

Shenzhen Showtechled CO., LTD

LVD REPORT

Applicant	Shenzhen Showtechled CO., LTD
Address	Area B, 3th Floor, No. 219, Huasheng Road, Langkou Community, Dalang Street, Longhua District, Shenzhen City, China.
Product Name	Outdoor Mesh led display / Transparent led display
Trademark	Showtechled 翰锐光电
Model Number	C1531 (P15.625-31.25)
Additional Models	C0307(P3.91-7.81), C0510 (P5.2-10.4), C0612 (P6.25-12.5), C0606 (P6.9), C0707 (P7.8), C0808 (P8.9), C1010 (P10.4), C1020 (P10.4-20.8), C1212 (P12.5), C0715 (P7.81-15.625), C1515 (P15.625), C3131 (P31.25), C2525 (P25), C2550 (P25-50), C2020 (P20), C1616 (P16), C1632 (P16-32)
Test Laboratory	Shenzhen Circle Testing Certification Co., Ltd.
Address	101,1/F., Building 1, Donglongxing Technology Park, Huaning Road, Longhua District, Shenzhen, Guangdong, China
Test Date	Jun. 20, 2022 - Jun. 24, 2022
Date of Report	Jun. 24, 2022
Report Number	CTC070F04271SR

TEST REPORT EN 62368-1:2020+A11:2020 Audio/video, information and communication technology equipment — Part 1: Safety requirements	
Report reference No.....	: CTC070F04271SR
Date of issue.....	: Jun. 24, 2022
Testing laboratory	
Name.....	: Shenzhen Circle Testing Certification Co., Ltd.
Address.....	: 101,1/F.,Building 1,Donglongxing Technology Park,Huaning Road, Longhua District,Shenzhen,Guangdong,China
Test location.....	: (Same as above)
Client	
Name.....	: Shenzhen Showtechled CO., LTD
Address.....	: Area B, 3th Floor, No. 219, Huasheng Road, Langkou Community, Dalang Street, Longhua District, Shenzhen City, China.
Test specification	
Standard.....	: EN 62368-1:2020+A11:2020
Test procedure.....	: Safety report
Procedure deviation.....	: N.A.
Non-standard test method..	: N.A.
Test Report Form No	: IEC62368_1B
TRF originator	: UL(US)
Master TRF	: 2014-03
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Test item	
Description.....	: Outdoor Mesh led display / Transparent led display
Model Number	: C1531 (P15.625-31.25)
Manufacturer.....	: Shenzhen Showtechled CO., LTD
Address.....	: Area B, 3th Floor, No. 219, Huasheng Road, Langkou Community, Dalang Street, Longhua District, Shenzhen City, China.

Rating(s)..... : Input: 100-240V AC, 50/60Hz, 360W/m²

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: building-in equipment shall be evaluated in end system (see also general product information).

Considered current rating of protective device as part of building or equipment installation.....: 1.5 A;
Installation location: building; equipment

Equipment mobility.....: movable hand-held transportable
 stationary for building-in direct plug-
 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 maximum operating ambient: 40°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): 19.60 kg

Possible test case verdicts:

- test case does not apply to the test object..... : N/A (N)
- test object does meet the requirement..... : Pass (P)
- test object does not meet the requirement..... : Fail (F)

Testing:

Sample appearance and function are in normal condition, yes or no..... : Yes
Ambient temperature..... : 25.0 °C
Ambient humidity..... : 60.0%

General remarks:

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 Issuing testing laboratory.
Laboratory CTC. The authenticity of this Test Report and its contents can be verified by contacting CTC, responsible for this Test Report.
"(see Enclosure #)" refers to additional information appended to the report.
"(see appended table)" refers to a table appended to the report.
Throughout this report a comma / point is used as the decimal separator.

General product information:

- 1, The equipment is a **Outdoor Mesh led display / Transparent led display.**
- 2, The appliance is intended for indoor or similar condition used only.
- 3, 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.
- 4, Max. operated temperature is considered as 40°C.



ENERGY SOURCE IDENTIFICATION AND CLASSIFICATION TABLE:

(Note 1: Identify the following six (6) energy source forms based on the origin of the energy.)
(Note 2: The identified classification e.g., ES2, TS1, should be with respect to its ability to cause pain or injury on the body or its ability to ignite a combustible material. Any energy source can be declared Class 3 as a worse case classification e.g. PS3, ES3.)

Electrically-caused injury (Clause 5):

(Note: Identify type of source, list sub-assembly or circuit designation and corresponding energy source classification)

Example: 230V input ES1

Source of electrical energy	Corresponding classification (ES)
240V~ input	ES3

Electrically-caused fire (Clause 6):

(Note: List sub-assembly or circuit designation and corresponding energy source classification)

Example: Battery pack (maximum 85 watts): PS2

Source of power or PIS	Corresponding classification (PS)
Supplied by external power supply which is complied with LPS.	PS2

Injury caused by hazardous substances (Clause 7)

(Note: Specify hazardous chemicals, whether produces ozone or other chemical construction not addressed as part of the component evaluation.)

