSC**	72%
Color Management	**Color Space/ Subsampling Support**	YCBCR 4:4:4, YCBCR 4:2:2
	RGB Channel Adjust	Yes, Gain
	Default Color Temperature	Standard (6500K)
Monitor Specifications	**Bezel Type**	3-sided micro-edge
	Color of Stand	Black
	Color of Head	Black
	Tilt	-5 to +23°
	Pivot	±90
	Height Adjustment Range	100 mm
	VESA Mounting	100 mm x 100 mm
	Security Lock	Standard Security Lock Slot
	Detachable Stand	Yes
	Warranty	3/3/0
	Low Blue Light	Yes (TÜV certified)
	Management Software	HP Display Center

Technical Specifications

On Screen Display (OSD)	**On Screen Display**	Brightness+, Color, Image, Input, Power, Menu, Management, Information, Exit
	Native Resolution	1920 x 1080 @ 60 Hz* *DisplayPort 1.2 or HDMI 1.4 required to drive panel at its native resolution
	Maximum Resolution	FHD (1920 x 1080 @ 75 Hz)
	Preset Graphic Modes/Supported Resolutions	640 x 480 @ 60Hz, 640 x 480 @ 75Hz, 720 x 400 @ 70 Hz, 720 x 480 @ 60 Hz, 800 x 600 @ 60 Hz, 800 x 600 @ 75 Hz, 1024 x 768 @ 60 Hz, 1024 x 768 @ 75 Hz, 1280 x 720 @ 60 Hz, 1280 x 800 @ 60 Hz , 1280 x 1024 @ 60 Hz, 1280 x 1024 @ 75 Hz, 1440 x 900 @ 60 Hz, 1600 x 900 @ 60 Hz, 1680 x 1050 @ 60 Hz, 1920 x 1080 @ 50 Hz 1920 x 1080 @ 60 Hz 1920 x 1080 @ 75 Hz
	Minimum Vertical Scan Rate	50 Hz
	Maximum Vertical Scan Rate	75 Hz
	Minimum Horizontal Scan Rate	30 Khz
	Maximum Horizontal Scan Rate	80 Khz
	Maximum Pixel Clock	180 MHz
	Languages	English
	USER PROGRAMMABLE MODES	Yes. 10
	User-Assignable Function Buttons	Yes, 3 (6 options)
	Languages	10 (English, Spanish, German, French, Italian, Netherlands, Portuguese, Japanese, T-Chinese and S-Chinese)
Connector Types	**DisplayPort™**	1 DisplayPort™ 1.2
	HDMI	1 HDMI 1.4
	HDCP	Yes, DisplayPort™ and HDMI
	USB- A	4 SuperSpeed USB Type-A 5Gbps signaling rate
	USB-B (Hub enablement)	1 USB-B
	VGA	1 VGA
Special Features	**Switch**	Menu/OK, Minus ("-")/Brightness, Plus ("+"), /Color/Auto-Adjustment, Next Active Input, Power
	User Presets	12

Technical Specifications

Power & Operating Specs	**Power Supply**	Internal
	Power Source	100 – 240 VAC 50/60 Hz
	Power Consumption- Max	54 W
	Energy Saving/Stand By Mode	0.5 W
	Power Consumption- Typical	15 W
Energy Star Data	**Operational Mode at 100 VAC**	10.53W
	Operational Mode at 115 VAC	10.48W
	Operational Mode at 230 VAC	10.71W
Eu Energy Efficiency Class (ErP LOT5)	**On-mode Power Consumption for Standard Dynamic Range (SDR)**	12
	ErP LOT5 Energy Efficiency Class for Standard Dynamic Range (SDR)	
Operating Conditions	**Operating Temperature - Celsius**	5° – 35°C
	Operating Temperature - Fahrenheit	41° – 95°F
	Non-Operating Temperature – Celsius	-20° – 60°C
	Non-Operating Temperature - Fahrenheit	-4° – 140°F
	Operating Humidity	20 – 80% Relative Humidity (non-condensing)
	Non-operating Humidity	5 – 95%
	Operating Altitude metric	0 – 5,000 m (16,400 ft.)
	Non-operating Altitude metric	0 – 12.192 m (40,000 ft.)
Certifications and Compliances	**Low Halogen**	Yes* *External power supplies, WWAN modules, power cords, cables and peripherals excluded.
	Agency Approvals and Certifications	CB/ TCO/CE/TUV Low blue light/Flick free /Brazil INMETRO
	Microsoft WHQL Certification	Win 11, Win 10
	ENERGY STAR® Certified	Yes
	EPEAT®	EPEAT® Registered* *Based on US EPEAT® registration according to IEEE 1680.1-2018 EPEAT®. Status varies by country. Visit http://www.epeat.net for more information.
	TCO Certified	Yes
Contains Recycled Plastics	**Contains Recycled Plastics**	80% post-consumer recycled plastic* *Recycled plastic content percentage is based on the definition set in the IEEE 1680.1-2018 standard.
	Recyclable Packaging (Box, packing materials)	Outer box is 100% sustainably sourced* *100% outer box packaging made from sustainably sourced certified and recycled fibers.

Technical Specifications

		Metric	Imperial
Unit Product/Package Specifications	**Product Dimensions** (Unpacked with stand) (W x D x H)	48.91 x 21.15 x 45.7 cm	19.26 x 8.33 x 17.99 in
	Product Dimensions (Packed) (W x D x H)	56.5 x 35 x 20.8 cm	22.24 x 13.78 x 8.19 in
	Display Head Dimensions (Packed) (W x D x H)	48.91 x 5.98 x 29.6 cm	19.26 x 2.35 x 11.66 in
	Base Area Footprint (w x d mm)	214.5 x 211.5 mm	8.44 x 8.33 in
	Bezel Measurements - Metric	Bottom 20.63 mm	Bottom 0.81 in
	Product Weight (Unpacked with stand)	4.7 kg	10.34 lb
	Product Weight (Packed)	6.6 kg	14.52 lb
	Product Weight (Head Only)	2.45 kg	5.39 lb
Pallet Information	**Pallet Dimensions** (L x W x H mm)	Pallet: 1200 x 1000 x 2238 mm (40' ft)	Pallet: 47.24 x 39.37 x 88.11 inch (40' ft)
	Pallet Total Weight	Pallet: 342 kg (40' ft)	Pallet: 752.4 lb (40'ft)
	Pallet Layers	10 layers per pallet	
	Pallet Product per Layer	5 per layer (pallet)	
	Total Products per Pallet	50 sets per pallet	
What's in the box?	AC power cord (1.83m) 5.9ft, HDMI 1.4 cable (1.8m) 5.9 ft USB 3.0 A-B cable (1.8m) DP 1.2 cable (1.8m) Doc kit		
User Guide and Warranty Languages	**User Guide Languages**	Arabic, Bahasa Indonesia, Bulgarian, Chinese-S, Chinese-T, Czech, Danish, Dutch, English, Estonian, Finnish, French, German, Greek, Hebrew, Hungarian, Italian, Japanese, Kazakh, Korean, Latvian, Lithuanian, Norwegian, Polish, Portuguese (Brazilian), Portuguese (Iberian), Romanian, Russian, Serbian, Slovak, Slovenian, Spanish, Swedish, Thai, Turkey, Ukrainian	
	Warranty Languages	English US (EN), English AP (EN-AP), English LA (EN-LA), English UK (EN-GB), Arabic (AR) -17x, Bahasa Indonesia (ID), Bosnian (BS), Bulgarian (BG), Chinese-S (CN), Chinese-T (TW), Croatian (HR), Czech (CS), Danish (DA), Dutch (NL), Estonian (ET), Finnish (FI), French Canadian (FC), French European (FR), German (DE), Greek (EL), Hebrew (HE), Hungarian (HU), Italian (IT), Japanese (JA), Kazakh (KK), Korean (KO), Latvian (LV), Lithuanian (LT), Norwegian (NO), Polish (PL), Portuguese, Brazilian (BR), Portuguese, Iberian (PT), Romanian (RO), Russian (RU),	

Serbian (SR), Slovak (SK), Slovenian (SL), Spanish, Castilian (ES-ES), Spanish, Latin America (ES-MX), Swedish (SV), Thai (TH), Turkish (TR), Ukrainian (UK), Vietnamese (VI)

Technical Specifications

ENVIRONMENTAL DATA

Eco-Label Certifications & declarations	This product has received or is in the process of being certified to the following approvals and may be labeled with one or more of these marks: • IT ECO declaration • US ENERGY STAR® • US Federal Energy Management Program (FEMP) • EPEAT Gold registered in the United States. See http://www.epeat.net for registration status in your country. • TCO or TCO Certified Edge • China Energy Conservation Program (CECP) • China State Environmental Protection Administration (SEPA) • Taiwan Green Mark • Korea Eco-label • Japan PC Green label*		
Sustainable Impact Specifications	• 80% post-consumer recycled plastic • 85% ITE-Derived closed loop plastic • Low halogen • Outside Box and corrugated cushions are 100% sustainably sourced and recyclable		
System Configuration	The configuration used for the Energy Consumption and Declared Noise Emissions data for the Notebook model is based on a "Typically Configured Notebook".		
Energy Consumption (in accordance with US ENERGY STAR® test method)	**115VAC, 60Hz**	**230VAC, 50Hz**	**100VAC, 50Hz**
Normal Operation (Short idle)	10.02 W	10.39 W	9.99 W
Normal Operation (Long idle)	N/A	N/A	N/A
Sleep	0.15 W	0.2 W	0.14 W
Off	0.12 W	0.18 W	0.11 W
	NOTE: Energy efficiency data listed is for an ENERGY STAR® compliant product if offered within the model family. HP computers marked with the ENERGY STAR® Logo are compliant with the applicable U.S. Environmental Protection Agency (EPA) ENERGY STAR® specifications for computers. If a model family does not offer ENERGY STAR® compliant configurations, then energy efficiency data listed is for a typically configured PC featuring a hard disk drive, a high efficiency power supply, and a Microsoft Windows® operating system.		
Heat Dissipation*	**115VAC, 60Hz**	**230VAC, 50Hz**	**100VAC, 50Hz**
Normal Operation (Short idle)	34.16 BTU/hr	35.42 BTU/hr	34.06 BTU/hr
Normal Operation (Long idle)	N/A	N/A	N/A
Sleep	0.51 BTU/hr	0.68 BTU/hr	0.47 BTU/hr
Off	0.40 BTU/hr	0.61 BTU/hr	0.37 BTU/hr
	***NOTE:** Heat dissipation is calculated based on the measured watts, assuming the service level is attained for one hour.		
Longevity and Upgrading	This product can be upgraded, possibly extending its useful life by several years. Upgradeable features and/or components contained in the Spare parts are available throughout the warranty period and or for up to "5" years after the end of production.		

Technical Specifications

Additional Information	• This product is in compliance with the Restrictions of Hazardous Substances (RoHS) directive - 2011/65/EC. • This HP product is designed to comply with the Waste Electrical and Electronic Equipment (WEEE) Directive – 2002/96/EC. • This product is in compliance with California Proposition 65 (State of California; Safe Drinking Water and Toxic Enforcement Act of 1986). • This product is in compliance with the IEEE 1680 (EPEAT) standard at the Gold level, see www.epeat.net • Plastics parts weighing over 25 grams used in the product are marked per ISO11469 and ISO1043. • This product is 98.5% recycle-able when properly disposed of at end of life.		
Packaging Materials	**External:**	PAPER/Corrugated	674 g
		PAPER/Paper	34 g
	Internal:	PLASTIC/Polystyrene Expanded - EPS	335 g
		PLASTIC/Polyethylene high density - HDPE	50 g
	The plastic packaging material contains at least 0.0% recycled content.		
	The corrugated paper packaging materials contains at least 85.0% recycled content.		
RoHS Compliance	HP Inc. complies fully with materials regulations. We were among the first companies to extend the restrictions in the European Union (EU) Restriction of Hazardous Substances (RoHS) Directive to our products worldwide through the HP GSE. HP has contributed to the development of related legislation in Europe, as well as China, India, and Vietnam. We believe the RoHS directive and similar laws play an important role in promoting industry-wide elimination of substances of concern. We have supported the inclusion of additional substances—including PVC, BFRs, and certain phthalates—in future RoHS legislation that pertains to electrical and electronics products. We met our voluntary objective to achieve worldwide compliance with the new EU RoHS requirements for virtually all relevant products by July 2013, and we will continue to extend the scope of the commitment to include further restricted substances as regulations continue to evolve. To obtain a copy of the HP RoHS Compliance Statement, see HP RoHS position statement.		
Material Usage	This product does not contain any of the following substances in excess of regulatory limits (refer to the HP General Specification for the Environment at http://www.hp.com/hpinfo/globalcitizenship/environment/supplychain/gen_specifications.html): • Asbestos • Certain Azo Colorants • Certain Brominated Flame Retardants – may not be used as flame retardants in plastics • Cadmium • Chlorinated Hydrocarbons • Chlorinated Paraffins • Bis(2-Ethylhexyl) phthalate (DEHP) • Benzyl butyl phthalate (BBP) • Dibutyl phthalate (DBP)		

	• Diisobutyl phthalate (DIBP) • Formaldehyde • Halogenated Diphenyl Methanes • Lead carbonates and sulfates • Lead and Lead compounds • Mercuric Oxide Batteries • Nickel – finishes must not be used on the external surface designed to be frequently handled or carried by the user. • Ozone Depleting Substances • Polybrominated Biphenyls (PBBs) • Polybrominated Biphenyl Ethers (PBBEs) • Polybrominated Biphenyl Oxides (PBBOs) • Polychlorinated Biphenyl (PCB) • Polychlorinated Terphenyls (PCT) • Polyvinyl Chloride (PVC) – except for wires and cables, and certain retail packaging has been voluntarily removed from most applications. • Radioactive Substances • Tributyl Tin (TBT), Triphenyl Tin (TPT), Tributyl Tin Oxide (TBTO)
Packaging Usage	HP follows these guidelines to decrease the environmental impact of product packaging: • Eliminate the use of heavy metals such as lead, chromium, mercury and cadmium in packaging materials. • Eliminate the use of ozone-depleting substances (ODS) in packaging materials. • Design packaging materials for ease of disassembly. • Maximize the use of post-consumer recycled content materials in packaging materials. • Use readily recyclable packaging materials such as paper and corrugated materials. • Reduce size and weight of packages to improve transportation fuel efficiency. • Plastic packaging materials are marked according to ISO 11469 and DIN 6120 standards.
End-of-life Management and Recycling	HP offers end-of-life HP product return and recycling programs in many geographic areas. To recycle your product, please go to: http://www.hp.com/go/reuse-recycle or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner. The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: http://www.hp.com/go/recyclers. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.

Technical Specifications

HP, Inc. Corporate Environmental Information	For more information about HP's commitment to the environment: Global Citizenship Report http://www.hp.com/hpinfo/globalcitizenship/gcreport/index.html Eco-label certifications http://www8.hp.com/us/en/hp-information/environment/ecolabels.html ISO 14001 certificates: http://h20195.www2.hp.com/V2/GetDocument.aspx?docname=c04755842 and http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/cert.pdf
footnotes	• Percentage of ocean-bound plastic contained in each component varies by product • Recycled plastic content percentage is based on the definition set in the IEEE 1680.1-2018 standard. • External power supplies, WWAN modules, power cords, cables and peripherals excluded. • Plastic cushions are made from >90% recycled plastic.

Technical Specifications

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ENERGY STAR is a registered trademark owned by the U.S. Environmental Protection Agency.

Change Log

	V1 to V2		

Microsoft

Hardware certification report **Approved**

Private product ID:	**14494729974454720**
Shared product ID:	**401418643**
Submission ID:	**1152921505696554418**
Submission date:	**7/20/2023**
Completion date:	**7/20/2023**
Company:	**HP Inc.**
Product name:	**HP P22a G5 FHD Monitor**
Category:	**Device**
Product type:	**Monitor**
Qualification level:	**Certified for Microsoft Windows 11 Client family version 22H2, x64** **Certified for Microsoft Windows 10 Client family version 2004, x64** **Certified as Declarative INF**
Marketing name:	**HP P22a G5 FHD Monitor**

Microsoft Certified

ENERGY STAR CERTIFIED

Displays

HP - HP P22a G4 FHD Monitor : P22a G4

Specifications

ENERGY STAR Unique ID:	2380525
Brand Name:	HP
Model Name:	HP P22a G4 FHD Monitor
Model Number:	P22a G4
Product Type:	Monitor
Panel Type:	TFT LCD
Screen Size (inches):	21.5
Screen Area (square inches):	197.6
Native Resolution (pixels):	1920 x 1080
Maximum Luminance (candelas per square meter):	250.0
Total Native Resolution (megapixels):	2.1
Model Features:	None
Signal or Data Interfaces:	VGA,Display,HDMI,USB
Power Source:	Ac to dc internal power supply
Monitor Total Energy Consumption at 115 Volts (kWh/yr):	31.56
On Mode Power (watts):	10.02
Markets:	United States, Taiwan, Japan, Canada
Sleep Mode Power (watts):	0.15
Off Mode Power (watts):	0.12
ENERGY STAR Certified:	Yes
ENERGY STAR Most Efficient:	No

Additional Model Information

HP P22a G5 FHD Monitor,P22a G5,

UPC Codes	195908586548, 196548564200

Captured On:
02/15/2024

RETURN TO SEARCH

HP P22a G5 FHD Monitor

COMPUTERS & DISPLAYS

Product Summary:

Product Type:	Monitors
Registered In:	Brazil
Manufacturer:	HP
EPEAT Tier:	Gold
Registration Date:	2023-11-27
Product Status:	Active
Universal Product Code(s):	196548564200

All unique product identifiers existing for this product may not be listed here. If the unique product identifier you are looking for is not listed, please contact EPEAT at EPEAT@GEC.org.

EXPORT PRODUCT SUMMARY

EPEAT Tier Score Detail

For a product to be listed on the EPEAT Registry, it must, at a minimum, meet the applicable “required” criteria. Click here to see a list of the required criteria for this product category.

This product has met the necessary required criteria.

Along with required criteria, products can also meet optional criteria and score optional points. It is not required for a product to achieve any optional points.

Products that meet all required criteria and achieve **less than 50%** of the optional points are rated at
EPEAT Bronze

Products that meet all required criteria and achieve **50 - 74%** of the optional points are rated at
EPEAT Silver

Products that meet all required criteria and achieve **75 - 100%** of the optional points are rated at
EPEAT Gold

The optional criteria for this product category and optional points achieved by this product are listed below.

Optional Criteria	Scores
+ 4.1 Substance Management	13 / 16
+ 4.2 Materials Selection	3 / 3
+ 4.4 Product longevity/life-cycle extension	1 / 2
+ 4.5 Energy Conservation	2 / 2

+ 4.7 Packaging	0 / 2
+ 4.8 Life cycle assessment and carbon footprint	6 / 6
+ 4.9 Corporate Environmental Performance	9 / 9
+ 4.10 Corporate social responsibility	4 / 6
TOTAL OPTIONAL CRITERIA SCORE:	**38 / 46**

Please note that it is not required for a product to achieve any optional points.

Some optional criteria may not be applicable to a product. Optional criteria that are not applicable (N/A) to the product are not included in the Total Optional Criteria Score, and are not reflected above.

For any questions, comments, or feedback regarding the EPEAT Registry, please contact us.



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THE ECO DECLARATION

ecma INTERNATIONAL

Ecma/TC38-TG3/2015/026
(Rev. 1 – 15 April 2015)

Annex B2 - Product environmental attributes
Computers and computer monitors

The declaration may be published only when all rows and/or fields marked with * are filled-in (n.a. for not applicable).
Additional information regarding each item may be found under P15.

Brand *	***HP***	**Logo**
Company name *	***HP***	
Contact information * **e-mail address**	***HP Sustainability and Compliance Center*** ***sustainability@hp.com***	
Internet site *	***http://www.hp.com/hpinfo/globalcitizenship/environment/***	
Additional information		

The company declares (based on product specification or test results based obtained from sample testing), that the product conforms to the statements given in this declaration.	
Type of product *	***Display***
Commercial name *	***HP P22a G5 FHD Monitor***
Model number *	***P22a G5***
Issue date *	***11/27/2023***
Intended market *	☒ **Global** ☐ **Europe** ☐ **Asia, Pacific & Japan** ☐ **Americas** ☐ **Other**
Additional information	

This is an uncontrolled copy when in printed form. Please refer to the contact information for the latest version.

About Annex B2

Annex B2 reflects Product environmental attributes relevant for Computers and Computer Monitors. The following items from the ECMA-370 Main body are not shown in the template:
P4.1 – P4.3 Consumable materials
P9.1 TEC and Print speed
P10.2 - P10.3 Chemical emissions from printing products
P11.1 - P11.3 Consumable materials for printing products.

Model number *	*P22a G5*	Logo	
Issue date *	*11/27/2023*		

Product environmental attributes - Legal requirements		Requirement met		
Item		Yes	No	n.a.
P1	**Hazardous substances and preparations**			
P1.1*	Products do comply with current European RoHS Directive. (See legal reference and NOTE B1)	☒	☐	
P1.2*	Products do not contain Asbestos (see legal reference). Comment: Legal reference has no maximum concentration value.	☒	☐	
P1.3*	Products do not contain Ozone Depleting Substances: Chlorofluorocarbons (CFC), hydrobromofluorocarbons (HBFC), hydrochlorofluorcarbons (HCFC), Halons, carbontetrachloride, 1,1,1-trichloroethane, methyl bromide (see legal reference). Comment: Legal reference has no maximum concentration values.	☒	☐	
P1.4*	Products do not contain more than; 0,005% polychlorinated biphenyl (PCB), 0,005% polychlorinated terphenyl (PCT) in preparations (see legal reference).	☒	☐	
P1.5*	Products do not contain more than 0,1% short chain chloroparaffins (SCCP) with 10-13 carbon atoms in the chain containing at least 48% per mass of chlorine in the SCCP (see legal reference).	☒	☐	
P1.6*	Parts with direct and prolonged skin contact do not release nickel in concentrations above 0,5 μg/cm²/week (see legal reference). Comment: Max limit in legal reference when tested according to EN1811:2011-5.	☒	☐	☐
P1.7*	REACH Article 33 information about substances in articles is available at (add URL or mail contact): http://www.hp.com/hpinfo/globalcitizenship/environment/productdata/reachdesktop-pcs.html	☒	☐	☐
P2	**Batteries**			
P2.1*	If the product contains a battery or an accumulator, the battery/accumulator is labeled with the disposal symbol. Information on proper disposal is provided in user manual. (See legal reference)	☐	☐	☒
P2.2*	Batteries or accumulators do not contain more than 0,0005% of mercury or 0,002% of cadmium. (See legal reference)	☐	☐	☒
P2.3*	Batteries and accumulators are readily removable. (See legal reference)	☐	☐	☒
P3	**Conformity verification & Eco design (ErP)**			
P3.1*	The product is CE-marked to show conformance with applicable legal requirements (see legal reference). The Declaration of Conformity can be requested at (add link or e-mail address): http://www8.hp.com/uk/en/certifications/technical/regulations-certificates.html sustainability@hp.com	☒	☐	☐
P3.2*	The product complies with the Eco design requirements for energy-related products, (see legal reference). Required information is; ☒ given in item P15 or added to this document, ☐ available at (add URL):	☒ ☐	☐ ☐	☐ ☐
P5	**Product packaging**			
P5.1*	Packaging and packaging components do not contain more than 0,01% lead, mercury, cadmium and hexavalent chromium by weight of these together.	☒	☐	
P5.2*	The packaging materials are marked with abbreviations and numbers indicating the nature of the material(s) used (see legal reference).	☒	☐	☐
P5.3*	The product packaging material is free from ozone depleting substances as specified in the Montreal Protocol (see legal reference). Comment: Legal reference has no maximum concentration values.	☒	☐	☐
P6	**Treatment information**			
P6.1*	Information for recyclers/treatment facilities is available (see legal reference).	☒	☐	☐

NOTE B1 Restriction applies to the homogeneous material, unless other specified and expressed in weight %. Stating "Yes" means that the product is compliant with the mandatory requirements.

Model number *	***P22a G5***	**Logo**	
Issue date *	***11/27/2023***		

Product environmental attributes - Market requirements (See General NOTE GN below) **- Environmental conscious design**		**Requirement met**		
Item	*=mandatory to fill in. Additional information regarding each item may be found under P14.	Yes	No	n.a.
P7	**Design** **Disassembly, recycling**			
P7.1*	Parts that have to be treated separately are easily separable	☒	☐	☐
P7.2*	Plastic materials in covers/housing have no surface coating.	☐	☒	☐
P7.3*	Plastic parts > 100 g consist of one material or of easily separable materials.	☒	☐	☐
P7.4*	Plastic parts > 25 g have material codes according to ISO 11469 referring ISO 1043-4.	☒	☐	☐
P7.5	Plastic parts are free from metal inlays or have inlays that can be removed with commonly available tools.	☒	☐	☐
P7.6*	Labels are easily separable. (This requirement does not apply to safety/regulatory labels).	☒	☐	☐
	Product lifetime			
P7.7*	Upgrading can be done e.g. with processor, memory, cards or drives	☐	☐	☒
P7.8*	Upgrading can be done using commonly available tools	☐	☐	☒
P7.9	Spare parts are available after end of production for: **5** years			☐
P7.10	Service is available after end of production for: **5** years			☐
	Material and substance requirements			
P7.11*	Product cover/housing material type (e.g. plastics, metal, aluminum): Material type: ***Steel*** Material type: ***aluminium*** Material type:			
P7.12	Insulation materials of external electrical cables are PVC free.	☐	☒	☐
P7.13	Insulation materials of internal electrical cables are PVC free.	☒	☐	☐
P7.14	External plastic casing/cover parts > 25 g contain no more than 0,1% weight (1000 ppm) bromine and 0,1% weight (1000 ppm) chlorine attributable to brominated flame retardants, chlorinated flame retardants, and polyvinyl chloride or 0,3% weight (3000 ppm) bromine and 0,3% weight (3000 ppm) chlorine in parts containing more than 25% post-consumer recycled content.	☒	☐	☐
P7.15	Printed circuit boards, PCBs (without components) are low halogen: all ☐ PCBs > 25 g ☒ are low halogen as defined in IEC 61249-2-21. (See 1NOTE B2)	☒	☐	☐
P7.16	Flame retarded plastic parts > 25 g in covers / housings are marked according ISO 1043-4: Marking:	☐	☐	☒
P7.17	Alt. 1: Chemical specifications of flame retardants in printed circuit boards > 25 g (without components): TBBPA (additive) ☐, TBBPA (reactive) ☐ (See NOTE B3), Other; chemical name: , CAS #:	☐	☐	☐
	Alt. 2: Chemical specifications of flame retardants in printed circuit boards (without components) > 25 g according ISO 1043-4: ***FR(40)***	☒	☐	☐
P7.18	Alt. 1: Flame retarded plastic parts > 25 g contain the following flame retardant substances/preparations in concentrations above 0,1%: 1. Chemical name: , CAS #: (See NOTE B4) 2. Chemical name: , CAS #: " 3. Chemical name: , CAS #: "	☐	☐	☐
	Alt. 2: Chemical specifications of flame retardants in plastic parts > 25 g according ISO 1043-4:	☐	☐	☒
P7.19	In plastic parts > 25 g, flame retardant substances/preparations above 0,1% are used which have been assigned the following Risk phrases; and Hazard statements: The source(s) for these classifications is/are found at (add URL(s)): ***http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database*** (See note B5)	☒	☐	☐
P7.20*	Postconsumer recycled plastic material content is used in the product (See Note B6): If YES; at least one of the two alternatives below shall be answered; a) Of total plastic parts' weight > 25 g, the postconsumer recycled plastic material content (calculated as a percentage of total plastic by weight) is ***82.5*****%**. Or b) The weight of recycled material is g.	☐	☐	☐

GENERAL NOTE Standard references should direct to the latest version of a standard. If an older version of a standard is used, section P15 shall be used for explanation.
NOTE B2: IEC 61249-2-21 defines maximum limits of 900 ppm for each of the substances chlorine and bromine and a maximum limit of 1500ppm of these substances combined. The standard does not address fluorine, iodine and astatine which are included in the group of halogens.
NOTE B3 and B4 A Guidance document on Chemical substances is available; see http://www.ecma-international.org/publications/standards/Ecma-370.htm
NOTE B5: If a certain substance has been assigned a certain risk phrases / hazard statement in the referenced source, this does not necessarily mean the substance has been tested for all of the hazards referred to by a certain customer.

NOTE B6: Applies to a product containing plastic parts whose combined weight exceeds 100 g with the exception of printed circuit boards, cables, connectors and electronic components and bio-based plastic material.
NOTE B7: Recycled plastic content percentage is based on the definition set in the IEEE 1680.1-2018 standard, criterion 4.2.1.1.

Model number *	*P22a G5*	Logo	
Issue date *	*11/27/2023*		

Product environmental attributes - Market requirements (continued)	Requirement met
Item	Yes No n.a.

	Material and substance requirements (continued)				
P7.21*	Biobased plastic material content is used in the product (See NOTE B7): If YES; at least one of the two alternatives below shall be answered; a) Of total plastic parts' weight > 25 g, the biobased plastic material content (calculated as a percentage of total plastic by weight) is %. or b) The weight of the biobased plastic material is g.				☐ ☒ ☐
P7.22*	Light sources are free from mercury, i.e. less than 0,1 mg/lamp. If mercury is used specify: Number of lamps: and maximum mercury content per lamp: *0* mg				☒ ☐ ☐
P8	**Batteries**				
P8.1*	Battery chemical composition:				☒
P9	**Energy consumption (See NOTE B8)**				
P9.1	For the product the following power levels or energy consumptions are reported:				
Energy mode *		Power level at **100** V AC	Power level at **115** V AC	Power level at **230** V AC	Reference/Standard for energy modes and test method * ☐
EPS No-load (External power supply / charger plugged in the wall outlet but disconnected from the product.)		W	W	W	*EPS Energy Report Data* ☒
PTEC * Typical Energy Consumption		W	W	W	*ENERGY STAR® Program Requirements for Computer Monitor: Ver. 7.0* ☒
ETEC * Annual Energy Consumption		*31.43* kWh/year	*31.56* kWh/year	*33.00* kWh/year	*ENERGY STAR® Program Requirements for Computer Monitor: Ver. 7.0* ☐
External Power Supply Efficiency Level (International Efficiency Marking Protocol) * : *N/A*					*ENERGY STAR® Program Requirements for Computer Monitor: Ver. 7.0* ☐
Display resolution * : *1980*1080* megapixels					*ENERGY STAR® Program Requirements for Computer Monitor: Ver. 7.0* ☐
Default time to enter energy save mode: minutes					*ENERGY STAR® Program Requirements for Computer Monitor: Ver. 7.0* ☒
P9.2*	Information about the energy save function is provided with the product.				☒ ☐ ☐
P9.3	Energy efficiency class (monitors only): *E*				☐
P10	**Emissions**				
	Noise emission – Declared according to ISO 9296 (See NOTE B9)				
P10.1	Mode	Mode description		Statistical upper limit A-weighted sound power level, $L_{WA,c}$ (B)	
	Idle	*		*	☒
	Operation	*		*	☒
	Other mode				
	Measured according to: ☐ ISO 7779 ☐ ECMA-74 ☐ Other (only if not covered by ECMA-74)				

NOTE B7 The following is to be excluded from the calculation of percentage: printed circuit boards, labels, cables, connectors and electronic components and postconsumer recycled plastic

NOTE B8 A Guidance document on Energy Efficiency is available; see http://www.ecma-international.org/publications/standards/Ecma-370.htm

NOTE B9 A Guidance document on Acoustic Noise is available; see http://www.ecma-international.org/publications/standards/Ecma-370.htm

Model number *	*P22a G5*	Logo	
Issue date *	*11/27/2023*		

Product environmental attributes - Market requirements (continued)		Requirement met		
Item		Yes	No	n.a.
	Electromagnetic emissions			
P10.4	Computer display meets the requirement for low frequency electromagnetic fields of the following voluntary program(s):	☐	☐	☐
P12	**Ergonomics for computing products**			
P12.1*	The display meets the ergonomic requirements of ISO 9241-307 for visual display technologies.	☒	☐	☐
P12.2*	The physical input device meets the requirements of ISO 9995 and ISO 9241-410.	☐	☐	☒
P13	**Packaging and documentation**			
P13.1*	Product packaging material type(s): ***PAPER/Corrugated*** weight (kg): ***0.674*** Product packaging material type(s): ***PLASTIC/Polystyrene Expanded – EPS*** weight (kg): ***0.335*** Product packaging material type(s): ***PAPER/Paper*** weight (kg): ***0.034*** Product packaging material type(s): ***PLASTIC/Polyethylene high density – HDPE*** weight (kg): ***0.050***			
P13.2*	Product plastic primary packaging is free from PVC.	☒	☐	☐
P13.3*	For product primary corrugated fiberboard packaging, specify the contained percentage of minimum post-consumer recovered fiber content: ***85*** %			☐
P13.4*	Specify media for user and product documentation (tick box): Electronic ☐, Paper ☐, Other ☒ "available on hp.com"			☐
P13.5	(Please only complete this item if paper documentation used) User and product documentation on paper media is chlorine-free:	☒	☐	
	If Yes, please specify: Totally chlorine-free	☐		
	Elemental chlorine-free	☐		
	Processed chlorine-free	☒		
P14	**Voluntary programs**			
P14.1	The product meets the requirements of the following voluntary program(s): ENERGY STAR® Criteria version: ***8.0*** Date: ***11/27/2023*** Product category: ***Commercial Displays*** Eco-label: ***EPEAT*** Criteria version: ***IEEE 1680.1*** Date: ***11/27/2023*** Product category: ***Commercial Displays*** Eco-label: ***TCO*** Criteria version: ***9.0*** Date: ***11/27/2023*** Product category: ***Commercial Displays***			
P15	**Additional information (See NOTE B10)**			
All Sections	***1. Product environmental information contained in this declaration is valid as of the date the declaration is published. Changes to external standards referenced in the IT Eco-Declaration may invalidate some information contained in this declaration over***			
P1	***1. This product does not include DEHP, BBP, DIBP, or DBP.***			

NOTE B10 Additional lines may be inserted to declare further items, by positioning the cursor at the far right of the row and hitting the <Enter> key.

P7 ***Product Upgradability and Reparability***

The following table is provided in accordance with IEEE 1680.1-2018[6] criterion 4.4.2.5.

feature	Available [1]	Repairable [2]	Replaceable [3]	Upgradeable [4]
processor	N	N/A	N/A	N/A
main memory	N	N/A	N/A	N/A
mass storage (internal)	N	N/A	N/A	N/A
wireless networking	N	N/A	N/A	N/A
integrated graphics	N	N/A	N/A	N/A
discrete graphics	N	N/A	N/A	N/A
display panel	Y	Y	Y	N
integrated keyboard	N	N/A	N/A	N/A
batteries	N	N/A	N/A	N/A
power supply	Y	Y	Y	N
fan assemblies	N	N/A	N/A	N/A
speaker(s) (internal)	N	N/A	N/A	N/A
camera	N	N/A	N/A	N/A
touchpad	N	N/A	N/A	N/A
I/O connectors and external power connector	Y	Y	Y	N
readers [5]	N	N/A	N/A	N/A

Table notes:
[1] Y* = feature is available, but may not be included in every configuration
[2] Product can be repaired (returned to fully functional state) if feature fails.
[3] Feature can be replaced using only commonly available tools without soldering or de-soldering. Y* = replacement may require replacing an assembly to which the feature is attached.
[4] Base feature may be upgraded by replacing it with a higher performance module or by expanding capacity through use of expansion slots. NOTE: This evaluation does not
account for situations in which the initial configuration purchased is already maximized. Contact HP Sales or an HP authorized reseller to determine the availability of upgrade parts and method to obtain them in your geography.
[5] This feature category includes readers such as fingerprint readers, smart card readers, and other read-only devices, but excludes read/write devices.

P9 ***Energy consumption of computer products; description of the tested product configuration:***

P9 ***1. European Union Commission Regulation 1275/2008- Energy Efficiency Information:***

Mode / Condition	Power Consumption in Watts at 230 VAC Input Voltage	Default Time to Mode / Conditi (if applicable)
Off Mode (if applicable)	***0.18W***	Not Applicable
Standby Mode (if applicable)	Not Applicable	Not Applicable
Network Standby / Sleep / Long Idle Mode if all wired network ports are connected and all wireless network ports are activated (if applicable)	***N/A***	***N/A***
Network Standby / Sleep / Long Idle Mode (if applicable)	***N/A***	***N/A***

2.European Union Commission Regulation 1275/2008- Wireless Network Instructions:

Where applicable, activate and deactivate a wireless network using the instructions provided in the product user guide or the operating system. Information is also available at www.hp.com/support.

6 IEEE Standard for Environmental and Social Responsibility Assessment of Computers and Displays

Legal references Europe Annex B2

Reference	Declaration item
Directive 2011/65/EU (RoHS Directive) * * Specific exemptions apply for certain products and applications.	P1.1
Regulation (EC) 1907/2006(REACH, Annex XVII	P1.2, P1.4, P1.6, P1.7
Regulation (EC) 2037/2000, 2038/2000, 2039/2000 (Marketing and use of Ozone layer depleting substances)	P1.3, P5.3
Norwegian regulation relating to restrictions on the use of certain dangerous chemicals 20.12.2002	P1.5
Directive 2013/56/EC (Battery and accumulators Directive) * * These provisions shall not apply where, for safety, performance, medical or data integrity reasons, continuity of power supply is necessary and requires a permanent connection between the appliance and the battery or accumulator.	P2.1, P2.2, P2,3, P8.1
Directive 2006/95/EC (Low Voltage Directive)	P3.1
Directive 2004/108/EC (EMC Directive)	P3.1
Directive 1999/5/EC (R&TTE Directive)	P3.1
Regulation (EC) 801/2013 amending Regulation (EC) No 1275/2008 with regard to ecodesign requirements for standby, off mode electric power consumption of electrical and electronic household and office equipment, and amending Regulation (EC) No 642/2009 with regard to ecodesign requirements for televisions	P3.1, P3.2
Regulation（EC）No 1272/2008 (CLP Regulation)	P7.19
Directive 2004/12/EC (Packaging Directive)	P5.1
Decision 97/129/EC (Secondary packaging legislation)	P5.2
Directive 2012/19/EU (WEEE directive)	P6.1

Company environmental profile - THE ECO DECLARATION

Brand	***HP***	***Logo***
Company name *	***HP***	
Contact information *	***HP Sustainability and Compliance Center (SCC)*** ***sustainability@hp.com***	
Internet site *	***www.hp.com/hpinfo/globalcitizenship/environment/index.html***	
Issue date *	***2014-06-01***	
Intended market *	☒ **Global** ☐ **Europe** ☐ **Asia, Pacific & Japan** ☐ **Americas** ☐ **Other**	
Additional information		

This is an uncontrolled copy when in printed form. Please refer to the contact information for the latest version.

The declaration may be published only when all rows and/or fields marked with an * are filled-in (n.a. for not applicable). Additional information regarding each item may be found under C7.

Company environmental profile - Legal requirements		**Requirement met**		
Item		Yes	No	n.a.
C1	**Product recycling**			
C1.1*	The company participates in a system or has its own system for collection and recycling of end of life products in countries where the company puts them on the market and where required (see legal reference)	☒	☐	
C2	**Battery recycling**			
C2.1*	The company participates in a system or has its own system for collection and recycling of batteries in countries where the company puts products on the market (see legal reference) or pays eco tax / fee where required.	☒	☐	
C3	**Packaging recycling**			
C3.1*	The company participates in a system or has its own system for collection and recycling of packaging material in countries where the company puts products on the market and where required (see legal reference)	☒	☐	

Company environmental profile - Market requirements		**Requirement met**		
Item		Yes	No	n.a.
C4	**Environmental policy and environmental management**			
C4.1*	The company has a documented environmental policy approved by the management.	☒	☐	
C4.2*	The company has an environmental management system covering: Product development Manufacturing If so certified according to: ☒ ISO 14001 ☒ Other as specified in C7	 ☒ ☒	 ☐ ☐	
C4.3	The company regularly publishes an environmental report. If so, it meets the recommendations of ☒ The Global Reporting Initiative ☐ Other as specified in C7	☒	☐	☐
C5	**Recycling**			
C5.1*	Information about the product, battery & packaging take back system (C1, C2 and C3) is available in printed or electronic format.	☒	☐	
C6	**Voluntary programs**			
C6.1	The company meets the requirements of the following voluntary program/s: Voluntary Agreement: Criteria version: Date: Product category: Voluntary Agreement: Criteria version: Date: Product category:			
C7	**Additional information**			
	HP has received ISO 14001 certification for its manufacturing operations (Worldwide Manufacturing of Computing and Imaging Products and Related Operations) and for product design for its Personal Systems Products and LaserJet and Enterprise Printing Products. The product design certifications include HP-wide product environmental design processes (such as HP's General Specification for the Environment) that cover all HP products. ***HP is committed to responsible business practices and transparency in its global citizenship policies and performance. We have a long history of working with suppliers to monitor and improve their social and environmental responsibility (SER) performance when required, as well as improving standards in the industry. HP endorses the EICC Code of Conduct in its entirety, and we have supplemented it with additional requirements specific to freedom of association as well as HP's Student and Dispatch Worker Guidance Standard for Supplier Facilities in the People's Republic of China (PRC). HP also has a strong Global Human Rights Policy in place. HP expects its suppliers to establish policies and processes regarding conflict minerals. HP conducts due diligence on its supply chain annually including requesting information about our suppliers' own due diligence and the smelters and refiners used. HP was the first IT company to publish its supply chain smelter list. HP follows the Global Reporting Initiative (GRI) guidelines as a basis for reporting. The GRI index provides easy reference to HP's Living Progress Report (LPR) content. HP offers take back services of products and printing suppliers in some 70 countries. Please refer to HP's Livings Progress Report for more details on our global efforts.***			

Legal references Europe Annex A

Reference	Declaration item
Directive 2012/19/EU (WEEE directive)	C1.1
Directive 2006/66/EC (Battery and accumulators Directive) * * These provisions shall not apply where, for safety, performance, medical or data integrity reasons, continuity of power supply is necessary and requires a permanent connection between the appliance and the battery or accumulator.	C2.1
Directive 2004/12/EC (Packaging Directive)	C3.1
Decision 97/129/EC (Secondary packaging legislation)	C3.1

Filter

BRAND	SALES NAME	CERTIFIED ON
HP	P22a G5	2023-05-31
HP	P22b G5	2023-07-16
HP	P24a G5	2023-06-12
HP	P22a G4	2023-05-31
HP	P22 G5	2022-04-29
HP	P22 G5	2022-04-29
HP	HP P22 G5 FHD Monitor	2022-05-19
HP	HP P22h G5 FHD Monitor	2022-05-19
HP	HP P22 G5 FHD Monitor	2022-04-29
HP	HP P22h G5 FHD Monitor	2022-04-29
HP	HP P22v G5 FHD Monitor	2022-04-25
HP	HP P22v G5 FHD Monitor	2022-04-25

Toward sustainable IT products

TCO Certified is the world-leading sustainability certification for IT products. Our comprehensive criteria are designed to drive social and environmental responsibility throughout the product life cycle. Covering 12 product categories including computers, mobile devices, display products, imaging equipment and data center products, compliance is independently verified, both pre and post certification.

Join us in driving progress toward sustainable IT products.

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Processadores Intel® Core™ i5 da 13ª Geração

Processador Intel® Core™ i5-13500

Especificações

Comentários

Comparar ↗

Ir para

Baixar as especificações

Essenciais

Coleção de produtos	Processadores Intel® Core™ i5 da 13ª Geração
Codinome	Produtos com denominação anterior Raptor Lake
Segmento vertical	Desktop
Número do processador	i5-13500
Litografia	Intel 7
Preço recomendado para o cliente	$232.00-$242.00

Especificações da CPU

Comentários

Número de núcleos	14
Nº de Performance-cores	6
Nº de Efficient-cores	8
Total de threads	20
Frequência turbo max	4.80 GHz
Frequência turbo máx. do Performance-core	4.80 GHz
Frequência turbo máx. do Efficient-core	3.50 GHz
Frequência base do Performance-core	2.50 GHz
Frequência base do Efficient-core	1.80 GHz
Cache	24 MB Intel® Smart Cache
Cache L2 total	11.5 MB
Potência básica do processador	65 W
Energia turbo máxima	154 W

Comentários

es complementares

Status	Launched
Data de introdução	Q1'23
Opções integradas disponíveis	Sim
Condições de uso	PC/Client/Tablet, Workstation
Ficha técnica	Ver agora

Especificações de memória

Tamanho máximo de memória (de acordo com o tipo de memória)	192 GB
Tipos de memória	Up to DDR5 4800 MT/s Up to DDR4 3200 MT/s
Nº máximo de canais de memória	2
Largura de banda máxima da memória	76.8 GB/s
Compatibilidade com memória ECC	Sim

GPU Specifications

Comentários

GPU Name‡	Intel® UHD Graphics 770
Frequência da base gráfica	300 MHz
Máxima frequência dinâmica da placa gráfica	1.55 GHz
Saída gráfica	eDP 1.4b, DP 1.4a, HDMI 2.1
Unidades de Execução	32
Resolução máxima (HDMI)‡	4096 x 2160 @ 60Hz
Resolução máxima (DP)‡	7680 x 4320 @ 60Hz
Resolução máxima (eDP - tela plana integrada)‡	5120 x 3200 @ 120Hz
Suporte para DirectX*	12
Suporte para OpenGL*	4.5
Suporte a OpenCL*	3.0
Mecanismos de Codec Multiformatos	2
Intel® Quick Sync Video	Sim
Tecnologia de Alta Definição Intel®	Sim

Comentários

Clear Video	
Nº de monitores aceitos ‡	4
ID do dispositivo	0x4680

Opções de expansão

Revisão da Interface de Mídia Direta (DMI)	4.0
Nº máx. de pistas DMI	8
Escalabilidade	1S Only
Revisão de PCI Express	5.0 and 4.0
Configurações PCI Express ‡	Up to 1x16+4, 2x8+4
Nº máximo de linhas PCI Express	20

Especificações de encapsulamento

Soquetes suportados	FCLGA1700
ma da CPU	1

Comentários

Especificação de solução térmica	PCG 2020C
$T_{JUNCTION}$	100°C
Tamanho do pacote	45.0 mm x 37.5 mm
Temperatura máxima de operação	100 °C

Tecnologias avançadas

Acelerador Gaussiano e Neural da Intel®	3.0
Intel® Thread Director	Sim
Intel® Deep Learning Boost (Intel® DL Boost)	Sim
Tecnologia Intel® Speed Shift	Sim
Tecnologia Intel® Turbo Boost Max 3.0 ‡	Não
Tecnologia Intel® Turbo Boost ‡	2.0
Tecnologia Hyper-Threading Intel® ‡	Sim
Intel® 64 ‡	Sim

Comentários

Conjunto de instruções	64-bit
Extensões do conjunto de instruções	Intel® SSE4.1, Intel® SSE4.2, Intel® AVX2
Estados ociosos	Sim
Tecnologia Enhanced Intel SpeedStep®	Sim
Tecnologias de monitoramento térmico	Sim
Intel® Volume Management Device (VMD - Dispositivo de Gerenciamento de Volume)	Sim

Segurança e confiabilidade

Elegibilidade Intel vPro® ‡	Intel vPro® Enterprise, Intel vPro® Essentials, Intel vPro® Platform
Intel® Threat Detection Technology (TDT)	Sim
Intel® Active Management Technology (AMT) ‡	Sim
Intel® Standard Manageability (ISM) ‡	Sim
Intel® Remote Platform Erase (RPE) ‡	Sim

Comentários

Intel® One-Click Recovery ‡	Sim
Elegibilidade para o Intel® Hardware Shield ‡	Sim
Chave Segura	Sim
Intel® Control-Flow Enforcement Technology	Sim
Intel® Total Memory Encryption - Multi Key	Sim
Novas instruções Intel® AES	Sim
Intel® OS Guard	Sim
Intel® Trusted Execution Technology ‡	Sim
Bit de desativação de execução ‡	Sim
Intel® Boot Guard	Sim
Controle de Execução baseado em Modo (MBEC — Mode-based Execute Control)	Sim
Programa Intel® da Plataforma de Imagem Estável (SIPP)	Sim
Tecnologia de Virtualização Intel® com proteção de redirecionamento (VT-rp) ‡	Sim

Comentários

Tecnologia de virtualização Intel® (VT-x) ‡	Sim
Tecnologia de virtualização Intel® para E/S dirigida (VT-d) ‡	Sim
Intel® VT-x com Tabelas de páginas estendidas (EPT) ‡	Sim

Product and performance information

Todas as informações fornecidas estão sujeitas a alterações a qualquer momento, sem aviso prévio. A Intel pode alterar o ciclo de vida da fabricação, as especificações e as descrições dos produtos a qualquer momento, sem aviso prévio. As informações aqui contidas são fornecidas "no estado em que se encontram" e a Intel não atribui qualquer declaração ou garantias relacionadas à precisão das informações, nem sobre os recursos dos produtos, disponibilidade, funcionalidade ou compatibilidade dos produtos listados. Para obter mais informações sobre os produtos ou sistemas, entre em contato com o fornecedor do sistema.

Intel classifications are for general, educational and planning purposes only and consist of Export Control Classification Numbers (ECCN) and Harmonized Tariff Schedule (HTS) numbers. Any use made of Intel classifications are without recourse to Intel and shall not be construed as a representation or warranty regarding the proper ECCN or HTS. Your company as an importer and/or exporter is responsible for determining the correct classification of your transaction.

Consulte a Ficha técnica para obter definições formais de propriedades e recursos de produtos.

‡ Este recurso pode não estar disponível em todos os sistemas de computação. Verifique com o fornecedor do sistema para determinar se seu sistema oferece este recurso ou consulte as especificações de seu sistema (motherboard, processador, chipset, alimentação, HDD, controle gráfico, memória, BIOS, drivers, monitor de máquina virtual [VMM], software de plataforma e/ou sistema operacional) para saber sobre a compatibilidade do recurso. A funcionalidade, o desempenho e outros benefícios deste recurso podem variar, dependendo das configurações do sistema.

Os números dos processadores Intel não são indicação de desempenho. Os números dos processadores diferenciam recursos dentro de cada família de processador, e não entre famílias diferentes de processadores. Consulte https://www.intel.com.br/content/www/br/pt/processors/processor-numbers.html para obter mais detalhes.

O preço recomendado para o cliente (RCP) é um guia de preços apenas para produtos Intel e está sujeito a alterações sem aviso prévio. Listar os índices RCP não constitui uma oferta oficial da Intel. O preço no ponto de venda está sujeito a uma ampla variedade de fatores, incluindo, mas não limitado a tarifas e impostos locais. A disponibilidade das promoções varia. Os clientes podem entrar em contato com seus varejistas ou distribuidores preferidos para obter informações sobre disponibilidade e preço.

Comentários da não estão disponíveis. Favor consultar a data de lançamento para a disponibilidade

no mercado.

Os gráficos Intel® Arc™ estão disponíveis apenas em sistemas selecionados equipados com processadores Intel® Core™ Ultra série V com design térmico do sistema qualificado ou sistemas selecionados equipados com o processador Intel® Core™ Ultra série H, com pelo menos 16 GB de memória do sistema em uma configuração de canal duplo. É necessária a habilitação do OEM. Outras configurações de sistema com processador Intel® Core™ Ultra apresentam gráficos Intel®. Verifique com o OEM ou varejista os detalhes da configuração do sistema.

Apenas gráficos Intel® Iris® Xe: para usar a marca Intel® Iris® Xe, o sistema deve ser preenchido com memória de 128 bits (canal duplo). Caso contrário, use a marca Intel® UHD.

Frequência máxima de turbo refere-se à frequência máxima do processador de núcleo único que pode ser atingida com a Tecnologia Intel® Turbo Boost. Mais informações estão disponíveis no site https://www.intel.com/content/www/br/pt/architecture-and-technology/turbo-boost/turbo-boost-technology.html.

Consulte https://www.intel.com.br/content/www/br/pt/architecture-and-technology/hyper-threading/hyper-threading-technology.html?wapkw=hyper+threading para obter mais informações, incluindo detalhes sobre quais processadores são compatíveis com a Tecnologia Hyper-Threading Intel®.

Os processadores compatíveis com a computação de 64 bits na arquitetura Intel® requerem BIOS habilitados para arquitetura Intel 64.

Alguns produtos suportam as novas instruções AES com uma atualização da Configuração do processador, em particular, i7-2630QM/i7-2635QM, i7-2670QM/i7-2675QM, i5-2430M/i5-2435M, i5-2410M/i5-2415M. Favor entrar em contato com o OEM para o BIOS que inclui a mais recente atualização da Configuração do processador.

Receba as últimas novidades na sua caixa de entrada

Inscreva-se

Empresa

Links rápidos

Informações legais

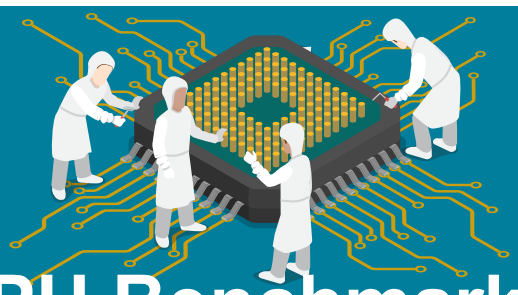
Suporte e Recursos

Comentários

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Comentários



CPU Benchmarks

Over 1,000,000 CPUs Benchmarked

Intel Core i5-13500

Benchmarks for the Intel Core i5-13500 can be found below. Release dates, price and performance comparisons are also listed when available. This is made using thousands of PerformanceTest benchmark results and is updated daily.

- The first graph shows the relative performance of the CPU compared to the 10 other common (single) CPUs in terms of PassMark CPU Mark.
- The 2nd graph shows the value for money, in terms of the CPUMark per dollar.
- The pricing history data shows the price for a single Processor. For multiple Processors, multiply the price shown by the number of CPUs.

Is the Intel Core i5-13500 Good for Gaming?

This is an old CPU that contains 14 Cores and 20 Threads. The Intel Core i5-13500 also has reasonable threaded performance that will serve well in games. Paired with a good videocard, *is this CPU Good for Gaming?* Yes, this would be a suitable CPU for gaming. [More ...]



Intel Core i5-13500	Average CPU Mark
Description: Intel UHD Graphics 770	Multithread Rating **30725**
Class: Desktop / **Socket:** FCLGA1700	Single Thread Rating **3853**
Total Cores: 14 Cores, 20 Threads	Samples: 3308*
Performance Cores: 6 Cores, 12 Threads, 2.5 GHz Base, 4.8 GHz Turbo	*Margin for error: Low
Efficient Cores: 8 Cores, 8 Threads, 1.8 GHz Base, 3.5 GHz Turbo	+ COMPARE
Typical TDP: 65 W / **TDP Up** : 154 W	
Cache per CPU Package: L1 Instruction Cache: 6 x 32 KB, L1 Data Cache: 6 x 48 KB / **Cache per Eff. CPU Package:** Eff. L1 Instruction Cache: 8 x 64 KB, Eff. L1 Data Cache: 8 x 32 KB	

L2 Cache: 6 x 1280 KB
L3 Cache: 24 MB

Eff. L2 Cache: 2 x 2048 KB

CPU Benchmarks

3200 MT/s, ECC Supported)

Other names: 13th Gen Intel(R) Core(TM) i5-13500, 13th Gen Intel Core i5-13500

CPU First Seen on Charts: Q3 2022

CPUmark/$Price: 112.34

Overall Rank:
547th fastest in multithreading out of 6034 CPUs
315th fastest in single threading out of 6034 CPUs
160th fastest in out of 1595 Desktop CPUs

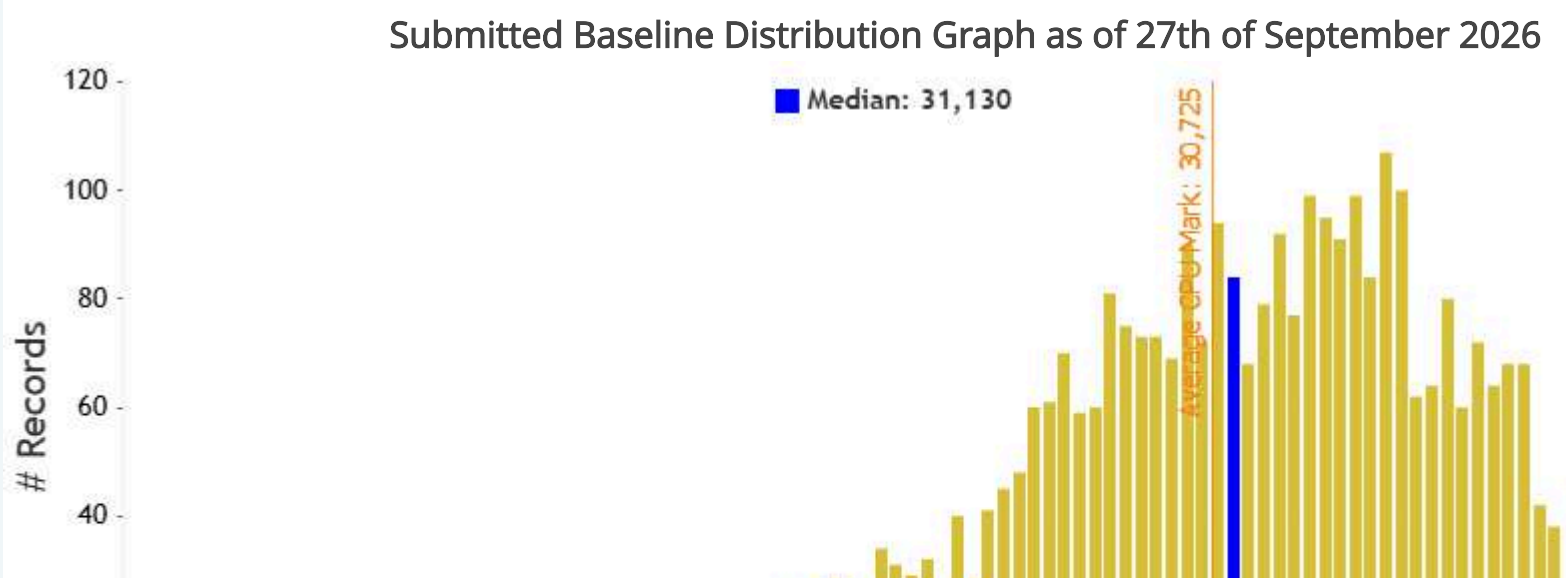
Last Price Change: $273.51 USD (2026-09-28)

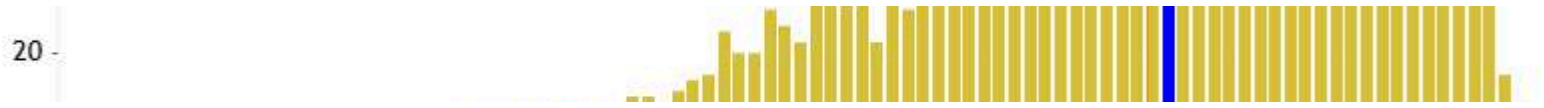
CPU Test Suite Average Results for Intel Core i5-13500

Integer Math	107,597 MOps/Sec
Floating Point Math	79,648 MOps/Sec
Find Prime Numbers	98 Million Primes/Sec
Random String Sorting	41,932 Thousand Strings/Sec
Data Encryption	21,907 MBytes/Sec
Data Compression	383,163 KBytes/Sec
Physics	1,590 Frames/Sec
Extended Instructions	23,486 Million Matrices/Sec
Single Thread	3,853 MOps/Sec

From submitted results to PerformanceTest V10 as of 1st of October 2026.

CPU Mark Distribution for Intel Core i5-13500





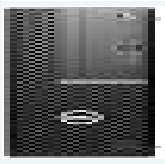
CPU Benchmarks

From submitted results since PerformanceTest V10 as of 27th of September 2026.
For distribution graph only: Results are trimmed to exclude outliers by disregarding the bottom 1% and top 1% of submissions.

Merchant	Price	Purchase
amazon	NA	CPU Not Available. See Other Models
newegg	$273.51 USD	BUY NOW!

Note: PassMark Software may earn compensation for sales from links on this site through affiliate programs.

Machines with this CPU (or similar)

	HP ProDesk 400 G9 SFF Business Desktop Computer, Latest 13th Gen Intel Core i5-13500, 16GB RAM, 512GB PCIe SSD, Dual 4K Display Support, USB-C, HDMI, RJ-45, Wi-Fi, Wired Keyboard & Mouse, Win11 Pro	$849.99 (www.amazon.com)
	Dell OptiPlex 7010 SFF Desktop Computer - 13th Gen Intel Core i5-13500 14-Core up to 4.80 GHz CPU, 16GB RAM, 1TB NVMe SSD, Intel UHD Graphics 770, Wi-Fi + Bluetooth, Windows 11 Pro	$1049.00 (www.amazon.com)
	HP ProDesk 400 G9 SFF Business Desktop Computer, Latest 13th Gen Intel Core i5-13500, 32GB RAM, 1TB PCIe SSD, Dual 4K Display Support, USB-C, HDMI, RJ-45, Wi-Fi, Wired Keyboard & Mouse, Windows11 Pro	$1099.99 (www.amazon.com)
	HP ProDesk 400 G9 SFF Business Desktop Computer, Latest 13th Gen Intel Core i5-13500, 16GB RAM, 1TB PCIe SSD, Dual 4K Display Support, USB-C, HDMI, RJ-45, Wi-Fi, Wired Keyboard & Mouse, Win11 Pro	$949.99 (www.amazon.com)
	Dell OptiPlex 7010 Micro Form Factor Desktop, Intel Core i5-13500T (14 Core up to 4.6 GHz), Intel UHD Graphics, 32GB DDR4 RAM, 1TB PCIe SSD, Windows 11 Pro, Black	$1088.20 (www.amazon.com)

Note: PassMark Software may earn compensation for sales from links on this site through affiliate programs.

CPU Mark Relative to Top 10 Common Desktop CPUs

As of 1st of October 2026 - Higher results represent better performance

Processor	Average CPU Mark	
Intel Core i9-14900K		58,198
Intel Core i9-13900K		58,065
AMD Ryzen 7 7800X3D		34,287
Intel Core i5-13500		30,725
Apple M4 10 Core		23,572
AMD Ryzen 5 5600X		21,821

Intel Core i5-12400F		19,539

CPU Benchmarks

AMD Ryzen 5 3600		17,650
Apple M2 8 Core 3500 MHz		15,650
Apple M1 8 Core 3200 MHz		14,121

CPU Value (CPU Mark / $Price)

As of 1st of October 2026 - Higher results represent better value

Processor	CPU Mark / $Price	
AMD Ryzen 5 3600		174.22
AMD Ryzen 5 5600X		162.85
Intel Core i9-14900K		123.83
Intel Core i5-12400F		122.13
Intel Core i5-13500		112.34
AMD Ryzen 7 7800X3D		107.15
Intel Core i9-13900K		92.46
Intel Core i9-9900K @ 3.60GHz		80.21
Apple M1 8 Core 3200 MHz		NA
Apple M2 8 Core 3500 MHz		NA
Apple M4 10 Core		NA

Single Thread Rating

As of 1st of October 2026 - Higher results represent better performance

Processor	Average Thread Rating	
Intel Core i9-14900K		4,690
Intel Core i9-13900K		4,595
Apple M4 10 Core		4,492
Apple M2 8 Core 3500 MHz		3,882
Intel Core i5-13500		3,853

AMD Ryzen 7 7800X3D		3,761

CPU Benchmarks

Intel Core i5-12400F		3,485
AMD Ryzen 5 5600X		3,366
Intel Core i9-9900K @ 3.60GHz		2,908
AMD Ryzen 5 3600		2,557

Last 5 Baselines for Intel Core i5-13500

Most recent listed first

Baseline		CPU Mark
BL3735385 - Sep 23 2026		34798
BL3735333 - Sep 23 2026		34720
BL3735167 - Sep 23 2026		28296
BL3734986 - Sep 23 2026		23032
BL3734923 - Sep 23 2026		27733

Additional baselines can be obtained using Windows version of PerformanceTest's Manage Baselines feature.

Popular comparisons for Intel Core i5-13500

As of 1st of October 2026 - Higher results represent better performance

Processor		Average CPU Mark
Intel Core i5-13500		30,725
AMD Ryzen 5 7600 vs Intel Core i5-13500		26,965 *(-12.2%)*
Intel Core i5-13600K vs Intel Core i5-13500		37,443 *(+21.9%)*
AMD Ryzen 7 7700X vs Intel Core i5-13500		35,477 *(+15.5%)*
AMD Ryzen 7 7700 vs Intel Core i5-13500		34,317 *(+11.7%)*
AMD Ryzen 5 8600G vs Intel Core i5-13500		25,192 *(-18.0%)*
AMD Ryzen 7 7800X3D vs Intel Core i5-13500		34,278 *(+11.6%)*
Intel Core i5-13600 vs Intel Core i5-13500		31,048 *(+1.0%)*
AMD Ryzen 5 7600X vs Intel Core i5-13500		28,267 *(-8.0%)*

Intel Core i5-13600T vs Intel Core i5-13500		27,716 *(-9.8%)*

CPU Benchmarks

Intel Core i5-14600K vs Intel Core i5-13500		38,371 *(+24.9%)*
Intel Core i5-14600KF vs Intel Core i5-13500		38,238 *(+24.5%)*

Is the Intel Core i5-13500 Good for Gaming?

As of 1st of October 2026 - Higher results represent better performance

Processor	Relative Gaming Score	
AMD Ryzen 9 9950X3D2		15,418
AMD Ryzen 7 9850X3D		12,521
AMD Ryzen 9 9900X3D		12,389
AMD Ryzen 7 9800X3D		12,104
AMD Ryzen 7 PRO 9755X3D		12,028
AMD Ryzen 9 9950X3D		11,259
Intel Core Ultra 7 270K Plus		10,682
Intel Core Ultra 5 250K Plus		10,525
AMD Ryzen 5 7600X3D		10,512
AMD Ryzen 9 7900X3D		10,379
Intel Core Ultra 9 285K		10,355
AMD Ryzen 5 7500X3D		10,050
Intel Core i5-13500		4,757

Software

- BurnInTest
- PerformanceTest
- OSForensics
- MemTest86
- WirelessMon
- Management Console

Hardware

- USB3.0 Loopback Plugs
- USB2.0 Loopback Plugs
- PCIe Test Cards
- USB Power Delivery Tester
- Serial and Parallel Loopback Plugs
- USB Short Circuit Testers

Benchmarks

- CPU Benchmarks
- Video Card Benchmarks
- Hard Drive Benchmarks
- RAM Benchmarks
- PC Systems Benchmarks
- Software Marketshare
- Database Benchmarks
- Android Benchmarks
- iOS Benchmarks
- Internet Bandwidth

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HP Z2 Tower G1i Workstation Desktop PC

Mainstream workstation performance—reimagined

Experience new levels of performance for professional workflows. The HP Z2 Tower AI workstation is reengineered to support high-end graphics and seamlessly run both single and multi-threaded apps for fast modeling, simulation, and rendering. Enjoy easy expandability to upgrade, when needs evolve.

Reengineered performance. Refined cooling.

Unleash the power of up to 600W, triple-wide graphics and a 24 core Intel® Core™ Ultra 9 processor[1,2], including K-Series, on intense multi-threaded apps. Smart fan control tunes fan speeds in real-time. New lattice venting optimizes airflow intake.

Built to expand. Power to grow.

Need to upgrade graphics? Increase memory or storage? Add specialized PCIe cards? With room to expand and tool-less access, you can easily upgrade and add components as needs evolve. Well suited for rack environments, now fit 1 unit in a 4U rack.[3]

Power AI-accelerated workflows

Accelerate AI inferencing and development. Iterate and problem solve faster on your local device with up to an NVIDIA RTX PROTM 6000 Blackwell Workstation Edition GPU[20]. A built-in NPU[4] efficiently takes on productivity tasks.



*Product image may differ from actual product

Sustainability in action

Help protect our shared future

HP cares about the impact our products have on our people, communities, and planet. That's why this device contains 60% recycled plastics[5], 20% recycled steel[6], 100% sustainably sourced outer box packaging[7], and is EPEAT® Gold with Climate+.[8]

HP Z2 Tower G1i Workstation Desktop PC

Featuring

Reengineered performance. Refined cooling.
Unleash the power of up to 600W, triple-wide graphics and a 24 core Intel® Core™ Ultra 9 processor[1,2], including K-Series, on intense multi-threaded apps. Smart fan control tunes fan speeds in real-time. New lattice venting optimizes airflow intake.

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Operating System
Support your unique user needs with a choice of Windows 11 Pro, WSL2 or Linux® operating systems.[9]

Intel® Core™ Ultra Processors
Unleash power-efficient performance with up to an Intel ® Core™ Ultra 9 CPU. This CPU not only unlocks performance for the next era of AI-enhanced software, but the dedicated NPU greatly increases efficiency for productivity tasks.[1]

Professional Graphics
Design, render, ray-trace and even work on small datasets seamlessly with up to NVIDIA RTXTM 6000-series graphics and powerful support for triple wide and 600W graphics.[10]

Memory
High speed memory for near real-time responsiveness with up to fast data transfer speeds of up to 5600 MT/s and up to 256 GB DDR5 memory.[2,11]

Storage
Get up to 36TB total storage capacity (12TB with 3x NVMe and 24TB with 2x HDD) and RAID data storage capabilities for added performance or reliability.[12]

Flexible I/O Modules
Configure to the needs of today with flexibility for the future with a flexible I/O port having 14 I/O options.[13]

Multi-Display Support
See all your windows in perfect detail with support for up to 8 displays at 4K resolution.[14]

Fast and efficient Wi-Fi 7
The portability of your PC and the reliability of a fast connection determines where you can work. Get a fast and reliable connection in dense wireless environments with gigabit data rate Wi-Fi 7.[15,16]

Independent Software Vendor Certifications
Work with confidence knowing your workstation is certified by leading software vendors to ensure peak performance even on complex projects.

Protected by HP Wolf Security
HP Wolf Security for Business creates a hardware-enforced, always-on, resilient defense. From the BIOS to the browser, above, in, and below the OS, these constantly evolving solutions help protect your PC from modern threats.[17]

HP Smart Sense
HP Smart Sense intelligently optimizes your PC's thermal and power management based on your usage. Select high performance mode when completing demanding tasks to maximize performance.[18]

Network Connectivity
Connect and collaborate quickly with up to 25Gb Ethernet interface.[19]

HP Z2 Tower G1i Workstation Desktop PC

Technical specifications

Available Operating Systems	Windows 11 Pro[1] Windows 11 Home - HP recommends Windows 11 Pro for business[1] Linux® Ready[3] Ubuntu 24.04 LTS[2]
Processor family[4,5]	Intel® Core™ Ultra 9 processor Intel® Core™ Ultra 7 processor Intel® Core™ Ultra 5 processor
Available Processors[4,5,6]	Intel® Core™ Ultra 9 285K with Intel® Graphics (3.2 GHz E-core base frequency, 3.7 GHz P-core base frequency, up to 4.6 GHz E-core Max Turbo frequency, up to 5.5 GHz P-core Max Turbo frequency, 36 MB L3 cache, 8 P-cores and 16 E-cores, 24 threads) Intel® Core™ Ultra 9 285 with Intel® Graphics (1.9 GHz E-core base frequency, 2.5 GHz P-core base frequency, up to 4.6 GHz E-core Max Turbo frequency, up to 5.4 GHz P-core Max Turbo frequency, 36 MB L3 cache, 8 P-cores and 16 E-cores, 24 threads) Intel® Core™ Ultra 7 265K with Intel® Graphics (3.3 GHz E-core base frequency, 3.9 GHz P-core base frequency, up to 4.6 GHz E-core Max Turbo frequency, up to 5.4 GHz P-core Max Turbo frequency, 30 MB L3 cache, 8 P-cores and 12 E-cores, 20 threads) Intel® Core™ Ultra 7 265 with Intel® Graphics (1.8 GHz E-core base frequency, 2.4 GHz P-core base frequency, up to 4.6 GHz E-core Max Turbo frequency, up to 5.2 GHz P-core Max Turbo frequency, 30 MB L3 cache, 8 P-cores and 12 E-cores, 20 threads) Intel® Core™ Ultra 5 245K with Intel® Graphics (3.6 GHz E-core base frequency, 4.2 GHz P-core base frequency, up to 4.6 GHz E-core Max Turbo frequency, up to 5.2 GHz P-core Max Turbo frequency, 24 MB L3 cache, 6 P-cores and 8 E-cores, 14 threads) Intel® Core™ Ultra 5 245 with Intel® Graphics (3.0 GHz E-core base frequency, 3.5 GHz P-core base frequency, up to 4.5 GHz E-core Max Turbo frequency, up to 5.1 GHz P-core Max Turbo frequency, 24 MB L3 cache, 6 P-cores and 8 E-cores, 14 threads) Intel® Core™ Ultra 5 235 with Intel® Graphics (2.9 GHz E-core base frequency, 3.4 GHz P-core base frequency, up to 4.4 GHz E-core Max Turbo frequency, up to 5.0 GHz P-core Max Turbo frequency, 24 MB L3 cache, 6 P-cores and 8 E-cores, 14 threads) Intel® Core™ Ultra 5 225 with Intel® Graphics (2.7 GHz E-core base frequency, 3.3 GHz P-core base frequency, up to 4.4 GHz E-core Max Turbo frequency, up to 4.9 GHz P-core Max Turbo frequency, 20 MB L3 cache, 6 P-cores and 4 E-cores, 10 threads)
Chipset	Intel® W880
Product colour	Black
Form factor	Tower
Maximum memory	128 GB DDR5-5600 MT/s ECC; 192 GB DDR5-5600 MT/s non-ECC Transfer rates up to 5600 MT/s.
Memory slots	4 DRR5
Internal storage	512 GB up to 4 TB HP Z Turbo Drive PCIe® NVMe™ M.2 SSD[7] 512 GB up to 4 TB HP Z Turbo Drive PCIe® NVMe™ Opal 2 M.2 SSD[7] 1 TB up to 2 TB HP Z Turbo Drive PCIe® Gen5 NVMe™ M.2 SSD[7] 1 TB up to 2 TB HP Z Turbo Drive PCIe® Gen5 NVMe™ Opal 2 M.2 SSD[7] 512 GB up to 2 TB Citadel PCIe® NVMe™ SSD M.2[7] 512 GB up to 2 TB PCIe® NVMe™ FIPS 140-2 SED SSD[7] 256 GB up to 1 TB PCIe® NVMe™ Value M.2 SSD[7] 1 TB up to 12 TB SATA Enterprise HDD[7]
Available Graphics	Integrated: Intel® Graphics Discrete: NVIDIA RTX™ 4500 Ada Generation (24 GB GDDR6 dedicated); NVIDIA RTX™ 4000 Ada Generation (20 GB GDDR6 dedicated); NVIDIA RTX™ 2000 Ada Generation (16 GB GDDR6 dedicated); NVIDIA RTX™ 6000 Ada Generation (48 GB GDDR6 dedicated); NVIDIA RTX™ 5000 Ada Generation (32 GB GDDR6 dedicated); AMD Radeon™ Pro W7900 (48 GB GDDR6 dedicated); NVIDIA RTX™ A400 (4 GB GDDR6 dedicated); NVIDIA RTX™ Pro 6000 Blackwell Generation (96 GB GDDR7 dedicated); AMD Radeon™ RX 9060 XT Graphics (16 GB GDDR6 dedicated); NVIDIA RTX™ 2000E Ada Generation (16 GB GDDR6 dedicated); NVIDIA RTX™ Pro 5000 Blackwell Generation (48 GB GDDR7 dedicated); NVIDIA RTX™ Pro 4000 Blackwell Generation (24 GB GDDR7 dedicated); NVIDIA RTX™ Pro 4500 Blackwell Generation (32 GB GDDR7 dedicated); NVIDIA RTX™ Pro 2000 Blackwell Generation (16 GB GDDR7 dedicated); NVIDIA RTX™ A1000 (8 GB GDDR6 dedicated) (Other 3rd Party graphics cards available. Please inquire with your sales specialist or channel partner.)
Audio	Realtek ALC3205 codec, universal audio jack with CTIA and OMTP headset support
Expansion slots	2 M.2 2280 PCIe 4 x4; 1 M.2 2230 for WLAN; 1 M.2 2280 PCIe 5 x4; 1 PCIe 4 x1 mechanical (x4 electrical); 1 PCIe 4 x4 mechanical (x16 electrical); 1 PCIe 4 x4
Ports and connectors	Front: 2 USB Type-C® 20Gbps signaling rate; 4 USB Type-A 10Gbps signaling rate; 1 headphone/microphone combo ; Rear: 2 USB Type-A 10Gbps signaling rate; 2 DisplayPort™ 1.4; 1 RJ-45; 1 audio line-in/line-out; 3 USB Type-A 480Mbps signaling rate ; Optional Ports: Flex IO left side - choose one of the following options: 1 DisplayPort™ 2.1 UHBR20, 1 HDMI 2.1, 1 VGA, 1 Dual USB Type-A 5Gbps signaling rate, 1 Dual USB Type-C® 10Gbps signaling rate, 1 USB Type-C® 10Gbps signaling rate (USB Power Delivery, Alt Mode DisplayPort™1.4), 1 GbE LAN, 1 Thunderbolt™ 4, 2.5 GbE LAN. 10GbE LAN (10GBase-T), USB-based Serial port option, 1GbE Fiber LC NIC. Flex IO (fly cable) - choose one of the following options: 1 Dual USB Type-A 5Gbps signaling rate, USB-based Serial port option, 1GbE Fiber LC NIC.
Input devices	HP 655 Wireless Keyboard and mouse combo; HP 455 Programmable Wireless Keyboard; HP USB 320K Keyboard; HP USB Business Slim Wired SmartCard CCID Keyboard; HP 125 Black Wired Keyboard; HP Wired Desktop 128 Laser Mouse; HP Wired 320M Mouse; HP 125 Wired Mouse
Communications	LAN: Intel® I350-T4 4-port GbE NIC; Intel® X550-T2 dual-port 10GbE NIC; Integrated Intel® I219-LM PCIe® GbE; Intel® I225-T1 PCIe® 2.5 GbE; NVIDIA® Mellanox ConnectX-6 DX Dual Port 10/25GbE SFP28 NIC; Allied Telesis AT-2911T/2-901 dual-port 1GbE NIC ; WLAN: Intel® Wi-Fi 6E AX211 (2x2) and Bluetooth® 5.3 wireless card; Intel® Wi-Fi 7 BE200 (2x2) and Bluetooth® 5.4 wireless card, non-vPro®[8,24]
Drive Bays	One slim ODD; One 5.25"
Software	HP Support Assistant[34]; HP UEFI BIOS Certification Level 2.7B; HP PC Hardware Diagnostics Windows; HP Manageability Integration Kit[10]; HP Notifications; HP Desktop Support Utilities; HP Documentation; myHP[25]; WPS Office; Touchpoint Customizer for Commercial; HP Anyware[28]
Security management	HP Secure Erase[11]; HP Sure Click[12]; HP BIOSphere Gen6[13]; HP Sure Admin[14]; Hood Sensor Optional Kit; HP Client Security Manager Gen6[15]; HP Sure Start[16]; HP Sure Recover[17]; HP Sure Sense[18]; HP Sure Run[22]; HP Tamper Lock[27]
Security Software Licenses	HP Wolf Pro Security Edition[56]

HP Z2 Tower G1i Workstation Desktop PC

Technical specifications

Management features	HP Client Catalog (download)[30]; HP Cloud Recovery[26]; HP Driver Packs[31]; HP Client Management Script Library (download)[32]; HP System Software Manager (download); HP BIOS Configuration Utility (download); HP Image Assistant (download)[33]
Power	500 W internal power adapter, up to 92% efficiency, active PFC; 1200 W internal power adapter, up to 92% efficiency, active PFC; 700 W internal power adapter, up to 92% efficiency, active PFC
Dimensions	6.9 x 16.7 x 15.2 in; 17.5 x 42.6 x 38.8 cm; (Standard desktop orientation.); 23.2 x 19.3 x 11.6 in 59 x 49 x 29.5 cm (Package)
Weight	Starting at 19 lb; Starting at 8.6 kg; (Exact weight depends on configuration.)
Ecolabels	CECP; TCO Certified configurations available; SEPA; Taiwan Green Mark; Japan PC Green Label; FEMP; EPEAT® Gold with Climate+; Korea MEPS[23,35]
Sustainable impact specifications	Low halogen; Bulk packaging available; 10% ITE-derived closed loop plastic; 25% ocean-bound plastic in system fans; Product Carbon Footprint; Contains at least 60% post-consumer recycled plastic; System has a QR code enabled experience where the user has access to a product portal – beginning December 2025, this is complete with product feature highlights, sustainability information, getting started guides, and direct setup and support options; New Energy Consumption dashboard available to customers providing timely carbon usage including recommended actions users can take to decrease carbon footprint[19,20,21,29]

HP Z2 Tower G1i Workstation Desktop PC

Footnotes

Messaging Footnotes

[9] Not all features are available in all editions or versions of Windows. Systems may require upgraded and/or separately purchased hardware, drivers, software or BIOS update to take full advantage of Windows functionality. Windows 11 Pro is automatically updated, which is always enabled. ISP fees may apply and additional requirements may apply over time for updates. See http://www.windows.com .
[10] Sold separately or as an optional feature.
[11] Up to 192 GB memory is available at launch. Up to 256 GB memory is planned to be available in the second half of 2025.
[12] For storage drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 35GB of disk is reserved for system recovery software.
[1] Multicore is designed to improve performance of certain software products. Not all customers or software applications will necessarily benefit from use of this technology. Performance and clock frequency will vary depending on application workload and your hardware and software configurations. Intel's numbering is not a measurement of clock speed. Features and software that require a NPU may require software purchase, subscription or enablement by a software or platform provider, and third-party software may have specific configuration or compatibility requirements. Performance varies by use, configuration, and other factors.
[2] Memory is an optional feature that must be configured at purchase.
[3] Rack mounting hardware sold separately.
[4] Features and software that require a NPU may require software purchase, subscription or enablement by a software or platform provider, and third-party software may have specific configuration or compatibility requirements. Performance varies by use, configuration, and other factors.
[5] Recycled plastic is expressed as a percentage of the total weight plastic. Post-consumer recycled is based on the definition set in the EPEAT standard for computers, IEEE 1680.1-2018 standard.
[6] Recycled metal is expressed as a percentage of the total weight of the metal according to ISO 14021 definitions for metal parts over 25 grams.
[7] HP paper and fiber based packaging for PCs, displays, home and office print, and supplies is reported by suppliers as recycled or certified, with a minimum of 97% by volume verified by HP. Packaging is the box that comes with the product and all paper-based materials inside the box. Packaging for personal systems accessories and spare parts is not included.
[8] Based on US EPEAT® registration according to IEEE 1680.1-2018 EPEAT®. Status varies by country. Visit www.epeat.net for more information.
[20] NVIDIA RTXTM 6000 Ada Generation Desktop GPU is available at launch. NVIDIA RTXTM PRO 6000 Blackwell Workstation Edition GPU is planned to be available in the second half of 2025.
[13] Optional features that must be configured at purchase or are sold separately.
[14] Requires Mini DisplayPort adapters or USB-C adapters/cables.
[15] Wireless access point and Internet service required and sold separately. Availability of public wireless access points limited. Wi-Fi 7 (802.11BE) functionality requires compatible Windows 11 OS, compatible processor, and separately purchased Wi-Fi 7 router to support backwards compatibility with prior 802.11 specs. Available in countries where Wi-Fi 7 is supported. The specification for 802.11BE is a draft specification and is not final. If the final specification differs from the draft specification, it may affect the ability of the device to communicate with other 802.11BE devices.
[16] Wi-Fi® supporting gigabit data rate is achievable with Wi-Fi 7 (802.11BE) when transferring files between two devices connected to the same router. Requires a wireless router, sold separately, that supports 160MHz channels.
[17] HP Wolf Security for Business requires Windows 10 or 11 Pro and higher, includes various HP security features and is available on HP Pro, Elite, Workstation, and RPOS products. See product details for included security features.
[18] HP Smart Sense requires Windows 10 or higher.
[19] Internet access required and not included. Optional networking card not included.

Specification Footnotes

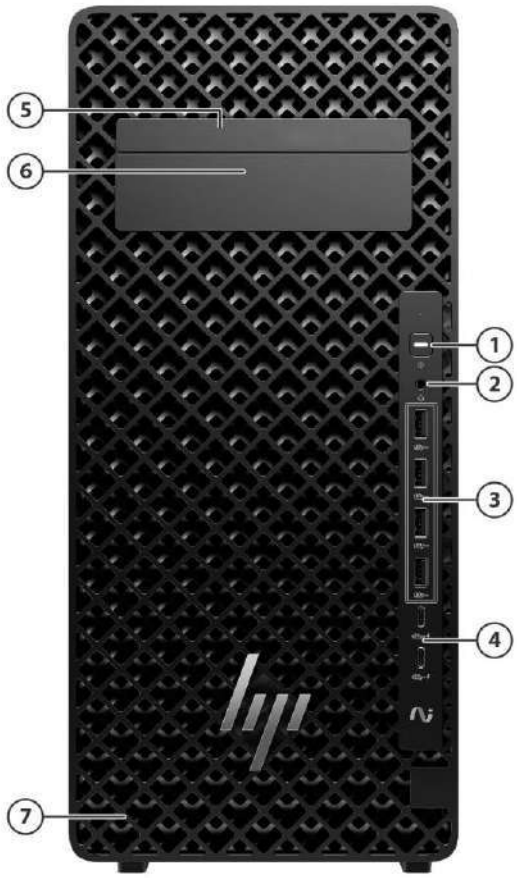
[1] Not all features are available in all editions or versions of Windows. Systems may require upgraded and/or separately purchased hardware, drivers, software or BIOS update to take full advantage of Windows functionality. Windows 11 is automatically updated, which is always enabled. ISP fees may apply and additional requirements may apply over time for updates. See http://www.windows.com .
[2] Not all features are available in all editions or versions of Ubuntu. Systems may require upgraded and/or separately purchased hardware, drivers, software or BIOS to take full advantage of Ubuntu functionality. Ubuntu may be automatically updated. ISP fees may apply and additional requirements may apply over time for updates.
[3] For detailed OS/hardware support information for Linux, see: http://www.hp.com/support/linux_hardware_matrix .
[4] Multicore is designed to improve performance of certain software products. Not all customers or software applications will necessarily benefit from use of this technology. Performance and clock frequency will vary depending on application workload and your hardware and software configurations. Intel's numbering, branding and/or naming is not a measurement of higher performance.
[5] Features and software that require a NPU may require software purchase, subscription or enablement by a software or platform provider, and third party software may have specific configuration or compatibility requirements. Performance varies by use, configuration, and other factors.
[6] Intel vPro® requires Windows 10 Pro 64 bit or higher, a vPro supported processor, vPro enabled chipset, vPro enabled wired LAN and/or Wi-Fi 6E WLAN and TPM 2.0. Some functionality requires additional 3rd party software in order to run. Features of vPro® Essentials and Enterprise vary. See http://intel.com/vpro .
[7] Supports dual channel memory.
[8] Wireless access point and Internet service required and sold separately. Availability of public wireless access points limited. Wi-Fi 7 (802.11BE) functionality requires compatible Windows 11 24H2 OS, compatible processor, and separately purchased Wi-Fi 7 router to support backward compatibility with prior 802.11 specs. Available in countries where Wi-Fi 7 is supported.
[9] HP Performance Advisor Software - HP Performance Advisor is ready to help you get the most out of your HP Workstation from day one—and every day after. Learn more or download at: http://hp.com/PerformanceAdvisor .
[10] HP Manageability Integration Kit can be downloaded from http://www8.hp.com/us/en/ads/clientmanagement/overview.html .
[11] HP Secure Erase for the methods outlined in the National Institute of Standards and Technology Special Publication 800-88 ""Clear"" sanitation method. HP Secure Erase does not support platforms with Intel® Optane™.
[12] HP Sure Click requires Windows 10 Pro or higher or Enterprise. See https://bit.ly/2PrLT6A_SureClick for complete details.
[13] HP BIOSphere Gen6 features may vary depending on the platform and configuration.
[14] HP Sure Admin requires Windows 11, HP BIOS, HP Manageability Integration Kit from http://www.hp.com/go/clientmanagement and HP Sure Admin Local Access Authenticator smartphone app from the Android or Apple store.
[15] HP Client Security Manager Gen6 requires Windows and is available on the select HP PCs.
[16] HP Sure Start is available on select HP PCs and requires Windows 10 and higher.
[17] HP Sure Recover is available on select HP PCs and requires Windows 10 or Windows 11 and an open network connection. You must back up important files, data, photos, videos, etc. before using HP Sure Recover to avoid loss of data. Network based recovery using Wi-Fi is only available on select PCs.
[18] HP Sure Sense is available on select HP PCs with Windows 10 Pro, Windows 10 Enterprise, Windows 11 Pro, or Windows 11 Enterprise OS.
[19] Recycled metal is expressed as a percentage of the total weight of the metal according to ISO 14021 definitions for metal parts over 25 grams.
[20] Recycled plastic is expressed as a percentage of the total weight plastic. Post-consumer recycled is based on the definition set in the EPEAT standard for computers, IEEE 1680.1-2018 standard.
[21] HP paper and fiber based packaging for PCs, displays, home and office print, and supplies is reported by suppliers as recycled or certified, with a minimum of 97% by volume verified by HP. Packaging is the box that comes with the product and all paper-based materials inside the box. Packaging for commercial, personal systems accessories, and spare parts is not included.
[22] HP Sure Run is available on select HP PCs and requires Windows 10 and higher.
[23] Based on US EPEAT® registration according to IEEE 1680.1-2018 EPEAT®. Status varies by country. Visit www.epeat.net for more information.
[24] Wi-Fi 6E requires a Wi-Fi 6E router, sold separately, to function in the 6GHz band. The availability of public wireless access points is limited. Wi-Fi 6E is backward compatible with prior 802.11 specs and available in countries where Wi-Fi 6E is supported.
[25] myHP requires Windows OS.
[26] HP Cloud Recovery is available for Z by HP, HP Elite and Pro desktops and laptops PCs with Intel® or AMD processors and requires an open, wired network connection. Note: You must back up important files, data, photos, videos, etc. before use to avoid loss of data. Detail please refer to: https://support.hp.com/us-en/document/c05115630 .
[27] HP Tamper Lock must be enabled by the customer or your administrator.
[28] HP Anyware software and licensing are available through a 1- or 3-year subscription. Network access required. Renewal is required after the subscription term. HP Anyware subscriptions are based on the number of concurrent PCoIP connections used (pay for the number of host connections, not the software) with a minimum order quantity of 5. For a limited time, an HP Anyware Professional subscription also includes access and support for ZCentral Remote Boost and ZCentral Connect and is available for purchase through an HP reseller or contact sales at hp.com/Anyware. ZCentral Remote Boost Sender requires Windows 10 and 11, RHEL/CentOS (7 or 8), or UBUNTU 18.04 or 20.04 LTS operating systems. macOS (10.14 or newer) operating system and ThinPro 7.2 are only supported on the receiver side. ZCentral Connect requires Windows (10 or 11) or Windows Server (2016 or 2019) operating system, Microsoft Active Directory and Intel Active Management Technology for select features. For system requirements and to install HP Anyware and Anyware Manager, refer to the Admin Guides at: https://docs.teradici.com/find/product/hp-anyware .
[29] Percentage of ocean-bound plastic contained in each component varies by product. Ocean Bound plastic is expressed as a percentage of the total weight plastic. Ocean Bound plastic is based on the definition set by the UL2809 standard.
[30] HP Client Catalog not preinstalled, however available for download at https://www.hp.com/us-en/solutions/client-managementsolutions.html .
[31] HP Driver Packs not preinstalled, however available for download at http://www.hp.com/go/clientmanagement .
[32] HP Client Management Script Library https://www.hp.com/us-en/solutions/client-management-solutions.html#tab=manageability-tools .
[33] HP Image Assistant not preinstalled, however available for download at https://ftp.ext.hp.com/pub/caps-softpaq/cmit/HPIA.html .
[34] HP Support Assistant is available on Windows. For more information, please visit www.support.hp.com/help/hp-support-assistant .
[35] TCO Certified configurations available when ENERGY STAR configurations are selected with a USB Type-C® connector. ENERGY STAR available with a combination of high-performance CPU's, high-performance GPU's and select memory configurations.
[56] HP Wolf Pro Security Edition is available preloaded on select SKUs, and, depending on the HP product purchased, includes a license with a term length communicated to you at purchase and in your order confirmation email. The HP Wolf Pro Security Edition software is licensed under the license terms of the HP Wolf Security Software - End-User license Agreement (EULA) that can be found at: https://support.hp.com/us-en/document/ish_3875769-3873014-16 as that EULA is modified by the following: 7. Term. Unless otherwise terminated earlier pursuant to the terms contained in this EULA, the license for the HP Wolf Pro Security Edition is effective upon 4 months after the date the HP Product was shipped by HP and will continue for the term communicated to you at purchase and in your order confirmation email ("Initial Term"). At the end of the Initial Term you may either (a) purchase a renewal license for the HP Wolf Pro Security Edition from HP.com, HP Sales or an HP Channel Partner, or (b) continue using the standard versions of HP Sure Click and HP Sure Sense at no additional cost with no future software updates or HP Support. Notwithstanding the foregoing, the license shall expire no later than one year after the fixed term of the subject license ends.

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February 2026

Overview

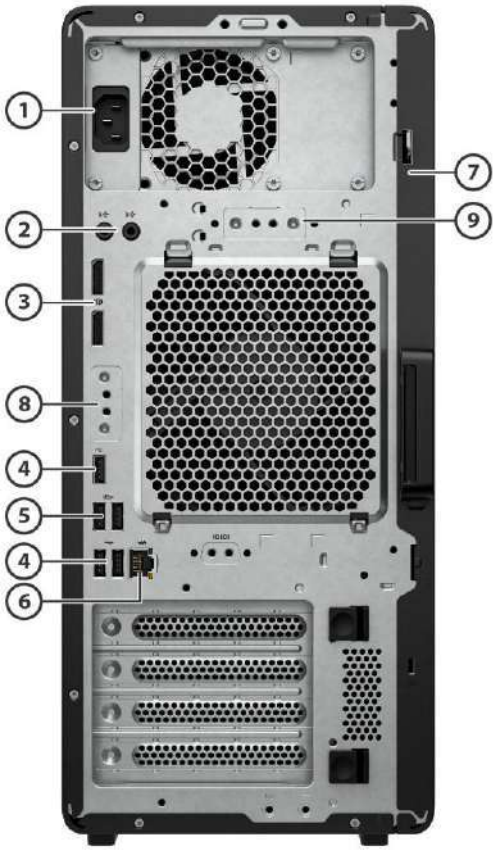
HP Z2 Tower G1i Workstation



front

1. Power button
2. headphone/microphone combo
3. 4 SuperSpeed USB Std-A 10Gbps ports
4. 2 SuperSpeed USB-C® USB3.2 Gen2x2 20Gbps port (charge supports up to 5V/3A)
5. Slim ODD bay (Optional)
6. External 3.5" bay
7. WLAN Antenna (optional) Internal

Overview



rear

1. Power connector
2. 1 Audio Line-in jack
   1 Audio Line-out jack
3. 2 DisplayPort 1.4 ports
4. 3 Hi-Speed USB Std-A 480Mbps ports
5. 2 SuperSpeed USB Std-A 10Gbps ports
6. 1 RJ-45 Integrated LAN Port (1GbE)
7. Hood lock (optional)
8. Flex IO, choice of: 1 Dual SuperSpeed USB Std-A 5Gbps port, 1 SuperSpeed USB Type-C® 10Gbps port (Alt Mode DisplayPort™1.4 with 15W Output) , 1 Dual SuperSpeed USB Type-C® 10Gbps port1, 1 Thunderbolt™ 4 port (40Gbps, 15W Output, DisplayPort™ 2.1), 1 USBbased Serial port, 1 Displayport 2.1 port, 1 HDMI 2.1 port, 1 VGA port, (1) 1GbE NIC, (1) 1Gbps Fiber LC NIC*, (1) 2.5GbE NIC1, (1) 10GbE NIC*1
9. Flex IO 2, choice of: 1 Dual SuperSpeed USB Std-A 5Gbps ports, 1 USB-based Serial port, (1) 1Gbps Fiber LC NIC (FLY USB Type)

Overview

Operating Systems

Preinstalled:

- Windows 11 Pro 64[1]
- Windows 11 Home 64[1]
- Linux®-ready[4]
- Ubuntu® 24.04 LTS[2,3]

Supported:

- Windows 10
- Red Hat® Enterprise Linux® Workstation 9[4]
- SUSE Linux® Enterprise Desktop 15[4]
- Ubuntu® 24.04 LTS[2,3]

[1] Not all features are available in all editions or versions of Windows. Systems may require upgraded and/or separately purchased hardware, drivers, software or BIOS update to take full advantage of Windows functionality. Windows 11 is automatically updated, which is always enabled. ISP fees may apply and additional requirements may apply over time for updates. See http://www.windows.com.
[2] Not all features are available in all editions or versions of Ubuntu®. Systems may require upgraded and/or separately purchased hardware, drivers, software or BIOS to take full advantage of Ubuntu functionality. Ubuntu may be automatically updated. ISP fees may apply and additional requires may apply over time for updates.
[3] A certified preloaded version of Ubuntu® 24.04 LTS is available from HP for this platform. Not all features are available in all editions or versions of Ubuntu. Systems may require upgraded and/or separately purchased hardware, drivers, software or BIOS to take full advantage of Ubuntu functionality. Ubuntu may be automatically updated. ISP fees may apply, and additional requirements may apply over time for upgrades.
[4]For detailed OS/hardware support information for Linux, see:
http://www.hp.com/support/linux_hardware_matrix

NOTE: Your product does not support Windows 8 or Windows 7. In accordance with Microsoft's support policy, HP does not support the Windows® 8 or Windows 7 operating system on products configured with Intel® and AMD® 7th generation and forward processors or provide any Windows® 8 or Windows 7 drivers on http://www.support.hp.com. A full list of HP products and the Windows 10 versions tested is available on the HP support website. https://support.hp.com/us-en/document/c05195282

Overview

PROCESSORS OVERVIEW[1,2,3,4,5,6]

Intel® Core™ Ultra 9 Processor 285K with Intel® Graphics (3.2 GHz E-core base frequency, 3.7 GHz P-core base frequency, up to 4.6 GHz E-core Max Turbo frequency, up to 5.5 GHz P-core Max Turbo frequency, 36 MB L3 cache, 8 P-cores and 16 E-cores, 24 threads)

Intel® Core™ Ultra 9 Processor 285 with Intel® Graphics (1.9 GHz E-core base frequency, 2.5 GHz P-core base frequency, up to 4.6 GHz E-core Max Turbo frequency, up to 5.4 GHz P-core Max Turbo frequency, 36 MB L3 cache, 8 P-cores and 16 E-cores, 24 threads)

Intel® Core™ Ultra 7 Processor 270K Plus with Intel® Graphics (3.2 GHz E-core base frequency, 3.7 GHz P-core base frequency, up to 4.7 GHz E-core Max Turbo frequency, up to 5.4 GHz P-core Max Turbo frequency, 36 MB L3 cache, 8 P-cores and 16 E-cores, 24 threads)

Intel® Core™ Ultra 7 Processor 265K with Intel® Graphics (3.3 GHz E-core base frequency, 3.9 GHz P-core base frequency, up to 4.6 GHz E-core Max Turbo frequency, up to 5.4 GHz P-core Max Turbo frequency, 30 MB L3 cache, 8 P-cores and 12 E-cores, 20 threads)

Intel® Core™ Ultra 7 Processor 265 with Intel® Graphics (1.8 GHz E-core base frequency, 2.4 GHz P-core base frequency, up to 4.6 GHz E-core Max Turbo frequency, up to 5.2 GHz P-core Max Turbo frequency, 30 MB L3 cache, 8 P-cores and 12 E-cores, 20 threads)

Intel® Core™ Ultra 7 Processor 250K with Intel® Graphics (3.5 GHz E-core base frequency, 4.2 GHz P-core base frequency, up to 4.7 GHz E-core Max Turbo frequency, up to 5.3 GHz P-core Max Turbo frequency, 30 MB L3 cache, 6 P-cores and 12 E-cores, 18 threads)

Intel® Core™ Ultra 5 Processor 245K with Intel® Graphics (3.6 GHz E-core base frequency, 4.2 GHz P-core base frequency, up to 4.6 GHz E-core Max Turbo frequency, up to 5.2 GHz P-core Max Turbo frequency, 24 MB L3 cache, 6 P-cores and 8 E-cores, 14 threads)

Intel® Core™ Ultra 5 Processor 245 with Intel® Graphics (3.0 GHz E-core base frequency, 3.5 GHz P-core base frequency, up to 4.5 GHz E-core Max Turbo frequency, up to 5.1 GHz P-core Max Turbo frequency, 24 MB L3 cache, 6 P-cores and 8 E-cores, 14 threads)

Intel® Core™ Ultra 5 Processor 235 with Intel® Graphics (2.9 GHz E-core base frequency, 3.4 GHz P-core base frequency, up to 4.4 GHz E-core Max Turbo frequency, up to 5.0 GHz P-core Max Turbo frequency, 24 MB L3 cache, 6 P-cores and 8 E-cores, 14 threads)

Intel® Core™ Ultra 5 Processor 225 with Intel® Graphics (2.7 GHz E-core base frequency, 3.3 GHz P-core base frequency, up to 4.4 GHz E-core Max Turbo frequency, up to 4.9 GHz P-core Max Turbo frequency, 20 MB L3 cache, 6 P-cores and 4 E-cores, 10 threads)

1. Multicore is designed to improve performance of certain software products. Not all customers or software applications will necessarily benefit from use of this technology. Performance and clock frequency will vary depending on application workload and your hardware and software configurations. Intel's numbering, branding and/or naming is not a measurement of higher performance.
2. Intel Turbo Boost performance varies depending on hardware, software and overall system configuration. See http://www.intel.com/technology/turboboost for more information.
3. Intel vPro® requires Windows 10 Pro 64 bit or higher, a vPro supported processor, vPro enabled chipset, vPro enabled wired LAN and/or Wi-Fi 6E WLAN and TPM 2.0. Some functionality requires additional 3rd party software in order to run. Features of vPro® Essentials and Enterprise vary. See http://intel.com/vpro
4. In accordance with Microsoft's support policy, HP does not support the Windows 8 or Windows 7 operating system on products configured with Intel and AMD 7th generation and forward processors or provide any Windows 8 or Windows 7 drivers on http://www.support.hp.com.
5. Processor speed denotes maximum performance mode; processors will run at lower speeds in battery optimization mode.
6. Features and software that require a NPU may require software purchase, subscription or enablement by a software or platform provider, and third party software may have specific configuration or compatibility requirements. Performance varies by use, configuration, and other factors.

Overview

Expansion Slots (see system board section for more details)	Slot 1: PCIe Gen5 x16 Slot 2: PCIe Gen4 x1 - with x4 Connector Slot 3: PCIe Gen4 x4 - with x16 Connector Slot 4: PCIe Gen4 x4
Expansion Bays (see storage section for more details)	1 internal 3.5" bays (Include a carrier) 1 external 3.5" bays 1 dedicated 9.5mm slim optical disk drive bay
Front I/O	4 SuperSpeed USB Std-A 10Gbps port; 2 SuperSpeed USB Type-C® 20Gbps port (charge supports up to 5V/3A)
Internal I/O [5]	Serial port
Rear I/O	2 SuperSpeed USB Std-A 10Gbps port; 3 High-speed USB Std-A 480Mbps port
Optional I/O	Flex IO, choice of: 1 Dual SuperSpeed USB Std-A 5Gbps port, 1 SuperSpeed USB Type-C® 10Gbps port (Alt Mode DisplayPort™1.4 with 15W Output)[1], 1 Dual SuperSpeed USB Type-C® 10Gbps port[1], 1 Thunderbolt™ 4 port (40Gbps)[1], 1 USB-based Serial port, 1 Displayport 2.1 port, 1 HDMI 2.1 port, 1 VGA port, (1) 1GbE NIC, (1) 1Gbps Fiber LC NIC*, (1) 2.5GbE NIC[1], (1) 10GbE NIC*[1] Flex IO2, choice of: 1 Dual SuperSpeed USB Std-A 5Gbps ports, 1 USB-based Serial port, (1) 1Gbps Fiber LC NIC (FLY USB Type) * Modern standby feature was not compatible risk (detail see NETWORKING / COMMUNICATION).
On-board RAID Support	Factory integrated RAID 0, 1 for NVME drives (RAID 5, 10 Intel support)
Chassis Dimensions (H x W x D)	H: 15.2" [388mm] W: 6.9" [175mm] D: 16.7" [426mm] (Standard desktop orientation)
Packaged Dimensions	H:11.61” [295 mm] W:23.23” [590 mm] D:19.3” [490 mm] (Standard desktop orientation)
Rack Dimensions	4U, 1 units per slide rail kit(Standard EIA-310-D 19” Rack)
Weight	Exact weights depend upon configuration (System weight only). Starting at 8.6kg (19.02lbs.)s
Temperature	Operating: 5° to 35° C (40° to 95° F) Above 1524 m (5,000 feet) altitude, the maximum operating temperature is reduced by 1° C (1.8° F) for every 305 m (1,000 feet) increase in elevation Non-operating: -40° to 60° C (-40° to 140° F) Maximum rate of change: 10°C/hr

Overview

Humidity	Operating: 8% to 85% RH, non-condensing, 35° C maximum wet bulb Non-operating: 8% to 90% RH, non-condensing, 35° C maximum wet bulb
Maximum Altitude (non-pressurized)[6]	Operating (with Rotational Hard Drives): 3,048 m (10,000 feet) Operating (with only Solid-State Drives): 5,000 m (16,404 feet) Non-operating: 12,192 m (40,000 feet) Maximum operating temperature is reduced as altitude increases. See Temperature for details.
Power Supply	1200W, 700W, and 500W power supplies with wide-ranging input, active Power Factor Correction (PFC), and 92% efficiency. 1200W and 700W configurations support a 12VHPWR graphics power connector; 500W supports a 6+2 pin graphics power adapter. **NOTE:** The Power Supply Efficiency Report for the 1200W 92% Efficiency, 700W 92% Efficiency and 500W 92% Efficiency Power Supply may be found at the following links: https://www.plugloadsolutions.com/80PlusPowerSuppliesDetail.aspx?id=0&type=2
Backup Devices	
Chipset	Intel® W880 Chipset
Memory	4 DIMM slots supporting up to 192GB nECC at launch (256 GB later) or up to 128 GB ECC, DDR5 unbuffered DIMM memory. Max memory speed will run at 5600 MT/s based on system configuration. See Supported Components / Memory Section for details.

Supported Components

Processors	Intel® Core™ Ultra Desktop Processors (series 2)	Factory Configured	Option Kit
	Intel® Core™ Ultra 9 285K Processor	Y	N
	Intel® Core™ Ultra 9 285 Processor	Y	N
	Intel® Core™ Ultra 9 270K Plus Processor	Y	N
	Intel® Core™ Ultra 7 265K Processor	Y	N
	Intel® Core™ Ultra 7 265 Processor	Y	N
	Intel® Core™ Ultra 5 250K Plus Processor	Y	N
	Intel® Core™ Ultra 5 245K Processor	Y	N
	Intel® Core™ Ultra 5 245 Processor	Y	N
	Intel® Core™ Ultra 5 235 Processor	Y	N
	Intel® Core™ Ultra 5 225 Processor[1]	Y	N

NOTE 1: Support only non-ECC memory

SATA Hard Drives	Factory Configured	Option Kit	Option Kit Part Number
8TB 7200RPM SATA 3.5in Enterprise	Y	Y	2Z273AA
2TB 7200RPM SATA 3.5in Enterprise	Y	Y	2Z274AA
HP 1TB Enterprise SATA 7200 HDD	Y	Y	W0R10AA
4TB 7200 RPM SATA 3.5in Enterprise HDD	Y	Y	K4T76AA
12TB 7200 RPM SATA-6G 3.5in Enterprise HDD	Y	Y	5S461AA
HP Z2 TWR G1i HDD Cable Kit*	N	Y	B5DU5AA

NOTE: For internal bay install, HDD option kits require separate purchase of B5DU5AA HP Z2 TWR G1i HDD Cable Kit. This kit includes 1x SATA Power Cable with Right-Angle Female, 1x 17" SATA Data Cable with Reverse Right Angle to Right Angle, 1x 12" SATA Data Cable with Straight to Right Angle.

PCIe Solid State Drives	Factory Configured	Option Kit	Option Kit Part Number
HP Z Turbo Drive 1TB 2280 PCIe-4x4 SED OPAL2 TLC Z2 Kit SSD	Y	Y	223A3AA
HP Z Turbo Drive 2TB 2280 PCIe-4x4 SED OPAL2 TLC Z2 Kit SSD	Y	Y	223A4AA
HP ZTurbo 1TB PCIe-Gen 4x4 TLC Z2 SSDKit	Y	Y	201F5AA
HP ZTurbo 2TB PCIe-Gen 4x4 TLC Z2 SSDKit	Y	Y	201F8AA
HP ZTurbo 512GB PCIe-Gen 4x4 SED Z2 SSDKit	Y	Y	201F9AA
HP ZTurbo 512GB PCIe-Gen 4x4 TLC Z2 SSDKit	Y	Y	201G0AA
Z Turbo 2TB PCIe-4x4 TLC SSD Module	Y	Y	38T75AA
Z Turbo 1TB 2280 PCIe-4x4 SED OPAL2 TLC M.2 SSD Module	Y	Y	38T76AA
Z Turbo 1TB PCIe-4x4 TLC SSD Module	Y	Y	38T77AA
Z Turbo 2TB 2280 PCIe-4x4 SED OPAL2 TLC M.2 SSD Module	Y	Y	38T79AA

Supported Components

Z Turbo 512GB PCIe-4x4 TLC SSD Module	Y	Y	38T80AA
Z Turbo 512GB 2280 PCIe-4x4 SED OPAL2 TLC M.2 SSD Module	Y	Y	38T81AA
256GB 2280 PCIe-4x4 NVMe Value M.2 Z2 SSD Module	Y	Y	4M9Z1AA
512GB 2280 PCIe-4x4 NVMe Value M.2 Z2 SSD Module	Y	Y	4M9Z2AA
1TB 2280 PCIe-4x4 NVMe Value M.2 Z2 SSD Module	Y	Y	4M9Z3AA
HP CRU Secure High Performance Storage M.2 2TB Storage Module	Y	Y	56Q87AA
HP CRU Secure High Performance Storage M.2 1TB Storage Module	Y	Y	56Q88AA
HP CRU Secure High Performance Storage M.2 512GB Storage Module	Y	Y	56Q89AA
Z Turbo 4TB 2280 PCIe-4x4 TLC M.2 Z2 Kit SSD	Y	Y	5S492AA
Z Turbo 4TB 2280 PCIe-4x4 TLC M.2 SSD Module	Y	Y	5S496AA
Z Turbo 4TB 2280 PCIe-4x4 SED OPAL2 TLC M.2 SSD Module	Y	Y	5S497AA
Z Turbo 4TB 2280 PCIe-4x4 SED OPAL2 TLC M.2 Z2 Kit SSD	Y	Y	5S498AA
Z Turbo 512GB 2280 PCIe-4x4 TLC China SSD Module	Y	Y	906H1AA
Z Turbo 1TB PCIe-4x4 TLC China SSD Module	Y	Y	906H6AA
Z Turbo 2TB PCIe-4x4 TLC China SSD Module	Y	Y	906J0AA
HP Z Turbo 2TB PCIe-4x4 TLC China Z2 Kit SSD	Y	Y	906J1AA
256GB 2280 PCIe-4x4 NVMe Value M.2 China Z2 SSD Module	Y	Y	906J7AA
512GB 2280 PCIe-4x4 NVMe Value M.2 China Z2 SSD Module	Y	Y	906K1AA
1TB 2280 PCIe-4x4 NVMe Value M.2 China Z2 SSD Module	Y	Y	906K2AA
HP Z Turbo 1TB 2280 PCIe-5x4 TLC M.2 Z2 G12 TWR Kit SSD	Y	Y	B11F4AA
HP Z Turbo 1TB 2280 PCIe-5x4 SED OPAL2 TLC M.2 Z2 G12 TWR Kit SSD	Y	Y	B11F5AA
HP Z Turbo 2TB 2280 PCIe-5x4 TLC M.2 Z2 G12 TWR Kit SSD	Y	Y	B11F6AA
HP Z Turbo 2TB 2280 PCIe-5x4 SED OPAL2 TLC M.2 Z2 G12 TWR Kit SSD	Y	Y	B11F7AA
HP Z Turbo 8TB PCIe-4x4 2280 NVMe M.2 SSD	Y		

NOTE: For storage drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36GB of system disk (for Windows) is reserved for system recovery software.

NOTE: PCIe M.2 SSD Kit SKUs include a heatsink. PCIe M.2 SSD Module SKUs do not include a heatsink.

Supported Components

Graphics		Factory Configured	Option Kit	Option Kit Part Number	Supported # of cards	Support Notes
Graphics Cable Adapters	HP DisplayPort To VGA Adapter	N	Y	AS615AA		
	HP USB-C to DisplayPort Adapter G2	N	Y	8Y8Y1AA		
	HP USB-C to HDMI Adapter	N	Y	4SH07AA		
	HP USB-C to VGA Adapter	N	Y	4SH06AA		
	HP Single miniDP-to-DP Adapter Cable	Y	Y	2MY05AA		
	HP DisplayPort to DVI-D Adapter	Y	N			
	HP DP to HDMI 2.0	Y	N			
	HP DisplayPort 2.1 v3 Flex IO	Y	Y	B6BS8AA		
	HP Graphics Cable Kit	N	Y	B5CJ4AA		3
Entry 3D	NVIDIA RTX A400 4 GB with Mini Bracket 4mDP Graphics	Y	Y	AV8J3AA	2	
	NVIDIA RTX A1000 8 GB with Mini Bracket 4mDP Graphics	Y	Y	AV8J4AA	2	
Mid-range 3D	NVIDIA® RTX 2000E Ada 16 GB	Y	Y	C81TMAA	2	
	NVIDIA RTX 2000 Ada 16 GB 4mDP Graphics	Y	Y	8D6B8AA	2	
	NVIDIA RTX PRO 2000 Blackwell 16 GB 4mDP Graphics	Y	Y	B5CH7AA	2	
High-End 3D	AMD Radeon RX 9070XT 16 GB GDDR6 FH PCIe x16 Graphics	Y	Y	CF2P7AA	1	
	AMD Radeon Pro W7900 DS 48 GB 3DP+1mDP Graphics	Y	N		1	
	NVIDIA RTX 4000 Ada 20 GB 4DP Graphics	Y	Y	8D6B7AA	2	
	NVIDIA RTX 4500 Ada 24 GB 4DP Graphics	Y	Y	8D6C1AA	1	1
	NVIDIA RTX 5000 Ada 32 GB 4DP Graphics	Y	Y	8D6B6AA	1	1
	NVIDIA RTX 5880 Ada 48 GB 4DP Graphics	Y	Y	9Z7P5AA	1	2
	NVIDIA RTX 6000 Ada 48 GB 4DP Graphics	Y	Y	79C23AA	1	2
	NVIDIA RTX PRO 4000 Blackwell 24 GB 4DP Graphics	Y	Y	B11F3AA	1	
	NVIDIA RTX PRO 4500 Blackwell 32 GB 4DP Graphics	Y	Y	B11F2AA	1	1
	NVIDIA RTX PRO 5000 Blackwell 48 GB 4DP Graphics	Y	Y	B11F1AA	1	2
Ultra High-End Graphics	NVIDIA RTX PRO 6000 Blackwell Max-Q 300W 96 GB 4DP Graphics	Y	Y	B11E9AA	1	2
	NVIDIA RTX PRO 6000 Blackwell 96 GB 4DP Graphics	Y	Y	B11F0AA	1	2

Note 1: Not available with 500W power supply
Note 2: Not available with 500W and 700W power supply
Note 3: To align with NVIDIA's latest trend, the new platform is designed with the 12VHPWR 16-pin connector, as most new-generation NVIDIA cards require this standard. If the customer is installing their own 8-pin/12-pin graphics card, we recommend using the HP Graphics Cable Kit (B5CJ4AA), which includes necessary converters. This kit provides essential GPU power adapter and extension cables to ensure compatibility and flexible installation of high-performance graphics cards in a variety of workstation con figurati

Supported Components

ons.

