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São Paulo, 24 de Maio de 2024

e-Signed by Rodrigo Franco
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| Monitorapp | Morpheus Data LLC | Motio, Inc. |
| Mountain Fog, Inc. | Moviri | MPS Vietnam Joint Stock Company |
| MUREX S.A.S. | Nagios Enterprises | NAKIVO, Inc. |
| NAMUTECH CO., LTD. | NANJING ECLOUD TECHNOLOGY CO.,LTD | Nanjing Pengyun Network Technology Company |
| Natus Medical Incorporated | nCipher Security Ltd | NCR Corporation |
| NCS Technologies | NEC Corporation | NeoSecure |
| Net AI | NetClean Technologies AB | Netcracker |
| netElastic Systems, Inc. | NetFoundry | Network Executive Software, Inc. |
| NETWORK INTELLIGENCE | Netwrix Corporation | Neusoft Corporation |
| Neutrix Cloud Japan Inc. | NeuVector | Neverfail, LLC |
| New H3C Technologies Co., Ltd. | Nexla | Nginx Inc |
| Niagara Networks | NiCE IT Management Solutions GmbH | Nile |
| Nimbus Data Systems | Nipun Net Solutions Pvt Ltd | Nirmata |
| Nlyte Software | NopSec | Norion |
| NoviFlow Inc. | Nozomi Networks, Inc. | NS Solutions Corporation |
| NTT Advanced Technology Corporation | NTT Communications | NTT COMWARE |
| NTT DATA CORPORATION | Nucleus Security, Inc. | NuoDB |
| OceanX Technology Ltd | Ocient | Oizom Instruments |
| Okta | ON2IT | One Convergence, Inc. |
| Onomy Protocol | Open-E | OpenAdvice IT Services GmbH |
| OpenLegacy | OPENMARU | OpenSVC SAS |
| Operator chmury Krajowej Sp. z o.o. | OpsCruise Inc | Orange Cloud For Business |
| Orca Security | Ordr | ORock Technologies, Inc. |
| Orson Test Data | OSNEXUS Corporation | OUTSCALE SAS |
| Overland Storage | Owl Cyber Defense Solutions, LLC | Pachyderm |
| PacStar | Palantir Technologies | Paragon Software Group |
| Parallels, Inc. | Parkam | Partners Data Systems, Inc. |

| | | |
|---|---|---|
| Pavilion Data Systems, Inc | PCG Canada | PEER Group Inc |
| Peer Software, Inc. | Pentera | Perception Point |
| Percona | Perpetuuiti Technosoft INC | Pica8 |
| Picus Security | PingUs Solutions GmbH & Co. KG | PKWARE, Inc. |
| Planet Communications Asia Public Company Limited | Pluribus Networks, Inc. | PoINT Software & Systems GmbH |
| PolySwarm | Polyverse Corporation | Portnox |
| Portshift | Postgres Professional | Potentia Analytics |
| Praim Srl | Prezi Inc. | Principia Partners LLC |
| Privacera | Pro:Atria Ltd | ProComputers SRL |
| Profitap | Proofpoint, Inc. | Prophetstor |
| Puppet | Pure IP Limited | Purelogic Labs India Pvt. Ltd. |
| QDS Holdings Inc. | QNAP Systems, Inc. | Qrypt |
| Qualys, Inc. | Quanta Computer Inc. | Quantela Inc |
| Quest Software | QuintessenceLabs | Qumulo, Inc. |
| R6 Security Inc | RackTop Systems | RackWare |
| Radiator Software | Radiflow | Radio IP Software |
| Rafay Systems | Rangee GmbH | RapDev LLC |
| Rapid7 | Raritan, Inc | Raytheon Trusted Computer Solutions, Inc. |
| Recorded Future | RedSeal, Inc. | Redtea Mobile PTE. Ltd |
| Reduxio Systems Inc. | Regula Forensics Inc. | Relativity ODA LLC |
| Reporting Xpress | Respond Software | ReSTNSX |
| Reveille Software | Ribbon Communications | RISKSENSE, INC. |
| Rivery Technology Inc | Robin.Io | ROC Software |
| Rocket Software | Run:AI | RUNECAST SOLUTIONS Ltd. |
| S.C. Syneto S.R.L. | SAASYAN PTY LTD | SafeBreach |
| SAMSUNG ELECTRONICS CO., LTD | SANBlaze Technology, Inc. | Sapphire Technology Limited |
| SAYME | Scale Computing | Scality |
| Schneider Electric | Schnell Energy Equipments Pvt. Ltd | Schwarz IT KG |
| Schweitzer Engineering Laboratories, Inc. | ScienceLogic, Inc. | SCSK Corporation |
| Scutech Corporation | Seagate Technology LLC | Seclytics |
| Security Reviewer | SecurityAdvisor Technologies Inc. | SECURONIX LLC |
| Seiko Solutions Inc. | SensorComm Technologies | Sensu Inc. |
| Sentrium S.L. | Sentry Software | SEP AG |
| Sepio Systems | Sevco Security Inc. | Severalnines AB |
| Shanghai Action Information Technology Co., Ltd. | Shenzhen SandStone Data Technology Co., Ltd. | Silicom Ltd. |
| Silk Security | Silverfort | Simloud |
| Sinch Operator Software AB | Sinequa | SingleStore |
| SIOS Technology Corp. | Sixgill | Skybox security LTD |
| Skymet Weather Services Pvt. Ltd | Skytap, Inc. | SlashNext |
| SliceUp, Inc. | SMA Northern Europe BV | Smart Parking Ltd |
| SmartX Professional Services Ltd. | Smokescreen Technologies | SNI BILISIM A.S |
| Snow Software | Snowflake Inc. | SOCOMEC |
| SOFTCREATE CORP. | SoftNAS | Solidigm |
| Soliel | Soliton Systems K.K. | Solver |
| Sopra Steria AS | SpectraLogic Corporation | spictera |
| Splashtop, Inc. | Splunk | Spotinst |
| SpotIT | SQream | Starburst Data, Inc |
| Stardog | StarWind Software | STEALTHbits Technologies, Inc. |
| Stone Ram Limited | StorageCraft Technology Corporation | Storageflex, Inc. |
| Storix Software | StorMagic | StorONE LTD |
| STORServer, Inc. | Storware | Stratodesk |
| Stratus Technologies | Streaming Networks, Inc. | Stromasys, Inc. |
| Sunny Valley Networks | Sunquest Information Systems, Inc. | Super Micro Computer, Inc. |
| Superna | SUSE LLC | Swimlane |
| Swisscom | Swivel Secure Inc. | SYBORG Informationssyteme b.h. OHG |
| Symas Corporation | SymphonyAI NetReveal | Syncurity |
| TACTIC Corp. | Talex S.A. | Tallence AG |
| Talon Storage | Tangent Works | Tape Ark |
| TASKE Technology | Tech Data Corporation | TechMahindra Limited |
| Tekkie Tec | Telconet | TeleMessage |
| Tenable, Inc. | Thales DIS CPL Canada Inc. | Thales Trusted Cyber Technologies |
| Theta Service Partner Sdn Bhd | Thinkparq | ThinPrint GmbH |
| ThreatConnect | ThreatQuotient | ThreatSTOP, Inc. |
| Tiger Surveillance | Tigera, Inc. | Timebeat.app Ltd |
| Tionix Holding | Titus | Tmaxsoft |
| TmaxTibero | TONBELLER AG | Top Victory Investment Limited |
| Townsend Security | TOYOU FEIJI ELECTRONICS CO., LTD. | TraceTronic GmbH |
| trackd | TradableBits Media Inc. | Transatel |
| TransVault | TRANSWARP TECHNOLOGY (SHAGNHAI) CO. LTD. | Tremolo Security, Inc. |
| Trend Micro Incorporated | triCerat, Inc. | TriggerMesh |
| Trilio | Trinity Mobility Pvt Ltd | Tripp Lite |
| Tripwire | Troop Messenger | Trusona |
| TrustLogix, Inc | Tufin | Turnium Technology Group Inc. |
| TWD Industries AG | Tyan Computer | Uila Inc. |
| UltraBac Software | UniPrint (GFI Solutions) | Unitrends |
| UNIX Health Check | UPS Solutions Co., Ltd. | Utimaco GmbH |
| Vardata | vArmour Networks | VAST Data, Inc |

| | | |
|---|---|---|
| Vault Solutions, LLC | Vcinity, Inc. | Vecow |
| Vectra AI | Vehant Technologies Pvt. Ltd. | Vembu Technologies |
| VersatusHPC | Versity Software, Inc. | Vertiv |
| Vestigo d.o.o. | VIAVI | Victor Stanley, Inc. |
| Videonetics Technology Pvt Limited | VirtAI Technologies Co.,Ltd. | Virtual Cable SLU |
| Vistry, Inc. | Visual Integrity | Vital Images, Inc. |
| VM2020 Solutions | VMS Software, Inc. | Votiro Cybersec Ltd. |
| vPhrase | VT Enterprise/SlashDB | Vulcan Cyber |
| Wallix | Wasabi Technologies | Wellness Telecom |
| Wellsoft | Western Digital | WhamTech |
| Whitespace | Winchester Systems, Inc. | WinMagic Inc. |
| Wipro Ltd | Wistron Corporation | WootCloud Inc. |
| Workstream Analytics, Inc. | Worldsensing | WTI Western Telematic, Inc |
| Wuxi Chinac Data Technology Service Co., Ltd. | WWT | X-IO Technologies |
| Xerox Corporation | xFusion Digital Technologies Co., Ltd. | Xinuos, Inc. |
| XLAB | XMPRO INC | Yellowbrick Data |
| YumaWorks, Inc. | Zabbix SIA | Zadara |
| Zenoss, Inc. | Zettaset | ZEVA INC |
| Zhilabs | ZTE Corporation | |

GOVERNO DO ESTADO DE SÃO PAULO
SECRETARIA DE MEIO AMBIENTE, INFRAESTRUTURA E LOGÍSTICA
CETESB - COMPANHIA AMBIENTAL DO ESTADO DE SÃO PAULO

**02**

Processo N° 36/04440/24

# LICENÇA DE OPERAÇÃO

**VALIDADE ATÉ : 21/09/2027**

N° **36013683**

Versão: **01**

Data: **15/10/2024**

**RENOVAÇÃO**

## IDENTIFICAÇÃO DA ENTIDADE

Nome
**LENOVO TECNOLOGIA (BRASIL) LIMITADA**

CNPJ
**07.275.920/0001-61**

Logradouro
**ESTRADA MUNICIPAL JOSÉ COSTA DE MESQUITA**

Cadastro na CETESB
**353-100659-1**

| Número | Complemento | Bairro | CEP | Município |
|---|---|---|---|---|
| 200 | MÓDULOS 5 A 10 | CHÁCARA ALVORADA | 13337-200 | INDAIATUBA |

## CARACTERÍSTICAS DO PROJETO

Atividade Principal

Descrição
**Servidores (computadores); fabricação de**

Bacia Hidrográfica
**13 - JUNDIAÍ**

UGRHI
**5 - PIRACICABA/CAPIVARI/JUNDIAÍ**

Corpo Receptor

Classe

Área ( metro quadrado)

| Terreno | Construída | Atividade ao Ar Livre | Novos Equipamentos | Área do módulo explorado(ha) |
|---|---|---|---|---|
| 67.825,65 | 27.437,33 | 121,85 | | |

Horário de Funcionamento (h)

| Início | | Término |
|---|---|---|
| 07:00 | às | 02:02 |

Número de Funcionários

| Administração | Produção |
|---|---|
| 285 | 311 |

Licença de Instalação

| Data | Número |
|---|---|
| | |

A CETESB–Companhia Ambiental do Estado de São Paulo, no uso das atribuições que lhe foram conferidas pela Lei Estadual nº 118/73, alterada pela Lei 13.542 de 08 de maio de 2009, e demais normas pertinentes, emite a presente Licença, nas condições e termos nela constantes;
A presente licença está sendo concedida com base nas informações apresentadas pelo interessado e não dispensa nem substitui quaisquer Alvarás ou Certidões de qualquer natureza, exigidos pela legislação federal, estadual ou municipal;
A presente Licença de Operação refere-se aos locais, equipamentos ou processos produtivos relacionados em folha anexa;
Os equipamentos de controle de poluição existentes deverão ser mantidos e operados adequadamente, de modo a conservar sua eficiência;
No caso de existência de equipamentos ou dispositivos de queima de combustível, a densidade da fumaça emitida pelos mesmos deverá estar de acordo com o disposto no artigo 31 do Regulamento da Lei Estadual nº 997, de 31 de maio de 1976, aprovado pelo Decreto nº 8468, de 8 de setembro de 1976, e suas alterações;
Alterações nas atuais atividades, processos ou equipamentos deverão ser precedidas de Licença Prévia e Licença de Instalação, nos termos dos artigos 58 e 58-A do Regulamento acima mencionado;
Caso venham a existir reclamações da população vizinha em relação a problemas de poluição ambiental causados pela firma, esta deverá tomar medidas no sentido de solucioná-los em caráter de urgência;
A renovação da licença de operação deverá ser requerida com antecedência mínima de 120 dias, contados da data da expiração de seu prazo de validade.

USO DA CETESB

| SD N° | Tipos de Exigências Técnicas |
|---|---|
| **93168925** | **Ar, Água, Solo, Ruído, Outros** |

ENTIDADE

EMITENTE

Local: **JUNDIAÍ**

Esta licença de número 36013683 foi certificada por assinatura digital, processo eletrônico baseado em sistema criptográfico assimétrico, assinado eletronicamente por chave privada. Para verificação de sua autenticidade deve ser consultada a página da CETESB, na Internet, no endereço: autenticidade.cetesb.sp.gov.br

# LICENÇA DE OPERAÇÃO

**VALIDADE ATÉ : 21/09/2027**

N° **36013683**

Versão: **01**

Data: **15/10/2024**

**RENOVAÇÃO**

EXIGÊNCIAS TÉCNICAS

01. Não poderá ocorrer o lançamento de efluentes líquidos, direta ou indiretamente em corpo d´água, sem tratamento prévio, devendo ser atendidos os padrões de emissão e de qualidade estabelecidos no Regulamento da Lei Estadual 997/76, aprovado pelo Decreto 8.468/76 e suas alterações, bem como nas Resoluções CONAMA 357/05 e 430/11.

02. Fica proibida a emissão de substâncias odoríferas e material particulado na atmosfera, em quantidades que possam ser perceptíveis fora dos limites de propriedade do empreendimento.

03. Fica proibido o lançamento de efluentes líquidos em galeria de água pluvial ou em via pública.

04. As vibrações geradas pelas atividades do empreendimento deverão ser mantidas controladas de modo a evitar incômodos ao bem estar público.

05. Os processos com utilização de equipamentos que possam provocar interferências eletromagnéticas, deverão sofrer medidas de controle adequadas, de forma que tais interferências não sejam perceptíveis nos aparelhos eletrônicos da circunvizinhança.

06. Os resíduos sólidos gerados, independentemente da sua origem e classificação, deverão ser adequadamente armazenados, em conformidade com as normas estabelecidas pela Associação Brasileira de Normas Técnicas (ABNT), e dispostos em locais aprovados pela CETESB, precedido, quando necessário, da obtenção do respectivo Certificado de Movimentação de Resíduos de Interesse Ambiental (CADRI).

07. Em caso de existência de Certificado(s) de Movimentação de Resíduos de Interesse Ambiental (CADRI) com validade vencida ou a vencer no prazo desta licença, a empresa deverá providenciar sua substituição e/ou renovação.

08. Manter as condições operacionais do empreendimento de modo que os níveis de ruído gerados pelo processamento industrial atendam aos padrões estabelecidos pela NBR 10151:2019 - "Acústica - Medição e avaliação de níveis de pressão sonora em áreas habitadas - Aplicação de uso geral", da ABNT, conforme Resolução CONAMA 01 de 08.03.1990, retificada em 16.08.1990.

09. “A movimentação dos resíduos sólidos gerados no empreendimento deverá ser registrada no Manifesto de Transporte de Resíduos – MTR do Sistema Estadual de Gerenciamento Online de Resíduos Sólidos – SIGOR ou em sistema municipal, desde que devidamente integrado ao Sistema estadual, em conformidade com a Resolução SIMA n° 27/2021

10. Atender à Decisão de Diretoria da CETESB n° 127/2021/P, demonstrando cumprimento do Plano de Logística Reversa apresentado à CETESB por meio dos respectivos Relatórios Anuais, a serem entregues até cada dia 31 de março, durante a vigência desta licença.

OBSERVAÇÕES

01. Este documento refere-se a renovação e unificação das Licença de Operação Renovada nº 36011989 e Licença de Operação nº 36012923, sendo válido para:
a. área construída de 27.437,33 m²;
b. área de atividades ao ar livre de 121,85 m²;
c. produção média anual de:
- notebook:  1.485.000 peças;
- desktop: 500.000 peças;
- servidor: 15.000 peças;
d. utilização das matérias primas, operações e processos descritos no Memorial de Caracterização do Empreendimento (MCE) apresentado à CETESB, além das seguintes máquinas e equipamentos:
Unidade: Unidade 1
- Empilhadeira (Qtde: 2)
- Exaustor (Qtde: 1)  (5,80 kW)
- Exaustor (Qtde: 2)  (0,49 kW)
- Parafusadeira (Qtde: 200)  (45,00 W)

ENTIDADE

- Parafusadeira (Qtde: 14) (45,00 W)
- Parafusadeira (Qtde: 166) (45,00 W)
- Balança (Qtde: 1) (2.000,00 kg)
- Seladora elétrica (Qtde: 12)
- Tanque (Qtde: 2) (250,00 L)
- Sopradora (Qtde: 2) (1.800,00 W)
- Gerador (Qtde: 1) (500,00 kVA)
- Gerador (Qtde: 1) (375,00 kVA)
- Balança eletrônica (Qtde: 2) (30,00 kg)
- Balança eletrônica (Qtde: 1) (30,00 kg)
- Balança eletrônica (Qtde: 3) (5,00 kg)
- Balança eletrônica (Qtde: 10) (5,00 kg)
- Estação de run in (Qtde: 21) (2.570,00 W)
- Estação de run in (Qtde: 1) (2.570,00 W)
- Estação montagem servidor (Qtde: 5) (305,00 W)
- Estação de ar (Qtde: 4) (60,00 W)
- Estação de solda (Qtde: 7) (60,00 W)
- Ferro de solda (Qtde: 4) (60,00 W)
- Ferro de solda (Qtde: 2) (60,00 W)
- Ferro de solda (Qtde: 2) (70,00 W)
- Ferro de solda (Qtde: 2) (70,00 W)
- Impressora 3D (Qtde: 5) (225,00 W)
- Chiller (Qtde: 3) (150,00 N/A)
- Transformador (Qtde: 1) (500,00 kVA)
- Transformador (Qtde: 1) (1.000,00 kVA)
- Transformador (Qtde: 1) (750,00 kVA)
- Compressor de ar (Qtde: 2) (20,00 HP)
- Ionizador (Qtde: 12) (25,00 W)
- Ionizador (Qtde: 12) (25,00 W)
- Testador de fuga de corrente (hipot) (Qtde: 12) (320,00 W)
- Câmera fria (Qtde: 2) (18.820,00 J)
- Câmera fria (Qtde: 1) (27.295,00 J)
- Câmera fria (Qtde: 2) (36.000,00 J)
- Estação pré-teste (Qtde: 1) (350,00 W)
- Estação de pré teste (Qtde: 11) (350,00 W)
- Estação de Retrabalho SMD Hakko FR-802 (Qtde: 2) (570,00 W)
- Estação de Solda digital ESD Toyo TS-980D (Qtde: 2) (90,00 W)
- Evaporadores de ar (Qtde: 2) (14,10 kW)
- Fancoil (Qtde: 14) (50,00 t)
- Impressora de etiquetas (Qtde: 5) (630,00 W)
- Impressora Zebra TLP 2844 (Qtde: 12) (50,00 W)
- Impressora Zebra ZM400 (Qtde: 2) (62,00 W)
- Linha de embalagem (Qtde: 11)
- Manipuladora a vácuo (Qtde: 1)
- Máquina de aplicação de filme plástico (Qtde: 1) (1.950,00 W)
- Potência videojet (Qtde: 12)

02. A presente licença não autoriza o uso de águas subterrâneas sem a outorga (ou sua dispensa) emitida pelo Departamento de Águas e Energia Elétrica (DAEE).

03. Poderão ser solicitadas da empresa informações e/ou estabelecidas exigências adicionais face a alterações de caráter legal ou a critério (devidamente fundamentado) da CETESB.

04. Quando da ocorrência de desconformidades, de imediato, a Agência Ambiental da CETESB deverá ser formalmente comunicada, com indicação da desconformidade, das causas do episódio e as medidas de adequação adotadas pelos responsáveis pelo empreendimento para correção da irregularidade.

CPU Benchmarks

# CPU Benchmarks

Over 1,000,000 CPUs benchmarked

## AMD Ryzen 7 7735HS vs Intel Ultra 7 155U

The Intel Core Ultra 7 155U is newer than AMD Ryzen 7 7735HS and is around -29% slower in multi-threaded (CPU Mark) testing. However the CPUs have comparable single-thread rating. Also, Intel Core Ultra 7 155U uses substantially less power. All the CPUs in this comparison belong in the Laptop CPU Class. The values below were tabulated from a combined 2659 benchmarks submitted from our PerformanceTest software and results and are updated daily to include new submissions.

- The first section will show basic information for each CPU selected.
- The additional graphs shows the CPU Mark and Single Thread values of each CPU selected.
- An accompany graph, if price data is available, will shows the value for money, in terms of the CPU Mark/Thread Rating per dollar.
- The last section will show approximate yearly running costs for the CPUs.

| | AMD Ryzen 7 7735HS × | Intel Core Ultra 7 155U × | + ADD |
|---|---|---|---|
| Price | Search Online | Search Online | |
| Socket Type | FP7 | FCBGA2049 | |
| CPU Class | Laptop | Laptop | |
| Clockspeed | 3.2 GHz | 1.7 GHz | |
| Turbo Speed | Up to 4.8 GHz | Up to 4.8 GHz | |
| # of Physical Cores | 8 (Threads: 16) | 12 (Threads: 14) | |
| Cache | L1: 512KB, L2: 4.0MB, L3: 16MB | L1: 1,184KB, L2: 10.0MB, L3: 12MB | |
| TDP | 54W | 15W | |
| Yearly Running Cost | $9.86 | $2.74 | |
| Other | AMD Radeon 680M | Intel Graphics, Intel AI Boost | |
| First Seen on Chart | Q1 2023 | Q1 2024 | |
| # of Samples | 1995 | 664 | |
| CPU Value | 0.0 | 33.6 | |
| Single Thread Rating (% diff. to max in group) | 3310 *(-2.8%)* | 3407 *(0.0%)* | |
| CPU Mark (% diff. to max in group) | **23322** *(0.0%)* | **16475** *(-29.4%)* | |

*[1] - Last seen price from our affiliates NewEgg.com & Amazon.com.*

CPU Benchmarks

| | |
|---|---|
| AMD Ryzen 7 7735HS | 23,322 |
| Intel Core Ultra 7 155U | 16,475 |



## CPU Value (CPU Mark / $Price)

*As of 13th of May 2025 - Higher results represent better value*

| | |
|---|---|
| AMD Ryzen 7 7735HS | NA |
| Intel Core Ultra 7 155U | 33.6 |



## CPU Single Thread Rating

*As of 13th of May 2025 - Higher results represent better performance*

| | |
|---|---|
| AMD Ryzen 7 7735HS | 3,310 |
| Intel Core Ultra 7 155U | 3,407 |



# Estimated Energy Usage Cost

### Estimated Energy Adjustable Values

| Average hours of use per day | Average CPU Utilization (0-100%) [1] | Power cost, $ per kWh [2] |
|---|---|---|
| 8 | 25 | 0.25 |

*[1] Average user usage is typically low and can vary from task to task. An estimate load 25% is nominal.*
*[2] Typical power costs vary around the world. Check your last power bill for details. Values of $0.15 to $0.45 per kWh are typical.*

| | AMD Ryzen 7 7735HS | Intel Core Ultra 7 155U |
|---|---|---|
| **Max TDP** | 54W | 15W |
| **Power consumption per day (kWh)** | 0.11 | 0.03 |
| **Running cost per day** | $0.027 | $0.007 |
| **Power consumption per year (kWh)** | 39.4 | 10.9 |

**AMD Ryzen 7 7735HS** **Intel Core Ultra 7 155U**

## CPU Benchmarks

*Shown CPU power usage is based on linear interpolation of Max TDP (i.e. max load). Actual CPU power profile may vary.*

CPU Benchmarks

Feedback

| | |
|---|---|
| **Família** | Ryzen |
| **Série** | Ryzen 7000 Series |
| **Fator de forma** | Notebooks , Desktops |
| **AMD PRO Technologies** | Não |
| **Disponibilidade regional** | NA , EMEA , APJ , LATAM |
| **Nome de código antigo** | Rembrandt R |
| **Processor Architecture** | Zen 3+ |
| **Nº de núcleos de CPU** | 8 |
| **Multithreading (SMT)** | Sim |
| **Nº de threads** | 16 |
| **Aumento de clock máx.** | Até 4.75 GHz |
| **Clock básico** | 3.2 GHz |
| **Cache L1** | 512 KB |
| **Cache L2** | 4 MB |
| **Cache L3** | 16 MB |
| **TDP padrão** | 35-54W |
| **TDP configurável AMD (cTDP)** | 35-54W |
| **Tecnologia de processador para núcleos de CPU** | TSMC 6nm FinFET |
| **Tamanho da CPU de computação Die (CCD)** | 210mm² |

| | |
|---|---|
| **Contagem do pacote Die** | 1 |
| **Desbloqueado para overclocking** | Não |
| **Soquete da CPU** | FP7 |
| **CPU Boost Technology** | Precision Boost 2 |
| **Conjunto de instruções** | x86-64 |
| **Extensões compatíveis** | AES , AMD-V , AVX , AVX2 , FMA3 , MMX-plus , SHA , SSE , SSE2 , SSE3 , SSE4.1 , SSE4.2 , SSE4A , SSSE3 , x86-64 |
| **Temperatura máx. de funcionamento (Tjmax)** | 95°C |
| **Data de lançamento** | Q2 2023 |
| ***Suporte a SO** | Windows 11 - 64-Bit Edition , Windows 10 - 64-Bit Edition , RHEL x86 64-Bit , Ubuntu x86 64-Bit |

## Conectividade

| | |
|---|---|
| **Native USB 3.2 Gen 2 (10Gbps)** | 2 |
| **Native USB 2.0 (480Mbps)** | 4 |
| **PCI Express® Version** | PCIe® 4.0 |
| **Native PCIe® Lanes (Total/Usable)** | 20 , 16 |
| **Suporte para NVMe** | Boot , RAID0 , RAID1 , RAID10 |
| **Tipo de memória do sistema** | DDR5 , LPDDR5 |

| | |
|---|---|
| **Memória máxima** | 64 GB |
| **System Memory Subtype** | UDIMM , SO-DIMM |
| **Velocidade máxima da memória** | **4x1R** DDR5-4800, LPDDR5-6400 |
| **Suporte a ECC** | Yes (Requires platform support) |

## Capacidades gráficas

| | |
|---|---|
| **Modelo da placa de vídeo** | AMD Radeon™ 680M |
| **Contagem de núcleos gráficos** | 12 |
| **Total Graphics Shaders** | 768 |
| **Frequência de gráficos** | 2200 MHz |
| **GPU Max. Memory** | 2 GB |
| **WDDM Version** | 2.7 |
| **DirectX® Version** | 12 |
| **OpenGL®** | 4.6 |
| **OpenCL™** | 2.2 |
| **DisplayPort™ Version** | 2.0 |
| **DisplayPort Extensions** | Adaptive-Sync , HBR3 , HDR Metadata |
| **DisplayPort Max Refresh Rates (SDR)** | 3840x2160 @ 60Hz , 3440x1440 @ 144Hz , 2560x1440 @ 180Hz , 1920x1080 @ 240Hz |

| | |
|---|---|
| **DisplayPort Max Refresh Rates (HDR)** | 3840x2160 @ 60Hz , 3440x1440 @ 144Hz , 2560x1440 @ 180Hz , 1920x1080 @ 240Hz |
| **HDMI® Version** | 2.1 |
| **HDCP Version Supported** | 2.2 |
| **USB Type-C® DisplayPort™ Alternate Mode** | Sim |
| **Suporte para vários monitores** | Sim |
| **Max Displays** | 4 |
| **AMD FreeSync™** | Sim |
| **AMD Eyefinity Single Large Surface (SLS)** | Não |
| **Wireless Display** | Miracast |
| **Max Video Encode Bandwidth (SDR)** | 1080p205 8bpc H.264, 1440p115 8bpc H.264, 2160p51 8bpc H.264, 1080p205 8bpc H.265, 1440p115 8bpc H.265, 2160p51 8bpc H.265 |
| **Max Video Decode Bandwidth** | 1080p60 MPEG2, 1080p60 VC1, 1080p240 8bpc VP9, 1080p240 10bpc VP9, 1080p240 H.264, 1080p240 8bpc H.265, 1080p240 10bpc H.265, 1080p240 JPEG 8bpc |

## IDs de produto

| | |
|---|---|
| **Bandeja com identificação do produto** | FP7: 100-000000985 , FP7r2: 100-000000989 |

### Security, Virtualization, and Manageability

| | |
|---|---|
| **AMD Enhanced Virus Protection (NX bit)** | Sim |

## Drivers and Resources

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Secretaria de Desenvolvimento Econômico e Turismo
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# Certidão Simplificada

Certificamos que as informações abaixo constam dos documentos arquivados nesta Junta Comercial e são vigentes na data de sua expedição.

Nome Empresarial: ATHENAS AUTOMACAO LTDA
Natureza Jurídica: SOCIEDADE EMPRESARIA LIMITADA

| Número de Identificação do Registro de Empresas - NIRE | CNPJ | Data de Arquivamento do Ato Constitutivo | Data de Início de Atividade |
|---|---|---|---|
| 4320331988-1 | 01.425.676/0001-90 | 12/09/1996 | 27/08/1996 |

Endereço Completo:
RUA BUARQUE DE MACEDO 439 - BAIRRO SAO GERALDO CEP 90230-250 - PORTO ALEGRE/RS

Objeto Social:
COMERCIO VAREJISTA E ATACADISTA DE EQUIPAMENTOS, SOFTWARES E SUPRIMENTOS DE INFORMATICA. COMERCIO VAREJISTA E ATACADISTA DE ELETRO-ELETRONICOS. COMERCIO VAREJISTA E ATACADISTA DE EQUIPAMENTOS DE AUTOMACAO DE ESCRITORIOS. COMERCIO VAREJISTA E ATACADISTA DE EQUIPAMENTOS DE SISTEMAS PARA RASTREAMENTO DE VEICULOS VIA SATELITE. COMERCIO VAREJISTA E ATACADISTA DE EQUIPAMENTOS DE AUTOMACAO BANCARIA E COMERCIAL. PRESTACAO DE SERVICOS DE MANUTENCAO EM EQUIPAMENTOS DE INFORMATICA E ELETRO-ELETRONICOS. PRESTACAO DE SERVICOS DE LOCACAO DE COMPUTADORES, DE MAQUINAS E EQUIPAMENTOS PARA ESCRITORIO, E APARELHOS DE USO COMERCIAL SEM OPERADOR. REPRESENTACAO COMERCIAL DOS PRODUTOS E SERVICOS RETRO-CITADOS.

| Capital | Microempresa ou Empresa de Pequeno Porte | Prazo de Duração |
|---|---|---|
| Capital Social: R$ 900.000,00<br>NOVECENTOS MIL REAIS<br>Capital Integralizado: R$ 900.000,00<br>NOVECENTOS MIL REAIS | NÃO<br>(Lei Complementar nº123/06) | INDETERMINADO |

Sócio(s)/Administrador(es)

| CPF/NIRE | Nome | Térm. Mandato | Participação | Função |
|---|---|---|---|---|
| 621.806.140-04 | ALEXANDRE REIS GIRARDI | xxxxxxx | R$ 450.000,00 | SÓCIO / ADMINISTRADOR |
| 418.019.540-20 | ANDRE FELIPE HENKIN | xxxxxxx | R$ 450.000,00 | SÓCIO / ADMINISTRADOR |

Status: CADASTRADA    Situação: ATIVA

Último Arquivamento: 14/02/2023    Número: 8738694

Ato 002 - ALTERACAO
Evento(s) 051 - CONSOLIDACAO DE CONTRATO/ESTATUTO
028 - EXTINCAO DE FILIAL EM OUTRA UF

Empresa(s) Antecessora(s)

| Nome Anterior | Nire | Número Aprovação | UF | Tipo Movimentação |
|---|---|---|---|---|
| ATHENAS AUTOMOCAO DE ESCRITORIO LTDA | 4320331988-1 | 2887734 | xx | ALTERAÇÃO DE NOME EMPRESARIAL |
| ATHENAS ASSESSORIA E CONSULTORIA EM AUTOMACAO DE ESCRITORIOS LTDA | 4320331988-1 | 1834067 | xx | ALTERAÇÃO DE NOME EMPRESARIAL |



25/208.904-9

# Certidão Simplificada

Certificamos que as informações abaixo constam dos documentos arquivados nesta Junta Comercial e são vigentes na data de sua expedição.

| | |
|---|---|
| Nome Empresarial: | ATHENAS AUTOMACAO LTDA |
| Natureza Jurídica: | SOCIEDADE EMPRESARIA LIMITADA |

Filial(ais) nesta Unidade da Federação ou fora dela

| Nire | CNPJ | Endereço |
|---|---|---|
| 3290048013-7 | 01.425.676/0003-51 | RODOVIA ES-010, 2594, KM 2.60 QUADRACHA LOTE 343 SALA B46, BAIRRO JARDIM LIMOEIRO, 29164-140, SERRA/ES |

NADA MAIS#

Porto Alegre, 11 de Junho de 2025 16:23

JOSÉ TADEU JACOBY
SECRETÁRIO GERAL

Certidão Simplificada Digital emitida pela JUNTA COMERCIAL, INDUSTRIAL E SERVIÇOS DO RIO GRANDE DO SUL e certificada digitalmente. Se desejar confirmar a autenticidade desta certidão, acesse o site da JUCISRS (http://jucisrs.rs.gov.br) e clique em validar certidão. A certidão pode ser validada de duas formas:
1) Validação por envio de arquivo (upload)
2) Validação visual (digite o nº C250004384418 e visualize a certidão)

25/208.904-9

São Paulo, 14 de maio de 2025.

**À**
**Athenas Automação Ltda**

**A LENOVO TECNOLOGIA (BRASIL) LTDA. ("Lenovo")**, pessoa jurídica de direito privado, inscrita no CNPJ/MF sob o nº **07.275.920/0001-61**, com escritório administrativo estabelecido na **Rua Werner Von Siemens, 111 — Prédio 11 / Torre A — 3º e 4º andar— Bairro da Lapa — São Paulo / SP - CEP 05069-900**, DECLARA que a empresa **Athenas Automação Ltda** , inscrita no CNPJ/MF sob o nº **01.425.676/0001-90**, sediada na **Rua Buarque de Macedo, n° 439, São Geraldo, Porto Alegre/RS**, bem como suas filiais, estão cadastradas nos sistemas internos da Lenovo como revenda autorizada, estando aptas a comercializar os produtos de fabricação Lenovo abaixo discriminados:

| Família | Part Number | Garantia/SLA |
|---|---|---|
| **ThinkPad E14 Gen6 AMD (100 unidades)** | **21M4S52CTOWW** | **Premier Support 5 anos Onsite (5WS0T36174), 36 meses para Bateria Selada (5WS0L01988), Solução no Segundo Próx. Dia Útil (5WS0V26691)** |
| **ThinkPad E14 Gen6 AMD (100 unidades)** | **21M4S0XCTOWW** | **Premier Support 5 anos Onsite (5WS0T36174), 36 meses para Bateria Selada (5WS0L01988), Solução no Segundo Próx. Dia Útil (5WS0V26691)** |

**DECLARAMOS QUE:**

- Os produtos citados acima são novos, pertencem a linha corporativa, estão em linha de produção, que não foram submetidos a uso, nem recondicionamento, com exceção de testes de fábrica.
- BIOS residente em flash rom, podendo ser atualizada por meio de software de gerenciamento.
- Possibilita que a senha de acesso ao BIOS seja ativada e desativada via SETUP.
- BIOS em Inglês em conformidade/compatível com as especificações UEFI 2.6 ou superior e capturáveis pela aplicação de inventário SCCM.
- Possui BIOS com direitos copyright sobre esse BIOS, e possui livre direito de edição sobre a mesma, garantindo assim adaptabilidade do conjunto adquirido.
- Com suporte a plug-and-play e atualizável por software, tipo Flash EPROM,
- Com registro do número de série do equipamento acessível remotamente via comandos DMI 2.0;
- A BIOS possui o número de série do equipamento em campo editável que permita inserir identificação customizada podendo ser consultada por software de gerenciamento;
- Suporta o recurso WOL (Wake on LAN) e PXE (Pré-boot Execution Enviroment);
- Suporte aos seguintes padrões de gerenciamento: DMI (Desktop Management Interface) 2.0 ou WMI (Windows Management Instrumentation e CIM (Common Information Model) e total compatibilidade com a norma ACPI (Advanced Configuration and Power Interface), SMBIOS (System Management BIOS);
- O fabricante está registrado na "Membership List" do Unified Extensible Firmware Interface Fórum, acessível pelo website www.uefi.org/members, estando na categoria "Promoters", de forma a atestar que os seus equipamentos estão em conformidade com a especificação UEFI 2.x ou superior;
- O fabricante está registrado na "Members List" na Categoria Board, do consórcio DMTF (Distributed Management Task Force), comprovado através do site https://www.dmtf.org/about/list;
- Gestão de segurança com Chip de segurança TPM (Trusted Platform Module) versão 2.0, acompanhado de drivers e software para implementação e gerenciamento. O Chip soldado à placa mãe, não sendo utilizado dispositivo adicional removível ou solução baseada unicamente em software.
- Os equipamentos possuem compatibilidade com a NIST 800-193, para garantir a detecção e proteção da BIOS contra ataques cibernéticos
- Programa de restauração automática da configuração inicial do equipamento;
- O equipamento possui indicadores (LED, display ou Bips) para facilitar a identificação do componente que esteja com problema;

- Grupos de Mensagens de Erro na tela do monitor que sinalizem informações prévias de falha de boot de componentes de hardware;
- A fim de permitir que os técnicos ou o próprio usuário possam verificar:
    - Se o equipamento atende a todas as exigências do edital;
    - Se o equipamento apresenta (ou não) problemas de hardware, durante e após o período de garantia;
- A fim de permitir o teste do equipamento, com independência do sistema operacional instalado e com independência do estado de funcionamento ou existência da unidade de DVD/CD-ROM, o software de diagnóstico é capaz de ser executado (inicializado) a partir da UEFI (Unified Extensible Firmware Interface) ou do Firmware do equipamento através do acionamento de tecla função (F1...F12).
- O software de diagnóstico é capaz de informar e verificar, testar e emitir relatório, através de tela gráfica que mostre o andamento do teste, dos seguintes componentes: Memória e Disco rígido e Data e versão de firmware do equipamento;
- Possibilita a inserção de código de identificação do equipamento (número de registro patrimonial), recuperável por software de gerenciamento.
- Alguns modelos de desktops possuem sensor de intrusão, com alertas ao sistema em caso de abertura do gabinete permitindo monitorar violações através de software de gerenciamento em conjunto com dispositivo de hardware.
- As atualizações da BIOS, quando disponibilizadas, serão no site do fabricante do equipamento.
- Permite criação de um pendrive de recuperação da BIOS;
- Os equipamentos e seus componentes são totalmente compatíveis com o Sistema operacional Windows 10 X64, Windows 11 e Linux Ubuntu em todas as versões.
- Os equipamentos possuem conformidade com as especificações DMI (Desktop Management Interface) 2.0 da DMTF (Desktop Management Task Force).
- Os produtos citados são compatíveis com a portaria 170/12 do INMETRO e/ou Portaria 304/2023 do INMETRO e/ou possuem normas internacionais equivalentes.
- BIOS está em conformidade com a norma NIST 800-147 e NIST-800-88;
- Todos os componentes serão integrados em fabrica e são homologados pela Lenovo;
- Placa mãe fabricada pela Lenovo para uso exclusivo.
- O Fabricante possui programa de engenharia/logística reversa e reciclagem/descarte seguro dos produtos e participar de programas de sustentabilidade ambiental RoHS).
- Os equipamentos estão no portfólio de produtos da Lenovo. Não estão em fim de vida (End of Sale, End of Life), caso sejam descontinuados em qualquer momento da entrega os mesmos serão substituídos, por equipamentos com configurações atualizadas, havendo sempre uma comunicação formal.
- É possível customização de serviços em fábrica quando exigidos, como imagem e gravação a Laser.
- Todos os teclados, inclusive os teclados dos notebooks, são no padrão ABNT 2 com ¨Ç¨.

**OUTRAS DECLARAÇÕES:**

A licença do Windows é de uso único e exclusivo da Contratante, integrada na BIOS.
Garantia e Assistência Técnica será prestada ON-SITE pelo fabricante, quando necessária manutenção com troca de peças, as mesmas serão originais, fornecidas e instaladas pelo fabricante.

A Lenovo é responsável pelo atendimento "on site" da garantia padrão dos equipamentos, conforme o Termo de Garantia Padrão da Lenovo, mediante assistência técnica devidamente autorizada e credenciada.

A Garantia adicional/SLA deve ser previamente adquirida pela Revenda, mediante os termos de extensão da Garantia dos produtos.

Para acesso a certificações e quaisquiser outras informações sobre os produtos acima listados, podem ser consultadas no site: https://psref.lenovo.com.

Para acesso a Drivers, atualizações, Software, Diagnósticos, Catálogos, Manuais e Guia de Instalação, podem ser consultados no site: https://pcsupport.lenovo.com/br/pt

Os drivers, atualizações e suporte dos produtos Lenovo estão disponíveis para download, e busca das autorizadas técnicas Lenovo mais próxima no site:
https://pcsupport.lenovo.com/br/en/partnerlocator#providerProductName

A Lenovo dispõe de telefone gratuito 0800-701-4815 (ligações fora da cidade de São Paulo) e 11 3889-8986 (ligações da cidade de São Paulo) para abertura de chamados técnicos em Língua Portuguesa e service desk.

A presente declaração foi emitida por solicitação da **Athenas Automação Ltda** para atendimento ao Edital **PE19/2025**, promovido pelo **COMPANHIA DE PROCESSAMENTO DE DADOS DO MUNICÍPIO DE PORTO ALEGRE - PROCEMPA.**

Atenciosamente,

Assinado por:
Valter Artea
91541403867D44E...

DocuSigned by:
Maurício Misumi
9359B24D385E4FE...

**Valter Artea** **Maurício Misumi**

**LENOVO TECNOLOGIA (BRASIL) LTDA.**

À
**COMPANHIA DE PROCESSAMENTO DE DADOS DO MUNICÍPIO DE PORTO ALEGRE – PROCEMPA**

## DECLARAÇÃO DE QUALIFICAÇÃO TÉCNICA (Anexo VII)

A empresa **ATHENAS AUTOMAÇÃO LTDA**, inscrita no CNPJ nº 01.425.676/0003-51, por intermédio do seu representante legal, Sr. André Felipe Henkin, portador da carteira de identidade nº 6026394376, expedida pelo(a) SJS/II RS, e CPF nº 418.019.540-20, DECLARA, sob as penas da lei, para fins de participação na **LICITAÇÃO ELETRÔNICA 19/25**, que a empresa dispõe do aparelhamento técnico adequado e necessário para a realização do objeto a que se refere esta licitação, e que tomei conhecimento de todas as informações e das condições para o cumprimento das obrigações objeto da licitação, bem como comunicarei qualquer fato ou evento superveniente à entrega dos documentos de habilitação, que venha alterar a atual situação da empresa relativamente à sua capacidade técnica.

Porto Alegre – RS, 11 de junho de 2025.

ANDRE FELIPE HENKIN:41801954020

Assinado de forma digital por ANDRE FELIPE HENKIN:41801954020
Dados: 2025.06.12 08:57:26 -03'00'

**ATHENAS AUTOMAÇÃO LTDA**
André Felipe Henkin

greeneletron
gestora de logística reversa

SÃO PAULO, 03 DE AGOSTO DE 2018.

D E C L A R A Ç Ã O

Declaramos para os devidos fins, que a empresa **Lenovo Tecnologia (Brasil) Ltda**, sediada à Estrada Municipal José Costa de Mesquita, 200 Módulo 5 a 10 - Chácara Alvorada - Indaiatuba SP CEP 13337-200, inscrita no CNPJ sob o nr. 07.275.920/0001-61, é associada a **GREEN Eletron** (Gestora para Resíduos de Equipamentos Eletroeletrônicos Nacional), sob o registro nr. **7005** desde 27/Junho/2016, e que até o presente momento cumpriu rigorosamente suas Obrigações Estatutárias, bem como, o recolhimento das Contribuições Associativas.

Por ser verdade, firmamos a presente Declaração.

Ademir Brescansin

# Acoustic test report

## ThinkPad E14 Gen6

### Machine types: 21M3/21M4

Release Date: December 29, 2023

Version 1.0

Jom.Wu December 29, 2023,

Issued by Jom.Wu

LC Future Center Hefei RD Thermal &Acoustic Development

Xianchun.Meng December 29, 2023,

Issued by Meng xianchun

LC Future Center Hefei RD Thermal &Acoustic Development

Alex.Hu December 29, 2023,

Approved by Alex hu

LC Future Center Hefei RD Thermal &Acoustic Development

Notebook Development – Hefei

LC Future Center Ltd.

