Ref. Certif. No.

NO106438

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

SYSTEME CEI DACCEPTATION MUTUELLE DE CERTIFICATS DESSAIS 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	TPV Electronics (Fujian) Co., Ltd. Rongqiao Economic and Technological Development Zone, Fuqing City, Fujian Province China
Name and address of the manufacturer Nom et adresse du fabricant	TPV Electronics (Fujian) Co., Ltd. Rongqiao Economic and Technological Development Zone, Fuqing City, Fujian Province China
Name and address of the factory Nom et adresse de l'usine Note: When more than one factory, please report on page 2 Note: Lorsque il y plus d'une usine, veuillez utiliser la deuxième page	☑ Additional information on page 2
Ratings and principal characteristics Valeurs nominales et caractéristiques principales	4.5A or 3.25A, 20 V DC Cl. III
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	
Model / Type Ref. Ref. De type	**251********; 250LM000**
Additional information (if necessary may also be reported on page 2) Les informations complémentaires (si nécessaire, peuvent être indiqués sur la deuxième page	The * in the model name can be 0 to 9, A to Z or blank for marketing use only. ☐ Additional information on page 2
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, IEC 60950-1:2005/AMD1:2009, IEC 60950-1:2005/AMD2:2013
As shown in the Test Report Ref. No. which forms part of this Certificate Comme indiqué dans le Rapport dessais numéro de référence qui constitue partie de ce Certificat	373638

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

Nemko

Gaustadalléen 30
NO-0373 Oslo, Norway

Date: 26-04-2019

Signature: Sweet Yuan
Certification Department

TPV Electronics (Fujian) Co., Ltd.
Shangzheng, Yuanhong Road, Fuqing City, Fujian Province
China

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

TREND SMART CE MEXICO S. DE R.L. DE C.V.
Avenida Sor Juana Ines de la Cruz No. 19602 Parque Industrial la Frontera Fracc. CP. 22500
Nueva Tijuana (Otay) Tijuana
Mexico

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

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

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

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

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

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

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

Hefei Huntkey Display Technology Co., Ltd.
South Jinxiu Road, East Qingtan Road, Economic And Technological Development Zone, Hefei, Anhui 230601
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TPV Electronics (Fujian) Co., Ltd.
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China

Nemko
Gaustadalléen 30
NO-0373 Oslo, Norway

Date: 26-04-2019

Signature: Sweet Yuan
Certification Department

TEST REPORT IEC 60950-1 Information technology equipment – Safety – Part 1: General requirements	
Report Number. ..... :	373638
Date of issue ..... :	2019-04-24
Total number of pages	Refer to page 4
Applicant's name ..... :	TPV Electronics (Fujian) Co., Ltd.
Address ..... :	Rongqiao Economic and Technological Development Zone, FUQING CITY FUJIAN PROVINCE, CHINA
Test specification:	
Standard..... :	IEC 60950-1:2005 (Second Edition) + Am 1:2009 + Am 2:2013
Test procedure ..... :	CB Scheme
Non-standard test method……..:	N/A
Test Report Form No. ..... :	IEC60950_1F
Test Report Form(s) Originator..... :	SGS Fimko Ltd
Master TRF ..... :	Dated 2014-02

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 ..... :	Same as applicant
Model/Type reference ..... :	**251********;250LM000** (The * in the model name can be 0 to 9, A to Z or blank for marketing use only.)
Ratings ..... :	4.5A or 3.25A, 20 V ⎓

Testing procedure and testing location:			
☒	**CB Testing Laboratory**:	Nemko Shanghai Ltd. Shenzhen Branch	
Testing location/ address ..... :		Unit C & D, Floor 2 & Floor 10, Tower 2, Kefa Road #8 Hi-Technology Park Nanshan District 518057 Shenzhen CHINA	
☐	**Associated CB Laboratory:**		
Testing location/ address ..... :			
	Tested by (name + function + signature) ..... :	Bill Yang (Project handler)	
	Approved by (name + function + signature) ..... :	Jane Sun (Verificator)	
☐	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) ..... :		
	Approved by (name + signature)..... :		
	Supervised by (name + signature) ... :		

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

1. Main Test report (50 pages)

2. Photos (8 pages)

3. European Group differences and National differences (18 pages)

4. Australian/New Zealand differences (9 pages)

5. Chinese differences (8 pages)

6. Japanese differences (17 pages)

7. Singapore differences (3 pages)

8. Canadian differences (5 pages)

9. Korean differences (1 page)

10. US differences (5 pages)

11. Israeli differences (7 pages)

12. Power adapter CB test report with IEC 60950-1:2005 (2nd Edition);am1: 2009,am2:2013; and/or EN60950-1:2006; A11:2009; A1:2010; A12:2011,A2:2013, CB issued by TUV RH Cert No.JPTUV-057101 (3 pages) and JPTUV-057101-A1 (3 pages) and report No.17038425 001(total 111 pages including photos) and 17038425 002 (total 7 pages).

13. Power adapter CB test report with IEC 60950-1:2005 (2nd Edition);am1: 2009,am2:2013; and/or EN60950-1:2006; A11:2009; A1:2010; A12:2011,A2:2013, CB issued by TUV RH Cert No.JPTUV-074918 (3 pages) and report No.17061539 001(total 129 pages including photos).

Summary of testing:

Tests performed (name of test and test clause):

Clause	Test(s)
1.6	Input Current Test
1.7	Marking and instructions
2.5	Limited power sources
4.2	Wall or ceiling mounted equipment
4.5	Thermal requirements
5.3	Abnormal operating and fault conditions

Load condition: Refer to general product information.

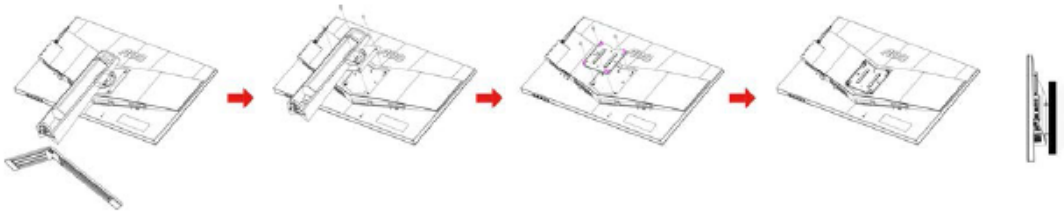
Testing location:

See page 3

1.7.2.1 Language of safety markings/instructions.	Instructions and equipment marking related to safety is applied and checked in English, the instruction and marking should be checked again when marketed in the countries using other language.
2.5 Limited Power Source.	Speakers, key control board, mainboard and output terminals are not required fire enclosure because they are supplied by +20V output limited power sources complying with sub-clause 2.5 and the components mounted on V-1 or better PCB according to sub-clause 4.7.2.2. Refer to sub-clause 2.5 for detail.
4.2.10 wall or ceiling mounted equipment	VESA compatible wall mounting kit, 100 x 100 mm distance is mentioned in the user manual. (see below)

Wall Mounting

Preparing to Install An Optional Wall Mounting Arm.



This monitor can be attached to a wall mounting arm you purchase separately. Disconnect power before this procedure. Follow these steps:

1 Remove the base.
2 Follow the manufacturer's instructions to assemble the wall mounting arm.
3 Place the wall mounting arm onto the back of the monitor. Line up the holes of the arm with the holes in the back of the monitor.
4 Insert the 4 screws into the holes and tighten.
5 Reconnect the cables. Refer to the user's manual that came with the optional wall mounting arm for instructions on attaching it to the wall.

Noted : VESA mounting screw holes are not available for all models, please check with the dealer or official department of AOC.

Summary of compliance with National Differences

The sample(s) tested compliance with the requirements of IEC 60950-1: 2005 (2nd Edition); Am1: 2009; Am2: 2013 and all CENELEC members as listed in EN 60950-1: 2006 +A11: 2009+A1: 2010+A12: 2011+ A2: 2013.
At the time of issuing this test report, not all countries are listed for IEC 60950-1:2005 (2nd Edition); Am1:2009; Am2:2013. Therefore this test report includes national differences for IEC 60950-1:2005(2nd Edition) Am1:2009, IEC 60950-1: 2005 (2nd Edition) and IEC 60950-1: 2001 1st Edition.
All national differences listed in the IECEE Online CB Bulletin are covered by the Common Modifications, Special National Conditions, National Deviations, and the National Requirements noted above except for the countries which are documented in Attachment.
National Differences attached to this test report:
list from IEC 60950-1, 2nd edition: China and Singapore
list from IEC 60950-1: 2005 (2nd Edition); Am1: 2009 : Korea.
list from IEC 60950-1: 2005 (2nd Edition); Am2: 2013 :USA, Canada, Australia, Israeli and Japan

Copy of marking plates:

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.

(Additional requirements for markings. See 1.7 NOTE)s

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

Test item particulars.....:	
Equipment mobility.....:	[X] movable [] hand-held [] transportable [] stationary [] for building-in [] direct plug-in
Connection to the mains .....:	[] pluggable equipment [] type A [] type B [] permanent connection [] detachable power supply cord [] non-detachable power supply cord [X] 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) .....:	[X] OVC I [] OVC II [] OVC III [] OVC IV [] other:
Mains supply tolerance (%) or absolute mains supply values .....:	N/A
Tested for IT power systems .....:	[] Yes [X] No
IT testing, phase-phase voltage (V) .....:	N/A
Class of equipment .....:	[] Class I [] Class II [X] Class III [] Not classified
Considered current rating of protective device as part of the building installation (A) .....:	N/A
Pollution degree (PD) .....:	[] PD 1 [X] PD 2 [] PD 3
IP protection class .....:	IP20
Altitude during operation (m) .....:	≤5000m
Altitude of test laboratory (m) .....:	< 2000m
Mass of equipment (kg) .....:	Mass: 6.33 kg with base, base 2.67kg Dimensions: 565mm×max.550mm (min.420mm)×210 mm with base, 565mm×330mm×80mm without base
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.....:	2019-04-01
Date(s) of performance of tests.....:	2019-04-01 to 2019-04-24

General remarks:

"(see attachment #)" 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. TPV Electronics(Fujian) Co.,Ltd.	Rongqiao Economic and Technological Development Zone, Fuqing City, Fujian Province, P.R.China
2. Hefei Huntkey Display Technology Co., Ltd.	South Jinxiu Road, East Qingtan Road, Economic And Technological Development Zone, HEFEI ANHUI 230601, CHINA
3. TPV Display Technology(Wuhan) Co.,Ltd.	Unique No. 11, Zhuankou Development, District of Economic Technological Development Zone, WUHAN CITY 430056, CHINA
4. TREND SMART CE MEXICO S. DE R.L. DE C.V.	Avenida Sor Juana Ines de la Cruz No. 19602 Parque Industrial la Frontera Fracc. CP. 22500, NUEVA TIJUANA (OTAY) TIJUANA B.C., MEXICO
5. Envision Industry of Electronic Products Ltd.	Rodovia Anhanguera S/N-KM 49, Tijuco Preto-Jundiaí-SP- 13.205-700, BRAZIL
6. Envision Industry of Electronic Products Ltd.	Av Torquato Tapajós 7503, Galpão : II Bloco: B-Condomínio de Galpões-Tarumã-Manaus AM, BRAZIL
7. L&T Display Technology (Fujian) Ltd.	Optoelectronic Park, Rongqiao Economic and Technological, Development Zone, Fuqing City, Fujian 350301, 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, CHINA
9. TPV Technology (Qingdao) Co., Ltd.	NO.99 Huoju Road, High-tech Industrial Development Zone, QINGDAO CITY SHANDONG PROVINCE, CHINA
10. TPV Display Technology (China) Co., Ltd.	No.106 Jinghai 3 Rd., BDA, BEIJING CITY 100176, CHINA
11. TPV Electronics (Fujian) Co., Ltd.	Shangzheng, Yuanhong Road, FUQING CITY FUJIAN PROVINCE, CHINA
12. TPV Electronics (Fujian) Co., Ltd.	Optoelectronic Park, Rongqiao Economic and Technological Development Zone, FUQING CITY FUJIAN 350301, CHINA

General product information:

The equipment under test is a class III 25” LCD (LED backlight) monitor with approved AC/DC adapter, which does not comply with the requirement of Limited power source, so the Limited power source was considered in the appliance, see appended table 2.5 for details.

The unit has the following features:
1. The external plastic enclosure is regarded as decorative enclosure.
2. The unit is configured with LCD panel(with LED backlight)
3. The unit is configured with VGA, DVI, HDMI,DP,USB 3.0 (Yellow, charging fast),USB 3.0(Blue, charging slow) and audio in and out ports.

Model difference:
All models are the same, except model name.

Model name	Adapter	Mainboard
251******; 250LM000**	ADPC2090	Type A(715G8637)
	ADPC2065**** (*=0-9,A-Z,a-z,-,\,/,+ or blank)	Type A(715G8637) Type B(715G8083) Type C(715G8540)

Load condition: Full white display with Max. Brightness and contrast, picture provided from a computer. Maximum volume with a 1KHz sinusoidal input signal (optional),and load 0.9A for each USB 3.0.

With adapter ADPC2065**** and mainboard type C under DP mode represent the worst condition for all tests.

Maximum recommended ambient (Tmra): 40°C

Circuit characteristics: The equipment contains Secondary circuits (SELV) .

1.1.2 – Additional requirements:

Exposure to extreme temperatures, excessive dust, moisture or vibration; to flammable gases; to corrosive or explosive atmospheres:

This equipment is intended to operate in a ”normal” environment (Offices and homes).

Electromedical equipment connected to the patient:

This equipment is not an electromedical equipment intended to be physically connected to a patient.

Equipment used in vehicles, ships or aircrafts, in tropical countries, or at elevations > 2000m:
This equipment is intended to operate in a "normal" environment (Offices and homes) and is intended to be operated under altitude up to 5000m, so the clearance is multiplied by the altitude correction factor (1.48 linear interpolation used), specified in table A.2 of IEC 60664-1.

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**		—
1.5	**Components**		
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	Certified components are used in accordance with their ratings, certifications and they comply with applicable parts of this standard. Components not certified are used in accordance with their ratings and they comply with applicable parts of IEC 60950-1 and the relevant component standard. Components, for which no relevant IEC-standard exists, have been tested under the conditions occurring in the equipment, using applicable parts of IEC 60950-1.	P
1.5.3	Thermal controls	No thermal controls.	N/A
1.5.4	Transformers	No isolating transformer used.	N/A
1.5.5	Interconnecting cables	Class III equipment.	N/A
1.5.6	Capacitors bridging insulation	No such parts	N/A
1.5.7	Resistors bridging insulation	No such parts	N/A
1.5.7.1	Resistors bridging functional, basic or supplementary insulation		N/A
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	Class III equipment.	N/A
1.5.9	Surge suppressors	No such parts	N/A
1.5.9.1	General	See below.	—
1.5.9.2	Protection of VDRs	See below	—
1.5.9.3	Bridging of functional insulation by a VDR	No such parts	N/A
1.5.9.4	Bridging of basic insulation by a VDR	No such parts	N/A
1.5.9.5	Bridging of supplementary, double or reinforced insulation by a VDR	No such parts.	N/A

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

1.6	**Power interface**		
1.6.1	AC power distribution systems	DC supplied	—
1.6.2	Input current	(see appended table 1.6.2)	P
1.6.3	Voltage limit of hand-held equipment	The equipment is not hand-held.	N/A
1.6.4	Neutral conductor	Class III equipment	N/A

1.7	**Marking and instructions**		
1.7.1	Power rating and identification markings	The required marking is located on the outside surface of the equipment.	P
1.7.1.1	Power rating marking	See below	P
	Multiple mains supply connections.....:	Only one mains supply connections.	N/A
	Rated voltage(s) or voltage range(s) (V) ..... :	20V ⎓	P
	Symbol for nature of supply, for d.c. only..... :	IEC 60417, symbol No. 5031, is used.	P
	Rated frequency or rated frequency range (Hz) ... :	DC supplied	—
	Rated current (mA or A) ..... :	4.5A or 3.25A	—
1.7.1.2	Identification markings	See below.	P
	Manufacturer's name or trade-mark or identification mark ..... :	AOC	P
	Model identification or type reference ..... :	**251********;250LM000**	—
	Symbol for Class II equipment only ..... :	Class III equipment	N/A
	Other markings and symbols ..... :	The additional marking does not give rise to misunderstandings.	P
1.7.2	Safety instructions and marking	Refer below	—
1.7.2.1	General	Considered.	—
1.7.2.2	Disconnect devices	No such parts	N/A
1.7.2.3	Overcurrent protective device	No such parts	N/A
1.7.2.4	IT power distribution systems	Class III equipment	N/A
1.7.2.5	Operator access with a tool	Class III equipment	N/A
1.7.2.6	Ozone	The equipment does not produce Ozone.	N/A
1.7.3	Short duty cycles	The equipment is intended for continuous operation.	N/A
1.7.4	Supply voltage adjustment ..... :	No voltage selector.	N/A
	Methods and means of adjustment; reference to installation instructions ..... :		—

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.5	Power outlets on the equipment ..... :	No standard power outlet.	N/A
1.7.6	Fuse identification (marking, special fusing characteristics, cross-reference) ..... :	Fuse located in power supply, marked: F981 and F982, T4AL 250V	P
1.7.7	Wiring terminals	Refer below.	—
1.7.7.1	Protective earthing and bonding terminals ..... :	Class III equipment	N/A
1.7.7.2	Terminals for a.c. mains supply conductors	Class III equipment	N/A
1.7.7.3	Terminals for d.c. mains supply conductors	Class III equipment	N/A
1.7.8	Controls and indicators	Refer below.	—
1.7.8.1	Identification, location and marking ..... :	There is no safety control.	N/A
1.7.8.2	Colours ..... :	For functional indication a LED lights when the equipment is operating.	P
1.7.8.3	Symbols according to IEC 60417 .....:		N/A
1.7.8.4	Markings using figures .....:	No figures used	N/A
1.7.9	Isolation of multiple power sources .....:	Class III equipment	N/A
1.7.10	Thermostats and other regulating devices .....:	Class III equipment	N/A
1.7.11	Durability	The marking withstands required tests.	P
1.7.12	Removable parts	No marking is placed on removable parts.	N/A
1.7.13	Replaceable batteries .....:	No replaceable batteries in the equipment.	N/A
	Language(s) .....:		—
1.7.14	Equipment for restricted access locations .....:	Equipment not intended for installation in RAL.	N/A

