IEC IECEE CB SCHEME

Ref. Certif. No.

JPTUV-086547-M1

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

SYSTEME CEI D'ACCEPTATION MUTUELLE DE CERTIFICATS D ESSAIS DES EQUIPEMENTS ELECTRIQUES (IECEE) METHODE OC

CB TEST CERTIFICATE

CERTIFICAT D'ESSAI OC

Product Produit	LCD monitor (LED Backlight)
Name and address of the applicant Nom et adresse du demandeur	TPV Electronics (Fujian) Co., Ltd. Rongqiao Economic and Technological Development Zone, Fuqing City, Fujian Province, P. R. China
Name and address of the manufacturer Nom et adresse du fabricant	TPV Electronics (Fujian) Co., Ltd. Rongqiao Economic and Technological Development Zone, Fuqing City, Fujian Province, P. R. China
Name and address of the factory Nom et adresse de l'usine	See additional page(s)
Ratings and principal characteristics Valeurs nominales et charactéristiques principales	AC 100-240V; 50/60Hz; 1.5A; Class I
Trademark (if any) Marque de fabrique (si elle existe)	AOC
Type of Manufacturer's Testing Laboratories used Type de programme du laboratoire d'essais constructeur	N/A
Model / Type Ref. Ref. de type	27P1, Q27P1, **27P1********, 27E1, **27E1******** (* = 0-9, A-Z, a-z, -, \, /, + or blank)
Additional information (if necessary may also be reported on page 2) Les informations complémentaires (si nécessaire, peuvent être indiqués sur la 2ème page)	For model differences, refer to the test report. Re-issue of JPTUV-086547 dated 14.03.2018, due to first modification.
A sample of the product was tested and found to be in conformity with Un échantillon de ce produit a été essayé et a été considéré conforme à la	IEC 60950-1:2005+A1+A2 See Test Report for National Differences
As shown in the Test Report Ref. No. which forms part of this Certificate Comme indiqué dans le Rapport d'essais numéro de référence qui constitue partie de ce Certificat	50123531 002

This CB Test Certificate is issued by the National Certification Body
Ce Certificat d'essai OC est établi par l'Organisme National de Certification

TÜVRheinland®

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Web: www.tuv.com

Date: 17.07.2018

Signature: Xuhua Liu

10/061 CB 05.12

1. TPV Display Technology (Wuhan) Co., Ltd.
   Unique No. 11, Zhuankou Development District of Economic Technological Development Zone, Wuhan City 430056, P. R. China

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

3. Envision Industry of Electronic Products Ltd.
   Rodovia Anhanguera S/N-KM 49
   Tijuco Preto-Jundiaí-SP-
   13.205-700, Brazil

4. L&T Display Technology (Fujian) Ltd.
   Optoelectronic Park, Rongqiao Economic and Technological Development Zone
   Fuqing, Fujian 350301, P. R. China

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

6. Trend Smart CE Mexico S de RL de CV
   Avenida Sor Juana Ines de la Cruz de 19602 Nueva Tijuana,
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   MEXICO

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

8. TPV Technology (Qingdao) Co., Ltd.
   No.99 Huoju Road, High-tech Industrial Development Zone
   Qingdao City, Shandong Province, P. R. China

9. TPV Display Technology (China) Co., Ltd.
   No. 106 Jinghai 3 Rd., BDA
   Beijing City 100176
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Additional information (if necessary)
Information complémentaire (si nécessaire)

Report Ref. No.: 50123531 002

Date: 17.07.2018

Signature: Xuhua Liu

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11. TPV Electronics (Fujian) Co., Ltd.
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12. Envision Indústria de Produtos
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Additional information (if necessary)
Information complémentaire (si nécessaire)

Report Ref. No.: 50123531 002

Date: 17.07.2018

Signature: Xuhua Liu

TÜV Rheinland (China) Ltd.
Member of TÜV Rheinland Group

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Precisely Right.

TPV Electronics (Fujian) Co., Ltd.
Mr. Xinliang Wu
RD-SE
Rongqiao Economic and
Technological Development Zone
Fuqing City, Fujian Province
P. R. China

Date : 17.07.2018
Our ref. : WangAn SZ
Your ref.: 164132159

Ref : CB Certificate Japan

Type of Equipment : LCD monitor (LED Backlight)
Model Designation : See Certificate
Certificate No. : JPTUV-086547-M1
Report No. : 50123531 002

Dear Mr. Xinliang Wu,

Thank you very much for your interest in our services.

Please find enclosed your certification documents.

We appreciate your support and would like to offer our assistance in the approval of your future products through our extensive range of technical services.

Please feel free to contact us whatever your requirements may be.

With kind regards,

Certification Body

Xuhua Liu

CC: TPV Electronics (Fujian) Co., Ltd.

Enclosure

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Test Report issued under the responsibility of:

TÜVRheinland®

TEST REPORT

IEC 60950-1
Information technology equipment – Safety – Part 1: General requirements

Report Number. ..... :	50123531 002
Date of issue ..... :	Jul. 13, 2018
Total number of pages	40
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 60950-1:2005 (Second Edition) + Am 1:2009 + Am 2:2013
Test procedure ..... :	CB Scheme
Non-standard test method ..... :	N/A
Test Report Form No. ..... :	IEC60950_1F
Test Report Form(s) Originator .... :	SGS Fimko Ltd
Master TRF ..... :	Dated 2014-02

If this Test Report Form is used by non-IECEE members, the IECEE/IEC logo and the reference to the CB Scheme procedure shall be removed.

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 (LED Backlight)
Trade Mark ..... :	AOC
Manufacturer..... :	Same as applicant
Model/Type reference ..... :	27P1, Q27P1, **27P1********, **27E1, **27E1******** (* can be 0-9, A-Z, a-z, – , \ , / , + or blank, represent different enclosure colour for marketing purpose)
Ratings ..... :	I/P: 100-240V~, 50/60Hz, 1.5A

Testing procedure and testing location:			
☒	**CB Testing Laboratory:**	TÜV Rheinland (Shenzhen) Co., Ltd.	
Testing location/ address ..... :		East of F/1, F/2~F/4, Building 1, Cybio Technology Building No. 6 Langshan No.2 Road, North Hi-tech Industry Park 518057 Shenzhen Nanshan District CHINA	
☐	**Associated CB Testing Laboratory:**		
Testing location/ address ..... :			
Tested by (name + signature) ..... :		Anderson Wang Senior Project Manager	
Approved by (name + signature) ..... :		Aegean Li Technical Reviewer	
☐	**Testing procedure: TMP/CTF Stage 1:**	N/A	
Testing location/ address ..... :		N/A	
Tested by (name + signature) ..... :			
Approved by (name + signature) ..... :			
☐	**Testing procedure: WMT/CTF Stage 2:**	N/A	
Testing location/ address ..... :		N/A	
Tested by (name + signature) ..... :			
Witnessed by (name + signature) ..... :			
Approved by (name + signature) ..... :			
☐	**Testing procedure: SMT/CTF Stage 3 or 4:**	N/A	
Testing location/ address ..... :		N/A	
Tested by (name + signature) ..... :			
Witnessed by (name + signature) ..... :			
Approved by (name + signature) ..... :			
Supervised by (name + signature)..... :			

List of Attachments (including a total number of pages in each attachment):

- Photo documentation
- Measurement Section

Total number of pages in each attachment is indicated in individual attachment.

Summary of testing:

Tests performed (name of test and test clause):

1. Following tests performed during evaluation

name of test	test clause number
Input Current Test	1.6.2
Energy hazard in Operator Access Area	2.1.1.5
Discharge of Capacitors	2.1.1.7
SELV limits for Normal Conditions	2.2.2
SELV limits for Abnormal Conditions	2.2.3
Limited current circuits	2.4
Limited power source	2.5
Resistance of Earthing Circuit	2.6.3.4
Humidity Conditioning	2.9.2
Working Voltage over Insulation	2.10.2
Clearance and creepage distance measurements	2.10.3 & 2.10.4
Stability test	4.1
Steady force test, 10 N	4.2.2
Steady Force Test, 30N	4.2.3
Maximum Temperature Test	4.5.2
Ball pressure test	4.5.5
Openings in enclosures	4.6
Touch Current and PE current	5.1.6
Electric Strength Test	5.2
Fault Condition Test	5.3

The EUT passed the test.

Testing location:

All tests as described in Test Case and Measurement Sections were performed at the laboratory described on page 2

Summary of compliance with National Differences

List of countries addressed:

EU Group Differences, EU Special National Conditions, EU A-Deviations, AT, AU, BE, CA, CH, CN, CZ, DE, DK, FI, FR, GB, GR, HU, IT, IL*, JP, KR*, NL, NO, PL, SE, SI, SK, US

Explanation of used codes: AT=Austria, AU=Australia, BE=Belgium, CA=Canada, CH=Switzerland, CN=China, CZ=Czech Republic, DE=Germany, DK=Denmark, FI=Finland, FR=France, GB=United Kingdom, GR=Greece, HU=Hungary, IT=Italy, IL=Israel, JP=Japan, KR=Korea, NL=The Netherlands, NO=Norway, PL=Poland, SE=Sweden, SI=Slovenia, SK=Slovakia, US=United States of America

For National Differences see end of this test report.

* National differences to IEC 60950-1:2005 (Second Edition) + Am 1:2009 evaluated.

☒ The product fulfils the requirements of EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013.

For national differences, see previous CB report 50123531 001 for details.

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:
All models' rating labels are in the same design except for type designation. Above labels are representing the other models. See original CB report 50123531 001 for original rating labels.

Test item particulars.....:	
Equipment mobility.....:	[x] movable (for unit with base stand) [] hand-held [] transportable [x] stationary (for unit without base stand) [] for building-in [] direct plug-in
Connection to the mains.....:	[x] pluggable equipment [x] type A [] type B [] permanent connection [x] detachable power supply cord [] non-detachable power supply cord [] not directly connected to the mains
Operating condition.....:	[x] continuous [] rated operating / resting time:
Access location .....:	[x] operator accessible [] restricted access location
Over voltage category (OVC) .....:	[] OVC I [x] OVC II [] OVC III [] OVC IV [] other:
Mains supply tolerance (%) or absolute mains supply values .....:	±10% (requested by client)
Tested for IT power systems .....:	[x] Yes [] No
IT testing, phase-phase voltage (V) .....:	230 for Norway
Class of equipment .....:	[x] Class I [] Class II [] Class III [] Not classified
Considered current rating of protective device as part of the building installation (A) .....:	16A (20A for North America)
Pollution degree (PD) .....:	[] PD 1 [x] PD 2 [] PD 3
IP protection class .....:	IP20
Altitude during operation (m) .....:	≤5000
Altitude of test laboratory (m) .....:	<2000
Mass of equipment (kg) .....:	6.16kg (base weight 1.82kg)
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 .....:	Jun.21. 2018
Date (s) of performance of tests.....:	Jun.21. 2018 - Jul.11, 2018
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 ☐ comma / ☒ point is used as the decimal separator.**	

Manufacturer's Declaration per sub-clause 4.2.5 of IECEE 02:	
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 .....:	☒ **Yes** ☐ **Not applicable**

When differences exist; they shall be identified in the General product information section.

Name and address of factory (ies) ..... : See original report 50123531 001 for factory list.

General product information:

Description of change(s):

1. Add new models **27E1**, ****27E1**********, which are identical to original model except for type designation.
2. Add new construction for all models: Power board **715G7300**, main board **715G9492**, metal enclosure **type B** and stand base **type B.** Meanwhile, original metal enclosure mentioned in original report 50123531 001 named as type A; original stand base mentioned in original report 50123531 001 named as type A.

For the above described change(s) the following was considered to be necessary :

Change	Testing	Comment
1	N/A	See new rating label on Page 4 for the details.
2	See "**Summary of testing**" on Page 3 for the details.	See following pages for the details. See also photo documentation for details.

See below table for differences among the models:

Table A: model different list						
Model name	Power board	Main board	USB board	Plastic enclosure	Metal enclosure	Stand base
27P1, Q27P1, **27P1********,	715G7610	715G9483	715G9509	Type A	Type A	Type A
27E1, **27E1********	**715G7300**	**715G9492**	**N/A**	Type A	**Type B**	**Type B**

Other comments:

Declaration of the manufacturer: the sample(s) submitted for evaluation is (are) representative of the products from each factory.

