

A sample of the following product has been tested and is stated by Nemko to be in conformity with the applicable European standards referred below.

Product	LCD Monitor
Manufacturer	Associated Industries China Inc. 5F-1, No. 3-1, Park Street, Nangang District, Taipei, 11503 Taiwan
Factory	See page 2
Ratings	1.5A, 100-240V~ 50/60Hz
Trade mark	AG Neovo
Model / Type Ref.	TM-23***, TM-22***
Principal characteristics	Cl. I, The symbol '*' in the model name can be A to Z, a to z, 0 to 9, '+', '-', '\', '/' or blank, for marketing use only.
A sample of the product was tested and found to be in conformity with	ITAV EN 62368-1:2014;A11
Test Report Ref. No.	433170

It may therefore be presumed that the tested sample of the product is in conformity with the technical provisions of the following European Directives including the latest amendments, and with national legislation implementing these Directives:

- Low Voltage Directive 2014/35/EU

Provided that other applicable Directive requirements are satisfied, the manufacturer (or the European authorized representative), may draw up an EC/EEA Declaration of Conformity and affix the CE-marking to each conforming product.

Additional model(s)

Additional information The products also comply with EN 62368-1:2014 listed in OJ.

Date of issue 21-04-2021



Jiyea Gim

Certification Department

Nemko AS

Philip Pedersens vei 11, 1366 Lysaker, Norway
TEL +47 22 96 03 30 EMAIL info@nemko.com
ENTERPRISE NUMBER NO974404532

Factories:

TPV Electronics (Fujian) Co., Ltd.
Shangzheng, Yuan Hong Road, Fuqing City, Fujian
Province, P.R.
China

L&T Display Technology (Fujian) Ltd.
Optoelectronic Park, Rongqiao Economic and
Technological Development Zone, Fuqing City, Fujian
Province, P.R.
China

TPV Display Technology (China) Co., Ltd.
No.106 Jinghai 3 Rd., BDA, Beijing City 100176 P.R.
China

Envision Indústria de Produtos Eletrônicos Ltda.
Av. Torquato Tapajós, 2236, Flores - CEP 69058-830 -
Manaus/AM
Brazil

Pro Concept Manufacturer Co., Ltd.
88/1 Moo 12 Soi Phetkasem 120, Phetkasem Road,
Omnoi, Krathumbaen, Samutsakhon 74130
Thailand

Treeview Co., Ltd.
106/29 Moo 8, Sukhumvit Road, T.Banglamung,
A.Banglamung, Chonburi 20150
Thailand

GeneTouch Corporation
No. 9, Neixi Rd., Luzhu Dist., Taoyuan City 33852,
Taiwan

TPV Display Technology (Wuhan) Co. Ltd.
Unique No.11 Zhuankou Development District of
Economic Technological Development Zone Wuhan
City, P.R.
China

TPV Display Technology (Beihai) Co., Ltd.
China Electronic Beihai Industry Park, Northeast of the
Crossing between Taiwan Road and Jilin Road, Beihai
City, Guangxi, P.R.
China

TPV Electronics (Fujian) Co., Ltd.
Rongqiao Economic and Technological Development
Zone, Fuqing City, Fujian Province, P.R.
China

TPV Electronics (Fujian) Co., Ltd.
Optoelectronic Park, Rongqiao Economic and
Technological Development Zone, Fuqing City, Fujian
Province, P.R.
China

TREND SMART CE MEXICO S. DE R.L. DE C.V.
Sor Juana, Ines de la Cruz No.19602 Nueva Tijuana
Baja California, C.P. 22435
Mexico

TPV TECHNOLOGY (THAILAND) COMPANY LIMITED
No.267 Mu7, Tha Tum Sub- District, Si Maha Pho
District, Prachin Buri Province,
Thailand

Date of issue 21-04-2021



Jiyea Gim
Certification Department



Nemko AS

Philip Pedersens vei 11, 1366 Lysaker, Norway
TEL +47 22 96 03 30 EMAIL info@nemko.com
ENTERPRISE NUMBER NO974404532



TEST REPORT IEC 62368-1 Audio/video, information and communication technology equipment Part 1: Safety requirements	
Report Number:	433170, amendment no.1 to original test report 409863.
Date of issue.....:	2021-04-21, original report No. 409863 was issued on 2020-12-14
Total number of pages.....:	40 pages
Name of Testing Laboratory preparing the Report:	Nemko Shanghai Ltd. Shenzhen Branch
Applicant's name:	TPV Electronics (Fujian) Co., Ltd.
Address.....:	Rongqiao Economic and Technological Development Zone, Fuqing City, Fujian Province, P.R.China
Test specification:	
Standard.....:	IEC 62368-1:2014 (Second Edition)
Test procedure.....:	CE-LVD
Non-standard test method.....:	N/A
TRF template used:	IECEE OD-2020-F1:2020, Ed.1.3
Test Report Form No.:	IEC62368_1D
Test Report Form(s) originator:	UL(US)
Master TRF:	Dated 2021-02-04
Copyright © 2021 IEC System of Conformity Assessment Schemes for Electrotechnical Equipment and Components (IECEE System). All rights reserved. This publication may be reproduced in whole or in part for non-commercial purposes as long as the IECEE is acknowledged as copyright owner and source of the material. IECEE takes no responsibility for and will not assume liability for damages resulting from the reader's interpretation of the reproduced material due to its placement and context. This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.	
General disclaimer: The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Issuing CB Testing Laboratory. The authenticity of this Test Report and its contents can be verified by contacting the NCB, responsible for this Test Report.	

Test Item description	LCD Monitor
Trade Mark	AG neovo
Manufacturer	Associated Industries China Inc. 5F-1, No. 3-1, Park Street, NANGANG DISTRICT, TAIPEI, 11503, TAIWAN
Model/Type reference	TM-22***; TM-23*** The symbol '*' in the model name can be A to Z, a to z, 0 to 9, '+', '-', '\', '/' or blank, for marketing use only.
Ratings	1.5A 100-240V ~ 50/60Hz, Cl. I

Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):		
<input checked="" type="checkbox"/>	CB Testing Laboratory:	Nemko Shanghai Ltd. Shenzhen Branch
Testing location/ address.....:		Unit C & D, Floor 2 & Floor 10, Tower 2, Kefa Road #8, Hi-Technology Park, Shenzhen 518057, China
Tested by (name, function, signature).....:		Eason Yang (Project Handler) 
Approved by (name, function, signature).....:		Bingo Yang (Verifier) 
<hr/>		
<input type="checkbox"/>	Testing procedure: CTF Stage 1:	
Testing location/ address.....:		
Tested by (name, function, signature).....:		
Approved by (name, function, signature).....:		
<hr/>		
<input type="checkbox"/>	Testing procedure: CTF Stage 2:	
Testing location/ address.....:		
Tested by (name, function, signature).....:		
Witnessed by (name, function, signature).....:		
Approved by (name, function, signature).....:		
<hr/>		
<input type="checkbox"/>	Testing procedure: CTF Stage 3 :	
<input type="checkbox"/>	Testing procedure: CTF Stage 4:	
Testing location/ address.....:		
Tested by (name, function, signature).....:		
Witnessed by (name, function, signature).....:		
Approved by (name, function, signature).....:		
Supervised by (name, function, signature).....:		
<hr/>		

