

Certificado de Conformidade

Certificate of Conformity

Certificado/Certificate
UL-BR 24.0576

Revisão / Review
01

Emissão / Issue
30 de abril de 2024
April 30, 2024

Validade / Expiration
29 de abril de 2027
April 29, 2027



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

HP BRASIL INDÚSTRIA E COMÉRCIO DE EQUIPAMENTOS ELETRÔNICOS LTDA
CNPJ: 22.086.683/0001-84

avaliou o produto / *has had*

COMPUTADOR DE MESA / DESKTOP

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

PORTARIA NO. 304:2023 /
DECREE NO. 304/2023

e pode ostentar o Selo de Identificação da Conformidade do Sistema Brasileiro de Avaliação da Conformidade (SBAC) sobre o(s) produto(s) relacionado(s) neste certificado.

and can display the Conformity Identification Seal of the Brazilian Conformity Assessment System (SBAC) on the product(s) listed in this certificate.

Rafael O. 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

Certificate of Conformity

Certificado / Certificate: UL-BR 24.0576

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: 01

Validade / Expiration

29 de abril de 2027

April 29, 2027

Solicitante / Certificate Holder
(100039-522)

HP BRASIL INDÚSTRIA E COMÉRCIO DE EQUIPAMENTOS ELETRÔNICOS LTDA

ALAMEDA XINGU, 350, ANDAR 8 CONJ. 801 – ALPHAVILLE, BARUERI, SP.
CEP: 06455-030
CNPJ: 22.086.683/0001-84

Fabricante / Manufacturer
(100500-147)

FLEXTRONICS INTERNATIONAL TECNOLOGIA LTDA

AVENIDA LIBERDADE, 6315
18087-170 – SOROCABA – SP – BRASIL

Modelo de Certificação / 5
Certification Model

Norma(s) Aplicável(is) /
Applicable standards

IEC 60950-1:2005 (Second Edition), IEC 62368-1:2018 + Am 1:2009 + Am 2:2013, CISPR 22:2008, CISPR 32:2012, CISPR 32:2015/COR:2016, CISPR 24:2010+A1:2015, 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

Identificação UL / UL Identification BR2357, Vol. 8, Sec. 42, 43, 44, 45, 46, 47, 53, 54, 55, 70

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

Identificação da Família/Modelo/Lote de Produto(s) Certificado(s):

Identification of the Family/Model/Lot of Certified Product(s):

Marca / <i>Brand Name</i>	Modelo / <i>Model</i>	Descrição / <i>Description</i>	Código de Barras / <i>Bar Code Number</i>
HP	TPC-P069-SF, TPC-Q072-DM, TPC-F125-SF, TPC-F131-SF, TPC-Q076-DM, TPC-P072-SF, HSC-Q001DM, HSC-F002SF, HSC-F003SF, HSC-F006SF	COMPUTADOR DE MESA / DESKTOP	N/A

Família de Produto / Product's Family:

HP PRODESK 600 G6 SMALL FORM FACTOR PC,
HP PRODESK 400 G7 SMALL FORM FACTOR PC, HP PRODESK 600 G8 SMALL FORM FACTOR PC, HP ELITEDESK 800 G6 DESKTOP MINI PC, HP PRODESK 600 G6 DESKTOP MINI PC, HP PRODESK 400 G6 DESKTOP MINI PC, HP ELITEDESK 800 G8 DESKTOP MINI PC, HP PRODESK 600 G8 DESKTOP MINI PC, HP COLLABORATION G6 PC WITH ZOOM ROOMS, HP SLIM DESKTOP PC, HP 280 G4 SFF BUSINESS PC, HP 280 PRO G4 SFF BUSINESS PC, HP 290 G2 SFF BUSINESS PC, HP 280 G5 SFF BUSINESS PC, HP 280 PRO G5 SFF BUSINESS PC, HP 290 G3 SFF BUSINESS PC, HP 280 G5 SMALL FORM FACTOR PC, HP 280 PRO G5 SMALL FORM FACTOR PC
HP 290 G3 SMALL FORM FACTOR PC, HP ELITEDESK 805 G6 DESKTOP MINI PC, HP ELITEDESK 800 G6 SMALL FORM FACTOR PC, HP ELITEDESK 805 G8 DESKTOP MINI PC, HP PRODESK 405 G6 DESKTOP MINI PC, HP PRODESK 405 G8 DESKTOP MINI PC, HP ELITEDESK 805 G6 SMALL FORM FACTOR PC, HP PRODESK 405 G6 SMALL FORM FACTOR PC, HP PRODESK 405 G8 SMALL FORM FACTOR PC, HP ELITEDESK 805 G8 SMALL FORM FACTOR PC, HP ELITE MINI 800 G9 DESKTOP PC, HP MINI CONFERENCING PC WITH ZOOM ROOMS, HP ELITE MINI 600 G9 DESKTOP PC, HP PRO MINI 400 G9 DESKTOP PC, HP ELITE MINI 800 G9 DESKTOP PCX, HP MINI CONFERENCING PC WITH ZOOM ROOMSX, HP ELITE MINI 600 G9 DESKTOP PCX, HP PRO MINI 400 G9 DESKTOP PCX, HP ELITE SFF 800 G9 DESKTOP PC, HP ELITE SFF 600 G9 DESKTOP PC, HP ELITE SFF 800 G10 DESKTOP PC, HP ELITE SFF 800 G10, HP ELITE SFF 600 G10 DESKTOP PC, HP ELITE SFF 600 G10, HP ELITE SFF 800 G9 DESKTOP PCX, HP ELITE SFF 600 G9 DESKTOP PCX, HP ELITE SFF 800 G10 DESKTOP PCX, HP ELITE SFF 800 G10X, HP ELITE SFF 600 G10 DESKTOP PCX, HP ELITE SFF 600 G10X, HP Pro SFF 400 G9 Desktop



Solutions

UL do Brasil Certificações – CNPJ 04.830.102/0001-95
Av. Engenheiro Luís Carlos Berrini, 105 – 23º Andar
São Paulo – SP – Brasil – 04571-010 – <https://latam.ul.com/>

Página / Page: 2 / 69
Form-ULID-017660 – Rev. 3.0

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: UL-BR 24.0576

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: 01

Validade / Expiration

29 de abril de 2027

April 29, 2027

PC, HP Pro SFF 400 G9 Desktop PCX, HP Pro SFF 290 G9 Desktop PC, HP Pro SFF 280 G9 Desktop PC, HP Pro SFF ZHAN 66 G9 Desktop PC, HP Pro SFF 290 G9 Desktop PCxxxxxxxxxxxx, HP Pro SFF 280 G9 Desktop PCxxxxxxxxxxxx, HP Pro SFF ZHAN 66 G9 Desktop PCxxxxxxxxxxxx, HP Elite SFF 805 G9 Desktop PC, HP Elite SFF 805 G9, HP Elite SFF 805 G9 Desktop PCX, HP Elite SFF 805 G9X

*ONDE "X" PODE SER BRANCO, 0-9, A-Z, a-z, -, /, \ ou #"

Informações de Ensaio / Test Information:

Laboratório de Ensaio / Testing Laboratory	Relatório de Ensaio / Test Report	Data de Emissão / Issue Date
Universal Standard Service, Inc.	ASL20020312	2020-03-27
Universal Standard Service, Inc.	ASL20020312-001	2020-11-19
Bureau Veritas Consumer Products Services (H.K.) Ltd.	CEBDTL-WTW-P20090687	2020-10-22
FIT – Flextronics Instituto de Tecnologia	V20-063-SERV-07	2021-03-31
FIT – Flextronics Instituto de Tecnologia	V20-063-SERV-08	2021-03-31
Underwriters Laboratories Taiwan Co., Ltd	E142692-4789844255-1	2021-04-28
SGS Taiwan Ltd.	MH/2020/10105	2020-03-24
FIT – Flextronics Instituto de Tecnologia	V20-063-SERV-01	2021-03-31
FIT – Flextronics Instituto de Tecnologia	V20-063-SERV-02	2021-03-31
Audix Technology (Shenzhen) Co. Ltd	ACSCBIT19011	2019-05-28
Audix Technology (Shenzhen) Co. Ltd	ACSCBIT19011-01	2019-07-19
Audix Technology (Shenzhen) Co. Ltd	ACSCBIT19011-02	2020-01-17
Audix Technology (Shenzhen) Co. Ltd	ACSCBIT19011-03	2021-04-16
Audix Technology (Shenzhen) Co. Ltd	ACS-E19122-4	2021-04-29
FIT – Flextronics Instituto de Tecnologia	V20-063-SERV-11	2021-07-26
FIT – Flextronics Instituto de Tecnologia	V20-063-SERV-12	2021-07-26
Audix Technology (Shenzhen) Co. Ltd	ACSCBIT20007	2020-06-08
Audix Technology (Shenzhen) Co. Ltd	ACWE-E2006001	2020-06-01
FIT – Flextronics Instituto de Tecnologia	V20-063-SERV-03	2021-07-26
FIT – Flextronics Instituto de Tecnologia	V20-063-SERV-04	2021-07-26
Underwriters Laboratories Taiwan	E142692-4789898331-1	2021-05-03
SGS Taiwan Ltd.	MH/2020/50128	2020-06-24
FIT – Flextronics Instituto de Tecnologia	V20-063-SERV-09	2021-07-26
FIT – Flextronics Instituto de Tecnologia	V20-063-SERV-10	2021-07-26
Universal Standard Service Inc.	ASL20052817	2020-07-01
Bureau Veritas Consumer Products Services (H.K.)	CEBDTL-WTW-P20060009	2020-06-06
FIT – Flextronics Instituto de Tecnologia	V20-063-SERV-05	2021-07-26
FIT – Flextronics Instituto de Tecnologia	V20-063-SERV-06	2021-07-26
Underwriters Laboratories Taiwan Co., Ltd	E142692-A6204-CB-1	2021-11-16
Underwriters Laboratories Taiwan Co., Ltd	E142692-A6204-CB-1	2022-01-27
SGS Taiwan Ltd.	TMHY2109000325YA	2021-10-22
FIT – Flextronics Instituto de Tecnologia	V22-008-SERV-11-Rev.B	2022-08-08
FIT – Flextronics Instituto de Tecnologia	V22-008-SERV-12-Rev A	2022-08-03
Audix Technology Corporation	ATTCB110107	2021-11-05
SGS Taiwan Ltd.	TMHY2109000290YA	2021-10-12
FIT – Flextronics Instituto de Tecnologia	V22-008-SERV-09	2022-09-28
FIT – Flextronics Instituto de Tecnologia	V22-008-SERV-10	2022-09-28
Audix Technology Corporation	ATTCB110122	2021-11-05
Audix Technology Corporation	ATTCB110122-01	2022-02-18
SGS Taiwan Ltd.	TMHY2109000294YA	2021-10-12
SGS Taiwan Ltd.	TM-2202000344P	2022-03-16
FIT – Flextronics Instituto de Tecnologia	V22-008-SERV-07	2022-12-23
FIT – Flextronics Instituto de Tecnologia	V22-008-SERV-08	2022-12-23



Solutions

UL do Brasil Certificações – CNPJ 04.830.102/0001-95
Av. Engenheiro Luís Carlos Berrini, 105 – 23º Andar
São Paulo – SP – Brasil - 04571-010 – <https://latam.ul.com/>

Página / Page: 3 / 69
Form-ULID-017660 – Rev. 3.0

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: UL-BR 24.0576

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: 01

Validade / Expiration

29 de abril de 2027

April 29, 2027

Audix Technology (Shenzhen) Co., Ltd.	ACSCBIT21007-01	2022-02-16
Audix Technology (Shenzhen) Co., Ltd.	ACSCBIT21007	2021-09-24
Audix Technology (Shenzhen) Co., Ltd.	ACS-E19122-6	2022-03-04
FIT – Flextronics Instituto de Tecnologia	V22-008-SERV-13-Rev.A	2023-01-20
IBEC	R240329	2024-04-12
IBEC	R240330	2024-04-30
FIT – Flextronics Instituto de Tecnologia	V23-102-SERV-01_Rev-A	2024-04-17
Audix Technology Corporation	ATTCB113030	2024-05-21
SGS Taiwan Ltd.	TMHY2404000596YE	2024-05-16
FIT – Flextronics Instituto de Tecnologia	S24-152-SERV-01	2025-01-10

Informações de Auditoria / Audit Information:

Local da Auditoria / Audit Location	Data de Realização / Perform Date
Tratamento de Reclamações Complaint Handling	2024-04-19
Fabricante Manufacturer	2024-03-27

Informações Adicionais / Additional Information:

LISTA DE COMPONENTES CRÍTICOS / LIST OF CRITICAL COMPONENTS:

Para o modelo TPC-P069-SF ver Anexo 1 - Para o modelo TPC-Q072-DM ver Anexo 2
Para o modelo TPC-F125-SF ver Anexo 3 - Para o modelo TPC-F131-SF ver Anexo 4
Para o modelo TPC-Q076-DM ver Anexo 5 - Para o modelo TPC-P072-SF ver Anexo 6
Para o modelo HSC-Q001DM ver o Anexo 7 - Para o modelo HSC-F002SF ver o Anexo 8
Para o modelo HSC-F003SF ver o Anexo 9 - Para o modelo HSC-F006SF ver o Anexo 10

Observações / Observations:

- 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.
- 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.
- 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 Certifications must be notified about any desired change. This notification will be analyzed by UL do Brasil Certifications that will decide about certificate force.
- 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.

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: **UL-BR 24.0576**

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: **01**

Validade / Expiration

29 de abril de 2027

April 29, 2027

Histórico de Revisões / Revisions History:

Revisão / Review	Data / Date	Descrição da Revisão / Revision Description
01	22/01/2025	Inclusão de modelo HSC-F006SF (HP 805 G9) / Model inclusion
00	30/04/2024	Emissão Inicial com recertificação do certificado ULBR 21.0865 / Initial issue
A última revisão substitui e cancela as anteriores / The last review replaces and cancels the previous ones		

Anexo I / Attachment I:

Anexo 1 – Lista de componentes

Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity1)
Enclosure Material	Interchangeable	Interchangeable	Metal thickness 0.6mm min.	--	--
Front Enclosure Material (for decorative part)	Interchangeable	Interchangeable	HB min. or better.	UL 94	UL
Power Supply	Lite-On Technology Corporation	PA-1181-3HK	I/P: 100-240Vac, 50-60Hz, 2.3A O/P: 12.1Vdc, 14.88 max., Max. continuous total DC output Power 180W. Class I, Tma: 50oC, Altitude: 5000m	UL 62368-1 2nd, IEC 60950 1: 2005+A1+A2,EN 60950-1:2006 +A11:2009+A1: 2010+A12:2011+ A2:2013,IEC 62368-1:2014, EN 62368-1: 2014+A11:2017	UL, CB by TUVRh (Certificate No.:JPTUV -096977- M1),(JPTU V-083868- A1/M3
Power Supply (Alternate)	Chicony Power Technology Co., Ltd.	D19-180P2A	I/P:100-240Vac, 50-60Hz, 2.3A O/P:12.1Vdc, 14.88A,+12.1V shall not exceed 180W, Maximum power shall not exceed 180W. Class I, Tma: 50oC, Altitude: 5000m	UL 62368-1 2nd , IEC 60950-1: 2005+A1+A2, EN 60950-1: 2006+A11:2009+ A1:2010+A12: 2011+A2:2013, IEC 62368-1: 2014, EN 62368- 1: 2014+A11	UL, CB by TUVRh (Certificate No.: JPTUV- 100744), (JPTUV- 100829)
Power Supply (Alternate)	Delta Electronics, Inc.	DPS-180AB-30 XX (1st X= 0-9, B-Z or blank, except for A; 2nd X= 0-9, A-Z or blank)	I/P:100-240Vac, 50-60Hz, 2.3A O/P: 12.1Vdc/ 14.88A, Max. Power 180W. Class I, Tma: 50oC, Altitude: 5000m	UL 62368-1 2nd ,IEC 60950- 1:2005+A1+A2, EN 60950-1: 2006+A11:2009+A 1:2010+A12: 2011+A2:2013, IEC 62368-1: 2014, EN 62368-1: 2014+A11	UL, CB by TUVRh (Certificate No.:JPTUV - 100619), (JPTUV- 100615)

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: **UL-BR 24.0576**

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: **01**

Validade / Expiration

29 de abril de 2027

April 29, 2027

Power Supply (Alternate)	Acbel Polytech Inc.	PCK016	I/P: 100-240V, 50-60 Hz, 2.3A O/P: +12.1Vdc /14.88A Class I, Tma: 50oC, Altitude: 5000m	UL 60950-1, 2nd, IEC 60950- 1:2005+A1+A2, EN 60950-1: 2006+A11:2009+ A1:2010+A12: 2011+A2:2013, UL 62368-1 2nd IEC 62368-1: 2014, EN 62368- 1: 2014+A11	UL, CB by TUVRh (Certificate No.:JPTUV - 099953), (JPTUV- 099952)
Power Supply (Alternate)	Chicony Power Technology Co., Ltd.	D19-210P1A	I/P: 100-240Vac, 50-60Hz, 2.5A O/P: 12.1Vdc, 17.36A, +12.1V shall not exceed 210W, Maximum power shall not exceed 210W. Class I, Tma: 50oC, Altitude: 5000m	UL 62368-1 2nd , IEC 60950-1: 2005+A1+A2, EN 60950-1:2006 +A11:2009+A1: 2010+A12: 2011+A2:2013, IEC 62368-1:2014, EN 62368-1:2014+A11	UL, CB by TUVRh (Certificate No.:JPTUV -104367), (JPTUV- 104677)
Power Supply (Alternate)	Acbel Polytech Inc.	PCK015	I/P: 100-240V, 50-60Hz, 2.5A O/P: +12.1Vdc, 17.36A Class I, Tma: 50oC, Altitude: 5000m	UL 60950-1, 2nd, IEC 60950- 1:2005+A1+A2, EN 60950-1: 2006+A11:2009+ A1:2010+A12: 2011+A2:2013, UL 62368-1 2nd IEC 62368-1: 2014, EN 62368- 1:2014+A11	UL, CB by TUVRh (Certificate No.: JPTUV- 104523), (JPTUV- 104524)
HDD (Optional)	HGST Japan, Ltd.	HDS7225nnVLATn n - n= 0-9	5 Vdc, 1.5A or 12Vdc, 2.0 A max.	UL 60950-1, 2nd, EN 60950- 1:2006+A11+A1 +A12+A2	TUV
HDD (Optional) (Alternate)	Interchangeable	Interchangeable	5 Vdc, 1.5A or 12Vdc, 2.0 A max.	UL 60950-1, 2nd, EN 60950-1 :2006+A11 :009+ A1 :2010+A12 :2 011+A2:2013, IEC 60950-1 :2005 (2 nd editon)+Am1 :2009 +Am2:2013, IEC 62368-1:2014, EN 62368-1:2014	UL, TUV, NEMKO, VDE
SSD (Optional) (Alternate)	Lite-On Technology Corporation	CF1-CPxxxxxxx	5 Vdc, 2.0 A max.	UL 60950-1, 2nd, EN 60950-1 :2006+A11:00 9+A1 :2010+A12 :2011+A2:2013, IEC 60950-1 :2005 (2 nd editon) +Am1 :2009+Am2:2013	UL, TUV, VDE, Nemko

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: **UL-BR 24.0576**

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: **01**

Validade / Expiration

29 de abril de 2027

April 29, 2027

SSD (Optional) (Alternate)	Interchangeable	Interchangeable	5 Vdc, 2.0 A max.	UL 60950-1, 2nd, EN 60950-1 :2006+A11:009+A 1 :2010+A12 :2011+A2:2013, IEC 60950-1 : 2005 (2 nd editon) +Am1 :2009 +Am2: 2013, IEC 62368-1:2014, EN 62368-1: 2014	UL, TUV, VDE, Nemko
Optical Disk Device (Optional)	Hitachi-LG Data Storage Inc.	GHBzt, GHCzt, GHDzt Where z can be any number 0 TO 9, t can be any alphanumeric, denoting non safety related differences.	5Vdc, 2.0A max.; 12Vdc, 2.5A max. Laser Class I.	UL 60950-1, 2 nd Edition, 2014-10- 14, IEC 60950- 1:2005+A1+A2, EN 60950- 1:2006+A11+A1+ A12+A2, EN/IEC 60825- 1:2007	UL, TUV
Optical Disk Device (Optional) (Alternate)	Interchangeable	Interchangeable	5Vdc, 2.0A max.; 12Vdc, 2.5A max. Laser Class I.	UL 60950-1, 2 nd Edition, 2014-10- 14, IEC 60950- 1:2005+A1+A2, EN 60950- 1: 2006+A11+A1+A 12+A2, EN/IEC 60825-1:2007, IEC 62368-1: 2014, EN 62368- 1:2014	UL, TUV, VDE, Nemko
CPU Fan	Asia Vital Components Co., Ltd.	DS08025R12UP239	12Vdc, 0.7A max., 60.10 CFM min.	UL 507, IEC 60950-1:2005 +A1+A2, EN60950- 1:2006+A11+A1 +A12+A2 EN 62368-1: 2014/A11: 2017	UL, TUVRh, TUVSUD
CPU Fan (Alternate)	Delta Electronics, Inc.	AUB0812VJ- 00XXXXXX (X stands for A-Z, 0-9, - or blank for marketing purpose only)	12Vdc, 0.5A max., 53.05 CFM min.	UL 507, IEC 60950-1:2005 +A1+A2, EN 60950-1:2006 +A11+A1 +A12+ A2, IEC 62368-1: 2014, EN 62368- 1:2014	UL, TUVRH
CPU Fan (Alternate)	Foxconn Technology Co., Ltd.	PVA080G12Q	12Vdc, 0.65A max, 60 CFM min.	UL 507, EN 60950- 1:2006 +A11+A1+A12+ A2, EN 62368- 1:2014	UL, TUVRH
Motherboard	Interchangeable	Tommen/Tyrion	See below.	--	--
- RTC Battery	VIC-DAWN ENTERPRISE CO LTD / KTS	CR2032	3Vdc, max. abnormal charging current 10mA	UL 1642	UL (MH20550)

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: **UL-BR 24.0576**

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: **01**

Validade / Expiration

29 de abril de 2027

April 29, 2027

- RTC Battery (Alternate)	JHIH HONG TECHNOLOGY CO LTD	CR2032	3Vdc, max. abnormal charging current 10mA	UL 1642	UL (MH48406)
- RTC Battery (Alternate)	DOUBLE BEST CO LTD	CR2032 (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 10mA	UL 1642	UL (MH46388)
- RTC Battery (Alternate)	Interchangeable	Interchangeable	3V, maximum abnormal charging current 5mA min, against charging current by multiple components D20 and R17 rated 1Kohm min.	UL 1642	UL
- Polyswitch (M1F5) provided for HDMI port and (M1F3, M1F4) provided for Display ports use (M1F5 and M1F4 are optional)	Littelfuse Inc.	0805L110ULXXYY YYY (X, Y stands for A to Z, 0 to 9 or blank)	6Vdc, 1.1A	UL 1434, IEC/EN 60738-1:2006, IEC/EN 60738-1-1:2008, IEC 60730-1: 1999+A1, EN 60730-1: 2000+A1+A12+A13+A14	UL, TUV
- Polyswitch (M1F5) provided for HDMI port and (M1F3, M1F4) provided for Display ports use (M1F5 and M1F4 are optional) (Alternate)	Polytronics Technology Corp.	SPR-P110	6Vdc, 1.1A	IEC/EN 60738-1:2006, IEC /EN 60738-1-1:2008, IEC 60730-1: 1999+A1, EN 60730-1:2000 +A1+A12+A13+A14	TUV
- Protective IC (U53, U54) provided for front USB ports, (U52) provided for rear USB port use.	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, 70mohm/55mohm (typ.) N-MOSFET Switch	UL 2367, IEC 60950-1:2005 +A1+A2, EN 60950-1:2006 + A11:2009 + A1:2010+A12:2011+A2:2013, IEC 62368-1:2014, EN 62368-1: 2014/A11:2017	UL, CB by Nemko (Cert. No.: NO87949), (NO10977)

