

# Certificado de Conformidade

## Certificate of Conformity

**Certificado/Certificate**  
UL-BR 24.0576

**Revisão / Review**  
00

**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.*

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**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) + 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

**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):*

| <b>Marca /</b><br><i>Brand Name</i> | <b>Modelo /</b><br><i>Model</i>                                                                                  | <b>Descrição /</b><br><i>Description</i> | <b>Código de Barras /</b><br><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 | COMPUTADOR DE MESA<br>/ 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 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

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ZHAN 66 G9 Desktop PC, HP Pro SFF 290 G9 Desktop PCxxxxxxxxxxx, HP Pro SFF 280 G9 Desktop PCxxxxxxxxxxx,  
HP Pro SFF ZHAN 66 G9 Desktop PCxxxxxxxxxxx

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

## Informações de Ensaio / Test Information:

| Laboratório de Ensaio /<br>Testing Laboratory         | Relatório de Ensaio /<br>Test Report | Data de Emissão /<br>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                      |
| Audix Technology (Shenzhen) Co., Ltd.                 | ACSCBIT21007-01                      | 2022-02-16                      |
| Audix Technology (Shenzhen) Co., Ltd.                 | ACSCBIT21007                         | 2021-09-24                      |

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|-------------------------------------------|-----------------------|------------|
| 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 |

## Informações de Auditoria / Audit Information:

| Local da Auditoria / Audit Location             | Data de Realização / Perform Date |
|-------------------------------------------------|-----------------------------------|
| Tratamento de Reclamações<br>Complaint Handling | 2024-04-19                        |
| Fabricante<br>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.

## 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 Certificações must be notified about any desired change. This notification will be analyzed by UL do Brasil Certificações 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.*

## Histórico de Revisões / Revisions History:

| Revisão / Review                                                                                               | Data / Date | Descrição da Revisão / Revision Description                                    |
|----------------------------------------------------------------------------------------------------------------|-------------|--------------------------------------------------------------------------------|
| 00                                                                                                             | 30/04/2024  | Emissão Inicial com recertificação do certificado ULBR 21.0865 / Initial issue |
| A última revisão substitui e cancela as anteriores /<br>The last review replaces and cancels the previous ones |             |                                                                                |



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## Anexo I / Attachment I:

### Anexo 1 – Lista de componentes

| Object/part No.                                      | Manufacturer/<br>trademark               | Type/model                                                                                     | Technical data                                                                                                                                                                         | Standard<br>(Edition / year)                                                                                                                                                          | Mark(s) of<br>conformity1)                                                                     |
|------------------------------------------------------|------------------------------------------|------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| Enclosure<br>Material                                | Interchangeable                          | Interchangeable                                                                                | Metal thickness<br>0.6mm min.                                                                                                                                                          | --                                                                                                                                                                                    | --                                                                                             |
| Front Enclosure<br>Material (for<br>decorative part) | Interchangeable                          | Interchangeable                                                                                | HB min. or better.                                                                                                                                                                     | UL 94                                                                                                                                                                                 | UL                                                                                             |
| Power Supply                                         | Lite-On<br>Technology<br>Corporation     | PA-1181-3HK                                                                                    | I/P: 100-240Vac,<br>50-60Hz, 2.3A<br>O/P: 12.1Vdc,<br>14.88 max., Max.<br>continuous total<br>DC output Power<br>180W. Class I,<br>Tma: 50oC,<br>Altitude: 5000m                       | UL 62368-1 2nd,<br>IEC 60950 1:<br>2005+A1+A2,EN<br>60950-1:2006<br>+A11:2009+A1:<br>2010+A12:2011+<br>A2:2013,IEC<br>62368-1:2014,<br>EN 62368-1:<br>2014+A11:2017                   | UL, CB by<br>TUVRh<br>(Certificate<br>No.:JPTUV<br>-096977-<br>M1),(JPTU<br>V-083868-<br>A1/M3 |
| Power Supply<br>(Alternate)                          | Chicony Power<br>Technology Co.,<br>Ltd. | D19-180P2A                                                                                     | I/P:100-240Vac,<br>50-60Hz, 2.3A<br>O/P:12.1Vdc,<br>14.88A,+12.1V<br>shall not exceed<br>180W, Maximum<br>power shall not<br>exceed 180W.<br>Class I, Tma:<br>50oC, Altitude:<br>5000m | UL 62368-1 2nd<br>, IEC 60950-1:<br>2005+A1+A2,<br>EN 60950-1:<br>2006+A11:2009+<br>A1:2010+A12:<br>2011+A2:2013,<br>IEC 62368-1:<br>2014, EN 62368-<br>1: 2014+A11                   | UL, CB by<br>TUVRh<br>(Certificate<br>No.:<br>JPTUV-<br>100744),<br>(JPTUV-<br>100829)         |
| Power Supply<br>(Alternate)                          | Delta Electronics,<br>Inc.               | DPS-180AB-30 XX<br>(1st X= 0-9, B-Z or<br>blank, except for A;<br>2nd X= 0-9, A-Z or<br>blank) | I/P:100-240Vac,<br>50-60Hz, 2.3A<br>O/P: 12.1Vdc/<br>14.88A, Max.<br>Power 180W.<br>Class I, Tma:<br>50oC, Altitude:<br>5000m                                                          | UL 62368-1 2nd<br>,IEC 60950-<br>1:2005+A1+A2,<br>EN 60950-1:<br>2006+A11:2009+A<br>1:2010+A12:<br>2011+A2:2013,<br>IEC 62368-1:<br>2014, EN 62368-1:<br>2014+A11                     | UL, CB by<br>TUVRh<br>(Certificate<br>No.:JPTUV<br>- 100619),<br>(JPTUV-<br>100615)            |
| Power Supply<br>(Alternate)                          | Acbel Polytech<br>Inc.                   | PCK016                                                                                         | I/P: 100-240V,<br>50-60 Hz, 2.3A<br>O/P: +12.1Vdc<br>/14.88A Class I,<br>Tma: 50oC,<br>Altitude: 5000m                                                                                 | UL 60950-1,<br>2nd, IEC 60950-<br>1:2005+A1+A2,<br>EN 60950-1:<br>2006+A11:2009+<br>A1:2010+A12:<br>2011+A2:2013,<br>UL 62368-1 2nd<br>IEC 62368-1:<br>2014, EN 62368-<br>1: 2014+A11 | UL, CB by<br>TUVRh<br>(Certificate<br>No.:JPTUV<br>- 099953),<br>(JPTUV-<br>099952)            |

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

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|--------------------------------------------|----------------------------------|---------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| 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 <sup>nd</sup> 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 <sup>nd</sup> 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.  | 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)        |
| - RTC Battery (Alternate)                  | JHIH HONG TECHNOLOGY CO LTD      | CR2032                                                                                                                    | 3Vdc, max. abnormal charging current 10mA        | UL 1642                                                                                                                                                        | UL (MH48406)        |

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|-------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|
| - RTC Battery (Alternate)                                                                                                           | DOUBLE BEST CO LTD           | CR2032 (j)(k)<br>(j) - These cells may have various insulating tube, ring, or tape<br>(k) - These cells and batteries may come with an optional single or multiple alphanumeric suffix denoting various pin, tab, cap or wire termination types | 3Vdc, max. abnormal charging current 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<br>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) |

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|-----------------------------------------------------------------------------------------------------------|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| - 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.                                                                                                                              | --                                                                                                                                     | --                                                              |

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|-------------------------------------------------------------|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| - 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<br>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<br>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)                                                                                                                                                                                   | --                                                                                                                                      | --                                                                                                                                          | --                                   |

