



Ref. Certif. No.

FR_700903/M1

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

CB TEST CERTIFICATE

Product

Headset

Head Mounted Tablet

Name and address of the applicant

RealWear, Inc.

1851 McCarthy Boulevard, Suite 120, Milpitas, CA 95035 –
United States of America

Name and address of the manufacturer

RealWear, Inc.

1851 McCarthy Boulevard, Suite 120, Milpitas, CA 95035 –
United States of America

Name and address of the factory

Shanghai Sunrise Simcom Limited

No. 888, Shengli Road, Qingpu Industrial Park, Shanghai –
P.R. China

Note: When more than one factory, please report on page 2

☐ Additional Information on page 2

Ratings and principal characteristics

5Vdc, 2A

Trademark (if any)

realwear

Customer's Testing Facility (CTF) Stage used

/

Model / Type Ref.

T1100G

Additional information (if necessary may also be reported on page 2)

Supersedes CBTC FR_700903 dated 14/06/2017. Change name and address of the manufacturer and addition of input rating

☐ Additional Information on page 2

A sample of the product was tested and found to be in conformity with

IEC 60950-1:2005 +A1:2009 +A2:2013

As shown in the Test Report Ref. No. which forms part of this Certificate

CB170508N008 002

This CB Test Certificate is issued by the National Certification Body



LCIE – Laboratoire Central des Industries Electriques
33, avenue du Général Leclerc – BP8
FR 92 266 Fontenay aux Roses Cedex
www.lcie.fr

Date: 03/07/2017

Signature: **Didier BOURGES**
Certification Operations Manager





Test Report issued under the responsibility of:



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

Report Number..... : CB170508N008 002

Date of issue : June 30, 2017

Total number of pages : 109

Applicant's name : RealWear, Inc.

Address..... : 1851 McCarthy Boulevard, Suite 120, Milpitas, CA 95035 –
United States of America

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

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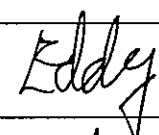
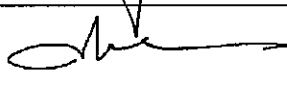
This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.

General disclaimer:

The test results presented in this report relate only to the object tested.

This report shall not be reproduced, except in full, without the written approval of the Issuing CB Testing Laboratory. The authenticity of this Test Report and its contents can be verified by contacting the NCB, responsible for this Test Report.

Test item description	Head Mounted Tablet
Trade Mark	realwear
Manufacturer	RealWear, Inc. 1851 McCarthy Boulevard, Suite 120, Milpitas, CA 95035 – United States of America
Model/Type reference	T1100G
Ratings	5Vdc, 2A

Testing procedure and testing location:		
<input checked="" type="checkbox"/>	CB Testing Laboratory:	BV Shenzhen Co., Ltd. Dongguan Branch Laboratory
Testing location/ address.....:		34 Chenwulu Section, Guantai Rd. Houjie Town 523942 Dongguan City Guangdong CHINA
<input type="checkbox"/>	Associated CB Testing Laboratory:	N/A
Testing location/ address.....:		N/A
Tested by (name + signature)		Eddy Lee Engineer 
Approved by (name + signature)		Carter LEE Manager 
<input type="checkbox"/>	Testing procedure: TMP/CTF Stage 1:	N/A
Testing location/ address.....:		N/A
Tested by (name + signature)		--
Approved by (name + signature)		--
<input type="checkbox"/>	Testing procedure: WMT/CTF Stage 2:	N/A
Testing location/ address.....:		N/A
Tested by (name + signature)		--
Witnessed by (name + signature)		--
Approved by (name + signature)		--
<input type="checkbox"/>	Testing procedure: SMT/CTF Stage 3 or 4:	N/A
Testing location/ address.....:		N/A
Tested by (name + signature)		--
Witnessed by (name + signature)		--
Approved by (name + signature)		--
Supervised by (name + signature).....:		--

List of Attachments (including a total number of pages in each attachment): - 19 pages of EUROPEAN GROUP DIFFERENCES - 38 pages of NATIONAL DIFFERENCE - 9 pages of photos	
Summary of testing: The equipment under test (EUT) has been evaluated at maximum ambient (Tma) of +50°C according to the manufacturer's declaration. All tests were measured under the worst case and the load conditions used during testing are: - The EUT operated to deliver the Max. non-clipped output power for one internal (7.6ohm, 0.7W) speaker.	
Tests performed (name of test and test clause): - 1.6.2 Input Test - 1.7.11 Durability of Marking Test - 2.1.1.5 Energy Hazard Measurements - 2.5 Limited Power Source Measurements - 4.2.1-4.2.4 Steady Force Test - 4.2.6 Drop Test - 4.2.7 Stress relief test - 4.3.8 Batteries Tests - 4.5.1 Heating (Temperature) Test - 5.3 Abnormal and Fault Condition Tests	Testing location: BV Shenzhen Co., Ltd. Dongguan Branch Laboratory 34 Chenwulu Section, Guantai Rd. Houjie Town 523942 Dongguan City Guangdong CHINA.
Summary of compliance with National Differences: List of countries addressed EU Group Differences : AT, BE, BG, HR, CZ, FR, GR, HU, IT, NL, PL, PT, RO, SK, SI, RS, TR, AR, AU, BY, BR, CH, CN, CO, IN, DE, ES, DK, FI, GB, IE, IL, JP, KR, NO, SE, UA, KE, LY, MX, NZ, RU, SA, SG, ZA, AE Explanation of used codes: (AT=Austria, BE=Belgium, BG=Bulgaria, HR=Croatia, CZ=Czech, FR=France, GR=Greece, HU=Hungary, IT=Italy, NL=Netherlands, PL=Poland, PT=Portugal, RO=Romania, SK=Slovakia, SI=Slovenia, RS=Serbia, TR=Turkey, AR=Argentina, AU=Australia, BY=Belarus, BR=Brazil, CH=Switzerland, CN=China, CO=Colombia, IN=India, DE=Germany, ES=Spain, DK=Denmark, FI=Finland, GB=United Kingdom, IE=Ireland, IL=Israel, JP=Japan, KR=Korea, NO=Norway, SE=Sweden, UA=Ukraine, KE=Kenya, LY=Libian Arab Jamahiriya, MX=Mexico, NZ=New Zealand, RU=Russia Federation, SA=Saudi Arabia, SG=Singapore, ZA=South Africa, AE=United Arab Emirates) <input checked="" type="checkbox"/> The product fulfils the requirements of EN 60950-1:2006 + A11: 2009 + A1: 2010 + A12: 2011 + A2: 2013	

Copy of marking plate:

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

realwear**RealWear HMT-1**

Model: T1100G

Input : DC 5V 2A

FCC ID: 2AJOR1100G00AA

IC ID: 21874-1100G00AA



S/N: xxxxxxxxxxxx

WK17XX

Made in China

Test item particulars.....:	
Equipment mobility.....:	<input type="checkbox"/> movable <input type="checkbox"/> hand-held <input checked="" type="checkbox"/> transportable <input type="checkbox"/> stationary <input type="checkbox"/> for building-in <input type="checkbox"/> direct plug-in
Connection to the mains.....:	<input type="checkbox"/> pluggable equipment <input type="checkbox"/> type A <input type="checkbox"/> type B <input type="checkbox"/> permanent connection <input type="checkbox"/> detachable power supply cord <input type="checkbox"/> non-detachable power supply cord <input checked="" type="checkbox"/> not directly connected to the mains
Operating condition.....:	<input checked="" type="checkbox"/> continuous <input type="checkbox"/> rated operating / resting time:
Access location	<input checked="" type="checkbox"/> operator accessible <input type="checkbox"/> restricted access location
Over voltage category (OVC)	<input type="checkbox"/> OVC I <input type="checkbox"/> OVC II <input type="checkbox"/> OVC III <input type="checkbox"/> OVC IV <input checked="" type="checkbox"/> other: Supplied by approved DC source or internal rechargeable battery
Mains supply tolerance (%) or absolute mains supply values	N/A
Tested for IT power systems	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
IT testing, phase-phase voltage (V)	N/A
Class of equipment	<input type="checkbox"/> Class I <input type="checkbox"/> Class II <input checked="" type="checkbox"/> Class III <input type="checkbox"/> Not classified
Considered current rating of protective device as part of the building installation (A)	N/A
Pollution degree (PD)	<input type="checkbox"/> PD 1 <input checked="" type="checkbox"/> PD 2 <input type="checkbox"/> PD 3
IP protection class	IPX0
Altitude during operation (m)	Below 2000
Altitude of test laboratory (m)	Below 2000
Mass of equipment (kg)	Approx. 0.365
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	May 09, 2017
Date (s) of performance of tests.....:	May 09, 2017 to June 01, 2017

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 <input type="checkbox"/> comma / <input checked="" type="checkbox"/> point is used as the decimal separator.			
Manufacturer's Declaration per sub-clause 4.2.5 of IEC 60950-1:			
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 :	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not applicable		
When differences exist; they shall be identified in the General product information section.			
Name and address of factory (ies) : Shanghai Sunrise Simcom Limited No. 888, Shengli Road, Qingpu Industrial Park, Shanghai, P.R. China			
General product information:			
1 The equipment is a Head Mounted Tablet with an internal rechargeable battery which supplied by certificated power supply. For acceptance of the accessory power supply's output shall be with output rating (5Vdc, Min. 0.44A), and maximum temperature 50°C. These power supplies have to be evaluated according to IEC 60950-1: 2005+A1: 2009+A2: 2013.			
2 The equipment included two type batteries, model B1200G for Main battery and model 401120 for Backup battery. The Main battery is placed in operator access area and intended to be replaced by user. A memory function provided by Backup battery (such as time and date), when replaced Main battery by user, the memory function only can be maintained 10 minutes and then the whole equipment will shut down.			
3 The equipment can be operated on Camera mode when supplied by DC source or Main battery.			
4 The equipment included two USB port. Micro USB port had OTG and charging function, USB type C port (constant voltage 5Vdc) for charging only.			
Report history:			
CB170508N008 002 (Project no.: 170627N016)			
Remark 1	This report is to replace the previous Test Report Ref. No. CB170508N008 001 dated on June 14, 2017 (CB Ref. Certificate No. FR_700903)		
Remark 2	The modifications applied on this report are: - Added input rating: 5Vdc, 2A and marked on the surface of the equipment. - Changed Manufacturer's information from "Shanghai Sunrise Simcom Limited / No. 888, Shengli Road, Qingpu Industrial Park, Shanghai, P.R. China" to "RealWear, Inc. / 1851 McCarthy Boulevard, Suite 120, Milpitas, CA 95035 – United States of America".		
Remark 3	For the above "Remark 2", only the input test result was evaluated, no other tests need to be re-evaluated.		
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	Components, which were found to affect safety aspects, are conformed to the relevant IEC component standards and/or comply with the requirements of this standard.	P
	Comply with IEC 60950-1 or relevant component standard	(See appended table 1.5.1)	P
1.5.2	Evaluation and testing of components	Components which are certified to IEC and/or national standards are used correctly within their ratings. Components not covered by IEC standards are tested under the conditions presented in the equipment.	P
1.5.3	Thermal controls	No thermal controls used.	N/A
1.5.4	Transformers	No such component.	N/A
1.5.5	Interconnecting cables	Interconnecting cable for Interconnection is carrying only SELV voltages with power consumption below 240 VA.	P
1.5.6	Capacitors bridging insulation	No such component.	N/A
1.5.7	Resistors bridging insulation	No such component.	N/A
1.5.7.1	Resistors bridging functional, basic or supplementary insulation	No such component.	N/A
1.5.7.2	Resistors bridging double or reinforced insulation between a.c. mains and other circuits	No such component.	N/A
1.5.7.3	Resistors bridging double or reinforced insulation between a.c. mains and antenna or coaxial cable	No such component.	N/A
1.5.8	Components in equipment for IT power systems	Not directly connected to the mains.	N/A
1.5.9	Surge suppressors	No such component.	N/A
1.5.9.1	General	No such component.	N/A
1.5.9.2	Protection of VDRs	No such component.	N/A
1.5.9.3	Bridging of functional insulation by a VDR	No such component.	N/A
1.5.9.4	Bridging of basic insulation by a VDR	No such component.	N/A
1.5.9.5	Bridging of supplementary, double or reinforced insulation by a VDR	No such component.	N/A

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

1.6	Power interface		P
1.6.1	AC power distribution systems	Not directly connected to the mains.	N/A
1.6.2	Input current	(See appended table 1.6.2)	P
1.6.3	Voltage limit of hand-held equipment	Transportable equipment.	N/A
1.6.4	Neutral conductor	Not directly connected to the mains.	N/A

1.7	Marking and instructions		P
1.7.1	Power rating and identification markings	See below.	P
1.7.1.1	Power rating marking	See below.	P
	Multiple mains supply connections.....:	No such equipment.	N/A
	Rated voltage(s) or voltage range(s) (V)	5Vdc	P
	Symbol for nature of supply, for d.c. only.....:	Optional	N/A
	Rated frequency or rated frequency range (Hz) ...:	Supplied by DC source.	N/A
	Rated current (mA or A)	2A	P
1.7.1.2	Identification markings	See below.	P
	Manufacturer's name or trade-mark or identification mark	Trade mark: realwear	P
	Model identification or type reference	T1100G	P
	Symbol for Class III equipment only	Class III equipment.	N/A
	Other markings and symbols	Additional symbols or markings do not give risk to misunderstanding.	P
1.7.1.3	Use of graphical symbols	Considered.	P
1.7.2	Safety instructions and marking	Safety related information in English has been evaluated. Manufacturer commits to provide them in the language of the countries where the product will be distributed.	P
1.7.2.1	General	See below.	N/A
1.7.2.2	Disconnect devices	Not directly connected to the mains.	N/A
1.7.2.3	Overcurrent protective device	No such equipment.	N/A
1.7.2.4	IT power distribution systems	Not directly connected to the mains.	N/A
1.7.2.5	Operator access with a tool	No tool is necessary to	N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
		operate this product.	
1.7.2.6	Ozone	This EUT is not intended to produce the ozone.	N/A
1.7.3	Short duty cycles	This EUT is continuous operation equipment.	N/A
1.7.4	Supply voltage adjustment	No such device.	N/A
	Methods and means of adjustment; reference to installation instructions	No such device.	N/A
1.7.5	Power outlets on the equipment	No power outlet.	N/A
1.7.6	Fuse identification (marking, special fusing characteristics, cross-reference)	No such component.	N/A
1.7.7	Wiring terminals	No such terminals.	N/A
1.7.7.1	Protective earthing and bonding terminals	Class III equipment.	N/A
1.7.7.2	Terminals for a.c. mains supply conductors	Class III equipment.	N/A
1.7.7.3	Terminals for d.c. mains supply conductors	Class III equipment.	N/A
1.7.8	Controls and indicators	No such parts.	N/A
1.7.8.1	Identification, location and marking	No such parts.	N/A
1.7.8.2	Colours	No such parts.	N/A
1.7.8.3	Symbols according to IEC 60417	No such parts.	N/A
1.7.8.4	Markings using figures	No such parts.	N/A
1.7.9	Isolation of multiple power sources	Class III equipment.	N/A
1.7.10	Thermostats and other regulating devices	No thermostat or other regulating devices.	N/A
1.7.11	Durability	After this test there was no damage to the label. The marking on the label did not fade. There was no curling or lifting on the label edge.	P
1.7.12	Removable parts	Marking was not show on removable part.	N/A
1.7.13	Replaceable batteries	Caution replaceable battery in an OPERATOR ACCESS AREA and provided statement in the user manual.	P
	Language(s)	English.	—
1.7.14	Equipment for restricted access locations	No for use in the restricted access location.	N/A
2	PROTECTION FROM HAZARDS		P
2.1	Protection from electric shock and energy hazards		P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.1.1	Protection in operator access areas	See below.	N/A
2.1.1.1	Access to energized parts	Class III equipment, supplied by SELV and there is no hazardous voltage generated inside the EUT.	N/A
	Test by inspection	Class III equipment, supplied by SELV and there is no hazardous voltage generated inside the EUT.	N/A
	Test with test finger (Figure 2A)	Class III equipment, supplied by SELV and there is no hazardous voltage generated inside the EUT.	N/A
	Test with test pin (Figure 2B)	Class III equipment, supplied by SELV and there is no hazardous voltage generated inside the EUT.	N/A
	Test with test probe (Figure 2C)	No TNV circuit inside the equipment.	N/A
2.1.1.2	Battery compartments	No TNV circuit inside the EUT.	N/A
2.1.1.3	Access to ELV wiring	No ELV wiring in operator accessible area.	N/A
	Working voltage (V_{peak} or V_{rms}); minimum distance through insulation (mm)		—
2.1.1.4	Access to hazardous voltage circuit wiring	Class III equipment.	N/A
2.1.1.5	Energy hazards	(See appended table 2.1.1.5)	P
2.1.1.6	Manual controls	No such device.	N/A
2.1.1.7	Discharge of capacitors in equipment	Class III equipment.	N/A
	Measured voltage (V); time-constant (s)		—
2.1.1.8	Energy hazards – d.c. mains supply	Not intended to be connected to d.c. mains supply.	N/A
	a) Capacitor connected to the d.c. mains supply ..	Not intended to be connected to d.c. mains supply.	N/A
	b) Internal battery connected to the d.c. mains supply	Not intended to be connected to d.c. mains supply.	N/A
2.1.1.9	Audio amplifiers	Considered.	P
2.1.2	Protection in service access areas		N/A
2.1.3	Protection in restricted access locations	It is not intended to be used in restricted locations.	N/A
2.2	SELV circuits		P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.2.1	General requirements	See below.	P
2.2.2	Voltages under normal conditions (V)	42.4Vpeak or 60Vd.c. are not exceeded in SELV circuit under normal operation.	P
2.2.3	Voltages under fault conditions (V)	Single fault did not cause excessive voltage in accessible SELV circuit. Limits of 71Vpeak or 120Vdc were not exceeded within 0.2 seconds and limits of 42.4Vpeak or 60Vdc were not exceeded for longer than 0.2 seconds.	P
2.2.4	Connection of SELV circuits to other circuits	SELV circuit is only connected to SELV circuit and limited current circuits.	P

2.3	TNV circuits		N/A
2.3.1	Limits	No TNV circuit.	N/A
	Type of TNV circuits.....		—
2.3.2	Separation from other circuits and from accessible parts	No TNV circuit.	N/A
2.3.2.1	General requirements	No TNV circuit.	N/A
2.3.2.2	Protection by basic insulation	No TNV circuit.	N/A
2.3.2.3	Protection by earthing	No TNV circuit.	N/A
2.3.2.4	Protection by other constructions	No TNV circuit.	N/A
2.3.3	Separation from hazardous voltages	No TNV circuit.	N/A
	Insulation employed	No TNV circuit.	N/A
2.3.4	Connection of TNV circuits to other circuits	No TNV circuit.	N/A
	Insulation employed	No TNV circuit.	—
2.3.5	Test for operating voltages generated externally	No TNV circuit.	N/A

2.4	Limited current circuits		N/A
2.4.1	General requirements	No limited current circuit.	N/A
2.4.2	Limit values	No limited current circuit.	N/A
	Frequency (Hz)		—
	Measured current (mA)		—
	Measured voltage (V)		—
	Measured circuit capacitance (nF or μ F)		—
2.4.3	Connection of limited current circuits to other	No limited current circuit.	N/A

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

	circuits		
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2.5	Limited power sources		P
	a) Inherently limited output	No such circuit.	N/A
	b) Impedance limited output		N/A
	c) Regulating network or IC current limiter, limits 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		—
	Max. output voltage (V), max. output current (A), max. apparent power (VA)		—
	Current rating of overcurrent protective device (A) ..		N/A

2.6	Provisions for earthing and bonding		N/A
2.6.1	Protective earthing	Class III equipment.	N/A
2.6.2	Functional earthing	Class III equipment.	N/A
	Use of symbol for functional earthing	Class III equipment.	N/A
2.6.3	Protective earthing and protective bonding conductors	Class III equipment.	N/A
2.6.3.1	General	Class III equipment.	N/A
2.6.3.2	Size of protective earthing conductors	Class III equipment.	N/A
	Rated current (A), cross-sectional area (mm ²), AWG		—
2.6.3.3	Size of protective bonding conductors	Class III equipment.	N/A
	Rated current (A), cross-sectional area (mm ²), AWG		—
	Protective current rating (A), cross-sectional area (mm ²), AWG		—
2.6.3.4	Resistance of earthing conductors and their terminations; resistance (Ω), voltage drop (V), test current (A), duration (min)	Class III equipment.	N/A
2.6.3.5	Colour of insulation	Class III equipment.	N/A
2.6.4	Terminals	Class III equipment.	N/A
2.6.4.1	General	Class III equipment.	N/A
2.6.4.2	Protective earthing and bonding terminals	Class III equipment.	N/A
	Rated current (A), type, nominal thread diameter (mm)		—
2.6.4.3	Separation of the protective earthing conductor	Class III equipment.	N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	from protective bonding conductors		
2.6.5	Integrity of protective earthing	Class III equipment.	N/A
2.6.5.1	Interconnection of equipment	Class III equipment.	N/A
2.6.5.2	Components in protective earthing conductors and protective bonding conductors	Class III equipment.	N/A
2.6.5.3	Disconnection of protective earth	Class III equipment.	N/A
2.6.5.4	Parts that can be removed by an operator	Class III equipment.	N/A
2.6.5.5	Parts removed during servicing	Class III equipment.	N/A
2.6.5.6	Corrosion resistance	Class III equipment.	N/A
2.6.5.7	Screws for protective bonding	Class III equipment.	N/A
2.6.5.8	Reliance on telecommunication network or cable distribution system	Class III equipment.	N/A

