



TEST REPORT

Reference No.	N	WTF23D06127321Y
Applicant	¢.	Mid Ocean Brands B.V.
Address	: < L	7/F., Kings Tower, 111 King Lam Street, Cheung Sha Wan, Kowloon, Hong Kong
Manufacturer	:m	114768
Address	: _	- whe wind while while whe whe whe we we
Product	m.	Recycled ABS TWS Earbuds
Model(s)	17 ^{ert}	MO6946
Total pages	÷	67 pages and 5 pages of photo.
Standards		EN IEC 62368-1: 2020+A11: 2020 Audio/video, information and communication technology equipment- Part 1:Safety requirements
Date of Receipt sample	2h	2023-06-14
Date of Test	NITE!	2023-06-14 to 2023-06-29
Date of Issue		2023-06-29
Test Result	: .	Pass Pass

Remarks:

The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

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Soap Hu / Project Engineer

Approved by:

Almon Zhao / Designated Reviewer

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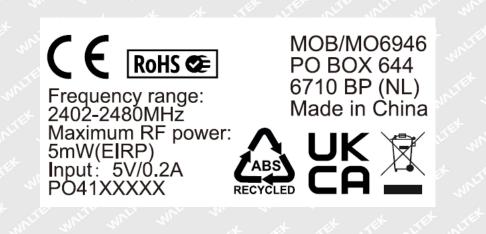
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Test item description	Recycled ABS TWS Earbuds		
Trademark	MOB		
Model and/or type reference:	MO6946		
Rating(s):	Input: 5VDC, 200mA Max. Earbud battery: 3.7V, 25mAh Charging box battery: 3.7V, 250mAh		
Remark:	at at	stiller miller while watch when when	
Whether parts of tests for the product h	nave been sub	contracted to other labs:	
🗌 Yes 🛛 🖾 No			
If Yes, list the related test items and lat	o information:		
Test items:			
Lab information:	- ALTER AND	- Mr Mr Mr M	
Summary of testing:		t the set of the second of the second	
Tests performed (name of test and to	est clause):	Testing location:	
- EN IEC 62368-1: 2020+A11: 2020	and the second	No. 77, Houjie Section, Guantai Road, Houjie Town, Dongguan City, Guangdong, China	
The submitted samples were found to on the requirements of above specification		Thouse rown, bongguan only, ouanguong, onina	
Summary of compliance with Nation	al Difference	s (List of countries addressed):	
tet stat with with with		et water water water water water water	
EU Group Differences The product fulfils the requirements Use of uncertainty of measurement f No decision rule is specified by th applicable limit according to the spec without applying the measurement ur "accuracy method").	of EN IEC 62 for decisions le IEC standa cification in th ncertainty ("sir	368-1:2020+A11:2020. on conformity (decision rule) : rd, when comparing the measurement result with the at standard. The decisions on conformity are made nple acceptance" decision rule, previously known as	
EU Group Differences The product fulfils the requirements Use of uncertainty of measurement f No decision rule is specified by th applicable limit according to the spec without applying the measurement ur "accuracy method").	of EN IEC 62 for decisions le IEC standa cification in th ncertainty ("sir	368-1:2020+A11:2020.	
EU Group Differences The product fulfils the requirements Use of uncertainty of measurement f No decision rule is specified by th applicable limit according to the speci without applying the measurement ur "accuracy method"). Other: (to be specified, for examp requirements apply) Information on uncertainty of measure The uncertainties of measurement are OD-5014 for test equipment and applic IECEE.	of EN IEC 62: for decisions le IEC standa cification in th ncertainty ("sir ele when requi lirement: calculated by cation of test m	368-1:2020+A11:2020. on conformity (decision rule) : rd, when comparing the measurement result with the at standard. The decisions on conformity are made nple acceptance" decision rule, previously known as red by the standard or client, or if national accreditation the laboratory based on application of criteria given by hethods, decision sheets and operational procedures of	
EU Group Differences The product fulfils the requirements Use of uncertainty of measurement f No decision rule is specified by th applicable limit according to the speci without applying the measurement ur "accuracy method"). Other: (to be specified, for examp requirements apply) Information on uncertainty of measure The uncertainties of measurement are OD-5014 for test equipment and applic IECEE. IEC Guide 115 provides guidance on the decision rule when reporting test	of EN IEC 62: for decisions le IEC standa cification in th ncertainty ("sir ole when requi urement: calculated by cation of test m the applicatio st results with	368-1:2020+A11:2020. on conformity (decision rule) : rd, when comparing the measurement result with the at standard. The decisions on conformity are made nple acceptance" decision rule, previously known as	

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Copy of marking plate:



Remark:

- 1. The above markings are the minimum requirements required by the safety standard. For the final production, the additional markings which donot give rise to misunderstanding may be added.
- 2. The CE marking and WEEE symbol should be at least 5.0mm and 7.0mm respectively in height.
- According to the EU directives which have been aligned with EU NLF (new legislative framework), both
 of manufacturer and importer's name and address shall be affixed on the product or, where that is not
 possible, on its packaging or in a document accompanying the product before the product is placed on
 the EU market.

TEST ITEM PARTICULARS:	net whe whe are the to the
Product group:	🖾 end product 🗌 built-in component
Classification of use by:	 Ordinary person Instructed person Skilled person
Supply Connection:	□ AC mains □ DC mains □ not mains connected: □ ES1 □ ES2 □ ES3
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 permanent connection mating connector in other: not Mains connected
Considered current rating of protective device as part of building or equipment installation:	UK: 13 A; Others: 16 A; Location: building equipment
Equipment mobility:	 movable hand-held transportable direct plug-in stationary for building-in wall/ceiling-mounted SRME/rack-mounted other:
Over voltage category (OVC):	□ OVC I □ OVC II □ OVC III □ OVC IV ⊠other: not Mains connected
Class of equipment:	□ Class I □ Class II ⊠ Class II □ Not classified □
Access location:	N/A □ restricted access area □ outdoor location □
Pollution degree (PD):	□ PD 1 ⊠ PD 2 □ PD 3
Manufacturer's specified maxium operating ambient :	25°C 🔲 Outdoor: minimum°C
IP protection class	
Power Systems:	□ TN □ TT □ ITV L-L ⊠ not AC mains
Altitude during operation (m):	⊠ 2000 m or less □m
Altitude of test laboratory (m)	🛛 2000 m or less 🔲 m
Mass of equipment (kg):	⊠ 0.045kg

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POSSIBLE TEST CASE VERDICTS:	the start when the start of the
- test case does not apply to the test object:	N/A
- test object does meet the requirement:	P (Pass)
- test object does not meet the requirement:	F (Fail)
TESTING:	when we are the set
Date of receipt of test item:	2023-01-04
Date (s) of performance of tests:	2023-01-04 to 2023-02-03
	A LE LE LE LE MA AL

GENERAL REMARKS:

"(see Enclosure #)" refers to additional information appended to the report.

"(see appended table)" refers to a table appended to the report.

Throughout this report a \square comma / \square point is used as the decimal separator.

GENERAL PRODUCT INFORMATION:

Product Description

- 1. The equipment with model MO6946 is Recycled ABS TWS Earbuds.
- 2. It is powered by Micro USB port conformed to LPS or powered by rechargeable Li-ion Battery.

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3. The maximum operating temperature is 25°C.

Model Differences

N/A

Additional application considerations – (Considerations used to test a component or subassembly) N/A



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 circuit	Ordinary	N/A	N/A N	N/A <
ES1: Lithium Cell	Ordinary	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 st S	2 nd S
PS1: <15 Watt circuits	РСВ	N/A	N/A	N/A
PS1: <15 Watt circuits	The other components/materials	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
N/A	N/A	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	N/A	N/A	N/A
MS1: Mass of the unit	Ordinary	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: All accessible parts	Ordinary	_√ [™] N/A √ [™]	N/A	N/A
10	Radiation			
Class and Energy Source	Body Part		Safeguards	
(e.g. RS1: PMP sound output)	(e.g., Ordinary)	В	S	R
RS1: LED for indicating	Ordinary	N/A	N/A	N/A



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		ENERGY S	OURCE D	DIAGRAM	
Indicate which e	nergy sources are inc	cluded in the e	energy sou	urce diagram. Insert diagram below	
A A	Let Jet a	Jet Miller	mer -	n m m	+ .+
	S ES	🛛 PS	🖂 MS		
a sta	See details in OVE	RVIEW OF EN	NERGY S	OURCES AND SAFEGUARDS	



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in m	When the second second	IEC 62368-1	VETER INTE MALL M	r. m. m.
Clause	Requirement – Test	when the the	Result – Remark	Verdict

4	GENERAL REQUIREMENTS		P
4.1.1	Acceptance of materials, components and subassemblies	(See appended table 4.1.2)	P
4.1.2	Use of components	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. See also Annex G	AND P
4.1.3	Equipment design and construction	Equipment is adequately designed and constructed.	N ^P P
4.1.4	Specified ambient temperature for outdoor use (°C)	Indoor use only	N/A
4.1.5	Constructions and components not specifically covered	No such constructions and components.	N/A
4.1.8	Liquids and liquid filled components (LFC)	No such parts.	N/A
4.1.15	Markings and instructions	(See Annex F)	P
4.4.3	Safeguard robustness	See below	Ń/A
4.4.3.1	General		N/A
4.4.3.2	Steady force tests	All all and all a	N/A
4.4.3.3	Drop tests	L. M. M. M.	N/A
4.4.3.4	Impact tests	of the state of the south	N/A
4.4.3.5	Internal accessible safeguard tests	No such parts.	N/A
4.4.3.6	Glass impact tests	No such glass used.	N/A
4.4.3.7	Glass fixation tests	No such parts.	N/A
in ant	Glass impact test (1J)	stret outer white white	N/A
d de	Push/pull test (10 N)	a to the set	N/A
4.4.3.8	Thermoplastic material tests	VEL MUTE MALT WALL WA	N/A
4.4.3.9	Air comprising a safeguard	a state of	N/A
4.4.3.10	Accessibility, glass, safeguard effectiveness	E MALLE MULT WALL WALL	N/A
4.4.4	Displacement of a safeguard by an insulating liquid	No such liquid.	N/A
4.4.5	Safety interlocks	No such parts.	N/A
4.5 💉	Explosion	atter white white white of	✓ P [√]
4.5.1	General	No explosion occurs during normal/abnormal operation and single fault conditions	et P
4.5.2	No explosion during normal/abnormal operating condition	(See Clause B.2, B.3)	WN P

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241	IEC 62368-1	with mate what what	the the
Clause	Requirement – Test	Result – Remark	Verdict
WILLEX N	No harm by explosion during single fault conditions	(See Clause B.4)	P.+
4.6	Fixing of conductors	See below	N/A
Life whi	Fix conductors not to defeat a safeguard	the set when when	N/A
1 1	Compliance is checked by test	the she and a	N/A
4.7	Equipment for direct insertion into mains socke	et-outlets	N/A
4.7.2	Mains plug part complies with relevant standard	Not direct plug-in equipment.	N/A
4.7.3	Torque (Nm)	t aller mills while wh	N/A
4.8	Equipment containing coin/button cell batteries		N/A
4.8.1	General	No coin/button cell batteries used.	N/A
4.8.2	Instructional safeguard	ster strer strer white	N/A
4.8.3	Battery compartment door/cover construction	a the second	N/A
when	Open torque test	et with mile white w	N/A
4.8.4.2	Stress relief test	w t st	N/A
4.8.4.3	Battery replacement test	white white white white	⇒Ñ/A
4.8.4.4	Drop test		N/A
4.8.4.5	Impact test	MALL MAL	s [€] N/A [∞]
4.8.4.6	Crush test		N/A
4.8.5	Compliance	The world work work &	N/A
t jet	30N force test with test probe	e at at at	N/A
- nu	20N force test with test hook	WALL WALL WALL W	N/A
4.9	Likelihood of fire or shock due to entry of cond	uctive object	Р
4.10	Component requirements	white white white with	N/A
4.10.1	Disconnect Device	let tet stet stet	N/A
4.10.2	Switches and relays	the way was not	N/A

5	ELECTRICALLY-CAUSED INJURY Classification and limits of electrical energy sources		Р
5.2			Р
5.2.2	ES1, ES2 and ES3 limits	Mr. Mr. M. m.	Р
5.2.2.2	Steady-state voltage and current limits	(See appended table 5.2)	ν. P
5.2.2.3	Capacitance limits	No such capacitors	N/A
5.2.2.4	Single pulse limits	No such single pulses	N/A
5.2.2.5	Limits for repetitive pulses	No such repetitive pulses	N/A
5.2.2.6	Ringing signals	No such ringing signals	N/A
5.2.2.7	Audio signals	Mr. M. M.	N/A
5.3	Protection against electrical energy sources	- ster street with whit	P



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IEC 62368-1			
Clause	Requirement – Test	Result – Remark	Verdict
when i	No No No A A A A A	en and and and and an	2 m
5.3.1	General Requirements for accessible parts to ordinary, instructed and skilled persons	the set state with	e Pet
5.3.1 a)	Accessible ES1/ES2 derived from ES2/ES3 circuits	Mr. Wr. W. W.	N/A
5.3.1 b)	Skilled persons not unintentional contact ES3 bare conductors	NITER WATER WAITER WATER	N/A
5.3.2.1	Accessibility to electrical energy sources and safeguards	Only ES1 circuit and the enclosure (safeguard) are accessed to person.	NUTER P
white w	Accessibility to outdoor equipment bare parts	t when when which wh	N/A
5.3.2.2	Contact requirements	When the second second	N/A
mer mer	Test with test probe from Annex V	where outer optimis where	—
5.3.2.2 a)	Air gap – electric strength test potential (V)	and the state	N/A
5.3.2.2 b)	Air gap – distance (mm)	LIEF WALTE WALT WALT	N/A
5.3.2.3	Compliance	1 A A A	_<∕ [↓] N/A
5.3.2.4	Terminals for connecting stripped wire	No stripped wire used.	N/A
5.4	Insulation materials and requirements	A A A A	P
5.4.1.2	Properties of insulating material	No insulation as a safeguard.	N/A
5.4.1.3 🔬	Material is non-hygroscopic	A 10 50	N/A
5.4.1.4	Maximum operating temperature for insulating materials	(See appended table 5.4.1.4, 9.3, B.1.5, B.2.6, B.3, B.4)	Р
5.4.1.5	Pollution degrees	The unit white white is	N/A
5.4.1.5.2	Test for pollution degree 1 environment and for an insulating compound	t with milet and an	N/A
5.4.1.5.3	Thermal cycling test	the second second	N/A
5.4.1.6	Insulation in transformers with varying dimensions	NUER INTERNATION	⊲∕ [™] N/A
5.4.1.7	Insulation in circuits generating starting pulses	i i at st	N/A
5.4.1.8	Determination of working voltage	NUTE MALE MALE MALE	N/A
5.4.1.9	Insulating surfaces	e at at at	N/A
5.4.1.10	Thermoplastic parts on which conductive metallic parts are directly mounted	white white white w	N/A
5.4.1.10.2	Vicat test	NUTER INTE MUT MI	N/A
5.4.1.10.3	Ball pressure test	The state of	N/A
5.4.2	Clearances	INTER INTERNITE WALL WALL	N/A
5.4.2.1	General requirements	1 A A A	N/A
t with	Clearances in circuits connected to AC Mains, Alternative method	of white white where	N/A
5.4.2.2	Procedure 1 for determining clearance	at which which which we	N/A
d.	Temporary overvoltage	Star Andrewski (Star Andrewski)	_
5.4.2.3	Procedure 2 for determining clearance	with street white white	N/A

