

TEST REPORT BS EN IEC 62368-1 Audio/video, information and communication technology equipment Part 1: Safety requirements	
Report Number.....:	KEYS21091509002LD-01
Tested by (name + signature).....:	Sunny Li
Approved by (name + signature)....:	Jason Zhan
Date of issue.....:	September 26, 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.....:	Shenzhen Greatfavian Electronic CO.,LTD.
Address.....:	5F,Tongfuyu Industrial Park,Lezhujiao ,Zhoushi Road, Baoan District, Shenzhen,China 518126
Test specification:	
Standard.....:	BS EN IEC 62368-1-2020
Test procedure	UKCA
Non-standard test method.....:	N/A
Test item description.....:	Controller
Trade Mark.....:	GFLAI-0915
Manufacturer.....:	Shenzhen Greatfavian Electronic CO.,LTD.
Address.....:	5F,Tongfuyu Industrial Park,Lezhujiao ,Zhoushi Road, Baoan District, Shenzhen,China 518126
Model/Type reference.....:	GFC005
Ratings.....:	6VDC,1A



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

Attachment : 5 pages of photos.

Summary of testing:

N/A

Copy of marking plate

Controller
Model: GFC005
Input: 6VDC,1A



Shenzhen Greatfavian Electronic CO.,LTD.
Importer: xxx
Address: yyy

Note:

- The Markings are attached on external enclosure and visible during normal use.
- 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 checked="" type="checkbox"/> +20%/-15% <input 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"/> 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 _{L-L}
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)	

POSSIBLE TEST CASE VERDICTS:	
- test case does not apply to the test object.....	N/A
- test object does meet the requirement.....	P (Pass)
- test object does not meet the requirement.....	F (Fail)
TESTING:	
Date of receipt of test item.....	September 15, 2021
Date (s) of performance of tests.....	September 16, 2021 to September 26, 2021
GENERAL PRODUCT INFORMATION:	
<p>The unit has following features:</p> <ol style="list-style-type: none"> 1. The equipment under test (EUT) is a "Controller" with models "GFC005". 2. The equipment uses an approved AC/DC Adapter (Input: AC100-240V~ 50/60Hz, 0.4A, output: 6VDC, 1A.) 3. The EUT Tma is 25°C declared by client. 	

BS EN IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
4	GENERAL REQUIREMENTS		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		P
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

BS EN IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
5	ELECTRICALLY-CAUSED INJURY		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		N/A
5.4.1.2	Properties of insulating material		N/A
5.4.1.3	Humidity conditioning..... :		N/A
5.4.1.4	Maximum operating temperature for insulating materials		N/A
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
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	See below	N/A

BS EN IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
5.4.1.10.2	Vicat softening temperature..... :		N/A
5.4.1.10.3	Ball pressure :	See above.	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		N/A
5.4.4.4	Solid insulation in semiconductor devices		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
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 ≥ 30 kHz was considered.	N/A

BS EN IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
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 (MΩ)..... :		—
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 (%)..... :	94%	—
	Temperature (°C) :	25°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 ΔU_{sa} :		—
	$U_{op} = U_{peak} + \Delta U_{sp} + \Delta U_{sa}$:		—
5.5	Components as safeguards		
5.5.1	General	See the following details.	N/A

BS EN IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
5.5.2	Capacitors and RC units	Approved X capacitors provided.	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	(See Annex G.5.3)	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	Bleeder resistors are serve as safeguard but not across basic, supplementary or reinforce insulations, no energy hazards between inlet access terminal and ordinary person, see clause 5.2.2.3.	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	See above.	N/A
5.6.2.2	Colour of insulation	See above.	N/A
5.6.3	Requirement for protective earthing conductors	See above.	N/A
	Protective earthing conductor size (mm ²) :	See above.	—
5.6.4	Requirement for protective bonding conductors	See above.	N/A
5.6.4.1	Protective bonding conductors	See above.	N/A
	Protective bonding conductor size (mm ²)..... :	See above.	—
	Protective current rating (A) :	See above.	—
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	See above.	N/A
	Conductor size (mm ²), nominal thread diameter (mm)..... :	See above.	N/A
5.6.5.2	Corrosion	See above.	N/A
5.6.6	Resistance of the protective system	See above.	N/A
5.6.6.1	Requirements	See above.	N/A

BS EN IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
5.6.6.2	Test Method Resistance (Ω).....:	See above.	N/A
5.6.7	Reliable earthing	See above.	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

6	ELECTRICALLY- CAUSED FIRE		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

BS EN IEC 62368-1			
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		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
6.4.7.2	Separation by distance	No a fire barrie	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.	N/A

BS EN IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
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	No fire enclosure	N/A
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.	N/A
6.5	Internal and external wiring		N/A
6.5.1	Requirements		N/A
6.5.2	Cross-sectional area (mm ²)	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