2.7	Overcurrent and earth fault protection in primary circuits		N/A
2.7.1	Basic requirements	Class III equipment.	N/A
	Instructions when protection relies on building installation		N/A
2.7.2	Faults not simulated in 5.3.7	Class III equipment.	N/A
2.7.3	Short-circuit backup protection	Class III equipment.	N/A
2.7.4	Number and location of protective devices:	Class III equipment.	N/A
2.7.5	Protection by several devices	Class III equipment.	N/A
2.7.6	Warning to service personnel:	Class III equipment.	N/A

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

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

2.8.8	Mechanical actuators	No safety interlock provided.	N/A
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2.9	Electrical insulation		P
2.9.1	Properties of insulating materials	Class III equipment.	N/A
2.9.2	Humidity conditioning	Class III equipment.	N/A
	Relative humidity (%), temperature (°C):		—
2.9.3	Grade of insulation	Only the functional insulation inside the EUT.	P
2.9.4	Separation from hazardous voltages	Class III equipment.	N/A
	Method(s) used:		—

2.10	Clearances, creepage distances and distances through insulation		P
2.10.1	General	See below.	P
2.10.1.1	Frequency:	Class III equipment.	N/A
2.10.1.2	Pollution degrees:	Pollution degree II.	P
2.10.1.3	Reduced values for functional insulation	The functional insulation comply with 5.3.4 c)	P
2.10.1.4	Intervening unconnected conductive parts	Class III equipment.	N/A
2.10.1.5	Insulation with varying dimensions	Class III equipment.	N/A
2.10.1.6	Special separation requirements	Class III equipment.	N/A
2.10.1.7	Insulation in circuits generating starting pulses	No such circuit in the equipment.	N/A
2.10.2	Determination of working voltage	Class III equipment. Only the functional insulation inside the EUT.	N/A
2.10.2.1	General	Class III equipment. Only the functional insulation inside the EUT.	N/A
2.10.2.2	RMS working voltage	Class III equipment. Only the functional insulation inside the EUT.	N/A
2.10.2.3	Peak working voltage	Class III equipment. Only the functional insulation inside the EUT.	N/A
2.10.3	Clearances	Class III equipment. Only the functional insulation inside the EUT.	N/A
2.10.3.1	General	Class III equipment. Only the functional insulation inside the EUT.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
2.10.3.2	Mains transient voltages	Not connected to ac mains directly.	N/A
	a) AC mains supply	Not connected to ac mains directly.	N/A
	b) Earthed d.c. mains supplies	The equipment is not intended to be supplied by d.c. mains.	N/A
	c) Unearthed d.c. mains supplies	The equipment is not intended to be supplied by d.c. mains.	N/A
	d) Battery operation	Not directly connected to the MAINS SUPPLY.	N/A
2.10.3.3	Clearances in primary circuits	Class III equipment.	N/A
2.10.3.4	Clearances in secondary circuits	Class III equipment.	N/A
2.10.3.5	Clearances in circuits having starting pulses	No such circuit.	N/A
2.10.3.6	Transients from a.c. mains supply	Class III equipment.	N/A
2.10.3.7	Transients from d.c. mains supply	Not supplied by dc mains.	N/A
2.10.3.8	Transients from telecommunication networks and cable distribution systems	No connection to the telecommunication network and cable distribution systems.	N/A
2.10.3.9	Measurement of transient voltage levels	See below.	N/A
	a) Transients from a mains supply	Class III equipment.	N/A
	For an a.c. mains supply	Class III equipment.	N/A
	For a d.c. mains supply	Not supplied by dc mains.	N/A
	b) Transients from a telecommunication network :	Not connection to telecommunication network.	N/A
2.10.4	Creepage distances	Class III equipment.	N/A
2.10.4.1	General	Class III equipment.	N/A
2.10.4.2	Material group and comparative tracking index	Class III equipment.	N/A
	CTI tests.....		—
2.10.4.3	Minimum creepage distances	Class III equipment.	N/A
2.10.5	Solid insulation	Class III equipment.	N/A
2.10.5.1	General	Class III equipment.	N/A
2.10.5.2	Distances through insulation	Class III equipment.	N/A
2.10.5.3	Insulating compound as solid insulation	Class III equipment.	N/A
2.10.5.4	Semiconductor devices	No such component.	N/A
2.10.5.5.	Cemented joints	No such construction.	N/A
2.10.5.6	Thin sheet material – General	No such component.	N/A
2.10.5.7	Separable thin sheet material	No such component.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Number of layers (pcs)..... :		—
2.10.5.8	Non-separable thin sheet material	No such component.	N/A
2.10.5.9	Thin sheet material – standard test procedure	No such component.	N/A
	Electric strength test		—
2.10.5.10	Thin sheet material – alternative test procedure	No such component.	N/A
	Electric strength test		—
2.10.5.11	Insulation in wound components	No such component.	N/A
2.10.5.12	Wire in wound components	No such component.	N/A
	Working voltage :	No such component.	N/A
	a) Basic insulation not under stress :	No such component.	N/A
	b) Basic, supplementary, reinforced insulation :	No such component.	N/A
	c) Compliance with Annex U :	No such component.	N/A
	Two wires in contact inside wound component; angle between 45° and 90° :	No such component.	N/A
2.10.5.13	Wire with solvent-based enamel in wound components	No such construction.	N/A
	Electric strength test		—
	Routine test		N/A
2.10.5.14	Additional insulation in wound components	No such component.	N/A
	Working voltage :	No such component.	N/A
	- Basic insulation not under stress :	No such component.	N/A
	- Supplementary, reinforced insulation :	No such component.	N/A
2.10.6	Construction of printed boards	See below.	N/A
2.10.6.1	Uncoated printed boards	Class III equipment.	N/A
2.10.6.2	Coated printed boards	No coated printed boards.	N/A
2.10.6.3	Insulation between conductors on the same inner surface of a printed board	No such construction.	N/A
2.10.6.4	Insulation between conductors on different layers of a printed board	No such construction.	N/A
	Distance through insulation	No such construction.	N/A
	Number of insulation layers (pcs) :	No such construction.	N/A
2.10.7	Component external terminations	No such construction.	N/A
2.10.8	Tests on coated printed boards and coated components	No such construction.	N/A
2.10.8.1	Sample preparation and preliminary inspection	No such construction.	N/A
2.10.8.2	Thermal conditioning	No such construction.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
2.10.8.3	Electric strength test	No such construction.	N/A
2.10.8.4	Abrasion resistance test	No such construction.	N/A
2.10.9	Thermal cycling	No such construction.	N/A
2.10.10	Test for Pollution Degree 1 environment and insulating compound	No such construction.	N/A
2.10.11	Tests for semiconductor devices and cemented joints	No such construction.	N/A
2.10.12	Enclosed and sealed parts	No hermetically sealed component.	N/A

3	WIRING, CONNECTIONS AND SUPPLY		P
3.1	General		P
3.1.1	Current rating and overcurrent protection	Internal wiring gauge is suitable for current intended to be carried.	P
3.1.2	Protection against mechanical damage	No critical insulation exsited, only functional insulation.	N/A
3.1.3	Securing of internal wiring	No critical insulation exsited, only functional insulation.	N/A
3.1.4	Insulation of conductors	No critical insulation exsited, only functional insulation.	N/A
3.1.5	Beads and ceramic insulators	Not used.	N/A
3.1.6	Screws for electrical contact pressure	No such screws.	N/A
3.1.7	Insulating materials in electrical connections	No non-metallic materials in electrical connections.	N/A
3.1.8	Self-tapping and spaced thread screws	No self tapping screws are used.	N/A
3.1.9	Termination of conductors	There is no hazardous live parts.	N/A
	10 N pull test	No critical insulation exsited, only functional insulation.	N/A
3.1.10	Sleeving on wiring	Not used.	N/A

3.2	Connection to a mains supply		N/A
3.2.1	Means of connection	See below.	N/A
3.2.1.1	Connection to an a.c. mains supply	No connection to an a.c. mains supply.	N/A
3.2.1.2	Connection to a d.c. mains supply	No connection to a d.c. mains supply.	N/A
3.2.2	Multiple supply connections	Class III equipment.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
3.2.3	Permanently connected equipment	No permanently connected equipment.	N/A
	Number of conductors, diameter of cable and conduits (mm)		—
3.2.4	Appliance inlets	No such parts	N/A
3.2.5	Power supply cords	No such parts	N/A
3.2.5.1	AC power supply cords	No such parts	N/A
	Type		—
	Rated current (A), cross-sectional area (mm ²), AWG		—
3.2.5.2	DC power supply cords	No connection to a d.c. mains supply.	N/A
3.2.6	Cord anchorages and strain relief	No such construction.	N/A
	Mass of equipment (kg), pull (N)		—
	Longitudinal displacement (mm)		—
3.2.7	Protection against mechanical damage		N/A
3.2.8	Cord guards	No such construction.	N/A
	Diameter or minor dimension D (mm); test mass (g)		—
	Radius of curvature of cord (mm)		—
3.2.9	Supply wiring space	No such construction.	N/A
3.3	Wiring terminals for connection of external conductors		N/A
3.3.1	Wiring terminals	No such construction.	N/A
3.3.2	Connection of non-detachable power supply cords	No such construction.	N/A
3.3.3	Screw terminals	No such construction.	N/A
3.3.4	Conductor sizes to be connected	No such construction.	N/A
	Rated current (A), cord/cable type, cross-sectional area (mm ²)		—
3.3.5	Wiring terminal sizes	No such construction.	N/A
	Rated current (A), type, nominal thread diameter (mm)		—
3.3.6	Wiring terminal design	No such construction.	N/A
3.3.7	Grouping of wiring terminals	No such construction.	N/A
3.3.8	Stranded wire	No such construction.	N/A
3.4	Disconnection from the mains supply		N/A
3.4.1	General requirement	Class III equipment.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
3.4.2	Disconnect devices	Class III equipment.	N/A
3.4.3	Permanently connected equipment	The EUT is not permanently connected equipment.	N/A
3.4.4	Parts which remain energized	Class III equipment.	N/A
3.4.5	Switches in flexible cords	Class III equipment.	N/A
3.4.6	Number of poles - single-phase and d.c. equipment	Class III equipment.	N/A
3.4.7	Number of poles - three-phase equipment	Class III equipment.	N/A
3.4.8	Switches as disconnect devices	No switch used	N/A
3.4.9	Plugs as disconnect devices	Class III equipment.	N/A
3.4.10	Interconnected equipment	Interconnected to other device by secondary SELV output only.	N/A
3.4.11	Multiple power sources	No such construction.	N/A
3.5	Interconnection of equipment		P
3.5.1	General requirements	See below	P
3.5.2	Types of interconnection circuits	SELV circuit only connected to SELV circuit.	P
3.5.3	ELV circuits as interconnection circuits	No ELV interconnection circuits.	N/A
3.5.4	Data ports for additional equipment	Complied.	P
4	PHYSICAL REQUIREMENTS		P
4.1	Stability		N/A
	Angle of 10°	For the equipment, the mass is less than 7kg.	N/A
	Test force (N)	Not floor-standing equipment.	N/A
4.2	Mechanical strength		P
4.2.1	General	See below.	P
	Rack-mounted equipment.	Not rack-mounted equipment.	N/A
4.2.2	Steady force test, 10 N	Class III equipment.	N/A
4.2.3	Steady force test, 30 N	Class III equipment.	N/A
4.2.4	Steady force test, 250 N	After test, no damage, no hazard. All sources of plastic enclosure listed in table 1.5.1 were considered.	P
4.2.5	Impact test	Transportable equipment.	N/A
	Fall test	Transportable equipment.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Swing test	Transportable equipment.	N/A
4.2.6	Drop test; height (mm)	After test, no damage, no hazard. All sources of plastic enclosure listed in table 1.5.1 were considered.	P
4.2.7	Stress relief test	Conducted on 75.3°C for 7 hours, no damage, no hazard. All sources of plastic enclosure listed in table 1.5.1 were considered.	P
4.2.8	Cathode ray tubes	No CRT inside the EUT.	N/A
	Picture tube separately certified	No CRT inside the EUT.	N/A
4.2.9	High pressure lamps	No high pressure lamps.	N/A
4.2.10	Wall or ceiling mounted equipment; force (N)	No such construction.	N/A
4.2.11	Rotating solid media	No such parts.	N/A
	Test to cover on the door.....		N/A

4.3	Design and construction		P
4.3.1	Edges and corners	Edges and corners of the enclosure are rounded.	P
4.3.2	Handles and manual controls; force (N)	No such device.	N/A
4.3.3	Adjustable controls	No such device.	N/A
4.3.4	Securing of parts	No such part.	N/A
4.3.5	Connection by plugs and sockets	No mismatch of connectors	N/A
4.3.6	Direct plug-in equipment	No such equipment	N/A
	Torque		—
	Compliance with the relevant mains plug standard	No such equipment.	N/A
4.3.7	Heating elements in earthed equipment	No heating element.	N/A
4.3.8	Batteries	See below.	P
	- Overcharging of a rechargeable battery	See table 4.3.8.	P
	- Unintentional charging of a non-rechargeable battery	Rechargeable battery.	N/A
	- Reverse charging of a rechargeable battery	No such possibility	N/A
	- Excessive discharging rate for any battery	See table 4.3.8.	P
4.3.9	Oil and grease	No oil and grease inside the equipment.	N/A
4.3.10	Dust, powders, liquids and gases	The equipment is not intended to be exposed to dust, powers, liquids and gases.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
4.3.11	Containers for liquids or gases	No container for liquids or gases provided.	N/A
4.3.12	Flammable liquids	No flammable liquids in the equipment.	N/A
	Quantity of liquid (l)	No flammable liquids in the equipment.	N/A
	Flash point (°C)	No flammable liquids in the equipment.	N/A
4.3.13	Radiation	See below.	P
4.3.13.1	General	See below.	P
4.3.13.2	Ionizing radiation	No 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	No UV radiation.	N/A
	Part, property, retention after test, flammability classification	No UV radiation.	N/A
4.3.13.4	Human exposure to ultraviolet (UV) radiation	No UV radiation.	N/A
4.3.13.5	Lasers (including laser diodes) and LEDs	See below.	P
4.3.13.5.1	Lasers (including laser diodes)	No such devices.	N/A
	Laser class		—
4.3.13.5.2	Light emitting diodes (LEDs)	The LED of EUT was tested and evaluated according to IEC 62471, detail see table 1.5.1.	P
4.3.13.6	Other types	No other type of source inside the EUT.	N/A

4.4	Protection against hazardous moving parts		N/A
4.4.1	General	See below	N/A
4.4.2	Protection in operator access areas	No moving parts.	N/A
	Household and home/office document/media shredders	No moving parts.	N/A
4.4.3	Protection in restricted access locations	No moving parts.	N/A
4.4.4	Protection in service access areas	No moving parts.	N/A
4.4.5	Protection against moving fan blades	No moving fan blades used.	N/A
4.4.5.1	General	No moving fan blades used.	N/A
	Not considered to cause pain or injury. a).....		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

	Is considered to cause pain, not injury. b)		N/A
	Considered to cause injury. c)		N/A
4.4.5.2	Protection for users	No moving fan blades used.	N/A
	Use of symbol or warning	No moving fan blades used.	N/A
4.4.5.3	Protection for service persons	No moving fan blades used.	N/A
	Use of symbol or warning		N/A

4.5	Thermal requirements		P
4.5.1	General	See below.	P
4.5.2	Temperature tests	(see appended table 4.5)	P
	Normal load condition per Annex L		—
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	No such construction.	N/A

4.6	Openings in enclosures		P
4.6.1	Top and side openings	Transportable equipment.	N/A
	Dimensions (mm)		—
4.6.2	Bottoms of fire enclosures	Transportable equipment.	N/A
	Construction of the bottom, dimensions (mm) ..:		—
4.6.3	Doors or covers in fire enclosures	No such parts.	N/A
4.6.4	Openings in transportable equipment	No openings.	P
4.6.4.1	Constructional design measures	No openings.	P
	Dimensions (mm)		—
4.6.4.2	Evaluation measures for larger openings	No openings.	N/A
4.6.4.3	Use of metallized parts	No openings.	N/A
4.6.5	Adhesives for constructional purposes	No adhesives for construction purposes.	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	See below.	P
	Method 1, selection and application of components wiring and materials	Use of materials with the required flammability class, and select the components for simulation of faults with acceptable results.	P

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Clause	Requirement + Test	Result - Remark	Verdict
	Method 2, application of all of simulated fault condition tests	Method 1 used.	N/A
4.7.2	Conditions for a fire enclosure	See below.	P
4.7.2.1	Parts requiring a fire enclosure	Min. V-1 plastic enclosure used.	P
4.7.2.2	Parts not requiring a fire enclosure		N/A
4.7.3	Materials		P
4.7.3.1	General	See below.	P
4.7.3.2	Materials for fire enclosures	Min. V-1 plastic enclosure used.	P
4.7.3.3	Materials for components and other parts outside fire enclosures	No such parts.	N/A
4.7.3.4	Materials for components and other parts inside fire enclosures	V-1 or better for PCB	P
4.7.3.5	Materials for air filter assemblies	No air filter provided.	N/A
4.7.3.6	Materials used in high-voltage components	No high-voltage component inside the equipment.	N/A

5	ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS		P
5.1	Touch current and protective conductor current		N/A
5.1.1	General	Class III equipment.	N/A
5.1.2	Configuration of equipment under test (EUT)	Class III equipment.	N/A
5.1.2.1	Single connection to an a.c. mains supply	Class III equipment.	N/A
5.1.2.2	Redundant multiple connections to an a.c. mains supply	Class III equipment.	N/A
5.1.2.3	Simultaneous multiple connections to an a.c. mains supply	Class III equipment.	N/A
5.1.3	Test circuit	Class III equipment.	N/A
5.1.4	Application of measuring instrument	Class III equipment.	N/A
5.1.5	Test procedure	Class III equipment.	N/A
5.1.6	Test measurements	Class III equipment.	N/A
	Supply voltage (V)		—
	Measured touch current (mA)		—
	Max. allowed touch current (mA)		—
	Measured protective conductor current (mA)		—
	Max. allowed protective conductor current (mA)...		—
5.1.7	Equipment with touch current exceeding 3,5 mA	Class III equipment.	N/A
5.1.7.1	General	Class III equipment.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
5.1.7.2	Simultaneous multiple connections to the supply	No such construction.	N/A
5.1.8	Touch currents to telecommunication networks and cable distribution systems and from telecommunication networks	No connection to the telecommunication network and cable distribution systems.	N/A
5.1.8.1	Limitation of the touch current to a telecommunication network or to a cable distribution system	No connection to the telecommunication network and cable distribution systems.	N/A
	Supply voltage (V)		—
	Measured touch current (mA)		—
	Max. allowed touch current (mA)		—
5.1.8.2	Summation of touch currents from telecommunication networks	No connection to the telecommunication network.	N/A
	a) EUT with earthed telecommunication ports	Not connect to telecommunication networks.	N/A
	b) EUT whose telecommunication ports have no reference to protective earth	Not connect to telecommunication networks.	N/A

5.2	Electric strength		N/A
5.2.1	General	Class III equipment.	N/A
5.2.2	Test procedure	Class III equipment.	N/A

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 such component.	N/A
5.3.3	Transformers	No such component.	N/A
5.3.4	Functional insulation	Method c) used.	P
5.3.5	Electromechanical components	No electromechanical component.	N/A
5.3.6	Audio amplifiers in ITE	(See appended table 5.3)	P
5.3.7	Simulation of faults	(See appended table 5.3)	P
5.3.8	Unattended equipment	The equipment was not for unattended use.	N/A
5.3.9	Compliance criteria for abnormal operating and fault conditions	See below.	P
5.3.9.1	During the tests	No flame in the equipment. No molten metal was emitted.	P
5.3.9.2	After the tests	Class III equipment.	N/A

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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	No TNV circuit.	N/A
	Supply voltage (V)		—
	Current in the test circuit (mA)		—
6.1.2.2	Exclusions	No TNV circuit.	N/A

6.2	Protection of equipment users from overvoltages on telecommunication networks		N/A
6.2.1	Separation requirements	No TNV circuit.	N/A
6.2.2	Electric strength test procedure	No TNV circuit.	N/A
6.2.2.1	Impulse test	No TNV circuit.	N/A
6.2.2.2	Steady-state test	No TNV circuit.	N/A
6.2.2.3	Compliance criteria	No TNV circuit.	N/A