<p>List of Attachments (including a total number of pages in each attachment):</p> <p>-. Photos (3 pages)</p>																											
<p>Summary of testing:</p>																											
<p>Tests performed (name of test and test clause):</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">Clause</th> <th>Test(s)</th> </tr> </thead> <tbody> <tr><td>4</td><td>General Requirements</td></tr> <tr><td>5</td><td>Electrically-caused injury</td></tr> <tr><td>6</td><td>Electrically-caused fire</td></tr> <tr><td>8</td><td>MECHANICALLY-CAUSED INJURY</td></tr> <tr><td>9</td><td>Thermal burn injury</td></tr> <tr><td>10</td><td>Radiation</td></tr> <tr><td>B</td><td>Normal operating condition tests, abnormal operating condition tests and single fault condition tests</td></tr> <tr><td>E</td><td>Test conditions for equipment containing audio amplifiers</td></tr> <tr><td>F</td><td>Equipment markings, instructions, and instructional safeguards</td></tr> <tr><td>P</td><td>Safeguards against conductive objects</td></tr> <tr><td>Q</td><td>Circuit intended for interconnection with building wiring (LPS)</td></tr> <tr><td>T</td><td>Mechanical strength tests</td></tr> </tbody> </table>	Clause	Test(s)	4	General Requirements	5	Electrically-caused injury	6	Electrically-caused fire	8	MECHANICALLY-CAUSED INJURY	9	Thermal burn injury	10	Radiation	B	Normal operating condition tests, abnormal operating condition tests and single fault condition tests	E	Test conditions for equipment containing audio amplifiers	F	Equipment markings, instructions, and instructional safeguards	P	Safeguards against conductive objects	Q	Circuit intended for interconnection with building wiring (LPS)	T	Mechanical strength tests	<p>Testing location: Refer to page 3</p>
Clause	Test(s)																										
4	General Requirements																										
5	Electrically-caused injury																										
6	Electrically-caused fire																										
8	MECHANICALLY-CAUSED INJURY																										
9	Thermal burn injury																										
10	Radiation																										
B	Normal operating condition tests, abnormal operating condition tests and single fault condition tests																										
E	Test conditions for equipment containing audio amplifiers																										
F	Equipment markings, instructions, and instructional safeguards																										
P	Safeguards against conductive objects																										
Q	Circuit intended for interconnection with building wiring (LPS)																										
T	Mechanical strength tests																										
<p>Summary of compliance with National Differences: Modified products still complies with previously evaluated National Differences.</p> <p><input checked="" type="checkbox"/> The product fulfils the requirements of IEC 62368-1: 2014 (Second Edition) and EN 62368-1: 2014+A11:2017</p>																											
<p>Statement concerning the uncertainty of the measurement systems used for the tests (may be required by the product standard or client)</p> <p><input type="checkbox"/> Internal procedure used for type testing through which traceability of the measuring uncertainty has been established:</p> <p>Procedure number, issue date and title:</p> <p>Calculations leading to the reported values are on file with the NCB and testing laboratory that conducted the testing.</p> <p><input checked="" type="checkbox"/> Statement not required by the standard used for type testing</p> <p><small>(Note: When IEC or ISO standard requires a statement concerning the uncertainty of the measurement systems used for tests, this should be reported above. The informative text in parenthesis should be delete in both cases after selecting the applicable option)</small></p>																											

Copy of marking plate:

The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective Certification Bodies that own these marks.



<p>Calibration</p>	<p>All instruments used in the tests given in this test report are calibrated and traceable to national or international standards. Further information about traceability will be given on request.</p>
<p>Measurement uncertainty</p>	<p>Measurement uncertainties are calculated for all instruments and instrument set-ups given in this report. Calculations are based on the principles given in the standard EA-4/02 (Dec. 1999), IEC Guide 115:2007 and other relevant internal Nemko-procedures. Further information about measurement uncertainties will be given on request.</p>
<p>Evaluation of results</p>	<p>If not explicitly stated otherwise in the standard, the test is passed if the measured value is equal to or below (above) the limit line, regardless of the measurement uncertainty. If the measured value is above (below) the limit line, the test is not passed – ref IEC Guide 115:2007. The instrumentation accuracy is within limits agreed by IECEE-CTL.</p>

TEST ITEM PARTICULARS:	
Classification of use by	<input checked="" type="checkbox"/> Ordinary person <input type="checkbox"/> Instructed person <input type="checkbox"/> Skilled person <input checked="" type="checkbox"/> Children likely to be present
Supply Connection.....	<input checked="" type="checkbox"/> AC Mains <input type="checkbox"/> DC Mains <input type="checkbox"/> External Circuit - not Mains connected - <input type="checkbox"/> ES1 <input type="checkbox"/> ES2 <input type="checkbox"/> ES3
Supply % Tolerance	<input checked="" type="checkbox"/> +10%/-10% <input type="checkbox"/> +20%/-15% <input type="checkbox"/> +____%/ -____% <input type="checkbox"/> None
Supply Connection – Type	<input checked="" type="checkbox"/> pluggable equipment type A - <input type="checkbox"/> non-detachable supply cord <input checked="" type="checkbox"/> appliance coupler <input type="checkbox"/> direct plug-in <input type="checkbox"/> mating connector <input type="checkbox"/> pluggable equipment type B - <input type="checkbox"/> non-detachable supply cord <input type="checkbox"/> appliance coupler <input type="checkbox"/> permanent connection <input type="checkbox"/> mating connector <input type="checkbox"/> other:_____
Considered current rating of protective device as part of building or equipment installation	16A (20A for Canada and US); Installation location: <input checked="" type="checkbox"/> building; <input type="checkbox"/> equipment
Equipment mobility	<input checked="" type="checkbox"/> movable <input type="checkbox"/> hand-held <input type="checkbox"/> transportable <input type="checkbox"/> stationary <input type="checkbox"/> for building-in <input type="checkbox"/> direct plug-in <input type="checkbox"/> rack-mounting <input checked="" type="checkbox"/> wall-mounted
Over voltage category (OVC)	<input type="checkbox"/> OVC I <input checked="" type="checkbox"/> OVC II <input type="checkbox"/> OVC III <input type="checkbox"/> OVC IV <input type="checkbox"/> other: _____
Class of equipment	<input checked="" type="checkbox"/> Class I <input type="checkbox"/> Class II <input type="checkbox"/> Class III <input type="checkbox"/> Class II with functional earthing <input type="checkbox"/> Not classified
Access location	<input type="checkbox"/> restricted access location <input checked="" type="checkbox"/> N/A
Pollution degree (PD)	<input type="checkbox"/> PD 1 <input checked="" type="checkbox"/> PD 2 <input type="checkbox"/> PD 3
Manufacturer's specified maxium operating ambient:	40°C
IP protection class	<input checked="" type="checkbox"/> IPX0 <input type="checkbox"/> IP20
Power Systems	<input checked="" type="checkbox"/> TN <input type="checkbox"/> TT <input checked="" type="checkbox"/> IT - 230 V L-L for Norway <input type="checkbox"/> dc mains <input type="checkbox"/> N/A
Altitude during operation (m)	<input type="checkbox"/> 2000 m or less <input checked="" type="checkbox"/> up to 5000 m
Altitude of test laboratory (m)	<input checked="" type="checkbox"/> 2000 m or less <input type="checkbox"/> _____ m

Mass of equipment (kg)	<input checked="" type="checkbox"/> For model: TM-22*** Weight: 6.05kg with base, base: 2.3kg Dimension: Approx.521mm x 235mm x 389 mm with Base Base: Approx. 230mm x 235mm x 295mm For model: TM-23*** Weight: 6.48kg with base, base: 2.3kg Dimension: Approx.556mm x 235mm x 395mm with Base Base: Approx. 230mm x 235mm x 295mm
POSSIBLE TEST CASE VERDICTS:	
- test case does not apply to the test object.....	N/A
- test object does meet the requirement	P (Pass)
- test object does not meet the requirement	F (Fail)
TESTING:	
Date of receipt of test item.....	2021-03-18
Date (s) of performance of tests	2021-03-18 to 2021-04-15
GENERAL REMARKS:	
"(See Enclosure #)" refers to additional information appended to the report. "(See appended table)" refers to a table appended to the report. Throughout this report a <input type="checkbox"/> comma / <input checked="" type="checkbox"/> point is used as the decimal separator.	
Manufacturer's Declaration per sub-clause 4.2.5 of IEC62368-1:	
The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided.....	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> Not applicable
When differences exist; they shall be identified in the General product information section.	
Name and address of factory (ies)	1. TPV Electronics(Fujian) Co.,Ltd. Rongqiao Economic and Technological Development Zone, Fuqing City, Fujian Province, P.R.China 2. TPV Electronics (Fujian) Co., Ltd. Shangzheng, Yuan Hong Road, Fuqing City, Fujian Province, P.R.China 3. TPV Electronics (Fujian) Co., Ltd. Optoelectronic Park, Rongqiao Economic and Technological Development Zone,Fuqing City,Fujian Province, P.R.China 4. L&T Display Technology (Fujian) Ltd. Optoelectronic Park, Rongqiao Economic and Technological Development Zone,Fuqing City,Fujian

