

## TEST REPORT

### EN 62368-1

#### Audio/video, information and communication technology equipment

#### Part 1: Safety requirements

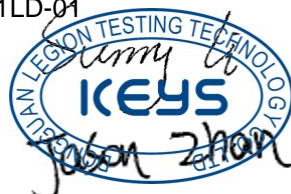
Report Number..... : KEYS21080408001LD-01

Tested by (name + signature)..... : Sunny Li

Approved by (name + signature).. : Jason Zhan

Date of issue ..... : August 17, 2021

Total number of pages ..... : 41 pages



Testing Laboratory ..... : Dongguan KEYS Testing Technology Co., Ltd.

Address..... : 6 / f, Building B, Chuangyigu Industrial Park, No.5 Hehe Street,  
Songxi Road, Hengkeng, Liaobu, Dongguan City

Applicant's name ..... : XonTel Technology Trd. Co. W.L.L

Address..... : Kuwait City , Qibla , Aladel Tower , F21 , state of Kuwait .

#### Test specification:

Standard ..... : EN IEC 62368-1: 2020/A11:2020

Test procedure ..... : CE-LVD

Non-standard test method..... : N/A

#### General disclaimer:

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

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Test item description..... : IP Phone

Trade Mark..... : N/A

Manufacturer ..... : XonTel Technology Trd. Co. W.L.L

Address..... : Kuwait City , Qibla , Aladel Tower , F21 , state of Kuwait .

Model/Type reference ..... : XT-25G

Ratings..... : Input : 5VDC,1.2A

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

Attachment : 4 pages of photos.

**Summary of testing:**

N/A

Copy of marking plate

**IP Phone**

**Model No.: XT-25G**

**Input : 5VDC,1.2A**



XonTel Technology Trd. Co. W.L.L.  
Made in China

Importer: xxx

Address: yyy

**Remarks:**

1. The height dimension of CE symbol should not less than 5mm, the height dimension of WEEE symbol should not less than 7mm.
2. All models rating label are in the same design except for type designation. Above label was shown for representing the others models.
3. xxx means importer company name; yyy means importer company address information.

TEST ITEM PARTICULARS:	
Classification of use by .....	<input checked="" type="checkbox"/> Ordinary person <input type="checkbox"/> Instructed person <input type="checkbox"/> Skilled person <input type="checkbox"/> Children likely to be present
Supply Connection.....	<input type="checkbox"/> AC Mains <input checked="" type="checkbox"/> DC Mains <input type="checkbox"/> External Circuit - not Mains connected - <input type="checkbox"/> ES1 <input type="checkbox"/> ES2 <input type="checkbox"/> ES3
Supply % Tolerance .....	<input type="checkbox"/> +10%/-10% <input type="checkbox"/> +20%/-15% <input checked="" type="checkbox"/> +15 %/ -15 % <input type="checkbox"/> None
Supply Connection – Type .....	<input type="checkbox"/> pluggable equipment type A - <input type="checkbox"/> non-detachable supply cord <input type="checkbox"/> appliance coupler <input type="checkbox"/> direct plug-in <input type="checkbox"/> mating connector <input type="checkbox"/> pluggable equipment type B - <input type="checkbox"/> non-detachable supply cord <input type="checkbox"/> appliance coupler <input type="checkbox"/> permanent connection <input type="checkbox"/> mating connector <input checked="" type="checkbox"/> other: _____
Considered current rating of protective device as part of building or equipment installation .....	16 A or 20A (US and Canada) Installation location: <input type="checkbox"/> building; <input checked="" type="checkbox"/> equipment
Equipment mobility .....	<input checked="" type="checkbox"/> movable <input type="checkbox"/> hand-held <input type="checkbox"/> transportable <input type="checkbox"/> stationary <input type="checkbox"/> for building-in <input type="checkbox"/> direct plug-in <input type="checkbox"/> <input type="checkbox"/> rack-mounting <input type="checkbox"/> wall-mounted
Over voltage category (OVC) .....	<input type="checkbox"/> OVC I <input checked="" type="checkbox"/> OVC II <input type="checkbox"/> OVC III <input type="checkbox"/> OVC IV <input type="checkbox"/> other: _____
Class of equipment .....	<input type="checkbox"/> Class I <input type="checkbox"/> Class II <input checked="" type="checkbox"/> Class III
Access location .....	<input type="checkbox"/> restricted access location <input checked="" type="checkbox"/> N/A
Pollution degree (PD) .....	<input type="checkbox"/> PD 1 <input checked="" type="checkbox"/> PD 2 <input type="checkbox"/> PD 3
Manufacturer's specified maximum operating ambient .....	25 °C
IP protection class .....	<input checked="" type="checkbox"/> IPX0 <input type="checkbox"/> IP____
Power Systems .....	<input checked="" type="checkbox"/> TN <input type="checkbox"/> TT <input checked="" type="checkbox"/> IT - 230 V <sub>L-L</sub>
Altitude during operation (m) .....	<input checked="" type="checkbox"/> 2000 m or less <input type="checkbox"/> _____ m
Altitude of test laboratory (m) .....	<input checked="" type="checkbox"/> 2000 m or less <input type="checkbox"/> _____ m
Mass of equipment (kg) .....	

<b>POSSIBLE TEST CASE VERDICTS:</b>	
- 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)
<b>TESTING:</b>	
Date of receipt of test item .....	August 5, 2021
Date (s) of performance of tests .....	August 6, 2021 ~ August 17, 2021
<b>GENERAL PRODUCT INFORMATION:</b>	
<p>The unit has following features:</p> <p>The equipment under test (EUT) is a IP Phone with model "XT-25G"</p> <p>The equipment uses an approved AC Adapter with ouput:5VDC 1.2A</p> <p>The EUT Tma is 25°C declared by client.</p>	



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Clause	Requirement + Test	Result - Remark	Verdict
<b>4</b>	<b>GENERAL REQUIREMENTS</b>		P
4.1.1	Acceptance of materials, components and subassemblies	See appended table 4.1.2	P
4.1.2	Use of components		P
4.1.3	Equipment design and construction	No accessible part which could cause injury	P
4.1.15	Markings and instructions .....	(See Annex F)	P
4.4.4	Safeguard robustness	See below	P
4.4.4.2	Steady force tests .....	(See Annex T.2, T.3, T.4, T.5)	P
4.4.4.3	Drop tests .....	(See Annex T.7)	P
4.4.4.4	Impact tests .....	(See Annex T.6)	N/A
4.4.4.5	Internal accessible safeguard enclosure and barrier tests .....	No internal enclosure.	N/A
4.4.4.6	Glass Impact tests .....	No such glass used.	N/A
4.4.4.7	Thermoplastic material tests .....	(See Annex T.8)	N/A
4.4.4.8	Air comprising a safeguard .....	(See Annex T)	N/A
4.4.4.9	Accessibility and safeguard effectiveness	No damaged	N/A
4.5	Explosion	No explosion occurs during normal/abnormal operation and single fault conditions	N/A
4.6	Fixing of conductors		N/A
4.6.1	Fix conductors not to defeat a safeguard		N/A
4.6.2	10 N force test applied to .....	See appended table 5.4.2.2, 5.4.2.4 and 5.4.3	N/A
4.7	Equipment for direct insertion into mains socket - outlets	The EUT is not for direct insertion into mains socket-outlets	N/A
4.7.2	Mains plug part complies with the relevant standard .....	See above	N/A
4.7.3	Torque (Nm) .....	See above	N/A
4.8	Products containing coin/button cell batteries	No coin/button batteries used.	N/A
4.8.2	Instructional safeguard		N/A
4.8.3	Battery Compartment Construction		N/A
	Means to reduce the possibility of children removing the battery .....		—
4.8.4	Battery Compartment Mechanical Tests .....		N/A
4.8.5	Battery Accessibility		N/A
4.9	Likelihood of fire or shock due to entry of conductive object .....	(See Annex P)	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
<b>5</b>	<b>ELECTRICALLY-CAUSED INJURY</b>		P
5.2.1	Electrical energy source classifications..... :	(See appended table 5.2)	P
5.2.2	ES1, ES2 and ES3 limits	ES1	P
5.2.2.2	Steady-state voltage and current..... :	(See appended table 5.2)	P
5.2.2.3	Capacitance limits..... :	No such capacitor with the EUT	N/A
5.2.2.4	Single pulse limits..... :	No such single pulses with the EUT	N/A
5.2.2.5	Limits for repetitive pulses..... :	No such repetitive pulses with the EUT	N/A
5.2.2.6	Ringing signals..... :	No such ringing signals with the EUT	N/A
5.2.2.7	Audio signals..... :	No such audio signals with the EUT	N/A
5.3	Protection against electrical energy sources	ES1 source	N/A
5.3.1	General Requirements for accessible parts to ordinary, instructed and skilled persons	See above.	N/A
5.3.2.1	Accessibility to electrical energy sources and safeguards	See above.	N/A
5.3.2.2	Contact requirements		N/A
	a) Test with test probe from Annex V..... :	The test probe cannot accessed the hazardous live part	N/A
	b) Electric strength test potential (V)..... :	See below.	N/A
	c) Air gap (mm)..... :	No openings.	N/A
5.3.2.4	Terminals for connecting stripped wire	No such terminals intended to be used by ordinary person.	N/A
5.4	Insulation materials and requirements		P
5.4.1.2	Properties of insulating material	The choice and application have taken into account as specified in this Clause 5 and Annex T except natural rubber, hygroscopic materials or asbestos are not used as insulation.	P
5.4.1.3	Humidity conditioning..... :	(See sub-clause 5.4.8)	P
5.4.1.4	Maximum operating temperature for insulating materials..... :	(See appended table 5.4.1.4)	P
5.4.1.5	Pollution degree..... :	2	—
5.4.1.5.2	Test for pollution degree 1 environment and for an insulating compound	Pollution degree 2 is applied	N/A
5.4.1.5.3	Thermal cycling	See above	N/A
5.4.1.6	Insulation in transformers with varying dimensions	No such transformer within the EUT	N/A
5.4.1.7	Insulation in circuits generating starting pulses	No such transformer within the EUT	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
5.4.1.8	Determination of working voltage	See appended table 5.4.2.2, 5.4.2.4 and 5.4.3.	N/A
5.4.1.9	Insulating surfaces	Without openings.	N/A
5.4.1.10	Thermoplastic parts on which conductive metallic parts are directly mounted		N/A
5.4.1.10.2	Vicat softening temperature..... :		N/A
5.4.1.10.3	Ball pressure ..... :		N/A
5.4.2	Clearances		N/A
5.4.2.2	Determining clearance using peak working voltage	(See appended table 5.4.2.2)	N/A
5.4.2.3	Determining clearance using required withstand voltage ..... :	(See appended table 5.4.2.3)	N/A
	a) a.c. mains transient voltage ..... :		—
	b) d.c. mains transient voltage ..... :		—
	c) external circuit transient voltage ..... :		—
	d) transient voltage determined by measurement :		—
5.4.2.4	Determining the adequacy of a clearance using an electric strength test		N/A
5.4.2.5	Multiplication factors for clearances and test voltages ..... :	(See appended tables 5.4.2.2, 5.4.2.4 and 5.4.3) Specified the equipment to be operated up to 5000m above sea level, the required clearance is multiplied by the altitude correction factor 1.48 according to Table 17.	N/A
5.4.3	Creepage distances ..... :	(See appended table 5.4.3)	N/A
5.4.3.1	General		N/A
5.4.3.3	Material Group ..... :	IIIa&IIIb	—
5.4.4	Solid insulation	See below	N/A
5.4.4.2	Minimum distance through insulation ..... :	(See appended table 5.4.4.2)	N/A
5.4.4.3	Insulation compound forming solid insulation	Approved optocoupler used	N/A
5.4.4.4	Solid insulation in semiconductor devices	Approved optocoupler used	N/A
5.4.4.5	Cemented joints	No such device within the EUT	N/A
5.4.4.6	Thin sheet material	See below	N/A
5.4.4.6.1	General requirements		N/A
5.4.4.6.2	Separable thin sheet material		N/A
	Number of layers (pcs) ..... :		N/A
5.4.4.6.3	Non-separable thin sheet material	No such device within the EUT	N/A
5.4.4.6.4	Standard test procedure for non-separable thin sheet material ..... :	See above	N/A



