



CE LVD REPORT

Prepared For:	012128 XXXXX
Manufacturer :	012128 XXXXX
Trade Mark:	N/A
Product Name:	Bluetooth speaker
Main Test Model:	2242522
Additional Models :	18488, 30901, 30969, 43369
Prepared By:	Dongguan True Safety Testing Co., Ltd. Room 201, No.20, East of Houjie Avenue, Houjie, Dongguan, Guangdong, China
Test Date:	May. 11, 2023 To May. 15, 2023
Date of Report:	May. 15, 2023
Report No.:	TST20230580149-1SR



Test Report EN 62368-1 Audio/video, information and communication technology equipment – Part 1: Safety requirements	
Testing laboratory	: Dongguan True Safety Testing Co., Ltd.
Address	: Room 201, No.20, East of Houjie Avenue, Houjie, Dongguan, Guangdong, China
Testing location	: Dongguan True Safety Testing Co., Ltd.
Applicant	: 012128
Address	: XXXXXX
Standard	: EN IEC 62368-1:2020+A11:2020
Procedure deviation	: N/A.
Non-standard test method	: N/A.
Type of test object	: Bluetooth speaker
Trademark	: N/A
Model/type reference	: 2242522
Rating	: DC 5V 3W
Manufacturer	: 012128
Address	: XXXXXX
Test item particulars:	
Equipment mobility	: N/A
Operation condition	: Continuous
Class of equipment	: Class III
Protection against ingress of water ..	: N/A.
Possible test case verdicts :	
test case does not apply to the test object	: N(.A.)
test object does meet the requirement	: P(ass)
test object does not meet the requirement	: F(ail)

General remarks:	
"(see remark #)" refers to a remark appended to the report. "(see appended table)" refers to a table appended to the report. Throughout this report a comma is used as the decimal separator. The test results presented in this report relate only to the object tested. This report shall not be reproduced except in full without the written approval of the testing laboratory.	Attached with: A. photo documentation

Bluetooth speaker
Model : 2242522
Rating :DC 5V 3W



012128



Name and address of the testing laboratory : Dongguan True Safety Testing Co., Ltd.

Room 201, No.20, East of Houjie Avenue, Houjie,
Dongguan, Guangdong, China

Test by :

Grace

May. 15, 2023

Signature

Date

Technician

Title

Reported by :

Apple Li

May. 15, 2023

Signature

Date

Project Engineer

Title

Andy



May. 15, 2023

Approved by :

Signature

Date

Andy/ Manager



EN 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
4	GENERAL REQUIREMENTS		P
4.1.1	Acceptance of materials, components and subassemblies		P
4.1.2	Use of components		P
4.1.15	Markings and instructions	See Annex F	P
4.4.5	Safeguard robustness		N/A
4.5	Explosion		N/A
5	ELECTRICALLY-CAUSED INJURY		P
5.2	Classification of electrical energy sources	ES1.	P
5.2.1	Electrical energy source classifications		P
5.2.2	ES1, ES2 and ES3 limits	ES1	P
5.2.2.2	Steady-state voltage and current		N/A
5.2.2.3	Capacitor		N/A
5.2.2.4	Single pulses		N/A
5.2.2.5	Repetitive pulses		N/A
5.2.2.6	Ringling signals		N/A
5.2.2.7	Audio signals		P
5.3	Protection against electrical energy sources	ES1	P
5.3.2.2	Safeguards between ES2 and ordinary persons		N/A
5.3.2.3	Safeguards between ES3 and ordinary persons		N/A
5.3.3.2	Safeguards between ES3 and instructed persons		N/A
5.3.4.2	Safeguards between ES3 and skilled persons		N/A
5.3.5.2	Safeguard between ES1, ES2 and ES3		N/A
5.3.5.3	Protection of ES2 against ES3		N/A
5.3.6.1	Accessibility to electrical energy sources and safeguards for ordinary persons		N/A
	Accessibility to electrical energy sources and safeguards for instructed persons are prevented from access to.....:		N/A
5.3.6.2	Contact requirements Air gap (mm)		N/A
5.3.6.4	Terminals for connecting stripped wire		N/A



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Clause	Requirement + Test	Result - Remark	Verdict
5.4	Insulation materials and requirements		N/A
5.4.1.2	Properties of insulating material	No insulation considered	N/A
5.4.1.3	Humidity conditioning		P
	Relative humidity (%)..... :	95%	
	Temperature (°C), ... :	28°C	
	Duration (h)..... :	48h	
5.4.1.4	Frequency:		N/A
	Alternative electric strength test for solid insulation		
5.4.1.5	Maximum operating temperature for insulating materials	See appended table 5.4.1.5	N/A
5.4.1.6	Pollution degree:		N/A
5.4.1.7	Insulation in transformers with varying dimensions		N/A
5.4.1.8	Insulation in circuits generating starting pulses		N/A
5.4.1.9	Determination of working voltage		N/A
5.4.1.10	Insulating surfaces		N/A
5.4.1.11	Thermoplastic parts on which conductive metallic parts are directly mounted		N/A
5.4.1.11.2	Vicat softening temperature (°C):		N/A
5.4.1.11.3	Ball pressure	See appended table 5.4.1.11.3	P
5.4.2	Clearances		N/A
5.4.2.3	Determination of Clearances		N/A
	Transient Voltage.....:		
	Required withstand voltage:		
	Measured peak working voltage.....:		
5.4.2.4	Determination of transient voltages		N/A
5.4.2.5	Determination of required withstand voltage		N/A
5.4.2.6	Measurement of transient voltage levels		N/A
5.4.2.7	Determination of the minimum clearance		N/A
5.4.2.8	Minimum clearances based on electric strength test		N/A
5.4.2.9	Multiplication factors for clearances and test voltage.....:		N/A
5.4.3	Creepage distances		N/A



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Clause	Requirement + Test	Result - Remark	Verdict
5.4.3.1	General		N/A
5.4.3.2.2	Material Group	IIIb	
5.4.4	Solid insulation		N/A
5.4.4.2	Minimum distance through insulation		N/A
5.4.4.3	Insulation compound forming solid insulation		N/A
5.4.4.4	Semiconductor solid insulation		N/A
5.4.4.5	Cemented joints		N/A
5.4.4.6	Thin sheet material		N/A
5.4.4.6.1	General requirements		N/A
5.4.4.6.2	Separable thin sheet material		N/A
5.4.4.6.3	Non-separable thin sheet material		N/A
5.4.4.6.4	Standard test procedure for non-separable thin sheet material		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		N/A
	High frequency peak working voltage V_{PW} (V).....:		
	Total thickness d (mm)		
	Breakdown electric field strength E_p (kV/mm)		
	Reduction Factor K_R (kV/mm)		
	Breakdown electric field strength E_F		
	Actual electric strength V_W (kV)		
5.4.5	Antenna terminal insulation		N/A
5.4.5.1	General		N/A
5.4.5.2	Antenna Terminal connections		N/A
	Insulation resistance (M).....:		
5.4.6	Insulation of internal wire as part of supplementary insulation		N/A
5.4.7	Thermal cycling test procedure		N/A
5.4.8	Test for degree 1 environment and for an insulating compound		N/A
5.4.9	Tests for semiconductor components and for cemented joints		N/A



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Clause	Requirement + Test	Result - Remark	Verdict
5.4.11	Electric strength test	See appended table 5.4.11	N/A
5.4.11.1	Test procedure for a solid insulation type test		N/A
5.4.11.2	Test procedure for routine tests		N/A
5.4.12	Protection against overvoltages between external circuit		N/A
5.4.12.1	Parts and circuits separated from external circuits		N/A
5.4.13	Insulation between external circuits and earthed circuitry		N/A
5.4.13.1	Exceptions to separation between external circuits and earth		N/A
5.4.13.2	Requirements		N/A
	Rated operating voltage U_{op} (V).....:		
	Nominal voltage U_{pea} (V).....:		
	Max increase due to variation U_{sp} :		
	Max increase due to ageing U_{sa}:		
	$U_{op}=U_{peak} + U_{sp} + U_{sa}$:		
5.5	Components as safeguards		
5.5.1	General	Components used as safeguards only inside separately approved	N/A
5.5.2	Components as basic safeguard and supplementary safeguard		N/A
5.5.2.2	Capacitors and RC units as basic safeguards and supplementary safeguard		N/A
5.5.2.3	Safeguards against capacitor discharge		N/A
	Capacitance (nF):		
	Charged voltage (V):		
	Measured voltage after 2 s (V):		
5.5.2.4	Transformers as basic safeguard or supplementary safeguard		N/A
5.5.2.5	Optocouplers as basic safeguard or supplementary safeguard		N/A
5.5.2.6	Relay as basic safeguard or supplementary safeguard		N/A
5.5.2.7	Resistors as basic safeguard or supplementary safeguard		N/A



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Clause	Requirement + Test	Result - Remark	Verdict
5.5.2.8	SPD as basic safeguard		N/A
5.5.2.9	Other components as basic safeguards between ES1 and ES2		N/A
5.5.3	Components as reinforced safeguard		N/A
5.5.3.1	General requirements		N/A
5.5.3.2	Capacitors and RC		N/A
5.5.3.3	Transformer		N/A
5.5.3.4	Optocouplers		N/A
5.5.3.5	Relays		N/A
5.5.3.6	Resistors		N/A
5.5.4	Insulation between the mains and external circuit consisting of a coaxial		N/A
5.5.5	Components and parts that may bridge insulation		N/A
5.5.5.1	Access to ES2 or ES3		N/A
5.6	Protective conductor		N/A
5.6.1	General requirements		N/A
5.6.2	Corrosion		N/A
5.6.3	Colour of insulation		N/A
5.6.4	Test for low current-carrying protective conductors resistance (), voltage drop (V), test current (A), duration (min)		N/A
5.6.5	Protective conductors used as basic safeguard between ES1 and ES2		N/A
5.6.5.1	General		N/A
5.6.5.2	Fault current-carrying protective conductors		N/A
5.6.5.2.3	Protective earthing conductor size (mm ²)		
	Protective bonding conductor size (mm ²).		
5.6.6	Protective conductors used as supplementary safeguard		N/A
5.6.6.1	General		N/A
5.6.6.2	Size of protective earthing conductors and terminals, Rated current (A)		N/A
	Conductor size.....		
	Terminal size		



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Clause	Requirement + Test	Result - Remark	Verdict
5.6.6.3.	Size of protective bonding conductors and terminals, Rated current (A)		N/A
	Conductor size (mm ²).....		
	Terminal size (mm).....		
5.6.6.4	Resistance of protective conductors and their terminations		N/A
5.6.6.4.1	Protective bonding conductors and terminals rated 80 A or more		N/A
5.6.6.4.2	Protective Bonding Conductor		N/A
	Resistance ().....		
	Voltage drop (V)		
	Test current (A)		
	Duration (min).....		
5.6.7	Protective earthing conductors serving as double or reinforced safeguard		N/A
5.6.7.1	General		N/A
5.6.7.2	Requirements for protective earthing conductors serving as reinforced safeguard		N/A
5.6.7.3	Terminations		N/A
	Terminal size (mm).....		
5.6.8	Reliable earthing		N/A
5.6.8.2	Reliable earthing for protection		N/A
5.6.8.3	Reliable earthing when the basic safeguard between ES1 & ES2 is provided by earthing ES1		N/A
5.7	Prospective touch voltage, touch current and protective conductor current		--
5.7.2	Measuring devices and networks		N/A
5.7.3	Equipment set-up, supply connections and earth connections		N/A
	System of interconnected equipment (separate connections/single connection)	No interconnected equipment.	
	Multiple connections to mains (one connection at a time/simultaneous connections)		
5.7.4	Unearthed conductive accessible parts		N/A
5.7.4.1	Unearthed parts accessible to ordinary persons		N/A
5.7.4.2	Unearthed parts accessible to instructed persons		N/A