18F,Build D,No.5899,XiYou Road.Hefei City,Anhui Province.China

# 1. Introduction

## 1.1 General

This document reports the declared acoustical noise level of Lenovo products. The Lenovo products reported in this document may have the same function but come from a different supplier (e.g. a cooling module or a hard disk drive). However, the reported values will be met regardless of the source of the components used.

The most important of presenting the declared value is to report the sound power level, SWL. However, it is also recognized that users still need information on sound pressure level, SPL. Therefore, both values are described in this document.

## 1.2 Referenced standards

| | | |
|---|---|---|
| **Sound power level** | ISO 7779 | Method for determination of sound power levels of equipment under essentially free-field conditions over a reflecting plane |
| **Sound pressure level** | ISO 7779 | Method for determination of emission sound pressure levels at defined operator and bystander positions |
| **Installation and operation of equipment** | ECMA-74 | Installation and operating conditions for specific equipment categories<br>C.9 Disk units and storage sub-systems<br>C.15 Personal computers and workstations<br>C.19 CD- and DVD-ROM drives |
| **Noise emission values** | ISO 9296 | Method for determination of declared noise emission values of equipment |

# 2. Measuring equipment

## 2.1 Facility information

| | |
|---|---|
| **Location** | Pendec Electronics(Kunshan) Co, Ltd |
| **Temperature** | 22.6°C |
| **Humidity** | 52.0 % |
| **Barometric pressure** | 102.2 k Pa |
| **Background noise** | 14.5 dB (A) |
| **Environmental correction, $K_2$** | 0 dB |
| **Cut-off frequency** | 250Hz |
| **Rated input voltage** | 220V AC |
| **Rated power line frequency** | 50Hz |

## 2.2 Instrument information

| Equipment | Brand | Model | Serial number | Last calibration |
|---|---|---|---|---|
| | | | | |
| **Microphone** | GRAS | Microphone:Type40AE<br>Preamplifier:Type26CA | 69245<br>74813 | 2023-8-25 |
| **Microphone** | GRAS | Microphone:Type40AE<br>Preamplifier:Type26CA | 69246<br>74811 | 2023-8-25 |
| **Microphone** | GRAS | Microphone:Type40AE<br>Preamplifier:Type26CA | 71354<br>74809 | 2023-8-25 |
| **Microphone** | GRAS | Microphone:Type40AE<br>Preamplifier:Type26CA | 71357<br>74815 | 2023-8-25 |
| **Microphone** | GRAS | Microphone:Type40AE<br>Preamplifier:Type26CA | 71355<br>74810 | 2023-1-11 |
| **Microphone** | GRAS | Microphone:Type40AE<br>Preamplifier:Type26CA | 71371<br>74812 | 2023-1-11 |

| Equipment | Brand | Model | Serial number | Last calibration |
|---|---|---|---|---|
| **Microphone** | GRAS | Microphone:Type40AE<br>Preamplifier:Type26CA | 75164<br>74808 | 2023-1-11 |
| **Lab.3 Microphone03** | PCB | 378B02 | 152849 | 2023-1-11 |
| **Microphone** | GRAS | Microphone:Type40AE | 448363 | 2023-8-25 |
| **Microphone calibrator** | B&K | 4231 | 3023983 | 2023-8-25 |
| **Analyzer** | Head Acoustics | SQ lab III | 035345082006 | 2023-11-23 |

## 2.3 Photo

### 2.3.1 Sound power level measurement

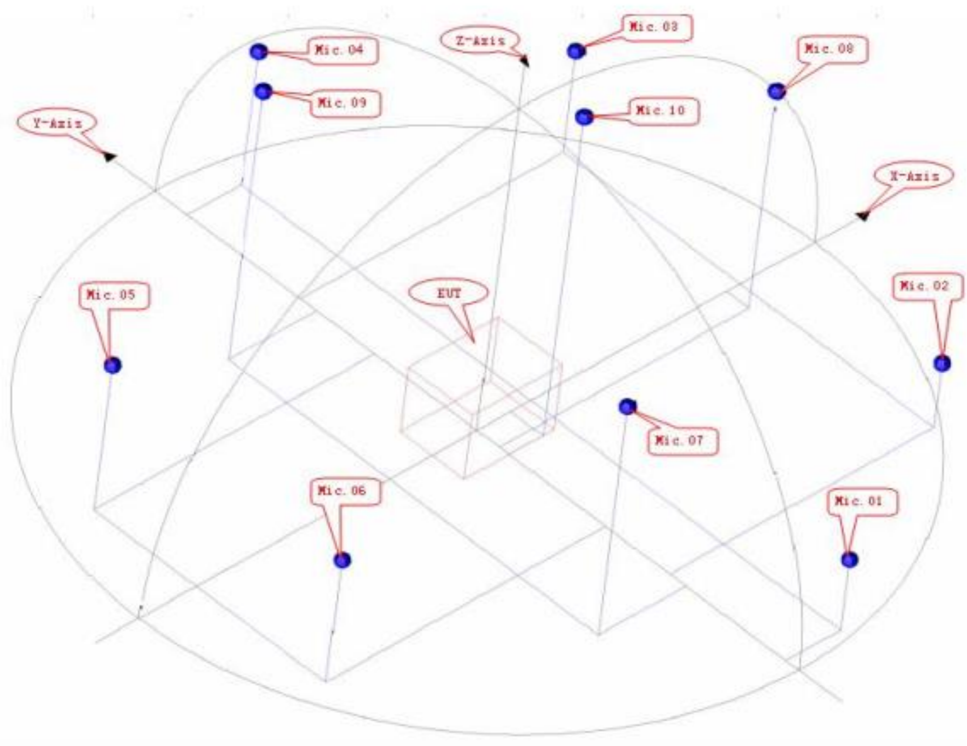



Fig. 3 Location of EUT and microphone position (Side view)

### 2.3.2 Emission sound pressure level measurement

# 3 Target products

## 3.1 General

The product under test is equipped with one or more components from the table in the following headings

## 3.2 List of principal components

| Component | Brand and model | Additional information |
|---|---|---|
| **CPU** | Intel Ultra 7-155U | |
| **Cooling fan** | AVC Toshiba | |
| **GPU** | N/A | |
| **SSD** | Union Mem 1T<br>Hynix 1T | |

# 4. Product states under measuring

## 4.1 General

The noise is measured according to ISO 7779 and the following conditions will be added.

## 4.2 Idle mode

Target product is turned on, the OS has started, and the system shall be idling for 15 minutes or more.

## 4.3 Operating mode

### 4.3.1 CPU

All CPUs shall be running at around 50% load.

### 4.3.2 HDD

All HDDs shall be accessing to data randomly.

# 5. Measurement results

## 5.1 General

The measurement results are determined by calculation according with ISO 9296.

## 5.2 Declared noise values of target product

| | $L_{WAd}$ (B) (1B=10dB) | $L_{pAm}$ (dB) at operator position | $L_{pAm}$ (dB) at bystander position |
|---|---|---|---|
| **Idle mode** | 2.6 | 14.9 | 14.7 |
| **Operating (SSD)** | 3.4 | 22.7 | 22.8 |

The prominent discrete tone specified by ECMA-74 Annex D were not detected in the noise of the target product.

# Appendix A. Detail information of measuring target

## A.1 Detail information

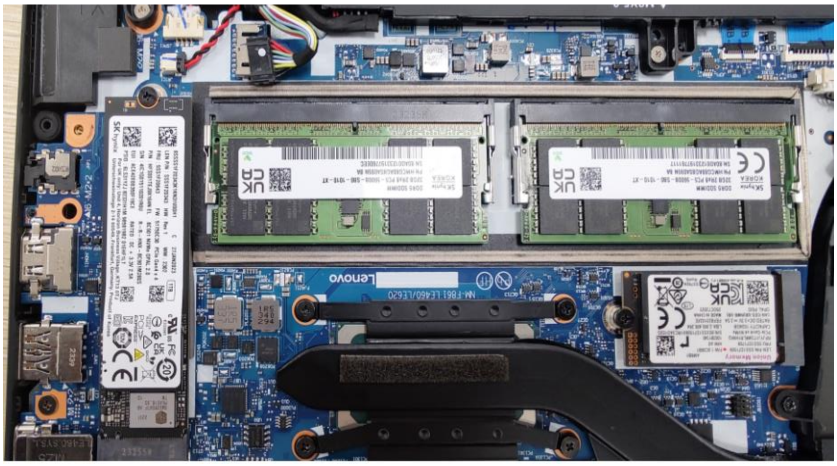
| Product | Model | Serial No. |
|---|---|---|
| ThinkPad E14 Gen6 | SKU9 | PF4N3CA0 |
| Components: | | Serial No.: |
| CPU | Intel Ultra 7-155U | --- |
| Cooling fan | AVC Toshiba | --- |
| GPU | NA | --- |
| SSD | Union Mem 1T | --- |
| | Hynix 1T | |

## A.2 Photos

### A.2.1 AC/DC adapter


### A.2.2 System label

### A.2.3 Storage

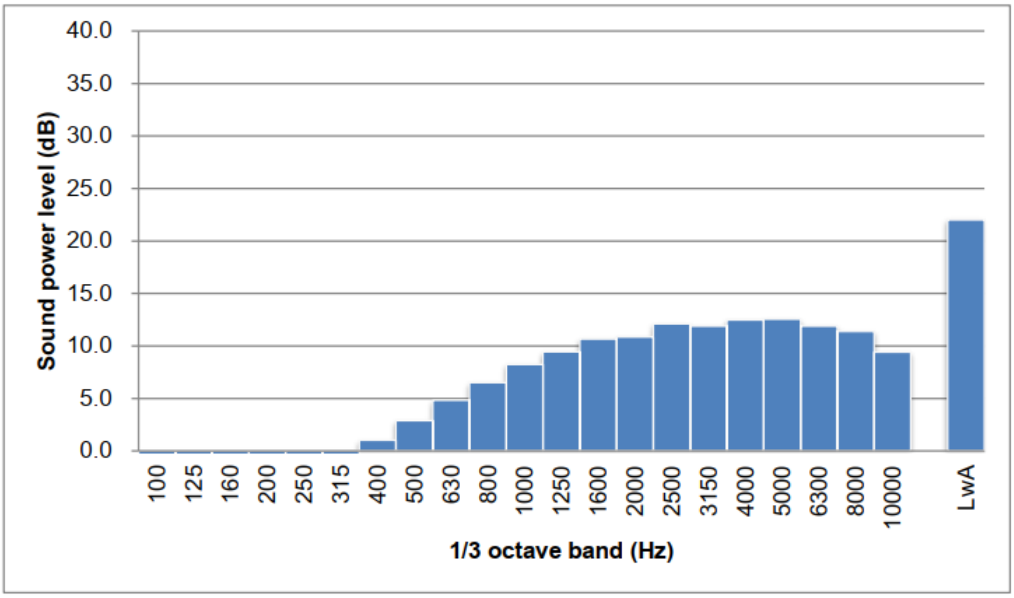


### A.2.4 Fan module

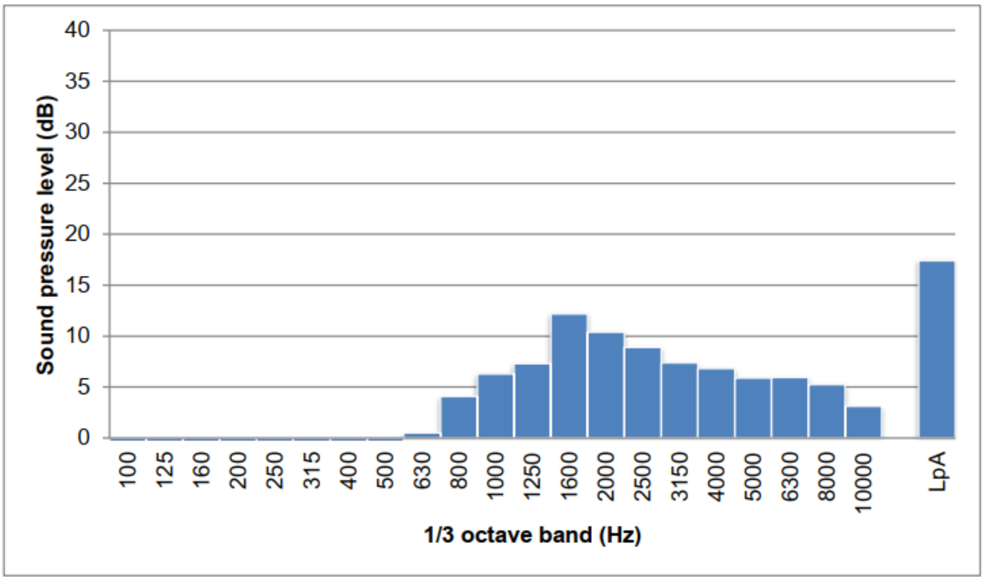
## A.3 Measurement result

### A.3.1 Idle mode

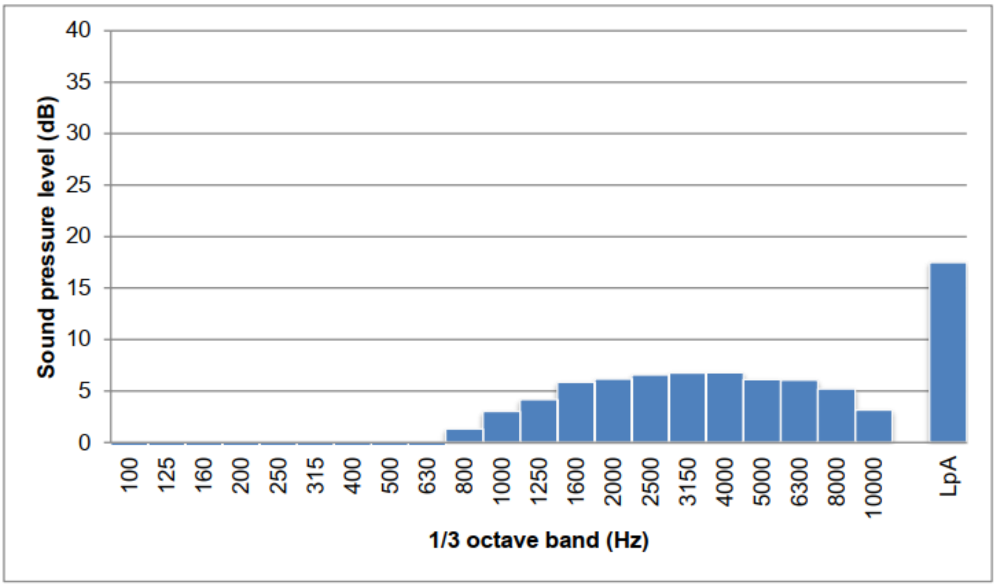
#### A.3.1.1 Sound power level




#### A.3.1.2 Sound pressure level at operator position

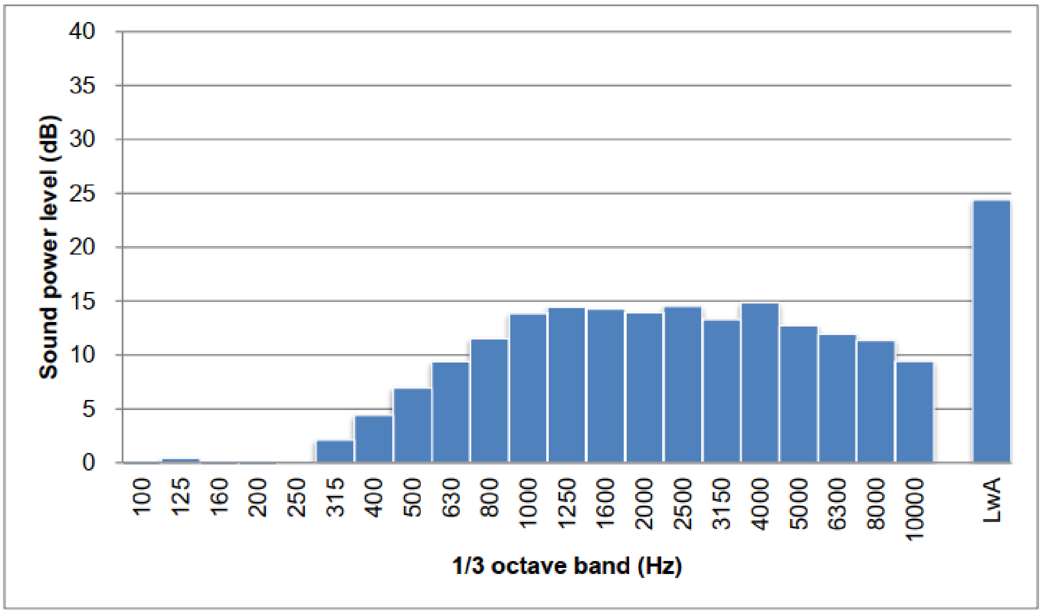


### A.3.1.3 Mean sound pressure level at bystander position

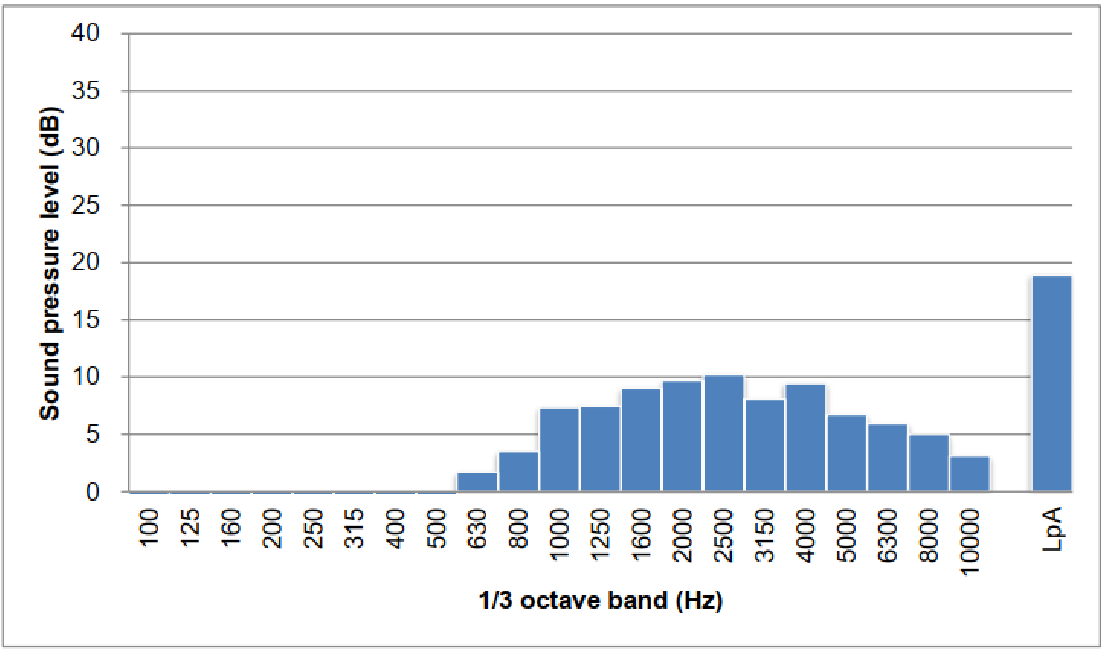



## A.3.2 Operating mode (CPU)

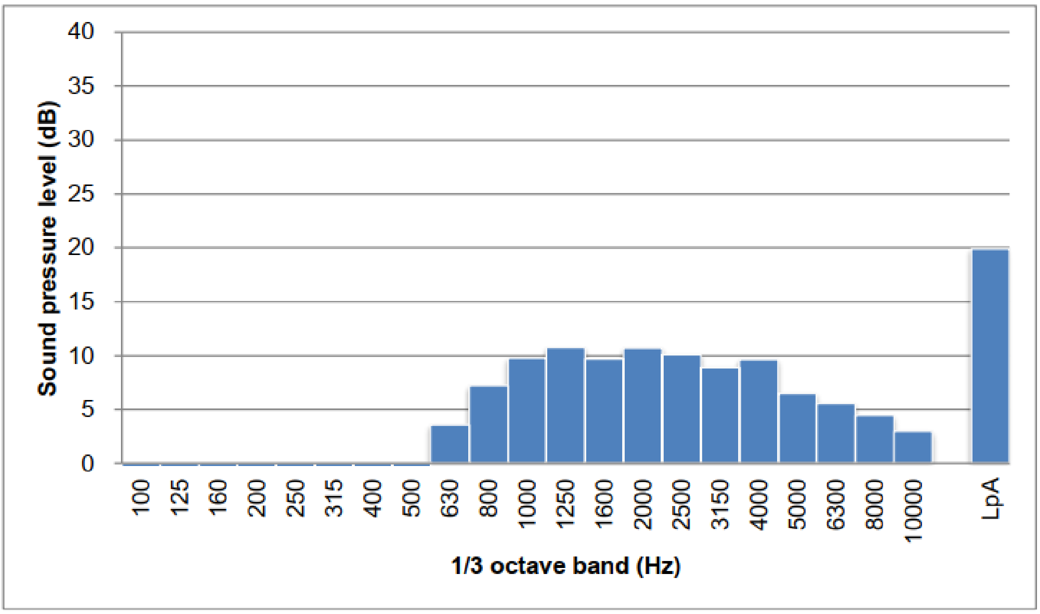
### A.3.2.1 Sound power level



### A.3.2.2 Sound pressure level at operator position

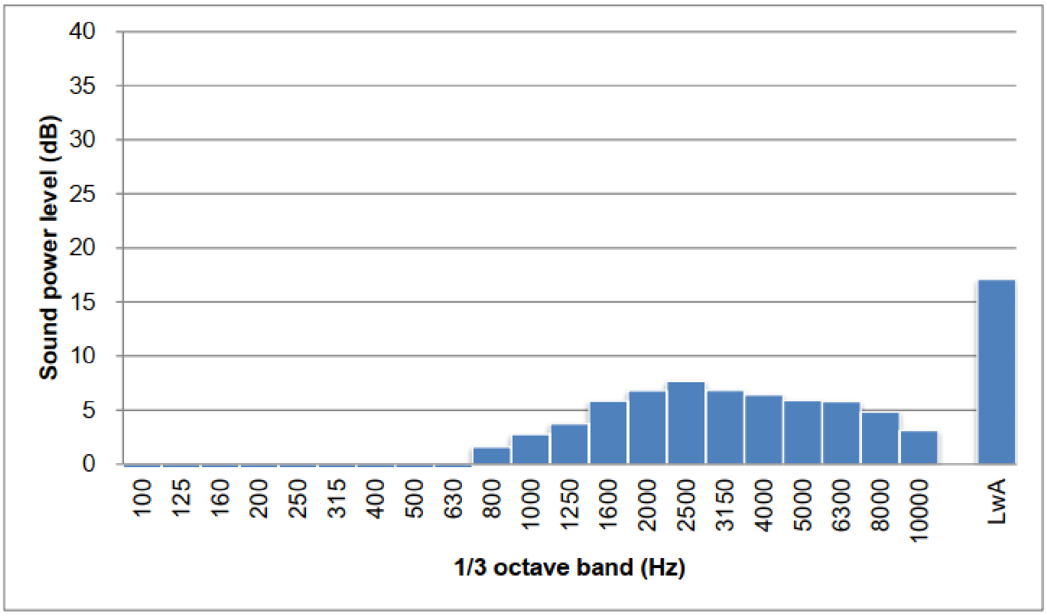



### A.3.2.3 Mean sound pressure level at bystander position

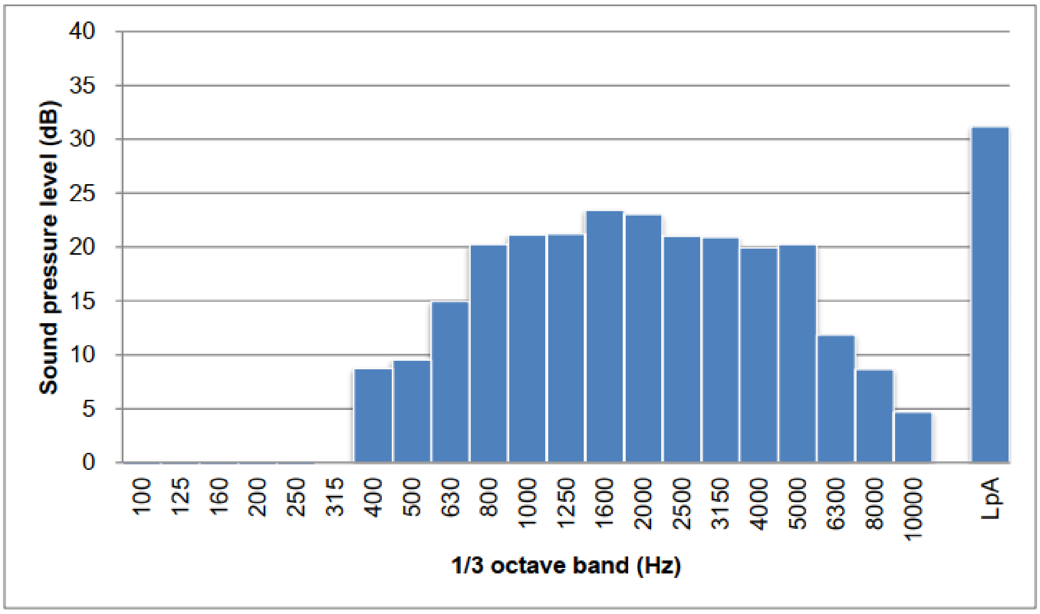


### A.3.3 Operating mode (SSD)

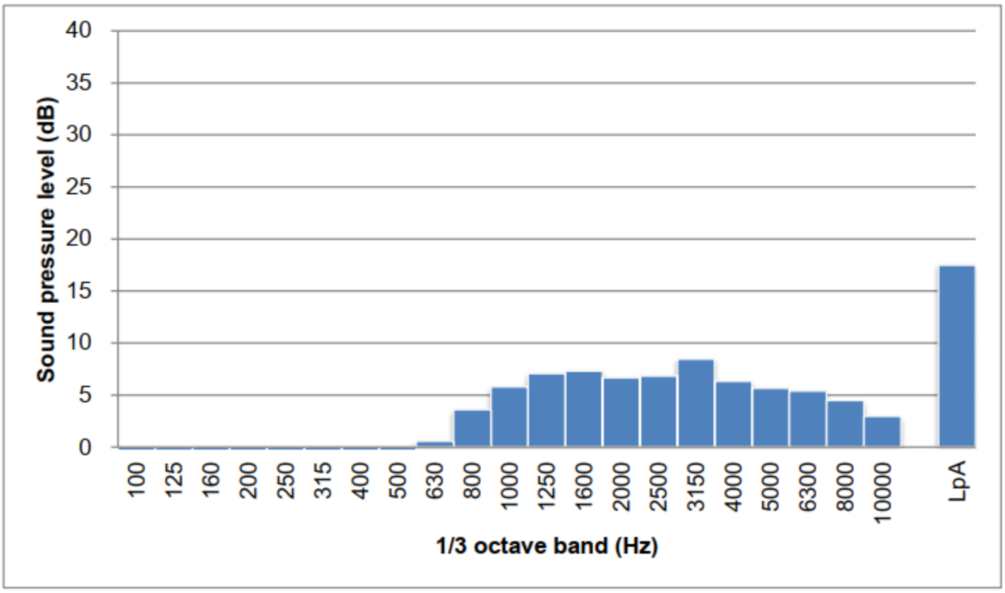
#### A.3.3.1 Sound power level




#### A.3.3.2 Sound pressure level at operator position



### A.3.3.3 Mean sound pressure level at bystander position



## ASSOCIADOS

Conheça as empresas que já fazem parte da Green Eletron e garantem o descarte sustentável de seus equipamentos.

### Programa Descarte Green Eletroeletrônicos

### Fabricantes e Importadores

### Distribuidores

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# Test Certificate

Lenovo (Beijing) Co., Ltd.

According to MIL 810H Test for ThinkPad, the Lenovo product *ThinkPad E14 Gen 6 AMD* has been tested based on test items and corresponding conditions of the following table, and the test results meet the standard requirements. Hereby Certify!

| MIL-810H | Title | Procedure | Item | Test Condition | EUT Condition | Result |
|---|---|---|---|---|---|---|
| 500.6 | Low Pressure (Altitude) | Procedure I (Storage) | (1) | 15,000 feet for 1 hour<br>57.2 kPa or 8.3 psia | Power Off | PASS |
| | | Procedure II (Operation) | (2) | 15,000 feet for 1 hour<br>57.2 kPa or 8.3 psia | Power On | PASS |
| 501.7 | High Temperature | Procedure I (Storage) | (3) | 63℃ 4 hours (Basic Hot) | Power Off | PASS |
| | | Procedure II (Operation) | (4) | 43℃ 2 hours (Basic Hot) | Power On | PASS |
| | | Procedure III (Tactical-Standby to Operational) | (5) | Basic Hot (A2)<br>63℃ 2 hours/43℃ | Power Off/On | PASS |
| 502.7 | Low Temperature | Procedure I (Storage) | (6) | -25℃ 24 hours (Basic Cold) | Power Off | PASS |
| | | Procedure II (Operation) | (7) | -21℃ 2 hours (Basic Cold) | Power On | PASS |
| 503.7 | Temperature Shock | Procedure I-A | (8) | One-way shock<br>-25℃ to 60℃ 4 hours | Power Off | PASS |
| | | Procedure I-B | (9) | Single cycle shock<br>-25℃ to 60℃ to -25℃ 4 hours | Power Off | PASS |
| 505.7 | Solar Radiation (Sunshine) | Procedure I Cycling | (10) | Three 24 hours cycles of controlled simulated solar radiation | Power Off | PASS |
| | | Procedure II Steady State | (11) | Four 24 hours cycles, 505.7-2 | Power Off | PASS |
| 507.6 | Humidity | Procedure II Aggravated Cycle | (12) | 95% RH 30-60℃<br>24 hours x 10 cycles | Power Off | PASS |
| 510.7 | Sand and Dust | Procedure I (Blowing Dust) | (13) | 140 mesh silica, 10 $g/m^3$, 8.9 m/s<br>12 hours<br>25℃ for 6 hours and 60℃ for 6 hours | Power Off/On | PASS |
| | | Procedure II (Blowing Sand) | (14) | Silica sand (at least 95% by weight $SiO_2$)<br>0.18 $g/m^3$, 18 m/s<br>90 minutes x 2 direction | Power Off | PASS |
| 511.7 | Explosive Atmosphere | Procedure I Explosive Atmosphere | (15) | Operated in a fuel vapor environment | Power On | PASS |
| 514.8 | Vibration | 514.8C-2 Category 4 Secured Cargo Common Carrier | (16) | Table 514.8C-I Common Carrier<br>Vertical: 1.08 Grms<br>Transverse: 0.21 Grms<br>Longitudinal: 0.76 Grms<br>1 hour in all 3 axis | Power On | PASS |
| | | 514.8C-6 Category 4 Secured Cargo Composite Wheeled Vehicle | (17) | Assume 805 km (500 miles)<br>40 minutes per axis | Power Off | PASS |
| | | 514.8C-8 Category 5 Truck/trailer-loose cargo | (18) | W/ Procedure II<br>Assume 805 km (500 miles)<br>67 minutes | Power Off | PASS |
| | | 514.8E-1 Category 24 Minimum Integrity | (19) | Fig 514.8E-1 General min Integrity exposure<br>0.04 $g^2/Hz$ 20 Hz - 1 KHz<br>-6 db/Oct 1 KHz - 2 KHz<br>1 hour/axis x 3 axis | Power Off | PASS |
| 516.8 | Shock | Procedure I Functional Shock | (20) | Table 516.8-IV Terminal peak sawtooth shock pulse<br>20 G/11ms<br>3+3- in all 3 axis for a total of 18 shocks | Power On | PASS |
| | | Procedure II Transportation Shock | (21) | 5000km On-road, 1000km Off-road | Power Off | PASS |
| | | Procedure IV Transit drop | (22) | 122 cm Drop on each face, edge and corner;<br>total of 26 drops. Most 5 items | Power Off | PASS |
| | | Procedure V Crash Hazard Shock | (23) | 75 G/6 msec, 12 shocks | Power Off | PASS |
| | | Procedure VI Bench Handling | (24) | 100 mm or 45 degree, 4 drops x 2 | Power Off | PASS |
| 524.1 | Freeze/Thaw | Procedure III (Rapid Temperature Change) | (25) | From 25℃ to -10℃ | Power Off | PASS |
| 528.1 | Vibrations of Shipboard | Procedure I (Type I) | (26) | 4 to 33 Hz, 2 hours | Power On | PASS |

Hefei LCFC Information Technology Co., Ltd.

April 1th, 2024

*The validity of the certificate is only for the samples tested, and the declaration of conformity of the certificate is based on the test data and results of the reference test report.*

*The final interpretation right of the certificate belongs to Hefei LCFC Information Technology Co., Ltd., which is used by Lenovo Group.*

# Members

## The Responsible Business Alliance is the world's largest industry coalition dedicated to corporate social responsibility in global supply chains.

Beginning with eight members in 2004, today the RBA core membership (not counting initiative-only members) is composed of more than 200 electronics, retail, auto and toy companies with combined annual revenue greater than $7.7 trillion, directly employing over 6 million people. In addition to RBA members, thousands of companies that are Tier 1 suppliers to those members are required to implement the RBA Code of Conduct. More than 3.5 million people from over 120 countries contribute to the manufacture of RBA members' products.

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- Acer - R
- Advanced Micro Devices - F
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- Allegro MicroSystems
- Alphabet Inc. - R
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- Amazon.com, Inc. - R
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- Amphenol Corporation
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- Beyondsoft International
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- Bosch Sensortec - R
- Bose Corporation - R
- Broadcom, Inc.
- Brother Industries Ltd.
- BT plc
- Bullitt Group Ltd

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- Canon Inc. - R
- Celestica - R
- ChargePoint, Inc.
- Chicony Electronics Co., Ltd - R
- Ciara
- Ciena - R
- Cirrus Logic, Inc.
- Cisco - F
- Citrix
- Compal Electronics - R
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### D

- Dell Technologies - F
- Dustin AB

### E

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- Eaton Corporation
- ecobee, Inc.
- Edwards Ltd. - R
- EIZO Corporation
- Element TV Company, LP
- Ericsson - R

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- First Solar Inc. - R
- Fitbit, Inc. - R
- Flex - R
- Ford Motor Company - R
- Foxconn - R
- FUJIFILM Business Innovation Corp.
- Fujitsu Limited
- Funai Electric Co., Ltd. - R

### G

- GlobalFoundries - R

### H

- HARMAN International
- Hasbro, Inc. - F
- Hexagon AB
- Hewlett Packard Enterprise - F
- Hi-P (Xiamen) Precision Plastics Manufacturing Co. Ltd
- Hisense USA Corporation - R
- HP Inc. - F
- Huawei Technologies Co., Ltd. - R
- Hyve Solutions - R

### I

- IBM Corporation - R
- Infineon Technologies Americas Corp. - R
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- Intel Corporation - F
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- KLA Corporation - R
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### L

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- LG Electronics - R
- LG Energy Solution
- Logitech Inc. - R
- Longwell Company - R
- Lumentum Holdings Inc. - R

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- Media-Saturn-Holding GmbH
- Meta
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- Microsoft - R
- Mitsubishi Electric Corporation
- ModusLink
- Molex - R
- Monolithic Power Systems, Inc.
- Motorola Solutions, Inc. - R

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- Navico
- NetApp - R
- NETGEAR - R
- New Kinpo Group - R
- Nexperia
- Nielsen
- Nikon Corporation
- Nokia Solutions and Networks Oy
- Nordic Semiconductor ASA
- Nvidia Corporation - F
- NXP Semiconductors - F

### O

- onsemi - F
- Onto Innovation Inc.
- Oracle America, Inc.

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- Panasonic Holdings Corporation
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- Philips - R
- Philip Morris International
- Plexus - R
- Polestar Performance AB
- Poly
- Positivo Tecnologia S.A.
- Powertech Technology Inc. - F
- Pure Storage, Inc.

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- Qorvo, Inc. - R
- Qualcomm - F
- Quanta Computer Inc. - R

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- Rambus, Inc. - R
- Renesas Electronics Corporation
- Ricoh Company Ltd.
- Roku, Inc.

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- Samsung Display
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- Sanmina - R
- Schneider Electric
- Seagate Technology - F
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- Semtech Corporation
- Senju Metal Industry Co., Ltd. - R
- SFO Technologies Pvt Ltd
- Sharp Corporation
- Sierra Wireless, Inc. - R
- Signify - R
- Silicon Motion Technology Corp.
- Siltronic AG
- Simatelex Manufactory Co. Ltd.
- Simplo Technology Co., Ltd.
- SK hynix Inc. - R
- Sky CP Ltd
- Skyworks Solutions, Inc. - F
- SMART Global Holdings - R
- Snap Inc. - R
- Sonos, Inc.
- Sony Group Corporation - F
- STMicroelectronics - F
- Sumitomo Electric Industries, Ltd.
- Symantec
- Synopsys, Inc.

### T

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- Taiwan Semiconductor Manufacturing Company, Ltd. - F
- TCL North America - R
- TDK Group
- Technicolor SA - R
- Techtronic Industries Company Limited
- Teradyne, Inc.
- Tesla, Inc.
- Texas Instruments - R
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- Tokyo Electron Limited
- Toshiba Corp. - R
- Trimble Inc. - R
- TT Electronics Plc

### U

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### V

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- Vitesco Technologies GmbH
- VIZIO Inc. - R
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- V.S. Plus Sdn Bhd

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- Western Digital - R
- Wistron Corp. - R

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- XP Power - R

### Z

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- Zebra Technologies Corporation - R
- Zhen Ding Technology Holding Ltd.
- ZTE (USA), Inc. - R
- ZT Systems

# Certificado de Conformidade

## *Certificate of Conformity*

**Certificado/*Certificate***
UL-BR 22.3595

**Revisão / Review**
09

**Emissão / *Issue***
15 de agosto de 2022
*August 15, 2022*

**Validade / *Expiration***
14 de agosto de 2025
*August 14, 2025*

ABNT NBR ISO/IEC 17065
OCP 0029

BR

Reconhecer que o Solicitante / *Acknowledge that the Certificate Holder*

## Lenovo Tecnologia (Brasil) Ltda.

avaliou o produto / *has had*

## COMPUTADOR PORTÁTIL / *NOTEBOOK*

ao qual atende aos requisitos do Programa de Certificação ou Portaria / *evaluated and meets the requirements of the Certification Program or Decree*

## PORTARIA NO. 304/2023 *DECREE NO. 304/2023*

e pode ostentar o Selo de Identificação da Conformidade do Sistema Brasileiro de Avaliação da Conformidade (SBAC) sobre o(s) produto(s) relacionado(s) neste certificado.
*and can display the Conformity Identification Seal of the Brazilian Conformity Assessment System (SBAC) on the product(s) listed in this certificate.*

**Rafael Parada**
Program Owner

UL do Brasil Certificações, organismo acreditado pela Coordenação Geral de Acreditação do INMETRO – CGCRE, segundo o registro Nº OCP-0029. /
*UL do Brasil Certificações, Certification Body accredited by Coordenação Geral de Acreditação do INMETRO - CGCRE according to the register Nr OCP-0029.*



Certificado de conformidade válido somente acompanhado das páginas de 1 a 107
*Certificate of Conformity valid only if accompanied from pages 1 to 107*

# Certificado de Conformidade

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|---|---|---|
| 15 de agosto de 2022<br>*August 15, 2022* | | 14 de agosto de 2025<br>*August 14, 2025* |

**Solicitante /** *Certificate Holder* 102358 — **Lenovo Tecnologia (Brasil) Ltda.**
Estrada Municipal Jose Costa De Mesquita, 200, Modulos 5 A 10, Chacara Alvorada, Chacara Alvorad, Indaiatuba, SP 13337-200 Brazil
CNPJ: 07.275.920/0001-61

**Fabricante** / *Manufacturer* **102358** — **Lenovo Tecnologia (Brasil) Ltda.**
Estrada Municipal Jose Costa De Mesquita, 200, Modulos 5 A 10, Chacara Alvorada, Chacara Alvorad, Indaiatuba, SP 13337-200 Brazil
CNPJ: 07.275.920/0001-61

**Modelo de Certificação /** *Certification Model* — 5

**Norma(s) Aplicável(is) /** *Applicable standards* — IEC 60950-1:2005 (Second Edition) + Am 1:2009 + Am 2:2013, IEC 62368-1: 2018, CISPR 22:2008, CISPR 32:2012, CISPR 32:2015/COR:2016, CISPR 24:2010+A1:2015, CISPR 32:2015 + A1:2019, CISPR 35:2016, IEC 61000-3-2:2014, IEC 61000-3-3:2013, IEC 61000-4-2:2008, IEC 61000-4-3:2006 +A1:2007 +A2:2010, IEC 61000-4-4:2012, IEC 61000-4-5:2014, IEC 61000-4-6:2013, IEC 61000-4-8:2009, IEC 61000-4-11:2004 e Anexo D – Portaria 304:2023 (Eficiência Energética).