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

7	CONNECTION TO CABLE DISTRIBUTION SYSTEMS		N/A
7.1	General	No connection to the 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	No connection to the cable distribution system.	N/A
7.3	Protection of equipment users from overvoltages on the cable distribution system	No connection to the cable distribution system.	N/A
7.4	Insulation between primary circuits and cable distribution systems	No connection to the cable distribution system.	N/A
7.4.1	General	No connection to the cable distribution system.	N/A
7.4.2	Voltage surge test	No connection to the cable distribution system.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
7.4.3	Impulse test	No connection to the cable distribution system.	N/A

A	ANNEX A, TESTS FOR RESISTANCE TO HEAT AND FIRE		N/A
A.1	Flammability test for fire enclosures of movable equipment having a total mass exceeding 18 kg, and of stationary equipment (see 4.7.3.2)	The mass of the EUT is less than 18 kg.	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)		—

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Clause	Requirement + Test	Result - Remark	Verdict
A.3	Hot flaming oil test (see 4.6.2)		N/A
A.3.1	Mounting of samples		N/A
A.3.2	Test procedure		N/A
A.3.3	Compliance criterion		N/A
B	ANNEX B, MOTOR TESTS UNDER ABNORMAL CONDITIONS (see 4.7.2.2 and 5.3.2)		N/A
B.1	General requirements	No such parts.	N/A
	Position		—
	Manufacturer		—
	Type		—
	Rated values		—
B.2	Test conditions	No such parts.	N/A
B.3	Maximum temperatures	No such parts.	N/A
B.4	Running overload test	No such parts.	N/A
B.5	Locked-rotor overload test	No such parts.	N/A
	Test duration (days)		—
	Electric strength test: test voltage (V)		—
B.6	Running overload test for d.c. motors in secondary circuits	No such parts.	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	No such parts.	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	No such parts.	N/A
B.9	Test for three-phase motors	No such parts.	N/A
B.10	Test for series motors	No such parts.	N/A
	Operating voltage (V)		—
C	ANNEX C, TRANSFORMERS (see 1.5.4 and 5.3.3)		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Position	No such component.	—
	Manufacturer		—
	Type		—
	Rated values		—
	Method of protection		—
C.1	Overload test	No such component.	N/A
C.2	Insulation	No such component.	N/A
	Protection from displacement of windings		N/A
D	ANNEX D, MEASURING INSTRUMENTS FOR TOUCH-CURRENT TESTS (see 5.1.4)		N/A
D.1	Measuring instrument		N/A
D.2	Alternative measuring instrument		N/A
E	ANNEX E, TEMPERATURE RISE OF A WINDING (see 1.4.13)		N/A
F	ANNEX F, MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES (see 2.10 and Annex G)		N/A
G	ANNEX G, ALTERNATIVE METHOD FOR DETERMINING MINIMUM CLEARANCES		N/A
G.1	Clearances	Not used.	N/A
G.1.1	General	Not used.	N/A
G.1.2	Summary of the procedure for determining minimum clearances	Not used.	N/A
G.2	Determination of mains transient voltage (V)	Not used.	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)	Not used.	N/A
G.4	Determination of required withstand voltage (V)	Not used.	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

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Clause	Requirement + Test	Result - Remark	Verdict
G.5	Measurement of transient voltages (V)	Not used.	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	Not used.	N/A
H	ANNEX H, IONIZING RADIATION (see 4.3.13)		N/A
J	ANNEX J, TABLE OF ELECTROCHEMICAL POTENTIALS (see 2.6.5.6)		N/A
	Metal(s) used		—
K	ANNEX K, THERMAL CONTROLS (see 1.5.3 and 5.3.8)		N/A
K.1	Making and breaking capacity	No thermal control in the EUT.	N/A
K.2	Thermostat reliability; operating voltage (V)	No thermal control in the EUT.	N/A
K.3	Thermostat endurance test; operating voltage (V)	No thermal control in the EUT.	N/A
K.4	Temperature limiter endurance; operating voltage (V)	No thermal control in the EUT.	N/A
K.5	Thermal cut-out reliability	No thermal control in the EUT.	N/A
K.6	Stability of operation	No thermal control in the EUT.	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	No such device in the EUT.	N/A
L.2	Adding machines and cash registers	No such device in the EUT.	N/A
L.3	Erasers	No such device in the EUT.	N/A
L.4	Pencil sharpeners	No such device in the EUT.	N/A
L.5	Duplicators and copy machines	No such device in the EUT.	N/A
L.6	Motor-operated files	No such device in the EUT.	N/A
L.7	Other business equipment	Considered.	P
M	ANNEX M, CRITERIA FOR TELEPHONE RINGING SIGNALS (see 2.3.1)		N/A
M.1	Introduction	No phone ringing was generated in the EUT.	N/A
M.2	Method A	No phone ringing was generated in the EUT.	N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
M.3	Method B	No phone ringing was generated in the EUT.	N/A
M.3.1	Ringing signal	No phone ringing was generated in the EUT.	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	No phone ringing was generated in the EUT.	N/A
M.3.2.1	Conditions for use of a tripping device or a monitoring voltage	No phone ringing was generated in the EUT.	N/A
M.3.2.2	Tripping device	No phone ringing was generated in the EUT.	N/A
M.3.2.3	Monitoring voltage (V)	No phone ringing was generated in the EUT.	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	Not used.	N/A
N.2	IEC 60065 impulse test generator	Not used.	N/A
P	ANNEX P, NORMATIVE REFERENCES		—
Q	ANNEX Q, Voltage dependent resistors (VDRs) (see 1.5.9.1)		N/A
	- Preferred climatic categories	No such component.	N/A
	- Maximum continuous voltage		N/A
	- Combination pulse current		N/A
	Body of the VDR Test according to IEC60695-11-5.....		N/A
	Body of the VDR. Flammability class of material (min V-1).....		N/A
R	ANNEX R, EXAMPLES OF REQUIREMENTS FOR QUALITY CONTROL PROGRAMMES		N/A
R.1	Minimum separation distances for unpopulated coated printed boards (see 2.10.6.2)		N/A
R.2	Reduced clearances (see 2.10.3)		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
S	ANNEX S, PROCEDURE FOR IMPULSE TESTING (see 6.2.2.3)		N/A
S.1	Test equipment	Not used.	N/A
S.2	Test procedure	Not used.	N/A
S.3	Examples of waveforms during impulse testing	Not used.	N/A
T	ANNEX T, GUIDANCE ON PROTECTION AGAINST INGRESS OF WATER (see 1.1.2)		N/A
		IPX0 product.	—
U	ANNEX U, INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION (see 2.10.5.4)		N/A
			—
V	ANNEX V, AC POWER DISTRIBUTION SYSTEMS (see 1.6.1)		N/A
V.1	Introduction	Not connected to ac mains directly.	N/A
V.2	TN power distribution systems		N/A
W	ANNEX W, SUMMATION OF TOUCH CURRENTS		N/A
W.1	Touch current from electronic circuits	No touch current summation.	N/A
W.1.1	Floating circuits		N/A
W.1.2	Earthed circuits		N/A
W.2	Interconnection of several equipments		N/A
W.2.1	Isolation		N/A
W.2.2	Common return, isolated from earth		N/A
W.2.3	Common return, connected to protective earth		N/A
X	ANNEX X, MAXIMUM HEATING EFFECT IN TRANSFORMER TESTS (see clause C.1)		N/A
X.1	Determination of maximum input current	No such component.	N/A
X.2	Overload test procedure	No such component.	N/A
Y	ANNEX Y, ULTRAVIOLET LIGHT CONDITIONING TEST (see 4.3.13.3)		N/A
Y.1	Test apparatus	Not used.	N/A
Y.2	Mounting of test samples	Not used.	N/A
Y.3	Carbon-arc light-exposure apparatus	Not used.	N/A
Y.4	Xenon-arc light exposure apparatus	Not used.	N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
Z	ANNEX Z, OVERVOLTAGE CATEGORIES (see 2.10.3.2 and Clause G.2)		N/A
AA	ANNEX AA, MANDREL TEST (see 2.10.5.8)		N/A
BB	ANNEX BB, CHANGES IN THE SECOND EDITION		—
CC	ANNEX CC, Evaluation of integrated circuit (IC) current limiters		N/A
CC.1	General		N/A
CC.2	Test program 1.....:		N/A
CC.3	Test program 2.....:		N/A
CC.4	Test program 3.....:		N/A
CC.5	Compliance.....:		N/A
DD	ANNEX DD, Requirements for the mounting means of rack-mounted equipment		N/A
DD.1	General	No such construction.	N/A
DD.2	Mechanical strength test, variable N.....:	No such construction.	N/A
DD.3	Mechanical strength test, 250N, including end stops.....:	No such construction.	N/A
DD.4	Compliance.....:	No such construction.	N/A
EE	ANNEX EE, Household and home/office document/media shredders		N/A
EE.1	General	No such apparatus.	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⁾	
Plastic enclosure	SABIC INNOVATIVE PLASTICS US L L C	3412ECR(f1) (GG)	V-0, 125°C Min. require 1.5mm thickness Measured 1.6mm thickness	UL 94	UL	
Or	SABIC JAPAN L L C	3413R(C)	V-1, 120°C Min. require 1.5mm thickness Measured 1.6mm thickness	UL 94	UL	
Or	SABIC INNOVATIVE PLASTICS B V	EXL9330(X)(f1)(GG)(B1)(IP)	V-1, 105°C Min. 0.8mm require thickness Measured 1.6mm thickness	UL 94	UL	
PCB	Interchangeable	Interchangeable	Min. V-1, Min. 105°C	UL 796	UL	
Speaker (One provided)	Interchangeable	Interchangeable	7.6ohm, 0.7W	IEC/EN 60950-1	Test with appliance	
Flash LED	Philips Lumileds Lighting Co L L C	LXCL-PWF4	EXEMPT RISK GROUP	IEC/EN 62471	Issued by UL Cert No.: US-17243-UL	
Battery pack (Main)	Jiade Energy Technology (Zhuhai) Co., Ltd.	B1200G	3.7Vdc, 3250mAh Max. charge current: 3250mA Max. discharge current: 2000mA	IEC 62133:2012	CB issued by LCIE Cert No.: FR_700240	
Battery pack (Backup)	Howell Energy Co., Ltd.	401120	3.7Vdc, 60mAh Max. charge current: 60mA Max. discharge current: 60mA	IEC 62133:2012	CB issued by LCIE Cert No.: FR_700223	
Supplementary information:						
¹⁾ An asterisk indicates a mark which assures the agreed level of surveillance						

IEC 60950-1						
Clause	Requirement + Test				Result - Remark	Verdict
1.6.2	TABLE: Electrical data (in normal conditions)					P
U (V)	I (A)	I _{rated} (A)	P (W)	Fuse #	I _{fuse} (A)	Condition/status
Supplied by DC source						
5Vdc	0.44	2.0	2.2	--	--	Condition A. The unit was operated max. Volume of speaker, Camera shooting with wifi and bluetooth function open, and charged two empty batteries.
5Vdc	0.42	2.0	2.1	--	--	Condition B. The unit was in "power off" mode, only charged two empty batteries.
Supplied by Main battery with model B1200G						
3.7Vdc	0.52	--	1.924	--	--	Condition C. The unit was operated max. Volume of speaker, Camera shooting, wifi and bluetooth function open.
Supplied by Backup battery with model 401120						
3.7Vdc	0.056	--	0.2072	--	--	Condition D. The backup function open.
Supplementary information:						

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)	
USB type C	--	0	0	0	
Micro USB	--	4.92	1.0	3.25	
supplementary information:					

2.1.1.5 c) 2)	TABLE: stored energy		N/A
Capacitance C (μF)	Voltage U (V)	Energy E (J)	
--	--	--	
supplementary information:			

2.2	TABLE: evaluation of voltage limiting components in SELV circuits			N/A
Component (measured between)			Max. voltage (V) (normal operation)	Voltage Limiting Components

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
		V peak	V d.c.
--		--	--
Fault test performed on voltage limiting components		Voltage measured (V) in SELV circuits (V peak or V d.c.)	
--		--	
supplementary information:			

2.5	TABLE: Limited power sources					P
Circuit output tested:						
Note: Measured Uoc (V) with all load circuits disconnected:						
Components	Test condition (Single fault)	Uoc (V)	I _{sc} (A)		VA	
			Meas.	Limit	Meas.	Limit
USB type C	Normal	0	0	8	0	100
Micro USB	Normal	4.92	1.0	8	3.96	100
Micro USB	J401 pin8 to pin30 short	4.03	6.05	8	13.5	100
supplementary information:						
Sc=Short circuit, Oc=Open circuit						

2.10.2	Table: working voltage measurement			N/A
Location		RMS voltage (V)	Peak voltage (V)	Comments
--		--	--	--
supplementary information:				

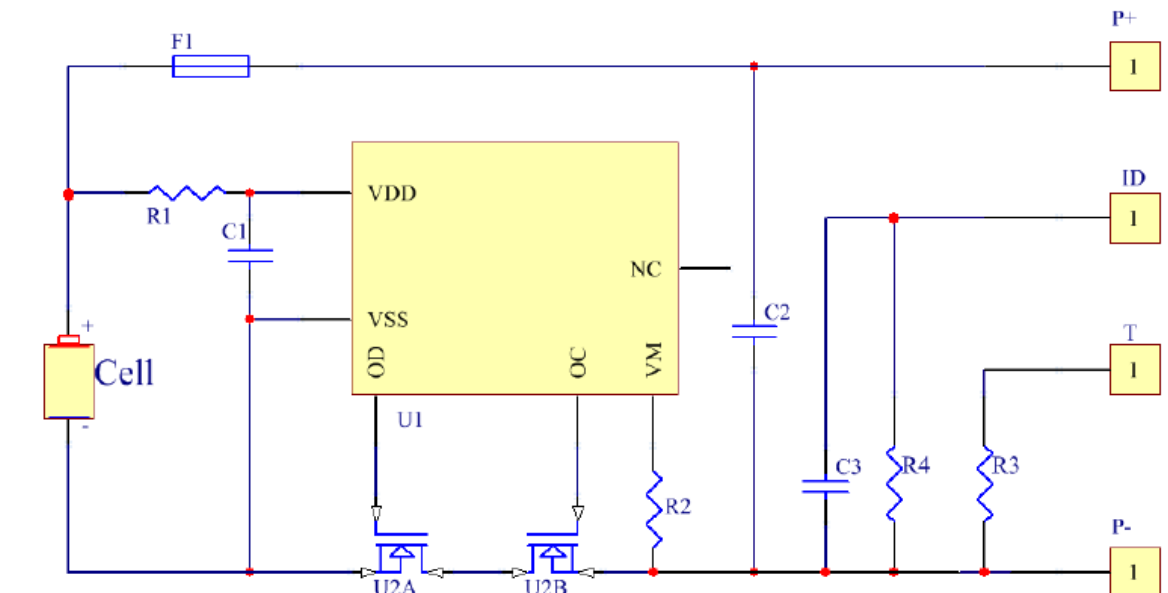
2.10.3 and 2.10.4	TABLE: Clearance and creepage distance measurements						N/A
Clearance (cl) and creepage distance (cr) at/of/between:		U peak (V)	U r.m.s. (V)	Required cl (mm)	cl (mm)	Required cr (mm)	cr (mm)
Functional:							
--		--	--	--	--	--	--
Basic/supplementary:							
--		--	--	--	--	--	--
Reinforced:							
--		--	--	--	--	--	--
Supplementary information:							

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

2.10.5	TABLE: Distance through insulation measurements					N/A
Distance through insulation (DTI) at/of:		U peak (V)	U rms (V)	Test voltage (V)	Required DTI (mm)	DTI (mm)
--		--	--	--	--	--
Supplementary information:						

4.3.8	TABLE: Batteries								P
The tests of 4.3.8 are applicable only when appropriate battery data is not available					--				--
Is it possible to install the battery in a reverse polarity position?					No				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.
Main battery with model B1200G									
Normal condition	--	--	--	0.386A	3.25A	0.520A	2.0A	--	--
Fault condition (B- to P-short)	--	--	--	0.387A	--	0.521A	--	--	--
Fault condition (Speaker short)	--	--	--	0.220A	--	0.190A	--	--	--
Fault condition (U501 pin12 to pin4 short)	--	--	--	0.850A	--	--	--	--	--
Backup battery with model 401120									
Normal condition	--	--	--	0.73mA	60mA	56mA	60mA	--	--
Fault condition (B- to P-short)	--	--	--	0.74mA	--	58mA	--	--	--
Fault condition (U501 pin12 to pin1 short)	--	--	--	900mA	--	--	--	--	--
Test results:						See below		Verdict	
- Chemical leaks						No chemical leaks		P	
- Explosion of the battery						No explosion.		P	

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
- Emission of flame or expulsion of molten metal		No emission of flame or expulsion of molten metal	P
- Electric strength tests of equipment after completion of tests		No isolation requirement	N/A
Supplementary information:			

4.3.8	TABLE: Batteries	P
Battery model: B1200G		
Battery category.....: Li-ion rechargeable battery		
Manufacturer.....: Jiade Energy Technology (Zhuhai) Co., Ltd.		
Type / model.....: B1200G		
Voltage.....: 3.7Vdc		
:		
Capacity.....: 3250mAh		
:		
Tested and Certified by (incl. Ref. No.).....: CB issued by LCIE Cert No.: FR_700240		
Circuit protection diagram: See below.		
 <p>The diagram shows a battery protection circuit. A yellow battery cell is connected to a fuse F1. The circuit includes a microcontroller U1 with pins VDD, VSS, NC, OD, OC, and VM. It also features two MOSFETs U2A and U2B, resistors R1, R2, R3, R4, capacitors C1, C2, C3, and a thermistor T. The output terminals are labeled P+, ID, T, and P-.</p>		

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

Battery model: 401120

Battery category.....: Rechargeable Li-Polymer battery

Manufacturer.....: Howell Energy Co., Ltd.

Type / model.....: 401120

Voltage.....: 3.7Vdc

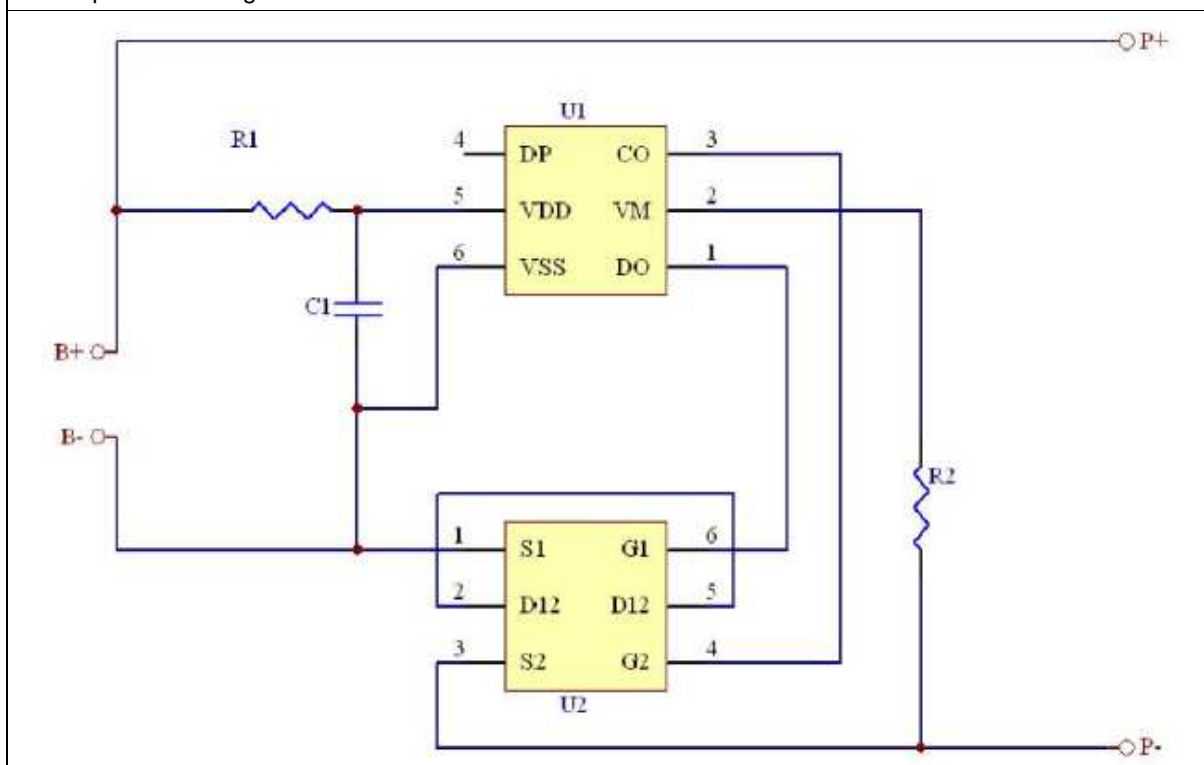
:

Capacity.....: 60mAh

:

Tested and Certified by (incl. Ref. No.).....: CB issued by LCIE
Cert No.: FR_700223

Circuit protection diagram: See below.