Example: Liquid in filled component Glycol

Source of hazardous substances	Corresponding chemical
N/A	N/A

Mechanically-caused injury (Clause 8)

(Note: List moving part(s), fan, special installations, etc. & corresponding MS classification based on Table 35.)

Example: Wall mount unit MS2

Source of kinetic/mechanical energy	Corresponding classification (MS)
Equipment mass	MS1

Thermal burn injury (Clause 9)

(Note: Identify the surface or support, and corresponding energy source classification based on type of part, location, operating temperature and contact time in Table 38.)

Example: Hand-held scanner – thermoplastic enclosure TS1

Source of thermal energy	Corresponding classification (TS)
Thermocouple - All accessible parts	TS1

Radiation (Clause 10)

(Note: List the types of radiation present in the product and the corresponding energy source classification.)

Example: DVD – Class 1 Laser Product RS1

Type of radiation	Corresponding classification (RS)
LED backlight	RS1

ENERGY SOURCE DIAGRAM

Indicate which energy sources are included in the energy source diagram. Insert diagram below

ES PS MS TS RS

Copy of marking plate:

Product Name: Outdoor Mesh led display / Transparent led display
Model No: C1531 (P15.625-31.25)
Input: 100-240V AC, 50/60Hz, 360W/m²



Shenzhen Showtechled CO., LTD
Made in China

Summary of testing:

The submitted sample were tested and found to compliance with requirements of the standards
EN 62368-1:2020+A11:2020

Testing procedure and testing location

Laboratory name : Shenzhen Circle Testing Certification Co., Ltd.
Testing location/address : 101,1/F.,Building 1,Donglongxing Technology Park,Huaning Road,
Longhua District,Shenzhen,Guangdong,China
Testing procedure : TL RMT SMT WMT TMP

Tested By : Irving
(Test Engineer)

Approved By : Davis Wei
(Chief Engineer)



OVERVIEW OF EMPLOYED SAFEGUARDS

Clause	Possible Hazard			
5.1	Electrically-caused injury			
Body Part (e.g. Ordinary)	Energy Source (ES3: Primary Filter circuit)	Safeguards		
		Basic	Supplementary	Reinforced (Enclosure)
Ordinary	ES3: primary circuit	N/A	N/A	N/A
6.1	Electrically-caused fire			
Material part (e.g. mouse enclosure)	Energy Source	Safeguards		
		Basic	Supplementary	Reinforced
Enclosure	PS1	See 6.3	V-1 or better	N/A
PCB	PS3	See 6.3	V-0	N/A
Internal/external wiring	PS3	N/A	N/A	See 6.5
Other combustible components / materials	PS3	See 6.3	See 6.4.5, 6.4.6	N/A
7.1	Injury caused by hazardous substances			
Body Part (e.g., skilled)	Energy Source (hazardous material)	Safeguards		
		Basic	Supplementary	Reinforced
N/A	N/A	N/A	N/A	N/A
8.1	Mechanically-caused injury			
Body Part (e.g. Ordinary)	Energy Source (MS3: High Pressure Lamp)	Safeguards		
		Basic	Supplementary	Reinforced (Enclosure)
N/A	N/A (built-in equipment)	N/A	N/A	N/A
9.1	Thermal Burn			
Body Part (e.g., Ordinary)	Energy Source (TS2)	Safeguards		
		Basic	Supplementary	Reinforced
Ordinary	TS3: Internal parts/circuits	N/A	N/A	N/A
10.1	Radiation			
Body Part (e.g., Ordinary)	Energy Source (Output from audio port)	Safeguards		
		Basic	Supplementary	Reinforced
Ordinary	RS1 (LED lamp)	N/A	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.				

4	General REQUIREMENTS		P
4.1.1	Acceptance of materials, components and subassemblies	(See Table 4.1.2)	P
4.1.2	Use of components	Components which are certified to IEC and/or national standards are used correctly within their ratings. Components not covered by IEC standards are tested under the conditions present in the equipment. See also Annex G.	P
4.1.3	Equipment design and construction	Evaluation of safeguards regarding preventing access to ES3 parts, limiting the source supplying outputs to fulfill ES1, and protection in regard to risk of ignition, mechanical-caused injury and thermal burn considered.	P
4.1.15	Markings and instructions:	(See Annex F)	P
4.4.4	Safeguard robustness	See below.	P
4.4.4.2	Steady force tests:	(See Annex T.4, T.5)	P
4.4.4.3	Drop tests:		N/A
4.4.4.4	Impact tests:	(See Annex T.6)	P
4.4.4.5	Internal accessible safeguard enclosure and barrier tests:	No internal accessible safeguard enclosure/barriers.	N/A
4.4.4.6	Glass Impact tests:		N/A
4.4.4.7	Thermoplastic material tests:	(See Annex T.8)	N/A
4.4.4.8	Air comprising a safeguard:	(See Annex T)	N/A
4.4.4.9	Accessibility and safeguard effectiveness		P
4.5	Explosion	No explosion.	P
4.6	Fixing of conductors		P
4.6.1	Fix conductors not to defeat a safeguard	The conductors will be connected by wire terminals.	P
4.6.2	10 N force test applied to	10 N test was applied to internal components.	—
4.7	Equipment for direct insertion into mains socket - outlets	Not such equipment.	N/A
4.7.2	Mains plug part complies with the relevant standard		—
4.7.3	Torque (Nm)		—
4.8	Products containing coin/button cell batteries	No such part	N/A
4.8.2	Instructional safeguard		N/A
4.8.3	Battery Compartment Construction		P
	Means to reduce the possibility of children removing the battery:		—

