Test Report issued under the responsibility of:

TEST REPORT

IEC 60950-1

Information technology equipment – Safety – Part 1: General requirements

Report Number. .....:	**T221-0022/16**
Date of issue .....:	**2016-05-18**
Total number of pages.....	**126 pages**
Applicant's name.....:	**GlobTek, Inc.**
Address .....:	**186 Veterans Dr. Northvale, NJ 07647 USA**
Test specification:	
Standard .....:	IEC 60950-1:2005 (Second Edition) + Am 1:2009 + Am 2:2013
Test procedure.....:	CB Scheme
Non-standard test method.....:	N/A
Test Report Form No.....:	IEC60950_1F
Test Report Form(s) Originator.....:	SGS Fimko Ltd
Master TRF .....:	Dated 2014-02

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

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

General disclaimer:

The test results presented in this report relate only to the object tested.
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Test item description .....:	ITE POWER SUPPLY
Trade Mark .....:	GlobTek, Inc.
Manufacturer.....:	GlobTek, Inc.
Model/Type reference.....:	GT-83083-WW05-USB or GT-83083-WW05-USB-W2Z - WW is the standard output wattage, with a maximum value of "05" - Z designates type of plug and can be E for European plug, U for British plug, blank for North American / Japan plug/Taiwan plug, C for Chinese plug, I for India plug, A for Australia plug, K for Korea plug, AR for Argentina plug, BR for Brazilian plug, SA for South African plug. -W2Z for fixed pin model use. - When **-W2Z** is blank, the interchangeable plug should be Q-EU for European plug, Q-UK for British plug, Q-NA for North American / Japan / Taiwan plug, Q-CN for Chinese plug, Q-IR for India plug, Q-SAA for Australia plug, Q-KR for Korea plug, Q-AR for Argentina plug, Q-BR for Brazilian plug, Q-SAF for South African plug - When **-USB** is blank, the no USB output connector is used, but a non-detachable output cord
Ratings .....:	Input: 100 – 240 V~; 50/60 Hz; 0,2 A Output: 5,0 V⎓; Max. 1,0 A; Max. 5 W

Testing procedure and testing location:			
☒	**CB Testing Laboratory:**	SIQ Testing and Certification GmbH	
Testing location/ address.....:		Angerstraße 11, D-86807 Buchloe Germany	
☐	**Associated CB Testing Laboratory:**		
Testing location/ address.....:			
Tested by (name + signature) .....:		Alexander Mayr	
Approved by (name + signature) .....:		Klaus Völk	
☐	**Testing procedure: TMP/CTF Stage 1:**		
Testing location/ address.....:			
Tested by (name + signature) .....:			
Approved by (name + signature) .....:			
☐	**Testing procedure: WMT/CTF Stage 2:**		
Testing location/ address.....:			
Tested by (name + signature) .....:			
Witnessed by (name + signature).....:			
Approved by (name + signature) .....:			
☐	**Testing procedure: SMT/CTF Stage 3 or 4:**		
Testing location/ address.....:			
Tested by (name + signature) .....:			
Witnessed by (name + signature).....:			
Approved by (name + signature) .....:			
Supervised by (name + signature) .....:			

List of Attachments:

1. Test Report (62 pages)
2. National Differences – Enclosure No. 1 (9 pages)
3. European Group Differences and National Differences according to EN 60950-1:2006 + A1:2010 + A2:2013 + A11:2009 + A12:2011 – Enclosure No. 1a (21 pages)
4. Pictures – Enclosure No. 2 (7 pages)
5. Schematics, Layouts, Transformer data - Enclosure No. 3 (7 pages)
6. Plug portion test for model GT-83083-0505-USB-W2Z and GT-83083-0505-USB – Enclosure No. 4 (20 pages)

Summary of testing:

Tests performed (name of test and test clause):	**Testing location:**
1.6.2 Input Test	**SIQ Testing and Certification GmbH**
2.10.2 Working Voltage measurement on PCB and Transformer	**Angerstraße 11, D-86807 Buchloe Germany**
5.2 Electric Strength Test	

Summary of compliance with National Differences

List of countries addressed:

Argentina**, Australia, Austria***, Bahrain**, Belarus**, Belgium***, Brazil**, Bulgaria***, Canada, China, Cyprus***, Colombia**, Croatia**, Czech Republic***, Denmark***, Finland***, France***, Germany***, Greece***, Hungary***, India**, Indonesia**, Iran**, Ireland***, Israel, Italy***, Japan*, Kazakhstan**, Kenya**, Korea, Lybia**, Malaysia**, Mexico**, Netherlands***, New Zealand*, Norway***, Pakistan**, Poland***, Portugal***, Romania***, Russian Federation**, Saudi Arabia**, Serbia**, Singapore**, Slovakia***, Slovenia***, South Africa**, Spain***, Sweden, Switzerland, Thailand**, Turkey***, Ukraine**, United Arab Emirates**, United Kingdom, Uruguay**, USA, Vietnam**

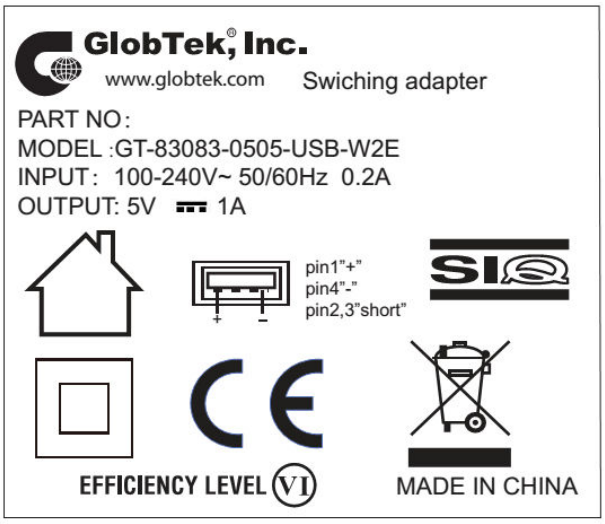
* No national differences to IEC 60950-1:2005 (2nd edition) (+ A1 + A2) declared

** No national differences to IEC 60950-1:2005 (2nd edition) + A1 + A2 or IEC 60950-1:2001 (1st edition) declared
*** EU group differences

☒ **The product fulfils the requirements of EN 60950-1:2006 + A1:2010 + A2:2013 + A11:2009 + A12:2011 (see Enclosure No. 1a).**

Copy of marking plate

The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.



Note:

This is a representative label, the others are identical to this except for the model number, enclosure site and output ratings as listed in the Model/Type reference.

Test item particulars ..... :	
Equipment mobility ..... :	[] movable [] hand-held [] 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%
Tested for IT power systems ..... :	[X] Yes [] No
IT testing, phase-phase voltage (V) ..... :	230 (only 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) ..... :	16
Pollution degree (PD) ..... :	[] PD 1 [X] PD 2 [] PD 3
IP protection class ..... :	IPX0
Altitude during operation (m) ..... :	Up to 3000
Altitude of test laboratory (m) ..... :	627
Mass of equipment (kg) ..... :	Approx. 0,04

Possible test case verdicts:	
- test case does not apply to the test object ..... :	N/A
- test object does meet the requirement ..... :	P (Pass)
- test object does not meet the requirement ..... :	F (Fail)
Testing ..... :	
Date of receipt of test item ..... :	2015-04-01 Revision No. 1: 2016-03-24
Date(s) of performance of tests ..... :	From 2015-04-08 to 2015-04-15 Revision No. 1: 2016-04-26

General remarks:

"(See Enclosure #)" refers to additional information appended to the report.
"(See appended table)" refers to a table appended to the report.

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

Manufacturer's Declaration per sub-clause 4.2.5 of IECEE 02:

The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided.....:

☒ **Yes**

☐ **Not applicable**

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

Name and address of factory (ies) ..... :

1. 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, Jiangsu CN 215021, China

General product information:

Information about the Product:

1. The equipment models are Switching Adapter (direct plug-in type) with fixed plug or replaceable plug, used for DC supply of IT or office equipment. The output is USB port (models with **-USB** option) or non-detachable output cord.
2. The power supply's top enclosure is secured to bottom enclosure by ultrasonic welding.
3. The power pin parts of European plug was fixed into the enclosure of plug portion by a screw. Add new construction for replaceable EU plug position, the previous one is plug pins fixed to enclosure by a screw, while the new one plug pins molded into enclosure directly. The power pin parts of British plug and Japanese plug were molded into the enclosure of plug portion. It is impossible to remain in the mains socket-outlet after removal of the adapter.
4. There are two connection methods for PCB and plug pins: one is using primary lead wire. Another without primary lead wire, the PCB contacts the plug pin directly.
5. The European plug dimension was evaluated according to EN 50075. The UK plug according to BS1363-1+A1+A2+A3. The other plug should be evaluated during national approval.
6. EUT intended to be used at altitude 3000m that specified in operation instruction. Therefore, the requirements of IEC 60664-1 for clearances were considered and the required clearance was multiplied with an altitude correction factor of 1,14.
7. The maximum ambient temperature is 50°C

History sheet:

Date	Report No.	Change/Modification	Rev. No.
2015-05-15	T221-0016/15	Initial report issued.	--
See first page	See first page	Additional model introduced. Model GT-83083-WW05 is provided with non-detachable output cord instead of USB connector. Add new construction for replaceable EU plug position, the previous one is plug pins fixed to enclosure by a screw, while the new one plug pins molded into enclosure directly. After review following additional tests performed: 1.5.1 Update of list of critical components 1.6.2 Input Test 5.2 Dielectric strength test All additional tests marked with Rev. No. 1 in order to fulfil traceability requirements. Typos in Table 4.5 were corrected. Adding EU JP, KR, AU plug test for models, GT-83083-WW05.	1

Explanation of the test program (according to IECEE CB Scheme OD 2020 from 2014):

This report has been judged on the basis of CB test report No.
- 16063480 001, issued 2014-10-16
- 16063480 002, issued 2015-04-01

Both CB test reports issued by TÜV Rheinland (Guangdong) Ltd.; No.199 Kezhu Road, Guangzhou Science City 510663 Guangzhou, China

After review following tests were performed:
- Input current measurement
- Working voltage measurement
- Electric strength test

Based on those results the test results from test report No. 16063480 001 and report No. 16063480 002 were considered acceptable and the test results were adopted to this test report. Tests performed by SIQ are stated within table.
In addition, the model was checked and compared with the model in the test report No. 16063480 001 and report No. 16063480 002 for any constructional changes. No changes found.

Abbreviations used in the report:

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

Indicate used abbreviations (if any)

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

1	**GENERAL**		P

1.5	**Components**		P
1.5.1	General		P
	Comply with IEC 60950-1 or relevant component standard	(see appended tables 1.5.1)	P
1.5.2	Evaluation and testing of components	Certified components are used in accordance with their ratings, certifications and they comply with applicable parts of this standard. Components not certified are used in accordance with their ratings and they comply with applicable parts of IEC 60950-1 and the relevant component standard. Components, for which no relevant IEC-standard exists, have been tested under the conditions occurring in the equipment, using applicable parts of IEC 60950-1.	P
1.5.3	Thermal controls	No thermal controls.	N/A
1.5.4	Transformers	(see list of safety critical components table 1.5.1 and the transformer drawings in the Enclosure No. 3)	P
1.5.5	Interconnecting cables	No interconnecting cables.	N/A
1.5.6	Capacitors bridging insulation	No such component.	N/A
1.5.7	Resistors bridging insulation		N/A
1.5.7.1	Resistors bridging functional, basic or supplementary insulation		N/A
1.5.7.2	Resistors bridging double or reinforced insulation between a.c. mains and other circuits		N/A
1.5.7.3	Resistors bridging double or reinforced insulation between a.c. mains and antenna or coaxial cable	No such resistors are bridging double/reinforced insulation.	N/A
1.5.8	Components in equipment for IT power systems		P
1.5.9	Surge suppressors	No surge suppressors are used.	N/A
1.5.9.1	General		N/A
1.5.9.2	Protection of VDRs		N/A
1.5.9.3	Bridging of functional insulation by a VDR		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.5.9.4	Bridging of basic insulation by a VDR		N/A
1.5.9.5	Bridging of supplementary, double or reinforced insulation by a VDR	No VDR bridging double or reinforced insulation.	N/A
1.6	**Power interface**		P
1.6.1	AC power distribution systems		P
1.6.2	Input current	(see appended table 1.6.2)	P
1.6.3	Voltage limit of hand-held equipment	The equipment is not hand-held.	N/A
1.6.4	Neutral conductor	Class II equipment. The neutral is not identified in the equipment. Double or reinforced insulation for rated voltage between accessible parts and primary phases.	P
1.7	**Marking and instructions**		P
1.7.1	Power rating and identification markings		P
1.7.1.1	Power rating marking		P
	Multiple mains supply connections.....:	One rated voltage only.	N/A
	Rated voltage(s) or voltage range(s) (V) ..... :	100 – 240 V~	P
	Symbol for nature of supply, for d.c. only..... :	Not connected to d.c. mains.	N/A
	Rated frequency or rated frequency range (Hz) ... :	50/60 Hz	P
	Rated current (mA or A) ..... :	0,2 A	P
1.7.1.2	Identification markings		P
	Manufacturer's name or trade-mark or identification mark ..... :	See page 2.	P
	Model identification or type reference ..... :	See page 2.	P
	Symbol for Class II equipment only ..... :	Appropriate symbol provided.	P
	Other markings and symbols ..... :	Additional symbols or marking does not give rise to misunderstanding.	P
1.7.1.3	Use of graphical symbols		P
1.7.2	Safety instructions and marking		N/A
1.7.2.1	General		N/A
1.7.2.2	Disconnect devices	Mains plug considered as disconnect device and is provided as part of the equipment.	N/A
1.7.2.3	Overcurrent protective device		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.2.4	IT power distribution systems	Only for Norway	N/A
1.7.2.5	Operator access with a tool	No operator accessible area that needs to be accessed by the use of a tool.	N/A
1.7.2.6	Ozone	Unit does not produce ozone.	N/A
1.7.3	Short duty cycles	The equipment is intended for continuous operation.	N/A
1.7.4	Supply voltage adjustment .....:	No voltage selector.	N/A
	Methods and means of adjustment; reference to installation instructions .....:	No voltage selector.	N/A
1.7.5	Power outlets on the equipment .....:	No standard power outlet.	N/A
1.7.6	Fuse identification (marking, special fusing characteristics, cross-reference) .....:	Current fuse/fusible resistor used, marking provided on PCB adjacent to them: F1: T1AL 250V or 10 ohm 2W	P
1.7.7	Wiring terminals		N/A
1.7.7.1	Protective earthing and bonding terminals .....:	Class II direct plug-in equipment.	N/A
1.7.7.2	Terminals for a.c. mains supply conductors	Class II direct plug-in equipment.	N/A
1.7.7.3	Terminals for d.c. mains supply conductors	Not intended for connection to DC mains.	N/A
1.7.8	Controls and indicators	There are no controls affecting safety.	N/A
1.7.8.1	Identification, location and marking .....:	No switch provided.	N/A
1.7.8.2	Colours .....:	No indicators with colors.	N/A
1.7.8.3	Symbols according to IEC 60417 .....:	There are no switches in the equipment.	N/A
1.7.8.4	Markings using figures .....:	No controls in the sense of this clause.	N/A
1.7.9	Isolation of multiple power sources .....:	Only one connection supplying hazardous voltages and energy levels to the equipment.	N/A
1.7.10	Thermostats and other regulating devices .....:	No thermostats or other regulating devices.	N/A
1.7.11	Durability	The marking withstands required tests.	P
1.7.12	Removable parts	No removable parts.	N/A
1.7.13	Replaceable batteries .....:	No lithium battery in the equipment.	N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Language(s) .....:		—
1.7.14	Equipment for restricted access locations ..... :	Equipment not intended for installation in RAL.	N/A

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

2	**PROTECTION FROM HAZARDS**		P
2.1	**Protection from electric shock and energy hazards**		P
2.1.1	Protection in operator access areas	There is adequate protection against operator contact with bare parts at hazardous voltage.	P
2.1.1.1	Access to energized parts		P
	Test by inspection ..... :	Verified.	P
	Test with test finger (Figure 2A) ..... :	Verified.	P
	Test with test pin (Figure 2B) ..... :	Verified.	P
	Test with test probe (Figure 2C) ..... :	No TNV circuit.	N/A
2.1.1.2	Battery compartments	No battery compartment.	N/A
2.1.1.3	Access to ELV wiring	No ELV wiring.	N/A
	Working voltage (Vpeak or Vrms); minimum distance through insulation (mm)		—
2.1.1.4	Access to hazardous voltage circuit wiring		N/A
2.1.1.5	Energy hazards ..... :	No energy hazard in operator access area. (see appended table 2.1.1.5)	P
2.1.1.6	Manual controls	No shafts of knobs etc. at ELV or hazardous voltage.	N/A
2.1.1.7	Discharge of capacitors in equipment		N/A
	Measured voltage (V); time-constant (s)..... :	The capacitance of the input circuit is ≤ 0,1µF, no measurement is performed.	—
2.1.1.8	Energy hazards – d.c. mains supply		N/A
	a) Capacitor connected to the d.c. mains supply .. :	Unit not connected to DC mains.	N/A
	b) Internal battery connected to the d.c. mains supply ..... :	No battery provided.	N/A
2.1.1.9	Audio amplifiers ..... :	No audio amplifier within the unit.	N/A
2.1.2	Protection in service access areas		N/A
2.1.3	Protection in restricted access locations		N/A

2.2	**SELV circuits**	P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.2.1	General requirements	SELV limits (at accessible parts) are not exceeded under normal condition and after a single fault. (see appended table 2.2)	P
2.2.2	Voltages under normal conditions (V) .....:	Within SELV limits. (See appended table 2.2)	P
2.2.3	Voltages under fault conditions (V) .....:	Single fault conditions: < 60 Vdc. See enclosed test results.	P
2.2.4	Connection of SELV circuits to other circuits .....:	The Output of the transformer represents hazard secondary voltage. The output of the unit is rated SELV. Therefore, SELV reliability testing was performed to make sure, that in case of one failure the output will remain SELV.	P
2.3	**TNV circuits**		N/A
2.3.1	Limits		N/A
	Type of TNV circuits .....:	No TNV circuits in the equipment.	—
2.3.2	Separation from other circuits and from accessible parts		N/A
2.3.2.1	General requirements		N/A
2.3.2.2	Protection by basic insulation		N/A
2.3.2.3	Protection by earthing		N/A
2.3.2.4	Protection by other constructions .....:		N/A
2.3.3	Separation from hazardous voltages		N/A
	Insulation employed.....:		—
2.3.4	Connection of TNV circuits to other circuits		N/A
	Insulation employed.....:		—
2.3.5	Test for operating voltages generated externally		N/A
2.4	**Limited current circuits**		N/A
2.4.1	General requirements	No limited current circuits.	N/A
2.4.2	Limit values		N/A
	Frequency (Hz) .....:		—
	Measured current (mA).....:		—

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

	Measured voltage (V) ..... :		—
	Measured circuit capacitance (nF or μF) ..... :		—
2.4.3	Connection of limited current circuits to other circuits		N/A

2.5	**Limited power sources**		P
	a) Inherently limited output		N/A
	b) Impedance limited output		N/A
	c) Regulating network limited output under normal operating and single fault condition	(see appended table 2.5)	P
	Use of integrated circuit (IC) current limiters		N/A
	d) Overcurrent protective device limited output		N/A
	Max. output voltage (V), max. output current (A), max. apparent power (VA) ..... :	No such overcurrent protective device provided.	—
	Current rating of overcurrent protective device (A) .:		—