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: **UL-BR 24.0576**

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: **01**

Validade / Expiration

29 de abril de 2027

April 29, 2027

- Protective IC (U53, U54) provided for front USB ports, (U52) provided for rear USB port use (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	2.7 to 5.5V , Output Continuous Rating: 2.0 A, Current Limit Rating: 2.9A	UL 2367, IEC 60950-1(ed.2); am2, EN 60950-1:2006/A11:2009 /A1: 2010 /A12: 2011/ A2:2013, IEC 62368-1: 2014, EN 62368-1: 2014/A11 :2017	UL, CB by Demko (Cert. No.: DK-59231-A2-UL), (DK-87208-UL)
- Protective IC (U53, U54) provided for front USB ports, (U52) provided for rear USB port use (Alternate)	DIODES INC	AP22811AW5-7, AP22811BW5-7, AP22811AM8-13, AP22811BM8-13:	2.7-5.5Vdc, Output Continuous Rating: 2.0 A Output Current Limit: 3.2 A	UL 2367, IEC 60950-1: 2005 +A1+A2, EN 60950-1:2006 + A11 :2009 + A1:2010+A12:2011+A2:2013, IEC 62368-1:2014, EN 62368-1: 2014/A11:2017	UL, CB by UL (US) (Cert. No.: US-26790-A1-UL), (US-34018-UL)
- Protective IC (U55) provided for rear USB port use	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, 70mohm/55moh m (typ.) N- MOSFET Switch	UL 2367, IEC 60950- 1:2005 +A1+A2, EN 60950-1:2006 + A11:2009 + A1:2010+A12:2011+A2:2013, IEC 62368-1:2014, EN 62368-1: 2014/A11:2017	UL, CB by Nemko (Cert. No.: NO87949), (NO10977)
-Protective IC (U55) provided for rear USB port use (Alternate)	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	2.7-5.5Vdc, Operational Current Rating: 3.0A at TA= 25oC, 2.5A at TA= 75oC, Overcurrent Protection Current Rating: 3.1A-4.1A, 2.6A-4.0A	UL 2367 IEC 60950-1:2005+ A1+A2, EN 60950- 1:2006 +A11:2009+A1: 2010+A12:2011+ A2:2013, IEC 62368-1: 2014, EN 62368-1: 2014+A11	UL, CB by TUVRh (Certificate No.: JPTUV-080887), (JPTUV-099276)
All PCBs	Interchangeable	Interchangeable	V-1 min, 105 oC min.	UL 796	UL
Accessory - Graphics Card (Optional)	Micro-Star International Co Ltd	TPC-M003G	N/A	UL 60950-1, IEC 60950- 1:2005 /AMD2:2013, EN 60950-12006 /A11:2009/A1:2010/A12:2011/A2: 2013	UL, CB
Graphic card (Optional) (Alternate)	PEGATRON CORP	TPC-P002G	See below.	--	--

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: UL-BR 24.0576

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: 01

Validade / Expiration

29 de abril de 2027

April 29, 2027

- DC Fan	FirstDo Investment Enterprise Co., Ltd.	FD5010U12S	12Vdc, 0.22A, 11.87 CFM	UL 507, EN 60950-1:2006/A2:2013	UL, TUVSUD
- Protective IC (U503) provided for Display port use	ANPEC Electronics Corporation	APL3510..I-TRG The first dot "." in the model name APL3510..I-TRG can be A, B, C, D, E or F to represent output current/enable function, the second dot can be K, X or B to represent package code.	0.3-2.0A, 2.7-5.5Vdc per output channel. SELV, Class III	UL 2367, IEC 60950-1:2005 +A1+A2, EN 60950 1: 2006 + A11: 2009 + A1: 2010+A12:2011+ A2:2013	UL, CB by Nemko (Cert. No.: NO85153)
Graphic card (Optional) (Alternate)	PEGATRON CORP	TPC-P007G	N/A	UL 60950-1, IEC 60950-1:2005 /AMD2:2013, EN 60950-12006/ A11:2009/ A1: 2010/A12:2011/ A2:2013, IEC 62368-1: 2014, EN 62368-1: 2014/A11:2017	UL, CB
Graphic card (Optional) (Alternate)	Interchangeable	Interchangeable	All output connector comply with limited power source (LPS). No Fan, Heatsink, Battery, Super Cap, Water cooling system, Optical fiber.	UL 60950-1, IEC 60950-1, IEC 62368-1	UL, CB
I/O board (Optional) (Alternate)	Interchangeable	Davos (TPC-Q011AO)	--	--	--
- Polyswitch (F4) provided for Display port use	Polytronics Technology Corp.	SPR-P110	6Vdc, 1.1A	UL 1434, IEC/EN 60738-1:2006, IEC/ EN 60738-1-1:2008, IEC 60730-1: 1999+ A1, EN 60730-1: 2000+A1+A12+A13+A14	UL, TUV
- Polyswitch (F4) provided for Display port use (Alternate)	CYG Wayon Circuit Protection Co., Ltd.	LP-ISML110abcd a=C, U, Blank b=S, Z, Blank c= H, Blank d= F, Blank	6Vdc, 1.1A	UL 1434, EN 62319-1:2005, EN 62319-1-1:2005, IEC 60730-1:2013	UL, TUV
I/O board (Optional) (Alternate)	Interchangeable	Craster (TPC-F009AO)	--	--	--

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: **UL-BR 24.0576**

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: 01

Validade / Expiration

29 de abril de 2027

April 29, 2027

-Protective IC (U54) provided for USB Type C port use	NXP Semiconductor Taiwan Ltd.	NX5P3290UK/S900, NX5P3290UK	4.0 Vdc to 5.5Vdc, Current Limit Rating: 3.3 A	UL 62368-1 2nd IEC 62368-1 (ed.2), EN 62368-1:2014	UL, CB by Demko (DK-57975-A1-UL)
I/O board (Optional) (Alternate)	Interchangeable	Hodor (TPC-Q012AO)	--	--	--
- Polyswitch (F4) provided for HDMI port use	Polytronics Technology Corp.	SPR-P110	6Vdc, 1.1A	UL 1434, IEC/EN 60738-1:2006, IEC/EN 60738-1-1:2008, IEC 60730-1: 1999 +A1, EN 60730-1:2000+A1+A12 +A13+A14	UL, TUV
- Polyswitch (F4) provided for HDMI port use (Alternate)	CYG Wayon Circuit Protection Co., Ltd.	LP-ISML110abcd a=C, U, Blank b=S, Z, Blank c= H, Blank d= F, Blank	6Vdc, 1.1A	UL 1434, EN 62319-1:2005, EN 62319-1-1: 2005, IEC60730-1:2013	UL, TUV
I/O board (Optional) (Alternate)	Interchangeable	Unella (TPC-F010AO)	--	--	--
-Protective IC (U1) provided for USB ports use	DIODES INC	AP22811AW5-7, AP22811BW5-7, AP22811AM8-13, AP22811BM8-13:	2.7-5.5Vdc, Output Continuous Rating: 2.0 A Output Current Limit: 3.2 A	UL 2367, IEC 60950-1:2005+ A1+A2, EN60950-1: 2006 + A11:2009 + A1:2010 +A12 :2011+A2:2013, IEC 62368-1:2014, EN 62368-1: 2014/ A11:2017	UL, CB by UL (US) (Cert. No.: US-26790-A1-UL), (US-34018-UL)
-Protective IC (U1) provided for USB ports use (Alternate)	SILERGY TECHNOLOGY (TAIWAN) INC	SY6288C20AAC and SY6288D20AAC	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, EN 62368-1: 2014/A11:2017	UL, CB by Demko (Cert. No.:), (DK-86482-UL)
I/O board (Optional) (Alternate)	Interchangeable	Varys (TPC-Q010AO)	--	--	--
- Polyswitch (F6) provided for VGA port use	Polytronics Technology Corp	SMD1206P110 TFT	8Vdc, 1.1A	UL 1434, IEC 60738-1:1998, EN 60738-1: 1999, IEC60738-1-1:1998, EN 60738-1-1:1999, IEC 60730-1: 1999, EN 60730-1:2000+A1+A12 +A13+A14	UL, TUV

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: UL-BR 24.0576

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: 01

Validade / Expiration

29 de abril de 2027

April 29, 2027

- Polyswitch (F6) provided for VGA port use (Alternate)	LITTELFUSE INC	1206L110THXXYY YYY	8Vdc, 1.1A	UL 1434, IEC/EN 60738-1:2006, IEC/EN 60738-1:2008, IEC 60730-1: 1999+ A1, EN 60730-1: 2000+A1+A12+A13+A14	UL, TUV
---	----------------	-----------------------	------------	---	---------

Anexo 2 – Lista de componentes:

Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity1)
AC Adapter	Chicony Power Technology Co., Ltd.	TPC-CA58	I/P: 100-240Vac, 50-60Hz, 1.6A O/P: 19.5Vdc, 3.33A, 65W, Class I, 35°C, Altitude 5000m	IEC 60950-1: 2005 (2 nd Edition); Am 1: 2009+ Am2:2013 IEC 62368-1:2014	CB by TUV (JPTUV-060305, JPTUV-097909)
(Alternate)	Lite-On Technology Corp	TPC-LA58	I/P: 100-240Vac, 50-60Hz, 1.6A O/P: 19.5Vdc, 3.33A, Class I, 35°C, Altitude 5000m	IEC 60950-1: 2005 (2 nd Edition); Am 1:2009+ Am2:2013 IEC 62368-1: 2014	CB by TUV (JPTUV- 092070, JPTUV-098104)
(Alternate)	Delta Electronics Inc	TPC-DA58	I/P: 100-240Vac, 50-60Hz, 1.6A O/P: 19.5Vdc, 3.33A, Class I, 35°C, Altitude 5000m	IEC 62368-1: 2014	CB by TUV (JPTUV- 088801)
(Alternate)	Lite-On Technology Corp	Series TPC- LA57	I/P: 100-240Vac, 50-60Hz, 1.4A O/P: 19.5Vdc, 4.62A, Class I, 35°C, Altitude 5000m	IEC 60950-1: 2005 (2 nd Edition); Am 1: 2009+ Am2:2013 IEC 62368-1:2014	CB by TUV (JPTUV- 091024, JPTUV-078815)
(Alternate)	Delta Electronics Inc	TPC-DA57	I/P: 100-240Vac, 50-60Hz, 1.4A O/P: 19.5Vdc, 4.62A, Class I, 40°C, Altitude 5000m	IEC 62368-1: 2014	CB by UL (DK- 62748-UL)
(Alternate)	Chicony Power Technology Co., Ltd.	TPC-CA57	I/P: 100-240Vac, 50-60Hz, 1.4A O/P: 19.5Vdc, 4.62A; 90W, Class I, 35°C, Altitude 5000m	IEC 62368-1: 2014	CB by TUV (JPTUV- 078180)
(Alternate)	Acbel Polytech Inc	TPN-AA06	I/P: 100-240Vac, 50-60Hz, 1.7A; O/P: 19.5Vdc, 3.33 A, Class I, 35oC, Altitude 5000m	IEC 60950-1:2005 (2 nd Edition); Am 1: 2009+Am2:2013 IEC 62368-1: 2014	CB by TUV (JPTUV- 088775-A1, JPTUV- 088609-A1)

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: UL-BR 24.0576

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: 01

Validade / Expiration

29 de abril de 2027

April 29, 2027

(Alternate)	Chicony Power Technology Co., Ltd	TPN-CA16	I/P: 100-240Vac, 50-60Hz, 1.7A; O/P: 19.5Vdc, 3.33A, Class I, 35oC, Altitude 5000m	IEC 60950-1:2005 (2 nd Edition); Am 1: 2009+Am2:2013 IEC 62368-1:2014	CB by TUV (JPTUV-088506, JPTUV-088457)
(Alternate)	Delta Electronics Inc	TPN-DA17	I/P: 100-240Vac, 50-60Hz, 1.7A; O/P: 19.5Vdc, 3.33A, Class II, 35oC, Altitude 5000m	IEC 60950-1:2005 (2 nd Edition); Am 1: 2009+Am2:2013 IEC 62368-1:2014	CB by TUV (JPTUV-088512, JPTUV-088994)
(Alternate)	Lite-On Technology Corp	TPN-LA16	I/P: 100-240Vac, 50-60Hz, 1.7A; O/P: 19.5Vdc, 3.33A, Class I, 35oC, Altitud 5000m	IEC 60950-1:2005 (2 nd Edition); Am 1: 2009+Am2:2013 IEC 62368-1:2014	CB by UL (DK-73721-UL, DK-73717-UL)
(Alternate)	Chicony Power Technology Co., Ltd	TPN-CA17	I/P: 100-240Vac, 50-60Hz, 1.7A; O/P: 19.5Vdc, 3.33A, Class I, 35oC, Altitude 5000m	IEC 60950-1:2005 (2 nd Edition); Am 1: 2009+Am2: 2013 IEC 62368-1:2014	CB by TUV (JPTUV-088508, JPTUV-088468)
(Alternate)	Chicony Power Technology Co., Ltd	TPN-CA18	I/P: 100-240Vac, 50- 60Hz, 1.7A; O/P: 19.5Vdc, 4.62A, Class I, 35oC, Altitude 5000m	IEC 60950-1:2005 (2nd Edition); Am 1: 2009+Am2: 2013 IEC 62368-1: 2014	CB by TUV (JPTUV-088508, JPTUV-088468)
(Alternate)	Lite-On Technology Corp	TPN-LA17	I/P: 100-240Vac, 50-60Hz, 1.7A; O/P: 19.5Vdc, 3.33A, Class I, 35oC, Altitude 5000m	IEC 60950-1:2005 (2 nd Edition); Am 1: 2009+Am2: 2013 IEC 62368-1:2014	CB by UL (DK-73957-UL, DK-73710-UL)
(Alternate)	Delta Electronics Inc	TPN-DA18	I/P: 100-240Vac, 50-60Hz, 1.7A; O/P: 19.5Vdc, 4.62A, Class II, 35oC, Altitude 5000m	IEC 60950-1:2005 (2 nd Edition); Am 1: 2009+Am2: 2013 IEC 62368-1: 2014	CB by TU (JPTUV-090651-M2, JPTUV-090588-M2)
(Alternate)	Delta Electronics Inc	TPC-DA52	Input: 100-240Vac, 2.0A, 50-60Hz, Class I Output: 19.5Vdc, 7.69A, 150W, Altitude 5000m	IEC 60950-1:2005 (2 nd Edition); Am 1: 2009+Am2: 2013 IEC 62368-1: 2014	CB by UL (DK-6262-UL, DK-42591-UL)
(Alternate)	Chicony Power Technology Co., Ltd	TPC-CA52	Input: 100-240Vac, 2.0A, 50-60Hz Output: 19.5Vdc, 7.69A, 150W Altitude 5000m	IEC 60950-1:2005 (2 nd Edition); Am 1: 2009+Am2: 2013 IEC 62368-1: 2014	CB by TUV (JPTUV- 078201, JPTUV-061032)

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: **UL-BR 24.0576**

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: **01**

Validade / Expiration

29 de abril de 2027

April 29, 2027

(Alternate)	Chicony Power Technology Co., Ltd	TPN-CA22	I/P: 100-240V~, 50-60Hz, 2.5A O/P: DC19.5V, 7.7A 150W, altitude 5000m.	IEC 60950-1:2005 (2 nd Edition); Am 1: 2009+Am2: 2013 IEC 62368-1: 2014	CB by TUV (JPTUV-102148-A1, JPTUV-101946)
(Alternate)	Lite-On Technology Corp	TPN-LA20	I/P: 100-240V~, 50-60Hz, 2.5A O/P: DC19.5V, 7.7A, 150W, altitude 5000m.	IEC 60950-1:2005 (2 nd Edition); Am 1: 2009+Am2: 2013 IEC 62368-1: 2014	CB by TUV (JPTUV- 101694, JPTUV- 101441)
(Alternate)	Chicony Power Technology Co., Ltd (HP)	TPN-CA19	I/P: 100-240Vac, 50-60Hz, 1.7A O/P: 19.5 Vdc, 6.15A, 120W, Class I. 40°C. Altitude 5000m	IEC 60950-1:2005 (2 nd Edition); Am 1: 2009+Am2: 2013 IEC 62368-1:2014	UL, CB by TUV/RH (JPTUV-094252, JPTUV-094190)
(Alternate)	Lite-On Technology Corp (HP)	TPN-LA18	I/P: 100-240Vac, 50-60Hz, 1.6A O/P: 19.5 Vdc, 3.33A, Class I. 35°C. Altitude 5000m	IEC 60950-1:2005 (2 nd Edition); Am 1: 2009+Am2: 2013 IEC 62368-1: 2014	UL, CB by TUV/RH (JPTUV-094301, JPTUV-094254)
(Alternate)	Delta Electronics Inc (HP)	TPN-DA19	I/P: 100-240Vac, 50-60Hz, Class I, 2.5A O/P: 19.5 Vdc, 6.15A, 120W, 35oC, Altitude 5000m	IEC 60950-1: 2005 (2 nd Edition); Am 1:2009+Am2: 2013 IEC 62368-1: 2014	UL, CB by TUV/RH (JPTUV-093604, JPTUV-093602)
(Alternate)	Acbel Polytech Inc (HP)	TPC-AA62	I/P: 100- 240V~, 1.7A, 50-60Hz O/P: 19.5Vdc, 9.23A, 35°C, altitude 5000m.	IEC 60950-1:2005 (2 nd Edition); Am 1: 2009+Am2: 2013 IEC 62368-1:2014	UL, CB by TUV/RH (JPTUV-097672, JPTUV-097739)
(Alternate)	Interchangeable	Interchangeable	O/P: 19.5Vdc, 3.33A,4.62A, 7.69A, 7.7A, 9.23A min., 35°C, altitude 5000m.	IEC 60950-1:2005 (2 nd Edition); Am 1: 2009+Am2: 2013 IEC 62368-1:2014	UL, Nemko, TUV, VDE or other certificate body
Metal enclosure	Interchangeable	Interchangeable	Metal, 0.76mm min thickness.	Applicable parts of IEC 60950-1	Tested in appliance
Plastic enclosure – front I/O cover	TEIJIN CHEMICALS PLASTIC COMPOUNDS SHANGHAI LTD or TEIJIN LIMITED RESIN AND PLASTIC	TN-3713B(#), (#) - Suffix optional	V-0, 1.5mm min thickness, 60oC.	UL 94 6th edition UL 746C 7 th edition	UL
(Alternate)	GUO HENG (DONGGU AN) PLASTIC TECHNOLOGY CO LTD	YOUHE26(##),(# #) - Will be replaced by two digits from 00~99 to denote to serial	V-1, 1.5mm min thickness, 60oC.	UL 94 6th edition UL 746C 7 th edition	UL

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: UL-BR 24.0576

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: 01

Validade / Expiration

29 de abril de 2027

April 29, 2027

		number.			
(Alternate)	GUO HENG (DONGGU AN) PLASTIC TECHNOLOGY CO LTD	YOUHO(####)(Y) , (##) - Will be replaced by two digits from 00~99 to denote to serial number; (Y) - Will be replaced by one letter from A~Z to denote to color information.	HB, 1.5 min. thickness, 60oC	UL 94 6th edition UL 746C 7 th edition	UL
Power button	TEIJIN LIMITED RESIN AND PLASTIC	L-1225(###)(f2), (###) - May be suffixed with any one letter or two letters, except for following one letter "U,V or Z", or two letters "LD, LL, LM, JM, ZL, ZE, or LS", or two letters started with "U, V or Z"; (f2) - Subjected to one or more of the following tests: Ultraviolet Light, Water Exposure or Immersion in accordance with UL 746C, where the acceptability for outdoor use is to be determined by UL.	V-2, 0.4mm min thickness, 80oC.	UL 94 6th edition UL 746C 7 th edition	UL
Speaker housing	STAR PLASTICS INC	PCABSFR(J), PCABSFR755e	V-0, 0.8mm min. thickness, 60oC.	UL 94 6th edition UL 746C 7 th edition	UL
Speaker	Interchangeable	Interchangeable	4 ohm max., 2W max	Applicable parts of IEC 60950-1	Tested in appliance
Metal mesh (top cover with opening) (optional)	SICHUAN DONGFANG INSULATING MATERIAL CO LTD	DFR117, DFR117ECOA, DFR117ECOB, DFR117ECOC	V-0, 0.25mm min. thickness, 80oC.	UL 94 6th edition UL 746C 7 th edition	UL
System DC fan	Suzhou Forcecon Electric Co., Ltd.	0FMC10000H	12 Vdc, 1A, 11.20 CFM min.	Applicable parts of IEC 60950-1	Tested in appliance
(Alternate)	Suzhou Forcecon Electric Co., Ltd.	0FM6J0000H	12 Vdc, 1A, 13.16 CFM min.	Applicable parts of IEC 60950-1	Tested in appliance

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: UL-BR 24.0576

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: 01

Validade / Expiration

29 de abril de 2027

April 29, 2027

(Alternate)	Asia Vital Components Co., Ltd	BAZB0813R2U P003	12 Vdc, 0.6A, max., 14.7 CFM	Applicable parts of IEC 60950-1	Tested in appliance
(Alternate)	Asia Vital Components Co., Ltd	BAZB0712R2U P013	12 Vdc, 0.8A max., 14.3 CFM	EN 62368- 1: 2014/A11:2017 UL 507 10th edition	CB by TUV (B 025730 0894 Rev. 04)
(Alternate)	Sunonwealth Electric Machine Industry Co., Ltd	MG75091V1-C060-S9A, MG75091V1-C061-S9A	12 Vdc, 0.5A max., 13.5 CFM min., see enclosure ID 4-12, 4-13 for detail	Tested in appliance	Tested in appliance
dGPU fan	Suzhou Forcecon Electric Co., Ltd..	0FM6H0000H	5Vdc, 0.5A, 4.97 CFM min.	Applicable parts of IEC 60950-1	Tested in appliance
(Alternate)	Asia Vital Components Co., Ltd	BAZA0709R5U P002	5Vdc, 0.7A max, 6.6 CFM.	Applicable parts of IEC 60950-1	Tested in appliance
HDD fan	Suzhou Forcecon Electric Co., Ltd..	0FMK20000H	5Vdc, 0.5A, 2.23 CFM	Applicable parts of IEC 60950-1	Tested in appliance
(Alternate)	Asia Vital Components Co., Ltd	BAZB0605R5U P005	5Vdc, 0.5A max, 2.4 CFM	Applicable parts of IEC 60950-1	Tested in appliance
(Alternate)	Interchangeable	Interchangeable	12 Vdc, 1A, 11.20 CFM min for system fan; 5 Vdc, 0.5A, 4.97 CFM min for dGPU fan; 5 Vdc 0.5A, 2.23 CFM min for HDD fan.	Applicable parts of IEC 60950-1	Tested in appliance
RTC battery	VIC-DAWN ENTERPRISE CO LTD	CR2032	Non-Rechargeable. Rated 3 Vdc, min. maximum abnormal charging current 10mA. Protect by diode (D34) and 1k Ω (R430) resistor.	UL 1642 5th edition	UL
(Alternate)	DOUBLE BEST CO LTD	CR2032	Non- Rechargeable. Rated 3 Vdc, min. maximum abnormal charging current 10mA. Protect by diode (D34) and 1k Ω (R430) resistor.	UL 1642 5th edition	UL
(Alternate)	JHIH HONG TECHNOLOGY CO LTD	CR2032	Non- Rechargeable. Rated 3 Vdc, min. maximum abnormal charging current 10mA. Protect by diode (D34) and 1k Ω (R430) resistor.	UL 1642 5th edition	UL

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: **UL-BR 24.0576**

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: **01**

Validade / Expiration

29 de abril de 2027

April 29, 2027

(Alternate)	Interchangeable.	CR2032	Non- Rechargeable. Rated 3 Vdc, min. maximum abnormal charging current 10mA. Protect by diode (D34) and 1k Ω (R430)resistor.	UL 1642 5th edition	UL
Label	Interchangeable	Interchangeable	60oC if max. surface temperature not specified.	UL969 5th Edition	UL
(Alternate)	Interchangeable	Interchangeable	Molded as part of enclosure or label, Hot stamping, laser etching or silk screened	Applicable parts of IEC 60950-1	Tested in appliance
PTC for Display port	(TUV) Wayon Circuit Protection (UL) CYG Wayon Circuit Protection	LP-ISML110	6Vdc, Ihold: 1.1A, Itrip: 2.2A, CA3	EN 62319-1-1: 2005 EN 62319- 1:2005 UL1434 1st edition	UL, TUV (R 50318402)
(Alternate)	Polytronics Technology Corp	SPR-P110	6Vdc, Ihold: 1.1A, Itrip: 1.8A, CA3	EN 60738-1:1999 EN 60738-1-1:1999 IEC 60730-1: 1999 +A1 EN 60730-1: 2000+A1+A12+A13 +A14 IEC 60738-1: 1998 IEC 60738-1- 1:1998 UL1434 1st edition	UL, TUV (R 50099121)
IC current limiter for USB2.0/3.0 and USB type C port	TEXAS INSTRUMENTS INC	TPS2546, TPS2547, may be followed by additional characters that do not impact the safety features of the device	Input Voltage: 4.5Vdc to 5.5Vdc, Continuous current: 2.5A, Current limit: 3.1A	IEC 60950-1:2005 (2 nd Edition); Am1: 2009+Am2: 2013 IEC 62368-1:2014	CB by UL (US- 29689-M1-UL, US- 35117-UL)
(Alternate)	Cypress Semiconductor Corp	CYAC1126- 40LQXI ACG1F	Input: 2.7-5.5VDC; 4.85-5.5VDC (VCONN) Output: 5VDC, 3A, 15W (VBUS)5VDC, 200mA, 1W (VCONN)	IEC 62368-1: 2014	CB by UL (US- 97135-UL)
(Alternate)	DIODES Inc	AP2171DWG-7	2.7-5.5Vdc, per continuous current 1.0A, per protective current 19A.	IEC 60950-1: 2005 (2nd Edition)	CB by Nemko (NO54313)
(Alternate)	Global Mixed- mode Technology Inc.	G524D1T11U	2.7-5.5 Vdc, per continuous current 1.1A, per protective current 1.2- 1.8A.	IEC 60950-1: 2005 (2nd Edition); Am1: 2009	CB by TUV (JPTUV- 046404)