7	INJURY CAUSED BY HAZARDOUS SUBSTANCES		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

BS EN IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Instructional safeguard (ISO 7010)..... :	(See Annex F)	—
7.6	Batteries..... :	No battery used.	N/A
8	MECHANICALLY-CAUSED INJURY		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	See above.	N/A
8.5.2	Instructional Safeguard..... :	See above.	—
8.5.4	Special categories of equipment comprising moving parts	See above.	N/A
8.5.4.1	Large data storage equipment	See above.	N/A
8.5.4.2	Equipment having electromechanical device for destruction of media	See above.	N/A
8.5.4.2.1	Safeguards and Safety Interlocks..... :	See above.	N/A
8.5.4.2.2	Instructional safeguards against moving parts	See above.	N/A
	Instructional Safeguard..... :	See above.	—
8.5.4.2.3	Disconnection from the supply	See above.	N/A
8.5.4.2.4	Probe type and force (N)..... :	See above.	N/A
8.5.5	High Pressure Lamps	See above.	N/A
8.5.5.1	Energy Source Classification	See above.	N/A
8.5.5.2	High Pressure Lamp Explosion Test..... :	See above.	N/A
8.6	Stability	See the following details.	N/A
8.6.1	Product classification		N/A
	Instructional Safeguard..... :	See instruction for details.	—
8.6.2	Static stability	See above.	N/A
8.6.2.2	Static stability test	See above.	N/A
	Applied Force..... :		—
8.6.2.3	Downward Force Test	See above.	N/A
8.6.3	Relocation stability test	See above.	N/A

BS EN IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Unit configuration during 10° tilt..... :	See above.	—
8.6.4	Glass slide test	See above.	N/A
8.6.5	Horizontal force test (Applied Force)..... :	See above.	N/A
	Position of feet or movable parts..... :	See above.	—
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	See above.	N/A
8.8.2	Applied Force :	See above.	N/A
8.9	Wheels or casters attachment requirements	No such wheels or casters within the EUT	N/A
8.9.1	Classification	See above.	N/A
8.9.2	Applied force..... :	See above.	—
8.10	Carts, stands and similar carriers	No such device provided within the EUT.	N/A
8.10.1	General	See above.	N/A
8.10.2	Marking and instructions	See above.	N/A
	Instructional Safeguard..... :	See above.	—
8.10.3	Cart, stand or carrier loading test and compliance	See above.	N/A
	Applied force..... :	See above.	—
8.10.4	Cart, stand or carrier impact test	See above.	N/A
8.10.5	Mechanical stability	See above.	N/A
	Applied horizontal force (N)..... :	See above.	—
8.10.6	Thermoplastic temperature stability (°C)..... :	See above.	N/A
8.11	Mounting means for rack mounted equipment	The equipment is not intended to be rack-mounted.	N/A
8.11.1	General	See above.	N/A
8.11.2	Product Classification	See above.	N/A
8.11.3	Mechanical strength test, variable N :	See above.	N/A
8.11.4	Mechanical strength test 250N, including end stops	See above.	N/A
8.12	Telescoping or rod antennas.....	No such device provided within the EUT.	N/A
	Button/Ball diameter (mm)..... :	See above.	—

BS EN IEC 62368-1

Clause	Requirement + Test	Result - Remark	Verdict
9	THERMAL BURN INJURY		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
10	RADIATION		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:	See above.	—
	Normal, abnormal, single-fault..... :	See above.	
	Instructional safeguard..... :	See above.	—
	Tool..... :	See above.	—
10.4	Protection against visible, infrared, and UV radiation	No such radiation generated from the equipment.	N/A
10.4.1	General	See above.	N/A
10.4.1.a)	RS3 for Ordinary and instructed persons..... :	See above.	N/A
10.4.1.b)	RS3 accessible to a skilled person..... :	See above.	N/A
	Personal safeguard (PPE) instructional safeguard..... :	See above.	—
10.4.1.c)	Equipment visible, IR, UV does not exceed RS1... :	See above.	N/A
10.4.1.d)	Normal, abnormal, single-fault conditions	See above.	N/A
10.4.1.e)	Enclosure material employed as safeguard is opaque..... :	See above.	N/A
10.4.1.f)	UV attenuation..... :	See above.	N/A
10.4.1.g)	Materials resistant to degradation UV..... :	See above.	N/A
10.4.1.h)	Enclosure containment of optical radiation..... :	See above.	N/A
10.4.1.i)	Exempt Group under normal operating conditions..... :	See above.	N/A
10.4.2	Instructional safeguard..... :	See above.	N/A
10.5	Protection against x-radiation	No such x-radiation generated from the equipment	N/A

