


IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST CERTIFICATES FOR ELECTRICAL EQUIPMENT (IECEE) CB SCHEME**CB TEST CERTIFICATE**

Product	LCD Monitor
Name and address of the applicant	TPV Electronics (Fujian) Co., Ltd. Rongqiao Economic and Technological Development Zone, Fuqing City, Fujian Province, China
Name and address of the manufacturer	MMD (Shanghai) Electronics Technology Co., Ltd. Room 5060A, No. 2 Building, 555 Dongchuan Road, Minhang District, Shanghai, 200241, China
Name and address of the factory <i>Note: When more than one factory, please report on page 2</i>	See page 2
Ratings and principal characteristics	100-240V~, 50/60Hz, 1.5A, Class I
Trademark (if any)	PHILIPS
Customer's Testing Facility (CTF) Stage used	-
Model / Type Ref.	32M1C52, 32M1C5200W, 32M1C55, 32M1C5500V, 32M1C5500VL, 32M*****
Additional information (if necessary may also be reported on page 2)	See page 2
A sample of the product was tested and found to be in conformity with	IEC 62368-1:2018
As shown in the Test Report Ref. No. which forms part of this Certificate	220600408SHA-001, 220600408SHA-001 M1

This CB Test Certificate is issued by the National Certification Body

Intertek Semko AB
Torshamnsgatan 43
Box 1103
SE-164 22 Kista, Sweden

Signature: 

Gary Hu

Date: 09 September, 2022



Ref. Certif. No.

SE-108630M1

Factories

1. TPV Electronics (Fujian) Co., Ltd.
Rongqiao Economic and Technological Development Zone, Fuqing City, Fujian Province, China
2. TPV Electronics (Fujian) Co., Ltd.
Shangzheng, Yuan Hong Road, Fuqing City, Fujian Province, China
3. TPV Electronics (Fujian) Co., Ltd.
Optoelectronic Park, Rongqiao Economic and Technological Development Zone, Fuqing City, Fujian Province, China
4. L&T Display Technology (Fujian) Ltd
Optoelectronic Park, Rongqiao Economic and Technological Development Zone, Fuqing City, Fujian Province, China
5. TPV Display Technology (China) Co., Ltd.
No. 106 Jinghai 3 Rd., BDA Beijing City 100176, China
6. TPV Display Technology (Wuhan) Co., Ltd
Unique No.11 Zhuankou Development District of Economic Technological Development Zone, Wuhan City, China
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, China
8. 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
9. Envision Indústria de Produtos Eletrônicos Ltda.
Av. Torquato Tapajós, 2236, Flores - CEP 69058-830 - Manaus/AM – Brasil
10. TPV Technology (Thailand) Company Limited
No.267, Mu 7, Tha Tum Sub-District, Si Maha Pho District, Prachin Buri Province, Thailand
11. GeneTouch Corporation
No. 9, Neixi Rd., Luzhu Dist., Taoyuan City 338012, Taiwan
12. Dixon Technologies (India) Limited.
EMC-2, Shed No. 2,4,5,6 & 7, Near Tirupati Airport, Village Govindhavaram, Munagalapalem Post, Revenue Vikruthamala, Yerpedu Mandelam, District-Chittoor, Andhra Pradesh, 517526, India
13. Fábrica Austral de Productos Eléctricos S.A.
Islas Malvinas 1180, Rio Grande (9420), Provincia de Tierra del Fuego, Antártida e Islas del Atlántico Sur, Argentina

Additional information

Explanation of model 32M*****.

The symbol "*" can be 0-9, A-Z, a-z, "+", "-", "/", "\", or blank, which is not influencing on safety.

The group and national differences for the CENELEC countries, and the national differences for USA, Canada and Singapore have been checked.

This certificate replaces CB certificate SE-108630, dated 20 July, 2022. A new certificate has been issued due to:

1. Added one alternative main board 715GD458, because the new main board have lower power consumption, the EUTs with new main board to consider normal operating test.
2. Added one alternative power board 715G9133 type B, the new power board 715G9133 type B and original power board 715G9133 are the same except for secondary capacitance, it has no influence on safety.
3. Corrected type of Supply Phase(s).

Date: 09 September, 2022

Signature: 



Test Report issued under the responsibility of:



**TEST REPORT
IEC 62368-1
Audio/video, information and communication technology equipment
Part 1: Safety requirements**

Report Number..... : 220600408SHA-001
Date of issue : July 4, 2022; Modification 1: August 30, 2022
Total number of pages : 40 pages

Name of Testing Laboratory preparing the Report : Intertek Testing Services Shanghai

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 62368-1:2018
Test procedure..... : CB Scheme
Non-standard test method..... : N/A

TRF template used : IECEE OD-2020-F1:2021, Ed.1.4
Test Report Form No...... : IEC62368_1E
Test Report Form(s) Originator.... : UL(US)
Master TRF : Dated 2022-04-14

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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:

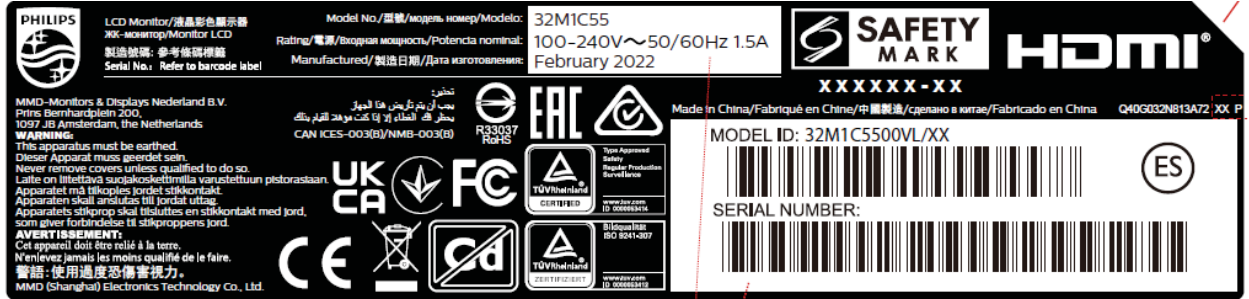
The test results presented in this report relate only to the object tested.
This report shall not be reproduced, except in full, without the written approval of the Issuing CB Testing Laboratory. The authenticity of this Test Report and its contents can be verified by contacting the NCB, responsible for this Test Report.

Test item description	LCD Monitor	
Trade Mark(s)	PHILIPS	
Manufacturer	MMD (Shanghai) Electronics Technology Co.,Ltd. Room 5060A, No.2 Building, 555 DongChuan Road, Minhang District, Shanghai, 200241, China	
Model/Type reference	32M1C52, 32M1C5200W, 32M1C55, 32M1C5500V, 32M1C5500VL, 32M***** (The symbol "*" can be 0-9, A-Z, a-z, "+", "-", "/", "\" or blank, which is not influencing on safety.)	
Ratings	100-240V~, 50/60Hz, 1.5A Class I	
Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):		
<input checked="" type="checkbox"/>	CB Testing Laboratory:	Intertek Testing Services Shanghai
Testing location/ address	Building No. 86, 1198 Qinzhou Road (North) 200233 Shanghai CHINA	
Tested by (name, function, signature)	Peter Lin (Engineer)	
Approved by (name, function, signature) ..	Jacky Shu (Mandated Reviewer)	
<input type="checkbox"/>	Testing procedure: CTF Stage 1:	
Testing location/ address		
Tested by (name, function, signature)		
Approved by (name, function, signature) ..		
<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) .. :		
<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) :		

List of Attachments (including a total number of pages in each attachment):	
Page 38 – 40 : Photos	
Summary of testing:	
All tests are performed and the most disadvantageous results are recorded. We conclude that the appliances comply with this standard.	
Tests performed (name of test and test clause):	Testing location:
B.2.5, Input test Annex Q.1, Circuits intended for interconnection with building wiring	Intertek Testing Services Shanghai Building No.86, 1198 Qinzhou Road (North), 200233 Shanghai, China
The equipment under test (EUT) fulfilled the test requirement according to the standard IEC 62368-1:2018 and EN IEC 62368-1:2020 + A11:2020.	
Summary of compliance with National Differences (List of countries addressed):	
The group and national differences for the CENELEC countries have been checked. National differences for USA and Canada, Singapore have also been checked.	
<input checked="" type="checkbox"/> The product fulfils the requirements of IEC 62368-1:2018 and EN IEC 62368-1:2020 + A11:2020.	
Statement concerning the uncertainty of the measurement systems used for the tests	
(may be required by the product standard or client)	
<input type="checkbox"/> Internal procedure used for type testing through which traceability of the measuring uncertainty has been established:	
Procedure number, issue date and title:	
Calculations leading to the reported values are on file with the NCB and testing laboratory that conducted the testing.	
<input checked="" type="checkbox"/> Statement not required by the standard used for type testing	
(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)	

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 NCBs that own these marks.



Note: For other models, marking plates are the same except for model name.