2.6	**Provisions for earthing and bonding**		N/A
2.6.1	Protective earthing	Class II equipment without earthing.	N/A
2.6.2	Functional earthing		N/A
	Use of symbol for functional earthing .....:	No functional earthing.	N/A
2.6.3	Protective earthing and protective bonding conductors		N/A
2.6.3.1	General		N/A
2.6.3.2	Size of protective earthing conductors		N/A
	Rated current (A), cross-sectional area (mm^2), AWG ..... :	Class II equipment without earthing.	—
2.6.3.3	Size of protective bonding conductors		N/A
	Rated current (A), cross-sectional area (mm^2), AWG ..... :	Class II equipment without earthing.	—
	Protective current rating (A), cross-sectional area (mm^2), AWG..... :	Class II equipment without earthing.	—
2.6.3.4	Resistance of earthing conductors and their terminations; resistance (Ω), voltage drop (V), test current (A), duration (min)..... :	Class II equipment without earthing.	N/A
2.6.3.5	Colour of insulation ..... :	Class II equipment without earthing.	N/A
2.6.4	Terminals		N/A
2.6.4.1	General		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.6.4.2	Protective earthing and bonding terminals		N/A
	Rated current (A), type, nominal thread diameter (mm) .....:	Class II equipment without earthing.	—
2.6.4.3	Separation of the protective earthing conductor from protective bonding conductors		N/A
2.6.5	Integrity of protective earthing		N/A
2.6.5.1	Interconnection of equipment		N/A
2.6.5.2	Components in protective earthing conductors and protective bonding conductors		N/A
2.6.5.3	Disconnection of protective earth		N/A
2.6.5.4	Parts that can be removed by an operator		N/A
2.6.5.5	Parts removed during servicing		N/A
2.6.5.6	Corrosion resistance		N/A
2.6.5.7	Screws for protective bonding		N/A
2.6.5.8	Reliance on telecommunication network or cable distribution system		N/A
2.7	**Overcurrent and earth fault protection in primary circuits**		P
2.7.1	Basic requirements	Equipment relies on 16A rated fuse or circuit breaker of the wall outlet installation protection of the building installation in regard to L to N short circuit. Over-current protection is provided by the fuse/fusible resistor.	P
	Instructions when protection relies on building installation		N/A
2.7.2	Faults not simulated in 5.3.7		P
2.7.3	Short-circuit backup protection	Pluggable equipment type A. Building installation is considered as providing short-circuit backup protection.	P
2.7.4	Number and location of protective devices .....:	Over current protection by one fuse/fusible resistor.	P
2.7.5	Protection by several devices	Only one protective device. See Sub-clause 2.7.4.	N/A
2.7.6	Warning to service personnel.....:	Not permanently connected equipment or equipment provided with non-reversible plug.	N/A

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

2.8	**Safety interlocks**		N/A
2.8.1	General principles	No safety interlock.	N/A
2.8.2	Protection requirements		N/A
2.8.3	Inadvertent reactivation		N/A
2.8.4	Fail-safe operation		N/A
	Protection against extreme hazard		N/A
2.8.5	Moving parts		N/A
2.8.6	Overriding		N/A
2.8.7	Switches, relays and their related circuits		N/A
2.8.7.1	Separation distances for contact gaps and their related circuits (mm) ..... :		N/A
2.8.7.2	Overload test		N/A
2.8.7.3	Endurance test		N/A
2.8.7.4	Electric strength test		N/A
2.8.8	Mechanical actuators		N/A

2.9	**Electrical insulation**		P
2.9.1	Properties of insulating materials	Neither natural rubber, materials containing asbestos nor hygroscopic materials are used as insulation. No driving belts or couplings used.	P
2.9.2	Humidity conditioning	120 h	P
	Relative humidity (%), temperature (°C) ..... :	95 %RH, 40°C	—
2.9.3	Grade of insulation	Insulation is considered to be functional, basic, supplementary, reinforced or double.	P
2.9.4	Separation from hazardous voltages		P
	Method(s) used ..... :	Accessible conductive parts, SELV circuits or TNV circuits are separated from parts at hazardous voltage by double or reinforced insulation (Method 1).	—

2.10	**Clearances, creepage distances and distances through insulation**		P
2.10.1	General		P
2.10.1.1	Frequency ..... :	50/60 Hz	P
2.10.1.2	Pollution degrees ..... :	Pollution degree 2	P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.10.1.3	Reduced values for functional insulation	See 5.3.4.	P
2.10.1.4	Intervening unconnected conductive parts	No such parts.	N/A
2.10.1.5	Insulation with varying dimensions	No such transformer used.	N/A
2.10.1.6	Special separation requirements	No TNV circuits.	N/A
2.10.1.7	Insulation in circuits generating starting pulses	No such circuit.	N/A
2.10.2	Determination of working voltage	See appended table 2.10.2.	P
2.10.2.1	General		P
2.10.2.2	RMS working voltage	Considered.	P
2.10.2.3	Peak working voltage	Considered.	P
2.10.3	Clearances		P
2.10.3.1	General		P
2.10.3.2	Mains transient voltages		P
	a) AC mains supply .....:	Overvoltage Category II (2500Vpeak)	P
	b) Earthed d.c. mains supplies .....:	Unit not intended for connection to DC mains.	N/A
	c) Unearthed d.c. mains supplies .....:	Unit not intended for connection to DC mains.	N/A
	d) Battery operation .....:	No battery.	N/A
2.10.3.3	Clearances in primary circuits	(see appended table 2.10.3 and 2.10.4)	P
2.10.3.4	Clearances in secondary circuits	(see appended table 2.10.3 and 2.10.4)	P
2.10.3.5	Clearances in circuits having starting pulses		N/A
2.10.3.6	Transients from a.c. mains supply .....:	Secondary circuit is not earthed therefore same transients as for a.c. mains considered.	P
2.10.3.7	Transients from d.c. mains supply .....:	Unit not intended for connection to DC mains.	N/A
2.10.3.8	Transients from telecommunication networks and cable distribution systems .....:	Unit not intended for connection to telecommunication network or cable distribution system.	N/A
2.10.3.9	Measurement of transient voltage levels	Measurement not relevant.	N/A
	a) Transients from a mains supply		N/A
	For an a.c. mains supply .....:		N/A
	For a d.c. mains supply .....:		N/A
	b) Transients from a telecommunication network :		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.10.4	Creepage distances		P
2.10.4.1	General		P
2.10.4.2	Material group and comparative tracking index		P
	CTI tests ..... :	Material group IIIb is assumed to be used	—
2.10.4.3	Minimum creepage distances	(see appended table 2.10.3 and 2.10.4)	P
2.10.5	Solid insulation		P
2.10.5.1	General		P
2.10.5.2	Distances through insulation	(see appended table 2.10.5)	P
2.10.5.3	Insulating compound as solid insulation	No such potted components.	N/A
2.10.5.4	Semiconductor devices		N/A
2.10.5.5.	Cemented joints		N/A
2.10.5.6	Thin sheet material – General		N/A
2.10.5.7	Separable thin sheet material		N/AA
	Number of layers (pcs)..... :	No such transformer used.	—
2.10.5.8	Non-separable thin sheet material		N/A
2.10.5.9	Thin sheet material – standard test procedure		N/A
	Electric strength test		—
2.10.5.10	Thin sheet material – alternative test procedure		N/A
	Electric strength test		—
2.10.5.11	Insulation in wound components	Transformers provided with triple insulated wire complying with 2.10.5.12.	P
2.10.5.12	Wire in wound components	Approved source of triple insulated wire used in T1 secondary winding for reinforced insulation.	P
	Working voltage ..... :	See appended table 2.10.2.	P
	a) Basic insulation not under stress ..... :		N/A
	b) Basic, supplementary, reinforced insulation ..... :	All used triple insulated wires are in compliance with Annex U.	N/A
	c) Compliance with Annex U ..... :	Approved triple insulated wires are used. See list of critical components.	P
	Two wires in contact inside wound component; angle between 45° and 90° ..... :	By tubing or insulation tape.	P
2.10.5.13	Wire with solvent-based enamel in wound components	No TNV circuits.	N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Electric strength test		—
	Routine test		N/A
2.10.5.14	Additional insulation in wound components		N/A
	Working voltage .....:	No such construction.	N/A
	- Basic insulation not under stress .....:		N/A
	- Supplementary, reinforced insulation .....:		N/A
2.10.6	Construction of printed boards		P
2.10.6.1	Uncoated printed boards	(see appended table 2.10.3 and 2.10.4)	P
2.10.6.2	Coated printed boards		N/A
2.10.6.3	Insulation between conductors on the same inner surface of a printed board	No multi-layer PCBs provided.	N/A
2.10.6.4	Insulation between conductors on different layers of a printed board		N/A
	Distance through insulation		N/A
	Number of insulation layers (pcs) .....:	No multi-layer PCBs provided.	N/A
2.10.7	Component external terminations		N/A
2.10.8	Tests on coated printed boards and coated components		N/A
2.10.8.1	Sample preparation and preliminary inspection		N/A
2.10.8.2	Thermal conditioning		N/A
2.10.8.3	Electric strength test		N/A
2.10.8.4	Abrasion resistance test		N/A
2.10.9	Thermal cycling		N/A
2.10.10	Test for Pollution Degree 1 environment and insulating compound		N/A
2.10.11	Tests for semiconductor devices and cemented joints		N/A
2.10.12	Enclosed and sealed parts		N/A

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

3	**WIRING, CONNECTIONS AND SUPPLY**		P
3.1	**General**		P
3.1.1	Current rating and overcurrent protection	All internal wires are PVC insulated, and having gauge suitable for current intended to be carried. Internal wiring gauge is suitable for current intended to be carried.	P
3.1.2	Protection against mechanical damage	Wire ways are smooth and free from edges. Wires are adequately fixed to prevent excessive strain on wire and terminals and avoiding damage to the insulation of the conductors.	P
3.1.3	Securing of internal wiring	The wires are secured by soldering and glue (on PCB) so that a loosening of the terminal connection is unlikely.	P
3.1.4	Insulation of conductors	(see appended table 5.2)	P
3.1.5	Beads and ceramic insulators	No beads or similar ceramic insulators on conductors.	N/A
3.1.6	Screws for electrical contact pressure		N/A
3.1.7	Insulating materials in electrical connections	No contact pressure through insulating material.	N/A
3.1.8	Self-tapping and spaced thread screws		N/A
3.1.9	Termination of conductors	Terminations cannot become displaced so that clearances and creepage distances can be reduced.	P
	10 N pull test	Force of 10 N applied to the termination points of the conductors.	P
3.1.10	Sleeving on wiring	Sleeves are not used as supplementary insulation.	N/A

3.2	**Connection to a mains supply**		P
3.2.1	Means of connection		P
3.2.1.1	Connection to an a.c. mains supply	Unit provided with a mains plug that is part of direct plug-in equipment.	P
3.2.1.2	Connection to a d.c. mains supply		N/A
3.2.2	Multiple supply connections	Only one supply connection.	N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
3.2.3	Permanently connected equipment		N/A
	Number of conductors, diameter of cable and conduits (mm) .....:	The equipment is not intended for permanent connection to the mains.	—
3.2.4	Appliance inlets	Direct plug-in equipment.	N/A
3.2.5	Power supply cords		N/A
3.2.5.1	AC power supply cords		N/A
	Type .....:	No power cord.	—
	Rated current (A), cross-sectional area (mm^2), AWG .....:		—
3.2.5.2	DC power supply cords		N/A
3.2.6	Cord anchorages and strain relief		N/A
	Mass of equipment (kg), pull (N) .....:		—
	Longitudinal displacement (mm) .....:		—
3.2.7	Protection against mechanical damage		N/A
3.2.8	Cord guards		N/A
	Diameter or minor dimension D (mm); test mass (g) .....:	No cord guard provided.	—
	Radius of curvature of cord (mm) .....:		—
3.2.9	Supply wiring space	Not permanently connected equipment or equipment with connection of ordinary non-detachable power supply cord.	N/A

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

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

3.4	**Disconnection from the mains supply**		P
3.4.1	General requirement		P
3.4.2	Disconnect devices	Plug of this direct plug-in equipment was used as disconnected device.	P
3.4.3	Permanently connected equipment	Not permanently connected equipment.	N/A
3.4.4	Parts which remain energized	No parts remain energized.	N/A
3.4.5	Switches in flexible cords		N/A
3.4.6	Number of poles - single-phase and d.c. equipment	The disconnect device disconnects both poles simultaneously.	P
3.4.7	Number of poles - three-phase equipment	Single phase equipment.	N/A
3.4.8	Switches as disconnect devices	No switch as disconnect device.	N/A
3.4.9	Plugs as disconnect devices	Plug of this direct plug-in equipment was used as disconnected device.	N/A
3.4.10	Interconnected equipment	No interconnections using hazardous voltages or hazardous energy levels.	N/A
3.4.11	Multiple power sources	One power source only.	N/A

3.5	**Interconnection of equipment**		P
3.5.1	General requirements		P
3.5.2	Types of interconnection circuits .....:	SELV circuit or limited current circuit.	P
3.5.3	ELV circuits as interconnection circuits		N/A
3.5.4	Data ports for additional equipment	Output meets limited power source requirements.	P

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

4	**PHYSICAL REQUIREMENTS**		P
4.1	**Stability**		N/A
	Angle of 10°		N/A
	Test force (N) ..... :	The unit is not floor standing.	N/A

4.2	**Mechanical strength**		P
4.2.1	General		P
	Rack-mounted equipment.		N/A
4.2.2	Steady force test, 10 N	10N applied to components other than parts serving as an enclosure.	P
4.2.3	Steady force test, 30 N	No internal enclosure.	N/A
4.2.4	Steady force test, 250 N	No hazard. The test was performed with 250N to outer enclosure. .	P
4.2.5	Impact test	Unit is classified as direct plug-in and therefore this test is not applicable.	N/A
	Fall test		N/A
	Swing test		N/A
4.2.6	Drop test; height (mm) ..... :	1m, three impacts. No hazard as result from drop test. Test was performed for all sources of enclosure material.	P
4.2.7	Stress relief test	After 7 hours at temperature of 95,5°C and cooling down to room temperature, no shrinkage, distortion or loosening any enclosure part was noticeable on the adapter. Test was performed for all sources of enclosure material.	P
4.2.8	Cathode ray tubes		N/A
	Picture tube separately certified ..... :	No cathode ray tubes.	N/A
4.2.9	High pressure lamps		N/A
4.2.10	Wall or ceiling mounted equipment; force (N) ..... :	Unit is not intended to be mounted on a wall or ceiling.	N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
4.3	**Design and construction**		P
4.3.1	Edges and corners	All edges and corners are rounded and/or smoothed.	P
4.3.2	Handles and manual controls; force (N).....:	No knobs, grips, handles, lever, etc.	N/A
4.3.3	Adjustable controls	No hazardous adjustable controls.	N/A
4.3.4	Securing of parts		P
4.3.5	Connection by plugs and sockets	Secondary Connectors do not comply with IEC60320 or IEC60083 or IEC60309 connectors.	P
4.3.6	Direct plug-in equipment		P
	Torque .....:	Max. 0,024 Nm	—
	Compliance with the relevant mains plug standard .....:	For European plug, British plug, see attached partial test results. The other plug should be evaluated during national approval.	P
4.3.7	Heating elements in earthed equipment	The equipment does not have any heating elements.	N/A
4.3.8	Batteries	No batteries in the equipment.	N/A
	- Overcharging of a rechargeable battery		N/A
	- Unintentional charging of a non-rechargeable battery		N/A
	- Reverse charging of a rechargeable battery		N/A
	- Excessive discharging rate for any battery		N/A
4.3.9	Oil and grease	Insulation is not exposed to oil, grease etc.	N/A
4.3.10	Dust, powders, liquids and gases	The equipment does not generate dust, powder, does not contain liquid or gas. The unit is specified for office environment.	N/A
4.3.11	Containers for liquids or gases		N/A
4.3.12	Flammable liquids .....:	No containers for liquids or gases in the equipment.	N/A
	Quantity of liquid (l) .....:		N/A
	Flash point (°C) .....:		N/A
4.3.13	Radiation		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
4.3.13.1	General		N/A
4.3.13.2	Ionizing radiation		N/A
	Measured radiation (pA/kg) ..... :		—
	Measured high-voltage (kV) ..... :		—
	Measured focus voltage (kV) ..... :		—
	CRT markings ..... :		—
4.3.13.3	Effect of ultraviolet (UV) radiation on materials		N/A
	Part, property, retention after test, flammability classification ..... :		N/A
4.3.13.4	Human exposure to ultraviolet (UV) radiation ..... :	No such exposure.	N/A
4.3.13.5	Lasers (including laser diodes) and LEDs	No such components.	N/A
4.3.13.5.1	Lasers (including laser diodes)		N/A
	Laser class ..... :		—
4.3.13.5.2	Light emitting diodes (LEDs)	No such components.	—
4.3.13.6	Other types ..... :	No such components.	
4.4	**Protection against hazardous moving parts**		N/A
4.4.1	General		N/A
4.4.2	Protection in operator access areas ..... :	No hazardous moving parts.	N/A
	Household and home/office document/media shredders		N/A
4.4.3	Protection in restricted access locations ..... :		N/A
4.4.4	Protection in service access areas		N/A
4.4.5	Protection against moving fan blades		N/A
4.4.5.1	General		N/A
	Not considered to cause pain or injury. a)……..:		N/A
	Is considered to cause pain, not injury. b) ……:		N/A
	Considered to cause injury. c) ……:		N/A
4.4.5.2	Protection for users		N/A
	Use of symbol or warning ……:		N/A
4.4.5.3	Protection for service persons		N/A
	Use of symbol or warning ……:		N/A
4.5	**Thermal requirements**		P
4.5.1	General		P
4.5.2	Temperature tests		P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Normal load condition per Annex L .....:	Rated load, as specified by Manufacturer.	—
4.5.3	Temperature limits for materials	(see appended table 4.5)	P
4.5.4	Touch temperature limits	(see appended table 4.5)	P
4.5.5	Resistance to abnormal heat .....:	(see appended table 4.5.5)	P

4.6	**Openings in enclosures**		N/A
4.6.1	Top and side openings		N/A
	Dimensions (mm) .....:	No openings provided.	—
4.6.2	Bottoms of fire enclosures		N/A
	Construction of the bottomm, dimensions (mm) ..:	No bottom openings	—
4.6.3	Doors or covers in fire enclosures	No doors or covers in fire enclosure.	N/A
4.6.4	Openings in transportable equipment		N/A
4.6.4.1	Constructional design measures		N/A
	Dimensions (mm) .....:	No openings provided.	—
4.6.4.2	Evaluation measures for larger openings		N/A
4.6.4.3	Use of metallized parts		N/A
4.6.5	Adhesives for constructional purposes	No barrier secured by adhesive inside enclosure.	N/A
	Conditioning temperature (°C), time (weeks).....:		—

4.7	**Resistance to fire**		P
4.7.1	Reducing the risk of ignition and spread of flame		P
	Method 1, selection and application of components wiring and materials	(see appended table 4.7)	P
	Method 2, application of all of simulated fault condition tests		N/A
4.7.2	Conditions for a fire enclosure	Fire enclosure as part of equipment.	P
4.7.2.1	Parts requiring a fire enclosure		P
4.7.2.2	Parts not requiring a fire enclosure		N/A
4.7.3	Materials		P
4.7.3.1	General	Components and materials have adequate flammability classification. Refer to “List of Critical Components”.	P
4.7.3.2	Materials for fire enclosures	The fire enclosure is V-1 or better material.	P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
4.7.3.3	Materials for components and other parts outside fire enclosures	No parts outside the fire enclosure.	N/A
4.7.3.4	Materials for components and other parts inside fire enclosures	All internal materials are rated V-2 or better or are mounted on a PWB rated V-1 or better.	P
4.7.3.5	Materials for air filter assemblies	No air filters in the equipment.	N/A
4.7.3.6	Materials used in high-voltage components	No parts exceeding 4kV.	N/A

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

5	**ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS**		P
5.1	**Touch current and protective conductor current**		P
5.1.1	General	(see appended Table 5.1)	P
5.1.2	Configuration of equipment under test (EUT)		P
5.1.2.1	Single connection to an a.c. mains supply		P
5.1.2.2	Redundant multiple connections to an a.c. mains supply		N/A
5.1.2.3	Simultaneous multiple connections to an a.c. mains supply		N/A
5.1.3	Test circuit	According to Fig. 5A	P
5.1.4	Application of measuring instrument		P
5.1.5	Test procedure	The touch current was measured from mains to DC output connector and to a 100 mm x 200 mm metal foil wrapped on accessible nonconductive parts (plastic enclosure).	P
5.1.6	Test measurements		P
	Supply voltage (V) .....:	264V / 60Hz	—
	Measured touch current (mA) .....:	(see appended table 5.1)	—
	Max. allowed touch current (mA) .....:	0,25 mA to unearthed accessible parts	—
	Measured protective conductor current (mA) .....:	Not applicable. Class II equipment.	—
	Max. allowed protective conductor current (mA)...:	See above.	—
5.1.7	Equipment with touch current exceeding 3,5 mA	Neither stationary permanently connected equipment nor stationary pluggable equipment type B.	N/A
5.1.7.1	General .....:		N/A
5.1.7.2	Simultaneous multiple connections to the supply		N/A
5.1.8	Touch currents to telecommunication networks and cable distribution systems and from telecommunication networks		N/A
5.1.8.1	Limitation of the touch current to a telecommunication network or to a cable distribution system		N/A
	Supply voltage (V) .....:		—
	Measured touch current (mA) .....:		—

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

	Max. allowed touch current (mA) ..... :		—
5.1.8.2	Summation of touch currents from telecommunication networks		N/A
	a) EUT with earthed telecommunication ports ..... :		N/A
	b) EUT whose telecommunication ports have no reference to protective earth		N/A

5.2	**Electric strength**		P
5.2.1	General	(see appended table 5.2)	P
5.2.2	Test procedure		P