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20.	IEC 62368-1	and and any an	- 24 m
Clause	Requirement – Test	Result – Remark	Verdict
<u> </u>		the watter water water	we we
5.4.2.3.2.2		the state	
5.4.2.3.2.3	d.c. mains transient voltage	water water water	<u></u>
5.4.2.3.2.4		at at at	
5.4.2.3.2.5	Transient voltage determined by measurement	milt white when w	_
5.4.2.4	Determining the adequacy of a clearance using an electric strength test	set milet inster wa	N/A
5.4.2.5	Multiplication factors for clearances and test voltages	t stat what while	N/A
5.4.2.6	Clearance measurement	m. m. m.	N/A
5.4.3	Creepage distances	white white white	N/A
5.4.3.1	General	all an a	N/A
5.4.3.3	Material group	LIEK MITER MUTE W	N ² 4 -
5.4.3.4	Creepage distances measurement		~ N/A
5.4.4	Solid insulation	Er Intite Matte Mati	N/A
5.4.4.1	General requirements	1 A A	N/A
5.4.4.2	Minimum distance through insulation	white white white	N/A
5.4.4.3	Insulating compound forming solid insulation		N/A
5.4.4.4	Solid insulation in semiconductor devices	- S . Sunt	N/A
5.4.4.5	Insulating compound forming cemented joints		N/A
5.4.4.6	Thin sheet material	the more more with	N/A
5.4.4.6.1	General requirements	t at set is	N/A
5.4.4.6.2	Separable thin sheet material	Mur mur m	N/A
Intre M	Number of layers (pcs)	tet unt wint	N/A
5.4.4.6.3	Non-separable thin sheet material	me me m	N/A
ite whit	Number of layers (pcs)	ster ster street	N/A
5.4.4.6.4	Standard test procedure for non-separable thin sheet material	at let let	N/A
5.4.4.6.5	Mandrel test	when the me	N/A
5.4.4.7	Solid insulation in wound components	- tet stet ste	N/A
5.4.4.9	Solid insulation at frequencies >30 kHz, E_P , K_R , d , V_{PW} (V)	when when when	N/A
n n	Alternative by electric strength test, tested voltage (V), K_{R}	until white white	N/A
5.4.5	Antenna terminal insulation	LIER MALIE MALIE W	N/A
5.4.5.1	General	i i i it i	N/A
5.4.5.2	Voltage surge test	antite while while	N/A
5.4.5.3	Insulation resistance (MΩ)		N/A

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	IEC 62368-1	the appendix	
Clause	Requirement – Test	Result – Remark	Verdict
<u></u>	Electric strength test	Mart and all	N/A
5.4.6	Insulation of internal wire as part of supplementary safeguard	while while while w	N/A
5.4.7	Tests for semiconductor components and for cemented joints	NUTER WALTER WALTER WALT	N/A
5.4.8	Humidity conditioning	at let let 5th	N/A
- Jul	Relative humidity (%), temperature (°C), duration (h)	when when when	<u> </u>
5.4.9	Electric strength test	intre white white w	N/A
5.4.9.1	Test procedure for type test of solid insulation	the state	N/A
5.4.9.2	Test procedure for routine test	NALLS WALL WALL WAS	N/A
5.4.10	Safeguards against transient voltages from external circuits	Lifet milet maret waite	N/A
5.4.10.1	Parts and circuits separated from external circuits	i it at at	_<∕−N/A
5.4.10.2	Test methods	antite while white	N/A
5.4.10.2.1	General	at at at	N/A
5.4.10.2.2	Impulse test	white white she we	N/A
5.4.10.2.3	Steady-state test	at 1 1	N/A
5.4.10.3	Verification for insulation breakdown for impulse test	- a far and	N/A
5.4.11	Separation between external circuits and earth	TE INTE WALL WALL	N/A
5.4.11.1	Exceptions to separation between external circuits and earth	+ street surget sourcet a	N/A
5.4.11.2	Requirements	the the	N/A
mer m	SPDs bridge separation between external circuit and earth	white white white our	N/A
the wall	Rated operating voltage U _{op} (V)	ster ster where white	_
st st	Nominal voltage U _{peak} (V)	a sur su a	_
WILL	Max increase due to variation ΔU_{sp}	It with mith white	<u> </u>
. At	Max increase due to ageing ΔU_{sa}	st at	
5.4.11.3	Test method and compliance	with which which w	N/A
5.4.12	Insulating liquid	1 A at	N/A
5.4.12.1	General requirements	INTER WALTE WATE WATE	N/A
5.4.12.2	Electric strength of an insulating liquid	a at at all	N/A
5.4.12.3	Compatibility of an insulating liquid	TE MALE MAL WAL	N/A
5.4.12.4	Container for insulating liquid	at at at at	N/A
5.5	Components as safeguards	WALL WALL WIT	N/A
5.5.1	General	No such components as safeguards.	N/A



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Clause	Requirement – Test	Result – Remark	Verdict
		Result Remark	Vordiot
5.5.2	Capacitors and RC units	in man	N/A
5.5.2.1	General requirement	white white white	N/A
5.5.2.2	Safeguards against capacitor discharge after disconnection of a connector	Tet ster with a	N/A
5.5.3	Transformers	her when the second	N/A
5.5.4	Optocouplers	ret when when white	N/A
5.5.5	Relays	WI SH A	N/A
5.5.6	Resistors	t outer intre- white	N/A
5.5.7	SPDs	w i i i it at	N/A
5.5.8	Insulation between the mains and an external circuit consisting of a coaxial cable	watter white wait v	N/A
5.5.9	Safeguards for socket-outlets in outdoor equipment	white white white wh	N/A
A INLIER	RCD rated residual operating current (mA)	et tet ster stre	-
5.6	Protective conductor	when when when	N/A
5.6.2	Requirement for protective conductors	+ ret riet wret	N/A
5.6.2.1	General requirements	Class III equipment	N/A
5.6.2.2	Colour of insulation	at mutter a	N/A
5.6.3	Requirement for protective earthing conductors		N/A
er mer	Protective earthing conductor size (mm ²)	The write white white	· · ·
* UNLIEK	Protective earthing conductor serving as a reinforced safeguard	t	N/A
ALTER .	Protective earthing conductor serving as a double safeguard	when we we we	N/A
5.6.4	Requirements for protective bonding conductors	water water water	N/A
5.6.4.1	Protective bonding conductors	at set set a	N/А
	Protective bonding conductor size (mm ²)	Nr. Mr. Mr. M.	
5.6.4.2	Protective current rating (A)	et alt alt with	N/A
5.6.5	Terminals for protective conductors	Mr. m. m.	N/A
5.6.5.1	Terminal size for connecting protective earthing conductors (mm)	WALTER WALTER WALTER	N/A
MUTER W	Terminal size for connecting protective bonding conductors (mm)	MITEX WAITER WAITER W	N/A
5.6.5.2	Corrosion	at at at a	N/A
5.6.6	Resistance of the protective bonding system	the water water with	N/A
5.6.6.1	Requirements	at at all all	N/A
5.6.6.2	Test Method	white other when	N/A
5.6.6.3	Resistance (Ω) or voltage drop	A A A	N/A

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	IEC 62368-1		
Clause	Requirement – Test	Result – Remark	Verdict
5.6.7	Reliable connection of a protective earthing conductor	ret ret aret and	N/A
5.6.8	Functional earthing	Mr. Mr. m. m.	N/A
Life and	Conductor size (mm ²)	tet the atter atter	N/A
1 0	Class II with functional earthing marking	the strength of the	N/A
NIN IN	Appliance inlet cl &cr (mm)	the street outer addition of	N/A
5.7	Prospective touch voltage, touch current and p	rotective conductor current	N/A
5.7.2	Measuring devices and networks	et aller mills while wh	N/A
5.7.2.1	Measurement of touch current	No and the	N/A
5.7.2.2	Measurement of voltage	white white white white	~ [©] N/A
5.7.3	Equipment set-up, supply connections and earth connections	Tet allet wiret while	N/A
5.7.4	Unearthed accessible parts	a the the	N/A
5.7.5	Earthed accessible conductive parts	et write write white w	N/A
5.7.6	Requirements when touch current exceeds ES2 limits	and the state of the	N/A
	Protective conductor current (mA)	when the she are	N/A
nere on	Instructional Safeguard	at antic mile	N/A
5.7.7	Prospective touch voltage and touch current associated with external circuits		N/A
5.7.7.1	Touch current from coaxial cables	a way way way	N/A
5.7.7.2	Prospective touch voltage and touch current associated with paired conductor cables	* white white white wh	N/A
5.7.8	Summation of touch currents from external circuits	MITEK WALTER WALTER WALT	N/A
LIEX MAL	a) Equipment connected to earthed external circuits, current (mA)	The week much much	N/A
et niret	b) Equipment connected to unearthed external circuits, current (mA)	of the set stat	N/A
5.8	Backfeed safeguard in battery backed up supplies		N/A
INLIE	Mains terminal ES	No battery used	N/A
~	Air gap (mm)	mer m. m. m.	N/A

6	ELECTRICALLY- CAUSED FIRE		P
6.2	Classification of PS and PIS	at at at at	S ^O P _S S
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. (See appended table 6.2.2)	P



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	IEC 62368-1	an an an an	
Clause	Requirement – Test	Result – Remark	Verdict
6.2.3	Classification of potential ignition sources	See the following details.	P
6.2.3.1	Arcing PIS	No Arcing PIS exist in the equipment	N/A
6.2.3.2	Resistive PIS	(See appended table 6.2.3.2)	N/A
6.3	Safeguards against fire under normal operating conditions	and abnormal operating	P
6.3.1	No ignition and attainable temperature value less than 90 % defined by ISO 871 or less than 300 °C for unknown materials	No ignition and no such temperature attained within the equipment. (See appended table B.1.5 & B.3)	P
m. m	Combustible materials outside fire enclosure	No such parts	[∼] N/A
6.4	Safeguards against fire under single fault condit	tions	P
6.4.1	Safeguard method	Control fire spread	Р
6.4.2	Reduction of the likelihood of ignition under single fault conditions in PS1 circuits	et intret antret water w	N/A
6.4.3	Reduction of the likelihood of ignition under single fault conditions in PS2 and PS3 circuits	strek mirek antiek anti	N/A
6.4.3.1	Supplementary safeguards		N/A
6.4.3.2	Single Fault Conditions	white white white	N/A
to the	Special conditions for temperature limited by fuse		N/A
6.4.4	Control of fire spread in PS1 circuits	the write write write	P
6.4.5	Control of fire spread in PS2 circuits	i s s st	N/A
6.4.5.2	Supplementary safeguards	MALIE MALL MAL MA	N/A
6.4.6	Control of fire spread in PS3 circuits	A A A S	N/A
6.4.7	Separation of combustible materials from a PIS	while while white white	N/A
6.4.7.2	Separation by distance	at at let set	N/A
6.4.7.3	Separation by a fire barrier	No fire barrier used.	N/A
6.4.8	Fire enclosures and fire barriers	See below.	N/A
6.4.8.2	Fire enclosure and fire barrier material properties	V-0 plastic enclosure used	N/A
6.4.8.2.1	Requirements for a fire barrier	No fire barrier used.	N/A
6.4.8.2.2	Requirements for a fire enclosure	V-0 plastic enclosure used	N/A
6.4.8.3	Constructional requirements for a fire enclosure and a fire barrier	See below	N/A
6.4.8.3.1	Fire enclosure and fire barrier openings	No openings	N/A
6.4.8.3.2	Fire barrier dimensions	No specific barrier provided.	N/A
6.4.8.3.3	Top openings and properties	No top opening	N/A
	Openings dimensions (mm)	when when we we	N/A
6.4.8.3.4	Bottom openings and properties	No bottom opening	N/A



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the me	Mr. In Sur	IEC 62368-1	with unite water of	v. m. m.
Clause	Requirement – Test	white white the	Result – Remark	Verdict

	Openings dimensions (mm)		N/A
were w	Flammability tests for the bottom of a fire enclosure	white white white white	N/A
Little Mail	Instructional Safeguard	THE LIFE NUMBER MUTER	N/A S
6.4.8.3.5	Side openings and properties	No side openings	N/A
MALL	Openings dimensions (mm)	LEX aller aller and and	N/A
6.4.8.3.6	Integrity of a fire enclosure, condition met: a), b) or c)	No enclosure can be opened by an ordinary person	N/A
6.4.8.4	Separation of a PIS from a fire enclosure and a fire barrier distance (mm) or flammability rating	V-0 plastic enclosure used	N/A
6.4.9	Flammability of insulating liquid	white white white white	N/A
6.5 5	Internal and external wiring	it it it it	5 ⁶⁷ P _5
6.5.1	General requirements	The internal wires are complied with UL standard, of which the test method and testing condition are equal to IEC/EN 60695-11-21.	P White Junifel
6.5.2	Requirements for interconnection to building wiring	See 6.5.1.	Р
6.5.3	Internal wiring size (mm2) for socket-outlets	No such wire used	м [~] N/А.« ⁰
6.6	Safeguards against fire due to the connection to ac	ditional equipment	A-P A

7	INJURY CAUSED BY HAZARDOUS SUBSTANCES	, P ,↓
7.2	Reduction of exposure to hazardous substances	N/A
7.3	Ozone exposure	N/A
7.4	Use of personal safeguards or personal protective equipment (PPE)	/N/A ~_^/
, et	Personal safeguards and instructions	_
7.5 🚿	Use of instructional safeguards and instructions	N/A
	Instructional safeguard (ISO 7010)	_
7.6	Batteries and their protection circuits	Р

8	MECHANICALLY-CAUSED INJURY		S∜P ≦
8.2	Mechanical energy source classifications	m to at at al	Р
8.3 👋	Safeguards against mechanical energy so	urces	24 B 24
8.4	Safeguards against parts with sharp edge	s and corners	P5
8.4.1	Safeguards	ret and the work which when	Р
* WALTE	Instructional Safeguard	: MS1: Edges and corners of enclosure	P.I.
8.4.2	Sharp edges or corners	Edges and corners of the enclosure are rounded.	- P



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in m	Mr. Mr. Mr.	IEC 62368-1	VETER INTERNATION	in me me
Clause	Requirement – Test	when we we	Result – Remark	Verdict

8.5	Safeguards against moving parts		
8.5.1	Fingers, jewellery, clothing, hair, etc., contact with MS2 or MS3 parts	No moving parts.	N/A
the work	MS2 or MS3 part required to be accessible for the function of the equipment	See above.	N/A
et ster	Moving MS3 parts only accessible to skilled person	at let let stat	N/A
8.5.2	Instructional safeguard	in mer were we we	N/A
8.5.4	Special categories of equipment containing moving parts	Intret aniret aniret and	N/A
8.5.4.1	General	at at at at	N/A
8.5.4.2	Equipment containing work cells with MS3 parts	White white white white	N/A
8.5.4.2.1	Protection of persons in the work cell	at at the state	N/A
8.5.4.2.2	Access protection override	it was me we	N/A
8.5.4.2.2.1	Override system	at the tiet when we	N/A
8.5.4.2.2.2	Visual indicator	Mr. m. m.	N/A
8.5.4.2.3	Emergency stop system	THE STREE MUT MUT	N/A
NUTER JULI	Maximum stopping distance from the point of activation (m):	the state state	N/A
let stat	Space between end point and nearest fixed mechanical part (mm):		N/A
8.5.4.2.4	Endurance requirements	in marine way and a	N/A
WALLER V	Mechanical system subjected to 100 000 cycles of operation	t milet whilet whilet whit	N/A
At .	- Mechanical function check and visual inspection	a de de de	N/A
m. m.	- Cable assembly:	until white white white	N/A
8.5.4.3	Equipment having electromechanical device for destruction of media	LICK MICH MALICK MALICK	N/A
8.5.4.3.1	Equipment safeguards	i s s st	⊘-N/A
8.5.4.3.2	Instructional safeguards against moving parts:	The water water water wa	N/A
8.5.4.3.3	Disconnection from the supply	the state of a	N/A
8.5.4.3.4	Cut type and test force (N):	white white white white	N/A
8.5.4.3.5	Compliance	at at the set	N/A
8.5.5	High pressure lamps	No high pressure lamps used.	N/A
JET NALTE	Explosion test:	set set set with	N/A
8.5.5.3	Glass particles dimensions (mm):	and the start of	N/A
8.6	Stability of equipment	et the stree when wh	N/A
8.6.1	General	MS1: Mass of the unit	N/A
no an	Instructional safeguard:	THE LIFE MILE WIT	N/A