	<p>Province, P.R.China</p> <p>5. TPV Display Technology (China) Co., Ltd. No.106 Jinghai 3 Rd., BDA, Beijing City 100176 P.R. China</p> <p>6. TPV Display Technology (Wuhan) Co.,Ltd. Unique No.11 Zhuankou Development District of Economic Technological Development Zone Wuhan City, P.R.China</p> <p>7. TPV Display Technology (Beihai) Co., Ltd. China Electronic Beihai Industry Park,Northeast of the Crossing between Taiwan Road and Jilin Road, Beihai City, Guangxi, P.R.China</p> <p>8. Pro Concept Manufacturer Co., Ltd. 88/1 Moo 12 Soi Phetkasem 120, Phetkasem Road, Omnoi, Krathumbaen, Samutsakhon 74130 Thailand</p> <p>9. TREND SMART CE MEXICO S. DE R.L. DEC.V. Sor Juana, Ines de la Cruz No.19602 Nueva Tijuana, Baja California, C.P. 22435 Mexico</p> <p>10. Envision Indústria de Produtos Eletrônicos Ltda. Av. Torquato Tapajós, 2236, Flores - CEP 69058-830 - Manaus/AM, BRAZIL</p> <p>11. Treeview Co., Ltd. 106/29 Moo 8, Sukhumvit Road, T.Banglamung, A.Banglamung, Chonburi 20150 Thailand</p> <p>12. TPV TECHNOLOGY (THAILAND) COMPANY LIMITED No.267 Mu7, Tha Tum Sub- District, Si Maha Pho District, Prachin Buri Province, Thailand</p> <p>13. GeneTouch Corporation No. 9, Neixi Rd., Luzhu Dist., Taoyuan City 33852, Taiwan</p>
--	--

GENERAL PRODUCT INFORMATION:

Product Description –
 Amendment No.1 report No. 433170:
 The original report No. 409863 dated 2020-12-14, was modified on 2021-04-21 to include the following changes and/or additions:

- Add one new model TM-23***.
- Add one USB board 715G9667 for new model TM-23***.
- Add one alternative panel LG Display (LM230*****) for new model TM-23***.
- Add some sources of plastic enclosure, details refer to table 4.1.2.
- Correct the editorial error of dimension for model TM-22***, details refer to page 7.
- Updated the model name from TM-22* to TM-22***.
- Updated the address for some factories, details refer to factory information.

- Updated the address of applicant.
- Deleted one factory TPV Technology (Qingdao) Co., Ltd.

Model Differences:

Model name	Power supply board	Mainboard	USB 3.0 board
TM-22***	715G7610	715G9245	715G6025
TM-23***			715G9667

Project history:		
Test Report No.	Modification to the appliances:	Changes/ Modifications in clause(s):
409863	Original report	N/A
433170	<ul style="list-style-type: none"> - Add one new model TM-23***. - Add one USB board 715G9667 for new model TM-23***. - Add one alternative panel LG Display (LM230*****) for new model TM-23***. - Add some sources of plastic enclosure, details refer to table 4.1.2. - Correct the editorial error of dimension for model TM-22***, details refer to page 7. - Updated the model name from TM-22* to TM-22***. - Updated the address for some factories, details refer to factory information. - Updated the address of applicant. - Deleted one factory TPV Technology (Qingdao) Co., Ltd. 	General product information, CI 4, 5, 6, 8, 9, 10, Annex B, Annex E, Annex F, Annex P, Annex Q, Annex T.

Additional application considerations – (Considerations used to test a component or sub-assembly) –
N/A

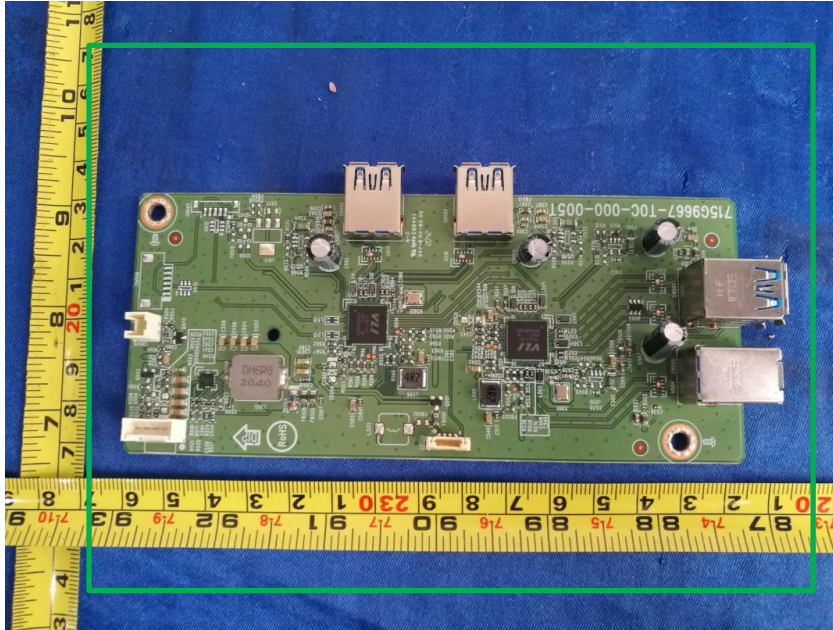
ENERGY SOURCE IDENTIFICATION AND CLASSIFICATION TABLE:	
<p>(Note 1: Identify the following six (6) energy source forms based on the origin of the energy.) (Note 2: The identified classification e.g., ES2, TS1, should be with respect to its ability to cause pain or injury on the body or its ability to ignite a combustible material. Any energy source can be declared Class 3 as a worse case classification e.g. PS3, ES3.)</p>	
<p>Electrically-caused injury (Clause 5): (Note: Identify type of source, list sub-assembly or circuit designation and corresponding energy source classification) Example: +5 V dc input ES1</p>	
Source of electrical energy	Corresponding classification (ES)
The circuits of USB board (715G9667)	ES1
<p>Electrically-caused fire (Clause 6): (Note: List sub-assembly or circuit designation and corresponding energy source classification) Example: Battery pack (maximum 85 watts): PS2</p>	
Source of power or PIS	Corresponding classification (PS)
The circuit of USB board (715G9667)	PS2 (Complied with Annex Q.1)
Output terminals of USB board (715G9667)	PS1
The components on USB board (715G9667)	Resistive PIS
<p>Mechanically-caused injury (Clause 8) (Note: List moving part(s), fan, special installations, etc. & corresponding MS classification based on Table 35.) Example: Wall mount unit MS2</p>	
Source of kinetic/mechanical energy	Corresponding classification (MS)
Wall mount (> 1kg and the height of wall mounted > 2m)	MS3
Equipment mass (max.6.48kg)	MS1
Sharp edge and corners (outside enclosure)	MS1
<p>Thermal burn injury (Clause 9) (Note: Identify the surface or support, and corresponding energy source classification based on type of part, location, operating temperature and contact time in Table 38.) Example: Hand-held scanner – thermoplastic enclosure TS1</p>	
Source of thermal energy	Corresponding classification (TS)
External plastic enclosure, accessible keyboard, accessible metal chassis, base, and accessible output terminals (contact time >1s and <10s)	TS1
Accessible panel (contact time <1s)	TS1
<p>Radiation (Clause 10) (Note: List the types of radiation present in the product and the corresponding energy source classification.) Example: DVD – Class 1 Laser Product RS1</p>	
Type of radiation	Corresponding classification (RS)
LED panel is indicating lights type (diffusive LED)	RS1

ENERGY SOURCE DIAGRAM

Indicate which energy sources are included in the energy source diagram. Insert diagram below

ES1

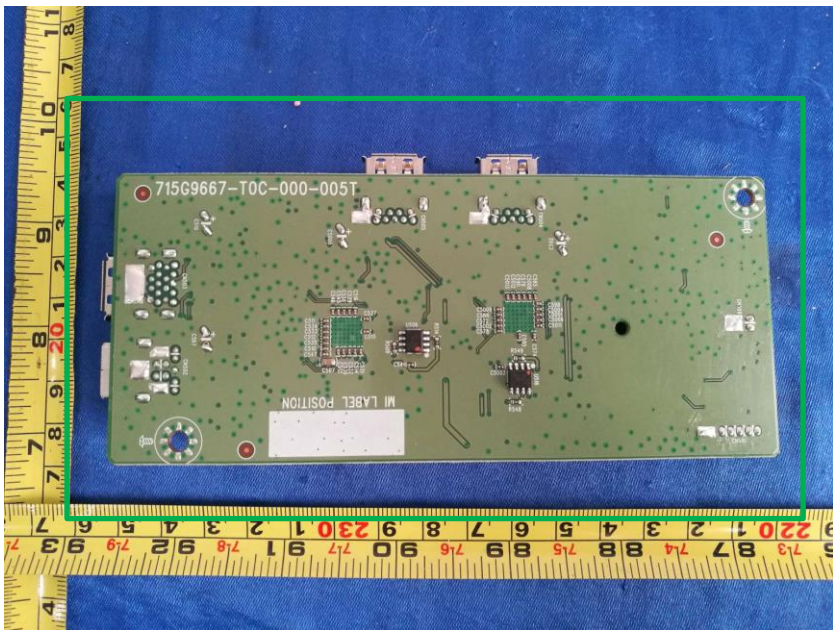
Green line



- ES PS MS TS RS

ES1

Green line

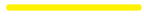


- ES PS MS TS RS

ENERGY SOURCE DIAGRAM

Indicate which energy sources are included in the energy source diagram. Insert diagram below