5.3	**Abnormal operating and fault conditions**		P
5.3.1	Protection against overload and abnormal operation	(see appended table 5.3)	P
5.3.2	Motors	No motor provided.	N/A
5.3.3	Transformers	(see appended Annex C)	P
5.3.4	Functional insulation ..... :	Method b) and c) used.	P
5.3.5	Electromechanical components		N/A
5.3.6	Audio amplifiers in ITE ..... :	No such components.	N/A
5.3.7	Simulation of faults		P
5.3.8	Unattended equipment	The unit is intended for continuous operation. There is no thermal sensor or cut-off for operational condition.	N/A
5.3.9	Compliance criteria for abnormal operating and fault conditions		P
5.3.9.1	During the tests	No flame, melted metal, no fire- cheese cloth on top and tissue paper on bottom remain clean.	P
5.3.9.2	After the tests	The tested units passed the electric strength test.	P

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

6	**CONNECTION TO TELECOMMUNICATION NETWORKS**		N/A
6.1	**Protection of telecommunication network service persons, and users of other equipment connected to the network, from hazards in the equipment**		N/A
6.1.1	Protection from hazardous voltages		N/A
6.1.2	Separation of the telecommunication network from earth		N/A
6.1.2.1	Requirements	Not connected to telecommunication network.	N/A
	Supply voltage (V) .....:		—
	Current in the test circuit (mA) .....:		—
6.1.2.2	Exclusions .....:		

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

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

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

7	**CONNECTION TO CABLE DISTRIBUTION SYSTEMS**		N/A
7.1	**General**	Not connected to cable distribution system.	N/A
7.2	Protection of cable distribution system service persons, and users of other equipment connected to the system, from hazardous voltages in the equipment		N/A
7.3	Protection of equipment users from overvoltages on the cable distribution system		N/A
7.4	Insulation between primary circuits and cable distribution systems		N/A
7.4.1	General		N/A
7.4.2	Voltage surge test		N/A
7.4.3	Impulse test		N/A

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

A	**ANNEX A, TESTS FOR RESISTANCE TO HEAT AND FIRE**		N/A
A.1	**Flammability test for fire enclosures of movable equipment having a total mass exceeding 18 kg, and of stationary equipment (see 4.7.3.2)**	Approved materials are used. See list of critical components.	N/A
A.1.1	Samples .....:		—
	Wall thickness (mm).....:		—
A.1.2	Conditioning of samples; temperature (°C) .....:		N/A
A.1.3	Mounting of samples .....:		N/A
A.1.4	Test flame (see IEC 60695-11-3)		N/A
	Flame A, B, C or D .....:		—
A.1.5	Test procedure		N/A
A.1.6	Compliance criteria		N/A
	Sample 1 burning time (s) .....:		—
	Sample 2 burning time (s) .....:		—
	Sample 3 burning time (s) .....:		—
A.2	**Flammability test for fire enclosures of movable equipment having a total mass not exceeding 18 kg, and for material and components located inside fire enclosures (see 4.7.3.2 and 4.7.3.4)**		N/A
A.2.1	Samples, material.....:		—
	Wall thickness (mm).....:		—
A.2.2	Conditioning of samples; temperature (°C) .....:		N/A
A.2.3	Mounting of samples .....:		N/A
A.2.4	Test flame (see IEC 60695-11-4)		N/A
	Flame A, B or C .....:		—
A.2.5	Test procedure		N/A
A.2.6	Compliance criteria		N/A
	Sample 1 burning time (s) .....:		—
	Sample 2 burning time (s) .....:		—
	Sample 3 burning time (s) .....:		—
A.2.7	Alternative test acc. to IEC 60695-11-5, cl. 5 and 9		N/A
	Sample 1 burning time (s) .....:		—
	Sample 2 burning time (s) .....:		—
	Sample 3 burning time (s) .....:		—
A.3	**Hot flaming oil test (see 4.6.2)**		N/A
A.3.1	Mounting of samples		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
A.3.2	Test procedure		N/A
A.3.3	Compliance criterion		N/A
B	**ANNEX B, MOTOR TESTS UNDER ABNORMAL CONDITIONS (see 4.7.2.2 and 5.3.2)**		N/A
B.1	**General requirements**	No motor provided.	N/A
	Position ..... :		—
	Manufacturer ..... :		—
	Type ..... :		—
	Rated values ..... :		—
B.2	**Test conditions**		N/A
B.3	**Maximum temperatures**		N/A
B.4	**Running overload test**		N/A
B.5	**Locked-rotor overload test**		N/A
	Test duration (days) ..... :		—
	Electric strength test: test voltage (V) ..... :		—
B.6	**Running overload test for d.c. motors in secondary circuits**		N/A
B.6.1	General		N/A
B.6.2	Test procedure		N/A
B.6.3	Alternative test procedure		N/A
B.6.4	Electric strength test; test voltage (V) ..... :		N/A
B.7	**Locked-rotor overload test for d.c. motors in secondary circuits**		N/A
B.7.1	General		N/A
B.7.2	Test procedure		N/A
B.7.3	Alternative test procedure		N/A
B.7.4	Electric strength test; test voltage (V) ..... :		N/A
B.8	**Test for motors with capacitors**		N/A
B.9	**Test for three-phase motors**		N/A
B.10	**Test for series motors**		N/A
	Operating voltage (V) ..... :		—
C	**ANNEX C, TRANSFORMERS (see 1.5.4 and 5.3.3)**		P
	Position ..... :	T1	—
	Manufacturer ..... :	GlobTek, Inc.	—

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

	Type .....:	See list of critical components	—
	Rated values .....:	Class B	—
	Method of protection.....:	Primary current limitation.	—
C.1	**Overload test**	(see appended table 5.3)	P
C.2	**Insulation**	(see appended tables 5.2 and C2)	P
	Protection from displacement of windings.....:	Triple insulated wire is used. No special precaution is required.	P

D	**ANNEX D, MEASURING INSTRUMENTS FOR TOUCH-CURRENT TESTS (see 5.1.4)**		P
D.1	**Measuring instrument**		P
D.2	**Alternative measuring instrument**		N/A

E	**ANNEX E, TEMPERATURE RISE OF A WINDING (see 1.4.13)**		N/A

F	**ANNEX F, MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES (see 2.10 and Annex G)**		P

G	**ANNEX G, ALTERNATIVE METHOD FOR DETERMINING MINIMUM CLEARANCES**		P
G.1	**Clearances**		N/A
G.1.1	General		N/A
G.1.2	Summary of the procedure for determining minimum clearances		N/A
G.2	**Determination of mains transient voltage (V)**		N/A
G.2.1	AC mains supply .....:		N/A
G.2.2	Earthed d.c. mains supplies .....:		N/A
G.2.3	Unearthed d.c. mains supplies .....:		N/A
G.2.4	Battery operation .....:		N/A
G.3	**Determination of telecommunication network transient voltage (V) .....:**		N/A
G.4	**Determination of required withstand voltage (V)**		N/A
G.4.1	Mains transients and internal repetitive peaks .....:		N/A
G.4.2	Transients from telecommunication networks .....:		N/A
G.4.3	Combination of transients		N/A
G.4.4	Transients from cable distribution systems		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
G.5	**Measurement of transient voltages (V)**		N/A
	a) Transients from a mains supply		N/A
	For an a.c. mains supply		N/A
	For a d.c. mains supply		N/A
	b) Transients from a telecommunication network		N/A
G.6	**Determination of minimum clearances ..... :**	See appended table 2.10.3/2.10.4	P
H	**ANNEX H, IONIZING RADIATION (see 4.3.13)**		N/A
J	**ANNEX J, TABLE OF ELECTROCHEMICAL POTENTIALS (see 2.6.5.6)**		N/A
	Metal(s) used ..... :	Class II equipment.	—
K	**ANNEX K, THERMAL CONTROLS (see 1.5.3 and 5.3.8)**		N/A
K.1	Making and breaking capacity		N/A
K.2	Thermostat reliability; operating voltage (V) ..... :		N/A
K.3	Thermostat endurance test; operating voltage (V) ..... :		N/A
K.4	Temperature limiter endurance; operating voltage (V) ..... :		N/A
K.5	Thermal cut-out reliability		N/A
K.6	Stability of operation		N/A
L	**ANNEX L, NORMAL LOAD CONDITIONS FOR SOME TYPES OF ELECTRICAL BUSINESS EQUIPMENT (see 1.2.2.1 and 4.5.2)**		P
L.1	Typewriters		N/A
L.2	Adding machines and cash registers		N/A
L.3	Erasers		N/A
L.4	Pencil sharpeners		N/A
L.5	Duplicators and copy machines		N/A
L.6	Motor-operated files		N/A
L.7	Other business equipment	Rated load, as specified by Manufacturer.	P
M	**ANNEX M, CRITERIA FOR TELEPHONE RINGING SIGNALS (see 2.3.1)**		N/A
M.1	Introduction		N/A
M.2	Method A		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
M.3	Method B		N/A
M.3.1	Ringing signal		N/A
M.3.1.1	Frequency (Hz) .....:		—
M.3.1.2	Voltage (V) .....:		—
M.3.1.3	Cadence; time (s), voltage (V) .....:		—
M.3.1.4	Single fault current (mA) .....:		—
M.3.2	Tripping device and monitoring voltage .....:		N/A
M.3.2.1	Conditions for use of a tripping device or a monitoring voltage		N/A
M.3.2.2	Tripping device		N/A
M.3.2.3	Monitoring voltage (V) .....:		N/A
N	**ANNEX N, IMPULSE TEST GENERATORS (see 1.5.7.2, 1.5.7.3, 2.10.3.9, 6.2.2.1, 7.3.2, 7.4.3 and Clause G.5)**		N/A
N.1	ITU-T impulse test generators		N/A
N.2	IEC 60065 impulse test generator		N/A
P	**ANNEX P, NORMATIVE REFERENCES**		—
Q	**ANNEX Q, Voltage dependent resistors (VDRs) (see 1.5.9.1)**		N/A
	a) Preferred climatic categories .....:	No such components.	N/A
	b) Maximum continuous voltage .....:		N/A
	c) Combination pulse current .....:		N/A
	Body of the VDR Test according to IEC60695-11-5.....:		N/A
	Body of the VDR. Flammability class of material (min V-1).....:		N/A
R	**ANNEX R, EXAMPLES OF REQUIREMENTS FOR QUALITY CONTROL PROGRAMMES**		N/A
R.1	Minimum separation distances for unpopulated coated printed boards (see 2.10.6.2)		N/A
R.2	Reduced clearances (see 2.10.3)		N/A
S	**ANNEX S, PROCEDURE FOR IMPULSE TESTING (see 6.2.2.3)**		N/A
S.1	Test equipment		N/A
S.2	Test procedure		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
S.3	Examples of waveforms during impulse testing		N/A
T	**ANNEX T, GUIDANCE ON PROTECTION AGAINST INGRESS OF WATER (see 1.1.2)**		N/A
			—
U	**ANNEX U, INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION (see 2.10.5.4)**		P
		See list of critical components. All used triple insulated wires are already approved to Annex U. No additional tests considered required.	—
V	**ANNEX V, AC POWER DISTRIBUTION SYSTEMS (see 1.6.1)**		P
V.1	Introduction		P
V.2	TN power distribution systems		P
W	**ANNEX W, SUMMATION OF TOUCH CURRENTS**		N/A
W.1	Touch current from electronic circuits		N/A
W.1.1	Floating circuits		N/A
W.1.2	Earthed circuits		N/A
W.2	Interconnection of several equipments		N/A
W.2.1	Isolation		N/A
W.2.2	Common return, isolated from earth		N/A
W.2.3	Common return, connected to protective earth		N/A
X	**ANNEX X, MAXIMUM HEATING EFFECT IN TRANSFORMER TESTS (see clause C.1)**		P
X.1	Determination of maximum input current		P
X.2	Overload test procedure		P
Y	**ANNEX Y, ULTRAVIOLET LIGHT CONDITIONING TEST (see 4.3.13.3)**		N/A
Y.1	Test apparatus ..... :		N/A
Y.2	Mounting of test samples ..... :		N/A
Y.3	Carbon-arc light-exposure apparatus ..... :		N/A
Y.4	Xenon-arc light exposure apparatus ..... :		N/A

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

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

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

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

CC	**ANNEX CC, Evaluation of integrated circuit (IC) current limiters**		N/A
CC.1	General	No such components.	N/A
CC.2	Test program 1……..:		N/A
CC.3	Test program 2……..:		N/A
CC.4	Test program 3.....:		N/A
CC.5	Compliance.....:		N/A

DD	**ANNEX DD, Requirements for the mounting means of rack-mounted equipment**		N/A
DD.1	General		N/A
DD.2	Mechanical strength test, variable N……..:		N/A
DD.3	Mechanical strength test, 250N, including end stops……:		N/A
DD.4	Compliance……..:		N/A

EE	**ANNEX EE, Household and home/office document/media shredders**		N/A
EE.1	General		N/A
EE.2	Markings and instructions		N/A
	Use of markings or symbols……:		N/A
	Information of user instructions, maintenance and/or servicing instructions……:		N/A
EE.3	Inadvertent reactivation test……:		N/A
EE.4	Disconnection of power to hazardous moving parts:		N/A
	Use of markings or symbols……:		N/A
EE.5	Protection against hazardous moving parts		N/A
	Test with test finger (Figure 2A) ……:		N/A
	Test with wedge probe (Figure EE1 and EE2) ……:		N/A

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

1.5.1	TABLE: List of critical components				P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity[1])
Transformer (T1)	GlobTek or other manufacturer which built according GlobTek specification	90E5PFU05-xxx (“xxx” to denote the part number, can be any alphanumeric character for marketing purposes only.)	Pri. Winding (pin 4-pin 1): Φ0.15mmx125Ts (pin 1- pin 7): Φ0.22mmx6.5Ts Aux. winding (pin 2-pin 3): Φ0.15mmx14Ts Sec. Winding (pin 6-pin 5): Φ0.40mmx10Ts Class B	Applicable parts in IEC/EN 60950-1 and according to IEC 60085	Tested within the unit.
-Bobbin	Hitachi Chemical Co Ltd	CP-J-8800	Phenolic, V-0, 150°C , Min. thickness 0,71mm	IEC/EN 60950-1 (QMFZ2)	Tested within the unit. UR E42956
(alternative)	Sumitomo Bakelite Co Ltd	PM-9820	Phenolic, V-0, 150°C , Min. thickness 0,71mm	IEC/EN 60950-1 (QMFZ2)	Tested within the unit. UR E41429
(alternative) Revision No. 1	Chang Chun Plastics Co Ltd	T375J T375HF	Phenolic, V-0, 150 °C, min. 0.71 mm thickness	IEC/EN 60950-1 (QMFZ2)	Tested within the unit. UR E59481
- Triple insulated wire for secondary winding	Furukawa Electric Co., Ltd.	TEX-B	Class B	IEC/EN 60950-1 (OBJT2)	VDE 139407 UR E206440
(alternative)	Furukawa Electric Co., Ltd.	TEX-E	Class B	IEC/EN 60950-1 (OBJT2)	VDE 006735 UR E206440
(alternative)	Cosmolink	TIW-M	Class B	IEC/EN 60950-1 (OBJT2)	VDE 138053 UR E213764
(alternative)	YongChang	STW-B	Class B	IEC/EN 60950-1 (OBJT2)	VDE 40013359 UR E242198
(alternative)	Great leoflon	TRW (B)	Class B	IEC/EN 60950-1 (OBJT2)	VDE 136581 UR E211989
(alternative)	E&B Technology	E&B-B-X.XX	Class B	IEC/EN 60950-1 (OBJT2)	VDE 40023473 UR E315265

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

Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity[1])
(alternative)	DAH JIN	TLW-B	Class B	IEC/EN 60950-1 (OBJT2)	VDE 40019324 UR E236542
Insulation tape	Four Pillars (SYMBIO)	35660Y/3566 0/MY130	130°C	IEC/EN 60950-1 (OANZ2)	Tested within the unit. UR E50292
(alternative)	3m company electrical markets div (EMD)	1350F-1, 1350F-2	130°C	IEC/EN 60950-1 (OANZ2)	Tested within the unit. UR E17385
(alternative) Revision No. 1	Jingjiang Yahua Pressure Sensitive Glue Co Ltd	CT, PZ	130°C	IEC/EN 60950-1 (OANZ2)	Tested within the unit. UR E165111
-Magnet wire	Huizhou Golden Ocean Magnet Wire Factory	UEW	130°C	IEC/EN 60950-1 (OBMW2)	Tested within the unit. UR E225143
(alternative)	Wa Tai Electrotechnica l Materials Factory Ltd	UEW	130°C	IEC/EN 60950-1 (OBMW2)	Tested within the unit. UR E243939
(alternative)	Shenzhen Dayang Industry Co Ltd	xUEW	130°C	IEC/EN 60950-1 (OBMW2)	Tested within the unit. UR E176101
(alternative)	interchangeable	interchangeab le	MW75 or MW28, 130°C	(OBMW2)	UR
Tube (Optional)	Great Holding Industrial Co Ltd	TFS,TFT	200°C	IEC/EN 60950-1 (YDPU2)	Tested within the unit. UR E156256
(alternative)	Zeus Industrial Products Inc	TFE-TW-300	200°C	IEC/EN 60950-1 (YDPU2)	Tested within the unit. UR E64007
(alternative) Revision No. 1	SHENZHEN WOER HEAT-SHRINKABLE MATERIAL CO LTD	WF	200°C	IEC/EN 60950-1 (YDPU2)	Tested within the unit. UR E203950
- Varnish	Hitachi Chemical Co Ltd	WP-2952F-2G	130°C	IEC/EN 60950-1 (OBOR2)	Tested within the unit. UR E72979

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

Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity[1])
(alternative)	Elantas Electrical Insulation Elantas Pdg Inc	468-2(x)	130°C	IEC/EN 60950-1 (OBOR2)	Tested within the unit. UR E75225
(alternative) Revision No. 1	TAIHU INSULATING MATERIAL	T-4260(a)	130°C	IEC/EN 60950-1 (OBOR2)	Tested within the unit. UR E228349
(alternative) Revision No. 1	NOROO PAINT&COATINGS CO LTD	DVB-2085(C)	130°C	IEC/EN 60950-1 (OBOR2)	Tested within the unit. UR E93947
Current fuse (F1)	Wickmann	392	T1AL, 250Vac, sub-miniature fuse	IEC/EN 60127-1 IEC/EN 60127-3 (JDYX2)	VDE 126983 UR E67006
(alternative)	Lanson	SMT	T1AL, 250Vac, sub-miniature fuse	IEC/EN 60127-1 IEC/EN 60127-3 (JDYX2)	VDE 40012592 UR E221465
(alternative)	Conquer	MST	T1AL, 250Vac, sub-miniature fuse	IEC/EN 60127-1 IEC/EN 60127-3 (JDYX2)	VDE 40017118 UR E82636
(alternative)	Bussmann	SS-5	T1AL, 250Vac, sub-miniature fuse	IEC/EN 60127-1 IEC/EN 60127-3 (JDYX2)	VDE 40015513 UR E19180
(alternative)	Belfuse	RST	T1AL, 250Vac, sub-miniature fuse	IEC/EN 60127-1 IEC/EN 60127-3 (JDYX2)	VDE 40011144 UR E20624
(alternative)	Smart	SPT series	T1AL, 250Vac, sub-miniature fuse	IEC/EN 60127-1 IEC/EN 60127-3 (JDYX2)	VDE 40014285 UR E184831
(alternative)	Sunny East	TSP series	T1AL, 250Vac, sub-miniature fuse	IEC/EN 60127-1 IEC/EN 60127-3 (JDYX2)	VDE 40027173 UR E133774
(alternative)	Nippon Seisen Cable Ltd	SLT series	T1AL, 250Vac, sub-miniature fuse	IEC/EN 60127-1 IEC/EN 60127-3 (JDYX2)	VDE 40013103 UR E120786
(alternative)	Conquer Electronics Co Ltd	PTU	T1AL, 250Vac, sub-miniature fuse	IEC/EN 60127-1 IEC/EN 60127-3 (JDYX2)	VDE 40001462 UR E82636