**Identificação UL /** *UL Identification* — BR2334 / Vol.01 / Sec 119

**Lote ou No. de Série /** *Lot or Serial Number* — N/A

**Identificação da Família/Modelo/Lote de Produto(s) Certificado(s):**
*Identification of the Family/Model/Lot of Certified Product(s):*

| **Marca /** *Brand Name* | **Modelo /** *Model* | **Descrição /** *Description* | **Código de Barras /** *Bar Code Number* |
|---|---|---|---|
| LENOVO | ThinkPad T14 Gen 2, 20W0, 20W1, 20VX, 20VY. | onde:<br>“x” varia de 0 a 9, A a Z e a e z. | - |
| | ThinkPad L14 Gen 2, 20X1, 20X2, 20X5, 20X6, 21CV, 21CU | | - |
| | Lenovo K14 Gen 1, 21CV, 21CU | | - |
| | ThinkPad E14 Gen4, 21E3, 21E4 | | - |
| | ThinkPad T14 Gen 3, 21AH, 21AJ, 21AK, 21AL | | - |
| | ThinkPad L14 Gen 3, 21C1, 21C2, 21C5, 21C6 | | - |
| | ThinkPad E15 Gen 4, TP00117G, 21E6, 21E7 | | - |
| | ThinkPad T14 Gen 4, 21HD, 21HE, 21HF, 21HG | | - |
| | ThinkPad E14 Gen 5, 21JR, 21JS | | - |
| | Lenovo 100e Chromebook Gen 3x, 82UYx, 82V0x. | | - |

| | | | |
|---|---|---|---|
| | ThinkPad E14 Gen 6 Intel – 21M7, 21M8 | | - |
| | ThinkPad P16v Gen 2 - 21KX, 21KY | | - |
| | ThinkPad T14 Gen 5 Intel - 21MLx, 21MMx | | - |
| | ThinkPad E14 Gen 6 AMD - 21M3x, 21M4x | | - |

**Informações de Ensaios /** *Test Information:*

| **Laboratório de Ensaio /** *Testing Laboratory* | **Relatório de Ensaio /** *Test Report* | **Data de Emissão /** *Issue Date* |
|---|---|---|
| Nemko | 271872 | 2014-10-24 |
| Compliance Certification Services INC. | T140924L10-E | 2014-10-14 |
| Universal Standard Service | ASL15031202 | 2015-04-09 |
| UL Japan, In. | 10462171S | 2014-10-08 |
| UL Japan, In. | E200693-A68-CB-4 | 2014-09-19 |
| UL Japan, In. | 10512482S-A | 2014-10-16 |
| Universal Standard Service, Inc. | ASL15052618 | 2015-06-02 |
| TÜV Rheinland Taiwan Ltd. | 271814 | 2014-10-24 |
| Cerpass Technology (Suzhou) Co., Ltd. | T150625L01-E | 2015-06-30 |
| Universal Standard Service, Inc. | ASL15031203 | 2015-04-09 |
| TÜV Rheinland Taiwan Ltd. | 11038672 001 | 2014-10-20 |
| Cerpass Technology (Suzhou) Co., Ltd. | SECE1504010-A | 2015-06-29 |
| Universal Standard Service, Inc. | ASL15031204 | 2015-04-09 |
| UL Japan, Inc. | E200693-A102-CB-1 | 2015-08-07 |
| Compliance Certification Services Inc. | T160309W07-E | 2016-04-08 |
| Compliance Certification Services Inc. | T151227L13-D | 2016-01-07 |
| Universal Standard Service, Inc. | ASL15090705 | 2015-10-14 |
| Nemko Taiwan | 294666 | 2015-09-23 |
| Compliance Certification Services Inc. | T151014L02-D | 2016-04-23 |
| Compliance Certification Services Inc. | T151014L02-E | 2015-10-23 |
| Universal Standard Service, Inc. | ASL15100728 | 2015-10-29 |
| Compliance Certification Services Inc | T150818L10-E | 2015-07-14 |
| Compliance Certification Services Inc. | T150818L10-D | 2015-07-14 |
| y Compliance Certification Services Inc. | T151206L27-D | 2015-07-14 |
| Compliance Certification Services Inc. | T151206L27-E | 2015-07-14 |
| Compliance Certification Services Inc | T160303W04-D | 2015-07-14 |
| Compliance Certification Services Inc | T160303W04-E | 2015-07-14 |
| Nemko Taiwan | 294356 | 2015-07-18 |

| | | |
|---|---|---|
| Compliance Certification Services Inc | ASL15091006 | 2015-09-16 |
| Nemko Taiwan | 316511 | 2016-09-26 |
| Nemko Taiwan | 318420 | 2016-10-21 |
| Nemko Taiwan | 321645 | 2016-12-12 |
| BTL Inc. | BTL-EMC-1-1611007 | 2016-11-16 |
| BTL Inc. | BTL-EMC-1-1611007A | 2017-01-16 |
| BTL Inc. | BTL-FICE-1-1611007A | 2017-01-16 |
| Universal Standard Service, Inc. | ASL16100316 | 2016-10-21 |
| Nemko Taiwan | 316343 | 2016-10-19 |
| Nemko Taiwan | 318199 | 2016-10-19 |
| Compliance Certification Services Inc. | T161027W08-E | 2016-11-08 |
| Compliance Certification Services Inc. | T161220W01-E | 2016-12-30 |
| Compliance Certification Services Inc. | T161220W01-D | 2016-12-30 |
| Universal Standard Service, Inc. | ASL16101729 | 2016-11-03 |
| Compliance Certification Services Inc. | T160628 W02-E | 2016-07-07 |
| Universal Standard Service, Inc. | ASL16062826 | 2016-07-12 |
| Intertek Testing Services Taiwan Ltd | 160600401TWN-001 | 2016-06-29 |
| Universal Standard Service, Inc. | ASL18080741 | 2018-09-04 |
| Universal Standard Service, Inc. | ASL18110814 | 2018-11-22 |
| Audix Technology Corporation, EMC Department | EM-E180475 | 2018-10-02 |
| y UL Japan, Inc. | E302338-A434-CB-1 | 2017-11-08 |
| UL Japan, Inc. | E302338-A434-CB-1 | 2017-11-13 |
| BTL Inc. | BTL-EMC-1-1710114 | 2017-11-06 |
| TÜV Rheinland Shanghai Co. Ltd | 50112351 001 | 2017-11-29 |
| Nemko Taiwan | 340475 | 2017-10-25 |
| Audix Technology Corporation | EM-E170985 | 2017-11-03 |
| Audix Technology Corporation | EM-F170681 | 2017-11-03 |
| Universal Standard Service, Inc. | ASL18041324 | 2018-04-27 |
| Nemko Taiwan | 337579 | 2017-08-17 |
| BTL Inc. | BTL-EMC-1-1708193 | 2017-09-13 |
| BTL Inc. | BTL-FICE-1-1708193A | 2018-04-20 |
| Universal Standard Service, Inc. | ASL18050454 | 2018-05-17 |
| UL International Demko A/S | E200693-A147-CB-1 | 2017-10-02 |
| AUDIX Technology Corporation | EM-E171020 | 2017-11-17 |
| AUDIX Technology Corporation | EM-F170703 | 2017-11-17 |
| International Standards Laboratory | ISL-18LS016OS | 2018-10-02 |
| IBEC | R190724 | 2019-04-01 |
| IBEC | R190725 | 2019-04-04 |
| FIT | V19-020-SERV-01 | 2019-03-22 |
| BTL Inc. | 1811T150 | 2018-12-26 |
| Universal Standard Service, Inc. | ASL19031903 | 2019-04-03 |
| UL Japan, Inc. | ASL18100307 | 2018-11-20 |
| Audix Technology Corporation | EM-E180558 | 2018-10-08 |
| Audix Technology Corporation | EM-F180427 | 2018-10-08 |
| UL International Demko A/S | E302338-A635-CB-1 | 2018-09-25 |
| International Standards Laboratory | ISL-19LS004OS | 2019-03-12 |

# Certificado de Conformidade

*Certificate of Conformity*

**Certificado /** *Certificate:* **UL-BR 22.3595**

**Emissão / *Issue***
15 de agosto de 2022
*August 15, 2022*

**Revisão /** *Review*: **09**

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14 de agosto de 2025
*August 14, 2025*

| | | |
|---|---|---|
| Universal Standard Service, Inc. | ASL19050325 | 2019-05-30 |
| Universal Standard Service, Inc. | ASL19082210 | 2019-08-30 |
| BTL Inc. | 1906T081 | 2019-07-18 |
| Universal Laboratories Taiwan Co., Ltd | E302338-A710-CB-1 | 2019-07-16 |
| International Standards Laboratory | ASL19082210 | 2019-09-16 |
| BTL Inc. | 1907T140 | 2019-08-21 |
| BTL Inc. | 1811H007 | 2019-01-30 |
| UL-CCIC Company Limited | E302338-A672-CB-1 | 2019-01-29 |
| FIT - Flextronics Instituto de Tecnologia | V20-016-SERV-00 | 2020-04-02 |
| IBEC | R194727 | 2020-04-08 |
| FIT | V19-151-SERV-02 | 2020-03-24 |
| IBEC | R194728 | 2020-05-22 |
| Universal Standard Service, Inc. | ASL19111832 | 2019-12-25 |
| FIT - Flextronics Instituto de Tecnologia | S20-078-SERV-03 | 2020-09-01 |
| BTL Inc. | BTL-EMC-1-2002T020 | 2020-02-27 |
| BTL Inc. | 1910H024 | 2020-04-07 |
| FIT - Flextronics Instituto de Tecnologia | S20-078-SERV-04 | 2020-11-06 |
| Universal Standard Service, Inc. | E302338-A6128-CB-1 | 2020-03-18 |
| BTL Inc. | 1909H037 | 2020-03-27 |
| FIT - Flextronics Instituto de Tecnologia | S20-078-SERV-05 | 2020-11-06 |
| Universal Standard Service, Inc. | E302338-A6178-CB-1 | 2020-03-20 |
| Instituto de Pesquisas Eldorado - IPE | LET-ENE-RE 2395-8971-02-C - 01.00 (Pt) | 2021-05-28 |
| IBEC | IBEC210326 | 2021-06-17 |
| IBEC | IBEC210327 | 2021-06-25 |
| Instituto de Pesquisas Eldorado - IPE | LET-ENE-RE 2395-8743-02-C - 01.00 (Pt) | 2021-08-06 |
| BTL Inc. | BTL-EMC-1-2001T091 R02 | 2020-02-27 |
| Audix Technology (Wujiang) Co., Ltd., EMC Dept. | C1M1910185 | 2020-03-20 |
| Perfectlink International Corp. | CB1191912061A | 2020-02-14 |
| Instituto de Pesquisas Eldorado - IPE | LET-ENE-RE 2395-8743-01-C - 01.00 (Pt) | 2021-08-06 |
| BTL Inc. | BTL-EMC-1-2012T046 R00 | 2021-01-06 |
| Universal Standard Service, Inc. | ASL20101923 | 2020-12-01 |
| BTL Inc. | BTL-EMC-1-2010H009 R01 | 2021-02-25 |
| BTL Inc. | BTL-EMC-1-2010H009A R00 | 2021-04-28 |
| UL-CCIC Company Limited | E302338-A6349-CB-1 | 2021-01-25 |
| UL-CCIC Company Limited | DK-109190-UL | 2021-01-26 |
| Instituto de Pesquisas Eldorado - IPE | LET-ID 2395-10024-01 - 01_00 Pt | 2021-12-30 |

# Certificado de Conformidade

*Certificate of Conformity*

**Certificado /** *Certificate:* **UL-BR 22.3595**

| **Emissão /** ***Issue*** | **Revisão /** *Review*: **09** | **Validade /** ***Expiration*** |
|---|---|---|
| 15 de agosto de 2022<br>*August 15, 2022* | | 14 de agosto de 2025<br>*August 14, 2025* |

| | | |
|---|---|---|
| Instituto de Pesquisas Eldorado - IPE | LET-ENE-RE 2395-10024-01-C - 01_00 Pt | 2021-12-30 |
| BTL Inc. | BTL-EMC-1-2112T076 | 2022-01-17 |
| Instituto de Pesquisas Eldorado | LET-ENE-RE 2395-11171-03-C [CE] - 01.00 Pt | 2022-11-07 |
| Universal Standard Service, Inc. | ASL21110135 | 2021-12-09 |
| Instituto de Pesquisas Eldorado | LET-ENE-RE 2395-11171-04-C CE - 01_00 Pt | 2023-02-14 |
| Underwrites Laboratories Taiwan Co., Ltd. | E302338-A6570-CB-1 | 2021-12-19 |
| Underwrites Laboratories Taiwan Co., Ltd. | E302338-A6570-CB-1 | 2021-12-28 |
| BTL Inc. | BTL-EMC-1-2112T066 | 2022-01-13 |
| Instituto de Pesquisas Eldorado | LET-ENE-RE 2395-12502-01-C CE - 01.00 (Pt) | 2023-07-18 |
| DEKRA Testing & Certification (Suzhou) Co., Ltd | 21A0246R-MME-CE-P01V01 | 2022-01-25 |
| UL-CIC Company Limited | E302338-A6601-CB-1 | 2022-01-27 |
| Instituto Brasileiro de Ensaios de Conformidade Ltda | IBEC231001 | 2023-08-18 |
| Instituto Brasileiro de Ensaios de Conformidade Ltda | IBEC231002 | 2023-08-28 |
| Instituto de Pesquisas Eldorado - IPE | LET-ENE-RE 2395-12502-02-C [CE] - 01.00 (Pt) | 2023-12-05 |
| UL-CCIC Company Limited | E302338-A6948 | 2023-02-25 |
| Dekra Testing and Certification (Suzhou) Co., Ltd. | 2290136R-EMC-ITE-MPR II -P01V01 | 2023-04-10 |
| BTL Inc. | BTL-EMC-1-2301T053 | 2023-01-16 |
| Instituto de Pesquisas Eldorado - IPE | LET-ENE-RE 2395-13695-01-C [CE] - 01.00 (Pt) | 2023-12-05 |
| Universal Standard Service, Inc. | ASL22112521 | 2023-02-02 |
| Instituto de Pesquisas Eldorado | LET-ENE-RE 2395-14331-01-C [CE] - 01.00 (Pt) | 2024-03-25 |
| BTL Inc. | BTL-EMC-1-2202T055D | 2024-01-02 |
| Universal Standard Service, Inc. | ASL22010645-001 | 2023-01-20 |
| Universal Standard Service, Inc. | ASL22010642-001 | 2023-04-20 |
| Universal Standard Service, Inc. | ASL22010643-001 | 2023-04-20 |
| UL-CCIC Company Limited | E302338-A7087-CB-1 | 2023-12-24 |
| Instituto de Pesquisas Eldorado - IPE | LET-ENE-RE 2395-14331-04-C [CE] - 01.00 (Pt) | 2024-06-21 |
| Dekra Testing and Certification (Suzhou) Co., Ltd. | 2380284R-MME-CE-P01V01 | 2024-01-15 |
| Audix Technology Corporation, EMC Department | EM-E240050 | 2024-02-15 |
| Instituto de Pesquisas Eldorado - IPE | LET-ENE-RE 2395-14331-07-C [CE] - 01.00 (Pt) | 2024-06-21 |
| Universal Standard Service, Inc. | ASL23112737 | 2024-01-25 |
| Instituto de Pesquisas Eldorado - IPE | LET-EMC-RE 2395-14458-03-C - 01_00 Pt | 2024-08-05 |
| Instituto de Pesquisas Eldorado - IPE | LET-ENE-RE 2395-14458-03-C [CE] - 01.00 (Pt) | 2024-07-02 |

# Certificado de Conformidade

*Certificate of Conformity*

**Certificado /** *Certificate:* **UL-BR 22.3595**

| **Emissão /** ***Issue*** | **Revisão /** *Review*: **09** | **Validade /** ***Expiration*** |
|---|---|---|
| 15 de agosto de 2022<br>*August 15, 2022* | | 14 de agosto de 2025<br>*August 14, 2025* |

| | | |
|---|---|---|
| Instituto de Pesquisas Eldorado - IPE | LET-ID 2395-14458-03 - 01_00 Pt | 2024-08-02 |
| Instituto de Pesquisas Eldorado - IPE | LET-ID 2395-14458-03 - 02_00 Pt | 2024-07-02 |
| Instituto de Pesquisas Eldorado - IPE | LET-SEG-RE 2395-14458-03-C - 01.00 (Pt) | 2024-07-03 |
| Dekra Testing and Certification (Suzhou) Co., Ltd. | 2390097R-MME-CE-P01V01 | 2024-02-04 |
| Instituto de Pesquisas Eldorado - IPE | LET-ENE-RE 2395-14331-05-C [CE] - 01.00 (Pt) | 2024-09-12 |
| UL-CCIC Company Limited | E302338-A7135-CB-1 | 2024-01-08 |
| BTL Inc. | BTL-EMC-1-2401T054 | 2024-02-15 |
| Instituto de Pesquisas Eldorado - IPE | LET-ENE-RE 2395-14331-06-C [CE] - 01.00 (Pt) | 2024-09-12 |
| Underwriters Laboratories Taiwan Co., Ltd | E302338-A7127-CB-1 | 2024-01-10 |
| Underwriters Laboratories Taiwan Co., Ltd | E302338-A7158-CB-1 | 2024-02-18 |

**Informações de Auditoria /** *Audit Information:*

| **Local da Auditoria /** *Audit Location* | **Data de Realização /** *Perform Date* |
|---|---|
| **Tratamento de Reclamações**<br>*Complaint Handling* | 30/04/2024 |
| **Fabricante**<br>*Manufacturer* | |

**Informações Adicionais** / *Additional Information:*

**CARACTERÍSTICAS NOMINAIS /** *RATINGS:*

2.25 A ou 3.25 A ou 5 A ou 6,75 A ou 3 A ou 8,5 A, 15 Vdc ou 20 Vdc. Class III
Entrada: 100-240 V, 1,2 A, 50-60 Hz
Saída: 20 V - 2,25 A / 3,25 A

**Observações /** *Observations:*

1. A validade deste Certificado de Conformidade está atrelada à realização das avaliações de manutenção e tratamento de possíveis não conformidades de acordo com as orientações da UL do Brasil Certificações previstas no RAC específico. Para verificação da condição atualizada de regularidade deste Certificado de Conformidade deve ser consultado o banco de dados de produtos e serviços certificados do Inmetro.
*The validity of this Certificate of Conformity is linked to the performance of maintenance assessments and treatment of possible non-conformities in accordance with the guidelines of UL do Brasil Certifications provided for in the specific Conformity Assessment Regulation. To check the updated condition of regularity of this Certificate of Conformity, the Inmetro database of certified products and services must be consulted.*

2. Este certificado aplica-se aos equipamentos (produtos) idênticos ao protótipo avaliado e certificado, manufaturados na(s) unidade(s) fabril(is) mencionada (s) acima.
*This certificate applies to the products that are identical to the prototype investigated, certified and manufactured at the production site mentioned in this certificate.*

3. Qualquer alteração no produto, incluindo a marcação, invalidará o presente certificado, salvo se o solicitante informar por escrito à UL do Brasil Certificações sobre esta modificação, a qual procederá à avaliação e decidirá quanto à continuidade da validade do certificado.
*Any non-authorized changes performed in the product, including marking, will invalidate this certificate. UL do Brasil Certificações must be notified about any desired change. This notification will be analyzed by UL do Brasil Certificações that will decide about certificate force.*

# Certificado de Conformidade

*Certificate of Conformity*

**Certificado /** *Certificate:* **UL-BR 22.3595**

| **Emissão / *Issue*** | **Revisão /** *Review*: **09** | **Validade / *Expiration*** |
|---|---|---|
| 15 de agosto de 2022<br>*August 15, 2022* | | 14 de agosto de 2025<br>*August 14, 2025* |

4. Esta autorização está vinculada a um contrato e para o escopo acima citado.
   *This license is related to a commercial proposal and to the scope above cited.*

**Histórico de Revisões /** *Revisions History:*

| **Revisão /** *Review* | **Data /** *Date* | **Descrição da Revisão /** *Revision Description* |
|---|---|---|
| 09 | 27 de Setembro de 2024<br>September 27, 2024 | Inclusão dos modelos ThinkPad T14 Gen 5 Intel 21MLx, 21MMx e ThinkPad E14 Gen 6 AMD 21M3x, 21M4x. |
| 08 | 20 de agosto de 2024<br>August 20, 2024 | Manutenção 2024 e exclusão dos modelos ThinkPad E14 Gen 2x - 20UD, 20UE, 20T6, 20T7, 20U1, 20U2, 20U5, 20U6, ThinkPad E14 Gen 3x - 20Y7, 20YD, 20YE, 20YF. |
| 07 | 19 de julho de 2024<br>July 19, 2024 | Inclusão dos modelos: ThinkPad E14 Gen 6 Intel – 21M7, 21M8 e ThinkPad P16v Gen 2 - 21KX, 21KY. |
| 06 | 12 de abril de 2024<br>April 12, 2024 | Inclusão do modelo Lenovo 100e Chromebook Gen 3x, 82UYx, 82V0x. |
| 05 | 18 de dezembro de 2023<br>December 18, 2023 | Inclusão dos modelos ThinkPad T14 Gen 4, 21HD, 21HE, 21HF, 21HG, ThinkPad E14 Gen 5, 21JR, 21JS, manutenção 2023 e unificação de certificado UL-BR 20.0714. |
| 04 | 25 de julho de 2023<br>July 25, 2023 | Inclusão dos modelos ThinkPad E15 Gen 4, TP00117G, 21E6, 21E7 |
| 03 | 20 de março de 2023<br>March 20, 2023 | Inclusão dos modelos ThinkPad L14 Gen 3xxxx, 21C1xxxx, 21C2xxxx, 21C5xxxx, 21C6xxxx |
| 02 | 22 de agosto de 2022<br>August 22, 2022 | Inclusão dos modelos ThinkPad E14 Gen4xxx, ThinkPad T14 Gen 3xxx, , 21E3, 21E4, 21AH, 21AJ, 21AK, 21AL. |
| 01 | 30 de agosto de 2022<br>August 30, 2022 | Inclusão dos modelos Lenovo K14 Gen 1xxx, 21CV, 21CU. |
| 00 | 15 de julho de 2022<br>August 15, 2022 | Emissão inicial / *Initial Issue* |
| A última revisão substitui e cancela as anteriores /<br>*The last review replaces and cancels the previous ones* | | |

# Certificado de Conformidade

*Certificate of Conformity*

**Certificado /** *Certificate:* **UL-BR 22.3595**

| **Emissão /** ***Issue*** | **Revisão /** *Review*: **09** | **Validade /** ***Expiration*** |
|---|---|---|
| 15 de agosto de 2022<br>*August 15, 2022* | | 14 de agosto de 2025<br>*August 14, 2025* |

**Anexo I /** *Attachment I:*

| Componente / Component | Manufacturer/ trademark | Type/model | Technical data | Norma/ Standard | |
|---|---|---|---|---|---|
| Adapter | Acbel Polytech Inc. | ADLX45YAC2D | I/P: 100-240Vac, 50-60Hz, 1.2A; O/P: 20Vdc, 2.25A, Class II, Ambient: 40°C, Altitude: 5000m | IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017 | CB by Nemko (NO105856), (NO105995) |
| Adapter (Alternate) | Acbel Polytech Inc. | ADLX45YAC3D | I/P: 100-240Vac, 50-60Hz, 1.2A; O/P: 20Vdc, 2.25A, Class I, Ambient: 40°C, Altitude: 5000m | IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017 | CB by Nemko (NO105842), (NO105937) |
| Adapter (Alternate) | Chicony Power Technology Co., Ltd. | ADLX45YCC2D | I/P: 100-240Vac, 50-60Hz, 1.3A; O/P: 20Vdc, 2.25A, Class II, Ambient: 40°C, Altitude: 5000m | IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017 | CB by Nemko (NO102327/A2/ M1), CB by Demko (DK- 73341-M2-UL) |
| Adapter (Alternate) | Chicony Power Technology Co., Ltd. | ADLX45YCC3D | I/P: 100-240Vac, 50-60Hz, 1.3A; O/P: 20Vdc, 2.25A, Class I, Ambient: 40°C, Altitude: 5000m | IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017 | CB by Nemko (NO102328/A1/ M1), CB by Demko (DK- 73342-M1-UL) |
| Adapter (Alternate) | Chicony Power Technology Co., Ltd. | ADLX45YCC3G | I/P: 100-240Vac, 50-60Hz, 1.3A; O/P: 20Vdc, 2.25A, Class I (with class II construction throughout), Ambient: 40°C, Altitude: 5000m | IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017 | CB by Nemko (NO102328/A1/ M1),CB by Demko (DK- 73342-M1-UL) |
| Adapter (Alternate) | Delta Electronics, Inc. | ADLX45YDC3D, ADP-45EG B, ADLX45YDC2D | I/P: 100-240Vac, 50-60Hz, 1.2A; O/P: 20Vdc, 2.25A, Class II with functional earth for model: ADLX45YDC3D, ADP-45EG B; | IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017 | CB by TUVRH (JPTUV-088399), (JPTUV-088525) |

| | | | | | |
|---|---|---|---|---|---|
| | | | Class II for model: ADLX45YDC2D, Ambient: 40°C, Altitude: 5000m | | |
| Adapter (Alternate) | Lite-On Technology Corp | ADLX45YLC2D | I/P: 100-240Vac, 50-60Hz, 1.3A; O/P: 20Vdc, 2.25A, Class II, Ambient: 40°C, Altitude: 5000m | IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017 | CB by Demko (DK-74396-UL), (DK-74550-UL) |
| Adapter (Alternate) | Lite-On Technology Corp | ADLX45YLC3D | I/P: 100-240Vac, 50-60Hz, 1.3A; O/P: 20Vdc, 2.25A, Class I, Ambient: 40°C, Altitude: 5000m | IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017 | CB by Demko (DK-73964-UL), (DK-73960-UL) |
| Adapter (Alternate) | Interchangeable | Interchangeable | O/P: 20Vdc, 2.25A Tma: 35 ºC min. Altitude: 5000m | UL 60950-1 2nd; UL 62368-1, 2nd Edition, IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017 | UL, CB |
| Adapter (Alternate) | Acbel Polytech Inc. | ADLX65YAC2D | I/P: 100-240Vac, 50-60Hz, 1.8A; O/P: 20Vdc, 3.25A, Class II, Ambient: 40°C, Altitude: 5000m | IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017 | CB by Nemko (NO106299), (NO106292) |
| Adapter (Alternate) | Acbel Polytech Inc. | ADLX65YAC3D | I/P: 100-240Vac, 50-60Hz, 1.8A; O/P: 20Vdc, 3.25A, Class I, Ambient: 40°C, Altitude: 5000m | IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017 | CB by Nemko (NO106182), (NO106181) |
| Adapter (Alternate) | Chicony Power Technology Co., Ltd. | ADLX65YCC2D | I/P: 100-240Vac, 50-60Hz, 1.8A; O/P: 20Vdc, 3.25A, Class II, Ambient: 40°C, Altitude: 5000m | IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017 | CB by Nemko (NO102312), CB by Demko (DK- 73335-UL) |
| Adapter (Alternate) | Chicony Power Technology Co., Ltd. | ADLX65YCC3E | I/P: 100-240V~, 1.8A, 50-60Hz O/P: 15Vdc, 3A, | IEC 60950-1:2005, AMD1:2009, AMD2:2013, IEC | CB by UL (Demko) (DK-131850-UL), (DK-131825-UL) |

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|---|---|---|---|---|---|
| | | | Class I, Ambient: 40°C, Altitude: 5000m | 62368-1: 2018, EN IEC 62368-1: 2020, EN IEC 62368-1: 2020/A11: 2020 | |
| Adapter (Alternate) | Lite-On Technology Corporation | ADLX65YLC3E | I/P: AC 100-240V; 50-60Hz; 1.8A O/P: 15Vdc, 3A, Class I, Ambient: 40°C, Altitude: 5000m | IEC 60950-1: 2005, AMD1: 2009, AMD2: 2013, IEC 62368-1: 2014, EN 62368-1: 2014+A11: 2017, BS EN 62368-1: 2014+A11: 2017, IEC 62368-1: 2018, EN IEC 62368-1: 2020+A11: 2020, BS EN IEC 62368-1: 2020+A11: 2020 | CB by TUVRh (JPTUV-140101), (JPTUV-140255), (JPTUV-139969) |
| Adapter (Alternate) | ACBEL POLYTECH INC. | ADLX65YAC3E | I/P: 100-240V~, 1.8A, 50-60Hz O/P: 15Vdc, 3A, Class I, Ambient: 40°C, Altitude: 5000m | IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017, IEC 62368-1: 2018, EN IEC 62368-1: 2020+A11: 2020 | CB by Nemko (NO123886), (NO123885) |
| Adapter (Alternate) | Delta Electronics, Inc. | ADLX65YDC3E | I/P: AC 100-240V; 50-60Hz; 1.8A O/P: 15Vdc, 3A, Class I, Ambient: 40°C, Altitude: 5000m | IEC 62368-1: 2018, EN IEC 62368-1: 2020+A11: 2020, BS EN IEC 62368-1: 2020+A11: 2020 | CB by TUVRh (JPTUV-139978) |
| Adapter (Alternate) | Lite-On Technology Corporation | ADLX65YLC2E | I/P: AC 100-240V; 50-60Hz; 1.8A O/P: 15Vdc, 3A, Class II, Ambient: 40°C, Altitude: 5000m | IEC 60950-1: 2005, AMD1: 2009, AMD2: 2013, IEC 62368-1: 2014, EN 62368-1: 2014+A11: 2017, BS EN 62368-1: 2014+A11: 2017, IEC 62368-1: 2018, EN IEC 62368-1: 2020+A11: 2020, BS EN IEC 62368-1: 2020+A11: 2020 | CB by TUVRh (JPTUV-140637), (JPTUV-140640), (JPTUV-140756) |
| Adapter (Alternate) | CHICONY POWER TECHNOLOGY CO LTD | ADLX65YCC2E | I/P: 100-240V~, 1.8A, 50-60Hz O/P: 15Vdc, 3A, Class II, Ambient: 40°C, Altitude: 5000m | IEC 60950-1:2005, AMD1:2009, AMD2:2013, IEC 62368-1: 2018, EN IEC 62368-1: 2020, EN IEC 62368-1: 2020/A11: 2020 | CB by UL Solutions (Demko) (DK-131855-UL), (DK-131831-UL) |
| Adapter (Alternate) | ACBEL POLYTECH INC. | ADLX65YAC2E | I/P: 100-240V~, 1.8A, 50-60Hz O/P: 15Vdc, 3A, Class II, Ambient: 40°C, Altitude: 5000m | IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017, IEC 62368-1: 2018, EN IEC 62368-1: 2020+A11: 2020 | CB by Nemko (NO123867), (NO123794) |
| Adapter (Alternate) | Delta Electronics, Inc. | ADLX65YDC2E | I/P: AC 100-240V; 50-60Hz; 1.8A O/P: 15Vdc, 3A, | IEC 62368-1: 2018, EN IEC 62368-1: 2020+A11: 2020, | CB by TUVRh (JPTUV-139994) |

| | | | | | |
|---|---|---|---|---|---|
| | | | Class II, Ambient: 40°C, Altitude: 5000m | BS EN IEC 62368-1: 2020+A11: 2020 | |
| Adapter (Alternate) | Lite-On Technology Corporation | ADLX65YLC3E | I/P: AC 100-240V; 50-60Hz; 1.8A O/P: 15Vdc, 3A, Class I, Ambient: 40°C, Altitude: 5000m | IEC 60950-1: 2005, AMD1: 2009, AMD2: 2013, IEC 62368-1: 2014, EN 62368-1: 2014+A11: 2017, BS EN 62368-1: 2014+A11: 2017, IEC 62368-1: 2018, EN IEC 62368-1: 2020+A11: 2020, BS EN IEC 62368-1: 2020+A11: 2020 | CB by TUVRh (JPTUV-140101), (JPTUV-140255), (JPTUV-139969) |
| Adapter (Alternate) | ACBEL POLYTECH INC. | ADLX65YAC3E | I/P: 100-240V~, 1.8A, 50-60Hz O/P: 15Vdc, 3A, Class I, Ambient: 40°C, Altitude: 5000m | IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017, IEC 62368-1: 2018, EN IEC 62368-1: 2020+A11: 2020 | CB by Nemko (NO123886), (NO123885) |
| Adapter (Alternate) | Delta Electronics, Inc. | ADLX65YDC3E | I/P: AC 100-240V; 50-60Hz; 1.8A O/P: 15Vdc, 3A, Class I, Ambient: 40°C, Altitude: 5000m | IEC 62368-1: 2018, EN IEC 62368-1: 2020+A11: 2020, BS EN IEC 62368-1: 2020+A11: 2020 | CB by TUVRh (JPTUV-139978) |
| Adapter (Alternate) | Lite-On Technology Corporation | ADLX65YLC2E | I/P: AC 100-240V; 50-60Hz; 1.8A O/P: 15Vdc, 3A, Class II, Ambient: 40°C, Altitude: 5000m | IEC 60950-1: 2005, AMD1: 2009, AMD2: 2013, IEC 62368-1: 2014, EN 62368-1: 2014+A11: 2017, BS EN 62368-1: 2014+A11: 2017, IEC 62368-1: 2018, EN IEC 62368-1: 2020+A11: 2020, BS EN IEC 62368-1: 2020+A11: 2020 | CB by TUVRh (JPTUV-140637), (JPTUV-140640), (JPTUV-140756) |
| Adapter (Alternate) | CHICONY POWER TECHNOLOGY CO LTD | ADLX65YCC2E | I/P: 100-240V~, 1.8A, 50-60Hz O/P: 15Vdc, 3A, Class II, Ambient: 40°C, Altitude: 5000m | IEC 60950-1:2005, AMD1:2009, AMD2:2013, IEC 62368-1: 2018, EN IEC 62368-1: 2020, EN IEC 62368-1: 2020/A11: 2020 | CB by UL Solutions (Demko) (DK-131855-UL), (DK-131831-UL) |
| Adapter (Alternate) | ACBEL POLYTECH INC. | ADLX65YAC2E | I/P: 100-240V~, 1.8A, 50-60Hz O/P: 15Vdc, 3A, Class II, Ambient: 40°C, Altitude: 5000m | IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017, IEC 62368-1: 2018, EN IEC 62368-1: 2020+A11: 2020 | CB by Nemko (NO123867), (NO123794) |

# Certificado de Conformidade

*Certificate of Conformity*

**Certificado /** *Certificate:* **UL-BR 22.3595**

**Emissão /** ***Issue***
15 de agosto de 2022
*August 15, 2022*

**Revisão /** *Review*: **09**

**Validade /** ***Expiration***
14 de agosto de 2025
*August 14, 2025*

| | | | | | |
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| Adapter (Alternate) | Delta Electronics, Inc. | ADLX65YDC2E | I/P: AC 100-240V; 50-60Hz; 1.8A O/P: 15Vdc, 3A, Class II, Ambient: 40°C, Altitude: 5000m | IEC 62368-1: 2018, EN IEC 62368-1: 2020+A11: 2020, BS EN IEC 62368-1: 2020+A11: 2020 | CB by TUVRh (JPTUV-139994) |
| Adapter (Alternate) | Chicony Power Technology Co., Ltd. | ADLX65YSCC2 A | I/P: 100-240Vac, 50-60Hz, 1.8A; O/P: 20Vdc, 3.25A, Class II, Ambient: 40°C, Altitude: 5000m | IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017 | CB by TUVRH (JPTUV-096409), (JPTUV-096534) |
| Adapter (Alternate) | Chicony Power Technology Co.,Ltd. | ADLX65YSCC3 A | I/P: 100-240Vac, 50-60Hz, 1.8A; O/P: 20Vdc, 3.25A, Class I, Ambient: 40°C, Altitude: 5000m | IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017 | CB by TUVRH (JPTUV-096407), (JPTUV-096521) |
| Adapter (Alternate) | Delta Electronics, Inc. | ADLX65YDC3D, ADP-65XD B, ADLX65YDC2D | I/P: 100-240Vac, 50-60Hz, 1.8A; O/P: 20Vdc, 3.25A, Class II, Ambient: 40°C, Altitude: 5000m | IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017 | CB by TUVRH (JPTUV-088370), (JPTUV-088549) |
| Adapter (Alternate) | Delta Electronics, Inc. | ADLX65YSDC2 A, ADLX65YSDC3 A | I/P: 100-240Vac, 50-60Hz, 1.8A; O/P: 20Vdc, 3.25A, Class II, Ambient: 40°C, Altitude: 5000m | IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017 | CB by TUVRH (JPTUV-097420), (JPTUV-097518) |
| Adapter (Alternate) | Lite-On Technology Corp | ADLX65YLC2D | I/P: 100-240Vac, 50-60Hz, 1.8A; O/P: 20Vdc, 3.25A, Class II, Ambient: 40°C, Altitude: 5000m | IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017 | CB by Demko (DK-73622-UL), (DK-73627-UL) |
| Adapter (Alternate) | Lite-On Technology Corp | ADLX65YLC3D | I/P: 100-240Vac, 50-60Hz, 1.8A; O/P: 20Vdc, 3.25A, Class I, Ambient: 40°C, Altitude: 5000m | IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017 | CB by Demko (DK-73466-M1-UL), (DK-73473-M1-UL) |

# Certificado de Conformidade

*Certificate of Conformity*

**Certificado /** *Certificate:* **UL-BR 22.3595**

| **Emissão /** ***Issue*** | **Revisão /** *Review*: **09** | **Validade /** ***Expiration*** |
|---|---|---|
| 15 de agosto de 2022<br>*August 15, 2022* | | 14 de agosto de 2025<br>*August 14, 2025* |

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| Adapter (Alternate) | Lite-On Technology Corp | ADLX65YSLC2A | I/P: 100-240Vac, 50-60Hz, 1.8A; O/P: 20Vdc, 3.25A, Class II, Ambient: 40°C, Altitude: 5000m | IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017 | CB by TUVRH (JPTUV-096377), (JPTUV-096374) |
| Adapter (Alternate) | Lite-On Technology Corp | ADLX65YSLC3A | I/P: 100-240Vac, 50-60Hz, 1.8A; O/P: 20Vdc, 3.25A, Class I, Ambient: 40°C, Altitude: 5000m | IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017 | CB by TUVRH (JPTUV-096300), (JPTUV-096303) |
| Adapter (Alternate) | Interchangeable | Interchangeable | O/P: 20Vdc, 3.25A Tma: 35 ºC min. Altitude: 5000m | UL 60950-1 2nd; UL 62368-1, 2nd Edition, IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017 | UL, CB |
| Enclosure Material for top cover and bottom case | Covestro Deutschland AG[PC Resins] | FR3021 + (+ - Material designations may be followedby a six digit numerical code denoting color.) | V-0, thickness 1.5 mm minimum, 85ºC | UL 94, UL 746 | UL |
| Enclosure Material for top cover and bottom case (Alternate) | NINGBO LG YONGXING CHEMICAL COLTD | LUPOY GN-5151RF(#) (#) May or may not be followed by suffix letter from A-Z inclusive,except F, and except Grades HT700B, XR401B, LI912A, AF303G, AF303S, XR404T, XR407D, XR407E, HF380X | V-0, thickness 1.0mm min., 60ºC | UL 94, UL 746 | UL |
| Enclosure Material for LCDbezel | LOTTE CHEMICAL CORPORATION | NH-1024(+) (+) - May be replaced by one,two, or three numbers and/or letter(s) | V-0, thickness 0.75mm min.,60ºC | UL 94, UL 746 | UL |
| Enclosure Material for LCD bezel (Alternate) | MITSUBISHI ENGINEERING-PLASTICS CORP | MB1700+ (+ Suffix optional, exceptions: The following cannot be used as optional suffixes: "NF" for grade NXG5050, "N" for grade NXG5030, "N" | V-0, thickness 0.75mm min.,60ºC | UL 94, UL 746 | UL |

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| | | for grade MB2112+, "S1" for grade F20-54, "V" for grades S-2000+(f1), S-2001+(f1), S-2003+(f1), the last letter "L" for grade CFH2520+.) | | | |
| Enclosure Material for top side around keyboard | LOTTE CHEMICAL CORPORATION | NH-1021(+) (+) - May be replaced by one,two, or three numbers and/or letter(s) | V-0, thickness 1.0mm min., 60ºC | UL 94, UL 746 | UL |
| Enclosure Material for top side around keyboard (Alternate) | NINGBO LG YONGXING CHEMICAL COLTD | LUPOY GN-5001RFD | V-0, thickness 1.0mm min., 60ºC | UL 94, UL 746 | UL |
| LCD Panel | AUO | B140HAK03.2 | 14.0 inch, TFTtype (LED Backlight) | -- | Tested in theequip. |
| LCD Panel(Alternate) | Interchangeable | Interchangeable | 14.0 inch, TFTtype (LED Backlight) | -- | -- |
| HDD (Optional) | Western Digital Technologies Inc. | WYYXXXXYYY Y-YYXXXYY, UYXYYYXXX, HYYXXXXXXY YYYY, DYXYYYXXX (X, Y=0-9, A-Z, blank; not safety-relevant) | 5/12 Vdc, 1.5/1.0 A Max. | EN 62368-1:2014 | TUV, UL |
| HDD (Optional)(Alternate) | Interchangeable | Interchangeable | 5/12 Vdc, 1.5/1.0 A Max. | EN 62368-1:2014 | UL, TUV, VDE, Nemko |
| Solid State Drives (Optional) (Alternate) | SK hynix Inc. | HFSabcG32MN B-defgh, HFSabcG32MN D-defgh, HFSabcG32MN C-defgh, HFSabcG32ME D-defgh, HFSabcG32EE D-defgh (The suffix "abc" denoting memory capacity, "defgh" denoting buyer can be any, letter (A to Z) or number (0-9)) | 5Vdc, 2.0A max. | IEC 60950-1/ A2:2013 | CB by TUV (SG- OF-14375) |
| Solid State Drives (Optional) (Alternate) | Samsung Electronics Co.,Ltd. | MZ-5********** (* can be 0-9, A-Z, blank, slash ordash) | 12Vdc, 0.5A | UL 60950-1, 2nd, IEC 60950-1: 2005 +A1+A2 | UL, TUV, VDE, Nemko |
| Solid State Drives (Optional) (Alternate) | Samsung Electronics Co.,Ltd. | MZ-C********** (* can be 0-9, A-Z, blank, slash or dash) | 3.3 Vdc, 3.5 Amax. | IEC 60950-1: 2005+A1+A2 | CB by TUVRh (JPTUV-086923) |
| Solid State Drives (Optional) (Alternate) | Interchangeable | Interchangeable | 5Vdc, 2.0 A max.or 3.3 Vdc, 3.5 Amax. or 12Vdc, 0.5A | UL 60950-1, 2nd, | UL, TUV, VDE, Nemko |

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| | | | | IEC 60950-1:2005 +A1+A2 | |
| SSHD (Optional)(Alternate) | Seagate Technology Inc. | ST9 with additional suffix, 2.5 Series | 5Vdc, 1.5 A max. | IEC 60950-1: 2005+A1+A2 | CB by UL (US- 24632-UL) |
| SSHD (Optional)(Alternate) | Interchangeable | Interchangeable | 5Vdc, 1.5 A max. | UL 60950-1, 2nd, IEC 60950-1: 2005 +A1+A2 | UL, TUV, VDE, Nemko |
| Rechargeable Li- ion Battery Pack | CELXPERT ENERGY CORP | L17C3P52 | 11.1Vdc, 45Wh, 4120mAh | UL 60950-1, 2nd Edition, IEC 60950-1/ A2:2013, IEC 62133:2012 (2nd Edition) , UL 2054, UL 62368-1, 2nd Edition IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017 | UL, CB by Demko (DK- 65913-M1-UL), (DK-65753-M1-UL), (DK-64785-M1-UL) |
| Rechargeable Li- ion Battery Pack (Alternate) | LG CHEM, LTD. **(*)** | L17L3P52 | 11.1Vdc, 45Wh or 4050mAh (Nom.) or 3880mAh (Min.) | UL 60950-1, 2nd Edition, IEC 60950-1/ A2:2013, IEC 62133:2012 (2nd Edition) , UL 2054, UL 62368-1, 2nd Edition IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017 | UL, CB by Demko (DK- 64954-A1-UL), (DK-53297-A5-UL), (DK-65534-A1-UL) |
| Rechargeable Li- ion Battery Pack (Alternate) | SIMPLO TECHNOLOGY CO LTD | L17M3P53, L17M3P54 | 11.1Vdc, 4.08Ah or 4.12Ah or45Wh | UL 60950-1, 2nd Edition, IEC 60950-1/ A2:2013, IEC 62133:2012 (2nd Edition) , UL 2054, UL 62368-1, 2nd Edition IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017 | UL, CB by Demko (DK- 64478-A1-UL), (DK-64480-A1-UL), (DK-65142-A1-UL) |
| DC Fan (for MB1, MB2) | Asia Vital ComponentsCo.,Ltd. | BAPA0705R5HY008 | 5Vdc, 0.5A, 3.45 CFM min | UL507, EN 62368-1: 2014/A11: 2017 | UL, TUV |
| DC Fan (for MB1, MB2) (Alternate) | Toshiba Home Technology Corp. | C-267C-2 | 5Vdc, 0.35A, 2.8 CFM min | UL507, EN 62368-1: 2014/A11: 2017 | UL, TUV |
| DC Fan (for MB3) | Asia Vital ComponentsCo.,Ltd. | BAPA0705R5HY020 | 5Vdc, 0.5A, 3.17 CFM min | UL507, EN 62368-1: | UL, TUV |

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| | | | | 2014/A11: 2017 | |
| DC Fan (for MB3) (Alternate) | Toshiba Home Technology Corp. | M-269C-4 | 5Vdc, 0.29A, 2.5 CFM min | UL507, EN 62368-1: 2014/A11: 2017 | UL, TUV |
| Motherboard | Interchangeable | Interchangeable | See below | -- | Tested in theequip. |
| - RTC battery (Lithium type) | PANASONIC CORPORATION , PANASONIC CORPORATION OF NORTH AMERICA | CR2032* (* - Cell model numbers may be followed by an optional slash (/)and single or multiple alphanumeric characters (i.e. letters and/or numbers), which denote optional features such as various mounting tabs, connecting leads or plugs, packaging, etc.) | 3.0Vdc,Maximu m abnormal charging current10mA | UL 1642 | UL (MH12210) |
| - RTC battery (Lithium type) | Maxell, Ltd | CR2032, CR2032* (* - These cells and batteries may come with an optional single or multiple alphanumeric denoting various pin, tab, cap or wire termination types.) | 3.0Vdc,Maximu m abnormal charging current10mA | UL 1642 | UL (MH12568) |
| - RTC battery (Lithium type) (Alternate) | FDK CORPORATION | CR2032 (I)* (I) - The cells or batteries may come with an optional single or multiple alphanumeric suffixes denoting various pin, tab, cap, or wire termination types. For model CR17450ES, Suffix “K” shall not be used. * - These cells may have various insulating tube,ring or tape. | 3.0Vdc,Maximu m abnormal charging current10mA | UL 1642 | UL (MH13421) |
| - RTC battery (Lithium type) (Alternate) | VARTA MICROBATTER Y GMBH | CR2032 | 3.0Vdc,Maximu m abnormal charging current10mA | UL 1642 | UL (MH13654) |
| - RTC battery (Lithium type) (Alternate) | MITSUBISHI ELECTRIC CORP | CR2032+ (+ - The cells may have various insulating tube, ring, or tape.) | 3.0Vdc,Maximu m abnormal charging current10mA | UL 1642 | UL (MH15370) |

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| - RTC battery (Lithium type) (Alternate) | VIC-DAWN ENTERPRISE CO LTD (Trademark:KTS) | CR2032 | 3.0Vdc,Maximum abnormal charging current10mA | UL 1642 | UL (MH20550) |
| - RTC battery(Lithium type)(Alternate) | Interchangeable | CR2032 or CR2032* orCR2032+ orCR2032 (I)* | 3Vdc, Maximum abnormal charging current 10mA, against charging current by multiple components D2002 and R2001 (for (MB1, MB2) rated 1k ohm; D4402 and R4401 (for MB3) rated 10k ohm. | UL 1642 | UL |
| - Power Distribution Switch (U5401) provided for HDMI port use | DIODES INC | AP2552, AP2553 maybe followed by A, maybe followedby additional letters and/or numbers. | Input Voltage: 2.7 - 5.5 Vdc Output Continuous Rating: 0 - 2.1 A Output Current Limit: 104 - 3020 mA | UL 2367, IEC 60950-1/ A2:2013 | UL, CB by UL (US-24721-UL) |
| - Power Distribution Switch (U5401) provided for HDMI port use(Alternate) | DIODES INC | AP2552, AP2552A, AP2553, and AP2553A, may be followed by additional letters, numbers, and/ora '-' | Input Voltage: 2.7 - 5.5 Vdc Output Continuous Rating: 0 - 2.1 A Output Current Limit: 104 - 3020 mA | UL 2367, IEC 62368-1: 2014, EN 62368-1: 2014/A11:2017 | UL, CB by UL (US-34481-UL) |
| - Power Distribution Switch (U5401) provided for HDMI port use(Alternate) | Global Mixed- mode Technology Inc. | G517ALX1X2X3X4 X1=1 or 2, X2=TP, TB, RB or U5, X3=1, 2 or 3,X4=U or D | Input Voltage Range: 2.7-5.5 Vdc Operational Current Rating per output: 0.1A-2.15A Overcurrent Protection Current Rating per output: 0.2A-2.75A | UL 2367, IEC 60950-1/ A2:2013, IEC 62368-1: 2014, EN 62368-1: 2014/A11:2017 | UL, CB by TUVRH (JPTUV-080887), (JPTUV-099276) |
| - Power Distribution Switch (U5401) provided for HDMI port use(Alternate) | TEXAS INSTRUMENTSINC | TPS2552, TPS2552-1, TPS2553, TPS2553-1 | Input Voltage: 2.5 Vdc to 6.5 Vdc Output Continuous Rating: 1.5 A Output Current Limit: 1.7 A | UL 2367, IEC 60950-1/ A2:2013, IEC 62368-1: 2014, EN 62368-1: 2014/A11:2017 | UL, CB by UL (US-24603-UL), (US-34989-UL) |
| - Power Distribution Switch (U6901) provided for USB ports use | DIODES INC | PI5USB25wwxyyyEz Series, where ww is 44 or 46; x is blank,A or H; yyy is ZHor ZHD for the packaging | Input Voltage: 4.5 - 5.5 Vdc Continuous Rating: 30 mA to | UL 2367, IEC 60950-1/ A2:2013 | UL, CB by UL (US- 24707-M2-UL) |

