

# **Safety Test Report**

Report No.: AGC12440230802ES01

**PRODUCT DESIGNATION**: wireless speaker

**BRAND NAME** : N/A

MODEL NAME : M06219

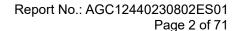
**APPLICANT**: Mid Ocean Brands B.V.

**DATE OF ISSUE** : Sep. 07, 2023

**STANDARD(S)** : EN IEC 62368-1:2020+A11:2020

**REPORT VERSION**: V1.0

Attestation of Global Configuration (Shenzhen) Co., Ltd.





TEST REPORT EN IEC 62368-1

# Audio/video, information and communication technology equipment Part 1: Safety requirements

Report Number...... AGC12440230802ES01

Tested by (+ signature)...... Dylon Yan

Reviewed by (+ signature)...... Byron Wang

Byron Wang mette He

Approved by (+ signature)...... Matte He

(Authorized Officer)

Date of issue...... Sep. 07, 2023

Total number of pages...... Total 71 pages

**Testing laboratory** 

Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China

Testing location...... Same as above.

**Applicant** 

Name...... Mid Ocean Brands B.V.

Address....... 7/F., King Tower,111King Lam Street, Cheung ShaWan, Kowloon, HongKong.

Manufacturer

Name...... Mid Ocean Brands B.V.

Address........ 7/F., King Tower,111King Lam Street, Cheung ShaWan, Kowloon, HongKong.

**Factory** Mid Ocean Brands B.V.

Address...... Mid Ocean Brands B.V.

Test specification:

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

Test procedure.....: Type test

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



Report No.: AGC12440230802ES01

Page 3 of 71

Test Report Form/blank test report		
Test Report Form No:	AGC62368A3	
TRF originator:	AGC	
Master TRF:	2020-07	
Test item		
Test item description:	wireless speaker	
Trade Mark:	N/A	
Test model:	MO6219	
Series model:	N/A	
Ratings::	DC5V / 1A	
Test item particulars		
Product group	·····:	
Classification of use by	:	<ul><li>☑ Ordinary person</li><li>☐ Instructed person</li><li>☐ Children likely present</li></ul>
		☐ Skilled person
Supply connection	:	☐ AC mains ☐ DC mains ☐ DC mains
Supply tolerance	:	☐ +10%/-10%
		+20%/-15%
		☐ + %/ - % ☑ None
Supply connection – type	·····:	□ pluggable equipment type A -
		non-detachable supply cord
		☐ appliance coupler ☐ direct plug-in
		□ pluggable equipment type B -
		☐ non-detachable supply cord
		appliance coupler
		<ul> <li>□ permanent connection</li> <li>□ mating connector other: not mains connected</li> </ul>
Considered current rating of protective	e device:	☐ 16 A;
		Location: Duilding Dequipment
Equipment mobility		N/A   movable □ hand-held ⊠ transportable
Equipment mobility		☐ direct plug-in ☐ stationary
		☐ for building-in
		☐ wall/ceiling-mounted ☐ SRME/rack-mounted
Overvoltage category (OVC)		☐ other: ☐ OVC II ☐ OVC III
		□ OVC IV □ other: not mains connected
Class of equipment	:	☐ Class I ☐ Class II ☐ Class III
Any report her size not been signed by outbaring		Not classified



Report No.: AGC12440230802ES01

Page 4 of 71

Special installation lo	cation	:	<ul><li>N/A</li><li>□ outdoor location</li></ul>	restricted access area	
Pollution degree (PD)		:	□ PD 1 ⊠	PD 2	
Manufacturer's specif	ied T <sub>ma</sub>	:	50°C		
IP protection class		:	⊠ IPX0 □	IP	
Power systems		:	☐ TN ☐ TT ☐ ☐ Mains	IT - V <sub>L-L</sub>	
Altitude during operat	ion (m)	:	$\boxtimes$ 2000 m or less $\square$	m	
Altitude of test labora	tory (m)	:	$\boxtimes$ 2000 m or less $\square$	m	
Mass of equipment (k	g)	:	⊠ <1 kg		
Possible test case ve	erdicts:				
- test case does not a	oply to the test object.	:	N(/A)		
- test object does mee	et the requirement	:	P (Pass)		
- test object does not i	meet the requirement.	:	F (Fail)		
Testing:					
Date of receipt of test	item	:	Aug. 29, 2023		
Date (s) of performance of tests A			Aug. 30, 2023 –Sep. 06, 2023		
Attachments:					
Attachment A		:	Photos of product		
General remarks:					
The test results prese "(See remark #)" refer		te only to the item ted to the report.		sting laboratory.	
Throughout this report	t a point is used as the	decimal separato	r.		
Report Revise Reco	rd:				
Report Version	Revise Time	Issued Date	Valid Version	Notes	
V1.0	1	Sep. 07, 2023	Valid	Initial release	
	,				

# General product information and other remarks:

- 1)The product be tested is wireless speaker which supplied by 3.7V rechargeable li-ion battery. The battery charged by Type-C port. It is considered transportable apparatus and for dry loction used only.
- 2)Instructions and equipment marking related to safety is applied in the language that is acceptable in the country in which the equipment is to be sold.
- 3)The series models are identical except for model name, which have no effect on test result.
- 4)The product was submitted and tested for use at the manufacturer's recommended ambient temperature (Tma) of 50°C.

# Summary of testing

The product fulfils the requirements of EN IEC 62368-1:2020+A11:2020.



Report No.: AGC12440230802ES01

Page 5 of 71

# Copy of marking plate:

Round Bamboo wireless speaker

Model:MO6219

Frequency range:
2402-2480MHZ

Maximum RF power:
13dBm(EIRP)

Cheung Sha Wan,Kowloon,HongKong.

PO4100XXXXXX

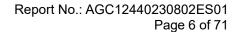
Importer:XXXX

Address:XXXX

Made In China

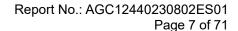
#### Remark:

- 1) The CE marking and WEEE symbol (if any) should be at least 5mm and 7mm respectively in height.
- 2) The markings and instructions are the minimum requirements required by safety standard. For final production samples, the additional markings which do not give rise to misunderstanding may be added.
- 3) As declared by the applicant, the importer (and manufacturer, if it is different)'s name, registered trade name or mark and the postal address will be marked on the products before being place on the market.
- 4) Marking on the packaging or in a document accompanying the electrical equipment is only acceptable if it is not possible to place such markings on the product.





	URCES AND SAFEGUARD	<u> </u>			
Clause	Possible Hazard				
5	Electrically-caused injury				
Class and Energy Source	Body Part		Safeguards		
(e.g. ES3: Primary circuit)	(e.g. Ordinary)	В	S	R	
ES1: All internal circuits	Ordinary person	N/A	N/A	N/A	
6	Electrically-caused fire				
Class and Energy Source	Material part		Safeguards		
(e.g. PS2: 100 Watt circuit)	(e.g. Printed board)	В	1 <sup>st</sup> S	2 <sup>nd</sup> S	
PS2: Internal circuits PS2: Supply port	All Flammable materials inside and enclosure of	No ignition occurred.	1. PCB is complied with V-0 material;	N/A	
PS2: Battery cell PS2: Battery pack	wood	2. No parts exceeding 90% of its spontaneous ignition temperature.	2. all other components: at least V-2 except for mounted on min. V-1 material or small parts of combustible material 3. enclosure of wood.		
PS1: Speaker output	All Flammable materials inside and enclosure of wood	N/A	N/A	N/A	
7	Injury caused by hazardous	substances			
Class and Energy Source	Body Part		Safeguards		
(e.g. Ozone)	(e.g., Skilled)	В	S	R	
PS2: Li-ion battery	Ordinary person	N/A	N/A	N/A	
8	Mechanically-caused injury				
Class and Energy Source	Body Part		Safeguards		
(e.g. MS3: Plastic fan blades)	(e.g. Ordinary)	В	S	R	
MS1: Edges and corners	Ordinary person	N/A	N/A	N/A	
MS1: Equipment mass	Ordinary person	N/A	N/A	N/A	
9	Thermal burn				
Class and Energy Source	Body Part		Safeguards		
(e.g. TS1: Keyboard caps)	(e.g., Ordinary)	В	S	R	
TS1: Accessible enclosure	Ordinary person	N/A	N/A	N/A	
10	Radiation				
Class and Energy Source	Body Part	Safeguards			
(e.g. RS1: PMP sound	(e.g., Ordinary)	В	S	R	



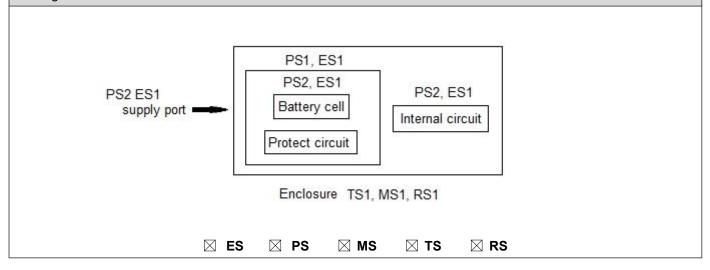


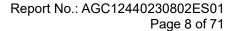
output)						
Exempt group: LED light	Ordinary person	N/A	N/A	N/A		
Supplementary Information: "B" – Basic Safeguard; "S" – Supplementary Safeguard; "R" – Reinforced Safeguard						

### **ENERGY SOURCE DIAGRAM**

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

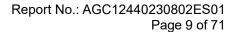
Insert diagram below. Example diagram designs are; Block diagrams; image(s) with layered data; mechanical drawings







	EN IEC 62368-1				
Clause	Requirement + Test	Result - Remark	Verdict		
4	GENERAL REQUIREMENTS		Р		
4.1.1	Acceptance of materials, components and subassemblies	See appended table 4.1.2	Р		
4.1.2	Use of components	Components which are certified to IEC and/or national standards are used correctly within their ratings. Components not covered by IEC standards are tested under the conditions present in the equipment.	Р		
4.1.3	Equipment design and construction	No accessible part which could cause injury	Р		
4.1.4	Specified ambient temperature for outdoor use (°C)		N		
4.1.5	Constructions and components not specifically covered	No such parts.	N		
4.1.8	Liquids and liquid filled components (LFC)	No such parts.	N		
4.1.15	Markings and instructions	(See Annex F)	Р		
4.4.3	Safeguard robustness		Р		
4.4.3.1	General		Р		
4.4.3.2	Steady force tests	(See Annex T.4)	Р		
4.4.3.3	Drop tests	(See Annex T.7)	Р		
4.4.3.4	Impact tests		N		
4.4.3.5	Internal accessible safeguard tests		N		
4.4.3.6	Glass impact tests		N		
4.4.3.7	Glass fixation tests		N		
	Glass impact test (1J)		N		
	Push/pull test (10 N)		N		
4.4.3.8	Thermoplastic material tests	(See Annex T.8)	Р		
4.4.3.9	Air comprising a safeguard		N		
4.4.3.10	Accessibility, glass, safeguard effectiveness	Safeguard remain effective.	Р		
4.4.4	Displacement of a safeguard by an insulating liquid		N		
4.4.5	Safety interlocks	No such component within equipment.	N		
4.5	Explosion		Р		
4.5.1	General	No explosion occurs during normal/abnormal operation and single fault conditions	Р		



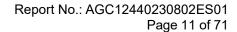


	EN IEC 62368-1		
Clause	Requirement + Test	Result - Remark	Verdict
4.5.2	No explosion during normal/abnormal operating condition	(See Clause B.2, B.3)	Р
	No harm by explosion during single fault conditions	(See Clause B.4)	Р
4.6	Fixing of conductors		N
	Fix conductors not to defeat a safeguard	Not defeat a safeguard.	N
	Compliance is checked by test:		N
4.7	Equipment for direct insertion into mains socker	t-outlets	N
4.7.2	Mains plug part complies with relevant standard:		N
4.7.3	Torque (Nm):		N
4.8	Equipment containing coin/button cell batteries		N
4.8.1	General	No coin/button cell is used	N
4.8.2	Instructional safeguard		N
4.8.3	Battery compartment door/cover construction		N
	Open torque test		N
4.8.4.2	Stress relief test		N
4.8.4.3	Battery replacement test		N
4.8.4.4	Drop test		N
4.8.4.5	Impact test		N
4.8.4.6	Crush test		N
4.8.5	Compliance		N
	30N force test with test probe		N
	20N force test with test hook		N
4.9	Likelihood of fire or shock due to entry of condu	ıctive object	Р
4.10	Component requirements		N
4.10.1	Disconnect Device		N
4.10.2	Switches and relays		N
5	ELECTRICALLY-CAUSED INJURY		Р
5.2	Classification and limits of electrical energy sour	ces	Р
5.2.2	ES1, ES2 and ES3 limits	(See appended table 5.2)	Р
5.2.2.2	Steady-state voltage and current limits:	ES1	Р
5.2.2.3	Capacitance limits		N
5.2.2.4	Single pulse limits	No such single pulses with the EUT	N
5.2.2.5	Limits for repetitive pulses	No such repetitive pulses with the EUT	N
	l .		





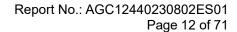
EN IEC 62368-1				
Clause	Requirement + Test	Result - Remark	Verdict	
5.2.2.6	Ringing signals	No such ringing signals with the EUT	N	
5.2.2.7	Audio signals	Inernal speakers and supplied by ES1 circuit only.	N	
5.3	Protection against electrical energy sources		N	
5.3.1	General Requirements for accessible parts to ordinary, instructed and skilled persons	ES1	N	
5.3.1 a)	Accessible ES1/ES2 derived from ES2/ES3 circuits		N	
5.3.1 b)	Skilled persons not unintentional contact ES3 bare conductors		N	
5.3.2.1	Accessibility to electrical energy sources and safeguards		N	
	Accessibility to outdoor equipment bare parts		N	
5.3.2.2	Contact requirements		N	
	Test with test probe from Annex V		-	
5.3.2.2 a)	Air gap – electric strength test potential (V):		N	
5.3.2.2 b)	Air gap – distance (mm):		N	
5.3.2.3	Compliance		N	
5.3.2.4	Terminals for connecting stripped wire		N	
5.4	Insulation materials and requirements		N	
5.4.1.2	Properties of insulating material		N	
5.4.1.3	Material is non-hygroscopic		N	
5.4.1.4	Maximum operating temperature for insulating materials:		N	
5.4.1.5	Pollution degrees		N	
5.4.1.5.2	Test for pollution degree 1 environment and for an insulating compound		N	
5.4.1.5.3	Thermal cycling test		N	
5.4.1.6	Insulation in transformers with varying dimensions		N	
5.4.1.7	Insulation in circuits generating starting pulses		N	
5.4.1.8	Determination of working voltage:		N	
5.4.1.9	Insulating surfaces		N	
5.4.1.10	Thermoplastic parts on which conductive metallic parts are directly mounted		N	
5.4.1.10.2	Vicat test:		N	
5.4.1.10.3	Ball pressure test:		N	





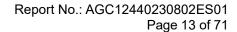
EN IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
5.4.2	Clearances		N
5.4.2.1	General requirements		N
	Clearances in circuits connected to AC Mains, Alternative method		N
5.4.2.2	Procedure 1 for determining clearance		N
	Temporary overvoltage		_
5.4.2.3	Procedure 2 for determining clearance		N
5.4.2.3.2.2	a.c. mains transient voltage:		
5.4.2.3.2.3	d.c. mains transient voltage:		_
5.4.2.3.2.4	External circuit transient voltage:		
5.4.2.3.2.5	Transient voltage determined by measurement:		_
5.4.2.4	Determining the adequacy of a clearance using an electric strength test		N
5.4.2.5	Multiplication factors for clearances and test voltages:		N
5.4.2.6	Clearance measurement:		N
5.4.3	Creepage distances		N
5.4.3.1	General		N
5.4.3.3	Material group		_
5.4.3.4	Creepage distances measurement:		N
5.4.4	Solid insulation		N
5.4.4.1	General requirements		N
5.4.4.2	Minimum distance through insulation:		N
5.4.4.3	Insulating compound forming solid insulation		N
5.4.4.4	Solid insulation in semiconductor devices		N
5.4.4.5	Insulating compound forming cemented joints		N
5.4.4.6	Thin sheet material		N
5.4.4.6.1	General requirements		N
5.4.4.6.2	Separable thin sheet material		N
	Number of layers (pcs):		N
5.4.4.6.3	Non-separable thin sheet material		N
	Number of layers (pcs):		N
5.4.4.6.4	Standard test procedure for non-separable thin sheet material:		N
5.4.4.6.5	Mandrel test		N