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|------------------------------------------------------------|----------------------------------------|--------------------------------------------------------------------|---------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| -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 (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                                                      |

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|---------------------------------------------------------|----------------|-----------------------|------------|-------------------------------------------------------------------------------------------------------------|---------|
| - Polyswitch (F6) provided for VGA port use (Alternate) | LITTELFUSE INC | 1206L110THXXYY<br>YYY | 8Vdc, 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 |
|---------------------------------------------------------|----------------|-----------------------|------------|-------------------------------------------------------------------------------------------------------------|---------|

## Anexo 2 – Lista de componentes:

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

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| (Alternate) | Chicony Power Technology Co., Ltd | TPN-CA16 | I/P: 100-240Vac, 50-60Hz, 1.7A;<br>O/P: 19.5Vdc, 3.33A, Class I, 35oC, Altitude 5000m  | IEC 60950-1:2005 (2 <sup>nd</sup> Edition); Am 1: 2009+Am2:2013<br>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;<br>O/P: 19.5Vdc, 3.33A, Class II, 35oC, Altitude 5000m | IEC 60950-1:2005 (2 <sup>nd</sup> Edition); Am 1: 2009+Am2:2013<br>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;<br>O/P: 19.5Vdc, 3.33A, Class I, 35oC, Altitud 5000m   | IEC 60950-1:2005 (2 <sup>nd</sup> Edition); Am 1: 2009+Am2:2013<br>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;<br>O/P: 19.5Vdc, 3.33A, Class I, 35oC, Altitude 5000m  | IEC 60950-1:2005 (2 <sup>nd</sup> Edition); Am 1: 2009+Am2: 2013<br>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;<br>O/P: 19.5Vdc, 4.62A, Class I, 35oC, Altitude 5000m | IEC 60950-1:2005 (2nd Edition); Am 1: 2009+Am2: 2013<br>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 <sup>nd</sup> Edition); Am 1: 2009+Am2: 2013<br>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 <sup>nd</sup> Edition); Am 1: 2009+Am2: 2013<br>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 <sup>nd</sup> Edition); Am 1: 2009+Am2: 2013<br>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<br>Output: 19.5Vdc, 7.69A, 150W<br>Altitude 5000m     | IEC 60950-1:2005 (2 <sup>nd</sup> Edition); Am 1: 2009+Am2: 2013<br>IEC 62368-1: 2014 | CB by TUV (JPTUV- 078201, JPTUV-061032)     |

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|-------------------------------------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-----------------------------------------------|
| (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 <sup>nd</sup> 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 <sup>nd</sup> 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 <sup>nd</sup> 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 <sup>nd</sup> 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 <sup>nd</sup> 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 <sup>nd</sup> 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 <sup>nd</sup> 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 <sup>th</sup> 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 <sup>th</sup> edition                                  | UL                                            |

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

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|-------------|------------------------------------------------|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|-----------------------------------|
| (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 $\Omega$ (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 $\Omega$ (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 $\Omega$ (R430) resistor. | UL 1642 5th edition                            | UL                                |

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

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|------------------------------------|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|----------------------------------------|
| (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<br>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<br>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<br>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<br>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)                 |

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|-----------------------------------------------------------------------|------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| 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 <sup>nd</sup> 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 <sup>st</sup> 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)    |

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| (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<br>Current Limit Rating: 2.1-2.7A                                | IEC 60950-1: 2005 (2nd Edition); Am1: 2009+Am2: 2013<br>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<br>O/P: 5.5Vdc max., 3.7A max                                    | IEC 60950-1:2005 (2nd 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/S9 00                                                                                                                                                                     | 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 (2nd Edition); Am1: 2009+Am2: 2013<br>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                                   | PI5USB25wwxy yEz 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<br>Continuous Rating: 30 mA to 2.5A<br>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 (2nd Edition); Am1: 2009+Am2: 2013<br>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 (2nd Edition);Am1: 2009+Am2: 2013<br>IEC 62368-1:2014    | CB by UL (DK-104238-UL, DK-105808-UL)      |