BS EN IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
10.5.1	X- radiation energy source that exists equipment:	See above.	N/A
	Normal, abnormal, single fault conditions	See above.	N/A
	Equipment safeguards.....:	See above.	N/A
	Instructional safeguard for skilled person.....:	See above.	N/A
10.5.3	Most unfavourable supply voltage to give maximum radiation.....:	See above.	—
	Abnormal and single-fault condition.....:	See above.	N/A
	Maximum radiation (pA/kg).....:	See above.	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	See above.	N/A
10.6.2	Classification	See above.	N/A
	Acoustic output, dB(A).....:	See above.	N/A
	Output voltage, unweighted r.m.s.....:	See above.	N/A
10.6.4	Protection of persons	See above.	N/A
	Instructional safeguards.....:	See above.	N/A
	Equipment safeguard prevent ordinary person to RS2.....:	See above.	—
	Means to actively inform user of increase sound pressure.....:	See above.	—
	Equipment safeguard prevent ordinary person to RS2.....:	See above.	—
10.6.5	Requirements for listening devices (headphones, earphones, etc.)	See above.	N/A
10.6.5.1	Corded passive listening devices with analog input	See above.	N/A
	Input voltage with 94 dB(A) L_{Aeq} acoustic pressure output.....:	See above.	—
10.6.5.2	Corded listening devices with digital input	See above.	N/A
	Maximum dB(A).....:	See above.	—
10.6.5.3	Cordless listening device	See above.	N/A
	Maximum dB(A).....:	See above.	—
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

BS EN IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
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		N/A
B.4.4.2	Short circuit of creepage distances for functional insulation		N/A
B.4.4.3	Short circuit of functional insulation on coated printed boards	No coated printed boards within the EUT	N/A
B.4.5	Short circuit and interruption of electrodes in tubes and semiconductors		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

BS EN IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
B.4.9	Battery charging under single fault conditions.....:		N/A
C	UV RADIATION		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	See above.	N/A
C.1.3	Test method	See above.	N/A
C.2	UV light conditioning test	See above.	N/A
C.2.1	Test apparatus	See above.	N/A
C.2.2	Mounting of test samples	See above.	N/A
C.2.3	Carbon-arc light-exposure apparatus	See above.	N/A
C.2.4	Xenon-arc light exposure apparatus	See above.	N/A
D	TEST GENERATORS		N/A
D.1	Impulse test generators	No such consideration.	N/A
D.2	Antenna interface test generator	See above.	N/A
D.3	Electronic pulse generator	See above.	N/A
E	TEST CONDITIONS FOR EQUIPMENT CONTAINING AUDIO AMPLIFIERS		N/A
E.1	Audio amplifier normal operating conditions	Not such equipment.	N/A
	Audio signal voltage (V).....:	See above.	—
	Rated load impedance (Ω)	See above.	—
E.2	Audio amplifier abnormal operating conditions	See above.	N/A
F	EQUIPMENT MARKINGS, INSTRUCTIONS, AND INSTRUCTIONAL SAFEGUARDS		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
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.	—

BS EN IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
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	See above.	N/A
F.3.3.3	Nature of supply voltage..... :		—
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
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

BS EN IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
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
G	COMPONENTS		P
G.1	Switches		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
G.2	Relays		N/A
G.2.1	General requirements	No such relay provided within the equipment.	N/A
G.2.2	Overload test	See above.	N/A

BS EN IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
G.2.3	Relay controlling connectors supply power	See above.	N/A
G.2.4	Mains relay, modified as stated in G.2	See above.	N/A
G.3	Protection Devices		N/A
G.3.1	Thermal cut-offs	No thermal cut-off provided within the equipment.	N/A
G.3.1.1.5A) &b)	Thermal cut-outs separately approved according to IEC 60730 with conditions indicated in a) & b)	See above.	N/A
G.3.1.1c)	Thermal cut-outs tested as part of the equipment as indicated in c)	See above.	N/A
G.3.1.2	Thermal cut-off connections maintained and secure	See above.	N/A
G.3.2	Thermal links		N/A
G.3.2.1.5A)	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	See above.	N/A
	Aging hours (H)..... :	See above.	—
	Single Fault Condition..... :	See above.	—
	Test Voltage (V) and Insulation Resistance (Ω)... :	See above.	—
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
G.4	Connectors		N/A
G.4.1	Spacings	No such connector within the EUT	N/A
G.4.2	Mains connector configuration	See above.	N/A
G.4.3	Plug is shaped that insertion into mains socket-outlets or appliance coupler is unlikely	See above.	N/A
G.5	Wound Components		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
G.5.2	Endurance test on wound components	Approved TIW used	N/A
G.5.2.1	General test requirements	See above.	N/A
G.5.2.2	Heat run test	See above.	N/A