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

Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity[1])
(alternative)	Walter Electronic Co Ltd	ICP	T1AL, 250Vac, sub-miniature fuse	IEC/EN 60127-1 IEC/EN 60127-3 (JDYX2)	VDE 40012824 UR E56092
(alternative)	Smart Electronics Inc.	SPT series	T1AL, 250Vac, sub-miniature fuse	IEC/EN 60127-1 IEC/EN 60127-3 (JDYX2)	VDE 40015228 UR E238986
(alternative)	Shenzhen Lanson Electronics Co Ltd	3N series	T1AL, 250Vac, sub-miniature fuse	IEC/EN 60127-1 IEC/EN 60127-3 (JDYX2)	VDE 40016660 UR E221465
(alternative)	Littelfuse Inc	877	T1AL, 250Vac, sub-miniature fuse	IEC/EN 60127-1 IEC/EN 60127-3 (JDYX2)	VDE 40023242 UR E10480
(alternative)	Dongguan Better Electronic Technology Co Ltd	334	T1AL, 250Vac, sub-miniature fuse	IEC/EN 60127-1 IEC/EN 60127-3 (JDYX2)	VDE 40025428 UR E300003
(alternative)	Sunny East Enterprise Co Ltd	CDT series	T1AL, 250Vac, sub-miniature fuse	IEC/EN 60127-1 IEC/EN 60127-3 (JDYX2)	VDE 40015726 UR E133774
Fusible resistor (F1) (Alternative)	Chang Sheng.	FRT	10 Ohm, 2 W	IEC/EN 60950-1	Tested within the unit.
(alternative)	TZAI YUAN	KNF	10 Ohm, 2 W	IEC/EN 60950-1	Tested within the unit.
(alternative)	Hua Sheng Electronics	FKN	10 Ohm, 2 W	IEC/EN 60950-1	Tested within the unit.
(alternative)	Shenzhen Great	RXF series	10 Ohm, 2 W	IEC/EN 60950-1	Tested within the unit.
Enclosure	SABIC Innovative Plastics	SE1X	PPE+PS, V-1,105°C min. thickness: 1,5mm	IEC/EN 60950-1 (QMFZ2)	Tested within the unit. UR E161723
(alternative)	Asahi Kasei	540V	PPE+PS, V-1,105°C min. thickness: 1,5mm	IEC/EN 60950-1 (QMFZ2)	Tested within the unit. UR E82268
(alternative)	BAYER	6485	PC, V-0, 115°C. min. thickness: 1,5mm	IEC/EN 60950-1 (QMFZ2)	Tested within the unit. UR E41613

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

Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity[1])
(alternative)	Sabic Innovative Plastics Japan L L C	925U	PC, V-0, 115°C. min. thickness: 1,5mm	IEC/EN 60950-1 (QMFZ2)	Tested within the unit. UR E207780
Primary lead wire	Dong Ju	1007	80°C, Min. 24AWG, VW-1, 300V	IEC/EN 60950-1 (AVLV2)	Tested within the unit. UR E189674
(alternative)	interchangeable	interchangeable	80°C, Min. 24AWG, VW-1, 300V	(AVLV2)	UR
Mylar sheet	SUMITOMO BAKELITE CO LTD	AV-Lite DP 901	PC, V-0, thickness min.: 0,4mm. min.125°C,	IEC/EN 60950-1 (QMFZ2)	Tested within the unit. UR E41429
(alternative)	SABIC INNOVATIVE PLASTICS US LLC	FR700	PC, V-0, thickness min.: 0,4mm. min.125°C,	IEC/EN 60950-1 (QMFZ2)	Tested within the unit. UR E121562
(alternative)	DUPONT HONGJI FILMS FOSHAN CO LTD	EM, MO31	PET, VTM-2, thickness: min. 0,4mm; min.105°C	IEC/EN 60950-1 (QMFZ2)	Tested within the unit. UR E241830
(alternative)	JiangSu YuXing	CY28	PET, VTM-2, thickness: min. 0,4mm; min.105°C	IEC/EN 60950-1 (QMFZ2)	Tested within the unit. E212271
UK plug (fixed plug for models GT-83083-WW05-USB-W2U)	GlobTek	W2U	0,2 A, 250 Vac	BS 1363-1 +A1+A2+A3	Tested within the unit.
- Plug holder /pin sleeving	SABIC Innovative Plastics	SE1X	PPE+PS, V-1,105°C	IEC/EN 60950-1 (QMFZ2)	Tested within the unit. UR E161723
PCB	Dongguan He Tong Electronics Co Ltd	2V0	V-0 or better, min. 130°C	IEC/EN 60950-1 (ZPMV2)	Tested within the unit. UR E243157
(alternative)	interchangeable	interchangeable	V-1 or better, min. 130°C	(ZPMV2)	UR

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

Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity[1])
Heat-shrinkable tube	Shenzhen Woer	RSFR RSFR-H	125°C, VW-1, 600V	IEC/EN 60950-1 (YDPU2)	Tested within the unit. UR E203950
(alternative)	interchangeable	interchangeable	125°C, VW-1, 600V	(YDPU2)	UR
Revision No. 1:					
AU plug (exchangeable plug for model GT-83083-WW05, GT-83083-WW05-USB)	GlobTek	Q-SAA	0;2 A, 250 Vac	AS/NZS 3112:2011+A1+A2	Tested within the unit.
- Pin sleeving	Dupont	FR50	PA66, V-0, 130°C.	IEC/EN 60950-1 (QMFZ2) (QMFZ8)	Tested within the unit. cURus E41938
JP plug (replaceable plug for model GT-83083-WW05, GT-83083-WW05-USB)	GlobTek	Q-NA	0;2 A, 250 Vac	JIS C 8303	Tested with appliance
Plug holder	Sabic innovative plastics us l l c	SE1X(GG)(f1)	PPE+PS, V-1, 105°C.	IEC/EN 60950-1 (QMFZ2)	UR E121562
- (Alt.)	Sabic japan l l c	SE1X(GG)(C)(f1)	PPE+PS, V-1, 105°C.	IEC/EN 60950-1 (QMFZ2)	UL E207780
KR plug (replaceable plug for model GT-83083-WW05, GT-83083-WW05-USB, plug pin fixed by screw type)	GlobTek	Q-KR	0;2 A, 250 Vac	KSC 8305	Tested with appliance
- Plug holder	Sabic Innovative Plastics Us L L C	SE1X(GG)(f1)	PPE+PS, V-1, 105°C.	IEC/EN 60950-1 (QMFZ2)	Tested with appliance UR E121562

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

Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity[1])
- (Alt.)	Sabic Japan L L C	SE1X(GG)(C) (f1)	PPE+PS, V-1, 105°C.	IEC/EN 60950-1 (QMFZ2)	Tested with appliance UR E121562
EU plug (replaceable plug for model GT-83083-WW05, GT-83083-WW05-USB), plug pin molded into enclosure directly type)	GlobTek	Q-EU	0,2 A, 250 Vac	EN 50075	Tested with appliance
- Plug holder /pin sleeving	SABIC Innovative Plastics	SE1X	PPE+PS, V-1,105°C	IEC/EN 60950-1 (QMFZ2)	Tested within the unit. UR E121562
Output wire	LiCheng Electronics	1185	Min. 80°C, min.300 V, min. 24AWG, VW-1	IEC/EN 60950-1 (AVLV2)	Tested within the unit. UR E205058
(Alternative)	interchangeable	interchangeable	Min. 80°C, min.300 V, min. 24AWG, VW-1	--	UR

Supplementary information:

[1]) **Provided evidence ensures the agreed level of compliance. See OD-CB2039**.

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

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

No such components.

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

1.6.2	TABLE: Electrical data (in normal conditions)					P
U (V)	I (A)	Irated (A)	P (W)	Fuse #	Ifuse (A)	Condition/status
90	0,12	--	7,0	F1	--	Rated load; 50 Hz
100	0,11	0,2	6,9	F1	--	Rated load; 50 Hz
240	0,06	0,2	6,7	F1	--	Rated load; 50 Hz
264	0,06	--	6,8	F1	--	Rated load; 50 Hz
90	0,12	--	7,0	F1	--	Rated load; 60 Hz
100	0,11	0,2	6,8	F1	--	Rated load; 60 Hz
240	0,06	0,2	6,7	F1	--	Rated load; 60 Hz
264	0,06	--	6,8	F1	--	Rated load; 60 Hz

Supplementary information: The steady-state input current did not exceed the rated current at the rated voltage by more than 10% under the maximum normal load.

Test was performed at SIQ.

Model: GT-83083-0505-USB-W2U

1.6.2	TABLE: Electrical data (in normal conditions)					P
U (V)	I (A)	Irated (A)	P (W)	Fuse #	Ifuse (A)	Condition/status
90	0,12	--	6,9	F1	--	Rated load; 50 Hz
100	0,11	0,2	6,8	F1	--	Rated load; 50 Hz
240	0,06	0,2	6,6	F1	--	Rated load; 50 Hz
264	0,06	--	6,7	F1	--	Rated load; 50 Hz
90	0,12	--	6,9	F1	--	Rated load; 60 Hz
100	0,11	0,2	6,8	F1	--	Rated load; 60 Hz
240	0,06	0,2	6,7	F1	--	Rated load; 60 Hz
264	0,06	--	6,7	F1	--	Rated load; 60 Hz

Supplementary information: The steady-state input current did not exceed the rated current at the rated voltage by more than 10% under the maximum normal load.

Test was performed at SIQ.

Model: GT-83083-0505

Revision No. 1

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

2.1.1.5 c) 1)	TABLE: max. V, A, VA test	P

Voltage (rated) (V)	Current (rated) (A)	Voltage (max.) (V)	Current (max.) (A)	VA (max.) (VA)
5,0	1,0	5,07	1,28	6,3

supplementary information:

Model GT-83083-0505-USB-W2U

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

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

supplementary information:

2.2	TABLE: evaluation of voltage limiting components in SELV circuits	P

Component (measured between)	max. voltage (V) (normal operation)		Voltage Limiting Components
	V peak	V d.c.	
Transformer secondary pin 5-6	29,8	--	
E-capacitor C6	--	5,22	D7

Fault test performed on voltage limiting components	Voltage measured (V) in SELV circuits (V peak or V d.c.)
D7 short-circuited	0 (unit shutdown immediately)

supplementary information:

Test voltage: 264V

Test frequency: 60Hz

Model: GT-83083-0505-USB-W2U

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

2.5	TABLE: Limited power sources	P

Circuit output tested:

Note: Measured Uoc (V) with all load circuits disconnected:

Components	Sample No.	Uoc (V)	I_{sc} (A)		VA	
			Meas.	Limit	Meas.	Limit
Normal operation	--	5,07	1,28	8,0	6,3	100
S-C R12	--	--	0 **	8,0	0 **	100
S-C U1 pin 3-5	--	--	0 **	8,0	0 **	100
S-C U1 pin 3-4	--	--	0 **	8,0	0 **	100

supplementary information:

Sc=Short circuit, Oc=Open circuit

** unit shutdown immediately

Model: GT-83083-0505-USB-W2U

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

2.10.2	Table: working voltage measurement			P
Location	RMS voltage (V)	Peak voltage (V)	Comments	
T1 pin 1 to Pin 5	179,7	356		
T1 pin 2 to Pin 5	175,4	348		
T1 pin 3 to Pin 5	176,5	383		
T1 pin 4 to Pin 5	211,0	555		
T1 pin 1 to Pin 6	179,5	377		
T1 pin 2 to Pin 6	176,3	356		
T1 pin 3 to Pin 6	175,8	356		
T1 pin 4 to Pin 6	207,5	544		
supplementary information:				
Input voltage: 240 Vac. Test Condition was: rated load The following terminals were connected together: Minus of the output, Neutral. Test was performed at SIQ. Model: GT-83083-0505-USB-W2E				

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

2.10.3 and 2.10.4	TABLE: Clearance and creepage distance measurements	P

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)
GT-83083-WW05-USB						
Functional:						
Line trace to Neutral trace after fuse/fusible resistor F1	420	250	1,8	5,5	2,5	5,5
PCB trace under fuse/fusible resistor F1	420	250	1,8	2,7	2,5	2,7
L to primary circuit after fuse/fusible resistor F1	420	250	1,8	2,7	2,5	2,7
Basic/supplementary:						
Reinforced:						
L, N in replaceable plug to enclosure (EU)	420	250	4,6	5,2	5,0	5,2
L, N in replaceable plug to enclosure (US)	420	250	4,6	5,2	5,0	5,2
Primary components (C2) to accessible enclosure (EU, US)	420	250	4,6	5,1	5,0	5,1
Primary components (C3) to secondary components (C7)	420	250	4,6	5,5	5,0	5,5
PCB trace under primary components (C3) to secondary components (C7)	420	250	4,6	5,5	5,0	5,5
Primary components (T1 core) to secondary components (C7)	555	250	5,1	8,0	5,0	8,0
PCB trace under T1	555	250	5,1	5,2	5,0	5,2
T1: primary winding to secondary pin	555	250	5,1	6,6	5,0	6,6
T1: primary core to secondary pin	555	250	5,1	5,3	5,0	5,3
GT-83083-WW05-USB-W2Z						
Functional:						

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

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)
Line trace to Neutral trace after fuse/fusible resistor F1	420	250	1,8	5,5	2,5	5,5
PCB trace under fuse/fusible resistor F1	420	250	1,8	2,7	2,5	2,7
L to primary circuit after fuse/fusible resistor F1	420	250	1,8	2,7	2,5	2,7
Plug pin terminal to primary circuit on PCB (for UK plug)	420	250	1,8	10,0	2,5	10,0
Basic/supplementary:						
Primary wire to enclosure (for UK plug)	420	250	2,3	3,0	2,5	3,0
Reinforced:						
Primary components (C2) to accessible enclosure (EU, US)	420	250	4,6	5,2	5,0	5,2
Primary components (L1) to accessible enclosure (EU, US)	420	250	4,6	5,2	5,0	5,2
Primary components (T1 core) to accessible enclosure (EU, US)	555	250	5,1	5,2	5,0	5,2
Primary components (C3) to secondary components (C7)	420	250	4,6	5,5	5,0	5,5
PCB trace under primary components (C3) to secondary components (C7)	420	250	4,6	5,5	5,0	5,5
Primary components (T1 core) to secondary components (C7)	555	250	5,1	8,0	5,0	8,0
PCB trace under T1	555	250	5,1	5,2	5,0	5,2
T1: primary winding to secondary pin	555	250	5,1	6,6	5,0	6,6
T1: primary core to secondary pin	555	250	5,1	5,3	5,0	5,3

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

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:

1.There is one Mylar sheet between transformer and secondary components used as reinforced insuation (min. thichness:0.4mm).

2.The transformer core considered as primary circuit.

3.Concentric windings on EE13 size bobbin. At least 2 layer of insulation tape between primary (enamelled copper wire) and secondary windings (triple insulation wire), 2 layers on outer winding, outer winding is primary. Winding ends additionally fixed with tape, outer winding is primay. 2 layers insulation tape wrapped on transformer core.

4.Internal wire was double fixed by soldering and glue.

5.The equipment was evaluated for a maximum operating altitude of 3000 m. Therefore the requirements of IEC 606641 for clearances were considered and the required clearance was multiplied with an altitude correction factor of 1.14

6.Unless otherwise specified, the worst conditions of Cl. & Cr. in above mentioned locations have been considered and listed.

2.10.5	**TABLE: Distance through insulation measurements**	P

Distance through insulation (DTI) at/of:	U peak (V)	U rms (V)	Test voltage (V)	Required DTI (mm)	DTI (mm)
Enclosure	420	250	AC 3000	0,4	1)
Mylar sheet	420	250	AC 3000	0,4	1)

Supplementary information:

1). See appended table 1.5.1.

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

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

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

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

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

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

4.5	TABLE: Thermal requirements						P
	Supply voltage (V)	90V / 50Hz	90V / 50Hz	264V / 60Hz	264V / 60Hz		—
	Ambient T_{min} (°C)	50,0	50,0	50,0	50,0		—
	Ambient T_{max} (°C)	50,0	50,0	50,0	50,0		—
Maximum measured temperature T of part/at.....:		T (°C)					Allowed T_{max} (°C)
Plug holder		57,2	57,1	57,3	58,4		--
Line chock L1		106,5	107,7	82,8	86,3		130
E-capacitor C1		94,4	95,5	82,3	85,4		105
E-capacitor C2		94,3	94,5	83,1	85,3		105
PCB under BD1		89,7	90,8	80,0	82,9		130
PCB under Q2		107,5	106,9	108,0	109,9		130
T1 coil		97,1	94,7	95,2	94,5		110
T1 core		82,0	78,7	82,2	79,9		110
E-capacitor C6		101,4	101,2	100,8	102,2		105
PCB under D7		97,8	95,3	98,9	97,7		130
Enclosure inside near T1		84,6	81,1	82,8	80,7		105
Enclosure outside near T1		75,0	70,4	73,7	70,8		95
Orientation		Horizontal	Vertical	Horizontal	Vertical		

Supplementary information:

Winding components providing safety isolation:

- Class B: Tmax = 120°C-10°C = 110°C (10°C decreased by thermocouple method)

For the other components temperature limit, see appended table 1.5.1.

Model GT-83083-0505-USB

Temperature T of winding:	t_1 (°C)	R_1 (Ω)	t_2 (°C)	R_2 (Ω)	T (°C)	Allowed T_{max} (°C)	Insulation class

Supplementary information:

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

4.5	TABLE: Thermal requirements						P
	Supply voltage (V)	90V / 50Hz	90V / 50Hz	264V / 60Hz	264V / 60Hz		—
	Ambient T_{min} (°C)	50,0	50,0	50,0	50,0		—
	Ambient T_{max} (°C)	50,0	50,0	50,0	50,0		—
Maximum measured temperature T of part/at.....:		T (°C)					Allowed T_{max} (°C)
Plug holder		66,6	64,4	63,5	64,5		--
PCB under BD1		91,8	90,6	78,8	78,8		130
Line chock L1		118,6	119,5	116,9	86,6		130
E-capacitor C1		95,3	95,6	83,7	84,7		105
E-capacitor C2		100,3	100,0	89,4	89,8		105
PCB under Q2		107,4	105,2	106,6	105,6		130
T1 coil		107,4	105,7	105,8	105,0		110
T1 core		98,8	97,5	97,3	96,8		110
E-capacitor C6		85,6	82,8	85,1	82,7		105
PCB under D7		100,6	96,8	101,4	98,2		130
Output wire		77,6	77,8	78,0	77,1		80
Enclosure inside near T1		81,4	82,6	79,7	81,8		105
Enclosure outside near T1		75,7	78,2	73,7	77,1		95
Orientation		Horizontal	Vertical	Horizontal	Vertical		

Supplementary information:

Winding components providing safety isolation:

- Class B: Tmax = 120°C-10°C = 110°C (10°C decreased by thermocouple method)

For the other components temperature limit, see appended table 1.5.1.

Model GT-83083-0505

Revision No. 1

Temperature T of winding:	t_1 (°C)	R_1 (Ω)	t_2 (°C)	R_2 (Ω)	T (°C)	Allowed T_{max} (°C)	Insulation class

Supplementary information:

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

4.5.5	TABLE: Ball pressure test of thermoplastic parts		P
	Allowed impression diameter (mm) .....:	≤ 2 mm	—

Part	Test temperature (°C)	Impression diameter (mm)
Plug holder	125	0,9

Supplementary information:

Approved materials used. See appended table 1.5.1

4.7	TABLE: Resistance to fire				P
Part	Manufacturer of material	Type of material	Thickness (mm)	Flammability class	Evidence

Supplementary information:

Approved materials used. See appended table 1.5.1

5.1	TABLE: touch current measurement		P
Measured between:	Measured (mA)	Limit (mA)	Comments/conditions
L to output connector	0,01	0,25	System ON
N to output connector	0,01	0,25	System ON
L to enclosure with metal foil	0,01	0,25	System ON
N to enclosure with metal foil	0,01	0,25	System ON
supplementary information:			
Model GT-83083-0505-USB-W2U			

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

5.2	TABLE: Electric strength tests, impulse tests and voltage surge tests			P
Test voltage applied between:		Voltage shape (AC, DC, impulse, surge)	Test voltage (V)	Breakdown Yes / No
Functional:				
Different polarity of power supply (current fuse/fusible resistor disconnection)		AC	1500	No
Basic/supplementary:				
Reinforced:				
Primary to secondary **		AC	3000	No
Primary to accessible enclosure (wrapped with aluminum foil) **		AC	3000	No
Transformer: Primary winding to secondary winding		AC	3000	No
Transformer: Core to secondary winding		AC	3000	No
One layer insulation tape		AC	3000	No
Mylar sheet		AC	3000	No
Supplementary information: Core of transformer T1 is considered as primary circuit. ** Test was performed at SIQ. (Revision No. 1)				

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

5.3	TABLE: Fault condition tests		P
	Ambient temperature (°C) .....:	25°C (if not specified)	—
	Power source for EUT: Manufacturer, model/type, output rating .....:	--	—

Com-ponent No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
BD1	s-c	264	1s	F1	--	*F1 opened immediately, no hazards.
C1	s-c	264	1s	F1	--	*F1 opened immediately. No hazards.
Q1 G-S	s-c	264	30min	F1	0,04	Unit shutdown immediately, recoverable, no hazards.
Q1 G-D	s-c	264	30min	F1	--	*F1 opened immediately, Q1 damaged. No hazards.
Q1 D-S	s-c	264	30min	F1	--	*F1 opened immediately, Q1 damaged. No hazards.
T1 pin1-4	s-c	264	30min	F1	0,04	Unit shutdown immediately, recoverable, no hazards.
T1 pin2-3	s-c	264	30min	F1	0,04	Unit shutdown immediately, recoverable, no hazards.
T1 pin 5-6	s-c	264	30min	F1	0,04	Unit shutdown immediately, recoverable, no hazards.
R12	s-c	264	30min	F1	0,05	Normal working
D7	s-c	264	30min	F1	0,04	Unit shutdown immediately, recoverable, no hazards.
C6	s-c	264	30min	F1	0,04	Unit shutdown immediately, recoverable, no hazards.
Output	s-c	264	30min	F1	0,05	Unit shutdown immediately, recoverable, no hazards.
Output	o-l	264	7h25min	F1	0,01	Output current overload to 1,2A; unit shutdown immediately at 1,3A T1 coil:105,3°C, T1 core: 88,5°C, Ambient:50,0°C, no hazard

Supplementary information:

1) In fault column, where s-c=short-circuited, o-l= over-loaded, o-c= open-circuited.
2) All types of current fuse/fusible resistor in table 1.5.1 are considered.
3) *For fusible resistor, 10 times repeat and get the same result.

