Test Report
EN 62368-1
Audio/video, information and communication technology equipment
Part 1: Safety requirements

Report Reference No.....:	AIT23052502S
Date of issue.....:	2023-06-26
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Testing Laboratory name.....:	Dongguan Yaxu (AiT) Technology Limited
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Testing location.....:	Same as above
Tested by (+ signature).....:	Andrew Li
Approved by (+ signature).....:	Darren Ding
Applicant's name.....:	DOKE COMMUNICATION (HK) LIMITED
Address.....:	RM 1902 EASEY COMM BLDG 253-261 HENNESSY ROAD WANCHAI HK CHINA
Manufacturer's name.....:	Shenzhen DOKE Electronic Co., Ltd
Address.....:	801, Building3, 7th Industrial Zone, Yulv Community, Yutang Road, Guangming District, Shenzhen, China
Factory's name.....:	Shenzhen DOKE Electronic Co., Ltd
Address.....:	801, Building3, 7th Industrial Zone, Yulv Community, Yutang Road, Guangming District, Shenzhen, China
Test specification:	
Standard.....:	EN 62368-1:2014+A11:2017
Test procedure.....:	Type test
Procedure deviation.....:	N/A
Non-standard test method.....	N/A

Note: The test data was only valid for the test sample(s). This test report is prepared for the customer shown above and for the specific product described herein. It must not be duplicated or used in part without prior written consent from Dongguan Yaxu (AiT) Technology Limited. Unless otherwise specified, the measurment uncertainty is not considered in this report.

Test Object:

Description.....: Tablet PC

Trademark.....: Blackview

Manufacturer..... : Shenzhen DOKE Electronic Co., Ltd
801, Building3, 7th Industrial Zone, Yulv Community, Yutang Road, Guangming District, Shenzhen, China

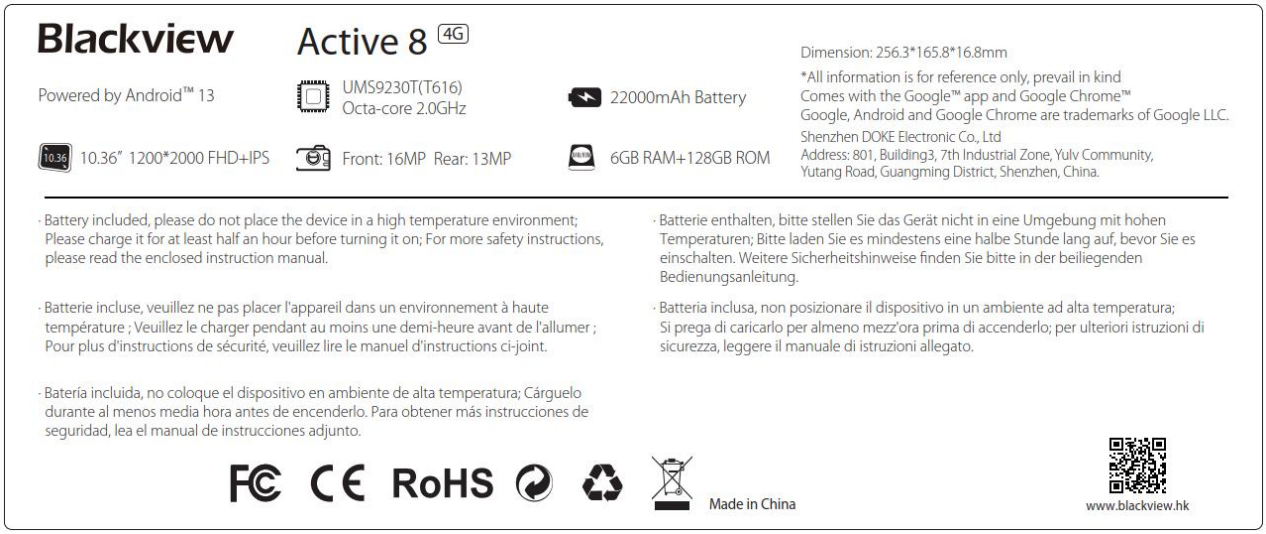
Model and/or type reference.....: Active 8

Serial number.....: N/A

Rating(s).....: Input: 9V⎓3A

Copy of marking plate:

The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.



Note:

1. The above marks are the minimum requirements required by the safety standard. For the final production, the additional marks which do not give rise to misunderstanding may be added.

2. Height of CE mark at least 5mm, height of WEEE mark at least 7mm, height of other marks at least 5mm, height of letters and numerals at least 2mm.

3. 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:	
Classification of use by.....:	☒ Ordinary person ☒ Instructed person ☒ Skilled person ☒ Children likely to be present
Supply Connection.....:	☐ AC Mains ☐ DC Mains ☒ External Circuit - 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 ☐ mating connector ☐ pluggable equipment type B - ☐ non-detachable supply cord ☐ appliance coupler ☐ permanent connection ☐ mating connector ☒ other: not directly connected to the mains
Considered current rating of protective device as part of building or equipment installation.....:	_____A; Installation location: ☐ building; ☐ equipment
Equipment mobility.....:	☒ movable ☐ hand-held ☒ transportable ☐ stationary ☐ for building-in ☐ direct plug-in ☐ rack-mounting ☐ wall-mounted
Over voltage category (OVC) .....:	☐ OVC I ☐ OVC II ☐ OVC III ☐ OVC IV ☒ other: not directly connected to the mains
Class of equipment .....:	☐ Class I ☐ Class II ☒ Class III
Access location .....:	☐ restricted access location ☒ N/A
Pollution degree (PD) .....:	☐ PD 1 ☒ PD 2 ☐ PD 3
Manufacturer's specified maxium operating ambient.....:	25.0°C
IP protection class .....:	☒ IPX0 ☐ IP___
Power Systems .....:	☐ TN ☐ TT ☐ IT - ____ V_{L-L}
Altitude during operation (m) .....:	☒ 2000 m or less ☐ _____ m
Altitude of test laboratory (m) .....:	☒ 2000 m or less ☐ _____ m
Mass of equipment (kg) .....:	☒ Approx. 0.95kg

POSSIBLE TEST CASE VERDICTS:	
- test case does not apply to the test object..... :	N/A
- test object does meet the requirement..... :	P (Pass)
- test object does not meet the requirement..... :	F (Fail)
TESTING:	
Date of receipt of test item..... :	2023-05-25
Date (s) of performance of tests..... :	2023-05-25 to 2023-06-26

GENERAL REMARKS:

"(see remark #)" refers to a remark appended to the report.
(see appended table)" refers to a table appended to the report.
The test results presented in this report relate only to the object tested.
This report shall not be reproduced except in full without the written approval of the testing laboratory.
Throughout this report a ☐ comma / ☒ point is used as the decimal separator.

Summary of testing:

All tests were performed at the worst case and all test results complied with the standard on cover page.

General product information:

1. The EUT is a Tablet PC designed as audio/video, information and communication technology equipment, for indoor use only.
2. The EUT supplied by external approved adapter that meets PS2 or Annex Q.1 requirements or internal 3.87V/22000mAh Rechargeable Li-ion battery.
3. All the circuits of EUT are considered as ES1 circuits.
4. Instructions and equipment marking related to safety is applied in the language that is acceptable in the country in which the equipment is to be sold.
5. The Tablet PC was only evaluated with safety requirements according to EN 62368-1, not include the software safety requirements.

OVERVIEW OF EMPLOYED SAFEGUARDS				
Clause	**Possible Hazard**			
5	Electrically-caused injury			
Energy Source (ES3: Primary Filter circuit)	Body Part (e.g. Ordinary)	Safeguards		
		Basic	Supplementary	Reinforced (Enclosure)
ES1: Input terminal, All internal circuits	Ordinary; Instructed; Skilled	N/A	N/A	N/A
6	Electrically-caused fire			
Energy Source (PS2: 100 Watt circuit)	Material part (e.g. Printed board)	Safeguards		
		Basic	Supplementary	Reinforced
PS2: Input terminal PS3: All internal circuits PS3: Battery pack	All combustible materials within equipment and enclosure	For “N” & “A” condition: 1. No ignition occurred. 2. No parts exceeding 90% of its spontaneous ignition temperature	For “S” condition: 1. PCB complies with min. V-1 material. 2. All other components: at least V-2 except for mounted on min. V-1 material or small parts of combustible material. 3. V-0 plastic enclosure provided.	N/A
7	Injury caused by hazardous substances			
Energy Source (hazardous material)	Body Part (e.g., Skilled)	Safeguards		
		Basic	Supplementary	Reinforced
Li-ion battery pack	Ordinary; Instructed; Skilled	N/A	N/A	N/A
8	Mechanically-caused injury			
Energy Source (MS3: High Pressure Lamp)	Body Part (e.g. Ordinary)	Safeguards		
		Basic	Supplementary	Reinforced (Enclosure)
MS1: Sharp edges and corners of accessible parts, Product mass (<7kg)	Ordinary; Instructed; Skilled	N/A	N/A	N/A
9	Thermal Burn			
Energy Source (TS2)	Body Part (e.g., Ordinary)	Safeguards		
		Basic	Supplementary	Reinforced
TS1: Accessible parts	Ordinary; Instructed; Skilled	N/A	N/A	N/A

10	Radiation			
Energy Source (Output from audio port)	Body Part (e.g., Ordinary)	Safeguards		
		Basic	Supplementary	Reinforced
RS1: LED for indicating only, RS1: Flash LED	Ordinary; Instructed; Skilled	N/A	N/A	N/A
RS2: Acoustic energy source	Ordinary; Instructed; Skilled	Instructional safeguard provided	N/A	N/A
Supplementary Information: (1) See attached energy source diagram for additional details. (2) “N” – Normal Condition; “A” – Abnormal Condition; “S” Single Fault.				

ENERGY SOURCE DIAGRAM
Optional. Manufacturers are to provide the energy sources diagram identify declared energy sources and identifying the demarcations are between power sources. Recommend diagram be provided included in power supply and multipart systems. Insert diagram below. Example diagram designs are; Block diagrams; image(s) with layered data; mechanical drawings
-- ☒ **ES** ☒ **PS** ☒ **MS** ☒ **TS** ☒ **RS** Remark: see above table “OVERVIEW OF ENERGY SOURCES AND SAFEGUARDS” for details.

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Clause	Requirement + Test	Result - Remark	Verdict
4	**GENERAL REQUIREMENTS**		**P**
4.1.1	Acceptance of materials, components and subassemblies		P
4.1.2	Use of components	(See appended table 4.1.2)	P
4.1.3	Equipment design and construction		P
4.1.4	Specified ambient temperature for outdoor use (°C) ..... :		N/A
4.1.5	Constructions and components not specifically covered		N/A
4.1.8	Liquids and liquid filled components (LFC)		N/A
4.1.15	Markings and instructions	(See Annex F)	P
4.4.3	Safeguard robustness		P
4.4.3.1	General		P
4.4.3.2	Steady force tests	(See Clause T.4)	P
4.4.3.3	Drop tests	(See Clause T.7)	P
4.4.3.4	Impact tests		N/A
4.4.3.5	Internal accessible safeguard tests		N/A
4.4.3.6	Glass impact tests	For display panel made of glass: - Surface area less than 0.1 m^2; - No major dimension exceeding 450 mm; – No class 3 energy sources other than PS3 within equipment	N/A
4.4.3.7	Glass fixation tests		N/A
	Glass impact test (1J)		N/A
	Push/pull test (10 N)		N/A
4.4.3.8	Thermoplastic material tests	(See Clause T.8)	P
4.4.3.9	Air comprising a safeguard	Considered, but no such barrier or enclosure provided	N/A
4.4.3.10	Accessibility, glass, safeguard effectiveness	All safeguards remain effective	P
4.4.4	Displacement of a safeguard by an insulating liquid		N/A
4.4.5	Safety interlocks		N/A
4.5	**Explosion**		**P**
4.5.1	General		P
4.5.2	No explosion during normal/abnormal operating condition	(See Clause B.2, B.3)	P
	No harm by explosion during single fault conditions	(See Clause B.4)	P
4.6	**Fixing of conductors**		**N/A**
	Fix conductors not to defeat a safeguard		N/A
	Compliance is checked by test..... :		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
4.7	**Equipment for direct insertion into mains socket–outlets**		**N/A**
4.7.2	Mains plug part complies with relevant standard... :		N/A
4.7.3	Torque (Nm)..... :		N/A
4.8	**Equipment containing coin/button cell batteries**		**N/A**
4.8.1	General		N/A
4.8.2	Instructional safeguard..... :		N/A
4.8.3	Battery compartment door/cover construction		N/A
	Open torque test		N/A
4.8.4.2	Stress relief test		N/A
4.8.4.3	Battery replacement test		N/A
4.8.4.4	Drop test		N/A
4.8.4.5	Impact test		N/A
4.8.4.6	Crush test		N/A
4.8.5	Compliance		N/A
	30N force test with test probe		N/A
	20N force test with test hook		N/A
4.9	**Likelihood of fire or shock due to entry of conductive object**		**P**
4.10	**Component requirements**		**N/A**
4.10.1	Disconnect Device		N/A
4.10.2	Switches and relays		N/A