Tel: +86-755 2523 4088 E-mail: agc@agccert.com Web: http://www.agccert.com/





	EN IEC 62368-1		
Clause	Requirement + Test	Result - Remark	Verdict
5.4.4.7	Solid insulation in wound components		N
5.4.4.9	Solid insulation at frequencies >30 kHz, <i>E</i> <sub>P</sub> , <i>K</i> <sub>R</sub> , <i>d</i> , <i>V</i> <sub>PW</sub> (V):		N
	Alternative by electric strength test, tested voltage (V), $K_R$		N
5.4.5	Antenna terminal insulation		N
5.4.5.1	General		N
5.4.5.2	Voltage surge test		N
5.4.5.3	Insulation resistance (M $\Omega$ ):		N
	Electric strength test		N
5.4.6	Insulation of internal wire as part of supplementary safeguard		N
5.4.7	Tests for semiconductor components and for cemented joints		N
5.4.8	Humidity conditioning		N
	Relative humidity (%), temperature (°C), duration (h):		_
5.4.9	Electric strength test		N
5.4.9.1	Test procedure for type test of solid insulation:		N
5.4.9.2	Test procedure for routine test		N
5.4.10	Safeguards against transient voltages from external circuits		N
5.4.10.1	Parts and circuits separated from external circuits		N
5.4.10.2	Test methods		N
5.4.10.2.1	General		N
5.4.10.2.2	Impulse test		N
5.4.10.2.3	Steady-state test		N
5.4.10.3	Verification for insulation breakdown for impulse test:		N
5.4.11	Separation between external circuits and earth		N
5.4.11.1	Exceptions to separation between external circuits and earth		N
5.4.11.2	Requirements		N
	SPDs bridge separation between external circuit and earth		N
	Rated operating voltage U <sub>op</sub> (V)		_
	Nominal voltage U <sub>peak</sub> (V):		_



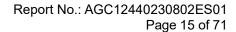


	EN IEC 62368-1		
Clause	Requirement + Test	Result - Remark	Verdict
	Max increase due to variation ΔU <sub>sp</sub> :		_
	Max increase due to ageing ΔUsa:		_
5.4.11.3	Test method and compliance:		N
5.4.12	Insulating liquid		N
5.4.12.1	General requirements		N
5.4.12.2	Electric strength of an insulating liquid:		N
5.4.12.3	Compatibility of an insulating liquid		N
5.4.12.4	Container for insulating liquid:		N
5.5	Components as safeguards		N
5.5.1	General		N
5.5.2	Capacitors and RC units		N
5.5.2.1	General requirement		N
5.5.2.2	Safeguards against capacitor discharge after disconnection of a connector		N
5.5.3	Transformers		N
5.5.4	Optocouplers		N
5.5.5	Relays		N
5.5.6	Resistors		N
5.5.7	SPDs		N
5.5.8	Insulation between the mains and an external circuit consisting of a coaxial cable		N
5.5.9	Safeguards for socket-outlets in outdoor equipment		N
	RCD rated residual operating current (mA)		
5.6	Protective conductor		N
5.6.2	Requirement for protective conductors		N
5.6.2.1	General requirements		N
5.6.2.2	Colour of insulation		N
5.6.3	Requirement for protective earthing conductors		N
	Protective earthing conductor size (mm²):		_
	Protective earthing conductor serving as a reinforced safeguard		N
	Protective earthing conductor serving as a double safeguard		N
5.6.4	Requirements for protective bonding conductors		N



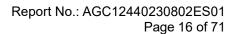


	EN IEC 62368-1		
Clause	Requirement + Test	Result - Remark	Verdict
5.6.4.1	Protective bonding conductors		N
	Protective bonding conductor size (mm²):		_
5.6.4.2	Protective current rating (A):		N
5.6.5	Terminals for protective conductors		N
5.6.5.1	Terminal size for connecting protective earthing conductors (mm)		N
	Terminal size for connecting protective bonding conductors (mm)		N
5.6.5.2	Corrosion		N
5.6.6	Resistance of the protective bonding system		N
5.6.6.1	Requirements		N
5.6.6.2	Test Method		N
5.6.6.3	Resistance ( $\Omega$ ) or voltage drop		N
5.6.7	Reliable connection of a protective earthing conductor		N
5.6.8	Functional earthing		N
	Conductor size (mm²)		N
	Class II with functional earthing marking:		N
	Appliance inlet cl & cr (mm):		N
5.7	Prospective touch voltage, touch current and pr	otective conductor current	N
5.7.2	Measuring devices and networks		N
5.7.2.1	Measurement of touch current		N
5.7.2.2	Measurement of voltage		N
5.7.3	Equipment set-up, supply connections and earth connections		N
5.7.4	Unearthed accessible parts		N
5.7.5	Earthed accessible conductive parts		N
5.7.6	Requirements when touch current exceeds ES2 limits		N
	Protective conductor current (mA)		N
	Instructional Safeguard		N
5.7.7	Prospective touch voltage and touch current associated with external circuits		N
5.7.7.1	Touch current from coaxial cables		N
5.7.7.2	Prospective touch voltage and touch current associated with paired conductor cables		N



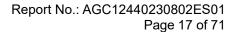


	EN IEC 62368-1		
Clause	Requirement + Test	Result - Remark	Verdict
5.7.8	Summation of touch currents from external circuits		N
	a) Equipment connected to earthed external circuits, current (mA)		N
	b) Equipment connected to unearthed external circuits, current (mA)		N
5.8	Backfeed safeguard in battery backed up suppli	es	N
	Mains terminal ES		N
	Air gap (mm)		N
6	ELECTRICALLY- CAUSED FIRE		Р
6.2	Classification of PS and PIS		Р
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.	Р
6.2.3	Classification of potential ignition sources	(See appended table 6.2.2)	Р
6.2.3.1	Arcing PIS		N
6.2.3.2	Resistive PIS		Р
6.3	Safeguards against fire under normal operating a	and abnormal operating conditions	Р
6.3.1	No ignition and attainable temperature value less than 90 % defined by ISO 871 or less than 300 °C for unknown materials	(See appended table B.1.5 and B.3)	Р
	Combustible materials outside fire enclosure:	No such materials used.	N
6.4	Safeguards against fire under single fault conditi	ons	Р
6.4.1	Safeguard method		Р
6.4.2	Reduction of the likelihood of ignition under single fault conditions in PS1 circuits		N
6.4.3	Reduction of the likelihood of ignition under single fault conditions in PS2 and PS3 circuits	Method by control of fire spread.	N
6.4.3.1	Supplementary safeguards		N
6.4.3.2	Single Fault Conditions		N
	Special conditions for temperature limited by fuse		N
6.4.4	Control of fire spread in PS1 circuits		N
6.4.5	Control of fire spread in PS2 circuits		Р
6.4.5.2	Supplementary safeguards	Refer to appended table 4.1.2 for detail. PCB rated V-0, enclosure of wood	Р
6.4.6	Control of fire spread in PS3 circuits		N



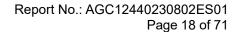


	EN IEC 62368-1		
Clause	Requirement + Test	Result - Remark	Verdict
6.4.7	Separation of combustible materials from a PIS	Clause 6.4.8 applied.	N
6.4.7.2	Separation by distance		N
6.4.7.3	Separation by a fire barrier		N
6.4.8	Fire enclosures and fire barriers	Plastic enclosure was evaluated as a fire enclosure.	Р
6.4.8.2	Fire enclosure and fire barrier material properties	See the following details.	Р
6.4.8.2.1	Requirements for a fire barrier	No such construction.	N
6.4.8.2.2	Requirements for a fire enclosure	Enclosure was made of wood	Р
6.4.8.3	Constructional requirements for a fire enclosure and a fire barrier	See the following details.	N
6.4.8.3.1	Fire enclosure and fire barrier openings		N
6.4.8.3.2	Fire barrier dimensions	No barrier used.	N
6.4.8.3.3	Top openings and properties		N
	Openings dimensions (mm):		N
6.4.8.3.4	Bottom openings and properties		N
	Openings dimensions (mm):		N
	Flammability tests for the bottom of a fire enclosure		N
	Instructional Safeguard:		N
6.4.8.3.5	Side openings and properties		N
	Openings dimensions (mm):		N
6.4.8.3.6	Integrity of a fire enclosure, condition met: a), b) or c):		N
6.4.8.4	Separation of a PIS from a fire enclosure and a fire barrier distance (mm) or flammability rating:	Enclosure was made of wood	Р
6.4.9	Flammability of insulating liquid:		N
6.5	Internal and external wiring		Р
6.5.1	General requirements	(See appended table 4.1.2)	Р
6.5.2	Requirements for interconnection to building wiring		_
6.5.3	Internal wiring size (mm²) for socket-outlets:	No such wiring, outlet and inlet.	N
6.6	Safeguards against fire due to the connection to additional equipment		N
7	INJURY CAUSED BY HAZARDOUS SUBSTANCES		Р
7.2	Reduction of exposure to hazardous substances		N
7.3	Ozone exposure		N



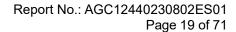


	EN IEC 62368-1		
Clause	Requirement + Test	Result - Remark	Verdict
7.4	Use of personal safeguards or personal protecti	ve equipment (PPE)	N
	Personal safeguards and instructions:	No PPE used.	_
7.5	Use of instructional safeguards and instructions		N
	Instructional safeguard (ISO 7010):		_
7.6	Batteries and their protection circuits		Р
8	MECHANICALLY-CAUSED INJURY		Р
8.2	Mechanical energy source classifications		Р
8.3	Safeguards against mechanical energy sources		N
8.4	Safeguards against parts with sharp edges and c	orners	N
8.4.1	Safeguards	MS1 only	N
	Instructional Safeguard:		N
8.4.2	Sharp edges or corners	No sharp edges and corners	N
8.5	Safeguards against moving parts		N
8.5.1	Fingers, jewellery, clothing, hair, etc., contact with MS2 or MS3 parts		N
	MS2 or MS3 part required to be accessible for the function of the equipment		N
	Moving MS3 parts only accessible to skilled person		N
8.5.2	Instructional safeguard:		N
8.5.4	Special categories of equipment containing moving parts		N
8.5.4.1	General		N
8.5.4.2	Equipment containing work cells with MS3 parts		N
8.5.4.2.1	Protection of persons in the work cell		N
8.5.4.2.2	Access protection override		N
8.5.4.2.2.1	Override system		N
8.5.4.2.2.2	Visual indicator		N
8.5.4.2.3	Emergency stop system		N
	Maximum stopping distance from the point of activation (m)		N
	Space between end point and nearest fixed mechanical part (mm):		N
8.5.4.2.4	Endurance requirements		N
	Mechanical system subjected to 100 000 cycles of operation		N



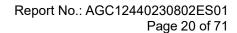


	EN IEC 62368-1		
Clause	Requirement + Test	Result - Remark	Verdict
	- Mechanical function check and visual inspection		N
	- Cable assembly		N
8.5.4.3	Equipment having electromechanical device for destruction of media		N
8.5.4.3.1	Equipment safeguards		N
8.5.4.3.2	Instructional safeguards against moving parts:		N
8.5.4.3.3	Disconnection from the supply		N
8.5.4.3.4	Cut type and test force (N):		N
8.5.4.3.5	Compliance		N
8.5.5	High pressure lamps		N
	Explosion test		N
8.5.5.3	Glass particles dimensions (mm)		N
8.6	Stability of equipment		N
8.6.1	General		N
	Instructional safeguard:		N
8.6.2	Static stability		N
8.6.2.2	Static stability test		N
8.6.2.3	Downward force test		N
8.6.3	Relocation stability		N
	Wheels diameter (mm):		_
	Tilt test		N
8.6.4	Glass slide test		N
8.6.5	Horizontal force test:		N
8.7	Equipment mounted to wall, ceiling or other struc	cture	N
8.7.1	Mount means type		N
8.7.2	Test methods		N
	Test 1, additional downwards force (N)		N
	Test 2, number of attachment points and test force (N)		N
	Test 3 Nominal diameter (mm) and applied torque (Nm)		N
8.8	Handles strength		N
8.8.1	General	MS1: equipment mass	N
8.8.2	Handle strength test		N



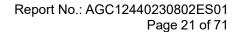


	EN IEC 62368-1		
Clause	Requirement + Test	Result - Remark	Verdict
	Number of handles:		_
	Force applied (N):		_
8.9	Wheels or casters attachment requirements		N
8.9.2	Pull test	No wheels or casters	N
8.10	Carts, stands and similar carriers	1	N
8.10.1	General	No such part	N
8.10.2	Marking and instructions:		N
8.10.3	Cart, stand or carrier loading test		N
	Loading force applied (N):		N
8.10.4	Cart, stand or carrier impact test		N
8.10.5	Mechanical stability		N
	Force applied (N):		_
8.10.6	Thermoplastic temperature stability		N
8.11	Mounting means for slide-rail mounted equipment	nt (SRME)	N
8.11.1	General	No slide-rail mounted.	N
8.11.2	Requirements for slide rails		N
	Instructional Safeguard:		N
8.11.3	Mechanical strength test		N
8.11.3.1	Downward force test, force (N) applied:		N
8.11.3.2	Lateral push force test		N
8.11.3.3	Integrity of slide rail end stops		N
8.11.4	Compliance		N
8.12	Telescoping or rod antennas	•	N
	Button/ball diameter (mm):	No antenna	
9	THERMAL BURN INJURY		Р
9.2	Thermal energy source classifications		Р
9.3	Touch temperature limits		Р
9.3.1	Touch temperatures of accessible parts	(See appended table 9.3)	Р
9.3.2	Test method and compliance	Checked by test.	Р
9.4	Safeguards against thermal energy sources		Р
9.5	Requirements for safeguards		Р
9.5.1	Equipment safeguard	Enclosure as a safe guard.	Р
9.5.2	Instructional safeguard:		N



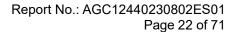


	EN IEC 62368-1		
Clause	Requirement + Test	Result - Remark	Verdict
9.6	Requirements for wireless power transmitters		N
9.6.1	General	No wireless power transmitters	N
9.6.2	Specification of the foreign objects		N
9.6.3	Test method and compliance:		N
10	RADIATION		Р
10.2	Radiation energy source classification		Р
10.2.1	General classification		Р
	Lasers:		_
	Lamps and lamp systems	Exempt group: LED light	_
	Image projectors:		_
	X-Ray:		_
	Personal music player		_
10.3	Safeguards against laser radiation		N
	The standard(s) equipment containing laser(s) comply	No laser	N
10.4	Safeguards against optical radiation from lamps LED types)	s and lamp systems (including	Р
10.4.1	General requirements		Р
	Instructional safeguard provided for accessible radiation level needs to exceed		N
	Risk group marking and location:	Exempt group	Р
	Information for safe operation and installation		N
10.4.2	Requirements for enclosures		N
	UV radiation exposure:		N
10.4.3	Instructional safeguard:		N
10.5	Safeguards against X-radiation		N
10.5.1	Requirements	No X-radiation	N
	Instructional safeguard for skilled persons:		_
10.5.3	Maximum radiation (pA/kg)		_
10.6	Safeguards against acoustic energy sources		N
10.6.1	General		N
10.6.2	Classification		N
	Acoustic output L <sub>Aeq,T</sub> , dB(A):		N
	Unweighted RMS output voltage (mV):		N