Model GT-83083-0505-USB

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

C.2	TABLE: transformers						P
Loc.	Tested insulation	Working voltage peak / V (2.10.2)	Working voltage rms / V (2.10.2)	Required electric strength (5.2)	Required clearance / mm (2.10.3)	Required creepage distance / mm (2.10.4)	Required distance thr. insul. (2.10.5)
Primary winding to secondary winding	RI	555	250	3000Vac	5,1	5,1	0,4
Core to secondary winding	RI	555	250	3000Vac	5,1	5,1	0,4
Loc.	Tested insulation			Test voltage/ V	Measured clearance / mm	Measured creepage dist./ mm	Measured distance thr. insul. / mm; number of layers
Primary winding to secondary winding (internal)	RI			3000Vac	10,0	10,0	TIW used
Core to secondary winding (internal)	RI			3000Vac	10,0	10,0	TIW used
Primary winding to secondary winding (external)	RI			3000Vac	6,6	6,6	TIW used
Core to secondary winding (external)	RI			3000Vac	5,3	5,3	TIW used
supplementary information:							

C.2	TABLE: transformers	P
See enclosure No. 3 for transformer specifications.		

Enclosure No. 1

National differences to IEC60950-1:2005/Am 1/Am 2

(9 pages including this cover page)

IEC 60950-1/Am1			
Clause	Difference – Test	Result – Remark	Verdict
ISRAEL-Differences to IEC 60950-1:2005 (2011-03-02)			
ISRAEL STANDARD SI 60950 PART 1 **INFORMATION TECHNOLOGY EQUIPMENT - SAFETY: GENERAL REQUIREMENTS** **TRANSLATION OF ISRAEL NATIONAL DEVIATIONS ONLY**			
1.	**Scope (with national deviations)**		—
1.1.1	**Equipment covered by this Standard** This Standard is applicable to mains-powered or battery-powered information technology equipment, including electrical business equipment and associated equipment, with a rated voltage not exceeding 600 V. This Standard is also applicable to the information technology equipment mentioned below: - equipment designed for use as telecommunication terminal equipment and telecommunication network infrastructure equipment, independent of the source of power; - equipment designed and intended to be connected directly to, or used as infrastructure equipment in, a cable distribution system, independent of the source of power; - equipment designed to use the general a.c. mains supply as a communication transmission medium (see clause 6, Note 4 and subclause 7.1, Note 4). This Standard is also applicable to components and subassemblies intended for incorporation in information technology equipment. It is not expected that such components and subassemblies comply with every aspect of the Standard, provided that the complete information technology equipment, incorporating such components and subassemblies, does comply. **Note** 1: Examples of aspects with which uninstalled components and subassemblies may not comply include the marking of the power rating and access to hazardous parts. **Note** 2: This Standard may be applied to the electronic parts of equipment even if that equipment does not wholly fall within its Scope, such as large-scale air conditioning systems, fire detection systems and fire extinguishing systems. Different requirements may be necessary for some applications. This Standard specifies requirements intended to reduce risks of fire ignition, electric shock or bodily injury for the operator and layman who may come into contact with the equipment and, where specifically stated, for a service person. This Standard is intended to reduce such risks with respect to installed equipment, whether it consists of a system or interconnected units or independent units, subject to installing, operating and maintaining the equipment in the manner prescribed by the manufacturer. Examples of equipment that is in the scope of this Standard are the following:		—

IEC 60950-1/Am1			
Clause	Difference – Test	Result – Remark	Verdict
			—

Generic product type	Specific examples of generic type
Banking equipment	Monetary processing machines (counting, dispensing, etc.) for bills and coins, including automated teller machines (ATM)
Data and text processing machines and associated equipment	Data preparation equipment, data processing equipment, data storage equipment, personal computers, plotters, printers, scanners, text processing equipment and visual display units
Data network equipment	Bridges, data circuit terminating equipment, data terminal equipment and routers
Electrical and electronic retail equipment	Cash registers, point of sale terminals including associated electronic scales
Electrical and electronic office machines	Calculators, copying machines(A), dictation equipment, document shredding machines, duplicators, erasers, micrographic office equipment, motor-operated files, paper trimmers (punchers, cutting machines, separators), paper jogging machines, pencil sharpeners, staplers and typewriters
Other information technology equipment	Photoprinting equipment, public information terminals and multimedia equipment
Postage equipment	Mail processing machines and postage machines
Telecommunication network infrastructure equipment	Billing equipment, multiplexers, network powering equipment, network terminating equipment, radio base stations, repeaters, transmission equipment and telecommunication switching equipment
Telecommunication terminal equipment	Facsimile equipment, key telephone systems, modems, PABXs(B), pagers, telephone answering machines and telephone sets (wired and wireless)

(A) Commonly known as "copiers".
(B) PABX - Private Automatic Branch Exchange.

Note 3:

The requirements of Israel Standard SI 60065(C) may also be used to meet safety requirements for multimedia equipment. See IEC Guide 112, Guide on the safety of multimedia equipment.

The list of equipment (brought in the above table) is not intended to be comprehensive and exhaustive, and equipment that is not listed is not necessarily excluded from the Scope, Equipment complying with the relevant requirements in this Standard is considered suitable for use with process control equipment, automatic test equipment and similar systems requiring information processing facilities. However, this Standard does not include requirements for performance or functional characteristics of equipment.

(C) In preparation

IEC 60950-1/Am1			
Clause	Difference – Test	Result – Remark	Verdict
1.1.2	**Additional requirements** Requirements additional to those specified in this Standard may be necessary for: - equipment intended for operation in special environments (for example, extremes of temperature; very high concentration of dust, moisture or vibration; flammable gases; and corrosive or explosive atmospheres); - electromedical applications with physical connections to the patient; - equipment intended to be used in vehicles, on board ships or aircraft, in tropical countries, or at altitudes greater than 2,000 m. - equipment intended for use where ingress of water may be possible. For guidance on such requirements and on relevant testing, see Annex T. **Note:** Attention is drawn to the fact that government authorities of some countries impose additional requirements.		N/A
1.1.3	**Exclusions** This Standard does not apply to: - power supply systems which are not an integral part of the equipment, such as motor-generator sets, battery backup systems and transformers; - building installation wiring; - devices requiring no electric power.		—
National deviations to the clauses of the International Standard			
1.6	**Power interface** The clause is applicable with the following addition:		N/A
1.6.1	**AC Power distribution systems** A note shall be added to the clause as follows: **Note:** In Israel, this clause is applicable subject to the Electricity Law, 1954, its regulations and revisions.		N/A
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:		N/A
1.7.201	**Marking in the Hebrew language** The marking in the Hebrew language shall be in	Must be verified during national approval.	N/A

IEC 60950-1/Am1			
Clause	Difference – Test	Result – Remark	Verdict
	accordance with the Consumer Protection Order (Marking of goods), 1983. In addition to the marking required by clause 1.7.1, the following details shall be marked in the Hebrew language. 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.		
1.7.2	**Safety instructions and marking**		N/A
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. - At the end of clause 1, clause 1.201 shall be added as follows:		N/A
1.201	**Power Consumption in standby mode** The equipment shall comply with the requirements of the Energy Sources Regulations (Maximum electrical power in standby mode for domestic and office electrical appliances), 2011, with a permitted deviation of up to 10%	To be checked during national approval.	N/A
2.	**Protection from hazards** The clause is applicable with the following additions:		N/A
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 - Network system earthing; TN-C-S -		N/A

IEC 60950-1/Am1			
Clause	Difference – Test	Result – Remark	Verdict
	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 ma = IΔ); **7.** Reinforced insulation; Double insulation (class II) ⧈ . Clause 2.201 shall be added at the end of the clause, as follows:		
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 prevention of electromagnetic interference, these components shall not reduce the safety level of the apparatus as required by this Standard.		N/A
3.	**Wiring, connections and supply** The clause is applicable with the following additions:		N/A
3.2	**Connection to a mains supply**		N/A
3.2.1	**Means of connection**		N/A
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 SI 32 Part 1.1.		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.		—

IEC 60950-1/Am1				
Clause	Difference – Test		Result – Remark	Verdict
Annex P	**ANNEX P** **(normative) 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 specified in this annex of the Standard, as follows:			N/A
	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 Israel Standard, excluding national deviations in it, is identical to the Standard of the International Electrotechnical Commission, IEC 65:1985, including its amendments	
	IEC 60083	SI 32 Part 1.1 [(a)] – Plugs and socket-outlets for household and similar purposes: Plugs and socket-outlets for single phase up to 16A – General requirements national modifications and	The Israeli Standard, excluding national modifications and additions noted, is identical to the International Standard, IEC 60884-1 – Third edition:2002-06	
	IEC 60227 (all parts)	SI 473, all parts - Cables, cords and insulated conductors for nominal voltage up to 1000 volt	The Israeli Standard, excluding national modifications and additions noted, is identical to the I Standard series, IEC 60227 (all parts)	
	IEC 60245 (all parts)	SI 60245 Part 1 – Rubber insulated cables – Rated voltages up to and including 450/750 V	The Israeli Standard series, excluding national modifications and additions noted, is identical to the Standard series, IEC 60245 (all parts)	
	IEC 60309 (all parts)	SI 1109, all parts - Plugs, socket-outlets and couplers for industrial purposes	SI 1109, part 1 and part 2, excluding national deviations in them, are identical to the Standards of the International Electrotechnical Commission IEC 60309-1-1999 and IEC 60309-2-1999, respectively.	
	IEC 60317 (all parts)	SI 1067 Part 1 – Enamelled 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 IEC 317-4 (1980)	
		SI 1067 Part 3 – Enamelled round copper wires with a temperature index of 180°C	The Israel Standard is identical to the Standard of the International Electrotechnical Commission IEC 317-8 (1980)	
	IEC 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, IEC	

IEC 60950-1/Am1				
Clause	Difference – Test		Result – Remark	Verdict
			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, IEC 60320-2.1 (2000)	
		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, IEC 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 IPX0	The Israel Standard, excluding national deviations in it, is identical to the Standard of the International Electrotechnical Commission, IEC 60320-2.3 (1998)	
	IEC 60364-1:2001	Electricity Law, 1954, with its Regulations and updates	-	
	IEC 60730-1: 1999 Amendment 1 (2003)	SI 60730 Part 1 - 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 Edition 3.2:2007-03.	
	IEC 60825-1	SI 60825 Part 1 - 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 2nd Edition:2007-03	
	IEC 60947-1; 2004	SI 60947 Part 1 -Low-voltage switchgear and controlgear: General rules	The Israel Standard, excluding national modifications and additions noted, is identical to Standard of the International Electrotechnical Commission, IEC 60947-1Edition 5.0:2007-06.	
	IEC 61058-1: 2000	SI 61058 Part 1 - Switches for appliances: General requirements	The Israel Standard, excluding national modifications and additions noted, is identical to the Standard of the International Electrotechnical Commission, IEC 61058-1 Edition 3.1:2001:	
	ISO 3864 (all parts)	SI 3864 Part 1 -Graphical symbols	The Israel Standard, excluding national modifications and additions noted, is identical to the Standard of the International Electrotechnical Commission IEC 3864-1 (First Edition:2002-05-15	
	Notes:			

IEC 60950-1/Am1			
Clause	Difference – Test	Result – Remark	Verdict
	(a) The standard is being revised (b) In the International Standard series, there are parts not yet adopted as Israeli Standards. This table notes the relevant Israeli Standards, and in the Comments column, the corresponding parts of the International Standard series. (c) Not relevant to the translation.		N/A
The following shall be added to the annex: Israeli Standards SI 961 (all parts) – Electromagnetic compatibility Israeli Laws, Regulations and documents Electricity Law, 1954, with its Regulations and updates Consumer Protection Order (Marking of goods), 1983, Kovetz HaTakanot 4465 dated 1983-02-24 Energy Sources Regulations (Maximum electrical power in standby mode for domestic and office electrical appliances), 2011			N/A

Enclosure No. 1a

European Group Differences and National Differences according to EN 60950-1:2006 +A1:2010 +A2:2013 + A11:2009 + A12:2011

(21 pages including this cover page)

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

Information technology equipment – Safety –

Part 1: General requirements

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

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

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

IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
Clause	Requirement + Test	Result - Remark	Verdict
General (A2:2013)	Delete all the "country" notes in the reference document (IEC 60950-1:2005/A2:2013) according to the following list: 2.7.1 Note * 2.10.3.1 Note 2 6.2.2. Note * Note of secretary: Text of Common Modification remains unchanged.		P
1.1.1 (A1:2010)	**Replace** the text of NOTE 3 by the following. NOTE 3 The requirements of EN 60065 may also be used to meet safety requirements for multimedia equipment. See IEC Guide 112, Guide on the safety of multimedia equipment. For television sets EN 60065 applies.		N/A
1.3.Z1	Add the following subclause: 1.3.Z1 Exposure to excessive sound pressure The apparatus shall be so designed and constructed as to present no danger when used for its intended purpose, either in normal operating conditions or under fault conditions, particularly providing protection against exposure to excessive sound pressures from headphones or earphones. NOTE Z1 A new method of measurement is described in EN 50332-1, Sound system equipment: Headphones and earphones associated with portable audio equipment - Maximum sound pressure level measurement methodology and limit considerations - Part 1: General method for "one package equipment", and in EN 50332-2, Sound system equipment: Headphones and earphones associated with portable audio equipment - Maximum sound pressure level measurement methodology and limit considerations - Part 2: Guidelines to associate sets with headphones coming from different manufacturers.	No headphones or earphones provided.	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		N/A
1.5.1 (Added info*)	Add the following NOTE: NOTE Z1 The use of certain substances in electrical and electronic equipment is restricted within the EU: see Directive 2002/95/EC. New Directive 2011/65/11 *		N/A
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.		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.		N/A
	Zx Protection against excessive sound pressure from personal music players		N/A

IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
Clause	Requirement + Test	Result - Remark	Verdict
	Zx.1 General This sub-clause specifies requirements for protection against excessive sound pressure from personal music players that are closely coupled to the ear. It also specifies requirements for earphones and headphones intended for use with personal music players. A personal music player is a portable equipment for personal use, that: – is designed to allow the user to listen to recorded or broadcast sound or video; and – primarily uses headphones or earphones that can be worn in or on or around the ears; and – allows the user to walk around while in use. NOTE 1 Examples are hand-held or body-worn portable CD players, MP3 audio players, mobile phones with MP3 type features, PDA's or similar equipment. A personal music player and earphones or headphones intended to be used with personal music players shall comply with the requirements of this sub-clause. The requirements in this sub-clause are valid for music or video mode only. The requirements do not apply: – while the personal music player is connected to an external amplifier; or – while the headphones or earphones are not used. NOTE 2 An external amplifier is an amplifier which is not part of the personal music player or the listening device, but which is intended to play the music as a standalone music player. The requirements do not apply to: – hearing aid equipment and professional equipment; NOTE 3 Professional equipment is equipment sold through special sales channels. All products sold through normal electronics stores are considered not to be professional equipment.	Switch mode power supply. No provisions for playing music provided.	N/A
	– 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

IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
Clause	Requirement + Test	Result - Remark	Verdict
	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

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

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

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

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;	Unit provides appropriate internal protection.	P
	c) it is permitted for PLUGGABLE EQUIPMENT TYPE B or PERMANENTLY CONNECTED EQUIPMENT, to rely on dedicated overcurrent and short-circuit protection in the building installation, provided that the means of protection, e.g. fuses or circuit breakers, is fully specified in the installation instructions. If reliance is placed on protection in the building installation, the installation instructions shall so state, except that for PLUGGABLE EQUIPMENT TYPE A the building installation shall be regarded as providing protection in accordance with the rating of the wall socket outlet.		N/A
2.7.2	This subclause has been declared ‘void’.		N/A
3.2.3	Delete the NOTE in Table 3A, and delete also in this table the conduit sizes in parentheses.		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.		N/A
3.2.5.1 (A2:2013)	NOTE Z1 The harmonised code designations corresponding to the IEC cord types are given in Annex ZD	Considered.	P

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		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).	EUT does not produce 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.	EUT does not produce 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 (A11:2009)	In **Norway** and **Sweden**, for requirements see 1.7.2.1 and 7.3 of this annex.	Equipment not intended for connection to cable distribution systems	N/A

ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
Clause	Requirement + Test	Result - Remark	Verdict
1.5.7.1 (A11:2009)	In **Finland, Norway** and **Sweden**, resistors bridging BASIC INSULATION in CLASS I PLUGGABLE EQUIPMENT TYPE A must comply with the requirements in 1.5.7.1. In addition when a single resistor is used, the resistor must withstand the resistor test in 1.5.7.2.	No resistors bridging basic insulation.	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

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”	Class II equipment.	N/A
1.7.2.1 (A11:2009)	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).”		

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
1.7.2.1 (A2:2013)	In **Denmark**, CLASS I PLUGGABLE EQUIPMENT TYPE A intended for connection to other equipment or a network shall, if safety relies on connection to protective earth or if surge suppressors are connected between the network terminals and accessible parts, have a marking stating that the equipment must be connected to an earthed mains socket-outlet. The marking text in **Denmark** shall be as follows: In **Denmark**: “Apparatets stikprop skal tilsluttes en stikkontakt med jord, som giver forbindelse til stikproppens jord.”		N/A
1.7.5 1.7.5 (A11:2009)	In **Denmark**, socket-outlets for providing power to other equipment shall be in accordance with the Heavy Current Regulations, Section 107-2-D1, Standard Sheet DK 1-3a, DK 1-5a or DK 1-7a, when used on Class I equipment. For STATIONARY EQUIPMENT the socket-outlet shall be in accordance with Standard Sheet DK 1-1b or DK 1-5a. For **CLASS II EQUIPMENT** the socket outlet shall be in accordance with Standard Sheet DKA 1-4a.	No socket outlet provided.	N/A

ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.5 (A2:2013)	In **Denmark**, socket-outlets for providing power to other equipment shall be in accordance with the DS 60884-2-D1:2011. For class I equipment the following Standard Sheets are applicable: DK 1-3a, DK 1-1c, DK 1-1d, DK 1-5a or DK 1-7a, with the exception for STATIONARY EQUIPMENT where the socket-outlets shall be in accordance with Standard Sheet DK 1-1b, DK 1-1c, DK 1-1d or DK 1-5a. Socket outlets intended for providing power to Class II apparatus with a rated current of 2,5 A shall be in accordance with DS 60884-2-D1 standard sheet DKA 1-4a. Other current rating socket outlets shall be in compliance with by DS 60884-2-D1 Standard Sheet DKA 1-3a or DKA 1-3b. Justification the Heavy Current Regulations, 6c	No socket outlet provided.	N/A
2.2.4	In **Norway**, for requirements see 1.7.2.1, 6.1.2.1 and 6.1.2.2 of this annex.		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.		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 without earthing.	N/A
2.7.1	In the **United Kingdom**, to protect against excessive currents and short-circuits in the PRIMARY CIRCUIT of DIRECT PLUG-IN EQUIPMENT, tests according to 5.3 shall be conducted, using an external protective device rated 30 A or 32 A. If these tests fail, suitable protective devices shall be included as integral parts of the DIRECT PLUG-IN EQUIPMENT, so that the requirements of 5.3 are met.	Unit provides appropriate internal protection.	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		N/A

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

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

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

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.	No such equipment.	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.	Equipment not intended for connection to telecommunication networks.	N/A

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.		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.	Equipment not intended for connection to cable distribution systems	N/A
7.3 (A11:2009)	In **Norway** and **Sweden**, for requirements see 1.2.13.14 and 1.7.2.1 of this annex.		N/A

Annex ZD
(informative)

IEC and CENELEC code designations for flexible cords

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

Clause	Requirement	Verdict
Denmark national differences (2013-07-04) **National standard: DS/EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013**		
1.2.4.1	In **Denmark**, certain types of Class I appliances (see 3.2.1.1) may be provided with a plug not establishing earthing conditions when inserted into Danish socket-outlets.	N/A
1.7.5	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.	N/A
3.2.1.1	In **Denmark**, supply cords of single-phase equipment having a rated current not exceeding13 A shall be provided with a plug according to the Heavy Current Regulations, Section 107-2-D1. CLASS I EQUIPMENT provided with socket-outlets with earth contacts or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules shall be provided with a plug in accordance with standard sheet DK 2-1a or DK 2-5a. If poly-phase equipment and single-phase equipment having a RATED CURRENT exceeding 13 A is provided with a supply cord with a plug, this plug shall be in accordance with the Heavy Current Regulations, Section 107-2-D1 or EN 60309-2.	N/A