5	**ELECTRICALLY-CAUSED INJURY**		**P**
5.2	**Classification and limits of electrical energy sources**		**P**
5.2.2	ES1, ES2 and ES3 limits		P
5.2.2.2	Steady-state voltage and current limits..... :	(See appended table 5.2)	P
5.2.2.3	Capacitance limits..... :		N/A
5.2.2.4	Single pulse limits.....:		N/A
5.2.2.5	Limits for repetitive pulses.....:		N/A
5.2.2.6	Ringing signals	(See Annex H)	N/A
5.2.2.7	Audio signals	(See Clause E.1)	P
5.3	**Protection against electrical energy sources**		**N/A**
5.3.1	General Requirements for accessible parts to ordinary, instructed and skilled persons	All internal circuits considered ES1	N/A
5.3.1 a)	Accessible ES1/ES2 derived from ES2/ES3 circuits		N/A
5.3.1 b)	Skilled persons not unintentional contact ES3 bare conductors		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
5.3.2.1	Accessibility to electrical energy sources and safeguards		N/A
	Accessibility to outdoor equipment bare parts		N/A
5.3.2.2	Contact requirements		N/A
	Test with test probe from Annex V		—
5.3.2.2 a)	Air gap – electric strength test potential (V)..... :		N/A
5.3.2.2 b)	Air gap – distance (mm) ..... :		N/A
5.3.2.3	Compliance		N/A
5.3.2.4	Terminals for connecting stripped wire		N/A
5.4	**Insulation materials and requirements**		**N/A**
5.4.1.2	Properties of insulating material		N/A
5.4.1.3	Material is non-hygroscopic		N/A
5.4.1.4	Maximum operating temperature for insulating materials ..... :		N/A
5.4.1.5	Pollution degrees..... :	2	N/A
5.4.1.5.2	Test for pollution degree 1 environment and for an insulating compound		N/A
5.4.1.5.3	Thermal cycling test		N/A
5.4.1.6	Insulation in transformers with varying dimensions		N/A
5.4.1.7	Insulation in circuits generating starting pulses		N/A
5.4.1.8	Determination of working voltage..... :		N/A
5.4.1.9	Insulating surfaces		N/A
5.4.1.10	Thermoplastic parts on which conductive metallic parts are directly mounted		N/A
5.4.1.10.2	Vicat test..... :		N/A
5.4.1.10.3	Ball pressure test..... :		N/A
5.4.2	Clearances		N/A
5.4.2.1	General requirements		N/A
	Clearances in circuits connected to AC Mains, Alternative method		N/A
5.4.2.2	Procedure 1 for determining clearance		N/A
	Temporary overvoltage ..... :		—
5.4.2.3	Procedure 2 for determining clearance		N/A
5.4.2.3.2.2	a.c. mains transient voltage..... :		—
5.4.2.3.2.3	d.c. mains transient voltage ..... :		—
5.4.2.3.2.4	External circuit transient voltage..... :		—
5.4.2.3.2.5	Transient voltage determined by measurement..... :		—

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Clause	Requirement + Test	Result - Remark	Verdict
5.4.2.4	Determining the adequacy of a clearance using an electric strength test.....:		N/A
5.4.2.5	Multiplication factors for clearances and test voltages .....:		N/A
5.4.2.6	Clearance measurement.....:		N/A
5.4.3	Creepage distances		N/A
5.4.3.1	General		N/A
5.4.3.3	Material group.....:	Assume to group IIIb	—
5.4.3.4	Creepage distances measurement.....:		N/A
5.4.4	Solid insulation		N/A
5.4.4.1	General requirements		N/A
5.4.4.2	Minimum distance through insulation .....:		N/A
5.4.4.3	Insulating compound forming solid insulation		N/A
5.4.4.4	Solid insulation in semiconductor devices		N/A
5.4.4.5	Insulating compound forming cemented joints		N/A
5.4.4.6	Thin sheet material		N/A
5.4.4.6.1	General requirements		N/A
5.4.4.6.2	Separable thin sheet material		N/A
	Number of layers (pcs).....:		N/A
5.4.4.6.3	Non-separable thin sheet material		N/A
	Number of layers (pcs) .....:		N/A
5.4.4.6.4	Standard test procedure for non-separable thin sheet material.....:		N/A
5.4.4.6.5	Mandrel test		N/A
5.4.4.7	Solid insulation in wound components		N/A
5.4.4.9	Solid insulation at frequencies >30 kHz, EP, KR, d, VPW (V).....:		N/A
	Alternative by electric strength test, tested voltage (V), KR.....:		N/A
5.4.5	Antenna terminal insulation		N/A
5.4.5.1	General		N/A
5.4.5.2	Voltage surge test		N/A
5.4.5.3	Insulation resistance (MΩ).....:		N/A
	Electric strength test.....:		N/A
5.4.6	Insulation of internal wire as part of supplementary safeguard		N/A
5.4.7	Tests for semiconductor components and for cemented joints		N/A
5.4.8	Humidity conditioning		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Relative humidity (%), temperature (°C), duration (h) ..... :		—
5.4.9	Electric strength test		N/A
5.4.9.1	Test procedure for type test of solid insulation..... :		N/A
5.4.9.2	Test procedure for routine test		N/A
5.4.10	Safeguards against transient voltages from external circuits	No external circuits	N/A
5.4.10.1	Parts and circuits separated from external circuits		N/A
5.4.10.2	Test methods		N/A
5.4.10.2.1	General		N/A
5.4.10.2.2	Impulse test..... :		N/A
5.4.10.2.3	Steady-state test..... :		N/A
5.4.10.3	Verification for insulation breakdown for impulse test ..... :		N/A
5.4.11	Separation between external circuits and earth		N/A
5.4.11.1	Exceptions to separation between external circuits and earth		N/A
5.4.11.2	Requirements		N/A
	SPDs bridge separation between external circuit and earth		N/A
	Rated operating voltage U_{op} (V)..... :		—
	Nominal voltage U_{peak} (V)..... :		—
	Max increase due to variation ΔU_{sp} ..... :		—
	Max increase due to ageing ΔU_{sa} ..... :		—
5.4.11.3	Test method and compliance..... :		N/A
5.4.12	Insulating liquid		N/A
5.4.12.1	General requirements		N/A
5.4.12.2	Electric strength of an insulating liquid..... :		N/A
5.4.12.3	Compatibility of an insulating liquid..... :		N/A
5.4.12.4	Container for insulating liquid..... :		N/A
5.5	**Components as safeguards**		**P**
5.5.1	General	(See Annex G)	P
5.5.2	Capacitors and RC units		N/A
5.5.2.1	General requirement		N/A
5.5.2.2	Safeguards against capacitor discharge after disconnection of a connector..... :		N/A
5.5.3	Transformers		N/A
5.5.4	Optocouplers		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
5.5.5	Relays		N/A
5.5.6	Resistors		N/A
5.5.7	SPDs		N/A
5.5.8	Insulation between the mains and an external circuit consisting of a coaxial cable..... :		N/A
5.5.9	Safeguards for socket-outlets in outdoor equipment		N/A
	RCD rated residual operating current (mA).....:		—
5.6	**Protective conductor**		**N/A**
5.6.2	Requirement for protective conductors		N/A
5.6.2.1	General requirements		N/A
5.6.2.2	Colour of insulation		N/A
5.6.3	Requirement for protective earthing conductors		N/A
	Protective earthing conductor size (mm^2) ..... :		—
	Protective earthing conductor serving as a reinforced safeguard		N/A
	Protective earthing conductor serving as a double safeguard		N/A
5.6.4	Requirements for protective bonding conductors		N/A
5.6.4.1	Protective bonding conductors		N/A
	Protective bonding conductor size (mm^2)..... :		—
5.6.4.2	Protective current rating (A)..... :		N/A
5.6.5	Terminals for protective conductors		N/A
5.6.5.1	Terminal size for connecting protective earthing conductors (mm)..... :		N/A
	Terminal size for connecting protective bonding conductors (mm).....:		N/A
5.6.5.2	Corrosion		N/A
5.6.6	Resistance of the protective bonding system		N/A
5.6.6.1	Requirements		N/A
5.6.6.2	Test Method.....:		N/A
5.6.6.3	Resistance (Ω) or voltage drop.....:		N/A
5.6.7	Reliable connection of a protective earthing conductor		N/A
5.6.8	Functional earthing		N/A
	Conductor size (mm^2)..... :		N/A
	Class II with functional earthing marking ..... :		N/A
	Appliance inlet cl & cr (mm)..... :		N/A
5.7	**Prospective touch voltage, touch current and protective conductor current**		**P**
5.7.2	Measuring devices and networks		P

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Clause	Requirement + Test	Result - Remark	Verdict
5.7.2.1	Measurement of touch current		N/A
5.7.2.2	Measurement of voltage	(See appended table 5.2.2.2)	P
5.7.3	Equipment set-up, supply connections and earth connections		N/A
5.7.4	Unearthed accessible parts..... :		N/A
5.7.5	Earthed accessible conductive parts.....:		N/A
5.7.6	Requirements when touch current exceeds ES2 limits		N/A
	Protective conductor current (mA)..... :		N/A
	Instructional Safeguard.....:		N/A
5.7.7	Prospective touch voltage and touch current associated with external circuits		N/A
5.7.7.1	Touch current from coaxial cables		N/A
5.7.7.2	Prospective touch voltage and touch current associated with paired conductor cables		N/A
5.7.8	Summation of touch currents from external circuits		N/A
	a) Equipment connected to earthed external circuits, current (mA).....:		N/A
	b) Equipment connected to unearthed external circuits, current (mA).....:		N/A
5.8	**Backfeed safeguard in battery backed up supplies**		**N/A**
	Mains terminal ES..... :		N/A
	Air gap (mm)..... :		N/A

6	**ELECTRICALLY- CAUSED FIRE**		**P**
6.2	**Classification of PS and PIS**		P
6.2.2	Power source circuit classifications.....:	(See appended table 6.2.2)	P
6.2.3	Classification of potential ignition sources		P
6.2.3.1	Arcing PIS .....:		N/A
6.2.3.2	Resistive PIS .....:	(See appended table 6.2.3.2)	P
6.3	**Safeguards against fire under normal operating and abnormal operating conditions**		**P**
6.3.1	No ignition and attainable temperature value less than 90 % defined by ISO 871 or less than 300 °C for unknown materials.....:	(See appended table B.1.5 and B.3)	P
	Combustible materials outside fire enclosure..... :		N/A
6.4	**Safeguards against fire under single fault conditions**		**P**
6.4.1	Safeguard method	Method of control fire spread used	P
6.4.2	Reduction of the likelihood of ignition under single fault conditions in PS1 circuits		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
6.4.3	Reduction of the likelihood of ignition under single fault conditions in PS2 and PS3 circuits		N/A
6.4.3.1	Supplementary safeguards		N/A
6.4.3.2	Single Fault Conditions.....:		N/A
	Special conditions for temperature limited by fuse		N/A
6.4.4	Control of fire spread in PS1 circuits		P
6.4.5	Control of fire spread in PS2 circuits		P
6.4.5.2	Supplementary safeguards	(See appended tables 4.1.2 and Clause G)	P
6.4.6	Control of fire spread in PS3 circuits	V-0 plastic enclosure provided	P
6.4.7	Separation of combustible materials from a PIS		N/A
6.4.7.2	Separation by distance		N/A
6.4.7.3	Separation by a fire barrier		N/A
6.4.8	Fire enclosures and fire barriers	V-0 plastic enclosure provided	P
6.4.8.2	Fire enclosure and fire barrier material properties		P
6.4.8.2.1	Requirements for a fire barrier		N/A
6.4.8.2.2	Requirements for a fire enclosure	V-0 plastic enclosure provided	P
6.4.8.3	Constructional requirements for a fire enclosure and a fire barrier		P
6.4.8.3.1	Fire enclosure and fire barrier openings		P
6.4.8.3.2	Fire barrier dimensions		N/A
6.4.8.3.3	Top openings and properties		P
	Openings dimensions (mm).....:	< 5 mm in any dimension	P
6.4.8.3.4	Bottom openings and properties		P
	Openings dimensions (mm).....:	< 3 mm in any dimension	P
	Flammability tests for the bottom of a fire enclosure		N/A
	Instructional Safeguard.....:		N/A
6.4.8.3.5	Side openings and properties		N/A
	Openings dimensions (mm).....:		N/A
6.4.8.3.6	Integrity of a fire enclosure, condition met: a), b) or c) .....:		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 provided	P
6.4.9	Flammability of insulating liquid.....:		N/A
6.5	Internal and external wiring		**P**
6.5.1	General requirements		P
6.5.2	Requirements for interconnection to building wiring .....:	(See appended table 4.1.2)	P

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Clause	Requirement + Test	Result - Remark	Verdict
6.5.3	Internal wiring size (mm^2) for socket-outlets..... :		N/A
6.6	Safeguards against fire due to the connection to additional equipment		**N/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**
	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**		**P**
8	**MECHANICALLY-CAUSED INJURY**		**P**
8.2	**Mechanical energy source classifications**		**P**
8.3	**Safeguards against mechanical energy sources**		**P**
8.4	**Safeguards against parts with sharp edges and corners**		**N/A**
8.4.1	Safeguards	MS1 classification	N/A
	Instructional Safeguard..... :		N/A
8.4.2	Sharp edges or corners	MS1 classification	N/A
8.5	**Safeguards against moving parts**		**N/A**
8.5.1	Fingers, jewellery, clothing, hair, etc., contact with MS2 or MS3 parts		N/A
	MS2 or MS3 part required to be accessible for the function of the equipment		N/A
	Moving MS3 parts only accessible to skilled person		N/A
8.5.2	Instructional safeguard..... :		N/A
8.5.4	Special categories of equipment containing moving parts		N/A
8.5.4.1	General		N/A
8.5.4.2	Equipment containing work cells with MS3 parts		N/A
8.5.4.2.1	Protection of persons in the work cell		N/A
8.5.4.2.2	Access protection override		N/A
8.5.4.2.2.1	Override system		N/A
8.5.4.2.2.2	Visual indicator		N/A
8.5.4.2.3	Emergency stop system		N/A
	Maximum stopping distance from the point of activation (m)..... :		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Space between end point and nearest fixed mechanical part (mm)..... :		N/A
8.5.4.2.4	Endurance requirements		N/A
	Mechanical system subjected to 100 000 cycles of operation		N/A
	- Mechanical function check and visual inspection		N/A
	- Cable assembly.....:		N/A
8.5.4.3	Equipment having electromechanical device for destruction of media		N/A
8.5.4.3.1	Equipment safeguards		N/A
8.5.4.3.2	Instructional safeguards against moving parts..... :		N/A
8.5.4.3.3	Disconnection from the supply		N/A
8.5.4.3.4	Cut type and test force (N)..... :		N/A
8.5.4.3.5	Compliance		N/A
8.5.5	High pressure lamps		N/A
	Explosion test.....:		N/A
8.5.5.3	Glass particles dimensions (mm)..... :		N/A
8.6	**Stability of equipment**		**N/A**
8.6.1	General	Mass classification: MS1	N/A
	Instructional safeguard..... :		N/A
8.6.2	Static stability		N/A
8.6.2.2	Static stability test.....:		N/A
8.6.2.3	Downward force test		N/A
8.6.3	Relocation stability		N/A
	Wheels diameter (mm)..... :		—
	Tilt test		N/A
8.6.4	Glass slide test		N/A
8.6.5	Horizontal force test..... :		N/A
8.7	**Equipment mounted to wall, ceiling or other structure**		**N/A**
8.7.1	Mount means type.....:		N/A
8.7.2	Test methods		N/A
	Test 1, additional downwards force (N)..... :		N/A
	Test 2, number of attachment points and test force (N) ..... :		N/A
	Test 3 Nominal diameter (mm) and applied torque (Nm) ..... :		N/A
8.8	**Handles strength**		**N/A**

