IEC IECEE CB SCHEME

Ref. Certif. No.

JPTUV-057642

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
Name and address of the applicant Nom et adresse du demandeur	Top Victory Electronics (Taiwan) Co., Ltd. 10F., No. 230, Liancheng Rd. Zhonghe Dist., New Taipei City, 23553 Taiwan
Name and address of the manufacturer Nom et adresse du fabricant	TPV Display Technology (China) Co., Ltd. No. 106 Jinghai 3 Rd., BDA Beijing City 100176, 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	236LM000**, *2460****, 240LM000** (* = 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.
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 National differences see test report
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	17036950 001

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®

TÜV Rheinland Japan Ltd.
Global Technology Assessment Center
4-25-2 Kita-Yamata, Tsuzuki-ku
Yokohama 224-0021 Japan
Phone + 81 45 914-3888
Fax + 81 45 914-3354
Mail: info@jpn.tuv.com
Web: www.tuv.com

Date: 16.07.2014

Signature:

Dipl.-Ing. Univ. S. O. Steinke

1. Tatung Mexico S.A. de. C.V.
   Ave. Rosa Ma. Fuentes #7050
   Complejo Industrial Fuentes
   C.P. 32320, Cd. Juarez. Chih,
   MEXICO

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

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

4. Envision Industry of Electronic
   Products Ltd.
   895, Joao Marcos Pozzetti Street,
   Industrial District II,
   69.075-215 Manaus, Am, Brazil

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

6. TPV Displays Polska Sp. z o.o.
   ul. Zlotego Smoka 9
   66-400 Gorzów Wlkp.
   Poland

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

8. 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

9. Envision Industry of Electronic
   Products Ltd.
   Av Torquato Tapajós 7503,
   Galpão : II Bloco: B-Condomínio
   de Galpões-Tarumã-Manaus, AM, Brazil

Additional information (if necessary)
Information complémentaire (si nécessaire)

Report Ref. No.: 17036950 001

Date: 16.07.2014

Signature:

Dipl. Ing. Univ. S. O. Steinke

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

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

Additional information (if necessary)
Information complémentaire (si nécessaire)

Report Ref. No.: 17036950 001

Date: 16.07.2014

Signature: Dipl.-Ing. Univ. S. O. Steinke

Test Report issued under the responsibility of:

TÜVRheinland®

TEST REPORT

IEC 60950-1

Information technology equipment – Safety – Part 1: General requirements

Report Number. .....:	**17036950 001**
Date of issue .....:	**14 July, 2014**
Total number of pages.....	**112**
Applicant's name.....:	**Top Victory Electronics (Taiwan) Co., Ltd.**
Address .....:	10F., No. 230, Liancheng Rd., Zhonghe Dist., New Taipei City, 23553 Taiwan
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
Trade Mark ..... :	AOC
Manufacturer..... :	TPV Display Technology (China) Co., Ltd. No.106 Jinghai 3 Rd., BDA, Beijing City 100176, P.R. China
Model/Type reference ..... :	236LM000**, *2460****, 240LM000** (see page 10 for the definition of *)
Ratings ..... :	100-240V~, 50/60Hz, 1.5A

Testing procedure and testing location:			
☒	**CB Testing Laboratory:**	TÜV Rheinland (Shenzhen) Co., Ltd.	
Testing location/ address ..... :		3&4 F, Cybio Technology Building No. 1, Langshan No. 2 Road South, 5th Industrial Area, High-Tech Industry Park North, Nanshan District, 518057 Shenzhen, CHINA	
☐	**Associated CB Testing Laboratory:**	N/A	
Testing location/ address ..... :		N/A	
Tested by (name + signature) ..... :		Alex Huang	
Approved by (name + signature) ..... :		Iris Du	
☐	**Testing procedure: TMP/CTF Stage 1:**		
Testing location/ address ..... :			
Tested by (name + signature) ..... :			
Approved by (name + signature) ..... :			
☐	**Testing procedure: WMT/CTF Stage 2:**		
Testing location/ address ..... :			
Tested by (name + signature) ..... :			
Witnessed by (name + signature) ..... :			
Approved by (name + signature) ..... :			
☐	**Testing procedure: SMT/CTF Stage 3 or 4:**		
Testing location/ address ..... :			
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 (25 pages)
- National Differences (57 pages)

Summary of testing:

Tests performed (name of test and test clause):
Following tests performed during evaluation

name of test	test clause number
Input Current Test	1.6.2
Durability of Marking Test	1.7.11
Access to energized parts	2.1.1.1
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 circuit measurement	2.4.2
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, 10N	4.2.2
Steady Force Test, 30N	4.2.3
Steady Force Test, 250N	4.2.4
Impact Test (Steel Ball)	4.2.5
Stress relief test	4.2.7
Maximum Temperature Test	4.5.2
Openings in enclosures	4.6
Adhesives for constructional purposes	4.6.5
Touch Current and PE current	5.1.6
Electric Strength Test	5.2
Fault Condition Test	5.3

Note: 1. All test results are copied from previous CB reports, except for tests with the new power board 715G5361 type E.
2. For temperature test the thermocouples method used, regarding fault condition test simulated faults applied. 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, 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, 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 60950-1:2001 evaluated.

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

Japan deviations J60950-1 (H22) and J3000 (H25) both covered.

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

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: The above label represents label for model name other than above covered by the model name.

Test item particulars.....:	
Equipment mobility.....:	[x] movable [] 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% according to client's request
Tested for IT power systems .....:	[] Yes [x] No
IT testing, phase-phase voltage (V) .....:	N/A
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 or 20A (North America) or 13A (United Kingdom only)
Pollution degree (PD) .....:	[] PD 1 [x] PD 2 [] PD 3
IP protection class .....:	IPX0
Altitude during operation (m) .....:	Up to 3658
Altitude of test laboratory (m) .....:	<2000
Mass of equipment (kg) .....:	Approx. 6.5 kg (for unit with stand base type A), 2.27 kg for base stand type A Approx. 4.58 kg (for unit with stand base type B), 0.35 kg for base stand type B

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 .....:	Dec., 2012; Nov., 2013; 29 May, 2014;
Date (s) of performance of tests.....:	Dec., 2012; Nov., 2013; 03 June, 2014 – 16 June,2014

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) ..... :	1.	**Tatung Mexico S.A. de. C.V.** Ave. Rosa Ma. Fuentes #7050 Complejo Industrial Fuentes C.P. 32320, Cd. Juarez. Chih, MEXICO
	2	**TPV Display Technology (Wuhan) Co., Ltd.** Unique No. 11, Zhuankou Development District of Economic Technological Development Zone, Wuhan City 430056, P.R. China
	3	**TPV Electronics (Fujian) Co., Ltd.** Shangzheng, Yuan Hong Road Fuqing City, Fujian Province, P.R. China
	4	**Envision Industry of Electronic Products Ltd.** 895, Joao Marcos Pozzetti Street, Industrial District II, 69.075-215 Manaus, Am, Brazil
	5	**Envision Industry of Electronic Products Ltd** Rodovia Anhanguera S/N-KM 49, 13.205-700 Tijuco Preto-Jundiaí-SP-Brazil
	6	**TPV Displays Polska Sp. z o.o.** ul. Zlotego Smoka 9, 66-400 Gorzów Wlkp, Poland
	7	**L&T Display Technology (Fujian) Ltd.** Optoelectronic Park, Rongqiao Economic and Technological Development Zone, Fuqing, Fujian 350301, P.R. China
	8	**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
	9	**Envision Industry of Electronic Products Ltd.** Av Torquato Tapajós 7503, Galpão : II Bloco: B – Condomínio de Galpões – Tarumã - Manaus, AM, Brazil
	10	**TPV Technology (Qingdao) Co., Ltd.** No.99 Huoju Road, High-tech Industrial Development Zone, Qingdao City, Shandong Province, P.R. China
	11	**TPV Display Technology (China) Co., Ltd.** No.106 Jinghai 3 Rd., BDA, Beijing City 100176, P.R. China

General product information:

This CB report is based on previous CB reports, due to the fourth modification:

- adding five alternative panels: LTM240CL** (SAMSUNG), LM240WU* (LG Display), M236H**(INNOLUX), LTM240CT** (SAMSUNG), HR236WU* (BOE);
- adding one alternative power 715G5361 type E, which shares the same PCB layout as original power board 715G5361 type A, and with the following differences:
  i). with different component ratings;
  ii). different types of line choke and transformer;
  iii). add secondary audio circuit components on 715G5361 type E power board;
  iv). Remove the primary switch
- adding one main board type 715G6133;
- upgrading the standard to IEC 60950-1:2005 (Second Edition) + Am 1:2009 + Am 2:2013 and EN 60950-1:2006+A11:2009+A1:2010+A12:2011 +A2:2013.

All models are LCD monitors with LED backlight intended for general office use. All models are identical except the type designation. Model 240LM000** is chosen for test to represent other models, if not specified.

The unit has the following features:

1. LCD panel type: LED backlight, 23.6 inch or 24 inch;
2. There are five alternative building-in power supply board types: 715G5361 type A, 715G5361 type B, 715G5361 type C, 715G5361 type D and 715G5361 type E. The difference between the power boards:
   - 715G5361 type B is identical to 715G5361 type A except: line chock(L901), rating of primary components (C907, Q901), bobbin thickness and material of main transform(T901) and secondary feedback circuit;
   - power board 715G5361 type C is identical to 715G5361 type A except change the design of secondary connectors(CN902, CN903);
   - power board 715G5361 type D is identical to 715G5361 type A except that 715G5361 type D without secondary connector (CN903);
   - power 715G5361 type E shares the same PCB layout as original power board 715G5361 type A, but with differences mentioned above.
3. There are five alternative types of main board 715G5436, 715G5270, 715G5121, 715G6124 and 715G6133. The relationship between power board and main board, see table on page 8.

Main board type	Video and audio ports on the main board
715G5436	DVI, VGA, HDMI, audio in, audio out
715G5270	DVI, VGA
715G5121	DVI, VGA, HDMI, Display port, audio in, audio out
715G6124	DVI, VGA, Display port, audio in, audio out
715G6133	DVI, VGA, audio in

4. Negative ion generator (optional), which is combined with power board 715G5361 type A in use.
5. For constructions with USB: totally four USB output ports and one USB input port. The USB board is with one USB in port and two USB out port, and wires connected to the other two USB output ports.
6. The internal metal chassis is considered as electrical enclosure and fire enclosure.
7. The external plastic enclosure is regarded as mechanical enclosure and electrical enclosure, made of min. HB material. There are two alternative design of the plastic enclosure: type A and type B. They are identical except that there is no USB port part on the side for type B.
8. There is a Mylar sheet located between power board trace side and panel metal chassis (which is considered as secondary). The Mylar sheet is considered as reinforce insulation.

9. There are two alternative base of the unit: type A and type B.

10. Maximum declared ambient: 40°C.

11. The equipment is operated to 3658m sea level as declared by manufacturer.

See below table for constructional details:

Construction	Power board	Main board	Panel	Plastic enclosure	Base type	Optional Negative ion generator	USB board	Optional speakers
I	715G5361 type A	715G5436	all panels listed in appended table 1.5.1	Type A	Type A, Type B	Yes	Yes	Yes
II	715G5361 type B	715G5270		Type B		No	No	No
III	715G5361 type C	715G5121		Type A		No	Yes	Yes
IV	715G5361 type D	715G6124		Type B		No	No	Yes
V	715G5361 type E	715G6133	See appended table 1.5.1	Type B		No	No	Yes

Note: If not specified, construction I with panel M240HVN** (AUO) is chosen for test to represent other constructions.

Special national conditional for J60950-1 (H22): 2010 and J3000 (H25): 2013:

Per client's request, supplement the special national conditional for J60950 (H22):2010 and J3000 (H25): 2013 to present test report, described as bellowing items:
1) the equipment is considered as Class 0I or Class I equipment.
2) consieded futher Japanese technical requirements J60950-1 (H22): 2010:
unit also complies with touch current requirements for Class 0I equipment:< 1.0mA.

Definition of variable(s):

Variable:	Range of variable:	Content:
*	0-9, A-Z, a-z, "+", "-", "/", "\" or blank	represents color difference and sales region difference, no constructional difference.

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 tables 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 according to IEC 60384-14 used. Between primary and secondary: Y1 capacitors according to IEC 60384-14 used. Between primary and earthed secondary: Y1 or Y2 capacitor according to IEC 60384-14 used.	P
1.5.7	Resistors bridging insulation	See below.	P
1.5.7.1	Resistors bridging functional, basic or supplementary insulation	Only discharge resistors bridging insulation between L&N.	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
1.5.8	Components in equipment for IT power systems		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.5.9	Surge suppressors	No 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		N/A
1.5.9.5	Bridging of supplementary, double or reinforced insulation by a VDR		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
1.6.3	Voltage limit of hand-held equipment	This appliance is not hand-held equipment.	N/A
1.6.4	Neutral conductor	The neutral conductor insulated from earth and from the body throughout the equipment as if it were a line conductor	P
1.7	**Marking and instructions**		P
1.7.1	Power rating and identification markings	The power rating marking is provided and is readily visible in operator access area.	P
1.7.1.1	Power rating marking		P
	Multiple mains supply connections.....:	Single power source.	N/A
	Rated voltage(s) or voltage range(s) (V) .....:	100-240V~	P
	Symbol for nature of supply, for d.c. only.....:	AC source	P
	Rated frequency or rated frequency range (Hz) ....:	50/60Hz	P
	Rated current (mA or A) .....:	1.5A	P
1.7.1.2	Identification markings		P
	Manufacturer's name or trade-mark or identification mark .....:	See copy of marking plate	P
	Model identification or type reference .....:	See copy of marking plate	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		N/A
1.7.2	Safety instructions and marking	English safety instruction provided.	P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
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		N/A
1.7.2.5	Operator access with a tool	No such access required.	N/A
1.7.2.6	Ozone	Complied for construction I. For negative ion concentration, the statement was provided in instruction.	P
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: T4A/250V F902, F903 and F904 on secondary, F904 is optional: For F902, F903: T5AL/250V For F904: T5AL/250V 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
1.7.7.2	Terminals for a.c. mains supply conductors	The equipment is not permanently connected or provided with a non-detachable power supply cord	N/A
1.7.7.3	Terminals for d.c. mains supply conductors	Not connected to d.c. mains	N/A
1.7.8	Controls and indicators	See below	P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.8.1	Identification, location and marking	No safety relevant indications and markings.	P
1.7.8.2	Colours	No safety relevant indications and markings.	P
1.7.8.3	Symbols according to IEC 60417.....	See 1.7.8.1	P
1.7.8.4	Markings using figures	No figures used.	N/A
1.7.9	Isolation of multiple power sources	Only one supply voltage range provided.	N/A
1.7.10	Thermostats and other regulating devices	No such components.	N/A
1.7.11	Durability	The label was subjected to the permanence of marking test. The label was rubbed with cloth soaked with water for 15 sec. and then again for 15 sec. with the cloth soaked with petroleum spirit. After this test there was no damage to the label. The marking on the label did not fade. There was no curling or lifting of the label edge	P
1.7.12	Removable parts	None.	N/A
1.7.13	Replaceable batteries	No batteries.	N/A
	Language(s)		—
1.7.14	Equipment for restricted access locations.....	Equipment not intended for installation in restricted access locations.	N/A

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
2.1.1.1	Access to energized parts	See below	P
	Test by inspection	Protection established by plastic enclosure.	P
	Test with test finger (Figure 2A)	Protection established by plastic enclosure.	P
	Test with test pin (Figure 2B)	No access to any energized parts.	P
	Test with test probe (Figure 2C)		N/A
2.1.1.2	Battery compartments	No battery compartment.	N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.1.1.3	Access to ELV wiring	No ELV wiring in operator accessible area.	N/A
	Working voltage (Vpeak or Vrms); minimum distance through insulation (mm)	(see appended tables 2.10.2 and 2.10.5)	—
2.1.1.4	Access to hazardous voltage circuit wiring	No hazardous voltage wiring in operator accessible area.	N/A
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
2.1.1.6	Manual controls	No manual controls.	N/A
2.1.1.7	Discharge of capacitors in equipment	No risks of electric shock. See below.	P
	Measured voltage (V); time-constant (s) .....:	See appended table 2.1.1.7)	—
2.1.1.8	Energy hazards – d.c. mains supply	a.c. mains supply	N/A
	a) Capacitor connected to the d.c. mains supply ..:		N/A
	b) Internal battery connected to the d.c. mains supply :		N/A
2.1.1.9	Audio amplifiers .....:		N/A
2.1.2	Protection in service access areas	No service access area.	N/A
2.1.3	Protection in restricted access locations	Equipment not intended for installation in restricted access locations	N/A
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

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Clause	Requirement + Test	Result - Remark	Verdict
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
2.3	**TNV circuits**		N/A
2.3.1	Limits		N/A
	Type of TNV circuits ..... :		—
2.3.2	Separation from other circuits and from accessible parts		N/A
2.3.2.1	General requirements		N/A
2.3.2.2	Protection by basic insulation		N/A
2.3.2.3	Protection by earthing		N/A
2.3.2.4	Protection by other constructions ..... :		N/A
2.3.3	Separation from hazardous voltages		N/A
	Insulation employed..... :		—
2.3.4	Connection of TNV circuits to other circuits		N/A
	Insulation employed..... :		—
2.3.5	Test for operating voltages generated externally		N/A
2.4	**Limited current circuits**		P
2.4.1	General requirements	The limits of 2.4.2 were not exceeded under normal operating conditions, for Negative ion generator on 715G5361 power board type A.	P
2.4.2	Limit values	(see appended table 2.4.2)	P
	Frequency (Hz) .....:		—
	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

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Clause	Requirement + Test	Result - Remark	Verdict
	c) Regulating network or IC current limiter, limits output under normal operating and single fault condition	When the optional F904 is not on the power board, a regulating network limits the output under normal and single fault conditions for 16V output of power supply board.	P
	Use of integrated circuit (IC) current limiters		N/A
	d) Overcurrent protective device limited output	Overcurrent protective devices are used in +5V and +5V1 outputs of power supply board. When the optional F904 is on the power board, overcurrent protective device is used in 16V output of power supply board.	P
	Max. output voltage (V), max. output current (A), max. apparent power (VA)..... :	(see appended table 2.5)	—
	Current rating of overcurrent protective device (A) .:	F902, F903 (for +5V and +5V1): 5A F904 (for +16V, optional): 5A	—
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 circuit is separated from parts at hazardous voltages by double or reinforced insulation.	P
	Use of symbol for functional earthing .....:		P
2.6.3	Protective earthing and protective bonding conductors	See below.	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
	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 appended table 2.6.3.4	—

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Clause	Requirement + Test	Result - Remark	Verdict
	Protective current rating (A), cross-sectional area (mm^2), AWG ..... :		
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	See below.	P
2.6.4.2	Protective earthing and bonding terminals	Earthing terminal in appliance inlet provided as protective earthing terminal.	P
	Rated current (A), type, nominal thread diameter (mm) ..... :	Rated current: 1.5A max. The earthing terminal in approved AC inlet serves as main PE terminal. Each screw connection to metal chassis, as the protective bonding terminal, Φ=3.0, spring washer used. The test of 2.6.3.4 complied.	—
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 provided in earthing conductors and protective bonding conductors.	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	It is not necessary to disconnect protective earth except for the removing of the earthed parts itself.	P
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 screws are used. For the earth connection to the metal chassis a spring washer and a screw are used	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
2.6.5.8	Reliance on telecommunication network or cable distribution system	No TNV circuit.	N/A
2.7	**Overcurrent and earth fault protection in primary circuits**		P
2.7.1	Basic requirements	The equipment relies on fuse or circuit breaker of the wall outlet protection of the building installation in regard to L to N short-circuits. A build-in fuse provided as overcurrent protection device (see 5.3)	P
	Instructions when protection relies on building installation	Pluggable equipment type A.	N/A
2.7.2	Faults not simulated in 5.3.7	The protection devices are well dimensioned and mounted.	P
2.7.3	Short-circuit backup protection	Building installation is considered as providing short-circuit backup protection.	P
2.7.4	Number and location of protective devices ..... :	Overcurrent protection by one built-in fuse	P
2.7.5	Protection by several devices	Protection by one fuse only.	N/A
2.7.6	Warning to service personnel ..... :	No service work necessary.	N/A
2.8	**Safety interlocks**		N/A
2.8.1	General principles		N/A
2.8.2	Protection requirements		N/A
2.8.3	Inadvertent reactivation		N/A
2.8.4	Fail-safe operation		N/A
	Protection against extreme hazard		N/A
2.8.5	Moving parts		N/A
2.8.6	Overriding		N/A
2.8.7	Switches, relays and their related circuits		N/A
2.8.7.1	Separation distances for contact gaps and their related circuits (mm) .....:		N/A
2.8.7.2	Overload test		N/A
2.8.7.3	Endurance test		N/A
2.8.7.4	Electric strength test		N/A
2.8.8	Mechanical actuators		N/A
2.9	**Electrical insulation**		P

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Clause	Requirement + Test	Result - Remark	Verdict
2.9.1	Properties of insulating materials	Natural rubber, asbestos or hygroscopic material not used.	P
2.9.2	Humidity conditioning	Performed on both construction I and construction V. Performed at 40 °C, 95% R.H. for 120 h 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
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

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Clause	Requirement + Test	Result - Remark	Verdict
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).	P
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
	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.	
2.10.5.5.	Cemented joints	Not applied.	N/A
2.10.5.6	Thin sheet material – General	Considered.	P
2.10.5.7	Separable thin sheet material	Reinforced insulation.	P

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Clause	Requirement + Test	Result - Remark	Verdict
	Number of layers (pcs) .....:	3 layer for reinforced insulation	—
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	Electric strength test applied to each combination of two layers together.	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
	- 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

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Clause	Requirement + Test	Result - Remark	Verdict
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
3	**WIRING, CONNECTIONS AND SUPPLY**		P
3.1	**General**		P
3.1.1	Current rating and overcurrent protection	All internal wires are UL approved and PVC insulated. Rated VW-1, min 80°C, 300V. Internal wiring gauge is suitable for current intended to be carried. (See appended table 4.5.1) No internal wire for primary power distribution.	P
3.1.2	Protection against mechanical damage	Wires do not touch sharp edges which could damage the insulation and cause hazard.	P
3.1.3	Securing of internal wiring	Output wires with only basic insulation are routed so that they are not close to any live bare components. Wires are secured by soldering method and additionally fixed by glue or by connectors.	P
3.1.4	Insulation of conductors	The insulation of the individual conductors suitable for the application and the working voltage. For the insulation material see 3.1.1.	P
3.1.5	Beads and ceramic insulators	Not used.	N/A
3.1.6	Screws for electrical contact pressure		P

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Clause	Requirement + Test	Result - Remark	Verdict
3.1.7	Insulating materials in electrical connections	The integrity of protective bonding made by screw, PCB trace and spring washer.	P
3.1.8	Self-tapping and spaced thread screws	No self-tapping screws are used.	N/A
3.1.9	Termination of conductors	All terminations of conductors are reliable secured by use of solder-pins and other mechanical fixing means.	P
	10 N pull test		P
3.1.10	Sleeving on wiring	No sleeving used on wiring for supplementary insulation.	N/A
3.2	**Connection to a mains supply**		P
3.2.1	Means of connection	See below.	P
3.2.1.1	Connection to an a.c. mains supply	Appliance inlet used.	P
3.2.1.2	Connection to a d.c. mains supply	Only a.c. mains supply.	N/A
3.2.2	Multiple supply connections	Only for one mains connection	N/A
3.2.3	Permanently connected equipment	Unit is not a permanently connected equipment.	N/A
	Number of conductors, diameter of cable and conduits (mm) ..... :		—
3.2.4	Appliance inlets	Approved appliance inlet used.	P
3.2.5	Power supply cords	See below.	N/A
3.2.5.1	AC power supply cords	Not provided.	N/A
	Type ..... :		—
	Rated current (A), cross-sectional area (mm^2), AWG ..... :		—
3.2.5.2	DC power supply cords	Not provided.	N/A
3.2.6	Cord anchorages and strain relief	Appliance inlet used	N/A
	Mass of equipment (kg), pull (N) ..... :		—
	Longitudinal displacement (mm) ..... :		—
3.2.7	Protection against mechanical damage		N/A
3.2.8	Cord guards	No cord guards	N/A
	Diameter or minor dimension D (mm); test mass (g) ..... :		—
	Radius of curvature of cord (mm)..... :		—
3.2.9	Supply wiring space	Not permanent connection or non-detachable power cord type.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict

3.3	**Wiring terminals for connection of external conductors**		N/A
3.3.1	Wiring terminals		N/A
3.3.2	Connection of non-detachable power supply cords		N/A
3.3.3	Screw terminals		N/A
3.3.4	Conductor sizes to be connected		N/A
	Rated current (A), cord/cable type, cross-sectional area (mm^2)..... :		—
3.3.5	Wiring terminal sizes		N/A
	Rated current (A), type, nominal thread diameter (mm) ..... :		—
3.3.6	Wiring terminal design		N/A
3.3.7	Grouping of wiring terminals		N/A
3.3.8	Stranded wire		N/A

3.4	**Disconnection from the mains supply**		P
3.4.1	General requirement	See below.	P
3.4.2	Disconnect devices	Appliance coupler used as disconnect device.	P
3.4.3	Permanently connected equipment	Not permanently connected equipment	N/A
3.4.4	Parts which remain energized	When AC coupler is disconnected from inlet, there are no parts remaining with hazardous voltage or energy in the equipment.	P
3.4.5	Switches in flexible cords	No such switch in flexible cords	N/A
3.4.6	Number of poles - single-phase and d.c. equipment	The appliance coupler disconnects both poles simultaneously.	P
3.4.7	Number of poles - three-phase equipment	Single-phase equipment	N/A
3.4.8	Switches as disconnect devices	No such switch	N/A
3.4.9	Plugs as disconnect devices	Plug not used	N/A
3.4.10	Interconnected equipment	Only interconnected with other unit through SELV interface.	N/A
3.4.11	Multiple power sources	Single power source	N/A

3.5	**Interconnection of equipment**	P

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Clause	Requirement + Test	Result - Remark	Verdict
3.5.1	General requirements	This power supply is not considered for connection to TNV.	P
3.5.2	Types of interconnection circuits ..... :	Interconnection circuits of SELV through the connector. No ELV interconnection circuits.	P
3.5.3	ELV circuits as interconnection circuits	No ELV interconnection	N/A
3.5.4	Data ports for additional equipment	All data ports are located on the VGA signal board and USB board, which is supplied by LPS.	P
4	**PHYSICAL REQUIREMENTS**		P
4.1	**Stability**		P
	Angle of 10°	Test by client's request. Test with type A and type B bases, no overturn.	P
	Test force (N) .....:	Equipment is not a floor standing unit.	N/A
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	Internal metal enclosure used. After tests, unit complies with 2.1.1, 2.6.1, 2.10	P
4.2.4	Steady force test, 250 N	Test performed on plastic enclosure, no hazardous.	P
4.2.5	Impact test	500g steel ball falls freely from 1.3m on top, back and bottom of plastic enclosure, no access to hazardous parts	P
	Fall test		N/A
	Swing test		N/A
4.2.6	Drop test; height (mm) .....:		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
4.2.7	Stress relief test	Test on type A and type B plastic enclosure, 70ºC, 7 hours, no deformation on all sources of plastic enclosure.	P
4.2.8	Cathode ray tubes	No CRT	N/A
	Picture tube separately certified .....:		
4.2.9	High pressure lamps	No high pressure lamps	N/A
4.2.10	Wall or ceiling mounted equipment; force (N) .....:	For unit an additional force of 125N (3 times the mass of the unit and the mass is 4.23 kg without base) were applied to the unit with the VESA adaptor kit. The unit withstood the load test without damages or breaks from the VESA adaptor kit. Two VESA compatible wall mounting kits, 100 mm x 100 mm and four M4 size with 10 mm length screws to secure.	P
4.3	**Design and construction**		P
4.3.1	Edges and corners	Edges and corners of the enclosure are rounded.	P
4.3.2	Handles and manual controls; force (N).....:	No safety relevant handles or manual controls.	N/A
4.3.3	Adjustable controls	No such controls.	N/A
4.3.4	Securing of parts	All parts secured properly. Spring washer used for securing screws.	P
4.3.5	Connection by plugs and sockets		N/A
4.3.6	Direct plug-in equipment	Not such equipment.	N/A
	Torque .....:		—
	Compliance with the relevant mains plug standard .....:		N/A
4.3.7	Heating elements in earthed equipment	None.	N/A
4.3.8	Batteries	No batteries.	N/A
	- Overcharging of a rechargeable battery		N/A
	- Unintentional charging of a non-rechargeable battery		N/A
	- Reverse charging of a rechargeable battery		N/A
	- Excessive discharging rate for any battery		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
4.3.9	Oil and grease	None	N/A
4.3.10	Dust, powders, liquids and gases	Equipment in intended use not considered to be exposed to these.	N/A
4.3.11	Containers for liquids or gases	None	N/A
4.3.12	Flammable liquids .....:	None	N/A
	Quantity of liquid (l) .....:		N/A
	Flash point (°C) .....:		N/A
4.3.13	Radiation		P
4.3.13.1	General	See below	P
4.3.13.2	Ionizing radiation	For Negative ion generator, the measured monizing radiation are 0.4mR/h (for mfr. Dong Guan Fu Fong, type FIO-DC5V) and 0.21mR/h (for Mfr. SHENZHEN SUNYOU, type F5BS-GJ1) less than 0.5mR/h.	P
	Measured radiation (pA/kg) .....:		—
	Measured high-voltage (kV) .....:		—
	Measured focus voltage (kV) .....:		—
	CRT markings .....:		—
4.3.13.3	Effect of ultraviolet (UV) radiation on materials	No ultraviolet radiation	N/A
	Part, property, retention after test, flammability classification .....:		N/A
4.3.13.4	Human exposure to ultraviolet (UV) radiation .....:	No ultraviolet radiation	N/A
4.3.13.5	Lasers (including laser diodes) and LEDs	The LED is considered as indicating light.	P
4.3.13.5.1	Lasers (including laser diodes)		N/A
	Laser class .....:		—
4.3.13.5.2	Light emitting diodes (LEDs)	Lower power of Indicating LED on secondary, which is used for indicating light only.	—
4.3.13.6	Other types .....:		N/A

4.4	**Protection against hazardous moving parts**		N/A
4.4.1	General		N/A
4.4.2	Protection in operator access areas ..... :		N/A
	Household and home/office document/media shredders		N/A
4.4.3	Protection in restricted access locations ..... :		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
4.4.4	Protection in service access areas		N/A
4.4.5	Protection against moving fan blades		N/A
4.4.5.1	General		N/A
	Not considered to cause pain or injury. a)……:		N/A
	Is considered to cause pain, not injury. b) ……...:		N/A
	Considered to cause injury. c) ……:		N/A
4.4.5.2	Protection for users		N/A
	Use of symbol or warning ……..:		N/A
4.4.5.3	Protection for service persons		N/A
	Use of symbol or warning ……..:		N/A
4.5	**Thermal requirements**		P
4.5.1	General		P
4.5.2	Temperature tests		P
	Normal load condition per Annex L ..... :		—
4.5.3	Temperature limits for materials		P
4.5.4	Touch temperature limits		P
4.5.5	Resistance to abnormal heat ..... :	Bobbin materials of all transformers T901 and some line chocks L901 are phenolic that are accepted without further tests. Others see appended table 4.5.5.	P
4.6	**Openings in enclosures**		P
4.6.1	Top and side openings	No hazardous parts or energy within a vertical projection of 5°.	P
	Dimensions (mm) ..... :	(see appended table 4.6.1 and 4.6.2)	—
4.6.2	Bottoms of fire enclosures	See below.	P
	Construction of the bottomm, dimensions (mm) .. :	(see appended table 4.6.1 and 4.6.2)	—
4.6.3	Doors or covers in fire enclosures	No doors or covers.	N/A
4.6.4	Openings in transportable equipment	Not transportable equipment.	N/A
4.6.4.1	Constructional design measures		N/A
	Dimensions (mm) ..... :		—
4.6.4.2	Evaluation measures for larger openings		N/A
4.6.4.3	Use of metallized parts		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
4.6.5	Adhesives for constructional purposes	The adhesive for mylar sheet secured to the metal enclosure were used.	P
	Conditioning temperature (°C), time (weeks) ..... :	The tests were performed as follows. For sources see appended table 1.5.1. 1. 100°C±2°C for one week 2. Remove from oven and leave at 25°C for 1 h. 3. Place in freezer at -40°C for 4 h. 4. Remove from freezer and allow come to 25°C for 8 h. 5. Place in a compartment at 95% relative humidity for 72 h. 6. Remove and leave at 25°C for 1 h. 7. Place in oven at 100°C for 4 h. 8. Remove and allow sample to reach 25°C over 8 h.	—
4.7	**Resistance to fire**		P
4.7.1	Reducing the risk of ignition and spread of flame	No excessive temperatures. No easily burning materials employed. Fire enclosure provided. Safety relevant components used within their specified temperature limits.	P
	Method 1, selection and application of components wiring and materials	(see appended table 4.7)	P
	Method 2, application of all of simulated fault condition tests		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
4.7.2	Conditions for a fire enclosure	With having the following parts: • Components in primary • Components in secondary (not supplied by LPS, and not applied all fault condition test) Fire enclosure necessary. The power board, the main board, USB board (with one USB in and two USB out) and negative iron generator are covered by the metal fire enclosure. The key board, optional speaker and the two USB out ports are outside the fire enclosure as they are supplied by the 5V LPS.	P
4.7.2.1	Parts requiring a fire enclosure	See above.	P
4.7.2.2	Parts not requiring a fire enclosure	For components in secondary circuits supplied by LPS.	P
4.7.3	Materials		P
4.7.3.1	General	PCB rated V-1 or better	P
4.7.3.2	Materials for fire enclosures	Earthed metal enclosure is considered as fire enclosure, which complies without test.	P
4.7.3.3	Materials for components and other parts outside fire enclosures	HB plastic enclosure used, which is outside the fire enclosure.	P
4.7.3.4	Materials for components and other parts inside fire enclosures	Internal components except small parts are V-2, HF-2 or better.	P
4.7.3.5	Materials for air filter assemblies	No air filter.	N/A
4.7.3.6	Materials used in high-voltage components	No such high voltage components in this meaning	N/A
5	**ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS**		P
5.1	**Touch current and protective conductor current**		P
5.1.1	General	(see appended Table 5.1)	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

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Clause	Requirement + Test	Result - Remark	Verdict
5.1.2.3	Simultaneous multiple connections to an a.c. mains supply		N/A
5.1.3	Test circuit	Using figure 5A.	P
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

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
5.3.1	Protection against overload and abnormal operation	Ventilation openings blocked, output overloaded no unaccepted overheating of parts (see appended table 5.3)	P
5.3.2	Motors	No motor used	N/A
5.3.3	Transformers	With short-circuited and overloaded of the output of transformer, no high temperature of the transformer was recorded. The test results of short-circuited and overload. (see appended table 5.3 and Annex C)	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

6	**CONNECTION TO TELECOMMUNICATION NETWORKS**		N/A
6.1	**Protection of telecommunication network service persons, and users of other equipment connected to the network, from hazards in the equipment**		N/A
6.1.1	Protection from hazardous voltages		N/A
6.1.2	Separation of the telecommunication network from earth		N/A
6.1.2.1	Requirements		N/A
	Supply voltage (V) .....:		—
	Current in the test circuit (mA) .....:		—
6.1.2.2	Exclusions .....:		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

6.2	**Protection of equipment users from overvoltages on telecommunication networks**		N/A
6.2.1	Separation requirements		N/A
6.2.2	Electric strength test procedure		N/A
6.2.2.1	Impulse test		N/A
6.2.2.2	Steady-state test		N/A
6.2.2.3	Compliance criteria		N/A

6.3	**Protection of the telecommunication wiring system from overheating**		N/A
	Max. output current (A) .....:		—
	Current limiting method .....:		—

7	**CONNECTION TO CABLE DISTRIBUTION SYSTEMS**		N/A
7.1	**General**		N/A
7.2	Protection of cable distribution system service persons, and users of other equipment connected to the system, from hazardous voltages in the equipment		N/A
7.3	Protection of equipment users from overvoltages on the cable distribution system		N/A
7.4	Insulation between primary circuits and cable distribution systems		N/A
7.4.1	General		N/A
7.4.2	Voltage surge test		N/A
7.4.3	Impulse test		N/A

A	**ANNEX A, TESTS FOR RESISTANCE TO HEAT AND FIRE**		N/A
A.1	**Flammability test for fire enclosures of movable equipment having a total mass exceeding 18 kg, and of stationary equipment (see 4.7.3.2)**		N/A
A.1.1	Samples.....:		—
	Wall thickness (mm) .....:		—
A.1.2	Conditioning of samples; temperature (°C) .....:		N/A
A.1.3	Mounting of samples .....:		N/A
A.1.4	Test flame (see IEC 60695-11-3)		N/A
	Flame A, B, C or D .....:		—

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
A.1.5	Test procedure		N/A
A.1.6	Compliance criteria		N/A
	Sample 1 burning time (s) .....:		—
	Sample 2 burning time (s) .....:		—
	Sample 3 burning time (s) .....:		—
A.2	**Flammability test for fire enclosures of movable equipment having a total mass not exceeding 18 kg, and for material and components located inside fire enclosures (see 4.7.3.2 and 4.7.3.4)**		N/A
A.2.1	Samples, material .....:		—
	Wall thickness (mm) .....:		—
A.2.2	Conditioning of samples; temperature (°C) .....:		N/A
A.2.3	Mounting of samples .....:		N/A
A.2.4	Test flame (see IEC 60695-11-4)		N/A
	Flame A, B or C .....:		—
A.2.5	Test procedure		N/A
A.2.6	Compliance criteria		N/A
	Sample 1 burning time (s) .....:		—
	Sample 2 burning time (s) .....:		—
	Sample 3 burning time (s) .....:		—
A.2.7	Alternative test acc. to IEC 60695-11-5, cl. 5 and 9		N/A
	Sample 1 burning time (s) .....:		—
	Sample 2 burning time (s) .....:		—
	Sample 3 burning time (s) .....:		—
A.3	**Hot flaming oil test (see 4.6.2)**		N/A
A.3.1	Mounting of samples		N/A
A.3.2	Test procedure		N/A
A.3.3	Compliance criterion		N/A
B	**ANNEX B, MOTOR TESTS UNDER ABNORMAL CONDITIONS (see 4.7.2.2 and 5.3.2)**		N/A
B.1	**General requirements**		N/A
	Position .....:		—
	Manufacturer .....:		—
	Type .....:		—
	Rated values .....:		—
B.2	**Test conditions**		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
B.3	**Maximum temperatures**		N/A
B.4	**Running overload test**		N/A
B.5	**Locked-rotor overload test**		N/A
	Test duration (days) .....:		—
	Electric strength test: test voltage (V) .....:		—
B.6	**Running overload test for d.c. motors in secondary circuits**		N/A
B.6.1	General		N/A
B.6.2	Test procedure		N/A
B.6.3	Alternative test procedure		N/A
B.6.4	Electric strength test; test voltage (V) .....:		N/A
B.7	**Locked-rotor overload test for d.c. motors in secondary circuits**		N/A
B.7.1	General		N/A
B.7.2	Test procedure		N/A
B.7.3	Alternative test procedure		N/A
B.7.4	Electric strength test; test voltage (V) .....:		N/A
B.8	**Test for motors with capacitors**		N/A
B.9	**Test for three-phase motors**		N/A
B.10	**Test for series motors**		N/A
	Operating voltage (V) .....:		—

C	**ANNEX C, TRANSFORMERS (see 1.5.4 and 5.3.3)**		P
	Position .....:	T901	—
	Manufacturer .....:	See appended table 1.5.1.	—
	Type .....:	See appended table 1.5.1.	—
	Rated values .....:	See appended table 1.5.1.	—
	Method of protection..... :	By protection circuit.	—
C.1	**Overload test**	(see appended table 5.3)	P
C.2	**Insulation**	(see appended tables 5.2 and C2)	P
	Protection from displacement of windings..... :	Fixed by insulation tape and tube.	P

D	**ANNEX D, MEASURING INSTRUMENTS FOR TOUCH-CURRENT TESTS (see 5.1.4)**		P
D.1	**Measuring instrument**		P

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Clause	Requirement + Test	Result - Remark	Verdict
D.2	**Alternative measuring instrument**		N/A
E	**ANNEX E, TEMPERATURE RISE OF A WINDING (see 1.4.13)**		N/A
F	**ANNEX F, MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES (see 2.10 and Annex G)**		P
G	**ANNEX G, ALTERNATIVE METHOD FOR DETERMINING MINIMUM CLEARANCES**		N/A
G.1	**Clearances**		N/A
G.1.1	General		N/A
G.1.2	Summary of the procedure for determining minimum clearances		N/A
G.2	**Determination of mains transient voltage (V)**		N/A
G.2.1	AC mains supply .....:		N/A
G.2.2	Earthed d.c. mains supplies .....:		N/A
G.2.3	Unearthed d.c. mains supplies .....:		N/A
G.2.4	Battery operation .....:		N/A
G.3	**Determination of telecommunication network transient voltage (V) ..... :**		N/A
G.4	**Determination of required withstand voltage (V)**		N/A
G.4.1	Mains transients and internal repetitive peaks .....:		N/A
G.4.2	Transients from telecommunication networks .....:		N/A
G.4.3	Combination of transients		N/A
G.4.4	Transients from cable distribution systems		N/A
G.5	**Measurement of transient voltages (V)**		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
G.6	**Determination of minimum clearances ..... :**		N/A
H	**ANNEX H, IONIZING RADIATION (see 4.3.13)**		N/A
J	**ANNEX J, TABLE OF ELECTROCHEMICAL POTENTIALS (see 2.6.5.6)**		P

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Clause	Requirement + Test	Result - Remark	Verdict
	Metal(s) used .....:	The internal metal enclosure is made of mild steel, screw spring washer are made of Ni on steel, the combined electrochemical potential is below 0.6V according to Table J.1.	—
K	**ANNEX K, THERMAL CONTROLS (see 1.5.3 and 5.3.8)**		N/A
K.1	Making and breaking capacity		N/A
K.2	Thermostat reliability; operating voltage (V) .....:		N/A
K.3	Thermostat endurance test; operating voltage (V) .....:		N/A
K.4	Temperature limiter endurance; operating voltage (V) .....:		N/A
K.5	Thermal cut-out reliability		N/A
K.6	Stability of operation		N/A
L	**ANNEX L, NORMAL LOAD CONDITIONS FOR SOME TYPES OF ELECTRICAL BUSINESS EQUIPMENT (see 1.2.2.1 and 4.5.2)**		P
L.1	Typewriters		N/A
L.2	Adding machines and cash registers		N/A
L.3	Erasers		N/A
L.4	Pencil sharpeners		N/A
L.5	Duplicators and copy machines		N/A
L.6	Motor-operated files		N/A
L.7	Other business equipment	See 1.6.2.	P
M	**ANNEX M, CRITERIA FOR TELEPHONE RINGING SIGNALS (see 2.3.1)**		N/A
M.1	Introduction		N/A
M.2	Method A		N/A
M.3	Method B		N/A
M.3.1	Ringing signal		N/A
M.3.1.1	Frequency (Hz) .....:		—
M.3.1.2	Voltage (V) .....:		—
M.3.1.3	Cadence; time (s), voltage (V) .....:		—
M.3.1.4	Single fault current (mA) .....:		—
M.3.2	Tripping device and monitoring voltage .....:		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
M.3.2.1	Conditions for use of a tripping device or a monitoring voltage		N/A
M.3.2.2	Tripping device		N/A
M.3.2.3	Monitoring voltage (V) .....:		N/A
N	**ANNEX N, IMPULSE TEST GENERATORS (see 1.5.7.2, 1.5.7.3, 2.10.3.9, 6.2.2.1, 7.3.2, 7.4.3 and Clause G.5)**		N/A
N.1	ITU-T impulse test generators		N/A
N.2	IEC 60065 impulse test generator		N/A
P	**ANNEX P, NORMATIVE REFERENCES**		—
Q	**ANNEX Q, Voltage dependent resistors (VDRs) (see 1.5.9.1)**		N/A
	- Preferred climatic categories .....:		N/A
	- Maximum continuous voltage .....:		N/A
	- Combination pulse current .....:		N/A
	Body of the VDR Test according to IEC60695-11-5.....:		N/A
	Body of the VDR. Flammability class of material (min V-1).....:		N/A
R	**ANNEX R, EXAMPLES OF REQUIREMENTS FOR QUALITY CONTROL PROGRAMMES**		N/A
R.1	Minimum separation distances for unpopulated coated printed boards (see 2.10.6.2)		N/A
R.2	Reduced clearances (see 2.10.3)		N/A
S	**ANNEX S, PROCEDURE FOR IMPULSE TESTING (see 6.2.2.3)**		N/A
S.1	Test equipment		N/A
S.2	Test procedure		N/A
S.3	Examples of waveforms during impulse testing		N/A
T	**ANNEX T, GUIDANCE ON PROTECTION AGAINST INGRESS OF WATER (see 1.1.2)**		N/A
			—

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Clause	Requirement + Test	Result - Remark	Verdict

U	**ANNEX U, INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION (see 2.10.5.4)**		N/A
			—

V	**ANNEX V, AC POWER DISTRIBUTION SYSTEMS (see 1.6.1)**		P
V.1	Introduction		P
V.2	TN power distribution systems		P

W	**ANNEX W, SUMMATION OF TOUCH CURRENTS**		N/A
W.1	Touch current from electronic circuits		N/A
W.1.1	Floating circuits		N/A
W.1.2	Earthed circuits		N/A
W.2	Interconnection of several equipments		N/A
W.2.1	Isolation		N/A
W.2.2	Common return, isolated from earth		N/A
W.2.3	Common return, connected to protective earth		N/A