4.8.4	Battery Compartment Mechanical Tests:		—
4.8.5	Battery Accessibility		N/A
4.9	Likelihood of fire or shock due to entry of conductive object	No openings.	—

5	ELECTRICALLY-CAUSED INJURY		N/A
5.2.1	Electrical energy source classifications:	(See appended table 5.2)	—
5.2.2	ES1, ES2 and ES3 limits	ES1	N/A
5.2.2.2	Steady-state voltage and current:	(See appended table 5.2)	P
5.2.2.3	Capacitance limits:	(See appended table 5.2)	P
5.2.2.4	Single pulse limits:	No such single pulses generated in the EUT or applied to it.	N/A
5.2.2.5	Limits for repetitive pulses:	No such repetitive pulses within the EUT	N/A
5.2.2.6	Ringling signals:	No ringing signals.	—
5.2.2.7	Audio signals :	No audio signals.	—
5.3	Protection against electrical energy sources		N/A
5.3.1	General Requirements for accessible parts to ordinary, instructed and skilled persons	See only 4.3 and 5.3 to 5.5 which applies to protection between the accessible parts and hazardous parts of other circuits.	N/A
5.3.2.1	Accessibility to electrical energy sources and safeguards	Only ES1 circuit can be accessed for this product.	N/A
5.3.2.2	Contact requirements	No openings on enclosures as received and after mechanical test.	N/A
	a) Test with test probe from Annex V:	The primary circuit is not accessible by test probe from Annex V	P
	b) Electric strength test potential (V):		N/A
	c) Air gap (mm) :	Comply with minimum distance according Table 9.	P
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	The choice and application have taken into account as specified in this Clause 5 and Annex T and natural rubber, hygroscopic materials or asbestos are not used as insulation.	N/A
5.4.1.3	Humidity conditioning:	See sub-clause 5.4.8	P
5.4.1.4	Maximum operating temperature for insulating materials:	(See appended table 5.4.1.4)	P
5.4.1.5	Pollution degree:	II	—

5.4.1.5.2	Test for pollution degree 1 environment and for an insulating compound	Pollution degree 2 is applied. No insulating compound applied (however see 5.5.4).	N/A
5.4.1.5.3	Thermal cycling	See above	N/A
5.4.1.6	Insulation in transformers with varying dimensions	No such transformer.	N/A
5.4.1.7	Insulation in circuits generating starting pulses	No such starting pulses.	N/A
5.4.1.8	Determination of working voltage	(See appended table 5.4.1.8)	P
5.4.1.9	Insulating surfaces		P
5.4.1.10	Thermoplastic parts on which conductive metallic parts are directly mounted	See only 5.4.10.3 below.	P
5.4.1.10.2	Vicat softening temperature:		N/A
5.4.1.10.3	Ball pressure	See appended table 5.4.1.10.3.	P
5.4.2	Clearances	The highest value of 5.4.3.3 and 5.4.2.3 be used.	P
5.4.2.2	Determining clearance using peak working voltage	Temporary overvoltage 2000V _{peak} assumed.	P
5.4.2.3	Determining clearance using required withstand voltage	(See appended table 5.4.2.2, 5.4.2.4 and 5.4.3)	P
	a) a.c. mains transient voltage	2500 V _{pk} considered for Overvoltage Cat. II	P
	b) d.c. mains transient voltage	Not d.c. mains.	—
	c) external circuit transient voltage	No such transient	—
	d) transient voltage determined by measurement		—
5.4.2.4	Determining the adequacy of a clearance using an electric strength test	Using procedure 2 to determine the clearance according to 5.4.2.3.	N/A
5.4.2.5	Multiplication factors for clearances and test voltages	2000m	N/A
5.4.3	Creepage distances	(See appended table 5.4.2.2, 5.4.2.4 and 5.4.3)	P
5.4.3.1	General		P
5.4.3.3	Material Group	IIIa & IIIb	—
5.4.4	Solid insulation	See below	P
5.4.4.2	Minimum distance through insulation	(See appended table 5.4.4.2)	P
5.4.4.3	Insulation compound forming solid insulation	Approved photo coupler used.	N/A
5.4.4.4	Solid insulation in semiconductor devices	Approved photo coupler used.	N/A
5.4.4.5	Cemented joints	Certified component used.	P
5.4.4.6	Thin sheet material		P
5.4.4.6.1	General requirements		P
5.4.4.6.2	Separable thin sheet material		P