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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.                                                                                                     |

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

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

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|                                                                                         |                                  | matching and/or Lead-free Solder.)                                                                                                                                                                  |                                                                                                                                                                                                                                                                                 |                                      |                                              |
| Alternate                                                                               | BOURNS ELECTRONICS (TAIWAN) LTD  | MF-NSMF110                                                                                                                                                                                          | I <sub>max</sub> =100A Min.<br>V <sub>max</sub> =6Vdc Min.,<br>I <sub>h</sub> =1.10A Max.<br>I <sub>t</sub> =2.20A Max. CA1 (88 degree C Max.), CA 2, CA 3, CA 4, T <sub>moa</sub> =85 degree C Min.                                                                            | IEC 60730-1<br>EN 60730-1<br>UL 1434 | TUV<br>UL                                    |
| Alternate                                                                               | Interchangeable                  | Interchangeable                                                                                                                                                                                     | I <sub>max</sub> =40A Min.<br>V <sub>max</sub> =6Vdc Min.,<br>I <sub>h</sub> =1.10A Max.<br>I <sub>t</sub> =2.20A Max. CA1 (125 degree C Max.), CA 2, CA 3, CA 4, T <sub>moa</sub> =85 degree C Min.                                                                            | IEC 60730-1<br>EN 60730-1<br>UL 1434 | VDE, TUV,<br>UL or other<br>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<br>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<br>UL: Temp Range: -30 to 70 degree C                                                                                                                                            | IEC 60950-1: 2005 + A1 +A2<br>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<br>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<br>UL2367 | CB<br>UL                                     |
| Alternate                                                                               | JOULWATT TECHNOLOGY CO LIMITED   | JW7115A-1SOTA#TRPBF                                                                                                                                                                                 | Vin: 2.7 - 5.5 Vdc.;<br>Vout: 2.7 -5.5Vdc;<br>Iout: 1.1 – 1.5A                                                                                                                                                                                                                  | IEC 62368-1<br>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<br>UL: Temp Range: -30 to 70 degree C                                                                                                                                         | IEC 60950-1: 2005 + A1 +A2<br>UL2367 | CB<br>UL                                     |

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| Alternate                        | SILERGY TECHNOLOGY                                            | CB: SY6288xyyyyy (x=A, B, C, D or E, yyyy=0-9, A-Z or blank)<br>UL: SY6288DAAC                                                                                                                                                                                  | CB: I/P: 2.5Vdc to 5.5Vdc O/P: 5.5Vdc max, 4.4A max<br>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<br>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       |

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|-------------------------------------------------|-----------------------------------------|---------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                 |                                         | 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<br>o/p: DC 18A<br>+12.1Vmain, 18A<br>+12.1Vcpu<br>+12.1Vmain &<br>+12.1Vcpu shall not exceed 240W,<br>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<br>+ A11: 2020<br><br>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<br>O/P: +12.1VMAIN / 18A, +12.1VCPU / 18A.<br>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<br>+ A11: 2020<br>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+A12:2010+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)                                                                                                                                                                                             | --                                                                                                                                                                                                                                    | --                                                                                                                                                                                                                                |

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| 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<br>UL2367                                                     | CB by TUV Rheinland<br>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)<br>Input Voltage: 2.7 to 5.5 Vdc<br>Output Continuous Rating: 2.0 A<br>Output Current Limit: 3.2A<br>Maximum Operational Ambient: 85°C                                                    | IEC 62368-1:2018<br>UL2367                                                     | CB by UL (US)<br>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,<br>EN 60730-1: 2011, Clause15, 17 and Annex J, UL 1434 ed.1 | TUV, UL                        |
| Alternate                                                                             | LITTELFUSE INC                    | microSMD110xxx<br>xxxxxxxxxxxxxx<br>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 |

