TEST REPORT

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

Report Number ..... :	BTL-AS-1-S1412C185
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Approved by (+ signature) ..... :	Jackie Chiu
Date of issue ..... :	March 27, 2015
Total number of pages	39
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Applicant's name ..... :	**Fanvil Technology Co. Ltd**
Address ..... :	3F, Block A, Gaoxingqi Building, Anhua Industrial Park, Qianjin 1st Rd. 35th Dist, Bao'An, Shenzhen, 518101, China
Manufacturer's name……..:	**Fanvil Technology Co. Ltd**
Address ..... :	3F, Block A, Gaoxingqi Building, Anhua Industrial Park, Qianjin 1st Rd. 35th Dist, Bao'An, Shenzhen, 518101, China
Test specification:	
Standard ..... :	IEC 60950-1:2005 (2nd Edition)+A1: 2009 and/or AS/NZS 60950.1:2011+A1:2012
Test procedure ..... :	N/A
Non-standard test method……..:	N/A
Test Report Form No. ..... :	AS60950_1D
Master TRF ..... :	Dated 2013-02
Test item description ..... **:**	IP Phone
Trade Mark ..... :	Fanvil
Manufacturer ..... :	Same as the applicant
Model/Type reference ..... :	X3, X3P
Ratings ..... :	Input: 5Vdc, 1.0A for all models PoE for model X3P only

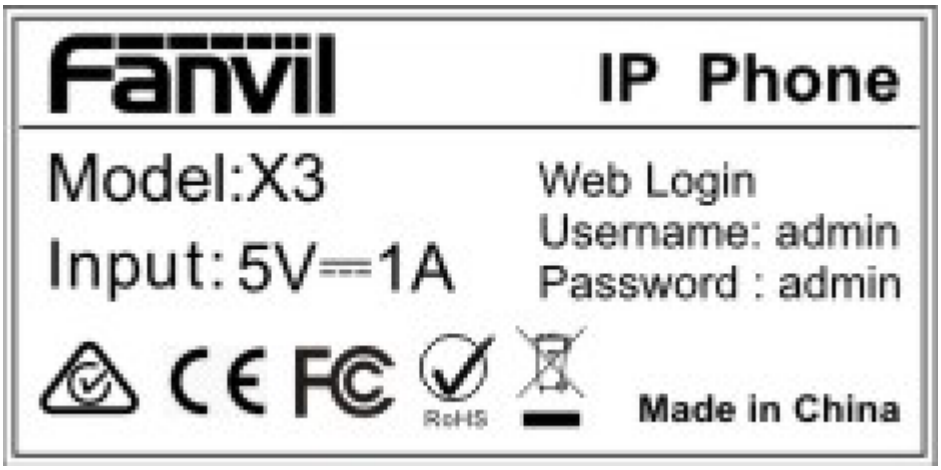
List of Attachments (including a total number of pages in each attachment):

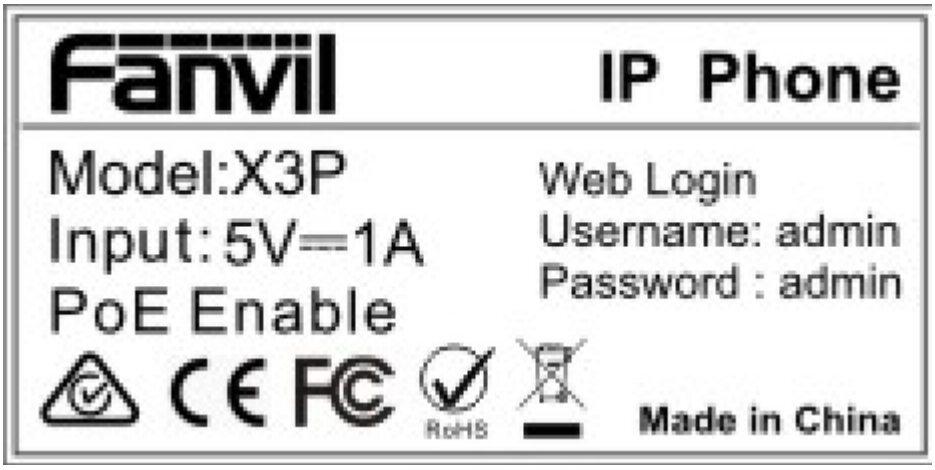
- AUSTRALIA and NEW ZEALAND NATIONAL DIFFERENCES (7 pages)
- Photos documentation (10 pages)

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.

(Additional requirements for markings. See 1.7 NOTE)





Test item particulars..... :	
Equipment mobility..... :	[X] movable [] hand-held [] transportable [] stationary [] for building-in [] direct plug-in
Connection to the mains..... :	[] pluggable equipment [] type A [] type B [] permanent connection [] detachable power supply cord [] non-detachable power supply cord [X] not directly connected to the mains
Operating condition..... :	[X] continuous [] rated operating / resting time:
Access location ..... :	[X] operator accessible [] restricted access location
Over voltage category (OVC) ..... :	[] OVC I [] OVC II [] OVC III [] OVC IV [X] other: not directly connected to the mains
Mains supply tolerance (%) or absolute mains supply values ..... :	Not directly connected to the mains
Tested for IT power systems ..... :	[] Yes [X] No
IT testing, phase-phase voltage (V) ..... :	N/A
Class of equipment ..... :	[] Class I [] Class II [X] Class III [] Not classified
Considered current rating of protective device as part of the building installlation (A) ..... :	N/A
Pollution degree (PD) ..... :	[] PD 1 [X] PD 2 [] PD 3
IP protection class ..... :	IPX0
Altitude during operation (m) ..... :	Up to 2000
Altitude of test laboratory (m) ..... :	Up to 2000
Mass of equipment (kg) ..... :	Approx. 0.63 kg
Possible test case verdicts:	
- test case does not apply to the test object..... :	N/A (or N)
- test object does meet the requirement..... :	P (Pass)
- test object does not meet the requirement ..... :	F (Fail)
Testing..... :	
Date of receipt of test item..... :	2014-12-22
Date(s) of performance of tests..... :	2014-12-22 to 2014-12-29
General remarks: The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory. "(see Enclosure #)" refers to additional information appended to the report. "(see appended table)" refers to a table appended to the report. Throughout this report a ☐ comma / ☒ point is used as the decimal separator.	
Name and address of factory (ies) ..... :	Same as applicant.

General product information:

Report Summary

All applicable tests according to the referenced standard(s) have been carried out.

Product Description

The equipment model X3, X3P are IP Phone using in scope of information technology equipment.

- The unit consists of SELV circuitry of main board, housed in a plastic enclosure and supplied by an external power adapter which complies with LPS or 802.3af Class 1 Power over Ethernet (PoE) complied switch (PoE support applies to X3P model only).

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Technology Considerations

1. The product was submitted and tested for use at the maximum ambient temperature (Tma) permitted by the manufacturer's specification of: 40 ºC
2. The equipment is operated up to 2000 m above sea level as declared by manufacturer.
3. The following circuit locations (with circuit/schematic designation) were investigated as a limited power source (LPS): RJ-09 port and RJ-45 ports.

Additional Information

1. The Label in Copy of marking plate is a draft of an artwork pending approval by National Certification Bodies and it shall not be affixed to products prior to such an approval.
2. All test results were found satisfactory in accordance with IEC 60950-1:2005 (2nd Edition) + A1: 2009 and/or AS/NZS 60950.1:2011+A1:2012.

Model Difference

- Model X3 identical to model X3P except for model designation and PoE support applies to X3P model only. Unless otherwise specified, all tests were performed on model X3P.

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)

IEC60950/Am1			
Clause	Requirement + Test	Result - Remark	Verdict
1	**GENERAL**		P
1.5	**Components**		P
1.5.1	General	See below.	P
	Comply with IEC 60950-1 or relevant component standard	Components which were found to affect safety aspects comply with the requirements of this standard or within the safety aspects of the relevant IEC component standards. (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 present in the equipment.	P
1.5.3	Thermal controls		N/A
1.5.4	Transformers		N/A
1.5.5	Interconnecting cables	Interconnection cable to other device is carrying only SELV on an energy level below 240VA. Except for the insulation material, there are no further requirements for the interconnection cable.	P
1.5.6	Capacitors bridging insulation	Class III equipment.	N/A
1.5.7	Resistors bridging insulation	Class III equipment.	N/A
1.5.7.1	Resistors bridging functional, basic or supplementary insulation		N/A
1.5.7.2	Resistors bridging double or reinforced insulation between a.c. mains and other circuits		N/A
1.5.7.3	Resistors bridging double or reinforced insulation between a.c. mains and antenna or coaxial cable		N/A
1.5.8	Components in equipment for IT power systems		N/A
1.5.9	Surge suppressors		N/A
1.5.9.1	General		N/A
1.5.9.2	Protection of VDRs	Class III equipment.	N/A
1.5.9.3	Bridging of functional insulation by a VDR		N/A
1.5.9.4	Bridging of basic insulation by a VDR		N/A

IEC60950/Am1			
Clause	Requirement + Test	Result - Remark	Verdict
1.5.9.5	Bridging of supplementary, double or reinforced insulation by a VDR		N/A

1.6	**Power interface**		**P**
1.6.1	AC power distribution systems	Equipment is not direct connected to the AC mains supply.	N/A
1.6.2	Input current	Results see appended table 1.6.2.	P
1.6.3	Voltage limit of hand-held equipment	Not hand-held equipment	N/A
1.6.4	Neutral conductor	Equipment is not directly connected to an AC mains supply.	N/A

1.7	**Marking and instructions**		**P**
1.7.1	Power rating and identification markings	See below for details.	P
1.7.1.1	Power rating marking	The required marking is located on the outside surface of the equipment.	P
	Multiple mains supply connections.....:	Class III equipment.	N/A
	Rated voltage(s) or voltage range(s) (V) .....:	5Vdc (Supply by external adapter) 48Vdc (Supply by PoE port for model X3P only)	P
	Symbol for nature of supply, for d.c. only.....:	DC symbol provided.	P
	Rated frequency or rated frequency range (Hz) .....:	(No direct connection to the AC mains supply).	N/A
	Rated current (mA or A) .....:	1.0A (Supply by external adapter)	P
1.7.1.2	Identification markings	See below.	P
	Manufacturer's name or trade-mark or identification mark .....:	Trade-mark: Fanvil	P
	Model identification or type reference .....:	X3, X3P	P
	Symbol for Class II equipment only .....:	Class III equipment.	N/A
	Other markings and symbols .....:	Additional symbol or marking does not give rise to misunderstanding.	P
1.7.2	Safety instructions and marking	Safety instruction provided.	P
1.7.2.1	General	Considered.	P
1.7.2.2	Disconnect devices	Class III equipment.	N/A

IEC60950/Am1			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.2.3	Overcurrent protective device	No such component.	N/A
1.7.2.4	IT power distribution systems	Class III equipment.	N/A
1.7.2.5	Operator access with a tool		N/A
1.7.2.6	Ozone		N/A
1.7.3	Short duty cycles		N/A
1.7.4	Supply voltage adjustment .....:		N/A
	Methods and means of adjustment; reference to installation instructions .....:		N/A
1.7.5	Power outlets on the equipment .....:	No outlets provided.	N/A
1.7.6	Fuse identification (marking, special fusing characteristics, cross-reference) .....:	Class III equipment.	N/A
1.7.7	Wiring terminals	Class III equipment.	N/A
1.7.7.1	Protective earthing and bonding terminals .....:		N/A
1.7.7.2	Terminals for a.c. mains supply conductors		N/A
1.7.7.3	Terminals for d.c. mains supply conductors	No d.c. mains supply.	N/A
1.7.8	Controls and indicators	See below.	P
1.7.8.1	Identification, location and marking .....:	The function of controls affecting safety is obvious without knowledge of language etc.	P
1.7.8.2	Colours .....:	For functional indication a LED lights when the equipment is operating.	P
1.7.8.3	Symbols according to IEC 60417.....:		N/A
1.7.8.4	Markings using figures .....:		N/A
1.7.9	Isolation of multiple power sources .....:		N/A
1.7.10	Thermostats and other regulating devices .....:		N/A
1.7.11	Durability	The label was subjected to the permanence of marking test. The label was rubbed with cloth soaked with water for 15 sec. and then again for 15 sec. with the cloth soaked with petroleum spirit. After this test there was no damage to the label. The marking on the label did not fade. There was no curling or lifting of the label edge.	P
1.7.12	Removable parts	No marking is located on removable part.	N/A
1.7.13	Replaceable batteries .....:	No Replaceable batteries.	N/A