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Clause	Requirement + Test	Result - Remark	Verdict
5.7.5	Earthed accessible conductive parts		N/A
5.7.6	Protective conductor current		N/A
	Supply Voltage (V).....:		
	Measured current (mA)		
	Instructional Safeguard		N/A
5.7.7	Prospective touch voltage and touch current due to external circuits		N/A
5.7.8	Summation of touch currents from 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		N/A
6.2	Classification of power sources (PS) and potential ignition sources (PIS)		N/A
6.2.2	Power source circuit classifications		N/A
6.2.2.1	General		N/A
6.2.2.2	Power measurement for worst-case load fault	(See appended table 6.2.2)	N/A
6.2.2.3	Power measurement for worst-case power source fault	(See appended table 6.2.2)	N/A
6.2.2.4	PS1	(See appended table 6.2.2)	N/A
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
	Component, location		
6.2.3.2	Resistive PIS		N/A
	Component, location		
6.3	Safeguards against fire under normal operating conditions and abnormal operating conditions		
6.3.1	Requirements	See appended table 6.3.2	N/A
6.4	Safeguards against fire under single fault conditions		N/A
6.4.1	Protection Method		N/A



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Clause	Requirement + Test	Result - Remark	Verdict
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		N/A
6.4.3.1	General		N/A
6.4.3.2	Supplementary Safeguards		N/A
6.4.3.3	Single Fault Conditions		N/A
6.4.5	Control of fire spread in PS2 circuits		N/A
6.4.5.2	Supplementary safeguards		N/A
6.4.6	Control of fire spread in PS3 circuit		N/A
6.4.7	Separation of combustible materials from a PIS		N/A
6.4.7.1	General		N/A
6.4.7.2	Separation by distance		N/A
6.4.7.3	Separation by a fire barrier		N/A
6.4.8	Fire enclosures and fire barriers		N/A
6.4.8.1	Fire enclosure and fire barrier material properties		N/A
6.4.8.1.1	Requirements for a fire barrier		N/A
6.4.8.1.2	Requirements for a fire enclosure		N/A
6.4.8.2	Constructional requirements for a fire enclosure and a fire barrier		N/A
6.4.8.2.1	Fire enclosure and fire barrier openings		N/A
6.4.8.2.2	Fire barrier dimensions		N/A
6.4.8.2.3	Fire Enclosure dimensions, top openings (mm) .. :		N/A
	Needle Flame test		N/A
6.4.8.2.4	Bottom Openings in Fire Enclosure, condition met a), b) and/or c): dimensions (mm) :		N/A
6.4.8.2.5	Integrity of the fire enclosure, condition met: a), b) or c): dimensions (mm) :		N/A
6.4.8.3	Separation of PIS from fire enclosure and fire barrier distance (mm) or flammability rating :		N/A
6.5	Internal and external wiring		N/A
6.5.1	General		N/A
6.5.2	Cross-sectional area (mm ²):		--
6.5.3	Flammability		N/A



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Clause	Requirement + Test	Result - Remark	Verdict
6.5.4	Requirements for interconnection to building wiring	See Annex Q	N/A
6.6	Likelihood of fire due to entry of foreign objects,	See Annex P	N/A
	Construction and dimensions (mm) :		
6.7	Safeguards against fire due to connection to secondary equipment		N/A
	External port limited to PS2		N/A

7	CHEMICALLY-CAUSED INJURY		N/A
7.2	Reduction of exposure to hazardous chemicals		N/A
7.3	Ozone exposure		N/A
7.4	Use of PPE		N/A
	Type of PPE..... :		
7.5	Use of instructional safeguards and instructions		N/A
	Instruction Safeguard (ISO 7010)		N/A
7.6	Batteries		N/A

8	MECHANICALLY-CAUSED INJURY		P
8.1	General		P
8.2	Mechanical energy source classifications	MS1: No sharp edges or corners.	P
8.3	Protection against mechanical energy sources		N/A
8.4	Safeguards against parts with sharp edges and corners		N/A
8.4.1	Safeguards		N/A
8.4.2	Instructional safeguard		N/A
8.5	Safeguards against moving parts		N/A
8.5.2	MS2 or MS3 part required to be accessible for the function of the equipment		N/A
	Instructional Safeguard..... :		
8.5.4	Special categories of equipment comprising moving parts		N/A
8.5.4.1	Large data storage equipment		N/A
8.5.4.2	Equipment having electromechanical device for destruction of media		N/A



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Clause	Requirement + Test	Result - Remark	Verdict
8.5.4.2.1	Safeguards and Safety Interlocks		N/A
8.5.4.2.2	Instructional safeguards against moving parts		N/A
	Instructional Safeguard.....:		
8.5.4.2.3	Disconnection from the supply		N/A
8.5.4.2.4	Probe type and force (N)		N/A
8.5.5	Protection of persons against loosening, exploding or imploding parts		N/A
8.5.5.1	Protection against MS3 parts		N/A
8.5.5.2.1	Mechanical enclosure requirements for rotating solid media		N/A
8.5.5.2.2	High pressure lamps		N/A
8.6	Stability		N/A
8.6.1	Product classification		N/A
	Instructional Safeguard.....:		
8.6.2	Static stability for floor standing equipment		N/A
8.6.2.1	Requirements		N/A
8.6.2.2	Static stability test		N/A
	Applied Force.....:		
8.6.2.3	Relocation stability test		N/A
	Unit configuration during 10° tilt.....:		
8.6.3	Non-floor standing equipment having controls that are accessed during normal use or having displays with moving images		N/A
8.6.3.1	Glass slide test		N/A
8.6.3.2	Horizontal force test (Applied Force).....:		N/A
	Position of feet or movable parts.....:		
8.7	Equipment mounted to wall or ceiling		N/A
8.7.1	Mounting Means (Length of screws (mm) and mounting surface)		N/A
8.7.2	Direction and applied force.....:		N/A
8.8	Handles strength		N/A
8.8.1	Classification		N/A



EN 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
8.8.2	Applied Force		N/A
8.9	Wheels or casters attachment requirements		N/A
8.9.1	Classification		N/A
8.9.2	Applied force.....		N/A
8.10	Carts, stands and similar carriers		N/A
8.10.1	General		N/A
8.10.2	Marking and instructions		N/A
	Instructional Safeguard.....		
8.10.3	Cart, stand or carrier loading test and compliance		N/A
	Applied force.....		
8.10.4	Cart, stand or carrier impact test		N/A
8.10.5	Mechanical stability		N/A
	Applied horizontal force (N)		
8.10.6	Thermoplastic temperature stability (°C).....		N/A
8.11	Mounting means for rack mounted equipment		N/A
8.11.2	Mechanical strength test, variable <i>N</i>		N/A
8.11.3	Mechanical strength test 250N, including end stops		N/A
8.12	Telescoping or rod antennas		N/A
	Button/Ball diameter (mm)		
9	THERMAL BURN INJURY		N/A
9.2	Thermal energy source classifications		N/A
9.3	Protection against thermal energy sources		N/A
9.3.2	Protection of ordinary person		N/A
9.3.2.1	Protection of ordinary person against TS1		N/A
9.3.2.2	Protection of ordinary person against TS2		N/A
	Instructional Safeguard..... :		N/A
9.3.2.3	Protection of ordinary person against TS3		N/A
9.3.2.4	Identify safeguards		N/A
9.3.3	Protection of instructed person		N/A



EN 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
9.3.3.1	Protection of instructed person against TS2		N/A
9.3.3.2	Protection of instructed person against TS3 (Identify safeguards)		N/A
9.3.4	Protection of skilled person		N/A
	Instructional Safeguard		N/A
9.4.1	Equipment safeguard		N/A
9.4.1.2	Temperatures on Accessible Surfaces		N/A
9.4.2	Instructional safeguard		N/A

10	RADIATION		--
10.2	Radiation energy source classifications		N/A
10.3	Requirements for electromagnetic radiation		N/A
10.3.1	General		N/A
10.3.1.1	Protection of persons from non-ionizing radiation		N/A
10.3.1.2	Non-ionizing radiation from lasers		N/A
	Laser Class, conditions		
10.3.1.3	Non-ionizing optical radiation from lamps and lamp systems (including LEDs)		N/A
10.3.1.3.1	Identification of lamp or lamp system		N/A
10.3.1.3.2a	UV radiation		N/A
	Instructional Safeguard (person and text)		
10.3.1.3.2b	Visible Radiation		N/A
	Instructional Safeguard (person and text)		
10.3.2	Non-ionizing radiation from radio frequencies in the range 0 Hz to 300 GHz		N/A
10.3.3	Protection of persons from ionizing radiation (X-radiation)		N/A
10.3.3.2	Maximum radiation (pA/kg)		
10.3.3.3	Supply voltage (V), distance (mm)		
10.3.3.4	Abnormal and Single fault condition		N/A
10.3.4	Protection of materials from lamps that produce UV radiation		N/A
10.4	Protection against acoustic energy sources		N/A
10.4.1	Safeguards		N/A



EN 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
10.4.3	Protection of ordinary persons from acoustic energy sources (instructional safeguard)		N/A
10.6	Protection against acoustic energy sources		N/A
10.6.1	General		N/A
10.6.2	Classification		N/A
	Acoustic output,dB(A).....		N/A
	Output voltage, unweighted r.m.s.....		N/A
10.6.4	Protection of persons		N/A
	Instruction safeguards.....		N/A
	Equipment safeguard prevent ordinary person to RS2.....		N/A
	Means to actively inform user of increase sound pressure.....		N/A
	Equipment safeguard prevent ordinary person to RS2.....		N/A
10.6.5	Requirements for listening devices (headphones, earphones, etc.)		N/A
10.6.5.1	Corded passive listening devices with analogue input		N/A
	Input Voltage with 94dB(A) L_{Aeq} acoustic pressure output.....		N/A
10.6.5.2	Corded listening devices with digital input		N/A
	Maximum dB(A)		N/A

B	NORMAL OPERATING CONDITION TESTS, ABNORMAL OPERATING CONDITION TESTS AND SINGLE FAULT CONDITION TESTS		P
B.2	Normal Operating Conditions		N/A
B.2.1	General requirements	See Test Item Particulars and appended test tables	N/A
	Audio Amplifiers and equipment with audio amplifiers		N/A
B.2.5	Input test	See appended table B.2.5	N/A
B.3	Simulated abnormal operating conditions		N/A
B.3.1	General requirements		N/A
B.3.2	Covering of ventilation openings		N/A
B.3.3	D.C. mains polarity test		P