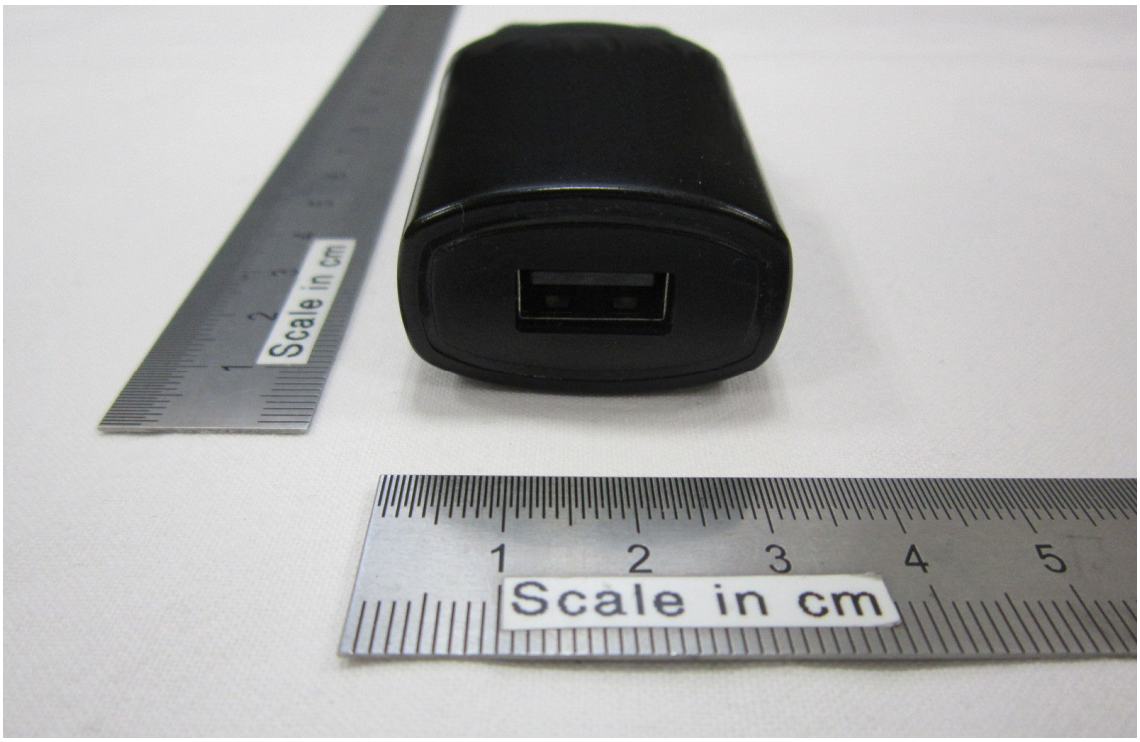
Clause	Requirement	Verdict
Sweden national differences (2013-06-25) **National standard: SS-EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011**		
Various	Please see the EN version of the standard where the Swedish National and Special National Deviations are stated.	P

Enclosure No. 2

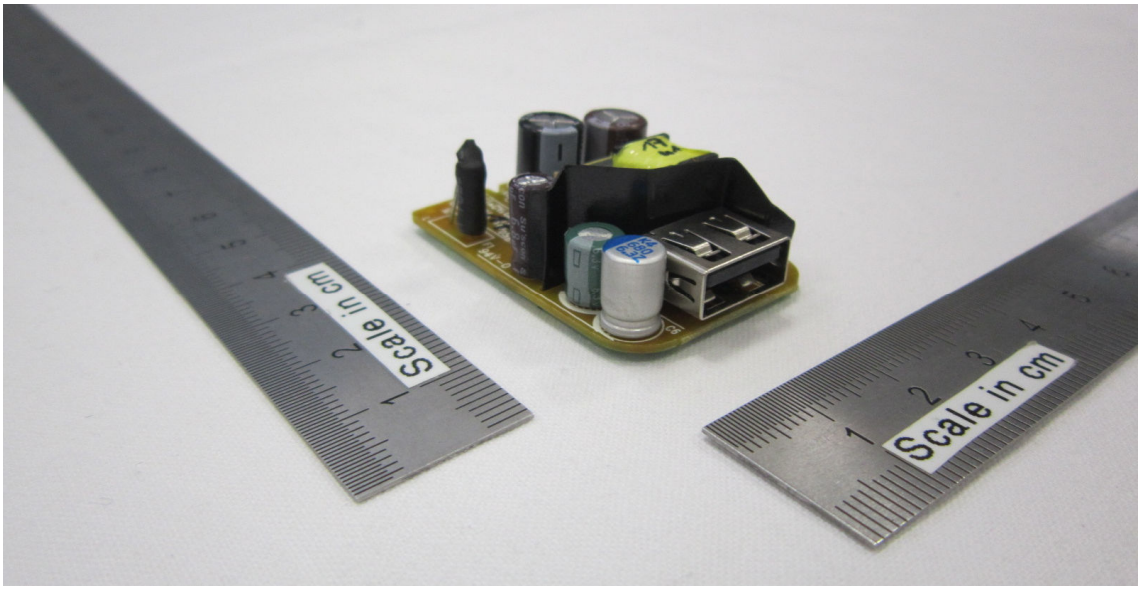
Pictures of the unit

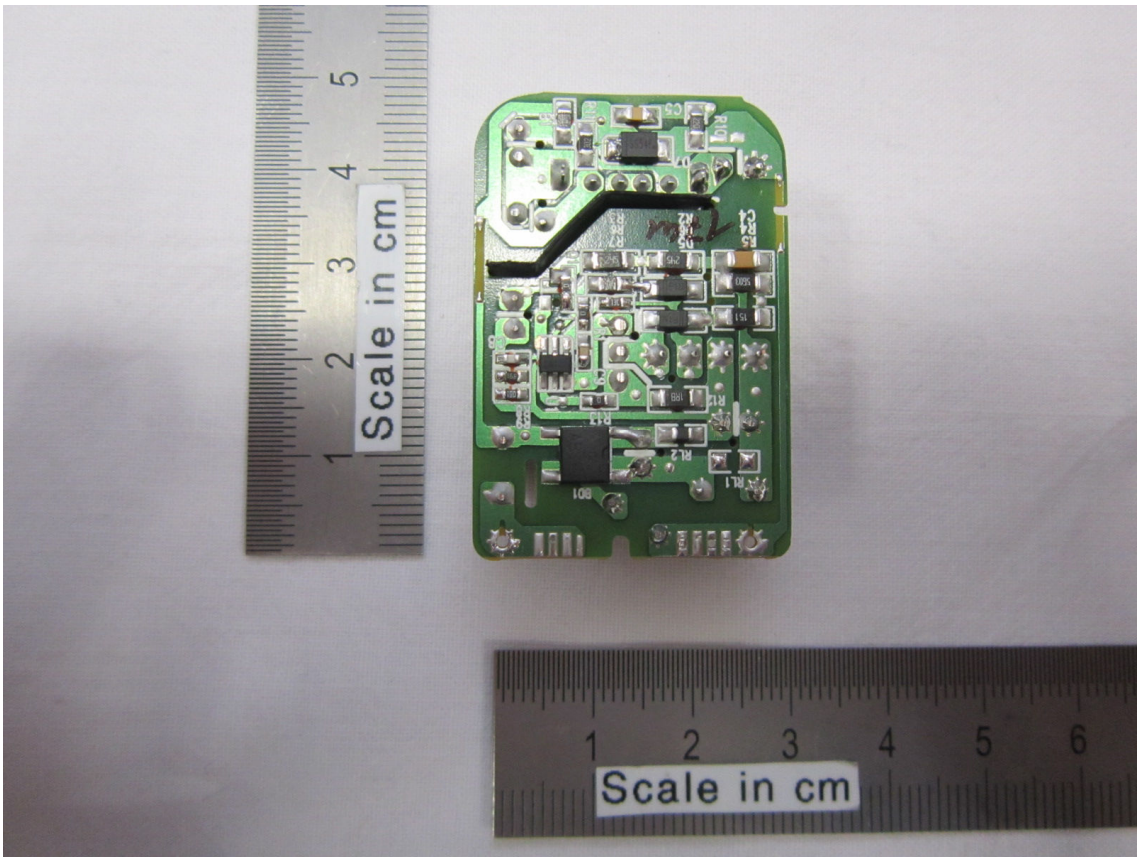
(7 pages including this cover page)

GT-83083-WW05-USB-W2Z

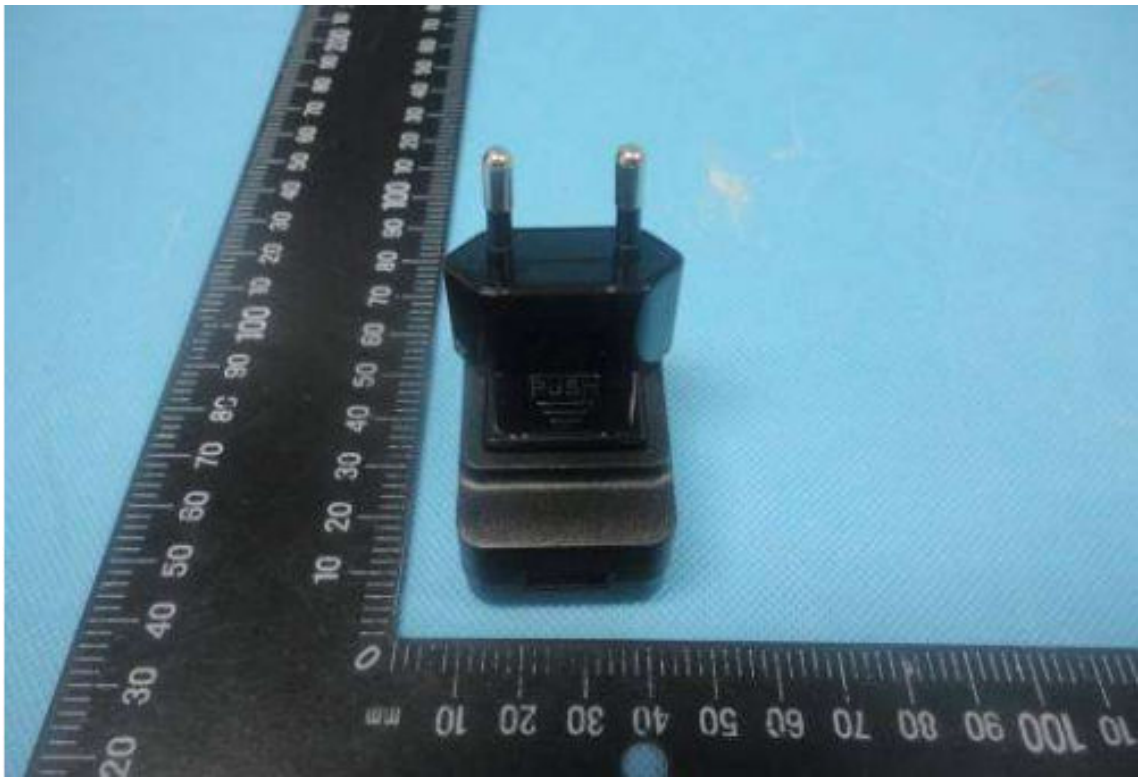


GT-83083-WW05-USB-W2Z





GT-83083-WW05-USB



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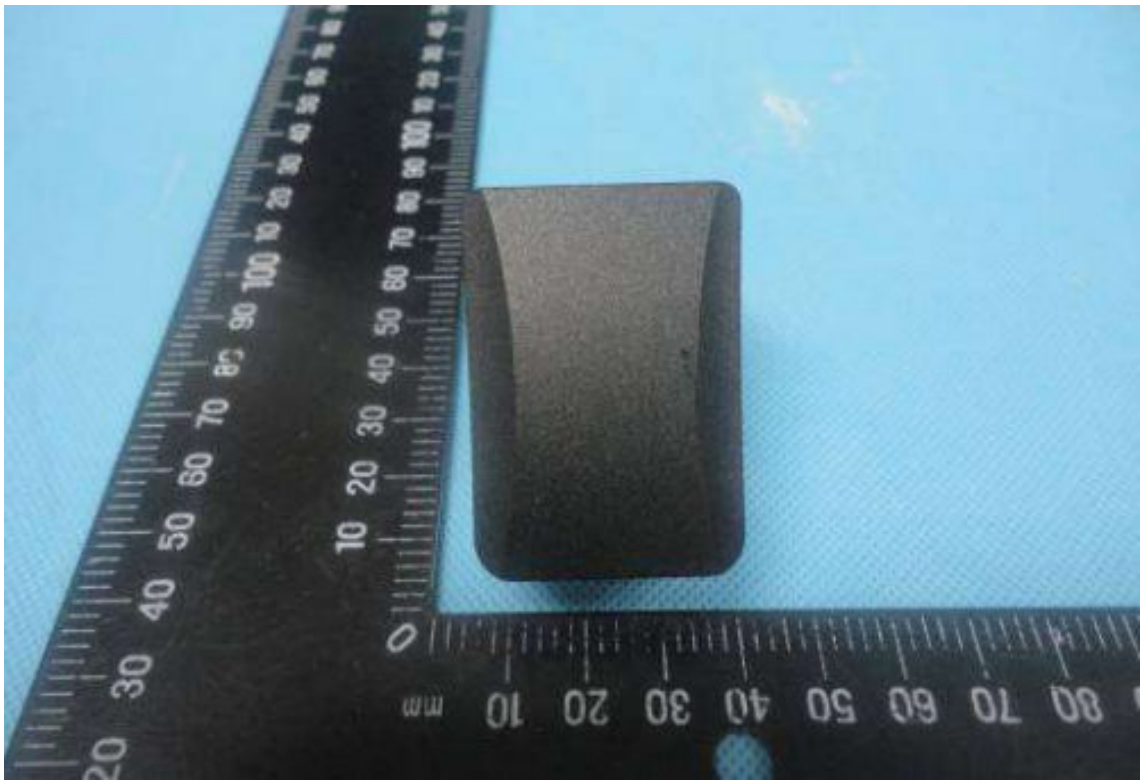

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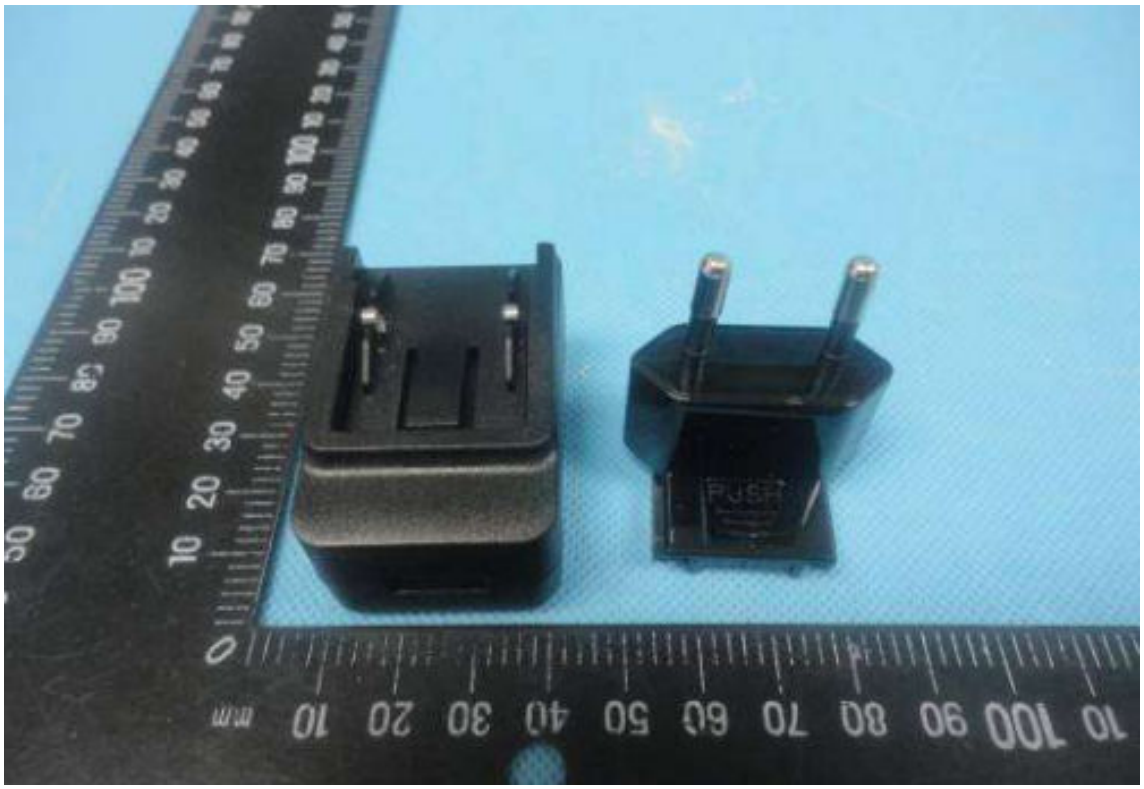

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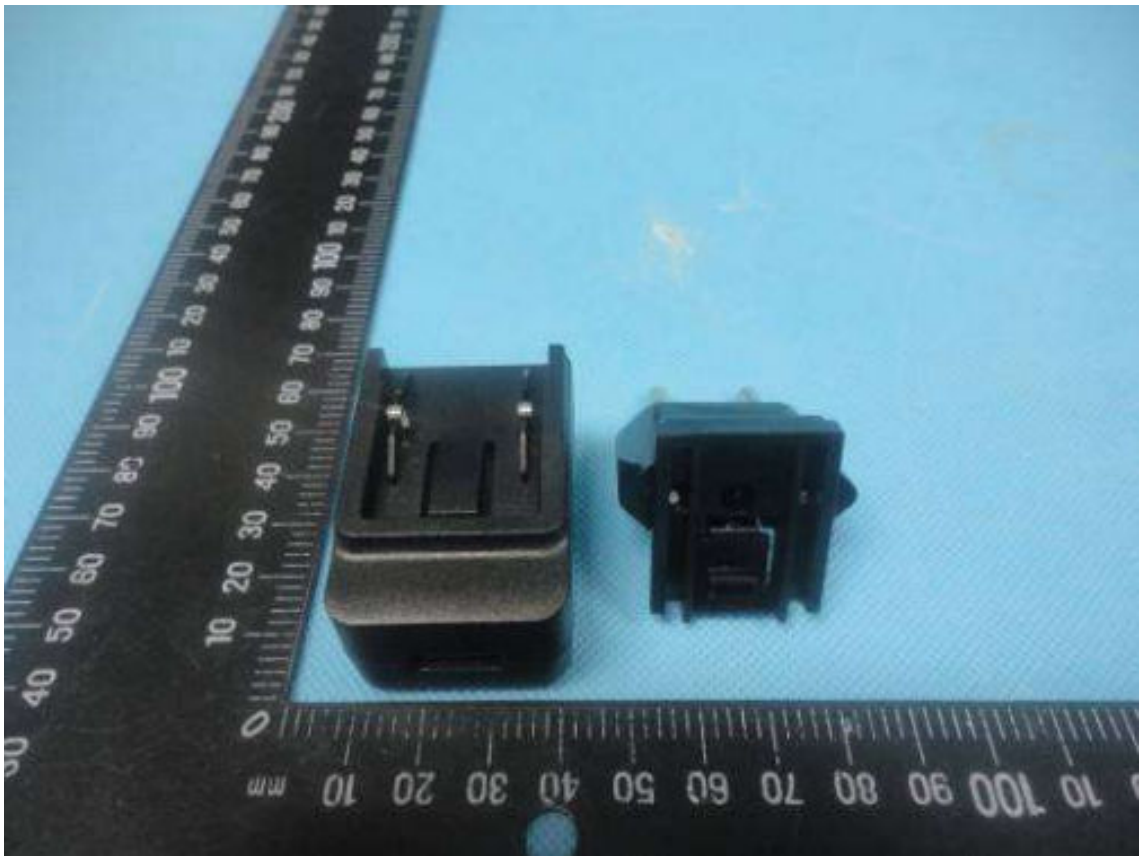
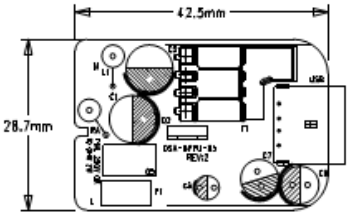