X	**ANNEX X, MAXIMUM HEATING EFFECT IN TRANSFORMER TESTS (see clause C.1)**		N/A
X.1	Determination of maximum input current		N/A
X.2	Overload test procedure		N/A

Y	**ANNEX Y, ULTRAVIOLET LIGHT CONDITIONING TEST (see 4.3.13.3)**		N/A
Y.1	Test apparatus ..... :		N/A
Y.2	Mounting of test samples ..... :		N/A
Y.3	Carbon-arc light-exposure apparatus ..... :		N/A
Y.4	Xenon-arc light exposure apparatus ..... :		N/A

Z	**ANNEX Z, OVERVOLTAGE CATEGORIES (see 2.10.3.2 and Clause G.2)**		P

AA	**ANNEX AA, MANDREL TEST (see 2.10.5.8)**		N/A

BB	**ANNEX BB, CHANGES IN THE SECOND EDITION**		—

CC	**ANNEX CC, Evaluation of integrated circuit (IC) current limiters**		N/A
CC.1	General		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
CC.2	Test program 1……:		N/A
CC.3	Test program 2……:		N/A
CC.4	Test program 3.....:		N/A
CC.5	Compliance.....:		N/A
DD	**ANNEX DD, Requirements for the mounting means of rack-mounted equipment**		N/A
DD.1	General		N/A
DD.2	Mechanical strength test, variable N……..:		N/A
DD.3	Mechanical strength test, 250N, including end stops……:		N/A
DD.4	Compliance……:		N/A
EE	**ANNEX EE, Household and home/office document/media shredders**		N/A
EE.1	General		N/A
EE.2	Markings and instructions		N/A
	Use of markings or symbols……:		N/A
	Information of user instructions, maintenance and/or servicing instructions……:		N/A
EE.3	Inadvertent reactivation test……:		N/A
EE.4	Disconnection of power to hazardous moving parts:		N/A
	Use of markings or symbols……:		N/A
EE.5	Protection against hazardous moving parts		N/A
	Test with test finger (Figure 2A) ……:		N/A
	Test with wedge probe (Figure EE1 and EE2) ……:		N/A

1.5.1	TABLE :list of critical components				P
Object/part no.	Manufacture/ trademark	Type/model	Technical data	standard	Mark(s) of conformity [1)]
LCD Panel for constructions I, II, III and IV	AUO	M240HW** (*can be 0~9, A~Z, blank for marking purpose)	24” TFT with LED backlight; Declared power consumption: 20.2W	--	Tested in equipment
	CHI MEI	M236H*-*** (*can be 0~9, A~Z, blank for marking purpose)	23.6” TFT with LED backlight; Declared power consumption: 19.8W	--	Tested in equipment
	IVO	M236MWF* (*can be 0~9, A~Z, blank for marking purpose)	23.6” TFT with LED backlight; Declared power consumption: 17.7W	--	Tested in equipment
	BOE	HM236W**-*** (*can be 0~9, A~Z, blank for marking purpose)	23.6” TFT with LED backlight; Declared power consumption: 18.6W	--	Tested in equipment
	TPV	TPM236** (*can be 0~9, A~Z, blank for marking purpose)	23.6” TFT with LED backlight; Declared power consumption: 19.4W	--	Tested in equipment
	CHI MEI	M236H**-*** (*can be 0~9, A~Z, blank for marking purpose)	23.6” TFT with LED backlight; Declared power consumption: 18.9W	--	Tested in equipment
	AUO	M240HTN** (*can be 0~9, A~Z, blank for marking purpose)	24.0” TFT with LED backlight, declared power consumption: 17.55W; Declared backlight voltage: max. 32.4Vdc	--	Tested in equipment
	AUO	M240HVN** (*can be 0~9, A~Z, blank for marking purpose)	24.0” TFT with LED backlight, declared power consumption: 20.62W; Declared backlight voltage: max. 46.2Vdc	--	Tested in equipment

	TPV	TPM240*** (*can be 0~9, A~Z, blank for marking purpose)	24.0” TFT with LED backlight, declared power consumption: 16.65W; Declared backlight voltage: max. 49Vdc	--	Tested in equipment
	SAMSUNG	LTM240CL** (*can be 0~9, A~Z, blank for marking purpose)	24.0” TFT with LED backlight, power consumption: 19.48W; Declared backlight voltage: max. 43.7Vdc	--	Tested in equipment
	LG Display	LM240WU* (*can be 0~9, A~Z, blank for marking purpose)	24.0” TFT with LED backlight, declared power consumption: 16.06W; Declared backlight voltage: max. 42.9Vdc	--	Tested in equipment
	INNOLUX	M236H** (*can be 0~9, A~Z, blank for marking purpose)	23.6” TFT with LED backlight, declared power consumption: 18.012W; Declared backlight voltage: max. 46.2Vdc	--	Tested in equipment
	SAMSUNG	LTM240CT** (* can be 0~9, A~Z, blank for marking purpose)	24.0” TFT with LED backlight, declared power consumption: 19.48W; Declared backlight voltage: max. 43.7Vdc	--	Tested in equipment
	BOE	HR236WU* (* can be 0~9, A~Z, blank for marking purpose)	23.6” TFT with LED backlight, declared power consumption: 20.2W; Declared backlight voltage: 57.6Vdc	--	Tested in equipment
LCD Panel for constructions V	IVO	M236MWF* (*can be 0~9, A~Z, blank for marking purpose)	23.6” TFT with LED backlight; Declared power consumption: 17.7W	--	Tested in equipment

	BOE	HM236W**-*** (*can be 0~9, A~Z, blank for marking purpose)	23.6” TFT with LED backlight; Declared power consumption: 18.6W	--	Tested in equipment
	TPV	TPM236** (*can be 0~9, A~Z, blank for marking purpose)	23.6” TFT with LED backlight; Declared power consumption: 19.4W	--	Tested in equipment
	CHI MEI	M236H**-*** (*can be 0~9, A~Z, blank for marking purpose)	23.6” TFT with LED backlight; Declared power consumption: 18.9W	--	Tested in equipment
	AUO	M240HTN** (*can be 0~9, A~Z, blank for marking purpose)	24.0” TFT with LED backlight, declared power consumption: 17.55W; Declared backlight voltage: max. 32.4Vdc	--	Tested in equipment
	TPV	TPM240*** (*can be 0~9, A~Z, blank for marking purpose)	24.0” TFT with LED backlight, declared power consumption: 16.65W; Declared backlight voltage: max. 49Vdc	--	Tested in equipment
	SAMSUNG	LTM240CL** (*can be 0~9, A~Z, blank for marking purpose)	24.0” TFT with LED backlight, power consumption: 19.48W; Declared backlight voltage: max. 43.7Vdc	--	Tested in equipment
	LG Display	LM240WU* (*can be 0~9, A~Z, blank for marking purpose)	24.0” TFT with LED backlight, declared power consumption: 16.06W; Declared backlight voltage: max. 42.9Vdc	--	Tested in equipment
	INNOLUX	M236H** (*can be 0~9, A~Z, blank for marking purpose)	23.6” TFT with LED backlight, declared power consumption: 18.012W; Declared backlight voltage: max. 46.2Vdc	--	Tested in equipment

	SAMSUNG	LTM240CT** (* can be 0~9, A~Z, blank for marking purpose)	24.0" TFT with LED backlight, declared power consumption: 19.48W; Declared backlight voltage: max. 43.7Vdc	--	Tested in equipment
	BOE	HR236WU* (* can be 0~9, A~Z, blank for marking purpose)	23.6" TFT with LED backlight, declared power consumption: 20.2W; Declared backlight voltage: 57.6Vdc	--	Tested in equipment
Plastic Enclosure	Cheil	SD-0150(+), VH-0810(+), VE-0812(+), NH-1000T(+), GC-0700(+), GC-1017(+), VE-1890(+), TP-1100(+), BF-0675(+), BF-0670F, NH-1017T, NH-1017(+), BF-0677(+), HS-7000RA	HB or better, 60°C, thickness 2.0mm min.	UL 94	UL (E115797)
	Grand	D-150, D-1000	HB or better, 60°C, thickness 2.0mm min.	UL 94	UL (E88637)
	Chi Mei	PA-757(+), PH-88	HB or better, 60°C, thickness 2.0mm min.	UL 94	UL (E196075)
	BASF	GP-35, GP-22, 495F	HB or better, 60°C, thickness 2.0mm min.	UL 94	UL (E41871)
	Bayer	FR2000, FR3005	HB or better, 60°C, thickness 2.0mm min.	UL 94	UL (E41613)
	LG	HF-350, HF-380, AF-312T1, AF-342T1, GN-5001TF(#), GN-5001RFD, GN-5008A-F, SE750(#), XG-568, XG-569C, GP-1000L, SE-750, GN-5001RF, GN-5001RFT, GN-5008HF	HB or better, 60°C, thickness 2.0mm min.	UL 94	UL (E67171)

	Teijin	TN-7500, TN-7500F(#), MN-3600H, MN-3600HA	HB or better, 60°C, thickness 2.0mm min.	UL 94	UL (E98529, E244324)
	HINGLONG	HL-ABS-PCR85, HL-ABS-PCR65	HB or better, 60°C, thickness 2.0mm min.	UL 94	UL (E345434)
	STYRON	STYRON A-TECH 1400	HB or better, 60°C, thickness 2.0mm min.	UL 94	UL (E73656)
	KingFa	5197, HF-606, HF-626, FRABS-518, GAR-011C, JH960 6(M), FRHIPS-960, RS-900, RS-300, RS-400, GAR-011(L65), GAR-011(HG6), CK-100, RD-900	HB or better, 60°C, thickness 2.0mm min.	UL 94	UL (E171666)
	Haier	HRABS-RS, HRABS-HG, CR-3002	HB or better, 60°C, thickness 2.0mm min.	UL 94	UL (E230779)
Metal Enclosure	--	--	Metallic, thickness 0.61 mm min.	--	--
Metal Enclosure under supply board at horizontal position	---	--	Metal, thickness 0.81 mm min.	--	--
Metal Enclosure under supply board at vertical position	---	--	Metal, thickness 0.81mm min.	--	--
Adhesive	Ningbo Fenghua	RF-0345	Thickness 0.04mm	--	--
Mylar between SPS board and metal chassis of panel	JINGMEN GORUN TECHNOLOGY CO LTD	HF70	V-0 min, thickness 0.4 mm min	UL 746	UL (E305163)
PCB	--	--	V-1 or better Min. 105°C	UL 94, UL 796	UL
Stand base	--	--	HB or better, total weight: 2.27 kg	UL 94	UL
Speaker (2 sets) (optional)	--	--	Max. 8Ω, max. 4.5W	--	--

Negative ion generator (optional)	Dong Guan Fu Fong	FIO-DC5V	I/P : 5.0 Vdc, 0.3W, 40mA O/P: -4±0.5 kVdc (at 5 Vdc)	--	--
-Transformer (T1)	Dong Guan Fu Fong	OSC-1712	105°C	--	--
- Enclosure	CHI MEI CORPORATION	PA-765A(+)	V-1 min, thickness 1.5 mm min.	UL 94	UL (E56070)
Negative ion generator (optional)	SHENZHEN SUNYOU	F5BS-GJ1	I/P : 4.0-6.0 Vdc O/P: -4±0.5 kVdc (at 5 Vdc)	--	--
-Transformer (T1)	SHENZHEN SUNYOU	EE16	105°C	--	--
- Enclosure	NAN YA PLASTICS CORP PLASTICS 4TH DIV	1403G6	V-0 min, thickness 0.75 mm min.	UL 94	UL (E130155)
Switching Power Supply Board 715G5361 type A, 715G5361 type C, 715G5361 type D:					
Appliance Inlet (CN901)	Solteam	ST-01	10A/250Vac	IEC/EN 60320-1, UL 498, UL60320-1	VDE 40015691 UL E200241
	Zhang Jia Gang-Hua Jie	SA-4S, SB-4S-1	10A/250Vac	IEC/EN 60320-1, UL 498, UL60320-1	VDE 40003610 UL E154342
	Rong Feng	SS-120, SS-7B	10A/250Vac	IEC/EN 60320-1, UL 498, UL60320-1	VDE 40028101, UL E102641
	Delikang	CDJ-3	10A/250Vac	IEC/EN 60320-1, UL 498, UL60320-1	VDE 40010513 UL E217394
	Delikang	CDJ-3-1	10A/250Vac	IEC/EN 60320-1, UL 498, UL60320-1	VDE 40015913 UL E217394
	Inalways	0707-1	10A/250Vac	IEC/EN 60320-1, UL 498, UL60320-1	SGS (ENEC): ENEC 2010083 A1, UL E94191
	Inalways	0711-2	10A/250Vac	IEC/EN 60320-1, UL 498, UL60320-1	SGS (ENEC): ENEC 2010084 A1, UL E94191
	Inalways	0714	10A/250Vac	IEC/EN 60320-1, UL 498, UL60320-1	SGS (ENEC): ENEC 2010085 A1 UL E94191

	TECX	TU-301 series	10A/250Vac	IEC/EN 60320-1, UL 498, UL60320-1	VDE 40025582 UL E220004
	Yueqing Hongchang	DB-14	10A/250Vac	IEC/EN 60320-1, UL 498, UL60320-1	VDE 40028645 UL E327347
Fuse (F901 in primary)	Conquer	MET	T4A, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 40017157, UL E82636
	Conquer	MST	T4A, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 40017118, UL E82636
	Conquer	PTU	T4A, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 40001462, UL E82636
	Littelfuse	382	T4A, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 400018249 UL E67006
	Littelfuse	392	T4A, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 126983 UL E67006
	Cooper Bussmann	SR-5 Series	T4A, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE122052 UL E19180
	Cooper Bussmann	SS-5 Series	T4A, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 40015513 UL E19180
	Ever Island Electric Co., Ltd. and Walter Electric	2000 Series	T4A, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 40018790 UL E220181
	Ever Island Electric Co., Ltd. and Walter Electric	2010 Series	T4A, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 40018781 UL E220181
Fuse (F902, F904) (secondary for LPS) (F904 is optional)	Conquer	MET	T5A, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 40017155 UL E82636
	Conquer	MST	T5A, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 40017118 UL E82636

	Conquer	PTU	T5A, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 40001462 UL E82636
	Littelfuse	382	T5A, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 40018250 UL E67006
	Littelfuse	392	T5A, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 126983 UL E67006
	Cooper Bussmann	SR-5 Series	T5A, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 40020046, UL E19180
	Cooper Bussmann	SS-5 Series	T5A, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 40015513 UL E19180
	Ever Island Electric Co., Ltd. and Walter Electric	2000 Series	T5A, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 40018790 UL E220181
	Ever Island Electric Co., Ltd. and Walter Electric	2010 Series	T5A, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 40018781 UL E220181
Y- Capacitor (C902, C903, C941) (optional) (Y1 or Y2 type	Walsin	AH	Max. 4700pF, min. 250Vac, min. 85 °C., Y1	IEC 60384-14, UL 60384-14	VDE 40001804 UL E146544
	Walsin	AC	Max. 4700pF, min. 250Vac, min. 85 °C, Y2	IEC 60384-14, UL 60384-14	VDE 40001829 UL E146544
	Samwha Capacitor Co.,Ltd.	SD	Max. 4700pF, min. 250Vac, min. 85 °C, Y1	IEC 60384-14, UL 60384-14	VDE 40015804 UL E97754
	Haohua	CT7	Max. 4700pF, min. 250Vac, min. 85 °C, Y1 or Y2	IEC 60384-14, UL 60384-14	VDE, 40013601 UL E233106
	TDK-EPC	CD	Max. 4700pF, min. 250Vac, min. 85 °C, Y1	IEC 60384-14, UL 60384-14	VDE 40029780 UL E37861
	TDK-EPC	CS	Max. 4700pF, min. 250Vac, min. 85 °C, Y2	IEC 60384-14, UL 60384-14	VDE 40029781 UL E37861

	Murata	KX	Max. 4700pF, min. 250Vac, min. 85 °C, Y1	IEC 60384-14, UL 60384-14	VDE, 40002831, UL E37921
	Murata	KH	Max. 4700pF, min. 250Vac, min. 85 °C, Y2	IEC 60384-14, UL 60384-14	VDE, 40002796 UL E37921
	Guangdong South Hongming Electronic	F	Max. 4700pF, min. 250Vac, min. 85 °C, Y1 or Y2	IEC 60384-14, UL 60384-14	VDE 40036246, UL E154899
	SUCCESS	SE	Max. 4700pF, min. 250Vac, min. 85 °C, Y2	IEC 60384-14, UL 60384-14	VDE 40008996 UL E114280
	KUNSHAN WANSHENG ELECTRONICS CO LTD	CT7	Max. 4700pF, min. 250Vac, min. 85 °C, Y1 or Y2	IEC 60384-14, UL 60384-14	VDE 40012143 UL E249006
	YINAN DON'S ELECTRONIC COMPONENT CO.,LTD	CT81	Max. 4700pF, min. 250Vac, min. 85 °C, Y1 or Y2	IEC 60384-14, UL 60384-14	VDE 135256 UL E145038
Power switch (optional)	Rong Feng	RF-1003	10A, 250Vac	IEC/EN 61058-1, UL 61058-1	VDE 40030309, UL (E94138)
	Solteam Electronics Co Ltd	Series MR-21	6A, 250Vac	IEC/EN 61058-1, UL 61058-1	SGS (ENEC 2009053), UL (E148157)
	Solteam Electronics Co Ltd	OR-L series	6A, 250Vac	IEC/EN 61058-1, UL 61058-1	SGS (ENEC 2014027), UL (E148157)
	Zhangjiagang Huajie Electronic Co., Ltd.	PS8	10A, 125V AC 6(4)A 250V AC	IEC/EN 61058-1, UL 61058-1	VDE 40027662, UL (E151790)
	Chily	3024	16A, 250Vac	IEC/EN 61058-1, UL61058-1	SGS (ENEC 2010034 A1), UL (E68037)
X- Capacitor (C908) (X1 or X2 type) (optional)	Ultra Tech Xiphi Enterprise Co., Ltd.	HQX	Max. 0.47 µF, Min. 250 Vac, min. 85 °C, X2	IEC 60384-14, UL 60384-14	VDE (40024534) UL (E183780)
	Xiamen Faratronic Co., Ltd.	MKP62	Max. 0.47 µF, Min. 250 Vac, min. 85 °C, X2	IEC 60384-14, UL 60384-14	VDE (40000358) UL (E186600)

	Hua Jung Components Co., Ltd.	MKP	Max. 0.47 µF, Min. 250 Vac, min. 85 °C, X2	IEC 60384-14, UL 60384-14	Intertek (ENEC): 0252-5B UL (E149075)
	Europtronic	MPX	Max. 0.47 µF, Min. 250 Vac, min. 85 °C, X2	IEC 60384-14, UL 60384-14	VDE (40018238) UL (E211347)
	Europtronic	MPX2	Max. 0.47 µF, Min. 250 Vac, min. 85 °C, X2	IEC 60384-14, UL 60384-14	VDE (40025981) UL (E211347)
	Liow Gu Electronics Industry Co., Ltd.	GS-L	Max. 0.47 µF, Min. 250 Vac, min. 85 °C, X2	IEC 60384-14, UL 60384-14	VDE (40023391), UL E186321
	ARCOTRONICS	R.46	Max. 0.47 µF, Min. 250 Vac, min. 85 °C, X2	IEC 60384-14, UL 60384-14	IMQ (ENEC): DAT97000141 UL (E97797)
	ZHUHAI SUNG HO ELECTRONICS CO LTD	CMPP	Max. 0.47 µF, Min. 250 Vac, min. 85 °C, X2	IEC 60384-14, UL 60384-14	VDE (40026078) UL (E327138)
	Epcos Electronic Components S A	B3292#	Max. 0.47 µF, Min. 250 Vac, min. 85 °C, X2	IEC 60384-14, UL 60384-14	VDE (40005524) UL (E97863)
Thermistor (NR901)	--	--	Min. 3Ω, Min. 2A, 25°C	--	--
Bleeder Resistor (R900, R901, R902)	--	SMD type	Three in series after fuse, each rated max. 680K ohm, min. 1/4W	--	--
Bridging Diode (BD901)	--	--	Min. 600 V, min. 2A	--	--
Ripple Capacitor (C907)	--	--	100µF-150µF, min. 450V, 105°C	--	--
Transistor (Q901)	--	--	Min. 600 V, min. 3.8A	--	--
Line Choke (L901) (optional)	Dadon	73L174-26-H	105°C	--	--
	TDK	73L174-26-T	105°C	--	--
	LI SHIN	73L174-26-LS	105°C	--	--
	TPV	73L174-26-V	105°C	--	--

Bobbin of line choke	Chang Chun	T375J, T-357	Phenolic, V-0, 150°C	UL94	UL
	Sumitomo	PM-9820, PM-8375	Phenolic, V-0, 150°C	UL94	UL
	E I DUPONT DE NEMOURS & CO INC	FR-530L	130°C	UL94	UL
Y- Capacitor (C937, C938) (optional) (Y1 or Y2 type)	Walsin	AH	Max. 1000pF, min. 250Vac, min. 85 °C, Y1	IEC 60384-14, UL 60384-14	VDE (40001804) UL (E146544)
	Walsin	AC	Max. 1000pF, min. 250Vac, min. 85 °C, Y2	IEC 60384-14, UL 60384-14	VDE (40001829) UL (E146544)
	Samwha Capacitor Co.,Ltd.	SD	Max. 1000pF, min. 250Vac, min. 85 °C, Y1	IEC 60384-14, UL 60384-14	VDE (40015804) UL (E97754)
	Haohua	CT7	Max. 1000pF, min. 250Vac, min. 85 °C, Y1 or Y2	IEC 60384-14, UL 60384-14	VDE, (40013601) UL (E233106)
	TDK-EPC	CD	Max. 1000pF, min. 250Vac, min. 85 °C, Y1	IEC 60384-14, UL 60384-14	VDE (40029780) UL (E37861)
	TDK-EPC	CS	Max. 1000pF, min. 250Vac, min. 85 °C, Y2	IEC 60384-14, UL 60384-14	VDE (40029781) UL (E37861)
	Murata	KX	Max. 1000pF, min. 250Vac, min. 85 °C, Y1	IEC 60384-14, UL 60384-14	VDE, 40002831, UL E37921
	Murata	KH	Max. 1000pF, min. 250Vac, min. 85 °C, Y2	IEC 60384-14, UL 60384-14	VDE, 40002796 UL E37921
	Guangdong South Hongming Electronic	F	Max. 1000pF, min. 250Vac, min. 85 °C, Y1 or Y2	IEC 60384-14, UL 60384-14	VDE 40036246, UL E154899
	SUCCESS	SE	Max. 1000pF, min. 250Vac, min. 85 °C, Y2	IEC 60384-14, UL 60384-14	VDE, 40008996 UL E114280
	KUNSHAN WANSHENG ELECTRONICS CO LTD	CT7	Max. 1000pF, min. 250Vac, min. 85 °C, Y1 or Y2	IEC 60384-14, UL 60384-14	VDE, 40012143 UL E249006

	YINAN DON'S ELECTRONIC COMPONENT CO.,LTD	CT81	Max. 1000pF, min. 250Vac, min. 85 °C, Y1 or Y2	IEC 60384-14, UL 60384-14	VDE, 135256 UL E145038
Current sense Resistor (R924)	--	--	Min. 0.3 ohm, 2W	--	--
Photo Coupler (IC902)	Sharp	PC123	Dti = 0.7 mm, Int. cr = 5.0 mm, Ext. cr = 8.0 mm, 3000 Vac, 100 °C	DIN EN 60747-5-2, UL1577	VDE 40008087, UL E64380
	Vishay Semiconductor	TCET1103	Dti = 0.6 mm, Int. cr = 4.7 mm, Ext. cr = 8.4 mm, 3000 Vac, 100 °C	DIN EN 60747-5-2, UL1577	VDE 40028080 UL E76222
	Everlight Electronics Co., Ltd.	EL8X7 (X=1 or 2)	Dti = 0.5 mm, Int. cr = 6.0 mm, Ext. cr = 7.7 mm, 3000 Vac, 100 °C	DIN EN 60747-5-2, UL1577	SGS (FI 27474 A1), UL E214129
	Lite-On	LTV-817	Dti = 0.4 mm, Int. cr = 4.0 mm, Ext. cr = 8.0 mm, 3000 Vac, 100 °C	DIN EN 60747-5-2, UL1577	VDE 40015248 UL E113898
	TOSHIBA	TLP421F	Dti = 0.4 mm, Int. cr = thermal cycling test, Ext. cr = 8.0 mm, 3000 Vac, 100 °C	DIN EN 60747-5-2, UL1577	VDE 40010944 UL E67349
	Toshiba	TLP781, TLP781F	Dti = 0.4 mm, Int. cr = thermal cycling test, Ext. cr = 8.0 mm, 3000 Vac, 100 °C	DIN EN 60747-5-2, UL1577	VDE 40021173 UL E67349
	RENESAS	PS2561-1, PS2561L-1, PS2561L1-1, PS2561L2-1, PS2561DL1-1	Di=0.4mm, int. cr=thermal cycling 3. ext. cr=8.0mm, min.3000Vac, 100°C	DIN EN 60747-5-2, UL1577	VDE 40008862 UL E72422
Transformer (T901)	TPV	80GL22T-3-V 80TL22T-3-V	Class B	Applicable parts of IEC 60950-1 and according IEC 60085	Accepted by TÜV Rheinland
-Bobbin	Sumitomo Bakelite Co., Ltd.	PM-8375	Phenolic, V-0, 150°C	UL94	UL
-Margin tape	JINGJIANG YAHUA	No.WF(c)	130°C	UL510	UL
-Insulation tape	JINGJIANG YAHUA	NO.CT(c)	130°C	UL510	UL

Transformer (T901)	YUVA	80GL22T-3-N 80TL22T-3-N	Class B	Applicable parts of IEC 60950-1 and according IEC 60085	Accepted by TÜV Rheinland
-Bobbin	Chang Chun	T375J	Phenolic, V-0, 150°C	UL94	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
	SYMBIO INC	NO.35660Y*%	130°C	UL510	UL
Transformer (T901)	Li Tai	80GL22T-3-L 80TL22T-3-L	Class B	Applicable parts of IEC 60950-1 and according IEC 60085	Accepted by TÜV Rheinland
-Bobbin	Chang Chun	T375J	Phenolic, V-0, 150°C	UL94	UL
-Margin tape	SYMBIO INC	NO. 35661$	130°C	UL510	UL
-Insulation tape	SYMBIO INC	NO.35660Y* d	130°C	UL510	UL
	SYMBIO INC	NO.35661$	130°C	UL510	UL
Transformer (T901)	Dadon / Jiangsu Channelon	80GL22T-3-H 80TL22T-3-H	Class B	Applicable parts of IEC 60950-1 and according IEC 60085	Accepted by TÜV Rheinland
-Bobbin	Sumitomo Bakelite Co., Ltd.	PM-9820	Phenolic, V-0, 150°C	UL94	UL
-Margin tape	SYMBIO INC	NO.35661$	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)	TaiChang	80GL22T-3-S 80TL22T-3-S	Class B	Applicable parts of IEC 60950-1 and according IEC 60085	Accepted by TÜV Rheinland
-Bobbin	Sumitomo Bakelite Co., Ltd.	PM-9820	Phenolic, V-0, 150°C	UL94	UL
-Margin tape	JINGJIANG YAHUA	WF	130°C	UL510	UL

	JINGJIANG YAHUA	WF310	130°C	UL510	UL
-Insulation tape	JINGJIANG YAHUA	1350F-1	130°C	UL510	UL
	JINGJIANG YAHUA	JY25-A	130°C	UL510	UL
Power supply with DC/DC converter circuit: 715G5361 type B					
Appliance Inlet (CN901)	Inalways	0707-1	10A, 250V, 70°C	IEC/EN 60320-1, UL 498, UL60320-1	SGS (ENEC): ENEC 2010083 A1, UL E94191
	Inalways	0711-2	10A, 250V, 70°C	IEC/EN 60320-1, UL 498, UL60320-1	SGS (ENEC): ENEC 2010084 A1, UL E94191
	Inalways	0714	10A, 250V, 70°C	IEC/EN 60320-1, UL 498, UL60320-1	SGS (ENEC): ENEC 2010085 A1 UL E94191
	Zhang Jia Gang Hua Jie Electronics Co., Ltd.	SA-4S, SA-4S-1	10A, 250V, 70°C	IEC/EN 60320-1, UL 498, UL60320-1	VDE 40003610 UL E154342
	Rong Feng Industrial Co., Ltd.	SS-120, SS-7B	10A, 250V, 70°C	IEC/EN 60320-1, UL 498, UL60320-1	VDE 40028101, UL E102641
	DELIKANG/ Douling	CDJ-3	10A, 250V, 70°C	IEC/EN 60320-1, UL 498, UL60320-1	VDE 40010513 UL E217394
	DELIKANG/ Douling	CDJ-3-1	10A, 250V, 70°C	IEC/EN 60320-1, UL 498, UL60320-1	VDE 40015913 UL E217394
	Solteam Electronics Co., Ltd.	ST-01	10A, 250V, 70°C	IEC/EN 60320-1, UL 498, UL60320-1	VDE, 40015691 UL E200241
	TECX	TU-301-AP, TU-301-S, TU-301-SP, TU-301-A	10A, 250V, 70°C	IEC/EN 60320-1, UL 498, UL60320-1	VDE 40025582 UL E220004
	Yueqing Hongchang	DB-14	10A, 250V, 70°C	IEC/EN 60320-1, UL 498, UL60320-1	VDE 40028645 UL E327347
Switch (SW901) (optional)	CHILY	3024 series	15A. 250V	IEC/EN 61058-1, UL 61058-1	SGS (ENEC 2010034 A1), UL (E68037)

	Rong Feng	RF-1003	10A. 250V	IEC/EN 61058-1, UL 61058-1	VDE 40030309, UL (E94138)
	Solteam	MR-21	10A. 250V	IEC/EN 61058-1, UL 61058-1	SGS (ENEC 2009053), UL (E148157)
	Solteam	OR-L	10A. 250V	IEC/EN 61058-1, UL 61058-1	SGS (ENEC 2014027), UL (E148157)
	Zhangjiagang Huajie Electronic Co., Ltd.	PS8	10A, 125V, 6(4)A, 250V	IEC/EN 61058-1, UL 61058-1	VDE 40027662, UL (E151790)
Fuse (F901 in primary)	Conquer	MET	T4A, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 40017157, UL E82636
	Conquer	MST	T4A, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 40017118, UL E82636
	Conquer	PTU	T4A, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 40001462, UL E82636
	LITTELFUSE WICKMANN WERKE	382	T4A, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 400018249 UL E67006
	LITTELFUSE WICKMANN WERKE	392	T4A, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 126983 UL E67006
	Cooper Bussmann	SR-5 Series	T4A, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE122052 UL E19180
	Cooper Bussmann	SS-5 Series	T4A, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 40015513 UL E19180
	Ever Island Electric Co., Ltd. and Walter Electric	2000 Series	T4A, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 40018790 UL E220181
	Ever Island Electric Co., Ltd. and Walter Electric	2010 Series	T4A, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 40018781 UL E220181

Fuse (F902 for L.P.S. +5V in secondary) (F904 for +16V in secondary (F904 is optional)	Conquer	MET	T5A, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 40017155 UL E82636
	Conquer	MST	T5A, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 40017118 UL E82636
	Conquer	PTU	T5A, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 40001462 UL E82636
	LITTELFUSE WICKMANN WERKE	382	T5A, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 40018250 UL E67006
	LITTELFUSE WICKMANN WERKE	392	T5A, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 126983 UL E67006
	Cooper Bussmann	SR-5 Series	T5A, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 40020046, UL E19180
	Cooper Bussmann	SS-5 Series	T5A, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 40015513 UL E19180
	Ever Island Electric Co., Ltd. and Walter Electric	2000 Series	T4A, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 40018790 UL E220181
	Ever Island Electric Co., Ltd. and Walter Electric	2010 Series	T4A, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 40018781 UL E220181
Y- Capacitor (C902,C903) (Y1 or Y2 type) (optional)	Walsin	AH	Max. 4700pF, min. 250Vac, min. 85 °C, Y1	IEC 60384-14, UL 60384-14	VDE 40001804 UL E146544
	Walsin	AC	Max. 4700pF, min. 250Vac, min. 85 °C,, Y2	IEC 60384-14, UL 60384-14	VDE 40001829 UL E146544
	YINAN DON'S ELECTRONIC COMPONENT CO.,LTD	CT81	Max. 4700pF, min. 250Vac, min. 85 °C, Y1 or Y2	IEC 60384-14, UL 60384-14	VDE, 135256 UL E145038

	Haohua	CT7	Max. 4700pF, min. 250Vac, min. 85 °C, Y1 or Y2	IEC 60384-14, UL 60384-14	VDE, 40013601 UL E233106
	Wansheng	CT7	Max. 4700pF, min. 250Vac, min. 85 °C, Y1 or Y2	IEC 60384-14, UL 60384-14	VDE, 40012143 UL E249006
	TDK-EPC	CD	Max. 4700pF, min. 250Vac, min. 85 °C, Y1	IEC 60384-14, UL 60384-14	VDE 40029780 UL E37861
	TDK-EPC	CS	Max. 4700pF, min. 250Vac, min. 85 °C, Y2	IEC 60384-14, UL 60384-14	VDE 40029781 UL E37861
	Murata	KX	Max. 4700pF, min. 250Vac, min. 85 °C, Y1	IEC 60384-14, UL 60384-14	VDE, 40002831, UL E37921
	Murata	KH	Max. 4700pF, min. 250Vac, min. 85 °C, Y2	IEC 60384-14, UL 60384-14	VDE, 40002796 UL E37921
	Guangdong South Hongming Electronic	F	Max. 4700pF, min. 250Vac, min. 85 °C, Y1 or Y2	IEC 60384-14, UL 60384-14	VDE 40036246, UL E154899
	SUCCESS	SB	Max. 4700pF, min. 250Vac, min. 85 °C, Y1 or Y2	IEC 60384-14, UL 60384-14	VDE, 40016621 UL E114280
	SUCCESS	SE	Max. 4700pF, min. 250Vac, min. 85 °C, Y2	IEC 60384-14, UL 60384-14	VDE, 40008996 UL E114280
Y- Capacitor (C937, C938) (Y1 or Y2 type) (optional)	Walsin	AH	Max. 4700pF, min. 250Vac, min. 85 °C, Y1	IEC 60384-14, UL 60384-14	VDE 40001804 UL E146544
	Walsin	AC	Max. 4700pF, min. 250Vac, min. 85 °C,, Y2	IEC 60384-14, UL 60384-14	VDE 40001829 UL E146544
	YINAN DON'S ELECTRONIC COMPONENT CO.,LTD	CT81	Max. 4700pF, min. 250Vac, min. 85 °C, Y1 or Y2	IEC 60384-14, UL 60384-14	VDE, 135256 UL E145038
	Haohua	CT7	Max. 4700pF, min. 250Vac, min. 85 °C, Y1 or Y2	IEC 60384-14, UL 60384-14	VDE, 40013601 UL E233106
	Wansheng	CT7	Max. 4700pF, min. 250Vac, min. 85 °C, Y1 or Y2	IEC 60384-14, UL 60384-14	VDE, 40012143 UL E249006

	TDK-EPC	CD	Max. 4700pF, min. 250Vac, min. 85 °C, Y1	IEC 60384-14, UL 60384-14	VDE 40029780 UL E37861
	TDK-EPC	CS	Max. 4700pF, min. 250Vac, min. 85 °C, Y2	IEC 60384-14, UL 60384-14	VDE 40029781 UL E37861
	Murata	KX	Max. 4700pF, min. 250Vac, min. 85 °C, Y1	IEC 60384-14, UL 60384-14	VDE, 40002831, UL E37921
	Murata	KH	Max. 4700pF, min. 250Vac, min. 85 °C, Y2	IEC 60384-14, UL 60384-14	VDE, 40002796 UL E37921
	Guangdong South Hongming Electronic	F	Max. 4700pF, min. 250Vac, min. 85 °C, Y1 or Y2	IEC 60384-14, UL 60384-14	VDE 40036246, UL E154899
	SUCCESS	SE	Max. 4700pF, min. 250Vac, min. 85 °C, Y2	IEC 60384-14, UL 60384-14	VDE, 40008996 UL E114280
X-Capacitor (C908) (X1 or X2 type) (optional)	Ultra Tech Xiphi Enterprise Co., Ltd.	HQX	Max. 0.47 µF, Min. 250 Vac, min. 85 °C, X2	IEC 60384-14, UL 60384-14	VDE 40024534, UL E183780
	Xiamen Faratronic Co., Ltd.	MKP62	Max. 0.47 µF, Min. 250 Vac, min. 85 °C, X2	IEC 60384-14, UL 60384-14	VDE 40000358, UL E186600
	Hua Jung Components Co., Ltd.	MKP	Max. 0.47 µF, Min. 250 Vac, min. 85 °C, X2	IEC 60384-14, UL 60384-14	Intertek (ENEC): 0252-5B UL E149075
	Europtronic	MPX	Max. 0.47 µF, Min. 250 Vac, min. 85 °C, X2	IEC 60384-14, UL 60384-14	VDE, 40018238 UL E211347
	Europtronic	MPX2	Max. 0.47 µF, Min. 250 Vac, min. 85 °C, X2	IEC 60384-14, UL 60384-14	VDE, 40025981 UL E211347
	Liow Gu Electronics Industry Co., Ltd.	GS-L	Max. 0.47 µF, Min. 250 Vac, min. 85 °C, X2	IEC 60384-14, UL 60384-14	VDE 40023391, UL E186321
	ARCOTRONICS	R.46	Max. 0.47 µF, Min. 250 Vac, min. 85 °C, X2	IEC 60384-14, UL 60384-14	IMQ (ENEC): DAT97000141 UL E97797
	Epcos Electronic Components S A	B3292#	Max. 0.47 µF, Min. 250 Vac, min. 85 °C, X2	IEC 60384-14, UL 60384-14	VDE 40005524, UL E97863

Photo Coupler (IC902)	Sharp	PC123	Dti = 0.7 mm, Int. cr = 5.0 mm, Ext. cr = 8.0 mm, 3000 Vac, 100 °C	DIN EN 60747-5-2, UL1577	VDE 40008087, UL E64380
	Vishay Semiconductor	TCET1103	Dti = 0.6 mm, Int. cr = 4.7 mm, Ext. cr = 8.4 mm, 3000 Vac, 100 °C	DIN EN 60747-5-2, UL1577	VDE 40028080 UL E76222
	Everlight Electronics Co., Ltd.	EL817	Dti = 0.5 mm, Int. cr = 6.0 mm, Ext. cr = 7.7 mm, 3000 Vac, 100 °C	DIN EN 60747-5-2, UL1577	SGS (FI 27474 A1), UL E214129
	Lite-On	LTV-817	Dti = 0.4 mm, Int. cr = 4.0 mm, Ext. cr = 8.0 mm, 3000 Vac, 100 °C	DIN EN 60747-5-2, UL1577	VDE 40015248 UL E113898
	TOSHIBA	TLP421F	Dti = 0.4 mm, Int. cr = thermal cycling test, Ext. cr = 8.0 mm, 3000 Vac, 100 °C	DIN EN 60747-5-2, UL1577	VDE 40010944 UL E67349
	Toshiba	TLP781, TLP781F	Dti = 0.4 mm, Int. cr = thermal cycling test, Ext. cr = 8.0 mm, 3000 Vac, 100 °C	DIN EN 60747-5-2, UL1577	VDE 40021173 UL E67349
	RENESAS	PS2561-1, PS2561L-1, PS2561L1-1, PS2561L2-1, PS2561DL1-1	Di=0.4mm, int. cr=thermal cycling 3. ext. cr=8.0mm, min.3000Vac, 100°C	DIN EN 60747-5-2, UL1577	VDE 40008862 UL E72422
Thermistor (NR901)	--	--	Min. 3Ω, Max. 5A, 25°C	--	--
Bleeder Resistor (R900, R901, R902)	--	SMD type	Max. 680kΩ, min. 1/8W	--	--
Bridging Diode (BD901)	--	--	Min. 2A, Min 600V.	--	--
Ripple Capacitor (C907)	--	--	20-180μF, min. 450V, 105°C	--	--
Transistor (Q901)	--	--	Min. 600V, min. 2.0A.	--	--
Line Choke (L901) (Optional)	Taichang	73G174-65-S	105°C	--	--
	Dadon	73G174-65-HP	105°C	--	--
	ASET	73G174-65-X	105°C	--	--
	Litai	73G174-65-L	105°C	--	--

	Dadon	73G174-65-H	105°C	--	--
	FRONTIER	73G174-65-F	105°C	--	--
	TDK	73G174-65-T	105°C	--	--
	TPV	73G174-65-V	105°C	--	--
	YUVA	73G174-65-N	105°C	--	--
	DARFON	73G174-65-DN	105°C	--	--
Bobbin of line choke	Chang Chun	PBT-4115, PBT-4130	105°C	UL94	UL
	Chang Chun	T375J, T355J	Phenolic, V-0, 150°C	UL94	UL
	Sumitomo	PM-9820, PM-8375	Phenolic, V-0, 150°C	UL94	UL
Transformer (T901)	TPV	80GL22T-3-V3	Class A	Applicable parts of IEC 60950-1 and according IEC 60085	Accepted by TÜV Rheinland
-Bobbin	Sumitomo Bakelite Co., Ltd.	PM-8375	Phenolic, V-0, 150°C	UL94	UL
-Margin tape	JINGJIANG YAHUA	No.WF(c)	130°C	UL510	UL
-Insulation tape	JINGJIANG YAHUA	NO.CT(c)	130°C	UL510	UL
Transformer (T901)	YUVA	80GL22T-3-N3	Class A	Applicable parts of IEC 60950-1 and according IEC 60085	Accepted by TÜV Rheinland
-Bobbin	Chang Chun	T375J	Phenolic, V-0, 150°C	UL94	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
	SYMBIO INC	NO.35660Y*%	130°C	UL510	UL
Transformer (T901)	Li Tai	80GL22T-3-L3	Class A	Applicable parts of IEC 60950-1 and according IEC 60085	Accepted by TÜV Rheinland
-Bobbin	Chang Chun	T375J	Phenolic, V-0, 150°C	UL94	UL

- Insulation tape	SYMBIO INC	NO.35660Y* d	130°C	UL510	UL
	3M	NO.1350F-1(b)	130°C	UL510	UL
-Margin tape	3M	NO.44(a)	130°C	UL510	UL
	SYMBIO INC	NO.35661$	130°C	UL510	UL
Transformer (T901)	Dadon / Jiangsu Channelon	80GL22T-3-H3	Class A	Applicable parts of IEC 60950-1 and according IEC 60085	Accepted by TÜV Rheinland
-Bobbin	Chang Chun	T375J	Phenolic, V-0, 150°C	UL94	UL
-Margin tape	SYMBIO INC	NO.35661$	130°C	UL510	UL
-Insulation tape	SYMBIO INC	No.35660Y* (%)	130°C	UL510	UL
Transformer (T901)	TaiChang	80GL22T-3-S3	Class A	Applicable parts of IEC 60950-1 and according IEC 60085	Accepted by TÜV Rheinland
-Bobbin	Sumitomo Bakelite Co., Ltd.	PM-9820	Phenolic, V-0, 150°C	UL94	UL
-Margin tape	JINGJIANG YAHUA	POLYETHYLENE WF	130°C	UL510	UL
	3M	POLYETHYLENE 44	130°C	UL510	UL
-Insulation tape	3M	1350F-1	130°C	UL510	UL
	JINGJIANG YAHUA	CT	130°C	UL510	UL
Transformer (T901)	CHENPING	80GL22T-3-CP	Class A	Applicable parts of IEC 60950-1 and according IEC 60085	Accepted by TÜV Rheinland
-Bobbin	Sumitomo Bakelite Co., Ltd.	PM-9820, PM-9630, PM-8375	Phenolic, V-0, 150°C	UL94	UL
-Margin tape	SYMBIO INC	No.35661$	130°C	UL510	UL
-Insulation tape	SYMBIO INC	NO.35660Y*%	130°C	UL510	UL
Power supply with DC/DC converter circuit: 715G5361 type E					
AC Inlet (CN901)	Solteam	ST-01	10A/250Vac	IEC/EN 60320-1, UL 498, UL60320-1	VDE, 40015691 UL E200241
	Zhang Jia Gang-Hua Jie	SA-4S, SB-4S-1	10A/250Vac	IEC/EN 60320-1, UL 498, UL60320-1	VDE 40003610 UL E154342

	Rong Feng	SS-120, SS-7B	10A/250Vac	IEC/EN 60320-1, UL 498, UL60320-1	VDE 40028101, UL E102641
	Delikang	CDJ-3	10A/250Vac	IEC/EN 60320-1, UL 498, UL60320-1	VDE 40010513 UL E217394
	Delikang	CDJ-3-1	10A/250Vac	IEC/EN 60320-1, UL 498, UL60320-1	VDE 40015913 UL E217394
	Inalways	0707-1	10A/250Vac	IEC/EN 60320-1, UL 498, UL60320-1	SGS (ENEC): ENEC 2010083 A1, UL E94191
	Inalways	0711-2	10A/250Vac	IEC/EN 60320-1, UL 498, UL60320-1	SGS (ENEC): ENEC 2010084 A1, UL E94191
	Inalways	0714	10A/250Vac	IEC/EN 60320-1, UL 498, UL60320-1	SGS (ENEC): ENEC 2010085 A1 UL E94191
	TECX	TU-301 series	10A/250Vac	IEC/EN 60320-1, UL 498, UL60320-1	VDE 40025582 UL E220004
	Yueqing Hongchang	DB-14	10A/250Vac	IEC/EN 60320-1, UL 498, UL60320-1	VDE 40028645 UL E327347
Fuse (F901)	Conquer	MET	T4A, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 40017157, UL E82636
	Conquer	MST	T4A, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 40017118, UL E82636
	Conquer	PTU	T4A, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 40001462, UL E82636
	Littelfuse	215	T4A, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 40013521 UL E10480