Test item particulars:	
Product group	<input checked="" type="checkbox"/> end product <input type="checkbox"/> built-in component
Classification of use by	<input checked="" type="checkbox"/> Ordinary person <input checked="" type="checkbox"/> Children likely present <input type="checkbox"/> Instructed person <input type="checkbox"/> Skilled person
Supply connection	<input checked="" type="checkbox"/> AC mains <input type="checkbox"/> DC mains <input type="checkbox"/> 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"/> 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	<input checked="" type="checkbox"/> 16A or 20A; Location: <input checked="" type="checkbox"/> building <input type="checkbox"/> equipment <input type="checkbox"/> N/A
Equipment mobility	<input checked="" type="checkbox"/> movable <input type="checkbox"/> hand-held <input type="checkbox"/> transportable <input type="checkbox"/> direct plug-in <input type="checkbox"/> stationary <input type="checkbox"/> for building-in <input checked="" type="checkbox"/> wall/ceiling-mounted <input type="checkbox"/> SRME/rack-mounted <input type="checkbox"/> other:
Overvoltage 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"/> Not classified <input type="checkbox"/>
Special installation location	<input checked="" type="checkbox"/> N/A <input type="checkbox"/> restricted access area <input type="checkbox"/> outdoor location <input type="checkbox"/>
Pollution degree (PD)	<input type="checkbox"/> PD 1 <input checked="" type="checkbox"/> PD 2 <input type="checkbox"/> PD 3
Manufacturer's specified T_{ma}	40 °C <input type="checkbox"/> Outdoor: °C
IP protection class	<input checked="" type="checkbox"/> IPX0 <input type="checkbox"/> IP__
Power systems	<input checked="" type="checkbox"/> TN <input type="checkbox"/> TT <input type="checkbox"/> IT – 230 V L-L <input type="checkbox"/> not AC mains
Altitude during operation (m)	<input type="checkbox"/> 2000m or less <input checked="" type="checkbox"/> 5000m
Altitude of test laboratory (m)	<input type="checkbox"/> 2000m or less <input checked="" type="checkbox"/> 50m
Mass of equipment (kg)	Approx. 7.97kg (with type A base stand), Type A base stand: approx. 1.51kg. Type B base stand: approx. 1.45kg

Possible test case verdicts:	
- test case does not apply to the test object	
- test object does meet the requirement	
- test object does not meet the requirement	
Testing:	
Date of receipt of test item	
Date (s) of performance of tests	
General remarks:	
<p>“(See Enclosure #)” refers to additional information appended to the report. “(See appended table)” refers to a table appended to the report. Determination of the test conclusion is based on IEC Guide 115 in consideration of measurement uncertainty. Throughout this report a <input type="checkbox"/> comma / <input checked="" type="checkbox"/> point is used as the decimal separator. This report is for the exclusive use of Intertek’s Client and is provided pursuant to the agreement between Intertek and its Client. Intertek’s responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results in this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program. When determining the test conclusion, the Measurement Uncertainty of test has been considered. The samples submitted from for evaluation are representative of the products from each factory.</p>	
Manufacturer’s Declaration per sub-clause 4.2.5 of IEC 60335-1:	
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)	<p>1.TPV Electronics (Fujian) Co., Ltd. Rongqiao Economic and Technological Development Zone, Fuqing City, Fujian Province, P.R.China</p> <p>2.TPV Electronics (Fujian) Co., Ltd. Shangzheng, Yuan Hong Road, Fuqing City, Fujian Province, P.R.China</p> <p>3.TPV Electronics (Fujian) Co., Ltd. Optoelectronic Park, Rongqiao Economic and Technological Development Zone, Fuqing City, Fujian Province, PRC</p> <p>4. L&T Display Technology (Fujian) Ltd Optoelectronic Park, Rongqiao Economic and Technological Development Zone, Fuqing City, Fujian Province, PRC</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. 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</p> <p>9. Envision Indústria de Produtos Eletrônicos Ltda. Av. Torquato Tapajós, 2236, Flores - CEP 69058-830 - Manaus/AM – Brasil</p> <p>10.TPV Technology (Thailand) Co., Ltd. No.267 Mu7, Tha Tum Sub- District, Si Maha Pho District, Prachin Buri Province, Thailand</p> <p>11. GeneTouch Corporation No. 9, Neixi Rd., Luzhu Dist., Taoyuan City 338012, Taiwan</p> <p>12. Dixon Technologies (India) Ltd. EMC-2, Shed No. 2,4,5,6 & 7, Near Tirupati Airport, Village Govindhavaram, Munagalapalem Post, Revenue Vikruthamala, Yerpedu Mandelam, District-Chittoor, Andhra Pradesh, 517526 India</p> <p>13. Fábrica Austral de Productos Eléctricos S.A. Islas Malvinas 1180, Rio Grande (9420), Provincia de Tierra del Fuego, Antártida e Islas del Atlántico Sur, Argentina</p>
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General product information and other remarks:

The equipments under test (EUTs) are 31.5" (80.01cm) LCD monitor with LED backlight, for general office and indoor use.

All models are identical except for model designation.

For the product listed in this report, the HDMI function, DP function and audio function were treated as optional function.

The EUT have the following features:

1. Building-in power supply board 715G9133.
2. The internal metal chassis is considered as fire enclosure, which is covered all parts.
3. The external plastic enclosure is regarded as mechanical and electrical enclosure, made of min. HB material.

Maximum recommended ambient (Tma):40°C

In this report, the test record for the alternative component, such as T901 has been considered the most rigorous result.

BS EN 62368-1:2020 + A11:2020 is also considered in this report.

Modification 1:

The original test report ref. No. 220600408SHA-001, dated July 4, 2022 has modification on August 30, 2022 to include the following change:

1. Added one alternative main board 715GD458, because the new main board have lower power consumption, the EUTs with new main board to consider normal operating test.
2. Added one alternative power board 715G9133 type B, the new power board 715G9133 type B and original power board 715G9133 are the same except for secondary capacitance, it has no influence on safety.
3. Corrected type of Supply Phase(s), see table 5.7.5 for detail.

After review, the required tests were conducted. See the "Summary of testing" for details.

OVERVIEW OF ENERGY SOURCES AND SAFEGUARDS				
Clause	Possible Hazard			
5	Electrically-caused injury			
Class and Energy Source (e.g. ES3: Primary circuit)	Body Part (e.g. Ordinary)	Safeguards		
		B	S	R
ES3: L/N pin of appliance	Ordinary	-	-	Bleeder Resistor
ES3: Primary circuit	Ordinary	Air gap	Plastic enclosure	Transformer Y-cap Photo coupler
ES1: DC output of power board	Ordinary	-	-	-
6	Electrically-caused fire			
Class and Energy Source (e.g. PS2: 100 Watt circuit)	Material part (e.g. Printed board)	Safeguards		
		B	1 st S	2 nd S
PS3	Primary circuit	Ignition not occur	Fire enclosure	-
PS2	DC output of power board	Ignition not occur	Mounted on V-1 Min. PCB	-
7	Injury caused by hazardous substances			
Class and Energy Source (e.g. Ozone)	Body Part (e.g., Skilled)	Safeguards		
		B	S	R
-	-	-	-	-
8	Mechanically-caused injury			
Class and Energy Source (e.g. MS3: Plastic fan blades)	Body Part (e.g. Ordinary)	Safeguards		
		B	S	R
MS1: Sharp edges and corners	Ordinary	-	-	-
MS2: Equipment mass	Ordinary	-	-	Compliance with test 8.6
MS3: Wall mount	Ordinary	-	-	Compliance with test 8.7
9	Thermal burn			
Class and Energy Source (e.g. TS1: Keyboard caps)	Body Part (e.g., Ordinary)	Safeguards		
		B	S	R
TS1: Accessible parts	Ordinary	-	-	-
10	Radiation			
Class and Energy Source	Body Part	Safeguards		

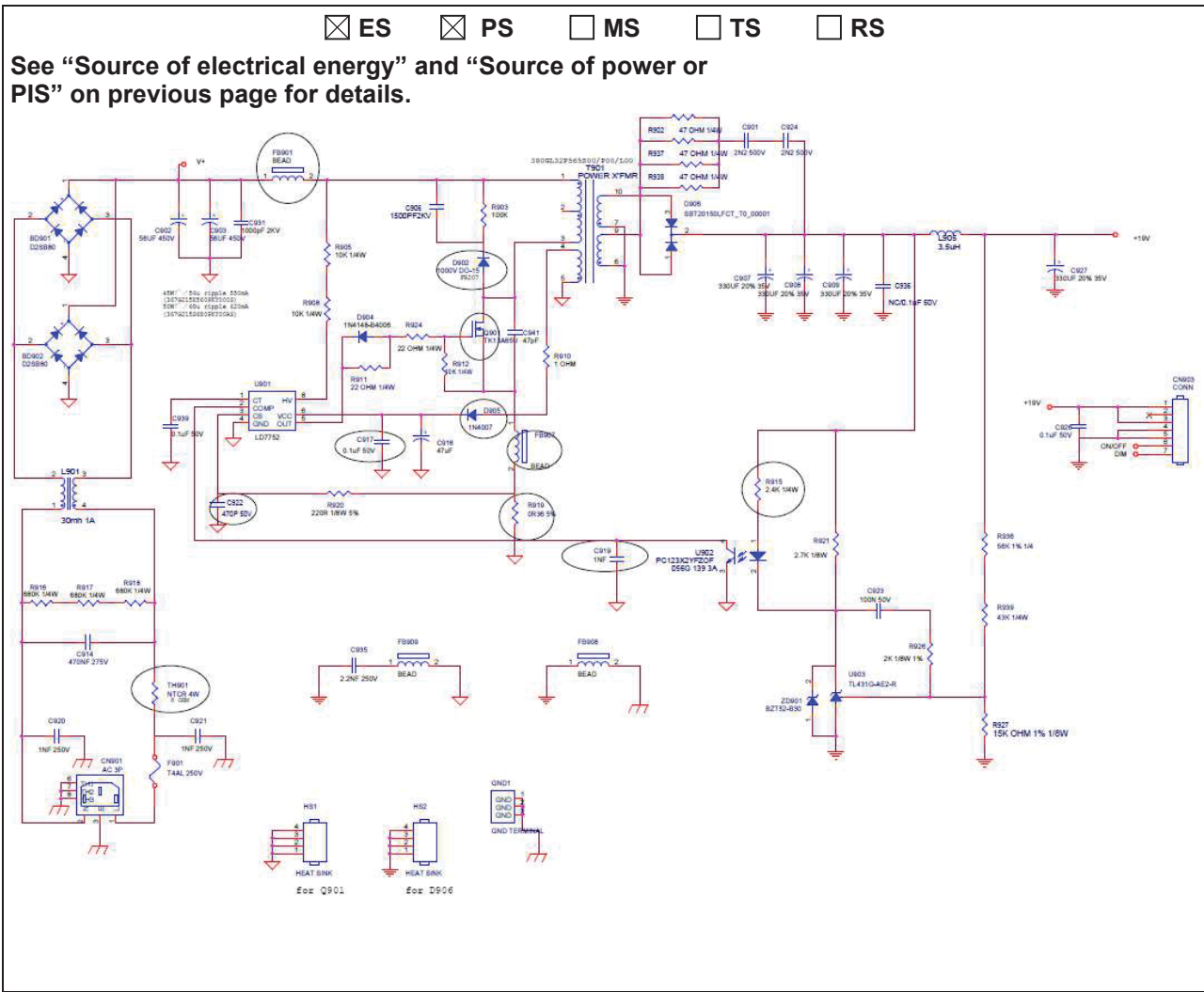
Modification 1: August 30, 2022

(e.g. RS1: PMP sound output)	(e.g., Ordinary)	B	S	R
RS1: Indicating lights	Ordinary	-	-	-
Supplementary Information: "B" – Basic Safeguard; "S" – Supplementary Safeguard; "R" – Reinforced Safeguard				