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: UL-BR 24.0576

Emissão / Issue

30 de abril de 2024
April 30, 2024

Revisão / Review: 01

Validade / Expiration

29 de abril de 2027
April 29, 2027

(Alternate)	Global Mixed-mode Technology Inc.	G524B1T11U	2.7-5.5 Vdc, per continuous current 2.1A, per protective current 2.2- 2.8A.	IEC 60950-1: 2005 (2nd Edition); Am1: 2009	CB by TUV (JPTUV- 046404)
(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	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	IEC 60950-1: 2005 (2nd Edition); Am1: 2009+Am2: 2013 UL2367 1st edition IEC 62368-1: 2014	CB by UL (DK-59231-A2-UL, DK-87208-M2)
		APL3555-followed by A, B, C or D, followed by B, followed by I, followed by -, followed by TR, followed by G	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 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		
(Alternate)	EUTECH MICROELECTRONICS INC	EUP3550A1-25VIR1	Input voltage: 2.7-5.5 Vdc, per continuous current 2.0 A, per protective current 3.0 A.	IEC 62368-1: 2014	CB by UL (DK-89459-UL)
(Alternate)	DIODES INC	AP2822GxyTR-G1 AP2822- followed by A - H, followed by N or Blank, followed by K, KA, KB or KE, followed by TR-G1	Input voltage: 2.7-5.5 Vdc, per continuous current 0.5 to 2.0 A, per protective current 1.4 to 3.2 A.	IEC 60950-1: 2005 (2nd Edition); Am1: 2009+Am2: 2013	CB by UL (US-35275-UL)
Sub-board Thunder bolt type C port	Quanta Computer inc	TPC-Q009AO	N/A	IEC 62368-1:2014	CB by UL (DK-96530-UL)

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: **UL-BR 24.0576**

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: **01**

Validade / Expiration

29 de abril de 2027

April 29, 2027

Sub-board fiber adapter cards	ALLIED TELESIS INC	27M2/##-zzzz-zzzz, and 29M2/##-zzzz-zzzz, where X is A-Z, 0-9, "/", "-", "+" or blank, where Y is A or E, where ## is A-Z, where z is A-Z, 0-9, "/", "-", "+" or blank. All models may have prefix "AT", "CentreCom", Corega, COR, and/or "K"	3.3 Vdc, 1.0 A.	UL 60950-1 2nd edition	UL
Sub-boards, IC current limiter for HDMI, VGA, Display ports	Diodes	AP22804AW5-7	Input Voltage: 2.7-5.5Vdc Output Continuous Rating: 2..5 A Output Current Limit: 3.3 A	IEC 60950-1:2005 (2 nd Edition);Am1: 2009+Am2: 2013	CB by UL (US-26790-A1-UL)
Sub-boards, PTC for HDMI, VGA, Display ports	Littelfuse Inc	0805L 110UL	6Vdc, Ihold: 1.1A, Itrip: 1.8A, CA3	EN 60738-1:1999 EN 60738-1-1:1999 IEC 60730-1: 1999 +A1 EN 60730-1:2000+A1+A12+A13+A14 IEC 60738-1:1998 IEC 60738-1-1: 1998 UL1434 1 st edition	UL, TUV (R 50119118)
(Alternate)	(TUV) Wayon Circuit Protection (UL) CYG Wayon Circuit Protection	LP-ISML110	6Vdc, Ihold: 1.1A, Itrip: 2.2A, CA3	EN 62319-1-1: 2005 EN 62319-1:2005 UL1434 1st edition	UL, TUV (R 50318402)
Sub-boards, IC current limiter for USB 2.0 type A and USB type C port	TEXAS INSTRUMENTS INC	TPS2546, TPS2547, may be followed by additional characters that do not impact the safety features of the device	Input Voltage: 4.5 Vdc to 5.5 Vdc, Continuous current: 2.5A, Current limit: 3.1A	IEC 60950-1: 2005 (2nd Edition); Am1: 2009+Am2: 2013 IEC 62368-1: 2014	CB by UL (US-29689-M1-UL, US-35117-UL)
(Alternate)	JOULWATT TECHNOLOGY CO LIMITED	JW7115SA-2.5SOTA#TRPBF, JW7115SA-2.5TSOTA#TRPBF	Vin: 2.7Vdc- 5.5Vdc, Vout: 2.7- 5.5Vdc, Iout: 2.6-3.1A	IEC 60950-1: 2005 (2nd Edition); Am1: 2009+Am2: 2013 IEC 62368-1: 2014	CB by UL (DK-94506-UL, DK-92033-UL)

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: UL-BR 24.0576

Emissão / Issue

30 de abril de 2024
April 30, 2024

Revisão / Review: 01

Validade / Expiration

29 de abril de 2027
April 29, 2027

(Alternate)	Will Semiconductor	WS4612EDx-5/TR, (x can be A, B, C or D, A for EN high enable & Discharge, B for EN low enable & Discharge, C for EN high enable & no Discharge, D for EN low enable & no Discharge.)	Input Voltage Range: 2.5 - 5.5Vdc Current Limit Rating: 2.1-2.7A	IEC 60950-1: 2005 (2nd Edition); Am1: 2009+Am2: 2013 IEC 62368-1: 2014	CB by UL (DK-93687-UL, DK-88459-M1-UL)
(Alternate)	Silergy Technology (Taiwan) Inc	SY6288C20AA C	Input Voltage Range: 2.5 - 5.5Vdc O/P: 5.5Vdc max., 3.7A max	IEC 60950-1:2005 (2 nd Edition);Am1: 2009+Am2:2013	CB by TUV (JPTUV- 058243-M1)
Thermal module	Interchangeable	Interchangeable	See Diagrams 4-02, 4-03 for detail.	Applicable parts of IEC 60950-1	Tested in appliance
Sub-board USB3.1 type C ports (optional)	Foxconn	TPC-F009AO	N/A	Applicable parts of IEC 60950-1	Tested in appliance
IC current limiter for TPC- F009AO	NXP Semiconductor Taiwan Ltd.	NX5P3290UK/S900	Input Voltage: 4Vdc-5.5Vdc Output Current Limit: 3.3 A	IEC 62368-1: 2014	CB by UL (DK-57975-A1-UL)
LCD Monitor (Optional)	HONGFUJIN Precision Electronics (Chong Qing) Co., Ltd.	TPC-F122-D23	19.5Vdc, 6.15A	IEC 60950-1:2005 (2 nd Edition); Am1: 2009+Am2: 2013 IEC 62368-1:2014	CB by UL (DK-86630-A2-UL, DK-86610-A2- UL)
Sub-boards, IC current limiter for USB2.0/3.0 and USB type C port	DIODES INCORPORATE D	PI5USB25wwxyyEz 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	Input Voltage: 4.5 - 5.5 Vdc Continuous Rating: 30 mA to 2.5A Current Limit: 100 mA to 3.18A	IEC 62368-1: 2014	CB by UL (US-37272-UL)
(Alternative)	TEXAS INSTRUMENTS INC	TPS2546, TPS2547, may be followed by additional characters that do not impact the safety features of the device	Input Voltage: 4.5Vdc to 5.5Vdc, Continuous current: 2.5A, Current limit: 3.1A	IEC 60950-1:2005 (2 nd Edition); Am1: 2009+Am2: 2013 IEC 62368-1: 2014	CB by UL (US-29689-M1-UL, US-35117-UL)
Hub (optional)	HP	HP Engage One Pro AiO Advanced Fanless Hub, TPC-I049-D	19.5Vdc, 14.36A	IEC 60950-1:2005 (2 nd Edition);Am1: 2009+Am2: 2013 IEC 62368-1:2014	CB by UL (DK-104238-UL, DK-105808-UL)

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: UL-BR 24.0576

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: 01

Validade / Expiration

29 de abril de 2027

April 29, 2027

Anexo 3 – Lista de componentes:

Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity1)
Metal Enclosure	--	--	Minimum 0.6 mm thickness	--	--
Plastic Front Panel (decorate part)	Interchangeable	Interchangeable	Minimum HB.	UL94, UL 746C	UL
Internal Plastic Parts	Interchangeable	Interchangeable	Min. V-2 or HF-2	UL 94, UL 746C	UL
Switching Power Supply	CHICONY POWER TECHNOLOGY CO LTD	D18-180P2A	I/P: 100-240V~/2.3A, 50-60Hz; O/P: +12.1VDC/ 14.88A, Max. continuous total DC output power 180W, Altitude during operation 5000m, maximum ambient temperature (Tma): 50 degree C.	IEC 60950-1: 2005 (Second Edition) + Am 1:2009 + Am 2:2013 EN 60950-1:2006 +A11:2009 + A1:2010 + A12:2011 + A2:2013 IEC 62368-1:2014(Second Edition) UL 62368-1 UL 60950-1	CB by TUV Rheinland, (Cert. No. JPTUV-092342. Report No. 50198668001) CB by TUV Rheinland (Cert. No. JPTUV-092381. Report No. 50199156 01) UL (E143709)
Alternate	DELTA ELECTRONICS INC	DPS-180AB-30 XX (X can be 0-9, A-Z or blank)	I/P: 100-240V~/2.3A, 50-60Hz; O/P: +12.1VDC/ 14.88A, Max. Power 180W. Altitude during operation 5000m, maximum ambient temperature (Tma): 50 degree C.	IEC 60950-1:2005 (Second Edition) + Am 1:2009 + Am 2:2013 EN 60950-1:2006+A11:2009 +A1:2010 + A12:2011 + A2:2013 UL 60950-1	CB by TUV Rheinland, (Cert. No. JPTUV-075247-M3. Report No. 16078665 004) UL (E131881)
Alternate	ACBEL POLYTECH INC	PCH019	I/P: 100-240V~, 50-60Hz, 2.3A; O/P: +12.1VDC, 14.88A, Total power: 180W max. Altitude during operation 5000m, maximum ambient temperature (Tma): 50 degree C.	IEC 60950-1:2005 (Second Edition) + Am 1:2009 + Am2:2013 EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013 UL 60950-1	CB by TUV Rheinland, (Cert. No. JPTUV-074970-A1/M1. Report No. 11047678 003) UL (E131875)
Alternate	LITE-ON TECHNOLOGY CORPORATION	PA-1181-3YX (where Y = A-Z , Blank or "-"; X = A-Z, 0-9, blank or "-")	I/P: 100-240V~, 50-60Hz, 2.3A; O/P: +12.1VDC, 14.88A, Total power: 180W max. Altitude during	IEC 60950-1:2005 (Second Edition) + Am 1:2009 + Am 2:2013 EN 60950-1:2006 + A11:2009	CB by TUV Rheinland, (Cert. No. JPTUV-075079-A1/M3.



Solutions

UL do Brasil Certificações – CNPJ 04.830.102/0001-95
Av. Engenheiro Luís Carlos Berrini, 105 – 23º Andar
São Paulo – SP – Brasil - 04571-010 – <https://latam.ul.com/>

Página / Page: 21 / 69
Form-ULID-017660 – Rev. 3.0

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: **UL-BR 24.0576**

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: **01**

Validade / Expiration

29 de abril de 2027

April 29, 2027

			operation 5000m, maximum ambient temperature (Tma): 50 degree C.	+ A1:2010 + A12:2011 + A2:2013 IEC 62368-1:2014 UL 62368-1 UL 60950-1	Report No. 11047735 005) CB by TUV Rheinland, (Cert. No. JPTUV-083868- M1. Report No. 50105880 002) UL (E132068)
H.D.D. (Optional)	Seagate Technology Inc	ST with additional suffixes (suffixes are not safety related and it could be any alpha numeric characters)	5 Vdc/1.5 A max, 12 Vdc/ 1.5 A max	IEC 60950-1 EN 60950-1 UL60950-1	CB TUV UL
Alternate	Interchangeable	Interchangeable	5Vdc / 2.0 A Max, 12Vdc / 2.5 A Max or 5Vdc / 2.5A Max.	IEC 60950-1, EN 60950-1, UL 60950-1	VDE, TUV, UL or others certificate body
S.S.D. (Optional)	Interchangeable	Interchangeable	5/12V, 2.0A Max.	IEC 60950-1, EN 60950-1, UL 60950-1	VDE, TUV, UL or others Certificate body
SSHD (optional)	Interchangeable	Interchangeable	5Vdc / 2.0 A Max, 12Vdc / 2.5 A Max or 5Vdc / 2.5A Max.	IEC 60950-1, EN 60950-1, UL 60950-1	VDE, TUV, UL or others certificate body
Optical Disk Drive (Optional)	Interchangeable	Interchangeable	5Vdc / 2.5A Max.; 12Vdc / 3.0A Max. Or 5Vdc / 2.5A Max. Laser Class 1. Recognized at least UL60950- 1+A1.	IEC/EN/UL 60950-1	VDE, TUV, UL or others certificate body
Alternate	Interchangeable	Interchangeable	5Vdc / 2.5A Max.; 12Vdc / 3.0A Max. Or 5Vdc / 2.5A Max. Laser Class 1. Speed<8000r/min	IEC/EN/UL 60950-1	VDE, TUV, UL or others certificate body
DC FAN (CPU cooler fan)	FOXCONN TECHNOLOGY CO LTD	PVA080G12Q-(X)yy-yy series(where (X) may be F, R or x, x may be from 0 to 9, from A to Z or blank; y may be from 0 to 9, from A to Z or blank.)	DC 12V, 0.65A Max, 60 CFM min	EN60950-1 UL 507	TUV UL
Alternate	HUIZHOU CITY XUNSHUO TECHNOLOGY CO LTD	DF0702512(X)(Y2) N, DF1802512(X)(Y1) N , (where (X) may be SE, B1, B2, RF, FD, PO. (Y2) may be U, H, M, L. (Y1) may be H, M, L.)	DC 12V, 0.60A Max, 71.1 CFM min	EN60950-1 UL 507	TUV UL



Solutions

UL do Brasil Certificações – CNPJ 04.830.102/0001-95
Av. Engenheiro Luís Carlos Berrini, 105 – 23º Andar
São Paulo – SP – Brasil - 04571-010 – <https://latam.ul.com/>

Página / Page: 22 / 69
Form-ULID-017660 – Rev. 3.0

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: **UL-BR 24.0576**

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: **01**

Validade / Expiration

29 de abril de 2027

April 29, 2027

Alternate	Interchangeable	Interchangeable	DC 12V, 0.65A Max, 60 CFM min	EN62368-1 EN60950-1 UL 507	VDE TUV or UL
GPU card (Optional)	NVIDA	Geforce GT730	Max. 150W, complied with SELV and LPS requirement	--	--
Alternate	Interchangeable	Interchangeable	Max. 150W, complied with SELV and LPS requirement	--	--
General Accessory Card (Optional)	Interchangeable	Interchangeable	No laser, fans, liquid cooling, TV/cable tuners, batteries or TNV employed or Complied with ES1 and LPS requirement.	--	--
Mother board	Interchangeable	EDINBURGH	All output connector comply with limited power source (LPS)	--	--
- Poly Switch(HF1 for HDMI port (HJ206), VF5 for VGA port (VJ69)), KF1 for SD card port (KJ166)	POLYTRONICS TECHNOLOGY CORP	SMD1210P110TFT	Imax=100A Min. Vmax=8Vdc Min., Ih=1.10A Max. It=2.20A Max. CA1 (109 degree C Max.), CA 2, CA 3, CA 4, Tmoa=85 degree C Min.	IEC 60730-1 EN 60730-1 UL 1434	TUV UL
Alternate	LITTELFUSE INC	1206L110THYR	Imax= 40A Min, Vmax= 8Vdc Min, Ih= 1.10A Max, It= 2.20A Max. CA1 (125 degree C Max), CA 2, CA 3, CA 4, Tmoa= 85 degree C Min.	IEC 60730-1 EN 60730-1 UL 1434	TUV UL
Alternate	LITTELFUSE INC	TUV: microSMD110xxxxxx xxxxxxxxxxxxxx(x=0-9, A-Z, ".", "-", blank) UL: microSMD110 (11) (The alphanumeric character(s) in parenthesis () following a model number is the individual part identification mark. All model may be followed by a hyphen, and any alphanumeric character or blank to denote a different lead configuration, different lead length, different shipping packaging method, different resistance range, different resistance	Imax=40A Min. Vmax=6Vdc Min., Ih=1.10A Max. It=2.20A Max. CA1 (125 degree C Max.), CA 2, CA 3, CA 4, Tmoa=85 degree C Min.	IEC 60730-1 EN 60730-1 UL 1434	TUV UL



Solutions

UL do Brasil Certificações – CNPJ 04.830.102/0001-95
Av. Engenheiro Luís Carlos Berrini, 105 – 23º Andar
São Paulo – SP – Brasil - 04571-010 – <https://latam.ul.com/>

Página / Page: 23 / 69
Form-ULID-017660 – Rev. 3.0

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: **UL-BR 24.0576**

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: **01**

Validade / Expiration

29 de abril de 2027

April 29, 2027

		matching and/or Lead-free Solder.)			
Alternate	BOURNS ELECTRONICS (TAIWAN) LTD	MF-NSMF110	I _{max} =100A Min. V _{max} =6Vdc Min., I _h =1.10A Max. I _t =2.20A Max. CA1 (88 degree C Max.), CA 2, CA 3, CA 4, T _{moa} =85 degree C Min.	IEC 60730-1 EN 60730-1 UL 1434	TUV UL
Alternate	Interchangeable	Interchangeable	I _{max} =40A Min. V _{max} =6Vdc Min., I _h =1.10A Max. I _t =2.20A Max. CA1 (125 degree C Max.), CA 2, CA 3, CA 4, T _{moa} =85 degree C Min.	IEC 60730-1 EN 60730-1 UL 1434	VDE, TUV, UL or other certificate body
- IC Current Limiter (U22 for LAN + USB2.0 x 2 (LJ9))	TEXAS INSTRUMENT S INC	CB: TPS2061C, Followed by DBV, DGK, or DGN may be followed by additional letters and number UL: TPS2061. Maybe followed by other characters that do not impact the safety feature of the device.	Volts: 4.5-5.5V, Cont. Current: 1.0 A, Prot. Current: 1.9A, CB: Temp Range: -40 to 85 degree C UL: Temp Range: -30 to 70 degree C	IEC 60950-1: 2005 + A1 +A2 UL2367	CB UL
Alternate	GLOBAL MIXED-MODE TECHNOLOGY INC	CB: G524DX1X2X3X4(X1=1, 2, 3, or 4, X2=TP, P8, F5 or T1, X3=1, X4=U) UL: G524D, followed by 1, 2, 3, or 4, followed by T1, TP, P8, or F5, followed by 1, followed by U	CB: Operational Current Rating per output(A):1.1A, Overcurrent protection Current Rating per output:1.2 to 1.8A, Maximum ambient temperature: -30 to 70 degree C UL: Volts: 2.7-5.5V, Cont. Current: 1.1 to 2.1A, Prot. Current: 1.8 to 2.8A, Temp Range: -30 to 70 degree C	IEC 60950-1: 2005 + A1 +A2 UL2367	CB UL
Alternate	JOULWATT TECHNOLOGY CO LIMITED	JW7115A-1SOTA#TRPBF	Vin: 2.7 - 5.5 Vdc.; Vout: 2.7 -5.5Vdc; Iout: 1.1 – 1.5A	IEC 62368-1 UL2367	CB UL
- IC Current Limiter (U53 for front USB3.0 (J70/ J71), U56 for front USB3.0 (J90/ J91))	DIODES INC	AP22811BW5-7	Volts: 2.7-5.5V,Cont. Current: 2.0A, Prot. Current: 3.2A, Temp CB: Temp Range: -40 to 85 degree C UL: Temp Range: -30 to 70 degree C	IEC 60950-1: 2005 + A1 +A2 UL2367	CB UL

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: UL-BR 24.0576

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: 01

Validade / Expiration

29 de abril de 2027

April 29, 2027

Alternate	SILERGY TECHNOLOGY	CB: SY6288xyyyyy (x=A, B, C, D or E, yyyy=0-9, A-Z or blank) UL: SY6288DAAC	CB: I/P: 2.5Vdc to 5.5Vdc O/P: 5.5Vdc max, 4.4A max UL: Volts: 2.5-5.5V, Cont. Current: 2.0 A, Prot. Current: 3.7A, Temp Range: -30 to 70 degree C	IEC 60950-1: 2005 + A1 +A2 UL2367	CB UL
RTC Battery for all mother board	SHUN WO NEW POWER BATTERY TECHNOLOGY LTD	CR2032*, * - Cell model numbers may be followed by an optional slash (/) and single or multiple alphanumeric characters which denote optional features such as various mounting tabs, connecting leads or plugs, packaging etc	Rated 3.0V, maximum abnormal charging current: 10mA.	UL1642	UL
Alternate	JHIH HONG TECHNOLOGY CO LTD	CR2032	Rated 3.0V, maximum abnormal charging current: 10mA.	UL1642	UL
Alternate	MITSUBISHI ELECTRIC HOME APPLIANCE CO LTD	CR2032	Rated 3.0V, maximum abnormal charging current: 10mA.	UL1642	UL
Alternate	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.	Rated 3.0V, maximum abnormal charging current: 10mA.	UL1642	UL
Alternate	Interchangeable	CR2032	Rated 3.0V, maximum abnormal charging current: 10mA.	UL1642	UL
Alternate	Interchangeable	CR2032*, * - Cell model numbers may be followed by an optional slash (/) and single or multiple alphanumeric characters which denote optional features such as various mounting tabs,	Rated 3.0V, maximum abnormal charging current: 10mA.	UL1642	UL

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: **UL-BR 24.0576**

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: **01**

Validade / Expiration

29 de abril de 2027

April 29, 2027

		connecting leads or plugs, packaging etc			
PWB for all mother board	Interchangeable	Interchangeable	V-1 or better, 105 degree C min.	UL796	UL
Plastic Front Panel 7 (for mother board: AKALI)	UR MATERIALS INDUSTRY (SHENZHEN) CO LTD	200 (50%R) (+)(r3)	Minimum 1.7 mm thickness, Minimum HB.	UL94, UL 746C	UL E323548
Switching Power Supply (Alternate)	Chicony Power Technology Co., Ltd.	D21-240P1A	i/p: 100-240V~, 2.9A, 50-60Hz o/p: DC 18A +12.1Vmain, 18A +12.1Vcpu +12.1Vmain & +12.1Vcpu shall not exceed 240W, Maximum power shall not exceed 240W. Altitude during operation 5000m, maximum ambient temperature (Tma): 50 degree C.	IEC 62368-1:2018; EN IEC 62368-1: 2020 + A11: 2020 IEC 60950-1:2005, AMD1:2009, AMD2:2013; EN 60950-1:2006+A11:2009+A12:2011+A2: 2013 UL 62368-1, 3rd Ed.	CB by TUV Rheinland, (Cert. No. JPTUV-126195. Report No. CN21U4YZ 001) CB by TUV Rheinland, (Cert. No. JPTUV-126235. Report No. CN21ZHYP 001) UL (E143709)
Alternate	Lite-On Technology Corporation	PA-2241-5XXXXXX (X=A-Z, 0-9, "-" or blank)	I/P: 100-240V~, 2.9A, 50-60Hz O/P: +12.1VMAIN / 18A, +12.1VCPU / 18A. The total continuous output power shall not exceed 240W at 50°C ambient temperature. Altitude during operation 5000m.	IEC 62368-1:2018; EN IEC 62368-1: 2020 + A11: 2020 IEC 62368-1:2014 (Second Edition); EN 62368-1:2014 +A11:2017 IEC 60950-1:2005, AMD1:2009, AMD2:2013;EN 60950-1:2006 +A11:2009+A1:2010+A12:2011+A2: 2013 UL 62368-1, 3rd Ed.	CB by TUV Rheinland, (Cert. No. JPTUV-127270. Report No. CN21M2I6 001) CB by TUV Rheinland, (Cert. No. JPTUV-127098. Report No. CN21ZHYP 001) CB by TUV Rheinland, (Cert. No. JPTUV-126946. Report No. CN21K77J 001) UL (E132068)
Motherboard (Alternate)	Interchangeable	GROOT	All output connector complies with limited power source (LPS)	--	--