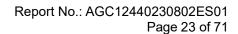


	EN IEC 62368-1		
Clause	Requirement + Test	Result - Remark	Verdict
	Digital output signal (dBFS)		N
10.6.3	Requirements for dose-based systems		N
10.6.3.1	General requirements		N
10.6.3.2	Dose-based warning and automatic decrease		N
10.6.3.3	Exposure-based warning and requirements		N
	30 s integrated exposure level (MEL30):		N
	Warning for MEL ≥ 100 dB(A):		N
10.6.4	Measurement methods		N
10.6.5	Protection of persons		N
	Instructional safeguards:		N
10.6.6	Requirements for listening devices (headphones, earphones, etc.)		N
10.6.6.1	Corded listening devices with analogue input		N
	Listening device input voltage (mV):		N
10.6.6.2	Corded listening devices with digital input		N
	Max. acoustic output L <sub>Aeq,T</sub> , dB(A):		N
10.6.6.3	Cordless listening devices		N
	Max. acoustic output L <sub>Aeq,T</sub> , dB(A):		N
В	NORMAL OPERATING CONDITION TESTS, ABN TESTS AND SINGLE FAULT CONDITION TESTS		Р
B.1	General		Р
B.1.5	Temperature measurement conditions	(See appended table B.1.5)	Р
B.2	Normal operating conditions		Р
B.2.1	General requirements:	(See Test Item Particulars and appended test tables)	Р
	Audio Amplifiers and equipment with audio amplifiers:		Р
B.2.3	Supply voltage and tolerances	(See appended table B.2.5)	Р
B.2.5	Input test:	(See appended table B.2.5)	Р
B.3	Simulated abnormal operating conditions		Р
B.3.1	General		Р
B.3.2	Covering of ventilation openings		N
	Instructional safeguard:		N
B.3.3	DC mains polarity test	No DC mains	N
B.3.4	Setting of voltage selector	No such device.	N



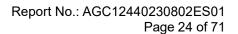


	EN IEC 62368-1		
Clause	Requirement + Test	Result - Remark	Verdict
B.3.5	Maximum load at output terminals		N
B.3.6	Reverse battery polarity		N
B.3.7	Audio amplifier abnormal operating conditions		Р
B.3.8	Safeguards functional during and after abnormal operating conditions		Р
B.4	Simulated single fault conditions		Р
B.4.1	General		Р
B.4.2	Temperature controlling device		N
B.4.3	Blocked motor test		N
B.4.4	Functional insulation	See the following details.	Р
B.4.4.1	Short circuit of clearances for functional insulation	(See appended table B.3 &B.4)	Р
B.4.4.2	Short circuit of creepage distances for functional insulation	(See appended table B.3 &B.4)	Р
B.4.4.3	Short circuit of functional insulation on coated printed boards	No coated printed boards within the EUT	N
B.4.5	Short-circuit and interruption of electrodes in tubes and semiconductors		Р
B.4.6	Short circuit or disconnection of passive components	(See appended table B.3 &B.4)	Р
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
B.4.8	Compliance during and after single fault conditions	(See appended table B.3&B.4)	Р
B.4.9	Battery charging and discharging under single fault conditions	Complied with the annex M	Р
С	UV RADIATION		N
C.1	Protection of materials in equipment from UV ra	Protection of materials in equipment from UV radiation	
C.1.2	Requirements	No UV radiation	N
C.1.3	Test method		N
C.2	UV light conditioning test		N
C.2.1	Test apparatus:		N
C.2.2	Mounting of test samples		N
C.2.3	Carbon-arc light-exposure test		N
C.2.4	Xenon-arc light-exposure test		N



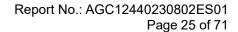


	EN IEC 62368-1		
Clause	Requirement + Test	Result - Remark	Verdict
D	TEST GENERATORS		N
D.1	Impulse test generators		
D.2	Antenna interface test generator		N
D.3	Electronic pulse generator		N
E	TEST CONDITIONS FOR EQUIPMENT CONTAIN	ING AUDIO AMPLIFIERS	Р
E.1	Electrical energy source classification for audio	signals	Р
	Maximum non-clipped output power (W):	0.13W	_
	Rated load impedance (Ω):	4Ω	_
	Open-circuit output voltage (V)	0.71V	
	Instructional safeguard:		
E.2	Audio amplifier normal operating conditions		Р
	Audio signal source type	1KHz	_
	Audio output power (W):	0.004W	_
	Audio output voltage (V):	0.12V	_
	Rated load impedance (Ω):	4Ω	_
	Requirements for temperature measurement	(See appended table 5.4.1.4, 9.3, B.1.5, B.2.6	Р
E.3	Audio amplifier abnormal operating conditions	(See appended table B.3)	Р
F	EQUIPMENT MARKINGS, INSTRUCTIONS, AND	INSTRUCTIONAL SAFEGUARDS	Р
F.1	General		
	Language:	Only english version review.  Versions in other language will be provided when submitted for national approval.	_
F.2	Letter symbols and graphical symbols		Р
F.2.1	Letter symbols according to IEC60027-1	Letter symbols for quantities and units are complied with IEC 60027-1.	Р
F.2.2	Graphic symbols according to IEC, ISO or manufacturer specific	Graphical symbols are complied with IEC 60417, ISO 3864-2, ISO 7000 or ISO 7010.	Р
F.3	Equipment markings		Р
F.3.1	Equipment marking locations	Equipment marking is located on the exterior surface and is easily visible.	Р
F.3.2	Equipment identification markings	See the following details.	Р



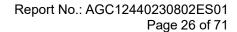


EN IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
F.3.2.1	Manufacturer identification:	See copy of marking plate.	_
F.3.2.2	Model identification	See copy of marking plate.	_
F.3.3	Equipment rating markings	See the following details.	Р
F.3.3.1	Equipment with direct connection to mains		N
F.3.3.2	Equipment without direct connection to mains	See above.	Р
F.3.3.3	Nature of the supply voltage:	(no show)	Р
F.3.3.4	Rated voltage:	5V (no show)	Р
F.3.3.5	Rated frequency		N
F.3.3.6	Rated current or rated power	1.0A (no show)	Р
F.3.3.7	Equipment with multiple supply connections		N
F.3.4	Voltage setting device		N
F.3.5	Terminals and operating devices		N
F.3.5.1	Mains appliance outlet and socket-outlet markings	No such devices on the equipment.	N
F.3.5.2	Switch position identification marking:	No such switch on the equipment.	N
F.3.5.3	Replacement fuse identification and rating markings:		N
	Instructional safeguards for neutral fuse:		N
F.3.5.4	Replacement battery identification marking:		N
F.3.5.5	Neutral conductor terminal		N
F.3.5.6	Terminal marking location		N
F.3.6	Equipment markings related to equipment classification	Class III	N
F.3.6.1	Class I equipment		N
F.3.6.1.1	Protective earthing conductor terminal		N
F.3.6.1.2	Protective bonding conductor terminals:		N
F.3.6.2	Equipment class marking:		N
F.3.6.3	Functional earthing terminal marking:		N
F.3.7	Equipment IP rating marking	This equipment is classified as IPX0.	_
F.3.8	External power supply output marking:		N
F.3.9	Durability, legibility and permanence of marking	See the following details.	Р



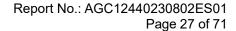


	EN IEC 62368-1		
Clause	Requirement + Test	Result - Remark	Verdict
F.3.10	Test for permanence of markings	The label was subjected to the permanence of marking test, 15 sec. for water and 15 sec. for petroleum spirit.  After each test, the marking remained legible.	Р
F.4	Instructions		Р
	a) Information prior to installation and initial use		N
	b) Equipment for use in locations where children not likely to be present	Relevant safety caution texts and installation instruction are available.	Р
	c) Instructions for installation and interconnection		Р
	d) Equipment intended for use only in restricted access area		N
	e) Equipment intended to be fastened in place	No such terminal	N
	f) Instructions for audio equipment terminals		N
	g) Protective earthing used as a safeguard		N
	h) Protective conductor current exceeding ES2 limits		N
	i) Graphic symbols used on equipment	The EUT is not a permanently connected equipment	N
	j) Permanently connected equipment not provided with all-pole mains switch		N
	k) Replaceable components or modules providing safeguard function		N
	I) Equipment containing insulating liquid		N
	m) Installation instructions for outdoor equipment		N
F.5	Instructional safeguards		Р
G	COMPONENTS		Р
G.1	Switches		N
G.1.1	General		N
G.1.2	Ratings, endurance, spacing, maximum load		N
G.1.3	Test method and compliance		N
G.2	Relays		N
G.2.1	Requirements	No relays	N
G.2.2	Overload test		N
G.2.3	Relay controlling connectors supplying power to other equipment		N





	EN IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict	
G.2.4	Test method and compliance		N	
G.3	Protective devices	Protective devices		
G.3.1	Thermal cut-offs	No such device	N	
	Thermal cut-outs separately approved according to IEC 60730 with conditions indicated in a) & b)	No thermal cut-off provided within the equipment.	N	
	Thermal cut-outs tested as part of the equipment as indicated in c)		N	
G.3.1.2	Test method and compliance		N	
G.3.2	Thermal links		N	
G.3.2.1	a) Thermal links tested separately according to IEC 60691 with specifics		N	
	b) Thermal links tested as part of the equipment		N	
G.3.2.2	Test method and compliance		N	
G.3.3	PTC thermistors	No such device	N	
G.3.4	Overcurrent protection devices		N	
G.3.5	Safeguards components not mentioned in G.3.1 to G.3.4		N	
G.3.5.1	Non-resettable devices suitably rated and marking provided		N	
G.3.5.2	Single faults conditions		N	
G.4	Connectors		N	
G.4.1	Spacings	No such connector within the EUT	N	
G.4.2	Mains connector configuration		N	
G.4.3	Plug is shaped that insertion into mains socket- outlets or appliance coupler is unlikely		N	
G.5	Wound components		N	
G.5.1	Wire insulation in wound components	No such component.	N	
G.5.1.2	Protection against mechanical stress		N	
G.5.2	Endurance test		N	
G.5.2.1	General test requirements		N	
G.5.2.2	Heat run test		N	
	Test time (days per cycle)		_	
	Test temperature (°C):		_	
G.5.2.3	Wound components supplied from the mains		N	
G.5.2.4	No insulation breakdown		N	



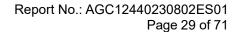


EN IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
G.5.3	Transformers		N
G.5.3.1	Compliance method:		N
	Position:		N
	Method of protection:		N
G.5.3.2	Insulation		N
	Protection from displacement of windings:		_
G.5.3.3	Transformer overload tests		N
G.5.3.3.1	Test conditions		N
G.5.3.3.2	Winding temperatures		N
G.5.3.3.3	Winding temperatures - alternative test method		N
G.5.3.4	Transformers using FIW		N
G.5.3.4.1	General		N
	FIW wire nominal diameter:		_
G.5.3.4.2	Transformers with basic insulation only		N
G.5.3.4.3	Transformers with double insulation or reinforced insulation:		N
G.5.3.4.4	Transformers with FIW wound on metal or ferrite core		N
G.5.3.4.5	Thermal cycling test and compliance		N
G.5.3.4.6	Partial discharge test		N
G.5.3.4.7	Routine test		N
G.5.4	Motors		N
G.5.4.1	General requirements		N
G.5.4.2	Motor overload test conditions		N
G.5.4.3	Running overload test		N
G.5.4.4.2	Locked-rotor overload test		N
	Test duration (days):		_
G.5.4.5	Running overload test for DC motors		N
G.5.4.5.2	Tested in the unit		N
G.5.4.5.3	Alternative method		N
G.5.4.6	Locked-rotor overload test for DC motors		N
G.5.4.6.2	Tested in the unit		N
	Maximum Temperature		N
G.5.4.6.3	Alternative method		N



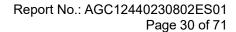


EN IEC 62368-1				
Clause	Requirement + Test	Result - Remark	Verdict	
G.5.4.7	Motors with capacitors		N	
G.5.4.8	Three-phase motors		N	
G.5.4.9	Series motors		N	
	Operating voltage:		_	
G.6	Wire Insulation		N	
G.6.1	General		N	
G.6.2	Enamelled winding wire insulation		N	
G.7	Mains supply cords		N	
G.7.1	General requirements		N	
	Type:		_	
G.7.2	Cross sectional area (mm² or AWG):		N	
G.7.3	Cord anchorages and strain relief for non- detachable power supply cords		N	
G.7.3.2	Cord strain relief		N	
G.7.3.2.1	Requirements		N	
	Strain relief test force (N):		N	
G.7.3.2.2	Strain relief mechanism failure		N	
G.7.3.2.3	Cord sheath or jacket position, distance (mm):		N	
G.7.3.2.4	Strain relief and cord anchorage material		N	
G.7.4	Cord Entry		N	
G.7.5	Non-detachable cord bend protection		N	
G.7.5.1	Requirements		N	
G.7.5.2	Test method and compliance		N	
	Overall diameter or minor overall dimension, <i>D</i> (mm)		_	
	Radius of curvature after test (mm):		_	
G.7.6	Supply wiring space		N	
G.7.6.1	General requirements		N	
G.7.6.2	Stranded wire		N	
G.7.6.2.1	Requirements		N	
G.7.6.2.2	Test with 8 mm strand		N	
G.8	Varistors	1	N	
G.8.1	General requirements	No such device.	N	
G.8.2	Safeguards against fire		N	





	EN IEC 62368-1		
Clause	Requirement + Test	Result - Remark	Verdict
G.8.2.1	General		N
G.8.2.2	Varistor overload test		N
G.8.2.3	Temporary overvoltage test		N
G.9	Integrated circuit (IC) current limiters		N
G.9.1	Requirements	No such device.	N
	IC limiter output current (max. 5A):		_
	Manufacturers' defined drift:		_
G.9.2	Test Program		N
G.9.3	Compliance		N
G.10	Resistors		N
G.10.1	General	No such device.	N
G.10.2	Conditioning		N
G.10.3	Resistor test		N
G.10.4	Voltage surge test		N
G.10.5	Impulse test		N
G.10.6	Overload test		N
G.11	Capacitors and RC units		N
G.11.1	General requirements		N
G.11.2	Conditioning of capacitors and RC units		N
G.11.3	Rules for selecting capacitors		N
G.12	Optocouplers		N
	Optocouplers comply with IEC 60747-5-5 with specifics	No such device.	N
	Type test voltage V <sub>ini,a</sub> :		
	Routine test voltage, V <sub>ini, b</sub> :		_
G.13	Printed boards		Р
G.13.1	General requirements		Р
G.13.2	Uncoated printed boards		Р
G.13.3	Coated printed boards	No coated printed board provided within the equipment.	N
G.13.4	Insulation between conductors on the same inner surface		N
G.13.5	Insulation between conductors on different surfaces		N
	Distance through insulation:		N



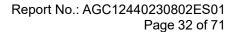


	EN IEC 62368-1		
Clause	Requirement + Test	Result - Remark	Verdict
	Number of insulation layers (pcs)		_
G.13.6	Tests on coated printed boards		N
G.13.6.1	Sample preparation and preliminary inspection		N
G.13.6.2	Test method and compliance		N
G.14	Coating on components terminals		N
G.14.1	Requirements		N
G.15	Pressurized liquid filled components		N
G.15.1	Requirements	No such components used	N
G.15.2	Test methods and compliance		N
G.15.2.1	Hydrostatic pressure test		N
G.15.2.2	Creep resistance test		N
G.15.2.3	Tubing and fittings compatibility test		N
G.15.2.4	Vibration test		N
G.15.2.5	Thermal cycling test		N
G.15.2.6	Force test		N
G.15.3	Compliance		N
G.16	IC including capacitor discharge function (ICX)		N
G.16.1	Condition for fault tested is not required	No such device	N
	ICX with associated circuitry tested in equipment		N
	ICX tested separately		N
G.16.2	Tests		N
	Smallest capacitance and smallest resistance specified by ICX manufacturer for impulse test:		_
	Mains voltage that impulses to be superimposed on		_
	Largest capacitance and smallest resistance for ICX tested by itself for 10000 cycles test:		_
G.16.3	Capacitor discharge test:		N
Н	CRITERIA FOR TELEPHONE RINGING SIGNALS		N
H.1	General		N
H.2	Method A		N
H.3	Method B		N
H.3.1	Ringing signal	No such telephone ringing signal	N
H.3.1.1	Frequency (Hz):		_