IEC60950/Am1			
Clause	Requirement + Test	Result - Remark	Verdict
	Language(s) .....:		—
1.7.14	Equipment for restricted access locations .....:	Equipment not intended for installation in a restricted access location.	N/A
2	**PROTECTION FROM HAZARDS**		**P**
2.1	Protection from electric shock and energy hazards		N/A
2.1.1	Protection in operator access areas		N/A
2.1.1.1	Access to energized parts		N/A
	Test by inspection .....:		N/A
	Test with test finger (Figure 2A) .....:		N/A
	Test with test pin (Figure 2B) .....:		N/A
	Test with test probe (Figure 2C) .....:		N/A
2.1.1.2	Battery compartments		N/A
2.1.1.3	Access to ELV wiring	No internal wiring at ELV.	N/A
	Working voltage (Vpeak or Vrms); minimum distance through insulation (mm)		—
2.1.1.4	Access to hazardous voltage circuit wiring		N/A
2.1.1.5	Energy hazards .....:	No energy hazard in operator access area.	N/A
2.1.1.6	Manual controls	No Manual control.	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		N/A
	a) Capacitor connected to the d.c. mains supply ....:		N/A
	b) Internal battery connected to the d.c. mains supply .....:		N/A
2.1.1.9	Audio amplifiers .....:	No audio amplifier.	N/A
2.1.2	Protection in service access areas	No maintenance works in operation mode necessary.	N/A
2.1.3	Protection in restricted access locations	The unit is not limited to be used in restricted access locations.	N/A
2.2	**SELV circuits**		**P**
2.2.1	General requirements	See below.	P
2.2.2	Voltages under normal conditions (V) .....:	42.4V peak or 60Vd.c. is not exceeded in SELV circuit under normal operation.	P

IEC60950/Am1			
Clause	Requirement + Test	Result - Remark	Verdict
2.2.3	Voltages under fault conditions (V) .....:		N/A
2.2.4	Connection of SELV circuits to other circuits .....:	SELV only connected to SELV.	P

2.3	**TNV circuits**		**N/A**
2.3.1	Limits		N/A
	Type of TNV circuits .....:		—
2.3.2	Separation from other circuits and from accessible parts		N/A
2.3.2.1	General requirements		N/A
2.3.2.2	Protection by basic insulation		N/A
2.3.2.3	Protection by earthing		N/A
2.3.2.4	Protection by other constructions .....:		N/A
2.3.3	Separation from hazardous voltages		N/A
	Insulation employed.....:		—
2.3.4	Connection of TNV circuits to other circuits		N/A
	Insulation employed.....:		—
2.3.5	Test for operating voltages generated externally		N/A

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

2.5	**Limited power sources** *The output of approved external power adaptor which listed in appended table 1.5.1 was complied with the requirements of Limited Power Sources*		**P**
	a) Inherently limited output	(Result see appended table 2.5.)	P
	b) Impedance limited output		N/A
	c) Regulating network limited output under normal operating and single fault condition		N/A
	d) Overcurrent protective device limited output		N/A

IEC60950/Am1			
Clause	Requirement + Test	Result - Remark	Verdict
	Max. output voltage (V), max. output current (A), max. apparent power (VA) .....:	(Result see appended table 2.5.)	—
	Current rating of overcurrent protective device (A) .:		—
	Use of integrated circuit (IC) current limiters		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		N/A
2.6.3	Protective earthing and protective bonding conductors		N/A
2.6.3.1	General		N/A
2.6.3.2	Size of protective earthing conductors		N/A
	Rated current (A), cross-sectional area (mm2), AWG .....:		—
2.6.3.3	Size of protective bonding conductors		N/A
	Rated current (A), cross-sectional area (mm2), AWG .....:		—
	Protective current rating (A), cross-sectional area (mm2), AWG.....:		N/A
2.6.3.4	Resistance of earthing conductors and their terminations; resistance (Ω), voltage drop (V), test current (A), duration (min) .....:		N/A
2.6.3.5	Colour of insulation.....:		N/A
2.6.4	Terminals		N/A
2.6.4.1	General		N/A
2.6.4.2	Protective earthing and bonding terminals		N/A
	Rated current (A), type, nominal thread diameter (mm).....:		—
2.6.4.3	Separation of the protective earthing conductor from protective bonding conductors		N/A
2.6.5	Integrity of protective earthing		N/A
2.6.5.1	Interconnection of equipment		N/A
2.6.5.2	Components in protective earthing conductors and protective bonding conductors		N/A
2.6.5.3	Disconnection of protective earth		N/A
2.6.5.4	Parts that can be removed by an operator		N/A
2.6.5.5	Parts removed during servicing		N/A
2.6.5.6	Corrosion resistance		N/A
2.6.5.7	Screws for protective bonding		N/A

IEC60950/Am1			
Clause	Requirement + Test	Result - Remark	Verdict
2.6.5.8	Reliance on telecommunication network or cable distribution system		N/A

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

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

2.9	**Electrical insulation**		**N/A**
2.9.1	Properties of insulating materials	Class III equipment.	N/A
2.9.2	Humidity conditioning		N/A
	Relative humidity (%), temperature (°C) ..... :		—
2.9.3	Grade of insulation		N/A
2.9.4	Separation from hazardous voltages		N/A
	Method(s) used ..... :		—

2.10	**Clearances, creepage distances and distances through insulation**	**P**

IEC60950/Am1			
Clause	Requirement + Test	Result - Remark	Verdict
2.10.1	General	See below.	P
2.10.1.1	Frequency .....:	< 30kHz	P
2.10.1.2	Pollution degrees .....:	Pollution degree 2.	P
2.10.1.3	Reduced values for functional insualtion	See 5.3.4.	P
2.10.1.4	Intervening unconnected conductive parts	Complied with.	P
2.10.1.5	Insulation with varying dimensions		N/A
2.10.1.6	Special separation requirements		N/A
2.10.1.7	Insulation in circuits generating starting pulses		N/A
2.10.2	Determination of working voltage		N/A
2.10.2.1	General		N/A
2.10.2.2	RMS working voltage		N/A
2.10.2.3	Peak working voltage		N/A
2.10.3	Clearances		N/A
2.10.3.1	General		N/A
2.10.3.2	Mains transient voltages		N/A
	a) AC mains supply .....:		N/A
	b) Earthed d.c. mains supplies .....:		N/A
	c) Unearthed d.c. mains supplies .....:		N/A
	d) Battery operation .....:		N/A
2.10.3.3	Clearances in primary circuits		N/A
2.10.3.4	Clearances in secondary circuits		N/A
2.10.3.5	Clearances in circuits having starting pulses		N/A
2.10.3.6	Transients from a.c. mains supply .....:		N/A
2.10.3.7	Transients from d.c. mains supply .....:		N/A
2.10.3.8	Transients from telecommunication networks and cable distribution systems .....:		N/A
2.10.3.9	Measurement of transient voltage levels		N/A
	a) Transients from a mains suplply		N/A
	For an a.c. mains supply .....:		N/A
	For a d.c. mains supply .....:		N/A
	b) Transients from a telecommunication network :		N/A
2.10.4	Creepage distances		N/A
2.10.4.1	General		N/A
2.10.4.2	Material group and caomparative tracking index		N/A
	CTI tests.....:		—
2.10.4.3	Minimum creepage distances		N/A
2.10.5	Solid insulation		N/A

IEC60950/Am1			
Clause	Requirement + Test	Result - Remark	Verdict
2.10.5.1	General		N/A
2.10.5.2	Distances through insulation		N/A
2.10.5.3	Insulating compound as solid insulation		N/A
2.10.5.4	Semiconductor devices		N/A
2.10.5.5.	Cemented joints		N/A
2.10.5.6	Thin sheet material – General		N/A
2.10.5.7	Separable thin sheet material		N/A
	Number of layers (pcs).....:		—
2.10.5.8	Non-separable thin sheet material		N/A
2.10.5.9	Thin sheet material – standard test procedure		N/A
	Electric strength test		—
2.10.5.10	Thin sheet material – alternative test procedure		N/A
	Electric strength test		—
2.10.5.11	Insulation in wound components		N/A
2.10.5.12	Wire in wound components		N/A
	Working voltage .....:		N/A
	a) Basic insulation not under stress .....:		N/A
	b) Basic, supplemetary, reinforced insulation .....:		N/A
	c) Compliance with Annex U .....:		N/A
	Two wires in contact inside wound component; angle between 45° and 90° .....:		N/A
2.10.5.13	Wire with solvent-based enamel in wound components		N/A
	Electric strength test		—
	Routine test		N/A
2.10.5.14	Additional insulation in wound components		N/A
	Working voltage .....:		N/A
	- Basic insulation not under stress .....:		N/A
	- Supplemetary, reinforced insulation .....:		N/A
2.10.6	Construction of printed boards		N/A
2.10.6.1	Uncoated printed boards		N/A
2.10.6.2	Coated printed boards		N/A
2.10.6.3	Insulation between conductors on the same inner surface of a printed board		N/A
2.10.6.4	Insulation between conductors on different layers of a printed board		N/A
	Distance through insulation		N/A
	Number of insulation layers (pcs) .....:		N/A

IEC60950/Am1			
Clause	Requirement + Test	Result - Remark	Verdict
2.10.7	Component external terminations		N/A
2.10.8	Tests on coated printed boards and coated components		N/A
2.10.8.1	Sample preparation and preliminary inspection		N/A
2.10.8.2	Thermal conditioning		N/A
2.10.8.3	Electric strength test		N/A
2.10.8.4	Abrasion resistance test		N/A
2.10.9	Thermal cycling		N/A
2.10.10	Test for Pollution Degree 1 environment and insulating compound		N/A
2.10.11	Tests for semiconductor devices and cemented joints		N/A
2.10.12	Enclosed and sealed parts		N/A

3	**WIRING, CONNECTIONS AND SUPPLY**		**P**
3.1	General		P
3.1.1	Current rating and overcurrent protection	All internal wires are UL recognized wiring which is PVC insulated, rated VW-1, minimum 80°C. Internal wiring gauge is suitable for current intended to be carried.	P
3.1.2	Protection against mechanical damage	Wires do not touch sharp edges which could damage the insulation and cause hazard.	P
3.1.3	Securing of internal wiring	The wires are secured by soldering, solder pins and quick connect terminals so that a loosening of the terminal connection is unlikely.	P
3.1.4	Insulation of conductors	The insulation of the individual conductors are suitable for the application and the working voltage. For the insulation material see 3.1.1.	P
3.1.5	Beads and ceramic insulators	Not used.	N/A
3.1.6	Screws for electrical contact pressure	Not used.	N/A
3.1.7	Insulating materials in electrical connections	All current carrying connections are metal to metal.	N/A
3.1.8	Self-tapping and spaced thread screws	No self-tapping screws are used for connection purposes.	N/A

IEC60950/Am1			
Clause	Requirement + Test	Result - Remark	Verdict
3.1.9	Termination of conductors	All terminations are fixed reliable.	P
	10 N pull test	Complied.	P
3.1.10	Sleeving on wiring	No sleeving used to provide supplementary insulation.	N/A