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Clause	Requirement + Test	Result - Remark	Verdict
5.4.4.6.5	Mandrel test		N/A
5.4.4.7	Solid insulation in wound components		N/A
5.4.4.9	Solid insulation at frequencies >30 kHz .....	No such insulation at frequencies $\geq$ 30 kHz was considered.	N/A
5.4.5	Antenna terminal insulation	No antenna used.	N/A
5.4.5.1	General		N/A
5.4.5.2	Voltage surge test		N/A
	Insulation resistance ( $M\Omega$ ).....		—
5.4.6	Insulation of internal wire as part of supplementary safeguard .....	No such insulation of internal wire as part of supplementary insulation	N/A
5.4.7	Tests for semiconductor components and for cemented joints		N/A
5.4.8	Humidity conditioning		P
	Relative humidity (%).....	93%	—
	Temperature ( $^{\circ}\text{C}$ ) .....	25 $^{\circ}\text{C}$	—
	Duration (h) .....	48h	—
5.4.9	Electric strength test .....	(See appended table 5.4.9)	P
5.4.9.1	Test procedure for a solid insulation type test	Compliance was checked immediately following temperature test in 5.4.1.4.	N/A
5.4.9.2	Test procedure for routine tests	No routine test under consideration this time	N/A
5.4.10	Protection against transient voltages between external circuit	No such external circuits	N/A
5.4.10.1	Parts and circuits separated from external circuits		N/A
5.4.10.2	Test methods		N/A
5.4.10.2.1	General		N/A
5.4.10.2.2	Impulse test .....		N/A
5.4.10.2.3	Steady-state test.....		N/A
5.4.11	Insulation between external circuits and earthed circuitry .....	No such external circuit within the EUT	N/A
5.4.11.1	Exceptions to separation between external circuits and earth	No such external circuit within the EUT	N/A
5.4.11.2	Requirements		N/A
	Rated operating voltage $U_{op}$ (V).....		—
	Nominal voltage $U_{peak}$ (V).....		—
	Max increase due to variation $U_{sp}$ .....		—
	Max increase due to ageing $\Delta U_{sa}$ .....		—



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Clause	Requirement + Test	Result - Remark	Verdict
	$U_{op} = U_{peak} + \Delta U_{sp} + \Delta U_{sa}$ .....		—
5.5	Components as safeguards		
5.5.1	General	See the following details.	N/A
5.5.2	Capacitors and RC units		N/A
5.5.2.1	General requirement		N/A
5.5.2.2	Safeguards against capacitor discharge after disconnection of a connector .....	(See appended table 5.5.2.2)	N/A
5.5.3	Transformers	No such component provided	N/A
5.5.4	Optocouplers	(See sub-clause 5.4 or Annex G.12)	N/A
5.5.5	Relays	No such component provided	N/A
5.5.6	Resistors	No such component provided	N/A
5.5.7	SPD's	No such component provided	N/A
5.5.7.1	Use of an SPD connected to reliable earthing		N/A
5.5.7.2	Use of an SPD between mains and protective earth		N/A
5.5.8	Insulation between the mains and external circuit consisting of a coaxial cable .....	No such external circuits.	N/A
5.6	Protective conductor		N/A
5.6.2	Requirement for protective conductors	The EUT is Class III equipment	N/A
5.6.2.1	General requirements		N/A
5.6.2.2	Colour of insulation		N/A
5.6.3	Requirement for protective earthing conductors		N/A
	Protective earthing conductor size (mm <sup>2</sup> ) .....		—
5.6.4	Requirement for protective bonding conductors		N/A
5.6.4.1	Protective bonding conductors		N/A
	Protective bonding conductor size (mm <sup>2</sup> ) .....		—
	Protective current rating (A) .....		—
5.6.4.3	Current limiting and overcurrent protective devices	No current limiting and overcurrent protective devices in parallel with any other components.	N/A
5.6.5	Terminals for protective conductors	Class III equipment	N/A
5.6.5.1	Requirement		N/A
	Conductor size (mm <sup>2</sup> ), nominal thread diameter (mm) .....		N/A
5.6.5.2	Corrosion		N/A
5.6.6	Resistance of the protective system		N/A
5.6.6.1	Requirements		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
5.6.6.2	Test Method Resistance ( $\Omega$ ).....:		N/A
5.6.7	Reliable earthing		N/A
5.7	Prospective touch voltage, touch current and protective conductor current		N/A
5.7.2	Measuring devices and networks	Figure 4 of IEC 60990 was used in determining of the limit of ES1.	N/A
5.7.2.1	Measurement of touch current .....	(See appended table 5.7.4)	N/A
5.7.2.2	Measurement of prospective touch voltage	Class III equipment.	N/A
5.7.3	Equipment set-up, supply connections and earth connections	Class III equipment.	N/A
	System of interconnected equipment (separate connections/single connection) .....	Single equipment.	—
	Multiple connections to mains (one connection at a time/simultaneous connections) .....	Single connection.	—
5.7.4	Earthed conductive accessible parts .....	Class III equipment.	N/A
5.7.5	Protective conductor current	Class III equipment.	N/A
	Supply Voltage (V) .....		—
	Measured current (mA) .....		—
	Instructional Safeguard .....		N/A
5.7.6	Prospective touch voltage and touch current due to external circuits	No external circuits.	N/A
5.7.6.1	Touch current from coaxial cables		N/A
5.7.6.2	Prospective touch voltage and touch current from external circuits		N/A
5.7.7	Summation of touch currents from external circuits	No external circuits.	N/A
	a) Equipment with earthed external circuits Measured current (mA) .....		N/A
	b) Equipment whose external circuits are not referenced to earth. Measured current (mA) .....		N/A

<b>6</b>	<b>ELECTRICALLY- CAUSED FIRE</b>		P
6.2	Classification of power sources (PS) and potential ignition sources (PIS)		P
6.2.2	Power source circuit classifications	PS (power source) classification determined by measuring the maximum power in Figures 34 and 35 for load and power source circuits.	P
6.2.2.1	General	See the following details.	P
6.2.2.2	Power measurement for worst-case load fault ... :	(See appended table 6.2.2)	P