HPPN	Connector 1	Connector 2	Connector 3
P17374-001	Straight Female 12VHPWR	Straight Male 6+2	Straight Male 6+2
P27936-001	Straight Female 12VHPWR	Straight Male 12VHPWR	-
N61947-001	Straight Female 8pin	Straight Male 12VHPWR	-

General: Additional third-party graphics cards may be available. Please contact your sales representative or channel partner for more information.

Memory

	Factory Configured	Option Kit	Option Kit Part Number	Support Notes
8GB DDR5 (1x8GB) 5600 UDIMM NECC Memory	Y	Y	A9TF0AA	
16GB DDR5 (1x16GB) 5600 UDIMM NECC Memory	Y	Y	A9TF1AA	
16GB DDR5 (1x16GB) 5600 UDIMM ECC Memory	Y	Y	A9TF2AA	1
32GB DDR5 (1x32GB) 5600 UDIMM NECC Memory	Y	Y	A9TF3AA	
32GB DDR5 (1x32GB) 5600 UDIMM ECC Memory	Y	Y	A9TF4AA	1
HP 48GB DDR5 (1x48GB) 5600 UDIMM NECC Memory	Y	Y	8F070AA	
64GB DDR5 (1x64GB) 6400 CUDIMM NECC Memory	Y			

Note 1: ECC memory is supported

Optical and Removable Storage

	Factory Configured	Option Kit	Option Kit Part Number
HP USB External DVDRW Drive	N	Y	F2B56AA
HP USB External DVDRW Drive	N	Y	Y3T76AA
HP CRU QX328 3.5 in Front Removable Frame/Carrier[1]	Y	Y	4N012AA

Note 1: only compatible with 700W and 1200W Base units, not compatible with the 500W base unit

Supported Components

Networking and Communications	Factory Configured	Option Kit	Option Kit Part Number
Intel Ethernet I350-T4 4-Port 1Gb NIC	N	Y	W8X25AA
Allied Telesis AT-2911Ta/2-901 Dual Port 1GbE NIC[1]	Y	Y	D18BBAA
Broadcom 5720 1GbE RJ45 PCIe Ethernet Network Adapter[1,2]	Y	Y	9Z7P1AA
Intel I226-T1 2.5GbE Ethernet Network Adapter	Y	Y	9P1U8AA
Intel X550 10GBASE-T Dual Port NIC	Y	Y	1QL46AA
NVIDIA Mellanox ConnectX-6 DX Dual Port 10/25GbE SFP28 NIC	Y	Y	436M8AA
Intel E810-XXVDA2 10/25GbE SFP28 PCIe Network Adapter	Y	Y	C20MMAA
HP 10GbE SFP+ SR/SW LC Fiber Optic Transceiver	Y	Y	860T8AA
HP 25GbE SFP28 LC Fiber Optic Transceiver	Y	Y	860T9AA

Note: Specific Network on Modern standby feature Support limitation Legacy Card AT-2911T2/901 and INTEL I350-T4 and INTEL X550-T2 and 10GBase-T FLEX IO and NVDIA CX-6 DX Dual 25GbE NIC do not support modern standby. And system equipped with those non modern standby network card, when monitor off and it is not really entered Modern standby state for wake-up function support, another path suggestion is Customer can use Onboard Lan for Wake event instead of legacy function WOL limitation because those commodities might not meet the required compliance standards in system modern standby configuration.
Note 1: Cannot be configured concurrently in Slot 2 or Slot 4 (connectors J31 and J32)
Note 2: Not available for Taiwan, China and Morrocco

Input Devices	Factory Configured	Option Kit	Option Kit Part Number
HP 685 Comfort Dual-Mode Keyboard	N	Y	8T6L9UT
HP 725 Multi-Device Rechargeable Wireless Keyboard	N	Y	9T5B2AA
HP Bus Slim v2 Smart Card USB Keyboard	Y	Y	A71J9AA
HP 125 G2 USB Wired Keyboard	Y	Y	AY2Y7AA
HP 320K G2 USB Wired Keyboard	Y	Y	9SR37UT
HP 685 Comfort Dual-Mode Keyboard and Mouse Combo	N	Y	8T6L7UT
HP 725 Multi-Device Rechargeable Wireless Keyboard and Mouse Combo	Y	Y	9T5B0UT
HP 655 Wireless Keyboard and Mouse Combo G2	N	Y	4R009UT
HP Wired Desktop 320MK Mouse and Keyboard G2	N	Y	9SR36UT
HP Wired 320M Mouse	Y	Y	9VA80AA
HP Creator 935 Black Wireless Mouse	N	Y	1D0K8AA
HP 128 LSR Wired Mouse	Y	Y	265D9AA

Supported Components

HP 125 Wired Mouse	Y	Y	265A9AA/AT/UT

Flex Module (Rear IO)

	Factory Configured	Option Kit	Option Kit Part Number
HP 1GbE LAN Flex Port 2020	Y	Y	141J6AA
HP Flex 1GbE Fiber LC Single Port[1]	Y	Y	20J15AA
HP Z2 2.5GbE LAN Flex Port	Y	Y	B96W7AA
HP 10GBase-T Flex IO	Y	Y	56Q71AA
HP Serial Port v3 Flex IO	Y	Y	5B895AA
DisplayPort 2.1 BTB Flex IO	Y	N	
HP HDMI 2.1 Flex IO v3	Y	Y	B6BS9AA
VGA BTB Flex IO	Y	N	
HP Dual USB-A 3.2 Gen1 Flex 2020	Y	Y	141J8AA
HP Dual Type-C 3.2 Gen2 15W Out Flex IO v3	Y	Y	B6BT5AA
TBT4 BTB 15W Out Flex IO	Y	Y	B6BT1AA
USB-C G2 ALT BTB 15W Out Flex IO	Y	Y	B6BT3AA

Note 1: Not allowed to be configured in the same system with Single 1Gbps Fiber NIC (B4UD5AA)

Flex Module (FLY)

	Factory Configured	Option Kit	Option Kit Part Number
Z2 G1i Single 1Gbps Fiber NIC USB FLY Adapter[1]	Y	Y	B4UD5AA
Serial Port FLY Flex IO	Y	N	
Dual Type-A 3.2 Gen 1 FLY Flex IO	Y	N	

Note 1: Not allowed to be configured in the same system with HP Flex 1GbE Fiber LC Single Port (20J15AA)

Other Hardware

	Factory Configured	Option Kit	Option Kit Part Number
HP Parallel PCIe x1 Card	Y	Y	N1M40AA
HP Remote System Controller	Y	Y	7K6D7AA
HP Remote System Controller Main Board Adapter	Y	Y	7K6D8AA
HP Integrated Remote System Controller	Y	Y	7K6D9AA
HP Z2 2nd serial port adapter	Y	Y	141K8AA
HP Rack Cable Management Arm	N	Y	35Z34AA
HP Dual TBT5 PCIe x4 Low Profile Card	Y	Y	B15HRAA

Supported Components

Racking and Physical Security	Factory Configured	Option Kit	Option Kit Part Number
HP Z2 TWR Rail Rack Kit	N	Y	B11FPAA
HP Business PC Security Lock V3 Kit	N	Y	3XJ17AA

Software	Factory Configured	Option Kit	Support Notes
	Y	N	1
HP PC Hardware Diagnostics UEFI (Windows OS only)	Y	N	2
HP PC Hardware Diagnostics Windows	Y	N	
HP Wolf Security	Y	N	3
HP Notifications	Y	N	
HP Desktop Support Utility	Y	N	
HP Documentation	Y	N	
myHP	Y	N	
Kingsoft WPS Office	Y	N	4
Z by HP Data Science Stack Manager	Y	N	5
HP Image Assistant	N	N	
HP Support Assistant	N	N	1

[1]Supported with Windows only. Also available as a free download from https://www.hp.com/us-en/workstations/performance-advisor.html
[2]Windows OS only
[3]Not available in Russia
[4]Only available in China
[5]Optional software

Operating Systems

Windows 11 Pro 64[1]

Windows 11 Home 64 - HP recommends Windows 11 Pro[1]

Linux®-ready[4]

Ubuntu® 24.04 LTS[2,3]

[1] Not all features are available in all editions or versions of Windows. Systems may require upgraded and/or separately purchased hardware, drivers, software or BIOS update to take full advantage of Windows functionality. Windows 11 is automatically updated, which is always enabled. ISP fees may apply and additional requirements may apply over time for updates. See http://www.windows.com.
[2] Not all features are available in all editions or versions of Ubuntu®. Systems may require upgraded and/or

separately purchased hardware, drivers, software or BIOS to take full advantage of Ubuntu functionality. Ubuntu may be automatically updated. ISP fees may apply and additional requires may apply over time for updates.
[3] A certified preloaded version of Ubuntu® 24.04 LTS is available from HP for this platform. Not all features are available in all editions or versions of Ubuntu. Systems may require upgraded and/or separately purchased hardware, drivers, software or BIOS to take full advantage of Ubuntu functionality. Ubuntu may be automatically updated. ISP fees may apply, and additional requirements may apply over time for upgrades.
[4]For detailed OS/hardware support information for Linux, see:
http://www.hp.com/support/linux_hardware_matrix

HP BIOS

Additional HP BIOS Features: • Power-On password – Helps prevent an unauthorized user from powering on the system.
• Administrator password – Also known as the BIOS Setup password, this helps prevent unauthorized changes to the system configuration. If the administrator password is not known, the BIOS cannot be updated and changes cannot be made to BIOS settings using BIOS Setup or under the OS.
• S4/S5 Maximum Power Savings setting supports EU Lot6 requirement and allows the computer to power down below 0.5W in S4/S5 (when turned off). When S4/S5 Maximum Power Savings feature is enabled below features are turned off:

-Power to expansion connectors / slots
-Most Wake events other than power buttons and WOL(Wake on LAN supported by embedded Lan controller under S4/S5 Maximum Power Saving Enabled)
-USB charging ports

HP Performance Control Modes

HP Z Desktop Workstations offers Performance Control Modes in the F10 BIOS menu. Z2 G1i offers Quiet Mode, Performance Mode, Rack Mode, and High-Performance Mode. HP recommends using High Performance Mode unless you have concerns about acoustics in an open office environment. Customers can achieve CPU performance gains in multithreaded workloads using High Performance Mode over Performance Mode*. High Performance Mode is configured as default from the factory.

How to Set HP Performance Control Modes in HP F10 BIOS Menu

In the F10 BIOS Menu, the setting titled “Performance Control” is adjustable to High Performance Mode, Performance Mode or Quiet Mode. These modes are choice points for performance and acoustic tradeoffs based on user needs or recommended balanced conditions in performance and noise optimization.

At startup, push the F10 key while system is booting to get to the BIOS Menu.
Go to → Advanced -> System Options ->scroll down and choose “Performance Control”

Set the Performance Mode you desire and then go back to Main->Save Changes and Exit -> Yes
The machine will restart in the mode you've chosen.

How to change Performance Modes in HP Performance Advisor software?
Select BIOS Settings -> Advanced -> System Options -> Performance Controls

The machine will restart in the mode you've chosen.

For more information on performance control modes, please see the white paper called, HP Performance Control Modes for Z Desktop Workstations.

SOFTWARE COMPONENTS AND APPLICATIONS WITH WINDOWS

Software
HP Support Assistant [1]
HP Image Assistant
HP Desktop Support Utility
HP Documentation
HP Notifications
HP PC Hardware Diagnostics UEFI
HP PC Hardware Diagnostics Windows
myHP
WSL/Ubuntu Data Science Stack
HP Privacy Settings

Manageability Features
HP Driver Packs[2]
HP UWP Pack
HP System Software Manager (SSM)
HP Manageability Integration Kit [3]
HP Client Catalog (download)
HP Image Assistant (download)
HP Cloud Recovery
HP Client Management Script Library (download)
HP BIOSphere[4]
HP BIOS Configuration Utility (download)

Client Security Software
HP Client Security Suite[5] including: (including Credential Manager, HP Password Manager[6], HP Spare Key)
HP Power On Authentication

Supported Components

Microsoft Defender[7]

Security Management

HP Secure Erase[8]
HP Wolf Pro Security Edition (optional) [9]
HP Wolf Security for Business[10] Includes:
HP Sure Click[11]
HP Sure Sense[12]
HP Sure Run[13]
HP Sure Recover[14]
HP Sure Start[15]
HP Tamper Lock
HP Sure Admin [16]
HP Client Security Manager[17]
Hood Sensor Optional Kit

[1] HP Support Assistant requires Windows and Internet access.

[2]HP Driver Packs not preinstalled, however available for download at http://www.hp.com/go/clientmanagement.

[3]HP Manageability Integration Kit can be downloaded from http://www8.hp.com/us/en/ads/clientmanagement/overview.html
[4] HP BIOSphere features may vary depending on the platform and configurations.

[5] HP Client Security Manager requires Windows and is available on the select HP PCs.

[6] HP Password Manager requires Internet Explorer or Chrome or FireFox. Some websites and applications may not be supported. User may need to enable or allow the add-on / extension in the internet browser.

[7] Microsoft Defender Opt in and internet connection required for updates.

[8] HP Secure Erase - –or the methods outlined in the National Institute of Standards and Technology Special Publication 800-88 “C“ear” ”anitation method. HP Secure Erase does not support platforms with Intel® Optane.

[9] HP Wolf Pro Security Edition is available preloaded on select SKUs, and, depending on the HP product purchased, includes a license with a term length communicated to you at purchase and in your order confirmation email. The HP Wolf Pro Security Edition software is licensed under the license terms of the HP Wolf Security Software - End-User license Agreement (EULA) that can be found at: https://support.hp.com/us-en/document/ish_3875769-3873014-16 as that EULA is modified by the following: 7. Term. Unless otherwise terminated earlier pursuant to the terms contained in this EULA, the license for the HP Wolf Pro Security Edition is effective upon 4 months after the date the HP Product was shipped by HP and will continue for the term communicated to you at purchase and in your order confirmation email (“Initial Term”). At the end of the Initial Term you may either (a) purchase a renewal license for the HP Wolf Pro Security Edition from HP.com, HP Sales or an HP Channel Partner, or (b) continue using the standard versions of HP Sure Click and HP Sure Sense at no additional cost with no future software updates or HP Support. Notwithstanding the foregoing, the license shall expire no later than one year after the fixed term of the subject license ends.

[10] HP Wolf Security for Business requires Windows 10 or higher, includes various HP security features and is available on HP Pro, Elite,

Supported Components

RPOS and Workstation products. See product details for included security features

[11] HP Sure Click requires Windows 10 Pro or higher or Enterprise. See https://bit.ly/2PrLT6A_SureClick for complete details.

[12] HP Sure Sense requires Windows 11 Pro or Enterprise and supports Microsoft Internet Explorer, Google Chrome™, and Chromium™. Supported attachments include Microsoft Office (Word, Excel, PowerPoint) and PDF files in read only mode, when Microsoft Office or Adobe Acrobat are installed.

[13] HP Sure Run is available on select Windows 11 based HP Pro, Elite and Workstation PCs with select Intel® or AMD processors

[14] HP Sure Recover is available on select HP PCs and requires Windows 10 and an open network connection. You must back up important files, data, photos, videos, etc. before using HP Sure Recover to avoid loss of data. Network based recovery using Wi-Fi is only available on PCs with Intel Wi-Fi Module

[15] HP Sure Start is available on select HP PCs and workstations. See product specifications for availability.

[16] HP Sure Admin requires Windows 11, HP BIOS, HP Manageability Integration Kit from http://www.hp.com/go/clientmanagement and HP Sure Admin Local Access Authenticator smartphone app from the Android or Apple store.

[17] HP Client Security Manager requires Windows and is available on the select HP PCs.

System Technical Specifications

System Board

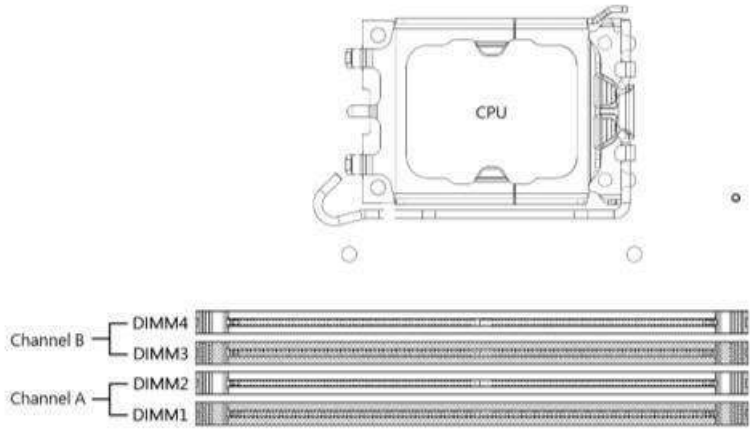
System Board Form Factor	421.08mm X 273.80mm X 1.55mm
Processor Socket	Single LGA-1851
CPU Bus Speed	DMI GEN4
Chipset	Intel® W880 Chipset
Super I/O Controller	Nuvoton SIO24
Memory Expansion Slots	4 DDR5 memory slots
Memory Type Supported	DDR5, UDIMM (Unbuffered), ECC& non-ECC
Memory Modes	Non-Interleaved for single channel. Interleaved when both channels are populated.
Memory Speed Supported	5600MT/s DDR5
Memory Protection	ECC available on data
Maximum Memory	256GB
Memory Configuration (Supported)	8GB, 16GB, 32GB, 48G and 64GB non-ECC/16GB, 32GB ECC unbuffered DIMMs are supported. ECC and non-ECC memory DIMMs cannot be mixed on the same system. Two channels of DDR5 memory are supported. To realize full performance at least one DIMM must be inserted into each channel. Single DIMM per channel must be installed into furthest slot from CPU(DIMM 1 or 3).

The system speed will be determined by a number of key factors:

Module Configuration	Description of configuration	Max Memory Speed (Actual Memory speed is dependent on CPU)
Single DIMM per channel	Configurations that contain only one or two DIMM modules with DIMMs only in the black slots	5600MHz
Two single ranked DIMMs in a channel	Configurations with 3 or 4 single ranked DIMMs (8GB and 16GB) installed in a system. Memory speed may also vary depending on vendor module mix.	4800MHz
Two dual ranked DIMMs in a channel	Configurations with 3 or 4 dual ranked DIMMs (32GB, 48GB and 64GB) installed in a system	4400MHz

When more than one memory slot is populated, symmetric configurations are required for 2 DIMMs per channel. Mix of different part numbers or mix of single and dual ranks within a channel is not allowed.

System Technical Specifications



PCI Express Connectors

(1) PCI Express Gen5 slot x16 mechanical/ x16 electrical (full height, full length)
(1) PCI Express Gen4 slot x4 mechanical/ x1 electrical (full height, full length, open-ended)
(1) PCI Express Gen4 slot x16 mechanical/ x4 electrical (full height, full length)
(1) PCI Express Gen4 slot x4 mechanical/ x4 electrical (full height, full length, open-ended)
(1) M.2 2280 Storage (PCIe Gen5 x4)
(1) M.2 2280 Storage (PCIe Gen4 x4)
(1) M.2 2280 Storage (PCIe Gen4 x4)
(1) M.2 2230 WLAN (PCIe Gen4 x1+ Intel CNVi)

Supported Interfaces

Integrated RAID	RAID 0, 1 (RAID 5, 10 Intel support)
Integrated Graphics	Intel® Graphics. (on Core™ Ultra 9 /Core™ Ultra 7/Core™ Ultra 5 processors) Based on Unified Memory Architecture (UMA) - a region of system memory is reserved and dedicated to the graphics display. Support for Microsoft DirectX 12, OpenGL 4.6, OpenCL 3.0 and Vulkan on Intel® Graphics; 2x DP 1.4 graphics ports integrated in motherboard; Supports up to four simultaneous displays with Multiple Stream Transport (MST) across VGA*/DVI*/HDMI* outputs. Max resolution supported on onboard DP 1.4/HBR3 ports: 3840 x2160 (4K) @ 60Hz. Max resolution supported on flexIO DP 2.1/UHBR20 ports: 7680*4320 (8K) @60Hz compressed, 5K120Hz compressed.
Network Controller	Integrated Ethernet PHY Connection I219LM. Management capabilities: WOL, PXE 2.1 and AMT 19
Serial	1 internal header (requires optional Serial Port Adapter Kit)

System Technical Specifications

	2nd Serial	USB-based Serial port option through Flex IO USB-based Serial port option through Flex IO2
	HD Integrated Audio	Integrated Ethernet PHY Connection I219LM. Management capabilities: WOL, PXE 2.1 and AMT 16
USB Connector(s)	**Front**	4 SuperSpeed USB Std-A 10Gbps port; 2 SuperSpeed USB Type-C® 20Gbps port (charge supports up to 5V/3A)
	Rear	2 SuperSpeed USB Std-A 10Gbps port; 3 High-speed USB Std-A 480Mbps port Flex IO, choice of: 1 Dual SuperSpeed USB Std-A 5Gbps port, 1 SuperSpeed USB Type-C® 10Gbps port (Alt Mode DisplayPort™1.4 with 15W Output)[1], 1 Dual SuperSpeed USB Type-C® 10Gbps port[1], 1 Thunderbolt™ 4 port (40Gbps)[1] Flex IO2, choice of: 1 Dual SuperSpeed USB Std-A 5Gbps ports [1]Component will be ready in 2025Q3
HD Integrated Audio	Realtek ALC3205, 2.0W internal mono speaker	
Flash ROM	Yes	
CPU Fan Header	Yes	
Memory Fan Header	None	
Chassis Fan Header	1 Rear System Chassis Fan Header, 1 Side chassis Fan Header, 1 Front chassis Fan Header, 2 Bottom chassis Fan Header	
Front PCI Fan Header	None	
Front Control Panel/Speaker Header	Yes	
CMOS Battery Holder - – ithium	Yes	
Integrated Trusted Platform Module	Integrated TPM 2.0 Convertible to FIPS 140-2 Certified modeThe TPM module disabled where restricted by law	
Power Supply Headers	Yes	
Power Switch, Power LED & Hard Drive LED Header	Yes	
Clear Password Jumper	None	

System Technical Specifications

Keyboard/Mouse	USB or PS/2 (option)
Power Supply	1200W wide-ranging, active Power Factor Correction, 92% Efficiency with a 12VHPWR graphics power connector. 700W wide-ranging, active Power Factor Correction, 92% Efficiency with a 12VHPWR graphics power connector. 500W wide-ranging, active Power Factor Correction, 92% Efficiency with a 6+2 graphics power connector. **NOTE:** The Power Supply Efficiency Report for the 1200W 92% Efficiency, 700W 92% Efficiency and 500W 92% Efficiency Power Supply may be found at the following links: https://www.plugloadsolutions.com/80PlusPowerSuppliesDetail.aspx?id=0&type=2

System Configurations		
HP Z2 TWR G1i Configuration #1	**Processor Info**	Intel Core Ultra 5 10C 3.3GHz LGA 65 W
	Memory Info	1x 16GB DDR5 ECC
	Graphics Info	1x NVIDIA RTX A400
	Disks/Optical/Floppy	1x 256GB PCIe-4x4 2280 Value M.2 SSD
	PSU	500W
	Other	NA

Energy Consumption (Watts)		115 VAC		230 VAC		100 VAC	
		LAN Enabled	LAN Disabled	LAN Enabled	LAN Disabled	LAN Enabled	LAN Disabled
	Windows long Idle (S0)	2.3		2.5		2.23	
	Windows short Idle (S0)	13.8		13.91		13.18	
	Windows Busy Typ (S0)	139.2		140.9		138.9	
	Windows Busy Max (S0)	145.5		146.8		144.2	
	Sleep (S3)	2.3	2.3	2.4	2.4	2.3	2.3
	Off (S5)	0.69	0.67	0.69	0.68	0.67	0.67
	Zero Power Mode (EuP)	0.25		0.24		0.25	

Heat Dissipation (Btu/hr)		115 VAC		230 VAC		100 VAC	
		LAN Enabled	LAN Disabled	LAN Enabled	LAN Disabled	LAN Enabled	LAN Disabled
	Windows Idle (S0)	7.8476		8.53		7.609	
	Windows short Idle (S0)	47.0856		47.4609		44.9702	

System Technical Specifications

	Windows Busy Typ (S0)	474.9504		480.7508		473.9268	
	Windows Busy Max (S0)	496.446		500.8816		492.0104	
	Sleep (S3)	7.8476	7.8476	8.1888	8.189	7.8476	7.8476
	Off (S5)	2.3202	2.286	2.3543	2.3202	2.286	2.3543
	Zero Power Mode (EuP)	0.853		0.8189		0.853	

HP Z2 TWR G1i Configuration #2	**Processor Info**	Intel Core Ultra 7 20C 2.4GHz LGA 65W
	Memory Info	1x 32GB DDR5 NECC
	Graphics Info	1x NVIDIA RTX A2000
	Disks/Optical/Floppy	1x 1TB 2280 PCIe-4x4 Val M.2 SSD
	PSU	700W
	Other	NA

Energy Consumption (Watts)		115 VAC		230 VAC		100 VAC	
		LAN Enabled	LAN Disabled	LAN Enabled	LAN Disabled	LAN Enabled	LAN Disabled
	Windows long Idle (S0)	2.76		2.69		2.63	
	Windows short Idle (S0)	13.96		14.25		12.85	
	Windows Busy Typ (S0)	196.500		198.600		194.900	
	Windows Busy Max (S0)	208.300		210.600		206.950	
	Sleep (S3)	2.76	2.76	2.69	2.69	2.61	2.61
	Off (S5)	0.68	0.63	0.69	0.62	0.68	0.61
	Zero Power Mode (EuP)	0.26		0.27		0.25	

Heat Dissipation (Btu/hr)		115 VAC		230 VAC		100 VAC	
		LAN Enabled	LAN Disabled	LAN Enabled	LAN Disabled	LAN Enabled	LAN Disabled
	Windows Idle (S0)	9.4171		9.1783		8.9736	
	Windows short Idle (S0)	47.6315		48.621		43.8442	
	Windows Busy Typ (S0)	670.458		677.6232		664.9988	
	Windows Busy Max (S0)	710.7196		718.5672		706.1134	
	Sleep (S3)	9.4171	9.4171	9.1783	9.1783	8.9053	8.9053
	Off (S5)	2.3202	2.1496	2.3543	2.1154	2.3202	2.0813
	Zero Power Mode (EuP)	0.8871		0.9212		0.853	

	Processor Info	Intel Core Ultra 9K 24C 3.7GHz LGA 125W

System Technical Specifications

HP Z2 TWR G1i Configuration #3	**Memory Info**	4x 48GB DDR5 NECC					
	Graphics Info	1x NVIDIA RTX A6000					
	Disks/Optical/Floppy	1x 4TB 2280 PCIe-4x4 OPAL2 M.2 SSD 2x HDD 12TB 7200RPM SATA-6G Ent 3.5in					
	PSU	1200W					
	Other	NA					
Energy Consumption (Watts)		115 VAC		230 VAC		100 VAC	
		LAN Enabled	LAN Disabled	LAN Enabled	LAN Disabled	LAN Enabled	LAN Disabled
	Windows long Idle (S0)	6.57		6.69		6.35	
	Windows short Idle (S0)	44.53		45.96		42.81	
	Windows Busy Typ (S0)	510.600		517.400		502.980	
	Windows Busy Max (S0)	530.800		538.100		521.300	
	Sleep (S3)	6.57	6.57	6.69	6.69	6.35	6.35
	Off (S5)	0.67	0.63	0.68	0.62	0.65	0.6
	Zero Power Mode (EuP)	0.25		0.25		0.24	

Heat Dissipation (Btu/hr)		115 VAC		230 VAC		100 VAC	
		LAN Enabled	LAN Disabled	LAN Enabled	LAN Disabled	LAN Enabled	LAN Disabled
	Windows Idle (S0)	22.4168		22.8263		21.6662	
	Windows short Idle (S0)	151.9364		156.8155		146.0677	
	Windows Busy Typ (S0)	1742.1672		1765.3688		1716.1678	
	Windows Busy Max (S0)	1811.0896		1835.9972		1778.6756	
	Sleep (S3)	22.4168	22.4168	22.8263	22.8263	21.6662	21.6662
	Off (S5)	2.286	2.1496	2.3202	2.1154	2.2178	2.0472
	Zero Power Mode (EuP)	0.853		0.853		0.8189	

NOTE: The Power Supply Efficiency report may be found at the following links:v

https://www.plugloadsolutions.com/80PlusPowerSuppliesDetail.aspx?id=0&type=2

Operating Voltage Range	90-269VAC
Rated Voltage Range	100-240VAC
Rated Line Frequency	50-60 Hz
Frequency Range	47-63Hz

System Technical Specifications

Rated Input Current	14-8A @100-240VAC
Heat Dissipation	Typical: 1765.3688 btu/hr (445.226 kcal/hr) Maximum: 1835.9972 btu/hr (463.0385 kcal/hr)
ENERGY STAR® certified (Config Dependent)	Yes
CECP Compliant @ 220V	YES
FEMP Standby Power Compliant	Yes, with Wake-on-LAN disabled: <1W in S4/S5 - Power Off
Built-in Self Test (BIST) **LED**	Yes
Surge Tolerant Full Ranging Power Supply (withstands power surges up to 2000V)	Yes
Hood Lock Header	Yes
ErP Lot 6- Tier 1 Compliance @ 230V (<1W in S5 - –Power Off)	Yes
ErP Lot 6- Tier 2 Compliance @ 230V (<0.5W in S5 - Power Off)	Yes

Declared Noise Emissions (Entry-level, Mid-level, and High-end configurations; tested on floor)

System Configuration (Entry-level)	**Processor Info**	Intel CPU Core U5-225/65W
	Memory Info	Micron 5600 32GB x1
	Graphics Info	NA
	Disks/Optical	PHISON GEN4 M.2 SSD 4TB x1
	Power Supply	700W

Declared Noise Emissions		**Sound Power** (LWAd, bels)	**Deskside Sound Pressure** (LpAm, decibels)
	Idle	3.47	15.8
	Hard drive Operating (Drive Random Seek)	NA	NA
	Hard drive Operating (Active mode)	3.6	15.76

System Technical Specifications

System Configuration (Mid-end)	**Processor Info**	Intel Core Ultra 9 285 /65W
	Memory Info	Micron 5600 32GB x4
	Graphics Info	NVIDIA RTX 5000ada
	Disks/Optical	PHISON GEN4 M.2 SSD 4TB x2 PHISON GEN5 M.2 SSD 2TB x1
	Power Supply	700W

Declared Noise Emissions		**Sound Power** (LWAd, bels)	**Deskside Sound Pressure** (LpAm, decibels)
	Idle	3.91	22.42
	Hard drive Operating (Drive Random Seek)	NA	NA
	Hard drive Operating (Active mode)	4.07	23.46

System Configuration (High-end)	**Processor Info**	Intel Core Ultra 9 285 /125W
	Memory Info	Micron 5600 32GB x4
	Graphics Info	NVIDIA RTX 5000ada
	Disks/Optical	PHISON GEN4 M.2 SSD 4TB x2 PHISON GEN5 M.2 SSD 2TB x1
	Power Supply	700W

Declared Noise Emissions		**Sound Power** (LWAd, bels)	**Deskside Sound Pressure** (LpAm, decibels)
	Idle	3.9	22.02
	Hard drive Operating (Drive Random Seek)	NA	NA
	Hard drive Operating (Active mode)	4.0	22.66

Environmental Requirements	**Temperature**	Operating: 5° to 35° C (40° to 95° F) Non-operating: -40° to 60° C (-40° to 140° F) Maximum rate of change: 10°C/hr
	Humidity	Operating: 8% to 85% RH, non-condensing, 35° C maximum wet bulb

System Technical Specifications

	Non-operating: 8% to 90% RH, non-condensing, 35° C maximum wet bulb
Maximum Altitude	Operating (with Rotational Hard Drives): 3,048 m (10,000 feet) Operating (with only Solid-State Drives): 5,000 m (16,404 feet) Non-operating: 12,192 m (40,000 feet) Maximum operating temperature is reduced as altitude increases. See Cooling for details.
Dynamic	Shock Operating: ½-sine: 40g, 2ms Non-operating: ½-sine: 165 cm/s, 2-3ms* square: 422 cm/s, 30g *PCIe devices mass <1.3kg Vibration Operating random: 0.5g (rms), 5-300 Hz, up to 0.00025g²/Hz Non-operating random: 2.0g (rms), 5-500 Hz, up to 0.0150 g²/Hz
Cooling	Above 1524 m (5,000 feet) altitude, the maximum operating temperature is reduced by 1° C (1.8° F) for every 305 m (1,000 feet) increase in elevation, up to 3048 m (10,000 feet)

Physical Security and Serviceability

Access Panel	Tool-less
Optical Drive	Tool-less
Hard Drives	Internal bay:Tool-less External bay:Acoustic damping screws
Expansion Cards	Tool-less
Processor Socket	Tool-less, except for the processor heatsink
Blue User Touch Points	Yes, on tool-less internal chassis mechanisms
Color-coordinated Cables and Connectors	Yes, PSU connectors are printed with sequence numbers to corresponding board connectors.
Memory	Tool-less
System Board	Screw-In
Padlock Support	Yes (optional): Locks side cover and secures chassis from theft 0.22-in diameter padlock loop at rear of system
Cable Lock Support	Yes, Kensington Cable Lock (optional): Locks side cover and secures chassis from theft 3 mm x 7 mm slot at rear of system

System Technical Specifications

Universal Chassis Clamp Lock Support	No
Solenoid Lock and Hood Sensor	Yes (optional) The Solenoid Hood Lock eliminates the need for a physical key by making the chassis lockable through software and a password. You can also lock and unlock the chassis remotely over the network. The Sensor Kit detects when the access panel has been removed.
CPUs and Heatsinks	A T-15 Torx or flat blade screwdriver is needed to remove the CPU heatsink before the CPU can be removed. CPU removal is tool-less
Internal Speaker	Yes
Power Supply Fans	70mm x 70mm x 25mm 4-wire PWM (non-serviceable)
Access Panel Key Lock	No
Integrated Chassis Handles	Rear Recessed Handle
Power Supply	Requires T15 Torx or flat blade screwdriver
PCI Card Retention	Yes, rear (all), middle (optional), front (full-length cards with extender)
Power-On Password	Yes, prevents an unauthorized person from booting up the workstation
Setup Password	Yes, prevents an unauthorized person from changing the workstation configuration

Service, Support, and Warranty

On-site Warranty and Service[1]: One-year (1-1-1), limited warranty and service offering delivers on-site, next business-day[2] service for parts and labor and includes free telephone support[3] 8am - –5pm. Global coverage[2] ensures that any product purchased in one country and transferred to another, non-restricted country will remain fully covered under the original warranty and service offering. 24/7 operation will not void the HP warranty. Storage devices are not covered under warranty for 24/7 operation except for Enterprise class HDDs.

NOTE 1: Terms and conditions may vary by country. Certain restrictions and exclusions apply.
NOTE 2: On-site service may be provided pursuant to a service contract between HP and an authorized HP third-party provider, and is not available in certain countries. Global service response times are based on commercially reasonable best effort and may vary by country.
NOTE 3: Technical telephone support applies only to HP-configured, HP and HP-qualified, third-party hardware and software. Toll-free calling and 24x7 support service may not be available in some countries. HP Care Pack Services extend service contracts beyond the standard warranties. Service starts from date of hardware purchase. To choose the right level of service for your HP product, use the HP Care Pack Services Lookup Tool at: http://www.hp.com/go/lookuptool. Service levels and response times for HP Care Packs may vary depending on your geographic location.

Certification and Compliance

Environmental Sustainability questions concerning:

- Ecolabels (EPEAT, TCO, etc.)

- ENERGY STAR, California Energy Commission (CEC)
- Compliance with Environmental legislation (EU ErP, China CECP, EU RoHS and other countries)
- Supply Chain Social Environmental Responsibility (SER) (conflict minerals; human rights, etc.)
- Product specific environmental features (material content, packaging content, recycled content, etc.)
- China Energy Label (CEL)

Please contact sustainability@hp.com

For country specific Regulatory Compliance approval documents or Regulatory and Safety questions concerning:

- Declarations of Conformity (for self-service, go to https://www.hp.com/uk-en/certifications/technical/regulations-certificates.html?jumpid=ex_r135_uk/en/any/corp/hpuk-mu_chev/certificates)
- GS Certificates
- Product Safety Certificates (UL, CB, BIS, etc.)
- EMC Certificates, Declarations of Conformity, or Certificates of Conformity (CE, FCC, ICES, etc.)
- CCC Certificates
- Ergonomics
-

Please contact techregshelp@hp.com

BIOS

BIOS 64-bit Services	BIOS supports 64-bit Operating systems.
PCI 3.0 Support	Full BIOS support for PCI Express through industry standard interfaces
ATAPI	ATAPI Removable Media Device BIOS Specification Version 1.0.
WMI Support	WMI is Microsoft's implementation of Web-Based Enterprise Management (WBEM) for Windows. WMI is fully compliant with the Distributed Management Task Force (DMTF) Common Information Model (CIM) and WBEM specifications.
BIOS Power On	Users can define a specific date and time for the system to power on.
ROM Based Computer Setup Utility (F10)	Review and customize system configuration settings controlled by the BIOS.
System/Emergency ROM Flash Recovery with Video	Recovers system BIOS in corrupted Flash ROM.
Replicated Setup	Saves BIOS settings to USB flash device in human readable file (HpSetup.txt). BiosConfigurationUtility.exe utility can then replicate these settings on machines being deployed without entering Computer Configuration Utility (F10 Setup).
Boot Control	Disables the ability to boot from removable media on supported devices.
Memory Change Alert	Alerts management console if memory is removed or changed.

System Technical Specifications

Thermal Alert	Monitors the temperature state within the chassis. Three modes: • NORMAL – normal temperature ranges. • ALERTED – excessive temperatures are detected. Raises a flag so action can be taken to avoid shutdown or provide for a smoother system shutdown. • SHUTDOWN – excessive temperatures are encountered. Automatically shuts down the computer without warning before hardware component damage occurs
Remote ROM Flash	Provides secure, fail-safe ROM image management from a central network console.
ACPI (Advanced Configuration and Power Management Interface)	Allows the system to enter and resume from low power modes (sleep states). Enables an operating system to control system power consumption based on the dynamic workload. Makes it possible to place individual cards and peripherals in a low-power or powered-off state without affecting other elements of the system. Supports ACPI 6.0 for full compatibility with 64-bit operating systems.
Ownership Tag	A user-defined string stored in non-volatile memory that is displayed in the BIOS splash screen.
Remote Wakeup/Remote Shutdown	System administrators can power on, restart, and power off a client computer from a remote location.
Instantly Available PC (Suspend to RAM - –CPI sleep state Modern standby)	Allows for very low power consumption with quick resume time.
Remote System Installation via F12 (PXE 2.1) (Remote Boot from Server)	Allows a new or existing system to boot over the network and download software, including the operating system.
ROM revision levels	Reports the system BIOS revision level in Computer Configuration Utility (F10 Setup). Version is available through an industry standard interface (SMBIOS and WMI) so that management SW applications can use and report this information.
System board revision level	Allows management SW to read revision level of the system board. Revision level is digitally encoded into the HW and cannot be modified.
Start-up Diagnostics (Power-on Self-Test)	Assesses system health at boot time with selectable levels of testing.
Auto Setup when new hardware installed	System automatically detects addition of new hardware.
Keyboard-less Operation	The system can be booted without a keyboard.
Localized ROM Setup	Common BIOS image supports System Configuration Utility (F10 Setup) menus in 15 languages with local keyboard mappings.
Asset Tag	The user or MIS to set a unique tag string in non-volatile memory.
Per-slot Control	Allows I/O slot parameters (option ROM enable/disable, bus latency) to be configured individually
Adaptive Cooling	Control parameters are set according to detected hardware configuration for optimal acoustics.
Pre-boot Diagnostics	(Pre-video) critical errors are reported via beeps and blinks on the power LED.
UEFI Specification	2.9

System Technical Specifications

Revision	
ACPI	Advanced Configuration and Power Management Interface, Version 6.0
ATA (IDE)	AT Attachment 6 with Packet Interface (ATA/ATAPI-6), Revision 3b
CD Boot	"El Torito" Bootable CD-ROM Format Specification Version 1.0
EHCI	Enhanced Host Controller Interface for Universal Serial Bus, Revision 1.0
PCI	PCI Local Bus Specification, Revision 2.3 PCI Power Management Specification, Revision 1.1 PCI Firmware Specification, Revision 3.0
PCI Express	PCI Express Base Specification, Revision 2.0 PCI Express Base Specification, Revision 3.0 PCI Express Base Specification, Revision 4.0
SATA	Serial ATA Specification, Revision 1.0a Serial ATA 3 Gb/s: Serial ATA Specification, Revision 2.5 Serial ATA 6 Gb/s: Serial ATA Specification, Revision 3.0
SPD	JEDEC JESD300-5
TPM	Trusted Computing Group TPM Specification Version 2.0 (Nuvoton NPCT760HACYX or Infineon SLB9672). Common Criteria EAL4+ certified. FIPS 140-2 Certification TCG TPM Certified products list: http://www.trustedcomputinggroup.org/certification/tpm-certified-products/
UHCI	Universal Host Controller Interface Design Guide, Revision 1.1
USB	Universal Serial Bus Revision 1.1 Specification Universal Serial Bus Revision 2.0 Specification Universal Serial Bus Revision 3.1 Specification Universal Serial Bus Revision 3.2 Specification
SMBIOS	System Management BIOS Reference Specification, Version 3.8 External BIOS simulator found at: http://csrsml.itcs.hp.com/

Social and Environmental Responsibility

Eco-Label Certifications & Declarations	This product has received or is in the process of being certified to the following approvals and may be labeled with one or more of these marks: • IT ECO declaration • US ENERGY STAR®

- US Federal Energy Management Program (FEMP)
- EPEAT® Gold registered in the United States. See http://www.epeat.net for registration status in your country.
- TCO Certified
- China Energy Conservation Program (CECP)
- China State Environmental Protection Administration (SEPA)
- Taiwan Green Mark
- Korea Eco-label
- Japan PC Green label*

Sustainable Impact Specifications

- Product Carbon Footprint
- At least 25% ocean bound plastic in the System Fan and 5% ocean bound plastic in the speaker[1]
- At least 90% ITE-Derived closed loop plastic[2]
- At least 60% post-consumer recycled plastic[2]
- At least 20% recycled metal[3]
- Low Halogen[4]
- 100% of HP paper-based packaging is from recycled or certified sustainable sources[5]
- Bulk packaging available

System Configuration The configuration used for the Energy Consumption and Declared Noise Emissions data for the Notebook model is based on a “Typically Configured Notebook”.

Energy Consumption (in accordance with US ENERGY STAR® test method)	**115VAC, 60Hz**	**230VAC, 50Hz**	**100VAC, 50Hz**
Normal Operation (Sort idle)	44.5 W	45.2 W	43.7 W
Normal Operation (Long idle)	6.6W	6.6 W	6.6 W
Sleep	6.6 W	6.6 W	6.6 W
Off	0.7 W	0.7 W	0.7 W

Note:
Energy efficiency data listed is for an ENERGY STAR® compliant product if offered within the model family . HP computers marked with the ENERGY STAR® Logo are compliant with the applicable U.S. Environmental Protection Agency (EPA) ENERGY STAR® specifications for computers. If a model family does not offer ENERGY STAR® compliant configurations, then energy efficiency data listed is for a typically configured PC featuring a hard disk drive, a high efficiency power supply, and a Microsoft

Windows® operating system.

Heat Dissipation*	115VAC, 60Hz	230VAC, 50Hz	100VAC, 50Hz
Normal Operation (Short idle)	152 BTU/hr	155 BTU/hr	149 BTU/hr
Normal Operation (Long idle)	23 BTU/hr	23 BTU/hr	23 BTU/hr
Sleep	22.6 BTU/hr	23 BTU/hr	22.6 BTU/hr
Off	2.4 BTU/hr	2 BTU/hr	2.4 BTU/hr

*NOTE: Heat dissipation is calculated based on the measured watts, assuming the service level is attained for one hour.

Declared Noise Emissions (in accordance with ISO 7779 and ISO 9296)	Sound Power (L_{WAd}, bels)	Sound Pressure (L_{pAm}, decibels)
Typically Configured – Idle	3.9	22.02
Fixed Disk – Random writes	4.2	25.46
Optical Drive – Sequential reads	4.0	22.66

Longevity and Upgrading

This product can be upgraded, possibly extending its useful life by several years. Upgradeable features and/or components contained in the

Spare parts are available throughout the warranty period and or for up to “5” years after the end of production.

Additional Information

- This product is in compliance with the Restrictions of Hazardous Substances (RoHS) directive - 2011/65/EC.
- This HP product is designed to comply with the Waste Electrical and Electronic Equipment (WEEE) Directive – 2002/96/EC.
- This product is in compliance with California Proposition 65 (State of California; Safe Drinking Water and Toxic Enforcement Act of 1986).
- This product is in compliance with the IEEE 1680 (EPEAT) standard at the Gold level, see www.epeat.net
- Plastics parts weighing over 25 grams used in the product are marked per ISO11469 and ISO1043.
- This product is 95.8% recycle-able when properly disposed of at end of life.

Packaging Materials			
	External:	PAPER/Corrugated	1316 gram

PAPER/Molded Pulp	1114 gram
PLASTIC/Polyethylene low density --LDPE	58 gram

The plastic packaging material contains at least 30% recycled content.

The corrugated paper packaging materials contains at least 64.8% recycled content.

RoHS Compliance

HP Inc. complies fully with materials regulations. We were among the first companies to extend the restrictions in the European Union (EU) Restriction of Hazardous Substances (RoHS) Directive to our products worldwide through the HP GSE. HP has contributed to the development of related legislation in Europe, as well as China, India, and Vietnam.

We believe the RoHS directive and similar laws play an important role in promoting industry-wide elimination of substances of concern. We have supported the inclusion of additional substances—including PVC, BFRs, and certain phthalates—in future RoHS legislation that pertains to electrical and electronics products.

We met our voluntary objective to achieve worldwide compliance with the new EU RoHS requirements for virtually all relevant products by July 2013, and we will continue to extend the scope of the commitment to include further restricted substances as regulations continue to evolve.

To obtain a copy of the HP RoHS Compliance Statement, see HP RoHS position statement.

Material Usage

This product does not contain any of the following substances in excess of regulatory limits (refer to the HP General Specification for the Environment at https://h20195.www2.hp.com/v2/GetDocument.aspx?docname=c05998906):

- Asbestos
- Certain Azo Colorants
- Certain Brominated Flame Retardants – may not be used as flame retardants in plastics
- Cadmium
- Chlorinated Hydrocarbons
- Chlorinated Paraffins
- Bis(2-Ethylhexyl) phthalate (DEHP)
- Benzyl butyl phthalate (BBP)
- Dibutyl phthalate (DBP)
- Diisobutyl phthalate (DIBP)
- Formaldehyde
- Halogenated Diphenyl Methanes
- Lead carbonates and sulfates
- Lead and Lead compounds
- Mercuric Oxide Batteries
- Nickel – finishes must not be used on the external surface designed to be frequently handled or carried by the user.
- Ozone Depleting Substances
- Polybrominated Biphenyls (PBBs)
- Polybrominated Biphenyl Ethers (PBBEs)

- Polybrominated Biphenyl Oxides (PBBOs)
- Polychlorinated Biphenyl (PCB)
- Polychlorinated Terphenyls (PCT)
- Polyvinyl Chloride (PVC) – except for wires and cables, and certain retail packaging has been voluntarily removed from most applications.
- Radioactive Substances
- Tributyl Tin (TBT), Triphenyl Tin (TPT), Tributyl Tin Oxide (TBTO)

Packaging Usage

HP follows these guidelines to decrease the environmental impact of product packaging:

- Eliminate the use of heavy metals such as lead, chromium, mercury and cadmium in packaging materials.
- Eliminate the use of ozone-depleting substances (ODS) in packaging materials.
- Design packaging materials for ease of disassembly.
- Maximize the use of post-consumer recycled content materials in packaging materials.
- Use readily recyclable packaging materials such as paper and corrugated materials.
- Reduce size and weight of packages to improve transportation fuel efficiency.
- Plastic packaging materials are marked according to ISO 11469 and DIN 6120 standards.

End-of-life Management and Recycling

HP offers end-of-life HP product return and recycling programs in many geographic areas. To recycle your product, please go to:
https://h20195.www2.hp.com/V2/GetDocument.aspx?docname=c05403198
or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner.

The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: HP Product Disassembly Instruction Website. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.

HP, Inc. Corporate Environmental Information

For more information about HP's commitment to the environment:

- Sustainable Impact Report
  - https://h20195.www2.hp.com/v2/GetDocument.aspx?docname=c06040843
- Eco-label certifications
  - https://www.hp.com/us-en/sustainable-impact/document-reports.html#filters_documents_reports-=document_type-type_energy_star,type_epeat,type_tcoISO
- ISO 14001 certificates
  - https://h20195.www2.hp.com/v2/GetDocument.aspx?docname=c04777932

footnotes

1. Percentage of ocean-bound plastic contained in each component varies by product. Ocean Bound plastic is expressed as a percentage of the total weight plastic. Ocean Bound plastic is based on the definition set by the UL2809 standard.

2. Recycled plastic is expressed as a percentage of the total weight plastic. Post-consumer recycled is based on the definition set in the EPEAT standard for computers, IEEE 1680.1-2018 standard.
3. Recycled metal is expressed as a percentage of the total weight of the metal according to ISO 14021 definitions for metal parts over 25 grams.
4. External power supplies, WWAN modules, power cords, cables and peripherals excluded. Service parts obtained after purchase may not be Low Halogen.
5. HP paper and fiber-based packaging for PCs, displays, home and office print, and supplies is reported by suppliers as recycled or certified, with a minimum of 97% by volume verified by HP. Packaging is the box that comes with the product and all paper-based materials inside the box. Packaging for personal systems accessories and spare parts is not included. Plastic cushions are made from >90% recycled plastic.

Manageability

Intel® Active Management Technology (AMT)	Intel® Active Management Technology (AMT) [1] An advanced set of remote management features and functionality providing IT administrators the latest and most effective tools to remotely discover, heal, and protect networked client systems regardless of the system's health or power state. Intel® AMT includes the following advanced management functions: • Power Management (on, off, reset, graceful shutdown, sleep and hibernate) • Hardware Inventory (includes BIOS and firmware revisions) • Serial Over LAN (SOL) • USB Redirect (Media Redirection) • ME Wake-on-LAN (WOL) • Ipv6 Support • Host Base set-up and configuration • Management Engine (ME) firmware roll back
Intel® vPro® Technology	The HP Z2 G1i Tower Workstation supports Intel® vPro® technology when configured as outlined below: • Intel® Core™ Ultra 200S Series Processors product family featuring Intel® vPro® Technology • Intel® W880 chipset • Intel® I219LM GbE LAN • Intel® Wi-Fi 7 BE200 BT 5.4 WLAN
HP Image Assistant	Visit: http://ftp.hp.com/pub/caps-softpaq/cmit/HPIA.html
System Software Manager	For questions or support for SSM, please visit: http://www.hp.com/go/ssm

[1]Requires activation and a system with a corporate network connection, an Intel® AMT enabled chipset, and network hardware and software. For notebooks, Intel AMT may be unavailable or limited over a host OS-based VPN, when connecting wirelessly, on battery power, sleeping, hibernating, or powered off. Results dependent upon hardware, setup, and configuration. For more information, visit: https://www.intel.com/content/www/us/en/architecture-and-technology/intel-active-managementtechnology.html

Technical Specifications - Storage Drives

STORAGE

HP Z Turbo 8TB PCIe-4x4 2280 NVMe M.2 SSD	**Capacity**	8TB
	Protocol	PCIe
	Form Factor	M.2
	Controller	NVMe
	NAND Type	3D TLC
	Endurance	2400TBW (TB Written)
	Reliability	1.5M Hours
	Interface	PCI Express 4.0 x4 electrical
	Operating Temperature	32° to 158° F (0° to 70° C)
	Performance	
	Sequential Read	up to 6500MB/s [1]
	Sequential Write	up to 5000MB/s [1]
	Random Read	up to 800K IOPS [1]
	Random Write	up to 800K IOPS [1]

*Actual performance may vary.

HP Z Turbo Drv PCIE-4X4 512GB TLC PCIe SSD (Z2G1i)	**Capacity**	512GB
	Protocol	PCIe
	Form Factor	M.2 in native Slot on motherboard
	Controller	NVMe
	NAND Type	3D TLC
	Endurance	300 TBW
	Reliability	1.5M Hours
	Interface	PCI Express 4.0 x4 electrica
	Operating Temperature	32° to 158° F (0° to 70° C)
	Performance	
	Sequential Read	6400MB/s [1]
	Sequential Write	3400MB/s [1]
	Random Read	600K IOPS [1]
	Random Write	600K IOPS [1]

*Actual performance may vary.

HP Z Turbo Drv PCIE-4X4 1TB TLC PCIe SSD (Z2G1i)	**Capacity**	1TB
	Protocol	PCIe
	Form Factor	M.2 in native Slot on motherboard
	Controller	NVMe
	NAND Type	3D TLC
	Endurance	300 TBW
	Reliability	1.5M hours
	Interface	PCI Express 4.0 x4 electrica
	Operating Temperature	32° to 158° F (0° to 70° C)
	Performance	

Technical Specifications - Storage Drives

	Sequential Read	6500MB/s [1]
	Sequential Write	5000MB/s [1]
	Random Read	800K IOPS [1]
	Random Write	800K IOPS [1]

*Actual performance may vary.

HP Z Turbo Drv PCIE-4X4 2TB TLC PCIe SSD (Z2G1i)	**Capacity**	1TB
	Protocol	PCIe
	Form Factor	M.2 in native Slot on motherboard
	Controller	NVMe
	NAND Type	3D TLC
	Endurance	500 TBW
	Reliability	1.5M hours
	Interface	PCI Express 4.0 x4 electrica
	Operating Temperature	32° to 158° F (0° to 70° C)
	Performance	
	Sequential Read	6500MB/s [1]
	Sequential Write	5000MB/s [1]
	Random Read	800K IOPS [1]
	Random Write	800K IOPS [1]

*Actual performance may vary.

HP Z Turbo Drv PCIE-4X4 4TB TLC PCIe SSD (Z2G1i)	**Capacity**	4TB
	Protocol	PCIe
	Form Factor	M.2 in native Slot on motherboard
	Controller	NVMe
	NAND Type	3D TLC
	Endurance	600 TBW
	Reliability	1.5M hours
	Interface	PCI Express 4.0 x4 electrica
	Operating Temperature	32° to 158° F (0° to 70° C)
	Performance	
	Sequential Read	6500MB/s [1]
	Sequential Write	5000MB/s [1]
	Random Read	800K IOPS [1]
	Random Write	800K IOPS [1]

*Actual performance may vary.

Technical Specifications - Storage Drives

HP Z Turbo Drv PCIE-4X4 512GB TLC PCIe SED OPAL2 (Z2G1i)	**Capacity**	512GB
	Protocol	PCIe
	Form Factor	M.2 in native Slot on motherboard
	Controller	NVMe
	NAND Type	3D TLC
	Endurance	300 TBW
	Reliability	1.5M hours
	Interface	PCI Express 4.0 x4 electrical
	Operating Temperature	32° to 158° F (0° to 70° C)
	Performance	
	Sequential Read	6400MB/s [1]
	Sequential Write	3400MB/s [1]
	Random Read	600K IOPS [1]
	Random Write	600K IOPS [1]
	Self-Encrypting Drive Support	OPAL2
HP Z Turbo Drv PCIE-4X4 1TB TLC PCIe SED OPAL2 (Z2G1i)	**Capacity**	1TB
	Protocol	PCIe
	Form Factor	M.2 in native Slot on motherboard
	Controller	NVMe
	NAND Type	3D TLC
	Endurance	300 TBW
	Reliability	1.5M hours
	Interface	PCI Express 4.0 x4 electrica
	Operating Temperature	32° to 158° F (0° to 70° C)
	Performance	
	Sequential Read	6500MB/s [1]
	Sequential Write	5000MB/s [1]
	Random Read	800K IOPS [1]
	Random Write	800K IOPS [1]
	Self-Encrypting Drive Support	OPAL2

*Actual performance may vary.

HP Z Turbo Drv PCIE-4X4 2TB TLC PCIe SED OPAL2 (Z2G1i)	**Capacity**	2TB
	Protocol	PCIe
	Form Factor	M.2 in native Slot on motherboard
	Controller	NVMe
	NAND Type	3D TLC
	Endurance	500 TBW
	Reliability	1.5M hours
	Interface	PCI Express 4.0 x4 electrica
	Operating Temperature	32° to 158° F (0° to 70° C)

Technical Specifications - Storage Drives

	Performance	
	Sequential Read	6500MB/s [1]
	Sequential Write	5000MB/s [1]
	Random Read	800K IOPS [1]
	Random Write	800K IOPS [1]
	Self-Encrypting Drive Support	OPAL2

Actual performance may vary.

HP Z Turbo Drv PCIE-4X4 4TB TLC PCIe SED OPAL2 (Z2G1i)	**Capacity**	4TB
	Protocol	PCIe
	Form Factor	M.2 in native Slot on motherboard
	Controller	NVMe
	NAND Type	3D TLC
	Endurance	600 TBW
	Reliability	1.5M hours
	Interface	PCI Express 4.0 x4 electrica
	Operating Temperature	32° to 158° F (0° to 70° C)
	Performance	
	Sequential Read	6500MB/s [1]
	Sequential Write	5000MB/s [1]
	Random Read	800K IOPS [1]
	Random Write	800K IOPS [1]
	Self-Encrypting Drive Support	OPAL2

Actual performance may vary.

256GB 2280 PCIe-4x4 Value M.2 SSD (Z2G1i)	**Capacity**	256GB
	Protocol	PCIe
	Form Factor	M.2 in native Slot on motherboard
	Controller	NVMe
	NAND Type	3D TLC
	Endurance	200TBW (TB Written)
	Reliability	1.5M Hours
	Interface	PCI Express 4.0 x4 electrica
	Operating Temperature	32° to 158° F (0° to 70° C)
	Performance	
	Sequential Read	3100MB/s [1]
	Sequential Write	1400MB/s [1]
	Random Read	200K IOPS [1]
	Random Write	400K IOPS [1]

Actual performance may vary.

Technical Specifications - Storage Drives

512GB 2280 PCIe-4x4 Value M.2 SSD (Z2G1i)	**Capacity**	512GB
	Protocol	PCIe
	Form Factor	M.2 in native Slot on motherboard
	Controller	NVMe
	NAND Type	3D TLC
	Endurance	300TBW (TB Written)
	Reliability	1.5M Hours
	Interface	PCI Express 4.0 x4 electrica
	Operating Temperature	32° to 158° F (0° to 70° C)
	Performance	
	Sequential Read	3400MB/s [1]
	Sequential Write	2500MB/s [1]
	Random Read	380K IOPS [1]
	Random Write	430K IOPS [1]

Actual performance may vary.

1TB 2280 PCIe-4x4 Value M.2 SSD (Z2G1i)	**Capacity**	1TB
	Protocol	PCIe
	Form Factor	M.2 in native Slot on motherboard
	Controller	NVMe
	NAND Type	3D TLC
	Endurance	400TBW (TB Written)
	Reliability	1.5M Hours
	Interface	PCI Express 4.0 x4 electrical
	Operating Temperature	32° to 158° F (0° to 70° C)
	Performance	
	Sequential Read	3400MB/s [1]
	Sequential Write	2500MB/s [1]
	Random Read	500K IOPS [1]
	Random Write	440K IOPS [1]

Actual performance may vary.

HP Z Turbo Drv PCIE-5X4 1TB TLC PCIe SSD	**Capacity**	1TB
	Protocol	PCIe
	Form Factor	M.2 in native Slot on motherboard
	Controller	NVMe
	NAND Type	3D TLC
	Endurance	300TBW (TB Written)
	Reliability	1.5M Hours
	Interface	PCI Express 5.0 x4 electrical
	Operating Temperature	32° to 158° F (0° to 70° C)
	Performance	
	Sequential Read	12000 MB/s*

Technical Specifications - Storage Drives

	Sequential Write	10000 MB/s*
	Random Read	1500K IOPS*
	Random Write	1300K IOPS*

Actual performance may vary.

HP Z Turbo Drv PCIE-5X4 2TB TLC PCIe SSD	**Capacity**	2TB
	Protocol	PCIe
	Form Factor	M.2 in native Slot on motherboard
	Controller	NVMe
	NAND Type	3D TLC
	Endurance	500TBW (TB Written)
	Reliability	1.5M Hours
	Interface	PCI Express 5.0 x4 electrical
	Operating Temperature	32° to 158° F (0° to 70° C)
	Performance	
	Sequential Read	12000 MB/s [1]
	Sequential Write	11000 MB/s [1]
	Random Read	1500K IOPS [1]
	Random Write	1300K IOPS [1]

Actual performance may vary.

HP Z Turbo Drv PCIE-5X4 1TB TLC PCIe SED OPAL2	**Capacity**	1TB
	Protocol	PCIe
	Form Factor	M.2 in native Slot on motherboard
	Controller	NVMe
	NAND Type	3D TLC
	Endurance	300TBW (TB Written)
	Reliability	1.5M Hours
	Interface	PCI Express 5.0 x4 electrical
	Operating Temperature	32° to 158° F (0° to 70° C)
	Performance	
	Sequential Read	12000 MB/s [1]
	Sequential Write	10000 MB/s [1]
	Random Read	1500K IOPS [1]
	Random Write	1300K IOPS [1]
	Self-Encrypting Drive Support	OPAL2

Actual performance may vary.

Technical Specifications - Storage Drives

HP Z Turbo Drv PCIE-5X4 2TB TLC PCIe SED OPAL2	**Capacity**	2TB
	Protocol	PCIe
	Form Factor	M.2 in native Slot on motherboard
	Controller	NVMe
	NAND Type	3D TLC
	Endurance	500TBW (TB Written)
	Reliability	1.5M Hours
	Interface	PCI Express 5.0 x4 electrical
	Operating Temperature	32° to 158° F (0° to 70° C)
	Performance	
	Sequential Read	12000 MB/s [1]
	Sequential Write	11000 MB/s [1]
	Random Read	1500K IOPS [1]
	Random Write	1300K IOPS [1]

Actual performance may vary.

512GB TLC PCIE Gen3x4 SED FIPS 140-2	**Capacity**	512GB
	Protocol	PCIe
	Form Factor	M.2 in native Slot on motherboard
	Controller	NVMe
	NAND Type	3D TLC
	Endurance	320 TBW (TB Written)
	Reliability	1.5M Hours
	Interface	PCI Express 3.0 x4 electrical
	Operating Temperature	32° to 158° F (0° to 70° C)
	Performance	
	Sequential Read	up to 3400MB/s [1]
	Sequential Write	up to 2500MB/s [1]
	Random Read	420K IOPS [1]
	Random Write	635K IOPS[1]
	Self-Encrypting Drive Support	OPAL2/FIPS 140-2

Actual performance may vary.

1TB TLC PCIE Gen3x4 SED FIPS 140-2	**Capacity**	1TB
	Protocol	PCIe
	Form Factor	M.2 in native Slot on motherboard
	Controller	NVMe
	NAND Type	3D TLC
	Endurance	1620 TBW (TB Written)
	Reliability	1.5M Hours
	Interface	PCI Express 3.0 x4 electrical
	Operating Temperature	32° to 158° F (0° to 70° C)
	Performance	

Technical Specifications - Storage Drives

	Sequential Read	3400MB/s* [1]
	Sequential Write	3000MB/s* [1]
	Random Read	720K IOPS* [1]
	Random Write	690K IOPS* [1]
	Self-Encrypting Drive Support	OPAL2/FIPS 140-2

Actual performance may vary.

2TB TLC PCIE Gen3x4 SED FIPS 140-2	**Capacity**	2TB
	Protocol	PCIe
	Form Factor	M.2 in native Slot on motherboard
	Controller	NVMe
	NAND Type	3D TLC
	Endurance	3140 TBW (TB Written)
	Reliability	1.5M Hours
	Interface	PCI Express 3.0 x4 electrical
	Operating Temperature	32° to 158° F (0° to 70° C)
	Performance	
	Sequential Read	3400MB/s [1]
	Sequential Write	3000MB/s [1]
	Random Read	720K IOPS [1]
	Random Write	690K IOPS [1]
	Self-Encrypting Drive Support	OPAL2/FIPS 140-2

Actual performance may vary.

Citadel 512GB TLC PCIE Gen3x4 SED FIPS 140-2	**Capacity**	512GB
	Protocol	PCIe
	Form Factor	M.2 in native Slot on motherboard
	Controller	NVMe
	NAND Type	3D TLC
	Endurance	320 TBW (TB Written)
	Reliability	1.5M Hours
	Interface	PCI Express 3.0 x4 electrical
	Operating Temperature	32° to 158° F (0° to 70° C)
	Performance	
	Sequential Read	up to 3400MB/s [1]
	Sequential Write	up to 2500MB/s [1]
	Random Read	420K IOPS [1]
	Random Write	635K IOPS[1]
	Self-Encrypting Drive Support	OPAL2/FIPS 140-2

Actual performance may vary.

Technical Specifications - Storage Drives

Citadel 1TB TLC PCIE Gen3x4 SED FIPS 140-2	**Capacity**	1TB
	Protocol	PCIe
	Form Factor	M.2 in native Slot on motherboard
	Controller	NVMe
	NAND Type	3D TLC
	Endurance	1620 TBW (TB Written)
	Reliability	1.5M Hours
	Interface	PCI Express 3.0 x4 electrical
	Operating Temperature	32° to 158° F (0° to 70° C)
	Performance	
	Sequential Read	3400MB/s* [1]
	Sequential Write	3000MB/s* [1]
	Random Read	720K IOPS* [1]
	Random Write	690K IOPS* [1]
	Self-Encrypting Drive Support	OPAL2/FIPS 140-2

Actual performance may vary.

Citadel 2TB TLC PCIE Gen3x4 SED FIPS 140-2	**Capacity**	2TB
	Protocol	PCIe
	Form Factor	M.2 in native Slot on motherboard
	Controller	NVMe
	NAND Type	3D TLC
	Endurance	3140 TBW (TB Written)
	Reliability	1.5M Hours
	Interface	PCI Express 3.0 x4 electrical
	Operating Temperature	32° to 158° F (0° to 70° C)
	Performance	
	Sequential Read	3400MB/s [1]
	Sequential Write	3000MB/s [1]
	Random Read	720K IOPS [1]
	Random Write	690K IOPS [1]
	Self-Encrypting Drive Support	OPAL2/FIPS 140-2

1TB SATA 7200 rpm 6Gb/s 3.5" HDD (Enterprise Class)	**Capacity**	1TB
	Protocol	SATA
	Form Factor	3.5"
	Controller	AHCI
	Reliability	2.0M Hours
	Rated Power On Hours	8760/yr
	Annualized Failure Rate (based on Rated POH)	<0.62%
	Width	

Technical Specifications - Storage Drives

	Media Diameter	3.5in; 8.9 cm
	Physical Size	4 in; 10.17cm
	Interface	Serial ATA (6.0Gb/s), NCQ enabled
	Synchronous Transfer Rate (Maximum)	Up to 600MB/s [1]
	Buffer	128MB
	Seek Time (typical reads, includes controller overhead, including settling)	
	Single Track	0.32ms [1]
	Average	7.45ms [1]
	Full Stroke	14.2ms [1]
	Rotational Speed	7,200 rpm
	Operating Temperature	41° to 140° F (5° to 60° C)
	Performance	
	Sequential Read	up to 226MB/s[1]
	Sequential Write	up to 226MB/s[1]
	Enterprise Class Features	High Reliability
	[1]Actual performance may vary.	
2TB SATA 7200 rpm 6Gb/s 3.5" HDD (Enterprise Class)	**Capacity**	2TB
	Protocol	SATA
	Form Factor	3.5"
	Controller	AHCI
	Reliability	2.0M Hours
	Rated Power On Hours	8760/yr
	Annualized Failure Rate (based on Rated POH)	<0.62%
	Width	
	Media Diameter	3.5in; 8.9 cm
	Physical Size	4 in; 10.17cm
	Interface	Serial ATA (6.0Gb/s), NCQ enabled
	Synchronous Transfer Rate (Maximum)	Up to 600MB/s [1]
	Buffer	128MB
	Seek Time (typical reads, includes controller overhead, including settling)	
	Single Track	0.7ms [1]
	Average	8.5ms [1]
	Full Stroke	15.7ms [1]
	Rotational Speed	7,200 rpm

Technical Specifications - Storage Drives

	Operating Temperature	41° to 131° F (5° to 55° C)
	Performance	
	Sequential Read	up to 226MB/s[1]
	Sequential Write	up to 226MB/s[1]
	Enterprise Class Features	High Reliability
	[1]Actual performance may vary.	
4TB SATA 7200 rpm 6Gb/s 3.5" HDD (Enterprise Class)	**Capacity**	4TB
	Protocol	SATA
	Form Factor	3.5"
	Controller	AHCI
	Reliability	2.0M Hours
	Rated Power On Hours	8760/yr
	Annualized Failure Rate (based on Rated POH)	<0.62%
	Width	
	Media Diameter	3.5in; 8.9 cm
	Physical Size	4 in; 10.17cm
	Interface	Serial ATA (6.0Gb/s), NCQ enabled
	Synchronous Transfer Rate (Maximum)	Up to 600MB/s [1]
	Buffer	256MB
	Seek Time (typical reads, includes controller overhead, including settling)	
	Single Track	0.7ms [1]
	Average	8.5ms [1]
	Full Stroke	15.7ms [1]
	Rotational Speed	7,200 rpm
	Operating Temperature	41° to 131° F (5° to 55° C)
	Performance	
	Sequential Read	up to 226MB/s[1]
	Sequential Write	up to 226MB/s[1]
	Enterprise Class Features	High Reliability
	[1]Actual performance may vary.	

Technical Specifications - Storage Drives

8TB SATA 7200 rpm 6Gb/s 3.5" HDD (Enterprise Class)	**Capacity**	8TB
	Protocol	SATA
	Form Factor	3.5"
	Controller	AHCI
	Reliability	2.0M Hours
	Rated Power On Hours	8760/yr
	Annualized Failure Rate (based on Rated POH)	<0.62%
	Width	
	Media Diameter	3.5in; 8.9 cm
	Physical Size	4 in; 10.17cm
	Interface	Serial ATA (6.0Gb/s), NCQ enabled
	Synchronous Transfer Rate (Maximum)	Up to 600MB/s [1]
	Buffer	256MB
	Seek Time (typical reads, includes controller overhead, including settling)	
	Single Track	0.7ms [1]
	Average	8.5ms [1]
	Full Stroke	15.7ms [1]
	Rotational Speed	7,200 rpm
	Operating Temperature	41° to 131° F (5° to 55° C)
	Performance	
	Sequential Read	up to 226MB/s[1]
	Sequential Write	up to 226MB/s[1]
	Enterprise Class Features	High Reliability
	[1]Actual performance may vary.	
12TB SATA 7200 rpm 6Gb/s 3.5" HDD (Enterprise Class)	**Capacity**	12TB
	Protocol	SATA
	Form Factor	3.5"
	Controller	AHCI
	Reliability	2.0M Hours
	Rated Power On Hours	8760/yr
	Annualized Failure Rate (based on Rated POH)	<0.62%
	Width	
	Media Diameter	3.5in; 8.9 cm
	Physical Size	4 in; 10.17cm
	Interface	Serial ATA (6.0Gb/s), NCQ enabled
	Synchronous Transfer Rate	Up to 600MB/s [1]

Technical Specifications - Storage Drives

(Maximum)	
Buffer	128MB
Seek Time (typical reads, includes controller overhead, including settling)	
Single Track	0.7ms [1]
Average	8.5ms [1]
Full Stroke	15.7ms [1]
Rotational Speed	7,200 rpm
Operating Temperature	41° to 131° F (5° to 55° C)
Performance	
Sequential Read	up to 226MB/s[1]
Sequential Write	up to 226MB/s[1]
Enterprise Class Features	High Reliability

1. Actual performance may vary.

Technical Specifications - Graphics

AMD Radeon™ Pro W7900 48GB	**Form Factor**	Double slot, full-height, 11" length
	Graphics Controller	Power: 295 Watts Cooling Solution: Active Fan Heatsink
	Bus Type	PCI Express 4.0 x 16
	Memory	48GB GDDR6 Memory Memory Bandwidth: 864 GB/s Memory Width: 384 bit
	Connectors	3x DisplayPort 2.1 1x Enhanced Mini DisplayPort 2.1 Requires 2x 8-pin auxiliary power connectors
	Max simultaneous displays	12288x6912 @ 120Hz
	Available Graphics Drivers	Windows 11 Windows 10 Linux® 64-bit
NVIDIA® RTX™ A400 4GB	**Form Factor**	Half Height Single Slot (2.7" Height x 6.4" Length)
	Graphics Controller	Max Power: 50 Watts Cooling Solution: Active fan heatsink
	Bus Type	PCI Express 4.0 x 8
	Memory	4GB GDDR6 Memory Bandwidth: 96 GB/s Memory Width: 64-bit
	Connectors	4x Mini DisplayPort 1.4a
	Max simultaneous displays	4x 4096 x 2160 @ 120 Hz 4x 5120 x 2880 @ 60 Hz 2x 7680 x 4320 @ 60 Hz
	Available Graphics Drivers	Windows 10 64-bit Windows 11 64-bit Linux® 64-bit (selected Enterprise distributions) HP qualified drivers may be preloaded or available from the HP support Web site: http://welcome.hp.com/country/us/en/support.html
NVIDIA® RTX™ A1000 8GB	**Form Factor**	Half Height Single Slot (2.7" Height x 6.4" Length)
	Graphics Controller	

Technical Specifications - Graphics

		Max Power: 50 Watts Cooling Solution: Active fan heatsink
	Bus Type	PCI Express 4.0 x 8
	Memory	8GB GDDR6 Memory Bandwidth: 96 GB/s Memory Width: 128-bit
	Connectors	4x Mini DisplayPort 1.4a
	Max simultaneous displays	4x 4096 x 2160 @ 120 Hz 4x 5120 x 2880 @ 60 Hz 2x 7680 x 4320 @ 60 Hz
	Available Graphics Drivers	Windows 10 64-bit Windows 11 64-bit Linux® 64-bit (selected Enterprise distributions) HP qualified drivers may be preloaded or available from the HP support Web site: http://welcome.hp.com/country/us/en/support.html
NVIDIA® RTX™ 2000 Ada 16GB	**Form Factor**	Half Height Dual Slot (2.7" Height x 6.7" Length)
	Graphics Controller	
		Max Power: 70 Watts Cooling Solution: Active fan heatsink
	Bus Type	PCI Express 4.0 x 8
	Memory	16GB GDDR6 Memory Bandwidth: 224 GB/s Memory Width: 128-bit
	Connectors	4x Mini DisplayPort 1.4a
	Max simultaneous displays	4x 4096 x 2160 @ 120 Hz 4x 5120 x 2880 @ 60 Hz 2x 7680 x 4320 @ 60 Hz
	Available Graphics Drivers	Windows 10 64-bit Windows 11 64-bit Linux® 64-bit (selected Enterprise distributions) HP qualified drivers may be preloaded or available from the HP support Web site: http://welcome.hp.com/country/us/en/support.html

Technical Specifications - Graphics

NVIDIA® RTX™ 4000 Ada 20GB	**Form Factor**	Full-Height Single Slot (4.4” Height x 9.5” Length)
	Graphics Controller	Max Power: 130 Watts Cooling Solution: Active fan heatsink
	Bus Type	PCI Express 4.0 x 16
	Memory	20GB GDDR6 Memory Bandwidth: 360 GB/s Memory Width: 256-bit
	Connectors	4x DisplayPort 1.4a
	Max simultaneous displays	4x 4096 x 2160 @ 120 Hz 4x 5120 x 2880 @ 60 Hz 2x 7680 x 4320 @ 60 Hz
	Available Graphics Drivers	Windows 10 64-bit Windows 11 64-bit Linux® 64-bit (selected Enterprise distributions) HP qualified drivers may be preloaded or available from the HP support Web site: http://welcome.hp.com/country/us/en/support.html
NVIDIA® RTX™ 4500 Ada 24GB	**Form Factor**	Full-Height Dual Slot (4.4” Height x 10.5” Length)
	Graphics Controller	Max Power: 210 Watts Cooling Solution: Active fan heatsink
	Bus Type	PCI Express 4.0 x 16
	Memory	24GB GDDR6 Memory Bandwidth: 432 GB/s Memory Width: 192-bit
	Connectors	4x DisplayPort 1.4a
	Max simultaneous displays	4x 4096 x 2160 @ 120 Hz 4x 5120 x 2880 @ 60 Hz 2x 7680 x 4320 @ 60 Hz
	Available Graphics Drivers	Windows 10 64-bit Windows 11 64-bit Linux® 64-bit (selected Enterprise distributions) HP qualified drivers may be preloaded or available from the HP support Web site:

		http://welcome.hp.com/country/us/en/support.html
NVIDIA® RTX™ 5000 Ada 32GB	**Form Factor**	Full-Height Dual Slot (4.4” Height x 13.85” Length)
	Graphics Controller	Max Power: 250 Watts Cooling Solution: Active fan heatsink
	Bus Type	PCI Express 4.0 x 16
	Memory	32GB GDDR6 with ECC Memory Bandwidth: 576 GB/s Memory Width: 256-bit
	Connectors	4x DisplayPort 1.4a Quadro Sync II connector Stereo Sync Requires CEM 5.0 16-pin auxiliary power adapter
	Max simultaneous displays	4x 4096 x 2160 @ 120 Hz 4x 5120 x 2880 @ 60 Hz 2x 7680 x 4320 @ 60 Hz
	Available Graphics Drivers	Windows 10 64-bit Windows 11 64-bit Linux® 64-bit (selected Enterprise distributions) HP qualified drivers may be preloaded or available from the HP support Web site: http://welcome.hp.com/country/us/en/support.html
NVIDIA® RTX™ 5880 Ada 48GB	**Form Factor**	Full-Height Dual Slot (4.4” Height x 10.5” Length)
	Graphics Controller	Max Power: 285 Watts Cooling Solution: Active fan heatsink
	Bus Type	PCI Express 4.0 x 16
	Memory	48GB GDDR6 with ECC Memory Bandwidth: 960 GB/s Memory Width: 384-bit
	Connectors	4x DisplayPort 1.4a Quadro Sync II connector Stereo Sync Requires CEM 5.0 16-pin auxiliary power adapter
	Max simultaneous	4x 4096 x 2160 @ 120 Hz

Technical Specifications - Graphics

	displays	4x 5120 x 2880 @ 60 Hz 2x 7680 x 4320 @ 60 Hz
	Available Graphics Drivers	Windows 10 64-bit Windows 11 64-bit Linux® 64-bit (selected Enterprise distributions) HP qualified drivers may be preloaded or available from the HP support Web site: http://welcome.hp.com/country/us/en/support.html
NVIDIA® RTX™ 6000 Ada 48GB	**Form Factor**	Full-Height Dual Slot (4.4” Height x 10.5” Length)
	Graphics Controller	Max Power: 300 Watts Cooling Solution: Active fan heatsink
	Bus Type	PCI Express 4.0 x 16
	Memory	48GB GDDR6 with ECC Memory Bandwidth: 960 GB/s Memory Width: 384-bit
	Connectors	4x DisplayPort 1.4a Quadro Sync II connector Stereo Sync Requires CEM 5.0 16-pin auxiliary power adapter
	Max simultaneous displays	4x 4096 x 2160 @ 120 Hz 4x 5120 x 2880 @ 60 Hz 2x 7680 x 4320 @ 60 Hz
	Available Graphics Drivers	Windows 10 64-bit Windows 11 64-bit Linux® 64-bit (selected Enterprise distributions) HP qualified drivers may be preloaded or available from the HP support Web site: http://welcome.hp.com/country/us/en/support.html

Technical Specifications - Optical and Removable Storage

HP 9.5mm Slim DVD Writer	**Description**	9.5mm height, tray-load	
	Mounting Orientation	Either horizontal or vertical	
	Interface Type	SATA/ATAPI	
	Dimensions (WxHxD)	128 x 9.5 x 127mm	
	Supported Media Types	DVD+R DVD+RW DVD+R DL DVD-R DL DVD-R DVD-RW CD-R CD-RW	
	Disc Capacity	**DVD-ROM**	8.5 GB DL or 4.7 GB standard
	Access Times	**Full Stroke DVD**	< 200 ms (seek)
		Full Stroke CD	< 200 ms (seek)
	Maximum Data Transfer Rates	**CD ROM Read**	CD-ROM, CD-R Up to 24X CD-RW Up to 24X
		DVD ROM Read	DVD+RW Up to 8X DVD-RW Up to 8X DVD+R DL Up to 8X DVD-R DL Up to 8X DVD-ROM Up to 8X DVD-ROM DL Up to 8X DVD+R Up to 8X DVD-R Up to 8X
	Access Times	**Full Stroke DVD**	< 230 ms (typical)
		Full Stroke CD	< 220 ms (typical)
	Power	**Source**	SATA DC power receptacle
		DC Power Requirements	5 VDC ± 5%-100 mV ripple p-p
		DC Current	5 VDC -< 800 mA typical, <1600 mA maximum
	Operating Environmental (all conditions non-condensing)	**Temperature**	41° to 122° F (5° to 50° C)
		Relative Humidity	10% to 80%
		Maximum Wet Bulb Temperature	84° F (29° C)
	Operating Systems Supported	Windows 10, Windows 11 Linux®	

Technical Specifications - Optical and Removable Storage

	Kit Contents	HP SATA DVD Writer drive, installation guide.	
	Weight	0.35 lbs. (0.16 kg)	
HP 9.5mm Slim DVD-ROM Drive	**Description**	9.5mm height, tray-load	
	Mounting Orientation	Either horizontal or vertical	
	Interface Type	SATA / ATAPI	
	Dimensions (WxHxD)	128 x 9.5 x 127mm	
	Supported Media Types	DVD+R DVD+RW DVD+R DL DVD-R DL DVD-R DVD-RW CD-R CD-RW	
	Disc Capacity	**DVD-ROM**	8.5 GB DL or 4.7 GB standard
	Access Times	**DVD-ROM Single Layer**	< 110 ms (typical)
		CD-ROM Mode 1	< 110 ms (typical)
		Full Stroke DVD	< 230 ms (typical)
		Full Stroke CD	< 220 ms (typical)
	Power	**Source**	SATA DC power receptacle
		DC Power Requirements	5 VDC ± 5%-100 mV ripple p-p
		DC Current	5 VDC – <800mA typical, < 1600 mA maximum
	Operating Environmental (all conditions non-condensing)	**Temperature**	41° to 122° F (5° to 50° C)
		Relative Humidity	10% to 80%
		Maximum Wet Bulb Temperature	84° F (29° C)
	Operating Systems Supported	Windows 10, Windows 11 Linux®	
	Kit Contents	HP SATA DVD Writer drive, installation guide.	

Technical Specifications - Networking and Communications

NETWORKING / COMMUNICATION

Integrated Intel® I219LM PCIe GbE Controller (Intel® vPro™ with Intel® AMT 19.0)	**Connector**	RJ-45
	Cabling	Twisted pair up to 100m
	Controller	Intel® I219LM GbE platform LAN connect networking controller
	Memory	3 KB Tx and 3KB Rx FIFO packet buffer memory
	Data Rates Supported	10/100/1000 Mbps
	Compliance	802.1as/1588, 802.1p, 802.1Q, 802.3, 802.3ab, 802.3az, 802.3i, 802.3u, 802.3z
	Bus Architecture	PCI Express and SMBus
	Data Transfer Mode	PCIe-based interface for active state operation (S0 state) and SMBus for host and management traffic (Sx low power state)
	Power Requirement	Requires 3.3V (integrated regulators for core Vdc)
	Boot ROM Support	Yes
	Network Transfer Mode	Full-duplex; Half-duplex (not supported for the 1000BASE-T transceiver)
	Network Transfer Rate	10BASE-T (half-duplex) 10 Mbps 10BASE-T (full-duplex) 20 Mbps 100BASE-TX (half-duplex) 100 Mbps 100BASE-TX (full-duplex) 200 Mbps 1000BASE-T (full-duplex) 2000 Mbps
	Management Capabilities	vPro, WOL, auto MDI crossover, PXE, Muti-port teaming, RSS, ACPI, Advanced cable diagnostic, loopback modes, AMT 19 support, Circuit Breaker, VLAN, Multicast Listener Discovery (MLD)
	Notes	onboard LAN support RDP Wake on LAN function, if some networking device does not support Modern standby feature for WOL limitation, suggest using this Function for alternate solution for WOL G3-S5/ S5/S4/MSC wake. **NOTE1:** NDIS driver limitation and Wind11 OS, I219 switch to NDIS Driver and it only support IPV4 wake from MSC, if using IPV6 can't wake up from MSC. **NOTE2:** S4 can't wake up limitation on the NDIS Driver known issue.
HP 1-Port 1GbE Flex IO NIC	**Connector**	RJ-45 (Single Port)
	Cabling	1GbE over Category 5e (or better) up to 100m
	Controller	Realtek 8153 Ethernet Controller
	Data Rates Supported	10/100/1000 Mbps
	Compliance	802.3 (LAN) 802.3u (100BASE-TX) 802.3ab (1000BASE-T) 802.3x (Ethernet Flow Control) 802.1Q (Virtual LAN) 802.1P Layer 2 Priority Encoding 802.3az (Energy Efficient Ethernet)
	Bus Architecture	USB
	Power Requirement	Requires 3.3V (integrated regulators for core Vdc)

Technical Specifications - Networking and Communications

	Boot ROM Support	Yes
	Network Transfer Mode	Full-duplex; Half-duplex
	Network Transfer Rate	1000BASE-T Full-Duplex 100BASE-TX Full-Duplex 100BASE-TX Half-Duplex 10BASE-T Full-Duplex 10BASE-T Half-Duplex
	Operating Temperature	32° to 131° F (0° to 55° C)
	Dimensions (HxW)	1.5 in x 1.5 in. x 0.75 in (3.81 cm x 3.81 cm x 1.9 cm)
	Operating System Driver Support	Windows 11 Windows 10 Linux®
HP 2.5GbE LAN Flex Port	**Connector**	RJ-45 (Single Port)
	Cabling	Twisted Pair Cabling, up to 100 meters, 2.5GbE on CAT 5e UTP and up, 2.5Gbe/1GbE/10Mbps on CAT 5 UTP and up
	Controller	I226
	Data Rates Supported	10/100/1000Mbps and 2.5Gbps BASE-T
	Compliance	IEEE: 802.3 (Ethernet Interface for 2500BASE-T, 1000BASE-T, 100BASE-TX, and 10BASE-TE) 802.1AS-Rev 802.1Q (Virtual LAN) 802.1Qav 802.1Qbu 802.1Qbv 1588 802.1AS-REV 802.1p/Q 802.3br 802.3az (Energy Efficient Ethernet) 802.3x (Ethernet Flow Control) 802.3z CB Certification (International Safety) NRTL UL Certification (North America Safety) FCC Class B (USA) CE (European Union) ICES-003 Class B (Canada) BSMI (Taiwan) VCCI (Japan) KCC (Korea) CTICK (Australia/New Zealand) UKCA (UK) UL (Safety) RoHS (Restricted or Hazardous Substances)
	Bus Architecture	PCIe-based interface for active state operation (S0 state) and SMBus for host and management traffic (Sx and low power states)
	Power Requirement	2.5W
	Network Transfer Mode	Full-duplex; Half-duplex
	Network Transfer Rate	2500BASE-T Full-Duplex 1000BASE-T Full-Duplex 100BASE-TX Full-Duplex 100BASE-TX Half-Duplex 10BASE-T Full-Duplex 10BASE-T Half-Duplex
	Operating System Driver Support	Windows 11 Windows 10 Linux®

Technical Specifications - Networking and Communications

HP 10GBase-T Flex IO	**Connector**	RJ-45 (Single Port)
	Cabling	10GbE over Category 6a (or better) up to 100m 5GbE over Category 5e (or better) up to 100m
	Controller	Marvell AQC113C
	Data Rates Supported	10/100/1000 Mbps and 2.5/5/10 Gbps
	Compliance	802.3-2018 Clauses 55 and 126 802.3az (Energy Efficient Ethernet) 1588 v2 (Precision Clock Synchronization) NBASE-T™ Alliance PHY Specification CB Certification (International Safety) NRTL UL Certification (North America Safety) FCC Class B (USA) CE (European Union) ICES-003 Class B (Canada) BSMI (Taiwan) VCCI (Japan) KCC (Korea) CTICK (Australia/New Zealand) UKCA (UK) UL (Safety) RoHS (Restricted or Hazardous Substances)
	Bus Architecture	PCIe-based interface for active state operation (S0 state) and SMBus for host and management traffic (Sx and low power states)
	Power Requirement	6.5W
	Network Transfer Mode	Full-duplex; Half-duplex
	Network Transfer Rate	10G BASE-T 5G BASE-T 2.5G BASE-T 2.5GBASE-T 1000BASE-T 100BASE-TX 10BASE-T Te
	Operating System Driver Support	Windows 11 Windows 10 Linux®
	Notes	**NOTE:1** Modern standby feature was not support & Suggest Customer use Onboard Lan for Wake event instead of FLEX IO MSC Wake The HP 10GBase-T Flex IO NIC can't support MSC (modern standby)/ S4/S5 wake, suggestion customer can use Onboard Lan RDP wake to replace the MSC Wake instead of FLEX IO MSC Wake & Not support. **NOTE:2** Known issue with connection by FLEX IO module of LAN Cable, sometimes will auto resume in S4/S5 risk or User can manually disabled 10GBase-T FLOEX Wake function by changing the driver (Device Manager) this setting for “Wake from power off state” in Advanced.
HP Flex 1GbE Fiber LC Single Port	**Connector**	1 LC Optical Fiber Port (Little Connector)
	Cabling	Optical Multi Mode Fiber OM2 or better
	Controller	AT-29M2/LC-AF-901
	Data Rates Supported	1GbE
	Compliance	IEEE 802.3 IEEE 802.3u IEEE 802.3ab IEEE 802.1q VLAN Tagging IEEE 802.1AS

Technical Specifications - Networking and Communications

		IEEE 1588 CB Certification (International Safety) NRTL UL Certification (North America Safety) FCC Class B (USA) CE (European Union) ICES-003 Class B (Canada) BSMI (Taiwan) VCCI (Japan) KCC (Korea) CTICK (Australia/New Zealand) UKCA (UK) UL (Safety) RoHS (Restricted or Hazardous Substances)
	Bus Architecture	USB 3.1 interface, USB 2.0 interface,
	Power Requirement	Requires 3.3V (integrated regulators for core Vdc)
	Power Requirement	Up to 3W
	Notes	It's same locate at FLEX IO location and same as HP 2.5GbE LAN Flex Port and HP 10GBase-T Flex IO and HP 1-Port 1GbE Flex IO NIC
Z2 G1i Single 1Gbps Fiber NIC USB FLY YgritteF Adapter	**Connector**	1 LC Optical Fiber Port (Little Connector)
	Cabling	Optical Multi Mode Fiber OM2 or better
	Controller	AT-29M2/LC-AG-901
	Data Rates Supported	1GbE
	Compliance	IEEE 802.3 IEEE 802.3u IEEE 802.3ab IEEE 802.1q VLAN Tagging IEEE 802.1AS IEEE 1588 IEEE 802.3az Energy Efficient Ethernet CB Certification (International Safety) NRTL UL Certification (North America Safety) FCC Class B (USA) CE (European Union) ICES-003 Class B (Canada) BSMI (Taiwan) VCCI (Japan) KCC (Korea) CTICK (Australia/New Zealand) UKCA (UK) UL (Safety) RoHS (Restricted or Hazardous Substances)
	Bus Architecture	USB 3.1 interface, USB 2.0 interface,
	Power Requirement	Requires 3.3V (integrated regulators for core Vdc)
	Power Requirement	Up to 3W
	Footnotes	Rear IO of Single FLY USB Fiber Adapter, it's not located at FLEX IO location
NVIDIA® Mellanox® ConnectX-6 DX Dual Port 10/25GbE SFP28 NIC	**Connector**	Dual-port SFP28
	Cabling	Transceiver with Multi-Mode Fiber (OM3 or OM4)
	Controller	ConnectX-6 Dx
	Network Transfer Rates Supported	1/10/25 GbE
	Data Path Width	PCIe Gen4x8
	Power Requirement	19.74W Maximum power available through SFP28 port: 2.5W (each port)
	Operating Temperature	32° to 131° F (0° to 55° C)
	Dimensions (HxW)	6.22in. x 2.67in (158mm x 68mm)
	Operating System	Windows 11 64-Bit
	Driver	Linux®

Technical Specifications - Networking and Communications

	Kit Contents	•NVIDIA Mellanox ConnectX-6 SFP28 25GbE NIC with standard height bracket attached • Low-profile bracket • Product Literature
	Notes	The NVIDIA® Mellanox® ConnectX-6 NIC can't support MSC (modern standby) / S4 / S5 wake, suggestion customer can use Onboard Lan RDP wake to replace the MSC Wake
HP 25GbE SFP28 LC Fiber Optic Transceiver	**Connector**	LC Fiber Optic Connector
	Cabling	Typically, OM4 or higher MMF LC fiber optic cabling, up to 100m on OM4, up to 70m on OM3
	Data Rates Supported	25Gbps
	Compliance	SFF-8472 and 8431, Hot pluggable SFP+ footprint
	Compatibility	Intended for use with NVIDIA Mellanox ConnectX-6 DX Dual Port 10/25GbE NIC
	Wavelength	850nm
	Kit Contents	25GbE SFP28 Transceiver
HP 10GbE SFP+ SR/SW LC Fiber Optic Transceiver	**Connector**	LC Fiber Optic Connector
	Cabling	Typically, OM4 or higher MMF LC fiber optic cabling, up to 300m on MMF
	Data Rates Supported	10Gbps
	Compliance	SFF-8472 and 8431, Hot pluggable SFP+ footprint
	Compatibility	Intended for use with NVIDIA Mellanox ConnectX-6 DX Dual Port 10/25GbE NIC
	Wavelength	850nm
	Kit Contents	10GbE SFP+ Transceiver
Intel® X550-T2 2-Port 10GbE NIC	**Connector**	Dual-port RJ-45
	Cabling	Cat5 (or higher) for 100Mbps Cat5e (or higher) for 1Gbps, 2.5Gbps, or 5Gbps Cat6 (or higher) for 10Gbps up to 55m Cat6a (or higher) for 10Gbps up to 100m
	Controller	Intel® Ethernet Controller X550-AT2
	Network Transfer Rates Supported	10GbE, 5GbE, 2.5GbE, 1GbE, 100MbE
	Data Path Width	PCIe Gen3x4
	Power Requirement	3.9W at 100Mbps 5.5W at 1Gbps 11.2W at 10Gbps
	Operating Temperature	32° to 131° F (0° to 55° C)

Technical Specifications - Networking and Communications

	Dimensions (HxW)	167 mm x 69 mm
	Operating System	Windows 11 64-Bit
	Driver	Windows 10 64-bit Linux®
	Management Capabilities	DMI 2.0 Support, Windows Management Instrumentation (WMI) and SNMP, PXE 2.0 through boot ROM, Multi-mode I/O Virtualization, VxLAN, VMDq, VLAN support with VLAN tag insertion
	Kit Contents	• Intel® X550-T2 2-Port 10GbE NIC with standard height bracket attached • Low-profile bracket • Product Literature
	Notes	The Intel® X550-T2 NIC can't support MSC (modern standby) / S4 / S5 wake, suggestion customer can use Onboard Lan RDP wake to replace the MSC Wake
Allied Telesis AT2911T/2-901 Dual Port 1GbE NIC	**Connector**	2 x RJ-45 (Dual Port)
	Cabling	Cat3 (or higher) for 10Mbps Cat5 (or higher) for 100Mbps Cat5e (or higher) for 1Gbps up to 100m
	Memory	17 Rx and 16 Tx queues
	Network Transfer Rates Supported	10/100/1000 Mbps
	Compliance	IEEE 802.1p (Quality of Service), IEEE 802.1Q (VLANs), IEEE 802.2 (LLC), IEEE 802.3ac (MAC), IEEE 802.3x (Flow control auto-negotiation), IEEE 802.3z (1000 Base-X), IEEE 802.3ad (Link aggregation), IEEE 802.3ab (10/100/1000T) RoHS, UL, FCC/EN55022 Class A, TUV, EN55024, CE, C-TICK, VCCI
	Bus Architecture	PCIe 2x1
	Data Transfer Mode	PCIe-based interface
	Power Requirement	2.4 Watts (typical)
	Management Capabilities	VLAN support, Link aggregation LACP, Link aggregation smart switch, Failover, Smart Load Balancing (SLB), iSCSI boot support, Windows Management Instrumentation (WMI), PXE 2.1, SNMP
	Kit Contents	Allied Telesis AT-2911T/2-901 Dual Port 1GbE NIC with low-profile bracket attached and standard bracket included
	Notes	The AT2911T/2-9 NIC can't support MSC (modern standby) wake, suggestion customer can use Onboard Lan RDP wake to replace the MSC Wake
Intel® I350-T4 4-Port 1GbE NIC	**Connector**	4x RJ-45 (Quad Port)
	Cabling	Cat3 (or higher) for 10Mbps Cat5 (or higher) for 100Mbps

Technical Specifications - Networking and Communications

		Cat5e (or higher) for 1Gbps up to 100m
	Controller	Intel® I350
	Memory	Jumbo Frames up to 9.5KB, 8 Tx/Rx Queue pairs per port, Main Internal memory is Error Code Correcting
	Network Transfer Rates Supported	10Mbps, 100Mbps, 1Gbps
	Compliance	IEEE 802.3 auto negotiation, 802.3, 802.3u, 802.3ab, 802.3x, 802.3z, IEEE1588 protocol and 802.1AS implementation, 802.3az EEE
	Power Requirement	5W
	Bus Architecture	PCI Express 2.1 x4
	Data Transfer Mode	PCIe-based interface for active state operation
	Network Transfer Mode	multi-speed, full, and half-duplex
	Network Transfer Rate	10BASE-T 100BASE-Tx 1000BASE-T
	Management Capabilities	WOL, PXE 2.1, UEFI, Power Management Protocol Offload (proxying), MAC Power Management, Active State Power Management, VLAN, ACPI
	Kit Contents	Intel® Ethernet I350-T4V2 4-Port 1Gb NIC with full-height bracket installed Low-profile bracket included
	Notes	The I350-T4 NIC can't support MSC (modern standby) /S4 wake, suggestion customer can use Onboard Lan RDP wake to replace the MSC Wake
Intel® Wi-Fi 6E* AX211 802.11ax, BT 5.3, M.2	**WLAN Standards**	IEEE 802.11a, b, d, e, g, h, i, k, n, r, u, v, w, ac, ax; Fine Timing Measurement based on 802.11-2016, 802.11az HW readiness
	Antenna	2x2 Dual-Band
	Bluetooth Standards	5.3
	Operating Temperature	32° to 122° F (0° to 50° C)
	Interface	M.2 CNVio2
	Dimensions	M.2 2230
	Kit Contents	Not Available

Wi-Fi 6E requires a Wi-Fi 6E router, sold separately, to function in the 6GHz band. Availability of public wireless access points is limited. Wi-Fi 6E is backward compatible with prior 802.11 specs. And available in countries where Wi-Fi 6E is supported.
i

Technical Specifications - Networking and Communications

Intel® Wi-Fi 7 BE200 802.11be, BT 5.4, M.2	**WLAN Standards**	IEEE 802.11a, b, d, e, g, h, i, k, n, r, u, v, w, ac, ax, be; Fine Timing Measurement based on 802.11-2016, 802.11az HW readiness
	Antenna	2x2 Dual-Band
	Bluetooth Standards	5.4
	Operating Temperature	32° to 122° F (0° to 50° C)
	Interface	M.2: PCIe, USB
	Dimensions	M.2 2230
	Kit Contents	Not Available

Wireless access point and Internet service required and sold separately. Availability of public wireless access points limited. Wi-Fi 7 (802.11BE)
functionality requires Windows 11 24H2, select Intel® processor, and a Wi-Fi 7 router, sold separately.
Wi-Fi 7 is backward compatible with prior 802.11 specs. Available in countries where Wi-Fi 7 is supported.

Change Log

Date of change	Version History		Description of change
April 7, 2025	From v1 to v2	Changed	Social and Environmental Responsibility, Graphics sections
May 27, 2025	From v2 to v3	Changed	NETWORKING / COMMUNICATION section
June 1, 2025	From v3 to v4	Changed	Graphics section
June 20, 2025	From v4 to v5	Changed	Format page 1
July 21, 2025	From v5 to v6	Changed	Flex IO section
August 1, 2025	From v6 to v7	Changed	Power Supply, SATA Hard Drives, Graphics sections
August 4, 2025	From v7 to v8	Changed	STORAGE section
August 20, 2025	From v8 to v9	Changed	Networking and Communications section
August 26, 2025	From v9 to v10	Changed	Format
September 1, 2025	From v10 to v11	Changed	PCIe Solid State Drives, Graphics sections
September 4, 2025	From v11 to v12	Changed	Environmental Requirements section
September 24, 2025	From v12 to v13	Changed	Overview, System Board sections
September 30, 2025	From v13 to v14	Changed	Memory section
October 1, 2025	From v14 to v15	Changed	Graphics section
October 3, 2025	From v15 to v16	Changed	Flex Module (Rear IO) section, changed format page 2
November 17, 2025	From v16 to v17	Changed	Networking and Communications, STORAGE sections
November 20, 2025	From v17 to v18	Changed	STORAGE, Networking and Communications sections
January 15, 2026	From v18 to v19	Update	Removed EOL cards, added 2000E Ada added RTX PRO 2000/RTX PRO 4000 SFF to Graphics section
January 29, 2026	From v19 to v20	Correction	C20MMAA corrected to D0SX1AA
February 18, 2026	From v20 to v21	Update	N&C, Graphics, Processors and Flex Module (Rear IO) updated and Flex Module (FLY) added
March 24, 2026	From v21 to v22	Removal	1 Thunderbolt™ 4 port (40Gbps, 15W Output, DisplayPort™ 2.1) removed from rear call out #8
March 25, 2026	From v22 to v23	Addition	Intel Core Ultra 7 270K added
August 10, 2026	From v23 to v24	Update	Change 512GB SSD Endurance to 300TBW 4X4 512GB TLC PCIe SSD (Z2G1i) and 4X4 512GB TLC PCIe SED OPAL2 (Z2G1i) drives
August 19, 2026	From v24 to v25	Update	ATI2911T/2-901 replaced with ATI2911Ta/2-901, Broadcom 5720 added, in Networking section
September 23, 2026	From v25 to v26	Addition	Ultra 9 270K Plus and Ultra 5 250K Plus processors added

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Intel® Core™ Ultra Processors (Series 2)

Processador Intel® Core™ Ultra 7 265

cache de 30 M, até 5,30 GHz

Comentários

Comparar

Especificações | Pedidos e conformidade | Produtos compatíveis | Downloads | Suporte

Ir para | Baixar as especificações

Essenciais

Coleção de produtos	Intel® Core™ Ultra Processors (Series 2)
Codinome	Products formerly Arrow Lake
Segmento vertical	Desktop
Número do processador	265
TOPS de pico geral (Int8)	33
Preço recomendado para o cliente	$384.00-$394.00

Especificações da CPU

Comentários

Número de núcleos	20
Nº de Performance-cores	8
Nº de Efficient-cores	12
Nº de Efficient-core de baixo consumo de energia	0
Total de threads	20
Frequência turbo max	5.3 GHz
Frequência da Tecnologia Intel® Turbo Boost Max 3.0 ‡	5.3 GHz
Frequência turbo máx. do Performance-core	5.2 GHz
Frequência turbo máx. do Efficient-core	4.6 GHz
Frequência base do Performance-core	2.4 GHz
Frequência base do Efficient-core	1.8 GHz
Cache	30 MB Intel® Smart Cache
Cache L2 total	36 MB

Comentários

Potência básica do processador	65 W
Energia turbo máxima	182 W
Intel® Deep Learning Boost (Intel® DL Boost)	Yes
Frameworks de software de IA suportados pela CPU	OpenVINO™, WindowsML, DirectML, ONNX RT, WebNN
Litografia da CPU	TSMC N3B

Informações complementares

Status	Launched
Data de introdução	Q1'25
Opções integradas disponíveis	Yes
Condições de uso	PC/Client/Tablet, Workstation
Ficha técnica	Ver agora

Especificações de memória

Comentários

Tamanho máximo de memória (de acordo com o tipo de memória)	256 GB
Tipos de memória	Up to DDR5 6400 MT/s
Nº máximo de canais de memória	2
Compatibilidade com memória ECC ‡	Yes

GPU Specifications

GPU Name‡	Intel® Graphics
Frequência da base gráfica	300 MHz
Máxima frequência dinâmica da placa gráfica	1.95 GHz
TOPS de pico da GPU (Int8)	8
Saída gráfica	eDP1.4b, DP 2.1 UHBR20, HDMI 2.1 FRL
Xᵉ-cores	4
Resolução máxima (HDMI)‡	4096 x 2304 @ 60Hz (HDMI 2.1 TMDS) 7680 x 4320 @ 60Hz (HDMI 2.1 FRL)

Comentários

Resolução máxima (DP)‡	7680 x 4320 @ 60Hz
Resolução máxima (eDP - tela plana integrada)‡	3840 x 2400 @ 120Hz
Suporte para DirectX*	12
Suporte para OpenGL*	4.5
Suporte a OpenCL*	3
Codificação/Decodificação de hardware H.264	Yes
Codificação/Decodificação de hardware H.265 (HEVC)	Yes
Codificação/Decodificação AV1	Yes
Intel® Quick Sync Video	Yes
Nº de monitores aceitos ‡	4
ID do dispositivo	0x7D67
Intel® Deep Learning Boost (Intel® DL Boost) na GPU	Yes
Frameworks de software de IA suportados pela GPU	OpenVINO™, WindowsML, DirectML, ONNX RT, WebGPU

Comentários

Especificações da NPU

Nome da NPU‡	Intel® AI Boost
TOPS de pico da NPU (Int8)	13
Suporte à esparsidade	Yes
Suporte para efeitos do Windows Studio	Yes
Frameworks de software de IA suportados pela NPU	OpenVINO™, WindowsML, DirectML, ONNX RT, WebNN

Opções de expansão

Revisão da Interface de Mídia Direta (DMI)	4
Nº máx. de pistas DMI	8
Intel® Thunderbolt™ 4	Yes
Escalabilidade	1S Only
Revisão de PCI Express	5.0 and 4.0

Comentários

Configurações PCI Express ‡	Up to 1x16+2x4, 2x8+2x4, 1x8+4x4
Nº máximo de linhas PCI Express	24

Especificações de encapsulamento

Soquetes suportados	FCLGA1851
Especificação de solução térmica	PCG 2022C
Temperatura máxima de operação	105 °C
Tamanho do pacote	45 mm x 37.5 mm

Tecnologias avançadas

Acelerador Gaussiano e Neural da Intel®	3.5
Intel® Thread Director	Yes
Tecnologia Intel® Speed Shift	Yes
Tecnologia Intel® Turbo Boost Max 3.0 ‡	Yes

Comentários

Tecnologia Intel® Turbo Boost ‡	2.0
Tecnologia Hyper-Threading Intel® ‡	No
Intel® 64 ‡	Yes
Conjunto de instruções	64-bit
Extensões do conjunto de instruções	Intel® SSE4.1, Intel® SSE4.2, Intel® AVX2
Estados ociosos	Yes
Tecnologia Enhanced Intel SpeedStep®	Yes
Tecnologias de monitoramento térmico	Yes
Intel® Volume Management Device (VMD - Dispositivo de Gerenciamento de Volume)	Yes

Segurança e confiabilidade

Elegibilidade Intel vPro® ‡	Intel vPro® Enterprise
Intel® Threat Detection Technology (TDT)	Yes
Intel® Active Management Technology (AMT) ‡	Yes

Comentários

Intel® Standard Manageability (ISM) ‡	Yes
Intel® Remote Platform Erase (RPE) ‡	Yes
Intel® One-Click Recovery ‡	Yes
Chave Segura	Yes
Intel® Control-Flow Enforcement Technology	Yes
Intel® Total Memory Encryption - Multi Key	Yes
Novas instruções Intel® AES	Yes
Intel® Trusted Execution Technology ‡	Yes
Bit de desativação de execução ‡	Yes
Intel® OS Guard	Yes
Intel® Boot Guard	Yes
Controle de Execução baseado em Modo (MBEC — Mode-based Execute Control)	Yes
Programa Intel® da Plataforma de Imagem Estável (SIPP)	Yes

Comentários

Tecnologia de Virtualização Intel® com proteção de redirecionamento (VT-rp) ‡	Yes
Tecnologia de virtualização Intel® (VT-x) ‡	Yes
Tecnologia de virtualização Intel® para E/S dirigida (VT-d) ‡	Yes
Intel® VT-x com Tabelas de páginas estendidas (EPT) ‡	Yes

Product and performance information

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Comentários

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Os gráficos Intel® Arc™ estão disponíveis apenas em sistemas selecionados equipados com processadores Intel® Core™ Ultra série V com design térmico do sistema qualificado ou sistemas selecionados equipados com o processador Intel® Core™ Ultra série H, com pelo menos 16 GB de memória do sistema em uma configuração de canal duplo. É necessária a habilitação do OEM. Outras configurações de sistema com processador Intel® Core™ Ultra apresentam gráficos Intel®. Verifique com o OEM ou varejista os detalhes da configuração do sistema.

Apenas gráficos Intel® Iris® Xe: para usar a marca Intel® Iris® Xe, o sistema deve ser preenchido com memória de 128 bits (canal duplo). Caso contrário, use a marca Intel® UHD.

Frequência máxima de turbo refere-se à frequência máxima do processador de núcleo único que pode ser atingida com a Tecnologia Intel® Turbo Boost. Mais informações estão disponíveis no site https://www.intel.com/content/www/br/pt/architecture-and-technology/turbo-boost/turbo-boost-technology.html.

Consulte https://www.intel.com.br/content/www/br/pt/architecture-and-technology/hyper-threading/hyper-threading-technology.html?wapkw=hyper+threading para obter mais informações, incluindo detalhes sobre quais processadores são compatíveis com a Tecnologia Hyper-Threading Intel®.

Os processadores compatíveis com a computação de 64 bits na arquitetura Intel® requerem BIOS habilitados para arquitetura Intel 64.

Alguns produtos suportam as novas instruções AES com uma atualização da Configuração do processador, em particular, i7-2630QM/i7-2635QM, i7-2670QM/i7-2675QM, i5-2430M/i5-2435M, i5-2410M/i5-2415M. Favor entrar em contato com o OEM para o BIOS que inclui a mais recente atualização da Configuração do processador.

Receba as últimas novidades na sua caixa de entrada

Inscreva-se

Empresa

Links rápidos

Informações legais

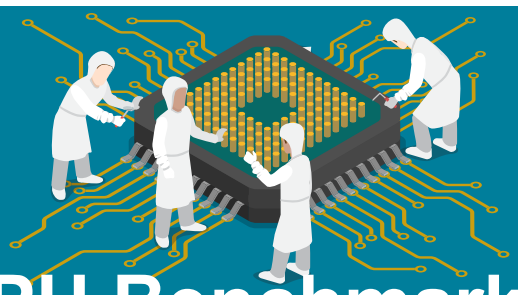
Suporte e Recursos

Comentários

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Comentários



CPU Benchmarks

Over 1,000,000 CPUs Benchmarked

Intel Core Ultra 7 265

Benchmarks for the Intel Core Ultra 7 265 can be found below. Release dates, price and performance comparisons are also listed when available. This is made using thousands of PerformanceTest benchmark results and is updated daily.

- The first graph shows the relative performance of the CPU compared to the 10 other common (single) CPUs in terms of PassMark CPU Mark.
- The 2nd graph shows the value for money, in terms of the CPUMark per dollar.
- The pricing history data shows the price for a single Processor. For multiple Processors, multiply the price shown by the number of CPUs.

Is the Intel Core Ultra 7 265 Good for Gaming?

This is relatively new CPU that contains 20 Cores and 20 Threads. The Intel Core Ultra 7 265 also has great single threaded performance that will serve well in games. Paired with a good videocard, *is this CPU Good for Gaming?* Yes, this is a high end chip that would be great for gaming. [More ...]



Intel Core Ultra 7 265	Average CPU Mark
Description: Intel Graphics	
Class: Desktop	**Socket:** FCLGA1851
Total Cores: 20 Cores, 20 Threads	
Performance Cores: 8 Cores, 8 Threads, 2.4 GHz Base, 5.3 GHz Turbo	
Efficient Cores: 12 Cores, 12 Threads, 1.8 GHz Base, 4.6 GHz Turbo	
Typical TDP: 65 W	**TDP Up** : 182 W
Cache per CPU Package: L1 Instruction Cache: 8 x 64 KB L1 Data Cache: 8 x 48 KB	**Cache per Eff. CPU Package:** Eff. L1 Instruction Cache: 12 x 64 KB Eff. L1 Data Cache: 12 x 32 KB

Multithread Rating

49687

Single Thread Rating

4694

Samples: 2137*

*Margin for error: Low

+ COMPARE

L2 Cache: 8 x 3072 KB
L3 Cache: 30 MB

Eff. L2 Cache: 3 x 4096 KB

CPU Benchmarks

Supported)

Other names: Intel(R) Core(TM) Ultra 7 265, Intel Core Ultra 7 265

CPU First Seen on Charts: Q1 2025

CPUmark/$Price: 133.20

Overall Rank:
275th fastest in multithreading out of 6034 CPUs
37th fastest in single threading out of 6034 CPUs
62nd fastest in out of 1595 Desktop CPUs

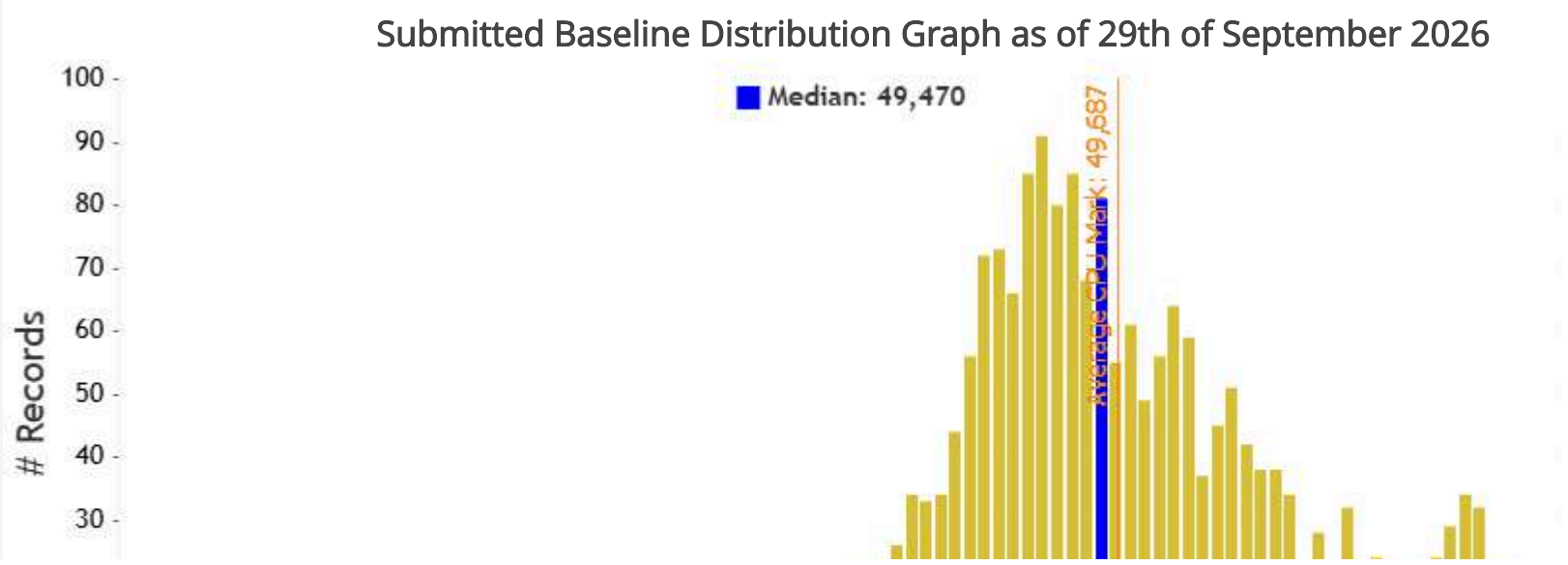
Last Price Change: $373.02 USD (2026-10-01)

CPU Test Suite Average Results for Intel Core Ultra 7 265

Integer Math	134,703 MOps/Sec
Floating Point Math	172,764 MOps/Sec
Find Prime Numbers	422 Million Primes/Sec
Random String Sorting	63,816 Thousand Strings/Sec
Data Encryption	40,426 MBytes/Sec
Data Compression	523,251 KBytes/Sec
Physics	2,912 Frames/Sec
Extended Instructions	41,513 Million Matrices/Sec
Single Thread	4,694 MOps/Sec

From submitted results to PerformanceTest V10 as of 1st of October 2026.