PS2

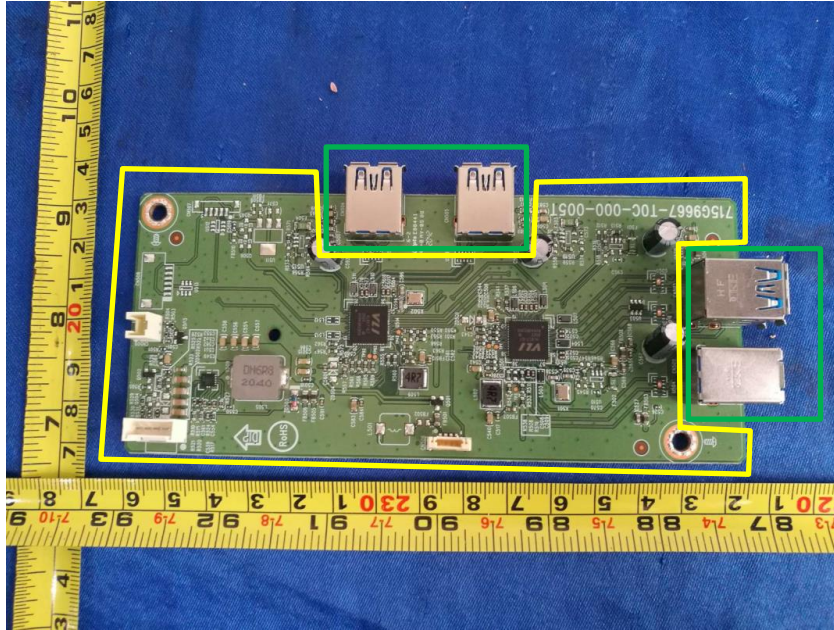


Yellow line

PS1



Green line



ES PS MS TS RS

PS2

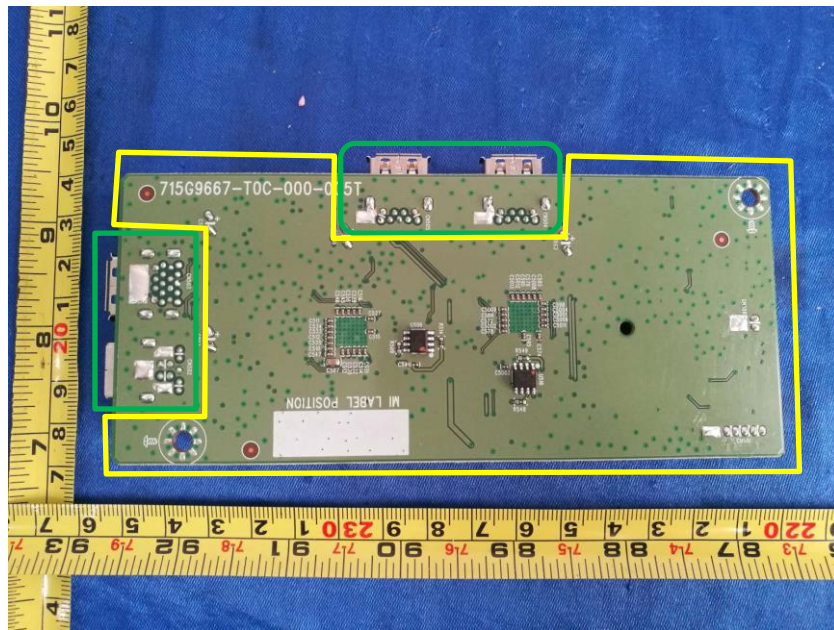


Yellow line

PS1



Green line



ES PS MS TS RS

ENERGY SOURCE DIAGRAM

Indicate which energy sources are included in the energy source diagram. Insert diagram below

MS3 for wall mounting

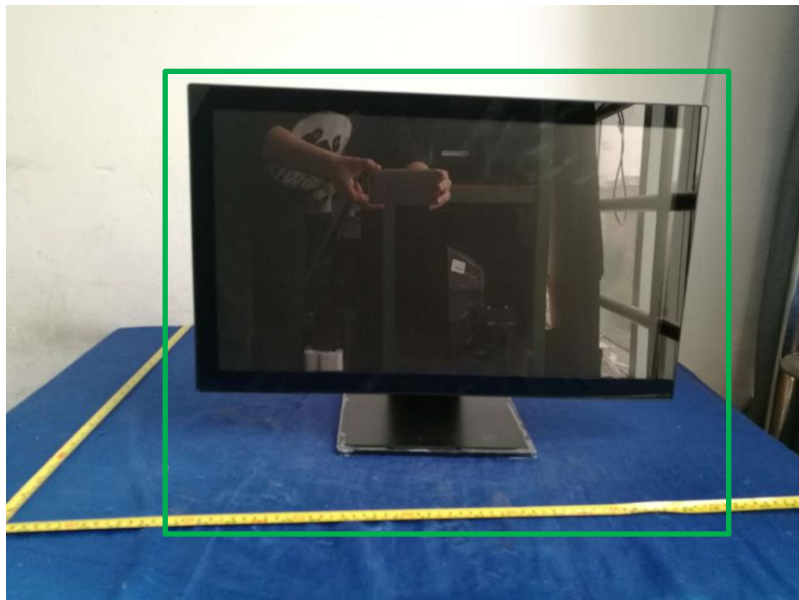
—
Red line



ES PS MS TS RS

**MS1 for sharp edges and corners mass
TS1,
RS1**

—
Green line



ES PS MS TS RS

OVERVIEW OF EMPLOYED SAFEGUARDS				
Clause	Possible Hazard			
5.1	Electrically-caused injury			
Body Part (e.g. Ordinary)	Energy Source (ES3: Primary Filter circuit)	Safeguards		
		Basic	Supplementary	Reinforced (Enclosure)
Ordinary person	ES1: The circuits of USB board (715G9667)	N/A	N/A	N/A
6.1	Electrically-caused fire			
Material part (e.g. mouse enclosure)	Energy Source (PS2: 100 Watt circuit)	Safeguards		
		Basic	Supplementary	Reinforced
Output terminals for USB board (715G9667)	PS1	1)	N/A	N/A
8.1	Mechanically-caused injury			
Body Part (e.g. Ordinary)	Energy Source (MS3:High Pressure Lamp)	Safeguards		
		Basic	Supplementary	Reinforced (Enclosure)
Ordinary person	MS3: > 1kg and the height of wall mounted > 2m)	Comply 8.7 (Test 2&3)	Instruction safeguard in user manual	N/A
Ordinary person	MS1: Sharp edges and corners (none)	N/A	N/A	N/A
Ordinary person	MS1: (max.6.48kg)	N/A	N/A	N/A
9.1	Thermal Burn			
Body Part (e.g., Ordinary)	Energy Source (TS2)	Safeguards		
		Basic	Supplementary	Reinforced
Ordinary person	TS1: External plastic enclosure, accessible keyboard and accessible output terminals (contact time >1s and <10s)	N/A	N/A	N/A
Ordinary person	TS1: Accessible panel (contact time <1s)	N/A	N/A	N/A
10.1	Radiation			
Body Part (e.g., Ordinary)	Energy Source (Output from audio port)	Safeguards		
		Basic	Supplementary	Reinforced
Ordinary person	RS1: LED panel is indicating lights type (diffusive LED)	N/A	N/A	N/A
Supplementary Information: (1) See attached energy source diagram for additional details. 1) No ignition and measure temperature< 300degC Note: PIS on all PCB boards are within PS3 circuit, fire enclosure provided.				