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Clause	Requirement + Test	Result - Remark	Verdict
6.2.2.3	Power measurement for worst-case power source fault .....	(See appended table 6.2.2)	P
6.2.2.4	PS1 .....	(See appended table 6.2.2)	P
6.2.2.5	PS2 .....		N/A
6.2.2.6	PS3 .....		N/A
6.2.3	Classification of potential ignition sources		N/A
6.2.3.1	Arcing PIS .....		N/A
6.2.3.2	Resistive PIS .....		N/A
6.3	Safeguards against fire under normal operating and abnormal operating conditions		P
6.3.1 (a)	No ignition and attainable temperature value less than 90 % defined by ISO 871 or less than 300 °C for unknown materials .....		P
6.3.1 (b)	Combustible materials outside fire enclosure	No such materials used.	P
6.4	Safeguards against fire under single fault conditions		P
6.4.1	Safeguard Method	Method by control fire spread.	P
6.4.2	Reduction of the likelihood of ignition under single fault conditions in PS1 circuits		P
6.4.3	Reduction of the likelihood of ignition under single fault conditions in PS2 and PS3 circuits		N/A
6.4.3.1	General	See above.	P
6.4.3.2	Supplementary Safeguards	By equipment plastic fire enclosure.	P
	Special conditions if conductors on printed boards are opened or peeled	No such case happened.	P
6.4.3.3	Single Fault Conditions .....	(See appended table B.3 & B.4)	P
	Special conditions for temperature limited by fuse	No such consideration.	N/A
6.4.4	Control of fire spread in PS1 circuits		P
6.4.5	Control of fire spread in PS2 circuits	Compliance detailed as follows: - <u>Printed board</u> : rated min. V-1 - <u>All other components</u> : at least V-2 except for mounted on min. V-1 material or small parts of combustible material.	N/A
6.4.5.2	Supplementary safeguards .....	(See appended tables 4.1.2 and Annex G)	N/A
6.4.6	Control of fire spread in PS3 circuit	In additional of the compliance of clause 6.4.5, a fire enclosure of clause 6.4.8 provided with the equipment.	N/A
6.4.7	Separation of combustible materials from a PIS	See the following details.	N/A
6.4.7.1	General .....	(See tables 6.2.3.1 and 6.2.3.2)	N/A



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Clause	Requirement + Test	Result - Remark	Verdict
6.4.7.2	Separation by distance	All components and combustible materials other than small parts are mounted on material with rated min. V-1.	N/A
6.4.7.3	Separation by a fire barrier	See above.	N/A
6.4.8	Fire enclosures and fire barriers	Equipment enclosure was evaluated as a fire enclosure.	P
6.4.8.1	Fire enclosure and fire barrier material properties	See the following details.	N/A
6.4.8.2.1	Requirements for a fire barrier	No such construction.	N/A
6.4.8.2.2	Requirements for a fire enclosure	Equipment fire enclosure was made of min. V-0 material.	P
6.4.8.3	Constructional requirements for a fire enclosure and a fire barrier	See the following details.	N/A
6.4.8.3.1	Fire enclosure and fire barrier openings	No openings.	N/A
6.4.8.3.2	Fire barrier dimensions	No barrier used.	N/A
6.4.8.3.3	Top Openings in Fire Enclosure: dimensions (mm) .....	No openings.	N/A
	Needle Flame test	Equipment fire enclosure was made of min. V-0 material.	N/A
6.4.8.3.4	Bottom Openings in Fire Enclosure, condition met a), b) and/or c) dimensions (mm) .....	No bottom opening provided	N/A
	Flammability tests for the bottom of a fire enclosure .....	No such consideration.	N/A
6.4.8.3.5	Integrity of the fire enclosure, condition met: a), b) or c) .....	No such door or cover can be opened by ordinary.	N/A
6.4.8.4	Separation of PIS from fire enclosure and fire barrier distance (mm) or flammability rating .....	The plastic enclosure rated min. min. V-0 is considered as fire enclosure.	P
6.5	Internal and external wiring		P
6.5.1	Requirements	The material of VW-1 on internal or external wiring were considered compliance equivalent to IEC 60332 or IEC/TS 60695-11-21 relevant standards.	P
6.5.2	Cross-sectional area (mm <sup>2</sup> ) .....	See above.	—
6.5.3	Requirements for interconnection to building wiring .....	No such interconnection to building wiring.	N/A
6.6	Safeguards against fire due to connection to additional equipment	No such connection to additional equipment.	N/A
	External port limited to PS2 or complies with Clause Q.1	See above.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
<b>7</b>	<b>INJURY CAUSED BY HAZARDOUS SUBSTANCES</b>		N/A
7.2	Reduction of exposure to hazardous substances	No hazardous chemicals within the equipment.	N/A
7.3	Ozone exposure	No ozone production within the equipment.	N/A
7.4	Use of personal safeguards (PPE)	No such consideration.	N/A
	Personal safeguards and instructions .....	See above.	—
7.5	Use of instructional safeguards and instructions	No chemical-caused injuries, the instruction safeguard was not required.	N/A
	Instructional safeguard (ISO 7010) .....	(See Annex F)	—
7.6	Batteries.....	No battery used.	N/A
<b>8</b>	<b>MECHANICALLY-CAUSED INJURY</b>		P
8.1	General	See the following details.	P
8.2	Mechanical energy source classifications		P
8.3	Safeguards against mechanical energy sources	See above.	N/A
8.4	Safeguards against parts with sharp edges and corners	Accessible edges and corners of the equipment are rounded and are classified as MS1.	P
8.4.1	Safeguards	See above.	N/A
8.5	Safeguards against moving parts	No moving parts within the equipment.	N/A
8.5.1	MS2 or MS3 part required to be accessible for the function of the equipment		N/A
8.5.2	Instructional Safeguard .....		—
8.5.4	Special categories of equipment comprising moving parts		N/A
8.5.4.1	Large data storage equipment		N/A
8.5.4.2	Equipment having electromechanical device for destruction of media		N/A
8.5.4.2.1	Safeguards and Safety Interlocks .....		N/A
8.5.4.2.2	Instructional safeguards against moving parts		N/A
	Instructional Safeguard .....		—
8.5.4.2.3	Disconnection from the supply		N/A
8.5.4.2.4	Probe type and force (N) .....		N/A
8.5.5	High Pressure Lamps		N/A
8.5.5.1	Energy Source Classification		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
8.5.5.2	High Pressure Lamp Explosion Test.....:		N/A
8.6	Stability		N/A
8.6.1	Product classification		N/A
	Instructional Safeguard.....:		—
8.6.2	Static stability		N/A
8.6.2.2	Static stability test		N/A
	Applied Force.....:		—
8.6.2.3	Downward Force Test		N/A
8.6.3	Relocation stability test		N/A
	Unit configuration during 10° tilt.....:		—
8.6.4	Glass slide test		N/A
8.6.5	Horizontal force test (Applied Force).....:		N/A
	Position of feet or movable parts.....:		—
8.7	Equipment mounted to wall or ceiling		N/A
8.7.1	Mounting Means (Length of screws (mm) and mounting surface).....:		N/A
8.7.2	Direction and applied force.....:		N/A
8.8	Handles strength	No such handles.	N/A
8.8.1	Classification		N/A
8.8.2	Applied Force.....:		N/A
8.9	Wheels or casters attachment requirements	No such wheels or casters within the EUT	N/A
8.9.1	Classification		N/A
8.9.2	Applied force.....:		—
8.10	Carts, stands and similar carriers	No such device provided within the EUT.	N/A
8.10.1	General		N/A
8.10.2	Marking and instructions		N/A
	Instructional Safeguard.....:		—
8.10.3	Cart, stand or carrier loading test and compliance		N/A
	Applied force.....:		—
8.10.4	Cart, stand or carrier impact test		N/A
8.10.5	Mechanical stability		N/A
	Applied horizontal force (N).....:		—
8.10.6	Thermoplastic temperature stability (°C).....:		N/A



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Clause	Requirement + Test	Result - Remark	Verdict
8.11	Mounting means for rack mounted equipment	The equipment is not intended to be rack-mounted.	N/A
8.11.1	General		N/A
8.11.2	Product Classification		N/A
8.11.3	Mechanical strength test, variable $N$ .....		N/A
8.11.4	Mechanical strength test 250N, including end stops		N/A
8.12	Telescoping or rod antennas .....	No such device provided within the EUT.	N/A

<b>9</b>	<b>THERMAL BURN INJURY</b>		N/A
9.2	Thermal energy source classifications	All accessible surfaces are classified as TS1, see appended table 5.4.1.4, 6.3.2, 9.0, B.2.6.	N/A
9.3	Safeguard against thermal energy sources	See above.	N/A
9.4	Requirements for safeguards		N/A
9.4.1	Equipment safeguard	See above.	N/A
9.4.2	Instructional safeguard .....	See above.	N/A

<b>10</b>	<b>RADIATION</b>		N/A
10.2	Radiation energy source classification	No such radiation from the equipment.	N/A
10.2.1	General classification	See the following details.	N/A
10.3	Protection against laser radiation	No such radiation generated from the equipment.	N/A
	Laser radiation that exists equipment:		—
	Normal, abnormal, single-fault..... :		
	Instructional safeguard .....		—
	Tool..... :		—
10.4	Protection against visible, infrared, and UV radiation	No such radiation generated from the equipment.	N/A
10.4.1	General		N/A
10.4.1.a)	RS3 for Ordinary and instructed persons .....		N/A
10.4.1.b)	RS3 accessible to a skilled person..... :		N/A
	Personal safeguard (PPE) instructional safeguard..... :		—
10.4.1.c)	Equipment visible, IR, UV does not exceed RS1 . :		N/A
10.4.1.d)	Normal, abnormal, single-fault conditions .....		N/A
10.4.1.e)	Enclosure material employed as safeguard is		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	opaque.....:		
10.4.1.f)	UV attenuation.....:		N/A
10.4.1.g)	Materials resistant to degradation UV.....:		N/A
10.4.1.h)	Enclosure containment of optical radiation.....:		N/A
10.4.1.i)	Exempt Group under normal operating conditions.....:		N/A
10.4.2	Instructional safeguard.....:		N/A
10.5	Protection against x-radiation	No such x-radiation generated from the equipment	N/A
10.5.1	X- radiation energy source that exists equipment.....:		N/A
	Normal, abnormal, single fault conditions		N/A
	Equipment safeguards.....:		N/A
	Instructional safeguard for skilled person.....:		N/A
10.5.3	Most unfavourable supply voltage to give maximum radiation.....:		—
	Abnormal and single-fault condition.....:		N/A
	Maximum radiation (pA/kg).....:		N/A
10.6	Protection against acoustic energy sources	No such consideration for the purpose of personal music players.	N/A
10.6.1	General		N/A
10.6.2	Classification		N/A
	Acoustic output, dB(A).....:		N/A
	Output voltage, unweighted r.m.s.....:		N/A
10.6.4	Protection of persons		N/A
	Instructional safeguards.....:		N/A
	Equipment safeguard prevent ordinary person to RS2.....:		—
	Means to actively inform user of increase sound pressure.....:		—
	Equipment safeguard prevent ordinary person to RS2.....:		—
10.6.5	Requirements for listening devices (headphones, earphones, etc.)		N/A
10.6.5.1	Corded passive listening devices with analog input		N/A
	Input voltage with 94 dB(A) $L_{Aeq}$ acoustic pressure output.....:		—
10.6.5.2	Corded listening devices with digital input		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Maximum dB(A)..... :		—
10.6.5.3	Cordless listening device		N/A
	Maximum dB(A)..... :		—