	Littelfuse	877	T4A, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 40023242 UL E10480
	LITTELFUSE WICKMANN WERKE	382	T4A, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 400018249 UL E67006
	LITTELFUSE WICKMANN WERKE	392	T4A, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 126983 UL E67006
	Cooper Bussmann	SR-5 Series	T4A, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE122052 UL E19180
	Cooper Bussmann	SS-5 Series	T4A, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 40015513 UL E19180
	Ever Island Electric Co., Ltd. and Walter Electric	2000 Series	T4A, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 40018790 UL E220181
	Ever Island Electric Co., Ltd. and Walter Electric	2010 Series	T4A, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 40018781 UL E220181
Fuse (F902, F903 for L.P.S. +5V in secondary) (F904 for +16V in secondary (F904 is optional)	Conquer	MET	T5AL, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 40017155 UL E82636
	Conquer	MST	T5AL, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 40017118 UL E82636
	Conquer	PTU	T5AL, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 40001462 UL E82636

	Littelfuse	215	T5AL, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 40013521 UL E10480
	Littelfuse	877	T5AL, 250 Vac	UL 248-1, UL 248-14	UL E10480
	Littelfuse	382	T5AL, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 40018250 UL E67006
	Littelfuse	392	T5AL, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 126983 UL E67006
	Cooper Bussmann	SR-5 Series	T5AL, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 40020046, UL E19180
	Cooper Bussmann	SS-5 Series	T5AL, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 40015513 UL E19180
	Ever Island Electric Co., Ltd. and Walter Electric	2000 Series	T5AL, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 40018790 UL E220181
	Ever Island Electric Co., Ltd. and Walter Electric	2010 Series	T5AL, 250 Vac	IEC/EN 60127-1, IEC/EN 60127-3, UL 248-1, UL 248-14	VDE 40018781 UL E220181
Y- Capacitor (C902, C903) Y1 or Y2 type (optional)	Walsin	AH	Max. 1000pF, min. 250Vac, min. 85 °C, Y1	IEC 60384-14, UL 60384-14	VDE 40001804 UL E146544
	Walsin	AC	Max. 1000pF, min. 250Vac, min. 85 °C, Y2	IEC 60384-14, UL 60384-14	VDE 40001829 UL E146544
	Samwha Capacitor Co.,Ltd.	SD	Max. 1000pF, min. 250Vac, min. 85 °C, Y1	IEC 60384-14, UL 60384-14	VDE 40015804 UL E97754
	Haohua	CT7	Max. 1000pF, min. 250Vac, min. 85 °C, Y1 or Y2	IEC 60384-14, UL 60384-14	VDE, 40013601 UL E233106

	TDK-EPC	CD	Max. 1000pF, min. 250Vac, min. 85 °C, Y1	IEC 60384-14, UL 60384-14	VDE 40029780 UL E37861
	TDK-EPC	CS	Max. 1000pF, min. 250Vac, min. 85 °C, Y2	IEC 60384-14, UL 60384-14	VDE 40029781 UL E37861
	Murata	KX	Max. 1000pF, min. 250Vac, min. 85 °C, Y1	IEC 60384-14, UL 60384-14	VDE, 40002831, UL E37921
	Murata	KH	Max. 1000pF, min. 250Vac, min. 85 °C, Y2	IEC 60384-14, UL 60384-14	VDE, 40002796 UL E37921
	Guangdong South Hongming Electronic	F	Max. 1000pF, min. 250Vac, min. 85 °C, Y1 or Y2	IEC 60384-14, UL 60384-14	VDE 40036246, UL E154899
	SUCCESS	SB	Max. 1000pF, min. 250Vac, min. 85 °C, Y1 or Y2	IEC 60384-14, UL 60384-14	VDE, 40016621 UL E114280
	SUCCESS	SE	Max. 1000pF, min. 250Vac, min. 85 °C, Y2	IEC 60384-14, UL 60384-14	VDE, 40008996 UL E114280
	KUNSHAN WANSHENG ELECTRONICS CO LTD	CT7	Max. 1000pF, min. 250Vac, min. 85 °C, Y1 or Y2	IEC 60384-14, UL 60384-14	VDE, 40012143 UL E249006
	YINAN DON'S ELECTRONIC COMPONENT CO.,LTD	CT81	Max. 1000pF, min. 250Vac, min. 85 °C, Y1 or Y2	IEC 60384-14, UL 60384-14	VDE, 135256 UL E145038
Thermistor (NR901)	--	--	Min. 3Ω, min. 2A at 25°C	-	-
X- Capacitor (C908) (X1 or X2 type) (optional)	Ultra Tech Xiphi Enterprise Co., Ltd.	HQX	Max. 0.47 µF, Min. 250 Vac, min. 85 °C, X2	IEC 60384-14, UL 60384-14	VDE 40024534, UL E183780
	Xiamen Faratronic Co., Ltd.	MKP62	Max. 0.47 µF, Min. 250 Vac, min. 85 °C, X2	IEC 60384-14, UL 60384-14	VDE 40000358, UL E186600
	Hua Jung Components Co., Ltd.	MKP	Max. 0.47 µF, Min. 250 Vac, min. 85 °C, X2	IEC 60384-14, UL 60384-14	Intertek (ENEC): 0252-5B UL E149075

	Europtronic	MPX	Max. 0.47 µF, Min. 250 Vac, min. 85 °C, X2	IEC 60384-14, UL 60384-14	VDE, 40018238 UL E211347
	Europtronic	MPX2	Max. 0.47 µF, Min. 250 Vac, min. 85 °C, X2	IEC 60384-14, UL 60384-14	VDE, 40025981 UL E211347
	Liow Gu Electronics Industry Co., Ltd.	GS-L	Max. 0.47 µF, Min. 250 Vac, min. 85 °C, X2	IEC 60384-14, UL 60384-14	VDE 40023391, UL E186321
	ARCOTRONICS	R.46	Max. 0.47 µF, Min. 250 Vac, min. 85 °C, X2	IEC 60384-14, UL 60384-14	IMQ (ENEC): DAT97000141 UL E97797
	ZHUHAI SUNGHO ELECTRONICS CO LTD	CMPP	Max. 0.47 µF, Min. 250 Vac, min. 85 °C, X2	IEC 60384-14, UL 60384-14	VDE 40026078, UL E327138
	Epcos Electronic Components S A	B3292#	Max. 0.47 µF, Min. 250 Vac, min. 85 °C, X2	IEC 60384-14, UL 60384-14	VDE 40005524, UL E97863
Bleeder Resistors (R900, R901, R902,)	--	SMD type	Three in series after fuse, each rated max. 680KΩ, min. 1/8W	--	--
Line Choke (L901) (optional)	TAI CHANG	73G 174-65-S	105°C	--	--
	Dadon	73G174-65-H	105°C	--	--
	YUVA	73G174-65-N	105°C	--	--
	Yaxing	73G174-65-X	105°C	--	--
	TPV	73G174-65-V	105°C	--	--
Bobbin of line choke	Chang Chun	PBT-4115, PBT-4130	105°C	UL94	UL
Base of line choke	Chang Chun	T375J, T355J	Phenolic, V-0, 150°C	UL94	UL
	Sumitomo	PM-9820, PM-8375	Phenolic, V-0, 150°C	UL94	UL
Bridging Diode (BD901)	--	--	Min. 600 V, min. 2A	--	--
Ripple Capacitor (C907)	--	--	max100µF, min. 450V, 105°C	--	--

Transistor (Q901)	--	--	Min. 600 V, min. 3.8A	--	--
Y- Capacitor (C938) Y1 type (optional)	Walsin	AH	Max.3300pF, min. 250Vac, min. 85°C, Y1	IEC 60384-14, UL 60384-14	VDE 40001804 UL E146544
	Samwha Capacitor Co.,Ltd.	SD	Max.3300pF, min. 250Vac, min. 85°C, Y1	IEC 60384-14, UL 60384-14	VDE 40015804 UL E97754
	Haohua	CT7	Max.3300pF, min. 250Vac, min. 85°C, Y1	IEC 60384-14, UL 60384-14	VDE, 40013601 UL E233106
	TDK-EPC	CD	Max.3300pF, min. 250Vac, min. 85°C, Y1	IEC 60384-14, UL 60384-14	VDE 40029780 UL E37861
	Murata	KX	Max.3300pF, min. 250Vac, min. 85°C, Y1	IEC 60384-14, UL 60384-14	VDE, 40002831, UL E37921
	Guangdong South Hongming Electronic	F	Max.3300pF, min. 250Vac, min. 85°C, Y1	IEC 60384-14, UL 60384-14	VDE 40036246, UL E154899
	SUCCESS	SB	Max.3300pF, min. 250Vac, min. 85°C, Y1	IEC 60384-14, UL 60384-14	VDE, 40016621 UL E114280
	KUNSHAN WANSHENG ELECTRONICS CO LTD	CT7	Max.3300pF, min. 250Vac, min. 85°C, Y1	IEC 60384-14, UL 60384-14	VDE, 40012143 UL E249006
	YINAN DON'S ELECTRONIC COMPONENT CO.,LTD	CT81	Max.3300pF, min. 250Vac, min. 85°C, Y1	IEC 60384-14, UL 60384-14	VDE, 135256 UL E145038
Y- Capacitor (C941) (optional) Y1	Walsin	AH	Max.470pF, min. 250Vac, min. 85°C, Y1	IEC 60384-14, UL 60384-14	VDE 40001804 UL E146544
	Samwha Capacitor Co.,Ltd.	SD	Max.470pF, min. 250Vac, min. 85°C, Y1	IEC 60384-14, UL 60384-14	VDE 40015804 UL E97754
	Haohua	CT7	Max.470pF, min. 250Vac, min. 85°C, Y1	IEC 60384-14, UL 60384-14	VDE, 40013601 UL E233106
	TDK-EPC	CD	Max.470pF, min. 250Vac, min. 85°C, Y1	IEC 60384-14, UL 60384-14	VDE 40029780 UL E37861

	Murata	KX	Max.470pF, min. 250Vac, min. 85°C, Y1	IEC 60384-14, UL 60384-14	VDE, 40002831, UL E37921
	Guangdong South Hongming Electronic	F	Max.470pF, min. 250Vac, min. 85°C, Y1	IEC 60384-14, UL 60384-14	VDE 40036246, UL E154899
	SUCCESS	SB	Max.470pF, min. 250Vac, min. 85°C, Y1	IEC 60384-14, UL 60384-14	VDE, 40016621 UL E114280
	KUNSHAN WANSHENG ELECTRONICS CO LTD	CT7	Max.470pF, min. 250Vac, min. 85°C, Y1	IEC 60384-14, UL 60384-14	VDE, 40012143 UL E249006
	YINAN DON'S ELECTRONIC COMPONENT CO.,LTD	CT81	Max.470pF, min. 250Vac, min. 85°C, Y1	IEC 60384-14, UL 60384-14	VDE, 135256 UL E145038
Current sense Resistor (R924)	--	--	Min. 0.39 ohm, 2W	--	--
Transformer (T901)	TPV	80GL22T-3-V6	Class B	Applicable part according to IEC60950-1 and IEC 60085	Accepted by TÜV Rheinland
- Bobbin	SUMITOMO BAKELITE CO.,LTD	PM-8375	Phenolic, V-0. 150°C	UL94	UL
- Margin tape	JINGJIANG YAHUA PRESSURE SENSTIVE GLUE CO.,LTD	No.WF(c)	130°C	UL510	UL
	SYMBIO INC	No.35661$	130°C	UL510	UL
- Insulation tape	JINGJIANG YAHUA PRESSURE SENSTIVE GLUE CO.,LTD	NO.CT(c)	130°C	UL510	UL
	SYMBIO INC	No:35660Y*(%)	130°C	UL510	UL
Transformer (T901)	Dadon/Jiangsu Channelon	80GL22T-3- H6	Class B	Applicable parts of IEC 60950-1 and according IEC 60085	Accepted by TÜV Rheinland
- Bobbin	SUMITOMO BAKELITE CO., LTD	PM-9820	Phenolic,V-0. 150°C	UL94	UL
- Margin tape	SYMBIO INC	No.35661$	130°C	UL510	

- Insulation tape	JINGJIANG YAHUA PRESSURE SENSTIVE GLUE CO.,LTD	No.CT(c)	130°C	UL510	UL
	SYMBIO INC	No.35660Y* (%)			
Transformer (T901)	YUVA	80GL22T-3-N6	Class B	Applicable parts of IED 60950-1 and according IEC 60085	Accepted by TUV Rheinland
- Bobbin	Chang Chun	T375J	Phenolic, V-0. 150°C	UL94	UL
- Margin tape	SYMBIO INC	No.35661$	130°C	UL510	UL
	3M	NO.44(a)	130°C	UL510	UL
- Insulation tape	JINGJIANG YAHUA PRESSURE SENSTIVE GLUE CO.,LTD	NO.CT(c)	130°C	UL510	UL
	SYMBIO INC	No:35660Y*(%)	130°C	UL510	UL
Transformer (T901)	TaiChang	80GL22T-3-S6	Class B	Applicable parts of IED 60950-1 and according IEC 60085	Accepted by TUV Rheinland
- Bobbin	SUMITOMO BAKELITE CO., LTD	PM-9820	Phenolic, V-0. 150°C	UL94	UL
- Margin tape	JINGJIANG YAHUA	No.WF(c)	130°C	UL510	UL
	JINGJIANG YAHUA	No.WF310	130°C	UL510	UL
- Insulation tape	JINGJIANG YAHUA	1350F-1	130°C	UL510	UL
	JINGJIANG YAHUA	JY25-A	130°C	UL510	UL
Photo Coupler (IC902)	Sharp	PC123	Dti = 0.7 mm, Int. cr = 5.0 mm, Ext. cr = 8.0 mm, 3000 Vac, 100 °C	DIN EN 60747-5-2, UL1577	VDE 40008087, UL E64380
	Vishay Semiconductor	TCET1103	Dti = 0.6 mm, Int. cr = 4.7 mm, Ext. cr = 8.4 mm, 3000 Vac, 100 °C	DIN EN 60747-5-2, UL1577	VDE 40028080 UL E76222
	Everlight Electronics Co., Ltd.	EL817 EL817M	Dti = 0.5 mm, Int. cr = 6.0 mm, Ext. cr = 7.7 mm, 3000 Vac, 100 °C	DIN EN 60747-5-2, UL1577	SGS (FI 27474 A1), UL E214129

	Everlight Electronics Co., Ltd.	EL1013	Di=0.4mm, int. cr=thermal cycling 3. ext. cr=8.0mm, min.3000Vac, 100°C	DIN EN 60747-5-2, UL1577	VDE 40028391, UL E214129
	Lite-On	LTV-817	Dti = 0.4 mm, Int. cr = 4.0 mm, Ext. cr = 8.0 mm, 3000 Vac, 100 °C	DIN EN 60747-5-2, UL1577	VDE 40015248 UL E113898
	TOSHIBA	TLP421F	Dti = 0.4 mm, Int. cr = thermal cycling test, Ext. cr = 8.0 mm, 3000 Vac, 100 °C	DIN EN 60747-5-2, UL1577	VDE 40010944 UL E67349
	Toshiba	TLP781, TLP781F	Dti = 0.4 mm, Int. cr = thermal cycling test, Ext. cr = 8.0 mm, 3000 Vac, 100 °C	DIN EN 60747-5-2, UL1577	VDE 40021173 UL E67349
	RENESAS	PS2561-1, PS2561L-1, PS2561L1-1, PS2561L2-1, PS2561DL1-1	Di=0.4mm, int. cr=thermal cycling 3. ext. cr=8.0mm, min.3000Vac, 100°C	DIN EN 60747-5-2, UL1577	VDE 40008862 UL E72422

Note(s):

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. 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.
6. All sources of transformer for the same type of power board were checked with same construction.

1.6.2	**TABLE: Electrical data (in normal conditions)**					**P**
U (V)	I (A)	Irated (A)	P (W)	Fuse #	Ifuse (A)	Condition/status
Test with power board 715G5361 type A, main board 715G5436 and panel M240HVN (AUO), VGA mode**						
90V/50Hz	0.85	--	46.8	F901	0.85	Normal load condition [1)]
90V/60Hz	0.85	--	46.8	F901	0.85	Normal load condition [1)]
100V/50Hz	0.79	1.5	46.4	F901	0.79	Normal load condition [1)]
100V/60Hz	0.79	1.5	46.4	F901	0.79	Normal load condition [1)]
240V/50Hz	0.46	1.5	45.8	F901	0.46	Normal load condition [1)]
240V/60Hz	0.46	1.5	45.7	F901	0.46	Normal load condition [1)]

264V/50Hz	0.42	--	45.7	F901	0.42	Normal load condition [1)]
264V/60Hz	0.42	--	45.6	F901	0.42	Normal load condition [1)]
Test with power board 715G5361 type A, main board 715G5436 and panel M240HVN (AUO), DVI mode**						
90V/50Hz	0.85	--	46.2	F901	0.85	Normal load condition [1)]
90V/60Hz	0.85	--	46.2	F901	0.85	Normal load condition [1)]
100V/50Hz	0.78	1.5	45.9	F901	0.78	Normal load condition [1)]
100V/60Hz	0.78	1.5	45.9	F901	0.78	Normal load condition [1)]
240V/50Hz	0.46	1.5	45.7	F901	0.46	Normal load condition [1)]
240V/60Hz	0.45	1.5	45.7	F901	0.45	Normal load condition [1)]
264V/50Hz	0.42	--	45.4	F901	0.42	Normal load condition [1)]
264V/60Hz	0.42	--	45.3	F901	0.42	Normal load condition [1)]
Test with power board 715G5361 type A, main board 715G5436 and panel M240HVN (AUO), HDMI mode**						
90V/50Hz	0.85	--	48.0	F901	0.85	Normal load condition [1)]
90V/60Hz	0.85	--	47.9	F901	0.85	Normal load condition [1)]
100V/50Hz	0.79	1.5	47.4	F901	0.79	Normal load condition [1)]
100V/60Hz	0.80	1.5	47.4	F901	0.80	Normal load condition [1)]
240V/50Hz	0.47	1.5	46.9	F901	0.47	Normal load condition [1)]
240V/60Hz	0.46	1.5	46.9	F901	0.46	Normal load condition [1)]
264V/50Hz	0.43	--	46.8	F901	0.43	Normal load condition [1)]
264V/60Hz	0.43	--	46.3	F901	0.43	Normal load condition [1)]
Tested with power board 715G5361 type B, main board 715G5270 and panel M240HVN (AUO), VGA mode**						
90V/50Hz	0.43	--	23.7	F901	0.43	Normal load condition [2)]
90V/60Hz	0.44	--	23.6	F901	0.44	Normal load condition [2)]
100V/50Hz	0.40	1.5	23.2	F901	0.40	Normal load condition [2)]
100V/60Hz	0.40	1.5	23.1	F901	0.40	Normal load condition [2)]
240V/50Hz	0.23	1.5	23.2	F901	0.23	Normal load condition [2)]
240V/60Hz	0.23	1.5	23.0	F901	0.23	Normal load condition [2)]
264V/50Hz	0.21	--	23.5	F901	0.21	Normal load condition [2)]
264V/60Hz	0.21	--	23.2	F901	0.21	Normal load condition [2)]
Tested with power board 715G5361 type B, main board 715G5270 and panel M240HVN (AUO), DVI mode**						

90V/50Hz	0.42	--	23.0	F901	0.42	Normal load condition [2)]
90V/60Hz	0.43	--	23.0	F901	0.43	Normal load condition [2)]
100V/50Hz	0.40	1.5	23.0	F901	0.40	Normal load condition [2)]
100V/60Hz	0.40	1.5	23.0	F901	0.40	Normal load condition [2)]
240V/50Hz	0.22	1.5	23.2	F901	0.22	Normal load condition [2)]
240V/60Hz	0.22	1.5	23.2	F901	0.22	Normal load condition [2)]
264V/50Hz	0.20	--	23.4	F901	0.20	Normal load condition [2)]
264V/60Hz	0.20	--	23.1	F901	0.20	Normal load condition [2)]
Test with power board 715G5361 type C, main board 715G5121 and panel M240HVN (AUO), VGA mode**						
90V/50Hz	0.72	--	41.2	F901	0.72	Normal load condition [3)]
90V/60Hz	0.72	--	41.2	F901	0.72	Normal load condition [3)]
100V/50Hz	0.67	1.5	40.6	F901	0.67	Normal load condition [3)]
100V/60Hz	0.67	1.5	40.6	F901	0.67	Normal load condition [3)]
240V/50Hz	0.34	1.5	39.2	F901	0.34	Normal load condition [3)]
240V/60Hz	0.34	1.5	39.2	F901	0.34	Normal load condition [3)]
264V/50Hz	0.30	--	39.1	F901	0.30	Normal load condition [3)]
264V/60Hz	0.30	--	39.1	F901	0.30	Normal load condition [3)]
Test with power board 715G5361 type C, main board 715G5121 and panel M240HVN (AUO), DVI mode**						
90V/50Hz	0.72	--	41.1	F901	0.72	Normal load condition [3)]
90V/60Hz	0.72	--	41.1	F901	0.72	Normal load condition [3)]
100V/50Hz	0.67	1.5	40.5	F901	0.67	Normal load condition [3)]
100V/60Hz	0.67	1.5	40.5	F901	0.67	Normal load condition [3)]
240V/50Hz	0.34	1.5	39.1	F901	0.34	Normal load condition [3)]
240V/60Hz	0.34	1.5	39.1	F901	0.34	Normal load condition [3)]
264V/50Hz	0.30	--	39.0	F901	0.30	Normal load condition [3)]
264V/60Hz	0.30	--	39.0	F901	0.30	Normal load condition [3)]
Test with power board 715G5361 type C, main board 715G5121 and panel M240HVN (AUO), HDMI mode**						
90V/50Hz	0.74	--	43.2	F901	0.74	Normal load condition [3)]
90V/60Hz	0.74	--	43.2	F901	0.74	Normal load condition [3)]
100V/50Hz	0.68	1.5	42.6	F901	0.68	Normal load condition [3)]
100V/60Hz	0.68	1.5	42.6	F901	0.68	Normal load condition [3)]
240V/50Hz	0.35	1.5	41.4	F901	0.35	Normal load condition [3)]
240V/60Hz	0.35	1.5	41.4	F901	0.35	Normal load condition [3)]
264V/50Hz	0.32	--	41.3	F901	0.32	Normal load condition [3)]

264V/60Hz	0.32	--	41.3	F901	0.32	Normal load condition [3]
Test with power board 715G5361 type C, main board 715G5121 and panel M240HVN (AUO), Display port mode**						
90V/50Hz	0.74	--	42.4	F901	0.74	Normal load condition [3]
90V/60Hz	0.74	--	42.5	F901	0.74	Normal load condition [3]
100V/50Hz	0.68	1.5	41.8	F901	0.68	Normal load condition [3]
100V/60Hz	0.68	1.5	41.9	F901	0.68	Normal load condition [3]
240V/50Hz	0.35	1.5	40.6	F901	0.35	Normal load condition [3]
240V/60Hz	0.35	1.5	40.7	F901	0.35	Normal load condition [3]
264V/50Hz	0.32	--	40.6	F901	0.32	Normal load condition [3]
264V/60Hz	0.32	--	40.5	F901	0.32	Normal load condition [3]
Test with power board 715G5361 type D, main board 715G6124 and panel M240HVN (AUO), VGA mode**						
90V/50Hz	0.55	--	32.0	F901	0.55	Normal load condition [4]
90V/60Hz	0.58	--	31.9	F901	0.58	Normal load condition [4]
100V/50Hz	0.50	1.5	31.7	F901	0.50	Normal load condition [4]
100V/60Hz	0.53	1.5	31.8	F901	0.53	Normal load condition [4]
240V/50Hz	0.25	1.5	31.9	F901	0.25	Normal load condition [4]
240V/60Hz	0.28	1.5	31.8	F901	0.28	Normal load condition [4]
264V/50Hz	0.24	--	32.0	F901	0.24	Normal load condition [4]
264V/60Hz	0.25	--	31.9	F901	0.25	Normal load condition [4]
Test with power board 715G5361 type D, main board 715G6124 and panel M240HVN (AUO), DVI mode**						
90V/50Hz	0.54	--	31.6	F901	0.54	Normal load condition [4]
90V/60Hz	0.56	--	31.1	F901	0.56	Normal load condition [4]
100V/50Hz	0.49	1.5	31.2	F901	0.49	Normal load condition [4]
100V/60Hz	0.51	1.5	31.5	F901	0.51	Normal load condition [4]
240V/50Hz	0.25	1.5	31.0	F901	0.25	Normal load condition [4]
240V/60Hz	0.26	1.5	31.1	F901	0.26	Normal load condition [4]
264V/50Hz	0.23	--	32.0	F901	0.23	Normal load condition [4]
264V/60Hz	0.25	--	32.0	F901	0.25	Normal load condition [4]
Test with power board 715G5361 type D, main board 715G6124 and panel M240HVN (AUO), Display port mode**						
90V/50Hz	0.54	--	31.9	F901	0.54	Normal load condition [4]
90V/60Hz	0.56	--	31.8	F901	0.56	Normal load condition [4]
100V/50Hz	0.49	1.5	31.8	F901	0.49	Normal load condition [4]
100V/60Hz	0.52	1.5	31.7	F901	0.52	Normal load condition [4]

240V/50Hz	0.25	1.5	31.9	F901	0.25	Normal load condition [4)]
240V/60Hz	0.26	1.5	31.5	F901	0.26	Normal load condition [4)]
264V/50Hz	0.23	--	31.7	F901	0.23	Normal load condition [4)]
264V/60Hz	0.25	--	32.0	F901	0.25	Normal load condition [4)]
Test with power board 715G5361 type E, main board 715G6133 and panel LTM240CL (SAMSUNG), VGA mode**						
90V/50Hz	0.63	--	35.5	F901	0.63	Normal load condition [4)]
90V/60Hz	0.62	--	35.4	F901	0.62	Normal load condition [4)]
100V/50Hz	0.56	1.5	35.2	F901	0.56	Normal load condition [4)]
100V/60Hz	0.57	1.5	35.0	F901	0.57	Normal load condition [4)]
240V/50Hz	0.28	1.5	34.2	F901	0.28	Normal load condition [4)]
240V/60Hz	0.29	1.5	34.2	F901	0.29	Normal load condition [4)]
264V/50Hz	0.26	--	34.2	F901	0.26	Normal load condition [4)]
264V/60Hz	0.27	--	34.2	F901	0.27	Normal load condition [4)]
Test with power board 715G5361 type E, main board 715G6133 and panel LTM240CL (SAMSUNG), DVI mode**						
90V/50Hz	0.62	--	35.4	F901	0.62	Normal load condition [4)]
90V/60Hz	0.62	--	35.4	F901	0.62	Normal load condition [4)]
100V/50Hz	0.56	1.5	35.1	F901	0.56	Normal load condition [4)]
100V/60Hz	0.62	1.5	35.2	F901	0.62	Normal load condition [4)]
240V/50Hz	0.28	1.5	34.2	F901	0.28	Normal load condition [4)]
240V/60Hz	0.29	1.5	34.2	F901	0.29	Normal load condition [4)]
264V/50Hz	0.26	--	34.1	F901	0.26	Normal load condition [4)]
264V/60Hz	0.27	--	34.1	F901	0.27	Normal load condition [4)]

Note(s):

1). Normal load condition for test with construction I: operated under 100% brightness, 100% contrast, full white screen, native resolution, 2 pieces of speakers were loaded with 1 KHz noise and turned to maximum volume. Each USB port loaded with 0.5A.

2). Normal load condition for test with construction II: operated under 100% brightness, 100% contrast, full white screen, native resolution.

3). Normal load condition for test with construction III: operated under 100% brightness, 100% contrast, full white screen, native resolution, 2 pieces of speakers were loaded with 1 KHz noise and turned to maximum volume. Each USB port loaded with 0.5A.

4). Normal load condition for test with construction IV or construction V: operated under 100% brightness, 100% contrast, full white screen, native resolution, 2 pieces of speakers were loaded with 1 KHz noise and turned to maximum volume.

2.1.1.5	TABLE: max. V, A, VA test			P
Voltage (rated) (V)	Current (rated) (A)	Voltage (max.) (V)	Current (max.) (A)	VA (max.) (VA)
Test with power board 715G5361 type A：				
+5V output	--	5.2	6.9	30.8
+16V output	--	16.6	4.0	49.1
Test with power board 715G5361 type E：				
+5V output	--	5.22	7.3	35.9
+5V1 output		5.22	7.3	35.9
+16V output	--	19.82	2.64	41.1
Note(s): Test voltage is 240Vac, 60Hz				

2.1.1.7	**TABLE: discharge test**			P
Condition	calculated (s)	τ measured (s)	t u→ 0V (s)	Comments
Test on construction I:				
System on (with fuse in)	0.96	0.91	--	Vo=371Vpk, 37% of Vo=137V,after 1.0sec voltage drop to 121Vpk
Test on construction V:				
System on (with fuse in)	0.96	0.91	4.8	Vo=384V, 37% of Vo=140V
System off (with fuse in)	0.96	0.91	4.7	Vo=376V, 37% of Vo=139V
Supplementary information: Overall capacity: C908 = 0.47μF, Discharge resistor: R900(680KΩ) + R901(680KΩ)+ R902(680KΩ) = 1.86MΩ. Supplied with 264V/60Hz.				

2.2	**TABLE: evaluation of voltage limiting components in SELV circuits**			P
Transformer	Location	max. voltage (V) (normal operation)		Voltage Limiting Components
		V peak	V d.c.	
Test with power board 715G5361 type A：				
T901 (5V output)	pin 7, 8 to earth	28.6	--	--
T901 (16V output)	pin 11, 12 to earth	85.0	--	--
	After D901 to earth	--	20.0	D901
--	For LED driver circuit: After L801 to earth	85.0	--	--

--	For LED driver circuit: After D801 to earth	--	72.0	--
Test with Test with power board 715G5361 type E：				
T901 (5V output)	pin 7, 8 to pin 9,10	25.4	--	--
	After D906 to earth (between two pins of C920)	--	5.32	D906
T901 (16V output)	pin 11, 12 to pin 9,10	81.0	--	--
	After D901 to earth (between two pins of C918)	--	17.9	D901
--	For LED driver circuit: D801 pin 1 to earth	52.0	--	--
--	For LED driver circuit: After D801 pin 2 to earth (between two pins of C809)	--	40.9	--

Fault test performed on voltage limiting components	Voltage measured (V) in SELV circuits (V peak or V d.c.)
Test with Test with power board 715G5361 type A：	
R959 (s-c)	18.7V (+16V output)
D901 (s-c)	0 V (pin 11, 12 to earth)
Test with Test with power board 715G5361 type E：	
D906 (s-c)	0 V
D901 (s-c)	0 V
Supplementary information: Input Voltage is 240Vac, 60Hz, s-c=short circuit.	

2.4.2	TABLE: Limited current circuit measurement				P
Location	Voltage (V)	Current (mA)	Freq. (Hz)	Limit (mA)	Comments
For Negative ion generator: Mfr. Dong Guan Fu Fong, type FIO-DC5V					
Normal condition:					
Carbon brush (white) to earth	0.38	0.19	--	2.0	
Output (white) to earth	0.38	0.19	--	2.0	
T1 pin 8 to earth	0.42	0.21	--	2.0	
Fault condition: R1 short					
Carbon brush (white) to earth	0.38	0.19	--	2.0	
Output (white) to earth	0.38	0.19	--	2.0	
T1 pin 8 to earth	0.42	0.21	--	2.0	
Fault condition: R3 short					

Carbon brush (white) to earth	0.38	0.19	--	2.0	
Output (white) to earth	0.38	0.19	--	2.0	
T1 pin 8 to earth	0.42	0.21	--	2.0	
Fault condition: R4 short					
Carbon brush (white) to earth	0.38	0.19	--	2.0	
Output (white) to earth	0.38	0.19	--	2.0	
T1 pin 8 to earth	0.42	0.21	--	2.0	
For Negative ion generator: Mfr. SHENZHEN SUNYOU, type F5BS-GJ1					
Normal condition:					
Carbon brush (white) to earth	0.31	0.16	--	2.0	
Output (white) to earth	0.31	0.16	--	2.0	
T1 pin 7 to earth	0.33	0.17	--	2.0	
Fault condition: R4 short					
Carbon brush (white) to earth	0.30	0.15	--	2.0	
Output (white) to earth	0.30	0.15	--	2.0	
T1 pin 7 to earth	0.34	0.17	--	2.0	
Fault condition: R5 short					
Carbon brush (white) to earth	0.30	0.15	--	2.0	
Output (white) to earth	0.30	0.15	--	2.0	
T1 pin 7 to earth	0.34	0.17	--	2.0	
Fault condition: D1 short					
Carbon brush (white) to earth	0.32	0.16	--	2.0	
Output (white) to earth	0.32	0.16	--	2.0	
T1 pin 7 to earth	0.35	0.18	--	2.0	
Fault condition: R1 short					
Carbon brush (white) to earth	0.31	0.16	--	2.0	
Output (white) to earth	0.31	0.16	--	2.0	
T1 pin 7 to earth	0.33	0.17	--	2.0	
Supplementary information:					

2.5	TABLE: limited power source measurement		P
	Limits	Measured	Verdict
Test with Test with power board 715G5361 type A			
According to Table 2B (normal condition), CN903 (+16V) output, Uoc=16.57V			
current (in A)	8	4.8	**P**
apparent power (in VA)	100	49.5	**P**
According to Table 2B (single fault), R925 s-c			
current (in A)	8	0 [3)]	**P**
apparent power (in VA)	100	0 [3)]	**P**
According to Table 2B (single fault), R924 s-c			
current (in A)	8	0 [3)]	**P**
apparent power (in VA)	100	0 [3)]	**P**
According to Table 2B (single fault), R913 s-c			
current (in A)	8	4.8	**P**
apparent power (in VA)	100	49.5	**P**
According to Table 2C (normal condition), CN902 (+5V) output, Uoc=5.24V [2)]			
current (in A)	190.8(50)	10.0	**P**
apparent power (in VA)	250	41.6	**P**
According to Table 2B (normal condition), For CN101 (VGA) port pin 1-4, 6-8, 11, 13-14 to earth: Uoc=0V			
current (in A)	8	0	**P**
apparent power (in VA)	100	0	**P**
According to Table 2B (normal condition), For CN101 (VGA) port pin 5 to earth: Uoc=2.0V			
current (in A)	8	0	**P**
apparent power (in VA)	100	0	**P**
According to Table 2B (normal condition), For CN101 (VGA) port pin 9 to earth: Uoc=1.41V			
current (in A)	8	0	**P**
apparent power (in VA)	100	0	**P**
According to Table 2B (normal condition), For CN101 (VGA) port pin 12, 15 to earth: Uoc=4.38V			
current (in A)	8	0	**P**
apparent power (in VA)	100	0	**P**
According to Table 2B (normal condition), For CN103 (DVI) port pin 1, 4-6, 10, 12-14, 19-22 to earth: Uoc=0V			
current (in A)	8	0	**P**
apparent power (in VA)	100	0	**P**
According to Table 2B (normal condition), For CN103 (DVI) port pin 2, 3 to earth: Uoc=4.16V			

current (in A)	8	0	**P**
apparent power (in VA)	100	0	**P**
According to Table 2B (normal condition), For CN103 (DVI) port pin 7-8, 15-18, 23-24 to earth: Uoc=1.20V			
current (in A)	8	0	**P**
apparent power (in VA)	100	0	**P**
According to Table 2B (normal condition), For CN103 (DVI) port pin 9-11 to earth: Uoc=1.36V			
current (in A)	8	0	**P**
apparent power (in VA)	100	0	**P**
According to Table 2B (normal condition), For CN103 (DVI) port pin 10 to earth: Uoc=1.80V			
current (in A)	8	0	**P**
apparent power (in VA)	100	0	**P**
According to Table 2B (normal condition), For CN102 (HDMI) port pin 1-2, 4, 8, 13, 16, 19 to earth: Uoc=0V			
current (in A)	8	0.01	**P**
apparent power (in VA)	100	0.01	**P**
According to Table 2B (normal condition), For CN102 (HDMI) port pin 3, 12 to earth: Uoc=4.81V			
current (in A)	8	0	**P**
apparent power (in VA)	100	0	**P**
According to Table 2B (normal condition), For CN102 (HDMI) port pin 5 to earth: Uoc=2.0V			
current (in A)	8	0	**P**
apparent power (in VA)	100	0	**P**
According to Table 2B (normal condition), For CN102 (HDMI) port pin 6-7, 9-10, 14-15, 17-18 to earth: Uoc=1.49V			
current (in A)	8	0	**P**
apparent power (in VA)	100	0	**P**
According to Table 2B (normal condition), For CN102 (HDMI) port pin 11 to earth: Uoc=0.52V			
current (in A)	8	0	**P**
apparent power (in VA)	100	0	**P**
According to Table 2B (normal condition), For CN706 (USB) port all pins to earth: Uoc=0V			
current (in A)	8	0	**P**
apparent power (in VA)	100	0	**P**
According to Table 2B (normal condition), For CN705 (USB) port all pins to earth: Uoc=0V			
current (in A)	8	0	**P**
apparent power (in VA)	100	0	**P**
According to Table 2B (normal condition), For CN742 (USB) port (up side/down side) all pins to earth: Uoc=0V			
current (in A)	8	0	**P**

apparent power (in VA)	100	0	**P**
According to Table 2B (normal condition), For CN741 (USB) port (up side/down side) all pins to earth: Uoc=0V			
current (in A)	8	0	**P**
apparent power (in VA)	100	0	**P**
According to Table 2B (normal condition), For CN601 (Audio in) port all pins to earth: Uoc=0V			
current (in A)	8	0	**P**
apparent power (in VA)	100	0	**P**
According to Table 2B (normal condition), For CN604 (Audio out) port all pins to earth: Uoc=0V			
current (in A)	8	0	**P**
apparent power (in VA)	100	0	**P**
Test with Test with power board 715G5361 type B			
For +5V output of power supply			
According to Table 2C (normal condition), Uoc=5.0V [2)]			
current (in A)	1000/Uoc=200 (50)	10	**P**
apparent power (in VA)	250	44	**P**
Location: +16V output of power supply			
According to Table 2B (normal condition), Uoc=16.4V			
current (in A)	8.0	5.6	**P**
apparent power (in VA)	100	47	**P**
According to Table 2B (single fault), ZD901 s-c			
current (in A)	8.0	4.9	**P**
apparent power (in VA)	100	41	**P**
According to Table 2B (single fault), R930 s-c			
current (in A)	8.0	5.6	**P**
apparent power (in VA)	100	47	**P**
According to Table 2B (single fault), C916 s-c			
current (in A)	8.0	6.0	**P**
apparent power (in VA)	100	49	**P**
According to Table 2B (single fault), R914 s-c			
current (in A)	8.0	0 [4)]	**P**
apparent power (in VA)	100	0 [4)]	**P**
According to Table 2B (single fault), R925 s-c			
current (in A)	8.0	0 [4)]	**P**
apparent power (in VA)	100	0 [4)]	**P**

According to Table 2B (single fault), R924 s-c			
current (in A)	8.0	3.8	**P**
apparent power (in VA)	100	28	**P**
According to Table 2B (single fault), IC903 A-K s-c			
current (in A)	8.0	0 [4)]	**P**
apparent power (in VA)	100	0 [4)]	**P**
According to Table 2B (single fault), IC902 Pin1 o-c			
current (in A)	8.0	0 [4)]	**P**
apparent power (in VA)	100	0 [4)]	**P**
Test with Test with power board 715G5361 type E			
For +5V output of power supply (with fuse F902 protected) [2)]			
According to Table 2C (normal condition), Uoc= 5.22V			
current (in A)	1000/Uoc=191.6 (50)	7.3	**P**
apparent power (in VA)	250	35.9	**P**
For +5V1 output of power supply (with fuse F903 protected) [2)]			
According to Table 2C (normal condition), Uoc= 5.22V			
current (in A)	1000/Uoc=191.6 (50)	7.3	**P**
apparent power (in VA)	250	35.9	**P**
current (in A)	8.0	0 [4)]	**P**
apparent power (in VA)	100	0 [4)]	**P**
For +16V output of power supply (with fuse F904 protected) [3)]			
According to Table 2C (normal condition), Uoc= 16.0V			
current (in A)	1000/Uoc=200 (50)	2.64	**P**
apparent power (in VA)	250	41.1	**P**
For +16V output of power supply (without fuse F904 protected)			
According to Table 2B (normal condition), Uoc= 16.0V			
current (in A)	8.0	2.64	**P**
apparent power (in VA)	100	41.1	**P**
According to Table 2B (single fault), R919 shorted			
current (in A)	8.0	2.64	**P**
apparent power (in VA)	100	41.1	**P**
According to Table 2B (single fault), with one of the following fault conditions: R924 shorted, or IC902 Pin 1-2 shorted, or IC902 Pin 3-4 shorted, or IC902 Pin 1 open, or IC902 Pin 3 open, or IC901 pin 2-8 shorted, or IC901 pin 3-8 shorted, or IC901 pin 4-6 shorted, or Q901(pin D-G) shorted, or Q901(pin S-G) shorted, or Q901(pin D-S) shorted.			
current (in A)	8.0	0 [4)]	**P**

apparent power (in VA)	100	0 [4)]	**P**

Note(s):

1) Input Voltage is 240Vac, 60Hz.

2) For +5V and +5V1 outputs, tested on power board not connected with panel and not connected to main board. The +5V and +5V1 outputs are protected by fuses (F902 and F903) which will break the circuit within 120s with a current equal to 210%. Current limit of table 2C reduced to breaking capacity of the fuse (50A).

3). For +16V output, tested on power board (+5V) connected to the main board, because if power board not connected to the main board, no power output to the +16V. The +16V output is protected by fuse (F904) that will break the circuit within 120s with a current equal to 210%. Current limit of table 2C reduced to breaking capacity of the fuse (50A). The fuse F904 is optional.

4) Unit shut down immediately when the single fault applied.

