PREFEITURA MUNICIPAL DA SERRA
Secretaria Municipal da Fazenda

CEP: 29176-439 - RUA MAESTRO ANTONIO CICERO, N° 111 CACAROCA Serra ES

Certidão Negativa de Débitos

N° da Certidão: 12001992/2025 **Data Geração: 15/05/2025** **Data Validade: 15/07/2025**

CERTIFICAMOS, que não constam em nome do sujeito passivo identificado, nesta data, débitos com a Fazenda Pública Municipal, ressalvando o direito do município de cobrar quaisquer débitos que vierem a ser conhecidos e apurados após a expedição.

Essa certidão com base no art. 178 da Lei 3833, de 29 de dezembro de 2011, Código Tributário Municipal (CTM).

Identificação

CRC	**8287523 Crc Original: 8287523 Situação: Ativo**
Razão Social/Nome	**ATHENAS AUTOMAÇÃO LTDA**
CNPJ / CPF	**01.425.676/0003-51**
Inscrição Estadual/RG	**083083120**
Endereço	**29164-140 - ROD ES-010, 2594 KM 2.60;QUADRA CHA;LOTE 343;SALA B46**
Bairro	**JARDIM LIMOEIRO Cidade SERRA Estado ES**

Serra, Quinta-feira, 15 de Maio de 2025

N° da Certidão: 12001992/2025

Inscrição: 8287523

Tanto a veracidade da informação quanto a manutenção da condição de não devedor poderá ser verificada na seguinte página da Internet:
http://www.serra.es.gov.br/

ATENÇÃO: Qualquer rasura ou emenda **INVALIDARÁ** este documento.

PREFEITURA MUNICIPAL DA SERRA
Secretaria Municipal da Fazenda

CEP: 29176-439 - RUA MAESTRO ANTONIO CICERO, N° 111 CACAROCA Serra ES

Certidão Negativa de Débitos

N° da Certidão: 12000324/2025 **Data Geração: 12/05/2025** **Data Validade: 12/07/2025**

CERTIFICAMOS, que não constam em nome do sujeito passivo identificado, nesta data, débitos com a Fazenda Pública Municipal, ressalvando o direito do município de cobrar quaisquer débitos que vierem a ser conhecidos e apurados após a expedição.

Essa certidão com base no art. 178 da Lei 3833, de 29 de dezembro de 2011, Código Tributário Municipal (CTM).

Identificação

Ccm	**4665066 InscrMunicipal 4665066 Situação: Ativo**
Razão Social	**ATHENAS AUTOMAÇÃO LTDA**
CNPJ / CPF	**01.425.676/0003-51**
Inscrição Estadual/RG	**083083120**
Endereço	**29164-140 - ROD ES-010, 2594 KM 2.60;QUADRA CHA;LOTE 343;SALA B46**
Bairro	**JARDIM LIMOEIRO Cidade SERRA Estado ES**

Serra, Quinta-feira, 15 de Maio de 2025

N° da Certidão: 12000324/2025

Inscrição: 4665066

Tanto a veracidade da informação quanto a manutenção da condição de não devedor poderá ser verificada na seguinte página da Internet:
http://www.serra.es.gov.br/

ATENÇÃO: Qualquer rasura ou emenda **INVALIDARÁ** este documento.

PREFEITURA MUNICIPAL DA SERRA
Secretaria Municipal da Fazenda

CEP: 29176-439 - RUA MAESTRO ANTONIO CICERO, N° 111 CACAROCA Serra ES

Certidão Negativa de Débitos

N° da Certidão: 12002853/2025 **Data Geração: 19/05/2025** **Data Validade: 19/07/2025**

CERTIFICAMOS, que não constam em nome do sujeito passivo identificado, nesta data, débitos com a Fazenda Pública Municipal, ressalvando o direito do município de cobrar quaisquer débitos que vierem a ser conhecidos e apurados após a expedição.

Essa certidão com base no art. 178 da Lei 3833, de 29 de dezembro de 2011, Código Tributário Municipal (CTM).

Identificação

Inscrição	**009.5.023.0205.003 IdFisico 14881209 Situação: Ativo**
Responsável	**ORLA HOLDING E PARTICIPAÇÕES LTDA - CNPJ/CPF 17.367.078/0001-41**
Local do Imóvel	**29164-140 - ROD ES-010, 2594 VESTIARIO/GUARITA/LAZER/RESERVATORIO-KM 2,60**
Bairro/Loteamento	**JARDIM LIMOEIRO Quadra: CHA Lote: 343**

Serra, Segunda-feira, 19 de Maio de 2025

N° da Certidão: 12002853/2025

Inscrição: 14881209

Tanto a veracidade da informação quanto a manutenção da condição de não devedor poderá ser verificada na seguinte página da Internet:
http://www.serra.es.gov.br/

ATENÇÃO: Qualquer rasura ou emenda **INVALIDARÁ** este documento.

PODER JUDICIÁRIO
JUSTIÇA DO TRABALHO

CERTIDÃO NEGATIVA DE DÉBITOS TRABALHISTAS

Nome: ATHENAS AUTOMACAO LTDA (MATRIZ E FILIAIS)
CNPJ: 01.425.676/0003-51
Certidão nº: 17470935/2025
Expedição: 27/03/2025, às 09:22:31
Validade: 23/09/2025 - 180 (cento e oitenta) dias, contados da data de sua expedição.

Certifica-se que **ATHENAS AUTOMACAO LTDA (MATRIZ E FILIAIS)**, inscrito(a) no CNPJ sob o nº **01.425.676/0003-51**, **NÃO CONSTA** como inadimplente no Banco Nacional de Devedores Trabalhistas.
Certidão emitida com base nos arts. 642-A e 883-A da Consolidação das Leis do Trabalho, acrescentados pelas Leis ns.° 12.440/2011 e 13.467/2017, e no Ato 01/2022 da CGJT, de 21 de janeiro de 2022.
Os dados constantes desta Certidão são de responsabilidade dos Tribunais do Trabalho.
No caso de pessoa jurídica, a Certidão atesta a empresa em relação a todos os seus estabelecimentos, agências ou filiais.
A aceitação desta certidão condiciona-se à verificação de sua autenticidade no portal do Tribunal Superior do Trabalho na Internet (http://www.tst.jus.br).
Certidão emitida gratuitamente.

INFORMAÇÃO IMPORTANTE
Do Banco Nacional de Devedores Trabalhistas constam os dados necessários à identificação das pessoas naturais e jurídicas inadimplentes perante a Justiça do Trabalho quanto às obrigações estabelecidas em sentença condenatória transitada em julgado ou em acordos judiciais trabalhistas, inclusive no concernente aos recolhimentos previdenciários, a honorários, a custas, a emolumentos ou a recolhimentos determinados em lei; ou decorrentes de execução de acordos firmados perante o Ministério Público do Trabalho, Comissão de Conciliação Prévia ou demais títulos que, por disposição legal, contiver força executiva.

PODER JUDICIÁRIO
TRIBUNAL DE JUSTIÇA DO ESTADO DO ESPÍRITO SANTO
R. Des. Homero Mafra, 60 Enseada do Suá, Vitória - ES | CEP: 29.050-275 | Tel: (27) 3334-2000.

CERTIDÃO NEGATIVA DE PRIMEIRA INSTÂNCIA

NATUREZA DE RECUPERAÇÃO JUDICIAL E EXTRAJUDICIAL (FALÊNCIA E CONCORDATA)

Dados da Certidão

Razão Social: ATHENAS AUTOMACAO LTDA

CNPJ:	01.425.676/0003-51		
Data de Expedição:	16/05/2025 11:18:28	**Validade:**	30 DIAS
N° da Certidão:	**** 2024618785 ****		
-- ENDEREÇO --			
Município:	SERRA	**Bairro:**	JARDIM LIMOEIRO
Logradouro:	ROD ES-010	**Número:**	2594
Complemento:	KM 2.60 QUADRACHA LOTE 343 SALAB46	**CEP:**	29.164-140
-- CONTATO --			
Email:	*- NÃO INFORMADO -*	**Telefone Fixo:**	*- NÃO INFORMADO -*
		Telefone Celular:	*- NÃO INFORMADO -*

CERTIFICA que, consultando a base de dados do Sistema de Gerenciamento de Processos do Poder Judiciário do Estado do Espírito Santo (E-Jud, SIEP, PROJUDI e PJe) até a presente data e hora, **NADA CONSTA** contra o solicitante .

Observações

a. Certidão expedida gratuitamente através da Internet;
b. Os dados do(a) solicitante acima informados são de sua responsabilidade, devendo a titularidade ser conferida pelo interessado e/ou destinatário;
c. O prazo de validade desta certidão é de 30 (trinta) dias, contados da data da expedição, conforme disposto no art. 467 do Código de Normas da Corregedoria Geral da Justiça. Após essa data será necessária a emissão de uma nova certidão;
d. A autenticidade desta certidão poderá ser confirmada na página do Tribunal de Justiça do Estado do Espírito Santo - www.tjes.jus.br -, utilizando o número da certidão acima identificado;
e. Em relação as comarcas da entrância especial (Vitória/Vila Velha/Cariacica/Serra/Viana), as ações de: execução fiscal estadual, falência e recuperação judicial, e auditoria militar, tramitam, apenas, no juízo de Vitória;
f. As ações de natureza cível abrangem inclusive aquelas que tramitam nas varas de Órfãos e Sucessões (Tutela, Curatela, Interdição,...), Juizado Especial Cível, Juizado Especial da Fazenda Pública, Execução Fiscal e Execução Patrimonial (observado o item **e**);
g. As ações de natureza criminal abrangem, dentre outras: as de auditoria militar e de juizados especiais criminais;
h. As matérias atinentes as varas de família e infância e juventude são objeto de certidão específica;
i. A base de dados do sistema de gerenciamento processual (1ª INSTÂNCIA: eJUD, SIEP, PROJUDI, PJe-1G; 2ª INSTÂNCIA: Sistema de Segunda Instância, PJe-2G) contém o registro de todos os processos distribuídos no Judiciário do Estado do Espírito Santo, com exceção do SEEU;
j. A certidão negativa referente ao Sistema Eletrônico de Execução Unificado – SEEU deverá ser requerida ao Cartório do Ofício de Distribuidor da Comarca, conforme Ato Normativo Conjunto n°. 009/2021.

ESTADO DO RIO GRANDE DO SUL

PODER JUDICIÁRIO

CERTIDÃO JUDICIAL CÍVEL NEGATIVA

À vista dos registros constantes nos sistemas de Informática do Poder Judiciário do Estado do Rio Grande do Sul é expedida a presente certidão por não constar distribuição de ação falimentar, concordatária, recuperação judicial e extrajudicial em tramitação contra a seguinte parte interessada:

ATHENAS AUTOMACAO LTDA, CNPJ 01425676000190, Endereço - RUA BUARQUE DE MACEDO, 439 BAIRRO SAO GERALDO PORTO ALEGRE/RS CEP.: 90.230-250.

13 de maio de 2025, às 10:32:04

OBSERVAÇÕES:

A aceitação desta certidão está condicionada à conferência dos dados da parte interessada contra aqueles constantes no seu documento de identificação, bem como à verificação de sua validade no site do Tribunal de Justiça do Estado do Rio Grande do Sul na Internet, endereço http://www.tjrs.jus.br, menu Processos e Serviços / Serviços Processuais / Emissão de Antecedentes e Certidões, informando o seguinte código de controle: **21472efda2f152721f3df492bcf527b5**

Importante: Esta certidão possui validade de 90 dias a partir da data de sua emissão.

TERMOS DE ABERTURA E ENCERRAMENTO

Entidade:	ATHENAS AUTOMACAO LTDA		
Período da Escrituração:	01/01/2024 a 31/12/2024	CNPJ:	01.425.676/0001-90
Número de Ordem do Livro:	28		
Período Selecionado:	01 de janeiro de 2024 a 31 de dezembro de 2024		

TERMO DE ABERTURA	
Nome Empresarial	ATHENAS AUTOMACAO LTDA
NIRE	43203319881
CNPJ	01.425.676/0001-90
Número de Ordem	28
Natureza do Livro	Livro Diário
Município	PORTO ALEGRE
Data do arquivamento dos atos constitutivos	13/09/1996
Data de arquivamento do ato de conversão de sociedade simples em sociedade empresária	
Data de encerramento do exercício social	31/12/2024
Quantidade total de linhas do arquivo digital	47510

TERMO DE ENCERRAMENTO	
Nome Empresarial	ATHENAS AUTOMACAO LTDA
Natureza do Livro	Livro Diário
Número de ordem	28
Quantidade total de linhas do arquivo digital	47510
Data de inicio	01/01/2024
Data de término	31/12/2024

Este documento é parte integrante de escrituração cuja autenticação se comprova pelo recibo de número CB.BD.7B.06.E2.B5.63.B5.AC.EF.72.BA.B5.62.A1.2E.4C.71.F6.69-1, nos termos do Decreto nº 8.683/2016.

Este relatório foi gerado pelo Sistema Público de Escrituração Digital – Sped

BALANÇO PATRIMONIAL

Entidade:	ATHENAS AUTOMACAO LTDA		
Período da Escrituração:	01/01/2024 a 31/12/2024	CNPJ:	01.425.676/0001-90
Número de Ordem do Livro:	28		
Período Selecionado:	01 de janeiro de 2024 a 31 de dezembro de 2024		