**MARKINGS AND INSTRUCTIONS (1.7.13)**

Location of replaceable battery	Enclosure inside
Language(s)	English
Close to the battery	No
In the servicing instructions	N/A
In the operating instructions	Yes

IEC 60950-1								
Clause	Requirement + Test				Result - Remark			Verdict
4.5	TABLE: Thermal requirements							P
	Supply voltage (V)	Condition A		Condition B		Condition C		—
	Ambient T _{min} (°C)	--	--	--	--	--	--	—
	Ambient T _{max} (°C)	See below	Shift to 50	See below	Shift to 50	See below	Shift to 50	—
Maximum measured temperature T of part/at::		T (°C)						Allowed Tmax (°C)
01. PCB near U801		61.9	71.9	49.3	59.3	59.3	69.3	105
02. PCB near U2201		66.0	76.0	50.6	60.6	62.5	72.5	105
03. PCB near U2801		67.2	77.2	50.7	60.7	63.8	73.8	105
04. PCB near U1901		65.7	75.7	49.2	59.2	63.3	73.3	105
05. PCB near U1501		63.7	73.7	50.0	60.0	60.5	70.5	105
06. PCB near U1301		66.1	76.1	50.1	60.1	63.4	73.4	105
07. Main battery		41.2	51.2	40.6	50.6	42.3	52.3	105
08. Backup battery		60.6	70.6	48.8	58.8	58.3	68.3	105
09. Plastic enclosure inside		55.3	65.3	46.3	56.3	54.3	64.3	105
10. Plastic enclosure outside		52.5	62.5	45.4	55.4	52.0	62.0	75
11. Ambient		40.0	50.0	40.0	50.0	40.0	50.0	--
Supplementary information:								
Temperature T of winding:		t ₁ (°C)	R ₁ (Ω)	t ₂ (°C)	R ₂ (Ω)	T (°C)	Allowed Tmax (°C)	Insulation class
--		--	--	--	--	--	--	--
Supplementary information: Test condition as below.								
A. The unit was operated max. Volume of speaker, Camera shooting with wifi and bluetooth function open, and charged two empty batteries.								
B. The unit was in “power off” mode, only charged two empty batteries.								
C. The unit was operated max. Volume of speaker, Camera shooting, wifi and bluetooth function open. (Supplied by Main battery with model B1200G)								

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

4.7	TABLE: Resistance to fire						P
------------	----------------------------------	--	--	--	--	--	----------

IEC 60950-1					
Clause	Requirement + Test		Result - Remark		Verdict
Part	Manufacturer of material	Type of material	Thickness (mm)	Flammability class	Evidence
Plastic enclosure	SABIC INNOVATIVE PLASTICS US L L C	3412ECR(f1) (GG)	Min. 1.6	V-0	UL
	SABIC JAPAN L L C	3413R(C)	Min. 1.6	V-1	UL
	SABIC INNOVATIVE PLASTICS B V	EXL9330(X)(f1) (GG)(B1)(IP)	Min. 1.6	V-1	UL
Supplementary information:					

5.1	TABLE: touch current measurement			N/A
Measured between:		Measured (mA)	Limit (mA)	Comments/conditions
--		--	--	--
supplementary information:				

5.2	TABLE: Electric strength tests, impulse tests and voltage surge tests			N/A
Test voltage applied between:		Voltage shape (AC, DC, impulse, surge)	Test voltage (V)	Breakdown Yes / No
Functional:				
--		--	--	--
Basic/supplementary:				
--		--	--	--
Reinforced:				
--		--	--	--
Supplementary information:				

5.3	TABLE: Fault condition tests					P
	Ambient temperature (°C)				See below	—
	Power source for EUT: Manufacturer, model/type, output rating				Refer to 1.5.1	—
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
Supplied by DC source on condition A						
Speaker	Short	5Vdc	30 minutes	--	--	Speaker shutdown. No damage, no hazards.
Main battery	Over charge	5Vdc	7.0 hours	--	--	Unit working as normal. No damage, no hazards.

IEC 60950-1						
Clause	Requirement + Test			Result - Remark		Verdict
Main battery	Over charge (B- to P- Short)	5Vdc	7.0 hours	--	--	Unit working as normal. No damage, no hazards.
Main battery	Over charge (U501 pin12 to pin4 short)	5Vdc	7.0 hours	--	--	Unit working as normal. No damage, no hazards.
Backup battery	Over charge	5Vdc	7.0 hours	--	--	Unit working as normal. No damage, no hazards.
Backup battery	Over charge (B- to P- Short)	5Vdc	7.0 hours	--	--	Unit working as normal. No damage, no hazards.
Backup battery	Over charge (U501 pin12 to pin1 short)	5Vdc	7.0 hours	--	--	Unit working as normal. No damage, no hazards.
Discharged by Main battery on condition C						
Speaker	Short	3.7Vdc	30 minutes	--	--	Speaker shutdown. No damage, no hazards.
Main battery	Over discharge	3.7Vdc	7.0 hours	--	--	Unit working as normal. No damage, no hazards.
Main battery	Over discharge (B- to P- Short)	3.7Vdc	7.0 hours	--	--	Unit working as normal. No damage, no hazards.
Discharged by Backup battery on condition D						
Backup battery	Over discharge	3.7Vdc	7.0 hours	--	--	Unit working as normal. No damage, no hazards.
Backup battery	Over discharge (B- to P- Short)	3.7Vdc	7.0 hours	--	--	Unit working as normal. No damage, no hazards.
Supplementary information: Test condition as below.						
A. The unit was operated max. Volume of speaker, Camera shooting with wifi and bluetooth function open, and charged two empty batteries.						
C. The unit was operated max. Volume of speaker, Camera shooting, wifi and bluetooth function open.						
D. The backup function open.						

C.2	TABLE: transformers							N/A
Loc.	Tested insulation	Working voltage peak / V (2.10.2)	Working voltage rms / V (2.10.2)	Required electric strength (5.2)	Required clearance / mm (2.10.3)	Required creepage distance / mm (2.10.4)	Required distance thr. insul. (2.10.5)	
--	--	--	--	--	--	--	--	
Loc.	Tested insulation			Test voltage/ V	Measured clearance / mm	Measured creepage dist./ mm	Measured distance thr. insul. / mm; number of layers	
--	--			--	--	--	--	
supplementary information:								

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

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C.2	TABLE: transformers	N/A

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

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

Information technology equipment – Safety –

Part 1: General requirements

Differences according to.....: EN 60950-1:2006/A11:2009/A1:2010/A12:2011/A2:2013

Attachment Form No......: EU_GD_IEC60950_1F

Attachment Originator: SGS Fimko Ltd

Master Attachment.....: Date 2014-02

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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		N/A
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		N/A
General (A2:2013)	Delete all the "country" notes in the reference document (IEC 60950-1:2005/A2:2013) according to the following list: 2.7.1 Note * 2.10.3.1 Note 2 6.2.2. Note * Note of secretary: Text of Common Modification remains unchanged.		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
Clause	Requirement + Test	Result - Remark	Verdict
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.	The sound pressure test complied with the requirements of EN 50332-2.	P
(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 *	Added.	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.	Complied.	P
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.	Complied.	P
	Zx Protection against excessive sound pressure from personal music players		P


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

IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>Zx.1 General</p> <p>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.</p> <p>A personal music player is a portable equipment for personal use, that:</p> <ul style="list-style-type: none"> 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. <p>NOTE 1 Examples are hand-held or body-worn portable CD players, MP3 audio players, Head Mounted Tablets with MP3 type features, PDA's or similar equipment.</p> <p>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.</p> <p>The requirements in this sub-clause are valid for music or video mode only.</p> <p>The requirements do not apply:</p> <ul style="list-style-type: none"> while the personal music player is connected to an external amplifier; or while the headphones or earphones are not used. <p>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.</p> <p>The requirements do not apply to:</p> <ul style="list-style-type: none"> hearing aid equipment and professional equipment; <p>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.</p>	Considered.	P
	<p>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.</p> <p>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.</p> <p>For equipment which is clearly designed or intended for use by young children, the limits of EN 71-1 apply.</p>		P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>Zx.2 Equipment requirements</p> <p>No safety provision is required for equipment that complies with the following:</p> <ul style="list-style-type: none"> 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. <p>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.</p> <p>All other equipment shall:</p> <ul style="list-style-type: none"> 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 	The sound pressure test complied with the requirements of EN 50332-2	P

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

IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>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.</p> <p>d) have a warning as specified in Zx.3; and</p> <p>e) not exceed the following:</p> <ol style="list-style-type: none"> 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. <p>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.</p> <p>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.</p> <p>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.</p>	<p>Test Results of Player (mV)</p> <p>Left Ear (Mean): 14.171</p> <p>Right Ear (Mean): 11.473</p>	P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>Zx.3 Warning</p> <p>The warning shall be placed on the equipment, or on the packaging, or in the instruction manual and shall consist of the following:</p> <p>the symbol of Figure 1 with a minimum height of 5 mm; and</p> <p>the following wording, or similar:</p> <p>"To prevent possible hearing damage, do not listen at high volume levels for long periods."</p>  <p>Figure 1 – Warning label (IEC 60417-6044)</p> <p>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.</p>		N/A
	Zx.4 Requirements for listening devices (headphones and earphones)		N/A
	<p>Zx.4.1 Wired listening devices with analogue input</p> <p>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.</p> <p>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).</p> <p>NOTE The values of 94 dBA – 75 mV correspond with 85dBA – 27 mV and 100 dBA – 150 mV.</p>		N/A

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

IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>Zx.4.2 Wired listening devices with digital input</p> <p>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.</p> <p>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.).</p> <p>NOTE An example of a wired listening device with digital input is a USB headphone.</p>	Not such equipment	N/A
	<p>Zx.4.3 Wireless listening devices</p> <p>In wireless mode:</p> <p>with any playing and transmitting device playing the fixed programme simulation noise described in EN 50332-1; and</p> <p>respecting the wireless transmission standards, where an air interface standard exists that specifies the equivalent acoustic level; and</p> <p>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.</p> <p>NOTE An example of a wireless listening device is a Bluetooth headphone.</p>	Not such equipment	N/A
	<p>Zx.5 Measurement methods</p> <p>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.</p> <p>NOTE Test method for wireless equipment provided without listening device should be defined.</p>	Considered	P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
Clause	Requirement + Test	Result - Remark	Verdict
2.7.1	Replace the subclause as follows: Basic requirements To protect against excessive current, short-circuits and earth faults in PRIMARY CIRCUITS, protective devices shall be included either as integral parts of the equipment or as parts of the building installation, subject to the following, a), b) and c): a) except as detailed in b) and c), protective devices necessary to comply with the requirements of 5.3 shall be included as parts of the equipment; b) for components in series with the mains input to the equipment such as the supply cord, appliance coupler, r.f.i. filter and switch, short-circuit and earth fault protection may be provided by protective devices in the building installation;	Class III equipment. Supplied by SELV and not connected to the mains directly.	N/A
	c) it is permitted for PLUGGABLE EQUIPMENT TYPE B or PERMANENTLY CONNECTED EQUIPMENT, to rely on dedicated overcurrent and short-circuit protection in the building installation, provided that the means of protection, e.g. fuses or circuit breakers, is fully specified in the installation instructions. If reliance is placed on protection in the building installation, the installation instructions shall so state, except that for PLUGGABLE EQUIPMENT TYPE A the building installation shall be regarded as providing protection in accordance with the rating of the wall socket outlet.	Class III equipment. Supplied by SELV and not connected to the mains directly.	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.	Class III equipment. No power cord used	N/A

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

IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
Clause	Requirement + Test	Result - Remark	Verdict
3.2.5.1 (A2:2013)	NOTE Z1 The harmonised code designations corresponding to the IEC cord types are given in Annex ZD	Class III equipment. No power cord used	N/A
3.3.4	In Table 3D, delete the fourth line: conductor sizes for 10 to 13 A, and replace with the following: Over 10 up to and including 16 1,5 to 2,5 1,5 to 4 Delete the fifth line: conductor sizes for 13 to 16 A	No such components.	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 (artificial optical radiation).	Added.	N/A
	Standards taking into account mentioned Recommendation and Directive which demonstrate compliance with the applicable EU Directive are indicated in the OJEC.	Replaced.	N/A
Annex H	Replace the last paragraph of this annex by: At any point 10 cm from the surface of the OPERATOR ACCESS AREA, the dose rate shall not exceed 1 µSv/h (0,1 mR/h) (see NOTE). Account is taken of the background level. Replace the notes as follows: NOTE These values appear in Directive 96/29/Euratom. Delete NOTE 2.	Replaced	N/A
Bibliography	Additional EN standards.	Added	N/A

ZA	NORMATIVE REFERENCES TO INTERNATIONAL PUBLICATIONS WITH THEIR CORRESPONDING EUROPEAN PUBLICATIONS	—
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ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
Clause	Requirement + Test	Result - Remark	Verdict
1.2.4.1	In Denmark , certain types of Class I appliances (see 3.2.1.1) may be provided with a plug not establishing earthing conditions when inserted into Danish socket-outlets.	Class III equipment	N/A
1.2.13.14 (A11:2009)	In Norway and Sweden , for requirements see 1.7.2.1 and 7.3 of this annex.	No such construction	N/A

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

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.	Class III equipment	N/A
1.5.8	In Norway , due to the IT power system used (see annex V, Figure V.7), capacitors are required to be rated for the applicable line-to-line voltage (230 V).	Class III equipment	N/A
1.5.9.4	In Finland, Norway and Sweden , the third dashed sentence is applicable only to equipment as defined in 6.1.2.2 of this annex.		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.2.1	<p>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:</p> <p>In Finland: "Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan"</p> <p>In Norway: "Apparatet må tilkoples jordet stikkontakt"</p> <p>In Sweden: "Apparaten skall anslutas till jordat uttag"</p>	Class III equipment	N/A
1.7.2.1 (A11:2009)	<p>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.</p> <p>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.</p> <p>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:</p> <p>"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)."</p>		

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>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.</p> <p>Translation to Norwegian (the Swedish text will also be accepted in Norway):</p> <p>“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.”</p> <p>Translation to Swedish:</p> <p>”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.”</p>	No such socket-outlet	N/A
1.7.2.1 (A2:2013)	<p>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.</p> <p>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.”</p>	Class III equipment	N/A
1.7.5 1.7.5 (A11:2009)	<p>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.</p> <p>For CLASS II EQUIPMENT the socket outlet shall be in accordance with Standard Sheet DKA 1-4a.</p>	No such socket-outlet	N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
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 such socket-outlet	N/A
2.2.4	In Norway , for requirements see 1.7.2.1, 6.1.2.1 and 6.1.2.2 of this annex.	No TNV	N/A
2.3.2	In Finland, Norway and Sweden there are additional requirements for the insulation. See 6.1.2.1 and 6.1.2.2 of this annex.	No TNV	N/A
2.3.4	In Norway , for requirements see 1.7.2.1, 6.1.2.1 and 6.1.2.2 of this annex.	No TNV	N/A
2.6.3.3	In the United Kingdom , the current rating of the circuit shall be taken as 13 A, not 16 A.	Class III equipment	N/A
2.7.1	In the United Kingdom , to protect against excessive currents and short-circuits in the PRIMARY CIRCUIT of DIRECT PLUG-IN EQUIPMENT, tests according to 5.3 shall be conducted, using an external protective device rated 30 A or 32 A. If these tests fail, suitable protective devices shall be included as integral parts of the DIRECT PLUG-IN EQUIPMENT, so that the requirements of 5.3 are met.	The EUT is not direct plug-in equipment.	N/A
2.10.5.13	In Finland, Norway and Sweden , there are additional requirements for the insulation, see 6.1.2.1 and 6.1.2.2 of this annex.	Class III equipment	N/A
3.2.1.1	In Switzerland , supply cords of equipment having a RATED CURRENT not exceeding 10 A shall be provided with a plug complying with SEV 1011 or IEC 60884-1 and one of the following dimension sheets: SEV 6532-2:1991 Plug Type 15 3P+N+PE 250/400 V, 10 A	Class III equipment	N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>SEV 6533-2.1991 Plug Type 11 L+N 250 V, 10 A</p> <p>SEV 6534-2.1991 Plug Type 12 L+N+PE 250 V, 10 A</p> <p>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:</p> <p>SEV 5932-2.1998: Plug Type 25 , 3L+N+PE 230/400 V, 16 A</p> <p>SEV 5933-2.1998: Plug Type 21, L+N, 250 V, 16A</p> <p>SEV 5934-2.1998: Plug Type 23, L+N+PE 250 V, 16 A</p>	Class III equipment	N/A
3.2.1.1	<p>In Denmark, supply cords of single-phase equipment having a rated current not exceeding 13 A shall be provided with a plug according to the Heavy Current Regulations, Section 107-2-D1.</p> <p>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.</p> <p>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.</p>	Class III equipment	N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
Clause	Requirement + Test	Result - Remark	Verdict
3.2.1.1 (A2:2013)	<p>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.</p> <p>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.</p> <p>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.</p> <p>Justification the Heavy Current Regulations, 6c</p>	Class III equipment	N/A
3.2.1.1	<p>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.</p> <p>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.</p> <p>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.</p> <p>If poly-phase equipment is provided with a supply cord with a plug, this plug shall be in accordance with UNE-EN 60309-2.</p>	Class III equipment	N/A
3.2.1.1	<p>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.</p> <p>NOTE 'Standard plug' is defined in SI 1768:1994 and essentially means an approved plug conforming to BS 1363 or an approved conversion plug.</p>	Class III equipment	N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
Clause	Requirement + Test	Result - Remark	Verdict
3.2.1.1	In Ireland , apparatus which is fitted with a flexible cable or cord and is designed to be connected to a mains socket conforming to I.S. 411 by means of that flexible cable or cord and plug, shall be fitted with a 13 A plug in accordance with Statutory Instrument 525:1997 - National Standards Authority of Ireland (section 28) (13 A Plugs and Conversion Adaptors for Domestic Use) Regulations 1997.	Class III equipment	N/A
3.2.4	In Switzerland , for requirements see 3.2.1.1 of this annex.	Class III equipment	N/A
3.2.5.1	In the United Kingdom , a power supply cord with conductor of 1,25 mm ² is allowed for equipment with a rated current over 10 A and up to and including 13 A.	Class III equipment	N/A
3.3.4	In the United Kingdom , the range of conductor sizes of flexible cords to be accepted by terminals for equipment with a RATED CURRENT of over 10 A up to and including 13 A is: • 1,25 mm ² to 1,5 mm ² nominal cross-sectional area.	Class III equipment	N/A
4.3.6	In the United Kingdom , the torque test is performed using a socket outlet complying with BS 1363 part 1:1995, including Amendment 1:1997 and Amendment 2:2003 and the plug part of DIRECT PLUG-IN EQUIPMENT shall be assessed to BS 1363: Part 1, 12.1, 12.2, 12.3, 12.9, 12.11, 12.12, 12.13, 12.16 and 12.17, except that the test of 12.17 is performed at not less than 125 °C. Where the metal earth pin is replaced by an Insulated Shutter Opening Device (ISOD), the requirements of clauses 22.2 and 23 also apply.	The EUT is not direct plug-in equipment.	N/A
4.3.6	In Ireland , DIRECT PLUG-IN EQUIPMENT is known as plug similar devices. Such devices shall comply with Statutory Instrument 526:1997 - National Standards Authority of Ireland (Section 28) (Electrical plugs, plug similar devices and sockets for domestic use) Regulations, 1997.	The EUT is not direct plug-in equipment.	N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
Clause	Requirement + Test	Result - Remark	Verdict
5.1.7.1	<p>In Finland, Norway and Sweden TOUCH CURRENT measurement results exceeding 3,5 mA r.m.s. are permitted only for the following equipment:</p> <ul style="list-style-type: none"> • STATIONARY PLUGGABLE EQUIPMENT TYPE A that <ul style="list-style-type: none"> is intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, for example, in a telecommunication centre; and has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR; and is provided with instructions for the installation of that conductor by a SERVICE PERSON; • STATIONARY PLUGGABLE EQUIPMENT TYPE B; • STATIONARY PERMANENTLY CONNECTED EQUIPMENT. 	Not such equipment	N/A
6.1.2.1 (A1:2010)	<p>In Finland, Norway and Sweden, add the following text between the first and second paragraph of the compliance clause:</p> <p>If this insulation is solid, including insulation forming part of a component, it shall at least consist of either</p> <ul style="list-style-type: none"> - 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. <p>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</p> <ul style="list-style-type: none"> - passes the tests and inspection criteria of 2.10.11 with an electric strength test of 1,5 kV multiplied by 1,6 (the electric strength test of 2.10.10 shall be performed using 1,5 kV), and - is subject to ROUTINE TESTING for electric strength during manufacturing, using a test voltage of 1,5 kV. 	No connected to the telecommunication network.	N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>It is permitted to bridge this insulation with an optocoupler complying with 2.10.5.4 b).</p> <p>It is permitted to bridge this insulation with a capacitor complying with EN 60384-14:2005, subclass Y2.</p> <p>A capacitor classified Y3 according to EN 60384-14:2005, may bridge this insulation under the following conditions:</p> <ul style="list-style-type: none"> - 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. 	No connected to the telecommunication network.	N/A
6.1.2.2	In Finland, Norway and Sweden , the exclusions are applicable for PERMANENTLY CONNECTED EQUIPMENT, PLUGGABLE EQUIPMENT TYPE B and equipment intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, e.g. in a telecommunication centre, and which has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR and is provided with instructions for the installation of that conductor by a SERVICE PERSON.	No connected to the telecommunication network.	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.	No cable distribution systems inside the EUT.	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.	No cable distribution systems inside the EUT.	N/A