Additional information:

Rating information of components of power board 715G7300 which are not critical component:

Thermistor (NR901): Min. 3Ω at 25°C, min. 2A
Bleeder Resistor (R907, R908, R909): Max. 1MΩ, min. 1/4W (located after fuse, in parallel per three in series)
Bridging Diode (BD901): Min.500V, min.2A.
Ripple Capacitor (C907): 50-150μF, max. 450V, 105°C
Transistor (Q901): Min.500V, min.2A.
Current sensor resistor (R931): 0.82Ω, 2W

Definition of variable(s):

Variable:	Range of variable:	Content:
*	0-9, A-Z, a-z, – , \ , / , + or blank	represent different enclosure colour for marketing purpose

History of amendments and modifications:

Ref. No. 50123531 001, dated 12.Mar.2018 (original test report)
Ref. No. 50123531 002, dated Jul. 13, 2018 (1st modification)

Abbreviations used in the report:

- normal conditions	**N.C**.	- single fault conditions	**S.F.C**
- functional insulation	**OP**	- basic insulation	**BI**
- double insulation	**DI**	- supplementary insulation	**SI**
- between parts of opposite polarity	**BOP**	- reinforced insulation	**RI**

Indicate used abbreviations (if any)

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1	**GENERAL**		**P**
1.5	**Components**		**P**
1.5.1	General		**P**
	Comply with IEC 60950-1 or relevant component standard	(see appended table 1.5.1)	**P**
1.5.2	Evaluation and testing 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**
1.5.3	Thermal controls	No thermal controls.	**N/A**
1.5.4	Transformers	Transformers used are suitable for their intended application and comply with the relevant requirements of the standard and particularly Annex C.	**P**
1.5.5	Interconnecting cables	Interconnecting cable does not carry voltage higher than SELV and no higher energy level than 240VA.	**P**
1.5.6	Capacitors bridging insulation	Between lines: X1 or X2 capacitors according to IEC 60384-14 used. Between primary and earth: Y1 or Y2 capacitors according to IEC 60384-14 used. Between primary and unearthed secondary: Y1 capacitors according to IEC 60384-14 used. (see appended table 1.5.1)	**P**
1.5.7	Resistors bridging insulation		**P**
1.5.7.1	Resistors bridging functional, basic or supplementary insulation	Only discharge resistors bridging between L-N (functional)	**P**
1.5.7.2	Resistors bridging double or reinforced insulation between a.c. mains and other circuits		**N/A**
1.5.7.3	Resistors bridging double or reinforced insulation between a.c. mains and antenna or coaxial cable		**N/A**

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.5.8	Components in equipment for IT power systems		**N/A**
1.5.9	Surge suppressors		**N/A**
1.5.9.1	General		**N/A**
1.5.9.2	Protection of VDRs		**N/A**
1.5.9.3	Bridging of functional insulation by a VDR		**N/A**
1.5.9.4	Bridging of basic insulation by a VDR	No such construction.	**N/A**
1.5.9.5	Bridging of supplementary, double or reinforced insulation by a VDR	No such construction.	**N/A**
1.6	**Power interface**		**P**
1.6.1	AC power distribution systems	TN power system	**P**
1.6.2	Input current	(see appended table 1.6.2)	**P**
1.7	**Marking and instructions**		**P**
1.7.1	Power rating and identification markings	See below.	**P**
1.7.1.1	Power rating marking	See below.	**P**
	Multiple mains supply connections.....:		**N/A**
	Rated voltage(s) or voltage range(s) (V) ..... :	See copy of marking plate for details	**P**
	Symbol for nature of supply, for d.c. only ..... :	AC source	**N/A**
	Rated frequency or rated frequency range (Hz) ... :	See copy of marking plate for details	**P**
	Rated current (mA or A) ..... :	See copy of marking plate for details	**P**
1.7.1.2	Identification markings	See below.	**P**
	Manufacturer's name or trade-mark or identification mark ..... :	See copy of marking plate for details	**P**
	Model identification or type reference ..... :	See copy of marking plate for details	**P**
	Symbol for Class II equipment only ..... :	Class I equipment.	**N/A**
	Other markings and symbols ..... :	Additional symbol or marking does not give rise to misunderstanding.	**P**
1.7.1.3	Use of graphical symbols	Graphical symbols used according to IEC 60417 or ISO 3864-2 or ISO 7000.	**P**

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.2	Safety instructions and marking	English safety instruction provided.	**P**
1.7.2.1	General		**P**
1.7.2.2	Disconnect devices	AC inlet serves as disconnect device.	**P**
1.7.2.3	Overcurrent protective device	Not type B pluggable equipment or permanently connected equipment.	**N/A**
1.7.2.4	IT power distribution systems	TN power system.	**N/A**
1.7.2.5	Operator access with a tool	No such access required.	**N/A**
1.7.2.6	Ozone	Ozone not used or generated.	**N/A**
1.7.3	Short duty cycles	Equipment is designed for continuous operation.	**N/A**
1.7.4	Supply voltage adjustment ..... :	Single input voltage range without adjustment.	**N/A**
	Methods and means of adjustment; reference to installation instructions ..... :		**N/A**
1.7.5	Power outlets on the equipment ..... :	No power outlets provided.	**N/A**
1.7.6	Fuse identification (marking, special fusing characteristics, cross-reference) ..... :	The fuse marking is marked near fuse on PCB as follow: F901(on primary): T3.15AL/250Vac CAUTION: FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE AND RATING OF FUSE. Not located in operator access areas.	**P**
1.7.7	Wiring terminals	See below.	**P**
1.7.7.1	Protective earthing and bonding terminals ..... :	AC inlet used. Symbol marked beside earthing pin of AC inlet	**P**

2	**PROTECTION FROM HAZARDS**		**P**
2.1	**Protection from electric shock and energy hazards**		**P**
2.1.1	Protection in operator access areas	Only SELV signal interface accessible by operator.	**P**

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.1.1.5	Energy hazards ..... :	The energy does not exceed 240VA between any two points in accessible connector of secondary circuit. (see appended table 2.1.1.5.)	**P**
2.1.1.7	Discharge of capacitors in equipment	(See appended table 2.1.1.7)	**P**
	Measured voltage (V); time-constant (s) ..... :	(See appended table 2.1.1.7)	—
2.2	**SELV circuits**		**P**
2.2.1	General requirements	The secondary circuits were tested as SELV. See sub-clauses 2.2.1 to 2.2.4.	**P**
2.2.2	Voltages under normal conditions (V) ..... :	42.4V peak or 60V d.c. are not exceeded in SELV circuit under normal operation.	**P**
2.2.3	Voltages under fault conditions (V) ..... :	Single fault did not cause excessive voltage in accessible SELV circuits. Limits of 71V peak and 120V d.c. were not exceeded within 0.2 sec. and limits 42.4V peak and 60V d.c. were not exceeded for longer than 0.2 sec., see appended tables 2.2 and 5.3.	**P**
2.2.4	Connection of SELV circuits to other circuits .....:	See sub-clauses 2.2.2 and 2.2.3. No direct connection between SELV and any primary circuits.	**P**
2.4	**Limited current circuits**		**P**
2.4.1	General requirements	Primary and secondary circuits bridged by Y1 type capacitor C913. The pin connected with secondary circuits was disconnected and the measuring instrument of Figure D.1 in Annex D was connected between secondary pin and earth during the test.	**P**
2.4.2	Limit values	(see appended table 2.4.2)	**P**
	Frequency (Hz) ..... :		—

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Measured current (mA)..... :		—
	Measured voltage (V) ..... :		—
	Measured circuit capacitance (nF or µF)..... :		—
2.4.3	Connection of limited current circuits to other circuits	Only intended to be connected with SELV circuits.	**P**
2.5	**Limited power sources**		**P**
	a) Inherently limited output		**N/A**
	b) Impedance limited output		**N/A**
	c) Regulating network limited output under normal operating and single fault condition	Regulation network limits the output of V_{out} under both normal and after singal fault condition	**P**
	d) Overcurrent protective device limited output		**N/A**
	Max. output voltage (V), max. output current (A), max. apparent power (VA)..... :		—
	Current rating of overcurrent protective device (A) .:		—
	Use of integrated circuit (IC) current limiters		—
2.6	**Provisions for earthing and bonding**		**P**
2.6.1	Protective earthing	Class I appliance inlet terminal provided as protective earthing terminal, and accessible metal plate is connected to earthed metal fire enclosure. The test of 2.6.3.4 complied.	**P**
2.6.2	Functional earthing	Functional earthing in the secondary circuit is accessible at the VGA connector and separated from the primary by reinforced insulation.	**P**
	Use of symbol for functional earthing .....:		**N/A**
2.6.3	Protective earthing and protective bonding conductors		**P**
2.6.3.1	General	Appliance inlet used. No power cord provided with the unit.	**P**
2.6.3.2	Size of protective earthing conductors	AC inlet used	**N/A**

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Rated current (A), cross-sectional area (mm^2), AWG ..... :		—
2.6.3.3	Size of protective bonding conductors	Screws fixing earthed PCB trace to metal chassis for protective bonding.	**P**
	Rated current (A), cross-sectional area (mm^2), AWG ..... :	Refer to test of appended table 2.6.3.4 only.	—
	Protective current rating (A), cross-sectional area (mm^2), AWG..... :	Refer to test of appended table 2.6.3.4 only.	
2.6.3.4	Resistance of earthing conductors and their terminations; resistance (Ω), voltage drop (V), test current (A), duration (min) ..... :	(see appended table 2.6.3.4)	**P**
2.6.3.5	Colour of insulation ..... :	Protective bonding conductor as in 2.6.3 and assembled by printed wiring on power board.	**N/A**
2.6.4	Terminals	See below	**P**
2.6.4.1	General		**P**
2.6.4.2	Protective earthing and bonding terminals	The earth terminal of the approved appliance inlet is considered as protective earthing terminal and was evaluated by sub clause 2.6.3.4.	**P**
	Rated current (A), type, nominal thread diameter (mm)..... :	Evaluation by test. See sub-clause 2.6.3.4.	—
2.6.4.3	Separation of the protective earthing conductor from protective bonding conductors	Separated PE and protective bonding conductor used.	**P**
2.6.5	Integrity of protective earthing	See below	**P**
2.6.5.1	Interconnection of equipment	Not depending on interconnection for protective earthing.	**P**
2.6.5.2	Components in protective earthing conductors and protective bonding conductors	No switch or overcurrent protective device in protective earthing or bonding conductor	**P**
2.6.5.3	Disconnection of protective earth	Appliance inlet used for disconnection of protective earth.	**P**
2.6.5.4	Parts that can be removed by an operator	AC inlet with PE terminal used.	**P**
2.6.5.5	Parts removed during servicing		**N/A**

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Clause	Requirement + Test	Result - Remark	Verdict
2.6.5.6	Corrosion resistance	All safety earthing connections comply with Annex J.	**P**
2.6.5.7	Screws for protective bonding	No self-tapping or spaced thread screws are used. For the earth connection to the metal chassis a spring washer and a screw are used.	**N/A**
2.6.5.8	Reliance on telecommunication network or cable distribution system	No TNV circuit.	**N/A**
2.9	**Electrical insulation**		**P**
2.9.1	Properties of insulating materials	Natural rubber, asbestos or hygroscopic material not used.	**P**
2.9.2	Humidity conditioning	Performed at 40°C, 95% R.H. for 120h by client's request.	**P**
	Relative humidity (%), temperature (°C) ..... :	See above.	—
2.9.3	Grade of insulation	See above.	**P**
2.9.4	Separation from hazardous voltages	The adequate levels of safety insulation provided and maintained to comply with the requirements of this standard.	**P**
	Method(s) used ..... :	SELV separated from primary by reinforced or double insulation.	—
2.10	**Clearances, creepage distances and distances through insulation**		**P**
2.10.1	General	See sub-clauses 2.10.3, 2.10.4 and 2.10.5.	**P**
2.10.1.1	Frequency .....:	Considered	**P**
2.10.1.2	Pollution degrees .....:	2	**P**
2.10.1.3	Reduced values for functional insulation	Considered	**P**
2.10.1.4	Intervening unconnected conductive parts	Considered	**P**
2.10.1.5	Insulation with varying dimensions	Insulation kept homogenous.	**N/A**
2.10.1.6	Special separation requirements	Not applied.	**N/A**
2.10.1.7	Insulation in circuits generating starting pulses	No such circuits.	**N/A**
2.10.2	Determination of working voltage		**P**