	Number of layers (pcs)	2	P
5.4.4.6.3	Non-separable thin sheet material	No such insulation used within the EUT.	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	See G.5.3 and G.6.1 only.	P
5.4.4.9	Solid insulation at frequencies >30 kHz.....		P
5.4.5	Antenna terminal insulation	No antenna terminal used.	N/A
5.4.5.1	General		N/A
5.4.5.2	Voltage surge test		N/A
	Insulation resistance (MΩ).....		—
5.4.6	Insulation of internal wire as part of supplementary safeguard.....		P
5.4.7	Tests for semiconductor components and for cemented joints	No tests necessary –see only 5.4.4.4.	N/A
5.4.8	Humidity conditioning	No test required however applied by request of the client.	P
	Relative humidity (%).....	93%	—
	Temperature (°C)	40°C	—
	Duration (h)	120h	—
5.4.9	Electric strength test.....	(See appended table 5.4.9)	P
5.4.9.1	Test procedure for a solid insulation type test	(See appended table 5.4.9)	P
5.4.9.2	Test procedure for routine tests	Should be considered and conducted during production at factory.	N/A
5.4.10	Protection against transient voltages between external circuit	No such external circuits	N/A
5.4.10.1	Parts and circuits separated from external circuits		N/A
5.4.10.2	Test methods		N/A
5.4.10.2.1	General		N/A
5.4.10.2.2	Impulse test.....		—
5.4.10.2.3	Steady-state test.....		—
5.4.11	Insulation between external circuits and earthed circuitry.....	No connection to external circuits with transient voltage.	—
5.4.11.1	Exceptions to separation between external circuits and earth		N/A
5.4.11.2	Requirements		N/A
	Rated operating voltage U _{op} (V).....		—

	Nominal voltage U_{peak} (V)..... :		—
	Max increase due to variation U_{sp}		—
	Max increase due to ageing ΔU_{sa}		—
	$U_{op} = U_{peak} + \Delta U_{sp} + \Delta U_{sa}$:		—
5.5	Components as safeguards		N/A
5.5.1	General	See below.	P
5.5.2	Capacitors and RC units	Approved X and Y capacitor provided.	P
5.5.2.1	General requirement		P
5.5.2.2	Safeguards against capacitor discharge after disconnection of a connector..... :	See appended table.	P
5.5.3	Transformers	(See Annex G.5.3)	P
5.5.4	Optocouplers		P
5.5.5	Relays	No such component provided	N/A
5.5.6	Resistors	None providing a safeguard.	N/A
5.5.7	SPD's		N/A
5.5.7.1	Use of an SPD connected to reliable earthing		N/A
5.5.7.2	Use of an SPD between mains and protective earth		N/A
5.5.8	Insulation between the mains and external circuit consisting of a coaxial cable	No such external circuits.	—
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	Green and yellow.	N/A
5.6.3	Requirement for protective earthing conductors	Approved AC inlet used.	N/A
	Protective earthing conductor size (mm ²)		—
5.6.4	Requirement for protective bonding conductors		N/A
5.6.4.1	Protective bonding conductors		N/A
	Protective bonding conductor size (mm ²).	See clause 5.6.6.	—
	Protective current rating (A) :	16A	—
5.6.4.3	Current limiting and overcurrent protective devices		N/A
5.6.5	Terminals for protective conductors	PE terminal of AC inlet as protective earthing terminal, bonding terminal was consider into clause 5.6.6.	N/A
5.6.5.1	Requirement		N/A

	Conductor size (mm ²), nominal thread diameter (mm)	The screw connection with terminal and washer as in 5.6.5.2 to metal parts, as the protective bonding terminal. The test of 5.6.6 complied.	P
5.6.5.2	Corrosion		N/A
5.6.6	Resistance of the protective system		P
5.6.6.1	Requirements		P
5.6.6.2	Test Method Resistance (Ω)..... :	Input PE of Inlet furthest earthed enclosure and metal chassis: 0.026Ω, 32A, 2min.	P
5.6.7	Reliable earthing	Not permanently connected equipment.	P
5.7	Prospective touch voltage, touch current and protective conductor current		N/A
5.7.2	Measuring devices and networks	Figure 4 and 5 of IEC 60990:1999 used.	P
5.7.2.1	Measurement of touch current..... :	(See appended table 5.2)	P
5.7.2.2	Measurement of prospective touch voltage		P
5.7.3	Equipment set-up, supply connections and earth connections	Clause 4, 5.3 and 5.4 of IEC 60990:1999 applied.	P
	System of interconnected equipment (separate connections/single connection)..... :	Single equipment.	—
	Multiple connections to mains (one connection at a time/simultaneous connections)..... :	Single equipment.	—
5.7.4	Earthed conductive accessible parts..... :	(See appended table 5.2)	P
5.7.5	Protective conductor current		N/A
	Supply Voltage (V)..... :		—
	Measured current (mA)..... :		—
	Instructional Safeguard..... :		—
5.7.6	Prospective touch voltage and touch current due to external circuits	No external circuits.	N/A
5.7.6.1	Touch current from coaxial cables		N/A
5.7.6.2	Prospective touch voltage and touch current from external circuits		N/A
5.7.7	Summation of touch currents from external circuits		N/A
	a) Equipment with earthed external circuits Measured current (mA)..... :		—
	b) Equipment whose external circuits are not referenced to earth. Measured current (mA).... :		—
6	ELECTRICALLY- CAUSED FIRE		P
6.2	Classification of power sources (PS) and potential ignition sources (PIS)		P