BS EN IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Time (s)..... :	See above.	—
	Temperature (°C)..... :	See above.	—
G.5.2.3	Wound Components supplied by mains	See above.	N/A
G.5.3	Transformers		N/A
G.5.3.1	Requirements applied (IEC61204-7, IEC61558-1/-2, and/or IEC62368-1)..... :	The transformer meets the requirements given in G.5.3.2 and G.5.3.3.	N/A
	Position..... :	T1	—
	Method of protection :	See above and appended table B.3 & B.4.	—
G.5.3.2	Insulation	Primary windings and secondary windings are isolated by double insulation (The core is considered as primary part)	N/A
	Protection from displacement of windings..... :	The end-turn of each winding is fixed by insulating tape	—
G.5.3.3	Overload test..... :	(See appended table B.3 & B.4)	N/A
G.5.3.3.1	Test conditions	Tested in the complete equipment	N/A
G.5.3.3.2	Winding Temperatures testing in the unit	(See appended table B.3&B.4)	N/A
G.5.3.3.3	Winding Temperatures - Alternative test method	Alternative test method was not considered.	N/A
G.5.4	Motors		N/A
G.5.4.1	General requirements	No such devices within the EUT	N/A
	Position :	See above.	—
G.5.4.2	Test conditions	See above.	N/A
G.5.4.3	Running overload test	See above.	N/A
G.5.4.4	Locked-rotor overload test	See above.	N/A
	Test duration (days) :	See above.	—
G.5.4.5	Running overload test for d.c. motors in secondary circuits	See above.	N/A
G.5.4.5.2	Tested in the unit	See above.	N/A
	Electric strength test (V)..... :	See above.	—
G.5.4.5.3	Tested on the Bench - Alternative test method; test time (h) :	See above.	N/A
	Electric strength test (V)..... :	See above.	—
G.5.4.6	Locked-rotor overload test for d.c. motors in secondary circuits	See above.	N/A
G.5.4.6.2	Tested in the unit	See above.	N/A

BS EN IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Maximum Temperature	See above.	N/A
	Electric strength test (V)	See above.	N/A
G.5.4.6.3	Tested on the bench - Alternative test method; test time (h).....	See above.	N/A
	Electric strength test (V).....	See above.	N/A
G.5.4.7	Motors with capacitors	See above.	N/A
G.5.4.8	Three-phase motors	See above.	N/A
G.5.4.9	Series motors	See above.	N/A
	Operating voltage	See above.	—
G.6	Wire Insulation		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
G.7	Mains supply cords		N/A
G.7.1	General requirements	No such cord	N/A
	Type.....	See above.	—
	Rated current (A).....	See above.	—
	Cross-sectional area (mm ²), (AWG).....	See above.	—
G.7.2	Compliance and test method	See above.	N/A
G.7.3	Cord anchorages and strain relief for non-detachable power supply cords	See above.	N/A
G.7.3.2	Cord strain relief	See above.	N/A
G.7.3.2.1	Requirements	See above.	N/A
	Strain relief test force (N).....	See above.	—
G.7.3.2.2	Strain relief mechanism failure	See above.	N/A
G.7.3.2.3	Cord sheath or jacket position, distance (mm).....	See above.	—
G.7.3.2.4	Strain relief comprised of polymeric material	See above.	N/A
G.7.4	Cord Entry.....	See above.	N/A
G.7.5	Non-detachable cord bend protection	See above.	N/A
G.7.5.1	Requirements	See above.	N/A
G.7.5.2	Mass (g)	See above.	—
	Diameter (m).....	See above.	—
	Temperature (°C).....	See above.	—
G.7.6	Supply wiring space	See above.	N/A

BS EN IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
G.7.6.2	Stranded wire	See above.	N/A
G.7.6.2.1	Test with 8 mm strand	See above.	N/A
G.8	Varistors		N/A
G.8.1	General requirements	No VDR.	N/A
G.8.2	Safeguard against shock	See above.	N/A
G.8.3	Safeguard against fire		N/A
G.8.3.2	Varistor overload test..... :	See above.	N/A
G.8.3.3	Temporary overvoltage..... :	See above.	N/A
G.9	Integrated Circuit (IC) Current Limiters		N/A
G.9.1 a)	Manufacturer defines limit at max. 5A.	No IC current limiter provided within the equipment.	N/A
G.9.1 b)	Limiters do not have manual operator or reset	See above.	N/A
G.9.1 c)	Supply source does not exceed 250 VA :	See above.	—
G.9.1 d)	IC limiter output current (max. 5A)..... :	See above.	—
G.9.1 e)	Manufacturers' defined drift :	See above.	—
G.9.2	Test Program 1	See above.	N/A
G.9.3	Test Program 2	See above.	N/A
G.9.4	Test Program 3	See above.	N/A
G.10	Resistors		N/A
G.10.1	General requirements	No such resistors.	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	See above.	N/A
G.10.3.1	General requirements	See above.	N/A
G.10.3.2	Voltage surge test	See above.	N/A
G.10.3.3	Impulse test	See above.	N/A
G.11	Capacitor and RC units		N/A
G.11.1	General requirements		N/A
G.11.2	Conditioning of capacitors and RC units		N/A
G.11.3	Rules for selecting capacitors		N/A
G.12	Optocouplers		N/A
	Optocouplers comply with IEC 60747-5-5:2007 Spacing or Electric Strength Test (specify option and test results)..... :	No such Optocoupler.	N/A
	Type test voltage Vini :	See above	—
	Routine test voltage, Vini,b :	See above	—