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: **UL-BR 24.0576**

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: **01**

Validade / Expiration

29 de abril de 2027

April 29, 2027

IC Current Limiter (U53 for front USB3.0 (J70/ J71), U15 for front USB3.0 (J73/ J74))	Global Mixed-mode Technology Inc.	G517FX1X2X3X 4, 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 (Vdc): 2.7-5.5V, Operational Current Rating per output (A): 2.1A, Overcurrent Protection Current Rating per output (A): 2.2 to 3.0A, Maximum ambient Temperature (°C): -30 to 70 degree C	IEC 62368-1:2014 UL2367	CB by TUV Rheinland UL
Alternate	DIODES INC	AP22818, followed by A or B, followed by blank, K, KA, KB, KC, or KE, followed by WT or M8, followed by -7 or -13, may be followed by additional letters and/or numbers.	(Markings Optional) Input Voltage: 2.7 to 5.5 Vdc Output Continuous Rating: 2.0 A Output Current Limit: 3.2A Maximum Operational Ambient: 85°C	IEC 62368-1:2018 UL2367	CB by UL (US) UL
Mother board (Alternate)	Interchangeable	AKALI	All output connector complies with limited power source (LPS)	--	--
Poly Switch (HDF1 for HDMI port (HDJ206), VF5 for VGA port (VJ69))	POLYTRONICS TECHNOLOGY CORP	SMD1210P110T FT	8V, 1.1A, CA3	IEC 60730-1: 2020, EN 60730-1: 2011, Clause15, 17 and Annex J, UL 1434 ed.1	TUV, UL
Alternate	LITTELFUSE INC	microSMD110xx xxxxxxxxxxxxxx xxxx(x=0-9, A-Z, ".", "-", blank)	6V, 1.1A, CA3	IEC 60730-1: 2020,EN 60730-1: 2011, Clause15, 17 and Annex J, UL 1434 ed.1	TUV, UL
Alternate	BOURNS ELECTRONICS (TAIWAN) LTD	MF-NSMF110	6V, 1.1A, CA3	IEC 60730-1: 2020,EN 60730-1: 2011, Clause 15, 17 and Annex J, UL 1434 ed.1	TUV, UL
Alternate	Interchangeable	Interchangeable	Min. 6V, Max.1.1A, CA3	IEC 60730-1: 2020,EN 60730-1: 2011, Clause 15, 17 and Annex J,UL 1434 ed.1	Verify by other cert. body, UL



Solutions

UL do Brasil Certificações – CNPJ 04.830.102/0001-95
Av. Engenheiro Luís Carlos Berrini, 105 – 23º Andar
São Paulo – SP – Brasil - 04571-010 – <https://latam.ul.com/>

Página / Page: 27 / 69
Form-ULID-017660 – Rev. 3.0

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: **UL-BR 24.0576**

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: **01**

Validade / Expiration

29 de abril de 2027

April 29, 2027

IC Current Limiter (U7 for USB2.0 x 2 (J10), U22 for internal header (P78) and LAN + USB2.0 x 2 (LJ9))	TEXAS INSTRUMENTS INCORPORATED	TPS2061C, followed by DBV, DKG or DGN may be followed by additional letters and numbers	Input Voltage - 4.5 Vdc to 5.5 Vdc, Output Continuous Rating: 1.0A Output Current Limit: 1.9A Ambient = -40 to 85°C	IEC 60950-1: 2005 + A1 +A2 UL2367 IEC 62368-1:2014	CB by UL (US) UL
Alternate	JOULWATT TECHNOLOGY CO LIMITED	JW7115SA-1SOTA#TRPBF	(optional) Vin: 2.7Vdc-5.5Vdc, Vout: 2.7Vdc- 5.5Vdc, Iout: 1.1- 1.5A	IEC 62368-1:2014 UL62368-1	CB by UL (Demko) UL
Alternate	WILL SEMICONDUCTOR	WS4612EBx-5/TR (x can be A, B, C or D, A for EN high enable & Discharge, B for EN low enable & Discharge, C for EN high enable & no Discharge, D for EN low enable & no Discharge.)	(Optional) Input Voltage Range: 2.5 - 5.5Vdc, Current Limit Rating: 1.2-1.6A	IEC 60950-1: 2005 + A1 +A2 IEC 62368-1:2014 UL2367	CB by UL (Demko) UL
Alternate	ANPEC ELECTRONICS CORP	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	Input Voltage: 2.7 to 5.5Vdc; Output Continuous Rating: 1.0A; Current Limit Rating: 1.9A; Ambient: -40 to 85°C	IEC 62368-1:2018 UL2367	CB by UL (Demko) UL
Alternate	DIODES INCORPORATED	AP21xyz (Where 'x' may be any numeral, 4-9; 'y' may be 1, 2 5 or 6; 'z' may be any single or multiple alpha-numeric characters) (Refer to General product information)	Single channel / Dual channel: 0.5 A – 1.5A, 2.7 – 5.5 Vdc., (Supplied by external ES1 power source) (no marking required)	IEC 62368-1:2014 UL2367	CB by NEMKO UL
IC Current Limiter (U53 for front USB3.0 (J70/ J71), U56 for front USB3.0 (J75/ J76))	DIODES INC	AP22811BW5-7	Input Voltage: 2.7- 5.5Vdc Output: 1 Output Continuous Rating: 2.0 A Output Current Limit: 3.2 A Operating Temperature: - 40°C~ + 85°C	IEC 60950-1: 2005 + A1 +A2 UL2367 IEC 62368-1:2014	CB by UL (US) UL
Alternate	SILERGY TECHNOLOGY (TAIWAN) INC	SY6288D20AA C	Input Voltage: 2.5 to 5.5 Vdc Output Continuous Rating: Max. 2.0 A Current Limit Rating: 3.5 A Ambient: -40 to 85°C	IEC 62368-1:2014 UL2367	CB by UL (Demko) UL



Solutions

UL do Brasil Certificações – CNPJ 04.830.102/0001-95
Av. Engenheiro Luís Carlos Berrini, 105 – 23º Andar
São Paulo – SP – Brasil - 04571-010 – <https://latam.ul.com/>

Página / Page: 28 / 69
Form-ULID-017660 – Rev. 3.0

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: UL-BR 24.0576

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: 01

Validade / Expiration

29 de abril de 2027

April 29, 2027

Alternate	WILL SEMICONDUCTOR	WS4612EDx-5/TR (x can be A, B, C or D, A for EN high enable & Discharge, B for EN low enable & Discharge, C for EN high enable & no Discharge, D for EN low enable & no Discharge.)	(Optional) Input Voltage Range: 2.5 - 5.5Vdc, Current Limit Rating: 2.1-2.7A	IEC 60950-1: 2005 + A1 +A2 IEC 62368-1:2014 UL2367	CB by UL (Demko) UL
Alternate	Global Mixed-mode Technology Inc.	G517FX1X2X3X 4, 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 (Vdc): 2.7- 5.5V, Operational Current Rating per output (A): 2.1A, Overcurrent Protection Current Rating per output (A): 2.2 to 3.0A, Maximum ambient Temperature (°C): -30 to 70 degree C	IEC 62368-1:2014 UL2367	CB by TUV Rheinland UL
Alternate	DIODES INC	AP22818, followed by A or B, followed by blank, K, KA, KB, KC, or KE, followed by WT or M8, followed by -7 or -13, may be followed by additional letters and/or numbers.	(Markings Optional) Input Voltage: 2.7 to 5.5 Vdc Output Continuous Rating: 2.0 A Output Current Limit: 3.2A Maximum Operational Ambient: 85°C	IEC 62368-1:2018 UL2367	CB by UL (US) UL

Anexo 4 – Lista de componentes:

Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity1)
Metal Enclosure	--	--	Min. 0.8 mm thickness	--	--
Plastic Front Panel (decorate part)	Interchangeable	Interchangeable	Min. HB	UL94 UL 746C	UL
Plastic base (Optional)	Interchangeable	Interchangeable	Minimum HB.	UL 94, UL 746C	UL
Internal Plastic Parts	Interchangeable	Interchangeable	Min. V-2 or HF-2	UL 94, UL 746C	UL
Plastic air duct	Interchangeable	Interchangeable	Min. V-2	UL 94, UL 746C	UL
Internal speaker	Interchangeable	Interchangeable	4 ohm, Max. 3W	--	--
All PWB	Interchangeable	Interchangeable	V-1 or better, Minimum 105 °C	UL796	UL

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: UL-BR 24.0576

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: 01

Validade / Expiration

29 de abril de 2027

April 29, 2027

Switching Power Supply	Delta Electronics Inc	DPS-350AB-38 XX (X= 0-9, A-Z or blank)	AC Input: 100-240 V, 50-60 Hz, 4.0 A. DC Output: +12.1 VMAIN, 18 A, +12.1 VCPU, 18 A, +12.1 VCPU2, 18 A. MAX POWER 350 W. 50 °C. Altitude during operation 5000 m.	IEC 62368-1: 2014, EN 62368- 1:2014+A11, IEC 60950-1: 2005+A1+A2, EN 60950-1: 2006+A11+A1+ A12+A2, UL 62368-1 ed.2, UL 60950-1 ed.2	CB by TUV Rh, UL (E131881)
Alternate	Acbel Polytech Inc	PCK002	AC Input: 100-240 V, 50-60 Hz, 4 A. DC Output: +12.1 VMAIN, 18 A, +12.1 VCPU1, 18 A, +12.1 VCPU2, 18 A. MAXIMUM POWER SHALL NOT EXCEED 350 W. 45 °C (50 °C for UL) Altitude during operation 5000 m.	IEC 62368-1: 2014, EN 62368-1: 2014+A11, IEC 60950-1: 2005+A1+A2, EN 60950-1: 2006+A11+A1+ A12+A2, UL 62368-1 ed.2	CB by TUV Rh, UL (E131875)
Alternate	Acbel Polytech Inc.	PCK018	I/P: 100-240V~, 50- 60Hz, 3.1A O/P: +12.1Vmain/18.0A, +12.1Vcpu/18.0A +12.1Vmain and +12.1Vcpu TOTAL 260W MAX.MAXIMUM POWER SHALL NOT EXCEED 260W. 45 °C. Altitude during operation 5000 m.	IEC 62368-1: 2014, EN 62368-1: 2014+A11, IEC 60950-1: 2005+A1+A2, EN 60950-1: 2006+A11+A1+ A12+A2, UL 62368-1ed.2	CB by TUV Rh, UL (E131875)
Alternate	Chicony Power Technology Co., Ltd	D19-260P1A	i/p: 100-240Vac, 3.1A, 50-60Hz o/p: DC 18 ^a +12.1Vmain, 18A +12.1Vcpu +12.1Vmain & +12.1Vcpu shall not exceed 260W, Maximum power shall not exceed 260W, 45 °C. Altitude during operation 5000 m.	IEC 62368-1: 2014, EN 62368- 1:2014+A11, IEC 60950-1: 2005+A1+A2, EN 60950-1: 2006+A11+A1+ A12+A2, UL 62368-1 ed.2	CB by TUV Rh, UL (E143709)

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: UL-BR 24.0576

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: 01

Validade / Expiration

29 de abril de 2027

April 29, 2027

Alternate	Lite-On Technology Corporation	PA-2251-5HK- HPF	AC Input: 100- 240V~, 50-60Hz, 3.1A DC Output: +12.1VMAIN / 18A., +12.1VCPU / 18A +12.1VMAIN & +12.1VCPU total power can't exceed 260W. 45 °C. Altitude during operation 5000 m.	IEC 62368-1: 2014, EN 62368-1: 2014+A11, IEC 60950-1: 2005+A1+A2, EN 60950-1: 2006+A11+A1+ A12+A2, UL 62368-1ed.2	CB by TUV Rh, UL (E132068)
Hard Disk Drive (HDD) (optional)	Toshiba Electronic Devices & Storage Corporation	HDWL1yy (y= 11-99)	1.0 A, 3.3 Vdc, 1.0 A, 5.0 Vdc.	IEC 60950-1: 2005+A1+A2, EN 60950-1: 2006+A11+A1+ A12+A2, UL 62368-1 ed.2, UL 60950-1ed.2	CB by CSA, TUV, UL (E145163)
Alternate	HGST Japan Ltd	H series	1.5 A max., 5.0 Vdc, 2.0 A max., 12 Vdc.	IEC 60950-1: 2005+A1+A2, EN 60950-1: 2006+A11+A1+ A12+A2, UL 60950-1 ed.2	CB by TUV Rh, UL (E182115)
Alternate	Western Digital Technologies Inc	WDUUUUZVTX- YYXXYY series, where WD is Western Digital. May or may not be present; where UUUU may be any number or blank indicating memory capacity; Z maybe any alpha character indicating memory capacity multiplier and physical for factor; VTX maybe any alphanumeric character indicating business unit, RPM/buffer and interface; YYXXYY may be any alphanumeric character or blank indicating SELV logic/configuration, firmware, etc. Can	Class III supplied by SELV. Ratings are not required and are provided for reference only. 1.5 A max., 5.0 Vdc or 1.5 A max., 5.0 Vdc, 1.0 A max., 12 Vdc.	IEC 62368: 2014, IEC 60950- 1:2005+A1+A2, EN 60950-1: 2006+A11+A1+ A12+A2, UL 62368-1 ed.2, UL 60950-1 ed.2	CB by UL (US), UL (E101559)

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: UL-BR 24.0576

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: 01

Validade / Expiration

29 de abril de 2027

April 29, 2027

		be 3 to 7 alphanumeric characters.			
Alternate	or equivalent	or equivalent	Ratings are not required and provided for reference only: 1.0 A max., 3.3 Vdc, 1.0 A max., 5.0 Vdc or 1.5 A max., 5.0 Vdc, 2.0 A max., 12 Vdc or 1.5 A max., 5.0 Vdc.	IEC 62368-1: 2014, EN 62368-1: 2014+A11, IEC 60950-1: 2005+A1+A2, EN 60950-1: 2006+A11+A1+A12+A2, UL 62368-1 ed.2, UL 60950-1 ed.2	Verify by other cert. body, UL
Solid State Drive (SSD) (optional)	Samsung Electronics Co Ltd	MZ-K***** (* can be 0-9, A-Z, blank, slash or dash)	4.8 A, 3.3 Vdc.	IEC 60950-1: 2005+A1+A2, EN 60950-1: 2006+A11+A1+A12+A2, UL 62368-1 ed.2, UL 60950-1 ed.2	CB by TUV Rh, UL (E149091)
Alternate	Lite-On Technology Corporation	CA1-GDxxxxxx (where "x" can be any alphanumeric or blank)	3.5 A, 3.3 Vdc (optional)	IEC 60950-1: 2005+A1+A2, EN 60950-1: 2006+A11+A1+A12+A2, UL 60950-1 ed.2	CB by TUV Rh, UL (E205203)
Alternate	Kingston Digital International Ltd Taiwan Branch	*****SA1000*** ***** (the "*" Maybe alphanumeric, capacity, character, "-" or blank)	3.0 A, 3.3 Vdc (optional)	IEC 62368-1: 2014, EN 62368-1:2014+A11, UL 62368-1 ed.2, UL 60950-1 ed.2	CB by UL (DEMKO), UL (E333487)
Alternate	Lite-On Technology Corporation	K2-L1xxxxxxxx ("x" can be any alphanumeric character or blank)	2.5 A, 5.0 Vdc.	IEC 60950-1: 2005+A1+A2, EN 60950-1: 2006+A11+A1+A12+A2, UL 60950-1 ed.2	CB by TUV Rh, UL (E205203)

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: UL-BR 24.0576

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: 01

Validade / Expiration

29 de abril de 2027

April 29, 2027

Alternate	Western Digital Technologies Inc	GRxxxyy-x (where x and y are any alphanumeric character, or blank representing non-safety critical features such as memory size)	Class III supplied by SELV. Ratings are not required and provided for reference only: 1.8 A max., 5.0 Vdc, 1.8 A max., 12 Vdc.	IEC 60950-1: 2005+A1+A2, EN 60950-1: 2006+A11+A1+A12+A2, UL 62368-1 ed.2, UL 60950-1 ed.2	CB by UL (US), UL (E332258)
Alternate	Intel Corp	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, 5.0 Vdc and/ or 12 Vdc. (for reference only)	IEC 62368-1: 2014, IEC 60950-1: 2005+A1+A2, EN 60950-1: 2006+A11+A1+A12+A2, UL 62368-1 ed.2, UL 60950-1 ed.2	CB by UL (US), UL (E139761)
Alternate	or equivalent	or equivalent	Ratings are not required and provided for reference only: 4.8 A max., 3.3 Vdc or 2.5 A max, 5.0 Vdc or 1.8 A max., 5.0 Vdc, 1.8 A max., 12 Vdc or 3.3 Vdc, 5.0 Vdc and/ or 12 Vdc.	IEC 62368-1: 2014, EN 62368-1:2014+A11, IEC 60950-1: 2005+A1+A2, EN 60950-1: 2006+A11+A1+A12+A2, UL 62368-1 ed.2, UL 60950-1ed.2	Verify by other cert. body, UL
Optical Disk Drive (ODD) (optional)	Hitachi-LG Data Storage Inc	U9** (where first "** " can be any number 0-9 and second "" can be any alphanumeric character, denoting board name or the change of shape not related with safety)	1.8 A, 5.0 Vdc. Laser Class 1.	IEC 60950-1: 2005+A1+A2, EN 60950-1: 2006+A11+A1+A12+A2, IEC 60825-1: 2007, UL 60950-1 ed.2	CB by Intertek, UL (E119002)

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: **UL-BR 24.0576**

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: **01**

Validade / Expiration

29 de abril de 2027

April 29, 2027

Alternate	Philips & Lite- On Digital Solutions Corporation	DG-xx3Sxxxxx (x can be any alphanumeric character or blank)	2.0 A, 5.0 Vdc, 1.25 A, 12 Vdc. (optional) Laser Class 1.	IEC 60950-1: 2005+A1+A2, EN 60950-1: 2006+A11+A1+A12+A2, IEC 60825-1:2007, UL 60950-1ed.2	CB by TUV Rh, UL (E306430)
Alternate	or equivalent	or equivalent	Ratings are not required and provided for reference only: 1.8 A max., 5.0 Vdc or 2.0 A max., 5.0 Vdc, 1.25 A max., 12 Vdc. Laser Class 1.	IEC 62368-1: 2014, EN 62368-1: 2014+A11, IEC 60950-1: 2005+A1+A2, EN 60950-1: 2006+A11+A1+A12+A2, IEC 60825-1:2007, IEC 60825-1: 2014, UL 62368-1 ed.2, UL 60950-1 ed.2	Verify by other cert. body, UL
Heat sink for CPU	Interchangeable	Interchangeable	Aluminium.	--	--
CPU FAN (for Heat sink CPU type A)	HUIZHOU CITY XUNSHUO TECHNOLOGY CO LTD	DF0802512(X)U N, ((X) can be SE, B1, B2, RF, FD, PO)	DC 12V, Max. 0.60A, Min. 51.2CFM	EN62368-1 UL 507	TUV, UL (E339750)
Alternate	FOXCONN TECHNOLOGY CO LTD	PVA080G12Q	DC 12V, Max. 0.65A, Min. 60 CFM.	EN60950-1 UL 507	TUV, UL (E231557)
Alternate	Sunonwealth Electric Machine Industry Co Ltd	EF80251S2-QZ, Z stands for 30 characters. Each character stands for one of the following signs): 0-9, A-Z, (,), ., /, - or blank for marketing purpose only.	DC 12V, Max. 0.37A, Min. 51.5 CFM	EN62368-1 UL 507	TUV, UL (E77551)
Alternate	Interchangeable	Interchangeable	DC 12V, Max. 0.65A, Min. 51.2 CFM	EN60950-1 EN62368-1 UL 507	Verify by other cert. body, UL
Motherboard	FOXCONN TECHNOLOGY CO LTD	FMB-2003	Motherboard UL approval covers the PWB material, lithium battery, lithium battery protect circuit, connector plastics, and any other plastics, and foam materials used, and the	UL 62368-1	UL

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: **UL-BR 24.0576**

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: **01**

Validade / Expiration

29 de abril de 2027

April 29, 2027

			operator accessible connector over current protection		
-PWB	Interchangeable	Interchangeable	V-1 or better, Minimum 105 °C	UL796	UL
-RTC Battery	SHUN WO NEW POWER BATTERY TECHNOLOGY LTD	CR2032*, * - Cell model numbers may be followed by an optional slash (/) and single or multiple alphanumeric characters which denote optional features such as various mounting tabs, connecting leads or plugs, packaging etc	Rated 3.0V, maximum abnormal charging current: 10mA.	UL1642	UL (MH25881)
Alternate	JHIH HONG TECHNOLOGY CO LTD	CR2032	Rated 3.0V, maximum abnormal charging current: 10mA.	UL1642	UL (MH48406)
Alternate	MITSUBISHI ELECTRIC HOME APPLIANCE CO LTD	CR2032	Rated 3.0V, maximum abnormal charging current: 10mA.	UL1642	UL (MH21249)
Alternate	Interchangeable	CR2032	Rated 3.0V, maximum abnormal charging current: 10mA.	UL1642	UL
- Poly Switch (VF1 for display port (J63), VF100 for display port (J64))	Littelfuse Inc	0805L110ULXX YYYYYY (X, Y stands for A to Z, 0 to 9 or blank)	1.1 A, 6 V min.	EN 60730-1 UL 1434	TUV Rheinland, UL (E183209)
Alternate	Polytronics Technology Corp	SPR-P110	1.1 A, 6 V min.	EN 60730-1 UL 1434	TUV Rheinland, UL (E201431)
Alternate	Interchangeable	Interchangeable	1.1 A, 6 V min.	EN 60730-1 UL 1434	TUV Rheinland, UL
- IC Current Limiter (U51, U53, U55, U57 for USB 3.0 and U52 for USB 2.0)	DIODES INC	AP22811AW5-7	Input Voltage: 2.7-5.5Vdc Output Continuous Rating: 2.0 A Output Current Limit: 3.2 A Operating Temperature: -40°C~ + 85°C	IEC 60950-1 UL2367	CB by UL (US), UL (E322375)
Alternate	JOULWATT TECHNOLOGY CO LIMITED	JW7115S-2SOTA#TRPBF	Vin: 2.7-5.5Vdc, Vout: 2.7-5.5Vdc, Iout: 2.05-2.35A	IEC 62368-1 UL62368-1	CB by UL (DEMKO), UL (E497605)
Alternate	WILL SEMICONDUCTOR	WS4612EDx-5/TR (x can be A, B, C or D, A for EN high enable	Ratings: (Optional) Input Voltage Range= 2.5 to 5.5 Vdc. Current Limit Rating=	IEC 62368-1 IEC 60950-1 UL62368-1	CB by UL (DEMKO), UL (E486497)

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: **UL-BR 24.0576**

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: **01**

Validade / Expiration

29 de abril de 2027

April 29, 2027

		& Discharge, B for EN low enable & Discharge, C for EN high enable & no Discharge, D for EN low enable & no Discharge.)	2.1 to 2.7 A.		
Alternate	SILERGY TECHNOLOGY (TAIWAN) INC	SY6288xyyyyy (x=A, B, C, D or E, yyyyy=0-9, A- Z or blank)	I/P= 2.5 to 5.5 Vdc. O/P= 5.5 Vdc max, 1.6 to 4.43 A max.	IEC 60950-1 UL2367	CB by TUV Rh, UL (E491480)
Alternate	DIODES INC	AP22814AW5-7	Input Voltage: 2.7-5.5Vdc Output Continuous Rating: 3.0 A Output Current Limit: 3.8 A Operating Temperature: -40°C~ + 85°C	IEC 60950-1 UL2367	CB by UL (US), UL (E322375)
Alternate	JOULWATT TECHNOLOGY CO LIMITED	JW7115SASOT A#TRPBF	Vin: 2.7-5.5Vdc, Vout: 2.7-5.5Vdc, Iout: 3.05-3.6A	IEC60950-1 IEC 62368-1 UL62368-1	CB by UL (DEMKO), UL (E497605)
- IC Current Limiter (U63 for USB 3.0)	TEXAS INSTRUMENTS INCORPORATE D	TPS2546. 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	Ratings: (Electrical ratings is optional) Input Voltage= 4.5 to 5.5 Vdc. Output Continuous Rating= 2.5 A. Output Current Limit = 3.1 A. Ambient = -40 to 85 °C.	IEC 60950-1 UL2367	CB by UL (US), UL (E169910)
- IC Current Limiter (U7 for Type-C port)	Cypress Semiconductor Corp.	CYAC1126-40LQXI ACG1F	(Optional) Input: 2.7-5.5Vdc; 4.85-5.5Vdc (VCONN) Output: 5Vdc, 3A, 15W (VBUS); 5Vdc, 200mA, 1W (VCONN) (Protective Current 4.2A, include drift)	IEC 62368-1 UL62368-1	CB by UL (DEMKO), UL (E331901)