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Clause	Requirement + Test	Result - Remark	Verdict
8.8.1	General		N/A
8.8.2	Handle strength test		N/A
	Number of handles.....:		—
	Force applied (N).....:		—
8.9	**Wheels or casters attachment requirements**		**N/A**
8.9.2	Pull test		N/A
8.10	**Carts, stands and similar carriers**		**N/A**
8.10.1	General		N/A
8.10.2	Marking and instructions.....:		N/A
8.10.3	Cart, stand or carrier loading test		N/A
	Loading force applied (N)..... :		N/A
8.10.4	Cart, stand or carrier impact test		N/A
8.10.5	Mechanical stability		N/A
	Force applied (N).....:		—
8.10.6	Thermoplastic temperature stability		N/A
8.11	**Mounting means for slide-rail mounted equipment (SRME)**		**N/A**
8.11.1	General		N/A
8.11.2	Requirements for slide rails		N/A
	Instructional Safeguard.....:		N/A
8.11.3	Mechanical strength test		N/A
8.11.3.1	Downward force test, force (N) applied..... :		N/A
8.11.3.2	Lateral push force test		N/A
8.11.3.3	Integrity of slide rail end stops		N/A
8.11.4	Compliance		N/A
8.12	**Telescoping or rod antennas**		**N/A**
	Button/ball diameter (mm)..... :		—
9	**THERMAL BURN INJURY**		**P**
9.2	**Thermal energy source classifications**		**P**
9.3	**Touch temperature limits**		**P**
9.3.1	Touch temperatures of accessible parts..... :	(See appended table)	P
9.3.2	Test method and compliance		P
9.4	**Safeguards against thermal energy sources**		**N/A**
9.5	**Requirements for safeguards**		**N/A**
9.5.1	Equipment safeguard		N/A
9.5.2	Instructional safeguard..... :		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
9.6	**Requirements for wireless power transmitters**		**N/A**
9.6.1	General		N/A
9.6.2	Specification of the foreign objects		N/A
9.6.3	Test method and compliance.....:	(See appended table 9.6)	N/A
10	**RADIATION**		**P**
10.2	**Radiation energy source classification**		**P**
10.2.1	General classification	RS1: LED for indicating only, Flash LED	P
	Lasers.....:		—
	Lamps and lamp systems.....:		—
	Image projectors.....:		—
	X-Ray.....:		—
	Personal music player.....:	RS2: Acoustic energy source	—
10.3	**Safeguards against laser radiation**		**N/A**
	The standard(s) equipment containing laser(s) comply .....:		N/A
10.4	**Safeguards against optical radiation from lamps and lamp systems (including LED types)**		**P**
10.4.1	General requirements	Flash LED: Exempt group according to IEC 62471 (LEDs)	P
	Instructional safeguard provided for accessible radiation level needs to exceed		N/A
	Risk group marking and location.....:		N/A
	Information for safe operation and installation		N/A
10.4.2	Requirements for enclosures		N/A
	UV radiation exposure.....:		N/A
10.4.3	Instructional safeguard.....:		N/A
10.5	**Safeguards against X-radiation**		**N/A**
10.5.1	Requirements		N/A
	Instructional safeguard for skilled persons.....:		—
10.5.3	Maximum radiation (pA/kg).....:		—
10.6	**Safeguards against acoustic energy sources**		**P**
10.6.1	General		P
10.6.2	Classification	RS2	P
	Acoustic output $L_{Aeq,T}$, dB(A).....:		N/A
	Unweighted RMS output voltage (mV).....:	Max. volume: For Music Player mode:	P

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Clause	Requirement + Test	Result - Remark	Verdict
		Left speaker: 87mV Right speaker: 71mV For FM mode: Left speaker: 38mV Right speaker: 31mV Warning volume: For Music Player mode: Left speaker: 17mV Right speaker: 15mV For FM mode: Left speaker: 11mV Right speaker: 10mV	
	Digital output signal (dBFS)..... :		N/A
10.6.3	Requirements for dose-based systems		N/A
10.6.3.1	General requirements		N/A
10.6.3.2	Dose-based warning and automatic decrease		N/A
10.6.3.3	Exposure-based warning and requirements		N/A
	30 s integrated exposure level (MEL30).....:		N/A
	Warning for MEL ≥ 100 dB(A).....:		N/A
10.6.4	Measurement methods		P
10.6.5	Protection of persons		P
	Instructional safeguards..... :	In the instruction manual	P
10.6.6	Requirements for listening devices (headphones, earphones, etc.)		N/A
10.6.6.1	Corded listening devices with analogue input		N/A
	Listening device input voltage (mV).....:		N/A
10.6.6.2	Corded listening devices with digital input		N/A
	Max. acoustic output $L_{Aeq,T}$, dB(A)..... :		N/A
10.6.6.3	Cordless listening devices		N/A
	Max. acoustic output $L_{Aeq,T}$, dB(A)..... :		N/A

B	**NORMAL OPERATING CONDITION TESTS, ABNORMAL OPERATING CONDITION TESTS AND SINGLE FAULT CONDITION TESTS**		**P**
B.1	**General**		**P**
B.1.5	Temperature measurement conditions	(See appended table B.1.5)	P
B.2	**Normal operating conditions**		**P**
B.2.1	General requirements..... :	(See Test Item Particulars and appended test tables)	P

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Clause	Requirement + Test	Result - Remark	Verdict
	Audio Amplifiers and equipment with audio amplifiers .....:	(See Annex E)	P
B.2.3	Supply voltage and tolerances		N/A
B.2.5	Input test..... :	(See appended table B.2.5)	P
B.3	**Simulated abnormal operating conditions**		**P**
B.3.1	General		P
B.3.2	Covering of ventilation openings	(See appended table B.3)	P
	Instructional safeguard..... :		N/A
B.3.3	DC mains polarity test		N/A
B.3.4	Setting of voltage selector		N/A
B.3.5	Maximum load at output terminals		N/A
B.3.6	Reverse battery polarity	No battery cell replaced by ordinary person	N/A
B.3.7	Audio amplifier abnormal operating conditions	Considered	P
B.3.8	Safeguards functional during and after abnormal operating conditions..... :	(See appended table B.3)	P
B.4	**Simulated single fault conditions**		**P**
B.4.1	General		P
B.4.2	Temperature controlling device	No such controlling device	N/A
B.4.3	Blocked motor test		P
B.4.4	Functional insulation	(See appended table B.4)	P
B.4.4.1	Short circuit of clearances for functional insulation		P
B.4.4.2	Short circuit of creepage distances for functional insulation		P
B.4.4.3	Short circuit of functional insulation on coated printed boards		N/A
B.4.5	Short-circuit and interruption of electrodes in tubes and semiconductors		N/A
B.4.6	Short circuit or disconnection of passive components	(See appended table B.4)	P
B.4.7	Continuous operation of components		N/A
B.4.8	Compliance during and after single fault conditions .....:	(See appended table B.4)	P
B.4.9	Battery charging and discharging under single fault conditions	(See Annex M)	P
C	**UV RADIATION**		**N/A**
C.1	**Protection of materials in equipment from UV radiation**		**N/A**
C.1.2	Requirements		N/A
C.1.3	Test method		N/A
C.2	**UV light conditioning test**		**N/A**

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Clause	Requirement + Test	Result - Remark	Verdict
C.2.1	Test apparatus..... :		N/A
C.2.2	Mounting of test samples		N/A
C.2.3	Carbon-arc light-exposure test		N/A
C.2.4	Xenon-arc light-exposure test		N/A
D	**TEST GENERATORS**		**N/A**
D.1	**Impulse test generators**		**N/A**
D.2	**Antenna interface test generator**		**N/A**
D.3	**Electronic pulse generator**		**N/A**
E	**TEST CONDITIONS FOR EQUIPMENT CONTAINING AUDIO AMPLIFIERS**		**P**
E.1	**Electrical energy source classification for audio signals**		**P**
	Maximum non-clipped output power (W)..... :	Less than PS1 limit	—
	Rated load impedance (Ω) ..... :	4Ω	—
	Open-circuit output voltage (V)..... :	Less than ES1 limit	—
	Instructional safeguard..... :	Less than ES1 limit	—
E.2	**Audio amplifier normal operating conditions**		**P**
	Audio signal source type..... :	1kHz sine wave audio signal	—
	Audio output power (W)..... :	Less than ES1 limit	—
	Audio output voltage (V)..... :	Less than ES1 limit	—
	Rated load impedance (Ω) ..... :	4Ω	—
	Requirements for temperature measurement	(See Table B.1.5)	P
E.3	Audio amplifier abnormal operating conditions	(See Table B.3, B.4)	P
F	**EQUIPMENT MARKINGS, INSTRUCTIONS, AND INSTRUCTIONAL SAFEGUARDS**		**P**
F.1	**General**		**P**
	Language ..... :	English version checked	—
F.2	**Letter symbols and graphical symbols**		**P**
F.2.1	Letter symbols according to IEC60027-1		P
F.2.2	Graphic symbols according to IEC, ISO or manufacturer specific		P
F.3	**Equipment markings**		**P**
F.3.1	Equipment marking locations	Located on the product surface	P
F.3.2	Equipment identification markings		P
F.3.2.1	Manufacturer identification ..... :	Trade Mark: See the page 2	P
F.3.2.2	Model identification ..... :	See the page 2	P
F.3.3	Equipment rating markings		P
F.3.3.1	Equipment with direct connection to mains		N/A
F.3.3.2	Equipment without direct connection to mains		P

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Clause	Requirement + Test	Result - Remark	Verdict
F.3.3.3	Nature of the supply voltage.....:	⎓	P
F.3.3.4	Rated voltage.....:	9V	P
F.3.3.5	Rated frequency.....:	DC only	N/A
F.3.3.6	Rated current or rated power.....:	3A	P
F.3.3.7	Equipment with multiple supply connections		N/A
F.3.4	Voltage setting device		N/A
F.3.5	Terminals and operating devices		P
F.3.5.1	Mains appliance outlet and socket-outlet markings .....:		N/A
F.3.5.2	Switch position identification marking.....:		N/A
F.3.5.3	Replacement fuse identification and rating markings .....:		N/A
	Instructional safeguards for neutral fuse.....:		N/A
F.3.5.4	Replacement battery identification marking.....:	See Annex M.10	P
F.3.5.5	Neutral conductor terminal		N/A
F.3.5.6	Terminal marking location		N/A
F.3.6	Equipment markings related to equipment classification	Class III equipment	N/A
F.3.6.1	Class I equipment		N/A
F.3.6.1.1	Protective earthing conductor terminal.....:		N/A
F.3.6.1.2	Protective bonding conductor terminals .....:		N/A
F.3.6.2	Equipment class marking.....:		N/A
F.3.6.3	Functional earthing terminal marking.....:		N/A
F.3.7	Equipment IP rating marking.....:	IPX0	N/A
F.3.8	External power supply output marking.....:		N/A
F.3.9	Durability, legibility and permanence of marking		P
F.3.10	Test for permanence of markings		P
F.4	**Instructions**		**P**
	a) Information prior to installation and initial use		P
	b) Equipment for use in locations where children not likely to be present		N/A
	c) Instructions for installation and interconnection		P
	d) Equipment intended for use only in restricted access area		N/A
	e) Equipment intended to be fastened in place		N/A
	f) Instructions for audio equipment terminals		N/A
	g) Protective earthing used as a safeguard		N/A
	h) Protective conductor current exceeding ES2 limits		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	i) Graphic symbols used on equipment		N/A
	j) Permanently connected equipment not provided with all-pole mains switch		N/A
	k) Replaceable components or modules providing safeguard function		N/A
	l) Equipment containing insulating liquid		N/A
	m) Installation instructions for outdoor equipment		N/A
F.5	**Instructional safeguards**		**P**
G	**COMPONENTS**		**P**
G.1	**Switches**		**N/A**
G.1.1	General		N/A
G.1.2	Ratings, endurance, spacing, maximum load		N/A
G.1.3	Test method and compliance		N/A
G.2	**Relays**		**N/A**
G.2.1	Requirements		N/A
G.2.2	Overload test		N/A
G.2.3	Relay controlling connectors supplying power to other equipment		N/A
G.2.4	Test method and compliance		N/A
G.3	**Protective devices**		**N/A**
G.3.1	Thermal cut-offs		N/A
	Thermal cut-outs separately approved according to IEC 60730 with conditions indicated in a) & b)		N/A
	Thermal cut-outs tested as part of the equipment as indicated in c)		N/A
G.3.1.2	Test method and compliance		N/A
G.3.2	Thermal links		N/A
G.3.2.1	a) Thermal links tested separately according to IEC 60691 with specifics		N/A
	b) Thermal links tested as part of the equipment		N/A
G.3.2.2	Test method and compliance		N/A
G.3.3	PTC thermistors		N/A
G.3.4	Overcurrent protection devices		N/A
G.3.5	Safeguards components not mentioned in G.3.1 to G.3.4		N/A
G.3.5.1	Non-resettable devices suitably rated and marking provided		N/A
G.3.5.2	Single faults conditions.....:		N/A
G.4	**Connectors**		**P**