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Clause	Requirement + Test	Result - Remark	Verdict
2.10.2.1	General	The rms and the peak voltage were measured with unit connected to a 240V TN power system. The input neutral and secondary ground were connected during measurement. Pollution Degree 2 and Overvoltage Category II considered.	**P**
2.10.2.2	RMS working voltage	See table 2.10.2	**P**
2.10.2.3	Peak working voltage	See table 2.10.2	**P**
2.10.3	Clearances	See below and advantage of annex G is not considered.	**P**
2.10.3.1	General	Considered.	**P**
2.10.3.2	Mains transient voltages		**P**
	a) AC mains supply .....:	240V a.c. and Overvoltage Category II	**P**
	b) Earthed d.c. mains supplies .....:		**N/A**
	c) Unearthed d.c. mains supplies .....:		**N/A**
	d) Battery operation .....:		**N/A**
2.10.3.3	Clearances in primary circuits	(see appended table 2.10.3 and 2.10.4)	**P**
2.10.3.4	Clearances in secondary circuits	Sub-clause 5.3.4 considered.	**P**
2.10.3.5	Clearances in circuits having starting pulses		**N/A**
2.10.3.6	Transients from a.c. mains supply .....:	Normal transient voltage considered (overvoltage category II for primary circuit).	**N/A**
2.10.3.7	Transients from d.c. mains supply .....:		**N/A**
2.10.3.8	Transients from telecommunication networks and cable distribution systems .....:		**N/A**
2.10.3.9	Measurement of transient voltage levels		**N/A**
	a) Transients from a mains supply		**N/A**
	For an a.c. mains supply .....:		**N/A**
	For a d.c. mains supply .....:		**N/A**
	b) Transients from a telecommunication network :		**N/A**
2.10.4	Creepage distances		**P**
2.10.4.1	General		**P**
2.10.4.2	Material group and comparative tracking index		**P**

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Clause	Requirement + Test	Result - Remark	Verdict
	CTI tests .....:	Material group IIIb is assumed to be used.	—
2.10.4.3	Minimum creepage distances	(see appended table 2.10.3 and 2.10.4)	**P**
2.10.5	Solid insulation		**P**
2.10.5.1	General		**P**
2.10.5.2	Distances through insulation	(see appended table 2.10.5)	**P**
2.10.5.3	Insulating compound as solid insulation	Only inside approved optocoupler.	**N/A**
2.10.5.4	Semiconductor devices	Approved optocoupler complies to IEC 60747-5-2 and having dti. 0.4mm.	**P**
2.10.5.5.	Cemented joints	Not applied.	**N/A**
2.10.5.6	Thin sheet material – General		**N/A**
2.10.5.7	Separable thin sheet material	Used with transformers T901 of power board 715G7300.	**P**
	Number of layers (pcs) .....:	3 layers for reinforced insulation for transformer T901	—
2.10.5.8	Non-separable thin sheet material	Not applied for.	**N/A**
2.10.5.9	Thin sheet material – standard test procedure		**N/A**
	Electric strength test		—
2.10.5.10	Thin sheet material – alternative test procedure		**P**
	Electric strength test	(see appended table 5.2)	—
2.10.5.11	Insulation in wound components	See only 2.10.5.6.	**P**
2.10.5.12	Wire in wound components		**N/A**
	Working voltage .....:		**N/A**
	a) Basic insulation not under stress .....:		**N/A**
	b) Basic, supplementary, reinforced insulation .....:		**N/A**
	c) Compliance with Annex U .....:		**N/A**
	Two wires in contact inside wound component; angle between 45° and 90° .....:		**N/A**
2.10.5.13	Wire with solvent-based enamel in wound components	Not applied.	**N/A**
	Electric strength test		—
	Routine test		**N/A**
2.10.5.14	Additional insulation in wound components	Not applied.	**N/A**
	Working voltage .....:		**N/A**

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Clause	Requirement + Test	Result - Remark	Verdict
	- Basic insulation not under stress .....:		**N/A**
	- Supplementary, reinforced insulation .....:		**N/A**
2.10.6	Construction of printed boards		**P**
2.10.6.1	Uncoated printed boards	(see appended table 2.10.3 and 2.10.4)	**P**
2.10.6.2	Coated printed boards	Not applied.	**N/A**
2.10.6.3	Insulation between conductors on the same inner surface of a printed board	Not multi-layer printed board.	**N/A**
2.10.6.4	Insulation between conductors on different layers of a printed board	See above.	**N/A**
	Distance through insulation		**N/A**
	Number of insulation layers (pcs).....:		**N/A**
2.10.7	Component external terminations	Coatings not used over terminations to increase effective clearance and creepage distance.	**N/A**
2.10.8	Tests on coated printed boards and coated components		**N/A**
2.10.8.1	Sample preparation and preliminary inspection		**N/A**
2.10.8.2	Thermal conditioning		**N/A**
2.10.8.3	Electric strength test		**N/A**
2.10.8.4	Abrasion resistance test		**N/A**
2.10.9	Thermal cycling		**N/A**
2.10.10	Test for Pollution Degree 1 environment and insulating compound	Pollution Degree 2.	**N/A**
2.10.11	Tests for semiconductor devices and cemented joints	Photo couplers are approved components. No other components applied for.	**N/A**
2.10.12	Enclosed and sealed parts	No hermetically sealed component.	**N/A**

4	**PHYSICAL REQUIREMENTS**		**P**
4.1	**Stability**		**P**
	Angle of 10°	No overturn. (Test by client's request)	**P**
	Test force (N) ..... :	Equipment is not a floor standing unit.	**N/A**

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Clause	Requirement + Test	Result - Remark	Verdict
4.2	**Mechanical strength**		**P**
4.2.1	General	See below. After tests, unit comply with 2.1.1, 2.6.1, 2.10 and 4.4.1.	**P**
	Rack-mounted equipment.		**N/A**
4.2.2	Steady force test, 10 N	Applied on internal components No components located such that distances according to 2.10 can be reduced.	**P**
4.2.3	Steady force test, 30 N	Test performed on internal metal enclosure.	**P**
4.5	**Thermal requirements**		**P**
4.5.1	General		**P**
4.5.2	Temperature tests		**P**
	Normal load condition per Annex L ..... :	Equipment loaded with rated output current.	—
4.5.3	Temperature limits for materials	(see appended table 4.5)	**P**
4.5.4	Touch temperature limits	(see appended table 4.5)	**P**
4.5.5	Resistance to abnormal heat ..... :	Bobbin materials of all transformers and some of line chokes are Phenolic that is accepted without further tests. Others see appended table 4.5.5.	**P**
5	**ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS**		**P**
5.1	**Touch current and protective conductor current**		**P**
5.1.1	General	See sub-clauses 5.1.2 to 5.1.6.	**P**
5.1.2	Configuration of equipment under test (EUT)	See below.	**P**
5.1.2.1	Single connection to an a.c. mains supply	EUT has only one mains connection.	**P**
5.1.2.2	Redundant multiple connections to an a.c. mains supply		**N/A**
5.1.2.3	Simultaneous multiple connections to an a.c. mains supply		**N/A**
5.1.3	Test circuit	Using figure 5A.	**P**

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Clause	Requirement + Test	Result - Remark	Verdict
5.1.4	Application of measuring instrument	Using measuring instrument in annex D.	**P**
5.1.5	Test procedure		**P**
5.1.6	Test measurements	(see appended table 5.1.6)	**P**
	Supply voltage (V) ..... :		—
	Measured touch current (mA) ..... :		—
	Max. allowed touch current (mA) ..... :		—
	Measured protective conductor current (mA) ..... :		—
	Max. allowed protective conductor current (mA) .. :		—
5.1.7	Equipment with touch current exceeding 3,5 mA	Touch current does not exceed 3.5mA.	**N/A**
5.1.7.1	General ..... :		**N/A**
5.1.7.2	Simultaneous multiple connections to the supply		**N/A**
5.1.8	Touch currents to telecommunication networks and cable distribution systems and from telecommunication networks	No TNV circuits.	**N/A**
5.1.8.1	Limitation of the touch current to a telecommunication network or to a cable distribution system		**N/A**
	Supply voltage (V) ..... :		—
	Measured touch current (mA) ..... :		—
	Max. allowed touch current (mA) ..... :		—
5.1.8.2	Summation of touch currents from telecommunication networks		**N/A**
	a) EUT with earthed telecommunication ports ..... :		**N/A**
	b) EUT whose telecommunication ports have no reference to protective earth		**N/A**
5.2	**Electric strength**		**P**
5.2.1	General	(see appended table 5.2)	**P**
5.2.2	Test procedure	(see appended table 5.2)	**P**
5.3	**Abnormal operating and fault conditions**		**P**
5.3.1	Protection against overload and abnormal operation	Ventilation openings blocked, output of power supply board overloaded, no unaccepted overheating of parts (see appended table 5.3)	**P**

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Clause	Requirement + Test	Result - Remark	Verdict
5.3.2	Motors	Motors not used.	**N/A**
5.3.3	Transformers	(see appended Annex C and table 5.3)	**P**
5.3.4	Functional insulation ..... :	By short-circuited, results see appended table 5.3.	**P**
5.3.5	Electromechanical components	No electromechanical component.	**N/A**
5.3.6	Audio amplifiers in ITE ..... :		**N/A**
5.3.7	Simulation of faults	(see appended table 5.3.)	**P**
5.3.8	Unattended equipment	No such equipment.	**N/A**
5.3.9	Compliance criteria for abnormal operating and fault conditions		**P**
5.3.9.1	During the tests	No fire or molten metal occurred and no deformation of enclosure during the tests.	**P**
5.3.9.2	After the tests	No reduction of clearance and creepage distance. Electric strength test is made on basic, supplementary and reinforced insulation after test.	**P**

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Clause	Requirement + Test	Result - Remark	Verdict

1.5.1	TABLE: List of critical components				P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity[1])
Power supply with DC/DC converter circuit: 715G7300					
AC-Inlet (CN901)	Solteam	ST-01	10A, 250Vac	IEC/ EN 60320-1 UL60320-1	VDE, UL
	Zhang Jia Gang-Hua Jie	SA-4S, SA-4S-1, SA-4D	10A, 250Vac	IEC/ EN 60320-1 UL60320-1	VDE, UL
	Rong Feng	SS-120, SS-7B	10A, 250Vac	IEC/ EN 60320-1 UL60320-1	VDE, UL
	Inalways	0707-1, 0711-2, 0714	10A, 250Vac	IEC/ EN 60320-1 UL60320-1	VDE, UL
	DELIKANG	CDJ-3, CDJ-3-1	10A, 250Vac	IEC/ EN 60320-1 UL60320-1	VDE, UL
	TECX	TU-301 series	10A, 250Vac	IEC/ EN 60320-1 UL60320-1	VDE, UL
	Hongchang	DB-14-4, DB-14-05	10A, 250Vac	IEC/ EN 60320-1 UL60320-1	VDE, UL
	Yueqing Hongchang	DB-14	10A, 250Vac	IEC/ EN 60320-1 UL60320-1	VDE, UL
Fuse (F901)	Littelfuse, Inc. Wickmann	382-series, 392	T3.15AL, 250Vac	IEC/ EN 60127-1 IEC/ EN 60127-3 UL 248-1	VDE, UL
	Littelfuse Phils. Inc.	TE5 400 series	T3.15AL, 250Vac	IEC/ EN 60127-1 IEC/ EN 60127-3	VDE
	Conquer	MET series, MST series, PTU	T3.15AL, 250Vac	IEC/ EN 60127-1 IEC/ EN 60127-3 UL 248-1	VDE, UL
	Cooper Bussmann	SR-5, SS-5	T3.15AL, 250Vac	IEC/ EN 60127-1 IEC/ EN 60127-3 UL 248-1	VDE, UL
	Ever Island Electric Co., Ltd. & Walter Electric	2000, 2010 series	T3.15AL, 250Vac	IEC/ EN 60127-1 IEC/ EN 60127-3 UL 248-1	VDE, UL
	Littelfuse Phils. Inc.	877	T3.15AL, 250Vac	IEC/ EN 60127-1 IEC/ EN 60127-3 UL 248-1	VDE, UL

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Clause	Requirement + Test	Result - Remark	Verdict