Descrição	Nota	Saldo Inicial	Saldo Final
ATIVO		R$ 38.072.604,63	R$ 49.381.996,13
ATIVO CIRCULANTE		R$ 31.893.394,94	R$ 39.909.723,77
DISPONÍVEL		R$ 18.723.447,27	R$ 24.977.645,12
CAIXA		R$ 505,46	R$ 97,46
CAIXA GERAL		R$ 505,46	R$ 97,46
CAIXA TRANS MATRIZ E FILIAL		R$ 0,00	R$ 0,00
BANCOS CONTA MOVIMENTO		R$ 4.477.467,65	R$ 5.771.925,13
BANCO DO BRASIL		R$ 4.378.004,96	R$ 5.643.961,73
BANRISUL		R$ 306,02	R$ 107.399,20
BANCO DO BRASIL FILIAL ES		R$ 100,00	R$ 100,00
BANCO DO BRASIL FILIAL SC		R$ 203,34	R$ 203,34
TRANSFERÊNCIAS MATRIZ E FILIAL		R$ 0,00	R$ 0,00
BANCO ITAU		R$ 11.661,99	R$ 0,00
CONTA XP		R$ 5.662,10	R$ 6.588,51
CONTA GALAPAGOS - ATIVA		R$ 81.529,24	R$ 0,00
GALÁPAGOS - CONTA CORRENTE		R$ 0,00	R$ 13.672,35
APLICAÇÕES FINANCEIRAS LIQUIDEZ IMEDIATA		R$ 14.245.474,16	R$ 19.205.622,53
BB APLICAÇÕES		R$ 458.357,90	R$ 3.505.810,00
ITAU APLICAÇÕES		R$ 3.671.129,74	R$ 4.730.749,10
BANRISUL APLICAÇÕES		R$ 0,00	R$ 531.373,41
XP APLICAÇÕES		R$ 6.988.523,69	R$ 5.898.906,94
GALAPAGOS APLICAÇÕES		R$ 3.127.462,83	R$ 4.538.783,08
CLIENTES		R$ 8.426.235,50	R$ 9.234.151,85
DUPLICATAS A RECEBER		R$ 8.426.235,50	R$ 9.234.151,85
CLIENTES DIVERSOS		R$ 8.426.235,50	R$ 9.234.151,85
OUTROS CRÉDITOS		R$ 3.447.241,33	R$ 639.289,25
(-) ADIANTAMENTOS A FORNECEDORES		R$ (399.340,51)	R$ 0,00
(-) ADIANTAMENTO A FORNECEDOR		R$ (399.340,51)	R$ 0,00
ADIANTAMENTO A EMPREGADOS		R$ 22.345,82	R$ 18.099,30
ADIANTAMENTO DE SALÁRIO		R$ 2.835,00	R$ 0,00
ADIANTAMENTO DE 13º SALÁRIO		R$ 0,00	R$ 0,00
ADIANTAMENTO FERIAS		R$ 14.260,82	R$ 18.099,30
EMPRESTIMO A FUNCIONARIOS		R$ 5.250,00	R$ 0,00
TRIBUTOS A RECUPERAR/COMPENSAR		R$ 3.824.236,02	R$ 621.189,95
ICMS A RECUPERAR		R$ 1.903.498,83	R$ 605.181,70
IRRF A RECUPERAR		R$ 183.233,30	R$ 0,00
TRIBUTOS PAGOS A MAIOR OU INDEVIDAMENTE		R$ 3.071,92	R$ 4.876,12
CONTRIBUIÇÃO SOCIAL RETIDO A COMPENSAR		R$ 10.135,25	R$ 0,00
COFINS RETIDO A COMPENSAR		R$ 157.801,89	R$ 0,00
PIS RETIDO A COMPENSAR		R$ 34.190,89	R$ 0,00
INSS A COMPENSAR		R$ 1.206,57	R$ 1.206,57
COFINS A RECUPERAR		R$ 484.097,27	R$ 0,02
PIS A RECUPERAR		R$ 105.265,62	R$ 0,04
CREDITO A RECEBER DE TERCEIROS		R$ 4.625,66	R$ 4.625,66
CONT SINDICAL EMPR A COMPENSAR		R$ 148,10	R$ 423,10
IRRF A RECUPERAR - APLICAÇÃO FINANCEIRA		R$ 0,00	R$ 0,00
CRÉDITO ICMS S/ IMOBILIZADO		R$ 10.110,62	R$ 4.876,74
IRPJ A RECUPERAR		R$ 681.507,42	R$ 0,00
CSLL A RECUPERAR		R$ 245.342,68	R$ 0,00
ICMS TRANSFERENCIA MATRIZ E FILIAL		R$ 0,00	R$ 0,00
COMPENSAÇÃO ATIVA PIS		R$ 0,00	R$ 0,00
COMPENSAÇÃO ATIVA COFINS		R$ 0,00	R$ 0,00
ESTOQUE		R$ 1.294.665,12	R$ 5.057.676,84
MERCADORIAS, PRODUTOS E INSUMOS		R$ 1.294.665,12	R$ 5.057.601,79
MERCADORIAS PARA REVENDA		R$ 1.294.665,12	R$ 5.057.601,79
TRANSFERENCIA ESTOQUE		R$ 0,00	R$ 0,00
OUTROS CRÉDITOS		R$ 0,00	R$ 75,05
VERBAS PAGAS A MAIOR		R$ 0,00	R$ 19,92
PAGAMENTO INDEVIDO		R$ 0,00	R$ 55,13
DESPESAS PAGAS ANTECIPADAMENTE		R$ 1.805,72	R$ 960,71
DESPESAS DE MESES SEGUINTES		R$ 1.805,72	R$ 960,71
PRÊMIOS DE SEGUROS A APROPRIAR		R$ 1.805,72	R$ 960,71
ATIVO NÃO-CIRCULANTE		R$ 6.179.209,69	R$ 9.472.272,36
ATIVO REALIZÁVEL A LONGO PRAZO		R$ 0,00	R$ 101.540,00
BENFEITORIAS EM IMÓVEIS		R$ 0,00	R$ 101.540,00
REFORMAS		R$ 0,00	R$ 101.540,00
OUTROS CRÉDITOS		R$ 5.563.719,08	R$ 8.873.440,39
SÓCIOS, ADMINISTRADORES E PESSOAS LIGADA		R$ 5.563.719,08	R$ 8.873.440,39
SOCIO CONTA EMPRESTIMO		R$ 384.457,80	R$ 384.457,80
ADIANTAMENTO DE LUCROS A SÓCIO		R$ 3.016.193,98	R$ 4.122.724,18
ADIANTAMENTO DE LUCROS A SÓCIO		R$ 2.163.067,30	R$ 3.566.258,41
EMPRESTIMO A SÓCIO		R$ 0,00	R$ 800.000,00
INVESTIMENTOS		R$ 5.406,25	R$ 5.406,25
OUTRAS PARTICIPAÇÕES SOCIETÁRIAS		R$ 5.406,25	R$ 5.406,25
PARTICIPAÇÕES SOCIETARIAS		R$ 5.406,25	R$ 5.406,25
IMOBILIZADO		R$ 610.084,36	R$ 491.885,72
IMÓVEIS		R$ 810.492,33	R$ 810.492,33
EDIFICAÇÕES		R$ 617.247,33	R$ 617.247,33
IMOVEIS		R$ 192.050,00	R$ 192.050,00
INSTALAÇÕES		R$ 1.195,00	R$ 1.195,00
MÓVEIS E UTENSÍLIOS		R$ 54.265,61	R$ 294.265,61
MÓVEIS E UTENSÍLIOS		R$ 54.265,61	R$ 294.265,61
MÁQUINAS, EQUIPAMENTOS E FERRAMENTAS		R$ 2.263.796,92	R$ 2.265.961,72
MÁQUINAS E EQUIPAMENTOS		R$ 57.911,83	R$ 60.076,63
EQUIP E ACESSORIOS P/INFORMATICA		R$ 668.872,01	R$ 668.872,01
EQUIPAMENTOS PARA LOCAÇÃO		R$ 1.537.013,08	R$ 1.537.013,08
(-) (-) DEPRECIAÇÕES, AMORT. E EXAUS. ACUMUL		R$ (2.518.470,50)	R$ (2.878.833,94)
(-) (-) DEPRECIAÇÕES DE EDIFICAÇÕES		R$ (153.647,62)	R$ (178.337,50)
(-) (-) DEPRECIAÇÕES DE MÓVEIS E UTENSÍLIOS		R$ (18.399,18)	R$ (28.214,04)
(-) (-) DEPRECIAÇÕES DE MÁQUINAS, EQUIP. FER		R$ (1.930.753,71)	R$ (2.215.024,34)
(-) (-) DEPRECIAÇÕES DE IMOVEIS		R$ (114.826,42)	R$ (122.508,46)
(-) (-) DEPRECIAÇÕES INSTALAÇÕES		R$ (902,84)	R$ (1.004,00)
(-) (-) DEPRECIAÇÕES ACUMULADAS		R$ (299.579,47)	R$ (299.579,47)
(-) (-) DEPRECIAÇÕES EQUIP E ACESSORIOS P/INFORMATICA		R$ (361,26)	R$ (34.166,13)
PASSIVO		R$ 38.072.604,63	R$ 49.381.996,13
PASSIVO CIRCULANTE		R$ 14.962.486,51	R$ 25.313.110,42
EMPRÉSTIMOS E FINANCIAMENTOS		R$ 0,00	R$ 815.050,13
EMPRÉSTIMOS		R$ 0,00	R$ 815.050,13
BANCO CONTA CREDORA		R$ 0,00	R$ 15.050,13
EMPRÉSTIMO BNDES		R$ 0,00	R$ 800.000,00
FORNECEDORES		R$ 12.496.082,90	R$ 21.396.082,95
FORNECEDORES		R$ 12.496.082,90	R$ 21.396.082,95
FORNECEDOR		R$ 12.496.082,90	R$ 21.396.082,95
OBRIGAÇÕES TRIBUTÁRIAS		R$ 1.941.822,15	R$ 2.594.327,30
IMPOSTOS E CONTRIBUIÇÕES A RECOLHER		R$ 1.941.822,15	R$ 2.594.327,30
ICMS A RECOLHER		R$ 54.151,87	R$ 44.087,20
ISS A RECOLHER		R$ 36.104,93	R$ 16.500,28
IMPOSTO DE RENDA A RECOLHER		R$ 0,00	R$ 53.385,08
CONTRIBUIÇÃO SOCIAL A RECOLHER		R$ 0,00	R$ 80.062,91
IRRF A RECOLHER		R$ 716,28	R$ 10,28
PIS A RECOLHER		R$ 38.988,26	R$ 501,89
COFINS A RECOLHER		R$ 179.439,69	R$ 5.807,54
CRF A RECOLHER		R$ 8.379,12	R$ 23.861,18
ISS RETIDO A RECOLHER		R$ 0,00	R$ 0,00
INSS RETIDO A RECOLHER		R$ 0,00	R$ 0,00
ICMS DIFERENCIAL DE ALÍQ A RECOLHER		R$ 1.624.042,00	R$ 2.370.110,94
COMPENSAÇÃO PASSIVA PIS		R$ 0,00	R$ 0,00
COMPENSAÇÃO PASSIVA COFINS		R$ 0,00	R$ 0,00
OBRIGAÇÕES TRABALHISTA E PREVIDENCIÁRIA		R$ 100.898,09	R$ 111.161,70
OBRIGAÇÕES COM O PESSOAL		R$ 3.481,08	R$ 0,00
SALÁRIOS E ORDENADOS A PAGAR		R$ 1.779,68	R$ 0,00
PRÓ-LABORE A PAGAR		R$ 0,00	R$ 0,00
FÉRIAS A PAGAR		R$ 0,00	R$ 0,00
RESCISÕES A PAGAR		R$ 0,00	R$ 0,00
13° A PAGAR		R$ 1.701,40	R$ 0,00
OBRIGAÇÕES SOCIAIS		R$ 53.691,00	R$ 67.435,69
INSS A RECOLHER		R$ 23.451,75	R$ 34.088,29
FGTS A RECOLHER		R$ 8.354,08	R$ 10.507,82
CONTRIBUIÇÃO SINDICATO		R$ 942,80	R$ 0,00
IRRF S/FOLHA A PAGAR		R$ 20.942,37	R$ 22.839,58
PROVISÕES		R$ 43.726,01	R$ 43.726,01
PROVISÃO DE IR S/APLICAÇÃO		R$ 43.726,01	R$ 43.726,01
OUTRAS OBRIGAÇÕES		R$ 423.683,37	R$ 396.488,34
ADIANTAMENTOS A CLIENTES		R$ 380.561,99	R$ 381.620,48
ADIANTAMENTO DE CLIENTES		R$ 380.561,99	R$ 381.620,48
OUTRAS OBRIGAÇÕES		R$ 43.121,38	R$ 14.867,86
LUCROS A DISTRIBUIR		R$ 0,00	R$ 0,00
PARCELAMENTO CSLL		R$ 21.860,85	R$ 6.293,73
PARCELAMENTO IRPJ		R$ 17.786,13	R$ 5.099,73
EMPRESTIMO DE TERCEIROS		R$ 3.474,40	R$ 3.474,40
PATRIMÔNIO LÍQUIDO		R$ 23.110.118,12	R$ 24.068.885,71
CAPITAL SOCIAL		R$ 900.000,00	R$ 900.000,00
CAPITAL SUBSCRITO		R$ 900.000,00	R$ 900.000,00
CAPITAL SOCIAL		R$ 900.000,00	R$ 900.000,00
RESERVAS		R$ 22.210.118,12	R$ 23.168.885,71
RESERVAS DE LUCROS		R$ 22.210.118,12	R$ 23.168.885,71
RESERVA DE LUCROS		R$ 22.210.118,12	R$ 23.168.885,71
LUCROS OU PREJUÍZOS ACUMULADOS		R$ 0,00	R$ 0,00
LUCROS OU PREJUÍZOS ACUMULADOS		R$ 0,00	R$ 0,00
(-) LUCROS ACUMULADOS		R$ (68.283.161,67)	R$ (1.286.710.787,67)
(-) PREJUÍZOS ACUMULADOS		R$ 68.283.161,67	R$ 1.286.710.787,67
LUCRO ACUMULADO DO EXERCÍCIO		R$ 0,00	R$ 0,00
(-) PREJUÍZO ACUMULADO DO EXERCÍCIO		R$ 0,00	R$ 0,00

Este documento é parte integrante de escrituração cuja autenticação se comprova pelo recibo de número CB.BD.7B.06.E2.B5.63.B5.AC.EF.72.BA.B5.62.A1.2E.4C.71.F6.69-1, nos termos do Decreto nº 8.683/2016.

Este relatório foi gerado pelo Sistema Público de Escrituração Digital – Sped

DEMONSTRAÇÃO DE RESULTADO DO EXERCÍCIO

Entidade:	ATHENAS AUTOMACAO LTDA		
Período da Escrituração:	01/01/2024 a 31/12/2024	CNPJ:	01.425.676/0001-90
Número de Ordem do Livro:	28		
Período Selecionado:	01 de janeiro de 2024 a 31 de dezembro de 2024		