B	NORMAL OPERATING CONDITION TESTS, ABNORMAL OPERATING CONDITION TESTS AND SINGLE FAULT CONDITION TESTS		P
B.2	Normal Operating Conditions	See the following details.	P
B.2.1	General requirements..... :	(See Test Item Particulars and appended test tables)	P
	Audio Amplifiers and equipment with audio amplifiers .....	Not such equipment.	N/A
B.2.3	Supply voltage and tolerances	Rated voltage $\pm 15\%$	P
B.2.5	Input test..... :	(See appended table B.2.5)	P
B.3	Simulated abnormal operating conditions		P
B.3.1	General requirements..... :	(See appended table B.3&B.4)	P
B.3.2	Covering of ventilation openings	No ventilation openings provided.	N/A
B.3.3	D.C. mains polarity test	The EUT is not connected to a D.C. mains	N/A
B.3.4	Setting of voltage selector .....	No setting of voltage selector within the EUT	N/A
B.3.5	Maximum load at output terminals .....		N/A
B.3.6	Reverse battery polarity	No battery within the EUT	N/A
B.3.7	Abnormal operating conditions as specified in Clause E.2.		N/A
B.3.8	Safeguards functional during and after abnormal operating conditions	All safeguards remained effectively.	P
B.4	Simulated single fault conditions		P
B.4.2	Temperature controlling device open or short-circuited .....	(See appended table B.3&B.4)	P
B.4.3	Motor tests	No motor within the EUT	N/A
B.4.3.1	Motor blocked or rotor locked increasing the internal ambient temperature .....	See above.	N/A
B.4.4	Short circuit of functional insulation	See the following details.	N/A
B.4.4.1	Short circuit of clearances for functional insulation	(See appended table B.3 & B.4)	N/A
B.4.4.2	Short circuit of creepage distances for functional insulation	(See appended table B.3 & B.4)	N/A
B.4.4.3	Short circuit of functional insulation on coated printed boards	No coated printed boards within the EUT	N/A



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Clause	Requirement + Test	Result - Remark	Verdict
B.4.5	Short circuit and interruption of electrodes in tubes and semiconductors	(See appended table B.3 &B.4)	N/A
B.4.6	Short circuit or disconnect of passive components	(See appended table B.3 &B.4)	P
B.4.7	Continuous operation of components	The EUT is continuous operating type and no such components intended for short time operation or intermittent operation	N/A
B.4.8	Class 1 and Class 2 energy sources within limits during and after single fault conditions	(See appended table B.3&B.4)	N/A
B.4.9	Battery charging under single fault conditions ... :		N/A
<b>C</b>	<b>UV RADIATION</b>		N/A
C.1	Protection of materials in equipment from UV radiation	No such UV generated from the equipment.	N/A
C.1.2	Requirements		N/A
C.1.3	Test method		N/A
C.2	UV light conditioning test		N/A
C.2.1	Test apparatus		N/A
C.2.2	Mounting of test samples		N/A
C.2.3	Carbon-arc light-exposure apparatus		N/A
C.2.4	Xenon-arc light exposure apparatus		N/A
<b>D</b>	<b>TEST GENERATORS</b>		N/A
D.1	Impulse test generators	No such consideration.	N/A
D.2	Antenna interface test generator		N/A
D.3	Electronic pulse generator		N/A
<b>E</b>	<b>TEST CONDITIONS FOR EQUIPMENT CONTAINING AUDIO AMPLIFIERS</b>		N/A
E.1	Audio amplifier normal operating conditions	Not such equipment.	N/A
	Audio signal voltage (V) .....		—
	Rated load impedance ( $\Omega$ ) .....		—
E.2	Audio amplifier abnormal operating conditions		N/A
<b>F</b>	<b>EQUIPMENT MARKINGS, INSTRUCTIONS, AND INSTRUCTIONAL SAFEGUARDS</b>		P
F.1	General requirements	See the following details.	P
	Instructions – Language .....	English	—
F.2	Letter symbols and graphical symbols	See the following details.	P
F.2.1	Letter symbols according to IEC60027-1	Letter symbols for quantities and units are complied with IEC 60027-1.	N/A
F.2.2	Graphic symbols IEC, ISO or manufacturer specific	Graphical symbols are complied with IEC 60417, ISO 3864-2, ISO 7000 or ISO 7010.	P

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Clause	Requirement + Test	Result - Remark	Verdict
F.3	Equipment markings		P
F.3.1	Equipment marking locations	Equipment marking is located on the exterior surface and is easily visible.	P
F.3.2	Equipment identification markings	See the following details.	P
F.3.2.1	Manufacturer identification .....	See copy of marking plate.	—
F.3.2.2	Model identification .....	See copy of marking plate.	—
F.3.3	Equipment rating markings	See the following details.	P
F.3.3.1	Equipment with direct connection to mains	The equipment is connected to DC supply.	P
F.3.3.2	Equipment without direct connection to mains		N/A
F.3.3.3	Nature of supply voltage.....	See copy of marking plate.	—
F.3.3.4	Rated voltage .....	See copy of marking plate.	—
F.3.3.4	Rated frequency .....	See copy of marking plate	—
F.3.3.6	Rated current or rated power .....	See copy of marking plate.	—
F.3.3.7	Equipment with multiple supply connections	Only one supply connection.	N/A
F.3.4	Voltage setting device	No such device on the equipment.	N/A
F.3.5	Terminals and operating devices	See below	N/A
F.3.5.1	Mains appliance outlet and socket-outlet markings .....	No such devices on the equipment.	N/A
F.3.5.2	Switch position identification marking .....	No such switch on the equipment.	N/A
F.3.5.3	Replacement fuse identification and rating markings .....		N/A
F.3.5.4	Replacement battery identification marking .....	No such battery on the equipment.	N/A
F.3.5.5	Terminal marking location	See markings specified in F.3.6.1 and F.3.6.2.2 is not placed on removable parts such as screws.	N/A
F.3.6	Equipment markings related to equipment classification	See the following details.	N/A
F.3.6.1	Class I Equipment	The equipment is a Class III type.	N/A
F.3.6.1.1	Protective earthing conductor terminal	See above.	N/A
F.3.6.1.2	Neutral conductor terminal	The equipment is not permanently connected equipment.	N/A
F.3.6.1.3	Protective bonding conductor terminals	See above.	N/A
F.3.6.2	Class II equipment (IEC60417-5172)	Class III equipment	N/A
F.3.6.2.1	Class II equipment with or without functional earth		N/A
F.3.6.2.2	Class II equipment with functional earth terminal marking		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
F.3.7	Equipment IP rating marking .....	This equipment is classified as IPX0.	—
F.3.8	External power supply output marking		N/A
F.3.9	Durability, legibility and permanence of marking	See the following details.	P
F.3.10	Test for permanence of markings	The label was subjected to the permanence of marking test, 15 sec. for water and 15 sec. for petroleum spirit. After each test, the marking remained legible.	P
F.4	Instructions		P
	a) Equipment for use in locations where children not likely to be present - marking		N/A
	b) Instructions given for installation or initial use	Relevant safety caution texts and installation instruction are available.	P
	c) Equipment intended to be fastened in place		N/A
	d) Equipment intended for use only in restricted access area	The EUT is not such type equipment	N/A
	e) Audio equipment terminals classified as ES3 and other equipment with terminals marked in accordance F.3.6.1	No such terminals provided.	N/A
	f) Protective earthing employed as safeguard	The EUT is a class III equipment and no protective earth within the EUT	N/A
	g) Protective earthing conductor current exceeding ES2 limits	See above.	N/A
	h) Symbols used on equipment	No such consideration.	N/A
	i) Permanently connected equipment not provided with all-pole mains switch	The EUT is not a permanently connected equipment	N/A
j)	j) Replaceable components or modules providing safeguard function		N/A
F.5	Instructional safeguards	No instructional safeguard is considered as necessary.	N/A
	Where “instructional safeguard” is referenced in the test report it specifies the required elements, location of marking and/or instruction	No instructional safeguard required in the equipment.	N/A
<b>G</b>	<b>COMPONENTS</b>		P
<b>G.1</b>	<b>Switches</b>		N/A
G.1.1	General requirements	No such switch as disconnect devices provided within the equipment.	N/A
G.1.2	Ratings, endurance, spacing, maximum load	See above.	N/A