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	IEC 62368-1	site wat was sur	20. 2.
Clause	Requirement – Test	Result – Remark	Verdict
8.6.2	Static stability	White white all a	N/A
8.6.2.2	Static stability test:	tet utet with m	N/A
8.6.2.3	Downward force test	mer me m m	N/A
8.6.3	Relocation stability	stat state which which	N/A
0.0.0	Wheels diameter (mm):	pr all as at	
In Ch	Tilt test	A A AND A A A A A A A A A A A A A A A A	N/A
8.6.4	Glass slide test	N V V	N/A
8.6.5	Horizontal force test	Internet with the	N/A
8.7	Equipment mounted to wall, ceiling or other stru		N/A
8.7.1	Mount means type		N/A
8.7.2	Test methods		N/A
0.7.2	Test 1, additional downwards force (N):	the mer and and	N/A
st ser	Test 2, number of attachment points and test force	of the state state	N/A
	(N)	with with with a	
	Test 3 Nominal diameter (mm) and applied torque (Nm):	White white white white on	N/A
8.8	Handles strength	A 11 11 11	N/A
8.8.1	General	No handles	N/A
8.8.2	Handle strength test	the set offer	N/A
	Number of handles:	a what what while	~ _
MALTE	Force applied (N):	t wet with milet with	NIE WILL
8.9	Wheels or casters attachment requirements	me m m n	N/A
8.9.2	Pull test	No such parts	N/A
8.10	Carts, stands and similar carriers	where the second second	N/A
8.10.1	General	No carts, stands or similar carriers	N/A
8.10.2	Marking and instructions:	et the ster with	N/A
8.10.3	Cart, stand or carrier loading test	All Mr. M.	N/A
NUNCTION N	Loading force applied (N)	and and and the second	N/A
8.10.4	Cart, stand or carrier impact test	som in me	N/A
8.10.5	Mechanical stability	ALTER MUTER WALTE WALT	N/A
1 1	Force applied (N):	the state of the	
8.10.6	Thermoplastic temperature stability	LIE MUTE WALL WAL	N/A
8.11	Mounting means for slide-rail mounted equipme	ent (SRME)	N/A
8.11.1	General	No such parts	N/A
8.11.2	Requirements for slide rails	at at at	N/A



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in m		IEC 62368-1	w. m.
Clause	Requirement – Test	Result – Remark	Verdict

	Instructional Safeguard:	w w	N/A
8.11.3	Mechanical strength test	white white white white	_√ [®] N/A ≦
8.11.3.1	Downward force test, force (N) applied	and the	N/A
8.11.3.2	Lateral push force test	NUTER MALTE MALL MAL	N/A ^{SII}
8.11.3.3	Integrity of slide rail end stops	i it it it	_<^N/A_<
8.11.4	Compliance	atte while when when w	N/A
8.12	Telescoping or rod antennas	e at at at a	N/A
20. 1	Button/ball diameter (mm):	No such parts	_

9	THERMAL BURN INJURY		20 P - 1
9.2	Thermal energy source classifications	i a stat st	_́Р
9.3	Touch temperature limits	inter white white when y	Р
9.3.1	Touch temperatures of accessible parts	: (See appended table 5.4.1.4, 9.3, B.1.5, B.2.6)	Set P.Se
9.3.2	Test method and compliance	See B.1.6 & B.2.3	F Ref
9.4	Safeguards against thermal energy sources	Street with white white	< [™] P
9.5	Requirements for safeguards		P
9.5.1	Equipment safeguard	Enclosure provided to limit the transfer of thermal energy of internal parts under normal operating conditions and abnormal operating conditions.	P
9.5.2	Instructional safeguard	: Instructional safeguard is not required.	N/A
9.6	Requirements for wireless power transmitte	erst at an an	N/A
9.6.1	General	No wireless power transmitters	N/A
9.6.2	Specification of the foreign objects	et the street with white	N/A
9.6.3	Test method and compliance	:	N/A

10	RADIATION		Р
10.2	Radiation energy source classification	the state state with white	Р
10.2.1	General classification	See below	P
NOT N	Lasers:	stret outer south south	
TEX whit	Lamps and lamp systems:	RS1: LED only for indicating use which is considered as low power application.	_
+	Image projectors:	at let let set as	
20	X-Ray:	white where where some	
STER.	Personal music player:	let get get are	



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and and	the second star	IEC 62368-1	user intre white wh	- me m
Clause	Requirement – Test	mar me m	Result – Remark	Verdict

10.3	Safeguards against laser radiation		N/A
were w	The standard(s) equipment containing laser(s) comply:	No laser radiation	N/A
10.4	Safeguards against optical radiation from lamps and lamp systems (including LED types)		NULL P
10.4.1	General requirements	LED indication light: Classed as RS1 (Exempt Group)	Ster P.
WALTER	Instructional safeguard provided for accessible radiation level needs to exceed	of a ret maret maret and	N/A
de	Risk group marking and location:	Mr. In St. A	N/A
mer in	Information for safe operation and installation	alifet while while while	_√N/A
10.4.2	Requirements for enclosures	SN N A At At	N/A
r m	UV radiation exposure:	with mile while which y	N/A
10.4.3	Instructional safeguard:	i i i it it	N/A
10.5	Safeguards against X-radiation	iter white white white wh	N/A
10.5.1	Requirements	No X-radiation	N/A
m. n	Instructional safeguard for skilled persons	white white white white	_
10.5.3	Maximum radiation (pA/kg)		
10.6	Safeguards against acoustic energy sources	5 Juni van	Р
10.6.1	General		S ^C P _N
10.6.2	Classification	Headphones: RS1	Р
WALTE	Acoustic output <i>L</i> _{Aeq,T} , dB(A):	See EN 50332-2 test report No.: WTF23X06138820Y.	P
WALTER W	Unweighted RMS output voltage (mV):	No such electrical output socket	N/A
de s	Digital output signal (dBFS):	and at at	N/A
10.6.3	Requirements for dose-based systems	MILE WAITE WALL WALL	N/A
10.6.3.1	General requirements	s at at at	N/A
10.6.3.2	Dose-based warning and automatic decrease	in white white white all	N/A
10.6.3.3	Exposure-based warning and requirements	- at at at 5	N/A
20. 1	30 s integrated exposure level (MEL30):	Marth marth and marth	N/A
STER IN	Warning for MEL ≥ 100 dB(A):	at not stat state	N/A
10.6.4	Measurement methods	Mart what and with	Р
10.6.5	Protection of persons	at the set state	N P
	Instructional safeguards:	to me me me	Р
10.6.6	Requirements for listening devices (headphones, earphones, etc.)	at white white white wh	Ρ
10.6.6.1	Corded listening devices with analogue input	at the the se	N/A



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24		IEC 62368-1	NET MALL MALL M	2 apr av
Clause	Requirement – Test		Result – Remark	Verdict

	Listening device input voltage (mV):	AN AN A A	N/A
10.6.6.2	Corded listening devices with digital input	white white white white	/Ñ/A/
the start	Max. acoustic output <i>L</i> _{Aeq,T} , dB(A):	shi to to the	N/A
10.6.6.3	Cordless listening devices	NUTER INTER WALL WALL	N/A
A .A	Max. acoustic output <i>L</i> _{Aeq,T} , dB(A):	1 s at at	N/A

В	NORMAL OPERATING CONDITION TESTS, ABI CONDITION TESTS AND SINGLE FAULT COND		P P
B.1	General		Р
B.1.5	Temperature measurement conditions	(See appended table B.1.5)	P
B.2	Normal operating conditions	me me me t	Р
B.2.1	General requirements:	(See Test Item Particulars and appended test tables)	N° Por
WALTE	Audio Amplifiers and equipment with audio amplifiers:	et whitet whitet whitet wh	N/A
B.2.3	Supply voltage and tolerances	Rated input 5Vdc	P
B.2.5	Input test:	(See appended table B.2.5)	~b
B.3	Simulated abnormal operating conditions	A	ΎΡ
B.3.1	General	(See appended table B.3)	Р
В.3.2 💉	Covering of ventilation openings	No ventilation openings.	N/A S
	Instructional safeguard:	- me me me	N/A
B.3.3	DC mains polarity test	Not supplied by D.C. mains	N/A
B.3.4	Setting of voltage selector	No such selector	N/A
B.3.5	Maximum load at output terminals	(See appended table B.3)	N°P .
B.3.6	Reverse battery polarity	No such battery	N/A
B.3.7	Audio amplifier abnormal operating conditions	(See appended table B.3)	n P.M
B.3.8	Safeguards functional during and after abnormal operating conditions	All safeguards remained effective	STER P
B.4	Simulated single fault conditions	mu m m	P
B.4.1	General	THE STREE MUSE MUS	P
B.4.2	Temperature controlling device	NTC used on battery protective board. The test is carried out for three times, no failure. See appended table B.4 for details	P. Miller
B.4.3	Blocked motor test	No motors	N/A
B.4.4	Functional insulation	See below.	Р
B.4.4.1	Short circuit of clearances for functional insulation	(See appended table B.4)	P



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Clause	Requirement – Test	Result – Remark	Verdict
B.4.4.2	Short circuit of creepage distances for functional insulation	(See appended table B.4)	Р
B.4.4.3	Short circuit of functional insulation on coated printed boards	No coated printed boards within the EUT	N/A
B.4.5	Short-circuit and interruption of electrodes in tubes and semiconductors	(See appended table B.4)	Р
B.4.6	Short circuit or disconnection of passive components	(See appended table 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/A
B.4.8	Compliance during and after single fault conditions:	No change to circuits classified in 5.3	NUT P
B.4.9	Battery charging and discharging under single fault conditions	See annex M	N JEK P
С	UV RADIATION		N/A
C.1	Protection of materials in equipment from UV r	adiation	N/A
C.1.2	Requirements	No such UV generated from the equipment.	N/A
C.1.3	Test method		N/A
C.2	UV light conditioning test	LIET MITE MILLE MALLE	N/A
C.2.1	Test apparatus:	and the	N/A
C.2.2	Mounting of test samples	For antifer antifer which wh	N/A
C.2.3	Carbon-arc light-exposure test	st at at a	N/A
C.2.4	Xenon-arc light-exposure test	antite white white whe	N/A
D	TEST GENERATORS		N/A
D.1	Impulse test generators	untit white when when	N/A
D.2	Antenna interface test generator	at let set stet	N/A
D.3	Electronic pulse generator	when the sure of	N/A
E	TEST CONDITIONS FOR EQUIPMENT CONTAIN	NING AUDIO AMPLIFIERS	N/A
E.1	Electrical energy source classification for audi		N/A
mere an	Maximum non-clipped output power (W):		—
A I	Rated load impedance (Ω):	an in the st	
an when	Open-circuit output voltage (V):	ret milet milet white	_
t at	Instructional safeguard:	st at at	
E.2	Audio amplifier normal operating conditions	LEK WITE WITE WALL W	N/A
. Alt	Audio signal source type:	a state	e —
me a	Audio output power (W):	with white white white	



N/A

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Clause	Requirement – Test	Result – Remark	Verdict	
- sur-	Audio output voltage (V):	the super su	-10	
State of	Rated load impedance (Ω)	At 1t 5t N		
10 20		main war war		
	Requirements for temperature measurement	the set set set	N/A	
E.3 👋	Audio amplifier abnormal operating conditions		N/A	
F	EQUIPMENT MARKINGS, INSTRUCTIONS, AND SAFEGUARDS	INSTRUCTIONAL	STEP P	
F.1	General	w w t	j⊱ P_∂	
mer 1	Language:	English		
F.2	Letter symbols and graphical symbols	a at at all	P	
F.2.1	Letter symbols according to IEC60027-1	Letter symbols for quantities and units are complied with IEC 60027-1.	P	
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.	P	
F.3	Equipment markings	t ret ster with out	P	
F.3.1	Equipment marking locations	The required marking is located on the enclosure of the equipment and is easily visible.	P	
F.3.2	Equipment identification markings	See below for details.	N RIC	
F.3.2.1	Manufacturer identification:	See copy of marking plate	<u>к</u> Р,	
F.3.2.2	Model identification:	See copy of marking plate	P	
F.3.3	Equipment rating markings	See below for details.	- P.+	
F.3.3.1	Equipment with direct connection to mains	Supplying by 5Vdc	N/A	
F.3.3.2	Equipment without direct connection to mains	See above.	P	
F.3.3.3	Nature of the supply voltage:	See copy of marking plate.	P 9	
F.3.3.4	Rated voltage	See copy of marking plate.	. Ф. Р	
F.3.3.5	Rated frequency:	DC supply	Р	
F.3.3.6	Rated current or rated power:	See copy of marking plate.	° P. [©]	
F.3.3.7	Equipment with multiple supply connections	Single supply connection.	N/A	
F.3.4	Voltage setting device	No voltage setting device.	N/A	
F.3.5	Terminals and operating devices	WALL WALL WALL WALL	N/A	
F.3.5.1	Mains appliance outlet and socket-outlet markings	TEX WATER WALTER WATER &	N/A	
F.3.5.2	Switch position identification marking	s at at at .	N/A	
F.3.5.3	Replacement fuse identification and rating markings	white white white we	N/A	

Instructional safeguards for neutral fuse:



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Clause	Requirement – Test	Result – Remark	Verdict
F.3.5.4	Replacement battery identification marking:	No such battery.	N/A
F.3.5.5	Neutral conductor terminal	No such parts.	N/A
F.3.5.6	Terminal marking location	mer the mer of	N/A
F.3.6	Equipment markings related to equipment classification	Class III equipment	N/A
F.3.6.1	Class I equipment	LEX LIFE ALLEY MALLE AN	N/A
F.3.6.1.1	Protective earthing conductor terminal:	W W S	N/A
F.3.6.1.2	Protective bonding conductor terminals:	the state with white white	N/A
F.3.6.2	Equipment class marking:	sur an at at	N/A
F.3.6.3	Functional earthing terminal marking	aller while while while	N/A
F.3.7	Equipment IP rating marking:	This equipment is classified as IPX0.	INLIEK NI
F.3.8	External power supply output marking:	See copy of marking plate.	P
F.3.9	Durability, legibility and permanence of marking Burability, legibility and permanence of marking Burability, legibile and easily discernible. See also the following details.		P
F.3.10	Test for permanence of markings	The label was subjected to the permanence of marking test. The label was rubbed with cloth soaked with water for 15 sec. And then again for 15 sec, with the cloth soaked with petroleum spirit. After this test there was no damage to the label. The marking on the label did not fade. There was no curling and lifting of the label edge. After each test, the marking remained legible.	
F.4	Instructions	it get get get	N P
d de	a) Information prior to installation and initial use	See user manual	Р
WALTE	b) Equipment for use in locations where children not likely to be present	et white white white w	N/A
TER	c) Instructions for installation and interconnection	. at at at a	N/A
an a	d) Equipment intended for use only in restricted access area	white white white white	N/A
nr m	e) Equipment intended to be fastened in place	WITE WITE WATE WALL	~ ⁶ N/A
de de	f) Instructions for audio equipment terminals	s at at at	
- Mur	g) Protective earthing used as a safeguard	LIE MAIL MALL WALL	N/A
* WALTER	h) Protective conductor current exceeding ES2 limits	at allet maret and the and	N/A
st	i) Graphic symbols used on equipment	Sec. 1	N/A



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Clause	Requirement – Test	Result – Remark	Verdict	
Whitek at	j) Permanently connected equipment not provided with all-pole mains switch	AND THE STATE	N/A	
Set a	 k) Replaceable components or modules providing safeguard function 	white white we are	N/A	
m	I) Equipment containing insulating liquid	mill white white wh	N/A	
IF NIF	m) Installation instructions for outdoor equipment	A 14 14 15	N/A	
F.5	Instructional safeguards	in more way with	N/A	
G	COMPONENTS		P	
G.1	Switches	mur me m	N/A	
G.1.1	General	No switch used	N/A	
G.1.2	Ratings, endurance, spacing, maximum load	m. m. m	N/A	
G.1.3	Test method and compliance	THE STREE STILLER SPI	N/A	
G.2	Relays	te m m	N/A	
G.2.1	Requirements	No relay used.	N/A	
G.2.2	Overload test	Store State	N/A	
G.2.3	Relay controlling connectors supplying power to other equipment	WATE MATTE WALTE	N/A	
G.2.4	Test method and compliance	the street of	N/A	
G.3	Protective devices		N/A	
G.3.1	Thermal cut-offs	No such component	N/A	
+ MUTEK	Thermal cut-outs separately approved according to IEC 60730 with conditions indicated in a) & b)	+	N/A	
Julet .	Thermal cut-outs tested as part of the equipment as indicated in c)	when we we and	N/A	
G.3.1.2	Test method and compliance	MALL WALL WALL V	N/A	
G.3.2	Thermal links	No such component	<u></u> ́ Ñ/А	
G.3.2.1	a) Thermal links tested separately according to IEC 60691 with specifics	NI WIT WIT WIT	N/A	
Aller.	b) Thermal links tested as part of the equipment	is whit whit whit	N/A	
G.3.2.2	Test method and compliance	- at at at	N/A	
G.3.3	PTC thermistors	No such component	N/A	
G.3.4	Overcurrent protection devices	No such component	N/A	
G.3.5	Safeguards components not mentioned in G.3.1 to G.3.4	unt wat with w	N/A	
G.3.5.1	Non-resettable devices suitably rated and marking provided	TE WALL MALL WAL	N/A	
G.3.5.2	Single faults conditions:	et aller intre waite	N/A	
G.4	Connectors	the second second	N/A	
G.4.1	Spacings	No such component	N/A	