Descrição	Nota	Saldo anterior	Saldo atual
RECEITA BRUTA		R$ 80.923.289,84	R$ 104.465.169,20
VENDA DE MERCADORIAS		R$ 77.556.962,65	R$ 100.893.026,06
SERVIÇOS PRESTADOS		R$ 2.130.173,70	R$ 2.072.495,93
RECEITA COM LOCAÇÃO DE EQUIPAMENTOS		R$ 1.236.153,49	R$ 1.499.647,21
(-) DEDUÇÕES DA RECEITA BRUTA		R$ (17.501.562,33)	R$ (29.249.117,39)
(-) (-) DEVOLUÇÃO DE VENDA DE MERCADORIAS		R$ (6.933.466,28)	R$ (11.966.404,75)
ICMS S/ DEVOLUÇÃO VENDA		R$ 302.018,12	R$ 1.031.858,29
PIS S/ DEVOLUÇÃO VENDA		R$ 95.425,61	R$ 161.221,78
COFINS S/ DEVOLUÇÃO VENDA		R$ 439.536,13	R$ 742.597,27
(-) (-) ICMS		R$ (9.318.549,00)	R$ (12.639.411,28)
(-) (-) ISS		R$ (56.061,63)	R$ (48.283,72)
(-) (-) COFINS		R$ (5.140.412,83)	R$ (6.616.128,98)
(-) (-) PIS		R$ (1.115.908,88)	R$ (1.435.025,96)
(-) (-) ICMS DIFERENCIAL DE ALÍQUOTAS		R$ (3.675.066,44)	R$ (4.676.497,24)
CREDITO PRESUMIDO ICMS		R$ 7.900.922,87	R$ 6.196.957,20
RECEITA LIQUIDA		R$ 63.421.727,51	R$ 75.216.051,81
(-) CUSTOS		R$ (3.628.353,34)	R$ (5.004.614,98)
(-) ICMS ANTECIPAÇÃO PARCIAL		R$ (1.637,83)	R$ (80.750,57)
(-) GARANTIAS		R$ (2.708.448,10)	R$ (3.124.964,93)
(-) SOFTWARES		R$ (1.267.511,87)	R$ (2.140.183,26)
(-) PIS SOBRE GARANTIAS E SOFTWARES		R$ 62.177,54	R$ 76.657,52
(-) COFINS SOBRE GARANTIAS E SOFTWARES		R$ 286.860,01	R$ 264.626,26
(-) (-)PIS SOBRE SOFTWARE		R$ 120,13	R$ (0,00)
(-) (-) COFINS SOBRE SOFTWARE		R$ 86,78	R$ (0,00)
(-) CMV		R$ (45.970.028,02)	R$ (54.391.609,16)
(-) CUSTOS DAS MERCADORIAS VENDIDAS		R$ (45.970.028,02)	R$ (54.391.609,16)
LUCRO BRUTO		R$ 13.823.346,15	R$ 15.819.827,67
(-) DESPESAS OPERACIONAIS		R$ (6.525.333,23)	R$ (7.043.968,14)
(-) DESPESAS COM VENDAS		R$ (229.736,15)	R$ (395.248,43)
(-) ASSISTÊNCIA MÉDICA E SOCIAL		R$ 45,00	R$ (0,00)
(-) COMISSÕES		R$ (3.869,55)	R$ (32.210,00)
(-) FRETES E CARRETOS		R$ (199.330,34)	R$ (319.440,76)
(-) MANUTENÇÃO DE VEÍCULOS		R$ (1.005,86)	R$ (0,00)
(-) FRETES E CARRETOS - NÃO DEDUTIVEL		R$ (21.829,86)	R$ (39.592,25)
(-) (-) ICMS S/ FRETE		R$ 180,59	R$ (0,00)
(-) VIAGENS AÉREAS		R$ (2.083,00)	R$ (0,00)
(-) HOSPEDAGEM		R$ (1.843,13)	R$ (4.005,42)
(-) DESPESAS ADMINISTRATIVAS		R$ (6.295.597,08)	R$ (6.648.719,71)
(-) SALÁRIOS E ORDENADOS		R$ (751.470,16)	R$ (1.002.235,50)
(-) PRÓ-LABORE		R$ (79.812,00)	R$ (96.000,00)
(-) PRÊMIOS E GRATIFICAÇÕES		R$ (0,00)	R$ (3.048,00)
(-) 13º SALÁRIO		R$ (63.389,84)	R$ (78.897,16)
(-) FÉRIAS		R$ (70.119,67)	R$ (88.330,93)
(-) INSS		R$ (225.069,45)	R$ (294.771,15)
(-) FGTS		R$ (64.341,42)	R$ (89.078,53)
(-) ASSISTÊNCIA MÉDICA E SOCIAL		R$ (120.601,58)	R$ (140.791,12)
(-) VALE TRANSPORTE		R$ (38.201,71)	R$ (39.142,70)
(-) VALE REFEIÇÃO		R$ (48.058,04)	R$ (57.966,07)
(-) OUTROS DESCONTOS		R$ 2.706,07	R$ 9.256,57
(-) CONTRIBUIÇOES SINDICAIS		R$ (4.614,68)	R$ (0,00)
(-) DESPESA COM RECRUTAMENTO		R$ (233,83)	R$ (0,00)
(-) ALUGUÉIS DE IMÓVEIS		R$ (151.381,45)	R$ (26.938,76)
(-) IPTU		R$ (8.242,54)	R$ (6.116,15)
(-) TAXAS DIVERSAS		R$ (18.290,16)	R$ (20.410,31)
(-) MULTAS DE MORA		R$ (5.417,03)	R$ (8.614,63)
(-) IR S/APLICAÇÃO FINANCEIRA		R$ (6.224,39)	R$ (59.565,49)
(-) IOF		R$ (4.367,77)	R$ (7.420,55)
(-) ENERGIA ELÉTRICA		R$ (8.564,52)	R$ (8.475,05)
(-) ÁGUA E ESGOTO		R$ (2.490,10)	R$ (1.881,83)
(-) TELEFONE		R$ (9.508,47)	R$ (12.517,28)
(-) DESPESAS POSTAIS E TELEGRÁFICAS		R$ (6.243,14)	R$ (5.628,58)
(-) SEGUROS		R$ (7.820,47)	R$ (5.018,75)
(-) MATERIAL DE ESCRITÓRIO		R$ (200,00)	R$ (7.935,10)
(-) MATERIAL DE HIGIENE E LIMPEZA		R$ (4.725,62)	R$ (8.317,19)
(-) ASSISTÊNCIA CONTÁBIL		R$ (134.070,27)	R$ (242.141,86)
(-) SERVIÇOS PRESTADOS POR TERCEIROS		R$ (2.745,34)	R$ (1.372,00)
(-) DEPRECIAÇÕES E AMORTIZAÇÕES		R$ (310.458,69)	R$ (360.363,44)
(-) DESPESAS LEGAIS E JUDICIAIS		R$ (957,69)	R$ (957,69)
(-) SUPORTE TECNICO		R$ (183.619,67)	R$ (288.784,08)
(-) MANUTENÇÃO E REPARAÇÃO		R$ (846.198,72)	R$ (358.120,40)
(-) SEGURANÇA E VIGILANCIA		R$ (3.049,85)	R$ (3.440,84)
(-) LICENÇA P/SOFTWARE		R$ (38.399,75)	R$ (79.390,70)
(-) HONORARIOS ADVOCATICIOS		R$ (82.188,72)	R$ (85.578,56)
(-) MATERIAL DE CONSUMO		R$ (48.281,41)	R$ (36.869,30)
(-) CONDOMINIO		R$ (8.262,96)	R$ (8.362,13)
(-) DESPESA COM ALIMENTAÇÃO		R$ (2.351,41)	R$ (3.458,50)
(-) DESPESA COM ESTACIONAMENTO		R$ (22,00)	R$ (26,88)
(-) INTERNET/SITE		R$ (4.501,44)	R$ (5.044,42)
(-) DESPESA COM PUBLICIDADE E PROPAGANDA		R$ (61.660,32)	R$ (130.538,25)
(-) ASSESSORIA E CONSULTORIA		R$ (6.464,15)	R$ (135.624,21)
(-) EQUIPAMENTO INFORMATICA		R$ (17.909,83)	R$ (28.894,44)
(-) MATERIAL DE EMBALAGEM		R$ (0,00)	R$ (280,00)
(-) BRINDES		R$ (19.418,20)	R$ (0,00)
(-) CURSOS E TREINAMENTOS		R$ (91.298,63)	R$ (530.299,97)
(-) DESPESA C/ MULTA CONTRATUAL		R$ (0,00)	R$ (3.740,27)
(-) CERTIFICAÇÃO DIGITAL		R$ (150,00)	R$ (357,00)
(-) DESPESA C/ ICMS		R$ (4.532,77)	R$ (24.506,07)
(-) EXAMES LABORATORIAIS		R$ (50,00)	R$ (0,00)
(-) DESPESA COM COMISSÕES E CORRETAGEM		R$ (25.000,00)	R$ (0,00)
(-) DOAÇÕES		R$ (1.000,00)	R$ (0,00)
(-) CARTORIOS / TABELIONATOS		R$ (142,16)	R$ (0,00)
(-) DESPESA COM VIAGENS		R$ (3.039,97)	R$ (0,00)
(-) DESPESA COM JARDINAGEM		R$ (600,00)	R$ (1.120,00)
(-) DESPESA COM EVENTOS E CONFRATERNIZAÇÃO		R$ (833,50)	R$ (390,00)
(-) CUSTAS JUDICIAIS		R$ (957,69)	R$ (0,00)
(-) DESPESA COM MOVEIS E UTENSILIOS		R$ (1.709,50)	R$ (67,16)
(-) MULTA PROCESSO ADMINISTRATIVO		R$ (0,00)	R$ (879,00)
(-) DESPESA COM LICITAÇÃO		R$ (476.754,46)	R$ (463.329,59)
(-) SERVIÇO DE APOIO ADMINISTRATIVO		R$ (1.920.286,89)	R$ (1.553.431,79)
(-) DESPESA COM COBRANÇA		R$ (49.304,40)	R$ (54.386,20)
(-) DESPESA COM COMBUSTIVEL - ND		R$ (0,00)	R$ (404,51)
(-) OUTRAS DESPESAS - ND		R$ (85.730,44)	R$ (103.585,14)
(-) MATERIAL DE ESCRITÓRIO - ND		R$ (50,00)	R$ (0,00)
(-) SERVIÇOS PREST TERCEIROS - ND		R$ (120,00)	R$ (9.385,40)
(-) MANUTENÇÃO E REPARAÇÃO - ND		R$ (23.887,61)	R$ (33.173,72)
(-) DESPESAS COM VIAGEM - ND		R$ (0,00)	R$ (10.189,54)
(-) DESPESA C/ ALIMENTAÇÃO - ND		R$ (7.340,56)	R$ (7.956,37)
(-) DESCONTO CONCEDIDOS		R$ (87.600,00)	R$ (0,00)
(-) JUROS DE MORA		R$ (43.087,24)	R$ (17.006,30)
(-) DESPESA BANCARIA		R$ (4.878,87)	R$ (5.419,72)
RECEITAS FINANCEIRAS		R$ 1.458.797,86	R$ 1.739.774,49
(-) PERDA COM APLICAÇÃO FINANCEIRA		R$ (130.454,71)	R$ (250.512,56)
DESCONTOS FINANCEIROS OBTIDOS		R$ 90.304,74	R$ 66.252,46
RECEITA DE APLICAÇÃO FINANCEIRA		R$ 1.498.947,83	R$ 1.741.291,66
RECEITA COM ATUALIZAÇÃO SELIC		R$ 0,00	R$ 182.742,93
(-) OUTRAS DESPESAS OPERACIONAIS		R$ (8.098,93)	R$ (397.411,00)
(-) INDENIZAÇÃO DE PROCESSO TRABALHISTA E CIVEL		R$ (8.098,93)	R$ (0,00)
(-) PERDA DE ESTOQUE		R$ (0,00)	R$ (397.411,00)
OUTRAS RECEITAS OPERACIONAIS		R$ 198.954,75	R$ 769.649,47
OUTRAS RECEITAS OPERACIONAIS		R$ 198.203,20	R$ 735.761,47
RECEBIMENTO DE BONIFICAÇÃO		R$ 751,55	R$ 0,00
APOIO FINANCEIRO ENCHENTES RS		R$ 0,00	R$ 33.888,00
RESULTADO OPERACIONAL		R$ 8.947.666,60	R$ 10.887.872,49
RECEITAS NÃO OPERACIONAIS		R$ 365,00	R$ 12.852,51
OUTRAS RECEITAS NÃO OPERACIONAIS		R$ 365,00	R$ 12.852,51
RESULTADO ANTES DO IR E CSL		R$ 8.948.031,60	R$ 10.900.725,00
(-) PROVISÕES PARA IR E CSL		R$ (363.120,80)	R$ (3.425.723,08)
(-) (-) CONTRIBUIÇÃO SOCIAL		R$ (102.473,15)	R$ (913.161,99)
(-) (-) IMPOSTO DE RENDA		R$ (260.647,65)	R$ (2.512.561,09)
LUCRO LÍQUIDO DO EXERCÍCIO		R$ 8.584.910,80	R$ 7.475.001,92

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Este relatório foi gerado pelo Sistema Público de Escrituração Digital – Sped

Versão 10.3.3 do Visualizador

DEMONSTRAÇÃO DAS MUTAÇÕES DO PATRIMÔNIO LÍQUIDO

Entidade:	ATHENAS AUTOMACAO LTDA				
Período da Escrituração:	01/01/2024 a 31/12/2024	CNP	01.425.676/0001-90	Número de Ordem do Livro:	28
Período Selecionado:	01 de janeiro de 2024 a 31 de dezembro de 2024				

Histórico	Código de Aglutinação das Contas de Patrimônio Líquido				Total (R$)
	CAPITAL SOCIAL (R$)	RESERVA DE LUCROS (R$)	LUCROS ACUMULADOS (R$)	(-) PREJUÍZOS ACUMULADOS (R$)	
Saldo Inicial em 01.01.2024	900.000,00	22.210.118,12	(-)68.283.161,67	68.283.161,67	23.110.118,12
Ajustes de Exercícios Anteriores			(-)149.072,07		(-)149.072,07
Lucro Líquido			(-)1.210.952.624,08	1.218.427.626,00	7.475.001,92
Transferência para Reservas		958.767,59	(-)958.767,59		0,00
Dividendos Propostos			(-)6.367.162,26		(-)6.367.162,26
Saldo Final em 31.12.2024	900.000,00	23.168.885,71	(-)1.286.710.787,67	1.286.710.787,67	24.068.885,71
Notas					

Este documento é parte integrante de escrituração cuja autenticação se comprova pelo recibo de número CB.BD.7B.06.E2.B5.63.B5.AC.EF.72.BA.B5.62.A1.2E.4C.71.F6.69-1, nos termos do Decreto nº 8.683/2016.

ATHENAS AUTOMAÇÃO LTDA
CNPJ Nº 01.425.676/0001-90
DEMONSTRAÇÕES CONTÁBEIS ENCERRADAS
EM 31 DE DEZEMBRO DE 2024 E 2023
DEMONSTRAÇÃO DOS FLUXOS DE CAIXA – MÉTODO INDIRETO

	2024	2023
Fluxos de Caixa das Atividades Operacionais		
Lucro ou Prejuízo do Exercício	7.475.001,92	8.584.910,80
Ajustes por:		
Ajustes que não representam entrada ou saída de caixa	(149.072,12)	10.822,23
Depreciações e Amortizações	360.363,44	310.458,69
Resultado na venda do imobilizado	0,00	0,00
Lucro ou Prejuízo do Exercício ajustado	**7.686.293,24**	**983.624,39**
(Aumento) Redução nas Contas do Ativo	**(5.071.852,29)**	**373.027,27**
Títulos a receber	(807.916,35)	1.182.405,94
Outros créditos	2.807.952,08	-4.787.144,07
Estoque	(3.763.011,72)	3.974.973,88
Despesas Antecipadas	845,01	2.761,52
Aumento (Redução) em Contas do Passivo	**9.535.573,83**	**(2.431.821,32)**
Fornecedores	8.900.000,05	(3.551.740,25)
Obrigações Trabalhistas	10.263,61	(3.727,13)
Obrigações Tributárias	652.505,20	1.097.821,26
Outras Obrigações	(27.195,03)	25.824,80
Caixa Líquido Gerado pelas Atividades Operacionais	**12.150.014,78**	**(1.075.169,66)**
Fluxos de Caixa das Atividades de Investimento		
Aquisição/Alienação de imobilizado	(343.704,80)	74.250,07
Distribuição de Lucros	(6.367.162,26)	(5.932.814,10)
Reserva de Lucros	0,00	0,00
Caixa Líquido Consumido nas Atividades de Investimento	**(6.710.867,06)**	**(5.858.564,03)**
Fluxos de Caixa das Atividades de Financiamentos		
Empréstimos Tomados (-) Amortizações Efetuadas	815.050,13	(157.439,72)
Caixa Líquido Gerado (Consumido) nas Atividades de Financiamentos	**815.050,13**	**(157.439,72)**
Aumento Líquido de Caixa e Equivalentes de Caixa	**6.254.197,85**	**809.749,46**
Caixa e Equivalentes de Caixa no Início do Exercício	18.723.447,27	17.913.697,81
Caixa e Equivalentes de Caixa no Final do Exercício	24.977.645,12	18.723.447,27

Porto Alegre 31 de Dezembro de 2024.

MARCIO SCHUCH SILVEIRA:73745316053 Assinado de forma digital por MARCIO SCHUCH SILVEIRA:73745316053 Dados: 2025.05.22 12:06:23 -03'00'

Me. Márcio Schuch Silveira
Contador CRC/RS 59.871

ANDRE FELIPE HENKIN:41801954020 Assinado de forma digital por ANDRE FELIPE HENKIN:41801954020 Dados: 2025.05.22 14:35:44 -03'00'

André Felipe Henkin
Sócio administrador

NOTAS EXPLICATIVAS ÀS DEMOSTRAÇÕES CONTÁBEIS EM 31 DE DEZEMBRO DE 2024

NOTA 1 – CONTEXTO OPERACIONAL

A empresa Athenas Automação Ltda é uma sociedade empresária limitada, com sede e foro na cidade de Porto Alegre/RS na Rua Buarque de Macedo, n° 439, Bairro São Geraldo. A empresa possui três filiais, com sede e foro na cidade de Serra/ES na rua Francisco Sousa dos Santos n°456, A e B quadra Lote 374, bairro Jardim Limoeiro, inscrita no CNPJ 01.425.676/0003-51, em São Jose/SC na Avenida Marechal Castelo Branco n° 65, bloco B sala 803, bairro Campinas, inscrita no CNPJ 01.425.676/0005-13 e em Curitiba/PR na rua Padre Anchieta n° 248, Bairro Mercedes, inscrita no CNPJ 01.425.676/0006-02. Tendo como objetivo social principal o Comércio Varejista e Atacadista de equipamentos de software e suprimentos de informática, com início de atividades em 12/09/1996. Sua regência se dá pelo Contrato Social, com respaldo legal na Lei Federal n° 10.406/2002.

NOTA 2 – BASE DE ELABORAÇÃO E APRESENTAÇÃO

O sistema de contabilização bem como as demonstrações contábeis e financeiras, foi elaborado com observações dos Princípios Fundamentais da Contabilidade e as Normas Brasileiras de Contabilidade. Houve observações aos preceitos previstos na NBC – TG 1000, conforme resolução CFC nº 1418/2012.

NOTA 3 – PRINCIPAIS PRÁTICAS

3.1) Imobilizado

Está demonstrado ao custo de aquisição, sendo a depreciação calculada pelo método linear, obedecendo aos limites definidos pela legislação em vigor. As taxas de depreciação utilizadas são de 20%.

3.2) Ajuste de avaliação patrimonial.

A empresa nunca efetuou ajuste de avaliação patrimonial.

3.3) Investimentos em empresa coligadas e controladas.

A empresa não participa do capital social de outras sociedades.

3.4) Impostos Federais

A empresa opta pelo regime de tributação Lucro Real no exercício de 2024 e contabiliza os encargos tributários pelo regime de competência.