EN 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
B.3.4	Setting of voltage selector		N/A
B.3.5	Maximum load at output terminals		N/A
B.3.6	Reverse battery polarity		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		N/A
B.4	Simulated single fault conditions		N/A
B.4.2	Temperature controlling device open or short- circuited		N/A
B.4.3	Motor tests		N/A
B.4.3.1	Motor blocked or rotor locked increasing the internal ambient temperature		N/A
B.4.4	Short circuit of functional insulation		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		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		N/A
B.4.7	Continuous operation of components		N/A
B.4.8	Class 1 and Class 2 energy sources within limits during and after single fault conditions		N/A
B.4.9	Battery charging under single fault conditions		P
C	UV RADIATION		N/A
C.1	Protection of materials in equipment from UV radiation		N/A
C.1.2	Requirements		N/A
C.1.3	Test method		N/A
C.2	UV light conditioning test		N/A
C.2.1	Test apparatus		N/A
C.2.2	Mounting of test samples		N/A
C.2.3	Carbon-arc light-exposure apparatus		N/A



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Clause	Requirement + Test	Result - Remark	Verdict
C.2.4	Xenon-arc light exposure apparatus		N/A
D	TEST GENERATORS		N/A
D.1	Impulse test generators		N/A
D.2	Antenna interface test generator		N/A
D.3	Electronic pulse generator		N/A
E	TEST CONDITIONS FOR EQUIPMENT CONTAINING AUDIO AMPLIFIERS		N/A
E.1	Audio amplifier normal operating conditions		N/A
	Audio signal voltage (V).....:		
E.2	Audio amplifier abnormal operating conditions		N/A
F	ANNEX F, EQUIPMENT MARKINGS, INSTRUCTIONS, AND INSTRUCTIONAL SAFEGUARDS		P
F.1	General requirements		P
	Instructions – Language		
F.2	Letter symbols and graphical symbols		P
	Letter symbols		P
	Graphic symbols EN, ISO or manufacturer specific		P
F.3	Equipment markings		P
F.3.1	Equipment marking locations		P
F.3.2	Equipment identification markings		P
F.3.2.1	Manufacturer identification	See the marking label	P
F.3.2.2	Model identification.....:	See the marking label	P
F.3.3	Equipment rating markings		P
F.3.3.1	Equipment without direct connection to mains		P
F.3.3.2	Nature of supply voltage.....:	—	P
F.3.3.3	Rated voltage	See the marking label	P
F.3.3.4	Rated frequency		N/A
F.3.3.5	Rated current or rated power	See the marking label	P
F.3.3.6	Equipment with multiple supply connections		N/A
F.3.4	Voltage setting device		N/A



EN 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
F.3.5	Terminals and operating devices		N/A
F.3.5.1	Mains appliance outlet and socket-outlet markings.....:		N/A
F.3.5.2	Switch position identification marking.....:		P
F.3.5.3	Replacement fuse identification and rating markings.....:		N/A
F.3.5.4	Replacement battery identification marking		N/A
	Language	English	
F.3.6	Equipment markings related to equipment classification		P
F.3.6.1	Class I Equipment		N/A
F.3.6.1.1	Protective earthing conductor terminal		N/A
	-Complete equipment (IEC60417-5017)		N/A
	-Sub-assembly/component (IEC60417-5017 or – 5019)		N/A
F.3.6.1.2	Neutral conductor terminal		N/A
F.3.6.1.3	Protective bonding conductor terminals		N/A
F.3.6.1.4	Terminal marking location		N/A
F.3.6.2	Class II equipment (IEC60417-5172)		N/A
F.3.7	Equipment IP rating marking	Ordinary equipment.	--
F.3.8	Durability, legibility and permanence of markings	Marking (printed on the enclosure) comply with the requirements	P
F.3.9	Test for permanence of markings		P
F.4	Instructions		--
	Instructions given for installation or initial use		P
	Equipment for use in locations where children not likely to be present marked with the relevant marking		N/A
	Equipment intended for use only in restricted access area		N/A
	Audio equipment terminals classified as ES3 and other equipment with terminals marked in accordance F.3.6.1		N/A
	Protective earthing employed as safeguard		N/A
	Protective earthing conductor current exceeding ES 2 limits		N/A



EN 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Symbols used on equipment		P
	Permanently connected equipment not provided with all-pole mains switch		N/A
	Replaceable components or modules providing safeguard function		N/A
F.5	Instructional safeguards		N/A
	Where -instructional safeguardl is referenced in the test report it specifies the required elements, location of marking and/or instruction		N/A

G	COMPONENTS		P
G.1	Switches		N/A
G.1.1	General requirements		N/A
G.1.2	Ratings, endurance, spacing, maximum load		N/A
G.2	Thermal cut-offs		N/A
G.2.1 a), b)	Thermal cut-outs separately approved according to IEC 60730 with conditions indicated in a) & b)		N/A
G.2.1c)	Thermal cut-outs tested as part of the equipment as indicated in c)		N/A
G.3	Thermal links		N/A
G.3.1a)	Thermal links separately tested with IEC 60691		N/A
G.3.1b)	Thermal links tested as part of the equipment		N/A
	Aging hours (H)		
	Single Fault Condition		
	Test Voltage (V) and Insulation Resistance ()... :		
G.4	PTC Thermistors		N/A
G.5	Overcurrent protection devices		N/A
G.6	Protective devices not mentioned in G.2 to G.5		N/A
	Compliance (device and single fault condition):		N/A
G.7	Transformers		N/A
G.7.1	Requirements applied (IEC61204-7, IEC61558-1/- 2, and/or EN62368-1)		N/A
	Position.....:		
	Method of protection.....:		
G.7.2	Insulation		N/A



EN 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Protection from displacement of windings..... :		N/A
G.7.3	Overload test		N/A
G.7.3.1	Test conditions		N/A
G.7.3.2	Winding Temperatures testing in the unit		N/A
G.7.3.3	Winding Temperatures - Alternative test method		N/A
G.8	Motors		N/A
G.8.1	General requirements		N/A
	Position..... :		
G.8.2	Test conditions		N/A
G.8.3	Running overload test		N/A
G.8.4	Locked-rotor overload test		N/A
	Test duration (days) :		
G.8.5	Running overload test for d.c. motors in secondary circuits		N/A
G.8.5.2	Tested in the unit		N/A
G.8.5.3	Tested on the Bench - Alternative test method; test time (h) :		N/A
G.8.5.4	Electric strength test (V):		N/A
G.8.6	Locked-rotor overload test for d.c. motors in secondary circuits		N/A
G.8.6.2	Tested in the unit		N/A
G.8.6.3	Tested on the bench - Alternative test method; test time (h) :		N/A
G.8.7.1	Electric strength test for ES2 or ES3 motors (V) :		N/A
G.8.7.2	Maximum temperatures		N/A
G.8.8	Motors with capacitors		N/A
G.8.9	Three-phase motors		N/A
G.8.10	Series motors		N/A
	Operating voltage..... :		
G.9	Mains supply cords		N/A
G.9.1	General requirements		N/A
	Type..... :		
	Rated current (A) :		



EN 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Cross-sectional area (mm ²), (AWG) :		
G.9.2	Compliance and test method		N/A
G.9.3	Cord anchorages and strain relief for non- detachable power supply cords		N/A
G.9.3.1	General requirements		N/A
G.9.3.2	Cord strain relief		N/A
G.9.3.2.1	Requirements		N/A
	Strain relief test force (N)..... :		
G.9.3.2.2	Strain relief mechanism failure		N/A
G.9.3.2.3	Cord sheath or jacket position, distance (mm):		
G.9.3.2.4	Strain relief comprised of polymeric material		N/A
G.9.4	Cord Entry		N/A
G.9.5	Non-detachable cord bend protection		N/A
G.9.5.1	Requirements		N/A
G.9.5.2	Mass (g) :		
	Diameter (m) :		
	Temperature (C) :		
G.9.6	Cord Replacement		N/A
G.9.7	Supply wiring space		N/A
G.9.7.2	Stranded wire		N/A
G.9.7.2.1	Test with 8 mm strand		N/A
G.10	Metal oxide varistors		N/A
G.10.1	General requirements		N/A
G.10.2	Basic safeguard		N/A
G.10.3	Supplementary safeguard		N/A
G.10.3.2	Sudden failure		N/A
G.10.3.3	Gradual failure		N/A
G.11	WOUND COMPONENTS		N/A
G.11.1	Wire insulation in wound components		N/A
G.11.1.1	General (thickness (mm), or number of layers		N/A
G.11.1.2	Solvent-based enamel winding insulation		N/A
G.11.1.3	Protection against mechanical stress in wound components		N/A



EN 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
G.11.2	Additional insulation in wound components		N/A
G.11.2.1	General requirements		N/A
G.11.2.2	Dimension (mm) or test		N/A
G.11.3	Endurance test on wound components		N/A
G.11.3.1	General test requirements		N/A
G.11.3.3	Heat run test		N/A
	Time (s) :		
	Temperature (°C) :		
G.11.3.4	Vibration Test		N/A
G.11.3.5	Wound Components supplied by mains		N/A
G.12	Circuits generating starting pulses		N/A
G.12.1	Insulation in circuits generating starting pulses		N/A
G.12.2	Clearances in circuits generating starting pulses		N/A
	Spacing or Electric Strength Test (specify option and test results) :		N/A
G.13	IC current limiters		N/A
	IC current limiters in PS1 or PS 2 fulfil all the conditions as set out		N/A
G.14	Test for resistors serving as safeguard		N/A
G.14.1	General requirements		N/A
G.14.2	Resistor test		N/A
G.14.3	Test for resistors serving as safeguards between the mains and an external circuit consisting of a coaxial cable		N/A
G.14.3.1	General requirements		N/A
G.14.3.2	Voltage surge test		N/A
G.14.3.3	Impulse test		N/A
G.15	Capacitor and RC units serving as safeguards bridging insulation		N/A
G.15.1	General requirements		N/A
G.15.2	Conditioning of capacitors and RC units		N/A
G.15.3	Rules for selecting capacitors		N/A
G.16	Optocouplers as safeguards		N/A
	Optocouplers comply with IEC 60747-5-5 with testing conditions as indicated		N/A



EN 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
G.17	Relays		N/A
G.17.1	General requirements		N/A
G.17.2	Requirements for relays		N/A
G.17.3	Overload test		N/A
G.17.4	Electric strength test		N/A
G.17.5	Relay controlling mains socket-outlets		N/A
G.17.6	Test method		N/A
G.17.7	Compliance		N/A
G.18	Printed boards		P
G.18.1	General requirements		N/A
G.18.2	Uncoated printed boards		P
G.18.3	Coated printed boards		N/A
G.18.4	Insulation between conductors on the same inner surface		N/A
	Compliance with cemented joint requirements (Specify construction)		N/A
G.18.5	Insulation between conductors on different surfaces		N/A
	Distance through insulation		N/A
	Number of insulation layers (pcs)		
G.18.6	Tests on coated printed boards		N/A
G.18.6.1	Sample preparation and preliminary inspection		N/A
G.18.6.2	Thermal conditioning		N/A
G.18.6.3	Electric strength test		N/A
G.18.6.4	Abrasion resistance test		N/A
G.19	Coating on components terminals		N/A
G.19.1	Requirements		N/A
G.19.2	Compliance and test method		N/A
G.20	Mains connectors		N/A
	Mains connector configuration		
G.21	Liquid filled components		N/A
G.21.1	General requirements		N/A
G.21.2	Requirements		N/A



EN 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
G.21.3	Compliance and test methods		N/A
G.21.3.1	Hydrostatic pressure test		N/A
G.21.3.2	Creep resistance test		N/A
G.21.3.3	Tubing and fittings compatibility test		N/A
G.21.3.4	Vibration test		N/A
G.21.3.5	Thermal cycling test		N/A
G.21.3.6	Force test		N/A
G.21.4	Compliance		N/A
G.22	Connectors other than mains connectors		N/A
	Plug is shaped that insertion into mains socket- outlets or appliance coupler is unlikely		N/A

H	CRITERIA FOR TELEPHONE RINGING SIGNALS		N/A
H.1	General requirements		N/A
H.2	Method A		N/A
H.3	Method 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 complied with		N/A
H.3.2.2	Tripping device		N/A
H.3.2.3	Monitoring voltage (V).....		