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Clause	Requirement + Test	Result - Remark	Verdict
<b>G.2</b>	<b>Relays</b>		N/A
G.2.1	General requirements	No such relay provided within the equipment.	N/A
G.2.2	Overload test		N/A
G.2.3	Relay controlling connectors supply power		N/A
G.2.4	Mains relay, modified as stated in G.2		N/A
<b>G.3</b>	<b>Protection Devices</b>		N/A
G.3.1	Thermal cut-offs	No thermal cut-off provided within the equipment.	N/A
G.3.1.1a) &b)	Thermal cut-outs separately approved according to IEC 60730 with conditions indicated in a) & b)		N/A
G.3.1.1c)	Thermal cut-outs tested as part of the equipment as indicated in c)		N/A
G.3.1.2	Thermal cut-off connections maintained and secure		N/A
G.3.2	Thermal links		N/A
G.3.2.1a)	Thermal links separately tested with IEC 60691	No thermal link provided within the equipment.	N/A
G.3.2.1b)	Thermal links tested as part of the equipment		N/A
	Aging hours (H) .....		—
	Single Fault Condition .....		—
	Test Voltage (V) and Insulation Resistance (Ω). :		—
G.3.3	PTC Thermistors	No PTC thermistor provided within the equipment.	N/A
G.3.4	Overcurrent protection devices		N/A
G.3.5	Safeguards components not mentioned in G.3.1 to G.3.5		N/A
G.3.5.1	Non-resettable devices suitably rated and marking provided	No such component.	N/A
G.3.5.2	Single faults conditions.....	(See appended Table B.4)	N/A
<b>G.4</b>	<b>Connectors</b>		N/A
G.4.1	Spacings	No such connector within the EUT	N/A
G.4.2	Mains connector configuration .....		N/A
G.4.3	Plug is shaped that insertion into mains socket-outlets or appliance coupler is unlikely		N/A
<b>G.5</b>	<b>Wound Components</b>		N/A
G.5.1	Wire insulation in wound components.....	(See Annex J)	N/A
G.5.1.2 a)	Two wires in contact inside wound component, angle between 45° and 90°		N/A
G.5.1.2 b)	Construction subject to routine testing	Approved TIW used	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
G.5.2	Endurance test on wound components	Approved TIW used	N/A
G.5.2.1	General test requirements		N/A
G.5.2.2	Heat run test		N/A
	Time (s) .....		—
	Temperature (°C) .....		—
G.5.2.3	Wound Components supplied by mains		N/A
<b>G.5.3</b>	<b>Transformers</b>		N/A
G.5.3.1	Requirements applied (IEC61204-7, IEC61558-1/-2, and/or IEC62368-1).....	No such transformer provided within the equipment.	N/A
	Position .....		—
	Method of protection .....		—
G.5.3.2	Insulation		N/A
	Protection from displacement of windings.....		—
G.5.3.3	Overload test .....		N/A
G.5.3.3.1	Test conditions		N/A
G.5.3.3.2	Winding Temperatures testing in the unit		N/A
G.5.3.3.3	Winding Temperatures - Alternative test method		N/A
<b>G.5.4</b>	<b>Motors</b>		N/A
G.5.4.1	General requirements	No such devices within the EUT	N/A
	Position .....		—
G.5.4.2	Test conditions		N/A
G.5.4.3	Running overload test		N/A
G.5.4.4	Locked-rotor overload test		N/A
	Test duration (days) .....		—
G.5.4.5	Running overload test for d.c. motors in secondary circuits		N/A
G.5.4.5.2	Tested in the unit		N/A
	Electric strength test (V) .....		—
G.5.4.5.3	Tested on the Bench - Alternative test method; test time (h) .....		N/A
	Electric strength test (V) .....		—
G.5.4.6	Locked-rotor overload test for d.c. motors in secondary circuits		N/A
G.5.4.6.2	Tested in the unit		N/A
	Maximum Temperature .....		N/A
	Electric strength test (V) .....		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
G.5.4.6.3	Tested on the bench - Alternative test method; test time (h) .....		N/A
	Electric strength test (V) .....		N/A
G.5.4.7	Motors with capacitors		N/A
G.5.4.8	Three-phase motors		N/A
G.5.4.9	Series motors		N/A
	Operating voltage .....		—
<b>G.6</b>	<b>Wire Insulation</b>		N/A
G.6.1	General	Triple-insulated winding wiring used as reinforced safeguard in the isolating transformer that complied with Annex J.	N/A
G.6.2	Solvent-based enamel wiring insulation	Insulation is not relied on solvent- based enamel.	N/A
<b>G.7</b>	<b>Mains supply cords</b>		N/A
G.7.1	General requirements	No such supply cord within the EUT	N/A
	Type.....		—
	Rated current (A) .....		—
	Cross-sectional area (mm <sup>2</sup> ), (AWG).....		—
G.7.2	Compliance and test method		N/A
G.7.3	Cord anchorages and strain relief for non- detachable power supply cords		N/A
G.7.3.2	Cord strain relief		N/A
G.7.3.2.1	Requirements		N/A
	Strain relief test force (N) .....		—
G.7.3.2.2	Strain relief mechanism failure		N/A
G.7.3.2.3	Cord sheath or jacket position, distance (mm).....		—
G.7.3.2.4	Strain relief comprised of polymeric material		N/A
G.7.4	Cord Entry .....		N/A
G.7.5	Non-detachable cord bend protection		N/A
G.7.5.1	Requirements		N/A
G.7.5.2	Mass (g) .....		—
	Diameter (m) .....		—
	Temperature (°C) .....		—
G.7.6	Supply wiring space		N/A
G.7.6.2	Stranded wire		N/A



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Clause	Requirement + Test	Result - Remark	Verdict
G.7.6.2.1	Test with 8 mm strand		N/A
<b>G.8</b>	<b>Varistors</b>		N/A
G.8.1	General requirements	No VDR.	N/A
G.8.2	Safeguard against shock		N/A
G.8.3	Safeguard against fire		N/A
G.8.3.2	Varistor overload test .....		N/A
G.8.3.3	Temporary overvoltage .....		N/A
<b>G.9</b>	<b>Integrated Circuit (IC) Current Limiters</b>		N/A
G.9.1 a)	Manufacturer defines limit at max. 5A.	No such devices within the EUT	N/A
G.9.1 b)	Limiters do not have manual operator or reset		N/A
G.9.1 c)	Supply source does not exceed 250 VA .....		—
G.9.1 d)	IC limiter output current (max. 5A) .....		—
G.9.1 e)	Manufacturers' defined drift .....		—
G.9.2	Test Program 1		N/A
G.9.3	Test Program 2		N/A
G.9.4	Test Program 3		N/A
<b>G.10</b>	<b>Resistors</b>		N/A
G.10.1	General requirements	No such devices within the EUT	N/A
G.10.2	Resistor test		N/A
G.10.3	Test for resistors serving as safeguards between the mains and an external circuit consisting of a coaxial cable		N/A
G.10.3.1	General requirements		N/A
G.10.3.2	Voltage surge test		N/A
G.10.3.3	Impulse test		N/A
<b>G.11</b>	<b>Capacitor and RC units</b>		N/A
G.11.1	General requirements	No such devices within the EUT	N/A
G.11.2	Conditioning of capacitors and RC units		N/A
G.11.3	Rules for selecting capacitors		N/A
<b>G.12</b>	<b>Optocouplers</b>		N/A
	Optocouplers comply with IEC 60747-5-5:2007 Spacing or Electric Strength Test (specify option and test results) .....	No such devices within the EUT	N/A
	Type test voltage Vini .....		—
	Routine test voltage, Vini,b .....		—
<b>G.13</b>	<b>Printed boards</b>		P

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Clause	Requirement + Test	Result - Remark	Verdict
G.13.1	General requirements	See the following details.	P
G.13.2	Uncoated printed boards	The insulation between conductors on the outer surfaces of an uncoated printed board complied with the minimum clearance and creepage requirements	P
G.13.3	Coated printed boards	No coated printed board provided within the equipment.	N/A
G.13.4	Insulation between conductors on the same inner surface		N/A
	Compliance with cemented joint requirements (Specify construction) .....		—
G.13.5	Insulation between conductors on different surfaces		N/A
	Distance through insulation .....		N/A
	Number of insulation layers (pcs) .....		—
G.13.6	Tests on coated printed boards		N/A
G.13.6.1	Sample preparation and preliminary inspection		N/A
G.13.6.2a)	Thermal conditioning		N/A
G.13.6.2b)	Electric strength test		N/A
G.13.6.2c)	Abrasion resistance test		N/A
<b>G.14</b>	<b>Coating on components terminals</b>		N/A
G.14.1	Requirements .....	No coating on component terminals.	N/A
<b>G.15</b>	<b>Liquid filled components</b>		N/A
G.15.1	General requirements	No such device provided within the equipment.	N/A
G.15.2	Requirements		N/A
G.15.3	Compliance and test methods		N/A
G.15.3.1	Hydrostatic pressure test		N/A
G.15.3.2	Creep resistance test		N/A
G.15.3.3	Tubing and fittings compatibility test		N/A
G.15.3.4	Vibration test		N/A
G.15.3.5	Thermal cycling test		N/A
G.15.3.6	Force test		N/A
G.15.4	Compliance		N/A
<b>G.16</b>	<b>IC including capacitor discharge function (ICX)</b>		N/A
a)	Humidity treatment in accordance with sc5.4.8 – 120 hours	No such devices within the EUT	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
b)	Impulse test using circuit 2 with $U_c$ = to transient voltage .....		N/A
C1)	Application of ac voltage at 110% of rated voltage for 2.5 minutes		N/A
C2)	Test voltage .....		—
D1)	10,000 cycles on and off using capacitor with smallest capacitance resistor with largest resistance specified by manufacturer		N/A
D2)	Capacitance .....		—
D3)	Resistance .....		—
<b>H</b>	<b>CRITERIA FOR TELEPHONE RINGING SIGNALS</b>		N/A
H.1	General	No telephone ringing signal generated within the equipment.	N/A
H.2	Method A		N/A
H.3	Method B		N/A
H.3.1	Ringing signal		N/A
H.3.1.1	Frequency (Hz) .....		—
H.3.1.2	Voltage (V) .....		—
H.3.1.3	Cadence; time (s) and voltage (V) .....		—
H.3.1.4	Single fault current (mA):.....		—
H.3.2	Tripping device and monitoring voltage .....		N/A
H.3.2.1	Conditions for use of a tripping device or a monitoring voltage complied with		N/A
H.3.2.2	Tripping device		N/A
H.3.2.3	Monitoring voltage (V) .....		—
<b>J</b>	<b>INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION</b>		N/A
	General requirements	Triple-insulated winding wiring used as reinforced safeguard in the isolating transformer that had been evaluated with Annex J.	N/A
<b>K</b>	<b>SAFETY INTERLOCKS</b>		N/A
K.1	General requirements	No safety interlock provided within the equipment.	N/A
K.2	Components of safety interlock safeguard mechanism .....		N/A
K.3	Inadvertent change of operating mode		N/A
K.4	Interlock safeguard override		N/A
K.5	Fail-safe		N/A
	Compliance .....		N/A