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Clause	Requirement – Test	Result – Remark	Verdict	
- NIC	N N State of the state of the state	ter white white white	un un	
G.4.2	Mains connector configuration:	the state	N/A	
G.4.3	Plug is shaped that insertion into mains socket- outlets or appliance coupler is unlikely		N/A	
G.5	Wound components	ster ster atter of	N/A	
G.5.1	Wire insulation in wound components	No such component	N/A	
G.5.1.2	Protection against mechanical stress	ret sifet outer unit	N/A	
G.5.2	Endurance test	an an a	N/A	
G.5.2.1	General test requirements	et allet antifer antifer	N/A	
G.5.2.2	Heat run test	the state	N/A	
me in	Test time (days per cycle):	MITER MALTER MALTER	mer -	
St A	Test temperature (°C):	1 A A	d -	
G.5.2.3	Wound components supplied from the mains	WITE MALL MALL WA	N/A	
G.5.2.4	No insulation breakdown	s at at at	N/A	
G.5.3	Transformers	when whe whe	N/A	
G.5.3.1	Compliance method:	the state of the	N/Á	
m a	Position:	white white white	N/A	
NICE IN	Method of protection:	the state	N/A	
G.5.3.2	Insulation	- 4 A. A.	N/A	
fer white	Protection from displacement of windings:	10 - 18 - 3 ¹⁴ - 3	£ _	
G.5.3.3	Transformer overload tests	my my m	N/A	
G.5.3.3.1	Test conditions	of the white white	N/A	
G.5.3.3.2	Winding temperatures	m m r	N/A	
G.5.3.3.3	Winding temperatures - alternative test method	THE MUSE WITH T	SN/A	
G.5.3.4	Transformers using FIW	an an a	N/A	
G.5.3.4.1	General	NUTER INVITE AND AND	N/A	
et et	FIW wire nominal diameter:	a state of	* -	
G.5.3.4.2	Transformers with basic insulation only	the white white white	N/A	
G.5.3.4.3	Transformers with double insulation or reinforced insulation:	- whet while while	N/A	
G.5.3.4.4	Transformers with FIW wound on metal or ferrite core	tet set set	N/A	
G.5.3.4.5	Thermal cycling test and compliance	me me sur sur s	N/A	
G.5.3.4.6	Partial discharge test	THE THE NUTER IN	N/A	
G.5.3.4.7	Routine test	10 m 20	N/A	
G.5.4	Motors	No motors used.	N/A	
G.5.4.1	General requirements	M. W. A.	N/A	
G.5.4.2	Motor overload test conditions	JE JE NIC	N/A	



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	IEC 62368-1	the star stress of the star	197 - 197
Clause	Requirement – Test	Result – Remark	Verdict
G.5.4.3	Running overload test	with with silver all	N/A
G.5.4.4.2	Locked-rotor overload test	at at at	N/A
0.0.4.4.2	Test duration (days):	and and an	31N/A
G.5.4.5	Running overload test for DC motors	the star star star	
G.5.4.5	Tested in the unit	un all all a	
G.5.4.5.2 G.5.4.5.3	Alternative method	at the state of the	N/A N/A
G.5.4.5.3 G.5.4.6		. Mr. Mr. M.	
G.5.4.6 G.5.4.6.2	Locked-rotor overload test for DC motors	t with write with an	N/A
G.5.4.6.2	Tested in the unit	when the second second	N/A
0.5.4.0.0	Maximum Temperature:	a state with an it with	N/A
G.5.4.6.3	Alternative method	all and the	N/A
G.5.4.7	Motors with capacitors	the state state waite	N/A
G.5.4.8	Three-phase motors		N/A
G.5.4.9	Series motors	et alter and the south of	N/A
d	Operating voltage:		
G.6	Wire Insulation		N/A
G.6.1	General	Only ES1 existed	N/A
G.6.2	Enamelled winding wire insulation	and white white	N/A
G.7	Mains supply cords		N/A
G.7.1	General requirements	No such component	N/A
t set	Туре	1 A A At	_
G.7.2	Cross sectional area (mm ² or AWG):	and the second second second	N/A
G.7.3	Cord anchorages and strain relief for non- detachable power supply cords	stret stirt whitet want	N/A
G.7.3.2	Cord strain relief	w w to	N/A
G.7.3.2.1	Requirements	NUTER INTER WALT WALT	N/A
et set	Strain relief test force (N):	i to to to	N/A
G.7.3.2.2	Strain relief mechanism failure	the write write write w	N/A
G.7.3.2.3	Cord sheath or jacket position, distance (mm):	the the	N/A
G.7.3.2.4	Strain relief and cord anchorage material	white white white an	N/A
G.7.4	Cord Entry	at the total of the	N/A
G.7.5	Non-detachable cord bend protection	WALL WALL WALL WALL	N/A
G.7.5.1	Requirements	at at all set	N/A
G.7.5.2	Test method and compliance	the work which we	N/A
NUNLIER.	Overall diameter or minor overall dimension, <i>D</i> (mm)	A MITER WAITER WAITER W	
it.	Radius of curvature after test (mm)		1



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Clause	Requirement – Test	Result – Remark	Verdict	
0.7.0	Curatu witing anone	the superior white and and		
G.7.6	Supply wiring space	1 1 1 1 S	N/A	
G.7.6.1	General requirements	white white white white	_√N/A	
G.7.6.2	Stranded wire	the state of the	N/A	
G.7.6.2.1	Requirements	and when when when	N/A	
G.7.6.2.2	Test with 8 mm strand	t at at the	N/A	
G.8	Varistors	and the second of the second s	N/A	
G.8.1	General requirements	No such component	N/A	
G.8.2	Safeguards against fire	white white white white	N/A	
G.8.2.1	General	at at all all	N/A	
G.8.2.2	Varistor overload test	white white where whe	N/A	
G.8.2.3	Temporary overvoltage test	at let set set	N/A	
G.9	Integrated circuit (IC) current limiters		N/A	
G.9.1	Requirements	No such component	N/A	
4	IC limiter output current (max. 5A)	m. m. m. r.		
JUNITED IN	Manufacturers' defined drift:	Tet wet with all the mult		
G.9.2	Test Program	AND THE AND THE	N/A	
G.9.3	Compliance	At Martin Martin	N/A	
G.10	Resistors		N/A	
G.10.1	General	No such component	N/A	
G.10.2	Conditioning	t t	N/A	
G.10.3	Resistor test	A NETER METER WALL WA	N/A	
G.10.4	Voltage surge test	and the second second	N/A	
G.10.5	Impulse test	NUT INTERNET WATER	N/A	
G.10.6	Overload test	a state of	N/A	
G.11	Capacitors and RC units	MILES MUSE WALL WALL	N/A	
G.11.1	General requirements	No such component	N/A	
G.11.2	Conditioning of capacitors and RC units	NATIONAL WALLS	N/A	
G.11.3	Rules for selecting capacitors	A A A A	N/A	
G.12	Optocouplers	NUT MUT WILL PUT	N/A	
miter whi	Optocouplers comply with IEC 60747-5-5 with specifics	No such component	N/A	
10 50	Type test voltage V _{ini,a} :	a at at at		
June -	Routine test voltage, V _{ini, b} :	LIE MALE MALE MALE	_	
G.13	Printed boards	4 A A A	N/A	
G.13.1	General requirements	Only need to comply with functional insulation, see only B.4.4.	N/A	



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IEC 62368-1				
Clause	Requirement – Test	Result – Remark	Verdict	
mr.		the second second	mer m	
G.13.2	Uncoated printed boards	the state	N/A	
G.13.3 📣	Coated printed boards	antifer antife antife sector	<u>الا کې </u>	
G.13.4	Insulation between conductors on the same inner surface	the the wines an	N/A	
G.13.5	Insulation between conductors on different surfaces	at all the set	N/A	
20	Distance through insulation:	when any and	N/A	
NUTE	Number of insulation layers (pcs):	t at at at	.s —	
G.13.6	Tests on coated printed boards	Mut Mr. M.	N/A	
G.13.6.1	Sample preparation and preliminary inspection	the set set	N/A	
G.13.6.2	Test method and compliance	m m m	N/A	
G.14	Coating on components terminals	the the with a set	N/A	
G.14.1	Requirements:	- 10 - 10	N/A	
G.15	Pressurized liquid filled components	set sites when while	N/A	
G.15.1	Requirements	No such component	N/A	
G.15.2 🚽	Test methods and compliance	white white white	N/A	
G.15.2.1	Hydrostatic pressure test		N/A	
G.15.2.2	Creep resistance test	WALL WALL	N/A	
G.15.2.3	Tubing and fittings compatibility test		<i>⊘</i> ∽∕N/A_	
G.15.2.4	Vibration test	TE WALT WAL WAL	N/A	
G.15.2.5	Thermal cycling test	i at at at	N/A	
G.15.2.6	Force test	when white white	N/A	
G.15.3	Compliance	at the state	N/A	
G.16	IC including capacitor discharge function (ICX)	Martin Martin Martin	N/A	
G.16.1 💉	Condition for fault tested is not required	No such component	N/A	
	ICX with associated circuitry tested in equipment	the me we we	N/A	
er antre	ICX tested separately	at the the the	N/A	
G.16.2	Tests	Mr. Mr. m	N/A	
white N	Smallest capacitance and smallest resistance specified by ICX manufacturer for impulse test :	WALTER WALTER WALTER	anti —	
INTER WIN	Mains voltage that impulses to be superimposed on	mitet whitet whitet w	11 ¹⁰ -	
TEX WALTE	Largest capacitance and smallest resistance for ICX tested by itself for 10000 cycles test:	The suffer suffer and	[et _	
G.16.3	Capacitor discharge test:		. N/A	
Н	CRITERIA FOR TELEPHONE RINGING SIGNAL	S	N/A	
H.1_&	General	1 d A	N/A	
H.2	Method A	STE NUT ON THE	N/A	

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Clause	Requirement – Test	white the se	Result – Remark	Verdict	

Н.3	Method B	AN AN AL	N/A
H.3.1	Ringing signal	No telephone ringing signal generated within the equipment.	N/A
H.3.1.1	Frequency (Hz)	NET WITT WAT WAT	—
H.3.1.2	Voltage (V):	at all the states	
H.3.1.3	Cadence; time (s) and voltage (V):	we we we we	
H.3.1.4	Single fault current (mA):	t stat state when wh	_
H.3.2	Tripping device and monitoring voltage	An In In	N/A
H.3.2.1	Conditions for use of a tripping device or a monitoring voltage	SUNTTRE MATTER MATTER MATTER	N/A
H.3.2.2	Tripping device	at the tree when	N/A
H.3.2.3	Monitoring voltage (V):	in all and an	N/A
J	INSULATED WINDING WIRES FOR USE WITHO	UT INTERLEAVED	N/A
J.1	General	+ let let set si	N/A
20 1	Winding wire insulation:	white white white white	_
NUTER NO	Solid round winding wire, diameter (mm):	the state with	N/A
Set with	Solid square and rectangular (flatwise bending) winding wire, cross-sectional area (mm ²)		N/A
J.2/J.3	Tests and Manufacturing	the mut we a	-20
к	SAFETY INTERLOCKS		N/A
K.1	General requirements	mer mer me me	N/A
WILLIER WI	Instructional safeguard:	No safety interlock provided within the equipment.	N/A
K.2	Components of safety interlock safeguard mec	hanism	N/A
K.3	Inadvertent change of operating mode	ment which which which a	N/A
K.4 🧹	Interlock safeguard override	at let set states	N/A
K.5	Fail-safe	i when when any an	N/A
K.5.1	Under single fault condition	- ret ret with mit	N/A
K.6	Mechanically operated safety interlocks	white white white the	N/A
K.6.1	Endurance requirement	all all all all all the	N/A
K.6.2	Test method and compliance:	in the the	N/A
K.7 🔊	Interlock circuit isolation	TEX SLIER MUTER MAILE	N/A
K.7.1	Separation distance for contact gaps & interlock circuit elements	at the tit the	N/A
<u>lit</u>	In circuit connected to mains, separation distance for contact gaps (mm)	with with the state	N/A



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Clause	Requirement – Test	Result – Remark	Verdict
Whitek a	In circuit isolated from mains, separation distance for contact gaps (mm):	The set set set and	N/A
Set as	Electric strength test before and after the test of K.7.2	(See appended table 5.4.9)	N/A
K.7.2	Overload test, Current (A):	ner which whe with	N/A
K.7.3	Endurance test	it it it set	N/A
K.7.4	Electric strength test	1. Mr. Mr. M. M.	N/A
L	DISCONNECT DEVICES		N/A
L.1	General requirements	my me m m	N/A
L.2	Permanently connected equipment	the state state with	Ñ/A
L.3	Parts that remain energized	me me me	N/A
Ľ.4 🔊	Single-phase equipment	The street when white	N/A
L.5	Three-phase equipment	a the the art	N/A
L.6	Switches as disconnect devices	et with mite white wi	N/A
L.7 🦽	Plugs as disconnect devices	Str. St. St. St. St.	N/A
L.8 <	Multiple power sources	white white white white	⇒Ñ/A
dt .	Instructional safeguard:	and the state	N/A
М	EQUIPMENT CONTAINING BATTERIES AND TH	EIR PROTECTION CIRCUITS	м ^л Р
M.1 🔜	General requirements		P
M.2	Safety of batteries and their cells	white white white white w	P
M.2.1	Batteries and their cells comply with relevant IEC standards	Approved battery pack used	P
M.3	Protection circuits for batteries provided within the equipment	Tet with with mill	- P.
M.3.1	Requirements	me in me	Р
M.3.2	Test method	they while while while	N ^D P
et milet	Overcharging of a rechargeable battery	(See appended table Annex M)	THE P
JEK	Excessive discharging	(See appended table Annex M)	Р
NIT Y	Unintentional charging of a non-rechargeable battery	No such battery used	N/A

Built-in battery used, reverse charging is prevented

spillage of liquid, no explosion of the battery, no emission of flame or expulsion of molten

No chemical leakage, no

metal

Additional safeguards for equipment containing a portable secondary

N/A

Ρ

Ρ

2

02.

