

# TEST REPORT

For

2.0 Computer Multimedia Speaker

Model Number: T-60X Pro, T-60X, T-65X, T-65X Pro, T-68X, T-68X Pro, T-69X, T-69X Pro

Report Number : WT223000153

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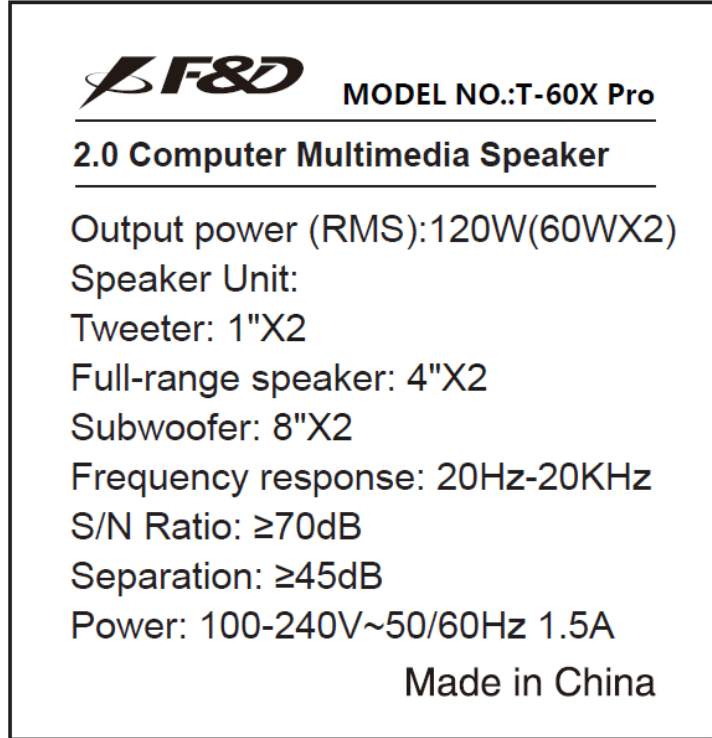
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TEST REPORT	
EN 62368-1	
Audio/video, information and communication technology equipment	
Part 1: Safety requirements	
<b>Report reference No</b> .....	WT223000153
Tested by: .....	Chen Songjuan (陈宋娟) <span style="float: right;">陈宋娟</span>
Checked by: .....	Fang Huan (方欢) <span style="float: right;">方欢</span>
Approved by: .....	LI Juhuan(李菊欢) <span style="float: right;">李菊欢</span>
Date of issue .....	2022-04-01
<b>Testing Laboratory Name</b> .....	Shenzhen Academy of Metrology and Quality Inspection
Address .....	NETC Building, No.4 Tongfa Rd., Xili, Nanshan, Shenzhen, China
Testing location .....	Shenzhen Academy of Metrology and Quality Inspection
<b>Applicant's Name</b> .....	SHENZHEN FENDA TECHNOLOGY CO.,LTD
Address .....	Fenda Hi-Tech Park, Zhoushi Road, Shiyan Street, Baoan District, Shenzhen, China
<b>Standard</b> .....	EN IEC 62368-1: 2020+A11:2020
Test procedure .....	/
Non-standard test method .....	N.A.
Test item description .....	2.0 Computer Multimedia Speaker
Trademark .....	F&D
Manufacturer .....	SHENZHEN FENDA TECHNOLOGY CO.,LTD
Address .....	Fenda Hi-Tech Park, Zhoushi Road, Shiyan Street, Baoan District, Shenzhen, China
Model and/or type reference .....	T-60X Pro, T-60X, T-65X, T-65X Pro, T-68X, T-68X Pro, T-69X, T-69X Pro
Serial number .....	/
Rating(s) .....	100-240V~50/60Hz1.5A, Class II
<b>Test case verdicts</b>	
Test case does not apply to the test object :	N/A
Test item does meet the requirement .....	P(ass)
Test item does not meet the requirement ...:	F(ail)
<b>Testing</b>	
Date of receipt of test item .....	2022-01-06
Date(s) of performance of test .....	2022-01-06 to 2022-04-01

**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.



**General product information and other remarks:**

1. The equipment under test(EUT) is a 2.0 Computer Multimedia Speaker. The EUT is consist of a speaker, a remote control and a wireless microphone(optional).
2. The product was submitted and evaluated for use at the maximum ambient temperature (Tma) permitted by the manufacturer's specification of: 45°C.
3. The equipment disconnect device is considered to be: AC inlet or the plug of detachable power supply cords.
4. The unit is configured with USB port, Optical Port, Coaxial Port, Microphone, AUX IN and Audio Output Port.
5. The cover models are: T-60X Pro, T-60X, T-65X, T-65X Pro, T-68X, T-68X Pro, T-69X,T-69X Pro. The differences between the models are as follows: different sales regions lead to different product names, and other electrical principles, internal structures, key components, and structural materials are the same. Differences do not affect the test results.
6. Unless special specified, all tests were performed on model T-60X Pro to represent other models.

<b>Test item particulars:</b>			
<b>Product group</b> .....	<input checked="" type="checkbox"/> end product	<input type="checkbox"/> built-in component	
<b>Classification of use by</b> .....	<input checked="" type="checkbox"/> Ordinary person	<input checked="" type="checkbox"/> Children likely present	
	<input type="checkbox"/> Instructed person		
	<input type="checkbox"/> Skilled person		
<b>Supply connection</b> .....	<input checked="" type="checkbox"/> AC mains	<input type="checkbox"/> DC mains	
	<input type="checkbox"/> not mains connected:		
	<input type="checkbox"/> ES1	<input type="checkbox"/> ES2	<input type="checkbox"/> ES3
<b>Supply tolerance</b> .....	<input checked="" type="checkbox"/> +10%/-10%		
	<input type="checkbox"/> +20%/-15%		
	<input type="checkbox"/> + %/ - %		
	<input type="checkbox"/> None		
<b>Supply connection – type</b> .....	<input checked="" type="checkbox"/> pluggable equipment type A -		
	<input type="checkbox"/> non-detachable supply cord		
	<input checked="" type="checkbox"/> appliance coupler		
	<input type="checkbox"/> direct plug-in		
	<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 type="checkbox"/> other:		
<b>Considered current rating of protective device</b> .....	<input checked="" type="checkbox"/> 16 A ;		
	Location:	<input checked="" type="checkbox"/> building	<input type="checkbox"/> equipment
	<input type="checkbox"/> N/A		
<b>Equipment mobility</b> .....	<input type="checkbox"/> movable	<input type="checkbox"/> hand-held	<input type="checkbox"/> transportable
	<input type="checkbox"/> direct plug-in	<input checked="" type="checkbox"/> stationary	<input type="checkbox"/> for building-in
	<input type="checkbox"/> wall/ceiling-mounted	<input type="checkbox"/> SRME/rack-mounted	
	<input type="checkbox"/> other:		
<b>Overvoltage category (OVC)</b> .....	<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:		
<b>Class of equipment</b> .....	<input type="checkbox"/> Class I	<input checked="" type="checkbox"/> Class II	<input type="checkbox"/> Class III
	<input type="checkbox"/> Not classified		
<b>Special installation location</b> .....	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> restricted access area	
	<input type="checkbox"/> outdoor location		
<b>Pollution degree (PD)</b> .....	<input type="checkbox"/> PD 1	<input checked="" type="checkbox"/> PD 2	<input type="checkbox"/> PD 3
<b>Manufacturer's specified T<sub>ma</sub></b> .....	45 °C	<input type="checkbox"/> Outdoor: minimum	°C
<b>IP protection class</b> .....	<input checked="" type="checkbox"/> IPX0	<input type="checkbox"/> IP__	
<b>Power systems</b> .....	<input checked="" type="checkbox"/> TN	<input type="checkbox"/> TT	<input type="checkbox"/> IT - V <sub>L-L</sub>
	<input type="checkbox"/> not AC mains		
<b>Altitude during operation (m)</b> .....	<input type="checkbox"/> 2000 m or less	<input checked="" type="checkbox"/> 5000 m	
<b>Altitude of test laboratory (m)</b> .....	<input checked="" type="checkbox"/> 2000 m or less	<input type="checkbox"/> m	
<b>Mass of equipment (kg)</b> .....	18.5 kg		

OVERVIEW OF ENERGY SOURCES AND SAFEGUARDS				
Clause	Possible Hazard			
5	Electrically-caused injury			
Class and Energy Source (e.g. ES3: Primary circuit)	Body Part (e.g. Ordinary)	Safeguards		
		B	S	R
ES3: Primary circuits	Ordinary	Basic insulation	Supplementary insulation	Plastic Enclosure
ES1: USB output(+, -)	Ordinary	N/A	N/A	N/A
6	Electrically-caused fire			
Class and Energy Source (e.g. PS2: 100 Watt circuit)	Material part (e.g. Printed board)	Safeguards		
		B	1 <sup>st</sup> S	2 <sup>nd</sup> S
PS3: All primary circuits inside the equipment enclosure	All combustible materials within equipment fire enclosure	Equipment safeguard (material class)	Reinforce safeguard	N/A
PS1: USB Output	Connections of secondary circuit	N/A	N/A	N/A
7	Injury caused by hazardous substances			
Class and Energy Source (e.g. Ozone)	Body Part (e.g., Skilled)	Safeguards		
		B	S	R
N/A	N/A	N/A	N/A	N/A
8	Mechanically-caused injury			
Class and Energy Source (e.g. MS3: Plastic fan blades)	Body Part (e.g. Ordinary)	Safeguards		
		B	S	R
MS1: Edges and corners of enclosure	Ordinary	N/A	N/A	N/A
MS2: Equipment mass (18.5 kg)	Ordinary	N/A	N/A	Comply with Cl. 8.6
9	Thermal burn			
Class and Energy Source (e.g. TS1: Keyboard caps)	Body Part (e.g., Ordinary)	Safeguards		
		B	S	R
TS1: External enclosure surfaces	Ordinary	N/A	N/A	N/A
10	Radiation			
Class and Energy Source (e.g. RS1: PMP sound output)	Body Part (e.g., Ordinary)	Safeguards		
		B	S	R
RS1: Indicator light	Ordinary	N/A	N/A	N/A
Supplementary Information: "B" – Basic Safeguard; "S" – Supplementary Safeguard; "R" – Reinforced Safeguard				

ENERGY SOURCE DIAGRAM

**Optional.** Manufacturers are to provide the energy sources diagram identify declared energy sources and identifying the demarcations are between power sources. Recommend diagram be provided included in power supply and multipart systems.

Insert diagram below. Example diagram designs are; Block diagrams; image(s) with layered data; mechanical drawings

ES     PS     MS     TS     RS



EN 62368-1			
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	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
4.1.3	Equipment design and construction	Evaluation of safeguards regarding limiting the outputs to fulfill ES1, and protection in regard to risk of ignition, considered.	P
4.1.4	Specified ambient temperature for outdoor use (°C) .....		N/A
4.1.5	Constructions and components not specifically covered	(See Annex F)	P
4.1.8	Liquids and liquid filled components (LFC)	(See G.15)	N/A
4.1.15	Markings and instructions	(See Annex F)	P
4.4.3	Safeguard robustness		P
4.4.3.1	General		P
4.4.3.2	Steady force tests	(See Clause T.2, T.5)	P
4.4.3.3	Drop tests		N/A
4.4.3.4	Impact tests		P
4.4.3.5	Internal accessible safeguard tests		N/A
4.4.3.6	Glass impact tests		N/A
4.4.3.7	Glass fixation tests		N/A
	Glass impact test (1J)		N/A
	Push/pull test (10 N)		N/A
4.4.3.8	Thermoplastic material tests		N/A
4.4.3.9	Air comprising a safeguard	(See Annex T)	P
4.4.3.10	Accessibility, glass, safeguard effectiveness		P
4.4.4	Displacement of a safeguard by an insulating liquid	No such part.	N/A
4.4.5	Safety interlocks	(See Annex K)	N/A
<b>4.5</b>	<b>Explosion</b>		P

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Clause	Requirement + Test	Result - Remark	Verdict
4.5.1	General	No explosion occurs during normal/abnormal operation and single fault conditions.	P
4.5.2	No explosion during normal/abnormal operating condition	(See Clause B.2, B.3)	P
	No harm by explosion during single fault conditions	(See Clause B.4)	P
<b>4.6</b>	<b>Fixing of conductors</b>		P
	Fix conductors not to defeat a safeguard		P
	Compliance is checked by test..... : (See appended table 5.4.2)		P
<b>4.7</b>	<b>Equipment for direct insertion into mains socket-outlets</b>		N/A
4.7.2	Mains plug part complies with relevant standard .. :	No such equipment.	N/A
4.7.3	Torque (Nm) .. :		N/A
<b>4.8</b>	<b>Equipment containing coin/button cell batteries</b>		N/A
4.8.1	General		N/A
4.8.2	Instructional safeguard .. :		N/A
4.8.3	Battery compartment door/cover construction		N/A
	Open torque test		N/A
4.8.4.2	Stress relief test		N/A
4.8.4.3	Battery replacement test		N/A
4.8.4.4	Drop test		N/A
4.8.4.5	Impact test		N/A
4.8.4.6	Crush test		N/A
4.8.5	Compliance		N/A
	30N force test with test probe		N/A
	20N force test with test hook		N/A
<b>4.9</b>	<b>Likelihood of fire or shock due to entry of conductive object</b>		N/A
<b>4.10</b>	<b>Component requirements</b>		P
4.10.1	Disconnect Device	(See Annex L)	P
4.10.2	Switches and relays	(See Annex G)	P
<b>5</b>	<b>ELECTRICALLY-CAUSED INJURY</b>		P
<b>5.2</b>	<b>Classification and limits of electrical energy sources</b>		P
5.2.2	ES1, ES2 and ES3 limits	Accessible parts were with ES1.	P
5.2.2.2	Steady-state voltage and current limits .. :	(See appended table 5.2)	P
5.2.2.3	Capacitance limits .. :	(See appended table 5.2)	P