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| | | type; E is Pb-free; andz is blank or X. | 2.5 A Current Limit: 100 mA to 3.18 A | | |
| - Power Distribution Switch (U6901) provided for USB ports use (Alternate) | TEXAS INSTRUMENTSINC | SN1408009RTE, SN1702001, TPS2543, TPS2544, TPS2545, TPS2546, and TPS2547, may be followed by additional characters thatdo not impact the safety features of the device. | Input Voltage: 4.5 to 5.5 Vdc Output Continuous Rating: 2.5 A Output Current Limit: 3.1 A | UL 2367, IEC 60950-1/ A2:2013, IEC 62368-1: 2014, EN 62368-1: 2014/A11:2017 | UL, CB by UL (US-29689-M1-UL), (US-35117-UL) |
| - Power Distribution Switch (U5901) provided for USB Type-C ports and Docking-station connectoruse | TEXAS INSTRUMENTS INCORPORATED | SN1810003, SN1810004, SN1905001, SN1905002, SN1905003, SN1905004, SN1905005, SN1905006, SN1905007, SN1905008, SN1908005, SN2001023, SN2001024, SN2001025, SN2001026, SN2001027, SN2001028, SN2001029, TPS65993, and TPS65994, may be followed by additional characters that do not affect the safety features of the device | Input Voltage: 4.9 - 5.5 Vdc Output Continuous Rating: PA_VBUS, PB_VBUS: 0.9 to 3.0A PA_CC1, PA_CC2, PB_CC1, PB_CC2*: 0.315A Output Current Limit: PA_VBUS, PB_VBUS: 1.36A to 3.78A PA_CC1, PA_CC2, PB_CC1, PB_CC2: 0.47 to0.66A | UL 2367, IEC 62368-1: 2014, EN 62368-1: 2014/A11:2017 | UL, CB by UL (US-34737-M2-UL) |
| - Power Distribution Switch (U5901) provided for Docking-stationconnector use | TEXAS INSTRUMENTS INCORPORATED | SN1701012, SN1702027, SN1702030, SN1702033, SN1702036, SN1708021, SN1710007, SN1711019, SN1802028, SN1805041, SN1805042, SN1805043, SN1805050, SN1806026, SN1809012, SN1809013, SN1809014, SN1809015, SN1809016, SN1809017, | Input Voltage: 1. PPHV1: 4.5 to 22 Vdc, 1 to 4 A 2. PPHV2: 4.5 to 22 Vdc, 1 to 4 A 3. PPCABLE1: 2.95 to 5.5 Vdc, 0.6 A 4. PPCABLE2: 2.95 to 5.5 Vdc, 0.6 A 5. VIN_3V3: 3.3 Vdc Output Continuous Rating: 1. VBUS1: 4.5 to 22 Vdc, 1 to 4 A | UL 2367, IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017 | UL, CB by UL (US-30473-A3-UL), (US-34617-UL) |

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| | | SN1809018, SN1809019, SN1809020, SN1809021, SN1809022, SN1809023, SN1809024, SN1809025, SN1809026, SN1809027, SN1809028, and TPS65988 Models may be followed by other characters that do not impact the safety feature of the device. | with PPHV1 input 2. VBUS2: 4.5 to 22 Vdc, 1 to 4 A with PPHV2 input 3. C1CC1/C1CC2: 2.95 to 5.5 Vdc, 0.6 A with PPCABLE1 input 4. C2CC1/C2CC2: 2.95 to 5.5 Vdc, 0.6 A with PPCABLE2 input Output Current Limit: 1. VBUS1: 4.5 to 22 Vdc, 1.39 to 4.91 A with PPHV1 input 2. VBUS2: 4.5 to 22 Vdc, 1.39 to 4.91 A with PPHV2 input 3. C1CC1/C1CC2: 2.95 to 5.5 Vdc, 0.9 A with PPCABLE1 input 4. C2CC1/C2CC2: 2.95 to 5.5 Vdc, 0.9 A with PPCABLE2 input Ambient: -40 to 75°C | | |
| - PTC Polyswitch (F6201) provided for Docking Connector use | Littelfuse Inc. | 0603L035 | 6Vdc, 0.35A | UL 1434, EN 60738-1-1, EN 60738-1, EN 60730-1 | UL, TUV |
| - Fuse for Micro SD Card reader port (F7701) and smart card reader port (F7201) use | PANASONIC CORPORATION, PANASONIC CORPORATION OF NORTH AMERICA | ERBRD1R00X | 32Vdc, 1A | UL 248-1 | UL |
| I/O board | Interchangeable | Interchangeable | See below. | -- | -- |
| - Power Distribution Switch (U2) for USB port use | SILERGY TECHNOLOGY (TAIWAN) INC | SY6288Cyyyyy, SY6288Dyyyyy (yyyyy = 0-9, A-Z or blank) | I/P: DC 2.5Vdc to DC 5.5Vdc (for all models) O/P: Continuous Rating: max. 2.5 A | UL 2367, IEC 60950-1/ A2:2013, IEC 62368-1: 2014, EN 62368-1: 2014/A11:2017 | UL, CB by TUVRH (JPTUV- 058243-M1), CB by Demko (DK- 86482-UL) |

# Certificado de Conformidade

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**Certificado /** *Certificate:* **UL-BR 22.3595**

| **Emissão /** ***Issue*** | **Revisão /** *Review*: **09** | **Validade /** ***Expiration*** |
|---|---|---|
| 15 de agosto de 2022<br>*August 15, 2022* | | 14 de agosto de 2025<br>*August 14, 2025* |

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| | | | Output Current Limit: max., 4.4A max. | | |
| - Power Distribution Switch (U2) for USB port use (Alternate) | SILERGY TECHNOLOGY (TAIWAN) INC | SY6288C20AAC , SY6288D20AAC | Input Voltage: 2.5 to 5.5Vdc<br>Output Continuous Rating: Max. 2.0A<br>Current Limit Rating: 3.5A forCB; 3.8A for UL | UL 2367, IEC 62368-1: 2014, EN 62368-1: 2014/A11:2017 | UL, CB by Demko (DK-86482-UL) |
| All PCBs | Interchangeable | Interchangeable | V-1 min, 105 ºC min. | UL 796 | UL |
| Speaker (Two provided) (Optional) | Interchangeable | Interchangeable | Generic, 3.6 ± 15% ohm min., 2.5 Watts max. | -- | Tested in theequip. |
| Dummy forsmart card reader (Optional) | MITSUBISHI ENGINEERING-PLASTICS CORP | MB1700+ (+ Suffix optional, exceptions: The following cannot be used as optional suffixes: "NF" for grade NXG5050, "N" for grade NXG5030, "N" for grade MB2112+, "S1" for grade F20-54, "V" for grades S-2000+(f1), S-2001+(f1), S-2003+(f1), the last letter "L" for grade CFH2520+.) | V-0, thickness 0.75mm min.,60ºC | UL 94, UL 746 | UL |
| Mesh for speaker opening | CHENGDU KANGLONGXIN PLASTICS CO LTD | KLX FRPC-1860B | VTM-0, thickness 0.125-0.193 mm, 80 ºC | UL 94, UL 746 | UL |
| - Adhesive for speaker mesh | Jiangsu SIDIKENew Materials Science & Technology CoLtd | DS-5 | -- | -- | Tested in theequip. |
| Mylar for docking opening | CHENGDU KANGLONGXIN PLASTICS CO LTD | H KLX FRPC-1860B | VTM-0, thickness 0.05-0.11 mm, 80 ºC | UL 94, UL 746 | UL |
| - Adhesive fordocking Mylar | SUZHOU JIANYI TECHCO. , LTD | JY-W001 | -- | -- | Tested in theequip. |
| Rubber Stand | -- | -- | See below for details. | -- | -- |
| - Hard rubber(internal part) | Covestro Deutschland AG[PC Resins] | FR3021 + (+ - Material designations may be followedby a six digit numerical code denoting color.) | V-0, thickness 1.5 mm minimum, 85ºC, fixed by hot melted. | UL 94, UL 746 | UL |

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| - Other rubber (external part) | Interchangeable | Interchangeable | Min. HB, located outside of enclosure. | -- | -- |
| - Other rubber (external part) (Alternate) | Interchangeable | Interchangeable | Flammability level is ignored, when small parts(4g max. or 1750mm^3max.) located outside of enclosure. | -- | -- |
| IR LED module | Liteon OPTO Technology (CZ)Ltd. | LTE-R28206S-NE8, LTE-R28206S-NE8-XX ("XX" means different customer numbers) | Comply IEC 62471 exemptgroup | IEC 62471:2006 | CB by SGS (BE-34640) |
| IR LED module (Alternate) | Interchangeable | Interchangeable | Comply IEC 62471 exemptgroup | IEC 62471:2006 (First Edition) | CB |
| Adapter | ACBEL POLYTECH INC. | ADLX65YAC3D | I/P: 1.8A 100-240V~ 50-60Hz O/P: 20Vdc, 3.25A Class I, Ambient: 40°C, Altitude: 5000m | UL 60950-1, UL 62368-1, IEC 60950-1: 2005+A1+A2, IEC 62368-1: 2014 (Second Edition), EN 62368-1: 2014+A11:2017 | UL, CB by Nemko (NO106182) , (NO106181) |
| Adapter (Alternate) | ACBEL POLYTECH INC. | ADLX65YAC2D | I/P: 1.8A 100-240V~ 50-60Hz O/P: 20Vdc, 3.25A Class II, Ambient: 40°C, Altitude: 5000m | UL 60950-1, UL 62368-1, IEC 60950-1: 2005+A1+A2, IEC 62368-1: 2014 (Second Edition), EN 62368-1: 2014+A11:2017 | UL, CB by Nemko (NO106299), (NO106292) |
| Adapter (Alternate) | CHICONY POWER TECHNOLOGY CO LTD | ADLX65YCC2D | I/P: 100-240Vac, 50-60Hz, 1.8A; O/P: 20Vdc, 3.25A, Class II, Ambient: 40°C, Altitude: 5000m | UL 60950-1, UL 62368-1, IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017 | UL, CB by Nemko (NO102312) , CB by Demko (DK-73335-UL) |

# Certificado de Conformidade

*Certificate of Conformity*

**Certificado /** *Certificate:* **UL-BR 22.3595**

| **Emissão /** ***Issue*** | **Revisão /** *Review*: **09** | **Validade /** ***Expiration*** |
|---|---|---|
| 15 de agosto de 2022<br>*August 15, 2022* | | 14 de agosto de 2025<br>*August 14, 2025* |

| | | | | | |
|---|---|---|---|---|---|
| Adapter (Alternate) | CHICONY POWER TECHNOLOGY CO LTD | ADLX65YCC3D | I/P: 100-240Vac, 50-60Hz, 1.8A; O/P: 20Vdc, 3.25A, Class I (with class II construction throughout), Ambient: 40°C, Altitude: 5000m | UL 60950-1, UL 62368-1, IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017 | UL, CB by Nemko (NO102313), CB by Demko (DK- 73338-UL) |
| Adapter (Alternate) | Chicony Power Technology Co., Ltd. | ADLX65YSCC2A | I/P: 100-240Vac, 50-60Hz, 1.8A; O/P: 20Vdc, 3.25A, Class II, Ambient: 40°C, Altitude: 5000m | UL 60950-1, UL 62368-1, IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017 | UL, CB by TUVRH (JPTUV-096409), (JPTUV-096534) |
| Adapter (Alternate) | Chicony Power Technology Co., Ltd. | ADLX65YSCC3A | I/P: 100-240Vac, 50-60Hz, 1.8A; O/P: 20Vdc, 3.25A, Class I, Ambient: 40°C, Altitude: 5000m | UL 60950-1, UL 62368-1, IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017 | UL, CB by TUVRH (JPTUV- 096407), (JPTUV- 096521) |
| Adapter (Alternate) | Delta Electronics, Inc. | ADLX65YDC3D, ADP-65XD B, ADLX65YDC2D | I/P: 100-240Vac, 50-60Hz, 1.8A; O/P: 20Vdc, 3.25A, Class II, Ambient: 40°C, Altitude: 5000m | UL 60950-1, IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017 | UL, CB by TUVRH (JPTUV- 088370), (JPTUV- 088549) |
| Adapter (Alternate) | Delta Electronics, Inc. | ADLX65YSDC2A, ADLX65YSDC3A | I/P: 100-240Vac, 50-60Hz, 1.8A; O/P: 20Vdc, 3.25A, Class II (Class II with functional earth: ADLX65YSDC3A , Class II: ADLX65YSDC2A ), Ambient: 40°C, Altitude: 5000m | UL 60950-1, IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017 | UL, CB by TUVRH (JPTUV-097420), (JPTUV-097518) |

# Certificado de Conformidade

*Certificate of Conformity*

**Certificado /** *Certificate:* **UL-BR 22.3595**

| **Emissão /** ***Issue*** | **Revisão /** *Review*: **09** | **Validade /** ***Expiration*** |
|---|---|---|
| 15 de agosto de 2022<br>*August 15, 2022* | | 14 de agosto de 2025<br>*August 14, 2025* |

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|---|---|---|---|---|---|
| Adapter (Alternate) | LITE-ON TECHNOLOGY CORP | ADLX65YLC2D | I/P: 100-240Vac, 50-60Hz, 1.8A; O/P: 20Vdc, 3.25A, Class II, Ambient: 40°C, Altitude: 5000m | UL 62368-1, IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017 | UL, CB by Demko (DK-73622-UL), (DK-73627- UL) |
| Adapter (Alternate) | LITE-ON TECHNOLOGY CORP | ADLX65YLC3D | I/P: 100-240Vac, 50-60Hz, 1.8A; O/P: 20Vdc, 3.25A, Class I, Ambient: 40°C, Altitude: 5000m | UL 60950-1, UL 62368-1, IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017 | UL, CB by Demko (DK-73466-M1-UL), (DK- 73473-M1-UL) |
| Adapter (Alternate) | Lite-On Technology Corp | ADLX65YSLC2A | I/P: 100-240Vac, 50-60Hz, 1.8A; O/P: 20Vdc, 3.25A, Class II, Ambient: 40°C, Altitude: 5000m | UL 62368-1, IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017 | UL, CB by TUVRH (JPTUV- 096377), (JPTUV- 096374) |
| Adapter (Alternate) | Lite-On Technology Corp | ADLX65YSLC3A | I/P: 100-240Vac, 50-60Hz, 1.8A; O/P: 20Vdc, 3.25A, Class I, Ambient: 40°C, Altitude: 5000m | UL 62368-1, IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017 | UL, CB by TUVRH (JPTUV- 096300), (JPTUV- 096303) |
| Adapter (Alternate) | Interchangeable | Interchangeable | O/P: 20Vdc, 3.25A, Tma: 35°C min., Altitude: 5000m | IEC 60950-1 (ed.2);am1,am2, IEC 62368-1 (ed.2), EN 62368-1: 2014/A11:2017, UL 60950-1, UL 62368-1 | CB, UL |
| Enclosure for LCD cover and top side around keyboard | LG CHEM LTD | LUPOY GN-5151RF(#) (#) - May be followed by optional suffix letter from A-Z incl., except F, and except Grades HT700B, LI912A, AF303G, AF303S, XR404T, | V-0, thickness 1.0 mm min., 60 oC | UL 94, UL 746 | UL |

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| | | XR407D, XR407E, HF380X, XR404E, XR404- G, XR404-P and LUMILOY GN2108FI. | | | |
| Enclosure for LCD cover and top side around keyboard (Alternate) | NINGBO LG YONGXING CHEMICAL CO LTD | LUPOY GN-5151RF(#)<br>(#) - May or may not be followed by suffix letter from A- Z inclusive, except F, and except Grades HT700B, XR401B, LI912A, AF303G, AF303S, XR404T, XR407D, XR407E, HF380X | V-0, thickness 1.0 mm min., 60 oC | UL 94, UL 746 | UL |
| Enclosure for LCD cover and top side around keyboard (Alternate) | LOTTE CHEMICAL CORPORATION | NH-1150(+)<br>(+) - May be replaced by one, two, or three numbers and/or letter(s) | V-0, thickness 1.2 mm min., 60oC | UL 94, UL 746 | UL |
| Enclosure for LCD bezel | LG CHEM LTD | GN-5001RFD | V-0, thickness 0.9 mm min., 60 oC | UL 94, UL 746 | UL |
| Enclosure for LCD bezel (Alternate) | NINGBO LG YONGXING CHEMICAL CO LTD | GN-5001RFD | V-0, thickness 0.9 mm min., 60 oC | UL 94, UL 746 | UL |
| Enclosure for LCD bezel (Alternate) | LOTTE CHEMICAL CORPORATION | NH-1024(+)<br>(+) - May be replaced by one, two, or three numbers and/or letter(s) | V-0, thickness 0.75 mm min., 60oC | UL 94, UL 746 | UL |
| Enclosure for LCD bezel (Alternate) | Covestro Deutschland AG [PC Resins] | FR3002 +<br>+ - Material designations may be followed by a six digit numerical code denoting color. | V-0, thickness 0.9 mm min., 70oC | UL 94, UL 746 | UL |
| Enclosure for bottom case | Covestro Deutschland AG [PC Resins] | FR3021 +<br>(+ - Material designations may be followed by a six digit numerical code denoting color.) | V-0, thickness 1.2 mm min., 85 oC | UL 94, UL 746 | UL |
| Enclosure for bottom case (Alternate) | LG CHEM LTD | LUPOY GN-5151RF(#)<br>(#) - May be followed by optional suffix letter from A-Z incl., except F, and except Grades HT700B, LI912A, LI912W, | V-0, thickness 1.0 mm min., 60oC | UL 94, UL 746 | UL |

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| | | AF303G, AF303S, XR404T, XR407D, XR407E, HF380X, XR404E, XR404- G, XR404-P and LUMILOY GN2108FI. | | | |
| Sponge for thermal opening | CENTURY CREATION INTERNATIONAL CO LTD | CR-2030B | V-0, thickness 1.0 mm min. | UL 94 | UL |
| - Adhesive for sponge | DEXERIALS CORP | G9000 | -- | -- | Tested in the equip. |
| - Adhesive for sponge (Alternate) | 3M CHINA CO LTD | 9448A | -- | -- | Tested in the equip. |
| LCD Panel | BOE | NV140FHM-N4V V8.0 | 14.0 inch, TFT type (LED Backlight) | -- | Tested in the equip. |
| LCD Panel (Alternate) | Interchangeable | Interchangeable | 14.0 inch, TFT type (LED Backlight) | -- | -- |
| HDD (Optional) | HGST Japan, Ltd | HDS series | 5/12 Vdc, 1.5/2.0 A Max. | IEC 60950-1: 2005/AMD2: 2013, IEC 62368-1: 2014 | CB by TUVRh |
| HDD (Optional) | Western Digital Technologies Inc. | WYYXXXXYYYY-YYXXXYY, UYXYYYXXX, HYYXXXXXXXYY YYY, DYXYYYXXX (X, Y=0-9, A-Z, blank; not safety-relevant) | 5/12 Vdc, 1.5/1.0 A Max. | EN 62368-1: 2014, UL 62368-1 | TUV, UL |
| HDD (Optional) (Alternate) | Interchangeable | Interchangeable | 5/12 Vdc, 1.5/2.0 A Max. | IEC 60950-1: 2005/AMD2: 2013, IEC 62368-1: 2014, EN 62368-1: 2014/A11: 2017, UL 60950-1, UL 62368-1 | UL, TUV, VDE, Nemko, CB |
| Solid State Drives (Optional) (Alternate) | SK hynux Inc. | HFSabcG32MNB-defgh, HFSabcG32MND-defgh, HFSabcG32MNC-defgh, HFSabcG32MED-defgh, | 5Vdc, 2.0A max. | IEC 60950-1/ A2:2013 | CB by TUV |

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| | | HFSabcG32EED-defgh (The suffix "abc" denoting memory capacity, "defgh" denoting buyer can be any, letter (A to Z) or number (0-9)) | | | |
| Solid State Drives (Optional) (Alternate) | Samsung Electronics Co., Ltd. | MZ-5********** (* can be 0-9, A-Z, blank, slash or dash) | 12Vdc, 0.5A | UL 60950-1, 2nd, IEC 60950-1: 2005 +A1+A2 | UL, CB by TUVRh |
| Solid State Drives (Optional) (Alternate) | Samsung Electronics Co., Ltd. | MZ-C********** (* can be 0-9, A-Z, blank, slash or dash) | 3.3 Vdc, 3.5 A max. | IEC 60950-1: 2005+A1+A2 | CB by TUVRh |
| Solid State Drives (Optional) (Alternate) | Interchangeable | Interchangeable | 5Vdc, 2.0 A max. or 3.3 Vdc, 3.5 A max. or 12Vdc, 0.5A max. | IEC 60950-1: 2005/AMD2: 2013, IEC 62368-1: 2014, EN 62368-1: 2014/A11: 2017, UL 60950-1, UL 62368-1 | UL, TUV, VDE, Nemko, CB |
| SSHD (Optional) | Seagate Technology Inc. | ST3 with additional suffix, 3.5 Series | 5/12Vdc, 1.5 A max. | IEC 60950-1: 2005+A1+A2 | CB by UL |
| SSHD (Optional) (Alternate) | Seagate Technology Inc. | ST9 with additional suffix, 2.5 Series | 5Vdc, 1.5 A max. | IEC 60950-1: 2005+A1+A2 | CB by UL |
| SSHD (Optional) (Alternate) | Interchangeable | Interchangeable | 5/12Vdc, 1.5 A max. or 5Vdc, 1.5 A max. | IEC 60950-1: 2005/AMD2: 2013, IEC 62368-1: 2014, EN 62368-1: 2014/A11: 2017, UL 60950-1, UL 62368-1 | UL, TUV, VDE, Nemko, CB |
| DC Fan | Asia Vital Components Co.,Ltd. | BAPB0707R5HV ("V" can be ABCD where A, B, C, D may be A-Z, 0-9, "- " or blank) | 5Vdc, 0.5A, 5.17 CFM min. | UL 507, EN 62368-1: 2014/A11: 2017 | UL, TUV |
| DC Fan (Alternate) | Forcecon Tech. Co., Ltd. | DFS5K22B15673( Y) (Y) stands for 0-9, A-Z, "-" or blank. | 5Vdc, 0.5A, 5 CFM min. | UL 507, EN 62368-1: 2014 | UL, TUV |
| Rechargeable Li- ion Battery (2S1P) | Shanghai BYD Company Limited | L20B2PF0 | 7.68Vdc, Rated Capacity 4786mAh | UL 2054, UL 60950-1, | UL, CB by Demko (DK- 105172- |

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| | | | /<br>36.7Wh | UL 62368-1,<br>IEC 60950-1: 2005, AMD1: 2009, AMD2: 2013,<br>IEC 62368-1: 2014 (Second Edition), EN 62368-1: 2014+A11: 2017,<br>IEC 62133-2: 2017,<br>EN 62133-2: 2017 | UL), (DK-105198- M1-UL),<br>(DK-103870- UL) |
| Battery Pack (2S1P)<br>(Alternate) | CELXPERT ENERGY CORP | L20C2PF0 | 7.68Vdc,<br>4947mAh / 38Wh,<br>4786mAh /<br>36.7Wh | UL 2054,<br>UL 62368-1,<br>IEC 62368-1: 2014 (Second Edition),<br>EN 62368-1: 2014+A11: 2017, IEC 62133:2012,<br>IEC 62133-2: 2017,<br>EN 62133-2: 2017 | UL, CB by<br>Demko (DK- 105227-UL), (DK-104211- UL), (DK- 104481-UL) |
| Battery Pack (2S1P)<br>(Alternate) | LG ENERGY SOLUTION, LTD.<br><br>LG CHEM, LTD<br>(*) | L20L2PF0 | 7.68Vdc, Typ.: 4947mAh/38Wh, Rated: 4786mAh/36.7Wh | UL 2054,<br>UL 60950-1,<br>IEC 62368-1: 2014 (Second Edition),<br>EN 62368-1: 2014+A11: 2017,<br>IEC 62133-2: 2017,<br>EN 62133-2: 2017,<br>IEC 62133:2012 | UL, CB by<br>Demko (DK- 103896-M1- UL), (DK- 103612-M1- UL)<br><br>(DK-103805- UL) |
| Battery Pack (2S1P)<br>(Alternate) | SIMPLO TECHNOLOGY CO LTD | L20M2PF0 | 7.68Vdc,<br>4947mAh/38Wh or 4786mAh/36.7Wh | UL 2054,<br>UL 60950-1,<br>UL 62368-1,<br>IEC 60950-1: 2005, AMD1: | UL, CB by<br>Demko (DK- 104074-UL), (DK-104071- UL), (DK- 103197-UL), (DK-103212- UL) |

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| | | | | 2009, AMD2: 2013, IEC 62368-1: 2014 (Second Edition), EN 62368-1: 2014+A11: 2017, IEC 62133:2012, IEC 62133-2: 2017, EN 62133-2: 2017 | |
| Battery Pack (3S1P) | CELXPERT ENERGY CORP | L20C3PF0 | 11.1Vdc, 4054mAh / 45Wh, 3964mAh / 44Wh | UL 2054, UL 62368-1, IEC 62368-1: 2014 (Second Edition), EN 62368-1: 2014+A11: 2017, IEC 62133:2012, IEC 62133-2: 2017, EN 62133-2: 2017 | UL, CB by Demko (DK- 104103-UL), (DK-103873- UL), (DK- 104091-UL) |
| Battery Pack (3S1P) (Alternate) | LG ENERGY SOLUTION, LTD.<br><br>LG CHEM, LTD (*) | L20L3PF0 | 11.1Vdc, Typical: 4054mAh/45Wh, Rated Capacity: 3928mAh/43.6 Wh | UL 2054, UL 60950-1, UL 62368-1, IEC 62368-1: 2014 (Second Edition), EN 62368-1: 2014+A11: 2017, IEC 62133-2: 2017, EN 62133-2: 2017, IEC 62133:2012 | UL, CB by Demko (DK- 103877-M1- UL), (DK- 102982-M1- UL),<br><br>(DK-102948- UL) |
| Battery Pack (3S1P) (Alternate) | SIMPLO TECHNOLOGY CO LTD | L20M3PF0 | 11.1Vdc, 4054mAh/45Wh, 3964mAh/44Wh | UL 2054, UL 60950-1, UL 62368-1, IEC 60950-1: 2005, AMD1: 2009, AMD2: 2013, | UL, CB by Demko (DK- 104324-UL), (DK-103771- UL), (DK- 104068-UL), (DK-104081- UL) |

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| | | | | IEC 62368-1: 2014 (Second Edition), EN 62368-1: 2014+A11: 2017, IEC 62133:2012, IEC 62133-2: 2017, EN 62133-2: 2017 | |
| Motherboard (MB1) | Interchangeable | Interchangeable | See below | -- | -- |
| - RTC battery (Lithium type) | MITSUBISHI ELECTRIC CORP | CR2032+ (+ - The cells may have various insulating tube, ring, or tape.) | 3.0Vdc, Maximum abnormal charging current 10mA | UL 1642 | UL (MH15370) |
| - RTC Battery (Lithium type) (Alternate) | Interchangeable | CR2032 series | 3Vdc, maximum abnormal charging current 10mA min, against charging current by multiple components PD102, PR107 (rated 1K ohm) | UL 1642 | UL |
| - PTC Polyswitch (FV501) provided for HDMI port use | Littelfuse Inc. | 1206L110THXXYY YYY (X stands for A to Z, 0 to 9, or blank. Y stands for A to Z, 0 to 9, or blank.) | 8Vdc, 1.1A | UL 1434, IEC/EN 60738-1: 2006, IEC/EN 60738-1-1: 2008 IEC/EN 60730-1 | UL, TUV |
| - PTC Polyswitch (FV501) provided for HDMI port use (Alternate) | Dongguan TLC Electronic Technology Co., Ltd. | TLC-NSMD100 (x) | 6Vdc, 1A | UL 1434, EN 60738-1-1:2008 EN 60738-1:2006+A1, EN 60730-1:2011 | UL, TUV |
| - PTC Polyswitch (FV501) provided for HDMI port use (Alternate) | Bourns Inc. | MF-NSMF110 | 6Vdc, 1.1A | UL 1434, IEC/EN 62319-1-1:2005, IEC/EN 62319-1:2005, IEC/EN 60738-1:2006+A1, IEC/EN 60738-1-1:2008, EN 60730-1:2011, | UL, TUV |

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| | | | | EN 60730-1:2010 | |
| - Power Distribution Switch (U5701) for USB 3.0 port use | DIODES INC | PI5USB25wwxyyy Ez Series, where ww is 44 or 46 x is blank, A, AQ, H, J, or Q yyy is ZH or ZHD for packaging type E is Pb-free z is blank or X Cat. Nos. PI5USB2544ZHE, PI5USB2544ZHEX, PI5USB2544AZHE, PI5USB2544AZHEX, PI5USB2544ZHDE, PI5USB2544ZHDEX, PI5USB2544AZHDE, PI5USB2544AZHDEX, PI5USB2546ZHE, PI5USB2546ZHEX, PI5USB2546AZHE, PI5USB2546HZH E, PI5USB2546AZHEX, PI5USB2546ZHDE, PI5USB2546ZHDEX, PI5USB2546AZHDE, PI5USB2546AZHDEX, PI5USB2546HZHEX, PI5USB2546HZHDE, PI5USB2546HZHDEX, PI5USB2546QZH E, PI5USB2546QZHEX, PI5USB2546AQZHE, PI5USB2546AQZHEX, PI5USB2546JZHE, PI5USB2546JZHEX, PI5USB2546JZHDE, and PI5USB2546JZHDEX | Input Voltage: 4.5 - 5.5 Vdc Continuous Rating: 30 mA to 2.5 A Current Limit: 100 mA to 3.18 A | UL 2367, IEC 62368-1: 2014, EN 62368-1: 2014/A11:2017 | UL, CB by UL (US-38136-UL) |

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| - Power Distribution Switch (U5701) for USB 3.0 port use (Alternate) | TEXAS INSTRUMENTS INC | SN1408009RTE, SN1702001, TPS2543, TPS2544, TPS2547, TPS2546, TPS2545 (Additional suffixes after the model number designate the type of integrated circuit package, integrated circuit lead types or other features that are considered not to affect the functionality of the device.) | Input Voltage: 4.5 to 5.5 Vdc Output Continuous Rating: 2.5 A Output Current Limit: 3.1 A | UL 2367, IEC 60950-1/ A2:2013 IEC 62368-1: 2014, EN 62368-1: 2014/A11:2017 | UL, CB by UL (US-29689-M1- UL), (US-35117-UL) |
| - Power Distribution Switch (U5701) for USB 3.0 port use (Alternate) | Guangdong Cellwise Microelectronics Co., Ltd. | CW3042AAAD, CW3042AAAE, HP3048BAAQ, CW3048AAAQ, CW3048BAAQ, CW3046AAAQ | Input Voltage: 4.5 to 5.5 Vdc Output Continuous Rating: Maximum 2.8 A Current Limit Rating: Maximum 3.17 A | UL 2367, IEC 62368-1: 2014 | UL, CB by Demko (DK- 108822-UL) |
| - Power Distribution Switch (U5701) for USB 3.0 port use (Alternate) | Fortune Advanced Technology Co | FA3200NTB, FA3200NTR, FA3210NTB, FA3210NTR | Input Voltage: 4.5 to 5.5 Vdc Output Continuous Rating: 2.0 A Current Limit Rating: 2.7 A | UL 2367, IEC 62368-1: 2014 (Second Edition) | UL, CB by Demko (DK- 74299-UL) |
| - Power Distribution Switch (U6001) for USB Type-C port use | SILERGY TECHNOLOGY (TAIWAN) INC | SY6861B, followed by 1 or 2, followed by AB or AD, followed by C; SY6863B, followed by 1, 2, 3, 4, 5 or 6, followed by AB or AD, followed by C | Input Voltage: VIN = 2.5 to 5.5 Vdc Output Continuous Rating: 0.1 to 3 A Current Limit Rating: 0.3 to 5 A | UL 2367, IEC 60950-1/ A2:2013 IEC 62368-1: 2014, EN 62368-1: 2014/A11:2017 | UL, CB by Demko (DK- 64454-A1-UL), (DK- 87012-UL) |
| - Power Distribution Switch (U6001) for USB Type-C port use (Alternate) | DIODES INC | AP22615AWU-7, AP22615BWU-7, AP22815AWT-7, AP22815BWT-7 | Input Voltage/Output Continuous Rating: 3.0 - 4.0 Vdc; Iout = 1A - 1.5A 4.0 - 5.5 Vdc; Iout = 1A - 3A Output Current Limit: 3.0 - 5.5 Vdc; at 1.35A to 3.6A | UL 2367, IEC 60950-1/ A2:2013 IEC 62368-1: 2014, EN 62368-1: 2014/A11:2017 | UL, CB by UL (US-32144-A1- UL), (US-32145-A1- UL) |
| - Power Distribution Switch (U6001) for | Fortune Advanced Technology Co Ltd | FA7615, FA7616, FA7626 f/b A, B, C, | Input Voltage: 2.5 to 5.5 Vdc | UL 2367, IEC 62368-1: | UL, CB by Demko (DK- 81343-M2- |

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| USB Type-C port use (Alternate) | | D, E, F, G, H, I or J, f/b A, f/b 5 or 6, f/b R | Output Continuous Rating: 3.0 A<br>Current Limit Rating: 3.4 A | 2014,<br>EN 62368-1: 2014/A11:2017 | UL) |
| - Power Distribution Switch (U6001) for USB Type-C port use (Alternate) | NXP Semiconductor Taiwan Ltd. | NX5P3290UK/S90 0, NX5P3290UK | Input Voltage Range: 4.0 Vdc to 5.5Vdc<br>Current Limit Rating: 3.3 A | UL 62368-1,<br>IEC 62368-1: 2014 (Second Edition),<br>EN 62368-1: 2014 | UL, CB by Demko (DK- 57975-A1-UL) |
| - Power Distribution Switch (UU2) for USB Type-C port use | REALTEK SEMICONDUCTOR CORP | RTS5441x (x = S to Z), RTS5444, RTS5444y (y = E to Z), RTS5467z<br>(z= A to H) | Input Voltage:<br>4.75 to 5.5 Vdc<br>Output Continuous Rating:<br>VBUS_SW_OUT = 0.9 to 3.0A<br>CC1/CC2 = 300mA<br>Current Limit Rating:<br>VBUS_SW_OUT = 0.968 – 3.194A<br>CC1/CC2 = 570mA | UL 2367,<br>IEC 62368-1: 2014,<br>EN 62368-1: 2014/A11:2017 | UL, CB by Demko (DK- 81786-M1-UL) |
| Motherboard (MB2)<br>(Alternate) | Interchangeable | Interchangeable | See below | -- | -- |
| - RTC battery (Lithium type) | MITSUBISHI ELECTRIC CORP | CR2032+<br>(+ - The cells may have various insulating tube, ring, or tape.) | 3.0Vdc,<br>Maximum abnormal charging current 10mA | UL 1642 | UL (MH15370) |
| - RTC Battery (Lithium type) (Alternate) | Interchangeable | CR2032 series | 3Vdc, maximum abnormal charging current 10mA min, against charging current by multiple components PD102, PR107<br>(rated 1K ohm) | UL 1642 | UL |
| - PTC Polyswitch (FV501)<br>provided for HDMI port use | Littelfuse Inc. | 1206L110THXXY YYYY<br>(X stands for A to Z, 0 to 9, or blank. Y stands for A to Z, 0 to 9, or blank.) | 8Vdc, 1.1A | UL 1434,<br>IEC/EN 60738-1: 2006,<br>IEC/EN 60738-1-1: 2008<br>IEC/EN 60730-1 | UL, TUV |
| - PTC Polyswitch (FV501)<br>provided for HDMI port use (Alternate) | Dongguan TLC Electronic Technology Co., Ltd. | TLC-NSMD100 (x) | 6Vdc, 1A | UL 1434,<br>EN 60738-1-1:2008<br>EN 60738-1:2006+A1,<br>EN 60730- | UL, TUV |

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| - PTC Polyswitch (FV501) provided for HDMI port use (Alternate) | Bourns Inc. | MF-NSMF110 | 6Vdc, 1.1A | UL 1434,<br>IEC/EN 62319-1-1:2005,<br>IEC/EN 62319-1:2005,<br>IEC/EN 60738-1:2006+A1,<br>IEC/EN 60738-1-1:2008,<br>EN 60730-1:2011,<br>EN 60730-1:2010 | UL, TUV |
| - Power Distribution Switch (U6701) for USB 3.0 port use | TEXAS INSTRUMENTS INC | SN1408009RTE, SN1702001, TPS2543, TPS2544, TPS2547, TPS2546, TPS2545<br>(Additional suffixes after the model number designate the type of integrated circuit package, integrated circuit lead types or<br>other features that are considered not to affect the functionality of the device.) | Input Voltage:<br>4.5 to 5.5 Vdc<br>Output Continuous Rating: 2.5 A<br>Output Current Limit: 3.1 A | UL 2367, IEC 60950-1/ A2:2013<br>IEC 62368-1:<br>2014,<br>EN 62368-1: 2014/A11:2017 | UL, CB by UL (US-29689-M1- UL), (US-35117-UL) |
| - Power Distribution Switch (U6701) for USB 3.0 port use<br>(Alternate) | Guangdong Cellwise Microelectronics Co., Ltd. | CW3042AAAD, CW3042AAAE, HP3048BAAQ, CW3048AAAQ, CW3048BAAQ, CW3046AAAQ | Input Voltage:<br>4.5 to 5.5 Vdc<br>Output Continuous Rating: Maximum 2.8 A<br>Current Limit Rating: Maximum 3.17 A | UL 2367,<br>IEC 62368-1:<br>2014 | UL, CB by<br>Demko (DK- 108822-UL) |
| - Power Distribution Switch (U6701) for USB 3.0 port use<br>(Alternate) | Fortune Advanced Technology Co | FA3200NTB, FA3200NTR, FA3210NTB, FA3210NTR | Input Voltage:<br>4.5 to 5.5 Vdc<br>Output Continuous Rating: 2.0 A<br>Current Limit Rating: 2.7 A | UL 2367,<br>IEC 62368-1:<br>2014 (Second Edition) | UL, CB by<br>Demko (DK- 74299-UL) |
| - Power Distribution Switch (U5601) for USB Type-C port use | NXP Semiconductor Taiwan Ltd. | NX5P3290UK/S90 0, NX5P3290UK | Input Voltage Range: 4.0 Vdc to 5.5Vdc<br>Current Limit Rating: 3.3 A | UL 62368-1,<br>IEC 62368-1:<br>2014 (Second Edition),<br>EN 62368-1: | UL, CB by<br>Demko (DK- 57975-A1-UL) |

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| - Power Distribution Switch (UU1) for USB Type-C port use | Global Mixed- mode Technology Inc. | G517GX1X2X3X4, X1=1, 2, 3, or 4, X2=T1, TB, TO, TP or P8,<br>X3=1,2 or 3, X4=U or D | Input Voltage Range: 2.7- 5.5Vdc<br>Operational Current Rating per output: 3.0A at TA = 25oC / 2.5A at TA =<br>70oC<br>Overcurrent Protection Current Rating per output: 3.1A- 4.0A / 2.6A- 4.0A | UL 2367,<br>IEC 62368-1:<br>2014 (Second Edition),<br>EN 62368-1:<br>2014+ A11:<br>2017 | UL, CB by TUVRh (JPTUV- 099276) |
| I/O Board | Interchangeable | Interchangeable | See below | -- | -- |
| - Power Distribution Switch (UU401) for USB 2.0 port use | SILERGY CORP. | SY6288Dyyyyy (yyyy = 0-9, A-Z or blank) | I/P:<br>2.5Vdc to 5.5Vdc O/P:<br>5.5Vdc max.,<br>4.4A max. | UL 2367,<br>IEC 60950-1: 2005+Am1:<br>2009+Am2:<br>2013 | UL, CB by TUVRh (JPTUV- 058243-M1) |
| - Power Distribution Switch (UU401) for USB 2.0 port use<br>(Alternate) | SILERGY TECHNOLOGY (TAIWAN) INC | SY6288D20AAC | Input Voltage: 2.5<br>to 5.5 Vdc<br>Output Continuous Rating: Max. 2.0 A<br>Current Limit Rating: 3.5 A | UL 2367,<br>IEC 62368-1:<br>2014 (Second Edition) | UL, CB by<br>Demko (DK- 86482-UL) |
| - Power Distribution Switch (UU401) for USB 2.0 port use<br>(Alternate) | Global Mixed- mode Technology Inc. | G517FX1X2X3X4, X1=1, 2, 3, or 4, X2=T1, TB, TO,TP,<br>U5, P8 or TM, X3=1,2 or 3, X4=U or D | Input Voltage Range: 2.7- 5.5Vdc<br>Operational Current Rating per output: 2.1A<br>Overcurrent Protection Current Rating per output: 2.2A- 3.0A | UL 2367,<br>IEC 62368-1:<br>2014 (Second Edition),<br>EN 62368-1:<br>2014+ A11:<br>2017 | UL, CB by TUVRh (JPTUV- 099276) |
| - Power Distribution Switch (UU401) for USB 2.0 port use<br>(Alternate) | DIODES INC | AP22811AM8-13, AP22811AW5-7, AP22811BM8-13, AP22811BW5-7 | Input Voltage:<br>2.7 - 5.5Vdc<br>Output Continuous Rating: 2.0A<br>Output Current Limit: 3.2A | UL 2367,<br>IEC 60950-1: 2005+Am1:<br>2009+Am2:<br>2013,<br>IEC 62368-1:<br>2014 (Second Edition),<br>EN 62368-1:<br>2014+ A11:<br>2017 | UL, CB by UL (US- 26790-A1- UL), (US- 34018-UL) |
| All PCBs | Interchangeable | Interchangeable | V-1 min, 105 oC min. | UL 796 | UL |
| Speaker (Optional) | Interchangeable | Interchangeable | Generic, 4 ohm ± | -- | -- |

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| | | | 15 % min.,<br>2.0 Watts max. | | |
| Decorative Part or rubber stand | Interchangeable | Interchangeable | Min. HB, located outside of enclosure. | UL 94 | UL |
| Decorative Part or rubber stand (Alternate) | Interchangeable | Interchangeable | Flammability level is ignored, when small parts (4g max. or 1750 mm^3 max.) located outside of enclosure. | -- | -- |
| 01. Internal Plastic PartMaterials | Interchangeable | Interchangeabe | V-2 minimum or min.HF-2 | UL 94, UL746C | UL , -- |
| 02. Flexible Printed Wiring | Interchangeable | Interchangeabe | V-2 or VTM-2 minimum when no components mounted on surface. | UL 94, UL746C | UL , -- |
| 02a. Flexible Printed Wiring(Alternate) | Interchangeable | Interchangeabe | V-2 or VTM-2 minimum when no components mounted on surface. | UL 94, UL746E | UL , -- |
| 02b. Flexible Printed Wiring(Alternate) | Interchangeable | Interchangeabe | Rated V-2 or VTM-2minimum, when no components mounted on surface;If components mounted on surface,it should be V-1 or VTM-1. | UL 796, UL796F | UL , -- |
| 03. Keycaps,plungers and housing, keyboard assembly | Interchangeable | Interchangeabe | Min. HB | UL 94 | UL , -- |
| 04. Adapter(optional) | Interchangeable | Interchangeabe | O/P: 20Vdc, min. 3.25A, Tma = min 35 degree C. Altitude 3048m min. | IEC 60950-1: 2005/AMD2: 2013,EN 60950-1: 2006+A11+A1 +A12+A2,IEC 62368-1 (ed.2),EN 62368-1: 2014/A11:2017 ,UL 60950-1,UL 62368-1 | UL , CB by NCB |
| 04a. Adapter (optional) (Alternate) | ACBEL POLYTECH INC. | ADLX65YAC2D | I/P: 1.8A 100-240Vac, 50-60Hz;O/P: 20Vdc, 3.25A / 15Vdc, 3A / | IEC 60950-1: 2005/AMD2: 2013,EN 60950-1: 2006+A11+A1 +A12+A2,IEC | UL , CB by Nemko (NO106299 forIEC 60950-1); CB by Nemko (NO106292/A1/ |

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| | | | 9Vdc, 2A / 5Vdc, 2A,40 degree C Altitude: 5000m | 62368-1 (ed.2),EN 62368-1: 2014/A11:2017 ,UL 60950-1,UL 62368-1 | M1 for IEC62368-1) |
| 04b. Adapter (optional) (Alternate) | ACBEL POLYTECH INC. | ADLX65YAC3D | I/P: 1.8A 100-240Vac, 50-60Hz;O/P: 20Vdc, 3.25A / 15Vdc, 3A / 9Vdc, 2A / 5Vdc, 2A,40 degree C Altitude: 5000m | IEC 60950-1: 2005/AMD2: 2013,EN 60950-1: 2006+A11+A1 +A12+A2,IEC 62368-1 (ed.2),EN 62368-1: 2014/A11:2017 ,UL 60950-1,UL 62368-1 | UL , CB by Nemko (NO106182/A1/ M1 for IEC 60950-1); CB by Nemko(NO1061 81/A1/M1 for IEC 62368-1) |
| 04c. Adapter (optional) (Alternate) | Chicony Power Technology Co Ltd. | ADLX65YCC2D | I/P: 100-240Vac, 1.8A, 50-60Hz;O/P: 20Vdc, 3.25A / 15Vdc, 3A / 9Vdc, 2A / 5Vdc, 2A, 40 degree C Altitude: 5000m | IEC 60950-1: 2005/AMD2: 2013,EN 60950-1: 2006+A11+A1 +A12+A2,IEC 62368-1 (ed.2),EN 62368-1: 2014/A11:2017 ,UL 60950-1,UL 62368-1 | UL , CB by Nemko (NO102312/A2/ M2 for IEC 60950-1); CB by UL Demko (DK- 73335-M2-UL forIEC 62368-1) |
| 04d. Adapter (optional) (Alternate) | Chicony Power Technology Co Ltd. | ADLX65YCC3D | I/P: 100-240Vac, 1.8A, 50-60Hz;O/P: 20Vdc, 3.25A / 15Vdc, 3A / 9Vdc, 2A / 5Vdc, 2A, 40 degree C Altitude:5000m | IEC 60950-1: 2005/AMD2: 2013,EN 60950-1: 2006+A11+A1 +A12+A2,IEC 62368-1 (ed.2),EN 62368-1: 2014/A11:2017 ,UL 60950-1,UL 62368-1 | UL , CB by Nemko (NO102313/A2/ M1 for IEC 60950-1); CB by UL Demko (DK-110807-UL for IEC 62368-1) |
| 04g. Adapter (optional) (Alternate) | Delta Electronics, Inc. | ADLX65YDC3 D, ADLX65YDC2D | I/P: 100-240Vac, 1.8A, 50-60Hz;O/P: 20Vdc, 3.25A / 15Vdc, 3A / 9Vdc, 2A / 5Vdc, 2A ClassII with functional earth for model: ADLX65YDC3D, Class II for model: ADLX65YDC2D, 40 | IEC 60950-1: 2005/AMD2: 2013,EN 60950-1: 2006+A11+A1 +A12+A2,IEC 62368-1 (ed.2),EN 62368-1: 2014/A11:2017 ,UL 60950-1,UL 62368-1 | UL , CB by TUVRH (JPTUV-088370-M3 for IEC 60950-1); CB by TUVRH (JPTUV-088549-M3 for IEC62368-1) |