NOTA 4 – PASSIVO CONTINGENTE

Não há passivo contingente registrado contabilmente, tendo em vista que os administradores da empresa, escudado em opinião de seus consultores e advogados, não apontam contingências de quaisquer naturezas.

NOTA 5 – CAPITAL SOCIAL

O capital social é de R$ 900.000,00, apresentando a seguinte composição:

Sócios	**Participação %**	**Participação R$**	**Capital Integralizado**
André Felipe Henkin	50%	R$ 450.000,00	R$ 450.000,00
Alexandre Reis Girardi	50 %	R$ 450.000,00	R$ 450.000,00
Total	100%	R$ 900.000,00	R$ 900.000,00

NOTA 6 – EVENTOS SUBSEQUENTES

Os administradores declaram a inexistência de fatos ocorridos subsequentemente a data de encerramento do exercício que venham a ter efeitos relevante sobre a situação patrimonial ou financeira da empresa ou que possam provocar efeitos sobre seus resultados futuros.

Porto Alegre, 31 de dezembro de 2024.

MARCIO SCHUCH SILVEIRA:73745316053 Assinado de forma digital por MARCIO SCHUCH SILVEIRA:73745316053 Dados: 2025.05.22 11:52:55 -03'00'

Me. Márcio Schuch Silveira
Contador CRC/RS 59.871

ANDRE FELIPE HENKIN:41801954020 Assinado de forma digital por ANDRE FELIPE HENKIN:41801954020 Dados: 2025.05.22 14:36:16 -03'00'

André Felipe Henkin
Sócio administrador

SITUAÇÃO DO ARQUIVO DA ESCRITURAÇÃO

Nome Empresarial:	ATHENAS AUTOMACAO LTDA				
CNPJ:	01.425.676/0001-90	Nire:	43203319881	Scp:	
Período da Escrituração:	01/01/2024 a 31/12/2024				
Forma de Escrituração Contábil:	Livro Diário (Completo - sem escrituração Auxiliar)				
Natureza do Livro:	Livro Diário				
Identificação do arquivo(hash):	CB.BD.7B.06.E2.B5.63.B5.AC.EF.72.BA.B5.62.A1.2E.4C.71.F6.69-				

Consulta Realizada em: 22/05/2025 07:48:55

Resultado da Verificação

A escrituração visualizada é a mesma que se encontra na base de dados do SPED.

Situação Atual

Escrituração com NIRE AUTENTICADA

A escrituração encontra-se na base de dados do Sped e considera-se autenticada nos termos do Decreto nº 1.800/1996, com a alteração dada pelo Decreto nº 8.683/2016. O recibo de entrega constitui a comprovação da autenticação, nos termos do art. 39-B da Lei nº 8.934/1994, sendo dispensada qualquer outra autenticação (art.39-A da Lei nº 8.934/1994).

MINISTÉRIO DA FAZENDA
SECRETARIA DA RECEITA FEDERAL DO BRASIL
SISTEMA PÚBLICO DE ESCRITURAÇÃO DIGITAL – Sped Versão: 10.3.3

RECIBO DE ENTREGA DE ESCRITURAÇÃO CONTÁBIL DIGITAL

IDENTIFICAÇÃO DO TITULAR DA ESCRITURAÇÃO

NIRE	CNPJ	
43203319881	01.425.676/0001-90	

NOME EMPRESARIAL
ATHENAS AUTOMACAO LTDA

IDENTIFICAÇÃO DA ESCRITURAÇÃO

FORMA DA ESCRITURAÇÃO CONTÁBIL	PERÍODO DA ESCRITURAÇÃO
Livro Diário (Completo - sem escrituração Auxiliar)	01/01/2024 a 31/12/2024
NATUREZA DO LIVRO	**NÚMERO DO LIVRO**
Livro Diário	28

IDENTIFICAÇÃO DO ARQUIVO (HASH)
CB.BD.7B.06.E2.B5.63.B5.AC.EF.72.BA.B5.62.A1.2E.4C.71.F6.69

ARQUIVOS SUBSTITUÍDOS (HASH)

ESTE LIVRO FOI ASSINADO COM OS SEGUINTES CERTIFICADOS DIGITAIS:

QUALIFICAÇÃO DO SIGNATARIO	CPF/CNPJ	NOME	Nº SÉRIE DO CERTIFICADO	VALIDADE	RESPONSÁVEL LEGAL
Pessoa Jurídica (e-CNPJ ou e-PJ)	01425676000190	ATHENAS AUTOMACAO LTDA:01425676000190	523295104972280775 01066853302	07/01/2025 a 07/01/2026	Sim
Contador	73745316053	MARCIO SCHUCH SILVEIRA:73745316053	277387487260643141 319672473113844267 48575762233	16/12/2024 a 16/12/2025	Não

NÚMERO DO RECIBO:

CB.BD.7B.06.E2.B5.63.B5.AC.EF.72.B
A.B5.62.A1.2E.4C.71.F6.69-1

Escrituração recebida via Internet
pelo Agente Receptor SERPRO

em 20/05/2025 às 14:49:33

26.47.88.61.CD.E1.F6.C0
D0.65.78.59.5C.04.21.C8

Considera-se autenticado o livro contábil a que se refere este recibo, dispensando-se a autenticação de que trata o art. 39 da Lei nº 8.934/1994. Este recibo comprova a autenticação.

BASE LEGAL: Decreto nº 1.800/1996, com a alteração do Decreto nº 8.683/2016, e arts. 39, 39-A, 39-B da Lei nº 8.934/1994 com a alteração da Lei Complementar nº 1247/2014.

Empresa: ATHENAS AUTOMACAO LTDA Página: 0001
Inscrição: 01.425.676/0001-90 Número livro: 0001
Endereço: RUA BUARQUE DE MACEDO, 439, SÃO GERALDO, PORTO ALEGRE/RS, CEP 90230-250
Período: 01/01/2024 - 31/12/2024
Insc. Junta Comercial: 43203319881 Data: 13/09/1996

COEFICIENTES DE ANÁLISES EM 31/12/2024

Coeficiente	Fórmula	Valor	Resultado
Índice de Liquidez Geral	Ativo Circulante + Realizável Longo Prazo	39.909.723,77 + 8.974.980,39	1,93
	Passivo Circulante + Passivo Não-Circulante	25.313.110,42 + 0,00	
Índice de Liquidez Corrente	Ativo Circulante	39.909.723,77	1,58
	Passivo Circulante	25.313.110,42	
Índice de Solvência Geral	Ativo	49.381.996,13	1,95
	Passivo Circulante + Passivo Não-Circulante	25.313.110,42 + 0,00	
Capital Circulante Líquido	Ativo Circulante - Passivo Circulante	39.909.723,77 - 25.313.110,42	14.596.613,35
Grau de Endividamento	Passivo Circulante + Passivo Não-Circulante	25.313.110,42 + 0,00	0,51
	Ativo	49.381.996,13	

Declaramos que a empresa Athenas Automação Ltda., CNPJ.:01.425.676/0001-90, está sujeita à tributação pelo Lucro Real no ano de 2024.

ANDRE FELIPE HENKIN:41801954020 Assinado de forma digital por ANDRE FELIPE HENKIN:41801954020 Dados: 2025.05.22 14:35:08 -03'00'

ANDRE FELIPE HENKIN
ADMINISTRADOR
CPF: 418.019.540-20

MARCIO SCHUCH SILVEIRA:73745316053 Assinado de forma digital por MARCIO SCHUCH SILVEIRA:73745316053 Dados: 2025.05.22 14:14:38 -03'00'

Me. MARCIO SCHUCH SILVEIRA
Contador Reg. no CRC - RS sob o No. RS059871O4
CPF: 737.453.160-53

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, 05 de junho de 2025.

ANDRE FELIPE HENKIN:41801954020

Assinado de forma digital por ANDRE FELIPE HENKIN:41801954020
Dados: 2025.06.05 09:15:45 -03'00'

ATHENAS AUTOMAÇÃO LTDA
André Felipe Henkin

greeneletron
gestora de logística reversa

SÃO PAULO, 03 DE AGOSTO DE 2018.

DECLARAÇÃO

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 C.9 Disk units and storage sub-systems C.15 Personal computers and workstations 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 Preamplifier:Type26CA	69245 74813	2023-8-25
Microphone	GRAS	Microphone:Type40AE Preamplifier:Type26CA	69246 74811	2023-8-25
Microphone	GRAS	Microphone:Type40AE Preamplifier:Type26CA	71354 74809	2023-8-25
Microphone	GRAS	Microphone:Type40AE Preamplifier:Type26CA	71357 74815	2023-8-25
Microphone	GRAS	Microphone:Type40AE Preamplifier:Type26CA	71355 74810	2023-1-11
Microphone	GRAS	Microphone:Type40AE Preamplifier:Type26CA	71371 74812	2023-1-11

Equipment	Brand	Model	Serial number	Last calibration
Microphone	GRAS	Microphone:Type40AE Preamplifier:Type26CA	75164 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

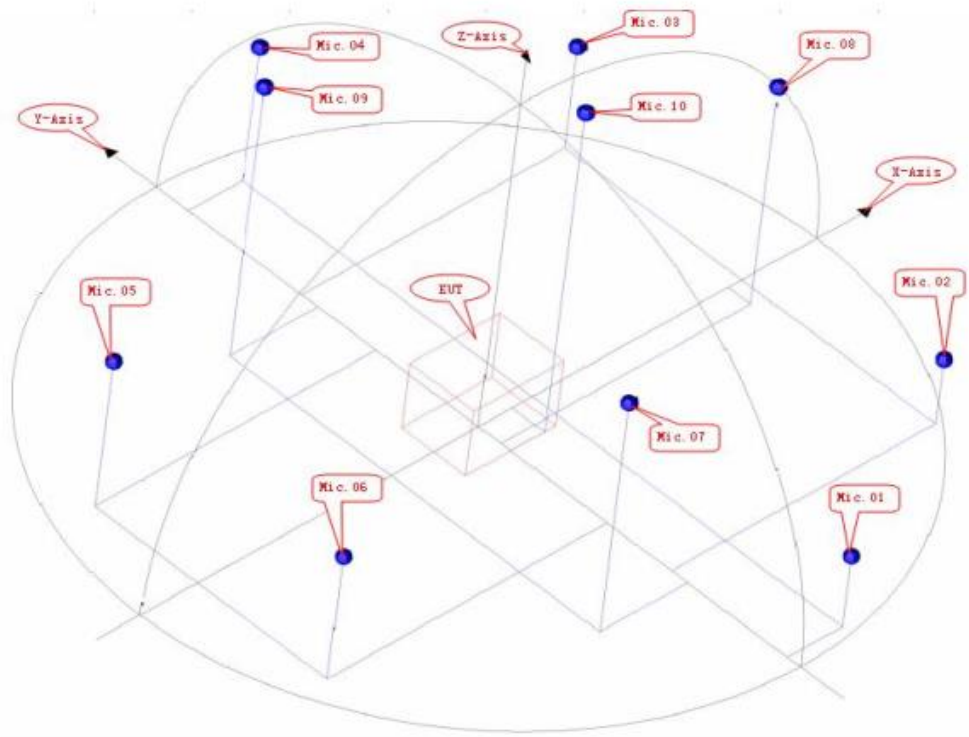
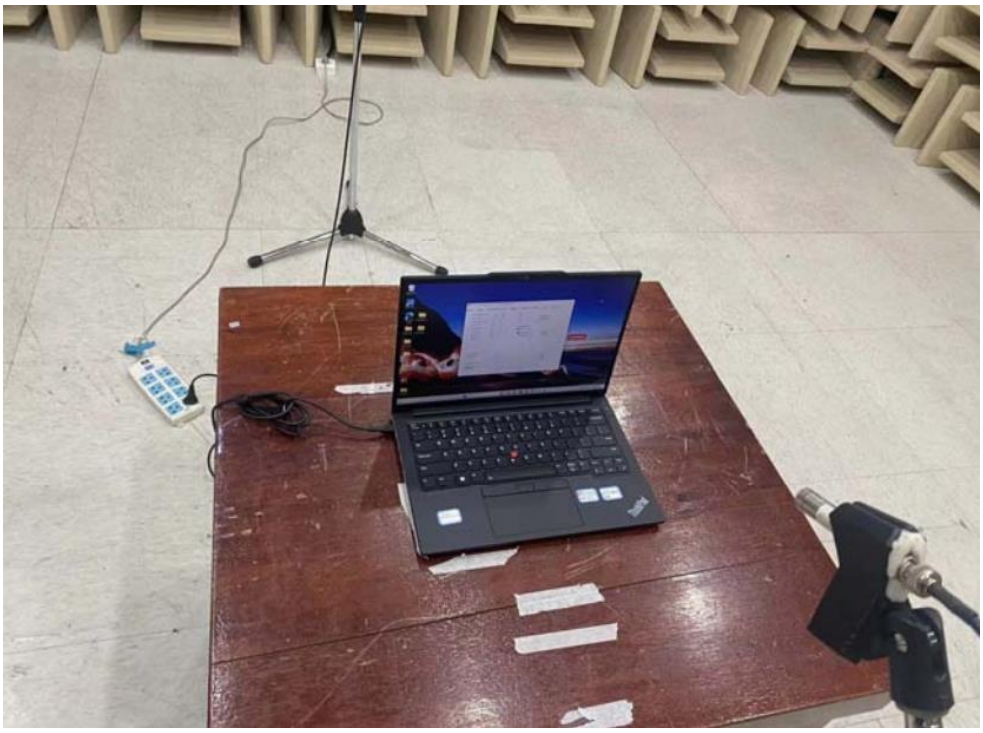


Fig. 3 Location of EUT and microphone position (Side view)

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 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

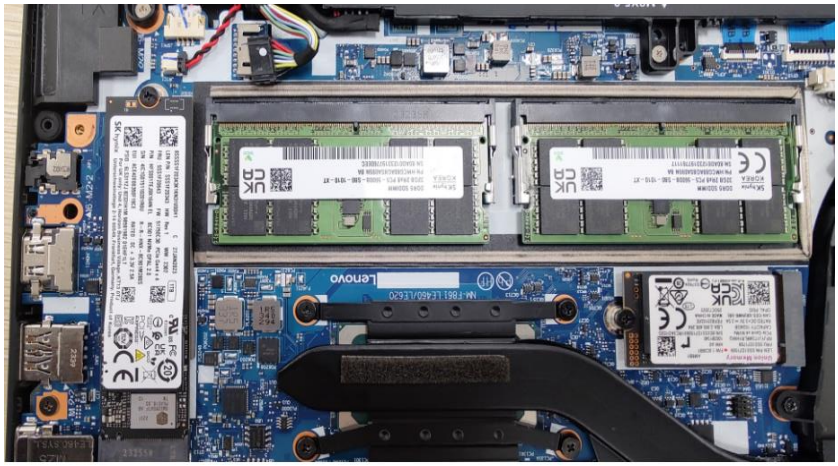
Product	Model	Serial No.
ThinkPad E14 Gen6	SKU9	PF4N3CA0
Components:		Serial No.:
CPU	Intel Ultra 7-155U	---
Cooling fan	AVC Toshiba	---
GPU	NA	---
SSD	Union Mem 1T	---
	Hynix 1T	