2.6.3.4	TABLE: ground continue test		**P**
Location		Resistance measured (mΩ)	Comments
Test with power board 715G5361 type A			
Earth pin of AC inlet to metal enclosure		15	32A, 2min
Earth pin of AC inlet to metal enclosure		15	40A, 2min
AC inlet earth pin to C902/C903 sec. pin		2	32A, 2min
AC inlet earth pin to C902/C903 sec. pin		3	40A, 2min
AC inlet earth pin to C938 trace		20	32A, 2min
AC inlet earth pin to C938 trace		22	40A, 2min
AC inlet earth pin to C937 trace		20	32A, 2min
AC inlet earth pin to C937 trace		22	40A, 2min
AC inlet earth pin to C941 trace		2	32A, 2min
AC inlet earth pin to C941 trace		3	40A, 2min
Test with power board 715G5361 type B			
AC inlet earth pin to metal enclosure		4	32A, 2min
AC inlet earth pin to metal enclosure		4	40A, 2min
AC inlet earth pin to C902/C903 sec. pin		3	32A, 2min
AC inlet earth pin to C902/C903 sec. pin		4	40A, 2min
AC inlet earth pin to C938 sec. pin		7	32A, 2min
AC inlet earth pin to C938 sec. pin		8	40A, 2min

PE terminal of AC inlet to the chassis of panel	13	32A, 2min
PE terminal of AC inlet to the chassis of panel	14	40A, 2min
Test with power board 715G5361 type E		
AC inlet earth pin to metal enclosure	5	32A, 2min
AC inlet earth pin to metal enclosure	5	40A, 2min
AC inlet earth pin to C902 sec. pin	4	32A, 2min
AC inlet earth pin to C902 sec. pin	4	40A, 2min
AC inlet earth pin to C903 sec. pin	4	32A, 2min
AC inlet earth pin to C903 sec. pin	4	40A, 2min
AC inlet earth pin to C938 sec. pin	11	32A, 2min
AC inlet earth pin to C938 sec. pin	12	40A, 2min
AC inlet earth pin to C941 sec. pin	8	32A, 2min
AC inlet earth pin to C941 sec. pin	8	40A, 2min
Note(s):		

2.10.2	Table: working voltage measurement		**P**
Location	RMS voltage (V)	Peak voltage (V)	Comments
Test with power board 715G5361 type A			
T901 pin 1 to pin 7,8	214	352	
T901 pin 1 to pin 9,10	214	348	
T901 pin 1 to pin 11,12	215	360	
T901 pin 3 to pin 7,8	215	388	
T901 pin 3 to pin 9,10	214	412	
T901 pin 3 to pin 11,12	214	356	
T901 pin 4 to pin 7,8	199	352	
T901 pin 4 to pin 9,10	198	328	
T901 pin 4 to pin 11,12	198	392	
T901 pin 6 to pin 7,8	219	428	
T901 pin 6 to pin 9,10	**222**	**432**	**Max. Vrms and Vpeak**
T901 pin 6 to pin 11,12	212	416	
IC902 pin 3 to pin 1	212	344	
IC902 pin 3 to pin 2	212	344	
IC902 pin 4 to pin 1	212	344	

IC902 pin 4 to pin 2	212	344	
C938 primary to secondary	209	340	
C902 primary to earth	231	348	
C903 primary to earth	231	348	
C937 primary to earth	209	340	
C941 primary to earth	231	348	
Test with power board 715G5361 type B			
T901: Pin1 to pin 7,8	212	359	
T901: Pin1 to pin 9,10	213	338	
T901: Pin1 to pin11,12	219	453	
T901: Pin3 to pin 7,8	213	416	
T901: Pin3 to pin 9,10	213	419	
T901: Pin3 to pin 7,8	213	416	
T901: Pin3 to pin 9,10	213	419	
T901: Pin3 to pin 11,12	213	394	
T901: Pin4 to pin 7,8	213	375	
T901: Pin4 to pin 9,10	212	341	
T901: Pin4 to pin11,12	214	441	
T901: Pin6 to pin 7,8	**237**	484	**Max Vrms**
T901: Pin6 to pin 9,10	235	459	
T901: Pin6 to pin11,12	236	**513**	**Max Vpeak**
IC902 Pin1-3	221	344	
IC902 Pin1-4	221	340	
IC902 Pin2-3	221	341	
IC902 Pin2-4	221	339	
C937/C938 1-2	212	359	
Test with power board 715G5361 type E			
T901: Pin1 to pin 7,8	209	348	
T901: Pin1 to pin 9,10	209	340	
T901: Pin1 to pin11,12	211	360	
T901: Pin3 to pin 7,8	210	384	
T901: Pin3 to pin 9,10	210	412	
T901: Pin3 to pin 11,12	210	348	
T901: Pin4 to pin 7,8	216	376	
T901: Pin4 to pin 9,10	215	348	

T901: Pin4 to pin11,12	218	420	
T901: Pin6 to pin 7,8	245	464	
T901: Pin6 to pin 9,10	**249**	**472**	**Max Vrms, Max Vpeak**
T901: Pin6 to pin11,12	237	456	
IC902 Pin1-3	214	348	
IC902 Pin1-4	214	348	
IC902 Pin2-3	214	348	
IC902 Pin2-4	214	348	
Between two pins of C903	240	352	
Between two pins of C938	211	344	
Between two pins of C941	211	344	
Note(s): 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)
Test with power board 715G5361 type A						
Functional:						
Under F901	420	250	1.9	2.5	2.5	2.5
Line to Neutral (before fuse)	420	250	1.9	5.0	2.5	5.0
Basic / supplementary:						
Primary component (HS1) (with 10 N) to metal enclosure (earthed)	420	250	2.5	4.5	2.5	4.5 see note 4.
Primary component (conductor pin of SW1) (with 10 N) to metal enclosure (earthed)	420	250	2.5	7.8	2.5	7.8
Core of T901 (floating) to HS2 (secondary component)	432	250	2.7	3.7	2.7	3.8
Line trace to earthed trace before fuse	420	250	2.5	2.7	2.5	2.7
Neutral trace to earthed trace before fuse	420	250	2.5	2.7	2.5	2.7
Under C902	420	250	2.5	3.0	2.5	3.0
Under C903	420	250	2.5	3.0	2.5	3.0
BD901 trace to earthed screw trace	420	250	2.5	7.2	2.5	7.2
SW901 trace to earthed screw trace	420	250	2.5	4.3	2.5	4.3

Reinforced:						
Under IC902	420	250	5.0	7.0	5.0	7.0
Under C900	420	250	5.0	6.7	5.0	6.7
J603 trace to HS1 trace	420	250	5.0	6.3	5.0	6.3
HS1 trace to J604 trace	420	250	5.0	7.0	5.0	7.0
C907 pri. trace to J609 trace	420	250	5.0	6.6	5.0	6.6
Primary traces to metal chassis of LCD panel	420	250	5.0	see note 6.	5.0	see note 6.
J903 trace to HS2 trace	420	250	5.0	7.3	5.0	7.3
J903 trace to IC902 sec. trace	420	250	5.0	6.8	5.0	6.8
R936 trace to L906 trace	420	250	5.0	7.2	5.0	7.2
BD901 trace to HS2 trace	420	250	5.0	7.0	5.0	7.0
SW1 trace to secondary trace of big USB board (P/N: 715G5370)	420	250	5.0	11.3	5.0	11.3 see note 4.
Under T901	432	250	5.3	7.0	5.3	7.0
NR901 to J812	420	250	5.0	8.5	5.0	16.2
HS1 to F902	420	250	5.0	8.4	5.0	8.5
Test with power board 715G5361 type B						
Functional:						
Line to Neutral (before fuse)	420	250	1.9	9.5	2.5	9.5
fuse F901 (between L-N)	420	250	1.9	2.6	2.5	2.6
Basic / supplementary:						
Line (Pri.) – GND 1)	420	250	2.5	3.5	2.5	4.8
Neutral (Pri.) – GND 1)	420	250	2.5	3.5	2.5	4.8
Pri. Components (T901) - metal plate of panel	513	250	2.8	2.9	2.8	2.9
Components side of power board (Pri.) – internal metal chassis 2)	513	250	2.8	4.9	2.8	4.9
C938 Pri. –Sec. 1)	420	250	2.5	7.5	2.5	7.5
C902 Pri. –GND 1)	420	250	2.5	6.8	2.5	6.8
C903 Pri. –GND 1)	420	250	2.5	3.6	2.5	3.6
Primary component (C911) with 10N to core of transformer (T901)	513	250	2.8	3.6	2.8	3.9
Reinforced:						
T901 Pri. –Sec.	513	250	5.5	11.0	5.3	11.0
Pri. trace– Sec. trace	420	250	5.0	7.3	5.0	7.3

IC902 Pri. –Sec. *1)*	420	250	5.0	7.9	5.0	10.8
C938 Pri. –Sec. *1)*	420	250	5.0	7.5	5.0	7.5
Test with power board 715G5361 type E						
Functional:						
Line to Neutral (before fuse)	420	250	1.9	3.7	2.5	3.7
Under fuse F901 (slot width 1.1mm)	420	250	1.9	3.1	2.5	4.0
Basic / supplementary:						
Trace side: Under Y2 cap C902 (slot width 1.1mm)	420	250	2.5	3.2	2.5	4.0
Trace side: Under Y2 cap C903 (slot width 1.1mm)	420	250	2.5	3.2	2.5	4.1
Trace side: Under Y1 cap C938	420	250	5.0	7.5	5.0	7.5
Trace side: Under Y1 cap C941	420	250	5.0	7.5	5.0	7.5
Trace side: Trace of NR901 to earthed metal enclosure	420	250	2.5	10.5	2.5	10.5
Component side: Heatsink of Q901 to earthed metal enclosure	420	250	2.5	3.8	2.5	3.8
Component side: C911 to core of transformer	472	250	2.7	7.2	2.7	7.2
Component side: Heatsink of D901 to core of transformer	472	250	2.7	4.2	2.7	4.2
Reinforced:						
Trace side: trace of Q901 heatsink to R602	420	250	5.0	7.0	5.0	7.0
Trace side: Y cap C941 (see note 3) primary trace J609 (slot width 1.1mm)	420	250	5.0	6.2	5.0	7.5
Trace side: Trace of C907 "+" pin to trace of FB902	420	250	5.0	7.0	5.0	7.0
Trace side: Under optocoupler IC902 (slot width 1.1mm)	420	250	5.0	7.2	5.0	8.9
Trace side: Under transformer	472	250	5.3	8.2	5.3	8.2
Trace side: transformer primary pin to metal chassis of panel (see note 6)	472	250	5.3	29.8	5.3	29.8
Component side: C907 2) to audio input jack CN 601	420	250	5.0	7.1	5.0	7.1

Component side: heatsink of Q901 to F903	420	250	5.0	7.4	5.0	7.4
Component side: heatsink of Q901 to F902	420	250	5.0	7.9	5.0	7.9
Component side: NR901 to jumper J812	420	250	5.0	8.9	5.0	8.9
Component side: primary pin of Y1 cap C941 see note 3) to secondary jumper J812	420	250	5.0	6.8	5.0	6.8

Note(s):

1. There is a slot >1mm under component.
2. Linear interpolation used.
3. Glue components: C907, C941. For power board 715G5361 type E, there are two alternative directions to glue the Y1 cap C941: upright or close to the E cap C907, details see the figure 38 and figure 39 in photo document. The cl.& cr. measurement was made with worse case: C941 glued uprightly.
4. Only minimum distance record (same as clearance) and the actual distance is much larger.
5. At least 10mm measured for creepage or clearance where indicated.
6. There is a Mylar sheet (min. 241 mm by 158.6 mm, min. 0.4 mm thickness) provided between SPS trace side and metal chassis of LCD Panel to keep the sufficient insulation for the requirement of reinforced insulation. The Mylar sheet is large enough to cover the whole area of primary, and fixing by glue (test in clause 4.6.5 Adhesives for constructional purposes is considered for the Mylar sheet).
7. Core of main transformer T901 consider as floating.
8. All of the secondary wires are enough to keep the requirement of cl. & cr. to primary.
9. Altitude correction factor for clearances for an altitude of 3658 m (based on IEC 60664-1:1992): 1.24.

2.10.5	TABLE: distance through insulation measurements			**P**
Distance through insulation di at/of:	U r.m.s. (V)	Test voltage (V)	Required di (mm)	di (mm)
Photo coupler (reinforced insulation)	250	3000	0.4	1.
Plastic enclosure	250	3000	0.4	1.
PCB	250	3000	0.4	1.
Mylar sheet (between power board trace side and panel metal chassis, reinforced insulation)	250	3000	0.4	1.
Note(s): 1. For approved component source see appended table 1.5.1.				

4.5	TABLE: maximum temperatures		P
	test voltage (V) :	a) 90 V / 60 Hz (Horizontal) b) 264 V / 60 Hz (Horizontal) c) 90 V / 60 Hz (Vertical) d) 264 V / 60 Hz (Vertical)	—
	t1 (°C) :	--	—
	t2 (°C) :	--	—
Maximum measured temperature T of part/at::		T (°C)	Allowed

				Tmax (°C)
Test with power board 715G5361 type A, main board 715G5436, panel M240HVN (AUO) and Negative ion generator: Mfr. Dong Guan Fu Fong, type FIO-DC5V**				
Test voltage	a)	b)	c)	--
1. AC inlet near L pin	34.1	33.2	30.2	48.3
2. PCB near NR901	49.2	46.8	39.1	83.3
3. C908 body	47.0	45.7	37.0	63.3
4. L901 coil	73.2	70.1	42.6	73.3
5. PCB near BD901	48.8	51.9	37.9	83.3
6. C907 body	46.4	47.8	38.4	83.3
7. PCB near Q901	58.8	60.5	55.2	83.3
8. IC902 body	52.2	53.2	48.7	78.3
9. T901 coil	70.6	63.0	70.7	88.3
10. T901 core	64.9	60.5	65.4	88.3
11. PCB near D901	58.8	50.4	54.7	83.3
12. Negative Ion generator: Transformer coil (T1)	39.0	36.7	38.6	73.3
13. PCB near U401 (main board)	47.1	53.4	46.7	83.3
14. PCB near U740 (USB board)	33.5	29.7	32.0	83.3
15. Plastic enclosure inside near T901	30.2	24.8	28.5	--
16. Plastic enclosure outside near T901	24.9	22.3	23.8	73.3
17. Panel body	28.8	24.2	27.6	73.3
18. Ambient T_{amb} (°C)	18.9	18.4	18.3	--
For Negative Ion generator: Mfr. Dong Guan Fu Fong, type FIO-DC5V				
1. T901 coil	65.5	61.7	69.1	90.5
2. T901 core	61.7	60.1	64.6	90.5
3. T1 coil (Negative Ion Generator)	49.2	46.6	48.9	75.5
4. PCB near T1 (Negative Ion Generator)	45.6	43.3	45.2	85.5
5. Plastic enclosure outside near T901	27.0	24.6	26.6	75.5
6. Ambient T_{amb} (°C)	20.6	20.6	20.5	--
For Negative Ion generator: Mfr. SHENZHEN SUNYOU, type F5BS-GJ1				
1. T901 coil	66.8	60.3	69.4	91.3
2. T901 core	63.1	60.0	65.1	91.3
3. T1 coil (Negative Ion Generator)	50.1	46.2	49.0	76.3
4. PCB near T1 (Negative Ion Generator)	43.0	40.9	41.9	86.3
5. Plastic enclosure outside near T901	28.0	25.6	27.5	76.3
6. Ambient T_{amb} (°C)	21.8	21.6	21.3	--
Test with power board 715G5361 type B, main board 715G5270 and panel M240HVN (AUO)**				

AC Inlet body CN901	37.2	38.2	36.2	45.4
C907 body	46.0	49.3	45.0	80.4
C902 body	44.0	36.8	44.0	60.4
C908 body	48.4	40.7	47.4	60.4
PCB near NR901	44.8	46.5	43.8	80.4
L901 coil	52.3	51.0	51.3	70.4
PCB near Q901	53.8	50.2	52.8	80.4
T901 core	57.9	60.3	56.9	65.4
T901 coil	64.6	62.7	65.4	65.4
IC902 body	51.5	48.1	52.2	75.4
C938 body	53.2	51.6	52.2	60.4
PCB near BD901	50.0	46.9	50.0	80.4
PCB near D901	54.3	52.1	54.3	80.4
PCB near L801 (on power board)	51.7	50.3	51.7	80.4
PCB near U801 (on power board)	50.9	49.8	50.9	80.4
PCB near U401 (main board)	42.9	43.3	41.9	80.4
Metal enclosure inside near T901	37.2	41.8	36.2	--
Plastic enclosure inside near T901	34.5	36.0	33.5	--
Plastic enclosure outside near T901	27.3	27.6	26.3	70.4
LCD Panel surface	37.8	38.9	36.8	55.4
Ambient T_{amb} (°C)	20.4	20.6	15.4	--
Test with power board 715G5361 type E, main board 715G6133 and panel LTM240CL (SAMSUNG)**				
Test voltage	a)	b)	c)	d)	--
AC Inlet body	47.7	42.8	37.2	35.8	56.8
X cap C908 body	61.4	52.2	48.2	42.5	71.8
Y cap C902 body	53.8	46.7	38.1	36.5	71.8
Y cap C903 body	51.5	45.9	39.0	37.6	71.8
PCB near NR901	82.8	61.0	75.1	54.2	91.8
PCB near BD901	72.6	58.7	57.3	45.8	91.8
E cap C907	60.5	53.8	46.5	41.8	91.8
L901 coil	80.9	56.1	65.9	45.4	81.8
Heatsink of Q901	69.4	75.7	59.8	62.8	91.8
T901 core	73.7	84.2	66.1	70.9	96.8
T901 coil	78.8	87.4	68.2	72.9	96.8
IC902 body	66.9	68.3	51.9	52.4	86.8
Y cap C938 body	64.2	60.8	49.5	46.2	71.8

Y cap C941	74.8	74.8	70.8	70.8	71.8
Heartsink of D901	73.0	77.0	64.0	67.4	91.8
Metal enclosure inside near T901	40.2	40.3	39.8	40.7	--
Plastic enclosure inside near T901	37.0	37.3	35.7	36.6	--
Plastic enclosure outside near T901	34.7	34.7	33.6	34.6	81.8
LCD Panel surface	34.4	34.6	33.7	34.8	66.8
Ambient	28.2	28.1	26.8	28.2	--

Temperature T of winding:	R1 (Ω)	R2 (Ω)	T (°C)	allowed Tmax (°C)	insulation class

Note(s):
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, and the minimum ambient temperature during test Tam, Temperature is calculated as follows:

Winding components providing safety isolation:

- For power board 715G5361 type A and type E:T901, Class B → Tmax = 120 °C – 10 °C – 40 °C + Tamb
- For power board 715G5361 type B:T901, Class A → Tmax = 100 °C – 10 °C – 40 °C + Tamb

Other winding components:

- Line choke L901: Tmax = 105 °C – 10 °C – 40 °C + Tamb
- T1 in Negative ion generator: Tmax = 105 °C – 10 °C – 40 °C + Tamb

Components with maximum absolute temperature of others:

- Tmax= Tmax of component – 40+Tamb.

4.5.5	TABLE: ball pressure test of thermoplastic parts		**P**
	allowed impression diameter (mm) .....:	≤ 2 mm	—

Part	Test temperature (°C)	Impression diameter (mm)
Bobbin of Line Choke (L901) (E I Dupont, type FR-530)	125	1.1
Bobbin of Line Choke (L901) (Chang Chun, type PBT-4130)	125	1.0
Bobbin of Line Choke (L901) (Chang Chun, type PBT-4115)	125	1.1
Note(s):		

4.6.1, 4.6.2	Table: enclosure openings	**P**
Location	Size (mm)	Comments
External Plastic enclosure type A		
Top	Max. 2.5 by 2.3 to min. 5.6 by 2.1	Numerous rectangular openings provided.
Other sides	None	No any openings.
External Plastic enclosure type B		

Top	Max. 2.5 by 2.3 to min. 5.6 by 2.1	Numerous rectangular openings provided.
Other sides	None	No any openings.
Metal enclosure		
Top	1) Max. ∅ 4.8 2) 9.9 by 18.8 3) 22.0 by 7.5 4) 13.8 by 8.0 5) 20.0 by 14.0 6) 20.0 by 14.0 7) 78.8 by 9.5	1) Numerous circular openings provided. 2) One opening provided, that components supply from LPS which above these opening. 3) One rectangular opening provided, which was covered by external plastic enclosure. 4) One rectangular opening provided, which was located above plastic enclosure of Ion generator and PVC internal wires. 5) One rectangular opening provided, which was located above plastic enclosure of Ion generator and PVC internal wires. 6) One rectangular opening provided, which was located above Transformer (T901) and covered the opening by aluminium foil with adhesive. 7) One rectangular opening provided near ion generator and main board which was covered by external plastic enclosure.
Rear	1) Max. ∅ 4.8 2) Max. ∅ 13.8 3) Max. 28.6 by 25.9	1) Numerous circular openings provided near main board. There are no any hazardous voltage or energy hazards present within 5° projections. 2) Two circular openings provided near main board. There are no any hazardous voltage or energy hazards present within 5° projections. 3) One “L” shape opening provided near main board. There are no any hazardous voltage or energy hazards present within 5° projections.
Left	1) Max. 28.8 by 13.7 2) Max. ∅ 4.7 3) Max. 16.4 by 7.8 4) Max. 21.7 by 12.5	1) One rectangular opening provided near main board. There are no any hazardous voltage or energy hazards present within 5° projections. 2) Numerous circular openings provided near main board. 3) One rectangular opening provided near main board. There are no any hazardous voltage or energy hazards present within 5° projections. 4) One rectangular opening provided near main board. There are no any hazardous voltage or energy hazards present within 5° projections.

Right	Max. ∅ 1.9	Numerous circular openings provided near big USB board. There are no any hazardous voltage or energy hazards present within 5° projections.
Bottom	1) Max. ∅ 3.5 2) Max. ∅ 1.9, metal thickness 0.61mm, centre to centre min. 3.6mm 3) Max. ∅ 1.9, metal thickness 0.61+0.2mm, centre to centre min. 3.4mm	1) One circular opening under plastic enclosure of ion generator and main board, the main board supplied from LPS. 2) Numerous circular openings provided for main board, that components supply from LPS which above these opening. 3) Numerous circular openings provided above power board, these openings comply with table 4D.
External plastic enclosure type A at vertical orientation		
Right	Max. 2.5 by 2.3 to min. 5.6 by 2.1	Numerous rectangular openings provided, which were covered by external plastic enclosure.
Others	None	No any openings.
External plastic enclosure type B at vertical orientation		
Right	Max. 2.5 by 2.3 to min. 5.6 by 2.1	Numerous rectangular openings provided, which were covered by external plastic enclosure.
Others	None	No any openings.
Internal metal enclosure (as fire enclosure) at vertical orientation		
Top	1) Max. 28.8 by 13.7 2) Max. ∅ 4.7 3) Max. 16.4 by 7.8 4) Max. 21.7 by 12.5	1) One rectangular opening provided near main board, which was covered by external plastic enclosure. 2) Numerous circular openings provided near main board, which was covered by external plastic enclosure. 3) One rectangular opening provided near main board, which was covered by external plastic enclosure. 4) One rectangular opening provided near main board, which was covered by external plastic enclosure.
Rear	1) Max. ∅ 4.8 2) Max. ∅ 13.8 3) Max. 28.6 by 25.9	1) Numerous circular openings provided near main board, which was covered by external plastic enclosure. 2) Two circular openings provided near main board, which was covered by external plastic enclosure. 3) One “L” shape opening provided near main board, which was covered by external plastic enclosure.

Right	1) Max. ∅ 4.8 2) 9.9 by 18.8 3) 22.0 by 7.5 4) 13.8 by 8.0 5) 20.0 by 14.0 6) 20.0 by 14.0 7) 78.8 by 9.5	1) Numerous circular openings provided. There is no any hazardous voltage or energy hazards present within 5° projections. 2) One opening provided, that components supply from LPS which above these opening. There is no any hazardous voltage or energy hazards present within 5° projections. 3) One rectangular opening provided, which was covered by external plastic enclosure. There is no any hazardous voltage or energy hazards present within 5° projections. 4) One rectangular opening provided near plastic enclosure of Ion generator. There is no any hazardous voltage or energy hazards present within 5° projections. 5) One rectangular opening provided near plastic enclosure of Ion generator. There is no any hazardous voltage or energy hazards present within 5° projections. 6) One rectangular opening provided, which was covered the opening by aluminium foil with adhesive. 7) One rectangular opening provided near ion generator and main board which was covered by external plastic enclosure. There is no any hazardous voltage or energy hazards present within 5° projections.
Left	1) Max. ∅ 3.5 2) Max. ∅ 1.9, metal thickness 0.61mm, centre to centre min. 3.6mm 3) Max. ∅ 1.9, metal thickness 0.61+0.2mm, centre to centre min. 3.4mm	1) One circular opening under plastic enclosure of ion generator and main board, the main board supplied from LPS. There is no any hazardous voltage or energy hazards present within 5° projections. 2) Numerous circular openings provided for main board, the main board supplied from LPS. There is no any hazardous voltage or energy hazards present within 5° projections. 3) Numerous circular openings provided near power board. There is no any hazardous voltage or energy hazards present within 5° projections.
Bottom	Max. ∅ 1.9, metal thickness 0.61+0.2mm, centre to centre min. 3.4mm	Numerous circular openings provided under big USB board.
Note(s):		

4.7	Table: resistance to fire			**P**
Part	Manufacturer of material	Type of material	Thickness (mm)	Flammability class
PCB	--	--	--	V-1

Plastic enclosure	--	--	--	HB
Note(s): See table 1.5.1.				

5.1.6	TABLE: touch current measurement			**P**
Condition	L→ terminal A (mA)	N → terminal A (mA)	Limit (mA)	Comments
Test with power board 715G5361 type A				
Unit on	0.40	0.40	3.5 (or 1.0 for Japan Class 0I equipment)	Terminal A at earthed metal part
Unit on	0.01	0.01	0.25	Terminal A at signal pin of VGA
Unit on	0.01	0.01	0.25	Terminal A at accessible plastic enclosure with metal foil.
Unit off	0.05	0.05	3.5	Terminal A at earthed metal part
Unit off	0.01	0.01	0.25	Terminal A at signal pin of VGA
Unit off	0.01	0.01	0.25	Terminal A at accessible plastic enclosure with metal foil.
Test with power board 715G5361 type B				
Unit on	0.8	0.8	3.5 (or 1.0 for Japan Class 0I equipment)	Terminal A at earthed metal part
Unit on	0.1	0.1	0.25	Terminal A at signal pin of VGA
Unit on	0.004	0.004	0.25	Terminal A at accessible plastic enclosure with metal foil.
Test with power board 715G5361 type E				
Unit on	0.42	0.42	3.5 (or 1.0 for Japan Class 0I equipment)	Terminal A at earthed metal part
Unit on	0.02	0.02	0.25	Terminal A at signal pin of VGA
Unit on	0.01	0.01	0.25	Terminal A at accessible plastic enclosure with metal foil.
Note(s): Supplied with 264V/60Hz. * Test performed with functional earthing disconnected.				

5.2	TABLE: electric strength tests and impulse tests		P
Test voltage applied between:		Test voltage (V)	Breakdown
Mylar sheet between power board and panel metal enclosure		AC 3000	No
Test with power board 715G5361 type A			
Basic/supplementary:			
Unit: Primary to Earth		AC 1627	No
Transformer T901: primary and core		AC 1627	No
Transformer T901: secondary and core		AC 1627	No
Reinforced:			
Unit: Primary to Secondary		DC 4242	No
Unit: Primary to Plastic enclosure with foil		AC 3000	No
Unit: primary and secondary (output)		AC 3000	No
Two layer of insulation tape around and inside the transformer T901		AC 3000	No
Test with power board 715G5361 type B			
Basic/supplementary:			
primary winding to Earth		AC 1772	No
Transformer T901: primary and core		AC 1772	No
Transformer T901: secondary and core		AC 1772	No
Reinforced:			
Unit: primary to secondary		DC 4242	No
Unit: primary and Plastic enclosure with metal foil		AC 3000	No
Unit: primary and secondary(output)		AC 3000	No
Two layer of insulation tape around and inside the transformer T901		AC 3000	No
Test with power board 715G5361 type E			
Basic/supplementary:			
primary winding to Earth		AC 1694	No
Transformer T901: primary and core		AC 1694	No
Transformer T901: secondary and core		AC 1694	No
Reinforced:			
Unit: primary to secondary		DC 4242	No
Unit: primary and Plastic enclosure with metal foil		AC 3000	No
Unit: primary and secondary(output)		AC 3000	No
Two layer of insulation tape around and inside the transformer T901		AC 3000	No
Note(s): For all sources of T901.			

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
Test with power board 715G5361 type A						
BD901 pin 1-3	s-c	240	1 sec	F901	0	F901 open, no hazards.
C907	s-c	240	1 sec	F901	0	F901 open, no hazards.
Q901 pin G-S	s-c	240	10 min	F901	0.04	Unit shutdown, Internal protection operated (IC901), no hazards.
Q901 pin G-D	s-c	240	1 sec	F901	0	F901 open, no hazards.
Q901 pin D-S	s-c	240	1 sec	F901	0	F901 open, no hazards.
IC901 pin 2-8	s-c	240	10 min	F901	0.04	Unit shutdown, Internal protection operated (IC901), no hazards.
T901 pin 4-6	s-c	240	1 sec	F901	0	F901 open, no hazards.
T901 pin 1-3	s-c	240	10 min	F901	0.04	Unit shutdown, Internal protection operated (IC901), no hazards.
T901 pin 7,8-9,10	s-c	240	10 min	F901	0.04	Unit shutdown, Internal protection operated (IC901), no hazards.
T901 pin 9,10-11,12	s-c	240	10 min	F901	0.04	Unit shutdown, Internal protection operated (IC901), no hazards.
IC902 pin 1	o-l	240	10 min	F901	0.04	Unit shutdown, Internal protection operated (IC901), no hazards.
IC902 pin 1-2	s-c	240	10 min	F901	0.46	Unit normal working, no damage, no hazards.

IC902 pin 3-4	s-c	240	10 min	F901	0.04	Unit shutdown, Internal protection operated (IC901), no hazards.
D901	s-c	240	10 min	F901	0.04	Unit shutdown, Internal protection operated (IC901), no hazards.
D906	s-c	240	10 min	F901	0.04	Unit shutdown, Internal protection operated (IC901), no hazards.
+16V-Earth	s-c	240	10 min	F901	0.04	Unit shutdown, Internal protection operated (IC901), no hazards.
+5V-Earth	s-c	240	10 min	F901	0.04	Unit shutdown, Internal protection operated (IC901), no hazards.
Speaker output	s-c	240	10 min	F901	0.45	Unit shutdown, Internal protection operated (U601), no hazards.
Ventilation openings (Mfr. Dong Guan Fu Fong, type FIO-DC5V)	blocked	264	2.84 hr	F901	0.45	Unit normally operation, the maximum temperature of T901 coil =70.7°C, T901 coil=65.4°C, ambient=18.3°C, no damage, no hazards.
Ventilation openings (For Negative Ion generator: Mfr. SHENZHEN SUNYOU, type F5BS-GJ1)	blocked	264	3.0 hr	F901	0.45	Unit normally operation, the maximum temperature of T901 coil =73.7°C, T901 coil=69.5°C, ambient=22.6°C, no damage, no hazards.

T901 pin 11, 12 (After D905, D906) (+5V) See note 7)	o-l	240	3.9 hr	F901	0.58	Overload to 5.0 A, then unit shutdown. The maximum temperature of T901 coil= 99.3°C, T901 core= 83.0°C, ambiemt= 20.6°C, no damage, no hazards.
T901 pin 7, 8 (After D901) (+16V) See note 6)	o-l	240	5.4 hr	F901	0.59	Overload to 1.8 A, then unit shutdown. The maximum temperature of T901 coi= 108.4°C, T901 core= 91.0°C, ambiemt= 20.6°C, no damage, no hazards.
CN801 pin 3. 4 – metal enclosure	s-c	240	10 min	F901	0.04	Unit shutdown, Internal protection operated (U801), no hazards.
CN801 pin 3. 4 - secondary	s-c	240	10 min	F901	0.04	Unit shutdown, Internal protection operated (U801), no hazards.
Test with power board 715G5361 type B						
T901 pin 7, 8 to 9, 10	s-c	240	5 min	F901	0.07	Unit shutdown, no hazards.
T901 pin 11, 12 to 9, 10	s-c	240	5 min	F901	0.05	Unit shutdown, no hazards.
T901 pin 1 to 3	s-c	240	5 min	F901	0.03	Unit shutdown, no hazards.
T901 pin 4 to 6	s-c	240	5 min	F901	0.06	Unit shutdown, no hazards.
BD901 pin 1-4	s-c	240	<1 sec	F901	--	F901 open instantly, no hazards.
C907	s-c	240	<1 sec	F901	--	F901 open instantly, no hazards.
Q901(pin D-G)	s-c	240	<1 sec	F901	0.04	F901 open instantly. R906, D903, R936, R917, R924, Q901 damaged. No hazard.
Q901(pin D-S)	s-c	240	<1 sec	F901	--	R906, D903, R936, R923, R924, Q901, IC901 damaged. No hazard.

Q901 (pin G-S)	s-c	240	5 min	F901	0.06	Unit shutdown, no hazards.
IC901 pin 2-8	s-c	240	<1 sec	F901	--	R908, R935, R924, IC901, Q901 damaged. No hazards.
IC901 pin 3-8	s-c	240	<1 sec	F901	--	R908, R923, R924, IC901, R935 damaged. No hazards.
IC901 pin 4-6	s-c	240	10 min	F901	0.06	Unit shutdown, no hazards.
IC902 Pin 1-2	s-c	240	10 min	F901	0.05	Unit shutdown, no hazards.
IC902 Pin 3-4	s-c	240	10 min	F901	0.05	Unit shutdown, no hazards.
IC902 Pin 1	o-c	240	10 min	F901	0.05	Unit shutdown, no hazards.
IC902 Pin 3	o-c	240	10 min	F901	0.04	Unit shutdown, no hazards.
D901	s-c	240	10 min	F901	0.04	Unit shutdown, no hazards.
D905	s-c	240	10 min	F901	0.04	Unit shutdown, no hazards.
16V to 5V	s-c	240	1 sec	F901	0.05	Unit shutdown, no hazards.
Overload 16V after D901 See note 6)	o-l	240	7hrs	F901	0.67	All outputs shut down. Max. measured temp. of T901, coil=95°C, core=87°C, IC902=70°C, ambient=20.4°C, before shut down winding is loaded to 4.5A. No hazards.
Overload 5V after D906 See note 7)	o-l	240	9hrs	F901	0.66	All outputs shut down. Max. measured temp. of T901, coil= 93°C, core= 83°C, IC902=67˚C, ambient= 19.3˚C, before shut down winding is loaded to 7.5A. No hazards.
D903	s-c	240	10 min	F901	0.04	Unit shutdown, no hazards.

D904	s-c	240	10 min	F901	0.04	Unit shutdown, no hazards.
C913	s-c	240	10 min	F901	0.04	Unit shutdown, no hazards.
Ventilation opening	Blocked	264	4.0hrs	F901	0.22	Temp. became stable, Max. measured temp. of T901 coil = 57.3°C, T901 core = 55.7°C, IC902 =53.2°C, ambient=21.3°C, no damage, no hazards.
Test with power board 715G5361 type E						
T901 pin 7, 8 to 9, 10	s-c	240	10min	F901	0.04	Unit shutdown. No damage, no hazards. Recoverable when fault removed.
T901 pin 11, 12 to 9, 10	s-c	240	10min	F901	0.04	Unit shutdown. No damage, no hazards. Recoverable when fault removed.
BD901 pin 1-3	s-c	240	1S	F901	0	Fuse F901 open immediately, no hazards.
C907	s-c	240	1S	F901	0	Fuse F901 open immediately, no hazards.
Q901(pin D-G)	s-c	240	1S	F901	0	Fuse F901 open immediately. IC901、R924 and Q901 damaged. No hazards.
Q901(pin D-S)	s-c	240	1S	F901	0	Fuse F901 open immediately. IC901、R924 and Q901 damaged. No hazards.
Q901 (pin G-S)	s-c	240	10min	F901	0.07	Unit shutdown. No damage, no hazards. Recoverable when fault removed.
IC901 pin 2-8	s-c	240	10min	F901	0.07	Unit shutdown. No damage, no hazards. Recoverable when fault removed.

IC901 pin 3-8	s-c	240	10min	F901	0.07	Unit shutdown. IC901 damaged. No hazards.
IC901 pin 4-6	s-c	240	10min	F901	0.07	Unit shutdown. No damage, no hazards. Recoverable when fault removed.
Optocoupler IC902 Pin 1-2	s-c	240	10min	F901	0.04	Unit shutdown. No damage, no hazards. Recoverable when fault removed.
Optocoupler IC902 Pin 3-4	s-c	240	10min	F901	0.04	Unit shutdown. No damage, no hazards. Recoverable when fault removed.
Optocoupler IC902 Pin 1	o-c	240	10min	F901	0.04	Unit shutdown. No damage, no hazards. Recoverable when fault removed.
Optocoupler IC902 Pin 3	o-c	240	10min	F901	0.04	Unit shutdown. No damage, no hazards. Recoverable when fault removed.
R924	s-c	240	1s	F901	0	Fuse F901 open immediately. IC901 and Q901 damaged. No hazards.
D901 pin 1 to pin 2	s-c	240	1s	F901	0.04	Unit shutdown. No damage, no hazards. Recoverable when fault removed.
D906 pin 1 to pin 2	s-c	240	1s	F901	0.04	Unit shutdown. No damage, no hazards. Recoverable when fault removed.
R919	s-c	240	10min	F901	0.29	Unit works normally. No damage, no hazards.
IC903 (IC902 Pin 2 to GND)	s-c	240	10min	F901	0.26	Unit works normally. No damage, no hazards.
16V to 5V	s-c	240	10min	F901	0.04	Unit shutdown. No damage, no hazards. Recoverable when fault removed.

Speaker	s-c	240	2 hour 14min	F901	0.22	Unit works normally, except no audio output. No damage, no hazards. T901 core= 70.8°C, T901 coil=74.7°C, IC902 = 57.3°C ambient=28.0°C
Overload 16V after D901 See note 6)	o-l	240	6 hour	F901	0.32A→ 0.38 A→ 0.45 A→ 0.04A	Unit shutdown, when overloaded with 1.4A. No damage, no hazards. The max. temperature: T901 core =99.2°C, T901 coil=103.6°C, IC902 = 70.6°C ambient=28.5°C
Overload 5V after D906 See note 7)	o-l	240	5 hour 36min	F901	0.33A→ 0.42 A→ 0.48 A→ 0.04A	Unit shutdown, when overloaded with 4.2A. No damage, no hazards. The max. temperature: T901 core =102.3°C, T901 coil=107.9°C, IC902 = 72.7°C ambient=27.6°C
Ventilation opening	Blocked	264	2 hour 45min	F901	0.26	Unit works normally, except no audio output. No damage, no hazards. The max. temperature: T901 core =86.8°C, T901 coil=90.2°C, IC902 =71.8°C ambient=28.0°C

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 open conditions were tested with each source of fuse.

4. For tests with component damaged, test repeated three times with same result.

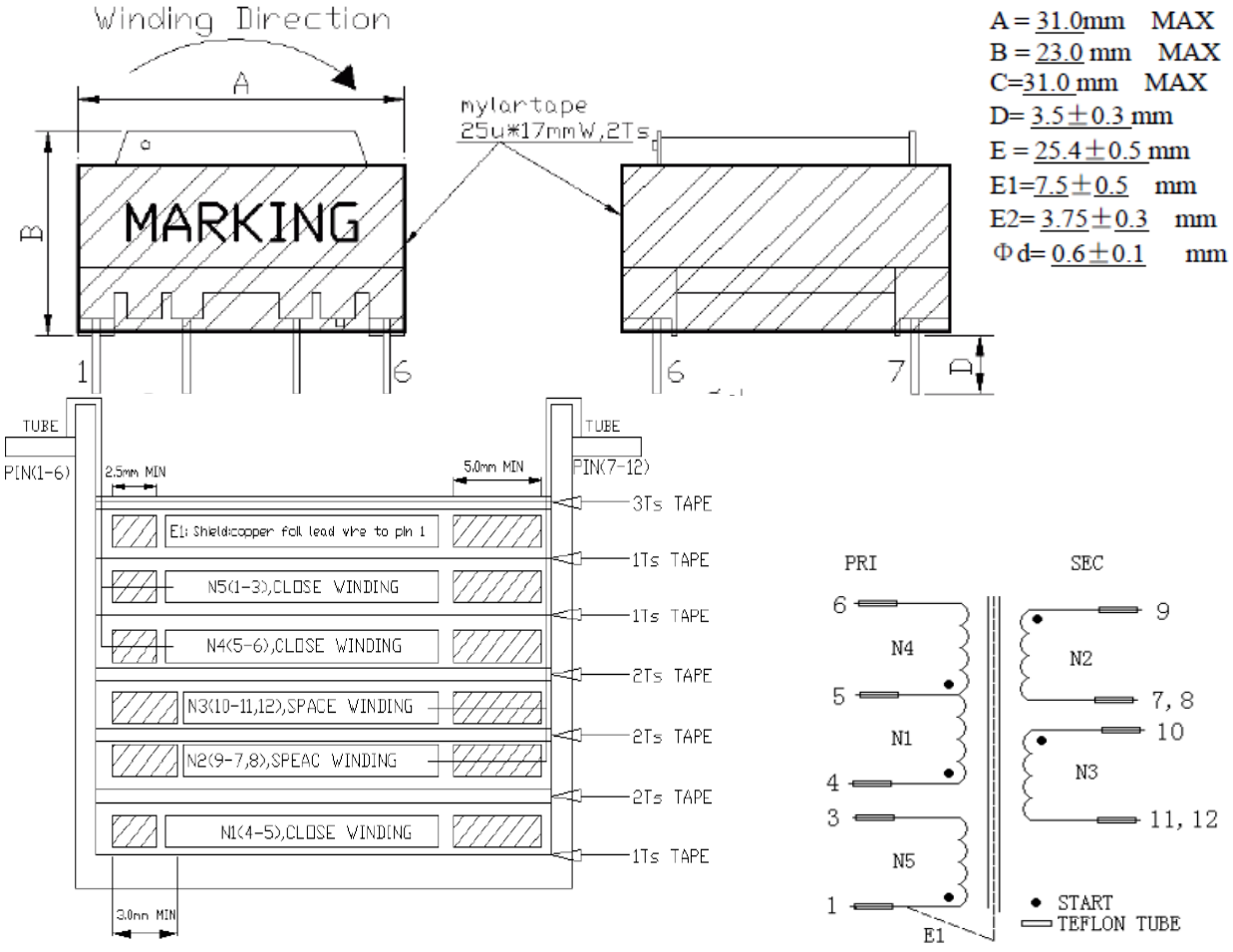
5. For both power board 715G5361 type A and type E: Temp. limited of transformer (class B) according to table C.1 is 175°C -10°C -(40°C -Tamb); For power board 715G5361 type B: Temp. limited of transformer (class A) according to table C.1 is 150°C -10°C -(40°C -Tamb);

6. For overload of 16V output: the overload current was drawn from the + pin of C933, and the outputs of +16V and +5V on the power board is loaded with the normal load condition specified in table 1.6.2.
7. For overload of the 5V output: the overload current was drawn from the + pin of C920, and the outputs of +16V and +5V on the power board is loaded with the normal load condition specified in table 1.6.2.

C.2	Safety isolation transformer	**P**
	Construction details:	
Transformer part name: **T901 for power board 715G5361 type A , type C and type D**		
Manufacturer: See appended table 1.5.1		
Type: See appended table 1.5.1		
Constructions of all sources of T901 are identical each other, except for model designation, manufacturer and materials difference.		
Recurring peak voltage	432V	
Required clearance for reinforced insulation (from table 2H and 2J)	5.3 mm	
Effective voltage rms	for power board 715G5361 type A: 222V	for power board 715G5361 type E: 249V
Required creepage distance for reinforced insulation (from table 2L)	5.3 mm	5.3 mm
Measured min. creepage distance		
Location	inside (mm)	outside (mm)
prim-sec	5.5	24.5mm (between primary and secondary solder pins.)
prim-core	3.7 (include bobbin thickness)	4.4mm (between primary solder pin and core.)
sec-core	4.2 (include bobbin thickness)	4.4mm (between secondary solder pin and core.)
Measured min. clearances		
Location	inside (mm)	outside (mm)
prim-sec	5.5	24.5mm (between primary and secondary solder pins.)

prim-core	3.7 (include bobbin thickness)	4.2mm (between primary solder pin and core.)
sec-core	4.2 (include bobbin thickness)	4.2mm (between secondary solder pin and core.)

Construction:



A = 31.0mm MAX
B = 23.0 mm MAX
C=31.0 mm MAX
D= 3.5±0.3 mm
E = 25.4±0.5 mm
E1=7.5±0.5 mm
E2= 3.75±0.3 mm
Φd= 0.6±0.1 mm

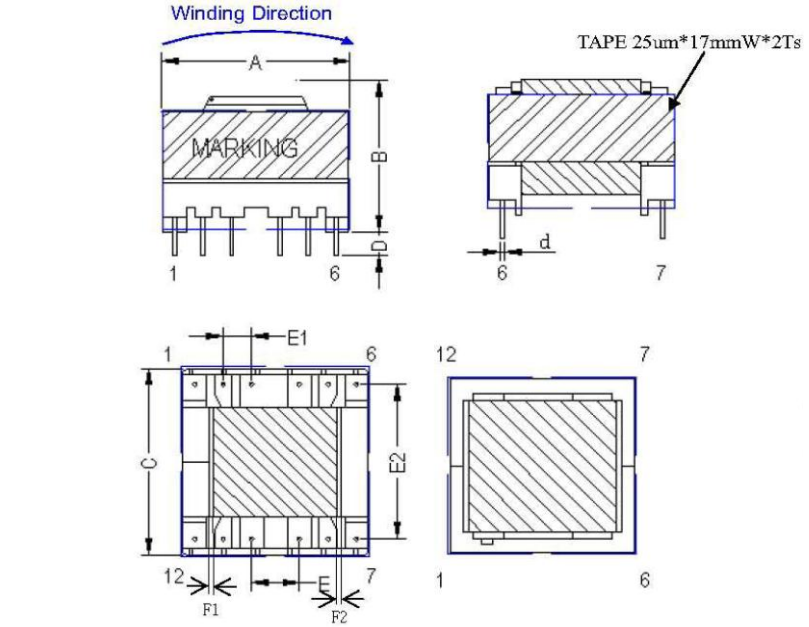
NO.	WINDING	TERMINAL	WIRE	TURNS	REMARK	TYAPE	MARGIN TAPE	
						1Ts	PIN1-6	PIN7-12
1	N1	4-5	UEWΦ0.37	21Ts	CLOSE	2Ts	420u*2.5mm	420u*5.0mm
2	N2	9-7,8	UEWΦ0.45*4	3Ts	CLOSE	2Ts	420u*3.0mm	420u*5.0mm
3	N3	10-11,12	UEWΦ0.40*2	9Ts	CLOSE	2Ts	420u*3.0mm	420u*5.0mm
4	N4	5-6	UEWΦ0.37	21Ts	CLOSE	1Ts	420u*2.5mm	420u*5.0mm
5	N5	1-3	UEWΦ0.20*4	9Ts	CLOSE	1Ts	280u*2.5mm	280u*5.0mm
6	E1	1-	COPPER FOIL 0.05t*8mm	1Ts	LEAD WIRE Φ0.40*1	3Ts	280u*2.5mm	280u*5.0mm

Concentric windings on phenolic bobbin. Three layers of insulation tape are provided around outer winding and outer winding is primary. Two layers of insulation tape are provided both between the primary windings and secondary windings and between each adjacent secondary windings. At least 2.5mm margin tape provided for primary windings and at least 3.0mm margin tape provided for secondary windings at the primary solder pin side. At least 5mm margin tape is provided at the secondary solder pin side. At least 0.5mm gap provided between the outer tape wrapped on outer windings (N6) and internal core side. All winding leads are covered by tube.		
Pin numbers		
Prim.	1-3; 4-5-6; 1-copper foil	
Sec.	9-7,8; 10-11,12	
Bobbin		
Material	Phenolic, Changchun, T375J, V-0, 150°C Phenolic, Sumitomo, PM-9820, PM-8375, V-0, 150°C	
Thickness	min. 1.2mm	
Electric strength test		
With 3000 V a.c. after humidity treatment		
Result	Pass	

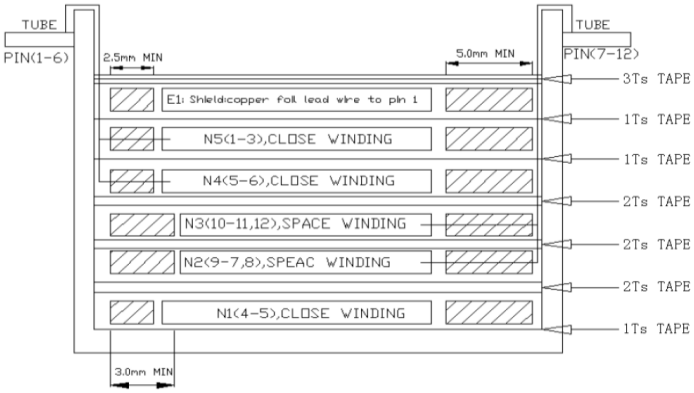
C.2	Safety isolation transformer	**P**
	Construction details:	
Transformer part name: **T901 for power board 715G5361 type B**		
Manufacturer: See appended table 1.5.1		
Type: See appended table 1.5.1		
Constructions of all sources of T901 are identical each other, except for model designation, manufacturer and materials difference.		
Recurring peak voltage	513V	
Required clearance for reinforced insulation (from table 2H and 2J)	5.5 mm	
Effective voltage rms	240V	
Required creepage distance for reinforced insulation (from table 2L)	5.5 mm	
Measured min. creepage distance		
Location	inside (mm)	outside (mm)
prim-sec	5.5	24.5mm (between primary and secondary solder pins.)