2	**PROTECTION FROM HAZARDS**		
2.1	Protection from electric shock and energy hazards		—
2.1.1	Protection in operator access areas	Refer below:	—
2.1.1.1	Access to energized parts	Refer below:	P
	Test by inspection ..... :		P
	Test with test finger (Figure 2A) ..... :	Complied.	—
	Test with test pin (Figure 2B) ..... :	Complied.	—
	Test with test probe (Figure 2C) ..... :	Complied.	—
2.1.1.2	Battery compartments	No TNV circuits in the equipment.	N/A
2.1.1.3	Access to ELV wiring	Class III equipment	N/A
	Working voltage (Vpeak or Vrms); minimum distance through insulation (mm)		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.1.1.4	Access to hazardous voltage circuit wiring	Class III equipment	N/A
2.1.1.5	Energy hazards ..... :	No energy hazard in operator access area. Checked by means of the test finger.	P
2.1.1.6	Manual controls	No shafts of knobs etc. at ELV or hazardous voltage or TNV.	N/A
2.1.1.7	Discharge of capacitors in equipment	Class III equipment, SELV circuit only.	N/A
	Measured voltage (V); time-constant (s)..... :		—
2.1.1.8	Energy hazards – d.c. mains supply	Not connected to DC 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 ..... :	The audio circuit complied with 2.1.1.1.	P
2.1.2	Protection in service access areas	Class III equipment, no hazardous bare parts inside.	N/A
2.1.3	Protection in restricted access locations	Equipment not intended for installation in RAL.	N/A

2.2	**SELV circuits**		
2.2.1	General requirements	Equipment is powered by SELV circuit and does not product hazardous voltage.	P
2.2.2	Voltages under normal conditions (V) ..... :		N/A
2.2.3	Voltages under fault conditions (V) ..... :		N/A
2.2.4	Connection of SELV circuits to other circuits .....:	SELV circuits are only connected to other SELV circuits	P

2.3	**TNV circuits**		
2.3.1	Limits	No TNV circuits.	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..... :		—

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
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**		
2.4.1	General requirements		N/A
2.4.2	Limit values		—
	Frequency (Hz) ..... :		—
	Measured current (mA) ..... :		—
	Measured voltage (V) ..... :		—
	Measured circuit capacitance (nF or µF) ..... :	The measured charge is <0.1µC.	—
2.4.3	Connection of limited current circuits to other circuits		N/A
2.5	**Limited power sources**		
	a) Inherently limited output		N/A
	b) Impedance limited output		N/A
	c) Regulating network limited output under normal operating and single fault condition		N/A
	Use of integrated circuit (IC) current limiters		N/A
	d) Overcurrent protective device limited output		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) .:	(see appended table 1.5.1)	—
2.6	**Provisions for earthing and bonding**		
2.6.1	Protective earthing	Class III equipment, SELV circuit only.	N/A
2.6.2	Functional earthing		N/A
2.6.3	Protective earthing and protective bonding conductors		—
2.6.3.1	General		—
2.6.3.2	Size of protective earthing conductors		N/A
	Rated current (A), cross-sectional area (mm^2), AWG ..... :		—
2.6.3.3	Size of protective bonding conductors		—
	Rated current (A), cross-sectional area (mm^2), AWG ..... :		—

IEC 60950-1			
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) ..... :		N/A
2.6.3.5	Colour of insulation ..... :		N/A
2.6.4	Terminals		—
2.6.4.1	General		—
2.6.4.2	Protective earthing and bonding terminals		N/A
	Rated current (A), type, nominal thread diameter (mm) ..... :		—
2.6.4.3	Separation of the protective earthing conductor from protective bonding conductors		N/A
2.6.5	Integrity of protective earthing		N/A
2.6.5.1	Interconnection of equipment	No interconnection of equipment.	N/A
2.6.5.2	Components in protective earthing conductors and protective bonding conductors		N/A
2.6.5.3	Disconnection of protective earth		N/A
2.6.5.4	Parts that can be removed by an operator		N/A
2.6.5.5	Parts removed during servicing		N/A
2.6.5.6	Corrosion resistance	No risk of corrosion.	N/A
2.6.5.7	Screws for protective bonding		N/A
2.6.5.8	Reliance on telecommunication network or cable distribution system		N/A
2.7	**Overcurrent and earth fault protection in primary circuits**		
2.7.1	Basic requirements	Class III equipment, SELV circuit only.	N/A
	Instructions when protection relies on building installation		N/A
2.7.2	Faults not simulated in 5.3.7		—
2.7.3	Short-circuit backup protection		N/A
2.7.4	Number and location of protective devices ..... :		N/A
2.7.5	Protection by several devices		N/A
2.7.6	Warning to service personnel ..... :		N/A
2.8	**Safety interlocks**		
2.8.1	General principles	No safety interlocks.	N/A
2.8.2	Protection requirements		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
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**		
2.9.1	Properties of insulating materials	The equipment is regarded as Class III. No electrical insulation is required for safety purpose.	N/A
2.9.2	Humidity conditioning		N/A
	Relative humidity (%), temperature (°C) ..... :		—
2.9.3	Grade of insulation		N/A
2.9.4	Separation from hazardous voltages		N/A
	Method(s) used ..... :		—
2.10	**Clearances, creepage distances and distances through insulation**		
2.10.1	General	Class III equipment, SELV circuit only.	N/A
2.10.1.1	Frequency .....:		N/A
2.10.1.2	Pollution degrees .....:		N/A
2.10.1.3	Reduced values for functional insulation		N/A
2.10.1.4	Intervening unconnected conductive parts		—
2.10.1.5	Insulation with varying dimensions		N/A
2.10.1.6	Special separation requirements		N/A
2.10.1.7	Insulation in circuits generating starting pulses		N/A
2.10.2	Determination of working voltage		N/A
2.10.2.1	General		N/A
2.10.2.2	RMS working voltage		N/A
2.10.2.3	Peak working voltage		N/A
2.10.3	Clearances		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.10.3.1	General		—
2.10.3.2	Mains transient voltages		—
	a) AC mains supply .....:		N/A
	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		N/A
2.10.3.4	Clearances in secondary circuits		N/A
2.10.3.5	Clearances in circuits having starting pulses		N/A
2.10.3.6	Transients from a.c. mains supply .....:		N/A
2.10.3.7	Transients from d.c. mains supply .....:		N/A
2.10.3.8	Transients from telecommunication networks and cable distribution systems .....:		N/A
2.10.3.9	Measurement of transient voltage levels		—
	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		—
2.10.4.1	General		—
2.10.4.2	Material group and comparative tracking index		—
	CTI tests .....:		—
2.10.4.3	Minimum creepage distances		N/A
2.10.5	Solid insulation		—
2.10.5.1	General		—
2.10.5.2	Distances through insulation		N/A
2.10.5.3	Insulating compound as solid insulation		N/A
2.10.5.4	Semiconductor devices		N/A
2.10.5.5	Cemented joints		N/A
2.10.5.6	Thin sheet material – General		—
2.10.5.7	Separable thin sheet material		N/A
	Number of layers (pcs) .....:		—
2.10.5.8	Non-separable thin sheet material		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		N/A
	Electric strength test		—

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.10.5.11	Insulation in wound components		N/A
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		N/A
	Electric strength test		N/A
	Routine test		N/A
2.10.5.14	Additional insulation in wound components		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		—
2.10.6.1	Uncoated printed boards		N/A
2.10.6.2	Coated printed boards		N/A
2.10.6.3	Insulation between conductors on the same inner surface of a printed board		N/A
2.10.6.4	Insulation between conductors on different layers of a printed board		N/A
	Distance through insulation		N/A
	Number of insulation layers (pcs) .....:		N/A
2.10.7	Component external terminations		N/A
2.10.8	Tests on coated printed boards and coated components		N/A
2.10.8.1	Sample preparation and preliminary inspection		N/A
2.10.8.2	Thermal conditioning		N/A
2.10.8.3	Electric strength test		N/A
2.10.8.4	Abrasion resistance test		N/A
2.10.9	Thermal cycling		N/A
2.10.10	Test for Pollution Degree 1 environment and insulating compound		N/A
2.10.11	Tests for semiconductor devices and cemented joints		N/A
2.10.12	Enclosed and sealed parts		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
3	**WIRING, CONNECTIONS AND SUPPLY**		
3.1	General		
3.1.1	Current rating and overcurrent protection	Adequate cross sectional areas on internal wiring.	P
3.1.2	Protection against mechanical damage	Wireways are smooth and free from edges. Wires are adequately fixed to prevent excessive strain on wire and terminals and avoiding damage to the insulation of the conductors.	P
3.1.3	Securing of internal wiring	Internal wiring is secured against excessive strain, loosening of terminals and damage to the conductor insulation.	P
3.1.4	Insulation of conductors	Insulation on internal conductors is considered to be of adequate quality and suitable for the application and the working voltage involved.	P
3.1.5	Beads and ceramic insulators	No beads or similar ceramic insulators on conductors.	N/A
3.1.6	Screws for electrical contact pressure	No screw for electrical contact	N/A
3.1.7	Insulating materials in electrical connections	No contact pressure through insulating material.	P
3.1.8	Self-tapping and spaced thread screws	Thread-cutting or space thread screws are not used for electrical connections.	N/A
3.1.9	Termination of conductors	Class III equipment	N/A
	10 N pull test		N/A
3.1.10	Sleeving on wiring	Class III equipment. No sleeving is used as supplementary insulation.	N/A

3.2	**Connection to a mains supply**		
3.2.1	Means of connection	Refer below:	—
3.2.1.1	Connection to an a.c. mains supply	Class III equipment.	N/A
3.2.1.2	Connection to a d.c. mains supply	.	N/A
3.2.2	Multiple supply connections		N/A
3.2.3	Permanently connected equipment		N/A
	Number of conductors, diameter of cable and conduits (mm) ..... :		—
3.2.4	Appliance inlets		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
3.2.5	Power supply cords		—
3.2.5.1	AC power supply cords		N/A
	Type ..... :		—
	Rated current (A), cross-sectional area (mm^2), AWG ..... :		—
3.2.5.2	DC power supply cords		N/A
3.2.6	Cord anchorages and strain relief		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		N/A
	Diameter or minor dimension D (mm); test mass (g) ..... :		—
	Radius of curvature of cord (mm) ..... :		—
3.2.9	Supply wiring space		N/A
3.3	**Wiring terminals for connection of external conductors**		
3.3.1	Wiring terminals	Not applicable, class III equipment which is provided with DC input Jack (Only SELV)	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**		
3.4.1	General requirement	Class III equipment.	N/A
3.4.2	Disconnect devices		N/A
3.4.3	Permanently connected equipment		N/A
3.4.4	Parts which remain energized		N/A
3.4.5	Switches in flexible cords		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
3.4.6	Number of poles - single-phase and d.c. equipment		N/A
3.4.7	Number of poles - three-phase equipment		N/A
3.4.8	Switches as disconnect devices		N/A
3.4.9	Plugs as disconnect devices		N/A
3.4.10	Interconnected equipment		N/A
3.4.11	Multiple power sources		N/A
3.5	**Interconnection of equipment**		
3.5.1	General requirements	Considered.	—
3.5.2	Types of interconnection circuits ..... :	SELV circuit.	P
3.5.3	ELV circuits as interconnection circuits	No ELV.	N/A
3.5.4	Data ports for additional equipment	The equipment complies with the requirements of limited power source. (see appended table 2.5)	P
4	**PHYSICAL REQUIREMENTS**		
4.1	Stability		N/A
	Angle of 10°	<7kg	N/A
	Test force (N) ..... :	The unit is not floor-standing.	N/A
4.2	**Mechanical strength**		
4.2.1	General	Class III equipment, no hazardous parts inside.	P
	Rack-mounted equipment.		N/A
4.2.2	Steady force test, 10 N		N/A
4.2.3	Steady force test, 30 N		N/A
4.2.4	Steady force test, 250 N		N/A
4.2.5	Impact test		—
	Fall test		N/A
	Swing test		N/A
4.2.6	Drop test; height (mm) ..... :		N/A
4.2.7	Stress relief test		N/A
4.2.8	Cathode ray tubes	CRT(s) not used in the equipment.	N/A
	Picture tube separately certified ..... :		N/A
4.2.9	High pressure lamps	No high pressure lamps in the equipment.	N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
4.2.10	Wall or ceiling mounted equipment; force (N) ..... :	Mass of equipment=3.66kg, tested=108N for 1min. The equipment and its associated mounting means still remain secure during the test.VESA compatible wall mounting kit, 100x100mm distance.see also summary of testing.	P
4.3	**Design and construction**		
4.3.1	Edges and corners	All edges and corners are rounded and/or smoothed.	P
4.3.2	Handles and manual controls; force (N) .....:	No knobs, grips, handles, lever etc.	N/A
4.3.3	Adjustable controls	No hazardous adjustable controls.	N/A
4.3.4	Securing of parts	Class III equipment. Not applicable.	N/A
4.3.5	Connection by plugs and sockets	SELV connectors do not comply with IEC 60320 or IEC 60083.	N/A
4.3.6	Direct plug-in equipment	Not intended to plug directly into a wall socket-outlet.	N/A
	Torque ..... :		—
	Compliance with the relevant mains plug standard ..... :		—
4.3.7	Heating elements in earthed equipment	No heating elements provided.	N/A
4.3.8	Batteries	No batteries in the equipment.	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
4.3.9	Oil and grease	Insulation is not exposed to oil, grease etc.	N/A
4.3.10	Dust, powders, liquids and gases	The equipment does not generate ionizing radiation or use a laser, and does not contain flammable liquids or gases.	N/A
4.3.11	Containers for liquids or gases	No containers for liquids or gases in the equipment.	N/A
4.3.12	Flammable liquids ..... :	The equipment does not contain flammable liquid.	N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Quantity of liquid (l) ..... :		N/A
	Flash point (°C) ..... :		N/A
4.3.13	Radiation	Refer below:	—
4.3.13.1	General	Refer below:	—
4.3.13.2	Ionizing radiation	The equipment does not generate ionizing radiation.	N/A
	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	The equipment does not produce significant UV radiation.	N/A
	Part, property, retention after test, flammability classification ..... :		N/A
4.3.13.4	Human exposure to ultraviolet (UV) radiation ..... :	The equipment does not produce significant UV radiation.	N/A
4.3.13.5	Lasers (including laser diodes) and LEDs	LEDs provided are diffuse.	N/A
4.3.13.5.1	Lasers (including laser diodes)	No laser.	N/A
	Laser class ..... :		—
4.3.13.5.2	Light emitting diodes (LEDs)		
4.3.13.6	Other types ..... :	The equipment does not generate other types of radiation.	N/A

4.4	**Protection against hazardous moving parts**		
4.4.1	General	No moving parts.	N/A
4.4.2	Protection in operator access areas ..... :	No moving parts.	N/A
	Household and home/office document/media shredders	Not intended for installation in RAL.	N/A
4.4.3	Protection in restricted access locations ..... :	Unintentional contact is not likely in service access areas.	N/A
4.4.4	Protection in service access areas	No moving parts.	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

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
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**		
4.5.1	General	See below.	P
4.5.2	Temperature tests	(see appended table 4.5)	—
	Normal load condition per Annex L .....:		P
4.5.3	Temperature limits for materials	(see appended table 4.5)	—
4.5.4	Touch temperature limits	(see appended table 4.5)	P
4.5.5	Resistance to abnormal heat .....:	No thermoplastic parts carrying hazardous voltages.	N/A
4.6	**Openings in enclosures**		N/A
4.6.1	Top and side openings	Class III equipement	N/A
	Dimensions (mm) .....:		—
4.6.2	Bottoms of fire enclosures	The equipment after fuse F981 and F982 is supplied by limited power source. Fire enclosure was not required.	N/A
	Construction of the bottomm, dimensions (mm) ..:		—
4.6.3	Doors or covers in fire enclosures	No doors or covers in fire enclosure.	N/A
4.6.4	Openings in transportable equipment	The unit is not regarded as transportable equipment.	N/A
4.6.4.1	Constructional design measures	The unit is not regarded as transportable equipment.	N/A
	Dimensions (mm) .....:		—
4.6.4.2	Evaluation measures for larger openings	The unit is not regarded as transportable equipment.	N/A
4.6.4.3	Use of metallized parts	The unit is not regarded as transportable equipment.	N/A
4.6.5	Adhesives for constructional purposes	No this part.	N/A
	Conditioning temperature (°C), time (weeks).....:		—
4.7	**Resistance to fire**		
4.7.1	Reducing the risk of ignition and spread of flame	See below	P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Method 1, selection and application of components wiring and materials	(See appended table 1.5.1)	P
	Method 2, application of all of simulated fault condition tests	(See appended table 5.3)	P
4.7.2	Conditions for a fire enclosure	Refer below.	—
4.7.2.1	Parts requiring a fire enclosure	All parts do not need to be covered by a fire enclosure. See 4.7.2.2	N/A
4.7.2.2	Parts not requiring a fire enclosure	The equipment after fuse F981 and F982 is supplied by limited power source and all parts are mounted on min. V-1 PCB. All parts do not need to be covered by a fire enclosure. (see appended table 2.5)	P
4.7.3	Materials		P
4.7.3.1	General	Components and materials have adequate flammability classification. See appended table 1.5.1.	P
4.7.3.2	Materials for fire enclosures	Not required fire enclosure	N/A
4.7.3.3	Materials for components and other parts outside fire enclosures	Min. HB material. PCB of mainboard is Class V-1.	P
4.7.3.4	Materials for components and other parts inside fire enclosures	The equipment after fuse F981 and F982 is supplied by limited power source and all components mounted on V-1 PCB. All parts do not need to be co-vered by a fire enclosure. (see appended table 2.5)	P
4.7.3.5	Materials for air filter assemblies	No air filters in the equipment.	N/A
4.7.3.6	Materials used in high-voltage components	No parts exceeding 4kV.	N/A

