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TEST REPORT

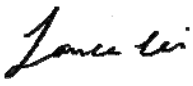
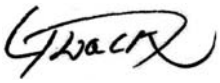
IEC 60950-1:2005.
Information technology equipment – Safety – Part 1: General requirements
UPGRADE TO INCLUDE AM. 1, 2009

Report Number. ..... :	**226909**
Date of issue ..... :	December 18, 2012
Total number of pages	24 pages, refer to page 3 for the list of attachements.
CB Testing Laboratory..... :	**Nemko Shanghai Ltd.** Phone: +86 21 5445 3132
Address ..... :	**7th Floor, Building 1, No.2007 Hongmei Road Xuhui Disctrict, Shanghai, China**
Applicant's name..... :	GlobTek, Inc.
Address ..... :	186 Veterans Dr. Northvale, NJ 07647 USA
Manufacturer's name..... :	GlobTek, Inc.
Address ..... :	186 Veterans Dr. Northvale, NJ 07647 USA
Test specification:	
Standard..... :	IEC 60950-1:2005 (2nd Edition); Am 1:2009
Test procedure ..... :	CB Scheme
Non-standard test method..... :	N/A
Test Report Form No..... :	IEC60950_1_2ed_a1_version 1
Test Report Form(s) Originator..... :	Nemko AS
Master TRF ..... :	Dated 2011-01

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

This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.

Test item description .....:	Switching power Adapter
Trade Mark ..... :	GlobTek
Manufacturer ..... :	GlobTek, Inc. 186 Veterans Dr. Northvale, NJ 07647 USA
Model/Type reference ..... :	GT-41081-WWVV-X.X (refer to page 5 for model designation)
Ratings ..... :	Input: 0.6A, 100-240Vac, 50-60Hz
	Output: 5-9Vdc, max.18W, max. 3A

Testing procedure and testing location:		
☒ **CB Testing Laboratory**:	Nemko Shanghai Ltd	
Testing location/ address .....:	7th Floor, Building 1, No.2007 Hongmei Road Xuhui Disctrict, Shanghai, China	
☐ **Associated CB Laboratory:**		
Testing location/ address .....:		
Tested by (name + signature) .....:	Lance Lei	
Approved by (name + signature).....:	Sam-Geun Gwack	
☐ Testing procedure: **TMP**		
Testing location/ address .....:		
Tested by (name + signature) .....:		
Approved by (name + signature).....:		
☐ Testing procedure: **WMT**		
Testing location/ address .....:		
Tested by (name + signature) .....:		
Witnessed by (name + signature) ....:		
Approved by (name + signature).....:		
☐ Testing procedure: **SMT**		
Testing location/ address .....:		
Tested by (name + signature) .....:		
Approved by (name + signature).....:		
Supervised by (name + signature)...:		
☐ Testing procedure: **RMT**		
Testing location/ address .....:		
Tested by (name + signature) .....:		
Approved by (name + signature).....:		
Supervised by (name + signature)...:		

Project history:		
Nemko Report/ Order No.:	Modification to the appliances:	Changes/ Modifications in clause(s):
177702	Main test report	N/A
226909	**- Update of standard from IEC 60950-1:2005 to IEC 60950-1:2005, Am 1:2009.** **- Updated List of critical components:** **Delete Varistor of Walsin, model VZ7D471K and VZ10D471K; add alternative components** **- Addition of 120h/40℃ Humidity conditioning**	**Clause 1.5, 1.7, 2.1, 2.4, 2.5, 2.6, 2.8, 2.9, 2.10, 4.2, 4.3, 4.4, 4.7, 5.2, 6.1, 6.2, Annex B/D/F/G/J/M/P/U/Y/CC/DD/EE.**

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

Attachment 1: European Group Differences and National Differences EN 60950-1:2006/A11:2009/A1:2010/A12:2011 (17 pages).

Attachment 2: National Differences
National differences: Australia/New Zealand (7 pages), Canada (5 pages), Israel (4 pages), Korea (1 page), Singapore (6 pages), USA (5 pages).

Summary of testing:

N/A

Tests performed (name of test and test clause):	**Testing location:**
2.9; Electrical insulation 4.2; Mechanical strength 5.2; Electric strength	See page 2

Summary of compliance with National Differences

List of countries addressed:

All CENELEC members as listed in EN 60950-1:2006 +A11:2009 +A1:2010+A12:2011.

CB members listed in the IECEE Online Bulletin.

The separated national deviation reports for Australia, Canada, Israel, Korea, Singapore and USA updated in this report due to new deviation reported.

☒ The product fulfils the requirements of IEC 60950-1:2005 (2nd Edition); Am1 2009 and EN 60950-1:2006/A11:2009/A1:2010/A12:2011.

Copy of marking plate

N/A

Test item particulars.....:	
Equipment mobility.....:	[X] movable [] hand-held [X] transportable [] stationary [] for building-in [X] direct plug-in
Connection to the mains.....:	[X] pluggable equipment [X] type A [] type B [] permanent connection [] detachable power supply cord [] non-detachable power supply cord [] not directly connected to the mains
Operating condition.....:	[X] continuous [] rated operating / resting time:
Access location .....:	[X] operator accessible [] restricted access location
Over voltage category (OVC) .....:	[] OVC I [X] OVC II [] OVC III [] OVC IV [] other:
Mains supply tolerance (%) or absolute mains supply values .....:	-10%, +10%
Tested for IT power systems .....:	[X] Yes [] No
IT testing, phase-phase voltage (V) .....:	230V (for Norway)
Class of equipment .....:	[] Class I [X] Class II [] Class III [] Not classified
Considered current rating of protective device as part of the building installation (A) .....:	16A (20A for US and Canada)
Pollution degree (PD) .....:	[] PD 1 [X] PD 2 [] PD 3
IP protection class .....:	IP20 (not evaluated for ingress of water)
Altitude during operation (m) .....:	< 2000m
Altitude of test laboratory (m) .....:	< 2000m
Mass of equipment (kg) .....:	0.1 kg (without replaceable plug) Dimension: 43.3mm by 73.4mm by 37.2mm (without replaceable plug)
Possible test case verdicts:	
- test case does not apply to the test object.....:	N/A (or N)
- test object does meet the requirement.....:	P (Pass)
- test object does not meet the requirement .....:	F (Fail)
Testing.....:	
Date of receipt of test item.....:	2012.12.03
Date(s) of performance of tests.....:	2012.12.03 – 2012.12.11

General remarks:

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 testing laboratory.
"(see Enclosure #)" refers to additional information appended to the report.
"(see appended table)" refers to a table appended to the report.

Throughout this report a ☐ comma / ☒ point is used as the decimal separator.

Manufacturer's Declaration per sub-clause 6.2.5 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. GlobTek, Inc.
   186 Veterans Dr. Northvale, NJ 07647 USA

2. GlobTek (Suzhou) Co., Ltd
   Building 4, No. 76, Jin Ling East Rd., Suzhou Industrial Park, Suzhou,JiangSu 215021, China

General product information:

This Amendment shall always be enclosed with main Test Report, Report No. 177702.

Explanation of model designation GT-41081-WWVV-X.X:
"WW" is the rated output wattage designation, with a maximum value of "18" .
"VV" is the standard rated output voltage designation, with a maximum value of "9"
"-X.X" is optional or blank and denotes the output voltage differentiator, subtracting or adding X.X volts from standard output voltage VV in 0.1V increments.
"VV-X.X" together denotes a voltage range of is 5-9Vdc
Maximum rated output current is 3A.

The changes concern:
- Update of standard from IEC 60950-1:2005 to IEC 60950-1:2005, Am 1:2009.

- Updated List of critical components:
  Delete Varistor of Walsin, model VZ7D471K and VZ10D471K; add alternative components, see appended table 1.5.1 for details which in bold format.
- Addition of 120h/40℃ Humidity conditioning.

Abbreviations used in the report:

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

Indicate used abbreviations (if any)

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1	**GENERAL**		P
1.5	**Components**		P
1.5.1	General	Refer below.	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
1.5.6	Capacitors bridging insulation		P
1.5.7	Resistors bridging insulation		P
1.5.7.1	Resistors bridging functional, basic or supplementary insulation	Bleed resistors are located after fuse bridging functional insulation.	P
1.5.7.2	Resistors bridging double or reinforced insulation between a.c. mains and other circuits		N/A
1.5.9	Surge suppressors	Certified VDR connected between line and neutral.	P
1.5.9.1	General	Refer below.	P
1.5.9.2	Protection of VDRs	Mains fuse used as protection of varistor which is located before VDR.	P
1.5.9.3	Bridging of functional insulation by a VDR	Refer to 1.5.9.	P
1.5.9.4	Bridging of basic insulation by a VDR		N/A
1.7	**Marking and instructions**	New note considered	P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.1	Power rating and identification markings	The required marking is located in an operator access area.	P
1.7.1.1	Power rating marking	Refer below.	P
	Multiple mains supply connections.....:	Only one mains supply connections.	N/A
	Rated voltage(s) or voltage range(s) (V) .....:	100-240VAC	P
	Symbol for nature of supply, for d.c. only.....:	The equipment is for a.c. supply.	N/A
	Rated frequency or rated frequency range (Hz) ...:	50-60Hz	P
	Rated current (mA or A) .....:	0.6A	P
1.7.1.2	Identification markings	Refer below.	P
	Manufacturer's name or trade-mark or identification mark .....:	GlobTek	P
	Model identification or type reference .....:	GT-41081-WWVV-X.X	P
	Symbol for Class II equipment only .....:	Class II symbol (IEC 60417-1, symbol No. 5172) is applied to the label.	P
	Other markings and symbols .....:	The additional marking does not give rise to misunderstandings.	P
1.7.7	Wiring terminals		N/A
1.7.7.1	Protective earthing and bonding terminals .....:	Class II equipment.	N/A

2	**PROTECTION FROM HAZARDS**		P
2.1	Protection from electric shock and energy hazards		P
	Working voltage (Vpeak or Vrms); minimum distance through insulation (mm)		—
2.1.1.5	Energy hazards .....:	No energy hazard in operator access area. Checked by means of the test finger.	P
2.1.1.7	Discharge of capacitors in equipment	Considered in main test report.	P
	Measured voltage (V); time-constant (s) .....:		—
2.1.1.8	Energy hazards – d.c. mains supply		N/A
	a) Capacitor connected to the d.c. mains supply ..:		N/A
	b) Internal battery connected to the d.c. mains supply .....:		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.4	**Limited current circuits**		P
2.4.1	General requirements	Limits are not exceeded.	P
2.5	**Limited power sources**		P
	b) Impedance limited output		N/A
	c) Regulating network limited output under normal operating and single fault condition	DC output complies with limited power source.	P
	Max. output voltage (V), max. output current (A), max. apparent power (VA)..... :	See appended table 2.5 in main test report.	—
	Current rating of overcurrent protective device (A) .:		—
	Use of integrated circuit (IC) current limiters		
2.6	**Provisions for earthing and bonding**		N/A
2.6.2	Functional earthing	Class II equipment.	N/A
2.6.5	Integrity of protective earthing		N/A
2.6.5.6	Corrosion resistance		N/A
2.8	**Safety interlocks**		N/A
2.8.4	Fail-safe operation		N/A
	Protection against extreme hazard		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
2.9	**Electrical insulation**		P
2.9.2	Humidity conditioning	Humidity treatment performed for 120h.	P
	Relative humidity (%), temperature (°C) ..... :	95%, 40°C	—
2.10	**Clearances, creepage distances and distances through insulation**		P
2.10.1	General		P
2.10.3	Clearances	See main test report.	P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.10.3.3	Clearances in primary circuits		P
2.10.3.4	Clearances in secondary circuits	Only functional insulation in secondary circuit.	N/A
2.10.5	**Solid insulation**		P
2.10.5.1	General		P
2.10.5.5.	Cemented joints	No cemented joints.	N/A
2.10.5.7	Separable thin sheet material	Reinforced insulation consists of two layers of material, each of which passes the electric strength test for reinforced insulation.	P
	Number of layers (pcs)..... :	Min two layers provided, tested with 1 layer.	—
2.10.5.12	Wire in wound components	Insulation on winding wire on T1 complies with Annex U.	P
	Working voltage ..... :		P
	a) Basic insulation not under stress ..... :		N/A
	b) Basic, supplementary, reinforced insulation ..... :		N/A
	c) Compliance with Annex U ..... :	(see appended table 1.5.1)	P
	Two wires in contact inside wound component; angle between 45° and 90° ..... :	Protection against mechanical stress is provided by polyester film tape.	P
2.10.6	**Construction of printed boards**		P
2.10.6.2	Coated printed boards	No special coating in order to reduce distances.	N/A