CPU Mark Distribution for Intel Core Ultra 7 265





CPU Benchmarks

From submitted results since PerformanceTest V10 as of 29th of September 2026.
For distribution graph only: Results are trimmed to exclude outliers by disregarding the bottom 1% and top 1% of submissions.

Merchant	Price	Purchase
amazon	$370.99 USD	BUY NOW!
newegg	NA	CPU Not Available. See Other Models

Note: PassMark Software may earn compensation for sales from links on this site through affiliate programs.

Machines with this CPU (or similar)



Dell Slim Desktop Intel Core Ultra 7 265 (20 Core) 32GB DDR5 RAM 1TB SSD — $1799.99 (www.amazon.com)



HP OmniDesk M03 Business Desktop PC, Intel Core Ultra 7 265, 32GB DDR5 RAM, 1TB SSD, 4-Monitor Support 4K, Wired KB & Mouse, Wi-Fi 6, Win11 Pro, Black, 64GB Flash Drive Bundle — $1219.79 (www.amazon.com)



Dell Tower Plus EBT2250 Desktop Computer - Series 2 Intel Core Ultra 7 265 20-Core Processor up to 5.3 GHz, 32GB DDR5 RAM, 1TB NVMe SSD, Intel UHD Graphics, Windows 11 Pro, Graphite - EBT 2250 — $1749.00 (www.amazon.com)

Note: PassMark Software may earn compensation for sales from links on this site through affiliate programs.

CPU Mark Relative to Top 10 Common Desktop CPUs

As of 1st of October 2026 - Higher results represent better performance

Processor	Average CPU Mark
Intel Core i9-14900K	58,198
Intel Core i9-13900K	58,065
Intel Core Ultra 7 265	49,687
AMD Ryzen 7 7800X3D	34,287
Apple M4 10 Core	23,572
AMD Ryzen 5 5600X	21,821
Intel Core i5-12400F	19,539
Intel Core i9-9900K @ 3.60GHz	18,026
AMD Ryzen 5 3600	17,650

Apple M2 8 Core 3500 MHz		15,650

CPU Benchmarks

CPU Value (CPU Mark / $Price)

As of 1st of October 2026 - Higher results represent better value

Processor	CPU Mark / $Price	
AMD Ryzen 5 3600		174.22
AMD Ryzen 5 5600X		162.85
Intel Core Ultra 7 265		133.20
Intel Core i9-14900K		123.83
Intel Core i5-12400F		122.13
AMD Ryzen 7 7800X3D		107.15
Intel Core i9-13900K		92.46
Intel Core i9-9900K @ 3.60GHz		80.21
Apple M1 8 Core 3200 MHz		NA
Apple M2 8 Core 3500 MHz		NA
Apple M4 10 Core		NA

Single Thread Rating

As of 1st of October 2026 - Higher results represent better performance

Processor	Average Thread Rating	
Intel Core Ultra 7 265		4,694
Intel Core i9-14900K		4,690
Intel Core i9-13900K		4,595
Apple M4 10 Core		4,492
Apple M2 8 Core 3500 MHz		3,882
AMD Ryzen 7 7800X3D		3,761
Apple M1 8 Core 3200 MHz		3,672
Intel Core i5-12400F		3,485

AMD Ryzen 5 5600X		3,366

CPU Benchmarks

AMD Ryzen 5 3600		2,557

Last 5 Baselines for Intel Core Ultra 7 265

Most recent listed first

Baseline	CPU Mark	
BL3747542 - Sep 29 2026		37867
BL3747223 - Sep 29 2026		56384
BL3746956 - Sep 29 2026		45154
BL3744359 - Sep 28 2026		47995
BL3744260 - Sep 28 2026		57745

Additional baselines can be obtained using Windows version of PerformanceTest's Manage Baselines feature.

Popular comparisons for Intel Core Ultra 7 265

As of 1st of October 2026 - Higher results represent better performance

Processor	Average CPU Mark	
Intel Core Ultra 7 265		49,687
Intel Core Ultra 7 265K vs Intel Core Ultra 7 265		58,566 *(+17.9%)*
Intel Core Ultra 7 265KF vs Intel Core Ultra 7 265		58,444 *(+17.6%)*
AMD Ryzen 9 9900X vs Intel Core Ultra 7 265		54,299 *(+9.3%)*
Intel Core Ultra 7 265F vs Intel Core Ultra 7 265		49,494 *(-0.4%)*
AMD Ryzen 9 5900XT vs Intel Core Ultra 7 265		43,851 *(-11.7%)*
AMD Ryzen 7 9800X3D vs Intel Core Ultra 7 265		39,918 *(-19.7%)*
AMD Ryzen 9 7900 vs Intel Core Ultra 7 265		48,010 *(-3.4%)*
Intel Core Ultra 5 245K vs Intel Core Ultra 7 265		43,046 *(-13.4%)*
Intel Core Ultra 7 270K Plus vs Intel Core Ultra 7 265		68,430 *(+37.7%)*
Intel Core Ultra 9 285 vs Intel Core Ultra 7 265		57,815 *(+16.4%)*
AMD Ryzen 9 9900X3D vs Intel Core Ultra 7 265		56,047 *(+12.8%)*

AMD Ryzen 9 7900X vs Intel Core Ultra 7 265		51,213 *(+3.1%)*

CPU Benchmarks

Is the Intel Core Ultra 7 265 Good for Gaming?

As of 1st of October 2026 - Higher results represent better performance

Processor	Relative Gaming Score	
AMD Ryzen 9 9950X3D2		15,418
AMD Ryzen 7 9850X3D		12,521
AMD Ryzen 9 9900X3D		12,389
AMD Ryzen 7 9800X3D		12,104
AMD Ryzen 7 PRO 9755X3D		12,028
AMD Ryzen 9 9950X3D		11,259
Intel Core Ultra 7 270K Plus		10,682
Intel Core Ultra 5 250K Plus		10,525
AMD Ryzen 5 7600X3D		10,512
AMD Ryzen 9 7900X3D		10,379
Intel Core Ultra 9 285K		10,355
AMD Ryzen 5 7500X3D		10,050
Intel Core Ultra 7 265		7,855

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Microsoft

Hardware certification report **Approved**

Private product ID:	**14033414543317977**
Shared product ID:	**402471761**
Submission ID:	**1152921505700110804**
Submission date:	**11/10/2025**
Completion date:	**11/10/2025**
Company:	**HP Inc.**
Product name:	**HP Z2 Tower G1i Workstation Desktop PC**
Category:	**System**
Product type:	**Desktop**
Qualification level:	**Certified for Microsoft Windows 11 Client family version 25H2, x64**
Marketing name:	**HP Z2 Tower G1i Workstation Desktop PC**

Microsoft Certified

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In these regular emails you will find the latest updates about Ubuntu and upcoming events where you can meet our team.***Close***

Your preferences have been successfully updated. ***Close notification***

Please try again or **file a bug report. <https://github.com/canonical/ubuntu.com/issues/new?template=ISSUE_TEMPLATE.yaml> *Close***

desktops › Z2 Tower G1i Workstation Desktop PC › Z2 Tower G1i Workstation Desktop PC (Intel Core Ultra 7 265)

HP Z2 Tower G1i Workstation Desktop PC (Intel Core Ultra 7 265)

Desktop system certified with Ubuntu

Ubuntu 24.04 LTS

Pre-installed in some regions with a custom Ubuntu image that takes advantage of the system's hardware features and may include additional software. Standard images of Ubuntu may not work well, or at all.

This system requires all available updates to be applied in order to work properly.

Kernel	6.11.0-1013-oem
BIOS	HP: X51 Ver. 01.03.04 (UEFI)

Hardware

Processor	• Intel Corp. Intel(R) Core(TM) Ultra 7 265
Network	• Intel Corp. 8086:550c pci (8086:550c 103c:8d3c)
Video	• Intel Corp. Arrow Lake-S [Intel Graphics] pci (8086:7d67 103c:8d3c)
Wireless	• Intel Corp. Wi-Fi 7(802.11be) AX1775*/AX1790*/BE20*/BE401/BE1750* 2x2 pci (8086:272b 8086:00f4)

All hardware details ›

1 more certified configuration in the Z2 Tower G1i Workstation Desktop PC platform ›

Issues? Let us know

If there is an issue with the information for this system, **please let us know <https://answers.launchpad.net/ubuntu-certification/+addquestion?field.title=Feedback on the HP Z2 Tower G1i Workstation Desktop PC (Intel Core Ultra 7 265) (202501-36173)>** .

ENERGY STAR CERTIFIED
Computers

HP - HP Z2 Tower G1i Workstation ENERGY STAR : HP Z2 Tower G1i Workstation

Specifications

ENERGY STAR Unique ID:	4429284
Brand Name:	HP
Model Name:	HP Z2 Tower G1i Workstation ENERGY STAR
Model Number:	HP Z2 Tower G1i Workstation
Type:	Workstation
Operating System Name:	Windows 11
Physical CPU Cores (count):	24
Processor Brand:	Intel
Processor Name:	Core Ultra 9 285K
System Memory (GB):	192.0
TEC of Model (kWh):	19.3
Long Idle (watts):	6.6
Off Mode (watts):	0.7
Short Idle (watts):	44.5
Sleep Mode (watts):	6.6
Ethernet Capability:	Yes
WOL (Wake on LAN) From Sleep:	Shipped Enabled Under All Conditions
Date Available On Market:	2025-04-07
Date Certified:	2025-05-30
Markets:	United States, Switzerland, Taiwan, Japan, Canada
ENERGY STAR Certified:	Yes

Captured On:
10/01/2026

HP Z2 Tower G1i Workstation ENERGY STAR

Product Summary:

Product Type:	**Workstation**
Registered In:	**Brazil**
Manufacturer:	**HP**
EPEAT Version:	**1.0**
EPEAT Tier:	**Gold**
Registration Date:	**2025-04-11**
Product Status:	**Active**
EPEAT Climate+:	**Achieved April 11, 2025.**
Exceptions:	**Configurations that are not ENERGY STAR qualified do not meet required criterion 4.5.1.1.**
Universal Product Code(s):	**198701935988, 198701936022, 198701936046**

All unique product identifiers existing for this product may not be listed here. If the unique product identifier you are looking for is not listed, please contact EPEAT at EPEAT@GEC.org.

EPEAT Tier Score Detail

For a product to be listed on the EPEAT Registry, it must, at a minimum, meet the applicable "required" criteria. Click here to see a list of the required criteria for this product category.

This product has met the necessary required criteria.

Along with required criteria, products can also meet optional criteria and score optional points. It is not required for a product to achieve any optional points.

Products that meet all required criteria and achieve **less than 50%** of the optional points are rated at **EPEAT Bronze**	Products that meet all required criteria and achieve **50 - 74%** of the optional points are rated at **EPEAT Silver**	Products that meet all required criteria and achieve **75 - 100%** of the optional points are rated at **EPEAT Gold**

The optional criteria for this product category and optional points achieved by this product are listed below.

Optional Criteria	Scores
4.1 Substance Management	**13 / 16**
(4.1.2.1) Restrictions of the use of cadmium	1
(4.1.4.1) Restriction of the use of beryllium	1
(4.1.5.2) Further reduction of bromine and chlorine content of plastic materials	1
(4.1.6.1) Avoidance or elimination of substances on EU REACH Annex XIV (authorization list)	1
(4.1.6.2) Reduction of substances on the EU REACH Candidate List of SVHCs	0
(4.1.8.1) Chemical assessment and selection	1
(4.1.9.1) IEC 62474 declarable substances	1

(4.1.9.2) Requesting substance inventory	1
(4.1.9.3) Acquiring substance inventory	2
(4.1.10.1) Reduce fluorinated gas emissions from flat panel display manufacturing	2
(4.1.10.2) Reduce fluorinated greenhouse emissions from semiconductor production	2

4.2 Materials Selection — 3 / 3

(4.2.1.2) Higher post-consumer recycled, ITE-derived post-consumer recycled plastic, or bio-based content	2
(4.2.1.3) Post-consumer recycled, ITE-derived post-consumer recycled plastic	1

4.4 Product longevity/life-cycle extension — 1 / 2

(4.4.2.2) Publicly available service information	0
(4.4.2.5) Product upgradeability and repairability	1

4.5 Energy Conservation — 1 / 2

(4.5.1.3) Energy efficiency for internal power supplies	1

4.7 Packaging — 2 / 2

(4.7.3.2) Packaging composed of recycled, and/or biobased, and/or sustainably forested content	1
(4.7.4.1) Offering of a bulk packaging option	1

4.8 Life cycle assessment and carbon footprint — 6 / 6

(4.8.1.1) Product life cycle assessment and public	2

disclosure of analyses	
(4.8.1.2) Product specific greenhouse gas emissions—product carbon footprint	2
(4.8.2.1) Corporate carbon footprint	1
(4.8.2.2) Greenhouse gas emissions from product transport	1

4.9 Corporate Environmental Performance

9 / 9

(4.9.1.2) Third party certified environmental management system (EMS) for supplier manufacturing facilities	1
(4.9.2.2) Corporate environmental performance reporting by suppliers	1
(4.9.3.1) Energy management system/energy performance improvement –manufacturers	1
(4.9.3.2) Energy management system/energy performance improvement for suppliers	2
(4.9.4.1) Renewable energy use by manufacturer	2
(4.9.4.2) Renewable energy use by manufacturer suppliers	2

4.10 Corporate social responsibility

4 / 6

(4.10.1.1) Socially responsible manufacturing: Labor	1
(4.10.1.2) Socially responsible manufacturing: OHS	1
(4.10.2.2) Participation in an in-region program that advances responsible sourcing of conflict minerals	1
(4.10.2.3) Smelter and refiner participation in OECD-aligned third party mechanisms	1

TOTAL OPTIONAL CRITERIA SCORE:	**39 / 46**

Please note that it is not required for a product to achieve any optional points.

Some optional criteria may not be applicable to a product. Optional criteria that are not applicable (N/A) to the product are not included in the Total Optional Criteria Score, and are not reflected above.

For any questions, comments, or feedback regarding the EPEAT Registry, please contact us.

Computers & Displays Product Category Required Criteria

(4.1.1)	Product carbon footprint disclosure and assurance
(4.1.1.1)	Conformance with European Union ROHS Directive substance restrictions
(4.1.2)	Corporate GHG Inventory
(4.1.3.1)	Elimination of intentionally added mercury in light sources
(4.1.5.1)	Reduction of bromine and chlorine content in plastic parts >25 grams
(4.1.7.1)	Compliance with provisions of EU Battery Directive
(4.2.1)	Manufacturer GHG reduction target aligned with climate science
(4.2.1.1)	Minimum post-consumer recycled plastic, ITE-derived post-consumer recycled plastic or bio-based plastic content
(4.3.1)	Communication of energy management requirements for

	key component facilities
(4.3.1.1)	Identification of materials and components requiring selective treatment
(4.3.2.1)	Plastic parts compatible with recycling
(4.3.2.2)	Plastic parts separable for recycling
(4.4.1)	Manufacturer use of renewable electricity
(4.4.1.1)	Service support
(4.4.2.1)	Removal of external enclosure
(4.4.2.3)	Spare parts
(4.4.2.4)	Battery replacement and information
(4.5.1.1)	Conformance to current ENERGY STAR program requirements
(4.5.1.2)	Lowest Power Mode limit
(4.6.1)	Conformance with applicable ENERGY STAR® product eligibility criteria
(4.6.1.1)	Provision of product take-back services
(4.6.2)	External power supply energy efficiency
(4.6.2.1)	Provision of a removable rechargeable battery take-back program
(4.6.3)	Battery charger system energy efficiency
(4.6.3.1)	End-of-life processing
(4.7.1.1)	Elimination of intentionally added heavy metals in packaging
(4.7.1.2)	Elimination of elemental chlorine as a bleaching agent in packaging material
(4.7.2.1)	Separable packaging material
(4.7.2.2)	Plastics marked in packaging materials

(4.7.3.1)	Recycled content in wood-based fiber packaging
(4.9.1.1)	Third party certified environmental management system (EMS) for design and manufacturing organizations
(4.9.2.1)	Corporate environmental performance reporting by manufacturer
(4.10.2.1)	Public Disclosure regarding conflict minerals in products

(en) DECLARATION OF CONFORMITY / (de) KONFORMITÄTSERKLÄRUNG / (fr) DÉCLARATION DE CONFORMITÉ / (es) DECLARACIÓN DE CONFORMIDAD

DoC #: FCW-2403A, FCW-2403B- R3

(en) Manufacturer's Name (de) Herstellername (fr) Nom du fabricant (es) Nombre del fabricante	**HP Inc.**
(en) Manufacturer's Address (de) Adresse des Herstellers (fr) Adresse du fabricant (es) Dirección del fabricante	**1501 Page Mill Road, Palo Alto, CA 94304 USA**
(en) declare, under its sole responsibility that the product (de) erklärt, dass das Produkt (fr) déclare que le produit (es) declara que el producto	
(en) Product Name and Model[5.2] (de) Produktname und Modell[5.2] (fr) Nom du produit et modèle[5.2] (es) Nombre del producto y modelo[5.2]	**Workstation; HP Z2 Tower G1i Workstation**
(en) Regulatory Model Number[5.1] (de) Regulatorische Modell Nummer[5.1] (fr) Numéro de modèle réglementaire[5.1] (es) Número de modelo reglamentario[5.1]	**FCW-2403A, FCW-2403B**
(en) Product Options (de) Produktoptionen (fr) Options du produit (es) Opciones del producto	**(en) Please See ANNEX 1** **(de) Siehe Anhang I** **(fr) Voir l'annexe I** **(es) Ver Anexo I**

(en) conforms to the following Product Specifications and Regulations
(de) entspricht den folgenden Produktspezifikationen und Vorschriften
(fr) est conforme aux normes et règlements de produit suivants
(es) cumple con las siguientes especificaciones y normas de productos

(en) Safety / (de) Sicherheit / (fr) Sécurité / (es) Seguridad

IEC 60950-1:2005 +A1:2009 +A2:2013
IEC 62368-1:2018
IEC 62368-1:2014
EN IEC 62368-1:2020 +A11:2020
EN 50663:2017
EN 50665:2017
EN 62479:2010
EN 62311:2008
EN IEC 62311:2020
EN 60825-1:2014 +A11:2021
EN 62471:2008
EN 50689:2021

(en) EMC / (de) EMV / (fr) EMC / (es) EMC

EN 301 489-1 V2.2.3
EN 301 489-3 v2.3.2
EN 301 489-17 V3.3.1
EN 55032:2015+A11:2020 (Class B)
CISPR 32:2015 (Class B)
CISPR 32:2015+A1:2019 (Class B)
EN 55035:2017+A11:2020
EN 61000-3-2:2014
EN 61000-3-3:2013 +A1:2019
ICES-003, Issue 7
FCC CFR 47 Part 15

(en) Spectrum / (de) Frequenzspektrum / (fr) Spectre radioélectrique / (es) Espectro radioeléctrico

EN 300 328 V2.2.2
EN 301 893 V2.1.1
EN 300 440 V2.2.1
EN 303 687 V1.1.1

(en) Ecodesign / (de) Öko-Design / (fr) Écoconception / (es) Diseño ecológico

Regulation (EU) No. 617/2013
Regulation (EU) 2023/826
EN IEC 62623:2022
EPRI 306 Generalized Internal Power Supply Efficiency Test Protocol, Rev. 6.6
EN 50564:2011
IEC 62301:2011

RoHS

EN IEC 63000:2018

(en) Cybersecurity / (de) Cybersicherheit / (fr) Cybersécurité / (es) Ciberseguridad

EN 18031-1: 2024
EN 18031-2: 2024

(en) Accessibility / (de) Barrierefreiheit / (fr) Accessibilité / (es) Accesibilidad

EN 301 549 V3.2.1

(en) DECLARATION OF CONFORMITY / (de) KONFORMITÄTSERKLÄRUNG / (fr) DÉCLARATION DE CONFORMITÉ / (es) DECLARACIÓN DE CONFORMIDAD

DoC #: FCW-2403A, FCW-2403B- R3

(en) The product herewith complies with the requirements of the following and carries the CE-marking accordingly (de) Das Produkt hiermit entspricht den Anforderungen der folgenden und trägt das entsprechende CE-Kennzeichen (fr) Le produit est conforme aux exigences suivantes et porte le marquage CE en conséquence (es) El producto presente cumple con los requisitos de lo siguiente y conlleva el marcado CE en consecuencia	**Radio Equipment Directive 2014/53/EU** **Ecodesign Directive 2009/125/EU** **RoHS Directive 2011/65/EU** **Battery Regulation 2023/1542** **European Accessibility Act 2019/882/EU**
UK ONLY: This product herewith complies with the requirements of the following and carries the UKCA marking.	**Radio Equipment Regulations 2017** **Ecodesign for Energy-Related Products Regulations 2010** **Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012**

U.S. ONLY: This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

(en) Additional Information
(de) Zusätzliche Information
(fr) Informations complémentaires
(es) Información Adicional:

5.1)
(en) This product is assigned a Regulatory Model Number which stays with the regulatory aspects of the design. The Regulatory Model Number is the main product identifier in the regulatory documentation and test reports, this number should not be confused with the marketing name or the product numbers.
(de) Für die regulatorischen Aspekte zum Design wurde diesem Produkt eine Regulatorische Modell Nummer zugeordnet. Zur Produktidentifizierung in der regulatorischen Dokumentation und den Prüfberichten wird diese Regulatorische Modell Nummer verwendet und sollte nicht zu Verwechslungen von Marketingnamen oder Produktnummern führen.
(fr) A ce produit est assigné un numéro de modèle réglementaire qui est associé avec les aspects réglementaires liés à la conception du produit. Le numéro de modèle réglementaire est le principal identificateur du produit dans la documentation réglementaire et les rapports d'essais, ce nombre ne doit pas être confondu avec le nom commercial ou les numéros de produit.
(es) A este producto se asigna un número de modelo regulatorio que cumple con los aspectos regulatorios del diseño. El número de modelo normativo es el identificador principal del producto en la documentación reglamentaria e informes de ensayo, este número no se debe confundir con el nombre comercial o los números del producto.

5.2)
(en) This product was tested in a typical HP environment in conjunction with an HP host system.
(de) Dieses Produkt wurde in einer typischen HP Konfiguration getestet, in Verbindung mit einem HP-Hostsystem.
(fr) Ce produit a été testé dans un environnement typique HP, en conjonction avec un système hôte HP.
(es) Este producto se ha probado en un entorno típico de HP, en combinación con un sistema host HP..

(en) The listed Notified Body issued the listed EU-type examination certificate, according to Annex III, for the essential requirement of article 3.2 of the RED Directive. (de) Die aufgeführte angegebene Einrichtung hat das aufgeführte EU-Prüfungszertifikat gemäß Anhang III für die wesentliche Anforderung von Artikel 3.2 der Red Richtlinie herausgegeben. (fr) L'organisme notifié répertorié a délivré le certificat d'examen de type UE répertorié, selon l'annexe III, pour l'exigence essentielle de l'article 3.2 de la directive rouge. (es) El organismo notificado listado emitió el certificado de examen de tipo UE listado, de acuerdo con el Anexo III, para el requisito esencial del Artículo 3.2 de la Directiva Roja.	**Notified Body: TIMCO Engineering, Inc.** **Notified Body Number: 1177** **Certificate ID: E1177-254946**
UK ONLY: The listed Notified Body issued the listed UK-type examination certificate, according to Annex III, for the essential requirement of article 3.2 of the RED Directive.	**Notified Body: TIMCO Engineering, Inc.1177** **Notified Body Number:** **Certificate ID: U1177-252795**

HP Inc.
1501 Page Mill Road, Palo Alto, CA
Gilles Soulard, Manager
Product Compliance Center

Palo Alto, CA

Gilles Soulard

(en) DECLARATION OF CONFORMITY / (de) KONFORMITÄTSERKLÄRUNG / (fr) DÉCLARATION DE CONFORMITÉ / (es) DECLARACIÓN DE CONFORMIDAD

DoC #: FCW-2403A, FCW-2403B- R3

10-07-2025

Gilles Soulard, Manager
Product Compliance Engineering

(en) Local contact for regulatory topics only
(de) Lokale Ansprechpartner für Richtlinien und Bestimmungen
(fr) Contact local uniquement pour les réglementations
(es) Contacto local únicamente para temas de normativa:

EU: HP REG 23010, 08028 Barcelona, Spain
UK: HP Inc UK Ltd, Regulatory Enquiries, Earley West, 300 Thames Valley Park Drive, Reading, RG6 1PT
U.S.: HP Inc., 1501 Page Mill Road, Palo Alto 94304, U.S.A. 650-857-1501
Email: reg@hp.com www.hp.eu/certificates

(en) DECLARATION OF CONFORMITY / (de) KONFORMITÄTSERKLÄRUNG / (fr) DÉCLARATION DE CONFORMITÉ / (es) DECLARACIÓN DE CONFORMIDAD

DoC #: FCW-2403A, FCW-2403B- R3

(en) ANNEX I **(de) ANHANG I** **(fr) ANNEXE I** **(es) ANEXO I**	
(en) Regulatory Model Number (RMN) (de) Regulatorische Modell Nummer (RMN) (fr) Numéro de modèle réglementaire (RMN) (es) Número de modelo reglamentario (RMN)	**FCW-2403A, FCW-2403B**
1 (en) DESCRIPTION | 2 (en) OPTION RMN* 1 (de) BESCHREIBUNG | 2 (de) RMN OPTION* 1 (fr) DESCRIPTION | 2 (fr) RMN OPTION* 1 (es) DESCRIPCIÓN | 2 (es) RMN OPCIÓN*	

1	2
2.4, 5, 6 GHz WLAN + Bluetooth Combo	BE200NGW AX211NGW

(en) *Where X represents any alpha numeric character.
(de) *Wo X steht für eine beliebige alphanumerische Zeichen
(fr) *Où X représente n'importe quel caractère alphanumérique
(es) *Donde X representa cualquier carácter alfanumérico

(it) DICHIARAZIONE DI CONFORMITA' / (pt) DECLARAÇÃO DE CONFORMIDADE / (pl) DEKLARACJA ZGODNOŚCI / (ro) DECLARATIE DE CONFORMITATE

DoC #: FCW-2403A, FCW-2403B- R3

(it) Nome del Fornitore (pt) Nome do fabricante (pl) Nazwa producenta (ro) Numele producătorului	**HP Inc.**
(it) Indirizzo del Fornitore (pt) Endereço do fabricante (pl) Adres producenta (ro) Adresa producătorului	**1501 Page Mill Road, Palo Alto, CA 94304 USA**
(it) dichiara che il prodotto (pt) declara, que o produto (pl) oświadcza, że produkt (ro) declară că produsul	
(it) Nome del prodotto e modello[5.2] (pt) Nome do produto e modelo[5.2] (pl) Nazwa produktu i modelu[5.2] (ro) Nume produs și model[5.2]	**Workstation; HP Z2 Tower G1i Workstation**
(it) Numero di modello normativo[5.1] (pt) Número de Modelo de Regulamentação[5.1] (pl) Numer modelu[5.1] (ro) Numărul de model de reglementare[5.1]	**FCW-2403A, FCW-2403B**
(it) Opzioni del prodotto (pt) Opções do produto (pl) Opcje produktu (ro) Opțiuni de produse	**(it) Vedere Allegato I** **(pt) Ver anexo I** **(pl) Patrz załącznik I** **(ro) A se vedea anexa I**

(it) è conforme alle seguenti specifiche e regolamenti di prodotto
(pt) está em conformidade com as seguintes especificações e regulamentos do produto
(pl) jest zgodny z następującymi specyfikacjami produktu i rozporządzeń
(ro) în conformitate cu următoarele specificații și regulamentelor de produse

(it) Sicurezza / (pt) Segurança / (pl) Bezpieczeństwo / (ro) Siguranță	**(it) EMC / (pt) EMC / (pl) EMC / (ro) EMC**	**(it) Spettro Radio / (pt) Espectro de radiofrequências / (pl) Widmo radiowe / (ro) Spectrului de frecvențe radio**
IEC 60950-1:2005 +A1:2009 +A2:2013	EN 301 489-1 V2.2.3	EN 300 328 V2.2.2
IEC 62368-1:2018	EN 301 489-3 v2.3.2	EN 301 893 V2.1.1
IEC 62368-1:2014	EN 301 489-17 V3.3.1	EN 300 440 V2.2.1
EN IEC 62368-1:2020 +A11:2020	EN 55032:2015+A11:2020 (Class B)	EN 303 687 V1.1.1
EN 50663:2017	CISPR 32:2015 (Class B)	
EN 50665:2017	CISPR 32:2015+A1:2019 (Class B)	
EN 62479:2010	EN 55035:2017+A11:2020	
EN 62311:2008	EN 61000-3-2:2014	
EN IEC 62311:2020	EN 61000-3-3:2013 +A1:2019	
EN 60825-1:2014 +A11:2021	ICES-003, Issue 7	
EN 62471:2008	FCC CFR 47 Part 15	
EN 50689:2021		

(it) Ecodesign / (pt) ecodesign / (pl) Ekoprojektu / (ro) ecodesign
Regulation (EU) No. 617/2013
Regulation (EU) 2023/826
EN IEC 62623:2022
EPRI 306 Generalized Internal Power Supply Efficiency Test Protocol, Rev. 6.6
EN 50564:2011
IEC 62301:2011

RoHS
EN IEC 63000:2018

(it) Cibersicurezza / (pt) Cibersegurança / (pl) Cyberbezpieczeństwa / (ro) Securitate cibernetică
EN 18031-1: 2024
EN 18031-2: 2024

(it) Accessibilità / (pt) Acessibilidade / (pl) Dostępność / (ro) Accesibilitate
EN 301 549 V3.2.1

(it) DICHIARAZIONE DI CONFORMITA' / (pt) DECLARAÇÃO DE CONFORMIDADE / (pl) DEKLARACJA ZGODNOŚCI / (ro) DECLARATIE DE CONFORMITATE

DoC #: FCW-2403A, FCW-2403B- R3

(it) Il prodotto con la presenza è conforme ai requisiti di quanto segue e trasporta di conseguenza il marchio CE (pt) O produto contraria os requisitos do seguinte e carrega o marco CE de acordo (pl) Produkt jest zgodny z wymogami następujących i odpowiednio przenosi znakowanie CE (ro) Produsul de aici respectă cerințele următoarelor și transportă în consecință marcare CE în consecință	**Radio Equipment Directive 2014/53/EU** **Ecodesign Directive 2009/125/EU** **RoHS Directive 2011/65/EU** **Battery Regulation 2023/1542** **European Accessibility Act 2019/882/EU**
UK ONLY: This product herewith complies with the requirements of the following and carries the UKCA marking.	**Radio Equipment Regulations 2017** **Ecodesign for Energy-Related Products Regulations 2010** **Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012**

U.S. ONLY: This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

(it) Informazioni aggiuntive
(pt) Informações adicionais
(pl) Dodatkowe informacje
(ro) Informații suplimentare

5.1)
(it) A questo prodotto è assegnato un Numero di modello normativo (RMN) che rimane con gli aspetti normativi della progettazione. Il numero di modello normativo è l'identificativo principale del prodotto nella documentazione normativa e rapporti di prova, questo numero non deve essere confuso con il nome commerciale o il numero di prodotto.
(pt) Este produto recebeu um Número de modelo de regulamentação que fica com os aspectos regulatórios do design. O Número de Modelo de Regulamentação é o identificador principal do produto na documentação regulamentar e relatórios de ensaio, este número não deve ser confundido com o nome comercial ou os números dos produtos.
(pl) Produkt ten został przypisany numer modelu z aspektów regulacyjnych projekt. Numer modelu jest głównym identyfikatorem produktu w dokumentacji normatywnej i raporty z badań, liczba ta nie powinna być mylona z nazwą handlową lub też liczby produktów.
(ro) Acestui produs li este atribuit un număr de model de reglementare asociat cu aspectele regulatorii de proiectare. Numărul de model de reglementare este identificatorul principal al produsului în documentația de reglementare și rapoarte de testare, acest număr nu trebuie confundat cu numele de marketing sau numarul de produs.

5.2)
(it) Questo prodotto è stato testato in un tipico ambiente HP , in combinazione con un sistema host HP.
(pt) Este produto foi testado em um ambiente típico de HP , em conjunto com um sistema hospedeiro HP.
(pl) Produkt był testowany w typowym środowisku HP, w połączeniu z systemem gospodarza HP , w połączeniu z systemem hosta HP.
(ro) Acest produs a fost testat într-un mediu tipic HP împreună cu un sistem gazdă HP , în legătură cu un sistem gazdă HP.

(it) L'organismo notificato elencato ha emesso il certificato di esame di tipo UE elencato, secondo l'allegato III, per il requisito essenziale dell'articolo 3.2 della direttiva rossa. (pt) O órgão notificado listado emitiu o certificado de exame do tipo UE listado, de acordo com o Anexo III, para o requisito essencial do artigo 3.2 da Diretiva Vermelha. (pl) Wymieniona notowana organ wydał wymieniony certyfikat egzaminacyjny typu UE, zgodnie z załącznikiem III, dla niezbędnego wymogu art. 3.2 Czerwonej Dyrektywy. (ro) Organul notificat listat a emis certificatul de examinare listat de tip UE, conform anexei III, pentru cerința esențială a articolului 3.2 din Directiva Roșie.	**Notified Body: TIMCO Engineering, Inc.** **Notified Body Number: 1177** **Certificate ID: E1177-254946**
UK ONLY: The listed Notified Body issued the listed UK-type examination certificate, according to Annex III, for the essential requirement of article 3.2 of the RED Directive.	**Notified Body: TIMCO Engineering, Inc.1177** **Notified Body Number:** **Certificate ID: U1177-252795**

HP Inc.
1501 Page Mill Road, Palo Alto, CA
Gilles Soulard, Manager
Product Compliance Center

Palo Alto, CA
10-07-2025

Gilles Soulard

Gilles Soulard, Manager
Product Compliance Engineering

(it) Contatto locale solo per informazioni sulla conformità al marchio CE

(it) DICHIARAZIONE DI CONFORMITA' / (pt) DECLARAÇÃO DE CONFORMIDADE / (pl) DEKLARACJA ZGODNOŚCI / (ro) DECLARATIE DE CONFORMITATE

DoC #: FCW-2403A, FCW-2403B- R3

(pt) O contato local para tópicos regulamentares apenas
(pl) Lokalny kontakt na temat przepisów
(ro) Persoană de contact locală numai pentru subiecte de reglementare:

EU: HP REG 23010, 08028 Barcelona, Spain
UK: HP Inc UK Ltd, Regulatory Enquiries, Earley West, 300 Thames Valley Park Drive, Reading, RG6 1PT
U.S.: HP Inc., 1501 Page Mill Road, Palo Alto 94304, U.S.A. 650-857-1501
Email: reg@hp.com www.hp.eu/certificates

(it) DICHIARAZIONE DI CONFORMITA' / (pt) DECLARAÇÃO DE CONFORMIDADE / (pl) DEKLARACJA ZGODNOŚCI / (ro) DECLARATIE DE CONFORMITATE

DoC #: FCW-2403A, FCW-2403B- R3

(it) ALLEGATO I **(pt) ANEXO I** **(pl) ZAŁĄCZNIK I** **(ro) ANEXA I**	
(it) Numero di modello normativo (RMN) (pt) Número de Modelo de Regulamentação (RMN). (pl) Numer modelu (RMN) (ro) Numărul de model de reglementare (RMN)	**FCW-2403A, FCW-2403B**
1 (it) DESCRIZIONE | 2 (it) RMN OPZIONE* 1 (pt) DESCRIÇÃO | 2 (pt) RMN OPÇÃO* 1 (pl) OPIS | 2 (pl) RMN OPCJA* 1 (ro) DESCRIERE | 2 (ro) RMN OPȚIUNE*	

1	2
2.4, 5, 6 GHz WLAN + Bluetooth Combo	BE200NGW AX211NGW

(it) *Dove X rappresenta qualsiasi carattere alfanumerico
(pt) *Onde X representa qualquer caractere alfanumérico
(pl) *W przypadku, gdy X oznacza dowolny alfa cyfrę
(ro) *În cazul în care X reprezintă orice caracter alfanumeric

(hu) MEGFELELŐSÉGI NYILATKOZAT / (nl) CONFORMITEITSVERKLARING / (el) ΔΉΛΩΣΗ ΣΥΜΜΌΡΦΩΣΗΣ / (sv) FÖRKLARING OM ÖVERENSSTÄMMELSE

DoC #: FCW-2403A, FCW-2403B- R3

(hu) A gyártó neve (nl) Naam van de fabrikant (el) Όνομα κατασκευαστή (sv) Tillverkarens namn	**HP Inc.**
(hu) Gyártó címe (nl) Adres van de fabrikant (el) Διεύθυνση του κατασκευαστή (sv) Tillverkarens adress	**1501 Page Mill Road, Palo Alto, CA 94304 USA**
(hu) kijelenti, hogy a termék (nl) verklaart, dat het product (el) δηλώνει ότι το προϊόν (sv) förklarar att produkten	
(hu) A termék neve és a modell[5.2] (nl) Naam van het product en model[5.2] (el) Όνομα προϊόντος και μοντέλου[5.2] (sv) Namn och modell[5.2]	**Workstation; HP Z2 Tower G1i Workstation**
(hu) Szabályozási Modell száma[5.1] (nl) Regulatory Model Number[5.1] (el) Αριθμός Μοντέλο κατά τους κανονισμούς[5.1] (sv) Regleringsmodellnummer[5.1]	**FCW-2403A, FCW-2403B**
(hu) Termék opciók (nl) Product opties (el) Επιλογές Προϊόντος (sv) Produktalternativ	**(hu) Lásd az I. melléklet** **(nl) Zie bijlage I** **(el) Βλέπε παράρτημα I** **(sv) Se bilaga I**

(hu) megfelel az alábbi termék dokumentáció és rendeletek:
(nl) voldoet aan de volgende productspecificaties en wetgeving
(el) συμμορφώνεται προς τις εξής προδιαγραφές και κανονισμοί
(sv) överensstämmer med följande produktspecifikationer och förordningar

(hu) Biztonság / (nl) Veiligheid / (el) Ασφάλεια / (sv) Säkerhet

IEC 60950-1:2005 +A1:2009 +A2:2013
IEC 62368-1:2018
IEC 62368-1:2014
EN IEC 62368-1:2020 +A11:2020
EN 50663:2017
EN 50665:2017
EN 62479:2010
EN 62311:2008
EN IEC 62311:2020
EN 60825-1:2014 +A11:2021
EN 62471:2008
EN 50689:2021

(hu) EMC / (nl) EMC / (el) EMC / (sv) EMC

EN 301 489-1 V2.2.3
EN 301 489-3 v2.3.2
EN 301 489-17 V3.3.1
EN 55032:2015+A11:2020 (Class B)
CISPR 32:2015 (Class B)
CISPR 32:2015+A1:2019 (Class B)
EN 55035:2017+A11:2020
EN 61000-3-2:2014
EN 61000-3-3:2013 +A1:2019
ICES-003, Issue 7
FCC CFR 47 Part 15

(hu) Rádióspektrumügyek / (nl) Radiospectrum / (el) ραδιοφάσματος / (sv) Rádiového spektra

EN 300 328 V2.2.2
EN 301 893 V2.1.1
EN 300 440 V2.2.1
EN 303 687 V1.1.1

(hu) Környezetbarát tervezési / (nl) ecodesign / (el) οικολογικού σχεδιασμού / (sv) ekodesign

Regulation (EU) No. 617/2013
Regulation (EU) 2023/826
EN IEC 62623:2022
EPRI 306 Generalized Internal Power Supply Efficiency Test Protocol, Rev. 6.6
EN 50564:2011
IEC 62301:2011

RoHS

EN IEC 63000:2018

(hu) Kiberbiztonsági / (nl) Cyberbeveiliging / (el) Κυβερνοασφάλεια / (sv) Cybersäkerhet

EN 18031-1: 2024
EN 18031-2: 2024

(hu) Akadálymentességére / (nl) Toegankelijkheid / (el) προσβασιμότητα / (sv) Tillgänglighet

(hu) MEGFELELŐSÉGI NYILATKOZAT / (nl) CONFORMITEITSVERKLARING / (el) ΔΉΛΩΣΗ ΣΥΜΜΌΡΦΩΣΗΣ / (sv) FÖRKLARING OM ÖVERENSSTÄMMELSE

DoC #: FCW-2403A, FCW-2403B- R3

EN 301 549 V3.2.1	
(hu) A termék itt megfelel a következők követelményeinek, és ennek megfelelően hordozza a markingot CE (nl) Het product voldoet hierbij aan de vereisten van het volgende en draagt de markering dienovereenkomstig bij (el) Το προϊόν συμμορφώνεται με τις απαιτήσεις των ακόλουθων και μεταφέρει ανάλογα CE το (sv) Produkten härmed uppfyller kraven i följande och bär CE-märkning i enlighet därmed	**Radio Equipment Directive 2014/53/EU** **Ecodesign Directive 2009/125/EU** **RoHS Directive 2011/65/EU** **Battery Regulation 2023/1542** **European Accessibility Act 2019/882/EU**
UK ONLY: This product herewith complies with the requirements of the following and carries the UKCA marking.	**Radio Equipment Regulations 2017** **Ecodesign for Energy-Related Products Regulations 2010** **Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012**

U.S. ONLY: This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

(hu) További információ
(nl) Extra informatie
(el) Πρόσθετες πληροφορίες
(sv) Ytterligare information

5.1)
(hu) Ez a termék tartozik egy hatósági azonosítási típusszám ami marad szabályozási szempontból a design. A szabályozási modellszámmal a fő termék azonosítóját a szabályozási dokumentációban és vizsgálati jelentések, ez a szám nem keverendő össze a kereskedelmi névvel vagy a termék számokat.
(nl) Dit product is voorzien van een wettelijk modelnummer die blijft bij de regelgevende aspecten van de ontwerp. Het voorgeschreven modelnummer is het belangrijkste product-id in de regelgeving documentatie en testrapporten, moet dit nummer niet verwarren met de merknaam of de productnummers.
(el) Αυτό το προϊόν έχει εκχωρηθεί ένας ρυθμιστικός αριθμός μοντέλου που μένει με τις ρυθμιστικές πτυχές των σχεδιασμό. Ο αριθμός Ρυθμιστική μοντέλου είναι το κύριο αναγνωριστικό του προϊόντος με την κανονιστική τεκμηρίωση και εκθέσεις δοκιμών, ο αριθμός αυτός δεν πρέπει να συγχέεται με την εμπορική ονομασία ή τους αριθμούς προϊόντος.
(sv) Den här produkten har tilldelats ett kontrollmodellnummer som stannar med de regulatoriska aspekterna av design. Kontrollmodellnumret är den viktigaste produktbeteckning i lagstiftnings dokumentation och provningsrapporter, detta nummer ska inte förväxlas med produktnamn eller produktnummer.

5.2)
(hu) Ez a termék tesztelése egy tipikus HP környezetben együtt egy HP gazda rendszert, összefüggésben HP fogadó rendszer.
(nl) Dit product werd getest in het HP-omgeving in combinatie met een HP hostsysteem, in combinatie met een HP hostsysteem.
(el) Αυτό το προϊόν έχει δοκιμαστεί σε ένα τυπικό περιβάλλον HP, σε συνδυασμό με ένα σύστημα κεντρικού υπολογιστή HP.
(sv) Produkten testades i en typisk HP-miljö tillsammans med en HP-värdsystem, i förening med en HP värdsystem.

(hu) A felsorolt értesített testület a III. Melléklet szerint kiadta a felsorolt EU-típusú vizsgálati igazolást a piros irányelv 3.2. Cikkének alapvető követelménye szerint. (nl) Het genoemde aangemelde instantie heeft het beursgenoteerde EU-type onderzoekscertificaat uitgegeven, volgens bijlage III, voor de essentiële vereiste van artikel 3.2 van de Red Richtlijn. (el) Ο αναφερόμενος ειδοποιημένος φορέας εξέδωσε το πιστοποιητικό εξέτασης τύπου ΕΕ, σύμφωνα με το Παράρτημα III, για την βασική απαίτηση του άρθρου 3.2 της Red Directive. (sv) Det listade anmälda organet utfärdade det listade examenscertifikatet för EU-typ, enligt bilaga III, för det väsentliga kravet i artikel 3.2 i det röda direktivet.	**Notified Body: TIMCO Engineering, Inc.** **Notified Body Number: 1177** **Certificate ID: E1177-254946**
UK ONLY: The listed Notified Body issued the listed UK-type examination certificate, according to Annex III, for the essential requirement of article 3.2 of the RED Directive.	**Notified Body: TIMCO Engineering, Inc.1177** **Notified Body Number:** **Certificate ID: U1177-252795**

HP Inc.
1501 Page Mill Road, Palo Alto, CA
Gilles Soulard, Manager
Product Compliance Center

Palo Alto, CA
10-07-2025

Gilles Soulard

Gilles Soulard, Manager

(hu) MEGFELELŐSÉGI NYILATKOZAT / (nl) CONFORMITEITSVERKLARING / (el) ΔΉΛΩΣΗ ΣΥΜΜΌΡΦΩΣΗΣ / (sv) FÖRKLARING OM ÖVERENSSTÄMMELSE

DoC #: FCW-2403A, FCW-2403B- R3

Product Compliance Engineering

(hu) Helyi kapcsolattartó a jogi tudnivalókkal (nl) Lokale contactpersoon voor mbtvoorschriften (el) Τοπική επαφής για θέματα κανονισμών μόνο (sv) Lokal kontakt bara för regleringsärenden
EU: HP REG 23010, 08028 Barcelona, Spain UK: HP Inc UK Ltd, Regulatory Enquiries, Earley West, 300 Thames Valley Park Drive, Reading, RG6 1PT U.S.: HP Inc., 1501 Page Mill Road, Palo Alto 94304, U.S.A. 650-857-1501 Email: reg@hp.com www.hp.eu/certificates

(hu) MEGFELELŐSÉGI NYILATKOZAT / (nl) CONFORMITEITSVERKLARING / (el) ΔΉΛΩΣΗ ΣΥΜΜΌΡΦΩΣΗΣ / (sv) FÖRKLARING OM ÖVERENSSTÄMMELSE

DoC #: FCW-2403A, FCW-2403B- R3

(hu) I. MELLÉKLET **(nl) BIJLAGE I** **(el) ΤΟ ΠΑΡΆΡΤΗΜΑ I** **(sv) BILAGA I**	
(hu) Szabályozási Modell száma (RMN) (nl) Regulatory Model Number (RMN) (el) Αριθμός Μοντέλο κατά τους κανονισμούς (RMN) (sv) Regleringsmodellnummer (RMN)	**FCW-2403A, FCW-2403B**
1 (hu) LEÍRÁS | 2 (hu) RMN OPCIÓ* 1 (nl) BESCHRIJVING | 2 (nl) RMN OPTIE* 1 (el) ΠΕΡΙΓΡΑΦΗ | 2 (el) RMN ΕΠΙΛΟΓΉ* 1 (sv) BESKRIVNING | 2 (sv) RMN ALTERNATIV*	

1	2
2.4, 5, 6 GHz WLAN + Bluetooth Combo	BE200NGW AX211NGW

(hu) *Ha X jelentése bármilyen alfanumerikus karaktert
(nl) *Waar X staat voor elke alfanumerieke tekens
(el) *Σε περίπτωση που το X αντιπροσωπεύει οποιοδήποτε αλφαριθμητικό χαρακτήρα
(sv) *Där X representerar någon alfanumeriska tecken

(cs) PROHLÁŠENÍ O SHODĚ / (bg) ДЕКЛАРАЦИЯ ЗА СЪОТВЕТСТВИЕ / (sk) VYHLÁSENIE O ZHODE / (da) OVERENSSTEMMELSESERKLÆRING

DoC #: FCW-2403A, FCW-2403B- R3

(cs) Jméno výrobce (bg) Наименование на производителя (sk) Meno výrobcu (da) Producentens navn	**HP Inc.**
(cs) Adresa výrobce (bg) Производителя Адрес (sk) adresa výrobcu (da) Producentens adresse	**1501 Page Mill Road, Palo Alto, CA 94304 USA**
(cs) vyhovuje následujícím specifikacím a nařízení produktu (bg) заявява, че продуктът (sk) prehlasuje, že výrobok (da) erklærer, at produktet	
(cs) Název produktu a model[5.2] (bg) Име на продукта и модел[5.2] (sk) Názov produktu a model[5.2] (da) Produktnavn og Model[5.2]	**Workstation; HP Z2 Tower G1i Workstation**
(cs) Regulační číslo modelu[5.1] (bg) Нормативен номер на модела[5.1] (sk) Regulačné číslo modelu[5.1] (da) Lovpligtigt modelnummer[5.1]	**FCW-2403A, FCW-2403B**
(cs) Možnosti výrobku (bg) Опции на продукта (sk) Možnosti výrobku (da) Produkt Valg	**(cs) Viz příloha I** **(bg) Виж приложение I** **(sk) Pozri prílohu I** **(da) Se bilag I**

(cs) vyhovuje následujícím specifikacím a nařízení produktu
(bg) съответства на следните спецификации на продукта и регламенти
(sk) spĺňa nasledujúce špecifikácie a nariadenia produktu
(da) opfylder følgende produktspecifikationer og forordninger

(cs) Bezpečnost / (bg) Безопасност / (sk) Bezpečnosť / (da) Sikkerhed

IEC 60950-1:2005 +A1:2009 +A2:2013
IEC 62368-1:2018
IEC 62368-1:2014
EN IEC 62368-1:2020 +A11:2020
EN 50663:2017
EN 50665:2017
EN 62479:2010
EN 62311:2008
EN IEC 62311:2020
EN 60825-1:2014 +A11:2021
EN 62471:2008
EN 50689:2021

(cs) EMC / (bg) EMC / (sk) EMC / (da) EMC

EN 301 489-1 V2.2.3
EN 301 489-3 v2.3.2
EN 301 489-17 V3.3.1
EN 55032:2015+A11:2020 (Class B)
CISPR 32:2015 (Class B)
CISPR 32:2015+A1:2019 (Class B)
EN 55035:2017+A11:2020
EN 61000-3-2:2014
EN 61000-3-3:2013 +A1:2019
ICES-003, Issue 7
FCC CFR 47 Part 15

(cs) Rádiové spektrum / (bg) Радиочестотният спектър / (sk) Rádiové spektrum / (da) Radiofrekvenser

EN 300 328 V2.2.2
EN 301 893 V2.1.1
EN 300 440 V2.2.1
EN 303 687 V1.1.1

(cs) ekodesignu / (bg) екодизайна / (sk) ekodizajne / (da) miljøvenligt design

Regulation (EU) No. 617/2013
Regulation (EU) 2023/826
EN IEC 62623:2022
EPRI 306 Generalized Internal Power Supply Efficiency Test Protocol, Rev. 6.6
EN 50564:2011
IEC 62301:2011

RoHS

EN IEC 63000:2018

(cs) Kybernetické bezpečnosti / (bg) Киберсигурността / (sk) Kybernetickej bezpečnosti / (da) Cybersikkerhed

EN 18031-1: 2024
EN 18031-2: 2024

(cs) Přístupnost / (bg) Достъпност / (sk) Prístupnosť / (da) Tilgængelighed

(cs) PROHLÁŠENÍ O SHODĚ / (bg) ДЕКЛАРАЦИЯ ЗА СЪОТВЕТСТВИЕ / (sk) VYHLÁSENIE O ZHODE / (da) OVERENSSTEMMELSESERKLÆRING

DoC #: FCW-2403A, FCW-2403B- R3

EN 301 549 V3.2.1	
(cs) Produkt tímto odpovídá požadavkům následujících CE (bg) Продуктът тук отговаря на изискванията на следното и съответно CE носи знамето (sk) Produkt týmto spĺňa požiadavky nasledujúceho a podľa toho nesie označenie CE (da) Produktet overholder hermed kravene i følgende og bærer CE-mærket i overensstemmelse hermed	**Radio Equipment Directive 2014/53/EU** **Ecodesign Directive 2009/125/EU** **RoHS Directive 2011/65/EU** **Battery Regulation 2023/1542** **European Accessibility Act 2019/882/EU**
UK ONLY: This product herewith complies with the requirements of the following and carries the UKCA marking.	**Radio Equipment Regulations 2017** **Ecodesign for Energy-Related Products Regulations 2010** **Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012**
U.S. ONLY: This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.	
(cs) Další informace (bg) Допълнителна информация (sk) Ďalšie informácie (da) Yderligere information	
5.1) (cs) Tento produkt je přiděleno regulatorní číslo modelu, který zůstává s regulačními aspekty konstrukce. Počet Regulační model je hlavním identifikátorem produktu v regulační dokumentaci a protokoly o zkouškách, toto číslo by nemělo být zaměňováno s marketingovým názvem nebo čísla produktu. (bg) Този продукт има нормативен номер на модела, който остава с регулаторните аспекти на дизайн. Номер на Нормативен модел е идентификатора основен продукт в нормативната документация и протоколи от изпитвания, този брой не трябва да се бърка с пазарното име или номера на продукта. (sk) Tento produkt je pridelené regulačné číslo modelu, ktorý zostáva s regulačnými aspektmi konštrukcie. Počet Regulačný model je hlavným identifikátorom produktu v regulačnej dokumentácii a protokoly o skúškach, toto číslo by sa nemalo zamieňať s marketingovým názvom alebo s výrobnými číslami. (da) Dette produkt er tildelt et lovpligtigt modelnummer, som forbliver de lovgivningsmæssige aspekter af den design. Det lovpligtige modelnummer er det vigtigste produkt-id i den lovgivningsmæssige dokumentation og testrapporter, bør dette antal ikke forveksles med navn markedsføringen eller varenumre.	
5.2) (cs) Tento výrobek byl testován v typické prostředí HP ve spolupráci s hostitelským systémem HP, ve spojení s hostitelským systémem HP. (bg) Този продукт е изпробван в типична HP среда във връзка с хост система HP, във връзка с хост система HP. (sk) Tento výrobok bol testovaný v typickej prostredí HP v spolupráci s hostiteľským systémom HP, v spojení s hostiteľským systémom HP. (da) Dette produkt blev testet i en typisk HP-miljø i forbindelse med en HP host system, sammenholdt med en HP værtssystem.	
(cs) Oznámen oznámený orgán vydal uvedený osvědčení o zkoušce typu EU podle přílohy III pro základní požadavek článku 3.2 červené směrnice. (bg) Изброеният уведомен орган издаде изброения сертификат за изпит за изпитване на ЕС, според приложение III, за основното изискване на член 3.2 от Директивата RED. (sk) Uvedený oznámený orgán vydal uvedený osvedčenie o skúške typu EÚ podľa prílohy III, pokiaľ ide o základnú požiadavku článku 3.2 červenej smernice. (da) Det anførte meddelte organ udstedte det anførte EU-eksamenseksamen i henhold til bilag III for det væsentlige krav i artikel 3.2 i det røde direktiv.	**Notified Body: TIMCO Engineering, Inc.** **Notified Body Number: 1177** **Certificate ID: E1177-254946**
UK ONLY: The listed Notified Body issued the listed UK-type examination certificate, according to Annex III, for the essential requirement of article 3.2 of the RED Directive.	**Notified Body: TIMCO Engineering, Inc.1177** **Notified Body Number:** **Certificate ID: U1177-252795**

HP Inc.
1501 Page Mill Road, Palo Alto, CA
Gilles Soulard, Manager
Product Compliance Center

Palo Alto, CA
10-07-2025

Gilles Soulard

Gilles Soulard, Manager
Product Compliance Engineering

(cs) PROHLÁŠENÍ O SHODĚ / (bg) ДЕКЛАРАЦИЯ ЗА СЪОТВЕТСТВИЕ / (sk) VYHLÁSENIE O ZHODE / (da) OVERENSSTEMMELSESERKLÆRING

DoC #: FCW-2403A, FCW-2403B- R3

(cs) Lokální kontakt pro informace pouze o směrnicích (bg) Local контакт за регулаторни теми само (sk) Lokálne kontakt pre informácie iba o smerniciach (da) Lokal kontaktperson for regulative emner
EU: HP REG 23010, 08028 Barcelona, Spain UK: HP Inc UK Ltd, Regulatory Enquiries, Earley West, 300 Thames Valley Park Drive, Reading, RG6 1PT U.S.: HP Inc., 1501 Page Mill Road, Palo Alto 94304, U.S.A. 650-857-1501 Email: reg@hp.com www.hp.eu/certificates

(cs) PROHLÁŠENÍ O SHODĚ / (bg) ДЕКЛАРАЦИЯ ЗА СЪОТВЕТСТВИЕ / (sk) VYHLÁSENIE O ZHODE / (da) OVERENSSTEMMELSESERKLÆRING

DoC #: FCW-2403A, FCW-2403B- R3

(cs) PŘÍLOHA I **(bg) ПРИЛОЖЕНИЕ I** **(sk) PRÍLOHA I** **(da) BILAG I**	
(cs) Regulační číslo modelu (RMN) (bg) Нормативен номер на модела (RMN) (sk) Regulačné číslo modelu (RMN) (da) Lovpligtigt modelnummer (RMN)	**FCW-2403A, FCW-2403B**
1 (cs) POPIS | 2 (cs) RMN VOLBA* 1 (bg) ОПИСАНИЕ | 2 (bg) RMN ОПЦИЯ* 1 (sk) OPIS | 2 (sk) RMN VOĽBA* 1 (da) BESKRIVELSE | 2 (da) RMN OPTION*	

1	2
2.4, 5, 6 GHz WLAN + Bluetooth Combo	BE200NGW AX211NGW

(cs) *Tam, kde X představuje libovolný alfanumerický znak
(bg) *Когато X представлява всяка алфа цифров знак
(sk) *Tam, kde X predstavuje ľubovoľný alfanumerický znak
(da) *Hvor X betegner en hvilken som helst alfanumerisk tegn

(fi) VAATIMUSTENMUKAISUUSVAKUUTUS / (lt) ATITIKTIES DEKLARACIJA / (no) SAMSVARSERKLÆRING / (sl) IZJAVA O SKLADNOSTI

DoC #: FCW-2403A, FCW-2403B- R3

(fi) Valmistajan nimi (lt) Gamintojo pavadinimas (no) Produsentens navn (sl) Ime proizvajalca	**HP Inc.**
(fi) Valmistajan osoite (lt) Gamintojo adresas (no) Produsentens adresse (sl) Naslov proizvajalca	**1501 Page Mill Road, Palo Alto, CA 94304 USA**
(fi) ilmoittaa, että tuote (lt) pareiškia, kad produktas (no) erklærer at dette produktet (sl) izjavlja, da izdelek	
(fi) Tuotteen nimi ja malli[5.2] (lt) Produkto pavadinimas ir modelis[5.2] (no) Produktnavn og modell[5.2] (sl) Ime izdelka in model[5.2]	**Workstation; HP Z2 Tower G1i Workstation**
(fi) Säädösmallinumero[5.1] (lt) Normatyvinis modelio numeris[5.1] (no) Forskriftsmessig modellnummer[5.1] (sl) Upravna številka modela[5.1]	**FCW-2403A, FCW-2403B**
(fi) Tuotevaihtoehdot (lt) Prekės pasirinkimai (no) Produktvalg (sl) Možnosti izdelka	**(fi) Katso liite I** **(lt) Žiūrėti I priedą** **(no) Se vedlegg I** **(sl) Glej Prilogo I**

(fi) täyttää seuraavat tuotevaatimukset ja asetukset
(lt) atitinka šias produkto specifikacijas ir reglamentų
(no) er i samsvar med følgende produktspesifikasjoner og forskrift
(sl) v skladu z naslednjimi specifikacijami in predpisi o izdelku

(fi) Turvallisuus / (lt) Sauga / (no) Sikkerhet / (sl) Siguranţă

IEC 60950-1:2005 +A1:2009 +A2:2013
IEC 62368-1:2018
IEC 62368-1:2014
EN IEC 62368-1:2020 +A11:2020
EN 50663:2017
EN 50665:2017
EN 62479:2010
EN 62311:2008
EN IEC 62311:2020
EN 60825-1:2014 +A11:2021
EN 62471:2008
EN 50689:2021

(fi) EMC / (lt) EMC / (no) EMC / (sl) EMC

EN 301 489-1 V2.2.3
EN 301 489-3 v2.3.2
EN 301 489-17 V3.3.1
EN 55032:2015+A11:2020 (Class B)
CISPR 32:2015 (Class B)
CISPR 32:2015+A1:2019 (Class B)
EN 55035:2017+A11:2020
EN 61000-3-2:2014
EN 61000-3-3:2013 +A1:2019
ICES-003, Issue 7
FCC CFR 47 Part 15

(fi) Radiotaajuuksien / (lt) Radijo dažnių spektras / (no) Radio spektrum / (sl) Radijski spekter

EN 300 328 V2.2.2
EN 301 893 V2.1.1
EN 300 440 V2.2.1
EN 303 687 V1.1.1

(fi) Ecodesign / (lt) Ekologinio / (no) økodesign / (sl) okoljsko primerni zasnovi

Regulation (EU) No. 617/2013
Regulation (EU) 2023/826
EN IEC 62623:2022
EPRI 306 Generalized Internal Power Supply Efficiency Test Protocol, Rev. 6.6
EN 50564:2011
IEC 62301:2011

RoHS

EN IEC 63000:2018

(fi) Kyberturvallisuus / (lt) Kibernetinio saugumo / (no) Cybersikkerhet / (sl) Kibernetski varnosti

EN 18031-1: 2024
EN 18031-2: 2024

(fi) Esteettömyyttä / (lt) Prieinamumo / (no) Tilgjengelighet / (sl) Dostopnost

(fi) VAATIMUSTENMUKAISUUSVAKUUTUS / (lt) ATITIKTIES DEKLARACIJA / (no) SAMSVARSERKLÆRING / (sl) IZJAVA O SKLADNOSTI

DoC #: FCW-2403A, FCW-2403B- R3

EN 301 549 V3.2.1	
(fi) Tuote täyttää seuraavan vaatimukset ja kantaa CE-merkintää vastaavasti (lt) Produktas atitinka šiuos reikalavimus ir atitinkamai nurodo CE žymėjimą (no) Produktet følger med kravene til følgende og bærer CE-merket deretter (sl) Izdelek s tem ustreza zahtevam naslednjega in ustrezno nosi označevanje CE	**Radio Equipment Directive 2014/53/EU** **Ecodesign Directive 2009/125/EU** **RoHS Directive 2011/65/EU** **Battery Regulation 2023/1542** **European Accessibility Act 2019/882/EU**
UK ONLY: This product herewith complies with the requirements of the following and carries the UKCA marking.	**Radio Equipment Regulations 2017** **Ecodesign for Energy-Related Products Regulations 2010** **Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012**
U.S. ONLY: This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.	
(fi) Lisätiedot (lt) Papildoma informacija (no) Tilleggsinformasjon (sl) Dodatne informacije	
5.1) (fi) Tämä tuote on annettu virallinen numero, joka pysyy hallinnolliset näkökohdat suunnittelu. Säädöksiä koskeva mallinumero on tärkein tuotteen tunniste sääntely asiakirjat ja testausselosteet, tätä numeroa ei pidä sekoittaa tuotteen nimeen tai tuotteen numeroita. (lt) Šis produktas pažymėtas normatyviniu modelio numeriu, kuris lieka su reglamentavimo aspektų dizainas. Normatyvinis modelio numeris yra pagrindinė produkto identifikatorius reguliavimo dokumentus ir bandymų ataskaitos, šis skaičius neturėtų būti painiojamas su prekės pavadinimu arba gaminio numeriais. (no) Dette produktet er tildelt et modellnummer som holder med de regulatoriske aspekter av design. Forskriftsmodellnummeret er den viktigste produkt-ID i regulatoriske dokumentasjon og testrapporter, bør dette nummeret ikke forveksles med markedsføringsnavnet eller produktnumrene. (sl) Ta izdelek je dodeljena upravna številka modela, ki ostane pri regulativnih vidikih zasnova. Število Regulativni model je glavni identifikator izdelka v regulativnem dokumentacije in poročila o preskusih, to število ne sme zamenjevati s tržnim imenom ali številkami izdelka.	
5.2) (fi) Tämä tuote testattu tyypillisessä HP ympäristöministeriö yhdessä HP isäntä järjestelmä, yhdessä HP isäntäjärjestelmän. (lt) Ši prekė buvo išbandytas standartinės HP aplinkoje kartu su HP priimančioji sistema, kartu su HP priimančioji sistema. (no) Produktet ble testet i et typisk miljø HP i forbindelse med en HP-vertssystemet, i forbindelse med en HP-vertssystemet. (sl) Acest produs fost testat intr-un Mediu tipic HP împreună cu un sistem Gazda HP, v povezavi s sistemom gostiteljico HP.	
(fi) Listattu ilmoitettu elin julkaisi Listad EU-tyyppisen tutkimustodistuksen liitteen III mukaan punaisen direktiivin 3.2 artiklan olennaisesta vaatimuksesta. (lt) Išvardytos pranešimo įstaiga išdavė išvardytą ES tipo egzamino pažymėjimą, remiantis III priede, dėl esminio Raudonosios direktyvo 3.2 straipsnio reikalavimo. (no) Det oppførte varslede organet ga ut det listede eksamenssertifikatet for EU-type, ifølge vedlegg III, for det essensielle kravet i artikkel 3.2 i det røde direktivet. (sl) Navedeni obveščeni organ je v skladu z Prilogo III izdal navedeno potrdilo o izpitu EU za bistveno zahtevo člena 3.2 Rdeče direktive.	**Notified Body: TIMCO Engineering, Inc.** **Notified Body Number: 1177** **Certificate ID: E1177-254946**
UK ONLY: The listed Notified Body issued the listed UK-type examination certificate, according to Annex III, for the essential requirement of article 3.2 of the RED Directive.	**Notified Body: TIMCO Engineering, Inc.1177** **Notified Body Number:** **Certificate ID: U1177-252795**

HP Inc.
1501 Page Mill Road, Palo Alto, CA
Gilles Soulard, Manager
Product Compliance Center

Palo Alto, CA
10-07-2025

Gilles Soulard

Gilles Soulard, Manager
Product Compliance Engineering

(fi) Paikallinen yhteyshenkilö säännöksistä antavat (lt) Vietinis kontaktas normatyviniais klausimais tik (no) Lokal kontakt for spørsmål om forskrifter (sl) Lokalni kontakt za upravnimi temami

(fi) VAATIMUSTENMUKAISUUSVAKUUTUS / (lt) ATITIKTIES DEKLARACIJA / (no) SAMSVARSERKLÆRING / (sl) IZJAVA O SKLADNOSTI

DoC #: FCW-2403A, FCW-2403B- R3

EU: HP REG 23010, 08028 Barcelona, Spain
UK: HP Inc UK Ltd, Regulatory Enquiries, Earley West, 300 Thames Valley Park Drive, Reading, RG6 1PT
U.S.: HP Inc., 1501 Page Mill Road, Palo Alto 94304, U.S.A. 650-857-1501
Email: reg@hp.com www.hp.eu/certificates

(fi) VAATIMUSTENMUKAISUUSVAKUUTUS / (lt) ATITIKTIES DEKLARACIJA / (no) SAMSVARSERKLÆRING / (sl) IZJAVA O SKLADNOSTI

DoC #: FCW-2403A, FCW-2403B- R3

(fi) LIITE I **(lt) I PRIEDAS** **(no) VEDLEGG I** **(sl) PRILOGA I**	
(fi) Säädösmallinumero (RMN) (lt) Normatyvinis modelio numeris (RMN) (no) Forskriftsmessig modellnummer (RMN) (sl) Upravna številka modela (RMN)	**FCW-2403A, FCW-2403B**
1 (fi) KUVAUS | 2 (fi) RMN VAIHTOEHTO* 1 (lt) APRAŠYMAS | 2 (lt) RMN PASIRINKIMAS* 1 (no) BESKRIVELSE | 2 (no) RMN OPSJON* 1 (sl) OPIS | 2 (sl) RMN MOŽNOST*	

1	2
2.4, 5, 6 GHz WLAN + Bluetooth Combo	BE200NGW AX211NGW

(fi) *Jos X on mikä tahansa aakkosnumeerinen merkki
(lt) *Jeigu X žymi bet alfa skaitinė charakterį
(no) *Hvor X representerer en hvilken som helst alfa-numeriske karakteren
(sl) *Če je X predstavlja nobene alfa numerični znak

(et) VASTAVUSDEKLARATSIOON / (hr) IZJAVA O SUKLADNOSTI / (lv) ATBILSTĪBAS DEKLARĀCIJA / (is) LEYFISYFIRLÝSING

DoC #: FCW-2403A, FCW-2403B- R3

(et) Tootja nimi (hr) Naziv proizvođača (lv) Ražotāja nosaukums (is) Framleiðanda Heiti	**HP Inc.**
(et) Tootja aadress (hr) Proizvođača adresa (lv) Ražotāja adrese (is) Heimilisfang framleiðanda	**1501 Page Mill Road, Palo Alto, CA 94304 USA**
(et) kinnitab, et toode (hr) izjavljuje da je proizvod (lv) paziņo, ka produkts (is) því yfir, að varan	
(et) Toote nimi ja mudel[5.2] (hr) Naziv proizvoda i Model[5.2] (lv) Produkta nosaukums un modelis[5.2] (is) Nafn vöru og Model[5.2]	**Workstation; HP Z2 Tower G1i Workstation**
(et) Normatiivne mudelinumber[5.1] (hr) Broj modela prema propisima[5.1] (lv) Regulējošais modeļa numurs[5.1] (is) Regulatory Model Number[5.1]	**FCW-2403A, FCW-2403B**
(et) Toote lisaseadmed (hr) Mogućnosti proizvoda (lv) Izstrādājuma iespējas (is) Valmöguleikar vöru	**(et) Vt lisa I** **(hr) Vidi Prilog I** **(lv) Féach pielikums I** **(is) Sjá viðauka I**

(et) vastab järgmistele tootespetsifikatsioonidele ja määrused
(hr) sukladan sljedećim specifikacijama proizvoda i propisa
(lv) atbilst šādām iekārtas specifikācijām un regulām
(is) í samræmi við eftirfarandi forskriftir vara og reglugerðir

(et) Ohutus / (hr) Sigurnost / (lv) Sábháilteacht / (is) Öryggi

IEC 60950-1:2005 +A1:2009 +A2:2013
IEC 62368-1:2018
IEC 62368-1:2014
EN IEC 62368-1:2020 +A11:2020
EN 50663:2017
EN 50665:2017
EN 62479:2010
EN 62311:2008
EN IEC 62311:2020
EN 60825-1:2014 +A11:2021
EN 62471:2008
EN 50689:2021

(et) EMC / (hr) EMC / (lv) EMC / (is) EMC

EN 301 489-1 V2.2.3
EN 301 489-3 v2.3.2
EN 301 489-17 V3.3.1
EN 55032:2015+A11:2020 (Class B)
CISPR 32:2015 (Class B)
CISPR 32:2015+A1:2019 (Class B)
EN 55035:2017+A11:2020
EN 61000-3-2:2014
EN 61000-3-3:2013 +A1:2019
ICES-003, Issue 7
FCC CFR 47 Part 15

(et) Raadiospektri / (hr) Radio spektar / (lv) Radiofrekvenču spektrs / (is) Tíðniróf

EN 300 328 V2.2.2
EN 301 893 V2.1.1
EN 300 440 V2.2.1
EN 303 687 V1.1.1

(et) ökodisaini / (hr) Ekološki dizajn / (lv) ekodizains / (is) visthönnun

Regulation (EU) No. 617/2013
Regulation (EU) 2023/826
EN IEC 62623:2022
EPRI 306 Generalized Internal Power Supply Efficiency Test Protocol, Rev. 6.6
EN 50564:2011
IEC 62301:2011

RoHS

EN IEC 63000:2018

(et) Küberturvalisuse / (hr) Kibersigurnost / (lv) Kiberdrošības / (is) Netöryggi

EN 18031-1: 2024
EN 18031-2: 2024

(et) Ligipääsetavust / (hr) Pristupačnost / (lv) Piekļūstamība / (is) Aðgengi

(et) VASTAVUSDEKLARATSIOON / (hr) IZJAVA O SUKLADNOSTI / (lv) ATBILSTĪBAS DEKLARĀCIJA / (is) LEYFISYFIRLÝSING

DoC #: FCW-2403A, FCW-2403B- R3

EN 301 549 V3.2.1	
(et) Käesoleva toode vastab järgmiste nõuetele ja see kannab vastavalt CE märke (hr) Proizvod u skladu s zahtjevima sljedećeg i u skladu s tim nosi CE označavanje (lv) Ar šo produkts atbilst šādām prasībām un attiecīgi nes CE marķēšanu (is) Varan er hér með í samræmi við kröfur eftirfarandi og ber CE með sér í samræmi við það	**Radio Equipment Directive 2014/53/EU** **Ecodesign Directive 2009/125/EU** **RoHS Directive 2011/65/EU** **Battery Regulation 2023/1542** **European Accessibility Act 2019/882/EU**
UK ONLY: This product herewith complies with the requirements of the following and carries the UKCA marking.	**Radio Equipment Regulations 2017** **Ecodesign for Energy-Related Products Regulations 2010** **Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012**
U.S. ONLY: This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.	
(et) Lisainfo (hr) Dodatne informacije (lv) Papildus informācija (is) Viðbótarupplýsingar	
5.1) (et) See toode on määratud normatiivne mudelinumber mis jääb regulatiivsed aspektid disain. Normatiivne mudelinumber on peamine toode tunnuse reguleerivad dokumendid ja katseprotokollid, see number ei tohiks segamini ajada toote nime või toode numbrid. (hr) Ovaj proizvod je dodijeljen broj modela prema propisima koji ostaje s regulatornim aspektima Dizajn. Broj modela prema propisima je glavni identifikator proizvod u regulatornom dokumentacije i izvješća o ispitivanju, ovaj broj ne treba brkati s marketinškim nazivom ili brojeve proizvoda. (lv) Šis produkts ir piešķirts regulējošais modeļa numurs, kas paliek ar normatīvajiem aspektiem dizainu. Regulējošais modeļa numurs ir galvenais produkts identifikators pārvaldes dokumentācijā un testēšanas pārskati, šis skaits nedrīkst sajaukt ar mārketinga nosaukumu vai produktu numuriem. (is) Þessi vara er úthlutað Regulatory tegundarnúmer sem dvelst hjá reglugerðum þætti í hönnun. The Regulatory Model Number er helsta vara auðkenni í reglugerðum skjöl og prófunarskýrslur, þetta númer ætti ekki að rugla saman við nafn markaðssetningu eða vörunúmerum.	
5.2) (et) See toode on testitud tüüpiliste HP keskkonnas koos HP vastuvõtva süsteemi, koostoimes HP vastuvõtva süsteemi. (hr) Ovaj proizvod je ispitan u tipičnoj HP okoliš u suradnji s HP-host sustava, u suradnji s HP-host sustava. (lv) Rinneadh tástáil ar táirge SEO i dtimpeallacht HP tipiciúil i gcomhar le CORAS óstach HP, kopā ar HP uzņēmējas sistēma. (is) Þessi vara var prófað í dæmigerðum HP umhverfi í tengslum við HP móti kerfinu, í tengslum við HP gestgjafi kerfi.	
(et) Loetletud teatatud organ andis III lisa kohaselt välja loetletud EL-tüüpi eksamitunnistuse, et saada punase direktiivi artikli 3.2 olulist nõuet. (hr) Navedeno je obaviješteno tijelo izdalo navedenu potvrdu o ispitivanju EU-a, prema Prilogu III, za bitni zahtjev članka 3.2. Red Direktive. (lv) Saskaņā ar III pielikumu norādītā paziņotā institūcija uzskaitītajā ES tipa eksāmena sertifikātā izdeva Sarkanās direktīvas 3.2. Pantā. (is) Hinn skráði tilkynnti aðili gaf út skráð prófskírteini ESB, samkvæmt viðauka III, vegna nauðsynlegrar kröfu 3.2. greinar rauðu tilskipunarinnar.	**Notified Body: TIMCO Engineering, Inc.** **Notified Body Number: 1177** **Certificate ID: E1177-254946**
UK ONLY: The listed Notified Body issued the listed UK-type examination certificate, according to Annex III, for the essential requirement of article 3.2 of the RED Directive.	**Notified Body: TIMCO Engineering, Inc.1177** **Notified Body Number:** **Certificate ID: U1177-252795**

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Palo Alto, CA
10-07-2025

Gilles Soulard

Gilles Soulard, Manager
Product Compliance Engineering

(et) Kohalik kontakt Ainult normatiivsete küsimuste korral (hr) Lokalno kontakt za pravna pitanja samo

(et) VASTAVUSDEKLARATSIOON / (hr) IZJAVA O SUKLADNOSTI / (lv) ATBILSTĪBAS DEKLARĀCIJA / (is) LEYFISYFIRLÝSING

DoC #: FCW-2403A, FCW-2403B- R3

(lv) Vietējā kontaktpersona jautājumos par reglamentāciju tikai (is) Upplýsingaskrifstofa fyrir reglusetningu efni eingöngu
EU: HP REG 23010, 08028 Barcelona, Spain UK: HP Inc UK Ltd, Regulatory Enquiries, Earley West, 300 Thames Valley Park Drive, Reading, RG6 1PT U.S.: HP Inc., 1501 Page Mill Road, Palo Alto 94304, U.S.A. 650-857-1501 Email: reg@hp.com www.hp.eu/certificates

(et) VASTAVUSDEKLARATSIOON / (hr) IZJAVA O SUKLADNOSTI / (lv) ATBILSTĪBAS DEKLARĀCIJA / (is) LEYFISYFIRLÝSING

DoC #: FCW-2403A, FCW-2403B- R3

(et) I LISA **(hr) PRILOG I** **(lv) I PIELIKUMS** **(is) VIÐAUKA I**	
(et) Normatiivne mudelinumber (RMN) (hr) Broj modela prema propisima (RMN) (lv) Regulējošais modeļa numurs (RMN) (is) Regulatory Model Number (RMN)	**FCW-2403A, FCW-2403B**
1 (et) KIRJELDUS | 2 (et) RMN VALIK* 1 (hr) OPIS | 2 (hr) RMN OPCIJA* 1 (lv) APRAKSTS | 2 (lv) RMN IZVĒLE* 1 (is) LÝSING | 2 (is) RMN VALKOSTUR*	

1	2
2.4, 5, 6 GHz WLAN + Bluetooth Combo	BE200NGW AX211NGW

(et) *Kui X on ükskõik tähtnumbriline märk
(hr) *Gdje X predstavlja nikakvu alfa numeričku karakter
(lv) *Kur X apzīmē jebkuru burtu ciparu raksturs
(is) *Þar sem X táknar allir alfa tölugildi karakter

(mt) DIKJARAZZJONI TA 'KONFORMITÀ / (tr) UYGUNLUK BEYANI / (sr) DEKLARACIJA O USAGLAŠENOSTI / (alb.sq) DEKLARATA E KONFORMITETIT

DoC #: FCW-2403A, FCW-2403B- R3

(mt) Isem tal-manifattur (tr) Üretici Adı (sr) Naziv proizvođača (alb.sq) Emri e prodhuesit	**HP Inc.**
(mt) Indirizz tal-manifattur (tr) Üretici Adresi (sr) Adresa proizvođača (alb.sq) Adresa e prodhuesit	**1501 Page Mill Road, Palo Alto, CA 94304 USA**
(mt) jiddikjara, li l-prodott (tr) beyan eder, ürün (sr) izjavljuju pod isključivom odgovornošću da je proizvod (alb.sq) deklarojnë, nën përgjegjësinë e vetme që produkti	
(mt) Isem tal-prodott u Mudell[5.2] (tr) Ürün Adı ve Modeli[5.2] (sr) Naziv proizvoda i model[5.2] (alb.sq) Emri dhe modeli i produktit[5.2]	**Workstation; HP Z2 Tower G1i Workstation**
(mt) Mudell regolatorju Numru[5.1] (tr) Yasal Model Numarası[5.1] (sr) Broj regulatornog modela[5.1] (alb.sq) Numri i Modelit Rregullator[5.1]	**FCW-2403A, FCW-2403B**
(mt) Għażliet tal-prodott (tr) Ürün Opsiyonları (sr) Opcije (alb.sq) Opsionet e produktit	**(mt) Ara l-Anness I** **(tr) Bkz: Ek I** **(sr) Vidi PRILOG I** **(alb.sq) Shih aneksin I**

(mt) jikkonforma mal-Prodott Speċifikazzjonijiet li ġejjin u Regolamenti:
(tr) aşağıdaki Ürün spesifikasyonlarına ve Yönetmeliklere uygun olduğunu beyan eder
(sr) u skladu sa sledećim specifikacijama proizvoda i propisima
(alb.sq) përputhet me specifikimet dhe rregulloret e mëposhtme të produktit

(mt) Sigurtà / (tr) Güvenlik / (sr) Sigurnost / (alb.sq) Sigurinë e produktit

IEC 60950-1:2005 +A1:2009 +A2:2013
IEC 62368-1:2018
IEC 62368-1:2014
EN IEC 62368-1:2020 +A11:2020
EN 50663:2017
EN 50665:2017
EN 62479:2010
EN 62311:2008
EN IEC 62311:2020
EN 60825-1:2014 +A11:2021
EN 62471:2008
EN 50689:2021

(mt) EMC / (tr) EMC / (sr) EMK / (alb.sq) Përputhshmëria elektromagnetike

EN 301 489-1 V2.2.3
EN 301 489-3 v2.3.2
EN 301 489-17 V3.3.1
EN 55032:2015+A11:2020 (Class B)
CISPR 32:2015 (Class B)
CISPR 32:2015+A1:2019 (Class B)
EN 55035:2017+A11:2020
EN 61000-3-2:2014
EN 61000-3-3:2013 +A1:2019
ICES-003, Issue 7
FCC CFR 47 Part 15

(mt) Ispettru tar-radju / (tr) Spektrum / (sr) Radiofrekvencijski spektar / (alb.sq) Spektri i radio

EN 300 328 V2.2.2
EN 301 893 V2.1.1
EN 300 440 V2.2.1
EN 303 687 V1.1.1

(mt) Ekodisinn / (tr) Ekotasarım / (sr) Ekodizajn / (alb.sq) Ekodizajni

Regulation (EU) No. 617/2013
Regulation (EU) 2023/826
EN IEC 62623:2022
EPRI 306 Generalized Internal Power Supply Efficiency Test Protocol, Rev. 6.6
EN 50564:2011
IEC 62301:2011

RoHS

EN IEC 63000:2018

(mt) Ċibersigurtà / (tr) Siber güvenlik / (sr) Sajber bezbednost / (alb.sq) Siguria kibernetike

EN 18031-1: 2024
EN 18031-2: 2024

(mt) Aċċessibilità / (tr) Erişilebilirlik / (sr) Pristupacnost / (alb.sq) Aksesueshmërisë

(mt) DIKJARAZZJONI TA 'KONFORMITÀ / (tr) UYGUNLUK BEYANI / (sr) DEKLARACIJA O USAGLAŠENOSTI / (alb.sq) DEKLARATA E KONFORMITETIT

DoC #: FCW-2403A, FCW-2403B- R3

EN 301 549 V3.2.1	
(mt) Il-prodott hawnhekk jikkonforma mar-rekwiżiti ta 'dawn li ġejjin u jġorr il-marka CE kif xieraq (tr) Ürün, aşağıdakilerin gereksinimlerine uygundur ve CE işaretlemeyi buna göre taşır (sr) Proizvod je u skladu sa sledećim zahtevima i prema tome nosi oznaku CE. (alb.sq) Produkti këtu përputhet me kërkesat e mëposhtme dhe mbart CE-duke shënuar në përputhje me rrethanat	**Radio Equipment Directive 2014/53/EU** **Ecodesign Directive 2009/125/EU** **RoHS Directive 2011/65/EU** **Battery Regulation 2023/1542** **European Accessibility Act 2019/882/EU**
UK ONLY: This product herewith complies with the requirements of the following and carries the UKCA marking.	**Radio Equipment Regulations 2017** **Ecodesign for Energy-Related Products Regulations 2010** **Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012**
U.S. ONLY: This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.	
(mt) Informazzjoni addizzjonali (tr) Ek Bilgiler (sr) Dopunske Informacije (alb.sq) Informacion shtese	
5.1) (mt) Dan il-prodott huwa assenjat għal mudell regolatorju Numru li jibqa 'mal-aspetti regolatorji ta' l- disinn. Il-Numru tal-Mudell regolatorja hija l-identifikatur tal-prodott ewlieni fid-dokumentazzjoni regolatorju u rapporti tat-test, dan in-numru ma għandux jiġi mfixkel ma 'isem marketing jew in-numri tal-prodott. (tr) Bu ürüne tasarım sırasında, teknik mevzutlar gözetilerek bir Yasal Model Numarası atanmıştır. Yasal Model Numarası, ana ürün için düzenleyici belgelerinde ve test raporlaronda tanımlayıcıdır. Bu numara pazarlama adı veya ürün numaraları ile karıştırılmamalıdır. (sr) Ovom proizvodu je dodeljen regulatorni broj modela koji ostaje u skladu sa regulatornim aspektima dizajna. Regulatorni broj modela je glavni identifikator proizvoda u regulatornoj dokumentaciji i izveštajima o ispitivanju, ovaj broj ne treba mešati sa marketinškim nazivom ili brojevima proizvoda. (alb.sq) Këtij produkti i është caktuar një Numër Modeli Rregullator i cili qëndron me aspektet rregullatore të modelit. Numri i Modelit Rregullator është identifikuesi kryesor i produktit në dokumentacionin rregullator dhe raportet e provave, ky numër nuk duhet të ngatërrohet me emrin e marketingut ose numrat e produkteve.	
5.2) (mt) Dan il-prodott ġie ttestjata f'ambjent HP tipiku flimkien ma 'sistema ospitanti HP flimkien ma 'sistema ospitanti HP. (tr) Bu ürün, tipik bir HP ortamında test edilmiştir, HP ana bilgisayar sistemi ile birlikte. (sr) Ovaj proizvod je testiran u tipičnom HP okruženju, zajedno sa HP sistemom domaćina. (alb.sq) Ky produkt u testua në një mjedis tipik HP, së bashku me një sistem pritës HP.	
(mt) Il-korp notifikat elenkat ħareġ iċ-ċertifikat ta 'eżami tat-tip Eu elenkat, skond l-Anness III, għar-rekwiżit essenzjali tal-Artikolu 3.2 tad-Direttiva l-Ħamra. (tr) Listelenen Beden, Kırmızı Direktifin 3.2. Maddesinin temel gereksinimi için listelenen AB tipi sınav sertifikasını yayınladı. (sr) Navedeno imenovano telo izvršilo je ocenjivanje i izdalo navedenu potvrdu o ispitivanju prema Prilogu III, za bitne zahteve člana 3.2 RED Direktive. (alb.sq) Trupi i njoftuar i listuar lëshoi certifikatën e listuar të provimit të tipit BE, sipas Shtojcës III, për kërkesën thelbësore të nenit 3.2 të Direktivës së Kuqe.	**Notified Body: TIMCO Engineering, Inc.** **Notified Body Number: 1177** **Certificate ID: E1177-254946**
UK ONLY: The listed Notified Body issued the listed UK-type examination certificate, according to Annex III, for the essential requirement of article 3.2 of the RED Directive.	**Notified Body: TIMCO Engineering, Inc.1177** **Notified Body Number:** **Certificate ID: U1177-252795**

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(mt) DIKJARAZZJONI TA 'KONFORMITÀ / (tr) UYGUNLUK BEYANI / (sr) DEKLARACIJA O USAGLAŠENOSTI / (alb.sq) DEKLARATA E KONFORMITETIT

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(mt) Kuntatt lokali għal suġġetti regolatorji biss
(tr) Sadece teknik yasal konular için kontak
(sr) Lokalni kontakt samo za regulatorne teme
(alb.sq) Kontakt lokal vetëm për tema rregullatore

EU: HP REG 23010, 08028 Barcelona, Spain
UK: HP Inc UK Ltd, Regulatory Enquiries, Earley West, 300 Thames Valley Park Drive, Reading, RG6 1PT
U.S.: HP Inc., 1501 Page Mill Road, Palo Alto 94304, U.S.A. 650-857-1501
Email: reg@hp.com www.hp.eu/certificates

(mt) DIKJARAZZJONI TA 'KONFORMITÀ / (tr) UYGUNLUK BEYANI / (sr) DEKLARACIJA O USAGLAŠENOSTI / (alb.sq) DEKLARATA E KONFORMITETIT

DoC #: FCW-2403A, FCW-2403B- R3

(mt) ANNESS I **(tr) EK I** **(sr) PRILOG I** **(alb.sq) ANEKSI I**	
(mt) Mudell regolatorju Numru (RMN) (tr) Yasal Model Numarası (RMN) (sr) Broj regulatornog modela (RMN) (alb.sq) Numri i Modelit Rregullator (RMN)	**FCW-2403A, FCW-2403B**
1 (mt) DESKRIZZJONI | 2 (mt) RMN GĦAŻLA* 1 (tr) AÇIKLAMA | 2 (tr) RMN OPSİYON* 1 (sr) OPIS | 2 (sr) RMN OPCIJE* 1 (alb.sq) PËRSHKRIM | 2 (alb.sq) OPSIONI RMN*	

1	2
2.4, 5, 6 GHz WLAN + Bluetooth Combo	BE200NGW AX211NGW

(mt) *Fejn X jirrappreżenta xi karattru numeriku alpha
(tr) *X herhangi bir alfabetik sayısal karakteri gösterir
(sr) *Gde X predstavlja bilo koji alfanumerički znak
(alb.sq) *Ku X paraqet ndonjë karakter alfa numerik

Annex B2 - Product environmental attributes
Computers and computer monitors

The declaration may be published only when all rows and/or fields marked with * are filled-in (n.a. for not applicable). Additional information regarding each item may be found under P15.

Brand *	***HP***	Logo
Company name *	***HP***	
Contact information * e-mail address	***HP Sustainability and Compliance Center*** ***sustainability@hp.com***	
Internet site *	***http://www.hp.com/hpinfo/globalcitizenship/environment/***	
Additional information		

The company declares (based on product specification or test results based obtained from sample testing), that the product conforms to the statements given in this declaration.	
Type of product *	***Desktop***
Commercial name *	**HP Z2 Tower G1i Workstation ENERGY STAR**
Model number *	***Z2 Tower G1i Workstation***
Issue date *	***4/11/2025***
Intended market *	☒ **Global** ☒ **Europe** ☒ **Asia, Pacific & Japan** ☒ **Americas** ☐ **Other**
Additional information	

This is an uncontrolled copy when in printed form. Please refer to the contact information for the latest version.

About Annex B2
Annex B2 reflects Product environmental attributes relevant for Computers and Computer Monitors. The following items from the ECMA-370 Main body are not shown in the template:
P4.1 – P4.3 Consumable materials
P9.1 TEC and Print speed
P10.2 - P10.3 Chemical emissions from printing products
P11.1 - P11.3 Consumable materials for printing products.

Model number *	***Z2 Tower G1i Workstation***	**Logo**
Issue date *	***4/11/2025***	

Product environmental attributes - Legal requirements		**Requirement met**		
Item		Yes	No	n.a.
P1	**Hazardous substances and preparations**			
P1.1*	Products do comply with current European RoHS Directive. (See legal reference and NOTE B1)	☒	☐	
P1.2*	Products do not contain Asbestos (see legal reference). Comment: Legal reference has no maximum concentration value.	☒	☐	
P1.3*	Products do not contain Ozone Depleting Substances: Chlorofluorocarbons (CFC), hydrobromofluorocarbons (HBFC), hydrochlorofluorcarbons (HCFC), Halons, carbontetrachloride, 1,1,1-trichloroethane, methyl bromide (see legal reference). Comment: Legal reference has no maximum concentration values.	☒	☐	
P1.4*	Products do not contain more than; 0,005% polychlorinated biphenyl (PCB), 0,005% polychlorinated terphenyl (PCT) in preparations (see legal reference).	☒	☐	
P1.5*	Products do not contain more than 0,1% short chain chloroparaffins (SCCP) with 10-13 carbon atoms in the chain containing at least 48% per mass of chlorine in the SCCP (see legal reference).	☒	☐	
P1.6*	Parts with direct and prolonged skin contact do not release nickel in concentrations above 0,5 μg/cm²/week (see legal reference). Comment: Max limit in legal reference when tested according to EN1811:2011-5.	☒	☐	☐
P1.7*	REACH Article 33 information about substances in articles is available at (add URL or mail contact): REACH Article 33 Declarations (hp.com)	☒	☐	☐
P2	**Batteries**			
P2.1*	If the product contains a battery or an accumulator, the battery/accumulator is labeled with the disposal symbol. Information on proper disposal is provided in user manual. (See legal reference)	☒	☐	☐
P2.2*	Batteries or accumulators do not contain more than 0,0005% of mercury or 0,002% of cadmium. (See legal reference)	☒	☐	☐
P2.3*	Batteries and accumulators are readily removable. (See legal reference)	☐	☐	☒
P2.4*	Documentation includes the number of cycles the (secondary) battery can withstand. (See legal reference)	☐	☐	☒
P2.5*	When internal batteries of a notebook computer cannot be “accessed and replaced by a nonprofessional user”, the related text is present and legible on the external packaging (see legal reference)	☐	☐	☒
P3	**Conformity verification & Eco design (ErP)**			
P3.1*	The product is CE-marked to show conformance with applicable legal requirements (see legal reference). The Declaration of Conformity can be requested at (add link or e-mail address): http://www8.hp.com/uk/en/certifications/technical/regulations-certificates.html sustainability@hp.com	☒	☐	☐
P3.2*	The product complies with the applicable Eco design requirements for energy-related products, (see legal reference).	☒	☐	☐
	Required information is; ☐ given in item P15 or added to this document, ☒ available at (add URL): ***https://h20195.www2.hp.com/v2/library.aspx?doctype=92&footer=88&filter_doctype=no&showregionfacet=yes&filter_country=no&cc=us&lc=en&filter_oid=no&filter_prodtype=rw&prodtype=ij&showproductcompatibility=yes&showregion=yes&showreglangcol=yes&showdescription=yes%23doctype-92&sortorder-popular&teasers-off&isRetired-false&isRHParentNode-false&titleCheck-false#doctype-92&sortorder-popular&teasers-off&isRetired-false&isRHParentNode-false&titleCheck-false***	☒	☐	☐
P5	**Product packaging**			
P5.1*	Packaging and packaging components do not contain more than 0,01% lead, mercury, cadmium and hexavalent chromium by weight of these together.	☒	☐	
P5.2*	The packaging materials are marked with abbreviations and numbers indicating the nature of the material(s) used (see legal reference).	☒	☐	☐
P5.3*	The product packaging material is free from ozone depleting substances as specified in the Montreal Protocol (see legal reference). Comment: Legal reference has no maximum concentration values.	☒	☐	☐
P6	**Treatment information**			
P6.1*	Information for recyclers/treatment facilities is available (see legal reference).	☒	☐	☐

NOTE B1 Restriction applies to the homogeneous material, unless other specified and expressed in weight %. Stating “Yes” means that the product is compliant with the mandatory requirements.

Model number *	Z2 Tower G1i Workstation	Logo	
Issue date *	4/11/2025		

Product environmental attributes - Market requirements (See General NOTE GN below) - Environmental conscious design		Requirement met		
Item	*=mandatory to fill in. Additional information regarding each item may be found under P14.	Yes	No	n.a.
P7	**Design** **Disassembly, recycling**			
P7.1*	Parts that have to be treated separately are easily separable	☒	☐	☐
P7.2*	Plastic materials in covers/housing have no surface coating.	☒	☐	☐
P7.3*	Plastic parts > 100 g consist of one material or of easily separable materials.	☒	☐	☐
P7.4*	Plastic parts > 25 g have material codes according to ISO 11469 referring ISO 1043-4.	☒	☐	☐
P7.5	Plastic parts are free from metal inlays or have inlays that can be removed with commonly available tools.	☒	☐	☐
P7.6*	Labels are easily separable. (This requirement does not apply to safety/regulatory labels).	☒	☐	☐
	Product lifetime			
P7.7*	Upgrading can be done e.g. with processor, memory, cards or drives	☒	☐	☐
P7.8*	Upgrading can be done using commonly available tools	☒	☐	☐
P7.9	Spare parts are available after end of production for: **5** years			☐
P7.10	Service is available after end of production for: **5** years			☐
	Material and substance requirements			
P7.11*	Product cover/housing material type (e.g. plastics, metal, aluminum): Material type: ***steel*** Material type: Material type:			
P7.12	Insulation materials of external electrical cables are PVC free.	☐	☒	☐
P7.13	Insulation materials of internal electrical cables are PVC free.	☒	☐	☐
P7.14	External plastic casing/cover parts > 25 g contain no more than 0,1% weight (1000 ppm) bromine and 0,1% weight (1000 ppm) chlorine attributable to brominated flame retardants, chlorinated flame retardants, and polyvinyl chloride or 0,3% weight (3000 ppm) bromine and 0,3% weight (3000 ppm) chlorine in parts containing more than 25% post-consumer recycled content.	☒	☐	☐
P7.15	Printed circuit boards, PCBs (without components) are low halogen: all ☐ PCBs > 25 g ☒ are low halogen as defined in IEC 61249-2-21. (See [5]NOTE B2)	☒	☐	☐
P7.16	Flame retarded plastic parts > 25 g in covers / housings are marked according ISO 1043-4: Marking: ***>PBT+PET-GF30FR(40)<, >PC+ABS-FR(40)<***	☒	☐	☐
P7.17	Alt. 1: Chemical specifications of flame retardants in printed circuit boards > 25 g (without components): TBBPA (additive) ☐, TBBPA (reactive) ☐ (See NOTE B3), Other; chemical name: , CAS #:	☐	☐	☐
	Alt. 2: Chemical specifications of flame retardants in printed circuit boards (without components) > 25 g according ISO 1043-4: ***FR(40)***	☒	☐	☐
P7.18	Alt. 1: Flame retarded plastic parts > 25 g contain the following flame retardant substances/preparations in concentrations above 0,1%: 1. Chemical name: , CAS #: (See NOTE B4) 2. Chemical name: , CAS #: " 3. Chemical name: , CAS #: "	☐	☐	☐
	Alt. 2: Chemical specifications of flame retardants in plastic parts > 25 g according ISO 1043-4: ***>PBT+PET-GF30FR(40)<, >PC+ABS-FR(40)<***	☒	☐	☐
P7.19	In plastic parts > 25 g, flame retardant substances/preparations above 0,1% are used which have been assigned the following Risk phrases; ***R53*** and Hazard statements: ***H413 - May cause long-lasting harmful effects to aquatic life*** The source(s) for these classifications is/are found at (URL(s): ***http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database*** (See NOTE B5)	☒	☐	☐

GENERAL NOTE Standard references should direct to the latest version of a standard. If an older version of a standard is used, section P15 shall be used for explanation.

NOTE B2 IEC 61249-2-21 defines maximum limits of 900 ppm for each of the substances chlorine and bromine and a maximum limit of 1500ppm of these substances combined. The standard does not address fluorine, iodine and astatine which are included in the group of halogens.

NOTE B3 and B4 A Guidance document on Chemical substances is available; see http://www.ecma-international.org/publications/standards/Ecma-370.htm.

NOTE B5 If a certain substance has been assigned a certain risk phrases / hazard statement in the referenced source, this does not necessarily mean the substance has been tested for all of the hazards referred to by a certain customer.

Model number *	*Z2 Tower G1i Workstation*	Logo	
Issue date *	*4/11/2025*		

Product environmental attributes - Market requirements (continued)		Requirement met		
Item		Yes	No	n.a.
	Material and substance requirements (continued)			
P7.20*	Postconsumer recycled plastic material content is used in the product (See NOTE B6): If YES; at least one of the two alternatives below shall be answered; a) Of total plastic parts' weight > 25 g, the postconsumer recycled plastic material content (calculated as a percentage of total plastic by weight) is ***62.0*%**. or b) The weight of recycled material is g.	☒	☐	☐
P7.21*	Biobased plastic material content is used in the product (See NOTE B7): If YES; at least one of the two alternatives below shall be answered; a) Of total plastic parts' weight > 25 g, the biobased plastic material content (calculated as a percentage of total plastic by weight) is %. or b) The weight of the biobased plastic material is g.	☐	☒	☐
P7.22*	Light sources are free from mercury, i.e. less than 0,1 mg/lamp. If mercury is used specify: Number of lamps: and maximum mercury content per lamp: mg	☐	☐	☒
P7.23*	If product includes an integral display, the total mercury content in the integrated display: mg	☐	☐	☐
P8	**Batteries**			
P8.1*	Battery chemical composition: ***lithium/carbon monofluoride***			☐
P9	**Energy consumption (See NOTE B8)**			
P9.1	For the product the following power levels or energy consumptions are reported:			

Energy mode *	Power level at **100** V AC	Power level at **115** V AC	Power level at **230** V AC	Reference/Standard for energy modes and test method *	
EPS No-load (External power supply / charger plugged in the wall outlet but disconnected from the product.)	***N/A***	***N/A***	***N/A***	***EPS Energy Report Data***	
PTEC * Typical Energy Consumption	***19*** W	***19.3*** W	***19.5*** W	***N/A***	☐
ETEC * Annual Energy Consumption	kWh/year	kWh/year	kWh/year	***ENERGY STAR® Program Requirements for Computer***	☒
External Power Supply Efficiency Level (International Efficiency Marking Protocol) * :				***ENERGY STAR® Program Requirements for Computer***	☒
Display resolution * : megapixels				***ENERGY STAR® Program Requirements for Computer***	☐
Default time to enter energy save mode: minutes				***ENERGY STAR® Program Requirements for Computer***	☒

P9.2*	Information about the energy save function is provided with the product.	☒	☐	☐
P9.3	Energy efficiency class (monitors only):			☒

NOTE B6 Applies to a product containing plastic parts whose combined weight exceeds 100 g with the exception of printed circuit boards, cables, connectors and electronic components and bio-based plastic material.

NOTE B7 The following is to be excluded from the calculation of percentage: printed circuit boards, labels, cables, connectors and electronic components and postconsumer recycled plastic

NOTE B8 A Guidance document on Energy Efficiency is available;

see http://www.ecma-international.org/publications/standards/Ecma-370.htm.

Model number *	*Z2 Tower G1i Workstation*	Logo	
Issue date *	*4/11/2025*		

Product environmental attributes - Market requirements (continued)				**Requirement met**		
Item				Yes	No	n.a.
P10	**Emissions**					
	Noise emission – Declared according to ISO 9296 (See NOTE **B9**)					
P10.1	Mode	Mode description	Statistical upper limit A-weighted sound power level, $L_{WA,c}$ (B)			
	Idle	* *Fans on*	* *3.90*			☐
	Operation	* *Fans on, HDD spinning*	* *4.21*			☐
	Other mode					
	Measured according to: ☒ ISO 7779 ☒ ECMA-74 ☐ Other (only if not covered by ECMA-74)					
	Electromagnetic emissions					
P10.4	Computer display meets the requirement for low frequency electromagnetic fields of the following voluntary program(s):			☐	☐	☐
P12	**Ergonomics for computing products**					
P12.1*	The display meets the ergonomic requirements of ISO 9241-307 for visual display technologies.			☐	☐	☒
P12.2*	The physical input device meets the requirements of ISO 9995 and ISO 9241-410.			☒	☐	☐
P13	**Packaging and documentation**					
P13.1*	Product packaging material type(s): *PAPER/Corrugated* weight (kg): *1.316* Product packaging material type(s): *PAPER/Molded Pulp* weight (kg): *1.114* Product packaging material type(s): *PLASTIC/Polyethylene low density - LDPE* weight (kg): *0.058*					
P13.2*	Product plastic primary packaging is free from PVC.			☒	☐	☐
P13.3*	For product primary corrugated fiberboard packaging, specify the contained percentage of minimum post-consumer recovered fiber content: *65* %					☐
P13.4*	Specify media for user and product documentation (tick box): Electronic ☐, Paper ☐, Other ☒ 'available in hp.com'					☐
P13.5	(Please only complete this item if paper documentation used) User and product documentation on paper media is chlorine-free: If Yes, please specify:			☒	☐	
	Totally chlorine-free			☐		
	Elemental chlorine-free			☒		
	Processed chlorine-free			☐		
P14	**Voluntary programs**					
P14.1	The product meets the requirements of the following voluntary program(s):					
	ENERGY STAR®	Criteria version: *9.0*	Date: *4/11/2025*	Product category: *Workstation*		
	Eco-label: *EPEAT*	Criteria version: *IEEE 1680.1*	Date: *4/11/2025*	Product category: *Workstation*		
	Eco-label: *TCO*	Criteria version: *10*	Date: *4/11/2025*	Product category: *Workstation*		
P15	**Additional information (See NOTE B10)**					
P9	***Energy consumption of computer products; description of the tested product configuration:***					
All Sections	***1. Product environmental information contained in this declaration is valid as of the date the declaration is published. Changes to external standards referenced in the IT Eco-Declaration may invalidate some information contained in this declaration over***					
P1	***1. This product does not include DEHP, BBP, DIBP, or DBP.***					

NOTE B9 A Guidance document on Acoustic Noise is available; see http://www.ecma-international.org/publications/standards/Ecma-370.htm.

NOTE B10 Additional lines may be inserted to declare further items, by positioning the cursor at the far right of the row and hitting the <Enter> key.

P7 ***Product Upgradability and Reparability***

The following table is provided in accordance with IEEE 1680.1-2018[6] criterion 4.4.2.5.

feature	Available [1]	Repairable [2]	Replaceable [3]	Upgradeable [4]
processor	Y	Y	Y	Y
main memory	Y	Y	Y	Y
mass storage (internal)	Y	Y	Y	Y
wireless networking	Y	Y	Y	Y
integrated graphics	N	N/A	N/A	N/A
discrete graphics	Y	Y	Y	Y
display panel	N	N/A	N/A	N/A
integrated keyboard	N	N/A	N/A	N/A
batteries	Y	Y	Y	Y
power supply	Y	Y	Y	Y
fan assemblies	Y	Y	Y	Y
speaker(s) (internal)	Y	Y	Y	Y
camera	N	N/A	N/A	N/A
touchpad	N	N/A	N/A	N/A
I/O connectors and external power connector	Y	Y	Y	Y
readers [5]	N	N/A	N/A	N/A

Table notes:
[1] Y* = feature is available, but may not be included in every configuration
[2] Product can be repaired (returned to fully functional state) if feature fails.
[3] Feature can be replaced using only commonly available tools without soldering or de-soldering. Y* = replacement may require replacing an assembly to which the feature is attached.
[4] Base feature may be upgraded by replacing it with a higher performance module or by expanding capacity through use of expansion slots. NOTE: This evaluation does not
account for situations in which the initial configuration purchased is already maximized. Contact HP Sales or an HP authorized reseller to determine the availability of upgrade parts and method to obtain them in your geography.
[5] This feature category includes readers such as fingerprint readers, smart card readers, and other read-only devices, but excludes read/write devices.

P9 ***1. European Union Commission Regulation 2023/826- Energy Efficiency Information:***

Mode / Condition	Power Consumption in Watts at 230 VAC Input Voltage	Default Time to Mode / Conditi (if applicable)
Off Mode (if applicable)	***0.264***	Not Applicable
Standby Mode (if applicable)	Not Applicable	Not Applicable
Network Standby / Sleep / Long Idle Mode if all wired network ports are connected and all wireless network ports are activated (if applicable)	***N/A***	***N/A***
Network Standby / Sleep / Long Idle Mode (if applicable)	***N/A***	***N/A***
Technical characteristics of the external power supply to be used with that equipment. (Equipment that needs an external power supply, but it is placed on the market without one) (if applicable)		

2.European Union Commission Regulation 2023/826- Wireless Network Instructions:

Where applicable, activate and deactivate a wireless network using the instructions provided in the product user guide or the operating system. Information is also available at www.hp.com/support.

6 IEEE Standard for Environmental and Social Responsibility Assessment of Computers and Displays

P15.1 ***Critical Mineral Content disclosure***

	Zinc	***Manganese***	***Praseodymium***
Secondary batteries			
Magnets	***>1-5g***	***6-25g***	***101-500mg***
Display panels/ screens			

Note: Report data in mass ranges, such as < 1 mg, 1-100 mg, 101-500 mg, 501-1,000 mg, >1-5 g, 6-25 g, > 25 g.

P10	**Sound Pressure Level**		
	Noise emission – Declared according to ISO 9296 (See NOTE [B9])		
P10.1	Mode	Mode description	Statistical upper limit A-weighted sound pressure level, $L_{pA,m}$ (dB)
	Idle	* ***Fans on***	* ***22.02***
	Operation	* ***Fans on, HDD spinning***	* ***25.46***
	Other mode		
	Measured according to: ☒ ISO 7779 ☒ ECMA-74 ☐ ***Other*** ***(only if not covered by ECMA-74)***		

Legal references Europe Annex B2

Reference	Declaration item
Directive 2011/65/EU (RoHS Directive)* * Specific exemptions apply for certain products and applications.	P1.1, P3.1
Regulation (EC) 1907/2006 (REACH Regulation), annex XVII	P1.2, P1.4, P1.6, P1.7
Regulation (EC) 2037/2000, 2038/2000, 2039/2000 (Marketing and use of Ozone layer depleting substances)	P1.3, P5.3
Norwegian regulation relating to restrictions on the use of certain dangerous chemicals 20.12.2002	P1.5
Directive 2006/66/EC (Battery and accumulators Directive), as amended.* * These provisions shall not apply where, for safety, performance, medical or data integrity reasons, continuity of power supply is necessary and requires a permanent connection between the appliance and the battery or accumulator.	P2.1, P2.2, P2,3, P8.1
Directive 2014/35/EU (Low Voltage Directive)	P3.1
Directive 2014/30/EU (EMC Directive)	P3.1
Directive 2014/53/EU (RE Directive)	P3.1
Regulation (EC) 801/2013 amending Regulation (EC) No 1275/2008 with regard to ecodesign requirements for standby, off mode electric power consumption of electrical and electronic household and office equipment, and amending Regulation (EC) No 642/2009 with regard to ecodesign requirements for televisions	P3.1, P3.2
Commission Regulation (EC) No 278/2009 of 6 April 2009 implementing Directive 2005/32/EC of the European Parliament and of the Council with regard to ecodesign requirements for no-load condition electric power demand and average active efficiency of external power supplies	P3.1, P3.2, P9.1
COMMISSION REGULATION (EU) No 617/2013 of 26 June 2013 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for computers and computer servers	P2.4, P2.5, P3.1, P3.2, P7.23, P9.1
Regulation（EC）No 1272/2008 (CLP Regulation)	P7.19
Directive 2004/12/EC (Packaging Directive)	P5.1
Decision 97/129/EC (Secondary packaging legislation)	P5.2
Directive 2012/19/EU (WEEE directive) Implementing Regulation (EU) 2019/290 establishing the format for registration and reporting of producers of electrical and electronic equipment to the register. Commission Implementing Regulation 2017/699 establishing a common methodology for the calculation of the weight of electrical and electronic equipment (EEE) placed on the national market in each Member State and a common methodology for the calculation of the quantity of waste electrical and electronic equipment (WEEE) generated by weight in each Member State.	P6.1

FAQ
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RESET FILTERS

CERTIFICATION

- [ ] Latest generation (10)

CATEGORY

- [ ] Desktops (11)

BRAND

- [ ] Acer
- [ ] AOC
- [ ] ASUS

ACTIVE FILTERS

CUSTOM QUERY
Z2 TOWER G1I

Save your selection, access powerful tools.

Create an account / Log in

COMPARE | WATCH | SHARE RESULTS | EXPORT RESULTS

BRAND	SALES NAME	CERTIFIED ON	VALID UNTIL
HP	HP Z2 Tower G1i Workstation	2025-03-25	2027-03-25
HP	HP Z1 Tower G1i Desktop PC	2025-03-19	2027-03-19
HP	HP Z2 Tower G9 Workstation Desktop PC	2022-02-07	2026-12-01
HP	HP ProDesk 2 Tower G1iR Desktop PC	2026-05-17	2028-05-17

- [ ] BenQ
- [ ] Ciara
- [ ] DAHUA
- [ ] DELL
- [ ] EccoPc
- [ ] EIZO
- [ ] Epson
- [ ] FAIRPHONE
- [ ] FUJITSU
- [ ] HIKVISION
- [ ] Honor
- [ ] HP
- [ ] iiyama
- [ ] INSYS
- [ ] Jabra
- [ ] Lenovo
- [ ] LG
- [ ] Logitech
- [ ] MSI
- [ ] NTT System S.A.
- [ ] Philips
- [ ] Poly
- [ ] Samsung
- [ ] SHARP
- [ ] SteelSeries
- [ ] V7
- [ ] ViewSonic

BRAND	SALES NAME	CERTIFIED ON	VALID UNTIL
HP	HP ProDesk 2 Tower G1iRE Desktop PC	2026-05-17	2028-05-17
HP	HP ProDesk 2 Tower G1i Desktop PC	2025-06-25	2027-06-25
HP	HP ProDesk 2 Tower G1i E Desktop PC	2025-06-25	2027-06-25
HP	HP ProDesk 2 Tower G1a Desktop AI PC	2025-06-25	2027-06-25
HP	HP ProDesk 2 Tower G1a E Desktop AI PC	2025-06-25	2027-06-25
HP	HP ProDesk 4 Tower G1i Desktop AI PC	2025-03-19	2027-03-19
HP	HP ProDesk 4 Tower G1i E Desktop PC	2025-03-19	2027-03-19

Voxicon

Together toward sustainable IT

TCO Certified is the global sustainability certification for IT products, empowering both IT buyers and brands to make more responsible choices. Our comprehensive criteria are designed to drive social and environmental responsibility and are updated continuously to push sustainability where it matters most. Compliance with all criteria is always independently verified for every product.

Our Roadmap for Sustainable IT is the long-term plan for addressing issues in four key areas: climate, substances, circularity and supply chain. By using TCO Certified, you join a global movement for sustainable IT.