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
4	GENERAL REQUIREMENTS		P
4.1.1	Acceptance of materials, components and subassemblies	Refer to appended table 4.1.2.	P
4.1.2	Use of components	Certified components are used in accordance with their ratings, certifications and they comply with applicable parts of this standard. Components, for which no relevant IEC-standard exists, have been tested under the conditions occurring in the equipment, using applicable parts of IEC 62368-1.	P
4.1.3	Equipment design and construction	Equipment is adequately designed and constructed.	P
4.1.15	Markings and instructions.....:	(See Annex F)	P
4.4.4	Safeguard robustness	See below:	P
4.4.4.2	Steady force tests.....:	(See Annex T.5)	P
4.4.4.4	Impact tests.....:	(See Annex T.6)	P
4.4.4.7	Thermoplastic material tests.....:	(See Annex T.8)	P
4.4.4.8	Air comprising a safeguard.....:	(See Annex T.2)	P
5	ELECTRICALLY-CAUSED INJURY		P
5.2.1	Electrical energy source classifications.....:	See below	P
5.2.2	ES1, ES2 and ES3 limits	The circuits of USB board (715G9667): ES1	P
5.2.2.7	Audio signals.....:	1KHz loaded to speakers.	P
6	ELECTRICALLY- CAUSED FIRE		P
6.2	Classification of power sources (PS) and potential ignition sources (PIS)		P
6.2.2	Power source circuit classifications	Refer to Energy Source identification and classification table for power source.	P
6.2.2.1	General		P
6.2.2.2	Power measurement for worst-case load fault.....:	(See appended table 6.2.2)	P
6.2.2.3	Power measurement for worst-case power source fault.....:	(See appended table 6.2.2)	P
6.2.2.4	PS1.....:	(See appended table 6.2.2)	P
6.2.2.5	PS2.....:	(See appended table 6.2.2)	P
6.2.2.6	PS3.....:		N/A
6.3	Safeguards against fire under normal operating and abnormal operating conditions		P

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
6.3.1 (a)	No ignition and attainable temperature value less than 90 % defined by ISO 871 or less than 300 °C for unknown materials	Measured temperature <300degC (See appended table 5.4.1.4, 6.3.2, 9.0, B.2.6)	P
6.3.1 (b)	Combustible materials outside fire enclosure	No combustible material outside the fire enclosure.	N/A
6.4	Safeguards against fire under single fault conditions		P
6.4.1	Safeguard Method	Control fire spread was used.	P
6.4.2	Reduction of the likelihood of ignition under single fault conditions in PS1 circuits		N/A
6.4.3	Reduction of the likelihood of ignition under single fault conditions in PS2 and PS3 circuits	cl. 6.4.6 considered	N/A
6.4.3.1	General		N/A
6.4.3.2	Supplementary Safeguards		N/A
	Special conditions if conductors on printed boards are opened or peeled		N/A
6.4.3.3	Single Fault Conditions		N/A
	Special conditions for temperature limited by fuse		N/A
6.4.4	Control of fire spread in PS1 circuits	Measured temperature <300degC (See appended table 5.4.1.4, 6.3.2, 9.0, B.2.6)	P
6.4.5	Control of fire spread in PS2 circuits		N/A
6.4.5.2	Supplementary safeguards		N/A
6.4.6	Control of fire spread in PS3 circuit	-The PCB is of base material with flammability category V-1 material -Fire enclosure made of metal material, mylar sheet with flammability category V-0 and metal port located on panel.	P
6.4.7	Separation of combustible materials from a PIS	Metal enclosure, mylar sheet with flammability category V-0 and metal part located on panel considered as fire enclosure, and the components were less than 1750mm ³ or 4g which were not covered by the fire enclosure.	P
6.6	Safeguards against fire due to connection to additional equipment	Complied with Clause Q.1 (See appended table annex Q.1)	P
	External port limited to PS2 or complies with Clause Q.1	Output terminals were considered.	P
8	MECHANICALLY-CAUSED INJURY		P
8.1	General	See below	P

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
8.2	Mechanical energy source classifications	MS3: Wall mount (the height of wall mounted > 2m) MS1: Mass < 7 kg (max.6.48kg) MS1: No sharp edges or corners.	P
8.3	Safeguards against mechanical energy sources		N/A
8.4	Safeguards against parts with sharp edges and corners	The equipment is classified as MS1	N/A
8.6	Stability	Mass less than 7Kg.	N/A
8.7	Equipment mounted to wall or ceiling	Mounted to wall, test 2 and test 3 used, details see general product information.	P
8.7.1	Mounting Means (Length of screws (mm) and mounting surface)	Four pieces screw M4 x 10mm used. Not specify wall mounted.	P
8.7.2	Direction and applied force	Four direction, inward and outward 41N applied for each supporting part (4 in total), respectively. The screw is tightened with a torque 1.2Nm, and then loosened, for a total of 5 times for each screw.	P
9	THERMAL BURN INJURY		P
9.2	Thermal energy source classifications	Refer to Energy Source identification and classification table for thermal energy source.	P
9.3	Safeguard against thermal energy sources	Accessible parts limited to TS1.	N/A
9.4	Requirements for safeguards		N/A
9.4.1	Equipment safeguard	Accessible parts limited to TS1.	P
9.4.2	Instructional safeguard		N/A
10	RADIATION		P
10.2	Radiation energy source classification	See below	P
10.2.1	General classification	LED panel is indicating lights type (diffusive LED), classified RS1.	P
B	NORMAL OPERATING CONDITION TESTS, ABNORMAL OPERATING CONDITION TESTS AND SINGLE FAULT CONDITION TESTS		P
B.2	Normal Operating Conditions		P
B.2.1	General requirements.....	(See Test Item Particulars and appended test tables)	P

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Audio Amplifiers and equipment with audio amplifiers		N/A
B.2.3	Supply voltage and tolerances	+10% / -10% (264V / 90V)	P
B.2.5	Input test.....	(See appended table B.2.5)	P
B.3	Simulated abnormal operating conditions		P
B.3.1	General requirements.....	(See appended table B.3)	P
B.3.2	Covering of ventilation openings	(See appended table B.3)	P
B.3.3	D.C. mains polarity test	AC mains supplied.	N/A
B.3.4	Setting of voltage selector	No voltage selector.	N/A
B.3.5	Maximum load at output terminals	(See appended table B.3)	P
B.3.6	Reverse battery polarity	No such battery.	N/A
B.3.7	Abnormal operating conditions as specified in Clause E.2.	(See appended table 5.4.1.4, 6.3.2, 9.0, B.2.6)	P
B.3.8	Safeguards functional during and after abnormal operating conditions	(See appended table B.3) do not lead to a single fault condition. All safeguards remain effective.	P
B.4	Simulated single fault conditions		P
B.4.4	Short circuit of functional insulation	Refer below	P
B.4.4.1	Short circuit of clearances for functional insulation	Short circuit in B.4.	P
B.4.4.2	Short circuit of creepage distances for functional insulation	Short circuit in B.4.	P
B.4.4.3	Short circuit of functional insulation on coated printed boards	No coated PCB used.	N/A
B.4.5	Short circuit and interruption of electrodes in tubes and semiconductors		P
B.4.6	Short circuit or disconnect of passive components		P
B.4.8	Class 1 and Class 2 energy sources within limits during and after single fault conditions	Accessible plastic enclosure, accessible panel, accessible metal chassis, accessible keyboard, base and accessible output terminals limited to TS1 during and after single fault conditions. Accessible output terminal limited to ES1 during and after single fault conditions. No flame during and after single fault condition.	P
E	TEST CONDITIONS FOR EQUIPMENT CONTAINING AUDIO AMPLIFIERS		P
E.1	Audio amplifier normal operating conditions		P
	Audio signal voltage (V)	2.54V	—
	Rated load impedance (Ω)	Min. 4ohm	—
E.2	Audio amplifier abnormal operating conditions		P

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
F	EQUIPMENT MARKINGS, INSTRUCTIONS, AND INSTRUCTIONAL SAFEGUARDS		P
F.1	General requirements		P
	Instructions – Language	English verified.	—
F.2	Letter symbols and graphical symbols	Refer below.	P
F.2.1	Letter symbols according to IEC60027-1	A, V, Hz	P
F.2.2	Graphic symbols IEC, ISO or manufacturer specific	AC symbol (IEC 60417-5032),	P
F.3	Equipment markings		P
F.3.1	Equipment marking locations	The required marking is located on the external enclosure of the equipment.	P
F.3.2	Equipment identification markings	Refer below.	P
F.3.2.1	Manufacturer identification	acer	—
F.3.2.2	Model identification	See page 2	—
F.3.3	Equipment rating markings	Refer below.	P
F.3.3.1	Equipment with direct connection to mains	Refer F.3.3.3 – F.3.3.6	P
F.3.3.2	Equipment without direct connection to mains	Direct connection to mains.	N/A
F.3.3.3	Nature of supply voltage.....	~ (IEC 60417-5032)	—
F.3.3.4	Rated voltage	100-240V	—
F.3.3.4	Rated frequency	50/60Hz	—
F.3.3.6	Rated current or rated power	1.5A	—
F.3.9	Durability, legibility and permanence of marking	Marking (printed on the enclosure) comply with the requirements.	P
F.3.10	Test for permanence of markings	Markings withstand the required test.	P
P	SAFEGUARDS AGAINST ENTRY OF FOREIGN OBJECTS AND SPILLAGE OF INTERNAL LIQUIDS		P
P.1	General requirements		P
P.4	Metallized coatings and adhesive securing parts	Insulation sheet was secured by adhesive. Complied with the standard after applying tests as the following conditioning.	P