4	**PHYSICAL REQUIREMENTS**		P
4.2	**Mechanical strength**		P
4.2.1	General		P
	Rack-mounted equipment.	Not such equipment.	N/A
4.2.4	Steady force test, 250 N	No hazard. The test is performed at all of enclosure.	P
4.2.5	Impact test	Direct plug-in equipment.	N/A
	Fall test		N/A
	Swing test		N/A
4.2.6	Drop test; height (mm) ..... :	No hazard as result from the drop test at 1000mm height. Tested with removable plug.	P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
4.2.7	Stress relief test	Test is carried out at 95.6°C/ 7h. No risk of shrinkage or distortion on enclosures due to release of internal stresses.	P
4.2.11	Rotating solid media	No such part.	N/A
	Test to cover on the door……:		N/A
4.3	**Design and construction**		P
4.3.13	Radiation	Refer below:	N/A
4.3.13.1	General	Refer below:	N/A
4.3.13.3	Effect of ultraviolet (UV) radiation on materials	The equipment does not produce UV radiation.	N/A
	Part, property, retention after test, flammability classification .....:		N/A
4.3.13.4	Human exposure to ultraviolet (UV) radiation .....:		N/A
4.3.13.5	Lasers (including laser diodes) and LEDs	No lasers or LED.	N/A
4.3.13.5.1	Lasers (including laser diodes)		N/A
	Laser class .....:		—
4.3.13.5.2	Light emitting diodes (LEDs)		N/A
4.4	**Protection against hazardous moving parts**		N/A
4.4.1	General		N/A
4.4.2	Protection in operator access areas ..... :		N/A
4.4.5.1	General		N/A
	Not considered to cause pain or injury. a)……:		N/A
	Is considered to cause pain, not injury. b) ……:		N/A
	Considered to cause injury. c) ……:		N/A
4.4.5.2	Protection for users		N/A
	Use of symbol or warning ……:		N/A
4.4.5.3	Protection for service persons		N/A
	Use of symbol or warning ……:		N/A
4.7	**Resistance to fire**		P
4.7.3	Materials		P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
4.7.3.2	Materials for fire enclosures	The fire enclosure is of flame class V-1 material.	P
5.2	**Electric strength**		P
5.2.1	General	(see appended table 5.2)	P
5.2.2	Test procedure	(see appended table 5.2)	P
6	**CONNECTION TO TELECOMMUNICATION NETWORKS**		N/A
6.1	**Protection of telecommunication network service persons, and users of other equipment connected to the network, from hazards in the equipment**		N/A
6.1.2	Separation of the telecommunication network from earth		N/A
6.1.2.1	Requirements	No TNV circuits provided.	N/A
6.2	**Protection of equipment users from overvoltages on telecommunication networks**		N/A
6.2.1	Separation requirements	No TNV circuits provided.	N/A
6.2.2	Electric strength test procedure		N/A
6.2.2.1	Impulse test		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	No motor.	N/A
	Position .....:		—
	Manufacturer .....:		—
	Type .....:		—
	Rated values .....:		—
D	**ANNEX D, MEASURING INSTRUMENTS FOR TOUCH-CURRENT TESTS (see 5.1.4)**		P
D.1	Measuring instrument	Figure D.1 used.	P
F	**ANNEX F, MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES (see 2.10 and Annex G)**		P
	Typing error corrected		—

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
G	**ANNEX G, ALTERNATIVE METHOD FOR DETERMINING MINIMUM CLEARANCES**		N/A
G.1.2	Summary of the procedure for determining minimum clearances	Not used.	N/A
G.6	Determination of minimum clearances .....:		N/A
J	**ANNEX J, TABLE OF ELECTROCHEMICAL POTENTIALS (see 2.6.5.6)**		N/A
	Metal(s) used .....:		—
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
P	**ANNEX P, NORMATIVE REFERENCES**		—
Q	**ANNEX Q, Voltage dependent resistors (VDRs) (see 1.5.9.1)**		P
	a) Preferred climatic categories ..... :	Approved VDR used. See appended table 1.5.1.	P
	b) Maximum continuous voltage ..... :	Approved VDR used. See appended table 1.5.1.	P
	c) Pulse current ..... :	Approved VDR used. See appended table 1.5.1.	P
U	**ANNEX U, INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION (see 2.10.5.4)**		P
		Certified TIW used.	—
Y	**ANNEX Y, ULTRAVIOLET LIGHT CONDITIONING TEST (see 4.3.13.3)**		N/A
Y.1	Test apparatus .....:		N/A
Y.3	Carbon-arc light-exposure apparatus .....:		N/A
Y.4	Xenon-arc light exposure apparatus .....:		N/A
CC	**ANNEX CC, Evaluation of integrated circuit (IC) current limiters**		N/A
CC.1	General		N/A
CC.2	Test program 1.....:		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
CC.3	Test program 2……:		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)	Mark(s) of conformity[1])
Europe Plug	GlobTek	Q-EU	2.5A, 250V	EN 50075	Nemko report Ref. No. 177702P
Plug holder material	SABIC	SE100, SE100X, SE1, SE1X, HF500R	Min 2.0mm thick, Min.95°C , flame class V-1 or better	UL 94	UL
Enclosure	SABIC	SE100, SE100X, SE1, SE1X, HF500R **CX7211 C2950 EXCY0098**	Min 2.0mm thick, flame class V-1 or better	UL 94	UL
Alternative	**Teijin**	**LN-1250P, LN-1250G**	**Min 2.0mm thick, flame class V-1 or better**	**UL 94**	**UL**
Alternative	**ChiMei**	**PA-765A PC-540**	**Min 2.0mm thick, flame class V-1 or better**	**UL 94**	**UL**
PCB material	Various	Various	Min. flame class V-1 or better, min. 105°C materials	UL 94 , UL796	UL
Internal Glue Materials	Various	Various	Rated V-2 Min.	UL94, UL746C	UL
Fuse (F1)	Conquer	MST	T2A, 250V	IEC/EN 60127-3 UL 248	VDE, UL
Alternative	Ever Island Electric Co Ltd & Walter Electric	2010	T2A, 250V	IEC/EN 60127-3 UL 248	VDE, UL
Alternative	Walter	ICP	T2A, 250V	IEC/EN 60127-3 UL 248	VDE, UL
Alternative	Das & Sons	385T	T2A, 250V	IEC/EN 60127-3 UL 248	VDE, UL
Alternative	Bel	RST	T2A, 250V	IEC/EN 60127-3 UL 248	VDE, UL
Alternative	Cooper Bussmann	SS-5	T2A, 250V	IEC/EN 60127-3 UL 248	VDE, UL
Alternative	Save Fusetech	SS-5	T2A, 250V	IEC/EN 60127-3 UL 248	VDE, UL

Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition)	Mark(s) of conformity[1])
Alternative	Zhongshan Lanbao Electrical	RTI-10	T2A, 250V	IEC/EN 60127-3 UL 248	VDE, UL
Alternative	Sunny East	CFD	T2A, 250V	IEC/EN 60127-3 UL 248	VDE, UL
Alternative	Lanson	SMT	T2A, 250V	IEC/EN 60127-3 UL 248	VDE, UL
Varistor, (NZR) after fuse(optional)	TKS	TVR10471K, TVR14471K	300Vac	IEC/EN 61051-2 ***2)*** UL 1449 ***3)***	VDE ,UL
Alternative	Centra	10D471K, 14D471K	300Vac	IEC/EN 61051-2 ***2)*** UL 1449 ***3)***	VDE ,UL
Alternative	JOYIN	10N471K, 14N471K	300Vac	IEC/EN 61051-2 ***2)*** UL 1449 ***3)***	VDE ,UL
Alternative	Success Electronics Co Ltd	SVR-10D471K SVR-14D471K	300Vac	IEC/EN 61051-2 ***2)*** UL 1449 ***3)***	VDE ,UL
Alternative	Walsin	**VZ14D471K**	300Vac	IEC/EN 61051-2 ***2)*** UL 1449 ***3)***	VDE ,UL
Alternative	STE	STE-07D471K STE-10D471K **STE-14D471K**	300Vac	IEC/EN 61051-2 ***2)*** UL 1449 ***3)***	VDE ,UL
Alternative	Lien Shun Electronics Co., Ltd.	10D471K, 14D471K	300Vac	IEC/EN 61051-2 ***2)*** UL 1449 ***3)***	VDE,UL
Alternative	**CERAMATE**	**GNR10D471K** **GNR14D471K**	**300Vac**	**EC/EN 61051-2** ***2)*** **UL 1449** ***3)***	**VDE,UL**
Alternative	**Brightking**	**14D471K** **10D471K** **471KD10** **471KD14**	**300Vac**	**EC/EN 61051-2** ***2)*** **UL 1449** ***3)***	**VDE,UL**
Bridging diode (D3, D5, D6, D7)	Various	Various	Min.1A, 600V	IEC/EN 60950-1	Test with equipment
X cap (CX1) (optional)	CT	CTX	Max. 0.15 uF, min. 275 Vac, 100 degree C, (Min X2)	IEC/EN 60384-14 2nd edition	VDE
Alternative	UTX	HQX	Max. 0.15 uF, min. 275 Vac, 100 degree C, (Min X2)	IEC/EN 60384-14 2nd edition UL 1414	VDE, UL

Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition)	Mark(s) of conformity[1])
Alternative	Tenta	MEX	Max. 0.15 uF, min. 275 Vac, 100 degree C, (Min X2)	IEC/EN 60384-14 2nd edition UL 1414	VDE, UL
Alternative	Okaya	RE	Max. 0.15 uF, min. 275 Vac, 100 degree C, (Min X2)	IEC/EN 60384-14 2nd edition UL 1414	VDE, UL
Alternative	Dain	MPX, NPX	Max. 0.15 uF, min. 275 Vac, 100 degree C, (Min X2)	IEC/EN 60384-14 2nd edition UL 1414	VDE, UL
Alternative	Jinghao	CBB62B	Max. 0.15 uF, min. 275 Vac, 100 degree C, (Min X2)	IEC/EN 60384-14 2nd edition UL 1414	VDE, UL
Alternative	Da hua	HD	Max. 0.15 uF, min. 275 Vac, 100 degree C, (Min X2)	IEC/EN 60384-14 2nd edition UL 1414	VDE, UL
Alternative	Welson	WD	Max. 0.15 uF, min. 275 Vac, 100 degree C, (Min X2)	IEC/EN 60384-14 2nd edition UL 1414	VDE, UL
Alternative	Murata	KH	Max. 0.15 uF, min. 275 Vac, 100 degree C, (Min X2)	IEC/EN 60384-14 2nd edition UL 1414	VDE, UL
Alternative	Walsin	AC	Max. 0.15 uF, min. 275 Vac, 100 degree C, (Min X2)	IEC/EN 60384-14 2nd edition UL 1414	VDE, UL
Alternative	SHANTOU HIGH-NEW TECHNOLOGY DEVELOPMNT ZONE SONGTIAN ENTERPRISE CO LTD	MPX	Max. 0.15 uF, min. 275 Vac, 100 degree C, (Min X2)	IEC/EN 60384-14 2nd edition UL 1414	VDE, UL
Alternative	YUON YU ELECTRONICS CO LTD	MPX	Max. 0.15 uF, min. 275 Vac, 100 degree C, (Min X2)	IEC/EN 60384-14 2nd edition UL 1414	VDE, UL
Alternative	Sinhua Electronics (Shanghai) Co. Ltd.	MPX	Max. 0.15 uF, min. 275 Vac, 100 degree C, (Min X2)	IEC/EN 60384-14 2nd edition UL 1414	VDE, UL

Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition)	Mark(s) of conformity[1])
Bleeder Resistor (R3,R5)	Various	Various	Max. 2.2M ohm, 1/4W	IEC/EN 60950-1	Test with equipment
Bulk Capacitor (C1)	Various	Various	Max 33µF Min 400V 105°C	IEC/EN 60950-1	Test with equipment
Bridging cap (CY1) (optional)	TDK	CD	Max. 1500pF Min 250Vac 125°C (Y1)	IEC/EN 60384-14 2nd edition UL 1414	VDE, UL
Alternative	Walsin	AH	Max. 1500pF Min 250Vac 125°C (Y1)	IEC/EN 60384-14 2nd edition UL 1414	VDE, UL
Alternative	Jya-Nay	JN	Max. 1500pF Min 250Vac 125°C (Y1)	IEC/EN 60384-14 2nd edition UL 1414	VDE, UL
Alternative	Murata	KX	Max. 1500pF Min 250Vac 125°C (Y1)	IEC/EN 60384-14 2nd edition UL 1414	VDE, UL
Alternative	Success	SB, SE	Max. 1500pF Min 250Vac 125°C (Y1)	IEC/EN 60384-14 2nd edition UL 1414	VDE, UL
Alternative	Welson	WD	Max. 1500pF Min 250Vac 125°C (Y1)	IEC/EN 60384-14 2nd edition UL 1414	VDE, UL
Alternative	HAOHUA ELECTRONIC CO	CT7	Max. 1500pF Min 250Vac 125°C (Y1)	IEC/EN 60384-14 2nd edition UL 1414	VDE, UL
Optocoupler (U1)	Sharp	PC817 PC817U PC123 PC1231	See appendix opto elec. Min 100°C	IEC/EN 60950-1	VDE
Alternative	Everlight	EL817	See appendix opto elec. Min 100°C	IEC/EN 60950-1	VDE
Alternative	Cosmo	K1010 KP1010	See appendix opto elec. Min 100°C	IEC/EN 60950-1	VDE
Alternative	Liteon	LTV-817	See appendix opto elec. Min 100°C	IEC/EN 60950-1	VDE
Alternative	Toshiba	TLP721	See appendix opto elec. Min 100°C	IEC/EN 60950-1	VDE
Alternative	Fairchild	H11A817B	See appendix opto elec. Min 100°C	IEC/EN 60950-1	VDE

Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition)	Mark(s) of conformity[1])
Line choke (NF1) (no bobbin) (Optional)	GlobTek/ **BOAM/ZHONGTONG/HEJIA**	NF00025	130°C	IEC/EN 60950-1	Test with equipment
Line Choke (NF2) for 5V ***5)***	GlobTek/ **BOAM/ZHONGTONG/HEJIA**	NF00085	130°C	IEC/EN 60950-1	Test with equipment
Line Choke (NF2) for 6-9V ***5)***	GlobTek/ **BOAM/ZHONGTONG/HEJIA**	NF00086	130°C	IEC/EN 60950-1	Test with equipment
Bobbin Alternative **Alternative**	Sumitomo Changchun Plastics **Hitachi**	PM-9820 PM-9830 T375J **T373J** **CP-J-8800**	Phenolic, 150°C, V-0 Phenolic, 150°C, V-0 **Phenolic, 150°C, V-0**	UL 94 UL 94 **UL 94**	UL UL **UL**
Transformer (T1) For output voltage is 5Vdc ***4) 5)***	GlobTek/ **BOAM/ZHONGTONG/HEJIA**	XF00514	Class B	IEC/EN 60950-1	Test with equipment
TIW(used at sec. winding)	Great Leoflon	TRW-B	130°C	UL 2353 IEC/EN 60950-1	UL VDE
Alternative	Furukawa	TEX-E **TEX-B**	130°C	UL 2353 IEC/EN 60950-1	UL VDE
Alternative	Totoku	TIW-E	130°C	UL 2353 IEC/EN 60950-1	UL CB and CE by TUV Rheinland
Alternative	**COSMOLINK**	**TIW-M**	**130°C**	**UL 2353** **IEC/EN 60950-1**	**UL VDE**
Bobbin	Sumitomo	PM-9820 PM-9830	Phenolic, 150°C, V-0	UL 94	UL
Alternative	Changchun Plastics	T375J **T373J**	Phenolic, 150°C, V-0	UL 94	UL
Alternative	**Hitachi**	**CP-J-8800**	**Phenolic, 150°C, V-0**	**UL 94**	**UL**
Insulation tape wrapped around transformer	3M	1350F-1, 1350T-1, 44 **1350-1**	130°C	UL 510	UL

Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition)	Mark(s) of conformity[1])
Alternative	Bondtec	370S	130°C	UL 510	UL
Alternative	**YAHUA**	**PZ CT**	**130°C**	**UL 510**	**UL**
Alternative	**SYMBIO INC**	**35660**	**130°C**	**UL 510**	**UL**
Alternative	**JINGJIANG JINGYI**	**JY25-A**	**130°C**	**UL 510**	**UL**
Alternative	**Liang Yi**	**LY-20**	**130°C**	**UL 510**	**UL**
Transformer (T1) For output voltage is 5.1Vdc-6.0Vdc ***4) 5)***	GlobTek/ **BOAM/ZHONGTONG/HEJIA**	XF00540	Class B	IEC/EN 60950-1	Test with equipment
TIW(used at sec. winding)	Great Leoflon	TRW-B	130°C	UL 2353 IEC/EN 60950-1	UL VDE
Alternative	Furukawa	TEX-E **TEX-B**	130°C	UL 2353 IEC/EN 60950-1	UL VDE
Alternative	Totoku	TIW-E	130°C	UL 2353 IEC/EN 60950-1	UL CB and CE by TUV Rheinland
Alternative	**COSMOLINK**	**TIW-M**	**130°C**	**UL 2353** **IEC/EN 60950-1**	**UL VDE**
Bobbin	Sumitomo	PM-9820 PM-9830	Phenolic, 150°C, V-0	UL 94	UL
Alternative	Changchun Plastics	T375J **T373J**	Phenolic, 150°C, V-0	UL 94	UL
Alternative	**Hitachi**	**CP-J-8800**	**Phenolic, 150°C, V-0**	**UL 94**	**UL**
Insulation tape wrapped around transformer	3M	1350F-1, 1350T-1, 44 **1350-1**	130°C	UL 510	UL
Alternative	Bondtec	370S	130°C	UL 510	UL
Alternative	**YAHUA**	**PZ CT**	**130°C**	UL 510	UL
Alternative	**SYMBIO INC**	**35660**	**130°C**	**UL 510**	**UL**
Alternative	**JINGJIANG JINGYI**	**JY25-A**	**130°C**	**UL 510**	**UL**
Alternative	**Liang Yi**	**LY-20**	**130°C**	**UL 510** **UL 510**	**UL** **UL**

Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition)	Mark(s) of conformity[1])
Transformer (T1) For output voltage is 6.1Vdc-9.0Vdc ***4) 5)***	GlobTek/ **BOAM/ZHONGTONG/HEJIA**	XF00550	Class B	IEC/EN 60950-1	Test with equipment
TIW(used at sec. winding)	Great Leoflon	TRW-B	130°C	UL 2353 IEC/EN 60950-1	UL VDE
Alternative	Furukawa	TEX-E **TEX-B**	130°C	UL 2353 IEC/EN 60950-1	UL VDE
Alternative	Totoku	TIW-E	130°C	UL 2353 IEC/EN 60950-1	UL CB and CE by TUV Rheinland
Alternative	**COSMOLINK**	**TIW-M**	**130°C**	**UL 2353** **IEC/EN 60950-1**	**UL VDE**
Bobbin	Sumitomo	PM-9820 PM-9830	Phenolic, 150°C, V-0	UL 94	UL
Alternative	Changchun Plastics	T375J **T373J**	Phenolic, 150°C, V-0	UL 94	UL
Alternative	**Hitachi**	**CP-J-8800**	**Phenolic, 150°C, V-0**	**UL 94**	**UL**
Insulation tape wrapped around transformer	3M	1350F-1, 1350T-1, 44 **1350-1**	130°C	UL 510	UL
Alternative	Bondtec	370S	130°C	UL 510	UL
Alternative	**YAHUA**	**PZ CT**	**130°C**	**UL 510**	**UL**
Alternative	**SYMBIO INC**	**35660**	**130°C**	**UL 510**	**UL**
Alternative	**JINGJIANG JINGYI**	**JY25-A**	**130°C**	**UL 510**	**UL**
Alternative	**Liang Yi**	**LY-20**	**130°C**	**UL 510**	**UL**

Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition)	Mark(s) of conformity[1])
Insulation tape wrapped around HS2 (used as basic insulation)	3M	1350F-1, 1350T-1, 44 **1350-1**	130°C	UL 510	UL
Alternative	Bondtec	370S	130°C	UL 510	UL
Alternative	**YAHUA**	**PZ CT**	**130°C**	**UL 510**	**UL**
Alternative	**SYMBIO INC**	**35660**	**130°C**	**UL 510**	**UL**
Alternative	**JINGJIANG JINGYI**	**JY25-A**	**130°C**	**UL 510**	**UL**
Alternative	**Liang Yi**	**LY-20**	**130°C**	**UL 510**	**UL**
supplementary information:					

[1]) an asterisk indicates a mark which assures the agreed level of surveillance.

2) Varistor was tested additionally with IEC 60950-1:2005 (Annex Q) during the approval to IEC 61051-2.
3) Varistor is for SPD Type 3 SPD application.
4) All the transformers have the similar construction, different in winding turns and layer of insulation tapes .
5) T1 /NF1/NF2 share the same construction from different vendors.

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

2.1.1.5 c) 1)	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:

2.1.1.5 c) 2)	TABLE: stored energy	N/A

Capacitance C (µF)	Voltage U (V)	Energy E (J)

supplementary information:

2.5	TABLE: limited power sources	N/A

Circuit output tested:

Measured Uoc (V) with all load circuits disconnected:

	I_{sc} (A)		VA	
	Meas.	Limit	Meas.	Limit
Normal condition				
Single fault: …..				

supplementary information:

Sc=Short circuit, Oc=Open circuit

2.10.2	Table: working voltage measurement	N/A

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

supplementary information:

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 (DTI) at/of:	U peak (V)	U rms (V)	Test voltage (V)	Required DTI (mm)	DTI (mm)
Supplementary information:					

5.2	TABLE: Electric strength tests, impulse tests and voltage surge tests		
Test voltage applied between:	Voltage shape (AC, DC, impulse, surge)	Test voltage (V)	Breakdown Yes / No
Reinforced:			
Primary to Enclosure (wrapped with foil)	DC	4242	No
Primary to Secondary	DC	4242	No
Insulation tape used in T1 (tested 1 layer from every source)	AC	3000	No
T1 primary to secondary	DC	4242	No
T1 Core to secondary[1)]	DC	4242	No
Supplementary information: 1) Core consider as primary			

IEC60950_1C - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

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

Information technology equipment – Safety –

Part 1: General requirements

Differences according to.....:	EN 60950-1:2006/A11:2009/A1:2010/A12:2011
Attachment Form No.....:	EU_GD_IEC60950_1C_II
Attachment Originator.....:	SGS Fimko Ltd
Master Attachment.....:	Date 2011-08

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

IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
Clause	Requirement + Test	Result - Remark	Verdict
Contents	Add the following annexes: Annex ZA (normative) — Normative references to international publications with their corresponding European publications Annex ZB (normative) — Special national conditions		P
General	Delete all the “country” notes in the reference document (IEC 60950-1:2005) according to the following list: 1.4.8 Note 2; 1.5.1 Note 2 & 3; 1.5.7.1 Note 1.5.8 Note 2; 1.5.9.4 Note; 1.7.2.1 Note 4, 5 & 6 2.2.3 Note; 2.2.4 Note; 2.3.2 Note 2.3.2.1 Note 2; 2.3.4 Note 2; 2.6.3.3 Note 2 & 3 2.7.1 Note; 2.10.3.2 Note 2; 2.10.5.13 Note 3 3.2.1.1 Note; 3.2.4 Note 3.; 2.5.1 Note 2 4.3.6 Note 1 & 2; 4.7 Note 4; 4.7.2.2 Note 4.7.3.1Note 2; 5.1.7.1 Note 3 & 4; 5.3.7 Note 1 6 Note 2 & 5; 6.1.2.1 Note 2; 6.1.2.2 Note 6.2.2 Note; 6.2.2.1 Note 2; 6.2.2.2 Note 7.1 Note 3; 7.2 Note; 7.3 Note 1 & 2 G.2.1 Note 2; Annex H Note 2		P
General (A1:2010)	Delete all the “country” notes in the reference document (IEC 60950-1:2005/A1:2010) according to the following list: 1.5.7.1 Note; 6.1.2.1 Note 2 6.2.2.1 Note 2; EE.3 Note		P