6.2.2	Power source circuit classifications		P
6.2.2.1	General	See Energy source identification and classification table.	P
6.2.2.2	Power measurement for worst-case load fault..:	(See appended table 6.2.2)	P
6.2.2.3	Power measurement for worst-case power source fault..... :	(See appended table 6.2.2)	P
6.2.2.4	PS1		N/A
6.2.2.5	PS2	(See appended table 6.2.2)	P
6.2.2.6	PS3	(See appended table 6.2.2)	P
6.2.3	Classification of potential ignition sources	All conductors and devices are considered as PIS.	P
6.2.3.1	Arcing PIS	(See appended table 6.2.3.1)	P
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		N/A
6.3.1 (a)	No ignition and attainable temperature value less than 90 % defined by ISO 871 or less than 300 °C for unknown materials..... :	No ignition and no such temperature attained within the equipment. (See appended table 5.4.1.4, 6.3.2, 9.0, B.2.6)	P
6.3.1 (b)	Combustible materials outside fire enclosure	Only output connector which comply with 6.4.5.	N/A
6.4	Safeguards against fire under single fault conditions		N/A
6.4.1	Safeguard Method		N/A
6.4.2	Reduction of the likelihood of ignition under single fault conditions in PS1 circuits	PS1 circuits	N/A
6.4.3	Reduction of the likelihood of ignition under single fault conditions in PS2 and PS3 circuits		N/A
6.4.3.1	General		N/A
6.4.3.2	Supplementary Safeguards		N/A
	Special conditions if conductors on printed boards are opened or peeled		N/A
6.4.3.3	Single Fault Conditions..... :		—
	Special conditions for temperature limited by fuse		N/A
6.4.4	Control of fire spread in PS1 circuits	PS1 circuits	N/A
6.4.5	Control of fire spread in PS2 circuits		N/A

6.4.5.2	Supplementary safeguards	- PCB: V-1 or better - Fire enclosure used. - Also see appended tables 4.1.2 and Annex G - Wire insulation (tubing) complying with Clause 6. The internal wires are complied to UL 758 standard which test method and testing condition equal to IEC/EN 60695-11-21.	P
6.4.6	Control of fire spread in PS3 circuit	See appended tables 4.1.2 and Annex G	P
6.4.7	Separation of combustible materials from a PIS	Fire enclosure provided.	N/A
6.4.7.1	General.....	Fire enclosure provided.	—
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	Fire enclosure used.	P
6.4.8.1	Fire enclosure and fire barrier material properties	Metal fire enclosure and V-0 plastic enclosure used.	P
6.4.8.2.1	Requirements for a fire barrier		N/A
6.4.8.2.2	Requirements for a fire enclosure		N/A
6.4.8.3	Constructional requirements for a fire enclosure and a fire barrier		N/A
6.4.8.3.1	Fire enclosure and fire barrier openings		N/A
6.4.8.3.2	Fire barrier dimensions		N/A
6.4.8.3.3	Top Openings in Fire Enclosure: dimensions (mm)	Top enclosure: no openings. Many cycle openings for rear enclosure: Diameter Max. Ø4.2mm	P
	Needle Flame test		N/A
6.4.8.3.4	Bottom Openings in Fire Enclosure, condition met a), b) and/or c) dimensions (mm)	No openings.	—
	Flammability tests for the bottom of a fire enclosure	No openings.	—
6.4.8.3.5	Integrity of the fire enclosure, condition met: a), b) or c).....	No doors or covers.	—
6.4.8.4	Separation of PIS from fire enclosure and fire barrier distance (mm) or flammability rating.....		—
6.5	Internal and external wiring		P
6.5.1	Requirements	See below.	P

6.5.2	Cross-sectional area (mm2)	The material of VW-1 on internal wiring were considered compliance equal to equivalent to IEC/TS 60695-11-21 relevant standards.	—
6.5.3	Requirements for interconnection to building wiring.....		—
6.6	Safeguards against fire due to connection to additional equipment		N/A
	External port limited to PS2 or complies with Clause Q.1		N/A