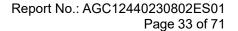


	EN IEC 62368-1		
Clause	Requirement + Test	Result - Remark	Verdict
H.3.1.2	Voltage (V):		_
H.3.1.3	Cadence; time (s) and voltage (V):		_
H.3.1.4	Single fault current (mA)::		_
H.3.2	Tripping device and monitoring voltage		N
H.3.2.1	Conditions for use of a tripping device or a monitoring voltage		N
H.3.2.2	Tripping device		N
H.3.2.3	Monitoring voltage (V):		N
J	INSULATED WINDING WIRES FOR USE WITHOU	UT INTERLEAVED INSULATION	N
J.1	General		N
	Winding wire insulation:		
	Solid round winding wire, diameter (mm):		N
	Solid square and rectangular (flatwise bending) winding wire, cross-sectional area (mm²):		N
J.2/J.3	Tests and Manufacturing		
K	SAFETY INTERLOCKS	SAFETY INTERLOCKS	
K.1	General requirements		N
	Instructional safeguard:	No such device.	N
K.2	Components of safety interlock safeguard mechanism		N
K.3	Inadvertent change of operating mode		N
K.4	Interlock safeguard override		N
K.5	Fail-safe		N
K.5.1	Under single fault condition		N
K.6	Mechanically operated safety interlocks	•	N
K.6.1	Endurance requirement		N
K.6.2	Test method and compliance:		N
K.7	Interlock circuit isolation	•	N
K.7.1	Separation distance for contact gaps & interlock circuit elements		N
	In circuit connected to mains, separation distance for contact gaps (mm):		N
	In circuit isolated from mains, separation distance for contact gaps (mm):		N
	Electric strength test before and after the test of K.7.2:		N



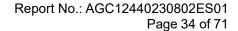


	EN IEC 62368-1		
Clause	Requirement + Test	Result - Remark	Verdict
K.7.2	Overload test, Current (A):		N
K.7.3	Endurance test		N
K.7.4	Electric strength test		N
L	DISCONNECT DEVICES		N
L.1	General requirements		N
L.2	Permanently connected equipment		N
L.3	Parts that remain energized		N
L.4	Single-phase equipment		N
L.5	Three-phase equipment		N
L.6	Switches as disconnect devices		N
L.7	Plugs as disconnect devices		N
L.8	Multiple power sources		N
	Instructional safeguard		N
М	<b>EQUIPMENT CONTAINING BATTERIES AND TH</b>	EIR PROTECTION CIRCUITS	Р
M.1	General requirements		Р
M.2	Safety of batteries and their cells	Safety of batteries and their cells	
M.2.1	Batteries and their cells comply with relevant IEC standards		Р
M.3	Protection circuits for batteries provided within the equipment		Р
M.3.1	Requirements		Р
M.3.2	Test method		Р
	Overcharging of a rechargeable battery		Р
	Excessive discharging		Р
	Unintentional charging of a non-rechargeable battery		N
	Reverse charging of a rechargeable battery		N
M.3.3	Compliance	No chemical leakage, no liquid spillage, no explosion, no emission fo flame or expulsion of molten metal	Р
M.4	Additional safeguards for equipment containing a portable secondary lithium battery		Р
M.4.1	General		Р
M.4.2	Charging safeguards		Р
M.4.2.1	Requirements		Р



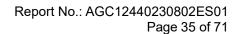


	EN IEC 62368-1		
Clause	Requirement + Test	Result - Remark	Verdict
M.4.2.2	Compliance:		Р
M.4.3	Fire enclosure		Р
M.4.4	Drop test of equipment containing a secondary lithium battery		Р
M.4.4.2	Preparation and procedure for the drop test		Р
M.4.4.3	Drop, Voltage on reference and dropped batteries (V); voltage difference during 24 h period (%):	After Drop test, the open circuit voltage difference: 0.2% in the 24H.	Р
M.4.4.4	Check of the charge/discharge function	Charging and Discharging normally	Р
M.4.4.5	Charge / discharge cycle test		Р
M.4.4.6	Compliance	No fire, no explosion, and no hazards produced during tests.	Р
M.5	Risk of burn due to short-circuit during carrying		Р
M.5.1	Requirement		Р
M.5.2	Test method and compliance		N
M.6	Safeguards against short-circuits		Р
M.6.1	External and internal faults	No such explosion or fire likely to result from short circuits.	Р
M.6.2	Compliance		N
M.7	Risk of explosion from lead acid and NiCd batteries		N
M.7.1	Ventilation preventing explosive gas concentration		N
	Calculated hydrogen generation rate:		N
M.7.2	Test method and compliance		N
	Minimum air flow rate, Q (m³/h)		N
M.7.3	Ventilation tests		N
M.7.3.1	General		N
M.7.3.2	Ventilation test – alternative 1		N
	Hydrogen gas concentration (%)		N
M.7.3.3	Ventilation test – alternative 2		N
	Obtained hydrogen generation rate:		N
M.7.3.4	Ventilation test – alternative 3		N
	Hydrogen gas concentration (%):		N
M.7.4	Marking:		N
M.8	Protection against internal ignition from externa aqueous electrolyte	I spark sources of batteries with	N
M.8.1	General		N
A	t been signed by authorized approver, or having been altered without authorizat	· · · · · · · · · · · · · · · · · · ·	



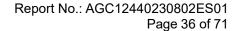


	EN IEC 62368-1		
Clause	Requirement + Test	Result - Remark	Verdict
M.8.2	Test method		N
M.8.2.1	General		N
M.8.2.2	Estimation of hypothetical volume V <sub>Z</sub> (m³/s)		_
M.8.2.3	Correction factors		_
M.8.2.4	Calculation of distance d (mm):		
M.9	Preventing electrolyte spillage		N
M.9.1	Protection from electrolyte spillage		N
M.9.2	Tray for preventing electrolyte spillage		N
M.10	Instructions to prevent reasonably foreseeable misuse		Р
	Instructional safeguard		N
N	ELECTROCHEMICAL POTENTIALS		N
	Material(s) used:		_
0	MEASUREMENT OF CREEPAGE DISTANCES AN	ND CLEARANCES	N
	Value of X (mm):		_
Р	SAFEGUARDS AGAINST CONDUCTIVE OBJECT	S	Р
P.1	General		Р
P.2	Safeguards against entry or consequences of en	ntry of a foreign object	N
P.2.1	General		N
P.2.2	Safeguards against entry of a foreign object		N
	Location and Dimensions (mm):	The opening did not exceed 5mm in any dimensions	_
P.2.3	Safeguards against the consequences of entry of a foreign object		N
P.2.3.1	Safeguard requirements		N
	The ES3 and PS3 keep-out volume in Figure P.3 not applicable to transportable equipment		N
	Transportable equipment with metalized plastic parts:		N
P.2.3.2	Consequence of entry test		N
P.3	Safeguards against spillage of internal liquids		N
P.3.1	General	No such part.	N
P.3.2	Determination of spillage consequences		N
P.3.3	Spillage safeguards		N
P.3.4	Compliance		N



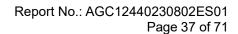


	EN IEC 62368-1		
Clause	Requirement + Test	Result - Remark	Verdict
P.4	Metallized coatings and adhesives securing par	ts	N
P.4.1	General	No such application	N
P.4.2	Tests		N
	Conditioning, T <sub>C</sub> (°C):		_
	Duration (weeks)		
Q	CIRCUITS INTENDED FOR INTERCONNECTION	WITH BUILDING WIRING	N
Q.1	Limited power sources		N
Q.1.1	Requirements		N
	a) Inherently limited output		N
	b) Impedance limited output		N
	c) Regulating network limited output		N
	d) Overcurrent protective device limited output		N
	e) IC current limiter complying with G.9		N
Q.1.2	Test method and compliance:		N
	Current rating of overcurrent protective device (A)		N
Q.2	Test for external circuits – paired conductor cable	No such circuit.	N
	Maximum output current (A):		N
	Current limiting method:		
R	LIMITED SHORT CIRCUIT TEST		N
R.1	General	Class III equipment	N
R.2	Test setup		N
	Overcurrent protective device for test:		_
R.3	Test method		N
	Cord/cable used for test		_
R.4	Compliance		N
S	TESTS FOR RESISTANCE TO HEAT AND FIRE		N
S.1	Flammability test for fire enclosures and fire barrier materials of equipment where the steady state power does not exceed 4 000 W		N
	Samples, material:	Approved material used.	_
	Wall thickness (mm)		_
	Conditioning (°C)		



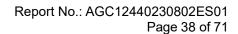


	EN IEC 62368-1		
Clause	Requirement + Test	Result - Remark	Verdict
	Test flame according to IEC 60695-11-5 with conditions as set out		N
	- Material not consumed completely		N
	- Material extinguishes within 30s		N
	- No burning of layer or wrapping tissue		N
S.2	Flammability test for fire enclosure and fire barrier integrity		
	Samples, material:		_
	Wall thickness (mm):		
	Conditioning (°C):		_
S.3	Flammability test for the bottom of a fire enclos	ure	N
S.3.1	Mounting of samples		N
S.3.2	Test method and compliance		N
	Mounting of samples:		_
	Wall thickness (mm):		_
S.4	Flammability classification of materials		N
S.5	Flammability test for fire enclosures and fire barrier materials of equipment where the steady state power exceeding 4 000 W		N
	Samples, material:		_
	Wall thickness (mm):		_
	Conditioning (°C):		_
Т	MECHANICAL STRENGTH TESTS		Р
T.1	General		Р
T.2	Steady force test, 10 N:		N
T.3	Steady force test, 30 N:		N
T.4	Steady force test, 100 N:	(See appended table T.4)	Р
T.5	Steady force test, 250 N:		N
T.6	Enclosure impact test		N
	Fall test		N
	Swing test		N
T.7	Drop test:	(See appended table T.7)	Р
T.8	Stress relief test:	(See appended table T.8)	Р
T.9	Glass Impact Test:		N
T.10	Glass fragmentation test		N



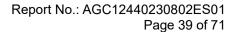


	EN IEC 62368-1		
Clause	Requirement + Test	Result - Remark	Verdict
	Number of particles counted:	No glass	N
T.11	Test for telescoping or rod antennas		N
	Torque value (Nm):	No antenna	N
U	MECHANICAL STRENGTH OF CATHODE RAY TO AGAINST THE EFFECTS OF IMPLOSION	JBES (CRT) AND PROTECTION	N
U.1	General		N
	Instructional safeguard:		N
U.2	Test method and compliance for non-intrinsically	protected CRTs	N
U.3	Protective screen		N
V	DETERMINATION OF ACCESSIBLE PARTS		N
V.1	Accessible parts of equipment		N
V.1.1	General	No hazards can be accessible by figure V.1 and V.5	N
V.1.2	Surfaces and openings tested with jointed test probes		N
V.1.3	Openings tested with straight unjointed test probes		N
V.1.4	Plugs, jacks, connectors tested with blunt probe		N
V.1.5	Slot openings tested with wedge probe		N
V.1.6	Terminals tested with rigid test wire		N
V.2	Accessible part criterion		N
X	ALTERNATIVE METHOD FOR DETERMINING CLICIRCUITS CONNECTED TO AN AC MAINS NOT ERMS)		N
	Clearance:		N
Υ	CONSTRUCTION REQUIREMENTS FOR OUTDOO	OR ENCLOSURES	N
Y.1	General		N
Y.2	Resistance to UV radiation		N
Y.3	Resistance to corrosion		N
Y.3	Resistance to corrosion		N
Y.3.1	Metallic parts of outdoor enclosures are resistant to effects of water-borne contaminants by		N
Y.3.2	Test apparatus		N
Y.3.3	Water – saturated sulphur dioxide atmosphere		N
Y.3.4	Test procedure:		N
Y.3.5	Compliance		N





EN IEC 62368-1				
Clause	Requirement + Test	Result - Remark	Verdict	
Y.4	Gaskets		N	
Y.4.1	General		N	
Y.4.2	Gasket tests		N	
Y.4.3	Tensile strength and elongation tests		N	
	Alternative test methods:		N	
Y.4.4	Compression test		N	
Y.4.5	Oil resistance		N	
Y.4.6	Securing means		N	
Y.5	Protection of equipment within an outdoor enclo	N		
Y.5.1	General		N	
Y.5.2	Protection from moisture		N	
	Relevant tests of IEC 60529 or Y.5.3:		N	
Y.5.3	Water spray test		N	
Y.5.4	Protection from plants and vermin		N	
Y.5.5	Protection from excessive dust		N	
Y.5.5.1	General		N	
Y.5.5.2	IP5X equipment		N	
Y.5.5.3	IP6X equipment		N	
Y.6	Mechanical strength of enclosures		N	
Y.6.1	General		N	
Y.6.2	Impact test		N	





		EN IEC 62368-1			
Clause	Requirement – Test		Result – Remark	Verdict	
(Aı	ATTACHMENT TO TEST REPORT IEC 62368-1 EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES (Audio/video, information and communication technology equipment Part 1: Safety requirement				
,	CENELEC COMMON MODIFICATIONS (EN)				
		s that are shaded light grey are all other clause numbers in that s to IEC 62368-1:2018.		Р	
	Clauses, subclauses, notes IEC 62368-1:2018 are prefi	s, tables, figures and annexes w xed "Z".	hich are additional to those in		
	Add the following annexes:			Р	
	Annex ZA (normative)	Normative references to intermit with their corresponding Euro			
	Annex ZB (normative)	Special national conditions			
	Annex ZC (informative) A-deviations				
	Annex ZD (informative) IEC and CENELEC code designations for flexible cords				
1	Modification to Clause 3.			Ν	
3.3.19	Sound exposure			N	
	Replace 3.3.19 of IEC 6236	68-1 with the following definition	ns:		
3.3.19.1	momentary exposure level, MEL metric for estimating 1 s sound exposure level from the HD 483-1 S2 test signal applied to both channels, based on EN 50332-1:2013, 4.2.  Note 1 to entry: MEL is measured as A-weighted levels in dB. Note 2 to entry: See B.3 of EN 50332-3:2017 for additional information.			N	
3.3.19.3	sound exposure, E	e(p) squared and integrated $e, T$		N	



	EN IEC 62368-1		
Clause	Requirement – Test	Result – Remark	Verdict
3.3.19.4	sound exposure level, SEL		N
	logarithmic measure of sound exposure relative to a reference value, $E_0$ , typically the 1 kHz threshold of hearing in humans.		
	Note 1 to entry: SEL is measured as A-weighted levels in dB.		
	$SEL = 10 \lg \left(\frac{E}{E_0}\right) dB$		
	Note 2 to entry: See B.4 of EN 50332-3:2017 for additional information.		
3.3.19.5	digital signal level relative to full scale, dBFS		N
	levels reported in dBFS are always r.m.s. Full scale level, 0 dBFS, is the level of a dc-free 997-Hz sine wave whose undithered positive peak value is positive digital full scale, leaving the code corresponding to negative digital full scale unused		
	Note 1 to entry: It is invalid to use dBFS for non-r.m.s. levels. Because the definition of full scale is based on a sine wave, the level of signals with a crest factor lower than that of a sine wave may exceed 0 dBFS. In particular, square wave signals may reach +3,01 dBFS.		
2	Modification to Clause 10		N
10.6	Safeguards against acoustic energy sources		N
	Replace 10.6 of IEC 62368-1 with the following:		
10.6.1.1	Introduction		N
	Safeguard requirements for protection against long-term exposure to excessive sound pressure levels from personal music players closely coupled to the ear are specified below. Requirements for earphones and headphones intended for use with personal music players are also covered. A personal music player is a portable equipment intended for use by an ordinary person, that:		
	<ul> <li>is designed to allow the user to listen to audio or audiovisual content / material; and</li> <li>uses a listening device, such as headphones or earphones that can be worn in or on or around the ears; and</li> <li>has a player that can be body worn (of a size suitable to be carried in a clothing pocket) and is intended for the user to walk around with while in continuous use (for example, on a street, in a subway, at an airport, etc.).</li> </ul>		
	EXAMPLES Portable CD players, MP3 audio players, mobile phones with MP3 type features, PDAs or similar equipment.		