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| | | | degree C Altitude:5000m | | |
| 04i.Adapter (optional) (Alternate) | Lite-On Technology Corporation | ADLX65YLC2D | I/P: 100-240Vac, 1.8A, 50-60Hz;O/P: 20Vdc, 3.25A / 15Vdc, 3A / 9Vdc, 2A / 5Vdc, 2A, 40 degree C Altitude:5000m | IEC 60950-1: 2005/AMD2: 2013,EN 60950-1: 2006+A11+A1 +A12+A2,IEC 62368-1 (ed.2),EN 62368-1: 2014/A11:2017 ,UL 60950-1,UL 62368-1 | UL , CB by UL Demko (DK- 73622-M3-UL for IEC 60950-1); CB by UL Demko (DK-73627-M3-UL forIEC 62368-1) |
| 04j. Adapter(optional) (Alternate) | Lite-On Technology Corporation | ADLX65YLC3D | I/P: 100-240Vac, 1.8A, 50-60Hz;O/P: 20Vdc, 3.25A / 15Vdc, 3A / 9Vdc, 2A / 5Vdc, 2A, 40 degree C. Altitude:5000m | IEC 60950-1: 2005/AMD2: 2013,EN 60950-1: 2006+A11+A1 +A12+A2,IEC 62368-1 (ed.2),EN 62368-1: 2014/A11:2017 ,UL 60950-1,UL 62368-1 | UL , CB by UL Demko (DK- 73466-M3-UL forIEC 60950-1); CB by UL Demko (DK-73473-M3-UL forIEC 62368-1) |
| 04k. Adapter (optional) (Alternate) | ACBEL POLYTECH INC. | ADLX65UAGU 2A, ADLX65UAGC 2A, ADLX65UAGE 2A, ADLX65UAGK2A | I/P: 100-240V~, 1.8A, 50-60Hz O/P: 20.0Vdc, 3.25A Max. 65.0W, ClassII, Tma: 40°C, altitude: 5000m | IEC 62368-1: 2014 (Second Edition), UL 62368-1 | UL , CB by Nemko (NO113168/M1 for IEC 62368-1) |
| 04l. Adapter(optional) (Alternate) | Chicony Power Technology Co.,Ltd | ADLX65UCGU 2A, ADLX65UCGE 2A, ADLX65UCGC 2A, ADLX65UCGK 2A, ADLX65UCGG 2A, ADLX65UCGA 2A, ADLX65UCGB 2A, ADLX65UCGR 2A, ADLX65UCGI2A | I/P: 100-240V~, 1.8A, 50-60Hz O/P: 20.0Vdc, 3.25A Max. 65.0W, ClassII, Tma: 40°C, altitude: 5000m | IEC 62368-1: 2014 (Second Edition), IEC 62368-1: 2018 (Third Edition), UL 62368-1 | UL , CB by TUVRh (JPTUV-109472-M3 for IEC62368-1:2014), (JPTUV-109395-M3 for IEC60950-1) CB by Demko (DK-115729-M1-UL for IEC62368-1:2018) |
| 04m. Adapter (optional) (Alternate) | Delta Electronics, Inc. | ADLX65UDGC2A, ADLX65UDGE2A, ADLX65UDGU2A, ADLX65UDGK2A | I/P: 100-240V~, 1.8A, 50-60Hz O/P: 20.0Vdc, 3.25A, 65.0W, Class II, Tma: 40°C, | IEC 62368-1: 2014 (Second Edition), EN 62368-1: 2014+A11: 2017, IEC 60950-1: | UL , CB by TUVRh (JPTUV-109368-M3 for IEC62368-1:2014, JPTUV-109392-M3 for IEC60950-1) |

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| | | | altitude: 5000m | 2005, AM1: 2009, AM2: 2013 | |
| 04n. Adapter (optional) (Alternate) | Lite-On Technology Corporation | ADLX65ULGC2A, ADLX65ULGU2A, ADLX65ULGE2A, ADLX65ULGK2A, ADLX65ULGG2A, ADLX65ULGB2A, ADLX65ULGR2A ADLX65ULGI2A | Input : AC 100-240V; 50-60Hz; 1.8A; Class II, Output: DC 5.0V; 3.0A; 15.0W, 9.0V; 3.0A, 15.0V; 3.0A, ,DC 20.0V; 3.25A; 65.0W Tma: 40°C, altitude:5000m | IEC 62368-1: 2014 (Second Edition), EN 62368-1: 2014+A11: 2017, IEC 62368-1: 2018, EN IEC 62368-1: 2020+A11: 2020, IEC 60950-1: 2005, AM1: 2009, AM2: 2013 | UL , CB by TUVRh (JPTUV-109477-M3 for IEC62368- 1:2014, JPTUV- 109148-M3 for IEC60950-1) |
| 05. Enclosure Material | -- | -- | See below for details | -- | -- , -- |
| 05-01. Enclosure Material for top cover | COVESTRO DEUTSCHLAND AG [PC RESINS] | FR3021++ - Material designations may be followed by a six digit numerical code denoting color. | V-0, thickness 1.2mm min., 85 degree C | UL 94UL 746C | UL , -- |
| 05-01a. Enclosure Material for top cover (Alternate) | LG Chem, Ltd | LUPOY GN-5151RF(#)--(#)May be followed by optional suffix letter from A-Z incl., except F,and except Grades HT700B, LI912A, LI912W, AF303G, AF303S, XR404T, XR407D, XR407E, HF380X, XR404E, XR404-G, XR404-P and LUMILOY GN2108FI. | V-0, thickness 1.0mm min., 60 degree C | UL 94UL 746C | UL , -- |
| 05-01b. Enclosure Material for top cover (Alternate) | NINGBO LG YONGXING CHEMICAL COLTD | LUPOY GN-5151RF(#)--(#) May or may not be followed by suffix letter from A-Z | V-0,thickness 1.0mm min., 60 degree C | UL 94UL 746C | UL , -- |

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| | | inclusive, except F, and except Grades HT700B, XR401B, LI912A, AF303G, AF303S, XR404T, XR407D, XR407E, HF380X. | | | |
| 05-01c. Enclosure Material for top cover (Alternate) | -- | -- | Aluminium , thickness 0.8mmmin. | -- | -- , -- |
| 05-02. Enclosure Material for LCD bezel | COVESTRO DEUTSCHLAND AG [PC RESINS] | FR3002++ - Material designations may be followed by a six digit numerical code denoting color. | V-0, thickness 1.0mm min., 70 degree C | UL 94UL 746C | UL , -- |
| 05-02a. Enclosure Material for LCD bezel (Alternate) | COVESTRO DEUTSCHLAND AG [PC RESINS] | FR3040++ - Material designations may be followed by a six digit numerical code denoting color. | V-0, thickness 0.75mm min., 80 degree C | UL 94UL 746C | UL , -- |
| 05-03. Enclosure Material for top side around keyboard | COVESTRO DEUTSCHLAND AG [PC RESINS] | FR3021++ - Material designations may be followed by asix digit numerical code denoting color. | V-0, thickness 1.2mm min., 60 degree C | UL 94UL 746C | UL , -- |
| 05-04. Enclosure Material for bottom case | COVESTRO DEUTSCHLAND AG [PC RESINS] | FR3021++ - Material designations may be followed by a six digit numerical code denoting color. | V-0, thickness 1.5mm min., 85 degree C | UL 94UL 746C | UL , -- |
| 05-04a. Enclosure Material for bottom case (Alternate) | LG CHEM LTD | LUPOY GN-5151RF(#) (#) - May be followed by optional suffixletter from A-Z incl., except F,and except Grades HT700B, LI912A, LI912W, AF303G, AF303S, XR404T, XR407D, XR407E, HF380X, XR404E, XR404-G, XR404-P and LUMILOY GN2108FI | V-0,thickness 1.5mm min., 85 degree C | UL 94UL 746C | UL , -- |

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| 05-04b. Enclosure Material for bottom case (Alternate) | NINGBO LG YONGXING CHEMICAL COLTD | LUPOY GN-5151RF(#)--(#) May or may not be followed by suffix letter from A-Z inclusive, except F, and except Grades HT700B, XR401B, LI912A, AF303G, AF303S, XR404T, XR407D, XR407E, HF380X. | V-0,thickness 1.5mm min., 60 degree C | UL 94UL 746C | UL , -- |
| 05-04c. Enclosure Material for bottom case(Alternate) | -- | -- | Aluminium, thickness 0.8mmmin. | -- | -- , -- |
| 05-05. Metalized coating (Optional) | Interchangeable | Interchangeable | For bottom case material "NINGBO LG YONGXING CHEMICAL CO LTD", type "LUPOYGN-5151RF(#)" or "COVESTRO DEUTSCHLAND AG [PC RESINS]", type "FR3021+" or"LG CHEM LTD", type "LUPOY GN-5151RF(#)" . | UL746C | UL , -- |
| 05-06. Openingsfor plastic enclosure | -- | -- | See Enclosure 4-01for detailed dimension. | -- | -- , -- |
| 05-07. Openingsfor metal enclosure | -- | -- | See Enclosure 4-07for detailed dimension. | -- | -- , -- |
| 06. LCD Panel | Interchangeable | Interchangeable | 14 inch, TFT Type (with LED backlight) | IEC/ EN/ UL 60950-1, IEC/ EN/ UL 62368-1 | UL , -- |

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| 06a. LCD Panel (Alternate) | Interchangeable | Interchangeable | 14 inch TFT Type(LED backlight) | -- | -- , -- |
| 06a-1. Internal plastic materials | Interchangeable | Interchangeable | Min V-2 | UL 94UL 746C | UL , -- |
| 06a-2. PWB | Interchangeable | Interchangeable | Min V-1, 105 degreeC | UL 796 | UL , -- |
| 07. DC Fan for Config A and config B | ASIA VITAL COMPONENTS CO LTD | BAPC0806Z5H V("Z" can be A,B,C,G,R,S,T or Y; "V" can be ABCD where A,B,C,Dmay be A-Z,0-9,or "-" or blank) | 5Vdc, 0.5A, 2.3CFM min. | EN 62368-1: 2014/A11:2017 | -- , TUV (B 025730 0892 Rev. 06) |
| 07a. DC Fan for Config A (Alternate) | Toshiba Home Technology Corp. | C-271C-XX (XX: Rev. No. for modificationnot related to safety aspects, blank or any numbers(up to2 digits) | 5Vdc, 0.38A, 3.1CFM min. | UL 507, EN 62368-1: 2014/A11:2017 | UL , TUV(B 025909 0087 Rev.01 ) |
| 07b. DC Fan for Config B (Alternate) | Toshiba Home Technology Corp. | M-282C-XX (XX: Rev. No. for modification not related to safety aspects, blank or any numbers(up to2 digits) | 5Vdc, 0.38A, 2.3CFM min. | UL 507, EN 62368-1: 2014/A11:2017 | UL , TUV(B 025909 0086 Rev.11 |
| 08. Battery pack | CELXPERT ENERGY CORP | L19C3PD5 | 11.34 Vdc, 4000mAh / 45Wh,3900mAh / 43Wh | UL 60950-1, UL 2054, IEC 62368-1, IEC 62133 | UL , CB by UL: (DK-90509-UL for IEC 60950- 1)(DK-90735-ULfor IEC 62368-1:2014) (DK-90363-UL forIEC 62133: 2012) |
| 08a. Battery Pack (Alternate) | SIMPLO TECHNOLOGY CO LTD | L19M3PD5 | 11.1Vdc, 4120mAh / 45Wh, 3980mA / 44Wh | UL 60950-1, UL 2054, IEC 62368-1, IEC 62133 | UL , CB by UL: (DK-91800-UL for IEC 60950-1)(DK-91809-UL for IEC 62368-1:2014) (DK-91607-UL forIEC 62133: |

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| 08b. Battery Pack (Alternate) | LG Chem, Ltd.(*) | L19L3PD5 | 11.1Vdc, 4050mAh /45Wh or 3920mAh / 43Wh | UL 60950-1, UL 2054, IEC 62368-1:2014, IEC 62133:2012, IEC 62133-2: 2017 | UL , CB by UL:(DK-91796-M1- UL for IEC 62368-1:2014)(DK-90969-ULfor IEC 62133: 2012); DK-91975-M1-UL forIEC 62133-2:2017 |
| 08c.Battery pack(Alternate) | SUNWODA ELECTRONIC CO.,LTD. | L19D3PD5 | 11.1Vdc, Typical Capacity 4055mAh/45Wh, Rated Capacity 3874mAh/43Wh | UL 60950-1, UL 2054, IEC 62368-1, IEC 62133 | UL , CB by UL:(DK-90844-M1- UL for IEC 60950-1)(DK-90816-M1-UL forIEC 62368-1:2014) (DK-90436-UL forIEC 62133: 2012) |
| 08d.Battery pack(Alternate) | CELXPERT ENERGY CORP | L20C3PD4 | 11.52Vdc, 4948mAh / 57Wh, 4861mAh /56Wh | IEC 62368-1:2014, IEC 62133-2:2017, UL2054, UL62368-1 | UL , CB by UL: (DK-109842 -UL for IEC 62368-1:2014; DK-109536-UL forIEC 62133) |
| 08e.Battery pack(Alternate) | SUNWODA ELECTRONIC CO.,LTD. | L20D3PD4 | 11.52Vdc, Typical Capacity 4948mAh/57 Wh, Rated Capacity 4861mAh/56Wh | IEC 60950-1, IEC 62368-1:2014, IEC 62133-2:2017, UL 62368-1, UL 2054, | UL , CB by TUV RH(JPTUV- 119801) for IEC 62368-1; (JPTUV-119799)for IEC 60950-1;JPTUV-119461-A1 for IEC 62133-2:2017 |
| 08f.Battery pack(Alternate) | SIMPLO TECHNOLOGY CO LTD | L20M3PD4 | 11.52Vdc, 4948mAh / 57Wh, 4861mAh / 56Wh | UL 62368-1, UL 2054, IEC 62368-1, IEC 62133-2:2017 | UL , CB by UL: (DK-109437 -ULfor IEC 62368-1:2014; DK-109218-UL forIEC 62133) |
| 08g. Battery Pack (Alternate | LG Energy Solution LTD | L19L3PD5 | 11.1Vdc, 4050mAh /45Wh or 3920mAh / 43Wh | UL 2054, IEC 62368-1:2018, , IEC 62133-2: 2017 | UL , CB by UL:(DK-111981-ULfor IEC 62368-1:2018) (DK-91975-M1-UL forIEC 62133-2) |
| 08h. Battery Pack (Alternate | LG Energy Solution LTD | L20L3PD4 | 11.52Vdc, Typ.: 4948mAh/57Wh, Rated: 4861mAh/56Wh | UL 2054, IEC 62368-1:2018, , IEC 62133-2: 2017 | UL , CB by UL:(DK-118292-ULfor IEC 62368-1:2018) (DK- |

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| | | | | | 118271-UL forIEC 62133-2) |
| 09. Mainboard | -- | -- | See below | -- | -- , -- |
| 09-01. Heat sink (Thermal module) | -- | -- | Cooper and aluminu m.<br>See the Enclosure ID 4-02 and 4-06 | -- | -- , -- |
| 09-02. RTC<br>Battery (Lithium type) | Interchangeable | CR2032 or CR2032* or CR2032+ or<br>CR2032 (I)* or CR2032 (j)(k) | 3Vdc, Maximu m abnorm al chargin g current 10mA | UL 1642 | UL , -- |
| 09-03. ProtectorIC provided for HDMI port use | TEXAS INSTRUMENTSINC | TPS2552, TPS2552-1, TPS2553, TPS2553-1 | Input Voltage: 2.5Vdc to 6.5Vdc<br>Output Continu ous Rating: 1.5A. Output Current : 1.7A | UL 2367,IEC 60950-1:2005/AMD1: 2009, IEC 60950-1:2005/AMD2: 2013, IEC 60950-1:2005 | UL , CB by UL(US-24603-A1-UL) |
| 09-03a. ProtectorIC provided for HDMI port use (Alternate) | TEXAS INSTRUMENTSINC | AP2553, AP2552-maybe followed by A, maybe followedby additional letters and/or numbers., AP2553A, AP2552A-may<br>be followed by additional letters, numbers, and/or a '-' | Input Voltage: 2.7 -<br>5.5 Vdc Output Continu ous Rating: 0 - 2.1 A Output Current Limit: 104 - 3020 mA Ambien t: -40 to 85°C | IEC 62368-1:2014, UL 2367 | UL , CB by UL(US-34481-UL) |

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| 09-04. ProtectorIC for Type C USB port use | TEXAS INSTRUMENTSINC | Models SN1701012, SN1702027, SN1702030, SN1702033, SN1702036, and TPS65988<br>may be followed by other characters that do not impact the safety feature of the device. | Input Voltage: 1. PPHV1: 4.5 to 22 Vdc, 1 to 4 A 2. PPHV2: 4.5 to 22 Vdc, 1 to 4 A 3. PPCABLE1: 2.95 to<br>5.5 Vdc, 0.6 A 4. PPCABLE2: 2.95 to<br>5.5 Vdc, 0.6 A 5. VIN_3V3: 3.3 Vdc Output Continuous Rating: 1. VBUS1:<br>4.5 to 22 Vdc, 1 to 4A with PPHV1 input2. VBUS2: 4.5 to 22 Vdc, 1 to 4 A with PPHV2 input 3. C1CC1/C1CC2: 2.95 to 5.5 Vdc, 0.6A with PPCABLE1 input 4. C2CC1/C2CC2: 2.95 to 5.5 Vdc, 0.6A with PPCABLE2 input Output Current Limit: 1. VBUS1: 4.5to 22 Vdc, 1.39 to<br>4.91 A with PPHV1 input 2. VBUS2: 4.5to 22 Vdc, 1.39 to 4.91 A with PPHV2input 3. C1CC1/C1CC2<br>:<br>2.95 to 5.5 Vdc, 0.9A with PPCABLE1 input 4. C2CC1/C2CC2:<br>2.95 to 5.5 Vdc, 0.9A with PPCABLE2 input | IEC 60950-1 (ed.2);am2,EN 60950-1: 2006 / A11: 2009 / A1: 2010 /<br>A12: 2011 / A2:2013, UL2367 | UL , CB by UL(US-30473-A3-UL) |

# Certificado de Conformidade

*Certificate of Conformity*

**Certificado / *Certificate:* UL-BR 22.3595**

| **Emissão / *Issue*** | **Revisão / *Review*: 09** | **Validade / *Expiration*** |
|---|---|---|
| 15 de agosto de 2022<br>*August 15, 2022* | | 14 de agosto de 2025<br>*August 14, 2025* |

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| 09-04a. ProtectorIC for Type C USB port use(Alternate) | Global Mixed-mode Technology Inc. | G3712X1X2X3 X4X1 = A,B,C,D or null;X2 = B6;X3 = 1 or 2;X4 =U or D | DC 4.0V-5.5V, Operational current:0.4A-3.0A, overcur rent protecti on current: 1A-4A. | IEC 60950-1 :2005+A1+A2; EN 60950-1: 2006 / A11: 2009 / A1: 2010 / A12: 2011 / A2:2013, UL2367 | UL , CB by TUV(JPTUV-094198-A1) |
| 09-04b. ProtectorIC for Type C USB port use(Alternate) | NXP Semiconductor Taiwan Ltd. | NX5P3290UK | Input Voltage Range:4.0Vdc to 5.5Vdc Current LimitRating: 3.3A | IEC 62368-1(ED.2),EN 62368-1:2014,UL 62368-1 | UL , CB by UL Demko (DK-57975-UL) |
| 09-04c. ProtectorIC for Type C USB port use(Alternate) | TEXAS INSTRUMENTS INCORPORATED | SN2001024, TPS65994 may be followed by additional characters thatdo not affect the safety features of thedevice. | (Optional) Input Voltage: 4.9 - 5.5 Vdc Output Continuous Rating: PA_VBUS, PB_VBUS: 0.9 to 3.0A PA_CC1, PA_CC2, PB_CC1, PB_CC2*: 0.315A Output Current Limit: PA_VBUS, PB_VBUS: 1.36A to3.78A PA_CC1, PA_CC2, PB_CC1, PB_CC2: 0.47 to 0.66A | UL 2367,IEC 62368-1:2014 | UL , CB by UL US (US-34737-M3-UL) |
| 09-04d. ProtectorIC for Type C USB port use(Alternate) | DIODES INC | AP22615AWU-7 | Input Voltage/Output Continuous Rating: 3.0 - 4.0 Vdc; Iout =1A - 1.5A 4.0 - 5.5 Vdc; Iout = 1A - 3A Output Current Limit: 3.0 - 5.5 Vdc;at 1.35A to 3.6A | UL 2367,IEC 62368-1:2014 | UL , CB by UL US (US-32145-A1-UL) |
| 09-04e. ProtectorIC for Type C USB port use(Alternate) | SILERGY TECHNOLOGY (TAIWAN) INC | SY6863B followed by 1, 2, 3, 4, 5 or 6, followed by ABor AD, followedby C | Input Voltage: VIN = 2.5 to 5.5 Vdc Output Continuous Rating: 0.1 to 3 A Current Limit Rating: 0.3 to 5 A | IEC 60950-1 :2005+A1+A2; EN 60950-1: 2006 / A11: 2009 / A1: 2010 / A12: 2011 / A2:2013, UL2367 | UL , CB by UL Demko (DK- 64454-A1-UL) |

# Certificado de Conformidade

*Certificate of Conformity*

**Certificado /** *Certificate:* **UL-BR 22.3595**

| **Emissão /** ***Issue*** | **Revisão /** *Review*: **09** | **Validade /** ***Expiration*** |
|---|---|---|
| 15 de agosto de 2022<br>*August 15, 2022* | | 14 de agosto de 2025<br>*August 14, 2025* |

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| 09-04f. ProtectorIC for Type C USB port use(Alternate) | TEXAS INSTRUMENTS INCORPORATED | SN2011060 may be followed by additional characters thatdo not affect the safety features of the device | (Optional) Input Voltage: 4.9 - 5.5 Vdc, Output Continuous Rating: PA_VBUS, PB_VBUS: 0.9 to 3.0APA_CC1, PA_CC2, PB_CC1, PB_CC2*: 0.315AOutput Current Limit: PA_VBUS, PB_VBUS: 1.36A to 3.78APA_CC1, PA_CC2, PB_CC1, PB_CC2: 0.47 to 0.66A*Only 1 path within a pair are active at one time | IEC 62368-1:2014, UL 2367 | UL , CB by UL(US-38687-UL |
| 09-05. ProtectorIC for USB portuse | SILERGY CORP | SY6288xyyyyy(x = A, B, C, D or E; yyyyy = 0-9, A-Z or blank) | I/P: 2.5Vdc to 5.5Vdc (for all models)O/P: SY6288A, SY6288B: 5.5Vdc max., 1.6A max.SY6288C, SY6288D: 5.5Vdc max., 4.4A max.SY628 8E: 5.5Vdc, 4.43A max. | IEC 60950-1:2005+A1+A2 ,EN 60950-1: 2006 / A11: 2009 / A1: 2010 / A12: 2011 / A2:2013, UL2367 | UL , CB by TUV(JPTUV-058243-M1) |
| 09-05a. ProtectorIC for USB portuse (Alternate) | Global Mixed-mode Technology Inc. | G517FX1X2X3 X4X1 = 1, 2, 3or 4X2 = T1, TB, TO, TP, U5, P8 or TMX3 = 1, 2 or3X4 =U or D | Input Voltage: 2.7- 5.5Vdc Output Continuous Rating: 2.1A,Output CurrentLimit: 2.2-3.0A | IEC 60950-1:2005+A1+A2 ,EN 60950-1: 2006 / A11: 2009 / A1: 2010 / A12: 2011 / A2:2013, UL2367 | UL , CB by TUV (JPTUV-080887) |
| 09-05b. ProtectorIC for USB portuse (Alternate) | Global Mixed-mode Technology Inc. | G517EX1X2X3 X4X1 = 1, 2, 3 or 4X2 = T7,T1, TB, TO,TP, KF,U5 or TMX3 = 1, 2 or 3X4 =U or D | Input Voltage: 2.7- 5.5Vdc Output Continuous Rating: 1.5A,Output CurrentLimit: 1.6-2.0A | IEC 60950-1:2005+A1+A2 ,EN 60950-1: 2006 / A11: 2009 / A1: 2010 / A12: 2011 / A2:2013, UL2367 | UL , CB by TUV (JPTUV-080887) |

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| 09-05c. ProtectorIC for USB port use (Alternate | TEXAS INSTRUMENTS INC | SN1408009R T E, SN1702001, TPS2547, TPS2544, TPS2546, TPS2545, TPS2543Additional suffixes after the modelnumber designate the type of integrated circuit package,integrated circuit lead types or other features that are considerednot to affect the functionality of the device. | Input Voltage: 4.5Vdc to 5.5Vdc Output Continuous Rating: 2.5A. Output Current Limit:3.1A | IEC 60950-1 (ed.2);am2,EN 60950-1: 2006 / A11: 2009 / A1: 2010 / A12: 2011 / A2: 2013, UL 2367 | UL , CB by UL (US-29689-M1-UL) |
| 09-05d. ProtectorIC for USB port use (Alternate) | DIODES PERICOM TECHNOLOGY(SHANGHAI) CO LTD | PI5USB25wwx yyyEz Series, where ww is 44or 46; x is blank, A or H; yyy is ZH or ZHD for the packaging type; E is Pb- free; and z is blank or X. | Input Voltage:4.5Vdc to 5.5Vdc Continuous Rating: 30mA to 2.5A. Current Limit:100mA to 3.18A | IEC 60950-1(ed.2);am2,EN 60950-1:2006 / A11:2009 / A1:2010 / A12:2011 / A2:2013, UL 2367 | UL , CB by UL (US-24707-M2-UL) |
| 09-05e. ProtectorIC for USB port use (Alternate) | DIODES INC | PI5USB25wwx yyyEz Series, where ww is 44or 46 x is blank, A, AQ, H, J, or Q yyy is ZH or ZHD for packaging type E is Pb- free z is blank or X | Input Voltage:4.5Vdc to 5.5Vdc Continuous Rating: 30mA to 2.5A. Current Limit:100mA to 3.18A | IEC 62368-1:2014, UL 2367 | UL , CB by UL(US-38136-UL) |
| 09-05f. ProtectorIC for USB portuse (Alternate) | Guangdong Cellwise Microelectronics Co., Ltd. | CW3042AAAD, CW3042AAAE, HP3048BAAQ, CW3048AAAQ , CW3048BAAQ , CW3046AAAQ | Input Voltage: 4.5 to 5.5 Vdc Output Continuous Rating: Maximum 2.8 A Current Limit Rating: Maximum 3.17 A | IEC 62368-1:2014, UL 2367 | UL , CB by UL (DK-108822-UL) |
| 09-05g. ProtectorIC for USB port use (Alternate) | WILL SEMICONDUCTOR | 1) WS4612EBx-5/TR, 2) WS4612ECx-5/TR, 3) WS4612EDx-5/TR, 4) WS4612EEx-5/TR (x can beA, B, C or D, A for EN high enable & Discharge, Bfor | Input Voltage: 2.5 to 5.5 Vdc, Current Limit Rating:1) 1.2-1.6A; 2) 1.8-2.4A; 3) 2.1-2.7A; 4) 2.7-3.3A | IEC 62368-1:2014, UL 2367 | UL , CB by UL (DK-88459-M1-UL) |

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| | | EN low enable & Discharge, Cfor EN high enable & no Discharge, Dfor EN low enable & no Discharge.) | | | |
| 09-05h. ProtectorIC for USB port use (Alternate) | DIODES INC | AP22804BW5-7 may be followed by additional letters and/ornumbers | Input Voltage: 2.7 - 5.5Vdc Output Continuous Rating: 2.5A Output Current Limit: 3.3A | IEC 62368-1:2014, UL 2367 | UL , CB by UL US (US-34018-UL) |
| 10. Mylar for Aluminium bottom opening | SICHUAN DONGFANG INSULATING MATERIAL COLTD | DFR117,DFR117ECOA,DFR117ECOB,DFR117ECOC | VTM-0, 0.05mm-0.23mm thickness,80 degree C. See Enclosure 4-08 for detailed dimension. | UL94, UL746C | UL , -- |
| 10-01. Adhesivefor Aluminium bottom opening gmylar | JIANGSU SIDIKE NEW MATERIALS SCIENCE & TECHNOLOGY COLTD | DS-5 | -- | -- | -- , -- |
| 10a. Mylar for Aluminium bottom opening(Alternate) | CHENGDU KANGLONGXIN PLASTICS CO LTD | KLX FRPC-1860B, KLXFRPC-1860 | VTM-0,thickness 0.125-0.193 mm,80 degree C, See Enclosure 4-08 for detailed dimension. | UL94, UL746C | UL , -- |
| 10a-01. Adhesive for Aluminium bottom opening mylar(Alternate) | JIANGSU SIDIKE NEW MATERIALS SCIENCE & TECHNOLOGY COLTD | DS-5 | -- | -- | -- , -- |
| 11. Mesh for speaker opening | CHENGDU KANGLONGXIN PLASTICS CO LTD | KLX FRPC- 1860, KLX FRPC-1860B | VTM-0, thickness 0.125-0.193 mm, 80 degree C. See Enclosure 4-06 for detailed dimension. | UL94, UL746C | UL , -- |
| 11-01. Adhesivefor speaker mesh | JIANGSU SIDIKE NEW MATERIALS SCIENCE & TECHNOLOGY COLTD | DS-5 | -- | -- | -- , -- |

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| 11a. Mesh for speaker opening(Alternate) | SICHUAN DONGFANG INSULATING MATERIAL COLTD | DFR117,DFR1 17ECOA,DFR1 17ECOB,DFR1 17ECOC | VTM-0, 0.05mm-0.23mm thickness,80 degree C. See Enclosure 4-06 for detailed dimension. | UL94, UL746C | UL , -- |
| 11a-01. Adhesive for speaker mesh(Alternate) | JIANGSU SIDIKE NEW MATERIALS SCIENCE & TECHNOLOGY COLTD | DS-5 | -- | -- | -- , -- |
| 12. Rubber Standfor Aluminium bottom | -- | -- | See below for details; | -- | -- , -- |
| 12-01. Hard rubber for Aluminium bottom (internalpart) | COVESTRO DEUTSCHLAND AG [PC RESINS] | FR3021++ - Material designations may be followed by a six digit numerical code denoting color. | V-0, thickness 1.2mm min., 60 degree C | UL 94UL 746C | UL , -- |
| 12-01a. Hard rubber for Aluminium bottom (internalpart) (Alternate) | LG CHEM LTD | LUPOY GN-5151RF(#)--(#)May be followed by optional suffix letter from A-Z incl., except F,and except Grades HT700B, LI912A, LI912W, AF303G, AF303S, XR404T, XR407D, XR407E, HF380X, XR404E, XR404-G, XR404-P and LUMILOY GN2108FI. | V-0, thickness 1.2mm min., 85 degree C | UL 94UL 746C | UL , -- |
| 12-01b. Hard rubber for Aluminium bottom (internalpart) (Alternate) | NINGBO LG YONGXING CHEMICAL CO LTD | LUPOY GN-5151RF(#)--(#) May or may notbe followed by suffix letter from A-Z inclusive, except F, and except Grades HT700B, XR401B, LI912A, AF303G, AF303S, XR404T, XR407D, XR407E, HF380X. | V-0,thickness 1.2mm min., 60 degree C | UL 94UL 746C | UL , -- |

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| 13. IR LEDmodule (Optional) | Liteon OPTO Technology (CZ) Ltd. | LTE-R28206S-NE8, LTE-R28206S-NE8-XX , LTE- R28206S-YE8 , LTE- R28206S-YE8-XX ("XX" means different customer numbers) | Comply IEC 62471exempt group | IEC 62471:2006 | -- , CB by SGS (Certificate No.:BE-34640) |
| 13a. IR LED module of camera (Optional)(Alternate) | Liteon OPTO Technology (CZ) Ltd. | LTE- R28206AS-Q , LTE-R28206AS-Y , LTE-R28206AS-Q-XX, LTE- R28206AS-Y-XX("XX" means different customer numbers) | Comply IEC 62471exempt group | IEC 62471:2006 | -- , CB by SGS (Certificate No.:BE-33598/M1) |
| 13b. IR LED module of camera (Optional)(Alternate) | Liteon OPTO Technology (CZ) Ltd. | LTE-R28206S-ME8-XX, LTE-R28206S-ME8, LTE-R28206S-KE8-XX, LTE-R28206S-KE8, LTE-R28206S, LTE-10L470- M6-XX, LTE- 10L370-M5- XX, LTE- R273090X-M5-XX("XX" means different customers) | Comply IEC 62471exempt group | IEC 62471:2006 | -- , CB by SGS (Certificate No.:BE-36784/M1) |
| 14. Solid State Drive (Optional) | Interchangeable | Interchangeable | 3.3V,3.5A max. | IEC/UL 60950-1, IEC/UL 62368-1 | UL , CB by NCB |
| 14a. Solid State Drive(Optional)(Alternate) | Samsung Electronics Co., Ltd. | MZ-V********** | 3.3Vdc, 3.5A | IEC/UL 62368-1 | UL , TUV（JPTUV-097719-M1) |
| 15. Speaker (two provided) | -- | -- | Each Rated 4 ohm,2 Watts max. | -- | -- , -- |

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| 16. Label | Interchangeable | Interchangeable | 60 degree C min, suitable to rear plastic enclosure. | UL969 | UL , -- |
| 16a. Label (Alternate) | -- | -- | Molded as part of enclosure, Hot stamping, laser etching or silk screened. | -- | -- , -- |
| 17. Wiring, (Internal, Secondary) | Interchangeable | Interchangeable | Minimum 30V, 80 degree C, VW-1. | UL 758 | UL , -- |
| 18. Connectors and Receptacles(SELV Circuits) | Interchangeable | Interchangeable | Copper alloy pins housed in bodies ofplastic rated V-2 minimum. | UL 94, UL746C | UL , -- |
| 18a. Connectors and Receptacles (SELV Circuits) (Alternate) | Interchangeable | Interchangeable | -- | UL 1977 | UL , -- |
| 19. Interconnecting Cable (Optional) | Interchangeable | Interchangeable | Minimum 60 degreeC, 30V minimum, maximum 3.05m long, suitable for external use.<br>Marked VW-1 or FT-1 or better. | UL 758 | UL , -- |
| 19a. Interconnecting Cable (Optional) (Alternate) | Interchangeable | Interchangeable | Suitable for external use. Type CMP, CMR, CMG, or CM.<br>For type CMX, orCMUC, maximum3.05m long. | UL 444 | UL , -- |
| 20. PCB fortouch pad | Interchangeable | Interchangeable | V-0 min. 105 degreeC min. | UL796 | UL , -- |
| 21. Internal metal | -- | -- | Metallic | -- | -- , -- |

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| 22. All other PCB | Interchangeable | Interchangeable | V-1 min. 105 degreeC min. | UL796 | UL , -- |
| Adapter (Optional) | Acbel Polytech Inc. | ADLX45YAC2D | I/P: 100-240Vac, 50-60Hz, 1.2A; O/P: 20Vdc, 2.25A, Class II, Ambient: 40°C, Altitude: 5000m | IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017 | CB by Nemko (NO105856), (NO105995) |
| Adapter (Optional) (Alternate) | Acbel Polytech Inc. | ADLX45YAC3D | I/P: 100-240Vac, 50-60Hz, 1.2A; O/P: 20Vdc, 2.25A, Class I, Ambient: 40°C, Altitude: 5000m | IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017 | CB by Nemko (NO105842), (NO105937) |
| Adapter (Optional) (Alternate) | Chicony Power Technology Co., Ltd. | ADLX45YCC2G | I/P: 100-240Vac, 50-60Hz, 1.3A; O/P: 20Vdc, 2.25A, Class II, Ambient: 40°C, Altitude: 5000m | IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017 | CB by Nemko (NO102327/A2/ M1), CB by Demko (DK-73341-M2-UL) |
| Adapter (Optional) (Alternate) | Chicony Power Technology Co., Ltd. | ADLX45YCC3G | I/P: 100-240Vac, 50-60Hz, 1.3A; O/P: 20Vdc, 2.25A, Class I (with class II construction throughout), Ambient: 40°C, Altitude: 5000m | IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017 | CB by Nemko (NO102328/A1/ M1),CB by Demko (DK-73342-M1-UL) |
| Adapter (Optional) (Alternate) | Delta Electronics, Inc. | ADLX45YDC3D, ADLX45YDC2D | I/P: 100-240Vac, 50-60Hz, 1.2A; O/P: 20Vdc, 2.25A, Class II with functional earth for model: ADLX45YDC3D, ADP-45EG B; Class II for model: ADLX45YDC2D, Ambient: 40°C, Altitude: 5000m | IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017 | CB by TUVRH (JPTUV-088399), (JPTUV-088525) |

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| Adapter (Optional) (Alternate) | Lite-On TechnologyCorp | ADLX45YLC2D | I/P: 100-240Vac, 50-60Hz, 1.3A; O/P: 20Vdc, 2.25A, Class II, Ambient: 40°C, Altitude: 5000m | IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017 | CB by Demko (DK-74396-UL), (DK-74550-UL) |
| Adapter (Optional) (Alternate) | Lite-On TechnologyCorp | ADLX45YLC3D | I/P: 100-240Vac, 50-60Hz, 1.3A; O/P: 20Vdc, 2.25A, Class I, Ambient: 40°C, Altitude: 5000m | IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017 | CB by Demko (DK-73964-UL), (DK-73960-UL) |
| Adapter (Optional) (Alternate) | Interchangeable | Interchangeable | O/P: 20Vdc, 2.25A Tma: 35°C min. Altitude: 5000m | UL 60950-1, UL 62368-1, IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017, IEC 62368-1: 2018, EN IEC 62368-1: 2020, EN IEC 62368-1: 2020/A11: 2020 | UL, CB |
| Adapter (Optional) (Alternate) | ACBEL POLYTECH INC. | ADLX65YAC2D | I/P: 1.8A 100-240V~ 50-60Hz O/P: 20Vdc, 3.25A Class II, Ambient: 40°C, Altitude: 5000m | UL 60950-1, UL 62368-1, IEC 60950-1: 2005+A1+A2, IEC 62368-1: 2014 (Second Edition), EN 62368-1: 2014+A11:2017 | UL, CB by Nemko (NO106299), (NO106292) |
| Adapter (Optional) (Alternate) | ACBEL POLYTECH INC. | ADLX65YAC3D | I/P: 1.8A 100-240V~ 50-60Hz O/P: 20Vdc, 3.25A Class I, Ambient: 40°C, Altitude: 5000m | UL 60950-1, UL 62368-1, IEC 60950-1: 2005+A1+A2, IEC 62368-1: 2014 (Second Edition), EN 62368-1: 2014+A11:2017 | UL, CB by Nemko (NO106182), (NO106181) |
| Adapter (Optional) (Alternate) | CHICONY POWER TECHNOLOGYCO LTD | ADLX65YCC2D | I/P: 100-240Vac, 50-60Hz, 1.8A; O/P: 20Vdc, 3.25A, Class II, Ambient: 40°C, Altitude: 5000m | UL 60950-1, UL 62368-1, IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017 | UL, CB by Nemko (NO102312), CB by Demko (DK-73335-UL) |

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| Adapter (Optional) (Alternate) | CHICONY POWER TECHNOLOGYCO LTD | ADLX65YCC3D | I/P: 100-240Vac, 50-60Hz, 1.8A; O/P: 20Vdc, 3.25A, Class I (with class II construction throughout), Ambient: 40°C, Altitude: 5000m | UL 60950-1, UL 62368-1, IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017 | UL, CB by Nemko (NO102313), CB by Demko (DK-73338-UL) |
| Adapter (Optional) (Alternate) | Delta Electronics, Inc. | ADLX65YDC3D , ADLX65YDC2D | I/P: 100-240Vac, 50-60Hz, 1.8A; O/P: 20Vdc, 3.25A, Class II, Ambient: 40°C, Altitude: 5000m | UL 60950-1, IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017 | UL, CB byTUVRH (JPTUV- 088370), (JPTUV- 088549) |
| Adapter (Optional) (Alternate) | LITE-ON TECHNOLOGY CORP | ADLX65YLC2D | I/P: 100-240Vac, 50-60Hz, 1.8A; O/P: 20Vdc, 3.25A, Class II, Ambient: 40°C, Altitude: 5000m | UL 62368-1, IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017 | UL, CB by Demko (DK- 73622-UL), (DK-73627-UL) |
| Adapter (Optional) (Alternate) | LITE-ON TECHNOLOGY CORP | ADLX65YLC3D | I/P: 100-240Vac, 50-60Hz, 1.8A; O/P: 20Vdc, 3.25A, Class I, Ambient: 40°C, Altitude: 5000m | UL 60950-1, UL 62368-1, IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017 | UL, CB by Demko (DK- 73466-M1-UL), (DK-73473-M1-UL) |
| Adapter (Optional) (Alternate) | Chicony Power Technology Co., Ltd. | ADLX65YSCC2 A | I/P: 100-240Vac, 50-60Hz, 1.8A; O/P: 20Vdc, 3.25A, Class II, Ambient: 40°C, Altitude: 5000m | UL 60950-1, UL 62368-1, IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017 | UL, CB byTUVRH (JPTUV- 096409), (JPTUV- 096534) |
| Adapter (Optional) (Alternate) | Chicony Power Technology Co., Ltd. | ADLX65YSCC3 A | I/P: 100-240Vac, 50-60Hz, 1.8A; O/P: 20Vdc, 3.25A, Class I, Ambient: 40°C, Altitude: 5000m | UL 60950-1, UL 62368-1, IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017 | UL, CB byTUVRH (JPTUV- 096407), (JPTUV- 096521) |
| Adapter (Optional) (Alternate) | Delta Electronics, Inc. | ADLX65YSDC2 A, ADLX65YSDC3 A | I/P: 100-240Vac, 50-60Hz, 1.8A; O/P: 20Vdc, 3.25A, Class II (Class II with functional | UL 60950-1, IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), | UL, CB byTUVRH (JPTUV- 097420), (JPTUV- 097518) |

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| | | | earth: ADLX65YSDC3 A, Class II: ADLX65YSDC2 A), Ambient: 40°C, Altitude: 5000m | EN 62368-1: 2014/A11:2017 | |
| Adapter (Optional) (Alternate) | Lite-On TechnologyCorp | ADLX65YSLC2A | I/P: 100-240Vac, 50-60Hz, 1.8A; O/P: 20Vdc, 3.25A, Class II, Ambient: 40°C, Altitude: 5000m | UL 62368-1, IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017 | UL, CB byTUVRH (JPTUV- 096377), (JPTUV- 096374) |
| Adapter (Optional) (Alternate) | Lite-On TechnologyCorp | ADLX65YSLC3A | I/P: 100-240Vac, 50-60Hz, 1.8A; O/P: 20Vdc, 3.25A, Class I, Ambient: 40°C, Altitude: 5000m | UL 62368-1, IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017 | UL, CB by TUVRH (JPTUV- 096300-A1), (JPTUV- 096303-A1) |
| Adapter (Optional) (Alternate) | Interchangeable | Interchangeable | O/P: 20Vdc, 3.25A, Tma: 35°C min., Altitude: 5000m | UL 60950-1, UL 62368-1, IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017, IEC 62368-1: 2018, EN IEC 62368-1: 2020, EN IEC 62368-1: 2020/A11: 2020 | UL, CB |
| Adapter (Optional) (Alternate) | Lite-On Technology Corporation | ADL100YLC3A | I/P: 100-240Vac, 50-60Hz, 1.6A O/P: 20.0Vdc, 5.0A, 100.0W, Class I, Ambient: 40°C, Altitude: 5000m | IEC 60950-1: 2005, AMD1: 2009, AMD2: 2013, IEC 62368-1: 2014 (Second Edition), EN 62368-1: 2014+A11: 2017 | CB by TUVRh (JPTUV-128232), (JPTUV-128376) |
| Adapter (Optional) (Alternate) | CHICONY POWER TECHNOLOGYCO LTD | ADL100YCC3A | I/P: 100-240Vac, 1.6A, 50-60Hz O/P: 20.0V, 5.0A 100.0W, Class I, Ambient: 40°C, Altitude: 5000m | IEC 60950-1: 2005, AMD1: 2009, AMD2: 2013, IEC 62368-1: 2018, EN IEC 62368-1: 2020, EN IEC 62368-1: 2020/A11: | CB by Demko(DK-120447- UL), (DK-120464-UL) |