Y- Capacitor (C902, C903) Y1 or Y2 type (optional)	Walsin	AC, AH	Max. 1000pF, 250Vac, 85°C	IEC/EN 60384-14 UL 60384-14	VDE, UL
	TDK	CS, CD	Max. 1000pF, 250Vac, 85°C	IEC/EN 60384-14 UL 60384-14	VDE, UL
	Murata	KH, KX	Max. 1000pF, 250Vac, 85°C	IEC/EN 60384-14 UL 60384-14	VDE, UL
	JYA-NAY	JY, JN	Max. 1000pF, 250Vac, 85°C	IEC/EN 60384-14 UL 60384-14	VDE, UL
	Hongming	F	Max. 1000pF, 250Vac, 85°C	IEC/EN 60384-14 UL 60384-14	VDE, UL
	Wansheng	CT7	Max. 1000pF, 250Vac, 85°C	IEC/EN 60384-14 UL 60384-14	VDE, UL
	Haohua	CT7	Max. 1000pF, 250Vac, 85°C	IEC/EN 60384-14 UL 60384-14	VDE, UL
	Samwha	SD	Max. 1000pF, 250Vac, 85°C	IEC/EN 60384-14 UL 60384-14	VDE, UL
	Matsushita	NS-A, NS-B	Max. 1000pF, 250Vac, 85°C	IEC/EN 60384-14 UL 60384-14	VDE, UL
	Success	SB, SE	Max. 1000pF, 250Vac, 85°C	IEC/EN 60384-14 UL 60384-14	VDE, UL
	Yinan Don's	CT81	Max. 1000pF, 250Vac, 85°C	IEC/EN 60384-14 UL 60384-14	VDE, UL
Y- Capacitor (C913) Y1 type (optional)	Walsin	AH	Max. 2200pF, 250Vac, 85°C	IEC/EN 60384-14 UL 60384-14	VDE, UL
	TDK	CD	Max. 2200pF, 250Vac, 85°C	IEC/EN 60384-14 UL 60384-14	VDE, UL
	Murata	KX	Max. 2200pF, 250Vac, 85°C	IEC/EN 60384-14 UL 60384-14	VDE, UL

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Clause	Requirement + Test	Result - Remark	Verdict

	JYA-NAY	JN	Max. 2200pF, 250Vac, 85°C	IEC/EN 60384-14 UL 60384-14	VDE, UL
	Hongming	F	Max. 2200pF, 250Vac, 85°C	IEC/EN 60384-14 UL 60384-14	VDE, UL
	Wansheng	CT7	Max. 2200pF, 250Vac, 85°C	IEC/EN 60384-14 UL 60384-14	VDE, UL
	Haohua	CT7	Max. 2200pF, 250Vac, 85°C	IEC/EN 60384-14 UL 60384-14	VDE, UL
	Samwha	SD	Max. 2200pF, 250Vac, 85°C	IEC/EN 60384-14 UL 60384-14	VDE, UL
	Matsushita	NS-A	Max. 2200pF, 250Vac, 85°C	IEC/EN 60384-14 UL 60384-14	VDE, UL
	Success	SB, SE	Max. 2200pF, 250Vac, 85°C	IEC/EN 60384-14 UL 60384-14	VDE, UL
	Yinan Don's	CT81	Max. 2200pF, 250Vac, 85°C	IEC/EN 60384-14 UL 60384-14	VDE, UL
X-Capacitor (X1 or X2 type) (C901) (optional)	Ultra Tech Xiphi	HQX	Max. 0.33µF, Min. 250Vac, 85°C	IEC/EN 60384-14 UL 60384-14	VDE, UL
	Faratronic	MKP62	Max. 0.33µF, Min. 250Vac, 85°C	IEC/EN 60384-14 UL 60384-14	VDE, UL
	Hua Jung	MKP	Max. 0.33µF, Min. 250Vac, 85°C	IEC/EN 60384-14 UL 60384-14	ENEC(Semko), UL
	Nanjing Tengen Rongguangda	MKP	Max. 0.33µF, Min. 250Vac, 85°C	IEC/EN 60384-14 UL 60384-14	VDE, UL
	Europtronic	MPX, MPX2	Max. 0.33µF, Min. 250Vac, 85°C	IEC/EN 60384-14 UL 60384-14	VDE, UL
	Liow Gu	GS-L	Max. 0.33µF, Min. 250Vac, 85°C	IEC/EN 60384-14 UL 60384-14	VDE, UL

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Clause	Requirement + Test	Result - Remark	Verdict

	Arcotronics (KEMET)	R.46	Max. 0.33µF, Min. 250Vac, 85°C	IEC/EN 60384-14 UL 60384-14	ENEC(IMQ), UL
	EPCOS	B3292#	Max. 0.33µF, Min. 250Vac, 85°C	IEC/EN 60384-14 UL 60384-14	VDE, UL
	ZhuHai Sung Ho Electronics Co., Ltd.	CMPP	Max. 0.33µF, Min. 250Vac, 85°C	IEC/EN 60384-14 UL 60384-14	VDE, UL
Photo Coupler (U902)	Sharp	PC123	Di more than 0.4mm, int = thermal cycling test,ext. more than 8.0mm, 5000Vac, 100°C.	DIN EN 60747-5-5:2007 IEC60747-5-5:2007 IEC/EN 60950-1 UL 1577	VDE, UL, Semko, Nemko, Fimko
	Vishay Semiconductor	TCET1103	Di more than 0.5mm, int. cr more than 6.0mm, ext. cr more than 7.7mm, 3000Vac, 100°C.	DIN EN 60747-5-5:2007 IEC60747-5-5:2007 IEC/EN 60950-1 UL 1577	VDE, UL, Semko, Fimko
	Everlight Electronics Co., Ltd.	EL817, EL817M	Di more than 0.5mm, int. cr = thermal cycling test, ext. cr more than 7.7mm, 3000Vac, 100°C.	DIN EN 60747-5-5:2007 IEC60747-5-5:2007 IEC/EN 60950-1 UL 1577	VDE, UL, Semko, Nemko, Fimko
	TOSHIBA	TLP781F , TLP781	Di more than 0.5mm, int. cr =thermal cycling test, ext. cr more than 8.0mm, 4800Vac, 100°C.	DIN EN 60747-5-5:2007 IEC60747-5-5:2007 IEC/EN 60950-1 UL 1577	VDE, UL, Semko
	TOSHIBA	TLP421F	Di more than 0.4mm, int.cr=thermal cycling test, ext. cr more than 8.0mm, 5000Vac, 100°C.	DIN EN 60747-5-5:2007 IEC60747-5-5:2007 IEC/EN 60950-1 UL 1577	VDE, UL
	RENESAS ELECTRONICS CORPORATION	PS2561-1, PS2561L-1, PS2561L1-1, PS2561L2-1. PS2561DL1-1	Di more than 0.4mm, int.cr=thermal cycling test, ext. cr more than 8.0mm, 5000Vac, 100°C.	DIN EN 60747-5-5:2007 IEC60747-5-5:2007 IEC/EN 60950-1 UL 1577	VDE, UL, Nemko, Fimko

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Clause	Requirement + Test	Result - Remark	Verdict

	Everlight Electronics Co., Ltd.	EL1013	Di more than 0.4mm, int.cr=thermal cycling test, ext. cr more than 8.1mm, 3000Vac, 100°C.	DIN EN 60747-5-5:2007 IEC60747-5-5:2007 IEC/EN 60950-1 UL 1577	VDE, UL, Semko, Fimko
	Lite-On	LTV-817	Di more than 0.6mm, int.cr=thermal cycling test, ext. cr more than 8.0mm, 4800Vac, 100°C.	DIN EN 60747-5-5:2007 IEC60747-5-5:2007 IEC/EN 60950-1 UL 1577	VDE, UL, Semko, Fimko
Line Choke (L901) (optional)	ASET	73G-174-192-X	105°C	--	--
	DADON	73G-174-192-H	105°C	--	--
	TAICHANG	73G-174-192-S	105°C	--	--
	FRONTIER	73G-174-192-F	105°C	--	--
	LI TAI	73G-174-192-L	105°C	--	--
	YUVA	73G-174-192-N	105°C	--	--
	LIANZHEN	373G017419200Z	105°C	--	--
	DARFON	73G-174-192-DN	105°C	--	--
Transformer (T901) (Alt.)	Li Tai	380GL19P533L	Class 130 material (B)	Applicable parts of IEC 60950-1 and according to IEC 60085	Accepted by TÜV Rheinland
Bobbin	Sumitomo	PM-9820	V-0, Phenolic, 150°C	UL 94	UL
Margin tape	SYMBIO INC	No.35661$	130°C	UL510	UL
	3M	No.44(a)	130°C	UL510	UL
Insulation Tape	SYMBIO INC	No.35660Y*(%)	130°C	UL510	UL
	JINGJIANG YAHUA	No.CT(c)	130°C	UL510	UL
Transformer (T901) (Alt.)	YUVA	380GL19P533N	Class 130 material (B)	Applicable parts of IEC 60950-1 and according to IEC 60085	Accepted by TÜV Rheinland
Bobbin	Sumitomo	PM-9820	V-0, Phenolic, 150°C	UL 94	UL

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Clause	Requirement + Test	Result - Remark	Verdict

Margin tape	SYMBIO INC	No.35661$	130°C	UL510	UL
	3M	No.44(a)	130°C	UL510	UL
Insulation Tape	SYMBIO INC	No.35660Y*(%)	130°C	UL510	UL
	JINGJIANG YAHUA	No.CT(c)	130°C	UL510	UL
Transformer (T901) (Alt.)	TPV	S80GL19P533V	Class 130 material (B)	Applicable parts of IEC 60950-1 and according to IEC 60085	Accepted by TÜV Rheinland
Bobbin	Sumitomo	PM-9820	V-0, Phenolic, 150°C	UL 94	UL
Margin tape	SYMBIO INC	No.35661$	130°C	UL510	UL
	JINGJIANG YAHUA	No.WF(c)	130°C	UL510	UL
Insulation Tape	JINGJIANG YAHUA	No.CT(c)	130°C	UL510	UL
	SYMBIO INC	No.35660Y*(%)	130°C	UL510	UL
Transformer (T901) (Alt.)	LFDJ	380GL19P533J	Class 130 material (B)	Applicable parts of IEC 60950-1 and according to IEC 60085	Accepted by TÜV Rheinland
Bobbin	Sumitomo	PM-9820	V-0, Phenolic, 150°C	UL 94	UL
Margin tape	SYMBIO INC	No.35661$	130°C	UL510	UL
	3M	No.44(a)	130°C	UL510	UL
Insulation Tape	JINGJIANG YAHUA	No.CT(c)	130°C	UL510	UL
Transformer (T901) (Alt.)	PHOENIX	380GL19P533P	Class 130 material (B)	Applicable parts of IEC 60950-1 and according to IEC 60085	Accepted by TÜV Rheinland
Bobbin	Sumitomo	PM-9820	V-0, Phenolic, 150°C	UL 94	UL
Margin tape	JINGJIANG YAHUA	No.WF(c)	130°C	UL510	UL

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Insulation Tape	JINGJIANG YAHUA	No.CT(c)	130°C	UL510	UL
Transformer (T901) (Alt.)	Channelon	380GL19P533H	Class 130 material (B)	Applicable parts of IEC 60950-1 and according to IEC 60085	Accepted by TÜV Rheinland
Bobbin	Sumitomo	PM-9820	V-0, Phenolic, 150°C	UL 94	UL
Margin tape	SYMBIO INC	No.35661$	130°C	UL510	UL
Insulation Tape	JINGJIANG YAHUA	No.CT(c)	130°C	UL510	UL
	SYMBIO INC	No.35660Y*(%)	130°C	UL510	UL
Transformer (T901) (Alt.)	Taichang	380GL19P533S	Class 130 material (B)	Applicable parts of IEC 60950-1 and according to IEC 60085	Accepted by TÜV Rheinland
Bobbin	Sumitomo	PM-9820	V-0, Phenolic, 150°C	UL 94	UL
Margin tape	JINGJIANG YAHUA	No.WF(c)	130°C	UL510	UL
Insulation Tape	JINGJIANG YAHUA	No.CT(c)	130°C	UL510	UL

Supplementary information:

1. An asterisk indicates a mark that assures the agreed level of surveillance.
2. In the technical data column of optocoupler, where “Dti” means distance through insulation, “Int. cr” means internal creepage distance, and “Ext. cr” means external creepage distance.
3. All sources of transformer were checked with same construction.