ENERGY SOURCE DIAGRAM

Optional. Manufacturers are to provide the energy sources diagram identify declared energy sources and identifying the demarcations are between power sources. Recommend diagram be provided included in power supply and multipart systems.

Insert diagram below. Example diagram designs are; Block diagrams; image(s) with layered data; mechanical drawings



IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

4	GENERAL REQUIREMENTS		P
4.1.1	Acceptance of materials, components and subassemblies	See appended table 4.1.2.	P
4.1.2	Use of components	Components which are certified to IEC and/or national standards are used correctly within their ratings. Components not covered by IEC standards are tested under the conditions present in the equipment.	P

B	NORMAL OPERATING CONDITION TESTS, ABNORMAL OPERATING CONDITION TESTS AND SINGLE FAULT CONDITION TESTS		P
B.1	General		P
B.1.5	Temperature measurement conditions	(See appended table B.1.5)	P
B.2	Normal operating conditions		P
B.2.1	General requirements..... :	(See Test Item Particulars and appended test tables)	P
	Audio Amplifiers and equipment with audio amplifiers	Considered.	P
B.2.3	Supply voltage and tolerances	± 10%	P
B.2.5	Input test..... :	(See appended table B.2.5)	P

Q	CIRCUITS INTENDED FOR INTERCONNECTION WITH BUILDING WIRING		P
Q.1	Limited power sources		P
Q.1.1	Requirements		P
	a) Inherently limited output		P
	b) Impedance limited output		N/A
	c) Regulating network limited output		N/A
	d) Overcurrent protective device limited output		N/A
	e) IC current limiter complying with G.9		N/A
Q.1.2	Test method and compliance	(See appended table Q.1)	P
	Current rating of overcurrent protective device (A)	See Table 4.1.2	P
Q.2	Test for external circuits – paired conductor cable		N/A

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Maximum output current (A)		N/A
	Current limiting method		—

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

5.7.5	TABLE: Earthed accessible conductive part			P
Supply voltage (V)	264V ac			—
Phase(s)	[X] Single Phase; [] Three Phase: [] Delta [] Wye			
Power Distribution System	[X] TN [] TT [] IT			
Location	Fault Condition No in IEC 60990 clause 6.2.2	Touch current (Ma)	Comment	
Line – metal Chassis (GND)	1	0.74	Switch “e” open	
Neutral – metal Chassis (GND)	1	0.74	Switch “e” open	
Supplementary Information:				
Tested with normal, abnormal and single-fault condition, and maximum value was recorded.				

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	
Main board 715GD458 (HDMI mode):									
90	50	0.713	—	39.4	—	F901	0.713	Max.contrast, max.brightness. operated continuously.	
90	60	0.694	—	39.3	—	F901	0.694	Same as above.	
100	50	0.649	1.5	39.1	—	F901	0.649	Same as above.	
100	60	0.631	1.5	39.0	—	F901	0.631	Same as above.	
240	50	0.324	1.5	38.6	—	F901	0.324	Same as above.	
240	60	0.318	1.5	38.5	—	F901	0.318	Same as above.	
264	50	0.301	—	38.7	—	F901	0.301	Same as above.	
264	60	0.295	—	38.7	—	F901	0.295	Same as above.	
Main board 715GD458 (DP mode):									
90	50	0.708	—	39.2	—	F901	0.708	Max.contrast, max.brightness. operated continuously.	

IEC 62368-1								
Clause	Requirement + Test					Result - Remark		Verdict
90	60	0.690	—	39.1	—	F901	0.690	Same as above.
100	50	0.642	1.5	39.0	—	F901	0.642	Same as above.
100	60	0.625	1.5	39.0	—	F901	0.625	Same as above.
240	50	0.317	1.5	38.5	—	F901	0.317	Same as above.
240	60	0.312	1.5	38.4	—	F901	0.312	Same as above.
264	50	0.297	—	38.6	—	F901	0.297	Same as above.
264	60	0.292	—	38.6	—	F901	0.292	Same as above.
Supplementary information:								
--								

Q.1	TABLE: Circuits intended for interconnection with building wiring (LPS)						P	
Output Circuit	Condition	U _{oc} (V)	Time (s)	I _{sc} (A)		S (VA)		
				Meas.	Limit	Meas.	Limit	
For main board 715GD458								
CN502(HD MI) pin16 to GND	Normal condition	4.6	5	0	≤ 8.0	0	≤ 100	
CN502(HD MI) other pin to GND	Normal condition	0	5	0	≤ 8.0	0	≤ 100	
CN503(HD MI) pin16 to GND	Normal condition	4.6	5	0	≤ 8.0	0	≤ 100	
CN503(HD MI) other pin to GND	Normal condition	0	5	0	≤ 8.0	0	≤ 100	
CN504(DP) pin20 to GND	Normal condition	3.3	5	0.8	≤ 8.0	2.2	≤ 100	

IEC 62368-1							
Clause	Requirement + Test	Result - Remark					Verdict
CN504(DP) pin20 to GND	(U541 pin2-3 S-C)	4.9	5	0.8	≤ 8.0	3.2	≤ 100
CN504(DP) other pin to GND	Normal condition	0	5	0	≤ 8.0	0	≤ 100
Supplementary Information:							
S-C=short circuit							

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

4.1.2	TABLE: Critical components information	P
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Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity ¹⁾
Cord set: According to the manufacturer's declaration, the unit will be supplied with a power attachment cord and plug which meet the national requirements which have been approved to relevant national and international standards.					
Power cord set (Saudi Arabia) (Optional)					
Power plug (13A)	Honglin	HL-044	13A/250V	BS 1363 SASO 2203:2018	Intertek CN-GSOG-2016011R5
Alt.	Honglin	HL-044s	13A/250V	BS 1363-1 SASO 2203:2018	Intertek CN-GSOG-20171110R2
Alt.	ASAP	A12-0136-AC2, A12-0137-AC2	13A/250V	BS 1363 SASO 2203:2018	CVC certificate no. RZKSA18105 3626-M1
Alt.	SANGLE	DTII-3P-22	13A/250V	BS 1363 SASO 2203:2018	CVC certificate no. RZKSA20115 9813
Alt.	I-SHENG	SP-62, SP-65	13A/250V	BS 1363 SASO 2203:2018	CVC certificate no. 2017GTC3223 027128-M3(R1) CVC certificate no. RZKSA19106 0425-M1
Alt.	Interchangeable	Interchangeable	13A/250V	BS 1363 SASO 2203:2018	EU or UK certification mark
Power connector (13A)	Voex	VSC19	13A/250V	IEC/EN 60320-1	ASTA
Alt.	Interchangeable	Interchangeable	13A/250V	IEC/EN 60320-1:2015	EU certification mark
Power plug (10A)	Fund Resources	BS-01J	10A/250V	BS1363 SASO 2203:2018	Intertek CN-GSOG-20180506

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity ¹⁾
Alt.	Honglin	HL-044	10A/250V	BS 1363 SASO 2203:2018	Intertek CN-GSOG-2016011R5
Alt.	Honglin	HL-044s	10A/250V	BS 1363-1 SASO 2203:2018	Intertek CN-GSOG-20171110R2
Alt.	ASAP	A12-0136-AC2, A12-0137-AC2	10A/250V	BS 1363 SASO 2203:2018	CVC certificate no. RZKSA18105 3626-M1
Alt.	SANGLE	DTII-3P-22	10A/250V	BS 1363 SASO 2203:2018	CVC certificate no. RZKSA20115 9813
Alt.	I-SHENG	SP-62, SP-65	10A/250V	BS 1363 SASO 2203:2018	CVC certificate no. 2017GTC3223 027128-M3(R1) CVC certificate no. RZKSA19106 0425-M1
Alt.	Interchangeable	Interchangeable	10A/250V	BS 1363 SASO 2203:2018	EU or UK certification mark
Power connector (10A)	Honglin	HL-026, HL-029, HL-029L	10A/250V	IEC/EN 60320-1	ENEC 35-101702
Alt.	Honglin	HL-026S	10A/250V	IEC/EN 60320-1	ENEC 35-100964
Alt.	ASAP	A12-0012-AC2, A12-0056-AC2	10A/250V	IEC/EN 60320-1	VDE 40048182
Alt.	I-SHENG	IS-14	10A/250V	IEC/EN 60320-1	Intertek Licence No. 443 ENEC/FI 2017044 284423-3
Alt.	Interchangeable	Interchangeable	10A/250V	IEC/EN 60320-1:2015	EU certification mark