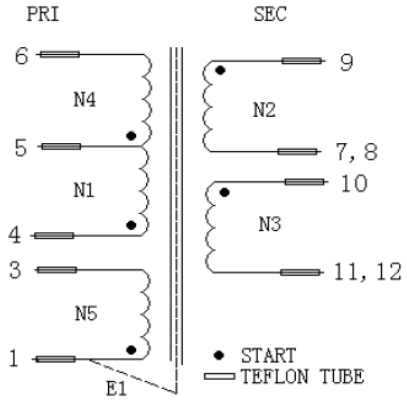
prim-core	2.95 (include bobbin thickness)	4.4mm (between primary solder pin and core.)
sec-core	3.45 (include bobbin thickness)	4.4mm (between secondary solder pin and core.)
Measured min. clearances		
Location	inside (mm)	outside (mm)
prim-sec	5.5	24.5mm (between primary and secondary solder pins.)
prim-core	2.95 (include bobbin thickness)	4.2mm (between primary solder pin and core.)
sec-core	3.45 (include bobbin thickness)	4.2mm (between secondary solder pin and core.)

Construction:



A = 31 mm MAX
B = 23mm MAX
C = 31mmMAX
D = 3.5±0.3 mm
E = 7.5±0.5 mm
E1 = 3.75±0.5mm
E2 = 25.4±0.5mm
Φd = 0.6±0.1mm
F1 = 0.5mm MIN
F2 = 0.5mm MIN





NO.	WINDING	TERMINAL	WIRE	TURNS	REMARK	TYAPE	MARGIN TAPE	
						1Ts	PIN1-6	PIN7-12
1	N1	4-5	UEWΦ0.37	21Ts	CLOSE	2Ts	420u*2.5mm	420u*5.0mm
2	N2	9-7,8	UEWΦ0.45*4	3Ts	CLOSE	2Ts	420u*3.0mm	420u*5.0mm
3	N3	10-11,12	UEWΦ0.40*2	9Ts	CLOSE	2Ts	420u*3.0mm	420u*5.0mm
4	N4	5-6	UEWΦ0.37	21Ts	CLOSE	1Ts	420u*2.5mm	420u*5.0mm
5	N5	1-3	UEWΦ0.20*4	9Ts	CLOSE	1Ts	280u*2.5mm	280u*5.0mm
6	E1	1-	COPPER FOIL 0.05t*8mm	1Ts	LEAD WIRE Φ0.40*1	3Ts	280u*2.5mm	280u*5.0mm

Concentric windings on phenolic bobbin. Three layers of insulation tape are provided around outer winding and outer winding is primary. Two layers of insulation tape are provided both between the primary windings and secondary windings and between each adjacent secondary windings. At least 2.5mm margin tape provided for primary windings and at least 3.0mm margin tape provided for secondary windings at the primary solder pin side. At least 5mm margin tape is provided at the secondary solder pin side. At least 0.5mm gap provided between the outer tape wrapped on outer windings (N6) and internal core side. All winding leads are covered by tube.

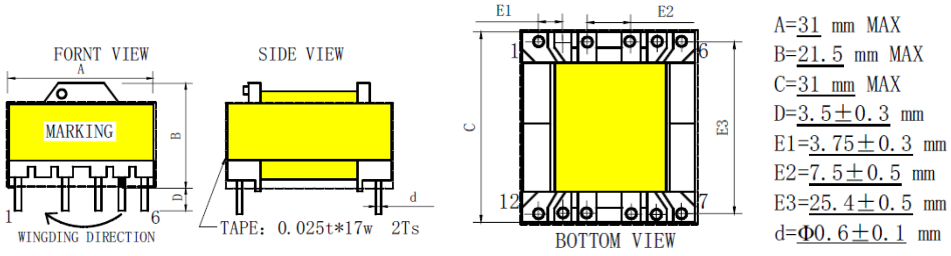
Pin numbers		

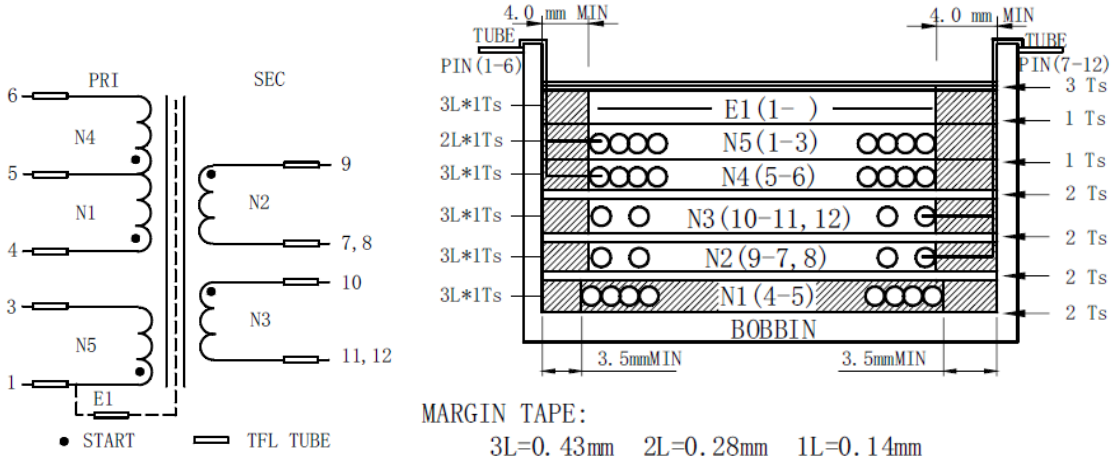
Prim.	1-3; 4-5-6; 1-copper foil (pin 2 cut off, pin 5 cut off half)	
Sec.	9-7,8; 10-11,12	
Bobbin		
Material	Phenolic, Sumitomo, PM-9820, PM9630, PM-8375, V-0, 150°C Phenolic, Changchun, T375J, V-0, 150°C	
Thickness	min. 0.45mm	
Electric strength test		
With 3000 V a.c. after humidity treatment		
Result	Pass	

C.2	Safety isolation transformer	**P**
	Construction details:	
Transformer part name: **T901 for power board 715G5361 type E**		
Manufacturer: See appended table 1.5.1		
Type: See appended table 1.5.1		
Constructions of all sources of T901 are identical each other, except for model designation, manufacturer and materials difference.		
Recurring peak voltage	472V	
Required clearance for reinforced insulation (from table 2H and 2J)	5.3 mm	
Effective voltage rms	249V	
Required creepage distance for reinforced insulation (from table 2L)	5.3 mm	
Measured min. creepage distance		
Location	inside (mm)	outside (mm)
prim-sec	7.5	8.5mm (between primary winding to secondary solder pins.)
prim-core	4.5	8.5mm (between primary solder pin and core.)
sec-core	5.0	8.5mm (between secondary solder pin and core.)

Measured min. clearances		
Location	inside (mm)	outside (mm)
prim-sec	7.5	8.5mm (between primary winding to secondary solder pins.)
prim-core	4.5	8.5mm (between primary solder pin and core.)
sec-core	5.0	8.5mm (between secondary solder pin and core.)

Construction:





MARGIN TAPE:
3L=0.43mm 2L=0.28mm 1L=0.14mm

COIL	TERMINAL	WIRE GAUGE	WIRE TYPE	TUNS	WINDING METHOD	MARGIN TAPE mm	TAPE 2Ts
N1	4-5	Φ0.37 mm	UEW	22	CLOSED	3.5/3.5	2Ts
N2	9-7,8	Φ0.45mm×4	UEW	3	SPACE	4.0/4.0	2Ts
N3	10-11,12	Φ0.40mm×2	UEW	9	SPACE	4.0/4.0	2Ts
N4	5-6	Φ0.37mm	UEW	20	CLOSED	4.0/4.0	1Ts
N5	1-3	Φ0.20 mm×4	UEW	9	CLOSED	4.0/4.0	1Ts
E1	1--	0.05×8 mm	COPPER FOIL	1	LAED WIRE Φ0.4	4.0/4.0	3Ts

Concentric windings on phenolic bobbin. Three layers of insulation tape are provided around outer winding and outer winding is primary. Core is considered as floating part. Two layers of insulation tape are provided both between the primary windings and secondary windings and between each adjacent secondary windings. 3.5mm margin tape used for primary winding N1, and 4.0mm margin tape used for all other primary and secondary windings. Tube provided on all winding exit ends and extended into the margin tape over complete width.

Pin numbers		
Prim.	1-3; 4-5-6; 1-copper foil (pin 2 cut off, pin 5 cut off half)	
Sec.	9-7,8; 10-11,12	
Bobbin		
Material	Phenolic, Sumitomo, PM-9820, PM-8375, V-0, 150°C Phenolic, Changchun, T375J, V-0, 150°C	
Thickness	min. 0.45mm	
Electric strength test		
With 3000 V a.c. after humidity treatment		
Result	Pass	

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 60950-1
EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES

Information technology equipment – Safety –

Part 1: General requirements

Differences according to..... :	EN 60950-1:2006/A11:2009/A1:2010/A12:2011/A2:2013
Attachment Form No..... :	EU_GD_IEC60950_1F
Attachment Originator..... :	SGS Fimko Ltd
Master Attachment..... :	Date 2014-02

EN 60950-1:2006/A11:2009/A1:2010/A12:2011/A2:2013 – CENELEC COMMON MODIFICATIONS

IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
Clause	Requirement + Test	Result - Remark	Verdict
	Clauses, subclauses, notes, tables and figures which are additional to those in IEC60950-1 and it´s amendmets are prefixed “Z”		--
Contents (A2:2013)	Add the following annexes: Annex ZA (normative) Normative references to international publications with their corresponding European publications Annex ZB (normative) Special national conditions Annex ZD (informative) IEC and CENELEC code designations for flexible cords		P
General	Delete all the “country” notes in the reference document (IEC 60950-1:2005) according to the following list: 1.4.8 Note 2; 1.5.1 Note 2 & 3; 1.5.7.1 Note 1.5.8 Note 2; 1.5.9.4 Note; 1.7.2.1 Note 4, 5 & 6 2.2.3 Note; 2.2.4 Note; 2.3.2 Note 2.3.2.1 Note 2; 2.3.4 Note 2; 2.6.3.3 Note 2 & 3 2.7.1 Note; 2.10.3.2 Note 2; 2.10.5.13 Note 3 3.2.1.1 Note; 3.2.4 Note 3.; 2.5.1 Note 2 4.3.6 Note 1 & 2; 4.7 Note 4; 4.7.2.2 Note 4.7.3.1Note 2; 5.1.7.1 Note 3 & 4; 5.3.7 Note 1 6 Note 2 & 5; 6.1.2.1 Note 2; 6.1.2.2 Note 6.2.2 Note; 6.2.2.1 Note 2; 6.2.2.2 Note 7.1 Note 3; 7.2 Note; 7.3 Note 1 & 2 G.2.1 Note 2; Annex H Note 2		P
General (A1:2010)	Delete all the “country” notes in the reference document (IEC 60950-1:2005/A1:2010) according to the following list: 1.5.7.1 Note; 6.1.2.1 Note 2 6.2.2.1 Note 2; EE.3 Note		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
General (A2:2013)	Delete all the “country” notes in the reference document (IEC 60950-1:2005/A2:2013) according to the following list: 2.7.1 Note * 2.10.3.1 Note 2 6.2.2. Note * Note of secretary: Text of Common Modification remains unchanged.		N/A
1.1.1 (A1:2010)	**Replace** the text of NOTE 3 by the following. NOTE 3 The requirements of EN 60065 may also be used to meet safety requirements for multimedia equipment. See IEC Guide 112, Guide on the safety of multimedia equipment. For television sets EN 60065 applies.		N/A
1.3.Z1	Add the following subclause: 1.3.Z1 Exposure to excessive sound pressure The apparatus shall be so designed and constructed as to present no danger when used for its intended purpose, either in normal operating conditions or under fault conditions, particularly providing protection against exposure to excessive sound pressures from headphones or earphones. NOTE Z1 A new method of measurement is described in EN 50332-1, Sound system equipment: Headphones and earphones associated with portable audio equipment - Maximum sound pressure level measurement methodology and limit considerations - Part 1: General method for “one package equipment”, and in EN 50332-2, Sound system equipment: Headphones and earphones associated with portable audio equipment - Maximum sound pressure level measurement methodology and limit considerations - Part 2: Guidelines to associate sets with headphones coming from different manufacturers.	Not such equipment.	N/A
(A12:2011)	In EN 60950-1:2006/A12:2011 Delete the addition of 1.3.Z1 / EN 60950-1:2006 Delete the definition 1.2.3.Z1 / EN 60950-1:2006 /A1:2010	Deleted.	N/A
1.5.1 (Added info*)	Add the following NOTE: NOTE Z1 The use of certain substances in electrical and electronic equipment is restricted within the EU: see Directive 2002/95/EC. New Directive 2011/65/11 *	Added.	P
1.7.2.1 (A1:2010)	In addition, for a PORTABLE SOUND SYSTEM, the instructions shall include a warning that excessive sound pressure from earphones and headphones can cause hearing loss.	Added.	N/A
1.7.2.1 (A12.2011)	In EN 60950-1:2006/A12:2011 Delete NOTE Z1 and the addition for Portable Sound System. Add the following clause and annex to the existing standard and amendments.	Replaced.	N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Zx Protection against excessive sound pressure from personal music players		N/A
	Zx.1 General This sub-clause specifies requirements for protection against excessive sound pressure from personal music players that are closely coupled to the ear. It also specifies requirements for earphones and headphones intended for use with personal music players. A personal music player is a portable equipment for personal use, that: -is designed to allow the user to listen to recorded or broadcast sound or video; and -primarily uses headphones or earphones that can be worn in or on or around the ears; and -allows the user to walk around while in use. NOTE 1 Examples are hand-held or body-worn portable CD players, MP3 audio players, mobile phones with MP3 type features, PDA's or similar equipment. A personal music player and earphones or headphones intended to be used with personal music players shall comply with the requirements of this sub-clause. The requirements in this sub-clause are valid for music or video mode only. The requirements do not apply: -while the personal music player is connected to an external amplifier; or -while the headphones or earphones are not used. NOTE 2 An external amplifier is an amplifier which is not part of the personal music player or the listening device, but which is intended to play the music as a standalone music player. The requirements do not apply to: -hearing aid equipment and professional equipment; NOTE 3 Professional equipment is equipment sold through special sales channels. All products sold through normal electronics stores are considered not to be professional equipment.	Not such equipment.	N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	-analogue personal music players (personal music players without any kind of digital processing of the sound signal) that are brought to the market before the end of 2015. NOTE 4 This exemption has been allowed because this technology is falling out of use and it is expected that within a few years it will no longer exist. This exemption will not be extended to other technologies. For equipment which is clearly designed or intended for use by young children, the limits of EN 71-1 apply.		N/A
	Zx.2 Equipment requirements No safety provision is required for equipment that complies with the following: -equipment provided as a package (personal music player with its listening device), where the acoustic output $L_{Aeq,T}$ is ≤ 85 dBA measured while playing the fixed "programme simulation noise" as described in EN 50332-1; and -a personal music player provided with an analogue electrical output socket for a listening device, where the electrical output is ≤ 27 mV measured as described in EN 50332-2, while playing the fixed "programme simulation noise" as described in EN 50332-1. NOTE 1 Wherever the term acoustic output is used in this clause, the 30 s A-weighted equivalent sound pressure level $L_{Aeq,T}$ is meant. See also Zx.5 and Annex Zx. All other equipment shall: a) protect the user from unintentional acoustic outputs exceeding those mentioned above; and b) have a standard acoustic output level not exceeding those mentioned above, and automatically return to an output level not exceeding those mentioned above when the power is switched off; and	Not such equipment.	N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	c) provide a means to actively inform the user of the increased sound pressure when the equipment is operated with an acoustic output exceeding those mentioned above. Any means used shall be acknowledged by the user before activating a mode of operation which allows for an acoustic output exceeding those mentioned above. The acknowledgement does not need to be repeated more than once every 20 h of cumulative listening time; and NOTE 2 Examples of means include visual or audible signals. Action from the user is always required. NOTE 3 The 20 h listening time is the accumulative listening time, independent how often and how long the personal music player has been switched off. d) have a warning as specified in Zx.3; and e) not exceed the following: 1) equipment provided as a package (player with Its listening device), the acoustic output shall be ≤ 100 dBA measured while playing the fixed “programme simulation noise” described in EN 50332-1; and 2) a personal music player provided with an analogue electrical output socket for a listening device, the electrical output shall be ≤ 150 mV measured as described in EN 50332-2, while playing the fixed “programme simulation noise” described in EN 50332-1. For music where the average sound pressure (long term $L_{Aeq,T}$) measured over the duration of the song is lower than the average produced by the programme simulation noise, the warning does not need to be given as long as the average sound pressure of the song is below the basic limit of 85 dBA. In this case T becomes the duration of the song. NOTE 4 Classical music typically has an average sound pressure (long term $L_{Aeq,T}$) which is much lower than the average programme simulation noise. Therefore, if the player is capable to analyse the song and compare it with the programme simulation noise, the warning does not need to be given as long as the average sound pressure of the song is below the basic limit of 85 dBA. For example, if the player is set with the programme simulation noise to 85 dBA, but the average music level of the song is only 65 dBA, there is no need to give a warning or ask an acknowledgement as long as the average sound level of the song is not above the basic limit of 85 dBA.	Not such equipment.	N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Zx.3 Warning The warning shall be placed on the equipment, or on the packaging, or in the instruction manual and shall consist of the following: -the symbol of Figure 1 with a minimum height of 5 mm; and -the following wording, or similar: "To prevent possible hearing damage, do not listen at high volume levels for long periods."  **Figure 1 – Warning label (IEC 60417-6044)** Alternatively, the entire warning may be given through the equipment display during use, when the user is asked to acknowledge activation of the higher level.	Not such equipment.	N/A
	Zx.4 Requirements for listening devices (headphones and earphones)		N/A
	Zx.4.1 Wired listening devices with analogue input With 94 dBA sound pressure output $L_{Aeq,T}$, the input voltage of the fixed "programme simulation noise" described in EN 50332-2 shall be ≥ 75 mV. This requirement is applicable in any mode where the headphones can operate (active or passive), including any available setting (for example built-in volume level control). NOTE The values of 94 dBA – 75 mV correspond with 85dBA – 27 mV and 100 dBA – 150 mV.	Not such equipment.	N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Zx.4.2 Wired listening devices with digital input With any playing device playing the fixed "programme simulation noise" described in EN 50332-1 (and respecting the digital interface standards, where a digital interface standard exists that specifies the equivalent acoustic level), the acoustic output $L_{Aeq,T}$ of the listening device shall be ≤ 100 dBA. This requirement is applicable in any mode where the headphones can operate, including any available setting (for example built-in volume level control, additional sound feature like equalization, etc.). NOTE An example of a wired listening device with digital input is a USB headphone.	Not such equipment.	N/A
	Zx.4.3 Wireless listening devices In wireless mode: - with any playing and transmitting device playing the fixed programme simulation noise described in EN 50332-1; and -respecting the wireless transmission standards, where an air interface standard exists that specifies the equivalent acoustic level; and -with volume and sound settings in the listening device (for example built-in volume level control, additional sound feature like equalization, etc.) set to the combination of positions that maximize the measured acoustic output for the abovementioned programme simulation noise, the acoustic output $L_{Aeq,T}$ of the listening device shall be ≤ 100 dBA. NOTE An example of a wireless listening device is a Bluetooth headphone.	Not such equipment.	N/A
	Zx.5 Measurement methods Measurements shall be made in accordance with EN 50332-1 or EN 50332-2 as applicable. Unless stated otherwise, the time interval T shall be 30 s. NOTE Test method for wireless equipment provided without listening device should be defined.	Not such equipment.	N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
2.7.1	Replace the subclause as follows: Basic requirements To protect against excessive current, short-circuits and earth faults in PRIMARY CIRCUITS, protective devices shall be included either as integral parts of the equipment or as parts of the building installation, subject to the following, a), b) and c): a) except as detailed in b) and c), protective devices necessary to comply with the requirements of 5.3 shall be included as parts of the equipment; b) for components in series with the mains input to the equipment such as the supply cord, appliance coupler, r.f.i. filter and switch, short-circuit and earth fault protection may be provided by protective devices in the building installation;	Replaced	P
	c) it is permitted for PLUGGABLE EQUIPMENT TYPE B or PERMANENTLY CONNECTED EQUIPMENT, to rely on dedicated overcurrent and short-circuit protection in the building installation, provided that the means of protection, e.g. fuses or circuit breakers, is fully specified in the installation instructions. If reliance is placed on protection in the building installation, the installation instructions shall so state, except that for PLUGGABLE EQUIPMENT TYPE A the building installation shall be regarded as providing protection in accordance with the rating of the wall socket outlet.		N/A
2.7.2	This subclause has been declared 'void'.		N/A
3.2.3	Delete the NOTE in Table 3A, and delete also in this table the conduit sizes in parentheses.	Deleted.	N/A
3.2.5.1	Replace "60245 IEC 53" by "H05 RR-F"; "60227 IEC 52" by "H03 VV-F or H03 VVH2-F"; "60227 IEC 53" by "H05 VV-F or H05 VVH2-F2". In Table 3B, replace the first four lines by the following: Up to and including 6 | 0,75 [a)] | Over 6 up to and including 10| (0,75) [b)] 1,0 | Over 10 up to and including 16| (1,0) [c)] 1,5 | In the conditions applicable to Table 3B delete the words "in some countries" in condition [a)]. In NOTE 1, applicable to Table 3B, delete the second sentence.	Replaced.	N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
3.2.5.1 (A2:2013)	NOTE Z1 The harmonised code designations corresponding to the IEC cord types are given in Annex ZD		N/A
3.3.4	In Table 3D, delete the fourth line: conductor sizes for 10 to 13 A, and replace with the following: Over 10 up to and including 16 | 1,5 to 2,5 | 1,5 to 4 | Delete the fifth line: conductor sizes for 13 to 16 A	Deleted.	N/A
4.3.13.6 (A1:2010)	Replace the existing NOTE by the following: NOTE Z1 Attention is drawn to: 1999/519/EC: Council Recommendation on the limitation of exposure of the general public to electromagnetic fields 0 Hz to 300 GHz, and 2006/25/EC: Directive on the minimum health and safety requirements regarding the exposure of workers to risks arising from physical agents (artifical optical radiation).	Added.	N/A
	Standards taking into account mentioned Recommendation and Directive which demonstrate compliance with the applicable EU Directive are indicated in the OJEC.		N/A
Annex H	Replace the last paragraph of this annex by: At any point 10 cm from the surface of the OPERATOR ACCESS AREA, the dose rate shall not exceed 1 µSv/h (0,1 mR/h) (see NOTE). Account is taken of the background level. Replace the notes as follows: NOTE These values appear in Directive 96/29/Euratom. Delete NOTE 2.	Replaced	N/A
Bibliography	Additional EN standards.		—

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

ZA	**NORMATIVE REFERENCES TO INTERNATIONAL PUBLICATIONS WITH THEIR CORRESPONDING EUROPEAN PUBLICATIONS**	—

ZB ANNEX (normative) ***SPECIAL NATIONAL CONDITIONS (EN)***			
Clause	Requirement + Test	Result - Remark	Verdict
1.2.4.1	In **Denmark**, certain types of Class I appliances (see 3.2.1.1) may be provided with a plug not establishing earthing conditions when inserted into Danish socket-outlets.		N/A
1.2.13.14 (A11:2009)	In **Norway** and **Sweden**, for requirements see 1.7.2.1 and 7.3 of this annex.		N/A
1.5.7.1 (A11:2009)	In **Finland, Norway** and **Sweden**, resistors bridging BASIC INSULATION in CLASS I PLUGGABLE EQUIPMENT TYPE A must comply with the requirements in 1.5.7.1. In addition when a single resistor is used, the resistor must withstand the resistor test in 1.5.7.2.		N/A
1.5.8	In **Norway**, due to the IT power system used (see annex V, Figure V.7), capacitors are required to be rated for the applicable line-to-line voltage (230 V).		P
1.5.9.4	In **Finland**, **Norway** and **Sweden**, the third dashed sentence is applicable only to equipment as defined in 6.1.2.2 of this annex.	No such construction	N/A
1.7.2.1	In **Finland**, **Norway** and **Sweden**, CLASS I PLUGGABLE EQUIPMENT TYPE A intended for connection to other equipment or a network shall, if safety relies on connection to protective earth or if surge suppressors are connected between the network terminals and accessible parts, have a marking stating that the equipment must be connected to an earthed mains socket-outlet. The marking text in the applicable countries shall be as follows: In **Finland**: "Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan" In **Norway**: “Apparatet må tilkoples jordet stikkontakt” In **Sweden**: “Apparaten skall anslutas till jordat uttag”	Evaluated during national approval.	N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.2.1 (A11:2009)	NOTE In Norway, due to regulation for installations of cable distribution systems, and in Sweden, a galvanic isolator shall provide electrical insulation below 5 MHz. The insulation shall withstand a dielectric strength of 1,5 Kv r.m.s., 50 Hz or 60 Hz, for 1 min. Translation to Norwegian (the Swedish text will also be accepted in Norway): “Utstyr isa l koplet til beskyttelsesjord via nettplugg og/eller via annet jordtilkoplet utstyr – og er tilkoplet et kabel-TV is, kan forårsake brannfare. For å unngå dette isa lle ved tilkopling av utstyret til kabel-TV nettet isa llers en galvanisk isolator mellom utstyret og kabel- TV nettet.” Translation to Swedish: ”Utrustning som är kopplad till skyddsjord via jordat vägguttag och/eller via annan utrustning och samtidigt är kopplad till kabel-TV nät kan I isa fall medföra risk för brand. För att undvika detta skall vid anslutning av utrustningen till kabel-TV nät galvanisk isolator finnas mellan utrustningen och kabel-TV nätet.”		N/A
1.7.2.1 (A2:2013)	In **Denmark**, CLASS I PLUGGABLE EQUIPMENT TYPE A intended for connection to other equipment or a network shall, if safety relies on connection to protective earth or if surge suppressors are connected between the network terminals and accessible parts, have a marking stating that the equipment must be connected to an earthed mains socket-outlet. The marking text in **Denmark** shall be as follows: In **Denmark**: “Apparatets stikprop skal tilsluttes en stikkontakt med jord, som giver forbindelse til stikproppens jord.”	Evaluated during national approval.	N/A
1.7.5 1.7.5 (A11:2009)	In **Denmark**, socket-outlets for providing power to other equipment shall be in accordance with the Heavy Current Regulations, Section 107-2-D1, Standard Sheet DK 1-3a, DK 1-5a or DK 1-7a, when used on Class I equipment. For STATIONARY EQUIPMENT the socket-outlet shall be in accordance with Standard Sheet DK 1-1b or DK 1-5a. For **CLASS II EQUIPMENT** the socket outlet shall be in accordance with Standard Sheet DKA 1-4a.	No socket-outlet provided.	N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.5 (A2:2013)	In **Denmark**, socket-outlets for providing power to other equipment shall be in accordance with the DS 60884-2-D1:2011. For class I equipment the following Standard Sheets are applicable: DK 1-3a, DK 1-1c, DK 1-1d, DK 1-5a or DK 1-7a, with the exception for STATIONARY EQUIPMENT where the socket-outlets shall be in accordance with Standard Sheet DK 1-1b, DK 1-1c, DK 1-1d or DK 1-5a. Socket outlets intended for providing power to Class II apparatus with a rated current of 2,5 A shall be in accordance with DS 60884-2-D1 standard sheet DKA 1-4a. Other current rating socket outlets shall be in compliance with by DS 60884-2-D1 Standard Sheet DKA 1-3a or DKA 1-3b. Justification the Heavy Current Regulations, 6c	No socket-outlet provided.	N/A
2.2.4	In **Norway**, for requirements see 1.7.2.1, 6.1.2.1 and 6.1.2.2 of this annex.	No TNV.	N/A
2.3.2	In **Finland**, **Norway** and **Sweden** there are additional requirements for the insulation. See 6.1.2.1 and 6.1.2.2 of this annex.	No TNV.	N/A
2.3.4	In **Norway**, for requirements see 1.7.2.1, 6.1.2.1 and 6.1.2.2 of this annex.	No TNV.	N/A
2.6.3.3	In the **United Kingdom**, the current rating of the circuit shall be taken as 13 A, not 16 A.		P
2.7.1	In the **United Kingdom**, to protect against excessive currents and short-circuits in the PRIMARY CIRCUIT of DIRECT PLUG-IN EQUIPMENT, tests according to 5.3 shall be conducted, using an external protective device rated 30 A or 32 A. If these tests fail, suitable protective devices shall be included as integral parts of the DIRECT PLUG-IN EQUIPMENT, so that the requirements of 5.3 are met.		N/A
2.10.5.13	In **Finland**, **Norway** and **Sweden**, there are additional requirements for the insulation, see 6.1.2.1 and 6.1.2.2 of this annex.	No TNV.	N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
3.2.1.1	In **Switzerland**, supply cords of equipment having a RATED CURRENT not exceeding 10 A shall be provided with a plug complying with SEV 1011 or IEC 60884-1 and one of the following dimension sheets: SEV 6532-2.1991 Plug Type 15 3P+N+PE 250/400 V, 10 A SEV 6533-2.1991 Plug Type 11 L+N 250 V, 10 A SEV 6534-2.1991 Plug Type 12 L+N+PE 250 V, 10 A In general, EN 60309 applies for plugs for currents exceeding 10 A. However, a 16 A plug and socket-outlet system is being introduced in Switzerland, the plugs of which are according to the following dimension sheets, published in February 1998: SEV 5932-2.1998: Plug Type 25 , 3L+N+PE 230/400 V, 16 A SEV 5933-2.1998:Plug Type 21, L+N, 250 V, 16A SEV 5934-2.1998: Plug Type 23, L+N+PE 250 V, 16 A		N/A
3.2.1.1	In **Denmark**, supply cords of single-phase equipment having a rated current not exceeding13 A shall be provided with a plug according to the Heavy Current Regulations, Section 107-2-D1. CLASS I EQUIPMENT provided with socket-outlets with earth contacts or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules shall be provided with a plug in accordance with standard sheet DK 2-1a or DK 2-5a. If poly-phase equipment and single-phase equipment having a RATED CURRENT exceeding 13 A is provided with a supply cord with a plug, this plug shall be in accordance with the Heavy Current Regulations, Section 107-2-D1 or EN 60309-2.		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
3.2.1.1 (A2:2013)	In **Denmark**, supply cords of single-phase equipment having a rated current not exceeding 13 A shall be provided with a plug according to DS 60884-2-D1. CLASS I EQUIPMENT provided with socket-outlets with earth contacts or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules shall be provided with a plug in accordance with standard sheet DK 2-1a or DK 2-5a. If a single-phase equipment having a RATED CURRENT exceeding 13 A or if a poly-phase equipment is provided with a supply cord with a plug, this plug shall be in accordance with the standard sheets DK 6-1a in DS 60884-2-D1 or EN 60309-2. Justification the Heavy Current Regulations, 6c		N/A
3.2.1.1	In **Spain**, supply cords of single-phase equipment having a rated current not exceeding 10 A shall be provided with a plug according to UNE 20315:1994. Supply cords of single-phase equipment having a rated current not exceeding 2,5 A shall be provided with a plug according to UNE-EN 50075:1993. CLASS I EQUIPMENT provided with socket-outlets with earth contacts or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules, shall be provided with a plug in accordance with standard UNE 20315:1994. If poly-phase equipment is provided with a supply cord with a plug, this plug shall be in accordance with UNE-EN 60309-2.		N/A
3.2.1.1	In the **United Kingdom**, apparatus which is fitted with a flexible cable or cord and is designed to be connected to a mains socket conforming to BS 1363 by means of that flexible cable or cord and plug, shall be fitted with a 'standard plug' in accordance with Statutory Instrument 1768:1994 - The Plugs and Sockets etc. (Safety) Regulations 1994, unless exempted by those regulations. NOTE 'Standard plug' is defined in SI 1768:1994 and essentially means an approved plug conforming to BS 1363 or an approved conversion plug.		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
3.2.1.1	In **Ireland**, apparatus which is fitted with a flexible cable or cord and is designed to be connected to a mains socket conforming to I.S. 411 by means of that flexible cable or cord and plug, shall be fitted with a 13 A plug in accordance with Statutory Instrument 525:1997 - National Standards Authority of Ireland (section 28) (13 A Plugs and Conversion Adaptors for Domestic Use) Regulations 1997.		N/A
3.2.4	In **Switzerland**, for requirements see 3.2.1.1 of this annex.		N/A
3.2.5.1	In the **United Kingdom**, a power supply cord with conductor of 1,25 mm2 is allowed for equipment with a rated current over 10 A and up to and including 13 A.		N/A
3.3.4	In the **United Kingdom**, the range of conductor sizes of flexible cords to be accepted by terminals for equipment with a RATED CURRENT of over 10 A up to and including 13 A is: • 1,25 mm^2 to 1,5 mm^2 nominal cross-sectional area.		N/A
4.3.6	In the **United Kingdom**, the torque test is performed using a socket outlet complying with BS 1363 part 1:1995, including Amendment 1:1997 and Amendment 2:2003 and the plug part of DIRECT PLUG-IN EQUIPMENT shall be assessed to BS 1363: Part 1, 12.1, 12.2, 12.3, 12.9, 12.11, 12.12, 12.13, 12.16 and 12.17, except that the test of 12.17 is performed at not less than 125 °C. Where the metal earth pin is replaced by an Insulated Shutter Opening Device (ISOD), the requirements of clauses 22.2 and 23 also apply.		N/A
4.3.6	In **Ireland**, DIRECT PLUG-IN EQUIPMENT is known as plug similar devices. Such devices shall comply with Statutory Instrument 526:1997 - National Standards Authority of Ireland (Section 28) (Electrical plugs, plug similar devices and sockets for domestic use) Regulations, 1997.		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
5.1.7.1	In **Finland**, **Norway** and **Sweden** TOUCH CURRENT measurement results exceeding 3,5 mA r.m.s. are permitted only for the following equipment: • STATIONARY PLUGGABLE EQUIPMENT TYPE A that is intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, for example, in a telecommunication centre; and has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR; and is provided with instructions for the installation of that conductor by a SERVICE PERSON; • STATIONARY PLUGGABLE EQUIPMENT TYPE B; • STATIONARY PERMANENTLY CONNECTED EQUIPMENT.	Not exceed 3.5mA	N/A
6.1.2.1 (A1:2010)	In **Finland**, **Norway** and **Sweden**, add the following text between the first and second paragraph of the compliance clause: If this insulation is solid, including insulation forming part of a component, it shall at least consist of either - two layers of thin sheet material, each of which shall pass the electric strength test below, or - one layer having a distance through insulation of at least 0,4 mm, which shall pass the electric strength test below. Alternatively for components, there is no distance through insulation requirements for the insulation consisting of an insulating compound completely filling the casing, so that CLEARANCES and CREEPAGE DISTANCES do not exist, if the component passes the electric strength test in accordance with the compliance clause below and in addition - passes the tests and inspection criteria of 2.10.11 with an electric strength test of 1,5 kV multiplied by 1,6 (the electric strength test of 2.10.10 shall be performed using 1,5 kV), and - is subject to ROUTINE TESTING for electric strength during manufacturing, using a test voltage of 1,5 kV.	No TNV.	N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	It is permitted to bridge this insulation with an optocoupler complying with 2.10.5.4 b). It is permitted to bridge this insulation with a capacitor complying with EN 60384-14:2005, subclass Y2. A capacitor classified Y3 according to EN 60384-14:2005, may bridge this insulation under the following conditions: - the insulation requirements are satisfied by having a capacitor classified Y3 as defined by EN 60384-14, which in addition to the Y3 testing, is tested with an impulse test of 2,5 kV defined in EN 60950-1:2006, 6.2.2.1; - the additional testing shall be performed on all the test specimens as described in EN 60384-14: - the impulse test of 2,5 kV is to be performed before the endurance test in EN 60384-14, in the sequence of tests as described in EN 60384-14.		N/A
6.1.2.2	In **Finland**, **Norway** and **Sweden**, the exclusions are applicable for PERMANENTLY CONNECTED EQUIPMENT, PLUGGABLE EQUIPMENT TYPE B and equipment intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, e.g. in a telecommunication centre, and which has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR and is provided with instructions for the installation of that conductor by a SERVICE PERSON.	No TNV	N/A
7.2	In **Finland**, **Norway** and **Sweden**, for requirements see 6.1.2.1 and 6.1.2.2 of this annex. The term TELECOMMUNICATION NETWORK in 6.1.2 being replaced by the term CABLE DISTRIBUTION SYSTEM.	Not connected to cable distribution system.	N/A
7.3 (A11:2009)	In **Norway** and **Sweden**, for requirements see 1.2.13.14 and 1.7.2.1 of this annex.	Not connected to cable distribution system.	N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

Annex ZD
(informative)

IEC and CENELEC code designations for flexible cords

Type of flexible cord	Code designations	
	IEC	CENELEC
PVC insulated cords		
Flat twin tinsel cord	60227 IEC 41	H03VH-Y
Light polyvinyl chloride sheathed flexible cord	60227 IEC 52	H03VV-F H03VVH2-F
Ordinary polyvinyl chloride sheathed flexible cord	60277 IEC 53	H05VV-F H05VVH2-F
Rubber insulated cords		
Braided cord	60245 IEC 51	H03RT-F
Ordinary tough rubber sheathed flexible cord	60245 IEC 53	H05RR-F
Ordinary polychloroprene sheathed flexible cord	60245 IEC 57	H05RN-F
Heavy polychloroprene sheathed flexible cord	60245 IEC 66	H07RN-F
Cords having high flexibility		
Rubber insulated and sheathed cord	60245 IEC 86	H03RR-H
Rubber insulated, crosslinked PVC sheathed cord	60245 IEC 87	H03RV4-H
Crosslinked PVC insulated and sheathed cord	60245 IEC 88	H03V4V4-H

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

	Korean National Differences		
	Corresponding National Standard: K 60950-1		N/A
1.5.101	Addition: Plugs for the connection of the apparatus to the supply mains shall comply with the Korean requirement (KSC 8305).	To be evaluated when submitted for national approval.	N/A
8	Addition: EMC The apparatus shall comply with the relevant CISPR standards.	To be evaluated when submitted for national approval.	N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 60950-1
AUSTRALIA and NEW ZEALAND NATIONAL DIFFERENCES
Information technology equipment – Safety –
Part 1: General requirements

Differences according to..... : AS/NZS 60950.1:2011 and Amendment No. 1 of AS/NZS 60950.1:2011

1.2	Insert the following between 'person, service' and 'range, rated frequency': POTENTIAL IGNITION SOURCE 1.2.12	Inserted.	P
1.2.12.201	Insert a new Clause 1.2.12.201 after Clause 1.2.12.15 as follows: **1.2.12.201** **POTENTIAL IGNITION SOURCE** Possible fault which can start a fire if the open-circuit voltage measured across an interruption or faulty contact exceeds a value of 50 V (peak) a.c. or d.c. and the product of the peak value of this voltage and the measured r.m.s. current under normal operating conditions exceeds 15 VA. Such a faulty contact or interruption in an electrical connection includes those which may occur in CONDUCTIVE PATTERNS on PRINTED BOARDS. NOTE 201 An electronic protection circuit may be used to prevent such a fault from becoming a POTENTIAL IGNITION SOURCE. NOTE 202 This definition is from AS/NZS 60065:2003.	Added.	P
1.5.1	1. Add the following to the end of the first paragraph: 'or the relevant Australian/New Zealand Standard.' 2. In NOTE 1, add the following after the word 'standard': 'or an Australian/New Zealand Standard'	Added.	P
1.5.2	Add the following to the end of the first and third dash items: 'or the relevant Australian/New Zealand Standard'	Added.	P

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

3.2.5.1	Modify Table 3B as follows: 1. Delete the first four rows and replace with the following: <table><tr><td rowspan="2">RATED CURRENT of equipment A</td><td colspan="2">Minimum conductor sizes</td></tr><tr><td>Nominal cross-sectional area mm²</td><td>AWG or kcmil [cross-sectional area in mm²] see Note 2</td></tr><tr><td>Over 0.2 up to and including 3</td><td>0,5 [a]</td><td>18 [0,8]</td></tr><tr><td>Over 3 up to and including 7.5</td><td>0,75</td><td>16 [1,3]</td></tr><tr><td>Over 7.5 up to and including 10</td><td>(0,75) [b] 1,00</td><td>16 [1,3]</td></tr><tr><td>Over 10 up to and including 16</td><td>(1,0) [c] 1,5</td><td>14 [2]</td></tr></table> 2. Delete NOTE 1. 3. Delete Footnote [a] and replace with the following: [a] This nominal cross-sectional area is only allowed for Class II appliances if the length of the power supply cord, measured between the point where the cord, or cord guard, enters the appliance, and the entry to the plug does not exceed 2 m (0,5 mm² three-core supply flexible cords are not permitted; see AS/NZS 3191).	Replaced	N/A
4.1.201	Insert a new Clause 4.1.201 after Clause 4.1 as follows: **4.1.201 Display devices used for television purposes** Display devices which may be used for television purposes, with a mass of 7 kg or more, shall comply with the requirements for stability and mechanical hazards, including the additional stability requirements for television receivers, specified in AS/NZS 60065.	No such device	N/A
4.3.6	Delete the third paragraph and replace with the following: *Equipment with a plug portion, suitable for insertion into a 10 A 3-pin flatpin socket-outlet complying with AS/NZS 3112 shall comply with the requirements in AS/NZS 3112 for equipment with integral pins for insertion into socket-outlets.*		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
4.3.13.5.1	Add the following to the end of the first paragraph: 'or AS/NZS 2211.1'	Changed by A1 to AS/NZS 60950.1:2011 to read 'or AS/NZS 60825.1 and AS/NZS 60825.2' and the relevant clause to 4.13.5.1.	N/A
4.7	Add the following new paragraph to the end of the clause: 'For alternate tests refer to Clause 4.7.201.'	Added.	P
4.7.201	Insert a new Clause 4.7.201 after Clause 4.7.3.6 as follows: **4.7.201 Resistance to fire – Alternative tests**	Added. Alternative tests not applied for.	N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
4.7.201.1	**4.7.201.1 General** Parts of non-metallic Material shall be resistant to ignition and spread of fire. This requirement does not apply to decorative trims, knobs and other parts unlikely to be ignited or to propagate flames from inside the apparatus, or the following: (a) Components that are contained in an enclosure having a flammability category of V-0 according to AS/NZS 60695.11.10 and having openings only for the connecting wires filling the openings completely, and for ventilation not exceeding 1mm in width regardless of length. (b) The following parts which would contribute negligible fuel to a fire: - small mechanical parts, the mass of which does not exceed 4g, such as mounting parts, gears, cams, belts and bearings; - small electrical components, such as capacitors with a volume not exceeding 1,750 mm^3, integrated circuits, transistors and optocoupler packages, if these components are mounted on Material of flammability category V-1, or better, according to AS/NZS 60695.11.10. NOTE In considering how to minimize propagation of fire and what 'small parts' are, account should be taken of the cumulative effect of small parts adjacent to each other for the possible effect of propagating the fire from one part to another. Compliance shall be checked by the tests of 4.7.201.2, 4.7.201.3, 4.7.201.4 and 4.7.201.5. For the base Material of printed boards, compliance shall be checked by the test of 4.7.201.5. The tests shall be carried out on parts of non-metallic Material which have been removed from the apparatus. When the glow-wire test is carried out, the parts shall be placed in the same orientation as they would be in normal use. These tests are not carried out on internal wiring.		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

4.7.201.2	**4.7.201.2 Testing of non-metallic Materials** Parts of non-metallic Material shall be subject to the glow-wire test of AS/NZS 60695.2.11 which shall be carried out at 550 °C. Parts for which the glow-wire test cannot be carried out, such as those made of soft or foamy Material, shall meet the requirements specified in ISO 9772 for category FH-3 Material. The glow-wire test shall be not carried out on parts of Material classified at least FH-3 according to ISO 9772 provided that the sample tested was not thicker than the relevant part.		N/A
4.7.201.3	**4.7.201.3 Testing of insulating Materials** Parts of insulating Material supporting POTENTIAL IGNITION SOURCES shall be subject to the glow-wire test of AS/NZS 60695.2.11 which shall be carried out at 750 °C. The test shall be also carried out on other parts of insulating Material which are within a distance of 3 mm of the connection. NOTE Contacts in components such as switch contacts are considered to be connections. For parts which withstand the glow-wire test but produce a flame, other parts above the connection within the envelope of a vertical cylinder having a diameter of 20 mm and a height of 50 mm shall be subjected to the needle-flame test. However, parts shielded by a barrier which meets the needle-flame test shall not be tested. The needle-flame test shall be made in accordance with AS/NZS 60695.11.5 with the following modifications:		N/A