A.2 Photos

A.2.1 AC/DC adapter

A.2.2 System label

A.2.3 Storage

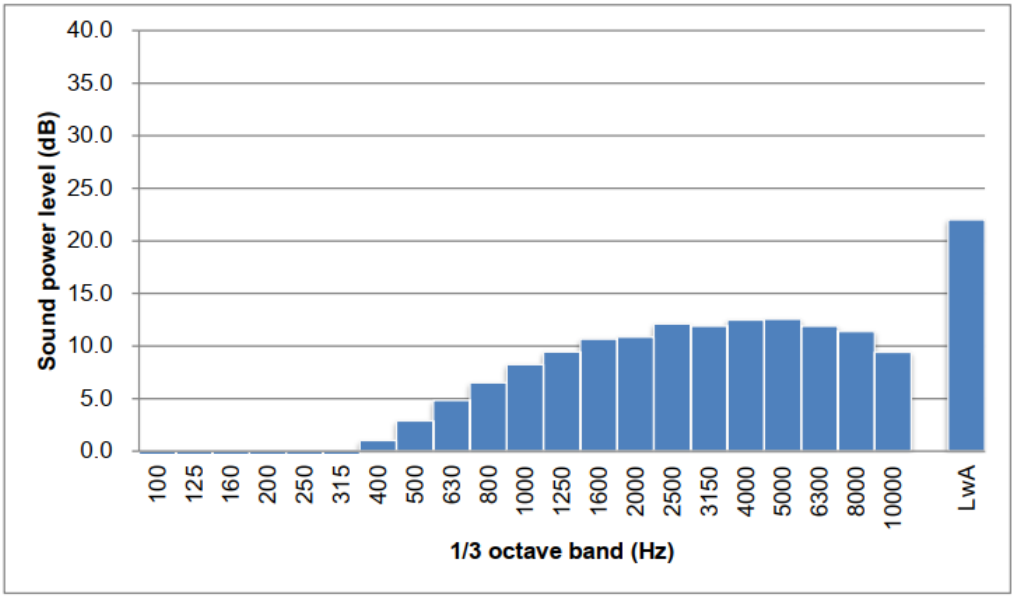


A.2.4 Fan module

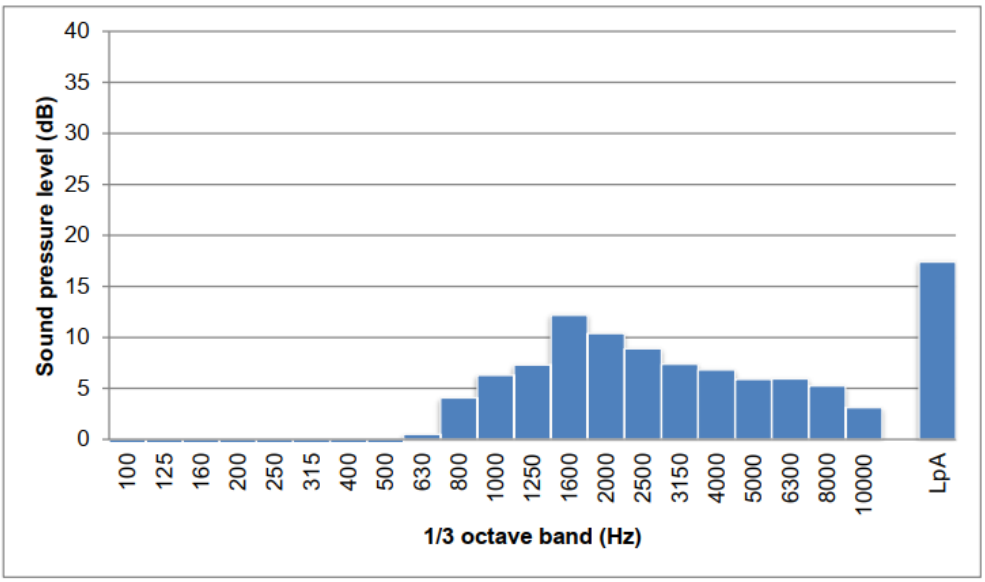
A.3 Measurement result

A.3.1 Idle mode

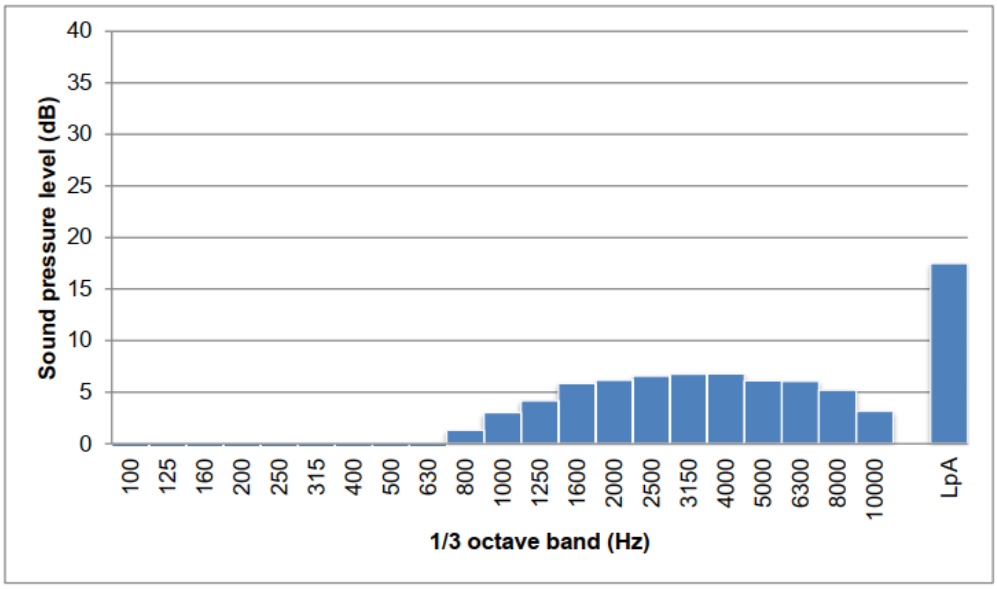
A.3.1.1 Sound power level



A.3.1.2 Sound pressure level at operator position

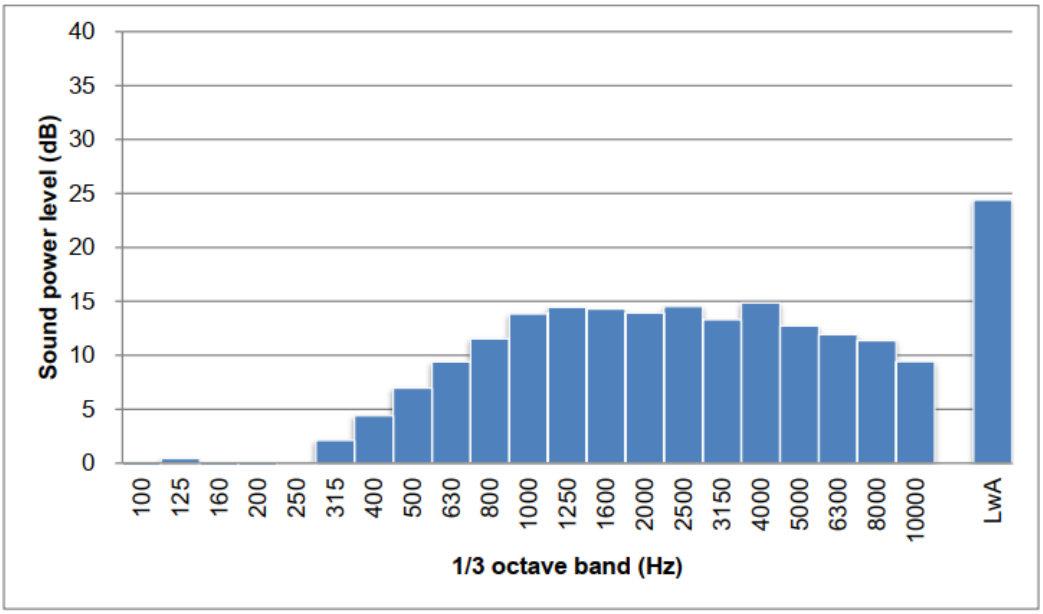


A.3.1.3 Mean sound pressure level at bystander position

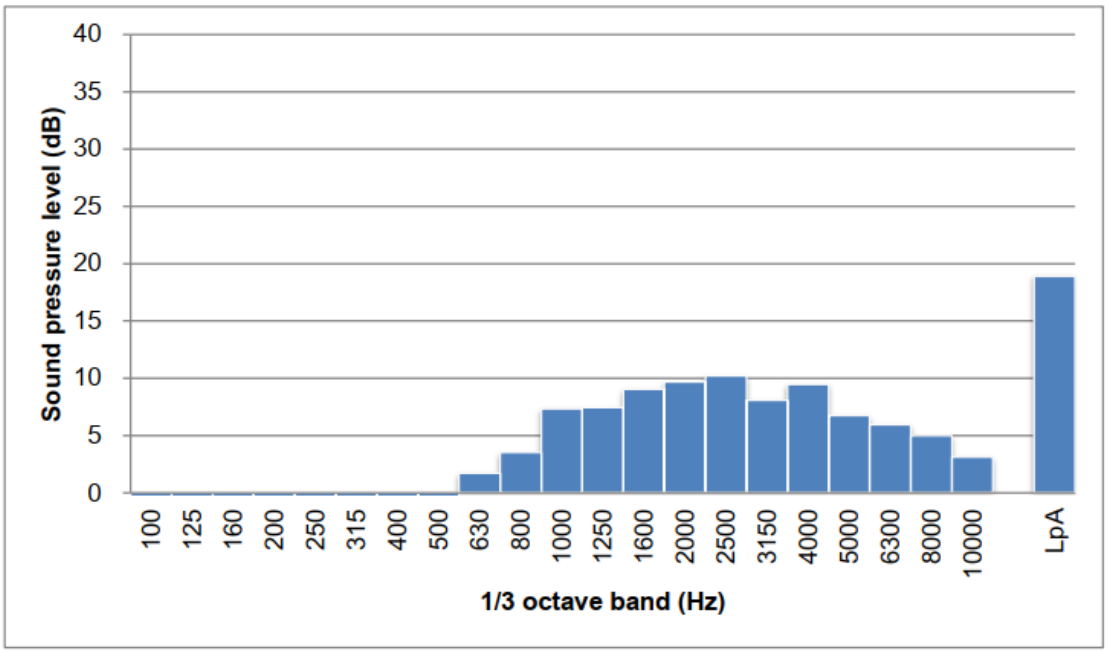


A.3.2 Operating mode (CPU)

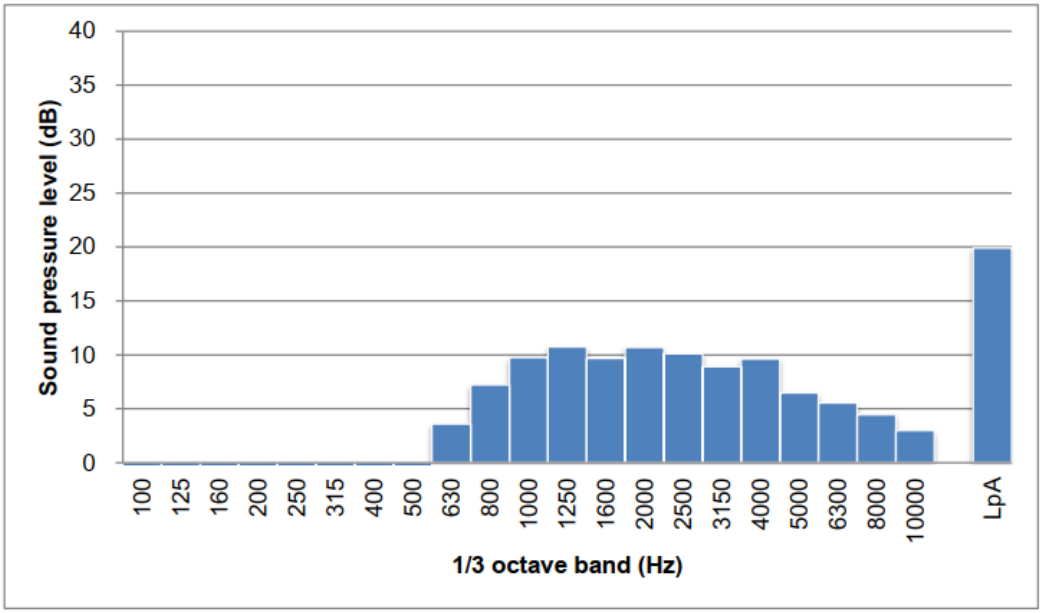
A.3.2.1 Sound power level



A.3.2.2 Sound pressure level at operator position

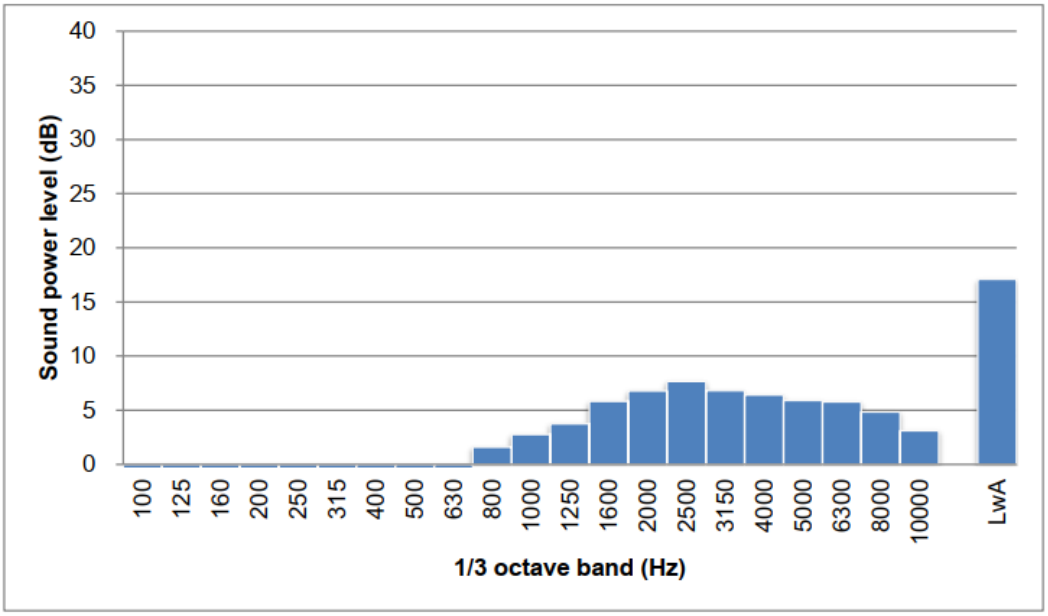


A.3.2.3 Mean sound pressure level at bystander position

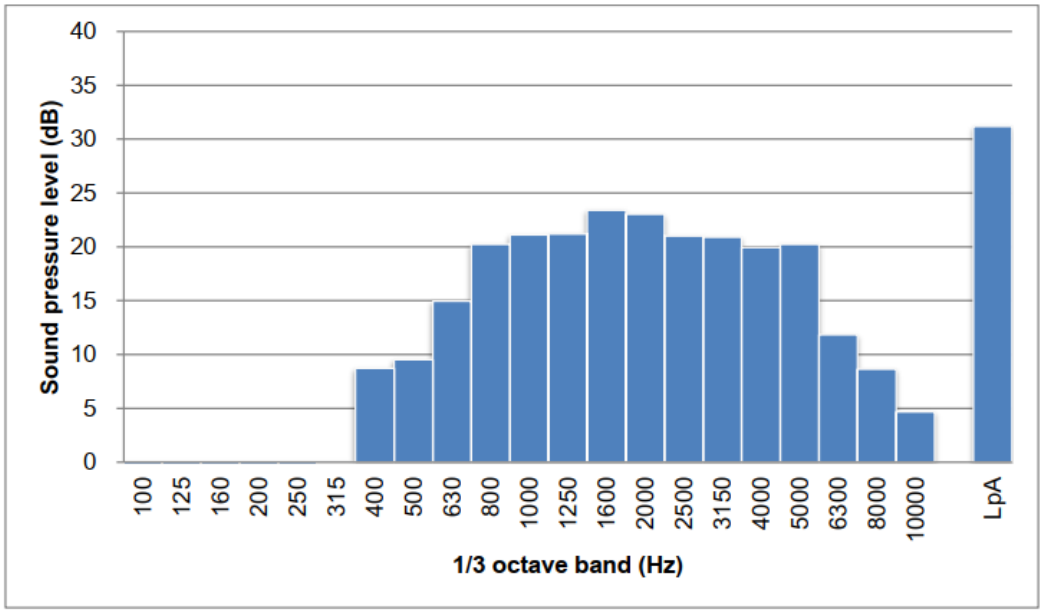


A.3.3 Operating mode (SSD)