J	INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION		N/A
	General requirements		

K	SAFETY INTERLOCKS		N/A
K.1	General requirements		N/A
K.2	Components of safety interlock safeguard mechanism		N/A



EN 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
K.3	Inadvertent change of operating mode		N/A
K.4	Interlock safeguard override		N/A
K.5	Fail-safe		N/A
	Compliance		N/A
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 & 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.1.1	General		N/A
L.1.2	Permanently connected equipment		N/A
L.1.3	Parts that remain energized		N/A
L.1.4	Single phase equipment		N/A
L.1.5	Three-phase equipment		N/A
L.1.6	Switches as disconnect devices		N/A
L.1.7	Plugs as disconnect devices		N/A
L.1.8	Multiple power sources		N/A
M	BATTERIES AND FUEL CELLS		N/A
M.1	General requirements		N/A
M.2	Safety of battery cells and batteries		N/A
M.2.1	Requirements		N/A
M.2.2	Compliance and test method (identify method) .. :		N/A
M.3	Protection in battery circuits		N/A
M.3.1	Requirements		N/A
M.3.2	Test method		N/A
	- Overcharging of a rechargeable battery		N/A
	- Unintentional charging of a non-rechargeable battery		N/A



EN 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
	- Reverse charging of a rechargeable battery		N/A
	- Excessive discharging rate for any battery		N/A
M.3.3	Compliance		N/A
M.4	Endurance of a battery and its enclosure		N/A
M.4.1	Requirements		N/A
M.4.2	Compliance and test method		N/A
	Replaceable battery (instructional safeguard text):		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.2.2.3)		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
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



EN 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
M.10	Instructions to prevent reasonably foreseeable misuse (Determination of compliance: inspection, data review; or abnormal testing)		N/A
N	ELECTROCHEMICAL POTENTIALS		--
	Metal(s) used		
O	MEASUREMENT OF CREEPAGE DISTANCES AND CLEARANCES		--
	Figures O.1 to O.20 of this Annex applied.....		
P	SAFEGUARDS AGAINST ENTRY OF FOREIGN OBJECTS, FOREIGN LIQUIDS, AND SPILLAGE OF INTERNAL LIQUIDS		--
P.1	General requirements		P
P.2	Safeguards against entry of solid foreign objects		N/A
P.2.1	Top and side openings		N/A
	Location and Dimensions (mm)		
P.2.2	Transportable equipment		N/A
P.2.2.1	Openings in transportable equipment provided with energy storage devices, such as batteries		N/A
P.2.2.2	Transportable equipment without batteries and having accessible floating conductive parts (identification of supplementary safeguard)		N/A
P.2.2.3	Openings in transportable equipment in relation to metallized parts of a barrier or enclosure (identification of supplementary safeguard)		N/A
P.3	Safeguards against spillage of internal liquids		N/A
P.3.1	General requirements		N/A
P.3.2	Determination of spillage consequences		N/A
	Non-transportable (identification of safeguards) . :		N/A
	Transportable (identification of safeguards)		N/A
Q	INTERCONNECTION WITH BUILDING WIRING		N/A
Q.1	Limited power sources		N/A
	- Inherently limited output		N/A
	- Impedance limited output		N/A
	- Regulating network limited output under normal operating and simulated single fault condition		N/A
	- Overcurrent protective device limited output		N/A



EN 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
	- an IC current limiter complying with G.13		N/A
Q.2	Compliance and test method		N/A
Q.3	Test for external circuits – paired conductor cable		N/A
	Maximum output current (A)		
	Current limiting method		N/A
R	LIMITED SHORT CIRCUIT TEST		N/A
R.1	General requirements		N/A
R.2	Determination of the overcurrent protective device and circuit		N/A
R.3	Test method Supply voltage (V) and short-circuit current (A)).		N/A
S	TESTS FOR RESISTANCE TO HEAT AND FIRE		P
S.1	Flammability test for fire enclosures and fire barrier materials of equipment where the steady state power does not exceed 4 000 W		P
	Samples, material		
	Wall thickness (mm)		
	Conditioning (C)		
	Test flame according to IEC 60695-11-5 with conditions as set out		P
	- Material not consumed completely		P
	- Material extinguishes within 30s		P
	- No burning of layer or wrapping tissue		P
S.2	Flammability test for fire enclosure and fire barrier integrity		N/A
	Samples, material		
	Wall thickness (mm)		
	Conditioning (C)		
	Test flame according to IEC 60695-11-5 with conditions as set out		N/A
	Test specimen does not show any additional hole		N/A
S.3	Flammability test for the bottom of a fire enclosure		N/A
	Samples, material		
	Wall thickness (mm)		



EN 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Cheesecloth did not ignite		N/A
S.4	Flammability classification of materials		N/A
S.5	Flammability test for fire enclosures and fire barrier materials of equipment where the steady state power does not exceed 4 000 W		N/A
	Samples, material		
	Wall thickness (mm)		
	Conditioning (test condition), (C)		
	Test flame according to IEC 60695-11-20 with conditions as set out		N/A
	- After every test specimen was not consumed completely		N/A
	- After fifth flame application, flame extinguished within 1 min		N/A

T	MECHANICAL STRENGTH TESTS		P
T.1	General requirements		N/A
T.2	Steady force test, 10 N		N/A
T.3	Steady force test, 30 N		P
T.4	Steady force test, 100 N		N/A
T.5	Steady force test, 250 N		N/A
T.6	Enclosure impact test		P
	Fall test		N/A
	Swing test		N/A
T.7	Drop test		N/A
T.8	Stress relief test		N/A
T.9	Glass breakage		N/A
T.9.1	General requirements		N/A
T.9.2	Impact test and compliance		N/A
	Impact energy (J) :		
T.9.3	Fragmentation test and compliance		N/A
T.10	Test for telescoping or rod antennas		N/A
	Torque value (Nm) :		



EN 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
U	MECHANICAL STRENGTH OF CATHODE RAY TUBES (CRT) AND PROTECTION AGAINST THE EFFECTS OF IMPLOSION		N/A
U.1	General requirements		N/A
U.2	Compliance and test method for non-intrinsically protected CRTs		N/A
U.3	Protective Screen		N/A



EN 62368-1					
Clause	Requirement + Test			Result - Remark	Verdict
4.1.2	List of critical components				P
object/part No.	manufacturer/ trademark	type/model	technical data	standard	mark(s) of conformity 1)
PCB	Various	Various	V-0	--	VDE
Enclosure	Various	Various	V-0	--	VDE
1) an asterisk indicates a mark which assures the agreed level of surveillance					

5.4.1.5, 6.3.2, 9.0, B.2.6, B.2.7	TABLE: Thermal requirements					P	
	Supply voltage (V) :	5V					
	Ambient T _{min} (°C) :	25.0					
	Ambient T _{max} (°C) :	25.2					
Maximum measured temperature T of part/at:		T (°C)				Allowed T _{max} (°C)	
Enclosure		36.4				75	
Ambient		25.0				--	
Supplementary information:							
Temperature T of winding:	t ₁ (°C)	R ₁ ()	t ₂ (°C)	R ₂ ()	T (°C)	Allowed T _{max} (°C)	Insulation class
--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--
Supplementary information:							



EN 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
5.4.1.11.3	TABLE: Ball pressure test of thermoplastics		P
	Allowed impression diameter (mm)	2 mm	
Part		Test temperature (°C)	Impression diameter (mm)
Plastic part		75	1.0
Supplementary information:			

5.4.2, 5.4.3, 5.4.4.5 a), b)	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:							
Note 1: Only for frequency above 30 kHz							
Note 2: See table 5.4.2.8 if this is based on electric strength test (5.4.2.8) Note 3:							
Provide Material Group							
*Switching power supply separately approved.							

5.4.2.8	TABLE: Clearances based on electric strength test			N/A
Test voltage applied between:		Required cl (mm)	Test voltage (kV) peak/ r.m.s. / d.c.	Breakdown Yes / No
--		--	--	--
Supplementary information:				

5.4.4.2, 5.4.4.5c), 5.5.2.7	TABLE Distance through insulation measurements				N/A
Distance through insulation di at/of:	Up (V)	Test voltage (V)	Required di (mm)	di (mm)	
Supplementary information:					



EN 62368-1				
Clause	Requirement + Test		Result - Remark	Verdict
5.4.11	TABLE: Electric strength tests			N/A
Test voltage applied between:		Voltage shape (AC, DC)	Test voltage (V)	Breakdown Yes / No
Functional:				
Input-output		--	--	--
--		--	--	--
Basic/supplementary:				
--		--	--	--
Reinforced:				
--		--	--	--
Routine Tests:				
--		--	--	--
--		--	--	--
Supplementary information:				
5.6.6.4	TABLE: Resistance of protective conductors and terminations			N/A
Accessible part		Test current (A)	Duration (min)	Voltage drop (V)
--		--	--	--
Supplementary information:				
5.7.4.1	TABLE: Unearthed conductive parts accessible for ordinary person			N/A
Supply voltage (V):..... :		--	—	
Earthed neutral conductor [Voltage differences less than 1% or more]: :		--	—	
Specify method used for measurement as described in IEC60990, sub-clause 4.3:..... :		--	—	
5.7.4.1a)	TABLE: Unearthed conductive parts accessible (for ordinary person)			N/A
Unearthed accessible part		Prospective touch voltage (V)		Touch current (mA)
--		--		--
--		--		--
After fault of the applicable basic safeguard				



EN 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
--	--	--	
After fault of the applicable supplementary safeguard			
--	--	--	
--	--	--	
Supplementary Information: For fault conditions, identify the safeguard that was faulted e.g., -Accessible Part/basic insulation.			
5.7.4.1b)	TABLE: Unearthed conductive parts accessible (>ES2 voltage limits)		N/A
Unearthed accessible part, at which the prospective touch voltage exceeds the ES2 limits		Fault Condition No in IEC 60990 clause 6.2.2.1 through 6.2.2.8, except for 6.2.2.7	Touch current (mA)
		1	--
		2	--
		3	--
		4	--
		5	--
		6	--
		8	--
Supplementary Information: If touch current measurements are not needed, indicate -N/A in the space provided. IEC60990, sub-clause 6.2.2.7, Fault 7 not applicable. If the touch current did not exceed ES2 limits, indicate, -PASS.			
5.7.4.2	TABLE: Unearthed conductive parts accessible to instructed persons		N/A
Supply voltage (V):		--	—
Earthed neutral conductor [Voltage differences less than 1% or more]:		--	—
Specify method used for measurement as described in IEC60990, sub-clause 4.3		--	—
5.7.4.2 a)	TABLE: Unearthed conductive parts accessible to instructed persons		N/A
Unearthed accessible part		Prospective touch voltage (V)	Touch current (mA)
--		--	--
--		--	--
--		--	--
--			



EN 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
5.4.7.2 b)	TABLE: Unearthed conductive parts accessible (>ES2 voltage limits)		N/A
Unearthed accessible part, at which the prospective touch voltage exceeds the ES2 limits		Fault Condition No in IEC 60990 clause 6.2.2.1 through 6.2.2.8, except for 6.2.2.7	Touch current (mA)
		1	--
		2	--
		3	--
		4	--
		5	--
		6	--
		8	--
Supplementary Information: If touch current measurements are not needed, indicate -N/A in the space provided. IEC60990, sub-clause 6.2.2.7, Fault 7 not applicable. If the touch current did not exceed ES2 limits, indicate, -PASS.I			

5.7.5	TABLE: Earthed accessible conductive part		N/A
Supply voltage		--	—
Earthed neutral conductor [Voltage differences less than 1% or more].....		--	—
Specify method used for measurement as described in IEC60990, sub-clause 4.3		--	—
Earthed accessible conductive part		Test conditions specified in 6.1 of IEC 60990 or Fault Condition No in IEC 60990 clause 6.2.2.1 through 6.2.2.8, except for 6.2.2.7	Touch current (mA)
		1	--
		2*	--
		3	--
		4	--
		5	--
		6	--
		8	--
Supplementary Information: IEC60990, sub-clause 6.2.2.7, Fault 7 not applicable. (*) IEC60990, sub-clause 6.2.2.2 is not applicable if switch or disconnect device (e.g., appliance coupler) provided.			