Clause of AS/NZS 60695.11.5	Change
9 Test procedure	
9.2 Application of needleflame	Replace the first paragraph with: The specimen shall be arranged so that the flame can be applied to a vertical or horizontal edge as shown in the examples of figure 1. If possible the flame shall be applied at least 10 mm from a corner Replace the second paragraph with: The duration of

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Clause	Requirement + Test	Result - Remark	Verdict
	<table><tr><td></td><td>application of the test flame shall be 30 s ±1 s.</td></tr><tr><td>9.3 Number of test specimens</td><td>Replace with: The test shall be made on one specimen. If the specimen does not withstand the test, the test may be repeated on two further specimens, both of which shall withstand the test.</td></tr><tr><td>11 Evaluation of test results</td><td>Replace with: The duration of burning (t_b) shall not exceed 30 s. However, for printed circuit boards, it shall not exceed 15 s.</td></tr></table> The needle-flame test shall not be carried out on parts of Material classified as V-0 or V-1 according to AS/NZS 60695.11.10, provided that the sample tested was not thicker than the relevant part.		
4.7.201.4	**4.7.201.4 Testing in the event of non-extinguishing Material** If parts, other than enclosures, do not withstand the glow wire tests of 4.7.201.3, by failure to extinguish within 30 s after the removal of the glowwire tip, the needle-flame test detailed in 4.7.201.3 shall be made on all parts of non-metallic Material which are within a distance of 50 mm or which are likely to be impinged upon by flame during the tests of 4.7.201.3. Parts shielded by a separate barrier which meets the needle-flame test need not be tested. NOTE 1 If the enclosure does not withstand the glow-wire test the equipment is considered to have failed to meet the requirements of Clause 4.7.201 without the need for consequential testing. NOTE 2 If other parts do not withstand the glow-wire test due to ignition of the tissue paper and if this indicates that burning or glowing particles can fall onto an external surface underneath the equipment, the equipment is considered to have failed to meet the requirements of Clause 4.7.201 without the need for consequential testing. NOTE 3 Parts likely to be impinged upon by the flame are considered to be those within the envelope of a vertical cylinder having a radius of 10 mm and a height equal to the height of the flame, positioned above the point of the Material supporting, in contact with, or in close proximity to, connections.		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
4.7.201.5	**4.7.201.5 Testing of printed boards** The base Material of printed boards shall be subjected to the needle-flame test of Clause 4.7.201.3. The flame shall be applied to the edge of the board where the heat sink effect is lowest when the board is positioned as in normal use. The flame shall not be applied to an edge, consisting of broken perforations, unless the edge is less than 3 mm from a POTENTIAL IGNITION SOURCE. The test is not carried out if the — - Printed board does not carry any POTENTIAL IGNITION SOURCE; - Base Material of printed boards, on which the available apparent power at a connection exceeds 15 VA operating at a voltage exceeding 50 V and equal or less than 400 V (peak) a.c. or d.c. under normal operating conditions, is of flammability category V-1 or better according to AS/NZS 60695.11.10, or the printed boards are protected by an enclosure meeting the flammability category V-0 according to AS/NZS 60695.11.10, or made of metal, having openings only for connecting wires which fill the openings completely; or - Base Material of printed boards, on which the available apparatus power at a connection exceeds 15 VA operating at a voltage exceeding 400 V (peak) a.c. or d.c. under normal operating conditions, and base Material of printed boards supporting spark gaps which provides protection against overvoltages, is of flammability category V-0 according to AS/NZS 60695.11.10 or the printed boards are contained in a metal enclosure, having openings only for connecting wires which fill the openings completely. Compliance shall be determined using the smallest thickness of the Material. NOTE Available apparent power is the maximum apparent power which can be drawn from the supplying circuit through a resistive load whose value is chosen to maximise the apparent power for more than 2 min when the circuit supplied is disconnected.		N/A
6.2.2	For Australia only, delete the first paragraph and Note, and replace with the following: In Australia only, compliance with 6.2.2 shall be checked by the tests of both 6.2.2.1 and 6.2.2.2.	No TNV.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
6.2.2.1	For Australia only, delete the first paragraph including the Notes, and replace with the following: *In Australia only, the electrical separation is subjected to 10 impulses of alternating polarity, using the impulse test generator reference 1 of Table N.1. The interval between successive impulses is 60 s and the initial voltage, Uc, is:* *(i) for 6.2.1 a): 7.0 kV for hand-held telephones and for headsets and 2.5 kV for other equipment; and* *(ii) for 6.2.1 b) and 6.2.1 c): 1.5 kV.* NOTE 201 The 7 kV impulse simulates lightning surges on typical rural and semi-rural network lines. NOTE 202 The value of 2.5 kV for 6.2.1 a) was chosen to ensure the adequacy of the insulation concerned and does not necessarily simulate likely overvoltages.	No TNV.	N/A
6.2.2.2	For Australia only, delete the second paragraph including the Note, and replace with the following: *In Australia only, the a.c. test voltage is:* *(i) for 6.2.1 a): 3 kV; and* *(ii) for 6.2.1 b) and 6.2.1 c): 1.5 kV.* NOTE 201 Where there are capacitors across the insulation under test, it is recommended that d.c. test voltages are used. NOTE 202 The 3 kV and 1.5 kV values have been determined considering the low frequency induced voltages from the power supply distribution system.	No TNV.	N/A
7.3	Add the following before the first paragraph: Equipment providing functions that fall only within the scope of AS/NZS 60065 and that incorporate a PSTN interface, are not required to comply with this Clause where the only ports provided on the equipment, in addition to a coaxial cable connection and a PSTN interface, are audio or video ports and analogue or data ports not intended to be used for telecommunications purposes.	Not connected to cable distribution system.	N/A
Annex P	Normative references (List of relevant Australia/New Zealand Standards that have been inserted in place of some of the International Standards)	Added.	P

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

J 60950-1 (H22) : 2010 TEST REPORT (Deviations from IEC 60950-1:2001, first edition) Special National conditions, National deviation and other information according to MITI Ordinance No. 85. *Japanese unique deviations* in J60950-1(H22):2010(=JIS C 6950-1:2009)			
1.2.4.1	Add the following new notes. Note: Even if the equipment is designed as Class I, the equipment is regarded as Class 0I equipment when 2-pin adaptor with earthing lead wire or cord set having 2-pin plug with earthing lead wire is provided or recommended.	Added. Shall be evaluated during national approval.	N/A
1.2.4.3A	Add the following new clause. 1.2.4.3A CLASS 0I EQUIPMENT Equipment having attachment plug without earthing blade, where protection against electric shock is achieved by: - using BASIC INSULATION, and - providing externally an earth terminal or a lead wire for earthing in order to connect those conductive parts that might assume a HAZARDOUS VOLTAGES in the event of BASIC INSULATION fault to the PROTECTIVE EARTHING CONDUCTOR in the building wiring. NOTE – Class 0I equipment may have a part constructed with Double Insulation or Reinforced Insulation circuit.	Added.	N/A
1.3.2	Add the following notes after first paragraph: Note 1 Transportable or similar equipment that are relocated frequently for intended usage should not be designed as Class I or Class 0I equipment unless it is intended to be installed by service personnel. Note 2 Considering wiring circumstance in Japan, equipment intended to be installed where the provision for earthing connection is unlikely should not be designed as Class I or Class 0I equipment unless it is intended to be installed by service personnel.	Added.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
1.5.1	Replace the first paragraph with the follows: Where safety is involved, components shall comply either with the requirements of this standard, with the safety aspects of the relevant JIS component standard, or IEC component standards in case there is no applicable JIS component standard is available. However, a component that falls within the scope of METI Ministerial ordinance No. 85 is properly used in accordance with its marked ratings, requirements of 1.5.4, 2.8.7 and 3.2.5 apply, and in addition, a cord connector of power supply cord set mating with appliance inlet complying with the standard sheet of IEC 60320-1, shall comply with relevant standard sheet of IEC 60320-1. Replace Note 1 with the following: Note 1 A JIS or an IEC component standard is considered relevant only if the component in question clearly falls within its scope.	Added.	P
1.5.2	Replace first sentence in the first dashed paragraph with the following: - a component that has been demonstrated to comply with a JIS component standard harmonized with the relevant IEC component standard, or where such JIS component standard is not available, a component that has been demonstrated to comply with the relevant IEC component standard shall be checked for correct application and use in accordance with its rating. Add a note after the first dashed paragraph as follows: Note 1 See 1.7.5A when Type C.14 appliance coupler rated 10 A per IEC 60320-1 is used with an equipment rated not more than 125 V and rated more than 10 A. Replace first sentence in the third dashed paragraph as follows: - where no relevant IEC component standard or JIS component standard harmonized with the relevant IEC component standard exists, or where components are used in circuits not in accordance with their specified rating, the components shall be tested under the conditions occurring in the equipment.		P

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.1	Replace fifth dashed parapgaph with the following: - manufacturer's or responsible company's name or trade-mark or identification mark;	Added.	P
1.7.5A	Add the following new clause. after 1.7.5 1.7.5A Appliance Coupler If appliance coupler according to IEC60320-1, C.14(rated current: 10A)is used in equipment whose rated voltage is less than 125V and rated current is over 10A, the following instruction or equivalent shall be described in the user instruction. " Use only designated cord set attached in this equipment"	Added.	N/A
1.7.12	Replace first sentence with the following: Instructions and equipment marking related to safety shall be in Japanese.	Replaced. Safety instructions in Japanese language.	P
1.7.17A	Add the following new clause. after 1.7.17 1.7.17A Marking for CLASS 0I EQUIPMENT For CLASS 0I EQUIPMENT, the following instruction shall be marked on the visible place of the mains plug or the main body: "Provide an earthing connection" Moreover, for CLASS 0I EQUIPMENT, the following or equivalent instruction shall be indicated on the visible place of the main body or written in the operating instructions: "Provide an earthing connection before the mains plug is connected to the mains. And, when disconnecting the earthing connection, be sure to disconnect after pulling out the mains plug from the mains."		N/A
2.6.3.2	Add the following after 1st paragraph. This also applies to the conductor of lead wire for protective earthing of CLASS 0I EQUIPMENT.		N/A
2.6.4.2	Replace 1st paragraph with the following. Equipment required to have protective earthing shall have a main protective earthing terminal. For equipment with a DETACHABLE POWER SUPPLY CORD, the earthing terminal in the appliance inlet is regarded as the main protective earthing terminal except for CLASS 0I EQUIPMENT providing separate main protective earthing terminal other than appliance inlet.	No such separate terminal.	P

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Clause	Requirement + Test	Result - Remark	Verdict
2.6.5.4	Replace 1st sentence with the following. Protective earthing connections of CLASS I EQUIPMENT shall make earlier and break later than the supply connections in each of the following:	Added.	N/A
2.6.5.8A	Add the following new clause. after 2.6.5.8A 2.6.5.8A Earthing of CLASS 0I EQUIPMENT Plugs with a lead wire for earthing shall not be used for equipment having a rated voltage exceeding 150V. For plugs with a lead wire for earthing, the lead wire shall not be earthed by a clip. CLASS 0I EQUIPMENT shall be provided with an earthing terminal or lead wire for earthing in the external location where easily visible.	Added. No power cord provided	N/A
3.2.3	Add the following after Table 3A: Table 3A applies when cables complying JIS C 3662 or JIS C 3663 are used. In case of other cables, cable entries shall be so designed that a conduit suitable for the cable used can be fitted.	Added.	N/A
3.2.5.1	Add the following to the last of first dashed paragraph. Or mains cords shall be of the sheathed type complying with Appendix 1 of Article 1 of the Ministerial Ordinance on stipulating technical requirements for the Electrical Appliance. Add the following to the last of second dashed paragraph. Or mains cords shall be of the sheathed type complying with Appendix 1 of Article 1 of the Ministerial Ordinance on stipulating technical requirements for the Electrical Appliance.. Delete 1) in Table 3B.	Added.	N/A
3.3.4	Add the following note to Table 3D: Note For cables other than those complying with JIS C 3662 or JIS C 3663, terminals shall be suitable for the size of the intended cables.	Added.	N/A
3.3.7	Add the following after the first sentence: This requirement is not applicable to the external earting terminal of Class 0I equipment.	Added.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
4.3.4	Add the following after the first sentence: This requirement also applies to those connections in Class 0I equipment, where CLEARANCE or CREEPAGE DISTANCES over BASIC INSULATION would be reduced to less than the values specified in 2.10.	Added.	P
5.1.3	Add a note after the first paragraph as follows: Note – Attention should be drawn to that majority of three-phase power system in Japan is of delta connection, and therefore, in that case, test is conducted using the test circuit from IEC 60990, figure 13.	Added. Single phase power distribution system used.	N/A
5.1.6	Replace Table 5A. as follows		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

Type of equipment	Terminal A of measuring instrument connected to:	Maximum TOUCH CURRENT mA r.m.s. 1)	Maximum PROTECTIVE CONDUCTOR CURRENT
ALL equipment	ALL equipment Accessible parts and circuits not connected to protective earth	0,25	-
HAND-HELD	Equipment main protective earthing terminal (if any) CLASS I EQUIPMENT	0,75	-
MOVABLE (other than HAND_HELD, but including TRANSPORTABLE EQUIPMENT		3,5	-
STATIONARY, PLUGGABLE TYPE A		3,5	-
ALL other STATIONARY EQUIPMENT - not subject to the conditions of 5.1.7 - subject to the conditions of 5.1.7		3.5 -	- 5 % of input current
HAND-HELD	Equipment main protective earthing terminal (if any) CLASS 0I EQUIPMENT	0,5	-
Others		1.0	-
1) If peak values of TOUCH-CURRENT are measured, the maximum values obtained by multiplying the r.m.s. values by 1,414.			

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
7.2	Add the following after the paragraph: However, the separation requirements and tests of 6.2.1 a), b) and c) do not apply to a CABLE DISTRIBUTION SYSTEM if all of the following apply: − the circuit under consideration is a TNV-1 CIRCUIT; and – the common or earthed side of the circuit is connected to the screen of the coaxial cable and to all accessible parts and circuits (SELV, accessible metal parts and LIMITED CURRENT CIRCUITS, if any); and – the screen of the coaxial cable is intended to be connected to earth in the building installation	Added.	N/A
W.1	Replace second and third sentence in the first paragraph with the following: This distinction between earthed and unearthed (floating) circuit is not the same as between CLASS I EQUIMENT, CLASS 0I EQUIPMENT and CLASS II EQUIPMENT. Floating circuits can exist in CLASS I EQUIPMENT or CLASS 0I EQUIPMENT and earthed circuits in CLASS II EQUIPMENT.	Added.	N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
Annex JA	Add a new annex JA with the following contents. Annex JA (normative) Document shredding machines Document shredding machines shall also comply with the requirements of this annex except those of STATIONARY EQUIPMENT used by connecting directly to an AC MAINS SUPPLY of three-phase 200V or more.	Added. Not Document shredding machines.	N/A
JA.1	**Markings and instructions** The symbol  (JIS S 0101:2000, 6.2.4) and the following precautions for use shall be marked on readily visible part adjacent to document feed opening. The marking shall be clearly legible, permanent, and easily discernible; - that use by an infants/children may cause a hazard of injury etc.; - that a hand can be drawn into the mechanical section for shredding when touching the document-slot; - that clothing can be drawn into the mechanical section for shredding when touching the document-slot; - that hairs can be drawn into the mechanical section for shredding when touching the document-slot; - in case of equipment incorporating a commutator motor, that equipment may catch fire or explode by spraying of flammable gas.	Added. Not Document shredding machines.	N/A
JA.2	**Inadvertent reactivation** Any safety interlock that can be operated by means of the test finger, Figure JA.1, is considered to be likely to cause inadvertent reactivation of the hazard. Compliance is checked by inspection and, where necessary, by a test with the test finger, Figure JA.1	Added. Not Document shredding machines.	N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
JA.3	**Disconnection from the mains supply** Document shredding machines shall incorporate an isolating switch complying with sub-clause 3.4.2 as the device disconnecting the power of hazardous moving parts. For this switch, two-position (single-use) switch or multi-position (multifunction) switch (e.g., slide switch) may be used. If two-position switch, the positions for "ON" and "OFF" shall be indicated in accordance with sub-clause 1.7.8. If multi-position switch, the position for "OFF" shall be indicated in accordance with sub-clause 1.7.8 and other positions shall be indicated with proper terms or symbols. Compliance is checked by inspection.	Added. Not Document shredding machines.	N/A
JA.4	**Protection against hazardous moving parts** Any warning shall not be used instead of the structure for preventing access to hazardous moving parts. Document shredding machines shall comply with the following requirements. Insert the test finger, Figure JA.1, into all openings in MECHANICAL ENCLOSURES without applying appreciable force. It shall not be possible to touch hazardous moving parts with the test finger. This consideration applies to all sides of MECHANICAL ENCLOSURES when the equipment is mounted as intended . Before testing with the test finger, remove the parts detachable without a tool. Insert the wedge-probe, Figure JA.2, into the document-slot. And, against all directions of openings, if straight-cutting type, a force of 45 N shall apply to the probe, and 90 N if cross-cutting type. In this case, the weight of the probe is to be factored into the overall applied force. Before testing with the wedge-probe, remove the parts detachable without a tool. It shall not be possible to touch any hazardous moving parts, including the shredding roller or the mechanical section for shedding, with the probe.	Added. Not Document shredding machines.	N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

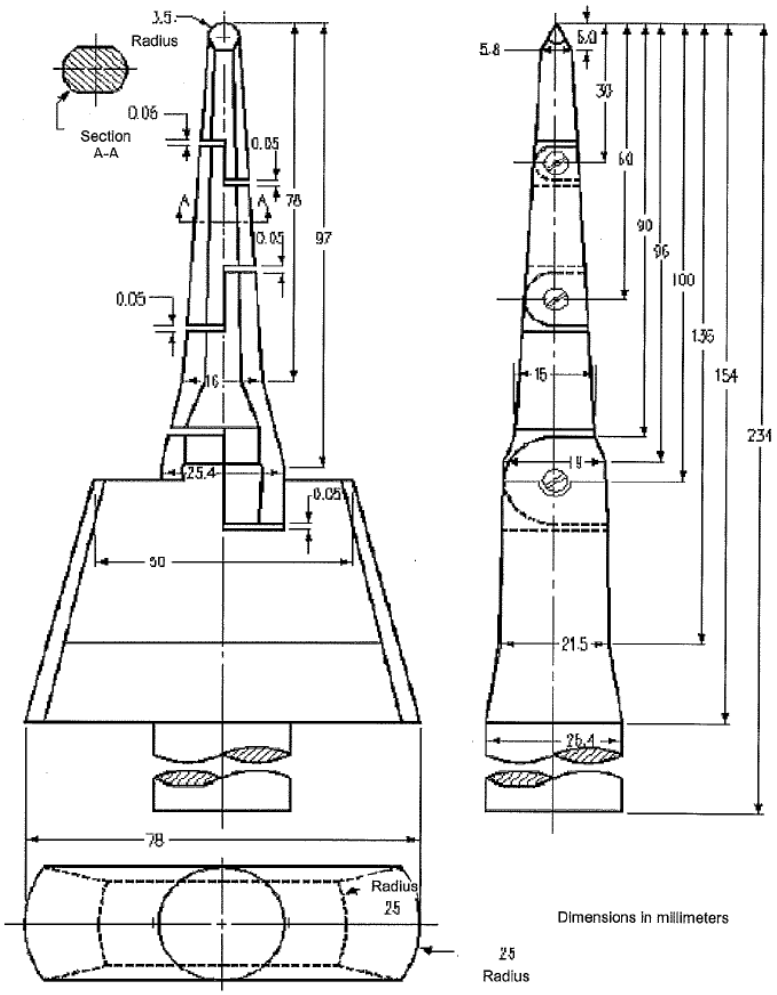

Figure JA.1 Test finger

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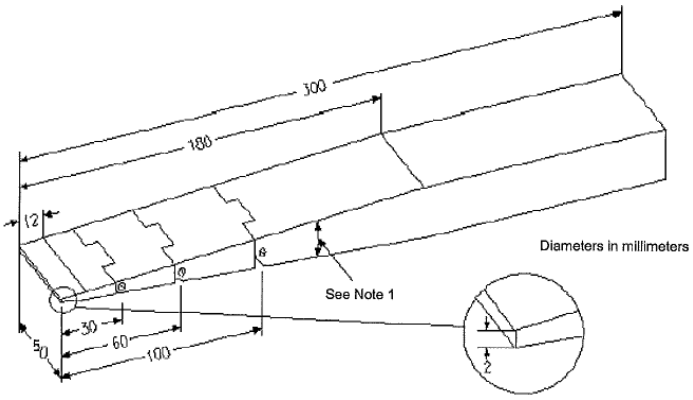
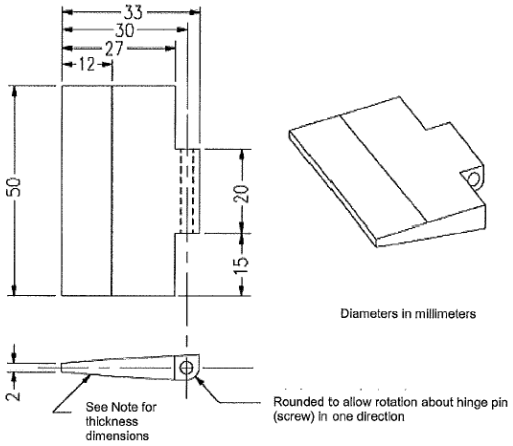
Clause	Requirement + Test	Result - Remark	Verdict





(Details of the top of wedge)

Distance from the top	Thickness of probe
0	2
12	4
180	24

Note 1 - The thickness of the probe varies linearly, with slope changes at the respective points shown in the table.

Note 2 –The allowable dimensional tolerance of the probe is +/- 0.127 mm.

Figure JA.2 Wedge-probe

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

Appendix	Appendix 12 J3000 (H25) Special National conditions, National deviation and other information according to MITI Ordinance No. 85.		—
1	General requirement When equipment provides with appliance inlet complying with JIS C 8283-1(2008), soldered parts of appliance inlet is not applied by force during insert or removal of connector. This is not applied when inlet body is fixed itself and not fixed by solder.	Inlet is fixed by adequate mechanical construction, not rely on soldering.	N/A
2	Requirement for equipment		—
2.1	Heater Appliances When diode is used in parallel at the power sources for adjustment of power consumption, the equipment shall remain safe for operation under open condition of one diode.	Not electric stove.	N/A
	The current rating of one diode shall be more than main current. The diodes connected in parallel are same type.		N/A
	The heating test specified by clause 11 of JIS C 9335-1(2003) and a specified in applicable indivisual requirements under open condition of one diode of parallel shall comply with the requirements.		N/A
2.2	Electric heater with glowing heating elements	Not electric stove.	N/A
	Surface treatment by paint or adhesive on protective frame or protective mesh shall not be used.		N/A
	Caution marking like below shall be on - easily visible place of the equipment or - Instruction manual 「注意 当該機器から、使用初期段階で揮発性有機化合物及びカルボニル化合物が最も放散するおそれがあるため、その際には十分換気を行うこと。」		N/A
3	Components used in equipment	No relevant equipment or component.	N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
3.1	Motor capacitors used in ventilating fan, electric fan, air conditioner, electric washing machine, refrigerator or electric freezer shall be comply with - capacitors with protective elements or protective mechanism complying with JIS C 4908(2007) - P2 capacitor complying with IEC 60252-1(2001) Capacitor complying with below is acceptable		N/A
	Enclosed by metal or ceramic		N/A
	No non-metallic materials within 50 mm from capacitor surface		N/A
	Non-metallic material within 50mm from capacitor surface comply with needle frame test of JIS C 9335-1(2003), Annex E		N/A
	Non-metallic material within 50 mm from capacitor surface comply with V-1 test of JIS C 60965-11-10(2006).		N/A
3.2	Plug directly inserted to outlet used refrigerator or electric freezer. Shall comply with - Face contact with outlet shall have CTI with more than 400 according to JIS C 2134(2007) or - Supporting material of blades shall comply with glow wire test by temperature of 750ºC according to JIS C 60695-2-11(2004) or JIS C 60695-2-12(2004). Materials having glow wire frame temperature of 775 ºC are acceptable.		N/A

IEC60950_1E - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 60950-1
CHINA NATIONAL DIFFERENCES
Information technology equipment Safety – Part 1: General requirements

Differences according to..... :	GB 4943.1--2011
Attachment Form No..... :	CN_ND_IEC60950_1F
Attachment Originator ..... :	CQC
Master Attachment..... :	Date 2012-10

	China National Differences		
1.5. 2	Add a note behind the first dashed paragraph. Note: A component used shall comply with related requirements corresponding altitude of 5000m.	Added. Shall be provided accordingly during national approval.	N/A
1.7	Add a paragraph before the last paragraph: The required marking and instruction should be given in normative Chinese unless otherwise specified.	Added. Shall be provided accordingly during national approval.	N/A
1.7.1	Amend dashed paragraph at the fifth paragraph : The RATED VOLTAGE should be 220V (single phase) or 380V (three-phases) for single rated voltage, for RATED VOLTAGE RANGE, it should cover 220V or 380V (three-phases), for multiple RATED VOLTAGES, one of them should be 220V or 380V (three-phases) and set on 220V or 380V (three-phases) when manufactured. And the RATED FREQUENCY or RATED FREQUENCY RANGE should be 50Hz or include 50Hz.	Considered. See section “copy of marking plate” in IEC 60950-1 test report.	P

IEC60950_1E - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.2.1	Add requirements of warning for equipment intended to be used at altitude not exceeding 2000m or at non-tropical climate regions: For equipment intended to be used at altitude not exceeding 2000m, a warning label containing the following or a similar appropriate wording, or a symbol as in annex DD shall fixed to the equipment at readily visible place. "Only used at altitude not exceeding 2000m."  For equipment intended to be used in not-tropical climate regions, a warning label containing the following or a similar appropriate wording, or a symbol as in annex DD shall fixed to the equipment at readily visible place. "Only used in not-tropical climate regions."  If only the symbol used, the explanation of the symbol shall be contained in the instruction manual. The above statements shall be given in a language acceptable to the regions where the apparatus is intended to be used.	Added.	N/A
2.7.1	Amended the first paragraph as: Protection in PRIMARY CIRCUITS against overcurrent short-circuits and earth faults shall be provided as an integral part of the equipment except special provisions. And the protective device shall meet the requirement of Clause 5.3. Delete note of Clause 2.7.1.	Amended and deleted. Compliance checked.	P

IEC60950_1E - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
2.9.2	First section of Clause 2.9.2 amended as two sections: Where required by 2.9.1, 2.10.8.3, 2.10.10 or 2.10.11, humidity conditioning is conducted for 120 h in a cabinet or room containing air with ambient temperature 40±2℃ and a relative humidity of (93±3)%. During this conditioning the component or subassembly is not energized. For equipment not to be operated at tropical climatic conditions, Where required by 2.9.1, 2.10.8.3, 2.10.10 or 2.10.11, humidity conditioning is conducted for 48 h in a cabinet or room containing air with a relative humidity of (93±3) %. The temperature of the air, at all places where samples can be located, is maintained within 2 °C of any convenient value between 20 °C and 30 °C such that condensation does not occur. Due to pretreatment of equipment operated at high altitude area is humidity conditioning withstand hot shock, specific requirements are to be considered. Add note: For equipment to be operated at 2000 m - 5000m above sea level, assessment and requirement of humidity conditioning for Insulation material properties are considered.		P
2.10.3.1	Amend the third paragraph of Clause 2.10.3.1 to be: These requirements apply for equipment to be operated up to 2000 m above sea level. For equipment to be operated at more than 2000 m above sea level and up to 5000m above sea level, the minimum CLEARANCE shall be multiplied by the factor 1.48 corresponding altitude of 5000m given in Table A.2 of IEC 60664-1. For equipment to be operated at more than 5000 m above sea level, the minimum CLEARANCE shall be multiplied by the factor given in Table A.2 of IEC 60664-1. Linear interpolation is permitted between the nearest two points in Table A.2. The calculated minimum CLEARANCE using this multiplication factor shall be rounded up to the next higher 0,1 mm increment.		P

IEC60950_1E - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
2.10.3.3& 2.10.3.4	Add "(applicable for altitude up to 2000m)" in header of Table 2K、2L and 2M.		P
2.10.3.4	Add a new section above Table 2K and in Clause 2.10.3.4: Minimum CLEARANCES determined by above rules apply for equipment to be operated up to 2000m above sea level. For equipment operated at 2000 m - 5000m above sea level, the minimum CLEARANCE shall be multiplied by the factor 1.48 corresponding altitude of 5000m given in Table A.2 of GB/T16935.1（ IEC 60664-1）. For equipment to be operated at more than 5000 m above sea level, the minimum CLEARANCE shall be multiplied by the factor given in Table A.2 of GB/T16935.1.		P
3.2.1.1	Add a paragraph before the last paragraph: Plugs connected to AC mains supply shall comply with GB 1002 or GB 1003 or GB/T 11918 as applicable.	Added. No power supply cord provided.	N/A
4.2.8	Clause 4.2.8 cathode ray tubes quoted Clause 18 of GB8898-2011. Delete note of Clause 4.2.8.	No CRT.	N/A
Annex E	Amend last section: For comparison of winding temperatures determined by the resistance method of this annex with the temperature limits of Table 4B, 35 °C shall be added to the calculated temperature rise. Add note: for equipment not to be operated at tropical climatic conditions, 25 °C shall be added to the calculated temperature rise to compare with the temperature of Table 4B.	Amended.	N/A

IEC60950_1E - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
Annex G.6	Change the second section of Clause G.6 to be: For equipment to be operated at 2000 m - 5000m above sea level, the minimum CLEARANCE shall be multiplied by the factor 1.48 corresponding altitude of 5000m given in Table A.2 of GB/T16935.1. For equipment to be operated at more than 5000 m above sea level, the minimum CLEARANCE shall be multiplied by the factor given in Table A.2 of IEC 60664-1. Linear interpolation is permitted between the nearest two points in Table A.2. The calculated minimum CLEARANCE using this multiplication factor shall be rounded up to the next higher 0,1 mm increment.	Changed. The alternative method was not considered.	N/A
Annex DD (normative)	Added annex DD: Instructions for the new safety warning labels. DD.1 Altitude warning label  Meaning of the label: Evaluation for apparatus only based on altitude not exceeding 2000m, therefor it's the only operating condition applied for the equipment .There may be some potential safety hazard if the equipment is used at altitude above 2000m. DD.2 Climate warning label  Meaning of the label: Evaluation for apparatus only based on temperate climate condition, therefor it's the only operating condition applied for the equipment .There may be some potential safety hazard if the equipment is used in tropical climate region.	Added. Shall be provided accordingly during national approval.	N/A
Annex EE (informative)	Added annex EE: Illustration relative to safety explanation in normative Chinese、Tibetan、Mongolian、Zhuang Language and Uighur.	Added. Shall be provided accordingly during national approval.	N/A

IEC60950_1E - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

	Special national conditions		
1.1.2	GB4943.1-2011 applies to equipment used at altitudes not exceeding 5000m above sea level, primarily in regions with moderate or tropical climates. Revise the third dashed paragraph of 1.1.2 as: ——equipment intended to be used in vehicles, on board ships or aircraft, at altitudes greater than 5000m;	Amended. Considered.	P
1.4.5	Amend the second paragraph by the following: If the equipment is intended for direct connection to an AC mains supply, the tolerances on RATED VOLTAGE shall be taken as +10% and -10%.	Added. Considered.	P
1.4.12.1	Tma: The maximum ambient temperature permitted by the manufacturer's specification, or 35 °C, whichever is greater. Add note 1: For equipment not to be operated at tropical climatic conditions, Tma is the maximum ambient temperature permitted by the manufacturer's specification, or 25 °C, whichever is greater. Add note 2: For equipment to be operated at 2000m-5000m above sea leave, its temperature test conditions and temperature limits are under consideration.	Amended. Considered.	P

IEC60950_1E - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 60950-1
CANADA NATIONAL DIFFERENCES
Information technology equipment – Safety –
Part 1: General requirements

Differences according to..... :	CAN/CSA-C22.2 NO. 60950-1A-07
Attachment Form No..... :	CA_ND_IEC60950_1C
Attachment Originator..... :	TÜV SÜD Product Service GmbH
Master Attachment..... :	Date (2012-08)

	Special national conditions		
1.1.1	All equipment is to be designed to allow installation in accordance with the National Electrical Code (NEC), ANSI/NFPA 70, the Canadian Electrical Code (CEC), Part I, CAN/CSA C22.1, and when applicable, the National Electrical Safety Code, IEEE C2.		N/A
	Also, unless marked or otherwise identified, installation is allowed per the Standard for the Protection of Electronic Computer/Data-Processing Equipment, ANSI/NFPA 75.		N/A
1.4.14	For Pluggable Equipment Type A, the protection in the installation is assumed to be 20A.	Considered.	P
1.5.5	For lengths exceeding 3.05 m, external interconnecting flexible cord and cable assemblies are required to be a suitable cable type (e.g., DP, CL2) specified in the CEC/NEC.	No external cables, except power cord provided. See clause 3.2.	N/A
	For lengths 3.05 m or less, external interconnecting flexible cord and cable assemblies that are not types specified in the CEC are required to have special construction features and identification markings.		N/A
1.7.1	Equipment for use on a.c. mains supply systems with a neutral and more than one phase conductor (e.g. 120/240 V, 3-wire) require a special marking format for electrical ratings.	Single-phase equipment.	N/A
	A voltage rating that exceeds an attachment plug cap rating is only permitted if it does not exceed the extreme operating conditions in Table 2 of CAN/CSA C22.2 No. 235, and		N/A

IEC60950_1E - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	- if it is part of a range that extends into the Table 2 "Normal Operating Conditions."		N/A
	A voltage rating is not be lower than the specified "Normal Operating Conditions," unless it is part of a range that extends into the "Normal Operating Conditions."		N/A
1.7.7	Wiring terminals intended to supply Class 2 outputs in accordance with CEC Part 1 or NEC are marked with the voltage rating and “Class 2” or equivalent.	Not applied for.	N/A
	- Marking is located adjacent to the terminals		N/A
	- Marking is visible during wiring		N/A
2.5	Fuse providing Class 2, Limited Power Source, or TNV current limiting is not operator-accessible unless it is not interchangeable.		P
2.6.3.3	Modify first column on Table 2D to “Smaller of the RATED CURRENT of the equipment or the PROTECTIVE CURRENT RATING of the circuit under consideration.”		P
2.7.1	Suitable NEC/CEC branch circuit protection rated at the maximum circuit rating is provided for all standard supply outlets and receptacles (such as supplied in power distribution units) if the supply branch circuit protection is not suitable.		N/A
	Power distribution transformers distributing power at 100 volts or more, and rated 10 kVA or more, provided with special transformer overcurrent protection.		N/A
3.2	Wiring methods (terminals, leads, etc.) used for the connection of the equipment to the mains is in accordance with the NEC/CEC.		P
3.2.1	Attachment plugs of power supply cords are rated not less than 125 percent of the rated current of the equipment.	No power cord provided	N/A
3.2.1.2	Equipment connected to a centralized d.c. power system, and having one pole of the DC mains input terminal connected to the main protective earthing terminal in the equipment comply with special earthing, wiring, marking and installation instruction requirements.	Not applied for.	N/A
3.2.3	Permanent connection of equipment to the mains supply by a power supply cord is not permitted, except for certain equipment, such as ATMs.		N/A

IEC60950_1E - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
3.2.5	Power supply cords are no longer than 4.5 m in length.	No power cord provided	N/A
	Minimum cord length is 1.5 m, with certain constructions such as external power supplies allowed to consider both input and output cord lengths into the requirement.		N/A
	Flexible power supply cords are compatible with Article 400 of the NEC, and Tables 11 and 12 of the CEC.		P
3.2.9	Permanently connected equipment have a suitable wiring compartment and wire bending space.		N/A
3.3	Wiring terminals and associated spacings for field wiring connections comply with CSA C22.2 No. 0.		N/A
3.3.3	Wire binding screws are not permitted to attach conductors larger than 10 AWG (5.3 mm2).		N/A
3.3.4	Terminals for permanent wiring, including protective earthing terminals, are suitable for Canadian/US wire gauge sizes, are	No wire binding screws.	N/A
	- rated 125 percent of the equipment rating, and		N/A
	- are specially marked when specified (1.7.7).		N/A
3.3.5	Revise first column of Table 3E to “Smaller of the RATED CURRENT of the equipment or the PROTECTIVE CURRENT RATING of the circuit under consideration.”		N/A
3.4.2	Motor control devices are provided for cord-connected equipment with a motor if the equipment is rated more than 12 A,	No motor control devices.	N/A
	- or if the motor has a nominal voltage rating greater than 120 V		N/A
	- or is rated more than 1/3 hp (locked rotor current over 43 A)		N/A
3.4.8	Vertically-mounted disconnect switches and circuit breakers have the "on" position indicated by the handle in the up position.		N/A
3.4.11	For computer room applications, equipment with battery systems capable of supplying 750 VA for five minutes have a battery disconnect means that may be connected to the computer room remote power-off circuit.	No battery systems.	N/A
4.3.12	The maximum quantity of flammable liquid stored in equipment complies with NFPA 30.		N/A

IEC60950_1E - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
4.3.13.5	Equipment with lasers meet the Canadian Radiation Emitting Devices Act, REDR C1370 and/or Code of Federal Regulations 21 CFR 1040, as applicable.	No Laser.	N/A
4.7	For computer room applications, automated information storage systems with combustible media greater than 0.76 m^3 (27 cu ft) have a provision for connection of either automatic sprinklers or a gaseous agent extinguishing system with an extended discharge.		N/A
4.7.3.1	For computer room applications, enclosures with combustible material measuring greater than 0.9 m^2 (10 sq ft) or a single dimension greater than 1.8 m (6 ft) have a flame spread rating of 50 or less.	No such enclosures.	N/A
	For other applications, enclosures with the same dimensions require a flame spread rating of 200 or less.		N/A
Annex H	Equipment that produces ionizing radiation comply with the Canadian Radiation Emitting Devices Act, REDR C1370 and/or Code of Federal Regulations, 21 CFR 1020, as applicable.	No ionizing radiation.	N/A
	Other National Differences		
1.5.1	Some components and materials associated with the risk of fire, electric shock, or personal injury have component or material ratings in accordance with the applicable national (Canadian and/or U.S.) component or material standard requirements.	Components are approved by UL, see appended table 1.5.1 of IEC 60950-1 test report for details.	P
1.6.1.2	A circuit for connection to the DC Mains Supply is classified as either a SELV Circuit, TNV-2 Circuit or Hazardous Voltage Circuit depending on the maximum operating voltage of the supply.	No connection to DC mains supply.	N/A
	This maximum operating voltage includes consideration of the battery charging “float voltage” associated with the intended supply system, regardless of the marked power rating of the equipment.		N/A
2.3.1	For TNV-2 and TNV-3 circuits with other than ringing signals and with voltages exceeding 42.4 Vpeak or 60 Vd.c., the maximum acceptable current through a 2000 ohm resistor (or greater) connected across the voltage source with other loads disconnected is 7.1 mA peak or 30 mA d.c. under normal operating conditions.	No TNV circuits within the equipment.	N/A

IEC60950_1E - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
2.3.2.1	In the event of a single fault between TNV and SELV circuits, the limits of 2.2.3 apply to SELV Circuits and accessible conductive parts.	No TNV circuits within the equipment.	N/A
2.6.3.4	Protective bonding conductors of non-standard protective bonding constructions (e.g., printed circuit traces) may be subjected to the additional limited short circuit test conditions specified.		N/A
4.2.8.1	Enclosures around CRTs with a face diameter of 160 mm or more reduce the risk of injury due to the implosion of the CRT.		N/A
4.3.2	Equipment with handles complies with special loading tests.		N/A
5.1.8.3	Equipment intended to receive telecommunication ringing signals comply with a special touch current measurement tests.		N/A
5.3.7	Internal (e.g., card cage) SELV circuit connectors and printed wiring board connectors that are accessible to the operator and that deliver power are overloaded.		P
	During abnormal operating testing, if a circuit is interrupted by the opening of a component, the test shall be repeated twice (three tests total) using new components as necessary		P
6.4	Equipment intended for connection to telecommunication network outside plant cable is protected against overvoltage from power line crosses in accordance with 6.4 and Annex NAC.		N/A
Annex EE	Articulated accessibility probe (Fig EE.3) is used for assessing accessibility to document/media shredders instead of the Figure 2A test finger.	No TNV circuits.	N/A
M.2	Continuous ringing signals up to 16 mA only are permitted if the equipment is subjected to special installation and performance restrictions.	No TNV circuits.	N/A
Annex NAD	Equipment connected to a telecommunication and cable distribution networks and supplied with an earphone intended to be held against, or in the ear comply with special acoustic pressure requirements.	No TNV circuits.	N/A

IEC60950_1E - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 60950-1 with A1: 2009 and A2:2013 U.S.A. NATIONAL DIFFERENCES Information technology equipment – Safety – Part 1: General requirements	
Differences according to ..... :	UL 60950-1-07(Second Edition) + A1: 2011 + A2: 2014
Attachment Form No. ..... :	US_ND_IEC60950_1F
Attachment Originator..... :	UL
Master Attachment ..... :	Date 2014-07

	Special national conditions		
1.1.1	All equipment is designed as to allow installation in accordance with the National Electrical Code (NEC), ANSI/NFPA 70, Canadian Electrical Code (CEC), Part I, CAN/CSA C22.1, and if applicable, the National Electrical Safety Code, IEEE C2	The equipment was evaluated according to IEC 60950-1.	N/A
	Also, unless marked or otherwise identified, installation is allowed per the Standard for the Protection of Electronic Computer/Data-Processing Equipment, ANSI/NFPA 75		N/A
1.1.2	Baby monitors are required to additionally comply with ASTM F2951, Consumer Safety Specification for Baby Monitors		N/A
1.4.14	For Pluggable Equipment Type A, the protection in the installation is assumed to be 20A	Considered.	P
1.5.5	For lengths exceeding 3.05 m, external interconnecting flexible cord and cable assemblies are required to be a suitable cable type (e.g., DP, CL2) specified in the /NEC	No external cables	N/A
	For lengths 3.05 m or less, external interconnecting flexible cord and cable assemblies that are not types specified in the NEC are required to have special construction features and identification markings		N/A
1.7.1	Equipment for use on a.c. mains supply systems with a neutral and more than one phase conductor (e.g. 120/240 V, 3-wire) require a special marking format for electrical ratings	Single-phase equipment.	N/A

IEC60950_1E - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	A voltage rating that exceeds an attachment plug cap rating is only permitted if it does not exceed the extreme operating conditions in Table 2 of CAN/CSA C22.2 No. 235, and		N/A
	- if it is part of a range that extends into the Table 2 "Normal Operating Conditions"		N/A
	Likewise, a voltage rating is not to be lower than the specified "Normal Operating Conditions," unless it is part of a range that extends into the "Normal Operating Conditions"		N/A
1.7.7	Wiring terminals intended to supply Class 2 outputs in accordance with NEC or CEC Part 1 or NEC are marked with the voltage rating and “Class 2” or equivalent		N/A
	- Marking is located adjacent to the terminals		N/A
	- Marking is visible during wiring		N/A
2.5	Fuse providing Class 2, Limited Power Source, or TNV current limiting is not operator-accessible unless it is not interchangeable		P
2.6	Equipment with isolated ground (earthing) receptacles is in compliance with NEC 250.146(D) and CEC 10-112 and 10-906(8)	No such receptacles	N/A
2.7.1	Suitable NEC/CEC branch circuit protection rated at the maximum circuit rating is provided for all standard supply outlets and receptacles (such as supplied in power distribution units) if the supply branch circuit protection is not suitable.	No such components provided.	N/A
	Power distribution transformers distributing power at 100 volts or more, and rated 10 kVA or more, provided with special transformer overcurrent protection		N/A
3.2	Wiring methods (terminals, leads, etc.) used for the connection of the equipment to the mains is in accordance with the NEC/CEC		P
3.2.1	Attachment plugs of power supply cords are rated not less than 125 percent of the rated current of the equipment	No power cord provided	N/A
3.2.1.2	Equipment connected to a centralized d.c. power system, and having one pole of the DC mains input terminal connected to the main protective earthing terminal in the equipment comply with special earthing, wiring, marking and installation instruction requirements	No connection to a centralized d.c. power system.	N/A

IEC60950_1E - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
3.2.3	Permanent connection of equipment to the mains supply by a power supply cord is not permitted, except for certain equipment, such as ATMs	Pluggable equipment type A.	N/A
3.2.5	Power supply cords are no longer than 4.5 m in length		N/A
	Minimum cord length is 1.5 m, with certain constructions such as external power supplies allowed to consider both input and output cord lengths into the requirement		N/A
	Flexible power supply cords are compatible with Article 400 of the NEC, and Tables 11 and 12 of the CEC		N/A
3.2.9	Permanently connected equipment has a suitable wiring compartment and wire bending space	Pluggable equipment type A.	N/A
3.3	Wiring terminals and associated spacings for field wiring connections comply with CSA C22.2 No. 0		N/A
3.3.3	Wire binding screws are not attached with conductors larger than 10 AWG (5.3 mm2)	No wire binding screws.	N/A
3.3.4	Terminals for permanent wiring, including protective earthing terminals, are suitable for Canadian/US wire gauge sizes, are	Pluggable equipment type A.	N/A
	- rated 125 per cent of the equipment rating, and		N/A
	- are specially marked when specified (1.7.7)		N/A
3.3.5	Revise first column of Table 3E to “Smaller of the RATED CURRENT of the equipment or the PROTECTIVE CURRENT RATING of the circuit under consideration”		N/A
3.4.2	Motor control devices are provided for cord-connected equipment with a motor if the equipment is rated more than 12 A,	Equipment is not such a device.	N/A
	- or if the motor has a nominal voltage rating greater than 120 V		N/A
	- or is rated more than 1/3 hp (locked rotor current over 43 A)		N/A
3.4.8	Vertically-mounted disconnect switches and circuit breakers have the "on" position indicated by the handle in the up position	No such device incorporated.	N/A
3.4.11	For computer room applications, equipment with battery systems capable of supplying 750 VA for five minutes have a battery disconnect means that may be connected to the computer room remote power-off circuit	Not such an application.	N/A