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|--------------------------------------------------------------------------------------------------------|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|---------------------|
| 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, DGK 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)<br>Vin: 2.7Vdc-5.5Vdc, Vout: 2.7Vdc- 5.5Vdc, Iout: 1.1- 1.5A                                                                      | IEC 62368-1:2014<br>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)<br>Input Voltage Range: 2.5 - 5.5Vdc, Current Limit Rating: 1.2-1.6A                                                              | IEC 60950-1: 2005 + A1 +A2 IEC 62368-1:2014<br>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<br>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<br>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<br>Output: 1<br>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<br>Output Continuous Rating: Max. 2.0 A<br>Current Limit Rating: 3.5 A<br>Ambient: -40 to 85°C                 | IEC 62368-1:2014<br>UL2367                            | CB by UL (Demko) UL |

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|-----------|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|------------------------|
| 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)<br>Input Voltage Range: 2.5 - 5.5Vdc,<br>Current Limit Rating: 2.1-2.7A                                                                                                                                    | IEC 60950-1: 2005 + A1 +A2<br>IEC 62368-1:2014<br>UL2367 | CB by UL (Demko)<br>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,<br>Operational Current Rating per output (A): 2.1A, Overcurrent Protection Current Rating per output (A): 2.2 to 3.0A,<br>Maximum ambient Temperature (°C): - 30 to 70 degree C | IEC 62368-1:2014<br>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)<br>Input Voltage: 2.7 to 5.5 Vdc<br>Output Continuous Rating: 2.0 A Output Current Limit: 3.2A<br>Maximum Operational Ambient: 85°C                                                               | IEC 62368-1:2018<br>UL2367                               | CB by UL (US)<br>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<br>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,<br>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                      |

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

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

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|------------------------------------|--------------------------------------------------|-----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
|                                    |                                                  | be 3 to 7 alphanumeric characters.                                                      |                                                                                                                                                                                      |                                                                                                                                                               |                                |
| Alternate                          | or equivalent                                    | or equivalent                                                                           | Ratings are not required and provided for reference only:<br>1.0 A max., 3.3 Vdc,<br>1.0 A max., 5.0 Vdc<br>or 1.5 A max., 5.0 Vdc,<br>2.0 A max., 12 Vdc or<br>1.5 A max., 5.0 Vdc. | IEC 62368-1:<br>2014,<br>EN 62368-1:<br>2014+A11,<br>IEC 60950-1:<br>2005+A1+A2,<br>EN 60950-1:<br>2006+A11+A1+A12+A2,<br>UL 62368-1 ed.2,<br>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:<br>2005+A1+A2,<br>EN 60950-1:<br>2006+A11+A1+A12+A2, UL 62368-1 ed.2,<br>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:<br>2005+A1+A2,<br>EN 60950-1:<br>2006+A11+A1+A12+A2,<br>UL 60950-1 ed.2                                                                          | CB by TUV Rh, UL (E205203)     |
| Alternate                          | Kingston Digital International Ltd Taiwan Branch | *****SA1000***<br>***** (the "*" Maybe alphanumeric, capacity, character, "-" or blank) | 3.0 A, 3.3 Vdc (optional)                                                                                                                                                            | IEC 62368-1:<br>2014, EN 62368-1:2014+A11,<br>UL 62368-1 ed.2,<br>UL 60950-1 ed.2                                                                             | CB by UL (DEMKO), UL (E333487) |
| Alternate                          | Lite-On Technology Corporation                   | K2-L1xxxxxxx ("x" can be any alphanumeric character or blank)                           | 2.5 A, 5.0 Vdc.                                                                                                                                                                      | IEC 60950-1:<br>2005+A1+A2,<br>EN 60950-1:<br>2006+A11+A1+A12+A2,<br>UL 60950-1 ed.2                                                                          | CB by TUV Rh, UL (E205203)     |