BS EN IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
G.13	Printed boards		P
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	See above.	N/A
	Compliance with cemented joint requirements (Specify construction).....:	See above.	—
G.13.5	Insulation between conductors on different surfaces	See above.	N/A
	Distance through insulation.....:	See above.	N/A
	Number of insulation layers (pcs) :	See above.	—
G.13.6	Tests on coated printed boards	See above.	N/A
G.13.6.1	Sample preparation and preliminary inspection	See above.	N/A
G.13.6.2a)	Thermal conditioning	See above.	N/A
G.13.6.2b)	Electric strength test	See above.	N/A
G.13.6.2c)	Abrasion resistance test	See above.	N/A
G.14	Coating on components terminals		N/A
G.14.1	Requirements	No coating on component terminals.	N/A
G.15	Liquid filled components		N/A
G.15.1	General requirements	No such device provided within the equipment.	N/A
G.15.2	Requirements	See above.	N/A
G.15.3	Compliance and test methods	See above.	N/A
G.15.3.1	Hydrostatic pressure test	See above.	N/A
G.15.3.2	Creep resistance test	See above.	N/A
G.15.3.3	Tubing and fittings compatibility test	See above.	N/A
G.15.3.4	Vibration test	See above.	N/A
G.15.3.5	Thermal cycling test	See above.	N/A
G.15.3.6	Force test	See above.	N/A
G.15.4	Compliance	See above.	N/A
G.16	IC including capacitor discharge function (ICX)		N/A

BS EN IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
a)	Humidity treatment in accordance with sc5.4.8 – 120 hours	Certified ICX provided within the equipment.	N/A
b)	Impulse test using circuit 2 with $U_c =$ to transient voltage	See above.	N/A
C1)	Application of ac voltage at 110% of rated voltage for 2.5 minutes	See above.	N/A
C2)	Test voltage	See above.	—
D1)	10,000 cycles on and off using capacitor with smallest capacitance resistor with largest resistance specified by manufacturer	See above.	N/A
D2)	Capacitance	See above.	—
D3)	Resistance	See above.	—
H	CRITERIA FOR TELEPHONE RINGING SIGNALS		N/A
H.1	General	No telephone ringing signal generated within the equipment.	N/A
H.2	Method A	See above.	N/A
H.3	Method B	See above.	N/A
H.3.1	Ringing signal	See above.	N/A
H.3.1.1	Frequency (Hz)	See above.	—
H.3.1.2	Voltage (V)	See above.	—
H.3.1.3	Cadence; time (s) and voltage (V)	See above.	—
H.3.1.4	Single fault current (mA):.....	See above.	—
H.3.2	Tripping device and monitoring voltage.....	See above.	N/A
H.3.2.1	Conditions for use of a tripping device or a monitoring voltage complied with	See above.	N/A
H.3.2.2	Tripping device	See above.	N/A
H.3.2.3	Monitoring voltage (V).....	See above.	—
J	INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION		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
K	SAFETY INTERLOCKS		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

BS EN IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
K.5	Fail-safe		N/A
	Compliance..... :		N/A
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
L	DISCONNECT DEVICES		N/A
L.1	General requirements		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		N/A
L.8	Multiple power sources	Only one a.c. mains connection.	N/A
M	EQUIPMENT CONTAINING BATTERIES AND THEIR PROTECTION CIRCUITS		N/A
M.1	General requirements		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

BS EN IEC 62368-1			
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

BS EN IEC 62368-1			
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 ³ /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
N	ELECTROCHEMICAL POTENTIALS		N/A
	Metal(s) used..... :		—
O	MEASUREMENT OF CREEPAGE DISTANCES AND CLEARANCES		N/A
	Figures O.1 to O.20 of this Annex applied..... :	Considered.	—
P	SAFEGUARDS AGAINST ENTRY OF FOREIGN OBJECTS AND SPILLAGE OF INTERNAL LIQUIDS		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	See above.	N/A
P.2.3.1	Safeguards against the entry of a foreign object	See above.	N/A
	Openings in transportable equipment	No openings.	N/A
	Transportable equipment with metalized plastic parts..... :	See above.	N/A
P.2.3.2	Openings in transportable equipment in relation to metallized parts of a barrier or enclosure (identification of supplementary safeguard) :	See above.	N/A
P.3	Safeguards against spillage of internal liquids	No such consideration.	N/A
P.3.1	General requirements	See above.	N/A
P.3.2	Determination of spillage consequences	See above.	N/A
P.3.3	Spillage safeguards	See above.	N/A
P.3.4	Safeguards effectiveness	See above.	N/A
P.4	Metallized coatings and adhesive securing parts	No such construction.	N/A
P.4.2 a)	Conditioning testing	See above.	N/A
	T_c (°C)..... :	See above.	—
	T_r (°C)..... :	See above.	—