IEC60950_1E - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
4.3.12	The maximum quantity of flammable liquid stored in equipment complies with NFPA 30	No liquid.	N/A
4.3.13.5.1	Equipment with lasers meets the U.S. Code of Federal Regulations 21 CFR 1040 (and the Canadian Radiation Emitting Devices Act, REDR C1370).	No lasers.	N/A
4.7	For computer room applications, automated information storage systems with combustible media greater than 0.76 m^3 (27 cu ft) have a provision for connection of either automatic sprinklers or a gaseous agent extinguishing system with an extended discharge	Not such an application.	N/A
4.7.3.1	For computer room applications, enclosures with combustible material measuring greater than 0.9m^2 (10 sq ft) or a single dimension greater than 1.8 m (6 ft) have a flame spread rating of 50 or less	Not such an application.	N/A
	For other applications, enclosures with the same dimensions require a flame spread rating of 200 or less		N/A
4.7.3.1	Non-metallic enclosures of equipment for use in spaces used for environmental air (plenums) are required to comply with UL 2043		N/A
Annex H	Equipment that produces ionizing radiation complies with U.S. Code of Federal Regulations, 21 CFR 1020 (and the Canadian Radiation Emitting Devices Act, REDR C1370)	No ionizing radiation.	N/A
	Other National Differences		

IEC60950_1E - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
1.5.1	Some components and materials associated with the risk of fire, electric shock, or personal injury have component or material ratings in accordance with the applicable national (Canadian and/or U.S.) component or material standard requirements. These components include: attachment plugs, battery backup systems, battery packs, cathode ray tubes, circuit breakers, communication circuit accessories, connectors (used for current interruption of non-LPS circuits), cord sets and power supply cords, direct plug-in equipment, electrochemical capacitor modules (energy storage modules with ultracapacitors), enclosures (outdoor), flexible cords and cables, fuses (branch circuit), fuseholders, ground-fault current interrupters, industrial control equipment, insulating tape, interconnecting cables, lampholders, limit controls, printed wiring, protectors for communications circuits, receptacles, solid state controls, supplementary protectors, switches (including interlock switches), thermal cut-offs, thermostats, (multi-layer) transformer winding wire, surge protective devices, tubing, vehicle battery adapters, wire connectors, and wire and cables	Complied. See table 1.5.1	P
1.6.1.2	A circuit for connection to the DC Mains Supply is classified as a SELV Circuit, TNV-2 Circuit or Hazardous Voltage Circuit depending on the maximum operating voltage of the supply	No connection to the DC Mains Supply.	N/A
	This maximum operating voltage includes consideration of the battery charging “float voltage” associated with the intended supply system, regardless of the marked power rating of the equipment		N/A
2.3.1	For TNV-2 and TNV-3 circuits with other than ringing signals and with voltages exceeding 42.4 V_{peak} or 60 Vd.c., the maximum acceptable current through a 2000 ohm resistor (or greater) connected across the voltage source with other loads disconnected is 7.1 mA peak or 30 mA d.c. under normal operating conditions	No TNV circuits.	N/A
2.3.2.1	In the event of a single fault between TNV and SELV circuits, the limits of 2.2.3 apply to SELV Circuits and accessible conductive parts	No TNV circuits.	N/A
2.6.2	Equipment with functional earthing marked with the functional earthing symbol (IEC 60417-6092)	Not applied	N/A

IEC60950_1E - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
2.6.3.4	Protective bonding conductors of non-standard protective bonding constructions (e.g., printed circuit traces) may be subjected to the additional limited short circuit test conditions specified	See 2.6.3.4	N/A
4.2.8.1	Enclosures around CRTs with a face diameter of 160 mm or more reduce the risk of injury due to the implosion of the CRT	No CRTs.	N/A
4.3.2	Equipment with handles complies with special loading tests	No handles.	N/A
4.3.8	Battery packs for both portable and stationary applications comply with special component requirements	No such battery used	N/A
5.1.8.3	Equipment intended to receive telecommunication ringing signals comply with a special touch current measurement tests	No TNV.	N/A
5.3.7	Internal (e.g., card cage) SELV circuit connectors and printed wiring board connectors that are accessible to the operator and that deliver power are overloaded		N/A
	During abnormal operating testing, if a circuit is interrupted by the opening of a component, the test is repeated twice (three tests total) using new components as necessary		N/A
6.4	Equipment intended for connection to telecommunication network outside plant cable is protected against overvoltage from power line crosses in accordance with 6.4 and Annex NAC	No TNV.	N/A
Annex EE	Articulated accessibility probe (Fig EE.3) is used for assessing accessibility to document/media shredders instead of the Figure 2A test finger		N/A
Annex M.2	Continuous ringing signals up to 16 mA only are permitted if the equipment is subjected to special installation and performance restrictions		N/A
Annex NAD	Equipment connected to a telecommunication and cable distribution networks and supplied with an earphone intended to be held against, or in the ear comply with special acoustic pressure requirements		N/A

Type Designation: **17036950 001**
Report Number: **236LM000**, *2460****, 240LM000****

Figure 1. Front view with base type A

Figure 2. Front view with base type A

Type Designation: **17036950 001**
Report Number: **236LM000**, *2460****, 240LM000****

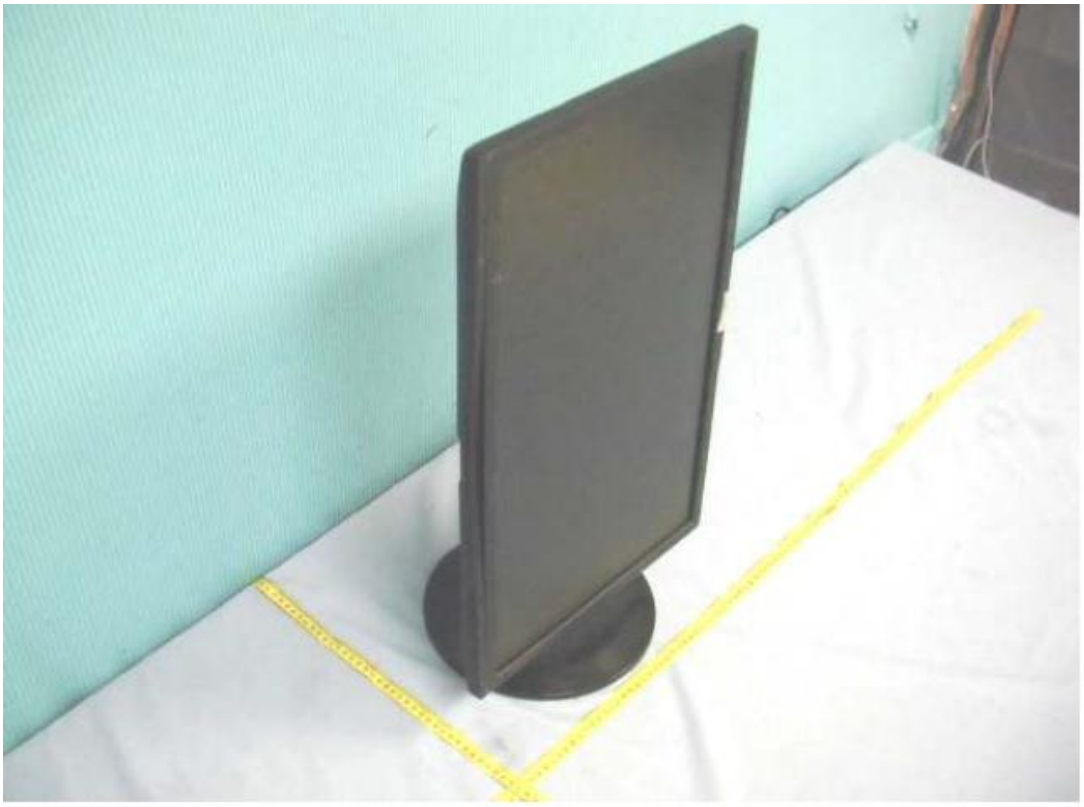


Figure 3. Front view with base type A

Figure 4. Rear view with type A base and type A plastic enclosure

Type Designation: **17036950 001**
Report Number: **236LM000**, *2460****, 240LM000****

Figure 5. Rear view with type A base and type A plastic enclosure

Figure 6. Rear view with type A base and type A plastic enclosure

Type Designation: **17036950 001**
Report Number: **236LM000**, *2460****, 240LM000****

Figure 7. Rear view with type A base and type B plastic enclosure

\

Figure 8. Front view with base type B

Type Designation: **17036950 001**
Report Number: **236LM000**, *2460****, 240LM000****

Figure 9. Rear view with type B base and type A plastic enclosure

Figure 10. Without base

Type Designation: **17036950 001**
Report Number: **236LM000**, *2460****, 240LM000****

Figure 11. Without base (with type A plastic enclosure)

Figure 12. Without base (with type B plastic enclosure)

Type Designation: **17036950 001**
Report Number: **236LM000**, *2460****, 240LM000****

Figure 13. Without base (with type B plastic enclosure)

Figure 14. Base type A

Type Designation: **17036950 001**
Report Number: **236LM000**, *2460****, 240LM000****

Figure 15. Base type A

Figure 16. Base type A

Type Designation: **17036950 001**
Report Number: **236LM000**, *2460****, 240LM000****

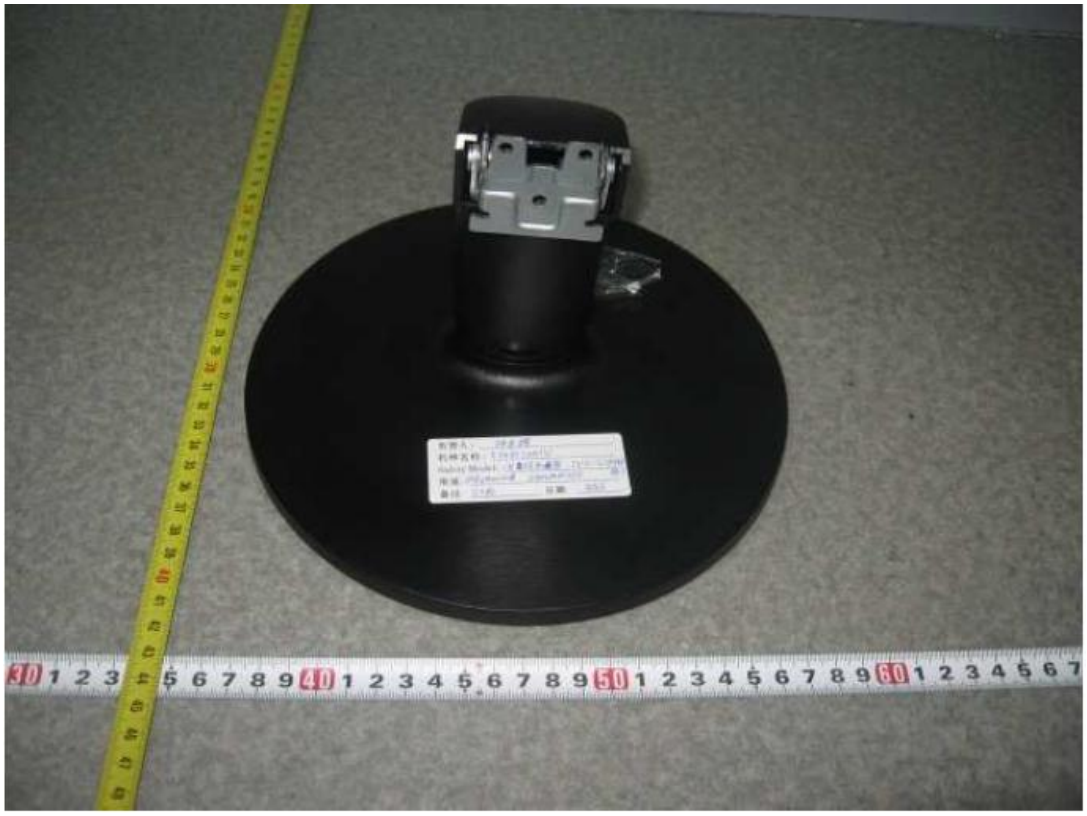


Figure 17. Base type B

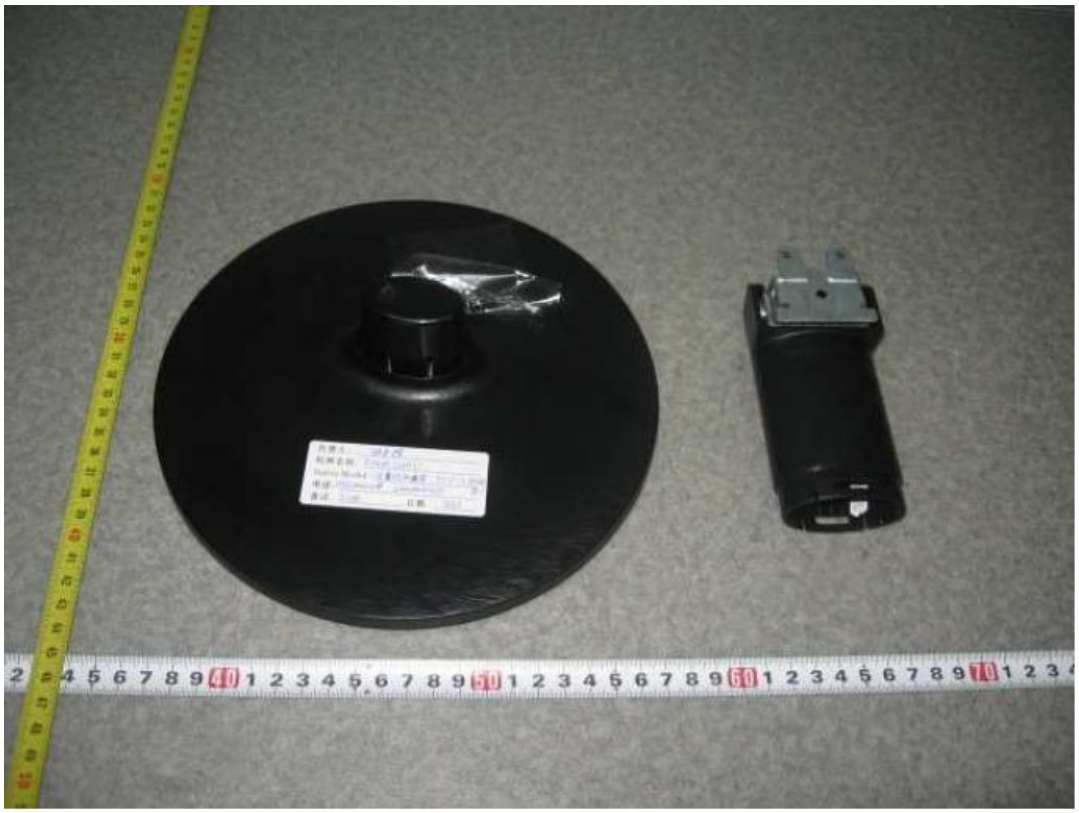


Figure 18. Base type B

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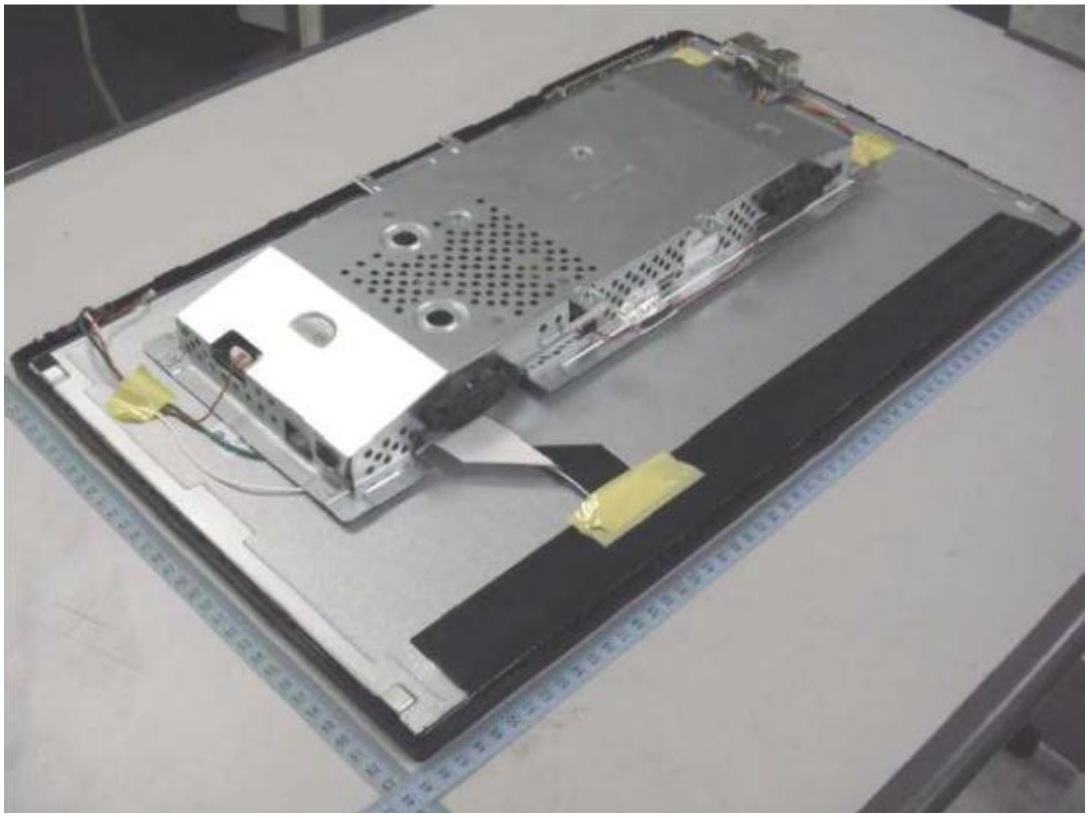

Figure 19. Metal enclosure

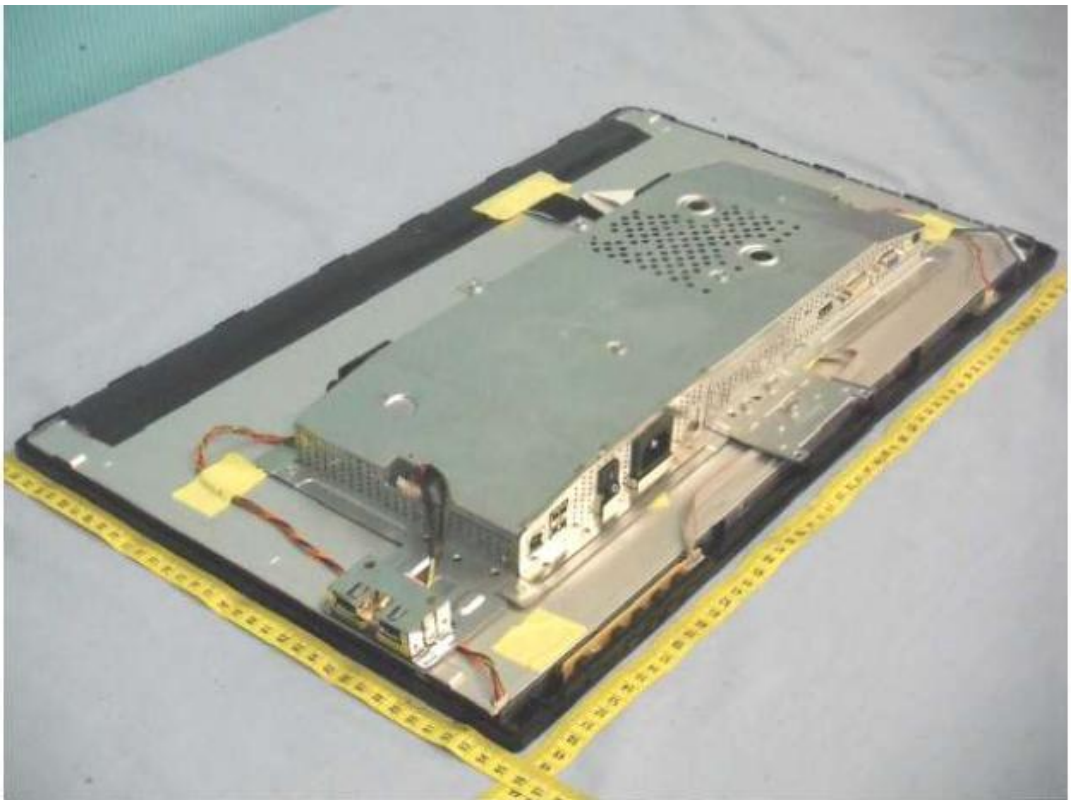

Figure 20. Metal enclosure

Type Designation: **17036950 001**
Report Number: **236LM000**, *2460****, 240LM000****

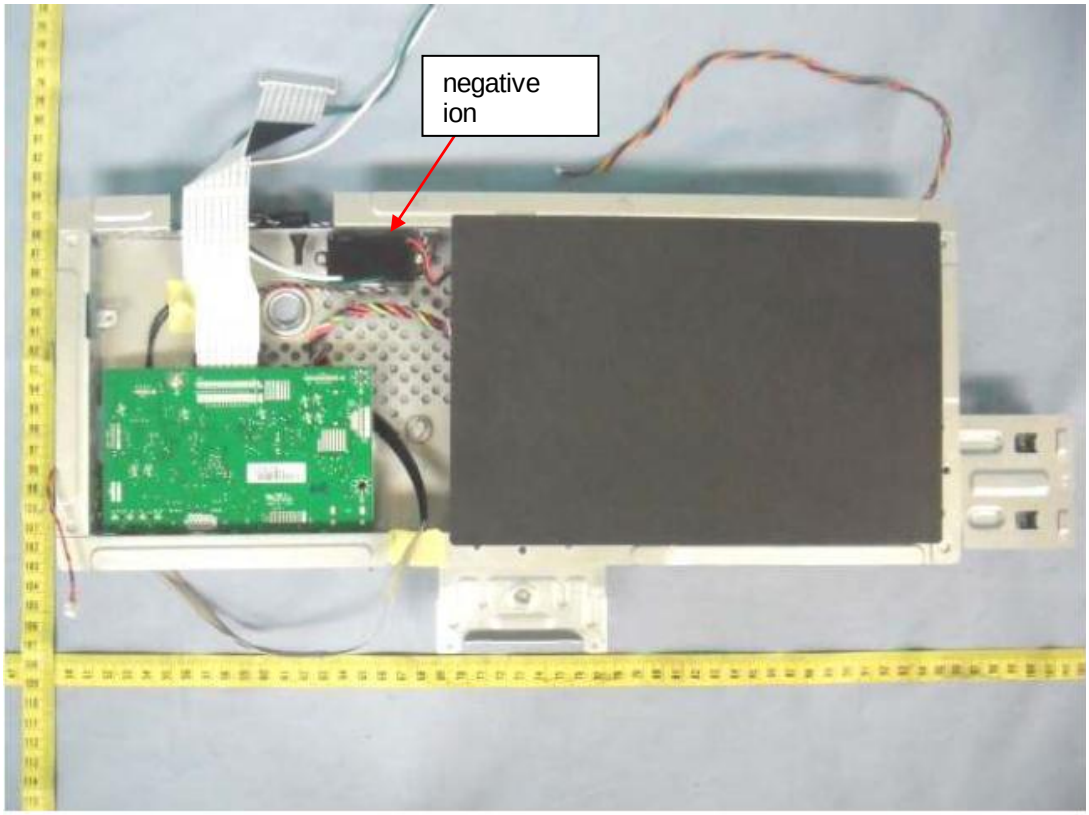

Figure 21. Internal view

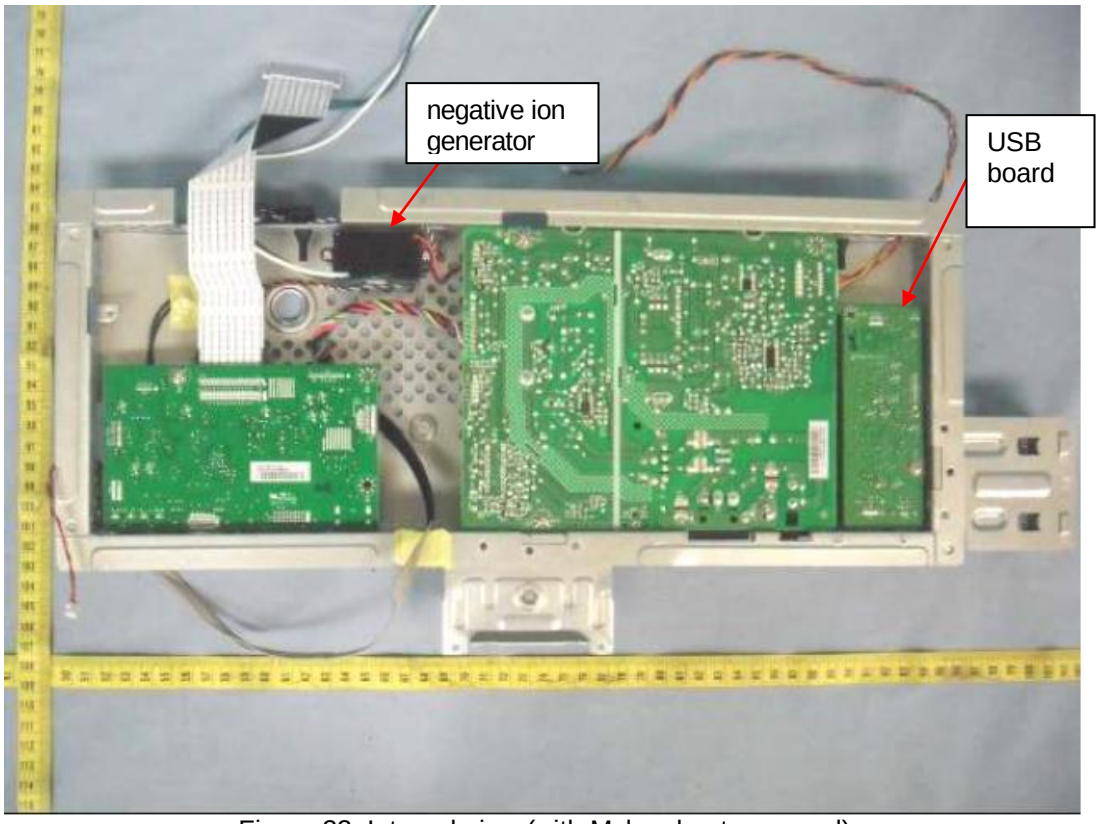

Figure 22. Internal view (with Mylar sheet removed)

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Figure 23. Internal view (remove the negative ion generator)

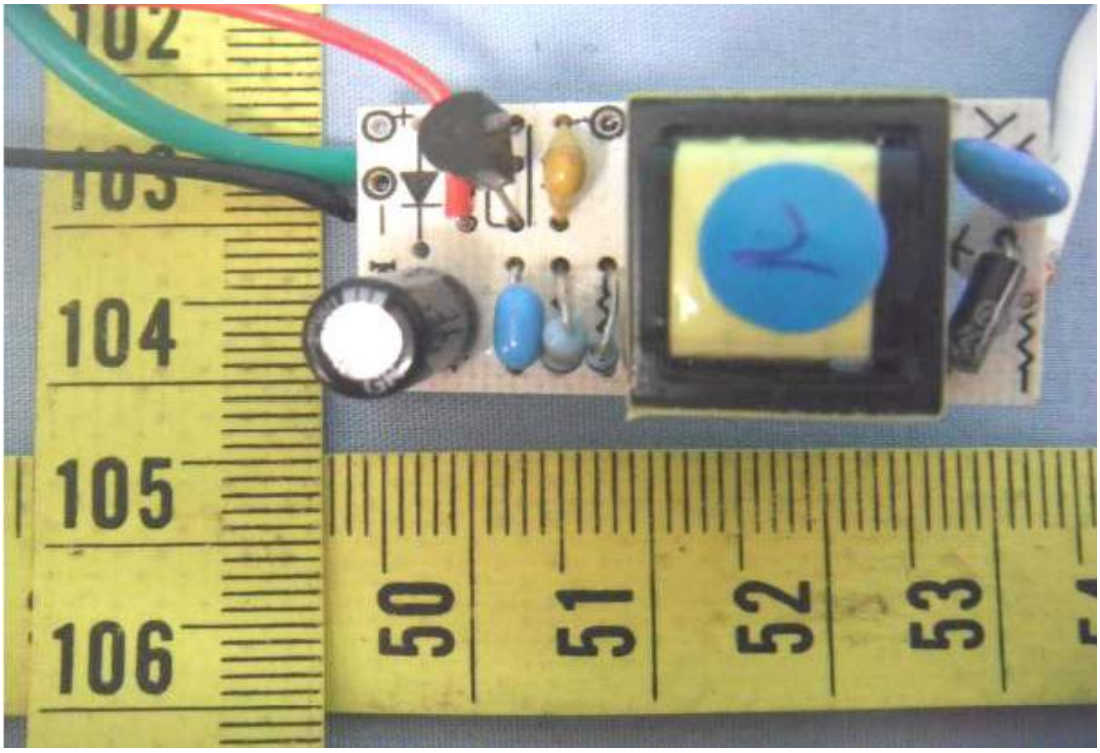

Figure 24. For Negative ion generator: Mfr. Dong Guan Fu Fong, type FIO-DC5V

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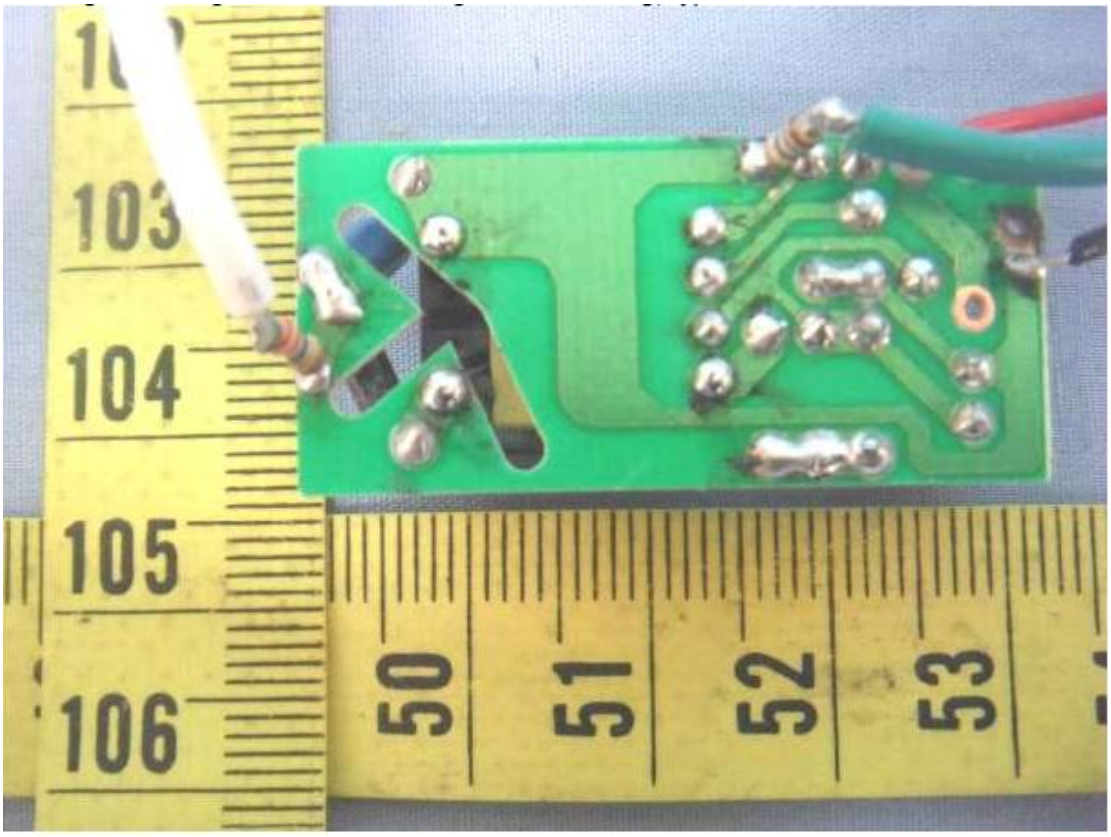

Figure 25. For Negative ion generator: Mfr. Dong Guan Fu Fong, type FIO-DC5V

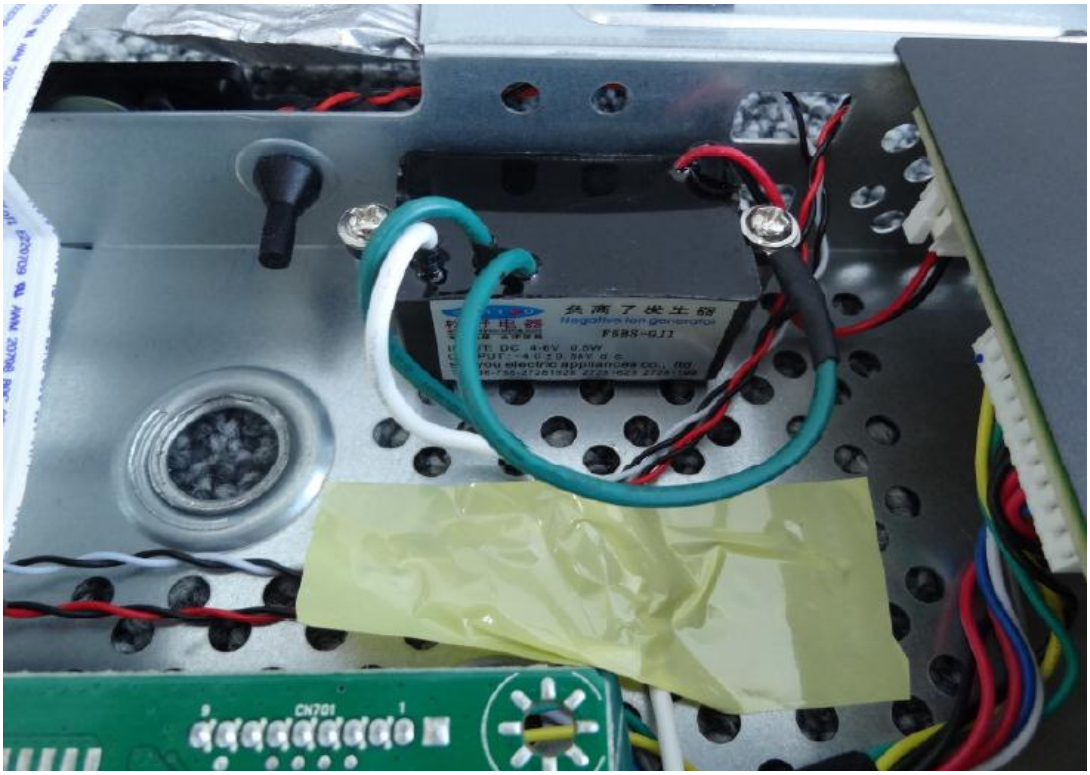

Figure 26. F5BS-GJ1

Type Designation: **17036950 001**
Report Number: **236LM000**, *2460****, 240LM000****

Figure 27. F5BS-GJ1

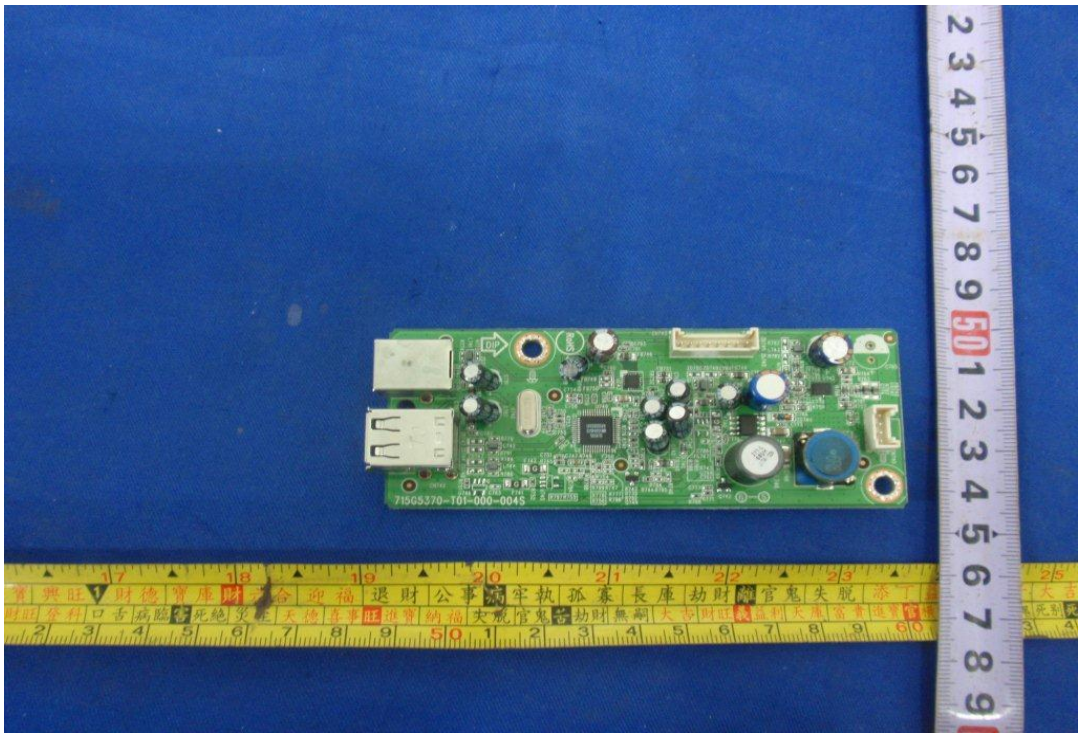

Figure 28. USB ports control boards

Type Designation: **17036950 001**
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Figure 29. USB ports control boards

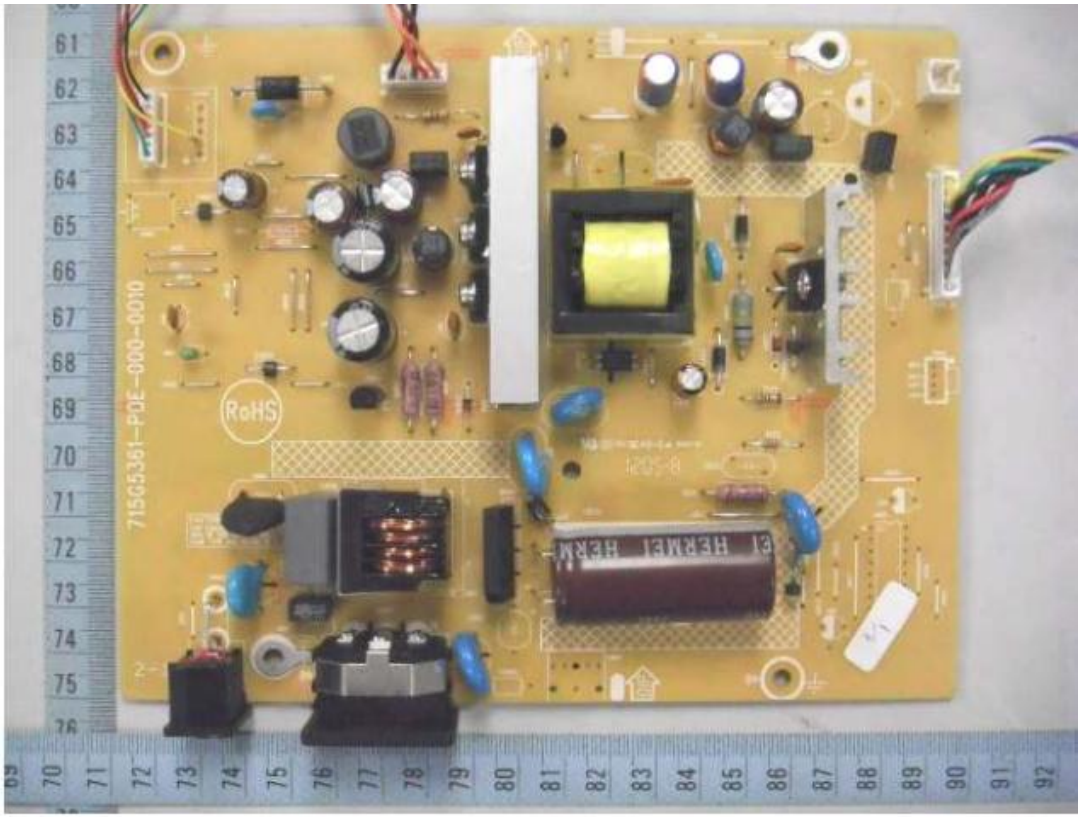

Figure 30. Power board 715G5361 type A

Type Designation: **17036950 001**
Report Number: **236LM000**, *2460****, 240LM000****

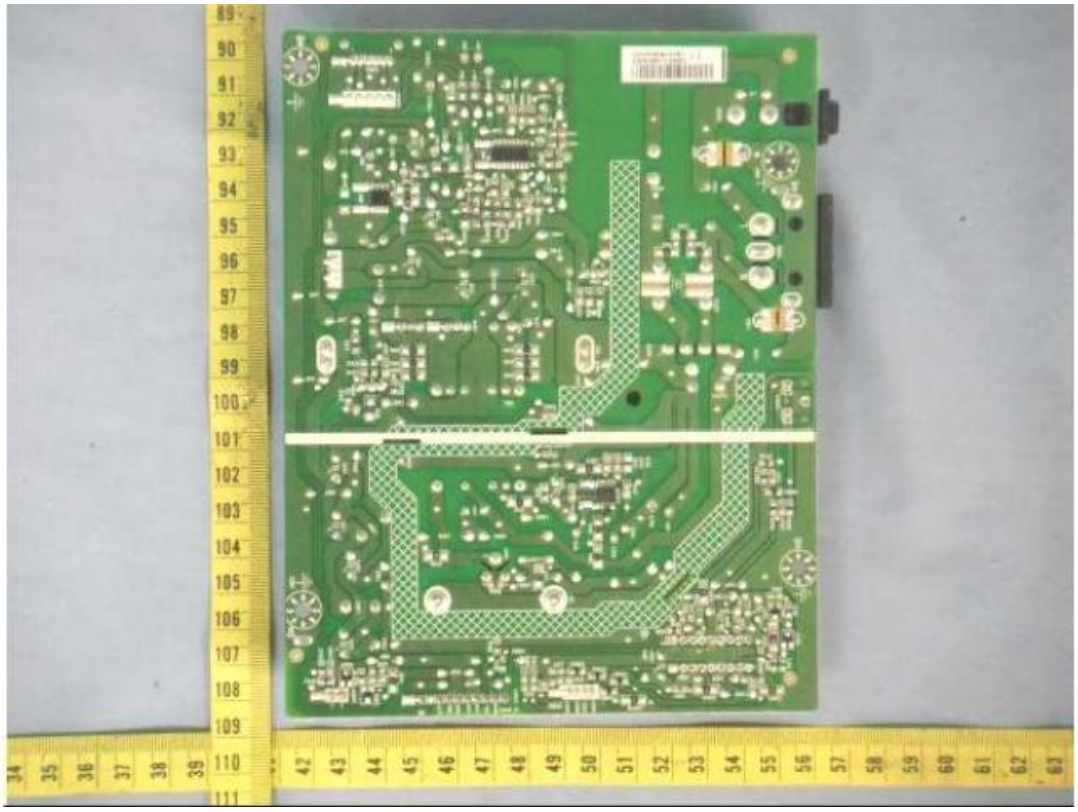

Figure 31. Power board 715G5361 type A

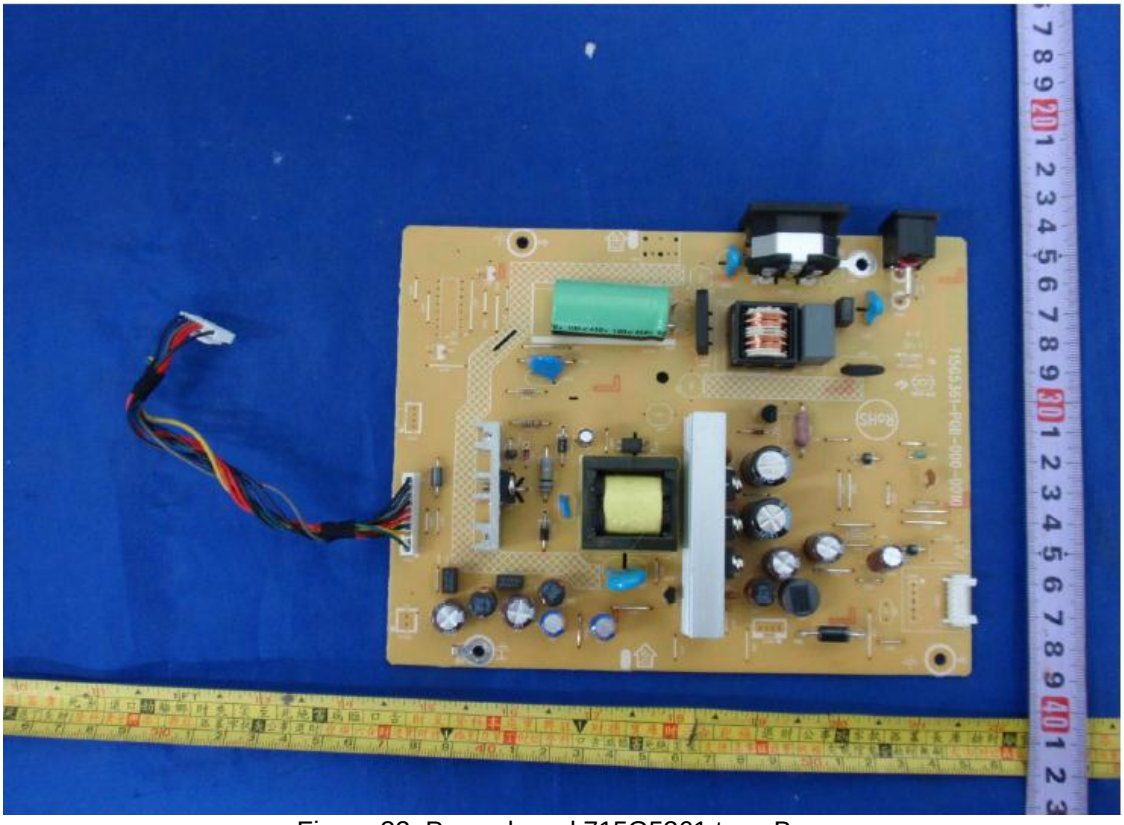

Figure 32. Power board 715G5361 type B

Type Designation: **17036950 001**
Report Number: **236LM000**, *2460****, 240LM000****