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Clause	Requirement + Test	Result - Remark	Verdict
5.2.2.4	Single pulse limits .....	(See appended table 5.2)	N/A
5.2.2.5	Limits for repetitive pulses .....	(See appended table 5.2)	N/A
5.2.2.6	Ringing signals	(See Annex H)	N/A
5.2.2.7	Audio signals	(See Clause E.1)	N/A
<b>5.3</b>	<b>Protection against electrical energy sources</b>		P
5.3.1	General Requirements for accessible parts to ordinary, instructed and skilled persons		P
5.3.1 a)	Accessible ES1/ES2 derived from ES2/ES3 circuits	ES3 source cannot access by ordinary persons. Double safeguard is provided between ES3 and ordinary persons.	P
5.3.1 b)	Skilled persons not unintentional contact ES3 bare conductors		P
5.3.2.1	Accessibility to electrical energy sources and safeguards		N/A
	Accessibility to outdoor equipment bare parts		N/A
5.3.2.2	Contact requirements		P
	Test with test probe from Annex V	See annex V	-
5.3.2.2 a)	Air gap – electric strength test potential (V).....		N/A
5.3.2.2 b)	Air gap – distance (mm) .....	>10mm	P
5.3.2.3	Compliance		P
5.3.2.4	Terminals for connecting stripped wire		P
<b>5.4</b>	<b>Insulation materials and requirements</b>		P
5.4.1.2	Properties of insulating material		P
5.4.1.3	Material is non-hygroscopic	(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 degrees .....	2	—
5.4.1.5.2	Test for pollution degree 1 environment and for an insulating compound		N/A
5.4.1.5.3	Thermal cycling test		N/A
5.4.1.6	Insulation in transformers with varying dimensions		N/A
5.4.1.7	Insulation in circuits generating starting pulses		N/A
5.4.1.8	Determination of working voltage .....	(See appended table 5.4.1.8)	P
5.4.1.9	Insulating surfaces		P
5.4.1.10	Thermoplastic parts on which conductive metallic parts are directly mounted		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
5.4.1.10.2	Vicat test .....		N/A
5.4.1.10.3	Ball pressure test.....	See appended table 5.4.1.10.3	P
5.4.2	Clearances		P
5.4.2.1	General requirements		N/A
	Clearances in circuits connected to AC Mains, Alternative method		N/A
5.4.2.2	Procedure 1 for determining clearance	(See appended table 5.4.2.2)	P
	Temporary overvoltage .....	(See appended table 5.4.2.3)	—
5.4.2.3	Procedure 2 for determining clearance		P
5.4.2.3.2.2	a.c. mains transient voltage .....	2500V for Overvoltage Cat. II	—
5.4.2.3.2.3	d.c. mains transient voltage .....	No such transient	—
5.4.2.3.2.4	External circuit transient voltage .....	No such transient	—
5.4.2.3.2.5	Transient voltage determined by measurement...		—
5.4.2.4	Determining the adequacy of a clearance using an electric strength test .....	Using procedure 2 to determine the clearance according to 5.4.2.3.	N/A
5.4.2.5	Multiplication factors for clearances and test voltages.....		N/A
5.4.2.6	Clearance measurement.....	(See appended table 5.4.2.2)	P
5.4.3	Creepage distances	(See appended table 5.4.2.3)	P
5.4.3.1	General		P
5.4.3.3	Material group.....	IIIb.	—
5.4.3.4	Creepage distances measurement.....	(See appended table 5.4.3)	P
5.4.4	Solid insulation		P
5.4.4.1	General requirements		P
5.4.4.2	Minimum distance through insulation .....	(See appended table 5.4.4.2)	P
5.4.4.3	Insulating compound forming solid insulation		P
5.4.4.4	Solid insulation in semiconductor devices		P
5.4.4.5	Insulating compound forming cemented joints		P
5.4.4.6	Thin sheet material		P
5.4.4.6.1	General requirements		P
5.4.4.6.2	Separable thin sheet material		P
	Number of layers (pcs) .....	Two layers of Insulating sleeve	P
5.4.4.6.3	Non-separable thin sheet material		N/A
	Number of layers (pcs) .....		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
5.4.4.6.4	Standard test procedure for non-separable thin sheet material.....	(See appended Table 5.4.9)	N/A
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, $E_P$ , $K_R$ , $d$ , $V_{PW}$ (V).....	(See appended table 5.4.4.9)	N/A
	Alternative by electric strength test, tested voltage (V), $K_R$ .....		N/A
5.4.5	Antenna terminal insulation	(See appended Table 5.4.9)	P
5.4.5.1	General		P
5.4.5.2	Voltage surge test		P
5.4.5.3	Insulation resistance (M $\Omega$ ) .....	Greater than 4M ohm	P
	Electric strength test.....		N/A
5.4.6	Insulation of internal wire as part of supplementary safeguard		N/A
5.4.7	Tests for semiconductor components and for cemented joints		N/A
5.4.8	Humidity conditioning		P
	Relative humidity (%), temperature ( $^{\circ}$ C), duration (h).....	93%,40 $^{\circ}$ C,120hrs	—
5.4.9	Electric strength test	(See appended Table 5.4.9)	P
5.4.9.1	Test procedure for type test of solid insulation ...	(See appended Table 5.4.9)	P
5.4.9.2	Test procedure for routine test		N/A
5.4.10	Safeguards against transient voltages from 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
5.4.10.3	Verification for insulation breakdown for impulse test.....		N/A
5.4.11	Separation between external circuits and earth		N/A
5.4.11.1	Exceptions to separation between external circuits and earth		N/A
5.4.11.2	Requirements		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	SPDs bridge separation between external circuit and earth		N/A
	Rated operating voltage $U_{op}$ (V) .....		—
	Nominal voltage $U_{peak}$ (V) .....		—
	Max increase due to variation $\Delta U_{sp}$ .....		—
	Max increase due to ageing $\Delta U_{sa}$ .....		—
5.4.11.3	Test method and compliance .....		N/A
5.4.12	Insulating liquid	No such part.	N/A
5.4.12.1	General requirements		N/A
5.4.12.2	Electric strength of an insulating liquid.....		N/A
5.4.12.3	Compatibility of an insulating liquid.....		N/A
5.4.12.4	Container for insulating liquid.....		N/A
<b>5.5</b>	<b>Components as safeguards</b>		P
5.5.1	General	See below.	P
5.5.2	Capacitors and RC units		N/A
5.5.2.1	General requirement		P
5.5.2.2	Safeguards against capacitor discharge after disconnection of a connector .....	(See appended table 5.5.2.2)	P
5.5.3	Transformers		P
5.5.4	Optocouplers		P
5.5.5	Relays		N/A
5.5.6	Resistors		N/A
5.5.7	SPDs		N/A
5.5.8	Insulation between the mains and an external circuit consisting of a coaxial cable.....		N/A
5.5.9	Safeguards for socket-outlets in outdoor equipment		N/A
	RCD rated residual operating current (mA) .....		—
<b>5.6</b>	<b>Protective conductor</b>		N/A
5.6.2	Requirement for protective conductors		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 ( $mm^2$ ) .....		—
	Protective earthing conductor serving as a reinforced safeguard		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Protective earthing conductor serving as a double safeguard		N/A
5.6.4	Requirements for protective bonding conductors		N/A
5.6.4.1	Protective bonding conductors		N/A
	Protective bonding conductor size (mm <sup>2</sup> ).....		—
5.6.4.2	Protective current rating (A) .....		N/A
5.6.5	Terminals for protective conductors		N/A
5.6.5.1	Terminal size for connecting protective earthing conductors (mm) .....		N/A
	Terminal size for connecting protective bonding conductors (mm).....		N/A
5.6.5.2	Corrosion		N/A
5.6.6	Resistance of the protective bonding system		N/A
5.6.6.1	Requirements		N/A
5.6.6.2	Test Method .....	(See appended table 5.6.6)	N/A
5.6.6.3	Resistance (Ω) or voltage drop .....	(See appended table 5.6.6)	N/A
5.6.7	Reliable connection of a protective earthing conductor		N/A
5.6.8	Functional earthing		N/A
	Conductor size (mm <sup>2</sup> ) .....		N/A
	Class II with functional earthing marking .....		N/A
	Appliance inlet cl & cr (mm) .....		N/A
<b>5.7</b>	<b>Prospective touch voltage, touch current and protective conductor current</b>		P
5.7.2	Measuring devices and networks		P
5.7.2.1	Measurement of touch current	(See appended table 5.2)	P
5.7.2.2	Measurement of voltage		P
5.7.3	Equipment set-up, supply connections and earth connections	Test setup with Figure 6 of IEC 60990:1999.	P
5.7.4	Unearthed accessible parts .....	(See appended table 5.7.4)	P
5.7.5	Earthed accessible conductive parts .....	(See appended table 5.7.5)	N/A
5.7.6	Requirements when touch current exceeds ES2 limits	Touch current does not exceed ES2 limit.	N/A
	Protective conductor current (mA) .....		N/A
	Instructional Safeguard .....		N/A
5.7.7	Prospective touch voltage and touch current associated with external circuits		N/A
5.7.7.1	Touch current from coaxial cables		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
5.7.7.2	Prospective touch voltage and touch current associated with paired conductor cables		N/A
5.7.8	Summation of touch currents from external circuits		N/A
	a) Equipment connected to earthed external circuits, current (mA).....		N/A
	b) Equipment connected to unearthed external circuits, current (mA).....		N/A
<b>5.8</b>	<b>Back feed safeguard in battery backed up supplies</b>		N/A
	Mains terminal ES .....		N/A
	Air gap (mm).....		N/A

<b>6</b>	<b>ELECTRICALLY- CAUSED FIRE</b>		P
<b>6.2</b>	<b>Classification of PS and PIS</b>		P
6.2.2	Power source circuit classifications.....:	(See appended table 6.2.2)	P
6.2.3	Classification of potential ignition sources		P
6.2.3.1	Arcing PIS .....	(See appended table 6.2.3.1)	P
6.2.3.2	Resistive PIS .....	(See appended table 6.2.3.2)	P
<b>6.3</b>	<b>Safeguards against fire under normal operating and abnormal operating conditions</b>		P
6.3.1	No ignition and attainable temperature value less than 90 % defined by ISO 871 or less than 300 °C for unknown materials .....	(See appended table B.1.5 and B.3)	P
	Combustible materials outside fire enclosure .....		P
<b>6.4</b>	<b>Safeguards against fire under single fault conditions</b>		P
6.4.1	Safeguard method	Control fire spread.	P
6.4.2	Reduction of the likelihood of ignition under single fault conditions in PS1 circuits		N/A
6.4.3	Reduction of the likelihood of ignition under single fault conditions in PS2 and PS3 circuits		P
6.4.3.1	Supplementary safeguards		P
6.4.3.2	Single Fault Conditions .....	(See appended table B.4)	P
	Special conditions for temperature limited by fuse		N/A
6.4.4	Control of fire spread in PS1 circuits		N/A
6.4.5	Control of fire spread in PS2 circuits		N/A
6.4.5.2	Supplementary safeguards		N/A



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Clause	Requirement + Test	Result - Remark	Verdict
6.4.6	Control of fire spread in PS3 circuits	Min. V-1 PCB used; All other components be mounted on Min. V-1 class material(PCB). V-0 plastic enclosure used as fire enclosure.	P
6.4.7	Separation of combustible materials from a PIS		P
6.4.7.2	Separation by distance		P
6.4.7.3	Separation by a fire barrier		N/A
6.4.8	Fire enclosures and fire barriers	V-0 plastic enclosure used as fire enclosure.	P
6.4.8.2	Fire enclosure and fire barrier material properties		P
6.4.8.2.1	Requirements for a fire barrier		N/A
6.4.8.2.2	Requirements for a fire enclosure	V-0 plastic enclosure used as fire enclosure.	P
6.4.8.3	Constructional requirements for a fire enclosure and a fire barrier		P
6.4.8.3.1	Fire enclosure and fire barrier openings		P
6.4.8.3.2	Fire barrier dimensions	No fire barrier	N/A
6.4.8.3.3	Top openings and properties	No openings.	N/A
	Openings dimensions (mm)..... :		N/A
6.4.8.3.4	Bottom openings and properties		N/A
	Openings dimensions (mm)..... :		N/A
	Flammability tests for the bottom of a fire enclosure		N/A
	Instructional Safeguard..... :		N/A
6.4.8.3.5	Side openings and properties		P
	Openings dimensions (mm)..... :	The diameter of the side circular opening is less than 1mm	P
6.4.8.3.6	Integrity of a fire enclosure, condition met: a), b) or c)..... :	No door or cover.	N/A
6.4.8.4	Separation of a PIS from a fire enclosure and a fire barrier distance (mm) or flammability rating..... :		N/A
6.4.9	Flammability of insulating liquid..... :	No insulating liquid	N/A
<b>6.5</b>	<b>Internal and external wiring</b>		P
6.5.1	General requirements	VW-1 rated	P
6.5.2	Requirements for interconnection to building wiring..... :		N/A
6.5.3	Internal wiring size (mm <sup>2</sup> ) for socket-outlets..... :		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
<b>6.6</b>	<b>Safeguards against fire due to the connection to additional equipment</b>		P

<b>7</b>	<b>INJURY CAUSED BY HAZARDOUS SUBSTANCES</b>		N/A
<b>7.2</b>	<b>Reduction of exposure to hazardous substances</b>		N/A
<b>7.3</b>	<b>Ozone exposure</b>		N/A
<b>7.4</b>	<b>Use of personal safeguards or personal protective equipment (PPE)</b>		N/A
	Personal safeguards and instructions .....		—
<b>7.5</b>	<b>Use of instructional safeguards and instructions</b>		N/A
	Instructional safeguard (ISO 7010).....		—
<b>7.6</b>	<b>Batteries and their protection circuits</b>		N/A

<b>8</b>	<b>MECHANICALLY-CAUSED INJURY</b>		P
<b>8.2</b>	<b>Mechanical energy source classifications</b>		P
<b>8.3</b>	<b>Safeguards against mechanical energy sources</b>		P
<b>8.4</b>	<b>Safeguards against parts with sharp edges and corners</b>		P
8.4.1	Safeguards	See ENERGY SOURCE IDENTIFICATION AND CLASSIFICATION TABLE.	P
	Instructional Safeguard.....		N/A
8.4.2	Sharp edges or corners	No sharp edge or corner	P
<b>8.5</b>	<b>Safeguards against moving parts</b>		P
8.5.1	Fingers, jewellery, clothing, hair, etc., contact with MS2 or MS3 parts	MS1	N/A
	MS2 or MS3 part required to be accessible for the function of the equipment		N/A
	Moving MS3 parts only accessible to skilled person		N/A
8.5.2	Instructional safeguard.....		N/A
8.5.4	Special categories of equipment containing moving parts		N/A
8.5.4.1	General		N/A
8.5.4.2	Equipment containing work cells with MS3 parts		N/A
8.5.4.2.1	Protection of persons in the work cell		N/A
8.5.4.2.2	Access protection override		N/A
8.5.4.2.2.1	Override system		N/A
8.5.4.2.2.2	Visual indicator		N/A
8.5.4.2.3	Emergency stop system		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Maximum stopping distance from the point of activation (m).....:		N/A
	Space between end point and nearest fixed mechanical part (mm).....:		N/A
8.5.4.2.4	Endurance requirements		N/A
	Mechanical system subjected to 100 000 cycles of operation		N/A
	- Mechanical function check and visual inspection		N/A
	- Cable assembly .....		N/A
8.5.4.3	Equipment having electromechanical device for destruction of media		N/A
8.5.4.3.1	Equipment safeguards		N/A
8.5.4.3.2	Instructional safeguards against moving parts .....		N/A
8.5.4.3.3	Disconnection from the supply		N/A
8.5.4.3.4	Cut type and test force (N).....:		N/A
8.5.4.3.5	Compliance		N/A
8.5.5	High pressure lamps		N/A
	Explosion test.....:		N/A
8.5.5.3	Glass particles dimensions (mm) .....		N/A
<b>8.6</b>	<b>Stability of equipment</b>		<b>P</b>
8.6.1	General	MS2	<b>P</b>
	Instructional safeguard.....:		N/A
8.6.2	Static stability		<b>P</b>
8.6.2.2	Static stability test .....	Unit does not slide or tip over at 10°	<b>P</b>
8.6.2.3	Downward force test		N/A
8.6.3	Relocation stability		N/A
	Wheels diameter (mm) .....		—
	Tilt test		N/A
8.6.4	Glass slide test	Unit does not slide or tip over at 10°	<b>P</b>
8.6.5	Horizontal force test .....		N/A
<b>8.7</b>	<b>Equipment mounted to wall, ceiling or other structure</b>		<b>N/A</b>
8.7.1	Mount means type .....		N/A
8.7.2	Test methods		N/A
	Test 1, additional downwards force (N).....:		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Test 2, number of attachment points and test force (N).....:		N/A
	Test 3 Nominal diameter (mm) and applied torque (Nm).....:		N/A
<b>8.8</b>	<b>Handles strength</b>		N/A
8.8.1	General	No such part.	N/A
8.8.2	Handle strength test		N/A
	Number of handles.....:		—
	Force applied (N) .....		—
<b>8.9</b>	<b>Wheels or casters attachment requirements</b>		N/A
8.9.2	Pull test	No such part.	N/A
<b>8.10</b>	<b>Carts, stands and similar carriers</b>		N/A
8.10.1	General	No such part.	N/A
8.10.2	Marking and instructions.....:		N/A
8.10.3	Cart, stand or carrier loading test		N/A
	Loading force applied (N) .....		N/A
8.10.4	Cart, stand or carrier impact test		N/A
8.10.5	Mechanical stability		N/A
	Force applied (N) .....		—
8.10.6	Thermoplastic temperature stability		N/A
<b>8.11</b>	<b>Mounting means for slide-rail mounted equipment (SRME)</b>		N/A
8.11.1	General	No such part.	N/A
8.11.2	Requirements for slide rails		N/A
	Instructional Safeguard.....:		N/A
8.11.3	Mechanical strength test		N/A
8.11.3.1	Downward force test, force (N) applied.....:		N/A
8.11.3.2	Lateral push force test		N/A
8.11.3.3	Integrity of slide rail end stops		N/A
8.11.4	Compliance		N/A
<b>8.12</b>	<b>Telescoping or rod antennas</b>		N/A
	Button/ball diameter (mm) .....		—

<b>9</b>	<b>THERMAL BURN INJURY</b>	P
<b>9.2</b>	<b>Thermal energy source classifications</b>	P
<b>9.3</b>	<b>Touch temperature limits</b>	P

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Clause	Requirement + Test	Result - Remark	Verdict
9.3.1	Touch temperatures of accessible parts .....	(See appended table) TS1	P
9.3.2	Test method and compliance		P
<b>9.4</b>	<b>Safeguards against thermal energy sources</b>		N/A
<b>9.5</b>	<b>Requirements for safeguards</b>		N/A
9.5.1	Equipment safeguard		N/A
9.5.2	Instructional safeguard.....		N/A
<b>9.6</b>	<b>Requirements for wireless power transmitters</b>		N/A
9.6.1	General		N/A
9.6.2	Specification of the foreign objects		N/A
9.6.3	Test method and compliance .....	(See appended table 9.6)	N/A