Anexo 5 – Lista de componentes:

Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity1)
AC Adapter (optional)	Chicony Power Technology Co., Ltd.	TPC-CA58	I/P: 100-240 Vac, 50-60 Hz, 1.6 A O/P: 19.5 Vdc, 3.33 A, 65 W, Class I, 35°C,	IEC 60950-1: 2005 (2nd Edition); Am 1: 2009+Am2: 2013	CB by TUV (JPTUV-060305)

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: UL-BR 24.0576

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: 01

Validade / Expiration

29 de abril de 2027

April 29, 2027

			Altitude 5000m		
(Alternate)	Lite-On Technology Corp	TPC-LA58	I/P: 100-240 Vac, 50-60 Hz, 1.6 A O/P: 19.5 Vdc, 3.33 A, Class I, 35°C, Altitude 5000m	IEC 60950-1: 2005 (2nd Edition); Am 1: 2009+Am2: 2013	CB by TUV (JPTUV- 092070)
(Alternate)	Delta Electronics Inc	TPC-DA58	I/P: 100-240 Vac, 50-60 Hz, 1.6 A O/P: 19.5 Vdc, 3.33 A, Class I, 35°C, Altitude 5000m	IEC 62368-1: 2014	CB by TUV (JPTUV- 088801)
(Alternate)	Acbel Polytech Inc	TPN-AA06	I/P: 100-240Vac, 50-60 Hz, 1.7 A O/P: 19.5 Vdc, 3.33 A, Max. Class I. 35°C . Altitude 5000m	IEC 60950-1: 2005 (Second Edition); Am1: 2009 + Am2: 2013, IEC 62368-1: 2014	CB by TUV (JPTUV- 088775-A1, JPTUV- 088609-A1)
(Alternate)	Chicony Power Technology Co., Ltd	TPN-CA16	I/P: 100-240 Vac, 50-60 Hz, 1.7 A O/P: 19.5 Vdc, 3.33 A, Max. Class I. 35°C . Altitude 5000m	IEC 60950-1: 2005 (Second Edition); Am1: 2009 + Am2: 2013 IEC 62368-1: 2014	CB by TUV (JPTUV- 088506, JPTUV- 088457)
(Alternate)	Delta Electronics Inc	TPN-DA17	I/P: 100-240 Vac, 50-60 Hz, 1.7 A O/P: 19.5 Vdc, 3.33 A, Max. Class II. 35°C . Altitude 5000m	IEC 60950-1: 2005 (Second Edition); Am1:2009 + Am2: 2013 IEC 62368-1:2014	CB by TUV (JPTUV- 088512, JPTUV- 088994)
(Alternate)	Lite-On Technology Corp	TPN-LA16	I/P: 100-240 Vac, 50-60 Hz, 1.7 A O/P: 19.5 Vdc, 3.33 A, Max. Class I. 35°C . Altitude 5000m	IEC 60950-1: 2005 (Second Edition); Am1: 2009 + Am2:2013 IEC 62368-1:2014	CB by UL (DK- 73721-UL, DK- 73717-UL)
(Alternate)	Chicony Power Technology Co., Ltd	TPN-CA17	I/P: 100-240Vac, 50-60 Hz, 1.7 A O/P: 19.5 Vdc, 3.33 A, Max. Class I. 35°C . Altitude 5000m	IEC 60950-1: 2005 (Second Edition); Am1: 2009 + Am2:2013 IEC 62368-1:2014	CB by TUV (JPTUV- 088508, JPTUV- 088468)
(Alternate)	Lite-On Technology Corp	TPN-LA17	I/P: 100-240 Vac, 50-60 Hz, 1.7 A O/P: 19.5 Vdc, 3.33 A, Max. Class I. 35°C . Altitude 5000m	IEC 60950-1: 2005 (Second Edition); Am1: 2009 + Am2: 2013 IEC 62368-1: 2014	CB by UL (DK- 73957-UL, DK- 73710-UL)

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: **UL-BR 24.0576**

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: **01**

Validade / Expiration

29 de abril de 2027

April 29, 2027

(Alternate)	Chicony Power Technology Co., Ltd	TPN-CA18	I/P: 100-240 Vac, 50-60 Hz, 1.7 A O/P: 19.5 Vdc, 4.62 A, Max. Class I, 35°C, Altitude 5000m	IEC 60950-1: 2005 (Second Edition); Am1: 2009 + Am2: 2013 IEC 62368-1:2014	CB by TUV (JPTUV- 088508, JPTUV- 088468)
(Alternate)	Delta Electronics Inc	TPN-DA18	I/P: 100-240 Vac, 50-60 Hz, 1.7 A O/P: 19.5 Vdc, 4.62 A, Max. Class II, 35°C, Altitude 5000m	IEC 60950-1: 2005 (Second Edition); Am1: 2009 + Am2:2013 IEC 62368-1:2014	CB by TUV (JPTUV- 090651-M2, JPTUV- 090588-M2)
(Alternate)	Lite-On Technology Corp	Series TPC- LA57	I/P: 100-240Vac, 50-60 Hz, 1.4 ^a O/P: 19.5Vdc, 4.62A, Class I, 35°C, Altitude 5000m	IEC 60950-1: 2005 (Second Edition); Am1: 2009 + Am2:2013 IEC 62368-1:2014	CB by TUV (JPTUV- 091024)
(Alternate)	Delta Electronics Inc	TPC-DA57	I/P: 100-240 Vac, 50-60 Hz, 1.4 ^a O/P: 19.5 Vdc, 4.62 A, Class I, 40°C, Altitude 5000m	IEC 62368-1:2014	CB by UL (DK- 62748-UL)
(Alternate)	Chicony Power Technology Co., Ltd.	TPC-CA57	I/P: 100-240Vac, 50-60 Hz, 1.4 ^a O/P: 19.5 Vdc, 4.62 A; 90 W, Class I, 35°C, Altitude 5000m	IEC 62368-1:2014	CB by TUV (JPTUV- 078180)
(Alternate)	Delta Electronics Inc	TPC-DA52	I/P: 100-240 Vac, 50-60 Hz, 2.0 A, Class I O/P: 19.5Vdc, 7.69 A, Altitude 5000m, 150W	IEC 62368-1: 2014 IEC 60950-1: 2005 (Second Edition); Am1: 2009 + Am2:2013	CB by UL (DK- 62622-UL) (DK- 42591-UL)
(Alternate)	Chicony Power Technology Co., Ltd	TPC-CA52	I/P: 100-240Vac, 50-60 Hz, 2.0 A; Class I, O/P: 19.5 Vdc, 7.69A, 150W max. , Altitude 5000m	IEC 62368-1: 2014 IEC 60950-1: 2005 (Secon Edition); Am1: 2009 + Am2: 2013	CB by TUV (JPTUV- 078201) (JPTUV- 061032)
(Alternate)	Chicony Power Technology Co., Ltd	TPN-CA22	I/P: 100-240 Vac, 50-60 Hz, 2.5A O/P: DC 19.5V, 7.7A 150W, altitude 5000m.	IEC 60950-1:2005 (Second Edition); Am1: 2009 + Am2: 2013 IEC 62368-1: 2014	CB by TUV (JPTUV- 102148-A1, JPTUV- 101946)
(Alternate)	Lite-On Technology Corp	TPN-LA20	I/P: 100-240 Vac, 50-60Hz, 2.5A O/P: DC 19.5V, 7.7A 150W, altitude 5000m.	IEC 60950-1: 2005 (Second Edition); Am1: 2009 + Am2:2013 IEC 62368-1:2014	CB by TUV (JPTUV- 101694, JPTUV- 101441)
(Alternate)	Delta Electronics Inc	TPC-DA52	I/P: 100-240Vac, 50-60 Hz, 2.0 A; O/P: 19.5 Vdc,	IEC 60950-1: 2005 (Second Edition); Am1: 2009	CB by UL (DK- 42591-UL, DK- 62622-UL)

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: **UL-BR 24.0576**

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: **01**

Validade / Expiration

29 de abril de 2027

April 29, 2027

			7.69 A, Max. Class I, 35 °C. Altitude, 5000m	+ Am2: 2013 IEC 62368-1:2014	
(Alternate)	Chicony Power Technology Co., Ltd	TPC-CA52	I/P: 100-240 Vac, 50-60 Hz, 2.0 A; O/P: 19.5 Vdc, 7.69 A, Max. Class I, 35 °C . Altitude, 5000m	IEC 60950-1: 2005 (Second Edition); Am1: 2009 + Am2:2013 IEC 62368-1:2014	CB by TUV (JPTUV- 061032, JPTUV- 078201)
(Alternate)	Interchangeable	Interchangeable	Output: 19.5 Vdc, 3.33 A or 4.62 A or 7.69A or 7.7 A, min., 35 °C, altitude 5000m.	IEC 60950-1: 2005 (Second Edition); Am1: 2009 + Am2:2013 IEC 62368-1:2014	UL, Nemko, TUV, VDE or others certificate body
Metal enclosure	Interchangeable	Interchangeable	Metal, 0.76mm min thickness.	Applicable parts of IEC 60950-1	Tested in appliance
Plastic enclosure – front I/O cover	TEIJIN CHEMICALS PLASTIC COMPOUNDS SHANGHAI LTD or TEIJIN LIMITED RESIN AND PLASTIC	TN-3713B(#), (#) - Suffix optional	V-0, 1.5mm min thickness, 60°C.	UL 94 6th edition UL 746C 7th edition	UL
(Alternate)	GUO HENG(DONGGU AN) PLASTIC TECHNOLOGY CO LTD	YOUHE26(##), YOUHE26(##)G Y,(##) - Will be replaced by two digits from 00~99 to denote to serial number.	V-0, 1.5 min. thickness 60 degree C	UL 94 6th edition UL 746C 7th edition	UL
(Alternate)	GUO HENG(DONGGU AN) PLASTIC TECHNOLOGY CO LTD	YOUHO(####)(Y), (##) - Will be replaced by two digits from 00~99 to denote to serial number; (Y) - Will be replaced by one letter from A~Z to denote to color information.	HB, 1.5 min. thickness, 60°C	UL 94 6th edition UL 746C 7th edition	UL
Power button	TEIJIN LIMITED RESIN AND PLASTIC	L-1225(##)(f2), (###) - May be suffixed with any one letter or two letters, except for following one letter "U,V or Z", or two letters "LD, LL, LM, JM, ZL, ZE, or LS", or two letters started with "U, V or Z";(f2)Subjected to one or more of the following tests: Ultraviolet Light,	V-2, 0.4mm min thickness, 80°C.	UL 94 6th edition UL 746C 7th edition	UL

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: **UL-BR 24.0576**

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: **01**

Validade / Expiration

29 de abril de 2027

April 29, 2027

		Water Exposure or Immersion in accordance with UL 746C, where the acceptability for outdoor use is to be determined by UL.			
dGPU fan	Suzhou Forcecon Electric Co., Ltd..	0FM6H0000H	5Vdc, 0.5A, 4.97 CFM min.	Applicable parts of IEC 60950-1	Tested in appliance
(Alternate)	Asia Vital Components Co.Ltd	BAZA0709R5U P002	5Vdc, 0.7A max, 6.6 CFM.	Applicable parts of IEC 60950-1	CB by TUV (025730 0894)
System DC fan	Suzhou Forcecon Electric Co., Ltd.	0FMC10000H	12 Vdc, 1A, 11.20 CFM min.	Applicable parts of IEC 60950-1	Tested in appliance
(Alternate)	Suzhou Forcecon Electric Co., Ltd.	0FM6J0000H	12 Vdc, 1A, 13.16 CFM min	Applicable parts of IEC 60950-1	Tested in appliance
(Alternate)	Asia Vital Components Co., Ltd	BAZB0813R2U P003	12 Vdc, 0.6A max, 14.7 CFM	Applicable parts of IEC 60950-1	Tested in appliance
(Alternate)	Asia Vital Components Co., Ltd	BAZB0712R2U P013	12 Vdc, 0.8A max , 14.3 CFM	EN 62368-1: 2014/ A11: 2017, UL 507 10 th edition	CB by TUV (B 025730 0894 Rev. 04)
(Alternate)	Sunon	MG75091V1-C060-S9A, MG75091 V1-C060-S9A	12 Vdc, 0.5A max., 13.5 CFM min., se enclosure ID 4-10 for detail	Applicable parts of IEC 60950-1	Tested in appliance
(Alternate)	Suzhou Forcecon Electric Co., Ltd.	0FM6J0000H	12 Vdc, 1 A, 14.16 CFM	Applicable parts of IEC 60950-1	Tested in appliance
(Alternate)	Interchangeable	Interchangeable	12 Vdc, 1A, 11.20 CFM min for system fan ; 5 Vdc, 0.5A, 4.97 CFM min for dGPU fan	Applicable parts of IEC 60950-1	Tested in appliance
RTC battery	VIC-DAWN ENTERPRISE CO LTD	CR2032	Non-Rechargeable. Rated 3 Vdc, min. maximum abnormal charging current 10 mA. Protect by diode (D52) and 1K ohm (R745) resistor.	UL 1642 5th edition	UL
(Alternate)	DOUBLE BEST CO LTD	CR2032	Non-Rechargeable. Rated 3 Vdc, min. maximum abnormal charging current 10 mA. Protect by diode (D52) and 1K ohm (R745) resistor.	UL 1642 5th edition	UL

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: UL-BR 24.0576

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: 01

Validade / Expiration

29 de abril de 2027

April 29, 2027

(Alternate)	JHIH HONG TECHNOLOGY CO LTD	CR2032	Non-Rechargeable. Rated 3 Vdc, min. maximum abnormal charging current 10 mA. Protect by diode (D52) and 1K ohm (R745)resistor.	UL 1642 5th edition	UL
(Alternate)	Interchangeable.	CR2032	Non-Rechargeable. Rated 3 Vdc, min. maximum abnormal charging current 10 mA. Protect by diode (D52) and 1K ohm (R745) resistor.	UL 1642 5th edition	UL
LCD Monitor (optional)	HONGFUJIN Precision Electronics (Chong Qing) Co., Ltd.	TPC-F122-D23	19.5Vdc, 6.15A	IEC 60950-1: 2005/AMD1:2009, IEC 60950-1: 2005/AMD2: 2013, IEC 62368-1: 2014	CB by UL (DK-86610-A2-UL) (DK-86630-A2-UL)
Sub-board USB type C port (optional)	Quanta Computer inc	HSC-Q001O	N/A	Applicable parts of IEC 60950-1	Tested in appliance
IC Current Limiter (Type C port)	Cypress	CYPD6127-48LQXI CCG6SF, CYPD6227-96BZXI CCG6DF	Input: 2.7-5.5Vdc (VSYS); 4- 21.5 Vdc (VBUS) Output: 5Vdc, 3A (VBUS); 5Vdc, 215mA (VCONN) (Protective Current 4.2A, include drift)	IEC 60950-1 (ed.2), IEC 60950-1(ed.2); am1, UL 2367	CB by UL; UL (E331901) (DK-98487-UL)

Anexo 6 – Lista de componentes:

Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity1)
Enclosure Material	Interchangeable	Interchangeable	Metal thickness 0.6mm min.	--	--
Front Enclosure Material (for decorative part)	Interchangeable	Interchangeable	HB min. or better.	UL 94	UL
Power Supply	Lite-On Technology Corporation	PA-1181-3HK	I/P:100-240Vac, 50-60Hz, 2.3A O/P: 12.1Vdc, 14.88 max., Max. continuous total DC output Power 180W. Class I, Tma: 50oC, Altitude: 5000m	UL 62368-1 2nd, IEC 60950-1:2005+A1+A2, EN 60950-1:2006 +A11:2009+A1:2010+A12:2011+A2:2013, IEC 62368-1: 2014, EN 62368-1: 2014+A11:2017	UL, CB by TUVRh

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: **UL-BR 24.0576**

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: 01

Validade / Expiration

29 de abril de 2027

April 29, 2027

Power Supply (Alternate)	Chicony Power Technology Co., Ltd.	D19-180P2A	I/P: 100-240Vac, 50-60Hz, 2.3A O/P: 12.1Vdc, 14.88A, +12.1V shall not exceed 180W, Maximum power shall not exceed 180W. Class I, Tma: 50oC, Altitude: 5000m	UL 62368-1 2nd , IEC 60950- 1:2005+A1+A2, EN 60950- 1:2006+A11:200 9+A1:2010+A12: 2011+A2:2013, IEC 62368-1:2014, EN 62368-1: 2014+A11	UL, CB by TUVRh
Power Supply (Alternate)	Delta Electronics, Inc.	DPS-180AB-30 XX (1st X= 0-9, B-Z or blank, except for A; 2nd X= 0-9, A-Z or blank)	I/P:100-240Vac, 50-60Hz, 2.3A O/P: 12.1Vdc/14.88A, Max. Power 180W. Class I, Tma: 50oC, Altitude: 5000m	UL 62368-1 2nd , IEC 60950- 1:2005+A1+A2, EN 60950- 1:2006+A11:200 9+A1:2010+A12: 2011+A2:2013, IEC 62368-1:2014, EN 62368-1: 2014+A11	UL, CB by TUVRh
Power Supply (Alternate)	Acbel Polytech Inc.	PCK016	I/P: 100-240V, 50- 60 Hz, 2.3A O/P: +12.1Vdc/14.88A Class I, Tma: 50oC, Altitude: 5000m	UL 60950-1, 2nd, IEC 60950- 1:2005+A1+A2, EN 60950-1: 2006+A11:2009+A 1:2010+A12:2011+ A2:2013, UL 62368-1 2nd IEC 62368-1:2014, EN 62368-1: 2014+A11	UL, CB by TUVRh
Power Supply (Alternate)	Chicony Power Technology Co., Ltd.	D19-210P1A	I/P: 100-240Vac, 50-60Hz, 2.5A O/P: 12.1Vdc, 17.36A,+12.1V shall not exceed 210W, Maximum power shall not exceed 210W. Class I, Tma: 50oC, Altitude: 5000m	UL 62368-1 2nd , IEC 60950- 1:2005+A1+A2, EN 60950- 1:2006 +A11:2009+A1:201 0+A12: 2011+A2:2013, IEC 62368-1:2014, EN 62368-1: 2014+A11	UL, CB by TUVRh
Power Supply (Alternate)	Acbel Polytech Inc.	PCK015	I/P:100-240V, 50-60 Hz, 2.5A O/P: +12.1Vdc, 17.36A Class I, Tma: 50oC, Altitude: 5000m	UL 60950-1, 2nd, IEC 60950-1: 2005+A1+A2,EN 60950- 1:2006+A11:2009+ A1:2010+A12:2011 +A2:2013, UL 62368-1 2nd IEC 62368-1:2014,EN 62368-1: 2014+A11	UL, CB by TUVRh

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: **UL-BR 24.0576**

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: **01**

Validade / Expiration

29 de abril de 2027

April 29, 2027

HDD (Optional)	HGST Japan, Ltd.	HDS7225nnVLATn n n= 0-9	5 Vdc, 1.5A or 12Vdc, 2.0 A max.	UL 60950-1, 2nd, EN 60950-1: 2006+A11+A1+A 12+A2	TUV
HDD (Optional) (Alternate)	Western Digital Technologies Inc.	WYXXYYXXYY- YYXXYY	5 Vdc, 1.5A or 12Vdc, 1.0 A max.	UL 62368-1 (ed.2); EN 62368- 1:2014	UL, TUV
HDD (Optional) (Alternate)	Interchangeable	Interchangeable	5 Vdc, 1.5A or 12Vdc, 2.0 A max.	UL 60950-1, 2nd, EN 60950-1 : 2006+A11 :009+A1 :2010+A12 :2011 +A2:2013, IEC 60950-1 :2005 (2nd editon) +Am1 :2009 +Am2:2013, IEC 62368-1:2014, EN 62368-1:2014	UL, TUV, NEMKO, VDE
SSD (Optional) (Alternate)	Lite-On Technology Corporation	CF1-CPxxxxxxx	5 Vdc, 2.0 A max.	UL 60950-1, 2nd, EN 60950-1 :2006+A11 :2009+A1 :2010 +A12:2011+A2:201 3, IEC 60950-1 :2005 (2ndediton) +Am1 :2009 +Am2:2013	UL, TUV, VDE, Nemko
SSD (Optional) (Alternate)	Western Digital Technologies Inc.	Wyxxxxxyxy- xyxyxx	5Vdc, max. 1.8A or, 3.3Vdc, max. 3.0A or, 5Vdc, max. 1.8A, 12Vdc, max. 1.8A	UL 62368-1 (ed.2); IEC 62368- 1:2014	UL, TUV
SSD (Optional) (Alternate)	Interchangeable	Interchangeable	5 Vdc, 2.0 A max.	UL 60950-1, 2nd, EN 60950-1 :2006 +A11 :009+A1 :2010+A12:2011+A 2:2013, IEC 60950- 1 :2005 (2 nd editon) +Am1 :2009 +Am2:2013, IEC 62368-1: 2014, EN 62368-1:2014	UL, TUV, VDE, Nemko
Optical Disk Device (Optional)	Hitachi-LG Data Storage Inc.	GHBzt, GHCzt, GHDzt Where z can be any number 0 TO 9, t can be any alphanumeric, denoting non safety related differences.	5Vdc, 2.0A max.; 12Vdc, 2.5A max. Laser Class I.	UL 60950-1, 2nd Edition, 2014-10- 14, IEC 60950- 1:2005+A1+A2, EN 60950- 1:2006 +A11+A1+A12+A2, EN/IEC 60825- 1:2007	UL, TUV
Optical Disk Device (Optional) (Alternate)	Hitachi-LG Data Storage Inc.	GH***SB*	5Vdc/12Vdc, 2.0A/2.5A or 1.5A/2.0A max. Laser Class I.	UL 62368-1, 3rd; IEC 62368- 1:2018; EN 62368-	UL, CB by Intertek

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: **UL-BR 24.0576**

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: **01**

Validade / Expiration

29 de abril de 2027

April 29, 2027

				1:2014 + A11:2017	
Optical Disk Device (Optional) (Alternate)	Interchangeable	Interchangeable	5Vdc, 2.0A max.; 12Vdc, 2.5A max. Laser Class I.	UL 60950-1, 2nd Edition, 2014-10-14, IEC 60950-1:2005+A1+A2, EN 60950-1:2006+A11+A1+A12+A2, EN/IEC 60825-1:2007, IEC 62368-1:2014, EN 62368-1:2014	UL, TUV, VDE, Nemko
CPU Fan	Asia Vital Components Co., Ltd.	DS08025R12UP23 9	12Vdc, 0.7A max., 60.10 CFM min.	UL 507, IEC 60950-1:2005+A1+A2, EN 60950-1:2006+A11+A1+A12+A2 EN 62368-1:2014/A11: 2017	UL, TUVRh, TUVSUD
CPU Fan (Alternate)	Delta Electronics, Inc.	AUB0812VJ-00XXXXXX (X stands for A-Z, 0-9, - or blank for marketing purpose only)	12Vdc, 0.5A max., 53.05 CFM min.	UL 507, IEC 60950-1:2005+A1+A2, EN 60950-1:2006+A11+A1+A12+A2, IEC 62368-1:2014, EN 62368-1:2014	UL, TUVRH
CPU Fan (Alternate)	Foxconn Technology Co., Ltd.	PVA080G12Q	12Vdc, 0.65A max, 60 CFM min.	UL 507, EN 60950-1:2006+A11+A1+A12+A2, EN 62368-1:2014	UL, TUVRH
Motherboard	Interchangeable	Decaf, Cortado	See below.	--	--
- RTC Battery	VIC-DAWN ENTERPRISE CO LTD / KTS	CR2032	3Vdc, max. abnormal charging current 10mA	UL 1642	UL (MH20550)
- RTC Battery (Alternate)	JHIH HONG TECHNOLOGY CO LTD	CR2032	3Vdc, max. abnormal charging current 10mA	UL 1642	UL (MH48406)
- RTC Battery (Alternate)	DOUBLE BEST CO LTD	CR2032 (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 10mA	UL 1642	UL (MH46388)

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: **UL-BR 24.0576**

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: **01**

Validade / Expiration

29 de abril de 2027

April 29, 2027

- RTC Battery (Alternate)	Interchangeable	CR2032, CR2032 (j)(k)	3V, maximum abnormal charging current 5mA min, against charging current by multiple components D1 and R23 rated 1Kohm min.	UL 1642	UL
- DC Fan	FirstDo Investment Enterprise Co., Ltd.	FD5010U12S	12Vdc, 0.22A, 11.87 CFM	UL 507, EN 60950-1:2006/A2:2013	UL, TUVSUD

Anexo 7 – Lista de componentes:

Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity1)
01. Adapter	Lite-On Technology Corp (hp)	Series TPC-LA57	I/P: 100-240Vac, 50-60Hz, 1.4A O/P: 19.5Vdc, 4.62A, Class I, 35°C, Altitude 5000m	IEC 60950-1:2005 + A1:2009 + A2:2013 IEC 62368-1:2014, UL 60950-1:2019	UL , CB by TUV (JPTUV-091024, JPTUV-078815)
01a. Adapter (Alternate)	Delta Electronics Inc (hp)	TPC-DA57	I/P: 100-240Vac, 50-60Hz, 1.4A O/P: 19.5Vdc, 4.62A, Class I, 40°C, Altitude 5000m	IEC 62368-1:2014, UL 60950-1:2019	UL , CB by UL (DK- 62748-UL)
01b. Adapter (Alternate)	Chicony Power Technology Co., Ltd. (hp)	TPC-CA57	I/P: 100-240Vac, 50-60Hz, 1.4A O/P: 19.5Vdc, 4.62A, 90W, Class I, 35°C, Altitude 5000m	IEC 62368-1:2014, UL 60950-1:2019	UL , CB by TUV (JPTUV-078180)
01c. Adapter (Alternate)	Chicony Power Technology Co., Ltd (hp)	TPN-CA18	I/P: 100-240Vac, 50-60Hz, 1.7A; O/P: 19.5Vdc, 4.62A, Class I, 35°C, Altitude 5000m	IEC 60950-1:2005 + A1:2009 + A2:2013 IEC 62368-1:2014, UL 62368-1:2014	UL , CB by TUV (JPTUV-088508, JPTUV-088468)
01d. Adapter (Alternate)	Delta Electronics Inc (hp)	TPN-DA18	I/P: 100-240Vac, 50-60Hz, 1.7A; O/P: 19.5Vdc, 4.62A, Class II, 35°C, Altitude 5000m	IEC 60950-1:2005 + A1:2009 + A2:2013 IEC 62368-1:2014, UL 62368-1:2014	UL , CB by TUV (JPTUV-090651-M2, JPTUV-090588-M2)
01e. Adapter (Alternate)	Chicony Power Technology Co., Ltd (hp)	TPN-CA19	I/P: 100-240Vac, 50-60Hz, 1.7A O/P: 19.5 Vdc, 6.15A, 120W, Class I. 40C. Altitude 5000m	IEC 60950-1:2005+A1:2009 + A2:2013 IEC 62368-1:2014, UL 62368-1:2014	UL , UL, CB by TUV/RH (JPTUV-094252, JPTUV-094190)
01f. Adapter (Alternate)	Delta Electronics Inc (hp)	TPN-DA19	I/P: 100-240Vac, 50-60Hz, Class I, 2.5A O/P: 19.5 Vdc, 6.15A, 120W, 35C, Altitude 5000m	IEC 60950-1:2005 +A1:2009 + A2:2013 IEC 62368-1:2014, UL 62368-1:2014	UL, UL, CB by TUV/RH (JPTUV-093604, JPTUV-093602)

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: UL-BR 24.0576

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: 01

Validade / Expiration

29 de abril de 2027

April 29, 2027

01g. Adapter (Alternate)	Lite-On Technology Corp (hp)	TPN-LA18	I/P: 100-240Vac, 50-60Hz, 1.6A O/P: 19.5 Vdc, 6.15A, Class I. 35C. Altitude 5000m	IEC 60950-1:2005 + A1:2009 + A2:2013 IEC 62368-1:2014, UL 62368-1:2014	UL , UL, CB by TUV/RH (JPTUV-094301, JPTUV-094254)
01h. Adapter (Alternate)	Chicony Power Technology Co., Ltd (hp)	TPC-CA52	Input: 100-240Vac, 2.0A, 50-60Hz Output: 19.5Vdc, 7.69 A, 150W Altitude 5000m	IEC 60950-1:2005 + A1:2009 + A2:2013 IEC 62368-1: 2014, UL 60950-1:2019	UL , CB by TUV (JPTUV-078201, JPTUV-061032)
01i. Adapter (Alternate)	Chicony Power Technology Co., Ltd (hp)	TPN-CA22	I/P: 100-240V~, 50-60Hz, 2.5A O/P: DC19.5V, 7.7A 150W, altitude 5000m.	IEC 60950-1:2005 + A1:2009 + A2:2013 IEC 62368-1:2014, UL 62368-1:2014	UL , CB by TUV (JPTUV-102148-A1, JPTUV-101946)
01j. Adapter (Alternate)	Lite-On Technology Corp (hp)	TPN-LA20	I/P: 100-240V~, 50-60Hz, 2.5A O/P: DC19.5V, 7.7A, 150W, altitude 5000m.	IEC 60950-1:2005 +A1:2009 + A2:2013 IEC 62368-1: 2014, UL 62368-1:2014	UL , CB by TUV (JPTUV-101694, JPTUV-101441)
01k. Adapter (Alternate)	Delta Electronics Inc (hp)	TPC-DA52	Input: 100-240Vac, 2.0A, 50-60Hz, Class I Output: 19.5Vdc, 7.69A, 150W, Altitude 5000m	IEC 60950-1:2005 +A1:2009 + A2:2013 IEC 62368-1: 2014, UL 60950-1:2019	UL , CB by UL (DK-6262-UL, DK-42591-UL)
01l. Adapter (Alternate)	Acbel Polytech Inc (hp)	TPC-AA62	I/P: 100-240V~, 1.7A, 50-60Hz O/P: 19.5Vdc, 9.23A, 35°C, altitude 5000m.	IEC 60950-1:2005 +A1:2009 + A2:2013 IEC 62368-1: 2014, UL 62368-1:2014	UL , UL, CB by TUV/RH (JPTUV-097672, JPTUV-097739)
01m. Adapter (Alternate)	Interchangeable	Interchangeabl e	O/P: 19.5Vdc, 4.62A, 6.15A, 7.7A, 9.23A min., 35°C, altitude 5000m.	IEC 60950-1:2005+A1:2009 +A2:2013 IEC 62368-1:2014, UL 609501:2019, UL 62368-1:2014	UL , CB by NCB
05. Metal Enclosure	Interchangeable	Interchangeabl e	Steel, see Enclosure 4-01 and 4-02 for details.	--	-- , --
06. Plastic enclosure – front I/O cover	TEIJIN CHEMICALS PLASTIC COMPOUNDS SHANGHAI LTD or TEIJIN LIMITED RESIN AND PLASTIC	TN-3713B(#), (#) - Suffix optional	V-0, 1.5mm min thickness, 60oC.	UL 94:2013, UL 746C:2018	UL , --
06a. Plastic enclosure – front I/O cover (Alternate)	GUO HENG (DONGGU AN) PLASTIC TECHNOLOGY CO LTD	YH26(##), (##) - Will be replaced by two digits from 00~99 to denote to serial number.	V-1, 1.5mm min thickness, 60oC.	UL 94:2013, UL 746C:2018	UL , --

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: **UL-BR 24.0576**

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: **01**

Validade / Expiration

29 de abril de 2027

April 29, 2027

06b. Plastic enclosure – front I/O cover (Alternate)	LOTTE CHEMICAL CORPORATION	GV-1005OP(RR50)	V-1, 1.0 min. thickness 75°C	UL 94:2013, UL 746C:2018	UL , --
06c. Plastic enclosure – front I/O cover (Alternate)	GUO HENG (DONGGU AN) PLASTIC TECHNOLOGY CO LTD	YOUHO13(##)(Y Y). (##) – Will be replaced by two digits from 00–99 to denote to serial number. (YY) - Must be replaced by two letters from AA–ZZ to denote serial number.	HB, 1.5min, thickness, 80°C	UL 94:2013, UL 746C:2018	UL , --
06d. Plastic enclosure – front I/O cover (Alternate)	UNIC TECHNOLOGY CORP	UR-3006+(RXX), (RXX) - XX may be replaced by two digital 35 - 90 to indicate recycled content 35 -90%.+ - May be followed by a letter A to Z.	HB, 1.5min, thickness, 80°C	UL 94:2013, UL 746C:2018	UL , --
06e. Plastic enclosure – front I/O cover (Alternate)	STAR PLASTICS INC	ABS(d)(e)(c) (c) – May or may not be followed by the letters uv. (d) –Represents three letters from 401 to 449. (e) – Represents a letter from A to Z or no letter. NOTE – Material designations may be followed by numbers and/or letters representing color and/or granulation and/or lubrication.	HB, 1.5 min. thickness 60°C	UL 94:2013, UL 746C:2018	UL , --
08. Speaker housing	STAR PLASTICS INC	PCABSFR(J), PCABSFR755e	V-0, 0.8mm min. thickness, 60oC.	UL 94:2013, UL 746C:2018	UL , --
09. Speaker	Interchangeable	Interchangeable	4 ohm max., 2W max	Applicable parts of IEC 62368-1:2018	-- , Tested in appliance
10. Metal mesh (top cover with opening) (for 180W, 150W and 120W)	SICHUAN DONGFANG INSULATING MATERIAL CO LTD	DFR117, DFR117ECO, DFR117ECOB, DFR117ECOC	V-0, 0.25mm min. thickness, 80oC.	UL 94:2013, UL 746C:2018	UL , --
11. System DC fan	Taicang Huaying	BN8512S2H-	12 Vdc, 0.42A,	Applicable parts	-- , Tested in

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: **UL-BR 24.0576**

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: **01**

Validade / Expiration

29 de abril de 2027

April 29, 2027

	Electronic Material Co., Ltd	000P	13.26 CFM min.	of IEC 62368-1:2018	appliance
11a. System DC fan (Alternate)	DELTA ELECTRONICS, INC.	BSB0712HC- 00	12 Vdc, 1A, 12.93 CFM min.	Applicable parts of IEC 62368-1:2018	-- , Tested in appliance
11b. System DC fan (Alternate)	Sunonwealth Electric Machine Industry Co., Ltd.	MG75091V1-C070-S9A	12 Vdc, 0.8A, 13.4 CFM min.	Applicable parts of IEC 62368-1:2018	-- , Tested in appliance
11c. System DC fan (Alternate)	Interchangeable	Interchangeable	12 Vdc, 1A max., 12.93 CFM min.	Applicable parts of IEC 62368-1:2018	-- , Tested in appliance
12. GPU fan (for 180W)	Taicang Huaying Electronic Material Co., Ltd	BD7515S5H-000P	5Vdc, 0.38A, 5.22 CFM min.	Applicable parts of IEC 62368-1:2018	-- , Tested in appliance
12a. GPU fan (for 180W) (Alternate)	DELTA ELECTRONICS, INC.	BSB0705HA- 00	5Vdc, 0.6A, 5.13 CFM min.	Applicable parts of IEC 62368-1:2018	-- , Tested in appliance
12b. GPU fan (for 180W) (Alternate)	Interchangeable	Interchangeable	5 Vdc, 0.6A max., 5.13 CFM min.	Applicable parts of IEC 62368-1:2018	-- , Tested in appliance
13. SSD fan (for 150W and 120W)	Taicang Huaying Electronic Material Co., Ltd	BN6505S5H-001P	5Vdc, 0.375A, 2.48 CFM min.	Applicable parts of IEC 62368-1:2018	-- , Tested in appliance
13a. SSD fan (for 150W and 120W) (Alternate)	DELTA ELECTRONICS, INC.	NS65B07	5Vdc, 0.2A, 2.06 CFM min.	Applicable parts of IEC 62368-1:2018	-- , Tested in appliance
13b. SSD fan (for 150W and 120W) (Alternate)	Sunonwealth Electric Machine Industry Co., Ltd.	EG50050S1-CJ20-S9A	5Vdc, 0.5A, 2.3 CFM min.	Applicable parts of IEC 62368-1:2018	-- , Tested in appliance
13c. SSD fan (for 150W and 120W) (Alternate)	Interchangeable	Interchangeable	5 Vdc, 0.5A max., 2.06 CFM min.	Applicable parts of IEC 62368-1:2018	-- , Tested in appliance
15. RTC battery	VIC-DAWN ENTERPRISE CO LTD	CR2032	Non-Rechargeable. Rated 3 Vdc, min. maximum abnormal charging current 10mA. Protect by diode (D31) and 1kohm (R492) resistor.	UL 1642:2020	UL , --
15a. RTC battery (Alternate)	DOUBLE BEST CO LTD	CR2032	Non-Rechargeable. Rated 3 Vdc, min. maximum abnormal charging current 10mA. Protect by diode (D31) and 1kohm (R492) resistor.	UL 1642:2020	UL , --
15b. RTC battery (Alternate)	JHIH HONG TECHNOLOGY CO LTD	CR2032	Non-Rechargeable. Rated 3 Vdc, min. maximum abnormal charging current 10mA. Protect by diode (D31) and 1kohm (R492) resistor.	UL 1642:2020	UL , --
15c. RTC battery	Interchangeable.	CR2032	Non-Rechargeable.	UL 1642:2020	UL , --

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: UL-BR 24.0576

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: 01

Validade / Expiration

29 de abril de 2027

April 29, 2027

(Alternate)			Rated 3 Vdc, min. maximum abnormal charging current 10mA. Protect by diode (D31) and 1kohm (R492) resistor.		
17. PTC for Display port	Wayon Circuit Protection	LP-ISML110	6Vdc, Ihold: 1.1A, Itrip: 2.2A, CA3	EN62319-1: 2005 EN62319-1-1: 2005	-- , TUV (R 50318402)
17a. PTC for Display port (Alternate)	Polytronics Technology Corp	SPR-P110	6Vdc, Ihold: 1.1A, Itrip: 1.8A, CA3	EN 60738-1: 1999EN 60738 - 1-1:1999IEC 60730-1:1999 +A1EN 60730-1:2000+A1+ A12+A13+A14 IEC 60738-1:1998 IEC 60738-1-1:1998, UL 1434:1998	UL , TUV (R 50099121)
20. GPU board with mini HDMI port and mini Display ports.	Quanta Computer inc	TPC-Q008AO	N/A	Applicable parts of IEC 62368-1:2014	-- , Tested in appliance
21. Thermal module	Interchangeable	Interchangeable	See Enclosure 4-03 to 4-05 for detail.	Applicable parts of IEC 62368-1:2014	-- , Tested in appliance

Anexo 8 – Lista de componentes:

Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity1)
Metal Chassis	Interchangeable	Interchangeable	Sheet steel or steel, thickness 0.8 mm min.	--	--
Base Stand (optional)	Interchangeable	Interchangeable	HB min., 0.1 kg max.	UL 94 ed.6	UL
Front Plastic Panel	Ur Materials Industry (Shenzhen) Co Ltd	210	HB min., 60 °C min., thickness 1.6 mm min.	UL 94 ed.6	UL (E323548)
Blank Panel (optional, when SD, ODD is not provided)	Interchangeable	Interchangeable	HB min.	UL 94 ed.6	UL
Rear Plastic Panel (optional)	Ur Materials Industry (Shenzhen) Co Ltd	210	HB min., 60 °C min., thickness 1.6 mm min.	UL 94 ed.6	UL (E323548)
Front I/O Cover on Plastic Front Panel	Interchangeable	Interchangeable	Sheet steel or steel, thickness 0.2 mm min.	--	--
Air Duct	Interchangeable	Interchangeable	V-2 min., 60 °C min., thickness 1.5 mm min.	UL 94 ed.6	UL
Combustible Materials outside Metal Chassis	Interchangeable	Interchangeable	HB or HBF min.	UL 94 ed.6	UL
alt.	Interchangeable	Interchangeable	Flammability level is ignored, when small parts (4 g or 1750 mm3	--	--

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: **UL-BR 24.0576**

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: **01**

Validade / Expiration

29 de abril de 2027

April 29, 2027

			max.)		
Combustible Materials inside Metal Chassis	Interchangeable	Interchangeable	V-2 or HF-2 or VTM-2 min.	UL 94 ed.6	UL
alt.	Interchangeable	Interchangeable	Flammability level is ignored, when small parts (4 g or 1750 mm ³ max.)	--	--
PCB	Interchangeable	Interchangeable	V-1 min., 105 °C min.	UL 796 ed.11	UL
Switching Power Supply (PSU)	Acbel Polytech Inc	PCK018	AC I/P: 100-240 V, 3.1 A, 50-60 Hz. Class I. DC O/P: 18.0 A, +12.1 Vmain. 18.0 A, +12.1 Vcpu.+12.1 Vmain and +12.1 Vcpu shall not exceed 260 W. Maximum power shall not exceed 260 W. 45 °C. Altitude during operation 5000 m.	IEC 62368-1: 2018, EN IEC 62368-1: 2020+A11, IEC 60950-1: 2005+A1+A2, UL 62368-1 ed.3	CB by TUV/Rh, UL (E131875)
alt.	Chicony Power Technology Co Ltd	D19-260P1B	AC I/P: 100-240 V, 3.1 A, 50-60 Hz. Class I. DC O/P: 18.0 A, +12.1 Vmain. 18.0 A, +12.1 Vcpu.+12.1 Vmain and +12.1 Vcpu shall not exceed 260 W. Maximum power shall not exceed 260 W. 45 °C. Altitude during operation 5000 m.	IEC 62368-1: 2018, EN IEC 62368-1:2020 +A11, IEC 62368-1:2014, EN 62368-1: 2014+A11, IEC 60950-1: 2005+A1+A2, UL 62368-1 ed.3	CB by TUV/Rh, UL (E143709)
alt.	Lite-On Technology Corporation	PA-2261-5YXXXXX (Y= A-Z, hyphen or blank, X= A-Z, 0~9, hyphen or blank)	AC I/P: 100-240 V, 3.1 A, 50-60 Hz, Class I. DC O/P: 18 A, +12.1 VMAIN 18 A, +12.1 VCPU +12.1 VMAIN and +12.1 VCPU total power can't exceed 260 W.45 °C. Altitude during operation 5000 m.	IEC 62368-1: 2018, EN IEC 62368-1:2020+ A11, IEC 62368-1: 2014, EN 62368-1:2014 +A11, IEC 60950-1:2005 +A1+A2, UL 62368-1 ed.3	CB by TUV/Rh, UL (E132068)
alt.	Acbel Polytech Inc	PCM006	AC I/P: 100-240 V, 5.2 A, 50-60 Hz. Class I. DC O/P: 18.0 A, +12 VMAIN, 18.0 A, +12 VCPU.18.0 A, +12 VG. Maximum power shall not exceed 400 W. 50 °C. Altitude during operation 5000 m.	IEC 62368-1: 2018, EN IEC 62368-1:2020 +A11,IEC 60950-1:2005+A1+A2, UL 62368-1 ed.3	CB by TUV/Rh, UL (E131875)

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: UL-BR 24.0576

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: 01

Validade / Expiration

29 de abril de 2027

April 29, 2027

alt.	Lite-On Technology Corporation	PA-3401-3YX (Y= A-Z, hyphen or blank; X= A-Z, 0-9, hyphen or blank)	AC I/P: 100-240 V, 5.2 A, 50-60 Hz. Class I. DC O/P: 18.0 A, +12.1 VMAIN, 18.0 A, +12.1 VCPU 18.0 A, +12.1 VG +12.1 VMAIN and +12.1 VCPU and +12.1 VG total power can't exceed 400 W, 50 °C. Altitude during operation 5000 m.	IEC 62368-1: 2018, EN IEC62368- 1: 2020+A11, IEC 62368-1: 2014, EN 62368-1: 2014+A11, IEC 60950-1: 2005+A1+A2, UL 62368-1 ed.3	CB by TUV/Rh, UL (E132068)
Hard Disk Drive (HDD) (optional) (x3 max.)	SK Hynix Inc	HFS3T8GD0FE I-Aabcd (a, b, c and d denoting buyer can be any letter (A to Z) or number (0 to 9))	3.3 A, 3.3 Vdc. Class III.	IEC 62368-1: 2018, UL 62368-1 ed.3	CB by TUV/SUD, UL (E333981)
alt.	SK Hynix Inc	HFS3T8G32FE H-BA10A	2.0 A, 5.0 Vdc. Class III.	IEC 62368-1: 2018, IEC 62368-1:2014, IEC 60950-1: 2005 +A1+A2, UL 62368-1 ed.3, UL 60950-1ed.2	CB by TUV/SUD, UL (E333981)
alt.	SK Hynix Inc	HFS15T3DGLX 070N	2.1 A, 12 Vdc. Class III.	IEC 62368-1: 2018, UL 62368-1 ed.3	CB by TUV/SUD, UL (E333981)
alt.	Toshiba Electronic Devices & Storage Corporation	HDWL1yy (where "xx" may be any number 00-10, "yy" may be any number 11-99)	0.5 A, 3.3 Vdc, 0.7 A, 5.0 Vdc. (optional)	IEC 62368-1: 2014, UL 62368-1 ed.2	CB by UL (JP), UL (E145163)
alt.	HGST Japan Ltd	Hww7210nnKL A3nn	1.5 A max., 5.0 Vdc, 2.0 A max., 12 Vdc. Class III.	IEC 62368-1:2014, IEC 60950-1: 2005 +A1+A2, UL 60950-1 ed.2	CB by TUV/Rh, UL (E182115)
alt.	Interchangeable	Interchangeable	Ratings are not required and provided for reference only: 3.3 A max., 3.3 Vdc or 2.0 A max., 5.0 Vdc or 2.1 A max., 12 Vdc or 0.5 A max., 3.3 Vdc, 0.7 A max., 5.0 Vdc or 1.5 A max., 5.0 Vdc, 2.0 A max., 12 Vdc.	IEC 62368-1: 2018, IEC 62368-1:2014, IEC 60950-1: 2005+A1+A2, UL 62368-1ed.3, UL 62368-1 ed.2, UL 60950-1ed.2	Verified by other certificate body, UL
Solid State Drive (SSD) (optional) (x3 max.) (alternate when HDD not provided)	Samsung Electronics Co Ltd	MZ-K***** (* can be 0-9, A-Z, blank, slash or dash)	4.8 A, 3.3 Vdc.	IEC 62368-1: 2018, IEC 60950-1: 2005 +A1+A2, UL 62368-1 ed.3, UL 60950-1 ed.2	CB by TUV/Rh, UL (E149091)

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: **UL-BR 24.0576**

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: **01**

Validade / Expiration

29 de abril de 2027

April 29, 2027

alt.	Solid State Storage Technology Corp (Lite-On)	K2-L1xxxxxxx ("x" can be any alphanumeric character or blank)	2.5 A, 5.0 Vdc. Class III.	IEC 62368-1: 2014, IEC 60950-1: 2005+A1+A2, UL 62368-1 ed. 2, UL 60950-1 ed.2	CB by TUV/Rh, UL (E205203)
alt.	Solid State Storage Technology Corp	ED1-2Wxxxxxxx (where x can be any alphanumeric character or blank)	2.0 A, 12 Vdc (optional) Class III.	IEC 62368-1: 2014, IEC 60950-1: 2005+A1+A2, UL 62368-1 ed.2	CB by TUV/Rh, UL (E205203)
alt.	Western Digital Technologies Inc	GRxxxxy-x (where x and y are any alphanumeric character, or blank representing non-safety critical features such as memory size)	Class III supplied by SELV. Ratings are not required and provided for reference only: 1.8 A max., 5.0 Vdc, 1.8 A max., 12 Vdc.	IEC 62368-1: 2014, IEC 60950-1: 2005+A1+A2, UL 62368-1 ed.2, UL 60950-1 ed.2	CB by UL (US), UL (E332258)
alt.	Intel Corp	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, 5.0 Vdc and/or 12 Vdc. (for reference only)	IEC 62368-1: 2014, IEC 60950-1: 2005+A1+A2, UL 62368-1 ed.2, UL 60950-1 ed.2	CB by UL (US), UL (E139761)
alt.	Interchangeable	Interchangeable	Ratings are not required and provided for reference only: 4.8 A max., 3.3 Vdc or 2.5 A max., 5.0 Vdc or 2.0 A max., 12 Vdc or 1.8 A max., 5.0 Vdc, 1.8 A max., 12 Vdc or 3.3 Vdc, 5.0 Vdc and/or 12 Vdc.	IEC 62368-1: 2018, IEC 62368-1: 2014, IEC 60950-1: 2005+A1+A2, UL 62368-1 ed.3, UL 62368-1 ed.2, UL 60950-1 ed.2	Verified by other certificate body, UL
Optical Disk Drive (ODD) (optional) (x1 max.)	Hitachi-LG Data Storage Inc	DU9** (Where first "*" can be any number 0-9 and second "*" can be any alphanumeric character, denoting non safety related differences)	1.8 A, 5.0 Vdc. Class III. Class 1 Laser Product.	IEC 62368-1: 2018, IEC 60950-1: 2005+A1+A2, IEC 60825-1: 2014, UL 60950-1 ed.2	CB by Intertek, UL (E119002)
alt.	Philips & Lite-On Digital Solutions	DG-xx3Sxxxxx (x can be any	2.0 A, 5.0 Vdc, 1.25 A, 12 Vdc.	IEC 62368-1: 2014, IEC	CB by TUV/Rh, UL (E306430)