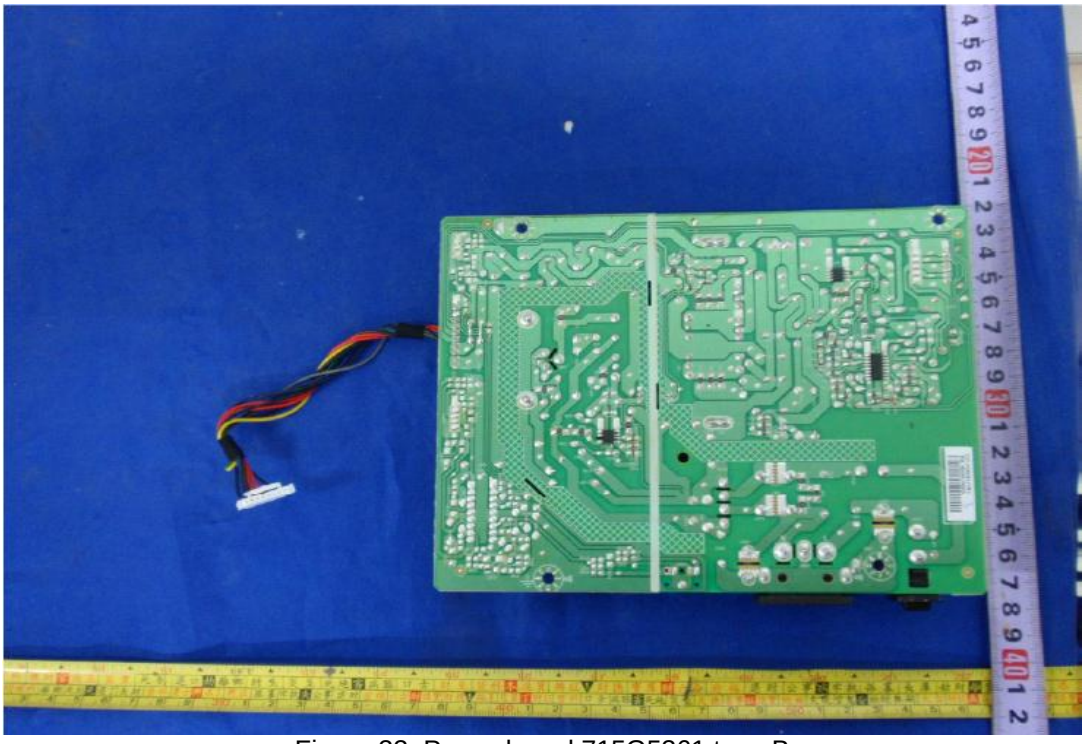

Figure 33. Power board 715G5361 type B

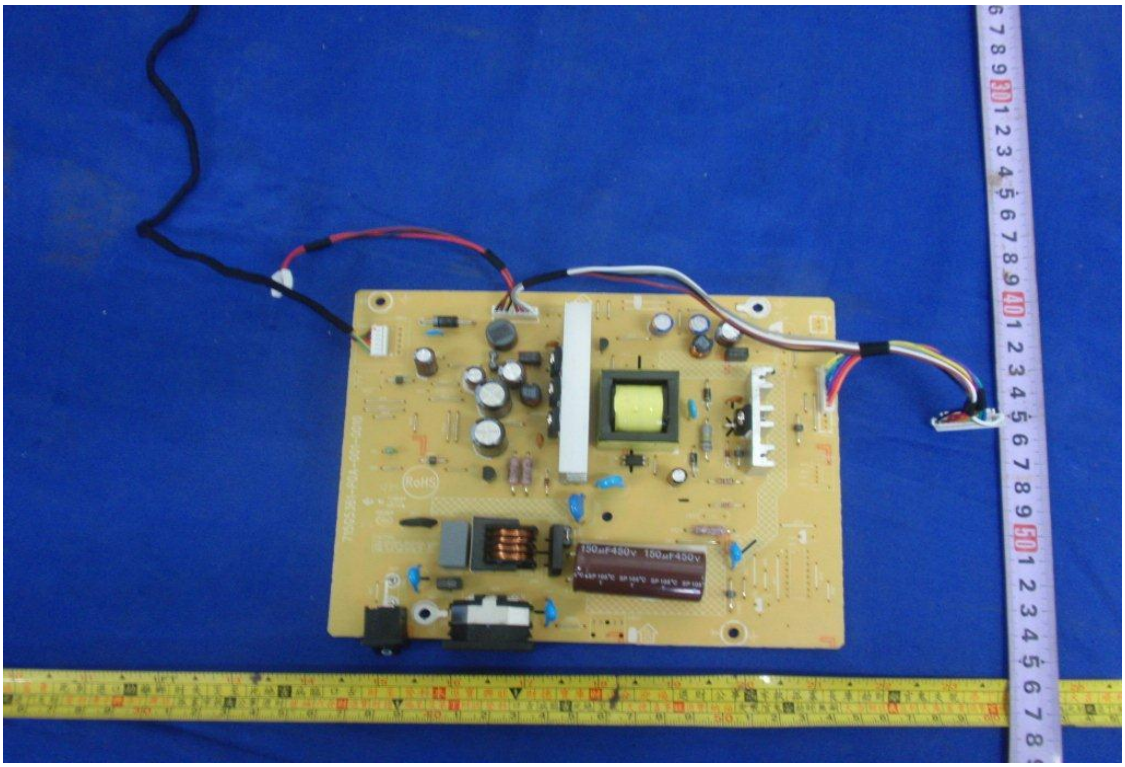

Figure 34. Power board 715G5361 type C

Type Designation: **17036950 001**
Report Number: **236LM000**, *2460****, 240LM000****

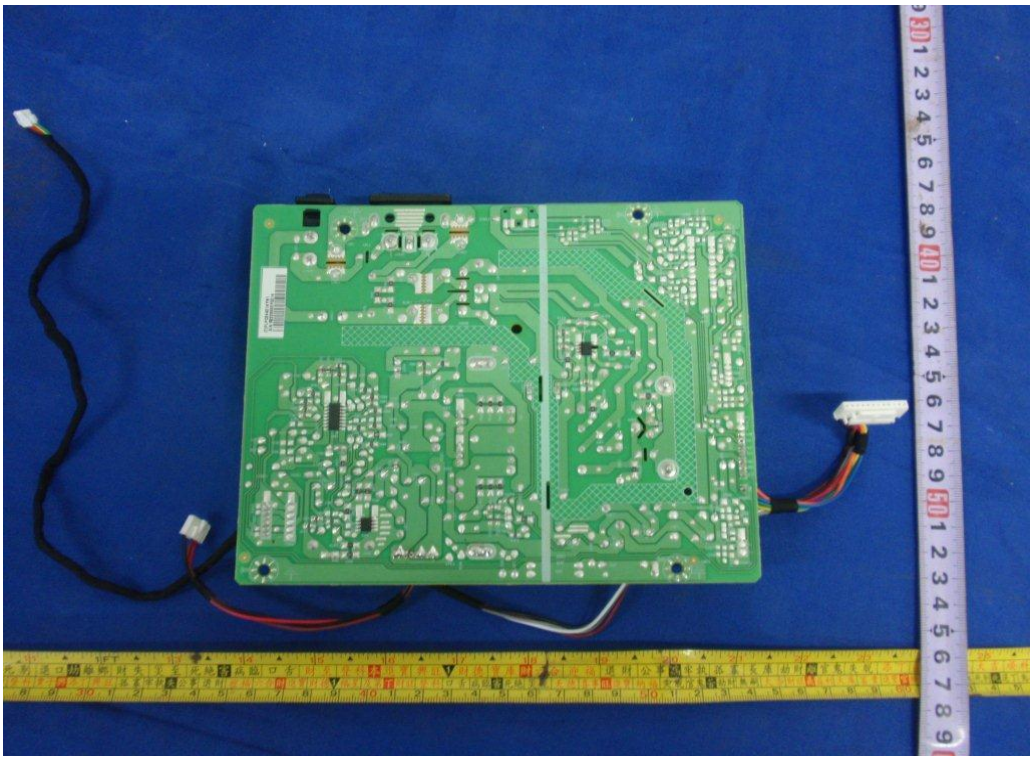

Figure 35. Power board 715G5361 type C

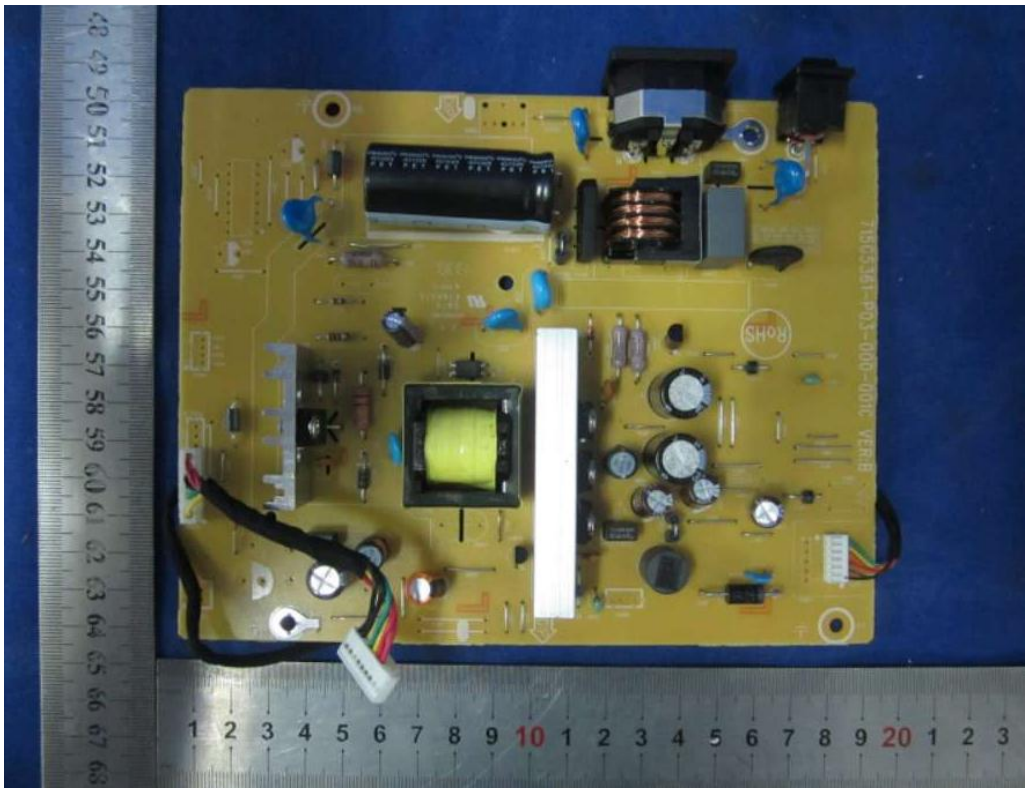

Figure 36. Power board 715G5361 type D

Type Designation: **17036950 001**
Report Number: **236LM000**, *2460****, 240LM000****

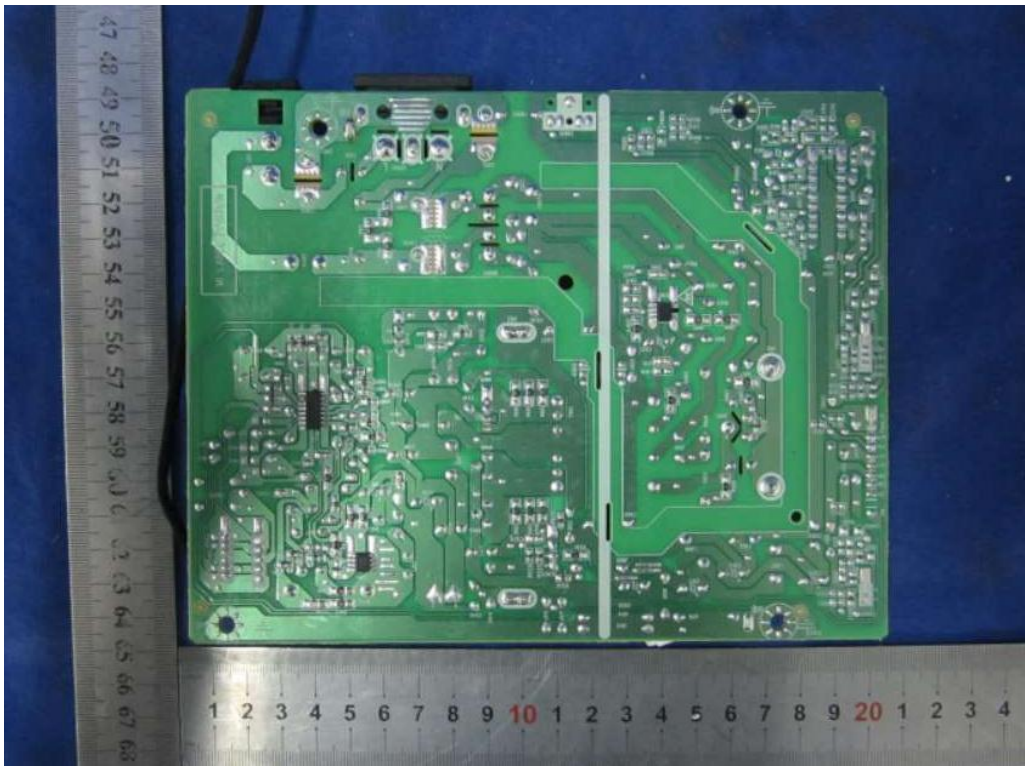

Figure 37. Power board 715G5361 type D

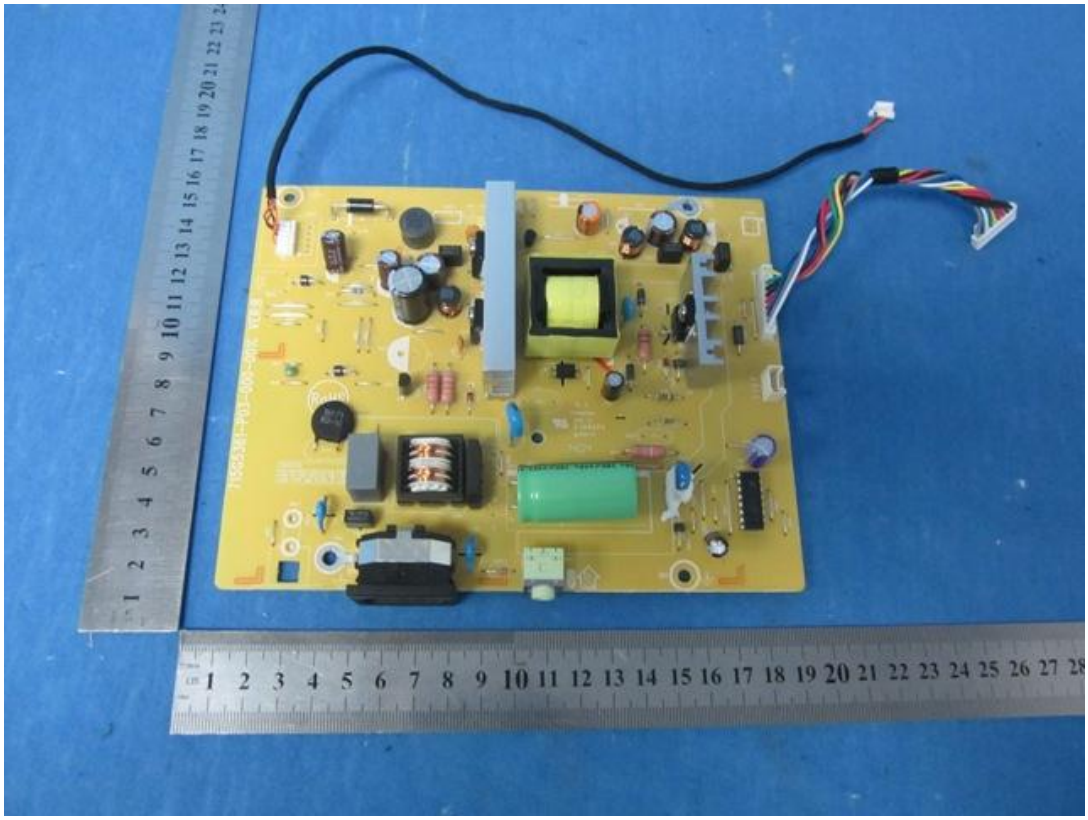

Figure 38. Power board 715G5361 type E (with Y1 cap C941 glued uprightly)

Type Designation: **17036950 001**
Report Number: **236LM000**, *2460****, 240LM000****

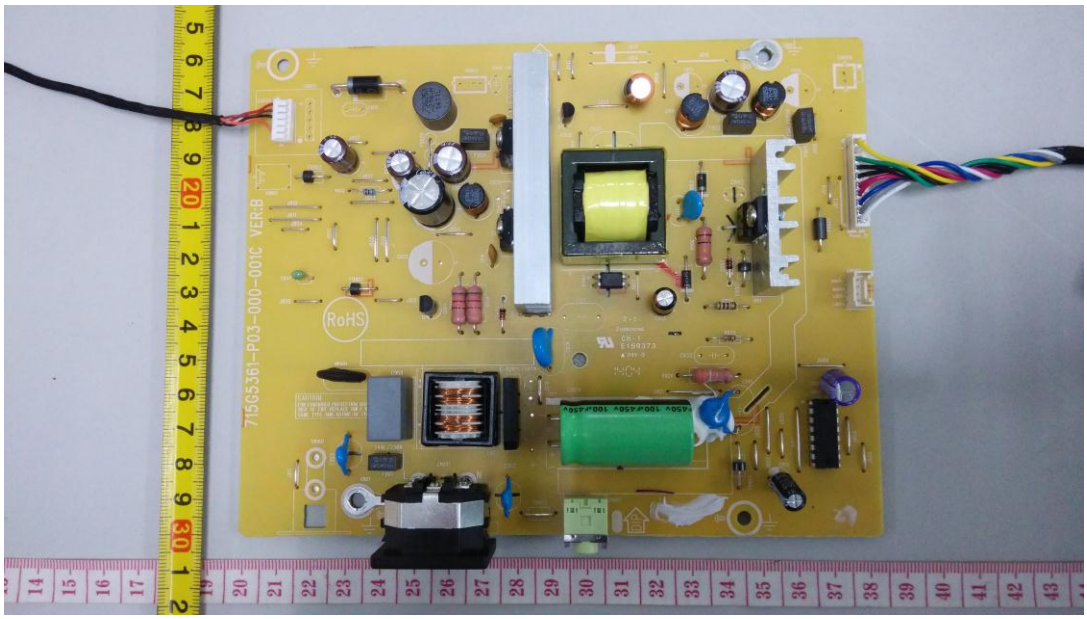

Figure 39. Power board 715G5361 type E (with Y1 cap C941 glued closed to E cap C907)

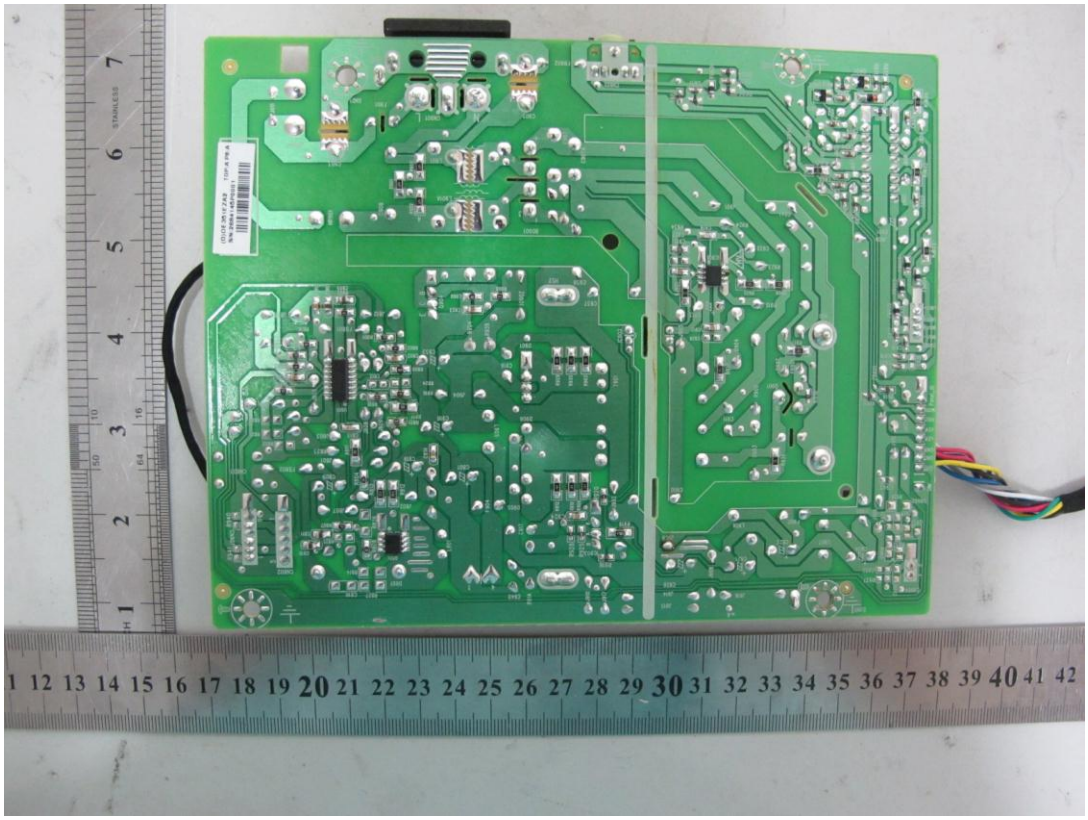

Figure 40. Power board 715G5361 type E

Type Designation: **17036950 001**
Report Number: **236LM000**, *2460****, 240LM000****

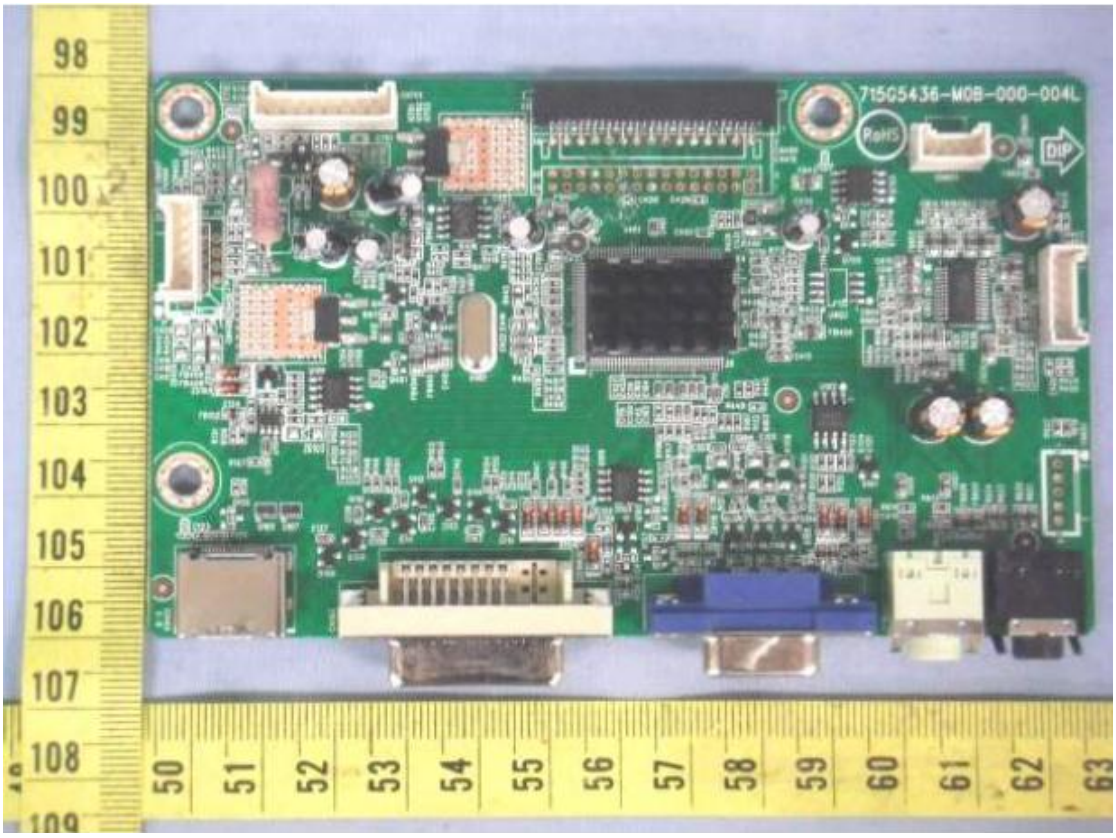

Figure 41. Main board 715G5436

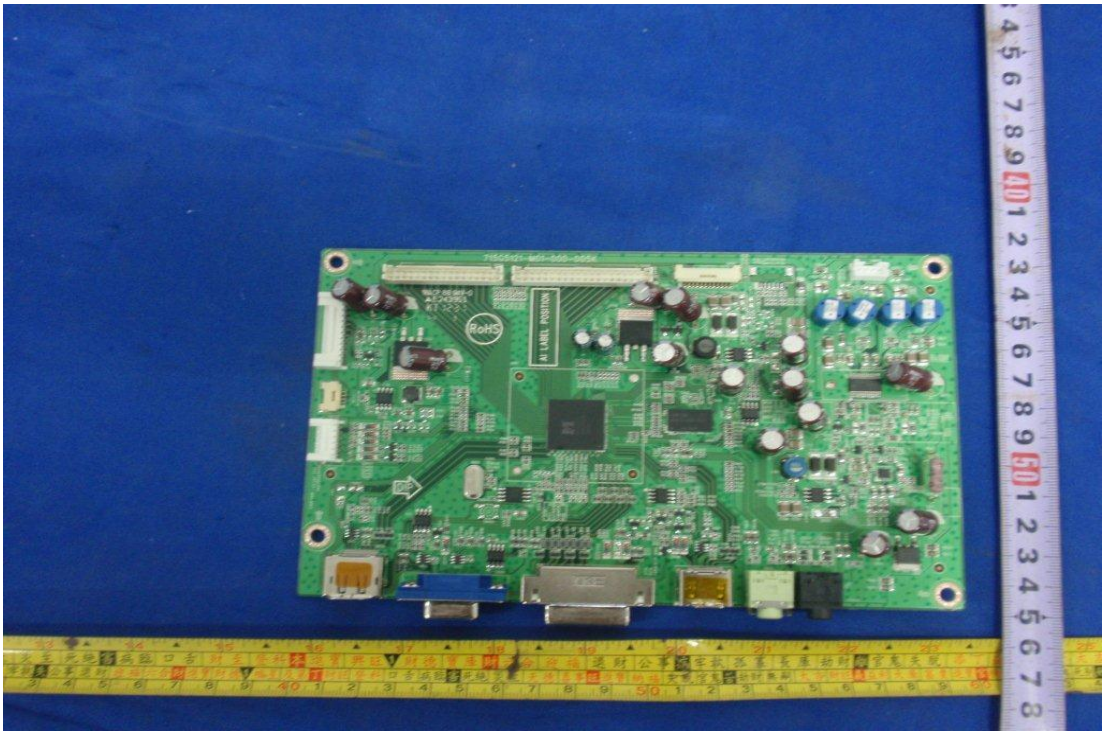

Figure 42. Main board 715G5121

Type Designation: **17036950 001**
Report Number: **236LM000**, *2460****, 240LM000****

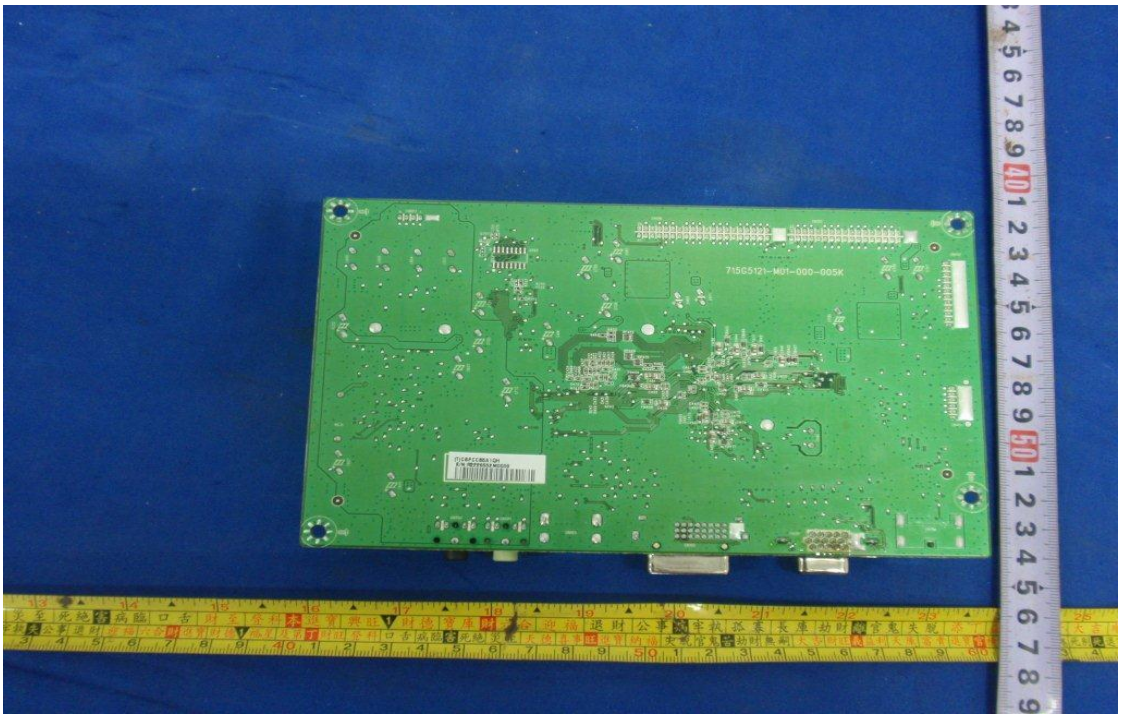

Figure 43. Main board 715G5121

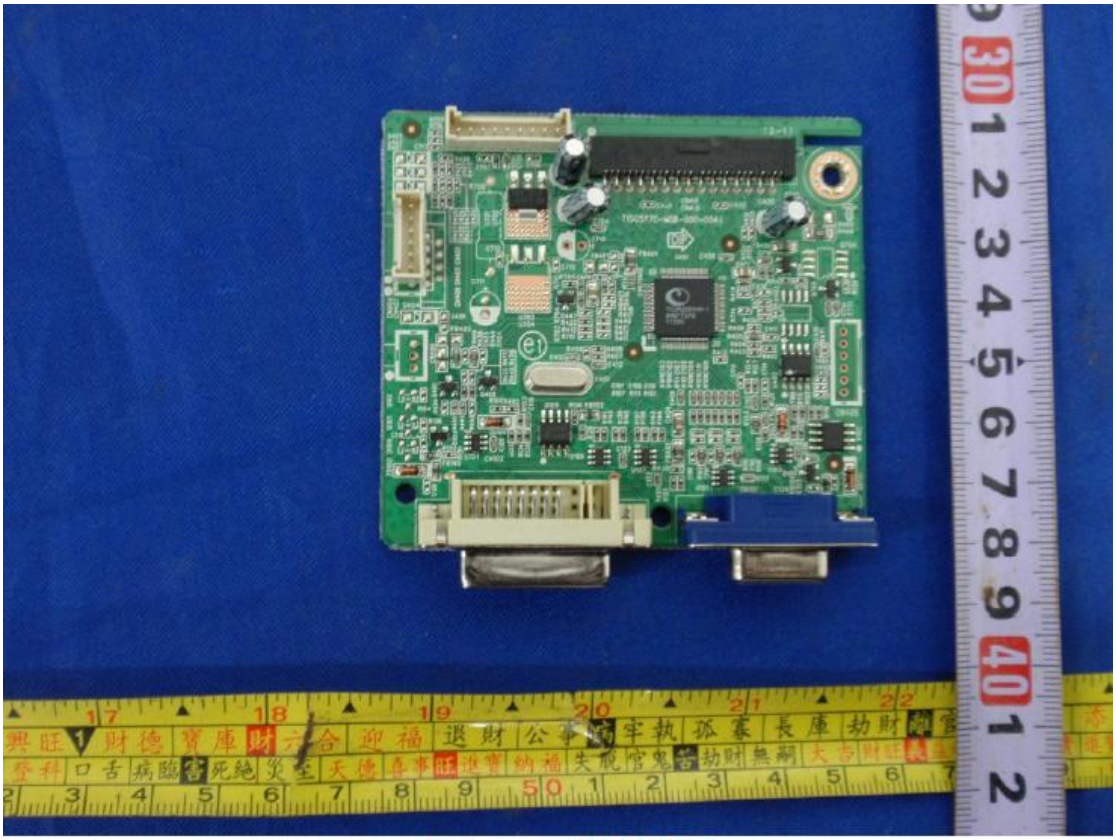

Figure 44. Main board 715G5270

Type Designation: **17036950 001**
Report Number: **236LM000**, *2460****, 240LM000****

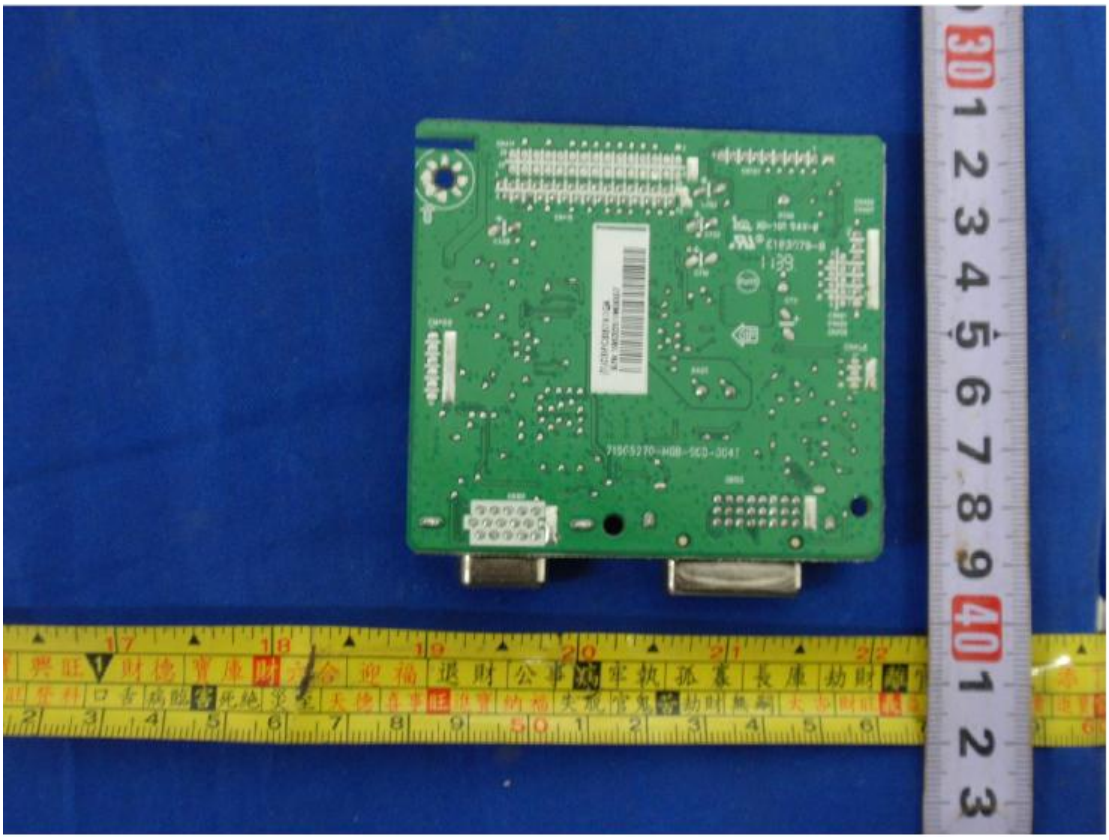

Figure 45. Main board 715G5270

Figure 46. Main board 715G6124

Type Designation: **17036950 001**
Report Number: **236LM000**, *2460****, 240LM000****

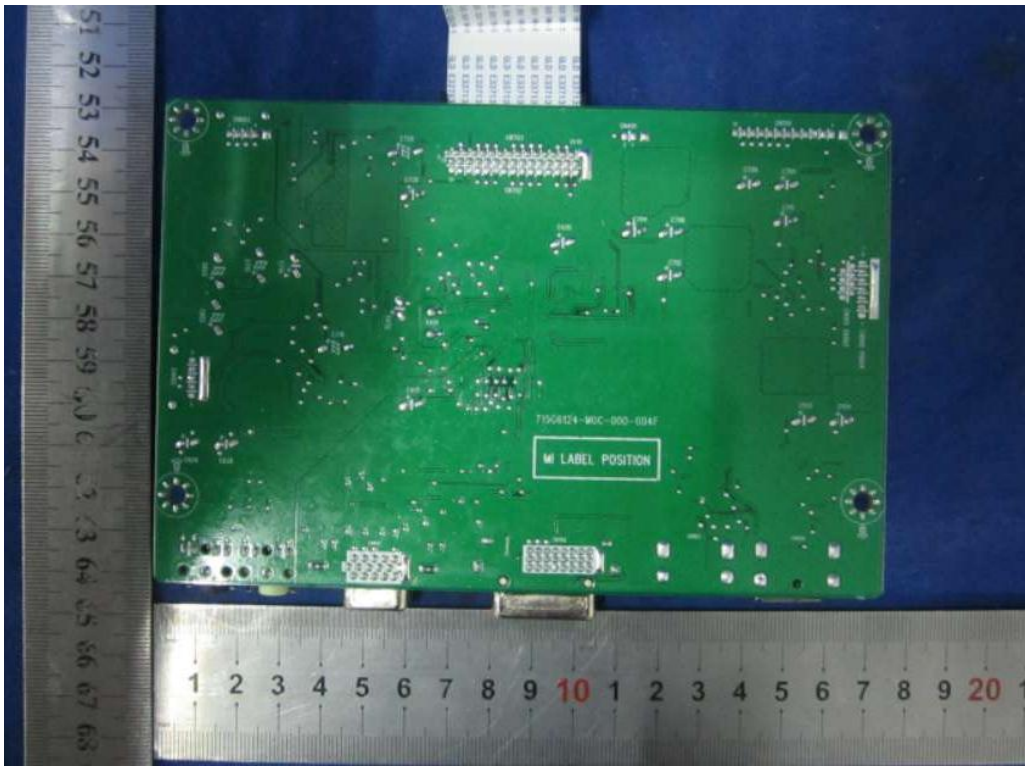

Figure 47. Main board 715G6124

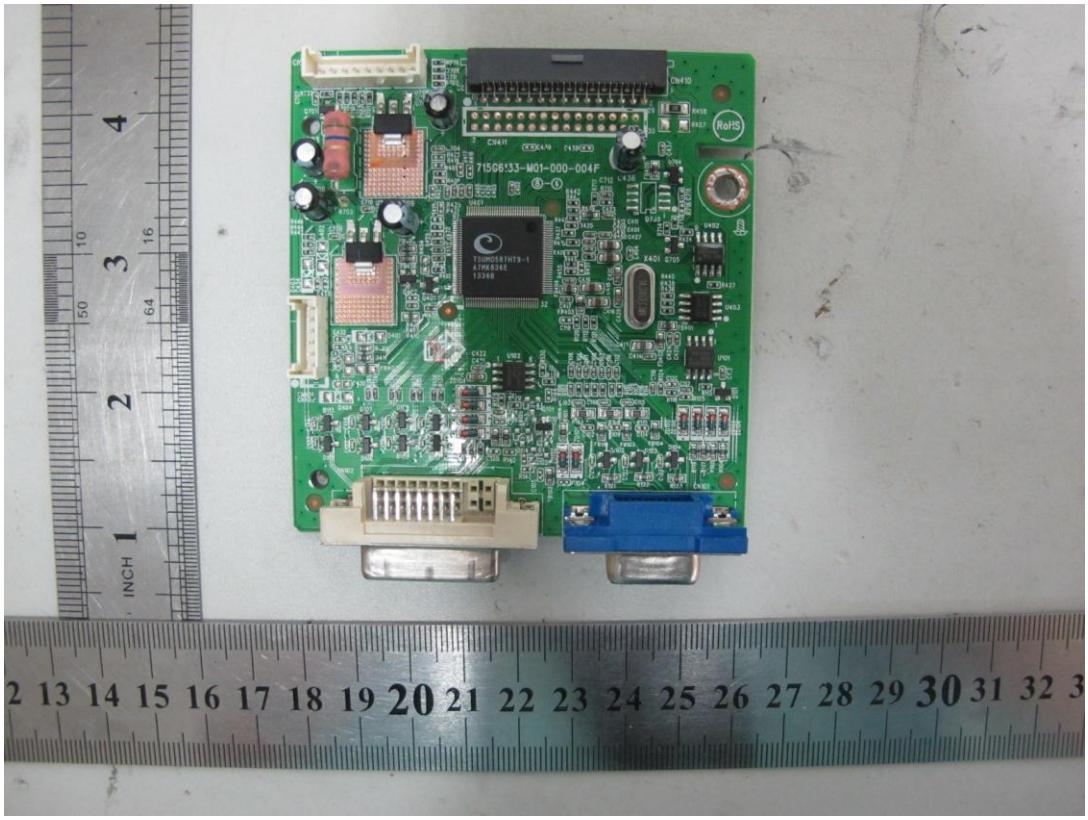

Figure 48. Main board 715G6133

Type Designation: **17036950 001**
Report Number: **236LM000**, *2460****, 240LM000****

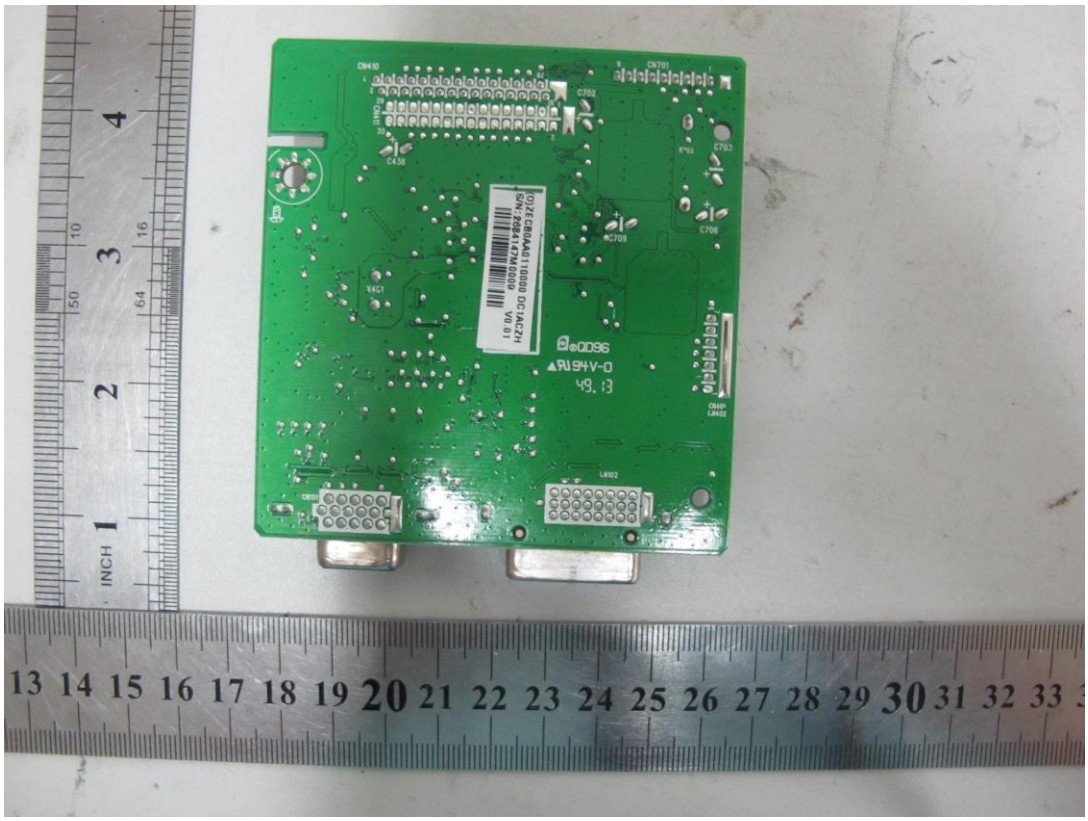

Figure 49. Main board 715G6133