BS EN IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Ta (°C)..... :	See above.	—
P.4.2 b)	Abrasion testing :	See above.	N/A
P.4.2 c)	Mechanical strength testing..... :	See above.	N/A
Q	CIRCUITS INTENDED FOR INTERCONNECTION WITH BUILDING WIRING		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	See above.	N/A
Q.1.1 d)	IC current limiter complying with G.9	See above.	N/A
Q.1.2	Compliance and test method	See above.	N/A
Q.2	Test for external circuits – paired conductor cable	No such circuit within the EUT	N/A
	Maximum output current (A) :	See above.	—
	Current limiting method..... :	See above.	—
R	LIMITED SHORT CIRCUIT TEST		N/A
R.1	General requirements	No such consideration.	N/A
R.2	Determination of the overcurrent protective device and circuit	See above.	N/A
R.3	Test method Supply voltage (V) and short-circuit current (A)). :	See above.	N/A
S	TESTS FOR RESISTANCE TO HEAT AND FIRE		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..... :	See above.	—
	Wall thickness (mm)..... :	See above.	—
	Conditioning (°C)..... :	See above.	—
	Test flame according to IEC 60695-11-5 with conditions as set out	See above.	N/A
	- Material not consumed completely	See above.	N/A
	- Material extinguishes within 30s	See above.	N/A
	- No burning of layer or wrapping tissue	See above.	N/A
S.2	Flammability test for fire enclosure and fire barrier integrity	See above.	N/A
	Samples, material..... :	See above.	—

BS EN IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Wall thickness (mm)..... :	See above.	—
	Conditioning (°C)..... :	See above.	—
	Test flame according to IEC 60695-11-5 with conditions as set out	See above.	N/A
	Test specimen does not show any additional hole	See above.	N/A
S.3	Flammability test for the bottom of a fire enclosure	See above.	N/A
	Samples, material..... :	See above.	—
	Wall thickness (mm)..... :	See above.	—
	Cheesecloth did not ignite	See above.	N/A
S.4	Flammability classification of materials	See above.	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	See above.	N/A
	Samples, material..... :	See above.	—
	Wall thickness (mm)..... :	See above.	—
	Conditioning (test condition), (°C)..... :	See above.	—
	Test flame according to IEC 60695-11-20 with conditions as set out	See above.	N/A
	After every test specimen was not consumed completely	See above.	N/A
	After fifth flame application, flame extinguished within 1 min	See above.	N/A
T	MECHANICAL STRENGTH TESTS		P
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)	N/A
T.5	Steady force test, 250 N	(See appended table T.5)	P
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

BS EN IEC 62368-1			
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	See above.	N/A
T.9.2	Impact test and compliance	See above.	N/A
	Impact energy (J).....:	See above.	—
	Height (m).....:	See above.	—
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.	—
U	MECHANICAL STRENGTH OF CATHODE RAY TUBES (CRT) AND PROTECTION AGAINST THE EFFECTS OF IMPLOSION		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	See above.	N/A
U.3	Protective Screen.....:	See above.	N/A
V	DETERMINATION OF ACCESSIBLE PARTS (FINGERS, PROBES AND WEDGES)		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

5.4.1.4, 6.3.2, 9.0, B.2.6	TABLE: Temperature measurements					P	
	Supply voltage (V)	6VDC, label downward				—	
	Ambient T _{min} (°C)	--	--	--	--	—	
	Ambient T _{max} (°C)	--	--	--	--	—	
	T _{ma} (°C)	25	--	--	--	—	
Maximum measured temperature T of part/at:		T (°C)				Allowed T _{max} (°C)	
Test condition		A.	--	--	--	--	
Inlet body		34.3	--	--	--	90	
PCB near U2		37.8	--	--	--	130	
PCB near U5		38.2	--	--	--	130	
Enclosure of AC Adapter		36.7	--	--	--	90	
T _{amb}		27.5	--	--	--	--	
T _{ma}		25	--	--	--	--	
Measured enclosure only							
Surface plastic enclosure of top (>1 s and <10 s)		32.2	--	--	--	60	
Surface plastic enclosure of bottom (>1 s and <10 s)		31.7	--	--	--	60	
Surface plastic enclosure of left side (>1 s and <10 s)		31.1	--	--	--	60	
Surface plastic enclosure of right side (>1 s and <10 s)		30.8	--	--	--	60	
T _{amb}		27.6	--	--	--	--	
Supplementary information:							
Temperature T of winding:	t ₁ (°C)	R ₁ (Ω)	t ₂ (°C)	R ₂ (Ω)	T (°C)	Allowed T _{max} (°C)	Insulation class
--	--	--	--	--	--	--	--
Supplementary information:							
Note 1: T _{ma} should be considered as directed by applicable requirement							
Note 2: T _{ma} 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:				

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

5.4.4.2, 5.4.4.5 c) 5.4.4.9	TABLE: Distance through insulation measurements					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.				