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Clause	Requirement + Test	Result - Remark	Verdict
K.6	Mechanically operated safety interlocks		N/A
K.6.1	Endurance requirement		N/A
K.6.2	Compliance and Test method .....		N/A
K.7	Interlock circuit isolation		N/A
K.7.1	Separation distance for contact gaps & interlock circuit elements (type and circuit location) .....		N/A
K.7.2	Overload test, Current (A) .....		N/A
K.7.3	Endurance test		N/A
K.7.4	Electric strength test .....		N/A
<b>L</b>	<b>DISCONNECT DEVICES</b>		N/A
L.1	General requirements	No such device provided with the equipment.	N/A
L.2	Permanently connected equipment	The EUT is not permanently connected equipment	N/A
L.3	Parts that remain energized	No parts remain energized	N/A
L.4	Single phase equipment	The disconnect device disconnects both poles simultaneously.	N/A
L.5	Three-phase equipment	The EUT is a Single phase equipment	N/A
L.6	Switches as disconnect devices	No such switch provided on the equipment.	N/A
L.7	Plugs as disconnect devices	Appliance coupler as disconnect device.	N/A
L.8	Multiple power sources	Only one a.c. mains connection.	N/A
<b>M</b>	<b>EQUIPMENT CONTAINING BATTERIES AND THEIR PROTECTION CIRCUITS</b>		N/A
M.1	General requirements	No such battery used.	N/A
M.2	Safety of batteries and their cells		N/A
M.2.1	Requirements		N/A
M.2.2	Compliance and test method (identify method) ...		N/A
M.3	Protection circuits		N/A
M.3.1	Requirements		N/A
M.3.2	Tests		N/A
	- Overcharging of a rechargeable battery		N/A
	- Unintentional charging of a non-rechargeable battery		N/A
	- Reverse charging of a rechargeable battery		N/A
	- Excessive discharging rate for any battery		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
M.3.3	Compliance .....		N/A
M.4	Additional safeguards for equipment containing secondary lithium battery		N/A
M.4.1	General		N/A
M.4.2	Charging safeguards		N/A
M.4.2.1	Charging operating limits		N/A
M.4.2.2a)	Charging voltage, current and temperature .....		—
M.4.2.2 b)	Single faults in charging circuitry .....		—
M.4.3	Fire Enclosure		N/A
M.4.4	Endurance of equipment containing a secondary lithium battery		N/A
M.4.4.2	Preparation		N/A
M.4.4.3	Drop and charge/discharge function tests		N/A
	Drop		N/A
	Charge		N/A
	Discharge		N/A
M.4.4.4	Charge-discharge cycle test		N/A
M.4.4.5	Result of charge-discharge cycle test		N/A
M.5	Risk of burn due to short circuit during carrying		N/A
M.5.1	Requirement		N/A
M.5.2	Compliance and Test Method (Test of P.2.3)		N/A
M.6	Prevention of short circuits and protection from other effects of electric current		N/A
M.6.1	Short circuits		N/A
M.6.1.1	General requirements		N/A
M.6.1.2	Test method to simulate an internal fault		N/A
M.6.1.3	Compliance (Specify M.6.1.2 or alternative method) .....		N/A
M.6.2	Leakage current (mA) .....		N/A
M.7	Risk of explosion from lead acid and NiCd batteries		N/A
M.7.1	Ventilation preventing explosive gas concentration		N/A
M.7.2	Compliance and test method		N/A
M.8	Protection against internal ignition from external spark sources of lead acid batteries		N/A
M.8.1	General requirements		N/A
M.8.2	Test method		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
M.8.2.1	General requirements		N/A
M.8.2.2	Estimation of hypothetical volume $V_z$ (m <sup>3</sup> /s)..... :		—
M.8.2.3	Correction factors..... :		—
M.8.2.4	Calculation of distance $d$ (mm) ..... :		—
M.9	Preventing electrolyte spillage		N/A
M.9.1	Protection from electrolyte spillage		N/A
M.9.2	Tray for preventing electrolyte spillage		N/A
M.10	Instructions to prevent reasonably foreseeable misuse (Determination of compliance: inspection, data review; or abnormal testing) ..... :		N/A
<b>N</b>	<b>ELECTROCHEMICAL POTENTIALS</b>		N/A
	Metal(s) used ..... :		—
<b>O</b>	<b>MEASUREMENT OF CREEPAGE DISTANCES AND CLEARANCES</b>		N/A
	Figures O.1 to O.20 of this Annex applied ..... :	Considered.	—
<b>P</b>	<b>SAFEGUARDS AGAINST ENTRY OF FOREIGN OBJECTS AND SPILLAGE OF INTERNAL LIQUIDS</b>		N/A
P.1	General requirements	See the following details.	N/A
P.2.2	Safeguards against entry of foreign object	See below.	N/A
	Location and Dimensions (mm) ..... :	No openings.	—
P.2.3	Safeguard against the consequences of entry of foreign object		N/A
P.2.3.1	Safeguards against the entry of a foreign object		N/A
	Openings in transportable equipment	No openings.	N/A
	Transportable equipment with metalized plastic parts ..... :		N/A
P.2.3.2	Openings in transportable equipment in relation to metallized parts of a barrier or enclosure (identification of supplementary safeguard) ..... :		N/A
P.3	Safeguards against spillage of internal liquids	No such consideration.	N/A
P.3.1	General requirements		N/A
P.3.2	Determination of spillage consequences		N/A
P.3.3	Spillage safeguards		N/A
P.3.4	Safeguards effectiveness		N/A
P.4	Metallized coatings and adhesive securing parts	No such construction.	N/A
P.4.2 a)	Conditioning testing		N/A
	T <sub>c</sub> (°C)..... :		—
	T <sub>r</sub> (°C) ..... :		—



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Clause	Requirement + Test	Result - Remark	Verdict
	Ta (°C)..... :		—
P.4.2 b)	Abrasion testing .....		N/A
P.4.2 c)	Mechanical strength testing .....		N/A
<b>Q</b>	<b>CIRCUITS INTENDED FOR INTERCONNECTION WITH BUILDING WIRING</b>		N/A
Q.1	Limited power sources	The output connector complied with the relevant requirement in this annex.	N/A
Q.1.1 a)	Inherently limited output	See below.	N/A
Q.1.1 b)	Impedance limited output	See below.	N/A
	- Regulating network limited output under normal operating and simulated single fault condition	Complied	N/A
Q.1.1 c)	Overcurrent protective device limited output		N/A
Q.1.1 d)	IC current limiter complying with G.9		N/A
Q.1.2	Compliance and test method		N/A
Q.2	Test for external circuits – paired conductor cable	No such circuit within the EUT	N/A
	Maximum output current (A) .....		—
	Current limiting method..... :		—
<b>R</b>	<b>LIMITED SHORT CIRCUIT TEST</b>		N/A
R.1	General requirements	No such consideration.	N/A
R.2	Determination of the overcurrent protective device and circuit		N/A
R.3	Test method Supply voltage (V) and short-circuit current (A)). .....		N/A
<b>S</b>	<b>TESTS FOR RESISTANCE TO HEAT AND FIRE</b>		N/A
S.1	Flammability test for fire enclosures and fire barrier materials of equipment where the steady state power does not exceed 4 000 W	The fire enclosure was made of rated min. V-0 material.	N/A
	Samples, material .....		—
	Wall thickness (mm)..... :		—
	Conditioning (°C)..... :		—
	Test flame according to IEC 60695-11-5 with conditions as set out		N/A
	- Material not consumed completely		N/A
	- Material extinguishes within 30s		N/A
	- No burning of layer or wrapping tissue		N/A
S.2	Flammability test for fire enclosure and fire barrier integrity		N/A
	Samples, material .....		—