<b>10</b>	<b>RADIATION</b>		P
<b>10.2</b>	<b>Radiation energy source classification</b>		P
10.2.1	General classification		P
	Lasers .....		—
	Lamps and lamp systems.....	RS1: indicating lights	—
	Image projectors .....		—
	X-Ray .....		—
	Personal music player .....		—
<b>10.3</b>	<b>Safeguards against laser radiation</b>		N/A
	The standard(s) equipment containing laser(s) comply .....		N/A
<b>10.4</b>	<b>Safeguards against optical radiation from lamps and lamp systems (including LED types)</b>		N/A
10.4.1	General requirements		N/A
	Instructional safeguard provided for accessible radiation level needs to exceed		N/A
	Risk group marking and location .....		N/A
	Information for safe operation and installation		N/A
10.4.2	Requirements for enclosures		N/A
	UV radiation exposure .....		N/A
10.4.3	Instructional safeguard .....		N/A
<b>10.5</b>	<b>Safeguards against X-radiation</b>		N/A
10.5.1	Requirements		N/A
	Instructional safeguard for skilled persons .....		—

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Clause	Requirement + Test	Result - Remark	Verdict
10.5.3	Maximum radiation (pA/kg)..... :		—
<b>10.6</b>	<b>Safeguards against acoustic energy sources</b>		N/A
10.6.1	General		N/A
10.6.2	Classification		N/A
	Acoustic output $L_{Aeq,T}$ , dB(A)..... :		N/A
	Unweighted RMS output voltage (mV)..... :		N/A
	Digital output signal (dBFS)..... :		N/A
10.6.3	Requirements for dose-based systems		N/A
10.6.3.1	General requirements		N/A
10.6.3.2	Dose-based warning and automatic decrease		N/A
10.6.3.3	Exposure-based warning and requirements		N/A
	30 s integrated exposure level (MEL30) ..... :		N/A
	Warning for MEL $\geq$ 100 dB(A) ..... :		N/A
10.6.4	Measurement methods		N/A
10.6.5	Protection of persons		N/A
	Instructional safeguards ..... :		N/A
10.6.6	Requirements for listening devices (headphones, earphones, etc.)		N/A
10.6.6.1	Corded listening devices with analogue input		N/A
	Listening device input voltage (mV) ..... :		N/A
10.6.6.2	Corded listening devices with digital input		N/A
	Max. acoustic output $L_{Aeq,T}$ , dB(A) ..... :		N/A
10.6.6.3	Cordless listening devices		N/A
	Max. acoustic output $L_{Aeq,T}$ , dB(A) ..... :		N/A

<b>B</b>	<b>NORMAL OPERATING CONDITION TESTS, ABNORMAL OPERATING CONDITION TESTS AND SINGLE FAULT CONDITION TESTS</b>		P
<b>B.1</b>	<b>General</b>		P
B.1.5	Temperature measurement conditions	(See appended table B.1.5)	P
<b>B.2</b>	<b>Normal operating conditions</b>		P
B.2.1	General requirements ..... :	(See Test Item Particulars and appended test tables)	P
	Audio Amplifiers and equipment with audio amplifiers..... :		N/A
B.2.3	Supply voltage and tolerances		P
B.2.5	Input test ..... :	(See appended table B.2.5)	P

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Clause	Requirement + Test	Result - Remark	Verdict
<b>B.3</b>	<b>Simulated abnormal operating conditions</b>		P
B.3.1	General		P
B.3.2	Covering of ventilation openings		P
	Instructional safeguard..... :		P
B.3.3	DC mains polarity test		N/A
B.3.4	Setting of voltage selector	AC mains	N/A
B.3.5	Maximum load at output terminals		P
B.3.6	Reverse battery polarity		N/A
B.3.7	Audio amplifier abnormal operating conditions		N/A
B.3.8	Safeguards functional during and after abnormal operating conditions..... :	(See appended table B.3)	P
<b>B.4</b>	<b>Simulated single fault conditions</b>		P
B.4.1	General		P
B.4.2	Temperature controlling device	No such part.	N/A
B.4.3	Blocked motor test	No such part.	N/A
B.4.4	Functional insulation	(See appended table B.4)	P
B.4.4.1	Short circuit of clearances for functional insulation		P
B.4.4.2	Short circuit of creepage distances for functional insulation		P
B.4.4.3	Short circuit of functional insulation on coated printed boards		P
B.4.5	Short-circuit and interruption of electrodes in tubes and semiconductors	(See appended table B.4)	P
B.4.6	Short circuit or disconnection of passive components	(See appended table B.4)	P
B.4.7	Continuous operation of components		N/A
B.4.8	Compliance during and after single fault conditions ..... :	(See appended table B.4)	P
B.4.9	Battery charging and discharging under single fault conditions	(See Annex M)	N/A
<b>C</b>	<b>UV RADIATION</b>		N/A
<b>C.1</b>	<b>Protection of materials in equipment from UV radiation</b>		N/A
C.1.2	Requirements		N/A
C.1.3	Test method		N/A
<b>C.2</b>	<b>UV light conditioning test</b>		N/A
C.2.1	Test apparatus ..... :		N/A
C.2.2	Mounting of test samples		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
C.2.3	Carbon-arc light-exposure test		N/A
C.2.4	Xenon-arc light-exposure test		N/A
<b>D</b>	<b>TEST GENERATORS</b>		N/A
<b>D.1</b>	<b>Impulse test generators</b>		N/A
<b>D.2</b>	<b>Antenna interface test generator</b>		N/A
<b>D.3</b>	<b>Electronic pulse generator</b>		N/A
<b>E</b>	<b>TEST CONDITIONS FOR EQUIPMENT CONTAINING AUDIO AMPLIFIERS</b>		P
<b>E.1</b>	<b>Electrical energy source classification for audio signals</b>		P
	Maximum non-clipped output power (W).....:	Refer to table 4.1.2	—
	Rated load impedance ( $\Omega$ ) .....	Refer to table 4.1.2	—
	Open-circuit output voltage (V).....:	The signal voltage for this kind of speaker are considered to be within ES1 limit according to Table E.1.	—
	Instructional safeguard.....:	See Clause F.5	—
<b>E.2</b>	<b>Audio amplifier normal operating conditions</b>		P
	Audio signal source type.....:	(See table B.2.5)	—
	Audio output power (W) .....	(See table B.2.5)	—
	Audio output voltage (V) .....	(See table B.2.5)	—
	Rated load impedance ( $\Omega$ ) .....	(See table B.2.5)	—
	Requirements for temperature measurement	(See Table B.1.5)	P
E.3	Audio amplifier abnormal operating conditions	(See Table B.3, B.4)	P
<b>F</b>	<b>EQUIPMENT MARKINGS, INSTRUCTIONS, AND INSTRUCTIONAL SAFEGUARDS</b>		P
<b>F.1</b>	<b>General</b>		P
	Language .....	English	—
<b>F.2</b>	<b>Letter symbols and graphical symbols</b>		P
F.2.1	Letter symbols according to IEC60027-1		P
F.2.2	Graphic symbols according to IEC, ISO or manufacturer specific		P
<b>F.3</b>	<b>Equipment markings</b>		P
F.3.1	Equipment marking locations		P
F.3.2	Equipment identification markings		P
F.3.2.1	Manufacturer identification .....	See copy of marking plate	P
F.3.2.2	Model identification .....	See copy of marking plate	P
F.3.3	Equipment rating markings		P



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Clause	Requirement + Test	Result - Remark	Verdict
F.3.3.1	Equipment with direct connection to mains		P
F.3.3.2	Equipment without direct connection to mains		N/A
F.3.3.3	Nature of the supply voltage .....	~	P
F.3.3.4	Rated voltage .....	See copy of marking plate	P
F.3.3.5	Rated frequency .....	See copy of marking plate	P
F.3.3.6	Rated current or rated power .....	See copy of marking plate	P
F.3.3.7	Equipment with multiple supply connections	Single supply connection.	N/A
F.3.4	Voltage setting device	No such device.	N/A
F.3.5	Terminals and operating devices		P
F.3.5.1	Mains appliance outlet and socket-outlet markings .....	No such device.	N/A
F.3.5.2	Switch position identification marking .....		N/A
F.3.5.3	Replacement fuse identification and rating markings .....	The fuse rating "F1, T5A, 250VAC" marked on PCB of power supply	P
	Instructional safeguards for neutral fuse .....		N/A
F.3.5.4	Replacement battery identification marking .....	No battery.	N/A
F.3.5.5	Neutral conductor terminal		P
F.3.5.6	Terminal marking location		P
F.3.6	Equipment markings related to equipment classification		P
F.3.6.1	Class I equipment		P
F.3.6.1.1	Protective earthing conductor terminal .....		P
F.3.6.1.2	Protective bonding conductor terminals .....		P
F.3.6.2	Equipment class marking .....		P
F.3.6.3	Functional earthing terminal marking .....		N/A
F.3.7	Equipment IP rating marking .....	IPX0	N/A
F.3.8	External power supply output marking .....		N/A
F.3.9	Durability, legibility and permanence of marking	Marking is considered to be legible and easily discernible. See also 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
<b>F.4</b>	<b>Instructions</b>		<b>P</b>
	a) Information prior to installation and initial use		P

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Clause	Requirement + Test	Result - Remark	Verdict
	b) Equipment for use in locations where children not likely to be present		P
	c) Instructions for installation and interconnection		N/A
	d) Equipment intended for use only in restricted access area		N/A
	e) Equipment intended to be fastened in place		N/A
	f) Instructions for audio equipment terminals		N/A
	g) Protective earthing used as a safeguard		P
	h) Protective conductor current exceeding ES2 limits		N/A
	i) Graphic symbols used on equipment		N/A
	j) Permanently connected equipment not provided with all-pole mains switch		N/A
	k) Replaceable components or modules providing safeguard function		N/A
	l) Equipment containing insulating liquid		N/A
	m) Installation instructions for outdoor equipment		N/A
<b>F.5</b>	Instructional safeguards		P
<b>G</b>	<b>COMPONENTS</b>		P
<b>G.1</b>	<b>Switches</b>		P
G.1.1	General		P
G.1.2	Ratings, endurance, spacing, maximum load		P
G.1.3	Test method and compliance		P
<b>G.2</b>	<b>Relays</b>		N/A
G.2.1	Requirements		N/A
G.2.2	Overload test		N/A
G.2.3	Relay controlling connectors supplying power to other equipment		N/A
G.2.4	Test method and compliance		N/A
<b>G.3</b>	<b>Protective devices</b>		P
G.3.1	Thermal cut-offs	No such part.	N/A
	Thermal cut-outs separately approved according to IEC 60730 with conditions indicated in a) & b)		N/A
	Thermal cut-outs tested as part of the equipment as indicated in c)		N/A
G.3.1.2	Test method and compliance		N/A
G.3.2	Thermal links	No such part.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
G.3.2.1	a) Thermal links tested separately according to IEC 60691 with specifics		N/A
	b) Thermal links tested as part of the equipment		N/A
G.3.2.2	Test method and compliance		N/A
G.3.3	PTC thermistors	No such part.	N/A
G.3.4	Overcurrent protection devices		P
G.3.5	Safeguards components not mentioned in G.3.1 to G.3.4		P
G.3.5.1	Non-resettable devices suitably rated and marking provided		P
G.3.5.2	Single faults conditions .....		P
<b>G.4</b>	<b>Connectors</b>		P
G.4.1	Spacings	Approved appliance inlet and connector used.	P
G.4.2	Mains connector configuration .....	Approved appliance inlet and connector used.	P
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>		P
G.5.1	Wire insulation in wound components		P
G.5.1.2	Protection against mechanical stress		P
G.5.2	Endurance test		N/A
G.5.2.1	General test requirements		N/A
G.5.2.2	Heat run test		N/A
	Test time (days per cycle).....		—
	Test temperature (°C) .....		—
G.5.2.3	Wound components supplied from the mains		N/A
G.5.2.4	No insulation breakdown		N/A
G.5.3	Transformers		P
G.5.3.1	Compliance method .....		P
	Position .....		P
	Method of protection .....		P
G.5.3.2	Insulation		P
	Protection from displacement of windings .....		—
G.5.3.3	Transformer overload tests		P
G.5.3.3.1	Test conditions		P
G.5.3.3.2	Winding temperatures		P

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Clause	Requirement + Test	Result - Remark	Verdict
G.5.3.3.3	Winding temperatures - alternative test method		N/A
G.5.3.4	Transformers using FIW		N/A
G.5.3.4.1	General		N/A
	FIW wire nominal diameter .....		—
G.5.3.4.2	Transformers with basic insulation only		N/A
G.5.3.4.3	Transformers with double insulation or reinforced insulation .....		N/A
G.5.3.4.4	Transformers with FIW wound on metal or ferrite core		N/A
G.5.3.4.5	Thermal cycling test and compliance		N/A
G.5.3.4.6	Partial discharge test		N/A
G.5.3.4.7	Routine test		N/A
G.5.4	Motors		P
G.5.4.1	General requirements		P
G.5.4.2	Motor overload test conditions		N/A
G.5.4.3	Running overload test		N/A
G.5.4.4.2	Locked-rotor overload test		N/A
	Test duration (days) .....		—
G.5.4.5	Running overload test for DC motors		N/A
G.5.4.5.2	Tested in the unit		N/A
G.5.4.5.3	Alternative method		N/A
G.5.4.6	Locked-rotor overload test for DC motors	See appended table B.4	P
G.5.4.6.2	Tested in the unit		N/A
	Maximum Temperature .....		N/A
G.5.4.6.3	Alternative method	See appended table B.4	P
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>		P
G.6.1	General		P
G.6.2	Enamelled winding wire insulation		P
<b>G.7</b>	<b>Mains supply cords</b>		P
G.7.1	General requirements		P
	Type .....	See 4.1.2	—

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Clause	Requirement + Test	Result - Remark	Verdict
G.7.2	Cross sectional area (mm <sup>2</sup> or AWG)..... :	2X 0.75mm <sup>2</sup>	P
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)..... :		N/A
G.7.3.2.2	Strain relief mechanism failure		N/A
G.7.3.2.3	Cord sheath or jacket position, distance (mm) .....		N/A
G.7.3.2.4	Strain relief and cord anchorage 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	Test method and compliance		N/A
	Overall diameter or minor overall dimension, <i>D</i> (mm)..... :		—
	Radius of curvature after test (mm) .....		—
G.7.6	Supply wiring space		N/A
G.7.6.1	General requirements		N/A
G.7.6.2	Stranded wire		N/A
G.7.6.2.1	Requirements		N/A
G.7.6.2.2	Test with 8 mm strand		N/A
<b>G.8</b>	<b>Varistors</b>		P
G.8.1	General requirements		P
G.8.2	Safeguards against fire		N/A
G.8.2.1	General		N/A
G.8.2.2	Varistor overload test		N/A
G.8.2.3	Temporary overvoltage test		N/A
<b>G.9</b>	<b>Integrated circuit (IC) current limiters</b>		N/A
G.9.1	Requirements	No such part.	N/A
	IC limiter output current (max. 5A)..... :		—
	Manufacturers' defined drift .....		—
G.9.2	Test Program		N/A
G.9.3	Compliance		N/A
<b>G.10</b>	<b>Resistors</b>		N/A
G.10.1	General		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
G.10.2	Conditioning		N/A
G.10.3	Resistor test		N/A
G.10.4	Voltage surge test		N/A
G.10.5	Impulse test		N/A
G.10.6	Overload test		N/A
<b>G.11</b>	<b>Capacitors and RC units</b>		P
G.11.1	General requirements	Certified capacitor used.	P
G.11.2	Conditioning of capacitors and RC units		P
G.11.3	Rules for selecting capacitors		P
<b>G.12</b>	<b>Optocouplers</b>		P
	Optocouplers comply with IEC 60747-5-5 with specifics		P
	Type test voltage $V_{ini,a}$ .....:		—
	Routine test voltage, $V_{ini,b}$ .....:		—
<b>G.13</b>	<b>Printed boards</b>		P
G.13.1	General requirements		P
G.13.2	Uncoated printed boards		P
G.13.3	Coated printed boards	No such part.	N/A
G.13.4	Insulation between conductors on the same inner surface		N/A
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.13.6.2	Test method and compliance		N/A
<b>G.14</b>	<b>Coating on components terminals</b>		N/A
G.14.1	Requirements .....		N/A
<b>G.15</b>	<b>Pressurized liquid filled components</b>		N/A
G.15.1	Requirements		N/A
G.15.2	Test methods and compliance		N/A
G.15.2.1	Hydrostatic pressure test		N/A
G.15.2.2	Creep resistance test		N/A
G.15.2.3	Tubing and fittings compatibility test		N/A
G.15.2.4	Vibration test		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
G.15.2.5	Thermal cycling test		N/A
G.15.2.6	Force test		N/A
G.15.3	Compliance		N/A
<b>G.16</b>	<b>IC including capacitor discharge function (ICX)</b>		N/A
G.16.1	Condition for fault tested is not required	No such part.	N/A
	ICX with associated circuitry tested in equipment		N/A
	ICX tested separately		N/A
G.16.2	Tests		N/A
	Smallest capacitance and smallest resistance specified by ICX manufacturer for impulse test.....:		—
	Mains voltage that impulses to be superimposed on .....		—
	Largest capacitance and smallest resistance for ICX tested by itself for 10000 cycles test.....:		—
G.16.3	Capacitor discharge test .....		N/A
<b>H</b>	<b>CRITERIA FOR TELEPHONE RINGING SIGNALS</b>		N/A
<b>H.1</b>	<b>General</b>		N/A
<b>H.2</b>	<b>Method A</b>		N/A
<b>H.3</b>	<b>Method B</b>		N/A
H.3.1	Ringling 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		N/A
H.3.2.2	Tripping device		N/A
H.3.2.3	Monitoring voltage (V).....:		N/A
<b>J</b>	<b>INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION</b>		N/A
<b>J.1</b>	<b>General</b>		N/A
	Winding wire insulation .....		—
	Solid round winding wire, diameter (mm) .....		N/A
	Solid square and rectangular (flatwise bending) winding wire, cross-sectional area (mm <sup>2</sup> ).....:		N/A
<b>J.2/J.3</b>	Tests and Manufacturing	(See separate test report)	—