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|-------------------------------------|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| Alternate                           | Western Digital Technologies Inc | GRxxxxxy-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:<br>1.8 A max., 5.0 Vdc,<br>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:<br>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)   |

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|------------------------------------|--------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| 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:<br>1.8 A max., 5.0 Vdc or<br>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                             |

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|---------------------------------------------------------------------------|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|--------------------------------|
|                                                                           |                                           |                                                                                                                                                                                                                                | 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<br>UL 1434                   | TUV Rheinland, UL (E183209)    |
| Alternate                                                                 | Polytronics Technology Corp               | SPR-P110                                                                                                                                                                                                                       | 1.1 A, 6 V min.                                                                                                                  | EN 60730-1<br>UL 1434                   | TUV Rheinland, UL (E201431)    |
| Alternate                                                                 | Interchangeable                           | Interchangeable                                                                                                                                                                                                                | 1.1 A, 6 V min.                                                                                                                  | EN 60730-1<br>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<br>Output Continuous Rating: 2.0 A<br>Output Current Limit: 3.2 A Operating Temperature: -40°C~ + 85°C | IEC 60950-1<br>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<br>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)<br>Input Voltage Range= 2.5 to 5.5 Vdc. Current Limit Rating=                                                | IEC 62368-1<br>IEC 60950-1<br>UL62368-1 | CB by UL (DEMKO), UL (E486497) |

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|-------------------------------------------|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|--------------------------------|
|                                           |                                 | & 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 | SY6288xyyyy (x=A, B, C, D or E, yyyy=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) |

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|-------------|-----------------------------------|----------|-----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|------------------------------------------------|
|             |                                   |          | 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)          |

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|-------------|------------------------------------|------------------|--------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|------------------------------------------------|
| (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<br>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<br>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 <sup>a</sup> O/P: 19.5Vdc, 4.62A, Class I, 35°C, Altitude 5000m         | IEC 60950-1: 2005 (Second Edition); Am1: 2009 + Am2:2013<br>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 <sup>a</sup> 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 <sup>a</sup> 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<br>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)          |

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

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|---------------|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-----------------------------------|
|               |                                     | 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 <sup>th</sup> 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                                |

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| (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-Q0010                                      | 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         |

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

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

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|--------------------------------------------|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
|                                            |                                  |                                                                                                                                                                                                                                                 |                                                        | 1:2014 + A11:2017                                                                                                                                  |                     |
| Optical Disk Device (Optional) (Alternate) | Interchangeable                  | Interchangeable                                                                                                                                                                                                                                 | 5Vdc, 2.0A max.;<br>12Vdc, 2.5A max.<br>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.,<br>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<br>(X stands for A-Z, 0-9, - or blank for marketing purpose only)                                                                                                                                                            | 12Vdc, 0.5A max.,<br>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)<br>(j) - These cells may have various insulating tube, ring, or tape<br>(k) - These cells and batteries may come with an optional single or multiple alphanumeric suffix denoting various pin, tab, cap or wire termination types | 3Vdc, max. abnormal charging current 10mA              | UL 1642                                                                                                                                            | UL (MH46388)        |

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|---------------------------|-----------------------------------------|-----------------------|----------------------------------------------------------------------------------------------------------------------------|---------------------------------|------------|
| - 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)  |