EN 62368-1				
Clause	Requirement + Test		Result - Remark	Verdict
8.5	TABLE: Fan Blade Classification			N/A
Variable		Value		
Mass, m		kg		
Fan blade radius, r		mm		
Rotational speed, N		rpm		
K factor (figure 47), K				
Classification formula		$\frac{N}{15,000} \frac{K}{2,400} \leq 1$	$\frac{N}{22,000} \frac{K}{3,600} \leq 1$	
Classification calculation				
Classification: MS:				
Supplementary information:				

8.5.5.2.1	TABLE: Rotating Solid Media		N/A
Variable		Value	
Media thickness (mm).....:			
Total media mass, M (kg)			
Constant, S.....:		0,250 (no deflector)	0,125 (deflector)
Velocity, v (m/s)			
Media outer radius, R _o (m)			
Force {F =S x (mv ²)/R _o } (N).....:			
Smallest dia of media, X (mm)			
Test Result			
Supplementary information:			

8.5.5.2.2	TABLE: High Pressure Lamp		N/A
Description		Values	Energy Source Classification
Lamp type.....:			—
Manufacturer			—
Cat no.:			—
Pressure (cold) (MPa)			MS_



EN 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Pressure (operating) (MPa)		MS_
	Operating time (minutes)		—
	Explosion method.....		—
	Max particle length escaping enclosure (mm)...		MS_
	Max particle length beyond 1 m (mm)		MS_
	Overall result		
Supplementary information:			

B.2.5	TABLE: Input test						N/A
U (V)	I (A)	I rated (A)	P (W)	P rated (W)	Fuse No	I fuse (A)	Condition/status
--	--	--	--	--	--	-	--
Supplementary information:							
Equipment may be have rated current or rated power or both. Both should be measured							

B.3 & B.4	TABLE: Abnormal operating and fault condition tests							N/A
Ambient temperature (C) :					25.3 C			
Power source for EUT: Manufacturer, model/type, output rating .. :					--			
Component No.	Abnormal/ Fault	Supply voltage, (V)	Test time (ms)	Fuse no.	Fuse current, (A)	T-couple	Temp. (C)	Observation
--	--	--		--	--	--	--	Unit shut down, no components damage, 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.								



ANNEX A:
Photo-documentation

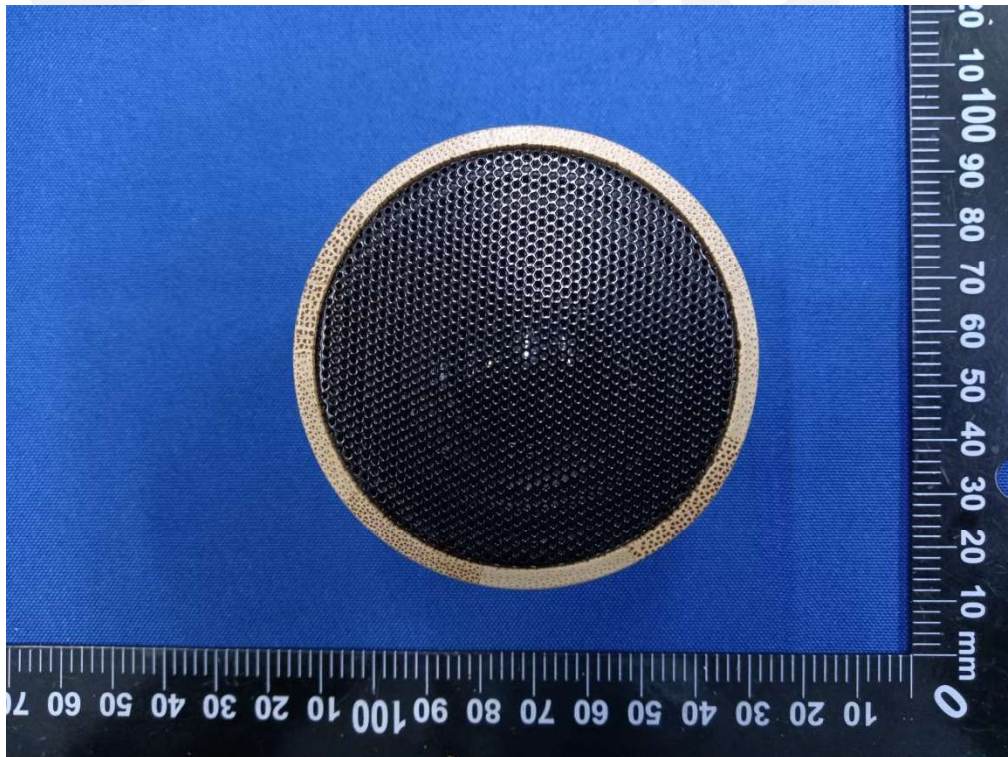
Photo 1 General Appearance of the EUT**Photo 2 General Appearance of the EUT**

Photo 3 General Appearance of the EUT

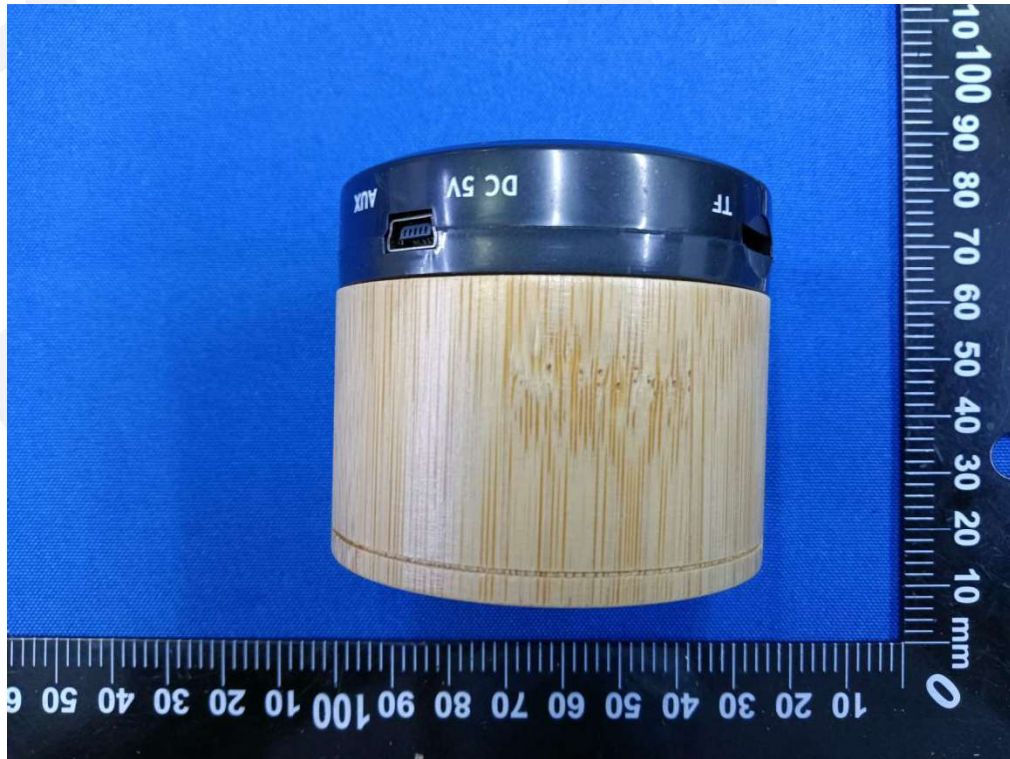


Photo 4 General Appearance of the EUT



***** The End of Report *****



CE RADIO REPORT

Prepared For :	012128 XXXXX
Manufacturer :	012128 XXXXX
Product Name:	Bluetooth speaker
Trade Mark:	N/A
Model :	2242522
Additional Model:	18488, 30901, 30969, 43369
Prepared By :	Dongguan True Safety Testing Co., Ltd. Room 201, No.20, Houjie Avenue East, Houjie Town, Dongguan City, Guangdong, China
Test Date:	May. 11, 2023 To May. 15, 2023
Date of Report :	May. 15, 2023
Report No.:	TST20230580149-5ER



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**TEST REPORT DECLARATION**

Applicant : 012128
Address : XXXXX
Manufacturer : 012128
Address : XXXXX
EUT : Bluetooth speaker
Description :
Model : 2242522
Number :
Additional : 18488, 30901, 30969, 43369
Model :

Test Standards:

ETSI EN 300 328 V2.2.2(2019-07)

The EUT described above is tested by **Dongguan True Safety Testing Co., Ltd.** Laboratory to determine the maximum emissions from the EUT and ensure the EUT to be compliance with the immunity requirements of the EUT. **Dongguan True Safety Testing Co., Ltd.** Laboratory is assumed full responsibility for the accuracy of the test results. Also, this report shows that the EUT technically complies with the RED directive 2014/53/EU and its amendment requirements.

The test report is valid for above tested sample only and shall not be reproduced in part without written approval of the laboratory.

Tested by:

Test Engineer

Reviewer :

Supervisor

Approved &
Authorized Signer :

Andy / Manager





1. TEST RESULTS SUMMARY

Table 1 Test Results Summary

Test Items	Test Results
Equivalent Isotropic Radiated Power	Pass
Maximum spectral power density	Pass
Frequency Range	Pass
Frequency hopping requirements	Pass *
Medium access protocol	Pass *
Transmitter Spurious Emissions	Pass
Receiver spurious emissions	Pass

Note:

N.A*- This item has no requirement for Bluetooth and ZigBee equipment.

Pass *- The manufacturer has verified that medium access protocol has been implemented by the EUT.

2. GENERAL INFORMATION

2.1. Report information

2.1.1.This report is not a certificate of quality; it only applies to the sample of the specific product/equipment given at the time of its testing. The results are not used to indicate or imply that they are application to the similar items. In addition, such results must not be used to indicate or imply that TST approves recommends or endorses the manufacture, supplier or use of such product/equipment, or that TST in any way guarantees the later performance of the product/equipment.

2.1.2.The sample/s mentioned in this report is/are supplied by Applicant, TST therefore assumes no responsibility for the accuracy of information on the brand name, model number, origin of manufacture or any information supplied.

2.1.3.Additional copies of the report are available to the Applicant at an additional fee. No third part can obtain a copy of this report through TST, unless the applicant has authorized TST in writing to do so.