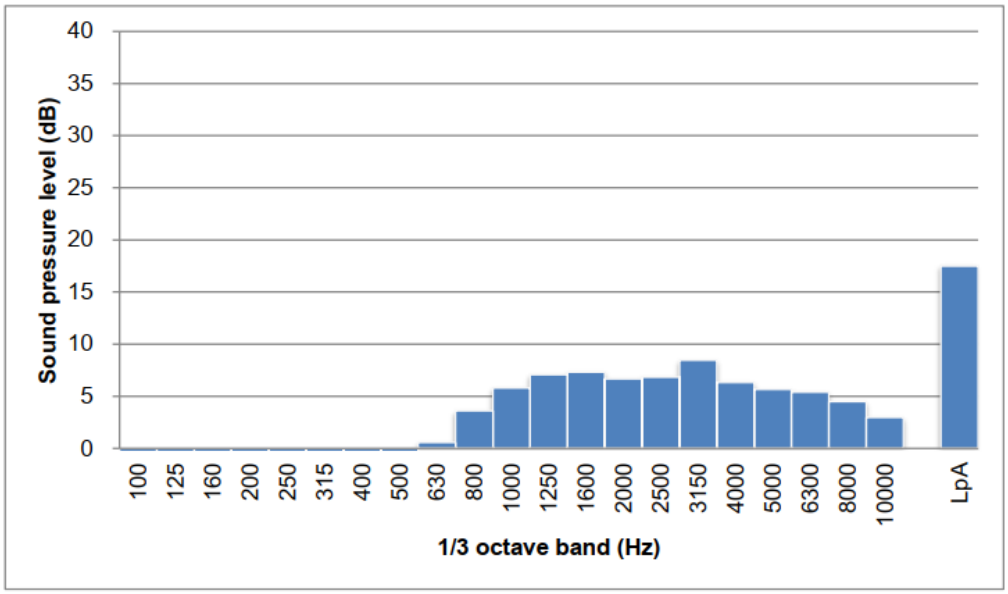
A.3.3.1 Sound power level



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

descarte green eletroeletrônicos

Fabricantes e Importadores

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ARRIS	ASUS IN SEARCH OF INCREDIBLE	AVELL	BOSCH	Bandeirante
brother at your side	CASIO	COMPAL	COMPAQ Compatível com você.	DATACOM
dazz	DELL	dicomp	DL	DURACELL
EATON Powering Business Worldwide		EPSON EXCEED YOUR VISION		FAGUNDEZ
FAME A marca do Brasil	flex LIVE SMARTER	FORONI	FOXCONN	FUJIFILM Value from Innovation
	HARMAN A SAMSUNG COMPANY	Hasbro	HAYAMAX	HAYONIK
hp	HDL	ingenico a Worldline brand	intelbras	JABIL
jacto	JFL LARMES	KÄRCHER	KLATTER	legrand
Lenovo	LEROY MERLIN A casa de vocês	MG MARGIRIUS	maxprint	Microsoft
motorola	MULTILASER	ODERÇO	POSITIVO TECNOLOGIA	QUANTUM
RAYOVAC	SAMSUNG	Life Is On Schneider Electric	SMS	SODIMAC
STECK	tilibra	VAIO	mi xiaomi Distribuidor Oficial	YAMAHA

Distribuidores

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dicomp	elgin	GOLDEN DISTRIBUIDORA	iData DISTRIBUIDORA	INGRAM MICRO
INPOWER	mazer	NAGEM	ODERÇO	SND

Programa Green Recicla Pilha

Fabricantes e Importadores

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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 57.2 kPa or 8.3 psia	Power Off	PASS
		Procedure II (Operation)	(2)	15,000 feet for 1 hour 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) 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 -25℃ to 60℃ 4 hours	Power Off	PASS
		Procedure I-B	(9)	Single cycle shock -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℃ 24 hours x 10 cycles	Power Off	PASS
510.7	Sand and Dust	Procedure I (Blowing Dust)	(13)	140 mesh silica, 10 g/m³, 8.9 m/s 12 hours 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) 0.18 g/m³, 18 m/s 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 Vertical: 1.08 Grms Transverse: 0.21 Grms Longitudinal: 0.76 Grms 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) 40 minutes per axis	Power Off	PASS
		514.8C-8 Category 5 Truck/trailer-loose cargo	(18)	W/ Procedure II Assume 805 km (500 miles) 67 minutes	Power Off	PASS
		514.8E-1 Category 24 Minimum Integrity	(19)	Fig 514.8E-1 General min Integrity exposure 0.04 g^2/Hz 20 Hz - 1 KHz -6 db/Oct 1 KHz - 2 KHz 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 20 G/11ms 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; 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.

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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.

Learn about member benefits and requirements ▶

The RBA has four membership categories: Full, Regular, Affiliate, and Supporter. View the requirements of each category here. Full and Regular members are designated by an "F" or "R" following their company names below:

A
- AcBel Polytech Inc. - R
- Acer - R
- Advanced Micro Devices - F
- Advania AB - R
- Allegro MicroSystems
- Alphabet Inc. - R
- Altria Client Services LLC.
- Amazon.com, Inc. - R
- Amkor Technology, Inc. - R
- Amphenol Corporation
- ams OSRAM
- Analog Devices, Inc. - R
- Apple Inc. - F
- Applied Materials - R
- Arista Networks - R
- ARRIS Group - F
- ASE Technology Holding Co., Ltd.
- ASM International - F
- ASML Holding - R
- ASUSTeK Computer Inc. - F
- Atea ASA - R
- Avaya

B
- Best Buy - F
- Beyondsoft International
- Block, Inc.
- BMW Group
- Bosch Sensortec - R
- Bose Corporation - R
- Broadcom, Inc.
- Brother Industries Ltd.
- BT plc
- Bullitt Group Ltd

C
- Cadence Design Systems
- Canon Inc. - R
- Celestica - R
- ChargePoint, Inc.
- Chicony Electronics Co., Ltd - R
- Ciara
- Ciena - R
- Cirrus Logic, Inc.
- Cisco - F
- Citrix
- Compal Electronics - R
- Continental AG

D
- Dell Technologies - F
- Dustin AB

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

F
- Fabrinet - R
- Fairphone B.V.
- 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
- Insulet Corporation
- Intel Corporation - F
- Inventec Corporation - R
- iRobot Corporation

J
- Jabil - F
- JB Hi-Fi Limited
- JK Imaging Ltd. - R
- Juniper Networks - R

K
- Keurig Dr Pepper
- Key Foundry Co., Ltd.
- Keysight Technologies, Inc.
- Kingston Technology
- Kioxia Holdings Corporation - R
- KLA Corporation - R
- Konica Minolta - R
- Kyndryl
- KYOCERA AVX Components Corporation
- KYOCERA Document Solutions Inc. - R

L
- Lam Research Corporation
- Lenovo - R
- Lexmark - R
- LG Display
- LG Electronics - R
- LG Energy Solution
- Logitech Inc. - R
- Longwell Company - R
- Lumentum Holdings Inc. - R

M
- Marvell - R
- Media-Saturn-Holding GmbH
- Meta
- Microchip Technology Incorporated
- Micron Technology, Inc. - R
- Microsoft - R
- Mitsubishi Electric Corporation
- ModusLink
- Molex - R
- Monolithic Power Systems, Inc.
- Motorola Solutions, Inc. - R

N
- 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.

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

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

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

S
- Samsung Display
- Samsung Electronics - R
- Sanmina - R
- Schneider Electric
- Seagate Technology - F
- Seiko Epson Corporation - R
- Semtech Corporation
- Seriju 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
- Taiwan Chinsan Electronics Industrial Co., Ltd. - R
- 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
- 3M Electronics and Energy Business Group
- Tokyo Electron Limited
- Toshiba Corp. - R
- Trimble Inc. - R
- TT Electronics Plc

U
- Universal Electronics Inc.

V
- Veritas - R
- VIAVI Solutions Inc.
- Vishay Intertechnology, Inc. - R
- Vitesco Technologies GmbH
- VIZIO Inc. - R
- Volvo Car Group
- V.S. Plus Sdn Bhd

W
- Walmart
- Western Digital - R
- Wistron Corp. - R

X
- Xerox - R
- XP Power - R

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

Responsible Business Alliance
@RBAllianceOrg
@RBAllianceOrg is the world's largest industry coalition dedicated to #CSR in global #SupplyChains. On June 9, RBA will host a webinar for non-member companies that would like to learn more about RBA, its initiatives, and the value of membership. Register: bit.ly/3L5tLei

Jun 6, 2022

Responsible Business Alliance
@RBAllianceOrg
Many thanks to Lucrezia Busa, Member of the Cabinet of #EU Commissioner Reynders, for sharing her views on the key strengths of the legislative proposal for #EU #DueDiligence legislation, which DG Justice co-authored, during @RBAllianceOrg's European Conference this week.#EUCSDDD

May 13, 2022

Responsible Business Alliance
@RBAllianceOrg
The @RBAllianceOrg's CEO Rob Lederer, @amfori_intl Pres. @Kromjong & @OECD's @tylergillard spoke about the role of industry collaboration in enhancing companies' #DueDiligence efforts, priorities for the next decade of business & #HumanRights, during the RBA European Conference.

May 13, 2022

Founded in 2004 by a group of leading electronics companies committed to supporting the rights and well being of workers and communities worldwide affected by the global electronics supply chain.

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The Highlights of AM6A0

Applies PCIe Gen 4 and NVMe 1.4.

Achieves 4000 MB/s in sequential read and 600K IOPS in random read speed.

The largest capacity is 1 TB.

Two specifications, M.2.2242 and M.2.2280, are available, only 3.5g and 6g in weight.

Form Factor	M.2 2242-S3-M	
Capacity	256 GB	512 GB
Sequential Read	3900 MB/s	4000 MB/s
Sequential Write	2200 MB/s	3500 MB/s
Random Read IOPS(4 KB)	400K	430K
Random Write IOPS(4 KB)	400K	430K
TLC Sequential Write	500 MB/s	1000 MB/s
TLC Random Write IOPS(4 KB)	44K	43K
Size	Length 42±0.15 mm Width 22±0.15 mm Height Max 2.38 mm	
Weight	Max 3.5 g	
Power Specification	L1.2: <5 mW Idle: <50 mW Active: <150 mW	
Host Interface	PCIe interface Gen 4*4 Support NVMe 1.4 command Set	
Temperature	Operating: 0℃ to 70℃ Non-Operating: -40℃ to 85℃ Note: Measured by SMART Temperature and proper airflow recomm	
Humidity	5% to 95%, non-condensing	
MTBF	2 million hours	
Shock	1,500G, duration 0.5ms, Half Sine Wave	
Vibration	20G Peak, 10 to 2,000Hz, (15mins/Axis) *3Axi	
Allowable voltage	3.3V±5%	
Allowable noise / ripple	100mV p-p or less	

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File	Version	Date	Size	Download
AM6A0 Product Leaflet	V2.5	2023-08-15	0.0 M	

Início > Processo/Incidente: 0000000-00.0000.0.00.0000.0.00.0000.0.

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.
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Rua Conselheiro Nebias, 1131- Campos Elíseos - **São Paulo** - SP - CEP 01203-002

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.

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

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Certificação de Produtos
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IBM BRASIL - Indústria, Máquinas e Serviços Ltda.
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CEP 22290-240 Te!.: (21) 2132-5252 Fax: (21) 2132-5082
Internet: www.ibm.com.br CNPJ: 33.372.251/0001-56

DECLARAÇÃO

A IBM Brasil - Indústria, Máquinas e Serviços Ltda., inscrita no CNPJ 11º33.372.251/0001-56, e a PROXXI TECNOLOGIA LTDA, inscrita no CNPJ/MF sob o n.º 47.379.565/0001-95, por intermédio do seu representante legal abaixo assinado, declara para os devidos fins, que prestam serviços de suporte técnico para a Lenovo Tecnologia (Brasil) Ltda, incluindo serviços de instalação e reparos para toda a sua linha de produtos Think (Servidores, Workstation, Desktops, Notebook e Tablet) em todo o território nacional, de acordo com o contrato Master Agreement for Services & MA-14-000138 (the "Master Agreement") e os contratos: SERVICES AGREEMENT SOW & SA-49S1600326 (the "CC&FS SOW") e o contrato SERVICES AGREEMENT SOW SA-49S1600327 the "Parts SOW") firmados entre ambas as partes.
Informamos ainda que possuímos centros de apoio reparos para assegurar atendimento local, na modalidade Centro de Atendimento Técnico do Próprio Fabricante, através de nossas filiais assim distribuídas:

REGIONAL	SEDE TECNICA	ENDEREÇO	CIDADE	UF	Telefone	GERENTE REGIONAL	e-mail
FEIRA DE SANTANA	ARACAJU	Rua Santa Catarina, 311 Siqueira Campos	ARACAJU	SE	71 99928 3402	WILSON DE SOUZA ARAUJO	wilsapx@br.ibm.com
BAURU	BAURU	Rua Waldemar Pereira da Silveira, 340, quadra 3, lote 2, CEP: 17034-280, Bauru, São Paulo	BAURU	SP	14 98136 0984	MARCOS ANTONIO	marcant1@br.ibm.com
BELEM	BELEM	Travessa Padre Eutíquio, 1379 - Batista Campos, Belém/PA - CEP 66035-045	BELEM	PA	85 98219 3781	FABIO REGIS	fabregm@br.ibm.com
BELO HORIZONTE	BELO HORIZONTE	Via Expressa, 3115 Galpão 4 Modulo D - Contagem/MG - CEP 32370-970	CONTAGEM	BH	31 99897 3254	GUSTAVO CAIXETA	gcaixepx@br.ibm.com
MANAUS	BOA VISTA	Endereço: Av. Major Williams, 518, Centro, Boa Vista – RR	BOA VISTA	RR	92 98125 1119	LUCIENE DA SILVA CARVALHO	carsiluc@br.ibm.com
BRASILIA	BRASILIA	SIBS (Setor de industrias Bernardo Sayão) Quadra 02 Conjunto C Lotes 13,14 e 15 - Nucleo Bandeirante - Brasilia/DF - CEP 71736-203	BRASILIA	DF	61 9 9911 6068	MARCELLO BRAGA MATTOS	marcbrag@br.ibm.com
MANAUS	CACOAL	Av. Porto Velho, 2091 - 2andar	CACOAL	RO	92 98125 1119	LUCIENE DA SILVA CARVALHO	carsiluc@br.ibm.com
CAMPINAS	CAMPINAS	Rua Ambrogio Bisogni,709 - Parque Rural Fazenda Santa Candida - Campinas - SP	CAMPINAS	SP	19 98187 1385	AUGUSTO JOSE LEONESSA	augustoj@br.ibm.com
CUIABA	CAMPO GRANDE	Rua Trindade, 451 - Vila Progresso, Campo Grande/MS - CEP 79050-480	CAMPO GRANDE	MS	81 98299 3455	JOSE ERISON DO NASCIMENTO	josecord@br.ibm.com
NITEROI	CAMPOS DOS GOYTACAZES	Avenida Boulevard Francisco de Paula Carneiro, 28 - Centro	CAMPOS DOS GOYTACAZES	RJ	21 99747 2476	PAULO JORGE	pjgaspx@br.ibm.com
RIBEIRAO PRETO	CATANDUVA	Praça da República, 52	CATANDUVA	SP	17 99622 7064	ALBANY CLEBER GODOI	albanypx@br.ibm.com
CUIABA	CUIABA	Avenida Coronel Escolástico, 310, Parte 2, bairro Lixeira, CEP 78.008-500	CUIABA	MT	81 98299 3455	JOSE ERISON DO NASCIMENTO	josecord@br.ibm.com
CURITIBA	CURITIBA	Rua Bom Jesus de Iguape, 6230 - Boqueirão, Curitiba/PR - CEP 81730-020	CURITIBA	PR	41 99178 8712	VALMIR MARTINS FARIA	vfariapx@br.ibm.com
BELO HORIZONTE	DIVINOPOLIS	Av. 1 de Junho, 333 - 1º andar	DIVINOPOLIS	MG	31 99897 3254	GUSTAVO CAIXETA	gcaixepx@br.ibm.com
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FEIRA DE SANTANA	FEIRA DE SANTANA	Rua Brumado 935 –Jardim Cruzeiro, CEP 44024-378 - Feira de Santana –BA	FEIRA DE SANTANA	BA	71 99928 3402	WILSON DE SOUZA ARAUJO	wilsapx@br.ibm.com
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FORTALEZA	FORTALEZA	Av Desembargador Moreira, 2800 - Loja - 01 PARTE - Dionisio Torres Fortaleza - CE / CEP 60170-172	FORTALEZA	CE	85 98219 2210	LEONARDO RABELLO	leopx@br.ibm.com
BRASILIA	GOIANIA	Av. Perimetral, 979 - Qd. 33 Lt. 2 - St. Campinas, Goiânia - GO	GOIANIA	GO	61 9 9911 6068	MARCELLO BRAGA MATTOS	marcbrag@br.ibm.com
VITORIA	GOVERNADOR VALADARES	Av. Minas Gerais, 395 - Térreo - Centro	GOVERNADOR VALADARES	MG	11 97254 0262	ANDESON COSTA	ancostpx@br.ibm.com
BELEM	IMPERATRIZ	R. Cel. Manoel Bandeira, 1763 - Centro, Imperatriz - MA, 65900-000 - 1o andar	IMPERATRIZ	MA	85 98219 3781	FABIO REGIS	fabregm@br.ibm.com
VITORIA	IPATINGA	Av. 28 de Abril, 176 - Terreo - Centro	IPATINGA	MG	11 97254 0262	ANDESON COSTA	ancostpx@br.ibm.com
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VITORIA	JUIZ DE FORA	Rua São Mateus, 506 - São Mateus	JUIZ DE FORA	MG	11 97254 0262	ANDESON COSTA	ancostpx@br.ibm.com
CIDADE DE DEUS	LAPA	Av. Kenkiti Simomoto, 448 - Jaguaré, São Paulo/SP - CEP 053477-010	LAPA	SP	11 98481 8695	REGINALDO FERNANDES DOS SANTOAS	rfsantos@br.ibm.com
CURITIBA	LONDRINA	R: Minas Gerais,337 esq. R: Sta. Catarina, 57 – Londrina	LONDRINA	PR	41 99178 8712	VALMIR MARTINS FARIA	vfariapx@br.ibm.com
BELEM	MACAPA	Rua Candido Mendes, 1316 - Centro	MACAPA	AP	85 98219 3781	FABIO REGIS	fabregm@br.ibm.com
RECIFE	MACEIO	Rua Professor José da Silveira Camerino, 880 Salas 121 e 122 - Pinheiro, Maceió/AL - CEP 57057-250	MACEIO	AL	81 98299 4205	JULLIUS ANDERSON REICHERT DO AMARAL	reichepx@br.ibm.com
MANAUS	MANAUS	Av. Torquato Tapajós, 1290 - Bairro da Paz, Manaus/AM - CEP 69048-010	MANAUS	AM	92 98125 1119	LUCIENE DA SILVA CARVALHO	carsiluc@br.ibm.com
CURITIBA	MARINGA	PR-317 KM 2, 2394 - Barracão comercial, 16 - Parque Industrial, Maringá/PR - CEP 87065-005	MARINGA	PR	41 99178 8712	VALMIR MARTINS FARIA	vfariapx@br.ibm.com
CAMPINAS	MOGI DAS CRUZES	Av. Francisco Ferreira Lopes, 2737 – Brás Cubas – Mogi das Cruzes	MOGI DAS CRUZES	SP	19 98187 1385	AUGUSTO JOSE LEONESSA	augustoj@br.ibm.com
VITORIA	MONTES CLAROS	Rua João Pinheiro, 659, Sala Andar Corrido, Centro,Montes Claros, MG	MONTES CLAROS	MG	11 97254 0262	ANDESON COSTA	ancostpx@br.ibm.com
FORTALEZA	MOSSORO	R. Coronel Vicente Saboia, 74 2 º andar Centro	MOSSORO	RN	85 98219 2210	LEONARDO RABELLO	leopx@br.ibm.com
VITORIA	MURIAE	Rua Cel Marciano Rodrigues, 175 / Sobre loja - Centro	MURIAE	MG	11 97254 0262	ANDESON COSTA	ancostpx@br.ibm.com
FORTALEZA	NATAL	Avenida Lima e Silva, 1344 - Lagoa Nova, Natal/RN - CEP 59063-400	NATAL	RN	85 98219 2210	LEONARDO RABELLO	leopx@br.ibm.com
BRASILIA	PALMAS	Av. JK Quadra 104 Norte conjunto 1 lote 1,2,3,4	PALMAS	TO	61 9 9911 6068	MARCELLO BRAGA MATTOS	marcbrag@br.ibm.com
RIBEIRAO PRETO	PARACATU	Av. Deputado Quintino Vargas, 431 Centro	PARACATU	MG	17 99622 7064	ALBANY CLEBER GODOI	albanypx@br.ibm.com
RECIFE	PAULO AFONSO	Av. Getúlio Vargas, 40 1º andar Centro	PAULO AFONSO	BA	81 98299 4205	JULLIUS ANDERSON REICHERT DO AMARAL	reichepx@br.ibm.com
PORTO ALEGRE	PELOTAS	Pça. Cel Pedro Osório, 152 Bairro Centro	PELOTAS	RS	51 99518 9688	TAIRAN GUSTAVO BITENCOURT GUBERT	taigugu@br.ibm.com
PORTO ALEGRE	PORTO ALEGRE	Rua Beirute, 340 - Navegantes, Porto Alegre/RS - CEP 90240-080	PORTO ALEGRE	RS	51 99518 9688	TAIRAN GUSTAVO BITENCOURT GUBERT	taigugu@br.ibm.com
MANAUS	PORTO VELHO	Avenida Jose Vieira Caula, 5551, Igarapé – Porto Velho -RO	PORTO VELHO	RO	92 98125 1119	LUCIENE DA SILVA CARVALHO	carsiluc@br.ibm.com
BAURU	PRESIDENTE PRUDENTE	Rua Tenente Nicolau Mafei, 286 - Subsolo - Centro	PRESIDENTE PRUDENTE	SP	14 98136 0984	MARCOS ANTONIO	marcant1@br.ibm.com
RECIFE	RECIFE	AV. Sul Governador Cid Sampaio 2993, Galpões C1 e C2 - Imbiribeira, Recife/PE - CEP 51160-000	RECIFE	PE	81 98299 4205	JULLIUS ANDERSON REICHERT DO AMARAL	reichepx@br.ibm.com
RIBEIRAO PRETO	RIBEIRAO PRETO	Rua Octavio Machado Filh0, No 395 Lote BP Quadra 37, Parque Cidade Industrial Lagoinha. Ribeirão Preto - SP	RIBEIRAO PRETO	SP	17 99622 7064	ALBANY CLEBER GODOI	albanypx@br.ibm.com
MANAUS	RIO BRANCO	Av. Getúlio Vargas, 1314 - Bosque, Rio Branco - AC, 69900-469	RIO BRANCO	AC	92 98125 1119	LUCIENE DA SILVA CARVALHO	carsiluc@br.ibm.com
RIO DE JANEIRO	RIO DE JANEIRO	Rua Teixeira Ribeiro, 130 RAMOS - Rio de Janeiro - RJ 21.040-242	RIO DE JANEIRO	RJ	21 98921 7368	MARCIO HENRIQUES DE MELLO	mamello@br.ibm.com
SALVADOR	SALVADOR	Travessa da Liberdade, 81 Galpão 9 e 10 - Pirajá, Salvador/BA - CEP 41295-195	SALVADOR	BA	71 99928 3402	WILSON DE SOUZA ARAUJO	wilsapx@br.ibm.com
SOROCABA	SANTOS	Rua Batista Pereira, 137 - Macuco, Santos/SP - CEP 11015-100	SANTOS	SP	19 99726 1784	EDUARDO PONSONI	eponsopx@br.ibm.com
SOROCABA	SAO JOAO DA BOA VISTA	Pça Gov. Armando Sales de Oliveira 35 Centro	SAO JOAO DA BOA VISTA	SP	19 99726 1784	EDUARDO PONSONI	eponsopx@br.ibm.com
RIBEIRAO PRETO	SAO JOSE DO RIO PRETO	R João Clemente, 550 - Conj. Hab. São Deocleciano, São José do Rio Preto/SP - CEP 15057-440	SAO JOSE DO RIO PRETO	SP	17 99622 7064	ALBANY CLEBER GODOI	albanypx@br.ibm.com
SAO JOSE DOS CAMPOS	SAO JOSE DOS CAMPOS	Av. Benedito Friggi, 3330 Fundos - Bairro Vista Verde – SJC, São Jose dos Campos - SP	SAO JOSE DOS CAMPOS	SP	11 94444 8449	ALEXANDRE NOVAK LORENA	alenovak@br.ibm.com
BELEM	SAO LUIS	Rua dos Ipes, 30 Quadra 29, Gleba A do Loteamento Jardim Renascença, no Bairro São Francisco, São Luís/MA - CEP 65075-200	SAO LUIS	MA	85 98219 3781	FABIO REGIS	fabregm@br.ibm.com
SOROCABA	SOROCABA	Rua São Bento, 233 2 andar, Sorocaba- SP	SOROCABA	SP	19 99726 1784	EDUARDO PONSONI	eponsopx@br.ibm.com
FORTALEZA	TERESINA	Endereço Rua São Pedro 3.330 Loja 1 CEP 64001-260 Teresina - PI	TERESINA	PI	85 98219 2210	LEONARDO RABELLO	leopx@br.ibm.com
RIBEIRAO PRETO	UBERLANDIA	Avenida Palmeira Imperial, 517 – Bosque Buritis – Cep 38406-582 Uberlândia – MG	UBERLANDIA	MG	17 99622 7064	ALBANY CLEBER GODOI	albanypx@br.ibm.com
BAURU	VARGINHA	Praça José Resende, 02 - Terreo - Centro	VARGINHA	MG	14 98136 0984	MARCOS ANTONIO	marcant1@br.ibm.com
VITORIA	VITORIA	Rua Luciano das Neves, 602, sala 101 - Centro, Vila Velha/ES - CEP 29100-200	VITORIA	ES	11 97254 0262	ANDESON COSTA	ancostpx@br.ibm.com
SALVADOR	VITORIA DA CONQUISTA	R Maximiliano Fernandes, 50 Centro	VITORIA DA CONQUISTA	BA	71 99928 3402	WILSON DE SOUZA ARAUJO	wilsapx@br.ibm.com
SAO JOSE DOS CAMPOS	VOLTA REDONDA	Avenida Amaral Peixoto, 424 - Centro	VOLTA REDONDA	BA	11 94444 8449	ALEXANDRE NOVAK LORENA	alenovak@br.ibm.com

Declara ainda que dispõe de peças de reposição que suportam o atendimento dos chamados técnicos efetuados e toda e qualquer abertura de chamado de produtos em garantia, deve ser efetuada através do número de telefone (11) 3003-2717 para abertura de chamados em São Paulo e 0800-728-7378 para regiões fora de São Paulo.

Tendo também como pessoa para contato o Sr. Rodrigo Franco, Gerente de Vendas, através do telefone (11) 95049-7190 ou pelo email francor@br.ibm.com.

São Paulo, 24 de Maio de 2024
e-Signed by Rodrigo Franco
on 2024-05-24

Rodrigo Franco
Senior Sales Specialist
Technology Lifecycle Services
IBM / Proxxi

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

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.

ABNT NBR ISO/IEC 17065
OCP 0029

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

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Form-ULID-017660 – Rev. 3.0

Certificado de Conformidade

Certificate of Conformity

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

Emissão / *Issue*	**Revisão /** *Review*: **09**	**Validade / *Expiration***
15 de agosto de 2022 *August 15, 2022*		14 de agosto de 2025 *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: “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

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

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 *August 15, 2022*		14 de agosto de 2025 *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 *Complaint Handling*	30/04/2024
Fabricante *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 *August 15, 2022*		14 de agosto de 2025 *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 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 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 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 April 12, 2024	Inclusão do modelo Lenovo 100e Chromebook Gen 3x, 82UYx, 82V0x.
05	18 de dezembro de 2023 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 July 25, 2023	Inclusão dos modelos ThinkPad E15 Gen 4, TP00117G, 21E6, 21E7
03	20 de março de 2023 March 20, 2023	Inclusão dos modelos ThinkPad L14 Gen 3xxxx, 21C1xxxx, 21C2xxxx, 21C5xxxx, 21C6xxxx
02	22 de agosto de 2022 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 August 30, 2022	Inclusão dos modelos Lenovo K14 Gen 1xxx, 21CV, 21CU.
00	15 de julho de 2022 August 15, 2022	Emissão inicial / *Initial Issue*
A última revisão substitui e cancela as anteriores / *The last review replaces and cancels the previous ones*		

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

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)

			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)

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)

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 °C 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

		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, HYYXXXXXXXY 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

				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

				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 (l)* (l) - 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)

- RTC battery (Lithium type) (Alternate)	VIC-DAWN ENTERPRISE CO LTD (Trademark:KTS)	CR2032	3.0Vdc,Maximu m 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)

		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)

		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)

			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 Output Continuous Rating: Max. 2.0A 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

- 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)

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)

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

		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(#) (#) - 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(+) (+) - 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(+) (+) - 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 + + - 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 + (+ - 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(#) (#) - 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

		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, HYYXXXXXXXYYYYY, 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

		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-

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

				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. 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), (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)

				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

				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)

- 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-

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 Current Limit Rating: 3.4 A	2014, 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 Current Limit Rating: 3.3 A	UL 62368-1, IEC 62368-1: 2014 (Second Edition), 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 (z= A to H)	Input Voltage: 4.75 to 5.5 Vdc Output Continuous Rating: VBUS_SW_OUT = 0.9 to 3.0A CC1/CC2 = 300mA Current Limit Rating: VBUS_SW_OUT = 0.968 – 3.194A CC1/CC2 = 570mA	UL 2367, IEC 62368-1: 2014, EN 62368-1: 2014/A11:2017	UL, CB by Demko (DK- 81786-M1-UL)
Motherboard (MB2) (Alternate)	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.	1206L110THXXY YYYY (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-	UL, TUV

				1:2011	
- 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, 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 (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 (U6701) 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 (U6701) 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 (U5601) for USB Type-C port use	NXP Semiconductor Taiwan Ltd.	NX5P3290UK/S90 0, NX5P3290UK	Input Voltage Range: 4.0 Vdc to 5.5Vdc Current Limit Rating: 3.3 A	UL 62368-1, IEC 62368-1: 2014 (Second Edition), EN 62368-1:	UL, CB by Demko (DK- 57975-A1-UL)

				2014	
- 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, X3=1,2 or 3, X4=U or D	Input Voltage Range: 2.7- 5.5Vdc Operational Current Rating per output: 3.0A at TA = 25oC / 2.5A at TA = 70oC Overcurrent Protection Current Rating per output: 3.1A- 4.0A / 2.6A- 4.0A	UL 2367, IEC 62368-1: 2014 (Second Edition), EN 62368-1: 2014+ A11: 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 (yyyyy = 0-9, A-Z or blank)	I/P: 2.5Vdc to 5.5Vdc O/P: 5.5Vdc max., 4.4A max.	UL 2367, IEC 60950-1: 2005+Am1: 2009+Am2: 2013	UL, CB by TUVRh (JPTUV- 058243-M1)
- Power Distribution Switch (UU401) for USB 2.0 port use (Alternate)	SILERGY TECHNOLOGY (TAIWAN) INC	SY6288D20AAC	Input Voltage: 2.5 to 5.5 Vdc Output Continuous Rating: Max. 2.0 A Current Limit Rating: 3.5 A	UL 2367, IEC 62368-1: 2014 (Second Edition)	UL, CB by Demko (DK- 86482-UL)
- Power Distribution Switch (UU401) for USB 2.0 port use (Alternate)	Global Mixed- mode Technology Inc.	G517FX1X2X3X4, 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 Range: 2.7- 5.5Vdc Operational Current Rating per output: 2.1A Overcurrent Protection Current Rating per output: 2.2A- 3.0A	UL 2367, IEC 62368-1: 2014 (Second Edition), EN 62368-1: 2014+ A11: 2017	UL, CB by TUVRh (JPTUV- 099276)
- Power Distribution Switch (UU401) for USB 2.0 port use (Alternate)	DIODES INC	AP22811AM8-13, AP22811AW5-7, AP22811BM8-13, AP22811BW5-7	Input Voltage: 2.7 - 5.5Vdc Output Continuous Rating: 2.0A Output Current Limit: 3.2A	UL 2367, IEC 60950-1: 2005+Am1: 2009+Am2: 2013, IEC 62368-1: 2014 (Second Edition), EN 62368-1: 2014+ A11: 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 ±	--	--