3.2	**Connection to a mains supply** *Class III equipment.*		**N/A**
3.2.1	Means of connection ..... :	No direct connection to the mains supply.	N/A
3.2.1.1	Connection to an a.c. mains supply		N/A
3.2.1.2	Connection to a d.c. mains supply		N/A
3.2.2	Multiple supply connections		N/A
3.2.3	Permanently connected equipment		N/A
	Number of conductors, diameter of cable and conduits (mm) ..... :		—
3.2.4	Appliance inlets		N/A
3.2.5	Power supply cords		N/A
3.2.5.1	AC Power supply cords		N/A
	Type ..... :		—
	Rated current (A), cross-sectional area (mm^2), AWG..... :		—
3.2.5.2	DC power supply cords		N/A
3.2.6	Cord anchorages and strain relief		N/A
	Mass of equipment (kg), pull (N) ..... :		—
	Longitudinal displacement (mm) ..... :		—
3.2.7	Protection against mechanical damage		N/A
3.2.8	Cord guards		N/A
	Diameter or minor dimension D (mm); test mass (g) ..... :		—
	Radius of curvature of cord (mm) ..... :		—
3.2.9	Supply wiring space		N/A

3.3	**Wiring terminals for connection of external conductors**		**N/A**
3.3.1	Wiring terminals		N/A
3.3.2	Connection of non-detachable power supply cords		N/A
3.3.3	Screw terminals		N/A
3.3.4	Conductor sizes to be connected		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Rated current (A), cord/cable type, cross-sectional area (mm2) ..... :		—
3.3.5	Wiring terminal sizes		N/A
	Rated current (A), type, nominal thread diameter (mm) ..... :		—
3.3.6	Wiring terminal design		N/A
3.3.7	Grouping of wiring terminals		N/A
3.3.8	Stranded wire		N/A
3.4	**Disconnection from the mains supply**		**N/A**
3.4.1	General requirement	Not connected to mains supply directly.	N/A
3.4.2	Disconnect devices		N/A
3.4.3	Permanently connected equipment		N/A
3.4.4	Parts which remain energized		N/A
3.4.5	Switches in flexible cords		N/A
3.4.6	Number of poles - single-phase and d.c. equipment		N/A
3.4.7	Number of poles - three-phase equipment		N/A
3.4.8	Switches as disconnect devices		N/A
3.4.9	Plugs as disconnect devices		N/A
3.4.10	Interconnected equipment		N/A
3.4.11	Multiple power sources		N/A
3.5	**Interconnection of equipment**		**P**
3.5.1	General requirements	See below.	P
3.5.2	Types of interconnection circuits ..... :	Only SELV interconnection circuits.	P
3.5.3	ELV circuits as interconnection circuits	No ELV interconnection.	N/A
3.5.4	Data ports for additional equipment	The outputs of data ports are comply with limited power source, refer also appended table 2.5.	P
4	**PHYSICAL REQUIREMENTS**		**P**
4.1	Stability		N/A
	Angle of 10°	The weight of unit is not exceeding 7 kg.	N/A
	Test force (N) .....:		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
4.2	**Mechanical strength**		**P**
4.2.1	General		N/A
	Rack-mounted equipment.		N/A
4.2.2	Steady force test, 10 N		N/A
4.2.3	Steady force test, 30 N	No internal enclosure.	N/A
4.2.4	Steady force test, 250 N		N/A
4.2.5	Impact test		N/A
	Fall test		N/A
	Swing test		N/A
4.2.6	Drop test; height (mm) .....:		N/A
4.2.7	Stress relief test		N/A
4.2.8	Cathode ray tubes	No CRT in the unit.	N/A
	Picture tube separately certified .....:		N/A
4.2.9	High pressure lamps	No high pressure lamp.	N/A
4.2.10	Wall or ceiling mounted equipment; force (N) .....:	Additional force: 51N, 1mins	P

4.3	**Design and construction**		**P**
4.3.1	Edges and corners	All edges and corners are judged to be sufficiently well rounded so as not to constitute a hazard.	P
4.3.2	Handles and manual controls; force (N) .....:		N/A
4.3.3	Adjustable controls	The equipment does not have a voltage selector.	N/A
4.3.4	Securing of parts	No connection likely to be exposed to mechanical stress.	P
4.3.5	Connection by plugs and sockets	No mismatch of connector, plug or socket possible. IEC 60083 and IEC 60320-1 connectors are not used in SELV.	P
4.3.6	Direct plug-in equipment	Not direct plug-in equipment.	N/A
	Torque .....:		—
	Compliance with the relevant mains plug standard :		N/A
4.3.7	Heating elements in earthed equipment		N/A
4.3.8	Batteries		N/A
	- Overcharging of a rechargeable battery		N/A
	- Unintentional charging of a non-rechargeable battery		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	- Reverse charging of a rechargeable battery		N/A
	- Excessive discharging rate for any battery		N/A
4.3.9	Oil and grease		N/A
4.3.10	Dust, powders, liquids and gases	The equipment does not produce dust or employ powders, liquids or gases.	N/A
4.3.11	Containers for liquids or gases	The equipment does not contain liquids.	N/A
4.3.12	Flammable liquids .....:	The equipment does not use any flammable liquids.	N/A
	Quantity of liquid (l) .....:		N/A
	Flash point (°C) .....:		N/A
4.3.13	Radiation		N/A
4.3.13.1	General		N/A
4.3.13.2	Ionizing radiation		N/A
	Measured radiation (pA/kg) .....:		—
	Measured high-voltage (kV) .....:		—
	Measured focus voltage (kV) .....:		—
	CRT markings .....:		—
4.3.13.3	Effect of ultraviolet (UV) radiation on materials	No UV radiation.	N/A
	Part, property, retention after test, flammability classification .....:		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		N/A
4.3.13.5.1	Lasers (including laser laser diodes)		N/A
	Laser class .....:		—
4.3.13.5.2	Light emitting diodes (LEDs)	This product contains visible indicator LEDs. Less than class 1.	—
4.3.13.6	Other types .....:	No other type of radiation source inside the equipment.	N/A

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

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Clause	Requirement + Test	Result - Remark	Verdict
4.4.5	Protection against moving fan blades		N/A
4.4.5.1	General		N/A
	Not considered to cause pain or injury. a)……....:		N/A
	Is considered to cause pain, not injury. b) … ... ……:		N/A
	Considered to cause injury. c) …... ……:		N/A
4.4.5.2	Protection for users		N/A
	Use of symbol or warning …… .. ……:		N/A
4.4.5.3	Protection for service persons		N/A
	Use of symbol or warning …… .. ……:		N/A
4.5	**Thermal requirements**		**P**
4.5.1	General	See below.	P
4.5.2	Temperature tests	(see appended table 4.5)	P
	Normal load condition per Annex L .....:	Maximum normal load which specified by manufacturer.	—
4.5.3	Temperature limits for materials	(see appended table 4.5)	P
4.5.4	Touch temperature limits	(see appended table 4.5)	P
4.5.5	Resistance to abnormal heat .....:		N/A
4.6	**Openings in enclosures**		**P**
4.6.1	Top and side openings	Consider. The equipment inside is not hazardous voltage and energy hazard.	P
	Dimensions (mm) .....:		—
4.6.2	Bottoms of fire enclosures	Unit supplied by the external power supply which complied with limited power source. No fire enclosure is required.	N/A
	Construction of the bottomm, dimensions (mm) .....:		—
4.6.3	Doors or covers in fire enclosures	No door or cover.	N/A
4.6.4	Openings in transportable equipment	Not transportable equipment.	N/A
4.6.4.1	Constructional design measures		N/A
	Dimensions (mm) .....:		—
4.6.4.2	Evaluation measures for larger openings		N/A
4.6.4.3	Use of metallized parts		N/A
4.6.5	Adhesives for constructional purposes	No barrier or screen secured with adhesive.	N/A
	Conditioning temperature (°C), time (weeks) .....:		—

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Clause	Requirement + Test	Result - Remark	Verdict
4.7	**Resistance to fire**		**P**
4.7.1	Reducing the risk of ignition and spread of flame	Use of materials with the required flammability classes.	P
	Method 1, selection and application of components wiring and materials	Selection and application of components and materials which minimize the possibility of ignition and spread of flame.	P
	Method 2, application of all of simulated fault condition tests		N/A
4.7.2	Conditions for a fire enclosure	See below	P
4.7.2.1	Parts requiring a fire enclosure	See clause 4.7.2.2.	N/A
4.7.2.2	Parts not requiring a fire enclosure	The appliance with: Supply of components in the secondary circuit by a limited power source. The components are mounted on PCB material of flammability rating V-1 min., the fire enclosure construction is not required.	P
4.7.3	Materials	See below.	P
4.7.3.1	General	PCB rated V-1 or better.	P
4.7.3.2	Materials for fire enclosures	No fire enclosure requirement.	N/A
4.7.3.3	Materials for components and other parts outside fire enclosures	No such components.	N/A
4.7.3.4	Materials for components and other parts inside fire enclosures		N/A
4.7.3.5	Materials for air filter assemblies	The equipment does not have any air filters.	N/A
4.7.3.6	Materials used in high-voltage components	No high-voltage components.	N/A

5	**ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS**		**P**
5.1	Touch current and protective conductor current		N/A
5.1.1	General		N/A
5.1.2	Configuration of equipment under test (EUT)	EUT has only one mains connection through adapter.	N/A
5.1.2.1	Single connection to an a.c. mains supply		N/A
5.1.2.2	Redundant multiple connections to an a.c. mains supply		N/A
5.1.2.3	Simultaneous multiple connections to an a.c. mains supply		N/A
5.1.3	Test circuit		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
5.1.4	Application of measuring instrument		N/A
5.1.5	Test procedure		N/A
5.1.6	Test measurements		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		N/A
5.1.7.1	General .....:		N/A
5.1.7.2	Simultaneous multiple connections to the supply		N/A
5.1.8	Touch currents to telecommunication networks and cable distribution systems and from telecommunication networks		N/A
5.1.8.1	Limitation of the touch current to a telecommunication network or to a cable distribution system		N/A
	Supply voltage (V) .....:		—
	Measured touch current (mA) .....:		—
	Max. allowed touch current (mA) .....:		—
5.1.8.2	Summation of touch currents from telecommunication networks		N/A
	a) EUT with earthed telecommunication ports .....:		N/A
	b) EUT whose telecommunication ports have no reference to protective earth		N/A

5.2	**Electric strength**		**N/A**
5.2.1	General		N/A
5.2.2	Test procedure		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		N/A
5.3.3	Transformers		N/A
5.3.4	Functional insulation.....:	Complies with c).	P
5.3.5	Electromechanical components		N/A
5.3.6	Audio amplifiers in ITE .....:		N/A
5.3.7	Simulation of faults	(see appended table 5.3)	P