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity ¹⁾
Power plug (7A)	Fund Resources	BS-01J	7A/250V	BS 1363 SASO 2203:2018	Intertek CN-GSOG-20180506
Alt.	Interchangeable	Interchangeable	7A/250V	BS 1363 SASO 2203:2018	EU or UK certification mark
Power connector (7A)	Voex	VSC19	7A/250V	IEC/EN 60320-1	ASTA
Alt.	Interchangeable	Interchangeable	7A/250V	IEC/EN 60320-1:2015	EU certification mark
Power plug (6A)	Fund Resources	BS-01J	6A/250V	BS 1363 SASO 2203:2018	Intertek CN-GSOG-20180506
Alt.	Interchangeable	Interchangeable	6A/250V	BS 1363 SASO 2203:2018	EU or UK certification mark
Power connector (6A)	Voex	VSC19	6A/250V	IEC/EN 60320-1	ASTA
Alt.	Interchangeable	Interchangeable	6A/250V	IEC/EN 60320-1:2015	EU or UK certification mark
Power plug (5A)	ASAP	A12-0136-AC2, A12-0137-AC2	5A/250V	BS 1363 SASO 2203:2018	CVC certificate no. RZKSA18105 3626-M1
Alt.	Honglin	HL-044	5A/250V	BS 1363 SASO 2203:2018	Intertek CN-GSOG-2016011R5
Alt.	Honglin	HL-044s	5A/250V	BS 1363-1 SASO 2203:2018	Intertek CN-GSOG-20171110R2
Alt.	SANGLE	DTII-3P-22	5A/250V	BS 1363 SASO 2203:2018	CVC certificate no. RZKSA20115 9813

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity ¹⁾
Alt.	I-SHENG	SP-62, SP-65	5A/250V	BS 1363 SASO 2203:2018	CVC certificate no. 2017GTC3223 027128- M3(R1) CVC certificate no. RZKSA19106 0425-M1
Alt.	Interchangeable	Interchangeable	5A/250V	BS 1363 SASO 2203:2018	EU or UK certification mark
Power connector (5A)	Voalex	VSC19	5A/250V	IEC/EN 60320-1	ASTA
Alt.	Interchangeable	Interchangeable	5A/250V	IEC/EN 60320-1:2015	EU certification mark
Power plug (3A)	ASAP	A12-0136-AC2, A12-0137-AC2	3A/250V	BS 1363 SASO 2203:2018	CVC certificate no. RZKSA18105 3626-M1
Alt.	SANGLE	DTII-3P-22	3A/250V	BS 1363 SASO 2203:2018	CVC certificate no. RZKSA20115 9813
Alt.	I-SHENG	SP-62, SP-65	3A/250V	BS 1363 SASO 2203:2018	CVC certificate no. 2017GTC3223 027128- M3(R1) CVC certificate no. RZKSA19106 0425-M1
Alt.	Interchangeable	Interchangeable	3A/250V	BS 1363 SASO 2203:2018	EU or UK certification mark
Power connector (3A)	Voalex	VSC19	3A/250V	IEC/EN 60320-1	ASTA
Alt.	Interchangeable	Interchangeable	3A/250V	IEC/EN 60320-1:2015	EU certification mark

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity ¹⁾
Power plug (2.5A)	Voex	MP5004A, DLUK10S3, VNUK13A3, UK13A2, UK13A3, VPUK13A3	2.5A/250V	BS 1363 SASO 2203:2018	ASTA
Alt.	Interchangeable	Interchangeable	2.5A/250V	BS 1363 SASO 2203:2018	EU or UK certification mark
Power connector (2.5A)	ASAP	A12-0011-AC2, A12-0055-AC2	2.5A/250V	IEC/EN 60320-1	VDE40029487
Alt.	I-SHENG	IS-033	2.5A/250V	IEC/EN 60320-1	Intertek Licence No. 736 ENEC/FI 2017007
Alt.	I-SHENG	IS-034	2.5A/250V	IEC/EN 60320-1	Intertek Licence No. 444 ENEC/FI 2016048
Alt.	Interchangeable	Interchangeable	2.5A/250V	IEC/EN 60320-1:2015	EU certification mark
Power cord	Honglin	H03VV-F, H05VV-F	3x0.75 mm ² 3x0.75-1.5 mm ²	EN 50525-2-11	VDE40022785
Alt.	Honglin	H03VV-F, H05VV-F	3x0.75 mm ² 3x0.75-1.5 mm ²	EN 50525-2-11	VDE40022785
Alt.	Fund Resources	H03VV-F, H05VV-F	3x0.5...0.75 mm ² 3x0.75...2.5 mm ²	EN 50525-2-11	VDE40031233
Alt.	ASAP	H03VV-F, H05VV-F	3x0.5...0.75 mm ² 3x0.75...2.5 mm ²	EN 50525-2-11	VDE40027103
Alt.	CHANGZHOU HONGCHANG ELECTRONICS CO LTD	H03VV-F, H05VV-F	3x0.5...0.75 mm ² 3x0.75...2.5 mm ²	EN 50525-2-11	VDE124978
Alt.	I-SHENG	H03VV-F, H05VV-F	3x0.5...0.75 mm ² 3x0.75...2.5 mm ²	EN 50525-2-11	VDE 40015762
Alt.	Interchangeable	Interchangeable	3x0.5...0.75 mm ² 3x0.75...2.5 mm ²	EN 50525-2-11	EU certification mark

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity ¹⁾
Internal metal enclosure	Interchangeable	Interchangeable	Metal, thickness 0.61mm	IEC/EN 62368-1	None
Plastic enclosure	ORINKO	ABS-3070H, HIPS-2000, ABS-40*(*=0~10), ABS900F23	HB or better, 60°C, thickness 1.5mm	UL 94 IEC/EN 62368-1	UL E328304 and test with appliance
Alt.	SABIC	C6600	HB or better, 60°C, thickness 1.5mm	UL 94 IEC/EN 62368-1	UL E207780 and test with appliance
Alt.	Chi mei	PA-757(+), PC345(+), PA-756S	HB or better, 60°C, thickness 1.5mm	UL 94 IEC/EN 62368-1	UL E56070 and test with appliance
Alt.	LG	HF-350, HF-380, SE-750, XG-568, XG-569C, GP-1000L, SE885, AF-365, GN-1002F(m)	HB or better, 60°C, thickness 1.5mm	UL 94 IEC/EN 62368-1	UL E67171 and test with appliance
Alt.	LOTTE CHEMICAL CORPORATION	SD-0150(+), BF-0677(+), BF-0675(+), BF-0670F, GC-0700(+), GC-0750(+), HS-7000RA, LX-0951(+), LX-0957(+), HG-0760(+), HR-1360(+), SD-0150T, ABF-0200E, NH-1027HF, NH-1027(+)	HB or better, 60°C, thickness 1.5mm	UL 94 IEC/EN 62368-1	UL E115797 and test with appliance
Alt.	Basf	GP-35, GP-22	HB or better, 60°C, thickness 1.5mm	UL 94 IEC/EN 62368-1	UL E41871 and test with appliance
Alt.	Grand	D-150	HB or better, 60°C, thickness 1.5mm	UL 94 IEC/EN 62368-1	UL E88637 and test with appliance

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity ¹⁾
Alt.	KingFa	5197, RS-900, GAR-011 C, GAR-011(L65), GAR-011(L85), GAR-011(HG6), RS-300, RS-400, CK-100, CK-55111, RD-900, HP-126, CK-61506	HB or better, 60°C, thickness 1.5mm	UL 94 IEC/EN 62368-1	UL E171666 and test with appliance
Alt.	Haier	HRABS-RS, HRABS-HG	HB or better, 60°C, thickness 1.5mm	UL 94 IEC/EN 62368-1	UL E230779 and test with appliance
Alt.	DOOSAN CORPORATIO N ELECTRO- MATERIALS BG	DS-1107A, DS-1202G, DS-7106	HB or better, 60°C, thickness 1.5mm	UL 94 IEC/EN 62368-1	UL E103670 and test with appliance
Alt.	TOTAL PETROCHEMI CALS SOUTH EAST ASIA PTE LTD	3441, 260-XX	HB or better, 60°C, thickness 1.5mm	UL 94 IEC/EN 62368-1	UL E314268 and test with appliance
Alt.	WISTRON ADVANCED MATERIALS (KUNSHAN) CO LTD	GA35, NC30, GA65, GA85, GC(t) (t) – Replace the one, two, three or four numbers and/or letters to denote to serial number	HB or better, 60°C, thickness 1.5mm	UL 94 IEC/EN 62368-1	UL E359575 and test with appliance
Alt.	WISTRON ADVANCED MATERIALS (KUNSHAN) CO LTD	GA1(e) (e) -Optional suffix, denotes one, two, three or four numbers and/or letters to represent customer code	HB or better, 60°C, thickness 1.5mm	UL 94 IEC/EN 62368-1	UL E359575 and test with appliance