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1.5.1	TABLE: Opto Electronic Devices	P
Manufacturer ..... :	Sharp / Vishay / Everlight / TOSHIBA / TOSHIBA / RENESAS / Everlight/Lite-On	
Type..... :	PC123 / TCET1103 / EL817, EL817M / TLP781F, TLP781 / TLP421F / PS2561-1, PS2561L-1, PS2561L1-1, PS2561L2-1, PS2561DL1-1 / EL1013/LTV817	
Separately tested ..... :	Tested by FIMKO	
Bridging insulation ..... :	Reinforced insulation.	
External creepage distance..... :	>8.0 / >7.7 / >7.7 / >8.0 / >8.0 / >8.0 / >8.1/>8.0	
Internal creepage distance ..... :	1) / >6.0 / 1) / 1) / 1) / 1) / 1) / 1)	
Distance through insulation ..... :	>0.4 / >0.5 / >0.5 / >0.5 / >0.4 / >0.4 / >0.4/>0.6	
Tested under the following conditions ..... :	--	
Input..... :	--	
Output..... :	--	
Supplementary information:		

1.6.2	TABLE: Electrical data (in normal conditions)					P
U (V)	I (A)	Irated (A)	P (W)	Fuse #	Ifuse (A)	Condition/status
Tested on power board: 715G7300 and main board: 715G9492						
VGA mode						
90V/50Hz	0.474	--	26.7	F901	0.474	Normal load condition
90V/60Hz	0.477	--	26.6	F901	0.477	Normal load condition
100V/50Hz	0.433	1.5	26.4	F901	0.433	Normal load condition
100V/60Hz	0.439	1.5	26.3	F901	0.439	Normal load condition
240V/50Hz	0.255	1.5	25.8	F901	0.255	Normal load condition
240V/60Hz	0.257	1.5	25.6	F901	0.257	Normal load condition
264V/50Hz	0.234	--	25.4	F901	0.234	Normal load condition
264V/60Hz	0.237	--	25.5	F901	0.237	Normal load condition
HDMI mode						
90V/50Hz	0.478	--	27.1	F901	0.478	Normal load condition
90V/60Hz	0.479	--	27.0	F901	0.479	Normal load condition

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100V/50Hz	0.431	1.5	26.9	F901	0.431	Normal load condition
100V/60Hz	0.437	1.5	26.8	F901	0.437	Normal load condition
240V/50Hz	0.245	1.5	26.3	F901	0.245	Normal load condition
240V/60Hz	0.243	1.5	26.4	F901	0.243	Normal load condition
264V/50Hz	0.224	--	26.1	F901	0.224	Normal load condition
264V/60Hz	0.226	--	26.3	F901	0.226	Normal load condition
VGA mode						
90V/50Hz	0.344	--	18.7	F901	0.344	Normal load condition
90V/60Hz	0.347	--	18.5	F901	0.347	Normal load condition
100V/50Hz	0.317	1.5	18.6	F901	0.317	Normal load condition
100V/60Hz	0.318	1.5	18.4	F901	0.318	Normal load condition
240V/50Hz	0.180	1.5	18.4	F901	0.180	Normal load condition
240V/60Hz	0.180	1.5	18.2	F901	0.180	Normal load condition
264V/50Hz	0.170	--	18.4	F901	0.170	Normal load condition
264V/60Hz	0.169	--	18.3	F901	0.169	Normal load condition
Supplementary information: 1. Maximum normal load: maximum brightness, maximum contrast, full white screen.						

2.1.1.5 c) 1)	TABLE: max. V, A, VA test			P
Voltage (rated) (V)	Current (rated) (A)	Voltage (max.) (V)	Current (max.) (A)	VA (max.) (VA)
Tested with Power board 715G7300				
V_{out} output	--	17.8	2.6	44.3
Supplementary information: Test voltage is 264Vac, 60Hz.				

2.2	TABLE: evaluation of voltage limiting components in SELV circuits		P
Component (measured between)	max. voltage (V) (normal operation)		Voltage Limiting Components
	V peak	V d.c.	
Tested with Power board 715G7300			
T901: Pin 7 - pin 9	69.0	--	--
After R916 to GND	69.0	--	R916

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After C915/D901 to GND	--	20.2	C915/D901
After L801 to GND	--	17.9	--
After D802 (converter board) to GND	--	37.8	--
Converter board---Earth	--	45.8	--
Fault test performed on voltage limiting components	Voltage measured (V) in SELV circuits (V peak or V d.c.)		
D901 (S-c)	0V (V_{out} output)		
C915 (S-c)	19.5V (V_{out} output)		
R916 (S-c)	19.5V (V_{out} output)		
C916 (S-c)	0V (V_{out} output)		
D802 (S-c)	0V (converter output)		
Supplementary information: Input Voltage is 240Vac, 60Hz. S-c = short circuit.			

2.5	**TABLE: Limited power sources**					**P**
Circuit output tested: V_{out} output on power board 715G7300						
Note: Measured Uoc (V) with all load circuits disconnected:						
Components	Test condition (Single fault)	Uoc (V)	I_{sc} (A)		VA	
			Meas.	Limit	Meas.	Limit
Normal condition	--	17.8	2.6	8	44.3	100
C915	Sc	18.2	2.1	8	35.4	100
R916	Sc	18.2	2.2	8	36.5	100
R931	Sc	18.7	1.8	8	32.1	100
U903 A-K	Sc	0 [2.]	0 [2.]	8	0 [2.]	100
R932 s-c	Sc	0 [2.]	0 [2.]	8	0 [2.]	100
U902 Pin 1-2	Sc	0 [2.]	0 [2.]	8	0 [2.]	100
U902 Pin 3-4	Sc	0 [2.]	0 [2.]	8	0 [2.]	100
Supplementary information: Sc=Short circuit, Oc=Open circuit. 1. Input Voltage is 264Vac, 60Hz. 2. Unit shut down.						

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2.10.2	Table: working voltage measurement			P
Location		Peak voltage (V)	RMS voltage (V)	Comments
Tested with power board 715G7300				
T901: Pin 1 to pin 7		400	237	
T901: Pin 1 to pin 9		378	237	
T901: Pin 2 to pin 7		387	237	
T901: Pin 2 to pin 9		444	237	
T901: Pin 3 to pin 7		438	237	
T901: Pin 3 to pin 9		378	237	
T901: Pin 5 to pin 7		512	260	
T901: Pin 5 to pin 9		**531**	**276**	**Max. Vpeak & Vrms**
C913 primary pin – secondary pin		381	238	
U902 1-3		394	248	
U902 1-4		394	248	
U902 2-3		393	248	
U902 2-4		395	249	
Supplementary information: Input Voltage is 240Vac, 60Hz				

2.10.3 and 2.10.4	TABLE: clearance and creepage distance measurements					P
Clearance cl and creepage distance dcr at/of:	U p (V)	U r.m.s. (V)	Required cl (mm)	cl (mm)	Required dcr (mm)	dcr (mm)
Tested with power board 715G7300						
Functional:						
Under fuse (F901) [1.]	420	250	2.3	2.7	2.5	3.7
Before fuse (between L-N)	420	250	2.3	3.2	2.5	3.2
Basic / supplementary:						
Line-GND [1.]	420	250	3.0	3.1	3.0	3.3
Neutral-GND	420	250	3.0	3.1	3.0	3.1
Under C902 [1.]	420	250	3.0	3.8	3.0	4.8
Under C903 [1.]	420	250	3.0	3.4	3.0	5.8
Primary heatsink HS1 to core of T901	**531**	**276**	3.3	4.0	3.3	4.0

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Secondary component D901 to core of T901	**531**	**276**	3.3	8.8	3.3	8.8
Primary component HS1 to metal enclosure	420	250	3.0	3.8	3.0	3.8
T901 core to metal enclosure	**531**	**276**	3.3	6.7	3.3	6.7
Reinforced:						
Under T901	**531**	**276**	6.6	8.2	6.6	8.2
U902 primary pin to U902 secondary pin (trace side) [1.]	420	250	6.0	8.0	6.0	8.2
Under C913 [1.]	420	250	3.0	7.6	3.0	11.0

Supplementary information:

1. There is one slot measured 1mm width.
2. Core of main transformer T901 consider as floating.
3. One mylar sheet is fixed between primary component trace and panel plate to fulfill the requirement for reinforced insulation. See table 5.2 for the electric strength test for mylar.
4. Glued component: C907.
5. Considered altitude correction factor 1.48 for clearances for an altitude of 5000m.
6. For clearance and creepage that did not describe above are far larger than limit above.

2.10.5	**TABLE: Distance through insulation measurements**				**P**
Distance through insulation DTI at/of:	U peak (V)	U rms (V)	Test voltage (V)	Required DTI (mm)	DTI (mm)
Photo coupler (reinforced insulation)	420	250	3000	0.4	[1.]
PCB	420	250	3000	0.4	[1.]

Supplementary information:

1. For approved component source see appended table 1.5.1.

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Clause	Requirement + Test	Result - Remark	Verdict

4.5	TABLE: Thermal requirements					P
	Supply voltage (V)	90V/ 60Hz	264V/ 60Hz	--	--	—
	Ambient T_{min} (°C)	--	--	--	--	—
	Ambient T_{max} (°C)	--	--	--	--	—
Maximum measured temperature T of part/at.....:		T (°C)				Allowed T_{max} (°C)
Tested on power board: 715G7300 and main board: 715G9492, HDMI mode						
Line pin of AC Inlet CN901 (on power board)		34.4	31.0	--	--	54.7
C902 body (on power board)		35.7	32.3	--	--	69.7
PCB near NR901 (on power board)		50.8	39.0	--	--	89.7
C908 body (on power board)		45.8	44.5	--	--	69.7
L901 coil (on power board)		49.5	38.4	--	--	89.7
PCB near BD901 (on power board)		49.9	41.2	--	--	89.7
C907 body (on power board)		43.3	37.9	--	--	89.7
C900 body (on power board)		38.0	32.9	--	--	69.7
T901 coil (on power board)		57.8	59.5	--	--	94.7
T901 core (on power board)		55.3	57.8	--	--	94.7
U902 body (on power board)		46.0	43.8	--	--	84.7
PCB near D906 (on power board)		51.9	48.0	--	--	89.7
PCB near Q901 (on power board)		52.4	48.1	--	--	89.7
PCB near L801 (on power board)		50.4	48.5	--	--	89.7
PCB near U801 (on power board)		50.9	47.0	--	--	89.7
PCB near U401 (on main board)		50.4	47.8	--	--	89.7
Metal enclosure		36.1	33.5	--	--	54.7
Plastic enclosure inside near T901		32.9	30.2	--	--	--
Panel surface		34.8	31.9	--	--	79.7
Plastic enclosure outside		28.0	27.3	--	--	79.7
Ambient		24.7	24.7	--	--	--
Supplementary information:						

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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:

1. The temperatures were measured under the worst case normal mode defined in 1.2.2.1 and as described in sub-clause 1.6.2 at voltages as described above.
2. With a specified ambient temperature of 40°C. Temperature limits are calculated as follows:
   Winding components providing safety isolation:
   - Class B: Tmax = 120 - 10 - 40 + 17.6

   Components with maximum absolute temperature of others:
   - Tmax = Tmax of component - 40 + 17.6

4.5.5	TABLE: ball pressure test of thermoplastic parts		N/A
	allowed impression diameter (mm) .....:	≤ 2 mm	—

Part	Test temperature (°C)	Impression diameter (mm)
Tested with Power board 715G7300		
Line choke (L901), Chang Chun, type PBT-4115	125	1.0
Line choke (L901), Chang Chun, type PBT-5630	125	1.0
Note(s):		

4.7	TABLE: Resistance to fire				P
Part	Manufacturer of material	Type of material	Thickness (mm)	Flammability class	Evidence
PCB	--	--	--	V-1	UL

Supplementary information: See table 1.5.1.
* Not fire enclosure.

5.1	TABLE: touch current measurement		P
Measured between:	Measured (mA)	Limit (mA)	Comments/conditions
Tested with Power board 715G7300			
L – metal enclosure	0.22	3.5	Switch “e” open
N – metal enclosure	0.22	3.5	Switch “e” open
L – signal connector	0.01	0.25	Switch “e” close *
N – signal connector	0.01	0.25	Switch “e” close *

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Clause	Requirement + Test	Result - Remark	Verdict

L – plastic enclosure	0.01	0.25	Switch “e” close
N – plastic enclosure	0.01	0.25	Switch “e” close
Supplementary information: Supplied with 264V/60Hz. * Test performed with functional earthing disconnected.			