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- For IT brand owners and verifiers
- For resellers and retailers
- Purchaser Advisory Forum
- Circular Electronics Initiative

[별지 제 1 호 서식]

유해물질 함유기준 준수 여부 확인. 평가서

공표자	상 호	에이치피코리아유한회사 (전화: 02-780-6200)	법인등록번호	110114-0158623
	대표자 성명	김 대 환	사업자등록번호	741-81-00060
	주 소	150-724 서울 영등포구 의사당대로 83 (여의도동)		

제 품 정 보

① 제품의 종류	개인용 컴퓨터	제품명 (규격)	HP Compaq Computer
② 세부모델명(번호)	HP Z2 Tower G1i Workstation ENERGY STAR	최초 출시일	2025/4/11
제품의 중량	9.44 kg	③ 제조.수입업자	에이치피코리아유한회사

당사는 위 [x] 전기.전자제품 / [ ] 자동차가 "전기.전자제품 및 자동차의 자원순환에 관한 법률 시행령" 제 11조 제1항과 같은 법 시행규칙 제 3조에 따라 사용제한 유해물질의 함유기준을 확인.평가한 결과 [x] 준수 / [ ] 미준수 하였음을 공표합니다.

년 월 일

(주: 본 제품의 확인 평가 내역 공표는 정부 웹사이트 EcoAS 에 온라인으로 제출되었으므로 공표 일자는 생략합니다.)

공표자 김 혜 선

구비서류 : 없음

* 작성요령

① 제품의 종류는 "전기.전자제품 및 자동차의 자원순환에 관한 법률 시행령" 제 8 조 제 1 항 및 제 2 항에 따른 품목별로 구분하여 기재합니다.

② 전기.전자제품의 경우 모델명(번호), 자동차의 경우 제원관리번호를 기재합니다.

③ 해당 제품의 제조업자 또는 수입업자를 기재합니다.

[Appendix Table 1]

Confirmation and Evaluation Form Concerning the Adherence to Acceptable Standards of Hazardous Materials Contained in Product

Statement prepared by	Company Name	HP Korea (Phone No.: 02-780-6200)	Corporate Identification Number	110114-0158623
	Name of Company Representative	Kim, Dae Hwan	Business Registration Number	741-81-00060
	Address	83, Uisadang-daero, Youngdeungpo-gu, Seoul, Republic of Korea		

Product Information

① Product Category	Personal Computer	Name of Product (Specification)	HP Compaq Computer
② Detailed Product Model Name (Model Number)	HP Z2 Tower G1i Workstation ENERGY STAR	Date of first market release	2025/4/11
Weight of Product	9.44 kg	③ Manufacturer and/or Importer	HP Korea

This form is to publicly certify that we have undergone the confirmation and evaluation procedures for the acceptable amounts of hazardous materials contained in [x] electrical-electronic products / [ ] vehicles according to the regulations stipulated in Article 3 of the "Statute on the Recycling of Electrical and Electronic Products, and Automobiles" and that the company has [x] Adhered / [ ] Not Adhered to the Enforcement Regulations of Article 11, Item 1 of the Statute.

Date. . . .

(Remark: The declaration date is omitted here, because the actual declaration was made online at the designated Korea government web system "EcoAS")

Authorizing Representative Hyesun Kim 

Attachments: None

* Preparing the Form:
① Please indicate the product category according to the categories listed in Article 8, Items 1 and 2 of the "Enforcement Ordinance of the Statute on the Recycling of Electrical, Electronic and Automobile Materials"
② For electrical and electronic products, please indicate the Model Name (and number). For automobiles, please indicate the Vehicle Identification Number.
③ Please indicate the name of the manufacturer and/or importer of the product.

Planilha de dados

Monitor HP P24a G5 FHD

Grandes recursos. Grandes vantagens.

Todos os dias, esse monitor FHD proporciona maior produtividade e conforto. Desde a tela IPS nítida de 23,8 polegadas na diagonal, com design de microborda de 3 lados, até a capacidade de ajuste em 3 direções, este monitor ajuda você a trabalhar confortavelmente durante o dia. Facilite o trabalho híbrido por meio de uma tela nítida e suave, que se conecta convenientemente aos dispositivos que você usa com mais frequência.



*A imagem do produto pode ser diferente do produto atual

Mais conforto. Mais produtividade.

- Encontre sua melhor posição com ajustes de inclinação, pivô e altura de 100 mm para ajudar você a se manter produtivo durante todo o dia. Além disso, filtre as emissões de luz azul e mude as cores para um espectro mais quente, tendo uma visualização mais confortável, com o modo de luz azul baixa da HP.

Visualizações suaves de qualquer ângulo.

- Desfrute de vídeos fluidos e visuais nítidos com uma taxa de atualização de 75 Hz[1] e resolução Full HD - tudo de praticamente qualquer ângulo com a tecnologia de painel IPS. Além disso, aumente sua produtividade com visualizações praticamente ininterruptas de uma ou várias telas com uma moldura de microborda de três lados que suporta matrizes praticamente contínuas.

Praticidade plug-and-play

- Este monitor conta com 4 portas USB-A de fácil acesso[2] que facilitam a conexão de vários dispositivos como mouse, teclado e webcam. Além disso, conecte-se rapidamente a dispositivos adicionais, como um PC ou uma fonte de vídeo, usando as portas HDMI, DisplayPort™ e VGA[2].

Recursos

Oferece tranquilidade
Fique tranquilo com a garantia limitada de 3 anos.

Design para consumo eficiente de energia
A eficiência energética está incorporada a este monitor, pois ele tem certificação ENERGY STAR® e TCO, além de registro EPEAT®.[3]

Projetado pensando no meio ambiente
Este monitor é embalado em uma caixa externa 100% reciclável para que você possa se sentir bem com sua compra.[4]

Monitor HP P24a G5 FHD Tabela de especificações





*A imagem do produto pode ser diferente do produto atual

Display size (diagonal, metric)	60,45 cm (23,8")
Tipo do visor	IPS
Área ativa do painel	52,7 x 29,65 cm
@@Brightness@@	250 nits[1]
Contrast ratio (static)	1000:1[1]
Contrast ratio (dynamic)	10000000:1
Taxa de resposta	GtG de 5 ms (com overdrive)[1]
Cor do produto	Preto
Relação largura-altura	16:9[1]
Backlight type	Iluminação de borda
Detachable stand	Yes
Curvature	Plana
Resolução nativa	FHD (1920 x 1080)[1,2]
Resoluções admitidas	640 x 480; 720 x 400; 800 x 600; 1024 x 768; 1280 x 720; 1280 x 800; 1280 x 1024; 1440 x 900; 1600 x 900; 1680 x 1050; 1920 x 1080; 720 x 480
Características do visor	Controles na tela; Rotação em pivô; Modo de luz azul baixa; Antirreflexo; Altura ajustável
Controles do usuário	Gerenciamento; Informações; Sair; Entrada; Cor; Imagem; Alimentação; Menu; Brilho+
Portas e conectores	1 VGA; 1 HDMI 1.4; 1 DisplayPort™ 1.2; 4 SuperSpeed USB Type-A com taxa de sinalização de 5 Gbps; 1 USB-B
HDCP	Sim, DisplayPort™ e HDMI
Ambiental	Temperatura de funcionamento: 5 a 35 °C Umidade de funcionamento: 20 a 80% UR
Alimentação	100 - 240 VCA, 50/60 Hz
Consumo de energia	54 W (máximo), 16 W (típico), 0,5 W (estado de espera)
Dimensões	54 x 6,02 x 32,33 cm (sem suporte)
Peso	5,6 kg (com suporte)
Funcionalidades de segurança física	Pronto para bloqueio de segurança[8]
Rótulos ecológicos	Certificação TCO; Registro EPEAT®[4]; Certificado pela ENERGY STAR®
Certificação e conformidade	CB; CE; Certificado livre de Flicker TÜV; Certificação Microsoft WHQL (Windows 11 e Windows 10); TUV - Luz azul baixa; INMETRO (Brasil)
Sustainable impact specifications	80% de plásticos reciclados pós-consumo; A caixa externa é 100% de origem sustentável[5,6]
Conteúdo da caixa	Monitor; Cabo DisplayPort™; Cabo HDMI; Cabo USB Type-A para B; Cabo de alimentação CA; Kit de documentos[7]
Dimensões do palete (Largura x Profundidade x Altura)	120 x 100 x 215,3 cm
Peso da palete	363,1 kg
Pixels per inch (ppi)	93 ppi[1]
Panel bit depth	8 bits (6 bits + FRC)[1]
Vertical viewing angle	178°
Horizontal viewing angle	178°
Bezel	Microborda de três lados
Tilt	-5 a +23°
Pivot	±90°
Height adjustment range	100 mm
VESA mounting	100 x 100 mm
Hardness	3H[1]
Screen treatment	Anti-reflexo
Flicker-free	Sim
Low blue light modes	Sim (Certificação TÜV)
Mostrar freqüência da tela (vertical)	50 a 75 Hz[1]
Mostrar freqüência da tela (horizontal)	30 a 80 kHz[1]
Espaçamento de pixels	0,28 x 0,28 mm
Cores na tela	Suporte para até 16,7 milhões de cores[3]
Gama de cores do monitor	72% NTSC[1]
Software de gestão	Centro de exibição HP[9]

Monitor HP P24a G5 FHD

Notas de rodapé de mensagens

[1] Todas as especificações de desempenho representam as especificações típicas fornecidas pelos fabricantes dos componentes utilizados nos produtos HP; o desempenho real pode ser maior ou menor.
[2] A caixa inclui cabos HDMI, DisplayPort™.
[3] Com base no registro de EPEAT® EUA de acordo com IEEE 1680.1-2018 EPEAT®. O registro EPEAT® varia conforme o país. Acesse www.epeat.net para obter mais informações.
[4] Os centros de reciclagem não estão disponíveis em todos os lugares.

Notas de rodapé das especificações técnicas

[1] Todas as especificações representam as especificações típicas fornecidas pelos fabricantes dos componentes utilizados nos produtos HP; o desempenho real pode variar para mais ou para menos.
[2] DisplayPort™ 1.2 ou HDMI 1.4 necessário para a tela funcionar na sua resolução nativa. A placa de vídeo do PC conectado deve ser capaz de oferecer suporte a 1920 x 1080 a 60 Hz com cores de 8 bits usando uma DisplayPort™, HDMI. A placa de vídeo do PC conectado deve ser capaz de oferecer suporte a 1920 x 1080 e conter uma saída DisplayPort™ ou uma saída HDMI para o monitor funcionar no Modo preferencial.
[3] Número de cores por meio da tecnologia A-FRC.
[4] Registro EPEAT® quando aplicável. O registro EPEAT® varia conforme o país. Acesse www.epeat.net para ver o status do registro por país. Com base no registro EPEAT® dos EUA de acordo com a IEEE 1680.1-2018 EPEAT®. O status varia de acordo com o país. Acesse www.epeat.net para obter mais informações.
[5] A porcentagem de conteúdo de plástico reciclado é baseada na definição estabelecida no padrão IEEE 1680.1-2018.
[6] 100% da embalagem da caixa externa produzida com fibras certificadas e recicladas de origem sustentável.
[7] Os cabos incluídos podem variar de acordo com o país.
[8] Trava vendida separadamente.
[9] O PC host requer Windows 10 e superior. O HP Display Center está disponível na loja da Microsoft.

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Dezembro 2023

Technical Specifications

HP P24a G5 FHD Monitor



Front

1. OSD Buttons
2. Power Button
3. Power LED

Technical Specifications

HP P24a G5 FHD Monitor



Back

1. Power Connector
2. DisplayPort™ Connector
3. HDMI Port
4. VGA Port
5. USB-B Port
6. USB-A Ports (2)
7. USB-A Ports (2)
8. Security Cable Slot

Technical Specifications

Model: 8D5J5AA

Panel Specifications	**Display Size (Diagonal)**	23.8 inch (60.45 cm)
	Panel Technology	IPS
	Max Refresh Rate	75 Hz
	Native Resolution	1920 x 1080
	Panel Bit Depth	8 bit (6 bit + FRC)
	Aspect Ratio	16:9
	Brightness (Typical)	250 nits
	Display Contrast Ratio (Static)	1000:1
	Dynamic Contrast Ratio	10000000 :1
	Flicker Free	Yes
	Pixel Pitch	0.275 mm x 0.275 (mm)
	Pixels Per Inch (PPI)	93 PPI
	Display colors	Up to 16.7 million colors supported* *Number of colors through A-FRC technology.
	Backlight Lamp Life Minimum (To Half Brightness - In Hours)	30K
	Backlight Type	Edge-lit
	Screen Treatment	Anti-glare
	Hardness	3H
	Haze	25%
	Response Time (Typical)	5ms GtG (with overdrive)
	Horizontal Viewing Angle (Typical Cr>10)	178°
	Vertical Viewing Angle (Typical CR>10)	178°
	Panel Active Area Metric (W x H)	52.70 x 29.64 cm
	Panel Active Area Imperial (W x H)	20.75x 11.67 inch
	NOTE: Performance specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower.	
Color	**NTSC**	72%
Color Management	**Color Space/ Subsampling Support**	YCBCR 4:4:4, YCBCR 4:2:2
	RGB Channel Adjust	Yes, Gain
	Default Color Temperature	Standard (6500K)
Monitor Specifications	**Bezel Type**	3-sided micro-edge
	Color of Stand	Black
	Color of Head	Black
	Tilt	-5 to +23°
	Pivot	±90
	Height Adjustment Range	100 mm
	VESA Mounting	100 mm x 100 mm
	Security Lock	Standard Security Lock Slot
	Detachable Stand	Yes
	Warranty	3/3/0
	Low Blue Light	Yes (TÜV certified)
	Management Software	HP Display Center

Technical Specifications

On Screen Display (OSD)	**On Screen Display**	Brightness+, Color, Image, Input, Power, Menu, Management, Information, Exit
	Native Resolution	1920 x 1080 @ 60 Hz* *DisplayPort 1.2 or HDMI 1.4 required to drive panel at its native resolution
	Maximum Resolution	FHD (1920 x 1080 @ 75 Hz)
	Preset Graphic Modes/Supported Resolutions	640 x 480 @ 60Hz, 640 x 480 @ 75Hz, 720 x 400 @ 70 Hz, 720 x 480 @ 60 Hz, 800 x 600 @ 60 Hz, 800 x 600 @ 75 Hz, 1024 x 768 @ 60 Hz, 1024 x 768 @ 75 Hz, 1280 x 720 @ 60 Hz, 1280 x 800 @ 60 Hz , 1280 x 1024 @ 60 Hz, 1280 x 1024 @ 75 Hz, 1440 x 900 @ 60 Hz, 1600 x 900 @ 60 Hz, 1680 x 1050 @ 60 Hz, 1920 x 1080 @ 50 Hz 1920 x 1080 @ 60 Hz 1920 x 1080 @ 75 Hz
	Minimum Vertical Scan Rate	50 Hz
	Maximum Vertical Scan Rate	75 Hz
	Minimum Horizontal Scan Rate	30 Khz
	Maximum Horizontal Scan Rate	80 Khz
	Maximum Pixel Clock	180 MHz
	User Programmable Modes	Yes. 10
	User-Assignable Function Buttons	Yes, 3 (6 options)
	Languages	10 (English, Spanish, German, French, Italian, Netherlands, Portuguese, Japanese, T-Chinese and S-Chinese)
Connector Types	**DisplayPort™**	1 DisplayPort™ 1.2
	HDMI	1 HDMI 1.4
	HDCP	Yes, DisplayPort™ and HDMI
	USB- A	4 SuperSpeed USB Type-A 5Gbps signaling rate
	USB-B (Hub enablement)	1 USB-B
	VGA	1 VGA
Special Features	**Switch**	Menu/OK, Minus("-"))/Brightness, Plus ("+"),/Color/Auto-Adjustment, Next Active Input, Power
	User Presets	12
Power & Operating Specs	**Power Supply**	Internal
	Power Source	100 – 240 VAC 50/60 Hz

Technical Specifications

	Power Consumption- Max	54 W
	Energy Saving/Stand By Mode	0.5 W
	Power Consumption- Typical	16 W
Energy Star Data	**Operational Mode at 100 VAC**	14.5 W
	Operational Mode at 115 VAC	14.3 W
	Operational Mode at 230 VAC	14.5 W
EU Energy Efficiency Class (ErP LOT-5)	**On-mode Power Consumption for Standard Dynamic Range (SDR)**	17
	ErP LOT5 Energy Efficiency Class for Standard Dynamic Range (SDR)	
Operating Conditions	**Operating Temperature - Celsius**	5° – 35 ° C
	Operating Temperature - Fahrenheit	41 ° – 95° F
	Non-Operating Temperature – Celsius	–20° – 60°C
	Non-Operating Temperature - Fahrenheit	-4° – 140°F
	Operating Humidity	20 – 80% Relative Humidity (non-condensing)
	Non-operating Humidity	5 – 95%
	Operating Altitude metric	0 – 5,000 m (16,400 ft.)
	Non-operating Altitude metric	0 – 12.192 m (40,000 ft.)
Certifications and Compliances	**Low Halogen**	Yes, GSE HP-00011-01B, table 2 defines low-halogen (BFR, CFR, PVC). * External power supplies, power cords, cables and peripherals are not Low Halogen. Service parts obtained after purchase may not be Low Halogen.
	Agency Approvals and Certifications	CB/ TCO /CE/TUV Low blue light/Flick free /Brazil INMETRO
	Microsoft WHQL Certification	Win 11, Win 10
	ENERGY STAR® Certified	Yes
	EPEAT®	EPEAT® Registered* *Based on US EPEAT® registration according to IEEE 1680.1-2018 EPEAT®. Status varies by country. Visit http://www.epeat.net for more information.
	TCO Certified	Yes
Contains Recycled Plastics	**Contains Recycled Plastics**	80%post-consumer recycled plastic with stand* *Recycled plastic content percentage is based on the definition set in the IEEE 1680.1-2018 standard.
	Recyclable Packaging (Box, packing materials)	Outer box is 100% sustainably sourced* *100% outer box packaging made from sustainably sourced certified and recycled fibers.

Technical Specifications

		Metric	Imperial
Unit Product/Package Specifications	**Product Dimensions** (Unpacked with stand) (W x D x H)	54 x 21.15 x 46.39 cm	21.26 x 8.33 x 18.26 in
	Product Dimensions (Packed) (W x D x H)	59.8 x 38.8 x 22.2 cm	23.54 x 15.28 x 8.74 in
	Display Head Dimensions (Packed) (W x D x H)	54 x 6.02x 32.33 cm	21.26 x 2.37x 12.73 in
	Base Area Footprint (w x d mm)	214.5 x 211.5 mm	8.44 x 8.33 in
	Bezel Measurements - Metric	Bottom 19.3 mm	Bottom: 0.76 inch
	Product Weight (Unpacked with stand)	5.6 kg	12.32 lb
	Product Weight (Packed)	7.8 kg	17.16 lb
	Product Weight (Head Only)	3.4 kg	7.48 lb
Pallet Information	**Pallet Dimensions** (L x W x H mm)	Pallet: 1200 x 1000 x 2153 mm (40' ft)	Pallet: 47.24 x 39.37 x 84.76 inch (40' ft)
	Pallet Total Weight	Pallet: 363.1 kg (40' ft)	Pallet: 798.82 (40' ft)
	Pallet Layers	9 layers per pallet-WW	
	Pallet Product per Layer	5 per layer (slip sheet & pallet)-WW	
	Total Products per Pallet	45 sets (slip sheet & pallet)-WW	
What's in the box?	AC power cord (1.83m) 5.9ft, HDMI 1.4 cable (1.8m) 5.9 ft USB 3.0 A-B cable (1.8m) DP 1.2 cable (1.8m) Doc kit		
User Guide and Warranty Languages	**User Guide Languages**	Arabic, Bahasa Indonesia, Bulgarian, Chinese-S, Chinese-T, Czech, Danish, Dutch, English, Estonian, Finnish, French, German, Greek, Hebrew, Hungarian, Italian, Japanese, Kazakh, Korean, Latvian, Lithuanian, Norwegian, Polish, Portuguese (Brazilian), Portuguese (Iberian), Romanian, Russian, Serbian, Slovak, Slovenian, Spanish, Swedish, Thai, Turkey, Ukrainian	
	Warranty Languages	English US (EN), English AP (EN-AP), English LA (EN-LA), English UK (EN-GB), Arabic (AR) -17x, Bahasa Indonesia (ID), Bosnian (BS), Bulgarian (BG), Chinese-S (CN), Chinese-T (TW), Croatian (HR), Czech (CS), Danish (DA), Dutch (NL), Estonian (ET), Finnish (FI), French Canadian (FC), French European (FR), German (DE), Greek (EL), Hebrew (HE), Hungarian (HU), Italian (IT), Japanese (JA), Kazakh (KK), Korean (KO), Latvian (LV), Lithuanian (LT), Norwegian (NO), Polish (PL), Portuguese, Brazilian (BR), Portuguese, Iberian (PT), Romanian (RO), Russian (RU),	

	Serbian (SR), Slovak (SK), Slovenian (SL), Spanish, Castilian (ES-ES), Spanish, Latin America (ES-MX), Swedish (SV), Thai (TH), Turkish (TR), Ukrainian (UK), Vietnamese (VI)

Technical Specifications

ENVIRONMENTAL DATA

Eco-Label Certifications & declarations	This product has received or is in the process of being certified to the following approvals and may be labeled with one or more of these marks: • IT ECO declaration • US ENERGY STAR® • US Federal Energy Management Program (FEMP) • EPEAT Gold registered in the United States. See http://www.epeat.net for registration status in your country. • TCO or TCO Certified Edge • China Energy Conservation Program (CECP) • China State Environmental Protection Administration (SEPA) • Taiwan Green Mark • Korea Eco-label • Japan PC Green label*		
Sustainable Impact Specifications	• 80% post-consumer recycled plastic • 85% ITE-Derived closed loop plastic • Low halogen • Outside Box and corrugated cushions are 100% sustainably sourced and recyclable		
System Configuration	The configuration used for the Energy Consumption and Declared Noise Emissions data for the Notebook model is based on a "Typically Configured Notebook".		
Energy Consumption (in accordance with US ENERGY STAR® test method)	**115VAC, 60Hz**	**230VAC, 50Hz**	**100VAC, 50Hz**
Normal Operation (Short idle)	14.03 W	14.31 W	14.13 W
Normal Operation (Long idle)	N/A	N/A	N/A
Sleep	0.15 W	0.18 W	0.15 W
Off	0.12 W	0.15 W	0.11 W
	NOTE: Energy efficiency data listed is for an ENERGY STAR® compliant product if offered within the model family. HP computers marked with the ENERGY STAR® Logo are compliant with the applicable U.S. Environmental Protection Agency (EPA) ENERGY STAR® specifications for computers. If a model family does not offer ENERGY STAR® compliant configurations, then energy efficiency data listed is for a typically configured PC featuring a hard disk drive, a high efficiency power supply, and a Microsoft Windows® operating system.		
Heat Dissipation*	**115VAC, 60Hz**	**230VAC, 50Hz**	**100VAC, 50Hz**
Normal Operation (Short idle)	47.84 BTU/hr	48.79 BTU/hr	48.18 BTU/hr
Normal Operation (Long idle)	N/A	N/A	N/A
Sleep	0.51 BTU/hr	0.61 BTU/hr	0.51 BTU/hr
Off	0.40 BTU/hr	0.51 BTU/hr	0.37 BTU/hr
	***NOTE:** Heat dissipation is calculated based on the measured watts, assuming the service level is attained for one hour.		
Longevity and Upgrading	This product can be upgraded, possibly extending its useful life by several years. Upgradeable features and/or components contained in the Spare parts are available throughout the warranty period and or for up to "5" years after the end of production.		

Technical Specifications

Additional Information	• This product is in compliance with the Restrictions of Hazardous Substances (RoHS) directive - 2011/65/EC. • This HP product is designed to comply with the Waste Electrical and Electronic Equipment (WEEE) Directive – 2002/96/EC. • This product is in compliance with California Proposition 65 (State of California; Safe Drinking Water and Toxic Enforcement Act of 1986). • This product is in compliance with the IEEE 1680 (EPEAT) standard at the Gold level, see www.epeat.net • Plastics parts weighing over 25 grams used in the product are marked per ISO11469 and ISO1043. • This product is 98.6% recycle-able when properly disposed of at end of life.		
Packaging Materials	**External:**	PAPER/Corrugated	780 g
		PAPER/Paper	46 g
	Internal:	PLASTIC/Polystyrene Expanded - EPS	430 g
		PLASTIC/Polyethylene high density - HDPE	50 g
	The plastic packaging material contains at least 0.0% recycled content.		
	The corrugated paper packaging materials contains at least 85.0% recycled content.		
RoHS Compliance	HP Inc. complies fully with materials regulations. We were among the first companies to extend the restrictions in the European Union (EU) Restriction of Hazardous Substances (RoHS) Directive to our products worldwide through the HP GSE. HP has contributed to the development of related legislation in Europe, as well as China, India, and Vietnam. We believe the RoHS directive and similar laws play an important role in promoting industry-wide elimination of substances of concern. We have supported the inclusion of additional substances—including PVC, BFRs, and certain phthalates—in future RoHS legislation that pertains to electrical and electronics products. We met our voluntary objective to achieve worldwide compliance with the new EU RoHS requirements for virtually all relevant products by July 2013, and we will continue to extend the scope of the commitment to include further restricted substances as regulations continue to evolve. To obtain a copy of the HP RoHS Compliance Statement, see HP RoHS position statement.		
Material Usage	This product does not contain any of the following substances in excess of regulatory limits (refer to the HP General Specification for the Environment at http://www.hp.com/hpinfo/globalcitizenship/environment/supplychain/gen_specifications.html): • Asbestos • Certain Azo Colorants • Certain Brominated Flame Retardants – may not be used as flame retardants in plastics • Cadmium • Chlorinated Hydrocarbons • Chlorinated Paraffins • Bis(2-Ethylhexyl) phthalate (DEHP) • Benzyl butyl phthalate (BBP) • Dibutyl phthalate (DBP)		

	• Diisobutyl phthalate (DIBP) • Formaldehyde • Halogenated Diphenyl Methanes • Lead carbonates and sulfates • Lead and Lead compounds • Mercuric Oxide Batteries • Nickel – finishes must not be used on the external surface designed to be frequently handled or carried by the user. • Ozone Depleting Substances • Polybrominated Biphenyls (PBBs) • Polybrominated Biphenyl Ethers (PBBEs) • Polybrominated Biphenyl Oxides (PBBOs) • Polychlorinated Biphenyl (PCB) • Polychlorinated Terphenyls (PCT) • Polyvinyl Chloride (PVC) – except for wires and cables, and certain retail packaging has been voluntarily removed from most applications. • Radioactive Substances • Tributyl Tin (TBT), Triphenyl Tin (TPT), Tributyl Tin Oxide (TBTO)
Packaging Usage	HP follows these guidelines to decrease the environmental impact of product packaging: • Eliminate the use of heavy metals such as lead, chromium, mercury and cadmium in packaging materials. • Eliminate the use of ozone-depleting substances (ODS) in packaging materials. • Design packaging materials for ease of disassembly. • Maximize the use of post-consumer recycled content materials in packaging materials. • Use readily recyclable packaging materials such as paper and corrugated materials. • Reduce size and weight of packages to improve transportation fuel efficiency. • Plastic packaging materials are marked according to ISO 11469 and DIN 6120 standards.
End-of-life Management and Recycling	HP offers end-of-life HP product return and recycling programs in many geographic areas. To recycle your product, please go to: http://www.hp.com/go/reuse-recycle or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner. The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: http://www.hp.com/go/recyclers. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.

Technical Specifications

HP, Inc. Corporate Environmental Information	For more information about HP's commitment to the environment: Global Citizenship Report http://www.hp.com/hpinfo/globalcitizenship/gcreport/index.html Eco-label certifications http://www8.hp.com/us/en/hp-information/environment/ecolabels.html ISO 14001 certificates: http://h20195.www2.hp.com/V2/GetDocument.aspx?docname=c04755842 and http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/cert.pdf
footnotes	• Percentage of ocean-bound plastic contained in each component varies by product • Recycled plastic content percentage is based on the definition set in the IEEE 1680.1-2018 standard. • External power supplies, WWAN modules, power cords, cables and peripherals excluded. • Plastic cushions are made from >90% recycled plastic.

Technical Specifications

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ENERGY STAR is a registered trademark owned by the U.S. Environmental Protection Agency.

Change Log

	V1 to V2		

Microsoft

Hardware certification report **Approved**

Private product ID:	**14432583413728275**
Shared product ID:	**401418585**
Submission ID:	**1152921505696554775**
Submission date:	**7/20/2023**
Completion date:	**7/20/2023**
Company:	**HP Inc.**
Product name:	**HP P24a G5 FHD Monitor**
Category:	**Device**
Product type:	**Monitor**
Qualification level:	**Certified for Microsoft Windows 11 Client family version 22H2, x64** **Certified for Microsoft Windows 10 Client family version 2004, x64** **Certified as Declarative INF**
Marketing name:	**HP P24a G5 FHD Monitor**

Microsoft Certified

RETURN TO SEARCH

HP P24a G5 FHD Monitor

COMPUTERS & DISPLAYS

Product Summary:

Product Type:	Monitors
Registered In:	Brazil
Manufacturer:	HP
EPEAT Tier:	Gold
Registration Date:	2023-11-27
Product Status:	Active
Universal Product Code(s):	197497188462

All unique product identifiers existing for this product may not be listed here. If the unique product identifier you are looking for is not listed, please contact EPEAT at EPEAT@GEC.org.

EXPORT PRODUCT SUMMARY

EPEAT Tier Score Detail

For a product to be listed on the EPEAT Registry, it must, at a minimum, meet the applicable “required” criteria. Click here to see a list of the required criteria for this product category.

This product has met the necessary required criteria.

Along with required criteria, products can also meet optional criteria and score optional points. It is not required for a product to achieve any optional points.

Products that meet all required criteria and achieve **less than 50%** of the optional points are rated at
EPEAT Bronze

Products that meet all required criteria and achieve **50 - 74%** of the optional points are rated at
EPEAT Silver

Products that meet all required criteria and achieve **75 - 100%** of the optional points are rated at
EPEAT Gold

The optional criteria for this product category and optional points achieved by this product are listed below.

Optional Criteria	Scores
+ 4.1 Substance Management	13 / 16
+ 4.2 Materials Selection	3 / 3
+ 4.4 Product longevity/life-cycle extension	1 / 2
+ 4.5 Energy Conservation	2 / 2

+ 4.7 Packaging	0 / 2
+ 4.8 Life cycle assessment and carbon footprint	6 / 6
+ 4.9 Corporate Environmental Performance	9 / 9
+ 4.10 Corporate social responsibility	4 / 6
TOTAL OPTIONAL CRITERIA SCORE:	**38 / 46**

Please note that it is not required for a product to achieve any optional points.

Some optional criteria may not be applicable to a product. Optional criteria that are not applicable (N/A) to the product are not included in the Total Optional Criteria Score, and are not reflected above.

For any questions, comments, or feedback regarding the EPEAT Registry, please contact us.



Contact Us

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THE ECO DECLARATION

ecma INTERNATIONAL

Ecma/TC38-TG3/2015/026
(Rev. 1 – 15 April 2015)

Annex B2 - Product environmental attributes
Computers and computer monitors

The declaration may be published only when all rows and/or fields marked with * are filled-in (n.a. for not applicable). Additional information regarding each item may be found under P15.

Brand *	***HP***	**Logo**
Company name *	***HP***	
Contact information * e-mail address	***HP Sustainability and Compliance Center*** ***sustainability@hp.com***	
Internet site *	***http://www.hp.com/hpinfo/globalcitizenship/environment/***	
Additional information		

The company declares (based on product specification or test results based obtained from sample testing), that the product conforms to the statements given in this declaration.	
Type of product *	***Display***
Commercial name *	***HP P24a G5 FHD Monitor***
Model number *	***P24a G5***
Issue date *	***11/27/2023***
Intended market *	☒ **Global** ☐ **Europe** ☐ **Asia, Pacific & Japan** ☐ **Americas** ☐ **Other**
Additional information	

This is an uncontrolled copy when in printed form. Please refer to the contact information for the latest version.

About Annex B2

Annex B2 reflects Product environmental attributes relevant for Computers and Computer Monitors. The following items from the ECMA-370 Main body are not shown in the template:
P4.1 – P4.3 Consumable materials
P9.1 TEC and Print speed
P10.2 - P10.3 Chemical emissions from printing products
P11.1 - P11.3 Consumable materials for printing products.

Model number *	*P24a G5*	Logo	
Issue date *	*11/27/2023*		

Product environmental attributes - Legal requirements		Requirement met		
Item		Yes	No	n.a.
P1	**Hazardous substances and preparations**			
P1.1*	Products do comply with current European RoHS Directive. (See legal reference and NOTE B1)	☒	☐	
P1.2*	Products do not contain Asbestos (see legal reference). Comment: Legal reference has no maximum concentration value.	☒	☐	
P1.3*	Products do not contain Ozone Depleting Substances: Chlorofluorocarbons (CFC), hydrobromofluorocarbons (HBFC), hydrochlorofluorcarbons (HCFC), Halons, carbontetrachloride, 1,1,1-trichloroethane, methyl bromide (see legal reference). Comment: Legal reference has no maximum concentration values.	☒	☐	
P1.4*	Products do not contain more than; 0,005% polychlorinated biphenyl (PCB), 0,005% polychlorinated terphenyl (PCT) in preparations (see legal reference).	☒	☐	
P1.5*	Products do not contain more than 0,1% short chain chloroparaffins (SCCP) with 10-13 carbon atoms in the chain containing at least 48% per mass of chlorine in the SCCP (see legal reference).	☒	☐	
P1.6*	Parts with direct and prolonged skin contact do not release nickel in concentrations above 0,5 μg/cm²/week (see legal reference). Comment: Max limit in legal reference when tested according to EN1811:2011-5.	☒	☐	☐
P1.7*	REACH Article 33 information about substances in articles is available at (add URL or mail contact): http://www.hp.com/hpinfo/globalcitizenship/environment/productdata/reachdesktop-pcs.html	☒	☐	☐
P2	**Batteries**			
P2.1*	If the product contains a battery or an accumulator, the battery/accumulator is labeled with the disposal symbol. Information on proper disposal is provided in user manual. (See legal reference)	☐	☐	☒
P2.2*	Batteries or accumulators do not contain more than 0,0005% of mercury or 0,002% of cadmium. (See legal reference)	☐	☐	☒
P2.3*	Batteries and accumulators are readily removable. (See legal reference)	☐	☐	☒
P3	**Conformity verification & Eco design (ErP)**			
P3.1*	The product is CE-marked to show conformance with applicable legal requirements (see legal reference). The Declaration of Conformity can be requested at (add link or e-mail address): http://www8.hp.com/uk/en/certifications/technical/regulations-certificates.html sustainability@hp.com	☒	☐	☐
P3.2*	The product complies with the Eco design requirements for energy-related products, (see legal reference). Required information is; ☒ given in item P15 or added to this document, ☐ available at (add URL):	☒ ☐	☐ ☐	☐ ☐
P5	**Product packaging**			
P5.1*	Packaging and packaging components do not contain more than 0,01% lead, mercury, cadmium and hexavalent chromium by weight of these together.	☒	☐	
P5.2*	The packaging materials are marked with abbreviations and numbers indicating the nature of the material(s) used (see legal reference).	☒	☐	☐
P5.3*	The product packaging material is free from ozone depleting substances as specified in the Montreal Protocol (see legal reference). Comment: Legal reference has no maximum concentration values.	☒	☐	☐
P6	**Treatment information**			
P6.1*	Information for recyclers/treatment facilities is available (see legal reference).	☒	☐	☐

NOTE B1 Restriction applies to the homogeneous material, unless other specified and expressed in weight %. Stating "Yes" means that the product is compliant with the mandatory requirements.

Model number *	***P24a G5***	**Logo**	
Issue date *	***11/27/2023***		

Product environmental attributes - Market requirements (See General NOTE GN below) **- Environmental conscious design**		**Requirement met**		
Item	*=mandatory to fill in. Additional information regarding each item may be found under P14.	Yes	No	n.a.
P7	**Design** **Disassembly, recycling**			
P7.1*	Parts that have to be treated separately are easily separable	☒	☐	☐
P7.2*	Plastic materials in covers/housing have no surface coating.	☐	☒	☐
P7.3*	Plastic parts > 100 g consist of one material or of easily separable materials.	☒	☐	☐
P7.4*	Plastic parts > 25 g have material codes according to ISO 11469 referring ISO 1043-4.	☒	☐	☐
P7.5	Plastic parts are free from metal inlays or have inlays that can be removed with commonly available tools.	☒	☐	☐
P7.6*	Labels are easily separable. (This requirement does not apply to safety/regulatory labels).	☒	☐	☐
	Product lifetime			
P7.7*	Upgrading can be done e.g. with processor, memory, cards or drives	☐	☐	☒
P7.8*	Upgrading can be done using commonly available tools	☐	☐	☒
P7.9	Spare parts are available after end of production for: **5** years			☐
P7.10	Service is available after end of production for: **5** years			☐
	Material and substance requirements			
P7.11*	Product cover/housing material type (e.g. plastics, metal, aluminum): Material type: ***Steel*** Material type: ***aluminium*** Material type:			
P7.12	Insulation materials of external electrical cables are PVC free.	☐	☒	☐
P7.13	Insulation materials of internal electrical cables are PVC free.	☒	☐	☐
P7.14	External plastic casing/cover parts > 25 g contain no more than 0,1% weight (1000 ppm) bromine and 0,1% weight (1000 ppm) chlorine attributable to brominated flame retardants, chlorinated flame retardants, and polyvinyl chloride or 0,3% weight (3000 ppm) bromine and 0,3% weight (3000 ppm) chlorine in parts containing more than 25% post-consumer recycled content.	☒	☐	☐
P7.15	Printed circuit boards, PCBs (without components) are low halogen: all ☐ PCBs > 25 g ☒ are low halogen as defined in IEC 61249-2-21. (See 1NOTE B2)	☒	☐	☐
P7.16	Flame retarded plastic parts > 25 g in covers / housings are marked according ISO 1043-4: Marking:	☐	☐	☒
P7.17	Alt. 1: Chemical specifications of flame retardants in printed circuit boards > 25 g (without components): TBBPA (additive) ☐, TBBPA (reactive) ☐ (See NOTE B3), Other; chemical name: , CAS #:	☐	☐	☐
	Alt. 2: Chemical specifications of flame retardants in printed circuit boards (without components) > 25 g according ISO 1043-4: ***FR(40)***	☒	☐	☐
P7.18	Alt. 1: Flame retarded plastic parts > 25 g contain the following flame retardant substances/preparations in concentrations above 0,1%: 1. Chemical name: , CAS #: (See NOTE B4) 2. Chemical name: , CAS #: " 3. Chemical name: , CAS #: "	☐	☐	☐
	Alt. 2: Chemical specifications of flame retardants in plastic parts > 25 g according ISO 1043-4:	☐	☐	☒
P7.19	In plastic parts > 25 g, flame retardant substances/preparations above 0,1% are used which have been assigned the following Risk phrases; and Hazard statements: The source(s) for these classifications is/are found at (add URL(s)): ***http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database*** (See note B5)	☒	☐	☐
P7.20*	Postconsumer recycled plastic material content is used in the product (See Note B6): If YES; at least one of the two alternatives below shall be answered; a) Of total plastic parts' weight > 25 g, the postconsumer recycled plastic material content (calculated as a percentage of total plastic by weight) is ***82.9*****%**. Or b) The weight of recycled material is g.	☐	☐	☐

GENERAL NOTE Standard references should direct to the latest version of a standard. If an older version of a standard is used, section P15 shall be used for explanation.
NOTE B2: IEC 61249-2-21 defines maximum limits of 900 ppm for each of the substances chlorine and bromine and a maximum limit of 1500ppm of these substances combined. The standard does not address fluorine, iodine and astatine which are included in the group of halogens.
NOTE B3 and B4 A Guidance document on Chemical substances is available; see http://www.ecma-international.org/publications/standards/Ecma-370.htm
NOTE B5: If a certain substance has been assigned a certain risk phrases / hazard statement in the referenced source, this does not necessarily mean the substance has been tested for all of the hazards referred to by a certain customer.

NOTE B6: Applies to a product containing plastic parts whose combined weight exceeds 100 g with the exception of printed circuit boards, cables, connectors and electronic components and bio-based plastic material.
NOTE B7: Recycled plastic content percentage is based on the definition set in the IEEE 1680.1-2018 standard, criterion 4.2.1.1.

Model number *	*P24a G5*	Logo	
Issue date *	*11/27/2023*		

Product environmental attributes - Market requirements (continued)	Requirement met
Item	Yes No n.a.

	Material and substance requirements (continued)						
P7.21*	Biobased plastic material content is used in the product (See NOTE B7): If YES; at least one of the two alternatives below shall be answered; a) Of total plastic parts' weight > 25 g, the biobased plastic material content (calculated as a percentage of total plastic by weight) is %. or b) The weight of the biobased plastic material is g.					☐	☒ ☐
P7.22*	Light sources are free from mercury, i.e. less than 0,1 mg/lamp. If mercury is used specify: Number of lamps: and maximum mercury content per lamp: *0* mg					☒	☐ ☐
P8	**Batteries**						
P8.1*	Battery chemical composition:						☒
P9	**Energy consumption (See NOTE B8)**						
P9.1	For the product the following power levels or energy consumptions are reported:						
Energy mode *		Power level at **100** V AC	Power level at **115** V AC	Power level at **230** V AC	Reference/Standard for energy modes and test method *		☐
EPS No-load (External power supply / charger plugged in the wall outlet but disconnected from the product.)		W	W	W	*EPS Energy Report Data*		☒
PTEC * Typical Energy Consumption		W	W	W	*ENERGY STAR® Program Requirements for Computer Monitor: Ver. 7.0*		☒
ETEC * Annual Energy Consumption		*44.19* kWh/year	*43.86* kWh/year	*44.89* kWh/year	*ENERGY STAR® Program Requirements for Computer Monitor: Ver. 7.0*		☐
External Power Supply Efficiency Level (International Efficiency Marking Protocol) * : *N/A*					*ENERGY STAR® Program Requirements for Computer Monitor: Ver. 7.0*		☐
Display resolution * : *1980*1080* megapixels					*ENERGY STAR® Program Requirements for Computer Monitor: Ver. 7.0*		☐
Default time to enter energy save mode: minutes					*ENERGY STAR® Program Requirements for Computer Monitor: Ver. 7.0*		☒
P9.2*	Information about the energy save function is provided with the product.					☒	☐ ☐
P9.3	Energy efficiency class (monitors only): *E*						☐
P10	**Emissions**						
	Noise emission – Declared according to ISO 9296 (See NOTE B9)						
P10.1	Mode	Mode description		Statistical upper limit A-weighted sound power level, $L_{WA,c}$ (B)			
	Idle	*		*			☒
	Operation	*		*			☒
	Other mode						
	Measured according to: ☐ ISO 7779 ☐ ECMA-74 ☐ Other (only if not covered by ECMA-74)						

NOTE B7 The following is to be excluded from the calculation of percentage: printed circuit boards, labels, cables, connectors and electronic components and postconsumer recycled plastic

NOTE B8 A Guidance document on Energy Efficiency is available; see http://www.ecma-international.org/publications/standards/Ecma-370.htm

NOTE B9 A Guidance document on Acoustic Noise is available; see http://www.ecma-international.org/publications/standards/Ecma-370.htm

Model number *	*P24a G5*	Logo	
Issue date *	*11/27/2023*		

Product environmental attributes - Market requirements (continued)		Requirement met		
Item		Yes	No	n.a.
	Electromagnetic emissions			
P10.4	Computer display meets the requirement for low frequency electromagnetic fields of the following voluntary program(s):	☐	☐	☐
P12	**Ergonomics for computing products**			
P12.1*	The display meets the ergonomic requirements of ISO 9241-307 for visual display technologies.	☒	☐	☐
P12.2*	The physical input device meets the requirements of ISO 9995 and ISO 9241-410.	☐	☐	☒
P13	**Packaging and documentation**			
P13.1*	Product packaging material type(s): ***PAPER/Corrugated*** weight (kg): ***0.780*** Product packaging material type(s): ***PLASTIC/Polystyrene Expanded – EPS*** weight (kg): ***0.430*** Product packaging material type(s): ***PAPER/Paper*** weight (kg): ***0.046*** Product packaging material type(s): ***PLASTIC/Polyethylene high density – HDPE*** weight (kg): ***0.050***			
P13.2*	Product plastic primary packaging is free from PVC.	☒	☐	☐
P13.3*	For product primary corrugated fiberboard packaging, specify the contained percentage of minimum post-consumer recovered fiber content: ***85*** %			☐
P13.4*	Specify media for user and product documentation (tick box): Electronic ☐, Paper ☐, Other ☒ "available on hp.com"			☐
P13.5	(Please only complete this item if paper documentation used) User and product documentation on paper media is chlorine-free: If Yes, please specify: Totally chlorine-free Elemental chlorine-free Processed chlorine-free	☒ ☐ ☐ ☒	☐	
P14	**Voluntary programs**			
P14.1	The product meets the requirements of the following voluntary program(s): ENERGY STAR® Criteria version: ***8.0*** Date: ***11/27/2023*** Product category: ***Commercial Displays*** Eco-label: ***EPEAT*** Criteria version: ***IEEE 1680.1*** Date: ***11/27/2023*** Product category: ***Commercial Displays*** Eco-label: ***TCO*** Criteria version: ***9.0*** Date: ***11/27/2023*** Product category: ***Commercial Displays***			
P15	**Additional information (See NOTE B10)**			
All Sections	***1. Product environmental information contained in this declaration is valid as of the date the declaration is published. Changes to external standards referenced in the IT Eco-Declaration may invalidate some information contained in this declaration over***			
P1	***1. This product does not include DEHP, BBP, DIBP, or DBP.***			

NOTE B10 Additional lines may be inserted to declare further items, by positioning the cursor at the far right of the row and hitting the <Enter> key.

P7 ***Product Upgradability and Reparability***

The following table is provided in accordance with IEEE 1680.1-2018[6] criterion 4.4.2.5.

feature	Available [1]	Repairable [2]	Replaceable [3]	Upgradeable [4]
processor	N	N/A	N/A	N/A
main memory	N	N/A	N/A	N/A
mass storage (internal)	N	N/A	N/A	N/A
wireless networking	N	N/A	N/A	N/A
integrated graphics	N	N/A	N/A	N/A
discrete graphics	N	N/A	N/A	N/A
display panel	Y	Y	Y	N
integrated keyboard	N	N/A	N/A	N/A
batteries	N	N/A	N/A	N/A
power supply	Y	Y	Y	N
fan assemblies	N	N/A	N/A	N/A
speaker(s) (internal)	N	N/A	N/A	N/A
camera	N	N/A	N/A	N/A
touchpad	N	N/A	N/A	N/A
I/O connectors and external power connector	Y	Y	Y	N
readers [5]	N	N/A	N/A	N/A

Table notes:
[1] Y* = feature is available, but may not be included in every configuration
[2] Product can be repaired (returned to fully functional state) if feature fails.
[3] Feature can be replaced using only commonly available tools without soldering or de-soldering. Y* = replacement may require replacing an assembly to which the feature is attached.
[4] Base feature may be upgraded by replacing it with a higher performance module or by expanding capacity through use of expansion slots. NOTE: This evaluation does not
account for situations in which the initial configuration purchased is already maximized. Contact HP Sales or an HP authorized reseller to determine the availability of upgrade parts and method to obtain them in your geography.
[5] This feature category includes readers such as fingerprint readers, smart card readers, and other read-only devices, but excludes read/write devices.

P9 ***Energy consumption of computer products; description of the tested product configuration:***

P9 ***1. European Union Commission Regulation 1275/2008- Energy Efficiency Information:***

Mode / Condition	Power Consumption in Watts at 230 VAC Input Voltage	Default Time to Mode / Conditi (if applicable)
Off Mode (if applicable)	***0.16W***	Not Applicable
Standby Mode (if applicable)	Not Applicable	Not Applicable
Network Standby / Sleep / Long Idle Mode if all wired network ports are connected and all wireless network ports are activated (if applicable)	***N/A***	***N/A***
Network Standby / Sleep / Long Idle Mode (if applicable)	***N/A***	***N/A***

2.European Union Commission Regulation 1275/2008- Wireless Network Instructions:

Where applicable, activate and deactivate a wireless network using the instructions provided in the product user guide or the operating system. Information is also available at www.hp.com/support.

6 IEEE Standard for Environmental and Social Responsibility Assessment of Computers and Displays

Legal references Europe Annex B2

Reference	Declaration item
Directive 2011/65/EU (RoHS Directive) * * Specific exemptions apply for certain products and applications.	P1.1
Regulation (EC) 1907/2006(REACH, Annex XVII	P1.2, P1.4, P1.6, P1.7
Regulation (EC) 2037/2000, 2038/2000, 2039/2000 (Marketing and use of Ozone layer depleting substances)	P1.3, P5.3
Norwegian regulation relating to restrictions on the use of certain dangerous chemicals 20.12.2002	P1.5
Directive 2013/56/EC (Battery and accumulators Directive) * * These provisions shall not apply where, for safety, performance, medical or data integrity reasons, continuity of power supply is necessary and requires a permanent connection between the appliance and the battery or accumulator.	P2.1, P2.2, P2,3, P8.1
Directive 2006/95/EC (Low Voltage Directive)	P3.1
Directive 2004/108/EC (EMC Directive)	P3.1
Directive 1999/5/EC (R&TTE Directive)	P3.1
Regulation (EC) 801/2013 amending Regulation (EC) No 1275/2008 with regard to ecodesign requirements for standby, off mode electric power consumption of electrical and electronic household and office equipment, and amending Regulation (EC) No 642/2009 with regard to ecodesign requirements for televisions	P3.1, P3.2
Regulation（EC）No 1272/2008 (CLP Regulation)	P7.19
Directive 2004/12/EC (Packaging Directive)	P5.1
Decision 97/129/EC (Secondary packaging legislation)	P5.2
Directive 2012/19/EU (WEEE directive)	P6.1

Company environmental profile - THE ECO DECLARATION

Brand	***HP***	***Logo***
Company name *	***HP***	
Contact information *	***HP Sustainability and Compliance Center (SCC)*** ***sustainability@hp.com***	
Internet site *	***www.hp.com/hpinfo/globalcitizenship/environment/index.html***	
Issue date *	***2014-06-01***	
Intended market *	☒ **Global** ☐ **Europe** ☐ **Asia, Pacific & Japan** ☐ **Americas** ☐ **Other**	
Additional information		

This is an uncontrolled copy when in printed form. Please refer to the contact information for the latest version.

The declaration may be published only when all rows and/or fields marked with an * are filled-in (n.a. for not applicable). Additional information regarding each item may be found under C7.

Company environmental profile - Legal requirements		**Requirement met**		
Item		Yes	No	n.a.
C1	**Product recycling**			
C1.1*	The company participates in a system or has its own system for collection and recycling of end of life products in countries where the company puts them on the market and where required (see legal reference)	☒	☐	
C2	**Battery recycling**			
C2.1*	The company participates in a system or has its own system for collection and recycling of batteries in countries where the company puts products on the market (see legal reference) or pays eco tax / fee where required.	☒	☐	
C3	**Packaging recycling**			
C3.1*	The company participates in a system or has its own system for collection and recycling of packaging material in countries where the company puts products on the market and where required (see legal reference)	☒	☐	

Company environmental profile - Market requirements		**Requirement met**		
Item		Yes	No	n.a.
C4	**Environmental policy and environmental management**			
C4.1*	The company has a documented environmental policy approved by the management.	☒	☐	
C4.2*	The company has an environmental management system covering: Product development Manufacturing If so certified according to: ☒ ISO 14001 ☒ Other as specified in C7	 ☒ ☒	 ☐ ☐	
C4.3	The company regularly publishes an environmental report. If so, it meets the recommendations of ☒ The Global Reporting Initiative ☐ Other as specified in C7	☒	☐	☐
C5	**Recycling**			
C5.1*	Information about the product, battery & packaging take back system (C1, C2 and C3) is available in printed or electronic format.	☒	☐	
C6	**Voluntary programs**			
C6.1	The company meets the requirements of the following voluntary program/s: Voluntary Agreement: Criteria version: Date: Product category: Voluntary Agreement: Criteria version: Date: Product category:			
C7	**Additional information**			
	HP has received ISO 14001 certification for its manufacturing operations (Worldwide Manufacturing of Computing and Imaging Products and Related Operations) and for product design for its Personal Systems Products and LaserJet and Enterprise Printing Products. The product design certifications include HP-wide product environmental design processes (such as HP's General Specification for the Environment) that cover all HP products. ***HP is committed to responsible business practices and transparency in its global citizenship policies and performance. We have a long history of working with suppliers to monitor and improve their social and environmental responsibility (SER) performance when required, as well as improving standards in the industry. HP endorses the EICC Code of Conduct in its entirety, and we have supplemented it with additional requirements specific to freedom of association as well as HP's Student and Dispatch Worker Guidance Standard for Supplier Facilities in the People's Republic of China (PRC). HP also has a strong Global Human Rights Policy in place. HP expects its suppliers to establish policies and processes regarding conflict minerals. HP conducts due diligence on its supply chain annually including requesting information about our suppliers' own due diligence and the smelters and refiners used. HP was the first IT company to publish its supply chain smelter list. HP follows the Global Reporting Initiative (GRI) guidelines as a basis for reporting. The GRI index provides easy reference to HP's Living Progress Report (LPR) content. HP offers take back services of products and printing suppliers in some 70 countries. Please refer to HP's Livings Progress Report for more details on our global efforts.***			

Legal references Europe Annex A

Reference	Declaration item
Directive 2012/19/EU (WEEE directive)	C1.1
Directive 2006/66/EC (Battery and accumulators Directive) * * These provisions shall not apply where, for safety, performance, medical or data integrity reasons, continuity of power supply is necessary and requires a permanent connection between the appliance and the battery or accumulator.	C2.1
Directive 2004/12/EC (Packaging Directive)	C3.1
Decision 97/129/EC (Secondary packaging legislation)	C3.1

ENERGY STAR CERTIFIED

Displays

HP - HP P24a G4 FHD Monitor : P24a G4

Specifications

ENERGY STAR Unique ID:	2380796
Brand Name:	HP
Model Name:	HP P24a G4 FHD Monitor
Model Number:	P24a G4
Product Type:	Monitor
Panel Type:	TFT LCD
Screen Size (inches):	23.8
Screen Area (square inches):	242.18
Native Resolution (pixels):	1920 x 1080
Maximum Luminance (candelas per square meter):	250.0
Total Native Resolution (megapixels):	2.1
Model Features:	None
Signal or Data Interfaces:	VGA,Display,HDMI,USB
Power Source:	Ac to dc internal power supply
Monitor Total Energy Consumption at 115 Volts (kWh/yr):	43.86
On Mode Power (watts):	14.03
Markets:	United States, Taiwan, Japan, Canada
Sleep Mode Power (watts):	0.15
Off Mode Power (watts):	0.12
ENERGY STAR Certified:	Yes
ENERGY STAR Most Efficient:	No

Additional Model Information

HP P24a G5 FHD Monitor,P24a G5,

UPC Codes	195908586630, 197497188462

Captured On:
04/04/2024

Filter

BRAND	SALES NAME	CERTIFIED ON
HP	P24a G5	2023-06-12
HP	P24a G4	2023-06-12
HP	P22a G5	2023-05-31
HP	P24v G5	2022-06-10
HP	P24v G5	2022-06-10
HP	P24 G5	2022-04-29
HP	P24 G5	2022-04-29
HP	HP P24 G5 FHD Monitor	2022-05-19
HP	HP P24h G5 FHD Monitor	2022-05-19
HP	HP P24 G5 FHD Monitor	2022-05-10
HP	HP P24h G5 FHD Monitor	2022-05-10
HP	HP P24v G5	2022-04-16
HP	HP P24v G5	2022-04-16
HP	HP P24v G5 60.45cm, 23.8-in Diagonal FHD Monitor	2022-04-16
HP	HP P24v G5 60.45cm, 23.8-in Diagonal FHD Monitor	2022-04-16
HP	HP P24v G5 FHD Monitor	2022-04-16
HP	HP P24v G5 FHD Monitor	2022-04-16

Toward sustainable IT products

TCO Certified is the world-leading sustainability certification for IT products. Our comprehensive criteria are designed to drive social and environmental responsibility throughout the product life cycle. Covering 12 product categories including computers, mobile devices, display products, imaging equipment and data center products, compliance is independently verified, both pre and post certification.

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Press room
For resellers
Privacy and integrity policy

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- **Valid Certificate**

Certificate No. CH 50596063

- If exported to other countries, product must comply with local requirements.

Previous page
01/02
Next page

- Certificate Holder
  HP Inc.

  1501 Page Mill Road
  94304 Palo Alto
  United States
- Certificate Number
  CH 50596063
- Order Number
  168430320
- Certified Product
  Display Unit (LCD Monitor)

  Model Designation:
  P24a G5****;
  HP P24a G5**** FHD Monitor (HP)

- Fulfilled Standards
  2 PfG 1797/04.2020

  The standard(s) listed here reflect the status at the time of the release of this certificate.
  For more standards and/or upgrades please refer to the latest pages of the same certificate no.
- Date of Issue
  2023-07-27
- Certificate Type
  TÜV Rheinland China Mark Approval

  The China Mark certificate basically states the compliance of a product to defined international and national Chinese standards that address general safety as well as quality aspects. Testing and certification is voluntary.

  The China Mark certification is based on a type 5 certification system according to ISO/IEC 17067 including a type approval of the product by an ISO/IEC 17025 accredited laboratory, frequent surveillance of the manufacturers' testing facilities and regular inspection of product samples from the factory.

  The validity of the certificate is limited to 5 years.

  Certified products can be labelled with a test mark.

  Find more information on this service here.

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HP 200 G2i 16 inch Notebook PC

Truly flexible tech for your growing business

The HP 200 G2i 16-inch Notebook PC offers commercial-grade performance without disrupting your IT ecosystem or your budget. Get upgradable memory, storage, and collaboration tools in a solution that scales with your business or classroom.



*Product image may differ from actual product

HP 200 G2i 16 inch Notebook PC

Featuring

Productivity in a modern, cost-optimized design
The HP 200 G2i exceeds expectations with impressive resolution and vivid OLED display options[4,5], AI noise reduction, and thin bezels in a reliable, updated design at a practical price, so your growing teams can accomplish even more.

Tailored for work and tuned for growth
With configurable options like available 32GB DDR5 or LPDDR5 memory[4], a wide range of essential and high-performance processors and optional blazing-fast Wi-Fi 7[6,7] connectivity, this device is built to keep pace with your business.

Endurance and security that fits your business
Build trust in your tech, from an optional fingerprint sensor and discrete, hardware-based TPM encryption to MIL-STD[8] tested durability and long battery life, this device is engineered for data security and endurance you can depend on.

Help protect our shared future
Designed with efficiency in mind, this PC is built to be EPEAT Climate+ Gold registered[9] and ENERGY STAR® certified, with at least 80% recycled metal in the keyboard[10] and packed using 100% sustainably sourced or recycled packaging.[11]

HP recommends Windows 11 Pro for business
Work anywhere without compromising on performance with Windows 11[1] and HP collaboration, security, and connectivity technology.

Intel® multi-core processor
Configure your HP 200 G2i CPU for the perfect combination of power, snappy performance, and value. Choose from available Intel® Core™ processors to handle multiple work tasks smoothly and reliably with multiple processing cores.[2,4]

Large screen-to-body display
Work with ease on the 16-inch diagonal 16:10 display. Choose from available WLED, OLED panel technology with optional low blue light[4,12] and 500 nits of brightness[12] creating a better viewing experience for everyday productivity.

Look your best, even in low light
The optional FHD+IR camera[4,13] provides visual clarity, while temporal noise reduction improves video. Use Windows Hello[14] to confirm your identity and unlock your PC, and a privacy shutter for additional security.

Fast and efficient Wi-Fi 7
Get a fast and reliable connection in dense wireless environments with optional gigabit data rate Wi-Fi 7.[15,16]

Crisp and clear collaboration
Suppress background noise and prevent interruptions for effective online calls and meetings with HP AI Noise Reduction[17], which improves collaboration by applying industry-leading, noise-filtering technology to all inbound and outbound audio.

Reliability and durability
Undergoes MIL-STD 810[18] testing for hardware and systems to help ensure your HP laptop meets or exceeds HP durability standards.

Confident input that just clicks
Comfort meets control with the expansive Microsoft Precision clickpad for fluid, multi-touch gestures. Match that with spill-resistant keys and an optional backlit keyboard[4] for a smooth and durable typing experience.

Hardened fingerprint authentication
Secure your laptop against hardware and malware threats with available match-on-host fingerprint sensor.[4] Capture, secure, and store your biometric asset, while the host system protects the integrity and privacy of your fingerprint data.

A setup that can expand with your workflow
Simplify your setup and effortlessly launch your device using dual USB-C® ports with Power Delivery and DisplayPort, so you don't have to settle for just one screen. You can also attach additional peripherals with RJ45 or dual USB-A.

Power through with lasting battery life
Stay unplugged and on the move with an available 68Whr HP Long Life battery and 100W USB-C® quick charge adapter.[4] Perfect for hybrid work, travel, and tackling tasks in the field. Now your productivity never has to take a pause.

Uplifting Performance with expandable memory
Stay productive on the move with DDR5/LPDDR5 memory options up to 32GB[4]. Enjoy smooth and seamless multitasking and scalable, extended performance—perfect for mobile professionals on the move.

HP 200 G2i 16 inch Notebook PC

Technical specifications

Available Operating Systems	Windows 11 Pro[1] Windows 11 Home – HP recommends Windows 11 Pro for business[1] Windows 11 Home Single Language – HP recommends Windows 11 Pro for business[1] FreeDOS
Processor family	Intel® Core™ 7 processor Intel® Core™ 5 processor Intel® Core™ 3 processor
Available Processors[2,3,4]	Intel® Core™ 7 240H (up to 5.2 GHz with Intel® Turbo Boost Technology, 24 MB L3 cache, 10 cores, 16 threads) with Intel® Graphics Intel® Core™ 7 150U (up to 5.4 GHz with Intel® Turbo Boost Technology, 12 MB L3 cache, 10 cores, 12 threads) with Intel® Graphics Intel® Core™ 5 220U (up to 5 GHz with Intel® Turbo Boost Technology, 12 MB L3 cache, 10 cores, 20 threads) with Intel® Graphics Intel® Core™ 5 120U (up to 5 GHz with Intel® Turbo Boost Technology, 12 MB L3 cache, 10 cores, 12 threads) with Intel® Graphics Intel® Core™ 3 100U (up to 4.7 GHz with Intel® Turbo Boost Technology, 10 MB L3 cache, 6 cores, 8 threads) with Intel® Graphics Intel® Processor N250 (up to 3.8 GHz with Intel® Turbo Boost Technology, 6 MB L3 cache, 4 cores, 4 threads) Intel® Processor N150 (up to 3.6 GHz with Intel® Turbo Boost Technology, 6 MB L3 cache, 4 cores, 4 threads) Intel® Core™ 5 220H (up to 4.9 GHz with Intel® Turbo Boost Technology, 18 MB L3 cache, 12 cores, 16 threads) with Intel® Graphics Intel® Core™ 3 N355 (up to 3.9 GHz with Intel® Turbo Boost Technology, 6 MB L3 cache, 8 cores, 8 threads) with Intel® Graphics
Product colour	Black; Iron gray; Meteor silver; Dark meteor silver
Maximum memory	32 GB DDR5-5200 MT/s; (Transfer rates up to 5200 MT/s.) Slots are non customer accessible/upgradeable. Supports dual channel memory.[5]
Memory slots	2 SODIMM
Internal storage	256 GB up to 1 TB PCIe® NVMe™ M.2 SSD[6]
Display size (diagonal, metric)	40.6 cm (16")
Display[9,11,12,13,17]	40.6 cm (16") diagonal, WUXGA (1920 x 1200), IPS, anti-glare, 300 nits, 62.5% sRGB; 40.6 cm (16") diagonal, 2.5K (2560 x 1600), IPS, anti-glare, 500 nits, low power, 100% sRGB with HP Eye Ease; 40.6 cm (16") diagonal, WUXGA (1920 x 1200), OLED, IPS, BrightView, 300 nits, 95% DCI-P3 with HP Eye Ease
Available Graphics	Integrated: Intel® Graphics
Audio	Audio by Poly Studio, dual stereo speakers, dual microphones enhanced by AI noise reduction
Ports and connectors	1 HDMI 2.1; 1 stereo headphone/microphone combo jack; 1 RJ-45; 2 USB Type-A 5Gbps signaling rate (powered); 2 USB Type-C® 10Gbps signaling rate (USB Power Delivery, DisplayPort™ 1.4, HP Sleep and Charge); 1 Kensington® Mini Security slot
Input devices	Spill-resistant, optional backlit keyboard with numeric keypad[14]; Clickpad with multi-touch gesture support
Communications	Realtek RTL8111HSH without DASH support[9,10] ; Realtek Wi-Fi 6 RTL8852BE-VT 802.11a/b/g/n/ax (2x2) and Bluetooth® 5.4 wireless card; Realtek Wi-Fi 7 RTL8922AE-VS 802.11a/b/g/n/be (2x2) and Bluetooth® 6 wireless card
Camera	IR Camera (select models); FHD camera (select models) [9]
Software	Buy Microsoft Office (sold separately); Dropbox Promotion; Adobe offer; HP Documentation; HPX[19]; HP Privacy Settings; Microsoft Push-Button Reset; HP SSRM; HP Support Assistant[20]; HP Connection Optimizer; HP PC Hardware Diagnostics Windows; HP Touchpoint Customizer; HP PC Hardware Diagnostics UEFI; HP Setup Integrated OOBE; Bing search for IE11; HP Smart Support[21]; HP System Event Utility; HSA Telemetry for Commercial
Security management	McAfee Security (30 days free trial); Absolute Persistence Module[22]; HP Secure Erase[23]; HP BIOS Recovery; Security lock slot[24]

HP 200 G2i 16 inch Notebook PC

Technical specifications

Management features	HP Cloud Recovery
Power	HP 100 W wall mount USB Type-C® GaN power adapter; HP 65 W wall mount USB Type-C® GaN power adapter; HP 65 W USB Type-C® GaN power adapter; HP 45 W USB Type-C® GaN power adapter[17]
Battery type	HP Long Life 3-cell, 41 Wh Li-ion polymer; HP Long Life 4-cell, 68 Wh Li-ion polymer[15]; Battery is internal and not replaceable by customer. Serviceable by warranty. Fast charging 50% in 45 minutes.[16]
Dimensions	35.86 x 25.18 x 1.12 cm (front); 35.86 x 25.18 x 1.53 cm (rear); (Front height measurement is near the front edge where the chassis bottom cover taper begins. Back height measurement is near the back edge where the chassis bottom cover taper ends.)[52]; Maximum Height: 1.89 cm
Weight	Starting at 1.72 kg; (Weight will vary by configuration. Does not include power adapter.)
Ecolabels	EPEAT® registered configurations available; TCO Certified configurations available; EPEAT® Gold registered in the U.S.[18]
Energy star certified	ENERGY STAR® certified
Certification and compliance	CSA/UL 62368-1; FCC/ICES/CISPR/VCCI; CE Marking; Taiwan BSMI/NCC; Korea KCC/KC/KES; Ukraine NSoC/TEC; EAEU Compliance; Low Blue Light; WW RoHS
Warranty	1-year warranty and 90 day software limited warranty options depending on country. Batteries have a default one year limited warranty. On-site service and extended coverage is also available. HP Care Pack Services are optional extended service contracts that go beyond the standard limited warranties. To choose the right level of service for your HP product, use the HP Care Pack Services Lookup Tool at: http://www.hp.com/go/cpc

HP 200 G2i 16 inch Notebook PC

Footnotes

Messaging Footnotes

[2] Multicore is designed to improve performance of certain software products. Not all customers or software applications will necessarily benefit from use of this technology. Performance and clock frequency will vary depending on application workload and your hardware and software configurations. Intel's numbering, branding and/or naming is not a measurement of higher performance.
[4] Optional feature that must be configured at the time of purchase.
[5] Full high-definition (FHD) content required to view FHD images.
[6] Wireless access point and Internet service required and sold separately. Availability of public wireless access points limited. Wi-Fi 7 (802.11BE) functionality requires compatible Windows 11 OS, compatible processor, and separately purchased Wi-Fi 7 router to support backwards compatibility with prior 802.11 specs. Available in countries where Wi-Fi 7 is supported. The specification for 802.11BE is a draft specification and is not final. If the final specification differs from the draft specification, it may affect the ability of the device to communicate with other 802.11BE devices.
[7] Wi-Fi® supporting gigabit data rate is achievable with Wi-Fi 7 (802.11BE) when transferring files between two devices connected to the same router. Requires a wireless router, sold separately, that supports 160MHz channels.
[8] MIL-STD testing is not intended to demonstrate fitness for U.S. Department of Defense contract requirements or for military use. Test results are not a guarantee of future performance under these test conditions. Accidental damage requires an optional HP Accidental Damage Protection Care Pack.
[9] EPEAT tier levels may vary by country. See www.epeat.net for registration status and tier levels by country.
[10] Recycled metal is expressed as a percentage of the total weight of the metal according to ISO 14021 definitions for metal parts over 25 grams.
[11] HP paper and fiber based packaging for PCs, displays, home and office print, and supplies is reported by suppliers as recycled or certified, with a minimum of 97% by volume verified by HP. Packaging is the box that comes with the product and all paper-based materials inside the box. Packaging for commercial print, industrial, and 3D products, scanners, personal systems accessories, and spare parts is not included.
[12] All performance specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary, either higher or lower.
[13] Full high-definition (FHD) content required to view FHD images.
[14] Requires Windows 10 and higher and set up of facial recognition through Windows Hello.
[15] Wireless access point and Internet service required and sold separately. Availability of public wireless access points limited. Wi-Fi 7 (802.11BE) functionality requires compatible Windows 11 OS, compatible processor, and separately purchased Wi-Fi 7 router to support backwards compatibility with prior 802.11 specs. Available in countries where Wi-Fi 7 is supported. The specification for 802.11BE is a draft specification and is not final. If the final specification differs from the draft specification, it may affect the ability of the device to communicate with other 802.11BE devices.
[16] Wi-Fi® supporting gigabit data rate is achievable with Wi-Fi 7 (802.11BE) when transferring files between two devices connected to the same router. Requires a wireless router, sold separately, that supports 160MHz channels.
[17] Requires HP app and Windows OS.
[18] MIL-STD testing is not intended to demonstrate fitness for U.S. Department of Defense contract requirements or for military use. Test results are not a guarantee of future performance under these test conditions. Accidental damage requires an optional HP Accidental Damage Protection Care Pack.

Specification Footnotes

[1] Not all features are available in all editions or versions of Windows. Systems may require upgraded and/or separately purchased hardware, drivers, software or BIOS update to take full advantage of Windows functionality. Windows is automatically updated and enabled. High speed internet and Microsoft account required. ISP fees may apply and additional requirements may apply over time for updates. See http://www.windows.com .
[2] Multicore is designed to improve performance of certain software products. Not all customers or software applications will necessarily benefit from use of this technology. Performance and clock frequency will vary depending on application workload and your hardware and software configurations. Intel's numbering, branding and/or naming is not a measurement of higher performance.
[3] Processor speed denotes maximum performance mode; processors will run at lower speeds in battery optimization mode.
[4] Intel® Turbo Boost performance varies depending on hardware, software and overall system configuration. See www.intel.com/technology/turboboost for more information.
[5] Due to the non-industry standard nature of some third-party memory modules, we recommend HP branded memory to ensure compatibility. If you mix memory speeds, the system will perform at the lower memory speed.
[6] For storage drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 32 GB is reserved for system recovery software.
[7] Wi-Fi 6E requires a Wi-Fi 6E router, and Windows 11, to function in the 6GHz band. Availability of public wireless access points limited. Wi-Fi 6E is backwards compatible with prior 802.11 specs. And available in countries where Wi-Fi 6E is supported.
[8] Wireless access point and Internet service required and sold separately. Availability of public wireless access points limited. Wi-Fi 7 (802.11BE) functionality requires Windows 11 24H2, select Intel® processor, and a Wi-Fi 7 router, sold separately. Wi-Fi 7 is backwards compatible with prior 802.11 specs. Available in countries where Wi-Fi 7 is supported. The specification for 802.11BE is a draft specification and is not final. If the final specification differs from the draft specification, it may affect the ability of the device to communicate with other 802.11BE devices.
[9] Sold separately or as an optional feature.
[10] The term ""10/100/1000"" or ""Gigabit"" Ethernet indicates compatibility with IEEE standard 802.3ab for Gigabit Ethernet, and does not connote actual operating speed of 1 Gb/s. For high-speed transmission, connection to a Gigabit Ethernet server and network infrastructure is required.
[11] WUXGA (FHD+) content required to view WUXGA (FHD+) images.
[12] Resolutions are dependent upon monitor capability, and resolution and color depth settings.
[13] All specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower.
[14] Backlit keyboard is an optional feature.
[15] For new batteries, actual battery Watt-hours (Wh) may differ from the design capacity and may have a full charge capacity that differs by up to 10, which is typical for lithium-ion batteries. Battery capacity naturally decreases over time and with use, depending on several factors such as battery health management settings, shelf life, temperature, environment, loaded apps, features, system configuration, and power settings.
[16] Recharges up to 45% within 30 minutes when the system is off or in standby mode when used with the power adapter provided with the notebook. Power adapter minimum of 65 watts required for battery capacities 56Whr or less. Power adapter minimum of 100 watts required for battery capacities greater than 56Whr and less than 83Whr. Power adapter minimum of 120 watts required for battery capacities greater than 83Whr and less than 100Whr. After charging has reached 90% capacity, charging speed will return to normal. Charging time may vary +/-10% due to System tolerance.
[17] Availability may vary by country.
[18] Based on US EPEAT® registration according to IEEE 1680.1-2018 EPEAT®. Status varies by country. Visit www.epeat.net for more information.
[19] HP app with Multicamera support for Mini Desktop PC will only available on 13th processor and beyond.
[20] HP Support Assistant is available on Windows. For more information, please visit http://www.support.hp.com/help/hp-support-assistant .
[21] HP Smart Support automatically collects the telemetry necessary upon initial boot of the product to deliver device-level configuration data and health insights and is available preinstalled on select products, thru HP Factory Configuration Services; or it can be downloaded. For more information about how to enable HP Smart Support or for download, please visit http://www.hp.com/smart-support .
[22] Absolute Persistence firmware module is shipped turned off and can only be activated with the purchase a license subscription and full activation of the software agent. License subscriptions can be purchased for terms ranging multiple years. Service is limited, check with Absolute for availability outside the U.S. Certain conditions apply. For full details visit: https://www.absolute.com/about/legal/agreements/absolute/
[23] HP Secure Erase implements the methods outlined in the National Institute of Standards and Technology Special.
[24] Lock is sold separately.
[52] Typical dimension. Actual dimension may vary +/- 0.5mm. Height may vary based on configuration. Maximum Height does not include Rubber feet.

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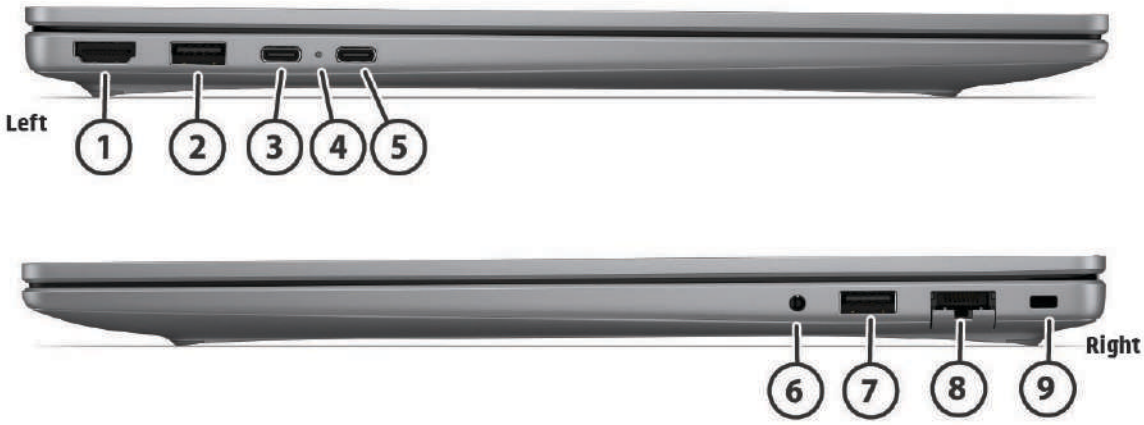
January 2026

HP 200 G2i 16 inch Notebook PC



Front

1	Internal Microphone (2)	4	Webcam LED
2	Webcam	5	Touchpad
3	Camera Shutter		



Sides

1	HDMI 1.4b	6	Headphone/mic combo jack
2	USB Type-A 5Gbps signaling rate (Powered)	7	USB Type-A 5Gbps signaling rate (Powered)
3	USB Type-C® 10Gbps signaling rate (USB Power Delivery, DisplayPort™ 1.4)	8	RJ45 Ethernet port
4	Power Indicator LED	9	Nano Security Slot
5	USB Type-C® 10Gbps signaling rate (USB Power Delivery, DisplayPort™ 1.4)		

PRODUCT NAME

HP 200 G2i 16 inch Notebook PC

OPERATING SYSTEM

Preinstalled

FreeDOS

Windows 11 Home - HP recommends Windows 11 Pro for business [1]

Windows 11 Home Education [1]

Windows 11 Home Single Language - HP recommends Windows 11 Pro for business [1]

Windows 11 Pro [1]

1. Not all features are available in all editions or versions of Windows. Systems may require upgraded and/or separately purchased hardware, drivers, software or BIOS update to take full advantage of Windows functionality. Windows is automatically updated and enabled. High speed internet and Microsoft account required. ISP fees may apply and additional requirements may apply over time for updates. See http://www.windows.com

PROCESSORS

Processor [2,3,4,5]	Cores	Number of P-cores	Number of E-cores	Number of LP E-cores	Threads	Smart Cache	Max Turbo Frequency	Integrated Graphics
							P-cores	
Intel® Core™ 7 processor 240H	10 cores	6	4	N/A	16	24 MB	5.20 GHz	Intel® Graphics
Intel® Core™ 5 processor 220H	12 cores	4	8	N/A	16	18 MB	4.90 GHz	Intel® Graphics
Intel® Core™ 5 processor 220U	10 cores	2	8	N/A	12	12 MB	5.00 GHz	Intel® Graphics
Intel® Core™ 7 processor 150U	10 cores	2	8	N/A	12	12 MB	5.40 GHz	Intel® Graphics
Intel® Core™ 5 processor 120U	10 cores	2	8	N/A	12	12 MB	5.00 GHz	Intel® Graphics
Intel® Core™ 3 processor 100U	6 cores	2	4	N/A	8	10 MB	4.70 GHz	Intel® Graphics
Intel® Core™ 3 processor N355	8 cores	0	8	N/A	8	6 MB	3.90 GHz	Intel® Graphics
Intel® processor N250	4 cores	0	4	N/A	4	6 MB	3.80 GHz	Intel® Graphics
Intel® processor N150	4 cores	0	4	N/A	4	6 MB	3.60 GHz	Intel® Graphics

Processor Family

Intel® Core™ 7 processor

Intel® Core™ 5 processor

Intel® Core™ 3 processor

Intel® processor

2. Multicore is designed to improve performance of certain software products. Not all customers or software applications will necessarily benefit from use of this technology. Performance and clock frequency will vary depending on application workload and your hardware and software configurations. AMD's numbering is not a measurement of clock speed.

3. Intel® Turbo Boost performance varies depending on hardware, software and overall system configuration.

4. For full Intel® vPro® functionality, Windows 10 Pro 64 bit, a vPro supported processor, vPro enabled chipset, vPro enabled wired LAN and/or WLAN card and TPM 2.0 are required. Some functionality requires additional 3rd party software in order to run. See http://intel.com/vpro

5. For full Intel® vPro® functionality, Windows 10 Pro 64 bit, a vPro supported processor, vPro enabled chipset, vPro enabled wired LAN and/or WLAN card and TPM 2.0 are required. Some functionality requires additional 3rd party software in order to run. See http://intel.com/vpro

GRAPHICS

Integrated

Intel® Graphics

DISPLAY

Availability may vary by country.

Actual brightness will be lower with touchscreen or HP Sure View.

40.6 cm (16") diagonal, 2.5K (2560 x 1600), LCD, UWVA, Anti-Glare, Low Blue Light, 500 nits, sRGB 100%

40.6 cm (16") diagonal, WUXGA (1920 x 1200), LCD, UWVA, , Anti-Glare, WLED, 300 nits, sRGB 62.5%

40.6 cm (16") diagonal, WUXGA (1920 x 1200), OLED, UWVA, BrightView, OLED+ Low Blue Light, 300nit, DCI-P3 95%

Display Size (Diagonal)

40.6 cm (16.0")

Aspect Ratio

16:10

Screen to Body Ratio

Up to 88%

Max Hinge Open Angle

135°

STORAGE AND DRIVES

Storage

1 TB PCIe® NVMe™ SSD Value [6]

512 GB PCIe® NVMe™ SSD Value [6]

256 GB PCIe® NVMe™ SSD Value [6]

6. For storage drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 32 GB is reserved for system recovery software.

MEMORY

Only one memory type option can be selected in a single unit.

HP branded SODIMM memory is recommended to ensure compatibility. If two SODIMM memory modules with different speeds are installed, the system will perform at the lower memory speed.

Option	Option 1	Option 2
Memory slots	Two SODIMM slot	Onboard memory, no memory slots
Memory type	DDR5	LPDDR5x
Maximum supported memory	32GB DDR5-5200 MT/s	8GB LPDDR5-4800 MT/s
Available memory configurations	8GB (1 x 8GB) DDR5-5200 MT/s 12GB (1 x 12GB) DDR5-5200 MT/s 16GB (1 x 16GB) DDR5-5200 MT/s 16GB (2 x 8GB) DDR5-5200 MT/s 24GB (1 x 24GB) DDR5-5200 MT/s 24GB (2 x 12GB) DDR5-5200 MT/s 32GB (1 x 32GB) DDR5-5200 MT/s	8GB LPDDR5-4800 MT/s
Notes	System runs at 5200 MT/s Supports Dual Channel Memory (optional) Memory is replaceable by customer or customer IT support.	System runs at 4800 MT/s Memory is non-accessible / non-upgradeable.

NETWORKING /COMMUNICATIONS

Items below may be optional.

Ethernet

RTK GBE Ethernet Controller [7]

WLAN

Realtek 8852BE-VT Wi-Fi 6 Bluetooth® 5.4 WW WLAN [8,10]

Realtek 8922AE-VS Wi-Fi 7 Bluetooth® 6.0 WW WLAN [9,10]

Miracast [11]

Compatible with Miracast-certified devices (For Win11)

7. The term "10/100/1000" or "Gigabit" Ethernet indicates compatibility with IEEE standard 802.3ab for Gigabit Ethernet, and does not connote actual operating speed of 1 Gb/s. For high-speed transmission, connection to a Gigabit Ethernet server and network infrastructure is required.
8. Wi-Fi 6E requires a Wi-Fi 6E router, sold separately, to function in the 6GHz band. Availability of public wireless access points limited. Wi-Fi 6E is backwards compatible with prior 802.11 specs. Available in countries where Wi-Fi 6E is supported.
9. Wireless access point and Internet service required and sold separately. Availability of public wireless access points limited. Wi-Fi 7 (802.11BE) functionality requires compatible Windows OS, select processor, and a Wi-Fi 7 router, sold separately. Wi-Fi 7 is backwards compatible with prior 802.11 specs. Available in countries where Wi-Fi 7 is supported. The specification for 802.11BE is a draft specification and is not final. If the final specification differs from the draft specification, it may affect the ability of the device to communicate with other 802.11BE devices.
10. Receiver sensitivity is measured at a packet error rate of 8% for 802.11b (CKK modulation) and a packet error rate of 10% for 802.11a/g (OFDM modulation).
11. Miracast is a wireless technology your PC can use to project your screen to TVs, projectors, and streaming.

AUDIO/MULTIMEDIA

Privacy panel is only available on select models.

Audio

Audio by Poly Studio

2 Integrated stereo speakers

2 Integrated dual array microphone

AI noise reduction

Speaker Power

2W / 4 ohm per speaker

Camera

FHD HDR camera

FHD HDR camera, IR camera

Sensors

Fingerprint Sensor

KEYBOARDS/POINTING DEVICES/BUTTONS & FUNCTION KEYS

Keyboard

HP Standard Notebook Keyboard with numeric keypad, spill-resistant, backlit keyboard.

HP Standard Notebook Keyboard with numeric keypad, spill-resistant keyboard.

Pointing Device

Clickpad

Function Keys

F1 - Display Switching

F2 -Screenshot

F3 - Brightness Down

F4 - Brightness Up

F5 - Play and Pause

F6 - Audio Mute

F7 - Volume Down

F8 -Volume Up

F9 - Mic Mute

F10 - Blank or Backlit Toggle

F11 - Programmable Key

F12 -Settings

Hidden Function Keys

Fn+R - Break

Fn+S - Sys Rq

Fn+C - Scroll Lock

SOFTWARE AND SECURITY

Application Software

MS Windows DPK ReG - CPS

Windows 10 Wallpaper - CPS

McAfee - MLS

McAfee Checkbox

McAfee LiveSafe Install Rules Configuration

McAfee URL

MS Office WW Common

MS Office - Lang Packs

WPS Office CMIT

Dropbox Promotion

Dropbox URL

E-QR Code - UWP

sMedio True DVD for HP

Adobe offer

Doubao

HP Documentation

Retail Demo -Video Attract Loop

HP app [12]

HP Privacy Settings

Windows Push Button Reset Recovery - CPS

Windows 10 HP Driver Reinstallation Support - CPS

HP SSRM

HP Support Assistant [13]

HP Connection Optimizer

ENERGY STAR UWP

HP PC Hardware Diagnostics Windows

Touchpoint Customizer for Consumer

HP PC Hardware Diagnostics UEFI

HP Setup Integrated OOBE (GDPR)

Bing Search for IE11

WW-BTB Host and ISP Stub

Audio Brand Logo Rules Configuration

Booking URL

Booking Edge Fav

Agoda URL

Agoda Edge Fav

HP Smart Support [14]

HP System Event Utility - UWP

HSA Telemetry for Consumer

HSA fusion for Consumer

TCO E-Logo

Manageability Features

HP BIOS Recovery

Windows Cloud Bare Metal Recovery - CPS

Security Features

Absolute Persistence Module [15]

Security- TPM

Model

Model: Nuvoton NPCT760HACYX

Firmware Version

Firmware Version: 7.2.4.0

FIPS 140-2 Compliant

No. It is FIPS 140-3 Level 1 Compliant.

BIOS

HP Secure Erase [16]

Smartcard Reader

FIPS 140-2 Compliant

No Smartcard Reader

IPv6 Support

Yes

FirstNet Certified

No

Does the BIOS implement the ISO/IEC 19678:2015 (formerly NIST 800-147) guidelines?

Yes

UEFI version

2.8

Class

2 (RPL)

3 (TWL)

12. HP app requires Windows 10 or higher OS. Multicamera support for Mini Desktop PC only available on 13th processor and beyond.
13. HP Support Assistant is available on Windows. For more information, please visit http://www.support.hp.com/help/hp-support-assistant
14. HP Smart Support automatically collects the telemetry necessary upon initial boot of the product to deliver device-level configuration data and health insights and is available preinstalled on select products, thru HP Factory Configuration Services; or it can be downloaded. For more information about how to enable HP Smart Support or for download, please visit http://www.hp.com/smart-support.
15. Absolute Persistence firmware module is shipped turned off and can only be activated with the purchase a license subscription and full activation of the software agent. License subscriptions can be purchased for terms ranging multiple years. Service is limited, check with Absolute for availability outside the U.S. Certain conditions apply. For full details visit: https://www.absolute.com/about/legal/agreements/absolute/.
16. HP Secure Erase implements the methods outlined in the National Institute of Standards and Technology Special.

POWER

Power supply availability may vary by country.

Battery is internal and replaceable by customer.

Higher wattage adapter is recommended for best performance and fastest charging.

Using lower-capacity third-party USB Type-C® power cables may reduce power delivery.

Power Supply

HP 100W Wall Mount USB Type-C® Gallium Nitride AC power adapter

HP 65W Wall Mount USB Type-C® Gallium Nitride AC power adapter

HP 65W Standard USB Type-C® Gallium Nitride AC power adapter

HP 45W Standard USB Type-C® Gallium Nitride AC power adapter

Battery

HP Long Life 4 cell, 68Wh Polymer [17]

HP Long Life 3 cell, 41Wh Polymer [17]

Battery Recharge Time

Supports battery HP Fast Charge: approximately 50% in 45 minutes

Power Cord

3-wired plug- 1.0m

USB Type-C® Power Cable- 2.0m for wall mount adapter

Battery life

Up to 7.35 hours with 41whr battery (HP Long Life 3-Cell, 41 Whr Polymer, UMA graphic, Intel UR15, Display set to 300 nits display,256 GB SSD) Up to 12.12 hours with 68whr battery (HP Long Life 4-Cell, 68 Whr Polymer, UMA graphic, Intel UR15, Display set to 300 nits display, 256 GB SSD)

17. MobileMark 25 battery life will vary depending on various factors including product model, configuration, loaded applications, features, use, wireless functionality, and power management settings. The maximum capacity of the battery will naturally decrease with time and usage. See http://www.bapco.com for additional details.

WEIGHT & DIMENSIONS

Weight will vary by configuration. Does not include power adapter.

Front height measurement is near the front edge where the mechanical chassis taper begins. Back height measurement is near the rear edge where the mechanical chassis taper ends.

Product Weight

Starting at 1.72 kg (3.79 lb)

Weight will vary by configuration. Does not include power adapter.

Product Dimensions (w x d x h) [18]

358.6 mm (W) x 251.8 mm (D) x 11.2 mm (H front) / 15.35 mm (H rear)

(14.11 in (W) x 9.91 in (D) x 0.44 in (H front)/ 0.6 in (H rear))

Maximum height 18.90 mm (0.74 in)

Pallet Dimensions (w x d x h)

Product packaging size varies based on options chosen. Please contact your HP representative for your packaging size details. For detailed packaging information, access the HP Commercial Notebooks Packaging Guide.

18. Typical dimension. Actual dimension may vary +/- 0.5mm. Height may vary based on configuration. Maximum Height does not include Rubber feet.

PORTS/SLOTS

Left side

2 x USB Type-C® 10Gbps signaling rate (USB Power Delivery, DisplayPort™ 1.4)

1 x USB Type-A 5Gbps signaling rate (Powered)

1 x HDMI 1.4b

Right side

1 x USB Type-A 5Gbps signaling rate (Powered)

1 x headphone/mic combo jack

1 x Nano Security Slot

1 x RJ45 Ethernet port

SERVICE AND SUPPORT

Warranty

1-year warranty and 90 day software limited warranty options depending on country. Batteries have a default one year limited warranty. On-site service and extended coverage is also available. HP Care Pack Services are optional extended service contracts that go beyond the standard limited warranties. To choose the right level of service for your HP product, use the HP Care Pack Services Lookup Tool at: http://www.hp.com/go/cpc [19]

19. HP Care Packs are sold separately. Service levels and response times for HP Care Packs may vary depending on your geographic location. Service starts on date of hardware purchase. Restrictions and limitations apply. For details, visit http://www.hp.com/go/cpc. HP services are governed by the applicable HP terms and conditions of service provided or indicated to Customer at the time of purchase. Customer may have additional statutory rights according to applicable local laws, and such rights are not in any way affected by the HP terms and conditions of service or the HP Limited Warranty provided with your HP Product.

SYSTEM UNIT

Stand - Alone Power Requirements	
(AC Power)	
Nominal Operating Voltage	15V / 20V
Max Operating Power	UMA < 100W for H series CPU
	UMA < 45W for U/N series CPU
Temperature	
Operating	32° to 95° F (0° to 35° C) (not writing optical)
	41° to 95° F (5° to 35° C) (writing optical)
Non - operating	-4° to 140° F (-20° to 60° C)
Relative Humidity	
Operating	10% to 90%, non-condensing
Non - operating	5% to 95%
Shock	
Operating	40 G, 2 ms duration, half-sine
Non - operating	240 G, 2 ms duration, half-sine
Random Vibration	
Operating	1.043 grms
Non - operating	3.5 grms
Altitude(unpressurized)	
Operating	-15 m to 3048 m (-50 ft to 10000 ft)
Non - operating	-15 m to 12192 m (-50 ft to 40000 ft)
Industry Standard Certifications	
Regulatory Model Number	TPN-Q311
CSA/UL 62368-1	Yes, UL
ENERGY STAR®	Yes [1]
FCC/ICES/CISPR/VCCI	Yes
CE MARKING	Yes
GS Mark	No
China CCC/SRRC/CEL	Yes
Taiwan BSMI/NCC	Yes
Korea KCC/KC/KES	Yes
Ukraine NSoC/TEC	Yes

EAEU Compliance	Yes
Saudi Arabian Compliance	Yes
TCO	Yes
EPEAT Gold	Yes, 2.0
Low Blue Light	No
WW RoHS	Yes
CECP	Government Purchase, TBC
Medical EMC: IEC 60601-1-2:2014 EN60601-1-2: 2015	No
SEPA	Government Purchase, TBC
MIL - STD Testing	Yes

1. Configurations that are ENERGY STAR® qualified are identified as ENERGY STAR on HP websites and on http://www.energystar.gov

DISPLAYS

Actual brightness will be lower with touchscreen or HP Sure View.

Availability may vary by country

16.0" WUXGA (1920 X 1200) OLED BrightView bent UWVA, eDP, Narrow Bezel, 60Hz, Low Blue Light (300nits, 95% DCI-P3)	**Active Area**	344.448 (H) x 215.28 (V) mm
	Dimensions (W x H)	348.15 (W) x 224.76 (H) x 3.005 (D) mm
	Weight	216 g
	Diagonal Size	16 inch
	Surface Treatment	Glare (BV)
	Touch Enabled	Not specified
	Contrast Ratio	1,000,000:1
	Refresh Rate	60 Hz
	Brightness	300nits
	Pixel Resolution - Format	RGB Stripe Type
	Aspect Ratio	16:10
	Backlight	OLED (self-emissive, no separate backlight)
	Color Gamut Coverage	DCI-P3: 95% (typ), 90% (min)
	Color Depth	1.074 billion colors (RGB 8bit + 2FRC)
	Viewing Angle	89/89/89/89
	Low Blue Light	Support
	Power Consumption	8.0W (BL + Logic @ Mosaic)
16.0" WUXGA (1920X1200) WLED AntiGlare flat UWVA, eDP, Narrow Bezel (300nits, 62.5% sRGB)	**Active Area**	344.6784 x 215.424 mm
	Dimensions (W x H)	350.68 x 233.77 mm
	Weight	380g
	Diagonal Size	16 inch
	Surface Treatment	AG
	Touch Enabled	NA
	Contrast Ratio	1200:1
	Refresh Rate	60Hz
	Brightness	300nits
	Pixel Resolution - Format	1920 x 1200
	Aspect Ratio	16:10
	Backlight	WLED

	Color Gamut Coverage	sRGB62.5%
	Color Depth	8bits
	Viewing Angle	89/89/89/89
	Low Blue Light	NA
	Power Consumption	4.1W (BL + Logic @ Mosaic)
16.0" WQXGA (2560X1600) WLED AntiGlare flat UWVA, eDP, Narrow Bezel (500nits, 100% sRGB)	**Active Area**	344.68 x 215.42
	Dimensions (W x H)	349.978(W) x 233.924 (H)(w/PCBA)
	Weight	330g
	Diagonal Size	16 inch
	Surface Treatment	AG
	Touch Enabled	NA
	Contrast Ratio	1200:1
	Refresh Rate	240Hz
	Brightness	500nits
	Pixel Resolution - Format	2560 x 1600
	Aspect Ratio	16:10
	Backlight	WLED
	Color Gamut Coverage	sRGB 100%
	Color Depth	8bits
	Viewing Angle	89/89/89/89
	Low Blue Light	Support
	Power Consumption	5.3W EBL@250nits

STORAGE

1 TB PCIe® NVMe™ M.2 SSD	**Form Factor**	M.2 2280
	Capacity	1TB
	NAND Type	TLC/QLC
	Weight	0 ~ 15.0 g (0 ~ 0.03 lb)
	Interface	PCIe NVMe
	Sequential Read	Up to 3500 MB/s
	Sequential Write	Up to 2700 MB/s
	Logical Blocks	2000409264
	Features	Pyrite 2.0; TRIM; L1.2
512 GB PCIe® NVMe™ M.2 SSD	**Form Factor**	M.2 2280
	Capacity	512GB
	NAND Type	TLC/QLC
	Weight	0 ~ 15.0 g (0 ~ 0.03 lb)
	Interface	PCIe NVMe
	Sequential Read	Up to 3500 MB/s
	Sequential Write	Up to 1600 MB/s
	Logical Blocks	1000215216
	Features	Pyrite 2.0; TRIM; L1.2
256 GB PCIe® NVMe™ M.2 SSD	**Form Factor**	M.2 2280
	Capacity	256GB
	NAND Type	TLC
	Weight	0 ~ 15.0 g (0 ~ 0.03 lb)
	Interface	PCIe NVMe
	Sequential Read	Up to 3100 MB/s
	Sequential Write	Up to 1200 MB/s
	Logical Blocks	500118192
	Features	Pyrite 2.0; TRIM; L1.2

NETWORKING / COMMUNICATION

Mediatek MT7920 Wi-Fi® 6 Bluetooth® 5.4 WW WLAN	**Wireless LAN Standards**	IEEE 802.11a IEEE 802.11b IEEE 802.11g IEEE 802.11n IEEE 802.11ac IEEE 802.11ax IEEE 802.11d IEEE 802.11e IEEE 802.11h IEEE 802.11i IEEE 802.11k
	Interoperability	Wi-Fi certified modules
	Frequency Band	802.11b/g/n/ax ▪ 2.402 - 2.482 GHz 802.11a/n/ac/ax ▪ 4.9 - 4.95 GHz (Japan) ▪ 5.15 - 5.25 GHz ▪ 5.25 - 5.35 GHz ▪ 5.47 - 5.725 GHz ▪ 5.825 - 5.850 GHz
	Data Rates	802.11b: 1, 2, 5.5, 11 Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11n: max 300Mbps 802.11ac : max 866.7Mbps 802.11ax : max 1201Mbps
	Modulation	Direct Sequence Spread Spectrum BPSK, QPSK, CCK, 16-QAM, 64-QAM, 256-QAM, 1024QAM

Security	IEEE and WiFi certified 64 / 128 bit WEP encryption for a/b/g mode only AES-CCMP: 128 bit in hardware 802.1x authentication WPA, WPA2: 802.1x. WPA-PSK, WPA2-PSK, TKIP, and AES. WPA2 certification WPA3 certification IEEE 802.11i WAPI EAP
Network Architecture	Ad-hoc (Peer to Peer)
Models	Infrastructure (Access Point Required)
Roaming	IEEE 802.11 compliant roaming between access points
Output Power	802.11b : +17dBm minimum 802.11g : +16dBm minimum 802.11a : +17dBm minimum 802.11n HT20(2.4GHz) : +14dBm minimum 802.11n HT40(2.4GHz) : +13dBm minimum 802.11n HT20(5GHz) : +14dBm minimum 802.11n HT40(5GHz) : +13dBm minimum 802.11ac VHT80(5GHz) : +10dBm minimum 802.11ax HE40(2.4GHz) : +12dBm minimum 802.11ax HE80(5GHz) : +10dBm minimum
Power Consumption	Transmit mode:2.5 W Receive mode:2 W Idle mode (PSP)180 mW(WLAN Associated) Idle mode:50 mW(WLAN unassociated) Connected Standby/Modern Standby: 10mW Radio disabled: 8 mW

Power Management	ACPI and PCI Express compliant power management 802.11 compliant power saving mode
Receiver Sensitivity	802.11b, 1Mbps : -93.5dBm maximum 802.11b, 11Mbps : -84dBm maximum 802.11a/g, 6Mbps : -86dBm maximum 802.11a/g, 54Mbps : -72dBm maximum 802.11n, MCS07 : -67dBm maximum 802.11n, MCS15 : -64dBm maximum 802.11ac, MCS0 : -84dBm maximum 802.11ac, MCS9 : -59dBm maximum 802.11ax, MCS11(HE40): -57dBm maximum 802.11ax, MCS11(HE80): -54dBm maximum
Antenna Type	High efficiency antenna. One embedded dual band 2.4/5 GHz antenna is provided to the card to support WLAN MIMO communications and Bluetooth communications
Form Factor	PCI-Express M.2 MiniCard
Dimensions	Type 2230 : 2.3 x 22.0 x 30.0 mm
Weight	Type 2230 : 2.8g
Operating Voltage	3.3v +/- 9%
	Integrated Bluetooth® specifications
Bluetooth® Specification	4.0/4.1/4.2/5.0/5.1 Compliant/5.2 Compliant/5.3 Compliant/5.4 Compliant
Frequency Band	2402 to 2480 MHz

Number of Available Channels	Legacy : 0~79 (1 MHz/CH) BLE : 0~39 (2 MHz/CH)
Data Rates and Throughput	Legacy : 3 Mbps data rate; throughput up to 2.17 Mbps BLE : 1 Mbps data rate; throughput up to 0.2 Mbps Legacy : Synchronous Connection Oriented links up to 3, 64 kbps, voice channels Legacy : Asynchronous Connection Less links 2178.1 kbps/177.1 kbps asymmetric (3-DH5) or 864 kbps symmetric (3-EV5)
Transmit Power	The Bluetooth component shall operate as a Class II Bluetooth device with a maximum transmit power of + 4 dBm for BR and EDR.
Power Consumption	Peak (Tx): 330 mW Peak (Rx): 230 mW Selective Suspend: 17 mW
Bluetooth® Software Supported Link Topology	Microsoft Windows Bluetooth Software
Power Management	Microsoft Windows ACPI, and USB Bus Support
Certifications	FCC (47 CFR) Part 15C/E, Section 15.247, 15.249 ETSI 300 328, ETSI 301 893
Bluetooth® Profiles Supported	BT4.1-ESR 5/6/7 Compliance LE Link Layer Ping LE Dual Mode LE Link Layer LE Low Duty Cycle Directed Advertising LE L2CAP Connection Oriented Channels Train Nudging & Interlaced Scan

		BT4.2 ESR08 Compliance LE Secure Connection- Basic/Full LE Privacy 1.2 -Link Layer Privacy LE Privacy 1.2 -Extended Scanner Filter Policies LE Data Packet Length Extension FAX Profile (FAX) Basic Imaging Profile (BIP)2 Headset Profile (HSP) Hands Free Profile (HFP) Advanced Audio Distribution Profile (A2DP) BT5.2 ESR9/10 Compliance LE Advertisement Extensions Channel Selection Algo Limited High Duty Cycle Non-Connectable Advertising 2Mbps LE LE Long Range Windows BT profiles support BT5.3 Encryption key size control enhancements
Realtek 8852BE-VT Wi-Fi® 6 Bluetooth® 5.4 WW WLAN	**Wireless LAN Standards**	IEEE 802.11a IEEE 802.11b IEEE 802.11g IEEE 802.11n IEEE 802.11ac IEEE 802.11ax IEEE 802.11d IEEE 802.11e IEEE 802.11h IEEE 802.11i IEEE 802.11k IEEE 802.11r IEEE 802.11v

Interoperability	Wi-Fi certified modules
Frequency Band	802.11b/g/n/ax ▪ 2.402 - 2.482 GHz 802.11a/n/ac/ax ▪ 4.9 - 4.95 GHz (Japan) ▪ 5.15 - 5.25 GHz ▪ 5.25 - 5.35 GHz ▪ 5.47 - 5.725 GHz ▪ 5.825 - 5.850 GHz
Data Rates	802.11b: 1, 2, 5.5, 11 Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11n: max 300Mbps 802.11ac : max 866.7Mbps 802.11ax : max 1201Mbps
Modulation	Direct Sequence Spread Spectrum, OFDM, BPSK, QPSK, CCK, 16-QAM, 64-QAM, 256-QAM, 1024QAM
Security	IEEE and WiFi certified 64 / 128 bit WEP encryption for a/b/g mode only AES-CCMP: 128 bit in hardware 802.1x authentication WPA, WPA2: 802.1x. WPA-PSK, WPA2-PSK, TKIP, and AES. WPA2 certification WPA3 certification IEEE 802.11i WAPI
Network Architecture	Ad-hoc (Peer to Peer)
Models	Infrastructure (Access Point Required)

Roaming	IEEE 802.11 compliant roaming between access points
Output Power	802.11b : +18.5dBm minimum 802.11g : +17.5dBm minimum 802.11a : +18.5dBm minimum 802.11n HT20(2.4GHz) : +15.5dBm minimum 802.11n HT40(2.4GHz) : +14.5dBm minimum 802.11n HT20(5GHz) : +15.5dBm minimum 802.11n HT40(5GHz) : +14.5dBm minimum 802.11ac VHT80(5GHz) : +11.5dBm minimum 802.11ax HE40(2.4GHz) : +10dBm minimum 802.11ax HE80(5GHz) : +10dBm minimum
Power Consumption	Transmit mode:2.5 W Receive mode:2 W Idle mode (PSP)180 mW(WLAN Associated) Idle mode:50 mW(WLAN unassociated) Connected Standby/Modern Standby: 10mW Radio disabled: 8 mW
Power Management	ACPI and PCI Express compliant power management 802.11 compliant power saving mode
Receiver Sensitivity	802.11b, 1Mbps : -93.5dBm maximum 802.11b, 11Mbps : -84dBm maximum 802.11a/g, 6Mbps : -86dBm maximum 802.11a/g, 54Mbps : -72dBm maximum 802.11n, MCS07 : -67dBm maximum 802.11n, MCS15 : -64dBm maximum 802.11ac, MCS0 : -84dBm maximum 802.11ac, MCS9 : -59dBm maximum 802.11ax, MCS11(HE40): -57dBm maximum 802.11ax, MCS11(HE80): -54dBm maximum

Antenna Type	High efficiency antenna with spatial diversity. Two embedded dual band 2.4/5 GHz antennas are provided to the card to support WLAN MIMO communications and Bluetooth communications
Form Factor	PCI-Express M.2 MiniCard
Dimensions	Type 2230 : 2.4 x 22.0 x 30.0 mm
Weight	Type 2230 : 2.8g
Operating Voltage	3.3v +/- 9%
	Integrated Bluetooth® specifications
Bluetooth® Specification	4.0/4.1/4.2/5.0/5.1/5.2/5.3/5.4 Compliant
Frequency Band	2402 to 2480 MHz
Number of Available Channels	Legacy : 0~79 (1 MHz/CH) BLE : 0~39 (2 MHz/CH)
Data Rates and Throughput	Legacy : 3 Mbps data rate; throughput up to 2.17 Mbps BLE : 1 Mbps data rate; throughput up to 0.2 Mbps Legacy : Synchronous Connection Oriented links up to 3, 64 kbps, voice channels Legacy : Asynchronous Connection Less links 2178.1 kbps/177.1 kbps asymmetric (3-DH5) or 864 kbps symmetric (3-EV5)
Transmit Power	The Bluetooth component shall operate as a Class II Bluetooth device with a maximum transmit power of + 4 dBm for BR and EDR.

Power Consumption	Peak (Tx): 330 mW Peak (Rx): 230 mW Selective Suspend: 17 mW
Bluetooth® Software Supported Link Topology	Microsoft Windows Bluetooth Software
Power Management	Microsoft Windows ACPI, and USB Bus Support
Certifications	FCC (47 CFR) Part 15C/E, Section 15.247, 15.249 ETSI 300 328, ETSI 301 893
Bluetooth® Profiles Supported	BT4.1-ESR 5/6/7 Compliance LE Link Layer Ping LE Dual Mode LE Link Layer LE Low Duty Cycle Directed Advertising LE L2CAP Connection Oriented Channels Train Nudging & Interlaced Scan BT4.2 ESR08 Compliance LE Secure Connection- Basic/Full LE Privacy 1.2 –Link Layer Privacy LE Privacy 1.2 –Extended Scanner Filter Policies LE Data Packet Length Extension FAX Profile (FAX) Basic Imaging Profile (BIP)2 Headset Profile (HSP) Hands Free Profile (HFP) Advanced Audio Distribution Profile (A2DP) BT5.1 ESR9/10 Compliance LE Advertisement Extensions Channel Selection Algo Limited High Duty Cycle Non-Connectable Advertising

		2Mbps LE LE Long Range
Realtek 8922AE-VS Wi-Fi 7 Bluetooth® 6.0 WW WLAN	**Wireless LAN Standards**	IEEE 802.11a IEEE 802.11b IEEE 802.11g IEEE 802.11n IEEE 802.11ac IEEE 802.11ax IEEE 802.11be IEEE 802.11d IEEE 802.11e IEEE 802.11h IEEE 802.11i IEEE 802.11j IEEE 802.11k IEEE 802.11mc IEEE 802.11r IEEE 802.11v IEEE 802.11w
	Interoperability	Wi-Fi certified modules
	Frequency Band	802.11b/g/n/ax ▪ 2.402 - 2.482 GHz 802.11a/n/ac/ax ▪ 4.9 - 4.95 GHz (Japan) ▪ 5.15 - 5.25 GHz ▪ 5.25 - 5.35 GHz ▪ 5.47 - 5.725 GHz ▪ 5.825 - 5.850 GHz 5.955-6.415GHz 6.435-6.515GHz 6.535-6.875GHz

	6.895-7.115GHz 5.925-7.125GHz
Data Rates	802.11b: 1, 2, 5.5, 11 Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps ▪ 802.11n: MCS 0 ~ MCS 15, (20MHz, and 40MHz) ▪ 802.11ac : MCS0 ~ MCS9, (20MHz, 40MHz, ,80MHz & 160MHz) ▪ 802.11ax : MCS0 ~ MCS11, (20MHz, 40MHz, ,80MHz & 160MHz) ▪ 802.11be : MCS0 ~ MCS11, (20MHz, 40MHz, ,80MHz & 160MHz)
Modulation	Direct Sequence Spread Spectrum, OFDM, BPSK, QPSK, CCK, 16-QAM, 64-QAM, 256-QAM, 1024QAM
Security	IEEE and WiFi certified 64 / 128 bit WEP encryption for a/b/g mode only AES-CCMP: 128 bit in hardware 802.1x authentication WPA, WPA2: 802.1x. WPA-PSK, WPA2-PSK, TKIP, and AES. WPA2 certification WPA3 certification IEEE 802.11i WAPI EAP
Network Architecture	Infrastructure (Access Point Required)
Models	
Roaming	IEEE 802.11 compliant roaming between access points
Output Power	802.11b : +20dBm 802.11g : +20dBm 802.11a : +18dBm

802.11n HT20(2.4GHz) : +20dBm
802.11n HT40(2.4GHz) : +20dBm
802.11n HT20(5GHz) : +18dBm
802.11n HT40(5GHz) : +17dBm
802.11ac VHT80(5GHz) : +16dBm
802.11ac VHT160(5GHz) : +15dBm
802.11ax HE40(2.4GHz) : +17dBm
802.11ax HE80(5GHz) : +14dBm
802.11ax HE160(5GHz) : +13dBm
802.11ax HE80(6GHz) : +13dBm
802.11ax HE160(6GHz) : +12dBm

Power Consumption

Transmit mode:3.1 W
Receive mode:1.8W
Idle mode (PSP)180 mW(WLAN Associated)
Idle mode:50 mW(WLAN unassociated)
Connected Standby/Modern Standby: 10mW
Radio disabled: 8 mW

Power Management

ACPI and PCI Express compliant power management
802.11 compliant power saving mode

Receiver Sensitivity

- 802.11b, 1Mbps : -93.5dBm maximum
- 802.11b, 11Mbps : -85dBm maximum
- 802.11a/g, 6Mbps : -90.5dBm maximum
- 802.11a/g, 54Mbps : -72.5dBm maximum
- 802.11n, MCS0(HT20) : -90dBm maximum
- 802.11n, MCS7(HT20) : -71.5dBm maximum
- 802.11n, MCS0(HT40) : -88.5dBm maximum
- 802.11n, MCS7(HT40) : -68.5dBm maximum
- 802.11ac, MCS9(VHT20) : -88.5dBm maximum
- 802.11ac, MCS9(VHT40) : -65.5dBm maximum
- 802.11ac, MCS9(VHT80) : -60.5dBm maximum
- 802.11ac, MCS9(VHT160) : -58.5dBm maximum

	▪ 802.11ax, MCS11(HE20)(6GHz) : -59.5dBm maximum ▪ 802.11ax, MCS11(HE40)(6GHz) : -56.5dBm maximum ▪ 802.11ax, MCS11(HE80)(6GHz) : -53.5dBm maximum ▪ 802.11ax, MCS11(HE160)(6GHz) : -51.5dBm maximum
Antenna Type	High efficiency antenna with spatial diversity, mounted in the display enclosure Two embedded dual band 2.4/5 GHz antennas are provided to the card to support WLAN MIMO communications and Bluetooth communications
Form Factor	PCI-Express M.2 MiniCard
Dimensions	Type 2230 : 2.3 x 22.0 x 30.0 mm
Weight	Type 2230 : 2.8g
Operating Voltage	3.15 ~3.6V
	Integrated Bluetooth® specifications
Bluetooth® Specification	4.0/4.1/4.2/5.0/5.1/5.2/5.3/5.4/6.0 Compliant
Frequency Band	2402 to 2480 MHz
Number of Available Channels	Legacy : 0~79 (1 MHz/CH) BLE : 0~39 (2 MHz/CH)
Data Rates and Throughput	Legacy : 3 Mbps data rate; throughput up to 2.17 Mbps BLE : 1 Mbps data rate; throughput up to 0.2 Mbps Legacy : Synchronous Connection Oriented links up to 3, 64 kbps, voice channels Legacy : Asynchronous Connection Less links 2178.1 kbps/177.1 kbps asymmetric (3-DH5) or 864 kbps symmetric (3-EV5)

Transmit Power	The Bluetooth component shall operate as a Class I Bluetooth device with a maximum transmit power of +15.5 dBm for BR and +13dBm for EDR.
Power Consumption	Peak (Tx): 330 mW Peak (Rx): 230 mW Selective Suspend: 17 mW
Bluetooth® Software Supported Link Topology	Microsoft Windows Bluetooth Software
Power Management	Microsoft Windows ACPI, and USB Bus Support compliant power management 802.11 compliant power saving mode
Certifications	FCC (47 CFR) Part 15C/E, Section 15.247, 15.249, 15.407 ETSI 300 328, ETSI 301 893, ETSI 303 687
Bluetooth® Profiles Supported	BT4.1-ESR 5/6/7 Compliance LE Link Layer Ping LE Dual Mode LE Link Layer LE Low Duty Cycle Directed Advertising LE L2CAP Connection Oriented Channels Train Nudging & Interlaced Scan BT4.2 ESR08 Compliance LE Secure Connection- Basic/Full LE Privacy 1.2 -Link Layer Privacy LE Privacy 1.2 -Extended Scanner Filter Policies LE Data Packet Length Extension FAX Profile (FAX) Basic Imaging Profile (BIP)2 Headset Profile (HSP) Hands Free Profile (HFP)

		Advanced Audio Distribution Profile (A2DP) BT5.2 ESR9/10 Compliance LE Advertisement Extensions Channel Selection Algo Limited High Duty Cycle Non-Connectable Advertising 2Mbps LE LE Long Range Windows BT profiles support BT5.3 Compliance to the latest errata spetipn 12.3 of bluetooth 5.3 specification ESR 9/10 compliance Host to controller Encryption key control enhancements
RTK GBE Ethernet Controller	**Connector**	RJ-45
	System Interface	PCIe + SMBus
	Data Rates Supported	10 Mbit/s operation (10BASE-T; IEEE 802.3i; IEEE 802.3 clauses 13-14) 100 Mbit/s operation (100BASE-TX; IEEE 802.3u; IEEE 802.3 clauses 21-30) 1000 Mbit/s operation (1000BASE-T; IEEE 802.3ab; IEEE 8023 clauses 40) Auto-Negotiation (Automatic Speed Selection) Full Duplex Operation at all Speeds, Half Duplex operation at 10 and 100 Mbit/s
	IEEE Compliance	IEEE 802.1p QoS (Quality of Service) Support IEEE 802.1q VLAN support IEEE 802.3x Flow Control (IEEE 802.3 clauses 31-32; configurable) IEEE 802.3az EEE (Energy Efficient Ethernet)

Performance	TCP/IP/UDP Checksum Offload (configurable) Protocol Offload (ARP & NS) Large send offload and Giant send offload Receiving Side Scaling Jumbo Frame 9K
Power Consumption	Cable Disconnetion: 25mW 100Mbps Full Run: 450mW 1000bp Full Run: 1000mW WoL Enable(S3/S4/S5): 50mW WoL Disable(S3/S4/S5): 25mW
Power Management	ACPI compliant – multiple power modes Situation-sensitive features reduce power consumption Advanced link down power saving for reducing link down power consumption
Management Interface	Auto MDI/MDIX Crossover cable detection
IT Manageability	Wake-on-LAN from standby and hibernation (Magic Packet and Microsoft Wake-Up Frame); Wake-on-LAN from off (Magic Packet only) PXE 2.1 Remote Boot Statistics Gathering (SNMP MIB II, Ethernet-like MIB, Ethernet MIB (802.3x, clause 30)) Comprehensive diagnostic and configuration software suite Virtual Cable Doctor for Ethernet cable status

POWER

Power supply availability may vary by country.