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

Annex ZD
(informative)

IEC and CENELEC code designations for flexible cords

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

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

IEC60950_1F ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
ATTACHMENT TO TEST REPORT IEC 60950-1 (AUSTRALIA/NEW ZEALAND) NATIONAL DIFFERENCES (Information technology equipment-safety)			
Differences according to: AS/NZS 60950.1:2015			
Attachment Form No.: AU_NZ_ND_IEC60950_1F			
Attachment Originator: JAS-ANZ			
Master Attachment: 2017-06			
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	National Differences		P
Appendix ZZ	Variations to IEC 60950-1, Ed 2.2 (2013) for Australia and New Zealand		P
1.2	DEFINITIONS		P
	After definition 'PERSON, SERVICE', insert the following new definition: POTENTIAL IGNITION SOURCE.....1.2.12.201	Insert	P
1.5	COMPONENTS		P
1.5.1	1..... First paragraph, insert the following text after the words 'IEC component standard: or the relevant Australian/New Zealand Standard 2..... In the Note, insert the following text after the word standard: or the relevant Australian/New Zealand Standard 3..... Second paragraph, delete the words 'without further evaluation'	Added.	P

IEC 60950-1																
Clause	Requirement + Test		Result - Remark	Verdict												
1.5.2	1..... First paragraph, insert the following text after the word 'standard' or an Australian/New Zealand Standard 2..... First paragraph, second dash item, second line, insert the following text after the word 'standard' or an Australian/New Zealand Standard 3..... First paragraph, second dash item, last line, insert the following text after the word 'standard': or an Australian/New Zealand Standard		Added.	P												
1.7	MARKINGS AND INSTRUCTIONS			P												
1.7.1.3	Delete existing text and replace with the following: Graphical symbols placed on the equipment as a requirement of this standard, shall be in accordance with IEC 60417 or ISO 3864-2 or ISO 7000, if available. In the absence of suitable symbols, the manufacturer may design specific graphical symbols. Symbols as required by this standard placed on the equipment shall be explained in the user manual			P												
2.9	ELECTRICAL INSULATION			N/A												
2.9.2	Variation Second paragraph, delete the word 'designated'			N/A												
3.2.5	POWER SUPPLY CORDS			N/A												
Table 3B	Variation 1..... Delete the first four rows and replace with the following: <table><tr><td>Over 0.2 up to and including 3</td><td>0.5^a</td><td>18 [0.8]</td></tr><tr><td>Over 3 up to and including 7.5</td><td>0.75</td><td>16 [1.3]</td></tr><tr><td>Over 7.5 up to including 10</td><td>(0.75)^b 1.00</td><td>16 [1.3]</td></tr><tr><td>Over 10 up to including 16</td><td>(1.0)^c 1.5</td><td>14 [2]</td></tr></table>		Over 0.2 up to and including 3	0.5 ^a	18 [0.8]	Over 3 up to and including 7.5	0.75	16 [1.3]	Over 7.5 up to including 10	(0.75) ^b 1.00	16 [1.3]	Over 10 up to including 16	(1.0) ^c 1.5	14 [2]	No such parts	N/A
Over 0.2 up to and including 3	0.5 ^a	18 [0.8]														
Over 3 up to and including 7.5	0.75	16 [1.3]														
Over 7.5 up to including 10	(0.75) ^b 1.00	16 [1.3]														
Over 10 up to including 16	(1.0) ^c 1.5	14 [2]														
	2..... Delete NOTE 1 and renumber existing NOTE 2 as 'NOTE'		No such parts	N/A												

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>3..... <i>Delete</i> Footnote ^a and replace with the following:</p> <p>^a This nominal cross-sectional area is only allowed for Class II appliances if the length of the power supply cord, measured between the point where the cord, or cord guard, enters the appliance, and the to the plug does not exceed 2 m (0,5 mm² three-core supply flexible cords are not permitted; see AS/NZS 3191)</p>	No such parts	N/A
4.3	DESIGN AND CONSTRUCTION		P
4.3.6	<p>Variation</p> <p><i>Delete</i> the third paragraph and <i>replace</i> with the following:</p>	No such equipment.	N/A
	<i>Equipment with a plug portion, suitable for insertion into a 10 A 3-pin flat-pin socket-outlet complying with AS/NZS 3112 shall comply with the requirements in AS/NZS 3112 for equipment with integral pins for insertion into socket-outlets</i>	No such equipment.	N/A
4.3.8	<p>Addition</p> <p>Eighth paragraph, <i>insert</i> the following new note after the first dash item:</p>	Insert	P
	NOTE 6.201 In cases where the voltage source is provided by power from an unassociated power source, consideration should be given to the effects of possible single fault conditions in the unassociated equipment. If the power source is unknown then it should be assumed that the maximum limit of SELV may be applied to the source input under assumed single fault conditions in the source when assessing the charging circuit in the equipment under test.		P
4.3.13.5.1	<p>Variation</p> <p><i>Delete</i> the first paragraph and <i>replace</i> with the following:</p> <p>Except as permitted below, equipment shall be classified and labelled according to IEC 60825-1 or AS/NZS 60825.1, IEC 60825-2 or AS/NZS 60825.2 and IEC 60825-12, as applicable</p>		N/A
	Third paragraph, first sentence, after 'IEC 60825-1', <i>insert</i> the following text: or AS/NZS 60825.1		N/A
	Fourth paragraph, after 'IEC 60825-1', <i>insert</i> the following text: or AS/NZS 60825.1		N/A
4.7	RESISTANCE TO FIRE		N/A
4.7	<p>Addition</p> <p>At the end of Clause 4.7, <i>insert</i> the following text:</p> <p>For alternate tests refer to Clause 4.7.201</p>		N/A
6	CONNECTION TO TELECOMMUNICATIONS NETWORKS		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
6.2.2	Variation For Australia only, <i>delete</i> the first paragraph and Note, and <i>replace</i> with the following: In Australia only, compliance with 6.2.2 shall be checked by the tests of both 6.2.2.1 and 6.2.2.2	No TNV circuit.	N/A
6.2.2.1	Variation For Australia only, <i>delete</i> the first paragraph including the Notes, and <i>replace</i> with the following: In Australia only, the electrical separation is subjected to 10 impulses of alternating polarity, using the impulse test generator Reference 1 of Table N.1. The interval between successive impulses is 60 s and the initial voltage, U_c , is: (i) for 6.2.1 a): 7.0 kV for hand-held telephones and for headsets and 2.5 kV for other equipment; and (ii)..... For 6.2.1 b) and 6.2.1 c): 1.5kV	No TNV circuit.	N/A
	NOTE 201 The 7 kV impulse simulates lightning surges on typical rural and semi-rural network lines		N/A
	NOTE 202 The value of 2.5 kV for 6.2.1 a) was chosen to ensure the adequacy of the insulation concerned and does not necessarily simulate likely overvoltages		N/A
6.2.2.2	Variation For Australia only, delete the second paragraph including the Note, and replace with the following: In Australia only, the a.c. test voltage is (i) for 6.2.1 a): 3kV; and (ii)..... for 6.2.1b) and 6.2.1c): 1.5kV	No TNV circuit.	N/A
	NOTE 201 Where there are capacitors across the insulation under test, it is recommended that d.c. test voltages are used.		N/A
	NOTE 202 The 3 kV and 1.5 kV values have been determined considering the low frequency induced voltages from the power supply distribution system.		N/A
7	CONNECTION TO CABLE DISTRIBUTION NETWORK		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
7.3	Addition <i>Add</i> the following before the first paragraph: Equipment providing functions that fall only within the scope of AS/NZS 60065 and that incorporate a PSTN interface, are not required to comply with this Clause where the only ports provided on the equipment, in addition to a coaxial cable connection and a PSTN interface, are audio or video ports and analogue or data ports not intended to be used for telecommunications purposes	No cable distribution system	N/A
Annex P	Addition <i>Add</i> the following Normative References: AS/NZS 3191, Electric flexible cords AS/NZS 3112, Approval and test specification—Plugs and socket-outlets	No such parts	N/A

	Special national conditions (if any)		P
1.2.12	FLAMMABILITY		P
1.2.12.15	Addition After Clause 1.2.12.15, <i>insert</i> the following new clause:	Insert	P
1.2.12.201	POTENTIAL IGNITION SOURCE Possible fault which can start a fire if the open-circuit voltage measured across an interruption or faulty contact exceeds a value of 50 V (peak) a.c. or d.c. and the product of the peak value of this voltage and the measured r.m.s. current under normal operating conditions exceeds 15 VA		N/A
	Such a faulty contact or interruption in an electrical connection includes those which may occur in CONDUCTIVE PATTERNS on PRINTED BOARDS		N/A
	NOTE 1 An electronic protection circuit may be used to prevent such a fault from becoming a POTENTIAL IGNITION SOURCE		N/A
	NOTE 2 This definition is from AS/NZS 60065:2012, Clause 2.8.11.		N/A
4	PHYSICAL REQUIREMENTS		P
4.1	Addition After Clause 4.1, <i>insert</i> new Clause 4.1.201 as follows:	Insert	N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
4.1.201	Display devices used for television purposes Display devices which may be used for television purposes, with a mass of 7 kg or more, shall comply with the requirements for stability and mechanical hazards, including the additional stability requirements for television receivers, specified in AS/NZS 60065	No such equipment	N/A
4.3	DESIGN AND CONSTRUCTION		N/A
4.3.8	Addition After Clause 4.3.8, <i>add</i> the following new clause as follows	Added	N/A
4.3.8.201	Products containing coin/button cell batteries and batteries designated R1 The requirements of AS/NZS 60065:2012 Amendment 1:2015, Clause 14.10.201 apply for this Clause.	No such battery	N/A
4.7	RESISTANCE TO FIRE		P
4.7.3.6	Addition After Clause 4.7.3.6, <i>add</i> new clauses as follows:	Added	P
4.7.201	Resistance to fire—Alternative tests		N/A
4.7.201.1	General Parts of non-metallic material shall be resistant to ignition and spread of fire. This requirement does not apply to decorative trims, knobs and other parts unlikely to be ignited or to propagate flames from inside the apparatus, or the following: a) Components that are contained in an enclosure having a flammability category of V-0 according to AS/NZS 60695.11.10 and having openings only for the connecting wires filling the openings completely, and for ventilation not exceeding 1 mm in width regardless of length.		N/A
	b) The following parts which would contribute negligible fuel to a fire: – small mechanical parts, the mass of which does not exceed 4 g, such as mounting parts, gears, cams, belts and bearings; – small electrical components, such as capacitors with a volume not exceeding 1,750 mm ³ , integrated circuits, transistors and optocoupler packages, if these components are mounted on material of flammability category V-1, or better, according to AS/NZS 60695.11.10	The manufacturer commits to fulfil the requirement when the product will be sold in Australia	N/A
	NOTE In considering how to minimize propagation of fire and what 'small parts' are, account should be taken of the cumulative effect of small parts adjacent to each other for the possible effect of propagating the fire from one part to another		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	<i>Compliance shall be checked by the tests of 4.7.201.2, 4.7.201.3, 4.7.201.4 and 4.7.201.5</i>		N/A
	<i>For the base material of printed boards, compliance shall be checked by the test of 4.7.201.5</i>		N/A
	The tests shall be carried out on parts of non-metallic material which have been removed from the apparatus. When the glow-wire test is carried out, the parts shall be placed in the same orientation as they would be in normal use. These tests are not carried out on internal wiring		N/A
4.7.201.2	Testing of non-metallic materials Parts of non-metallic material shall be subject to the glow-wire test of AS/NZS 60695.2.11 which shall be carried out at 550°C Parts for which the glow-wire test cannot be carried out, such as those made of soft or foamy material, shall meet the requirements specified in ISO 9772 for category FH-3 material. The glow-wire test shall be not carried out on parts of material classified at least FH-3 according to ISO 9772 provided that the sample tested was not thicker than the relevant part.		N/A
4.7.201.3	Testing of insulating materials Parts of insulating material supporting POTENTIAL IGNITION SOURCES shall be subject to the glow-wire test of AS/NZS 60695.2.11 which shall be carried out at 750°C. The test shall be also carried out on other parts of insulating material which are within a distance of 3 mm of the connection. NOTE Contacts in components such as switch contacts are considered to be connections. For parts which withstand the glow-wire test but produce a flame, other parts above the connection within the envelope of a vertical cylinder having a diameter of 20 mm and a height of 50 mm shall be subjected to the needle-flame test. However, parts shielded by a barrier which meets the needle-flame test shall not be tested. The needle-flame test shall be made in accordance with AS/NZS 60695.11.5 with the following modifications:		N/A

IEC 60950-1				
Clause	Requirement + Test		Result - Remark	Verdict
	Clause of AS/NZS 60695.11.5	Change		N/A
	9 Test procedure			
	9.2 Application of Needle-flame	Delete the first and second paragraphs and replace with the following: The specimen shall be arranged so that the flame can be applied to a vertical or horizontal edge as shown in the examples of Figure 1. If possible the flame shall be applied at least 10 mm from a corner. The duration of application of the test flame shall be 30 s ± 1 s		
	9.3 Number of test specimens	Delete existing text and replace with the following: The test shall be made on one specimen. If the specimen does not withstand the test, the test may be repeated on two further specimens, both of which shall withstand the test.		
	11 Evaluation of test results	Delete existing text and replace with the following: The duration of burning (tb) shall not exceed 30 s. However, for printed circuit boards, it shall not exceed 15s		
	The needle-flame test shall not be carried out on parts of material classified as V-0 or V-1 according to AS/NZS 60695.11.10, provided that the sample tested was not thicker than the relevant part			N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
4.7.201.4	Testing in the event of non-extinguishing material If parts, other than enclosures, do not withstand the glow wire tests of 4.7.201.3 by failure to extinguish within 30 s after the removal of the glow-wire tip, the needle-flame test detailed in 4.7.201.3 shall be made on all parts of non-metallic material which are within a distance of 50 mm or which are likely to be impinged upon by flame during the tests of 4.7.201.3. Parts shielded by a separate barrier which meets the needle-flame test need not be tested.		N/A
	NOTE 1 If the enclosure does not withstand the glow-wire test the equipment is considered to have failed to meet the requirements of Clause 4.7.201 without the need for consequential testing.		N/A
	NOTE 2 If other parts do not withstand the glow-wire test due to ignition of the tissue paper and if this indicates that burning or glowing particles can fall onto an external surface underneath the equipment, the equipment is considered to have failed to meet the requirements of Clause 4.7.201 without the need for consequential testing		N/A
	NOTE 3 Parts likely to be impinged upon by the flame are considered to be those within the envelope of a vertical cylinder having a radius of 10 mm and a height equal to the height of the flame, positioned above the point of the material supporting, in contact with, or in close proximity to, connections.		N/A
4.7.201.5	Testing of printed boards The base material of printed boards shall be subjected to the needle-flame test of Clause 4.7.201.3. The flame shall be applied to the edge of the board where the heat sink effect is lowest when the board is positioned as in normal use. The flame shall not be applied to an edge, consisting of broken perforations, unless the edge is less than 3 mm from a POTENTIAL IGNITION SOURCE.		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>The test is not carried out if the</p> <ul style="list-style-type: none"> – Printed board does not carry any POTENTIAL IGNITION SOURCE; – Base material of printed boards, on which the available apparent power at a connection exceeds 15 VA operating at a voltage exceeding 50 V and equal or less than 400 V (peak) a.c. or d.c. under normal operating conditions, is of flammability category V-1 or better according to AS/NZS 60695.11.10, or the printed boards are protected by an enclosure meeting the flammability category V-0 according to AS/NZS 60695.11.10, or made of metal, having openings only for connecting wires which fill the openings completely; or – Base material of printed boards, on which the available apparatus power at a connection exceeds 15 VA operating at a voltage exceeding 400 V (peak) a.c. or d.c. under normal operating conditions, and base material of printed boards supporting spark gaps which provides protection against overvoltages, is of flammability category V-0 according to AS/NZS 60695.11.10 or the printed boards are contained in a metal enclosure, having openings only for connecting wires which fill the openings completely <p><i>Compliance shall be determined using the smallest thickness of the material.</i></p>		N/A
	<p>NOTE Available apparent power is the maximum apparent power which can be drawn from the supplying circuit through a resistive load whose value is chosen to maximise the apparent power for more than 2 m when the circuit supplied is disconnected.</p>		N/A



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

ATTACHMENT TO NATIONAL DIFFERENCE			
National differences of Switzerland IEC 60950-1, 2nd edition (See also group differences)			—
1.5.1	Ordinance on environmentally hazardous substances SR 814.081, Annex 1.7, Mercury - Annex 1.7 of SR 814.81 applies for mercury. Switches containing mercury such as thermostats, relays and level controllers are not allowed.	Considered.	P
1.7.13	Ordinance on chemical hazardous risk reduction SR 814.81, Annex 2.15 Batteries Annex 2.15 of SR 814.81 applies for batteries containing cadmium and mercury. Note: Ordinance relating to environmentally hazardous substances, SR 814.013 of 1986-06-09 is not longer in force and superseded by SR 814.81 of 2009-02-01 (ChemRRV).	Considered.	P
3.2	Supply cords of portable electrical appliances having a rated current not exceeding 10 A shall be provided with a plug complying with IEC 60884-1(3.ed.) + am1, SEV 1011 and one of the following dimension sheets: - SEV 6533-2:2009 Plug type 11, L + N, 250V 10A - SEV 6534-2:2009 Plug type 12, L + N + PE, 250V 10A - SEV 6532-2:2009 Plug type 15, 3L + N + PE, 250/400V 10A Supply cords of portable electrical appliances having a rated current not exceeding 16 A shall be provided with a plug complying with IEC 60884-1(3.ed.) + am1, SEV 1011 and one of the following dimension sheets: - SEV 5933-2:2009 Plug type 21 L + N, 250 V, 16A - SEV 5934-2:2009 Plug type 23 L + N + PE, 250 V, 16A - SEV 5932-2:2009 Plug type 25 3L + N + PE, 250/400V 16A NOTE 16 A plugs are not often used in Swiss domestic installation system. See TRF template regulatory requirements Switzerland on IECEE Website R.R. TRF templates.	No such parts	N/A