5.2	**TABLE: Electric strength tests, impulse tests and voltage surge tests**		**P**
Test voltage applied between:	Voltage shape (AC, DC, impulse, surge)	Test voltage (V)	Breakdown Yes / No
Tested with power board 715G7300			
Basic/supplementary:			
T901 [1]: primary to core	AC	1803	No
T901 [1]: secondary to core	AC	1803	No
Heat shrinkable tube covered on secondary wire	AC	1674	No
Reinforced:			
Unit primary to secondary (output)	DC	4242	No
T901 [1]: primary to secondary	AC	3000	No
T901 [1]: each layer of insulation tape	AC	3000	No
Supplementary information: 1. For all sources of T901; 2. The test mentioned above were performed after humidity conditioning test.			

5.3	**TABLE: Fault condition tests**		**P**
	Ambient temperature (°C) .....:	See below	—
	Power source for EUT: ManuFacturer, model/type, output rating .....:		—

Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
Tested with Power board 715G7300						
BD901 pin 2-4	s-c	264	<1 sec	F901	--	Fuse F901 opened instantly, no hazard.
C907	s-c	264	<1 sec	F901	--	Fuse F901 opened instantly, no hazard.
Q901 pin G-S	s-c	264	5 min	F901	0.04	Unit shut down, no hazard.

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Q901 pin D-G	s-c	264	5 min	F901	0.04	R928, Q901 and U901 damaged, no hazards. This test was repeated twice (three tests total) with same result.
Q901 pin D-S	s-c	264	5 min	F901	0.04	R931 and Q901 damaged, no hazards. This test was repeated twice (three tests total) with same result.
U901 Pin 1 to Pin 5	s-c	264	5 min	F901	0.04	Unit shut down, no hazard.
U901 Pin 2 to Pin 5	s-c	264	5 min	F901	0.04	Unit shut down, no hazard.
U902 pin 1 - 2	s-c	264	5 min	F901	0.04	Unit shut down, no hazard.
U902 pin 3 - 4	s-c	264	5 min	F901	0.04	Unit shut down, no hazard.
U902 pin 1	o-c	264	5 min	F901	0.04	Unit shut down, no hazard.
U902 pin 3	o-c	264	5 min	F901	0.04	Unit shut down, no hazard.
C916	s-c	264	5 min	F901	0.04	Unit shut down, no hazard.
D901	s-c	264	5 min	F901	0.04	Unit shut down, no hazard.
T901 pin 1 to pin 2	s-c	264	5 min	F901	0.06	Unit shut down, no hazard.
T901 pin 3 to pin 5	s-c	264	5 min	F901	0.06	Unit shut down, no hazard.
T901 pin 7 to pin 9	s-c	264	5 min	F901	0.03	Unit shut down, no hazard.
V_{out} output to earth	s-c	264	5 min	F901	0.04	Unit shut down, no hazard.
Converter output to earth	s-c	264	5 min	F901	0.04	Unit shut down, no hazard.

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Ventilation openings	blocked	240	2h	F901	0.278	Unit operated normally, no hazards, no damaged. After temperature reached stable, max. measured temp. in T901 coil =68.1°C, T901 core =66.7°C, U902 =50.4°C ambient =24.8°C.
T901 pin 7,8 to pin 9,10 after D905 (+19V)	o-l	264	2h	F901	0.389	Max. measured temp. in T901 coil =78.8°C, T901 core =76.6°C, U902 =53.5°C ambient =24.8°C., before shut down winding is loaded to 0.90A. No hazards.

Notes:

1. The unit passed 3000V hi-pot test between primary and accessible output connector after single fault test above.
2. In fault column, where s-c=short-circuited, o-c=open-circuited, o-l = overload.
3. For fuse opened conditions were tested with each source of fuse.
4. Test repeated three times with same result.
5. Temp. limited of transformer (class B) according to table C.1 is 175°C -10°C-(40°C -Tamb).

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C.2	TABLE: transformers (for power board 715G7300)						P
Loc.	Tested insulation	Working voltage peak / V (2.10.2)	Working voltage rms / V (2.10.2)	Required electric strength (5.2)	Required clearance / mm (2.10.3)	Required creepage distance / mm (2.10.4)	Required distance thr. insul. (2.10.5)
T901	Input terminal to output winding (RI)	531	276	AC 3000V	6.6	6.6	Min. 2 layers tape
T901	Input terminal to output terminal (RI)	531	276	AC 3000V	6.6	6.6	Min. 2 layers tape
T901	Input winding to output winding (RI)	531	276	AC 3000V	6.6	6.6	Min. 2 layers tape
T901	Input winding to output terminal (RI)	531	276	AC 3000V	6.6	6.6	Min. 2 layers tape
T901	Input winding to Core (BI)	531	276	AC 1803V	3.3	3.3	--
T901	Input terminal to Core (BI)	531	276	AC 1803V	3.3	3.3	--
T901	Output winding to Core (BI)	531	276	AC 1803V	3.3	3.3	--
T901	Output terminal to Core (BI)	531	276	AC 1803V	3.3	3.3	--
Loc.	Tested insulation			Test voltage/ V	Measured clearance / mm	Measured creepage dist./ mm	Measured distance thr. insul. / mm; number of layers
T901	Input terminal to output winding (RI)			AC 3000V	7.6	7.6	3 layers tape
T901	Input terminal to output terminal (RI)			AC 3000V	22.5	22.5	3 layers tape
T901	Input winding to output winding (RI)			AC 3000V	8.4	8.4	3 layers tape
T901	Input winding to output terminal (RI)			AC 3000V	8.0	8.0	3 layers tape
T901	Input terminal to Core (BI)			AC 1803V	5.5	5.5	--
T901	Input winding to Core (BI)			AC 1803V	4.2	4.2	--

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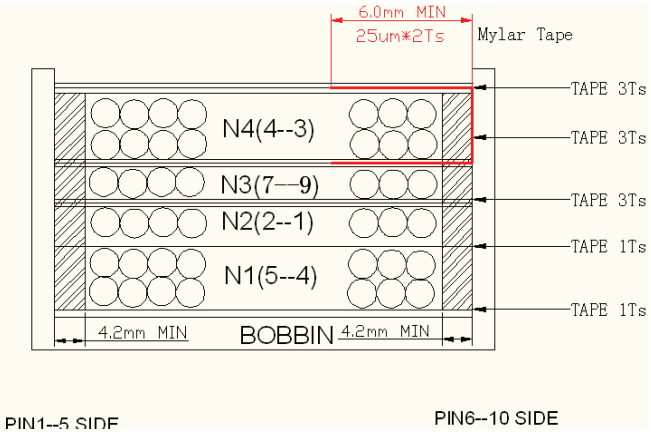
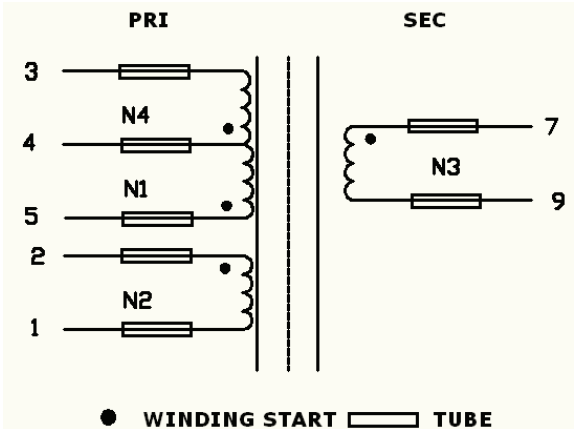
T901	Output terminal to Core (BI)	AC 1803V	5.5	5.5	--
T901	Output winding to Core (BI)	AC 1803V	4.2	4.2	--
Supplementary information: All sources of transformer were checked with same construction.					

C.2	TABLE: transformers	P

Construction:





NO.	Winding	Terminal	Wire	Turns	Remark	MARGIN mm	TAPE 1T
1	N1	5—4	UEW φ0.35	23	CLOSED	4.2mm/4.2mm	1T
2	N2	2—1	UEW φ0.35*3	7	CLOSED	4.2mm/4.2mm	3Ts
3	N3	7—9	UEW φ0.35*3	7	CLOSED	4.2mm/4.2mm	3Ts
4	N4	4--3	UEW φ0.35	22	CLOSED	4.2mm/4.2mm	3Ts

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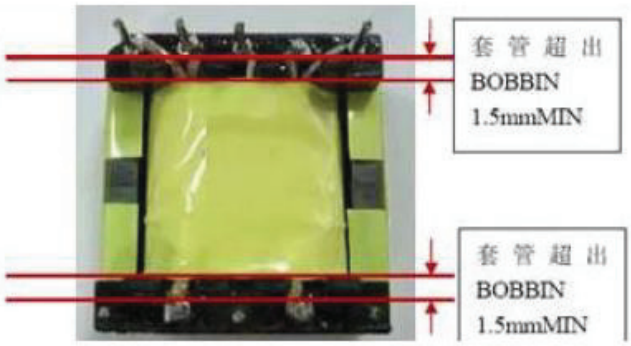
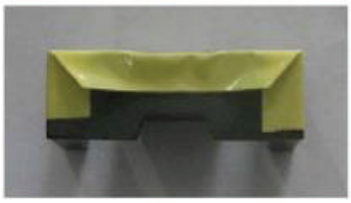
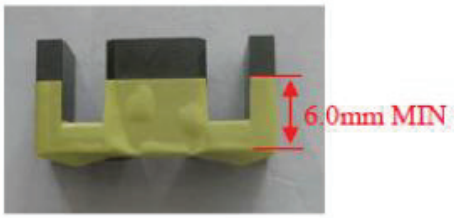


EPOXY WEIGHT：0.05g REF(軟膠)

磁芯背膠





Concentric windings on phenolic bobbin. Three layers of insulation tape are provided around outer winding and outer winding is primary. Three layers of insulation tape are provided between the primary windings and secondary windings. The core is considered as floating part. At least 4.2mm margin tape at both primary solder pin side and secondary solder pin side. Two layers of fold back insulation tape provided on primary winding N4 at secondary pin side. All winding leads are covered by tube.

Clause	Requirement + Test	Result - Remark	Verdict

2.1.1.7	TABLE: discharge test				P
Condition	τ calculated (s)	τ measured (s)	t u→ 0V (s)	Comments	
Tested with Power board 715G7300					
System on (with fuse in, L-N)	0.75	0.69	--	Vo=373Vpk, 37% of Vo=138Vpk.	
Supplementary information: Overall capacity: C901 = 0.22μF, Discharge resistor: R907=R908=R909 =1.0MΩ, Supplied with 264V/60Hz.					

2.4.2	TABLE: limited current circuit measurement				P
Location	Voltage (V)	Current (mA)	Freq. (kHz)	Limit (mA)	Comments
Tested with Power board 715G7300					
C913	--	0.38	--	0.7	--
Supplementary information: 1. Measured with figure D.1 instrument.					