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Clause	Requirement + Test		Result - Remark		Verdict
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity ¹⁾
Alt.	WOTE	2100	HB or better, 60°C, thickness 1.5mm	UL 94 IEC/EN 62368-1	UL E310240 and test with appliance
Alt.	UNIC	UR-3006+, UR-200+ (+: A to Z), UP700	HB or better, 60°C, thickness 1.5mm	UL 94 IEC/EN 62368-1	UL E135175 and test with appliance
Alt.	PONTEX	AFE5000N, AFE5100N, 9004BK	HB or better, 60°C, thickness 1.5mm	UL 94 IEC/EN 62368-1	UL E205938 and test with appliance
Alt.	CHI LIN	GA1535	HB or better, 60°C, thickness 1.5mm	UL 94 IEC/EN 62368-1	UL E177071 and test with appliance
Alt.	FUHEN	FH-HIPS-568	HB or better, 60°C, thickness 1.5mm	UL 94 IEC/EN 62368-1	UL E234833 and test with appliance
Alt.	GON	GON ABS 2115, ABS21(xx)G-A, ABS2030A, ABS20(xx)B	HB or better, 60°C, thickness 1.5mm	UL 94 IEC/EN 62368-1	UL E330547 and test with appliance
Alt.	DONGGUAN HINGLONG PLASTIC TECHNOLOGY CO LTD	HL-ABS-PCR85	HB or better, 60°C, thickness 1.5mm	UL 94 IEC/EN 62368-1	UL E345434 and test with appliance
Alt.	GUO HENG	YOUHO(1302)(B), YOUHO(1303)(B), YOUHO(1304)(B), YOUHO(1333)(B), YOUHO(1303)(O P), YOUHO(####)(Y) YOUHO-1303B, YOUHO1312B	HB or better, 60°C, thickness 1.5mm	UL 94 IEC/EN 62368-1	UL E471190 and test with appliance
Alt.	Chongqing Gengye New Materials Technology Co Ltd	GU-022	HB or better, 60°C, thickness 1.5mm	UL 94 IEC/EN 62368-1	UL E514505 and test with appliance

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity ¹⁾
Alt.	Interchangeable	Interchangeable	HB or better, 60°C, thickness 1.5mm	UL 94:2016 IEC 60695-11-10:2013(2nd Edition)	EU certification mark
Base stand (optional)	LOTTE ADVANCED MATERIALS CO LTD	SD-0150(+)	HB or better, 60°C, thickness 1.4mm	UL 94 IEC/EN 62368-1	UL E115797 and test with appliance
Alt.	Interchangeable	Interchangeable	HB or better, 60°C, thickness 1.4mm	UL 94:2016 IEC 60695-11-10:2013(2nd Edition)	UL or other EU certification
PCB	Three Sun	SMS-1	V-0, 105°C	UL 796 IEC/EN 62368-1	UL E217670 and test with appliance
Alt.	Interchangeable	Interchangeable	V-1 or better Min. 130°C	UL 796:2016 IEC 60695-11-10:2013(2nd Edition)	UL or other EU certification
Insulation Sheet (between power board and LCD panel, between power board and metal cover, between plastic enclosure and metal cover)	CHENGDU KANGLONGXIN PLASTICS CO LTD	KLX FRPC-870B; KLX FRPC-83; KLX FRPC-1880 series KLX FRPC-1860 series KLX FRPC-1890 series	Polycarbonate, thickness: 0.40mm min. V-0, 125°C	UL 94 IEC/EN 62368-1	UL E315185 Tested with appliance
Alt	SHENZHEN TEEBON PLASTICS TECHNOLOGY CO LTD	TB-FR65, TB-FR63, TB-FR60, TB-FR1, TB-FR60Y, TB-FR70F, TB-FR70, TB-FR183, TB-FR700, TB-FR83	Polycarbonate, thickness: 0.40mm min. V-0, 125°C	UL 94 IEC/EN 62368-1	UL E357515 Tested with appliance

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity ¹⁾
Alt	SICHUAN DONGFANG INSULATING MATERIAL CO LTD	DFR117ECOB, DFR700 series, DFR117, DFR117ECO, DFR117ECOB, DFR117ECOC, DX10, DFR3A(d)	Polycarbonate, thickness: 0.40mm min. V-0, 80°C	UL 94 IEC/EN 62368-1	UL E199019 Tested with appliance
Alt	KunShan Dobesty Optoelectronic Materials Co Ltd	PC9821B, PC9832B, PC9842B, PC9821BK1, PC9832BK1, PC9821W1, PC98MNB1, DB98HD	Polycarbonate, thickness: 0.40mm min. V-0, 80°C	UL 94 IEC/EN 62368-1	UL E339070 Tested with appliance
Alt	SUZHOU Omay OPTICAL MATERIALS CO LTD	SE42B SE42B-F	Polycarbonate, thickness: 0.40mm min. V-0, 80°C	UL 94 IEC/EN 62368-1	UL E249605 Tested with appliance
Alt	CHENGDU KANGLONGXI N PLASTICS CO LTD	KLX FRPC-870B, KLX FRPC-1860B, KLX FRPC-83, KLX FRPC-1880 series	Polycarbonate, thickness: 0.40mm min. V-0, 80°C	UL 94 IEC/EN 62368-1	UL E315185 Tested with appliance
Alt	JINGMEN GORUN TECHNOLOGY CO LTD	HF70	Polycarbonate, thickness: 0.40mm min. V-0, 80°C	UL 94 IEC/EN 62368-1	UL E305163 Tested with appliance
Alt	SHENZHEN TEESUN TECHNOLOGY CO LTD	TS-FR370DL, TS-FR370F, TS-FR383H, TS-FR360H, TS-FR1370	Polycarbonate, thickness: 0.40mm min. V-0, 80°C	UL 94 IEC/EN 62368-1	UL E329660 Tested with appliance
Alt	Sichuan Longhua Film Co Ltd	PC-770 series	Polycarbonate, thickness: 0.40mm min. V-0, 80°C	UL 94 IEC/EN 62368-1	UL E254551 Tested with appliance
Adhesive (located on the metal chassis)	SYMBIO	DS50-A; DS50L	100°C, thickness: 0.05mm min.	UL 94 IEC/EN 62368-1	UL: E315185 and tested with appliance

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity ¹⁾
Alt	3M CHINA CO LTD	55236; 94489A, 55230,	80°C, thickness: 0.05mm min.	UL 94 IEC/EN 62368-1	UL: E256906 and tested with appliance
Alt	3M CHINA CO LTD	9495MP	80°C, thickness: 0.05mm min.	UL 94 IEC/EN 62368-1	UL: MH26206 and tested with appliance
Alt	XIAMEN LABAO OPTICS & ELECTRONICS CO LTD	TD-10, LA9120	80°C, thickness: 0.05mm min.	UL 94 IEC/EN 62368-1	UL: E349099 and tested with appliance
Alt	NITTO DENKO CORP	GA835	80°C, thickness: 0.05mm min.	UL 94 IEC/EN 62368-1	UL:MH13557 and tested with appliance
Alt	TESA SE	68646	80°C, thickness: 0.05mm min.	UL 94 IEC/EN 62368-1	UL:MH25809 and tested with appliance
Alt	DEXERIALS CORP	G4000	80°C, thickness: 0.05mm min.	UL 94 IEC/EN 62368-1	UL:MH15431 and tested with appliance
LCD Panel	TPV	TPM315***** ** (* can be 0~9, “.”, “-“, A~Z, blank)	31.5" (80.01cm) with LED backlight	IEC/EN 62368-1	Tested with appliance
Alt.	TPV	TPT315***** * (* can be 0~9, “.”, “-“, A~Z, blank)	31.5" (80.01cm) with LED backlight	IEC/EN 62368-1	Tested with appliance
Alt.	BOE	MV315***** (* can be 0~9, “.”, “-“, A~Z, blank)	31.5" (80.01cm) with LED backlight	IEC/EN 62368-1	Tested with appliance
Alt.	AUO	M315***** (* can be 0~9, “.”, “-“, A~Z, blank)	31.5" (80.01cm) with LED backlight	IEC/EN 62368-1	Tested with appliance
Alt.	LGD	LM315***** (* can be 0~9, “.”, “-“, A~Z, blank)	31.5" (80.01cm) with LED backlight	IEC/EN 62368-1	Tested with appliance
Alt.	INNOLUX	M315***** (* can be 0~9, “.”, “-“, A~Z, blank)	31.5" (80.01cm) with LED backlight	IEC/EN 62368-1	Tested with appliance
Power Supply: power board 715G9133 and 715G9133 type B:					
AC-Inlet (CN901)	Solteam	ST-01	10A, 250Vac	IEC/EN 60320-1	VDE 40015691 UL E200241

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity ¹⁾
Alt.	Zhang Jia Gang-Hua Jie	SA-4S series	10A, 250Vac	IEC/EN 60320-1	VDE 40003610 UL E154342
Alt.	Rong Feng Industrial Co Ltd	SS-120 SS-7B	10A, 250Vac	IEC/EN 60320-1	VDE 40028101 UL E102641
Alt.	DELIKANG/Douling	CDJ-3	10A, 250Vac	IEC/EN 60320-1	VDE 40010513 UL E217394
Alt.	DELIKANG/Douling	CDJ-3-1	10A, 250Vac	IEC/EN 60320-1	VDE 40015913 UL E217394
Alt.	Inalways	0707-1; 0711-2; 0714	10A, 250Vac	IEC/EN 60320-1	VDE 40007115 UL E94191
Alt.	TECX	TU-301 series	10A, 250Vac	IEC/EN 60320-1	VDE 40025582 UL E220004
Alt.	Yueqing Hongchang	DB-14 series	10A, 250Vac	IEC/EN 60320-1	VDE 40028645 UL E327347
Alt.	Solteam Incorporation	SC04(ENEC/FI), SC04-1BWW(UL), SC04-2BTT(UL)	10A, 250Vac	IEC/EN 60320-1	ENEC/FI 2015084 UL E200241
Alt.	Interchangeable	Interchangeable	10A, 250Vac	IEC/EN 60320-1	EU certification mark
Fuse (F901)	Cooper Bussmann LLC	SR-5 Series	T4AL, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3	VDE 122052 UL E19180
Alt.	Littelfuse, Inc. Wickmann	382 Series	T4AL, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3	VDE 40018249 UL E67006
Alt.	Littelfuse, Inc. Wickmann	392	T4AL, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3	VDE 126983 UL 67006
Alt.	SAVE FUSETECH INC	SS-5 Series	T4AL, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3	VDE 40015513 UL E306920
Alt.	Conquer	MET	T4AL, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3	VDE 40017157 UL E82636
Alt.	Conquer	MST	T4AL, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3	VDE 40017118 UL E82636