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Clause	Requirement + Test	Result - Remark	Verdict
<b>K</b>	<b>SAFETY INTERLOCKS</b>		N/A
<b>K.1</b>	<b>General requirements</b>		N/A
	Instructional safeguard..... :		N/A
<b>K.2</b>	<b>Components of safety interlock safeguard mechanism</b>		N/A
<b>K.3</b>	<b>Inadvertent change of operating mode</b>		N/A
<b>K.4</b>	<b>Interlock safeguard override</b>		N/A
<b>K.5</b>	<b>Fail-safe</b>		N/A
K.5.1	Under single fault condition		N/A
<b>K.6</b>	<b>Mechanically operated safety interlocks</b>		N/A
K.6.1	Endurance requirement		N/A
K.6.2	Test method and compliance..... :		N/A
<b>K.7</b>	<b>Interlock circuit isolation</b>		N/A
K.7.1	Separation distance for contact gaps & interlock circuit elements		N/A
	In circuit connected to mains, separation distance for contact gaps (mm)..... :		N/A
	In circuit isolated from mains, separation distance for contact gaps (mm)..... :		N/A
	Electric strength test before and after the test of K.7.2..... :	(See appended table 5.4.9)	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>		P
<b>L.1</b>	<b>General requirements</b>		P
<b>L.2</b>	<b>Permanently connected equipment</b>		N/A
<b>L.3</b>	<b>Parts that remain energized</b>		P
<b>L.4</b>	<b>Single-phase equipment</b>		P
<b>L.5</b>	<b>Three-phase equipment</b>		N/A
<b>L.6</b>	<b>Switches as disconnect devices</b>		N/A
<b>L.7</b>	<b>Plugs as disconnect devices</b>		N/A
<b>L.8</b>	<b>Multiple power sources</b>		N/A
	Instructional safeguard..... :		N/A
<b>M</b>	<b>EQUIPMENT CONTAINING BATTERIES AND THEIR PROTECTION CIRCUITS</b>		N/A
<b>M.1</b>	<b>General requirements</b>		N/A
<b>M.2</b>	<b>Safety of batteries and their cells</b>		N/A



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Clause	Requirement + Test	Result - Remark	Verdict
M.2.1	Batteries and their cells comply with relevant IEC standards .....		N/A
<b>M.3</b>	<b>Protection circuits for batteries provided within the equipment</b>		N/A
M.3.1	Requirements		N/A
M.3.2	Test method		N/A
	Overcharging of a rechargeable battery		N/A
	Excessive discharging	(See appended table M.3)	N/A
	Unintentional charging of a non-rechargeable battery		N/A
	Reverse charging of a rechargeable battery		N/A
M.3.3	Compliance	(See appended table M.3)	N/A
<b>M.4</b>	<b>Additional safeguards for equipment containing a portable secondary lithium battery</b>		N/A
M.4.1	General		N/A
M.4.2	Charging safeguards		N/A
M.4.2.1	Requirements		N/A
M.4.2.2	Compliance .....	(See appended table M.4.2)	N/A
M.4.3	Fire enclosure .....		N/A
M.4.4	Drop test of equipment containing a secondary lithium battery		N/A
M.4.4.2	Preparation and procedure for the drop test		N/A
M.4.4.3	Drop, Voltage on reference and dropped batteries (V); voltage difference during 24 h period (%): .....		N/A
M.4.4.4	Check of the charge/discharge function		N/A
M.4.4.5	Charge / discharge cycle test		N/A
M.4.4.6	Compliance		N/A
<b>M.5</b>	<b>Risk of burn due to short-circuit during carrying</b>		N/A
M.5.1	Requirement		N/A
M.5.2	Test method and compliance		N/A
<b>M.6</b>	<b>Safeguards against short-circuits</b>		N/A
M.6.1	External and internal faults		N/A
M.6.2	Compliance		N/A
<b>M.7</b>	<b>Risk of explosion from lead acid and NiCd batteries</b>		N/A
M.7.1	Ventilation preventing explosive gas concentration		N/A
	Calculated hydrogen generation rate.....		N/A
M.7.2	Test method and compliance		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Minimum air flow rate, $Q$ (m <sup>3</sup> /h) .....		N/A
M.7.3	Ventilation tests		N/A
M.7.3.1	General		N/A
M.7.3.2	Ventilation test – alternative 1		N/A
	Hydrogen gas concentration (%) .....		N/A
M.7.3.3	Ventilation test – alternative 2		N/A
	Obtained hydrogen generation rate .....		N/A
M.7.3.4	Ventilation test – alternative 3		N/A
	Hydrogen gas concentration (%) .....		N/A
M.7.4	Marking .....		N/A
<b>M.8</b>	<b>Protection against internal ignition from external spark sources of batteries with aqueous electrolyte</b>		N/A
M.8.1	General		N/A
M.8.2	Test method		N/A
M.8.2.1	General		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) .....		—
<b>M.9</b>	<b>Preventing electrolyte spillage</b>		N/A
M.9.1	Protection from electrolyte spillage		N/A
M.9.2	Tray for preventing electrolyte spillage		N/A
<b>M.10</b>	<b>Instructions to prevent reasonably foreseeable misuse</b>		N/A
	Instructional safeguard.....		P
<b>N</b>	<b>ELECTROCHEMICAL POTENTIALS</b>		P
	Material(s) used .....	Pollution degree considered. Electrochemical potentials less than 0.6V. (See appended tables 4.1.2)	—
<b>O</b>	<b>MEASUREMENT OF CREEPAGE DISTANCES AND CLEARANCES</b>		P
	Value of $X$ (mm).....	Considered	—
<b>P</b>	<b>SAFEGUARDS AGAINST CONDUCTIVE OBJECTS</b>		P
<b>P.1</b>	<b>General</b>		P
<b>P.2</b>	<b>Safeguards against entry or consequences of entry of a foreign object</b>		P
P.2.1	General	No opening	P
P.2.2	Safeguards against entry of a foreign object		P

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Clause	Requirement + Test	Result - Remark	Verdict
	Location and Dimensions (mm) .....	No openings of enclosure.	—
P.2.3	Safeguards against the consequences of entry of a foreign object		N/A
P.2.3.1	Safeguard requirements		N/A
	The ES3 and PS3 keep-out volume in Figure P.3 not applicable to transportable equipment		N/A
	Transportable equipment with metalized plastic parts .....		N/A
P.2.3.2	Consequence of entry test .....		N/A
<b>P.3</b>	<b>Safeguards against spillage of internal liquids</b>		N/A
P.3.1	General		N/A
P.3.2	Determination of spillage consequences		N/A
P.3.3	Spillage safeguards		N/A
P.3.4	Compliance		N/A
<b>P.4</b>	<b>Metallized coatings and adhesives securing parts</b>		N/A
P.4.1	General		N/A
P.4.2	Tests		N/A
	Conditioning, T <sub>c</sub> (°C).....		—
	Duration (weeks).....		—
<b>Q</b>	<b>CIRCUITS INTENDED FOR INTERCONNECTION WITH BUILDING WIRING</b>		P
<b>Q.1</b>	<b>Limited power sources</b>		P
Q.1.1	Requirements		P
	a) Inherently limited output		P
	b) Impedance limited output		N/A
	c) Regulating network limited output	(See appended table Q.1)	P
	d) Overcurrent protective device limited output		N/A
	e) IC current limiter complying with G.9		N/A
Q.1.2	Test method and compliance.....	(See appended table Q.1)	P
	Current rating of overcurrent protective device (A) .....		N/A
<b>Q.2</b>	<b>Test for external circuits – paired conductor cable</b>		N/A
	Maximum output current (A) .....		N/A
	Current limiting method.....		—
<b>R</b>	<b>LIMITED SHORT CIRCUIT TEST</b>		N/A
<b>R.1</b>	<b>General</b>		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
<b>R.2</b>	<b>Test setup</b>		N/A
	Overcurrent protective device for test..... :		—
<b>R.3</b>	<b>Test method</b>		N/A
	Cord/cable used for test..... :		—
<b>R.4</b>	<b>Compliance</b>		N/A
<b>S</b>	<b>TESTS FOR RESISTANCE TO HEAT AND FIRE</b>		N/A
<b>S.1</b>	<b>Flammability test for fire enclosures and fire barrier materials of equipment where the steady state power does not exceed 4 000 W</b>		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
<b>S.2</b>	<b>Flammability test for fire enclosure and fire barrier integrity</b>		
	Samples, material ..... :		—
	Wall thickness (mm)..... :		—
	Conditioning (°C)..... :		—
<b>S.3</b>	<b>Flammability test for the bottom of a fire enclosure</b>		N/A
S.3.1	Mounting of samples		N/A
S.3.2	Test method and compliance		N/A
	Mounting of samples ..... :		—
	Wall thickness (mm)..... :		—
<b>S.4</b>	<b>Flammability classification of materials</b>		N/A
<b>S.5</b>	<b>Flammability test for fire enclosure materials of equipment with a steady state power exceeding 4 000 W</b>		N/A
	Samples, material ..... :		—
	Wall thickness (mm)..... :		—
	Conditioning (°C)..... :		—
<b>T</b>	<b>MECHANICAL STRENGTH TESTS</b>		P
<b>T.1</b>	<b>General</b>		P
<b>T.2</b>	<b>Steady force test, 10 N</b> ..... :	(See appended table T.2)	P
<b>T.3</b>	<b>Steady force test, 30 N</b> ..... :		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
<b>T.4</b>	<b>Steady force test, 100 N</b> .....		N/A
<b>T.5</b>	<b>Steady force test, 250 N</b> .....	(See appended table T.5)	P
<b>T.6</b>	<b>Enclosure impact test</b>	(See appended table T.6)	P
	Fall test		P
	Swing test		P
<b>T.7</b>	<b>Drop test</b> .....		N/A
<b>T.8</b>	<b>Stress relief test</b> .....		P
<b>T.9</b>	<b>Glass Impact Test</b> .....		N/A
<b>T.10</b>	<b>Glass fragmentation test</b>		N/A
	Number of particles counted .....		N/A
<b>T.11</b>	<b>Test for telescoping or rod antennas</b>		N/A
	Torque value (Nm) .....		N/A
<b>U</b>	<b>MECHANICAL STRENGTH OF CATHODE RAY TUBES (CRT) AND PROTECTION AGAINST THE EFFECTS OF IMPLOSION</b>		N/A
<b>U.1</b>	<b>General</b>		N/A
	Instructional safeguard :		N/A
<b>U.2</b>	<b>Test method and compliance for non-intrinsically protected CRTs</b>		N/A
<b>U.3</b>	<b>Protective screen</b>		N/A
<b>V</b>	<b>DETERMINATION OF ACCESSIBLE PARTS</b>		P
<b>V.1</b>	<b>Accessible parts of equipment</b>		P
V.1.1	General		P
V.1.2	Surfaces and openings tested with jointed test probes		P
V.1.3	Openings tested with straight unjointed test probes		P
V.1.4	Plugs, jacks, connectors tested with blunt probe		P
V.1.5	Slot openings tested with wedge probe		N/A
V.1.6	Terminals tested with rigid test wire		N/A
<b>V.2</b>	<b>Accessible part criterion</b>		P
<b>X</b>	<b>ALTERNATIVE METHOD FOR DETERMINING CLEARANCES FOR INSULATION IN CIRCUITS CONNECTED TO AN AC MAINS NOT EXCEEDING 420 V PEAK (300 V RMS)</b>		N/A
	Clearance .....	(See appended table X)	N/A
<b>Y</b>	<b>CONSTRUCTION REQUIREMENTS FOR OUTDOOR ENCLOSURES</b>		N/A
<b>Y.1</b>	<b>General</b>		N/A
<b>Y.2</b>	<b>Resistance to UV radiation</b>		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
<b>Y.3</b>	<b>Resistance to corrosion</b>		N/A
<b>Y.3</b>	<b>Resistance to corrosion</b>		N/A
Y.3.1	Metallic parts of outdoor enclosures are resistant to effects of water-borne contaminants by.....:		N/A
Y.3.2	Test apparatus		N/A
Y.3.3	Water – saturated sulphur dioxide atmosphere		N/A
Y.3.4	Test procedure .....		N/A
Y.3.5	Compliance		N/A
<b>Y.4</b>	<b>Gaskets</b>		N/A
Y.4.1	General		N/A
Y.4.2	Gasket tests		N/A
Y.4.3	Tensile strength and elongation tests		N/A
	Alternative test methods .....		N/A
Y.4.4	Compression test		N/A
Y.4.5	Oil resistance		N/A
Y.4.6	Securing means	(See Annex P.4)	N/A
<b>Y.5</b>	<b>Protection of equipment within an outdoor enclosure</b>		N/A
Y.5.1	General		N/A
Y.5.2	Protection from moisture		N/A
	Relevant tests of IEC 60529 or Y.5.3 .....		N/A
Y.5.3	Water spray test		N/A
Y.5.4	Protection from plants and vermin		N/A
Y.5.5	Protection from excessive dust		N/A
Y.5.5.1	General		N/A
Y.5.5.2	IP5X equipment		N/A
Y.5.5.3	IP6X equipment		N/A
<b>Y.6</b>	<b>Mechanical strength of enclosures</b>		N/A
Y.6.1	General		N/A
Y.6.2	Impact test .....	(See Table T.6)	N/A

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Clause	Requirement + Test	Result - Remark	Verdict

<b>5.2</b>	<b>TABLE: Classification of electrical energy sources</b>						P
Supply Voltage	Location (e.g. circuit designation)	Test conditions	Parameters				ES Class
			U (V)	I (mA)	Type <sup>1)</sup>	Additional Info <sup>2)</sup>	
264Vac	Primary circuits	Normal	264Vrms	--	SS	60Hz	ES3 (declared)
264Vac	USB output(+, -)	Normal	4.95Vrms	--	SS	DC	ES1
		Abnormal	4.86Vrms	--	SS	DC	
		Output overload					
		Single fault R34 SC	0	--	SS	DC	
Supplementary information:							
1) Type: Steady state (SS), Capacitance (CP), Single pulse (SP), Repetitive pulses (RP), etc.							
2) Additional Info: Frequency, Pulse duration, Pulse off time, Capacitance value, etc.							