Compliance

lithium battery

M.3.3

M.4

Reverse charging of a rechargeable battery



Ι

2

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2m	and the second sec	IEC 62368-1	net and white when	i an a
Clause	Requirement – Test		Result – Remark	Verdict

M.4.1	General	AND AND AND AND	P
M.4.2	Charging safeguards	Under normal operating conditions, abnormal operating conditions or single fault conditions, the charging voltage, charging current of the battery no exceed the maximum specified charging voltage and maximum specified charging current.	
M.4.2.1	Requirements	white white white sur	N/A
M.4.2.2	Compliance:	(See appended table M.4.2)	, P
M.4.3	Fire enclosure:	V-0 fire enclosure used	Р
M.4.4	Drop test of equipment containing a secondary lithium battery	and water water water	Pop
M.4.4.2	Preparation and procedure for the drop test	that at at a	P C
M.4.4.3	Drop, Voltage on reference and dropped batteries (V); voltage difference during 24 h period (%)::	The voltage difference not exceed 5%.	Р
M.4.4.4	Check of the charge/discharge function	Three complete discharge and charge cycles under normal operating conditions.	P
M.4.4.5	Charge / discharge cycle test	No fire, explosion and any electrolyte leakage	Р
M.4.4.6	Compliance	The wait wat wat w	Р
M.5 💉	Risk of burn due to short-circuit during carrying	g & A A	° ₽5®
M.5.1	Requirement	No bare conductive terminal used	Р
M.5.2	Test method and compliance	INTER WATE WATE WATE	√ [™] N/A [→]
M.6	Safeguards against short-circuits	a at at let	P
M.6.1	External and internal faults	with white white white a	N/A
M.6.2	Compliance	The battery complied with IEC 62133-2 which considered the internal fault tests. No such explosion or fire likely to result from short circuits.	Set Purf
M.7	Risk of explosion from lead acid and NiCd batte	eries	N/A
M.7.1	Ventilation preventing explosive gas concentration	No such battery used	N/A
an write	Calculated hydrogen generation rate:	THE STEEL MITER WATER OF	N/A
M.7.2	Test method and compliance		⇒ N/A
white	Minimum air flow rate, Q (m ³ /h)	at outer unite while wh	N/A
M.7.3	Ventilation tests	the state	N/A
M.7.3.1 📣	General	ALTER MATE MALL MAL	-√N/A ≤

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20	IEC 62368-1	star inter show show y	$b_1 = -2a_1$
Clause	Requirement – Test	Result – Remark	Verdict
sur	WI W T A A A A	the water water water water	- m
M.7.3.2	Ventilation test – alternative 1	St St A	N/A
Mr. M	Hydrogen gas concentration (%):	muter insite white white	N/A
M.7.3.3	Ventilation test – alternative 2	Strate of the	N/A
in me	Obtained hydrogen generation rate:	NUTER WALTER WALTE WALT	N/A
M.7.3.4	Ventilation test – alternative 3	a at at at	_<∕N/A
m	Hydrogen gas concentration (%):	SET MALTE WALL WALL W	N/A
M.7.4	Marking:	h at at let i	N/A
M.8	Protection against internal ignition from external spark sources of batteries with aqueous electrolyte		N/A
M.8.1	General	white white white white	~ [©] N/A
M.8.2	Test method	a state	N/A
M.8.2.1	General	LIFE MALTE MALL WALL	N/A
M.8.2.2	Estimation of hypothetical volume Vz (m ³ /s):	i i at at at	10 -0
M.8.2.3	Correction factors:	antic main was we	- The
M.8.2.4	Calculation of distance d (mm):	the states	
M.9	Preventing electrolyte spillage	white white white sure	N/A
M.9.1	Protection from electrolyte spillage	at the state	N/A
M.9.2	Tray for preventing electrolyte spillage	a she was	N/A
M.10	Instructions to prevent reasonably foreseeable misuse	TE WATE WATER WATER	N/A
t Set	Instructional safeguard:	L at at at a	N/A
N	ELECTROCHEMICAL POTENTIALS	MALT WALL WITH WITH	N/A
J.T.E.	Material(s) used:	at at at at	<u></u>
0	MEASUREMENT OF CREEPAGE DISTANCES AND CLEARANCES		N/A
Jet mi	Value of X (mm)	at set set stat	NUT -
P	SAFEGUARDS AGAINST CONDUCTIVE OBJECTS		Р
P.1	General	See below	Р
P.2	Safeguards against entry or consequences of e	entry of a foreign object	P
P.2.1	General	- stat state man and	P
P.2.2	Safeguards against entry of a foreign object	the the second	Р
inter un	Location and Dimensions (mm):	No opening.	num_
P.2.3	Safeguards against the consequences of entry of a foreign object		N/A
P.2.3.1	Safeguard requirements	and the second	N/A
watt	The ES3 and PS3 keep-out volume in Figure P.3 not applicable to transportable equipment	at watter white white w	N/A

N B



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Clause	Requirement – Test	Result – Remark	Verdict
sur	Transportable equipment with metalized plastic	With which all all	N/A
	parts	let tet the state with	
P.2.3.2	Consequence of entry test:	me me me	N/A
P.3	Safeguards against spillage of internal liquids	THE LER NUE MUE	N/A
P.3.1	General	No such liquids.	N/A
P.3.2	Determination of spillage consequences	ret wifet outer wouth an	N/A
P.3.3	Spillage safeguards	the the	N/A
P.3.4	Compliance	t aller while while whi	N/A
P.4	Metallized coatings and adhesives securing parts		N/A
P.4.1	General	No such construction.	⊲ [∩] N/A
P.4.2	Tests	i i it it	N/A
in the	Conditioning, T _C (°C):	LIEL WALT WALL WALL	nn
the set	Duration (weeks):	s at at at	5 ¹⁰ - 5
Q 👋	CIRCUITS INTENDED FOR INTERCONNECTION WITH BUILDING WIRING		P
Q.1	Limited power sources	See appended table Annex Q.1	Р
Q.1.1	Requirements		
ter the	a) Inherently limited output	white white	N/A
et de	b) Impedance limited output		<u> "</u> Р
2h.	c) Regulating network limited output	it whit whe whe s	N/A
t ster	d) Overcurrent protective device limited output	t at at at a	N/A
- 24	e) IC current limiter complying with G.9	MUT MUT MUT M	N/A
Q.1.2	Test method and compliance:	See below	P
ser se	Current rating of overcurrent protective device (A)	See appended table Annex Q.1	Р
Q.2	Test for external circuits – paired conductor cable	No such circuit for connection to the EUT	N/A
m	Maximum output current (A)	let mare white white w	N/A
Att	Current limiting method:	+ + + +	\$ <u>_</u>
R	LIMITED SHORT CIRCUIT TEST		N/A
R.1	General	No such consideration.	N/A
R.2	Test setup	white white white white	N/A
Set St	Overcurrent protective device for test:	at at at at	
R.3	Test method	The Mart Mart Mart 1	N/A
* Jet	Cord/cable used for test:	at at set alt a	50
R.4	Compliance	when when we will	N/A



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Clause	Requirement – Test	white white the	Result – Remark	Verdict	

S 🖉	TESTS FOR RESISTANCE TO HEAT AND FIRE	
S.1	Flammability test for fire enclosures and fire barrier materials of equipment where the steady state power does not exceed 4 000 W	
LIE M	Samples, material	n-in
	Wall thickness (mm)	
MAN	Conditioning (°C)	s. the
MALTER	Test flame according to IEC 60695-11-5 with conditions as set out	N/A
A	- Material not consumed completely	N/A
In the st	- Material extinguishes within 30s	N/A
4	- No burning of layer or wrapping tissue	N/A
S.2 🔊	Flammability test for fire enclosure and fire barrier integrity	N/A
* 1	Samples, material	1 - S
WAL	Wall thickness (mm)	- tu
	Conditioning (°C)	- <u>-</u>
S.3	Flammability test for the bottom of a fire enclosure	N/A
S.3.1	Mounting of samples	N/A
S.3.2	Test method and compliance	N/A
it wi	Mounting of samples	11 - N
100	Wall thickness (mm)	
S.4 ്	Flammability classification of materials	N/A
S.5	Flammability test for fire enclosure materials of equipment with a steady state power exceeding 4 000 W	N/A
st.	Samples, material	1 the
in the	Wall thickness (mm)	16a
et . 54	Conditioning (°C)	(h _ j
Т	MECHANICAL STRENGTH TESTS	N/A
T.1_5	General	N/A
T.2	Steady force test, 10 N	N/A
Т.3	Steady force test, 30 N	N/A
Т.4	Steady force test, 100 N	N/A
T.5	Steady force test, 250 N	N/A
T.6	Enclosure impact test	N/A
	Fall test	N/A
	Swing test	N/A
T.7	Drop test	N/A

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20	IEC 62368-1	all share all share	64. A.
Clause	Requirement – Test	Result – Remark	Verdict
T.8	Stress relief test:	Martin and and and	N/A
т.9 🚿	Glass Impact Test:	No such glass	√ [™] N/A
Т.10	Glass fragmentation test	a to the set	N/A
2 m	Number of particles counted:	No such glass	N/A
T.11 🟑	Test for telescoping or rod antennas		N/A
- Jul	Torque value (Nm):	No such antennas provided within the equipment.	N/A
U	MECHANICAL STRENGTH OF CATHODE RAY TUBES (CRT) AND PROTECTION AGAINST THE EFFECTS OF IMPLOSION		N/A
U.1 📣	General	white white white white	N/A
LIEX MAL	Instructional safeguard:	No CRT provided within the equipment.	N/A
U.2	Test method and compliance for non-intrinsically protected CRTs		N/A
U.3	Protective screen		N/A
V	DETERMINATION OF ACCESSIBLE PARTS		N/A
V.1	Accessible parts of equipment		N/A
V.1.1	General		N/A
V.1.2	Surfaces and openings tested with jointed test probes	a watt wat	N/A
V.1.3	Openings tested with straight unjointed test probes	The the state with a	N/A
V.1.4	Plugs, jacks, connectors tested with blunt probe	Mr. W. W.	N/A
V.1.5	Slot openings tested with wedge probe	* street miret white wh	N/A
V.1.6	Terminals tested with rigid test wire		N/A
V.2 📣	Accessible part criterion	while while while while	_√ [®] N/A
X	ALTERNATIVE METHOD FOR DETERMINING CLEARANCES FOR INSULATION IN CIRCUITS CONNECTED TO AN AC MAINS NOT EXCEEDING 420 V PEAK (300 V RMS)		N/A
et NIE	Clearance:	at that the state	N/A
Y	CONSTRUCTION REQUIREMENTS FOR OUTDO		N/A
Y.1	General	Indoor equipment	N/A
Y.2	Resistance to UV radiation	we we we	N/A
Y.3	Resistance to corrosion	TEK JUEK NUTER NUTE	N/A
Y.3	Resistance to corrosion	when when the state	N/A
Y.3.1	Metallic parts of outdoor enclosures are resistant to effects of water-borne contaminants by	LIER WALTER WALTER WALTE	N/A
Y.3.2	Test apparatus	at the the the	N/A
Y.3.3	Water – saturated sulphur dioxide atmosphere	which which we are	N/A
Y.3.4	Test procedure:	let tet the st	N/A

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Clause	Requirement – Test	Result – Remark	Verdict	
Jun .	with the second se	The stree white white	men me	
Y.3.5	Compliance	No the state	N/A	
Y.4	Gaskets	A NUTER WALTE WALTE	N/A	
Y.4.1	General	w w t	N/A	
Y.4.2	Gasket tests	MUTER WALTER WALL W	N/A	
Y.4.3	Tensile strength and elongation tests	i de de	N/A	
m	Alternative test methods:	ster white white whi	N/A	
Y.4.4	Compression test	L A A A	N/A	
Y.4.5	Oil resistance	e while while white	N/A	
Y.4.6	Securing means	at at at	N/A	
Y.5	Protection of equipment within an outdoor encl	osure	N/A	
Y.5.1	General	at at at	N/A	
Y.5.2	Protection from moisture	lin me me m	N/A	
at intre-	Relevant tests of IEC 60529 or Y.5.3:	at at set as	N/A	
Y.5.3	Water spray test	me m m	N/A	
Y.5.4	Protection from plants and vermin	t the set ste	N/A	
Y.5.5	Protection from excessive dust	and and and	N/A	
Y.5.5.1	General	Lat auto	N/As	
Y.5.5.2	IP5X equipment		N/A	
Y.5.5.3	IP6X equipment	JE NIE OUND	N/A	
Y.6	Mechanical strength of enclosures		N/A	
Y.6.1	General	the introduction while	N/A	
Y.6.2	Impact test:		N/A	



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Clause

Requirement - Test

Result – Remark

Verdict

	ATTACHMENT TO TEST R	EPORT	
(Audic	IEC 62368-1 EUROPEAN GROUP DIFFERENCES AND N v/video, information and communication technology ed		ents)
Difference	s according to: EN IEC 62368-1:2020+A1	1:2020	
Attachmer	nt Form No EU_GD_IEC62368_1E	Tet white white white white	whit
Attachmer	nt Originator: UL(Demko)		
Master Att	achment 2021-02-04		
	© 2021 IEC System for Conformity Testing and Co eneva, Switzerland. All rights reserved.	ertification of Electrical Equipme	ent
in me	CENELEC COMMON MODIFICATIONS (EN)	LIFE WALTE WALTE WALL WA	P
A WALFER	Clause numbers in the cells that are shaded light g IEC 62368-1:2020+A11:2020. All other clause num those in the paragraph below, refers to IEC 62368-	bers in that column, except for	F Pri
When w	Clauses, subclauses, notes, tables, figures and and those in IEC 62368-1:2018 are prefixed "Z".	nexes which are additional to	NIT .
	 Add the following annexes: Annex ZA (normative)Normative references to interr corresponding European publications Annex ZB (normative)Special national conditions Annex ZC (informative)A-deviations Annex ZD (informative)IEC and CENELEC code destinational conditions 	and the set of the	Pa
1	Modification to Clause 3.		N/A
3.3.19			N/A
3.3.19.1	momentary exposure level, MELmetric for estimating 1 s sound exposure level fromthe HD 483-1 S2 test signal applied to bothchannels, 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 additionalinformation.	Not such equipment	N/A
3.3.19.3	sound exposure, E A-weighted sound pressure (p) squared and integrated over a stated period of time, T Note 1 to entry: The SI unit is Pa ² s. T	ALTE MALTER MALTER WATER	N/A
	$E = \int_{0}^{T} p(t)^2 dt$	white white white white	



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Clause	Requirement – Test	Result – Remark	Verdict
Jul	We will be a set of	The white white	me m
3.3.19.4	sound exposure level, SELlogarithmic measure of sound exposure relative to a reference value, <i>Eo</i> , typically the 1 kHz threshold of hearing in humans.Note 1 to entry: SEL is measured as A-weighted levels in dB.	WALTER WALTER WALTER	N/A
	$SEL = 10 \lg \left(\frac{E}{E_0}\right) dB$ Note 2 to entry: See B.4 of EN 50332-3:2017 for additional	et whilet whilet while	wint et wint
NUTER IN	information.	it it it.	LIET INLIE
3.3.19.5	digital signal level relative to full scale, dBFS 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	ATTEX WATER WATER WATER	N/A
WALLEX W	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.	whitet whitet whitet	MITER WALTER
2	Modification to Clause 10		N/A
10.6	Safeguards against acoustic energy sources		N/A
	Replace 10.6 of IEC 62368-1 with the following:		ne ne
10.6.1.1	Introduction	Not such equipment	N/A
	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:	WALTER WALTE WALT	WALL WALLER
	 is designed to allow the user to listen to audio or audiovisual content / material; and uses a listening device, such as headphones or 	WALTER MALTE WALTE	white white
	earphones that can be worn in or on or around the ears; and	WALTER WALTE WALTE	white white
	- 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	ALTER WALTER WALTER WA	er jort v
	continuous use (for example, on a street, in a subway, at an airport, etc.).	fet white white whit	no no
	EXAMPLES Portable CD players, MP3 audio players, mobile phones with MP3 type features, PDAs or similar equipment.	t shiret subject subject	when when
	Personal music players shall comply with the	20. 2. 2	de de



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IEC 62368-1			
Clause	Requirement – Test	Result – Remark	Verdict
sher.	all and a set of	et all all all and	me m
Jet .	NOTE 1 Protection against acoustic energy sources from telecom applications is referenced to ITU-T P.360.	at the fet	JUEK MUTEK
	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.	SUPER WALTER WALTER WA	NATE OF STREE
	Listening devices sold separately shall comply with the requirements of 10.6.6. These requirements are valid for music or video mode only.	tet unitet unitet unit	et while whi
	The requirements do not apply to: – professional equipment;	white white white	with with
	NOTE 3Professional equipment is equipment sold through special sales channels. All products sold through normal electronics stores are considered not to be professional equipment.	Intro white white	Tet un Tet un
	 hearing aid equipment and other devices for assistive listening; the following type of analogue personal music 	A WAITER WAITER WAITE	* white white
	 players: long distance radio receiver (for example, a multiband radio receiver or world band radio receiver, an AM radio receiver), and cassette player/recorder; 	watter watter watter	WALTER WALTER
	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.	See worth worth worth	et vin fet vint
	 a player while connected to an external amplifier that does not allow the user to walk around while in use. 	whitek whitek white	white white
	For equipment that is clearly designed or intended primarily for use by children, the limits of the relevant toy standards may apply.	until white white w	TET W TTET W
et white	The relevant requirements are given in EN 71-1:2011, 4.20 and the related tests methods and measurement distances apply.	et whilet whilet while	at some at some
10.6.1.2	Non-ionizing radiation from radio frequencies in the range 0 to 300 GHz	Intret white white	N/A
	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). For intentional radiators, ICNIRP guidelines should be taken into account for Limiting Exposure to Time Varving Electric Magnetic and	and watter watter wat	ntret minet a
	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.	white white white	whe where