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

ATTACHMENT TO NATIONAL DIFFERENCE		
National differences of Denmark IEC 60950-1, 2nd edition (See also group differences)		—
General	<p>The clauses in this test report form replaces all the clauses in Test Report Form No IECEN60950_1C that deals with Danish differences to IEC 60 950-1 2nd Ed. (2005) i.e. the Danish differences in the sections ZB and ZC of Test Report Form No IECEN60950_1C are replaced by the clauses in this report form.</p> <p>The reason for the publication of this test report form is the publication of EN 60950-1/A11: 2009. The most significant difference introduced by that CENELEC amendment is the total deletion of all Danish A-deviations.</p>	P
1.2.4.1	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	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.	N/A
1.7.5	For CLASS II EQUIPMENT the socket outlet shall be in accordance with Standard Sheet DKA 1-4a.	N/A
3.2.1.1	<p>Supply cords of single-phase equipment having a rated current not exceeding 13 A shall be provided with a plug according to the Heavy Current Regulations, Section 107-2-D1.</p> <p>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.</p> <p>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.</p>	N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
ATTACHMENT TO NATIONAL DIFFERENCE			
National differences of China IEC 60950-1, 2nd edition			--
1.1.2	Revise the third dashed paragraph as: — equipment intended to be used in vehicles, on board ships or aircraft, at altitudes greater than 5000m;	No such use	N/A
1.4.5	At the end of the third dashed paragraph ,added following paragraph: If the equipment is intended for direct connection to an AC mains supply, the tolerances on RATED VOLTAGE shall be taken as +10%,-10% unless a wider tolerance is declared by the manufacturer. Delete the contents which behind the first dash.	Added	N/A
1.4.12.1	Tma in clause 1.4.12.1 amended as: Tma: is the maximum ambient temperature permitted by the manufacturer's specification, or 35 °C, whichever is greater. And note 1: for equipment not to be operated at tropical climatic conditions, Tma: is the maximum ambient temperature permitted by the manufacturer's specification, or 25 °C, whichever is greater. Add note 2: for equipment is to be operated at 2000m-5000m above sea leave, its temperature test conditions and temperature limits are considered.		P
1.5. 2	Add a note behind the first dash : A component used shall comply with related requirements corresponding altitude of 5000m.	Added	N/A
1.7	Add one paragraph before the last paragraph: The required marking and instruction should be given in normative Chinese unless otherwise specified.	The manufacturer commits to fulfil the requirement when the product will be sold in China.	P
1.7.1	Based on the AC mains supply of China, the RATED VOLTAGE should be 220V (single phase) or 380V (three-phases) for single rated voltage, for RATED VOLTAGE RANGE, it should cover 220V or 380V (three-phases), for multiple RATED VOLTAGES, one of them should be 220V or 380V (three-phases) and set on 220V or 380V (three-phases) when manufactured. And the RATED FREQUENCY or RATED FREQUENCY RANGE should be 50Hz or include 50Hz.		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
ATTACHMENT TO NATIONAL DIFFERENCE			
1.7.2.1	<p>Add requirements of warning for equipment intended to be used at altitudes not exceeding 2000m or at non-tropical climate regions:</p> <p>For equipment intended to be used at altitude not exceeding 2000m, a warning label containing the following or a similar appropriate wording or a symbol as in annex DD shall fixed to the equipment at readily visible place.</p> <p>"Only used at altitude not exceeding 2000m."</p>  <p>If only symbol used, the explanation of the symbol shall be contained in the instruction manual.</p> <p>For equipment intended to be used in not-tropical climate regions, a warning label containing the following or a similar appropriate wording or a symbol as in annex DD shall fixed to the equipment at readily visible place.</p> <p>"Only used in not-tropical climate regions."</p>  <p>If only symbol used, the explanation of the symbol shall be contained in the instruction manual.</p> <p>The above statements shall be given in a language acceptable to the regions where the apparatus is intended to be used.</p>	The manufacturer commits to fulfil the requirement when the product will be sold in China.	P
2.7.1	<p>Amended as:</p> <p>Protection in PRIMARY CIRCUITS against overcurrent short-circuits and earth faults shall be provided as an integral part of the equipment except special provisions. And the protective device shall meet the requirement of Clause 5.3.</p> <p>Delete note of Clause 2.7.1.</p>		N/A
2.9	<p>Humidity conditioning</p> <p>This section applies for equipment to be operated at tropical climatic conditions, humidity conditioning dealt with tropical climatic conditions. For equipment not to be operated at tropical climatic conditions, its humidity conditioning complies with rules of CTL 624/07.</p>		N/A

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

ATTACHMENT TO NATIONAL DIFFERENCE			
2.9.2	<p>First section of Clause 2.9.2 amended as two sections:</p> <p>Where required by 2.9.1, 2.10.8.3, 2.10.10 or 2.10.11, humidity conditioning is conducted for 120 h in a cabinet or room containing air with ambient temperature $40\pm 2^{\circ}\text{C}$ and a relative humidity of $(93\pm 3)\%$. During this conditioning the component or subassembly is not energized.</p> <p>For equipment not to be operated at tropical climatic conditions, Where required by 2.9.1, 2.10.8.3, 2.10.10 or 2.10.11, humidity conditioning is conducted for 48 h in a cabinet or room containing air with a relative humidity of $(93\pm 3)\%$. The temperature of the air, at all places where samples can be located, is maintained within 2°C of any convenient value t between 20°C and 30°C such that condensation does not occur.</p> <p>Due to pretreatment of equipment operated at high altitude area is humidity conditioning withstand hot shock, specific requirements are to be considered.</p> <p>Add note: For equipment to be operated at 2000 m - 5000m above sea level, assessment and requirement of humidity conditioning for Insulation material properties are considered.</p>		N/A
2.10.3.1	<p>Change the third paragraph of Clause 2.10.3.1 to be:</p> <p>These requirements apply for equipment to be operated up to 2000 m above sea level. For equipment to be operated at more than 2000 m above sea level and up to 5000m above sea level, the minimum CLEARANCE shall be multiplied by the factor 1.48 corresponding altitude of 5000m given in Table A.2 of GB/T 16935.1. For equipment to be operated at more than 5000 m above sea level, the minimum CLEARANCE shall be multiplied by the factor given in Table A.2 of GB/T 16935.1. Linear interpolation is permitted between the nearest two points in Table A.2. The calculated minimum CLEARANCE using this multiplication factor shall be rounded up to the next higher 0,1 mm increment.</p>		N/A

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

ATTACHMENT TO NATIONAL DIFFERENCE			
2.10.3.4	Add a new section above Table 2K and in Clause 2.10.3.4: minimum CLEARANCES determined by above rules apply for equipment to be operated up to 2000m above sea level. For equipment to be operated at 2000 m - 5000m above sea level, the minimum CLEARANCE shall be multiplied by the factor 1.48 corresponding altitude of 5000m given in Table A.2 of GB/T 16935.1. For equipment to be operated at more than 5000 m above sea level, the minimum CLEARANCE shall be multiplied by the factor given in Table A.2 of GB/T 16935.1. Add "(apply for up to 2000m)" in header of Table 2K、2L and 2M.		N/A
3.2.1.1	Add on paragraph before the last paragraph: Plugs connected to AC mains supply shall comply with GB 1002 or GB 1003 or GB/T 11918 as applicable.	No such parts.	N/A
4.2.8	Clause 4.2.8 cathode ray tubes quoted Clause 18 of GB8898-2011. Delete note of Clause 4.2.8.	No such parts.	N/A
Annex E	Last section amended as: For comparison of winding temperatures determined by the resistance method of this annex with the temperature limits of Table 4B, 35 °C shall be added to the calculated temperature rise. And add note: for equipment not to be operated at tropical climatic conditions, 25 °C shall be added to the calculated temperature rise to compare with the temperature of Table 4B.		N/A
G.6	Change the second section of Clause G.6 to be: for equipment to be operated at 2000 m - 5000m above sea level, the minimum CLEARANCE shall be multiplied by the factor 1.48 corresponding altitude of 5000m given in Table A.2 of GB/T 16935.1. For equipment to be operated at more than 5000 m above sea level, the minimum CLEARANCE shall be multiplied by the factor given in Table A.2 of GB/T 16935.1. Linear interpolation is permitted between the nearest two points in Table A.2. The calculated minimum CLEARANCE using this multiplication factor shall be rounded up to the next higher 0,1 mm increment. A component that has been demonstrated to comply with National、Industry standards or the relevant national standard shall be subjected to the applicable tests of this standard as part of the equipment.		N/A

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

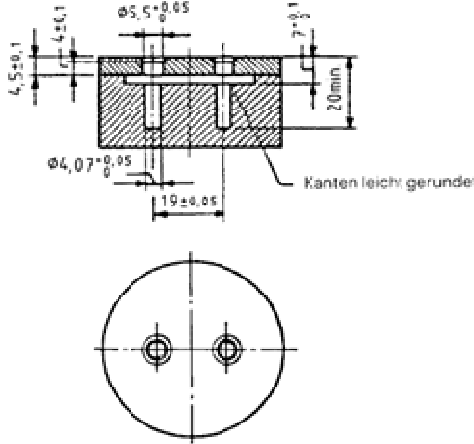
ATTACHMENT TO NATIONAL DIFFERENCE			
Annex BB	Amended as : The differences between Chinese national standards GB 4943.1-2011 and GB 4943-2001.		P
Annex DD	Added annex DD: Instructions of the new safety warning labels.	No such construction.	N/A
Other amendments	In accordance with the relevant CTL decisions and the amendments of IEC 60950-1, the specific requirements or mistakes in IEC standard are corrected or editorially modified in this part, Including clause 1.7, 2.1.1.7, 2.9.2, Table 2H, Figure 2H, F.8, F.9, M.3 and Annex U.		N/A

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

ATTACHMENT TO NATIONAL DIFFERENCE			
Quoting standards and reference documents	<p>The principles of quoting and referring to other standards in Annex P and reference documents of IEC 60950-1 are as follows:</p> <p>If the date of the reference document is given, only that edition applies, excluding any subsequent corrigenda and amendments. However, parties to agreements based on this part are encouraged to investigate the possibility of applying the most recent editions of the reference documents. For undated references, the latest edition of the referenced document applies, including any corrigenda and amendments.</p> <p>For the usage of international standards in Chinese national standards and industry standards is various, in the aim of achieving easy operation and based on the requirements of GB/T 1.1 and GB/T 20000.2, when quoting an entire international standard in the normative quoting files and reference documents of Annex P of this part, the principles of quotation are as follows:</p> <ul style="list-style-type: none"> - If there is no national standard or industry standard corresponding to the international standard, then the international standard is quoted; - If there is national standard or industry standard corresponding to the international standard, then either the national or industry standard is quoted; - If the date of the national standard or industry standard is not given, the latest edition of the standard applies; - The national standard or industry standard number, corresponding international standard number and the consistency level code should be identified in parentheses behind the listed national standard or industry standard. <p>When quoting several chapters or clauses of the international standard, the principles of quotation are as follows:</p> <ul style="list-style-type: none"> - If there is no national standard or industry standard corresponding to the international standard, then the international standard is quoted; - If there is national standard or industry standard corresponding to the international standard, then either the national or industry standard is quoted. <p>Meanwhile, in order to retain the relevant information on international standards, informative annex CC is increased, which gives the table about the comparison of the normative quoting files and reference documents in IEC 60950-1: 2005.</p>		P

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

ATTACHMENT TO NATIONAL DIFFERENCE

National differences Germany IEC 60950-1, 2nd edition + Am 1			—
1.5	<p>The moulded plug of plug-in power supplies will be considered as component and will be generally evaluated in Germany according to DIN VDE 0620-1:2010 respectively DIN VDE 0620-1:2013 and DIN VDE 0620-2-1:2013</p> <p>After the test according to DIN VDE 0620-2-1:2013, sub-clause 24.2, the plug be shall still pass the test according to DIN VDE 0620-101:1992 clause 7, figure 2 "Gauge for interchangeability"</p> <p>It should be possible to insert the plug without applying an excessive force such that the end surface touches the surface of the gauge</p>  <p>The drawing shows a cross-section of a rectangular moulded plug. Dimensions include: total length 4.5 ± 0.1, distance from front face to first hole 4 ± 0.1, hole diameter 5.5 ± 0.05, distance between holes 19 ± 0.05, hole diameter 4.07 ± 0.05, and a 20mm dimension from the back face to the second hole. A note indicates 'Kanten leicht gerundet' (edges slightly rounded). Below is a circular cross-section view showing the two holes.</p>		N/A
Annex ZC, cl. 1.7.2.1	<p>According to ProdSG, section 2, clause 4:</p> <p>If certain rules on the use, supplementation or maintenance of an item of technical work equipment or ready-to-use commodity must be observed in order to guarantee safety and health, instructions for use in German must be supplied when it is brought into circulation.</p>	The manufacturer commits to fulfil the requirement when the product will be sold in German.	P

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

ATTACHMENT TO NATIONAL DIFFERENCE			
National differences The Israel IEC 60950-1, 2nd edition + Am 1			—
1.6	Power interface The clause is applicable with the following addition:		N/A
1.6.1	AC Power distribution systems At the end of the clause, the following note shall be added: Note: In Israel, the clause is subject to the Electricity Law, 1954, its Regulations and updates.		N/A
1.7	Markings and instructions The clause is applicable with the following additions:		P
1.7.1	Power rating - Subclause 1.7.201 shall be added after the clause, as follows:		P
1.7.201	Marking in the Hebrew language The marking in the Hebrew language shall be in accordance with the Consumer Protection Order (Marking of goods), 1983 In addition to the marking required by clause 1.7.1, the following items shall be marked in the Hebrew language. 1. Name of the apparatus and its commercial designation; 2. Manufacturer's name and his address. If the equipment is imported, the importer's name and his address; 3. Manufacturer's registered trademark, if any; 4. Name of the model and serial number, if any; 5. Country of manufacture. The items shall be marked on the apparatus or on its package, or on a label well attached to the apparatus or its packaging, by bonding or sewing, such that the label cannot be easily removed.	The manufacturer commits to fulfil the requirement when the product will be sold in Israel.	P
1.7.2	Safety instructions and marking		P
1.7.2.1	General - The following shall be added at the end of the clause: All the instructions and all the 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:	The manufacturer commits to fulfil the requirement when the product will be sold in Israel.	P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
ATTACHMENT TO NATIONAL DIFFERENCE			
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 %.		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: According to the Electricity Law, 1954, and the Electricity Regulations (Earthing and protection means from electricity at voltages up to 1,000V) 1991, in Israel, seven means of protection from electricity are permitted, as follows: 1) Network system earthing - (TN-C-S , TN-S); 2) Network system earthing - (TT); 3) Network Insulation Terre – (IT); 4) Isolated transformer; 5) Safety extra low voltage; 6) Residual current circuit breaker; 7) Reinforced insulation; Double insulation - Clause 2.201 shall be added at the end of clause 2, as follows:		N/A
2.201	2.201 Prevention of electromagnetic interference The device shall meet the requirements of the relevant part of the Israeli Standard series, SI 961. If the device contains components for prevention of electromagnetic interference, the device shall not lower the safety level of the device, as required by this Standard.	The manufacturer commits to fulfil the requirement when the product will be sold in Israel.	P
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 supply plug shall comply with the requirements in Israel Standard. SI 32 Part1.1.		N/A

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

ATTACHMENT TO NATIONAL DIFFERENCE			
3.2.1.2	Connection to a d.c. mains supply After the first paragraph, the following note shall be added: Note: As of the date of publication of this Standard, there is no Israeli Standard for connection accessories to d.c.		N/A

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

ATTACHMENT TO NATIONAL DIFFERENCE			
National differences of Japan IEC 60950-1:2005 + Amd. 1:2009(J60950-1 (H27))			—
1.2.4.1	Add the following new notes. Note: Even if the equipment is designed as Class I, the equipment is regarded as Class 0I equipment when 2-pin adaptor with earthing lead wire or cord set having 2-pin plug with earthing lead wire is provided or recommended.	Class III equipment	N/A
1.2.4.3A	Add the following new clause. 1.2.4.3A CLASS 0I EQUIPMENT Equipment having attachment plug without earthing blade, where protection against electric shock is achieved by: - using BASIC INSULATION, and - providing either of the following a) or b) in order to connect those conductive parts that might assume a HAZARDOUS VOLTAGES in the event of BASIC INSULATION fault to the PROTECTIVE EARTHING CONDUCTOR in the building wiring. a) Provision of 2-pin plug with earthing lead including the condition of that 2-pin adaptor with earthing lead wire is provided or recommended. b) Provision of an independent earthing terminal, when 2-core mains cord (without earthing conductor) is used. Note – Class 0I equipment may have a part constructed with Double Insulation or Reinforced Insulation.	Class III equipment	N/A
1.3.2	Add the following notes after first paragraph: Note 1 Transportable or similar equipment that are relocated frequently for intended usage should not be designed as Class I or Class 0I equipment unless it is intended to be installed by service personnel. Note 2 Considering wiring circumstance in Japan, equipment intended to be installed where the provision for earthing connection is unlikely should not be designed as Class I or Class 0I equipment unless it is intended to be installed by service personnel.	The manufacturer commits to fulfil the requirement when the product will be sold in Japan.	P


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

ATTACHMENT TO NATIONAL DIFFERENCE			
1.5.1	<p>Replace the first paragraph with the follows:</p> <p>Where safety is involved, components shall comply either with the requirements of this standard, with the safety aspects of the relevant JIS component standard, or IEC component standards in case there is no applicable JIS component standard is available. However, a component that falls within the scope of METI Ministerial ordinance No. 85 is properly used in accordance with its marked ratings, requirements of 1.5.4, 2.8.7 and 3.2.5 apply, and in addition, a cord connector of power supply cord set mating with appliance inlet complying with the standard sheet of IEC 60320-1 or JIS C 8283-1, shall comply with relevant standard sheet of IEC 60320-1 or JIS C 8283-1.</p> <p>Replace Note 1 with the following:</p> <p>Note 1 JIS or an IEC component standard is considered relevant only if the component in question clearly falls within its scope.</p>	Components complied the relevant IEC standard.	P

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

ATTACHMENT TO NATIONAL DIFFERENCE			
1.5.2	<p>Replace the first sentence in the first dashed paragraph with the following:</p> <ul style="list-style-type: none"> - a component that has been demonstrated to comply with a JIS component standard harmonized with the relevant IEC component standard, or where such JIS component standard is not available, a component that has been demonstrated to comply with the relevant IEC component standard shall be checked for correct application and use in accordance with its rating. <p>Replace the first sentence in the third dashed paragraph as follows:</p> <ul style="list-style-type: none"> - where no relevant IEC component standard or JIS component standard harmonized with the relevant IEC component standard exists, or where components are used in circuits not in accordance with their specified rating, the components shall be tested under the conditions occurring in the equipment. <p>Add the following Note 2 after the third dashed paragraph as follows:</p> <p>Note 2 See 1.7.5A when Type C.14 appliance coupler rated 10 A per JIS C 8283-1 is used with an equipment rated not more than 125 V and rated more than 10 A.</p>	Component complied the relevant IEC standard.	P
1.5.9.1	<p>Add the following in the last of NOTE 1.</p> <p>Gas discharge tube connected in series with VDR may be used.</p>		N/A
1.5.9.4	<p>Add following paragraph after the NOTE:</p> <p>Gas discharge tube that complies with the requirements of functional insulation may be connected in series with VDR for bridging basic insulation.</p>		N/A
1.7.1.1	<p>Replace the last paragraph with the following:</p> <p>Where symbols are used, they shall conform to JIS S 0101, ISO 7000 or IEC 60417 where appropriate symbols exist.</p>	Complied	P
1.7.1.2	<p>Replace first and second dashed paragraphs with the followings:</p> <ul style="list-style-type: none"> - manufacturer's or responsible company's name or trade-mark or identification mark; - manufacturer's or responsible company's model identification or type reference; 	Considered.	P

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

ATTACHMENT TO NATIONAL DIFFERENCE			
1.7.2.1	Add the following after 2nd paragraph. Instruction or equipment marking regarding safety shall be written in Japanese unless otherwise permitted in this standard.	The manufacturer commits to fulfil the requirement when the product will be sold in Japan	P
1.7.2.5	Replace the last sentence with the following: An acceptable marking for an electric shock hazard  is (6.2.4 of JIS S 0101).	No such parts.	N/A
1.7.5	Replace 2nd paragraph with the following. Socket-outlets conforming to JISC8303 are examples of standard power supply outlets.		N/A
1.7.5A	Add the following new clause. after 1.7.5 1.7.5A Appliance Coupler If appliance coupler according to IEC60320-1, C.14(rated current: 10A) is used in equipment whose rated voltage is less than 125V and rated current is over 10A, the following instruction or equivalent shall be described in the user instruction. “ Use only designated cord set attached in this equipment” <i>Example in Japanese:</i> “この機器に同こん(極)した指定の電源コードセットだけを使用して下さい。” If appliance coupler is used for connection to the mains and if the cord set is not provided within the package for the equipment, suitable information regarding to the cord set shall be described in the user instruction <i>Note Since the combination of appliance inlet with earthing pin and two-core cord set(without earthing conductor) is special, the cord set should be attached in the equipment and the use instruction should provide the information that the cord set is exclusively used with the equipment and not allowed to use with other equipments.</i>		N/A

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

ATTACHMENT TO NATIONAL DIFFERENCE			
1.7.14A	<p>Add the following new clause. after 1.7.14</p> <p>1.7.14A Marking for CLASS 0I EQUIPMENT For CLASS 0I EQUIPMENT, the following or equivalent instructions shall be marked.</p> <p>- the following instruction shall be marked on the mains plug or on the visible place of the main body</p> <p>“Provide an earthing connection”</p> <p><i>Example in Japanese:</i> “必ず接地接続を行ってください。”</p> <p>- the following marking shall be marked on the visible place of the main body or written in the operating instructions:</p> <p>“Provide an earthing connection before the mains plug is connected to the mains. And, when disconnecting the earthing connection, be sure to disconnect after pulling out the mains plug from the mains.”</p> <p><i>Example in Japanese:</i> 接地接続は必ず、電源プラグを電源につなぐ前に行ってください。 また、接地接続を外す場合は、必ず電源プラグを電源から切り離してから行ってください。</p>		N/A
1.7.14B	<p>Add the following new clause after 1.7.14A</p> <p>1.7.14B Protective earthing conductor used for CLASS 0I equipment</p> <p>For CLASS 0I equipment provided with independent main protective earthing terminal, where the cord for the protective earthing connection is not provided within the package for the equipment, the suitable information for the protective earthing connection shall be provided in the instruction manual. (See 2.6.3.2)</p>		N/A