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
P.4.2 a)	Conditioning testing	For adhesive on Insulation sheet : Day 1: 100 °C for one week Day 8: 1. Remove from oven and leave at 25 °C for 1 h. 2. Place in freezer at -40 °C for 4h. 3. Remove from freezer and allow to come to 25°C for 8h. Day 9: 1. Place in the compartment at 95% relative humidity for 72h. 2. Remove and leave at 25°C for 1h. 3. Place in oven at 100°C for 4h. Remove and allow sample to reach 25°C over 8h.	P
	Tc (°C).....:	101.7°C for adhesive on Insulation sheet	—
	Tr (°C).....:	100°C	—
	Ta (°C).....:	73.7°C for Insulation sheet.	—
P.4.2 b)	Abrasion testing :		N/A
P.4.2 c)	Mechanical strength testing :	(See appended table T.2, T.3, T.4, T.5)	P
Q	CIRCUITS INTENDED FOR INTERCONNECTION WITH BUILDING WIRING		P
Q.1	Limited power sources	See below	P
Q.1.1 a)	Inherently limited output	(See appended table annex Q.1)	P
Q.1.1 b)	Impedance limited output		N/A
	- Regulating network limited output under normal operating and simulated single fault condition		N/A
Q.1.1 c)	Overcurrent protective device limited output		N/A
Q.1.1 d)	IC current limiter complying with G.9		N/A
Q.1.2	Compliance and test method		P
Q.2	Test for external circuits – paired conductor cable		N/A
	Maximum output current (A)		—
	Current limiting method		—

4.1.2	TABLE: List of critical components				P
object/part No.	manufacturer/ trademark	type/model	technical data	standard	mark(s) of conformity ¹⁾
LCD panel (with LED backlight) for model TM- 22***	AUO	M215***** (* can be 0-9, a-z, A-Z, '!', -, or blank)	21.5" TFT (54.61cm), glass is min.0.4 mm thickness	IEC62368-1	Tested in the equip.
Alt.)	TPV	TPM215***** (* can be 0-9, a-z, A- Z, '!', -, or blank)	21.5" TFT (54.61cm), glass is min.0.4 mm thickness	IEC62368-1	Tested in the equip.
Alt.)	AUO	T215***** (* can be 0-9, a-z, A- Z, '!', -, or blank)	21.5" TFT (54.61cm), glass is min.0.4 mm thickness	IEC62368-1	Tested in the equip.
Alt.)	LGD	LM215***** (* can be 0-9, a-z, A- Z, '!', -, or blank)	21.5" TFT (54.61cm), glass is min.0.4 mm thickness	IEC62368-1	Tested in the equip.
Alt.)	BOE	MV215***** (* can be 0-9, a-z, A- Z, '!', -, or blank)	21.5" TFT (54.61cm), glass is min.0.4 mm thickness	IEC62368-1	Tested in the equip.
Alt.)	TPV	TPM215***** (* can be 0-9, a-z, A- Z, '!', -, or blank)	21.5" TFT (54.61cm), glass is min.0.4 mm thickness	IEC62368-1	Tested in the equip.
LCD panel (with LED backlight) for model TM- 23***	LG Display	LM230***** (* can be 0-9, a-z, A-Z, '!', -, or blank)	23.0" TFT (58.42cm), glass is min.0.4 mm thickness	IEC62368-1	Tested in the equip.

object/part No.	manufacturer/ trademark	type/model	technical data	standard	mark(s) of conformity ¹⁾
Plastic Enclosure	LOTTE	SD-0150(+), VH-0810(+), VE-0812(+), NH-1000T(+)(&), GC-0700(+++) (RR28), GC-0700A(RR), GC- 0750(+)(RR70), GC- 1017(+)(RR30), VE-1890(+), BF-0675(+), BF-0670(+), NH-1017(p), NH-1017T, NH-1017SG(+), BF-0677(+), HS-7000(+), HG-0760(+), NE-1030(+), HR-1360(+), LX-0951(+), LX-0957(+), TH-1100(+), TN-1100(+) LS-1159(r)LS- 1159SF, LS-1159F, NH-1036, SD-0150T, ABF-0200E	HB or better, thickness 1.8mm min. Min. 80°C	UL94	UL
Alt.)	GRAND PACIFIC PETROCHEMIC AL CORP	D-150, D1000, D-1000A			UL
Alt.)	CHI MEI CORPORATION	PA-757(+), PH-88, PA-756S			UL
Alt.)	ALBIS PLASTIC GMBH	GP-35, GP-22, 495F			UL
Alt.)	COVESTRO DEUTSCHLAND AG [PC RESINS]	FR3000 series, FR3005 series			UL

object/part No.	manufacturer/ trademark	type/model	technical data	standard	mark(s) of conformity ¹⁾
Alt.)	LG	HF350(#), HF380(m), HF380NS, HF380(#), HF-380(#), HF-380(m), HF-380, HF-380NS, HF380X, AF312T1, AF342T1, LUPOY GN- 5001TF(#), GN-5001RFD, LUPOY GN- 5008HF(#), LUPOY GP- 5008BF(#), SE750(#), XG568(#), XG569(#), GP-1000L, GP-1000F(#), GP-1000(m)(#), LUMILOY GP- 1000(#), SE750(#), LUPOY GN- 5001RF(T), SE885(#), HF388(#) 	HB or better, thickness 1.8mm min. Min. 80°C 	UL94	UL

object/part No.	manufacturer/ trademark	type/model	technical data	standard	mark(s) of conformity ¹⁾
Alt.)	QINGDAO HAIER NEW MATERIAL R & D CO LTD	HRABS-RS, HRABS-HG, CR-3002	HB or better, thickness 1.8mm min. Min. 80°C	UL94	UL
Alt.)	DONGGUAN HINGLONG PLASTIC TECHNOLOGY CO LTD	HL-ABS-PCR85, HL-ABS-PCR65, HL- ABS-PCR35			UL
Alt.)	ORINKO (HEFEI) ADVANCED PLASTIC CO LTD	ABS-3070H, HIPS-2000, ABS-340X HIPS-2230(+)			UL
Alt.)	WISTRON ADVANCED MATERIALS (KUNSHAN) CO LTD	GA(M)(b)(c), GA35, NC30, GA65, GA85			UL
Alt.)	UNIC TECHNOLOGY CORP	UR-3006+(RXX), UR-200+ (+: A to Z)			UL
Alt.)	GUO HENG (DONGGUAN)	YOUHO(#####)(Y), YOUHO-1303B, YOUHO1312B, YOUHO(1304)(B), YOUHO(1333)(B), YOUHO(1303)(OP)			UL

object/part No.	manufacturer/ trademark	type/model	technical data	standard	mark(s) of conformity ¹⁾
Alt.)	KINGFA SCI & TECH CO LTD	4418, 5197, FRABS-518, HIPS-5197, HF-606, HF-626, FRABS-518, GAR-011C, JH960 6(M), FRHIPS-960, RS-900, RS-300, RS-400, GAR-011, GAR-011(L65), GAR-011(L85), GAR-011(HG6), CK-100, CK-900, CK-55111, JH960 6(M), FRHIPS-960, HIPS-4418, HIPS-3399, HIPS-CM(ee), HIPS-HG(ee), HIPS-510 (o), HIPS-550, CK-61(M) (##), RS-(hh)0, HP-126, ABS-660, ABS-122, GAR-322, GAR-332, GAR-220, H12, G360, CK-55(M) (##), CK-58(M) (##), GAR-011C, GAR-011(ww)	HB or better, thickness 1.8mm min. Min. 80°C	UL94	UL
Alt.)	HUIZHOU WOTE	2100			UL
Alt.)	TEIJIN LIMITED RESIN AND PLASTIC	TN-7500(c), TN-7500F(#), MN-3600V(#), MN-3600H(#), CK-61506			UL