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Clause	Requirement + Test	Result - Remark	Verdict
5.3.8	Unattended equipment		N/A
5.3.9	Compliance criteria for abnormal operating and fault conditions	See below.	P
5.3.9.1	During the tests	No fire propagated beyond the equipment. No molten metal was emitted.	P
5.3.9.2	After the tests		N/A
6	**CONNECTION TO TELECOMMUNICATION NETWORKS**		**N/A**
6.1	Protection of telecommunication network service persons, and users of other equipment connected to the network, from hazards in the equipment		N/A
6.1.1	Protection from hazardous voltages		N/A
6.1.2	Separation of the telecommunication network from earth		N/A
6.1.2.1	Requirements		N/A
	Supply voltage (V) .....:		—
	Current in the test circuit (mA) .....:		—
6.1.2.2	Exclusions .....:		N/A
6.2	**Protection of equipment users from overvoltages on telecommunication networks**		**N/A**
6.2.1	Separation requirements		N/A
6.2.2	Electric strength test procedure		N/A
6.2.2.1	Impulse test		N/A
6.2.2.2	Steady-state test		N/A
6.2.2.3	Compliance criteria		N/A
6.3	Protection of the telecommunication wiring system from overheating		N/A
	Max. output current (A) .....:		N/A
	Current limiting method .....:		N/A
7	**CONNECTION TO CABLE DISTRIBUTION SYSTEMS**		**N/A**
7.1	General		N/A
7.2	Protection of cable distribution system service persons, and users of other equipment connected to the system, from hazardous voltages in the equipment		N/A
7.3	Protection of equipment users from overvoltages on the cable distribution system		N/A
7.4	Insulation between primary circuits and cable distribution systems		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
7.4.1	General		N/A
7.4.2	Voltage surge test		N/A
7.4.3	Impulse test		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
A	Annex A, TESTS FOR RESISTANCE TO HEAT AND FIRE		N/A
A.1	Flammability test for fire enclosures of movable equipment having a total mass exceeding 18 kg, and of stationary equipment (see 4.7.3.2)		N/A
A.1.1	Samples .....:		N/A
	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 .....:		N/A
	Wall thickness (mm) .....:		—
A.2.2	Conditioning of samples; temperature (°C) .....:		N/A
A.2.3	Mounting of samples .....:		N/A
A.2.4	Test flame (see IEC 60695-11-4)		N/A
	Flame A, B or C .....:		—
A.2.5	Test procedure		N/A
A.2.6	Compliance criteria		N/A
	Sample 1 burning time (s) .....:		—
	Sample 2 burning time (s) .....:		—
	Sample 3 burning time (s) .....:		—
A.2.7	Alternative test acc. to IEC 60695-11-5, cl. 5 and 9		N/A
	Sample 1 burning time (s) .....:		—
	Sample 2 burning time (s) .....:		—
	Sample 3 burning time (s) .....:		—
A.3	Hot flaming oil test (see 4.6.2)		N/A
A.3.1	Mounting of samples		N/A
A.3.2	Test procedure		N/A
A.3.3	Compliance criterion		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

B	Annex B, MOTOR TESTS UNDER ABNORMAL CONDITIONS (see 4.7.2.2 and 5.3.2)		N/A
B.1	General requirements		N/A
	Position .....:		—
	Manufacturer .....:		—
	Type .....:		—
	Rated values .....:		—
B.2	Test conditions		N/A
B.3	Maximum temperatures		N/A
B.4	Running overload test		N/A
B.5	Locked-rotor overload test		N/A
	Test duration (days) .....:		—
	Electric strength test: test voltage (V) .....:		—
B.6	Running overload test for d.c. motors in secondary circuits		N/A
B.6.1	General		N/A
B.6.2	Test procedure		N/A
B.6.3	Alternative test procedure		N/A
B.6.4	Electric strength test; test voltage (V) .....:		N/A
B.7	Locked-rotor overload test for d.c. motors in secondary circuits		N/A
B.7.1	General		N/A
B.7.2	Test procedure		N/A
B.7.3	Alternative test procedure		N/A
B.7.4	Electric strength test; test voltage (V) .....:		N/A
B.8	Test for motors with capacitors		N/A
B.9	Test for three-phase motors		N/A
B.10	Test for series motors		N/A
	Operating voltage (V) .....:		—

C	Annex C, TRANSFORMERS (see 1.5.4 and 5.3.3)		N/A
	Position .....:		—
	Manufacturer .....:		—
	Type .....:		—
	Rated values .....:		—
	Method of protection.....:		—

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Clause	Requirement + Test	Result - Remark	Verdict
C.1	Overload test		N/A
C.2	Insulation		N/A
	Protection from displacement of windings .....:		N/A
D	Annex D, MEASURING INSTRUMENTS FOR TOUCH-CURRENT TESTS (see 5.1.4)		N/A
D.1	Measuring instrument		N/A
D.2	Alternative measuring instrument		N/A
E	Annex E, TEMPERATURE RISE OF A WINDING (see 1.4.13)		N/A
F	Annex F, MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES (see 2.10 and Annex G)		N/A
G	Annex G, ALTERNATIVE METHOD FOR DETERMINING MINIMUM CLEARANCES		N/A
G.1	Clearances		N/A
G.1.1	General		N/A
G.1.2	Summary of the procedure for determining minimum clearances		N/A
G.2	Determination of mains transient voltage (V)		N/A
G.2.1	AC mains supply .....:		N/A
G.2.2	Earthed d.c. mains supplies .....:		N/A
G.2.3	Unearthed d.c. mains supplies .....:		N/A
G.2.4	Battery operation .....:		N/A
G.3	Determination of telecommunication network transient voltage (V) .....:		N/A
G.4	Determination of required withstand voltage (V)		N/A
G.4.1	Mains transients and internal repetitive peaks .....:		N/A
G.4.2	Transients from telecommunication networks .....:		N/A
G.4.3	Combination of transients		N/A
G.4.4	Transients from cable distribution systems		N/A
G.5	Measurement of transient voltages (V)		N/A
	a) Transients from a mains supply		N/A
	For an a.c. mains supply		N/A
	For a d.c. mains supply		N/A
	b) Transients from a telecommunication network		N/A
G.6	Determination of minimum clearances .....:		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
H	Annex H, IONIZING RADIATION (see 4.3.13)		N/A
J	Annex J, TABLE OF ELECTROCHEMICAL POTENTIALS (see 2.6.5.6)		N/A
	Metal(s) used .....:		—
K	Annex K, THERMAL CONTROLS (see 1.5.3 and 5.3.8)		N/A
K.1	Making and breaking capacity		N/A
K.2	Thermostat reliability; operating voltage (V) .....:		N/A
K.3	Thermostat endurance test; operating voltage (V) .:		N/A
K.4	Temperature limiter endurance; operating voltage (V) .....:		N/A
K.5	Thermal cut-out reliability		N/A
K.6	Stability of operation		N/A
L	Annex L, NORMAL LOAD CONDITIONS FOR SOME TYPES OF ELECTRICAL BUSINESS EQUIPMENT (see 1.2.2.1 and 4.5.2)		P
L.1	Typewriters		N/A
L.2	Adding machines and cash registers		N/A
L.3	Erasers		N/A
L.4	Pencil sharpeners		N/A
L.5	Duplicators and copy machines		N/A
L.6	Motor-operated files		N/A
L.7	Other business equipment	Maximum normal load.	P
M	Annex M, CRITERIA FOR TELEPHONE RINGING SIGNALS (see 2.3.1)		N/A
M.1	Introduction	No phone ringing is generated in the equipment.	N/A
M.2	Method A		N/A
M.3	Method B		N/A
M.3.1	Ringing signal		N/A
M.3.1.1	Frequency (Hz) .....:		—
M.3.1.2	Voltage (V) .....:		—
M.3.1.3	Cadence; time (s), voltage (V) .....:		—
M.3.1.4	Single fault current (mA) .....:		—
M.3.2	Tripping device and monitoring voltage .....:		N/A
M.3.2.1	Conditions for use of a tripping device or a monitoring voltage		N/A
M.3.2.2	Tripping device		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
M.3.2.3	Monitoring voltage (V) .....:		N/A
N	Annex N, IMPULSE TEST GENERATORS (see 1.5.7.2, 1.5.7.3, 2.10.3.9, 6.2.2.1, 7.3.2, 7.4.3 and Clause G.5)		N/A
N.1	ITU-T impulse test generators		N/A
N.2	IEC 60065 impulse test generator		N/A
P	Annex P, NORMATIVE REFERENCES		—
Q	Annex Q, Voltage dependent resistors (VDRs) (see 1.5.9.1)		N/A
	a) Preferred climatic categories .....:		N/A
	b) Maximum continuous voltage .....:		N/A
	c) Pulse current .....:		N/A
R	Annex R, EXAMPLES OF REQUIREMENTS FOR QUALITY CONTROL PROGRAMMES		N/A
R.1	Minimum separation distances for unpopulated coated printed boards (see 2.10.6.2)		N/A
R.2	Reduced clearances (see 2.10.3)		N/A
S	Annex S, PROCEDURE FOR IMPULSE TESTING (see 6.2.2.3)		N/A
S.1	Test equipment		N/A
S.2	Test procedure		N/A
S.3	Examples of waveforms during impulse testing		N/A
T	Annex T, GUIDANCE ON PROTECTION AGAINST INGRESS OF WATER (see 1.1.2)		N/A
	See separate test report		—
U	Annex U, INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION (see 2.10.5.4)		N/A
	See separate test report		—
V	Annex V, AC POWER DISTRIBUTION SYSTEMS (see 1.6.1)		N/A
V.1	Introduction		N/A
V.2	TN power distribution systems		N/A
W	Annex W, SUMMATION OF TOUCH CURRENTS		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
W.1	Touch current from electronic circuits		N/A
W.1.1	Floating circuits		N/A
W.1.2	Earthed circuits		N/A
W.2	Interconnection of several equipments		N/A
W.2.1	Isolation		N/A
W.2.2	Common return, isolated from earth		N/A
W.2.3	Common return, connected to protective earth		N/A
X	Annex X, MAXIMUM HEATING EFFECT IN TRANSFORMER TESTS (see clause C.1)		N/A
X.1	Determination of maximum input current		N/A
X.2	Overload test procedure		N/A
Y	ANNEX Y, ULTRAVIOLET LIGHT CONDITIONING TEST (see 4.3.13.3)		N/A
Y.1	Test apparatus .....:		N/A
Y.2	Mounting of test samples .....:		N/A
Y.3	Carbon-arc light-exposure apparatus .....:		N/A
Y.4	Xenon-arc light exposure apparatus .....:		N/A
Z	ANNEX Z, OVERVOLTAGE CATEGORIES (see 2.10.3.2 and Clause G.2)		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
DD	Annex DD, Requirements for the mounting means of rack-mounted equipment		N/A
DD.1	General		N/A
DD.2	Mechanical strength test, variable N……..:		N/A
DD.3	Mechanical strength test, 250N, including end stops……..:		N/A
DD.4	Compliance……..:		N/A

IEC60950/Am1			
Clause	Requirement + Test	Result - Remark	Verdict
EE	Annex EE, Household and home/office document/media shredders		N/A
EE.1	General		N/A
EE.2	Markings and instructions		N/A
	Use of markings or symbols……:		N/A
	Information of user instructions, maintenance and/or servicing instructions……:		N/A
EE.3	Inadvertent reactivation test……:		N/A
EE.4	Disconnection of power to hazardous moving parts:		N/A
	Use of markings or symbols……:		N/A
EE.5	Protection against hazardous moving parts		N/A
	Test with test finger (Figure 2A) ……:		N/A
	Test with wedge probe (Figure EE1 and EE2) ……:		N/A

IEC60950/Am1			
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])
External power adapter	Shenzhen Frecom Electronics Co., Ltd.	F05W-050100SPAS	i/p: 100-240Vac 50/60Hz, Max. 190mA; o/p:5Vdc, 1.0A; Tma: 40°C, Class II, complied with LPS	AS/NZS 60950.1:2011+ A1:2012	TUV
Plastic Enclosure	Chi Mei Corporation	PA-757(+)	HB or better, min. 1.80mm thickness, 80°C	UL 94	UL (E56070)
PCB	Interchangeable	Interchangeable	V-1 or better, min. 105°C	UL 796	UL

IEC60950/Am1			
Clause	Requirement + Test	Result - Remark	Verdict

1.6.2	TABLE: Electrical data (in normal conditions)					P
U (V)	I (A)	Irated (A)	P (W)	Fuse #	Ifuse (A)	Condition/status
Supply by DC source						
5Vdc	0.46	1.0	2.3	--	--	Maximum normal load
Supply by PoE part						
48Vdc	0.0657	--	3.16	--	--	Maximum normal load
Maximum normal load: RJ45 and computer connection, and constantly to transmit data. 2 phone calls to each other.						