2.2. Measurement Uncertainty

Available upon request.



3. PRODUCT DESCRIPTION

3.1. EUT Description

Modulation type	--
Bluetooth Version	V5.1+EDR (both sides), ultra low consumption
Modulation	--
Hardware Version	--
Software Version	A2DP1.3/HFP1.6/HSP1.2/AVRCP1.6/D11.3.
Adaptive / non-adaptive equipment	--
The number of Hopping Frequencies	--
The maximum RF Output Power (e.i.r.p.)	--
The different transmit operating modes	Double modes
Operating Frequency Range(s)	2.4GHZ
Occupied Channel Bandwidth(s)	--
Dwell Time	--
Type of Equipment	--
Antenna designation	--
Antenna gain	--
Nominal voltages	5V
The extreme operating conditions	Operating temperature range: 0°C~45°C

3.2. Block Diagram of EUT Configuration

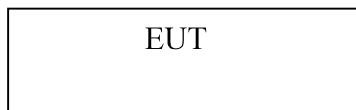


Figure 1 EUT SETUP

3.3. Support Equipment List

Table 2 Ancillary Equipment

Name	Model No	S/N	Manufacturer	Used “√”
		/	/	/

3.4. Operating Condition of EUT

Test mode 1: TX

3.5. Test Conditions

Temperature: -20~55°C

Relative Humidity: 50~70 %

3.6. Modifications

No modification was made.

3.7. Abbreviations

AC	Alternating Current
AMN	Artificial Mains Network
DC	Direct Current
EM	ElectroMagnetic
EMC	ElectroMagnetic Compatibility
EUT	Equipment Under Test
IF	Intermediate Frequency
RF	Radio Frequency
rms	root mean square
EMI	Electromagnetic Interference
EMS	Electromagnetic Susceptibility



4. TEST EQUIPMENT USED

4.1. Test Equipment Used to Measure Radiated Disturbance

Table 3 For Spurious Emission Test

NO.	Equipment	Manufacturer	Model No.	Last Cal.	Cal. Interval
SB3436	EMI Test Receiver	Rohde & Schwarz	ESI26	Apr. 11, 23	1 Year
SB3440	Bilog Antenna	Chase	CBL6112B	Apr. 11, 23	1 Year
SB3438	Signal Generator	Rohde & Schwarz	SMR20	Apr. 11, 23	1 Year
SB3174	Antenna	Schwarzbeck	VUBA9117	Apr. 11, 23	3 Year
SB3434	Horn Antenna	Rohde & Schwarz	HF906	Apr. 11, 23	1 Year
SB3435	Horn Antenna	Rohde & Schwarz	HF906	Apr. 11, 23	1 Year
SB3450/01	3m Semi-anechoic chamber	Albatross Projects	9X6X6	Apr. 11, 23	2 Year

Table 4 RF Test

NO.	Equipment	Manufacturer	Model No.	Last Cal.	Cal. Interval
SB3436	EMI Test Receiver	Rohde & Schwarz	ESI26	Apr. 11, 23	1 Year
SB3440	Bilog Antenna	Chase	CBL6112B	Apr. 11, 23	1 Year
SB3438	Signal Generator	Rohde & Schwarz	SMR20	Apr. 11, 23	1 Year
SB3997	EMI Receiver	Rohde & Schwarz	ESPI3	Apr. 11, 23	1 Year

5. EQUIVALENT ISOTROPIC RADIATED POWER

5.1. Test Requirements

5.1.1. Test Standard

ETSI EN 300 328 V2.2.2(2019-07)

5.1.2. Test Limit

The equivalent isotropic radiated power shall be equal to or less than -10 dBW(100mW).

5.2. Test Procedure

See clause 5.3 for the test conditions.

The equivalent isotropic radiated power shall be determined and recorded.

The following shall be applied to the combination(s) of the radio device and its intended antenna(e). In the case that the RF power level is user adjustable, all measurements shall be made with the highest power level available to the user for that combination.

The following methods of measurement shall apply.

Radiated measurements

This method shall only be used for integral antenna equipment that does not have a temporary antenna connector provided. In the case of radiated measurements, using a test site as described in annex B and applicable measurement procedures as described in annex C, the equivalent isotropic radiated power as defined in clause 4.3.1.1 shall be measured and recorded.

Conducted measurements

In case of conducted measurements the transmitter shall be connected to the measuring equipment via a suitable attenuator. The RF power as defined in clause 4.3.1.1 shall be measured and recorded. The measurement shall be performed using normal operation of the equipment with the test modulation applied.

The test procedure shall be as follows:

step 1:

- using a suitable means, the output of the transmitter shall be coupled to a matched diode detector;
- the output of the diode detector shall be connected to the vertical channel of an oscilloscope;
- the combination of the diode detector and the oscilloscope shall be capable of faithfully reproducing the envelope peaks and the duty cycle of the transmitter output signal;
- the observed duty cycle of the transmitter (Tx on/(Tx on + Tx off)) shall be noted as x, ($0 < x < 1$) and recorded. For the purpose of testing, the equipment shall be operated with a duty cycle that is equal to or more than 0,1.

step 2:

- the average output power of the transmitter shall be determined using a wideband, calibrated RF power

meter with a matched thermocouple detector or an equivalent thereof and, where applicable, with an integration period that exceeds the repetition period of the transmitter by a factor 5 or more. The observed value shall be recorded as "A" (in dBm);

- the e.i.r.p. shall be calculated from the above measured power output A, the observed duty cycle x, and

the applicable antenna assembly gain "G" in dBi, according to the formula:

$$P = A + G + 10 \log (1/x);$$

P shall not exceed the value specified in clause 4.3.1.2.

The measurement shall be repeated at the lowest, the middle, and the highest frequency of the stated frequency range.

These frequencies shall be recorded. FHSS equipment shall be made to hop continuously to each of these three

frequencies separately.

These measurements shall be performed at normal and extreme test conditions, see clause 5.3.

The method of measurement shall be documented.

The results obtained shall be compared to the limits in clause 4.3.1.2 in order to prove compliance with the requirement.

5.3. Test Data

Table 5 Effective Radiated Power
Bluetooth Mode
Low channel(2412MHz)

Ambient temperature:		25	°C
Relative humidity:		68	%
Test conditions		Effective radiated power (dBm)	
T _{nom} (25°C)	V _{nom} (5V)	16.24	
T _{min} (-20°C)	V _{min} (5V)	16.43	
	V _{max} (5V)	16.33	
T _{max} (55°C)	V _{min} (5V)	16.29	
	V _{max} (5V)	16.25	
Measurement uncertainty		±1.5dB	

Note:

(1) Limit shall be equal to or less than -10 dBW(100mW)

(2) -10 dBW(100mW)=20 dBm



Middle channle (2442MHz)

Ambient temperature: 25 °C		
Relative humidity: 68 %		
Test conditions		Effective radiated power (dBm)
T _{nom} (25°C)	V _{nom} (5V)	16.09
T _{min} (-20°C)	V _{min} (5V)	16.15
	V _{max} (5V)	16.19
T _{max} (55°C)	V _{min} (5V)	15.89
	V _{max} (5V)	15.82
Measurement uncertainty		±1.5dB

Note:

- (1) Limit shall be equal to or less than -10 dBW(100mW)
- (2) -10 dBW(100mW)=20 dBm

High channle (2472MHz)

Ambient temperature: 25 °C		
Relative humidity: 68 %		
Test conditions		Effective radiated power (dBm)
T _{nom} (25°C)	V _{nom} (5V)	15.87
T _{min} (-20°C)	V _{min} (5V)	16.23
	V _{max} (5V)	16.21
T _{max} (55°C)	V _{min} (5V)	15.99
	V _{max} (5V)	15.86
Measurement uncertainty		±1.5dB

Note:

- (1) Limit shall be equal to or less than -10 dBW(100mW)
- (2) -10 dBW(100mW)=20 dBm

6. MAXIMUM SPECTRAL POWER DENSITY

6.1. Test Requirements

According to **ETSI EN 300 328 V2.2.2(2019-07)**, for wide band modulations other than FHSS (e.g. DSSS, OFDM, etc.), the maximum spectrum power density is limited to 10 mW per MHz e.i.r.p.

6.2. Test Procedure

Test procedure refers to clause 5.3 and clause 5.7.3 of standard ETSI EN 300 328.

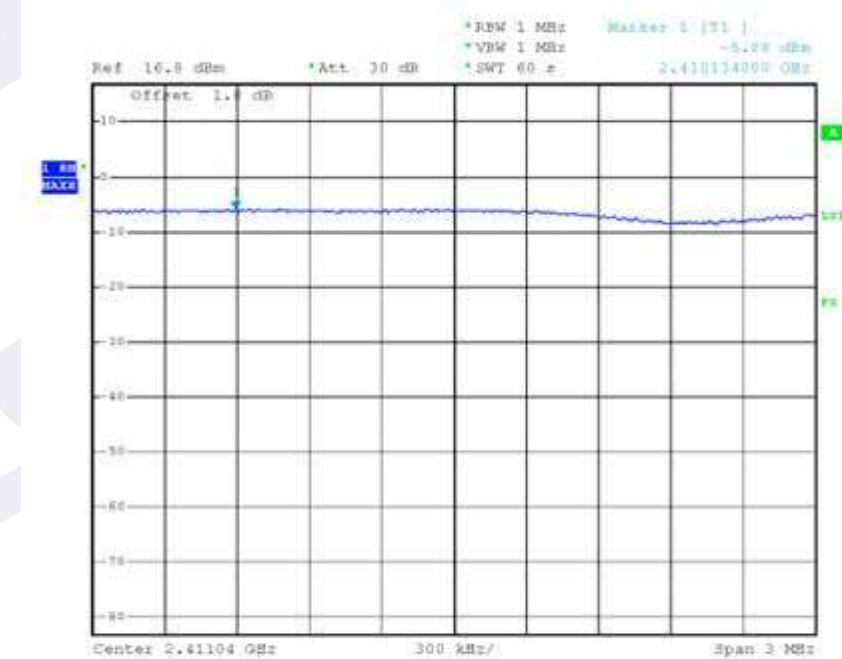
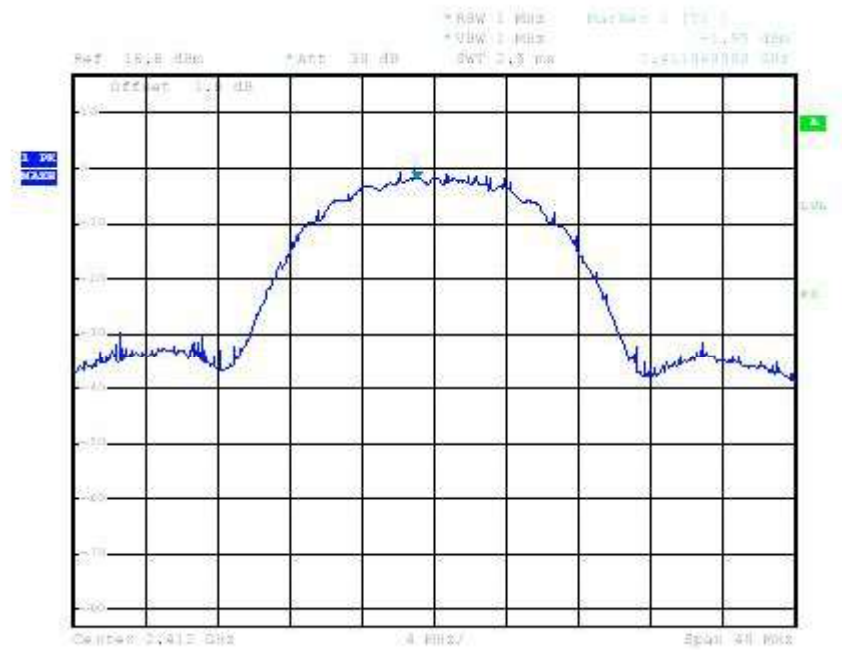
6.3. Test Data