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| | | | | 2020 | |
| Adapter (Optional) (Alternate) | ACBEL POLYTECH INC. | ADL100YAC3A | I/P: 100-240Vac, 1.6A, 50-60Hz<br>O/P: 20.0Vdc 5.0A, Max.100W, Class I, Ambient: 40°C, Altitude: 5000m | IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), IEC 62368-1: 2018 | CB by NEMKO (NO119957), (NO119934), (NO119956) |
| Adapter (Optional) (Alternate) | Delta Electronics, Inc. | ADL100YDC3A | I/P : AC 100-240V; 50-60Hz; 1.5A;<br>O/P: DC 20.0V, 5.0A, Class I, Ambient: 40°C, Altitude: 5000m | IEC 60950-1: 2005+A1+A2, IEC 62368-1: 2014, EN 62368-1: 2014+A11: 2017, IEC 62368-1: 2018, EN IEC 62368-1: 2020+A11: 2020 | CB by TUVRh(JPTUV-129198), (JPTUV-129197), (JPTUV-129097) |
| Adapter (Optional) (Alternate) | Interchangeable | Interchangeable | O/P: 20Vdc, 5A, Tma: 35°C min., Altitude: 5000m | UL 60950-1, UL 62368-1, IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017, IEC 62368-1: 2018, EN IEC 62368-1: 2020, EN IEC 62368-1: 2020/A11: 2020 | UL, CB |
| Enclosure Material for LCDtop cover (AL type, main area) | Interchangeable | Interchangeable | Aluminium Alloy, thickness 1.0mm min. | -- | -- |
| Enclosure Material for LCDtop cover (AL type, frame area) | LOTTE CHEMICAL CORPORATION | NH-1024(+)<br>(+) - May be replaced by one, two, or three numbers and/or letter(s) | V-0, thickness 0.75mm min., 60°C | UL 94,<br>UL 746 | UL |

# Certificado de Conformidade

*Certificate of Conformity*

**Certificado /** *Certificate:* **UL-BR 22.3595**

| **Emissão /** ***Issue*** | **Revisão /** *Review*: **09** | **Validade /** ***Expiration*** |
|---|---|---|
| 15 de agosto de 2022<br>*August 15, 2022* | | 14 de agosto de 2025<br>*August 14, 2025* |

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|---|---|---|---|---|---|
| Alt. Enclosure Material for LCDtop cover (Plastic type, main area) | SABIC JAPAN LLC | DC0051 | V-0, thickness 0.8mm min., 80°C | UL 94,<br>UL 746 | UL |
| Alt. Enclosure Material for LCDtop cover (Plastic type, uparea) | SABIC JAPAN LLC | DF00A1I | V-0, thickness 1.0mm min., 80°C | UL 94,<br>UL 746 | UL |
| Enclosure Material for LCDbezel, internal plastic frame of AL type bottom case | MITSUBISHI ENGINEERING-PLASTICS CORP | MB1700+<br>(+ - Suffix optional, exceptions: The following cannot be used as optional suffixes:"NF" for grade NXG5050, "N" for grade NXG5030, "N" for grade MB2112+, "S1" for grade F20-54, "V" for grades S-2000+(f1), S-2001+(f1), S-2003+(f1), the last letter "L" for grade CFH2520+, "W" for ELV2010 included in Grade ELV20(a5)+.) | V-0, thickness 0.75mm min., 60ºC | UL 94,<br>UL 746 | UL |
| - Adhesive for internal plastic frame of AL type bottom case | Devcon | 14167 | -- | -- | -- |
| Enclosure Material for topside around keyboard | SABIC JAPAN LLC | DF00A1I | V-0, thickness 1.0mm min., 80°C | UL 94,<br>UL 746 | UL |
| Enclosure Material for topside around keyboard (frame area) | Interchangeable | AZ91D | Al-Mg alloy, thickness 0.8mm min. | -- | -- |
| Enclosure Material for smart card slot, SIM card tray | Covestro Deutschland AG [PC Resins] | FR3002 +<br>(+ - Material designations may be followedby a six digit numerical code denoting | V-0, thickness 1.0mm min., 70°C | UL 94,<br>UL 746 | UL |

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| | | color.) | | | |
| Enclosure Material for bottom case(AL type) | Interchangeable | Interchangeable | Aluminium, thickness 0.6mm min. | -- | -- |
| Alt. Enclosure Material for bottom case (Plastic type) | TORAY INDUSTRIESINC | A695H | V-0, thickness 0.8mm min., 130°C | UL 94,<br>UL 746 | UL |
| MetallizedCoating (Optional) | JIECHENG INDUSTRY (HUI ZHOU) CO LTD | PVD | Minimum 0.2mmand maximum 2.0mm coating thickness suitable for bottom case (Plastic type) material | UL 746C | UL |
| MetallizedCoating (Optional) (Alternate) | SUZHOU CHUNQIU ELECTRONIC TECHNOLOGYCO LTD | Sputtering | Minimum 0.2mmand maximum 2.0mm coating thickness suitable for bottom case (Plastic type) material | UL 746C | UL |
| MetallizedCoating (Optional) (Alternate) | Interchangeable | Interchangeable | Minimum 0.2mmand maximum 2.0mm coating thickness suitable for bottom case (Plastic type) material | UL 746C | UL |
| Sponge for thermal opening | CENTURY CREATION INTERNATIONAL CO LTD | CR-2030B | V-0, thickness 1.0mm min. | UL 94,<br>UL 746 | UL |
| - Adhesive for sponge on AVC, Delta fan | DEXERIALS CORP (SONY) | G9000R, G9000-SY | -- | -- | -- |

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| - Adhesive for sponge on Toshiba fan | NITTO DENKO | No.5000NS | -- | -- | -- |
| - Adhesive for sponge on Toshiba fan (Alternate) | NITTO DENKO | V-100S | -- | -- | -- |
| LCD Panel | AUO | B140QAN05.0 | 14.0 inch, TFT type (LED Backlight) | -- | Tested in theequip. |
| LCD Panel (Alternate) | Interchangeable | Interchangeable | 14.0 inch, TFT type (LED Backlight) | -- | -- |
| Solid State Drive (Optional) | SK hynix Inc. | HFS001TDE9X080N, HFS001TDE9X073N, HFS001TDE9X084N, HFS001TDE9X081N, HFS512GDE9X080N, HFS512GDE9X073N, HFS512GDE9X084N, HFS512GDE9X081N, HFS256GDE9X080N, HFS256GDE9X073N, HFS256GDE9X084N, HFS256GDE9X081N | 3.3Vdc, 2.5A | UL 62368-1, IEC 62368-1: 2018 | UL, CB by TUVSUD (SG PSB-IV-02155) |
| Solid State Drive (Optional) (Alternate) | Interchangeable | Interchangeable | Generic, 3.3Vdc,2.5A max. | UL 60950-1, UL 62368-1, IEC 60950-1/ A2:2013, IEC 62368-1: 2014 (ed.2), EN 62368-1: 2014/A11:2017, IEC 62368-1: 2018, EN IEC 62368-1: | UL, CB |

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| | | | | 2020,<br>EN IEC 62368-1: 2020/A11: 2020 | |
| RechargeableLi-ion Battery (3S1P) | CELXPERT ENERGY CORP | L21C3P71 | 11.58 Vdc, Typical Capacity 3400mAh / 39.3Wh, Rated Capacity 3304mAh / 38.2Wh | UL 2054,<br>UL 62368-1,<br>IEC 62133-2: 2017,<br>EN 62133-2: 2017,<br>IEC 62368-1: 2018,<br>EN IEC 62368-1: 2020,<br>EN IEC 62368-1: 2020/A11: 2020 | UL, CB by<br>Demko (DK- 119323-UL), (DK-119583-UL) |
| RechargeableLi-ion Battery (3S1P)<br>(Alternate) | LG ENERGY SOLUTION, LTD. | L21L3P71 | 11.58Vdc, Typ.: 3400mAh / 39.3Wh, Rated: 3304mAh / 38.2Wh | UL 2054,<br>UL 62368-1,<br>IEC 62133-2: 2017,<br>EN 62133-2: 2017,<br>IEC 62368-1: 2018,<br>EN IEC 62368-1: 2020,<br>EN IEC 62368-1: 2020/A11: 2020 | UL, CB by<br>Demko (DK- 118944-UL), (DK-119248-UL) |
| RechargeableLi-ion Battery (3S1P)<br>(Alternate) | SIMPLO TECHNOLOGYCO LTD | L21M3P71 | 11.61Vdc, 3392mAh / 39.3Wh or 3295mAh / 38.2Wh | UL 2054,<br>UL 62368-1,<br>IEC 62133-2: 2017,<br>EN 62133-2: 2017,<br>IEC 60950-1: 2005, AMD1: 2009, AMD2: 2013,<br>IEC 62368-1: 2018,<br>EN IEC 62368-1: 2020,<br>EN IEC 62368-1: 2020/A11: 2020 | UL, CB by<br>Demko (DK-118297-UL),(DK-118369-UL), (DK- 118423-UL) |
| RechargeableLi-ion Battery (4S1P) | CELXPERT ENERGY CORP | L21C4P71 | 15.44Vdc, 3400mAh / 52.5Wh, 3304mAh / 51Wh | UL 2054,<br>UL 62368-1,<br>IEC 62133-2: 2017,<br>EN 62133-2: 2017,<br>IEC 62368-1: 2018,<br>EN IEC 62368- | UL, CB by<br>Demko (DK- 119336-UL), (DK-119662-UL) |

# Certificado de Conformidade

*Certificate of Conformity*

**Certificado /** *Certificate:* **UL-BR 22.3595**

**Emissão /** ***Issue***
15 de agosto de 2022
*August 15, 2022*

**Revisão /** *Review*: **09**

**Validade /** ***Expiration***
14 de agosto de 2025
*August 14, 2025*

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| | | | | 1: 2020, EN IEC 62368-1: 2020/A11: 2020 | |
| RechargeableLi-ion Battery (4S1P) (Alternate) | LG ENERGY SOLUTION, LTD. | L21L4P71 | 15.44Vdc, Typ.: 3400mAh / 52.5Wh, Rated: 3304mAh / 51Wh | UL 2054, UL 62368-1, IEC 62133-2: 2017, EN 62133-2: 2017, IEC 62368-1: 2018, EN IEC 62368-1: 2020, EN IEC 62368-1: 2020/A11: 2020 | UL, CB by Demko (DK- 118989-UL), (DK-119091-UL) |
| RechargeableLi-ion Battery (4S1P) (Alternate) | SIMPLO TECHNOLOGY CO., LTD. | L21M4P71 | 15.48Vdc, Typical Capacity 3392mAh/ 52.5Wh, Rated Capacity 3295mAh/ 51Wh | UL 2054, UL 62368-1, IEC 62133-2: 2017, EN 62133-2: 2017, IEC 60950-1: 2005, AMD1: 2009, AMD2: 2013, IEC 62368-1: 2018, EN IEC 62368-1: 2020, EN IEC 62368-1: 2020/A11: 2020 | UL, CB by Demko (DK-118960-UL),(DK-119209-UL), (DK- 119206-UL) |
| RechargeableLi-ion Battery (4S1P) (Alternate) | SIMPLO TECHNOLOGYCO LTD | L21M4P72 | 15.48Vdc, 3392mAh / 52.5Wh, 3295mAh / 51Wh | UL 2054, UL 62368-1, IEC 62133-2: 2017, IEC 60950-1: 2005, AMD1: 2009, AMD2: 2013, IEC 62368-1: 2018, EN IEC 62368-1: 2020, EN IEC 62368-1: 2020/A11: 2020 | UL, CB by Demko (DK-119215-UL),(DK-119293-UL), (DK- 119505-UL) |
| RechargeableLi-ion Battery (4S1P) (Alternate) | Zhejiang Sunwoda Electronic Co.,Ltd. | L21D4P71 | 15.48V, Rated: 3295mAh, 51Wh/ Typical: 3392mAh, 52.5Wh | UL 2054, UL 62368-1, IEC 62133-2: 2017+A1, IEC 60950-1: 2005+A1+A2, IEC 62368-1: | UL, CB by TUVRh (JPTUV-128620), (JPTUV- 128786), (JPTUV- 128783) |

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| | | | | 2014,<br>EN 62368-1:<br>2014+A11: 2017 | |
| DC Fan for UMA Motherboard | Delta Electronics, Inc. | ND85C45XXXX XXXXXXX<br>(X stands for A-Z, 0-9, - or<br>blank, for marketing purpose only) | 5Vdc, 0.5A,<br>2.0 CFM min. | UL 507,<br>EN 62368-1:<br>2014,<br>IEC 62368-1:<br>2014 | UL, TUVRh |
| DC Fan for UMA Motherboard (Alternate) | Toshiba Home Technology Corp. | M-280C-XX<br>(XX: Rev. No. for modification not related to safety aspects, blank or any numbers (1<br>or 2 digits)) | 5Vdc, 0.38A,<br>2.5 CFM min. | UL 507,<br>EN 62368-1:<br>2014/A11: 2017 | UL, TUVSUD |
| DC Fan for UMA Motherboard (Alternate) | Asia Vital Components Co.,Ltd. | BAPA0906R5HV<br>( V" can be ABCD where A,B, C, D may beA-Z, 0-9, "-" or<br>blank) | 5Vdc, 0.5A,<br>4.41 CFM min. | UL 507,<br>EN 62368-1:<br>2014/A11: 2017 | UL, TUVSUD |
| DC Fan for DIS Motherboard | Toshiba Home Technology Corp. | M-279C-XX<br>(XX: Rev. No. for modification not related to safety aspects, blank or any numbers (1<br>or 2 digits)) | 5Vdc, 0.38A,<br>3.1 CFM min. | UL 507,<br>EN 62368-1:<br>2014/A11: 2017 | UL, TUVSUD |
| DC Fan for DIS Motherboard (Alternate) | Delta Electronics, Inc. | ND85C35XXXX XXXXXXX<br>(X stands for A- Z, 0-9, - or blank, for marketing purpose only) | 5Vdc, 0.5A,<br>5.3 CFM min. | UL 507,<br>EN 62368-1:<br>2014,<br>IEC 62368-1:<br>2014 | UL, TUVRh |
| DC Fan for DIS Motherboard (Alternate) | Asia Vital Components Co.,Ltd. | BAPA0907R5HV<br>("V" can be ABCD where A,B, C, D may beA-Z, 0-9, "-" or<br>blank) | 5Vdc, 0.5A,<br>5.35 CFM min. | UL 507,<br>EN 62368-1:<br>2014/A11: 2017 | UL, TUVSUD |
| Motherboard | Interchangeable | Interchangeable | See below | -- | -- |
| - RTC battery (Lithium type) | MITSUBISHI ELECTRIC CORP | CR2016+<br>(+ - The cells may have various insulating tube,ring, or tape.) | 3.0Vdc, Maximum abnormal charging current10mA | UL 1642 | UL (MH15370) |

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| - RTC battery (Lithium type) (Alternate) | MITSUBISHI ELECTRIC HOME APPLIANCE CO LTD | CR2016 | 3.0Vdc, Maximum abnormal charging current10mA | UL 1642 | UL (MH21249) |
| - RTC battery (Lithium type) (Alternate) | PANASONIC CORPORATION , PANASONIC CORPORATION OF NORTH AMERICA | CR2016*, CR-2016*;<br>* - Cell model numbers may be followed by an optional slash (/) and single or multiple alphanumeric characters (i.e. letters and/or numbers), which denote optional<br>features such as various mounting tabs, connecting leads or plugs, packaging, etc. | 3.0Vdc,Maximum abnormal charging current10mA | UL 1642 | UL (MH12210) |
| - RTC battery (Lithium type) (Alternate) | TOSHIBA LIFESTYLE PRODUCTS & SERVICES CORPORATION | CR2016*<br>* - Cells may have various pin, tab, insulating tube, ring and tape. | 3.0Vdc, Maximum abnormal charging current10mA | UL 1642 | UL (MH12828) |
| - RTC battery (Lithium type) (Alternate) | Interchangeable | CR2016 or CR2016+ or CR2016* or CR-2016* | 3Vdc, Maximum abnormal charging current10mA, against charging currentby multiple components R2301 (1k ohm resistor), D2301 (diode) | UL 1642 | UL |
| - Power Distribution Switch (U5302) provided for HDMI port use | TEXAS INSTRUMENTS INC | TPS2552, TPS2552-1, TPS2553, TPS2553-1, may<br>be followed by additional characters thatdo not impact the safety features of thedevice. | Input Voltage: 2.5 Vdc to 6.5 Vdc<br>Output Continuous Rating: 1.5 A<br>Output Current Limit: 1.7 A | UL 2367, IEC 60950-1/ A2:2013, IEC 62368-1: 2014, EN 62368-1: 2014/A11:2017 | UL, CB by UL (US-24603-UL),<br>(US-34989-UL) |
| - Power Distribution Switch (U5302) provided for HDMI port use(Alternate) | Global Mixed-mode Technology Inc. | G517ALX1X2X3 X4,<br>X1=1 or 2,<br>X2=TP, TB, RB or U5,<br>X3=1, 2 or 3,X4=U or D | Input Voltage: 2.7 Vdc to 5.5 Vdc<br>Output Operational Current Rating per output: 0.1A- | UL 2367, IEC 60950-1: 2005+Am1: 2009+Am2: 2013, IEC 62368-1: 2014 (Second | UL, CB by TUVRh (JPTUV-080887), (JPTUV-099276) |

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| | | | 2.15A<br>Overcurrent Protection Current Rating per output: 0.2A-2.75A | Edition),<br>EN 62368-1: 2014+A11: 2017 | |
| - Power Distribution Switch (U5901) provided for USB Type-C port use | TEXAS INSTRUMENTS INCORPORATED | SN2011035, SN2011058, SN2011062, SN2011063, SN2101026, SN2101027, SN2103033, SN2101014, SN2101015, SN2101023, SN2101019, SN2101013, SN2101012, SN2101011, SN2010021, SN2011034, SN2011052, SN2011059, SN2011060, SN2011061, SN1810003, SN1810004, SN1905001, SN1905002, SN1905003, SN1905004, SN1905005, SN1905006, SN1905007, SN1905008, SN1908005, SN2001021, SN2001022, SN2001023, SN2001024, SN2001025, SN2001026, SN2001027, SN2001028, SN2001029, SN2006001, SN2006002, SN2006003, TPS65993, and TPS65994, may be followed by additional characters that do not affect thesafety features of the device | Input Voltage: 4.9 - 5.5 Vdc<br>Output Continuous Rating: PA_VBUS, PB_VBUS: 0.9 to 3.0A<br>PA_CC1, PA_CC2, PB_CC1, PB_CC2*: 0.315A<br>Output Current Limit: PA_VBUS, PB_VBUS: 1.36A to 3.78A<br>PA_CC1, PA_CC2, PB_CC1, PB_CC2: 0.47 to 0.66A<br>*Only 1 path within a pair are active at one time | UL 2367,<br>IEC 62368-1: 2014,<br>EN 62368-1: 2014/A11: 2017,<br>EN 62368-1: 2014 | UL, CB by UL (US-38687-UL) |

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| - Power Distribution Switch (U6701) provided for USB port use | TEXAS INSTRUMENTS INC | SN1408009RTE, SN1702001, TPS2543, TPS2544, TPS2545, TPS2546, and TPS2547, may be followed by additional characters that do not impact the safety features of the device. | Input Voltage: 4.5 to 5.5Vdc<br>Output Continuous Rating: 2.5 A<br>Output Current Limit: 3.1 A | UL 2367, IEC 60950-1/ A2:2013, IEC 62368-1: 2014,<br>EN 62368-1: 2014/A11:2017 | UL, CB by UL (US-29689-M1-<br>UL), (US-35117-UL) |
| - Power Distribution Switch (U6701) provided for USB port use (Alternate) | DIODES INC | PI5USB25wwxy yyEz Series, where ww is 44 or 46; x is blank,A, AQ, H, J, or Q; yyy is ZH or ZHD for packaging type; E is Pb-free; andz is blank or X, Cat. Nos. PI5USB2544ZHE, PI5USB2544ZH EX, PI5USB2544AZ HE, PI5USB2544AZ HEX, PI5USB2544ZHDE , PI5USB2544ZH DEX, PI5USB2544AZ HDE, PI5USB2544AZ HDEX, PI5USB2546ZHE, PI5USB2546ZH EX, PI5USB2546AZ HE, PI5USB2546HZ HE, PI5USB2546AZ HEX, PI5USB2546ZH DE, PI5USB2546ZH DEX, PI5USB2546AZ HDE, PI5USB2546AZ HDEX, PI5USB2546HZ HEX, PI5USB2546HZ HDE, PI5USB2546HZ HDEX, | Input Voltage: 4.5 - 5.5 Vdc<br>Continuous Rating: 30 mA to 2.5 A<br>Current Limit: 100 mA to 3.18A | UL 2367, IEC 60950-1/ A2:2013, IEC 62368-1: 2014,<br>EN 62368-1: 2014/A11:2017 | UL, CB by UL (US-24707-M2-<br>UL), (US-37272-UL) |

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| | | PI5USB2546QZHE, PI5USB2546QZHEX, PI5USB2546AQZHE, PI5USB2546AQZHEX, PI5USB2546JZHE, PI5USB2546JZHEX, PI5USB2546JZHDE, and PI5USB2546JZHDEX | | | |
| - Power Distribution Switch (U6701) provided for USB port use (Alternate) | Guangdong Cellwise Microelectronics Co., Ltd. | CW3042AAAD, CW3042AAAE, HP3048BAAQ, CW3048AAAQ, CW3048BAAQ, CW3046AAAQ | Input Voltage: 4.5 to 5.5 Vdc<br>Output Continuous Rating: Maximum 2.8 A Current Limit Rating: Maximum 3.17 A | UL 2367, IEC 62368-1: 2014 | UL, CB by Demko (DK-108822-UL) |
| - Fuse for smartcard reader port(F9307) use | PANASONIC CORPORATION, PANASONIC CORPORATION OF NORTH AMERICA | ERBRD* (* - Followed bysuffixes.) | 32Vdc, 1A | UL 248-1 | UL (E194052) |
| - Fuse for smartcard reader port(F9307) use (Alternate) | LITTELFUSEINC | 497* (* - With or without one prefix character and with or without additional suffix characters that signify options that do not affect the electrical characteristics.) | 32Vdc, 1A | UL 248-1 | UL (E10480) |
| - Fuse for smartcard reader port(F9307) use (Alternate) | AEM COMPONENTS (SUZHOU) CO LTD | T0402FF1000, followed by T or B, maybe followed by M, maybe followed by any five digit of letter, number, symbol or blank. (Note - Microfuses are | 35Vdc, 1A | UL 248-1 | UL (E232989) |

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| | | defined as fuses with all principle dimensions less then 10 mm.) | | | |
| I/O Board | Interchangeable | Interchangeable | See below | -- | -- |
| - Power Distribution Switch (U101) provided for USB port use | TEXAS INSTRUMENTS INCORPORATED | TPS2069x (Where 'x' is C or D. May be followed by other characters that do not impact the safety feature of the device.) | Input Voltage: 4.5 to 5.5 Vdc Output Continuous Rating: 1.5A Output Current Limit: 2.7A | UL 2367, IEC 62368-1: 2014 | UL, CB by UL (US-34988-UL) |
| - Power Distribution Switch (U101) provided for USB port use (Alternate) | ROHM CO LTD | BD82032FVJ, BD82033FVJ designate the type of integrated circuit package, integrated circuit lead types or other features that are considered notto affect the functionality of the device. | Input Voltage - 4.5 to 5.5Vdc Output Continuous Current Rating: 1.5A Output Current Limit: 2.3A | UL 2367, IEC 60950-1: 2005+Am1: 2009+Am2: 2013, IEC 62368-1: 2014 | UL, CB by UL (JP-12176-UL), (JP-21381-UL) |
| All PCBs | Interchangeable | Interchangeable | V-1 min, 105ºC min. | UL 796 | UL |
| Speaker (Two provided) (Optional) | Interchangeable | Interchangeable | Generic, 4.0 +/- 20% ohm min., 2.5 Watts max. | -- | -- |
| Rubber Stand | Interchangeable | Interchangeable | See below for details. | -- | -- |
| - Hard rubber (internal part) | Covestro Deutschland AG [PC Resins] | FR3006 HF + + - Material designations may be followed by a six digit | V-0, thickness 1.8 mm min., 60ºC, fixed byhot-melted. | UL 94, UL 746 | UL |

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| | | numerical code denoting color. | | | |
| - Other rubber (external part) | Interchangeable | Interchangeable | Min. HB, located outside of enclosure. | UL 94 | UL |
| - Other rubber (external part) (Alternate) | Interchangeable | Interchangeable | Flammability level is ignored, when small parts(4g max. or 1750mm^3max.) located outside of enclosure. | -- | -- |
| IR LED module | Liteon OPTO Technology (CZ) Ltd. | LTE-R28206S-ME8-XX; LTE-R28206S-ME8; LTE-R28206S-KE8-XX; LTE-R28206S-KE8; LTE-R28206S ("XX" means different customers) | Comply IEC 62471 exempt group | IEC 62471:2006 | CB by SGS (BE-36784) |
| IR LED module (Alternate) | Interchangeable | Interchangeable | Comply IEC 62471 exempt group | IEC 62471:2006 (First Edition) | CB |
| Dongle - Lenovo HDMI to VGA Monitor Adapter (Optional) | Lenovo (Beijing) limited / trademark: Lenovo | CH7101B-02, LT8511 | Rating is not necessary | IEC 62368-1: 2014 (Second Edition), EN 62368-1: 2014/A11:2017 | CB by Demko (DK-106336-UL) |
| Dongle - Lenovo USB C to Ethernet Adapter(Optional) | Lenovo (Beijing) limited / trademark: Lenovo | RTL8153-04 | Rating is not necessary | IEC 62368-1: 2014 (Second Edition), EN 62368-1: 2014/A11:2017 | CB by Demko (DK-106480-UL) |
| Dongle - Lenovo USB-C to DisplayPortAdapter (Optional) | Lenovo (Beijing) limited / trademark: Lenovo | CYPD2119-01 | Rating is not necessary | IEC 62368-1: 2014 (Second Edition), EN 62368-1: 2014/A11:2017 | CB by Demko (DK-106516-UL) |
| Dongle - USB-Cto VGA Adapter (Optional) | Luxshare Precision Industry Co., Ltd. / trademark: Lenovo | RTD2166-CG3 | 5Vdc | IEC 60950-1: 2005 (Second Edition) + Am 1: 2009 + Am 2: 2013 | CB by TUVRh (JPTUV-088901) |

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| S01. Label | Interchangeable | Interchangeab l e | Maximum 60 degree C, suitable for surface applied. | UL 969:2018 | UL , -- |
| S01a. Label (Alternate) | -- | -- | Molded as part of enclosure, Hot stamping, laser etching or silk screened. | -- | -- , -- |
| S01b. Label (Alternate) | -- | -- | Rating was engraved on the enclosure directly. | -- | -- , -- |
| S01c. Label (Alternate) | -- | -- | Laser carved on enclosure directly. | -- | -- , -- |
| 01. Adapter (Optional) (Alternate) | Delta Electronics, Inc. (Lenovo) | ADLX65YDC3 D, ADLX65YDC2 D, ADP-65XD B | Input: 100-240V~, 1.8A, 50-60Hz; Output: 20Vdc, 3.25A / 15Vdc, 3A / 9Vdc, 2A / 5Vdc, 2A | UL 60950-1:2014, UL 62368-1:2014, IEC 60950-1:2005 + A1:2009 + A2:2013, IEC 62368-1:2014 | UL , CB by TUV |
| 01a. Adapter (Optional) (Alternate) | Delta Electronics, Inc. (Lenovo) | ADLX65YSDC 3A, ADLX65YSDC 2A | Input: 100-240V~, 1.8A, 50-60Hz; Output: 20Vdc, 3.25A / 15Vdc, 3A / 9Vdc, 3A / 5Vdc, 3A | UL 60950-1:2014, UL 62368-1:2014, IEC 60950-1:2005 + A1:2009 + A2:2013, IEC 62368-1:2014, IEC 62368-1:2018 | UL , CB by TUV |
| 01b. Adapter (Optional) (Alternate) | Chicony Power Technology Co., Ltd. (Lenovo) | ADLX65YSCC 3A | Input : AC 100-240V; 50-60Hz; 1.8A; Class I, Output: 3A/5V or 3A/9V or 3A/15V or 3.25A/20V | UL 60950-1:2014, UL 62368-1:2014, IEC 60950-1:2005 + A1:2009 + A2:2013, IEC 62368-1:2014, IEC 62368-1:2018 | UL , UL , CB by TUV, CB by UL |
| 01c. Adapter (Optional) (Alternate) | Interchangeable | Interchangeab l e | Output: DC 5V/2A or 3A, 9V/2A or 3A, 15V/3A, 20V/3.25A | UL 62368-1:2014, IEC 60950-1:2005 + A1:2009 + A2:2013, IEC 62368-1:2014, IEC 62368-1:2018 | UL , CB b NCB |

# Certificado de Conformidade

*Certificate of Conformity*

**Certificado /** *Certificate:* **UL-BR 22.3595**

| **Emissão /** ***Issue*** | **Revisão /** *Review*: **09** | **Validade /** ***Expiration*** |
|---|---|---|
| 15 de agosto de 2022<br>*August 15, 2022* | | 14 de agosto de 2025<br>*August 14, 2025* |

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| 01d. Adapter (Optional) (Alternate) | LITE-ON TECHNOLOGY CORP | ADLX45YLC3D, 4X20M26256, PA-1450-30XX (where X = A-Z, 0-9, or - or blank) | Input: 100-240Vac, 50-60Hz, 1.3A Output: 20Vdc, 2.25A / 15Vdc, 3A / 9Vdc, 2A / 5Vdc, 2A | UL 60950-1:2014, UL 62368-1:2014, IEC 60950-1:2005 + A1:2009 + A2:2013, IEC 62368-1:2014, IEC 62368-1:2018 | UL , UL , CB by Nemko, CB by UL |
| 01e. Adapter (Optional) (Alternate) | Interchangeable | Interchangeab l e | Output: DC 5V/2A or 3A, 9V/2A or 3A, or 15V/3.0A or 20V/2.25A | UL 62368-1:2014, IEC 60950-1:2005 + A1:2009 + A2:2013, IEC 62368-1:2014, IEC 62368-1:2018 | UL , CB by NCB |
| 02. Enclosure | -- | -- | See Enclosure 4-01 for detailed dimension, and see below for detailed materials. | -- | -- , -- |
| 02-01. Enclosure Material for Top Cover | LG CHEM LTD | GN-5001RFD, LUPOY GN-5151RF(#) (#) – May be followed by optional suffix letter from A-Z incl., except F, and except Grades HT700B, LI912A, AF303G, AF303S, XR404T, XR407D, XR407E, HF380X, XR404E, XR404-G, XR404-P and LUMILOY GN2108FI. | V-0, min.1.0 mm thick, RTI 60 degree C | UL 94: 2013<br>UL 746C: 2018 | UL , -- |
| 02-01a. Enclosure Material for Top Cover (Alternate) | LG CHEM (TIANJIN) ENGINEERING PLASTICS CO LTD | GN-5001RFD, LUPOY GN-5151RF(#)(#) – May be followed by optional suffiz letter from A-Z, except F. | V-0, min.1.0 mm thick, RTI 60 degree C | UL 94: 2013<br>UL 746C: 2018 | UL , -- |

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| 02-01b. Enclosure Material for Top Cover (Alternate) | LG CHEM POLAND SP Z OO | GN-5001RFD, LUPOY GN-5151RF(#) (#) – May be followed by optional suffix letter from A-Z incl., except F, and except Grades AF302G, HT700B, XR401B, LI912A, AF303G, AF303S, XR404T, XR407D, XR407E, HF380X. | V-0, min.1.0 mm thick, RTI 60 degree C | UL 94: 2013<br>UL 746C: 2018 | UL , -- |
| 02-01c. Enclosure Material for Top Cover (Alternate) | MITSUBISHI ENGINEERING-PLASTICS CORP | TMB1615++ - Suffix optional, exceptions: The following cannot be used as optional suffixes: "A" for 1501, 1502, 1511, 1521 & 2502, "N" for NXG5050, NXG5030, NXG5501, & CGF-(v)(u),"S1" for F20-54, "R" for grade MB2211, "V" for grades S-2000+(f1), S-2001+(f1), S-2003+(f1). | Minimum V-0, thickness 1.0mm minimum, RTI 85 degree C | UL 94: 2013<br>UL 746C: 2018 | UL , -- |
| 02-01d. Enclosure Material for Top Cover (Alternate) | LG CHEM LTD | LUPOY GN-2403F(#) (#) - May be followed by optional suffix letter from A-Z incl., except F, and except Grades HT700B, LI912A, LI912W, AF303G, AF303S, XR404T, XR407D, | Minimum V-0, thickness 0.8mm minimum, RTI 80 degree C | UL 94: 2013<br>UL 746C: 2018 | UL , -- |

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| | | XR407E, HF380X, XR404E, XR404-G, XR404-P and LUMILOY GN2108FI. | | | |
| 02-01e. Enclosure Material for Top Cover (Alternate) | LG Chem (Guangzhou) Engineering Plastics Co Ltd | LUPOY GN-2403F(#) (#) - May be followed by optional suffix letter from A-Z incl., except F, and except Grades AF302G, HT700B, XR401B, LI912A, AF303G, AF303S. | Minimum V-0, thickness 0.8mm minimum, RTI 80 degree C | UL 94: 2013<br>UL 746C: 2018 | UL , -- |
| 02-01f. Enclosure Material for Top Cover (Alternate) | -- | -- | Aluminum, Alloy of Aluminum, thickness 0.8mm minimum | -- | -- , -- |
| 02-02. Enclosure Material for LCD Bezel | MITSUBISHI ENGINEERING-PLASTICS CORP | TMB1615++ - Suffix optional, exceptions: The following cannot be used as optional suffixes: "A" for 1501, 1502, 1511, 1521 & 2502, "N" for NXG5050, NXG5030, NXG5501, & CGF-(v)(u),"S1" for F20-54, "R" for grade MB2211, "V" for grades S-2000+(f1), S-2001+(f1), S-2003+(f1). | Minimum V-0, thickness 1.0mm minimum, RTI 85 degree C | UL 94: 2013<br>UL 746C: 2018 | UL , -- |
| 02-02a. Enclosure Material for LCD Bezel (Alternate) | MITSUBISHI ENGINEERING-PLASTICS CORP | MB1700+; + - Suffix optional, exceptions: The following cannot be used as optional suffixes: "A" | Minimum V-0, thickness 0.75mm minimum, 60 degree C. | UL 94: 2013<br>UL 746C: 2018 | UL , -- |

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| | | for 1501, 1502, 1511, 1521 & 2502, "N" for NXG5050, NXG5030, NXG5501, & CGF-(v)(u),"S1" for F20-54, "R" for grade MB2211, "V" for grades S-2000+(f1), S-2001+(f1), S-2003+(f1). | | | |
| 02-03. Enclosure Material Top Side around Keyboard | LG CHEM LTD | GN-5001RFD, LUPOY GN-5151RF(#) (#) – May be followed by optional suffix letter from A-Z incl., except F, and except Grades HT700B, LI912A, AF303G, AF303S, XR404T, XR407D, XR407E, HF380X, XR404E, XR404-G, XR404-P and LUMILOY GN2108FI. | V-0, min.1.0 mm thick, RTI 60 degree C | UL 94: 2013<br>UL 746C: 2018 | UL , -- |
| 02-03a. Enclosure Material Top Side around Keyboard (Alternate) | LG CHEM (TIANJIN) ENGINEERING PLASTICS CO LTD | GN-5001RFD, LUPOY GN-5151RF(#) (#) – May be followed by optional suffiz letter from A-Z, except F. | V-0, min.1.0 mm thick, RTI 60 degree C | UL 94: 2013 UL 746C: 2018 | UL , -- |
| 02-03b. Enclosure Material Top Side around Keyboard (Alternate) | LG CHEM POLAND SP Z OO | GN-5001RFD, LUPOY GN-5151RF(#) (#) – May be followed by optional suffix letter from A-Z incl., except F, and except Grades AF302G, HT700B, XR401B, | V-0, min.1.0 mm thick, RTI 60 degree C | UL 94: 2013<br>UL 746C: 2018 | UL , -- |

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| | | LI912A, AF303G, AF303S, XR404T, XR407D, XR407E, HF380X. | | | |
| 02-03c. Enclosure Material Top Side around Keyboard (Alternate) | MITSUBISHI ENGINEERING-PLASTICS CORP | TMB1615++ - Suffix optional, exceptions: The following cannot be used as optional suffixes: "A" for 1501, 1502, 1511, 1521 & 2502, "N" for NXG5050, NXG5030, NXG5501, & CGF-(v)(u),"S1" for F20-54, "R" for grade MB2211, "V" for grades S-2000+(f1), S-2001+(f1), S-2003+(f1). | Minimum V-0, thickness 1.0mm minimum, RTI 85 degree C | UL 94: 2013<br>UL 746C: 2018 | UL , -- |
| 02-04a. Enclosure Material for Bottom Case (Alternate) | LG CHEM (TIANJIN) ENGINEERING PLASTICS CO LTD | GN-5001RFD, LUPOY GN-5151RF(#) (#) – May be followed by optional suffiz letter from A-Z, except F. | V-0, min.1.0 mm thick, RTI 60 degree C | UL 94: 2013<br>UL 746C: 2018 | UL , -- |
| 02-04b. Enclosure Material for Bottom Case (Alternate) | LG CHEM POLAND SP Z OO | GN-5001RFD, LUPOY GN-5151RF(#) (#) – May be followed by optional suffix letter from A-Z incl., except F, and except Grades AF302G, HT700B, XR401B, LI912A, AF303G, AF303S, XR404T, XR407D, XR407E, HF380X. | V-0, min.1.0 mm thick, RTI 60 degree C | UL 94: 2013<br>UL 746C: 2018 | UL , -- |

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| 02-04c.<br>Enclosure Material for Bottom Case<br>(Alternate) | MITSUBISHI ENGINEERING-PLASTICS CORP The following cannot be used as optional suffixes: "A" for 1501, 1502, 1511, 1521 & 2502, "N" for NXG5050, NXG5030, NXG5501, & CGF-(v)(u),"S1" for F20-54, "R" for grade MB2211, "V" for grades S-2000+(f1), S-2001+(f1), S-2003+(f1). | TMB1615++ - Suffix optional, exceptions: degree C | Minimum V-0, thickness 1.0mm minimum, RTI 85 | UL 94: 2013<br>UL 746C: 2018 | UL , -- |
| 02-04. Enclosure Material for Bottom Case<br>(Alternate) | LG CHEM LTD | GN-5001RFD, LUPOY GN-5151RF(#)<br>(#) – May be followed by optional suffix letter from A-Z incl., except F, and except Grades HT700B, LI912A, AF303G, AF303S, XR404T, XR407D, XR407E, HF380X, XR404E, XR404-G, XR404-P and LUMILOY GN2108FI. | V-0, min.1.0 mm thick, RTI 60 degree C | UL 94: 2013<br>UL 746C: 2018 | UL , -- |
| 02-04d.<br>Enclosure Material for<br>Bottom Case<br>(Alternate) | SABIC JAPAN L L C | DC0041PD(B5), ER010459(B5)<br>(B5) – Represents color code 7M1D145<br>NOTE – Material designation may be followed by a color nomenclature consisting of | Minimum V-0, thickness 0.8mm minimum, RTI 80 degree C | UL 94: 2013<br>UL 746C: 2018 | UL , -- |

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| | | either an alpha/numeric or numeric/alpha combination. | | | |
| 02-04e. Enclosure Material for Bottom Case (Alternate) | SABIC INNOVATIVE PLASTICS US L L C | DC0041PQ(B 7 ) (B7) – May be replaced by the color code 7M1A9220 or 7M1D145 denoting a BK pigment. NOTE – Material designation may be followed by a color nomenclature consisting of either an alpha/numeric or numeric/alpha combination. | Minimum V-0, thickness 0.8mm minimum, RTI 80 degree C | UL 94: 2013<br>UL 746C: 2018 | UL , -- |
| 02-06. Metallized Coating | Interchangeable | Interchangeab l e | Applied for bottom case material, see item 02 above. | UL 746C: 2018 | UL , -- |
| 02-07. Mesh for Bottom Openings | CHENGDU KANGLONGXIN PLASTICS CO LTD | KLX FRPC-1860, KLX FRPC-1860B, KLX FRPC-1860-83, KLX FRPC-1860-83B, KLX FRPC-1860-1, KLX FRPC-1860-NTC, KLX FRPC-1860B-NTC, KLX FRPC-1860B-3, KLX FRPC-1870B-K, KLX FRPC-1860B-HY, KLX FRPC-1860-HY, KLX FRPC-1860B-K, KLX FRPC-1860-K, KLX FRPC-1860W | VTM-0 minimum, 0.125mm thickness minimum. | UL 94: 2013<br>UL 746C: 2018 | UL , -- |

# Certificado de Conformidade

*Certificate of Conformity*

**Certificado /** *Certificate:* **UL-BR 22.3595**

| **Emissão /** ***Issue*** | **Revisão /** *Review*: **09** | **Validade /** ***Expiration*** |
|---|---|---|
| 15 de agosto de 2022<br>*August 15, 2022* | | 14 de agosto de 2025<br>*August 14, 2025* |

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| 02-07a. Mesh for Bottom Openings (Alternate) | SICHUAN DONGFANG INSULATING MATERIAL CO LTD | DFR117, DFR117ECO A, DFR117ECO B, DFR117ECO C | VTM-0 minimum, 0.05mm thickness minimum. | UL 94: 2013<br>UL 746C: 2018 | UL , -- |
| 02-08. Adhesive for Bottom Mesh | SDK | DST-5 | 100 degree C | -- | -- , Tested in appliance |
| 02-09. Mylar for Keyboard | SHENZHEN TEESUN TECHNOLOGY CO LTD | TS-FR1365, TS-FR1363, TS-FR1360, TS-FR1362, TS-FR160Y, TS-FR1370F, TS-FR1370, TS-FR1383, TS-FR1370-32, TS-FR1383-13 | VTM-0 minimum, 0.05mm thickness minimum. | UL 94: 2013<br>UL 746C: 2018 | UL , -- |
| 02-09a. Mylar for Keyboard (Alternate) | Interchangeable | Interchangeab l e | Min. VTM-0 or V-0. | UL 94: 2013<br>UL 746C: 2018 | UL , -- |
| 03. LCD Panel | CHONGQING BOE OPTOELECTRON I CS TECHNOLOGY CO LTD (BOE) | **140***-*** where "*" could be any letter of "0" to "9" or "A" to "Z" or blank, denotes only non-safety related parts or name difference. | 14.0 inch, TFT Type (LED backlight). | UL 60950-1:2014, UL 62368-1:2014, IEC 62368-1:2014 | UL , CB by UL |
| 03a. LCD Panel (Alternate) | HEFEI BOE OPTOELECTRON I CS TECHNOLOGY CO LTD (BOE) | **140***-*** (where * could be any letter of “0” to “9” or “A” to “Z” or blank, denotes only non-safety related parts or name difference.) | 14.0 inch, TFT Type (LED backlight). | UL 62368-1:2014, IEC 62368-1:2014 | UL , CB by UL |
| 03b. LCD Panel (Alternate) | INFOVISION ELECTRONICS (KUNSHAN) CO LTD (IVO) | X140NVyy, M140NWxx, P140NWxx, R140NWxx, M140NVxxyy, R140NVxx | 14.0 inch, TFT Type (LED backlight). | UL 62368-1:2014, IEC 62368-1:2014 | UL , CB by UL |

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| | | (where x can be 0-9, A-Z, blank or symbol "-"; y can be 0-9, A-Z, blank or symbol "-" for marketing purpose and no impact any critical safety components and constructions) | | | |
| 03c. LCD Panel (Alternate) | AU OPTRONICS CORP | B140HATZZZ Z , B140HAKZZZ Z , B140HABZZZ Z (Where Z may be any alphanumeric character or a dot or blank) | 14.0 inch, TFT Type (LED backlight). | UL 62368-1:2014, IEC 62368-1:2014 | UL , CB by UL |
| 03d. LCD Panel (Alternate) | AU OPTRONICS CORP | B140HANZZZ Z B140HTNZZZ Z B140HTTZZZ Z B140HTVZZZ Z B140XTBZZZ Z B140XTKZZZ Z B140XTNZZZ Z B140XTTZZZ Z (Where Z may be any alphanumeric character or a dot or blank) | 14.0 inch, TFT Type (LED backlight). | UL 62368-1:2014, IEC 62368-1:2014 | UL , CB by UL |
| 03e. LCD Panel (Alternate) | Innolux Corp | N140FGE-LXX, N140FGE-EXX, N140HGE-EXX, N140HCE-EXX, N140HCA-EXX, N140HCN-EXX, | 14.0 inch, TFT Type (LED backlight). | UL 62368-1:2014, IEC 62368-1:2014 | UL , CB by UL |