2.1.1.5 c) 1)	**TABLE: max. V, A, VA test**	**N/A**

Voltage (rated) (V)	Current (rated) (A)	Voltage (max.) (V)	Current (max.) (A)	VA (max.) (VA)
--	--	--	--	--
supplementary information:				

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

Capacitance C (µF)	Voltage U (V)	Energy E (J)
--	--	--
supplementary information:		

2.1.1.7	**TABLE: discharge test**			**N/A**
Condition	τ calculated (s)	τ measured (s)	t u→ 0V (s)	Comments
--	--	--	--	--
Notes: Overall capacity: Discharge resistor:				

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

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

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Clause	Requirement + Test	Result - Remark	Verdict

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: RJ-09 port all Pin to Return (CN15)

Components	Sample No.	Uoc (V)	I_{sc} (A)		VA	
			Meas.	Limit	Meas.	Limit
Normal	1	0	0	8	0	100

Circuit output tested: RJ-09 port all Pin to Return (CN16)

Components	Sample No.	Uoc (V)	I_{sc} (A)		VA	
			Meas.	Limit	Meas.	Limit
Normal	1	0	0	8	0	100

Circuit output tested: RJ-45 port all Pin to Return (CN6)

Components	Sample No.	Uoc (V)	I_{sc} (A)		VA	
			Meas.	Limit	Meas.	Limit
Normal	1	0	0	8	0	100

Circuit output tested: RJ-45 port all Pin to Return (CN7)

Components	Sample No.	Uoc (V)	I_{sc} (A)		VA	
			Meas.	Limit	Meas.	Limit
Normal	1	0	0	8	0	100

Supplementary information: Use of enclosure with the required flammability classes.

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:						

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Clause	Requirement + Test	Result - Remark	Verdict

--	--	--	--	--	--	--
Basic/supplementary:						
--	--	--	--	--	--	--
Reinforced:						
--	--	--	--	--	--	--
Supplementary information: N/A						

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**								**N/A**
The tests of 4.3.8 are applicable only when appropriate battery data is not available				--					--
Is it possible to install the battery in a reverse polarity position?				No					--
	Non-rechargeable batteries			Rechargeable batteries					
	Discharging		Un-intentional charging	Charging		Discharging		Reversed charging	
	Meas. current	Manuf. Specs.		Meas. current	Manuf. Specs.	Meas. current	Manuf. Specs.	Meas. current	Manuf. Specs.
Max. current during normal condition	--	--	--	--	--	--	--	--	--
Max. current during fault condition	--	--	--	--	--	--	--	--	--
Test results:				--					Verdict
- Chemical leaks				No chemical leaks affecting required insulation.					--
- Explosion of the battery				No explosion.					--
- Emission of flame or expulsion of molten metal				No emission of flame or expulsion of molten metal.					--
- Electric strength tests of equipment after completion of tests				Class III equipment.					--
Supplementary information: Fault condition: P- to B- short.									

IEC60950/Am1			
Clause	Requirement + Test	Result - Remark	Verdict

4.3.8	**TABLE: Batteries**	**N/A**

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

4.5	**TABLE: Thermal requirements**						**P**
	Supply voltage (V) ..... :	See below		See below		--	—
	Ambient T_{min} (°C) ..... :	See below	Shift to 40°C	See below	Shift to 40°C	--	—
	Ambient T_{max} (°C) ..... :	--	--	--	--	--	—
Maximum measured temperature T of part/at::		T (°C)					Allowed T_{max} (°C)
--		5Vdc (Horizontal)		5Vdc (Vertical)		--	--
01. DC jack		29.6	47.2	30.7	46.7	--	90
02. RJ45 port		28.6	46.2	29.9	45.9	--	90
03. PWB near U1		37.3	54.9	38.4	54.4	--	105
04. PWB near U5		38.1	55.7	39.2	55.2	--	105
05. PWB near U11		31.6	49.2	32.8	48.8	--	105
06. L38 body		33.9	51.5	34.8	50.8	--	105
07. CE1 body		32.4	50.0	33.3	49.3	--	85
08. Panel		28.8	46.4	29.8	45.8	--	80
09. Telephone receiver		23.8	41.4	25.3	41.3	--	85
10. Internal enclosure near U1		30.4	48.0	32.5	48.5	--	85
11. Outer enclosure near U1		27.9	45.5	30.0	46.0	--	--
12. Key body		25.3	42.9	26.5	42.5	--	85
13. Ambient		22.4	40.0	24.0	40.0	--	--
--		48Vdc (Horizontal)		48Vdc (Vertical)		--	--
01. DC jack		37.8	55.3	36.2	54.6	--	90
02. RJ45 port		33.7	51.2	32.1	50.5	--	90
03. PWB near U1		43.6	61.1	42.4	60.8	--	105

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Clause	Requirement + Test	Result - Remark	Verdict

04. PWB near U5		43.8	61.3	42.6	61.0	--	105
05. PWB near U11		36.6	54.1	35.2	53.6	--	105
06. L38 body		56.8	74.3	54.7	73.1	--	105
07. CE1 body		44.3	61.8	42.5	60.9	--	85
08. Panel		31.1	48.6	30.0	48.4	--	80
09. Telephone receiver		24.0	41.5	23.6	42.0	--	85
10. Internal enclosure near U1		33.4	50.9	33.8	52.2	--	85
11. Outer enclosure near U1		30.3	47.8	30.2	48.6	--	--
12. Key body		27.5	45.0	26.5	44.9	--	85
13. Ambient		22.5	40.0	21.6	40.0	--	--
Temperature T of winding:	t_1 (°C)	R_1 (Ω)	t_2 (°C)	R_2 (Ω)	T (°C)	Allowed T_{max} (°C)	Insulation class

Supplementary information:

The temperatures were measured under worst case normal mode defined in 1.2.2.1 and described in 1.6.2 at voltages as described in 1.4.5.

With a maximum ambient temperature of +40 °C

1. All values for T (ºC) are re-calculated from actual ambient respectively. Therefore the maximum temperatures measured are recalculated as follows: T + (40 – T_{amb}), where T is the maximum temperature measured during test and Tamb is the ambient temperature during the test.
2. The maximum temperatures are calculated as follows:

   Winding components (with safety isolation):

   - Class A T_{max} = 100 °C −10 °C = 90 °C

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

Part	Test temperature (°C)	Impression diameter (mm)
--	--	--

Supplementary information:

4.6.1, 4.6.2	TABLE: Enclosure opening measurements		N/A
Location		Size (mm)	Comments
--		--	--
--		--	--

supplementary information:

1) No components were located within 5° projection from these openings.

2) Unit is supplied by external power supplies that complied with LPS.

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Clause	Requirement + Test	Result - Remark	Verdict

5.1	TABLE: touch current measurement	N/A

Measured between:	Measured (mA)	Limit (mA)	Comments/conditions
--	--	--	--
supplementary information:			
Input voltage: Input frequency: Overall capacity:			

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 ..... :	See table 1.5.1 for details.	—

Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
U10 pin 18 to pin 9	Short circuit	48Vdc	10 min	--	--	Unit shutdown, No damaged, no hazards. Current: 0.01A
D12	Short circuit	48Vdc	10 min	--	--	Unit shutdown, No damaged, no hazards. Current: 0.01A
Supplementary information: N/A						

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Clause	Requirement + Test	Result - Remark	Verdict

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:							

C.2	TABLE: transformers	N/A
Transformer		

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Clause	Requirement + Test	Result - Remark	Verdict

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

PART 1: GENERAL REQUIREMENTS

Differences according to ..... AS/NZS 60950.1:2011+A1: 2012

4.3.13.5	Delete the variation to Clause 4.3.13.5	Deleted.	N/A
4.3.13.5.1	replace with the following: 1 Add the following after each reference to 'IEC 60825-1': 'or AS/NZS 60825.1' 2 Add the following after 'IEC 60825-2' in line two of the first paragraph: ' or AS/NZS 60825.2'	Replaced.	N/A

Differences according to ..... AS/NZS 60950.1:2011

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

<table>
<tr><td colspan="4">IEC60950/Am1</td></tr>
<tr><td>Clause</td><td>Requirement + Test</td><td>Result - Remark</td><td>Verdict</td></tr>
<tr><td>1.5.2.</td><td>Add the following to the end of first and third dash items:
‘or the relevant Australian/New Zealand Standard’.</td><td>Added.</td><td>N/A</td></tr>
<tr><td>3.2.5.1</td><td>Modify Table 3B as follows:
Delete the first four rows and replace with
<table><tr><th rowspan="2">RATED CURRENT of equipment
A</th><th colspan="2">Minimum conductor sizes</th></tr><tr><th>Nominal cross-sectional area mm ²</th><th>AWG or kcmil [crosssectional area in mm²] see note 2</th></tr><tr><td>Over 0.2 up to and including 3
Over 3 up to and including 7.5
Over 7.5 up to and including 10
Over 10 up to and including 16</td><td>0,5 [a]
0,75
(0,75)[b] 1,00
(1,0)[c] 1,5</td><td>18 [0,8]
16 [1,3]
16 [1,3]
14 [2]</td></tr></table>
2. Delete NOTE 1.
3. Delete Footnote a and replace with the following:
a This nominal cross-sectional area is only allowed for Class II appliances if the length of the power supply cord, measured between the point where the cord, or cord guard, enters the appliance, and the entry to the plug does not exceed 2 m (0,5 mm2 three-core supply flexible cords are not permitted; see AS/NZS 3191).</td><td>Replaced.</td><td>N/A</td></tr>
<tr><td>4.1.201</td><td>Insert a new Clause 4.1.201 after Clause 4.1 as follows:
4.1.201 Display devices used for television purposes
Display devices which may be used for television purposes, with a mass of 7 kg or more, shall comply with the requirements for stability and mechanical hazards, including the additional stability requirements for television receivers, specified in AS/NZS 60065.</td><td></td><td>N/A</td></tr>
<tr><td>4.3.6</td><td>Delete the third paragraph and replace with the following:
Equipment with a plug portion, suitable for insertion into a 10 A 3-pin flatpin socket-outlet complying with AS/NZS 3112 shall comply with the requirements in AS/NZS 3112 for equipment with integral pins for insertion into socket-outlets.</td><td>Not a direct plug-in equipment.</td><td>N/A</td></tr>
<tr><td>4.3.16.5</td><td>Add the following to the end of the first paragraph:
‘, or AS/NZS 2211.1’.</td><td>Added.</td><td>N/A</td></tr>
</table>

IEC60950/Am1			
Clause	Requirement + Test	Result - Remark	Verdict
4.7	Add the following new paragraph to the end of the clause: 'For alternative tests refer to Clause 4.7.201'.	Added.	N/A
4.7.201	Insert a new Clause 4.7.201 after Clause 4.7.3.6 a s follows: **4.7.201 Resistance to fire – Alternative tests**		N/A
4.7.201.1	**4.7.201.1 General** Parts of non-metallic material shall be resistant to ignition and spread of fire. This requirement does not apply to decorative trim s, knobs and other parts unlikely to be ignited or to propagate flames from inside the apparatus, or the following: (a) Components that are contained in an enclosure having a flammability category of V-0 according to AS/NZS 60695.11.10 and having openings only for the connecting wires filling the openings completely, and for ventilation not exceeding 1mm in width regardless of length. (b) The following parts which would contribute negli gible fuel to a fire: - small mechanical parts, the mass of which does not exceed 4g, such as mounting parts, gears, cams, belts and bearings; - small electrical components, such as capacitors with a volume not exceeding 1,750 mm^3, integrated circuits, transistors and optocoupler packages, if these components are mounted on material of flammability category V-1, or better, according to AS/NZS 60695.11.10. NOTE In considering how to minimize propagation of fire and w hat 'small parts' are, account should be taken of the cumulative effect of small parts adjacent to each other for the possible effec t of propagating the fire from one part to another. Compliance shall be checked by the tests of 4.7.20 1.2, 4.7.201.3, 4.7.201.4 and 4.7.201.5. For the base material of printed boards, compliance shall be checked by the test of 4.7.201.5. The tests shall be carried out on parts of non-metallic material which have been removed from the apparatus. When the glow-wire test is carried out, the parts shall be placed in the same orientation as they would be in normal use. These tests are not carried out on internal wiring.		N/A