Table 6 Peak Power Density

Test mode	Transmitting Frequency	Reading (dBm/Hz)	Antenna Gain (dBi)	Peak Power Density (dBm/MHz)	Limit (dBm/MHz)
Bluetooth	2412	-5.89	0	9.14	10
	2442	-6.43	0	8.23	10
	2472	-5.71	0	9.65	10
Bluetooth	2412	-8.26	0	6.88	10
	2442	-8.50	0	6.42	10
	2472	-8.43	0	6.53	10
Measurement uncertainty			±1.2dB		

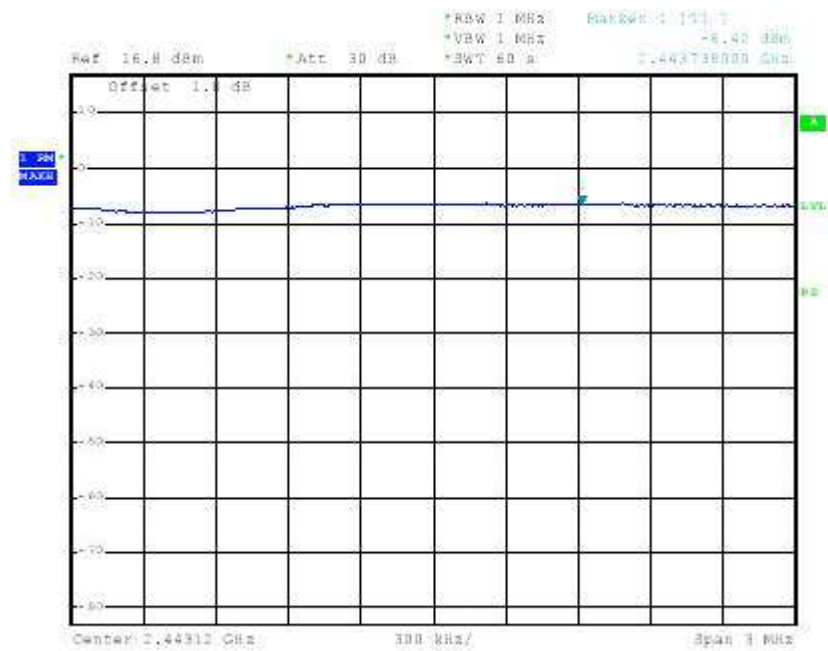
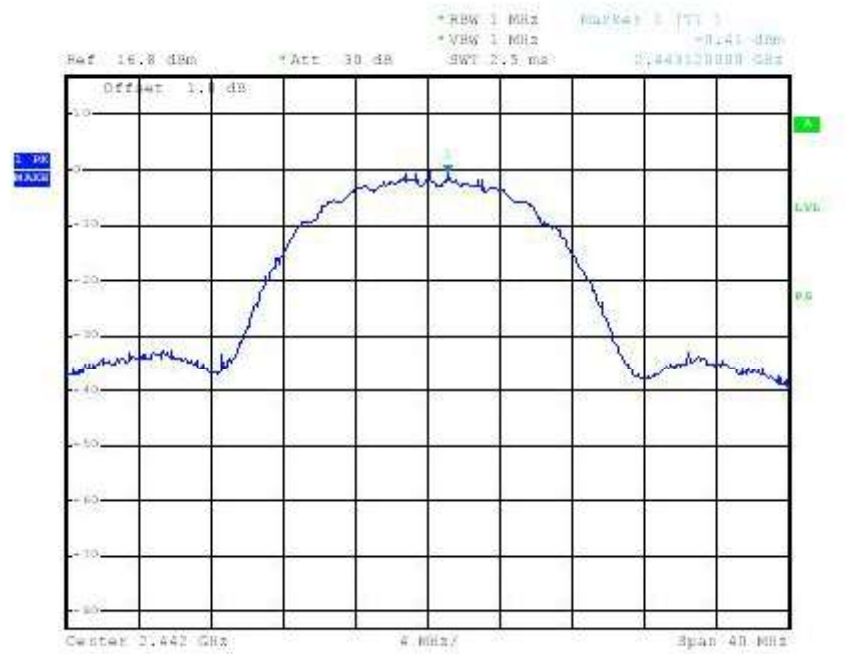


Bluetooth, Low Channel



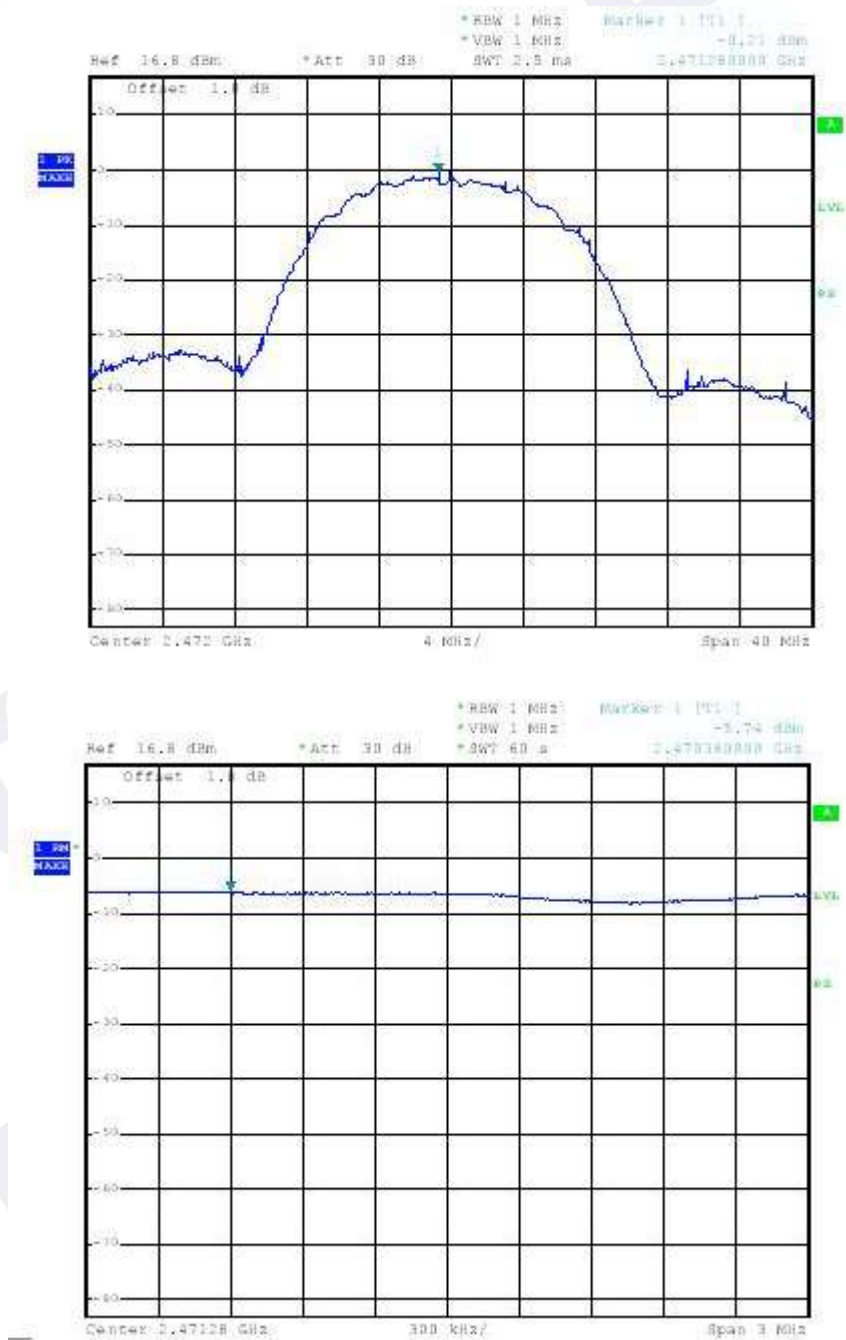


Bluetooth, Middle Channel





Bluetooth, High Channel



7. FREQUENCY RANGE

7.1. Test Requirements

7.1.1. Test Standard

ETSI EN 300 328 V2.2.2(2019-07)

7.1.2. Test Limit

For all equipment the frequency range shall lie within the band 2.4GHz to 2.4835GHz ($f_L > 2.4\text{GHz}$ and $f_H < 2.4835\text{GHz}$).

7.2. Test Procedure

Test procedure refers to clause 5.3 and clause 5.7.4 of standard ETSI EN 300 328.

7.3. Test Data

Table 7 Frequency Range

Bluetooth Mode

Test Conditions		Frequency (MHz)			
Temperature (°C)	Voltage (Vdc)	f_L at Low Channel	f_H at High Channel	f_L Limit	f_H Limit
Tmin = -20	5V	2401.015	2480.633	2400	2483.5
	5V	2401.019	2480.622	2400	2483.5
Tnor = +25	5V	2401.030	2480.631	2400	2483.5
Tmax = +55	5V	2401.012	2480.635	2400	2483.5
	5V	2401.021	2480.677	2400	2483.5
Measurement uncertainty			$\pm 1 \times 10^{-7}$		

**Bluetooth Mode**

Test Conditions		Frequency (MHz)			
Temperature (°C)	Voltage (Vdc)	f _L at Low Channel	f _H at High Channel	f _L Limit	f _H Limit
T _{min} = -20	5V	2401.020	2480.611	2400	2483.5
	5V	2401.015	2480.672	2400	2483.5
T _{nor} = +25	5V	2401.012	2480.648	2400	2483.5
T _{max} = +55	5V	2401.03	2480.619	2400	2483.5
	5V	2401.044	2480.654	2400	2483.5
Measurement uncertainty			± 1×10 ⁻⁷		

8. FREQUENCY HOPPING REQUIREMENTS

8.1. Test Requirements

8.1.1. Test Standard

ETSI EN 300 328 V2.2.2(2019-07)

8.1.2. Test Limit

The maximum dwell time shall be 0.4 s.

Non-adaptive Frequency Hopping systems shall make use of non-overlapping hopping channels separated by the channel bandwidth as measured at 20 dB below peak power. The hopping channels defined within a hopping sequence shall be at least 1 MHz apart (channel separation).

Non-adaptive Frequency Hopping systems shall make use of a hopping sequence(s) that contains at least 15 hopping channels.

Adaptive Frequency Hopping systems shall make use of a hopping sequence(s) that is capable of operating over a minimum of 90 % of the band specified in table 1, from which at any given time a minimum of 20 hopping channels shall be used.

Each hopping channel of the hopping sequence shall be occupied at least once during a period not exceeding four times the product of the dwell time per hop and the number of channels.

8.2. Test Procedure

Test procedure refers to clause 5.3 and clause 5.7.4 of standard ETSI EN 300 328.

Dwell time:

The dwell time per channel shall not exceed 0.4 s.