Battery is internal and replaceable by customer.

Higher wattage adapter is recommended for best performance and fastest charging.

Using lower-capacity third-party USB Type-C® power cables may reduce power delivery.

HP CALI 45W	Weight (DC Cable Included)	185g(+/-5g) (Not including power cord. Power cord varies by country.)
	Input	100-240Vac
	Input Efficiency	81.76% min at 115 Vac/ 230 Vac @5.00V
		87.3% min at 115 Vac/ 230 Vac @9.00V
		88.85% min at 115 Vac/ 230 Vac @15.00V
		88.85% min at 115 Vac/ 230 Vac @20.00V
	Input frequency range	47-63Hz
	Input AC current	Max. 1.4 A at 90 Vac
	Output	
	Output power	5V/15W
		9V/27W
		15V/45W
		20V/2.25A
	DC output	5V/9V/15V/20V
	Hold - up time	100% load 5ms at 115 Vac input
	Output Over Current Protection	< 5.0A
	AC Inlet Type	C6
	DC Cable Connector	USB type C
	DC Cable Material	PVC
	Connector	
	Connector	C6
	Environmental Design	
	Operating temperature	32°F to 95°F (0°to 35°C)
	Non - operating(storage) temperature	-4°F to 185°F (-20°to 85°C)
	Altitude	0 to 16,400 ft (0 to 5000m)

	Humidity	20% to 95%
	Storage Humidity	10% to 95%
	EMI and Safety Certifications	CE Mark - full compliance with LVD and EMC directives Worldwide safety standards - IEC60950-1 and IEC62368-1 : 2018, EN62368-1:2014+A11, UL62368-1 Agency approvals - C-UL-US, TUV/GS, TUV/PSE, EN55032 Class B, FCC Class B, CISPR32 Class B, CCC and CECP, CU(EAC), EAEU, KCC(Safety+EMC) and K-MEPS, NOM-001 and 029 NYCE, NRcan, NRCS, ISC, SEC, PSB, Argentina S-mark, Australia RCM, BIS, BSMI, UAE, UKCA DoC, USB-IF, Ukraine(CoC+DoC+RoHS+ECO)
HP Luna 65W	Weight (DC Cable Included)	220g(+/-10g) (Not including power cord. Power cord varies by country.)
	Input	100-240Vac
	Input Efficiency	81.84% min at 115 Vac/ 230 Vac @5.00V 87.3% min at 115 Vac/ 230 Vac @9.00V 88.85% min at 115 Vac/ 230 Vac @15.00V 89.00% min at 115 Vac/ 230 Vac @20.00V
	Input frequency range	47-63Hz
	Input AC current	Max. 1.6 A at 90 Vac
	Output	
	Output power	5V/15W 9V/27W 12V/60W 15V/65W 20V/65W
	DC output	5V/9V/15V/20V
	Hold - up time	100% load 5ms at 115 Vac input
	Output Over Current Protection	< 8.0A
	AC Inlet Type	C6
	DC Cable Connector	USB type C
	DC Cable Material	PVC

	Connector	
	Connector	C6
	Environmental Design	
	Operating temperature	32°F to 95°F (0°to 35°C)
	Non - operating(storage) temperature	-4°F to 185°F (-20°to 85°C)
	Altitude	0 to 16,400 ft (0 to 5000m)
	Humidity	20% to 95%
	Storage Humidity	10% to 95%
	EMI and Safety Certifications	CE Mark - full compliance with LVD and EMC directives Worldwide safety standards - IEC60950-1 and IEC62368-1 : 2018, EN62368-1:2014+A11, UL 62368-1 Agency approvals - C-UL-US, TUV/GS, TUV/PSE, EN55032 Class B, FCC Class B, CISPR32 Class B, CCC and CECP, CU(EAC), EAEU, KCC(Safety+EMC) and K-MEPS, NOM-001 and 029 NYCE, NRcan, NRCS, ISC, SEC, PSB, Argentina S-mark, Australia RCM, BIS, BSMI, UAE, UKCA DoC
HP Kinopio 65W	Weight (DC Cable Included)	180g(+/-10g) (Not including Duck Head. Duck Head varies by country.)
	Input	100-240Vac
	Input Efficiency	81.84% min at 115 Vac/ 230 Vac @5.00V 87.3% min at 115 Vac/ 230 Vac @9.00V 88.85% min at 115 Vac/ 230 Vac @15.00V 89.00% min at 115 Vac/ 230 Vac @20.00V
	Input frequency range	47-63Hz
	Input AC current	Max. 1.6 A at 90 Vac
	Output	
	Output power	5V/15W 9V/27W 15V/65W 20V/65W
	DC output	5V/9V/15V/20V

	Hold - up time	100% load 5ms at 115 Vac input
	Output Over Current Protection	115%-135%
	AC Inlet Type	Foldable or Fixed type
	DC Cable Connector	USB type C
	DC Cable Material	Halogen Free (2.0 Meters)
	Environmental Design	
	Operating temperature	32°F to 95°F (0°to 35°C)
	Non - operating(storage) temperature	-4°F to 185°F (-20°to 85°C)
	Altitude	0 to 16,400 ft (0 to 5000m)
	Humidity	20% to 95%
	Storage Humidity	10% to 95%
	EMI and Safety Certifications	CE Mark - full compliance with LVD and EMC directives Worldwide safety standards - IEC60950-1 and IEC62368-1 : 2018, EN62368-1:2014+A11, UL 62368-1 Agency approvals - C-UL-US, TUV/GS, TUV/PSE, EN55032 Class B, FCC Class B, CISPR32 Class B, CCC and CECP, CU(EAC), EAEU, KCC(Safety+EMC) and K-MEPS, NOM-001 and 029 NYCE, NRcan, NRCS, ISC, SEC, PSB, Argentina S-mark, Australia RCM, BIS, BSMI, UAE, UKCA DoC
HP Koopa 100W	Weight (DC Cable Included)	255g(+/-5g) (Not including power cord. Power cord varies by country.)
	Input	100-240Vac
	Input Efficiency	81.76% min at 115 Vac/ 230 Vac @5.00V 87.3% min at 115 Vac/ 230 Vac @9.00V 89.00% min at 115 Vac/ 230 Vac @15.00V 89.00% min at 115 Vac/ 230 Vac @20.00V
	Input frequency range	47-63Hz
	Input AC current	Max. 1.6 A at 90 Vac
	Output	
	Output power	5V/15W 9V/27W

	15V/75W
	20V/100W
DC output	5V/9V/15V/20V
Hold - up time	100% load 5ms at 115 Vac input/80% load 10ms at 115 Vac input
Output Over Current Protection	5V/9V : 125%~135% ; 15V/20V: 5.4A
AC Inlet Type	Foldable or Fixed type
DC Cable Connector	USB type C
DC Cable Material	Halogen Free (2M)
Environmental Design	
Operating temperature	32°F to 95°F (0°to 35°C)
Non - operating(storage) temperature	-4°F to 185°F (-20°to 85°C)
Altitude	0 to 16,400 ft (0 to 5000m)
Humidity	20% to 95%
Storage Humidity	10% to 95%
EMI and Safety Certifications	CE Mark - full compliance with LVD and EMC directives Worldwide safety standards - IEC60950-1, IEC 62368-1:2014 and IEC62368-1 : 2018, EN62368-1:2020+A11, UL 62368-1 Agency approvals - C-UL-US, TUV/GS, TUV/PSE, EN55032 Class B, FCC Class B, CISPR32 Class B, CCC, CU(EAC), KCC(Safety+EMC), NOM-001 NYCE, NRcan, NRCS, ISC, SEC, PSB, Argentina S-mark, Australia RCM, BIS, BSMI, UAE, UKCA DoC, Ukraine(CoC+DoC+RoHS+ECO)

Battery

HP 3-cell Long Life Li-Ion (41 WHr)	Weight	0.175 kg (0.377 lb)
	Cells / Type	3cell Lithium-Ion Polymer cell / 515974
	Energy	
	Voltage	11.25V
	Amp - hour capacity	3.648Ah
	Watt - hour capacity	41WH
	Temperature	
	Operating (Charging)	32˚ to 113˚ F (0˚ to 45˚ C)
	Operating (Discharging)	14˚ to 122˚ F (-10˚ to 60˚ C)
	Optional Travel Battery Available	No
HP 4-cell Long Life Li-Ion (68 WHr)	Weight	0.255 kg / (0.55 lb)
	Cells / Type	4cell Lithium-Ion Polymer cell / 506473
	Energy	
	Voltage	7.72V
	Amp - hour capacity	8.81Ah
	Watt - hour capacity	68Wh
	Temperature	
	Operating (Charging)	32˚ to 113˚ F (0˚ to 45˚ C)
	Operating (Discharging)	14˚ to 122˚ F (-10˚ to 60˚ C)
	Optional Travel Battery Available	No

AUDIO

Privacy panel is only available on select models.

Codec	Realtek ALC3247-CG
Audio I/O Ports	One Headset Combo-Jack connector support CTIA spec.
Internal Speaker Amplifier	2W class D stereo amplifier for the internal speaker only. External speakers must be powered.
Multi-streaming Capable	Playback multi-streaming can be enabled in the audio control panel to allow independent audio streams to be sent to/from the Combo jack or integrated speaker.
Sampling	Independent sampling rates for DAC's and ADC's; supports resolutions from 16 to 24-bit; 44.1 kHz to 48 kHz for DAC and ADC.
Wavetable Syntheses	Yes - Uses OS soft wavetable
Internal Speaker	Yes.

FINGERPRINT READER

Sensor vendor	ELAN
Sensor type	Capacitive
DPI resolution	508 DPI
Scan area	80 x 80 pixels
False Rejection Rate	< 3%
False Acceptance Rate	< 0.001%
Mobile Voltage Operation	3 V ~ 3.6 V
Operating Temperature	-20°C ~ 80°C (-4°F ~ 176°F)
Current Consumption Image	120mA max
Low Latency Wait For Finger	300 uA
Capture Rate	50 frames/sec
ESD Resistance	IEC 61000-4-2 4B (+15KV)
Detection Matrix	508 dpi / 4.0 x 4.0 mm sensor area

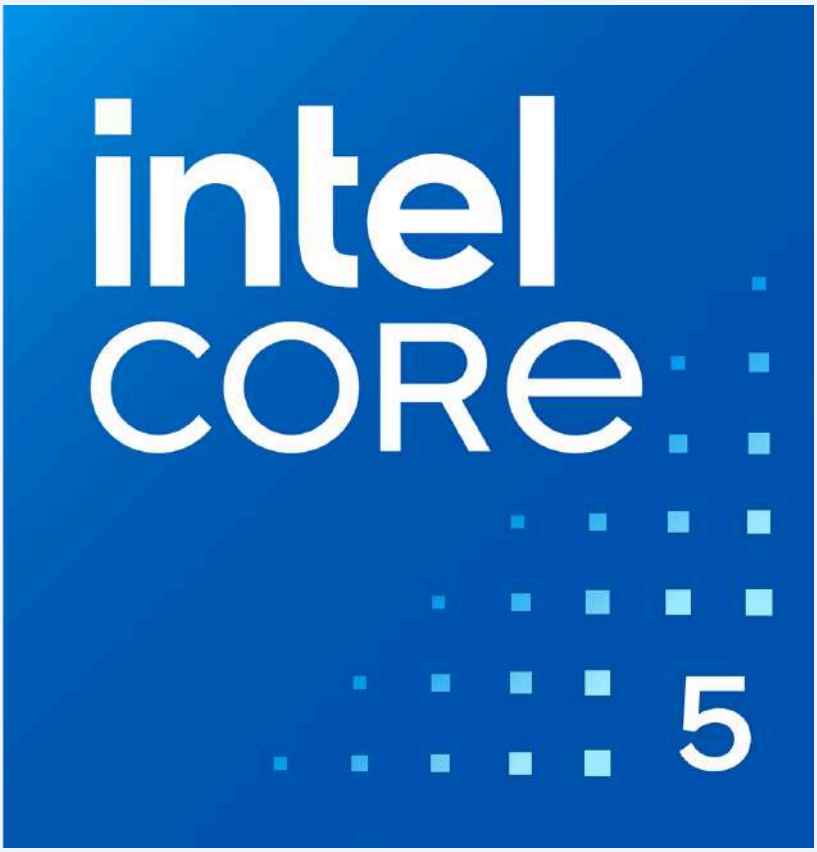
Sensor vendor	SYNAPTICS
Sensor type	Capacitive
DPI resolution	363 DPI
Scan area	104x86 pixels
False Rejection Rate	< 3%
False Acceptance Rate	< 1/100000 (0.001%)
Mobile Voltage Operation	2.7 V ~ 3.6 V
Operating Temperature	0 to 60° C
Current Consumption Image	100 mA max
Low Latency Wait For Finger	60 uA
Capture Rate	17ms/times (~58 frame/sec)
ESD Resistance	IEC 61000-4-2 4B (+15KV)
Detection Matrix	363 dpi / 7.4 x 6.0 mm sensor area

CHANGELOG

Date of change	Version History		Description of change
February 9, 2026	V1 to V2	Updated	Battery Life
February 12, 2026	V2 to V3	Updated	Software and Security Section
February 26, 2026	V3 to V4	Updated	Memory Section
April 14, 2026	V4 to V5	Updated	Ports / Slots
May 14, 2026	V5 to V6	Updated	Processor Section
June 5, 2026	V6 to V7	Updated	Memory Section
June 26, 2026	V7 to V8	Updated	Power Section
August 14, 2026	V8 to V9	Updated	Memory Section
September 29, 2026	V9 to V10	Updated	Memory Section

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Intel® Core™ 5 processor 120U

Specifications

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Essentials

Product Collection	Intel® Core™ processors (Series 1)
Code Name	Products formerly Raptor Lake
Vertical Segment	Mobile
Processor Number ?	120U

CPU Specifications

Total Cores ?	10
# of Performance-cores	2

Comentários

# of Efficient-cores	8
# of Low Power Efficient-cores	0
Total Threads	12
Max Turbo Frequency	5 GHz
Performance-core Max Turbo Frequency	5 GHz
Efficient-core Max Turbo Frequency	3.8 GHz
Performance-core Base Frequency	1.4 GHz
Efficient-core Base Frequency	900 MHz
Cache	12 MB Intel® Smart Cache
Processor Base Power	15 W
Maximum Turbo Power	55 W
Minimum Assured Power	12 W
Intel® Deep Learning Boost (Intel® DL Boost) on CPU	Yes
Comentários	Intel 7

Supplemental Information

Marketing Status	Launched
Launch Date	Q1'24
Embedded Options Available	Yes
Use Conditions	PC/Client/Tablet
Product Tuning (Embedded Uses)	Yes
Datasheet	View now

Memory Specifications

Max Memory Size (dependent on memory type)	96 GB
Memory Types	Up to DDR5 5200 MT/s Up to DDR4 3200 MT/s Up to LPDDR5/X 5200 MT/s Up to LPDDR4X 4267 MT/s
Max # of Memory Channels	2
ECC Memory Supported ‡	No

Comentários

GPU Specifications

GPU Name‡	Intel® Graphics
Graphics Max Dynamic Frequency	1.3 GHz
Graphics Output	eDP 1.4b, DP 1.4a, HDMI 2.1
Execution Units	80
Max Resolution (HDMI)‡	4096 x 2304 @ 60Hz
Max Resolution (DP)‡	7680 x 4320 @ 60Hz
Max Resolution (eDP - Integrated Flat Panel)‡	4096 x 2304 @ 120Hz
DirectX* Support	12.1
OpenGL* Support	4.6
OpenCL* Support	3.0
H.264 Hardware Encode/Decode	Yes
H.265 (HEVC) Hardware Encode/Decode	Yes

Comentários

AV1 Encode/Decode	Decode Only
Intel® Quick Sync Video	Yes
# of Displays Supported ‡	4
Device ID	0xA7AC
Intel® Deep Learning Boost (Intel® DL Boost) on GPU	No

IPU Specifications

Intel® Image Processing Unit Version	6.0

Expansion Options

Intel® Thunderbolt™ 4	Yes
Microprocessor PCIe Revision	Gen 4
Chipset / PCH PCIe Revision	Gen 3
Max # of PCI Express Lanes	20

Comentários

Package Specifications

Sockets Supported	FCBGA1744
Max Operating Temperature	100 °C
Package Size	50 mm x 25 mm

Advanced Technologies

Intel® Gaussian & Neural Accelerator	3.0
Intel® Thread Director	Yes
Intel® Smart Sound Technology	Yes
Intel® Wake on Voice	Yes
Intel® High Definition Audio	Yes
MIPI SoundWire*	1.2
Intel® Adaptix™ Technology	Yes

Comentários

Intel® Speed Shift Technology	Yes
Intel® Turbo Boost Max Technology 3.0 ‡	No
Intel® Turbo Boost Technology ‡	2.0
Intel® Hyper-Threading Technology ‡	Yes
Intel® 64 ‡	Yes
Instruction Set	64-bit
Instruction Set Extensions	Intel® SSE4.1, Intel® SSE4.2, Intel® AVX2
Enhanced Intel SpeedStep® Technology	Yes
Thermal Monitoring Technologies	Yes
Intel® Volume Management Device (VMD)	Yes

Security & Reliability

Intel® Threat Detection Technology (TDT)	Yes
Intel® Active Management Technology (AMT) ‡	No

Comentários

Intel® Standard Manageability (ISM) ‡	Yes
Intel® Remote Platform Erase (RPE) ‡	No
Intel® One-Click Recovery ‡	No
Intel® Hardware Shield Eligibility ‡	Yes
Intel® Secure Key	Yes
Intel® Control-Flow Enforcement Technology	Yes
Intel® Total Memory Encryption - Multi Key	No
Intel® AES New Instructions	Yes
Intel® Trusted Execution Technology ‡	Yes
Execute Disable Bit ‡	Yes
Intel® OS Guard	Yes
Intel® Boot Guard	Yes
Mode-based Execute Control (MBEC)	Yes
Intel® Stable IT Platform Program (SIPP)	No

Comentários

Intel® Virtualization Technology with Redirect Protection (VT-rp) ‡	No
Intel® Virtualization Technology (VT-x) ‡	Yes
Intel® Virtualization Technology for Directed I/O (VT-d) ‡	Yes
Intel® VT-x with Extended Page Tables (EPT) ‡	Yes

Product and performance information

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Refer to Datasheet for formal definitions of product properties and features.

‡ This feature may not be available on all computing systems. Please check with the system vendor to determine if your system delivers this feature, or reference the system specifications (motherboard, processor, chipset, power supply, HDD, graphics controller, memory, BIOS, drivers, virtual machine monitor-VMM, platform software, and/or operating system) for feature compatibility. Functionality, performance, and other benefits of this feature may vary depending on system configuration.

Intel processor numbers are not a measure of performance. Processor numbers differentiate features within each processor family, not across different processor families. See http://www.intel.com/content/www/us/en/processors/processor-numbers.html for details.

“Announced” SKUs are not yet available. Please refer to the Launch Date for market availability.

Intel® Arc™ graphics only available on select V-Series Intel® Core™ Ultra processor-powered systems with qualifying system thermal design or H-series Intel® Core™ Ultra processor-powered systems with at least 16GB of system memory in a dual-channel configuration. OEM enablement required. Other Intel® Core™ Ultra processor-powered s feature Intel® Graphics. Check with OEM or retailer for system configuration details.

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Intel® Iris® Xe Graphics only: to use the Intel® Iris® Xe brand, the system must be populated with 128-bit (dual channel) memory. Otherwise, use the Intel® UHD brand.

Max Turbo Frequency refers to the maximum single-core processor frequency that can be achieved with Intel® Turbo Boost Technology. See https://www.intel.com/content/www/us/en/gaming/resources/turbo-boost.html for more information and applicability of this technology.

See http://www.intel.com/content/www/us/en/architecture-and-technology/hyper-threading/hyper-threading-technology.html?wapkw=hyper+threading for more information including details on which processors support Intel® HT Technology.

Processors that support 64-bit computing on Intel® architecture require an Intel 64 architecture-enabled BIOS.

Some products can support AES New Instructions with a Processor Configuration update, in particular, i7-2630QM/i7-2635QM, i7-2670QM/i7-2675QM, i5-2430M/i5-2435M, i5-2410M/i5-2415M. Please contact OEM for the BIOS that includes the latest Processor configuration update.

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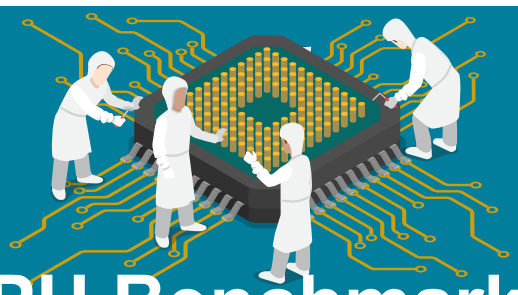
Support & Resources



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CPU Benchmarks

Over 1,000,000 CPUs Benchmarked

Intel Core 5 120U

Benchmarks for the Intel Core 5 120U can be found below. Release dates, price and performance comparisons are also listed when available. This is made using thousands of PerformanceTest benchmark results and is updated daily.

- The first graph shows the relative performance of the CPU compared to the 10 other common (single) CPUs in terms of PassMark CPU Mark.
- The 2nd graph shows the value for money, in terms of the CPUMark per dollar.
- The pricing history data shows the price for a single Processor. For multiple Processors, multiply the price shown by the number of CPUs.

Is the Intel Core 5 120U Good for Gaming?

This is relatively new CPU that contains 10 Cores and 12 Threads. The Intel Core 5 120U also has reasonable threaded performance that will serve well in games. Paired with a good videocard, *is this CPU Good for Gaming?* Yes, this would be a suitable CPU for gaming. [More ...]



Intel Core 5 120U	Average CPU Mark
Description: Intel Graphics	
Class: Laptop	**Socket:** FCBGA1744
Total Cores: 10 Cores, 12 Threads	
Performance Cores: 2 Cores, 4 Threads, 1.4 GHz Base, 5.0 GHz Turbo	
Efficient Cores: 8 Cores, 8 Threads, 0.9 GHz Base, 3.8 GHz Turbo	
Typical TDP: 15 W	**TDP Down:** 12 W
TDP Up : 55 W	
Cache per CPU Package:	**Cache per Eff. CPU Package:**

Multithread Rating

14862

Single Thread Rating

3456

Samples: 1688*

*Margin for error: Low

+ COMPARE

L1 Instruction Cache: 2 x 32 KB

Eff. L1 Instruction Cache: 8 x 64 KB

CPU Benchmarks

L3 Cache: 12 MB

Memory Support: Max. Memory Size: 96 GB (Up to DDR5 5200 MT/s Up to DDR4 3200 MT/s Up to LPDDR5/x 6400 MT)

Other names: Intel(R) Core(TM) 5 120U, Intel Core 5 120U, Intel 5 120U

CPU First Seen on Charts: Q1 2024

CPUmark/$Price: 43.71

Overall Rank:
1363rd fastest in multithreading out of 6034 CPUs
598th fastest in single threading out of 6034 CPUs
316th fastest in out of 1652 Laptop CPUs

Last Price Change: $340.00 USD (2024-01-01)

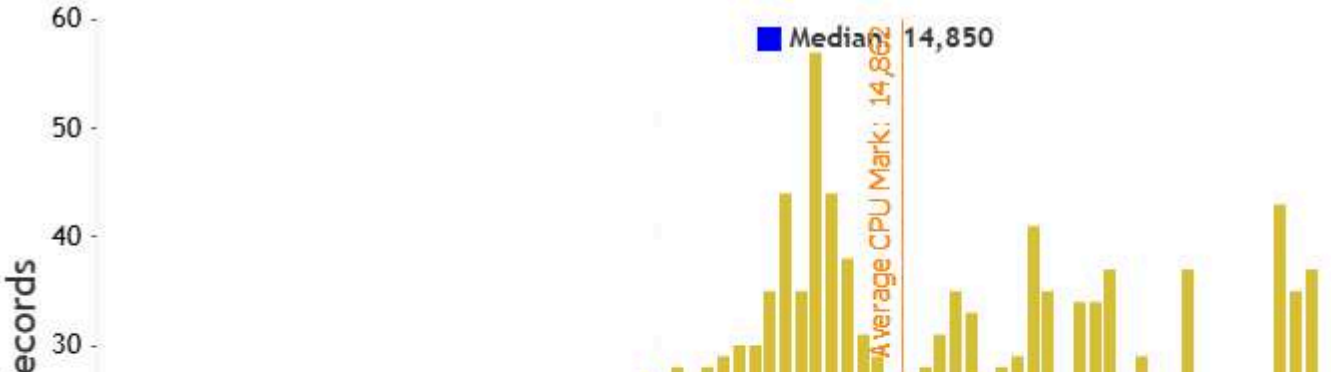
CPU Test Suite Average Results for Intel Core 5 120U

Integer Math	51,807 MOps/Sec
Floating Point Math	35,590 MOps/Sec
Find Prime Numbers	52 Million Primes/Sec
Random String Sorting	18,798 Thousand Strings/Sec
Data Encryption	10,329 MBytes/Sec
Data Compression	164,328 KBytes/Sec
Physics	924 Frames/Sec
Extended Instructions	9,190 Million Matrices/Sec
Single Thread	3,456 MOps/Sec

From submitted results to PerformanceTest V10 as of 1st of October 2026.

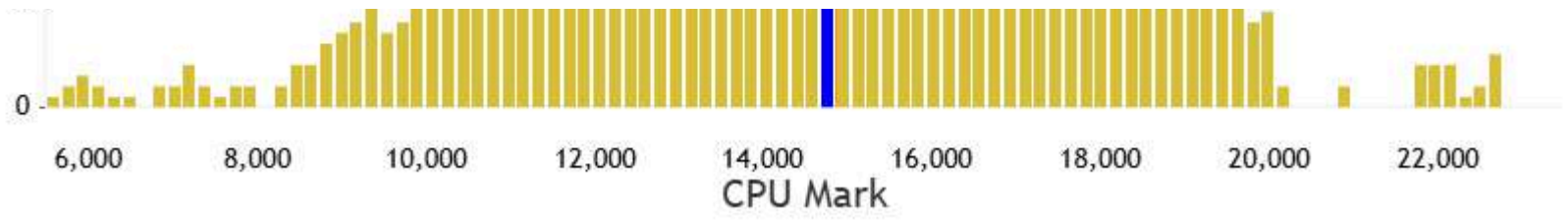
CPU Mark Distribution for Intel Core 5 120U

Submitted Baseline Distribution Graph as of 29th of September 2026





CPU Benchmarks



From submitted results since PerformanceTest V10 as of 29th of September 2026.
For distribution graph only: Results are trimmed to exclude outliers by disregarding the bottom 1% and top 1% of submissions.

Search for Intel Core 5 120U

from the Featured Merchants below:

Note: PassMark Software may earn compensation for sales from links on this site through affiliate programs.

Machines with this CPU (or similar)

	Dell Pro 16 PC16250 Laptop, Intel Core 5 120U, 16GB DDR5, 512GB SSD	$994.99 (www.amazon.com)
	acer Aspire 14 Laptop | 14.0" WUXGA 1920 x 1200 IPS | Intel Core 5 Processor 120U | Intel Graphics | 16GB LPDDR5 | 512GB Gen4 SSD | Wi-Fi 6E | AI PC | Copilot Key | Backlit Keyboard | A14-51M-515G	$597.99 (www.amazon.com)
	Lenovo IdeaPad 5i 2-in-1 16" Touchscreen Laptop |Intel Core 5 120U |Intel Graphics|Office 365|Backlit| 16GB RAM DDR5 | 512GB SSD |Windows 11 Home |Bundle with Stylus Pen	$799.99 (www.amazon.com)
	Dell Pro 14 PC14250 Laptop, Intel Core 5 120U, 32GB DDR5 RAM, 1TB SSD	$1399.99 (www.amazon.com)
	HP 17.3" Business Laptop, Intel Core 5 120U (Up to 5.0 GHz, 10-Core), 8GB RAM, 256GB SSD, Wi-Fi 6, Windows 11 with Office 365 for The Web, Large Screen, 2026 Edition	$629.99 (www.amazon.com)

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CPU Mark Relative to Top 10 Common Laptop CPUs

As of 1st of October 2026 - Higher results represent better performance

Processor	Average CPU Mark	
Intel Core i7-12700H		24,936
Apple M4 10 Core		23,572
AMD Ryzen 7 5800H		20,454
Intel Core i7-11800H @ 2.30GHz		19,566

AMD Ryzen 7 4800H		17,804

CPU Benchmarks

Apple M2 8 Core 3500 MHz		15,650
Intel Core 5 120U		14,862
Apple M1 8 Core 3200 MHz		14,121
Intel Core i7-9750H @ 2.60GHz		10,542
Intel Core i5-1135G7 @ 2.40GHz		9,290

CPU Value (CPU Mark / $Price)

As of 1st of October 2026 - Higher results represent better value

Processor	CPU Mark / $Price	
Intel Core i7-12700H		54.56
Intel Core i7-11800H @ 2.30GHz		49.54
Intel Core 5 120U		43.71
Intel Core i5-1135G7 @ 2.40GHz		30.07
Intel Core i7-9750H @ 2.60GHz		10.98
Apple M1 8 Core 3200 MHz		NA
Apple M2 8 Core 3500 MHz		NA
Apple M4 10 Core		NA
AMD Ryzen 7 5800H		NA
AMD Ryzen 5 5600H		NA
AMD Ryzen 7 4800H		NA

Single Thread Rating

As of 1st of October 2026 - Higher results represent better performance

Processor	Average Thread Rating	
Apple M4 10 Core		4,492
Apple M2 8 Core 3500 MHz		3,882
Apple M1 8 Core 3200 MHz		3,672

Intel Core i7-12700H		3,479

CPU Benchmarks

Intel Core i7-11800H @ 2.30GHz		3,004
AMD Ryzen 7 5800H		2,986
AMD Ryzen 5 5600H		2,870
Intel Core i5-1135G7 @ 2.40GHz		2,593
AMD Ryzen 7 4800H		2,579
Intel Core i7-9750H @ 2.60GHz		2,382

Last 5 Baselines for Intel Core 5 120U

Most recent listed first

Baseline	CPU Mark	
BL3745738 - Sep 28 2026		11537
BL3745484 - Sep 28 2026		12822
BL3745339 - Sep 28 2026		15509
BL3745288 - Sep 28 2026		15415
BL3745251 - Sep 28 2026		11966

Additional baselines can be obtained using Windows version of PerformanceTest's Manage Baselines feature.

Popular comparisons for Intel Core 5 120U

As of 1st of October 2026 - Higher results represent better performance

Processor	Average CPU Mark	
Intel Core 5 120U		14,862
Intel Core Ultra 5 125U vs Intel Core 5 120U		16,674 *(+12.2%)*
Intel Core Ultra 5 235U vs Intel Core 5 120U		17,344 *(+16.7%)*
Intel Core i5-1345U vs Intel Core 5 120U		13,839 *(-6.9%)*
Intel Core i5-1335U vs Intel Core 5 120U		13,769 *(-7.4%)*
Intel Core i5-1334U vs Intel Core 5 120U		12,991 *(-12.6%)*
Intel Core Ultra 5 134U vs Intel Core 5 120U		13,209 *(-11.1%)*

Intel Core i5-1245U vs Intel Core 5 120U		12,738 *(-14.3%)*

CPU Benchmarks

Intel Core Ultra 5 134U vs Intel Core 5 120U		13,209 *(-11.1%)*
Intel Core Ultra 7 155U vs Intel Core 5 120U		16,127 *(+8.5%)*
Intel Core i3-1220P vs Intel Core 5 120U		15,623 *(+5.1%)*
Intel Core i5-13420H vs Intel Core 5 120U		16,761 *(+12.8%)*

Is the Intel Core 5 120U Good for Gaming?

As of 1st of October 2026 - Higher results represent better performance

Processor	Relative Gaming Score	
AMD Ryzen 9 9955HX3D		9,755
Intel Core Ultra 9 290HX Plus		9,270
Intel Core Ultra 9 285HX		9,066
Intel Core Ultra 9 275HX		8,940
Intel Core Ultra 7 270HX Plus		8,855
Intel Core Ultra 7 251HX		8,286
Intel Core Ultra 5 235HX		7,976
Intel Core Ultra 7 265HX		7,823
Intel Core Ultra 7 255HX		7,703
Intel Core Ultra 9 285H		7,649
Intel Core Ultra 7 265H		7,598
AMD Ryzen 9 9850HX		7,294
Intel Core 5 120U		3,406

Software

- BurnInTest
- PerformanceTest

Hardware

- USB3.0 Loopback Plugs
- USB2.0 Loopback Plugs

Benchmarks

- CPU Benchmarks
- Video Card Benchmarks
- Hard Drive Benchmarks
- RAM Benchmarks
- PC Systems Benchmarks
- Software Marketshare
- Database Benchmarks
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ENERGY STAR CERTIFIED
Computers

HP - HP OmniBook 3 Laptop ENERGY STAR : 16-bu

Specifications

ENERGY STAR Unique ID:	4515114
Brand Name:	HP
Model Name:	HP OmniBook 3 Laptop ENERGY STAR
Model Number:	16-bu
Type:	Notebook
Operating System Name:	Windows 11
Physical CPU Cores (count):	14
Processor Brand:	Intel
Processor Name:	Intel Core 9 270H
System Memory (GB):	32.0
Default Low-power Mode:	Modern Standby Mode
TEC of Model (kWh):	12.1
Base TEC Allowance (kWh):	8
Functional Adder Allowances (kWh):	11.0
Long Idle (watts):	0.5
Long Idle Power Used for Sleep Mode:	No
Off Mode (watts):	0.3
Short Idle (watts):	4.9
Sleep Mode (watts):	0.5
Ethernet Capability:	No
Touch Screen:	No
Date Available On Market:	2026-01-09
Date Certified:	2025-11-17
Markets:	United States, Japan, Canada, Taiwan, Switzerland
ENERGY STAR Certified:	Yes

Additional Model Information

HP 200 G2i 16 ENERGY STAR,200 G2i; HP 200 G2i 16 inch Notebook PC ENERGY STAR,200 G2i; HP 200 G2i 16" Notebook PC ENERGY STAR,200 G2i; HP 200 G2Ri 16 AI ENERGY STAR,200 G2Ri; HP 200 G2Ri 16 inch Notebook AI PC ENERGY STAR,200 G2Ri; HP 200 G2Ri 16" Notebook AI PC ENERGY STAR,200 G2Ri; HP OmniBook 3 16 inch Laptop AI PC ENERGY STAR,16-bt; HP OmniBook 3 16 inch Laptop AI PC ENERGY STAR,16t-bt; HP OmniBook 3 16 inch Laptop Next Gen AI PC ENERGY STAR,16-bs; HP OmniBook 3 16 inch Laptop Next Gen AI PC ENERGY STAR,16t-bs; HP OmniBook 3 16 inch Laptop PC ENERGY STAR,16-bu; HP OmniBook 3 16 inch Laptop PC ENERGY STAR,16t-bu; HP OmniBook 3 Laptop AI ENERGY STAR,16-bt; HP OmniBook 3 Laptop AI ENERGY STAR,16t-bt; HP OmniBook 3 Laptop ENERGY STAR,16t-bu; HP OmniBook 3 LaptopNGAI ENERGY STAR,16-bs; HP OmniBook 3 LaptopNGAI ENERGY STAR,16t-bs; HP OmniBook 5 16 inch Laptop AI PC ENERGY STAR,16-ce; HP OmniBook 5 16 inch Laptop AI PC ENERGY STAR,16t-ce; HP OmniBook 5 16 inch Laptop Next Gen AI PC ENERGY STAR,16-cd; HP OmniBook 5 16 inch Laptop Next Gen AI PC ENERGY STAR,16t-cd; HP OmniBook 5 16 inch Laptop PC ENERGY STAR,16-cf; HP OmniBook 5 16 inch Laptop PC ENERGY STAR,16t-cf; HP OmniBook 5 Laptop AI ENERGY STAR,16-ce; HP OmniBook 5 Laptop AI ENERGY STAR,16t-ce; HP OmniBook 5 Laptop ENERGY STAR,16-cf; HP OmniBook 5 Laptop ENERGY STAR,16t-cf; HP OmniBook 5 LaptopNGAI ENERGY STAR,16-cd; HP OmniBook 5 LaptopNGAI ENERGY STAR,16t-cd; HP Pro 5 G2i 16 ENERGY STAR,Pro 5 G2i 16; HP RUI 16 G2i ENERGY STAR,RUI 16 G2i; HP RUI Pro 16 G2i ENERGY STAR,RUI Pro 16 G2i

UPC Codes	199485461250, 199485461267, 199485461274, 199485461281, 199485461298, 199485461304, 199485461311, 199485461328, 199485461335, 199485461342, 199485461359, 199485461366, 199485461373, 199485461380, 199485461397, 199485461403, 199485461410, 199485461427, 199485461434, 199485461441, 199485461458, 199485461465, 199485461472, 199485461489, 199485461496, 199485461502, 199485461519, 199485461526, 199485461533, 199485461540, 199485461557, 199485461564, 199485856636, 199485856643, 199485856650, 199485856667, 199485856681, 199485856698, 199485856704, 199485856711, 199485856728, 199485856742, 199642037045, 199642037076, 199642037083, 199642037106, 199642037137, 199642037144, 199642037175, 199642037182, 199642037199, 199642037229, 199642537507, 199642553712, 199642554177, 199764168979, 199764169006, 199764169020, 199764169037, 199764243607, 199764244543, 199764249043, 199764252630

Captured On:
10/01/2026

This certificate was generated on October 1, 2026 at 9:19 a.m. ET from the EPEAT Registry and constitutes an official record of the Registry as of that date and time.

If the Product status is listed as "Active," the Product was active in the EPEAT Registry on the date of issuance shown above. If the Product is listed as "Archived," this certificate will reflect the status as "Archived" and will include both the original registration date and the archived date, indicating the period during which the Product was active in the Registry. To see the current status of an EPEAT Product visit www.epeat.net/product-finder/

HP 200 G2i 16 inch Notebook PC ENERGY STAR

Product Summary:

Product Type:	**Notebook**
Registered In:	**Australia, Austria, Belgium, Brazil, Canada, China, Denmark, Australia, Austria, Belgium, Brazil, Canada, China, Denmark, Finland, France, Germany, India, Ireland, Italy, Japan, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Singapore, Spain, Sweden, Switzerland, Taiwan, United Kingdom, United States)**
Manufacturer:	**HP**
EPEAT Version:	**2.0**
EPEAT Tier:	**Gold**
Registration Date:	**2026-04-08**

Product Status:	**Active**
EPEAT Climate+:	**Achieved December 10, 2025.**
Exceptions:	**Configurations that are not ENERGY STAR qualified do not meet required criterion 4.6.1**
Universal Product Code(s):	**199485461441, 199485461458, 199485461465, 199485461472, 199642554177**

All unique product identifiers existing for this product may not be listed here. If the unique product identifier you are looking for is not listed, please contact EPEAT at EPEAT@GEC.org.

EPEAT Tier Score Detail

EPEAT not only establishes the baseline for sustainability leadership through required criteria but also includes optional criteria that encourage companies to address advanced environmental and social topics that other systems may consider out-of-reach. Optional criteria are designed to incentivize a race to the top. Products can achieve **EPEAT Bronze, Silver, or Gold**, depending on the number of **optional points** they obtain.

EPEAT Bronze products meet all required criteria and represent sustainability leadership. They address all key sustainability impacts across the life cycle of the product, from raw material extraction and manufacturing, through to use, reuse and disposal.

EPEAT Silver and Gold products are highly innovative from a sustainability perspective because optional criteria are very challenging to meet and designed so only the most advanced products can achieve them.

EPEAT Bronze - Product meets all required criteria and **up to 50%** of optional points

EPEAT Silver - Product meets all required criteria and **at least 50%** of optional points

EPEAT Gold - Product meets all required criteria and at **least 75%** of optional points

Listed below are the required and optional criteria met by this product.

Required and Optional Criteria	Scores
Climate	**19 / 23**
4.1 Life cycle GHG emissions and life cycle assessment	
(4.1.1) Product carbon footprint disclosure and assurance	Required
(4.1.2) Corporate GHG Inventory	Required
(4.1.3) Product transport carbon footprint and goal	1 / 1
(4.1.4) Product LCA and 3rd party review, publicly available	2 / 2
4.2 Carbon reduction goals aligned with climate science	
(4.2.1) Manufacturer GHG reduction target aligned with climate science	Required
(4.2.2) Manufacturer net zero GHG commitment and validated target	2 / 2
(4.2.3) Supplier GHG reduction targets aligned with climate science	1 / 2
4.3 Manufacturing energy efficiency	
(4.3.1) Communication of energy management requirements for key component facilities	Required
(4.3.2) Energy management system for final assembly and key component facilities	2 / 2
(4.3.3) Energy efficiency performance improvement for key component supplier facilities	0 / 2
(4.3.4) Facility energy reporting	2 / 2
4.4 Renewable electricity sourcing	
(4.4.1) Manufacturer use of renewable electricity	Required
(4.4.2) Manufacturer increased use of renewable electricity	2 / 2

(4.4.3) Supplier use of renewable electricity	3 / 4

4.5 High global warming potential chemicals in manufacturing (F-GHGs)

(4.5.1) Reduce F-GHG emissions from flat panel display manufacturing	2 / 2
(4.5.2) Reduce F-GHG emissions from 300 mm semiconductor manufacturing	2 / 2

4.6 Product energy efficiency

(4.6.1) Conformance with applicable ENERGY STAR® product eligibility criteria	Required
(4.6.2) External power supply energy efficiency	Required
(4.6.3) Battery charger system energy efficiency	Required

Sustainable Use of Resources

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5.1 Materials selection

(5.1.1) Disclosure of post-consumer reused or recycled and/or biobased plastic content	Required
(5.1.2) Disclosure of reused and/or recycled metal content	Required
(5.1.3) Minimum post-consumer reused or recycled and/or biobased plastic content	Required
(5.1.4) Higher post-consumer reused, recycled and/or biobased plastic content	3 / 3
(5.1.5) Reused and/or recycled metal content	2 / 2

5.2 Critical minerals and rare earth elements

(5.2.1) Critical minerals content disclosure	1 / 1
(5.2.3) Recycled content metal in lithium-based secondary (rechargeable) batteries	0 / 1

5.3 Product longevity

(5.3.1) Firmware or operating system updates	Required

(5.3.2) Durability of notebooks, tablets and mobile phones	Required
(5.3.3) Long-life rechargeable battery for notebook computers, tablets and mobile phones	Required
(5.3.4) Longer-life rechargeable battery for notebook computers, tablets and mobile phones	1 / 1
(5.3.5) Battery software for notebook computers, tablets and mobile phones	Required
(5.3.6) Additional battery software for notebook computers, tablets and mobile phones	1 / 1
(5.3.7) Interoperability and reusability of computers and mobile phone components	Required

5.4 Design for repair, reuse, recycling

(5.4.1) Design for repair and reuse	Required
(5.4.2) Design of components containing plastic for recycling	Required
(5.4.3) Software parts pairing for notebook computers, tablets and mobile phones	Required
(5.4.4) Software parts pairing for notebook computers, tablets and mobile phones	1 / 1

5.5 Availability of repair services and information to enable repair, reuse and recycling

(5.5.1) Availability of repair services and replacement components	Required
(5.5.2) Publicly available repair information for notebook computers, tablets and mobile phones	Required
(5.5.3) Information for reuse and recycling	Required

5.6 Secure data deletion for circularity

(5.6.1) Secure data deletion	Required
(5.6.2) Secure data deletion for circularity	1 / 1

5.7 Responsible end-of-life management

(5.7.1) Provision of product take-back service	Required
(5.7.2) End-of-life processing requirements	Required

5.8 Packaging

(5.8.1) Sustainable packaging content	Required
(5.8.2) Enhancing recyclability of packaging materials	Required

5.9 Water inventory

(5.9.1) Water inventory	2 / 2

Chemicals of Concern

16 / 22

6.1 Management of substances used in product

(6.1.1) Conformance with provisions of European Union RoHS Directive	Required
(6.1.2) Conformance with substance restriction requirements of the European Union Battery Regulation	Required
(6.1.3) Conformance with supply chain communication provisions of European Union REACH Regulation	Required
(6.1.4) Reduction of substances on the European Union REACH Regulation Candidate List of SVHCs for Authorization	0 / 1
(6.1.5) Reduction of bromine and chlorine content of plastic parts	Required
(6.1.6) Further reduction of bromine and chlorine content of plastic parts	2 / 2
(6.1.7) Reduction of PFAS content of plastic parts	1 / 1
(6.1.8) Reduction of beryllium content	1 / 1
(6.1.9) Suitability and risk assessment of materials in prolonged skin contact	2 / 2

6.2 Substance inventory and transparency

(6.2.1) Record of declarable substances	Required

- (6.2.2) Disclosure of declarable substances — 1 / 1
- (6.2.3) Requesting substance inventory — Required
- (6.2.4) Obtaining substance inventory — 2 / 2
- (6.2.5) Record and public disclosure of PFAS — 2 / 2

6.3 Hazard assessments and public disclosure

- (6.3.1) Improving substance selection — 2 / 3
- (6.3.2) Substance hazard assessment for PFAS — 0 / 3
- (6.3.3) Making safer substance use hazard assessments publicly available — 0 / 1

6.4 Manufacturing process chemicals

- (6.4.1) Manufacturer program for reduction of high priority process chemicals — 1 / 1
- (6.4.2) Collect information on process chemical use — 1 / 1

6.5 Reduction of substances of concern in packaging

- (6.5.1) Elimination of substances of concern in packaging — Required
- (6.5.2) Restriction of PFAS in packaging — 1 / 1

Responsible Supply Chains — 5 / 8

7.1 Labor rights and occupational health and safety performance in the electronics supply chain

- (7.1.1) Manufacturer commitment and performance audits for labor and occupational health and safety — Required
- (7.1.2) Supplier code of conduct requirements for labor rights and occupational health and safety — Required
- (7.1.3) Social responsibility performance audits of high-risk suppliers — Required
- (7.1.4) Improving supply chain quality and transparency — 2 / 2

(7.1.5) Suppliers details for worker engagement	0 / 1
(7.1.6) Living wage assessment and gap closure plan	0 / 2
(7.1.7) Manufacturer and outsourced supplier (final assembly) OHS management system	Required

7.2 Environmental management systems

(7.2.1) Manufacturer certified environmental management system	Required
(7.2.2) Outsourced final assembler certified environmental management system	Required

7.3 Responsible mineral sourcing

(7.3.1) Public disclosure of due diligence processes for conflict minerals (3TG) in products	Required
(7.3.2) Public disclosure of due diligence processes for cobalt in products	1 / 1
(7.3.3) Sourcing 3TG minerals from responsible smelters/refiners validated by approved programs	Required
(7.3.4) Sourcing 3TG and cobalt minerals from responsible smelters/refiners validated by approved programs	2 / 2

TOTAL OPTIONAL CRITERIA SCORE:	**52 / 66**

Please note that it is not required for a product to achieve any optional points.

Some optional criteria may not be applicable to a product. Optional criteria that are not applicable (N/A) to the product are not included in the Total Optional Criteria Score, and are not reflected above.

For any questions, comments, or feedback regarding the EPEAT Registry, please contact us.

(en) DECLARATION OF CONFORMITY / (de) KONFORMITÄTSERKLÄRUNG / (fr) DÉCLARATION DE CONFORMITÉ / (es) DECLARACIÓN DE CONFORMIDAD

DoC #: TPN-Q311- R3

(en) Manufacturer's Name (de) Herstellername (fr) Nom du fabricant (es) Nombre del fabricante	**HP Inc.**
(en) Manufacturer's Address (de) Adresse des Herstellers (fr) Adresse du fabricant (es) Dirección del fabricante	**1501 Page Mill Road, Palo Alto, CA 94304 USA**
(en) declare, under its sole responsibility that the product (de) erklärt, dass das Produkt (fr) déclare que le produit (es) declara que el producto	
(en) Product Name and Model[5.2] (de) Produktname und Modell[5.2] (fr) Nom du produit et modèle[5.2] (es) Nombre del producto y modelo[5.2]	**HP OmniBook 3 16 inch Laptop PC** **HP OmniBook 3 16” Laptop PC** **HP OmniBook 3 Laptop** **HP OmniBook 3 Laptop 16X*** **HP OmniBook 3 16 inch Laptop Next Gen AI PC** **HP OmniBook 3 16” Laptop Next Gen AI PC** **HP OmniBook 3 LaptopNGAI** **HP OmniBook 3 LaptopNGAI 16X*** **HP 200 G2i 16 inch Notebook PC** **HP 200 G2i 16” Notebook PC** **HP 200 G2i 16** **HP OmniBook 5 16 inch Laptop PC** **HP OmniBook 5 16” Laptop PC** **HP OmniBook 5 Laptop** **HP OmniBook 5 Laptop 16X*** **HP OmniBook 5 16 inch Laptop Next Gen AI PC** **HP OmniBook 5 16” Laptop Next Gen AI PC** **HP OmniBook 5 LaptopNGAI** **HP OmniBook 5 LaptopNGAI 16X*** **HP RUI 16 G2i** **HP RUI Pro 16 G2i** **HP Pro 5 G2i 16** **HP 200 G2Ri 16 inch Notebook AI PC** **HP 200 G2Ri 16" Notebook AI PC** **HP 200 G2Ri 16 AI** **HP OmniBook 3 16 inch Laptop AI PC** **HP OmniBook 3 16” Laptop AI PC** **HP OmniBook 3 Laptop AI** **HP OmniBook 3 Laptop AI 16X*** **HP OmniBook 5 16 inch Laptop AI PC** **HP OmniBook 5 Laptop AI** **HP OmniBook 5 Laptop AI 16X*** **(*where “X” can be one to twenty-one numbers, letters, symbols or blank for marketing purpose.)**
(en) Regulatory Model Number[5.1] (de) Regulatorische Modell Nummer[5.1] (fr) Numéro de modèle réglementaire[5.1] (es) Número de modelo reglamentario[5.1]	**TPN-Q311**
(en) Product Options (de) Produktoptionen (fr) Options du produit (es) Opciones del producto	**(en) Please See ANNEX 1** **(de) Siehe Anhang I** **(fr) Voir l'annexe I** **(es) Ver Anexo I**

(en) conforms to the following Product Specifications and Regulations
(de) entspricht den folgenden Produktspezifikationen und Vorschriften
(fr) est conforme aux normes et règlements de produit suivants
(es) cumple con las siguientes especificaciones y normas de productos

(en) Safety / (de) Sicherheit / (fr) Sécurité / (es) Seguridad	**(en) EMC / (de) EMV / (fr) EMC / (es) EMC**	**(en) Spectrum / (de) Frequenzspektrum / (fr) Spectre radioélectrique / (es) Espectro radioeléctrico**

(en) DECLARATION OF CONFORMITY / (de) KONFORMITÄTSERKLÄRUNG / (fr) DÉCLARATION DE CONFORMITÉ / (es) DECLARACIÓN DE CONFORMIDAD

DoC #: TPN-Q311- R3

IEC 62368-1:2018
EN IEC 62368-1:2020 +A11:2020
EN IEC 62311:2020
EN 62311:2008
EN 50663:2017
EN 50665:2017
EN 62479:2010

EN 55032:2015+A11:2020 Class B
EN 55035:2017+A11:2020
EN 61000-3-2:2014
EN 61000-3-3:2013 +A1:2019
EN 301 489-1 V2.2.3
EN 301 489-3 V2.3.2
EN 301 489-17 V3.3.1
FCC CFR 47 Part 15
ICES-003, Issue 7

EN 300 328 V2.2.2
EN 301 893 V2.1.1
EN 300 440 V2.2.1
EN 303 687 V1.1.1

(en) Ecodesign / (de) Öko-Design / (fr) Écoconception / (es) Diseño ecológico
Regulation (EU) No. 617/2013
Regulation (EU) 2023/826
EN 50564:2011
IEC 62301:2011

RoHS
EN IEC 63000:2018

(en) Cybersecurity / (de) Cybersicherheit / (fr) Cybersécurité / (es) Ciberseguridad
EN 18031-1: 2024
EN 18031-2: 2024

(en) Accessibility / (de) Barrierefreiheit / (fr) Accessibilité / (es) Accesibilidad
EN 301 549 V3.2.1

(en) The product herewith complies with the requirements of the following and carries the CE-marking accordingly (de) Das Produkt hiermit entspricht den Anforderungen der folgenden und trägt das entsprechende CE-Kennzeichen (fr) Le produit est conforme aux exigences suivantes et porte le marquage CE en conséquence (es) El producto presente cumple con los requisitos de lo siguiente y conlleva el marcado CE en consecuencia	**Radio Equipment Directive 2014/53/EU** **Ecodesign Directive 2009/125/EU** **RoHS Directive 2011/65/EU** **Battery Regulation 2023/1542** **European Accessibility Act 2019/882/EU**
UK ONLY: This product herewith complies with the requirements of the following and carries the UKCA marking.	**Radio Equipment Regulations 2017** **Ecodesign for Energy-Related Products Regulations 2010** **Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012**

U.S. ONLY: This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

(en) Additional Information
(de) Zusätzliche Information
(fr) Informations complémentaires
(es) Información Adicional:

5.1)
(en) This product is assigned a Regulatory Model Number which stays with the regulatory aspects of the design. The Regulatory Model Number is the main product identifier in the regulatory documentation and test reports, this number should not be confused with the marketing name or the product numbers.
(de) Für die regulatorischen Aspekte zum Design wurde diesem Produkt eine Regulatorische Modell Nummer zugeordnet. Zur Produktidentifizierung in der regulatorischen Dokumentation und den Prüfberichten wird diese Regulatorische Modell Nummer verwendet und sollte nicht zu Verwechslungen von Marketingnamen oder Produktnummern führen.
(fr) A ce produit est assigné un numéro de modèle réglementaire qui est associé avec les aspects réglementaires liés à la conception du produit. Le numéro de modèle réglementaire est le principal identificateur du produit dans la documentation réglementaire et les rapports d'essais, ce nombre ne doit pas être confondu avec le nom commercial ou les numéros de produit.
(es) A este producto se asigna un número de modelo regulatorio que cumple con los aspectos regulatorios del diseño. El número de modelo normativo es el identificador principal del producto en la documentación reglamentaria e informes de ensayo, este número no se debe confundir con el nombre comercial o los números del producto.

5.2)

(en) DECLARATION OF CONFORMITY / (de) KONFORMITÄTSERKLÄRUNG / (fr) DÉCLARATION DE CONFORMITÉ / (es) DECLARACIÓN DE CONFORMIDAD

DoC #: TPN-Q311- R3

(en) This product was tested in a typical HP environment.
(de) Dieses Produkt wurde in einer typischen HP Konfiguration getestet.
(fr) Ce produit a été testé dans un environnement typique HP.
(es) Este producto se ha probado en un entorno típico de HP.

(en) The listed Notified Body issued the listed EU-type examination certificate, according to Annex III, for the essential requirement of article 3.2 of the RED Directive. (de) Die aufgeführte angegebene Einrichtung hat das aufgeführte EU-Prüfungszertifikat gemäß Anhang III für die wesentliche Anforderung von Artikel 3.2 der Red Richtlinie herausgegeben. (fr) L'organisme notifié répertorié a délivré le certificat d'examen de type UE répertorié, selon l'annexe III, pour l'exigence essentielle de l'article 3.2 de la directive rouge. (es) El organismo notificado listado emitió el certificado de examen de tipo UE listado, de acuerdo con el Anexo III, para el requisito esencial del Artículo 3.2 de la Directiva Roja.	**Notified Body: SPORTON INTERNATIONAL (USA) I NC** **Notified Body Number: 2907** **Certificate ID: SN25C0259**



Palo Alto, CA
25-02-2026

Gilles Soulard, Manager
Product Compliance Engineering

(en) Local contact for regulatory topics only
(de) Lokale Ansprechpartner für Richtlinien und Bestimmungen
(fr) Contact local uniquement pour les réglementations
(es) Contacto local únicamente para temas de normativa:

EU: HP REG 23010, 08028 Barcelona, Spain
UK: HP Inc UK Ltd, Regulatory Enquiries, Earley West, 300 Thames Valley Park Drive, Reading, RG6 1PT
U.S.: HP Inc., 1501 Page Mill Road, Palo Alto 94304, U.S.A. 650-857-1501
Email: reg@hp.com www.hp.eu/certificates

(en) DECLARATION OF CONFORMITY / (de) KONFORMITÄTSERKLÄRUNG / (fr) DÉCLARATION DE CONFORMITÉ / (es) DECLARACIÓN DE CONFORMIDAD

DoC #: TPN-Q311- R3

(en) ANNEX I **(de) ANHANG I** **(fr) ANNEXE I** **(es) ANEXO I**	
(en) Regulatory Model Number (RMN) (de) Regulatorische Modell Nummer (RMN) (fr) Numéro de modèle réglementaire (RMN) (es) Número de modelo reglamentario (RMN)	**TPN-Q311**
1 (en) DESCRIPTION | 2 (en) OPTION RMN* 1 (de) BESCHREIBUNG | 2 (de) RMN OPTION* 1 (fr) DESCRIPTION | 2 (fr) RMN OPTION* 1 (es) DESCRIPCIÓN | 2 (es) RMN OPCIÓN*	

1	2
WLAN+BT	AX211NGW MT7920 RTL8852BE RTL8922AE
Power Adapter	TPN-XA02 TPN-XA03 TPN-XA04 TPN-XA05 TPN-XA06 TPN-XA07 TPN-XA08 TPN-XA11 TPN-XA12 TPN-XA31 TPN-XA32 TPN-XA33 TPN-XA34 TPN-XA35 TPN-XA37 TPN-XA38 TPN-XA39

(en) DECLARATION OF CONFORMITY / (de) KONFORMITÄTSERKLÄRUNG / (fr) DÉCLARATION DE CONFORMITÉ / (es) DECLARACIÓN DE CONFORMIDAD

DoC #: TPN-Q311- R3

	TPN-XA40
Battery Pack	HSTNN-XB1F HSTNN-XB0G HSTNN-XB3P HSTNN-XB3V TPN-XB2F TPN-XB1A TPN-XB1X TPN-XB1W

(en) *Where X represents any alpha numeric character.
(de) *Wo X steht für eine beliebige alphanumerische Zeichen
(fr) *Où X représente n'importe quel caractère alphanumérique
(es) *Donde X representa cualquier carácter alfanumérico

(it) DICHIARAZIONE DI CONFORMITA' / (pt) DECLARAÇÃO DE CONFORMIDADE / (pl) DEKLARACJA ZGODNOŚCI / (ro) DECLARATIE DE CONFORMITATE

DoC #: TPN-Q311- R3

(it) Nome del Fornitore (pt) Nome do fabricante (pl) Nazwa producenta (ro) Numele producătorului	**HP Inc.**
(it) Indirizzo del Fornitore (pt) Endereço do fabricante (pl) Adres producenta (ro) Adresa producătorului	**1501 Page Mill Road, Palo Alto, CA 94304 USA**
(it) dichiara che il prodotto (pt) declara, que o produto (pl) oświadcza, że produkt (ro) declară că produsul	
(it) Nome del prodotto e modello[5.2] (pt) Nome do produto e modelo[5.2] (pl) Nazwa produktu i modelu[5.2] (ro) Nume produs și model[5.2]	**HP OmniBook 3 16 inch Laptop PC** **HP OmniBook 3 16” Laptop PC** **HP OmniBook 3 Laptop** **HP OmniBook 3 Laptop 16X*** **HP OmniBook 3 16 inch Laptop Next Gen AI PC** **HP OmniBook 3 16” Laptop Next Gen AI PC** **HP OmniBook 3 LaptopNGAI** **HP OmniBook 3 LaptopNGAI 16X*** **HP 200 G2i 16 inch Notebook PC** **HP 200 G2i 16” Notebook PC** **HP 200 G2i 16** **HP OmniBook 5 16 inch Laptop PC** **HP OmniBook 5 16” Laptop PC** **HP OmniBook 5 Laptop** **HP OmniBook 5 Laptop 16X*** **HP OmniBook 5 16 inch Laptop Next Gen AI PC** **HP OmniBook 5 16” Laptop Next Gen AI PC** **HP OmniBook 5 LaptopNGAI** **HP OmniBook 5 LaptopNGAI 16X*** **HP RUI 16 G2i** **HP RUI Pro 16 G2i** **HP Pro 5 G2i 16** **HP 200 G2Ri 16 inch Notebook AI PC** **HP 200 G2Ri 16" Notebook AI PC** **HP 200 G2Ri 16 AI** **HP OmniBook 3 16 inch Laptop AI PC** **HP OmniBook 3 16” Laptop AI PC** **HP OmniBook 3 Laptop AI** **HP OmniBook 3 Laptop AI 16X*** **HP OmniBook 5 16 inch Laptop AI PC** **HP OmniBook 5 Laptop AI** **HP OmniBook 5 Laptop AI 16X*** **(*where “X” can be one to twenty-one numbers, letters, symbols or blank for marketing purpose.)**
(it) Numero di modello normativo[5.1] (pt) Número de Modelo de Regulamentação[5.1] (pl) Numer modelu[5.1] (ro) Numărul de model de reglementare[5.1]	**TPN-Q311**
(it) Opzioni del prodotto (pt) Opções do produto (pl) Opcje produktu (ro) Opțiuni de produse	**(it) Vedere Allegato I** **(pt) Ver anexo I** **(pl) Patrz załącznik I** **(ro) A se vedea anexa I**

(it) è conforme alle seguenti specifiche e regolamenti di prodotto
(pt) está em conformidade com as seguintes especificações e regulamentos do produto
(pl) jest zgodny z następującymi specyfikacjami produktu i rozporządzeń
(ro) în conformitate cu următoarele specificații și regulamentelor de produse

(it) Sicurezza / (pt) Segurança / (pl) Bezpieczeństwo / (ro) Siguranță	**(it) EMC / (pt) EMC / (pl) EMC / (ro) EMC**	**(it) Spettro Radio / (pt) Espectro de radiofrequências / (pl) Widmo radiowe / (ro) Spectrului de frecvențe radio**

(it) DICHIARAZIONE DI CONFORMITA' / (pt) DECLARAÇÃO DE CONFORMIDADE / (pl) DEKLARACJA ZGODNOŚCI / (ro) DECLARATIE DE CONFORMITATE

DoC #: TPN-Q311- R3

IEC 62368-1:2018	EN 55032:2015+A11:2020 Class B	EN 300 328 V2.2.2
EN IEC 62368-1:2020 +A11:2020	EN 55035:2017+A11:2020	EN 301 893 V2.1.1
EN IEC 62311:2020	EN 61000-3-2:2014	EN 300 440 V2.2.1
EN 62311:2008	EN 61000-3-3:2013 +A1:2019	EN 303 687 V1.1.1
EN 50663:2017	EN 301 489-1 V2.2.3	
EN 50665:2017	EN 301 489-3 V2.3.2	
EN 62479:2010	EN 301 489-17 V3.3.1	
	FCC CFR 47 Part 15	
	ICES-003, Issue 7	

(it) Ecodesign / (pt) ecodesign / (pl) Ekoprojektu / (ro) ecodesign
Regulation (EU) No. 617/2013
Regulation (EU) 2023/826
EN 50564:2011
IEC 62301:2011

RoHS
EN IEC 63000:2018

(it) Cibersicurezza / (pt) Cibersegurança / (pl) Cyberbezpieczeństwa / (ro) Securitate cibernetică
EN 18031-1: 2024
EN 18031-2: 2024

(it) Accessibilità / (pt) Acessibilidade / (pl) Dostępność / (ro) Accesibilitate
EN 301 549 V3.2.1

(it) Il prodotto con la presenza è conforme ai requisiti di quanto segue e trasporta di conseguenza il marchio CE (pt) O produto contraria os requisitos do seguinte e carrega o marco CE de acordo (pl) Produkt jest zgodny z wymogami następujących i odpowiednio przenosi znakowanie CE (ro) Produsul de aici respectă cerințele următoarelor și transportă în consecință marcare CE în consecință	**Radio Equipment Directive 2014/53/EU** **Ecodesign Directive 2009/125/EU** **RoHS Directive 2011/65/EU** **Battery Regulation 2023/1542** **European Accessibility Act 2019/882/EU**
UK ONLY: This product herewith complies with the requirements of the following and carries the UKCA marking.	**Radio Equipment Regulations 2017** **Ecodesign for Energy-Related Products Regulations 2010** **Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012**

U.S. ONLY: This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

(it) Informazioni aggiuntive
(pt) Informações adicionais
(pl) Dodatkowe informacje
(ro) Informații suplimentare

5.1)
(it) A questo prodotto è assegnato un Numero di modello normativo (RMN) che rimane con gli aspetti normativi della progettazione. Il numero di modello normativo è l'identificativo principale del prodotto nella documentazione normativa e rapporti di prova, questo numero non deve essere confuso con il nome commerciale o il numero di prodotto.
(pt) Este produto recebeu um Número de modelo de regulamentação que fica com os aspectos regulatórios do design. O Número de Modelo de Regulamentação é o identificador principal do produto na documentação regulamentar e relatórios de ensaio, este número não deve ser confundido com o nome comercial ou os números dos produtos.
(pl) Produkt ten został przypisany numer modelu z aspektów regulacyjnych projekt. Numer modelu jest głównym identyfikatorem produktu w dokumentacji normatywnej i raporty z badań, liczba ta nie powinna być mylona z nazwą handlową lub też liczby produktów.
(ro) Acestui produs li este atribuit un număr de model de reglementare asociat cu aspectele regulatorii de proiectare. Numărul de model de reglementare este identificatorul principal al produsului în documentația de reglementare și rapoarte de testare, acest număr nu trebuie confundat cu numele de marketing sau numarul de produs.

5.2)
(it) Questo prodotto è stato testato in un tipico ambiente HP .
(pt) Este produto foi testado em um ambiente típico de HP .

(it) DICHIARAZIONE DI CONFORMITA' / (pt) DECLARAÇÃO DE CONFORMIDADE / (pl) DEKLARACJA ZGODNOŚCI / (ro) DECLARATIE DE CONFORMITATE

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(pl) Produkt był testowany w typowym środowisku HP, w połączeniu z systemem gospodarza HP .
(ro) Acest produs a fost testat într-un mediu tipic HP împreună cu un sistem gazdă HP .

(it) L'organismo notificato elencato ha emesso il certificato di esame di tipo UE elencato, secondo l'allegato III, per il requisito essenziale dell'articolo 3.2 della direttiva rossa. (pt) O órgão notificado listado emitiu o certificado de exame do tipo UE listado, de acordo com o Anexo III, para o requisito essencial do artigo 3.2 da Diretiva Vermelha. (pl) Wymieniona notowana organ wydał wymieniony certyfikat egzaminacyjny typu UE, zgodnie z załącznikiem III, dla niezbędnego wymogu art. 3.2 Czerwonej Dyrektywy. (ro) Organul notificat listat a emis certificatul de examinare listat de tip UE, conform anexei III, pentru cerința esențială a articolului 3.2 din Directiva Roșie.	**Notified Body: SPORTON INTERNATIONAL (USA) I NC** **Notified Body Number: 2907** **Certificate ID: SN25C0259**

HP Inc.
1501 Page Mill Road, Palo Alto, CA
Gilles Soulard, Manager
Product Compliance Center

Palo Alto, CA
25-02-2026

Gilles Soulard, Manager
Product Compliance Engineering

(it) Contatto locale solo per informazioni sulla conformità al marchio CE
(pt) O contato local para tópicos regulamentares apenas
(pl) Lokalny kontakt na temat przepisów
(ro) Persoană de contact locală numai pentru subiecte de reglementare:

EU: HP REG 23010, 08028 Barcelona, Spain
UK: HP Inc UK Ltd, Regulatory Enquiries, Earley West, 300 Thames Valley Park Drive, Reading, RG6 1PT
U.S.: HP Inc., 1501 Page Mill Road, Palo Alto 94304, U.S.A. 650-857-1501
Email: reg@hp.com www.hp.eu/certificates

(it) DICHIARAZIONE DI CONFORMITA' / (pt) DECLARAÇÃO DE CONFORMIDADE / (pl) DEKLARACJA ZGODNOŚCI / (ro) DECLARATIE DE CONFORMITATE

DoC #: TPN-Q311- R3

(it) ALLEGATO I **(pt) ANEXO I** **(pl) ZAŁĄCZNIK I** **(ro) ANEXA I**	
(it) Numero di modello normativo (RMN) (pt) Número de Modelo de Regulamentação (RMN). (pl) Numer modelu (RMN) (ro) Numărul de model de reglementare (RMN)	**TPN-Q311**
1 (it) DESCRIZIONE | 2 (it) RMN OPZIONE* 1 (pt) DESCRIÇÃO | 2 (pt) RMN OPÇÃO* 1 (pl) OPIS | 2 (pl) RMN OPCJA* 1 (ro) DESCRIERE | 2 (ro) RMN OPȚIUNE*	

1	2
WLAN+BT	AX211NGW MT7920 RTL8852BE RTL8922AE
Power Adapter	TPN-XA02 TPN-XA03 TPN-XA04 TPN-XA05 TPN-XA06 TPN-XA07 TPN-XA08 TPN-XA11 TPN-XA12 TPN-XA31 TPN-XA32 TPN-XA33 TPN-XA34 TPN-XA35 TPN-XA37 TPN-XA38 TPN-XA39

(it) DICHIARAZIONE DI CONFORMITA' / (pt) DECLARAÇÃO DE CONFORMIDADE / (pl) DEKLARACJA ZGODNOŚCI / (ro) DECLARATIE DE CONFORMITATE

DoC #: TPN-Q311- R3

	TPN-XA40
Battery Pack	HSTNN-XB1F HSTNN-XB0G HSTNN-XB3P HSTNN-XB3V TPN-XB2F TPN-XB1A TPN-XB1X TPN-XB1W

(it) *Dove X rappresenta qualsiasi carattere alfanumerico
(pt) *Onde X representa qualquer caractere alfanumérico
(pl) *W przypadku, gdy X oznacza dowolny alfa cyfrę
(ro) *În cazul în care X reprezintă orice caracter alfanumeric

(hu) MEGFELELŐSÉGI NYILATKOZAT / (nl) CONFORMITEITSVERKLARING / (el) ΔΉΛΩΣΗ ΣΥΜΜΌΡΦΩΣΗΣ / (sv) FÖRKLARING OM ÖVERENSSTÄMMELSE

DoC #: TPN-Q311- R3

(hu) A gyártó neve (nl) Naam van de fabrikant (el) Όνομα κατασκευαστή (sv) Tillverkarens namn	**HP Inc.**
(hu) Gyártó címe (nl) Adres van de fabrikant (el) Διεύθυνση του κατασκευαστή (sv) Tillverkarens adress	**1501 Page Mill Road, Palo Alto, CA 94304 USA**
(hu) kijelenti, hogy a termék (nl) verklaart, dat het product (el) δηλώνει ότι το προϊόν (sv) förklarar att produkten	
(hu) A termék neve és a modell[5.2] (nl) Naam van het product en model[5.2] (el) Όνομα προϊόντος και μοντέλου[5.2] (sv) Namn och modell[5.2]	**HP OmniBook 3 16 inch Laptop PC** **HP OmniBook 3 16” Laptop PC** **HP OmniBook 3 Laptop** **HP OmniBook 3 Laptop 16X*** **HP OmniBook 3 16 inch Laptop Next Gen AI PC** **HP OmniBook 3 16” Laptop Next Gen AI PC** **HP OmniBook 3 LaptopNGAI** **HP OmniBook 3 LaptopNGAI 16X*** **HP 200 G2i 16 inch Notebook PC** **HP 200 G2i 16” Notebook PC** **HP 200 G2i 16** **HP OmniBook 5 16 inch Laptop PC** **HP OmniBook 5 16” Laptop PC** **HP OmniBook 5 Laptop** **HP OmniBook 5 Laptop 16X*** **HP OmniBook 5 16 inch Laptop Next Gen AI PC** **HP OmniBook 5 16” Laptop Next Gen AI PC** **HP OmniBook 5 LaptopNGAI** **HP OmniBook 5 LaptopNGAI 16X*** **HP RUI 16 G2i** **HP RUI Pro 16 G2i** **HP Pro 5 G2i 16** **HP 200 G2Ri 16 inch Notebook AI PC** **HP 200 G2Ri 16" Notebook AI PC** **HP 200 G2Ri 16 AI** **HP OmniBook 3 16 inch Laptop AI PC** **HP OmniBook 3 16” Laptop AI PC** **HP OmniBook 3 Laptop AI** **HP OmniBook 3 Laptop AI 16X*** **HP OmniBook 5 16 inch Laptop AI PC** **HP OmniBook 5 Laptop AI** **HP OmniBook 5 Laptop AI 16X*** **(*where “X” can be one to twenty-one numbers, letters, symbols or blank for marketing purpose.)**
(hu) Szabályozási Modell száma[5.1] (nl) Regulatory Model Number[5.1] (el) Αριθμός Μοντέλο κατά τους κανονισμούς[5.1] (sv) Regleringsmodellnummer[5.1]	**TPN-Q311**
(hu) Termék opciók (nl) Product opties (el) Επιλογές Προϊόντος (sv) Produktalternativ	**(hu) Lásd az I. melléklet** **(nl) Zie bijlage I** **(el) Βλέπε παράρτημα I** **(sv) Se bilaga I**
(hu) megfelel az alábbi termék dokumentáció és rendeletek: (nl) voldoet aan de volgende productspecificaties en wetgeving (el) συμμορφώνεται προς τις εξής προδιαγραφές και κανονισμοί (sv) överensstämmer med följande produktspecifikationer och förordningar	

(hu) MEGFELELŐSÉGI NYILATKOZAT / (nl) CONFORMITEITSVERKLARING / (el) ΔΉΛΩΣΗ ΣΥΜΜΌΡΦΩΣΗΣ / (sv) FÖRKLARING OM ÖVERENSSTÄMMELSE

DoC #: TPN-Q311- R3

(hu) Biztonság / (nl) Veiligheid / (el) Ασφάλεια / (sv) Säkerhet	**(hu) EMC / (nl) EMC / (el) EMC / (sv) EMC**	**(hu) Rádióspektrumügyek / (nl) Radiospectrum / (el) ραδιοφάσματος / (sv) Rádiového spektra**
IEC 62368-1:2018 EN IEC 62368-1:2020 +A11:2020 EN IEC 62311:2020 EN 62311:2008 EN 50663:2017 EN 50665:2017 EN 62479:2010	EN 55032:2015+A11:2020 Class B EN 55035:2017+A11:2020 EN 61000-3-2:2014 EN 61000-3-3:2013 +A1:2019 EN 301 489-1 V2.2.3 EN 301 489-3 V2.3.2 EN 301 489-17 V3.3.1 FCC CFR 47 Part 15 ICES-003, Issue 7	EN 300 328 V2.2.2 EN 301 893 V2.1.1 EN 300 440 V2.2.1 EN 303 687 V1.1.1

(hu) Környezetbarát tervezési / (nl) ecodesign / (el) οικολογικού σχεδιασμού / (sv) ekodesign
Regulation (EU) No. 617/2013
Regulation (EU) 2023/826
EN 50564:2011
IEC 62301:2011

RoHS
EN IEC 63000:2018

(hu) Kiberbiztonsági / (nl) Cyberbeveiliging / (el) Κυβερνοασφάλεια / (sv) Cybersäkerhet
EN 18031-1: 2024
EN 18031-2: 2024

(hu) Akadálymentességére / (nl) Toegankelijkheid / (el) προσβασιμότητα / (sv) Tillgänglighet
EN 301 549 V3.2.1

(hu) A termék itt megfelel a következők követelményeinek, és ennek megfelelően hordozza a markingot CE (nl) Het product voldoet hierbij aan de vereisten van het volgende en draagt de markering dienovereenkomstig bij (el) Το προϊόν συμμορφώνεται με τις απαιτήσεις των ακόλουθων και μεταφέρει ανάλογα CE το (sv) Produkten härmed uppfyller kraven i följande och bär CE-märkning i enlighet därmed	**Radio Equipment Directive 2014/53/EU** **Ecodesign Directive 2009/125/EU** **RoHS Directive 2011/65/EU** **Battery Regulation 2023/1542** **European Accessibility Act 2019/882/EU**
UK ONLY: This product herewith complies with the requirements of the following and carries the UKCA marking.	**Radio Equipment Regulations 2017** **Ecodesign for Energy-Related Products Regulations 2010** **Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012**

U.S. ONLY: This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

(hu) További információ
(nl) Extra informatie
(el) Πρόσθετες πληροφορίες
(sv) Ytterligare information

5.1)
(hu) Ez a termék tartozik egy hatósági azonosítási típusszám ami marad szabályozási szempontból a design. A szabályozási modellszámmal a fő termék azonosítóját a szabályozási dokumentációban és vizsgálati jelentések, ez a szám nem keverendő össze a kereskedelmi névvel vagy a termék számokat.
(nl) Dit product is voorzien van een wettelijk modelnummer die blijft bij de regelgevende aspecten van de ontwerp. Het voorgeschreven modelnummer is het belangrijkste product-id in de regelgeving documentatie en testrapporten, moet dit nummer niet verwarren met de merknaam of de productnummers.
(el) Αυτό το προϊόν έχει εκχωρηθεί ένας ρυθμιστικός αριθμός μοντέλου που μένει με τις ρυθμιστικές πτυχές των σχεδιασμό. Ο αριθμός Ρυθμιστική μοντέλου είναι το κύριο αναγνωριστικό του προϊόντος με την κανονιστική τεκμηρίωση και εκθέσεις δοκιμών, ο αριθμός αυτός δεν πρέπει να συγχέεται με την εμπορική ονομασία ή τους αριθμούς προϊόντος.
(sv) Den här produkten har tilldelats ett kontrollmodellnummer som stannar med de regulatoriska aspekterna av design.

(hu) MEGFELELŐSÉGI NYILATKOZAT / (nl) CONFORMITEITSVERKLARING / (el) ΔΉΛΩΣΗ ΣΥΜΜΌΡΦΩΣΗΣ / (sv) FÖRKLARING OM ÖVERENSSTÄMMELSE

DoC #: TPN-Q311- R3

Kontrollmodellnumret är den viktigaste produktbeteckning i lagstiftnings dokumentation och provningsrapporter, detta nummer ska inte förväxlas med produktnamn eller produktnummer.
5.2) (hu) Ez a termék tesztelése egy tipikus HP környezetben együtt egy HP gazda rendszert. (nl) Dit product werd getest in het HP-omgeving in combinatie met een HP hostsysteem. (el) Αυτό το προϊόν έχει δοκιμαστεί σε ένα τυπικό περιβάλλον HP. (sv) Produkten testades i en typisk HP-miljö tillsammans med en HP-värdsystem.

(hu) A felsorolt értesített testület a III. Melléklet szerint kiadta a felsorolt EU-típusú vizsgálati igazolást a piros irányelv 3.2. Cikkének alapvető követelménye szerint. (nl) Het genoemde aangemelde instantie heeft het beursgenoteerde EU-type onderzoekscertificaat uitgegeven, volgens bijlage III, voor de essentiële vereiste van artikel 3.2 van de Red Richtlijn. (el) Ο αναφερόμενος ειδοποιημένος φορέας εξέδωσε το πιστοποιητικό εξέτασης τύπου ΕΕ, σύμφωνα με το Παράρτημα III, για την βασική απαίτηση του άρθρου 3.2 της Red Directive. (sv) Det listade anmälda organet utfärdade det listade examenscertifikatet för EU-typ, enligt bilaga III, för det väsentliga kravet i artikel 3.2 i det röda direktivet.	**Notified Body: SPORTON INTERNATIONAL (USA) I NC** **Notified Body Number: 2907** **Certificate ID: SN25C0259**

HP Inc.
1501 Page Mill Road, Palo Alto, CA
Gilles Soulard, Manager
Product Compliance Center

Palo Alto, CA
25-02-2026

Gilles Soulard, Manager
Product Compliance Engineering

(hu) Helyi kapcsolattartó a jogi tudnivalókkal (nl) Lokale contactpersoon voor mbtvoorschriften (el) Τοπική επαφής για θέματα κανονισμών μόνο (sv) Lokal kontakt bara för regleringsärenden
EU: HP REG 23010, 08028 Barcelona, Spain UK: HP Inc UK Ltd, Regulatory Enquiries, Earley West, 300 Thames Valley Park Drive, Reading, RG6 1PT U.S.: HP Inc., 1501 Page Mill Road, Palo Alto 94304, U.S.A. 650-857-1501 Email: reg@hp.com www.hp.eu/certificates

(hu) MEGFELELŐSÉGI NYILATKOZAT / (nl) CONFORMITEITSVERKLARING / (el) ΔΉΛΩΣΗ ΣΥΜΜΌΡΦΩΣΗΣ / (sv) FÖRKLARING OM ÖVERENSSTÄMMELSE

DoC #: TPN-Q311- R3

(hu) I. MELLÉKLET **(nl) BIJLAGE I** **(el) ΤΟ ΠΑΡΆΡΤΗΜΑ I** **(sv) BILAGA I**	
(hu) Szabályozási Modell száma (RMN) (nl) Regulatory Model Number (RMN) (el) Αριθμός Μοντέλο κατά τους κανονισμούς (RMN) (sv) Regleringsmodellnummer (RMN)	**TPN-Q311**
1 (hu) LEÍRÁS | 2 (hu) RMN OPCIÓ* 1 (nl) BESCHRIJVING | 2 (nl) RMN OPTIE* 1 (el) ΠΕΡΙΓΡΑΦΗ | 2 (el) RMN ΕΠΙΛΟΓΉ* 1 (sv) BESKRIVNING | 2 (sv) RMN ALTERNATIV*	

1	2
WLAN+BT	AX211NGW MT7920 RTL8852BE RTL8922AE
Power Adapter	TPN-XA02 TPN-XA03 TPN-XA04 TPN-XA05 TPN-XA06 TPN-XA07 TPN-XA08 TPN-XA11 TPN-XA12 TPN-XA31 TPN-XA32 TPN-XA33 TPN-XA34 TPN-XA35 TPN-XA37 TPN-XA38 TPN-XA39

(hu) MEGFELELŐSÉGI NYILATKOZAT / (nl) CONFORMITEITSVERKLARING / (el) ΔΉΛΩΣΗ ΣΥΜΜΌΡΦΩΣΗΣ / (sv) FÖRKLARING OM ÖVERENSSTÄMMELSE

DoC #: TPN-Q311- R3

	TPN-XA40
Battery Pack	HSTNN-XB1F HSTNN-XB0G HSTNN-XB3P HSTNN-XB3V TPN-XB2F TPN-XB1A TPN-XB1X TPN-XB1W

(hu) *Ha X jelentése bármilyen alfanumerikus karaktert
(nl) *Waar X staat voor elke alfanumerieke tekens
(el) *Σε περίπτωση που το X αντιπροσωπεύει οποιοδήποτε αλφαριθμητικό χαρακτήρα
(sv) *Där X representerar någon alfanumeriska tecken

(cs) PROHLÁŠENÍ O SHODĚ / (bg) ДЕКЛАРАЦИЯ ЗА СЪОТВЕТСТВИЕ / (sk) VYHLÁSENIE O ZHODE / (da) OVERENSSTEMMELSESERKLÆRING

DoC #: TPN-Q311- R3

(cs) Jméno výrobce (bg) Наименование на производителя (sk) Meno výrobcu (da) Producentens navn	**HP Inc.**
(cs) Adresa výrobce (bg) Производителя Адрес (sk) adresa výrobcu (da) Producentens adresse	**1501 Page Mill Road, Palo Alto, CA 94304 USA**
(cs) vyhovuje následujícím specifikacím a nařízení produktu (bg) заявява, че продуктът (sk) prehlasuje, že výrobok (da) erklærer, at produktet	
(cs) Název produktu a model[5.2] (bg) Име на продукта и модел[5.2] (sk) Názov produktu a model[5.2] (da) Produktnavn og Model[5.2]	**HP OmniBook 3 16 inch Laptop PC** **HP OmniBook 3 16” Laptop PC** **HP OmniBook 3 Laptop** **HP OmniBook 3 Laptop 16X*** **HP OmniBook 3 16 inch Laptop Next Gen AI PC** **HP OmniBook 3 16” Laptop Next Gen AI PC** **HP OmniBook 3 LaptopNGAI** **HP OmniBook 3 LaptopNGAI 16X*** **HP 200 G2i 16 inch Notebook PC** **HP 200 G2i 16” Notebook PC** **HP 200 G2i 16** **HP OmniBook 5 16 inch Laptop PC** **HP OmniBook 5 16” Laptop PC** **HP OmniBook 5 Laptop** **HP OmniBook 5 Laptop 16X*** **HP OmniBook 5 16 inch Laptop Next Gen AI PC** **HP OmniBook 5 16” Laptop Next Gen AI PC** **HP OmniBook 5 LaptopNGAI** **HP OmniBook 5 LaptopNGAI 16X*** **HP RUI 16 G2i** **HP RUI Pro 16 G2i** **HP Pro 5 G2i 16** **HP 200 G2Ri 16 inch Notebook AI PC** **HP 200 G2Ri 16" Notebook AI PC** **HP 200 G2Ri 16 AI** **HP OmniBook 3 16 inch Laptop AI PC** **HP OmniBook 3 16” Laptop AI PC** **HP OmniBook 3 Laptop AI** **HP OmniBook 3 Laptop AI 16X*** **HP OmniBook 5 16 inch Laptop AI PC** **HP OmniBook 5 Laptop AI** **HP OmniBook 5 Laptop AI 16X*** **(*where “X” can be one to twenty-one numbers, letters, symbols or blank for marketing purpose.)**
(cs) Regulační číslo modelu[5.1] (bg) Нормативен номер на модела[5.1] (sk) Regulačné číslo modelu[5.1] (da) Lovpligtigt modelnummer[5.1]	**TPN-Q311**
(cs) Možnosti výrobku (bg) Опции на продукта (sk) Možnosti výrobku (da) Produkt Valg	**(cs) Viz příloha I** **(bg) Виж приложение I** **(sk) Pozri prílohu I** **(da) Se bilag I**
(cs) vyhovuje následujícím specifikacím a nařízení produktu (bg) съответства на следните спецификации на продукта и регламенти (sk) spĺňa nasledujúce špecifikácie a nariadenia produktu (da) opfylder følgende produktspecifikationer og forordninger	

(cs) PROHLÁŠENÍ O SHODĚ / (bg) ДЕКЛАРАЦИЯ ЗА СЪОТВЕТСТВИЕ / (sk) VYHLÁSENIE O ZHODE / (da) OVERENSSTEMMELSESERKLÆRING

DoC #: TPN-Q311- R3

(cs) Bezpečnost / (bg) Безопасност / (sk) Bezpečnosť / (da) Sikkerhed	**(cs) EMC / (bg) EMC / (sk) EMC / (da) EMC**	**(cs) Rádiové spektrum / (bg) Радиочестотният спектър / (sk) Rádiové spektrum / (da) Radiofrekvenser**
IEC 62368-1:2018	EN 55032:2015+A11:2020 Class B	EN 300 328 V2.2.2
EN IEC 62368-1:2020 +A11:2020	EN 55035:2017+A11:2020	EN 301 893 V2.1.1
EN IEC 62311:2020	EN 61000-3-2:2014	EN 300 440 V2.2.1
EN 62311:2008	EN 61000-3-3:2013 +A1:2019	EN 303 687 V1.1.1
EN 50663:2017	EN 301 489-1 V2.2.3	
EN 50665:2017	EN 301 489-3 V2.3.2	
EN 62479:2010	EN 301 489-17 V3.3.1	
	FCC CFR 47 Part 15	
	ICES-003, Issue 7	

(cs) ekodesignu / (bg) екодизайна / (sk) ekodizajne / (da) miljøvenligt design
Regulation (EU) No. 617/2013
Regulation (EU) 2023/826
EN 50564:2011
IEC 62301:2011

RoHS
EN IEC 63000:2018

(cs) Kybernetické bezpečnosti / (bg) Киберсигурността / (sk) Kybernetickej bezpečnosti / (da) Cybersikkerhed
EN 18031-1: 2024
EN 18031-2: 2024

(cs) Přístupnost / (bg) Достъпност / (sk) Prístupnosť / (da) Tilgængelighed
EN 301 549 V3.2.1

(cs) Produkt tímto odpovídá požadavkům následujících CE (bg) Продуктът тук отговаря на изискванията на следното и съответно CE носи знамето (sk) Produkt týmto spĺňa požiadavky nasledujúceho a podľa toho nesie označenie CE (da) Produktet overholder hermed kravene i følgende og bærer CE-mærket i overensstemmelse hermed	**Radio Equipment Directive 2014/53/EU** **Ecodesign Directive 2009/125/EU** **RoHS Directive 2011/65/EU** **Battery Regulation 2023/1542** **European Accessibility Act 2019/882/EU**
UK ONLY: This product herewith complies with the requirements of the following and carries the UKCA marking.	**Radio Equipment Regulations 2017** **Ecodesign for Energy-Related Products Regulations 2010** **Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012**

U.S. ONLY: This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

(cs) Další informace
(bg) Допълнителна информация
(sk) Ďalšie informácie
(da) Yderligere information

5.1)
(cs) Tento produkt je přiděleno regulatorní číslo modelu, který zůstává s regulačními aspekty konstrukce. Počet Regulační model je hlavním identifikátorem produktu v regulační dokumentaci a protokoly o zkouškách, toto číslo by nemělo být zaměňováno s marketingovým názvem nebo čísla produktu.
(bg) Този продукт има нормативен номер на модела, който остава с регулаторните аспекти на дизайн. Номер на Нормативен модел е идентификатора основен продукт в нормативната документация и протоколи от изпитвания, този брой не трябва да се бърка с пазарното име или номера на продукта.
(sk) Tento produkt je pridelené regulačné číslo modelu, ktorý zostáva s regulačnými aspektmi konštrukcie. Počet Regulačný model je hlavným identifikátorom produktu v regulačnej dokumentácii a protokoly o skúškach, toto číslo by sa nemalo zamieňať s marketingovým názvom alebo s výrobnými číslami.
(da) Dette produkt er tildelt et lovpligtigt modelnummer, som forbliver de lovgivningsmæssige aspekter af den design. Det lovpligtige

(cs) PROHLÁŠENÍ O SHODĚ / (bg) ДЕКЛАРАЦИЯ ЗА СЪОТВЕТСТВИЕ / (sk) VYHLÁSENIE O ZHODE / (da) OVERENSSTEMMELSESERKLÆRING

DoC #: TPN-Q311- R3

modelnummer er det vigtigste produkt-id i den lovgivningsmæssige dokumentation og testrapporter, bør dette antal ikke forveksles med navn markedsføringen eller varenumre.
5.2) (cs) Tento výrobek byl testován v typické prostředí HP ve spolupráci s hostitelským systémem HP. (bg) Този продукт е изпробван в типична HP среда във връзка с хост система HP. (sk) Tento výrobok bol testovaný v typickej prostredí HP v spolupráci s hostiteľským systémom HP. (da) Dette produkt blev testet i en typisk HP-miljø i forbindelse med en HP host system.

(cs) Oznámen oznámený orgán vydal uvedený osvědčení o zkoušce typu EU podle přílohy III pro základní požadavek článku 3.2 červené směrnice. (bg) Изброеният уведомен орган издаде изброения сертификат за изпит за изпитване на ЕС, според приложение III, за основното изискване на член 3.2 от Директивата RED. (sk) Uvedený oznámený orgán vydal uvedený osvedčenie o skúške typu EÚ podľa prílohy III, pokiaľ ide o základnú požiadavku článku 3.2 červenej smernice. (da) Det anførte meddelte organ udstedte det anførte EU-eksamenseksamen i henhold til bilag III for det væsentlige krav i artikel 3.2 i det røde direktiv.	**Notified Body: SPORTON INTERNATIONAL (USA) I NC** **Notified Body Number: 2907** **Certificate ID: SN25C0259**

HP Inc.
1501 Page Mill Road, Palo Alto, CA
Gilles Soulard, Manager
Product Compliance Center

Palo Alto, CA
25-02-2026

Gilles Soulard, Manager
Product Compliance Engineering

(cs) Lokální kontakt pro informace pouze o směrnicích (bg) Local контакт за регулаторни теми само (sk) Lokálne kontakt pre informácie iba o smerniciach (da) Lokal kontaktperson for regulative emner
EU: HP REG 23010, 08028 Barcelona, Spain UK: HP Inc UK Ltd, Regulatory Enquiries, Earley West, 300 Thames Valley Park Drive, Reading, RG6 1PT U.S.: HP Inc., 1501 Page Mill Road, Palo Alto 94304, U.S.A. 650-857-1501 Email: reg@hp.com www.hp.eu/certificates

(cs) PROHLÁŠENÍ O SHODĚ / (bg) ДЕКЛАРАЦИЯ ЗА СЪОТВЕТСТВИЕ / (sk) VYHLÁSENIE O ZHODE / (da) OVERENSSTEMMELSESERKLÆRING

DoC #: TPN-Q311- R3

(cs) PŘÍLOHA I **(bg) ПРИЛОЖЕНИЕ I** **(sk) PRÍLOHA I** **(da) BILAG I**	
(cs) Regulační číslo modelu (RMN) (bg) Нормативен номер на модела (RMN) (sk) Regulačné číslo modelu (RMN) (da) Lovpligtigt modelnummer (RMN)	**TPN-Q311**
1 (cs) POPIS | 2 (cs) RMN VOLBA* 1 (bg) ОПИСАНИЕ | 2 (bg) RMN ОПЦИЯ* 1 (sk) OPIS | 2 (sk) RMN VOĽBA* 1 (da) BESKRIVELSE | 2 (da) RMN OPTION*	

1	2
WLAN+BT	AX211NGW MT7920 RTL8852BE RTL8922AE
Power Adapter	TPN-XA02 TPN-XA03 TPN-XA04 TPN-XA05 TPN-XA06 TPN-XA07 TPN-XA08 TPN-XA11 TPN-XA12 TPN-XA31 TPN-XA32 TPN-XA33 TPN-XA34 TPN-XA35 TPN-XA37 TPN-XA38 TPN-XA39

(cs) PROHLÁŠENÍ O SHODĚ / (bg) ДЕКЛАРАЦИЯ ЗА СЪОТВЕТСТВИЕ / (sk) VYHLÁSENIE O ZHODE / (da) OVERENSSTEMMELSESERKLÆRING

DoC #: TPN-Q311- R3

	TPN-XA40
Battery Pack	HSTNN-XB1F HSTNN-XB0G HSTNN-XB3P HSTNN-XB3V TPN-XB2F TPN-XB1A TPN-XB1X TPN-XB1W

(cs) *Tam, kde X představuje libovolný alfanumerický znak
(bg) *Когато X представлява всяка алфа цифров знак
(sk) *Tam, kde X predstavuje ľubovoľný alfanumerický znak
(da) *Hvor X betegner en hvilken som helst alfanumerisk tegn

(fi) VAATIMUSTENMUKAISUUSVAKUUTUS / (lt) ATITIKTIES DEKLARACIJA / (no) SAMSVARSERKLÆRING / (sl) IZJAVA O SKLADNOSTI

DoC #: TPN-Q311- R3

(fi) Valmistajan nimi (lt) Gamintojo pavadinimas (no) Produsentens navn (sl) Ime proizvajalca	**HP Inc.**
(fi) Valmistajan osoite (lt) Gamintojo adresas (no) Produsentens adresse (sl) Naslov proizvajalca	**1501 Page Mill Road, Palo Alto, CA 94304 USA**
(fi) ilmoittaa, että tuote (lt) pareiškia, kad produktas (no) erklærer at dette produktet (sl) izjavlja, da izdelek	
(fi) Tuotteen nimi ja malli[5.2] (lt) Produkto pavadinimas ir modelis[5.2] (no) Produktnavn og modell[5.2] (sl) Ime izdelka in model[5.2]	**HP OmniBook 3 16 inch Laptop PC** **HP OmniBook 3 16” Laptop PC** **HP OmniBook 3 Laptop** **HP OmniBook 3 Laptop 16X*** **HP OmniBook 3 16 inch Laptop Next Gen AI PC** **HP OmniBook 3 16” Laptop Next Gen AI PC** **HP OmniBook 3 LaptopNGAI** **HP OmniBook 3 LaptopNGAI 16X*** **HP 200 G2i 16 inch Notebook PC** **HP 200 G2i 16” Notebook PC** **HP 200 G2i 16** **HP OmniBook 5 16 inch Laptop PC** **HP OmniBook 5 16” Laptop PC** **HP OmniBook 5 Laptop** **HP OmniBook 5 Laptop 16X*** **HP OmniBook 5 16 inch Laptop Next Gen AI PC** **HP OmniBook 5 16” Laptop Next Gen AI PC** **HP OmniBook 5 LaptopNGAI** **HP OmniBook 5 LaptopNGAI 16X*** **HP RUI 16 G2i** **HP RUI Pro 16 G2i** **HP Pro 5 G2i 16** **HP 200 G2Ri 16 inch Notebook AI PC** **HP 200 G2Ri 16" Notebook AI PC** **HP 200 G2Ri 16 AI** **HP OmniBook 3 16 inch Laptop AI PC** **HP OmniBook 3 16” Laptop AI PC** **HP OmniBook 3 Laptop AI** **HP OmniBook 3 Laptop AI 16X*** **HP OmniBook 5 16 inch Laptop AI PC** **HP OmniBook 5 Laptop AI** **HP OmniBook 5 Laptop AI 16X*** **(*where “X” can be one to twenty-one numbers, letters, symbols or blank for marketing purpose.)**
(fi) Säädösmallinumero[5.1] (lt) Normatyvinis modelio numeris[5.1] (no) Forskriftsmessig modellnummer[5.1] (sl) Upravna številka modela[5.1]	**TPN-Q311**
(fi) Tuotevaihtoehdot (lt) Prekės pasirinkimai (no) Produktvalg (sl) Možnosti izdelka	**(fi) Katso liite I** **(lt) Žiūrėti I priedą** **(no) Se vedlegg I** **(sl) Glej Prilogo I**
(fi) täyttää seuraavat tuotevaatimukset ja asetukset (lt) atitinka šias produkto specifikacijas ir reglamentų (no) er i samsvar med følgende produktspesifikasjoner og forskrift (sl) v skladu z naslednjimi specifikacijami in predpisi o izdelku	

(fi) VAATIMUSTENMUKAISUUSVAKUUTUS / (lt) ATITIKTIES DEKLARACIJA / (no) SAMSVARSERKLÆRING / (sl) IZJAVA O SKLADNOSTI

DoC #: TPN-Q311- R3

(fi) Turvallisuus / (lt) Sauga / (no) Sikkerhet / (sl) Siguranţă	**(fi) EMC / (lt) EMC / (no) EMC / (sl) EMC**	**(fi) Radiotaajuuksien / (lt) Radijo dažnių spektras / (no) Radio spektrum / (sl) Radijski spekter**
IEC 62368-1:2018	EN 55032:2015+A11:2020 Class B	EN 300 328 V2.2.2
EN IEC 62368-1:2020 +A11:2020	EN 55035:2017+A11:2020	EN 301 893 V2.1.1
EN IEC 62311:2020	EN 61000-3-2:2014	EN 300 440 V2.2.1
EN 62311:2008	EN 61000-3-3:2013 +A1:2019	EN 303 687 V1.1.1
EN 50663:2017	EN 301 489-1 V2.2.3	
EN 50665:2017	EN 301 489-3 V2.3.2	
EN 62479:2010	EN 301 489-17 V3.3.1	
	FCC CFR 47 Part 15	
	ICES-003, Issue 7	

(fi) Ecodesign / (lt) Ekologinio / (no) økodesign / (sl) okoljsko primerni zasnovi
Regulation (EU) No. 617/2013
Regulation (EU) 2023/826
EN 50564:2011
IEC 62301:2011

RoHS
EN IEC 63000:2018

(fi) Kyberturvallisuus / (lt) Kibernetinio saugumo / (no) Cybersikkerhet / (sl) Kibernetski varnosti
EN 18031-1: 2024
EN 18031-2: 2024

(fi) Esteettömyyttä / (lt) Prieinamumo / (no) Tilgjengelighet / (sl) Dostopnost
EN 301 549 V3.2.1

(fi) Tuote täyttää seuraavan vaatimukset ja kantaa CE-merkintää vastaavasti (lt) Produktas atitinka šiuos reikalavimus ir atitinkamai nurodo CE žymėjimą (no) Produktet følger med kravene til følgende og bærer CE-merket deretter (sl) Izdelek s tem ustreza zahtevam naslednjega in ustrezno nosi označevanje CE	**Radio Equipment Directive 2014/53/EU** **Ecodesign Directive 2009/125/EU** **RoHS Directive 2011/65/EU** **Battery Regulation 2023/1542** **European Accessibility Act 2019/882/EU**
UK ONLY: This product herewith complies with the requirements of the following and carries the UKCA marking.	**Radio Equipment Regulations 2017** **Ecodesign for Energy-Related Products Regulations 2010** **Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012**

U.S. ONLY: This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

(fi) Lisätiedot
(lt) Papildoma informacija
(no) Tilleggsinformasjon
(sl) Dodatne informacije

5.1)
(fi) Tämä tuote on annettu virallinen numero, joka pysyy hallinnolliset näkökohdat suunnittelu. Säädöksiä koskeva mallinumero on tärkein tuotteen tunniste sääntely asiakirjat ja testausselosteet, tätä numeroa ei pidä sekoittaa tuotteen nimeen tai tuotteen numeroita.
(lt) Šis produktas pažymėtas normatyviniu modelio numeriu, kuris lieka su reglamentavimo aspektų dizainas. Normatyvinis modelio numeris yra pagrindinė produkto identifikatorius reguliavimo dokumentus ir bandymų ataskaitos, šis skaičius neturėtų būti painiojamas su prekės pavadinimu arba gaminio numeriais.
(no) Dette produktet er tildelt et modellnummer som holder med de regulatoriske aspekter av design. Forskriftsmodellnummeret er den viktigste produkt-ID i regulatoriske dokumentasjon og testrapporter, bør dette nummeret ikke forveksles med markedsføringsnavnet eller produktnumrene.
(sl) Ta izdelek je dodeljena upravna številka modela, ki ostane pri regulativnih vidikih zasnova. Število Regulativni model je glavni identifikator izdelka v regulativnem dokumentacije in poročila o preskusih, to število ne sme zamenjevati s tržnim imenom ali številkami izdelka.

5.2)

(fi) VAATIMUSTENMUKAISUUSVAKUUTUS / (lt) ATITIKTIES DEKLARACIJA / (no) SAMSVARSERKLÆRING / (sl) IZJAVA O SKLADNOSTI

DoC #: TPN-Q311- R3

(fi) Tämä tuote testattu tyypillisessä HP ympäristöministeriö yhdessä HP isäntä järjestelmä. (lt) Ši prekė buvo išbandytas standartinės HP aplinkoje kartu su HP priimančioji sistema. (no) Produktet ble testet i et typisk miljø HP i forbindelse med en HP-vertssystemet. (sl) Acest produs fost testat intr-un Mediu tipic HP împreună cu un sistem Gazda HP.

(fi) Listattu ilmoitettu elin julkaisi Listad EU-tyyppisen tutkimustodistuksen liitteen III mukaan punaisen direktiivin 3.2 artiklan olennaisesta vaatimuksesta. (lt) Išvardytos pranešimo įstaiga išdavė išvardytą ES tipo egzamino pažymėjimą, remiantis III priede, dėl esminio Raudonosios direktyvo 3.2 straipsnio reikalavimo. (no) Det oppførte varslede organet ga ut det listede eksamenssertifikatet for EU-type, ifølge vedlegg III, for det essensielle kravet i artikkel 3.2 i det røde direktivet. (sl) Navedeni obveščeni organ je v skladu z Prilogo III izdal navedeno potrdilo o izpitu EU za bistveno zahtevo člena 3.2 Rdeče direktive.	**Notified Body: SPORTON INTERNATIONAL (USA) I NC** **Notified Body Number: 2907** **Certificate ID: SN25C0259**

HP Inc.
1501 Page Mill Road, Palo Alto, CA
Gilles Soulard, Manager
Product Compliance Center

Gilles Soulard

Palo Alto, CA
25-02-2026

Gilles Soulard, Manager
Product Compliance Engineering

(fi) Paikallinen yhteyshenkilö säännöksistä antavat (lt) Vietinis kontaktas normatyviniais klausimais tik (no) Lokal kontakt for spørsmål om forskrifter (sl) Lokalni kontakt za upravnimi temami

EU: HP REG 23010, 08028 Barcelona, Spain
UK: HP Inc UK Ltd, Regulatory Enquiries, Earley West, 300 Thames Valley Park Drive, Reading, RG6 1PT
U.S.: HP Inc., 1501 Page Mill Road, Palo Alto 94304, U.S.A. 650-857-1501
Email: reg@hp.com www.hp.eu/certificates

(fi) VAATIMUSTENMUKAISUUSVAKUUTUS / (lt) ATITIKTIES DEKLARACIJA / (no) SAMSVARSERKLÆRING / (sl) IZJAVA O SKLADNOSTI

DoC #: TPN-Q311- R3

(fi) LIITE I **(lt) I PRIEDAS** **(no) VEDLEGG I** **(sl) PRILOGA I**	
(fi) Säädösmallinumero (RMN) (lt) Normatyvinis modelio numeris (RMN) (no) Forskriftsmessig modellnummer (RMN) (sl) Upravna številka modela (RMN)	**TPN-Q311**
1 (fi) KUVAUS | 2 (fi) RMN VAIHTOEHTO* 1 (lt) APRAŠYMAS | 2 (lt) RMN PASIRINKIMAS* 1 (no) BESKRIVELSE | 2 (no) RMN OPSJON* 1 (sl) OPIS | 2 (sl) RMN MOŽNOST*	

1	2
WLAN+BT	AX211NGW MT7920 RTL8852BE RTL8922AE
Power Adapter	TPN-XA02 TPN-XA03 TPN-XA04 TPN-XA05 TPN-XA06 TPN-XA07 TPN-XA08 TPN-XA11 TPN-XA12 TPN-XA31 TPN-XA32 TPN-XA33 TPN-XA34 TPN-XA35 TPN-XA37 TPN-XA38 TPN-XA39

(fi) VAATIMUSTENMUKAISUUSVAKUUTUS / (lt) ATITIKTIES DEKLARACIJA / (no) SAMSVARSERKLÆRING / (sl) IZJAVA O SKLADNOSTI

DoC #: TPN-Q311- R3

	TPN-XA40
Battery Pack	HSTNN-XB1F HSTNN-XB0G HSTNN-XB3P HSTNN-XB3V TPN-XB2F TPN-XB1A TPN-XB1X TPN-XB1W

(fi) *Jos X on mikä tahansa aakkosnumeerinen merkki
(lt) *Jeigu X žymi bet alfa skaitinė charakterį
(no) *Hvor X representerer en hvilken som helst alfa-numeriske karakteren
(sl) *Če je X predstavlja nobene alfa numerični znak

(et) VASTAVUSDEKLARATSIOON / (hr) IZJAVA O SUKLADNOSTI / (lv) ATBILSTĪBAS DEKLARĀCIJA / (is) LEYFISYFIRLÝSING

DoC #: TPN-Q311- R3

(et) Tootja nimi (hr) Naziv proizvođača (lv) Ražotāja nosaukums (is) Framleiðanda Heiti	**HP Inc.**
(et) Tootja aadress (hr) Proizvođača adresa (lv) Ražotāja adrese (is) Heimilisfang framleiðanda	**1501 Page Mill Road, Palo Alto, CA 94304 USA**
(et) kinnitab, et toode (hr) izjavljuje da je proizvod (lv) paziņo, ka produkts (is) því yfir, að varan	
(et) Toote nimi ja mudel[5.2] (hr) Naziv proizvoda i Model[5.2] (lv) Produkta nosaukums un modelis[5.2] (is) Nafn vöru og Model[5.2]	**HP OmniBook 3 16 inch Laptop PC** **HP OmniBook 3 16” Laptop PC** **HP OmniBook 3 Laptop** **HP OmniBook 3 Laptop 16X*** **HP OmniBook 3 16 inch Laptop Next Gen AI PC** **HP OmniBook 3 16” Laptop Next Gen AI PC** **HP OmniBook 3 LaptopNGAI** **HP OmniBook 3 LaptopNGAI 16X*** **HP 200 G2i 16 inch Notebook PC** **HP 200 G2i 16” Notebook PC** **HP 200 G2i 16** **HP OmniBook 5 16 inch Laptop PC** **HP OmniBook 5 16” Laptop PC** **HP OmniBook 5 Laptop** **HP OmniBook 5 Laptop 16X*** **HP OmniBook 5 16 inch Laptop Next Gen AI PC** **HP OmniBook 5 16” Laptop Next Gen AI PC** **HP OmniBook 5 LaptopNGAI** **HP OmniBook 5 LaptopNGAI 16X*** **HP RUI 16 G2i** **HP RUI Pro 16 G2i** **HP Pro 5 G2i 16** **HP 200 G2Ri 16 inch Notebook AI PC** **HP 200 G2Ri 16" Notebook AI PC** **HP 200 G2Ri 16 AI** **HP OmniBook 3 16 inch Laptop AI PC** **HP OmniBook 3 16” Laptop AI PC** **HP OmniBook 3 Laptop AI** **HP OmniBook 3 Laptop AI 16X*** **HP OmniBook 5 16 inch Laptop AI PC** **HP OmniBook 5 Laptop AI** **HP OmniBook 5 Laptop AI 16X*** **(*where “X” can be one to twenty-one numbers, letters, symbols or blank for marketing purpose.)**
(et) Normatiivne mudelinumber[5.1] (hr) Broj modela prema propisima[5.1] (lv) Regulējošais modeļa numurs[5.1] (is) Regulatory Model Number[5.1]	**TPN-Q311**
(et) Toote lisaseadmed (hr) Mogućnosti proizvoda (lv) Izstrādājuma iespējas (is) Valmöguleikar vöru	**(et) Vt lisa I** **(hr) Vidi Prilog I** **(lv) Féach pielikums I** **(is) Sjá viðauka I**
(et) vastab järgmistele tootespetsifikatsioonidele ja määrused (hr) sukladan sljedećim specifikacijama proizvoda i propisa (lv) atbilst šādām iekārtas specifikācijām un regulām (is) í samræmi við eftirfarandi forskriftir vara og reglugerðir	

(et) VASTAVUSDEKLARATSIOON / (hr) IZJAVA O SUKLADNOSTI / (lv) ATBILSTĪBAS DEKLARĀCIJA / (is) LEYFISYFIRLÝSING

DoC #: TPN-Q311- R3

(et) Ohutus / (hr) Sigurnost / (lv) Sábháilteacht / (is) Öryggi	**(et) EMC / (hr) EMC / (lv) EMC / (is) EMC**	**(et) Raadiospektri / (hr) Radio spektar / (lv) Radiofrekvenču spektrs / (is) Tíðniróf**
IEC 62368-1:2018	EN 55032:2015+A11:2020 Class B	EN 300 328 V2.2.2
EN IEC 62368-1:2020 +A11:2020	EN 55035:2017+A11:2020	EN 301 893 V2.1.1
EN IEC 62311:2020	EN 61000-3-2:2014	EN 300 440 V2.2.1
EN 62311:2008	EN 61000-3-3:2013 +A1:2019	EN 303 687 V1.1.1
EN 50663:2017	EN 301 489-1 V2.2.3	
EN 50665:2017	EN 301 489-3 V2.3.2	
EN 62479:2010	EN 301 489-17 V3.3.1	
	FCC CFR 47 Part 15	
	ICES-003, Issue 7	

(et) ökodisaini / (hr) Ekološki dizajn / (lv) ekodizains / (is) visthönnun
Regulation (EU) No. 617/2013
Regulation (EU) 2023/826
EN 50564:2011
IEC 62301:2011

RoHS
EN IEC 63000:2018

(et) Küberturvalisuse / (hr) Kibersigurnost / (lv) Kiberdrošības / (is) Netöryggi
EN 18031-1: 2024
EN 18031-2: 2024

(et) Ligipääsetavust / (hr) Pristupačnost / (lv) Piekļūstamība / (is) Aðgengi
EN 301 549 V3.2.1

(et) Käesoleva toode vastab järgmiste nõuetele ja see kannab vastavalt CE märke (hr) Proizvod u skladu s zahtjevima sljedećeg i u skladu s tim nosi CE označavanje (lv) Ar šo produkts atbilst šādām prasībām un attiecīgi nes CE marķēšanu (is) Varan er hér með í samræmi við kröfur eftirfarandi og ber CE með sér í samræmi við það	**Radio Equipment Directive 2014/53/EU** **Ecodesign Directive 2009/125/EU** **RoHS Directive 2011/65/EU** **Battery Regulation 2023/1542** **European Accessibility Act 2019/882/EU**
UK ONLY: This product herewith complies with the requirements of the following and carries the UKCA marking.	**Radio Equipment Regulations 2017** **Ecodesign for Energy-Related Products Regulations 2010** **Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012**

U.S. ONLY: This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

(et) Lisainfo
(hr) Dodatne informacije
(lv) Papildus informācija
(is) Viðbótarupplýsingar

5.1)
(et) See toode on määratud normatiivne mudelinumber mis jääb regulatiivsed aspektid disain. Normatiivne mudelinumber on peamine toode tunnuse reguleerivad dokumendid ja katseprotokollid, see number ei tohiks segamini ajada toote nime või toode numbrid.
(hr) Ovaj proizvod je dodijeljen broj modela prema propisima koji ostaje s regulatornim aspektima Dizajn. Broj modela prema propisima je glavni identifikator proizvod u regulatornom dokumentacije i izvješća o ispitivanju, ovaj broj ne treba brkati s marketinškim nazivom ili brojeve proizvoda.
(lv) Šis produkts ir piešķirts regulējošais modeļa numurs, kas paliek ar normatīvajiem aspektiem dizainu. Regulējošais modeļa numurs ir galvenais produkts identifikators pārvaldes dokumentācijā un testēšanas pārskati, šis skaits nedrīkst sajaukt ar mārketinga nosaukumu vai produktu numuriem.
(is) Þessi vara er úthlutað Regulatory tegundarnúmer sem dvelst hjá reglugerðum þætti í hönnun. The Regulatory Model Number er helsta vara auðkenni í reglugerðum skjöl og prófunarskýrslur, þetta númer ætti ekki að rugla saman við nafn markaðssetningu eða vörunúmerum.