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

IEC60950/Am1			
Clause	Requirement + Test	Result - Remark	Verdict

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

IEC60950/Am1			
Clause	Requirement + Test	Result - Remark	Verdict
4.7.201.5	**4.7.201.5 Testing of printed boards** The base material of printed boards shall be subjected to the needle-flame test of Clause 4.7.201.3. The flame shall be applied to the edge of the board where the heat sink effect is lowest when the board is positioned as in normal use. The flame shall not be applied to an edge, consisting of broken perforations, unless the edge is less than 3 mm from a POTENTIAL IGNITION SOURCE. The test is not carried out if the — - Printed board does not carry any POTENTIAL IGNITION SOURCE; - Base material of printed boards, on which the available apparent power at a connection exceeds 15 VA operating at a voltage exceeding 50 V and equal or less than 400 V (peak) a.c. or d.c. under normal operating conditions, is of flammability category V-1 or better according to AS/NZS 60695.11.10, or the printed boards are protected by an enclosure meeting the flammability category V-0 according to AS/NZS 60695.11.10, or made of metal, having openings only for connecting wires which fill the openings completely; or - Base material of printed boards, on which the available apparatus power at a connection exceeds 15 VA operating at a voltage exceeding 400 V (peak) a.c. or d.c. under normal operating conditions, and base material of printed boards supporting spark gaps which provides protection against overvoltages, is of flammability category V-0 according to AS/NZS 60695.11.10 or the printed boards are contained in a metal enclosure, having openings only for connecting wires which fill the openings completely. Compliance shall be determined using the smallest thickness of the material. NOTE Available apparent power is the maximum apparent power which can be drawn from the supplying circuit through a resistive load whose value is chosen to maximise the apparent power for more than 2 min when the circuit supplied is disconnected.		N/A
6.2.2	For Australia only, delete the first paragraph and Note, and replace with the following: In Australia only, compliance with 6.2.2 shall be checked by the tests of both 6.2.2.1 and 6.2.2.2.		N/A

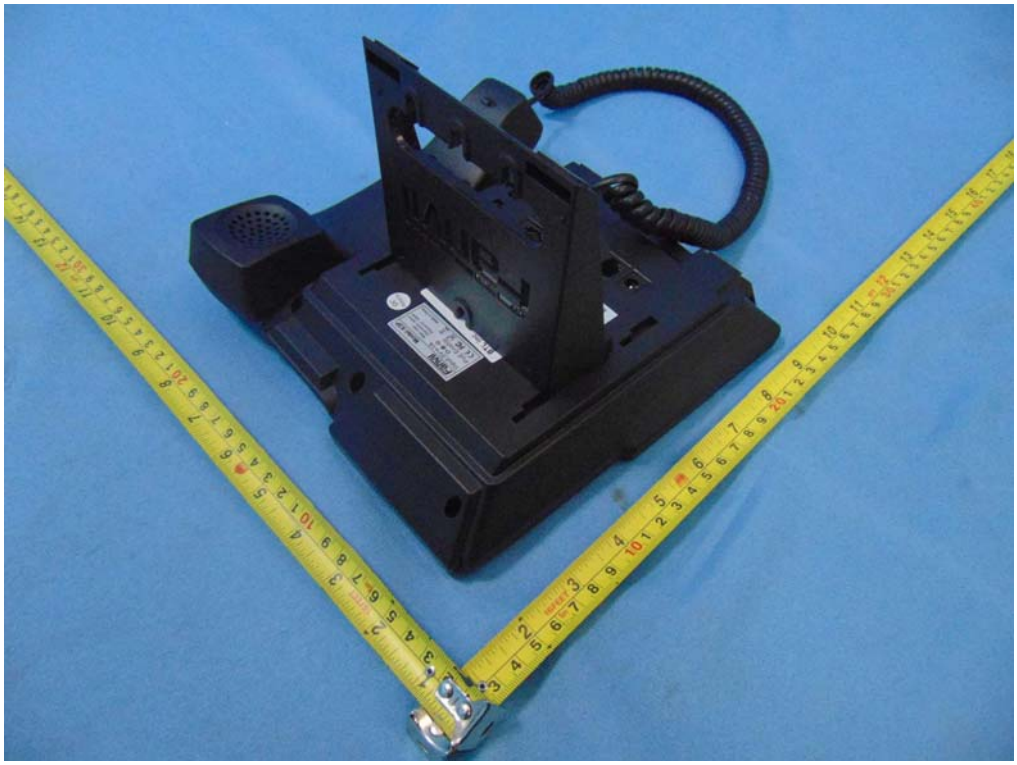
IEC60950/Am1			
Clause	Requirement + Test	Result - Remark	Verdict
6.2.2.1	For Australia only, delete the first paragraph including the Notes, and replace with the following: *In Australia only, the electrical separation is subjected to 10 impulses of alternating polarity, using the impulse test generator reference 1 of Table N.1. The interval between successive impulses is 60 s and the initial voltage, Uc, is:* *(i) for 6.2.1 a): 7.0 kV for hand-held telephones and for headsets and 2.5 kV for other equipment; and* *(ii) for 6.2.1 b) and 6.2.1 c): 1.5 kV.* NOTE 201 The 7 kV impulse simulates lightning surges on typical rural and semi-rural network lines. NOTE 202 The value of 2.5 kV for 6.2.1 a) was chosen to ensure the adequacy of the insulation concerned and does not necessarily simulate likely overvoltages.		N/A
6.2.2.2	For Australia only, delete the second paragraph including the Note, and replace with the following: *In Australia only, the a.c. test voltage is:* *(i) for 6.2.1 a): 3 kV; and* *(ii) for 6.2.1 b) and 6.2.1 c): 1.5 kV.* NOTE 201 Where there are capacitors across the insulation under test, it is recommended that d.c. test voltages are used. NOTE 202 The 3 kV and 1.5 kV values have been determined considering the low frequency induced voltages from the power supply distribution system.		N/A
7.3	Add the following before the first paragraph: Equipment providing functions that fall only within the scope of AS/NZS 60065 and that incorporate a PSTN interface, are not required to comply with this Clause where the only ports provided on the equipment, in addition to a coaxial cable connection and a PSTN interface, are audio or video ports and analogue or data ports not intended to be used for telecommunications purposes.	Added.	N/A
Annex P	Normative references (List of relevant Australia/New Zealand Standards that have been inserted in place of some of the International Standards)		N/A

PHOTOS

External view

External view

PHOTOS

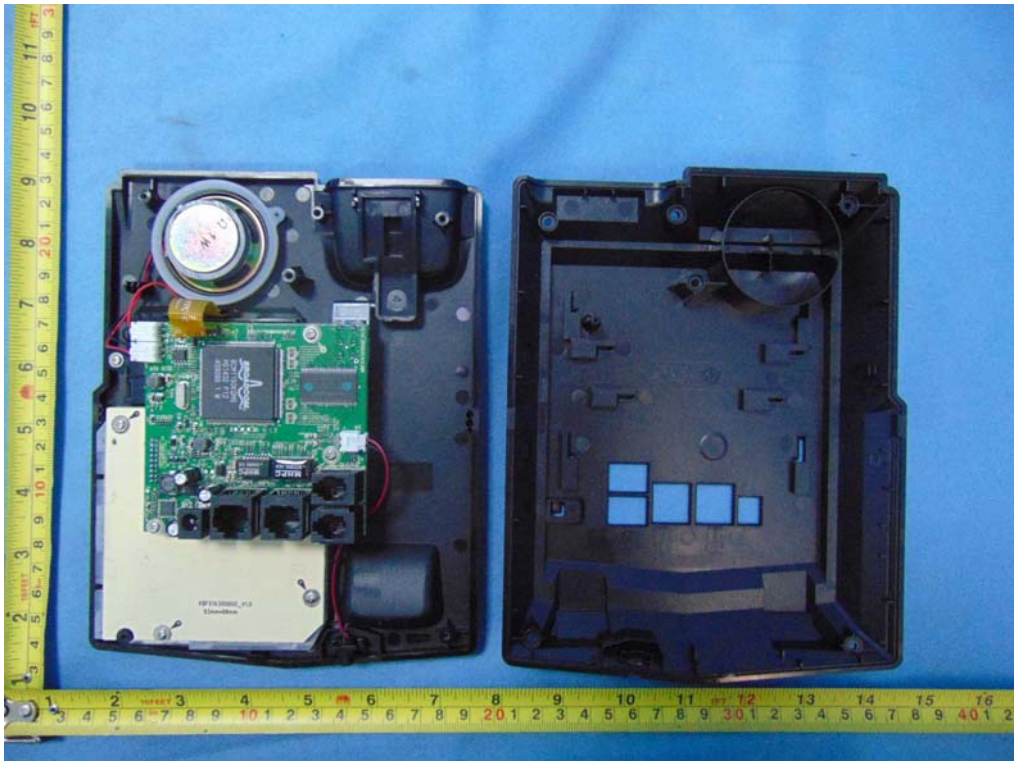


External view

External view

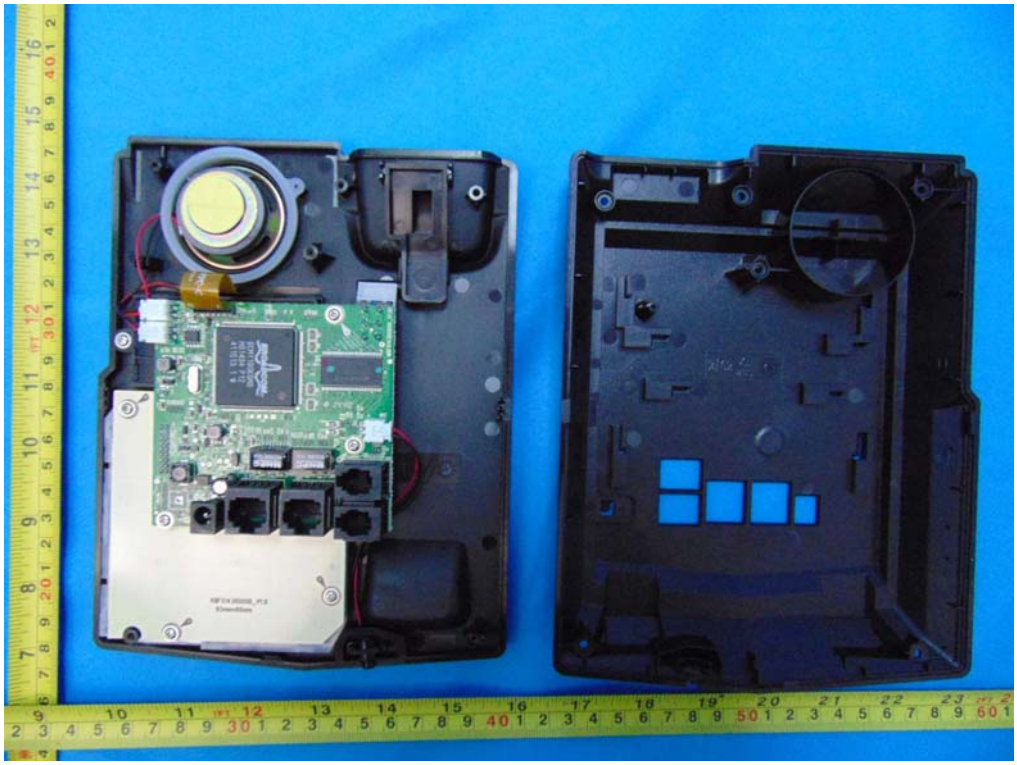
PHOTOS

Terminal view



Internal view (Model: X3P)