IEC60950_1C - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

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.	Not such device.	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		—
1.5.1	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		P
1.7.2.1 (A1:2010)	In addition, for a PORTABLE SOUND SYSTEM, the instructions shall include a warning that excessive sound pressure from earphones and headphones can cause hearing loss.	Not such device.	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.	Not such device.	N/A
	Zx Protection against excessive sound pressure from personal music players		N/A

IEC60950_1C - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

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.		N/A

IEC60950_1C - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

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.		N/A
	Zx.2 Equipment requirements No safety provision is required for equipment that complies with the following: – equipment provided as a package (personal music player with its listening device), where the acoustic output $L_{Aeq,T}$ is ≤ 85 dBA measured while playing the fixed “programme simulation noise” as described in EN 50332-1; and – a personal music player provided with an analogue electrical output socket for a listening device, where the electrical output is ≤ 27 mV measured as described in EN 50332-2, while playing the fixed “programme simulation noise” as described in EN 50332-1. NOTE 1 Wherever the term acoustic output is used in this clause, the 30 s A-weighted equivalent sound pressure level $L_{Aeq,T}$ is meant. See also Zx.5 and Annex Zx. All other equipment shall: a) protect the user from unintentional acoustic outputs exceeding those mentioned above; and b) have a standard acoustic output level not exceeding those mentioned above, and automatically return to an output level not exceeding those mentioned above when the power is switched off; and		N/A

IEC60950_1C - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

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 $L_{Aeq,T}$) measured over the duration of the song is lower than the average produced by the programme simulation noise, the warning does not need to be given as long as the average sound pressure of the song is below the basic limit of 85 dBA. In this case T becomes the duration of the song. NOTE 4 Classical music typically has an average sound pressure (long term $L_{Aeq,T}$) which is much lower than the average programme simulation noise. Therefore, if the player is capable to analyse the song and compare it with the programme simulation noise, the warning does not need to be given as long as the average sound pressure of the song is below the basic limit of 85 dBA. For example, if the player is set with the programme simulation noise to 85 dBA, but the average music level of the song is only 65 dBA, there is no need to give a warning or ask an acknowledgement as long as the average sound level of the song is not above the basic limit of 85 dBA.		N/A

IEC60950_1C - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

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.		N/A
	Zx.4 Requirements for listening devices (headphones and earphones)		N/A
	Zx.4.1 Wired listening devices with analogue input With 94 dBA sound pressure output $L_{Aeq,T}$, the input voltage of the fixed “programme simulation noise” described in EN 50332-2 shall be ≥ 75 mV. This requirement is applicable in any mode where the headphones can operate (active or passive), including any available setting (for example built-in volume level control). NOTE The values of 94 dBA – 75 mV correspond with 85dBA – 27 mV and 100 dBA – 150 mV.		N/A

IEC60950_1C - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

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 $L_{Aeq,T}$ of the listening device shall be ≤ 100 dBA. This requirement is applicable in any mode where the headphones can operate, including any available setting (for example built-in volume level control, additional sound feature like equalization, etc.). NOTE An example of a wired listening device with digital input is a USB headphone.		N/A
	Zx.4.3 Wireless listening devices In wireless mode: – with any playing and transmitting device playing the fixed programme simulation noise described in EN 50332-1; and – respecting the wireless transmission standards, where an air interface standard exists that specifies the equivalent acoustic level; and – with volume and sound settings in the listening device (for example built-in volume level control, additional sound feature like equalization, etc.) set to the combination of positions that maximize the measured acoustic output for the abovementioned programme simulation noise, the acoustic output $L_{Aeq,T}$ of the listening device shall be ≤ 100 dBA. NOTE An example of a wireless listening device is a Bluetooth headphone.		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.		N/A

IEC60950_1C - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

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; 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.	The equipment is provided with a fuse and complies with a).	P
2.7.2	This subclause has been declared ‘void’.		—
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.	N/A
3.2.5.1	Replace “60245 IEC 53” by “H05 RR-F”; “60227 IEC 52” by “H03 VV-F or H03 VVH2-F”; “60227 IEC 53” by “H05 VV-F or H05 VVH2-F2”. In Table 3B, replace the first four lines by the following: Up to and including 6 | 0,75 [a] | Over 6 up to and including 10| (0,75) [b] 1,0 | Over 10 up to and including 16| (1,0) [c] 1,5 | In the conditions applicable to Table 3B delete the words “in some countries” in condition [a]. In NOTE 1, applicable to Table 3B, delete the second sentence.	Direct plug-in equipment.	N/A

IEC60950_1C - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

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	Direct plug-in equipment.	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).		N/A
	Standards taking into account mentioned Recommendation and Directive which demonstrate compliance with the applicable EU Directive are indicated in the OJEC.		N/A
Annex H	Replace the last paragraph of this annex by: At any point 10 cm from the surface of the OPERATOR ACCESS AREA, the dose rate shall not exceed 1 µSv/h (0,1 mR/h) (see NOTE). Account is taken of the background level. Replace the notes as follows: NOTE These values appear in Directive 96/29/Euratom. Delete NOTE 2.	The unit does not emit X-ray radiation.	N/A
Bibliography	Additional EN standards.		—

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 II 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

IEC60950_1C - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
Clause	Requirement + Test	Result - Remark	Verdict
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.	Class II equipment.	N/A
1.5.8	In **Norway**, due to the IT power system used (see annex V, Figure V.7), capacitors are required to be rated for the applicable line-to-line voltage (230 V).		P
1.5.9.4	In **Finland**, **Norway** and **Sweden**, the third dashed sentence is applicable only to equipment as defined in 6.1.2.2 of this annex.		N/A

IEC60950_1C - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

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

IEC60950_1C - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

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.”		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.	No socket outlet.	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 circuit.	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 circuit.	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 circuit.	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 II equipment.	N/A

IEC60950_1C - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
Clause	Requirement + Test	Result - Remark	Verdict
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.	Suitable protective device is included as integral part of the equipment.	P
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 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	Direct plug-in equipment.	N/A

IEC60950_1C - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
Clause	Requirement + Test	Result - Remark	Verdict
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.	Direct plug-in equipment.	N/A
3.2.1.1	In **Spain**, supply cords of single-phase equipment having a rated current not exceeding 10 A shall be provided with a plug according to UNE 20315:1994. Supply cords of single-phase equipment having a rated current not exceeding 2,5 A shall be provided with a plug according to UNE-EN 50075:1993. CLASS I EQUIPMENT provided with socket-outlets with earth contacts or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules, shall be provided with a plug in accordance with standard UNE 20315:1994. If poly-phase equipment is provided with a supply cord with a plug, this plug shall be in accordance with UNE-EN 60309-2.	Direct plug-in equipment.	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.	Direct plug-in equipment.	N/A

IEC60950_1C - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
Clause	Requirement + Test	Result - Remark	Verdict
3.2.1.1	In **Ireland**, apparatus which is fitted with a flexible cable or cord and is designed to be connected to a mains socket conforming to I.S. 411 by means of that flexible cable or cord and plug, shall be fitted with a 13 A plug in accordance with Statutory Instrument 525:1997 - National Standards Authority of Ireland (section 28) (13 A Plugs and Conversion Adaptors for Domestic Use) Regulations 1997.	Direct plug-in equipment.	N/A
3.2.4	In **Switzerland**, for requirements see 3.2.1.1 of this annex.	Direct plug-in equipment.	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.	Direct plug-in equipment.	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.	Direct plug-in equipment.	N/A
4.3.6	In the **United Kingdom**, the torque test is performed using a socket outlet complying with BS 1363 part 1:1995, including Amendment 1:1997 and Amendment 2:2003 and the plug part of DIRECT PLUG-IN EQUIPMENT shall be assessed to BS 1363: Part 1, 12.1, 12.2, 12.3, 12.9, 12.11, 12.12, 12.13, 12.16 and 12.17, except that the test of 12.17 is performed at not less than 125 °C. Where the metal earth pin is replaced by an Insulated Shutter Opening Device (ISOD), the requirements of clauses 22.2 and 23 also apply.	See summary of testing in main TRF	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.	See summary of testing in main TRF	N/A

IEC60950_1C - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

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

IEC60950_1C - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
Clause	Requirement + Test	Result - Remark	Verdict
	It is permitted to bridge this insulation with an optocoupler complying with 2.10.5.4 b). It is permitted to bridge this insulation with a capacitor complying with EN 60384-14:2005, subclass Y2. A capacitor classified Y3 according to EN 60384-14:2005, may bridge this insulation under the following conditions: - the insulation requirements are satisfied by having a capacitor classified Y3 as defined by EN 60384-14, which in addition to the Y3 testing, is tested with an impulse test of 2,5 kV defined in EN 60950-1:2006, 6.2.2.1; - the additional testing shall be performed on all the test specimens as described in EN 60384-14: - the impulse test of 2,5 kV is to be performed before the endurance test in EN 60384-14, in the sequence of tests as described in EN 60384-14.		N/A
6.1.2.2	In **Finland**, **Norway** and **Sweden**, the exclusions are applicable for PERMANENTLY CONNECTED EQUIPMENT, PLUGGABLE EQUIPMENT TYPE B and equipment intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, e.g. in a telecommunication centre, and which has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR and is provided with instructions for the installation of that conductor by a SERVICE PERSON.	No TNV circuit.	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

ATTACHMENT TO TEST REPORT IEC 60950-1
AUSTRALIAN / NEW ZEALAND DIFFERENCES

Differences according to.....: AS/NZS 60950.1 - 2011
IEC Standard.....: 60950-1(ed.2)
Last Modification.....: Date (2011-05-06)

Clause	Requirement + Test	Result - Remark	Verdict
ZZ.1 Introduction			
	This Appendix sets out variations and additional requirements to cover issues which have not been addressed by the International Standard. These variations indicate national variations for purposes of the IECEE CB System and will be published in the IECEE CB Bulletin.		
ZZ.2 Variations			
	The following variations apply to the source text.		
1.2	*Insert* the following between 'person, service' and 'range, rated frequency': **POTENTIAL IGNITION SOURCE** 1.2.12	Considered.	P
1.2.12.201	*Insert* a new Clause 1.2.12.201 after Clause 1.2.12.15 as follows: **1.2.12.201 POTENTIAL IGNITION SOURCE:** Possible fault which can start a fire if the open-circuit voltage measured across an interruption or faulty contact exceeds a value of 50 V (peak) a.c. or d.c. and the product of the peak value of this voltage and the measured r.m.s. current under normal operating conditions exceeds 15 VA. Such a faulty contact or interruption in an electrical connection includes those which may occur in **CONDUCTIVE PATTERNS** on **PRINTED BOARDS.** NOTE 201: An electronic protection circuit may be used to prevent such a fault from becoming a POTENTIAL IGNITION SOURCE. NOTE 202: This definition is from AS/NZS 60065:2003.		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'	All critical components are IEC or UL certified.	P
1.5.2	*Add* the following to the end of first and third dash items: 'or the relevant Australian/New Zealand Standard'.	All critical components are IEC or UL certified.	P