7	INJURY CAUSED BY HAZARDOUS SUBSTANCES		N/A
7.2	Reduction of exposure to hazardous substances	No hazardous substance is accessible.	N/A
7.3	Ozone exposure		N/A
7.4	Use of personal safeguards (PPE)		N/A
	Personal safeguards and instructions		—
7.5	Use of instructional safeguards and instructions		N/A
	Instructional safeguard (ISO 7010)		—
7.6	Batteries		N/A

8	MECHANICALLY-CAUSED INJURY		P
8.1	General		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	Edges and corners are classed as MS1.	P
8.4.1	Safeguards		N/A
8.5	Safeguards against moving parts	No moving parts.	N/A
8.5.1	MS2 or MS3 part required to be accessible for the function of the equipment		N/A
8.5.2	Instructional Safeguard.....		—
8.5.4	Special categories of equipment comprising moving parts		N/A
8.5.4.1	Large data storage equipment		N/A
8.5.4.2	Equipment having electromechanical device for destruction of media		N/A
8.5.4.2.1	Safeguards and Safety Interlocks.....		—
8.5.4.2.2	Instructional safeguards against moving parts		N/A
	Instructional Safeguard.....		—

8.5.4.2.3	Disconnection from the supply		N/A
8.5.4.2.4	Probe type and force (N).....:		—
8.5.5	High Pressure Lamps	No high pressure lamps.	N/A
8.5.5.1	Energy Source Classification		N/A
8.5.5.2	High Pressure Lamp Explosion Test.....:		—
8.6	Stability	Fixed appliance, no stability requirement	N/A
8.6.1	Product classification		N/A
	Instructional Safeguard.....:		N/A
8.6.2	Static stability		N/A
8.6.2.2	Static stability test		N/A
	Applied Force.....:		—
8.6.2.3	Downward Force Test		N/A
8.6.3	Relocation stability test		N/A
	Unit configuration during 10° tilt.....:		—
8.6.4	Glass slide test		N/A
8.6.5	Horizontal force test (Applied Force).....:		—
	Position of feet or movable parts.....:		—
8.7	Equipment mounted to wall or ceiling		P
8.7.1	Mounting Means (Length of screws (mm) and mounting surface)	The wall mounting kit, four M8 size with 20 mm length screw to secure.	P
8.7.2	Direction and applied force.....:	For each point in the mounting system an additional force of 2056N (2 times the mass of the unit plug 880N of the total force divided by 4 and the mass is 60kg) was applied to the unit. The unit withstood the load test without damages or breaks. Diameter of screw= 6.91mm, Torque applied=2.5Nm. After test, fixing remained secure.	—
8.8	Handles strength	No handle.	N/A
8.8.1	Classification		N/A
8.8.2	Applied Force		—
8.9	Wheels or casters attachment requirements	No wheels or casters.	N/A
8.9.1	Classification		N/A
8.9.2	Applied force.....:		—
8.10	Carts, stands and similar carriers	No carts or stands or other carriers.	N/A

8.10.1	General		N/A
8.10.2	Marking and instructions		N/A
	Instructional Safeguard..... :		—
8.10.3	Cart, stand or carrier loading test and compliance		N/A
	Applied force..... :		—
8.10.4	Cart, stand or carrier impact test		N/A
8.10.5	Mechanical stability		N/A
	Applied horizontal force (N)..... :		—
8.10.6	Thermoplastic temperature stability (°C)..... :		—
8.11	Mounting means for rack mounted equipment	Not rack mounted.	N/A
8.11.1	General		N/A
8.11.2	Product Classification		N/A
8.11.3	Mechanical strength test, variable <i>N</i> :		—
8.11.4	Mechanical strength test 250N, including end stops		N/A
8.12	Telescoping or rod antennas..... :	No antennas.	—
	Button/Ball diameter (mm)..... :		—

9	THERMAL BURN INJURY		P
9.2	Thermal energy source classifications	No part considered to be accessible other than enclosure. The equipment evaluated by temperature test (see table 5.4.1.4).	P
9.3	Safeguard against thermal energy sources	Temperature of enclosure classed as TS1.	P
9.4	Requirements for safeguards		P
9.4.1	Equipment safeguard		P
9.4.2	Instructional safeguard :	Instructional safeguard is not required.	—

10	RADIATION		P
10.2	Radiation energy source classification		P
10.2.1	General classification	LED Indicator: Class RS1	P
10.3	Protection against laser radiation	No such radiation generated from the equipment.	N/A
	Laser radiation that exists equipment:		N/A
	Normal, abnormal, single-fault		—
	Instructional safeguard		—