PHOTOS

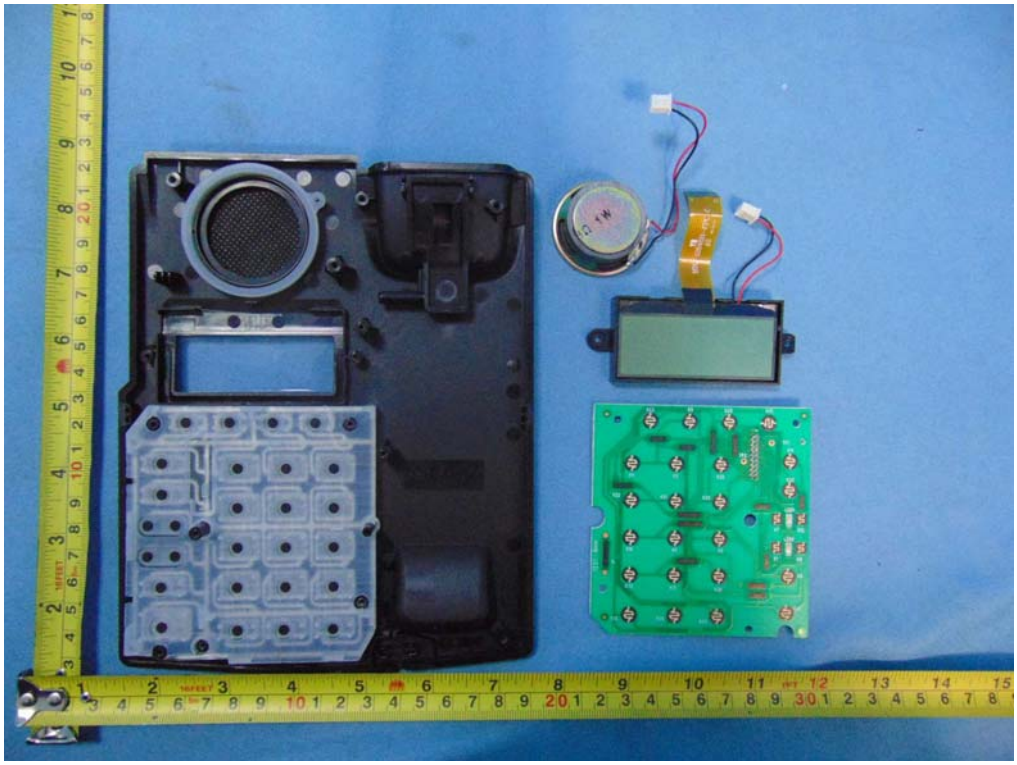


Internal view (Model: X3)

Internal view (Model: X3P)

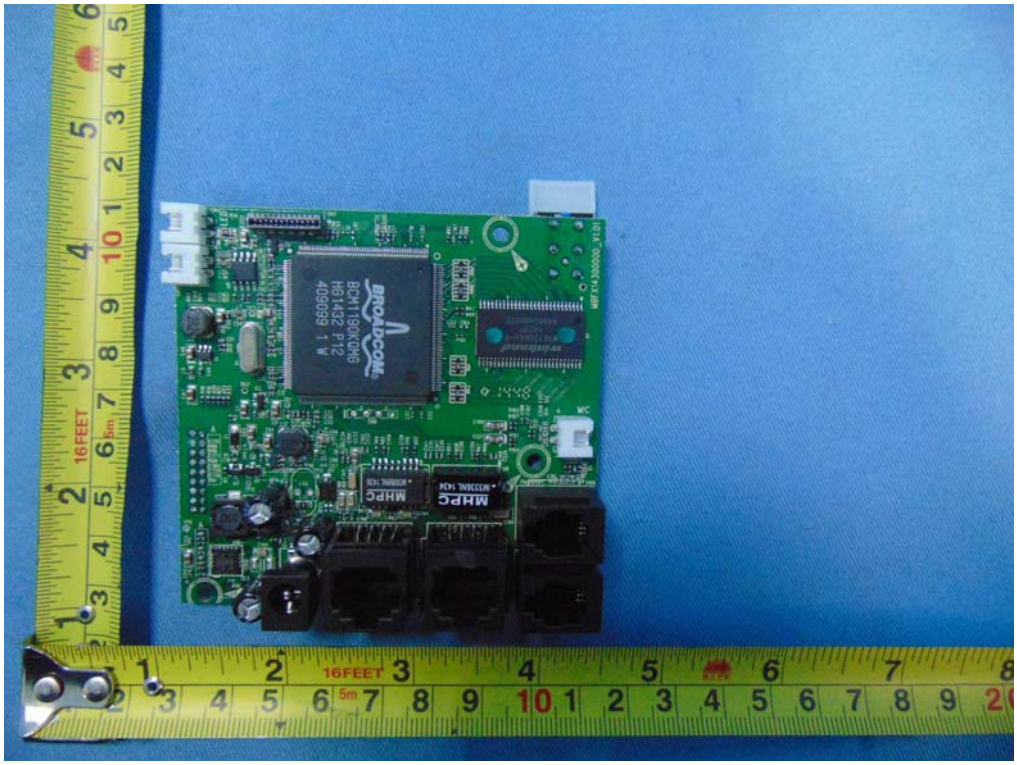
PHOTOS

Internal view (Model: X3)

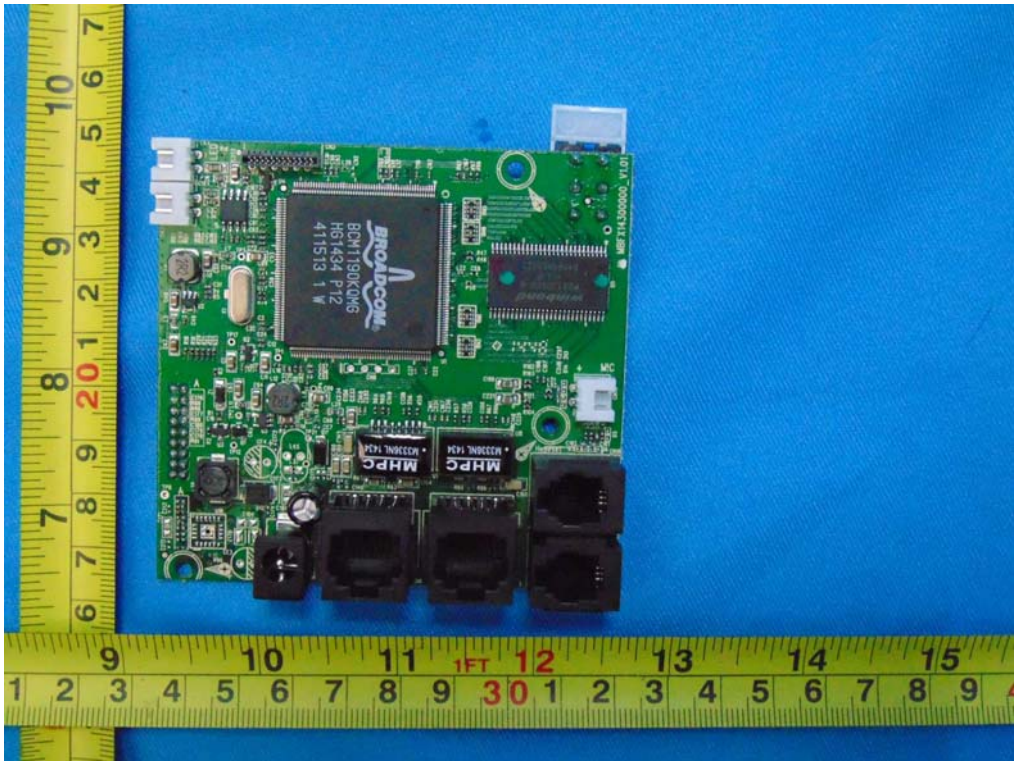


Internal view

PHOTOS

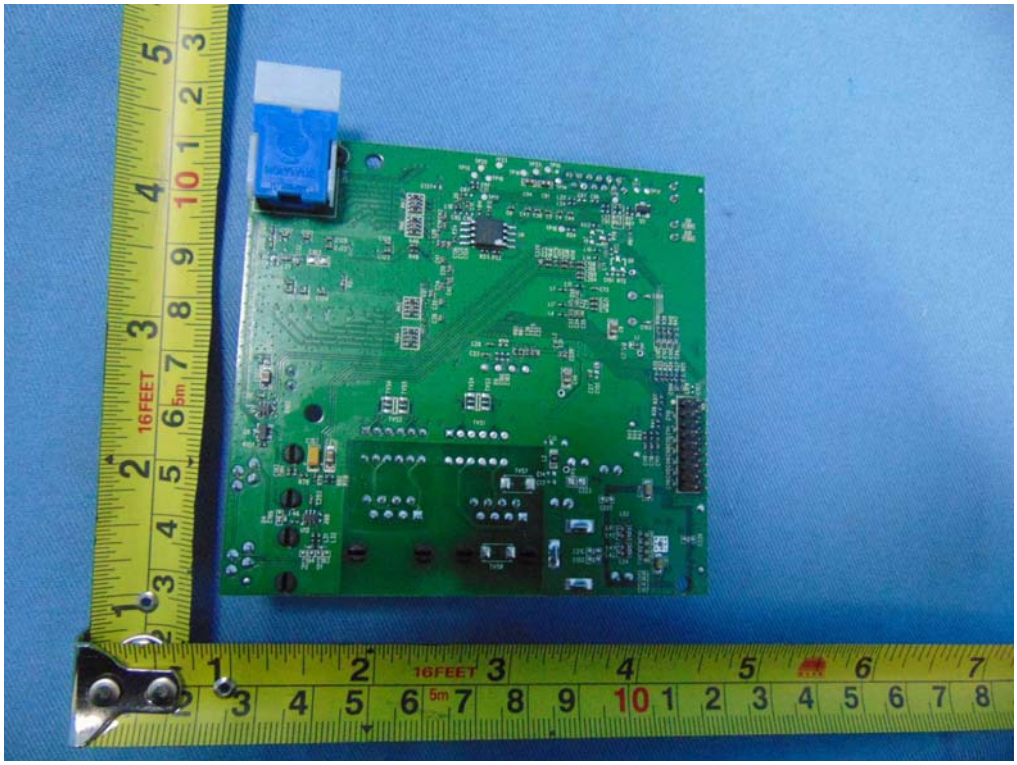


Main board (Model: X3P)