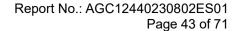


	EN IEC 62368-1				
Clause	Requirement – Test	Result – Remark	Verdict		
	Personal music players shall comply with the requirements of either 10.6.2 or 10.6.3.				
	NOTE 1 Protection against acoustic energy sources from telecom applications is referenced to ITU-T P.360.				
	NOTE 2 It is the intention of the Committee to allow the alternative methods for now, but to only use the dose measurement method as given in 10.6.5 in future. Therefore, manufacturers are encouraged to implement 10.6.5 as soon as possible.				
	Listening devices sold separately shall comply with the requirements of 10.6.6.				
	These requirements are valid for music or video mode only.				
	The requirements do not apply to:  – professional equipment;				
	NOTE 3 Professional equipment is equipment sold through special sales channels. All products sold through normal electronics stores are considered not to be professional equipment.				
	<ul> <li>hearing aid equipment and other devices for assistive listening;</li> <li>the following type of analogue personal music players:</li> <li>long distance radio receiver (for example, a multiband radio receiver or world band radio receiver, an AM radio receiver), and</li> <li>cassette player/recorder;</li> </ul>				
	NOTE 4 This exemption has been allowed because this technology is falling out of use and it is expected that within a few years it will no longer exist. This exemption will not be extended to other technologies.				
	<ul> <li>a player while connected to an external amplifier that does not allow the user to walk around while in use.</li> </ul>				
	For equipment that is clearly designed or intended primarily for use by children, the limits of the relevant toy standards may apply.				
	The relevant requirements are given in EN 71-1:2011, 4.20 and the related tests methods and measurement distances apply.				
10.6.1.2	Non-ionizing radiation from radio frequencies in the range 0 to 300 GHz		N		
	The amount of non-ionizing radiation is regulated by European Council Recommendation 1999/519/EC of 12 July 1999 on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz).				



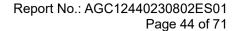


	EN IEC 62368-1		
Clause	Requirement – Test	Result – Remark	Verdict
10.6.2	For intentional radiators, ICNIRP guidelines should be taken into account for Limiting Exposure to Time-Varying Electric, Magnetic, and Electromagnetic Fields (up to 300 GHz). For hand-held and body mounted devices, attention is drawn to EN 50360 and EN 50566.  Classification of devices without the capacity to estin	nata sound dosa	N
	Classification of devices without the capacity to estimate	mate sound dose	
10.6.2.1	This standard is transitioning from short-term based (30 s) requirements to long-term based (40 hour) requirements. These clauses remain in effect only for devices that do not comply with sound dose estimation as stipulated in EN 50332-3.  For classifying the acoustic output $L_{\text{Aeq},T}$ , measurements are based on the A-weighted equivalent sound pressure level over a 30 s period.  For music where the average sound pressure (long term $L_{\text{Aeq},T}$ ) measured over the duration of the song is lower than the average produced by the programme simulation noise, measurements may be done over the duration of the complete song. In this case, $T$ becomes the duration of the song.  NOTE Classical music, acoustic music and broadcast typically has an average sound pressure (long term $L_{\text{Aeq},T}$ ) which is much lower than the average programme simulation noise. Therefore, if the player is capable to analyse the content and compare it with the programme simulation noise, the warning does not need to be given as long as the average sound pressure of the song does not exceed the required limit.  For example, if the player is set with the programme simulation noise to 85 dB, but the average music level of the song is only 65 dB, there is no need to give a warning or ask an acknowledgement as long as the average sound level of the song is not above the basic limit of 85 dB.		N N
10.6.2.2	RS1 limits (to be superseded, see 10.6.3.2)  RS1 is a class 1 acoustic energy source that does not exceed the following:  — for equipment provided as a package (player with its listening device), and with a proprietary connector between the player and its listening device, or where the combination of player and listening device is known by other means such as setting or automatic detection, the <i>L</i> Aeq, <i>T</i> acoustic output shall be ≤ 85 dB when playing the fixed "programme simulation noise" described in EN 50332-1.  — for equipment provided with a standardized connector (for example, a 3,5 phone jack) that allows connection to a listening device for general use, the unweighted r.m.s. output voltage shall be ≤ 27 mV (analogue interface) or -		N





	EN IEC 62368-1		
Clause	Requirement – Test	Result – Remark	Verdict
	25 dBFS (digital interface) when playing the fixed "programme simulation noise" described in EN 50332-1.  – The RS1 limits will be updated for all devices as per 10.6.3.2.		
10.6.2.3	RS2 limits (to be superseded, see 10.6.3.3)		N
	RS2 is a class 2 acoustic energy source that does not exceed the following:  — for equipment provided as a package (player with its listening device), and with a proprietary connector between the player and its listening device, or when the combination of player and listening device is known by other means such as setting or automatic 130 detection, the <i>L</i> Aeq, <i>T</i> acoustic output shall be ≤ 100 dB(A) when playing the fixed "programme simulation noise" as described in EN 50332-1.  — for equipment provided with a standardized connector (for example, a 3,5 phone jack) that allows connection to a listening device for general use, the unweighted r.m.s. output voltage shall be ≤ 150 mV (analogue interface) or -10 dBFS (digital interface) when playing the fixed "programme simulation noise" as described in EN		
10.6.3	50332-1.  Classification of devices (new)		N
10.6.3.1	General		N
	Previous limits (10.6.2) created abundant false negative and false positive PMP sound level warnings. New limits, compliant with The Commission Decision of 23 June 2009, are given below.		
10.6.3.2	RS1 limits (new)		N
	RS1 is a class 1 acoustic energy source that does not exceed the following:  — for equipment provided as a package (player with its listening device), and with a proprietary connector between the player and its listening device, or where the combination of player and listening device is known by other means such as setting or automatic detection, the LAeq, racoustic output shall be ≤ 80 dB when playing the fixed "programme simulation noise" described in EN 50332-1.  — for equipment provided with a standardized connector (for example, a 3,5 phone jack) that allows connection to a listening device for general use, the unweighted r.m.s. output voltage shall be ≤ 15 mV (analogue interface) or - 30 dBFS (digital interface) when playing the fixed "programme simulation noise" described in EN 50332-1.		
10.6.3.3	RS2 limits (new)		N
	RS2 is a class 2 acoustic energy source that does not exceed the following:		





	EN IEC 62368-1				
Clause	Requirement – Test	Result – Remark	Verdic		
	<ul> <li>for equipment provided as a package (player with its listening device), and with a proprietary connector between the player and its listening device, or where the combination of player and listening device is known by other means such as setting or automatic detection, the weekly sound exposure level, as described in EN 50332-3, shall be ≤ 80 dB when playing the fixed "programme simulation noise" described in EN 50332-1.</li> <li>for equipment provided with a standardized connector (for example, a 3,5 phone jack) that allows connection to a listening device for general use, the unweighted r.m.s. output level, integrated over one week, as described in EN50332-3, shall be ≤ 15 mV (analogue interface) or - 30 dBFS (digital interface) when playing the fixed "programme simulation noise" described in EN 50332-1.</li> </ul>				
10.6.4	Requirements for maximum sound exposure		N		
10.6.4.1	Measurement methods  All volume controls shall be turned to maximum during tests.		N		
10.6.4.2	Measurements shall be made in accordance with EN 50332-1 or EN 50332-2 as applicable.				
	Except as given below, protection requirements for parts accessible to ordinary persons, instructed persons and skilled persons are given in 4.3.  NOTE 1 Volume control is not considered a safeguard.  Between RS2 and an ordinary person, the basic safeguard may be replaced by an instructional safeguard in accordance with Clause F.5, except that the instructional safeguard shall be placed on the equipment, or on the packaging, or in the instruction manual.  Alternatively, the instructional safeguard may be given through the equipment display during use.  The elements of the instructional safeguard shall be as follows:  - element 1a: the symbol (2011-01) - element 2: "High sound pressure" or equivalent wording - element 3: "Hearing damage risk" or equivalent wording - element 4: "Do not listen at high volume levels for long				



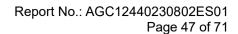


EN IEC 62368-1				
Clause	Requirement – Test Result – Remark			
	An equipment safeguard shall prevent exposure of an ordinary person to an RS2 source without intentional physical action from the ordinary person and shall automatically return to an output level not exceeding what is specified for an RS1 source when the power is switched off.			
	The equipment shall provide a means to actively inform the user of the increased sound level when the equipment is operated with an output exceeding RS1. Any means used shall be acknowledged by the user before activating a mode of operation which allows for an output exceeding RS1. The acknowledgement does not need to be repeated more than once every 20 h of cumulative listening time.			
	NOTE 2 Examples of means include visual or audible signals. Action from the user is always needed.  NOTE 3 The 20 h listening time is the accumulative listening time, independent of how often and how long the personal music player has			
	been switched off.  A <b>skilled person</b> shall not be unintentionally exposed to RS3.			
10.6.5	Requirements for dose-based systems		N	
10.6.5.1	General requirements		N	
	Personal music players shall give the warnings as provided below when tested according to EN 50332-3, using the limits from this clause.			
	The manufacturer may offer optional settings to allow the users to modify when and how they wish to receive the notifications and warnings to promote a better user experience without defeating the safeguards. This allows the users to be informed in a method that best meets their physical capabilities and device usage needs. If such optional settings are offered, an administrator (for example, parental restrictions, business/educational administrators, etc.) shall be able to lock any optional settings into a specific configuration.			
	The personal music player shall be supplied with easy to understand explanation to the user of the dose management system, the risks involved, and how to use the system safely. The user shall be made aware that other sources may significantly contribute to their sound exposure, for example work, transportation, concerts, clubs, cinema, car races, etc.			
10.6.5.2	Dose-based warning and requirements		N	
	When a dose of 100 % <i>CSD</i> is reached, and at least at			



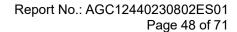


	EN IEC 62368-1		
Clause	Requirement – Test	Result – Remark	Verdict
	every 100 % further increase of <i>CSD</i> , the device shall warn the user and require an acknowledgement. In case the user does not acknowledge, the output level shall automatically decrease to compliance with class RS1.  The warning shall at least clearly indicate that listening above 100 % <i>CSD</i> leads to the risk of hearing damage		
10.6.5.3	or loss.  Exposure-based requirements		N
	With only dose-based requirements, cause and effect could be far separated in time, defying the purpose of educating users about safe listening practice. In addition to dose-based requirements, a PMP shall therefore also put a limit to the short-term sound level a user can listen at.  The exposure-based limiter (EL) shall automatically reduce the sound level not to exceed 100 dB(A) or 150 mV integrated over the past 180 s, based on methodology defined in EN 50332-3.  The EL settling time (time from starting level reduction to reaching target output) shall be 10 s or faster.  Test of EL functionality is conducted according to EN 50332-3, using the limits from this clause. For equipment provided as a package (player with its listening device), the level integrated over 180 s shall be 100 dB or lower. For equipment provided with a standardized connector, the unweighted level integrated over 180 s shall be no more than 150 mV for an analogue interface and no more than -10 dBFS for a digital interface.  NOTE In case the source is known not to be music (or test signal), the EL may be disabled.		
10.6.6	Requirements for listening devices (headphones, earp	ohones, etc.)	N
10.6.6.1	With 94 dB LAeq acoustic pressure output of the listening device, and with the volume and sound settings in the listening device (for example, built-in volume level control, additional sound features like equalization, etc.) set to the combination of positions that maximize the measured acoustic output, the input voltage of the listening device when playing the fixed "programme simulation noise" as described in EN 50332-1 shall be ≥ 75 mV.		N
10.6.6.2	mV or 100 dB and 150 mV.		N
10.0.0.4	Corded listening devices with digital input		IN IN



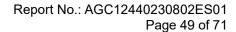


	EN IEC 62368-1		
Clause	Requirement – Test	Result – Remark	Verdict
10.6.6.3	With any playing device playing the fixed "programme simulation noise" described in EN 50332-1, and with the volume and sound settings in the listening device (for example, built-in volume level control, additional sound features like equalization, etc.) set to the combination of positions that maximize the measured acoustic output, the LAeq, racoustic output of the listening device shall be ≤ 100 dB with an input signal of -10 dBFS.  Cordless listening devices  In cordless mode,  — with any playing and transmitting device playing the fixed programme simulation noise described in EN 50332-1; and  — respecting the cordless transmission standards, where an air interface standard exists that specifies the equivalent acoustic level; and  — with volume and sound settings in the receiving device (for example, built-in volume level control, additional sound features like equalization, etc.) set to the combination of positions that maximize the measured acoustic output for the above mentioned programme simulation noise, the LAeq, racoustic output of the listening device shall be ≤ 100 dB with an input signal of -10 dBFS.		N
10.6.6.4	Measurement method		N
	Measurements shall be made in accordance with EN 50332-2 as applicable.		
3	Modification to the whole document		Р
	Delete all the "country" notes in the reference document a	according to the following list:	Р



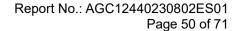


			EN	IEC 62368-1				
Clause	Requirement	– Test			Result	– Remark		Verdict
	0.2.1	Note 1 and 2	1	Note 4 and 5	3.3.8.1	Note 2	800	
	3.3.8.3	Note 1	4.1.15	Note	4.7.3	Note 1 and 2	9	
	5.2.2.2	Note	5.4.2.3.2.2 Table 12	Note c	5.4.2.3.2.4	Note 1 and 3	80	
	5.4.2.3.2.4 Table 13	Note 2	5.4.2.5	Note 2	5.4.5.1	Note	28	
	5.4.10.2.1	Note	5.4.10.2.2	Note	5.4.10.2.3	Note	8	
	5.5.2.1	Note	5.5.6	Note	5.6.4.2.1	Note 2 and 3 and 4	*	
	5.6.8	Note 2	5.7.6	Note	5.7.7.1	Note 1 and Note 2	708	
	8.5.4.2.3	Note	10.2.1 Table 39	Note 3 and 4 and 5	10.5.3	Note 2	100	
	10.6.1	Note 3	F.3.3.6	Note 3	Y.4.1	Note	*	
	Y.4.5	Note					8	
4	Modification	to Clause 1						Р
1				trical and electronic	;			Р
5	Modification		20.000 51100					N
4.Z1	To protect age earth faults in protective departs of the einstallation, sa) except as necessary to B.4 shall be ib) for compose equipment sur.f.i. filter and protection mabuilding instac) it is permittipermanently dedicated over	n circuits connivices shall be quipment or a ubject to the f detailed in b) comply with the included as particular as the supposition; the for pluggar connected expansion of the connected expansion in the supposition; the for pluggar connected expansion in the supposition in the	ve current, sected to an included eit is parts of the ollowing, a), and c), proteine requirements of the ecis with the mapply cord, approximate and experience and experien	short-circuits ar a.c. mains, ther as integral he building , b) and c): ective devices tents of B.3.1 a quipment; ains input to the opliance couple earth fault ve devices in the ment type B or to rely on	nd e r, ne			N