3.2.5.1	*Modify* Table 3B as follows: 1. *Delete* the first four rows and replace with the following: **RATED CURRENT of equipment A** / **Minimum conductor sizes** — Nominal cross-sectional area mm²: Over 0.2 up to and including 3: 0,5 [a]; Over 3 up to and including 7.5: 0,75; Over 7.5 up to and including 10: (0,75) [b] 1,00; Over 10 up to and including 16: (1,0) [c] 1,5. AWG or kcmil [cross-sectional area in mm²] see Note 2: 18 [0,8]; 16 [1,3]; 16 [1,3]; 14 [2]. 2. *Delete* NOTE 1. 3. *Delete* Footnote [a] and replace with the following: [a] This nominal cross-sectional area is only allowed for Class II appliances if the length of the power supply cord, measured between the point where the cord, or cord guard, enters the appliance, and the entry to the plug does not exceed 2 m (0,5 mm2 three-core supply flexible cords are not permitted; see AS/NZS 3191).	Direct plug-in equipment.	N/A
4.1.201	*Insert* a new Clause 4.1.201 after Clause 4.1 as follows: **4.1.201 Display devices used for television purposes** Display devices which may be used for television purposes, with a mass of 7 kg or more, shall comply with the requirements for stability and mechanical hazards, including the additional stability requirements for television receivers, specified in AS/NZS 60065.		N/A
4.3.6	*Delete* the third paragraph and *replace* with the following: *Equipment with a plug portion, suitable for insertion into a 10 A 3-pin 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.*	Only Europe plug have been evaluated. See summary of testing in main TRF.	N/A
4.3.13.5	*Add* the following to the end of first paragraph: 'or AS/NZS 2211.1'.	No Laser product used.	N/A
4.7	*Add* the following new paragraph to the end of the clause: 'For alternate tests refer to Clause 4.7.201.'	Alternative tests not performed.	N/A

4.7.201	*Insert* a new Clause 4.7.201 after Clause 4.7.3.6 as follows: **4.7.201 Resistance to fire – Alternative tests** **4.7.201.1 General** Parts of non-metallic material shall be resistant to ignition and spread of fire. This requirement does not apply to decorative trims, knobs and other parts unlikely to be ignited or to propagate flames from inside the apparatus, or the following: (a) Components that are contained in an enclosure having a flammability category of V-0 according to AS/NZS 60695.11.10 and having openings only for the connecting wires filling the openings completely, and for ventilation not exceeding 1mm in width regardless of length. (b) The following parts which would contribute negligible fuel to a fire: - small mechanical parts, the mass of which does not exceed 4 g, such as mounting parts, gears, cams, belts and bearings; - small electrical components, such as capacitors with a volume not exceeding 1750mm^3, integrated circuits, transistors and optocoupler packages, if these components are mounted on material of flammability category FV-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 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.	All materials have suitable flame class, no testing required.	N/A

4.7.201	Parts for which the glow-wire test cannot be carried out, such as those made of soft or foamy material, shall meet the requirements specified in ISO 9772 for category FH-3 material. The glow-wire test shall be not carried out on parts of material classified at least FH-3 according to ISO 9772 provided that the sample tested was not thicker than the relevant part. **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: **Clause of AS/NZS 60695.11.5** — **Change** 9 Test procedure 9.2 Application of needle-flame — *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. 9.3 Number of test specimens — *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. 11 Evaluation of test results — *Replace* with: The duration of burning (t_b) shall not exceed 30 s. However, for printed circuit boards, it shall not exceed 15 s. The needle-flame test shall not be carried out on parts of material classified as V-0 or V-1 according to AS/NZS 60695.11.10, provided that the sample tested was not thicker than the relevant part.		N/A

4.7.201	**4.7.201.4 Testing in the event of non-extinguishing material** If parts, other than enclosures, do not withstand the glow wire tests of 4.7.201.3, by failure to extinguish within 30 s after the removal of the glowwire tip, the needle-flame test detailed in 4.7.201.3 shall be made on all parts of non-metallic material which are within a distance of 50 mm or which are likely to be impinged upon by flame during the tests of 4.7.201.3. Parts shielded by a separate barrier which meets the needle-flame test need not be tested. NOTE 1 If the enclosure does not withstand the glow-wire test the equipment is considered to have failed to meet the requirements of Clause 4.7.201 without the need for consequential testing. NOTE 2 If other parts do not withstand the glow-wire test due to ignition of the tissue paper and if this indicates that burning or glowing particles can fall onto an external surface underneath the equipment, the equipment is considered to have failed to meet the requirements of Clause 4.7.201 without the need for consequential testing. NOTE 3 Parts likely to be impinged upon by the flame are considered to be those within the envelope of a vertical cylinder having a radius of 10 mm and a height equal to the height of the flame, positioned above the point of the material supporting, in contact with, or in close proximity to, connections. **4.7.201.5 Testing of printed boards** The base material of printed boards shall be subjected to the needle-flame test of Clause 4.7.201.3. The flame shall be applied to the edge of the board where the heat sink effect is lowest when the board is positioned as in normal use. The flame shall not be applied to an edge, consisting of broken perforations, unless the edge is less than 3 mm from a POTENTIAL IGNITION SOURCE. The test is not carried out if the – - Printed board does not carry any POTENTIAL IGNITION SOURCE; - Base material of printed boards, on which the available apparent power at a connection exceeds 15 VA operating at a voltage exceeding 50 V and equal or less than 400 V (peak) a.c. or d.c. under normal operating conditions, is of flammability category V-1 or better according to AS/NZS 60695.11.10, or the printed boards are protected by an enclosure meeting the flammability category V-0 according to AS/NZS 60695.11.10, or made of metal, having openings only for connecting wires which fill the openings completely; or		N/A

4.7.201	- Base material of printed boards, on which the available apparatus power at a connection exceeds 15 VA operating at a voltage exceeding 400 V (peak) a.c. or d.c. under normal operating conditions, and base material of printed boards supporting spark gaps which provides protection against overvoltages, is of flammability category V-0 according to AS/NZS 60695.11.10 or the printed boards are contained in a metal enclosure, having openings only for connecting wires which fill the openings completely. Compliance shall be determined using the smallest thickness of the material. NOTE Available apparent power is the maximum apparent power which can be drawn from the supplying circuit through a resistive load whose value is chosen to maximise the apparent power from more than 2 min when the circuit supplied is disconnected.		N/A
6.2.2	For Australia only, *delete* the first paragraph and Note, and *replace* with the following: In Australia only, compliance with 6.2.2 shall be checked by the tests of both 6.2.2.1 and 6.2.2.2.	No TNV 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:* *(i) for 6.2.1 a): 7.0 kV for hand-held telephones and for headsets and 2.5 kV for other equipment; and* *(ii) for 6.2.1 b) and 6.2.1 c): 1.5 kV.* NOTE 201 The 7 kV impulse simulates lightning surges on typical rural and semi-rural network lines. NOTE 202 The 2.5 kV for 6.2.1 a) was chosen to ensure 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:* *(i) for 6.2.1 a): 3 kV; and* *(ii) for 6.2.1 b) and 6.2.1 c): 1.5 kV.* NOTE 201 Where there are capacitors across the insulation under test, it is recommended that d.c. test voltages are used. NOTE 202 The 3 kV and 1.5 kV values have been determined considering the low frequency induced voltages from the power supply distribution system.	No TNV circuitry.	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.		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	Considered.	P
Index	1. *Insert* the following between 'asbestos, not to be used as insulation' and 'attitude see orientation': AS/NZS 2211.1.....4.3.13.5 AS/NZS 3112.....4.3.6 AS/NZS 3191..... 3.2.5.1 (Table 3B) AS/NZS 60064.....4.1.201 AS/NZS 60695.2.11..... 4.7.201.2, 4.7.201.3 AS/NZS 60695.11.10..... 4.7.201.1, 4.7.201.5 AS/NZS 60695.11.5.....4.7.201.3 2. *Insert* the following between 'positive temperature coefficient (PTC) device' and 'powder': potential ignition source 1.2.201, 4.7.201.3, 4.7.201.5	Considered.	—

IEC 60950_1C ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 60950-1
CANADA NATIONAL DIFFERENCES

Information technology equipment – Safety –

Part 1: General requirements

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

	Special national conditions		
1.1.1	All equipment is to be designed to allow installation in accordance with the National Electrical Code (NEC), ANSI/NFPA 70, the Canadian Electrical Code (CEC), Part I, CAN/CSA C22.1, and when applicable, the National Electrical Safety Code, IEEE C2.	Direct plug-in equipment.	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.		P
1.4.14	For Pluggable Equipment Type A, the protection in the installation is assumed to be 20A.	Equipment acceptable for connection to 20A	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.	Direct plug-in equipment.	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.	Direct plug-in equipment.	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

IEC 60950_1C ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	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.	No such terminal.	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.	Fuse is not used to provide Class 2, Limited Power Source (or TNV) current limiting.	N/A
2.6.3.3	Modify first column on Table 2D to “Smaller of the RATED CURRENT of the equipment or the PROTECTIVE CURRENT RATING of the circuit under consideration.”	Class II 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 standard supply outlets, receptacles, lampholders or such transformers.	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.	Direct plug-in 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.		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.		N/A
3.2.3	Permanent connection of equipment to the mains supply by a power supply cord is not permitted, except for certain equipment, such as ATMs.		N/A
3.2.5	Power supply cords are no longer than 4.5 m in length.	Direct plug-in equipment.	N/A

IEC 60950_1C ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	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.	Not permanently connected equipment.	N/A
3.3	Wiring terminals and associated spacings for field wiring connections comply with CSA C22.2 No. 0.	Direct plug-in equipment.	N/A
3.3.3	Wire binding screws are not permitted to attach conductors larger than 10 AWG (5.3 mm2).	Not used.	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.	N/A
	- rated 125 percent of the equipment rating, and		N/A
	- are specially marked when specified (1.7.7).		N/A
3.3.5	Revise first column of Table 3E to “Smaller of the RATED CURRENT of the equipment or the PROTECTIVE CURRENT RATING of the circuit under consideration.”		N/A
3.4.2	Motor control devices are provided for cord-connected equipment with a motor if the equipment is rated more than 12 A,	No motor.	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.	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.		N/A
4.3.12	The maximum quantity of flammable liquid stored in equipment complies with NFPA 30.		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.	N/A

IEC 60950_1C ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
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 0.9m² 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.	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 have component or material ratings in accordance with the applicable national (Canadian and/or U.S.) component or material standard requirements.		P
1.6.1.2	A circuit for connection to the DC Mains Supply is classified as either a SELV Circuit, TNV-2 Circuit or Hazardous Voltage Circuit depending on the maximum operating voltage of the supply.	Not for 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 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.		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.	No such part.	N/A

IEC 60950_1C ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
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.	N/A
4.3.2	Equipment with handles complies with special loading tests.	No handle.	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.		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.	Not such equipment.	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.	Not such equipment.	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.	Not such equipment.	N/A

SI 60950 Part 1 (2009)			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT: NATIONAL DIFFERENCES – ISRAEL Test results according to Online CB BULLETIN (Last modified date of 2011-03-02)			
1.7	**Marking and instructions** The clause is applicable with the following additions: - Subclause 1.7.201 shall be added at the beginning of the clause as follows:		—
1.7.201	**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 claus e I.7.1, the following details shall be marked in the Hebrew language. The details shall be marked on the apparatus or on its package, or on a label properly attached to the apparatus or on the package, by bonding or sewing, in a manner that the label cannot be easily removed. 1. Name of the apparatus and it commercial designation; 2. Manufacturer's name and address. If the apparatus is imported, the importer's name and address; 3. Manufacturer's registered trademark, if any; 4. Name of the model and serial number, if any; 5. Country of manufacture.	Must be considered before marketing in Israel.	—
1.7.2	**Safety instructions and Marking** **1.7.2.1 General** The following shall be added to the clause: All the instructions and warnings related to safety shall also be written in the Hebrew language.	Must be considered before marketing in Israel.	—
2.	**Protection from Hazards** The clause is applicable with the following additions:		—

SI 60950 Part 1 (2009)			
Clause	Requirement + Test	Result - Remark	Verdict
2.9.4	Separation from hazardous voltages The following shall be added at the beginning of the clause : In Israel, according to the Electricity Law, 1954, and the Electricity Regulations (Earthing and means of protection against electricity of voltages up to 1,000V) 1991, seven means of protection against electrocution are permitted, as follows: 1) TN-S - Net work system earthing; TN-C-S - Network system earthing; 2) TT - Network system earthing; 3) IT - Network Insulation Terre; 4) Isolated transformer; 5) Safety extra low voltage (SELV or ELV) ; 6) Residual current circuit breaker (30 rna =I△); 7) Reinforced insulation; Double insulation (class II) ⧈. Clause 2.201 shall be added at the end of the clause, as follows:	Adequate protection provided for isolated transformer, SELV, reinforced insulation and double insulation. Also refer below clause 2.201.	—
2.201	Prevention of electromagnetic interference - Prior to carrying out the tests in accordance with the clauses of this Standard, the compliance of the apparatus with the relevant requirements specified in the appropriate part of the Standard series, SI 961, shall be checked. **The apparatus shall meet the requirements in the appropriate part of the Standard series.** SI 961. - **If there are components in the apparatus for the prev ention of electromagnetic interference,** these components shall not reduce the safety level of the apparatus as required by this Standard.	Must be considered before marketing in Israel.	—
3.	**Wiring, connections and supply** The clause is applicable with the following additions:		—
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 feed plug shall comply with the requirements of Israel Standard 51 32 Part I.**	Only Europe plug have been evaluated. See summary of testing in main TRF.	N/A
3.2.1.2	**Connection to a d.c. mains supply** At the end of the first paragraph, the following note shall be added: Note: At the time of issue of this Standard, there is no Israel Standard for connection accessories to d.c.	No connection to d.c. mains supply.	N/A