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Clause	Requirement + Test	Result - Remark	Verdict
G.4.1	Spacings	Not directly connected to mains	N/A
G.4.2	Mains connector configuration.....:		N/A
G.4.3	Plug is shaped that insertion into mains socket-outlets or appliance coupler is unlikely		P
G.5	**Wound components**		**N/A**
G.5.1	Wire insulation in wound components		N/A
G.5.1.2	Protection against mechanical stress		N/A
G.5.2	Endurance test		N/A
G.5.2.1	General test requirements		N/A
G.5.2.2	Heat run test		N/A
	Test time (days per cycle)..... :		—
	Test temperature (°C)..... :		—
G.5.2.3	Wound components supplied from the mains		N/A
G.5.2.4	No insulation breakdown		N/A
G.5.3	Transformers		N/A
G.5.3.1	Compliance method..... :		N/A
	Position.....:		N/A
	Method of protection..... :		N/A
G.5.3.2	Insulation		N/A
	Protection from displacement of windings.....:		—
G.5.3.3	Transformer overload tests		N/A
G.5.3.3.1	Test conditions		N/A
G.5.3.3.2	Winding temperatures		N/A
G.5.3.3.3	Winding temperatures - alternative test method		N/A
G.5.3.4	Transformers using FIW		N/A
G.5.3.4.1	General		N/A
	FIW wire nominal diameter..... :		—
G.5.3.4.2	Transformers with basic insulation only		N/A
G.5.3.4.3	Transformers with double insulation or reinforced insulation.....:		N/A
G.5.3.4.4	Transformers with FIW wound on metal or ferrite core		N/A
G.5.3.4.5	Thermal cycling test and compliance		N/A
G.5.3.4.6	Partial discharge test		N/A
G.5.3.4.7	Routine test		N/A
G.5.4	**Motors**		**P**
G.5.4.1	General requirements		P
G.5.4.2	Motor overload test conditions		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
G.5.4.3	Running overload test		N/A
G.5.4.4.2	Locked-rotor overload test		N/A
	Test duration (days) ..... :		—
G.5.4.5	Running overload test for DC motors		N/A
G.5.4.5.2	Tested in the unit		N/A
G.5.4.5.3	Alternative method		N/A
G.5.4.6	Locked-rotor overload test for DC motors		P
G.5.4.6.2	Tested in the unit		N/A
	Maximum Temperature .....:		N/A
G.5.4.6.3	Alternative method	7h	P
G.5.4.7	Motors with capacitors		N/A
G.5.4.8	Three-phase motors		N/A
G.5.4.9	Series motors		N/A
	Operating voltage ..... :		—
G.6	**Wire Insulation**		**N/A**
G.6.1	General		N/A
G.6.2	Enamelled winding wire insulation		N/A
G.7	**Mains supply cords**		N/A
G.7.1	General requirements		N/A
	Type.....:		—
G.7.2	Cross sectional area (mm^2 or AWG)..... :		N/A
G.7.3	Cord anchorages and strain relief for non-detachable power supply cords		N/A
G.7.3.2	Cord strain relief		N/A
G.7.3.2.1	Requirements		N/A
	Strain relief test force (N)..... :		N/A
G.7.3.2.2	Strain relief mechanism failure		N/A
G.7.3.2.3	Cord sheath or jacket position, distance (mm)..... :		N/A
G.7.3.2.4	Strain relief and cord anchorage material		N/A
G.7.4	Cord Entry		N/A
G.7.5	Non-detachable cord bend protection		N/A
G.7.5.1	Requirements		N/A
G.7.5.2	Test method and compliance		N/A
	Overall diameter or minor overall dimension, *D* (mm) .....:		—
	Radius of curvature after test (mm)..... :		—
G.7.6	Supply wiring space		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
G.7.6.1	General requirements		N/A
G.7.6.2	Stranded wire		N/A
G.7.6.2.1	Requirements		N/A
G.7.6.2.2	Test with 8 mm strand		N/A
G.8	**Varistors**		**N/A**
G.8.1	General requirements		N/A
G.8.2	Safeguards against fire		N/A
G.8.2.1	General		N/A
G.8.2.2	Varistor overload test		N/A
G.8.2.3	Temporary overvoltage test		N/A
G.9	**Integrated circuit (IC) current limiters**		**N/A**
G.9.1	Requirements		N/A
	IC limiter output current (max. 5A)..... :		—
	Manufacturers' defined drift ..... :		—
G.9.2	Test Program		N/A
G.9.3	Compliance		N/A
G.10	**Resistors**		**N/A**
G.10.1	General		N/A
G.10.2	Conditioning		N/A
G.10.3	Resistor test		N/A
G.10.4	Voltage surge test		N/A
G.10.5	Impulse test		N/A
G.10.6	Overload test		N/A
G.11	**Capacitors and RC units**		**N/A**
G.11.1	General requirements		N/A
G.11.2	Conditioning of capacitors and RC units		N/A
G.11.3	Rules for selecting capacitors		N/A
G.12	**Optocouplers**		**N/A**
	Optocouplers comply with IEC 60747-5-5 with specifics		N/A
	Type test voltage $V_{ini,a}$..... :		—
	Routine test voltage, $V_{ini,b}$..... :		—
G.13	**Printed boards**		**P**
G.13.1	General requirements		P
G.13.2	Uncoated printed boards		P
G.13.3	Coated printed boards		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
G.13.4	Insulation between conductors on the same inner surface		N/A
G.13.5	Insulation between conductors on different surfaces		N/A
	Distance through insulation.....:		N/A
	Number of insulation layers (pcs)..... :		—
G.13.6	Tests on coated printed boards		N/A
G.13.6.1	Sample preparation and preliminary inspection		N/A
G.13.6.2	Test method and compliance		N/A
G.14	**Coating on components terminals**		**N/A**
G.14.1	Requirements .....:		N/A
G.15	**Pressurized liquid filled components**		**N/A**
G.15.1	Requirements		N/A
G.15.2	Test methods and compliance		N/A
G.15.2.1	Hydrostatic pressure test		N/A
G.15.2.2	Creep resistance test		N/A
G.15.2.3	Tubing and fittings compatibility test		N/A
G.15.2.4	Vibration test		N/A
G.15.2.5	Thermal cycling test		N/A
G.15.2.6	Force test		N/A
G.15.3	Compliance		N/A
G.16	**IC including capacitor discharge function (ICX)**		**N/A**
G.16.1	Condition for fault tested is not required		N/A
	ICX with associated circuitry tested in equipment		N/A
	ICX tested separately		N/A
G.16.2	Tests		N/A
	Smallest capacitance and smallest resistance specified by ICX manufacturer for impulse test..... :		—
	Mains voltage that impulses to be superimposed on .....:		—
	Largest capacitance and smallest resistance for ICX tested by itself for 10000 cycles test.....:		—
G.16.3	Capacitor discharge test.....:		N/A
H	**CRITERIA FOR TELEPHONE RINGING SIGNALS**		**N/A**
H.1	**General**		**N/A**
H.2	**Method A**		**N/A**
H.3	**Method B**		**N/A**
H.3.1	Ringing signal		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
H.3.1.1	Frequency (Hz) ..... :		—
H.3.1.2	Voltage (V) ..... :		—
H.3.1.3	Cadence; time (s) and voltage (V) ..... :		—
H.3.1.4	Single fault current (mA):..... :		—
H.3.2	Tripping device and monitoring voltage		N/A
H.3.2.1	Conditions for use of a tripping device or a monitoring voltage		N/A
H.3.2.2	Tripping device		N/A
H.3.2.3	Monitoring voltage (V)..... :		N/A
J	**INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION**		**N/A**
J.1	**General**		**N/A**
	Winding wire insulation..... :		—
	Solid round winding wire, diameter (mm)..... :		N/A
	Solid square and rectangular (flatwise bending) winding wire, cross-sectional area (mm^2)..... :		N/A
J.2/J.3	Tests and Manufacturing		—
K	**SAFETY INTERLOCKS**		**N/A**
K.1	**General requirements**		**N/A**
	Instructional safeguard..... :		N/A
K.2	**Components of safety interlock safeguard mechanism**		**N/A**
K.3	**Inadvertent change of operating mode**		**N/A**
K.4	**Interlock safeguard override**		**N/A**
K.5	**Fail-safe**		**N/A**
K.5.1	Under single fault condition		N/A
K.6	**Mechanically operated safety interlocks**		**N/A**
K.6.1	Endurance requirement		N/A
K.6.2	Test method and compliance..... :		N/A
K.7	**Interlock circuit isolation**		**N/A**
K.7.1	Separation distance for contact gaps & interlock circuit elements		N/A
	In circuit connected to mains, separation distance for contact gaps (mm)..... :		N/A
	In circuit isolated from mains, separation distance for contact gaps (mm)..... :		N/A
	Electric strength test before and after the test of K.7.2 ..... :		N/A
K.7.2	Overload test, Current (A)..... :		N/A
K.7.3	Endurance test		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
K.7.4	Electric strength test		N/A
L	**DISCONNECT DEVICES**		**N/A**
L.1	**General requirements**		**N/A**
L.2	**Permanently connected equipment**		**N/A**
L.3	**Parts that remain energized**		**N/A**
L.4	**Single-phase equipment**		**N/A**
L.5	**Three-phase equipment**		**N/A**
L.6	**Switches as disconnect devices**		**N/A**
L.7	**Plugs as disconnect devices**		**N/A**
L.8	**Multiple power sources**		**N/A**
	Instructional safeguard..... :		N/A
M	**EQUIPMENT CONTAINING BATTERIES AND THEIR PROTECTION CIRCUITS**		**P**
M.1	**General requirements**		**P**
M.2	**Safety of batteries and their cells**		**P**
M.2.1	Batteries and their cells comply with relevant IEC standards..... :	Complied with IEC/EN 62133-2	P
M.3	**Protection circuits for batteries provided within the equipment**		**P**
M.3.1	Requirements		P
M.3.2	Test method		P
	Overcharging of a rechargeable battery		P
	Excessive discharging		P
	Unintentional charging of a non-rechargeable battery		N/A
	Reverse charging of a rechargeable battery	Not possible to happen reverse Charging	N/A
M.3.3	Compliance	After above test have not created a hazard in the meaning of this standard	P
M.4	**Additional safeguards for equipment containing a portable secondary lithium battery**		**P**
M.4.1	General		P
M.4.2	Charging safeguards		P
M.4.2.1	Requirements		P
M.4.2.2	Compliance.....:	(See appended table M.4.2)	P
M.4.3	Fire enclosure.....:	Provided	P
M.4.4	Drop test of equipment containing a secondary lithium battery		P
M.4.4.2	Preparation and procedure for the drop test		P

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Clause	Requirement + Test	Result - Remark	Verdict
M.4.4.3	Drop, Voltage on reference and dropped batteries (V); voltage difference during 24 h period (%): .....:	Voltage difference less than 5%	P
M.4.4.4	Check of the charge/discharge function		P
M.4.4.5	Charge / discharge cycle test		P
M.4.4.6	Compliance		P
M.5	**Risk of burn due to short-circuit during carrying**		**N/A**
M.5.1	Requirement		N/A
M.5.2	Test method and compliance		N/A
M.6	**Safeguards against short-circuits**		**P**
M.6.1	External and internal faults	The battery pack and cell complied IEC 62133-2:2017 which considered the forced external short circuit test. No such explosion or fire likely to result from short circuits	P
M.6.2	Compliance	Complied with IEC/EN 62133-2	P
M.7	**Risk of explosion from lead acid and NiCd batteries**		**N/A**
M.7.1	Ventilation preventing explosive gas concentration		N/A
	Calculated hydrogen generation rate..... :		N/A
M.7.2	Test method and compliance		N/A
	Minimum air flow rate, Q (m^3/h).....:		N/A
M.7.3	Ventilation tests		N/A
M.7.3.1	General		N/A
M.7.3.2	Ventilation test – alternative 1		N/A
	Hydrogen gas concentration (%).....:		N/A
M.7.3.3	Ventilation test – alternative 2		N/A
	Obtained hydrogen generation rate.....:		N/A
M.7.3.4	Ventilation test – alternative 3		N/A
	Hydrogen gas concentration (%).....:		N/A
M.7.4	Marking.....:		N/A
M.8	**Protection against internal ignition from external spark sources of batteries with aqueous electrolyte**		**N/A**
M.8.1	General		N/A
M.8.2	Test method		N/A
M.8.2.1	General		N/A
M.8.2.2	Estimation of hypothetical volume V_Z (m^3/s)..... :		—
M.8.2.3	Correction factors..... :		—
M.8.2.4	Calculation of distance d (mm) .....:		—
M.9	**Preventing electrolyte spillage**		**N/A**