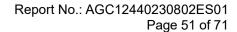


protection, e.g. fuses or circuit breakers, is fully specified in the installation instructions.  If reliance is placed on protection in the building installation, the installation instructions shall so state, except that for pluggable equipment type A the building installation shall be regarded as providing protection in accordance with the rating of the wall socket outlet.  6 Modification to 5.4.2.3.2.4  S.4.2.3.2.4 Add the following to the end of this subclause:  The requirement for interconnection with external circuit is in addition given in EN 50491-3:2009.  7 Modification to 10.2.1  Notification to 10.5.1  Notification to 10.5.1  Notification to 10.5.1  Add the following after the first paragraph:  For additional requirements, see 10.5.1.  Notification to 10.5.1  In addition to the normal operating conditions, all controls adjustable from the outside by hand, by any object such as a tool or a coin, and those internal adjustments or pre-sets which are not locked in a reliable manner, are adjusted so as to give maximum	rs, is fully s. e building
specified in the installation instructions.  If reliance is placed on protection in the building installation, the installation instructions shall so state, except that for plugable equipment type A the building installation shall be regarded as providing protection in accordance with the rating of the wall socket outlet.  6	s. e building
5.4.2.3.2.4 Add the following to the end of this subclause:  The requirement for interconnection with external circuit is in addition given in EN 50491-3:2009.  7 Modification to 10.2.1  Add the following to eo and do in table 39:  For additional requirements, see 10.5.1.  8 Modification to 10.5.1  Note: The following after the first paragraph:  For RS1 compliance is checked by measurement under the following conditions:  In addition to the normal operating conditions, all controls adjustable from the outside by hand, by any object such as a tool or a coin, and those internal adjustments or pre-sets which are not locked in a reliable manner, are adjusted so as to give maximum	type A the as providing
The requirement for interconnection with external circuit is in addition given in EN 50491-3:2009.  Modification to 10.2.1  Add the following to c) and d) in table 39:  For additional requirements, see 10.5.1.  Modification to 10.5.1  Note: The following after the first paragraph:  For RS1 compliance is checked by measurement under the following conditions:  In addition to the normal operating conditions, all controls adjustable from the outside by hand, by any object such as a tool or a coin, and those internal adjustments or pre-sets which are not locked in a reliable manner, are adjusted so as to give maximum	N
10.2.1 Add the following to c) and d) in table 39:  For additional requirements, see 10.5.1.  Modification to 10.5.1  Note: The following after the first paragraph:  For RS1 compliance is checked by measurement under the following conditions:  In addition to the normal operating conditions, all controls adjustable from the outside by hand, by any object such as a tool or a coin, and those internal adjustments or pre-sets which are not locked in a reliable manner, are adjusted so as to give maximum	vith <b>external</b>
For additional requirements, see 10.5.1.  Modification to 10.5.1  Note: The following after the first paragraph:  For RS1 compliance is checked by measurement under the following conditions:  In addition to the normal operating conditions, all controls adjustable from the outside by hand, by any object such as a tool or a coin, and those internal adjustments or pre-sets which are not locked in a reliable manner, are adjusted so as to give maximum	N
Modification to 10.5.1  Add the following after the first paragraph:  For RS1 compliance is checked by measurement under the following conditions:  In addition to the normal operating conditions, all controls adjustable from the outside by hand, by any object such as a tool or a coin, and those internal adjustments or pre-sets which are not locked in a reliable manner, are adjusted so as to give maximum	9: N
10.5.1  Add the following after the first paragraph:  For RS1 compliance is checked by measurement under the following conditions:  In addition to the normal operating conditions, all controls adjustable from the outside by hand, by any object such as a tool or a coin, and those internal adjustments or pre-sets which are not locked in a reliable manner, are adjusted so as to give maximum	·
For RS1 compliance is checked by measurement under the following conditions:  In addition to the normal operating conditions, all controls adjustable from the outside by hand, by any object such as a tool or a coin, and those internal adjustments or pre-sets which are not locked in a reliable manner, are adjusted so as to give maximum	
radiation whilst maintaining an intelligible picture for 1 h, at the end of which the measurement is made.  NOTE Z1 Soldered joints and paint lockings are examples of adequate locking.  The dose-rate is determined by means of a radiation monitor with an effective area of 10 cm², at any point 10 cm from the outer surface of the apparatus.  Moreover, the measurement shall be made under fault conditions causing an increase of the high voltage, provided an intelligible picture is maintained for 1 h, at the end of which the measurement is made.  For RS1, the dose-rate shall not exceed 1 µSv/h taking account of the background level.  NOTE Z2 These values appear in Directive 96/29/Euratom of 13 May	nditions, all y hand, by any ose internal locked in a give maximum ble picture for 1 h, is made.  e examples of adequate  s of a radiation m², at any point 10 ratus.  made under fault high voltage, tained for 1 h, at made.  ed 1 µSv/h taking
9 Modification to G.7.1	





	EN IEC 62368-1	
Clause	Requirement – Test Result –	Remark Verdict
G.7.1	Add the following note:	N
	NOTE Z1 The harmonized code designations corresponding to the	
10	IEC cord types are given in Annex ZD.	N
10	Modification to Bibliography	
	Add the following notes for the standards indicated:	N
	IEC 60130-9 NOTE Harmonized as EN 60130-9.	
	IEC 60269-2 NOTE Harmonized as HD 60269-2.	
	IEC 60309-1 NOTE Harmonized as EN 60309-1. IEC 60364 NOTE some parts harmonized in HD 3	
	IEC 60601-2-4 NOTE Harmonized as EN 60601-2-4.	
	IEC 60664-5 NOTE Harmonized as EN 60664-5.	
	IEC 61032:1997 NOTE Harmonized as EN 61032:1998	
	IEC 61508-1 NOTE Harmonized as EN 61508-1.	
	IEC 61558-2-1 NOTE Harmonized as EN 61558-2-1. IEC 61558-2-4 NOTE Harmonized as EN 61558-2-4.	
	IEC 61558-2-6 NOTE Harmonized as EN 61558-2-6.	
	IEC 61643-1 NOTE Harmonized as EN 61643-1.	
	IEC 61643-21 NOTE Harmonized as EN 61643-21.	
	IEC 61643-311 NOTE Harmonized as EN 61643-311. IEC 61643-321 NOTE Harmonized as EN 61643-321.	
	IEC 61643-331 NOTE Harmonized as EN 61643-331.	
	dide g the control of	
11	ADDITION OF ANNEXES	N
ZB	ANNEX ZB, SPECIAL NATIONAL CONDITIONS (EN)	N
4.1.15	Denmark, Finland, Norway and Sweden	N
	To the end of the subclause the following is added:	
	Class I pluggable equipment type A intended for	
	connection to other equipment or a network shall, if safety relies on connection to reliable	
	earthing or if surge suppressors	
	are connected between the network terminals and	
	accessible parts, have a marking stating that the	
	equipment shall be connected to an earthed <b>mains</b> socket-outlet.	
	The marking text in the applicable countries shall be as	
1	follows:	
	IOIIOWS.	
	In <b>Denmark</b> : "Apparatets stikprop skal tilsluttes en	
	In <b>Denmark</b> : "Apparatets stikprop skal tilsluttes en stikkontakt med jord som giver forbindelse til	
	In <b>Denmark</b> : "Apparatets stikprop skal tilsluttes en stikkontakt med jord som giver forbindelse til stikproppens jord." In <b>Finland</b> : "Laite on liitettävä suojakoskettimilla	
	In <b>Denmark</b> : "Apparatets stikprop skal tilsluttes en stikkontakt med jord som giver forbindelse til stikproppens jord." In <b>Finland</b> : "Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan"	
	In <b>Denmark</b> : "Apparatets stikprop skal tilsluttes en stikkontakt med jord som giver forbindelse til stikproppens jord." In <b>Finland</b> : "Laite on liitettävä suojakoskettimilla	



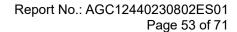


	EN IEC 62368-1				
Clause	Requirement – Test	Result – Remark	Verdict		
	To the end of the subclause the following is added:				
	The torque test is performed using a socket-outlet complying with BS 1363, and the plug part shall be assessed to the relevant clauses of BS 1363. Also see Annex G.4.2 of this annex				
5.2.2.2	Denmark		N		
	After the 2nd paragraph add the following:				
	A warning (marking safeguard) for high touch current is required if the touch current exceeds the limits of 3,5 mA a.c. or 10 mA d.c.				
5.4.11.1	Finland and Sweden		N		
and Annex G	To the end of the subclause the following is added:				
	For separation of the telecommunication network from earth the following is applicable:				
	If this insulation is solid, including insulation forming part of a component, it shall at least consist of either  • two layers of thin sheet material, each of which shall pass the electric strength test below, or				
	<ul> <li>one layer having a distance through insulation of at least 0,4 mm, which shall pass the electric strength test below.</li> </ul>				
	If this insulation forms part of a semiconductor component (e.g. an optocoupler), there is no distance through insulation requirement for the insulation consisting of an insulating compound completely filling the casing, so that clearances and creepage distances do not exist, if the component passes the electric strength test in accordance with the compliance clause below and in addition				
	<ul> <li>passes the tests and inspection criteria of 5.4.8 with an electric strength test of 1,5 kV multiplied by 1,6 (the electric strength test of 5.4.9 shall be performed using 1,5 kV),</li> </ul>				
	and				
	is subject to routine testing for electric strength during manufacturing, using a test voltage of 1,5 kV.				
	It is permitted to bridge this insulation with a capacitor complying with EN 60384-14:2005, subclass Y2.				



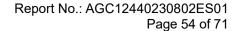


	EN IEC 62368-1			
Clause	Requirement – Test	Result – Remark	Verdict	
	A capacitor classified Y3 according to EN 60384- 14:2005, may bridge this insulation under the following conditions:			
	the insulation requirements are satisfied by having a capacitor classified Y3 as defined by EN 60384-14, which in addition to the Y3 testing, is tested with an impulse test of 2,5 kV defined in 5.4.11;			
	the additional testing shall be performed on all the test specimens as described in EN 60384-14;			
	the impulse test of 2,5 kV is to be performed before the endurance test in EN 60384-14, in the sequence of tests as described in EN 60384-14.			
5.5.2.1	Norway		N	
	After the 3rd paragraph the following is added:			
	Due to the IT power system used, capacitors are required to be rated for the applicable line-to-line voltage (230 V).			
5.5.6	Finland, Norway and Sweden		N	
	To the end of the subclause the following is added:			
	Resistors used as <b>basic safeguard</b> or bridging <b>basic insulation</b> in <b>class I pluggable equipment type A</b> shall comply with G.10.1 and the test of G.10.2.			
5.6.1	Denmark		N	
	Add to the end of the subclause			
	Due to many existing installations where the socket- outlets can be protected with fuses			
	with higher rating than the rating of the socket-outlets the protection for pluggable			
	equipment type A shall be an integral part of the			
	equipment.  Justification:			
	In Denmark an existing 13 A socket outlet can be			
5.6.4.2.1	protected by a 20 A fuse.		N	
J.0.4.Z.T	Ireland and United Kingdom		IN	
	After the indent for <b>pluggable equipment type A</b> , the following is added:			
	- the <b>protective current rating</b> is taken to be 13 A, this			
50404	being the largest rating of fuse used in the <b>mains</b> plug.		N.I.	
5.6.4.2.1	France		N	
	After the indent for <b>pluggable equipment type A</b> , the following is added:			
	- in certain cases, the <b>protective current rating</b> of the			



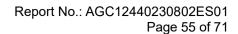


	EN IEC 62368-1			
Clause	Requirement – Test	Result – Remark	Verdict	
	circuit supplied from the mains is taken as 20 A instead of 16 A.			
5.6.5.1	To the second paragraph the following is added:		N	
	The range of conductor sizes of flexible cords to be accepted by terminals for equipment with a rated current over 10 A and up to and including 13 A is: 1,25 mm <sup>2</sup> to 1,5 mm <sup>2</sup> in cross-sectional area.			
5.6.8	Norway		N	
	To the end of the subclause the following is added: Equipment connected with an earthed mains plug is classified as class I equipment. See the Norway marking requirement in 4.1.15. The symbol IEC 60417-6092, as specified in F.3.6.2, is accepted.			
5.7.6	Denmark		N	
	To the end of the subclause the following is added:			
	The installation instruction shall be affixed to the equipment if the <b>protective conductor current</b> exceeds the limits of 3,5 mA a.c. or 10 mA d.c.			
5.7.6.2	Denmark		N	
	To the end of the subclause the following is added: The warning (marking safeguard) for high touch current is required if the touch current or the protective current exceed the limits of 3,5 mA.			
5.7.7.1	Norway and Sweden		N	
	To the end of the subclause the following is added: The screen of the television distribution system is normally not earthed at the entrance of the building and there is normally no equipotential bonding system within the building. Therefore the protective earthing of the building installation needs to be isolated from the screen of a cable distribution system.			
	It is however accepted to provide the insulation external to the equipment by an adapter or an interconnection cable with galvanic isolator, which may be provided by a retailer, for example.			
	The user manual shall then have the following or similar information in Norwegian and Swedish language respectively, depending on in what country the equipment is intended to be used in:			
	"Apparatus connected to the protective earthing of the building installation through the mains connection or through other apparatus with a connection to protective			





EN IEC 62368-1				
Clause	Requirement – Test	Result – Remark	Verdict	
	earthing — and to a television distribution system using coaxial cable, may in some circumstances create a fire hazard. Connection to a television distribution system therefore has to be provided through a device providing electrical isolation below a certain frequency range (galvanic isolator, see EN 60728-11)"  NOTE In Norway, due to regulation for CATV-installations, and in Sweden, a galvanic isolator shall provide electrical insulation below 5 MHz. The insulation shall withstand a dielectric strength of 1,5 kV r.m.s., 50 Hz or 60 Hz, for 1 min.			
	Translation to Norwegian (the Swedish text will also be accepted in Norway):			
	"Apparater som er koplet til beskyttelsesjord via nettplugg og/eller via annet jordtilkoplet utstyr – og er tilkoplet et koaksialbasert kabel-TV nett, kan forårsake brannfare. For å unngå dette skal det ved tilkopling av apparater til kabel-TV nett installeres en galvanisk isolator mellom apparatet og kabel-TV nettet."			
	Translation to Swedish: "Apparater som är kopplad till skyddsjord via jordat vägguttag och/eller via annan utrustning och samtidigt är kopplad till kabel-TV nät kan i vissa fall medföra risk för brand. För att undvika detta skall vid anslutning av apparaten till kabel-TV nät galvanisk isolator finnas mellan apparaten och kabel-TV nätet.".			
8.5.4.2.3	United Kingdom		N	
	Add the following after the 2 <sup>nd</sup> dash bullet in 3 <sup>rd</sup> paragraph:  An emergency stop system complying with the			
	requirements of IEC 60204-1 and ISO 13850 is required where there is a risk of personal injury.			
B.3.1 and B.4	Ireland and United Kingdom  The following is applicable:		N	
	To protect against excessive currents and short-circuits in the primary circuit of <b>direct plug-in equipment</b> , tests according to Annexes B.3.1 and B.4 shall be conducted using an external miniature circuit breaker complying with EN 60898-1, Type B, rated 32A. If the equipment does not pass these tests, suitable protective devices shall be included as an integral part of the <b>direct plug-in equipment</b> , until the requirements of Annexes B.3.1 and B.4 are met			
G.4.2	Denmark		N	





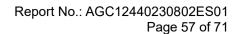
EN IEC 62368-1				
Requirement – Test	Result – Remark	Verdict		
To the end of the subclause the following is added:				
Supply cords of single phase appliances having a rated				
earth contacts or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules shall be provided with a plug in accordance with standard sheet DK 2-1a or DK 2-5a.				
If a single-phase equipment having a RATED CURRENT exceeding 13 A or if a polyphase equipment is provided with a supply cord with a plug, this plug shall be in accordance with the standard sheets DK 6-1a in DS 60884-2-D1 or EN 60309-2.				
Class II apparatus with a rated current of 2,5 A shall be in accordance DS 60884-2-D1:2011 standard sheet DKA 1-4a.				
Other current rating socket outlets shall be in compliance with Standard Sheet DKA 1-3a or DKA 1-1c.				
Mains socket-outlets with earth shall be in compliance with DS 60884-2-D1:2011 Standard Sheet DK 1-3a, DK 1-1c, DK1-1d, DK 1-5a or DK 1-7a				
lustification:				
United Kingdom		N		
To the end of the subclause the following is added:				
The plug part of direct plug-in equipment shall be assessed to BS 1363: Part 1, 12.1, 12.2, 12.3, 12.9,				
12.11, 12.12, 12.13, 12.16, and 12.17, except that the				
test of 12.17 is performed at not less than 125 °C.				
		N		
To the first paragraph the following is added:				
Equipment which is fitted with a flexible cable or cord				
	To the end of the subclause the following is added:  Supply cords of single phase appliances having a rated current not exceeding 13 A shall be provided with a plug according to DS 60884-2-D1:2011.  CLASS I EQUIPMENT provided with socket-outlets with earth contacts or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules shall be provided with a plug in accordance with standard sheet DK 2-1a or DK 2-5a.  If a single-phase equipment having a RATED CURRENT exceeding 13 A or if a polyphase equipment is provided with a supply cord with a plug, this plug shall be in accordance with the standard sheets DK 6-1a in DS 60884-2-D1 or EN 60309-2.  Mains socket outlets intended for providing power to Class II apparatus with a rated current of 2,5 A shall be in accordance DS 60884-2-D1:2011 standard sheet DKA 1-4a.  Other current rating socket outlets shall be in compliance with Standard Sheet DKA 1-3a or DKA 1-1c.  Mains socket-outlets with earth shall be in compliance with DS 60884-2-D1:2011 Standard Sheet DK 1-3a, DK 1-1c, DK1-1d, DK 1-5a or DK 1-7a  Justification: Heavy Current Regulations, Section 6c  United Kingdom  To the end of the subclause the following is added:  The plug part of direct plug-in equipment shall be assessed to BS 1363: Part 1, 12.1, 12.2, 12.3, 12.9, 12.11, 12.12, 12.13, 12.16, and 12.17, except that the test of 12.17 is performed at not less than 125 °C.  Where the metal earth pin is replaced by an Insulated Shutter Opening Device (ISOD), the requirements of clauses 22.2 and 23 also apply.  United Kingdom  To the first paragraph the following is added:	Requirement – Test  To the end of the subclause the following is added:  Supply cords of single phase appliances having a rated current not exceeding 13 A shall be provided with a plug according to DS 60884-2-D1:2011.  CLASS I EQUIPMENT provided with socket-outlets with earth contacts or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules shall be provided with a plug in accordance with standard sheet DK 2-1a or DK 2-5a.  If a single-phase equipment having a RATED CURRENT exceeding 13 A or if a polyphase equipment is provided with a supply cord with a plug, this plug shall be in accordance with the standard sheets DK 6-1a in DS 60884-2-D1 or EN 60309-2.  Mains socket outlets intended for providing power to Class II apparatus with a rated current of 2,5 A shall be in accordance DS 60884-2-D1:2011 standard sheet DKA 1-4a.  Other current rating socket outlets shall be in compliance with Standard Sheet DKA 1-3a or DKA 1-1c.  Mains socket-outlets with earth shall be in compliance with Standard Sheet DKA 1-3a or DKA 1-1c.  Mains socket-outlets with earth shall be in compliance with Standard Sheet DK 1-3a, DK 1-1c, DK1-1d, DK 1-5a or DK 1-7a  Justification: Heavy Current Regulations, Section 6c  United Kingdom  To the end of the subclause the following is added:  The plug part of direct plug-in equipment shall be assessed to BS 1363: Part 1, 12.1, 12.2, 12.3, 12.9, 12.11, 12.12, 12.13, 12.16, and 12.17, except that the test of 12.17 is performed at not less than 125 °C.  Where the metal earth pin is replaced by an Insulated Shutter Opening Device (ISOD), the requirements of clauses 22.2 and 23 also apply.  United Kingdom  To the first paragraph the following is added:		