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| | | N140HCE-GXX, N140HCA-GXX, N140HGA-EXX, N140HCG-GXX, N140HCN-GXX, N140HCR-GXX, P140ZKA-BXX, N140HCP-EXX, N140HCG-EXX, N140JCN-GXX, N140HCQ-GXX (X=0-9, A-Z or blank, X for marketing purpose and no impact safety related critical components and constructions) | | | |
| 03f. LCD Panel (Alternate) | LG DISPLAY CO LTD | LP140WF9, LP140WFA | 14.0 inch, TFT Type (LED backlight). | UL 62368-1:2014, IEC 60950-1:2005 + A1:2009 + A2:2013, IEC 62368-1:2014 | UL , CB by TUV |
| 03g. LCD Panel (Alternate) | Interchangeable | Interchangeab l e | 14.0 inch, TFT Type (LED backlight). | UL 60950-1:2014, UL 62368-1:2014, IEC 60950-1:2005 + A1:2009 + A2:2013, IEC 62368-1:2014 | UL , CB by NCB |
| 04. DC Fan | DELTA ELECTRONICS INC | ND75C94-21G08, ND75C94 XXXXXXXXX X X, X stands for A-Z, 0-9, - or blank | 5Vdc, 0.5A, 3.8CFM minimum. | UL 507:2020, EN 62368-1:2014/A11:2017 | UL , TUV RH |
| 04a. DC Fan (Alternate) | Asia Vital Components Co.,Ltd. | BAPA0906R5 H Y007, BAPA0906Z5 H V, “Z” can be A, B, C, G, R, | 5Vdc, 0.5A, 4.93CFM minimum. | UL 507:2020, EN 62368-1:2014/A11:2017 | UL , TUV SUD |

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| | | S, or T; "V" can be ABCD where A, B, C, D may be A-Z, 0-9, "-" or blank | | | |
| 04c. DC Fan (Alternate) | Interchangeable | Interchangeable | 5Vdc, Max. 0.5A, 3.80CFM minimum. | UL 507:2020, EN 62368-1:2014/A11:2017 | UL , UV, VDE or CB by National Certification Body |
| 05. Battery Pack | SIMPLO TECHNOLOGY CO LTD (Lenovo) | L21M3PG1 | 11.25Vdc, 3735mAh / 42Wh, 3635mAh / 40.9Wh | UL 62368-1:2019, UL 2054:2011, IEC 62133-2:2017, IEC 62368-1:2018, EN IEC 62368-1:2020+A11:2020 | UL , CB by UL |
| 05a. Battery Pack (Alternate) | CELXPERT ENERGY CORP (Lenovo) | L21C3PG1 | 11.25Vdc, Typical 3735mAh / 42Wh, Rated 3635mAh / 40.9Wh | UL 62368-1:2019, UL 2054:2011, IEC 62133-2:2017, IEC 62368-1:2018, EN IEC 62368-1:2020+A11:2020 | UL , CB by UL |
| 05b. Battery Pack (Alternate) | Zhejiang Sunwoda Electronic Co., Ltd. (Lenovo) | L21D3PG1 | DC 11.25V, Rated:3635mAh, 40.9Wh/ Typical: 3735mAh, 42Wh | UL 62368-1:2014, UL 2054:2011, IEC 62133-2:2017, IEC 62368-1: 2014, EN 62368-1:2014 / A11: 2017 | UL , CB by TUV-Rh |
| 05c. Battery Pack (Alternate) | LG ENERGY SOLUTION, LTD. (Lenovo) | L21L3PG1 | 11.4Vdc, Typ.: 3685mAh/42Wh, Rated: 3590mAh/40.9Wh | UL 62368-1:2019, UL 2054:2011, IEC 62133-2:2017, IEC 62368-1:2018, EN IEC 62368-1:2020+A11:2020 | UL , CB by UL |
| 05d. Battery Pack (Alternate) | SIMPLO TECHNOLOGY CO LTD (Lenovo) | L21M3PG2 | 11.52Vdc, 4948mAh or 57Wh, 4862mAh or 56Wh | UL 62368-1:2019, UL 2054:2011, IEC 62133-2:2017, IEC 62368-1:2018, EN IEC 62368-1:2020+A11:2020 | UL , CB by UL |

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| 05e. Battery Pack (Alternate) | CELXPERT ENERGY CORP (Lenovo) | L21C3PG2 | 11.52Vdc, 4948mAh / 57Wh, 4862mAh / 56Wh | UL 62368-1:2019, UL 2054:2011, IEC 62133-2:2017, IEC 62368-1:2018, EN IEC 62368-1:2020+A11:2020 | UL , CB by UL |
| 06. Mother Board | -- | -- | See below | -- | -- , -- |
| 06-01. Thermal Module | -- | -- | Copper or Aluminum or Alloy of Copper or Steel or Alloy of Aluminum or Alloy of metal. See Enclosure ID 4-04 for detailed dimension. | -- | -- , -- |
| 06-02. Protector IC for USB Type C Port | TEXAS INSTRUMENTS INCORPORATED | TPS66021, TPS66020- may be preceded by 'P', may be followed by additional characters that do not affect the safety features of the device | Input Voltage: 4.9 - 5.5 Vdc Output Continuous Rating: 1.5 - 3.0 A Output Current Limit: 1.87 - 3.7 A | UL 2367:2021, IEC 62368-1: 2014 | UL , CB by UL (US-34369-UL) |
| 06-02a. Protector IC for USB Type C Port (Alternate) | TEXAS INSTRUMENTS INCORPORATED | SN1810003, SN1810004, SN1905001, SN1905002, SN1905003, SN1905004, SN1905005, SN1905006, SN1905007, SN1905008, SN1908005, SN2001021, SN2001022, SN2001023, SN2001024, SN2001025, SN2001026, SN2001027, SN2001028, SN2001029, SN2006001, SN2006002, SN2006003, TPS65993, and | Input Voltage: 4.9 to 5.5 Vdc;Output Continuous Rating:PA_VBUS, PB_VBUS: 0.9 to 3.0 A;PA_CC1, PA_CC2, PB_CC1, PB_CC2*: 0.315 A;*Only 1 path within a pair are active at one timeOutput Current Limit:PA_VBUS, PB_VBUS: 1.36A to 3.78 A;PA_CC1, PA_CC2, PB_CC1, PB_CC2: 0.47 to 0.66 A;Maximum Ambient: 65 degree | UL 2367:2021, IEC 62368-1: 2014 | UL , CB by UL US-38687-UL) |

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| | | TPS65994, may be followed by additional characters that do not affect the safety features of the device | C;SN2001025, SN2006001, SN2006002, SN2006003 and TPS65994 with alternate Insulated Housing:Maximum Ambient: 85 degree C | | |
| 06-02b. Protector IC for USB Type C Port (Alternate) | TEXAS INSTRUMENTS INCORPORATED | SN1810003, SN1810004, SN1905001, SN1905002, SN1905003, SN1905004, SN1905005, SN1905006, SN1905007, SN1905008, SN1908005, SN2001021, SN2001022, SN2001023, SN2001024, SN2001025, SN2001026, SN2001027, SN2001028, SN2001029, TPS65993, and TPS65994, may be followed by additional characters that do not affect the safety features of the device | Input Voltage: 4.9 - 5.5 Vdc Output Continuous Rating: PA_VBUS, PB_VBUS: 0.9 to 3.0A PA_CC1, PA_CC2, PB_CC1, PB_CC2*: 0.315A Output Current Limit: PA_VBUS, PB_VBUS: 1.36A to 3.78A PA_CC1, PA_CC2, PB_CC1, PB_CC2: 0.47 to 0.66A | UL 2367:2021, IEC 62368-1: 2014 | UL , CB by UL US-38687-UL) |
| 06-03. Protector IC for USB 3.0 and HDMI Ports | Global Mixed-mode Technology Inc. | G517FX1X2X3 X4,X1=1, 2, 3, or 4,X2=T1, TB, TO,TP, U5, P8 or TM,X3=1,2 or 3,X4=U or D | Input Voltage: 2.7 to 5.5 Vdc;Output Continuous Rating: 2.1 A;Output Current Limit: 2.2 to 3.0 A;Maximum Ambient: 70 degree C | UL 2367:2011, IEC 60950-1:2005 + A1:2009 + A2:2013 | UL , CB by TUV (JPTUV-077390) |
| 06-03a. Protector IC for USB 3.0 and HDMI Ports (Alternate) | SILERGY CORP | SY6288- followed by E1, E2, E3, E4, E5 or E6, followed by AAC followed by F1, F2, F3 or F4, followed by | Input voltage: 2.5-5.5Vdc, Continuous current: 3.0A for Models SY6288; followed by E1; E2; E3 or E4; followed by AAC; 2.5 A for Models SY6288; followed | UL 2367:2011, IEC 60950-1:2005 + A1:2009 + A2:2013, IEC 62368-1: 2014 | UL , CB by UL (DK-86927-A1- UL, DK-67571- M1-UL) |

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| | | ABC | by E5 or E6; followed by AAC; 0.3 to 3.0 A for Models SY6288; followed by F1; F2; F3; or F4; followed by ABC | | |
| 06-03b. Protector IC for USB 3.0<br>and HDMI Ports (Alternate) | Silergy Technology (Taiwan) Inc | SYV687ZDEC , SY6288-follow by G or H, follow by AB, follow by C, SY6287-follow by B, B1, C, C1, E, F, Y or Z, follow by AB, DE or CA, follow by C;, SYVL27, SY20807- follow by B, B1, C or C1, follow by AB, DE or CA, follow by C | Models SY6287, follow by B, B1, C, C1, E or F, follow by AB, DE or CA, follow by C; SYVL27, follow by B, B1, C or C1, follow by AB, DE or CA, follow by C; SY20807, follow by B, B1, C or C1, follow by AB, DE or CA, follow by C; SY6288, follow by G or H, follow by AB, follow by C; SYV687ZDEC: Input Voltage: 2.5 to 5.5 Vdc Output Continuous Rating: Max. 2.0 A Current Limit Rating: 0.575A to 4.43 A. Models SY6287, follow by Y or Z, follow by AB, DE or CA, follow by C; Input Voltage: 2.5 to 5.5 Vdc Output Continuous Rating: Max. 2.2 A Current Limit Rating: 0.575A to 4.43 A. | UL 2367:2021, IEC 62368-1: 2014 | UL , CB by UL (DK-73538-A2- UL) |
| 06-03c. Protector IC for USB 3.0<br>and HDMI Ports (Alternate) | ANPEC ELECTRONICS CORP | APL3553- followed by A, B, C, D, E, F, G, H, I or J followed by B, C or X, followed by I, followed by -, followed by TR, followed by G, APL3555- followed by A, B, C or D, followed by B, followed by I, followed by -, | Input Voltage: 2.7 to 5.5 Vdc Output Continuous Rating: 2.0 A for Models APL3555 followed by A or B, followed by B, followed by I, followed by -, followed by TR, followed by G; Models APL3553 followed by A, B, E, F, I or J, followed by B, C | UL 2367:2011, IEC 60950-1:2005 + A1:2009 + A2:2013, IEC 62368-1: 2014 | UL , CB by UL (DK-87208-M2- UL, DK-59231- A2-UL) |

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| | | followed by TR, followed by G | or X, followed by I, followed by -, followed by TR, followed by G. 1.0 A for Models APL3555 followed by C or D, followed by B, followed by I, followed by -, followed by TR, followed by G; Models APL3553 followed by C, D, G or H, followed by B, C or X, followed by I, followed by -, followed by TR, followed by G; | | |
| 06-03d. Protector IC for USB 3.0 and HDMI Ports (Alternate) | Richtek Technology Corp. | RT9742..G., The first dot "." can be A to Z represent output current/ enable function. The second dot "." can be N or blank represent discharge function. The third dot "." can be J5F/ J5/ V represent package type. | 2.7V to 6V, 3A/2A/1.5A/1A/0.5A, 70mΩ/55mΩ (typ.) N-MOSFET Switch; SELV Class III | UL 2367:2011, IEC 60950-1:2005 + A1:2009 + A2:2013, IEC 62368-1: 2014 | UL , CB by Nemko (NO109777, NO87949) |
| 06-03e. Protector IC for USB 3.0 and HDMI Ports (Alternate) | DIODES INCORPORATED | PI5USB25ww x yyyEz Series(where ww is 44 or 46; x is blank, A or H; yyy is ZH or ZHD for the packaging type; E is Pb-free; and z is blank or X;Cat. Nos. PI5USB2544ZHE, PI5USB2544ZHEX, PI5USB2544AZHE, PI5USB2544AZHEX, PI5USB2544ZHDE, | Input Voltage: 4.5 to 5.5 Vdc;Output Continuous Rating: 0.03 to 2.5 A;Current Limit Rating: 0.1 to 3.18 A;Maximum Ambient: 85 degree C | UL 2367:2011, IEC 60950-1:2005 + A1:2009 + A2:2013, IEC 62368-1: 2014 | UL , CB by UL (US-38136-UL, US-24707-M2- UL) |

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| | | PI5USB2544ZHDEX, PI5USB2544AZHDE, PI5USB2544AZHDEX, PI5USB2546ZHE, PI5USB2546ZHEX, PI5USB2546AZHE, PI5USB2546HZHE, PI5USB2546AZHEX, PI5USB2546ZHDE, PI5USB2546ZHDEX, PI5USB2546AZHDE, PI5USB2546AZHDEX, PI5USB2546HZHEX, PI5USB2546HZHDE, PI5USB2546HZHDEX. | | | |
| 06-03f. Protector IC for USB 3.0<br>and HDMI Ports (Alternate) | TEXAS INSTRUMENTS INCORPORATED | SN1408009RT E, SN1702001, TPS2543, TPS2544, TPS2547, TPS2546, TPS2545- Additional suffixes after the model number designate the type of integrated circuit package, integrated circuit lead types or other features that are considered not to affect the functionality of the device | Input Voltage: 4.5 to 5.5Vdc; Output Continuous Rating: 2.5A; Output Current Limit: 3.1A | UL 2367:2011, IEC 60950-1:2005 + A1:2009 + A2:2013, IEC 62368-1: 2014 | UL , CB by UL (US-35117-UL, US-29689-M1- UL) |

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| 06-03g. Protector IC for USB 3.0 and HDMI Ports (Alternate) | TEXAS INSTRUMENTS INCORPORATED | TPD3S014, TPD3S044, TPS2000, TPS2001, TPS2065-2, TPS2061, TPS2041, TPS2051, TPS2069, TPS2068, TPS2065, TPS2069-2- May be followed by other characters that do not impact the safety feature of the device. | Input Voltage - 4.5 Vdc to 5.5 Vdc Output Continuous Current Rating: TPS2041 - 0.5 A TPS2051 - 0.5 A TPS2061 - 1.0 A TPS2065 - 1.0 A TPS2065-2 - 1.0 A TPS2068 - 1.5 A TPS2069 - 1.5 A TPS2069-2 - 1.5 A TPS2000 - 2.0 A TPS2001 - 2.0 A TPD3S014 - 0.5 A TPD3S044 - 1.5 A Output Current Limit: TPS2041 - 1.05 A TPS2051 - 1.05 A TPS2061 - 1.9 A TPS2065 - 1.9 A TPS2065-2 - 1.96 A TPS2068 - 2.7 A TPS2069 - 2.7 A TPS2069-2 - 2.86 A TPS2000 - 3.6 A TPS2001 - 3.6 A TPD3S014 - 1.05 A TPD3S044 - 2.7 A Ambient = -40 to +85°C | UL 2367:2011, IEC 60950-1:2005 + A1:2009 + A2:2013, IEC 62368-1: 2014 | UL , CB by UL (US-34988-UL, US-30345-UL) |
| 06-03h. Protector IC for USB 3.0 and HDMI Ports (Alternate) | ROHM CO LTD | BD82028FVJ, BD82029FVJ, BD82030FVJ, BD82031FVJ, BD82032FVJ, BD82033FVJ, BD82034FVJ, and BD82035FVJ designate the type of integrated circuit package, integrated circuit lead types or other features that are considered not to affect the functionality of the device. Suffix FVJ denotes device Package Type | Input Voltage: -4.5 Vdc to 5.5 Vdc; Model BD82028FVJ: 0.5 A Model BD82029FVJ: 0.5 A Model BD82030FVJ: 1.0 A Model BD82031FVJ: 1.0 A Model BD82032FVJ: 1.5 A Model BD82033FVJ: 1.5 A Model BD82034FVJ: 2.0 A Model BD82035FVJ: 2.0 A Model | UL 2367:2011, IEC 60950-1:2005 + A1:2009 + A2:2013, IEC 62368-1: 2014 | UL , CB by UL (JP-21381-UL, JP-12176-UL) |

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| | | TSSOP-B8J. | BD82028FVJ: 1.2 A<br>Model BD82029FVJ: 1.2 A<br>Model BD82030FVJ: 1.8 A<br>Model BD82031FVJ: 1.8 A<br>Model BD82032FVJ: 2.3 A<br>Model BD82033FVJ: 2.3 A<br>Model BD82034FVJ: 2.8 A<br>Model BD82035FVJ: 2.8 A<br>Ambient: -40 °C to 85 °C | | |
| 06-03l. Protector IC for USB 3.0<br>and HDMI Ports (Alternate) | TEXAS INSTRUMENTS INCORPORATED | TPS2552-1, TPS2553, TPS2553-1, TPS2552 | Input Voltage: 2.5 to<br>6.5 Vdc Output Continuous Rating: 1.5A Output Current Limit: 1.7A Maximum Operational Ambient: 60°C | UL 2367:2011, IEC 60950-1:2005 + A1:2009 + A2:2013, IEC 62368-1: 2014 | UL , CB by UL (US-34989-UL, US-24603-A1- UL) |
| 06-03j. Protector IC for USB 3.0<br>and HDMI Ports (Alternate) | Global Mixed-mode Technology Inc. | G517ALX1X2 X 3X4,X1=1 or 2,X2=TP, TB, RB or U5,X3=1, 2 or 3,X4=U or D | Input Voltage: 2.7 to<br>5.5 Vdc;Output Continuous Rating:<br>0.1 to 2.15 A;Output Current Limit: 0.2 to 2.75 A;Maximum Ambient: 70 degree C | UL 2367:2011, IEC 60950-1:2005 + A1:2009 + A2:2013 | UL , CB by TUV (JPTUV-077390) |

# Certificado de Conformidade

*Certificate of Conformity*

**Certificado /** *Certificate:* **UL-BR 22.3595**

| **Emissão /** ***Issue*** | **Revisão /** *Review*: **09** | **Validade /** ***Expiration*** |
|---|---|---|
| 15 de agosto de 2022<br>*August 15, 2022* | | 14 de agosto de 2025<br>*August 14, 2025* |

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| 06-03k. Protector IC for USB 3.0 and HDMI Ports (Alternate) | Guangdong Cellwise Microelectronics Co., Ltd. (CellWise) | CW3042AAAD, CW3042AAAE, HP3048BAAQ, CW3048AAAQ , CW3048BAAQ , CW3046AAAQ | Input Voltage: 4.5 to 5.5 Vdc, Output Continuous Rating: Maximum 2.8 A, Current Limit Rating: Maximum 3.17 A | UL 2367:2011, IEC 60950-1:2005 + A1:2009 + A2:2013, IEC 62368-1: 2014 | UL , CB by UL (DK-108822-UL, DK-63696-M1- UL) |

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| 06-03l. Protector IC for USB 3.0 and HDMI Ports (Alternate | DIODES INC | AP2553, AP2552-maybe followed by A, maybe followed by additional letters and/or numbers., AP2553A, AP2552A-may be followed by additional letters, numbers, and/or a '-' | Input Voltage: 2.7 to 5.5Vdc, Output Continuous Rating: Maximum 2.1 A, Current Limit Rating: Maximum 3.02 A | UL 2367:2021, IEC 60950-1:2005 + A1:2009 + A2:2013, IEC 62368-1: 2014 | UL , UL , CB by UL (US-24721-UL, US-34481-UL) |

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| 06-03m. Protector IC for USB 3.0 and HDMI Ports (Alternate) | ON SEMICONDUCTO R | NCP380- followed by H or L; followed by MU or SN; followed by 05, 10, 15, 20, 21 or AJ. Additional suffixes after the model number designate the type of integrated circuit package, integrated circuit lead types or other features that are considered not to affect the functionality of the device. | Input Voltage: - 2.5 Vdc to 5.5 Vdc Output Continuous Rating (unit: A): NCP380xSN05AAT 1G 0.5 NCP380xSN10AAT 1G 1.0 NCP380xSNAJAAT 1G 0.5 - 1.0 NCP380xMU05AAT BG 0.5 NCP380xMU10AAT BG 1.0 NCP380xMU15AAT BG 1.5 NCP380xMU20AAT BG 2.0 NCP380xMU21AAT BG 2.1 NCP380xMUAJAAT BG 0.5 - 2.1 Output Current Limit: NCP380xSN05AAT 1G 0.7 NCP380xSN10AAT 1G 1.4 NCP380xSNAJAAT 1G 0.7 - 1.8 NCP380xMU05AAT BG 0.7 NCP380xMU10AAT BG 1.4 NCP380xMU15AAT BG 2.0 NCP380xMU20AAT BG 2.1 NCP380xMU21AAT BG 2.5 NCP380xMUAJAAT BG 0.7 - 2.5 Where x = L or H | UL 2367:2021, IEC 62368-1: 2014 | UL , CB by UL (DK-103788-UL) |

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| 07. PWBs | Interchangeable | Interchangeabl e | V-1 minimum, 105 degree C minimum. | UL 796:2016 | UL , -- |

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| 08. Solid State Drive(Optional) | INTEL CORP | MEM*,SSD* where * can be optional letters or numbers used to identify features such as memory type, size (thickness, width) and identify details not critical to the compliance of the drive. | 3.3 Vdc, 5 Vdc, and/or 12 Vdc | UL 60950-1:2014, UL 62368-1:2014, IEC 60950-1:2005 + A1:2009 + A2:2013, IEC 62368-1: 2014 | UL , CB by UL |

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|---|---|---|---|---|---|
| 08a. Solid State Drive (Alternate) (Optional) | Interchangeable | Interchangeabl e | 3.3 Vdc, 5 Vdc, and/or 12 Vdc | UL 60950-1:2014, UL 62368-1:2014, IEC 60950-1:2005 + A1:2009 + A2:2013, IEC 62368-1: 2014 | UL , CB by NCB |

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| 09. Speaker (Two provided) | Interchangeable | Interchangeabl e | Each rated 4 ohm, 2.5 Watts maximum. | Test with equipment | -- , -- |

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| 10. LED Chip (in IR Camera) (Optional) | Liteon OPTP Technology (CZ) Ltd. | LTE-R28206S-NE8, LTE-R28206S-NE8-XX, LTE-R28206S-YE8, LTE-R28206S-YE8-XX ("XX" means different customer numbers) | 0.5A, 3Vdc (exempt group) | IEC 62471:2006 | -- , IEC 62471:2006 (BE-34640) |

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| 10a. LED Chip (in IR Camera) (Optional) (Alternate) | Liteon OPTP Technology (CZ) Ltd. | LTE-R28206S-ME8-XX; LTE-R28206S-ME8; LTE-R28206S-KE8-XX; LTE-R28206S-KE8; LTE-R28206S ("XX" means different customers) | 0.5A, 3Vdc (exempt group) | IEC 62471:2006 | -- , IEC 62471:2006 (BE-36784) |

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| 12. RTC battery | VIC-DAWN ENTERPRISE COLTD | CR2016 (CR2016 Cells may be provided with alphanumeric suffix (j) or (k), (j) may come with an optional single or multiple alphanumeric suffix denoting various insulating tube, ring, or tape. may come with an optionalsingle or multiple alphanumeric suffix denoting various pin, tab, cap or wire termination types) | 3Vdc; max. abnormal chargingcurrent 10 mA | UL 1642:2020 | UL , UL |

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| 12a. RTC battery (Alternate) | JHIH HONG TECHNOLOGY CO LTD | CR2016 | 3Vdc; max. abnormal charging current 10 mA | UL 1642:2020 | UL , UL |

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| 12b. RTC battery (Alternate) | DOUBLE BEST CO LTD | CR2016 (j)(k), (j) - These cells may have various insulating tube, ring, or tape,<br>(k) - These cells and batteries may come with an optional single or multiple alphanumeric suffix denoting various pin, tab, cap or wire termination types | 3Vdc; max. abnormal charging current 10 mA | UL 1642:2020 | UL , UL |

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| 12c. RTC battery (Alternate) | MITSUBISHI ELECTRIC HOME APPLIANCE CO LTD | CR2016 | 3Vdc; max. abnormal charging current 10 mA | UL 1642:2020 | UL , UL |

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| 12d. RTC battery (Alternate) | MITSUBISHI ELECTRIC HOME APPLIANCE COLTD | CR2016N | 3Vdc; max. abnormal charging current 10 mA | UL 1642:2020 | UL , UL |

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|---|---|---|---|---|---|
| 12e. RTC battery (Alternate) | MITSUBISHI ELECTRIC CORP | CR2016+, + - The cells may have various insulating tube, ring, or tape. | 3Vdc; max. abnormal charging current 10 mA | UL 1642:2020 | UL , UL |

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| 12f. RTC battery (Alternate) | Panasonic Corporation, Panasonic Corporation Of North America | CR2016*, CR-2016*, * - Cell model numbers may be followed by an optional slash (/) and single or multiple alphanumeric characters (i.e. letters and/or numbers), which denote optional features such as various mounting tabs, connecting leads or plugs, packaging, etc. | 3Vdc; max. abnormal charging current 10 mA | UL 1642:2020 | UL , UL |

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| 12g. RTC battery (Alternate) | TOHOKU MURATA MANUFACTURING CO., LTD | CR2016A, CR2016*, * - These celles may have various pin, tab, insulating tube, ring and tape. | 3Vdc; max. abnormal charging current 10 mA | UL 1642:2020 | UL , UL |

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| 12h. RTC battery (Alternate) | SONY ELECTRONICS INC | CR2016 | 3Vdc; max. abnormal charging current 10 mA | UL 1642:2020 | UL , UL |

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| 12i. RTC battery (Alternate) | Interchangeable | CR2016 | 3Vdc; max. abnormal charging current 10 mA. | UL 1642:2020 | UL , UL |

V15 G3 IAP / WINDOWS 11 HOME) (27-09-22: NOTEBOOK LENOVO V15 G3 IAP / LINUX) (27-09-22: NOTEBOOK LENOVO V15 G3 IAP / SEM SISTEMA OPERACIONAL) (27-09-22: NB TP T14 G3/SEM SISTEMA OPERACIONAL) (27-09-22: NB TP T14 G3/LINUX) (27-09-22: NB TP T14 G3/WINDOWS 11 HOME) (27-09-22: NB TP T14 G3/WINDOWS 11 PRO 64) (03-11-22: NOTEBOOK LENOVO IDEAPAD GAMING 3 15ARH7 / WINDOWS 11 HOME) (03-11-22: NOTEBOOK LENOVO IDEAPAD GAMING 3 15ARH7 / LINUX) (03-11-22: NOTEBOOK LENOVO IDEAPAD GAMING 3 15ARH7 / SEM SISTEMA OPERACIONAL) (03-11-22: NOTEBOOK LENOVO IDEAPAD GAMING 3 15ARH7 / WINDOWS 11 PRO) (13-04-23: NB TP E15 G4/WINDOWS 11 PRO) (13-04-23: NB TP E15 G4/WINDOWS 11 HOME) (13-04-23: NB TP E15 G4/SEM SISTEMA OPERACIONAL) (13-04-23: NB TP E15 G4/LINUX) (14-04-23: NOTEBOOK LENOVO IDEAPAD 1 15IGL7 / WINDOWS 11 HOME) (14-04-23: NOTEBOOK LENOVO IDEAPAD 1 15IGL7 / SEM SISTEMA OPERACIONAL) (14-04-23: NOTEBOOK LENOVO IDEAPAD 1 15IGL7 / LINUX) (14-04-23: NOTEBOOK LENOVO IDEAPAD 1 15AMN7 / WINDOWS 11 HOME) (14-04-23: NOTEBOOK LENOVO IDEAPAD 1 15AMN7 / SEM SISTEMA OPERACIONAL) (14-04-23: NOTEBOOK LENOVO IDEAPAD 1 15AMN7 / LINUX) (14-04-23: NOTEBOOK LENOVO IDEAPAD 1 15IAU7BR / WINDOWS 11 HOME) (14-04-23: NOTEBOOK LENOVO IDEAPAD 1 15IAU7BR / SEM SISTEMA OPERACIONAL) (14-04-23: NOTEBOOK LENOVO IDEAPAD 1 15IAU7BR / LINUX) (21-06-23: DESKTOP TC M80Q GEN 4/WINDOWS 11 PRO) (21-06-23: DESKTOP TC M80Q GEN 4/WINDOWS 11 HOME) (21-06-23: DESKTOP TC M80Q GEN 4/SEM SISTEMA OPERACIONAL) (21-06-23: DESKTOP TC M80Q GEN 4/LINUX) (21-06-23: NOTEBOOK LENOVO YOGA SLIM 6 14IAP8 / WINDOWS 11 HOME 64) (21-06-23: NOTEBOOK LENOVO YOGA SLIM 6 14IAP8 / SEM SISTEMA OPERACIONAL) (21-06-23: NOTEBOOK LENOVO YOGA SLIM 6 14IAP8 / LINUX) (04-10-23: NOTEBOOK LENOVO LEGION SLIM 5 16IRH8 / WINDOWS 11 HOME) (04-10-23: NOTEBOOK LENOVO LEGION SLIM 5 16IRH8 / LINUX) (04-10-23: NOTEBOOK LENOVO LEGION SLIM 5 16IRH8 / SEM SISTEMA OPERACIONAL) (08-12-23: NOTEBOOK LENOVO LOQ 15IRH8 / WINDOWS 11 HOME) (08-12-23: NOTEBOOK LENOVO LOQ 15IRH8 / LINUX) (08-12-23: NOTEBOOK LENOVO LOQ 15IRH8 / SEM SISTEMA OPERACIONAL) (07-05-24: NB TP P16V G2) (07-06-24: NB TP E14 INTEL G6) (07-06-24: NB TP E14 AMD G6) (07-06-24: NB TP T14 INTEL G6) (26-06-24: NOTEBOOK LENOVO LEGION 5 16IRX9) (26-06-24: NOTEBOOK LENOVO THINKBOOK 14 IRH06) (26-06-24: NOTEBOOK LENOVO THINKBOOK 16 IRH06) (26-06-24: NOTEBOOK LENOVO IDEAPAD 1 15IJL7) (26-06-24: NOTEBOOK LENOVO YOGA SLIM 7 IMH09) (11-07-24: NOTEBOOK LENOVO LOQ 15IRX9) (19-07-24: NB TP T14 INTEL G5)

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| Produto: | Microcomputador portátil, sem teclado, com tela sensível ao toque ("touch screen") - "Tablet PC" |
| Processo MCT/Data: | 01200.001527/2013-91 de 16/04/2013 |
| CNPJ da Incentivada: | 07275920000161 |
| Portaria MCT/MDIC/MF: | 957, de 20/09/2013 DOU 24/09/2013 |
| Modelos: | |

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| Produto: | Monitor de vídeo policromático, com tela de cristal líquido ("LCD") |
| Processo MCT/Data: | 01200.000493/2015-89 de 11/02/2015 |
| CNPJ da Incentivada: | 07275920000161 |
| Portaria MCT/MDIC/MF: | 749, de 01/09/2015 DOU 02/09/2015 |
| Modelos: | |

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| Produto: | Unidade de processamento digital de grande capacidade, baseada em microprocessador |
| Processo MCT/Data: | 01200.000491/2015-90 de 11/02/2015 |
| CNPJ da Incentivada: | 07275920000161 |
| Portaria MCT/MDIC/MF: | 750, de 01/09/2015 DOU 02/09/2015 |
| Modelos: | (01-10-15: SERVIDOR X3850 X6)(07-11-16: SERVIDOR HX5510) (11-11-16: SERVIDOR HX3310) (05-04-17: SERVIDOR HX2310-E) (05-04-17: SERVIDOR HX7510) (20-04-17: SERVIDOR HX1310) (11-10-17: THINKSYSTEM SR850) (11-10-17: THINKSYSTEM SR950) (07-07-20: SERVIDOR THINKAGILE HX7821) (22-12-20: SERVIDOR THINKSYSTEM SR850 V2) (29-09-21: SERVIDOR THINKSYSTEM SR670 V2) (21-01-22: SERVIDOR THINKSYSTEM SR630 V2) (28-01-22: SERVIDOR THINKSYSTEM SR650 V2) (28-01-22: SERVIDOR THINKSYSTEM SN550 V2) (02-02-22: SERVIDOR THINKAGILE VX2330) (02-02-22: SERVIDOR THINKAGILE VX3330) (02-02-22: SERVIDOR THINKAGILE VX3730-N) (02-02-22: SERVIDOR THINKAGILE VX3331) (10-02-22: SERVIDOR THINKAGILE HX1331) (10-02-22: SERVIDOR THINKAGILE HX1330) (10-02-22: SERVIDOR THINKAGILE HX2330) (10-02-22: SERVIDOR THINKAGILE VX2375) (10-02-22: SERVIDOR THINKAGILE VX3375) (10-02-22: SERVIDOR THINKAGILE VX7375-N) (10-02-22: SERVIDOR THINKAGILE VX3376) (11-02-22: SERVIDOR THINKAGILE HX2331) (11-02-22: SERVIDOR THINKAGILE HX3330) (11-02-22: SERVIDOR THINKAGILE HX3331) (11-02-22: SERVIDOR THINKAGILE HX5530) (11-02-22: SERVIDOR THINKAGILE HX5530) (11-02-22: SERVIDOR THINKAGILE HX5531) (11-02-22: SERVIDOR THINKAGILE HX7530) (15-02-22: SERVIDOR THINKAGILE VX7531) (15-02-22: SERVIDOR THINKAGILE VX5530) (15-02-22: SERVIDOR THINKAGILE VX7575) (15-02-22: SERVIDOR THINKAGILE VX5575) (15-02-22: SERVIDOR THINKAGILE VX3530-G) (15-02-22: SERVIDOR THINKAGILE HX7531) (15-02-22: SERVIDOR THINKAGILE VX7530) (15-02-22: SERVIDOR THINKAGILE VX3575-G) (15-02-22: SERVIDOR THINKAGILE VX7576) (19-04-22: SERVIDOR THINKAGILE MX3330-H) (19-04-22: SERVIDOR THINKAGILE MX3331-H) (19-04-22: SERVIDOR THINKAGILE MX3331-H) (19-04-22: SERVIDOR THINKAGILE MX3330-F) (19-04-22: SERVIDOR THINKAGILE MX3331-F) (28-04-22: SERVIDOR THINKAGILE MX3531-H) (28-04-22: SERVIDOR THINKAGILE MX3530-F) (28-04-22: SERVIDOR THINKAGILE MX3531-F) (29-04-22: OBSERVAR MODELO ANTERIOR MX3520-H) (10-05-22: SERVIDOR THINKSYSTEM ST650 V2) (02-06-22: SERVIDOR THINKAGILE VX7330-N) (13-07-22: SERVIDOR THINKAGILE HX3375 APPLIANCE) (13-07-22: SERVIDOR THINKAGILE HX3376 CERTIFIED NODE) (13-07-22: SERVIDOR THINKAGILE HX3376 CERTIFIED NODE) (26-08-22: SERVIDOR THINKEDGE SE450) (26-08-22: SERVIDOR THINKEDGE SE450) (26-08-22: SERVIDOR THINKEDGE SE450) (26-08-22: SERVIDOR THINKEDGE SE450) (12-06-23: SERVIDOR THINKSYSTEM SR850 V3) (12-06-23: SERVIDOR THINKSYSTEM ST650 V3) (21-06-23: SERVIDOR THINKAGILE HX630 V3 IS) (08-08-23: SERVIDOR THINKAGILE HX630-ROBO V3 IS) (08-08-23: SERVIDOR THINKAGILE HX650 V3 IS) (08-08-23: SERVIDOR THINKAGILE HX630-ROBO V3 CN) (08-08-23: SERVIDOR THINKAGILE HX630 V3 CN) (18-08-23: SERVIDOR THINKAGILE VX630 V3 IS) (23-08-23: SERVIDOR THINKAGILE MX650 V3 CN) (23-08-23: SERVIDOR THINKAGILE MX650 V3 IS) (23-08-23: SERVIDOR THINKAGILE VX665 V3 CN) (23-08-23: SERVIDOR THINKAGILE VX665 V3 IS) (30-08-23: SERVIDOR THINKAGILE VX630 V3 CN) (30-08-23: SERVIDOR THINKAGILE VX650 V3 IS) (30-08-23: SERVIDOR THINKAGILE VX650 V3 CN) (30-08-23: SERVIDOR VX650 V3 SAP HANA CN) (30-08-23: SERVIDOR VX650 V3-DPU INTEGRATED SYSTEM) (30-08-23: VX650 V3-DPU CERTIFIED NODE) (30-08-23: SERVIDOR THINKAGILE MX630 V3 CN) (04-09-23: SERVIDOR THINKAGILE VX645 V3 IS) (04-09-23: SERVIDOR THINKAGILE VX645 V3 CN) (04-09-23: SERVIDOR THINKAGILE HX645 V3 IS) (04-09-23: SERVIDOR THINKAGILE HX645 V3 CN) (19-09-23: SERVIDOR THINKAGILE HX665 V3 STORAGE CN) (19-09-23: SERVIDOR THINKAGILE HX665 V3 STORAGE IS) (04-10-23: SERVIDOR THINKAGILE HX650-STORAGE V3 IS) (04-10-23: SERVIDOR THINKAGILE MX630 V3 IS) (04-10-23: SERVIDOR THINKAGILE HX665 V3 IS) (04-10-23: SERVIDOR THINKAGILE HX650 V3 CN) (04-10-23: SERVIDOR THINKAGILE HX650-STORAGE V3 CN) (08-12-23: SERVIDOR THINKAGILE HX665 V3 CN) (28-03-24: SERVIDOR THINKSYSTEM SR675 V3) (08-04-24: SERVIDOR THINKSYSTEM HS350X V3) |

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| Produto: | Unidade de processamento digital, de média capacidade, baseada em microprocessadores |
| Processo MCT/Data: | 01200.003239/2013-71 de 26/07/2013 |
| CNPJ da Incentivada: | 07275920000161 |
| Portaria MCT/MDIC/MF: | 792, de 05/08/2014 DOU 06/08/2014 |
| Modelos: | (28-01-15: X240 M4) (05-02-15: X3550 M5) (19-02-15: X3850 X6) (01-04-15: NX360-M4) (17-07-15: SERVIDOR X480 X6) (17-07-15: SERVIDOR X880 X6) (19-10-15: SERVIDOR NX360 M4) (19-10-15: SERVIDOR NX360 M5) (22-10-15: SERVIDOR X3550 M5) (22-10-15: SERVIDOR X240 M4) (22-10-15: SERVIDOR X3850 X6) (07-11-16: SERVIDOR HX5510) (11-11-16: SERVIDOR HX3310) (05-04-17: SERVIDOR HX2310-E) (05-04-17: SERVIDOR HX7510) (19-04-17: SERVIDOR HX1310) (02-10-17: THINKSYSTEM SR650) (11-10-17: THINKSYSTEM SR850) (11-10-17: THINKSYSTEM SR950) (15-12-17: THINKSYSTEM SD530) (10-05-18: THINKAGILE HX3320) (18-06-18: THINKAGILE HX5520) (18-06-18: THINKAGILE HX7520) (05-07-18: THINKAGILE HX1520-R) (19-09-18: SERVIDOR THINKAGILE HX1521-R) (19-09-18: SERVIDOR THINKAGILE HX3321) (19-09-18: SERVIDOR THINKAGILE HX5521) (19-09-18: SERVIDOR THINKAGILE HX7521) (22-01-19: SERVIDOR THINKAGILE HX5520-C) (07-08-19: SERVIDOR THINKAGILE MX CERTIFIED NODE) (03-09-19: SERVIDOR THINKAGILE MX CERTIFIED NODE) (29-10-19: SERVIDOR THINKAGILE VX7520)(29-11-19: SERVIDOR THINKAGILE VX3320) (03-12-19: SERVIDOR THINKAGILE VX5520) (03-12-19: SERVIDOR THINKAGILE VX3720) (05-12-19: SERVIDOR THINKAGILE VX3520-G) (04-03-20: SERVIDOR THINKAGILE VX 1U CERTIFIED NODE) (04-03-20: SERVIDOR THINKAGILE VX 2U CERTIFIED NODE) (07-07-20: SERVIDOR THINKAGILE HX7821) (22-12-20: SERVIDOR THINKSYSTEM SR850 V2) (07-07-21: SERVIDOR THINKSYSTEM SN550 V2) (07-07-21: SERVIDOR THINKSYSTEM SR650 V2) (16-09-21: SERVIDOR THINKSYSTEM SR630 V2) (17-09-21: SERVIDOR THINKSYSTEM SR665) (27-09-21: SERVIDOR THINKSYSTEM SR670 V2) (27-09-21: SERVIDOR THINKSYSTEM SR645) (02-02-22: SERVIDOR THINKAGILE VX2330) (02-02-22: SERVIDOR THINKAGILE VX3330) (02-02-22: SERVIDOR THINKAGILE VX3730-N) (02-02-22: SERVIDOR THINKAGILE VX3331) (10-02-22: SERVIDOR THINKAGILE HX1331) (10-02-22: SERVIDOR THINKAGILE HX1330) (10-02-22: SERVIDOR THINKAGILE HX2330) (10-02-22: SERVIDOR THINKAGILE VX2375) (10-02-22: SERVIDOR THINKAGILE VX3375) (10-02-22: SERVIDOR THINKAGILE VX7375-N) (10-02-22: SERVIDOR THINKAGILE VX3376) (11-02-22: SERVIDOR THINKAGILE HX2331) (11-02-22: SERVIDOR THINKAGILE HX3330) (11-02-22: SERVIDOR THINKAGILE HX3331) (11-02-22: SERVIDOR THINKAGILE HX5530) (11-02-22: SERVIDOR THINKAGILE HX5531) (11-02-22: SERVIDOR THINKAGILE HX7530) (15-02-22: SERVIDOR THINKAGILE VX7531) (15-02-22: SERVIDOR THINKAGILE VX5530) (15-02-22: SERVIDOR THINKAGILE VX7575) (15-02-22: SERVIDOR THINKAGILE VX3530-G) (15-02-22: SERVIDOR THINKAGILE VX5575) (15-02-22: SERVIDOR THINKAGILE HX7531) (15-02-22: SERVIDOR THINKAGILE VX7530) (15-02-22: SERVIDOR THINKAGILE VX3575-G) (15-02-22: SERVIDOR THINKAGILE VX7576) (19-04-22: SERVIDOR THINKAGILE MX3330-H) (19-04-22: SERVIDOR THINKAGILE MX3330-F) (19-04-22: SERVIDOR THINKAGILE MX3331-F) (28-04-22: SERVIDOR THINKAGILE MX3531-H) (28-04-22: SERVIDOR THINKAGILE MX3530-F) (28-04-22: SERVIDOR THINKAGILE MX3531-F) (29-04-22: SERVIDOR THINKAGILE MX3530-H) (10-05-22: SERVIDOR THINKSYSTEM ST650 V2) (02-06-22: SERVIDOR THINKAGILE VX7330-N) (13-07-22: SERVIDOR THINKAGILE HX3375 APPLIANCE) (13-07-22: SERVIDOR THINKAGILE HX3376 CERTIFIED NODE) (26-08-22: SERVIDOR THINKEDGE SE450) (26-08-22: SERVIDOR THINKEDGE SE450) (26-08-22: SERVIDOR THINKEDGE SE450) (26-08-22: SERVIDOR THINKEDGE SE450) (10-03-23: SERVIDOR THINKSYSTEM SR630 V3) (10-03-23: THINKSYSTEM SR645 V3) (18-04-23: THINKSYSTEM SR665 V3) (05-05-23: SERVIDOR THINKSYSTEM SR650 V3) (12-06-23: SERVIDOR THINKSYSTEM SR850 V3) (12-06-23: SERVIDOR THINKSYSTEM ST650 V3) (21-06-23: SERVIDOR THINKAGILE HX630 V3 IS) (08-08-23: SERVIDOR THINKAGILE HX630-ROBO V3 IS) (08-08-23: SERVIDOR THINKAGILE HX650 V3 IS) (08-08-23: SERVIDOR THINKAGILE HX630-ROBO V3 CN) (08-08-23: SERVIDOR THINKAGILE HX630 V3 CN) (08-08-23: THINKSYSTEM ST250 V2) (17-08-23: THINKSYSTEM SR250 V2) (18-08-23: SERVIDOR THINKAGILE VX630 V3 IS) (23-08-23: SERVIDOR THINKAGILE MX650 V3 CN) (23-08-23: SERVIDOR THINKAGILE MX650 V3 IS) (23-08-23: SERVIDOR THINKAGILE VX665 V3 CN) (23-08-23: SERVIDOR THINKAGILE VX665 V3 IS) (30-08-23: SERVIDOR THINKAGILE VX630 V3 CN) (30-08-23: SERVIDOR THINKAGILE VX650 V3 IS) (30-08-23: SERVIDOR THINKAGILE VX650 V3 CN) (30-08-23: SERVIDOR VX650 V3 SAP HANA CN) (30-08-23: SERVIDOR VX650 V3-DPU INTEGRATED SYSTEM) (30-08-23: VX650 V3-DPU CERTIFIED NODE) (30-08-23: SERVIDOR THINKAGILE MX630 V3 CN) (04-09-23: SERVIDOR THINKAGILE VX645 V3 IS) (04-09-23: SERVIDOR THINKAGILE VX645 V3 CN) (04-09-23: SERVIDOR THINKAGILE HX645 V3 IS) (04-09-23: SERVIDOR THINKAGILE HX645 V3 CN) (19-09-23: SERVIDOR THINKAGILE HX665 V3 STORAGE CN) (19-09-23: SERVIDOR THINKAGILE HX665 V3 STORAGE IS) (04-10-23: SERVIDOR THINKAGILE HX650-STORAGE V3 IS) (04-10-23: SERVIDOR THINKAGILE MX630 V3 IS) (04-10-23: SERVIDOR THINKAGILE HX665 V3 IS) (04-10-23: SERVIDOR THINKAGILE HX650 V3 CN) (04-10-23: SERVIDOR THINKAGILE HX650-STORAGE V3 CN) (08-12-23: SERVIDOR THINKAGILE HX665 V3 CN) (23-02-24: SERVIDOR THINKSYSTEM ST250 V3) (23-02-24: SERVIDOR THINKSYSTEM SR250 V3) (28-03-24: SERVIDOR THINKSYSTEM SR675 V3) (08-04-24: SERVIDOR THINKSYSTEM HS350X V3) |