5	**ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS**		**N/A**
5.1	**Touch current and protective conductor current**		N/A
5.1.1	General	Class III equipment, SELV circuit only.	N/A
5.1.2	Configuration of equipment under test (EUT)	See below.	—
5.1.2.1	Single connection to an a.c. mains supply	No interconnection of equipment.	N/A
5.1.2.2	Redundant multiple connections to an a.c. mains supply	No multiple power sources.	N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
5.1.2.3	Simultaneous multiple connections to an a.c. mains supply	No multiple power sources.	N/A
5.1.3	Test circuit		N/A
5.1.4	Application of measuring instrument		N/A
5.1.5	Test procedure		—
5.1.6	Test measurements		—
	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		N/A
5.1.7.1	General ..... :		—
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		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 ..... :		—
	b) EUT whose telecommunication ports have no reference to protective earth		—

5.2	**Electric strength**		
5.2.1	General	Class III equipment, SELV circuit only.	N/A
5.2.2	Test procedure	Class III equipment, SELV circuit only.	N/A

5.3	**Abnormal operating and fault conditions**		
5.3.1	Protection against overload and abnormal operation		P
5.3.2	Motors	There is no motor in the equipment.	N/A
5.3.3	Transformers		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
5.3.4	Functional insulation ..... :	Class III equipment, SELV circuit only.	N/A
5.3.5	Electromechanical components	No electromechanical components in secondary circuits.	N/A
5.3.6	Audio amplifiers in ITE ..... :		P
5.3.7	Simulation of faults		P
5.3.8	Unattended equipment	No thermostats, temperature limiters or thermal cut-outs	N/A
5.3.9	Compliance criteria for abnormal operating and fault conditions	Refer below:	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 fire or molten metal occurred and no deformation of enclosure during the tests.	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		—
6.1.1	Protection from hazardous voltages		—
6.1.2	Separation of the telecommunication network from earth		—
6.1.2.1	Requirements	No TNV circuit.	N/A
	Supply voltage (V) ..... :		—
	Current in the test circuit (mA) ..... :		—
6.1.2.2	Exclusions ..... :		N/A
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 ..... :		—

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

7	**CONNECTION TO CABLE DISTRIBUTION SYSTEMS**		N/A
7.1	General	Not connected to Cable Distribution System.	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 ..... :		—
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 ..... :		—

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

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
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)**		N/A
	Position ..... :		—
	Manufacturer ..... :		—
	Type ..... :		—
	Rated values ..... :		—
	Method of protection ..... :		—
C.1	Overload test		N/A
C.2	Insulation		N/A
	Protection from displacement of windings ..... :		N/A
D	**ANNEX D, MEASURING INSTRUMENTS FOR TOUCH-CURRENT TESTS (see 5.1.4)**		N/A
D.1	Measuring instrument		N/A
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)**		N/A
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

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
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)**		N/A
	Metal(s) used ..... :		—
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	Not used.	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

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
L.7	Other business equipment		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
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

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
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
			—
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)**		N/A
V.1	Introduction	See below	—
V.2	TN power distribution systems	See sub-clause 1.6.1.	N/A
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	Considered.	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

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
Z	**ANNEX Z, OVERVOLTAGE CATEGORIES (see 2.10.3.2 and Clause G.2)**		N/A
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
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.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity[1])
AC/DC adapter	TPV Electronics (Fujiang) Co., Ltd	ADPC2090	Input : 100-240 V~, 50-60 Hz, 1.3 A Output: 20 Vdc, 4.5 A, SELV	IEC60950-1:2005+A1:2009+ A2:2013 EN 60950-1:2006+A11:2009+A1:2010+ A12:2011+A2:2013	CB by TUV RH (17038425001 and 17038425002)
Alt.)	TPV Electronics (Fujiang) Co., Ltd	ADPC2065**** (*=0-9,A-Z,a-z,-,\,/,+ or blank)	Input : 100-240 V~, 50-60 Hz, 1.5 A Output: 20 Vdc, 3.25 A, SELV, LPS	IEC60950-1:2005+A1:2009+ A2:2013 EN 60950-1:2006+A11:2009+A1:2010+ A12:2011+A2:2013	CB by TUV RH (17061539001)
Plastic Enclosure	LOTTE	VH-0810(+); VH-0890(+); NH-1017(p); VE-0812(+); NH-1000T(+)(&); BF-0677(+); BF-0675(+); BF-0670(+); GC-0700(+); GC-0750(+); HS-7000(+); SD-0150(+); NE-1030(+); HR-1360(+); HG-0760(+); LX-0951(+); LX-0957(+); VE-1890K TP-1100(+) NH-1017T NH-1017(+) NH-1000T+ BF-0670F	HB or better	UL94	UL
Alt.)	Chi Mei	PA-757(+); PH-88HT(+)			UL
Alt.)	Grand	D-150 D-1000A			UL
Alt.)	TEIJIN	TN-7500(c), TN-7500F(#), MN-3600H(#) MN-3600V(#)			UL
Alt.)	Haier	HRABS-RS; HRABS-HG; CR-3002			UL

Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity[1]
Alt.)	UNIC TECHNOLOGY CORP	UR-3006+ (RXX) UR-200+	HB or better	UL94	UL
Alt.)	LG	AF312T1; GN-5001TF(#); LUPOY GN-5001RF(T); LUPOY GN-5008HF(#); HF350(#); HF380(#); SE885(#); SE750(#); XG568(#); XG569(#); HF388(#); LUPOY GP-1000; LUPOY GP-1000(m)(#); LUPOY GP-1000(#) AF-342T GN-5001TF GN-5001RF GP-1000L			UL
Alt.)	TEIJIN	TN-7500(c), TN-7500F(#), MN-3600H(#) MN-3600V(#)			UL

Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity[1])
Alt.)	KingFa	4418; HF-606; HF-626; FRABS-518; JH960 6(M); FRHIPS-960; 5197; HIPS-5197; HIPS-4418; HIPS-3399; HIPS-CM(ee); HIPS-HG(ee); HIPS-510 (o); HIPS-550; CK-61(M) (##); RS-(hh)0; HP-126; ABS-600; ABS-122; GAR-322; GAR-332; GAR-220; H12; G360; GAR-011; CK-55(M) (##); CK-58(M) (##); GAR-011C; GAR-011(ww); CK-100 FRABS-518 RD-900 RS-900 GAR-011(L85) GAR-011(L65) GAR-011(HG6) RS-300 RS-400	HB or better	UL94	UL
Alt.)	STYROLUTION	495F GR2, 495F KG2, 495F GR21, 495F KG21, PC2065			
Alt.)	STYRON	STYRON A-TECH 1400			
Alt.)	TOTAL PETROCHEMICALS SOUTH EAST ASIA PTE LTD	3441; 260-XX			
Alt.)	DOOSAN CORPORATION ELECTRO-MATERIALS BG	DS-1107A; DS-1202G; DS-7106			

Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity[1]
Alt.)	ORINKO (HEFEI) ADVANCED PLASTIC CO LTD	HIPS-2000; ABS-3070H	HB or better	UL94	UL
Alt.)	Basf	GP-35, GP-22			
Alt.)	WISTRON	GA35			
Alt.)	HINGLONG	HL-ABS-PCR35/65/85			
Alt.)	WOTE	2100			
Alt.)	GUO HENG	YOUHO(1302)(B), YOUHO(1303)(B)			
Alt.)	SABIC	C6600			
Alt.)	CHIMEI	PA-756S			
Alt.)	COVESTRO DEUTSCHLAND AG	FR2000, FR3005			
Alt.)	PONTEX	AFE5000N, AFE5100N, 9004BK			
Alt.)	Interchangeable	Interchangeable			
Stand	Interchangeable	Interchangeable	HB or better	UL94	UL
PCB	Interchangeable	Interchangeable	Min. V-1 105°C	UL796	UL
LCD panel (LED backlight)	AUO	M250HTN**.* (*can be 0~9, A~Z, blank for marking purpose)	All 25” TFT glass is minimum 0.4mm thickness	UL 60950-1 IEC60950-1	UL Test in the equipment
Fuse (F981,F982)(Located on mainboard for LPS)	Littelfuse/ Wickmann	392, 382	T4AL, 250Vac	IEC 60127, UL248	VDE,UL
Alt.)	Littelfuse	0663 series	T4AL, 250Vac		VDE,UL

Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity[1)]
Alt.)	Conquer	MET,MST	T4AL, 250Vac	IEC 60127, UL248	VDE,UL
Alt.)	SAVE FUSETECH INC	SR-5 series, SS-5 series	T4AL, 250Vac		VDE,UL
Alt.)	Suzhou Walter	2000, 2010 series	T4AL, 250Vac		VDE,UL
Supplementary information:					
[1)]an asterisk indicates a mark which assures the agreed level of surveillance.					

1.5.1	TABLE: Opto Electronic Devices	N/A
Manufacturer ..... Type..... Separately tested..... Bridging insulation ..... External creepage distance ..... Internal creepage distance ..... Distance through insulation ..... Tested under the following conditions ..... Input..... Output.....		
supplementary information		

1.6.2	TABLE: electrical data (in normal conditions)	P

fuse #	Irated (A)	U (V / Hz)	P (W)	I (A)	Ifuse (A)	condition/status
With adapter ADPC2090 and mainboard type A						
--	4.5	20V dc	42.8	2.14	--	Normal load
With adapter ADPC2065**** and mainboard type A						
--	3.25	20V dc	41.0	2.05	--	Normal load
With adapter ADPC2065**** and mainboard type C						
--	3.25	20V dc	45.8	2.29	--	Normal load
Supplementary information:						
Maximum normal load refer to general product information.						

2.1.1.5 c)	TABLE: max. V, A, VA test	N/A

Voltage (rated) (V)	Current (rated) (A)	Voltage (max.) (V)	Current (max.) (A)	VA (max.) (VA)
supplementary information:				
The above measurements are the maximum values (max. V and max. A not obtained at the same time).				

2.2	TABLE: evaluation of voltage limiting components in SELV circuits	N/A

Component (measured between)	max. voltage (V) (normal operation)		Voltage Limiting Components
	V peak	V d.c.	

Fault test performed on voltage limiting components	Voltage measured (V) in SELV circuits (V peak or V d.c.)
supplementary information:	

2.4.2	TABLE: limited current circuit measurement	N/A

Location	Voltage (V)	Current (mA)	Freq. (kHz)	Limit (mA)
supplementary information:				
Vin=264V, 60Hz.				

2.5	TABLE: limited power sources	P

Circuit output tested: See below

	I_{sc} (A)		VA	
	Meas.	Limit	Meas.	Limit
DC power input on mainboard is tested: +20V output				
normal condition(F982 or F981 bypass) (with table 2C), Uoc=20.3V	5.46	49.3	109	250

supplementary information:

-.Fuse F982 or F981 broken with the circuit within 120 sec. with a current equal 210% of fuse rating.
-.The fuses were located on the input of mainboard.

2.10.2	Table: working voltage measurement	N/A

Location	RMS voltage (V)	Peak voltage (V)	Comments

supplementary information:

Vin = 240Vac, 60Hz

2.10.3 and 2.10.4	TABLE: Clearance and creepage distance measurements	N/A

Clearance (cl) and creepage distance (cr) at/of/between:	U peak (V)	U r.m.s. (V)	Required cl (mm)	cl (mm)	Required cr (mm)	cr (mm)

Supplementary information:

2.10.5	TABLE: distance through insulation measurements	N/A

distance through insulation di at/of:	Up (V)	test voltage (V)	required di (mm)	di (mm)

supplementary information:

4.3.8	TABLE: Batteries								N/A
The tests of 4.3.8 are applicable only when appropriate battery data is not available									
Is it possible to install the battery in a reverse polarity position?									
	Non-rechargeable batteries			Rechargeable batteries					
	Discharging		Un-intentional charging	Charging		Discharging		Reversed charging	
	Meas. current	Manuf. Specs.		Meas. current	Manuf. Specs.	Meas. current	Manuf. Specs.	Meas. current	Manuf. Specs.
Max. current during normal condition									
Max. current during fault condition									
Test results:									Verdict
- Chemical leaks									
- Explosion of the battery									
- Emission of flame or expulsion of molten metal									
- Electric strength tests of equipment after completion of tests									
Supplementary information:									

4.3.8	TABLE: Batteries	N/A
Battery category..... :	(Lithium, NiMh, NiCad, Lithium Ion …)	
Manufacturer ..... :		
Type / model..... :		
Voltage ..... :		
Capacity..... :	mAh	
Tested and Certified by (incl. Ref. No.) ..... :		
Circuit protection diagram:		

MARKINGS AND INSTRUCTIONS (1.7.13)	
Location of replaceable battery	
Language(s) ……..:	
Close to the battery ……..:	
In the servicing instructions ……..:	
In the operating instructions ……..:	

4.5	TABLE: maximum temperatures		P
	test voltage (V) :	20Vd.c.	—
maximum temperature T of part/at:		T (°C)	allowed Tmax (°C)
DC inlet body (on main board)		35.0	54.3
C801 (on main board)		38.3	69.3
C983 (on main board)		38.7	69.3
L981 (on main board)		41.1	79.3 *)
L801 coil (on main board)		45.0	79.3 *)
L801 core (on main board)		42.9	79.3 *)
PCB near U801 (on main board)		45.0	89.3
PCB near Q801 (on main board)		52.5	89.3
C809 (on main board)		42.1	69.3
Plastic enclosure inside		30.9	--
Plastic enclosure outside		26.6	79.3
panel		29.7	64.3
Ambient		24.3	--
supplementary information:			
Tmra = 40°C. The maximum allowed temperatures are calculated based upon a (minimum) ambient temperature of 24.3°C. Temp. limits are adjusted according to Cl. 1.4.12.3. If no limit is stated, temperature is for reference only *)Temperature limits include less 10K for thermocouple measurement method. -.With adapter ADPC2090 and mainboard type A.			

4.5	TABLE: maximum temperatures		P
	test voltage (V) :	20Vd.c.	—
maximum temperature T of part/at:		T (°C)	allowed Tmax (°C)
DC inlet body (on convertor board)		39.4	53.1
C801 (on convertor board)		42.6	68.1
C983 (on convertor board)		42.7	68.1
L981 (on convertor board)		45.3	78.1 *)
L801 coil (on convertor board)		49.8	78.1 *)
L801 core (on convertor board)		46.3	78.1 *)
PCB near U801 (on convertor board)		49.4	88.1
PCB near Q801 (on convertor board)		56.5	88.1
C809 (on convertor board)		46.3	68.1
Plastic enclosure inside		34.6	--
Plastic enclosure outside		30.3	78.1
panel		31.7	63.1
Ambient		23.1	--
supplementary information:			
Tmra = 40°C. The maximum allowed temperatures are calculated based upon a (minimum) ambient temperature of 23.1°C. Temp. limits are adjusted according to Cl. 1.4.12.3. If no limit is stated, temperature is for reference only *)Temperature limits include less 10K for thermocouple measurement method. -.With adapter ADPC2065**** and mainboard type C			

4.5.5	TABLE: Ball pressure test of thermoplastic parts		N/A
	Allowed impression diameter (mm) .....:	≤ 2 mm	—
Part		Test temperature (°C)	Impression diameter (mm)
Supplementary information:			

4.7	TABLE: resistance to fire			N/A
part	manufacturer of material	type of material	thickness (mm)	flammability class
supplementary information:				

5.1	TABLE: touch current measurement	N/A

Measured between:	Measured (mA)	Limit (mA)	Comments/conditions
supplementary information:			
Vin = 264V, 60Hz			

5.2	TABLE: Electric strength tests	N/A

Test voltage applied between:	Voltage shape (AC, DC, impulse, surge)	Test voltage (V)	Breakdown Yes / No
Supplementary information:			

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

Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
Speaker	s-c	20 dc	5 min	--	--	Unit operated normally, no damaged, no hazard.
C983	s-c	20 dc	5 min	--	--	Unit shut down, no hazard.
C991	s-c	20 dc	5 min	--	--	Unit shut down, no hazard.
L981 pin 4-5	s-c	20 dc	5 min	--	--	Unit shut down, no hazard.
USB 3.0 (Blue)	o-l	20 dc	3.5hrs	--	--	USB 3.0 loaded to 2.55A, max. temp in: L981=45.4°C L801 coil=49.2 °C L801 core=47.6°C Ambient= 24.3°C
USB 3.0 (Yellow)	o-l	20 dc	3.3hrs	--	--	USB 3.0 loaded to 2.53A, max. temp in: L981=44.3°C L801 coil=48.3 °C L801 core=46.8°C Ambient= 24.1°C

Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
Openings	Blocked	20 dc	3.2hrs	--	--	Normal operation max. temp in: L981=47.5°C L801 coil=50.3 °C L801 core=48.9°C Ambient= 24.5°C
Supplementary information:						
s-c: short circuit; o-l: over load						

C.2	TABLE: transformer	N/A

Loc.	Tested insulation	Working voltage peak / V (2.10.2)	Working voltage rms / V (2.10.2)	Required electric strength (5.2)	Required clearance / mm (2.10.3)	Required creepage distance / mm (2.10.4)	Required distance thr. insul. (2.10.5)