<b>5.4.1.8</b>	<b>TABLE: Working voltage measurement</b>					P
Location	RMS voltage (V)	Peak voltage (V)	Frequency (Hz)	Comments		
T1 primary winding to secondary winding	253	568	0.06	--		
U2	≤240	≤420	0.06	--		
CY1	≤240	≤420	0.06	--		
CY2	≤240	≤420	0.06	--		
Supplementary information:						

<b>5.4.1.10.2</b>	<b>TABLE: Vicat softening temperature of thermoplastics</b>				N/A
Method .....			ISO 306 / B50		—
Object/ Part No./Material	Manufacturer/trademark	Thickness (mm)	T softening (°C)		
Supplementary information:					

<b>5.4.1.10.3</b>	<b>TABLE: Ball pressure test of thermoplastics</b>			P
Allowed impression diameter (mm).....			≤ 2 mm	—

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Clause	Requirement + Test	Result - Remark		Verdict
Object/Part No./Material	Manufacturer/trademark	Thickness (mm)	Test temperature (°C)	Impression diameter (mm)
AC connector	See table 4.1.2	2.6	125	0.60
Supplementary information:				

5.4.2, 5.4.3 TABLE: Minimum Clearances/Creepage distance								P
Clearance (cl) and creepage distance (cr) at/of/between:	U <sub>p</sub> (V)	U <sub>rms</sub> (V)	Freq <sup>1)</sup> (Hz)	Required cl (mm)	cl (mm)	E.S. <sup>2)</sup> (V)	Required cr (mm)	cr (mm)
L to N before F1(BI)	≤420	≤240	0.06	2.3	4.2	--	2.4	4.2
Different polarity F1(BI)	≤420	≤240	0.06	2.3	2.5	--	2.4	2.5
Under CY1 (RI)	≤420	≤240	0.06	4.5	6.6	--	4.8	6.6
Under CY2 (RI)	≤420	≤240	0.06	4.5	6.6	--	4.8	6.6
Under U2(RI)	≤420	≤240	0.06	4.5	6.4	--	4.8	6.4
Primary trace to secondary trace under T1 (RI)	568	253	>30	4.5	6.6	--	5.1	6.6
Transformer primary winding to secondary winding (RI)	568	253	>30	4.5	7.0	--	5.1	7.0
Core of transformer to secondary winding (RI)	568	253	>30	4.5	7.0	--	5.1	7.0
Primary component to accessible enclosure(RI)	≤420	≤240	0.06	4.5	6.2	--	4.8	6.2
Supplementary information:								
1) Only for frequency above 30 kHz								
2) Complete Electric Strength voltage (E.S. (V) when 5.4.2.4 applied)								
3) Altitude up to 5000m.								
4) All internal secondary wires are fixed in position by tape so that it is far away from primary circuit.								

5.4.4.2 TABLE: Minimum distance through insulation					P
Distance through insulation (DTI) at/of	Peak voltage (V)	Insulation	Required DTI (mm)	Measured DTI (mm)	
Optocoupler	420	Reinforced insulation	0.4	<sup>1)</sup>	
Bobbin of T1	568	Reinforced insulation	0.4	0.45 min.	
Supplementary information:					
<sup>1)</sup> For details refer to appended table 4.1.2.					

5.4.4.9 TABLE: Solid insulation at frequencies >30 kHz						N/A
Insulation material	E <sub>p</sub>	Frequency (kHz)	K <sub>R</sub>	Thickness d (mm)	Insulation	V <sub>PW</sub> (Vpk)
Supplementary information:						



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Clause	Requirement + Test	Result - Remark	Verdict

5.4.9	TABLE: Electric strength tests			P
Test voltage applied between:	Voltage shape (Surge, Impulse, AC, DC, etc.)	Test voltage (V)	Breakdown Yes / No	
Basic/supplementary:				
Unit: L to N (fuse disconnected)	DC	2500	No	
Reinforced:				
L/N to plastic enclosure (with foil metal)	DC	4000	No	
L/N to USB terminal	DC	4000	No	
Supplementary information:				
--				

5.5.2.2	TABLE: Stored discharge on capacitors					P
Location	Supply voltage (V)	Operating and fault condition <sup>1)</sup>	Switch position	Measured voltage (Vpk)	ES Class	
L/N	264V, 60Hz	Normal	ON	0Vpk	ES1	
L/N	264V, 60Hz	R8 OC	ON	4Vpk	ES1	
Supplementary information:						
X-capacitors installed for testing: .						
[X] bleeding resistor rating: .						
[ ] ICX:						
1) Normal operating condition (e.g., normal operation, or open fuse), SC= short circuit, OC= open circuit						

5.6.6	TABLE: Resistance of protective conductors and terminations				N/A
Location	Test current (A)	Duration (min)	Voltage drop (V)	Resistance (Ω)	
Supplementary information:					

5.7.4	TABLE: Unearthed accessible parts					P
Location	Operating and fault conditions	Supply Voltage (V)	Parameters			ES class
			Voltage (V <sub>rms</sub> or V <sub>pk</sub> )	Current (A <sub>rms</sub> or A <sub>pk</sub> )	Freq. (Hz)	
USB output	Normal	264Vac	0.430V <sub>rms</sub>	0.861 A <sub>pk</sub>	--	ES1
USB output	Single fault – R34 SC	264Vac	0.488V <sub>rms</sub>	0.952A <sub>pk</sub>	--	ES1
Supplementary information:						

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Clause	Requirement + Test	Result - Remark	Verdict

Abbreviation: SC= short circuit; OC= open circuit

5.7.5	TABLE: Earthed accessible conductive part			N/A
Supply voltage (V) .....				—
Phase(s) .....	[ ] Single Phase; [ ] Three Phase: [ ] Delta [ ] Wye			
Power Distribution System .....	[ ] TN [ ] TT [ ] IT			
Location	Fault Condition No in IEC 60990 clause 6.2.2	Touch current (mA)	Comment	
	1			
	2*			
	3			
	4			
	5			
	6			
	8			
Supplementary Information:				
Notes:				
[1] Supply voltage is the anticipated maximum Touch Voltage				
[2] Earthed neutral conductor [Voltage differences less than 1% or more]				
[3] Specify method used for measurement as described in IEC 60990 sub-clause 4.3				
[4] IEC60990, sub-clause 6.2.2.7, Fault 7 not applicable.				
[5] (*) IEC60990, sub-clause 6.2.2.2 is not applicable if switch or disconnect device (e.g., appliance coupler) provided.				

5.8	TABLE: Backfeed safeguard in battery backed up supplies					N/A
Location	Supply voltage (V)	Operating and fault condition	Time (s)	Open-circuit voltage (V)	Touch current (A)	ES Class
Supplementary information:						
Abbreviation: SC= short circuit, OC= open circuit						

6.2.2	TABLE: Power source circuit classifications					P
Location	Operating and fault condition	Voltage (V)	Current (A)	Max. Power <sup>1)</sup> (W)	Time (S)	PS class
All primary circuit	--	--	--	--	--	PS3 (declared)
USB Output	Normal	3.03	0.3	0.89	>3s	PS1

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Clause	Requirement + Test	Result - Remark				Verdict
	Single fault – R34 SC	0	0	0	>3s	
Supplementary information:						
Abbreviation: SC= short circuit; OC= open circuit						
1) Measured after 3 s for PS1 and measured after 5 s for PS2 and PS3.						

6.2.3.1	TABLE: Determination of Arcing PIS				P
Location	Open circuit voltage after 3 s (Vpk)	Measured r.m.s current (A)	Calculated value	Arcing PIS? Yes / No	
All circuits	--	--	--	Yes (declared)	
Supplementary information:					

6.2.3.2	TABLE: Determination of resistive PIS			P
Location	Operating and fault condition	Dissipate power (W)		Arcing PIS? Yes / No
All circuits	--	--		Yes
Supplementary information:				
Abbreviation: SC= short circuit; OC= open circuit				

8.5.5	TABLE: High pressure lamp				N/A
Lamp manufacturer	Lamp type	Explosion method	Longest axis of glass particle (mm)	Particle found beyond 1 m Yes / No	
Supplementary information:					

9.6	TABLE: Temperature measurements for wireless power transmitters								N/A
Supply voltage (V) .....									—
Max. transmit power of transmitter (W) .....									—
Foreign objects	w/o receiver and direct contact		with receiver and direct contact		with receiver and at distance of 2 mm		with receiver and at distance of 5 mm		
	Object (°C)	Ambient (°C)	Object (°C)	Ambient (°C)	Object (°C)	Ambient (°C)	Object (°C)	Ambient (°C)	
Supplementary information:									

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Clause	Requirement + Test	Result - Remark	Verdict

<b>5.4.1.4, 9.3, B.1.5, B.2.6</b>	<b>TABLE: Temperature measurements</b>					P	
Supply voltage (V) .....	90Vac	90Vac	264Vac	264Vac	—		
Ambient temperature during test $T_{amb}$ (°C) ....	See below				—		
Maximum measured temperature $T$ of part/at:	$T$ (°C)				Allowed $T_{max}$ (°C)		
AC connector	30.3	54.5	29.3	54.0	85		
CX1	35.4	59.6	34.1	58.8	100		
LF3 coil	33.8	58.0	33.4	58.1	130		
LF4 coil	36.1	60.3	33.9	58.6	130		
EC1	33.8	58.0	34.7	59.4	105		
PCB near Q2	37.7	61.9	41.0	65.7	130		
CY2	32.0	56.2	33.1	57.8	125		
Optocoupler U2	32.2	56.4	33.3	58.0	100		
T1 coil	39.5	63.7	42.4	67.1	90		
T1 bobbin	37.9	62.1	40.4	65.1	--		
PCB near D2	33.8	58.0	35.4	60.1	130		
LF2 coil	28.3	52.5	28.7	53.4	130		
EC2	30.3	54.5	31.3	56.0	105		
PCB near IC	23.9	48.1	23.3	48.0	130		
Internal plastic enclosure	44.0	68.2	44.1	68.8	94		
PCB near BD1	33.9	58.1	32.3	57.0	130		
Primary Internal wire	24.5	48.7	24.1	48.8	105		
Ambient	20.8	45.0	20.3	45.0	--		
<b>For accessible parts:</b>							
External wood enclosure	22.2	26.4	21.5	26.2	107		
Switch	25.2	29.4	24.5	29.2	77		
External plastic enclosure	26.6	30.8	25.8	30.5	77		
AC inlet	26.0	30.2	25.2	29.9	70		
Ambient	20.8	25.0	20.3	25.0	--		
Temperature $T$ of winding:	$t_1$ (°C)	$R_1$ ( $\Omega$ )	$t_2$ (°C)	$R_2$ ( $\Omega$ )	$T$ (°C)	Allowed $T_{max}$ (°C)	Insulation class
Supplementary information:							

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Clause	Requirement + Test	Result - Remark	Verdict

B.2.5 TABLE: Input test								P
U (V)	Hz	I (A)	I rated (A)	P (W)	P rated (W)	Fuse No	I fuse (A)	Condition/status
90Vac	50	0.468	--	23.3	--	F1	0.468	Maximum load
100Vac	50	0.422	1.5	23.2	--	F1	0.422	
220Vac	50	0.294	1.5	23.0	--	F1	0.294	
240Vac	50	0.291	1.5	22.4	--	F1	0.291	
264Vac	50	0.276	--	23.3	--	F1	0.276	
90Vac	60	0.437	--	23.5	--	F1	0.437	
100Vac	60	0.401	1.5	23.40	--	F1	0.401	
220Vac	60	0.226	1.5	23.18	--	F1	0.226	
240Vac	60	0.216	1.5	23.23	--	F1	0.216	
264Vac	60	0.198	--	23.68	--	F1	0.198	
Supplementary information:								
1. Maximum load: 1/8 Maximum non-clipped output power to speakers: Output power(RMS): 120W(60WX2)								

B.3, B.4 TABLE: Abnormal operating and fault condition tests							P
Ambient temperature T <sub>amb</sub> (°C).....						45	—
Power source for EUT: Manufacturer, model/type, output rating....						--	—
Component No.	Condition	Supply voltage (V)	Test time	Fuse no.	Fuse current (A)	Observation	
Speaker	SC	90	1h45mins	F1	0.096	Unit operated normally. No damaged, no hazards.The stable temperature rises were obtained. Ambient = 45.0°C T1 coil=77.4°C PCB near Q2 =117.7°C	
Speaker	Max. non-clipped	90	1h20mins	F1	2.533	Unit operated normally. No damaged, no hazards.The stable temperature rises were obtained. Ambient = 45.0°C T1 coil=84.4°C PCB near Q2 =131.2°C	
USB output	OL	90	1h30mins	F1	0.463	Unit operated normally except USB output shut down when load increase to 0.6A. No damaged, no hazards. The stable temperature rises were obtained. Ambient = 45.0°C T1 coil=75.7°C PCB near Q2 =91.7°C	

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Clause	Requirement + Test				Result - Remark	Verdict
USB output	SC	90	1h30mins	F1	0.51	Unit operated normally. No damaged, no hazards. The stable temperature rises were obtained. Ambient = 45.0°C T1 coil=75.7°C PCB near Q2 =80.5°C
EC3	SC	264	10mins	F1	0.01	Unit shut down immediately, no hazards
Q2 G-S	SC	264	10mins	F1	0.01	Unit shut down immediately, no hazards
Q2 G-D	SC	264	<1s	F1	0	Fuse opened immediately, no hazards.
Q2 D-S	SC	264	<1s	F1	0	Fuse opened immediately, no hazards.
BD1	SC	264	<1s	F1	0	Fuse opened immediately, no hazards.
EC1	SC	264	<1s	F1	0	Fuse opened immediately, no hazards.
Supplementary information:						
Test table is provided to record abnormal and fault conditions for all applicable energy sources including Thermal burn injury. Column "Abnormal/Fault." Specify if test condition by indicating "Abnormal" then the condition for a Clause B.3 test or "Single Fault" then the condition for Clause B.4. 1)SC: Short-circuited; OC: Open-circuited; OL: Overloaded.						

M.3	TABLE: Protection circuits for batteries provided within the equipment						N/A
Is it possible to install the battery in a reverse polarity position? .....		No				—	
Equipment Specification	Charging						
	Voltage (V)			Current (A)			
	--			--			
Manufacturer/type	Battery specification						
	Non-rechargeable batteries		Rechargeable batteries				
	Discharging current (A)	Unintentional charging current (A)	Charging		Discharging current (A)	Reverse charging current (A)	
			Voltage (V)	Current (A)			
	--	--	--	--	--	--	
Note: The tests of M.3.2 are applicable only when above appropriate data is not available.							
Specified battery temperature (°C).....		--				--	
Component No.	Fault condition	Charge/discharge mode	Test time	Temp. (°C)	Current (A)	Voltage (V)	Observation
Supplementary information:							
Abbreviation: SC= short circuit; OC= open circuit NL= no chemical leakage; NS= no spillage of liquid; NE=							

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Clause	Requirement + Test	Result - Remark	Verdict

no explosion; NF= no emission of flame or expulsion of molten metal.