2.6.3.4	TABLE: ground continue test		P
Location	Resistance measured (mΩ)	Comments	
Tested with Power board 715G7300			
PE terminal of AC inlet to internal metal enclosure	4.0	Test with 32A, 2 minutes	
PE terminal of AC inlet to internal metal enclosure	4.0	Test with 40A, 2 minutes	
PE terminal of AC inlet to C902/C903 trace	4.0	Test with 32A, 2 minutes	
PE terminal of AC inlet to C902/C903 trace	4.0	Test with 40A, 2 minutes	
Supplementary information:			

Clause	Requirement + Test	Result - Remark	Verdict

4.6.1, 4.6.2	**Table: enclosure openings**		**P**
Location		Size (mm)	Comments
Internal metal chassis (metal thickness min.0.6mm except part under power board)			
Top		1) Numerous circle openings: ∅4.8mm. 2) One rectangle opening above main board: 76.0mm x 6.8mm; 3) One rectangle opening above main board: 30.3mm x 12.1mm. 4) Two rectangle openings: 17.9mm x 10.4mm.	1) Openings do not exceed 5mm in any dimension. No hazards. 2)-3) No hazardous part within vertical projection of 5° from the opening. 4) Covered by plastic enclosure.
Rear		1) Three circle openings: max. ∅4.0mm; 2) One rectangle opening above power board: 22.3mm x 35.4mm.	1) Openings do not exceed 5mm in any dimension. No hazards. 2) No hazardous part within vertical projection of 5° from the opening.
Left		One rectangle opening near main board: 24.7mm x 15.4mm.	No hazardous part within vertical projection of 5° from the opening.
Right		1) One rectangle opening above power board: 15.7mm x 35.4mm.	No hazardous part within vertical projection of 5° from the opening.
Bottom		No opening	--

Product: LCD monitor (LED Backlight)

Type Designation: 27P1, Q27P1, **27P1********, 27E1, **27E1******** (* can be 0-9, A-Z, a-z, – , \ , / , + or blank, represent different enclosure colour for marketing purpose)

Figure 1. Front view with stand base type B

Figure 2. Rear view with stand base type B

Product: LCD monitor (LED Backlight)

Type Designation: 27P1, Q27P1, **27P1********, 27E1, **27E1******** (* can be 0-9, A-Z, a-z, – , \ , / , + or blank, represent different enclosure colour for marketing purpose)

Figure 3. Base stand type B

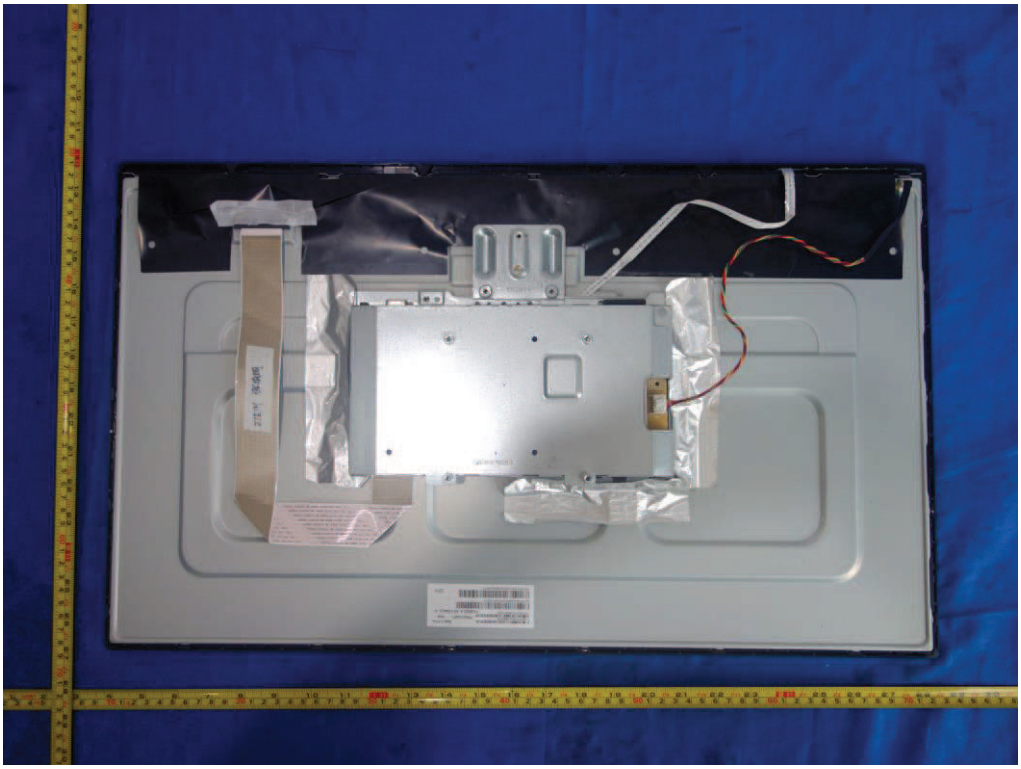


Figure 4. Internal view of metal enclosure type B

Product: LCD monitor (LED Backlight)

Type Designation: 27P1, Q27P1, **27P1********, 27E1, **27E1******** (* can be 0-9, A-Z, a-z, – , \ , / , + or blank, represent different enclosure colour for marketing purpose)

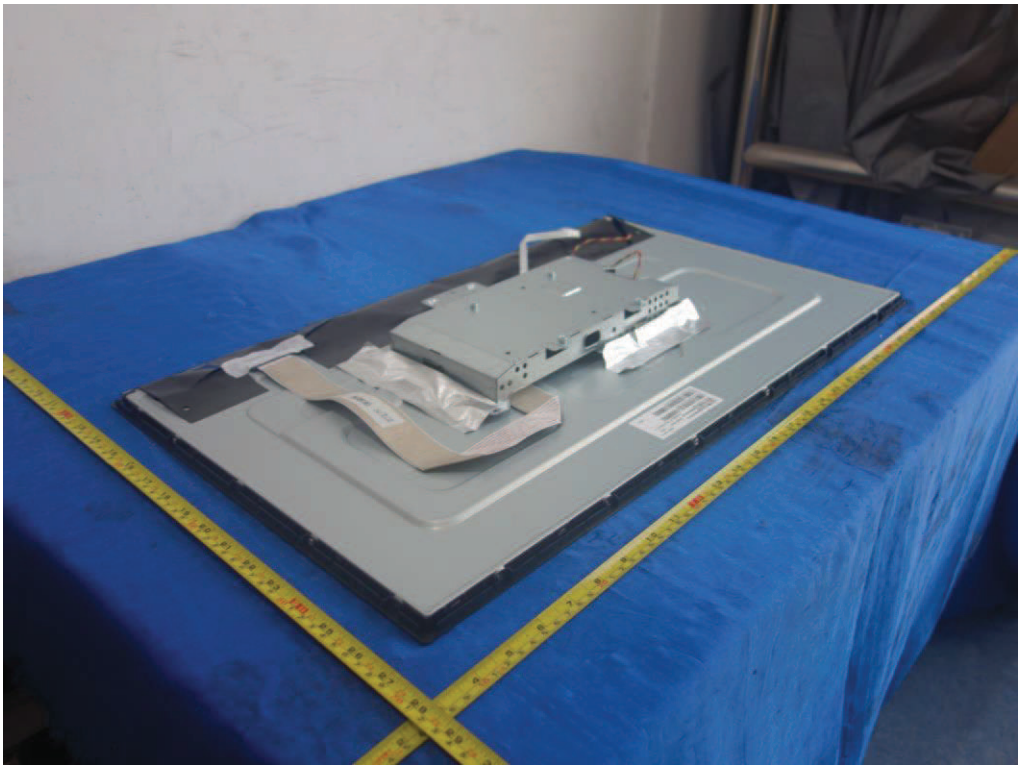


Figure 5. Internal view of metal enclosure type B

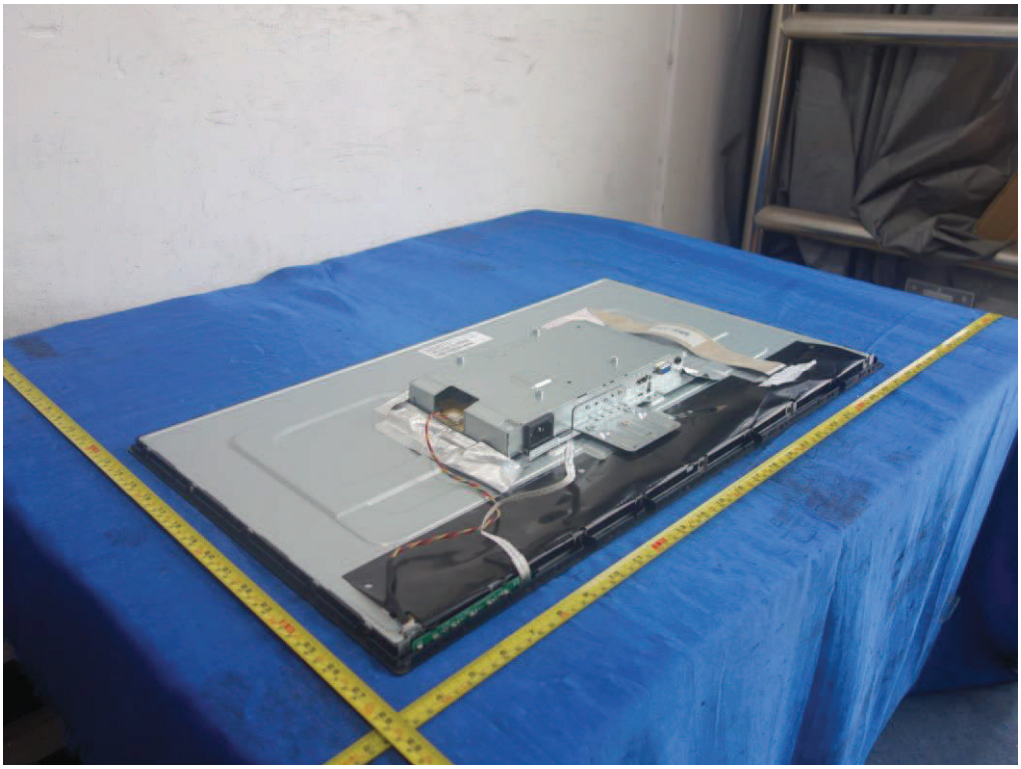


Figure 6. Internal view of metal enclosure type B

Product: LCD monitor (LED Backlight)

Type Designation: 27P1, Q27P1, **27P1********, 27E1, **27E1******** (* can be 0-9, A-Z, a-z, – , \ , / , + or blank, represent different enclosure colour for marketing purpose)

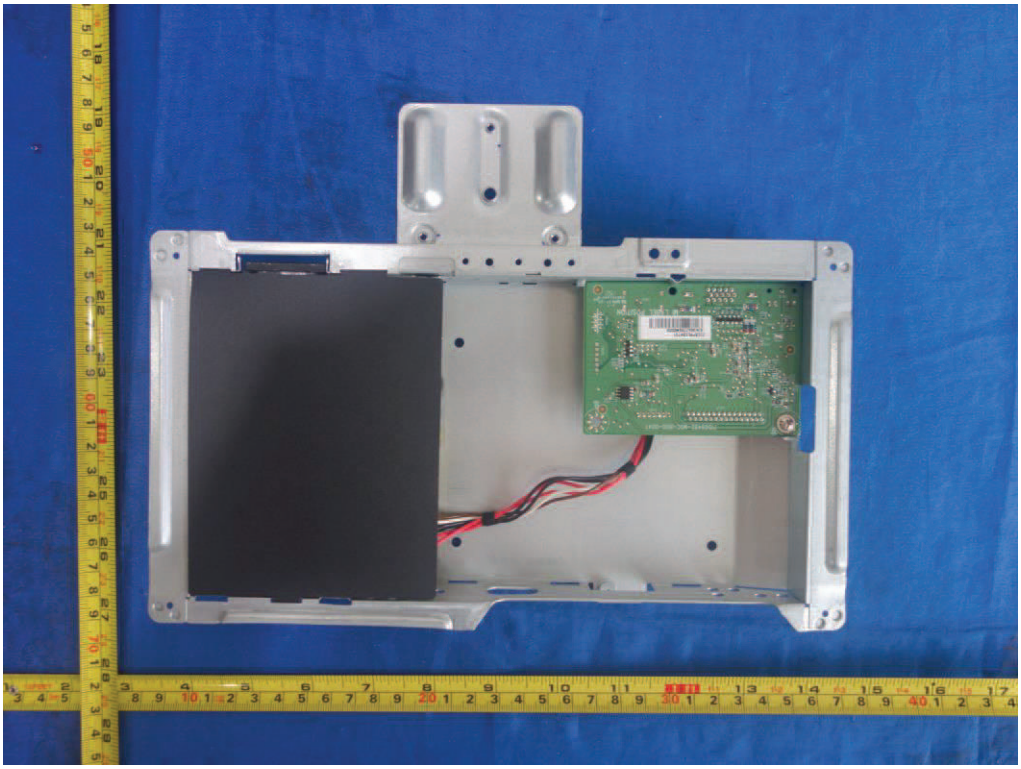


Figure 7. Internal view of metal enclosure type B

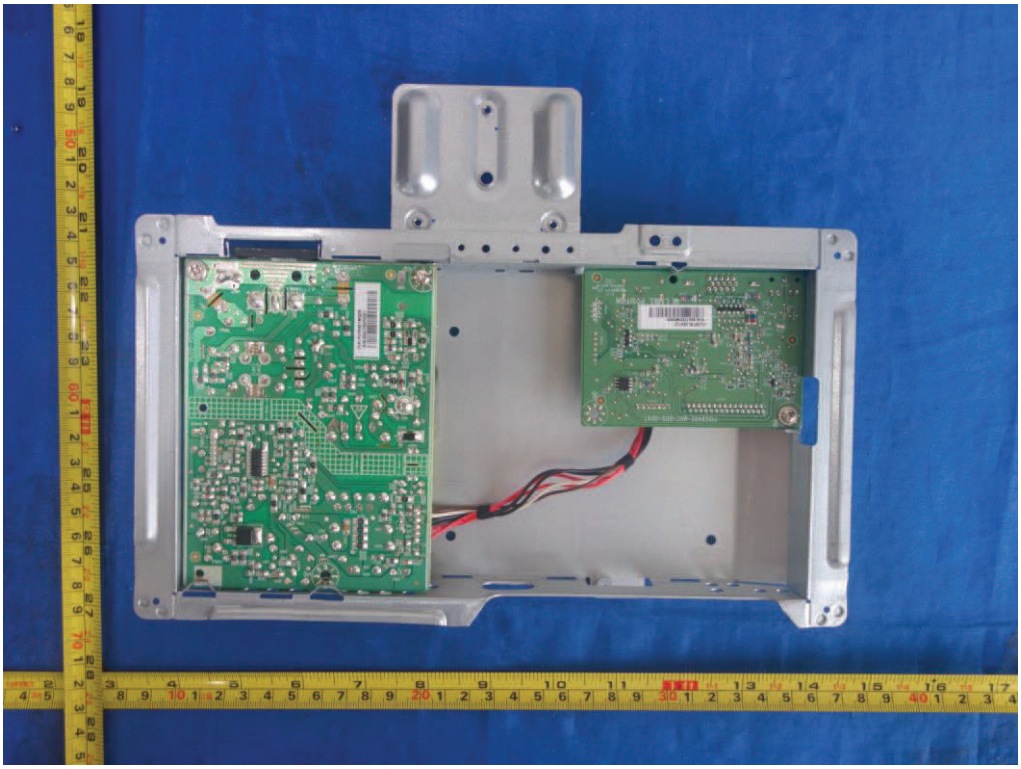


Figure 8. Internal view of metal enclosure type B

Product: LCD monitor (LED Backlight)