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

ATTACHMENT TO NATIONAL DIFFERENCE

2.1.1.1	<p>Replace item b) of 2.1.1.1 with the following.</p> <p>b) A test with the test finger, Figure 2A, which shall not contact parts described above when applied to openings in the ENCLOSURES after removal of parts that can be detached by an OPERATOR, including fuseholders, and with OPERATOR access doors and covers open. It is permitted to leave lamps in place for this test. Connectors that can be separated by an OPERATOR, other than those complying with JIS C 8303 or Appendix 4 of the interpretation of Ministerial Ordinance on stipulating technical requirements for the Electrical Appliance or JIS C 8285 or IEC 60309 series or JIS C 8283 series or IEC 60320 series, shall also be tested during disconnection.</p>		N/A
2.5	<p>Replacement:</p> <p>"IEC 60730-1" replaced with "JIS C 9730-1".</p>	Replaced.	P
2.6.3.5	<p>Add the following after 1st paragraph.</p> <p>However this requirement does not apply to internal conductor of the cord set that is covered by the sheath of mains cord and is the formed together with mains plug and appliance connector.</p>	Added	N/A
2.6.4.2	<p>Replace 1st paragraph with the following.</p> <p>Equipment required to have protective earthing shall have a main protective earthing terminal. For equipment with a DETACHABLE POWER SUPPLY CORD, the earthing terminal in the appliance inlet is regarded as the main protective earthing terminal. However, for CLASS 0I EQUIPMENT provided with the separate main protective earthing terminal other than appliance inlet, the separate main protective earthing terminal may be treated as mains protective earthing terminal.</p>		N/A
2.6.5.4	<p>Replace 1st sentence with the following.</p> <p>Protective earthing connections of CLASS I EQUIPMENT shall make earlier and break later than the supply connections in each of the following:</p>		N/A

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

ATTACHMENT TO NATIONAL DIFFERENCE			
2.6.5.8A	<p>Add the following new clause. after 2.6.5.8</p> <p>2.6.5.8A Earthing of CLASS 0I EQUIPMENT Plugs with a lead wire for earthing shall not be used for equipment having a rated voltage exceeding 150V. For plugs with a lead wire for earthing, the lead wire shall not be earthed by a clip. CLASS 0I EQUIPMENT shall be provided with an earthing terminal or lead wire for earthing in the external location where easily visible.</p>		N/A
2.7.6	Replace "ISO 3864, No. 5036" with "6.2.4 of JIS S 0101".		N/A
2.9.3 Table 2H	<p>Replace the following columns in Table 2H.</p> <p>The right column for BASIC, TNV-2, -earthed TNV-1 circuit is replaced with "B13^{d), f)}" The right column for SUPPLEMENTARY, TNV CIRCUIT, -basic-insulated conductive part earthed circuit is replaced with "S2"</p>	No such circuits.	N/A
2.10.3.1	<p>Replace 8th paragraph with the following</p> <p>The above minimum CREEPAGE DISTANCES for connectors do not apply to connectors that comply with JIS C 8285, IEC60309 series, JIS C 8283 series, IEC60320 series, JIS C 8303, and Appendix 4 of the interpretation of Ministerial Ordinance on stipulating technical requirements for the Electrical Appliance in which dimension is comply with JIS C 8283 series, JIS C 8303 or IEC 60309-2.</p>		N/A
2.10.4.3	<p>Replace 6th paragraph with the following</p> <p>The above minimum CREEPAGE DISTANCE for connectors do not apply to connectors that comply with JIS C 8285, IEC60309 series, JIS C 8283 series, IEC60320 series, JIS C 8303, and Appendix 4 of the interpretation of Ministerial Ordinance on stipulating technical requirements for the Electrical Appliance in which dimension is comply with JIS C 8283 series, JIS C 8303 or IEC 60309-2.</p>		N/A
2.10.9	Replace "1.4.5" in 3rd paragraph with "1.4.12".		N/A
3.2.3	<p>Add the following after 3rd paragraph.</p> <p>Table 3A applies when cables complying JIS C 3662 or JIS C 3663 are used. In case of other cables, cable entries shall be so designed that a conduit suitable for the cable used can be fitted.</p>		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
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3.2.4	<p>Add the following as fourth dash.</p> <p>- be so constructed that mechanical stress shall not transmit to the soldering part of inlet terminal during insertion or removal of the connector except that the body of the inlet is secured and is secured not only soldering.</p>	No such parts	N/A
3.2.5.1	<p>Add the following to the last of first dashed paragraph.</p> <p>Or mains cords shall be of the sheathed type complying with Appendix 1 of the interpretation of Ministerial Ordinance on stipulating technical requirements for the Electrical Appliance.</p> <p>Add the following to the last of second dashed paragraph.</p> <p>Or mains cords shall be of the sheathed type complying with Appendix 1 of the interpretation of Ministerial Ordinance on stipulating technical requirements for the Electrical Appliance.</p> <p>Replace 3rd dashed paragraph with the following.</p> <p>– include, for equipment required to have protective earthing, a PROTECTIVE EARTHING CONDUCTOR having green-and-yellow insulation. However this requirement does not apply to internal conductor of the cord set that is covered by the sheath of mains cord and is the formed together with mains plug and appliance connector. For CLASS 0I EQUIPMENT provided with the separate main protective earthing terminal, the protective conductor may not need to provide in mains cord. ; and</p> <p>Replace 4th dashed paragraph with the following.</p> <p>– The cord complying with JIS C 3662-5 or JIS C 3663-4 has conductors with cross-sectional areas not less than those specified in Table 3B. Other cord shall comply with relevant wiring regulation.</p>	No such parts	N/A
3.3.4 Table 3D	<p>Add the following note to Table 3D:</p> <p>Note For cables other than those complying with JIS C 3662 or JIS C 3663, terminals shall be suitable for the size of the intended cables.</p>	No such construction.	N/A
3.3.7	<p>Add the following after the first sentence:</p> <p>This requirement is not applicable to the external earthing terminal of Class 0I equipment.</p>	No such construction.	N/A

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4.3.4	Add the following after the first sentence: This requirement also applies to those connections in Class 0I equipment, where CLEARANCE or CREEPAGE DISTANCES over BASIC INSULATION would be reduced to less than the values specified in 2.10.	No such part.	N/A
4.3.5	Replace 1 st dashed paragraph with the following. Within a manufacturer's unit or system, plugs and sockets likely to be used by the OPERATOR or by a SERVICE PERSON shall not be employed in a manner likely to create a hazard due to misconnection. In particular, connectors complying with IEC 60320/JIS C 8283 series or JIS C 8303 or JIS C 8358 shall not be used for SELV CIRCUITS or TNV CIRCUITS. Keying, location or, in the case of connectors accessible only to a SERVICE PERSON, clear markings are permitted to meet the requirement.		N/A
4.4.2	Replace the paragraph with the following: HOUSEHOLD AND HOME/OFFICE DOCUMENT/MEDIA SHREDDERS shall also comply with Annex JA.		N/A
4.5.3	Add the following note to footnote b) of Table 4B: NOTE: In case no data for the material is available, Appendix 4, 4. (1). b. 3 of the Interpretation on the Ministerial Ordinance stipulating Technical Specifications for Electrical Appliances (Commerce and Distribution Policy Group No. 3:2008/04/19) may apply.	Added.	P
5.1.3	Add a note after the first paragraph as follows: Note – Attention should be drawn to that majority of three-phase power system in Japan is of delta connection, and therefore, in that case, test is conducted using the test circuit from IEC 60990, figure 13.	Not three-phase power system	N/A

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5.1.6	Replace Table 5A. as follows			N/A
	Type of equipment	Terminal A of measuring instrument connected to:	Maximum TOUCH CURRENT mA r.m.s. ^a	Maximum PROTECTIVE CONDUCTOR CURRENT
	ALL equipment	Accessible parts and circuits not connected to protective earth ^b	0,25	-
	HAND-HELD	Main protective earthing terminal of CLASS I EQUIPMENT	0,75	-
		Main protective earthing terminal of CLASS 0 I EQUIPMENT	0,5	-
	MOVABLE (other than HAND_HELD, but including TRANSPORTABLE EQUIPMENT)	Main protective earthing terminal of CLASS I EQUIPMENT	3,5	-
		Main protective earthing terminal of CLASS 0 I EQUIPMENT	1.0	-
	STATIONARY, PLUGGABLE TYPE A	Main protective earthing terminal of CLASS I EQUIPMENT	3,5	-
		Main protective earthing terminal of CLASS 0 I EQUIPMENT	1,0	-
	ALL other STATIONARY EQUIPMENT - not subject to the conditions of 5.1.7 - subject to the conditions of 5.1.7	Main protective earthing terminal of CLASS I EQUIPMENT	3.5 -	- 5 % of input current
		Main protective earthing terminal of CLASS 0 I EQUIPMENT	1.0 -	- -
	a If peak values of TOUCH CURRENT are measured, the maximum values are obtained by multiplying the r.m.s.values in the table by 1,414. b Some unearthed accessible parts are covered in 1.5.6 and 1.5.7 and the requirements of 2.4 apply. These may be different from those in 5.1.6.			
Annex G	Replace the paragraph before Table G.2 with the following The above minimum CREEPAGE DISTANCES for connectors do not apply to connectors that comply with JIS C 8285, IEC60309 series, JIS C 8283 series, IEC60320 series, JIS C 8303, and Appendix 4 of the interpretation of Ministerial Ordinance on stipulating technical requirements for the Electrical Appliance in which dimension is comply with JIS C 8283 series, JIS C 8303 or IEC 60309-2.		Replaced.	N/A
Annex P	Delete the issued date of IEC61051-2.			N/A

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Clause	Requirement + Test	Result - Remark	Verdict
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Annex Q	Replace the terms in b) as follows: From "Maximum continuous voltage" to "Maximum continuously applied voltage" From "The maximum continuous a.c. voltage" to "The maximum continuously applied a.c. voltage"		N/A
Annex U U.2.4	Add the following new note after NOTE: NOTE 2 Considering environmental issue, "(for example 1,1,1 -trichloroethane)" was deleted from the above paragraph.		N/A
Annex V V.1	Replace "3.1.2" in the first line of V.1 with "312" in first line.		N/A
Annex W W.1	Replace third sentence in the first paragraph with the following: Floating circuits can exist in CLASS I EQUIPMENT, CLASS 0I EQUIPMENT and earthed circuits can exist in CLASS II EQUIPMENT.		N/A
Annex CC CC.2	Replace second dashed paragraph with the following: - 10 000 cycles of turning enable on and off with a ferrite-core inductor having (0.35 ± 0.1) mH inductance at 1 kHz and a d.c. resistance not exceeding 1 Ω connected in the output circuit; Replace fifth dashed paragraph with the following: – 10 000 cycles of turning the input pin on and off with a ferrite-core inductor having (0.35 ± 0.1) mH inductance at 1 kHz and a d.c. resistance not exceeding 1Ω connected to the input supply and return while keeping enable active and shorting the output;		N/A
CC.3	Add note at end of CC.3: Note: The fast blow fuse should be the one complying with IEC 60127-2.		N/A
Annex EE	Replace Annex EE with the following Annex JA. Annex JA (normative) Document shredding machines HOUSEHOLD AND HOME/OFFICE DOCUMENT/MEDIA SHREDDERS shall additionally comply with the requirements of this annex.		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

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	<p>JA.1 Markings and instructions</p> <p>The symbol  (JIS S 0101:2000, 6.2.1) and the following precautions for use shall be marked on readily visible part adjacent to document feed opening. The marking shall be clearly legible, permanent, and easily discernible;</p> <ul style="list-style-type: none"> - that use by an infants/children may cause a hazard of injury etc.; - that a hand can be drawn into the mechanical section for shredding when touching the document-slot; - that clothing can be drawn into the mechanical section for shredding when touching the document-slot; - that hairs can be drawn into the mechanical section for shredding when touching the document-slot; - in case of equipment incorporating a commutator motor, that equipment may catch fire or explode by spraying of flammable gas. <p>JA.2 Inadvertent reactivation</p> <p>Any safety interlock that can be operated by means of the test finger, Figure JA.1, is considered to be likely to cause inadvertent reactivation of the hazard.</p> <p>Compliance is checked by inspection and, where necessary, by a test with the test finger, Figure JA.1.</p> <p>JA.3 Disconnection from the mains supply</p> <p>Document shredding machines shall incorporate an isolating switch complying with sub-clause 3.4.2 as the device disconnecting the power of hazardous moving parts. For this switch, two-position (single-use) switch or multi-position (multifunction) switch (e.g., slide switch) may be used.</p> <p>If two-position switch, the positions for "ON" and "OFF" shall be indicated in accordance with sub-clause 1.7.8. If multi-position switch, the position for "OFF" shall be indicated in accordance with sub-clause 1.7.8 and other positions shall be indicated with proper terms or symbols.</p> <p>Compliance is checked by inspection.</p>		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

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JA.4 Protection against hazardous moving parts

Any warning shall not be used instead of the structure for preventing access to hazardous moving parts.

Document shredding machines shall comply with the following requirements.

Insert the test finger, Figure JA.1, into all openings in MECHANICAL ENCLOSURES without applying appreciable force. It shall not be possible to touch hazardous moving parts with the test finger. This consideration applies to all sides of MECHANICAL ENCLOSURES when the equipment is mounted as intended. Before testing with the test finger, remove the parts detachable without a tool.

Insert the wedge-probe, Figure JA.2, into the document-slot. And, against all directions of openings, if straight-cutting type, a force of 45 N shall apply to the probe, and 90 N if cross-cutting type. In this case, the weight of the probe is to be factored into the overall applied force. Before testing with the wedge-probe, remove the parts detachable without a tool. It shall not be possible to touch any hazardous moving parts, including the shredding roller or the mechanical section for shedding, with the probe.

N/A

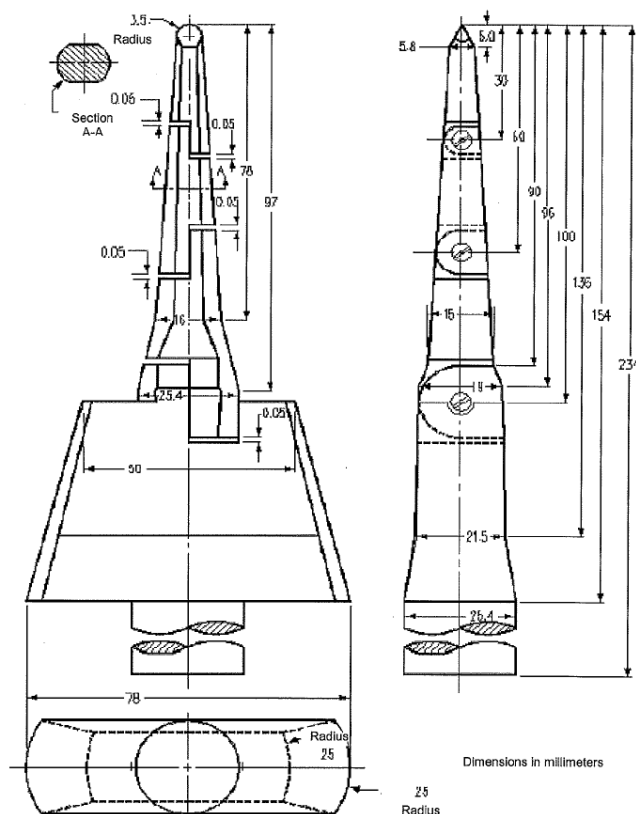
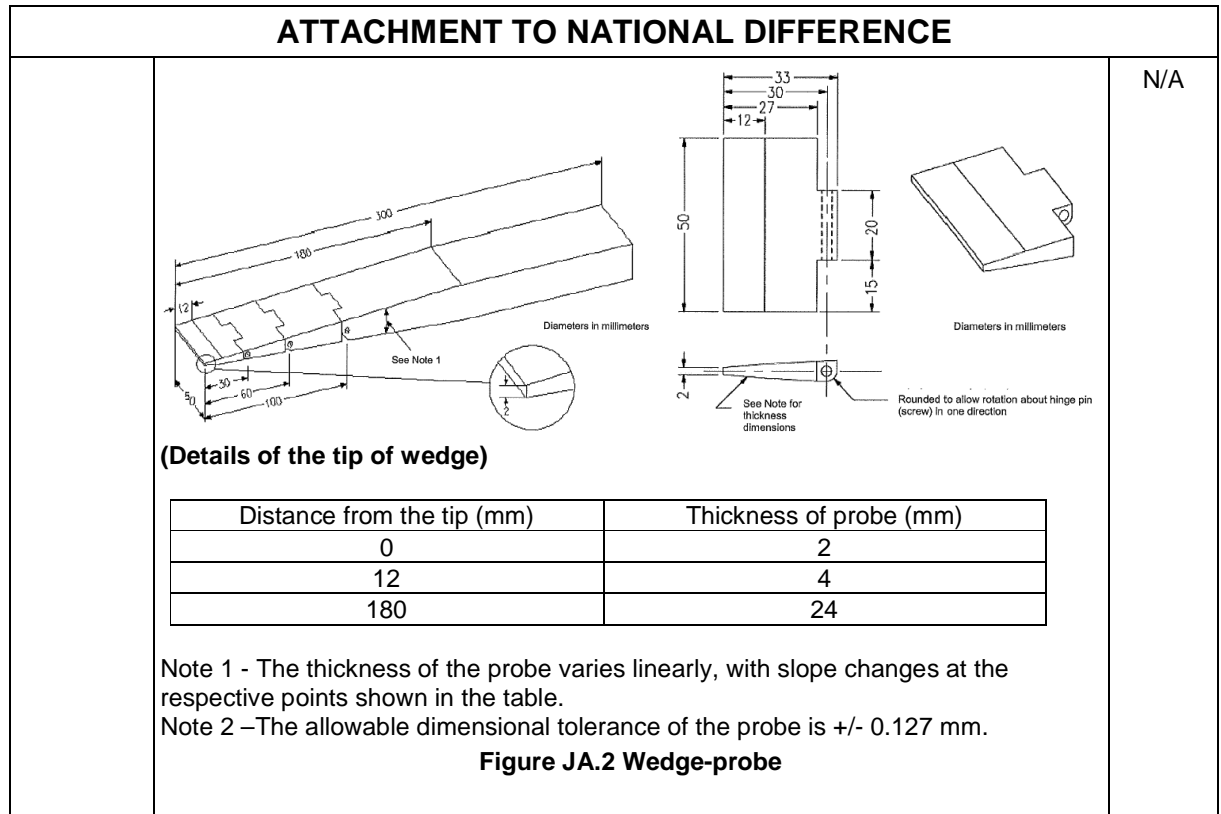


Figure JA.1 Test finger

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Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO NATIONAL DIFFERENCE



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

National differences Korean IEC 60950-1, 2nd edition + Am 1			—
1.5.101	Plugs for the connection of the apparatus to the supply mains shall comply with the Korean requirement (KSC 8305).		N/A
8	EMC The apparatus shall comply with the relevant CISPR standards.	The manufacturer commits to fulfil the requirement when the product will be sold in Korean	P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
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National differences of Ukraine IEC 60950, 3rd edition			—
1.4.5	In Ukraine the NOMINAL VOLTAGE is 220 V for monoplanes or 380 V for three-phase supply.		N/A
1.5.8	In Ukraine the components connected between phase and earthing or between phase and neutral terminal shall be calculated for the voltage between phases.		N/A
1.7.2	In Ukraine for the APPARATUS of I CLASS the necessity of its obligatory earthing shall be indicated in the manuals.		N/A
2.3.3	In Ukraine the method b) is not used.	No such circuit	N/A
6.2.2	In Ukraine the both tests in 6.2.2.1 and 6.2.2.2 are applied.	No such circuit	N/A
6.2.2.1	In Ukraine in 6.2.1 a) is used Uc 3,5 kV.	No such circuit	N/A
6.2.2.2	In Ukraine in 6.2.1 a) is used 3,0 kV for telephones and headsets and 2,5 kV for other equipment and in 6.2.1 b) and c) is used 1,5 kV.	No such circuit	N/A
Annex N	In Ukraine in 6.2.1 a) is used 3,0 kV for telephones and headsets and 2,5 kV for other equipment, and in 6.2.1 b) and c) is used 1,5 kV.	No such circuit	N/A