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: **UL-BR 24.0576**

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: **01**

Validade / Expiration

29 de abril de 2027

April 29, 2027

	Corporation	alphanumeric character or blank)	(optional) Class III. Class 1 Laser Product.	60950-1: 2005 +A1+A2, IEC 60825-1:2007, UL 62368-1 ed.2, UL 60950-1 ed.2	
alt.	LG Electronics Inc	GHB** (where the "*" can be 0~9, A~Z, any alphanumeric character or blank according to design, brand, buyer, color, software or other configurations, denoting non safety related differences)	2.0 A, 5.0 Vdc, 2.5 A, 12 Vdc. Class III. Class 1 Laser Product.	IEC 62368-1: 2018, IEC 60950-1: 2005 +A1+A2, IEC 60825-1:2014, UL 62368-1 ed.3, UL 60950-1 ed.2	CB by Intertek, UL (E119002)
alt.	Interchangeable	Interchangeable	Ratings are not required and provided for reference only: 1.8 A max., 5.0 Vdc or 2.0 A max., 5.0 Vdc, 2.5 A max., 12 Vdc. Class III. Class 1 Laser Product.	IEC 62368-1: 2018, IEC 62368-1:2014, IEC 60950-1: 2005+A1+A2, IEC 60825-1: 2014, IEC 60825-1: 2007, UL 62368-1 ed.3, UL 62368-1 ed.2, UL 60950-1 ed.2	Verified by other certificate body, UL
CPU Fan	Foxconn Technology Co Ltd	PVA080G12Q	0.65 A max., 12 Vdc, 60.0 CFM min.	EN 62368-1: 2014, UL 507 ed.10	TUV, UL (E231557)
alt.	Huizhou City Xunshuo Technology Co Ltd	DF0802512RF UN	0.60 A max., 12 Vdc, 52.7 CFM min.	EN 62368-1: 2014, UL 507 ed.10	TUV, UL (E465463)
alt.	Delta Electronics Inc	AUB0812VJ-00V65	0.50 A max., 12 Vdc, 53.05 CFM min.	IEC 62368-1: 2014, EN 62368-1: 2014, UL 507 ed.10	TUV, UL (E132003)
Graphics Card (optional)	NVIDIA Corp	PG172	Complied with LPS requirement. 40 W max.	IEC 62368-1: 2014, EN 62368-1: 2014+A11, UL 62368-1 ed.3, UL 60950-1 ed.2	CB by UL (Demko), UL (E204896)
alt.	Interchangeable	Interchangeable	Certified by UL listed accessory. Complied with LPS requirement. 40 W max.	IEC 62368-1: 2018, IEC 62368-1:2014, IEC 60950-1: 2005+A1+A2, UL 62368-1 ed.3, UL 62368-1 ed.2, UL 60950-1 ed.2	Verify by other cert. body, UL

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: **UL-BR 24.0576**

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: **01**

Validade / Expiration

29 de abril de 2027

April 29, 2027

Speaker (optional)	Interchangeable	Interchangeable	4.0 ohm, 3.0 W max.	--	--
Motherboard (MB)	Foxconn International Inc	FMB-2202	Electrical ratings not required (the equipment intended for building-in, supplied by ES1, SELV)	UL 62368-1 ed.3	UL (E93839)
RTC Battery	Interchangeable	CR2032 series, CR 2032 series, CR-2032 series	Max Abnormal Charging Current= 10 mA.	UL1642 ed.5	UL
Thermistor (VF1, VF2 for Display)	Polytronics Technology Corp	SPR-P110	1.1 A, 6 V min.	IEC 60730-1: 2010, EN 60730-1:2011, Clause 15, 17 and Annex J, UL 1434 ed.1	TUV, UL (E201431)
alt.	Littelfuse Inc	0805L110UL series	1.1 A, 6 V min.	IEC 60730-1: 2010, EN 60730-1:2011, Clause 15, 17 and Annex J, UL 1434 ed.1	TUV, UL (E183209)
alt.	CYG Wayon Circuit Protection Co Ltd	LP-ISML110abcd (a= C, U, blank, b= S, Z, blank, c= H, blank, d= F, blank)	1.1 A, 8 V min.	IEC 60730-1: 2013, EN 60730-1: 2011, Clause 15, 17 and Annex J, UL 1434 ed.1	TUV, UL (E202125)
alt.	Interchangeable	Interchangeable	1.1 A, 6 V min.	IEC 60730-1: 2013, Clause 15, 17 and Annex J, UL 1434 ed.1	Verify by other cert. body, UL
Thermistor (VF300 for HDMI)	Polytronics Technology Corp	SMD0805P075 SLR	0.75 A, 6 V min.	IEC 60730-1: 2010, EN 60730-1:2011, Clause 15, 17 and Annex J, UL 1434 ed.1	TUV, UL (E201431)
alt.	Littelfuse Inc	0805L075UL series	0.75 A, 6 V min.	IEC 60730-1: 2020, EN 60730-1:2011, Clause 15, 17 and Annex J, UL 1434 ed.1	TUV, UL (E183209)
alt.	CYG Wayon Circuit Protection Co Ltd	LP-ISML075abcd a= C, U, blank, b= S, Z, blank, c= H, blank, d= F, blank)	0.75 A, 8 V min.	IEC 60730-1: 2013, EN 60730-1:2011 Clause15, 17 and Annex J, UL 1434 ed.1	TUV, UL (E202125)
alt.	Interchangeable	Interchangeable	0.75 A, 6 V min.	IEC 60730-1: 2013, Clause 15, 17 and Annex J, UL 1434 ed.1	Verify by other cert. body, UL

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: UL-BR 24.0576

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: 01

Validade / Expiration

29 de abril de 2027

April 29, 2027

Low-Voltage Solid-State Overcurrent (U9, U11, U51, U55 for USB 3.0, U42 for USB 2.0, U11 for Internal connector: P152 for SD)	Diodes Inc	AP22818, followed by A or B, followed by blank, K, KA, KB, KC, or KE, followed by WT or M8, followed by -7 or -13, may be followed by additional letters and/or numbers.	Input Voltage= 2.7 to 5.5 Vdc. Output Continuous Rating= 2.0 A. Output Current Limit= 3.2 A. Maximum Operational Ambient= 85 °C.	IEC 62368-1: 2018, EN IEC 62368-1: 2020 +A11, UL 2367 ed.2	CB by UL (US), UL (E322375)
alt.	Joulwatt Technology Co Limited	JW7115S-2SOTA#TRPBF	Series (1) Vin= 2.7 to 5.5 Vdc, Vout= 2.7 to 5.5 Vdc, Iout= 2.05 to 2.35 A. Series (2) Vin= 2.7 to 5.5 Vdc, Vout= 2.7 to 5.5 Vdc, Iout= 2.6 to 3.1 A. (optional)	IEC 62368-1: 2014, EN 62368-1: 2014 +A11, UL 62368-1 ed.3	CB by UL (Demko), UL (E497605)
alt.	Texas Instruments Incorporated	TPS2001x. 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= 2.0A. Output current limit= 3.6A. Maximum operational temperature= 85°C. (optional)	IEC 62368-1: 2014, EN 62368-1: 2014+A11, UL 2367 ed.2	CB by UL (US), UL (E169910)
alt.	Silergy Technology (Taiwan) Inc	SY6288C20AA C	Input Voltage= 2.5 to 5.5 Vdc. Output Continuous Rating= 2.0 A max. Current Limit Rating= 3.5 A. Ambient= -40 to 85 °C.	IEC 62368-1: 2014, UL 2367 ed.2	CB by UL (Demko), UL (E491480)
Low-Voltage Solid-State Overcurrent (U63 for USB 3.0)	Texas Instruments Incorporated	TPS2546, may be followed by additional characters that do 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. Maximum Operational Ambient= 85 °C. (optional)	IEC 62368-1: 2014 EN 62368-1: 2014+A11, UL 2367 ed.2	CB by UL (US), UL (E169910)
alt.	Diodes Incorporated	PI5USB2546ZH DEX	Input Voltage= 4.5 to 5.5 Vdc. Continuous Rating= 30 mA to 2.5 A. Current Limit= 100 mA to 3.18 A. Ambient= -40 to 85 °C. (optional)	IEC 62368-1: 2014, EN 62368-1: 2014+A11, UL 2367 ed.2	CB by UL (US), UL (E340734)
Low-Voltage Solid-State Overcurrent (U7 for USB type-C)	Cypress Semiconductor Corp	CYAC1126-40LQXI ACG1F	Input= 2.7 to 5.5 Vdc. 4.85 to 5.5Vd (VCONN) Output= 5.0 Vdc, 3.0 A, 15.0 W (VBUS) 5.0 Vdc, 200 mA, 1.0 W (VCONN) (Protective Current	IEC 62368-1: 2014, UL 62368-1 ed.3	CB by UL (Demko), UL (E331901)

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: UL-BR 24.0576

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: 01

Validade / Expiration

29 de abril de 2027

April 29, 2027

			4.2 A, include drift) (optional)		
alt.	Cypress Semiconductor Corp	ACG1F	Input= 2.7 to 5.5 Vdc. 4.85 to 5.5 Vdc (VCONN) Output= 5 Vdc, 3 A, 15 W (VBUS) 5 Vdc, 200 mA, 1 W (VCONN)	IEC 62368-1: 2014, EN 62368-1: 2014+A11	CB by MET

Anexo 9

Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity1)
Metal Chassis	Interchangeable	Interchangeable	Sheet steel or steel, thickness 0.8 mm min.	--	--
Base Stand (optional)	Interchangeable	Interchangeable	HB min., 0.1 kg max.	UL 94 ed.6	UL
Front Plastic Panel	Ur Materials Industry (Shenzhen) Co Ltd	210	HB min., 60 °C min., thickness 1.6 mm min.	UL 94 ed.6	UL (E323548)
Blank Panel (optional, when SD, ODD is not provided)	Interchangeable	Interchangeable	HB min.	UL 94 ed.6	UL
Rear Plastic Panel (optional)	Ur Materials Industry (Shenzhen) Co Ltd	210	HB min., 60 °C min., thickness 1.6 mm min.	UL 94 ed.6	UL (E323548)
Front I/O Cover on Plastic Front Panel	Interchangeable	Interchangeable	Sheet steel or steel, thickness 0.2 mm min.	--	--
Air Duct	Interchangeable	Interchangeable	V-2 min., 60 °C min., thickness 1.5 mm min.	UL 94 ed.6	UL
Combustible Materials outside Metal Chassis	Interchangeable	Interchangeable	HB or HBF min.	UL 94 ed.6	UL
alt.	Interchangeable	Interchangeable	Flammability level is ignored, when small parts (4 g or 1750 mm ³ max.)	--	--
Combustible Materials inside Metal Chassis	Interchangeable	Interchangeable	V-2 or HF-2 or VTM-2 min.	UL 94 ed.6	UL
alt.	Interchangeable	Interchangeable	Flammability level is ignored, when small parts (4 g or 1750 mm ³ max.)	--	--
PCB	Interchangeable	Interchangeable	V-1 min., 105 °C min.	UL 796 ed.11	UL
Switching Power Supply (PSU)	Acbel Polytech Inc	PCK016	AC I/P: 100-240 V, 2.3 A, 50-60 Hz. Class I DC O/P: 14.88 A, +12.1 V. 50 °C. Altitude during operation 5000 m.	IEC 62368-1: 2018, EN IEC 62368-1:2020+ A11, IEC 60950- 1: 2005+A1+A2, UL 62368-1 ed.3	CB by TUV/Rh, UL (E131875)

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: **UL-BR 24.0576**

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: **01**

Validade / Expiration

29 de abril de 2027

April 29, 2027

alt.	Chicony Power Technology Co Ltd	D19-180P2B	AC I/P: 100-240 V, 2.3 A, 50-60 Hz. Class I DC O/P: 14.88 A, +12.1 V. +12.1 V shall not exceed 180 W. Maximum power shall not exceed 180 W. 50 °C. Altitude during operation 5000 m.	IEC 62368-1: 2018, EN IEC 62368-1:2020+A11, IEC 62368-1: 2014, EN 62368-1:2014 +A11, IEC 60950-1:2005+A1+A2, UL 62368-1 ed.3	CB by TUV/Rh, UL (E143709)
alt.	Delta Electronics Inc	DPS-180AB-34 XX (X= 0-9, A-Z or blank)	AC I/P: 100-240 V, 2.3 A, 50-60 Hz, Class I. DC O/P: 14.88 A, +12.1 V. Max power 180 W. 50 °C. Altitude during operation 5000 m.	IEC 62368-1: 2014, EN 62368-1: 2014+A11, IEC 60950-1: 2005+A1+A2, UL 62368-1 ed.2	CB by TUV/Rh, UL (E131881)
alt.	Lite-On Technology Corporation	PA-1181-3HP	AC I/P: 100-240 V, 2.3 A, 50-60 Hz. Class I. DC O/P: 14.88 A max., +12.1 V Maximum continuous total DC output power 180 W. 50 °C. Altitude during operation 5000 m.	IEC 62368-1: 2018, EN IEC 62368-1: 2020 +A11, IEC 62368-1:2014, EN 62368-1: 2014+A11, IEC 60950-1: 2005+A1+A2, UL 62368-1 ed.3	CB by TUV/Rh, UL (E132068)
alt.	Chicony Power Technology Co Ltd	D21-240P1A	AC I/P: 100-240 V, 2.9 A, 50-60 Hz. Class I. DC O/P: 18.0 A, +12.1 Vmain. 18.0 A, +12.1 Vcpu. +12.1 Vmain & +12.1 Vcpu shall not exceed 240 W. Maximum power shall not exceed 240 W. 50 °C. Altitude during operation 5000 m.	IEC 62368-1: 2018, EN IEC 62368-1: 2020+A11, IEC 60950-1: 2005+A1+A2, UL 62368-1 ed.3	CB by TUV/Rh, UL (E143709)
alt.	Lite-On Technology Corporation	PA-2241-5XXXXXX (X = A-Z, 0-9, hyphen or blank)	AC I/P: 100-240 V, 2.9 A, 50-60 Hz. Class I. DC O/P: 18.0 A, +12.1 VMAIN, 18.0 A, +12.1 VCPU. The total continuous output power shall not exceed 240 W at 50 °C ambient temperature. Altitude during operation 5000 m.	IEC 62368-1: 2014, EN 62368-1: 2014+A11, IEC 60950-1: 2005+A1+A2, UL 62368-1 ed.3	CB by TUV/Rh, UL (E132068)
Hard Disk Drive (HDD) (optional) (x3 max.)	SK Hynix Inc	HFS3T8GD0FEI -Aabcd (a, b, c	3.3 A, 3.3 Vdc. Class III.	IEC 62368-1: 2018, UL 62368-	CB by TUV/SUD, UL (E333981)



Solutions

UL do Brasil Certificações – CNPJ 04.830.102/0001-95
Av. Engenheiro Luís Carlos Berrini, 105 – 23º Andar
São Paulo – SP – Brasil - 04571-010 – <https://latam.ul.com/>

Página / Page: 57 / 69
Form-ULID-017660 – Rev. 3.0

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: **UL-BR 24.0576**

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: **01**

Validade / Expiration

29 de abril de 2027

April 29, 2027

		and d denoting buyer can be any letter (A to Z) or number (0 to 9))		1 ed.3	
alt.	SK Hynix Inc	HFS3T8G32FE H-BA10A	2.0 A, 5.0 Vdc. Class III.	IEC 62368-1: 2018, IEC 62368-1:2014, IEC 60950-1: 2005+A1+A2, UL 62368-1 ed.3, UL 60950-1 ed.2	CB by TUV/SUD, UL (E333981)
alt.	SK Hynix Inc	HFS15T3DGLX 070N	2.1 A, 12 Vdc. Class III.	IEC 62368-1: 2018, UL 62368- 1 ed.3	CB by TUV/SUD, UL (E333981)
alt.	Toshiba Electronic Devices & Storage Corporation	HDWL1yy (where "xx" may be any number 00-10, "yy" may be any number 11-99)	0.5 A, 3.3 Vdc, 0.7 A, 5.0 Vdc. (optional)	IEC 62368-1: 2014, UL 62368-1 ed.2	CB by UL (JP), UL (E145163)
alt.	HGST Japan Ltd	Hww7210nnKLA 3nn	1.5 A max., 5.0 Vdc, 2.0 A max., 12 Vdc. Class III.	IEC 62368-1: 2014, IEC 60950-1: 2005+A1+A2, UL 60950-1 ed.2	CB by TUV/Rh, UL (E182115)
alt.	Interchangeable	Interchangeable	Ratings are not required and provided for reference only: 3.3 A max., 3.3 Vdc or 2.0 A max., 5.0 Vdc or 2.1 A max., 12 Vdc or 0.5 A max., 3.3 Vdc, 0.7 A max., 5.0 Vdc or 1.5 A max., 5.0 Vdc, 2.0 A max., 12 Vdc.	IEC 62368-1: 2018, IEC 62368-1: 2014, IEC 60950-1: 2005+A1+A2, UL 62368-1 ed.3, UL 62368-1 ed.2, UL 60950-1 ed.2	Verified by other certificate body, UL
Solid State Drive (SSD) (optional) (x3 max.) (alternate when HDD not provided)	Samsung Electronics Co Ltd	MZ-K***** (* can be 0-9, A-Z, blank, slash or dash)	4.8 A, 3.3 Vdc.	IEC 62368-1: 2018, IEC 60950- 1: 2005+A1+A2, UL 62368-1 ed.3, UL 60950-1 ed.2	CB by TUV/Rh, UL (E149091)
alt.	Solid State Storage Technology Corp (Lite- On)	K2-L1xxxxxxx (* "x" can be any alphanumeric character or blank)	2.5 A, 5.0 Vdc. Class III.	IEC 62368-1: 2014, IEC 60950-1: 2005+A1+A2, UL 62368-1 ed. 2, UL 60950-1 ed.2	CB by TUV/Rh, UL (E205203)
alt.	Solid State Storage Technology Corp	ED1-2Wxxxxxxx (* where x can be any alphanumeric	2.0 A, 12 Vdc (optional) Class III.	IEC 62368-1: 2014, IEC 60950-1: 2005+ A1+A2, UL	CB by TUV/Rh, UL (E205203)

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: **UL-BR 24.0576**

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: **01**

Validade / Expiration

29 de abril de 2027

April 29, 2027

		character or blank)		62368-1 ed.2	
alt.	Western Digital Technologies Inc	GRxxxy-x (where x and y are any alphanumeric character, or blank representing non-safety critical features such as memory size)	Class III supplied by SELV. Ratings are not required and provided for reference only: 1.8 A max., 5.0 Vdc, 1.8 A max., 12 Vdc.	IEC 62368-1: 2014, IEC 60950-1: 2005+A1+A2, UL 62368-1 ed.2, UL 60950-1 ed.2	CB by UL (US), UL (E332258)
alt.	Intel Corp	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, 5.0 Vdc and/ or 12 Vdc. (for reference only)	IEC 62368-1: 2014, IEC 60950-1: 2005+A1+A2, UL 62368-1 ed.2, UL 60950-1 ed.2	CB by UL (US), UL (E139761)
alt.	Interchangeable	Interchangeable	Ratings are not required and provided for reference only: 4.8 A max., 3.3 Vdc or 2.5 A max., 5.0 Vdc or 2.0 A max., 12 Vdc or 1.8 A max., 5.0 Vdc, 1.8 A max., 12 Vdc or 3.3 Vdc, 5.0 Vdc and/ or 12 Vdc.	IEC 62368-1: 2018, IEC 62368-1: 2014, IEC 60950-1: 2005+A1+A2, UL 62368-1 ed.3, UL 62368-1 ed.2, UL 60950-1 ed.2	Verified by other certificate body, UL
Optical Disk Drive (ODD) (optional) (x1 max.)	Hitachi-LG Data Storage Inc	DU9** (Where first "*" can be any number 0-9 and second "*" can be any alphanumeric character, denoting non safety related differences)	1.8 A, 5.0 Vdc. Class III. Class 1 Laser Product.	IEC 62368-1: 2018, IEC 60950-1: 2005+A1+A2, IEC 60825-1: 2014, UL 60950-1 ed.2	CB by Intertek, UL (E119002)
alt.	Philips & Lite- On Digital Solutions Corporation	DG-xx3Sxxxxx (x can be any alphanumeric character or blank)	2.0 A, 5.0 Vdc, 1.25 A, 12 Vdc. (optional) Class III. Class 1 Laser Product.	IEC 62368-1: 2014, IEC 60950-1: 2005+A1+A2, IEC 60825-1:2007, UL 62368-1 ed.2, UL 60950-1 ed.2	CB by TUV/Rh, UL (E306430)
alt.	LG Electronics Inc	GHB** (where the "*" can be 0~9, A~Z, any	2.0 A, 5.0 Vdc, 2.5 A, 12 Vdc. Class III. Class 1 Laser	IEC 62368-1: 2018, IEC 60950-1: 2005	CB by Intertek, UL (E119002)



Solutions

UL do Brasil Certificações – CNPJ 04.830.102/0001-95
Av. Engenheiro Luís Carlos Berrini, 105 – 23º Andar
São Paulo – SP – Brasil - 04571-010 – <https://latam.ul.com/>

Página / Page: 59 / 69
Form-ULID-017660 – Rev. 3.0

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: UL-BR 24.0576

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: 01

Validade / Expiration

29 de abril de 2027

April 29, 2027

		alphanumeric character or blank according to design, brand, buyer, color, software or other configurations, denoting non safety related differences)	Product.	+A1+A2, IEC 60825-1:2014, UL 62368-1 ed.3, UL 60950-1 ed.2	
alt.	Interchangeable	Interchangeable	Ratings are not required and provided for reference only: 1.8 A max., 5.0 Vdc or 2.0 A max., 5.0 Vdc, 2.5 A max., 12 Vdc. Class III. Class 1 Laser Product.	IEC 62368-1: 2018, IEC 62368-1:2014, IEC 60950-1: 2005+A1+A2, IEC 60825-1: 2014, IEC 60825-1:2007, UL 62368-1 ed.3, UL 62368-1 ed.2, UL 60950-1 ed.2	Verified by other certificate body, UL
CPU Fan	Foxconn Technology Co Ltd	PVA080G12Q	0.65 A max., 12 Vdc, 60.0 CFM min.	EN 62368-1: 2014, UL 507 ed.10	TUV, UL (E231557)
alt.	Huizhou City Xunshuo Technology Co Ltd	DF0802512RFU N	0.60 A max., 12 Vdc, 52.7 CFM min.	EN 62368-1: 2014, UL 507 ed.10	TUV, UL (E465463)
alt.	Delta Electronics Inc	AUB0812VJ-00V65	0.50 A max., 12 Vdc, 53.05 CFM min.	IEC 62368-1: 2014, EN 62368-1: 2014, UL 507 ed.10	TUV, UL (E132003)
Graphics Card (optional)	NVIDIA Corp	PG172	Complied with LPS requirement. 40 W max.	IEC 62368-1: 2014, EN 62368-1: 2014+ A11, UL 62368-1 ed.3, UL 60950-1ed.2	CB by UL (Demko), UL (E204896)
alt.	Interchangeable	Interchangeable	Certified by UL listed accessory. Complied with LPS requirement. 40 W max.	IEC 62368-1: 2018, IEC 62368-1:2014, IEC 60950-1: 2005+A1+A2, UL 62368-1 ed.3, UL 62368-1 ed.2, UL 60950-1 ed.2	Verify by other cert. body, UL
Speaker (optional)	Interchangeable	Interchangeable	4.0 ohm, 3.0 W max.	--	--
Chute Card (optional)	HP Inc.	HSC-F003AO	Electrical ratings not required (the equipment intended for building-in, supplied by ES1, SELV)	--	--
Heatsink (HS)	Interchangeable	Interchangeable	Aluminium.	--	--