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Clause	Requirement + Test	Result - Remark	Verdict
M.9.1	Protection from electrolyte spillage		N/A
M.9.2	Tray for preventing electrolyte spillage		N/A
M.10	Instructions to prevent reasonably foreseeable misuse		P
	Instructional safeguard..... :	Provided the instructions include battery charging, storage and transportation, and disposal and recycling	P
N	**ELECTROCHEMICAL POTENTIALS**		**N/A**
	Material(s) used..... :		—
O	**MEASUREMENT OF CREEPAGE DISTANCES AND CLEARANCES**		**N/A**
	Value of *X* (mm)..... :		—
P	**SAFEGUARDS AGAINST CONDUCTIVE OBJECTS**		**P**
P.1	**General**		**P**
P.2	**Safeguards against entry or consequences of entry of a foreign object**		**P**
P.2.1	General		P
P.2.2	Safeguards against entry of a foreign object		P
	Location and Dimensions (mm) .....:	< 3 mm in any dimension	—
P.2.3	Safeguards against the consequences of entry of a foreign object		N/A
P.2.3.1	Safeguard requirements		N/A
	The ES3 and PS3 keep-out volume in Figure P.3 not applicable to transportable equipment		N/A
	Transportable equipment with metalized plastic parts .....:		N/A
P.2.3.2	Consequence of entry test..... :		N/A
P.3	**Safeguards against spillage of internal liquids**		**N/A**
P.3.1	General		N/A
P.3.2	Determination of spillage consequences		N/A
P.3.3	Spillage safeguards		N/A
P.3.4	Compliance		N/A
P.4	**Metallized coatings and adhesives securing parts**		**N/A**
P.4.1	General		N/A
P.4.2	Tests		N/A
	Conditioning, T_C (°C)..... :		—
	Duration (weeks)..... :		—
Q	**CIRCUITS INTENDED FOR INTERCONNECTION WITH BUILDING WIRING**		N/A
Q.1	**Limited power sources**		N/A
Q.1.1	Requirements		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	a) Inherently limited output		N/A
	b) Impedance limited output		N/A
	c) Regulating network limited output		N/A
	d) Overcurrent protective device limited output		N/A
	e) IC current limiter complying with G.9		N/A
Q.1.2	Test method and compliance.....:		N/A
	Current rating of overcurrent protective device (A) .....:		N/A
Q.2	**Test for external circuits – paired conductor cable**	No such external circuits	**N/A**
	Maximum output current (A) ..... :		N/A
	Current limiting method.....:		—
R	**LIMITED SHORT CIRCUIT TEST**		**N/A**
R.1	**General**		**N/A**
R.2	**Test setup**		**N/A**
	Overcurrent protective device for test..... :		—
R.3	**Test method**		**N/A**
	Cord/cable used for test..... :		—
R.4	**Compliance**		**N/A**
S	**TESTS FOR RESISTANCE TO HEAT AND FIRE**		**N/A**
S.1	**Flammability test for fire enclosures and fire barrier materials of equipment where the steady state power does not exceed 4 000 W**		**N/A**
	Samples, material.....:		—
	Wall thickness (mm).....:		—
	Conditioning (°C)..... :		—
	Test flame according to IEC 60695-11-5 with conditions as set out		N/A
	- Material not consumed completely		N/A
	- Material extinguishes within 30s		N/A
	- No burning of layer or wrapping tissue		N/A
S.2	**Flammability test for fire enclosure and fire barrier integrity**		**N/A**
	Samples, material.....:		—
	Wall thickness (mm).....:		—
	Conditioning (°C)..... :		—
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
	Mounting of samples .....:		—

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Clause	Requirement + Test	Result - Remark	Verdict
	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**
	Samples, material..... :		—
	Wall thickness (mm)..... :		—
	Conditioning (°C)..... :		—
T	**MECHANICAL STRENGTH TESTS**		**P**
T.1	General		P
T.2	Steady force test, 10 N ..... :		N/A
T.3	Steady force test, 30 N ..... :		N/A
T.4	Steady force test, 100 N ..... :	(See appended table T.4)	P
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 ..... :	(See appended table T.7)	P
T.8	Stress relief test..... :	(See appended table T.8)	P
T.9	Glass Impact Test..... :		N/A
T.10	Glass fragmentation test		N/A
	Number of particles counted..... :		N/A
T.11	Test for telescoping or rod antennas		N/A
	Torque value (Nm)..... :		N/A
U	**MECHANICAL STRENGTH OF CATHODE RAY TUBES (CRT) AND PROTECTION AGAINST THE EFFECTS OF IMPLOSION**		**N/A**
U.1	**General**		**N/A**
	Instructional safeguard :		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**		**P**
V.1	**Accessible parts of equipment**		**P**
V.1.1	General		P
V.1.2	Surfaces and openings tested with jointed test probes		P
V.1.3	Openings tested with straight unjointed test probes		P
V.1.4	Plugs, jacks, connectors tested with blunt probe		P

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Clause	Requirement + Test	Result - Remark	Verdict
V.1.5	Slot openings tested with wedge probe		N/A
V.1.6	Terminals tested with rigid test wire		N/A
V.2	**Accessible part criterion**		**P**
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**
	Clearance.....:	(See appended table X)	N/A
Y	**CONSTRUCTION REQUIREMENTS FOR OUTDOOR ENCLOSURES**		**N/A**
Y.1	**General**		**N/A**
Y.2	**Resistance to UV radiation**		**N/A**
Y.3	**Resistance to corrosion**		**N/A**
Y.3.1	Metallic parts of outdoor enclosures are resistant to effects of water-borne contaminants by.....:		N/A
Y.3.2	Test apparatus		N/A
Y.3.3	Water – saturated sulphur dioxide atmosphere		N/A
Y.3.4	Test procedure.....:		N/A
Y.3.5	Compliance		N/A
Y.4	**Gaskets**		**N/A**
Y.4.1	General		N/A
Y.4.2	Gasket tests		N/A
Y.4.3	Tensile strength and elongation tests		N/A
	Alternative test methods.....:		N/A
Y.4.4	Compression test		N/A
Y.4.5	Oil resistance		N/A
Y.4.6	Securing means		N/A
Y.5	**Protection of equipment within an outdoor enclosure**		**N/A**
Y.5.1	General		N/A
Y.5.2	Protection from moisture		N/A
	Relevant tests of IEC 60529 or Y.5.3.....:		N/A
Y.5.3	Water spray test		N/A
Y.5.4	Protection from plants and vermin		N/A
Y.5.5	Protection from excessive dust		N/A
Y.5.5.1	General		N/A
Y.5.5.2	IP5X equipment		N/A
Y.5.5.3	IP6X equipment		N/A
Y.6	**Mechanical strength of enclosures**		**N/A**
Y.6.1	General		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
Y.6.2	Impact test..... :		N/A

IEC62368_1D - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
ATTACHMENT TO TEST REPORT **IEC 62368-1** **EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES** (Audio/video, information and communication technology equipment - Part 1: Safety requirements)			
Differences according to : EN 62368-1:2014+A11:2017			
Attachment Form No. : EU_GD_IEC62368_1D_II **Attachment Originator** : Nemko AS **Master Attachment** : Date 2021-02-04			
	CENELEC COMMON MODIFICATIONS (EN)		-
	Clauses, subclauses, notes, tables, figures and annexes which are additional to those in IEC 62368-1:2014 are prefixed “Z”.		P
CONTENTS	**Add** the following annexes: Annex ZA (normative) Normative references to international publications with their corresponding European publications Annex ZB (normative) Special national conditions Annex ZC (informative) A-deviations Annex ZD (informative) IEC and CENELEC code designations for flexible cords		P
	Delete all the “country” notes in the reference document (IEC 62368-1:2014) according to the following list:		P

0.2.1	Note	1	Note 3	4.1.15	Note
4.7.3	Note 1 and 2	5.2.2.2	Note	5.4.2.3.2.2 Table 13	Note c
5.4.2.3.2.4	Note 1 and 3	5.4.2.5	Note 2	5.4.5.1	Note
5.5.2.1	Note	5.5.6	Note	5.6.4.2.1	Note 2 and 3
5.7.5	Note	5.7.6.1	Note 1 and 2	10.2.1 Table 39	Note 2, 3 and 4
10.5.3	Note 2	10.6.2.1	Note 3	F.3.3.6	Note 3

EN 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

	For special national conditions, see Annex ZB.		P
1	**Add** the following note: NOTE Z1 The use of certain substances in electrical and electronic equipment is restricted within the EU: see Directive 2011/65/EU.		N/A
4.Z1	**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 type B** or **permanently connected 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, the installation instructions shall so state, except that for **pluggable equipment type A** the building installation shall be regarded as providing protection in accordance with the rating of the wall socket outlet.		N/A
5.4.2.3.2.4	**Add** the following to the end of this subclause: The requirement for interconnection with **external circuit** is in addition given in EN 50491-3:2009.		N/A
10.2.1	Add the following to [c] and [d] in table 39: For additional requirements, see 10.5.1.		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
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 presets which are not locked in a reliable manner, are adjusted so as to give maximum radiation whilst maintaining an intelligible picture for 1 h, at the end of which the measurement is made.* NOTE Z1 Soldered joints and paint lockings are examples of adequate locking. *The dose-rate is determined by means of a radiation monitor with an effective area of 10 cm², at any point 10 cm from the outer surface of the apparatus.* *Moreover, the measurement shall be made under fault conditions causing an increase of the high-voltage, provided an intelligible picture is maintained for 1 h, at the end of which the measurement is made.* *For RS1, the dose-rate shall not exceed 1 µSv/h taking account of the background level.* NOTE Z2 These values appear in Directive 96/29/Euratom of 13 May 1996.		N/A
10.6.1	**Add** the following paragraph to the end of the subclause: EN 71-1:2011, 4.20 and the related tests methods and measurement distances apply.		N/A
10.Z1	**Add** the following new subclause after 10.6.5. **10.Z1 Non-ionizing radiation from radio frequencies in the range 0 to 300 GHz** 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-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		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.		N/A

EN 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

Bibliography	**Add** the following standards: **Add** the following notes for the standards indicated: IEC 60130-9 NOTE Harmonized as EN 60130-9. IEC 60269-2 NOTE Harmonized as HD 60269-2. IEC 60309-1 NOTE Harmonized as EN 60309-1. IEC 60364 series. NOTE some parts harmonized in HD 384/HD 60364 IEC 60601-2-4 NOTE Harmonized as EN 60601-2-4. IEC 60664-5 NOTE Harmonized as EN 60664-5. IEC 61032:1997 NOTE Harmonized as EN 61032:1998 (not modified). IEC 61508-1 NOTE Harmonized as EN 61508-1. IEC 61558-2-1 NOTE Harmonized as EN 61558-2-1. IEC 61558-2-4 NOTE Harmonized as EN 61558-2-4. IEC 61558-2-6 NOTE Harmonized as EN 61558-2-6. IEC 61643-1 NOTE Harmonized as EN 61643-1. IEC 61643-21 NOTE Harmonized as EN 61643-21. IEC 61643-311 NOTE Harmonized as EN 61643-311. IEC 61643-321 NOTE Harmonized as EN 61643-321. IEC 61643-331 NOTE Harmonized as EN 61643-331.		P
ZB	**ANNEX ZB, SPECIAL NATIONAL CONDITIONS (EN)**		-
4.1.15	**Denmark, Finland, Norway** and **Sweden** To the end of the subclause the following is added: **Class I pluggable equipment type A** intended for connection to other equipment or a network shall, if safety relies on connection to reliable earthing or if surge suppressors are connected between the network terminals and **accessible** parts, have a marking stating that the equipment shall be connected to an earthed **mains** socket-outlet. The marking text in the applicable countries shall be as follows: In **Denmark**: “Apparatets stikprop skal tilsluttes en stikkontakt med jord som giver forbindelse til stikproppens jord.” In **Finland**: "Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan" In **Norway**: “Apparatet må tilkoples jordet stikkontakt” In **Sweden**: “Apparaten skall anslutas till jordat uttag”		N/A
4.7.3	**United Kingdom** To the end of the subclause the following is added: The torque test is performed using a socket-outlet complying with BS 1363, and the plug part shall be assessed to the relevant clauses of BS 1363. Also see Annex G.4.2 of this annex		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
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.		N/A
5.4.11.1 and Annex G	**Finland and Sweden** To the end of the subclause the following is added: For separation of the telecommunication network from earth the following is applicable: If this insulation is solid, including insulation forming part of a component, it shall at least consist of either • two layers of thin sheet material, each of which shall pass the electric strength test below, or • one layer having a distance through insulation of at least 0,4 mm, which shall pass the electric strength test below. 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 • 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), and • is subject to routine testing for electric strength during manufacturing, using a test voltage of 1,5kV. It is permitted to bridge this insulation with a capacitor complying with EN 60384-14:2005, subclass Y2. A capacitor classified Y3 according to EN 60384-14:2005, may bridge this insulation under the following conditions: • the insulation requirements are satisfied by having a capacitor classified Y3 as defined by EN 60384-14, which in addition to the Y3 testing, is tested with an impulse test of 2,5 kV defined in 5.4.11; • the additional testing shall be performed on all the test specimens as described in EN 60384-14; the impulse test of 2,5 kV is to be performed before the endurance test in EN 60384-14, in the sequence of tests as described in EN 60384-14.		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
5.5.2.1	**Norway** After the 3rd paragraph the following is added: Due to the IT power system used, capacitors are required to be rated for the applicable line-to-line voltage (230 V).		N/A
5.5.6	**Finland, Norway** and **Sweden** To the end of the subclause the following is added: 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.		N/A
5.6.1	**Denmark** **Add** to the end of the subclause Due to many existing installations where the socket-outlets can be protected with fuses with higher rating than the rating of the socket-outlets the protection for pluggable equipment type A shall be an integral part of the equipment. *Justification:* In Denmark an existing 13 A socket outlet can be protected by a 20 A fuse.		N/A
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.		N/A
5.6.5.1	To the second paragraph the following is added: 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.		N/A
5.7.5	**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.		N/A

EN 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
5.7.6.1	**Norway and Sweden** To the end of the subclause the following is added: The screen of the television distribution system is normally not earthed at the entrance of the building and there is normally no equipotential bonding system within the building. Therefore the protective earthing of the building installation needs to be isolated from the screen of a cable distribution system. It is however accepted to provide the insulation external to the equipment by an adapter or an interconnection cable with galvanic isolator, which may be provided by a retailer, for example. The user manual shall then have the following or similar information in Norwegian and Swedish language respectively, depending on in what country the equipment is intended to be used in: “Apparatus connected to the protective earthing of the building installation through the mains connection or through other apparatus with a connection to protective earthing – and to a television distribution system using coaxial cable, may in some circumstances create a fire hazard. Connection to a television distribution system therefore has to be provided through a device providing electrical isolation below a certain frequency range (galvanic isolator, see EN 60728-11)” NOTE In Norway, due to regulation for CATV-installations, and in Sweden, a galvanic isolator shall provide electrical insulation below 5 MHz. The insulation shall withstand a dielectric strength of 1,5 kV r.m.s., 50 Hz or 60 Hz, for 1 min. Translation to Norwegian (the Swedish text will also be accepted in Norway): “Apparater som er koplet til beskyttelsesjord via nettplugg og/eller via annet jordtilkoplet utstyr – og er tilkoplet et koaksialbasert kabel-TV nett, kan forårsake brannfare. For å unngå dette skal det ved tilkopling av apparater til kabel-TV nett installeres en galvanisk isolator mellom apparatet og kabel-TV nettet.” Translation to Swedish: ”Apparater som är kopplad till skyddsjord via jordat vägguttag och/eller via annan utrustning och samtidigt är kopplad till kabel-TV nät kan i vissa fall medföra risk för brand. För att undvika detta skall vid anslutning av apparaten till kabel-TV nät galvanisk isolator finnas mellan apparaten och kabel-TV nätet.”.		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
5.7.6.2	**Denmark** 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 .		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		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 to be used in locations where protection against indirect contact is required according to the wiring rules shall be provided with a plug in accordance with standard sheet DK 2-1a or DK 2-5a. If a single-phase equipment having a RATED CURRENT exceeding 13 A or if a poly-phase equipment is provided with a supply cord with a plug, this plug shall be in accordance with the standard sheets DK 6-1a in DS 60884-2-D1 or EN 60309-2. Mains socket outlets intended for providing power to Class II apparatus with a rated current of 2,5 A shall be in accordance DS 60884-2-D1:2011 standard sheet DKA 1-4a. Other current rating socket outlets shall be in compliance with Standard Sheet DKA 1-3a or DKA 1-1c. Mains socket-outlets with earth shall be in compliance with DS 60884-2-D1:2011 Standard Sheet DK 1-3a, DK 1-1c, DK1-1d, DK 1-5a or DK 1-7a *Justification:* Heavy Current Regulations, Section 6c		N/A