5.2)

(et) VASTAVUSDEKLARATSIOON / (hr) IZJAVA O SUKLADNOSTI / (lv) ATBILSTĪBAS DEKLARĀCIJA / (is) LEYFISYFIRLÝSING

DoC #: TPN-Q311- R3

(et) See toode on testitud tüüpiliste HP keskkonnas koos HP vastuvõtva süsteemi. (hr) Ovaj proizvod je ispitan u tipičnoj HP okoliš u suradnji s HP-host sustava. (lv) Rinneadh tástáil ar táirge SEO i dtimpeallacht HP tipiciúil i gcomhar le CORAS óstach HP. (is) Þessi vara var prófað í dæmigerðum HP umhverfi í tengslum við HP móti kerfinu.

(et) Loetletud teatatud organ andis III lisa kohaselt välja loetletud EL-tüüpi eksamitunnistuse, et saada punase direktiivi artikli 3.2 olulist nõuet. (hr) Navedeno je obaviješteno tijelo izdalo navedenu potvrdu o ispitivanju EU-a, prema Prilogu III, za bitni zahtjev članka 3.2. Red Direktive. (lv) Saskaņā ar III pielikumu norādītā paziņotā institūcija uzskaitītajā ES tipa eksāmena sertifikātā izdeva Sarkanās direktīvas 3.2. Pantā. (is) Hinn skráði tilkynnti aðili gaf út skráð prófskírteini ESB, samkvæmt viðauka III, vegna nauðsynlegrar kröfu 3.2. greinar rauðu tilskipunarinnar.	**Notified Body: SPORTON INTERNATIONAL (USA) I NC** **Notified Body Number: 2907** **Certificate ID: SN25C0259**

Palo Alto, CA
25-02-2026

HP Inc.
1501 Page Mill Road, Palo Alto, CA
Gilles Soulard, Manager
Product Compliance Center

Gilles Soulard, Manager
Product Compliance Engineering

(et) Kohalik kontakt Ainult normatiivsete küsimuste korral (hr) Lokalno kontakt za pravna pitanja samo (lv) Vietējā kontaktpersona jautājumos par reglamentāciju tikai (is) Upplýsingaskrifstofa fyrir reglusetningu efni eingöngu
EU: HP REG 23010, 08028 Barcelona, Spain UK: HP Inc UK Ltd, Regulatory Enquiries, Earley West, 300 Thames Valley Park Drive, Reading, RG6 1PT U.S.: HP Inc., 1501 Page Mill Road, Palo Alto 94304, U.S.A. 650-857-1501 Email: reg@hp.com www.hp.eu/certificates

(et) VASTAVUSDEKLARATSIOON / (hr) IZJAVA O SUKLADNOSTI / (lv) ATBILSTĪBAS DEKLARĀCIJA / (is) LEYFISYFIRLÝSING

DoC #: TPN-Q311- R3

(et) I LISA (hr) PRILOG I (lv) I PIELIKUMS (is) VIÐAUKA I	
(et) Normatiivne mudelinumber (RMN) (hr) Broj modela prema propisima (RMN) (lv) Regulējošais modeļa numurs (RMN) (is) Regulatory Model Number (RMN)	**TPN-Q311**
1 (et) KIRJELDUS | 2 (et) RMN VALIK* 1 (hr) OPIS | 2 (hr) RMN OPCIJA* 1 (lv) APRAKSTS | 2 (lv) RMN IZVĒLE* 1 (is) LÝSING | 2 (is) RMN VALKOSTUR*	

1	2
WLAN+BT	AX211NGW MT7920 RTL8852BE RTL8922AE
Power Adapter	TPN-XA02 TPN-XA03 TPN-XA04 TPN-XA05 TPN-XA06 TPN-XA07 TPN-XA08 TPN-XA11 TPN-XA12 TPN-XA31 TPN-XA32 TPN-XA33 TPN-XA34 TPN-XA35 TPN-XA37 TPN-XA38 TPN-XA39

(et) VASTAVUSDEKLARATSIOON / (hr) IZJAVA O SUKLADNOSTI / (lv) ATBILSTĪBAS DEKLARĀCIJA / (is) LEYFISYFIRLÝSING

DoC #: TPN-Q311- R3

	TPN-XA40
Battery Pack	HSTNN-XB1F HSTNN-XB0G HSTNN-XB3P HSTNN-XB3V TPN-XB2F TPN-XB1A TPN-XB1X TPN-XB1W

(et) *Kui X on ükskõik tähtnumbriline märk
(hr) *Gdje X predstavlja nikakvu alfa numeričku karakter
(lv) *Kur X apzīmē jebkuru burtu ciparu raksturs
(is) *Þar sem X táknar allir alfa tölugildi karakter

(mt) DIKJARAZZJONI TA 'KONFORMITÀ / (tr) UYGUNLUK BEYANI / (sr) DEKLARACIJA O USAGLAŠENOSTI / (alb.sq) DEKLARATA E KONFORMITETIT

DoC #: TPN-Q311- R3

(mt) Isem tal-manifattur (tr) Üretici Adı (sr) Naziv proizvođača (alb.sq) Emri e prodhuesit	**HP Inc.**
(mt) Indirizz tal-manifattur (tr) Üretici Adresi (sr) Adresa proizvođača (alb.sq) Adresa e prodhuesit	**1501 Page Mill Road, Palo Alto, CA 94304 USA**
(mt) jiddikjara, li l-prodott (tr) beyan eder, ürün (sr) izjavljuju pod isključivom odgovornošću da je proizvod (alb.sq) deklarojnë, nën përgjegjësinë e vetme që produkti	
(mt) Isem tal-prodott u Mudell[5.2] (tr) Ürün Adı ve Modeli[5.2] (sr) Naziv proizvoda i model[5.2] (alb.sq) Emri dhe modeli i produktit[5.2]	**HP OmniBook 3 16 inch Laptop PC** **HP OmniBook 3 16” Laptop PC** **HP OmniBook 3 Laptop** **HP OmniBook 3 Laptop 16X*** **HP OmniBook 3 16 inch Laptop Next Gen AI PC** **HP OmniBook 3 16” Laptop Next Gen AI PC** **HP OmniBook 3 LaptopNGAI** **HP OmniBook 3 LaptopNGAI 16X*** **HP 200 G2i 16 inch Notebook PC** **HP 200 G2i 16” Notebook PC** **HP 200 G2i 16** **HP OmniBook 5 16 inch Laptop PC** **HP OmniBook 5 16” Laptop PC** **HP OmniBook 5 Laptop** **HP OmniBook 5 Laptop 16X*** **HP OmniBook 5 16 inch Laptop Next Gen AI PC** **HP OmniBook 5 16” Laptop Next Gen AI PC** **HP OmniBook 5 LaptopNGAI** **HP OmniBook 5 LaptopNGAI 16X*** **HP RUI 16 G2i** **HP RUI Pro 16 G2i** **HP Pro 5 G2i 16** **HP 200 G2Ri 16 inch Notebook AI PC** **HP 200 G2Ri 16" Notebook AI PC** **HP 200 G2Ri 16 AI** **HP OmniBook 3 16 inch Laptop AI PC** **HP OmniBook 3 16” Laptop AI PC** **HP OmniBook 3 Laptop AI** **HP OmniBook 3 Laptop AI 16X*** **HP OmniBook 5 16 inch Laptop AI PC** **HP OmniBook 5 Laptop AI** **HP OmniBook 5 Laptop AI 16X*** **(*where “X” can be one to twenty-one numbers, letters, symbols or blank for marketing purpose.)**
(mt) Mudell regolatorju Numru[5.1] (tr) Yasal Model Numarası[5.1] (sr) Broj regulatornog modela[5.1] (alb.sq) Numri i Modelit Rregullator[5.1]	**TPN-Q311**
(mt) Għażliet tal-prodott (tr) Ürün Opsiyonları (sr) Opcije (alb.sq) Opsionet e produktit	**(mt) Ara l-Anness I** **(tr) Bkz: Ek I** **(sr) Vidi PRILOG I** **(alb.sq) Shih aneksin I**
(mt) jikkonforma mal-Prodott Speċifikazzjonijiet li ġejjin u Regolamenti: (tr) aşağıdaki Ürün spesifikasyonlarına ve Yönetmeliklere uygun olduğunu beyan eder (sr) u skladu sa sledećim specifikacijama proizvoda i propisima (alb.sq) përputhet me specifikimet dhe rregulloret e mëposhtme të produktit	

(mt) DIKJARAZZJONI TA 'KONFORMITÀ / (tr) UYGUNLUK BEYANI / (sr) DEKLARACIJA O USAGLAŠENOSTI / (alb.sq) DEKLARATA E KONFORMITETIT

DoC #: TPN-Q311- R3

(mt) Sigurtà / (tr) Güvenlik / (sr) Sigurnost / (alb.sq) Sigurinë e produktit	**(mt) EMC / (tr) EMC / (sr) EMK / (alb.sq) Përputhshmëria elektromagnetike**	**(mt) Ispettru tar-radju / (tr) Spektrum / (sr) Radiofrekvencijski spektar / (alb.sq) Spektri i radio**
IEC 62368-1:2018 EN IEC 62368-1:2020 +A11:2020 EN IEC 62311:2020 EN 62311:2008 EN 50663:2017 EN 50665:2017 EN 62479:2010	EN 55032:2015+A11:2020 Class B EN 55035:2017+A11:2020 EN 61000-3-2:2014 EN 61000-3-3:2013 +A1:2019 EN 301 489-1 V2.2.3 EN 301 489-3 V2.3.2 EN 301 489-17 V3.3.1 FCC CFR 47 Part 15 ICES-003, Issue 7	EN 300 328 V2.2.2 EN 301 893 V2.1.1 EN 300 440 V2.2.1 EN 303 687 V1.1.1

(mt) Ekodisinn / (tr) Ekotasarım / (sr) Ekodizajn / (alb.sq) Ekodizajni
Regulation (EU) No. 617/2013
Regulation (EU) 2023/826
EN 50564:2011
IEC 62301:2011

RoHS
EN IEC 63000:2018

(mt) Ċibersigurtà / (tr) Siber güvenlik / (sr) Sajber bezbednost / (alb.sq) Siguria kibernetike
EN 18031-1: 2024
EN 18031-2: 2024

(mt) Aċċessibilità / (tr) Erişilebilirlik / (sr) Pristupacnost / (alb.sq) Aksesueshmërisë
EN 301 549 V3.2.1

(mt) Il-prodott hawnhekk jikkonforma mar-rekwiżiti ta 'dawn li ġejjin u jġorr il-marka CE kif xieraq (tr) Ürün, aşağıdakilerin gereksinimlerine uygundur ve CE işaretlemeyi buna göre taşır (sr) Proizvod je u skladu sa sledećim zahtevima i prema tome nosi oznaku CE. (alb.sq) Produkti këtu përputhet me kërkesat e mëposhtme dhe mbart CE-duke shënuar në përputhje me rrethanat	**Radio Equipment Directive 2014/53/EU** **Ecodesign Directive 2009/125/EU** **RoHS Directive 2011/65/EU** **Battery Regulation 2023/1542** **European Accessibility Act 2019/882/EU**
UK ONLY: This product herewith complies with the requirements of the following and carries the UKCA marking.	**Radio Equipment Regulations 2017** **Ecodesign for Energy-Related Products Regulations 2010** **Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012**

U.S. ONLY: This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

(mt) Informazzjoni addizzjonali
(tr) Ek Bilgiler
(sr) Dopunske Informacije
(alb.sq) Informacion shtese

5.1)
(mt) Dan il-prodott huwa assenjat għal mudell regolatorju Numru li jibqa 'mal-aspetti regolatorji ta' l- disinn. Il-Numru tal-Mudell regolatorja hija l-identifikatur tal-prodott ewlieni fid-dokumentazzjoni regolatorju u rapporti tat-test, dan in-numru ma għandux jiġi mfixkel ma 'isem marketing jew in-numri tal-prodott.
(tr) Bu ürüne tasarım sırasında, teknik mevzutlar gözetilerek bir Yasal Model Numarası atanmıştır. Yasal Model Numarası, ana ürün için düzenleyici belgelerinde ve test raporlaronda tanımlayıcıdır. Bu numara pazarlama adı veya ürün numaraları ile karıştırılmamalıdır.
(sr) Ovom proizvodu je dodeljen regulatorni broj modela koji ostaje u skladu sa regulatornim aspektima dizajna. Regulatorni broj modela je glavni identifikator proizvoda u regulatornoj dokumentaciji i izveštajima o ispitivanju, ovaj broj ne treba mešati sa marketinškim nazivom ili brojevima proizvoda.
(alb.sq) Këtij produkti i është caktuar një Numër Modeli Rregullator i cili qëndron me aspektet rregullatore të modelit. Numri i Modelit

(mt) DIKJARAZZJONI TA 'KONFORMITÀ / (tr) UYGUNLUK BEYANI / (sr) DEKLARACIJA O USAGLAŠENOSTI / (alb.sq) DEKLARATA E KONFORMITETIT

DoC #: TPN-Q311- R3

Rregullator është identifikuesi kryesor i produktit në dokumentacionin rregullator dhe raportet e provave, ky numër nuk duhet të ngatërrohet me emrin e marketingut ose numrat e produkteve.
5.2) (mt) Dan il-prodott ġie ttestjata f'ambjent HP tipiku flimkien ma 'sistema ospitanti HP. (tr) Bu ürün, tipik bir HP ortamında test edilmiştir. (sr) Ovaj proizvod je testiran u tipičnom HP okruženju. (alb.sq) Ky produkt u testua në një mjedis tipik HP.

(mt) Il-korp notifikat elenkat ħareġ iċ-ċertifikat ta 'eżami tat-tip Eu elenkat, skond l-Anness III, għar-rekwiżit essenzjali tal-Artikolu 3.2 tad-Direttiva l-Ħamra. (tr) Listelenen Beden, Kırmızı Direktifin 3.2. Maddesinin temel gereksinimi için listelenen AB tipi sınav sertifikasını yayınladı. (sr) Navedeno imenovano telo izvršilo je ocenjivanje i izdalo navedenu potvrdu o ispitivanju prema Prilogu III, za bitne zahteve člana 3.2 RED Direktive. (alb.sq) Trupi i njoftuar i listuar lëshoi certifikatën e listuar të provimit të tipit BE, sipas Shtojcës III, për kërkesën thelbësore të nenit 3.2 të Direktivës së Kuqe.	**Notified Body: SPORTON INTERNATIONAL (USA) I NC** **Notified Body Number: 2907** **Certificate ID: SN25C0259**

HP Inc.
1501 Page Mill Road, Palo Alto, CA
Gilles Soulard, Manager
Product Compliance Center

Gilles Soulard

Palo Alto, CA
25-02-2026

Gilles Soulard, Manager
Product Compliance Engineering

(mt) Kuntatt lokali għal suġġetti regolatorji biss (tr) Sadece teknik yasal konular için kontak (sr) Lokalni kontakt samo za regulatorne teme (alb.sq) Kontakt lokal vetëm për tema rregullatore

EU: HP REG 23010, 08028 Barcelona, Spain
UK: HP Inc UK Ltd, Regulatory Enquiries, Earley West, 300 Thames Valley Park Drive, Reading, RG6 1PT
U.S.: HP Inc., 1501 Page Mill Road, Palo Alto 94304, U.S.A. 650-857-1501
Email: reg@hp.com www.hp.eu/certificates

(mt) DIKJARAZZJONI TA 'KONFORMITÀ / (tr) UYGUNLUK BEYANI / (sr) DEKLARACIJA O USAGLAŠENOSTI / (alb.sq) DEKLARATA E KONFORMITETIT

DoC #: TPN-Q311- R3

(mt) ANNESS I **(tr) EK I** **(sr) PRILOG I** **(alb.sq) ANEKSI I**	
(mt) Mudell regolatorju Numru (RMN) (tr) Yasal Model Numarası (RMN) (sr) Broj regulatornog modela (RMN) (alb.sq) Numri i Modelit Rregullator (RMN)	**TPN-Q311**
1 (mt) DESKRIZZJONI | 2 (mt) RMN GĦAŻLA* 1 (tr) AÇIKLAMA | 2 (tr) RMN OPSİYON* 1 (sr) OPIS | 2 (sr) RMN OPCIJE* 1 (alb.sq) PËRSHKRIM | 2 (alb.sq) OPSIONI RMN*	

1	2
WLAN+BT	AX211NGW MT7920 RTL8852BE RTL8922AE
Power Adapter	TPN-XA02 TPN-XA03 TPN-XA04 TPN-XA05 TPN-XA06 TPN-XA07 TPN-XA08 TPN-XA11 TPN-XA12 TPN-XA31 TPN-XA32 TPN-XA33 TPN-XA34 TPN-XA35 TPN-XA37 TPN-XA38 TPN-XA39

(mt) DIKJARAZZJONI TA 'KONFORMITÀ / (tr) UYGUNLUK BEYANI / (sr) DEKLARACIJA O USAGLAŠENOSTI / (alb.sq) DEKLARATA E KONFORMITETIT

DoC #: TPN-Q311- R3

	TPN-XA40
Battery Pack	HSTNN-XB1F HSTNN-XB0G HSTNN-XB3P HSTNN-XB3V TPN-XB2F TPN-XB1A TPN-XB1X TPN-XB1W

(mt) *Fejn X jirrappreżenta xi karattru numeriku alpha
(tr) *X herhangi bir alfabetik sayısal karakteri gösterir
(sr) *Gde X predstavlja bilo koji alfanumerički znak
(alb.sq) *Ku X paraqet ndonjë karakter alfa numerik

Contact us Newsletter FAQ My account TCO Certified Cloud For IT industry English

OUT
ERIA
HOW
TO
USE
MAP
UCT
DER
TACT
S
T

FAQ
Y
UNT
RCH
H

RESET FILTERS | COMPARE | WATCH | SHARE RESULTS | EXPORT RESULTS

CERTIFICATION

- [ ] Latest generation (3)

CATEGORY

- [ ] Notebooks (3)

BRAND

- [ ] Acer
- [ ] AOC
- [ ] ASUS

BRAND	SALES NAME	CERTIFIED ON	VALID UNTIL
HP	HP **200 G2i** 14 inch Notebook PC	2026-01-27	2028-01-27
HP	HP **200 G2i** 16	2026-01-11	2028-01-11
HP	HP **200 G2i** 16 inch Notebook PC	2026-01-11	2028-01-11

1

- [ ] BenQ
- [ ] Ciara
- [ ] DAHUA
- [ ] DELL
- [ ] EccoPc
- [ ] EIZO
- [ ] Epson
- [ ] FAIRPHONE
- [ ] FUJITSU
- [ ] HIKVISION
- [ ] Honor
- [ ] HP
- [ ] iiyama
- [ ] INSYS
- [ ] Jabra
- [ ] Lenovo
- [ ] LG
- [ ] Logitech
- [ ] MSI
- [ ] NTT System S.A.
- [ ] Philips
- [ ] Poly
- [ ] Samsung
- [ ] SHARP
- [ ] SteelSeries
- [ ] V7
- [ ] ViewSonic

Voxicon

Together toward sustainable IT

TCO Certified is the global sustainability certification for IT products, empowering both IT buyers and brands to make more responsible choices. Our comprehensive criteria are designed to drive social and environmental responsibility and are updated continuously to push sustainability where it matters most. Compliance with all criteria is always independently verified for every product.

Our Roadmap for Sustainable IT is the long-term plan for addressing issues in four key areas: climate, substances, circularity and supply chain. By using TCO Certified, you join a global movement for sustainable IT.

- About us
- Press room
- News
- ISO 14024
- Privacy, terms and cookies

- For IT brand owners and verifiers
- For resellers and retailers
- Purchaser Advisory Forum
- Circular Electronics Initiative

[별지 제 1 호 서식]

유해물질 함유기준 준수 여부 확인. 평가서

공표자	상 호	에이치피코리아유한회사 (전화: 02-780-6200)	법인등록번호	110114-0158623
	대표자 성명	김 대 환	사업자등록번호	741-81-00060
	주 소	150-724 서울 영등포구 의사당대로 83 (여의도동)		

제 품 정 보

① 제품의 종류	개인용 컴퓨터	제품명 (규격)	HP Compaq Computer
② 세부모델명(번호)	HP 200 G2i 16 inch Notebook PC ENERGY STAR	최초 출시일	2026/01/09
제품의 중량	1.93 kg	③ 제조.수입업자	에이치피코리아유한회사

당사는 위 [x] 전기.전자제품 / [ ] 자동차가 "전기.전자제품 및 자동차의 자원순환에 관한 법률 시행령" 제 11조 제1항과 같은 법 시행규칙 제 3조에 따라 사용제한 유해물질의 함유기준을 확인.평가한 결과 [x] 준수 / [ ] 미준수 하였음을 공표합니다.

년 월 일

(주: 본 제품의 확인 평가 내역 공표는 정부 웹사이트 EcoAS 에 온라인으로 제출되었으므로 공표 일자는 생략합니다.)

공표자 김 혜 선

구비서류 : 없음

* 작성요령

① 제품의 종류는 "전기.전자제품 및 자동차의 자원순환에 관한 법률 시행령" 제 8 조 제 1 항 및 제 2 항에 따른 품목별로 구분하여 기재합니다.

② 전기.전자제품의 경우 모델명(번호), 자동차의 경우 제원관리번호를 기재합니다.

③ 해당 제품의 제조업자 또는 수입업자를 기재합니다.

[Appendix Table 1]

Confirmation and Evaluation Form Concerning the Adherence to Acceptable Standards of Hazardous Materials Contained in Product

Statement prepared by	Company Name	HP Korea (Phone No.: 02-780-6200)	Corporate Identification Number	110114-0158623
	Name of Company Representative	Kim, Dae Hwan	Business Registration Number	741-81-00060
	Address	83, Uisadang-daero, Youngdeungpo-gu, Seoul, Republic of Korea		

① Product Category	Personal Computer	Name of Product (Specification)	HP Compaq Computer
② Detailed Product Model Name (Model Number)	HP 200 G2i 16 inch Notebook PC ENERGY STAR	Date of first market release	2026/01/09
Weight of Product	1.93 kg	③ Manufacturer and/or Importer	HP Korea

This form is to publicly certify that we have undergone the confirmation and evaluation procedures for the acceptable amounts of hazardous materials contained in [x] electrical-electronic products / [ ] vehicles according to the regulations stipulated in Article 3 of the "Statute on the Recycling of Electrical and Electronic Products, and Automobiles" and that the company has [x] Adhered / [ ] Not Adhered to the Enforcement Regulations of Article 11, Item 1 of the Statute.

Date. . . .

(Remark: The declaration date is omitted here, because the actual declaration was made online at the designated Korea government web system "EcoAS")

Authorizing Representative Hyesun Kim 

Attachments: None

* Preparing the Form:
① Please indicate the product category according to the categories listed in Article 8, Items 1 and 2 of the "Enforcement Ordinance of the Statute on the Recycling of Electrical, Electronic and Automobile Materials"
② For electrical and electronic products, please indicate the Model Name (and number). For automobiles, please indicate the Vehicle Identification Number.
③ Please indicate the name of the manufacturer and/or importer of the product.

HP EliteBook 840 14 inch G11 Notebook PC

The enterprise notebook that's anything but ordinary

Equip your high-producing teams with the AI-enhanced PC that delivers the power, security, and collaboration tools they need for working in the office or in a hybrid setting. The HP EliteBook 840 effectively meets the demands of multi-tasking teams across the globe.

Engineered for long lasting productivity from anywhere

Empower your hybrid workforce with the elevated conferencing capabilities, easily managed security, and AI-driven performance from the latest Intel® Core™ processor[2] with an NPU[3] in the sleek HP EliteBook 840 purpose built for demanding enterprise workloads.

Collaboration personalized to you

Move freely and interact naturally using speakers tuned by Poly Studio with AI Noise Reduction[4] and a 5MP camera, Dynamic Color Tuning[4], and optional automatic framing.[5] Expand collaboration opportunities with optional high-speed 5G[6] connectivity.

Protected by HP Wolf Security

HP Wolf Security for Business creates a hardware-enforced, always-on, resilient defense. From the BIOS to the browser, above, in, and below the OS, these constantly evolving solutions help protect your PC from modern threats.[7]



*Product image may differ from actual product

Sustainability in action

Help protect our shared future

This PC contains at least 75-percent post-consumer recycled plastic in the bezel[8] and provides power data tracking and suggestions to reduce energy use representing the latest in responsible design from HP.[9]





HP EliteBook 840 14 inch G11 Notebook PC

Featuring

HP Recommends Windows 11 Pro for business with Copilot in Windows
Work anywhere without compromising on performance with Windows 11[1] and HP collaboration, security, and connectivity technology. Summarize and rewrite content, get relevant content recommendations, and stay organized with Copilot in Windows.[10]

Intel® powers PCs enhanced by AI
Free up time to focus on what matters with an Intel® Core™ [2] processor purposely built for the next era of AI software. Three compute engines[3] manage AI workloads, help improve video conferencing, and allow for advanced content creation.

Optimize PC performance
Work without distraction with HP Smart Sense[11] which makes automatic adjustments keeping your system cool and quiet and lets you enable performance mode when you need it most.

Easy battery management
Manage and monitor your battery's performance and condition and customize charging options with the easy-to-use HP Power Manager dashboard.[4]

Balanced light for a clear image
Make sure you can clearly be seen on calls with Dynamic Color Tuning[4] that adjusts camera auto-color and auto-white balance for a more natural color when you are in front of a monochromatic background.

Hear and be heard
Dynamic Voice Leveling[4] automatically optimizes voice clarity within 3-meters of the PC. AI Noise Reduction[4] uses noise-filtering technology to enhance audio conferencing experiences.

Believing is seeing
Get captivating definition and color on the optional 14-inch diagonal QHD display.[12]

Automatic framing
Move around a little without losing viewers' attention during video calls with automatic framing.[5] The optional 5MP IR camera and audio follow you or multiple presenters as they move within the camera's frame.

See colors as they should be
Make the color of your screen look consistent in any light with Adaptive Color[11] that adjusts your display automatically to the ambient light in the room to represent the true color of the content being displayed.

Comfortable viewing
Optional TÜV certified HP Eye Ease low blue light anti-glare panels[13] help remove blue light waves while preserving vivid color accuracy.

Stay connected
Your "office" can be where you need it, letting you connect almost anywhere with optional support for up to 5G wireless broadband technology with 4x4 antennas that can deliver fast download and upload speeds.[6]

Fast and efficient wireless LAN
The portability of your PC and the reliability of a fast connection determines where you can work. Get a fast and reliable connection in dense wireless environments with gigabit data rate Wi-Fi 6E.[14,15]

HP EliteBook 840 14 inch G11 Notebook PC

Technical specifications

Available Operating Systems	Windows 11 Pro[1] Windows 11 Home – HP recommends Windows 11 Pro for business[1] Windows 11 Home Single Language – HP recommends Windows 11 Pro for business[1] Windows 11 Pro Education[1] Windows 11 Pro (Windows 11 Enterprise or Windows 10 Enterprise available with a Volume Licensing Agreement)[1]
Processor family	Intel® Core™ Ultra 5 processor Intel® Core™ Ultra 7 processor
Available Processors[2,3,4,35]	Intel® Core™ Ultra 7 155H (up to 3.8 GHz E-core Max Turbo frequency, up to 4.8 GHz P-core Max Turbo frequency, 24 MB L3 cache, 6 P-cores and 8 E-cores, 22 threads) Intel® Core™ Ultra 5 125H (up to 3.6 GHz E-core Max Turbo frequency, up to 4.5 GHz P-core Max Turbo frequency, 18 MB L3 cache, 4 P-cores and 8 E-cores, 18 threads) Intel® Core™ Ultra 7 165H (up to 3.8 GHz E-core Max Turbo frequency, up to 5.0 GHz P-core Max Turbo frequency, 24 MB L3 cache, 6 P-cores and 8 E-cores, 22 threads) Intel® Core™ Ultra 7 165U (up to 3.8 GHz E-core Max Turbo frequency, up to 4.9 GHz P-core Max Turbo frequency, 12 MB L3 cache, 2 P-cores and 8 E-cores, 14 threads) Intel® Core™ Ultra 7 155U (up to 3.8 GHz E-core Max Turbo frequency, up to 4.8 GHz P-core Max Turbo frequency, 12 MB L3 cache, 2 P-cores and 8 E-cores, 14 threads) Intel® Core™ Ultra 5 135H (up to 3.6 GHz E-core Max Turbo frequency, up to 4.6 GHz P-core Max Turbo frequency, 18 MB L3 cache, 4 P-cores and 8 E-cores, 18 threads) Intel® Core™ Ultra 5 135U (up to 3.6 GHz E-core Max Turbo frequency, up to 4.4 GHz P-core Max Turbo frequency, 12 MB L3 cache, 2 P-cores and 8 E-cores, 14 threads) Intel® Core™ Ultra 5 125U (up to 3.6 GHz E-core Max Turbo frequency, up to 4.3 GHz P-core Max Turbo frequency, 12 MB L3 cache, 2 P-cores and 8 E-cores, 14 threads)
Neural Processing Unit	Intel® AI Boost
Product colour	Pike silver
Maximum memory	64 GB DDR5-5600 MT/s RAM; (Transfer rates up to 5600 MT/s.) Dual channel support.[5]
Memory slots	2 SODIMM
Internal storage	512 GB up to 2 TB PCIe® Gen4x4 NVMe™ M.2 SSD TLC[6] 256 GB up to 1 TB PCIe® NVMe™ Value SSD[6] up to 512 GB PCIe® Gen4x4 NVMe™ M.2 SED SSD TLC[6] up to 256 GB PCIe® NVMe™ M.2 SED SSD[6]
Display size (diagonal, metric)	35.6 cm (14")
Display[15,16,17,18,19]	35.6 cm (14") diagonal, WUXGA (1920 x 1200), IPS, anti-glare, 400 nits, low power, 100% sRGB with HP Eye Ease; 35.6 cm (14") diagonal, WQXGA (2560 x 1600), IPS, micro-edge, anti-glare, 500 nits, 100% sRGB; 35.6 cm (14") diagonal, WUXGA (1920 x 1200), IPS, anti-glare, 300 nits, 45% NTSC; 35.6 cm (14") diagonal, WUXGA (1920 x 1200), touch, IPS, anti-glare, 300 nits, 45% NTSC; 35.6 cm (14") diagonal, WUXGA (1920 x 1200), IPS, anti-glare, 800 nits, 100% sRGB, HP Sure View Reflect integrated privacy screen with HP Eye Ease
Available Graphics	Integrated: Intel® Arc™ Graphics; Intel® Graphics[41] (Support HD decode, DX12, HDMI 2.1.)
Audio	Audio by Poly Studio, dual stereo speakers with discrete amplifiers, integrated dual array microphones
Ports and connectors	2 Thunderbolt™ 4 with USB Type-C® 40Gbps signaling rate (USB Power Delivery, DisplayPort™ 1.4); 2 USB Type-A 5Gbps signaling rate (1 charging, 1 power); 1 HDMI 2.1; 1 stereo headphone/microphone combo jack[11] ; (HDMI cable sold separately.); Optional Ports: 1 Smartcard reader (optional); 1 External Nano SIM slot for WWAN[12]
Input devices	HP Premium Keyboard – spill-resistant with optional backlit keyboard and Durakeys[51]; Clickpad with multi-touch gesture support, taps enabled as default; Microsoft Precision Touchpad; Hall Sensor; Thermal sensor; Adaptive color sensor; HP Tamper Lock[42]; Ambient light sensor
Communications	(Compatible with Miracast-certified devices.[8]); ; Intel® Wi-Fi 6E AX211 (2x2) and Bluetooth® 5.3 wireless card, vPro®; Intel® Wi-Fi 6E AX211 (2x2) and Bluetooth® 5.3 wireless card, non-vPro®; Intel® Wi-Fi 7 BE200 (2x2) and Bluetooth® 5.4 wireless card, vPro®; Intel® Wi-Fi 7 BE200 (2x2) and Bluetooth® 5.4 wireless card, non-vPro® ; Qualcomm® 9205 LTE Cat-M1; HP 4000 4G LTE Advanced Pro; HP 5000 5G Solution
Camera	5 MP camera with integrated dual array microphones [14]
Software	Adobe offer; Bing Search for IE11; Microsoft 365 and Office (sold separately and Internet access required for activation); HP Connection Optimizer; HP Easy Clean; HP Easy Clean Keyboard Driver; HP Hotkey Support; HP MAC Address Manager; HP Notifications; HP PC Hardware Diagnostics UEFI; HP PC Hardware Diagnostics Windows; HP Power Manager; HP Smart Support[57]; HP Privacy Settings; HP Support Assistant[21]; HSA Fusion for Commercial; HP Services Scan[20]; Copilot in Windows with Copilot key[45]
Security management	HP Client Security Manager; HP Sure Admin[25]; HP Sure Click[26]; HP Sure Recover Gen6[27]; HP Sure Run Gen5[28]; HP Sure Sense[29]; HP Sure Start Gen7; HP Tamper Lock[42]; Secured-Core PC Enable[30]; Windows Hello Enhanced Sign-in Security (ESS) Enable; Absolute persistence module[31]; BIOS Update via Network; HP BIOSphere Gen6[32]; HP DriveLock and Automatic DriveLock; Secure Erase[33]; HP Wake on WLAN; Security lock slot[43]
Security Software Licenses	HP Wolf Pro Security Edition[56]
Fingerprint reader	Fingerprint sensor (select models)

HP EliteBook 840 14 inch G11 Notebook PC

Technical specifications

Management features	HP Client Catalog (download); HP Client Management Script Library (download); HP Cloud Recovery[22]; HP Connect for Microsoft Endpoint Manager; HP Driver Packs (download); HP Image Assistant Gen 5 (download); HP Manageability Integration Kit (download)[23]; HP Patch Assistant (download)[24]
Power	HP 65 W USB Type-C® slim adapter; 65 W USB Type-C® adapter[38]
Battery type	HP Long Life 3-cell, 56 Wh Li-ion polymer[37]; Battery is internal and not replaceable by customer. Serviceable by warranty. Fast charging 50% in 30 minutes.[36]
Battery life	Up to 15 hours and 15 minutes[47]
Dimensions	31.56 x 22.43 x 1.16 cm (front); 31.56 x 22.43 x 1.61 cm (rear); (Front height measurement is near the front edge where the chassis bottom cover taper begins. Back height measurement is near the back edge where the chassis bottom cover taper ends.); 2.71 x 17.67 x 12 in 6.9 x 44.9 x 30.5 cm (Package)
Weight	Starting at 1.41 kg; (Weight will vary by configuration. Does not include power adapter.)
Ecolabels	EPEAT® registered configurations available; TCO Certified configurations available; EPEAT® Gold registered in the U.S.[39]
Energy star certified	ENERGY STAR® certified
Certification and compliance	GS Mark; CSA/UL 62368-1; FCC/ICES/CISPR/VCCI; CE Marking; China CCC/SRRC; Taiwan BSMI/NCC; Korea KCC/KC/KES; Ukraine NSoC/TEC; EAEU Compliance; Saudi Arabian Compliance; Low blue light; WW RoHS
Sustainable impact specifications	Low halogen[40]
Warranty	1-year warranty and 90 day software limited warranty options depending on country. Batteries have a default one year limited warranty. Refer to http://www.hp.com/support/batterywarranty/ for additional battery information. On-site service and extended coverage is also available. HP Care Pack Services are optional extended service contracts that go beyond the standard limited warranties. To choose the right level of service for your HP product, use the HP Care Pack Services Lookup Tool at: http://www.hp.com/go/cpc .

HP EliteBook 840 14 inch G11 Notebook PC

Footnotes

Messaging Footnotes

[1] Not all features are available in all editions or versions of Windows. Systems may require upgraded and/or separately purchased hardware, drivers, software or BIOS update to take full advantage of Windows functionality. Windows is automatically updated and enabled. High speed internet and Microsoft account required. ISP fees may apply and additional requirements may apply over time for updates. See http://www.windows.com .
[2] Multicore is designed to improve performance of certain software products. Not all customers or software applications will necessarily benefit from use of this technology. Performance and clock frequency will vary depending on application workload and your hardware and software configurations. Intel's numbering, branding and/or naming is not a measurement of higher performance.
[3] Features and software that require an NPU may require software purchase, subscription or enablement by a software or platform provider, and third-party software may have specific configuration or compatibility requirements. Performance varies by use, configuration, and other factors.
[4] Requires myHP application and Windows OS.
[5] Automatic framing is an optional feature that requires Windows 11 OS and a processor equipped with an NPU.
[6] 5G module is optional and must be configured at the factory. Module designed for 5G SA (standalone), and 5G NR NSA (non-standalone) networks as carriers deploy Evolved-Universal Terrestrial Radio Access New Radio Dual Connectivity (ENDC) with both 100Mhz of 5G NR and LTE channel bandwidth, using 256QAM 4x4 as defined by 3GPP. Module requires activation and separately purchased service contract. Check with service provider for coverage and availability in your area. Data connection, upload and download speeds will vary due to network, location, environment, network conditions, and other factors. Backwards compatible to 4G LTE and 3G HSPA technologies. 5G module planned to be available in select platforms and select countries, where carrier supported.
[7] HP Wolf Security for Business requires Windows 10 or 11 Pro and higher, includes various HP security features and is available on HP Pro, Elite, Workstation, and RPOS products. See product details for included security features.
[8] Recycled plastic content percentage is based on the definition set in the IEEE 1680.1-2018 standard.
[9] Energy Consumption Meter requires Window 10 and registration for the Workforce Experience platform at https://admin.hp.com. Some features and capabilities may require additional purchase of HP services and/or commercial hardware capable of supporting the HP Insights agent for Windows, Mac, & Android. Activation and restrictions may apply. Select HP Workforce Solutions require an HP Insights agent for Windows, Mac, & Android, available for download at https://admin.hp.com/software. For full system requirements and services that require the agent, please visit https://admin.hp.com/requirements. The agent collects telemetry and analytics around devices and applications that integrate into the Workforce Experience platform and is not sold as a standalone service. Internet access with connection to the Workforce Experience platform is required. HP follows stringent GDPR privacy regulations, and the platform is ISO27001, ISO27701, ISO27017 and SOC2 Type2 certified for Information Security. Fleet management requires HP Proactive Insights.
[10] Requires Windows 11. Some features require an NPU. Timing of feature delivery and availability varies by market and device. Requires Microsoft account to log in. Where Microsoft in Windows is not available, the Copilot key will lead to the Bing search engine. See http://aka.ms/WindowsAIFeatures.
[11] Requires Windows 11 OS.
[12] Quad HD (QHD) content required to view QHD images. Optional feature that must be configured at time of purchase.
[14] Wi-Fi 6E requires a Wi-Fi 6E router, sold separately to function in the 6GHz band. Availability of public wireless access points limited. Wi-Fi 6E is backwards compatible with prior 802.11 specs. And available in countries where Wi-Fi 6E is supported.
[15] Wi-Fi® supporting gigabit data rate is achievable with Wi-Fi 6E (802.11ax) when transferring files between two devices connected to the same router. Requires a wireless router, sold separately, that supports 160MHz channels.

Specification Footnotes

[1] Not all features are available in all editions or versions of Windows. Systems may require upgraded and/or separately purchased hardware, drivers, software or BIOS update to take full advantage of Windows functionality. Windows is automatically updated and enabled. High speed internet and Microsoft account required. ISP fees may apply and additional requirements may apply over time for updates. See http://www.windows.com .
[2] Multicore is designed to improve performance of certain software products. Not all customers or software applications will necessarily benefit from use of this technology. Performance and clock frequency will vary depending on application workload and your hardware and software configurations. Intel's numbering, branding and/or naming is not a measurement of higher performance.
[3] Processor speed denotes maximum performance mode; processors will run at lower speeds in battery optimization mode.
[4] Intel® Turbo Boost performance varies depending on hardware, software and overall system configuration. See www.intel.com/technology/turboboost for more information.
[5] Due to the non-industry standard nature of some third-party memory modules, we recommend HP branded memory to ensure compatibility. If you mix memory speeds, the system will perform at the lower memory speed.
[6] For storage drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 30 GB (for Windows 10 and 11) is reserved for system recovery software.
[7] Wi-Fi 6E requires a Wi-Fi 6E router, and Windows 11, to function in the 6GHz band. Availability of public wireless access points limited. Wi-Fi 6E is backwards compatible with prior 802.11 specs. And available in countries where Wi-Fi 6E is supported.
[8] Miracast is a wireless technology your PC can use to project your screen to TVs, projectors, and streaming.
[9] WWAN module is an optional feature, requires factory configuration and requires separately purchased service contract. Check with service provider for coverage and availability in your area. Connection speeds will vary due to location, environment, network conditions, and other factors. 4G LTE not available on all products, in all regions.
[10] 5G module is optional and must be configured at the factory. Module designed for 5G NR NSA (non-standalone) networks as carriers deploy Evolved-Universal Terrestrial Radio Access New Radio Dual Connectivity (ENDC) with both 100Mhz of 5G NR and LTE channel bandwidth, using 256QAM 4x4 as defined by 3GPP. Module requires activation and separately purchased service contract. Check with service provider for coverage and availability in your area. Data connection, upload and download speeds will vary due to network, location, environment, network conditions, and other factors. Backwards compatible to 4G LTE and 3G HSPA technologies. 5G module planned to be available in select platforms and select countries, where carrier supported.
[11] USB 20Gbps speed is not available with Thunderbolt™ 4.
[12] SIM slot is not user accessible without WWAN configuration.
[14] Sold separately or as an optional feature.
[15] WUXGA content required to view WUXGA images.
[16] Resolutions are dependent upon monitor capability, and resolution and color depth settings.
[17] HP Sure View Reflect integrated privacy screen is an optional feature that must be configured at purchase and is designed to function in landscape orientation.
[18] Actual brightness will be lower with touchscreen or Sure View.
[19] All specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower.
[20] HP Services Scan is preinstalled and/or provided thru Windows Update and checks for service entitlement on each hardware device and downloads the HP Insights agent automatically. To disable this feature, please follow the instructions at http://www.hpdaas.com/requirements. The HP Insights agent is a telemetry and analytics platform that provides critical data around devices and applications and is not sold as a standalone service. Select HP Workforce Solutions require an HP Insights agent for Windows, Mac, & Android, available for download at https://admin.hp.com/software. For full system requirements and services that require the agent, please visit https://admin.hp.com/requirements. The agent collects telemetry and analytics around devices and applications that integrate into the Workforce Experience platform and is not sold as a standalone service. Internet access with connection to the Workforce Experience platform is required. HP follows stringent GDPR privacy regulations, and the platform is ISO27001, ISO27701, ISO27017 and SOC2 Type2 certified for Information Security. Not available in China.
[21] HP Support Assistant requires Windows and Internet access.
[22] HP Cloud Recovery is available for Z by HP, HP Elite and Pro desktops and laptops PCs with Intel® or AMD processors and requires an open, wired network connection. Note: You must back up important files, data, photos, videos, etc. before use to avoid loss of data. Detail please refer to: https://support.hp.com/us-en/document/c05115630 .
[23] HP Manageability Integration Kit can be downloaded from http://www.hp.com/go/clientmanagement .
[24] HP Patch Assistant available on select HP PCs with the HP Manageability Kit that are managed through Microsoft System Center Configuration Manager. HP Manageability Integration Kit can be downloaded from http://www8.hp.com/us/en/ads/clientmanagement/overview.html .
[25] HP Sure Admin requires HP G8 or newer platforms, Windows 10 or higher, HP BIOS, HP Manageability Kit or KMS Service from http://www.hp.com/go/clientmanagement and HP Sure Admin Local Access Authenticator smartphone app from the Android or Apple store.
[26] HP Sure Click requires Windows 10 and higher. See https://bit.ly/2PrLT6A_SureClick for complete details.
[27] HP Sure Recover is available on select HP PCs and requires Windows 10 or 11 and an open network connection. You must back up important files, data, photos, videos, etc. before using HP Sure Recover to avoid loss of data.
[28] HP Sure Run Gen5 is available on select HP PCs and requires Windows 10 and higher.
[29] HP Sure Sense requires Windows 10 and higher. See product specifications for availability. On units with WWAN shipping to China, HP Sure Sense is only available via Softpaq download.
[30] Secured-Core PC Enable requires an Intel® vPro® , AMD Ryzen™ Pro processor or Qualcomm® processor with SD850 or higher and requires 8 GB or more system memory. Secured-core PC is enabled from the factory.
[31] Absolute firmware module is shipped turned off and can only be activated with the purchase a license subscription and full activation of the software agent. License subscriptions can be purchased for terms ranging multiple years. Service is limited, check with Absolute for availability outside the U.S. Certain conditions apply. For full details visit: https://www.absolute.com/about/legal/agreements/absolute/
[32] HP BIOSphere Gen6 features may vary depending on the platform and configuration.
[33] HP Secure Erase implements the methods outlined in the National Institute of Standards and Technology Special Publication 800-88r "Clear" sanitation method. HP Secure Erase does not support platforms with Intel® Optane™.
[34] HP Fingerprint Sensor is an optional feature and requires configuration at purchase.
[35] Features and software that require a NPU may require may require software purchase, subscription or enablement by a software or platform provider, and third party software may have specific configuration or compatibility requirements. Performance varies by use, configuration, and other factors.
[36] Recharges up to 50% within 30 minutes when the system is off or in standby mode when used with the power adapter provided with the notebook. Power adapter minimum of 65 watts required for battery capacities 56Whr or less. Power adapter minimum of 100 watts required for battery capacities greater than 56Whr and less than 83Whr. Power adapter minimum of 120 watts required for battery capacities greater than 83Whr and less than 100Whr. After charging has reached 90% capacity, charging speed will return to normal. Charging time may vary +/-10% due to System tolerance.
[37] For new batteries, actual battery Watt-hours (Wh) may differ from the design capacity and may have a full charge capacity that differs by up to 10, which is typical for lithium-ion batteries. Battery capacity naturally decreases over time and with use, depending on several factors such as battery health management settings, shelf life, temperature, environment, loaded apps, features, system configuration, and power settings.
[38] Availability may vary by country.
[39] Based on US EPEAT® registration according to IEEE 1680.1-2018 EPEAT®. Status varies by country. Visit www.epeat.net for more information.
[40] External power supplies, power cords, cables and peripherals are not Low Halogen. Service parts obtained after purchase may not be Low Halogen.
[41] Intel® ARC Graphics capabilities require system to be configured with Intel® Core™ Ultra 5 or Ultra 7 processors and dual channel memory. Single channel memory will only function as Intel® Graphics.
[42] HP Tamper Lock must be enabled by the customer or your administrator.
[43] Lock is sold separately.
[44] LPWAN (also called Mobile Narrowband) support HP Protect & Trace with Wolf Connect service through the subscription term, but do not support mobile broadband use.
[45] Requires Windows 11 and an NPU. Timing of feature delivery and availability varies by market and device. Requires Microsoft account to log in. Where Microsoft in Windows is not available, the Copilot key will lead to the Bing search engine. See http://aka.ms/WindowsAIFeatures .
[47] Windows MM18 battery life will vary depending on various factors including product model, configuration, loaded applications, features, use, wireless functionality, and power management settings. The maximum capacity of the battery will naturally decrease with time and usage. See www.bapco.com for additional details.
[51] Backlit keyboard is an optional feature.
[56] HP Wolf Pro Security Edition is available preloaded on select SKUs, and, depending on the HP product purchased, includes a license with a term length communicated to you at purchase and in your order confirmation email. The HP Wolf Pro Security Edition software is licensed under the license terms of the HP Wolf Security Software - End-User license Agreement (EULA) that can be found at: https://support.hp.com/us-en/document/ish_3875769-3873014-16 as that EULA is modified by the following: 7. Term. Unless otherwise terminated earlier pursuant to the terms contained in this EULA, the license for the HP Wolf Pro Security Edition is effective upon 4 months after the date the HP Product was shipped by HP and will continue for the term communicated to you at purchase and in your order confirmation email ("Initial Term"). At the end of the Initial Term you may either (a) purchase a renewal license for the HP Wolf Pro Security Edition from HP.com, HP Sales or an HP Channel Partner, or (b) continue using the standard versions of HP Sure Click and HP Sure Sense at no additional cost with no future software updates or HP Support. Notwithstanding the foregoing, the license shall expire no later than one year after the fixed term of the subject license ends.
[57] HP Smart Support requires the HP agent to be installed. For more information about how to enable or to download HP Smart Support, please visit http://www.hp.com/smart-support. HP Services Scan is provided thru Windows Update and will check entitlement on each hardware device to determine if an HP agent-enabled service has been purchased, and will download applicable software automatically. The HP agent is a telemetry and analytics platform that provides critical data around devices and applications and is not sold as a standalone service. HP follows stringent GDPR privacy regulations and is ISO27001, ISO27701, ISO27017 and SOC2 Type2 certified for Information Security. Internet access is required. For full system requirements or to disable this feature, please visit http://www.hpdaas.com/requirements .
[60] Depending on the version available for your device and the setting you select, HP Battery Health Manager (BHM) will use a proprietary set of algorithms to optimize battery health during the life of the battery. New Commercial Notebooks come equipped with BHM set to "Let HP Manage My Battery Health" as the default. This setting will reduce charge capacity over time to optimize battery health and mitigate factors that can accelerate battery degradation. As a result of this reduction, battery runtime will decrease over time as available charge capacity is reduced. HP may, at any time, update HP Battery Health Manger to improve available settings, functionality, and performance. Refurbished products may have customized default settings to optimize user experience. For additional information on updating or modifying HP Battery Health Manager settings, please go to HP.COM/SUPPORT/BATTERY .

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June 2025

Overview

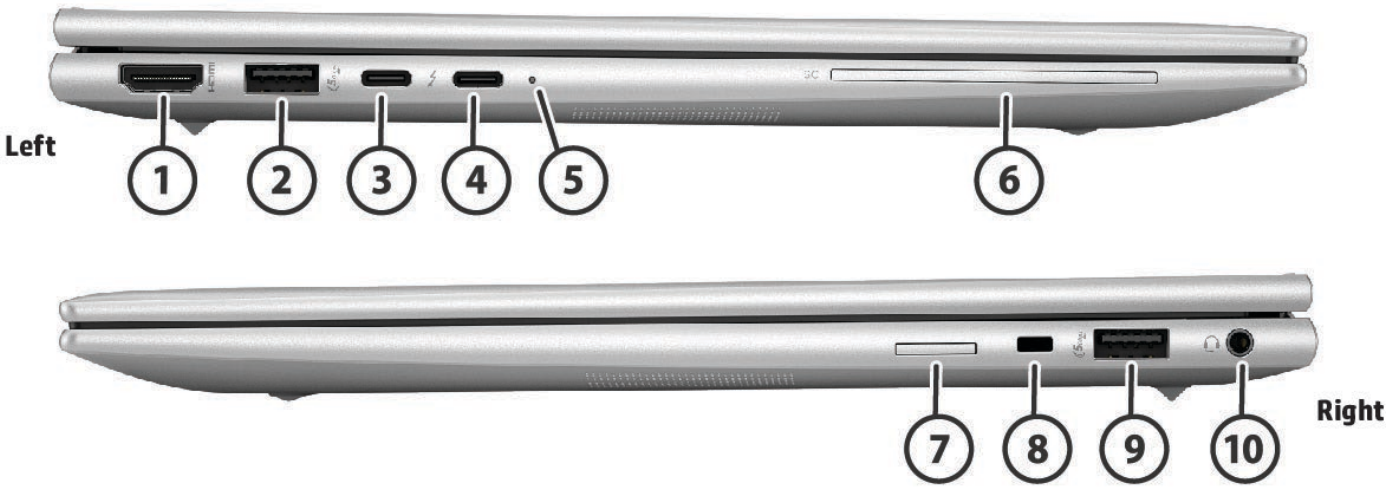
HP EliteBook 840 14 inch G11 Notebook PC



Front

1. ACS & ALS
2. Internal Microphone (2)
3. Webcam LED
4. Webcam
5. Camera Shutter
6. Touchpad

Overview



Sides

1. HDMI 2.1
2. Super Speed USB Type-A® 5Gbps Power charging
3. Thunderbolt™ 4 USB4™ Type-C® 40 Gbps USB Power Delivery DisplayPort™ 2.1
4. Thunderbolt™ 4 USB4™ Type-C® 40 Gbps USB Power Delivery DisplayPort™ 2.1
5. Power Indicator LED
6. Smart Card Reader (Optional)
7. Nano SIM card slot (Integrated)
8. Security lock slot (Integrated)
9. Super Speed USB Type-A® 5Gbps Power charging
10. Headphone/mic combo jack

1. SuperSpeed USB 20Gbps is not available with Thunderbolt™ 4.

Technical Specifications

PRODUCT NAME

HP EliteBook 840 14 inch G11 Notebook PC

OPERATING SYSTEMS

Preinstalled

Windows 11 Home - HP recommends Windows 11 Pro for business [1]
Windows 11 Home Single Language - HP recommends Windows 11 Pro for business [1]
Windows 11 Pro (Windows 11 Enterprise or Windows 10 Enterprise available with a Volume Licensing Agreement) [1]
Windows 11 Pro [1]
Windows 11 Pro Education [1]
FreeDOS

1. Not all features are available in all editions or versions of Windows. Systems may require upgraded and/or separately purchased hardware, drivers, software or BIOS update to take full advantage of Windows functionality. Windows is automatically updated and enabled. High speed internet and Microsoft account required. ISP fees may apply and additional requirements may apply over time for updates. See http://www.windows.com.

PROCESSORS

Processor 2,3,4,5,6	Cores	Number of P-cores	Number of E-cores	Number Of LP E-core	Threads	L3 Cache	Max Turbo Frequency [4]		Intel SIPP/ vPro® Enterprise
							P-cores	E-cores	
Intel® Core™ Ultra7 165H	16 cores	6	8	2	22	24 MB	5.00 GHz	3.80 GHz	X
Intel® Core™ Ultra7 155H	16 cores	6	8	2	22	24 MB	4.80 Ghz	3.80 GHz	
Intel® Core™ Ultra5 135H	14 cores	4	8	2	18	18 MB	4.60 GHz	3.60 GHz	X
Intel® Core™ Ultra5 125H	14 cores	4	8	2	18	18 MB	4.50 GHz	3.60 GHz	
Intel® Core™ Ultra7 165U	12 cores	2	8	2	14	12 MB	4.90 GHz	3.80 GHz	X
Intel® Core™ Ultra7 155U	12 cores	2	8	2	14	12 MB	4.80 GHz	3.80 GHz	
Intel® Core™ Ultra5 135U	12 cores	2	8	2	14	12 MB	4.40 Ghz	3.60 GHz	X
Intel® Core™ Ultra5 125U	12 cores	2	8	2	14	12 MB	4.30 Ghz	3.60 GHz	

Processor Family
Intel® Core™ Ultra7 processor
Intel® Core™ Ultra5 processor

2. Multicore is designed to improve performance of certain software products. Not all customers or software applications will necessarily benefit from use of this technology. Performance and clock frequency will vary depending on application workload and your hardware and software configurations. Intel's numbering, branding and/or naming is not a measurement of higher performance.
3. Processor speed denotes maximum performance mode; processors will run at lower speeds in battery optimization mode.
4. Intel® Turbo Boost performance varies depending on hardware, software and overall system configuration. See www.intel.com/technology/turboboost for more information.
5. In accordance with Microsoft's support policy, HP does not support the Windows 8 or Windows 7 operating system on products configured with Intel and AMD 7th generation and forward processors or provide any Windows 8 or Windows 7 drivers on http://www.support.hp.com.
6. Intel vPro® requires Windows 10 Pro 64 bit or higher, a vPro supported processor, vPro enabled chipset, vPro enabled wired LAN and/or Wi-Fi 6E WLAN and TPM 2.0. Some functionality requires additional 3rd party software in order to run. Features of vPro® Essentials and Enterprise vary. See http://intel.com/vpro

GRAPHICS

Integrated
Intel® ARC Graphics [7]
Intel® Graphics

Supports
UMA: Support HDMI 2.1 [8]

Codec
Hardware Acceleration HEVC (H.265) CODEC is supported.

7. Intel® Arc™ graphics only available on select Intel® Core™ Ultra H-series processor-powered systems with at least 16GB of system memory in dual channel configuration.
8. HDMI cable sold separately

DISPLAY

Non-Touch
35.6 cm (14") diagonal, WUXGA (1920 x 1200), Bent, LCD, UWVA, anti-glare, + Low Blue Light, 800 nits, sRGB 100%, HP Sure View 5 integrated privacy screen [9,10,11,12]
35.6 cm (14") diagonal, WQXGA (2560 x 1600), Bent, LCD, 120Hz, UWVA, anti-glare, WLED, 500 nits, DCI-P3 100% [9,10,12]
35.6 cm (14") diagonal, WUXGA (1920 x 1200), Bent, LCD, UWVA, anti-glare, WLED + Low Blue Light, 400 nits, low power, sRGB 100% [9,10,12]
35.6 cm (14") diagonal, WUXGA (1920 x 1200), Bent, LCD, UWVA, anti-glare, WLED, 300 nits, NTSC 45% [9,10,12]

Touch
35.6 cm (14") diagonal, WUXGA (1920 x 1200), Bent, LCD, UWVA, anti-glare, + Low Blue Light, 800 nits, sRGB 100%, HP Sure View 5 integrated privacy screen[9,10,12]
35.6 cm (14") diagonal, WUXGA (1920 x 1200), Bent, LCD, touch, anti-glare, WLED, 300 nits, NTSC 45% [9,10,12]

Technical Specifications

Display Size (Diagonal)
35.6 cm
14"

Screen to Body Ratio
88.00%

Aspect Ratio
16.10

Max Hinge Open Angle
172±3°

9. HD content required to view HD images.
10. Resolutions are dependent upon monitor capability, and resolution and color depth settings.
11. HP Sure View Reflect integrated privacy screen is an optional feature that must be configured at purchase and is designed to function in landscape orientation.
12. Actual brightness will be lower with touchscreen or HP Sure View.

DOCKING (Sold Separately)

Docking station model #1	HP Thunderbolt 4 100W G6 Dock
Docking station model #2	HP USB-C Dock G5
Docking station model #3	HP Thunderbolt 120W G4 Dock
Docking station model #4	HP USB-C G5 Essential Dock
Docking station model #5	HP USB-C/A Universal Dock G2

For additional aftermarket options and docking specs please see page 43.

Technical Specifications

STORAGE AND DRIVES

Primary Storage

2 TB PCIe® Gen4x4 NVMe™ SSD Three Layer Cell [13]
1 TB PCIe® Gen4x4 NVMe™ SSD Three Layer Cell [13]
1 TB PCIe® NVMe™ SSD Value [13]
512 GB PCIe® Gen4x4 NVMe™ Self Encrypted OPAL2 SSD Three Layer Cell [13]
512 GB PCIe® Gen4x4 NVMe™ SSD Three Layer Cell [13]
512 GB PCIe® NVMe™ SSD Value [13]
256 GB PCIe® NVMe™ Self Encrypted OPAL2 SSD Value [13]
256 GB PCIe® NVMe™ SSD Value [13]

13. For storage drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 30 GB (for Windows 10 and 11) is reserved for system recovery software.

MEMORY

Maximum Memory

64GB DDR5-5600 MT/s (2 x 32 GB) RAM [14]

Memory

64GB DDR5-5600 MT/s (2 x 32 GB) RAM [14]
32GB DDR5-5600 MT/s (2 x 16 GB) RAM [14]
32GB DDR5-5600 MT/s (1 x 32 GB) RAM [14]
16GB DDR5-5600 MT/s (2 x 8 GB) RAM [14]
16GB DDR5-5600 MT/s (1 x 16 GB) RAM [14]
8GB DDR5-5600 MT/s (1 x 8 GB) RAM [14]

Memory Slots

2 SODIMM
System runs at 5600 MT/s

14. Due to the non-industry standard nature of some third-party memory modules, we recommend HP branded memory to ensure compatibility. If you mix memory speeds, the system will perform at the lower memory speed.

Technical Specifications

NETWORKING/COMMUNICATIONS

WLAN
Intel® AX211 Wi-Fi 6E Bluetooth® 5.3 vPro Wireless Card [16]
Intel® AX211 Wi-Fi 6E Bluetooth® 5.3 WLAN Wireless Card [16]

WWAN
HP 5G Sub-6 Cat 19 WWAN eSIM [17,18]
HP 4G LTE-A Pro Cat16 WWAN eSIM [17]

LPWAN
Qualcomm® 9205 [19]

NFC
NFC NXP NPC300 [20]

Miracast
Native Miracast Support [21]

16. Wi-Fi 6E requires a Wi-Fi 6E router, sold separately to function in the 6GHz band. Availability of public wireless access points limited. Wi-Fi 6E is backwards compatible with prior 802.11 specs. And available in countries where Wi-Fi 6E is supported.
17. 4G LTE module is optional, must be configured at the factory, requires activation and separately purchased service contract. Check with service provider for coverage and availability in your area. Connection, upload and download speeds will vary due to network, location, environment, network conditions, and other factors. 4G LTE not available on all products, in all regions.
18. 5G module is optional and must be configured at the factory. Module designed for 5G NR NSA (non-standalone) networks as carriers deploy Evolved-Universal Terrestrial Radio Access New Radio Dual Connectivity (ENDC) with both 100Mhz of 5G NR and LTE channel bandwidth, using 256QAM 4x4 as defined by 3GPP. Module requires activation and separately purchased service contract. Check with service provider for coverage and availability in your area. Data connection, upload and download speeds will vary due to network, location, environment, network conditions, and other factors. Backwards compatible to 4G LTE and 3G HSPA technologies. 5G module planned to be available in select platforms and select countries, where carrier supported.
19. LPWAN (also called Mobile Narrowband) supports HP Protect & Trace with Wolf Connect service through the subscription term, but does not support mobile broadband use.
20. Sold separately or as an optional feature.
21. Miracast is a wireless technology your PC can use to project your screen to TVs, projectors, and streaming.

Technical Specifications

AUDIO/MULTIMEDIA

Audio
Audio by Poly Studio
2 Integrated stereo speakers
Discrete Amplifiers
2 Integrated dual array microphones
Bluetooth LE Audio support

Speaker Power
1W/8ohm Per speaker

Camera
5MP+Infrared camera [22]
5MP camera [22]

Sensors
Ambient Light Sensor
Adaptive Color Sensor
Hall Effect Sensor
Thermal Sensor
HP Tamper Lock [23]
HP Sure Platform
Fingerprint Sensor

22. Sold separately or as an optional feature.
23. HP Tamper Lock must be enabled by the customer or your administrator.

KEYBOARDS/POINTING DEVICES/BUTTONS & FUNCTION KEYS

Keyboard
HP Premium Keyboard, spill-resistant, Privacy, Backlit, Durakey keyboard.[24]
HP Premium Keyboard, spill-resistant, Backlit, Durakey keyboard. [24]
HP Premium Keyboard, spill-resistant, Durakey keyboard.

Pointing Device
Clickpad with multi-touch gesture support
Microsoft Precision Touchpad Default Gestures Support
Multi-touch gesture support

Function Keys
ESC - System information
F1 - Display Switching
F2 - Blank or Privacy
F3 - Brightness Down
F4 - Brightness Up
F5 - Audio Mute
F6 - Volume Down
F7 - Volume Up

Technical Specifications

F8 - Mic Mute
F9 - Blank or Backlit Toggle
F10 - Insert
F11 - Airplane Mode
F12 - HP Command Center
Power Button (with LED)
Delete
Home
End
Microsoft Copilot [25]

Hidden Function Keys
Fn+R – Break
Fn+S - Sys Rq
Fn+C - Scroll Lock

24. Backlit keyboard is an optional feature.
25. Requires Windows 11 and an NPU. Timing of feature delivery and availability varies by market and device. Requires Microsoft account to log in. See http://aka.ms/WindowsAIFeatures

SOFTWARE AND SECURITY

Software
Adobe Offer
Bing Search for IE11
Buy Microsoft Office (Sold separately)
HP Connection Optimizer
HP Easy Clean
HP Easy Clean Keyboard Driver
HP Hotkey Support
HP Mac Address Manager
HP Notifications
HP PC Hardware Diagnostics UEFI
HP PC Hardware Diagnostics Windows
HP Power Manager
HP Privacy Settings
HP Services Scan [26]
HP Support Assistant [27]
HSA Fusion for Commercial
Miro Offer [28]

Manageability Features
HP Client Catalog (download)
HP Client Management Script Library (download)
HP Cloud Recovery [29]
HP Connect for Microsoft Endpoint Manager [30]
HP Driver Packs (download)
HP Image Assistant (download)

Technical Specifications

HP Manageability Integration Kit (download) [31]
HP Patch Assistant (download) [32]

Security Features
HP Client Security Manager
Secured-Core PC Enable [33]
Windows Hello Enhanced Sign-In Security (ESS)
HP Wolf Security for Business which includes: [34]
HP Sure Admin [35]
HP Sure Click
HP Sure Recover [36]
HP Sure Run [37]
HP Sure Sense
HP Sure Start [38]
HP Tamper Lock

Security
TPM
Model: Nuvoton NPCT760HABYX
TCG TPM 2.0
Version: 7.2.3.1
FIPS 140-2 Compliant: Yes

Model: Infineon SLB9672VU2.0 FW15.23
TCG TPM 2.0
Version: 15.23
FIPS 140-2 Compliant: Yes

BIOS
Absolute Persistence Module [39]
BIOS Update via Network
HP BIOSphere [40]
HP DriveLock & Automatic DriveLock
HP Fingerprint Sensor [41]
HP Secure Erase [42]
HP Wake on WLAN
Battery Health Manager [43]

Smartcard Reader
Model number: Alcorlink AK9563
FIPS 201 Compliant: Yes

IPv6 Support
Yes

FirstNet Certified
TBD

Does the BIOS implement the ISO/IEC 19678:2015 (formerly NIST 800-147) guidelines?: Yes

Technical Specifications

UEFI version: 2.7B
HP BIOS UEFI Specification Level version 2.9 supported with BIOS update

Class: 3

26 HP Services Scan is preinstalled and/or provided thru Windows Update and checks for service entitlement on each hardware device and downloads the HP Insights agent automatically. To disable this feature, please follow the instructions at http://www.hpdaas.com/requirements. The HP Insights agent is a telemetry and analytics platform that provides critical data around devices and applications and is not sold as a standalone service. Select HP Workforce Solutions require an HP Insights agent for Windows, Mac, & Android, available for download at https://admin.hp.com/software. For full system requirements and services that require the agent, please visit https://admin.hp.com/requirements. The agent collects telemetry and analytics around devices and applications that integrate into the Workforce Experience platform and is not sold as a standalone service. Internet access with connection to the Workforce Experience platform is required. HP follows stringent GDPR privacy regulations, and the platform is ISO27001, ISO27701, ISO27017 and SOC2 Type2 certified for Information Security. Not available in China.
27. HP Support Assistant is available on Windows. For more information, please visit http://www.support.hp.com/help/hp-support-assistant.
28. HP customers qualify for a 90 day trail of Miro, this offer ends September 2025. Complete terms and conditions are provided by Miro when accepting the offer.
29. HP Cloud Recovery is available for Z by HP, HP Elite and Pro desktops and laptops PCs with Intel® or AMD processors and requires an open, network connection. **NOTE:** You must back up important files, data, photos, videos, etc. before use to avoid loss of data. Details please refer to: https://support.hp.com/us-en/document/c05115630.
30. HP Connect for Microsoft Endpoint Manager is available from the Azure Market Place for HP Pro, Elite, Z and Point-of-Sale PCs managed with Microsoft Endpoint Manager. Subscription to Microsoft Endpoint Manager required and sold separately. Network connection required.
31. HP Manageability Integration Kit can be downloaded from http://www8.hp.com/us/en/ads/clientmanagement/overview.html.
32. HP Patch Assistant available on select HP PCs with the HP Manageability Kit that are managed through Microsoft System Center Configuration Manager. HP Manageability Integration Kit can be downloaded from http://www8.hp.com/us/en/ads/clientmanagement/overview.html.
33. Secured-Core PC Enable requires an Intel® vPro®, AMD Ryzen™ Pro processor or Qualcomm® processor with SD850 or higher and requires 8 GB or more system memory. Secured-core PC is enabled from the factory.
34. HP Wolf Security for Business requires Windows 10 or 11 Pro or higher, includes various HP security features and is available on HP Pro, Elite, RPOS and Workstation products. See product details for included security features.
35. HP Sure Admin requires HP G8 or newer platforms, Windows 10 or higher, HP BIOS, HP Manageability Kit or KMS Service from http://www.hp.com/go/clientmanagement and HP Sure Admin Local Access Authenticator smartphone app from the Android or Apple store
36. HP Sure Recover is available on select HP PCs and requires Windows 10 or 11 and an open network connection. You must back up important files, data, photos, videos, etc. before using HP Sure Recover to avoid loss of data.
37. HP Sure Run is available on select HP PCs and requires Windows 10 and higher.
38. HP Sure Start is available on select HP PCs and requires Windows 10 and higher.
39. Absolute firmware module is shipped turned off and can only be activated with the purchase a license subscription and full activation of the software agent. License subscriptions can be purchased for terms ranging multiple years. Service is limited, check with Absolute for availability outside the U.S. Certain conditions apply. For full details visit: https://www.absolute.com/about/legal/agreements/absolute/
40. HP BIOSphere features may vary depending on the platform and configuration.
41. HP Fingerprint Reader is an optional feature that requires Windows 10 or 11 and must be configured at purchase.
42. HP Secure Erase implements the methods outlined in the National Institute of Standards and Technology Special Publication 800-88r "Clear" sanitation method. HP Secure Erase does not support platforms with Intel® Optane™.

Technical Specifications

43. Depending on what version of HP Battery Health Manager (BHM) is available for your device, HP BHM may look at a number of factors to determine how to adjust battery charging over time to optimize battery health. HP BHM is preset to “Let HP Manage my Battery Charging” to allow the system to balance charging between battery health and battery duration. As Let HP Manage My Battery Charging adjusts charge capacity, the amount of run-time on battery will be reduced over time. HP may utilize BIOS updates to adjust BHM settings on select systems to optimize battery health and reduce exposure to those factors that can accelerate battery degradation. To update or change HP BHM settings and for complete details, see https://support.hp.com/us-en/document/ish_4449597-3519507-16

Technical Specifications

POWER

Power Supply
HP Standard 65W USB Type-C® adapter [44]
HP Slim 65W USB Type-C® adapter [44]

Battery
HP Long Life 3 cell 56Whr Polymer [45,46]
Compliant with UL 1642 Standard

Battery Recharge Time
Supports battery HP Fast Charge: approximately 50% in 30 minutes [47]

Power Cord
3-wire plug - 1m

Battery life
Up to 15 hours and 15 minutes with 56whr battery (HP Long Life 3-Cell, 56 Whr Polymer, UMA graphic, Intel Ultra 7 U15 vPro, Display set to 250 nits display (on a 400-nit display), 2*8G DDR5 memory, 256 GB SSD)
Up to 14 hours with 56whr battery (HP Long Life 3-Cell, 56 Whr Polymer, UMA graphic, Intel Ultra 7 H28 vPro, Display set to 250 nits display (on a 400-nit display), 2*8G DDR5 memory, 256 GB SSD) [48]

44. Availability may vary by country.
45. Battery is internal and not replaceable by customer. Serviceable by warranty.
46. Actual battery Watt-hours (Wh) will vary from design capacity. Battery capacity will naturally decrease with shelf life, time, usage, environment, temperature, system configuration, loaded apps, features, power management settings and other factors.
47. Recharges your battery up to 50% within 30 minutes when the system is off or in standby mode. Power adapter minimum of 65 watts required for battery capacities 56Whr or less. Power adapter minimum of 100 watts required for battery capacities greater than 56Whr and less than 83Whr. Power adapter minimum of 120 watts required for battery capacities greater than 83Whr and less than 100Whr. After charging has reached 50% capacity, charging will return to normal. Charging time may vary +/-10% due to System tolerance.
48. Mobile Mark 25 battery life will vary depending on various factors including product model, configuration, loaded applications, features, use, wireless functionality, and power management settings. The maximum capacity of the battery will naturally decrease with time and usage. See www.bapco.com for additional details.

Technical Specifications

WEIGHTS & DIMENSIONS

Product Weight
Starting at 1.418 kg (3.13 lb) with 56.00 Wh battery
Weight will vary by configuration. Does not include power adapter.

Product Dimensions (W x D x H) [49]
315.69 (W) x 224.41 (D) x 9.04 mm (front) / 16.35 mm (rear)
12.42 in x 8.83 in x 0.35 in (front) / 0.64 in (rear)
Maximum height 19.2mm / Maximum height 0.75 in

Pallet Dimensions (W x D x H)[50]
12" to 15" boxes (305mm height): 1200mm x 1000mm x 1080mm

49. Front height measurement is near the front edge where the chassis bottom cover taper begins. Back height measurement is near the back edge where the chassis bottom cover taper ends.
50. Product packaging size varies based on options chosen. Please contact your HP representative for your packaging size details. For detailed packaging information, access the HP Commercial Notebooks Packaging Guide.

PORTS/SLOTS

Left side
2 Thunderbolt™ 4 with USB Type-C® 40Gbps signaling rate (USB Power Delivery, DisplayPort™ 2.1)[51]
1 Super Speed USB Type-A 5Gbps Power charging
1 HDMI 2.1 [8]
1 Smart Card Reader (Optional)

Right side
1 Super Speed USB Type-A 5Gbps Power charging
1 Headphone/mic combo jack
1 Nano SIM card slot (Integrated)
1 Security lock slot (Integrated)

51. SuperSpeed USB 20Gbps is not available with Thunderbolt™ 4.
8. HDMI cable sold separately.

USB SPECIFICATION AND MARKETING NAME MAPPING TABLE

Marketing Name	Technical Terminology
Hi-Speed USB 480Mbps signaling rate	USB 2.0
Super Speed USB 5Gbps signaling rate	USB 3.2 Gen 1
Super Speed USB 10Gbps signaling rate	USB 3.2 Gen 2
Super Speed USB 20Gbps signaling rate	USB 3.2 Gen 2x2

Technical Specifications

SERVICE AND SUPPORT

1-year warranty and 90 day software limited warranty options depending on country. Batteries have a default one year limited warranty except for HP Long Life batteries which will follow the one or three year warranty of the platform. Refer to http://www.hp.com/support/batterywarranty/ for additional battery information. On-site service and extended coverage is also available. HP Care Pack Services are optional extended service contracts that go beyond the standard limited warranties. To choose the right level of service for your HP product, use the HP Care Pack Services Lookup Tool at: http://www.hp.com/go/cpc. [52]

52. HP Care Packs are sold separately. Service levels and response times for HP Care Packs may vary depending on your geographic location. Service starts on date of hardware purchase. Restrictions and limitations apply. For details, visit http://www.hp.com/go/cpc. HP services are governed by the applicable HP terms and conditions of service provided or indicated to Customer at the time of purchase. Customer may have additional statutory rights according to applicable local laws, and such rights are not in any way affected by the HP terms and conditions of service or the HP Limited Warranty provided with your HP Product.

Technical Specifications

SYSTEM UNIT

Stand-Alone Power Requirements (AC Power)	
Nominal Operating Voltage	20.0V
Average Operating Power	W
Max Operating Power	UMA 65W
Temperature	
Operating	0° to 35° C (32° to 95° F)
Non-operating	-20° to 60° C (-4° to 140° F)
Relative Humidity	
Operating	10% to 90 % (non-condensing)
Non-operating	5% to 95 %, 38.7° C (101.6° F) maximum wet bulb temperature
Shock	
Operating	40 G, 2 ms, half-sine
Non-operating	240 G, 2 ms, half-sine
Random Vibration	
Operating	1.043 grams
Non-operating	3.500 grams
Altitude (unpressurized)	
Operating	3048 m (10000 ft)
Non-operating	12192 m (40000 ft)
Planned Industry Standard Certifications	
Regulatory Model Number	HSN-I45C-4
CSA/UL 62368-1	Yes
ENERGY STAR®	Yes [53]
EPEAT®	EPEAT® Gold in the United States[54]
FCC/ICES/CISPR/VCCI	Yes
CE MARKING	Yes
GS Mark	Yes
	Related commodity should comply with ISO 9241 Standards.
China CCC/SRRC	Yes
Taiwan BSMI/NCC	Yes
Korea KCC/KC/KES	Yes
Ukraine NSoC/TEC	Yes
EAEU Compliance	Yes
Saudi Arabian Compliance	Yes
TCO	Yes
WW RoHS	Yes
Low Blue Light	Yes
MIL-STD 810H Testing	Yes[55]

53. Configurations of the HP EliteBook 840 14 inch G11 Notebook PC that are ENERGY STAR® qualified are identified as HP EliteBook 840 14 inch G11 Notebook PC ENERGY STAR on HP websites and on http://www.energystar.gov.

Technical Specifications

54. Based on US EPEAT® registration according to IEEE 1680.1-2018 EPEAT®. EPEAT® status varies by country. Visit http://www.epeat.net for more information.
55. MIL STD 810H testing is not intended to demonstrate fitness for U.S. Department of Defense contract requirements or for military use. Test results are not a guarantee of future performance under these test conditions. Accidental damage requires an optional HP Accidental Damage Protection Care Pack.

DISPLAYS

1. Actual brightness will be lower with touchscreen or HP Sure View.

NOTE: All specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower.

14.0 in WUXGA (1920 x 1200) Anti-Glare UWVA LED NTSC 45 NB2X 300 eDP 1.2 w/o PSR bent LCD Panel	**Outline Dimensions (W x H)**	307.29x199.25(max)
	Active Area	301.59 X 188.50 (typ)
	Weight	300 (max)
	Diagonal Size	14
	Surface Treatment	Anti-Glare
	Touch Enabled	No
	Contrast Ratio	1000:1(typ)
	Refresh Rate	60 Hz
	Brightness	300 nits[1]
	Pixel Resolution - Format	1920 x 1200 (WUXGA)
	Backlight	WLED
	Pixel Resolution	RGB
	Color Gamut Coverage	NTSC 45%
	Color Depth	6+2 FRC
	Viewing Angle	UWVA 89/89/89/89
	Low Blue Light	No
	Power Consumption (W, EBL@ 150nits max/ 200nits max))	2.20 (max) / 2.70 (max)

14.0 in WUXGA (1920 x 1200) Anti-Glare UWVA LED NTSC 45 NB2X 300 TOP eDP 1.2 w/o PSR bent LCD Panel	**Outline Dimensions (W x H)**	307.29x199.25(max)
	Active Area	301.59 X 188.50 (typ)
	Weight	305g (max)
	Diagonal Size	14
	Surface Treatment	Anti-Glare
	Touch Enabled	Yes
	Contrast Ratio	1000:1(typ)
	Refresh Rate	60 Hz
	Brightness	300 nits[1]
	Pixel Resolution - Format	1920 x 1200 (WUXGA)
	Backlight	WLED

Technical Specifications

	Pixel Resolution	RGB
	Color Gamut Coverage	NTSC 45%
	Color Depth	6+2 FRC
	Viewing Angle	UWVA 89/89/89/89
	Low Blue Light	No
	Power Consumption (W, EBL@ 150nits max/ 200nits max))	2.15 (max)/2.65 (max)
14.0 in WUXGA (1920 x 1200) Anti-Glare UWVA WLED+LBL sRGB NB2X 400 eDP 1.4+PSR2 Low-Power 100 bent LCD Panel	**Outline Dimensions (W x H)**	307.590 x 199.550 (max)
	Active Area	301.590 x 188.500 (typ)
	Weight	210 (max)
	Diagonal Size	14
	Surface Treatment	Anti-Glare
	Touch Enabled	No
	Contrast Ratio	1000:1(typ)
	Refresh Rate	60 Hz
	Brightness	400 nits[1]
	Pixel Resolution - Format	1920 x 1200 (WUXGA)
	Backlight	WLED
	Pixel Resolution	RGB
	Color Gamut Coverage	sRGB 100%
	Color Depth	8
	Viewing Angle	UWVA 89/89/89/89
	Low Blue Light	Yes
	Power Consumption (W, EBL@ 150nits max/ 200nits max))	1.29 (max) / 1.66 (max)
14.0 in WQXGA (2560 x 1600) Anti-Glare UWVA LED DCI-P3 NB2X 500 eDP 1.4+PSR2 100 120Hz bent LCD Panel	**Outline Dimensions (W x H)**	307.594 x 199.546 (max)
	Active Area	301.594 x 188.496 (typ)
	Weight	230 (max)
	Diagonal Size	14
	Surface Treatment	Anti-Glare
	Touch Enabled	No
	Contrast Ratio	1200:1(typ)
	Refresh Rate	120 Hz
	Brightness	500 nits[1]
	Pixel Resolution - Format	2560 x1600 (WQXGA)
	Backlight	WLED
	Pixel Resolution	RGB

Technical Specifications

	Color Gamut Coverage	DCI-P3 100%
	Color Depth	8
	Viewing Angle	UWVA 89/89/89/89
	Low Blue Light	No
	Power Consumption (W, EBL@ 150nits max/ 200nits max))	2.88 (max) / 3.44 (max)

14.0 in WUXGA (1920 x 1200) Anti-Glare UWVA Low Blue Light sRGB 100 800 eDP 1.4+PSR+IOL Sure View 5 bent LCD Panel	**Outline Dimensions** (W x H)	306.890 x 197.900 (max)
	Active Area	301.590 X 188.500 (typ)
	Weight	260 (max)
	Diagonal Size	14
	Thickness	2.2/ 3.9 (max)
	Interface	eDP 1.4
	Surface Treatment	Anti-Glare
	Touch enabled	No
	Contrast Ratio	1500 : 1 (typ)
	Refresh Rate	60 (typ)
	Brightness	800 (typ)
	Pixel Resolution - Format	1920 x 1200 (WUXGA)
	Backlight	WLED
	Pixel Resolution	RGB
	Color Gamut Coverage	sRGB 100%
	Color Depth	8 bits
	Viewing Angle	UWVA 89/89/89/89
	Low Blue Light	Yes
	Power Consumption (W, EBL@ 150nits max/ 200nits max)	1.48 (max)/1.8(max)

14.0 in WUXGA (1920 x 1200) Anti-Glare UWVA Low Blue Light sRGB 100 TOP 800 eDP 1.4+PSR+IOL Sure View 5 bent LCD Panel	**Outline Dimensions** (W x H)	306.890 x 197.900 (max)
	Active Area	301.590 X 188.500 (typ)
	Weight	260 (max)
	Diagonal Size	14
	Thickness	2.4/ 4.2 (max)
	Interface	eDP 1.4
	Surface Treatment	Anti-Glare
	Touch enabled	Yes
	Contrast Ratio	1500 : 1 (typ)
	Refresh Rate	60 (typ)
	Brightness	800 (typ)

Technical Specifications

Pixel Resolution - Format	1920 x 1200 (WUXGA)
Backlight	WLED
Pixel Resolution	RGB
Color Gamut Coverage	sRGB 100%
Color Depth	8 bits
Viewing Angle	UWVA 89/89/89/89
Low Blue Light	Yes
Power Consumption (W, EBL@ 150nits max/ 200nits max)	1.60 (max)/1.97(max)

Technical Specifications

STORAGE AND DRIVES

For storage drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 30 GB (for Windows 10 and 11) is reserved for system recovery software.

SSD 512GB 2280 PCIe-4x4 NVMe Three Layer Cell	**Form Factor**	M.2 2280
	Capacity	512GB
	NAND Type	TLC
	Interface	PCIe NVMe Gen4X4
	Maximum Sequential Read	6400 MB/s ±20%
	Maximum Sequential Write	3500 MB/s ±20%
	Logical Blocks	1,000,215,215
	Features	Pyrite 2.0; TRIM; L1.2
SSD 1TB 2280 PCIe-4x4 NVMe Three Layer Cell	**Form Factor**	M.2 2280
	Capacity	1TB
	NAND Type	TLC
	Interface	PCIe NVMe Gen4X4
	Maximum Sequential Read	6400 MB/s ±20%
	Maximum Sequential Write	5000 MB/s ±20%
	Logical Blocks	2,000,409,264
	Features	Pyrite 2.0; TRIM; L1.2
SSD 2TB 2280 PCIe-4x4 NVMe Three Layer Cell	**Form Factor**	M.2 2280
	Capacity	2TB
	NAND Type	TLC
	Interface	PCIe NVMe Gen4X4
	Maximum Sequential Read	6400 MB/s ±20%
	Maximum Sequential Write	5000 MB/s ±20%
	Logical Blocks	4,000,797,360
	Features	Pyrite 2.0; TRIM; L1.2
256GB PCIe 2280 NVMe Self Encrypted OPAL2 Value Solid State Drive	**Form Factor**	M.2 2280
	Capacity	256GB
	NAND Type	TLC
	Interface	PCIe NVMe Gen4X4
	Maximum Sequential Read	2000 MB/s ±20%
	Maximum Sequential Write	900 MB/s ±20%
	Logical Blocks	500,118,192
	Features	TCG Opal 2.0; TRIM; L1.2

Technical Specifications

512GB PCIe-4x4 2280 NVME Self Encrypted OPAL2 Three Layer Cell Solid State Drive	**Form Factor**	M.2 2280
	Capacity	512GB
	NAND Type	TLC
	Interface	PCIe NVMe Gen4X4
	Maximum Sequential Read	6400 MB/s ±20%
	Maximum Sequential Write	3500 MB/s ±20%
	Logical Blocks	1,000,215,215
	Features	TCG Opal 2.0; TRIM; L1.2
SSD 256GB 2280 PCIe NVMe Value	**Form Factor**	M.2 2280
	Capacity	256 GB
	NAND Type	TLC
	Interface	PCIe NVMe Gen4X4
	Maximum Sequential Read	2000 MB/s ±20%
	Maximum Sequential Write	900 MB/s ±20%
	Logical Blocks	500,118,192
	Features	Pyrite 2.0; TRIM; L1.2
SSD 512GB 2280 PCIe NVMe Value	**Form Factor**	M.2 2280
	Capacity	512 GB
	NAND Type	TLC
	Interface	PCIe NVMe Gen4X4
	Maximum Sequential Read	2200 MB/s ±20%
	Maximum Sequential Write	1000 MB/s ±20%
	Logical Blocks	1,000,215,215
	Features	Pyrite 2.0; TRIM; L1.2
SSD 1TB 2280 PCIe NVMe Value	**Form Factor**	M.2 2280
	Capacity	1TB
	NAND Type	TLC
	Interface	PCIe NVMe Gen4X4
	Maximum Sequential Read	2200 MB/s ±20%
	Maximum Sequential Write	1600 MB/s ±20%
	Logical Blocks	2,000,409,264
	Features	Pyrite 2.0; TRIM; L1.2

Technical Specifications

NETWORKING/COMMUNICATIONS

Intel® AX211 Wi-Fi 6E +BT 5.3 M.2 160MHz CNVi World-wide WLAN vPro® Wireless Card[1]	**Wireless LAN Standards**	IEEE 802.11a IEEE 802.11b IEEE 802.11g IEEE 802.11n IEEE 802.11ac IEEE 802.11ax IEEE 802.11d IEEE 802.11e IEEE 802.11h IEEE 802.11i IEEE 802.11k IEEE 802.11r IEEE 802.11v
	Interoperability	Wi-Fi certified
	Frequency Band	•802.11b/g/n/ax 2.402 – 2.482 GHz •802.11a/n/ac/ax 4.9 – 4.95 GHz (Japan) 5.15 – 5.25 GHz 5.25 – 5.35 GHz 5.47 – 5.725 GHz 5.825 – 5.850 GHz 5.955 – 6.415 GHz 6.435 – 6.515 GHz 6.535 – 6.875 GHz 6.895 – 7.115 GHz
	Data Rates	• 802.11b: 1, 2, 5.5, 11 Mbps • 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps • 802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps • 802.11n: max 300Mbps • 802.11ac : 1733Mbps • 802.11ax : max 2.4Gbps
	Modulation	Direct Sequence Spread Spectrum OFDM, BPSK, QPSK, CCK, 16-QAM, 64-QAM, 256-QAM , 1024QAM
	Security[2]	• IEEE and WiFi compliant 64 / 128 bit WEP encryption for a/b/g mode only • AES-CCMP: 128 bit in hardware • 802.1x authentication • WPA, WPA2: 802.1x. WPA-PSK, WPA2-PSK, TKIP, and AES. • WPA2 certification • WPA3 certification • IEEE 802.11i • WAPI
	Network Architecture Models	Ad-hoc (Peer to Peer) Infrastructure (Access Point Required)

Technical Specifications

Roaming	IEEE 802.11 compliant roaming between access points
Output Power[3]	• 802.11b : +17dBm minimum • 802.11g : +16dBm minimum • 802.11a : +17dBm minimum • 802.11n HT20(2.4GHz) : +14dBm minimum • 802.11n HT40(2.4GHz) : +13dBm minimum • 802.11n HT20(5GHz) : +14dBm minimum • 802.11n HT40(5GHz) : +13dBm minimum • 802.11ac VHT80(5GHz) : +10dBm minimum • 802.11ac VHT160(5GHz) : +10dBm minimum • 802.11ax HE40(2.4GHz) : +12dBm minimum • 802.11ax HE80(5GHz) : +10dBm minimum • 802.11ax HE160(5GHz) : +10dBm minimum
Power Consumption	• Transmit mode 2.0 W • Receive mode 1.6 W • Idle mode (PSP) 180 mW (WLAN Associated) • Idle mode 50 mW (WLAN unassociated) • Connected Standby 10mW • Radio disabled 8 mW
Power Management	ACPI and PCI Express compliant power management 802.11 compliant power saving mode
Receiver Sensitivity[4]	• 802.11b, 1Mbps : -93.5dBm maximum • 802.11b, 11Mbps : -84dBm maximum • 802.11a/g, 6Mbps : -86dBm maximum • 802.11a/g, 54Mbps : -72dBm maximum • 802.11n, MCS07 : -67dBm maximum • 802.11n, MCS15 : -64dBm maximum • 802.11ac, MCS0(VHT80) : -84dBm maximum • 802.11ac, MCS9(VHT80) : -59dBm maximum • 802.11ac, MCS9(VHT160) : -58.5dBm maximum • 802.11ax, MCS11(HE40): -57dBm maximum • 802.11ax, MCS11(HE80): -54dBm maximum • 802.11ax, MCS11(HE160): -53.5dBm maximum
Antenna type	High efficiency antenna with spatial diversity Two embedded tri-band 2.4/5/6 GHz antennas are provided to the card to support WLAN MIMO communications and Bluetooth communications
Form Factor	PCI-Express M.2 MiniCard
Dimensions	Type 2230 : 2.3 x 22.0 x 30.0 mm
Weight	Type 2230 : 2.8g
Operating Voltage	3.3v +/- 9%
Temperature	**Operating** 14° to 158° F (–10° to 70° C) **Non-operating** –40° to 176° F (–40° to 80° C)
Humidity	**Operating** 10% to 90% (non-condensing) **Non-operating** 5% to 95% (non-condensing)
Altitude	**Operating** 0 to 10,000 ft (3,048 m) **Non-operating** 0 to 50,000 ft (15,240 m)
LED Activity	LED Amber – Radio OFF; LED OFF – Radio ON

Technical Specifications

HP Integrated Module with Bluetooth 4.0/4.1/4.2/5.0/5.1/5.2/5.3 Wireless Card Technology

Bluetooth Specification	4.0/4.1/4.2/5.0/5.1/5.2/5.3 Compliant
Frequency Band	2402 to 2480 MHz
Number of Available Channels	Legacy : 0~79 (1 MHz/CH) BLE : 0~39 (2 MHz/CH)
Signaling Data Rate	Legacy : 3 Mbps data rate; throughput up to 2.17 Mbps BLE : 1 Mbps data rate; throughput up to 0.2 Mbps Legacy : Synchronous Connection Oriented links up to 3, 64 kbps, voice channels Legacy : Asynchronous Connection Less links 2178.1 kbps/177.1 kbps asymmetric (3-DH5) or 864 kbps symmetric (3-EV5)
Transmit Power	The Bluetooth component shall operate as a Class II Bluetooth device with a maximum transmit power of + 9.5 dBm for BR and EDR.
Power Consumption	Peak (Tx): 330 mW Peak (Rx): 230 mW Selective Suspend: 17 mW
Bluetooth Software Supported Link Topology	1. Microsoft Windows Bluetooth Software 2. Linux/Chrome OS Bluetooth Software.
Power Management	ACPI and PCI Express compliant power management 802.11 compliant power saving mode
Certifications	FCC (47 CFR) Part 15C/E, Section 15.247, 15.249, 15.407 ETSI 300 328, ETSI 301 893, ETSI 303 687
Bluetooth Software Supported	BT4.1-ESR 5/6/7 Compliance LE Link Layer Ping LE Dual Mode LE Link Layer LE Low Duty Cycle Directed Advertising LE L2CAP Connection Oriented Channels Train Nudging & Interlaced Scan BT4.2 ESR08 Compliance LE Secure Connection- Basic/Full LE Privacy 1.2 –Link Layer Privacy LE Privacy 1.2 –Extended Scanner Filter Policies LE Data Packet Length Extension FAX Profile (FAX) Basic Imaging Profile (BIP)2 Headset Profile (HSP) Hands Free Profile (HFP) Advanced Audio Distribution Profile (A2DP) BT5.2 ESR9/10 Compliance LE Advertisement Extensions Channel Selection Algo Limited High Duty Cycle Non-Connectable Advertising

Technical Specifications

2Mbps LE
LE Long Range
BT5.3
Host to Controller Encryption Key Control Enahancements
Compliance to the latest Errata Sectipn 12.3 of BT 5.3 specification

1. Wi-Fi 6E requires a Wi-Fi 6E router, sold separately, to function in the 6GHz band. Availability of public wireless access points limited. Wi-Fi 6E is backwards compatible with prior 802.11 specs. And available in countries where Wi-Fi 6E is supported. Wi-Fi 6E is designed to support gigabit data rate when transferring files between two devices connected to the same router. Requires a wireless router, sold separately, that supports 80MHz and higher channels.
2. Check latest software/driver release for updates on supported security features.
3. The FCC has declared as of September 1, 2014 products that utilize passive scanning on channel 12/13 and are capable of transmitting must fully comply with requirements of 15.247 or otherwise disable those channels.
4. Receiver sensitivity is measured at a packet error rate of 8% for 802.11b (CKK modulation) and a packet error rate of 10% for 802.11a/g (OFDM modulation).

Intel® AX211 Wi-Fi 6E +BT 5.3 M.2 160MHz CNVi World-wide WLAN non-vPro® Wireless Card[1]	**Wireless LAN Standards**	IEEE 802.11a IEEE 802.11b IEEE 802.11g IEEE 802.11n IEEE 802.11ac IEEE 802.11ax IEEE 802.11d IEEE 802.11e IEEE 802.11h IEEE 802.11i IEEE 802.11k IEEE 802.11r IEEE 802.11v
	Interoperability	Wi-Fi certified
	Frequency Band	•802.11b/g/n/ax 2.402 – 2.482 GHz •802.11a/n/ac/ax 4.9 – 4.95 GHz (Japan) 5.15 – 5.25 GHz 5.25 – 5.35 GHz 5.47 – 5.725 GHz 5.825 – 5.850 GHz 5.955 – 6.415 GHz 6.435 – 6.515 GHz 6.535 – 6.875 GHz 6.895 – 7.115 GHz
	Data Rates	• 802.11b: 1, 2, 5.5, 11 Mbps • 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps • 802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps • 802.11n: max 300Mbps • 802.11ac : 1733Mbps

Technical Specifications

	• 802.11ax : max 2.4Gbps
Modulation	Direct Sequence Spread Spectrum OFDM, BPSK, QPSK, CCK, 16-QAM, 64-QAM, 256-QAM , 1024QAM
Security[2]	• IEEE and WiFi compliant 64 / 128 bit WEP encryption for a/b/g mode only • AES-CCMP: 128 bit in hardware • 802.1x authentication • WPA, WPA2: 802.1x. WPA-PSK, WPA2-PSK, TKIP, and AES. • WPA2 certification • WPA3 certification • IEEE 802.11i • WAPI
Network Architecture Models	Ad-hoc (Peer to Peer) Infrastructure (Access Point Required)
Roaming	IEEE 802.11 compliant roaming between access points
Output Power[3]	• 802.11b : +17dBm minimum • 802.11g : +16dBm minimum • 802.11a : +17dBm minimum • 802.11n HT20(2.4GHz) : +14dBm minimum • 802.11n HT40(2.4GHz) : +13dBm minimum • 802.11n HT20(5GHz) : +14dBm minimum • 802.11n HT40(5GHz) : +13dBm minimum • 802.11ac VHT80(5GHz) : +10dBm minimum • 802.11ac VHT160(5GHz) : +10dBm minimum • 802.11ax HE40(2.4GHz) : +12dBm minimum • 802.11ax HE80(5GHz) : +10dBm minimum • 802.11ax HE160(5GHz) : +10dBm minimum
Power Consumption	• Transmit mode 2.0 W • Receive mode 1.6 W • Idle mode (PSP) 180 mW (WLAN Associated) • Idle mode 50 mW (WLAN unassociated) • Connected Standby 10mW • Radio disabled 8 mW
Power Management	ACPI and PCI Express compliant power management 802.11 compliant power saving mode
Receiver Sensitivity[4]	• 802.11b, 1Mbps : -93.5dBm maximum • 802.11b, 11Mbps : -84dBm maximum • 802.11a/g, 6Mbps : -86dBm maximum • 802.11a/g, 54Mbps : -72dBm maximum • 802.11n, MCS07 : -67dBm maximum • 802.11n, MCS15 : -64dBm maximum • 802.11ac, MCS0(VHT80) : -84dBm maximum • 802.11ac, MCS9(VHT80) : -59dBm maximum • 802.11ac, MCS9(VHT160) : -58.5dBm maximum • 802.11ax, MCS11(HE40): -57dBm maximum • 802.11ax, MCS11(HE80): -54dBm maximum

Technical Specifications

	• 802.11ax, MCS11(HE160): -53.5dBm maximum
Antenna type	High efficiency antenna with spatial diversity Two embedded tri-band 2.4/5/6 GHz antennas are provided to the card to support WLAN MIMO communications and Bluetooth communications
Form Factor	PCI-Express M.2 MiniCard
Dimensions	Type 2230 : 2.3 x 22.0 x 30.0 mm
Weight	Type 2230 : 2.8g
Operating Voltage	3.3v +/- 9%
Temperature	**Operating** 14° to 158° F (–10° to 70° C) **Non-operating** –40° to 176° F (–40° to 80° C)
Humidity	**Operating** 10% to 90% (non-condensing) **Non-operating** 5% to 95% (non-condensing)
Altitude	**Operating** 0 to 10,000 ft (3,048 m) **Non-operating** 0 to 50,000 ft (15,240 m)
LED Activity	LED Amber – Radio OFF; LED OFF – Radio ON

HP Integrated Module with Bluetooth 4.0/4.1/4.2/5.0/5.1/5.2/5.3 Wireless Card Technology

Bluetooth Specification	4.0/4.1/4.2/5.0/5.1/5.2/5.3 Compliant
Frequency Band	2402 to 2480 MHz
Number of Available Channels	Legacy : 0~79 (1 MHz/CH) BLE : 0~39 (2 MHz/CH)
Signaling Data Rate	Legacy : 3 Mbps data rate; throughput up to 2.17 Mbps BLE : 1 Mbps data rate; throughput up to 0.2 Mbps Legacy : Synchronous Connection Oriented links up to 3, 64 kbps, voice channels Legacy : Asynchronous Connection Less links 2178.1 kbps/177.1 kbps asymmetric (3-DH5) or 864 kbps symmetric (3-EV5)
Transmit Power	The Bluetooth component shall operate as a Class II Bluetooth device with a maximum transmit power of + 9.5 dBm for BR and EDR.
Power Consumption	Peak (Tx): 330 mW Peak (Rx): 230 mW Selective Suspend: 17 mW
Bluetooth Software Supported Link Topology	1. Microsoft Windows Bluetooth Software 2. Linux/Chrome OS Bluetooth Software.
Power Management	ACPI and PCI Express compliant power management 802.11 compliant power saving mode
Certifications	FCC (47 CFR) Part 15C/E, Section 15.247, 15.249, 15.407 ETSI 300 328, ETSI 301 893, ETSI 303 687
Bluetooth Software Supported	BT4.1-ESR 5/6/7 Compliance LE Link Layer Ping LE Dual Mode LE Link Layer LE Low Duty Cycle Directed Advertising LE L2CAP Connection Oriented Channels

Technical Specifications

		Train Nudging & Interlaced Scan BT4.2 ESR08 Compliance LE Secure Connection- Basic/Full LE Privacy 1.2 –Link Layer Privacy LE Privacy 1.2 –Extended Scanner Filter Policies LE Data Packet Length Extension FAX Profile (FAX) Basic Imaging Profile (BIP)2 Headset Profile (HSP) Hands Free Profile (HFP) Advanced Audio Distribution Profile (A2DP) BT5.2 ESR9/10 Compliance LE Advertisement Extensions Channel Selection Algo Limited High Duty Cycle Non-Connectable Advertising 2Mbps LE LE Long Range BT5.3 Host to Controller Encryption Key Control Enahancements Compliance to the latest Errata Sectipn 12.3 of BT 5.3 specification

1. Wi-Fi 6E requires a Wi-Fi 6E router, sold separately, to function in the 6GHz band. Availability of public wireless access points limited. Wi-Fi 6E is backwards compatible with prior 802.11 specs. And available in countries where Wi-Fi 6E is supported. Wi-Fi 6E is designed to support gigabit data rate when transferring files between two devices connected to the same router. Requires a wireless router, sold separately, that supports 80MHz and higher channels.
2. Check latest software/driver release for updates on supported security features.
3. The FCC has declared as of September 1, 2014 products that utilize passive scanning on channel 12/13 and are capable of transmitting must fully comply with requirements of 15.247 or otherwise disable those channels.
4. Receiver sensitivity is measured at a packet error rate of 8% for 802.11b (CKK modulation) and a packet error rate of 10% for 802.11a/g (OFDM modulation).

HP 5G Sub-6 Cat 19 WWAN eSIM [1]	**Technology/Operating bands**	WCDMA/HSPA+ operating bands: Band 1: 1920 to 1980 MHz (UL), 2110 to 2170 MHz (DL) Band 2: 1850 to 1910 MHz (UL), 1930 to 1990 MHz (DL) Band 4: 1710 to 1755 MHz (UL), 2110 to 2155 MHz (DL) Band 5: 824 to 849 MHz (UL), 869 to 894 MHz (DL) Band 8: 880 to 915 MHz (UL), 925 to 960 MHz (DL) LTE FDD/TDD operating bands: Band 1: 1920 to 1980 MHz (UL), 2110 to 2170 MHz (DL) Band 2: 1850 to 1910 MHz (UL), 1930 to 1990 MHz (DL) Band 3: 1710 to 1785 MHz (UL), 1805 to 1880 MHz (DL) Band 4: 1710 to 1755 MHz (UL), 2110 to 2155 MHz (DL) Band 5: 824 to 849 MHz (UL), 869 to 894 MHz (DL) Band 7: 2500 to 2570 MHz (UL), 2620 to 2690 MHz (DL) Band 8: 880 to 915 MHz (UL), 925 to 960 MHz (DL) Band 12: 699 to 716 MHz (UL), 729 to 746 MHz (DL) Band 13: 777 to 787 MHz (UL), 746 to 756 MHz (DL)

Technical Specifications

	Band 14: 788 to 798 MHz (UL), 758 to 768 MHz (DL) Band 17: 704 to 716 MHz (UL), 734 to 746 MHz (DL) Band 18: 815 to 830 MHz (UL), 860 to 875 MHz (DL) Band 19: 830 to 845 MHz (UL), 875 to 890 MHz (DL) Band 20: 832 to 862 MHz (UL), 791 to 821 MHz (DL) Band 25: 1850 to 1915 MHz (UL), 1930 to 1995 MHz (DL) Band 26: 814 to 849 MHz (UL), 859 to 894 MHz (DL) Band 28: 703 to 748 MHz (UL), 758 to 803 MHz (DL) Band 29: 717 to 728 MHz (DL) Band 30: 2305 to 2315 MHz (UL) 2350 to 2360 MHz (DL) Band 32: 1452 to 1496 MHz (DL) Band 34: 2010 to 2025 MHz (UL/DL) Band 38: 2570 to 2620 MHz (UL/DL) Band 39: 1880 to 1920 MHz (UL/DL) Band 40: 2300 to 2400 MHz (UL/DL) Band 41: 2496 to 2690 MHz (UL/DL) Band 42: 3400 to 3600 MHZ (UL/DL) Band 43: 3400 to 3800 MHZ (UL/DL) Band 46: 5150 to 5925 MHZ (DL) Band 48: 3550 to 3700 MHZ (UL/DL) Band 66: 1710 to 1800 MHz (UL), 2110 to 2200 MHz (DL) Band 71: 663 to 698 MHz (UL), 617 to 652 MHz (DL) 5GNR Sub 6GHZ n1: 1920 to 1980 MHz (UL), 2110 to 2170 MHz (DL) n2: 1850 to 1910 MHz (UL), 1930 to 1990 MHz (DL) n3: 1710 to 1785 MHz (UL), 1805 to 1880 MHz (DL) n5: 824 to 849 MHz (UL), 869 to 894 MHz (DL) n7: 2500 to 2570 MHz (UL), 2620 to 2690 MHz (DL) n8: 880 to 915 MHz (UL), 925 to 960 MHz (DL) n20: 832 to 862 MHz (UL), 791 to 821 MHz (DL) n25: 1850 to 1915 MHz (UL), 1930 to 1995 MHz (DL) n28: 703 to 748 MHz (UL), 758 to 803 MHz (DL) n30: 2305 to 2315 MHz (UL) 2350 to 2360 MHz (DL) n38: 2570 to 2620 MHz (UL/DL) n40: 2300 to 2400 MHz (UL/DL) n41: 2496 to 2690 MHz (UL/DL) n48: 3550 to 3700 MHZ (UL/DL) n66: 1710 to 1800 MHz (UL), 2110 to 2200 MHz (DL) n71: 663 to 698 MHz (UL), 617 to 652 MHz (DL) n77: 3300 to 4200 MHz (UL/DL) n78: 3300 to 3800 MHz (UL/DL) n79: 4400 to 5000 MHz (UL/DL)
Wireless protocol standards	NR Sub6G rel15 200MHz 2 DLCA, 256 QAM 200MHz 2 ULCA, 256 QAM 15KHz/30KHz SCS for FDD/TDD LTE Rel15 100MHz 5 DLCA, 256 QAM 40MHz 2 ULCA, 256 QAM UMTS Rel8

Technical Specifications

GPS	GPS only support L1 C/A
GPS bands	GPS: L1 (1575.42MHz) GLONASS: L1 (1602MHz) BeidouB1(1561.098MHz) Galileo E1 (1575.42) QZSS(1575.42 MHz)
Maximum data rates	Sub-6 SA Peak DL 4.67Gbps/UL 1.25Gbps Sub-6 NSA Peak DL 3.74Gbps/UL 835Mbps LTE Peak DL 1.6Gbps (CAT19)/UL 211Mbps (CAT18) UMTS/HSPA+ DL DC-HSPA+: 42 Mbps (CAT24)/UL 11.5 Mbps (CAT7)
Maximum output power	NR： 23 dBm in all band except (n30 = 22dBm & n48=21dBm & n77=25dBm & n41/n77/n78 = 26dBm) LTE: 23 dBm in all band except (B30 = 22dBm & B48=21dBm & B41=26dBm) UMTS: 23.5 dBm
Maximum power consumption	3500 mA (peak); 1674mA (average)
Form Factor	M.2, 3052-S3 Key B
Weight	8.7g
Dimensions (Length x Width x Thickness)	52 mm × 30 mm × 2.3 mm
embedded eSIM	Support

1. 5G module is optional and must be configured at the factory. Module designed for 5G NR NSA (non-standalone) networks as carriers deploy Evolved-Universal Terrestrial Radio Access New Radio Dual Connectivity (ENDC) with both 100Mhz of 5G NR and LTE channel bandwidth, using 256QAM 4x4 as defined by 3GPP. Module requires activation and separately purchased service contract. Check with service provider for coverage and availability in your area. Data connection, upload and download speeds will vary due to network, location, environment, network conditions, and other factors. Backwards compatible to 4G LTE and 3G HSPA technologies. 5G module planned to be available in select platforms and select countries, where carrier supported.

HP 4G LTE-A Pro Cat16 WWAN eSIM [1]	**Technology/Operating bands**	WCDMA/HSPA+ operating bands: Band 1: 1920 to 1980 MHz (UL), 2110 to 2170 MHz (DL) Band 2: 1850 to 1910 MHz (UL), 1930 to 1990 MHz (DL) Band 4: 1710 to 1755 MHz (UL), 2110 to 2155 MHz (DL) Band 5: 824 to 849 MHz (UL), 869 to 894 MHz (DL) Band 8: 880 to 915 MHz (UL), 925 to 960 MHz (DL) LTE FDD/TDD operating bands: Band 1: 1920 to 1980 MHz (UL), 2110 to 2170 MHz (DL) Band 2: 1850 to 1910 MHz (UL), 1930 to 1990 MHz (DL) Band 3: 1710 to 1785 MHz (UL), 1805 to 1880 MHz (DL)

Technical Specifications

	Band 4: 1710 to 1755 MHz (UL), 2110 to 2155 MHz (DL) Band 5: 824 to 849 MHz (UL), 869 to 894 MHz (DL) Band 7: 2500 to 2570 MHz (UL), 2620 to 2690 MHz (DL) Band 8: 880 to 915 MHz (UL), 925 to 960 MHz (DL) Band 12: 699 to 716 MHz (UL), 729 to 746 MHz (DL) Band 13: 777 to 787 MHz (UL), 746 to 756 MHz (DL) Band 14: 788 to 798 MHz (UL), 758 to 768 MHz (DL) Band 17: 704 to 716 MHz (UL), 734 to 746 MHz (DL) Band 18: 815 to 830 MHz (UL), 860 to 875 MHz (DL) Band 19: 830 to 845 MHz (UL), 875 to 890 MHz (DL) Band 20: 832 to 862 MHz (UL), 791 to 821 MHz (DL) Band 25: 1850 to 1915 MHz (UL), 1930 to 1995 MHz (DL) Band 26: 814 to 849 MHz (UL), 859 to 894 MHz (DL) Band 28: 703 to 748 MHz (UL), 758 to 803 MHz (DL) Band 29: 717 to 728 MHz (DL) Band 30: 2305 to 2315 MHz (UL) 2350 to 2360 MHz (DL) Band 32: 1452 to 1496 MHz (DL) Band 34: 2010 to 2025 MHz (UL/DL) Band 38: 2570 to 2620 MHz (UL/DL) Band 39: 1880 to 1920 MHz (UL/DL) Band 40: 2300 to 2400 MHz (UL/DL) Band 41: 2496 to 2690 MHz (UL/DL) Band 42: 3400 to 3600 MHZ (UL/DL) Band 43: 3400 to 3800 MHZ (UL/DL) Band 48: 3550 to 3700 MHZ (UL/DL) Band 66: 1710 to 1800 MHz (UL), 2110 to 2200 MHz (DL) Band 71: 663 to 698 MHz (UL), 617 to 652 MHz (DL)
Wireless protocol standards	3GPP LTE Rel15 LTE Specification, 100MHz 5 DLCA, 256 QAM, DL 1.0Gbps (CAT16)/ 40MHz 2 ULCA, 256 QAM, UL 211Mbps (CAT18) WCDMA 3GPP Release 8 UMTS Specification, DL UMTS: 384 kbps/UL 384 kbp, DL DC-HSPA+: 42 Mbps (CAT24)/UL 11.5 Mbps (CAT7) WCDMA R99, 3GPP Release 5, 6, 7 and 8 UMTS Specification
GPS	Standalone, A-GPS (MS-A, MS-B)
GPS bands	GPS: L1 (1575.42MHz) GLONASS: L1 (1602MHz) BeidouB1(1561.098MHz) Galileo E1 (1575.42) QZSS(1575.42 MHz)
Maximum data rates	LTE: ue-CategoryDL 16, (DL : 1 Gbps) ue-CategoryUL 18 , (UL: 211Mbps) DC-HSPA+: 42 Mbps (Download), 11.5 Mbps (Upload)
Maximum output power	HPUE: Not supported LTE: 23 dBm in all band except (B30= 22dBm& B48= 21dBm) UMTS: 23.5 dBm

Technical Specifications

Maximum power consumption	LTE: 1300 mA (peak); 1100 mA (average) HSPA+: 1,100 mA (peak); 800 mA (average)
Form Factor	M.2, 3052-S3 Key B
Weight	8 g
Dimensions (Length x Width x Thickness)	52 mm × 30 mm × 2.3 mm
eSIM	Support

1. Mobile Broadband is an optional feature. Connection requires wireless data service contract, network support, and is not available in all areas. Contact service provider to determine the coverage area and availability. Connection speeds will vary due to location, environment, network conditions, and other factors. 4G LTE not available on all products or in all countries.

NFC NXP NPC300	**Dimensions (L x W x H)**	17 x 10 x 2.0 mm
	Chipset	NPC300
	System interface	I2C
	NFC RF standards	ISO/IEC 14443 A ISO/IEC 14443 B ISO/IEC 15693 ISO/IEC 18092 ECMA-340 NFCIP-1 Target and Initiator ECMA-320 NFCIP-2
	NFC Forum Support	Tag Type 1, Type 2, Type3 and Type 4, NFCIP-1 and NFCIP-2
	Reader (PCD-VCD) Mode	ISO/IEC 14443 A ISO/IEC 14443 B ISO/IEC 15693 MIFARE 1K MIFARE 4K MIFARE DESFire FeliCa Jewel and Topaz cards
	Card Emulation (PICC-VICC) Mode	ISO/IEC 14443 A ISO/IEC 14443 B and B' MIFARE FeliCa
	Frequency	13.56 MHz
	NFC Modes Supported	Reader/Writer, Peer-to-Peer
	Raw RF Data Rates	106, 212, 424, 848 kbps
	Operating temperature	0°C to 70°C
	Storage temperature	-20°C to 125°C
	Humidity	10-90% operating 5-95% non-operating
	Supply Operating voltage	4.35 to 5.25 Volts

Technical Specifications

	I/O Voltage	1.8V or 3.3V
	Power Consumption (Booster enable, VBAT= 3.3V, VCC_BOOST = 5V)	
	Mode	Power Consumption, Typical
	Polling	7.3 mA
	Detected Test Tag Type 1	Total 283.8 mA Net Module 236.8 mA
	Detected Test Tag Type 2	Total 288.8 mA Net Module 241.8 mA
	Detected Test Tag Type 3	Total 287.7 mA Net Module 240.7 mA
	Detected Test Tag Type 4	Total 282.3 mA Net Module 235.3 mA
	Antenna	Antenna connector, 0.5mm pitch, 7 connector FPC. Antenna matching is external to module.
Qualcomm® 9205 [1]	**Technology/Operating bands**	FDD LTE: 2100 (Band 1), 1900 (Band 2), 1800 (Band 3), 1700/2100 (Band 4), 850 (Band 5), 900 (Band 8), 700 (Band 12 lower), 700 (Band 13 upper), 700 (Band 14 upper), 850 (Band 18 lower), 850 (Band 19 upper), 800 (Band 20), 1900 (Band 25), 850 (Band 26), 800 (Band 27), 700 (Band 28), 1700/2100 (Band 66), 700 (band 85) MHz. GSM/GPRS/EGPRS: 850, 900, 1800, 1900MHz.
	Wireless protocol standards	• 3GPP TS 51.010-1 V10.5.0: Mobile Station (MS) conformance specification; Part 1: Conformance specification • 3GPP TS 36.521-1 V14.3.0: User Equipment (UE) conformance specification; Radio transmission and reception; Part 1: Conformance testing • 3GPP TS 21.111 V10.0.0: USIM and IC card requirements • 3GPP TS 51.011 V4.15.0: Specification of the Subscriber Identity Module -Mobile Equipment (SIM-ME) interface • 3GPP TS 31.102 V10.11.0: Characteristics of the Universal Subscriber Identity Module (USIM) application • 3GPP TS 31.11 V10.16.0: Universal Subscriber Identity Module (USIM) Application Toolkit (USAT) • 3GPP TS 36.124 V10.3.0: Electro Magnetic Compatibility (EMC) requirements for mobile terminals and ancillary equipment • 3GPP TS 27.007 V10.0.8: AT command set for User Equipment (UE) • 3GPP TS 27.005 V10.0.1: Use of Data Terminal Equipment - Data Circuit terminating Equipment (DTE - DCE) interface for Short Message Service (SMS) and Cell Broadcast Service (CBS)
	GPS	Standalone GPS/Beidou/Glonass, A-GPS (MS-A, MS-B)
	GPS bands	1575.42 MHz ± 1.023 MHz, GLONASS 1596-1607MHz, Beidou 1561.098 MHz
	Maximum data rates	LTE FDD: 375 Kbps (Download), 1119 Kbps (Upload) GSM:

Technical Specifications

	- GPRS: 107 Kbps (Download), 85.6 Kbps (Upload) - EGPRS: 296 Kbps (Download), 236.8 Kbps (Upload)
Maximum output power	LTE: 21.5 dBm in all band GSM:34dBm
Maximum power consumption	LTE: 1,200 mA (peak); 900 mA (average) HSPA+: 1,100 mA (peak); 800 mA (average)
Form Factor	M.2, 2242-S3 Key B
Weight	5.5 g
Dimensions (Length x Width x Thickness)	22 x 42 x 2.3 mm
eSIM	Support

1.LPWAN (also called Mobile Narrowband) supports HP Protect & Trace with Wolf Connect service through the subscription term, but does not support mobile broadband use.