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: **UL-BR 24.0576**

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: **01**

Validade / Expiration

29 de abril de 2027

April 29, 2027

Motherboard (MB)	Foxconn International Inc	MBF-2204	Electrical ratings not required (the equipment intended for building-in, supplied by ES1/ SELV)	UL 62368-1 ed.3	UL (E93839)
The following components used on Motherboard (MBF-2204)					
RTC Battery	Interchangeable	CR2032 series, CR 2032 series, CR-2032 series	Max Abnormal Charging Current= 10 mA.	UL1642 ed.5	UL
Thermistor (VF1 for Display)	Polytronics Technology Corp	SPR-P110	1.1 A, 6 V min.	IEC 60730-1: 2010, EN 60730-1:2011, Clause 15, 17 and Annex J, UL 1434 ed.1	TUV, UL (E201431)
alt.	Littelfuse Inc	0805L110UL series	1.1 A, 6 V min.	IEC 60730-1: 2010, EN 60730-1: 2011, Clause 15, 17 and Annex J, UL 1434 ed.1	TUV, UL (E183209)
alt.	CYG Wayon Circuit Protection Co Ltd	LP-ISML110abcd (a= C, U, blank, b= S, Z, blank, c= H, blank, d= F, blank)	1.1 A, 8 V min.	IEC 60730-1: 2013, EN 60730-1: 2011, Clause 15, 17 and Annex J, UL 1434 ed.1	TUV, UL (E202125)
alt.	Interchangeable	Interchangeable	1.1 A, 6 V min.	IEC 60730-1: 2013, Clause 15, 17 and Annex J, UL 1434 ed.1	Verify by other cert. body, UL
Thermistor (VF300 for HDMI)	Polytronics Technology Corp	SMD0805P075 SLR	0.75 A, 6 V min.	IEC 60730-1: 2010, EN 60730-1: 2011, Clause 15, 17 and Annex J, UL 1434 ed.1	TUV, UL (E201431)
alt.	Littelfuse Inc	0805L075UL series	0.75 A, 6 V min.	IEC 60730-1: 2020, EN 60730-1:2011, Clause 15, 17 and Annex J, UL 1434 ed.1	TUV, UL (E183209)
alt.	CYG Wayon Circuit Protection Co Ltd	LP-ISML075abcd a= C, U, blank, b= S, Z, blank, c= H, blank, d= F, blank)	0.75 A, 8 V min.	IEC 60730-1: 2013, EN 60730-1: 2011, Clause 15, 17 and Annex J, UL 1434 ed.1	TUV, UL (E202125)
alt.	Interchangeable	Interchangeable	0.75 A, 6 V min.	IEC 60730-1: 2013, Clause 15, 17 and Annex J,	Verify by other cert. body, UL

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: **UL-BR 24.0576**

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: **01**

Validade / Expiration

29 de abril de 2027

April 29, 2027

				UL 1434 ed.1	
Low-Voltage Solid-State Overcurrent (U9, U11, U51 for USB 3.0, U42 for USB 2.0, U11 for Internal connector: P152 for SD)	Diodes Inc	AP22818, followed by A or B, followed by blank, K, KA, KB, KC, or KE, followed by WT or M8, followed by -7 or -13, may be followed by additional letters and/or numbers.	Input Voltage= 2.7 to 5.5 Vdc. Output Continuous Rating= 2.0 A. Output Current Limit= 3.2 A. Maximum Operational Ambient= 85 °C.	IEC 62368-1: 2018, EN IEC 62368-1: 2020+A11, UL 2367 ed.2	CB by UL (US), UL (E322375)
alt.	Joulwatt Technology Co Limited	JW7115S-2SOTA#TRPBF	Series (1) Vin= 2.7 to 5.5 Vdc, Vout= 2.7 to 5.5 Vdc, Iout= 2.05 to 2.35 A. Series (2) Vin= 2.7 to 5.5 Vdc, Vout= 2.7 to 5.5 Vdc, Iout= 2.6 to 3.1 A. (optional)	IEC 62368-1: 2014, EN 62368-1: 2014+A11, UL 62368-1 ed.3	CB by UL (Demko), UL (E497605)
alt.	Texas Instruments Incorporated	TPS2001x. 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= 2.0A. Output current limit= 3.6A. Maximum operational temperature= 85°C. (optional)	IEC 62368-1: 2014, EN 62368-1: 2014+A11, UL 2367 ed.2	CB by UL (US), UL (E169910)
alt.	Silergy Technology (Taiwan) Inc	SY6288C20AA C	Input Voltage= 2.5 to 5.5 Vdc. Output Continuous Rating= 2.0 A max. Current Limit Rating= 3.5 A. Ambient= -40 to 85 °C.	IEC 62368-1: 2014, UL 2367 ed.2	CB by UL (Demko), UL (E491480)
Low-Voltage Solid-State Overcurrent (U7 for USB type-C)	Cypress Semiconductor Corp	CYAC1126-40LQXI ACG1F	Input= 2.7 to 5.5 Vdc. 4.85 to 5.5Vdc (VCONN) Output= 5.0 Vdc, 3.0 A, 15.0 W (VBUS) 5.0 Vdc, 200 mA, 1.0 W (VCONN) (Protective Current 4.2 A, include drift) (optional)	IEC 62368-1: 2014, UL 62368-1 ed.3	CB by UL (Demko), UL (E331901)
alt.	Cypress Semiconductor Corp	ACG1F	Input= 2.7 to 5.5 Vdc. 4.85 to 5.5 Vd (VCONN) Output= 5 Vdc, 3 A, 15 W (VBUS) 5 Vdc, 200 mA, 1 W (VCONN)	IEC 62368-1: 2014, EN 62368-1: 2014+A11	CB by MET

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: UL-BR 24.0576

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: 01

Validade / Expiration

29 de abril de 2027

April 29, 2027

Anexo 10 - HSC-F006SF (HP 805 G9)

Object/ part No.	Manufacturer/ trademark	Type/ model	Technical data	Standard	Mark(s) of conformity ¹¹
Metal Chassis	Interchangeable	Interchangeable	Sheet steel or steel, thickness 0.8 mm min.		
Base Stand (optional)	Interchangeable	Interchangeable	HB min., 0.1 kg max.	UL 94 ed.7	UL
Rubber Feet (optional)	Interchangeable	Interchangeable	HB or HBF min.	UL 94 ed.7	UL
alt.	Interchangeable	Interchangeable	Flammability level is ignored, when small parts (4.0 g or 1750 mm ³ max.)		
Front Plastic Panel	UR Materials Industry (Shenzhen) Co Ltd	210	HB min., 60 °C min., thickness 1.6 mm min.	UL 94 ed.7	UL (E323548)
alt.	Unic Technology Corp	UR-7085+(R90)	HB min., 60 °C min., thickness 1.5 mm min.	UL 94 ed.7	UL (135175)
Front 1/0 Cover on Plastic Front Panel	Interchangeable	Interchangeable	Sheet steel or steel, thickness 0.2 mm min.		
Dust Filter on Front Plastic Panel (optional)	Interchangeable	Interchangeable	HB or HBF min.	UL 94 ed.7	UL
Mesh on Dust Filter (optional)	Interchangeable	Interchangeable	HB or HBF min.	UL 94 ed.7	UL
alt.	Interchangeable	Interchangeable	Flammability level is ignored, when small parts (4.0 g or 1750 mm ³ max.)		
Blank Panel (for ODD)	Interchangeable	Interchangeable	HBmin.	UL 94 ed.7	UL
Rear Plastic Panel (optional)	UR Materials Industry (Shenzhen) Co Ltd	210	HB min., 60 °C min., thickness 1.6 mm min.	UL 94 ed.7	UL (E323548)
alt.	Interchangeable	Interchangeable	HBmin.	UL 94 ed.7	UL
Fan Duct	UR Materials Industry (Shenzhen) Co Ltd	Fliger 310	V-0 min., 60 °C min., thickness 1.2 mm min.	UL 94 ed.7	UL (E323548)
alt.	Star Plastics Inc	PCABSFR(J), PCABSFR755e	V-0 min., 60 °C min., thickness 1.2 mm min.	UL 94 ed.7	UL (E205256)
CPU Fan	Huizhou City Xunshuo Technology Co Ltd	DF0802512RFU N	0.60 A max, 12 Vdc, 52.7 CFM min.	EN 62368-1: 2014+A11, UL 507 ed.10	TUV,UL (E465463)



Solutions

UL do Brasil Certificações – CNPJ 04.830.102/0001-95
Av. Engenheiro Luís Carlos Berrini, 105 – 23º Andar
São Paulo – SP – Brasil - 04571-010 – <https://latam.ul.com/>

Página / Page: 63 / 69
Form-ULID-017660 – Rev. 3.0

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: **UL-BR 24.0576**

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: **01**

Validade / Expiration

29 de abril de 2027

April 29, 2027

alt.	Foxconn Technology Co Ltd	PVA080G12Q	0.65 A max, 12 Vdc, 60.0 CFM min	EN 62368-1: 2014+A11, ENIEC 62368-1:2020+A11, UL 507 ed.10	TUV,UL (E231557)
alt.	Delta Electronics Inc	AUB0812VJ-00V65	0.50 A max., 12 Vdc, 53.05 CFM min.	IEC 62368-1: 2018, ENIEC 62368-1: 2020+A11, UL 507 ed.10	TUV,UL (E132003)
Switching Power Supply (PSU)	Chicony Power Technology Co Ltd	D19-180P1 B	AC I/P: 100-240 V, 2.3 A, 50-60 Hz. Class I. DC O/P: 14.88A, +12.1 V. +12.1 V shall not exceed 180 W. Maximum power shall not exceed 180 W. 50.0 °C, 5000 m.	IEC 62368-1: 2018, ENIEC 62368-1: 2020+A11, UL 62368-1 ed.3	CB by TUV/Rh, UL (E143709)
alt.	Lite-On Technology Corporation	PA-1181-6HP	AC I/P: 100-240 V, 2.3 A, 50-60 Hz. Class I. DC O/P: 14.88 A max., +12.1 V. Max continuous total DC output power 180W. 50.0 °C, 5000 m.	IEC 62368-1: 2018, ENIEC 62368-1: 2020+A11, UL 62368-1 ed.3	CB by TUV/Rh, UL (E132068)
alt.	Acbel Polytech Inc	PCK017	AC I/P: 100-240 V, 2.3 A, 50-60 Hz. Class I. DC O/P: 14.88 A, +12.1 Vmain. Total 180 W max. 50.0 °C, 5000 m.	IEC 62368-1: 2018, ENIEC 62368-1: 2020+A11, UL 62368-1 ed.3	CB by TUV/Rh, UL (E131875)
alt.	Chicony Power Technology Co Ltd	D19-260P1B	AC I/P: 100-240 V, 3.1 A, 50-60 Hz. Class I. DC O/P: 18.0 A, +12.1 Vmain, 18.0 A, +12.1 Vcpu. +12.1 Vmain & +12.1 Vcpu shall not exceed 260 W. Maximum power shall not exceed 260 W, 45.0 °C, 5000 m.	IEC 62368-1: 2018, ENIEC 62368-1: 2020+A11, UL 62368-1 ed.3	CB by TUV/Rh, UL (E143709)
alt.	Acbel Polytech Inc	PCK018	AC I/P: 100-240 V, 3.1 A, 50-60 Hz. Class I. DC O/P: 18.0 A, +12.1 Vmain, 18.0 A, +12.1 Vcpu. +12.1 Vmain and +12.1 Vcpu total 260W max. Maximum power shall not exceed 260 W. 45.0 °C, 5000 m.	IEC 62368-1: 2018, ENIEC 62368-1: 2020+A11, UL 62368-1 ed.3	CB by TUV/Rh, UL (E131875)
alt.	Lite-On Technology Corporation	PA-2261-5YXXXXX (Y= A-Z, hyphen or blank; X= A-Z, 0-9, hyphen or blank k)	AC I/P: 100-240 V, 3.1 A, 50-60 z, Class I. DC O/P: 18.0 A, +12.1 VMAIN, 18.0 A, +12.1 VCPU.	IEC 62368-1: 2018, ENIEC 62368-1: 2020+A11, UL 62368-1	CB by TUV/Rh, UL (E132068)



Solutions

UL do Brasil Certificações – CNPJ 04.830.102/0001-95
Av. Engenheiro Luís Carlos Berrini, 105 – 23º Andar
São Paulo – SP – Brasil - 04571-010 – <https://latam.ul.com/>

Página / Page: 64 / 69
Form-ULID-017660 – Rev. 3.0

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: **UL-BR 24.0576**

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: **01**

Validade / Expiration

29 de abril de 2027

April 29, 2027

			+12.1 VMAIN & +12.1 VCPU total power can't exceed 260 W. 45.0 °C, 5000 m.	ed.3	
alt.	Shenzhen Huntkey Electric Co Ltd	HK360-86PP xy (x= A to Z or blank, y= 0 to 9 or blank)	AC I/P: 100-240 V, 3.1 A, 50-60 Hz. Class I. DC O/P: 18.0 A, +12.1 Vmain, 18.0 A, +12.1 Vcpu. +12.1 Vmain & +12.1 Vcpu total power shall not exceed: 260 W. 45.0 °C, 5000 m.	IEC 62368-1: 2018, ENIEC 62368-1: 2020+A11, UL 62368-1 ed.2	CB by TUV/Rh, UL (E181356)
Hard Disk Drive (HOD) (optional)	SK Hynix Inc	HFS3T8GD0FE I-Aabcd (a, b, c and d denoting buyer can be any letter (A to Z) or number (0 to 9))	3.3 A, 3.3 Vdc. Class III.	IEC 62368-1: 2018, UL 62368-1 ed.3	CB by TUV/SUD, UL (E333981)
alt.	SK Hynix Inc	HFS3T8G32FE H-BA10A	2.0 A, 5.0 Vdc. Class III.	IEC 62368-1: 2018, IEC 62368-1: 2014, IEC 60950-1: 2005+A1+A2, UL 62368-1 ed.3, UL 60950-1 ed.2	CB by TUV/SUD, UL (E333981)
alt.	SK Hynix Inc	HFS15T3DGLX 070N	2.1 A, 12 Vdc. Class III.	IEC 62368-1: 2018, UL 62368-1 ed.3	CB by TUV/SUD, UL (E333981)
alt.	Toshiba Electronic Devices & Storage Corporation	HOWL1yy (where "yy" may be any number 11-99)	0.5 A, 3.3 Vdc, 0.7 A, 5.0 Vdc. (optional)	IEC 62368-1: 2014, UL 62368-1 ed.2	CB by UL (JP), UL (E145163)
alt.	HGST Japan Ltd	Hww7210nnKL A3nn	1.5 A max., 5.0 Vdc, 2.0 A max., 12 Vdc. Class III.	IEC 62368-1: 2014, IEC 60950-1: 2005+A1+A2, UL 60950-1 ed.2	CB by TUV/Rh, UL (E182115)
alt.	Interchangeable	Interchangeable	Ratings are not required and provided for reference only: 3.3 A max., 3.3 Vdc or 2.0 A max., 5.0 Vdc or 2.1 A max., 12 Vdc or 0.5 A max., 3.3 Vdc, 0.7 A max., 5.0 Vdc or 1.5 A max., 5.0 Vdc, 2.0 A max., 12 Vdc.	IEC 62368-1: 2018, IEC 62368-1: 2014, IEC 60950-1: 2005+A1+A2, UL 62368-1 ed.3, UL 62368-1 ed.2, UL 60950-1 ed.2	Verified by other certificate body, UL



Solutions

UL do Brasil Certificações – CNPJ 04.830.102/0001-95
Av. Engenheiro Luís Carlos Berrini, 105 – 23º Andar
São Paulo – SP – Brasil - 04571-010 – <https://latam.ul.com/>

Página / Page: 65 / 69
Form-ULID-017660 – Rev. 3.0

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: UL-BR 24.0576

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: 01

Validade / Expiration

29 de abril de 2027

April 29, 2027

Solid State Drive (SSD) (optional)	Samsung Electronics Co Ltd	MZ-K***** (* can be 0-9, A- Z, blank, slash or dash)	4.8 A, 3.3 Vdc.	IEC 62368-1: 2018, IEC 60950-1: 2005 +A1+A2, UL 62368-1 ed.3, UL 60950-1 ed.2	CB by TUV/Rh, UL (E149091)
alt.	Solid State Storage Technology Corp (Lite-On)	K2-L1xxxxxxx ("x" can be any alphanumeric character or blank)	2.5 A, 5.0 Vdc. Class III.	IEC 62368-1: 2014, IEC 60950-1: 2005+A1+A2, UL 62368-1 ed. 2, UL 60950-1 ed.2	CB by TUV/Rh, UL (E205203)
alt.	Micron Technology Inc	MTFDKCCXXX TFR (where "XXX" may be any alpha numeric character representing density, with no impact to safety related construction and critical components)	3.0 A, 12 Vdc (optional)	IEC 62368-1: 2014, IEC 60950-1: 2005+A1+A2, UL 62368-1 ed.2	CB by UL (US), UL (E320115)
alt.	Western Digital Technologies Inc	GRxxxxy-x (where x and y are any alphanumeric character, or blank representing non-safety critical features such as memory size)	Class III supplied by SELV. Ratings are not required and provided for reference only: 1.8 A max., 5.0 Vdc, 1.8 A max., 12 Vdc.	IEC 62368-1: 2014, IEC 60950-1: 2005+A1+A2, UL 62368-1 ed.2, UL 60950-1 ed.2	CB by UL (US), UL (E332258)
alt.	Intel Corp	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, 5.0 Vdc and/ or 12 Vdc. (for reference only)	IEC 62368-1: 2014, IEC 60950-1: 2005+A1+A2, UL 62368-1 ed.2, UL 60950-1 ed.2	CB by UL (US), UL (E139761)
alt.	Interchangeable	Interchangeable	Ratings are not required and provided for reference only: 4.8 A max., 3.3 Vdc or 2.5 A max., 5.0 Vdc or 3.0 A max., 12 Vdc or	IEC 62368-1: 2018, IEC 62368-1: 2014, IEC 60950-1: 2005+A1+A2, UL 62368-1	Verified by other certificate body, UL

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: **UL-BR 24.0576**

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: **01**

Validade / Expiration

29 de abril de 2027

April 29, 2027

			1.8 A max., 5.0 Vdc, 1.8Amax., 12Vdcor 3.3 Vdc, 5.0 Vdc and/ or 12 Vdc.	ed.3, UL 62368-1 ed.2, UL 60950-1 ed.2	
Optical Disk Drive (ODD) (optional)	Hitachi-LG Data Storage Inc	DU9** (Where first "*" can be any number 0-9 and second "*" can be any alphanumeric character, denoting non safety related differences)	1.8 A, 5.0 Vdc. Class 111. Class 1 Laser Product.	IEC 62368-1: 2018, IEC 60950-1: 2005+A1+A2, IEC 60825-1: 2014, UL 60950-1 ed.2	CB by Intertek, UL (E119002)
alt.	Philips & Lite- On Digital Solutions Corporation	DG-xx3Sxxxxx (x can be any alphanumeric character or blank)	2.0 A, 5.0 Vdc, 1.25 A, 12 Vdc. (optional) Class III. Class 1 Laser Product.	IEC 62368-1: 2014, IEC 60950-1: 2005+A1+A2, IEC 60825-1: 2007, UL 62368-1 ed.2, UL 60950-1 ed.2	CB by TUV/Rh, UL (E306430)
alt.	LG Electronics Inc	GHB** (where the "*" can be 0-9,A-Z,any alphanumeric character or blank according to design, brand, buyer, color, software or other configurations, denoting non safety related differences)	2.0 A, 5.0 Vdc, 2.5 A, 12 Vdc. Class III. Class 1 Laser Product.	IEC 62368-1: 2018, IEC 60950-1: 2005+A1+A2, IEC 60825-1: 2014, UL 62368-1 ed.3, UL 60950-1 ed.2	CB by Intertek, UL (E119002)
alt.	Interchangeable	Interchangeable	Ratings are not required and provided for reference only: 1.8Amax.,5.0Vdcor 2.0 A max., 5.0 Vdc, 2.5 A max.,12 Vdc. Class III. Class 1 Laser Product.	IEC 62368-1: 2014, IEC 62368-1:2018, IEC 60950-1: 2005+A1+A2, IEC 60825-1: 2014, IEC 60825-1:2007, UL 62368-1 ed.2, UL 62368-1 ed.3, UL 60950-1 ed.2	Verified by other certificate body, UL
Accessory Card (optional)	Foxconn International Inc	TPC-F009AO	Electrical ratings not required.	IEC 62368-1: 2014,	CB by UL (Demko),



Solutions

UL do Brasil Certificações – CNPJ 04.830.102/0001-95
Av. Engenheiro Luís Carlos Berrini, 105 – 23º Andar
São Paulo – SP – Brasil - 04571-010 – <https://latam.ul.com/>

Página / Page: 67 / 69
Form-ULID-017660 – Rev. 3.0

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: UL-BR 24.0576

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: 01

Validade / Expiration

29 de abril de 2027

April 29, 2027

				EN 62368-1: 2014+A11, UL 62368-1 ed.2	UL (E93839)
alt.	Interchangeable	Interchangeable	Interface ports (1/0 ports) complied with ES1 (SELV), LPS requirement. (UL Listed Accessory)	UL 62368-1 ed.3, UL 62368-1 ed.2, UL 60950-1 ed.2	UL
Graphics Card (GPU) (optional)	Pegatron Corp	TPC-P015G	12 Vdc/3.3 Vdc (optional)	IEC 62368-1: 2018, ENIEC 62368-1: 2020 +A11, IEC 62368-3: 2017, UL 62368-1 ed.3	CB by UL Solutions (Demko), UL (E317539)
alt.	Interchangeable	Interchangeable	32W max. Interface ports (1/0 ports) complied with ES1 (SELV), LPS requirement. (UL Listed Accessory)	UL 62368-1 ed.3, UL 62368-1 ed.2, UL 60950-1 ed.2	UL
Heatsink (HS)	Interchangeable	Interchangeable	Aluminium.		
Motherboard (MB)	Foxconn International Inc	MBF-2401	Electrical ratings not required (the equipment intended for building- in, supplied by ES1)	UL 62368-1 ed.3	UL (E93839)
RTC Battery	Shenzhen Pkcell Battery Co Ltd (JHT)	CR2032	Maximum abnormal charging current 10 mA.	IEC 60086-4: 2019, UL1642 ed.6	CB by TUV/Rh, UL (MH48406)
alt.	Interchangeable	CR2032, CR- 2032, CR 2032 series	Maximum abnormal charging current 10 mA min.	IEC 60086-4: 2019, UL 1642 ed.6	Verified by other certificate body, UL
Low-Voltage Solid-State Overcurrent Protectors (USO, U51 for USB 2.0, U52, U53, U54 for USB 3.2)	Diodes Inc	AP22818, followed by A or B, followed by blank, K, KA, KB, KC, or KE, followed by WT or M8, followed by-7 or -13, may be followed by additional letters and/or numbers	Input Voltage= 2.7 to 5.5 Vdc. Output Continuous Rating= 2.0 A. Output Current Limit= 3.2 A. Maximum Operational Ambient= 85 °C. (optional)	IEC 62368-1: 2018, ENIEC 62368-1: 2020+A11, UL 2367 ed.2	CB by UL (US), UL (E322375)
alt.	Silergy Technology (Taiwan) Inc	SY6288C20AA C	Input Voltage= 2.5 to 5.5 Vdc. Output Continuous Rating= 2.0 A max. Current Limit Rating= 3.5 A. Ambient= -40 to 85 °C.	IEC 62368-1: 2014, UL 2367 ed.2	CB by UL (Demko), UL (E491480)

Certificado de Conformidade

Certificate of Conformity

Certificado / Certificate: **UL-BR 24.0576**

Emissão / Issue

30 de abril de 2024

April 30, 2024

Revisão / Review: **01**

Validade / Expiration

29 de abril de 2027

April 29, 2027

alt.	RichTek Technology Corp	RT9742..G. (The first dot '.' can be A to Z represent output current enable function. The second dot '.' can be Nor blank represent discharge function. The third dot '.' can be JSF/ JS/ V represent package type)	2.7V to 6V, O/P: 3.0 A/ 2.5 A/ 2.0 A/ 1.5 A/ 1.0 A/ 0.5 A, 70 m ohm/ 55 m ohm (typ.) N-MOSFET Switch	IEC 62368-1: 2014, EN 62368-1: 2014+A11, UL 2367 ed.2	CB by UL (Nemko), UL (E219878)
Low-Voltage Solid-State Overcurrent (U65 for USB charger)	Texas Instruments Incorporated	TPS2546, may be followed by additional characters that do 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. Maximum Operational Ambient= 85 °C. (Optional)	IEC 62368-1: 2014 EN 62368-1: 2014+A11, UL 2367 ed.2	CB by UL (US), UL (E169910)
alt.	Diodes Incorporated	PI5USB2546ZH DEX	Input Voltage= 4.5 to 5.5 Vdc. Continuous Rating= 30 mA to 2.5 A. Current Limit= 100 mA to 3.18 A. Ambient= -40 to 85 °c. (optional)	IEC 62368-1: 2014, EN 62368-1: 2014+A11, UL 2367 ed.2	CB by UL (US), UL (E340734)
Low-Voltage Solid-State Overcurrent (U90 for USB type C)	Cypress Semiconductor Corp	CYAC1126- 40LQXI ACG1F	Input= 2.7 to 5.5 Vdc. 4.85 to 5.5Vdc (VCONN) Output= 5.0 Vdc, 3.0 A, 15.0 W (VBUS) 5.0 Vdc, 200 mA, 1.0 W (VCONN) (protective current 4.2 A, include drift) (optional)	IEC 62368-1: 2014, EN 62368-1: 2014+A11 UL 62368-1 ed.3	CB by UL (Demko), UL (E331901)