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity ¹⁾
Alt.	Ever Island Electric Co., Ltd. and Walter Electric	2010 Serie(s)	T4AL, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3	VDE 40009570 UL E220181
Alt.	Ever Island Electric Co., Ltd. and Walter Electric	2000	T4AL, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3	VDE 40018790 UL E220181
Alt.	DONGGUAN BETTER ELECTRONICS TECHNOLOGY CO LTD	932	T4AL, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3	VDE 4033369 UL E300003
Fuse (F701 for main board 715GC611 LPS)	Cooper Bussmann LLC	SR-5 Series	T4AL, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3	VDE 122052 UL E19180
Alt.	Littelfuse, Inc. Wickmann	382 Series	T4AL, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3	VDE 40018249 UL E67006
Alt.	Littelfuse, Inc. Wickmann	392	T4AL, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3	VDE 126983 UL 67006
Alt.	SAVE FUSETECH INC	SS-5 Series	T4AL, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3	VDE 40015513 UL E306920
Alt.	Conquer	MET	T4AL, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3	VDE 40017157 UL E82636
Alt.	Conquer	MST	T4AL, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3	VDE 40017118 UL E82636
Alt.	Ever Island Electric Co., Ltd. and Walter Electric	2010 Serie(s)	T4AL, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3	VDE 40009570 UL E220181
Alt.	Ever Island Electric Co., Ltd. and Walter Electric	2000	T4AL, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3	VDE 40018790 UL E220181

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity ¹⁾
Alt.	DONGGUAN BETTER ELECTRONICS TECHNOLOGY CO LTD	932	T4AL, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3	VDE 4033369 UL E300003
Fuse (F801 for main board 715GC611 LPS)	Cooper Bussmann LLC	SR-5 Series	T5AL, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3	VDE 122052 UL E19180
Alt.	Littelfuse, Inc. Wickmann	382 Series	T5AL, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3	VDE 40018249 UL E67006
Alt.	Littelfuse, Inc. Wickmann	392	T5AL, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3	VDE 126983 UL 67006
Alt.	SAVE FUSETECH INC	SS-5 Series	T5AL, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3	VDE 40015513 UL E306920
Alt.	Conquer	MET	T5AL, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3	VDE 40017157 UL E82636
Alt.	Conquer	MST	T5AL, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3	VDE 40017118 UL E82636
Alt.	Ever Island Electric Co., Ltd. and Walter Electric	2010 Serie(s)	T5AL, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3	VDE 40009570 UL E220181
Alt.	Ever Island Electric Co., Ltd. and Walter Electric	2000	T5AL, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3	VDE 40018790 UL E220181
Alt.	DONGGUAN BETTER ELECTRONICS TECHNOLOGY CO LTD	932	T5AL, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3	VDE 4033369 UL E300003
Fuse (F701, F801 for main board 715GD458 LPS)	Cooper Bussmann LLC	SR-5 Series	T4AL, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3	VDE 122052 UL E19180
Alt.	Littelfuse, Inc. Wickmann	382 Series	T4AL, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3	VDE 40018249 UL E67006

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity ¹⁾
Alt.	Littelfuse, Inc. Wickmann	392	T4AL, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3	VDE 126983 UL 67006
Alt.	SAVE FUSETECH INC	SS-5 Series	T4AL, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3	VDE 40015513 UL E306920
Alt.	Conquer	MET	T4AL, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3	VDE 40017157 UL E82636
Alt.	Conquer	MST	T4AL, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3	VDE 40017118 UL E82636
Alt.	Ever Island Electric Co., Ltd. and Walter Electric	2010 Serie(s)	T4AL, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3	VDE 40009570 UL E220181
Alt.	Ever Island Electric Co., Ltd. and Walter Electric	2000	T4AL, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3	VDE 40018790 UL E220181
Alt.	DONGGUAN BETTER ELECTRONICS TECHNOLOGY CO LTD	932	T4AL, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3	VDE 4033369 UL E300003
Y-cap(C920, C921) (Y2 or Y1 type) (optional)	TDK	CD	Max. 1000pF, 250Vac, 85°C min.	IEC/EN 60384- 14 UL1414	VDE 124321 UL E37861
Alt.	TDK	CS	Max. 1000pF, 250Vac, 85°C min.	IEC/EN 60384- 14 UL1414	VDE 122006 UL E37861
Alt.	Murata	KH	Max. 1000pF, 250Vac, 85°C min.	IEC/EN 60384- 14 UL1414	VDE 40002796 UL E37921
Alt.	Murata	KX	Max. 1000pF, 250Vac, 85°C min.	IEC/EN 60384- 14 UL1414	VDE 40002831 UL E37921
Alt.	Walsin (Pan Overseas)	AC	Max. 1000pF, 250Vac, 85°C min.	IEC/EN 60384- 14 UL1414	VDE 40001829 UL E146544
Alt.	Walsin (Pan Overseas)	AH	Max. 1000pF, 250Vac, 85°C min.	IEC/EN 60384- 14 UL1414	VDE 40001804 UL E146544

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity ¹⁾
Alt.	Hongming	F	Max. 1000pF, 250Vac, 85°C min.	IEC/EN 60384-14 UL1414	VDE 40036246 UL E154899
Alt.	JYA-NAY	JY	Max. 1000pF, 250Vac, 85°C min.	IEC/EN 60384-14 UL1414	VDE 40001827 UL E201384
Alt.	JYA-NAY	JN	Max. 1000pF, 250Vac, 85°C min.	IEC/EN 60384-14 UL1414	VDE 40001831 UL E201384
Alt.	Haohua	CT7	Max. 1000pF, 250Vac, 85°C min.	IEC/EN 60384-14 UL1414	VDE 40013601 UL E233106
Alt.	Yinan Don's Electronic Component Co., Ltd.	CT81	Max. 1000pF, 250Vac, 85°C min.	IEC/EN 60384-14 UL1414	VDE 135256 UL E145038
Alt.	Success Electronics Co., Ltd.	SE	Max. 1000pF, 250Vac, 85°C min.	IEC/EN 60384-14 UL1414	VDE 118218 UL E114280
Alt.	Success Electronics Co., Ltd.	SB	Max. 1000pF, 250Vac, 85°C min.	IEC/EN 60384-14 UL1414	VDE 121379 UL E114280
Alt.	Kunshan Wansheng Electronics Co., Ltd.	CT7	Max. 1000pF, 250Vac, 85°C min.	IEC/EN 60384-14 UL1414	VDE 40012143 UL E249006
Alt.	Interchangeable	Interchangeable	Max. 1000pF, 250Vac, 85°C min.	IEC/EN 60384-14: 2016	EU certification mark
Y-cap(C935) (Y1 type) (optional)	TDK	CD	Max. 2200pF, 250Vac, 85°C min.	IEC/EN 60384-14 UL1414	VDE 124321 UL E37861
Alt.	TDK	CS	Max. 2200pF, 250Vac, 85°C min	IEC/EN 60384-14 UL1414	VDE 122006 UL E37861
Alt.	Murata	KH	Max. 2200pF, 250Vac, 85°C min	IEC/EN 60384-14 UL1414	VDE 40002796 UL E37921
Alt.	Murata	KX	Max. 2200pF, 250Vac, 85°C min	IEC/EN 60384-14 UL1414	VDE 40002831 UL E37921
Alt.	Walsin (Pan Overseas)	AC	Max. 2200pF, 250Vac, 85°C min	IEC/EN 60384-14 UL1414	VDE 40001829 UL E146544

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity ¹⁾
Alt.	Walsin (Pan Overseas)	AH	Max. 2200pF, 250Vac, 85°C min	IEC/EN 60384-14 UL1414	VDE 40001804 UL E146544
Alt.	Hongming	F	Max. 2200pF, 250Vac, 85°C min	IEC/EN 60384-14 UL1414	VDE 40036246 UL E154899
Alt.	JYA-NAY	JY	Max. 2200pF, 250Vac, 85°C min	IEC/EN 60384-14 UL1414	VDE 40001827 UL E201384
Alt.	JYA-NAY	JN	Max. 2200pF, 250Vac, 85°C min	IEC/EN 60384-14 UL1414	VDE 40001831 UL E201384
Alt.	Haohua	CT7	Max. 2200pF, 250Vac, 85°C min	IEC/EN 60384-14 UL1414	VDE 40013601 UL E233106
Alt.	Yinan Don's Electronic Component Co., Ltd.	CT81	Max. 2200pF, 250Vac, 85°C min	IEC/EN 60384-14 UL1414	VDE 135256 UL E145038
Alt.	Success Electronics Co., Ltd.	SE	Max. 2200pF, 250Vac, 85°C min	IEC/EN 60384-14 UL1414	VDE 118218 UL E114280
Alt.	Success Electronics Co., Ltd.	SB	Max. 2200pF, 250Vac, 85°C min	IEC/EN 60384-14 UL1414	VDE 121379 UL E114280
Alt.	Kunshan Wansheng Electronics Co., Ltd.	CT7	Max. 2200pF, 250Vac, 85°C min	IEC/EN 60384-14 UL1414	VDE 40012143 UL E249006
Alt.	Interchangeable	Interchangeable	Max. 2200pF, 250Vac, 85°C min	IEC/EN 60384-14: 2016	EU certification mark
X- Cap. (C914) (X2 or X1 type) (optional)	Ultra Tech Xiphi	HQX	Max. 0.47μF, 250Vac min.; 110°C min.	IEC/EN 60384-14 UL1414	VDE 40015608 UL E183780
Alt.	Eurotronic	MPX	Max. 0.47μF, 250Vac min.; 110°C min.	IEC/EN 60384-14 UL1414	VDE 40018238 UL E211347
Alt.	Eurotronic	MPX2	Max. 0.47μF, 250Vac min.; 110°C min.	IEC/EN 60384-14 UL1414	VDE 40025981 UL E211347
Alt.	Xiamen Faratronic	MKP62	Max. 0.47μF, 250Vac min.; 110°C min.	IEC/EN 60384-14 UL1414	VDE 40000358 UL E186662