Type Designation: 27P1, Q27P1, **27P1********, 27E1, **27E1******** (* can be 0-9, A-Z, a-z, – , \ , / , + or blank, represent different enclosure colour for marketing purpose)

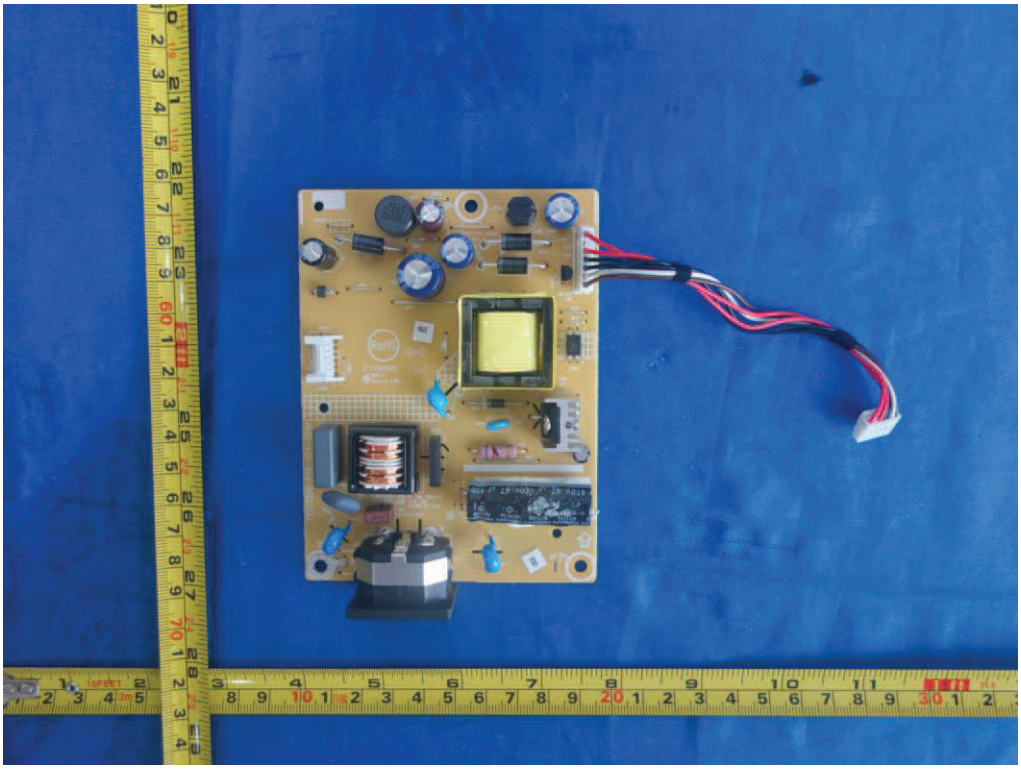


Figure 9. Power board 715G7300

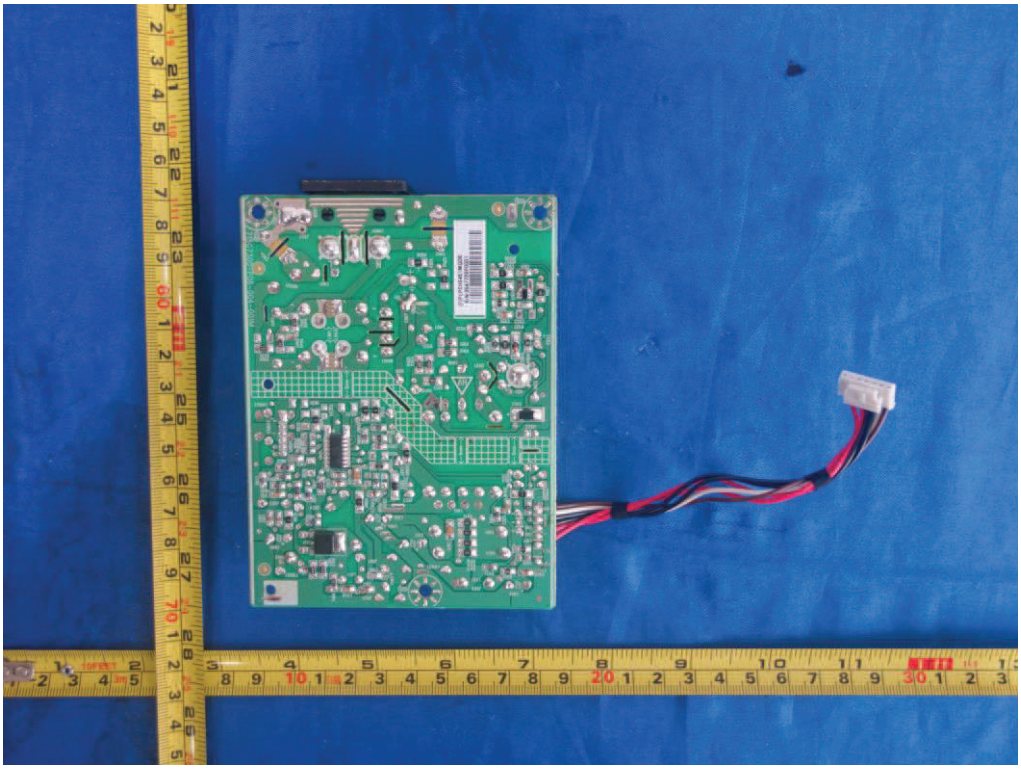


Figure 10. Power board 715G7610

Product: LCD monitor (LED Backlight)

Type Designation: 27P1, Q27P1, **27P1********, 27E1, **27E1******** (* can be 0-9, A-Z, a-z, – , \ , / , + or blank, represent different enclosure colour for marketing purpose)

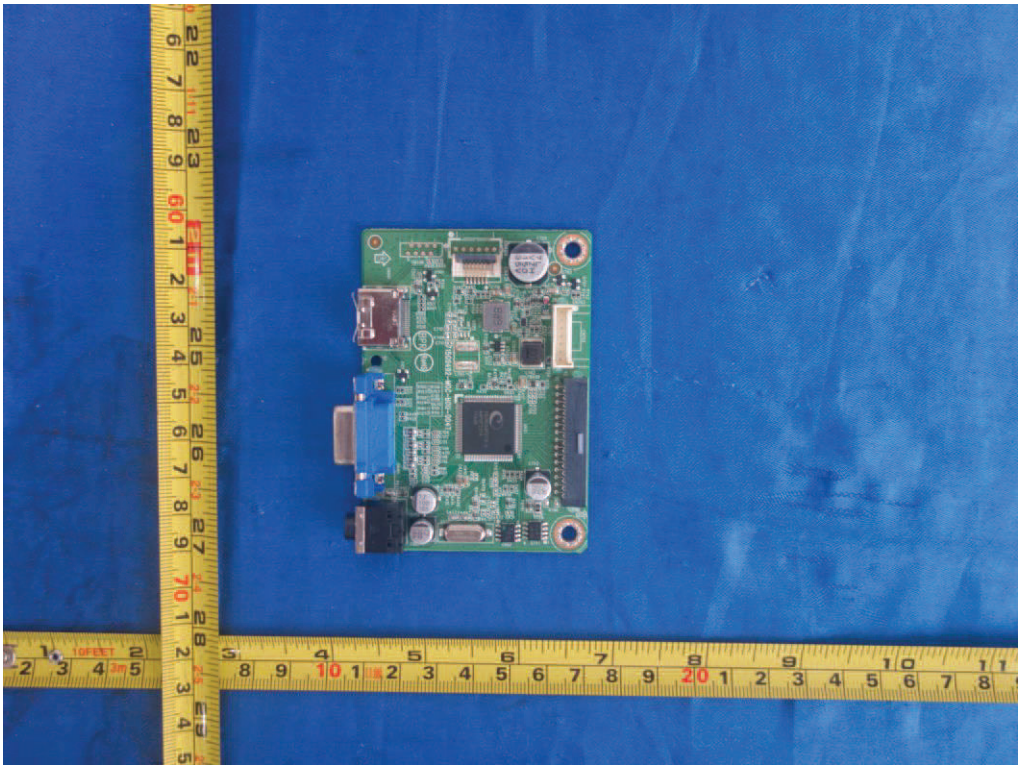


Figure 11. Main board 715G9492

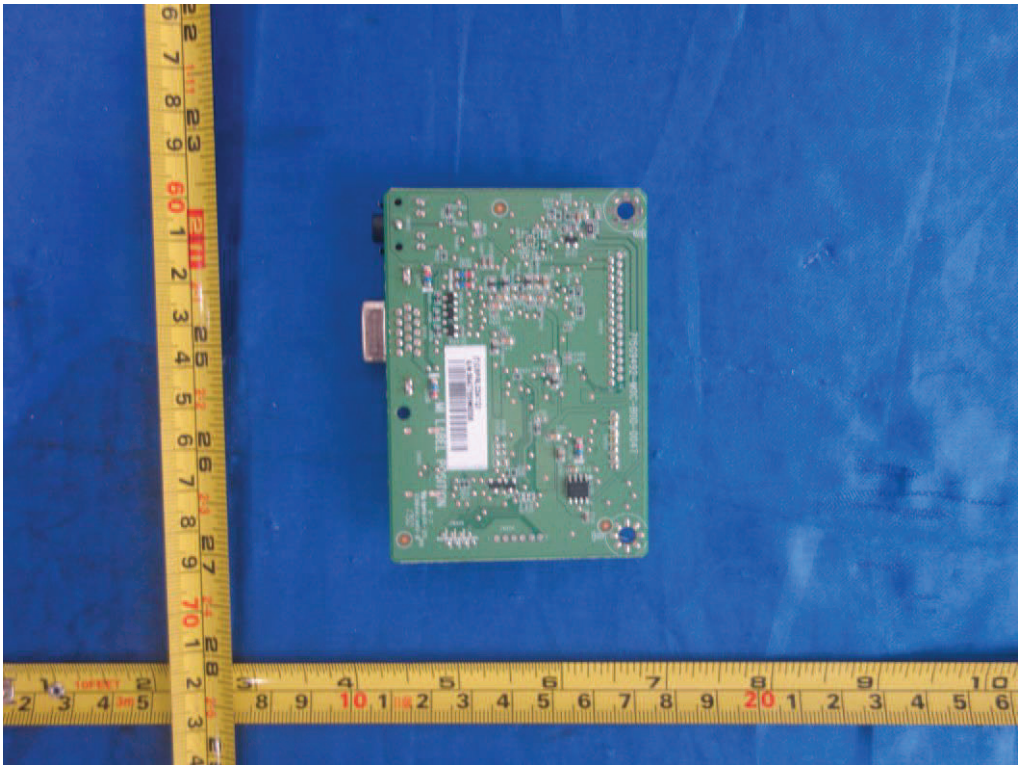


Figure 12. Main board 715G9492