SI 60950 Part 1 (2009)			
Clause	Requirement + Test	Result - Remark	Verdict

ANNEX P

Normative references

The annex is applicable with the following national deviations:

- The following Israel Standards have been inserted in place of some of the International Standards specifie d in this annex of the Standard, as follows:

The referenced International Standard	The substituted Israel Standard	Comments
IEC 60065: 2001	SI 250(A) - Safety requirements for mains operated electronic and related apparatus for household and similar **general use**	The Istael Standard, excluding national **deviations in it, is identical to the** Standard of the International Electrotechnical Commission, IEC 65:1985, including its amendments
IEC 60227 (all parts)	SI 473, all parts - Cables, cords and **insulated conductors for nominal** vaItage up to 1000 volt	-
IEC 60309 (all parts)	SI 1109, all parts - Plugs, socket-outlets and couplers for industrial **purposes**	SI 1109, part I and part 2, excluding **national deviations in them, are** identical to the Standards of the International Electrotechnical Commission IEC 60309-1·1999 and lEe 60309-2-1999, respectively.
IEC 60317 (all parts)	SI 1067 Part I – Self-fluxing enamelled(B) round copper wires with high mechanical properties	The Israel Standard is identical to the Standard of the International **Electrotechnical Commission** IEC 317-1 (1980)
	SI 1067 Part 2 – Self-fluxing **enamelled(B) round copper wires**	The Israel Standard is identical to the Standard of the International **Electrotechnical Commission** lEC 317-4 (1980)
	SI 1067 Part 3 - Self-fluxing **enamelled(CB) round copper wires with a** temperature index of 180°	The Israel Standard is identical to the Standard of the International **Electrotechnical Commission** IEC 317-8 (1980)
lEC 60320 (all parts)	SI 60320 Part 1 - Appliance couplers for household and similar general **purposes: General requirements**	The Israel Standard, excluding national **deviations in it,** is identical to the Standard of the International **Electrotechnical Commission,** lEC 60320-1 (2001)
	SI 60320 Part 2.1 - Appliance couplers for household and similar general **purposes: Sewing machine couplers**	The Israel Standard, excluding national **deviations in it, is identical to the** Standard of the International **Electrotechnical Commission,** lEC 60320-2.1 (2000)
lEC 60320 (all parts)	SI 60320 Part 2.2 – Appliance couplers for household and similar general **purposes: Interconnection couplers for** household and similar equipment	The Israel Standard, excluding national **deviations in it, is identical to the** Standard of the International **Electrotechnical Commission,** lEC 60320-2.2 (1998)
	SI 60320 Part 2.3 - Appliance couplers for household and similar general **purposes: Interconnection couplers for** household and similar equipment Appliance coupler for household and similar general purposes: Appliance coupler with a degree of protection higher than IPXO	The Israel Standard, excluding national **deviations in it, is identical to the** Standard of the International **Electrotechnical Commission,** lEC 60320-2.3 (1998)

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SI 60950 Part 1 (2009)			
Clause	Requirement + Test	Result - Remark	Verdict

ANNEX P

Continued

IEC 60730-1: 1999	SI 60730 Part] - Automatic electrical controls for household and similar use: **General requirements**	The Israel Standard, excluding national **deviations in it, is identical to the** Standard of the International **Electrotechnical Commission,** IEC 60730-1 (1999)
IEC 60825-1	SI 60825 Part I - Safety of laser products: Equipment classification, **requirements and user's guide**	The Israel Standard, excluding national **deviations in it, is identical to the** Standard of the International **Electrotechnical Commission,** IEC 60825-1 (2001).
IEC 60947-[: 2004	SI 60947 Part 1 - Low-voltage **switchgear and controlgear: General rules**	The Israel Standard, excluding national **deviations in it, is identical to** Standard of the International **Electrotechnical Commission,** IEC 60947-[(1999)
IEC 61058-1: 2000	SI 61058 Part I – Switches for **appliances: General requirements**	The Israel Standard, excluding national **deviations in it, is identical to the** Standard of the International Electrotechnical Commission, IEC 61058-1 (2001)
ISO 3864 (all parts)	SI 3864 Part 1 -Graphical symbols – Safety colours and safety signs: Design principles for safety signs in workplaces and public areas	The Israel Standard, excluding national **deviations in it, is identical to the** Standard of the International Electrotechnical Commission IEC 3864-1 (2002)

Notes

(A) This Standard will be replaced by SI 60065 - Audio, video and similar electronic apparatus – safety requirements - that excluding the national deviations indicated is identical to the Standard of the International Electrotechnical Commission IEC 60065 (2005).

(B) Not relevant to the translation.

B. Add the following to the clause:

Israel Standards

SI 32 Part 1.1 - Plugs and socket-outlets for household and s imilar purposes : Plugs andsocket-outlets for single phase up to I6A - Genera l requirements

SI 96 1, all parts - Electromagnetic compatibility

Israel documents

Electricity Law, 1954, its r egulations and revisions

Kovetz Takanot 4465 dated 1983-02-24, Consumer Protection Order (Marking of goods), 1983

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

ATTACHMENT TO TEST REPORT IEC 60950-1
JAPAN NATIONAL DIFFERENCES

Information technology equipment – Safety – Part 1: General requirements

Differences according to.....: J60950-1(H22)

Attachment Form No.....: JP_ND_IEC60950_1A

Attachment Originator.....:

Master Attachment.....: 2010-11

National Differences - Japan			
1.2.4.1	Add the following new NOTE. NOTE Even if the equipment is designed as Class I, the equipment is regarded as Class 0I equipment when a 2-pin adaptor with an earthing lead wire or a cord set having a 2-pin plug with an earthing lead wire is provided or recommended.	Class II equipment.	N/A
1.2.4.3A	Add the following new clause. 1.2.4.3A CLASS 0I EQUIPMENT Equipment having attachment plug without earthing blade, where protection against electric shock is achieved by: - using BASIC INSULATION, and - providing externally an earth terminal or a lead wire for earthing in order to connect those conductive parts that might assume a HAZARDOUS VOLTAGES in the event of BASIC INSULATION fault to the PROTECTIVE EARTHING CONDUCTOR in the building wiring. NOTE Class 0I equipment may have a part constructed with Double Insulation or Reinforced Insulation. circuit.	Class II equipment.	N/A

IEC 60950-1 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 is 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 earthling 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 II equipment.	N/A
1.5.1	Replace the first paragraph with the following: Where safety is involved, components shall comply either with the requirements of this standard or with the safety aspects of the relevant JIS component standard or IEC component standards in case there is no applicable JIS component standard is available. However, in case a component that falls within the scope of the METI Ministerial ordinance (No. 85:1962) is properly used in accordance with its marked ratings, the requirements of 1.5.4, 2.8.7 and 3.2.5 apply, and in addition, a cord connector of power supply cord set matching with an appliance inlet specified in the standard sheets of IEC 60320-1, shall comply with relevant standard sheet of IEC 60320-1. Replace NOTE 1 with the following: NOTE 1 A JIS or an IEC component standard is considered relevant only if the component in question clearly falls within its scope.	All critical components are IEC, UL or CSA certified.	P

IEC 60950-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
1.5.2	Replace the first sentence in the first dashed paragraph with the following: - a component that has been demonstrated to comply with a JIS component standard harmonized with the relevant IEC component standard, or where such JIS component standard is not available, a component that has been demonstrated to comply with the relevant IEC component standard shall be checked for correct application and use in accordance with its rating. Add a NOTE after the first dashed paragraph as follows: NOTE 1 See 1.7.5A when Type C.14 appliance coupler rated 10 A per IEC 60320-1 is used with an equipment rated not more than 125 V and rated more than 10 A. Replace the first sentence in the third dashed paragraph as follows: - where no relevant IEC component standard or JIS component standard harmonized with the relevant IEC component standard exists, or where components are used in circuits not in accordance with their specified rating, the components shall be tested under the conditions occurring in the equipment.	All critical components are IEC, UL or CSA certified.	P
1.5.6	In this sub-clause, add “JIS C 5101-14:1998 or” before the reference number, IEC 60384-14:1993.	Considered.	N/A
1.5.7.2	In this sub-clause, add “JIS C 5101-14:1998 or” before the reference number, IEC 60384-14:1993.	Considered.	N/A
1.5.8	In the first paragraph, add “JIS C 5101-14:1998 or” before the reference number, IEC 60384-14:1993.	Considered.	N/A
1.7.1	Replace the fifth dashed paragraph with the following: - manufacturer’s or responsible company’s name or trade-mark or identification mark;		P

IEC 60950-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.5	In the second paragraph, add “or JIS C 8303:2007” after the reference number, IEC/TR 60083:1997”.	Considered.	N/A
1.7.5A	Add the following new clause after 1.7.5 1.7.5A Appliance Couplers If an appliance coupler according to IEC 60320-1, C.14(rated current: 10 A) is used in equipment whose rated voltage is less than 125 V and the rated current is over 10 A, the following instruction or equivalent shall be described in the user instruction. “ Use only designated cord set attached in this equipment”		N/A
1.7.12	Replace first sentence with the following: Instructions and equipment marking related to safety shall be in Japanese.	Must be considered before marketed in Japan.	—
1.7.17A	Add the following new clause after 1.7.17 1.7.17A Marking for CLASS 0I EQUIPMENT For CLASS 0I EQUIPMENT, the following instruction shall be marked on the visible place of the mains plug or the main body: 必ず接地接続を行って下さい “Provide an earthing connection” Moreover, for CLASS 0I EQUIPMENT, the following or equivalent instruction shall be indicated on the visible place of the main body or written in the operating instructions: 接地接続は必ず、電源プラグを電源につなぐ前に行って下さい。又、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下さい。 “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.”	Class II equipment.	N/A
2.1.1.1	In item b) of this sub-clause, replace “IEC 60083” with “JIS C 8303:2007 or Article 1 of the Ministerial Ordinance (No. 85:1962)”		N/A

IEC 60950-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
2.6.3.2	Add the following after the first paragraph. This also applies to the conductor of lead wire for protective earthing of CLASS 0I EQUIPMENT.		N/A
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 except for CLASS 0I EQUIPMENT providing separate main protective earthing terminal other than appliance inlet.		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:		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 150 V. 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 a lead wire for earthing in the external location where easily visible.		N/A
2.10.3.1	In this sub-clause, replace IEC 60664-1 with JIS C 0664:2003.		P
2.10.3.2	In the second paragraph, replace IEC 60664-1 with JIS C 0664:2003.		P
3.2.3	Add the following after Table 3A: Table 3A applies when cables complying with JIS C 3662 or JIS C 3663 are used. In case of other cables, the cable entries shall be so designed that a conduit suitable for the cable used can be fitted.	Not permanently connected equipment.	N/A

IEC 60950-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
3.2.5.1	Add the following to the last of first dashed paragraph. Or mains cords shall be of the sheathed type complying with Appendix 1 of Article 1 of the Ministerial Ordinance (No. 85:1962) on stipulating technical requirements for the Electrical Appliance. Add the following to the last of second dashed paragraph. Or mains cords shall be of the sheathed type complying with Appendix 1 of Article 1 of the Ministerial Ordinance (No. 85:1962) on stipulating technical requirements for the Electrical Appliance. Delete 1) in Table 3B.	Direct plug-in equipment.	N/A
3.3.4	Add the following note to Table 3D: NOTE For cables other than those complying with JIS C 3662 or JIS C 3663, terminals shall be suitable for the size of the intended cables.	Direct plug-in equipment.	N/A
3.3.7	Add the following after the first sentence: This requirement is not applicable to the external earting terminal of Class 0I equipment.		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
4.3.13.5	Replace the first paragraph with the following: Except as permitted below, equipment shall be classified and labelled according to JIS C 6802:2005, and JIS C 6803:2006 or IEC 60825-2:2000, as applicable. Replace IEC 60825-1 in the second and the last paragraph with JIS C 6802:2005.		N/A