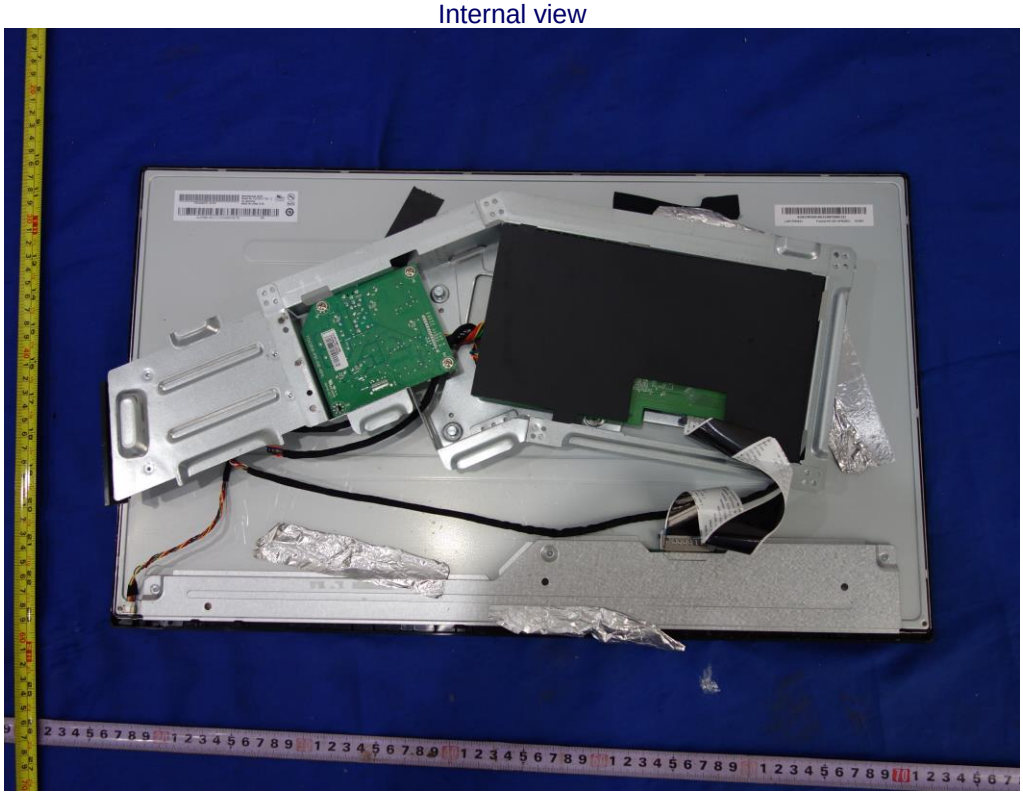
Loc.	Tested insulation	Test voltage/ V	Measured clearance / mm	Measured creepage dist./ mm	Measured distance thr. insul. / mm; number of layers
supplementary information:					

Front view

Back view

Internal view

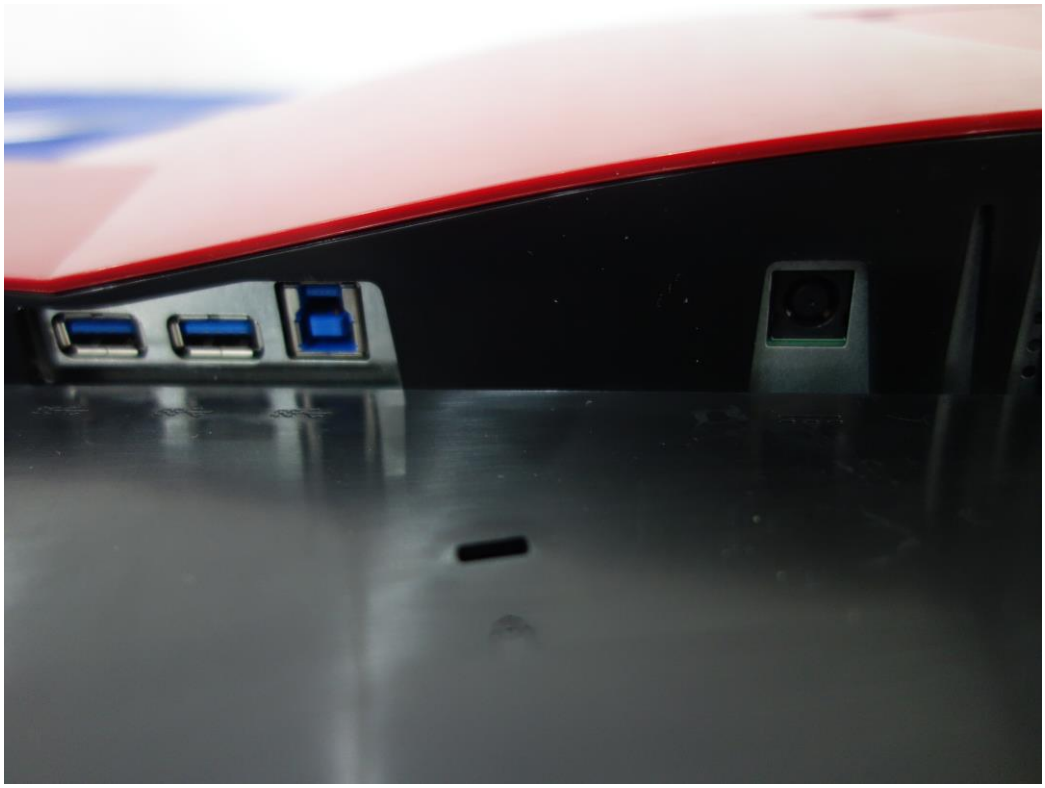
Internal view



Note: The mylar sheet was used for preventing the internal wire to be scratched

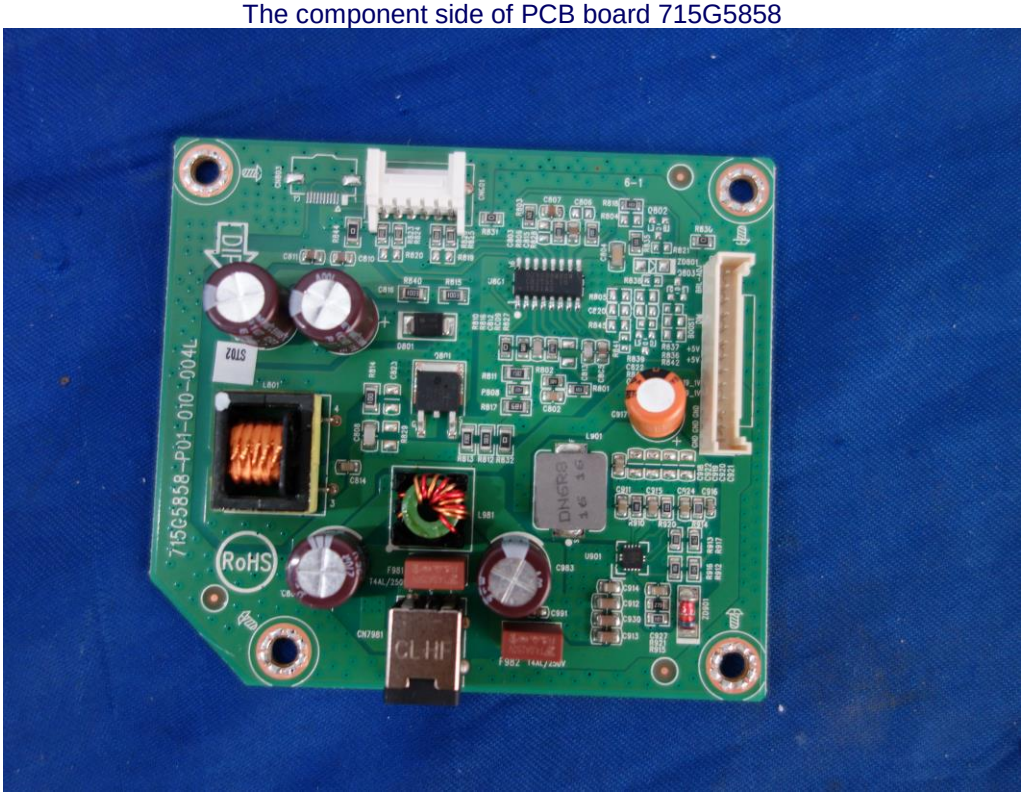
Terminal view

Terminal view

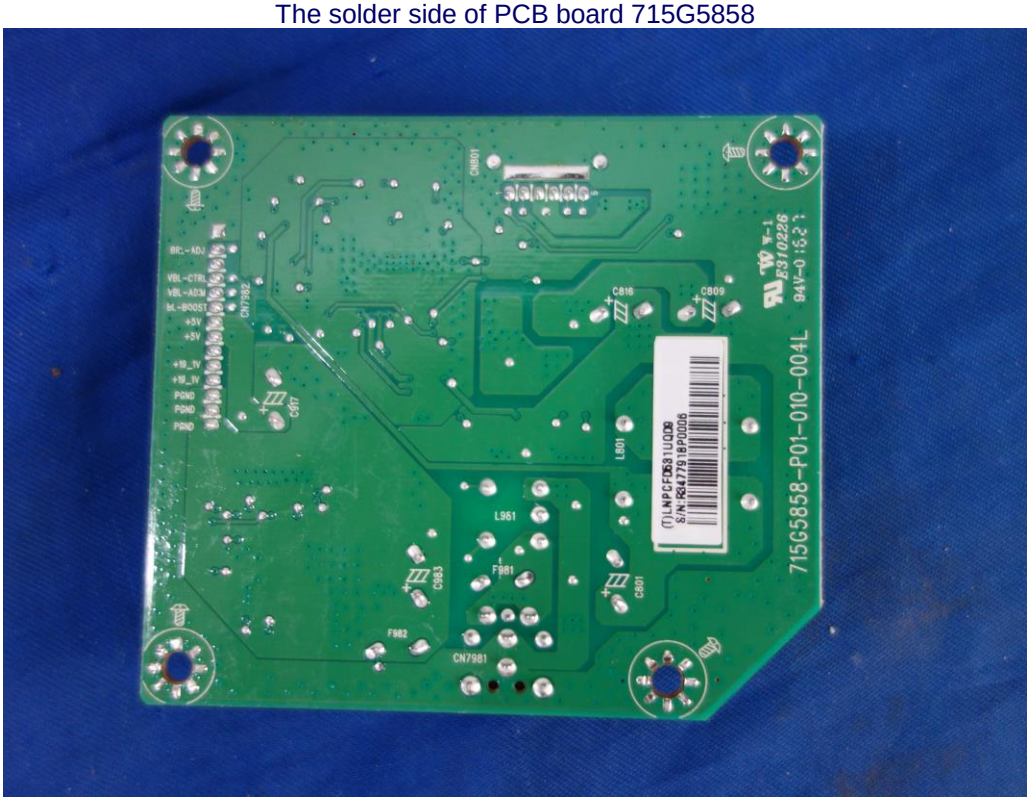


Terminal view

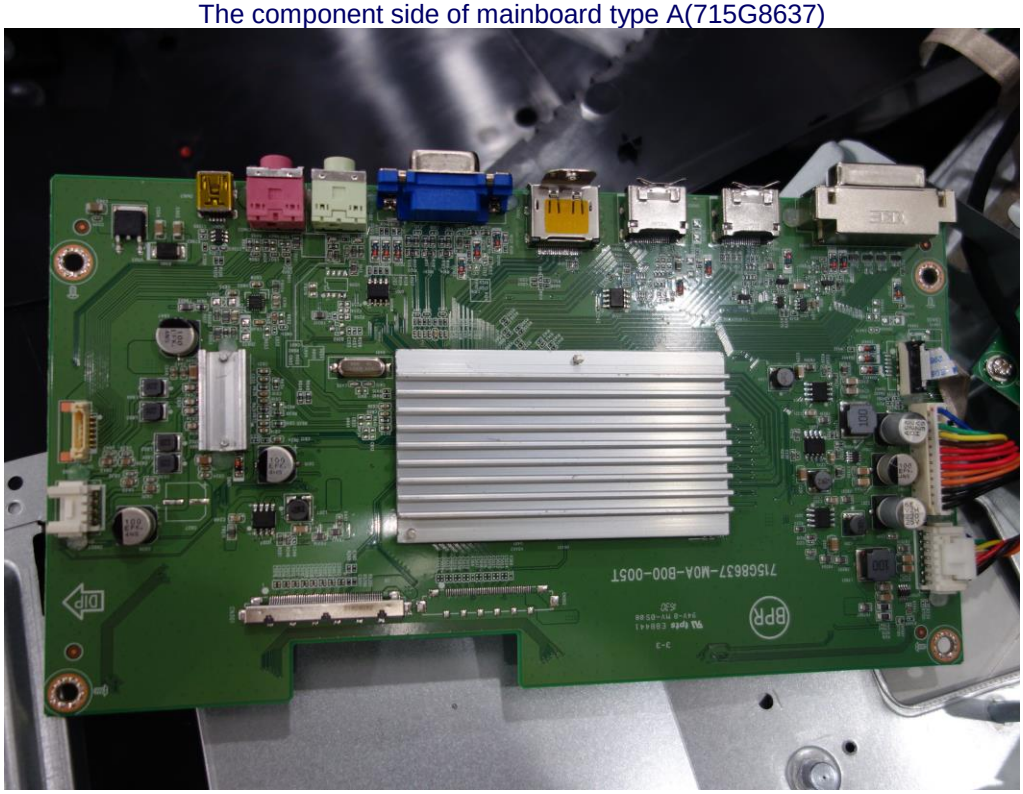
The component side of PCB board 715G5858



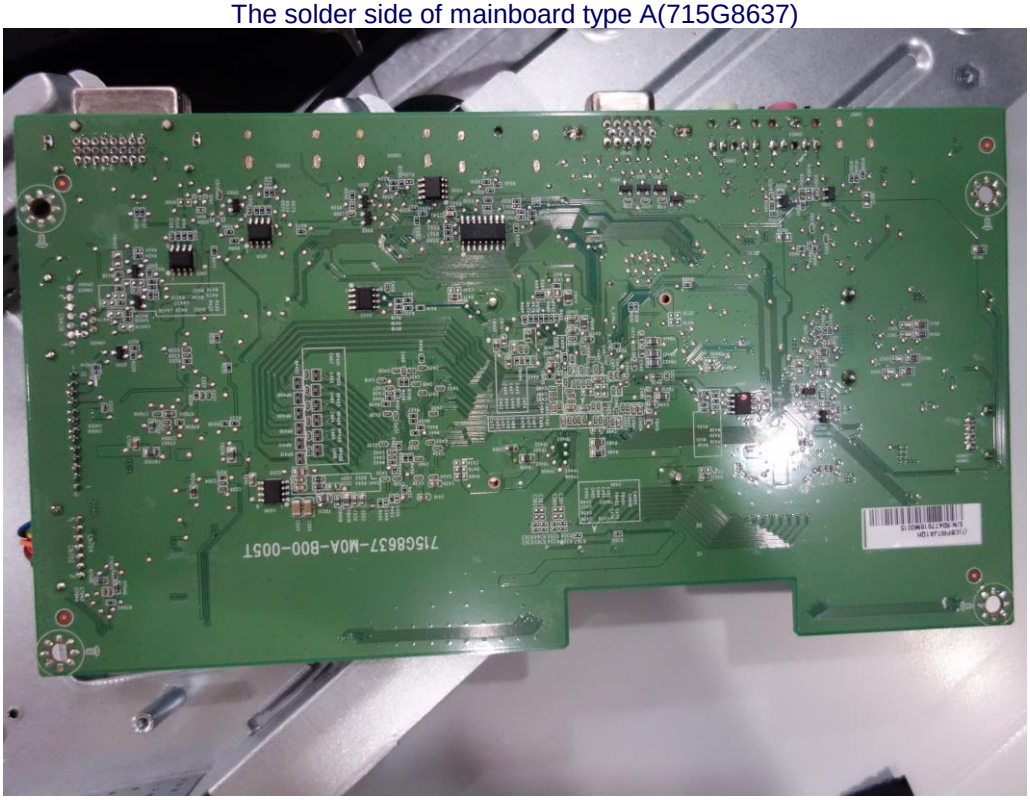
The solder side of PCB board 715G5858



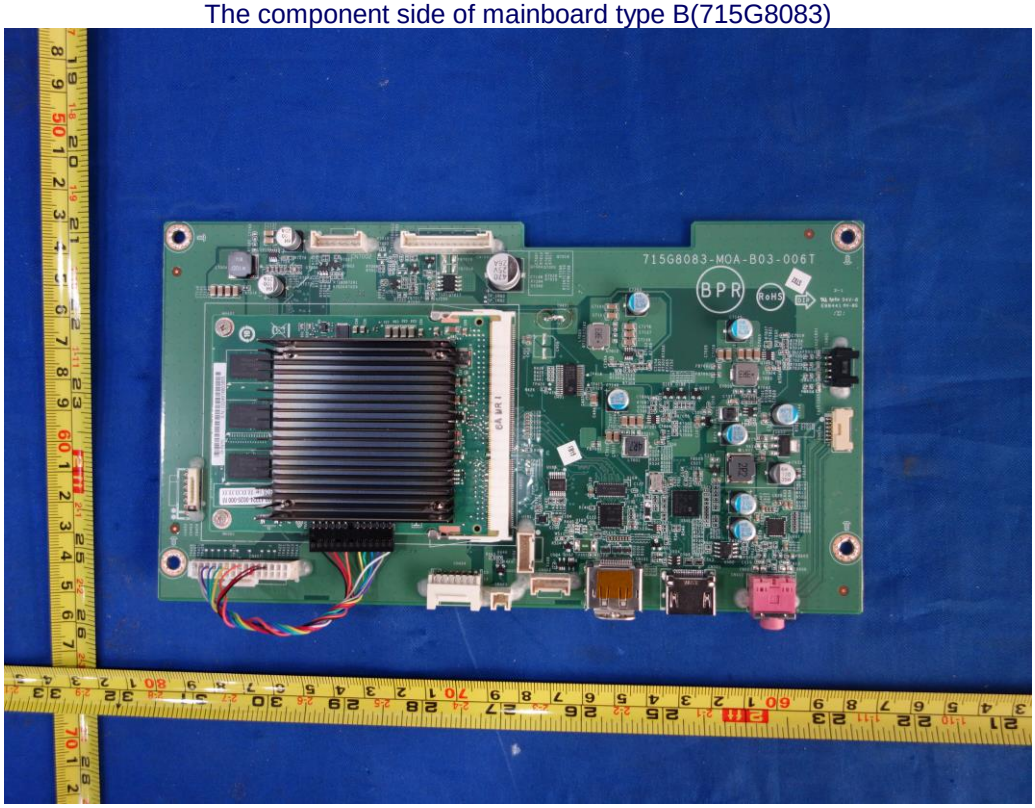
The component side of mainboard type A(715G8637)