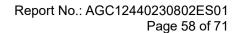
EN IEC 62368-1				
Clause	Requirement – Test	Result – Remark	Verdict	
	conforming to BS 1363 by means of that flexible cable or cord shall be fitted with a 'standard plug' in accordance with the Plugs and Sockets etc. (Safety) Regulations 1994, Statutory Instrument 1994 No. 1768, unless exempted by those regulations.			
	NOTE "Standard plug" is defined in SI 1768:1994 and essentially means an approved plug conforming to BS 1363 or an approved conversion plug.			
G.7.1	Ireland		N	
	To the first paragraph the following is added:			
	Apparatus which is fitted with a flexible cable or cord shall be provided with a plug in accordance with Statutory Instrument 525: 1997, "13 A Plugs and Conversion Adapters for Domestic Use Regulations: 1997. S.I. 525 provides for the recognition of a standard of another Member State which is equivalent to the relevant Irish Standard			
G.7.2	Ireland and United Kingdom		N	
	To the first paragraph the following is added:			
	A power supply cord with a conductor of 1,25 mm <sup>2</sup> is allowed for equipment which is rated over 10 A and up to and including 13 A.			

ZC	ANNEX ZC, NATIONAL DEVIATIONS (EN)	N
10.5.2	Germany	N
	The following requirement applies:	
	For the operation of any cathode ray tube intended for the display of visual images operating at an acceleration voltage exceeding 40 kV, authorization is required, or application of type approval (Bauartzulassung) and marking.	
	Justification: German ministerial decree against ionizing radiation (Röntgenverordnung), in force since 2002-07-01, implementing the European Directive 96/29/EURATOM.	
	NOTE Contact address: Physikalisch-Technische Bundesanstalt, Bundesallee 100, D-38116 Braunschweig, Tel.: Int+49-531-592-6320, Internet: http://www.ptb.de	





	EN IEC 623	368-1		
Clause	use Requirement – Test Result – Remark			
ZD	IEC and CENELEC CODE DESIGNATIONS F	OR FLEXIBLE	CORDS (EN)	
	Type of flexible cord	Code	designations	N
		IEC	CENELEC	
	PVC insulated cords		1	
	Flat twin tinsel cord	60227 IEC 41	H03VH-Y	
	Light polyvinyl chloride sheathed flexible cord	60227 IEC 52	H03VV-F H03VVH2-F	
	Ordinary polyvinyl chloride sheathed flexible cord	60227 IEC 53	H05VV-F H05VVH2-F	
	Rubber insulated cords		-	
	Braided cord	60245 IEC 51	H03RT-F	
	Ordinary tough rubber sheathed flexible cord	60245 IEC 53	H05RR-F	
	Ordinary polychloroprene sheathed flexible cord	60245 IEC 57	H05RN-F	
	Heavy polychloroprene sheathed flexible cord	60245 IEC 66	H07RN-F	
	Cords having high flexibility	<u>, t., </u>	*1	
	Rubber insulated and sheathed cord	60245 IEC 86	H03RR-H	
	Rubber insulated, crosslinked PVC sheathed cord	60245 IEC 87	H03 RV4-H	
	Crosslinked PVC insulated and sheathed cord	60245 IEC 88	H03V4V4-H	
	Cords insulated and sheathed with halogen- free thermoplastic compounds			
	Light halogen-free thermoplastic insulated and sheathed flexible cords		H03Z1Z1-F H03Z1Z1H2-F	
	Ordinary halogen-free thermoplastic insulated and sheathed flexible cords		H05Z1Z1-F H05Z1Z1H2-F	





5.2 **TABLE: Classification of electrical energy sources** Ρ Test conditions Supply Voltage Location (e.g. **Parameters ES Class** circuit designation) U (V) I (mA) Type<sup>1)</sup> Additional Info<sup>2)</sup> Normal DC --ES1 5V Input port Abnormal (By declared) Single fault Normal 4.19 DC Fully charged Battery cell Abnormal ES<sub>1</sub> battery Single fault ----Supplementary information:

5.4.1.8	TABLE: Working voltage measurement				N	
Location		RMS voltage (V)	Peak voltage (V)	Frequency (Hz)	Comr	nents
					-	-
					-	_
Supplementary information:						

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

5.4.1.10.3	TABLE: Ball pre	essure test of thermopla	stics				N	
Allowed impression diameter (mm):								
Object/Part No./Material Manufacturer/tradema			Thickness (mm) ten		Test Im temperature (°C) dian		pression neter (mm)	
Supplementary information:								

5.4.2, 5.4.3	TABLE: I	BLE: Minimum Clearances/Creepage distance							
Clearance (cl) a creepage distantat/of/between:		U <sub>p</sub> (V)	U <sub>rms</sub> (V)	Freq 1) (Hz)	Required cl (mm)	cl (mm)	E.S. <sup>2)</sup> (V)	Required cr (mm)	cr (mm)



Report No.: AGC12440230802ES01

Page 59 of 71

		 -	 	 	
Supplementary information	1:				

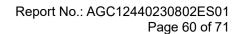
5.4.4.2	TABLE: Minimun	ABLE: Minimum distance through insulation						
Distance through at/of	insulation (DTI)	Peak voltage (V)	Insulation Required D (mm)		Measured DTI (mm)			
Supplementary in	formation:							

5.4.4.9	TABLE: Solid in	ABLE: Solid insulation at frequencies >30 kHz							
Insulation m	naterial	<b>E</b> P	Frequency (kHz)	<b>K</b> <sub>R</sub>	Thickness d (mm)	Insulation	V <sub>PW</sub>	(Vpk)	
Supplement	Supplementary information:								

5.4.9	TABLE: Electric strength tests			N
Test voltage	applied between:	Voltage shape (Surge, Impulse, AC, DC, etc.)	Test voltage (V)	Breakdown Yes / No
Supplement	ary information:			

5.5.2.2	TABLE:	Stored discharge of	n capacitors			N			
Location		Supply voltage (V)	Operating and fault condition 1)	Switch position	Measured voltage (Vpk)	ES Class			
Supplement	ary inforr	nation:							
X-capacitors	s installed	I for testing:							
☐ bleeding	☐ bleeding resistor rating:								
□ ICX:									
1) Normal o	perating	condition (e.g., norm	al operation, or open	fuse), SC= shor	t circuit, OC=	open circuit			

5.6.6	TABLE: Resistance of	protective condu	ictors and terminati	ons	N				
Location		Test current (A)			Resistance $(\Omega)$				
Supplement	Supplementary information:								





5.7.4	TABLE	E: Unearthed acces	ssible parts				N		
Location		Operating and	Supply	F		ES class			
		fault conditions	Voltage (V)	Voltage (V <sub>rms</sub> or V <sub>pk</sub> )	Current (A <sub>rms</sub> or A <sub>pk</sub> )	Freq. (Hz)			
1	Supplementary information: Abbreviation: SC= short circuit; OC= open circuit								

5.7.5	TABLE: Earthed accessi	ble conductive part			N
Supply volta	ge (V):				_
Phase(s)	·····:	[] Single Phase; [ ] Three F	] Wye		
Power Distri	bution System::	□ TN □ TT [			
Location		Fault Condition No in IEC 60990 clause 6.2.2	Touch current (mA)	Co	mment
Supplement	ary Information:				

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

6.2.2	TAB	BLE: Power source o	ircuit classificat	tions			Р
Location		Operating and fault condition	Voltage (V)	Current (A)	Max. Power <sup>1)</sup> (W)	Time (S)	PS class
Internal circu	uit	Normal					PS2 by declared
Battery pack		Overload	2.97	6.19	18.38	5	PS2
Battery cell		Overload	2.40	13.27	31.85	5	PS2
Sepaker outp	put	Normal	0.12	0.03	0.004	5	PS1
Sepaker output		Overload	0.71	0.18	0.13	5	PS1
Supplementa	ary in	formation:					

6.2.3.1	TABLE: Determination of Arcing PIS	N
---------	------------------------------------	---





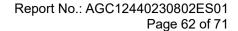
Location	Open circuit voltage after 3 s (Vpk)	Measured r.m.s current (A)	Calculated value	Arcing PIS? Yes / No
Supplementary information:				

6.2.3.2	TABLE: Determin	ABLE: Determination of resistive PIS								
Location		Operating and fault condition	Dissipate power (W)	Resistive PIS? Yes / No						
				Yes (declared)						
Supplement	Supplementary information:									
Abbreviation	n: SC= short circuit	; OC= open circuit								

8.5.5	TABLE: High pre	ssure lamp				N
Lamp manufacturer		Lamp type	Explosion method	Longest axis of glass particle (mm)		ticle found beyond 1 m Yes / No
Supplement	ary information:					

9.6	TABLE:	Tempera	ture meas	uremen	ts fo	or wireles	s power to	ransmitter	S	N
Supply volta	ge (V)			:						_
Max. transm	Max. transmit power of transmitter (W)									_
					with receiver and direct contact		with receiver and at distance of 2 mm		with receiver and at distance of 5 mm	
Foreign o	bjects	Object (°C)	Ambient (°C)	Object (°C)	et /	Ambient (°C)	Object (°C)	Ambient (°C)	Object (°C)	Ambient (°C)
Supplement	ary inforr	nation:								

5.4.1.4, 9.3, B.1.5, B.2.6	TABLE: Tempe	erature measure	ments	Р
Supply voltage (V)	<ul><li>a) 5V, charging</li><li>b) 1/8 power of sinusoidal wave mode, Speaker</li><li>c) charging and</li></ul>	_		
Ambient temperature during test $T_{amb}$ (°C):	50			
Maximum measured temperature <i>T</i> of part/at:		Allowed $T_{\text{max}}$ (°C)		
Test condition No.:	a)	b)	c)	





Battery surface			51.3	50	).3	52.1	Ref.
Internal wire from battery			51.8	50	0.6	52.9	Ref.
PCB near U1			58.5	58	3.8	60.5	130
PCB near U4			72.5	52	2.3	73.6	130
Enclosure inside near PCB U		52.0	53	3.4	57.5	Ref.	
Enclosure inside near PCB U		55.8	51	.6	61.8	Ref.	
Ambient		50	50 50		50		
For accessible part							
Button			26.8 27.0		<b>'</b> .0	29.5	60
Plastic enclosure outside nea	r PCB U1		26.3	27	<b>'</b> .6	30.3	60
Plastic enclosure outside nea	r PCB U4		28.9	26	6.2	33.5	60
Ambient			25.0	25	5.0	25.0	
Temperature T of winding:	t <sub>1</sub> (°C)	R <sub>1</sub> (Ω	2) t <sub>2</sub> (°C)	R <sub>2</sub> (Ω)	T (°C)	Allowed T <sub>max</sub> (°C)	Insulation class

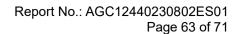
Supplementary information:

Note 1: Tma should be considered as directed by applicable requirement

Note 2: Tma is not included in assessment of Touch Temperatures (Clause 9)

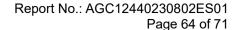
B.2.5		TABLE: Inpu	ut test						Р		
U (V)	Hz	I (A)	I rated (A)	P (W)	P rated (W)	Fuse No	I fuse (A)	Co	ndition/status		
Conditi	Condition:a										
5.0		0.90	1.0	4.50				Battery 0.892	charge current:		
Conditi	Condition:b										
4.2		0.075		0.315					l operation er voltage:0.71V		
Conditi	on:c		,								
5		0.90		4.50				Battery 0.846A	charge current:		
Supple	ment	ary informatio	n:		•						

B.3, B.4	TABLE: Abnorma	l operating and	fault cond	dition te	ests	3		Р		
Ambient temp	Ambient temperature T <sub>amb</sub> (°C) See below									
Power source	_									
Component N	lo. Condition	Supply voltage (V)	Test time	Fuse n	10.	Fuse current (A)	Observation			
Condition:b										