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| Produto: | Unidade de processamento digital, de muito grande capacidade, baseada em microprocessador |
| Processo MCT/Data: | 01200.000724/2015-54 de 03/03/2015 |
| CNPJ da Incentivada: | 07275920000161 |
| Portaria MCT/MDIC/MF: | 563, de 17/07/2015 DOU 20/07/2015 |
| Modelos: | (17-08-15: SERVIDOR X880 X6) (20-08-15: SERVIDOR X480 X6) (01-10-15: SERVIDOR X3950 X6)(07-11-16: SERVIDOR HX5510) (11-11-16: SERVIDOR HX3310) (05-04-17: SERVIDOR HX2310-E) (05-04-17: SERVIDOR HX7510) (20-04-17: SERVIDOR HX1310) (11-10-17: THINKSYSTEM SR950) (30-09-21: SERVIDOR THINKSYSTEM SR670 V2) (21-01-22: SERVIDOR THINKSYSTEM SR630 V2) (28-01-22: SERVIDOR THINKSYSTEM SR650 V2) (28-01-22: SERVIDOR THINKSYSTEM SN550 V2) (02-02-22: SERVIDOR THINKAGILE VX2330) (02-02-22: SERVIDOR THINKAGILE VX3330) (02-02-22: SERVIDOR THINKAGILE VX3730-N) (02-02-22: SERVIDOR THINKAGILE VX3331) (10-02-22: SERVIDOR THINKAGILE HX1331) (10-02-22: SERVIDOR THINKAGILE HX1330) (10-02-22: SERVIDOR THINKAGILE HX2330) (10-02-22: SERVIDOR THINKAGILE VX2375) (10-02-22: SERVIDOR THINKAGILE VX3375) (10-02-22: SERVIDOR THINKAGILE VX7375-N) (10-02-22: SERVIDOR THINKAGILE VX3376) (11-02-22: SERVIDOR THINKAGILE HX2331) (11-02-22: SERVIDOR THINKAGILE HX3330) (11-02-22: SERVIDOR THINKAGILE HX3331) (11-02-22: SERVIDOR THINKAGILE HX5530) (11-02-22: SERVIDOR THINKAGILE HX5531) (11-02-22: SERVIDOR THINKAGILE HX7530) (15-02-22: SERVIDOR THINKAGILE VX7531) (15-02-22: SERVIDOR THINKAGILE VX5530) (15-02-22: SERVIDOR THINKAGILE VX7575) (15-02-22: SERVIDOR THINKAGILE VX3530-G) (15-02-22: SERVIDOR THINKAGILE VX5575) (15-02-22: SERVIDOR THINKAGILE HX7531) (15-02-22: SERVIDOR THINKAGILE VX7530) (15-02-22: SERVIDOR THINKAGILE VX3575-G) (15-02-22: SERVIDOR THINKAGILE VX7576) (19-04-22: SERVIDOR THINKAGILE MX3330-H) (19-04-22: SERVIDOR THINKAGILE MX3331-H) (19-04-22: SERVIDOR THINKAGILE MX3330-F) (19-04-22: SERVIDOR THINKAGILE MX3331-F) (28-04-22: SERVIDOR THINKAGILE MX3531-H) (28-04-22: SERVIDOR THINKAGILE MX3530-F) (28-04-22: SERVIDOR THINKAGILE MX3531-F) (29-04-22: SERVIDOR THINKAGILE MX3530-H) (10-05-22: SERVIDOR THINKSYSTEM ST650 V2) (02-06-22: SERVIDOR THINKAGILE VX7330-N) (13-07-22: SERVIDOR THINKAGILE HX3375 APPLIANCE) (13-07-22: SERVIDOR THINKAGILE HX3376 CERTIFIED NODE) (26-08-22: SERVIDOR THINKEDGE SE450) (26-08-22: SERVIDOR THINKEDGE SE450) (26-08-22: SERVIDOR THINKEDGE SE450) (26-08-22: SERVIDOR THINKEDGE SE450) (12-06-23: SERVIDOR THINKSYSTEM SR850 V3) (28-03-24: SERVIDOR THINKSYSTEM SR675 V3) |

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| Produto: | Unidade de processamento digital, de pequena capacidade, baseada em microprocessadores - Port 844 |
| Processo MCT/Data: | 01200.000030/2013-55 de 08/01/2013 |
| CNPJ da Incentivada: | 07275920000161 |
| Portaria MCT/MDIC/MF: | 844, de 05/09/2013 DOU 06/09/2013 |
| Modelos: | (16-12-13: E32) (16-12-13: TS430) (17-12-13: D30) (17-12-13: S30) (22-01-14: TS140)(14-03-14: RD540) (14-03-14: RD640) (16-03-14: 8471.50.10) (16-03-14: TD340) (07-11-14: (21-11-12: EDGE72) (21-11-12: EDGE92) (21-11-12: M92) (21-11-12: M92P) (21-11-12: LENOVO62) (20-03-13: H520G) (26-08-13: M93) (26-08-13: M93P) (23-09-13: M83) (13-11-13: E73)(28-05-14: H50-30G) (05-06-14: LENOVO63) (07-11-14: P300) ) (11-12-14: (21-11-12: EDGE72) (21-11-12: EDGE92) (21-11-12: M92) (21-11-12: M92P) (21-11-12: LENOVO62) (20-03-13: H520G) (26-08-13: M93) (26-08-13: M93P) (23-09-13: M83) (13-11-13: E73)(28-05-14: H50-30G) (05-06-14: LENOVO63) (11-12-14: X3550 M5) ) (11-12-14: (21-11-12: EDGE72) (21-11-12: EDGE92) (21-11-12: M92) (21-11-12: M92P) (21-11-12: LENOVO62) (20-03-13: H520G) (26-08-13: M93) (26-08-13: M93P) (23-09-13: M83) (13-11-13: E73)(28-05-14: H50-30G) (05-06-14: LENOVO63) (11-12-14: X3650 M5) ) (24-12-14: (21-11-12: EDGE72) (21-11-12: EDGE92) (21-11-12: M92) (21-11-12: M92P) (21-11-12: LENOVO62) (20-03-13: H520G) (26-08-13: M93) (26-08-13: M93P) (23-09-13: M83) (13-11-13: E73)(28-05-14: H50-30G) (05-06-14: LENOVO63) (24-12-14: NX360 M4) ) (07-01-15: (21-11-12: EDGE72) (21-11-12: EDGE92) (21-11-12: M92) (21-11-12: M92P) (21-11-12: LENOVO62) (20-03-13: H520G) (26-08-13: M93) (26-08-13: M93P) (23-09-13: M83) (13-11-13: E73)(28-05-14: H50-30G) (05-06-14: LENOVO63) (07-01-15: X240-M4) ) (25-09-17: THINKSYSTEM SN550) (02-10-17: THINKSYSTEM SR630) (02-10-17: THINKSYSTEM SR650) (15-12-17: THINKSYSTEM SD530) (15-12-17: THINKSYSTEM SR530) (21-12-17: THINKSYSTEM SR550) (21-12-17: THINKSYSTEM ST550) (19-09-18: SERVIDOR THINKAGILE HX1521-R) (19-09-18: SERVIDOR THINKAGILE HX3321) (19-09-18: SERVIDOR THINKAGILE HX5521) (19-09-18: SERVIDOR THINKAGILE HX7521) (19-09-18: SERVIDOR THINKAGILE HX1321) (07-12-18: SERVIDOR THINKSYSTEM ST50) (03-09-19: SERVIDOR THINKAGILE MX CERTIFIED NODE) (28-10-19: SERVIDOR THINKAGILE HX1320) (25-06-20: DESKTOP TC M70S/WINDOWS 10 PRO) (07-07-21: SERVIDOR THINKSYSTEM SN550 V2) (07-07-21: SERVIDOR THINKSYSTEM SR650 V2) (07-07-21: SERVIDOR THINKSYSTEM SR630 V2) (17-09-21: SERVIDOR THINKSYSTEM SR645) (17-09-21: SERVIDOR THINKSYSTEM SR665) (02-02-22: SERVIDOR THINKAGILE VX2330) (02-02-22: SERVIDOR THINKAGILE VX3330) (02-02-22: SERVIDOR THINKAGILE VX3730-N) (02-02-22: SERVIDOR THINKAGILE VX3331) (10-02-22: SERVIDOR THINKAGILE HX1331) (10-02-22: SERVIDOR THINKAGILE HX1330) (10-02-22: SERVIDOR THINKAGILE HX2330) (10-02-22: SERVIDOR THINKAGILE VX2375) (10-02-22: SERVIDOR THINKAGILE VX3375) (10-02-22: SERVIDOR THINKAGILE VX7375-N) (10-02-22: SERVIDOR THINKAGILE VX3376) (11-02-22: SERVIDOR THINKAGILE HX2331) (11-02-22: SERVIDOR THINKAGILE HX3330) (11-02-22: SERVIDOR THINKAGILE HX3331) (11-02-22: SERVIDOR THINKAGILE HX5530) (11-02-22: SERVIDOR THINKAGILE HX5531) (11-02-22: SERVIDOR THINKAGILE HX7530) (15-02-22: SERVIDOR THINKAGILE VX7531) (15-02-22: SERVIDOR THINKAGILE VX5530) (15-02-22: SERVIDOR THINKAGILE VX7575) (15-02-22: SERVIDOR THINKAGILE VX3530-G) (15-02-22: SERVIDOR THINKAGILE VX5575) (15-02-22: SERVIDOR THINKAGILE HX7531) (15-02-22: SERVIDOR THINKAGILE VX7530) (15-02-22: SERVIDOR THINKAGILE VX3575-G) (15-02-22: SERVIDOR THINKAGILE VX7576) (04-04-22: SERVIDOR THINKSYSTEM ST50 V2) (19-04-22: SERVIDOR THINKAGILE MX3330-H) (19-04-22: SERVIDOR THINKAGILE MX3331-H) (19-04-22: SERVIDOR THINKAGILE MX3330-F) (19-04-22: SERVIDOR THINKAGILE MX3331-F) (28-04-22: SERVIDOR THINKAGILE MX3531-H) (28-04-22: SERVIDOR THINKAGILE MX3530-F) (28-04-22: SERVIDOR THINKAGILE MX3531-F) (29-04-22: SERVIDOR THINKAGILE MX3530-H) (10-05-22: SERVIDOR THINKSYSTEM ST650 V2) (02-06-22: SERVIDOR THINKAGILE VX7330-N) (13-07-22: SERVIDOR THINKAGILE HX3375 APPLIANCE) (13-07-22: SERVIDOR THINKAGILE HX3376 CERTIFIED NODE) (26-08-22: SERVIDOR THINKEDGE SE450) (26-08-22: SERVIDOR THINKEDGE SE450) (26-08-22: SERVIDOR THINKEDGE SE450) (26-08-22: SERVIDOR THINKEDGE SE450) (08-03-23: THINKSYSTEM SR665 V3) (08-03-23: THINKSYSTEM SR645 V3) (10-03-23: SERVIDOR THINKSYSTEM SR630 V3) (17-04-23: SERVIDOR THINKAGILE VX3320) (05-05-23: SERVIDOR THINKSYSTEM SR650 V3) (12-06-23: SERVIDOR THINKSYSTEM ST650 V3) (21-06-23: SERVIDOR THINKAGILE HX630 V3 IS) (08-08-23: SERVIDOR THINKAGILE HX630-ROBO V3 IS) (08-08-23: SERVIDOR THINKAGILE HX650 V3 IS) (08-08-23: SERVIDOR THINKAGILE HX630-ROBO V3 CN) (08-08-23: SERVIDOR THINKAGILE HX630 V3 CN) (08-08-23: THINKSYSTEM ST250 V2) (17-08-23: THINKSYSTEM SR250 V2) (18-08-23: SERVIDOR THINKAGILE VX630 V3 IS) (23-08-23: SERVIDOR THINKAGILE MX650 V3 CN) (23-08-23: SERVIDOR THINKAGILE MX650 V3 IS) (23-08-23: SERVIDOR THINKAGILE VX665 V3 CN) (23-08-23: SERVIDOR THINKAGILE VX665 V3 IS) (30-08-23: SERVIDOR THINKAGILE VX630 V3 CN) (30-08-23: SERVIDOR THINKAGILE VX650 V3 IS) (30-08-23: SERVIDOR THINKAGILE VX650 V3 CN) (30-08-23: SERVIDOR VX650 V3 SAP HANA CN) (30-08-23: SERVIDOR VX650 V3-DPU INTEGRATED SYSTEM) (30-08-23: VX650 V3-DPU CERTIFIED NODE) (30-08-23: SERVIDOR THINKAGILE MX630 V3 CN) (04-09-23: SERVIDOR THINKAGILE VX645 V3 IS) (04-09-23: SERVIDOR THINKAGILE VX645 V3 CN) (04-09-23: SERVIDOR THINKAGILE HX645 V3 IS) (04-09-23: SERVIDOR THINKAGILE HX645 V3 CN) (19-09-23: SERVIDOR THINKAGILE HX665 V3 STORAGE CN) (19-09-23: SERVIDOR THINKAGILE HX665 V3 STORAGE IS) (04-10-23: SERVIDOR THINKAGILE HX650-STORAGE V3 IS) (04-10-23: SERVIDOR THINKAGILE MX630 V3 IS) (04-10-23: SERVIDOR THINKAGILE HX665 V3 IS) (04-10-23: SERVIDOR THINKAGILE HX650 V3 CN) (04-10-23: SERVIDOR THINKAGILE HX650-STORAGE V3 CN) (08-12-23: SERVIDOR THINKAGILE HX665 V3 CN) (23-02-24: SERVIDOR THINKSYSTEM ST250 V3) (23-02-24: SERVIDOR THINKSYSTEM SR250 V3) (28-03-24: SERVIDOR THINKSYSTEM SR675 V3) (28-03-24: SERVIDOR THINKSYSTEM ST50 V3) (08-04-24: SERVIDOR THINKSYSTEM HS350X V3) |

| | |
|---|---|
| Produto: | Unidade de processamento digital, de pequena capacidade, baseada em microprocessador - Port 786 |
| Processo MCT/Data: | 01200.002363/2012-38 de 16/07/2012 |
| CNPJ da Incentivada: | 07275920000161 |
| Portaria MCT/MDIC/MF: | 786, de 01/11/2012 DOU 05/11/2012 |
| Modelos: | (21-11-12: EDGE72);(21-11-12: EDGE92) (21-11-12: M92) (21-11-12: M92P) (21-11-12: LENOVO62) (20-03-13: H520G)(26-08-13: M93) (26-08-13: M93P) (23-09-13: M83)(13-11-13: E73)(28-05-14: H50-30G) (05-06-14: LENOVO63) (16-04-15: TD350) (16-04-15: RD350) (24-04-15: RD450) (25-05-15: P500) (25-05-15: X250 M5) (19-06-15: SERVIDOR X240 M5) (19-06-15: SERVIDOR P500) (14-09-15: SERVIDOR P300) (14-09-15: SERVIDOR RD450) (15-09-15: SERVIDOR RD350) (19-10-15: SERVIDOR TS140) (19-10-15: SERVIDOR NX360) (19-10-15: SERVIDOR NX360 M4) (19-10-15: SERVIDOR NX360 M5) (22-10-15: SERVIDOR X3550 M5) (22-10-15: SERVIDOR TD350) (22-10-15: SERVIDOR X240 M4) (23-12-15: DESKTOP THINKCENTRE M900 SFF/WINDOWS 8.1 PRO) (29-01-16: DESKTOP THINKCENTRE H50-30G/WINDOWS 7 PRO) (29-01-16: DESKTOP THINKCENTRE H50-30G/SEM SISTEMA OPERACIONAL) (29-01-16: DESKTOP THINKCENTRE H50-30G/WINDOWS 8) (29-01-16: DESKTOP THINKCENTRE H50-30G/WINDOWS 8 PRO) (29-01-16: DESKTOP THINKCENTRE H50-30G/WINDOWS 8 PRO DG) (29-01-16: DESKTOP THINKCENTRE H50-30G/WINDOWS 8.1) (29-01-16: DESKTOP THINKCENTRE H50-30G/WINDOWS 8.1 PRO) (29-01-16: DESKTOP THINKCENTRE H50-30G/WINDOWS 8.1 PRO DG) (29-01-16: DESKTOP THINKCENTRE H50-30G/WINDOWS 10 PRO) (29-01-16: DESKTOP THINKCENTRE H50-30G/WINDOWS 10 PRO DG) (10-02-16: DESKTOP THINKCENTRE M900 TINY/SEM SISTEMA OPERACIONAL) (10-02-16: DESKTOP THINKCENTRE M900 TINY/WINDOWS 8) (10-02-16: DESKTOP THINKCENTRE M900 TINY/WINDOWS 8 PRO) (10-02-16: DESKTOP THINKCENTRE M900 TINY/WINDOWS 8 PRO DG) (10-02-16: DESKTOP THINKCENTRE M900 TINY/WINDOWS 8.1) (10-02-16: DESKTOP THINKCENTRE M900 TINY/WINDOWS 8.1 PRO) (10-02-16: DESKTOP THINKCENTRE M900 TINY/WINDOWS 8.1 PRO DG) (10-02-16: DESKTOP THINKCENTRE M900 TINY/WINDOWS 10 PRO) (10-02-16: DESKTOP THINKCENTRE M900 TINY/WINDOWS 10 PRO DG) (18-02-16: SERVIDOR THINKSERVER TS150) (29-02-16: DESKTOP THINKCENTRE M900 SFF/SEM SISTEMA OPERACIONAL) (29-02-16: DESKTOP THINKCENTRE M900 SFF/WINDOWS 8) (29-02-16: DESKTOP THINKCENTRE M900 SFF/WINDOWS 8 PRO) (29-02-16: DESKTOP THINKCENTRE M900 SFF/WINDOWS 8 PRO DG) (29-02-16: DESKTOP THINKCENTRE M900 SFF/WINDOWS 8.1) (29-02-16: DESKTOP THINKCENTRE M900 SFF/WINDOWS 8.1 PRO DG) (29-02-16: DESKTOP THINKCENTRE M900 SFF/WINDOWS 10 PRO) (29-02-16: DESKTOP THINKCENTRE M900 SFF/WINDOWS 10 PRO DG) (01-04-16: DESKTOP THINKCENTRE E73 SFF/WINDOWS 10 HOME) (01-04-16: DESKTOP THINKCENTRE M900 TINY/WINDOWS 8.1 EM) (01-04-16: DESKTOP THINKCENTRE M900 TINY/WINDOWS 10 HOME) (13-05-16: DESKTOP THINKCENTRE M700/WINDOWS 8.1) (13-05-16: DESKTOP THINKCENTRE M700/WINDOWS 8.1 PRO) (13-05-16: DESKTOP THINKCENTRE M700/WINDOWS 8.1 PRO DG) (13-05-16: DESKTOP THINKCENTRE M700/WINDOWS 10 PRO) (13-05-16: DESKTOP THINKCENTRE M700/WINDOWS 10 PRO DG) (06-07-16: DESKTOP LENOVO S510 SFF/SEM SISTEMA OPERACIONAL) (06-07-16: DESKTOP LENOVO S510 SFF/WINDOWS 10 PRO) (06-07-16: DESKTOP LENOVO S510 SFF/WINDOWS 10 PRO DG) (06-07-16: DESKTOP LENOVO S510 SFF/LINUX)(24-08-16: DESKTOP LENOVO S510 TW/WINDOWS 10 PRO) (24-08-16: DESKTOP LENOVO S510 TW/WINDOWS 10 PRO DG) (07-12-16: M900 TINY I5 6400T/8GB DDR4/HD 500GB/WINDOWS 10 PRO 64) (07-12-16: M900 SFF I5 6500/4GB DDR4/HD 500GB/DVDRW/WINDOWS 10 PRO 64) (07-12-16: M900 SFF I5 6500/8GB DDR4/HD 500GB/DVDRW/WINDOWS 10 PRO 64) (05-06-17: DESKTOP THINKCENTRE M910S SFF/WINDOWS 10 HOME) (05-06-17: DESKTOP THINKCENTRE M910S SFF/WINDOWS 10 PRO ) (05-06-17: DESKTOP THINKCENTRE M910S SFF/WINDOWS 10 PRO DG) (05-06-17: DESKTOP THINKCENTRE M910S SFF/LINUX) (05-06-17: DESKTOP THINKCENTRE M910S SFF/SEM SISTEMA OPERACIONAL) (05-06-17: DESKTOP THINKCENTRE M710S SFF/WINDOWS 10 HOME) (05-06-17: DESKTOP THINKCENTRE M710S SFF/WINDOWS 10 PRO ) (05-06-17: DESKTOP THINKCENTRE M710S SFF/WINDOWS 10 PRO DG) (05-06-17: DESKTOP THINKCENTRE M710S SFF/LINUX) (05-06-17: DESKTOP THINKCENTRE M710S SFF/SEM SISTEMA OPERACIONAL) (05-06-17: DESKTOP THINKCENTRE M910Q TINY/WINDOWS 10 HOME) (05-06-17: DESKTOP THINKCENTRE M910Q TINY/WINDOWS 10 PRO ) (05-06-17: DESKTOP THINKCENTRE M910Q TINY/WINDOWS 10 PRO DG) (05-06-17: DESKTOP THINKCENTRE M910Q TINY/LINUX) (05-06-17: DESKTOP THINKCENTRE M910Q TINY/SEM SISTEMA OPERACIONAL) (05-06-17: DESKTOP LENOVO V520S SFF/WINDOWS 10 HOME) (05-06-17: DESKTOP LENOVO V520S SFF/WINDOWS 10 PRO ) (05-06-17: DESKTOP LENOVO V520S SFF/WINDOWS 10 PRO DG) (05-06-17: DESKTOP LENOVO V520S SFF/LINUX) (05-06-17: DESKTOP LENOVO V520S SFF/SEM SISTEMA OPERACIONAL) (11-10-17: DESKTOP THINKCENTRE M710Q TINY/WINDOWS 10 HOME) (11-10-17: DESKTOP THINKCENTRE M710Q TINY/WINDOWS 10 PRO) (11-10-17: DESKTOP THINKCENTRE M710Q TINY/WINDOWS 10 PRO DG) (11-10-17: DESKTOP THINKCENTRE M710Q TINY/LINUX) (11-10-17: DESKTOP THINKCENTRE M710Q TINY/SEM SISTEMA OPERACIONAL) (28-09-18: DESKTOP LENOVO V530S SFF/WINDOWS 10 PRO) (28-09-18: DESKTOP LENOVO V530S SFF/WINDOWS 10 HOME) (28-09-18: DESKTOP LENOVO V530S SFF/LINUX) (28-09-18: DESKTOP LENOVO V530S SFF/SEM SISTEMA OPERACIONAL) (05-10-18: DESKTOP THINKCENTRE M720Q TINY/WINDOWS 10 PRO) (05-10-18: DESKTOP THINKCENTRE M720Q TINY/WINDOWS 10 HOME) (05-10-18: DESKTOP THINKCENTRE M720Q TINY/LINUX) (05-10-18: DESKTOP THINKCENTRE M720Q TINY/SEM SISTEMA OPERACIONAL) (05-10-18: DESKTOP THINKCENTRE M920S SFF/WINDOWS 10 PRO) (05-10-18: DESKTOP THINKCENTRE M920S SFF/WINDOWS 10 HOME) (05-10-18: DESKTOP THINKCENTRE M920S SFF/LINUX) (05-10-18: DESKTOP THINKCENTRE M920S SFF/SEM SISTEMA OPERACIONAL) (05-10-18: DESKTOP THINKCENTRE M920Q TINY/WINDOWS 10 PRO) (05-10-18: DESKTOP THINKCENTRE M920Q TINY/LINUX) (05-10-18: DESKTOP THINKCENTRE M920Q TINY/SEM SISTEMA OPERACIONAL) (05-10-18: DESKTOP THINKCENTRE M920Q TINY/WINDOWS 10 HOME) (11-10-18: DESKTOP THINKCENTRE M720S SFF/WINDOWS 10 PRO) (11-10-18: DESKTOP THINKCENTRE M720S SFF/WINDOWS 10 HOME) (11-10-18: DESKTOP THINKCENTRE M720S SFF/LINUX) (11-10-18: DESKTOP THINKCENTRE M720S SFF/SEM SISTEMA OPERACIONAL) (02-05-19: DESKTOP THINKCENTRE M720Q TINY) (01-07-19: DESKTOP THINKCENTRE M715Q TINY/WINDOWS 10 HOME) (01-07-19: DESKTOP THINKCENTRE M715Q TINY/LINUX) (01-07-19: DESKTOP THINKCENTRE M715Q TINY/SEM SISTEMA OPERACIONAL) (01-07-19: DESKTOP THINKCENTRE M715Q TINY/WINDOWS 10 PRO) (28-10-19: DESKTOP THINKSTATION P330 TWR/WINDOWS 10 PRO) (28-10-19: DESKTOP THINKSTATION P330 TWR/SEM SISTEMA OPERACIONAL) (28-10-19: DESKTOP THINKSTATION P330 TWR/LINUX) (20-01-20: DESKTOP THINKCENTRE M75Q TINY/WINDOWS 10 PRO) (20-01-20: DESKTOP THINKCENTRE M75Q TINY/SEM SISTEMA OPERACIONAL) (20-01-20: DESKTOP THINKCENTRE M75Q TINY/LINUX) (25-06-20: DESKTOP TC M80S/WINDOWS 10 PRO) (25-06-20: DESKTOP TC M80S/WINDOWS 10 HOME) (25-06-20: DESKTOP TC M80S/LINUX) (25-06-20: DESKTOP TC M80S/SEM SISTEMA OPERACIONAL) (25-06-20: DESKTOP TC M70S/WINDOWS 10 PRO) (25-06-20: DESKTOP TC M70S/WINDOWS 10 HOME) (25-06-20: DESKTOP TC M70S/LINUX) (25-06-20: DESKTOP TC M70S/SEM SISTEMA OPERACIONAL) (25-06-20: DESKTOP TC M70S/WINDOWS 10 PRO) (25-06-20: DESKTOP TC M70S/WINDOWS 10 HOME) (25-06-20: DESKTOP TC M70S/LINUX) (25-06-20: DESKTOP TC M70S/SEM SISTEMA OPERACIONAL) (25-06-20: DESKTOP TC M80S/WINDOWS 10 PRO) (25-06-20: DESKTOP TC M80S/WINDOWS 10 HOME) (25-06-20: DESKTOP TC M80S/LINUX) (25-06-20: DESKTOP TC M80S/SEM SISTEMA OPERACIONAL) (26-06-20: DESKTOP TC M80Q/WINDOWS 10 PRO) (26-06-20: DESKTOP TC M80Q/WINDOWS 10 HOME) (26-06-20: DESKTOP TC M80Q/LINUX) (26-06-20: DESKTOP TC M80Q/SEM SISTEMA OPERACIONAL) (21-07-20: DESKTOP TC M70Q/WINDOWS 10 PRO) (21-07-20: DESKTOP TC M70Q/WINDOWS 10 HOME) (21-07-20: DESKTOP TC M70Q/LINUX) (21-07-20: DESKTOP TC M70Q/SEM SISTEMA OPERACIONAL) (08-09-20: WORKSTATION TS P340/WINDOWS 10 PRO WS) (08-09-20: WORKSTATION TS P340/WINDOWS 10 PRO) (08-09-20: WORKSTATION TS P340/LINUX) (08-09-20: WORKSTATION TS P340/SEM SISTEMA OPERACIONAL) (08-09-20: DESKTOP TC M75S-1/WINDOWS 10 PRO) (08-09-20: DESKTOP TC M75S-1 /SEM SISTEMA OPERACIONAL) (22-10-20: DESKTOP LN V50S-07IMB/WINDOWS 10 PRO) (22-10-20: DESKTOP LN V50S-07IMB/WINDOWS 10 HOME ) (22-10-20: DESKTOP LN V50S-07IMB/LINUX) (22-10-20: DESKTOP LN V50S-07IMB/SEM SISTEMA OPERACIONAL) (18-11-20: DESKTOP TC M75Q GEN 2/WINDOWS 10 PRO) (18-11-20: DESKTOP TC M75Q GEN 2/WINDOWS 10 HOME) (18-11-20: DESKTOP TC M75Q GEN 2/LINUX) (18-11-20: DESKTOP TC M75Q GEN 2/SEM SISTEMA OPERACIONAL) (14-01-21: DESKTOP TC M75S GEN 2/WINDOWS 10 PRO) (14-01-21: DESKTOP TC M75S GEN 2/WINDOWS 10 HOME) (14-01-21: DESKTOP TC M75S GEN 2/LINUX) (14-01-21: DESKTOP TC M75S GEN 2/SEM SISTEMA OPERACIONAL) (16-06-21: DESKTOP TC M90Q GEN 2/WINDOWS 10 PRO) (16-06-21: DESKTOP TC M90Q GEN 2/WINDOWS 10 HOME) (16-06-21: DESKTOP TC M90Q GEN 2/LINUX) (16-06-21: DESKTOP TC M90Q GEN 2/SEM SISTEMA OPERACIONAL) (11-08-21: DESKTOP TC M75S GEN 2/WINDOWS 10 PRO) (11-08-21: DESKTOP TC M75S GEN 2/WINDOWS 10 HOME) (11-08-21: DESKTOP TC M75S GEN 2/LINUX) (11-08-21: DESKTOP TC M75S GEN 2/SEM SISTEMA OPERACIONAL) (16-09-21: DESKTOP TC M75S GEN 2/WINDOWS 11) (16-09-21: DESKTOP TC M75S GEN 2/WINDOWS 11 PRO) (16-09-21: DESKTOP TC M75S GEN 2/WINDOWS 11 PRO DG) (16-09-21: DESKTOP TC M75S GEN 2/WINDOWS 11 HOME) (07-10-21: DESKTOP TC M75Q GEN 2/WINDOWS 10 PRO) (07-10-21: DESKTOP TC M75Q GEN 2/WINDOWS 10 HOME) (07-10-21: DESKTOP TC M75Q GEN 2/LINUX) (07-10-21: DESKTOP TC M75Q GEN 2/SEM SISTEMA OPERACIONAL) (07-10-21: DESKTOP TC M75Q GEN 2/WINDOWS 11 PRO) (07-10-21: DESKTOP TC M75Q GEN 2/WINDOWS 11 PRO DG) (07-10-21: DESKTOP TC M75Q GEN 2/WINDOWS 11 HOME) (07-10-21: WORKSTATION TS P348 /SEM SISTEMA OPERACIONAL) (07-10-21: WORKSTATION TS P348 /LINUX) (07-10-21: WORKSTATION TS P348 /WINDOWS 10 HOME) (07-10-21: WORKSTATION TS P348 /WINDOWS 10 PRO) (07-10-21: WORKSTATION TS P348 /WINDOWS 11 HOME) (07-10-21: WORKSTATION TS P348 /WINDOWS 11 PRO DG) (07-10-21: WORKSTATION TS P348 /WINDOWS 11 PRO) (25-11-21: DESKTOP TC M70S/WINDOWS 11 PRO 64) (25-11-21: DESKTOP TC M70S/WINDOWS 11 HOME 64) (25-11-21: DESKTOP TC M70S/WINDOWS 11 PRO 64) (25-11-21: DESKTOP TC M70S/WINDOWS 11 HOME 64) (25-11-21: DESKTOP TC M70Q/WINDOWS 11 PRO 64) (25-11-21: DESKTOP TC M80Q/WINDOWS 11 PRO 64) (25-11-21: DESKTOP TC M80S/WINDOWS 11 PRO 64) (25-11-21: DESKTOP TC M75Q GEN 2/WINDOWS 11 PRO 64) (16-02-22: DESKTOP LENOVO TC NEO 50S GEN 3 / WINDOWS 11 PRO) (16-02-22: DESKTOP LENOVO TC NEO 50S GEN 3 / WINDOWS 11 HOME) (16-02-22: DESKTOP LENOVO TC NEO 50S GEN 3 / LINUX) (16-02-22: DESKTOP LENOVO TC NEO 50S GEN 3 / SEM SISTEMA OPERACIONAL) (20-04-22: DESKTOP TC M70Q GEN 3/WINDOWS 11 PRO) (20-04-22: DESKTOP TC M70Q GEN 3/WINDOWS 11 HOME) (20-04-22: DESKTOP TC M70Q GEN 3/LINUX) (20-04-22: DESKTOP TC M70Q GEN 3/SEM SISTEMA OPERACIONAL) (29-04-22: DESKTOP TC M80Q GEN 3/WINDOWS 11 PRO) (29-04-22: DESKTOP TC M80Q GEN 3/WINDOWS 11 HOME) (29-04-22: DESKTOP TC M80Q GEN 3/LINUX) (29-04-22: DESKTOP TC M80Q GEN 3/SEM SISTEMA OPERACIONAL) (01-06-22: WORKSTATION TS P340/WINDOWS 11 PRO) (01-06-22: WORKSTATION TS P340/WINDOWS 11 PRO WS) (29-06-22: WORKSTATION TS P360 TOWER/WINDOWS 11 PRO) (29-06-22: WORKSTATION TS P360 TOWER/WINDOWS 11 HOME) (29-06-22: WORKSTATION TS P360 TOWER/SEM SISTEMA OPERACIONAL) (29-06-22: WORKSTATION TS P360 TOWER/LINUX) (26-08-22: DESKTOP TC M80S GEN 3/WINDOWS 11 PRO) (26-08-22: DESKTOP TC M80S GEN 3/WINDOWS 11 HOME) (26-08-22: DESKTOP TC M80S GEN 3/LINUX) (26-08-22: DESKTOP TC M80S GEN 3/SEM SISTEMA OPERACIONAL) (14-04-23: DESKTOP TC NEO 50S GEN 4/WINDOWS 11 PRO) (14-04-23: DESKTOP TC NEO 50S GEN 4/WINDOWS 11 HOME) (14-04-23: DESKTOP TC NEO 50S GEN 4/SEM SISTEMA OPERACIONAL) (14-04-23: DESKTOP TC NEO 50S GEN 4/LINUX) (26-02-24: DESKTOP TC M90S GEN 4/WINDOWS 11 PRO) (26-02-24: DESKTOP TC M90S GEN 4/WINDOWS 11 HOME) (26-02-24: DESKTOP TC M90S GEN 4/LINUX) (26-02-24: DESKTOP TC M90S GEN 4/SEM SISTEMA OPERACIONAL) (26-02-24: DESKTOP TC M70Q GEN 4/WINDOWS 11 PRO) (26-02-24: DESKTOP TC M70Q GEN 4/WINDOWS 11 HOME) (26-02-24: DESKTOP TC M70Q GEN 4/LINUX) (26-02-24: DESKTOP TC M70Q GEN 4/SEM SISTEMA OPERACIONAL) (26-02-24: THINKSTATION P3 TWR/WINDOWS 11 PRO) (26-02-24: THINKSTATION P3 TWR/WINDOWS 11 HOME) (26-02-24: THINKSTATION P3 TWR/LINUX) (26-02-24: THINKSTATION P3 TWR/SEM SISTEMA OPERACIONAL) (13-03-24: DESKTOP TC THINKCENTRE NEO 50Q GEN 4/WINDOWS 11 PRO) (13-03-24: DESKTOP TC THINKCENTRE NEO 50Q GEN 4/WINDOWS 11 HOME) (13-03-24: DESKTOP TC THINKCENTRE NEO 50Q GEN 4/LINUX) (13-03-24: DESKTOP TC THINKCENTRE NEO 50Q GEN 4/SEM SISTEMA OPERACIONAL) (07-06-24: DESKTOP TC M70S GEN 5) (07-06-24: DESKTOP TC M75Q GEN 5) (26-06-24: DESKTOP TC M70Q GEN 5) (26-06-24: DESKTOP TC M75S GEN 5) (26-06-24: DESKTOP TC M90Q GEN 5) |

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|---|---|
| Produto: | Unidade de processamento digital, de pequena capacidade, baseada em microprocessador com unidade de saída por vídeo incorporada |
| Processo MCT/Data: | 01200.002363/2012-38 de 16/07/2012 |
| CNPJ da Incentivada: | 07275920000161 |
| Portaria MCT/MDIC/MF: | 786, de 01/11/2012 DOU 05/11/2012 |
| Modelos: | (21-11-12: EDGE72Z)(20-09-13: B550) (17-12-13: E73Z) (25-03-15: COMPUTADOR ALL-IN-ONE C50-30) (11-11-16: ALL IN ONE LENOVO A510/WINDOWS 10) (11-11-16: AIO LENOVO A510/WINDOWS 10) (11-01-18: AIO LENOVO A510/WINDOWS 10 PRO) (11-01-18: AIO LENOVO A510/WINDOWS 10 HOME) (29-03-19: ALL IN ONE IDEACENTRE A340/WINDOWS 10 HOME) (29-03-19: ALL IN ONE IDEACENTRE A340/WINDOWS 10 PRO) (29-03-19: ALL IN ONE IDEACENTRE A340/LINUX) (29-03-19: ALL IN ONE IDEACENTRE A340/SEM SISTEMA OPERACIONAL) (20-12-19: DESKTOP LENOVO V530S SFF/WINDOWS 10 PRO) (20-12-19: DESKTOP LENOVO V530S SFF/WINDOWS 10 HOME) (20-12-19: DESKTOP LENOVO V530S SFF/SEM SISTEMA OPERACIONAL) (20-12-19: DESKTOP LENOVO V530S SFF/LINUX) (21-06-23: DESKTOP TC M90S GEN 4/WINDOWS 11 PRO) (21-06-23: DESKTOP TC M90S GEN 4/LINUX) (21-06-23: DESKTOP TC M90S GEN 4/WINDOWS 11 HOME) (21-06-23: DESKTOP TC M90S GEN 4/SEM SISTEMA OPERACIONAL) (21-06-23: DESKTOP TC THINKCENTRE NEO 50Q GEN 4/WINDOWS 11 PRO) (21-06-23: DESKTOP TC THINKCENTRE NEO 50Q GEN 4/WINDOWS 11 HOME) (21-06-23: DESKTOP TC THINKCENTRE NEO 50Q GEN 4/SEM SISTEMA OPERACIONAL) (21-06-23: DESKTOP TC THINKCENTRE NEO 50Q GEN 4/LINUX) (02-08-23: DESKTOP TC M70Q GEN 4/WINDOWS 11 PRO) (02-08-23: DESKTOP TC M70Q GEN 4/WINDOWS 11 HOME) (02-08-23: DESKTOP TC M70Q GEN 4/SEM SISTEMA OPERACIONAL) (02-08-23: DESKTOP TC M70Q GEN 4/LINUX) (04-10-23: THINKSTATION P3 TWR/WINDOWS 11 PRO) (04-10-23: THINKSTATION P3 TWR/WINDOWS 11 HOME) (04-10-23: THINKSTATION P3 TWR/SEM SISTEMA OPERACIONAL) (04-10-23: THINKSTATION P3 TWR/LINUX) |

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|---|---|
| Produto: | Unidade digital de armazenamento de dados em meio magnético ("Intelligent Storage System") |
| Processo MCT/Data: | 01200.000030/2013-55 de 08/01/2013 |
| CNPJ da Incentivada: | 07275920000161 |
| Portaria MCT/MDIC/MF: | 844, de 05/09/2013 DOU 06/09/2013 |
| Modelos: | (09-09-19: STORAGE DE CONTROLLER DE2000H 2U24 SFF) (01-02-24: STORAGE THINKSYSTEM DG5000) (26-04-24: STORAGE THINKSYSTEM DG7000) |



Voltar

# CERTIFICADO DE CONFORMIDADE
## *Conformity Certificate*

**Nº 437.001/22**

A ABNT concede a Licença para uso da Marca ABNT de Qualidade Ambiental – Rotulagem ambiental tipo I ABNT – para a Empresa: Lenovo Tecnologia Brasil Ltda.
*ABNT grants the License for using the ABNT Environmental Mark – Type I environmental labeling ABNT – to the company: Lenovo Tecnologia Brasil Ltda.*

**Lenovo Tecnologia Brasil Ltda.**
**CNPJ: 07.275.920/0001-61**

Para o(s) produto(s):
*To the following product(s):*

**(Descritos na página 2)**

Produzido(s) na unidade localizada em:
*Produced in the unit located at:*

**Estrada Municipal José Costa de Mesquita, 200**
**MOD 1 à 11 – Chácara Alvorada**
**13337-200 - Indaiatuba – SP**

Atendendo aos requisitos do Documento:
*Meeting the requirements of the Document:*

**PE-351 - Rótulo Ecológico para bens de Informática.**

Desenvolvidos em conformidade com as Normas:
*Developed according to the Standards:*

**ABNT NBR ISO 14020:2002**
**ABNT NBR ISO 14024:2004**

Sistema de Certificação: Sistema 5
*Certification System: System 5*

Primeira concessão: 20/06/2022
*First concession:*

Período de validade:
*Validity period:*

**12/07/2024 a 20/06/2025**

Rio de Janeiro, 17 de julho de 2024.

Certificação de Produtos
OCP 0005

GEN Member

QUALIDADE-ABNT-AMBIENTAL

*Guy Ladvocat*
Gerente de Certificação de Sistemas
*Systems Certification Manager*

Este certificado está sujeito ao contínuo atendimento ao Procedimento Geral da Marca ABNT Qualidade Ambiental bem como aos requisitos das Normas acima, sendo válido somente em original e com o timbre da ABNT em alto-relevo seco, assinado pelo Gerente de Certificação de Sistemas. Sua validade pode ser confirmada no seguinte endereço eletrônico: www.abnt.org.br. CNPJ: 33.402.892/0001-06 – Tel.: (21) 3974-2300.
*This certificate is subject to the continuous fulfillment of the requirements of the General Procedure for Conformity Assessment and to the Specific Procedure of the ABNT Conformity Mark, as well as to the Standard referred above and will be valid only in its original form, with the ABNT stamp in dry high-relief, duly signed by the Systems Certification Manager. Its validity may be confirmed at the following eletronic address: www.abnt.org.br. CNPJ: 33.402.892/0001-06 – Tel.: (21) 3974-2300.*

# CERTIFICADO DE CONFORMIDADE

## *Conformity Certificate*

# Nº 437.001/22

Para o(s) produto(s):
*To the following product(s):*

| Produto | Família | Modelo | Código | País |
|---|---|---|---|---|
| Desktop | ThinkCentre | M70q gen3 Tiny | - | BR |
| | | M70q Gen 5 Intel IRL-R | - | BR |
| | | M70s Gen 5 Intel IRL-R | - | BR |
| | | M75q gen2 Tiny | - | BR |
| | | M75s gen2 SFF | - | BR |
| | | M75q Gen 5 AMD APH | - | BR |
| | | M75s Gen 5 AMD APH | - | BR |
| | | M80q gen3 Tiny | - | BR |
| | | M80s gen3 SFF | - | BR |
| | ThinkStation | P360 TWR | - | BR |
| | | P348 TWR | - | BR |
| Workstation | ThinkPad | 14 Gen 6 Intel IRL | - | BR |
| Notebook | ThinkPad | 16 Gen 6 Intel IRL | - | BR |
| | | 100e Chromebook Gen 3 Intel IJP | - | BR |
| | | L14 gen2 Intel | - | BR |
| | | E14 gen3 AMD | - | BR |
| | | T14 gen2 Intel | - | BR |
| | | T14 Gen 3 | - | BR |
| | | L14 Gen3 | - | BR |
| | | E14 Gen4 | - | BR |
| | | E14 Gen 6 Intel IMH | - | BR |
| | | E14 Gen 6 AMD AHU | - | BR |
| | | E14 Gen5 AMD | - | BR |
| | | T14 Gen4 Intel | - | BR |
| | | T14 Gen 5 Intel IML | - | BR |
| | | E15 Gen4 Intel | - | BR |
| | | P16v Gen 2 Intel IMH. | - | BR |
| | Lenovo k Series | K14(AMD) | - | BR |
| | ThinkCentre | Neo 50s Gen4 SFF | - | BR |
| Desktop | ThinkCentre | Neo 50q Gen4 Tiny | - | BR |
| | ThinkCentre | Neo 50s Gen 5 Intel IRL-R | - | BR |
| | ThinkCentre | M70q Gen4 Tiny | - | BR |
| | ThinkCentre | M80q Gen4 Tiny | - | BR |
| | ThinkCentre | M90s Gen4 SFF | - | BR |
| | ThinkCentre | M90q Gen 5 Intel IRL-R | - | BR |
| Workstation | ThinkStation | P3 TWR | - | BR |

| Revisão | |
|---|---|
| Nº | Justificativa |
| 3 | Inclusão no escopo: **A) Computadores de Mesa (Desktop): Desktop ThinkCentre M75q Gen 5 AMD APH; Desktop ThinkCentre M75s Gen 5 AMD APH; Desktop ThinkCentre M70q Gen 5 Intel IRL-R; Desktop ThinkCentre M70s Gen 5 Intel IRL-R; Desktop ThinkCentre Neo 50s Gen 5 Intel IRL-R; Desktop ThinkCentre M90q Gen 5 Intel IRL-R. B) Computadores Portáteis (Notebook): Notebook ThinkBook 14 Gen 6 Intel IRL; Notebook ThinkBook 16 Gen 6 Intel IRL; Notebook ThinkPad 100e Chromebook Gen 3 Intel IJP; Notebook ThinkPad E14 Gen 6 Intel IMH; Notebook ThinkPad E14 Gen 6 AMD AHU; Notebook ThinkPad T14 Gen 5 Intel IML; Notebook ThinkPad P16v Gen 2 Intel IMH.** |

***Este certificado cancela e substitui a versão anterior.***

Rio de Janeiro**,** 17 de julho de 2024.