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|---------------------------------------------------------------|----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------------------------------------|
| 01g. Adapter<br>(Alternate)                                   | Lite-On Technology<br>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<br>(Alternate)                                   | Chicony Power<br>Technology Co., Ltd (hp)                                                          | TPC-CA52                                                                                           | Input: 100-240Vac, 2.0A, 50-60Hz<br>Output: 19.5Vdc, 7.69 A, 150W<br>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<br>(Alternate)                                   | Chicony Power<br>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<br>(Alternate)                                   | Lite-On Technology<br>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<br>(Alternate)                                   | Delta Electronics<br>Inc (hp)                                                                      | TPC-DA52                                                                                           | Input: 100-240Vac, 2.0A, 50-60Hz, Class I<br>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<br>(Alternate)                                   | Acbel Polytech Inc<br>(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<br>(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<br>Enclosure                                        | Interchangeable                                                                                    | Interchangeabl e                                                                                   | Steel, see Enclosure 4-01 and 4-02 for details.                                           | --                                                                                  | -- , --                                            |
| 06. Plastic<br>enclosure – front<br>I/O cover                 | TEIJIN CHEMICALS<br>PLASTIC<br>COMPOUNDS<br>SHANGHAI LTD or<br>TEIJIN LIMITED<br>RESIN AND PLASTIC | TN-3713B(#),<br>(#) - Suffix<br>optional                                                           | V-0, 1.5mm min<br>thickness, 60oC.                                                        | UL 94:2013, UL 746C:2018                                                            | UL , --                                            |
| 06a. Plastic<br>enclosure – front<br>I/O cover<br>(Alternate) | GUO HENG<br>(DONGGU AN)<br>PLASTIC<br>TECHNOLOGY CO<br>LTD                                         | YH26(##), (##)<br>- Will be replaced<br>by two digits from<br>00~99 to denote<br>to serial number. | V-1, 1.5mm min<br>thickness, 60oC.                                                        | UL 94:2013, UL 746C:2018                                                            | UL , --                                            |

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|-------------------------------------------------------------------|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|--------------------------------------|--------------------------|
| 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)<br>(c) – May or may not be followed by the letters uv.<br>(d) –Represents three letters from 401 to 449.<br>(e) – Represents a letter from A to Z or no letter.<br>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           |

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|                                              | 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 , --                  |

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| (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 | --                        | --                      |

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|--------------------------------------------|---------------------------------|-------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|----------------------------|
|                                            |                                 |                                                                         | 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 <sup>3</sup> 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) |

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|--------------------------------------------------------------------------------|--------------------------------------------------|--------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| alt.                                                                           | Lite-On Technology Corporation                   | PA-3401-3YX<br>(Y= A-Z,<br>hyphen or blank;<br>X= A-Z, 0-9,<br>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:<br>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)             |

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|-----------------------------------------------|-----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| 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)             |

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|--------------------------|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
|                          | 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         |

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| 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 |

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|-------------------------------------------------------------------------------------------------------------------------------|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|--------------------------------|
| 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) |

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

## Anexo 9

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

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|--------------------------------------------|---------------------------------|-------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| 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) |

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

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|                                               |                                                  | character or blank)                                                                                                                                                                       |                                                                                                                                                                                                              | 62368-1 ed.2                                                                                                              |                                        |
| alt.                                          | 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:<br>1.8 A max., 5.0 Vdc,<br>1.8 A max., 12 Vdc.                                                                         | IEC 62368-1: 2014,<br>IEC 60950-1: 2005+A1+A2, UL 62368-1 ed.2,<br>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,<br>UL 60950-1 ed.2                                           | CB by UL (US), UL (E139761)            |
| alt.                                          | Interchangeable                                  | Interchangeable                                                                                                                                                                           | Ratings are not required and provided for reference only:<br>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,<br>IEC 62368-1: 2014, IEC 60950-1: 2005+A1+A2, UL 62368-1 ed.3,<br>UL 62368-1 ed.2,<br>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)           |

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|                          |                                        | 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:<br>1.8 A max., 5.0 Vdc or 2.0 A max., 5.0 Vdc, 2.5 A max., 12 Vdc.<br>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.<br>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.<br>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.                                                                                                                                                        | --                                                                                                                                                   | --                                     |

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| 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 |

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|--------------------------------------------------------------------------------------------------------------------------|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|--------------------------------|
|                                                                                                                          |                                 |                                                                                                                                                                          |                                                                                                                                                                         | 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                      |