Technical Specifications

POWER

1. Actual battery Watt-hours (Wh) will vary from design capacity. Battery capacity will naturally decrease with shelf life, time, usage, environment, temperature, system configuration, loaded apps, features, power management settings and other factors

AC Adapter 65 Watt nPFC Standard USB type C Straight 1.8m	**Weight**	240g ± 10g	
	Input	100-240Vac	
		Input Efficiency	81.50% min at 115 Vac/ 230 Vac @5.00V 86.70% min at 115 Vac/ 230 Vac @9.00V 88.00% min at 115 Vac/ 230 Vac @12.00V 89.00% min at 115 Vac/ 230 Vac @15.00V 89.00% min at 115 Vac/ 230 Vac @20.00V
		Input frequency range	47-63Hz
		Input AC current	Max. 1.6 A at 90 Vac
	Output	**Output power**	5V/15W 9V/27W 12V/60W 15V/65W 20V/65W
		DC output	5V/9V/12V/15V/20V
		Hold-up time	100% load 5ms at 115 Vac input
		Output current limit	< 8.0A
		AC Inlet Type	C6
		DC Cable Connector	USB type C
		DC Cable Material	PVC
	Connector	C6	
	Environmental Design	**Operating temperature**	32°F to 95°F (0° to 35°C)
		Non-operating (storage) temperature	-4°F to 185°F (-20° to 85°C)
		Altitude	0 to 16,400 ft (0 to 5000m)
		Humidity	20% to 95%
		Storage Humidity	10% to 95%
	EMI and Safety Certifications	CE Mark - full compliance with LVD and EMC directives Worldwide safety standards - IEC60950-1 and IEC62368-1 : 2018, EN62368-1:2014+A11, UL 62368-1 Agency approvals - C-UL-US, TUV/GS, TUV/PSE, EN55032 Class B, FCC Class B, CISPR32 Class B, CCC and CECP, CU(EAC), EAEU, KCC(Safety+EMC) and K-MEPS, NOM-001 and 029 NYCE, NRcan, NRCS, ISC, SEC, PSB, Argentina S-mark, Australia RCM, BIS, BSMI, UAE, UKCA DoC	

	Weight	220g ± 10g
	Input	100-240Vac

Technical Specifications

		Input Efficiency	81.50% min at 115 Vac/ 230 Vac @5.00V 86.70% min at 115 Vac/ 230 Vac @9.00V 88.00% min at 115 Vac/ 230 Vac @12.00V 89.00% min at 115 Vac/ 230 Vac @15.00V 89.00% min at 115 Vac/ 230 Vac @20.00V
		Input frequency range	47-63Hz
		Input AC current	Max. 1.6 A at 90 Vac
	Output	**Output power**	5V/15W 9V/27W 12V/60W 15V/65W 20V/65W
		DC output	5V/9V/12V/15V/20V
		Hold-up time	100% load 5ms at 115 Vac input
		Output current limit	< 8.0A
HP 65W Slim USB-C Straight AC Power Adapter		**AC Inlet Type**	C6
		DC Cable Connector	USB type C
		DC Cable Material	PVC
	Connector	C6	
	Environmental Design	**Operating temperature**	32°F to 95°F (0° to 35°C)
		Non-operating (storage) temperature	-4°F to 185°F (-20° to 85°C)
		Altitude	0 to 16,400 ft (0 to 5000m)
		Humidity	20% to 95%
		Storage Humidity	10% to 95%
	EMI and Safety Certifications	CE Mark - full compliance with LVD and EMC directives Worldwide safety standards - IEC60950-1 and IEC62368-1 : 2018, EN62368-1:2014+A11, UL 62368-1 Agency approvals - C-UL-US, TUV/GS, TUV/PSE, EN55032 Class B, FCC Class B, CISPR32 Class B, CCC and CECP, CU(EAC), EAEU, KCC(Safety+EMC) and K-MEPS, NOM-001 and 029 NYCE, NRcan, NRCS, ISC, SEC, PSB, Argentina S-mark, Australia RCM, BIS, BSMI, UAE, UKCA DoC	

Technical Specifications

HP 3-cell Long Life Li-Ion (56WHr) [1]	**Weight**	0.205kg +/- 10g (0.474 lb)	
	Cells/Type	3cell Lithium-Ion Polymer cell / 586075	
	Energy	**Voltage**	11.58V
		Amp-hour capacity	4.84Ah
		Watt-hour capacity[1]	56.04Wh
	Temperature	**Operating (Charging)**	32˚ to 113˚ F (0˚ to 45˚ C)
		Operating (Discharging)	14˚ to 140˚ F (-10˚ to 60˚ C)
		Optional Travel Battery Available	No

AUDIO

HD Stereo Codec	Realtek ALC3315
Audio I/O Ports	3.5mm Headset: CTIA only; Headphone-out
Internal Speaker Amplifier	Cirrus Logic High-Efficiency Boosted Class D Amplifier
Multi-streaming Capable	Playback multi-streaming can be enabled in the audio control panel to allow independent audio streams to be sent to/from the front jacks or integrated speaker., Following MSFT Behavior
Sampling	DAC: 48.0 kHZ to 48.0 kHz ADC: 48.0 kHZ to 48.0 kHz
Wavetable Syntheses	N/A
# of Channels on Line-Out	N/A
Internal Speaker	Yes

FINGERPRINT READER

Sensor vendor	SYNAPTICS
Sensor type	Capacitive
DPI resolution	363 DPI
Scan area	104 x 86 pixels
False Rejection Rate	< 3%
False Acceptance Rate	< 0.001%
Mobile Voltage Operation	3V ~ 3.6 V
Operating Temperature	0°C ~ 60°C (32°F ~ 140°F)
Current Consumption Image	100 mA max
Low Latency Wait For Finger	260 uA
Capture Rate	50 frames/sec
ESD Resistance	IEC 61000-4-2 4B (+15KV)
Detection Matrix	363 dpi / 7.4 x 6.0 mm sensor area

Technical Specifications

Sensor vendor	ELAN
Sensor type	Capacitive
DPI resolution	508 DPI
Scan area	80 x 80 pixels
False Rejection Rate	< 3%
False Acceptance Rate	< 0.001%
Mobile Voltage Operation	2.7 V ~ 3.6 V
Operating Temperature	-20°C ~ 80°C (-4°F ~ 176°F)
Current Consumption Image	35 mA max
Low Latency Wait For Finger	300 uA
Capture Rate	50 frames/sec
ESD Resistance	IEC 61000-4-2 4B (+15KV)
Detection Matrix	508 dpi / 4.0 x 4.0 mm sensor area

Technical Specifications

ENVIRONMENTAL DATA

Eco-Label Certifications & declarations	This product has received or is in the process of being certified to the following approvals and may be labeled with one or more of these marks: • IT ECO declaration • US ENERGY STAR® • US Federal Energy Management Program (FEMP) • EPEAT® Gold registered in the United States. See http://www.epeat.net for registration status in your country. • TCO Certified • China Energy Conservation Program (CECP) • China State Environmental Protection Administration (SEPA) • Taiwan Green Mark • Korea Eco-label • Japan PC Green label*		
Sustainable Impact Specifications	• Product Carbon Footprint (hp.com) • Ocean-bound plastic in Speaker • 60% post-consumer recycled plastic • 65% recycled metal • Low halogen • Outside Box and corrugated cushions are 100% sustainably sourced and recyclable • Molded Paper Pulp Cushion inside box is 100% sustainably sourced and recyclable • Bulk packaging available		
System Configuration	The configuration used for the Energy Consumption and Declared Noise Emissions data for the Notebook model is based on a “Typically Configured Notebook”.		
Energy Consumption (in accordance with US ENERGY STAR® test method)	**115VAC, 60Hz**	**230VAC, 50Hz**	**100VAC, 50Hz**
Normal Operation (Sort idle)	5.88 W	6.17 W	5.92 W
Normal Operation (Long idle)	1.66 W	1.85 W	1.76 W
Sleep	1.66 W	1.85 W	1.76 W
Off	0.46 W	0.48 W	0.41 W
	NOTE: Energy efficiency data listed is for an ENERGY STAR® compliant product if offered within the model family. HP computers marked with the ENERGY STAR® Logo are compliant with the applicable U.S. Environmental Protection Agency (EPA) ENERGY STAR® specifications for computers. If a model family does not offer ENERGY STAR® compliant configurations, then energy efficiency data listed is for a typically configured PC featuring a hard disk drive, a high efficiency power supply, and a Microsoft Windows® operating system.		
Heat Dissipation*	**115VAC, 60Hz**	**230VAC, 50Hz**	**100VAC, 50Hz**
Normal Operation (Short idle)	20.1 BTU/hr	21.1 BTU/hr	20.2 BTU/hr
Normal Operation (Long idle)	5.7 BTU/hr	6.3 BTU/hr	6.0 BTU/hr
Sleep	5.7 BTU/hr	6.3 BTU/hr	6.0 BTU/hr
Off	1.6 BTU/hr	1.6 BTU/hr	1.4 BTU/hr
	* **NOTE:** Heat dissipation is calculated based on the measured watts, assuming the service level is attained for one hour.		

Technical Specifications

Declared Noise Emissions (in accordance with ISO 7779 and ISO 9296)	Sound Power (L_{WAd}, bels)	Sound Pressure (L_{pAm}, decibels)	
Typically Configured – Idle	3.1	20.6	
Operating (SSD)	3.3	22.8	
Operating	4.0	31.5	
Longevity and Upgrading	This product can be upgraded, possibly extending its useful life by several years. Upgradeable features and/or components contained in the		
	Spare parts are available throughout the warranty period and or for up to “5” years after the end of production.		
Additional Information	• This product is in compliance with the Restrictions of Hazardous Substances (RoHS) directive - 2011/65/EC. • This HP product is designed to comply with the Waste Electrical and Electronic Equipment (WEEE) Directive – 2002/96/EC. • This product is in compliance with California Proposition 65 (State of California; Safe Drinking Water and Toxic Enforcement Act of 1986). • This product is in compliance with the IEEE 1680 (EPEAT) standard at the Gold level, see www.epeat.net • Plastics parts weighing over 25 grams used in the product are marked per ISO11469 and ISO1043. • This product is 94% recycle-able when properly disposed of at end of life.		
Packaging Materials	**External:**	PAPER/Corrugated	220 g
		PAPER/Corrugated	49 g
		PAPER/Molded Pulp	52 g
		PAPER/Molded Pulp	56 g
		PAPER/Paper	3 g
	Internal:	PLASTIC/Polyethylene low density - LDPE	13 g
	The plastic packaging material contains at least 0.0% recycled content.		
	The corrugated paper packaging materials contains at least 59.1% recycled content.		
RoHS Compliance	HP Inc. complies fully with materials regulations. We were among the first companies to extend the restrictions in the European Union (EU) Restriction of Hazardous Substances (RoHS) Directive to our products worldwide through the HP GSE. HP has contributed to the development of related legislation in Europe, as well as China, India, and Vietnam. We believe the RoHS directive and similar laws play an important role in promoting industry-wide elimination of substances of concern. We have supported the inclusion of additional substances—including PVC, BFRs, and certain phthalates—in future RoHS legislation that pertains to electrical and electronics products. We met our voluntary objective to achieve worldwide compliance with the new EU RoHS requirements for virtually all relevant products by July 2013, and we will continue to extend the scope of the commitment to include further restricted substances as regulations continue to evolve. To obtain a copy of the HP RoHS Compliance Statement, see HP RoHS position statement.		

Technical Specifications

Material Usage	This product does not contain any of the following substances in excess of regulatory limits (refer to the HP General Specification for the Environment at http://www.hp.com/hpinfo/globalcitizenship/environment/supplychain/gen_specifications.html): • Asbestos • Certain Azo Colorants • Certain Brominated Flame Retardants – may not be used as flame retardants in plastics • Cadmium • Chlorinated Hydrocarbons • Chlorinated Paraffins • Bis(2-Ethylhexyl) phthalate (DEHP) • Benzyl butyl phthalate (BBP) • Dibutyl phthalate (DBP) • Diisobutyl phthalate (DIBP) • Formaldehyde • Halogenated Diphenyl Methanes • Lead carbonates and sulfates • Lead and Lead compounds • Mercuric Oxide Batteries • Nickel – finishes must not be used on the external surface designed to be frequently handled or carried by the user. • Ozone Depleting Substances • Polybrominated Biphenyls (PBBs) • Polybrominated Biphenyl Ethers (PBBEs) • Polybrominated Biphenyl Oxides (PBBOs) • Polychlorinated Biphenyl (PCB) • Polychlorinated Terphenyls (PCT) • Polyvinyl Chloride (PVC) – except for wires and cables, and certain retail packaging has been voluntarily removed from most applications. • Radioactive Substances • Tributyl Tin (TBT), Triphenyl Tin (TPT), Tributyl Tin Oxide (TBTO)
Packaging Usage	HP follows these guidelines to decrease the environmental impact of product packaging: • Eliminate the use of heavy metals such as lead, chromium, mercury and cadmium in packaging materials. • Eliminate the use of ozone-depleting substances (ODS) in packaging materials. • Design packaging materials for ease of disassembly. • Maximize the use of post-consumer recycled content materials in packaging materials. • Use readily recyclable packaging materials such as paper and corrugated materials. • Reduce size and weight of packages to improve transportation fuel efficiency. • Plastic packaging materials are marked according to ISO 11469 and DIN 6120 standards.
End-of-life Management and Recycling	HP offers end-of-life HP product return and recycling programs in many geographic areas. To recycle your product, please go to: http://www.hp.com/go/reuse-recycle or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner.

Technical Specifications

	The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: http://www.hp.com/go/recyclers. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.
HP, Inc. Corporate Environmental Information	For more information about HP's commitment to the environment: Global Citizenship Report http://www.hp.com/hpinfo/globalcitizenship/gcreport/index.html Eco-label certifications http://www8.hp.com/us/en/hp-information/environment/ecolabels.html ISO 14001 certificates: http://h20195.www2.hp.com/V2/GetDocument.aspx?docname=c04755842 and http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/cert.pdf
footnotes	• Percentage of ocean-bound plastic contained in each component varies by product • Recycled plastic content percentage is based on the definition set in the IEEE 1680.1-2018 standard. • External power supplies, WWAN modules, power cords, cables and peripherals excluded. • 100% outer box packaging and corrugated cushions made from sustainably sourced certified and recycled fibers. • Fiber cushions made from 100% recycled wood fiber and organic materials. • Plastic cushions are made from >90% recycled plastic.

Options and Accessories (Sold separately and availability may vary by country)

DOCKING (Sold Separately)

Docking station model #1	HP Thunderbolt 4 100W G6 Dock
Total number of supported displays (incl. the notebook display)	4
Max. resolutions supported	(4) 4K @60Hz* (2) 4K @ 120Hz* (3) QHD @ 120Hz* (1) QHD @ 360Hz*
Dock Connectors	1x HDMI 2.1, 2x DisplayPort 1.4, 1x Thunderbolt 4
HP Quick Connect Support	Yes
Technical limitations	**HP Quick Connect is supported on this platform.** *Requires DisplayPort 1.4 support with Display Stream Compression (DSC). Bluetooth required for HP Quick Connect. HP Quick Connect available on select HP notebooks. Maximum resolution and display support is dependent on the maximum capability of the notebook. **Maximum of (4) displays with maximum resolution of 5K@ 30Hz running** Thunderbolt Hosts: Maximum resolution possible is dual 8K displays @ 60Hz running Thunderbolt host or running a non-Thunderbolt host in high resolution mode @30Hz Non-Thunderbolt hosts: **The highest resolution for dual displays running a non-Thunderbolt host in multi-function mode is** (1) 5K dual cable (using both DP ports) +(1) 4K on USB-C DP port Non-Thunderbolt hosts support (3) displays with a maximum resolution of (2) 5K single cable + (1) 4K UHD @ 60 Hz in high resolution mode. In multi-function mode the maximum resolution for (3) displays is (2) 5K single cable @ 30Hz + (1) 4K UHD @ 30Hz.
Docking station model #2	HP USB-C Dock G5
Total number of supported displays (incl. the notebook display)	3
Max. resolutions supported	Multi-Function Mode: (2) 5k @ 30Hz and (1) 4k UHD @ 30Hz on any port High-Resolution Mode: (2) 5k @ 60Hz on DisplayPort ports and (1) 4k UHD @ 60Hz on HDMI port
Dock Connectors	1x HDMI 2.0, 2x DisplayPort 1.4
Technical limitations	**Maximum resolution and display support is dependent on the maximum capability of the notebook.** **Highest resolution with dual displays is two 8K@ 60Hz host in High Resolution mode**. Three maximum displays supported are two 5K@ 30 Hz on DP ports plus one 4K UHD@ 30 Hz on HDMI in Multi-function mode The highest resolution for a non-Thunderbolt host in Multi-function mode is a single 5K dual cable (using both DP ports) + (1) 4K on HDMI port.
Docking station model #3	HP Thunderbolt 120W G4 Dock

Options and Accessories (Sold separately and availability may vary by country)

Total number of supported displays (incl. the notebook display)	4
Max. resolutions supported	Quad 4K @60Hz Dual 8K single cable@30 for Thunderbolt hosts or USB-C hosts DisplayPort 1.4 with Display Stream Compression in High-Resolution Mode
Dock Connectors	2x HDMI 2.0, 2x DisplayPort 1.4, 1x Thunderbolt 4, 1x USB-C 3.2 Gen 2 DisplayPort
Technical limitations	Maximum resolution and display support is dependent on the maximum capability of the notebook. Thunderbolt Hosts: Maximum of (4) displays with maximum resolution of 5K@ 30Hz running Thunderbolt host. Maximum resolution possible is dual 8K displays @ 60Hz running Thunderbolt host or running a non-Thunderbolt host in high resolution mode @30Hz Non-Thunderbolt hosts: The highest resolution for dual displays running a non-Thunderbolt host in multi-function mode is (1) 5K dual cable (using both DP ports) +(1) 4K on USB-C DP port Non-Thunderbolt hosts support (3) displays with a maximum resolution of (2) 5K single cable + (1) 4K UHD @ 60 Hz in high resolution mode. In multi-function mode the maximum resolution for (3) displays is (2) 5K single cable @ 30Hz + (1) 4K UHD @ 30Hz.
Docking station model #4	HP USB-C G5 Essential Dock
Total number of supported displays (incl. the notebook display)	3
Max. resolutions supported	Multi-Function Mode: (2) 5k @ 30Hz and (1) 4k UHD @ 30Hz on any port High-Resolution Mode: (2) 5k @ 60Hz on DisplayPort ports and (1) 4k UHD @ 60Hz on HDMI port
Dock Connectors	1x HDMI 2.0, 2x DisplayPort 1.4
Technical limitations	**Maximum resolution and display support is dependent on the maximum capability of the notebook.** **Highest resolution with dual displays is two 8K@ 60Hz host in High Resolution mode**. Three maximum displays supported are two 5K@ 30 Hz on DP ports plus one 4K UHD@ 30 Hz on HDMI in Multi-function mode The highest resolution for a non-Thunderbolt host in Multi-function mode is a single 5K dual cable (using both DP ports) + (1) 4K on HDMI port.
Docking station model #5	HP USB-C/A Universal Dock G2
Total number of supported displays (incl. the notebook display)	3
Max. resolutions supported	Multi-Function Mode: (3) 4K DCI @ 30Hz on any port High-Resolution Mode: (3) 4K DCI @ 30Hz on any port
Dock Connectors	1x HDMI 2.0, 2x DisplayPort 1.2
Technical limitations	**Maximum resolution and display support is dependent on the maximum capability of the notebook.**

Options and Accessories (Sold separately and availability may vary by country)

The best resolution for dual or triple displays is 4K UHD@ 60Hz.
For use with the USB-A adapter that comes in the box the maximum number of displays supported is (2) 4k x 60 Hz on the Type-A Gen 1 connection from the host.

Options and Accessories (Sold separately and availability may vary by country)

Type	Description	Part Number
Adapter	HP USB-C to HDMI 2.0 Adapter	1WC36AA
	HP USB-C to RJ45 Adapter G2	4Z527AA
	HP USB 3.0 to Gigabit RJ45 Adapter G2	4Z7Z7AA
	HP USB-C to DisplayPort Adapter G2	8Y8Y1AA
	HP HDMI to VGA Adapter	H4F02AA
	HP USB-C to USB 3.0 Adapter	N2Z63AA
	HP USB-C to VGA Adapter	N9K76AA
	HP USB-C to DisplayPort Adapter	N9K78AA
Audio	HP BluetoothTM 365 Speaker	567D3AA
	HP USB G2 Stereo Headset	428K6AA
	HP 3.5mm G2 Stereo Headset	428K7AA
Cases	HP Prelude 15.6 Backpack	1E7D6AA
	HP Prelude 15.6 Top Load	1E7D7AA
	HP Prelude Pro Recycled 15.6 Backpack	1X644AA
	HP Prelude Pro Recycled 15.6 Top Load	1X645AA
	HP Renew Business 17.3 Laptop Backpack	3E2U5AA
	HP Renew Business 17.3 Laptop Bag	3E2U6AA
	HP Renew Business 14.1 Laptop Sleeve	3E2U7AA
	HP Renew Business 15.6 Laptop Bag	3E5F8AA
	HP Renew Business 14.1 Laptop Bag	3E5F9AA
	HP Prelude 15.6 Top Load	50P31AA
	HP Prelude 15.6 Backpack	50P32AA
	HP Renew Executive 16 Laptop Backpack	6B8Y1AA
	HP Renew Executive 16 Laptop Bag	6B8Y2AA
	HP Renew Executive 14.1 Laptop Sleeve	6B8Y3AA
	HP Travel 15.6 iron gray Laptop Backpack	6H2D8AA
	HP Travel 15.6 iron gray Laptop Backpack	6H2D9AA
Commodity	HP USB DVD-Writer External ODD	F2B56AA
	HP Nano Keyed Cable Lock	1AJ39AA
	HP Nano Master Keyed Cable Lock	1AJ40AA
	HP Combination Nano Cable Lock	63B28AA
	HP Essential Combination Nano Cable Lock	63B31AA
	HP SureKey Standard/Nano/Wedge Cable Lock	6UW42AA
Docking	HP Thunderbolt 4 100W G6 Dock	9X472UT
	HP Thunderbolt 4 Ultra 180W G6 Dock	9X481UT

Options and Accessories (Sold separately and availability may vary by country)

	HP Thunderbolt 4 Ultra 280W G6 Dock	AW5M5UT
	HP USB-C™ G2 Travel Dock	7PJ38AA
Hub	HP Universal USB-C Multiport Hub	50H55AA
	HP 4K USB-C Multiport Hub	6G843AA
	HP USB-C Travel Hub G3	86S97AA
	HP Universal USB-C Hub and Laptop Charger Combo	9H0H9AA
	HP USB-C to USB-A Hub	Z6A00AA
Keyboard/Combo	HP Wireless Rechargeable 950MK Mouse and Keyboard	3M165AA
	HP 655 Wireless Keyboard and Mouse Combo	4R009AA
	HP Wired Desktop 320MK Mouse and Keyboard	9SR36AA
	HP 975 Dual-Mode USB+Bluetooth Wireless Keyboard	3Z726AA
	HP 455 Programmable Wireless Keyboard	4R177AA
	HP 965 black Ergonomic Wireless Keyboard	7E756AA
	HP 475 Dual-Mode Wireless Keyboard	7N7B9AA
	HP 405 Multi-Device Backlit Wired Keyboard	7N7C1AA
	HP 435 Programmable Wireless Keypad	7N7C3AA
	HP 320K USB Wired Keyboard	9SR37AA
Mouse	HP Multi-Device Black 635 Wireless Mouse	1D0K2AA
	HP Creator Black 935 Wireless Mouse	1D0K8AA
	HP Premium Wireless Mouse	1JR31AA
	HP 435 Multi-Device Wireless Mouse	3B4Q5AA
	HP 235 Slim Wireless Mouse	4E407AA
	HP 715 Rechargeable Multi-Device Bluetooth Mouse	6E6F0AA
	HP 925 Ergonomic Vertical Wireless Mouse	6H1A5AA
	HP Travel Bluetooth Mouse	6SP30AA
	HP 320M Wired Mouse	9VA80AA
Power	HP 65W LC USB-C AC power adapter	1P3K6AA
	HP 65W USB-C Laptop Charger	600Q8AA
	HP 65W USB-C Laptop Charger	671R3AA
	HP 110W USB-C Laptop Charger	8B3Y2AA
Video	HP USB-A 325 Webcam	53X27AA
	HP Streaming 965 Webcam	695J5AA
	HP 625 Webcam	6Y7L1AA

Change Log

Date of change:	Version History:		Description of change:
March 15, 2024	V1 to V2	Removed	Display Section
		Added	Battery Health Manager
		Removed	HP Smart Support Footnote
		Updated	HP Sure Recover Footnote
		Updated	HP Wolf Security Footnote
		Added	Battery Life
		Updated	Dimensions and Weight
April 23, 2024	V2 to V3	Updated	Battery Life
April 29, 2024	V3 to V4	Removed	Display Section
May 16, 2024	V4 to V5	Added	14.0 in WUXGA (1920 x 1200) Anti-Glare UWVA Low Blue Light sRGB 100 800 eDP 1.4+PSR+IOL Sure View 5 bent LCD Panel added.
June 6, 2024	V5 to V6	Updated	Weight and Dimensions Section
June 10, 2024	V6 to V7	Added	System unit Section
June 11, 2024	V7 to V8	Added	Display Section
June 18, 2024	V8 to V9	Added	Display Section
July 3, 2024	V9 to V10	Added	Display Section
July 9, 2024	V10 to V11	Added	Display Section
July 15, 2024	V11 to V12	Updated	Weight and Dimensions Section
September 3, 2024	V12 to V13	Removed	Display Section
September 5, 2024	V13 to V14	Updated	Display Section
September 16, 2024	V14 to V15	Added	Software and Security Section
October 9, 2024	V15 to V16	Updated	Update Port Specification to: Thunderbolt™ 4
October 23, 2024	V16 to V17	Added	Audio Section
November 12, 2024	V17 to V18	Added	USB Mapping Table
December 5, 2024	V14 to V15	Updated	UEFI version
January 31, 2025	V15 to V16	Updated	Callouts and Ports Section
February 18, 2025	V16 to V17	Updated	Power Section
May 20, 2025	V17 to V18	Updated	Docking Section
September 16, 2025	V18 to V19	Updated	Software and Security Section
December 18, 2025	V19 to V20	Updated	Graphics Section

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Intel® Core™ Ultra processors (Series 1)

Intel® Core™ Ultra 7 Processor 165U

Specifications

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Essentials

Product Collection	Intel® Core™ Ultra processors (Series 1)
Code Name	Products formerly Meteor Lake
Vertical Segment	Mobile
Processor Number	165U
Overall Peak TOPS (Int8)	22

CPU Specifications

Total Cores	12

Comentários

# of Performance-cores	2
# of Efficient-cores	8
# of Low Power Efficient-cores	2
Total Threads	14
Max Turbo Frequency	4.9 GHz
Performance-core Max Turbo Frequency	4.9 GHz
Efficient-core Max Turbo Frequency	3.8 GHz
Low Power Efficient-core Max Turbo Frequency	2.1 GHz
Performance-core Base Frequency	1.7 GHz
Efficient-core Base Frequency	1.2 GHz
Low Power Efficient-core Base Frequency	700 MHz
Cache	12 MB Intel® Smart Cache
Processor Base Power	15 W
o Power	57 W

Comentários

Minimum Assured Power	12 W
Intel® Deep Learning Boost (Intel® DL Boost) on CPU	Yes
AI Software Frameworks Supported by CPU	OpenVINO™, WindowsML, ONNX RT
CPU Lithography	Intel 4

Supplemental Information

Marketing Status	Launched
Launch Date	Q4'23
Embedded Options Available	Yes
Use Conditions	PC/Client/Tablet
Product Tuning (Embedded Uses)	Yes
Datasheet	View now

Memory Specifications

Comentários

Max Memory Size (dependent on memory type)	96 GB
Memory Types	Up to LPDDR5/X 7467 MT/s Up to DDR5 5600 MT/s
Max # of Memory Channels	2
ECC Memory Supported ‡	No

GPU Specifications

GPU Name‡	Intel® Graphics
Graphics Max Dynamic Frequency	2 GHz
GPU Peak TOPS (Int8)	8
Graphics Output	eDP1.4b, DP 2.1 UHBR20, HDMI 2.1 FRL
X^e-cores	4
Max Resolution (HDMI)‡	4096 x 2304 @ 60Hz (HDMI 2.1 TMDS) 7680 x 4320 @ 60Hz (HDMI 2.1 FRL)
Max Resolution (DP)‡	7680 x 4320 @ 60Hz

Comentários

Max Resolution (eDP - Integrated Flat Panel)‡	3840 x 2400 @ 120Hz
DirectX* Support	12.2
OpenGL* Support	4.6
OpenCL* Support	3.0
H.264 Hardware Encode/Decode	Yes
H.265 (HEVC) Hardware Encode/Decode	Yes
AV1 Encode/Decode	Yes
Intel® Quick Sync Video	Yes
# of Displays Supported ‘	4
Device ID	0x7D45
Intel® Deep Learning Boost (Intel® DL Boost) on GPU	Yes
AI Software Frameworks Supported by GPU	OpenVINO™, WindowsML, DirectML, ONNX RT, WebGPU

IPU Specifications

Comentários

Intel® Image Processing Unit Version	6.0

NPU Specifications

NPU Name	Intel® AI Boost
NPU Peak TOPS (Int8)	11
Sparsity Support	Yes
Windows Studio Effects Support	Yes
AI Software Frameworks Supported by NPU	OpenVINO™, WindowsML, DirectML, ONNX RT

Expansion Options

Intel® Thunderbolt™ 4	Yes
PCI Express Revision	4.0
PCI Express Configurations	3x4 + 2x4 (x1,x2,x4)
Max # of PCI Express Lanes	20

Comentários

Package Specifications

Sockets Supported	FCBGA2049
Max Operating Temperature	110 °C
Package Size	50 mm x 25 mm

Advanced Technologies

Intel® Gaussian & Neural Accelerator	3.5
Intel® Thread Director	Yes
Intel® Smart Sound Technology	Yes
Intel® Wake on Voice	Yes
Intel® High Definition Audio	Yes
Intel® Adaptix™ Technology	Yes
Intel® Speed Shift Technology	Yes

Comentários

Intel® Turbo Boost Max Technology 3.0 ‡	No
Intel® Turbo Boost Technology ‡	2.0
Intel® Hyper-Threading Technology ‡	Yes
Intel® 64 ‡	Yes
Instruction Set	64-bit
Instruction Set Extensions	Intel® SSE4.1, Intel® SSE4.2, Intel® AVX2
Enhanced Intel SpeedStep® Technology	Yes
Thermal Monitoring Technologies	Yes
Intel® Volume Management Device (VMD)	Yes

Security & Reliability

Intel vPro® Eligibility ‡	Intel vPro® Enterprise
Intel® Threat Detection Technology (TDT)	Yes
Intel® Active Management Technology (AMT) ‡	Yes

Comentários

Intel® Standard Manageability (ISM) ‡	Yes
Intel® Remote Platform Erase (RPE) ‡	Yes
Intel® One-Click Recovery ‡	Yes
Intel® Hardware Shield Eligibility ‡	Yes
Intel® Secure Key	Yes
Intel® Control-Flow Enforcement Technology	Yes
Intel® Total Memory Encryption - Multi Key	Yes
Intel® AES New Instructions	Yes
Intel® Trusted Execution Technology ‡	Yes
Execute Disable Bit ‡	Yes
Intel® OS Guard	Yes
Intel® Boot Guard	Yes
Mode-based Execute Control (MBEC)	Yes
Intel® Stable IT Platform Program (SIPP)	Yes

Comentários

Intel® Virtualization Technology with Redirect Protection (VT-rp) ‡	Yes
Intel® Virtualization Technology (VT-x) ‡	Yes
Intel® Virtualization Technology for Directed I/O (VT-d) ‡	Yes
Intel® VT-x with Extended Page Tables (EPT) ‡	Yes

Product and performance information

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Refer to Datasheet for formal definitions of product properties and features.

‡ This feature may not be available on all computing systems. Please check with the system vendor to determine if your system delivers this feature, or reference the system specifications (motherboard, processor, chipset, power supply, HDD, graphics controller, memory, BIOS, drivers, virtual machine monitor-VMM, platform software, and/or operating system) for feature compatibility. Functionality, performance, and other benefits of this feature may vary depending on system configuration.

Intel processor numbers are not a measure of performance. Processor numbers differentiate features within each processor family, not across different processor families. See http://www.intel.com/content/www/us/en/processors/processor-numbers.html for details.

“Announced” SKUs are not yet available. Please refer to the Launch Date for market availability.

Intel® Arc™ graphics only available on select V-Series Intel® Core™ Ultra processor-powered systems with thermal design or H-series Intel® Core™ Ultra processor-powered systems with at least 16GB of system memory in a dual-channel configuration. OEM enablement required. Other Intel® Core™ Ultra

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processor-powered system configurations feature Intel® Graphics. Check with OEM or retailer for system configuration details.

Intel® Iris® Xe Graphics only: to use the Intel® Iris® Xe brand, the system must be populated with 128-bit (dual channel) memory. Otherwise, use the Intel® UHD brand.

Max Turbo Frequency refers to the maximum single-core processor frequency that can be achieved with Intel® Turbo Boost Technology. See https://www.intel.com/content/www/us/en/gaming/resources/turbo-boost.html for more information and applicability of this technology.

See http://www.intel.com/content/www/us/en/architecture-and-technology/hyper-threading/hyper-threading-technology.html?wapkw=hyper+threading for more information including details on which processors support Intel® HT Technology.

Processors that support 64-bit computing on Intel® architecture require an Intel 64 architecture-enabled BIOS.

Some products can support AES New Instructions with a Processor Configuration update, in particular, i7-2630QM/i7-2635QM, i7-2670QM/i7-2675QM, i5-2430M/i5-2435M, i5-2410M/i5-2415M. Please contact OEM for the BIOS that includes the latest Processor configuration update.

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CPU Benchmarks

Over 1,000,000 CPUs Benchmarked

Intel Core Ultra 7 165U

Benchmarks for the Intel Core Ultra 7 165U can be found below. Release dates, price and performance comparisons are also listed when available. This is made using thousands of PerformanceTest benchmark results and is updated daily.

- The first graph shows the relative performance of the CPU compared to the 10 other common (single) CPUs in terms of PassMark CPU Mark.
- The 2nd graph shows the value for money, in terms of the CPUMark per dollar.
- The pricing history data shows the price for a single Processor. For multiple Processors, multiply the price shown by the number of CPUs.

Is the Intel Core Ultra 7 165U Good for Gaming?

This is relatively new CPU that contains 12 Cores and 14 Threads. The Intel Core Ultra 7 165U also has reasonable threaded performance that will serve well in games. Paired with a good videocard, *is this CPU Good for Gaming?* Yes, this would be a suitable CPU for gaming. [More ...]

Intel Core Ultra 7 165U

Description: Intel Graphics

Class:
Laptop

Socket:
FCBGA2049

Total Cores: 12 Cores, 14 Threads

Performance Cores: 2 Cores, 4 Threads, 1.7 GHz Base, 4.9 GHz Turbo

Efficient Cores: 10 Cores, 10 Threads, 1.2 GHz Base, 3.8 GHz Turbo

Typical TDP:
15 W

TDP Down:
12 W

TDP Up
: 57 W

Cache per CPU Package:

Cache per Eff. CPU Package:

Average CPU Mark

Multithread Rating

16617

Single Thread Rating

3261

Samples: 1540*

*Margin for error: Low

+ COMPARE

L1 Instruction Cache: 2 x 64 KB

Eff. L1 Instruction Cache: 10 x 64 KB

CPU Benchmarks

L3 Cache: 12 MB

Memory Support: Max. Memory Size: 96 GB (Up to LPDDR5/x 7467 MT/s Up to DDR5 5600 MT/s)

Other names: Intel(R) CoreTM Ultra 7 165U, Intel(R) Core(TM) Ultra 7 165U, Intel Core Ultra 7 165U, Intel CoreTM Ultra 7 165U

CPU First Seen on Charts: Q1 2024

CPUmark/$Price: NA

Overall Rank:
1257th fastest in multithreading out of 6034 CPUs
733rd fastest in single threading out of 6034 CPUs
282nd fastest in out of 1652 Laptop CPUs

Last Price Change: NA

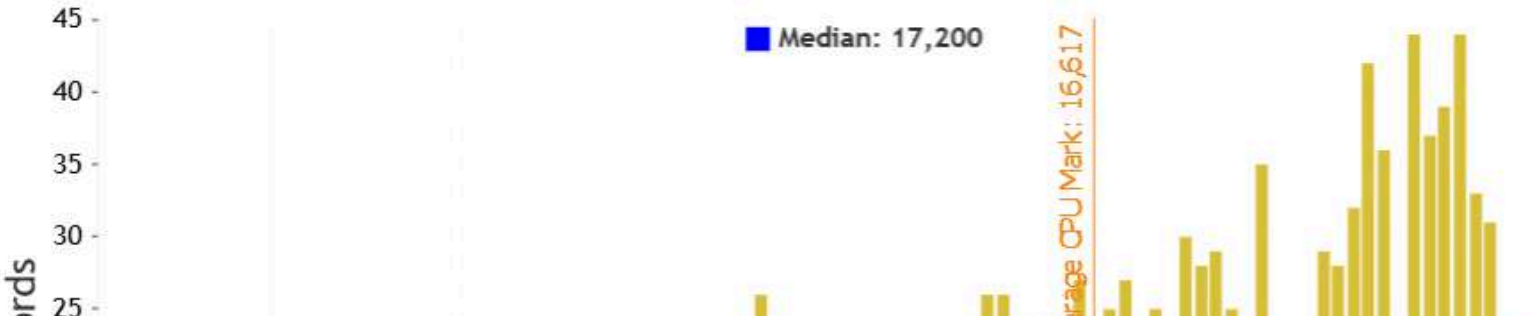
CPU Test Suite Average Results for Intel Core Ultra 7 165U

Integer Math	56,440 MOps/Sec
Floating Point Math	39,671 MOps/Sec
Find Prime Numbers	66 Million Primes/Sec
Random String Sorting	20,591 Thousand Strings/Sec
Data Encryption	11,542 MBytes/Sec
Data Compression	182,103 KBytes/Sec
Physics	1,113 Frames/Sec
Extended Instructions	10,209 Million Matrices/Sec
Single Thread	3,261 MOps/Sec

From submitted results to PerformanceTest V10 as of 1st of October 2026.

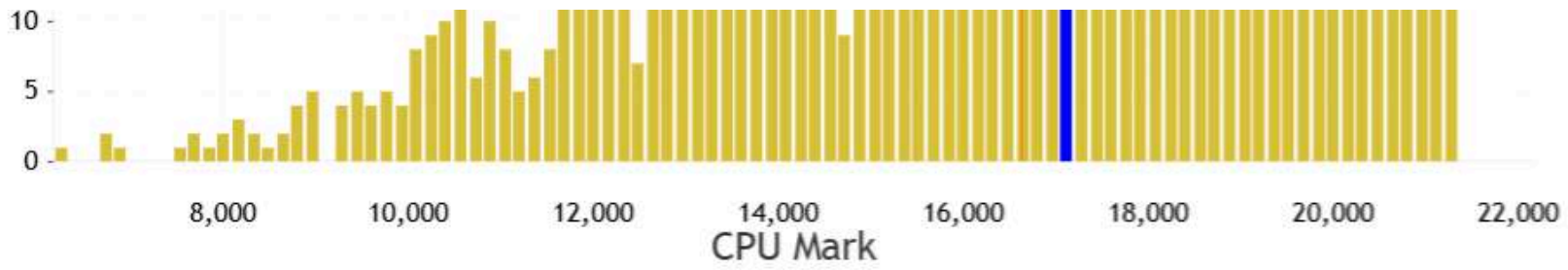
CPU Mark Distribution for Intel Core Ultra 7 165U

Submitted Baseline Distribution Graph as of 29th of September 2026





CPU Benchmarks



From submitted results since PerformanceTest V10 as of 29th of September 2026.
For distribution graph only: Results are trimmed to exclude outliers by disregarding the bottom 1% and top 1% of submissions.

Search for Intel Core Ultra 7 165U

from the Featured Merchants below:

amazon

newegg

Note: PassMark Software may earn compensation for sales from links on this site through affiliate programs.

Machines with this CPU (or similar)

	HP Elitebook 640 G11 14" FHD+ Intel Core Ultra 7 165U Business AI Laptop	$1299.00 (www.amazon.com)
	Dell Pro Rugged 14 14" FHD Laptop - Intel Core Ultra 7 165U 12-Core up to 4.9 GHz with AI Boost, 16GB DDR5 RAM, 512GB NVMe SSD, Intel Graphics, HD Webcam, Backlit Keyboard, Windows 11 Pro	$2692.00 (www.amazon.com)
	Dell Latitude 7450 14" Ultralight Laptop (Latest Model) Intel Core Ultra 7 165U (12 Core) 512GB SSD 16GB RAM QHD+ Touch (2560x1600) WiFi 7 Win 11 PRO	$1399.00 (www.amazon.com)
	Dell Latitude 5350 Touch Intel Ultra 7-165U, 32GB LPDDR5 RAM, 512GB	$1279.95 (www.amazon.com)

Note: PassMark Software may earn compensation for sales from links on this site through affiliate programs.

CPU Mark Relative to Top 10 Common Laptop CPUs

As of 1st of October 2026 - Higher results represent better performance

Processor	Average CPU Mark	
Intel Core i7-12700H		24,936
Apple M4 10 Core		23,572
AMD Ryzen 7 5800H		20,454
Intel Core i7-11800H @ 2.30GHz		19,566
AMD Ryzen 7 4800H		17,804

Intel Core Ultra 7 165U		16,617

CPU Benchmarks

Apple M2 8 Core 3500 MHz		15,650
Apple M1 8 Core 3200 MHz		14,121
Intel Core i7-9750H @ 2.60GHz		10,542
Intel Core i5-1135G7 @ 2.40GHz		9,290

CPU Value (CPU Mark / $Price)

As of 1st of October 2026 - Higher results represent better value

Processor		CPU Mark / $Price
Intel Core i7-12700H		54.56
Intel Core i7-11800H @ 2.30GHz		49.54
Intel Core i5-1135G7 @ 2.40GHz		30.07
Intel Core i7-9750H @ 2.60GHz		10.98
Intel Core Ultra 7 165U		NA
Apple M1 8 Core 3200 MHz		NA
Apple M2 8 Core 3500 MHz		NA
Apple M4 10 Core		NA
AMD Ryzen 7 5800H		NA
AMD Ryzen 5 5600H		NA
AMD Ryzen 7 4800H		NA

Single Thread Rating

As of 1st of October 2026 - Higher results represent better performance

Processor		Average Thread Rating
Apple M4 10 Core		4,492
Apple M2 8 Core 3500 MHz		3,882
Apple M1 8 Core 3200 MHz		3,672
Intel Core i7-12700H		3,479

Intel Core Ultra 7 165U		3,261

CPU Benchmarks

AMD Ryzen 7 5800H		2,986
AMD Ryzen 5 5600H		2,870
Intel Core i5-1135G7 @ 2.40GHz		2,593
AMD Ryzen 7 4800H		2,579
Intel Core i7-9750H @ 2.60GHz		2,382

Last 5 Baselines for Intel Core Ultra 7 165U

Most recent listed first

Baseline		CPU Mark
BL3739115 - Sep 25 2026		17174
BL3738968 - Sep 25 2026		12229
BL3737602 - Sep 24 2026		17314
BL3736726 - Sep 24 2026		11770
BL3735409 - Sep 23 2026		16220

Additional baselines can be obtained using Windows version of PerformanceTest's Manage Baselines feature.

Popular comparisons for Intel Core Ultra 7 165U

As of 1st of October 2026 - Higher results represent better performance

Processor		Average CPU Mark
Intel Core Ultra 7 165U		16,617
Apple M3 8 Core vs Intel Core Ultra 7 165U		19,058 *(+14.7%)*
Intel Core Ultra 5 125U vs Intel Core Ultra 7 165U		16,674 *(+0.3%)*
Intel Core Ultra 5 135U vs Intel Core Ultra 7 165U		16,632 *(+0.1%)*
Intel Core Ultra 7 155U vs Intel Core Ultra 7 165U		16,127 *(-2.9%)*
Intel Core 5 120U vs Intel Core Ultra 7 165U		14,862 *(-10.6%)*
Intel Core 7 150U vs Intel Core Ultra 7 165U		14,663 *(-11.8%)*
Intel Core Ultra 5 135U vs Intel Core Ultra 7 165U		16,632 *(+0.1%)*

Intel Core Ultra 7 258V vs Intel Core Ultra 7 165U		18,874 *(+13.6%)*

CPU Benchmarks

AMD Ryzen 5 7430U vs Intel Core Ultra 7 165U		15,086 *(-9.2%)*
Intel Core i7-1355U vs Intel Core Ultra 7 165U		13,840 *(-16.7%)*
Intel Core i5-1345U vs Intel Core Ultra 7 165U		13,839 *(-16.7%)*

Is the Intel Core Ultra 7 165U Good for Gaming?

As of 1st of October 2026 - Higher results represent better performance

Processor	Relative Gaming Score	
AMD Ryzen 9 9955HX3D		9,755
Intel Core Ultra 9 290HX Plus		9,270
Intel Core Ultra 9 285HX		9,066
Intel Core Ultra 9 275HX		8,940
Intel Core Ultra 7 270HX Plus		8,855
Intel Core Ultra 7 251HX		8,286
Intel Core Ultra 5 235HX		7,976
Intel Core Ultra 7 265HX		7,823
Intel Core Ultra 7 255HX		7,703
Intel Core Ultra 9 285H		7,649
Intel Core Ultra 7 265H		7,598
AMD Ryzen 9 9850HX		7,294
Intel Core Ultra 7 165U		3,901

Software

BurnInTest

PerformanceTest

OSForensics

MemTest86

Hardware

USB3.0 Loopback Plugs

USB2.0 Loopback Plugs

PCIe Test Cards

USB Power Delivery Tester

WirelessMon

Management Console

Serial and Parallel Loopback Plugs

USB Short Circuit Testers

CPU Benchmarks

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RAM Benchmarks

PC Systems Benchmarks

Software Marketshare

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Hardware certification report **Approved**

Private product ID:	**13738591602643424**
Shared product ID:	**401625216**
Submission ID:	**1152921505697259305**
Submission date:	**1/15/2024**
Completion date:	**1/15/2024**
Company:	**HP Inc.**
Product name:	**HP EliteBook 830 13 inch G11 Notebook PC_KB**
Category:	**Device**
Product type:	**Keyboard**
Qualification level:	**Certified for Microsoft Windows 11 Client family version 22H2, x64**
Marketing name:	**HP EliteBook 830 13 inch G11 Notebook PC** **HP Elite x360 830 13 inch G11 2-in-1 Notebook PC** **HP EliteBook 840 14 inch G11 Notebook PC** **HP ZBook Firefly 14 inch G11 Mobile Workstation PC** **HP EliteBook 860 16 inch G11 Notebook PC** **HP ZBook Firefly 16 inch G11 Mobile Workstation PC**

Microsoft Certified

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<https://github.com/canonical/ubuntu.com/issues/new?template=ISSUE_TEMPLATE.yaml> *Close*

laptops › EliteBook 840 14 inch G11 Notebook PC › EliteBook 840 14 inch G11 Notebook PC (Core Ultra 7 165H)

HP EliteBook 840 14 inch G11 Notebook PC (Core Ultra 7 165H)

Notebook system certified with Ubuntu

Ubuntu 22.04 LTS

Pre-installed in some regions with a custom Ubuntu image that takes advantage of the system's hardware features and may include additional software. Standard images of Ubuntu may not work well, or at all.

Kernel	6.5.0-1020-oem
BIOS	HP: W70 Ver. 01.01.16 (UEFI)

Hardware

Processor	• Intel Corp. Intel(R) Core(TM) Ultra 7 165H
Video	• Intel Corp. Meteor Lake-P [Intel Graphics] pci (8086:7dd5 103c:8c26)
Wireless	• Intel Corp. Wi-Fi 7(802.11be) AX1775*/AX1790*/BE20*/BE401/BE1750* 2x2 pci (8086:272b 8086:00f0)

All hardware details ›

2 more certified configurations in the EliteBook 840 14 inch G11 Notebook PC platform ›

Issues? Let us know

If there is an issue with the information for this system, **please let us know <https://answers.launchpad.net/ubuntu-certification/+addquestion?field.title=Feedback on the HP EliteBook 840 14 inch G11 Notebook PC (Core Ultra 7 165H) (202312-33280)>** .

ENERGY STAR CERTIFIED
Computers

HP - HP EliteBook 840 14 inch G11 Notebook PC (ENERGY STAR) : HSN-I45C-4

Specifications

ENERGY STAR Unique ID:	4480297
Brand Name:	HP
Model Name:	HP EliteBook 840 14 inch G11 Notebook PC (ENERGY STAR)
Model Number:	HSN-I45C-4
Type:	Notebook
Operating System Name:	Windows 11
Physical CPU Cores (count):	16
Processor Brand:	Intel
Processor Name:	Core Ultra 7
System Memory (GB):	64.0
Default Low-power Mode:	Connected Sleep
TEC of Model (kWh):	16.7
Base TEC Allowance (kWh):	8
Functional Adder Allowances (kWh):	14.8
Long Idle (watts):	0.7
Long Idle Power Used for Sleep Mode:	No
Off Mode (watts):	0.3
Short Idle (watts):	7.0
Sleep Mode (watts):	0.7
Ethernet Capability:	No
Touch Screen:	No
Date Available On Market:	2022-03-24
Date Certified:	2025-07-25
Markets:	United States, Switzerland, Taiwan, Japan, Canada
ENERGY STAR Certified:	Yes

Additional Model Information

HP EliteBook 1040 14 inch G10 Notebook PC (ENERGY STAR); HP EliteBook 1040 14 inch G9 Notebook PC (ENERGY STAR); HP EliteBook 1040 G9X (ENERGY STAR); HP EliteBook 840 14 inch G10 Notebook PC (ENERGY STAR); HP EliteBook 840 14 inch G9 Notebook PC (ENERGY STAR); HP EliteBook 840 G9X (ENERGY STAR); HP ZBook Fire-fly 14 inch G10 Mobile Workstation PC (ENERGY STAR); HP ZBook Firefly 14 inch G11 Mobile Workstation PC (ENERGY STAR); HP ZBook Firefly 14 inch G9 Mobile Workstation PC (ENERGY STAR); HP ZBook Firefly 14 inch G9X (ENERGY STAR)

UPC Codes	196786520495, 196786520501, 196786520518, 196786520525, 196786520532, 196786520549, 196786520556, 196786520563, 196786520570, 196786520587, 196786520594, 196786520600, 197029111296, 197029111302, 197029111319, 197029111326, 197029111340, 197029111388, 197029111395, 197029111401, 197029111418, 197029111432, 197029111456, 197029111500, 197029111524, 197029111531, 197029111548, 197029111562, 197029111593, 197029111616, 197192175842, 197192175859, 197192175866, 197192175873, 197192175880, 197192175897, 197192175903, 197192175910, 197192175927, 197192175934, 197192175941, 197192175958, 197192175965, 197192340547, 197192340561, 197192340578, 197192340608, 197192340615, 197497772197, 197497772203, 197497772210, 197497772227, 197497772241, 197497772272, 197497772296, 197497772326, 197497772357, 197497772364, 197497916454, 197497916478, 197497916508, 197497916522, 197497916546, 197497916560, 197497916584, 197497916607, 197497916638, 197497916652, 197497916676, 197497916690, 197498700342, 197498700359, 197498700366, 197961505320, 197961505337, 197961505344, 197961505351

Captured On:
10/01/2026

HP EliteBook 840 14 inch G11 Notebook PC ENERGY STAR

Product Summary:

Product Type:	**Notebook**
Registered In:	**Brazil**
Manufacturer:	**HP**
EPEAT Version:	**1.0**
EPEAT Tier:	**Gold**
Registration Date:	**2024-03-02**
Product Status:	**Active**
EPEAT Climate+:	**Achieved March 03, 2024.**
Exceptions:	**Configurations that are not ENERGY STAR qualified do not meet required criterion 4.5.1.1.**
Universal Product Code(s):	**197497916454, 197497916478, 197497916508, 197497916522, 197497916546**

All unique product identifiers existing for this product may not be listed here. If the unique product identifier you are looking for is not listed, please contact EPEAT at EPEAT@GEC.org.

EPEAT Tier Score Detail

For a product to be listed on the EPEAT Registry, it must, at a minimum, meet the applicable "required" criteria. Click here to see a list of the required criteria for this product category.

This product has met the necessary required criteria.

Along with required criteria, products can also meet optional criteria and score optional points. It is not required for a product to achieve any optional points.

Products that meet all required criteria and achieve **less than 50%** of the optional points are rated at **EPEAT Bronze**	Products that meet all required criteria and achieve **50 - 74%** of the optional points are rated at **EPEAT Silver**	Products that meet all required criteria and achieve **75 - 100%** of the optional points are rated at **EPEAT Gold**

The optional criteria for this product category and optional points achieved by this product are listed below.

Optional Criteria	Scores
4.1 Substance Management	**13 / 16**
(4.1.2.1) Restrictions of the use of cadmium	1
(4.1.4.1) Restriction of the use of beryllium	1
(4.1.5.2) Further reduction of bromine and chlorine content of plastic materials	0
(4.1.6.1) Avoidance or elimination of substances on EU REACH Annex XIV (authorization list)	1
(4.1.6.2) Reduction of substances on the EU REACH Candidate List of SVHCs	0
(4.1.8.1) Chemical assessment and selection	2
(4.1.9.1) IEC 62474 declarable substances	1

(4.1.9.2) Requesting substance inventory	1
(4.1.9.3) Acquiring substance inventory	2
(4.1.10.1) Reduce fluorinated gas emissions from flat panel display manufacturing	2
(4.1.10.2) Reduce fluorinated greenhouse emissions from semiconductor production	2

4.2 Materials Selection 2 / 3

(4.2.1.2) Higher post-consumer recycled, ITE-derived post-consumer recycled plastic, or bio-based content	2
(4.2.1.3) Post-consumer recycled, ITE-derived post-consumer recycled plastic	0

4.4 Product longevity/life-cycle extension 3 / 4

(4.4.1.2) Long life rechargeable battery	1
(4.4.2.2) Publicly available service information	0
(4.4.2.5) Product upgradeability and repairability	1
(4.4.2.6) Removal of lithium ion batteries	1

4.5 Energy Conservation 2 / 3

(4.5.1.4) Energy efficiency for external power supplies exceeding International External Power Supply Efficiency Level VI	0
(4.5.1.5) Product energy consumption less than the ENERGY STAR Maximum Energy Limit	2

4.7 Packaging 2 / 2

(4.7.3.2) Packaging composed of recycled, and/or biobased, and/or sustainably forested content	1

(4.7.4.1) Offering of a bulk packaging option	1

4.8 Life cycle assessment and carbon footprint — 6 / 6

(4.8.1.1) Product life cycle assessment and public disclosure of analyses	2
(4.8.1.2) Product specific greenhouse gas emissions—product carbon footprint	2
(4.8.2.1) Corporate carbon footprint	1
(4.8.2.2) Greenhouse gas emissions from product transport	1

4.9 Corporate Environmental Performance — 9 / 9

(4.9.1.2) Third party certified environmental management system (EMS) for supplier manufacturing facilities	1
(4.9.2.2) Corporate environmental performance reporting by suppliers	1
(4.9.3.1) Energy management system/energy performance improvement –manufacturers	1
(4.9.3.2) Energy management system/energy performance improvement for suppliers	2
(4.9.4.1) Renewable energy use by manufacturer	2
(4.9.4.2) Renewable energy use by manufacturer suppliers	2

4.10 Corporate social responsibility — 4 / 6

(4.10.1.1) Socially responsible manufacturing: Labor	1
(4.10.1.2) Socially responsible manufacturing: OHS	1

(4.10.2.2) Participation in an in-region program that advances responsible sourcing of conflict minerals	1
(4.10.2.3) Smelter and refiner participation in OECD-aligned third party mechanisms	1

TOTAL OPTIONAL CRITERIA SCORE:	**41 / 49**

Please note that it is not required for a product to achieve any optional points.

Some optional criteria may not be applicable to a product. Optional criteria that are not applicable (N/A) to the product are not included in the Total Optional Criteria Score, and are not reflected above.

For any questions, comments, or feedback regarding the EPEAT Registry, please contact us.

Computers & Displays Product Category Required Criteria

(4.1.1)	Product carbon footprint disclosure and assurance
(4.1.1.1)	Conformance with European Union ROHS Directive substance restrictions
(4.1.2)	Corporate GHG Inventory
(4.1.3.1)	Elimination of intentionally added mercury in light sources
(4.1.5.1)	Reduction of bromine and chlorine content in plastic parts >25 grams
(4.1.7.1)	Compliance with provisions of EU Battery Directive

(4.2.1)	Manufacturer GHG reduction target aligned with climate science
(4.2.1.1)	Minimum post-consumer recycled plastic, ITE-derived post-consumer recycled plastic or bio-based plastic content
(4.3.1)	Communication of energy management requirements for key component facilities
(4.3.1.1)	Identification of materials and components requiring selective treatment
(4.3.2.1)	Plastic parts compatible with recycling
(4.3.2.2)	Plastic parts separable for recycling
(4.4.1)	Manufacturer use of renewable electricity
(4.4.1.1)	Service support
(4.4.2.1)	Removal of external enclosure
(4.4.2.3)	Spare parts
(4.4.2.4)	Battery replacement and information
(4.5.1.1)	Conformance to current ENERGY STAR program requirements
(4.5.1.2)	Lowest Power Mode limit
(4.6.1)	Conformance with applicable ENERGY STAR® product eligibility criteria
(4.6.1.1)	Provision of product take-back services
(4.6.2)	External power supply energy efficiency
(4.6.2.1)	Provision of a removable rechargeable battery take-back program
(4.6.3)	Battery charger system energy efficiency
(4.6.3.1)	End-of-life processing
(4.7.1.1)	Elimination of intentionally added heavy metals in packaging

(4.7.1.2) Elimination of elemental chlorine as a bleaching agent in packaging material

(4.7.2.1) Separable packaging material

(4.7.2.2) Plastics marked in packaging materials

(4.7.3.1) Recycled content in wood-based fiber packaging

(4.9.1.1) Third party certified environmental management system (EMS) for design and manufacturing organizations

(4.9.2.1) Corporate environmental performance reporting by manufacturer

(4.10.2.1) Public Disclosure regarding conflict minerals in products

Annex B2 - Product environmental attributes
Computers and computer monitors

The declaration may be published only when all rows and/or fields marked with * are filled-in (n.a. for not applicable). Additional information regarding each item may be found under P15.

Brand *	***HP***	Logo
Company name *	***HP***	
Contact information * e-mail address	***HP Sustainability and Compliance Center*** ***sustainability@hp.com***	
Internet site *	***http://www.hp.com/hpinfo/globalcitizenship/environment/***	
Additional information		

The company declares (based on product specification or test results based obtained from sample testing), that the product conforms to the statements given in this declaration.	
Type of product *	***Notebook PC***
Commercial name *	***HP EliteBook 840 14-inch G11 Notebook PC ENERGY STAR / HP ZBook Firefly 14 inch G11 Mobile Workstation PC ENERGY STAR***
Model number *	***840 G11 / Firefly 14 G11***
Issue date *	***03/08/2024***
Intended market *	☒ **Global** ☒ **Europe** ☐ **Asia, Pacific & Japan** ☐ **Americas** ☐ **Other**
Additional information	

This is an uncontrolled copy when in printed form. Please refer to the contact information for the latest version.

About Annex B2
Annex B2 reflects Product environmental attributes relevant for Computers and Computer Monitors. The following items from the ECMA-370 Main body are not shown in the template:
P4.1 – P4.3 Consumable materials
P9.1 TEC and Print speed
P10.2 - P10.3 Chemical emissions from printing products
P11.1 - P11.3 Consumable materials for printing products.

Model number *	***840 G11 / Firefly 14 G11***	**Logo**	
Issue date *	***03/08/2024***		

Product environmental attributes - Legal requirements		**Requirement met**		
Item		Yes	No	n.a.
P1	**Hazardous substances and preparations**			
P1.1*	Products do comply with current European RoHS Directive. (See legal reference and NOTE B1)	☒	☐	
P1.2*	Products do not contain Asbestos (see legal reference). Comment: Legal reference has no maximum concentration value.	☒	☐	
P1.3*	Products do not contain Ozone Depleting Substances: Chlorofluorocarbons (CFC), hydrobromofluorocarbons (HBFC), hydrochlorofluorcarbons (HCFC), Halons, carbontetrachloride, 1,1,1-trichloroethane, methyl bromide (see legal reference). Comment: Legal reference has no maximum concentration values.	☒	☐	
P1.4*	Products do not contain more than; 0,005% polychlorinated biphenyl (PCB), 0,005% polychlorinated terphenyl (PCT) in preparations (see legal reference).	☒	☐	
P1.5*	Products do not contain more than 0,1% short chain chloroparaffins (SCCP) with 10-13 carbon atoms in the chain containing at least 48% per mass of chlorine in the SCCP (see legal reference).	☒	☐	
P1.6*	Parts with direct and prolonged skin contact do not release nickel in concentrations above 0,5 μg/cm^2/week (see legal reference). Comment: Max limit in legal reference when tested according to EN1811:2011-5.	☒	☐	☐
P1.7*	REACH Article 33 information about substances in articles is available at (add URL or mail contact): REACH Article 33 Declarations (hp.com)	☒	☐	☐
P2	**Batteries**			
P2.1*	If the product contains a battery or an accumulator, the battery/accumulator is labeled with the disposal symbol. Information on proper disposal is provided in user manual. (See legal reference)	☐	☐	☒
P2.2*	Batteries or accumulators do not contain more than 0,0005% of mercury or 0,002% of cadmium. (See legal reference)	☐	☐	☒
P2.3*	Batteries and accumulators are readily removable. (See legal reference)	☐	☒	☐
P2.4*	Documentation includes the number of cycles the (secondary) battery can withstand. (See legal reference)	☒	☐	☐
P2.5*	When internal batteries of a notebook computer cannot be “accessed and replaced by a nonprofessional user”, the related text is present and legible on the external packaging (see legal reference)	☒	☐	☐
P3	**Conformity verification & Eco design (ErP)**			
P3.1*	The product is CE-marked to show conformance with applicable legal requirements (see legal reference). The Declaration of Conformity can be requested at (add link or e-mail address): http://www8.hp.com/uk/en/certifications/technical/regulations-certificates.html sustainability@hp.com	☒	☐	☐
P3.2*	The product complies with the applicable Eco design requirements for energy-related products, (see legal reference). Required information is; ☒ given in item P15 or added to this document, ☐ available at (add URL):	☒ ☒	☐ ☐	☐ ☐
P5	**Product packaging**			
P5.1*	Packaging and packaging components do not contain more than 0,01% lead, mercury, cadmium and hexavalent chromium by weight of these together.	☒	☐	
P5.2*	The packaging materials are marked with abbreviations and numbers indicating the nature of the material(s) used (see legal reference).	☒	☐	☐
P5.3*	The product packaging material is free from ozone depleting substances as specified in the Montreal Protocol (see legal reference). Comment: Legal reference has no maximum concentration values.	☒	☐	☐
P6	**Treatment information**			
P6.1*	Information for recyclers/treatment facilities is available (see legal reference).	☒	☐	☐

NOTE B1 Restriction applies to the homogeneous material, unless other specified and expressed in weight %. Stating “Yes” means that the product is compliant with the mandatory requirements.

Model number *	***840 G11 / Firefly 14 G11***	**Logo**	
Issue date *	***03/08/2024***		

Product environmental attributes - Market requirements (See General NOTE GN below) **- Environmental conscious design**		**Requirement met**		
Item	*=mandatory to fill in. Additional information regarding each item may be found under P14.	Yes	No	n.a.
P7	**Design** **Disassembly, recycling**			
P7.1*	Parts that have to be treated separately are easily separable	☒	☐	☐
P7.2*	Plastic materials in covers/housing have no surface coating.	☒	☐	☐
P7.3*	Plastic parts > 100 g consist of one material or of easily separable materials.	☐	☐	☒
P7.4*	Plastic parts > 25 g have material codes according to ISO 11469 referring ISO 1043-4.	☒	☐	☐
P7.5	Plastic parts are free from metal inlays or have inlays that can be removed with commonly available tools.	☒	☐	☐
P7.6*	Labels are easily separable. (This requirement does not apply to safety/regulatory labels).	☒	☐	☐
	Product lifetime			
P7.7*	Upgrading can be done e.g. with processor, memory, cards or drives	☒	☐	☐
P7.8*	Upgrading can be done using commonly available tools	☒	☐	☐
P7.9	Spare parts are available after end of production for: **5** years			☐
P7.10	Service is available after end of production for: **5** years			☐
	Material and substance requirements			
P7.11*	Product cover/housing material type (e.g. plastics, metal, aluminum): Material type: ***PC+ABS*** Material type: ***Magnesium*** Material type: ***Aluminium***			
P7.12	Insulation materials of external electrical cables are PVC free.	☐	☒	☐
P7.13	Insulation materials of internal electrical cables are PVC free.	☒	☐	☐
P7.14	External plastic casing/cover parts > 25 g contain no more than 0,1% weight (1000 ppm) bromine and 0,1% weight (1000 ppm) chlorine attributable to brominated flame retardants, chlorinated flame retardants, and polyvinyl chloride or 0,3% weight (3000 ppm) bromine and 0,3% weight (3000 ppm) chlorine in parts containing more than 25% post-consumer recycled content.	☒	☐	☐
P7.15	Printed circuit boards, PCBs (without components) are low halogen: all ☐ PCBs > 25 g ☒ are low halogen as defined in IEC 61249-2-21. (See [5]NOTE B2)	☒	☐	☐
P7.16	Flame retarded plastic parts > 25 g in covers / housings are marked according ISO 1043-4: Marking: ***>PC+ABS-TD15-FR(40)<***	☒	☐	☐
P7.17	Alt. 1: Chemical specifications of flame retardants in printed circuit boards > 25 g (without components): TBBPA (additive) ☐, TBBPA (reactive) ☐ (See NOTE B3), Other; chemical name: , CAS #: Alt. 2: Chemical specifications of flame retardants in printed circuit boards (without components) > 25 g according ISO 1043-4: ***FR(40)***	☐ ☒	☐ ☐	☐ ☐
P7.18	Alt. 1: Flame retarded plastic parts > 25 g contain the following flame retardant substances/preparations in concentrations above 0,1%: 1. Chemical name: , CAS #: (See NOTE B4) 2. Chemical name: , CAS #: " 3. Chemical name: , CAS #: " Alt. 2: Chemical specifications of flame retardants in plastic parts > 25 g according ISO 1043-4: ***FR(40)***	☐ ☒	☐ ☐	☐ ☐
P7.19	In plastic parts > 25 g, flame retardant substances/preparations above 0,1% are used which have been assigned the following Risk phrases; ***R53*** and Hazard statements: : ***H413 - May cause long-lasting harmful effects to aquatic life*** The source(s) for these classifications is/are found at (add URL(s)): ***http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database*** (See note B5)	☒	☐	☐

GENERAL NOTE Standard references should direct to the latest version of a standard. If an older version of a standard is used, section P15 shall be used for explanation.

NOTE B2 IEC 61249-2-21 defines maximum limits of 900 ppm for each of the substances chlorine and bromine and a maximum limit of 1500ppm of these substances combined. The standard does not address fluorine, iodine and astatine which are included in the group of halogens.

NOTE B3 and B4 A Guidance document on Chemical substances is available; see http://www.ecma-international.org/publications/standards/Ecma-370.htm.

NOTE B5 If a certain substance has been assigned a certain risk phrases / hazard statement in the referenced source, this does not necessarily mean the substance has been tested for all of the hazards referred to by a certain customer.

Model number *	*840 G11 / Firefly 14 G11*	Logo
Issue date *	*03/08/2024*	

Product environmental attributes - Market requirements (continued)		Requirement met		
Item		Yes	No	n.a.
	Material and substance requirements (continued)			
P7.20*	Postconsumer recycled plastic material content is used in the product (See NOTE B6):	☐	☐	☐
	If YES; at least one of the two alternatives below shall be answered; a) Of total plastic parts' weight > 25 g, the postconsumer recycled plastic material content (calculated as a percentage of total plastic by weight) is ***61*%**. or b) The weight of recycled material is g.			
P7.21*	Biobased plastic material content is used in the product (See NOTE B7):	☐	☒	☐
	If YES; at least one of the two alternatives below shall be answered. a) Of total plastic parts' weight > 25 g, the biobased plastic material content (calculated as a percentage of total plastic by weight) is %. or b) The weight of the biobased plastic material is g.			
P7.22*	Light sources are free from mercury, i.e. less than 0,1 mg/lamp. If mercury is used specify: Number of lamps: and maximum mercury content per lamp: ***0*** mg	☒	☐	☐
P7.23*	If product includes an integral display, the total mercury content in the integrated display: ***0*** mg	☒	☐	☐
P8	**Batteries**			
P8.1*	Battery chemical composition: ***lithium Ion, lithium/manganese dioxide***			☐
P9	**Energy consumption (See NOTE B8)**			
P9.1	For the product the following power levels or energy consumptions are reported:			

Energy mode *	Power level at **100** V AC	Power level at **115** V AC	Power level at **230** V AC	Reference/Standard for energy modes and test method *	
EPS No-load (External power supply / charger plugged in the wall outlet but disconnected from the product.)	21mW	25.8mW	36mW	***EPS Energy Test Report***	
PTEC * Typical Energy Consumption	***N/A*** W	***N/A*** W	***N/A*** W	***EnergyStar@ Program Requirements for Computer***	☒
ETEC * Annual Energy Consumption	***15.51*** kWh/year	***15.07*** kWh/year	***15.81*** kWh/year	***EnergyStar@ Program Requirements for Computer***	☐
External Power Supply Efficiency Level (International Efficiency Marking Protocol) * : ***VI***				***EnergyStar@ Program Requirements for Computer***	☐
Display resolution * : ***1920x1200*** megapixels				***EnergyStar@ Program Requirements for Computer***	☐
Default time to enter energy save mode: minutes				***EnergyStar@ Program Requirements for Computer***	☐

P9.2*	Information about the energy save function is provided with the product.	☒	☐	☐
P9.3	Energy efficiency class (monitors only):			☒

NOTE B6 Applies to a product containing plastic parts whose combined weight exceeds 100 g with the exception of printed circuit boards, cables, connectors and electronic components and bio-based plastic material.

NOTE B7 The following is to be excluded from the calculation of percentage: printed circuit boards, labels, cables, connectors and electronic components and postconsumer recycled plastic

NOTE B8 A Guidance document on Energy Efficiency is available;

see http://www.ecma-international.org/publications/standards/Ecma-370.htm.

Model number *	*840 G11 / Firefly 14 G11*	Logo	
Issue date *	*03/08/2024*		

Product environmental attributes - Market requirements (continued)				Requirement met		
Item				Yes	No	n.a.
P10	**Emissions**					
	Noise emission – Declared according to ISO 9296 (See NOTE **B9**)					
P10.1	Mode	Mode description	Statistical upper limit A-weighted sound power level, $L_{WA,c}$ (B)			
	Idle	**** Fans on***	**** 3.1***			☐
	Operation	**** Operating SSD***	**** 3.3***			☐
	Other mode	***Operating CPU***	***4.0***			
	Measured according to: ☒ ISO 7779 ☒ ECMA-74 ☐ Other (only if not covered by ECMA-74)					
	Electromagnetic emissions					
P10.4	Computer display meets the requirement for low frequency electromagnetic fields of the following voluntary program(s):			☐	☐	☐
P12	**Ergonomics for computing products**					
P12.1*	The display meets the ergonomic requirements of ISO 9241-307 for visual display technologies.			☒	☐	☐
P12.2*	The physical input device meets the requirements of ISO 9995 and ISO 9241-410.			☒	☐	☐
P13	**Packaging and documentation**					
P13.1*	Product packaging material type(s): ***PAPER/Corrugated*** weight (kg): ***0.269*** Product packaging material type(s): ***PLASTIC/ Polyethylene Low density LDPE*** weight (kg):***0.013*** Product packaging material type(s): ***PAPER/Paper*** weight (kg):***0.003*** Product packaging material type(s): ***PAPER/Molded Pulp*** weight (kg):***0.108***					
P13.2*	Product plastic primary packaging is free from PVC.			☒	☐	☐
P13.3*	For product primary corrugated fiberboard packaging, specify the contained percentage of minimum post-consumer recovered fiber content: ***59*** %					☐
P13.4*	Specify media for user and product documentation (tick box): Electronic ☒, Paper ☐, Other ☐ Available in HP.com					☐
P13.5	(Please only complete this item if paper documentation used) User and product documentation on paper media is chlorine-free: If Yes, please specify:			☒	☐	
	Totally chlorine-free			☒		
	Elemental chlorine-free			☐		
	Processed chlorine-free			☐		
P14	**Voluntary programs**					
P14.1	The product meets the requirements of the following voluntary program(s):					
	ENERGY STAR®	Criteria version: ***8.0***	Date: ***03/31/2023***	Product category: ***Commercial Notebook***		
	Eco-label:***TCO***	Criteria version: ***9.0***	Date: ***03/31/2023***	Product category: ***Commercial Notebook***		
	Eco-label: ***EPEAT***	Criteria version: ***IEEE 1680.1***	Date: ***03/31/2023***	Product category: ***Commercial Notebook***		
P15	**Additional information (See NOTE B10)**					
P9	***Energy consumption of computer products; description of the tested product configuration:***					
All Sections	***1. Product environmental information contained in this declaration is valid as of the date the declaration is published. Changes to external standards referenced in the IT Eco-Declaration may invalidate some information contained in this declaration over***					
P1	***1. This product does not include DEHP, BBP, DIBP, or DBP.***					

NOTE B9 A Guidance document on Acoustic Noise is available; see http://www.ecma-international.org/publications/standards/Ecma-370.htm.

NOTE B10 Additional lines may be inserted to declare further items, by positioning the cursor at the far right of the row and hitting the <Enter> key.

P7 ***Product Upgradability and Reparability***

The following table is provided in accordance with IEEE 1680.1-2018[6] criterion 4.4.2.5.

feature	Available[1]	Repairable[2]	Replaceable[2]	Upgradeable[3]
processor	Y	Y	Y*	Y
main memory	Y	Y	Y	Y
mass storage (internal)	Y	Y	Y	Y
wireless networking	Y	Y	Y	N
integrated graphics	Y	Y	Y*	N
discrete graphics	Y	Y	Y*	N
display panel	Y	Y	Y	Y
integrated keyboard	Y	Y	Y	Y
battery	Y	Y	Y	Y
power supply	Y	Y	Y	Y
fan assemblies	Y	Y	Y	N
speaker(s) (internal)	Y	Y	Y	N
camera	Y	Y	Y	Y
touchpad	Y	Y	Y	N
I/O connectors and external power connector	Y	Y	Y	N
readers [5]	Y	Y	Y	N

Table notes:
[1] Y* = feature is available, but may not be included in every configuration
[2] Product can be repaired (returned to fully functional state) if feature fails.
[3] Feature can be replaced using only commonly available tools without soldering or de-soldering. Y* = replacement may require replacing an assembly to which the feature is attached.
[4] Base feature may be upgraded by replacing it with a higher performance module or by expanding capacity through use of expansion slots. NOTE: This evaluation does not
account for situations in which the initial configuration purchased is already maximized. Contact HP Sales or an HP authorized reseller to determine the availability of upgrade parts and method to obtain them in your geography.
[5] This feature category includes readers such as fingerprint readers, smart card readers, and other read-only devices, but excludes read/write devices.

P9 ***1. European Union Commission Regulation 2023/826- Energy Efficiency Information:***

Mode / Condition	Power Consumption in Watts at 230 VAC Input Voltage	Default Time to Mode / Conditi (if applicable)
Off Mode (if applicable)	***0.446W***	Not Applicable
Standby Mode (if applicable)	Not Applicable	Not Applicable
Network Standby / Sleep / Long Idle Mode if all wired network ports are connected and all wireless network ports are activated (if applicable)	***0.85W***	***10min***
Network Standby / Sleep / Long Idle Mode (if applicable)	Not Applicable	Not Applicable
Technical characteristics of the external power supply to be used with that equipment. (Equipment that needs an external power supply, but it is placed on the market without one) (if applicable)	***Input Voltage and Frequency: 230 V AC 50 Hz*** ***Output Current: (A) 3.25*** ***Output Voltage: (V) 20*** ***Output Power: (W) 65W***	

2.European Union Commission Regulation 2023/826- Wireless Network Instructions:

Where applicable, activate and deactivate a wireless network using the instructions provided in the product user guide or the operating system. Information is also available at www.hp.com/support.

P10	**Sound Pressure Level**		
	Noise emission – Declared according to ISO 9296 (See NOTE [B9])		
P10.1	Mode	Mode description	Statistical upper limit A-weighted sound pressure level, $L_{pA,m}$ (dB)

6 IEEE Standard for Environmental and Social Responsibility Assessment of Computers and Displays

Idle	* ***Fans on***	* ***20.6***
Operation	* ***Operating SSD***	* ***22.8***
Other mode	***Operating CPU***	***31.5***
Measured according to: ☒ ISO 7779 ☒ ECMA-74 ☐ ***Other*** ***(only if not covered by ECMA-74)***		

Legal references Europe Annex B2

Reference	Declaration item
Directive 2011/65/EU (RoHS Directive)* * Specific exemptions apply for certain products and applications.	P1.1, P3.1
Regulation (EC) 1907/2006 (REACH Regulation), annex XVII	P1.2, P1.4, P1.6, P1.7
Regulation (EC) 2037/2000, 2038/2000, 2039/2000 (Marketing and use of Ozone layer depleting substances)	P1.3, P5.3
Norwegian regulation relating to restrictions on the use of certain dangerous chemicals 20.12.2002	P1.5
Directive 2006/66/EC (Battery and accumulators Directive), as amended.* * These provisions shall not apply where, for safety, performance, medical or data integrity reasons, continuity of power supply is necessary and requires a permanent connection between the appliance and the battery or accumulator.	P2.1, P2.2, P2,3, P8.1
Directive 2014/35/EU (Low Voltage Directive)	P3.1
Directive 2014/30/EU (EMC Directive)	P3.1
Directive 2014/53/EU (RE Directive)	P3.1
COMMISSION REGULATION (EU) 2023/826 of 17 April 2023 laying down ecodesign requirements for off mode, standby mode, and networked standby energy consumption of electrical and electronic household and office equipment pursuant to Directive 2009/125/EC of the European Parliament and of the Council and repealing Commission Regulations (EC) No 1275/2008 and (EC) No 107/2009.	P3.1, P3.2
Commission Regulation (EC) No 278/2009 of 6 April 2009 implementing Directive 2005/32/EC of the European Parliament and of the Council with regard to ecodesign requirements for no-load condition electric power demand and average active efficiency of external power supplies	P3.1, P3.2, P9.1
COMMISSION REGULATION (EU) No 617/2013 of 26 June 2013 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for computers and computer servers	P2.4, P2.5, P3.1, P3.2, P7.23, P9.1
Regulation（EC）No 1272/2008 (CLP Regulation)	P7.19
Directive 2004/12/EC (Packaging Directive)	P5.1
Decision 97/129/EC (Secondary packaging legislation)	P5.2
Directive 2012/19/EU (WEEE directive) Implementing Regulation (EU) 2019/290 establishing the format for registration and reporting of producers of electrical and electronic equipment to the register. Commission Implementing Regulation 2017/699 establishing a common methodology for the calculation of the weight of electrical and electronic equipment (EEE) placed on the national market in each Member State and a common methodology for the calculation of the quantity of waste electrical and electronic equipment (WEEE) generated by weight in each Member State.	P6.1

HP EliteBook 840 14 inch G11 Notebook PC

CLOSE

OPTIONS

HP

N924030434

SHARE

BRAND NAME	HP
SALES NAME	HP EliteBook 840 14 inch G11 Notebook PC
MODEL NAME	HSN-I45C-4
MINIMUM RESOLUTION	1920x1200
PANEL SIZE	14"
ASPECT RATIO	Other
CERTIFICATION	TCO Certified Notebooks 9
CERTIFICATE NUMBER	N924030434
CERTIFICATION DATE	2024-03-14
EXPIRY DATE	2026-12-01
COMMENT	Check carefully on the brand webshop as only some configurations of this product are certified! ; Only certified configurations are manufactured at factories compliant with TCO Certified social and environmental criteria;

Register for more info

Create an account to get access to all information

Examples of the information you will gain access to

- Battery cycles
- % of recycled plastic
- Sound levels

CREATE ACCOUNT

LOG IN

HP EliteBook 840 14 inch G11 Notebook PC

CLOSE

OPTIONS

HP

N924030434

SHARE

BRAND NAME	HP
SALES NAME	HP EliteBook 840 14 inch G11 Notebook PC
MODEL NAME	HSN-I45C-4
MINIMUM RESOLUTION	1920x1200
PANEL SIZE	14"
ASPECT RATIO	Other
CERTIFICATION	TCO Certified Notebooks 9
CERTIFICATE NUMBER	N924030434
CERTIFICATION DATE	2024-03-14
EXPIRY DATE	2026-12-01
COMMENT	Check carefully on the brand webshop as only some configurations of this product are certified! ; Only certified configurations are manufactured at factories compliant with TCO Certified social and environmental criteria;

Register for more info

Create an account to get access to all information

Examples of the information you will gain access to

- Battery cycles
- % of recycled plastic
- Sound levels

CREATE ACCOUNT

LOG IN

[별지 제 1 호 서식]

유해물질 함유기준 준수 여부 확인. 평가서

공표자	상 호	에이치피코리아 유한회사 (전화: 02-780-6200)	법인등록번호	110114-0158623
	대표자 성명	김 대 환	사업자등록번호	741-81-00060
	주 소	150-724 서울 영등포구 의사당대로 83		

제 품 정 보

□ 제품의 종류	개인용 컴퓨터	제품명 (규격)*	*HP Compaq Computer*
□ 세부모델명(번호)*	HP EliteBook 840 14 inch G11 Notebook PC ENERGY STAR	최초 출시일*	2024-01-08
제품의 중량*	1.99 kg	□ 제조.수입업자	에이치피코리아 유한회사

당사는 위 [x] 전기.전자제품 / [ ] 자동차가 "전기.전자제품 및 자동차의 자원순환에 관한 법률 시행령" 제 11조 제1항과 같은 법 시행규칙 제 3조에 따라 사용제한 유해물질의 함유기준을 확인.평가한 결과 [x] 준수 / [ ] 미준수 하였음을 공표합니다.

년 월 일

(주: 본 제품의 확인 평가 내역 공표는 정부 웹사이트 EcoAS 에 온라인으로 제출되므로 공표 일자는 생략합니다.)

공표자 윤 성 영 S. Yoon

구비서류 : 없음

* 작성요령

□ 제품의 종류는 "전기.전자제품 및 자동차의 자원순환에 관한 법률 시행령" 제 8 조 제 1 항 및 제 2 항에 따른 품목별로 구분하여 기재합니다.

□ 전기.전자제품의 경우 모델명(번호), 자동차의 경우 제원관리번호를 기재합니다.

□ 해당 제품의 제조업자 또는 수입업자를 기재합니다.

[Appendix Table 1]

Confirmation and Evaluation Form Concerning the Adherence to Acceptable Standards of Hazardous Materials Contained in Product

Statement prepared by	*Company Name*	*HP Korea Inc. (Phone No.: 02-780-6200)*	*Corporate Identification Number*	110114-0158623
	Name of Company Representative	*Dae hwan KIM*	*Business Registration Number*	741-81-00060
	Address	*83 Uisadang-daero, Youngdeungpo-gu, Seoul, 150-724, Republic of Korea*		

Product Information

□ *Product Category*	*Personal Computer*	*Name of Product (Specification)* *	*HP Compaq Computer*
□ *Detailed Product Model Name (Model Number)* *	HP EliteBook 840 14 inch G11 Notebook PC ENERGY STAR	*Date of first market release* *	2024-01-08
Weight of Product *	1.99 kg	□ *Manufacturer and/or Importer*	*HP Korea Inc.*

This form is to publicly certify that we have undergone the confirmation and evaluation procedures for the acceptable amounts of hazardous materials contained in [x] electrical-electronic products / [ ] vehicles according to the regulations stipulated in Article 3 of the "Statute on the Recycling of Electrical and Electronic Products, and Automobiles" and that the company has [x] Adhered / [ ] Not Adhered to the Enforcement Regulations of Article 11, Item 1 of the Statute.

Date. . . .

(Remark: The declaration date is omitted here, because the actual declaration was made online at the designated Korea government web system "EcoAS")

Authorizing Representative m Seong-young Yoon



Attachments: None

* *Preparing the Form:*
- □ *Please indicate the product category according to the categories listed in Article 8, Items 1 and 2 of the "Enforcement Ordinance of the Statute on the Recycling of Electrical, Electronic and Automobile Materials"*
- □ *For electrical and electronic products, please indicate the Model Name (and number). For automobiles, please indicate the Vehicle Identification Number.*
- □ *Please indicate the name of the manufacturer and/or importer of the product.*

(en) DECLARATION OF CONFORMITY / (de) KONFORMITÄTSERKLÄRUNG / (fr) DÉCLARATION DE CONFORMITÉ / (es) DECLARACIÓN DE CONFORMIDAD

DoC #: HSN-I45C-4- R12

(en) Manufacturer's Name (de) Herstellername (fr) Nom du fabricant (es) Nombre del fabricante	**HP Inc.**
(en) Manufacturer's Address (de) Adresse des Herstellers (fr) Adresse du fabricant (es) Dirección del fabricante	**1501 Page Mill Road, Palo Alto, CA 94304 USA**
(en) declare, under its sole responsibility that the product (de) erklärt, dass das Produkt (fr) déclare que le produit (es) declara que el producto	
(en) Product Name and Model[5.2] (de) Produktname und Modell[5.2] (fr) Nom du produit et modèle[5.2] (es) Nombre del producto y modelo[5.2]	**HP EliteBook 840 14 inch G9 Notebook PC; HP EliteBook 840 G9 series; HP EliteBook 1040 14 inch G9 Notebook PC; HP EliteBook 1040 G9 series; HP ZBook Firefly 14 inch G9 Mobile Workstation PC; HP ZBook Firefly 14 inch G9 series; HP EliteBook 840 14 inch G10 Notebook PC; HP EliteBook 840 G10 series; HP EliteBook 1040 14 inch G10 Notebook PC; HP EliteBook 1040 G10 series; HP ZBook Firefly 14 inch G10 Mobile Workstation PC; HP ZBook Firefly 14 inch G10 series; HP EliteBook 840 14 inch G11 Notebook PC; HP EliteBook 840 G11 series; HP ZBook Firefly 14 inch G11 Mobile Workstation PC; HP ZBook Firefly 14 inch G11 series**
(en) Regulatory Model Number[5.1] (de) Regulatorische Modell Nummer[5.1] (fr) Numéro de modèle réglementaire[5.1] (es) Número de modelo reglamentario[5.1]	**HSN-I45C-4**
(en) Product Options (de) Produktoptionen (fr) Options du produit (es) Opciones del producto	**(en) Please See ANNEX 1** **(de) Siehe Anhang I** **(fr) Voir l'annexe I** **(es) Ver Anexo I**

(en) conforms to the following Product Specifications and Regulations
(de) entspricht den folgenden Produktspezifikationen und Vorschriften
(fr) est conforme aux normes et règlements de produit suivants
(es) cumple con las siguientes especificaciones y normas de productos

(en) Safety / (de) Sicherheit / (fr) Sécurité / (es) Seguridad	**(en) EMC / (de) EMV / (fr) EMC / (es) EMC**	**(en) Spectrum / (de) Frequenzspektrum / (fr) Spectre radioélectrique / (es) Espectro radioeléctrico**
IEC 60950-1:2005 +A1:2009 +A2:2013	EN 55032:2015+A11:2020 Class B	EN 300 328 V2.2.2
IEC 62368-1:2014	EN 55035:2017+A11:2020	EN 301 893 V2.1.1
EN 62368-1:2014 +A11:2017	EN 61000-3-2:2014	EN 300 440 V2.1.1
IEC 62368-1:2018	EN 61000-3-3:2013 +A1:2019	EN 303 687 V1.1.1
EN IEC 62368-1:2020 +A11:2020	EN 301 489-1 V2.2.3	EN 301 908-1 V15.2.1
EN IEC 62311:2020	EN 301 489-3 V2.3.2	EN 301 908-2 V13.1.1
EN 62479:2010	EN 301 489-17 V3.2.4	EN 301 908-13 V13.2.1
EN 50665:2017	EN 301 489-19 V2.2.1	EN 301 908-25 V15.1.1
EN 50663:2017	EN 301 489-52 V1.2.1	EN 300 330 V2.1.1
EN 50566:2017/A1:2023	EN 60601-1-2:2015 + AMD1:2021	EN 303 413 V1.2.1
EN 50364:2018	FCC CFR 47 Part 15	EN 301 511 V12.5.1
	ICES-003, Issue 7	

(en) Ecodesign / (de) Öko-Design / (fr) Écoconception / (es) Diseño ecológico
Regulation (EU) 2023/826
EN 50564:2011
IEC 62301:2011

RoHS
EN IEC 63000:2018

(en) DECLARATION OF CONFORMITY / (de) KONFORMITÄTSERKLÄRUNG / (fr) DÉCLARATION DE CONFORMITÉ / (es) DECLARACIÓN DE CONFORMIDAD

DoC #: HSN-I45C-4- R12

(en) Cybersecurity / (de) Cybersicherheit / (fr) Cybersécurité / (es) Ciberseguridad
EN 18031-1:2024
EN 18031-2:2024

(en) Accessibility / (de) Barrierefreiheit / (fr) Accessibilité / (es) Accesibilidad
EN 301 549

(en) The product herewith complies with the requirements of the following and carries the CE-marking accordingly (de) Das Produkt hiermit entspricht den Anforderungen der folgenden und trägt das entsprechende CE-Kennzeichen (fr) Le produit est conforme aux exigences suivantes et porte le marquage CE en conséquence (es) El producto presente cumple con los requisitos de lo siguiente y conlleva el marcado CE en consecuencia	**Radio Equipment Directive 2014/53/EU** **Ecodesign Directive 2009/125/EU** **RoHS Directive 2011/65/EU** **Battery Regulation 2023/1542** **European Accessibility Act 2019/882/EU**
UK ONLY: This product herewith complies with the requirements of the following and carries the UKCA marking.	**Radio Equipment Regulations 2017** **Ecodesign for Energy-Related Products Regulations 2010** **Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012**

(en) Additional Information
(de) Zusätzliche Information
(fr) Informations complémentaires
(es) Información Adicional:

5.1)
(en) This product is assigned a Regulatory Model Number which stays with the regulatory aspects of the design. The Regulatory Model Number is the main product identifier in the regulatory documentation and test reports, this number should not be confused with the marketing name or the product numbers.
(de) Für die regulatorischen Aspekte zum Design wurde diesem Produkt eine Regulatorische Modell Nummer zugeordnet. Zur Produktidentifizierung in der regulatorischen Dokumentation und den Prüfberichten wird diese Regulatorische Modell Nummer verwendet und sollte nicht zu Verwechslungen von Marketingnamen oder Produktnummern führen.
(fr) A ce produit est assigné un numéro de modèle réglementaire qui est associé avec les aspects réglementaires liés à la conception du produit. Le numéro de modèle réglementaire est le principal identificateur du produit dans la documentation réglementaire et les rapports d'essais, ce nombre ne doit pas être confondu avec le nom commercial ou les numéros de produit.
(es) A este producto se asigna un número de modelo regulatorio que cumple con los aspectos regulatorios del diseño. El número de modelo normativo es el identificador principal del producto en la documentación reglamentaria e informes de ensayo, este número no se debe confundir con el nombre comercial o los números del producto.

5.2)
(en) This product was tested in a typical HP environment.
(de) Dieses Produkt wurde in einer typischen HP Konfiguration getestet.
(fr) Ce produit a été testé dans un environnement typique HP.
(es) Este producto se ha probado en un entorno típico de HP.

(en) The listed Notified Body issued the listed EU-type examination certificate, according to Annex III, for the essential requirement of article 3.2 of the RED Directive. (de) Die aufgeführte angegebene Einrichtung hat das aufgeführte EU-Prüfungszertifikat gemäß Anhang III für die wesentliche Anforderung von Artikel 3.2 der Red Richtlinie herausgegeben. (fr) L'organisme notifié répertorié a délivré le certificat d'examen de type UE répertorié, selon l'annexe III, pour l'exigence essentielle de l'article 3.2 de la directive rouge. (es) El organismo notificado listado emitió el certificado de examen de tipo UE listado, de acuerdo con el Anexo III, para el requisito esencial del Artículo 3.2 de la Directiva Roja.	**Notified Body: Sporton International (USA) Inc. ; TIMCO Engineering, Inc.** **Notified Body Number: 2907 ; 1177** **Certificate ID: SN23C0194 ; E1177-233680**

HP Inc.
1501 Page Mill Road, Palo Alto, CA
Gilles Soulard, Manager
Product Compliance Center

Palo Alto, CA
21-07-2025

Gilles Soulard

Gilles Soulard, Manager

(en) DECLARATION OF CONFORMITY / (de) KONFORMITÄTSERKLÄRUNG / (fr) DÉCLARATION DE CONFORMITÉ / (es) DECLARACIÓN DE CONFORMIDAD

DoC #: HSN-I45C-4- R12

Product Compliance Engineering

(en) Local contact for regulatory topics only (de) Lokale Ansprechpartner für Richtlinien und Bestimmungen (fr) Contact local uniquement pour les réglementations (es) Contacto local únicamente para temas de normativa:
EU: HP REG 23010, 08028 Barcelona, Spain UK: HP Inc UK Ltd, Regulatory Enquiries, Earley West, 300 Thames Valley Park Drive, Reading, RG6 1PT U.S.: HP Inc., 1501 Page Mill Road, Palo Alto 94304, U.S.A. 650-857-1501 Email: reg@hp.com www.hp.eu/certificates

(en) DECLARATION OF CONFORMITY / (de) KONFORMITÄTSERKLÄRUNG / (fr) DÉCLARATION DE CONFORMITÉ / (es) DECLARACIÓN DE CONFORMIDAD

DoC #: HSN-I45C-4- R12

(en) ANNEX I **(de) ANHANG I** **(fr) ANNEXE I** **(es) ANEXO I**	
(en) Regulatory Model Number (RMN) (de) Regulatorische Modell Nummer (RMN) (fr) Numéro de modèle réglementaire (RMN) (es) Número de modelo reglamentario (RMN)	**HSN-I45C-4**
1 (en) DESCRIPTION | 2 (en) OPTION RMN* 1 (de) BESCHREIBUNG | 2 (de) RMN OPTION* 1 (fr) DESCRIPTION | 2 (fr) RMN OPTION* 1 (es) DESCRIPCIÓN | 2 (es) RMN OPCIÓN*	

1	2
Power Adapter	TPN-XA01 TPN-XA07 TPN-XA08 TPN-XA10 TPN-XA12 TPN-XA15 TPN-XA19 TPN-XA20 TPN-XA21 TPN-XA22 TPN-XA23 TPN-XA26 TPN-XA30 TPN-XA31 TPN-XA32
Battery Pack	TPN-XB0P TPN-XB0J TPN-XB0K TPN-XB0B TPN-XB0T TPN-XB0Y

(en) DECLARATION OF CONFORMITY / (de) KONFORMITÄTSERKLÄRUNG / (fr) DÉCLARATION DE CONFORMITÉ / (es) DECLARACIÓN DE CONFORMIDAD

DoC #: HSN-I45C-4- R12

	TPN-XB1O TPN-XB1S HSTNN-XB2J HSTNN-XB3B HSTNN-XB3H HSTNN-XB8W HSTNN-XB8V HSTNN-XB9C HSTNN-XB9X HSTNN-XB9Y HSTNN-XB1C HSTNN-XB1D
Transceiver 2,4 and 5/6 GHz WLAN and BT	AX211NGW AX211D2W BE200NGW BE200D2W
NFC Transceiver	XRAV-1
4G WWAN Transceiver, GPS Receiver	L860-GL-16 FM350-GL-16
5G/LTE/HSPA+ with GPS	FM350-GL
WWAN LTE-M (CAT-M1) with GPS	FB520

(en) *Where X represents any alpha numeric character.
(de) *Wo X steht für eine beliebige alphanumerische Zeichen
(fr) *Où X représente n'importe quel caractère alphanumérique
(es) *Donde X representa cualquier carácter alfanumérico

(it) DICHIARAZIONE DI CONFORMITA' / (pt) DECLARAÇÃO DE CONFORMIDADE / (pl) DEKLARACJA ZGODNOŚCI / (ro) DECLARATIE DE CONFORMITATE

DoC #: HSN-I45C-4- R12

(it) Nome del Fornitore (pt) Nome do fabricante (pl) Nazwa producenta (ro) Numele producătorului	**HP Inc.**
(it) Indirizzo del Fornitore (pt) Endereço do fabricante (pl) Adres producenta (ro) Adresa producătorului	**1501 Page Mill Road, Palo Alto, CA 94304 USA**
(it) dichiara che il prodotto (pt) declara, que o produto (pl) oświadcza, że produkt (ro) declară că produsul	
(it) Nome del prodotto e modello[5.2] (pt) Nome do produto e modelo[5.2] (pl) Nazwa produktu i modelu[5.2] (ro) Nume produs și model[5.2]	**HP EliteBook 840 14 inch G9 Notebook PC; HP EliteBook 840 G9 series; HP EliteBook 1040 14 inch G9 Notebook PC; HP EliteBook 1040 G9 series; HP ZBook Firefly 14 inch G9 Mobile Workstation PC; HP ZBook Firefly 14 inch G9 series; HP EliteBook 840 14 inch G10 Notebook PC; HP EliteBook 840 G10 series; HP EliteBook 1040 14 inch G10 Notebook PC; HP EliteBook 1040 G10 series; HP ZBook Firefly 14 inch G10 Mobile Workstation PC; HP ZBook Firefly 14 inch G10 series; HP EliteBook 840 14 inch G11 Notebook PC; HP EliteBook 840 G11 series; HP ZBook Firefly 14 inch G11 Mobile Workstation PC; HP ZBook Firefly 14 inch G11 series**
(it) Numero di modello normativo[5.1] (pt) Número de Modelo de Regulamentação[5.1] (pl) Numer modelu[5.1] (ro) Numărul de model de reglementare[5.1]	**HSN-I45C-4**
(it) Opzioni del prodotto (pt) Opções do produto (pl) Opcje produktu (ro) Opțiuni de produse	**(it) Vedere Allegato I** **(pt) Ver anexo I** **(pl) Patrz załącznik I** **(ro) A se vedea anexa I**

(it) è conforme alle seguenti specifiche e regolamenti di prodotto
(pt) está em conformidade com as seguintes especificações e regulamentos do produto
(pl) jest zgodny z następującymi specyfikacjami produktu i rozporządzeń
(ro) în conformitate cu următoarele specificații și regulamentelor de produse

(it) Sicurezza / (pt) Segurança / (pl) Bezpieczeństwo / (ro) Siguranță

IEC 60950-1:2005 +A1:2009 +A2:2013
IEC 62368-1:2014
EN 62368-1:2014 +A11:2017
IEC 62368-1:2018
EN IEC 62368-1:2020 +A11:2020
EN IEC 62311:2020
EN 62479:2010
EN 50665:2017
EN 50663:2017
EN 50566:2017/A1:2023
EN 50364:2018

(it) EMC / (pt) EMC / (pl) EMC / (ro) EMC

EN 55032:2015+A11:2020 Class B
EN 55035:2017+A11:2020
EN 61000-3-2:2014
EN 61000-3-3:2013 +A1:2019
EN 301 489-1 V2.2.3
EN 301 489-3 V2.3.2
EN 301 489-17 V3.2.4
EN 301 489-19 V2.2.1
EN 301 489-52 V1.2.1
EN 60601-1-2:2015 + AMD1:2021
FCC CFR 47 Part 15
ICES-003, Issue 7

(it) Spettro Radio / (pt) Espectro de radiofrequências / (pl) Widmo radiowe / (ro) Spectrului de frecvențe radio

EN 300 328 V2.2.2
EN 301 893 V2.1.1
EN 300 440 V2.1.1
EN 303 687 V1.1.1
EN 301 908-1 V15.2.1
EN 301 908-2 V13.1.1
EN 301 908-13 V13.2.1
EN 301 908-25 V15.1.1
EN 300 330 V2.1.1
EN 303 413 V1.2.1
EN 301 511 V12.5.1

(it) Ecodesign / (pt) ecodesign / (pl) Ekoprojektu / (ro) ecodesign

Regulation (EU) 2023/826
EN 50564:2011
IEC 62301:2011

RoHS

EN IEC 63000:2018

(it) DICHIARAZIONE DI CONFORMITA' / (pt) DECLARAÇÃO DE CONFORMIDADE / (pl) DEKLARACJA ZGODNOŚCI / (ro) DECLARATIE DE CONFORMITATE

DoC #: HSN-I45C-4- R12

(it) Cibersicurezza / (pt) Cibersegurança / (pl) Cyberbezpieczeństwa / (ro) Securitate cibernetică
EN 18031-1:2024
EN 18031-2:2024

(it) Accessibilità / (pt) Acessibilidade / (pl) Dostępność / (ro) Accesibilitate
EN 301 549

(it) Il prodotto con la presenza è conforme ai requisiti di quanto segue e trasporta di conseguenza il marchio CE (pt) O produto contraria os requisitos do seguinte e carrega o marco CE de acordo (pl) Produkt jest zgodny z wymogami następujących i odpowiednio przenosi znakowanie CE (ro) Produsul de aici respectă cerințele următoarelor și transportă în consecință marcare CE în consecință	**Radio Equipment Directive 2014/53/EU** **Ecodesign Directive 2009/125/EU** **RoHS Directive 2011/65/EU** **Battery Regulation 2023/1542** **European Accessibility Act 2019/882/EU**
UK ONLY: This product herewith complies with the requirements of the following and carries the UKCA marking.	**Radio Equipment Regulations 2017** **Ecodesign for Energy-Related Products Regulations 2010** **Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012**

(it) Informazioni aggiuntive
(pt) Informações adicionais
(pl) Dodatkowe informacje
(ro) Informații suplimentare

5.1)
(it) A questo prodotto è assegnato un Numero di modello normativo (RMN) che rimane con gli aspetti normativi della progettazione. Il numero di modello normativo è l'identificativo principale del prodotto nella documentazione normativa e rapporti di prova, questo numero non deve essere confuso con il nome commerciale o il numero di prodotto.
(pt) Este produto recebeu um Número de modelo de regulamentação que fica com os aspectos regulatórios do design. O Número de Modelo de Regulamentação é o identificador principal do produto na documentação regulamentar e relatórios de ensaio, este número não deve ser confundido com o nome comercial ou os números dos produtos.
(pl) Produkt ten został przypisany numer modelu z aspektów regulacyjnych projekt. Numer modelu jest głównym identyfikatorem produktu w dokumentacji normatywnej i raporty z badań, liczba ta nie powinna być mylona z nazwą handlową lub też liczby produktów.
(ro) Acestui produs li este atribuit un număr de model de reglementare asociat cu aspectele regulatorii de proiectare. Numărul de model de reglementare este identificatorul principal al produsului în documentația de reglementare și rapoarte de testare, acest număr nu trebuie confundat cu numele de marketing sau numarul de produs.

5.2)
(it) Questo prodotto è stato testato in un tipico ambiente HP .
(pt) Este produto foi testado em um ambiente típico de HP .
(pl) Produkt był testowany w typowym środowisku HP, w połączeniu z systemem gospodarza HP .
(ro) Acest produs a fost testat într-un mediu tipic HP împreună cu un sistem gazdă HP .

(it) L'organismo notificato elencato ha emesso il certificato di esame di tipo UE elencato, secondo l'allegato III, per il requisito essenziale dell'articolo 3.2 della direttiva rossa. (pt) O órgão notificado listado emitiu o certificado de exame do tipo UE listado, de acordo com o Anexo III, para o requisito essencial do artigo 3.2 da Diretiva Vermelha. (pl) Wymieniona notowana organ wydał wymieniony certyfikat egzaminacyjny typu UE, zgodnie z załącznikiem III, dla niezbędnego wymogu art. 3.2 Czerwonej Dyrektywy. (ro) Organul notificat listat a emis certificatul de examinare listat de tip UE, conform anexei III, pentru cerința esențială a articolului 3.2 din Directiva Roșie.	**Notified Body: Sporton International (USA) Inc. ; TIMCO Engineering, Inc.** **Notified Body Number: 2907 ; 1177** **Certificate ID: SN23C0194 ; E1177-233680**

HP Inc.
1501 Page Mill Road, Palo Alto, CA
Gilles Soulard, Manager
Product Compliance Center

Palo Alto, CA
21-07-2025

Gilles Soulard
Gilles Soulard, Manager
Product Compliance Engineering

(it) Contatto locale solo per informazioni sulla conformità al marchio CE
(pt) O contato local para tópicos regulamentares apenas

(it) DICHIARAZIONE DI CONFORMITA' / (pt) DECLARAÇÃO DE CONFORMIDADE / (pl) DEKLARACJA ZGODNOŚCI / (ro) DECLARATIE DE CONFORMITATE

DoC #: HSN-I45C-4- R12

(pl) Lokalny kontakt na temat przepisów (ro) Persoană de contact locală numai pentru subiecte de reglementare:	
EU:	HP REG 23010, 08028 Barcelona, Spain
UK:	HP Inc UK Ltd, Regulatory Enquiries, Earley West, 300 Thames Valley Park Drive, Reading, RG6 1PT
U.S.:	HP Inc., 1501 Page Mill Road, Palo Alto 94304, U.S.A. 650-857-1501
Email:	reg@hp.com www.hp.eu/certificates

(it) DICHIARAZIONE DI CONFORMITA' / (pt) DECLARAÇÃO DE CONFORMIDADE / (pl) DEKLARACJA ZGODNOŚCI / (ro) DECLARATIE DE CONFORMITATE

DoC #: HSN-I45C-4- R12

(it) ALLEGATO I **(pt) ANEXO I** **(pl) ZAŁĄCZNIK I** **(ro) ANEXA I**	
(it) Numero di modello normativo (RMN) (pt) Número de Modelo de Regulamentação (RMN). (pl) Numer modelu (RMN) (ro) Numărul de model de reglementare (RMN)	**HSN-I45C-4**
1 (it) DESCRIZIONE | 2 (it) RMN OPZIONE* 1 (pt) DESCRIÇÃO | 2 (pt) RMN OPÇÃO* 1 (pl) OPIS | 2 (pl) RMN OPCJA* 1 (ro) DESCRIERE | 2 (ro) RMN OPȚIUNE*	

1	2
Power Adapter	TPN-XA01 TPN-XA07 TPN-XA08 TPN-XA10 TPN-XA12 TPN-XA15 TPN-XA19 TPN-XA20 TPN-XA21 TPN-XA22 TPN-XA23 TPN-XA26 TPN-XA30 TPN-XA31 TPN-XA32
Battery Pack	TPN-XB0P TPN-XB0J TPN-XB0K TPN-XB0B TPN-XB0T TPN-XB0Y

(it) DICHIARAZIONE DI CONFORMITA' / (pt) DECLARAÇÃO DE CONFORMIDADE / (pl) DEKLARACJA ZGODNOŚCI / (ro) DECLARATIE DE CONFORMITATE

DoC #: HSN-I45C-4- R12

	TPN-XB1O TPN-XB1S HSTNN-XB2J HSTNN-XB3B HSTNN-XB3H HSTNN-XB8W HSTNN-XB8V HSTNN-XB9C HSTNN-XB9X HSTNN-XB9Y HSTNN-XB1C HSTNN-XB1D
Transceiver 2,4 and 5/6 GHz WLAN and BT	AX211NGW AX211D2W BE200NGW BE200D2W
NFC Transceiver	XRAV-1
4G WWAN Transceiver, GPS Receiver	L860-GL-16 FM350-GL-16
5G/LTE/HSPA+ with GPS	FM350-GL
WWAN LTE-M (CAT-M1) with GPS	FB520

(it) *Dove X rappresenta qualsiasi carattere alfanumerico
(pt) *Onde X representa qualquer caractere alfanumérico
(pl) *W przypadku, gdy X oznacza dowolny alfa cyfrę
(ro) *În cazul în care X reprezintă orice caracter alfanumeric

(hu) MEGFELELŐSÉGI NYILATKOZAT / (nl) CONFORMITEITSVERKLARING / (el) ΔΉΛΩΣΗ ΣΥΜΜΌΡΦΩΣΗΣ / (sv) FÖRKLARING OM ÖVERENSSTÄMMELSE

DoC #: HSN-I45C-4- R12

(hu) A gyártó neve (nl) Naam van de fabrikant (el) Όνομα κατασκευαστή (sv) Tillverkarens namn	**HP Inc.**
(hu) Gyártó címe (nl) Adres van de fabrikant (el) Διεύθυνση του κατασκευαστή (sv) Tillverkarens adress	**1501 Page Mill Road, Palo Alto, CA 94304 USA**
(hu) kijelenti, hogy a termék (nl) verklaart, dat het product (el) δηλώνει ότι το προϊόν (sv) förklarar att produkten	
(hu) A termék neve és a modell[5.2] (nl) Naam van het product en model[5.2] (el) Όνομα προϊόντος και μοντέλου[5.2] (sv) Namn och modell[5.2]	**HP EliteBook 840 14 inch G9 Notebook PC; HP EliteBook 840 G9 series; HP EliteBook 1040 14 inch G9 Notebook PC; HP EliteBook 1040 G9 series; HP ZBook Firefly 14 inch G9 Mobile Workstation PC; HP ZBook Firefly 14 inch G9 series; HP EliteBook 840 14 inch G10 Notebook PC; HP EliteBook 840 G10 series; HP EliteBook 1040 14 inch G10 Notebook PC; HP EliteBook 1040 G10 series; HP ZBook Firefly 14 inch G10 Mobile Workstation PC; HP ZBook Firefly 14 inch G10 series; HP EliteBook 840 14 inch G11 Notebook PC; HP EliteBook 840 G11 series; HP ZBook Firefly 14 inch G11 Mobile Workstation PC; HP ZBook Firefly 14 inch G11 series**
(hu) Szabályozási Modell száma[5.1] (nl) Regulatory Model Number[5.1] (el) Αριθμός Μοντέλο κατά τους κανονισμούς[5.1] (sv) Regleringsmodellnummer[5.1]	**HSN-I45C-4**
(hu) Termék opciók (nl) Product opties (el) Επιλογές Προϊόντος (sv) Produktalternativ	**(hu) Lásd az I. melléklet** **(nl) Zie bijlage I** **(el) Βλέπε παράρτημα I** **(sv) Se bilaga I**

(hu) megfelel az alábbi termék dokumentáció és rendeletek:
(nl) voldoet aan de volgende productspecificaties en wetgeving
(el) συμμορφώνεται προς τις εξής προδιαγραφές και κανονισμοί
(sv) överensstämmer med följande produktspecifikationer och förordningar

(hu) Biztonság / (nl) Veiligheid / (el) Ασφάλεια / (sv) Säkerhet

IEC 60950-1:2005 +A1:2009 +A2:2013
IEC 62368-1:2014
EN 62368-1:2014 +A11:2017
IEC 62368-1:2018
EN IEC 62368-1:2020 +A11:2020
EN IEC 62311:2020
EN 62479:2010
EN 50665:2017
EN 50663:2017
EN 50566:2017/A1:2023
EN 50364:2018

(hu) EMC / (nl) EMC / (el) EMC / (sv) EMC

EN 55032:2015+A11:2020 Class B
EN 55035:2017+A11:2020
EN 61000-3-2:2014
EN 61000-3-3:2013 +A1:2019
EN 301 489-1 V2.2.3
EN 301 489-3 V2.3.2
EN 301 489-17 V3.2.4
EN 301 489-19 V2.2.1
EN 301 489-52 V1.2.1
EN 60601-1-2:2015 + AMD1:2021
FCC CFR 47 Part 15
ICES-003, Issue 7

(hu) Rádióspektrumügyek / (nl) Radiospectrum / (el) ραδιοφάσματος / (sv) Rádiového spektra

EN 300 328 V2.2.2
EN 301 893 V2.1.1
EN 300 440 V2.1.1
EN 303 687 V1.1.1
EN 301 908-1 V15.2.1
EN 301 908-2 V13.1.1
EN 301 908-13 V13.2.1
EN 301 908-25 V15.1.1
EN 300 330 V2.1.1
EN 303 413 V1.2.1
EN 301 511 V12.5.1

(hu) Környezetbarát tervezési / (nl) ecodesign / (el) οικολογικού σχεδιασμού / (sv) ekodesign

Regulation (EU) 2023/826
EN 50564:2011
IEC 62301:2011

RoHS

EN IEC 63000:2018

(hu) MEGFELELŐSÉGI NYILATKOZAT / (nl) CONFORMITEITSVERKLARING / (el) ΔΉΛΩΣΗ ΣΥΜΜΌΡΦΩΣΗΣ / (sv) FÖRKLARING OM ÖVERENSSTÄMMELSE

DoC #: HSN-I45C-4- R12

(hu) Kiberbiztonsági / (nl) Cyberbeveiliging / (el) Κυβερνοασφάλεια / (sv) Cybersäkerhet
EN 18031-1:2024
EN 18031-2:2024

(hu) Akadálymentességére / (nl) Toegankelijkheid / (el) προσβασιμότητα / (sv) Tillgänglighet
EN 301 549

(hu) A termék itt megfelel a következők követelményeinek, és ennek megfelelően hordozza a markingot CE (nl) Het product voldoet hierbij aan de vereisten van het volgende en draagt de markering dienovereenkomstig bij (el) Το προϊόν συμμορφώνεται με τις απαιτήσεις των ακόλουθων και μεταφέρει ανάλογα CE το (sv) Produkten härmed uppfyller kraven i följande och bär CE-märkning i enlighet därmed	**Radio Equipment Directive 2014/53/EU** **Ecodesign Directive 2009/125/EU** **RoHS Directive 2011/65/EU** **Battery Regulation 2023/1542** **European Accessibility Act 2019/882/EU**
UK ONLY: This product herewith complies with the requirements of the following and carries the UKCA marking.	**Radio Equipment Regulations 2017** **Ecodesign for Energy-Related Products Regulations 2010** **Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012**

(hu) További információ
(nl) Extra informatie
(el) Πρόσθετες πληροφορίες
(sv) Ytterligare information

5.1)
(hu) Ez a termék tartozik egy hatósági azonosítási típusszám ami marad szabályozási szempontból a design. A szabályozási modellszámmal a fő termék azonosítóját a szabályozási dokumentációban és vizsgálati jelentések, ez a szám nem keverendő össze a kereskedelmi névvel vagy a termék számokat.
(nl) Dit product is voorzien van een wettelijk modelnummer die blijft bij de regelgevende aspecten van de ontwerp. Het voorgeschreven modelnummer is het belangrijkste product-id in de regelgeving documentatie en testrapporten, moet dit nummer niet verwarren met de merknaam of de productnummers.
(el) Αυτό το προϊόν έχει εκχωρηθεί ένας ρυθμιστικός αριθμός μοντέλου που μένει με τις ρυθμιστικές πτυχές των σχεδιασμό. Ο αριθμός Ρυθμιστική μοντέλου είναι το κύριο αναγνωριστικό του προϊόντος με την κανονιστική τεκμηρίωση και εκθέσεις δοκιμών, ο αριθμός αυτός δεν πρέπει να συγχέεται με την εμπορική ονομασία ή τους αριθμούς προϊόντος.
(sv) Den här produkten har tilldelats ett kontrollmodellnummer som stannar med de regulatoriska aspekterna av design. Kontrollmodellnumret är den viktigaste produktbeteckning i lagstiftnings dokumentation och provningsrapporter, detta nummer ska inte förväxlas med produktnamn eller produktnummer.