5.5.2.2	TABLE: Stored discharge on capacitors					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:						

5.6.6.2	TABLE: Resistance of protective conductors and terminations				N/A
Accessible part		Test current (A)	Duration (min)	Voltage drop (V)	Resistance (Ω)
--		--	--	--	--
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 ^{*)}	PS Classification	
A	6VDC	Power (W) :	<PS2	--	PS1	
		V _A (V) :	<PS2	--		
		I _A (A) :	<PS2	--		
Supplementary Information:						
(*) Measurement taken only when limits at 3 seconds exceed PS1 limits						

B.2.5	TABLE: Input test						P
U (V)	I (A)	I rated (A)	P (W)	P rated (W)	Fuse No	I fuse (A)	Condition/status
6	0.58	1	3.48	--	---	---	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
U2	Short	6Vdc	10 s	--	--	--	--	Unit shut down, 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 _{OC} (V)	I _{SC} (A)		S (VA)	
			Meas.	Limit	Meas.	Limit
--	--	--	--	--	--	--
Supplementary Information:						

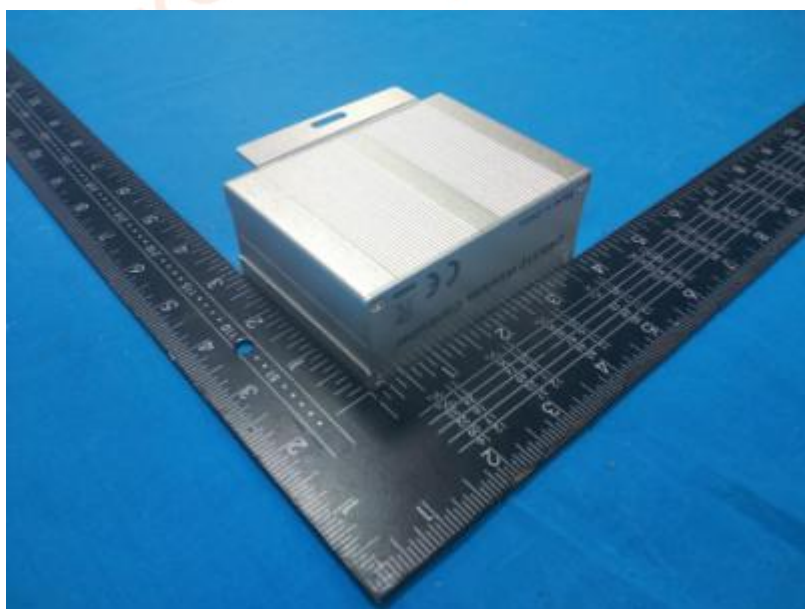
T.2, T.3, T.4, T.5	TABLE: Steady force test					P
	Part/Location	Material	Thickness (mm)	Force (N)	Test Duration (sec)	Observation
	Top enclosure	Metal	--	250	5	No damaged
	Side enclosure	Metal	--	250	5	No damaged
Supplementary information:						

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

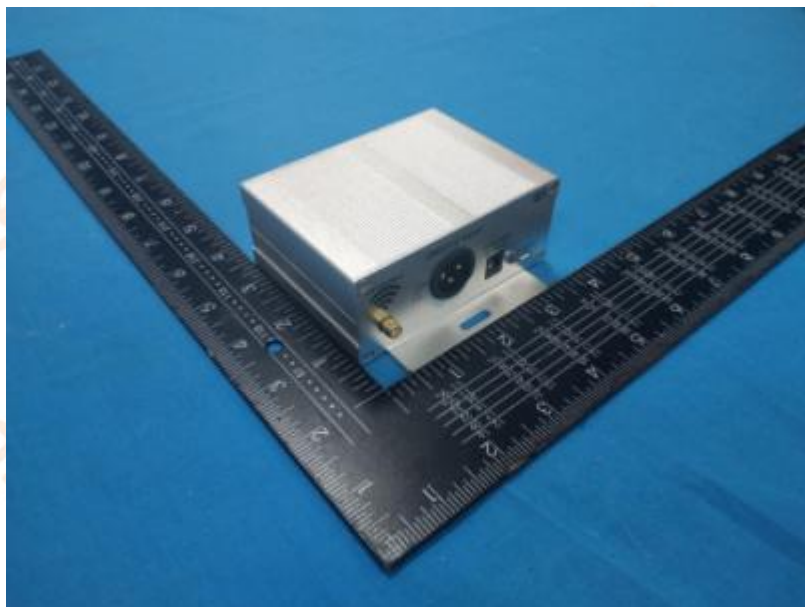
T.7	TABLE: Drop tests				P
Part/Location	Material	Thickness (mm)	Drop Height (mm)	Observation	
Top enclosure	Metal	--	1000	No damaged	
Side enclosure	Metal	--	1000	No damaged	
Supplementary information:					

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.						