	Tool		—
10.4	Protection against visible, infrared, and UV radiation	LEDs used for indication only.	P
10.4.1	General		N/A
10.4.1.a)	RS3 for Ordinary and instructed persons		—
10.4.1.b)	RS3 accessible to a skilled person		—
	Personal safeguard (PPE) instructional safeguard		—
10.4.1.c)	Equipment visible, IR, UV does not exceed RS1		—
10.4.1.d)	Normal, abnormal, single-fault conditions		—
10.4.1.e)	Enclosure material employed as safeguard is opaque		—
10.4.1.f)	UV attenuation		—
10.4.1.g)	Materials resistant to degradation UV		—
10.4.1.h)	Enclosure containment of optical radiation		—
10.4.1.i)	Exempt Group under normal operating conditions		—
10.4.2	Instructional safeguard		—
10.5	Protection against x-radiation	No such x-radiation generated from the equipment	N/A
10.5.1	X- radiation energy source that exists equipment		—
	Normal, abnormal, single fault conditions		N/A
	Equipment safeguards		—
	Instructional safeguard for skilled person		—
10.5.3	Most unfavourable supply voltage to give maximum radiation		—
	Abnormal and single-fault condition		—
	Maximum radiation (pA/kg)		—
10.6	Protection against acoustic energy sources	Not such an equipment.	N/A
10.6.1	General		N/A
10.6.2	Classification		N/A
	Acoustic output, dB(A)		—
	Output voltage, unweighted r.m.s.		—
10.6.4	Protection of persons		N/A
	Instructional safeguards		—
	Equipment safeguard prevent ordinary person to RS2		—
	Means to actively inform user of increase		—

	sound pressure		
	Equipment safeguard prevent ordinary person to RS2		—
10.6.5	Requirements for listening devices (headphones, earphones, etc.)		N/A
10.6.5.1	Corded passive listening devices with analog input		N/A
	Input voltage with 94 dB(A) LAeq acoustic pressure output :		—
10.6.5.2	Corded listening devices with digital input		N/A
	Maximum dB(A) :		—
10.6.5.3	Cordless listening device		N/A
	Maximum dB(A) :		—

B	NORMAL OPERATING CONDITION TESTS, ABNORMAL OPERATING CONDITION TESTS AND SINGLE FAULT CONDITION TESTS		P
B.2	Normal Operating Conditions		P
B.2.1	General requirements..... :	(See Test Item Particulars and appended test tables)	—
	Audio Amplifiers and equipment with audio amplifiers..... :	No amplifiers.	—
B.2.3	Supply voltage and tolerances		—
B.2.5	Input test..... :	(See appended table B.2.5)	P
B.3	Simulated abnormal operating conditions		P
B.3.1	General requirements..... :	(See appended table B.3)	P
B.3.2	Covering of ventilation openings	(See appended table B.3)	P
B.3.3	D.C. mains polarity test	The EUT is not connected to a D.C. mains	N/A
B.3.4	Setting of voltage selector..... :	No voltage selector was used.	N/A
B.3.5	Maximum load at output terminals..... :	(See appended table B.3)	P
B.3.6	Reverse battery polarity	No battery within the EUT.	N/A
B.3.7	Abnormal operating conditions as specified in Clause E.2.	Not such equipment.	P
B.3.8	Safeguards functional during and after abnormal operating conditions	All safeguards remained effective.	P
B.4	Simulated single fault conditions		P
B.4.2	Temperature controlling device open or short-circuited..... :	(See appended table B.4)	—
B.4.3	Motor tests		N/A
B.4.3.1	Motor blocked or rotor locked increasing the internal ambient temperature		—
B.4.4	Short circuit of functional insulation		P

B.4.4.1	Short circuit of clearances for functional insulation	(See appended table B.4)	P
B.4.4.2	Short circuit of creepage distances for functional insulation	(See appended table B.4)	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	(See appended table B.4)	P
B.4.6	Short circuit or disconnect of passive components	(See appended table B.4)	P
B.4.7	Continuous operation of components	The EUT is continuous operating type and no such components intended for short time operation or intermittent operation.	N/A
B.4.8	Class 1 and Class 2 energy sources within limits during and after single fault conditions	(See appended table B.4)	P
B.4.9	Battery charging under single fault conditions.:	No battery involved in the EUT.	N/A

C	UV RADIATION		N/A
C.1	Protection of materials in equipment from UV radiation	General indoor used equipment only.	N/A
C.1.2	Requirements		N/A
C.1.3	Test method		N/A
C.2	UV light conditioning test		N/A
C.2.1	Test apparatus		N/A
C.2.2	Mounting of test samples		N/A
C.2.3	Carbon-arc light-exposure apparatus		N/A
C.2.4	Xenon-arc light exposure apparatus		N/A

D	TEST GENERATORS		N/A
D.1	Impulse test generators	Not such apparatus.	N/A
D.2	Antenna interface test generator		N/A
D.3	Electronic pulse generator		N/A

E	TEST CONDITIONS FOR EQUIPMENT CONTAINING AUDIO AMPLIFIERS		N/A
E.1	Audio amplifier normal operating conditions		N/A
	Audio signal voltage (V)..... :		—
	Rated load impedance (Ω) :		—
E.2	Audio amplifier abnormal operating conditions		N/A