M.4.2	TABLE: Charging safeguards for equipment containing a secondary lithium battery			N/A	
Maximum specified charging voltage (V) .....				—	
Maximum specified charging current (A) .....				—	
Highest specified charging temperature (°C) .....					
Lowest specified charging temperature (°C) .....					
Battery manufacturer/type	Operating and fault condition	Measurement			Observation
		Charging voltage (V)	Charging current (A)	Temp. (°C)	
Supplementary information:					
Abbreviation: SC= short circuit; OC= open circuit; MSCV= maximum specified charging voltage; MSCC= maximum specified charging current; HSCT= highest specified charging temperature; LSCT= lowest specified charging temperature					

Q.1	TABLE: Circuits intended for interconnection with building wiring (LPS)						P
Output Circuit	Condition	U <sub>oc</sub> (V)	Time (s)	I <sub>sc</sub> (A)		S (VA)	
				Meas.	Limit	Meas.	Limit
USB output	Normal	3.03	5	0.3	8	0.89	100
USB output	Single fault: R34 SC	0	5	0	8	0	100
Supplementary Information:							
SC=Shortcircuit,OC=Opencircuit							

T.2, T.3, T.4, T.5	TABLE: Steady force test						P
Location/Part	Material	Thickness (mm)	Probe	Force (N)	Test Duration (s)	Observation	
Internal components	--	--	--	10	5	No damaged, No hazards	
Internal parts	--	--	--	10	5	No damaged, No hazards	
Enclosure Top	See table 4.1.2	See table 4.1.2	--	250	5	No damaged, No hazards	

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Clause	Requirement + Test			Result - Remark		Verdict
Enclosure Side	See table 4.1.2	See table 4.1.2	--	250	5	No damaged, No hazards
Enclosure Bottom	See table 4.1.2	See table 4.1.2	--	250	5	No damaged, No hazards
Supplementary information:						

T.6, T.9	TABLE: Impact test				P
Location/Part	Material	Thickness (mm)	Height (mm)	Observation	
Enclosure Top	See table 4.1.2	See table 4.1.2	1300	No damaged, No hazards	
Enclosure Side	See table 4.1.2	See table 4.1.2	1300	No damaged, No hazards	
Enclosure Bottom	See table 4.1.2	See table 4.1.2	1300	No damaged, No hazards	
Supplementary information:					

T.7	TABLE: Drop test				N/A
Location/Part	Material	Thickness (mm)	Height (mm)	Observation	
Supplementary information:					

T.8	TABLE: Stress relief test					P
Location/Part	Material	Thickness (mm)	Oven Temperature (°C)	Duration (h)	Observation	
External plastic enclosure	See table 4.1.2	See table 4.1.2	78.8	7	All safeguards remained effective.	
Supplementary information:						

X	TABLE: Alternative method for determining minimum clearances distances			N/A
Clearance distanced between:	Peak of working voltage (V)	Required cl (mm)	Measured cl (mm)	
Supplementary information:				



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Clause	Requirement + Test	Result - Remark	Verdict

4.1.2 TABLE: List of critical components						P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity1)	
Power plug (EU Type)	Shenzhen Xiekang Electric Co., Ltd.	AC Plug / XK-01	250V AC, 2.5A	EN 50075 : 1990	VDE (40009009)	
(Alternative)	Interchangeable	Interchangeable	250V AC, 2.5A	EN 50075 : 1990	VDE	
Power connector	Shenzhen Xiekang Electric Co., Ltd.	AC Connector / XK-05	250V AC, 2.5A	EN 60320-1:2001 + A1 :2007	VDE (40018650)	
(Alternative)	Interchangeable	Interchangeable	250V AC, 2.5A	EN 60320-1:2001 + A1 :2007	VDE	
Power cord	Shenzhen Xiekang Electric Co., Ltd.	AC Cord/ HV03VVH2-F	2X 0.75mm <sup>2</sup>	EN 50525-2-11:2011	VDE (40029225)	
(Alternative)	Interchangeable	Interchangeable	2X 0.75mm <sup>2</sup>	EN 50525-2-11:2011	VDE	
Power plug (UK Type / Singapore Type)	Shenzhen Xiekang Electric Co., Ltd.	AC Plug / XK-28	250V AC, 3A	BS 1363-1: 2016 +A1:2018 SS 145 :Part 1 : 2010	ASTA Licesne No. 972 Singapore Safety (170016-12)	
(Alternative)	Interchangeable	Interchangeable	250V AC, 3A	BS 1363-1: 2016 +A1:2018 SS 145 :Part 1 : 2010	ASTA or VDE	
Power connector	Shenzhen Xiekang Electric Co., Ltd.	AC connector / XK-05	250V AC, 2.5A	EN 60320-1:2001 + A1:2007	VDE (40018650)	
(Alternative)	Interchangeable	Interchangeable	250V AC, 2.5A	EN 60320-1:2001 + A1:2007	VDE	
Power cord	Shenzhen Xiekang Electric Co., Ltd.	AC Cord / HV03VVH2-F	2X 0.75mm <sup>2</sup>	EN 50525-2-11:2011	VDE (40029225)	
(Alternative)	Interchangeable	Interchangeable	2X 0.75mm <sup>2</sup>	EN 50525-2-11:2011	VDE	
Power plug (US Type)	Shenzhen Xiekang Electric Co Ltd	AC Plug / XK-03	7A, 125V AC	UL 817	E236618	
(Alternative)	Interchangeable	Interchangeable	7A, 125V AC	UL 817	UL	
Power connector	Shenzhen Xiekang Electric Co Ltd	AC Connector / XK-05	7A, 125V AC	UL 817	E236618	
(Alternative)	Interchangeable	Interchangeable	7A, 125V AC	UL 817	UL	
Power cord	HONGKONG XIE KANG INDUSTRIAL CO LTD	AC Cord/ NISPT-2	2C 18 AWG	UL 62	E313344	
(Alternative)	Interchangeable	Interchangeable	2C 18 AWG	UL 62	UL	
Power plug (Japan Type)	Shenzhen Xiekang Electric Co., Ltd.	AC Plug / XK-13	7A, 125V AC	METI Ordinance	JET2510-43001-1003	

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Clause	Requirement + Test	Result - Remark	Verdict

4.1.2 TABLE: List of critical components						P
Object/part No.	Manufacturer/trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity1)	
				Appendix 4 Section 1 , Section 6 AND Appendix 10 Chapter 5		
(Alternative)	Interchangeable	Interchangeable	7A, 125V AC	METI Ordinance  Appendix 4 Section 1 , Section 6 AND Appendix 10 Chapter 5	JET	
Power connector	Shenzhen Xiekang Electric Co., Ltd.	AC Connector / XK-05	7A, 125V AC	METI Ordinance  Appendix 4 Section 1 , Section 6 AND Appendix 10 Chapter 5	JET2510-43006-1001	
(Alternative)	Interchangeable	Interchangeable	7A, 125V AC	METI Ordinance  Appendix 4 Section 1 , Section 6 AND Appendix 10 Chapter 5	JET	
Power cord	Shenzhen Xiekang Electric Co., Ltd.	AC Cord / VCTFK	0.75X2C	METI Ordinance  Appendix 4 Section 1 , Section 6 AND Appendix 10 Chapter 5	JET2510-12009-1003	
(Alternative)	Interchangeable	Interchangeable	0.75X2C	METI Ordinance  Appendix 4 Section 1 , Section 6 AND Appendix 10 Chapter 5	JET	
Power plug (Australia Type)	Unirise Electric Wire & Cable Co Ltd	AC Plug / UE 231	250V AC, 10A	AS/NZS 3121:2011+A1-3 (see comment)	NSW COA (NSW18626) (see comment)	
(Alternative)	Interchangeable	Interchangeable	250V AC, 10A	AS/NZS 3121:2011+A1-3 (see comment)	NSW COA	

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Clause	Requirement + Test	Result - Remark	Verdict

4.1.2 TABLE: List of critical components						P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity1)	
Power connector	Unirise Electric Wire & Cable Co Ltd	AC Connector / UE 224	250V AC, 2.5A	AS/NZS 60320.1:2004	NSW COA (NSW23534)	
(Alternative)	Interchangeable	Interchangeable	250V AC, 2.5A	AS/NZS 60320.1:2004	NSW COA	
Power cord	Unirise Electric Wire & Cable Co Ltd	AC Cord / H03VVH2-F	2X 0.75mm <sup>2</sup>	AS/NZS 3191 :2003	NSW COA (NSW23360)	
(Alternative)	Interchangeable	Interchangeable	2X 0.75mm <sup>2</sup>	AS/NZS 3191 :2003	NSW COA	
Plastic enclosure	NINGBO LG YONGXING CHEMICAL CO LTD	FR-500	ABS, V-0, 60°C. Min. thickness 2.0 mm.	UL 94, UL 796	E203955	
Wood enclosure	Fengkai Weilibang Wooding Co., Ltd	--	Min. thickness 6mm	EN 62368-1	Tested with appliance	
(Alternative)	Interchangeable	Interchangeable	Min.thickness 6mm	EN 62368-1	Tested with appliance	
Switch	ZHEJIANG ZHONGXUN ELECTRONICS CO., LTD.	KCD1-104	10(6)A 250VAC 10E3,T85/55,GWT=850°C	IEC/EN 61058-1 UL 61058-1 CAN/CSA-C22.2 No.61058-1	TUV RH R50049218 UL E203463	
AC inlet	ZHEJIANG LECI ELECTRONICS CO LTD	DB-8-Serie (s)	Type C8, 2.5A, 250Vac, 70°C	IEC/EN 60320-1 UL 60320-1	UL : E302229 VDE : 40032028	
(Alternative)	Interchangeable	Interchangeable	Type C8, 2.5A, 250Vac, 70°C	IEC/EN 60320-1 UL 60320-1	UL VDE	
Speaker	Interchangeable	Interchangeable	Bass:4Ω×2, Max.30W High:8Ω×2, Max.15W	EN 62368-1	Tested with appliance	
Heat shrinkable tube	DONGGUAN SALIPT CO LTD	S-901-DWT	600V 125°C ,VW-1,	UL224	UL E209436	
(Alternative)	Interchangeable	Interchangeable	600V 125 °C ,VW-1, Thick:0.4mm	UL224	UL approved	
All PCB	SHEN ZHEN SUN & LYNN CIRCUITS CO LTD	SL-D	V-0, 130°C, UL795	UL 94, UL 796	E234156	
(Alternative)	SHEN ZHEN SUN & LYNN CIRCUITS CO LTD	SL-M	V-0, 130°C, UL795	UL 94, UL 796	E234156	
(Alternative)	SHENZHEN YINGHAIXING YE	YH-1	V-0, 130°C, UL796	UL 94, UL 796	E487319	

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Clause	Requirement + Test	Result - Remark	Verdict

4.1.2 TABLE: List of critical components						P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity1)	
	ELECTRONIC CO LTD					
(Alternative)	Interchangeable	Interchangeable	V-0 or better, min.130°C, UL 796	UL 94, UL 796	UL	
AC connector (CON1)	ZHEJIANG JINDA ELECTRONICS CO LTD	3.96T-02	Rated 250V,7A, 85°C	UL1977	E237523	
(Alternative)	Interchangeable	Interchangeable	Rated 250V,7A, 85°C	UL1977	UL	
Fuse ( F1)	XC ELECTRONICS (S HENZHEN)CO RP LTD	5TE	T5A, 250VAC	EN 60127-1:2006+A1:2011+A2:2015	UL: E249609 VDE:40036821	
(Alternative)	Interchangeable	Interchangeable	Interchangeable	EN 60127-1:2006+A1:2011+A2:2015	UL approved VDE	
X2 capacitor CX1 CX2	ZONKAS ELECTRONIC CO LTD	MPX	Max. 0.22uF, min 250Vac, 100°C, X2 type	UL 1414, IEC 60384-14	UL : 258931 VDE: 40051773	
(Alternative)	WINDAY ELECTRONIC (DONG GUAN) CO LTD	MPX Serie(s)	Max. 0.22uF, min 250Vac, 100°C, X2 type	UL 1414, IEC 60384-14	UL : E302125 VDE: 40030283	
(Alternative)	HSUAN TAI ELECTRONICS CO LTD	MCY Series	Max. 0.22uF, min 250Vac, 100°C, X2 type	UL 1414, IEC 60384-14	UL: E199069, VDE: 125205	
(Alternative)	SHANTOU HIGH-NEW TECHNOLOGY DEVELOPMNT ZONE SONGTIAN ENTERPRISE CO LTD	MPX	Max. 0.22uF, min 250Vac, 100°C, X2 type	UL 1414, IEC 60384-14	UL:E208107 VDE:40034679	
Y1 capacitor (CY1,CY2)	ZONKAS ELECTRONIC CO LTD	ZD	400V, 2200pF, 125°C, Y1 type	UL 1414, IEC 60384-14	UL : E258931 VDE:40017350 CQC060010153 12	
(Alternative)	Hongzhi Enterprises Ltd.,	Y	400Vac, max.2200pF, 125°C, Y1 type	UL 1414, IEC 60384-14	UL : E192572 VDE: 40038760	
(Alternative)	SHENZHEN HAOTIAN ELECTRONIC CO LTD	HT	400Vac, max.2200pF, 125°C, Y1 type	UL 1414, IEC 60384-14	UL: E326483, VDE:40029300	
(Alternative)	JYH CHUNG ELECTRONICS	JD	400Vac, max.2200pF,	UL 1414, IEC 60384-14	UL: E187963, VDE: 137027	

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Clause	Requirement + Test	Result - Remark	Verdict

4.1.2 TABLE: List of critical components						P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity1)	
	CO LTD		125°C, Y1 type			
(Alternative)	SHANTOU HIGH-NEW TECHNOLOGY DEVELOPMNT ZONE SONGTIAN ENTERPRISE CO LTD	CD	400Vac, max.2200pF, 125°C, Y1 type	UL 1414, IEC 60384-14	UL: E208107, VDE:40025754	
Optocoupler U2	EVERLIGHT ELECTRONICS CO LTD	EL817	Internal Cr: 6.0mm; External Cr: 7.7mm; DTI: 0.5mm; Isolation voltage: 5000 Vac. min.100°C	IEC 60747-5-2 UL 1577	UL : E214129 VDE: 132249	
(Alternative)	Interchangeable	Interchangeable	Internal Cr: 6.0mm; External Cr: 7.7mm; DTI: 0.5mm; Isolation voltage: 5000 Vac. min.100°C	IEC 60747-5-2 UL 1577	UL approved VDE	
Electrolytic Capacitor EC1,EC4	Interchangeable	Interchangeable	Rated 400V, Max.100µF, 105°C	EN 62368-1	Tested with appliance	
Rectifier Bridge BD1	Interchangeable	Interchangeable	min. 800V, min.6A.	EN 62368-1	Tested with appliance	
Mosfet	Interchangeable	Interchangeable	Q1, min.650V, min.16A	EN 62368-1	Tested with appliance	
Bleeder resistors (R5, R7, R8, R38)	Interchangeable	Interchangeable	each rated 1.5M Ω /1206 , 1/4W	EN 62368-1	Tested with appliance	
Line filter 1 LF3	SHENZHEN CENKER ENTERPRISE LTD.	CKTC160905-1.4mH-A6635-GXA14747-A3	min.1.4MH	EN 62368-1	Tested with appliance	
(Alternative)	Interchangeable	Interchangeable	min.1.4MH	EN 62368-1	Tested with appliance	
-Magnet wire	DONG GUAN YIDA INDUSTRIAL CO LTD	2UEW/130	Polyurethane, 130°C	UL 1446	UL: E229423	
(Alternative)	Interchangeable	Interchangeable	Polyurethane, min.130°C	UL 1446	UL	
Line filter 3 LF2	SHENZHEN CENKER ENTERPRISE LTD.	CKTC100604-5uH/Min-A2696	min.5uH	EN 62368-1	Tested with appliance	
(Alternative)	Interchangeable	Interchangeable	min.5uH	EN 62368-1	Tested with appliance	
-Magnet	DONG GUAN	2UEW/130	Polyurethane, 130°C	UL 1446	UL: E229423	

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Clause	Requirement + Test	Result - Remark	Verdict

4.1.2 TABLE: List of critical components						P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity1)	
wire	YIDA INDUSTRIAL CO LTD					
(Alternative)	Interchangeable	Interchangeable	Polyurethane, min.130°C	UL 1446	UL	
-Triple insulated wire	SUZHOU YUSHENG ELECTRONIC CO LTD	TIW-B	Class 130C B	IEC 62368-1:2014 UL 2353 UL 60950-1	VDE:40033527 E332529	
Line filter 2 LF4	SHENZHEN CENKER ENTERPRISE LTD.	ET24-15mH	min.15mH	EN 62368-1	Tested with appliance	
(Alternative)	Interchangeable	Interchangeable	min.15mH	EN 62368-1	Tested with appliance	
Transformer T1	SHENZHEN HUA XINGJINGCHENG ELECTRONIC TECHNOLOGY CO..LTD	PQ3535 T-70X	Class A	EN 62368-1	Tested with appliance	
-Bobbin	CHANG CHUN PLASTICS CO LTD	T375HF	Phenolic, V-0, 150°C, min. thickness: 0.45mm.	UL 94 UL 746	E59481	
-Triple insulated wire	HEYUAN KOSHEN INSULATOR CO LTD	TIW-B	130°C, Φ0.45mm	IEC 62368-1:2014 UL 2353 UL 60950-1	E365580	
Insulation tape	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO.,LTD	CT*(c)(g)	Reinforced insulation, 130°C	UL 510	E165111	
-Magnet wire	SHANTOU SHENGANG ELECTRICAL INDUSTRIAL CO LTD	2UEW/155	Polyurethane, 155°C	UL 1446	E239508	
(Alternative)	DONG GUAN YIDA INDUSTRIAL CO LTD	2UEW/155	Polyurethane, 155°C	UL 1446	E344055	
-Insulation tube	SHENZHEN WOER HEAT-SHRINKABLE MATERIAL CO LTD	WF 200°C	Rated 600V, 200 °C,VW-1	UL 224	E203950	
Primary Internal wire	DONGGUAN XIEHE WIRE CO LTD	1672	2×18AWG 105 °C 300V VW-1	UL 758	E251491	
(Alternative)	Interchangeable	Interchangeable	Min 2×24AWG 105°C 300V	UL 758	UL approved	

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Clause	Requirement + Test	Result - Remark	Verdict

<b>4.1.2 TABLE: List of critical components</b>					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity <sup>1)</sup>
Secondary Internal wire	Interchangeable	Interchangeable	300V 80 °C ,VW-1,Min.24AWG	UL 758	UL approved
NTC	HONGZHI ENTERPRISES LTD	5D-15	5Ω	cURus	E319959 TUV SUD : B180101617001
Foam	INOAC CORP	HF-1	Calmflex F-2G	ANSI/UL 94	E58579
Supplementary information: License available upon request					
1) Provided evidence ensures the agreed level of compliance. See OD-2039.					