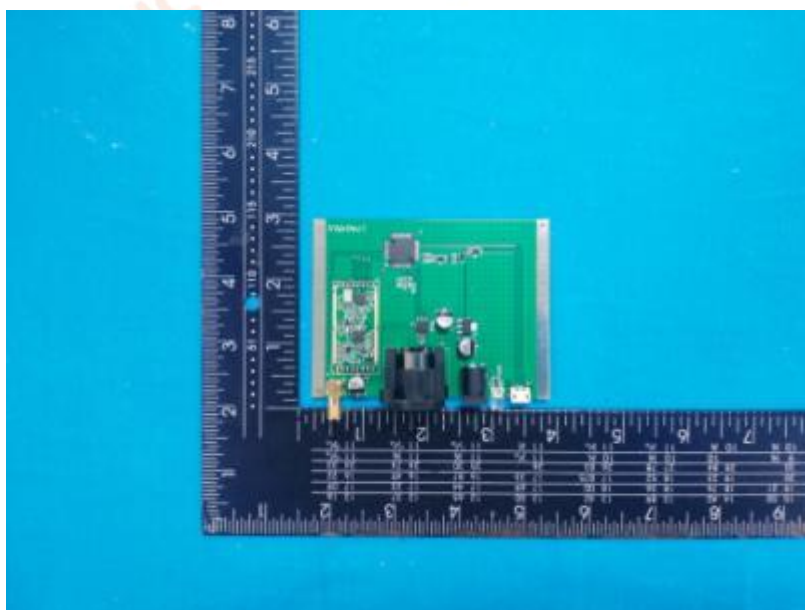
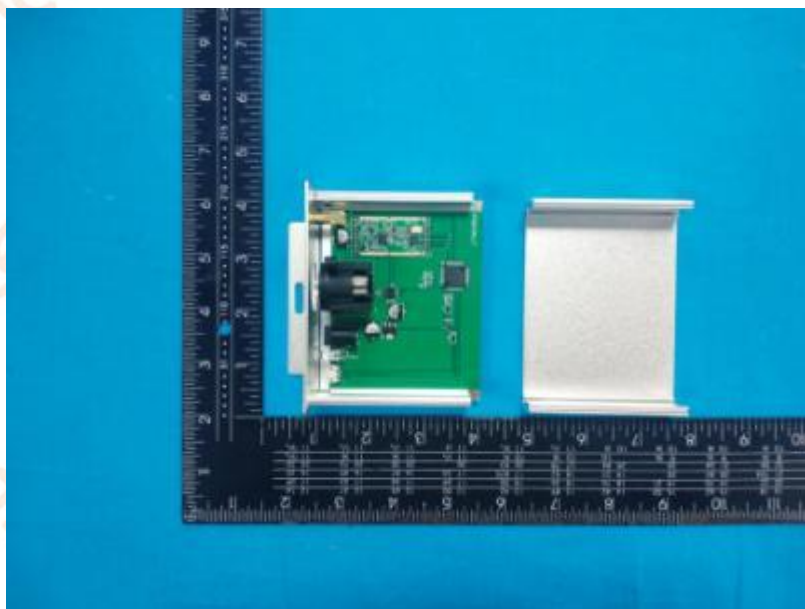
Photos Documents



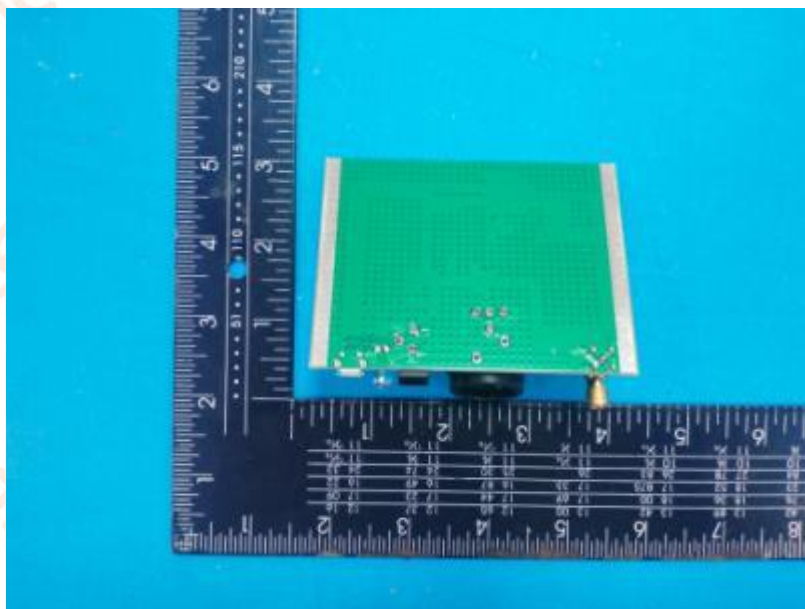
Photos Documents



Photos Documents



Photos Documents



Photos Documents



===End of the report===