IEC 60950-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
4.5	Add the following NOTE to Table 4B, 3): NOTE: In case no data for the material is available, Appendix 4, 4. (1). b. 3 of the Interpretation on the Ministerial Ordinance stipulating Technical Specifications for Electrical Appliances (Commerce and Distribution Policy Group No. 3:2008/06/19) may apply.		N/A
5.1.3	Add a note after the first paragraph as follows: NOTE Attention should be drawn to that majority of three-phase power system in Japan is of delta connection, and therefore, in that case, the test is conducted using the test circuit from IEC 60990, figure 13.	Single-phase only.	N/A
5.1.6	Replace Table 5A as follows:		P

Type of equipment	Terminal A of measuring instrument connected to:	Maximum TOUCH CURRENT mA r.m.s. [1)]	Maximum PROTECTIVE CONDUCTOR CURRENT
All equipment	Accessible parts and circuits not connected to protective earth	0,25	-
HAND-HELD	Equipment main protective earthing terminal (if any) CLASS I EQUIPMENT	0,75	-
MOVABLE (other than HAND-HELD, but including TRANSPORTABLE EQUIPMENT		3,5	-
STATIONARY, PLUGGABLE TYPE A		3,5	-
All other STATIONARY EQUIPMENT - not subject to the conditions of 5.1.7 - subject to the conditions of 5.1.7		3,5 -	- 5 % of input current
HAND-HELD	Equipment main protective earthing terminal (if any) CLASS 0I EQUIPMENT	0,5	-
Others		1,0	-

[1)] If peak values of TOUCH-CURRENT are measured, the maximum values obtained by multiplying the r.m.s. values by 1,414.

6	Replace IEC 60664-1 in NOTE 4 with JIS C 0664.		N/A
7	Replace IEC 60664-1 in NOTE 3 with JIS C 0664:2003.		N/A

IEC 60950-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
7.2	Add the following after the paragraph: However, the separation requirements and tests of 6.2.1 a), b) and c) do not apply to a CABLE DISTRIBUTION SYSTEM if all of the following apply: - the circuit under consideration is a TNV-1 CIRCUIT; and – the common or earthed side of the circuit is connected to the screen of the coaxial cable and to all accessible parts and circuits (SELV, accessible metal parts and LIMITED CURRENT CIRCUITS, if any); and – the screen of the coaxial cable is intended to be connected to earth in the building installation.		N/A
W.1	Replace the second and the third sentence in the first paragraph with the following: This distinction between earthed and unearthed (floating) circuit is not the same as between CLASS I EQUIMENT, CLASS 0I EQUIPMENT and CLASS II EQUIPMENT. Floating circuits can exist in CLASS I EQUIPMENT or CLASS 0I EQUIPMENT and earthed circuits in CLASS II EQUIPMENT.		N/A

IEC 60950-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
Annex JA	Add a new annex JA with the following contents. Annex JA (normative) Document shredding machines Document shredding machines shall also comply with the requirements of this annex except those of STATIONARY EQUIPMENT used by connecting directly to an AC MAINS SUPPLY of three-phase 200V or more. **JA.1 Markings and instructions** The symbol  (JIS S 0101:2000, 6.2.4) and the following precautions for use shall be marked on readily visible part adjacent to document feed opening. The marking shall be clearly legible, permanent, and easily discernible; - that use by an infants/children may cause a hazard of injury etc.; - that a hand can be drawn into the mechanical section for shredding when touching the document-slot; - that clothing can be drawn into the mechanical section for shredding when touching the document-slot; - that hairs can be drawn into the mechanical section for shredding when touching the document-slot; - in case of equipment incorporating a commutator motor, that equipment may catch fire or explode by spraying of flammable gas. **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 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.	Not such equipment.	N/A

IEC 60950-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
Annex JA	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 60950-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
Annex JA			N/A

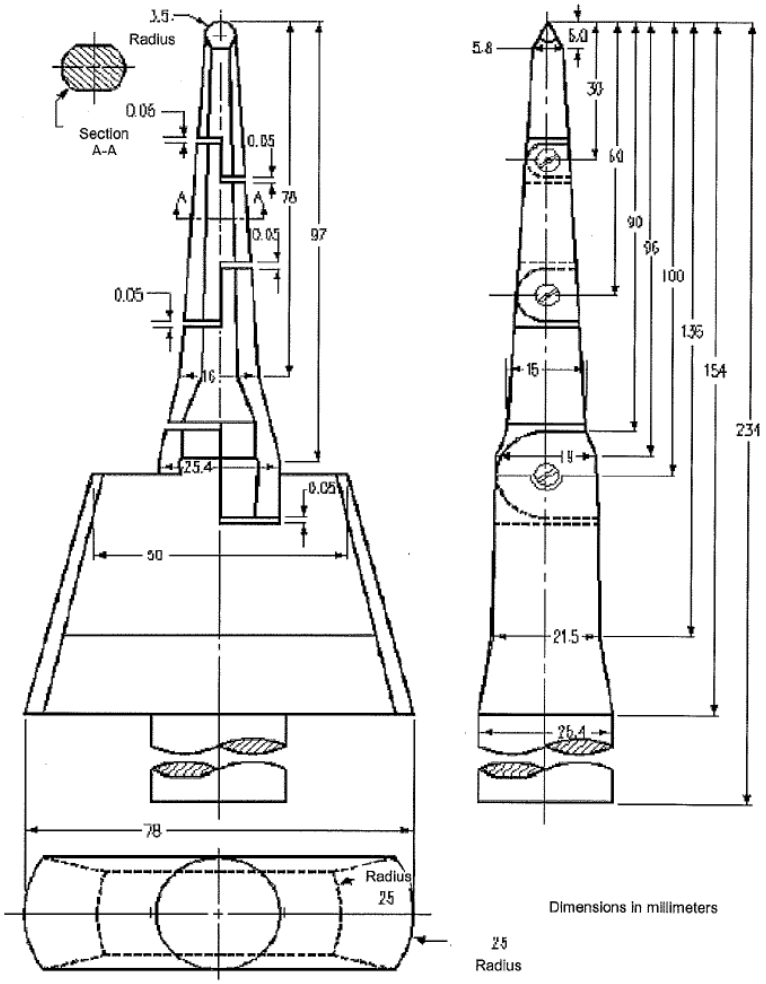
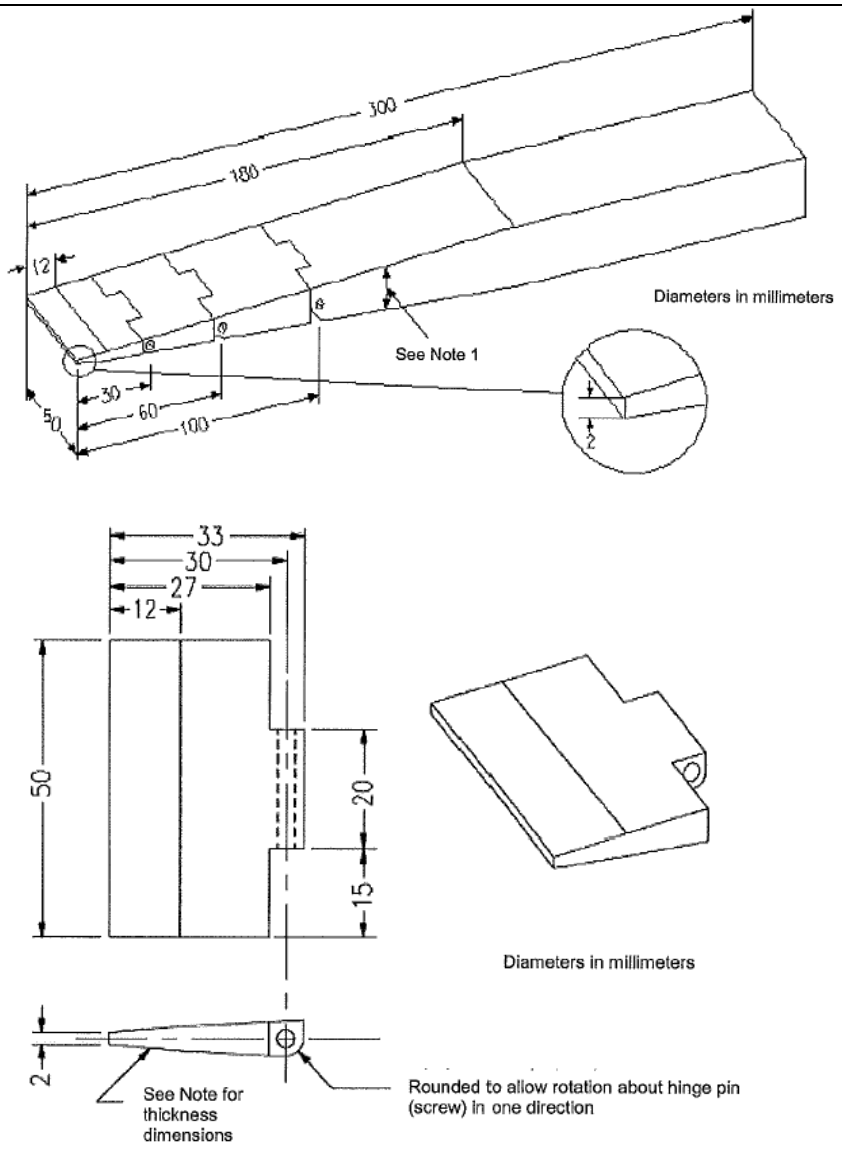


Figure JA.1 Test finger

IEC 60950-1 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
Annex JA	 Details of the tip of wedge		N/A

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.
NOTE2 The allowable dimensional tolerance of the probe is +/- 0.127 mm.

Figure JA.2 Wedge-probe

ATTACHMENT TO TEST REPORT IEC 60950-1
KOREAN DIFFERENCES

Differences according to.....: K 60950-1
IEC Standard.....: 60950-1(ed.2);am1
Last Modification.....: Date (2012-05-31)

Clause	Requirement + Test	Result - Remark	Verdict
1.5.101	Plugs for the connection of the apparatus to the supply mains shall comply with the Korean requirement (KSC 8305).	Must be considered in the end product.	—
8	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
Singapore DIFFERENCES

Differences according to.....: Singapore: Consumer Protection Information Booklet, 2012 Edition, (Ver. 4.2).