object/part No.	manufacturer/ trademark	type/model	technical data	standard	mark(s) of conformity ¹⁾
Alt.)	INEOS STYROLUTION GROUP GMBH	495F GR2, 495F KG2, 495F GR21, 495F KG21, C2065	HB or better, thickness 1.8mm min. Min. 80°C	UL94	UL
Alt.)	STYRON	STYRON A- TECH 1200			UL
Alt.)	TOTAL PETROCHEMIC ALS SOUTH EAST ASIA PTE LTD	3441, 260-XX			UL
Alt.)	DOOSAN CORPORATION ELECTRO- MATERIALS BG	DS-1107A, DS-1202G, DS-7106			UL
Alt.)	SABIC JAPAN L L C	C6600(GG)(X)(VS)C 6600E (VS)(X)			UL
Alt.)	PONTEX	AFE5000N, AFE5100N, 9004BK			UL
Alt.	CHI LIN TECHNOLOGY CO LTD	GA-1(aaa), GA-1535			UL
Alt.	SAMYANG	TRILOY:210NHF (&), 210NHF			UL
Alt.	COVESTRO DEUTSCHLAND AG	GF9011 MF			UL
Alt.	Chi mei	PC-540(Y)			UL
Alt.	QINGDAO GUOEN TECHNOLOGY CO LTD	ABS21(xx)G-A, ABS2030A, ABS20(xx)B			UL
Alt.	SHENZHEN FUHENG NEW MATERIAL CO LTD	HIPS-568			UL
Alt.	UNIC TECHNOLOGY CORP	UP700			UL
Alt.	QING DAO GON TECHNOLOGY CO.,LTD.	ABS2115			UL

Supplementary information:

¹⁾ An asterisk indicates a mark which assures the agreed level of surveillance
- The bold part indicated the added sources

5.2		Table: Classification of electrical energy sources					P
5.2.2.2 – Steady State Voltage and Current conditions							
No.	Supply Voltage	Location (e.g. circuit designation)	Test conditions	Parameters			ES Class
				U (Vrms or Vpk)	I (A _{pk} or A _{rms})	Hz	
1	264Vac	Output port (CN801) for LED backlight	Normal	51.8 V dc	N/A	d.c.	ES1
			Abnormal	51.8 V dc	N/A	d.c.	
			Single fault: SC L801	51.8 V dc	N/A	d.c.	
			Single fault: SC D801	0	N/A	N/A	

5.4.1.4, 6.3.2, 9.0, B.2.6	TABLE: Temperature measurements			P
	Supply voltage (V)..... :	90V/50Hz	264V/50Hz	—
Maximum measured temperature T of part/at:		T (°C)		Allowed T _{max} (°C)
1.AC Inlet body near L		53.1	50.7	70.0
2.C9903		53.7	51.4	85.0
3.PCB near NR9901		77.6	63.0	105.0
4.C9901		57.7	54.1	100.0
5. L9901 coil		71.0	58.7	95.0 *)
6. L9901 core		69.8	57.8	95.0 *)
7. PCB near BD9901		77.0	65.3	105.0
8.C902		61.0	56.8	105.0
9.T901 coil		95.9	97.2	110.0 *)
10.T901 core		94.2	96.6	110.0 *)
11. U902		72.3	68.6	100.0
12.C9902		69.1	63.6	85.0
13. PCB near Q901		75.6	70.1	105.0
14. Insulation sheet near T901		73.7	72.9	80.0
15. Metal chassis near T901		54.1	53.0	--
16. Plastic enclosure inside near T901		52.6	51.6	--
17. Plastic enclosure outside near T901		49.8	49.3	77.0 (TS1 2)
18. Accessible metal chassis		47.7	48.2	60.0 (TS1 2)
19. Panel		45.7	45.1	80.0 (TS1 1)
20.Control keys		42.0	43.8	77.0 (TS1 2)
21.Base		45.5	45.0	77.0 (TS1 2)
22. Ambient		40.0	40.0	--

Supplementary information:

1) considered as surfaces that need not be touched to operate the equipment (<1s) .

2) considered as handle, knobs, grips etc., and external surfaces touched occasionally for very short periods (>1s and <10s)

Having a specified maximum ambient temperature of 40°C.

Thermal source TS1 also considered in 40 °C as worst condition and fulfill with the requirement.

If no limit is stated, temperature is for reference only.

*) Temperature limits of winding include less 10°C for thermocouple measurement method.

- . Horizontal position

Temperature T of winding:	t ₁ (°C)	R ₁ (Ω)	t ₂ (°C)	R ₂ (Ω)	T (°C)	Allowed T _{max} (°C)	Insulation class

Supplementary information:

Note 1: T_{ma} should be considered as directed by applicable requirement

Note 2: T_{ma} is not included in assessment of Touch Temperatures (Clause 9)

5.4.1.4, 6.3.2, 9.0, B.2.6	TABLE: Temperature measurements			P
	Supply voltage (V)..... :	90V/50Hz	264V/50Hz	—
Maximum measured temperature T of part/at:		T (°C)		Allowed T _{max} (°C)
1.AC Inlet body near L		61.3	56.6	70.0
2.C9903		63.6	58.2	85.0
3.PCB near NR9901		91.4	71.8	105.0
4.C9901		69.7	62.4	100.0
5. L9901 coil		84.5	69.1	95.0 *)
6. L9901 core		82.2	66.9	95.0 *)
7. PCB near BD9901		89.7	78.9	105.0
8.C902		70.4	65.1	105.0
9.T901 coil		101.0	104.6	110.0 *)
10.T901 core		99.6	104.1	110.0 *)
11. U902		83.2	81.4	100.0
12.C9902		78.6	74.9	85.0
13. PCB near Q901		88.1	82.7	105.0
14. Insulation sheet near T901		71.8	72.2	80.0
15. Metal chassis near T901		53.1	52.3	--
16. Plastic enclosure inside near T901		51.1	50.2	--
17. Plastic enclosure outside near T901		48.1	47.4	77.0 (TS1) 2)
18. Accessible metal chassis		52.6	52.5	60.0 (TS1) 2)
19. Panel		45.2	45.2	80.0 (TS1) 1)
20.Control keys		43.0	42.0	77.0 (TS1) 2)
21.Base		46.1	46.2	77.0 (TS1) 2)
22. Ambient		40.0	40.0	--

Supplementary information:

1) considered as surfaces that need not be touched to operate the equipment (<1s) .

2) considered as handle, knobs, grips etc., and external surfaces touched occasionally for very short periods (>1s and <10s)

Having a specified maximum ambient temperature of 40°C.

Thermal source TS1 also considered in 40 °C as worst condition and fulfill with the requirement.

If no limit is stated, temperature is for reference only.

*) Temperature limits of winding include less 10°C for thermocouple measurement method.

- 90° tilt backward position

Temperature T of winding:	t ₁ (°C)	R ₁ (Ω)	t ₂ (°C)	R ₂ (Ω)	T (°C)	Allowed T _{max} (°C)	Insulation class

Supplementary information:

Note 1: T_{ma} should be considered as directed by applicable requirement

Note 2: T_{ma} is not included in assessment of Touch Temperatures (Clause 9)

6.2.2		Table: Electrical power sources (PS) measurements for classification			P
Source	Description	Measurement	Max Power after 3 s	Max Power after 5 s ^{*)}	PS Classification
A	USB port (CN504) Normal condition	Power (W) :	7.4	7.4	PS1
		V _A (V) :	5.02	5.02	
		I _A (A) :	2.7	2.7	
	USB port (CN504) fault condition (F504 S-C)	Power (W) :	8.5	8.5	PS1
		V _A (V) :	5.02	5.02	
		I _A (A) :	5.6	5.6	
B	USB port (CN505) Normal condition	Power (W) :	7.5	7.5	PS1
		V _A (V) :	5.02	5.02	
		I _A (A) :	2.9	2.9	
	USB port (CN505) fault condition (F503 S-C)	Power (W) :	7.9	7.9	PS1
		V _A (V) :	5.02	5.02	
		I _A (A) :	5.4	5.4	
C	USB port (CN503 pin1) Normal condition	Power (W) :	7.2	7.2	PS1
		V _A (V) :	5.02	5.02	
		I _A (A) :	2.8	2.8	
	USB port (CN503 pin1) fault condition (F502 S-C)	Power (W) :	7.8	7.8	PS1
		V _A (V) :	5.02	5.02	
		I _A (A) :	5.4	5.4	
D	USB port (CN503 pin10) Normal condition	Power (W) :	7.4	7.4	PS1
		V _A (V) :	5.02	5.02	
		I _A (A) :	2.9	2.9	
	USB port (CN503 pin10) fault condition (F501 S-C)	Power (W) :	7.8	7.8	PS1
		V _A (V) :	5.02	5.02	
		I _A (A) :	5.4	5.4	
E	USB port (CN502) Normal condition	Power (W) :	0	0	PS1
		V _A (V) :	0	0	
		I _A (A) :	0	0	