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity ¹⁾
Alt.	Arcotronics	R.46	Max. 0.47 μ F, 250Vac min.; 110°C min.	IEC/EN 60384-14 UL1414	ENEC V4413 UL E97797
Alt.	Liow Gu	GS-L	Max.0.47 μ F, 250Vac min.; 110°C min.	IEC/EN 60384-14 UL1414	VDE 101345 UL E186321
Alt.	EPCOS	B3292#	Max. 0.47 μ F, 250Vac min.; 110°C min.	IEC/EN 60384-14 UL1414	VDE 40010694 UL E97863
Alt.	Nanjing Tengen Rongguangda Electronics (Group) Co., Ltd.	MKP	Max. 0.47 μ F, 250Vac min.; 110°C min.	IEC/EN 60384-14 UL1414	VDE 40028680 UL E200596
Alt.	SHENZHEN JINGHAO CAPACITOR CO LTD	CBB62B	Max. 0.47 μ F, 250Vac min.; 110°C min.	IEC/EN 60384-14 UL1414	VDE 40018690 UL E252286
Alt.	Interchangeable	Interchangeable	Max. 0.47 μ F, 250Vac min.; 110°C min.	IEC/EN 60384-14: 2016	EU certification mark
Photo Coupler (U902)	Sharp	PC123	Ext. > 8.0mm int.cr=thermal cycling 3) Di> 0.4mm AC 3000V, min. 100°C	EN 60747-5-2 IEC/EN 62368-1	VDE 40008087 UL E64380 Nemko P09211293
Alt.	Vishay Semiconductor	TCET 1103	Ext.= 7.7mm Int.= 6.0mm Di= 0.5mm AC 3000V, min. 100°C	EN 60747-5-2 IEC/EN 62368-1	VDE 115687 UL E76222 F1 25155
Alt.	Everlight	EL817, EL817M	Ext.= 7.7mm Int.= 6.0mm Di= 0.5mm AC 3000V, min. 100°C	EN 60747-5-2 IEC/EN 62368-1	VDE 132249 UL E214129 Nemko P11214765/A 1
Alt.	TOSHIBA	TLP781, TLP781F	Ext.> 8.0mm Int.> 5.0mm3) Di> 0.5mm AC 3000V, min. 100°C	EN 60747-5-2 IEC/EN 62368-1	VDE 40021173 UL E67349 Semko 1020282

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity ¹⁾
Alt.	TOSHIBA	TLP421F	Ext.> 8.0mm int.cr=thermal cycling 3) Di> 0.4mm AC 3000V, min. 100°C	EN 60747-5-2 IEC/EN 62368-1	VDE 40010944 UL E67349 Semko 9910249/01
Alt.	Renesas Electronics Corporation	PS2561-1, PS2561L-1, PS2561L1-1, PS2561L2-1	Ext.> 7.0mm int.cr=thermal cycling 3) Di.> 0.4mm AC 3000V, min. 100°C	EN 60747-5-2 IEC/EN 62368-1	VDE 40008862 UL E72422 Nemko P10212638
Alt.	Lite-on	LTV-817	Ext. cr>8.0mm, Int.cr=thermal cycling 3), Dti > 0.6 mm, AC 3000V, min. 100°C	EN 60747-5-2 IEC/EN 62368-1	VDE 40015248 UL E113898
Alt.	Interchangeabl e	Interchangeable	Ext. cr>8.0mm, Int.cr=thermal cycling 3), Dti > 0.6 mm, AC 3000V, min. 100°C	EN 60747-5-2 IEC/EN 62368-1	EU certification mark
Line Choke (L901) (Optional)	HA	373G0174405H	105°C	IEC/EN 62368-1	Tested with appliance
Alt.	LFDJ	373G0174405J	105°C	IEC/EN 62368-1	Tested with appliance
Alt	PHOENIX	373G0174405P	105°C	IEC/EN 62368-1	Tested with appliance
Alt	ASET	373G0174405X	105°C	IEC/EN 62368-1	Tested with appliance
Transformer (T901)	Phoenix	380GL32P565P	Class E	IEC/EN 62368-1	Tested with appliance
Alt.	TAICHANG	380GL32P565S	Class E	IEC/EN 62368-1	Tested with appliance
Alt.	LI TAI	380GL32P565L	Class E	IEC/EN 62368-1	Tested with appliance
-Bobbin	SUMITOMO BAKELITE CO LTD	PM-9820	V-0, 150°C, min. 0.45mm thick	UL 94 IEC/EN 62368-1	UL E41429 and tested with appliance
Alt.	CHANG CHUN PLASTICS CO., LTD.	T200HF	V-0, 150°C, min. 0.45mm thick	UL 94 IEC/EN 62368-1	UL E59481 and tested with appliance

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity ¹⁾
Winding	HANGZHOU HONGTONG WIRE & CABLE CO.,LTD	xUEW, QA-x/130	130°C	UL 1446 IEC/EN 62368-1	UL E326617 and tested with appliance
Alt.	SHANGHAI ASIA PACIFIC ELECTRIC CO LTD	UEW	130°C	UL 1446 IEC/EN 62368-1	UL E E214423 and tested with appliance
Alt.	SHANDONG SAINT ELECTRIC CO.,LTD	*UEW/130	130°C	UL 1446 IEC/EN 62368-1	UL E194410 and tested with appliance
Alt.	ZHEJIANG HONGBO TECHNOLOGY CO LTD	xUEW/130, QA-x/130	130°C	UL 1446 IEC/EN 62368-1	UL E221719 and tested with appliance
Alt.	PACIFIC ELECTRIC WIRE & CABLE CO.,LTD	DD-NYU	130°C	UL 1446 IEC/EN 62368-1	UL E84081 and tested with appliance
Alt.	SUZHOU YUSHENG ELECTRONIC CO LTD	TIW-B(x)	130°C	UL 1446 IEC/EN 62368-1	UL E364920 and tested with appliance
-Triple insulation wire	GREAT LEOFLON INDUSTRIAL CO., LTD	TRW(B)*	Reinforced insulation, 130°C	UL 2353 IEC/EN 62368-1	UL E211989 and tested with appliance
Alt.	Cosmolink Co Ltd	TIW-M	Reinforced insulation, 130°C	UL 2352 IEC/EN 62368-1	UL E213764 and tested with appliance
-Insulation tape	JingJiang YaHua Pressure Sensitive Glue Co., Ltd	CT* (c)(g)	PET film insulating tape, 130°C	UL 510A IEC/EN 62368-1	UL E165111 and tested with appliance
-Tube	GREAT HOLDING INDUSTRIAL CO., LTD.	TFL	PTFE, 200°C, VW-1	UL 224 IEC/EN 62368-1	UL E156256 and tested with appliance

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

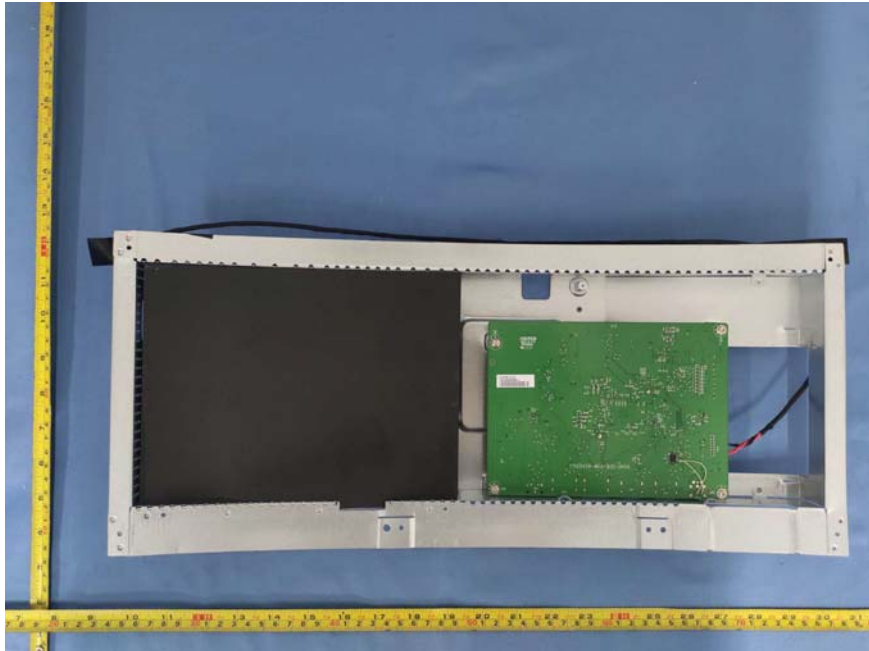
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity ¹⁾
Bleeding resistors (R916, R917, R918)	Guangdong Fenghua Advanced Technology Holding Co., Ltd.	RVS-06#xxxFT series	Max. 680 K ohm, 1/4 W	IEC/EN 62368-1	CB issued by NEMKO (CB cert No. NO99692)
Alt.	Guangdong Fenghua Advanced Technology Holding Co., Ltd.	RS-06#xxxFT series	Max. 680 K ohm, 1/4 W	IEC/EN 62368-1	CB issued by NEMKO (CB report No. 337017)
Alt.	Yageo Corporation	RV1206XX-0782K1L	Max. 680 K ohm, 1/4 W	IEC/EN 62368-1	CB issued by UL (CB cert No. DK-64853-UL)
Alt.	Yageo Corporation	RV1206 series	Max. 680 K ohm, 1/4 W	IEC/EN 62368-1	CB issued by UL (CB report No. E491387-4787887815-1 Original)
Alt.	Tzai Yuan Enterprise Co., Ltd.	HSMD*****, SMD*****	Max. 680 K ohm, 1/4 W	IEC/EN 62368-1	CB issued by UL (CB cert No. DK-29431-A1-M1-UL)
Alt.	Tzai Yuan Enterprise Co., Ltd.	MGUL1/4W series	Max. 680 K ohm, 1/4 W	IEC/EN 62368-1	CB issued by UL (CB cert No. DK-69874-UL)
Alt.	Interchangeable	Interchangeable	Max. 680 K ohm, 1/4 W	IEC/EN 62368-1	EU certification mark