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Clause	Requirement + Test	Result - Remark	Verdict
	Wall thickness (mm) .....		—
	Conditioning (°C) .....		—
	Test flame according to IEC 60695-11-5 with conditions as set out		N/A
	Test specimen does not show any additional hole		N/A
S.3	Flammability test for the bottom of a fire enclosure		N/A
	Samples, material .....		—
	Wall thickness (mm) .....		—
	Cheesecloth did not ignite		N/A
S.4	Flammability classification of materials		N/A
S.5	Flammability test for fire enclosures and fire barrier materials of equipment where the steady state power does not exceed 4 000 W		N/A
	Samples, material .....		—
	Wall thickness (mm) .....		—
	Conditioning (test condition), (°C) .....		—
	Test flame according to IEC 60695-11-20 with conditions as set out		N/A
	After every test specimen was not consumed completely		N/A
	After fifth flame application, flame extinguished within 1 min		N/A
<b>T</b>	<b>MECHANICAL STRENGTH TESTS</b>		<b>P</b>
T.1	General requirements	See the following details.	P
T.2	Steady force test, 10 N .....	(See appended table T.2)	P
T.3	Steady force test, 30 N .....	(See appended table T.3)	N/A
T.4	Steady force test, 100 N .....	(See appended table T.4)	P
T.5	Steady force test, 250 N .....	(See appended table T.5)	N/A
T.6	Enclosure impact test	(See appended table T.6)	N/A
	Fall test	A 500 g steel sphere ball fell freely from rest through a vertical distance of 1300 mm onto the sample.	N/A
	Swing test	By fall test above.	N/A
T.7	Drop test .....	Complete equipment was dropped onto a horizontal surface from the height of 1000 mm for three times.	P
T.8	Stress relief test .....	(See appended table T.8)	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
T.9	Impact Test (glass)	No such glass provided within the equipment.	N/A
T.9.1	General requirements		N/A
T.9.2	Impact test and compliance		N/A
	Impact energy (J) .....		—
	Height (m) .....		—
T.10	Glass fragmentation test .....	(See sub-clause 4.4.4.9)	N/A
T.11	Test for telescoping or rod antennas	No such antennas provided within the equipment.	N/A
	Torque value (Nm) .....	See above.	—
<b>U</b>	<b>MECHANICAL STRENGTH OF CATHODE RAY TUBES (CRT) AND PROTECTION AGAINST THE EFFECTS OF IMPLOSION</b>		N/A
U.1	General requirements	No CRT provided within the equipment.	N/A
U.2	Compliance and test method for non-intrinsically protected CRTs		N/A
U.3	Protective Screen.....		N/A
<b>V</b>	<b>DETERMINATION OF ACCESSIBLE PARTS (FINGERS, PROBES AND WEDGES)</b>		N/A
V.1	Accessible parts of equipment	Following the probes test specified in this annex except Figure V.3., V.4 and V.5 is not suitable.	N/A
V.2	Accessible part criterion	No live parts can be accessible.	N/A



4.1.2	TABLE: Critical components information				P
Object / part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity
Plastic enclosure	Interchangeable	Interchangeable	V-0	UL94	UL
POWER ADAPTER	--	DZ01G-0501200E	Input:100-240V~ 50/60Hz 0.3A Output:5VDC 1.2A	EN 61368-1	CE
PCB	Interchangeable	Interchangeable	V-1 130°C	UL94 UL746	UL
1) Provided evidence ensures the agreed level of compliance. See OD-2039.					

5.4.1.4, 6.3.2, 9.0, B.2.6	TABLE: Temperature measurements					P
	Supply voltage (V) .....	5VDC, label downward				—
	Ambient T <sub>min</sub> (°C) .....	--	--	--	--	—
	Ambient T <sub>max</sub> (°C) .....	--	--	--	--	—
	T <sub>ma</sub> (°C) .....	25.0	--	--	--	—
Maximum measured temperature T of part/at:		T (°C)				Allowed T <sub>max</sub> (°C)
Test condition		A.	--	--	--	--
Inlet body		34.3	--	--	--	90
PCB near U1		45.8	--	--	--	130
PCB near T1		47.3	--	--	--	130
Enclosure of AC Adapter		36.7	--	--	--	--
Internal wire		33.2	--	--	--	70
T <sub>amb</sub>		27.6	--	--	--	--
T <sub>ma</sub>		25.0	--	--	--	--
Measured enclosure only						
Surface plastic enclosure of top (>1 s and <10 s)		32.2	--	--	--	77
Surface plastic enclosure of bottom (>1 s and <10 s)		31.7	--	--	--	77
Surface plastic enclosure of left side (>1 s and <10 s)		31.1	--	--	--	77
Surface plastic enclosure of right side (>1 s and <10 s)		30.8	--	--	--	77
T <sub>amb</sub>		27.6	--	--	--	--

Supplementary information:

Temperature T of winding:	t <sub>1</sub> (°C)	R <sub>1</sub> (Ω)	t <sub>2</sub> (°C)	R <sub>2</sub> (Ω)	T (°C)	Allowed T <sub>max</sub> (°C)	Insulation class
--	--	--	--	--	--	--	--

Supplementary information:

Note 1: T<sub>ma</sub> should be considered as directed by applicable requirement

Note 2: T<sub>ma</sub> is not included in assessment of Touch Temperatures (Clause 9)

5.4.1.10.2	TABLE: Vicat softening temperature of thermoplastics		N/A
Penetration (mm) .....	1.0		—
Object/ Part No./Material	Manufacturer/trademark	T softening (°C)	
--	--	--	
supplementary information:			

5.4.1.10.3	TABLE: Ball pressure test of thermoplastics			N/A
Allowed impression diameter (mm) ..... : ≤ 2 mm				—
Object/Part No./Material	Manufacturer/trademark	Test temperature (°C)	Impression diameter (mm)	
--	--	--	--	
Supplementary information:				

<b>5.4.2.2, 5.4.2.4 and 5.4.3</b>	<b>TABLE: Minimum Clearances/Creepage distance</b>						N/A
Clearance (cl) and creepage distance (cr) at/of/between:	Up (V)	U r.m.s. (V)	Frequency (kHz) <sup>1</sup>	Required cl (mm)	cl (mm) <sup>2</sup>	Required <sup>3</sup> cr (mm)	cr (mm)
--	--	--	--	--	--	--	--
Supplementary information:							

5.4.2.3	TABLE: Minimum Clearances distances using required withstand voltage			N/A
	Overvoltage Category (OV):			II
	Pollution Degree:			2
Clearance distanced between:		Required withstand voltage	Required cl (mm)	Measured cl (mm)
--		--	--	--
Supplementary information:				

<b>5.4.4.2, 5.4.4.5 c) 5.4.4.9</b>	<b>TABLE: Distance through insulation measurements</b>					N/A
Distance through insulation di at/of:	Peak voltage (V)	Frequency (kHz)	Material	Required DTI (mm)	DTI (mm)	
--	--	--	--	--	--	
Supplementary information: 1) For details refer to appended table 4.1.2.						

5.4.9	TABLE: Electric strength tests			P
Test voltage applied between:		Voltage shape (AC, DC)	Test voltage (V)	Breakdown Yes / No
Routine Tests:				
+ to -		DC	500	No
Supplementary information:				
1) Sources of insulation tape see appended table 4.1.2 for details.				
2) Triple insulation wire used as secondary winding, the core is considered as primary part.				

<b>5.5.2.2</b>	<b>TABLE: Stored discharge on capacitors</b>					N/A
Supply Voltage (V), Hz	Test Location	Operating Condition (N, S)	Switch position On or off	Measured Voltage (after 2 seconds)	ES Classification	
--	--	--	--	--	--	
Supplementary information:						

<b>5.6.6.2</b>	<b>TABLE: Resistance of protective conductors and terminations</b>				N/A
Accessible part		Test current (A)	Duration (min)	Voltage drop (V)	Resistance ( $\Omega$ )
--		--	--	--	--
Supplementary information:					

6.2.2	Table: Electrical power sources (PS) measurements for classification					P
Source	Description	Measurement	Max Power after 3 s	Max Power after 5 s <sup>*)</sup>	PS Classification	
A	5VDC	Power (W) :	5.76	--	PS1	
		V <sub>A</sub> (V) :	5.01	--		
		I <sub>A</sub> (A) :	1.15	--		
Supplementary Information:						
(*) Measurement taken only when limits at 3 seconds exceed PS1 limits						

<b>B.2.5</b>	<b>TABLE: Input test</b>						P
U (V)	I (A)	I rated (A)	P (W)	P rated (W)	Fuse No	I fuse (A)	Condition/status
5	1.0	1.2	5	---	---	---	Max. Normal load.
Supplementary information:							

B.3 & B.4	TABLE: Abnormal operating and fault condition tests							P
Ambient temperature (°C) .....					25°C, if not specified			—
Power source for EUT: Manufacturer, model/type, output rating .:					--			—
Component No.	Abnormal Condition	Supply voltage, (V)	Test time (ms)	Fuse no.	Fuse current, (A)	T-couple	Temp. (°C)	Observation
U1	Short	5VDC	30 min	--	--	--	--	Unit shut down, no hazards.
loudspeaker	Short	5VDC	30 min	--	--	--	--	no hazards.