Supplementary Information: s-c = short circuit
^{*)} Measurement taken only when limits at 3 seconds exceed PS1 limits

B.2.5	TABLE: Input test						P
U (V/Hz)	I (A)	I rated (A)	P (W)	P rated (W)	Fuse No	I fuse (A)	Condition/status
90/50	0.771	--	43.4	--	F9901	0.771	Maximum Load
90/60	0.751	--	43.2	--	F9901	0.751	Maximum Load
100/50	0.705	1.5	42.7	--	F9901	0.705	Maximum Load
100/60	0.701	1.5	42.7	--	F9901	0.701	Maximum Load
240/50	0.371	1.5	42.0	--	F9901	0.371	Maximum Load
240/60	0.365	1.5	41.9	--	F9901	0.365	Maximum Load
264/50	0.342	--	42.0	--	F9901	0.342	Maximum Load
264/60	0.336	--	42.0	--	F9901	0.336	Maximum Load

Supplementary information:

Equipment may be have rated current or rated power or both. Both should be measured Load condition as shown on general product information.

B.3		TABLE: Abnormal operating condition tests						P
Ambient temperature (°C)						Refer to specific ambient temperature		—
Power source for EUT: Manufacturer, model/type, output rating ..:						-		—
Component No.	Abnormal Condition	Supply voltage, (V)	Test time (ms)	Fuse no.	Fuse current (A)	T-couple	Temp. (°C)	Observation
Ventilation openings	Blocked	264	3.2hrs	F9901	0.342	T901 coil T901 core Accessible metal chassis Accessible plastic enclosure Panel Control keyboard Base Ambient	92.9°C 90.9°C 38.9°C 34.3°C 31.6°C 28.6°C 32.5°C 26.0°C	Unit operated normally. No hazard. No damage.
USB port (CN505)	o-l	264	3.4hrs	F9901	0.358	T901 coil T901 core Accessible metal chassis Accessible plastic enclosure Panel Control keyboard Base Ambient	97.8°C 93.1°C 38.8°C 33.0°C 31.6°C 28.1°C 32.0°C 25.6°C	USB output shut down when overload output to 1.6A Recoverable when fault removed. No hazard. No damage.

B.4		TABLE: Fault condition tests						P
Ambient temperature (°C)					25°C, if not specify the ambient temperature.		—	
Power source for EUT: Manufacturer, model/type, output rating . :					-		—	
Component No.	Fault Condition	Supply voltage, (V)	Test time (ms)	Fuse no.	Fuse current, (A)	T-couple	Temp. (°C)	Observation
USB port (CN505)	s-c	264	5 mins	F9901	0.323	--	--	Unit operated normally, except USB port shutdown, no damaged, no hazards.

Annex Q.1	TABLE: Circuits intended for interconnection with building wiring (LPS)					P
Note: Measured UOC (V) with all load circuits disconnected:						
Output Circuit	Components	U _{oc} (V)	I _{sc} (A)		S (VA)	
			Meas.	Limit	Meas.	Limit
USB port (CN504)	pins 1 to sec GND Normal condition	5.02	2.7	8	7.4	100
	pin 1 to GND, fault condition (F504 S-C)	5.02	5.6	8	8.5	100
	Other pins to sec GND Normal condition *)	0	0	8	0	100
USB port (CN505)	pins 1 to sec GND Normal condition	5.02	2.9	8	7.5	100
	pin 1 to GND, fault condition (F503 S-C)	5.02	5.4	8	7.9	100
	Other pins to sec GND Normal condition *)	0	0	8	0	100
USB port (CN503)	pins 1 to sec GND Normal condition	5.02	2.8	8	7.2	100
	pin 1 to GND, fault condition (F502 S-C)	5.02	5.4	8	7.8	100
	Other pins to sec GND Normal condition *)	0	0	8	0	100
USB port (CN503)	pins 10 to sec GND Normal condition	5.02	2.9	8	7.41	100
	pin 10 to GND, fault condition (F501 S-C)	5.02	5.4	8	7.8	100
	Other pins to sec GND Normal condition *)	0	0	8	0	100
USB port (CN502)	All pins to sec GND Normal condition *)	0	0	8	0	100
Supplementary Information: S-C=Short circuit *) Cannot load -. Annex Q table Q.1 limits for inherently limited power sources for output terminals.						

T.2, T.3, T.4, T.5	TABLE: Steady force test					P
Part/Location	Material	Thickness (mm)	Force (N)	Test Duration (sec)	Observation	
Insulation sheet	Thermoplastic	N/A	10N	5sec	Safeguards remained effective	
Accessible plastic enclosure	Thermoplastic	1.8mm min.	250N	5sec	Safeguards remained effective	
Supplementary information:						

T.6, T.9	TABLE: Impact tests				P	
Part/Location	Material	Thickness (mm)	Vertical distance (mm)	Observation		
Plastic enclosure	Thermoplastic	1.8	1300	Safeguards remains effective		
Supplementary information:						

T.8	TABLE: Stress relief test					P
Part/Location	Material	Thickness (mm)	Oven Temperature (°C)	Duration (h)	Observation	
Plastic enclosure	Thermoplastic	1.8mm min.	70	7	No risk of shrinkage or distortion on material	
Supplementary information:						

--End--

Terminals view



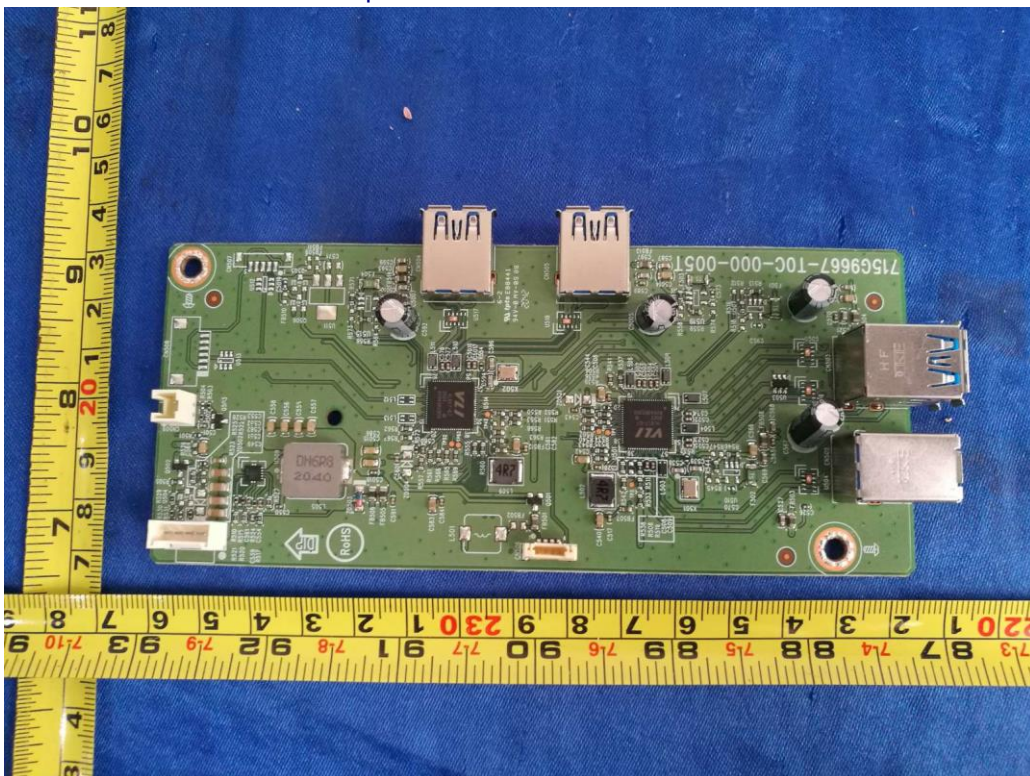
Side terminals view



Internal view



The component side view of USB 3.0 board



The solder side view of USB 3.0 board