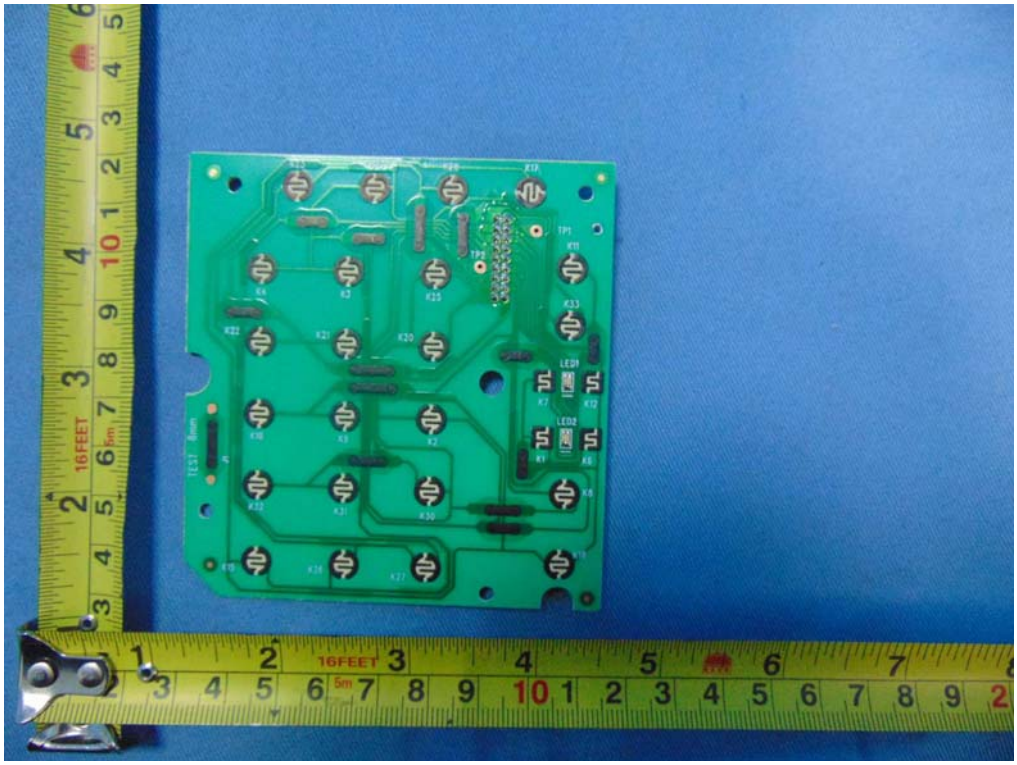


Main board (Model: X3)

PHOTOS

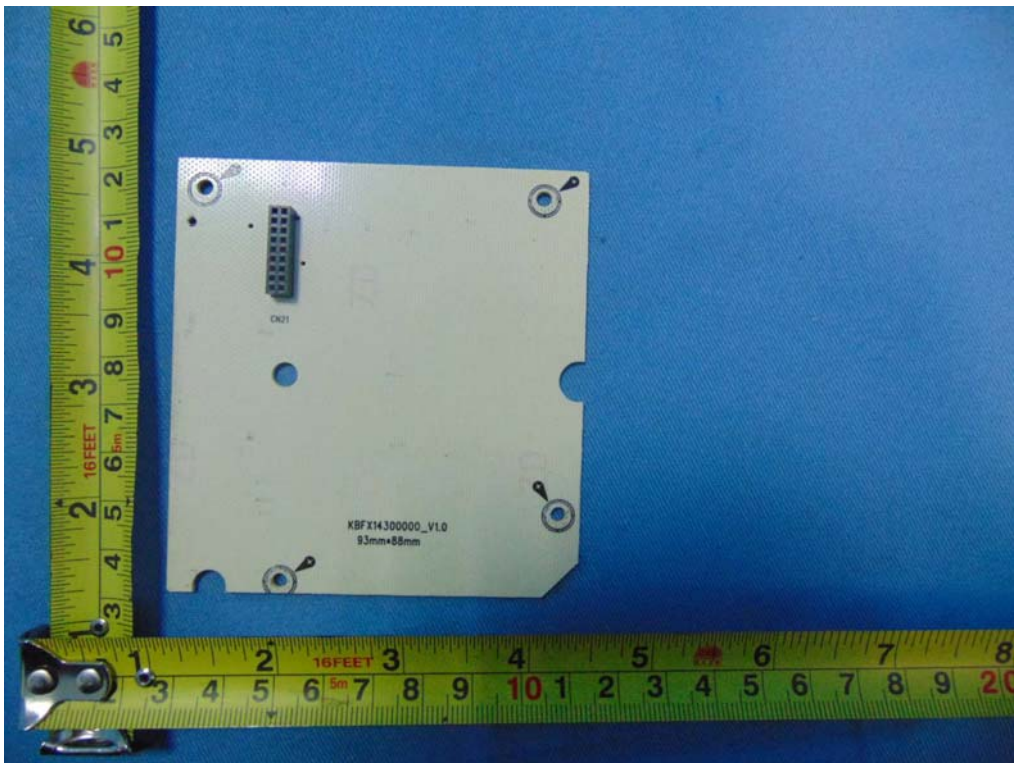


Main board

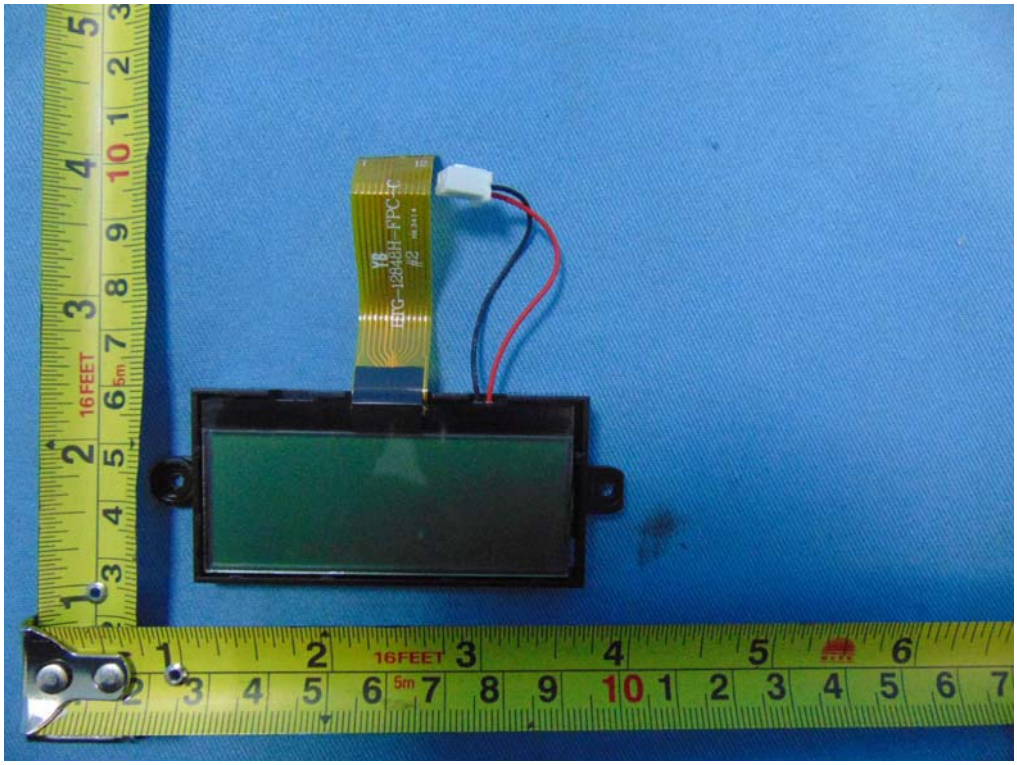


Key board

PHOTOS

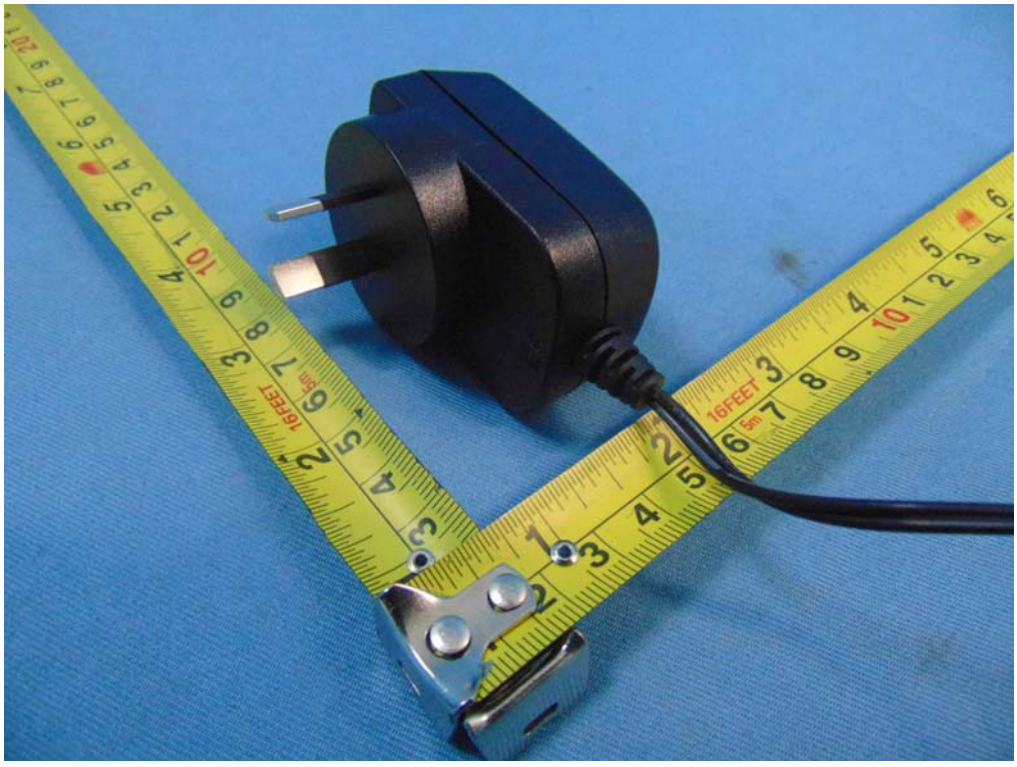


Key board

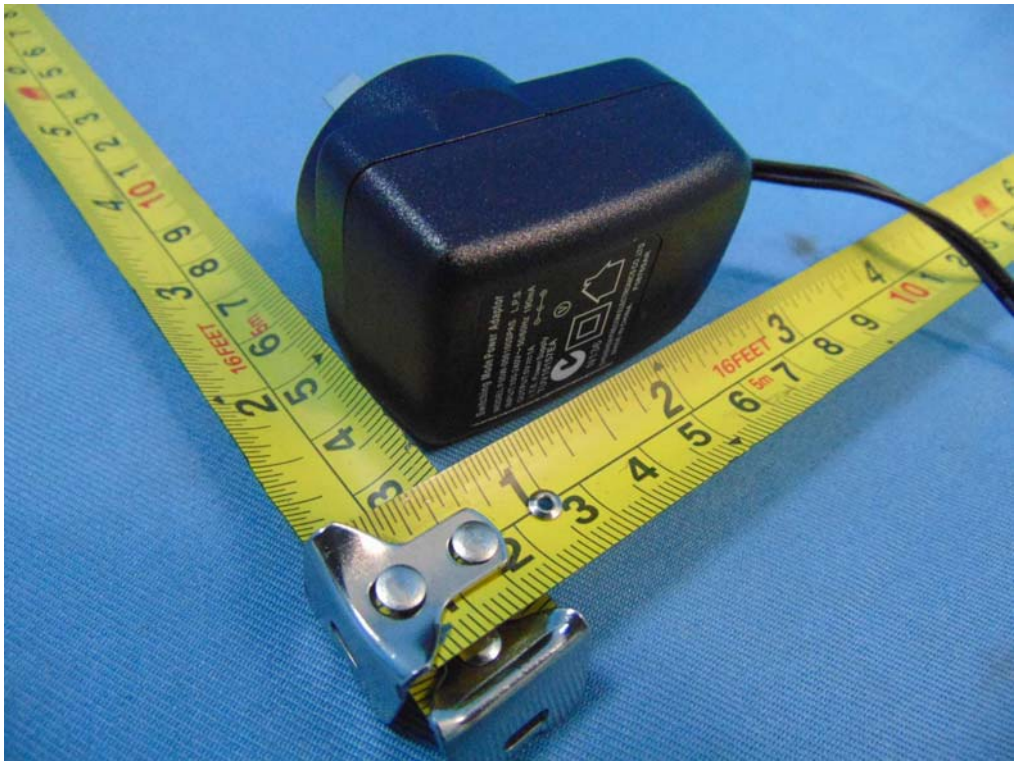


Panel view

PHOTOS



Adapter view



Adapter view

PHOTOS

Adapter