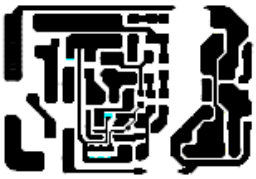
GT-83083-0505; Revision No. 1

Enclosure No. 3

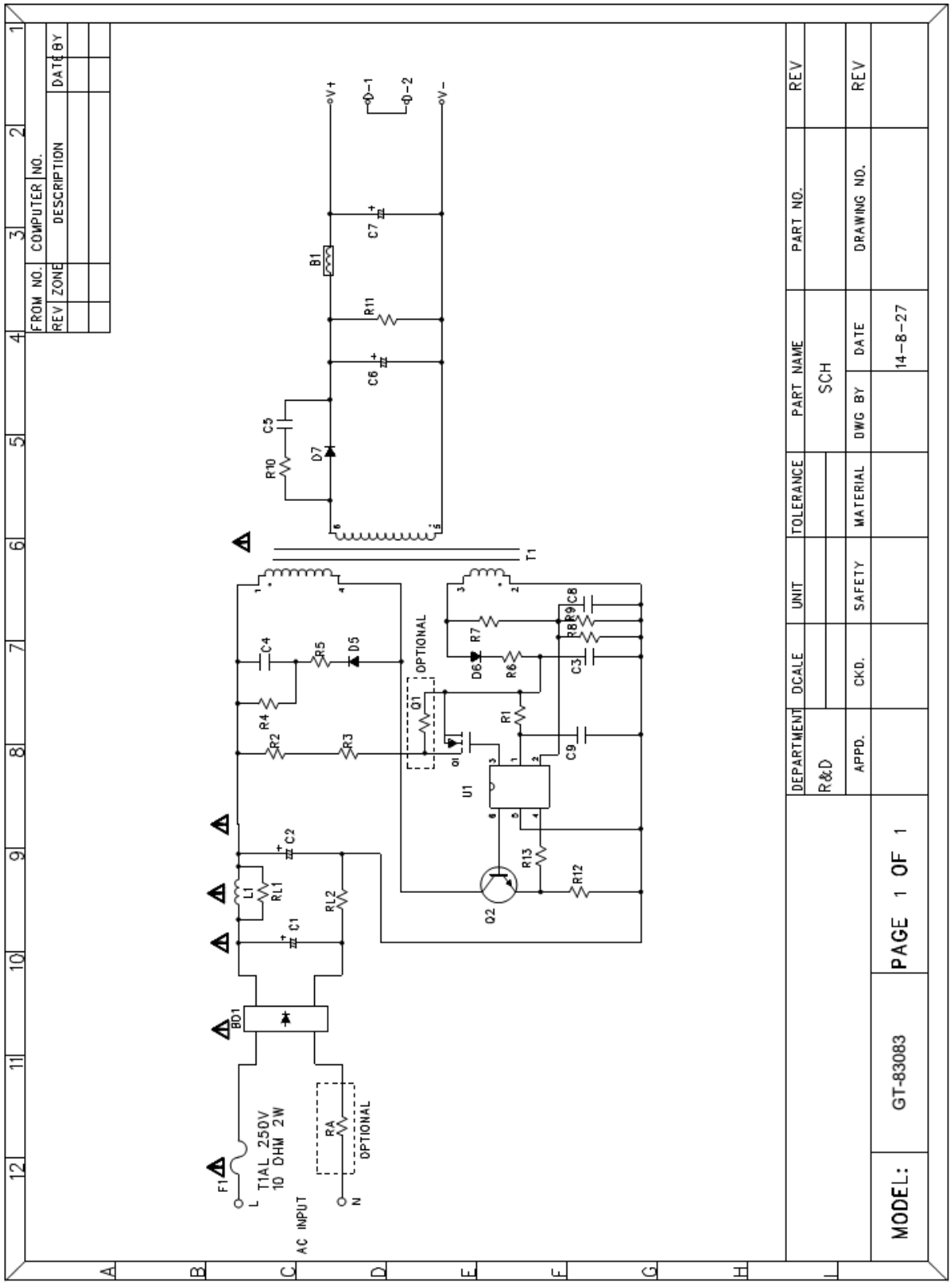
Schematics, layouts and transformer drawings

(7 pages including this cover page)





DSA-5PFU-05 REV2 05 IW1 - Mon Mar 30 11:27:59 2015

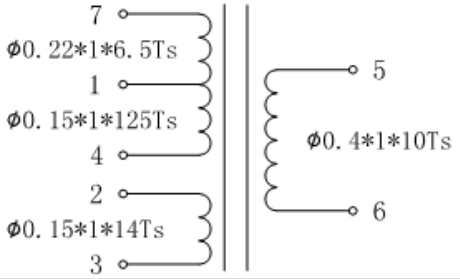


GlobTek,Inc.			REV.		DESCRIPTION	DATE	
MODEL	GT-83083-0505-USB-W2Z	PAGE 1 OF 2					

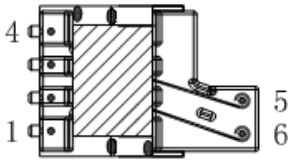
1.绕线顺序图

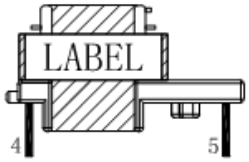
PIN6, PIN5	Φ0.4*1*10Ts	MYLAR TAPE
PIN1, PIN7	Φ0.22*1*6.5Ts	MYLAR TAPE
PIN2, PIN3	Φ0.15*1*14Ts	MYLAR TAPE
PIN4, PIN1	Φ0.15*1*41Ts Φ0.15*1*42Ts Φ0.15*1*42Ts	MYLAR TAPE
	EE13	

2. 原理图



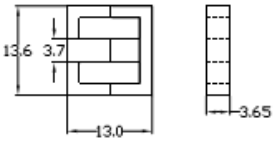
3. 三视图

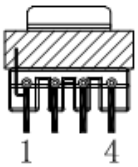




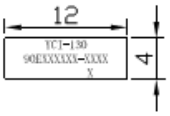
*所有材质均须符合无卤要求

CORE:EE13.6/13





4.LABEL图



"XXX" to denote the part number, can be any alphanumeric character for marketing purposes only.

The transformer can not appear the phenomenon of crossing between the primary winding and secondary winding.

5. 感值

INDUCTANCE: AT 50KHz 1V

L(PIN4-PIN1): 0.8mH Min

CHECKED LIST	绕线顺序	生产工艺	原理图	三视图	LABEL	电性	材料清表	PART NAME	PART NO.
								TRANSFORMER	90E5PFU05-XXXX
APPROVED					SAFETY	UNIT	CHECKED	DWG BY	DRAWING NO.
						mm			

A B C D E F G H I J

GlobTek,Inc.	REV.		DESCRIPTION	DATE	BY
MODEL GT-83083-0505-USB-W2Z					

6. 材料清表

ITEM	DESCRIPTION	MATERIAL YCI-130	SUPPLIER	UL No.
1	Core	FERRITE EE13.6/13		
2	Bobbin	CP-J-8800	Hitachi	E42956
		PM-9820	Sumitomo Bakelite	E41429
3	Magnet Wire	UEW	Golden Ocean	E225143
		UEW	Wa Tai Dayang	E243939 E176101
		UEW	Chang Cheng Goldstar	E237312
		UEW	Evertop	E225543
4	Triple Wire	STW-B	YongChang	E242198
5	Maylar Tape	1350F-1 1350F-2	3M	E17385
		35660 35661	Symbio	E50292
6	Tube (Optional)	TFS(300V) TFT(600V)	Great Holding	E156256
		TFE-TW-300/SW-600	Zeus	E64007

*:欧规用料只须符合安规要求即可.

NOTE:ALL MATERIAL MAY BE CHANGED TO EQUIVALENT MATERIAL. 須報備安規及客戶認可為前提.

CHECKED LIST	绕线顺序	生产工艺	原理图	三视图	LABEL	电性	材料清表	PART NAME	PART NO.
								TRANSFORMER	90E5PFU05-XXXX
APPROVED				SAFETY	UNIT	CHECKED	DWG BY	DRAWING NO.	
					mm				

A B C D E F G H I J

Enclosure No. 4

Plug portion test for model GT-83083-0505-USB-W2Z and GT-83083-0505-USB

(20 pages including this cover page)

EN 50075 (partial)			
Clause	Requirement - Test	Result - Remark	Verdict

European plug portion test for model
(for the type plug pin mould into enclosure directly):

6	**Marking**		**P**
	Appliances shall be marked as follows:	Incorporated with adaptor.	P
	- the rated current in amperes		P
	- the rated voltage in volts		P
	- the symbol for nature of supply ~		P
	- either the name, trade mark or identification mark of the manufacturer or of the responsible vendor		P
	-the type reference, which may be a catalouge number		P

7	**Dimensions**			**P**
	Plugs shall comply with Standard Sheet 1.			P
	Between two pins (pin base)	18,0-19,2 mm	18,4 mm	P
	Between two pins (pin top)	17.0 – 18.0 mm	17,37 mm	P
	Diameter of pin (metallic part)	4+/-0,06 mm	3,96 mm	P
	Diameter of oin (pin base)	Max. 4,0 mm	3,97 mm	P
	Diameter of pin (middle part)	Max 3,8 mm	3,60 mm	P
	Pin length	19 +/- 0,5 mm	19,20 mm	P
	Length of pin except metal part	10 +1,0 mm	10,68 mm	P
	Shape of pin top		Round shape mm	P
	Length of plug base	35,3 +/-0,7 mm	35,43 mm	P
	Width of plug base	13,7 +/-0,7 mm	14,04 mm	P
	Diagonal diameter of plug base within a distance of 18 mm	<26,1 +/- 0,5 mm <26,1 +/- 0,5 mm	26,36 mm 26,36 mm	P

8	**Protection against electric shock**		**P**
8.1	Live parts of the plug not accessible (standard test finger)	Incorporated with adaptor	P
8.2	No connection between one plug-pin and socket outlet		P
8.3	External parts of insulating material		P

9	**Construction**		**P**
9.1	Plugs are not replaceable	Incorporated with adaptor.	P

EN 50075 (partial)			
Clause	Requirement - Test	Result - Remark	Verdict
9.2	Switches, fuses or lampholders not incorporated in plugs.		P
9.3	Solid pins	See clause 13	P
	Adequate mechanical strength		P
9.4	Pins locked against rotation	See clause 13.1 & 13.4	P
	Adequate fixed into the body		P
9.5	Kind of connection.		P
9.6	Easily to be withdrawn from socket-outlet	Incorporated with adaptor	P

10	**Resistance to humidity**		**P**
	-Humidity treatment for 48 hours	Tested with adaptor.	P

11	**Insulation resistance and electric strength**		**P**
11.1	Insulation resistance (500V, min 5MΩ)	200MΩ	P
11.2	Electric strength (2000V)	See table 11.2	P

13	**Mechanical strength**		**P**
13.1	Pressed with 150N for 5 min		P
13.2	Tumbling barrel acc Tumbling barrel test: number of falls:	Weight: 0,041kg 1000 times falls was conducted according to DIN VDE 0620-2-1:2013, item 24.2. Three samples tested. After the test, it was fulfilled the requirements of DIN VDE 0620-101:1992 item 7 figure 2 "gauge for interchangeability" and no damage.	P
	No damages after the test		P
	Requirements of clause 7 and 8.2 still fulfilled		N/A
13.3	Rubbing test of plug-pins: 10000 cycles, 4N		P
	No damage of the pins		P
13.4	Pull test at 70°C with 40N		P
	Pins not more than 1 mm displaced	Displacement: 0,2 mm	P

14	**Resistance to heat and to ageing**		**P**
14.1	Sufficient resistant to heat	Incorporated with adaptor.	P

EN 50075 (partial)			
Clause	Requirement - Test	Result - Remark	Verdict
14.1.1	After 1 h in heating cabinet at 100°C no damage shown.	Tested with adaptor.	P
14.1.2	After 1 h in heating cabinet at 80°C and a force of 20N through the jaws no damage shown.		P
14.2	Aging test:		P
	-at 70°C for 168h		P
	-at room temperature for 96h		P
	No traces of cloth at a force of 5N		P
	No damage leads to non-compliance		P

15	**Current-carrying parts and connections resistance to heat and to aging**		**P**
15.1	Connections withstand the mechanical stresses occurring in normal use		P
15.2	Contact pressure not through isolating material		P
15.3	Current carrying parts of copper		P
	No electroplated coating when part is subjected to mechanical wear		P
	Other metals having a mechanical strength, an electrical conductivity and a resistance to corrosion		N/A

16	**Creepage distances, clearances and distances trough insulation**		**P**
	Live parts of different polarity: 3mm	14,2 mm	P
	Through insulation between live parts and accessible surfaces: 1,5mm	5,4 mm	P

17	**Resistance of insulating material to abnormal heat and to fire**		**P**
	Insulating material not unduly affected by abnormal heat and by fire	(See appended table)	P

EN 50075 (partial)			
Clause	Requirement - Test	Result - Remark	Verdict

11.1	TABLE: Insulation resistance		P
Measured between		Resistance (MΩ)	Verdict
Pins connected together and the body (≥5MΩ)		1000 MΩ	P
Each pins in turn and the other, the latter being connected to the body (≥5MΩ)		1000 MΩ	P
Comment:			

11.2	TABLE: Electric strength		P
Applied between		Voltage	Verdict
Pins connected together and the body		2000 Vac	P
Each pins in turn and the other, the latter being connected to the body		2000 Vac	P
Comment:			

17	TABLE: Resistance of insulating material to abnormal heat and to fire		P
Part tested		Temperature [°C]	Verdict
Parts that retain current-carrying parts in position:		750	P
Other parts:		650	P
Comment:			

AS/NZS 3112:2011+A1+A2 (Partial)			
Clause	Requirement – Test	Result – Remark	Verdict

J	APPENDIX J: EQUIPMENT WITH INTEGRAL PINS FOR INSERTION INTO SOCKET – OUTLETS	P

J1	Scope		P
	This Appendix applies to only the plug portion of equipment with integral pins and shall be read in conjunction with section 2 contained in the body of this standard. Where the term 'plug' is used in section 2 it shall be taken to mean the plug portion of equipment with integral pins.	Plug portion with integrated pins	P

J2	REQUIREMENTS FOR THE PLUG PORTION		P
J2.1	Plug portion		P
J2.2	Requirements	See below.	P
J2.2.1	General		P
J2.2.2	Plug pins of plug portions		P
	Material for pins	Copper alloy containing 62% copper Min.	P
	Assembly of pins		P
	Form of pin		P
	Insulation of plug pin		P
J2.2.3	Ratings and dimensions for low voltage plug portions	Dimension comply with 10A 250V two-pin plug.	P
	General		P
	Compliance with dimensional requirements of Figure 2.1	See attached dimension table.	P
J2.2.4	Internal connections for plug portions		N/A
J2.2.5	Arrangement of earthing connections for plug portions		N/A
J2.2.6	Configuration of plug portions		P
J2.2.7.1	General		P
J2.2.7.2	High voltage test (3112.2.13.3)		P
	The plug shall withstand without failure an a. c. voltage of the value indicated in Table 2.3, applied between the parts set our in Items (a) and (c) of Clause 2.13.2 for 1 min in each case.		P
	The plug shall further withstand, without failure, a voltage of 3500 V a. c. applied between the parts set out in Items (b) and (d) of Clause 2.13.2 for 1 min in each case		P

AS/NZS 3112:2011+A1+A2 (Partial)			
Clause	Requirement – Test	Result – Remark	Verdict
	The insulation of insulated pin plugs shall withstand a voltage of 1 250V a. c. for 1 min applied in accordance with Clause 2.13.2(e).		P
J2.2.7.3.1	Tumbling barrel test (3112.2.13.7.1)		P
	The tumbling barrel test is applied to determine the mechanical strength of the plug pins.		P
	Three samples which have not been subjected to any previous test are tested to the requirements of Clause 2.13.7.1 however, the test is modified for plug portions of equipment with integral pins as follows:		P
	A sample of equipment with integral pins is dropped –		P
	a) 500 times if the mass of the specimen does not exceed 250 g. The pins being straightened after 100 drops and at the completion of the test to pass through the appropriate gauge of Figure A1, B1 or F1; and	Weight: 41g. 500 times.	P
	b) 250 times if the mass of the specimen exceeds 250 g. The pins being straightened after 25 drops and at the completion of the test to pass through the appropriate gauge of Figure A1, B1 or F1		N/A
J2.2.7.3.2	Pin bending test		P
	The pins of the plug portion of three samples not subjected to any previous tests shall be tested for compliance with the pin bending test of clause 2.13.7.2.		P
	All flat-pins of plugs rated up to and including 15 A shall be subjected to a pin bending test.		P

AS/NZS 3112:2011+A1+A2 (Partial)			
Clause	Requirement – Test	Result – Remark	Verdict
	Three sample plugs not subjected to any previous tests shall be tested as follows: Pins of assembled plugs shall be tested by clamping the plug in a rigid holding block and applying a bending force, as shown in Figure 2.8, to the pin under test. The pins shall be straight at the beginning of the test. If there is any doubt about the straightness of the pin, it shall be checked by the appropriate plug gauge shown in Appendices A, B or F. The point of application of the force shall be 14±0.5 mm from the face of the plug. The direction of the force shall be along a line parallel to the face of the plug. Active and neutral pins shall be forced towards the centroid of the plug and then back to the starting point. On the first sample plug, any earth pin shall be forced but in one direction only and then back to the starting point. On the second sample plug, any earth pin shall be forced in the opposite direction to that used for testing the first sample plug. On the third sample plug, any earth pin shall be forced in the direction that gave the least favourable result during testing of the first two sample plugs. NOTE: This is intended to simulate damage that may occur when a plug is walked on and bent pins are straightened. The distance moved from the point of application shall be 7.5+/-0.3 mm, and then the pin shall be forced back to the starting point. Any ’spring-back' is ignored NOTE: ’Spring-back' means that the pin is allowed to move back to a position less than the travel distance, when the force is removed. The travel from the starting point, to the end point (7,5 mm), and back to the starting point is one cycle (i.e. one cycle is two separate movements). The speed of deflections shall be a maximum of 50 mm/s, without intentional delay between consecutive movements within each cycle.		P
	The pin shall not be broken off. NOTE: Cracking of the pin, less than full thickness, is not deemed to be broken off. If in doubt pins shall be disassembled from the plug and any insulation removed, NOTE: In some cases the break may be below the face of the plug or the insulation may hold the broken pieces together, retaining electrical contact.		P

AS/NZS 3112:2011+A1+A2 (Partial)			
Clause	Requirement – Test	Result – Remark	Verdict
J2.2.7.4	Temperature rise test (3112.2.13.8)	The test current have been specified and tested with the integral adaptor.	P
	2.13.8 Temperature rise test		P
	Plugs shall be so constructed that they comply with the following temperature rise test: Non-rewireable plugs are tested as delivered (specially prepared sample with access to terminals for temperature measurement). Rewireable plugs are fitted with polyvinyl chloride flexible cords with conductors having the minimum cross-sectional area specified in the manufacturers instructions.		P
	The terminal screws or nuts are tightened with a torque equal to two-thirds of that specified in test No.5. To ensure normal cooling of the terminals, the conductors connected to plugs should have a length of at least 1 m.	No screws or nuts used.	N/A
	The plug shall be tested in a draught-free environment at the centre of a plane wooden board, which shall be at least 6 + 2 mm thick, 500 mm wide and 500 mm long with the rear completely enclosed in a wooden mounting enclosure (wall box) of 90 × 60 × 40 mm. Apertures in the wooden board for the plug pins to pass through are specified in Table 3.1, see figure 2.9.		P
	Plugs are tested as follows: The appropriate clamping units with the dimensions specified in Figure 2.10 are fitted on each live pin of the plug, together with the thermocouple. The screw is then placed approximately in the middle of the bare part of the pin and tightened with a torque of 0.8 Nm. The clamping unit is fitted with PVC-insulated conductors at least 1 m long, having nominal cross-sectional areas as shown in Table 3.3. Where the conductors pass through the wooden mounting enclosure (wall box) there shall be a complete airtight seal between the conductors and the enclosure.		P
	An alternating current of 1.1 times the rated current of the plug is then passed through each live pin/claming unit for 1 h.		P
	For plugs with three poles or more, the current during the test shall be passed through the phase contacts, where applicable. In addition, separate tests shall be made passing the current through the neutral contact, if any, and the adjacent phase contact.		P