**Photo Document**

Photo 1 Appearance of EUT



Photo 2 Appearance of EUT





Photo Document

Photo 3 Appearance of EUT

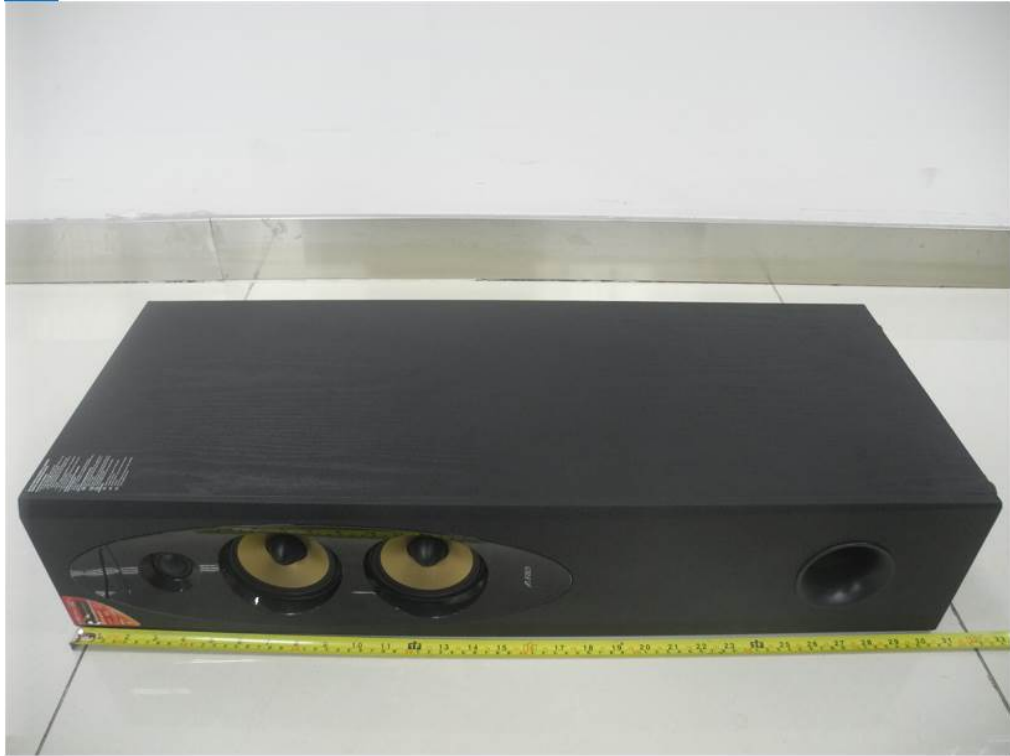


Photo 4 Appearance of EUT

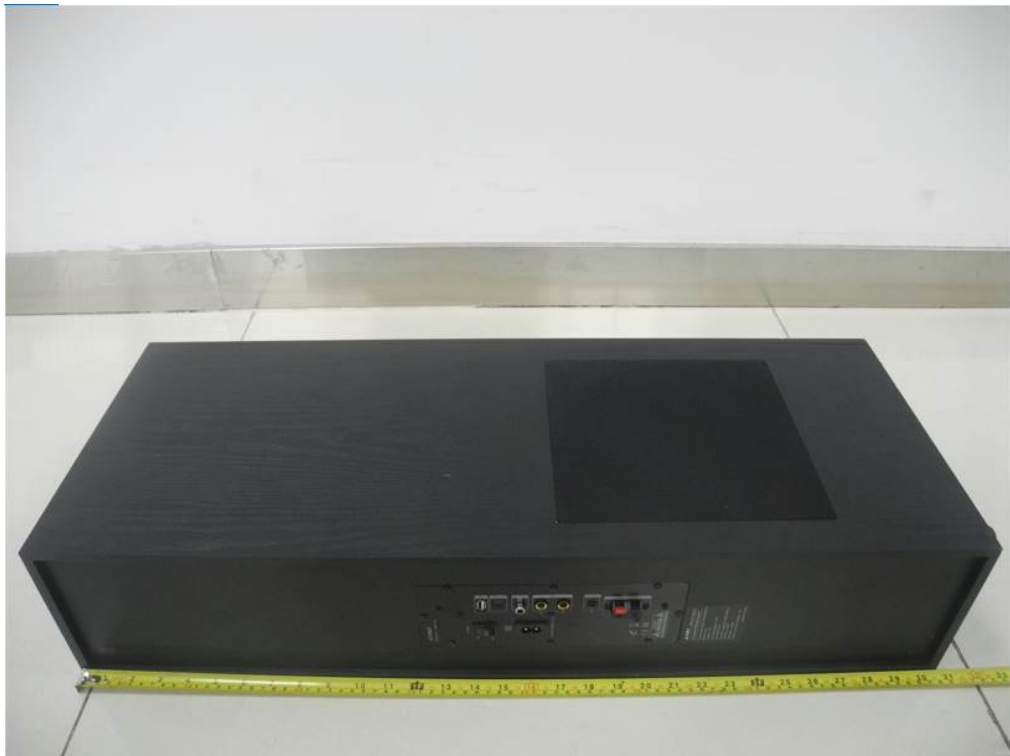


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Photo 5 Inside of EUT



Photo 6 Inside of EUT

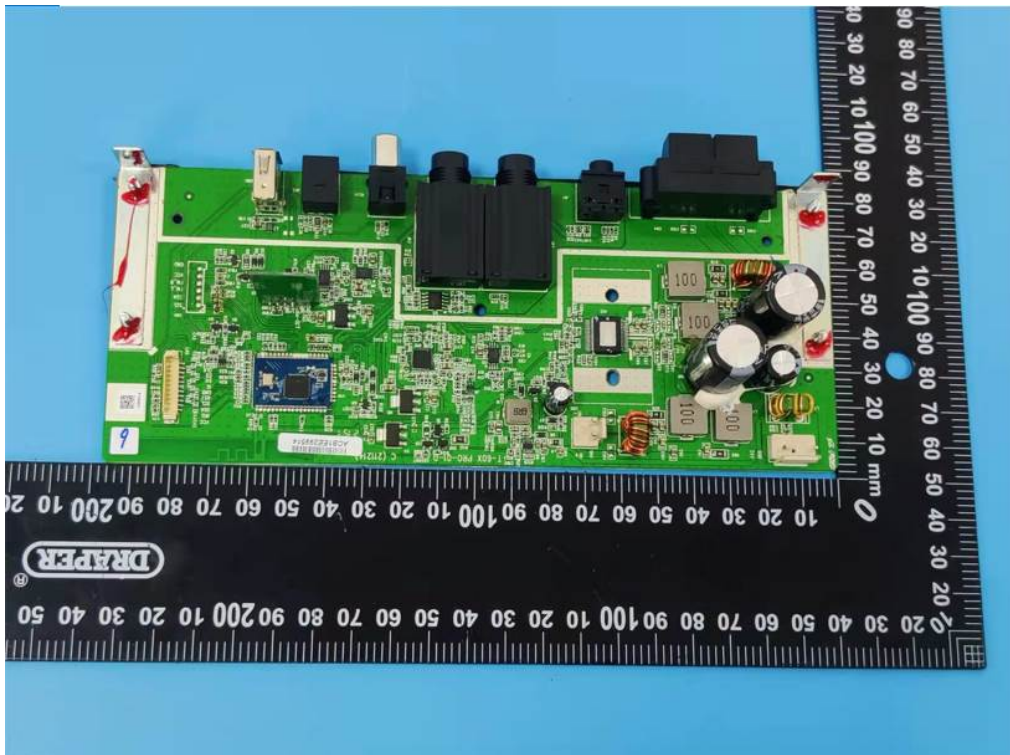


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Photo 7 Inside of EUT

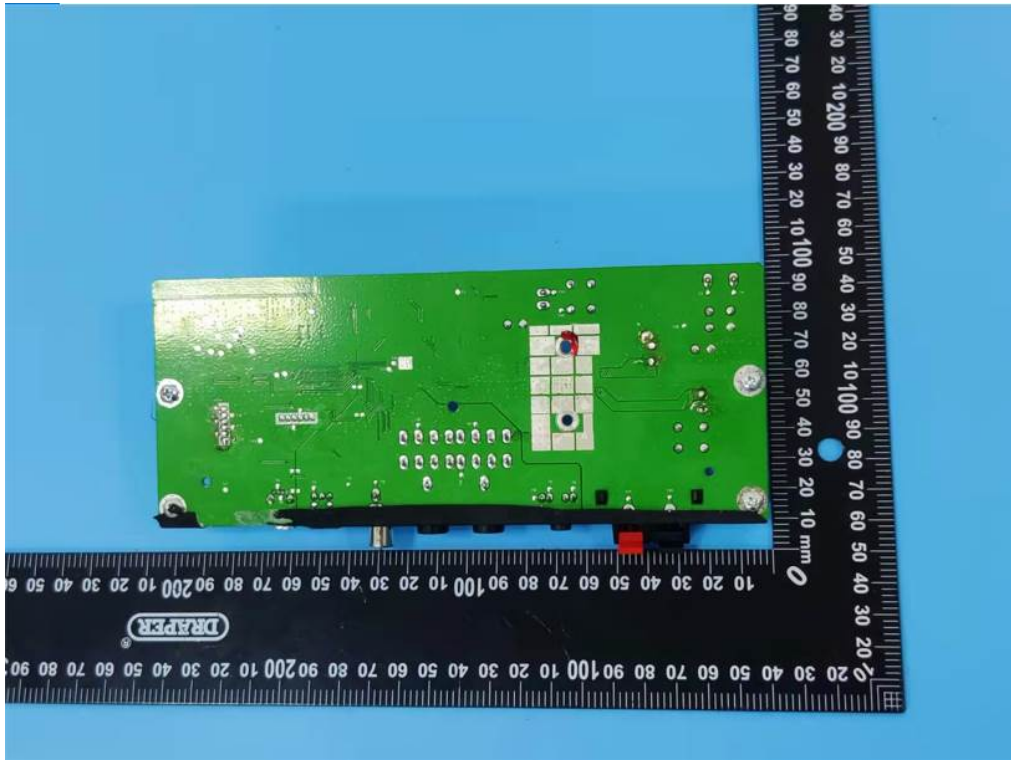


Photo 8 Inside of EUT

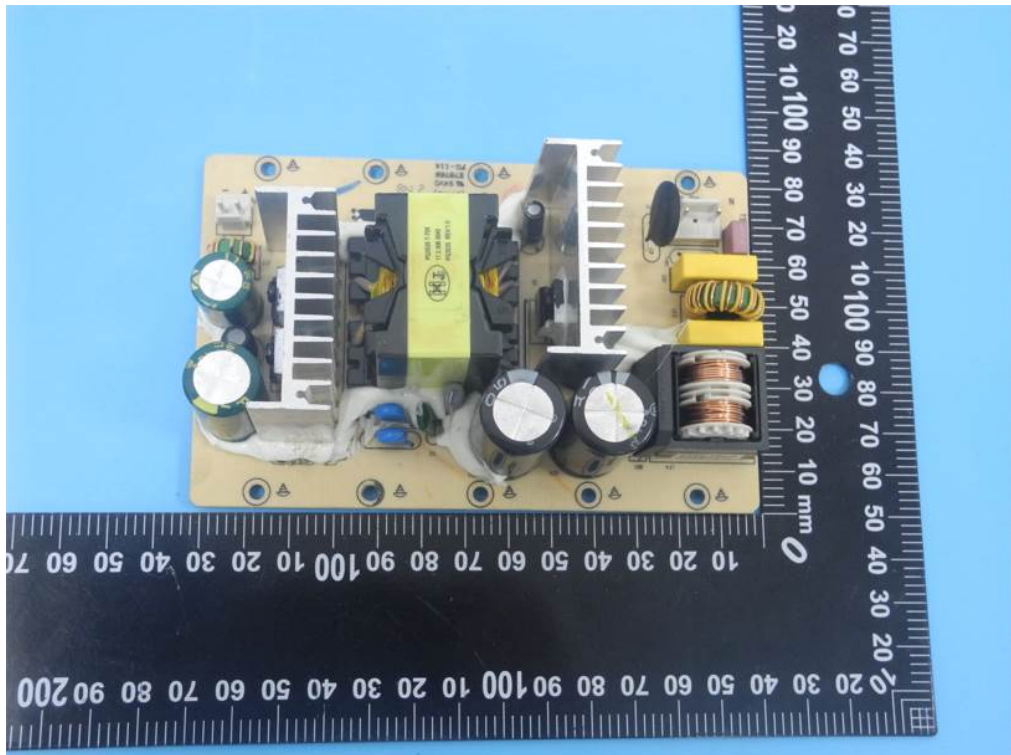


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Photo 9 Inside of EUT

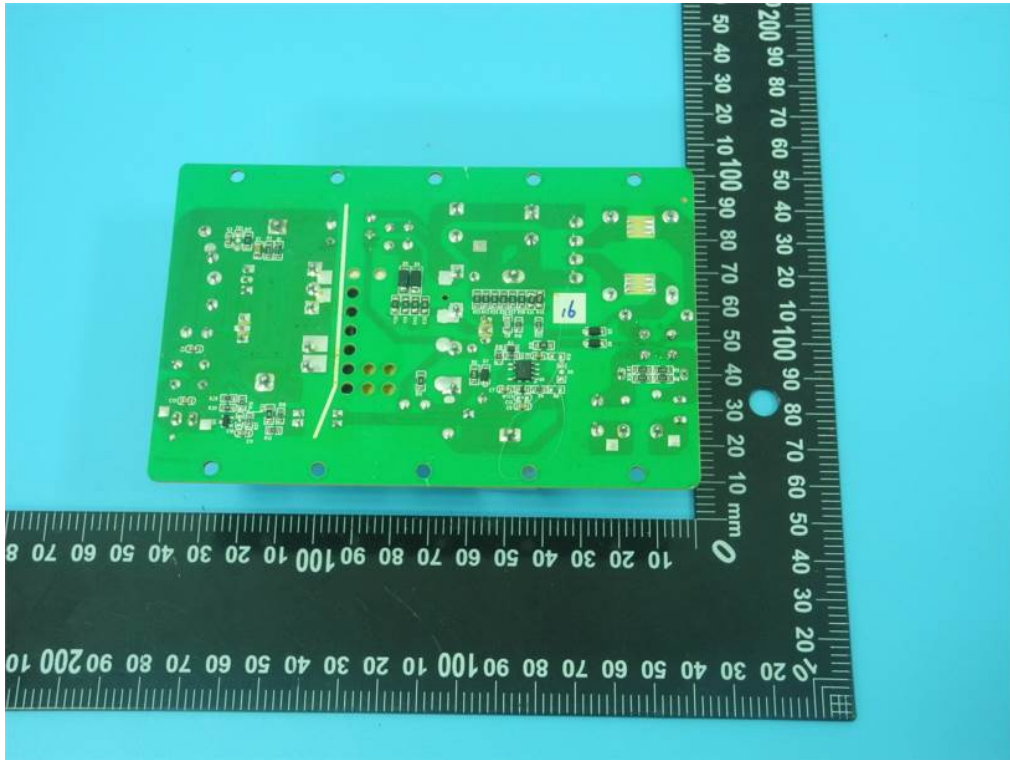