5.2)
(hu) Ez a termék tesztelése egy tipikus HP környezetben együtt egy HP gazda rendszert.
(nl) Dit product werd getest in het HP-omgeving in combinatie met een HP hostsysteem.
(el) Αυτό το προϊόν έχει δοκιμαστεί σε ένα τυπικό περιβάλλον HP.
(sv) Produkten testades i en typisk HP-miljö tillsammans med en HP-värdsystem.

(hu) A felsorolt értesített testület a III. Melléklet szerint kiadta a felsorolt EU-típusú vizsgálati igazolást a piros irányelv 3.2. Cikkének alapvető követelménye szerint. (nl) Het genoemde aangemelde instantie heeft het beursgenoteerde EU-type onderzoekscertificaat uitgegeven, volgens bijlage III, voor de essentiële vereiste van artikel 3.2 van de Red Richtlijn. (el) Ο αναφερόμενος ειδοποιημένος φορέας εξέδωσε το πιστοποιητικό εξέτασης τύπου ΕΕ, σύμφωνα με το Παράρτημα III, για την βασική απαίτηση του άρθρου 3.2 της Red Directive. (sv) Det listade anmälda organet utfärdade det listade examenscertifikatet för EU-typ, enligt bilaga III, för det väsentliga kravet i artikel 3.2 i det röda direktivet.	**Notified Body: Sporton International (USA) Inc. ; TIMCO Engineering, Inc.** **Notified Body Number: 2907 ; 1177** **Certificate ID: SN23C0194 ; E1177-233680**

HP Inc.
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21-07-2025

Gilles Soulard

Gilles Soulard, Manager
Product Compliance Engineering

(hu) MEGFELELŐSÉGI NYILATKOZAT / (nl) CONFORMITEITSVERKLARING / (el) ΔΉΛΩΣΗ ΣΥΜΜΌΡΦΩΣΗΣ / (sv) FÖRKLARING OM ÖVERENSSTÄMMELSE

DoC #: HSN-I45C-4- R12

(hu) Helyi kapcsolattartó a jogi tudnivalókkal (nl) Lokale contactpersoon voor mbtvoorschriften (el) Τοπική επαφής για θέματα κανονισμών μόνο (sv) Lokal kontakt bara för regleringsärenden
EU: HP REG 23010, 08028 Barcelona, Spain UK: HP Inc UK Ltd, Regulatory Enquiries, Earley West, 300 Thames Valley Park Drive, Reading, RG6 1PT U.S.: HP Inc., 1501 Page Mill Road, Palo Alto 94304, U.S.A. 650-857-1501 Email: reg@hp.com www.hp.eu/certificates

(hu) MEGFELELŐSÉGI NYILATKOZAT / (nl) CONFORMITEITSVERKLARING / (el) ΔΉΛΩΣΗ ΣΥΜΜΌΡΦΩΣΗΣ / (sv) FÖRKLARING OM ÖVERENSSTÄMMELSE

DoC #: HSN-I45C-4- R12

(hu) I. MELLÉKLET **(nl) BIJLAGE I** **(el) ΤΟ ΠΑΡΆΡΤΗΜΑ I** **(sv) BILAGA I**	
(hu) Szabályozási Modell száma (RMN) (nl) Regulatory Model Number (RMN) (el) Αριθμός Μοντέλο κατά τους κανονισμούς (RMN) (sv) Regleringsmodellnummer (RMN)	**HSN-I45C-4**
1 (hu) LEÍRÁS | 2 (hu) RMN OPCIÓ* 1 (nl) BESCHRIJVING | 2 (nl) RMN OPTIE* 1 (el) ΠΕΡΙΓΡΑΦΗ | 2 (el) RMN ΕΠΙΛΟΓΉ* 1 (sv) BESKRIVNING | 2 (sv) RMN ALTERNATIV*	

1	2
Power Adapter	TPN-XA01 TPN-XA07 TPN-XA08 TPN-XA10 TPN-XA12 TPN-XA15 TPN-XA19 TPN-XA20 TPN-XA21 TPN-XA22 TPN-XA23 TPN-XA26 TPN-XA30 TPN-XA31 TPN-XA32
Battery Pack	TPN-XB0P TPN-XB0J TPN-XB0K TPN-XB0B TPN-XB0T TPN-XB0Y

(hu) MEGFELELŐSÉGI NYILATKOZAT / (nl) CONFORMITEITSVERKLARING / (el) ΔΉΛΩΣΗ ΣΥΜΜΌΡΦΩΣΗΣ / (sv) FÖRKLARING OM ÖVERENSSTÄMMELSE

DoC #: HSN-I45C-4- R12

	TPN-XB1O TPN-XB1S HSTNN-XB2J HSTNN-XB3B HSTNN-XB3H HSTNN-XB8W HSTNN-XB8V HSTNN-XB9C HSTNN-XB9X HSTNN-XB9Y HSTNN-XB1C HSTNN-XB1D
Transceiver 2,4 and 5/6 GHz WLAN and BT	AX211NGW AX211D2W BE200NGW BE200D2W
NFC Transceiver	XRAV-1
4G WWAN Transceiver, GPS Receiver	L860-GL-16 FM350-GL-16
5G/LTE/HSPA+ with GPS	FM350-GL
WWAN LTE-M (CAT-M1) with GPS	FB520

(hu) *Ha X jelentése bármilyen alfanumerikus karaktert
(nl) *Waar X staat voor elke alfanumerieke tekens
(el) *Σε περίπτωση που το X αντιπροσωπεύει οποιοδήποτε αλφαριθμητικό χαρακτήρα
(sv) *Där X representerar någon alfanumeriska tecken

(cs) PROHLÁŠENÍ O SHODĚ / (bg) ДЕКЛАРАЦИЯ ЗА СЪОТВЕТСТВИЕ / (sk) VYHLÁSENIE O ZHODE / (da) OVERENSSTEMMELSESERKLÆRING

DoC #: HSN-I45C-4- R12

(cs) Jméno výrobce (bg) Наименование на производителя (sk) Meno výrobcu (da) Producentens navn	**HP Inc.**
(cs) Adresa výrobce (bg) Производителя Адрес (sk) adresa výrobcu (da) Producentens adresse	**1501 Page Mill Road, Palo Alto, CA 94304 USA**
(cs) vyhovuje následujícím specifikacím a nařízení produktu (bg) заявява, че продуктът (sk) prehlasuje, že výrobok (da) erklærer, at produktet	
(cs) Název produktu a model[5.2] (bg) Име на продукта и модел[5.2] (sk) Názov produktu a model[5.2] (da) Produktnavn og Model[5.2]	**HP EliteBook 840 14 inch G9 Notebook PC; HP EliteBook 840 G9 series; HP EliteBook 1040 14 inch G9 Notebook PC; HP EliteBook 1040 G9 series; HP ZBook Firefly 14 inch G9 Mobile Workstation PC; HP ZBook Firefly 14 inch G9 series; HP EliteBook 840 14 inch G10 Notebook PC; HP EliteBook 840 G10 series; HP EliteBook 1040 14 inch G10 Notebook PC; HP EliteBook 1040 G10 series; HP ZBook Firefly 14 inch G10 Mobile Workstation PC; HP ZBook Firefly 14 inch G10 series; HP EliteBook 840 14 inch G11 Notebook PC; HP EliteBook 840 G11 series; HP ZBook Firefly 14 inch G11 Mobile Workstation PC; HP ZBook Firefly 14 inch G11 series**
(cs) Regulační číslo modelu[5.1] (bg) Нормативен номер на модела[5.1] (sk) Regulačné číslo modelu[5.1] (da) Lovpligtigt modelnummer[5.1]	**HSN-I45C-4**
(cs) Možnosti výrobku (bg) Опции на продукта (sk) Možnosti výrobku (da) Produkt Valg	**(cs) Viz příloha I** **(bg) Виж приложение I** **(sk) Pozri prílohu I** **(da) Se bilag I**

(cs) vyhovuje následujícím specifikacím a nařízení produktu
(bg) съответства на следните спецификации на продукта и регламенти
(sk) spĺňa nasledujúce špecifikácie a nariadenia produktu
(da) opfylder følgende produktspecifikationer og forordninger

(cs) Bezpečnost / (bg) Безопасност / (sk) Bezpečnosť / (da) Sikkerhed

IEC 60950-1:2005 +A1:2009 +A2:2013
IEC 62368-1:2014
EN 62368-1:2014 +A11:2017
IEC 62368-1:2018
EN IEC 62368-1:2020 +A11:2020
EN IEC 62311:2020
EN 62479:2010
EN 50665:2017
EN 50663:2017
EN 50566:2017/A1:2023
EN 50364:2018

(cs) EMC / (bg) EMC / (sk) EMC / (da) EMC

EN 55032:2015+A11:2020 Class B
EN 55035:2017+A11:2020
EN 61000-3-2:2014
EN 61000-3-3:2013 +A1:2019
EN 301 489-1 V2.2.3
EN 301 489-3 V2.3.2
EN 301 489-17 V3.2.4
EN 301 489-19 V2.2.1
EN 301 489-52 V1.2.1
EN 60601-1-2:2015 + AMD1:2021
FCC CFR 47 Part 15
ICES-003, Issue 7

(cs) Rádiové spektrum / (bg) Радиочестотният спектър / (sk) Rádiové spektrum / (da) Radiofrekvenser

EN 300 328 V2.2.2
EN 301 893 V2.1.1
EN 300 440 V2.1.1
EN 303 687 V1.1.1
EN 301 908-1 V15.2.1
EN 301 908-2 V13.1.1
EN 301 908-13 V13.2.1
EN 301 908-25 V15.1.1
EN 300 330 V2.1.1
EN 303 413 V1.2.1
EN 301 511 V12.5.1

(cs) ekodesignu / (bg) екодизайна / (sk) ekodizajne / (da) miljøvenligt design

Regulation (EU) 2023/826
EN 50564:2011
IEC 62301:2011

RoHS

EN IEC 63000:2018

(cs) PROHLÁŠENÍ O SHODĚ / (bg) ДЕКЛАРАЦИЯ ЗА СЪОТВЕТСТВИЕ / (sk) VYHLÁSENIE O ZHODE / (da) OVERENSSTEMMELSESERKLÆRING

DoC #: HSN-I45C-4- R12

(cs) Kybernetické bezpečnosti / (bg) Киберсигурността / (sk) Kybernetickej bezpečnosti / (da) Cybersikkerhed
EN 18031-1:2024
EN 18031-2:2024

(cs) Přístupnost / (bg) Достъпност / (sk) Prístupnosť / (da) Tilgængelighed
EN 301 549

(cs) Produkt tímto odpovídá požadavkům následujících CE (bg) Продуктът тук отговаря на изискванията на следното и съответно CE носи знамето (sk) Produkt týmto spĺňa požiadavky nasledujúceho a podľa toho nesie označenie CE (da) Produktet overholder hermed kravene i følgende og bærer CE-mærket i overensstemmelse hermed	**Radio Equipment Directive 2014/53/EU** **Ecodesign Directive 2009/125/EU** **RoHS Directive 2011/65/EU** **Battery Regulation 2023/1542** **European Accessibility Act 2019/882/EU**
UK ONLY: This product herewith complies with the requirements of the following and carries the UKCA marking.	**Radio Equipment Regulations 2017** **Ecodesign for Energy-Related Products Regulations 2010** **Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012**

(cs) Další informace
(bg) Допълнителна информация
(sk) Ďalšie informácie
(da) Yderligere information

5.1)
(cs) Tento produkt je přiděleno regulatorní číslo modelu, který zůstává s regulačními aspekty konstrukce. Počet Regulační model je hlavním identifikátorem produktu v regulační dokumentaci a protokoly o zkouškách, toto číslo by nemělo být zaměňováno s marketingovým názvem nebo čísla produktu.
(bg) Този продукт има нормативен номер на модела, който остава с регулаторните аспекти на дизайн. Номер на Нормативен модел е идентификатора основен продукт в нормативната документация и протоколи от изпитвания, този брой не трябва да се бърка с пазарното име или номера на продукта.
(sk) Tento produkt je pridelené regulačné číslo modelu, ktorý zostáva s regulačnými aspektmi konštrukcie. Počet Regulačný model je hlavným identifikátorom produktu v regulačnej dokumentácii a protokoly o skúškach, toto číslo by sa nemalo zamieňať s marketingovým názvom alebo s výrobnými číslami.
(da) Dette produkt er tildelt et lovpligtigt modelnummer, som forbliver de lovgivningsmæssige aspekter af den design. Det lovpligtige modelnummer er det vigtigste produkt-id i den lovgivningsmæssige dokumentation og testrapporter, bør dette antal ikke forveksles med navn markedsføringen eller varenumre.

5.2)
(cs) Tento výrobek byl testován v typické prostředí HP ve spolupráci s hostitelským systémem HP.
(bg) Този продукт е изпробван в типична HP среда във връзка с хост система HP.
(sk) Tento výrobok bol testovaný v typickej prostredí HP v spolupráci s hostiteľským systémom HP.
(da) Dette produkt blev testet i en typisk HP-miljø i forbindelse med en HP host system.

(cs) Oznámen oznámený orgán vydal uvedený osvědčení o zkoušce typu EU podle přílohy III pro základní požadavek článku 3.2 červené směrnice. (bg) Изброеният уведомен орган издаде изброения сертификат за изпит за изпитване на ЕС, според приложение III, за основното изискване на член 3.2 от Директивата RED. (sk) Uvedený oznámený orgán vydal uvedený osvedčenie o skúške typu EÚ podľa prílohy III, pokiaľ ide o základnú požiadavku článku 3.2 červenej smernice. (da) Det anførte meddelte organ udstedte det anførte EU-eksamenseksamen i henhold til bilag III for det væsentlige krav i artikel 3.2 i det røde direktiv.	**Notified Body: Sporton International (USA) Inc. ; TIMCO Engineering, Inc.** **Notified Body Number: 2907 ; 1177** **Certificate ID: SN23C0194 ; E1177-233680**

HP Inc.
1501 Page Mill Road, Palo Alto, CA
Gilles Soulard, Manager
Product Compliance Center

Palo Alto, CA
21-07-2025

Gilles Soulard

Gilles Soulard, Manager
Product Compliance Engineering

(cs) PROHLÁŠENÍ O SHODĚ / (bg) ДЕКЛАРАЦИЯ ЗА СЪОТВЕТСТВИЕ / (sk) VYHLÁSENIE O ZHODE / (da) OVERENSSTEMMELSESERKLÆRING

DoC #: HSN-I45C-4- R12

(cs) Lokální kontakt pro informace pouze o směrnicích (bg) Local контакт за регулаторни теми само (sk) Lokálne kontakt pre informácie iba o smerniciach (da) Lokal kontaktperson for regulative emner
EU: HP REG 23010, 08028 Barcelona, Spain UK: HP Inc UK Ltd, Regulatory Enquiries, Earley West, 300 Thames Valley Park Drive, Reading, RG6 1PT U.S.: HP Inc., 1501 Page Mill Road, Palo Alto 94304, U.S.A. 650-857-1501 Email: reg@hp.com www.hp.eu/certificates

(cs) PROHLÁŠENÍ O SHODĚ / (bg) ДЕКЛАРАЦИЯ ЗА СЪОТВЕТСТВИЕ / (sk) VYHLÁSENIE O ZHODE / (da) OVERENSSTEMMELSESERKLÆRING

DoC #: HSN-I45C-4- R12

(cs) PŘÍLOHA I **(bg) ПРИЛОЖЕНИЕ I** **(sk) PRÍLOHA I** **(da) BILAG I**	
(cs) Regulační číslo modelu (RMN) (bg) Нормативен номер на модела (RMN) (sk) Regulačné číslo modelu (RMN) (da) Lovpligtigt modelnummer (RMN)	**HSN-I45C-4**
1 (cs) POPIS | 2 (cs) RMN VOLBA* 1 (bg) ОПИСАНИЕ | 2 (bg) RMN ОПЦИЯ* 1 (sk) OPIS | 2 (sk) RMN VOĽBA* 1 (da) BESKRIVELSE | 2 (da) RMN OPTION*	

1	2
Power Adapter	TPN-XA01 TPN-XA07 TPN-XA08 TPN-XA10 TPN-XA12 TPN-XA15 TPN-XA19 TPN-XA20 TPN-XA21 TPN-XA22 TPN-XA23 TPN-XA26 TPN-XA30 TPN-XA31 TPN-XA32
Battery Pack	TPN-XB0P TPN-XB0J TPN-XB0K TPN-XB0B TPN-XB0T TPN-XB0Y

(cs) PROHLÁŠENÍ O SHODĚ / (bg) ДЕКЛАРАЦИЯ ЗА СЪОТВЕТСТВИЕ / (sk) VYHLÁSENIE O ZHODE / (da) OVERENSSTEMMELSESERKLÆRING

DoC #: HSN-I45C-4- R12

	TPN-XB1O TPN-XB1S HSTNN-XB2J HSTNN-XB3B HSTNN-XB3H HSTNN-XB8W HSTNN-XB8V HSTNN-XB9C HSTNN-XB9X HSTNN-XB9Y HSTNN-XB1C HSTNN-XB1D
Transceiver 2,4 and 5/6 GHz WLAN and BT	AX211NGW AX211D2W BE200NGW BE200D2W
NFC Transceiver	XRAV-1
4G WWAN Transceiver, GPS Receiver	L860-GL-16 FM350-GL-16
5G/LTE/HSPA+ with GPS	FM350-GL
WWAN LTE-M (CAT-M1) with GPS	FB520

(cs) *Tam, kde X představuje libovolný alfanumerický znak
(bg) *Когато X представлява всяка алфа цифров знак
(sk) *Tam, kde X predstavuje ľubovoľný alfanumerický znak
(da) *Hvor X betegner en hvilken som helst alfanumerisk tegn

(fi) VAATIMUSTENMUKAISUUSVAKUUTUS / (lt) ATITIKTIES DEKLARACIJA / (no) SAMSVARSERKLÆRING / (sl) IZJAVA O SKLADNOSTI

DoC #: HSN-I45C-4- R12

(fi) Valmistajan nimi (lt) Gamintojo pavadinimas (no) Produsentens navn (sl) Ime proizvajalca	**HP Inc.**
(fi) Valmistajan osoite (lt) Gamintojo adresas (no) Produsentens adresse (sl) Naslov proizvajalca	**1501 Page Mill Road, Palo Alto, CA 94304 USA**
(fi) ilmoittaa, että tuote (lt) pareiškia, kad produktas (no) erklærer at dette produktet (sl) izjavlja, da izdelek	
(fi) Tuotteen nimi ja malli[5.2] (lt) Produkto pavadinimas ir modelis[5.2] (no) Produktnavn og modell[5.2] (sl) Ime izdelka in model[5.2]	**HP EliteBook 840 14 inch G9 Notebook PC; HP EliteBook 840 G9 series; HP EliteBook 1040 14 inch G9 Notebook PC; HP EliteBook 1040 G9 series; HP ZBook Firefly 14 inch G9 Mobile Workstation PC; HP ZBook Firefly 14 inch G9 series; HP EliteBook 840 14 inch G10 Notebook PC; HP EliteBook 840 G10 series; HP EliteBook 1040 14 inch G10 Notebook PC; HP EliteBook 1040 G10 series; HP ZBook Firefly 14 inch G10 Mobile Workstation PC; HP ZBook Firefly 14 inch G10 series; HP EliteBook 840 14 inch G11 Notebook PC; HP EliteBook 840 G11 series; HP ZBook Firefly 14 inch G11 Mobile Workstation PC; HP ZBook Firefly 14 inch G11 series**
(fi) Säädösmallinumero[5.1] (lt) Normatyvinis modelio numeris[5.1] (no) Forskriftsmessig modellnummer[5.1] (sl) Upravna številka modela[5.1]	**HSN-I45C-4**
(fi) Tuotevaihtoehdot (lt) Prekės pasirinkimai (no) Produktvalg (sl) Možnosti izdelka	**(fi) Katso liite I** **(lt) Žiūrėti I priedą** **(no) Se vedlegg I** **(sl) Glej Prilogo I**

(fi) täyttää seuraavat tuotevaatimukset ja asetukset
(lt) atitinka šias produkto specifikacijas ir reglamentų
(no) er i samsvar med følgende produktspesifikasjoner og forskrift
(sl) v skladu z naslednjimi specifikacijami in predpisi o izdelku

(fi) Turvallisuus / (lt) Sauga / (no) Sikkerhet / (sl) Siguranţă

IEC 60950-1:2005 +A1:2009 +A2:2013
IEC 62368-1:2014
EN 62368-1:2014 +A11:2017
IEC 62368-1:2018
EN IEC 62368-1:2020 +A11:2020
EN IEC 62311:2020
EN 62479:2010
EN 50665:2017
EN 50663:2017
EN 50566:2017/A1:2023
EN 50364:2018

(fi) EMC / (lt) EMC / (no) EMC / (sl) EMC

EN 55032:2015+A11:2020 Class B
EN 55035:2017+A11:2020
EN 61000-3-2:2014
EN 61000-3-3:2013 +A1:2019
EN 301 489-1 V2.2.3
EN 301 489-3 V2.3.2
EN 301 489-17 V3.2.4
EN 301 489-19 V2.2.1
EN 301 489-52 V1.2.1
EN 60601-1-2:2015 + AMD1:2021
FCC CFR 47 Part 15
ICES-003, Issue 7

(fi) Radiotaajuuksien / (lt) Radijo dažnių spektras / (no) Radio spektrum / (sl) Radijski spekter

EN 300 328 V2.2.2
EN 301 893 V2.1.1
EN 300 440 V2.1.1
EN 303 687 V1.1.1
EN 301 908-1 V15.2.1
EN 301 908-2 V13.1.1
EN 301 908-13 V13.2.1
EN 301 908-25 V15.1.1
EN 300 330 V2.1.1
EN 303 413 V1.2.1
EN 301 511 V12.5.1

(fi) Ecodesign / (lt) Ekologinio / (no) økodesign / (sl) okoljsko primerni zasnovi

Regulation (EU) 2023/826
EN 50564:2011
IEC 62301:2011

RoHS

EN IEC 63000:2018

(fi) VAATIMUSTENMUKAISUUSVAKUUTUS / (lt) ATITIKTIES DEKLARACIJA / (no) SAMSVARSERKLÆRING / (sl) IZJAVA O SKLADNOSTI

DoC #: HSN-I45C-4- R12

(fi) Kyberturvallisuus / (lt) Kibernetinio saugumo / (no) Cybersikkerhet / (sl) Kibernetski varnosti
EN 18031-1:2024
EN 18031-2:2024

(fi) Esteettömyyttä / (lt) Prieinamumo / (no) Tilgjengelighet / (sl) Dostopnost
EN 301 549

(fi) Tuote täyttää seuraavan vaatimukset ja kantaa CE-merkintää vastaavasti (lt) Produktas atitinka šiuos reikalavimus ir atitinkamai nurodo CE žymėjimą (no) Produktet følger med kravene til følgende og bærer CE-merket deretter (sl) Izdelek s tem ustreza zahtevam naslednjega in ustrezno nosi označevanje CE	**Radio Equipment Directive 2014/53/EU** **Ecodesign Directive 2009/125/EU** **RoHS Directive 2011/65/EU** **Battery Regulation 2023/1542** **European Accessibility Act 2019/882/EU**
UK ONLY: This product herewith complies with the requirements of the following and carries the UKCA marking.	**Radio Equipment Regulations 2017** **Ecodesign for Energy-Related Products Regulations 2010** **Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012**

(fi) Lisätiedot
(lt) Papildoma informacija
(no) Tilleggsinformasjon
(sl) Dodatne informacije

5.1)
(fi) Tämä tuote on annettu virallinen numero, joka pysyy hallinnolliset näkökohdat suunnittelu. Säädöksiä koskeva mallinumero on tärkein tuotteen tunniste sääntely asiakirjat ja testausselosteet, tätä numeroa ei pidä sekoittaa tuotteen nimeen tai tuotteen numeroita.
(lt) Šis produktas pažymėtas normatyviniu modelio numeriu, kuris lieka su reglamentavimo aspektų dizainas. Normatyvinis modelio numeris yra pagrindinė produkto identifikatorius reguliavimo dokumentus ir bandymų ataskaitos, šis skaičius neturėtų būti painiojamas su prekės pavadinimu arba gaminio numeriais.
(no) Dette produktet er tildelt et modellnummer som holder med de regulatoriske aspekter av design. Forskriftsmodellnummeret er den viktigste produkt-ID i regulatoriske dokumentasjon og testrapporter, bør dette nummeret ikke forveksles med markedsføringsnavnet eller produktnumrene.
(sl) Ta izdelek je dodeljena upravna številka modela, ki ostane pri regulativnih vidikih zasnova. Število Regulativni model je glavni identifikator izdelka v regulativnem dokumentacije in poročila o preskusih, to število ne sme zamenjevati s tržnim imenom ali številkami izdelka.

5.2)
(fi) Tämä tuote testattu tyypillisessä HP ympäristöministeriö yhdessä HP isäntä järjestelmä.
(lt) Ši prekė buvo išbandytas standartinės HP aplinkoje kartu su HP priimančioji sistema.
(no) Produktet ble testet i et typisk miljø HP i forbindelse med en HP-vertssystemet.
(sl) Acest produs fost testat intr-un Mediu tipic HP împreună cu un sistem Gazda HP.

(fi) Listattu ilmoitettu elin julkaisi Listad EU-tyyppisen tutkimustodistuksen liitteen III mukaan punaisen direktiivin 3.2 artiklan olennaisesta vaatimuksesta. (lt) Išvardytos pranešimo įstaiga išdavė išvardytą ES tipo egzamino pažymėjimą, remiantis III priede, dėl esminio Raudonosios direktyvo 3.2 straipsnio reikalavimo. (no) Det oppførte varslede organet ga ut det listede eksamenssertifikatet for EU-type, ifølge vedlegg III, for det essensielle kravet i artikkel 3.2 i det røde direktivet. (sl) Navedeni obveščeni organ je v skladu z Prilogo III izdal navedeno potrdilo o izpitu EU za bistveno zahtevo člena 3.2 Rdeče direktive.	**Notified Body: Sporton International (USA) Inc. ; TIMCO Engineering, Inc.** **Notified Body Number: 2907 ; 1177** **Certificate ID: SN23C0194 ; E1177-233680**

HP Inc.
1501 Page Mill Road, Palo Alto, CA
Gilles Soulard, Manager
Product Compliance Center

Palo Alto, CA
21-07-2025

Gilles Soulard

Gilles Soulard, Manager
Product Compliance Engineering

(fi) Paikallinen yhteyshenkilö säännöksistä antavat
(lt) Vietinis kontaktas normatyviniais klausimais tik
(no) Lokal kontakt for spørsmål om forskrifter
(sl) Lokalni kontakt za upravnimi temami

EU: HP REG 23010, 08028 Barcelona, Spain

(fi) VAATIMUSTENMUKAISUUSVAKUUTUS / (lt) ATITIKTIES DEKLARACIJA / (no) SAMSVARSERKLÆRING / (sl) IZJAVA O SKLADNOSTI

DoC #: HSN-I45C-4- R12

UK: HP Inc UK Ltd, Regulatory Enquiries, Earley West, 300 Thames Valley Park Drive, Reading, RG6 1PT
U.S.: HP Inc., 1501 Page Mill Road, Palo Alto 94304, U.S.A. 650-857-1501
Email: reg@hp.com www.hp.eu/certificates

(fi) VAATIMUSTENMUKAISUUSVAKUUTUS / (lt) ATITIKTIES DEKLARACIJA / (no) SAMSVARSERKLÆRING / (sl) IZJAVA O SKLADNOSTI

DoC #: HSN-I45C-4- R12

(fi) LIITE I **(lt) I PRIEDAS** **(no) VEDLEGG I** **(sl) PRILOGA I**	
(fi) Säädösmallinumero (RMN) (lt) Normatyvinis modelio numeris (RMN) (no) Forskriftsmessig modellnummer (RMN) (sl) Upravna številka modela (RMN)	**HSN-I45C-4**
1 (fi) KUVAUS | 2 (fi) RMN VAIHTOEHTO* 1 (lt) APRAŠYMAS | 2 (lt) RMN PASIRINKIMAS* 1 (no) BESKRIVELSE | 2 (no) RMN OPSJON* 1 (sl) OPIS | 2 (sl) RMN MOŽNOST*	

1	2
Power Adapter	TPN-XA01 TPN-XA07 TPN-XA08 TPN-XA10 TPN-XA12 TPN-XA15 TPN-XA19 TPN-XA20 TPN-XA21 TPN-XA22 TPN-XA23 TPN-XA26 TPN-XA30 TPN-XA31 TPN-XA32
Battery Pack	TPN-XB0P TPN-XB0J TPN-XB0K TPN-XB0B TPN-XB0T TPN-XB0Y

(fi) VAATIMUSTENMUKAISUUSVAKUUTUS / (lt) ATITIKTIES DEKLARACIJA / (no) SAMSVARSERKLÆRING / (sl) IZJAVA O SKLADNOSTI

DoC #: HSN-I45C-4- R12

	TPN-XB1O TPN-XB1S HSTNN-XB2J HSTNN-XB3B HSTNN-XB3H HSTNN-XB8W HSTNN-XB8V HSTNN-XB9C HSTNN-XB9X HSTNN-XB9Y HSTNN-XB1C HSTNN-XB1D
Transceiver 2,4 and 5/6 GHz WLAN and BT	AX211NGW AX211D2W BE200NGW BE200D2W
NFC Transceiver	XRAV-1
4G WWAN Transceiver, GPS Receiver	L860-GL-16 FM350-GL-16
5G/LTE/HSPA+ with GPS	FM350-GL
WWAN LTE-M (CAT-M1) with GPS	FB520

(fi) *Jos X on mikä tahansa aakkosnumeerinen merkki
(lt) *Jeigu X žymi bet alfa skaitinė charakterį
(no) *Hvor X representerer en hvilken som helst alfa-numeriske karakteren
(sl) *Če je X predstavlja nobene alfa numerični znak

(et) VASTAVUSDEKLARATSIOON / (hr) IZJAVA O SUKLADNOSTI / (lv) ATBILSTĪBAS DEKLARĀCIJA / (is) LEYFISYFIRLÝSING

DoC #: HSN-I45C-4- R12

(et) Tootja nimi (hr) Naziv proizvođača (lv) Ražotāja nosaukums (is) Framleiðanda Heiti	**HP Inc.**
(et) Tootja aadress (hr) Proizvođača adresa (lv) Ražotāja adrese (is) Heimilisfang framleiðanda	**1501 Page Mill Road, Palo Alto, CA 94304 USA**
(et) kinnitab, et toode (hr) izjavljuje da je proizvod (lv) paziņo, ka produkts (is) því yfir, að varan	
(et) Toote nimi ja mudel[5.2] (hr) Naziv proizvoda i Model[5.2] (lv) Produkta nosaukums un modelis[5.2] (is) Nafn vöru og Model[5.2]	**HP EliteBook 840 14 inch G9 Notebook PC; HP EliteBook 840 G9 series; HP EliteBook 1040 14 inch G9 Notebook PC; HP EliteBook 1040 G9 series; HP ZBook Firefly 14 inch G9 Mobile Workstation PC; HP ZBook Firefly 14 inch G9 series; HP EliteBook 840 14 inch G10 Notebook PC; HP EliteBook 840 G10 series; HP EliteBook 1040 14 inch G10 Notebook PC; HP EliteBook 1040 G10 series; HP ZBook Firefly 14 inch G10 Mobile Workstation PC; HP ZBook Firefly 14 inch G10 series; HP EliteBook 840 14 inch G11 Notebook PC; HP EliteBook 840 G11 series; HP ZBook Firefly 14 inch G11 Mobile Workstation PC; HP ZBook Firefly 14 inch G11 series**
(et) Normatiivne mudelinumber[5.1] (hr) Broj modela prema propisima[5.1] (lv) Regulējošais modeļa numurs[5.1] (is) Regulatory Model Number[5.1]	**HSN-I45C-4**
(et) Toote lisaseadmed (hr) Mogućnosti proizvoda (lv) Izstrādājuma iespējas (is) Valmöguleikar vöru	**(et) Vt lisa I** **(hr) Vidi Prilog I** **(lv) Féach pielikums I** **(is) Sjá viðauka I**

(et) vastab järgmistele tootespetsifikatsioonidele ja määrused
(hr) sukladan sljedećim specifikacijama proizvoda i propisa
(lv) atbilst šādām iekārtas specifikācijām un regulām
(is) í samræmi við eftirfarandi forskriftir vara og reglugerðir

(et) Ohutus / (hr) Sigurnost / (lv) Sábháilteacht / (is) Öryggi

IEC 60950-1:2005 +A1:2009 +A2:2013
IEC 62368-1:2014
EN 62368-1:2014 +A11:2017
IEC 62368-1:2018
EN IEC 62368-1:2020 +A11:2020
EN IEC 62311:2020
EN 62479:2010
EN 50665:2017
EN 50663:2017
EN 50566:2017/A1:2023
EN 50364:2018

(et) EMC / (hr) EMC / (lv) EMC / (is) EMC

EN 55032:2015+A11:2020 Class B
EN 55035:2017+A11:2020
EN 61000-3-2:2014
EN 61000-3-3:2013 +A1:2019
EN 301 489-1 V2.2.3
EN 301 489-3 V2.3.2
EN 301 489-17 V3.2.4
EN 301 489-19 V2.2.1
EN 301 489-52 V1.2.1
EN 60601-1-2:2015 + AMD1:2021
FCC CFR 47 Part 15
ICES-003, Issue 7

(et) Raadiospektri / (hr) Radio spektar / (lv) Radiofrekvenču spektrs / (is) Tíðniróf

EN 300 328 V2.2.2
EN 301 893 V2.1.1
EN 300 440 V2.1.1
EN 303 687 V1.1.1
EN 301 908-1 V15.2.1
EN 301 908-2 V13.1.1
EN 301 908-13 V13.2.1
EN 301 908-25 V15.1.1
EN 300 330 V2.1.1
EN 303 413 V1.2.1
EN 301 511 V12.5.1

(et) ökodisaini / (hr) Ekološki dizajn / (lv) ekodizains / (is) visthönnun

Regulation (EU) 2023/826
EN 50564:2011
IEC 62301:2011

RoHS

EN IEC 63000:2018

(et) VASTAVUSDEKLARATSIOON / (hr) IZJAVA O SUKLADNOSTI / (lv) ATBILSTĪBAS DEKLARĀCIJA / (is) LEYFISYFIRLÝSING

DoC #: HSN-I45C-4- R12

(et) Küberturvalisuse / (hr) Kibersigurnost / (lv) Kiberdrošības / (is) Netöryggi
EN 18031-1:2024
EN 18031-2:2024

(et) Ligipääsetavust / (hr) Pristupačnost / (lv) Piekļūstamība / (is) Aðgengi
EN 301 549

(et) Käesoleva toode vastab järgmiste nõuetele ja see kannab vastavalt CE märke (hr) Proizvod u skladu s zahtjevima sljedećeg i u skladu s tim nosi CE označavanje (lv) Ar šo produkts atbilst šādām prasībām un attiecīgi nes CE marķēšanu (is) Varan er hér með í samræmi við kröfur eftirfarandi og ber CE með sér í samræmi við það	**Radio Equipment Directive 2014/53/EU** **Ecodesign Directive 2009/125/EU** **RoHS Directive 2011/65/EU** **Battery Regulation 2023/1542** **European Accessibility Act 2019/882/EU**
UK ONLY: This product herewith complies with the requirements of the following and carries the UKCA marking.	**Radio Equipment Regulations 2017** **Ecodesign for Energy-Related Products Regulations 2010** **Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012**

(et) Lisainfo
(hr) Dodatne informacije
(lv) Papildus informācija
(is) Viðbótarupplýsingar

5.1)
(et) See toode on määratud normatiivne mudelinumber mis jääb regulatiivsed aspektid disain. Normatiivne mudelinumber on peamine toode tunnuse reguleerivad dokumendid ja katseprotokollid, see number ei tohiks segamini ajada toote nime või toode numbrid.
(hr) Ovaj proizvod je dodijeljen broj modela prema propisima koji ostaje s regulatornim aspektima Dizajn. Broj modela prema propisima je glavni identifikator proizvod u regulatornom dokumentacije i izvješća o ispitivanju, ovaj broj ne treba brkati s marketinškim nazivom ili brojeve proizvoda.
(lv) Šis produkts ir piešķirts regulējošais modeļa numurs, kas paliek ar normatīvajiem aspektiem dizainu. Regulējošais modeļa numurs ir galvenais produkts identifikators pārvaldes dokumentācijā un testēšanas pārskati, šis skaits nedrīkst sajaukt ar mārketinga nosaukumu vai produktu numuriem.
(is) Þessi vara er úthlutað Regulatory tegundarnúmer sem dvelst hjá reglugerðum þætti í hönnun. The Regulatory Model Number er helsta vara auðkenni í reglugerðum skjöl og prófunarskýrslur, þetta númer ætti ekki að rugla saman við nafn markaðssetningu eða vörunúmerum.

5.2)
(et) See toode on testitud tüüpiliste HP keskkonnas koos HP vastuvõtva süsteemi.
(hr) Ovaj proizvod je ispitan u tipičnoj HP okoliš u suradnji s HP-host sustava.
(lv) Rinneadh tástáil ar táirge SEO i dtimpeallacht HP tipiciúil i gcomhar le CORAS óstach HP.
(is) Þessi vara var prófað í dæmigerðum HP umhverfi í tengslum við HP móti kerfinu.

(et) Loetletud teatatud organ andis III lisa kohaselt välja loetletud EL-tüüpi eksamitunnistuse, et saada punase direktiivi artikli 3.2 olulist nõuet. (hr) Navedeno je obaviješteno tijelo izdalo navedenu potvrdu o ispitivanju EU-a, prema Prilogu III, za bitni zahtjev članka 3.2. Red Direktive. (lv) Saskaņā ar III pielikumu norādītā paziņotā institūcija uzskaitītajā ES tipa eksāmena sertifikātā izdeva Sarkanās direktīvas 3.2. Pantā. (is) Hinn skráði tilkynnti aðili gaf út skráð prófskírteini ESB, samkvæmt viðauka III, vegna nauðsynlegrar kröfu 3.2. greinar rauðu tilskipunarinnar.	**Notified Body: Sporton International (USA) Inc. ; TIMCO Engineering, Inc.** **Notified Body Number: 2907 ; 1177** **Certificate ID: SN23C0194 ; E1177-233680**

HP Inc.
1501 Page Mill Road, Palo Alto, CA
Gilles Soulard, Manager
Product Compliance Center

Palo Alto, CA
21-07-2025

Gilles Soulard

Gilles Soulard, Manager
Product Compliance Engineering

(et) Kohalik kontakt Ainult normatiivsete küsimuste korral
(hr) Lokalno kontakt za pravna pitanja samo
(lv) Vietējā kontaktpersona jautājumos par reglamentāciju tikai
(is) Upplýsingaskrifstofa fyrir reglusetningu efni eingöngu

(et) VASTAVUSDEKLARATSIOON / (hr) IZJAVA O SUKLADNOSTI / (lv) ATBILSTĪBAS DEKLARĀCIJA / (is) LEYFISYFIRLÝSING

DoC #: HSN-I45C-4- R12

EU:	HP REG 23010, 08028 Barcelona, Spain	
UK:	HP Inc UK Ltd, Regulatory Enquiries, Earley West, 300 Thames Valley Park Drive, Reading, RG6 1PT	
U.S.:	HP Inc., 1501 Page Mill Road, Palo Alto 94304, U.S.A. 650-857-1501	
Email:	reg@hp.com	www.hp.eu/certificates

(et) VASTAVUSDEKLARATSIOON / (hr) IZJAVA O SUKLADNOSTI / (lv) ATBILSTĪBAS DEKLARĀCIJA / (is) LEYFISYFIRLÝSING

DoC #: HSN-I45C-4- R12

(et) I LISA **(hr) PRILOG I** **(lv) I PIELIKUMS** **(is) VIÐAUKA I**	
(et) Normatiivne mudelinumber (RMN) (hr) Broj modela prema propisima (RMN) (lv) Regulējošais modeļa numurs (RMN) (is) Regulatory Model Number (RMN)	**HSN-I45C-4**
1 (et) KIRJELDUS | 2 (et) RMN VALIK* 1 (hr) OPIS | 2 (hr) RMN OPCIJA* 1 (lv) APRAKSTS | 2 (lv) RMN IZVĒLE* 1 (is) LÝSING | 2 (is) RMN VALKOSTUR*	

1	2
Power Adapter	TPN-XA01 TPN-XA07 TPN-XA08 TPN-XA10 TPN-XA12 TPN-XA15 TPN-XA19 TPN-XA20 TPN-XA21 TPN-XA22 TPN-XA23 TPN-XA26 TPN-XA30 TPN-XA31 TPN-XA32
Battery Pack	TPN-XB0P TPN-XB0J TPN-XB0K TPN-XB0B TPN-XB0T TPN-XB0Y

(et) VASTAVUSDEKLARATSIOON / (hr) IZJAVA O SUKLADNOSTI / (lv) ATBILSTĪBAS DEKLARĀCIJA / (is) LEYFISYFIRLÝSING

DoC #: HSN-I45C-4- R12

	TPN-XB1O TPN-XB1S HSTNN-XB2J HSTNN-XB3B HSTNN-XB3H HSTNN-XB8W HSTNN-XB8V HSTNN-XB9C HSTNN-XB9X HSTNN-XB9Y HSTNN-XB1C HSTNN-XB1D
Transceiver 2,4 and 5/6 GHz WLAN and BT	AX211NGW AX211D2W BE200NGW BE200D2W
NFC Transceiver	XRAV-1
4G WWAN Transceiver, GPS Receiver	L860-GL-16 FM350-GL-16
5G/LTE/HSPA+ with GPS	FM350-GL
WWAN LTE-M (CAT-M1) with GPS	FB520

(et) *Kui X on ükskõik tähtnumbriline märk
(hr) *Gdje X predstavlja nikakvu alfa numeričku karakter
(lv) *Kur X apzīmē jebkuru burtu ciparu raksturs
(is) *Þar sem X táknar allir alfa tölugildi karakter

(mt) DIKJARAZZJONI TA 'KONFORMITÀ / (tr) UYGUNLUK BEYANI / (sr) DEKLARACIJA O USAGLAŠENOSTI / (alb.sq) DEKLARATA E KONFORMITETIT

DoC #: HSN-I45C-4- R12

(mt) Isem tal-manifattur (tr) Üretici Adı (sr) Naziv proizvođača (alb.sq) Emri e prodhuesit	**HP Inc.**
(mt) Indirizz tal-manifattur (tr) Üretici Adresi (sr) Adresa proizvođača (alb.sq) Adresa e prodhuesit	**1501 Page Mill Road, Palo Alto, CA 94304 USA**
(mt) jiddikjara, li l-prodott (tr) beyan eder, ürün (sr) izjavljuju pod isključivom odgovornošću da je proizvod (alb.sq) deklarojnë, nën përgjegjësinë e vetme që produkti	
(mt) Isem tal-prodott u Mudell[5.2] (tr) Ürün Adı ve Modeli[5.2] (sr) Naziv proizvoda i model[5.2] (alb.sq) Emri dhe modeli i produktit[5.2]	**HP EliteBook 840 14 inch G9 Notebook PC; HP EliteBook 840 G9 series; HP EliteBook 1040 14 inch G9 Notebook PC; HP EliteBook 1040 G9 series; HP ZBook Firefly 14 inch G9 Mobile Workstation PC; HP ZBook Firefly 14 inch G9 series; HP EliteBook 840 14 inch G10 Notebook PC; HP EliteBook 840 G10 series; HP EliteBook 1040 14 inch G10 Notebook PC; HP EliteBook 1040 G10 series; HP ZBook Firefly 14 inch G10 Mobile Workstation PC; HP ZBook Firefly 14 inch G10 series; HP EliteBook 840 14 inch G11 Notebook PC; HP EliteBook 840 G11 series; HP ZBook Firefly 14 inch G11 Mobile Workstation PC; HP ZBook Firefly 14 inch G11 series**
(mt) Mudell regolatorju Numru[5.1] (tr) Yasal Model Numarası[5.1] (sr) Broj regulatornog modela[5.1] (alb.sq) Numri i Modelit Rregullator[5.1]	**HSN-I45C-4**
(mt) Għażliet tal-prodott (tr) Ürün Opsiyonları (sr) Opcije (alb.sq) Opsionet e produktit	**(mt) Ara l-Anness I** **(tr) Bkz: Ek I** **(sr) Vidi PRILOG I** **(alb.sq) Shih aneksin I**

(mt) jikkonforma mal-Prodott Speċifikazzjonijiet li ġejjin u Regolamenti:
(tr) aşağıdaki Ürün spesifikasyonlarına ve Yönetmeliklere uygun olduğunu beyan eder
(sr) u skladu sa sledećim specifikacijama proizvoda i propisima
(alb.sq) përputhet me specifikimet dhe rregulloret e mëposhtme të produktit

(mt) Sigurtà / (tr) Güvenlik / (sr) Sigurnost / (alb.sq) Sigurinë e produktit

IEC 60950-1:2005 +A1:2009 +A2:2013
IEC 62368-1:2014
EN 62368-1:2014 +A11:2017
IEC 62368-1:2018
EN IEC 62368-1:2020 +A11:2020
EN IEC 62311:2020
EN 62479:2010
EN 50665:2017
EN 50663:2017
EN 50566:2017/A1:2023
EN 50364:2018

(mt) EMC / (tr) EMC / (sr) EMK / (alb.sq) Përputhshmëria elektromagnetike

EN 55032:2015+A11:2020 Class B
EN 55035:2017+A11:2020
EN 61000-3-2:2014
EN 61000-3-3:2013 +A1:2019
EN 301 489-1 V2.2.3
EN 301 489-3 V2.3.2
EN 301 489-17 V3.2.4
EN 301 489-19 V2.2.1
EN 301 489-52 V1.2.1
EN 60601-1-2:2015 + AMD1:2021
FCC CFR 47 Part 15
ICES-003, Issue 7

(mt) Ispettru tar-radju / (tr) Spektrum / (sr) Radiofrekvencijski spektar / (alb.sq) Spektri i radio

EN 300 328 V2.2.2
EN 301 893 V2.1.1
EN 300 440 V2.1.1
EN 303 687 V1.1.1
EN 301 908-1 V15.2.1
EN 301 908-2 V13.1.1
EN 301 908-13 V13.2.1
EN 301 908-25 V15.1.1
EN 300 330 V2.1.1
EN 303 413 V1.2.1
EN 301 511 V12.5.1

(mt) Ekodisinn / (tr) Ekotasarım / (sr) Ekodizajn / (alb.sq) Ekodizajni

Regulation (EU) 2023/826
EN 50564:2011
IEC 62301:2011

RoHS

EN IEC 63000:2018

(mt) DIKJARAZZJONI TA 'KONFORMITÀ / (tr) UYGUNLUK BEYANI / (sr) DEKLARACIJA O USAGLAŠENOSTI / (alb.sq) DEKLARATA E KONFORMITETIT

DoC #: HSN-I45C-4- R12

(mt) Ċibersigurtà / (tr) Siber güvenlik / (sr) Sajber bezbednost / (alb.sq) Siguria kibernetike
EN 18031-1:2024
EN 18031-2:2024

(mt) Aċċessibilità / (tr) Erişilebilirlik / (sr) Pristupacnost / (alb.sq) Aksesueshmërisë
EN 301 549

(mt) Il-prodott hawnhekk jikkonforma mar-rekwiżiti ta 'dawn li ġejjin u jġorr il-marka CE kif xieraq (tr) Ürün, aşağıdakilerin gereksinimlerine uygundur ve CE işaretlemeyi buna göre taşır (sr) Proizvod je u skladu sa sledećim zahtevima i prema tome nosi oznaku CE. (alb.sq) Produkti këtu përputhet me kërkesat e mëposhtme dhe mbart CE-duke shënuar në përputhje me rrethanat	**Radio Equipment Directive 2014/53/EU** **Ecodesign Directive 2009/125/EU** **RoHS Directive 2011/65/EU** **Battery Regulation 2023/1542** **European Accessibility Act 2019/882/EU**
UK ONLY: This product herewith complies with the requirements of the following and carries the UKCA marking.	**Radio Equipment Regulations 2017** **Ecodesign for Energy-Related Products Regulations 2010** **Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012**

(mt) Informazzjoni addizzjonali
(tr) Ek Bilgiler
(sr) Dopunske Informacije
(alb.sq) Informacion shtese

5.1)
(mt) Dan il-prodott huwa assenjat għal mudell regolatorju Numru li jibqa 'mal-aspetti regolatorji ta' l- disinn. Il-Numru tal-Mudell regolatorja hija l-identifikatur tal-prodott ewlieni fid-dokumentazzjoni regolatorju u rapporti tat-test, dan in-numru ma għandux jiġi mfixkel ma 'isem marketing jew in-numri tal-prodott.
(tr) Bu ürüne tasarım sırasında, teknik mevzutlar gözetilerek bir Yasal Model Numarası atanmıştır. Yasal Model Numarası, ana ürün için düzenleyici belgelerinde ve test raporlarında tanımlayıcıdır. Bu numara pazarlama adı veya ürün numaraları ile karıştırılmamalıdır.
(sr) Ovom proizvodu je dodeljen regulatorni broj modela koji ostaje u skladu sa regulatornim aspektima dizajna. Regulatorni broj modela je glavni identifikator proizvoda u regulatornoj dokumentaciji i izveštajima o ispitivanju, ovaj broj ne treba mešati sa marketinškim nazivom ili brojevima proizvoda.
(alb.sq) Këtij produkti i është caktuar një Numër Modeli Rregullator i cili qëndron me aspektet rregullatore të modelit. Numri i Modelit Rregullator është identifikuesi kryesor i produktit në dokumentacionin rregullator dhe raportet e provave, ky numër nuk duhet të ngatërrohet me emrin e marketingut ose numrat e produkteve.

5.2)
(mt) Dan il-prodott ġie ttestjata f'ambjent HP tipiku flimkien ma 'sistema ospitanti HP.
(tr) Bu ürün, tipik bir HP ortamında test edilmiştir.
(sr) Ovaj proizvod je testiran u tipičnom HP okruženju.
(alb.sq) Ky produkt u testua në një mjedis tipik HP.

(mt) Il-korp notifikat elenkat ħareġ iċ-ċertifikat ta 'eżami tat-tip Eu elenkat, skond l-Anness III, għar-rekwiżit essenzjali tal-Artikolu 3.2 tad-Direttiva l-Ħamra. (tr) Listelenen Beden, Kırmızı Direktifin 3.2. Maddesinin temel gereksinimi için listelenen AB tipi sınav sertifikasını yayınladı. (sr) Navedeno imenovano telo izvršilo je ocenjivanje i izdalo navedenu potvrdu o ispitivanju prema Prilogu III, za bitne zahteve člana 3.2 RED Direktive. (alb.sq) Trupi i njoftuar i listuar lëshoi certifikatën e listuar të provimit të tipit BE, sipas Shtojcës III, për kërkesën thelbësore të nenit 3.2 të Direktivës së Kuqe.	**Notified Body: Sporton International (USA) Inc. ; TIMCO Engineering, Inc.** **Notified Body Number: 2907 ; 1177** **Certificate ID: SN23C0194 ; E1177-233680**

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Palo Alto, CA
21-07-2025

Gilles Soulard

Gilles Soulard, Manager
Product Compliance Engineering

(mt) Kuntatt lokali għal suġġetti regolatorji biss
(tr) Sadece teknik yasal konular için kontak

(mt) DIKJARAZZJONI TA 'KONFORMITÀ / (tr) UYGUNLUK BEYANI / (sr) DEKLARACIJA O USAGLAŠENOSTI / (alb.sq) DEKLARATA E KONFORMITETIT

DoC #: HSN-I45C-4- R12

(sr) Lokalni kontakt samo za regulatorne teme (alb.sq) Kontakt lokal vetëm për tema rregullatore
EU: HP REG 23010, 08028 Barcelona, Spain UK: HP Inc UK Ltd, Regulatory Enquiries, Earley West, 300 Thames Valley Park Drive, Reading, RG6 1PT U.S.: HP Inc., 1501 Page Mill Road, Palo Alto 94304, U.S.A. 650-857-1501 Email: reg@hp.com www.hp.eu/certificates

(mt) DIKJARAZZJONI TA 'KONFORMITÀ / (tr) UYGUNLUK BEYANI / (sr) DEKLARACIJA O USAGLAŠENOSTI / (alb.sq) DEKLARATA E KONFORMITETIT

DoC #: HSN-I45C-4- R12

(mt) ANNESS I **(tr) EK I** **(sr) PRILOG I** **(alb.sq) ANEKSI I**	
(mt) Mudell regolatorju Numru (RMN) (tr) Yasal Model Numarası (RMN) (sr) Broj regulatornog modela (RMN) (alb.sq) Numri i Modelit Rregullator (RMN)	**HSN-I45C-4**
1 (mt) DESKRIZZJONI | 2 (mt) RMN GĦAŻLA* 1 (tr) AÇIKLAMA | 2 (tr) RMN OPSİYON* 1 (sr) OPIS | 2 (sr) RMN OPCIJE* 1 (alb.sq) PËRSHKRIM | 2 (alb.sq) OPSIONI RMN*	

1	2
Power Adapter	TPN-XA01 TPN-XA07 TPN-XA08 TPN-XA10 TPN-XA12 TPN-XA15 TPN-XA19 TPN-XA20 TPN-XA21 TPN-XA22 TPN-XA23 TPN-XA26 TPN-XA30 TPN-XA31 TPN-XA32
Battery Pack	TPN-XB0P TPN-XB0J TPN-XB0K TPN-XB0B TPN-XB0T TPN-XB0Y

(mt) DIKJARAZZJONI TA 'KONFORMITÀ / (tr) UYGUNLUK BEYANI / (sr) DEKLARACIJA O USAGLAŠENOSTI / (alb.sq) DEKLARATA E KONFORMITETIT

DoC #: HSN-I45C-4- R12

	TPN-XB1O TPN-XB1S HSTNN-XB2J HSTNN-XB3B HSTNN-XB3H HSTNN-XB8W HSTNN-XB8V HSTNN-XB9C HSTNN-XB9X HSTNN-XB9Y HSTNN-XB1C HSTNN-XB1D
Transceiver 2,4 and 5/6 GHz WLAN and BT	AX211NGW AX211D2W BE200NGW BE200D2W
NFC Transceiver	XRAV-1
4G WWAN Transceiver, GPS Receiver	L860-GL-16 FM350-GL-16
5G/LTE/HSPA+ with GPS	FM350-GL
WWAN LTE-M (CAT-M1) with GPS	FB520

(mt) *Fejn X jirrappreżenta xi karattru numeriku alpha
(tr) *X herhangi bir alfabetik sayısal karakteri gösterir
(sr) *Gde X predstavlja bilo koji alfanumerički znak
(alb.sq) *Ku X paraqet ndonjë karakter alfa numerik

HP EliteBook 840 14 inch G11 (Notebook)

HP estimates the product carbon footprint (PCF[1]) for its portfolio. This helps identify carbon impacts and implement reduction opportunities. HP's PCFs include emissions from raw material extraction, manufacturing, distribution, use, and end-of-service. Learn more at hp.com/sustainability.

Estimated GHG emissions[2]

	North America	Europe	Asia Pacific
Total PCF	**186 kg CO2e**	**171 kg CO2e**	**183 kg CO2e**
Estimated range kgCO2e	144 - 247	151 - 196	163 - 206
Life Cycle stage			
Manufacturing	83%	90%	84%
Use	9%	7%	16%
Distribution	8%	3%	< 1%
End of Life	< 1%	< 1%	< 1%

Manufacturing Breakout

Main board and other boards	43%
Display	21%
Solid state drive (SSD)	19%
Chassis	9%
Others[3]	3%
Batteries	3%
Power supply unit & external cables	2%
Packaging	<1%

Assumptions

Lifetime of product (years)	4
Use energy demand (kWh/yr)	12.8
Memory	16GB
Storage	256GB

HP developed its internal LCA methodology, following ISO 14040 & 14044 standards, for estimating GHG emissions using HP-specific data. HP's LCA tools are third-party audited. Materials transformation, manufacturing, and transportation emission factors are sourced from Sphera®. Use phase emissions consider energy efficiency reports, like Energy Star, and emission factors from the International Energy Agency (IEA). These vary by country due to specific energy mixes. Three regional scenarios are presented, which have different energy emissions conversion for the use phase. End-of-life scenarios are modeled based on a representative sample of material disposal and recycling rates from various countries. PCF results depend on tools, data, and assumptions. To enhance transparency, HP reports PCF estimated range. Due to inherent uncertainty, HP advises against comparing PCF estimates from different manufacturers.

Key actions driving progress towards HP's climate goals

Accelerate sustainability services

Extend product life through Repair, IT Asset Disposition, Refurbishment, Managed Services and HP certified refurbished Hardware.

Transition to sustainable materials

Increase use of renewable materials, recycled plastic and recycled metals.

Decarbonize our supply chain

Drive and support supplier carbon reduction, renewable electricity, surface transportation, alternative fuels, and electric vehicles for product shipments.

Design for energy efficiency

Design in existing and new energy-efficient product technologies.

1. A product carbon footprint is defined as the total amount of greenhouse gases (GHG) emitted directly and indirectly by a product over its lifetime. Greenhouse gas emissions are reported as global warming potential for 100-year time horizon (GWP-100) in units of CO_2 equivalence.
2. The information provided here represents the lifecycle carbon footprint of the most common configuration for this product. Specifications used in this assessment are listed in the assumptions table. HP reports the estimated mean PCF value along with confidence intervals. Individual values may not sum to total due to rounding.
3. Others include assembly energy, other subassemblies, and all subassemblies packaging and transport.

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Poly Blackwire 3210 Monaural USB-C Headset



*Product image may differ from actual product

Freedom to work your way

The Blackwire 3200 Series provides a quality audio experience in a headset that's built for enterprise needs. With a sleek design and flexible microphone boom for a customizable fit, what's not to love?

Poly signature audio quality

Experience the high-quality audio you expect from Poly with a headset that offers PC wideband, a noise-canceling mic, and hi-fi stereo sound options. Dynamic EQ optimizes call quality and automatically adjusts the settings for listening to multimedia.

Advanced connectivity

Ideal for managing calls on your PC, mobile phone, or tablet combined with the comfort and durability of a corded headset for greater flexibility.

Long-lasting comfort and portability

Relax while you talk knowing your headset is secure-lightweight metal headband offers durability plus a custom fit. Leatherette ear cushions fold flat for easy portability.

Featuring

Enhanced call quality

Dynamic EQ optimizes the quality of your voice on calls, and automatically adjusts the EQ settings when you want high-quality sound for listening to music or for multimedia playback.

Connectivity options

Select the right option for your PC: USB-A or USB Type-C® models.

Wearing style

Monaural wearing style for those who prefer to leave one ear open.

Lightweight design

A lightweight metal headband offers durability and a comfortable custom fit.

Simple call management

Use the intuitive inline controls to answer/end calls, control volume, and mute to simplify call management. Conveniently placed indicator lights provide helpful but unobtrusive user call, mute, and volume status.

Optimized for communications platforms

An IT manager's dream, this headset was created for communication and is optimized and certified to work with top virtual meeting providers.

Poly Blackwire 3210 Monaural USB-C Headset

Specifications

Compatible with

Compatible operating systems: Windows 11; Windows 10; macOS

Connectivity and communications

Connection type: Wired USB Type-C®
Ear cushions: Foam (surface material)
Headphone type: On-ear (monoaural)

User interface features

Button user controls: Call answer/ignore/end/hold; Redial; Mute; Volume +/-

Audio

Audio features:
Dynamic EQ optimized
Digital signal processing (DSP)
Noise cancellation (NC)
Acoustic protection technology: SoundGuard[1]
Microphone type: Omnidirectional
Microphone bandwidth: 100 Hz to 10 kHz
Speaker bandwidth: 200 Hz to 6.8 kHZ (speech mode); 20 Hz to 20 kHZ (media mode)
Speaker size: 28 mm
Signal-to-noise ratio: >24 dB
Frequency response (microphone): 100 Hz to 10 kHz
Sensitivity (microphone): 10 dB SLR
Sensitivity (speaker): 0 dB RLR

Other features

Special features: Adjustable headband; Voice alerts

Power supply

Impedance: 32 ohms

Certifications

Certified collaboration software: Skype for Business; Cisco Jabber; Avaya
Ecolabels: TCO Certified

Poly Blackwire 3210 Monaural USB-C Headset

Specifications

Management

Management software:
Poly Lens
Poly Lens app (desktop)

Weight and dimensions

Product Primary Color: Black
Weight: 87 g (with cable); 64 g (without cable)
Product dimensions: 155 x 32 x 178 mm
Package weight: 300 g
Package dimensions: 185 x 56 x 207 mm
Master carton quantity: 12
Master carton dimension: 23.5 x 57.5 x 22.3 cm
Master carton weight: 6.9 kg
Cartons per layer: 6
Pallet (layers): 6
Cartons per pallet: 36
Products per layer: 72
Products per pallet: 432
Pallet weight: 248.4 kg
Pallet dimensions: 101.6 x 121.9 x 149 cm
Cable length: 79 cm (inline module to headset); 90 cm (USB to inline module); 161 cm (total USB to headset)
Product number: 80S09AA
Product name: Poly Blackwire 3210 Monaural USB-C Headset

Warranty

Poly standard two-year limited warranty

Country of origin

Country of origin: Made in China or Mexico

What is in the box

Headset
USB Type-C® cable

Poly Blackwire 3210 Monaural USB-C Headset

Footnotes

Messaging Footnotes

[1] Visit https://www.poly.com/us/en/products/headsets/blackwire/blackwire-3200 for more detail.

Technical Specifications Footnotes

[1] Protects against Acoustic Shock by limiting sounds to below 118 dBA.

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January 2025
sg-en

DMTF (/)

Members List

Board

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Dell Technologies (http://www.dell.com)

Hewlett Packard Enterprise (http://www.hpe.com)

Intel Corporation (http://www.intel.com)

Lenovo (http://www.lenovo.com)

NetApp (http://www.netapp.com)

Positivo Tecnologia S.A. (https://www.positivotecnologia.com.br/)

Verizon (http://www.verizon.com)

Leadership

Advanced Micro Devices (http://www.amd.com/)

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Daten Tecnologia Ltda (http://www.daten.com.br)

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Huawei (http://www.huawei.com/)

IBM (http://www-03.ibm.com/systems/power/)

Inspur (http://en.inspur.com)

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Seagate Technology (http://www.seagate.com/)

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ARM, Inc (http://www.arm.com)

Atos (https://atos.net/)

Eaton (http://www.eaton.com/us/en-us.html)

Fujitsu (http://www.fujitsu.com/)

Futurewei (https://www.futurewei.com/)

Groq (https://groq.com/)

Hitachi, Ltd. (http://www.hitachi.com)

Insyde Software Corp. (http://www.insyde.com)

Jabil (http://jabil.com)

KIOXIA Corporation (http://www.kioxia.com)

KNS Group LLC (YADRO Company) (http://www.yadro.com)

LOGIN INFORMATICA (http://www.login.com.br)

Loongson Technology Corporation Limited (http://www.loongson.cn)

Marvell Asia Pte, Ltd. (http:/www.marvell.com)

Microchip Technology Inc. (http://www.microchip.com/)

MULTILASER INDUSTRIAL S/A (https://www.multilaser.com.br/)

Oracle (http://www.oracle.com)

Phoenix Technologies Ltd. (http://www.phoenix.com)

Qualcomm Inc

Quanta Computer Inc (http://www.quantatw.com/)

Realtek Semiconductor (http://www.realtek.com.tw)

Synopsys (http://www.synopsys.com)

US Department of Defense

VIA Technologies, Inc. (http://www.via.com.tw/)

Xilinx Inc (https://www.xilinx.com)

Alliance Partner

Learn more: Current Work Registers (/about/registers)

ASHRAE (https://www.ashrae.org/home)

Broadband Forum (BBF) (https://www.broadband-forum.org/)

China Communications Standards Association (http://www.ccsa.org/cn/english)

China Electronics Standardization Institute (CESI) (http://www.en.cesi.cn/)

CXL Consortium (https://www.computeexpresslink.org/)

ETSI-NFV (http://portal.etsi.org/portal/server.pt/community/NFV/367)

Gen-Z (https://genzconsortium.org/)

HDBaseT (https://hdbaset.org/)

MIPI Alliance (https://www.mipi.org/)

NVM Express (http://nvmexpress.org/)

OMG-Cloud Working Group (http://www.cloud-council.org)

Open Compute Project (OCP) (http://www.opencompute.org/)

Open Data Center Committee (ODCC) (http://www.opendatacenter.cn/)

Open Fabrics Alliance (OFA) (https://www.openfabrics.org/)

Open Grid Forum (http://ogf.org)

OpenStack Foundation (http://www.openstack.org)

PCI Industrial Computer Manufacturer Group (PICMG) (https://www.picmg.org/)

PCI-SIG (https://pcisig.com/)

Storage Networking Industry Association (http://www.snia.org/)

TeleManagement Forum (http://www.tmforum.org/)

The Green Grid (http://www.thegreengrid.org)

The Open Group (http://www.opengroup.org)

Unified Extensible Firmware Interface (http://www.uefi.org/)

Academic Alliance

"Gheorghe Asachi" Technical University of Iaşi (http://www.tuiasi.ro/en/)

Athens University of Economics and Business (https://www.aueb.gr/en)

Dongguk University (http://www.dongguk.edu)

Federal Institute of Technology of Espirito Santo (https://www.ufes.br/)

George Mason University (http://c4i.gmu.edu)

Hungarian Academy Of Sciences Institute For Computer Science And Control (https://sztaki.hu/en)

Indian Institute of Technology Roorkee (https://www.iitr.ac.in/)

Institute of Information Security (IISEC) (https://www2.iisec.ac.jp/english/)

Kasetsart University (https://www.ku.ac.th/th)

Logitrain (https://logitrain.edu.au)

Marshall University (http://www.marshall.edu)

National Technical University of Athens (http://www.ntua.gr/)

Paul Sabatier University (https://www.univ-tlse3.fr/)

Research Center on Scientific and Technical Information (CERIST) (http://www.cerist.dz/index.php/en/)

Ruprecht-Karls-University Heidelberg (https://www.uni-heidelberg.de/en)

Shanghai Jiao Tong University (http://en.sjtu.edu.cn/)

Swami Rama Himalayan University (http://www.srhu.edu.in/)

Technische Universitaet Dresden (https://tu-dresden.de/)

Texas Tech University (http://www.ttu.edu/)

University of California (https://www.universityofcalifornia.edu/)

University of New Hampshire (http://unh.edu)

University of Pisa - Italy (https://www.unipi.it/)

University of Seville (https://www.us.es/)

University of Sydney (https://www.sydney.edu.au/)

University of Western Ontario (https://www.uwo.ca/)

University of Wuerzburg (https://www.uni-wuerzburg.de/startseite/)

CIM Forum Leadership

Advanced Micro Devices (http://www.amd.com/)

Broadcom Inc. (http://www.broadcom.com)

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CIM Forum Participatory

HP, Inc (http://www.hp.com/)

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CIM Forum

The DMTF's CIM Forum (formerly SMF) develops and implements programs for verifying compliance of software and hardware that implement DMTF's system management standards. This includes the Desktop and mobile Architecture for System Hardware (DASH) (http://www.dmtf.org/standards/dash) and Systems Management Architecture for Server Hardware (SMASH) (http://www.dmtf.org/standards/smash) standards. CIM Forum also enables adoption of DASH and SMASH through programs and activities that allow developers to validate their implementations.

DMTF's DASH (http://www.dmtf.org/standards/dash) standard is a suite of specifications that takes full advantage of the DMTF's Web Services for Management (WS-Management) specification – delivering standards-based web services management for desktop and mobile client systems. Through DASH, DMTF provides the next generation of standards for secure out-of-band and remote management of desktop and mobile systems.

DMTF's SMASH (http://www.dmtf.org/standards/smash) standard – which includes the Server Management Command Line Protocol specification – is a suite of specifications that deliver industry standard semantics, protocols and profiles to make data center resource management interoperable.

As of January 2019, the CIM Forum has taken on the work of the Architecture, CPPS and Schema working groups. The expanded scope of the forum will enable continued development and maintenance of the important standards provided by the afforementioned groups - now task forces under the CIM Forum.

Forum Membership

To participate in CIM Forum, an organization must be a member of the DMTF at the Participation, Leadership or Board level, and must also join the Forum as a member. Granted at the company level, membership in the CIM Forum allows an unlimited number of representatives from a member company to participate in Forum activities.

Annual membership dues - $5,000 for the CIM Forum Leadership Level and $2,500 for CIM Forum Participatory membership - are prorated (http://www.dmtf.org/join/smf/dues_schedule) for companies that join during the fiscal year (the new DMTF membership year begins on April 1).

Membership in CIM Forum provides a number of valuable privileges:

Leadership Members ($5,000)

In addition to all rights granted to Participatory members, Leadership members of the CIM Forum receive:

- Access to all Forum governance, communication and documents
- Eligibility for role as a Forum officer
- Eligible for unlimited product submissions and DMTF registry listings
- Ability to contribute company quotes to Forum publications and press releases (/join/company-signup)

Participatory Members ($2,500)

In addition to all rights granted to Non-CIM Forum members, Participatory members of the CIM Forum receive:

- Participate in conference calls and face-to-face meetings of the Forum
- Vote on all Forum matters
- Early access to Forum conformance test suite software and process
- Eligible for unlimited product submissions and DMTF registry listings
- Company name listed in Forum publications and press releases
- Participate in plugfests (/join/company-signup)

Non-CIM Forum Members ($0)

Companies that are members of DMTF and not members of the CIM Forum receive:

- Access to the binaries of the final releases of the certification suite
- Ability to view the product certification registry (if applicable).
- Access to the general discussion reflector
- Participation a Task Force formed within the CIM Forum
- Eligible to be elected as a Task Force Chair of a Task Force within the CIM Forum
- Participate in open plugfests (provided proper fees are paid if required, the company is a DMTF Member, and the DMTF membership allows participation in plugfests)

Join the CIM Forum members (http://www.dmtf.org/about/list) and take advantage of this unique opportunity to shape the future of systems management in the data center. For more information, DMTF members can view the full "Rules Governing Forum Membership" document on the CIM Forum WG page (http://www.dmtf.org/apps/org/workgroup/cimf/).

How to Join

If you are a current DMTF member at the Participation, Leadership or Board level, visit our Add Forum Membership page (http://www.dmtf.org/join/add-

forum-membership) to join CIM Forum.

If you are not yet a member of DMTF, you can sign up for both organization and Forum membership simultaneously via the New Company Sign-Up form (https://www.dmtf.org/join/company-signup). Select either the CIM Forum Leadership or CIM Forum Participatory level in the form's optional "Forum Membership" drop-down. If you have any questions, please complete our Contact Us form (http://www.dmtf.org/contact).

Forum Dues Renewal

Existing Forum members will receive renewal invoices in late February for the upcoming membership year (April 1 to March 31).

If you have any questions about joining the DMTF's CIM Forum, please contact DMTF Administration (http://www.dmtf.org/about/contact?to=admin).

Contact HP - Phone Assist

Telefones para obter suporte técnico de produtos HP

IMPORTANTE: Antes de ligar, certifique-se de ter em mãos o produto, o número de série do produto, o número da nota fiscal e a data da compra. Estas são informações necessárias para um atendiment adequado.

Telefones:	Produtos / Servicios:	Horário de operação (horário de Brasília)
Para Grande São Paulo: 01138788338 Demais localidades: 0800 709-7751	Vendas	Opção 2 Usuário doméstico e empresariais – 8h – 18h (Horário de Brasilia) Segunda a Sexta
	Suporte Tecnico	Opção 3 Usuário doméstico – 8h – 22h (Horário de Brasilia) Segunda a Sábado Empresarial – 8h – 18h (Horário de Brasilia) Segunda a Sexta
	Programas Especiais	Opção 5 8h – 18h (Horário de Brasilia) Segunda a Sexta * Mais código de programa

***As opções do menu podem indicar alternativas para atendimento não técnico e para produtos sem garantia.**

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Suporte ao Cliente HP - Verificar a Garantia do Produto

Verificar a garantia de um único produto

Verificar a garantia manualmente

* *Campos obrigatórios*

País/região de compra *

Brasil

Número de série *

Exemplo: HU265BM18V

Verificar garantia

Verificar várias garantias

Continuar

Há mais de uma garantia para verificar? Utilize nossa opção para verificar várias garantias para agilizar o processo.

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Bem-vindo ao Suporte ao Cliente HP

Windows 10 Update

Pá
s

odutos | Softwares e drivers | Fóruns | Contato

Use estes links rápidos para acessar as nossas opções de suporte mais populares.

Encontre o seu
Encontre artigos de solução de problemas,

Obter software e
Encontre facilmente software e drivers que

Centro de
Aprenda a imprimir, digitalizar ou enviar

Use o HP Print and
Diagnosticar e corrigir problemas da

Mais

Outros recursos de suporte

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HP Total Care: Serviços e Garantia

Programas de substituição e recall

Rede de serviços autorizada

Registrar o produto

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Fórum de Interface de Firmware Extensível Unificada

Lista de Membros

A comunidade de membros do UEFI Forum é representada por OEMs, IHVs, fabricantes de chips, fabricantes de BIOS e firmware e fornecedores de sistemas operacionais líderes do setor.

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MANUAL

CEPHEUS S49 NEO

IMPORTANTE

É DE EXTREMA IMPORTÂNCIA LER, COMPREENDER E SEGUIR TODAS AS INSTRUÇÕES CONTIDAS NESTE MANUAL.

O MANUSEIO INCORRETO PODE DANIFICAR O EQUIPAMENTO E OCASIONAR A ANULAÇÃO DA GARANTIA.

PRODUTO





CONFORMIDADE EMC

Este dispositivo foi testado e considerado em conformidade com os padrões de um dispositivo digital classe B, de acordo a parte 15 das regras FCC.

Esses padrões são designados para providenciar uma proteção razoável contra interferências prejudiciais em uma instalação residencial.

Este dispositivo gera e pode irradiar energia de radiofrequência e, se não estiver bem instalado e de acordo com as instruções, pode causar interferências prejudiciais para comunicações em rádio.

Este dispositivo não causa interferências prejudiciais para receptores de rádio ou televisão, que pode ser determinado ao desligar e ligar o dispositivo, o usuário é encorajado a tentar corrigir a interferência por uma ou mais das seguintes medidas:

Reoriente ou realoque a antena receptora;
Aumente a distância entre o dispositivo e o receptor;
Conecte o dispositivo em uma tomada diferente daquela conectada ao receptor;
Consulte um vendedor ou um técnico experiente em rádio/TV para pedir ajuda.

CUIDADO: Qualquer mudança ou modificação que não seja expressamente ilustrada nesse manual pode anular a garantia.

NOTA: Não é permitido utilizar nenhum cabo desprotegido neste dispositivo!

PRECAUÇÕES IMPORTANTES

AVISOS:

Antes de utilizar, por favor leia cuidadosamente todas as informações deste manual. Por favor guarde este manual para futuras consultas.

Desplugue este dispositivo da tomada da parede antes de limpar. Não use produtos líquidos ou aerossol para limpar. Use um pano úmido para limpar. Favor use detergente de tela LCD para limpar, se a tela ainda estiver suja.

Não use peças não recomendadas pelo fabricante, de outro modo pode ser perigoso. Quando desplugar o cabo de alimentação do monitor ou do adaptador, favor segurar o plug com a mão, não puxe diretamente pelo cabo.

Não coloque nenhum objeto sobre o cabo de alimentação e não pise nele. Não use este dispositivo próximo a fontes de água como por exemplo banheira, bacia, pia de cozinha ou máquina de lavar.

Não posicione o aparelho sobre o chão molhado, ou próximo a piscinas, etc. não toque a tela com seus dedos ou com objetos duros. Ranhuras e aberturas na caixa e na parte traseira ou inferior são fornecidas para ventilação.

Para garantir uma operação confiável dos componentes e os proteger de superaquecimento, essas aberturas não devem ser bloqueadas ou cobertas colocando o dispositivo na cama, sofá, tapete ou outras superfícies similares.

Este dispositivo não deve nunca ser colocado sobre um radiador ou aquecedor e não deve ser posicionado em uma instalação embutida, a não ser que haja ventilação apropriada.

Certifique-se que o dispositivo esteja no mínimo a 5 cm de distância da parede ou de outros objetos ao redor durante o uso.

A fonte de alimentação deve responder ao indicado na placa de identificação.

Se você tiver alguma dúvida a respeito da fonte de alimentação, favor dirigir-se ao vendedor ou ao fornecedor de energia local.

Como uma medida de segurança, o monitor ou adaptador é equipado com um cabo de alimentação com um plug de terminal triplo, o terceiro terminal é aterrado.

Se o plug não puder ser conectado na tomada, favor entre em contato com um técnico em elétrica para substituir a tomada original para manter a medida de segurança em efeito.

Garanta que a tomada de alimentação e o cabo em uso são capazes de suportar a corrente nominal de todos os produtos.

Não coloque o dispositivo em um lugar onde o usuário o sujeite a má operação.

Observe todos os avisos e instruções descritos no manual.

Não sobrecarregue a tomada de energia ou use extensões, pois isso pode causar incêndios ou choques.

Não tente consertar este dispositivo, abrir ou remover as capas pode expor o usuário a uma voltagem perigosa ou outros perigos.

Prefira atendimento pessoal de um profissional qualificado.

Desplugue este monitor ou o adaptador AC da tomada da parede e procure um serviço qualificado sob as seguintes condições:

a. quando o cabo de alimentação ou plug estiver estragado ou desgastado.

b. se o dispositivo for derrubado ou se a capa dele estiver estragada.

c. quando a performance do aparelho se deteriorar distintamente.

O cabo de alimentação é a principal forma de ligar ou desligar o dispositivo; tire da tomada se o aparelho não estiver sendo usado por um longo período de tempo.

Guarde o dispositivo em um local com boa ventilação, evite exposição solar direta, altas temperaturas ou umidade.

Guarde este dispositivo em um local onde a temperatura seja de -20ºC a 55ºC de qualquer outra forma pode causar estragos permanentes.

INTRODUÇÃO

1.1 Geral:

Agradecemos por adquirir o mais novo modelo de monitor LED, com vantagens de alta performance de display e leveza etc., enquanto isso, com a economia de energia e sem recursos de radiação o novo monitor LED trará a você conforto, segurança e proteção ambiental com uma nova experiência visual.

Apreciamos sua compra e utilização de nosso produto!

1.2 Recursos:

Alta performance e inteligente varredura multifrequência, usa a matriz de display, ativa de cristal líquido TFT (Thin Film Transistor), luz de fundo LED.

Controle de tecnologia digital de micro computador, sem radiação, sem brilho, sistema de alto-falante multimídia embutido (opcional).

Conexão de sinal AV embutido e 8 terminais (opcional).

Cumpre com a VESA DFMS Regulamento Internacional de Economia de Energia.

Suporta DDC 1/2B e Windows PNP (Plug & Play).

Micro processador baseado com controle OSD (On Screen Display), capaz de ajustar e otimizar a imagem.

Furo de elevação embutido em conformidade com o Padrão Internacional (VESA), que é capaz de pendurar o monitor na parede.

1.3 Lista de itens:

Favor, certifique-se de que os seguintes itens estão inclusos na embalagem do seu monitor LED antes de instalar:

Monitor LED (com pedestal)

Cabo DP

Cabo de alimentação

Manual do usuário

Se algum desses itens estiver faltando, por favor entre em contato com o vendedor para suporte técnico e serviço ao consumidor.

NOTA: Certifique-se de guardar a caixa original e todo material de embalagem para transporte futuro, caso necessário.

SOLUÇÃO DE PROBLEMAS

Se o seu monitor não funcionar normalmente, por favor procure seguir os métodos rápidos para problemas comuns; se você precisar de assistência, por favor ligue para o vendedor do qual você adquiriu o monitor.

A. Não há imagem na tela/LED não acende
Favor, verifique se o cabo de energia está seguramente conectado no monitor e na tomada da parede, e se o monitor não está no modo economia de energia.

B. Não há imagem na tela/LED está vermelho
Favor olhar se a placa de exibição do PC está solta, e verifique a conexão entre os cabos de sinal e display.

C. O display não está claro, a imagem é muito grande ou muito pequena
Entre no menu OSD de ajuste de imagem, e então selecione "auto ajuste" para que o display se ajuste automaticamente para melhor.

D. A imagem está muito clara ou muito escura
Entre no menu OSD de ajuste de brilho e então selecione "cima/baixo" para ajustar o brilho e o contraste para melhor.

E. A tela está superaquecida
Por favor mantenha o monitor com no mínimo 5cm de espaço livre ao redor dele para ventilação, não coloque nada sobre o monitor.

F. Tela escura após ligar/fácula
Isso é normal. Devido a diferença de temperatura a luz de fundo não irá emitir luz uniformemente no início, mas a iluminação de luz de fundo irá trabalhar normalmente após 20 minutos, a escuridão e a fácula terão desaparecido até lá.

G. A imagem está distorcida para piscar e tremer
Verifique as configurações do computador e escolha a resolução apropriada, então reajuste a resolução escolhida.

H. A cor está anormal
Verifique a conexão do cabo de sinal, se houver algum pino curvado ou quebrado, troque. Entre no menu

ESPECIFICAÇÕES

Marca: Pichau
Modelo: PG-CFS49NEO-BL02
Tamanho: 49"
Curvatura: 1500R
Tipo de Painel: VA
Tempo de Resposta: 1ms
Taxa de Atualização: 120Hz
Resolução: 5120 × 1440 – DQHD
Ângulo de Visão: 178°(H) / 178°(V)
Brilho: 300 cd/m²
Contraste: 3000:1
Consumo de Energia: 60W (stand-by < 0,5W)
Adaptador Externo: DC 12V 5A

Gama de cores:

NTSC: 71%
sRGB: 87%
Adobe RGB: 73%
DCI-P3: 72%
Cores: 16,7M (8 bits)

Base / Ajustes:

Inclinação (Tilt): -5° ~ 15°
Ajuste de altura: Sim
Pivot: Sim
Base ajustável: Sim

Entradas:

2x HDMI 2.1
2x DisplayPort 1.4
1x Saída de áudio
1x DC
Padrão VESA: 75 × 75 mm

Entradas:

HDR
FreeSync
G-Sync
OD
MPRT
Mira (Crosshair)
Redução de Luz Azul (Low Blue Light)
Baixíssimo consumo em modo stand-by (0,5W)

Conteúdo de Embalagem:

Monitor
Base ajustável
Adaptador de energia
Cabo DisplayPort 1.4
Manual do usuário

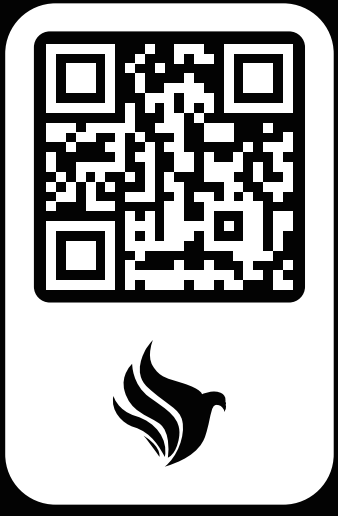
Dimensões:

Com base: 1186,04 × 192,84 × 466,48 mm
Sem base: 1186,04 × 192,84 × 366,93 mm
Caixa: 1262 × 192,84 × 474 mm

Peso:

Peso líquido: 9,85 kg
Peso bruto: 10,2 kg

AGRADECEMOS POR ESCOLHER O PICHAU GROUP COMO PARTE DA SUA JORNADA.



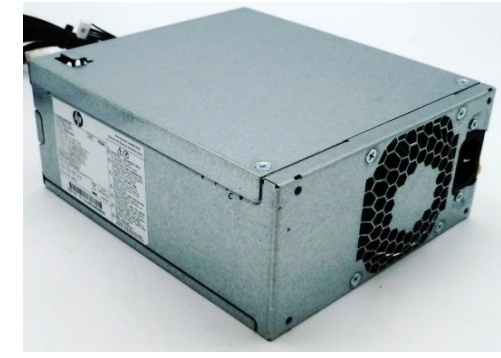


EXPLORE NOSSOS SITES E ENCONTRE O PRODUTO IDEAL PARA ELEVAR SUA EXPERIÊNCIA.



80 PLUS Verification and Testing Report

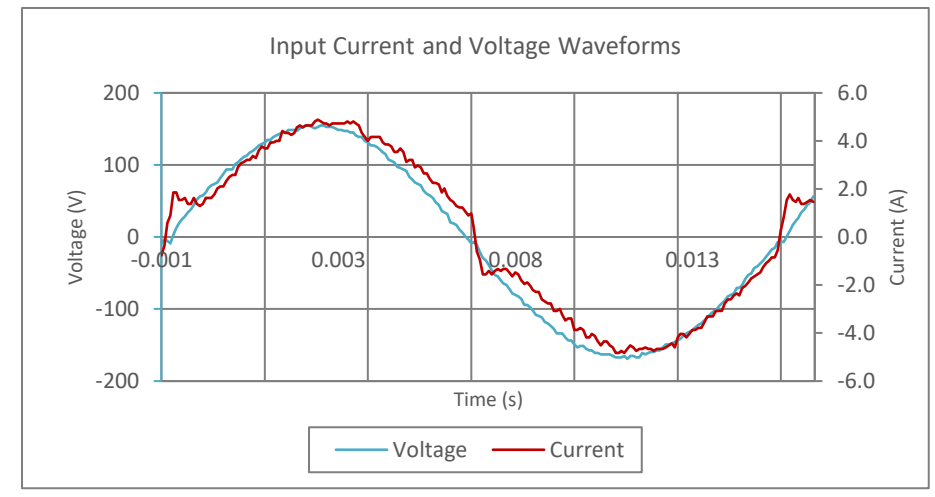
TYPICAL EFFICIENCY (50% Load):	**92.69%**
AVERAGE EFFICIENCY :	**91.73%**
80 PLUS COMPLIANT:	**YES**



ID Number	5855
Manufacturer	HP, Inc.
Model Number	D19-700P1A
Serial Number	N/A
Year	2019
Type	CUSTOM
Test Date	1/9/20

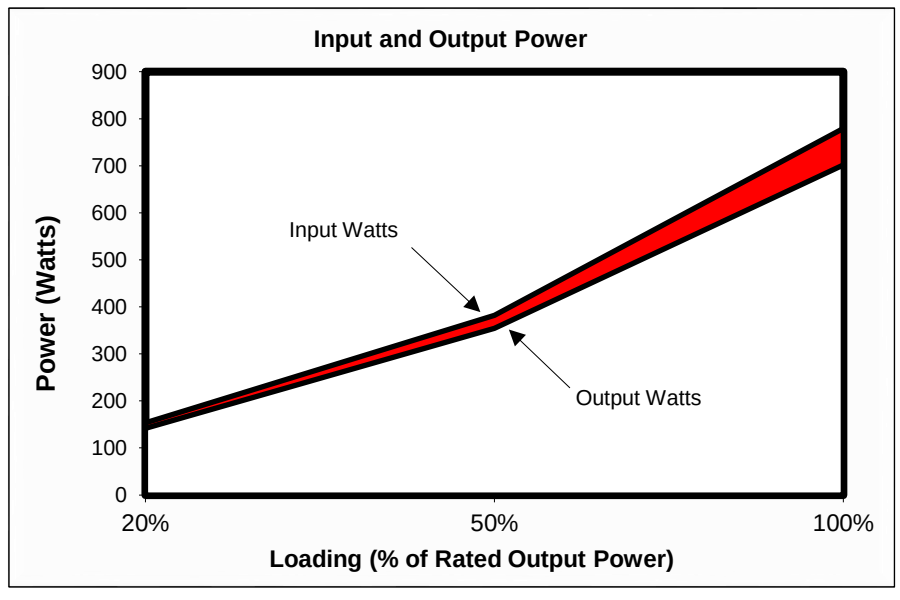
Rated Specifications	Value	Units
Input Voltage	100-240	Volts
Input Current	8.2	Amps
Input Frequency	50-60	Hz
Rated Output Power	**700**	**Watts**

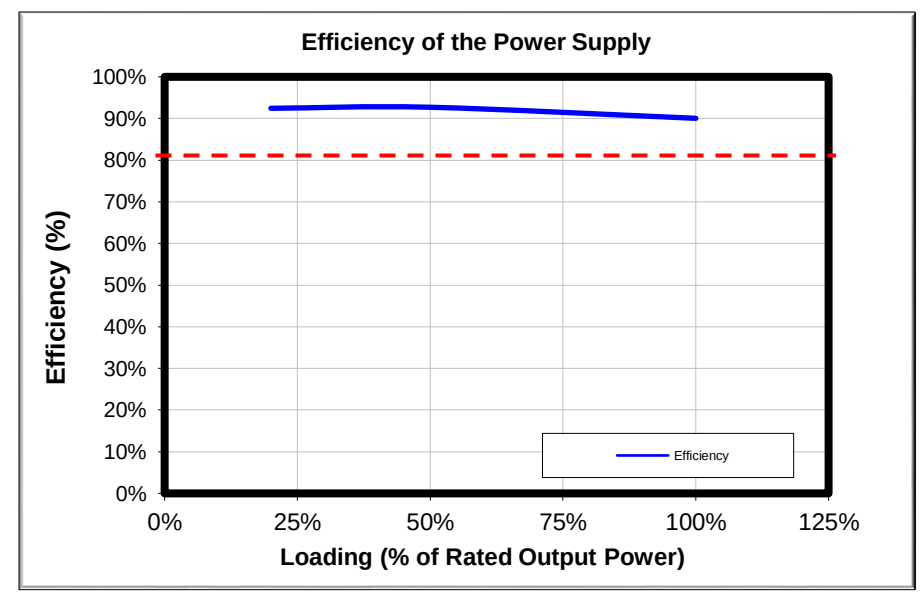
Note: All measurements were taken with input voltage at 115 V nominal at 60 Hz.



Input AC Current Waveform (ITHD = 9.91%, 50% Load)

I_{RMS}	PF	I_{THD}	Load	Input Watts	DC Terminal Voltage (V)/ DC Load Current (A) 12.1V (cumulative of 12V1, 12V2, etc.)	Output Watts	Efficiency
0.73	0.94	8.03%	10%	78.94	12.27/5.82	71.39	**90.44%**
1.35	0.99	11.71%	20%	153.53	12.25/11.58	141.94	**92.45%**
3.37	0.99	9.91%	50%	382.50	12.19/29.09	354.55	**92.69%**
6.89	0.98	8.60%	100%	779.30	12.08/58.1	701.71	**90.04%**





PLUG LOAD solutions

These tests were conducted by a third party independent testing firm on behalf of the 80 PLUS Program. 80 PLUS is a certification program to promote highly-efficient power supplies (greater than 80% efficiency in the active mode) in technology applications. *http://www.80plus.org/*

80 PLUS®

HP Workforce Experience Platform

Maximise Employee Productivity, Minimise IT Costs



Overview

HP Workforce Experience Platform (WXP) provides IT visibility and control over your digital ecosystem. Its AI-powered predictive analytics and actionable insights[1] drive down costs, strengthen security, and improve efficiency, so your employees can thrive.

Software Benefits

- **Stay one step ahead with proactive management across your devices:** WXP enables you to anticipate emerging issues across PCs, Macs, collaboration tools, digital workspaces, and applications. Leverage comprehensive insights to address problems in your IT environment before they have an impact.
- **Reduce IT service costs with streamlined operations:** AI-powered automation helps streamline operations, resolve challenging IT issues, improve efficiency, and lower IT service costs. Free your IT teams from endless help desk tickets and instantly boost their productivity.
- **Act on insights to boost workforce performance:** Provide IT with alerts and remediation tools to proactively anticipate and resolve issues, unlocking time for higher-impact work. Reducing tech-related frustrations for employees enhances workforce productivity and engagement, helping drive business growth.
- **Assess change and measure impact:** Monitor and manage the health of your digital ecosystem from a single modern interface. Customise your analytics, reporting, and surveys, creating a continuous feedback loop to optimise every aspect of your workforce experience.

Software Highlights

- Proactively solve IT issues with advanced endpoint management and insights.
- Cut IT support hours and costs using AI-powered automation.
- Strengthen endpoint security with proactive remediation.
- Enhance employee satisfaction with actionable pulse survey feedback.
- Optimise expenses with data-driven hardware refreshes.
- Maximise IT efficiency with third-party integrations.

Delivery Specifications

HP Workforce Experience Platform is a customer self-managed or partner-managed software solution. Platform access is granted after purchasing a plan and HP completing the licence entitlement.

Device enrolment can be done by customers with HP-provided self-deployment instructions or by submitting a support request to HP Support through the platform.

Plan Summaries*

Standard	Pro	Elite
Get essential tools and support for PC fleet visibility and control. ▪ Fleet health analytics and insights ▪ BIOS policy deployment ▪ Windows 11 readiness ▪ Employee surveys ▪ Essential third-party integrations	Enhance your digital experience strategy and resolve issues quickly with advanced remediations and employee engagement tools. All that's in Standard, plus: ▪ Advanced monitoring, alerting and remediation ▪ AI-driven anomaly detection ▪ Employee sentiment and engagement ▪ AI-powered natural language search (limited queries) ▪ Additional integrations	Overcome your most complex IT challenges and streamline operations with cutting-edge AI capabilities. All that's in Pro, plus: ▪ AI-powered natural language search (unlimited queries) ▪ AI-driven sentiment analysis

The Starter plan includes basic telemetry for PCs and is included with purchase of select HP solutions.[2]
*Please see the feature detail below and contact your HP sales representative for complete HP service definition.

Compare Plans

	Standard	Pro	Elite
Experience Score and Analytics			
System Health	●	●	●
OS Performance	●	●	●
Security	●	●	●
End-user Sentiment		●	●
Network Health		●	●
Applications		●	●
Fleet and Lifecycle Management			
Smart PC Refresh AI-enabled Get actionable device recommendations that help you understand which devices should be refreshed now, which can remain in service longer, and which are candidates for future upgrades.		●	●
Employee Engagement Surveys Leverage end-user feedback on device satisfaction to help inform device refresh prioritisation.		●	●
Hardware Warranty Analyse usage patterns by device age to prioritize refreshes for underperforming older hardware.	●	●	●
Analytics, Reporting and Custom Dashboards Leverage pre-configured reports or custom dashboards across hardware, software, and device utilisation analytics to focus on the KPIs that matter most.	Limited Analytics	●	●
Employee Sentiment and Engagement			
Custom Surveys (One time)	●	●	●
Employee Notifications (Standard)	●	●	●
Custom Surveys (Recurring)		●	●
Employee Notifications (Urgent)		●	●
Employee Sentiment Survey (Recurring)		●	●
Sentiment Analysis and Topic Modelling AI-enabled			●

Compare Plans

	Standard	Pro	Elite
Hardware and Software Asset Management			
PC HW Inventory and Management	●	●	●
PC Warranty Status (HP Devices)	●	●	●
SW Application Inventory	●	●	●
Microsoft Windows v10 to v11 Migration Readiness	●	●	●
Peripherals	●	●	●
Phones and Tablets		●	●
Software and OS Performance			
Microsoft Windows OS Health and Performance	●	●	●
SW Application Experience – Installed Applications		●	●
SW Application Experience – Web applications		●	●
Alerts and Recommendations			
Recommended Actions	●	●	●
Alerts and Alert Management		●	●
Remediations and Compliance			
BIOS Policy Management (HP Devices)	●	●	●
Driver Policy Management		●	●
Scripting (Script Library and Script Execution)		●	●
Remediation with AI AI-enabled Quickly move from detection to resolution by analysing fleet data and recommending the most effective policy, script or device update for the issue at hand.		●	●
Analytics and Reporting			
Reports (Custom and Scheduled)	●	●	●
Custom Dashboards	●	●	●
AI-powered Natural Language Search AI-enabled		Limited Queries	Unlimited
Device Timeline with Real-Time Data		●	●
Anomaly Detection AI-enabled		●	●

Compare Plans

Remote Connect*			
In-Band Remote Connect Secure, consent-based, real-time remote control for resolving high-volume, everyday user and software issues.	Not included*	●	●
Out-of-Band Remote Connect Hardware-level remote access for Intel® vPro™ devices with KVM control to diagnose and recover devices when the OS is unavailable or unresponsive.	Not included*	●	●
Integrations			
Service Now – Event Management and HW Asset Management	●	●	●
Power BI / Power Automate / Tableau	●	●	●
MS Intune Integration	●	●	●
Splunk	●	●	●
Microsoft Teams	●	●	●
MS Entra ID Account Connector		●	●
Support			
Basic Support and Onboarding Case Tracking (through WXP Portal)	●	●	●
WXP Enhanced Onboarding Service**	Included 1000+**	Included 500+**	Included 500+**
WXP Premium Support***	Not Included	Included 2500+***	Included 2500+***

* HP Remote Connect is included in WXP Pro and Elite plans. HP Remote Connect is also available separately for purchase.

** The WXP Enhanced Onboarding Service is included with WXP Pro and Elite when purchasing 500 or more licences and included with WXP Standard when purchasing 1000 or more licenses. The WXP Enhanced Onboarding Service is available separately for purchase by customers not meeting minimum purchase requirements. See the WXP Enhanced Onboarding Service data sheet for additional details.

*** WXP Premium Support is included for no additional cost to customers purchasing 2,500 or more active licences of WXP Pro or Elite. WXP Premium Support is also included for no additional cost to customers purchasing 1,000 or more licences of WXP Standard, Pro, or Elite AND 1,000 or more licenses of the following HP Wolf Security software products: HP Wolf Pro Security, HP Sure Click Enterprise, HP Protect & Trace. See WXP Premium Support data sheet for additional details.

Roles and Responsibilities

Remote Connect*	Customer	Authorised partner	HP
Onboarding			
Provide customer IT Device Admin contact information	●	●	
Provide customer access into WXP		●	●
Authorise certified partners to access or manage the account (if applicable)	●		
Support			
Follow online knowledge-based articles for support	●		
Account Management			
Add/remove users/devices from WXP	●	●	●
Renew, change or cancel WXP admin account		●	●

Systems Requirements

PC Operating Systems

Desktops or notebooks from any major vendor* running the following operating systems:

- Windows
  - Windows 10 (Version 20H2 or higher)
  - Windows 11
- MacOS
  - MacOS Catalina (Version 10.15) or higher
- Chrome OS
  - HP Chromebooks running Chrome OS (Version 76 or higher with Chrome Enterprise or Education Upgrade)

Support Restrictions

* Your PC does not need to be manufactured by HP, with the exception of Chromebooks, where only specific HP models are supported.

- Windows Servers are not supported
- Analytics is not supported in a virtual machine

Mobile Operating Systems

Smartphones and tablets from any major vendor* running the following operating systems:

- Android 9.0 or higher
- iOS 13.7 or higher**

* Your mobile device does not need to be manufactured by HP.

** iOS support requires an integration with Microsoft Intune.

HP Insights Agent

The service requires that the HP Insights Agent is installed on PCs for collecting device telemetry. HP Insights Agent is available for Windows, MacOS and Android. The agents can be accessed at https://workforceexperience.hp.com/software

For instructions on bulk-agent deployment please contact HP Support.

Web Browsers

PC

- Google Chrome - latest version
- Microsoft Edge (Chromium-based) - latest version
- Firefox - latest version
- Safari - latest version

Note: HP Insights support for Internet Explorer ended effective December 31, 2020.

Mobile

- Chrome on Android v8.0 or higher - latest version
- Safari on iOS 13.7 or higher - latest version

HP Retail & Industry Point of Sale Solutions (RIS)

Supported RIS Platforms

WXP supports HP Retail & Industry Solutions platforms shipping with one of the following Microsoft Windows operating systems:

- Windows 11 Pro
- Windows 11 Enterprise
- Windows 11 IoT Enterprise
- Windows 10 Pro
- Windows 10 Enterprise
- Windows 10 IoT Enterprise

Supported RIS Peripherals

The following peripherals that meet Unified POS specifications are supported:

- Receipt Printers: HP-branded and Epson-branded sold by HP and third-party models
- Barcode Scanners: HP-branded, Datalogic-branded, and third-party models
- Magnetic Stripe Readers (MSR): HP-branded and third-party models
- Additional peripheral types such as 2x20 displays and cash drawers might be supported for limited functionality.

Note: Some features are limited only to peripherals that support the Manageability Stack in Unified POS (UPOS).

Peripheral analytics features require installation of the HP Retail Peripheral Agent, which can be downloaded from the enrolled devices' support pages under the "Support- System Management" section. Consult the knowledge base https://learn.workforceexperience.hp.com/docs/en/retail-installing-the-rpos-agent-for-retail-peripheral-reporting for instructions on how to set up and use the Retail Peripheral Agent.

Network Requirements

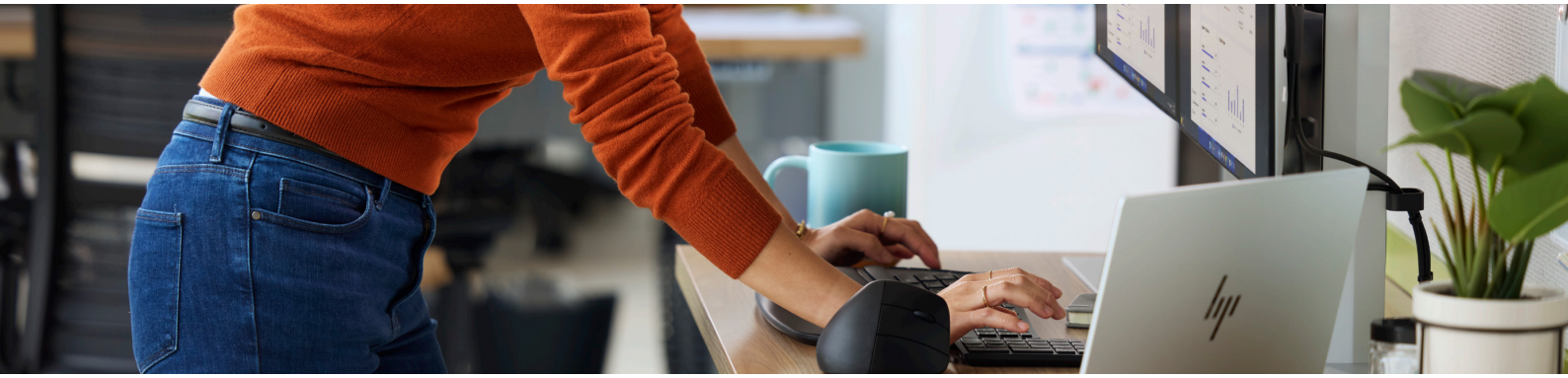
An Internet connection is required for communications between the managed device and the cloud management service.

View the full list of Workforce Experience Platform Services System Requirements.

Additional HP Solutions

Additional HP solutions such as WXP Print Management, WXP Collaboration, HP PC and Print support services, HP Protect and Trace with Wolf Connect, and more are also available.

Organisations seeking an experienced partner to proactively manage their IT ecosystem can rely on HP's global team of Service Experts. HP Managed Services teams can help monitor and maintain your technology investments and maximise the value of WXP. Please contact your HP representative or Channel Partner.



For more information, visit www.hp.com/wxp and www.hp.com/us-en/privacy/ww-privacy.html

Workforce Experience

1. The Workforce Experience Platform (WXP) is available in various tiers and for multiple term licence durations, and some features require optional add-on solutions. WXP is for commercial customers and some features and capabilities may require additional purchase of HP services and/or commercial hardware capable of supporting the HP Insights agent for Windows, Mac, & Android. WXP is ISO27001, ISO27701, ISO27017 and SOC2 Type2 certified for Information Security. Activation and restrictions may apply. Select HP solutions require an HP Insights agent for Windows, Mac, & Android, available for download at https://workforceexperience. hp.com/software. For full system requirements and services that require the agent, please visit https://workforceexperience.hp.com/requirements. The agent collects telemetry and analytics around devices and applications that integrate into the Workforce Experience Platform. Internet access required. WXP Collaboration licence required for audio and video collaboration technology monitoring.

2. Contact your HP representative or HP partner for HP solutions that include the Starter plan through the order.

This data sheet is governed by the HP Portfolio Terms for the country of the HP affiliate accepting the order or the terms provided to you by your HP Channel Partner. However, if you have a separately signed agreement with HP, such terms govern except to the extent that HP's Portfolio Terms for the country of delivery reflect local law or business practice. You may have additional statutory rights according to applicable local laws.

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4AA8-4726EEE, November 2025



Customer Case Study

HP IT Elevates Employee Experience and Engagement

HP Workforce Experience Platform delivers data insights to help transform employee experience and satisfaction.

Changing Times, Changing Expectations

The role of IT is changing and moving beyond devices to delivering digital transformation that influences productivity and employee satisfaction. Central to this effort within HP is the HP Workforce Experience Platform.

New patterns of hybrid working are now integrated into daily routines. The advancements of AI to rapidly analyze data provide a new kind of acceleration in productivity. This speed of data can change the way people work and live.

We think the win is a workforce that is empowered to help drive growth for business. We are putting people's well-being and productivity at the center of our growth strategy and integrating solutions built to empower individual employees.

"For an IT leader, it's becoming about more than just delivering technology. The environment is changing so quickly now. It's a lot about being human-centric."

Niall Johnston
Chief Information Officer, HP

Give employees
back 10% of their time

Digital Transformation Delivers Results

For HP, digital transformation means delivering outcomes that help its people work with ease, using reliable technology tools to perform at their best and better serve customers.

Our goal is to be the world's most productive, secure and sustainable technology company. To do that, we have to refresh and modernize our infrastructure, data, applications and platforms to enable our customers and employees to live their best lives and work in the most productive way possible.

The key to achieving a more enjoyable future working experience is to deliver technology that meets employee needs. This type of device personalization is based on AI and data analytics.

Technology has to just work. It has to deliver what people expect, and on top of that, we want to deliver experiences, outcomes and tools that amaze our employees.

"AI is actually embedded in our products—whether it's our printers, our PCs, or our video conferencing solutions. We're leveraging our data to help people become more efficient and more effective."

Scott Hallworth
Chief Data and Analytics Officer, HP





Seizing Opportunities to Innovate

There is work to do. According to a study of 15,000 CEOs and business and IT leaders, only 27 percent of employees have a healthy relationship with their work environment.

"That means 73 percent of employees feel they don't have the correct tools and technology to be as productive and effective as they can," notes Niall Johnston, Chief Information Officer at HP. "That's critical for us to improve. It's also an amazing opportunity to turn that insight into solutions, technologies and products that will influence and evolve the way people work."

27%

Employees have a healthy work relationship

73%

Employees feel they don't have the correct tech tools

HP set goals to:



Improve the ease of technology by removing digital friction



Raise levels of employee productivity and satisfaction



Optimize device management and maintenance

Transforming Workforce Experience

The opportunity for HP Workforce Experience Platform is to harness data to deliver the right technology for employees and proactively resolve IT issues.

Today's IT leader needs to deliver technology solutions for different scenarios, which requires looking through the lens of the users. "We see real-time telemetry data on the health and performance of the technology and on usage patterns and routines of users," explains Johnston. "This information helps us optimize and personalize the technology and the user experience."

Tracking data down to an individual unit indicates how the technology is being used, and how well it performs.

This data can be used to help improve operational performance, and as valuable input for developing future products.

Leverages PC analytics to identify hardware and software trends in real-time

Gathers and validates employee experience feedback to drive a continuous improvement cyclet

Allows to proactively identify and fix hardware and software issues

Facilitates remote management and support of conference rooms

Harnessing HP Workforce Experience Platform Insights to Drive Three Desired Improvements

Individual Employee Productivity

By identifying and assigning persona profiles to employee sbased on individual device and software history, each user is equipped with the right technology tools to work effortlessly and with maximum productivity. HP Workforce Experience Platform offers real data at the individual user level for informed and accurate assessment.

IT Optimization

HP Workforce Experience Platform helps IT teams reduce their TCO by making complex, real-time data easy to digest, reducing time-consuming IT tickets and automating workflows. The platform also uses AI to segment employees into dynamic personas that are used to smartly refresh devices and put an end to time-based refresh cycles that are wasteful for the business.

Employee Engagement

Moving IT away from a service desk approach for solving issues to proactive fleet management with pre-emptive actions is a transformation with significant benefits. Using HP Workforce Experience Platform, HP IT quickly identified users that were most impacted by digital friction and took actions that helped improve satisfaction rates by 70 percent. Built in pulse surveys help confirm the sentiment improvement and provide options for future automations.





The Business Case for Engagement

There's a very strong correlation between employee engagement and results. If we can improve the daily life of employees, their productivity and their experience as a whole in the workplace, that connects to improved business performance.

The real power of HP Workforce Experience Platform is its ability to let staff focus on what they do best. By removing digital friction, companies help staff be more productive and bring their best to work.

The Power of Employee Engagement

Employees shouldn't really have to deal with technology. They should be dealing with other people – customers and colleagues. It's then that they add unique human differences – empathy, creativity, connection – all the things that are unique to what a person can offer.

Companies with more satisfied employees are in fact more profitable, and it's because their employees are more productive and more engaged.

A Positive Impact on People and Business

The primary role of HP Workforce Experience Platform is to empower IT staff to deliver digital experiences that support both employee and business benefits.

IT used to be about meeting SLAs, hitting budgets and ensuring security. That's changed. Advanced organizations also know that an important function of IT is driving productivity.

HP Workforce Experience Platform leverages advanced AI to intelligently anticipate and take needed actions before employees are impacted by digital friction. HP IT matches devices and software solutions to meet the personalized needs of employees and to smartly refresh devices for optimized performance.

Within the first two weeks of deploying a beta build, HP had a 26 percent increase in data visibility into its fleet management with real-time data.

“All of our meeting rooms can be monitored to ensure they remain productive at all times. And if there’s a problem, we can solve it instantly and remotely. We’re seeing 100% satisfaction rates.”

Tadd Koziel,
Vice President HP on HP Program

Core Process Improvements Deliver Outstanding Results

New processes now also mean HP can deliver a great experience in the moments that matter. Slow onboarding, once a source of frustration for HP employees, has been streamlined immensely and reduced from days to just a few hours.

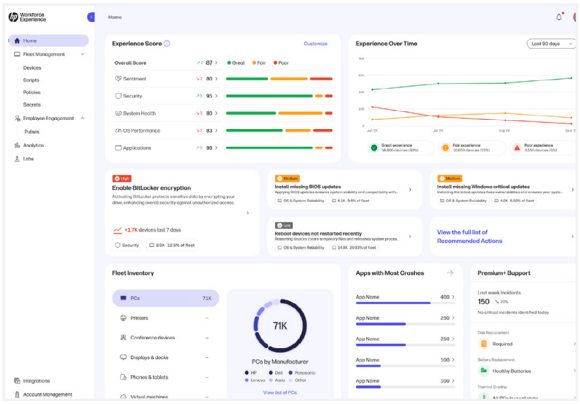
Our goal is to get people up and productive in their first couple of hours. It also creates a real sense of what it’s like to use technology in a company that makes it. We’re super proud that we can use tools like HP Workforce Experience Platform to knock down obstacles and make people feel great about the technology at their new employer.

It’s a critical contributor to employee sentiment and one that HP builds on with a commitment to using HP Workforce Experience Platform to make ongoing improvements to fleet performance. After the pandemic, HP IT noticed some lower employee satisfaction scores and used HP Workforce Experience Platform to identify trends and troubleshoot issues. Necessary steps were taken and user experience successfully improved.

Our employee satisfaction score went up 70 percent1. That’s a remarkable increase, and it’s only possible because we could use HP Workforce Experience Platform to focus on the core issues.

600K+

anomalies detected by new AI in first two weeks of deployment





Empowering Employees to be Their Best

Impacts and Outcomes

- Increase customer satisfaction score 70 percent[1]
- Targeted, personalized solutions help enhance satisfaction
- Optimize IT investments for the most impact
- Streamlined and seamless onboarding processes

Individual, Targeted, Data-driven IT Decisions

Informed decisions are good decisions – and they're even better when they respond to a specific, measurable – and human – requirement.

"With HP Workforce Experience Platform we're at the point where it really is true data-driven decision-making," says Johnston. "Gone are the days of policy-driven change. We're now able to drive change at individual employee level, linked to their use of our equipment."

It means HP can tailor equipment refresh cycles to individual requirements, which leads to optimized running costs and frees up investment for innovation elsewhere in the organization.



1

Consolidated platform used to monitor and manage PCs, printers, collaboration tools and more

600K+

Anomalies detected by new AI models, identifying problems before they happen

81,000

PCs managed at HP and supported by HP's endpoint management service

40%

Reduction in PC refresh costs
(moved away from age-based refresh using PC performance instead)

1,500

Rooms monitored via Workforce Experience Platform
(97% of room issues resolved remotely)

1,000+

remotely managed printers



From Managing to Leading

And while scores and bottom lines are important, productivity is about more than just the numbers. It's about replacing repetition with inspiration, replacing frustration with empowerment.

One of our goals is to give our employees back 10 percent of their time. Imagine if employees had four hours every week of additional time, what impact that would have on the company – and on the employees themselves.

What's so special is when our technology teams can actually make a difference to our employees. They see the impact it has on their productivity, on their satisfaction, on their enjoyment. It makes them feel valuable.

Ultimately, when given the tools, the technology, the environment and the experience, employees are freed up to find their own path and do their best work. Many of the benefits are intangible and emotional, but the outcomes are real – and transformational.

By taking away friction and repetitive processes, and by providing the environment, it frees people up from managing technology to leading the company.

Learn more at hp.com/workforceexperience.hp.com

[1]Net promoter score of employees in pilot increased 26 points from 37 to 63 from Feb 23 to June 23 after receiving new PCs. 26/37=70

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Especificações

Todas as especificações

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