AS/NZS 3112:2011+A1+A2 (Partial)			
Clause	Requirement – Test	Result – Remark	Verdict
	The temperature rise of the terminals shall not exceed 45 K.		P
J2.2.7.5	Securement of pins (3112.2.13.9)		P
	Movement of pins (2.13.9.1)		P
	Plugs shall be tested for pin movement by clamping the pin or pins not under test in a rigid holding block positioned 5 ±0.5 mm from the plug face and pplying a force of 18±1 N to the pin under test. The design of the block shall be such that the pin under test shall not come into contact with the block during the test.		P
	Except for non-rewireable plugs, the test shall be carried out without a cord attached to the plug, and with the terminal screws loosened sufficiently to allow a 1mm^2 conductor to be connected.		N/A
	The plug and test equipment shall be preconditioned at a temperature of 40±1ºC for 1 h, without the test orce applied. Throughout the test, all parts of the plug and test equipment shall be maintained at this temperature.		P
	For all plugs, the point of application of the force of the plug along the pins, and the direction of the force shall be- a) in both directions along the line perpendicular to the plane of the pin, and passing through the centre of the pin; and b) in that plane in both directions along a line at right angles to that specified in Item(a).		P
	Over a period of 10 s, the force shall be gradually applied to each of the pins in the manner prescribed in Items (a) and (b), maintained at its maximum value for 10 s, and then released. The deflection of the pins shall be measured along the line of force relative to the face of the rigid holding block during the period when the force is applied. The maximum deflection shall not exceed 2.0 mm		P
	Following the test on all pins of a plug conforming to Figure 2.1, any distortion 5 min after the completion of the test on the last pin shall be such that it will not prevent the plug from being inserted in the appropriate standard gauges shown in Appendix A, Appendix B and Appendix F without the application of undue force.		P

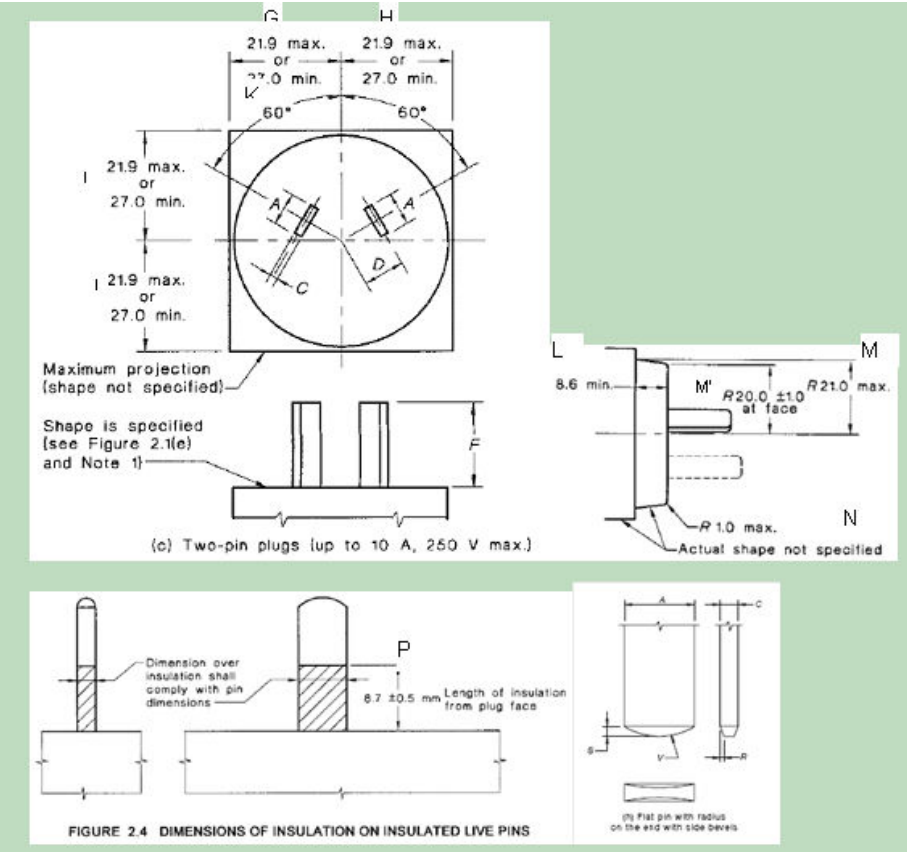
	Direction of force	Deflection
L pin	Upward	1,0 mm
	Downward	1,5 mm
	Leftward	1,0 mm
	Rightward	1,0 mm
N pin	Upward	1,0 mm
	Downward	1,5 mm
	Leftward	1,0 mm
	Rightward	1,0 mm

AS/NZS 3112:2011+A1+A2 (Partial)			
Clause	Requirement – Test	Result – Remark	Verdict
	For other types of plugs, any distortion after 5 min shall be such as will not prevent the plug being inserted into an appropriate socket-outlet without the application of undue force.		N/A
	Fixing of pins (2.13.9.2)		P
	A separate sample of a plug shall be heated to a temperature of 50±20ºC for 1 h and maintained at that temperature during the whole of tests, including the 5 min period after removal of the test load.		P
	The plug shall be held firmly in such a manner that there will be no undue squeezing or distortion of the body, and the means of holding shall not assist in maintaining the pins in their original position,		P
	Each pin, in turn, shall have applied to it a force which, over a period of 10 s, shall be increased steadily to 60+0.6N and held at this value for 10 min.		P
	Two tests on each pin shall be conducted, one with the direction of force along the length of the pin towards the body of the plug, and the other with the direction of force along the length o f the pin away from the body.		P
	The attachment of pins shall be considered inadequate if any pin is displaced relative to the adjacent material of the body by more than 2.4 mm at any time during these tests, or if any pin fails to return to within 0.8 mm of its nominal length specified in Figure 2.1 within 5 min of the removal of the test force,	<table><tr><td></td><td>Direction of force</td><td>Deflection</td></tr><tr><td rowspan="2">L pin</td><td>Toward body</td><td>0,8 mm</td></tr><tr><td>Away from body</td><td>0,3 mm</td></tr><tr><td rowspan="2">N pin</td><td>Toward body</td><td>0,8 mm</td></tr><tr><td>Away from body</td><td>0,3 mm</td></tr></table>	P
J2.2.7.6	Additional tests for plugs with insulated pins (3112.2.13.13)		P
	2.13.13 Additional tests on the insulation material of insulated pin plugs		P
	2.13.13.1 General		P
	The material of the pin-insulation shall be resistant to the stresses to which it may be subjected at the high temperature likely to occur in conditions approaching the bad connection conditions and at low emperatures in particular conditions of service.		P
	Compliance shall be checked by the tests of Clause 2.13.13.2 to 2.13.13.6		P
	(a) Pressure test at high temperature (2.13.13.2)		P

AS/NZS 3112:2011+A1+A2 (Partial)			
Clause	Requirement – Test	Result – Remark	Verdict
	A specimen of one insulated pin only shall be subjected to the following test by means of the apparatus shown in Figure 2.5. This apparatus shall have a blade having a round shape with a diameter of 6 mm and a thickness of 0.7 mm.		P
	The specimen shall be placed in position as shown in the Figure 2.5 and a force of 2.5 N shall be applied through the blade to specimen.		P
	The apparatus, with the specimen in position, shall be maintained for 2 h in a heating cabinet at a temperature of 160+5ºC. The specimen shall then be removed from the apparatus and within 10 s, cooled by immersion in cold water.		P
	The thickness of the insulation shall be measured immediately at the point of impression.		P
	The thickness within the area of the impression shall be not less than 50% of the thickness measured before the test.	Sample 1: Thickness before test: 0,41 mm Thickness after test: 0,35 mm Length of insulation after test: 8,79 mm Sample 2: Thickness before test: 0,41 mm Thickness after test: 0,35 mm Length of insulation after test: 8,79 mm	P
	Visual inspection shall be made and no cracks on the insulation material shall be visible with normal, or corrected to normal, vision without additional magnification, and the dimension of the insulating material shall not have changed below the minimum size shown in Figure 2.4.		P
	(b) Static damp heat test (2.13.13.3)		P
	An insulated pin plug shall be subjected to two damp heat cycles in accordance with AS 60068-2-30. Db (12+12 h cycle), 95% relative humidity, lower temperature 25+3ºC and upper temperature 40ºC		P
	After this treatment and after recovery to room temperature, the specimen shall be subjected to- a. the insulation resistance test in accordance with clause 2.13.2(e); b. high voltage test in accordance with Clause 2.13.3 and; c. abrasion test in accordance with Clause 2.13.13.6. NOTE: At the manufacturer's option, the same sample may be used for this test and the low temperature test (see Clause 2.13.13.4) and a single abrasion test may be done.		P
	(c) Low temperature test (2.13.13.4)		P

AS/NZS 3112:2011+A1+A2 (Partial)			
Clause	Requirement – Test	Result – Remark	Verdict
	An insulated pin plug shall be maintained at – 15+2ºC for at least 24 h and returned to room temperature.		P
	The specimen shall be subjected to – a. the insulation resistance test in accordance with Clause 2.13.2(e); b. high voltage test in accordance with Clause 2.13.3 and; c. abrasion test in accordance with Clause 2.13.13.6. NOTE: At the manufacturer's option, the same sample may be used for this test and the static damp heat test (see Clause 2.13.13.3) and a single abrasion test may be done.		P
	(d) Impact test at low temperature (2.13.13.5)		P
	A specimen of one insulated pin only shall be subjected to an impact test by means of the apparatus shown in Figure 2.6. The mass of the falling weight shall be 100+1 g.		P
	The apparatus, on a sponge rubber pad 40 mm thick, together with the specimen, shall be maintained at –15+2ºC for at least 24 h.		P
	At the end of this period, the specimen shall be placed in position, as shown in Figure 2.6, and the falling weight shall be allowed to fall from a height of 100mm. Four impacts shall be applied successively to the same specimen, rotating it through 90º between impacts.		P
	After the test the specimen shall be allowed to return to room temperature and then examined, No cracks of the insulating material shall be visible with normal, or corrected to normal, vision without additional magnification. NOTE: The cooling period of 24 h includes the time necessary to cool down the apparatus.		P
	(e) Abrasion test (2.13.13.6)		P
	An insulated pin of an insulated pin plug shall be subjected to the following test by means of an apparatus as shown in Figure 2.7.		P
	The test apparatus comprises a horizontally disposed beam, which shall be pivoted about its centre point. A short length of steel wire, 1 mm in diameter and bent into a U-shape, the base of the U being straight, shall be rigidly attached, at both ends, to one end of the beam, so that the straight part projects below the beam and shall be parallel to the axis of the beam pivot.		P

AS/NZS 3112:2011+A1+A2 (Partial)			
Clause	Requirement – Test	Result – Remark	Verdict
	The plug shall be held in a suitable clamp in such a position that the straight part of the steel wire rests on the major axis face of the plug pin, at right angles to it. The pin shall slope downwards at an angle of 10ºto the horizontal.		P
	The beam shall be loaded so that the wire exerts a force of 4 N on the pin.		P
	The plug shall be moved backwards and forwards in orizontal direction in the plane of the axis of the beam, so th at the wire rubs along the pin. The length of the pin thus abraded shall be approximately 9 mm, of which approximately 7 mm shall be over the insulation.		P
	The number of movement s shall be 20 000 (10 000 in each direction) and the rate of operation shall be 30 movements per min.		P
	After the test, the pins shall show no damage which may affect safety or impair the further use of the plug, in particular, the insulating sleeve shall not have punctured or rucked up.		P
J2.2.7.7	Equipment with integral pins intended to be supported by the contacts of a socket-outlet	Torque: 0,02 Nm	P
J2.3	Detachable plug portions Where a plug portion is detachable, compliance shall be established by assessment with the plug portion fully assembled with the equipment. Access to live parts shall be assessed for incorrect assembly of the plug portion. It shall not be possible to assemble the plug portion to the equipment resulting in a dangerous situation allowing access to live parts. The plug portion shall not expose live parts prior to assembly.		P



Symbol	Requirement (mm)	Measured (mm)		Symbol	Requirment (mm)	Measured (mm)
A	6,2 – 6,5	6,41		L	< 8,6	10,08
C	1,58 – 1,78	1,75		M	R 21,0 max.	20,26
D	7,92	7,92		M’	R 19,0 – 21,0	20,02
F	16,66-17,46	16,93		N	1,0 max	0,88
G	< 21,9 or > 27,0	19,80		P	8,2 – 9,2	8,79
H	< 21,9 or > 27,0	19,80		S	0,90±0,10	0,95
I	< 21,9 or > 27,0	19,80		V	6,0	6,0
J	< 21,9 or > 27,0	27,5		R	0,35±0,05	0,34
K	60 °	60				
The distance between a live pin of any plug and the edge of the moulding of the plug					Min. 9	10,78

JIS C 8303 (Partial)			
Clause	Requirement – Test	Result – Remark	Verdict

APPENDIX II	JIS C 8303: 2007 – Plugs and Receptacles for domestic and similar general use (Type inspection)	P

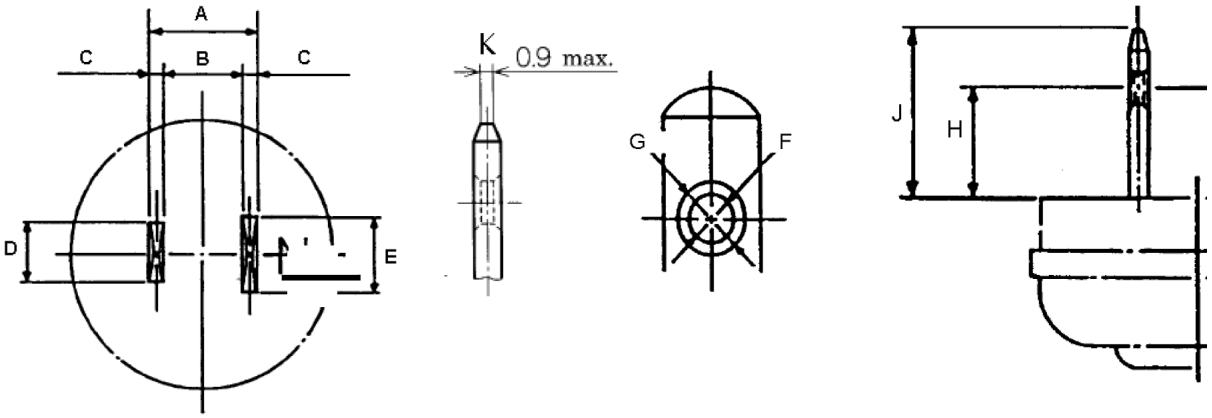
5	Performance		
5.1	Retaining force	For socket only and movable blade plug only	N/A
5.2	Temperature Rise	Considered end product.	N/A
5.3	Contact resistance	Not required for plug and socket without earth pole	N/A
5.4	Make and Break	For socket only and movable blade plug only	N/A
5.5	Insulation resistance	L to N pin: >100MΩ L/N to plug enclosure: >100MΩ	P
5.6	Dielectric withstand voltage	1250V, 10mA, 1 min. required	P
5.7	Resistance to heat	No resin moldings or rubber moldings	N/A
5.8	Strength of screw terminal and lead-wire joint		N/A
5.9	Strength of blade fixing part	Tested according to 7.10(3)	P
5.10	Rotating property of movable plug type		N/A
5.11	Strength of enclosure	Tested according to 7.11	P
5.12	Strength of Cord anchorage		N/A
5.13	Strength of Cord outlet		N/A
5.14	Performance of screwless terminals		N/A
5.15	Endurance to ammonia gas	Applied for socket-outlets only	N/A
5.16	Tensile load		N/A
5.17	Waterproof		N/A
5.18	Flame retardance	No supply wire connected	N/A
5.19	Moisture resistance		P

6	Construction, dimensions and material		P
6.1	Construction in general		P
6.2	Terminals	AC plug pins were moulded into enclosure directly	N/A
6.3	Insulation	Enclosure material: min. V-1.	P
6.4	Materials of conductive metal parts		P
6.5	Material of non-conductive metal parts	No such part	N/A

JIS C 8303 (Partial)			
Clause	Requirement – Test	Result – Remark	Verdict
6.6	Shapes and dimensions of blades and blade receiving holes	See measured dimension	P
6.7	Dimensions of mounting parts of recessed socket-outlets		N/A
6.8	Dimensions of cable entry		N/A
6.9	Insulation distance		P
6.10	Symbol of poles	No earth pole or a pole of earth side.	N/A
6.11	Locking type, slip-check connectors		N/A
6.12	Waterproof connectors		N/A
7	Testing methods		P
7.1	Construction test	Considered.	P
7.2	Retaining force test	According to the dimension of plug potions, complied.	P
7.3	Temperature rise test		N/A
7.4	Contact resistance test		N/A
7.5	Make and break test		N/A
7.6	Insulation resistance test	Considered according to JIS C 8306:1996. see cl. 5.5	P
7.7	Dielectric withstand voltage test	Considered according to JIS C 8306:1996. see cl. 5.6	P
7.8	Heat resistance test		P
7.9	Strength test of screw terminal and lead-wire joint		P
7.10	Strength of blade fixing part	For mold on plug pins on thermoplastic material, (2) and (3) considered.	P
	(2): pull test from blade holes, 100N downward for 2 mins		P
	(3): Molded-on connectors		P
	(b) Specimen keep in temperature 20±2°C for 1 hr. in figure 2. blade move right and left 15°for 30 times, 10 times per minute.		N/A
	(c) Blade fixed as figure 3 move right and left 30°for 5 times.		N/A
7.11	Enclosure Strength tests		P
	(a) Enclosure compressing test	600N applied on the wider side of specimen between 5mm thick, hardness Ho 60 rubber sheet on top of 15mm or more thick hardwood board for 1 minute.	P

JIS C 8303 (Partial)			
Clause	Requirement – Test	Result – Remark	Verdict
	(b) Pendulum free fall test	Considered according to JIS C 8306:1996. see cl. 13.5.3(1)	P
	c) Single body free fall test	Considered according to JIS C 8306:1996. see cl. 13.5.3(2)	P
7.12	Strength test of Cord anchorage		P
7.13	Strength test of Cord outlet		P
7.14	Tensile strength test of screwless terminals		N/A
7.15	Bending test for screwless terminal		N/A
7.6	Cyclic heating test for screwless terminal		N/A
7.17	Withstand overcurrent test for screwless terminal		N/A
7.18	Ammonia gas durability test		N/A
7.19	Rotating test of movable plug-blade type		N/A
7.20	Tensile load test		N/A
7.21	Waterproof test		N/A
7.22	Flame retardance test		N/A
8	Inspection		P
8.1	Type inspection	Testing method clause 7 considered. See clause 5,6 and 10 requirement.	P
10	Marking	Plug portion is an integral part on appliance enclosure, refer to appliance ratings.	P

Measured dimensions of the plug portion (per JIS C 8303: 2007)				P
Location	Measured dimensions (mm)			Limits of dimensions (mm)
	Sample 1	Sample 2	Sample 3	
A	14,30	14,30	14,30	Under 14,6
B	11,42	11,41	11,41	Over 10,8
C	1,44	1,44	1,44	1,5 +/- 0,1
D	6,24	6,24	6,24	6,3 +/- 0,3
E	6,24	6,24	6,24	8 +/- 0,1 1)
F	3,16	3,17	3,17	Ø 3 +0,3 / -0,2
G	3,54	3,54	3,54	Over ø3,5
H	11,59	11,59	11,59	11,7 +/- 0,4
J	16,48	16,48	16,48	17 +/- 1,3
K	0,85	0,85	0,85	0,9 max



1) In case of those without having distinction of polarity, the width of blade shall be 6,3 mm +/- 0,3 mm.

KSC 8305 (Partial)				
Clause	Requirement – Test		Result – Remark	Verdict

Korean plug dimension check according to KSC 8305

(for the type plug pin fixed into enclosure by screw):

7	Dimensions			P
	Plugs shall comply with Standard Sheet 1			P
	Between two pins	18.8 – 19.2 mm	18,93 mm	P
	Diameter of pin (metallic part)	4,74 – 4,86 mm	4,80 mm	P
	Diameter of pin (pin base)	4,58 – 4,62 mm	4,65 mm	P
	Diameter of pin (middle part)	4,3 mm	4,3 mm	P
	Pin length	18,5 – 19,5 mm	19,27 mm	P
	Length of pin base plastic part	10,0 – 11,0 mm	10,31 mm	P
	Shape of pin top		Round shape	P
	Length of plug base	34,6 – 36,0 mm	35,56 mm	P
	Width of plug base	13,0 – 14,4 mm	14,35 mm	P
	Diagonal dimension of plug base	25,6 – 26,6	26,08 mm	P
	Side clamp angel	45°	45°	P
	Side round radius	5 – 6 mm	5,6 mm	P

(for the type plug pin mould into enclosure directly):

7	Dimensions			P
	Plugs shall comply with Standard Sheet 1			P
	Between two pins	18.8 – 19.2 mm	19,01 mm	P
	Diameter of pin (metallic part)	4,74 – 4,86 mm	4,79 mm	P
	Diameter of pin (pin base)	4,58 – 4,62 mm	4,78 mm	P
	Diameter of pin (middle part)	4,3 mm	4,23 mm	P
	Pin length	18,5 – 19,5 mm	19,21 mm	P
	Length of pin base plastic part	10,0 – 11,0 mm	10,31 mm	P
	Shape of pin top		Round shape	P
	Length of plug base	34,6 – 36,0 mm	35,18 mm	P
	Width of plug base	13,0 – 14,4 mm	13,95 mm	P
	Diagonal dimension of plug base	25,6 – 26,6	26,23 mm	P
	Side clamp angel	45°	45°	P
	Side round radius	5 – 6 mm	5,8 mm	P