Photos



External view-1



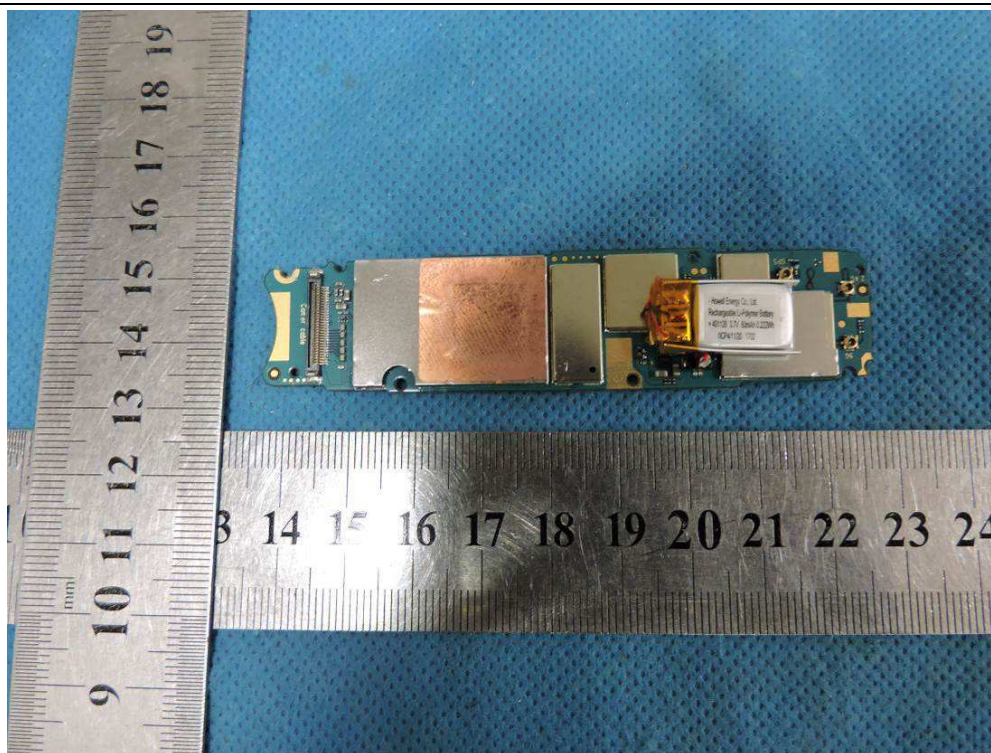
External view-2

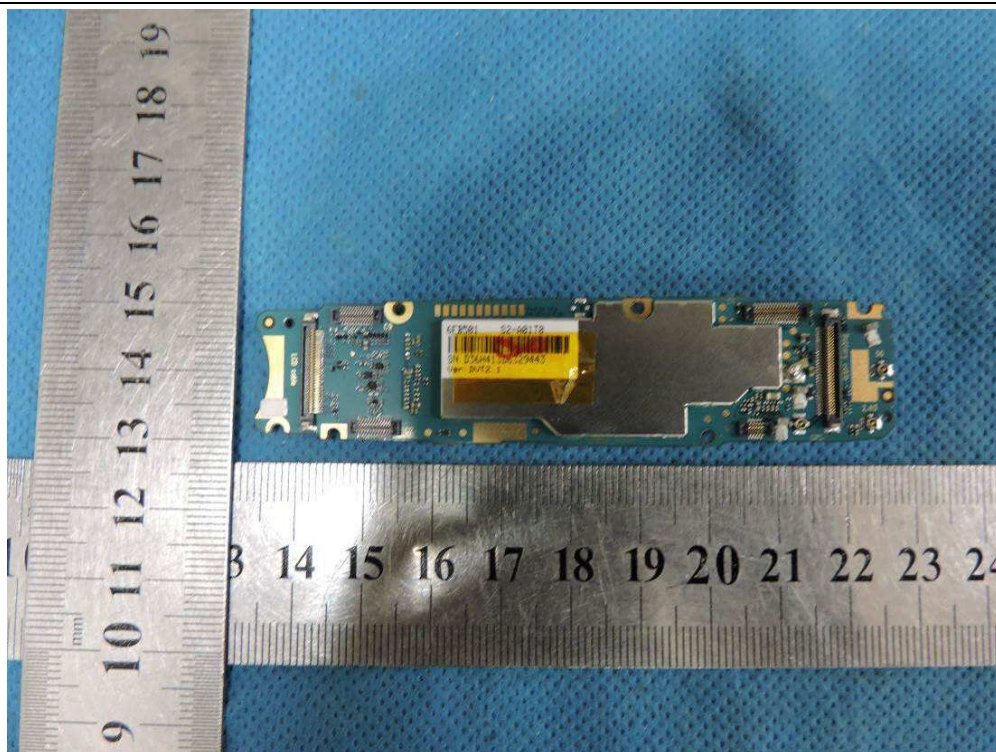
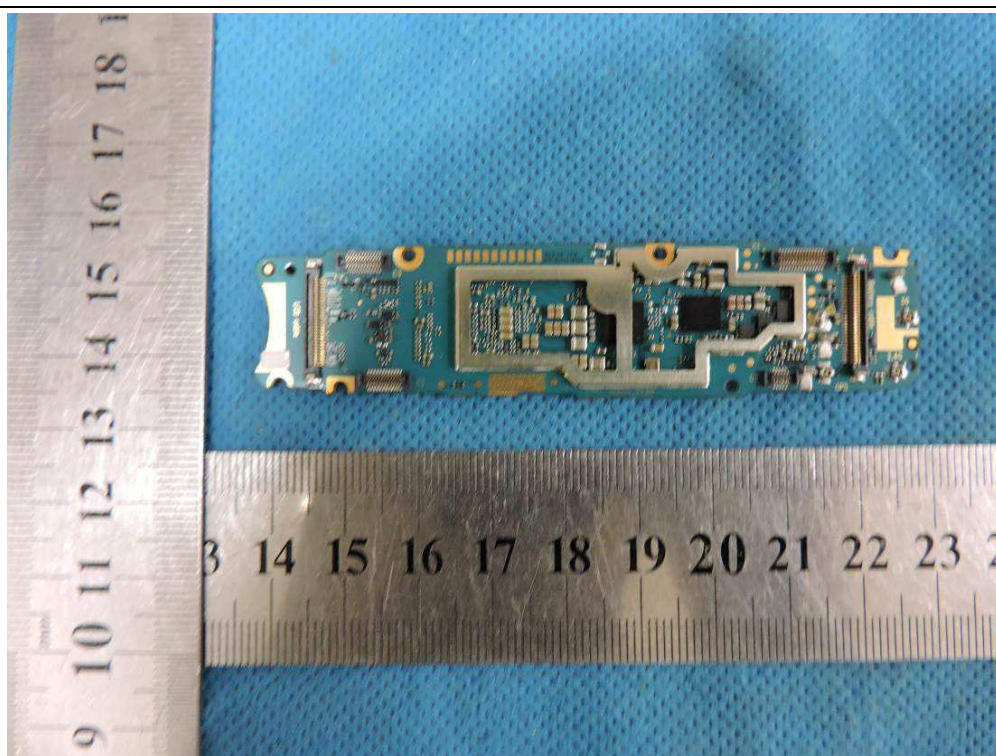


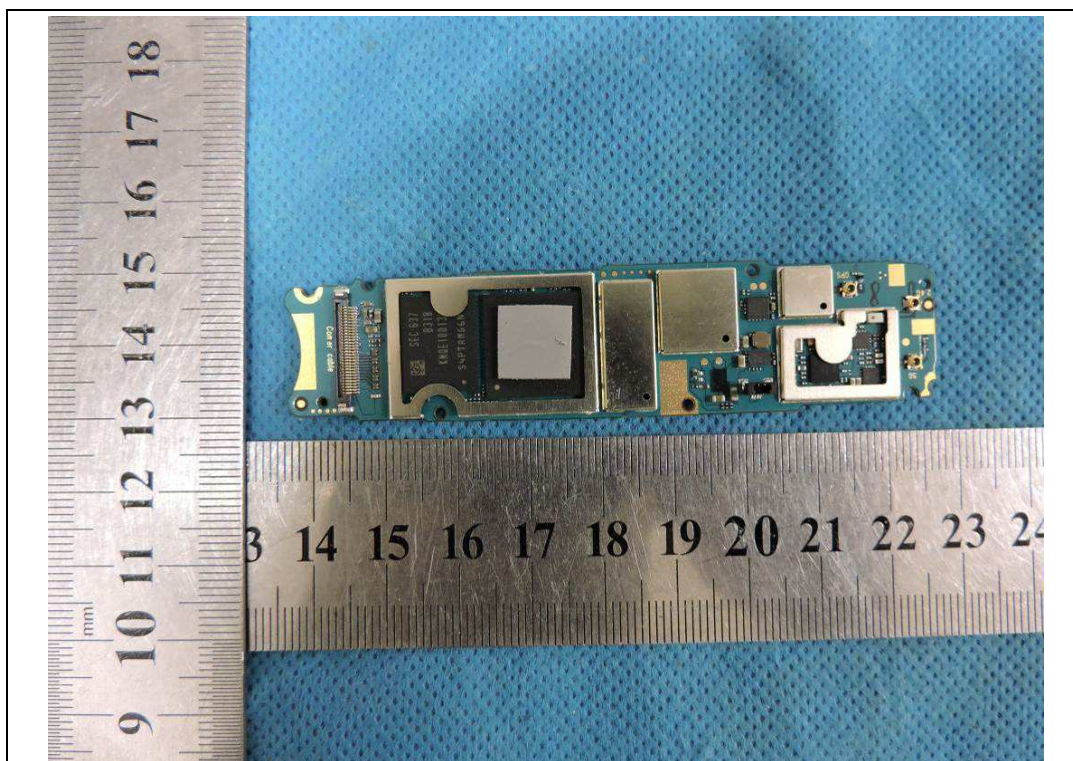
Inside view-2

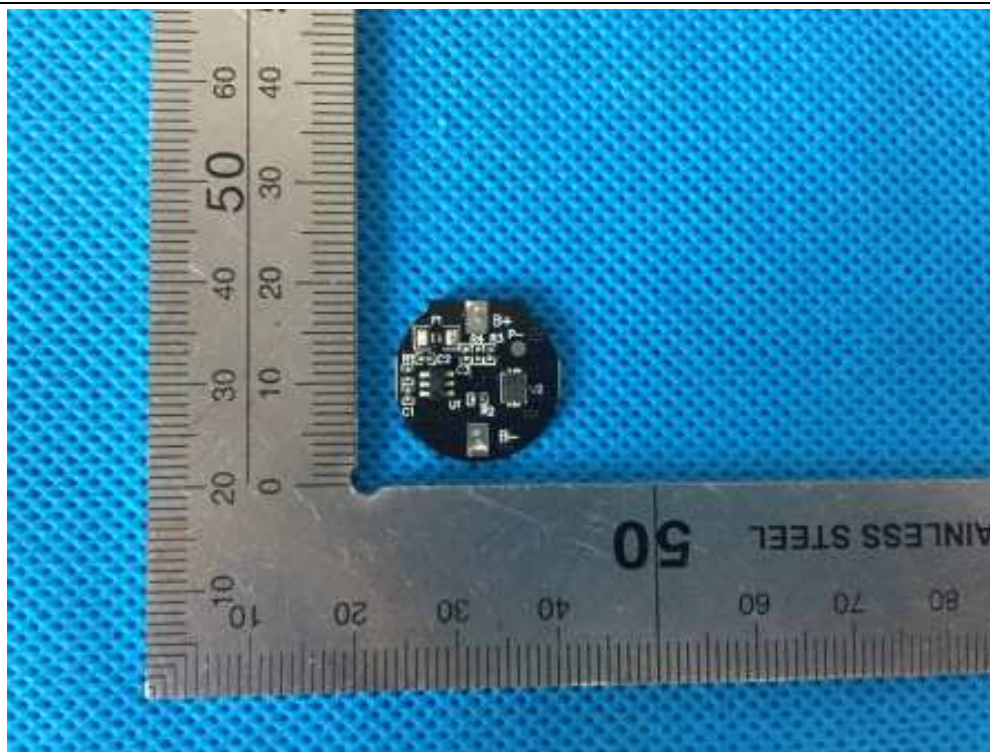


Inside view-3

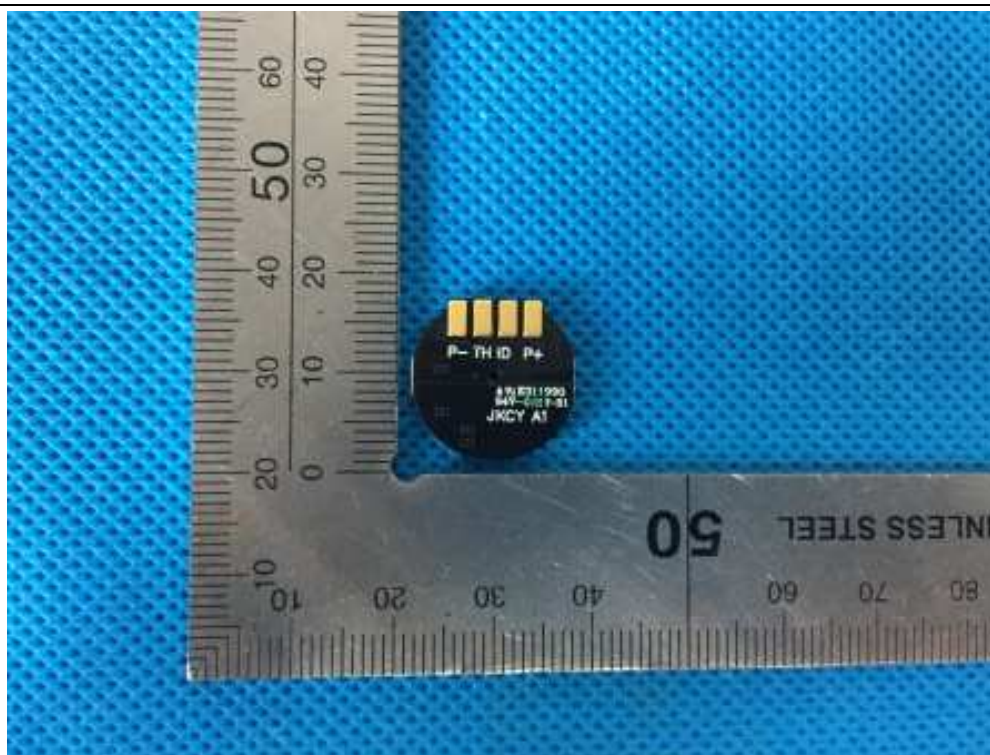
**Inside view-4****Main board-1**

**Main board-2****Main board-3**

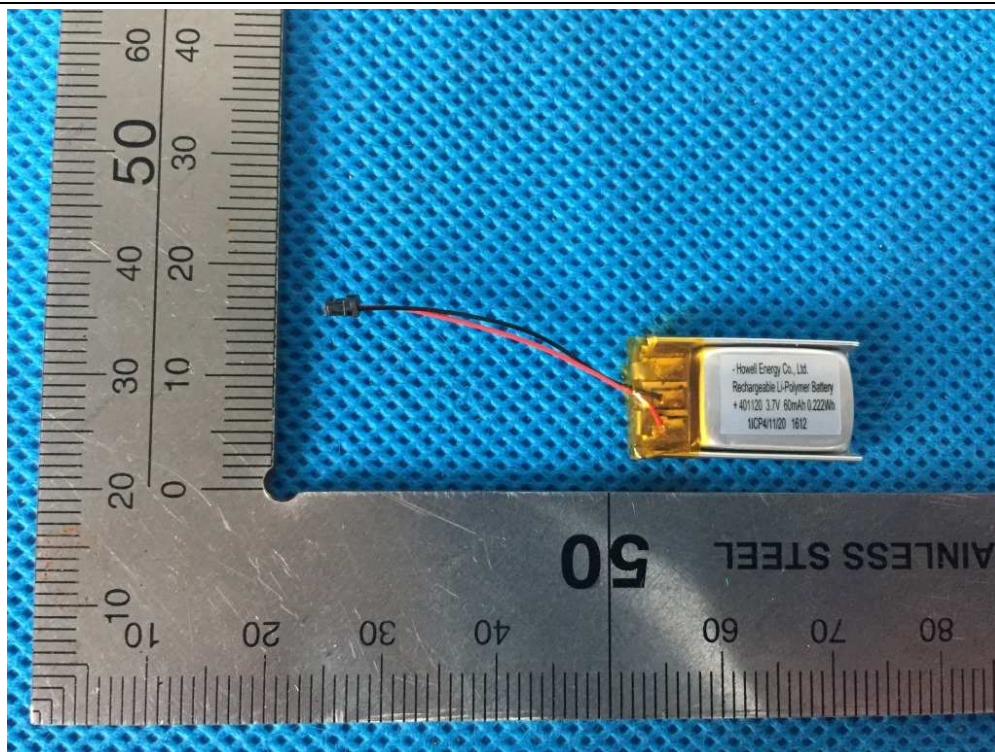
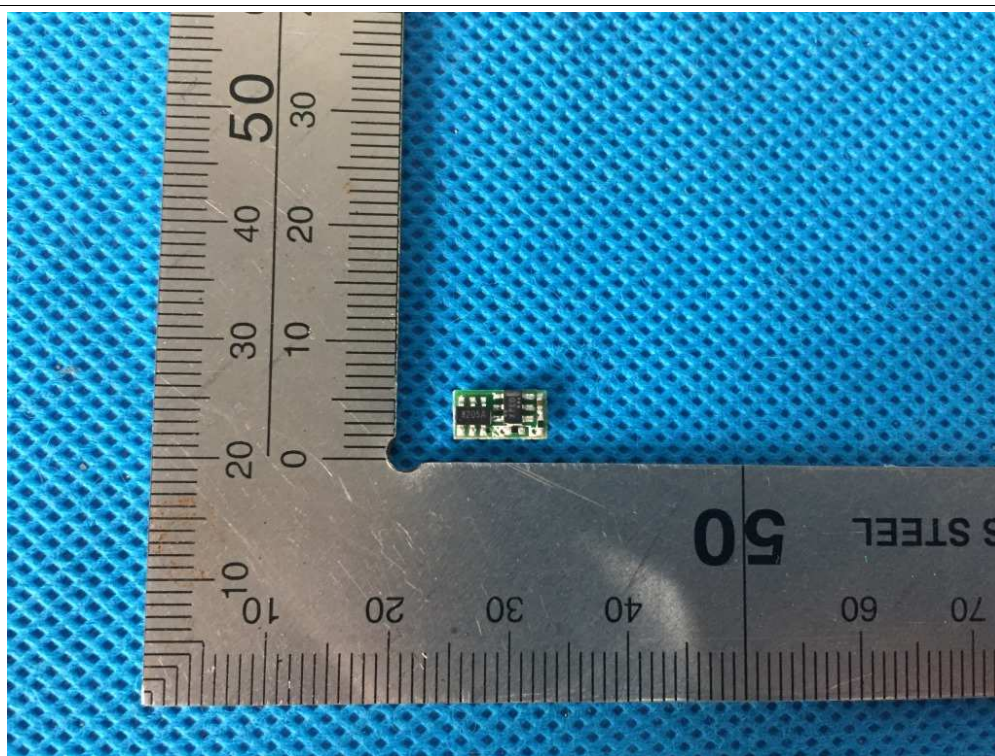
**Main board-4****Main Battery**

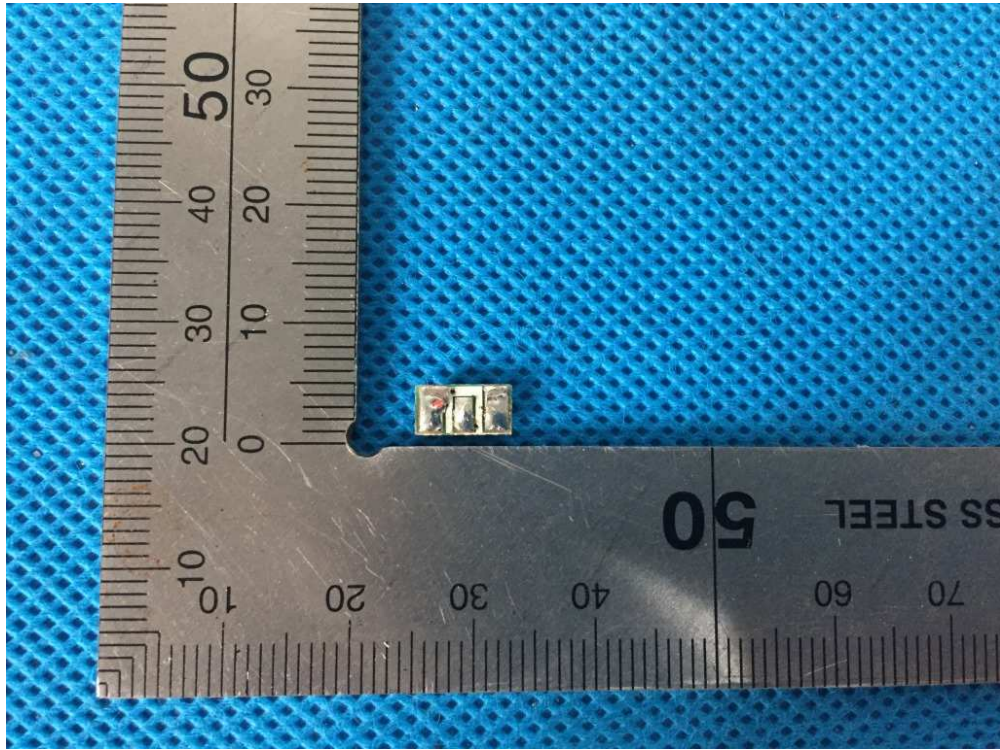


Protect Circuit of Main Battery-1



Protect Circuit of Main Battery-2

**Backup Battery****Protect Circuit of Backup Battery-1**



Protect Circuit of Backup Battery-2