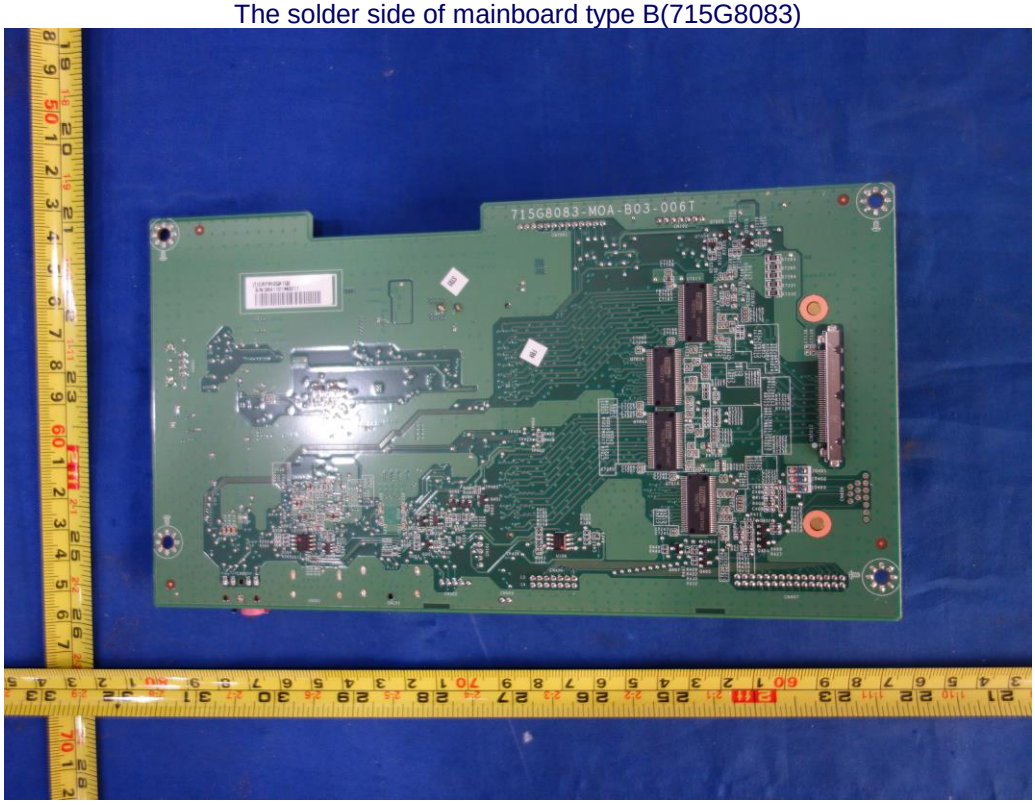
The solder side of mainboard type A(715G8637)



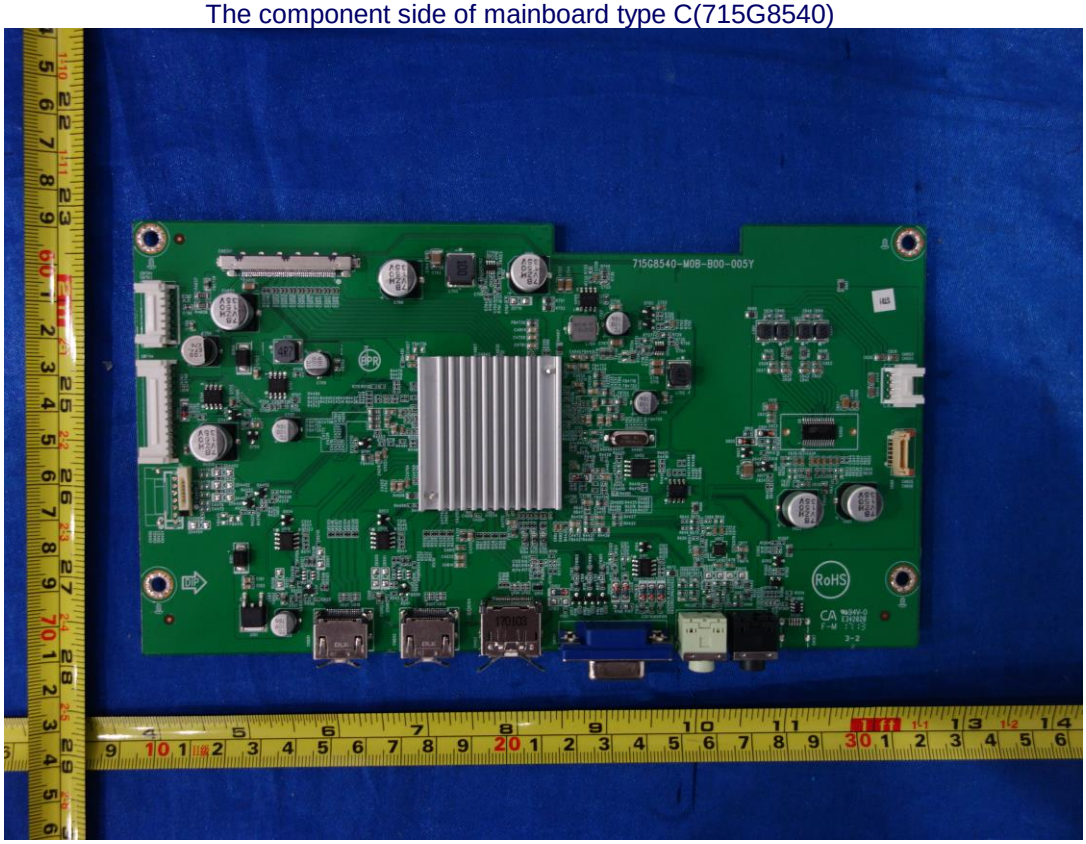
The component side of mainboard type B(715G8083)



The solder side of mainboard type B(715G8083)



The component side of mainboard type C(715G8540)



The solder side of mainboard type C(715G8540)

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		—
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		—
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.		P

IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
Clause	Requirement + Test	Result - Remark	Verdict
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.		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	Considered	—
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 *	Considered	—
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.	No Portable Sound System	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.	No Portable Sound System	N/A
	Zx Protection against excessive sound pressure from personal music players		N/A

IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
Clause	Requirement + Test	Result - Remark	Verdict
	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 a personal music player	N/A

IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
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.	Not a personal music players	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 LAeq,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 LAeq,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 a personal music players	N/A

IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
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 LAeq,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 LAeq,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 a personal music players	N/A

IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
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 a personal music players	N/A
	Zx.4 Requirements for listening devices (headphones and earphones)		
	Zx.4.1 Wired listening devices with analogue input With 94 dBA sound pressure output LAeq,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 a personal music players	N/A

IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
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 LAeq,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 a personal music players	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 LAeq,T of the listening device shall be ≤ 100 dBA. NOTE An example of a wireless listening device is a Bluetooth headphone.	No wireless listening devices	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.	No wireless listening devices	N/A

IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
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;	Class III equipment supplied by a separately certified adaptor.	N/A
	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.		
2.7.2	This subclause has been declared 'void'.	Considered	—
3.2.3	Delete the NOTE in Table 3A, and delete also in this table the conduit sizes in parentheses.	The equipment is not intended for permanent connection to the mains	—
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.	Class III equipment supplied by a separately certified adaptor.	N/A
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

IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
Clause	Requirement + Test	Result - Remark	Verdict
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	No terminal provided	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).	Considered	N/A
	Standards taking into account mentioned Recommendation and Directive which demonstrate compliance with the applicable EU Directive are indicated in the OJEC.	Considered	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.	The unit does not emit X-ray radiation.	N/A
Bibliography	Additional EN standards.	Considered	—

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.	Class III equipment.	N/A
1.2.13.14	In **Norway** and **Sweden**, for requirements see 1.7.2.1 and 7.3 of this annex.		N/A
1.5.7.1	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.	No such Resistors.	N/A

ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
Clause	Requirement + Test	Result - Remark	Verdict
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).	Class III equipment.	N/A
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 component.	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” In **Norway** and **Sweden**, the screen of the cable distribution system is normally not earthed at the entrance of the building and there is normally no equipotential bonding system within the building. Therefore the protective earthing of the building installation need to be isolated from the screen of a cable distribution system. It is however accepted to provide the insulation external to the equipment by an adapter or an interconnection cable with galvanic isolator, which may be provided by e.g. a retailer. The user manual shall then have the following or similar information in Norwegian and Swedish language respectively, depending on in what country the equipment is intended to be used in: “Equipment connected to the protective earthing of the building installation through the mains connection or through other equipment with a connection to protective earthing – and to a cable distribution system using coaxial cable, may in some circumstances create a fire hazard. Connection to a cable distribution system has therefore to be provided through a device providing electrical isolation below a certain frequency range (galvanic isolator, see EN 60728-11).”	Class III equipment.	N/A

ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
Clause	Requirement + Test	Result - Remark	Verdict
	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 som er koplet til beskyttelsesjord via nettplugg og/eller via annet jordtilkoplet utstyr – og er tilkoplet et kabel-TV nett, kan forårsake brannfare. For å unngå dette skal det ved tilkopling av utstyret til kabel-TV nettet installeres 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 vissa 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.”	Not TV.	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.”	Class III equipment	N/A
1.7.5	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.	There are no socket outlets providing power to other appliances.	N/A

ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
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	Class III equipment	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 circuits.	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 circuits.	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 circuits.	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.	Class III equipment.	N/A
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.	Not a direct plug-in equipment	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 circuit	N/A
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	Class III equipment supplied by a separately certified adaptor.	N/A

ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
Clause	Requirement + Test	Result - Remark	Verdict
	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		
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.	Class III equipment supplied by a separately certified adaptor.	N/A
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	Class III equipment	N/A

ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
Clause	Requirement + Test	Result - Remark	Verdict
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.	Class III equipment supplied by a separately certified adaptor.	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.	Class III equipment supplied by a separately certified adaptor.	N/A
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.	Class III equipment supplied by a separately certified adaptor.	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.	Class III equipment supplied by a separately certified adaptor.	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.	Class III equipment supplied by a separately certified adaptor.	N/A

ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
Clause	Requirement + Test	Result - Remark	Verdict
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.	Not a direct plug-in equipment	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.	Not a direct plug-in equipment	N/A
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.	Class III equipment supplied by a separately certified adaptor.	N/A

ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
Clause	Requirement + Test	Result - Remark	Verdict
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 circuits.	N/A
	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

ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
Clause	Requirement + Test	Result - Remark	Verdict
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.		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.		N/A
7.3	In **Norway** and **Sweden**, for requirements see 1.2.13.14 and 1.7.2.1 of this annex.		N/A
7.3	In **Norway**, for installation conditions see EN 60728-11:2005.		N/A

Annex ZD
(informative)

IEC and CENELEC code designations for flexible cords

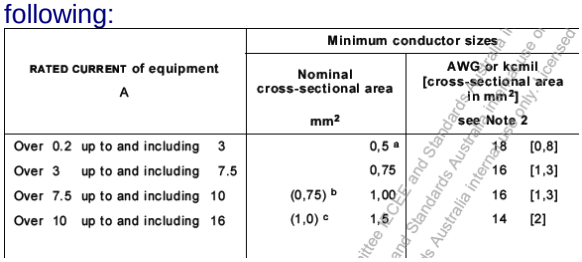
Type of flexible cord	Code designations	
	IEC	CENELEC
PVC insulated cords		
Flat twin tinsel cord	60227 IEC 41	H03VH-Y
Light polyvinyl chloride sheathed flexible cord	60227 IEC 52	H03VV-F
		H03VVH2-F
Ordinary polyvinyl chloride sheathed flexible cord	60277 IEC 53	H05VV-F
		H05VVH2-F
Rubber insulated 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

ATTACHMENT TO TEST REPORT IEC 60950-1
（AUSTRALIA/NEW ZEALAND）NATIONAL DIFFERENCES

Information technology equipment – Safety

Differences according to ..... :	AS/NZS 60950.1:2015
Attachment Form No. ..... :	AU_NZ_ND_IEC60950_1F
Attachment Originator..... :	JAS-ANZ
Master Attachment ..... :	Date 2017-06

Clause	Requirements – Test	Result – Remark	Verdict
	National Differences		
Appendix ZZ	Variations to IEC 60950-1,Ed2.2(2013) for Australia and New Zealand		P
1.2	DEFINITIONS	Considered.	P
	After definition “PERSON SERVICE”, insert the following new definition: POTENTIAL IGNITION SOURCE 1.2.12.201	Considered.	P
1.5	COMPONENTS	Refer to below	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’. 3. Second paragraph, delete the words “without further evaluation”	All critical components are IEC and UL certified.	P
1.5.2	1. First paragraph, insert the following text after the word “standard”:‘or an relevant Australian/New Zealand Standard’. 2. First paragraph, second dash item, second line, insert the following text after the word”standard”: or an relevant Australian/New Zealand Standard’. 3. First paragraph, second dash item, last line, insert the following text after the word”standard”: or an relevant Australian/New Zealand Standard’.	All critical components are IEC and UL certified.	P
1.7	MARIINGS AND INSTRUCTIONS		P
1.7.1.3	Delete existing text and replace with the following: Graphical symbols placed on the equipment as a requirement of this standard, shall be in accordance with IEC 60417 or ISO 3864-2 or ISO 7000, if available. In the absence of suitable symbols, the manufacturer may design specific graphical symbols. Symbols as required by this standard placed on the equipment shall be explained in the user manual.	Replaced	P

<table>
<tr><td>2.9</td><td>ELECTRICAL INSULATION</td><td></td><td>N/A</td></tr>
<tr><td>2.9.2</td><td>Second paragraph, delete the word “designated”</td><td>Deleted.</td><td>N/A</td></tr>
<tr><td>3.2.5</td><td>POWER SUPPLY CORDS</td><td></td><td>N/A</td></tr>
<tr><td>Table 3B</td><td>Variation
Delete the first four rows and replace with the following:
 
<table>
<tr><th rowspan="2">RATED CURRENT of equipment
A</th><th colspan="2">Minimum conductor sizes</th></tr>
<tr><th>Nominal cross-sectional area
mm²</th><th>AWG or kcmil [cross-sectional area in mm²]
see Note 2</th></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>
Delete Note 1 and renumber existing NOTE 2 as “NOTE”
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).</td><td>Class III equipment supplied by a separately certified adaptor.</td><td>N/A</td></tr>
<tr><td>4.3</td><td>DESIGN AND CONSTRUCTION</td><td></td><td>N/A</td></tr>
<tr><td>4.3.6</td><td>Delete the third paragraph and replace with the following:
Equipment with a plug portion, suitable for insertion into a 10 A 3-pin flat-pin 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.</td><td>Not intended to plug directly into a wall socket-outlet.</td><td>N/A</td></tr>
<tr><td>4.3.8</td><td>Addition
Eighth paragraph, insert the following new note after the first dash item:
NOTE 6.201 Incases where the voltage source is provided by power from an unassociated power source, consideration should be given to the effects of possible single fault conditions in the unassociated equipment. If the power source is unknow then it should be assumed that the maximum limit of SELV may be applied to the source input under assumed single fault conditions in the source when assessing the charging circuit in the equipment under test.</td><td>No batteries</td><td>N/A</td></tr>
</table>

4.3.13.5.1	Variation 1. Delete the first paragraph and replace with the following: Except as permitted below, equipment shall be classified and labelled according to IEC 60825-1 or AS/NZS 60825.1, IEC 60825-2 or AS/NZS 60825.2 and IEC 60825-12, as applicable. 2. Third paragraph, first sentence, after'IEC 60825-1', insert the following text: or AS/NZS 60825.1. 3. Four paragraph, after 'IEC 60825-1',insert the following text: or AS/NZS 60825.1	No laser used, LEDs provided are diffuse.	N/A
4.7	RESSITANCE TO FIRE		N/A
4.7	Add the following new paragraph to the end of the clause: For alternative tests refer to Clause 4.7.201.	Alternative tests not performed.	N/A
6	CONNECTION TO TELECOMMUNICATIONS NETWORKS		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 circuitry.	N/A
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: - for 6.2.1 a): 7.0 kV for hand-held telephones and for headsets and 2.5 kV for other equipment; and - 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 circuitry.	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: - for 6.2.1 a): 3 kV; and - 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 circuitry.	N/A
7	CONNECTION TO CABLE DISTRIBUTION NETWORK		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.	No TNV circuitry.	N/A
Annex P	*Add* the following Normative References: AS/NZS 3191, Electric flexible cords AS/NZS 3112, Approval and test specification—Plugs and socket-outlets	Class III equipment supplied by a separately certified adaptor.	N/A
	Special national conditions(if any)		
1.2.12	FLAMMABILTY	Class III equipment	N/A
1.2.12.15	Addition After clause 1.2.12.15, insert the following new clause:	Class III equipment	N/A
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 50V (peak) a.c. or d.c. and the product of the peak value of this voltage and measured r.m.s current under normal operating conditions exceeds 15VA. Such a faulty contact or interruption in an electrical connection includes those which may occur in CONDUCTIVE PATTERNS on PRINTED BOARDS. Note 1 An electronic protection circuit may be used to prevent such a fault from becoming a POTENTIAL IGNITION SOURCE. Note 2 This definition is from AS/NZS 60065:2012, Clause 2.8.11	Class III equipment	N/A
4	PHYSICAL REQUIREMENTS		N/A

4.1	Insert a new Clause 4.1.201 after Clause 4.1 as follows:		N/A
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.		N/A
4.3	DESIGN AND CONSTRUCTION		N/A
4.3.8	After Clause 4.3.8, add the following new clause as follows:		N/A
4.3.8.201	Products containing coin/button cell batteries and batteries designated R1 The requirements of AS/NZS 60065:2012 Amendment 1: 2015, Clause 14.10.201 apply for this clause.	No such batteries	N/A
4.7	RESISTANCE TO FIRE		N/A
4.7.3.6	After clause 4.7.3.6, add new clause as follows:	Refer to below	N/A
4.7.201	Resistance to fire-Alternative tests	Alternative tests not performed.	N/A

4.7.201	**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 originating 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 mm3, 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. **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.	Class III equipment	N/A

<table>
<tr>
<td>4.7.201</td>
<td>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 not be 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.