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IEC 62368-1			
Clause	Requirement – Test	Result – Remark	Verdict
. Mar	Mr. W. S.	en and and a state of the second	ner ma
0.6.2	Classification of devices without the capacity to	o estimate sound dose	N/A
0.6.2.1	General	Not such equipment	N/A
	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.	When when the white	A STER S
	For classifying the acoustic output $L_{Aeq, T}$, measurements are based on the A-weighted equivalent sound pressure level over a 30 s period.	WALTER WAITER WALTER W	NUTE WALTE
	For music where the average sound pressure (long term $L_{Aeq, \tau}$) measured over the duration of the song is lower than the average produced by	Tet wiret wiret white	WIT JEK WI
	the programme simulation noise, measurements may be done over the duration of the complete song. In this case, <i>T</i> becomes the duration of the song.	white white white	anit at unit
ant and	NOTE Classical music, acoustic music and broadcast typically has an average sound pressure (long term <i>L</i> Aeq, <i>τ</i>) 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.	White white white white	et whitet
0.6.2.2	RS1 limits (to be superseded, see 10.6.3.2)	the the state with a	N/A
	 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>τ</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 -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. 	and an	A SU LIEK SU SUNT EX SUNT SUTE SUNTER SUNTEX SUNTEX SUNTEX SUNTEX



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Clause	Requirement – Test	Result – Remark	Verdict
sur.	with the state of the state	and the mer while	me m
10.6.2.3	RS2 limits (to be superseded, see 10.6.3.3)	net stet with	LIFE JALIE
	 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>τ</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 	and the analysis and	at an aret and
	simulation noise" as described in EN 50332-1.	et the street outer	MALL MALL
10.6.2.4	RS3 limits	The shi so	N/A
	RS3 is a class 3 acoustic energy source that exceeds RS2 limits.	WALTER MAILER MAILER W	NITER WALTE
10.6.3	Classification of devices (new)	the state of the s	N/А
10.6.3.1	General 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.	Not such equipment	N/A
10.6.3.2	RS1 limits (new)	m m m	N/A
	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 ≤ 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.	and text and	anties anties an anties anties an anties anties anties anties anties anties anties anties anties an anties an an anties an an an an an an an an an an an an an a
10.6.3.3	RS2 limits (new)	the stift white white	N/A
WILLIEK W	RS2 is a class 2 acoustic energy source that does not exceed the following: – for equipment provided as a package (player	Mill whitek whitek w	thet whilet

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Clause	Requirement – Test	Result – Remark	Verdict
AND THE AND	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. – 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.		
10.6.4	Requirements for maximum sound exposure	the she she she	N/A
10.6.4.1	Measurement methods All volume controls shall be turned to maximum during tests. Measurements shall be made in accordance with EN 50332-1 or EN 50332-2 as applicable.	Not such equipment	N/A
10.6.4.2	Protection of persons	att antie on	PS
	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.	white white white	Martiel Martie
	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.	where where where where	at an lifet an
	The elements of the instructional safeguard shall be as follows: - element 1a: the symbol , IEC 60417- 6044 (2011-01) - element 2: "High sound pressure" or equivalent wording	wontret wontret wontret	ALTER WALTER
	 – element 3: "Hearing damage risk" or equivalent wording – element 4: "Do not listen at high volume levels for long periods." or equivalent wording 	t white white white	VILLE VILLE
	An equipment safeguard shall prevent exposure	the state of the	JE NIL

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Clause	Requirement – Test	Result – Remark	Verdict
AND	 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 		NUTER WALTER
	time, independent of how often and how long the personal music player has been switched off. A skilled person shall not be unintentionally	whitek whitek whitek	white white
10.6.5	exposed to RS3. Requirements for dose-based systems	WILL'S WILL SUNT -	N/A
10.6.5.1	General requirements	Not such equipment	N/A
	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.	And the sources and the sources	WALTER WALTER
nutet white	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.	NUTER MALTER MALTER MA	at who set who
10.6.5.2	Dose-based warning and requirements	MALTER MALTER MALTER	N/A
	When a dose of 100 % <i>CSD</i> is reached, and at least at every 100 % further increase of <i>CSD</i> , the	i de st	at at



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Clause	Requirement – Test	Result – Remark	Verdict
unitet al	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 or loss.	ANTITE WITTER WITTER	NICE WILLOW
0.6.5.3	Exposure-based requirements	at the set set	N/A
	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.	whitek whitek whitek	antie antie
	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.	Tet whitet whitet whitet	antis antist
	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.	AND ANT ANT AND A	Tet aniret ani
INLIEK N	NOTE In case the source is known not to be music (or test signal), the EL may be disabled.	net thet whet	NITER WALTER
10.6.6	Requirements for listening devices (headphone	s, earphones, etc.)	N/A
10.6.6.1	Corded listening devices with analogue input With 94 dB <i>L</i> Aeq 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.	Not such equipment	
10.6.6.2	Corded listening devices with digital input	+ 10 10 10	N/A
	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	while while white	NITER WINITER



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Clause	Requirement – Test	Result – Remark	Verdict	
str	W W Star	and the mer which	we we	
whitek w	level control, additional sound features like equalization, etc.) set to the combination of positions that maximize the measured acoustic output, the $L_{Aeq,T}$ acoustic output of the listening device shall be ≤ 100 dB with an input signal of - 10 dBFS.	antifet antifet antifet	NUTER NUTER	
10.6.6.3	Cordless listening devices		N/A	
whitek whitek whitek whitek whitek	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 $LAeq, \tau$ acoustic output of the listening device shall be \leq 100 dB with an input signal of -10 dBFS.	et analiet antiet antiet	white white	
10.6.6.4	Measurement method	white white white	N/A	
NITEX IN	Measurements shall be made in accordance with EN 50332-2 as applicable.		strek strek an	
3	Modification to the whole document		Р	



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n.				IEC	C 62368-1			
Clause	Re	equirement -	- Test	when	24. 24.	Result – Rema	ark	Verdict
Whitek av	De lis		'country" note	s in the refe	rence docum	nent according	to the following	P
	1	0.2.1	Note 1 and 2	1	Note 4 and 5	3.3.8.1	Note 2	et
		3.3.8.3	Note 1	4.1.15	Note	4.7.3	Note 1 and 2	in the
	la.	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	Et whit
	ur.c.s	5.4.2.3.2.4 Table 13	Note 2	5.4.2.5	Note 2	5.4.5.1	Note	whitek
	LS EX	5.4.10.2.1	Note	5.4.10.2.2	Note	5.4.10.2.3	Note	UNLIEK W
	*	5.5.2.1	Note	5.5.6	Note	5.6.4.2.1	Note 2 and 3 and 4	TEX MA
	, i'	5.6.8	Note 2	5.7.6	Note	5.7.7.1	Note 1 and Note 2	ex white
	IN ST	8.5.4.2.3	Note	10.2.1 Table 39	Note 3 and 4 and 5	10.5.3	Note 2	WALTER
	54	10.6.1	Note 3	F.3.3.6	Note 3	Y.4.1	Note	NUTEX .
	Ļ	Y.4.5	Note					at a
. Mate	311	~			.67	v	16. M. V	in white
4	Me	odification f	to Clause 1					Р
1 white	NC ele		ing note: e of certain substa ent is restricted w					N P
5		odification t	o 4.Z1					Р



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Clause	Requirement – Test	Result – Remark	Verdict		
an .	N N THE STATE OF	and the sheet of the sheet	200		
	 Add the following new subclause after 4.9: To protect against excessive current, short-circuits and earth faults in circuits connected to an a.c. mains, protective devices shall be included either as integral parts of the equipment or as parts of the building installation, subject to the following, a), b) and c): a) except as detailed in b) and c), protective devices necessary to comply with the requirements of B.3.1 and B.4 shall be included as parts of the equipment; b) for components in series with the mains input to the equipment such as the supply cord, appliance coupler, r.f.i. filter and switch, short-circuit and earth fault protection may be provided by protective devices in the building installation; c) it is permitted for pluggable equipment, to rely on dedicated overcurrent and short-circuit protection in the building installation, provided that the means of protection, e.g. fuses or circuit breakers, is fully specified in the installation instructions. If reliance is placed on protection in the building installation shall be regarded as providing protection in accordance with the rating of the wall socket outlet. 	1 it it it.			
6 5.4.2.3.2.4	Modification to 5.4.2.3.2.4	No connection to external	N/A		
J.4.Z.J.Z.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.	No connection to external circuit.			
7	Modification to 10.2.1		N/A		
10.2.1	Add the following to c) and d) in table 39: For additional requirements, see 10.5.1.	No such radiation from the equipment.	N/A		
8	Modification to 10.5.1		N/A		



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IEC 62368-1				
Clause	Requirement – Test	Result – Remark	Verdict	
- sur-	W. W. T. L.	and white white white	me m	
10.5.1	 Add the following after the first paragraph: For RS 1 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. 	antifet antifet antifet	N/A	
	 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. 	Antek Mairek Mairek	ALTER WALL	
	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 1996.	the working working working	et was ret was	
9	Modification to G.7.1		N/A	
G.7.1	Add the following note: NOTE Z1 The harmonized code designations corresponding to the IEC cord types are given in Annex ZD.	WALTER WALTER WALTER	N/A	
10	Modification to Bibliography		Р	



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IEC 62368-1					
Clause	Requirement – Test	white where will be	Result – Remark	Verdict	
sur		the standards indicate	to and which when when	P	
	Add the following notes for the standards indicated:				
	IEC 60130-9	NOTE Harmonized as EN 60 NOTE Harmonized as HD 602		2m	
	IEC 60269-2	NOTE Harmonized as EN 60.		1th	
	IEC 60364	NOTE some parts harmonized		Star 5	
	IEC 60601-2-4	NOTE Harmonized as EN 606			
	IEC 60664-5	NOTE Harmonized as EN 606		de .	
	IEC 61032:1997	NOTE Harmonized as EN 610		n in	
	IEC 61508-1	NOTE Harmonized as EN 61			
	IEC 61558-2-1	NOTE Harmonized as EN 615		E SUN	
	IEC 61558-2-4	NOTE Harmonized as EN 615	558-2-4.	20	
	IEC 61558-2-6	NOTE Harmonized as EN 615	558-2-6.	. 15	
	V IEC 61643-1	NOTE Harmonized as EN 616	343-1.	In the second	
	IEC 61643-21	NOTE Harmonized as EN 616	343-21.		
	IEC 61643-311	NOTE Harmonized as EN 616	643-311.	15	
	IEC 61643-321	NOTE Harmonized as EN 616		11 - 11	
	IEC 61643-331	NOTE Harmonized as EN 616	643-331.	*	
11		EXES		P	
ZB 🦽	ANNEX ZB, SPECIA	L NATIONAL CONDITIONS	(EN)	Р	
4.1.15	Denmark, Finland, N	lorway and Sweden	Not directly connected to the	N/A	
NUTER WALTER	 added: Class I pluggable ed connection to other e if safety relies on con if surge suppressors network terminals and marking stating that t connected to an earth The marking text in th be as follows: In Denmark: "Apparate stikkontakt med jord s stikproppens jord." In Finland: "Laite on varustettuun pistoras In Norway: "Apparate stikkontakt" 		antitet whitet whitet white		
4.7.3	United Kingdom	et oure unite anti-	and me me m	N/A	
	To the end of the sub added:	clause the following is	Set whilet whilet while a	N'TEN NI	
	complying with BS 13	formed using a socket-outlet 363, and the plug part shall be ant clauses of BS 1363. Also his annex	and the second second second	STA WINES	



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	IEC 62368-1	the market	
Clause	Requirement – Test	Result – Remark	Verdict
an 1		the street of the self of the	the appendix
5.2.2.2	Denmark 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.	No high touch current measured.	N/A
5.4.11.1	Finland and Sweden	No such external circuits.	N/A
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:	antifet white white white	unt untre
	 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 	Tet whitet whitet whitet	an anite an
	• one layer having a distance through insulation of at least 0,4 mm, which shall pass the electric strength test below.	white white white white	Tet white
	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	and son white white	t shiret s
	• 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),	Whitek whitek whitek white	WELFEX M
	and	t set set set	NUTEX UNIT
	 is subject to routine testing for electric strength during manufacturing, using a test voltage of 1,5 kV. 	white white white	LIET WALTER
	It is permitted to bridge this insulation with a capacitor complying with EN 60384-14:2005, subclass Y2.	ALTER WALTER WALTER WALTE	A MUTER S
	A capacitor classified Y3 according to EN 60384- 14:2005, may bridge this insulation under the following conditions:	t ret ret united	win it win
	 the insulation requirements are satisfied by having a capacitor classified Y3 as defined by EN 60384-14, which in addition to the Y3 	white white white w	iet whitet



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IEC 62368-1					
Clause	Requirement – Test	Result – Remark	Verdict		
sur	with the state of	it will ment when	me m		
	testing, is tested with an impulse test of 2,5 kV defined in 5.4.11;	THE STIRE STIRE IN	NUTEK WALTER		
	 the additional testing shall be performed on all the test specimens as described in EN 60384- 14; 	LIFE MALTER WALLER WAL	fet water w		
EX WALTER	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.	et unifet unifet unife	while whi		
5.5.2.1	Norway	t set set set	N/A		
	After the 3rd paragraph the following is added:	white white white	at set		
inthe all	Due to the IT power system used, capacitors are required to be rated for the applicable line-to-line voltage (230 V).	MUTCH WALTER WALTE WA	et ret		
5.5.6	Finland, Norway and Sweden	No such resistors.	N/A		
	To the end of the subclause the following is added:	A stet stret miret	Whitek whit		
	Resistors used as basic safeguard or bridging basic insulation in class I pluggable equipment type A shall comply with G.10.1 and the test of G.10.2.	white white white	MITEK WMITEK		
5.6.1 🔊	Denmark	No such equipment.	N/A		
	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. <i>Justification:</i>	WALTER WALTER WALTER	antife antife		
	In Denmark an existing 13 A socket outlet can be protected by a 20 A fuse.	UNLIEK WALTER WALTER W	Mart Martin		
5.6.4.2.1	 Ireland and United Kingdom After the indent for pluggable equipment type A, the following is added: the protective current rating is taken to be 13 A, this being the largest rating of fuse used in the mains plug. 	et wattet wattet watte	N/A		
5.6.4.2.1	France	At Str Str	N/A		
MUTER UN	After the indent for pluggable equipment type A , the following is added: – in certain cases, the protective current rating of the circuit supplied from the mains is taken as 20 A instead of 16 A.	NATE WATER WATER WATER			
5.6.5.1	To the second paragraph the following is added:	the wath wat war	N/A		
	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 ² to 1,5 mm ² in cross-sectional area.	would would would	white white		



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	IEC 62368-1	r m m m	
Clause	Requirement – Test	Result – Remark	Verdict
<u> </u>	Nerver	white white white	Julie All
5.6.8	 Norway 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 	antifet antifet antifet an	
and a	accepted.	the state strate out	me m
5.7.6	 Denmark To the end of the subclause the following is added: The installation instruction shall be affixed to the equipment if the protective conductor current exceeds the limits of 3,5 mA a.c. or 10 mA d.c. 	antiet antiet antiet	
5.7.6.2	Denmark	set ster street	P
et whitek	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.	WIND WINTER WINTER	t white the white
5.7.7.1	Norway and Sweden	Not such system.	N/A
	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.	ter ynnifer ynnifer ynnifer ynnifer ynnifer ynnifer ynnifer ynnifer ynnifer	et waster was
	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.	unite unit unit	Tet Mater w
	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:	at whitet whitet white	white white
	 "Apparatus connected to the protective earthing of the building installation through the mains connection or through other apparatus with a connection to protective earthing – and to a television distribution system using coaxial cable, may in some circumstances create 	when when we wanted when the states when the s	net whitek
	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)"	wontret wontret wontre	white white
	NOTE In Norway, due to regulation for CATV-installations, and	unti white white	$u_{n} = u_{n}$