Photo 10 Inside of EUT

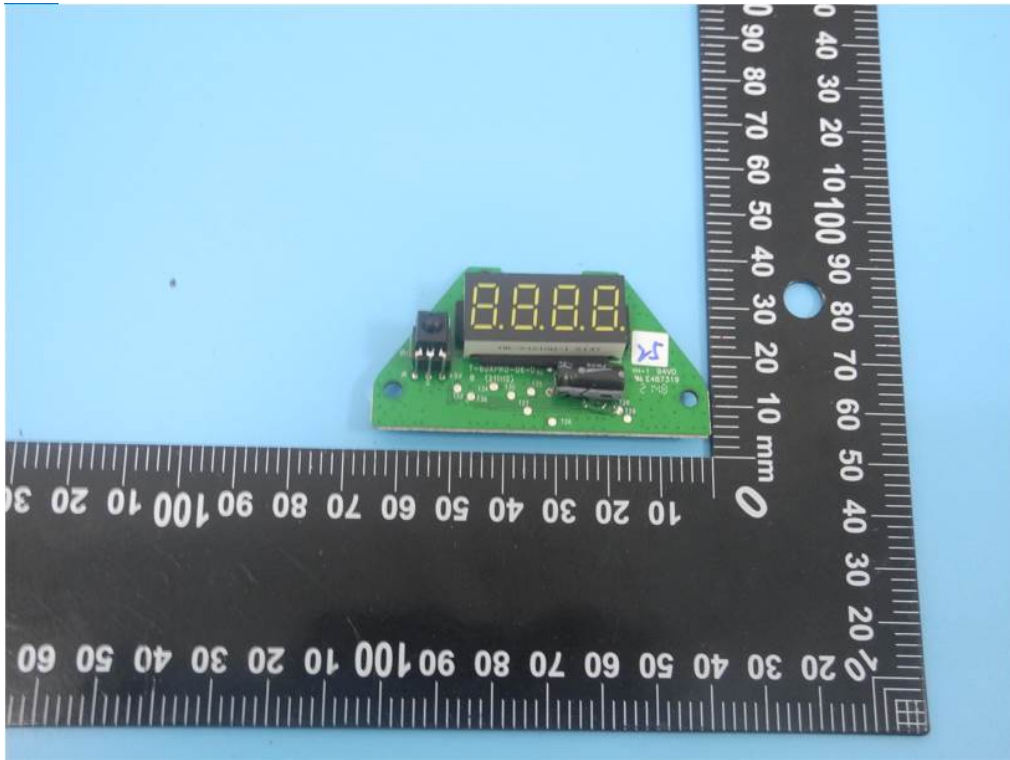


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Photo 11 Inside of EUT

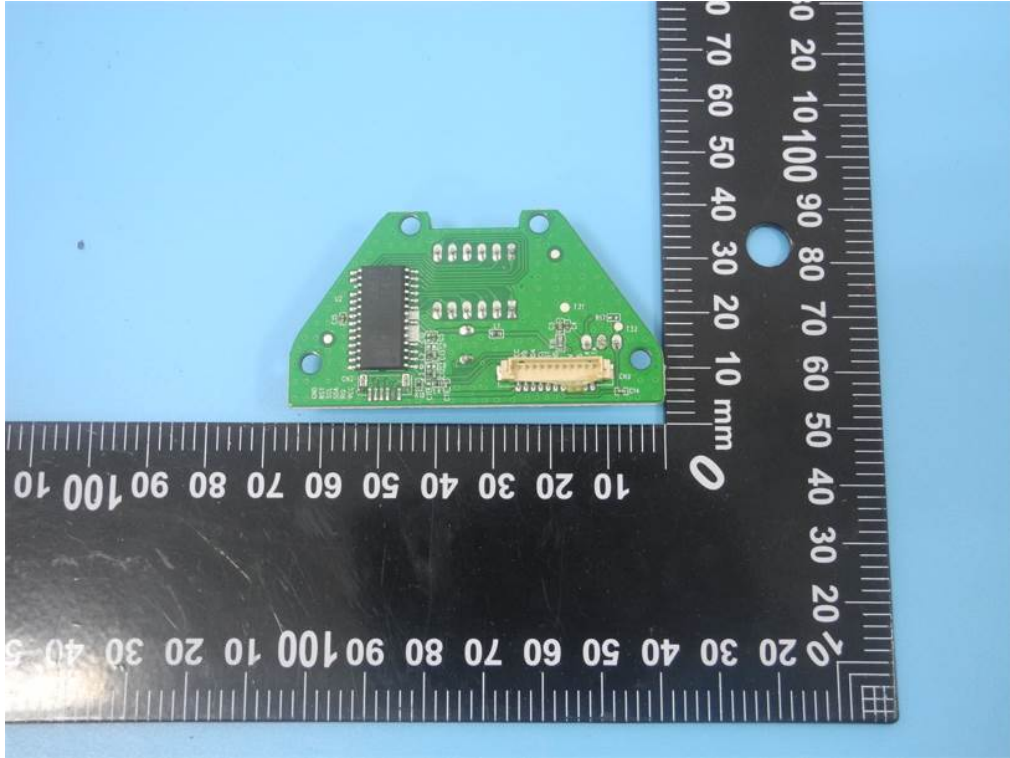


Photo 12 Appearance of EUT

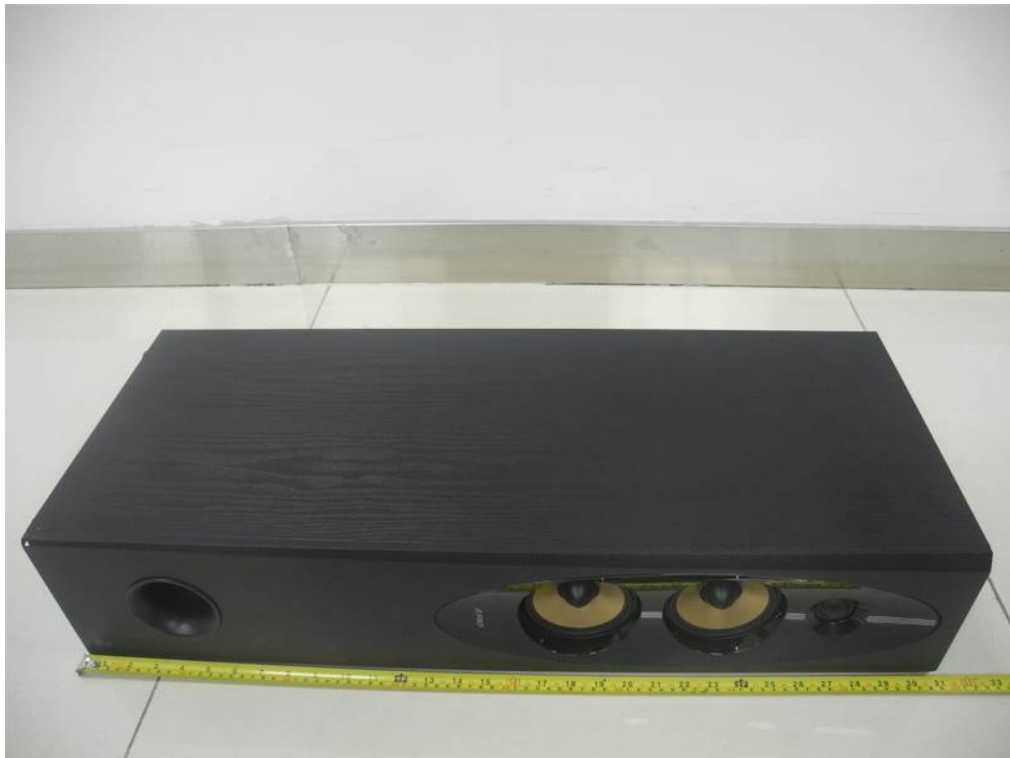


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Photo 13 Appearance of EUT

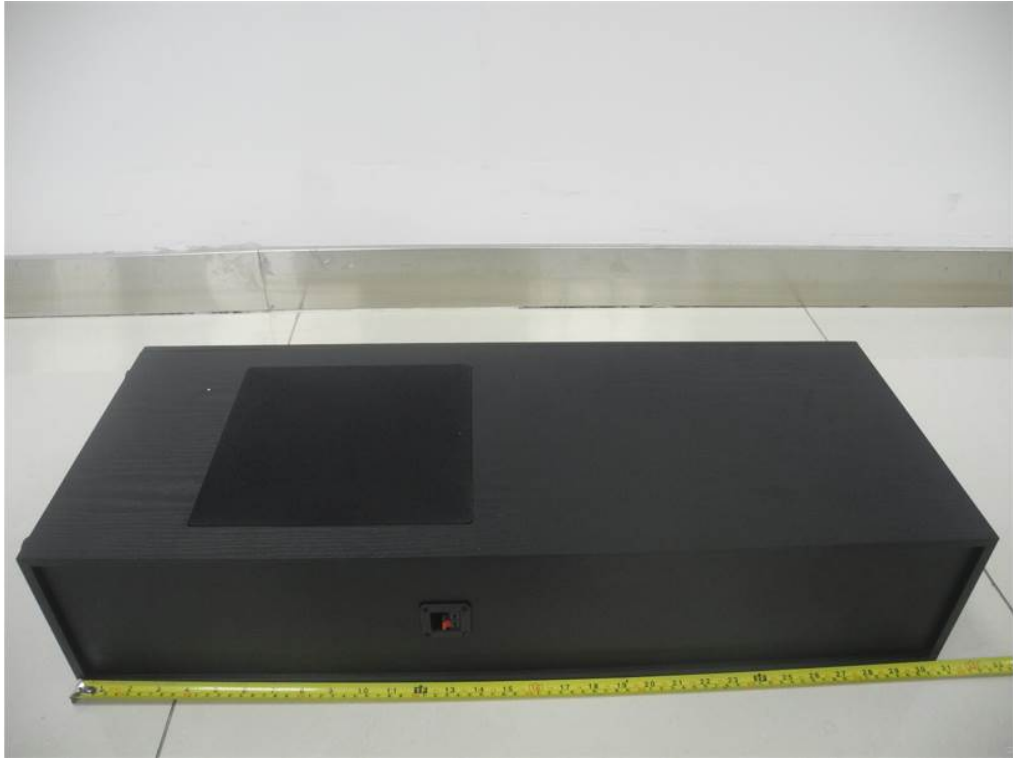


Photo 14 Inside of EUT



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Photo 15 Inside of EUT

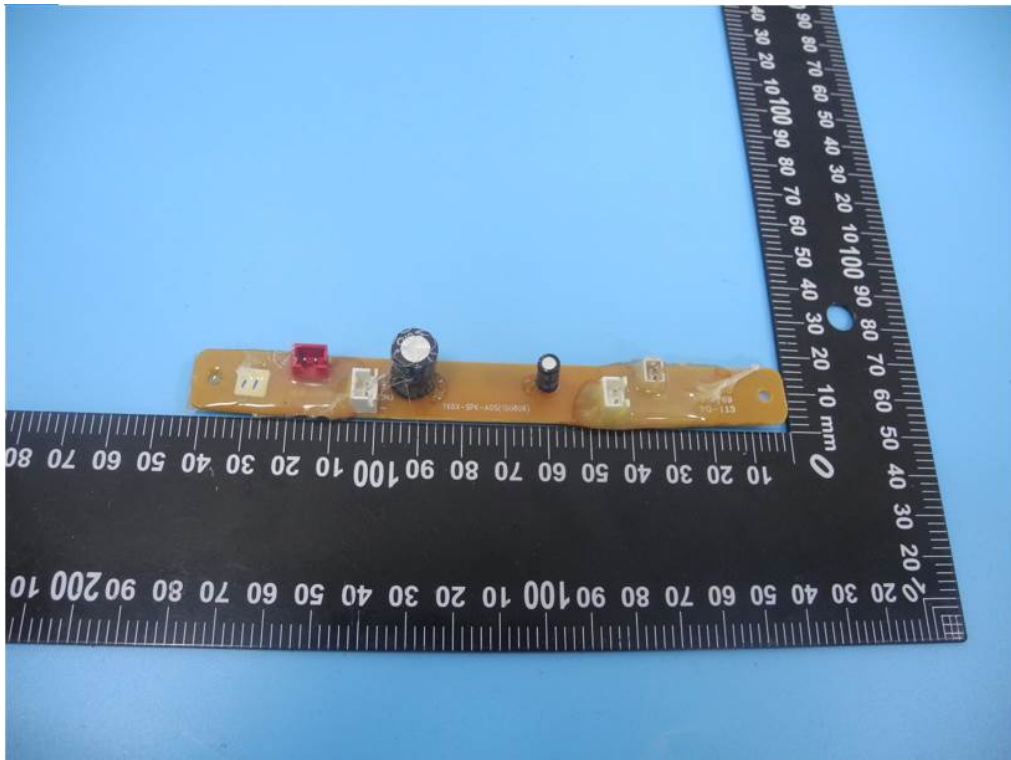


Photo 16 Inside of EUT

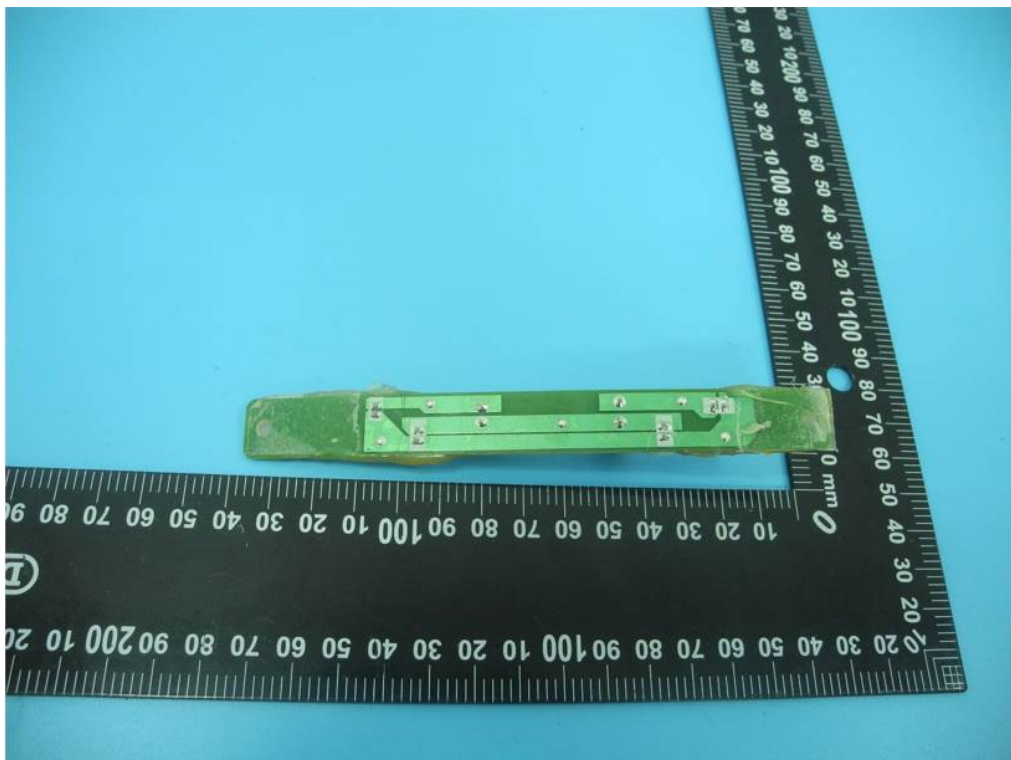


Photo Document

Photo 17 Transformer

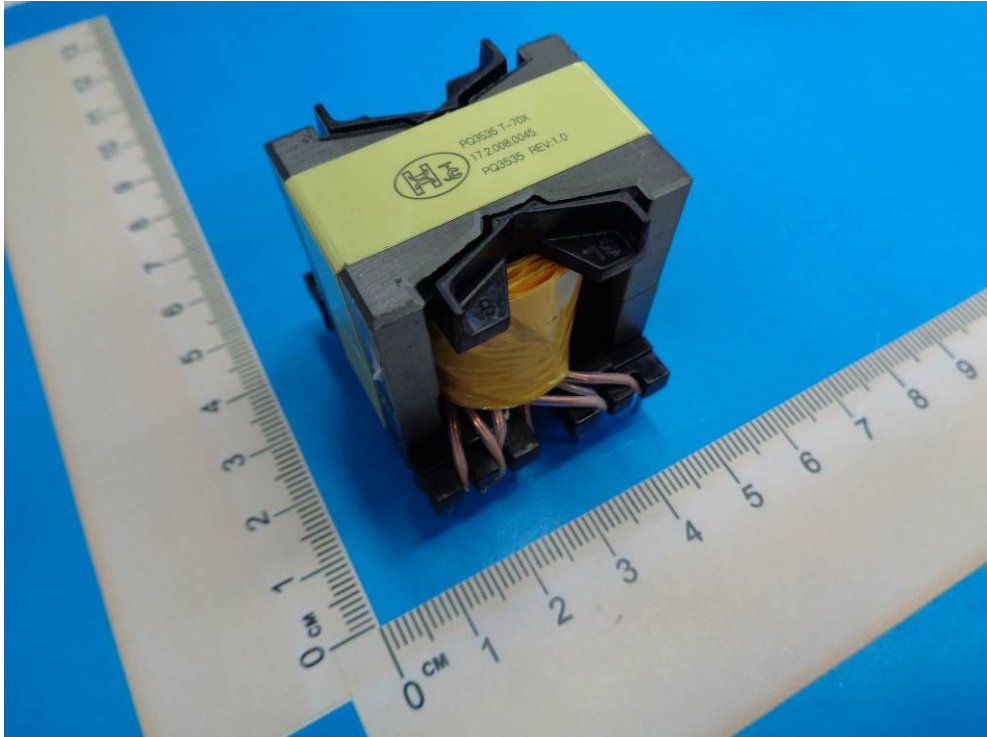


Photo 18 Transformer