EN 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
G.4.2	**United Kingdom** To the end of the subclause the following is added: The plug part of direct plug-in equipment shall be assessed to BS 1363: Part 1, 12.1, 12.2, 12.3, 12.9, 12.11, 12.12, 12.13, 12.16, and 12.17, except that the test of 12.17 is performed at not less than 125 °C. Where the metal earth pin is replaced by an Insulated Shutter Opening Device (ISOD), the requirements of clauses 22.2 and 23 also apply.		N/A
G.7.1	**United Kingdom** 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. NOTE "Standard plug" is defined in SI 1768:1994 and essentially means an approved plug conforming to BS 1363 or an approved conversion plug.		N/A
G.7.1	**Ireland** To the first paragraph the following is added: Apparatus which is fitted with a flexible cable or cord shall be provided with a plug in accordance with Statutory Instrument 525: 1997, "13 A Plugs and Conversion Adapters for Domestic Use Regulations: 1997. S.I. 525 provides for the recognition of a standard of another Member State which is equivalent to the relevant Irish Standard		N/A
G.7.2	**Ireland and United Kingdom** To the first paragraph the following is added: 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.		N/A
ZC	**ANNEX ZC, NATIONAL DEVIATIONS (EN)**		-

EN 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
10.5.2	**Germany** The following requirement applies: For the operation of any cathode ray tube intended for the display of visual images operating at an acceleration voltage exceeding 40 kV, authorization is required, or application of type approval (Bauartzulassung) and marking. *Justification:* German ministerial decree against ionizing radiation (Röntgenverordnung), in force since 2002-07-01, implementing the European Directive 96/29/EURATOM. **NOTE** Contact address: Physikalisch-Technische Bundesanstalt, Bundesallee 100, D-38116 Braunschweig, Tel.: Int +49-531-592-6320, Internet: http://www.ptb.de		N/A

EN 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

4.1.2	TABLE: List of critical components				P
Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity[1]
External power supply	Shenzhen Huajin Electronics Co., Ltd	HJ-C6-33-EU	Input: 100-240VAC, 50/60Hz, 0.8A; Output (PD): 5.0VDC, 3.0A, 15.0W or 9.0VDC, 3.0A, 27.0W or 12.0VDC, 2.5A, 30.0W or 15.0VDC, 2.0A, 30.0W or 20.0VDC, 1.5A, 30.0W; (PPS) 3.3V-11.0VDC, 3.0A (33.0W MAX)	IEC/EN 62368-1	CB cert no.: DE-6-G7230296-M1 with CB report no.: EFGX23040336-IE-01-L01 & EFGX23040336-IE-01-L01-M1
Plastic Enclosure	FORMOSA CHEMICALS & FIBRE CORP PLASTICS DIV	AC310(+)	Min. thichness: 1.5mm, V-0, 80°C	UL 94 UL 746	UL E162823
PCB	GUANGDONG KINGSHINE ELECTRONIC TECHNOLOGY CO LTD	M1	Min. thichness: 1.0mm, V-0, 130°C	UL 94 UL 796	UL E358874
(Alternative)	Interchangeable	Interchangeable	Min. thichness: 1.0mm, V-1 or better, min. 130℃	UL 94 UL 796	UL
Display screen	SHENZHEN JILANTE TECHNOLOGY CO.LTD	JLT104HN20235P51-36D05-18Y-B	10.4 inch IPS LCD, Display area: 225.60mm (H) x 135.76mm (V)	EN 62368-1	Tested with appliance
Flash LED	ANHUI RETOP ELECTRONICS CO., LTD	NLW2016AY2C-B5257V23NAB	3V d.c., 150mA	IEC 62471	Test report No.: SHES22010 0197571 issued by SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.
Speaker (2pcs)	Interchangeable	Interchangeable	4Ω, 2W	EN 62368-1	Tested with appliance
Battery pack	Shenzhen Hua Tian Tong Technology Co.,Ltd	Li398091HTT	3.87Vdc, 22000mAh, 85.14Wh	IEC/EN 62133-2	Test report No.: CTC20230731S03 issued by CTC Laboratories, Inc

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Clause	Requirement + Test	Result - Remark	Verdict

- Cell (4pcs)	HuiZhou GanFeng LiEnergy Battery Technology Co., Ltd	398091	3.87V, 5500mAh	IEC/EN 62133-2	Test report No.: CTC20230731S03 issued by CTC Laboratories, Inc
DC motor	Tianchang Hengbo Intelligent Technology Co., Ltd.	DK051	3.0VDC, min. 10000rpm, 80mA Max., 70°C	EN 62368-1	Tested with equipment
Internal wire	Interchangeable	Interchangeable	Min. 32AWG, 80°C, VW-1, 30V	UL 758	UL
USB cable	Interchangeable	Interchangeable	Min. 24AWG, 80°C, VW-1, 30V	UL 758	UL
Supplementary information: 1) an asterisk indicates a mark which assures the agreed level of surveillance. License available upon request.					

EN 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

4.8.4, 4.8.5	**TABLE: Lithium coin/button cell batteries mechanical tests**	**N/A**

(The following mechanical tests are conducted in the sequence noted.)

4.8.4.2 TABLE: Stress Relief test —

Part	Material	Oven Temperature (°C)	Comments
--	--	--	--

4.8.4.3 TABLE: Battery replacement test —

Battery part no. :		—
Battery Installation/withdrawal	Battery Installation/Removal Cycle	Comments
	1	--
	2	--
	3	--
	4	--
	5	--
	6	--
	8	--
	9	--
	10	--

4.8.4.4 TABLE: Drop test —

Impact Area	Drop Distance	Drop No.	Observations
--	--	1	--
--	--	2	--
--	--	3	--

4.8.4.5 TABLE: Impact —

Impacts per surface	Surface tested	Impact energy (Nm)	Comments
--	--	--	--

4.8.4.6 TABLE: Crush test —

Test position	Surface tested	Crushing Force (N)	Duration force applied (s)
--	--	--	--

Supplementary information:

5.2	**TABLE: Classification of electrical energy sources**	**P**

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Clause	Requirement + Test	Result - Remark	Verdict

Supply Voltage	Location (e.g. circuit designation)	Test conditions	Parameters				ES Class
			U (V)	I (mA)	Type[1)]	Additional Info[2)]	
9VDC	Input terminal	Normal	9.02Vrms	--	SS	DC	ES1
		Abnormal	--	--	--	--	
		Single fault –SC/OC	--	--	--	--	
Full charged battery	Battery P+ to P-	Normal	4.45Vrms	--	SS	DC	ES1
		Abnormal: Overload	4.45Vrms	--	SS	DC	
		Single fault – SC C3	4.45Vrms	--	SS	DC	
Supplementary information:							
1) Type: Steady state (SS), Capacitance (CP), Single pulse (SP), Repetitive pulses (RP), etc. 2) Additional Info: Frequency, Pulse duration, Pulse off time, Capacitance value, etc. 3) SC=Short Circuit, OC=Open Circuit.							

5.4.1.8	**TABLE: Working voltage measurement**				**N/A**
Location	RMS voltage (V)	Peak voltage (V)	Frequency (Hz)	Comments	
--	--	--	--	--	
--	--	--	--	--	
Supplementary information:					

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

5.4.1.10.3	**TABLE: Ball pressure test of thermoplastics**			**N/A**
Allowed impression diameter (mm)..... :	≤2mm			—
Object/Part No./Material	Manufacturer/trademark	Thickness (mm)	Test temperature (°C)	Impression diameter (mm)
--	--	--	--	--
Supplementary information:				

EN 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

5.4.2, 5.4.3	TABLE: Minimum Clearances/Creepage distance							N/A
Clearance (cl) and creepage distance (cr) at/of/between:	U_p (V)	U_{rms} (V)	Freq [1] (Hz)	Required cl (mm)	cl (mm)	E.S.[2] (V)	Required cr (mm)	cr (mm)
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--
Supplementary information:								
1) Only for frequency above 30 kHz; 2) Complete Electric Strength voltage (E.S. (V) when 5.4.2.4 applied); 3) Provide Material Group IIIa/IIIb; 4) BI: basic insulation; SI: supplementary insulation; DI: double insulation; RI: reinforced insulation.								

5.4.4.2	TABLE: Minimum distance through insulation			N/A
Distance through insulation (DTI) at/of	Peak voltage (V)	Insulation	Required DTI (mm)	Measured DTI (mm)
--	--	--	--	--
Supplementary information:				

5.4.4.9	TABLE: Solid insulation at frequencies >30 kHz					N/A
Insulation material	E_P	Frequency (kHz)	K_R	Thickness d (mm)	Insulation	V_{PW} (Vpk)
--	--	--	--	--	--	--
Supplementary information:						

5.4.9	TABLE: Electric strength tests		N/A
Test voltage applied between:	Voltage shape (Surge, Impulse, AC, DC, etc.)	Test voltage (V)	Breakdown Yes/No
Functional:			
--	--	--	--
Basic/supplementary:			
--	--	--	--
Reinforced:			
--	--	--	--
Routine Tests:			

EN 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

--	--	--	--
Supplementary information:			

5.5.2.2	TABLE: Stored discharge on capacitors				N/A
Location	Supply voltage (V)	Operating and fault condition [1)]	Switch position	Measured voltage (Vpk)	ES Class
--	--	--	--	--	--
Supplementary information:					
X-capacitors installed for testing: [ ] bleeding resistor rating: [ ] ICX: 1) Normal operating condition (e.g., normal operation, or open fuse), SC= short circuit, OC= open circuit					

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

5.7.4	TABLE: Unearthed accessible parts					N/A
Location	Operating and fault conditions	Supply Voltage (V)	Parameters			ES class
			Voltage (V_{rms} or V_{pk})	Current (A_{rms} or A_{pk})	Freq. (Hz)	
--	--	--	--	--	--	--
Supplementary information:						
Abbreviation: SC= short circuit; OC= open circuit						

5.7.5	TABLE: Earthed accessible conductive part			N/A
Supply voltage (V).....:	--			—
Phase(s) ..... :	[] Single Phase; [ ] Three Phase: [ ] Delta [ ] Wye			
Power Distribution System .....:	[ ] TN [ ]TT [ ] IT			
Location	Fault Condition No in IEC 60990 clause 6.2.2	Touch current (mA)	Comment	
	1	--	--	
	2*	--	--	
	3	--	--	
	4	--	--	

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Clause	Requirement + Test	Result - Remark	Verdict

	5	--	--
	6	--	--
	8	--	--

Supplementary Information:

[1] Supply voltage is the anticipated maximum Touch Voltage.

[2] Earthed neutral conductor [Voltage differences less than 1% or more].

[3] Specify method used for measurement as described in IEC 60990 sub-clause 4.3.

[4] IEC60990, sub-clause 6.2.2.7, Fault 7 not applicable.

[5] (*) IEC60990, sub-clause 6.2.2.2 is not applicable if switch or disconnect device (e.g., appliance coupler) provided.

5.8	**TABLE: Backfeed safeguard in battery backed up supplies**					**N/A**
Location	Supply voltage (V)	Operating and fault condition	Time (s)	Open-circuit voltage (V)	Touch current (A)	ES Class
--	--	--	--	--	--	--

Supplementary information:

Abbreviation: SC= short circuit, OC= open circuit

6.2.2	**TABLE: Power source circuit classifications**					**P**
Location	Operating and fault condition	Voltage (V)	Current (A)	Max. Power[1)] (W)	Time (S)	PS class
Input terminal	--	--	--	--	--	PS2*
Battery pack output	--	--	--	--	--	PS3 (declared)

Supplementary information:

Abbreviation: SC= short circuit; OC= open circuit.

1) Measured after 3 s for PS1 and measured after 5 s for PS2.

2) All power supplied modes were considered, recorded the worst condition.

* Output of approved external power supply complies with PS2 requirement.

6.2.3.1	**TABLE: Determination of Arcing PIS**			**N/A**
Location	Open circuit voltage after 3s(Vpk)	Measured r.m.s current(A)	Calculated value	Arcing PIS? Yes / No
--	--	--	--	--

Supplementary information:

An Arcing PIS requires a minimum of 50 V (peak) a.c. or d.c. An Arcing PIS is established when the product of the open circuit voltage (V_p) and normal operating condition rms current (I_{rms}) is greater than 15.

6.2.3.2	**TABLE: Determination of resistive PIS**		**P**
Location	Operating and fault condition	Dissipate power (W)	Arcing PIS?

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Clause	Requirement + Test	Result - Remark	Verdict

			Yes / No
All internal circuits	--	>15	Yes*
Supplementary information:			
Abbreviation: SC= short circuit; OC= open circuit * All internal circuits were considered as resistive PIS.			