While the equipment is operating (transmitting and/or receiving) each channel of the hopping sequence shall be occupied at least once during a period not exceeding four times the product of the dwell time per hop and the number of channels. Systems that meet the above constraints shall be tested according to the requirements for FHSS modulation.

20dB bandwidth Testing

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect it to measurement instrument. Then set it to any one convenient frequency within its operating range. Set a reference level on the measuring instrument equal to the highest peak value.

3. Measure the frequency difference of two frequencies that were attenuated 20 dB from the reference level. Record the frequency difference as the emission bandwidth.
4. Repeat above procedures until all frequencies measured were complete.

Channel separation:

1. Set the EUT in transmitting mode, spectrum Bandwidth was set at 100 kHz, maxhold the channel.
2. Set the adjacent channel of the EUT maxhold another truce
3. Measure the channel separation.

Hopping sequence:

1. Check the calibration of the measuring instrument (SA) using either an internal calibrator or a known signal from an external generator.
2. Set the EUT in transmitting mode from first channel to last.
3. By using the Max-Hold function record the Quantity of the channel.

8.3. Test Data

**Testing is not required for Bluetooth and ZigBee devices.*

9. MEDIUM ACCESS PROTOCOL

9.1. Test Requirements

9.1.1. Test Standard

ETSI EN 300 328 V2.2.2(2019-07)

9.1.2. Test Requirements

A medium access protocol shall be implemented by the equipment.

Note: The manufacturer has verified that medium access protocol has been implemented by the EUT.

10. TRANSMITTER SPURIOUS EMISSION

10.1. Test Requirements

10.1.1. Test Standard

ETSI EN 300 328 V2.2.2(2019-07)

10.1.2. Test Limit

Table 8 Transmitter Limit for narrowband spurious emissions

Frequency Range	Limit when operating	Limit when in standby
30MHz to 1GHz	-35dBm	-53dBm
Above 1GHz to 12.75GHz	-34dBm	-42dBm
1.8GHz to 1.9GHz	-41dBm	-42dBm
5.15GHz to 5.3GHz		

Table 9 Transmitter Limit for wideband spurious emissions

Frequency Range	Limit when operating	Limit when in standby
30MHz to 1GHz	-86dBm	-108dBm
Above 1GHz to 12.75GHz	-84dBm	-95dBm
1.8GHz to 1.9GHz	-92dBm	-92dBm
5.15GHz to 5.3GHz		

10.2. Test Procedure

Test procedure refers to clause 5.3 and clause 5.7.5 of standard ETSI EN 300 328.

The equipment was placed on a wooden turntable, and it was transmitting.

The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and polarization as well as EUT azimuth were varied in order to identify the maximum level of emissions from the EUT.

Remove the EUT and replace it with substitution antenna. A signal generator was connected to the substitution antenna by a non-radiating cable. The absolute levels of the spurious emissions were measured by the substitution.

The spectrum analyzer was set to Maxpeak Detector function and Maximum Hold mode. The resolution bandwidth was set to 1MHz. The measuring frequencies are from 30 MHz to 12.75GHz.

**10.3.Test Data**Table 10 Spurious Emission Test Data
Bluetooth Mode

Ambient temperature:		25	°C		
Relative humidity:		67	%		
Test mode		Operating			
Frequency (MHz)	Band-Width(kHz)	dBm	Frequency (MHz)	Band-Width(kHz)	dBm
142.370	120	-55.6	168.21	120	-52.3
218.350	120	-57.0	215.97	120	-51.7
4824	1000	-	4924	1000	-
7236	1000	-	7386	1000	-
Measurement Uncertainly		±6dB			

Bluetooth Mode

Ambient temperature:		25		°C	
Relative humidity:		67		%	
Test mode		Operating			
Frequency (MHz)	Band-Width(kHz)	dBm	Frequency (MHz)	Band-Width(kHz)	dBm
142.370	120	-56.7	168.21	120	-55.2
218.350	120	-54.3	215.97	120	-52.5
4824	1000	-	4924	1000	-
7236	1000	-	7386	1000	-
Measurement Uncertainly		±6dB			



Ambient temperature:		25	°C		
Relative humidity:		67	%		
Test mode		Standby			
Frequency (MHz)	Band-Width(kHz)	dBm	Frequency (MHz)	Band-Width(kHz)	dBm
413.580	120	-65.8	671.66	120	-62.7
1726.500	1000	-	1761.41	1000	-
Measurement Uncertainly		±6dB			

11. RECEIVER SPURIOUS EMISSIONS

11.1. Test Requirements

11.1.1. Test Standard

ETSI EN 300 328 V2.2.2(2019-07)

11.1.2. Test Limit

Table 11 Narrowband spurious emission limits for receivers

Frequency Range	Limit when in standby
30MHz to 1GHz	-56dBm
Above 1GHz to 12.75GHz	-45dBm

Table 12 wideband spurious emissions limits for receivers

Frequency Range	Limit when in standby
30MHz to 1GHz	-109dBm/Hz
Above 1GHz to 12.75GHz	-93dBm/Hz

11.2. Test Procedure

Test procedure refers to clause 5.3 and clause 5.7.6 of standard ETSI EN 300 328. The equipment was placed on a wooden turntable, and it was receiving.

The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and polarization as well as EUT azimuth were varied in order to identify the maximum level of emissions from the EUT.

Remove the EUT and replace it with substitution antenna. A signal generator was connected to the substitution antenna by a non-radiating cable. The absolute levels of the spurious emissions were measured by the substitution.

The spectrum analyzer was set to Maxpeak Detector function and Maximum Hold mode. The resolution bandwidth was set to 1MHz. The measuring frequencies are from 30 MHz to 12.75GHz.

**11.3.Test Data**

Table 13 Receivers Spurious Emission Test Data

Ambient temperature:		25	°C		
Relative humidity:		67	%		
Test mode		Operating			
Frequency (MHz)	Band-Width(kHz)	dBm	Frequency (MHz)	Band-Width(kHz)	dBm
159.491	120	-68.4	167.32	120	-65.5
118.386	120	-65.6	178.53	120	-67.2
4800	1000	-	4967	1000	-
7200	1000	-	7450.5	1000	-
Measurement Uncertainty		±6dB			



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APPENDIX I EUT PHOTO

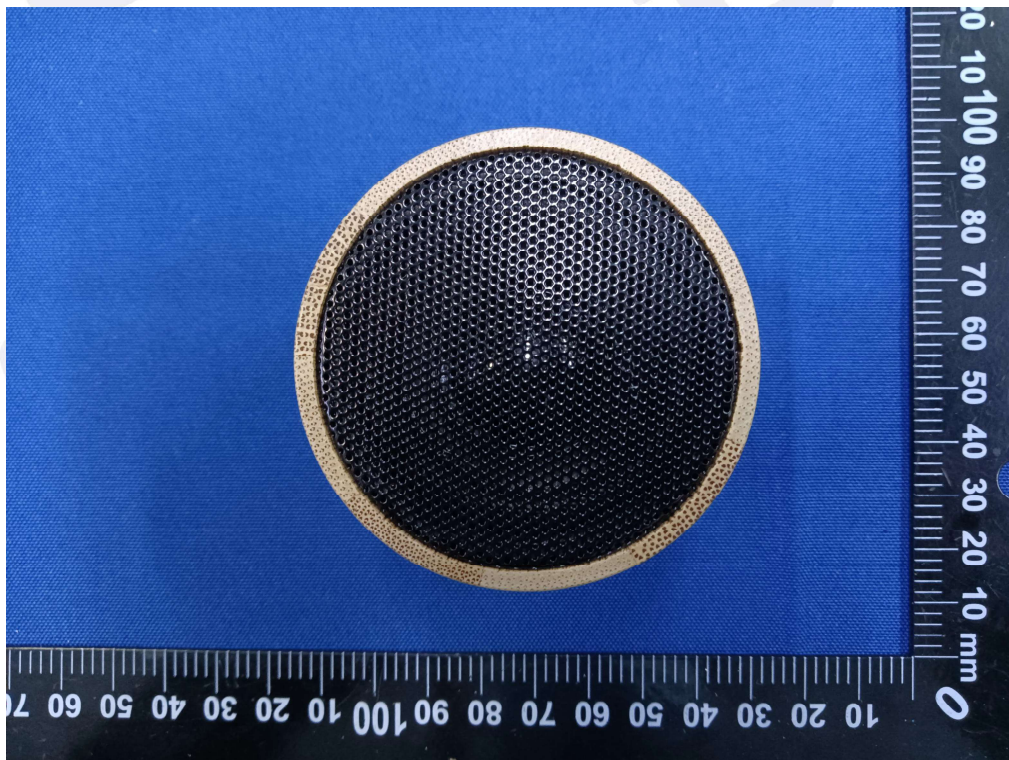
Photo 1 General Appearance of the EUT**Photo 2 General Appearance of the EUT**

Photo 3 General Appearance of the EUT

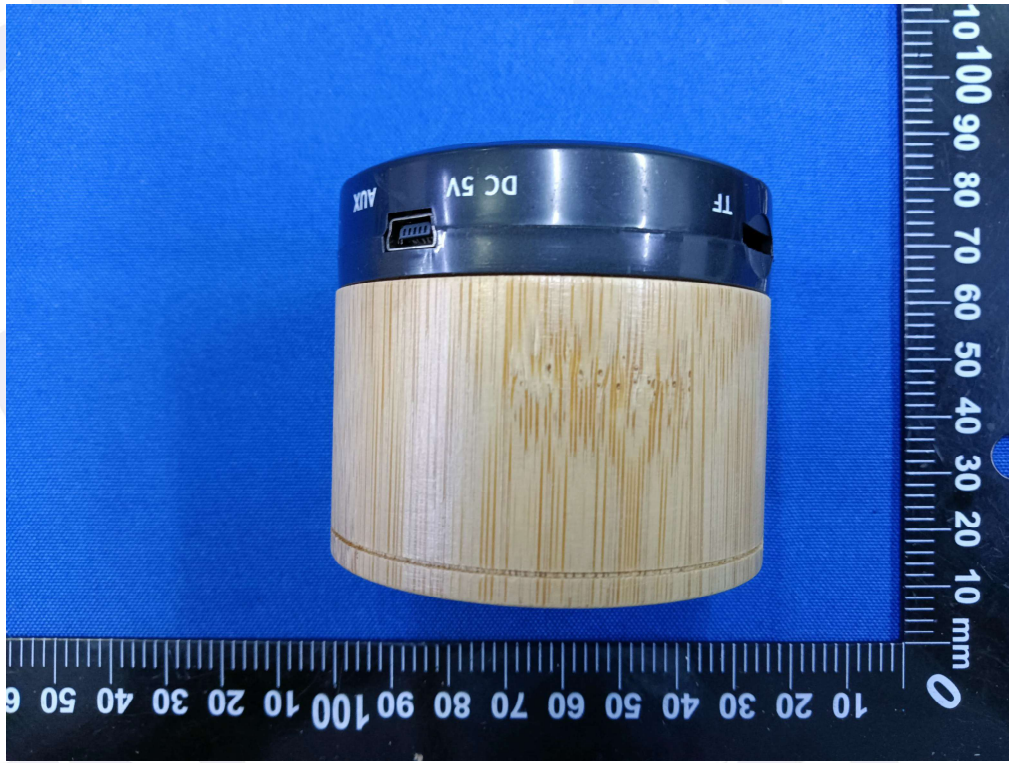


Photo 4 General Appearance of the EUT



***** The End of Report *****