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IEC 62368-1					
Clause	Requirement – Test	Result – Remark	Verdict		
whitek wh	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.	White white white white	t wnifet		
	Translation to Norwegian (the Swedish text will also be accepted in Norway):	whet minet anitet waitet	WALTER WY		
	"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."	watter water watter	s ex unit		
net ynnife Fet ynnife ynnifet	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 medfőra risk főr brand. Főr att undvika detta skall vid anslutning av apparaten till kabel-TV nät galvanisk isolator finnas mellan apparaten och kabel-TV nätet."	ANTER MATTER WATER WATER	and an area and area and analog an an an an an an an an an an an an an		
8.5.4.2.3	United KingdomAdd the following after the 2 nd dash bullet in 3 rd 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.	No external circuits.	N/A		
B.3.1 and B.4	Ireland and United Kingdom The following is applicable: To protect against excessive currents and short- circuits in the primary circuit of direct plug-in equipment, 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 direct plug-in equipment, until the requirements of Annexes B.3.1 and B.4 are met	Not directly connected to the mains	N/A		
G.4.2	Denmark 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	Not directly connected to the mains	N/A		



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IEC 62368-1				
Clause	Requirement – Test	Result – Remark	Verdict	
NIL.	rules shall be provided with a plug in accordance	The street way to be	t at	
	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.	Whitek whitek whitek whitek	Whitek w	
	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.	your of the would would would	IE WALTER	
	Other current rating socket outlets shall be in compliance with Standard Sheet DKA 1-3a or DKA 1-1c.	and whitek whitek whitek	un Jex wh	
	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	Tet whitet whitet whitet wh	ET ANNUT	
	<i>Justification:</i> Heavy Current Regulations, Section 6c	and an area white	WALTER D	
G.4.2	United Kingdom	Not directly connected to the	N/A	
	To the end of the subclause the following is added:	mains	in the sure	
MALTER M	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.	antick which which which	50 - 500-500 81 - 500-500 81 - 500-500	
G.7.1	United Kingdom	at at at at.	N/A	
	To the first paragraph the following is added: Equipment which is fitted with a flexible cable or cord and is designed to be connected to a mains socket 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.	SUPER	er suntret	
	NOTE "Standard plug" is defined in SI 1768:1994 and essentially means an approved plug conforming to BS 1363 or an approved conversion plug.	et whitet whitet white wh	in whi	

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IEC 62368-1				
Clause	Requirement – Test	Result – Remark	Verdict	
G.7.1	Ireland To the first paragraph the following is added:	The street out of the	N/A	
Street white	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	White white white	street wo	
G.7.2	Ireland and United KingdomTo the first paragraph the following is added:	watte watte water wat	N/A	
untites wi trest acti	A power supply cord with a conductor of 1,25 mm ² is allowed for equipment which is rated over 10 A and up to and including 13 A.	minet whitet whitet whitet	White W	
zc	ANNEX ZC, NATIONAL DEVIATIONS (EN)			
10.5.2	Germany The following requirement applies:	No CRT within the equipment.	N/A	
	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.	antifet antifet antifet antifet	white.	
	<i>Justification</i> : German ministerial decree against ionizing radiation (Röntgenverordnung), in force since 2002-07-01, implementing the European Directive 96/29/EURATOM.	White white white white	et watter	
WALTER W	NOTE Contact address: Physikalisch-Technische Bundesanstalt, Bundesallee 100, D- 38116 Braunschweig, Tel.: Int+49-531-592-6320, Internet: http://www.ptb.de	Whitek whitek whitek white	WALTER V	
ZD	IEC and CENELEC CODE DESIGNATIONS FOR	FLEXIBLE CORDS (EN)	Р	

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in m		IEC 62368-1	
Clause	Requirement – Test	Result – Remark	Verdict
m	the the second	at the star with min	when when when

	Type of flexible cord	Code de:	signations
		IEC	CENELEC
	PVC insulated cords		
	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		
	Rubber insulated and sheathed cord	60245 IEC 86	H03RR-H
	Rubber insulated, crosslinked PVC sheathed cord	60245 IEC 87	ноз р v4-н
	Crosslinked PVC insulated and sheathed cord	60245 IEC 88	H03V4V4-H
	Cords insulated and sheathed with halogen- free thermoplastic compounds		
N 1	Light halogen-free thermoplastic insulated and sheathed flexible cords		H03Z1Z1-F H03Z1Z1H2-
	Ordinary halogen-free thermoplastic insulated and sheathed flexible cords		H05Z1Z1-F H05Z1Z1H2-



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an	IEC 62368-1		
Clause	Requirement – Test	Result – Remark	Verdict

.2	TABLE: Classification of electrical energy sources							
Supply Voltage	Location (e.g. circuit	Test conditions Parameters					ES Class	
	designation)		U (V)	I (mA)	Type ¹⁾	Additional Info ²⁾	Class	
+ st	THE STREET ON	Normal	5.0VDC		SS	DC	ES3	
5VDC	Input circuit	Abnormal		JER HITE	mer- v	1 Mr.	m	
NALIE MALE VALIE VALIE	Single fault – SC/OC	m - n	t Set	LISK M	et	NULTER		
de la	at the state	Normal	4.2VDC	200- 2	SS	DC	ES1	
4.2VDC	Earbud battery	Abnormal	dt - 18t		Ser Jule	we w	3	
et antiet	MUTER WALTER W	Single fault – SC/OC		10 _ 10	5	NUTER INT	ex	
	at let 5	Normal	4.2VDC	1. Tu	SS	DC	ES1	
4.2VDC	Charging box	Abnormal	,t÷	et - tet	J. 19	LE JALIE	WALTE	
	battery	Single fault – SC/OC	one - m		- `.	st Tret	. Liet	

Supplementary information:

Type: Steady state (SS), Capacitance (CP), Single pulse (SP), Repetitive pulses (RP), etc.
 Additional Info: Frequency, Pulse duration, Pulse off time, Capacitance value, etc.

3) Test Conditions:

Normal -Full load and no load.

Abnormal - Overload output

SC= short circuit; OC= open circuit

5.4.1.8	TABLE: Working	g voltage measu	rement		N/A
Location		RMS voltage (V)	Peak voltage (V)	Frequency (Hz)	Comments
Free Mail	white white	· m m	. . .	d0	with a state white wh
-	the state	Tet	Will BUT	me -m	Mr. Mr
Suppleme	ntary information:		·		

5.4.1.10.2	TABLE: Vicat softening temperature of thermoplastics						
Method			ISO 306 / B50	et aller			
Object/ Par	t No./Material	Manufacturer/trademark	Thickness (mm)	T soften	ing (°C)		
Ar white	mer mer m	1 - 1 It	Tet Jet alle	Inthe M	in wh		
Supplemen	tary information:						
JAN I	m m m	A A A	et set se	NUT MAI	ant		

5.4.1.10.3 **TABLE:** Ball pressure test of thermoplastics

N/A



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		IEC	62368-1			
Clause	Requirement	t – Test	h. m.	Result	t – Remark	Verdict
she	m. n.	and the second	15 50	5 S	the other white	when when
Allowed in	pression diame	eter (mm)	:	≤ 2 mr	n	- In the second
Object/Par	t No./Material	Manufacturer/trademark	Thickness	s (mm)	Test temperature (°C)	Impression diameter (mm)
ATTE MAL	we we	- 24, 24, 24, 24	.dt	Set	with the state	in white
Suppleme	ntary information	n:				
1	an an	In man	de la	dr.	ST 58 5	and and

5.4.2, 5.4.3 TABLE: Minimum Clearances/Creepage distance										
Clearance (cl) and creepage distance (cr) at/of/between:	U _p (V)	U _{rms} (V)	Freq ¹⁾ (kHz)	Required cl (mm)	cl (mm)	E.S. ²⁾ (V)	Required cr (mm)	cr (mm)		
- i it it	d-	Set .	NUL .	min - mi	4	4	-m - 2			
Supplementary information:										

Only for frequency above 30 kHz
 Complete Electric Strength voltage (E.S. (V) when 5.4.2.4 applied)

5.4.4.2	TABLE: Minimum distance through insulation						
Distance th (DTI) at/of	rough insulation	Peak volta	ge (V)	Insulation*	Required DTI (mm)	Measured DTI (mm)	
Pril Marth			jit.		Intre wat	men m	
Supplemen	itary information:						
*See also s	sub-clause 5 4 4 9			1 S 8	the state of the s	aller aller	

5.4.4.9 TABLE: Solid insulation at frequencies >30 kHz							
Insulation material	EP	Frequency (kHz)	KR	Thickness d (mm)	Insulation	V _{PW} (Vpk)	
	yth	Cret Multe	in the	- m.	The second	54	
Supplementary information:				•	•		

5.4.9	TABLE: Electric strength	tests		N/A
Test volta	ge applied between:	Voltage shape (Surge, Impulse, AC, DC, etc.)	Test voltage (V)	Breakdown Yes / No
Functiona	F. m. m. m.	at let let set	White white whi	men m
	at what what while a	ner a transmission		- # 3
Basic/sup	plementary:	the set stat with a	stife while while	me m
#	TEX NITER MUTER WAY	- m - m m	The state	_d+d*
Reinforce	d:	- the the with mi	white white	me m
	with aller and sample	me -m m		10 -50 ···
Routine T	ests:	the state state with	in the second	11 1



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n.	shi it it it	IEC 62368-1	an in
Clause	Requirement – Test	Result – Remark	Verdict
. Jr	Mr. Mr. M.	at the star star with	unit with

-------Supplementary information:

5.5.2.2	TABLE: Stored discharge on capacitors						
Location		Supply voltage (V)	Operating and fault condition ¹⁾	Switch position	Measured voltage (Vpk)	ES Class	
n. 4		Stor At	Normal	white white	in the	. <u>4</u>	
WILLIEK WIT	ret white	water - white a	Single fault: SC/ OC	NUTER MUTER	MALIEK MAL	et whitet w	

Supplementary information:

X-capacitors installed for testing are:

[] bleeding resistor rating:
 [] ICX: 1) Normal operating condition (e.g., normal operation, or open fuse), SC= short circuit, OC= open circuit

5.6.6 TABLE: Resistance of	protective condu	N/A 🖑		
Location	Test current (A)	Duration (min)	Voltage drop (V)	Resistance (Ω)
	ar mar			
Supplementary information:				

5.7.4	TABLI	LE: Unearthed accessible parts							
Location		Operating and	Supply	F	Parameters		ES class		
		fault conditions	Voltage (V)	Voltage (V _{rms} or V _{pk})	Current (Arms or Apk)	Freq. (Hz)			
L/N to secondary terminals	Normal	1 - At	JEt STEE	INLITE TONICE	n	-in			
	Abnormal: overload	51 <u>- 2</u> 1 	an <u>an</u> An Air	Jet Jet of	TEK	et rel white			
stret suret		Single fault: SC/ OC	10 11	r <u>m</u> m	*	* <u></u>	MUTER		
Supplement	tary info	ormation:							
SC= short c	circuit; C	DC= open circuit	de a	4 1	- 15 A	S.C.	5°		

5.7.5 TABLE: Earthed accessible conductive part						
Supply voltage (V)	- ex ret with with mill whit whit					
Phase(s)	[] Single Phase; [] Three Phase: [] Delta [] Wye					
Power Distribution System	[]TN _[]TT _[]IT					
Location	Fault Condition No in IEC 60990 clause 6.2.2	Touch current (mA)	Comme	nt		



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Self.		IEC 62368-1	
Clause	Requirement – Test	Result – Remark	Verdict
	A 10 9 1		

- A A A A A	Stand and and and	10 - 20 -	i the state
Metal enclosure	neutral open	0.024	ES1
Supplementary Information:			
with white white white	Nº V	1 1 5	a stree with some

5.8 TABLE: Backfeed safeguard in battery backed up supplies								
Location	Supply voltage (V)	Operating and fault condition	Time (s)	Open-circuit voltage (V)	Touch current (A)	ES Class		
m m.	· · ·	at - at 5	at aller	NUT WALL	mr - m	10		
Supplementary inf	ormation:	·						

6.2.2	TAE	ABLE: Power source circuit classifications							
Location		Operating and fault condition	Voltage (V)	Current (A)	Max. Power ¹⁾ (W)	Time (S)	PS class		
5V Input cir	cuit	Pin + to -	5. 11 <u>0</u> . 1	/		5S	PS1		
Earbud bat	tery	Output pin + to -	3.7	0.48	1.78	5S 5	PS1		
Charging box battery		Output pin + to -	3.7	0.26	0.97	5S	PS1		
Supplement	ary in	formation:							

Measured after 3 s for PS1 and measured after 5 s for PS2 and PS3

* Unit shutdown immediately, recoverable, no hazard.

6.2.3.1 TABLE: Determination of Arcing PIS								
Location		Open circuit voltage after 3 s (Vpk)	Measured r.m.s current (A)	Calculated value	Arcing PIS? Yes / No			
	A NUTER WALTER	WITT ATT AND		at the s	1. The S			
Supplemen	tary information:	·						
		NIT WALL AN	*	s at the				

6.2.3.2 TABLE: Det	N/A		
Location	Operating and fault condition	Dissipate power (W)	Arcing PIS? Yes / No
All primary circuits/components	t at the lifet with	MITEX WAITER WAITER WA	Yes (declaration)

Supplementary information:

All circuits are considered as resistive PIS;

A combination of voltmeter, VA and ammeter IA may be used instead of a wattmeter.

If a separate voltmeter and ammeter are used, the product of (VA x IA) is used to determine Resistive PIS classification.

A Resistive PIS: (a) dissipates more than 15 W, measured after 30 s of normal operation, or (b) under single fault conditions has either a power exceeding 100 W measured immediately after the introduction of the fault if electronic circuits, regulators or PTC devices are used, or has an available power exceeding 15 W measured



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e 20	the state of the	IEC 62368-1	24. 24.
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30 s after introduction of the fault.

Г

8.5.5 TABLE: High pressure lamp					
Lamp manu	ufacturer	Lamp type	Explosion method	Longest axis of glass particle (mm)	Particle found beyond 1 m Yes / No
- mr	me m	- + A	- JEt JIEt MI	NALL WALL	mr mr
Supplemen	tary information:				

9.6 TABL	E: Temper	ature mea	suremen	ts for wirel	ess power	transmitte	ers	N/A 🔊
Supply voltage (V)			m	r. mr	201- 1	14	L	
Max. transmit powe	er of transr	nitter (W)		+ JIEK	WITER M	LIE MALTE	mer	
				ceiver and contact	with receiver and at distance of 2 mm		with receiver and distance of 5 mr	
Foreign objects	Object (°C)	Ambient (°C)	Object (°C)	Ambient (°C)	Object (°C)	Ambient (°C)	Object (°C)	Ambient (°C)
**	st			1 1 1 - 1 L	- 12 M	m - n	-20	
Supplementary info	ormation:			<u> </u>				

5.4.1.4, 9.3, B.1.5, B.2.6	TABLE: Tem	perature m	easurem	ents				P LIT MITT			
Supply volta	age (V)		:	<u></u> (1)	2)	10-		_			
Ambient ter	nperature durin	g test <i>T</i> amb (°C):	25.0	25.0	* <u>55</u>	NUTE NOU	_			
Maximum n	Maximum measured temperature <i>T</i> of part/at:				T	(°C)		Allowed T _{max} (°C)			
Surface of E	arbud battery	1. At	Set a	35.8	29.7	m -m	-01	45			
Surface of Charging box battery				30.1	26.3	5 ⁴ -5	S State	45			
Internal wire	Internal wire				26.1	- <u>~</u>		80			
Internal enc	losure of Earbu	d	1	27.6	27.8	et soft	IN THE M	Ref.			
External en	closure of Earbu	id 🦾	Martin	27.3	26.2			77			
Internal enc	losure of Charg	ing box	, etc.	33.9	25.9		Une Dury	Ref.			
External end	closure of Char	ging box	ann -	30.8	25.5	~	* - ×	77			
Botton	the m		et .	25.0	25.0	in the time	Mar.	77			
Temperatur winding:	e T of	t1 (°C)	R1 (Ω)	t ₂ (°C)	R ₂ (Ω)	T (°C)	Allowed T _{max} (°C)	Insulation class			
- 1	at at	A- 5	J. C.	w 1	1 21	-20		4 - A			

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20	A A A	EC 62368-1	the the
Clause	Requirement – Test	Result – Remark	Verdict

* Temperature limit for TS1 of accessible enclosure according to Table 38 to be measured at normal ambient temperature.