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

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

5.4.1.4, 6.3.2, 9.0, B.2.6	TABLE: Thermal requirements					P
	Supply voltage (V) .....:	9VDC[1)]	9VDC[2)]	Full charged battery[3)]	--	—
	Ambient T_{min} (°C) .....:	See below	See below	See below	--	—
	Ambient T_{max} (°C) .....:	See below	See below	See below	--	—
	Tma (°C) ……..……:	See below	See below	See below	--	—
Maximum measured temperature T of part/at.....:		T (°C)				Allowed T_{max} (°C)
PCB near DC inlet		30.5	48.4	47.4	--	130
PCB near J2 on TYPE-C board		34.5	62.0	56.3	--	130
PCB near U0200		29.8	37.9	41.3	--	130

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Clause	Requirement + Test	Result - Remark	Verdict

PCB near U0502	30.4	51.7	49.2	--	130
PCB near U0500	28.1	32.1	33.9	--	130
PCB near U0400	31.2	64.2	60.9	--	130
PCB near U2100	37.2	69.7	56.0	--	130
Battery(cell 1)	31.0	62.9	59.6	--	Ref.
Battery(cell 2)	31.4	58.2	54.9	--	Ref.
Internal wire	31.2	49.3	49.0	--	80
Plastic enclosure inside near battery pack	29.7	47.8	46.5	--	Ref.
Adapter enclosure	39.7	43.5	--	--	77
Plastic enclosure outside near U2100	29.4	44.9	44.1	--	48
Plastic enclosure outside near input terminal	29.6	37.6	41.0	--	77
Panel	29.5	36.8	38.7	--	48
Button	27.0	29.5	30.9	--	48
USB cable	28.3	25.7	26.1	--	77
Ambient	25.0	25.0	25.0	--	--

Supplementary information:

Temperature T of winding:	t_1 (°C)	R_1 (Ω)	t_2 (°C)	R_2 (Ω)	T (°C)	Allowed T_{max} (°C)	Insulation class
--	--	--	--	--	--	--	--

Supplementary information:
[1] Charging with empty battery only;
[2] Charging with empty battery and operating under most unfavourable normal condition with max. volume and max. brightness.
[3] Discharging with fully charged battery and operating under most unfavourable normal condition with max. volume and max. brightness.

B.2.5	TABLE: Input test						P
U (V)	I (A)	Irated (A)	P (W)	P rated (W)	Fuse No	Ifuse (A)	Condition/status
9VDC	1.95	3	--	--	--	--	Charging with empty battery only. Battery pack charging current: 3.21A.
9VDC	2.82	3	--	--	--	--	Charging with empty battery and operating under most unfavourable normal condition with max. volume and max. brightness. Battery pack charging current: 2.92A.
3.87VDC	--	--	--	--	--	--	Discharging with fully charged battery and operating under most unfavourable normal condition with max. volume

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Clause	Requirement + Test	Result - Remark	Verdict

							and max. brightness. Battery pack discharging current: 4.02A.
Supplementary information:							

B.3, B.4	TABLE: Fault condition tests					P
Ambient temperature T_{amb} (°C)..... :			See below			—
Power source for EUT: Manufacturer, model/type, outputrating... :			See table 4.1.2			—
Component No.	Condition	Supply voltage (V)	Test time	Fuse no.	Fuse current (A)	Observation
Charging mode						
Ventilation	Blocked	9VDC	2h26 min	--	--	Unit working normally, no hazard. Battery pack charging current: 2.92A Max. temperature(°C): Adapter enclosure: 44.8 Plastic enclosure outside near U2100: 46.1 Plastic enclosure outside near input terminal: 38.0 Panel: 30.7 Button: 26.7 USB cable: 26.9 Battery(cell 1): 64.2 Battery(cell 2): 59.5 Ambient: 25.0.
DC vibration motor	Locked	9VDC	7h	--	--	After motor locked, unit run for until thermal equilibrium, no damage, no hazard. The cheesecloth or wrapping tissue not char or catch fire. Battery max. charging current: 2.80A.
Speaker	SC	9VDC	30min	--	--	The speaker shut down immediately, no hazard. Battery pack charging current: 2.87A Max.
U6105 pin VBUS to VOUT	SC	9VDC	7h	--	--	After SC, unit operation normally. No damage, no hazard. Battery max. discharging current: 2.02A.
U6 pin A1-A2	SC	9VDC	7h	--	--	After SC, unit operation normally. No damage, no hazard. Battery max. discharging current: 2.02A.
C3 on battery board	SC	9VDC	7h	--	--	After SC, unit operation normally. No damage, no hazard. Battery max. charging current: 0A.
Battery cell 1 B+ to B-	SC	9VDC	30min	--	--	Unit shut down immediately, no fire, no explosion and leakage, no hazard.
Discharging mode						
DC vibration motor	Locked	Full battery	7h	--	--	After motor locked, unit run for until thermal equilibrium, no damage, no hazard. The cheesecloth or wrapping tissue not char or catch fire. Battery max. discharging current: 3.81A.

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Clause	Requirement + Test	Result - Remark	Verdict

Speaker	SC	Full battery	30min	--	--	The speaker shut down immediately, no hazard. Battery pack charging current: 3.75A Max.
U4 pin 2-3	SC	Full battery	30min	--	--	After SC, Display shutdown. No damage, no hazard. Battery max. discharging current: 1.15A.
D6	SC	Full battery	30min	--	--	After SC, Display shutdown. No damage, no hazard. Battery max. discharging current: 1.12A.
U6 pin A1-A2	SC	Full battery	30min	--	--	After SC, unit operation normally. No damage, no hazard. Battery max. discharging current: 4.02A.
C3 on battery board	SC	Full battery	30min	--	--	Unit shut down immediately, no fire, no explosion and leakage, no hazard. Battery max. discharging current: 0A.

Supplementary information:

SC: short circuit, OL: overload, OC: open circuit;

CD - Components damaged (list damaged components)

NB - No indication of dielectric breakdown.

NC - Cheesecloth remained intact.

NT - Tissue paper remained intact.

Temperature limits (°C):

Adapter enclosure: 87; Plastic enclosure outside near U2100: 87; Plastic enclosure outside near input terminal: 87; Panel: 81; Button: 87; USB cable: 87.

M.3	**TABLE: Protection circuits for batteries provided within the equipment**						**P**
Is it possible to install the battery in a reverse polarity position?.....:					No		—
Equipment Specification	Charging						
	Voltage (V)				Current (A)		
	9VDC				3		
Manufacturer/type	Battery specification						
	Non-rechargeable batteries		Rechargeable batteries				
	Discharging current (A)	Unintentional charging current (A)	Charging		Discharging current (A)	Reverse charging current (A)	
			Voltage (V)	Current (A)			
Shenzhen Hua Tian Tong Technology Co.,Ltd / Li39809HTT	--	--	4.45	7.5	8	--	
Note: The tests of M.3.2 are applicable only when above appropriate data is not available.							
Specified battery temperature (°C).....:					0 to 60°C for charge mode; -20°C to 60°C for discharge mode		--

Component No.	Fault condition	Charge/ discharge mode	Test time	Temp. (°C)	Current (A)	Voltage (V)	Observation
--	Normal	Charge mode	3h	See appended	3.21	4.45	No damaged, no hazard.

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Clause	Requirement + Test	Result - Remark	Verdict

				table 5.4.1.4, 6.3.2, 9.0, B.2.6			
Ventilation	Blocked	Charge mode	2h26min	See appended table 5.4.1.4, 6.3.2, 9.0, B.2.6	2.92	4.45	No damaged, no hazard.
--	Normal	Discharge mode	1h11min	See appended table 5.4.1.4, 6.3.2, 9.0, B.2.6	4.02	3.87	No damaged, no hazard.
U6 pin A1-A2	SC	Discharge mode	30min	--	4.02	3.87	No damaged, no hazard.
Supplementary information:							
Abbreviation: SC= short circuit; OC= open circuit NL= no chemical leakage; NS= no spillage of liquid; NE= no explosion; NF= no emission of flame or expulsion of molten metal.							

M.4.2	**TABLE: Charging safeguards for equipment containing a secondary lithium battery**	**P**
Maximum specified charging voltage (V)..... :	4.45V (4.45V for each cell)	—
Maximum specified charging current (A) .....:	7.5A (2.75A for each cell)	—
Highest specified charging temperature (°C) .....:	60	—
Lowest specified charging temperature (°C) .....:	0	—

Battery manufacturer/type	Operating and fault condition	Measurement			Observation
		Charging voltage (V)	Charging current (A)	Temp. (°C)	
HuiZhou GanFeng LiEnergy Battery Technology Co., Ltd / 398091	Normal	4.45	0.803	Battery (cell 1): 59.6; Battery (cell 2): 54.9; Ambient: 25.0	No damaged, no hazard.
	Single fault –SC: U6 pin A1-A2	--	Max. 1.01	--	No damaged, no hazard.
	HSCT	0	0	--	Stopping charging, no hazard.
	LSCT	0	0	--	Stopping charging, no hazard.
Supplementary information:					
Abbreviation: SC= short circuit; OC= open circuit; MSCV= maximum specified charging voltage; MSCC= maximum specified charging current; HSCT= highest specified charging temperature; LSCT= lowest specified charging temperature.					

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Clause	Requirement + Test	Result - Remark	Verdict

Q.1	**TABLE: Circuits intended for interconnection with building wiring (LPS)**						**N/A**
Output Circuit	Condition	U_{oc} (V)	Time (s)	I_{sc} (A)		S (VA)	
				Meas.	Limit	Meas.	Limit
--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--
Supplementary Information:							
SC= short circuit; OC= open circuit							

T.2, T.3, T.4, T.5	**TABLE: Steady force test**					**P**
Part/Location	Material	Thickness (mm)	Probe	Force (N)	Test Duration (s)	Observation
Top enclosure	Plastic	1.5	Circular plane surface 30 mm in diameter	100	5	No damage, no hazard.
Bottom enclosure	Plastic	1.5	Circular plane surface 30 mm in diameter	100	5	No damage, no hazard.
Side enclosure	Plastic	1.5	Circular plane surface 30 mm in diameter	100	5	No damage, no hazard.
Supplementary information:						

T.6, T.9	**TABLE: Impact test**			**N/A**
Location/part	Material	Thickness (mm)	Height (mm)	Observation
--	--	--	--	--
Supplementary information:				

T.7	**TABLE: Drop test**			**P**
Location/part	Material	Thickness (mm)	Height (mm)	Observation
Top enclosure	Plastic	1.5	1000	No damaged, no hazard
Bottom enclosure	Plastic	1.5	1000	No damaged, no hazard
Side enclosure	Plastic	1.5	1000	No damaged, no hazard
Supplementary information:				

T.8	**TABLE: Stress relief test**				**P**
Location/Part	Material	Thickness (mm)	Oven Temperature (°C)	Duration (h)	Observation

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Clause	Requirement + Test	Result - Remark	Verdict

Plastic enclosure	Plastic	1.5	70.0	7	No softening, no damage, no hazard
Supplementary information:					