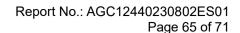
Speaker   S-C   4.2   30mins       abnormally. No damaged, no hazards. Battery current: 0.332A   Unit working abnormally. No damaged, no hazards. Battery current: 0.436A   Battery current: 0.436A   Battery current: 0.436A   Battery surface: 36.8°C   PCB near U1: 65.3°C   PCB near U1: 38.4°C   Ambient: 25.0°C   Unit working abnormally. No damaged, no hazards. Battery current: 0.891A   Battery current: 0.891A   Battery surface: 41.8°C   PCB near U1: 75.3°C   PCB near U1: 75.3°C   PCB near U1: 41.5°C   Ambient: 25.0°C   Ambient: 25.0°C   PCB near U1: 41.5°C   Ambient: 25.0°C   PCB near U1: 41.5°C   Ambient: 25.0°C   PCB near U1: 41.5°C   PCB near U1: 41.5°C   PCB near U1: 41.5°C   Ambient: 25.0°C   PCB near U1: 41.5°C   PCB near U1: 41.5°C   Ambient: 25.0°C   PCB near U1: 41.5°C   PCB near U1: 41.5						Speaker working
Speaker	Speaker	S-C	4 2	30mins		 abnormally. No damaged,
Speaker   Max. non-clipped   4.2   2h   23mins	Орсаксі	0-0	٦.۷	001111113		
No damaged, no hazards. Battery current: 0.436A   Battery surface: 36.8°C   PCB near U1: 65.3°C   Plastic outside near U1: 38.4°C   Ambient: 25.0°C   Unit working abnormally. No damaged, no hazards. Battery current: 0.891A						
Speaker   Max. non-clipped   4.2   2h   23mins       Battery current: 0.436A   Battery surface: 36.8°C   PCB near U1: 65.3°C   Plastic outside near U1: 38.4°C   Ambient: 25.0°C   Unit working abnormally. No damaged, no hazards. Battery current: 0.891A   Battery surface: 41.8°C   PCB near U1: 75.3°C   Plastic outside near U1: 41.5°C   Ambient: 25.0°C   PCB near U1: 75.3°C   Plastic outside near U1: 41.5°C   Ambient: 25.0°C   Mo fire, no explosion   Mo fire, no explosion   Unit working normal. No damaged, no hazards. Input current: 1.90A   Battery current: 1.88A   Battery surface: 42.2°C   PCB near U4: 83.3°C   Plastic outside near U4: 46.7°C   PCB near U4: 83.3°C   Plastic outside near U4: 46.7°C   PCB near U4:						
Speaker   Spea						
Clipped   23mins   PCB near U1: 65.3°C   Plastic outside near U1: 38.4°C   Ambient: 25.0°C   Unit working abnormally. No damaged, no hazards. Battery current: 0.891A   Battery surface: 41.8°C   PCB near U1: 75.3°C   Plastic outside near U1: 41.5°C   Ambient: 25.0°C   Ambient: 25.0°C   Ambient: 25.0°C   Ambient: 25.0°C   No fire, no explosion	0	Max. non-	4.0	2h		Battery surface: 36.8°C
38.4°C   Ambient: 25.0°C   Unit working abnormally. No damaged, no hazards. Battery current: 0.891A   Battery surface: 41.8°C   PCB near U1: 75.3°C   Plastic outside near U1: 41.5°C   Ambient: 25.0°C   Plastic outside near U1: 41.5°C   Ambient: 25.0°C   Plastic outside near U1: 41.5°C   Ambient: 25.0°C   Plastic outside near U1: 41.5°C   PCB near U	Speaker	clipped	4.2	23mins		 PCB near U1: 65.3°C
U1 pin 17-11 S-C 4.2 1h 58mins Battery B+ and B- Condition:a  U1 pin 4-5  S-C 5.0  Th 25mins  Th 25mins  1h 58mins  1h 58mins  1h 58mins						_
U1 pin 17-11 S-C 4.2  1h 58mins						
U1 pin 17-11  S-C  4.2  1h 58mins						No damaged, no hazards.
U1 pin 17-11 S-C 4.2 58mins PCB near U1: 75.3°C Plastic outside near U1: 41.5°C Ambient: 25.0°C    Battery B+ and B- S-C 4.2 10mins No fire, no explosion  Condition:a Unit working normal. No damaged, no hazards. Input current: 1.90A Battery current: 1.88A Battery current: 1.88A Battery surface: 42.2°C PCB near U4: 83.3°C Plastic outside near U4: 46.7°C			4.2			
Plastic outside near U1: 41.5°C Ambient: 25.0°C  Battery B+ and B-  Condition:a  Unit working normal. No damaged, no hazards. Input current: 1.90A Battery current: 1.88A Battery surface: 42.2°C PCB near U4: 83.3°C Plastic outside near U1: 41.5°C Ambient: 25.0°C  No fire, no explosion   Unit working normal. No damaged, no hazards. Input current: 1.90A Battery surface: 42.2°C PCB near U4: 83.3°C Plastic outside near U4: 46.7°C	U1 pin 17-11	S-C				
Battery B+ and B-  Condition:a  Unit working normal. No damaged, no hazards. Input current: 1.90A Battery current: 1.88A Battery surface: 42.2°C PCB near U4: 83.3°C Plastic outside near U4: 46.7°C						
B+ and B-  Condition:a  U1 pin 4-5  S-C  4.2  10mins   No fire, no explosion  Unit working normal. No damaged, no hazards. Input current: 1.90A Battery current: 1.88A Battery surface: 42.2°C PCB near U4: 83.3°C Plastic outside near U4: 46.7°C						Ambient: 25.0°C
U1 pin 4-5  S-C  5.0  Th 25mins  25mins  Unit working normal. No damaged, no hazards. Input current: 1.90A Battery current: 1.88A Battery surface: 42.2°C PCB near U4: 83.3°C Plastic outside near U4: 46.7°C	,	S-C	4.2	10mins		 No fire, no explosion
U4 pin 4-5  S-C  5.0  7h 25mins  25mins  4damaged, no hazards. Input current: 1.90A Battery current: 1.88A Battery surface: 42.2°C PCB near U4: 83.3°C Plastic outside near U4: 46.7°C	Condition:a					
U4 pin 4-5 S-C 5.0 25mins 25mins PCB near U4: 83.3°C Plastic outside near U4: 46.7°C						damaged, no hazards. Input current:1.90A
25mins PCB near U4: 83.3°C Plastic outside near U4: 46.7°C	U4 pin 4-5	s-c	5.0			 Battery surface: 42.2°C
46.7°C				25mins		PCB near U4: 83.3°C
Ambient: 25.0°C						
						Ambient: 25.0°C
Supplementary information: S-C= short circuit.	Supplementary in	formation: S-C	= short circuit.			





M.3 TABLE: Protection circuits for batteries provided within the equipment Р Is it possible to install the battery in a reverse polarity position?.....: Impossible Charging **Equipment Specification** Voltage (V) Current (A) 5 1.0 Battery specification Non-rechargeable Rechargeable batteries batteries Discharging Unintention Discharging Reverse charging Charging current (A) al charging current (A) current (A) Voltage (V) Current (A) Manufacturer/type current (A) ShenZhen Huayu New Energy Technology CO., 4.2 2 2 LTD/ 18650-2000mAh Note: The tests of M.3.2 are applicable only when above appropriate data is not available. Specified battery temperature (°C)..... Charge: 0 - 45 Discharge: -10-50 Component Fault Charge/ Test Current Voltage Observation Temp. No. condition discharge mode time (°C) (A) (V) Supplementary information: see table Annex B.2.5 and B.3, B.4 for detail

M.4.2	TABLE: battery	Charging safe	guards for e	equipment co	ntaining a secondary	/ lithium	Р
Maximum sp	pecified o	harging voltage	(V)		: 4.2		
Maximum sp	pecified o	harging current (	(A)		: 2		
Highest spec	cified cha	arging temperatu	re (°C)	: 45			
Lowest spec	ified cha	rging temperatur	e (°C)	: 0			
Battery		Operating and		ment	Observation		
manufacture	er/type	fault condition	Charging voltage (V)	Charging current (A)	Temp. (°C)		
ShenZhen New End Technolog LTD/ 186 2000m	ergy y CO., 650-	Normal	4.19	0.892	Battery surface: 26.3 Ambient: 25.0	The battery charging voltage does not exceed 4.2V and the battery charging current does not exceed 2A.	
New End Technolog LTD/ 186	ShenZhen Huayu New Energy Technology CO., LTD/ 18650- 2000mAh		4.19	1.88	Battery surface: 42.2 Ambient: 25.0	voltage of	ery charging loes not exceed I the battery current does not 2A.





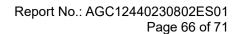
ShenZhen Huayu The battery charging New Energy voltage does not exceed Technology CO., 0 4.2V and the battery Normal 4.19 0.892 LTD/ 18650charging current does not 2000mAh exceed 2A. ShenZhen Huayu The battery stopped New Energy charging. Technology CO., 0 45 Normal 4.19 LTD/ 18650-2000mAh

Supplementary information:

Q.1	TABLE: Circuits inter	nded for inte	rconnection	n with build	ling wiring	(LPS)	N			
Output Circuit	Condition	U <sub>oc</sub> (V)	Time (s)	I <sub>sc</sub>	(A)	S (VA)				
				Meas.	Limit	Meas.	Limit			
Supplement	Supplementary Information:									

T.2, T.3, T.4, T.5	TABLE: Steady force test						Р	
Part/Location Ma		Material	Thickness (mm)	Probe	Force (N)	Test Duration (s)	Observation	
Top enclosure		Wood	See table 4.1.2	30mm probe	250	5	No damaged	
Side enclosure		Wood	See table 4.1.2	30mm probe	250	5	No damaged	
Bottom enclosure Wood		See table 4.1.2	30mm probe	250	5	No damaged		
Supplement	Supplementary information:							

T.6, T.9	TABLE: Impa	N					
Location/part		Material	Thickness (mm)	Height (mm)	Obser	vation	
		-					
Supplementary information:							





T.7	TABLE: Dro	Р					
Location/part		Material	Thickness (mm)	Height (mm)	Observation		
Top enclosure		Wood	See table 4.1.2	1000	No damaged		
Side enclosure		Wood	See table 4.1.2	1000	No dai	maged	
Bottom enclosure		Wood	See table 4.1.2	1000	No damaged		
Supplementary information:							

T.8	TABLE: Stress relief test						Р
Location/Part		Material	Thickness (mm)	Oven Temperature (°C)	Duration (h)	Observation	
Completed sample		Wood	See table 4.1.2	70	7	No dama	ged, no hazards.
Supplementary information:							

X	TABLE: Alternati	N				
Clearance distanced between:		Peak of working voltage (V)	Required cl (mm)	Measured cl (mm)		
Supplementary information:						

4.1.2	TAE	TABLE: Critical components information					
Object / part No.		Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity	
Battery		ShenZhen Huayu New Energy Technology CO., LTD	18650- 2000mAh	3.7V, 2000mAh Max charge current: 2000mA; Max discharge current: 2000mA;	IEC 62133-2:2017,	Tested with appliance	
Speaker		Xinlianyin Electronics (Dongguan) Co., Ltd	6-32PU-F27	4ohm, 3W	EN IEC 62368- 1:2020+A11:2020	Tested with appliance	
Internal wire		Interchangeable	Interchangeable	Min.28AWG, min. 80°C, min. 30V, VW-1	UL 758	UL	
РСВ		Interchangeable	Interchangeable	V-0, 130°C	UL94, UL796	UL	
Wood				Min.12.5mm			
Supplementary information:							



## Attachment A Photos of product



Fig. 1 - over view



Fig. 2 – over view

Any report having not been signed by authorized approver, or having been altered without authorization, or having not been stamped by the "Dedicated Testing/Inspection Stamp" is deemed to be invalid. Copying or excerpting portion of, or altering the content of the report is not permitted without the written authorization of AGC. The test results presented in the report apply only to the tested sample. Any objections to report issued by AGC should be submitted to AGC within 15days after the issuance of the test report. Further enquiry of validity or verification of the test report should be addressed to AGC by agc01@agccert.com.



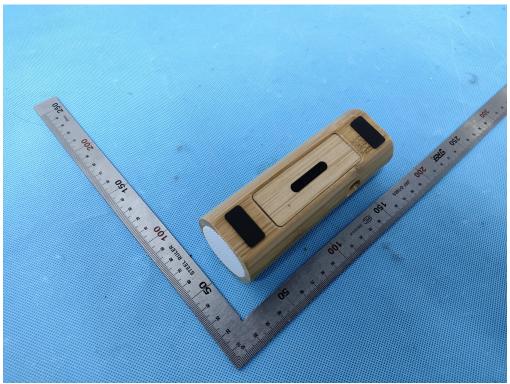


Fig. 3 - over view



Fig. 4 – port view



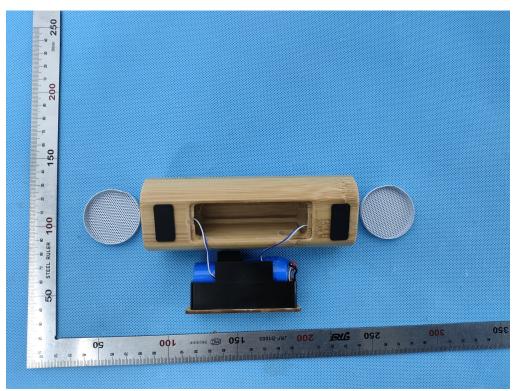


Fig. 5 -open view

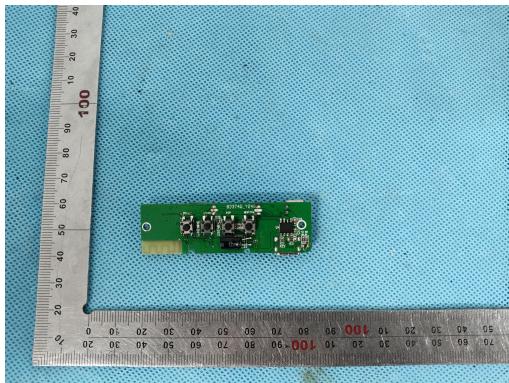


Fig. 6 - PCB view



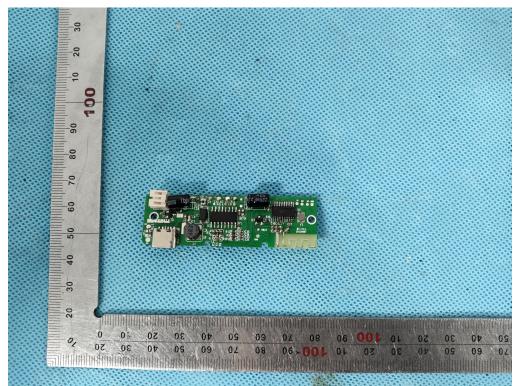
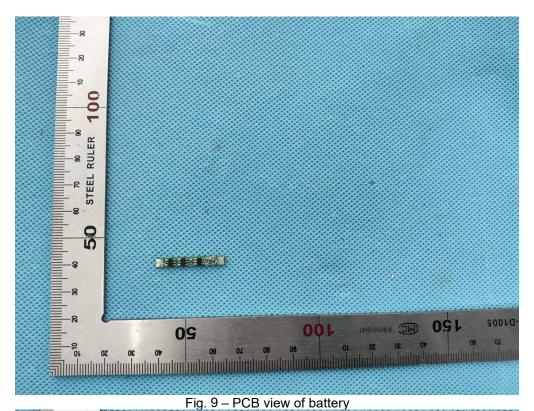


Fig. 7 - PCB view



Fig. 8 -Battery of view





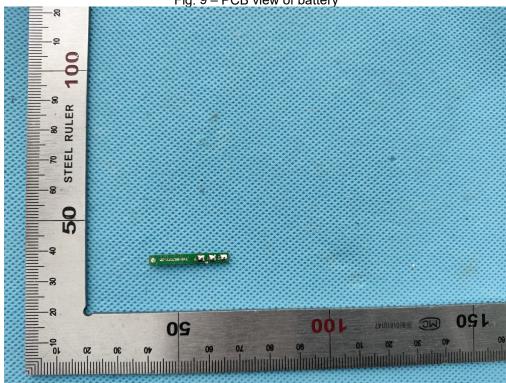


Fig. 10 – PCB view of battery



## Conditions of Issuance of Test Reports

- 1. All samples and goods are accepted by the Attestation of Global Compliance (Shenzhen) Co., Ltd (the "Company") solely for testing and reporting in accordance with the following terms and conditions. The company provides its services on the basis that such terms and conditions constitute express agreement between the company and any person, firm or company requesting its services (the "Clients").
- 2. Any report issued by Company as a result of this application for testing services (the "Report") shall be issued in confidence to the Clients and the Report will be strictly treated as such by the Company. It may not be reproduced either in its entirety or in part and it may not be used for advertising or other unauthorized purposes without the written consent of the Company. The Clients to whom the Report is issued may, however, show or send it, or a certified copy thereof prepared by the Company to its customer, supplier or other persons directly concerned. The Company will not, without the consent of the Clients, enter into any discussion or correspondence with any third party concerning the contents of the Report, unless required by the relevant governmental authorities, laws or court orders.
- 3. The Company shall not be called or be liable to be called to give evidence or testimony on the Report in a court of law without its prior written consent, unless required by the relevant governmental authorities, laws or court orders.
- 4. In the event of the improper use of the report as determined by the Company, the Company reserves the right to withdraw it, and to adopt any other additional remedies which may be appropriate.
- 5. Samples submitted for testing are accepted on the understanding that the Report issued cannot form the basis of, or be the instrument for, any legal action against the Company.
- 6. The Company will not be liable for or accept responsibility for any loss or damage however arising from the use of information contained in any of its Reports or in any communication whatsoever about its said tests or investigations.
- 7.Clients wishing to use the Report in court proceedings or arbitration shall inform the Company to that effect prior to submitting the sample for testing.
- 8. The Company is not responsible for recalling the electronic version of the original report when any revision is made to them. The Client assumes the responsibility to providing the revised version to any interested party who uses them.
- 9. Subject to the variable length of retention time for test data and report stored hereinto as otherwise specifically required by individual accreditation authorities, the Company will only keep the supporting test data and information of the test report for a period of six years. The data and information will be disposed of after the aforementioned retention period has elapsed. Under no circumstances shall we provide any data and information which has been disposed of after retention period. Under no circumstances shall we be liable for damage of any kind, including (but not limited to) compensatory damages, lost profits, lost data, or any form of special, incidental, indirect, consequential or punitive damages of any kind, whether based on breach of contract of warranty, tort (including negligence), product liability or otherwise, even if we are informed in advance of the possibility of such damages.