Supplementary information:						
Annex Q.1	TABLE: Circuits intended for interconnection with building wiring (LPS)					N/A
Note: Measured UOC (V) with all load circuits disconnected:						
Output Circuit	Components	U <sub>oc</sub> (V)	I <sub>sc</sub> (A)		S (VA)	
			Meas.	Limit	Meas.	Limit
--	--	--	--	--	--	--
Supplementary Information:						

T.2, T.3, T.4, T.5	TABLE: Steady force test					P
Part/Location	Material	Thickness (mm)	Force (N)	Test Duration (sec)	Observation	
Top enclosure	Plastic	--	100	5	No damaged	
Side enclosure	Plastic	--	100	5	No damaged	
Bottom enclosure	Plastic	--	100	5	No damaged	
Supplementary information:						

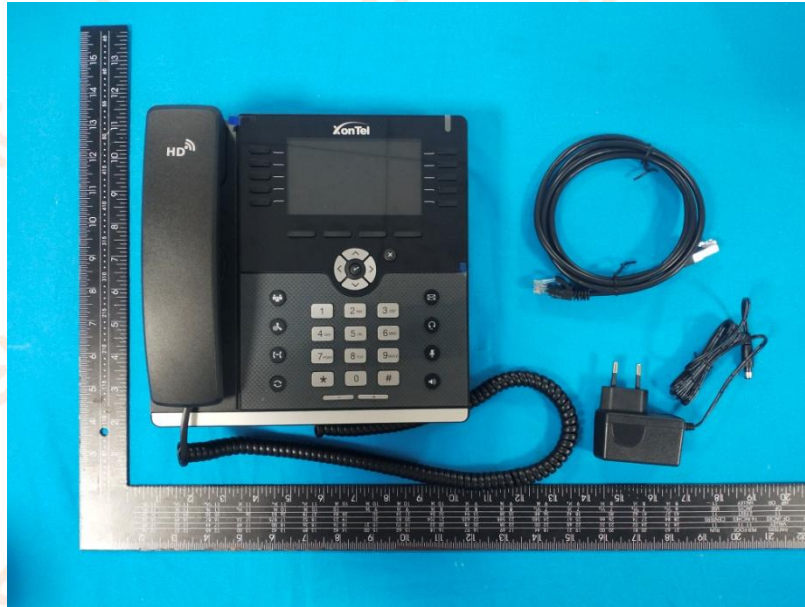
T.6, T.9	TABLE: Impact tests				N/A
Part/Location	Material	Thickness (mm)	Vertical distance (mm)	Observation	
--	--	--	--	--	
Supplementary information:					



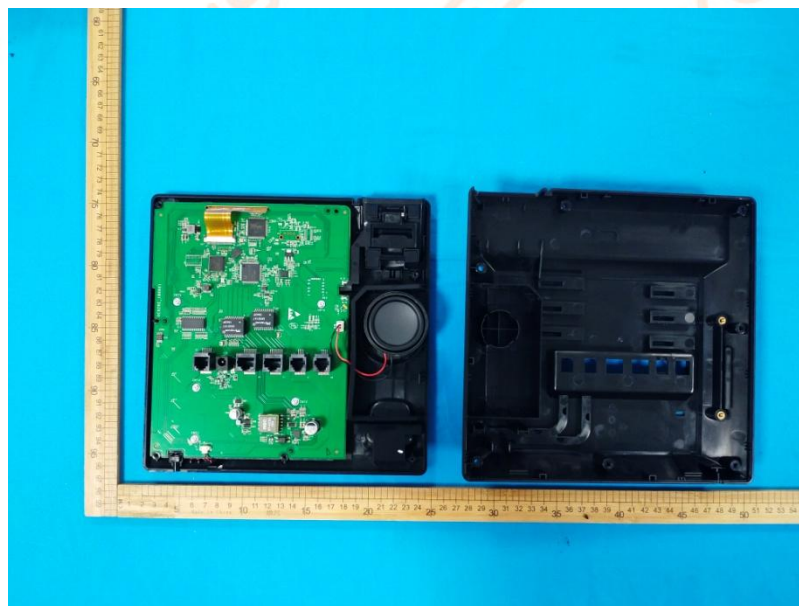
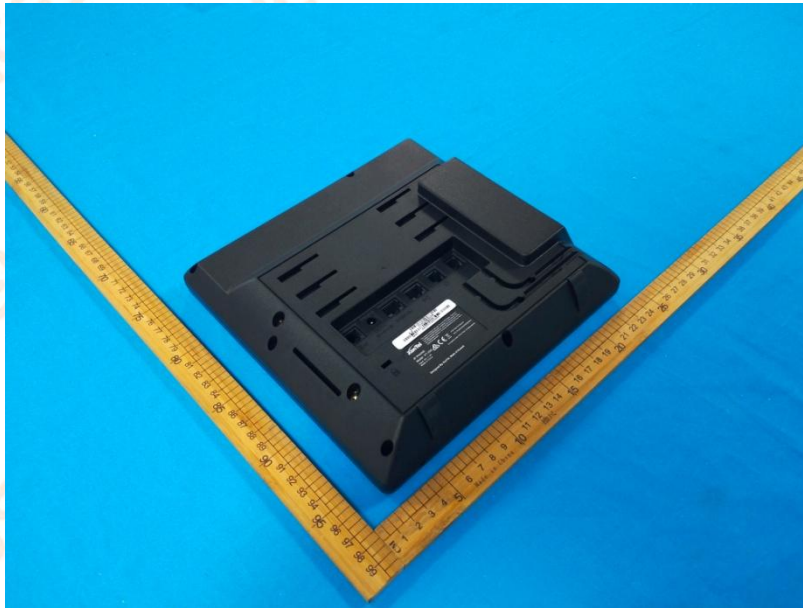
T.7	TABLE: Drop tests				P
Part/Location	Material	Thickness (mm)	Drop Height (mm)	Observation	
Top enclosure	Plastic	--	1000	No damaged	
Side enclosure	Plastic	--	1000	No damaged	
Bottom enclosure	Plastic	--	1000	No damaged	
Supplementary information:					

T.8	TABLE: Stress relief test					N/A
Part/Location	Material	Thickness (mm)	Oven Temperature (°C)	Duration (h)	Observation	
--	--	--	--	--	--	
Supplementary information: For details refer to appended table 4.1.2.						

## Photos Documents

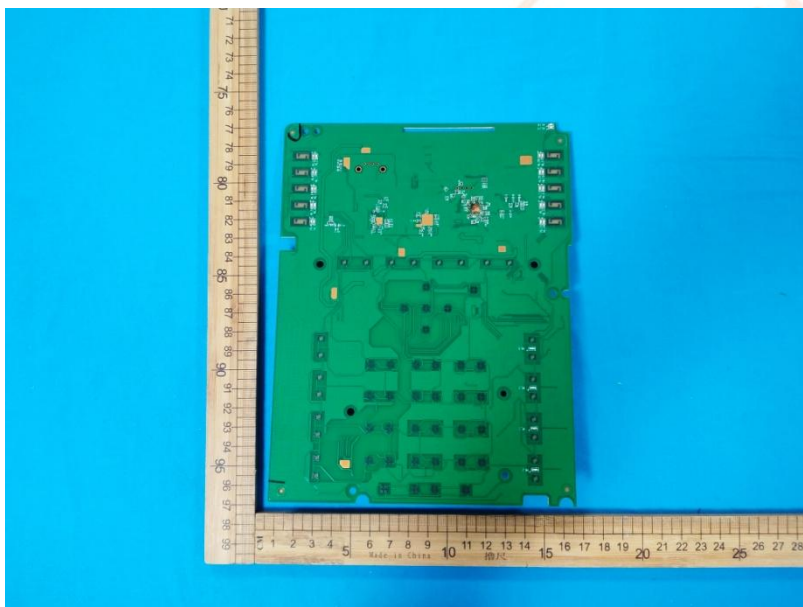
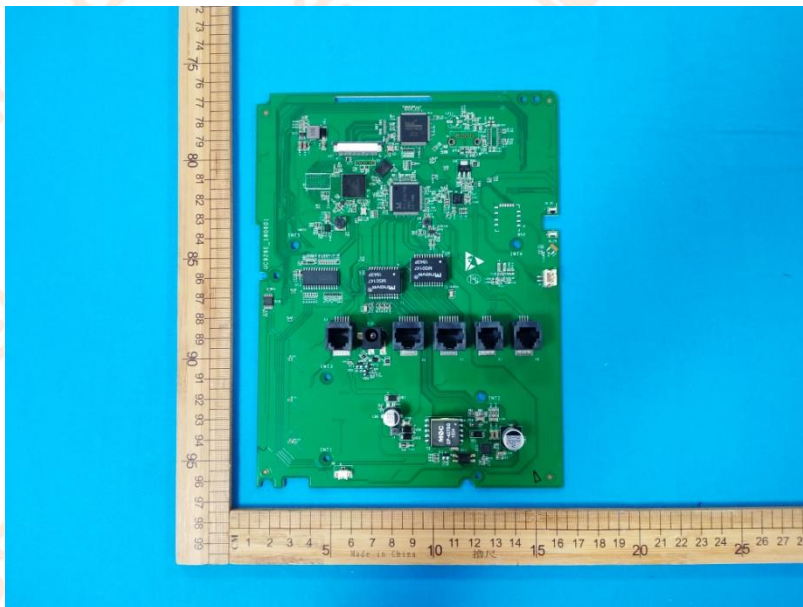


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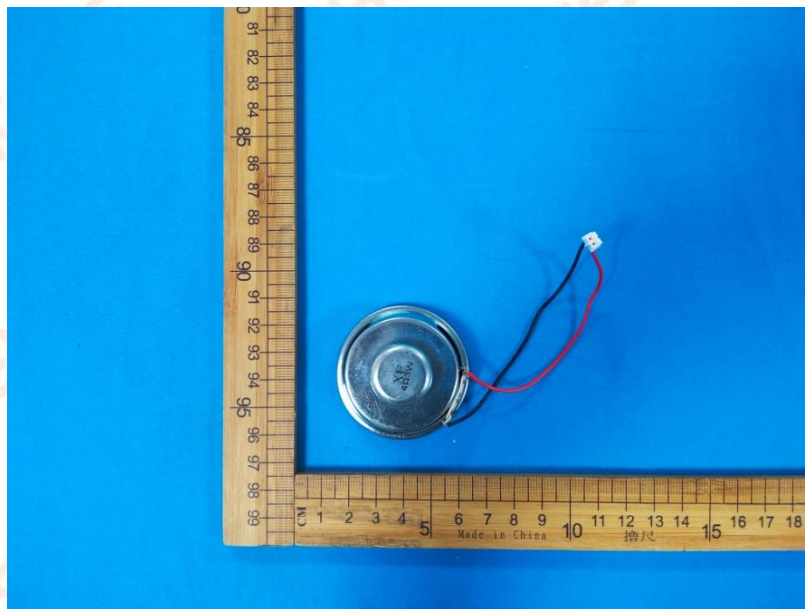


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