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 also be 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:

<table>
<tr><th>Clause of AS/NZS 60695.11.5</th><th>Change</th></tr>
<tr><td>9 Test procedure</td><td></td></tr>
<tr><td>9.2 Application of needle-flame</td><td>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 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>
</td>
<td>Class III equipment</td>
<td>N/A</td>
</tr>
</table>

4.7.201	The needle-flame test shall not be carried out on parts of material classified as V-0 or V-1 according to IEC 60695-11-10, provided that the sample tested was not thicker than the relevant part. **4.7.201.4 Testing in the event of non-extinguishing material** If the 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 glow-wire 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 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.	Class III equipment	N/A

4.7.201	**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 FV-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 apparent 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 FV-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 from more than 2 min when the circuit supplied is disconnected.	Class III equipment	N/A

ATTACHMENT: CHINESE DIFFERENCES
Test results according to CB BULLETIN

Clause	Requirement - Test	Result - Remark	Verdict
1.1.2	GB 4943.1-2011 applies to equipment for use at altitudes not exceeding 5000m above sea level, primarily in regions with moderate or tropical climates. Amend 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;	See main test report	N/A
1.4.5	After the third paragraph, add a paragraph: If the equipment is intended for direct connection to an AC mains supply, the tolerances on RATED VOLTAGE shall be taken as +10%,-10% unless a wider tolerance is declared by the manufacturer. The first dash paragraph "-the RATED VOLTAGE is 230V single -phase or 400V three-phase, in which case the tolerance shall be taken as +10% and -10%" of IEC 60950-1:2005 is deleted in GB 4943.1-2011	See main test report	P
1.4.12.1	Tma in clause 1.4.12.1 amended as: Tma: is 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 is to be operated at 2000m-5000m above sea leave, its temperature test conditions and temperature limits are under consideration.	See main test report	P
1.5. 2	Add a note behind the first break off section in Clause 1.5.2: A component used shall comply with related requirements corresponding altitude of 5000m.	Must check with marketing china.	—
1.7	Add one paragraph before the last paragraph: The required marking and instruction should be given in normative Chinese unless otherwise specified.	Must be considered when market to Chinese.	—

1.7.1	Based on the AC mains supply of China, 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.	Class III equipment supplied by a separately certified adaptor.	N/A

1.7.2.1	Add requirements of warning for equipment intended to be used at altitudes 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. 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.	5000m and tropical used	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.	No such protective device	N/A

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.	Class III equipment	N/A
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.	Class III equipment	N/A
2.10.3.3 & 2.10.3.4	Add "(applicable for altitude up to 2000m)" in header of Table 2K、2L and 2M.	Class III equipment	N/A

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 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（ 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.	Class III equipment	N/A
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.	Class III equipment	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 such equipment.	N/A
Annex E	Last section of Annex E amended as: 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. And 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.	Thermocouple measurement method	N/A
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.	Must check with marketing china.	—
Annex BB (informative)	Amended as : The differences between Chinese national standards GB 4943.1-2011 and GB 4943-2001.		P

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.	5000m and tropical used	N/A
Annex EE (informative)	Added annex EE: Illustration relative to safety explanation in normative Chinese、Tibetan、Mongolian、Zhuang Language and Uighu.	Must be considered when market to the country.	—
Other amendments	In accordance with the relevant CTL decisions and the amendments of IEC 60950-1, the specific requirements or mistakes in IEC standard are corrected or editorially modified in this part, Including clause 1.7, 2.1.1.7, 2.9.2, Table 2H, Figure 2H, F.8, F.9, M.3 and Annex U.	Considered.	P

Quoting standards and reference documents	The principles of quoting and referring to other standards in Annex P and reference documents of IEC 60950-1 are as follows: If the date of the reference document is given, only that edition applies, excluding any subsequent corrigenda and amendments. However, parties to agreements based on this part are encouraged to investigate the possibility of applying the most recent editions of the reference documents. For undated references, the latest edition of the referenced document applies, including any corrigenda and amendments. For the usage of international standards in Chinese national standards and industry standards is various, in the aim of achieving easy operation and based on the requirements of GB/T 1.1 and GB/T 20000.2, when quoting an entire international standard in the normative quoting files and reference documents of Annex P of this part, the principles of quotation are as follows: - If there is no national standard or industry standard corresponding to the international standard, then the international standard is quoted; - If there is national standard or industry standard corresponding to the international standard, then either the national or industry standard is quoted; - If the date of the national standard or industry standard is not given, the latest edition of the standard applies; - The national standard or industry standard number, corresponding international standard number and the consistency level code should be identified in parentheses behind the listed national standard or industry standard. When quoting several chapters or clauses of the international standard, the principles of quotation are as follows: - If there is no national standard or industry standard corresponding to the international standard, then the international standard is quoted;	Considered.	P

	- If there is national standard or industry standard corresponding to the international standard, then either the national or industry standard is quoted. Meanwhile, in order to retain the relevant information on international standards, informative annex CC is increased, which gives the table about the comparison of the normative quoting files and reference documents in IEC 60950-1: 2005 and GB4943.1-2011.		

IEC 60950_1F ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
ATTACHMENT TO TEST REPORT IEC 60950-1 with A1: 2009 and A2:2013 JAPAN NATIONAL DIFFERENCES Information technology equipment – Safety – Part 1: General requirements			
Differences according to.....: J60950-1 (H29)			
Attachment Form No. .....: JP_ND_IEC60950_1F Attachment Originator.....: JQA Master Attachment.....: 2017-11			
	National Differences		
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 (see 1.2.4.3A) when 2-pin adaptor with earthing lead wire or cord set having 2-pin plug with earthing lead wire is provided or recommended.	Class III equipment	P
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 either of the following a) or b) 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. a) Provision of 2-pin plug with earthing lead including the condition of that 2-pin adaptor with earthing lead wire is provided or recommended. b) Provision of an independent earthing terminal, when 2-core mains cord (without earthing conductor) is used. Note – CLASS 0I EQUIPMENT may have a part constructed with Double Insulation or Reinforced Insulation.	Class III equipment.	N/A

IEC 60950_1F ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
1.3.2	Add the following notes after the 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.	Class III equipment	N/A
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, or components shall have equivalent to or better properties than these. Replace Note 1 with the following: Note 1 Components complying with the interpretation of Ministerial Ordinance on stipulating technical requirements for the Electrical Appliance is regarded to have equivalent to or better performance. Note 2 JIS or an IEC component standard is considered relevant only if the component in question clearly falls within its scope. Add the following after the last paragraph: For an appliance connector that is able to fit with appliance inlet compatible with the standard sheet of IEC 60320-1 or JIS C 8283-1, the size of the connector shall comply with relevant standard sheet of IEC 60320-1 or JIS C 8283-1. A power supply cord set complying with JIS C 8286 is regarded to comply with this requirement. Note 3 A power supply cord set provided with appliance connector that is able to fit with appliance inlet compatible with the standard sheet of IEC 60320-1 or JIS C 8283-1 should comply with JIS C 8286.	The component fulfils the relevant IEC standard.	N/A

IEC 60950_1F ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
1.5.2	Add the following Note 2 after the 4th dashed paragraph: Note 2 See 1.7.5A when Type C.14 appliance coupler rated 10 A per JIS C 8283-1 is used with an equipment rated not more than 125 V and rated more than 10 A.	The component fulfils the relevant IEC standard.	N/A
1.5.5	Add the following Note after the last paragraph: NOTE An interconnection cord sets provided with interconnecting coupler for mains supply complying with JIS C 8283-2-2 should comply with JIS C 8286.		N/A
1.5.9.1	Add the following in the last of NOTE 1. Gas discharge tube connected in series with VDR may be used.	No gas discharge tube (GDT) used.	N/A
1.7	Replace EE.2 and EE.4 with the following: JA.1 Shredder warning JA.3 Shredder power disconnection		N/A
1.7.1.2	Replace first and second dashed paragraphs with the followings: - manufacturer’s or responsible company’s name or trade-mark or identification mark; - manufacturer's or responsible company’s model identification or type reference;	Has been on the label	P
1.7.2.1	Add the following after the second paragraph. Instruction or equipment marking regarding safety shall be written in Japanese unless otherwise permitted in this standard.	Must be checked when market into Japan.	--
1.7.2.5	Replace the last sentence with the following: An acceptable marking for an electric shock hazard is  (6.2.4 of JIS S 0101).	Supplied by AC/DC adapter complied with SELV.	N/A
1.7.5	Replace the second paragraph with the following. Socket-outlets conforming to JISC8282-1 are examples of standard power supply outlets.	Supplied by AC/DC adapter complied with SELV.	N/A

IEC 60950_1F ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.5A	Add the following new clause after 1.7.5. 1.7.5A Power supply cord set 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 operating instruction. “ Use only designated cord set attached in this equipment” Example in Japanese: “この機器に同こん(梱)した指定の電源コードセットだけを使用して下さい。” If appliance coupler is used for connection to the mains and if the cord set is not provided within the package for the equipment, suitable information regarding to the cord set shall be described in the operating instruction Note Since the combination of appliance inlet with earthing pin and two-core cord set (without earthing conductor) is special, the cord set should be attached in the equipment and the operating instruction should provide the information that the cord set is exclusively used with the equipment and not allowed to use with other equipment.	Supplied by AC/DC adapter complied with SELV.	N/A

IEC 60950_1F ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.14A	Add the following new clause after 1.7.14. 1.7.14A Marking for CLASS 0I EQUIPMENT For CLASS 0I EQUIPMENT, the following or equivalent instructions shall be marked. - the following instruction shall be marked on the mains plug or on the visible place of the main body “Provide an earthing connection” Example in Japanese: “必ず接地接続を行ってください。” - the following instruction shall be marked 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.” Example in Japanese: 接地接続は必ず，電源プラグを電源につなぐ前に行ってください。 また，接地接続を外す場合は，必ず電源プラグを電源から切り離してから行ってください。	Class III equipment.	N/A
1.7.14B	Add the following new clause after 1.7.14A 1.7.14B Protective earthing conductor used for CLASS 0I EQUIPMENT For CLASS 0I EQUIPMENT provided with independent main protective earthing terminal, where the cord for the protective earthing connection is not provided within the package for the equipment, the suitable information for the protective earthing connection shall be provided in the operating instruction. (See 2.6.3.2)	Class III equipment.	N/A

IEC 60950_1F ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
2.1.1.1	Replace item b) of 2.1.1.1with the following. b) A test with the test finger, Figure 2A, which shall not contact parts described above when applied to openings in the ENCLOSURES after removal of parts that can be detached by an OPERATOR, including fuseholders, and with OPERATOR access doors and covers open. It is permitted to leave lamps in place for this test. Connectors that can be separated by an OPERATOR, other than those complying with JIS C 8303 or JIS C 8285 or IEC 60309 series or JIS C 8283 series or IEC 60320 series, shall also be tested during disconnection. But even if the connector does not comply with these standards, the one having equivalent to or better performance need not be tested during disconnection. Note 4 Connectors complying with Appendix 4 of the interpretation of Ministerial Ordinance on stipulating technical requirements for the Electrical Appliance is regarded to have equivalent to or better performance.	Supplied by AC/DC adapter complied with SELV.	N/A
2.5	Replace “IEC 60730-1” with “JIS C 9730-1” (in item b)).		N/A
2.6.2	Delete the following line. • the symbol  ,IEC 60417-5018 (2011-07);	Class III equipment.	N/A
2.6.3.2	Add the following after the first paragraph. However where the single core conductor is used for protective earthing lead or earthing cord for CLASS 0I EQUIPMENT, either of the following condition shall be met. - Use of annealed copper wire with 1.6 mm diameter or corrosion-inhibiting metal wire having equivalent to or more strength and thickness. - Single core cord or single core cab tire cable with 1.25 mm2 or more cross-sectional area	Class III equipment.	N/A
2.6.3.5	Add the following after the first paragraph. However this requirement does not apply to internal conductor of the cord set that is covered by the sheath of mains cord and is formed together with mains plug and appliance connector.		N/A

IEC 60950_1F ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
2.6.4.2	Replace the first 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. However, for CLASS 0I EQUIPMENT provided with the separate main protective earthing terminal other than appliance inlet, the separate main protective earthing terminal may be treated as mains protective earthing terminal.	Class III equipment	N/A
2.6.5.4	Replace the first 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: Add the following after last paragraph: Note For CLASS 0I EQUIPMENT,1.7.14A is applied instead of this requirement.	Class III equipment.	N/A
2.6.5.8A	Add the following new clause after 2.6.5.8 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.	Class III equipment.	N/A
2.7.6	Replace “ISO 3864, No. 5036” with “6.2.4 of JIS S 0101”.		N/A
2.10.3.1	Replace the 8th paragraph with the following The above minimum CLEARANCE for connectors do not apply to connectors that comply with JIS C 8285, IEC60309 series of standards, JIS C 8283 series of standards, IEC60320 series of standards, JIS C 8303, or even if it does not comply with the above standards but the one having equivalent to or better performance and dimension which comply with JIS C 8283 series of standards, JIS C 8303 or IEC 60309-2. Note Connectors complying with Appendix 4 of the interpretation of Ministerial Ordinance on stipulating technical requirements for the Electrical Appliance is regarded to have equivalent to or better performance.		N/A

IEC 60950_1F ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
2.10.3.2 Table 2J	In Japan, the value of the main power supply transient voltage for the nominal ac main power supply voltage of 100 V is determined by applying the row of AC main power supply voltage 150 V.		N/A
2.10.4.3	Replace the 6th paragraph with the following The above minimum CREEPAGE DISTANCE for connectors do not apply to connectors that comply with JIS C 8285, IEC60309 series of standards, JIS C 8283 series of standards, IEC60320 series of standards, JIS C 8303, or even if it does not comply with the above standards but the one having equivalent to or better performance and dimension which comply with JIS C 8283 series of standards, JIS C 8303 or IEC 60309-2. Note Connectors complying with Appendix 4 of the interpretation of Ministerial Ordinance on stipulating technical requirements for the Electrical Appliance is regarded to have equivalent to or better performance.		N/A
2.10.9	Replace “1.4.5” in the third paragraph with “1.4.12”.		N/A
3.2.3	Add the following after the third paragraph. Table 3A applies when cables complying JIS C 3662 series of standards or JIS C 3663 series of standards are used. In case of other cables, cable entries shall be so designed that the cable could be fitted in a conduit.	Not a permanently connected equipment.	N/A
3.2.4	Add the following as 4th dashed paragraph. - be so constructed that mechanical stress shall not transmit to the soldering part of inlet terminal during insertion or removal of the connector except that the body of the inlet is secured and is secured not only soldering.		N/A

IEC 60950_1F ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
3.2.5.1	Add the following after Note 3: Note 4 In Japan, mains cords having equivalent to or better electro-mechanical and fire safety performance as above and complying with Appendix 1 of the interpretation of Ministerial Ordinance on stipulating technical requirements for the Electrical Appliance can be used. Replace the paragraph after Note 3 with the following. For equipment required to have protective earthing, a PROTECTIVE EARTHING CONDUCTOR shall be included in the MAINS SUPPLY cord except for CLASS 0I EQUIPMENT having separate protective earthing conductor from mains cord. Add the following after the second paragraph after Note 3: Note 5 For the cross-sectional area of mains cord described in Note 4, relevant Japanese wiring regulation can be applied.	Class III equipment.	N/A
3.2.5A	Add the following new clause after 3.2.5 3.2.5A AC mains plug Mains plug for PLUGGABLE EQUIPMENT TYPE A shall comply with JIS C 8282-1 or equivalent to or better performance. Power supply cord set complying with JIS C 8286 is regarded to meet the requirements. Mains plug with fuse link for PLUGGABLE EQUIPMENT TYPE A shall comply with JIS C 8282-2-1 or equivalent to or better performance. Note Mains plug complying with Appendix 4 of the interpretation of Ministerial Ordinance on stipulating technical requirements for the Electrical Appliance is regarded to have equivalent to or better performance.	Supplied by AC/DC adapter complied with SELV.	N/A
3.3.4 Table 3D	Add the following note to Table 3D: Note For cables other than those complying with JIS C 3662 series of standards or JIS C 3663 series of standards, the terminals shall be suitable for the size of the intended cables.		N/A
3.3.7	Add the following after the first sentence: This requirement is not applicable to the external earthing terminal of CLASS 0I EQUIPMENT.		N/A

IEC 60950_1F ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
4.2.8	Add the following after the first paragraph: Note Intrinsically protected picture tube is required to comply with JIS C 6965 in clause 18 of JIS C 6065. No intrinsically protected picture tube which is out of scope of JIS C 6965 is required to test according to sub-clause 18.2 of JIS C 6065.		N/A
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.		N/A
4.3.5	Replace the first dashed paragraph with the following. Within a manufacturer's unit or system, plugs and sockets likely to be used by the OPERATOR or by a SERVICE PERSON shall not be employed in a manner likely to create a hazard due to misconnection. In particular, connectors complying with IEC 60320/JIS C 8283 series of standards or JIS C 8303 or JIS C 8358 shall not be used for SELV CIRCUITS or TNV CIRCUITS. Keying, location or, in the case of connectors accessible only to a SERVICE PERSON, clear markings are permitted to meet the requirement.		N/A
4.3.6	Replace the 1st paragraph with the following DIRECT PLUG-IN EQUIPMENT shall not impose undue stress on the socket-outlet. The mains plug part shall comply with the standard for the relevant mains plug. (see 3.2.5A)		N/A
4.4.2	Replace the paragraph with the following: HOUSEHOLD AND HOME/OFFICE DOCUMENT/MEDIA SHREDDERS shall also comply with Annex JA.		N/A
4.5.3	Add the following note to footnote b) of Table 4B: NOTE In case no data for the material is available, Appendix 4, 1. (1). b. 3 of the Interpretation on the Ministerial Ordinance stipulating Technical Specifications for Electrical Appliances is regarded as maximum temperature limit of the material.		N/A