Note:

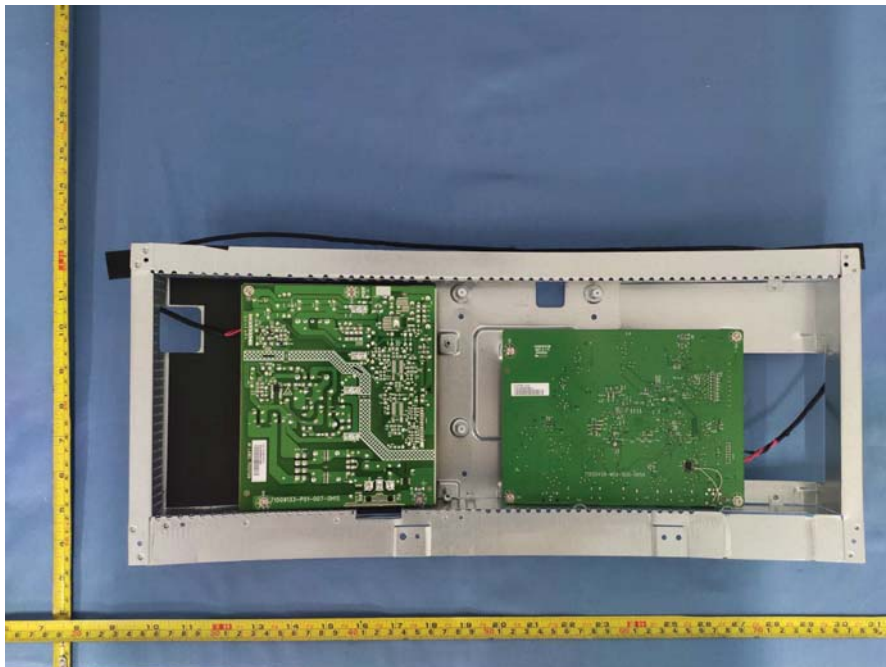
1. An asterisk indicates a mark that assures the agreed level of surveillance.
2. "Di" means distance through insulation, "Int." means internal distance of creepage and "Ext." means external distance of creepage.
3. There is no any internal creepage distance. Test according to IEC60950-1:2001, cl. 2.10.8 (same as requirement in IEC60950-1:2005, cl. 2.10.9) has been carried out ten times for the components at 100°C / 25°C / 0°C / 25°C. Humidity treatment of 48 hours as well as electric strength tests at 3000V / 1 minute was carried out to the component after thermal cycling test.
4. All sources of photo coupler were certified according to DIN EN60747-5-2 which in compliance with the requirements and provisions of IEC 60747-5-5.
5. All sources of photo coupler were in compliance with CTL DSH 759 decision.

Photograph of the Equipment under test (EUT)

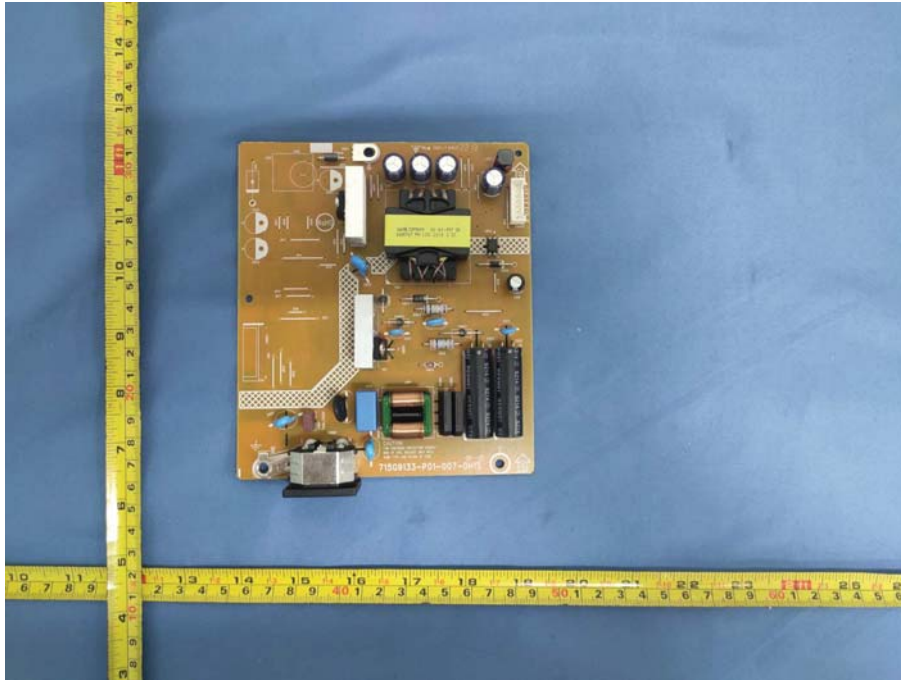
Internal view of EUT with new main board



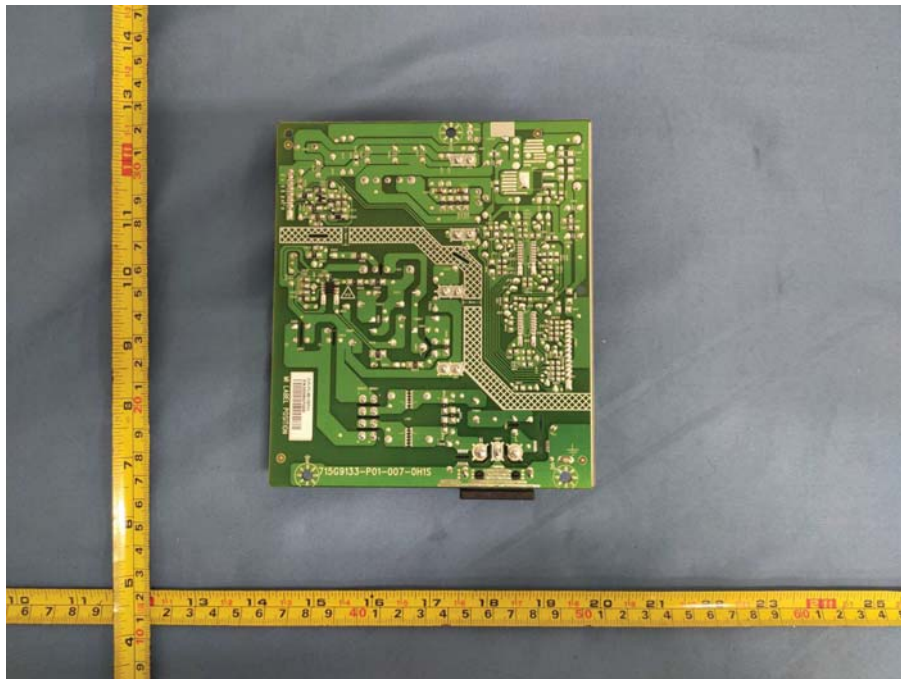
Internal view of EUT with new main board



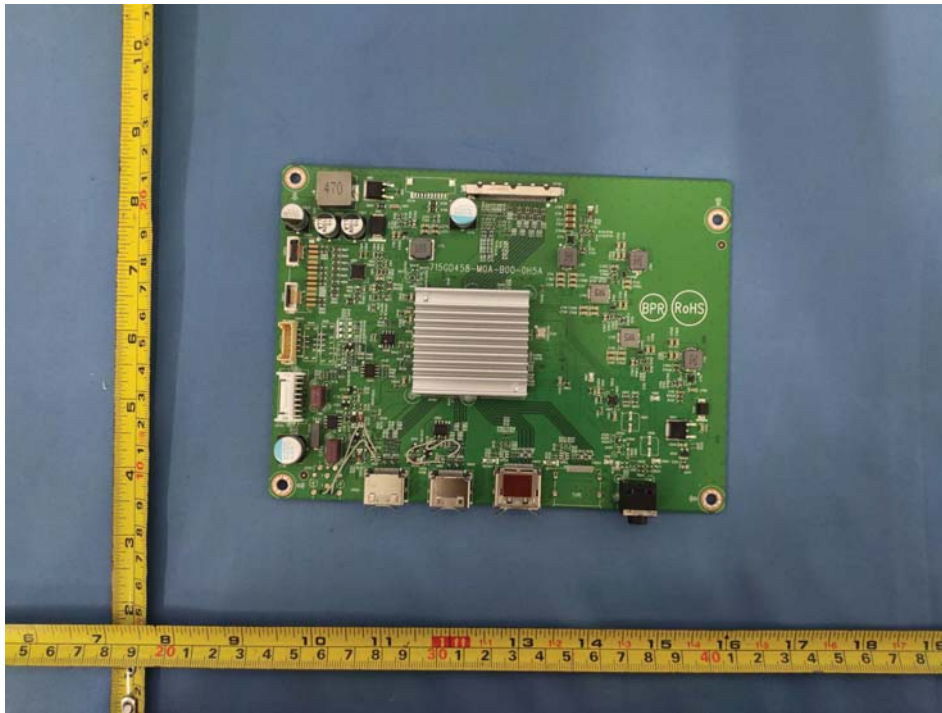
View of power board 715G9133 type B



View of power board 715G9133 type B



View of main board 715GD458



View of main board 715GD458