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

EUT Photos

Photo 1 Overall view

Photo 2 General view

Photo 3 Terminals view

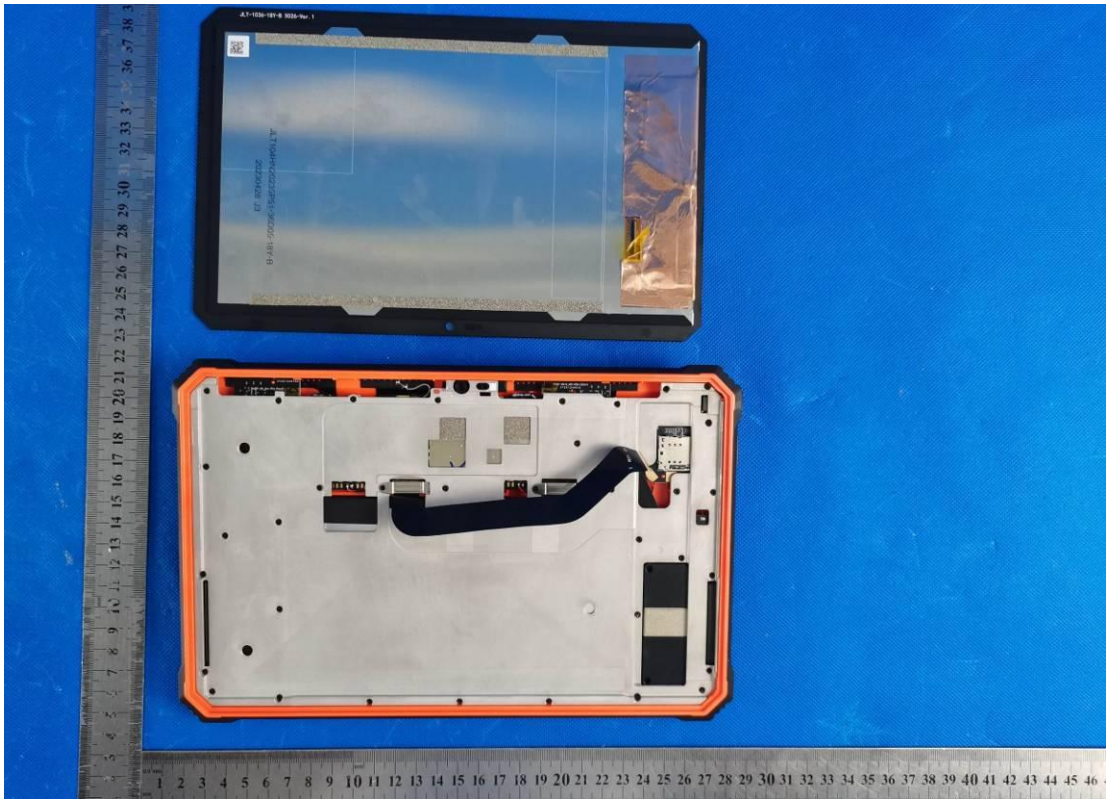

Photo 4 Internal view

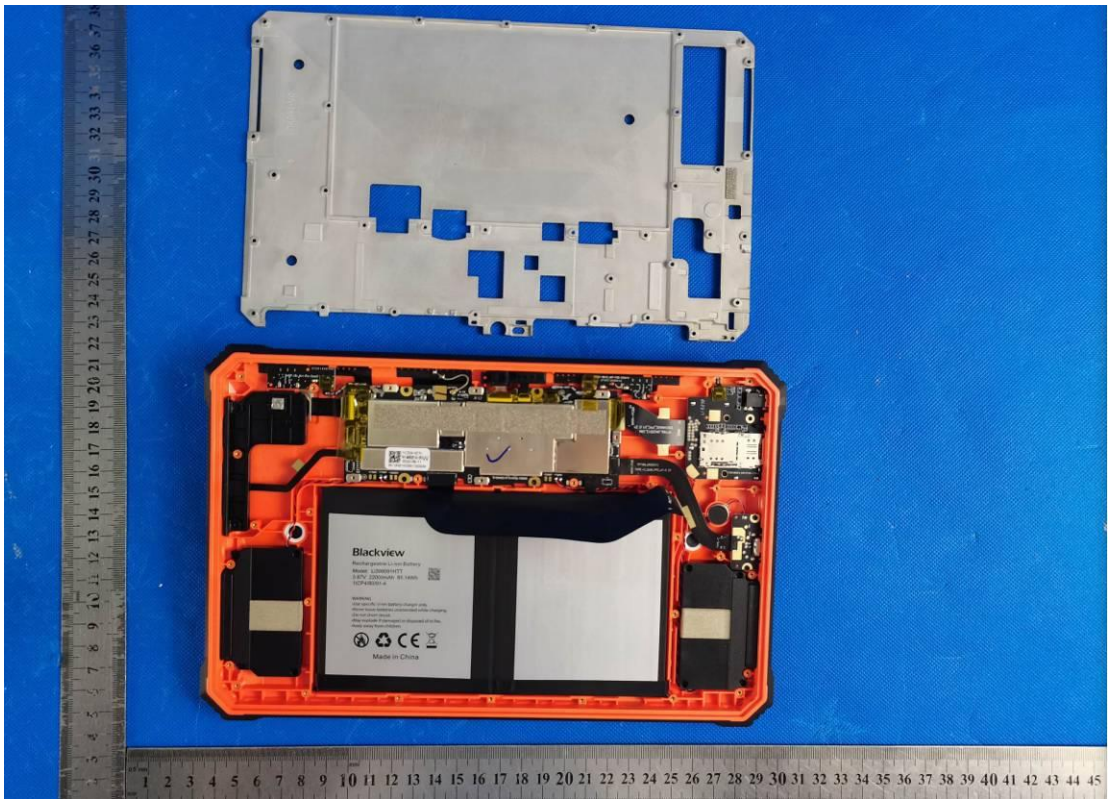

Photo 5 Internal view

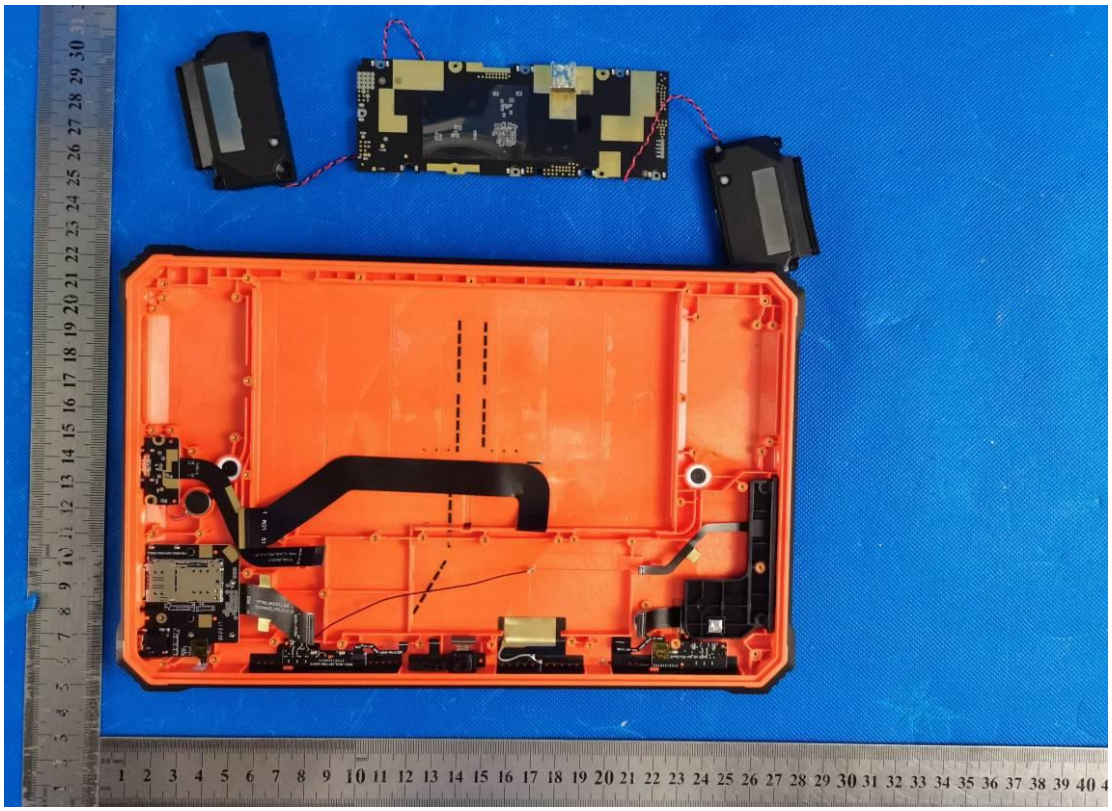

Photo 6 Internal view

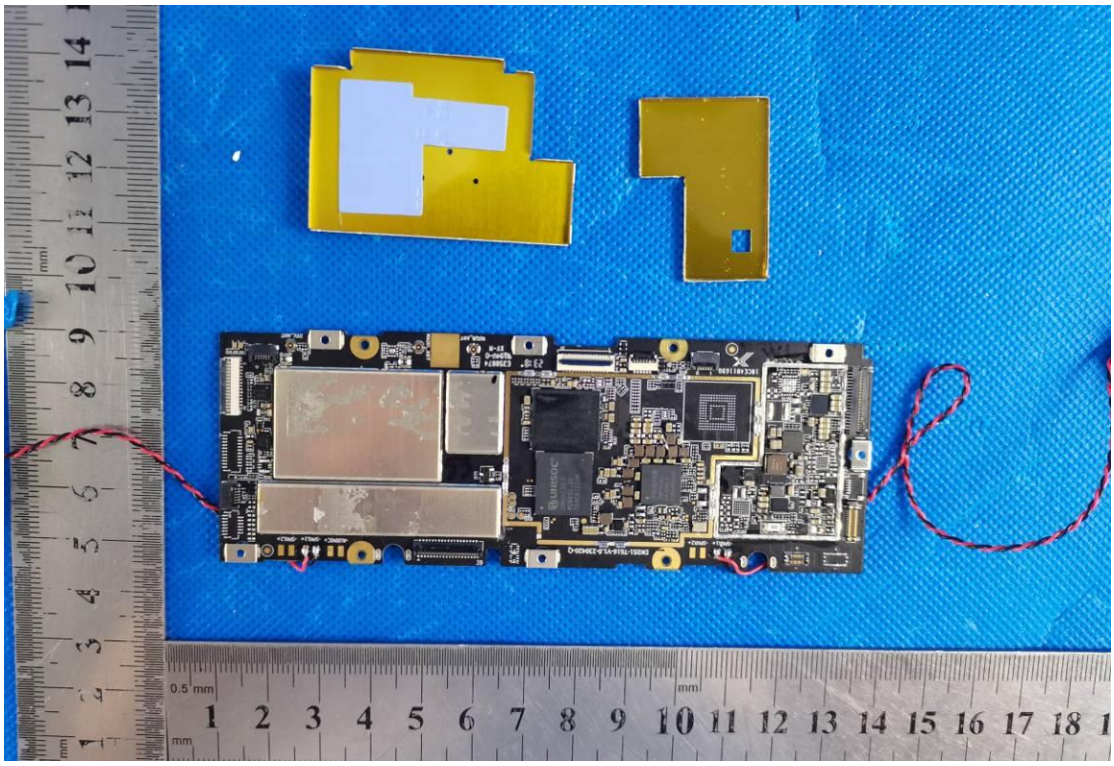

Photo 7 Main board view

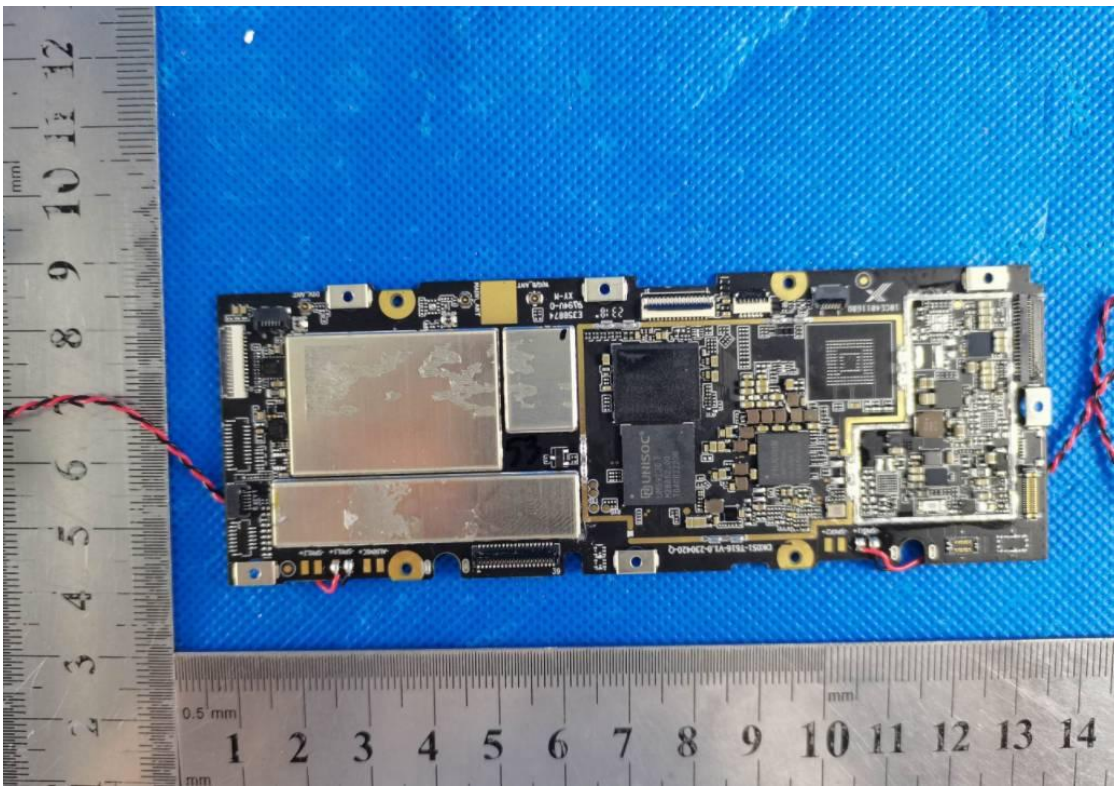

Photo 8 Main board view

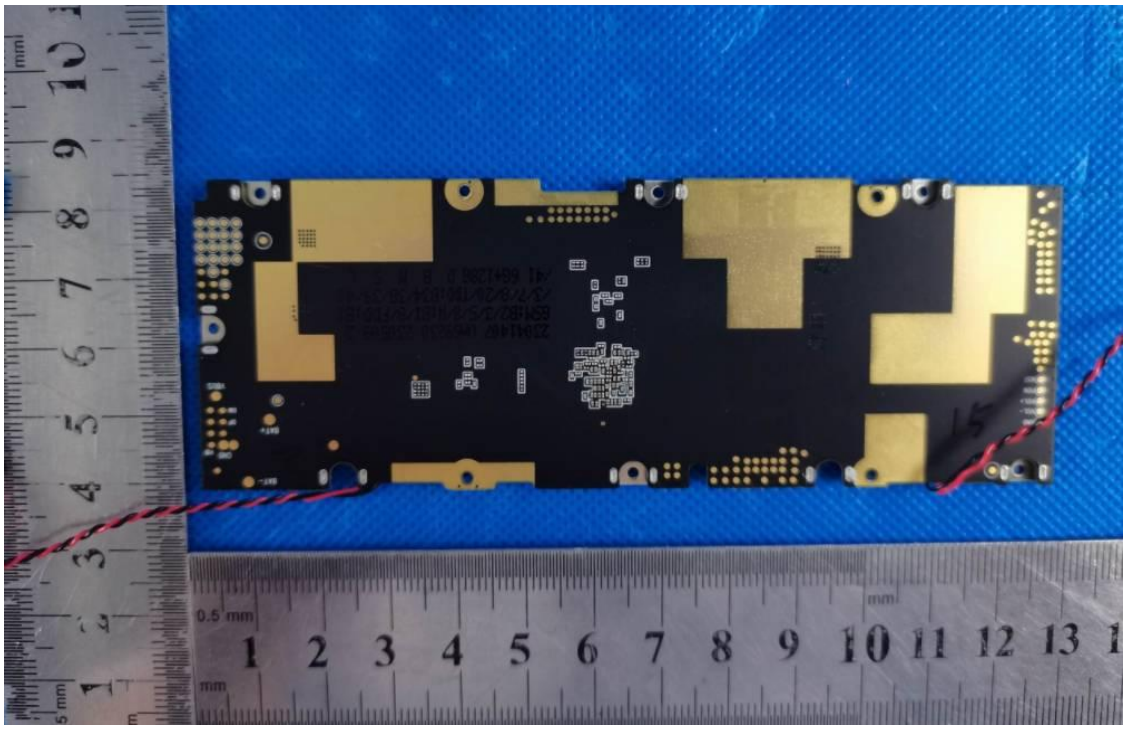

Photo 9 Main board view

Photo 10 Battery pack view

Photo 11 External adapter view

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