<table>
<tr><th colspan="5">IEC 60950_1F ATTACHMENT</th></tr>
<tr><th>Clause</th><th>Requirement + Test</th><th>Result - Remark</th><th>Verdict</th></tr>
<tr><td>5.1.3</td><td>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.</td><td>Single phase connection</td><td>N/A</td></tr>
<tr><td>5.1.6</td><td>Replace Table 5A. as follows
<table>
<tr><th>Type of equipment</th><th>Terminal A of measuring instrument connected to:</th><th>Maximum TOUCH CURRENT mA r.m.s. a</th><th>Maximum PROTECTIVE CONDUCTOR CURRENT</th></tr>
<tr><td>ALL equipment</td><td>Accessible parts and circuits not connected to protective earth b</td><td>0,25</td><td>-</td></tr>
<tr><td rowspan="2">HAND-HELD</td><td>Main protective earthing terminal of CLASS I EQUIPMENT</td><td>0,75</td><td>-</td></tr>
<tr><td>Main protective earthing terminal of CLASS 0 I EQUIPMENT</td><td>0,5</td><td>-</td></tr>
<tr><td rowspan="2">MOVABLE (other than HAND_HELD, but including TRANSPORTABLE EQUIPMENT)</td><td>Main protective earthing terminal of CLASS I EQUIPMENT</td><td>3,5</td><td>-</td></tr>
<tr><td>Main protective earthing terminal of CLASS 0 I EQUIPMENT</td><td>1.0</td><td>-</td></tr>
<tr><td rowspan="2">STATIONARY, PLUGGABLE TYPE A</td><td>Main protective earthing terminal of CLASS I EQUIPMENT</td><td>3,5</td><td>-</td></tr>
<tr><td>Main protective earthing terminal of CLASS 0 I EQUIPMENT</td><td>1,0</td><td>-</td></tr>
<tr><td rowspan="2">ALL other STATIONARY EQUIPMENT

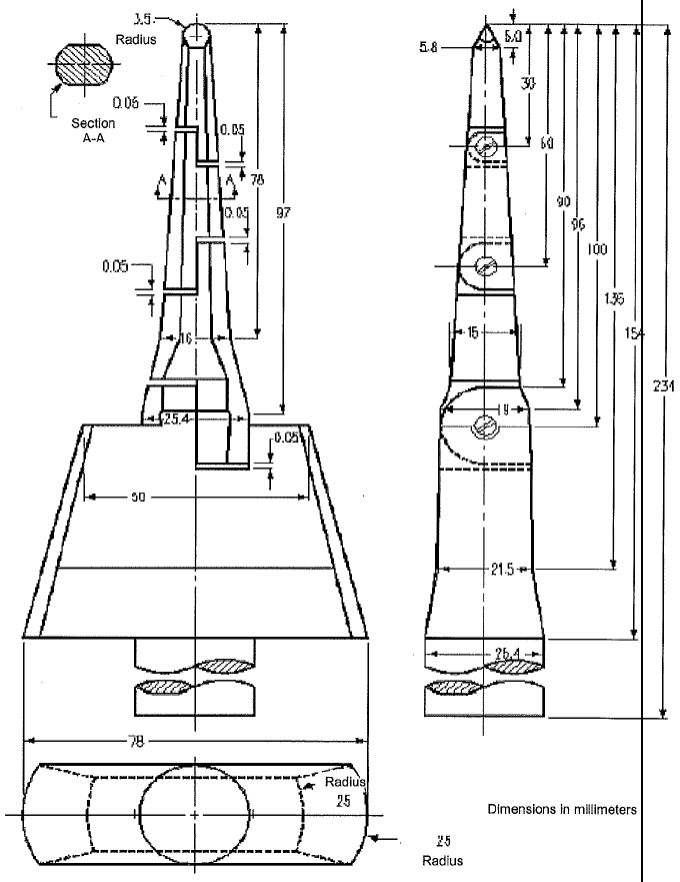
- not subject to the conditions of 5.1.7
- subject to the conditions of 5.1.7</td><td>Main protective earthing terminal of CLASS I EQUIPMENT</td><td>3.5
-</td><td>-
5 % of input current</td></tr>
<tr><td>Main protective earthing terminal of CLASS 0 I EQUIPMENT</td><td>1.0
-</td><td>-
-</td></tr>
<tr><td colspan="4">a If peak values of TOUCH CURRENT are measured, the maximum values are obtained by multiplying the r.m.s.values in the table by 1,414.
b Some unearthed accessible parts are covered in 1.5.6 and 1.5.7 and the requirements of 2.4 apply. These may be different from those in 5.1.6.</td></tr>
</table></td><td></td><td>N/A</td></tr>
<tr><td></td><td></td><td></td><td></td></tr>
</table>

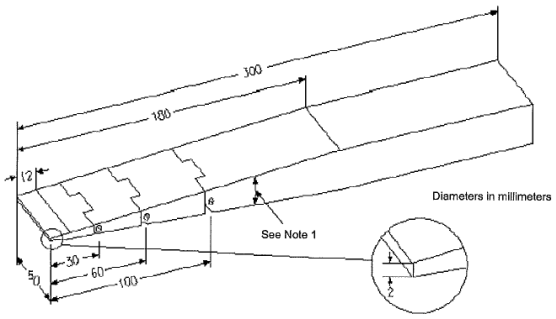
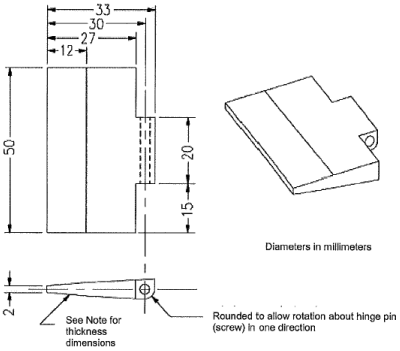
IEC 60950_1F ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
Annex G	Replace the paragraph before Table G.2 with the following The above minimum CLEARANCE for connectors do not apply to connectors that comply with JIS C 8285, IEC60309 series of standards, JIS C 8283 series of standards, IEC60320 series of standards, JIS C 8303, and 1.5.1 of this standard in which dimension is comply with JIS C 8283 series, JIS C 8303 or IEC 60309-2.		N/A
Annex V V.1	Replace “3.1.2”in the first line of V.1 with “312” in the first line.	Supplied by AC/DC adapter complied with SELV.	N/A
Annex W W.1	Replace the third sentence in the first paragraph with the following: Floating circuits can exist in CLASS I EQUIPMENT, CLASS 0I EQUIPMENT and earthed circuits can exist in CLASS II EQUIPMENT.	Class III equipment.	N/A
Annex BB	This annex is not applicable.		N/A
Annex CC CC.2	Replace the third dashed paragraph with the following: - 10 000 cycles of turning enable on and off with the input connected to a capacitor rated 425 uF ± 10 uF and shorting the output;		N/A
CC.3	Add note at end of CC.3: Note: The fast blow fuse should be the one complying with JIS C 6575-2.		N/A

IEC 60950_1F ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
CC.4	Replace the 2nd dashed paragraph with the following: - 10 000 cycles of turning enable on and off with a 100 Ω± 5 Ω resistor and a 425 uF ± 10 uF capacitor in parallel with the output; Replace the 4th dashed paragraph with the following: - 10 000 cycles of turning enable on and off with the input connected to a capacitor rated 425 uF ± 10 uF and shorting the output; Replace the 5th dashed paragraph with the following: −10 000 cycles of turning the input pin on and off with a capacitor rated 425 uF ± 10 uF connected to the input supply while keeping enable active and shorting the output; Replace the 6th dashed paragraph with the following: −10 000 cycles of turning the input pin on and off with an ferrite-core inductor having 350 mH ± 10 mH inductance at 1 kHz and less than 1 Ω d.c. resistance connected to the input supply and return while keeping enable active and shorting the output; Replace the 10th dashed paragraph with the following: −3 cycles of exposing the device (not energized) to 70 °C ± 2 °C for 24 h; followed by at least 1 h at room ambient; followed by at least 3 h at -30 °C ± 2 °C; followed by 3 h at room ambient; Replace the 11th dashed paragraph with the following: −10 cycles of exposing the device (while energized) to 50 °C ± 2 °C for 10 min; followed by 10 min at 0 °C ± 2 °C with a 5 min period of transition from one state to the other;		N/A
Annex EE	Replace Annex EE with the following Annex JA. Annex JA (normative) Document shredding machines HOUSEHOLD AND HOME/OFFICE DOCUMENT/MEDIA SHREDDERS shall additionally		N/A

IEC 60950_1F ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	comply with the requirements of this annex. JA.1 Markings and instructions The symbol  (JIS S 0101:2000, 6.2.1) 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; 子供が使用することによって，傷害などの危害が発生するおそれがある。 ; (that use by infants/children may cause a hazard of injury etc.) 文書投入口に手を触れることによって，細断機構に引き込まれるおそれがある。 ; (that a hand can be drawn into the mechanical section for shredding when touching the document-slot) 文書投入口に衣類が触れることによって，細断機構に引き込まれるおそれがある。 ; (that clothing can be drawn into the mechanical section for shredding when touching the document-slot) 文書投入口に髪の毛が触れることによって，細断機構に引き込まれるおそれがある。 ; (that hairs can be drawn into the mechanical section for shredding when touching the document-slot) - in case of equipment incorporating a commutator motor, 可燃性ガスを噴射することによって引火又は爆発するおそれがある。 (that equipment may catch fire or explode by spraying of flammable gas.) 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. JA.3 Disconnection from the mains supply Document shredding machines shall incorporate an		

IEC 60950_1F ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	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.		
	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.		N/A

IEC 60950_1F ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	 Figure JA.1 Test finger		N/A

IEC 60950_1F ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	  Distance from the tip (mm) / Thickness of probe (mm) 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; for ≤ 25 mm: +/- 0.13 mm for > 25 mm: +/- 0.3 mm. Figure JA.2 Wedge-probe		N/A

ATTACHMENT: SINGAPORE DIFFERENCES
to IEC 60950-1 (ed.2)

No	Item	Requirement	Result - Remark	Verdict
The following is the national differences in accordance with safety authority website www.safety.org.sg/ , ref. Singapore Consumer Protection (Safety Requirements) - Information booklet - chapter 7 (page 20 - 21). Based on information by Singapore NCB – PSB Corp.				
7 SAFETY AUTHORITY'S REQUIREMENTS The Safety Authority monitors the safety of the controlled goods sold in Singapore by investigating all complaints, incidents and accidents reported to the authority. Experiences gained are translated into the Safety Authority's Requirements. These requirements are to be fulfilled in addition to the applicable safety standards.				
Applicable to all electrical products				
3	All appliances	All appliances must be tested to 230 VAC.	Class III equipment	N/A
4	Voltage selector (voltage mis-match test)	Appliance fitted with voltage selector shall be tested as follows: Connect appliance to 230 VAC mains with voltage selector switch to settings not suitable for operation at 230 VAC.	No voltage selector	N/A
5	Tropical condition test	All appliances (with tropical test requirements in applicable Standards) shall comply with the tropical condition test as stated in the relevant IEC Standards.	Complied with requirement, refer to main test report.	P
6	Class I appliances (3-pin mains plug)	All Class I appliances must be fitted with 3-pin mains plugs complied with SS 145/SS 472 that are registered with the Safety Authority.	Class III equipment	N/A
7	Class II appliances (mains plug)	a) All Class II appliances must be fitted with 2-pin mains plug (Appendix W) complied with IEC 83: 1975 (Standard C5, Version II) or EN 50075: 1991. b) Class II appliances that are fitted with 3-pin mains plugs must use plugs that are complied with SS 145 and registered with the Safety Authority.	Class III equipment.	N/A

8	Appliances rated ≥ 3 kW or connected to fixed wiring	Electric appliance ≥ 3 kW must be connected to fixed wiring. All connection to fixed wiring must be in accordance with Code of Practice CP5.	The rated power is less than 3kW.	N/A
9	Detachable power cord set (consists of mains plug, mains cord and appliance connector	Detachable power cord set must be listed in the test report critical component list.	Class III equipment	N/A
10	Circuit diagrams	Circuit diagrams must be indicated with component's values for products tested to IEC 60065 and IEC 60950.	Class III equipment.	N/A
11	Circuit diagrams of electronic modules in electrical appliances	Circuit diagrams of the electronic modules in the electrical appliances must be provided.	Class III equipment.	N/A
12	Controlled goods likely to be treated as toy by children	Controlled goods, having an enclosure, which is shaped and decorated so that it is likely to be treated as a toy by children, shall not be accepted for certification and registration.	The equipment is not treated as toy by children.	N/A
13	Controlled goods with rated voltage that are not suitable for local supply voltage	a) Controlled goods with rated voltage that are not suitable for local supply voltage will not be allowed for registration unless they are supplied with step-down isolating transformer and are tested together with the transformer as a complete set. b) A test to ensure that the controlled goods shut-down/fail safely should the consumer accidentally plugs the product directly into the 230 V mains supply socket outlet without using the isolating stepdown transformer shall be conducted.		N/A
Applicable to AC adaptor				
15	3-pin AC adaptor	Test report showing that the 3-pin complied with sub-clauses 12.1 & 12.3 of SS 246 must be submitted.	Not used AC adaptor.	N/A
16	2-pin AC adaptor	The 2-pin (Appendix W) shall comply with IEC 83: 1975 (Standard C5, Version II) or EN 50075	Not used AC adaptor.	N/A
17	Detachable power supply cord set not supplied by Registered Supplier	Registered Supplier who is not supplying the detachable power supply cord set together with the AC Adaptor must provide written instruction to its customer on the type of approved detachable power cord set to use.	Not used AC adaptor.	N/A
18	AC Adaptor incorporated with 13A socket-outlet	Additional tests clauses to 13, 17 and 18 of SS 246 would be required.		N/A
Applicable to computer products				
19	CD/DVD ROM (used in personal computer)	Test certificate showing that CD/DVD ROM has complied with IEC 825 must be provided.	The equipment does not consist of CD/DVD ROM.	N/A
20	Modem Card (used in personal computer)	Modem card incorporated in the personal computer must be tested at set level (sub-clauses 5.1 & 6 of IEC 60950) or at component level.	The equipment does not consist of Modem Card.	N/A

21	Powerline Ethernet Adaptor incorporated with 13A socket-outlet	Additional tests to clauses 13, 17 and 18 of SS 246 would be required.	Not used	N/A
Applicable to plasma/LCD display monitor				
42	Plasma/LCD display monitor with TV tuner	Plasma/LCD display monitor tested to IEC 60950 would require additional test to clauses 9 (related to antenna only), 10.1, 10.2, 10.3 and 12.5 of IEC 60065.	No TV tuner provided.	N/A

National Differences for Canada
Canada and the United States of America have adopted a single, bi-national standard, CAN/CSA-C22.2 NO. 60950-1-07+Amendment 1:2011, which is based on IEC 60950-1, Second Edition +Amendment 2. This bi-national standard should be consulted for further details on the national conditions and differences summarized below.
SPECIAL NATIONAL CONDITIONS
The following is a summary of the key national differences based on national regulatory requirements, such as the Canadian Electrical Code (CEC) Part and the Canadian Building Code, which are referenced in legislation and which form the basis for the rules and practices followed in electrical and building installations.

	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.	Supplied by certified AC/DC adapter.	P
	Also, unless marked or otherwise identified, installation is allowed per the Standard for the Protection of Electronic Computer/Data-Processing Equipment, ANSI/NFPA 75.	Supplied by certified AC/DC adapter.	P
1.1.2	Baby monitors are required to 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.	Class III equipment	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 interconnecting flexible cord or cable assemblies.	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.	Only one phase conductor.	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
	- 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.	Class III equipment.	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.	No such component.	N/A
2.6	Equipment with isolated ground (earthing) receptacles is required to comply with NEC 250.146(D) and CEC 10-112 and 10-906(8).	Class III equipment.	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.	Class III equipment.	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.	Class III equipment.	N/A
3.2.1	Attachment plugs of power supply cords are rated not less than 125 percent of the rated current of the equipment.	The power cord has not been checked, refer to Summary of Testing.	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.	The Equipment not connected to DC power system.	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.	The equipment is not permanently connected to the mains.	N/A
3.2.5	Power supply cords are no longer than 4.5 m in length.	The power cord has not been checked, refer to Summary of Testing.	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.		
	Flexible power supply cords are compatible with Article 400 of the NEC, and Tables 11 and 12 of the CEC.		
3.2.9	Permanently connected equipment have a suitable wiring compartment and wire bending space.	The equipment is not permanently connected to the mains.	N/A
3.3	Wiring terminals and associated spacings for field wiring connections comply with CSA C22.2 No. 0.	Class III equipment.	N/A
3.3.3	Wire binding screws are not permitted to attach conductors larger than 10 AWG (5.3 mm2).	Class III equipment.	N/A

3.3.4	Terminals for permanent wiring, including protective earthing terminals, are suitable for Canadian/US wire gauge sizes, are	No permanent wiring. The equipment is direct plug in equipment.	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.”	Class III equipment.	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 such motors in the equipment.	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 disconnect switch in the equipment.	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 such battery.	N/A
4.3.12	The maximum quantity of flammable liquid stored in equipment complies with NFPA 30.	No flammable liquids within the equipment.	N/A
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 is used.	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.	The equipment has no combustible area greater than 27 cubic feet.	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.	The equipment has no combustible material greater than 0.93m^2 or single dimension greater than 1.8m.	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 such part.	N/A
	Other National Differences		

1.5.1	Some components and materials associated with the risk of fire, electric shock, or personal injury are required to 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 packs (rechargeable type, used with transportable equipment), 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, 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 cutoffs, thermostats, (multi-layer) transformer winding wire, transient voltage surge suppressors, tubing, wire connectors, and wire and cables.	Critical components are IEC certified. See list of critical components in main CB report (§ 1.5.1). There may be additional requirements for components in CSA.	—
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.	The Equipment not connected to DC power system.	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 circuitry.	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 circuitry.	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.	Class III equipment.	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 in the equipment.	N/A
4.3.2	Equipment with handles complies with special loading tests.	The equipment has no handles.	N/A
4.3.8	Battery packs for both portable and stationary applications are required to comply with special component requirements.		N/A