IEC Standard.....: 60950-1(ed.1)

Last Modification.....: Date (2012-03-29)

No	Item	Requirement + Test	Result - Remark	Verdict
The following is the national differences in accordance with safety authority website www.spring.gov.sg, ref. Singapore Consumer Protection (Safety Requirements) - Information booklet - chapter 7 (page 22 - 25). 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 products				
1	Test certificate / Test report	Test certificate / Test report more than three (3) years old shall be rejected.	Compliance must be considered when equipment marketed Singapore.	—
2	Controlled Goods incorporated with additional function	The additional function must be tested to its applicable safety standard.		P
Applicable to all electrical products				
3	All appliances	All appliances must be tested to 230 VAC.	Testing covered 230Vac.	P
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 II 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.	The plug complies with EN 50075.	P
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.	Direct plug-in equipment.	N/A
10	Circuit diagrams	Circuit diagrams must be indicated with component's values for products tested to IEC 60065 and IEC 60950.	Must be evaluated when market to Singapore	—
11	Circuit diagrams of electronic modules in electrical appliances	Circuit diagrams of the electronic modules in the electrical appliances must be provided.	Must be evaluated when market to Singapore	—
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
Applicable to electric airpot				
13	Reboil switch	No part of the reboil switch is allowed to protrude into the water pot, even if it is located above the maximum water level mark.		N/A
Applicable to AC adaptor				
14	3-pin AC adaptor (Appendix V)	Test report showing that the 3-pin complied with sub-clauses 12.1 & 12.3 of SS 246 must be submitted.	Class II equipment.	N/A
15	2-pin AC adaptor (Appendix V)	The 2-pin (Appendix T) shall comply with EN 50075		P

16	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.	Direct plug-in equipment.	N/A
Applicable to computer products				
17	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
18	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
Applicable to ceiling fan and cycle fan				
19	Ceiling fan and cycle fan	a) These appliances must be tested to sub-clauses 5.7 and 5.8 of SS 360: 1992. b) Installation instruction must mention the 3 expansion bolts for fastening the main suspension, safety cord, expansion bolt with hook for fastening safety cord and mounting plate. (Appendix Q) c) Drawing (Appendix P) to show that the wires within the motor shaft are not stressed must be provided.	Not such equipment.	N/A
Applicable to portable/wall socket-outlet and portable cable reel				
20	Portable/wall socket-outlet and portable cable reel	a) If residual current device (RCD) is incorporated, its tripping current must be less than 30mA and operating time must be less than 0.1 second and testing to sub-clauses 9.9.2.1, 9.9.2.2, 9.9.2.3 and 9.16 of SS 97: Part 1: 2000 are required. b) The shutters screening the current-carrying socket contacts shall not be opened by the insertion of any corresponding SINGLE pin of the plug into any current-carrying socket aperture.	Not such equipment.	N/A
21	Wall switched socketoutlet (2 x single socketoutlet)	Single socket-outlet with 2-gang faceplate/frame must be fulfilled with the test requirements as 2-gang socket-outlet.		N/A
22	Remote controlled portable/wall portable socket-outlet	Remote controlled portable/wall socket-outlet shall not be allowed for registration.		N/A

Applicable to roaster				
23	Roaster	A metal ring (Appendix U) must be provided to prevent the roaster from falling off in case the glass bowl shattered.	Not such equipment.	N/A
Applicable to gas appliances				
24	Test pressure of town gas for gas appliances	All gas appliances must be tested to 20 mbar for town gas.	Not such equipment.	N/A
25	Specifications of LPG and Town Gas	All gas appliances must be tested to the specifications stated on Appendix X.		N/A
26	Gas appliances tested to EN 30-1-1: 1998	Testing to sub-clause 6.1.6 (Temperature of the LPG cylinder and its compartment) and sub-clause 6.2.1 (Ignition, cross-lighting and flame stability) must be carried out.		N/A
27	Flame failure device (FFD) incorporated in gas appliances	a) Test report showing that the FFD complied with EN 126: 1995 or EN 125: 1991 for gas appliance tested to EN 30-1-1 or AG 204: 1984 for gas appliance tested to AG 101 at component level must be provided. b) Testing to sub-clause 6.1.3 of EN 30-1-1 or sub-clause 3.6.13 of AG 101 at set level must be carried out.		N/A
28	Distance between burner and injector	The distance (Appendix R) between bottom of burner ring and tip of the injector must not be too far apart such that the flame may be heating part of the burner instead of the cooking appliance.		N/A
29	Gas oven	It is compulsory for all gas ovens to be fitted with flame failure device.		N/A
30	Glass viewing door for gas hob and gas oven	Test report showing that the glass of the viewing door complied with BS 3193: 1993 (Specification for Thermally Toughened Glass Panels for use in domestic appliances) must be provided.		N/A
31	Toughened glass gas hob	a) A brochure, entitled “Toughened Glass – A Shattering Experience?” must be included for each toughened glass gas hob put up for sale. (Order for the brochure can be placed with the Safety Authority) b) Additional testing and compliance with sub-clauses 2.1.14, 2.1.15, 2.1.17, 2.10.15, 2.11.2.2 & 5.7.5 of AG 101 are required for toughened glass gas hob tested to EN 30-1-1: 1998.		N/A

32	Gasket for elbow joint of gas cooker	Installation instruction must mention about the fixing of gasket for the elbow joint, if applicable. (Appendix S)		N/A
33	Glass-ceramic gas hob (simulated gas explosion test)	The gas hob must be subject to 'simulated gas explosion' test. The hob is filled with an explosive mixture of gas and detonated with a source of ignition.		N/A
Applicable to Residual Current Circuit Breaker (RCCB)				
34	RCCB	Registration of RCCB is limited to 30 mA sensitivity and the operating time must be less than 0.1 second. Electronic RCCB will not be accepted for registration.		N/A
Applicable to electric instantaneous and storage water heater				
35	Instantaneous electric water heater and mains pressure electric storage water heater	Heating elements used must not be of the "bare-element" type.		N/A
36	Water heater incorporated with residual current device(RCD)	Testing to sub-clauses 9.9.2.1, 9.9.2.2, 9.9.2.3 and 9.16 of SS 97: Part 1: 2000 are required.		N/A
Applicable to multiway adaptor				
37	Multiway adaptor with 3-pin socket-outlets or combination of 3-pin and 2-pin socketoutlets	a) The socket contacts of the adaptor shall only accept 13A 3-pin mains plug complying with SS 145 and/or 2.5A 2-pin mains plug complying with EN 50075. b) The shutters screening the current-carrying socket contacts shall not be opened by the insertion of any corresponding SINGLE pin of the plug into any current-carrying socket aperture. c) A barrier or other acceptable means shall be provided on the engagement surface of the 2.5A 2-pin socket-outlet of the adaptor to PREVENT entry of any types of 2-pin mains plugs except those complying with EN 50075. (note: shutters cannot be regarded as barriers) d) Adaptor incorporates with switch would require additional test to sub-clauses 13.11, 17.1.3 and 18.1.3 of SS 145: Part 2: 1997.		N/A
Applicable to plasma/LCD display monitor				

38	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 such equipment.	N/A
Applicable to table lamp / standing lamp				
39	Child appealing table lamp/standing lamp	Child appealing table/standing lamp will not be allowed for registration unless it is powered by an AC Adaptor. Only the AC Adaptor would need registration.	No such equipment.	N/A
Applicable to hot/warm & cold water dispenser				
40	Hot/warm & cold water dispenser	Hot/warm water dispenser shall be tested IEC 60335-2-21. Testing to IEC 60335-2-24 shall be required if the water dispenser is incorporated with compressor for dispensing cold water.	No such equipment.	N/A

ATTACHMENT TO TEST REPORT IEC 60950-1
Ukraine DIFFERENCES

Differences according to.....: DSTU 4113-2001
IEC Standard.....: 60950(ed.3)
Last Modification.....: Date (2007-05-29)

Clause	Requirement + Test	Result - Remark	Verdict
1.4.5	In Ukraine the NOMINAL VOLTAGE is 220 V for monophase or 380 V for three-phase supply.	Cover 220V.	P
1.5.8	In Ukraine the components connected between phase and earthing or between phase and neutral terminal shall be calculated for the voltage between phases.	Considered.	P
1.7.2	In Ukraine for the APPARATUS of I CLASS the necessity of its obligatory earthing shall be indicated in the manuals.	Class II equipment.	N/A
2.3.3	In Ukraine the method b) is not used.		N/A
6.2.2	In Ukraine the both tests in 6.2.2.1 and 6.2.2.2 are applied.	No TNV.	N/A
6.2.2.1	In Ukraine in 6.2.1 a) is used Uc 3.5 kV.	No TNV.	N/A
6.2.2.2	In Ukraine in 6.2.1 a) is used 3.0 kV for telephones and headsets and 2.5 kṼ for other equipment and in 6.2.1 b) and c) is used 1.5 kV.	No TNV.	N/A
Annex N	In Ukraine in 6.2.1 a) is used 3.0 kV for telephones and headsets and 2.5 kṼ for other equipment, and in 6.2.1 b) and c) is used 1.5 kV.	No TNV.	N/A

IEC60950_1C ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 60950-1
U.S.A. NATIONAL DIFFERENCES

Information technology equipment – Safety –

Part 1: General requirements

Differences according to.....:	UL 60950-1-07
Attachment Form No. .....:	US_ND_IEC60950_1C
Attachment Originator.....:	TÜV SÜD Product Service GmbH
Master Attachment.....:	Date (2012-08)

	Special national conditions		
1.1.1	All equipment is to be designed to allow installation in accordance with the National Electrical Code (NEC), ANSI/NFPA 70, the Canadian Electrical Code (CEC), Part I, CAN/CSA C22.1, and when applicable, the National Electrical Safety Code, IEEE C2.	Direct plug-in equipment. Must be considered when marked in USA.	—
	Also, unless marked or otherwise identified, installation is allowed per the Standard for the Protection of Electronic Computer/Data-Processing Equipment, ANSI/NFPA 75.		—
1.4.14	For Pluggable Equipment Type A, the protection in the installation is assumed to be 20A.		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 interconnecting cables.	N/A
	For lengths 3.05 m or less, external interconnecting flexible cord and cable assemblies that are not types specified in the CEC are required to have special construction features and identification markings.		N/A
1.7.1	Equipment for use on a.c. mains supply systems with a neutral and more than one phase conductor (e.g. 120/240 V, 3-wire) require a special marking format for electrical ratings.	Single phase only.	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

IEC60950_1C ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	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.		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 fuse.	N/A
2.6.3.3	Modify first column on Table 2D to “Smaller of the RATED CURRENT of the equipment or the PROTECTIVE CURRENT RATING of the circuit under consideration.”	Class II 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.	Direct plug-in 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.		N/A
3.2.1.2	Equipment connected to a centralized d.c. power system, and having one pole of the DC mains input terminal connected to the main protective earthing terminal in the equipment comply with special earthing, wiring, marking and installation instruction requirements.	No connection to 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.		N/A
3.2.5	Power supply cords are no longer than 4.5 m in length.	Direct plug-in equipment.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	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.		N/A
3.3	Wiring terminals and associated spacings for field wiring connections comply with CSA C22.2 No. 0.	Direct plug-in equipment.	N/A
3.3.3	Wire binding screws are not permitted to attach conductors larger than 10 AWG (5.3 mm2).		N/A
3.3.4	Terminals for permanent wiring, including protective earthing terminals, are suitable for Canadian/US wire gauge sizes, are		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,		N/A
	- or if the motor has a nominal voltage rating greater than 120 V		N/A
	- or is rated more than 1/3 hp (locked rotor current over 43 A)		N/A
3.4.8	Vertically-mounted disconnect switches and circuit breakers have the "on" position indicated by the handle in the up position.		N/A
3.4.11	For computer room applications, equipment with battery systems capable of supplying 750 VA for five minutes have a battery disconnect means that may be connected to the computer room remote power-off circuit.		N/A
4.3.12	The maximum quantity of flammable liquid stored in equipment complies with NFPA 30.		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.		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
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.		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.		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).		N/A
	Other National Differences		
1.5.1	Some components and materials associated with the risk of fire, electric shock, or personal injury have component or material ratings in accordance with the applicable national (Canadian and/or U.S.) component or material standard requirements.	All critical components are IEC or UL certified.	P
1.6.1.2	A circuit for connection to the DC Mains Supply is classified as either a SELV Circuit, TNV-2 Circuit or Hazardous Voltage Circuit depending on the maximum operating voltage of the supply.	No connection to DC mains.	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.		N/A
2.6.3.4	Protective bonding conductors of non-standard protective bonding constructions (e.g., printed circuit traces) may be subjected to the additional limited short circuit test conditions specified.		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
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.	N/A
4.3.2	Equipment with handles complies with special loading tests.	No handle.	N/A
5.1.8.3	Equipment intended to receive telecommunication ringing signals comply with a special touch current measurement tests.		N/A
5.3.7	Internal (e.g., card cage) SELV circuit connectors and printed wiring board connectors that are accessible to the operator and that deliver power are overloaded.	No connector deliver power.	N/A
	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		N/A
6.4	Equipment intended for connection to telecommunication network outside plant cable is protected against overvoltage from power line crosses in accordance with 6.4 and Annex NAC.		N/A
Annex EE	Articulated accessibility probe (Fig EE.3) is used for assessing accessibility to document/media shredders instead of the Figure 2A test finger.		N/A
Annex M.2	Continuous ringing signals up to 16 mA only are permitted if the equipment is subjected to special installation and performance restrictions.		N/A
Annex NAD	Equipment connected to a telecommunication and cable distribution networks and supplied with an earphone intended to be held against, or in the ear comply with special acoustic pressure requirements.		N/A