Note 1: The apparatus was submitted and evaluated for maximum manufacturer's recommended ambient (Tma) of 25°C.

Note 2: The temperatures were measured under the worse case normal mode defined in clause B.2.1.

- 1. Test 1) charger mode; test 2) discharger mode
- 2. Battery charging temperature upper limit is 45°C

B.2.5	TA	BLE: In	out test					at at at a P
U (V)	Hz	I (A)	I rated (A)	P (W)	P rated (W)	Fuse No	I fuse (A)	Condition/status
5VDC		0.18	0.2	0.9	WALTER	WITE	WALTE	Powered by 5VDC with empty battery(at battery charging mode)
4.2VDC		0.20	et ret	0.84	ount cert	miret.	minet v	Charging box battery (Discharging mode with fully charged battery)

Supplementary information:

The maximum measured current under rated voltage did not exceed 110% of the rated current.

Ambient temper Power source fo Component No. Speaker Powered by 5VI B+ to P-	rature T _{amb} (°				ion tests	1 A. A.	∕P
Component No. Speaker Powered by 5VI	and a second sec	C)		<u></u>	: See b	elow	
No. Speaker Powered by 5VI	or EUT: Man	ufacturer, mo	del/type, c	outputrati	ng:	and the states	
Powered by 5VI	Condition	Supply voltage (V)	Test time	Fuse no.	Fuse current (A)	Observation	า
st st	SC	4.2	30min	miter w	0.018	Speaker no voice, no hazard.	damage,no
B+ to P-	DC with emp	ty battery(at b	pattery cha	arging mo	ode)	INTE WALL WALL	men 1
	SC	5VDC	7h		0.11	Unit normal working, r damaged, No hazard.	NUTER WY
Capacitance	SC	5VDC	10mins	- SULL	0.01	Unit shut down, no da hazard.	maged, No
Powered by Li-io	on Battery (D	Discharging m	ode with f	ully char	ged battery)	me m m	i. A
B+ to B-	SC	4.2VDC	10min	178 <u>4</u>	5 ^{ch} 0,5 ^{ch}	Unit shut down, no da hazard.	maged, No
B- to P+	SC SC	4.2VDC	7h	ar - 3	0.077	Unit shut down, no da hazard.	maged, No
Supplementary i	information:						

¹⁾ Supply by external DC source, ²⁾ Measured battery cell voltage and current.

Test table is provided to record abnormal and fault conditions for all applicable energy sources including Thermal burn injury. Column "Abnormal/Fault." Specify if test condition by indicating "Abnormal" then the condition for a Clause B.3 test or "Single Fault" then the condition for Clause B.4.

1) s-c: Short-circuited; o-l: Overloaded; BL=Blocked.

2) The test result shown all safeguards remained effective and didn't lead to a single fault condition during abnormal operating condition; In addition all safeguards complied with applicable requirements in this



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in an	State at	IEC 62368-1	24
Clause	Requirement – Test	Result – Remark	Verdict

standard after restoration of normal operating conditions. 3) The test result showed no Class 1 or 2 energy source become Class 3 level during and after single fault condition.

4) Limit temperature: Plastic material: 87°C

M.3	TABLE: Pr	otection circ	uits f	or batteri	es provid	ded v	vithin	the eq	uipment	Р		
Is it possible	to install the	battery in a r	evers	e polarity	position?			* 4	et set			
					(Char	ging					
Equipment S	Specification		Vc	oltage (V)					Current (A)			
		1 5	-	5Vdc	in which	de.		n.	0.2A			
					Batter	y spe	ecificat	ion				
		Non-recharg	eable	batteries			Rec	hargeal	ole batteries			
		Discharging		ntentional		Char	ging		Discharging	Reverse		
Manufact	urer/type	current (A)		harging Irrent (A)	Voltage	(V)	Curr	ent (A)	current (A)	charging current (A)		
Shenzhe Technology APL 5020	/ Co., Ltd /	MALTER WALTER WALTER WA		3.7	5 ⁶⁷ -	5 ° 0	.05	0.25	et miret			
Note: The tes	sts of M.3.2 a	are applicable	only	when abov	e approp	riate	data is	s not av	ailable.			
Specified bat	ttery tempera	ature (°C)	24			;	<u>水</u>	1	10-45			
Component No.	Fault condition	Charge/ discharge mode		Test time	Temp. (°C)		irrent (A)	Voltag (V)	e Obs	ervation		
Battery (charge base)	Capacitor SC	Charge	Charge 7h			1	0	MALTE	Unit shutdown immediately. Recoverable. No damaged, no hazard.			
Supplementa	ary informatic	n:										
		circuit; OC= o ission of flam						e; NS=	no spillage o	f liquid; NE=		
	TABLE: Cha	arging safegu	uards	s for equi	pment co	ontai	ning	a seco	ndary lithiun	n Che P		
Maximum sp	ecified charg	ging voltage (\	/)	11	<u></u>	: 4	4.0			_		
Maximum sp	ecified charg	ging current (A	۹)		÷	2: E	5	NUTE:	untre un	<u> </u>		
Highest spec	ified chargin	g temperature	e (°C))		:^	45		1 1	<i></i>		
Lowest spec	ified charging	g temperature	e (°C)			: _5	10	J.L.E.	Inter where			
Battery		perating		Mea	suremen	t			Observ	vation		
manufacturer			Charg Itage		narging rent (A)	-	Temp. (°C)					
Lowest speci	fied charging	temperature:	10°C	C (Battery (earbuds))).et-	STER	NUTE	White M	the man		
Zaoyang Gez Electronic	xin N	lormal	4.2	v _v).029		Battery peratu		e battery cha creases	rging current		



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2m	20		at a	IEC 62368-	1 NIT MAIL	wat wat	2h 2h
Clause	Require	ment – Test	WALL WAL	- m.	Result – Rer	Result – Remark	
- m 1	1. 2.			<u></u>	all and the second	ha when al	V. M.
Technology LTD / 40090		at Sat	STE MAT	m m	10°C	de de	st st
LTD / 40090	19 (10)	Abnormal-		1 5	6 _5 ⁴ _5	Pet intite way	WILL .
NUTER MALIER MALIE		Single fault -	WITTE V	nin - whi set minet	Battery temperature: 10°C	The battery charging currer decreases	
Highest spe	cified cha	rging temperate	ure: 45°C (Ba	ttery (charge	base))	at set	.5 ¹⁰ .5
Shenzhen iPlan Technology Co., Ltd / APL 502030 3.7V		Normal	4.20	0.029	Battery temperature: 45°C	The battery cha stop charging	arging circuit
		Abnormal-	Jet Jules	mer - m	- m.	- i to the	
		Single fault _	* white s	NUTEK WINITE	Battery temperature: 45°C	The battery charging circuit stop charging	
Lowest spec	cified chai	rging temperatu	ıre: 10°C (Bat	ttery (earbude	s))	me m	m. w.
Zaoyang Gexin Electronic Technology Co.,	Co.,	Normal	4.2	0.008	Battery temperature: 10°C	The battery cha decreases	arging curren
LTD / 40090)9°^	Abnormal-		10- 1	كى كىكى خۇ	et intre in	in which
	M	Single fault –	un al	100 - 10 164 - 176	Battery temperature: 10°C	The battery cha decreases	arging curren
Highest spe	cified cha	rging temperate	ure: 45°C (Ba	ttery (charge	base))	the state	Ster S
Shenzhen iF Technology / APL 50203	Co., Ltd	Normal	4.20	0.008	Battery temperature: 45.6°C	The battery cha stop charging	arging circuit
	de la	Abnormal-	LIER TONIC	mr - m	- 10 - 10.	-	t it
	wat t nifet	Single fault _	at while v	NUTEX WALT	Battery temperature: 45.6°C	The battery cha stop charging	arging circuit
Supplement	ary inforn	nation:					
	pecified c	harging curren			ximum specified d charging temp		

Q.1	TABLE: Circuits inte	nded for inte	erconnectio	n with build	ding wiring	(LPS)	N/A
Output Circuit	Condition		Time (s)	I _{sc} ((A)	S (VA)	
	Condition	U _{oc} (V)	Time (s)	Meas.	Limit	Meas.	Limit
LTE MALTE	mer mer me	4	at the	Let .	JEK JE	- INLITE - N	L'IL MAL
e it	set set set	white whi	me	me m	20.		at at
white y	un mu mu		+ 15	Set S	* NUTER	IN THE ME	in mar
dt.	let set set	Siles were	my 1	1. In		A 0	t At

Supplementary Information:



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2. 24	the state	IEC 62368-1	1. Ca.
Clause	Requirement – Test	Result – Remark	Verdict

SC = short circuit, OC = open circuit * Unit shutdown immediately, recoverable, no hazard.

T.2, T.3, T.4, T.5	TABLE: S	teady force te	st			whitek whitek whitek w	< N//
Location / Part	Material	Thickness (mm)	Probe	Force (N)	Test Duration (s)	Observation	
NUTET IN	in white	when wh	- nn		. it	at the set set when	100
20 . 2	e de	15 1	t stek	MUTT	me m	and the the	
NETE ME	where .	mer mer	2m	1	t i	the set when a start of	N.S.C.
Supplementa	ary informati	on:					

T.6, T.9	TABLE: Impa	ct test	N/A		
Location/Pa	rt Material	Thickness (mm)	Height (mm)	Observation	
m. n		at at a	it when	all wait water water water water	
Set S	1 . Ya	The second	1	at the state state of	
n in			NUTER OF	The second secon	
Supplement	tary information	:			
*Test was n	erformed on pr	oduct with each so	urce listed in	table 4.1.2	

т.7 Т	ABLE: Drop	test		N/
Location/Part	Material	Thickness (mm)	Height (mm)	Observation
10 10	5 th .5	The Martin Walt	m 2	i i to to to
e m	an an	L A	Set is	et with white white white white
t st	Set Ste	INTE WALT	m. m.	i i i it it it
Supplementar	y information	:	II	

T.8	TABLE: Stre	ss relief test	m	24. 24.	1 A	A	1. the	N/A
Location/Pa	rt Material	Thickness (mm)	Oven Temperatur e (°C)	Duration (h)		Observ	ation	
	1 1	. tet suffer	MUTE MALT	when	mer m	2m	24	4
Supplement	ary information	1:						
*Test was pe	erformed on pr	oduct with each sou	urce listed in t	able 4.1.2.	in the	20.	1 N.	4



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-24	1 1 1 1	IEC 62368-1	in the she	24. 14
Clause	Requirement – Test	white the second	Result – Remark	Verdict

Clearance distanced between:		(V)	(mm)	Measured cl (mm)	
the waite w	er mer	In In -	et the tet a	TER MITE MALL W	

4.1.2	TABLE: Critical components information							
Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity ¹ UL E56070			
Plastic enclosure	CHI MEI CORPORATION	PA-757(+)	HB, 80°C, Min. Thickness 1.5mm	UL 94, UL 746				
Charging box battery	Shenzhen iPlan Technology Co., Ltd	APL 502030 3.7V	3.7V, 300mAh	IEC 62133- 2:2017	Report No.: NCT230205 24XI1-1			
Earbud battery	Zaoyang Gexin Electronic Technology Co., LTD	400909	3.7V, 25mAh, 0.0925Wh	IEC 62133- 2:2017	Report No.: NCT210508 63XI1-1			
PCB	GOLDENMAX INTERNATIONAL TECHNOLOGY (ZHUHAI) LTD	GDM-C3, ILM- C3	V-0, 130°C	UL 796	UL E330731			
Alternative	Interchangeable	Interchangeabl e	V-0, 130°C	UL 796	UL INTER			

Supplementary information:

¹⁾ License available upon request. Provided evidence ensures the agreed level of compliance. See OD-CB2039.



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Photo 1



Photo 2



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Photo 3



Photo 4



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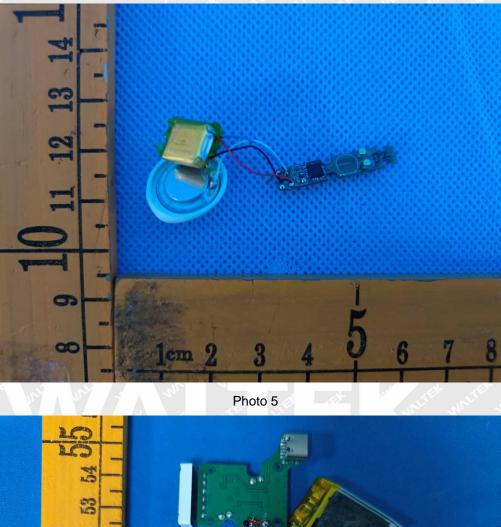




Photo 6



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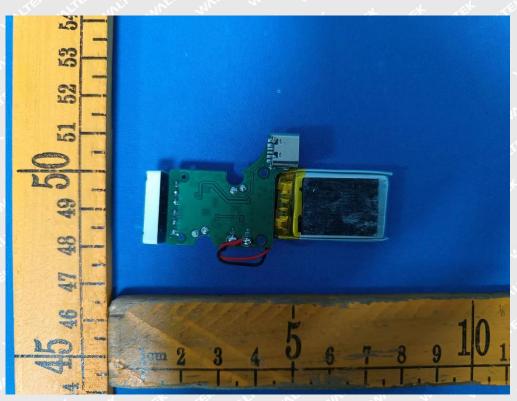


Photo 7

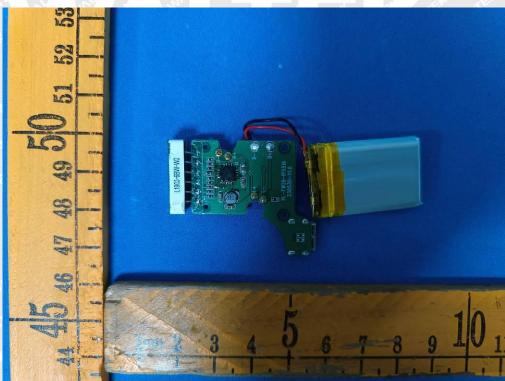


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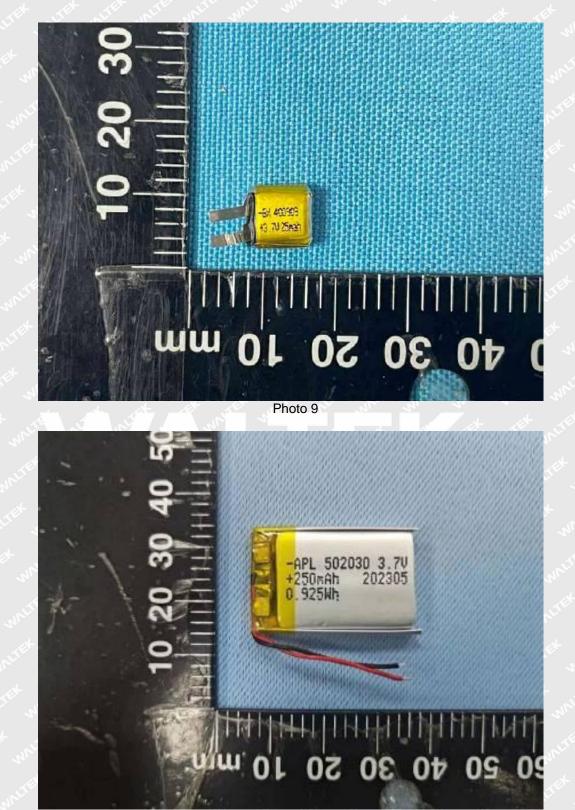


Photo 10.

===== End of Report ======