			15 % min., 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/

			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)

			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)

			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 , --

		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 , --

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 DEUTSCHLAN D 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 , --

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:

					2012)
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-

					118271-UL forIEC 62133-2)
09. Mainboard	--	--	See below	--	-- , --
09-01. Heat sink (Thermal module)	--	--	Cooper and aluminum. See the Enclosure ID 4-02 and 4-06	--	-- , --
09-02. RTC Battery (Lithium type)	Interchangeable	CR2032 or CR2032* or CR2032+ or CR2032 (l)* or CR2032 (j)(k)	3Vdc, Maximum abnormal charging 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 Output Continuous 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 be followed by additional letters, numbers, and/or a '-'	Input Voltage: 2.7 - 5.5 Vdc Output Continuous Rating: 0 - 2.1 A Output Current Limit: 104 - 3020 mA Ambient: -40 to 85°C	IEC 62368-1:2014, UL 2367	UL , CB by UL(US-34481-UL)

09-04. ProtectorIC for Type C USB port use	TEXAS INSTRUMENTSINC	Models SN1701012, SN1702027, SN1702030, SN1702033, SN1702036, and TPS65988 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 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 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 4.91 A with PPHV1 input 2. VBUS2: 4.5to 22 Vdc, 1.39 to 4.91 A with PPHV2input 3. C1CC1/C1CC2: 2.95 to 5.5 Vdc, 0.9A with PPCABLE1 input 4. C2CC1/C2CC2: 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 / A12: 2011 / A2:2013, UL2367	UL , CB by UL(US-30473-A3-UL)

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, overcurrent protection 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)

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)

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)

		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	--	--	-- , --

11a. Mesh for speaker opening(Alternate)	SICHUAN DONGFANG INSULATING MATERIAL COLTD	DFR117,DFR117ECOA,DFR117ECOB,DFR117ECOC	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 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 1.2mm min., 60 degree C	UL 94UL 746C	UL , --

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.	--	-- , --

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. 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. 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	--	-- , --

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)

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)

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)

			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)

				2020	
Adapter (Optional) (Alternate)	ACBEL POLYTECH INC.	ADL100YAC3A	I/P: 100-240Vac, 1.6A, 50-60Hz 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; 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(+) (+) - May be replaced by one, two, or three numbers and/or letter(s)	V-0, thickness 0.75mm min., 60°C	UL 94, UL 746	UL

Alt. Enclosure Material for LCDtop cover (Plastic type, main area)	SABIC JAPAN LLC	DC0051	V-0, thickness 0.8mm min., 80°C	UL 94, 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, UL 746	UL
Enclosure Material for LCDbezel, internal plastic frame of AL type bottom case	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+, "W" for ELV2010 included in Grade ELV20(a5)+.)	V-0, thickness 0.75mm min., 60ºC	UL 94, 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, 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 + (+ - Material designations may be followedby a six digit numerical code denoting	V-0, thickness 1.0mm min., 70°C	UL 94, UL 746	UL

		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, 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, UL 746	UL
- Adhesive for sponge on AVC, Delta fan	DEXERIALS CORP (SONY)	G9000R, G9000-SY	--	--	--

- 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

				2020, 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, 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- 119323-UL), (DK-119583-UL)
RechargeableLi-ion Battery (3S1P) (Alternate)	LG ENERGY SOLUTION, LTD.	L21L3P71	11.58Vdc, Typ.: 3400mAh / 39.3Wh, Rated: 3304mAh / 38.2Wh	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- 118944-UL), (DK-119248-UL)
RechargeableLi-ion Battery (3S1P) (Alternate)	SIMPLO TECHNOLOGYCO LTD	L21M3P71	11.61Vdc, 3392mAh / 39.3Wh or 3295mAh / 38.2Wh	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-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, UL 62368-1, IEC 62133-2: 2017, EN 62133-2: 2017, IEC 62368-1: 2018, EN IEC 62368-	UL, CB by Demko (DK- 119336-UL), (DK-119662-UL)

				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)

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

- 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*; * - 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,Maximum abnormal charging current10mA	UL 1642	UL (MH12210)
- RTC battery (Lithium type) (Alternate)	TOSHIBA LIFESTYLE PRODUCTS & SERVICES CORPORATION	CR2016* * - 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 be followed by additional characters thatdo not impact the safety features of thedevice.	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 (U5302) provided for HDMI port use(Alternate)	Global Mixed-mode Technology Inc.	G517ALX1X2X3 X4, X1=1 or 2, X2=TP, TB, RB or U5, X3=1, 2 or 3,X4=U or D	Input Voltage: 2.7 Vdc to 5.5 Vdc 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)

			2.15A Overcurrent Protection Current Rating per output: 0.2A-2.75A	Edition), 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 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 *Only 1 path within a pair are active at one time	UL 2367, IEC 62368-1: 2014, EN 62368-1: 2014/A11: 2017, EN 62368-1: 2014	UL, CB by UL (US-38687-UL)

- 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 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 (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 Continuous Rating: 30 mA to 2.5 A Current Limit: 100 mA to 3.18A	UL 2367, IEC 60950-1/ A2:2013, IEC 62368-1: 2014, EN 62368-1: 2014/A11:2017	UL, CB by UL (US-24707-M2- UL), (US-37272-UL)

		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 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)

		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

		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)

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

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	Interchangeable	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 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 UL 746C: 2018	UL , --

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 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 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 UL 746C: 2018	UL , --

		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 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 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 UL 746C: 2018	UL , --

		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 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 UL 746C: 2018	UL , --

		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 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 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 UL 746C: 2018	UL , --

02-04c. Enclosure Material for Bottom Case (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 UL 746C: 2018	UL , --
02-04. Enclosure Material for Bottom Case (Alternate)	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 UL 746C: 2018	UL , --
02-04d. Enclosure Material for Bottom Case (Alternate)	SABIC JAPAN L L C	DC0041PD(B5), ER010459(B5) (B5) – Represents color code 7M1D145 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 UL 746C: 2018	UL , --

		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 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 UL 746C: 2018	UL , --

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 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 UL 746C: 2018	UL , --
02-09a. Mylar for Keyboard (Alternate)	Interchangeable	Interchangeab l e	Min. VTM-0 or V-0.	UL 94: 2013 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

		(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	B140HATZZZZ , B140HAKZZZZ , B140HABZZZZ (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	B140HANZZZZ B140HTNZZZZ B140HTTZZZZ B140HTVZZZZ B140XTBZZZZ B140XTKZZZZ B140XTNZZZZ B140XTTZZZZ (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

		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	Interchangeabl 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.	BAPA0906R5H Y007, BAPA0906Z5H 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

		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

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)

		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)

		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 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 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)

		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. PI5USB2544Z HE, PI5USB2544Z HEX, PI5USB2544A ZHE, PI5USB2544A ZHEX, PI5USB2544Z HDE,	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)

		PI5USB2544ZHDEX, PI5USB2544AZHDE, PI5USB2544AZHDEX, PI5USB2546ZHE, PI5USB2546ZHEX, PI5USB2546AZHE, PI5USB2546HZHE, PI5USB2546AZHEX, PI5USB2546ZHDE, PI5USB2546ZHDEX, PI5USB2546AZHDE, PI5USB2546AZHDEX, PI5USB2546HZHEX, PI5USB2546HZHDE, PI5USB2546HZHDEX.			
06-03f. Protector IC for USB 3.0 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)

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)

		TSSOP-B8J.	BD82028FVJ: 1.2 A Model BD82029FVJ: 1.2 A Model BD82030FVJ: 1.8 A Model BD82031FVJ: 1.8 A Model BD82032FVJ: 2.3 A Model BD82033FVJ: 2.3 A Model BD82034FVJ: 2.8 A Model BD82035FVJ: 2.8 A Ambient: -40 °C to 85 °C		
06-03l. Protector IC for USB 3.0 and HDMI Ports (Alternate)	TEXAS INSTRUMENTS INCORPORATED	TPS2552-1, TPS2553, TPS2553-1, TPS2552	Input Voltage: 2.5 to 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 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 5.5 Vdc;Output Continuous Rating: 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)

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)

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)

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)

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

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

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

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

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)

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)

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

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

12b. RTC battery (Alternate)	DOUBLE BEST CO LTD	CR2016 (j)(k), (j) - These cells may have various insulating tube, ring, or tape, (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

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

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

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

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

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

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

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

REPÚBLICA FEDERATIVA DO BRASIL

CADASTRO NACIONAL DA PESSOA JURÍDICA

NÚMERO DE INSCRIÇÃO	COMPROVANTE DE INSCRIÇÃO E DE SITUAÇÃO CADASTRAL	DATA DE ABERTURA
01.425.676/0003-51 **FILIAL**		**07/11/2014**

NOME EMPRESARIAL
ATHENAS AUTOMACAO LTDA

TÍTULO DO ESTABELECIMENTO (NOME DE FANTASIA)
****

PORTE
DEMAIS

CÓDIGO E DESCRIÇÃO DA ATIVIDADE ECONÔMICA PRINCIPAL
47.51-2-01 - Comércio varejista especializado de equipamentos e suprimentos de informática

CÓDIGO E DESCRIÇÃO DAS ATIVIDADES ECONÔMICAS SECUNDÁRIAS
46.51-6-01 - Comércio atacadista de equipamentos de informática
46.51-6-02 - Comércio atacadista de suprimentos para informática
47.53-9-00 - Comércio varejista especializado de eletrodomésticos e equipamentos de áudio e vídeo
46.49-4-01 - Comércio atacadista de equipamentos elétricos de uso pessoal e doméstico
47.89-0-07 - Comércio varejista de equipamentos para escritório
46.69-9-99 - Comércio atacadista de outras máquinas e equipamentos não especificados anteriormente; partes e peças
47.52-1-00 - Comércio varejista especializado de equipamentos de telefonia e comunicação
46.52-4-00 - Comércio atacadista de componentes eletrônicos e equipamentos de telefonia e comunicação
47.89-0-99 - Comércio varejista de outros produtos não especificados anteriormente
46.65-6-00 - Comércio atacadista de máquinas e equipamentos para uso comercial; partes e peças
95.11-8-00 - Reparação e manutenção de computadores e de equipamentos periféricos
77.33-1-00 - Aluguel de máquinas e equipamentos para escritórios
77.39-0-99 - Aluguel de outras máquinas e equipamentos comerciais e industriais não especificados anteriormente, sem operador
46.14-1-00 - Representantes comerciais e agentes do comércio de máquinas, equipamentos, embarcações e aeronaves
46.15-0-00 - Representantes comerciais e agentes do comércio de eletrodomésticos, móveis e artigos de uso doméstico

CÓDIGO E DESCRIÇÃO DA NATUREZA JURÍDICA
206-2 - Sociedade Empresária Limitada

LOGRADOURO	NÚMERO	COMPLEMENTO
ROD ES-010	**2594**	**KM 2.60 QUADRACHA LOTE 343 SALA B46**

CEP	BAIRRO/DISTRITO	MUNICÍPIO	UF
29.164-140	**JARDIM LIMOEIRO**	**SERRA**	**ES**

ENDEREÇO ELETRÔNICO	TELEFONE
ANDRE@ATHENAS.INF.BR	**(51) 3363-4800**

ENTE FEDERATIVO RESPONSÁVEL (EFR)
*****

SITUAÇÃO CADASTRAL	DATA DA SITUAÇÃO CADASTRAL
ATIVA	**07/11/2014**

MOTIVO DE SITUAÇÃO CADASTRAL

SITUAÇÃO ESPECIAL	DATA DA SITUAÇÃO ESPECIAL
********	********

Aprovado pela Instrução Normativa RFB nº 2.119, de 06 de dezembro de 2022.

Emitido no dia **06/05/2025** às **11:34:49** (data e hora de Brasília). Página: **1/1**

MINISTÉRIO DA FAZENDA
Secretaria da Receita Federal do Brasil
Procuradoria-Geral da Fazenda Nacional

CERTIDÃO POSITIVA COM EFEITOS DE NEGATIVA DE DÉBITOS RELATIVOS AOS TRIBUTOS FEDERAIS E À DÍVIDA ATIVA DA UNIÃO

Nome: ATHENAS AUTOMACAO LTDA
CNPJ: 01.425.676/0001-90

Ressalvado o direito de a Fazenda Nacional cobrar e inscrever quaisquer dívidas de responsabilidade do sujeito passivo acima identificado que vierem a ser apuradas, é certificado que:

1. constam débitos administrados pela Secretaria da Receita Federal do Brasil (RFB) com exigibilidade suspensa nos termos do art. 151 da Lei nº 5.172, de 25 de outubro de 1966 - Código Tributário Nacional (CTN), ou objeto de decisão judicial que determina sua desconsideração para fins de certificação da regularidade fiscal, ou ainda não vencidos; e

2. não constam inscrições em Dívida Ativa da União (DAU) na Procuradoria-Geral da Fazenda Nacional (PGFN).

Conforme disposto nos arts. 205 e 206 do CTN, este documento tem os mesmos efeitos da certidão negativa.

Esta certidão é válida para o estabelecimento matriz e suas filiais e, no caso de ente federativo, para todos os órgãos e fundos públicos da administração direta a ele vinculados. Refere-se à situação do sujeito passivo no âmbito da RFB e da PGFN e abrange inclusive as contribuições sociais previstas nas alíneas 'a' a 'd' do parágrafo único do art. 11 da Lei nº 8.212, de 24 de julho de 1991.

A aceitação desta certidão está condicionada à verificação de sua autenticidade na Internet, nos endereços <http://rfb.gov.br> ou <http://www.pgfn.gov.br>.

Certidão emitida gratuitamente com base na Portaria Conjunta RFB/PGFN nº 1.751, de 2/10/2014.
Emitida às 09:06:23 do dia 27/03/2025 <hora e data de Brasília>.
Válida até 23/09/2025.
Código de controle da certidão: **0860.823E.3540.78DA**
Qualquer rasura ou emenda invalidará este documento.

Voltar Imprimir

CAIXA ECONÔMICA FEDERAL

Certificado de Regularidade do FGTS - CRF

Inscrição: 01.425.676/0003-51

Razão Social: ATHENAS AUTOMACAO LTDA

Endereço: ROD ES-010 KM 260 QD CHA SB46 2594 SALA B 46 / JARDIM LIMOEIRO / SERRA / ES / 29164-140

A Caixa Econômica Federal, no uso da atribuição que lhe confere o Art. 7, da Lei 8.036, de 11 de maio de 1990, certifica que, nesta data, a empresa acima identificada encontra-se em situação regular perante o Fundo de Garantia do Tempo de Servico - FGTS.

O presente Certificado não servirá de prova contra cobrança de quaisquer débitos referentes a contribuições e/ou encargos devidos, decorrentes das obrigações com o FGTS.

Validade:19/05/2025 a 17/06/2025

Certificação Número: 2025051912250641588868

Informação obtida em 23/05/2025 10:13:49

A utilização deste Certificado para os fins previstos em Lei esta condicionada a verificação de autenticidade no site da Caixa: **www.caixa.gov.br**

ESTADO DO ESPÍRITO SANTO
SECRETARIA DE ESTADO DA FAZENDA

Certidão Negativa de Débitos para com a Fazenda Pública Estadual - MOD. 2

Certidão Nº 20250000492775

Identificação do Requerente: CNPJ N° 01.425.676/0003-51

Certificamos que, até a presente data, não existe débito contra o portador do Cadastro de Pessoa Jurídica acima especificado, ficando ressalvada à Fazenda Pública Estadual o direito de cobrar quaisquer dívidas que venham a ser apuradas.

Certidão emitida via Sistema Eletrônico de Processamento de Dados, nos termos do Regulamento do ICMS/ES, aprovado pelo Decreto nº 1.090-R, de 25 de outubro de 2002.

Certidão emitida em **27/03/2025**, válida até **25/06/2025**.

A autenticidade deste documento poderá ser confirmada via internet por meio do endereço **www.sefaz.es.gov.br** ou em qualquer Agência da Receita Estadual.

Vitória, 27/03/2025.

Autenticação eletrônica: **001F.813D.1D70.8317**