5.1.8.3	Equipment intended to receive telecommunication ringing signals comply with a special touch current measurement tests.	No TNV circuitry.	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.	See main test report table 5.3.	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.	No TNV circuitry.	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.	This equipment is not Document shredding machines.	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 circuitry.	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 circuitry.	N/A

ATTACHMENT: KOREAN DIFFERENCES
Test results according to CB BULLETIN

Clause	Requirements – Test	Result – Remark	Verdict
1.5.101	Addition Plugs for the connection of the apparatus to the supply mains shall comply with the Korean requirement (KSC 8305 and 8305).	Supplied by certified AC/DC adapter	N/A
7	Addition EMC The apparatus shall comply with the relevant CISPR standards.	Compliance with EMC must be considered when marketed in Korea.	—

ATTACHMENT TO TEST REPORT IEC 60950-1
United State NATIONAL DIFFERENCES
Information technology equipment – Safety –

Part 1: General requirements

Differences according to ..... :	UL 60950-1,edition 2, Amendment 2
Attachment Form No. ..... :	US_ND_IEC60950_1F
Attachment Originator..... :	UL
Master Attachment ..... :	Date (2014-07)

	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.	Supplied by certified AC/DC adapter	—
	Also, unless marked or otherwise identified, installation is allowed per the Standard for the Protection of Electronic Computer/Data-Processing Equipment, ANSI/NFPA 75.	Supplied by certified AC/DC adapter	—
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 interconnecting flexible cord and cable assemblies exceeding 3.05m provided.	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.	Class III 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
	- if it is part of a range that extends into the Table 2 "Normal Operating Conditions."		N/A
	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 CEC Part 1 or NEC are marked with the voltage rating and “Class 2” or equivalent.	No connectors and field wiring terminal for external Class 2 or Class 3 circuits.	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.	Class III equipment	N/A
2.6	Equipment with isolated ground (earthing) receptacles are required to comply with NEC 250.146(D) and CEC 10-112 and 10-906(8).	Class III equipment	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 special external branch circuit overcurrent devices 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.	Class III equipment	N/A
3.2.1	Attachment plugs of power supply cords are rated not less than 125 per cent of the rated current of the equipment.	Class III equipment	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 connection to DC mains supply.	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.	The equipment is not permanently connected to the mains.	N/A
3.2.5	Power supply cords are no longer than 4.5 m in length.	Class III equipment	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 have a suitable wiring compartment and wire bending space.	The equipment is not permanently connected to the mains.	N/A
3.3	Wiring terminals and associated spacings for field wiring connections comply with CSA C22.2 No. 0.	Class III equipment	N/A
3.3.3	Wire binding screws are not permitted to attach conductors larger than 10 AWG (5.3 mm2).	Class III equipment	N/A

3.3.4	Terminals for permanent wiring, including protective earthing terminals, are suitable for Canadian/US wire gauge sizes, are	Class III equipment	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,	No such motor.	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 switch acting as disconnect device	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 in the equipment.	N/A
4.3.12	The maximum quantity of flammable liquid stored in equipment complies with NFPA 30.	No flammable liquids within the equipment.	N/A
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 product used.	N/A
4.7	For computer room applications, automated information storage systems with combustible media greater than 0.76 m3 (27 cu ft) have a provision for connection of either automatic sprinklers or a gaseous agent extinguishing system with an extended discharge.	The equipment has no combustible area greater than 0.76 m^3.	N/A
4.7.3.1	For computer room applications, enclosures with combustible material measuring greater than 0.9 m2 (10 sq ft) or a single dimension greater than 1.8 m (6 ft) have a flame spread rating of 50 or less.	The equipment has no combustible material greater than 0.9m^2 or single dimension greater than 1.8m.	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 complies with U.S. Code of Federal Regulations, 21 CFR 1020 (and the Canadian Radiation Emitting Devices Act, REDR C1370).	The equipment does not produce 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 are required to have component or material ratings in accordance with the applicable national (U.S. and Canadian) component or material 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 cutoffs, thermostats, (multi-layer) transformer winding wire, surge protective devices, tubing, vehicle battery adapters, wire connectors, and wire and cables.	Critical components are IEC certified. See list of critical components in main CB report (§1.5.1). There may be additional requirements for components in US.	—
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.	Not 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 Circuit.	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 Circuit.	N/A
2.6.2	Equipment with functional earthing is required to be marked with the functional earthing symbol (IEC 60417-6092).		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.	Class III equipment	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 CRT used.	N/A
4.3.2	Equipment with handles complies with special loading tests.	No handle used.	N/A

4.3.8	Battery packs for both portable and stationary applications are required to comply with special component requirements.		N/A
5.1.8.3	Equipment intended to receive telecommunication ringing signals comply with a special touch current measurement tests.	No TNV Circuitry.	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.	See table 5.3 in main test report	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.	No TNV Circuitry.	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 document/media shredders provide.	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.	No TNV circuit.	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 circuit.	N/A

ATTACHMENT TO TEST REPORT IEC 60950-1:2005, IEC 60950- 1:2005/AMD1:2009, IEC 60950-1:2005/AMD2:2013 ISRAELI NATIONAL DIFFERENCES (INFORMATION TECHNOLOGY EQUIPMENT – SAFETY: GENERAL REQUIREMENTS)	
Differences according to.....:	SI 60950 Part 1 (2015)
Attachment Form No.....:	IL_ND_IEC60950_1F
Attachment Originator .....:	Standards Institution of Israel
Master Attachment.....:	Date 2018-08-02

	National Differences		—
1.6	**Power interface**		—
1.6.1	**AC Power distribution systems** At the end of the clause, the following note shall be added: Note: In Israel, the clause is subject to the Electricity Law. 1954, Electricity Regulations (Earthings and protective means against electrification for voltages up to 1,000 V), 1991, with their updates.	Must be considered when marketing into Israel.	—
1.7	**Marking and instructions**		—
1.7.1	**Power rating and identification markings** At the beginning of the clause, subclause 1.7.1.201 shall be added as follows:		—
1.7.1.201	**Marking in the Hebrew language** The marking in the Hebrew language shall be in accordance with the Consumer Protection Order (Marking of goods), 1983. In addition to the marking required by clause 1.7.1, the following details shall be marked in the Hebrew language: 1.Name of the apparatus and its commercial designation; 2.Manufacturer's name and his address; if the apparatus is imported, also the importer's name and his address; 3.Manufacturer's registered trademark, if any; 4.Name of the model and serial number; 5.Country of manufacture. The details shall be marked on the apparatus or on its packaging, or on a label well attached to the apparatus or its packaging, by bonding or sewing, such that the label cannot be easily removed.	Must be considered when marketing into Israel.	—
1.7.2	**Safety instructions and marking**		—
1.7.2.1	**General** - The following shall be added at the end of the clause: All the instruction and all the warnings related to safety shall also be written also in the Hebrew language.	Must be considered when marketing into Israel.	—
-	At the end of clause 1, clause 1.201 shall be added as follows:		

1.201	**Power consumption in standby mode** The equipment shall comply with the requirements of the Energy Sources Regulations (Maximum electrical power in standby mode for domestic and office electrical appliances), 2011, with a permitted deviation of up to 10 %	Must be considered before marketed in Israel.	—
2	**Protection from hazards** At the end of the clause, clause 2.201 shall be added as follows:		—
2.201	**Prevention of electromagnetic interferences**		—
2.201.1	Emission of electromagnetic interferences shall be tested in accordance with Israeli Standard SI 961 Part 6.1 or in accordance with the Israeli Standard that is an adoption of the International Standard CISPR 32. Note: At the time of writing this Standard, the Israeli Standard that is an adoption of the International Standard CISPR 32 is in preparation. Until publication of the Israeli Standard. the International Standard CISPR 32 may be used for testing the emission of electromagnetic interference. If the apparatus contains transmitters, it shall be tested according to Israeli Standard SI 961 Part 48.1 and according to another relevant part of the SI 961 Part 48 series or from the EN 301 489 series, according to the type of transmitter in the apparatus.	Must be considered before marketed in Israel.	—
2.201.2	Immunity to emission of electromagnetic interferences shall be tested in accordance with Israeli Standard SI 961 Part 6.2.	Must be considered before marketed in Israel.	—
2.201.3	Emission of electromagnetic interferences to the public electricity network shall be tested in accordance with the Israeli Standards SI 961 Parts 12.3 and 12.5 or in accordance with the Israeli Standards SI 61000 Part 3.12 and SI 961 Part 12.11, according to the current consumption of the equipment.	Must be considered before marketed in Israel.	—
3	**Wiring, connections and supply**		—
3.2	**Connection to a mains supply**		—
3.2.1	**Means of connection**		—
3.2.1.1	**Connection to an a.c. mains supply** After the NOTE, the following note shall be added: Note: In Israel, the supply plug shall comply with the requirements in Israeli Standard SI 32 Part I.I.	Refer to Summary of Testing in main test report.	—

	Special national conditions (if any)		—
	ANNEX P **Normative references** In place of some of the International Standards cited in the Standard and noted in this annex, the following Israeli Standards shall apply:	Must be considered before marketed in Israel.	—

The referenced International Standard	The substituted Israeli Standard	Comments
IEC 60065: 2001 Amendment 1	SI 60065 - Audio, video and similar electronic apparatus – Safety requirements	The Israeli Standard, excluding national modifications and additions, is identical to the International Electrotechnical Commission Standard IEC 60065 - Edition 8.0: 2014-06
IEC 60227-1: 2007	SI 60227 Part l – Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V: General requirements	The Israeli Standard, excluding national modifications and additions, is identical to the International Electrotechnical Commission Standard IEC 60227-1 - Edition 3.0: 2007-10
IEC 60227-2: 1997 Amendment 1: 2003	SI 6022 7 Part 2 – Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V: Test methods	The Israeli Standard, excluding national modifications and additions, is identical to the International Electrotechnical Commission Standard IEC 60227-2 Edition 2.1: 2003-04
IEC 60245 (all parts)	SI 60245 (all parts) - Rubber insulated cables - Rated voltages up to and including 450/750 V	The Israeli Standard series, excluding national modifications and additions, is identical to the International Electrotechnical Commission Standard series IEC 60245 (all parts)
IEC 60309 (all parts) [(a)]	SI 1109 Part l - Plugs, socket-outlets and couplers for industrial purposes: General requirements	The Israeli Standard, excluding national modifications and additions, is identical to the International Electrotechnical Commission Standard IEC 60309-1 - Fourth edition: 1999-02
	SI 1109 Part 2 - Plugs, socket- outlets and couplers for industrial purposes: Dimensional interchangeability requirements for pin and contact-tube accessories	The Israeli Standard, excluding national modifications and additions, is identical to the International Electrotechnical Commission Standard IEC 60309-2 - Fourth edition: 1999-4

The referenced International Standard	The substituted Israeli Standard	Comments
IEC 60317 (all parts) [a]	SI 1067 Part 1 – Enamelled [b] round copper wires with high mechanical properties	The Israeli Standard is identical to the International Electrotechnical Commission Standard IEC 317-1: 1980-02
	SI 1067 Part 2 – Self-fluxing enamelled [b] round copper wires	The Israeli Standard is identical to the International Electrotechnical Commission Standard IEC 317-1: 1980-02
	SI 1067 Part 3 – enamelled [b] round copper wires with a temperature index of 180 °C	The Israeli Standard is identical to the International Electrotechnical Commission Standard IEC 317-1: 1980-02
IEC 60320 (all parts) [a]	SI 60320 Part 1 – Appliance couplers for household and similar general purposes: General requirements	The Israeli Standard, excluding national modifications and additions, is identical to the International Electrotechnical Commission Standard IEC 60320-1 - Edition 2.1: 2007-11
	SI 60320 Part 2.1 – Appliance couplers for household and similar general purposes: Sewing machine couplers	The Israeli Standard, excluding nation al modifications and additions, is identical to the International Electrotechnical Commission Standard IEC 60320-2-1 - Second edition: 2000-07
	SI 60320 Part 2.2 – Appliance couplers for household and similar general purposes: Interconnection couplers for household and similar equipment	The Israeli Standard, excluding national modifications and additions, is identical to the International Electrotechnical Commission Standard IEC 60320-2-2 - Second edition: 1998-08
	SI 60320 Part 2.3 – Appliance couplers for household and similar general purposes: appliance coupler with a degree of protect ion higher than IPX0	The Israeli Standard, excluding national modifications and additions, is identical to the International Electrotechnical Commission Standard IEC 60320-2-3 - First edition: 1998-09
IEC 60364-1: 2001	Electricity Law, 1954, with its Regulations and updates	
IEC 60730-1: 1999 Amendment 1 (2003)	SI 60730 Part I - Automatic electrical controls: General requirements	The Israeli Standard, excluding national modifications and additions, is identical to the International Electrotechnical Commission Standard IEC 60730-1 - Edition 5.0: 2013-11

The referenced International Standard	The substituted Israeli Standard	Comments
IEC 60825-1	SI 60825 Part 1 – Safety of laser products: Equipment classification and requirements	The Israeli Standard, excluding national modifications and additions, is identical to the International Electrotechnical Commission Standard IEC 60825-1 – Second edition: 2007-03
IEC 60825-2	SI 60825 Part 2 – Safety of laser products: Safety of optical fibre communication systems (OFCS)	The Israeli Standard, excluding national modifications and additions, is identical to the International Electrotechnical Commission Standard IEC 60825-2 – Edition 3.2: 2010-12
IEC 60825-12	SI 60825 Part 2 – Safety of laser products: Safety of free space optical communication systems used for transmission of information	The Israeli Standard, excluding national modifications and additions, is identical to the International Electrotechnical Commission Standard IEC 60825-12 – First Edition: 2004-02
IEC 60947-1: 2004	SI 60947 Part l – Low-voltage switchgear and controlgear: General rules	The Israeli Standard, excluding national modifications and additions, is identical to the International Electrotechnical Commission Standard IEC 60947-1 – Edition 5.0: 2007-06
IEC 60998-1	SI 60998 Part 1 – Connecting devices for low-voltage circuits for household and similar purposes: General requirements	The Israeli Standard, excluding national modifications and additions, is identical to the International Electrotechnical Commission Standard IEC 60998-1 – Second Edition: 2002-12
IEC 60999-1	SI 60999 Part 1 – Connecting devices - Electrical copper conductors - Safety requirements for screw-type and screwless-type clamping units: General requirements and particular requirements for clamping units for conductors from 0.2 mm^2 up to 35 mm^2 (included)	The Israeli Standard, excluding national modifications and additions, is identical to the International Electrotechnical Commission Standard IEC 60999-1 – Second Edition: 1999
IEC 60999-2	SI 60999 Part 2 – Connecting devices - Electrical copper conductors - Safety requirements for screw-type and screwless-type clamping units: Particular requirements for clamping units for conductors above 35 mm^2 up to 300 mm^2 (included)	The Israeli Standard, excluding national modifications and additions, is identical to the International Electrotechnical Commission Standard IEC 60999-2 – Second Edition: 2003-05

The referenced International Standard	The substituted Israeli Standard	Comments
IEC 61058-1: 2000	SJ 61058 Part l - Switches for appliances: General requirements	The Israeli Standard, excluding national modifications and additions, is identical to the International Electrotechnical Commission Standard IEC 61058-1 – Edition 3.2: 2008-04
IEC 62471: 2006	SI 62471 – Photobiological safety of lamps and lamp systems	The Israeli Standard, excluding national modifications and additions, is identical to the International Electrotechnical Commission Standard IEC 62471 (CIE S 009: 2002) – First edition: 2006-07
ISO 262	SI 876 – ISO general purpose metric screw thread: Basic dimension and selected sizes for screws	The Israeli Standard is based on the International Organization for Standardization publications ISO R 724 - 1968 ISO 262 - 1973
ISO 3864 (all parts) [(a)]	SI 3864 Part l – Graphic symbols – Safety colours and safety signs: Design principles for safety signs in workplaces and public areas	The Israeli Standard, excluding national modifications and additions, is identical to the International Organization for Standardization Standard ISO 3864-1: First edition: 2002-05-15

Notes:
(a) In the International Standard series, there are parts not yet adopted as Israeli Standards. This table notes the existing Israeli Standards, and in the Comments column, the corresponding parts of the International Standard series.
(b) Not relevant to the translation.

The following shall be added to the annex:	
Israeli Standards	
SI 32 Part 1.1	Plugs and socket-outlets for household and similar purposes: Plugs and socket-outlets for single phase up to 16A – General requirements
SI 961 Part 6.1	Electromagnetic compatibility: Information technology equipment – Radio disturbance characteristics – Limits and methods of measurement
SI 961 Part 6.2	Electromagnetic compatibility: Information technology equipment – Immunity characteristics - Limits and methods of measurement
SI 961 Part 12.3	Electromagnetic compatibility: Limits – Limits for harmonic current emissions (equipment input current ≦ 16 A per phase)
SI 961 Part 12.5	Electromagnetic compatibility: Limits – Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current ≦ 16 A per phase and subject to conditional connection
SI 961 Part 12.11	Electromagnetic compatibility: Limits – Limitation of voltage changes voltage fluctuations and flicker in public low-voltage supply systems for equipment with rated current ≦ 75 A and subject to conditional connection
SI 961 Part 48 (all parts)	Electromagnetic compatibility: Electromagnetic compatibility (EMC) for radio equipment and services
SI 961 Part 48.1	Electromagnetic compatibility: Electromagnetic compatibility (EMC) for radio equipment and services – Common technical requirements
SI 61000 Part 3.12	Electromagnetic compatibility: Limits – Limits for harmonic currents produced by equipment connected to public low-voltage systems with input current > 16 A and ≦ 75 A per phase

Israeli Laws, Regulations and documents Electricity Law, 1954, with its Regulations and updates Consumer Protection Order (Marking of goods), 1983, Kovetz HaTakanot 4465 dated 1983-02-24, with its updates Electricity Regulations (Earthings and protective means against electrification for voltages up to 1,000 V), 1991, with their updates Energy Sources Regulations (Maximum electrical power in standby mode for domestic and office electrical appliances), 2011, with its updates	
European Standards	
EN 301 489 (all parts)	Electromagnetic compatibility and Radio spectrum Matters (ERM); Electromagnetic Compatibility (EMC) standard for radio equipment and services