F	EQUIPMENT MARKINGS, INSTRUCTIONS, AND INSTRUCTIONAL SAFEGUARDS		P
F.1	General requirements		P
	Instructions – Language	English	—
F.2	Letter symbols and graphical symbols		P
F.2.1	Letter symbols according to IEC60027-1		P
F.2.2	Graphic symbols IEC, ISO or manufacturer specific	Letter symbols and units are complied with IEC 60027-1	P
F.3	Equipment markings		P
F.3.1	Equipment marking locations	The equipment marking is located on the surface and is easily visible	P
F.3.2	Equipment identification markings	See below.	P
F.3.2.1	Manufacturer identification	See copy of marking plate	—
F.3.2.2	Model identification	See copy of marking plate	—
F.3.3	Equipment rating markings	See copy of marking plate	P
F.3.3.1	Equipment with direct connection to mains		N/A
F.3.3.2	Equipment without direct connection to mains		P
F.3.3.3	Nature of supply voltage.....	See copy of marking plate	—
F.3.3.4	Rated voltage.....	See copy of marking plate	—
F.3.3.4	Rated frequency.....		—
F.3.3.6	Rated current or rated power.....	See copy of marking plate	—
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		N/A
F.3.5.1	Mains appliance outlet and socket-outlet markings.....	No outlets.	—
F.3.5.2	Switch position identification marking.....	No such switches.	—
F.3.5.3	Replacement fuse identification and rating markings.....	Rating of fuse is marked adjacent to the fuse.	—
F.3.5.4	Replacement battery identification marking.....	No batteries.	—
F.3.5.5	Terminal marking location		P
F.3.6	Equipment markings related to equipment classification		P
F.3.6.1	Class I Equipment		P
F.3.6.1.1	Protective earthing conductor terminal		P
F.3.6.1.2	Neutral conductor terminal		N/A
F.3.6.1.3	Protective bonding conductor terminals		N/A
F.3.6.2	Class II equipment (IEC 60417-5172)		N/A
F.3.6.2.1	Class II equipment with or without functional earth		N/A

F.3.6.2.2	Class II equipment with functional earth terminal marking		N/A
F.3.7	Equipment IP rating marking	IP X0.	—
F.3.8	External power supply output marking		N/A
F.3.9	Durability, legibility and permanence of marking	All markings required are easily discernible under normal lighting conditions.	P
F.3.10	Test for permanence of markings	After rubbing test by water and petroleum spirit, the marking still legible; it is not easily possible to remove the marking plate and show no curling.	P
F.4	Instructions		N/A
	a) Equipment for use in locations where children not likely to be present - marking		N/A
	b) Instructions given for installation or initial use		N/A
	c) Equipment intended to be fastened in place		N/A
	d) Equipment intended for use only in restricted access area		N/A
	e) Audio equipment terminals classified as ES3 and other equipment with terminals marked in accordance F.3.6.1		N/A
	f) Protective earthing employed as safeguard		N/A
	g) Protective earthing conductor current exceeding ES 2 limits		N/A
	h) Symbols used on equipment		N/A
	i) Permanently connected equipment not provided with all-pole mains switch		N/A
	j) Replaceable components or modules providing safeguard function		N/A
F.5	Instructional safeguards	Instructional safeguard is not required.	N/A
	Where “instructional safeguard” is referenced in the test report it specifies the required elements, location of marking and/or instruction		N/A

G	COMPONENTS		P
G.1	Switches		P
G.1.1	General requirements		N/A
G.1.2	Ratings, endurance, spacing, maximum load		N/A
G.2	Relays		N/A
G.2.1	General requirements	No relays.	N/A
G.2.2	Overload test		N/A
G.2.3	Relay controlling connectors supply power		N/A

G.2.4	Mains relay, modified as stated in G.2		N/A
G.3	Protection Devices		N/A
G.3.1	Thermal cut-offs	No thermal cut-offs.	N/A
G.3.1.1a) &b)	Thermal cut-outs separately approved according to IEC 60730 with conditions indicated in a) & b)		N/A
G.3.1.1c)	Thermal cut-outs tested as part of the equipment as indicated in c)		N/A
G.3.1.2	Thermal cut-off connections maintained and secure		N/A
G.3.2	Thermal links		N/A
G.3.2.1a)	Thermal links separately tested with IEC 60691	No thermal-links.	N/A
G.3.2.1b)	Thermal links tested as part of the equipment		N/A
	Aging hours (H)..... :		—
	Single Fault Condition..... :		—
	Test Voltage (V) and Insulation Resistance (Ω)..		—
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.3.5		N/A
G.3.5.1	Non-resettable devices suitably rated and marking provided		N/A
G.3.5.2	Single faults conditions..... :		—
G.4	Connectors		N/A
G.4.1	Spacings	No such connector with insulated surfaces accessible within the EUT	N/A
G.4.2	Mains connector configuration	Appliance inlet comply with IEC 60320	P
G.4.3	Plug is shaped that insertion into mains socket-outlets or appliance coupler is unlikely		N/A
G.5	Wound Components		N/A
G.5.1	Wire insulation in wound components.....		—
G.5.1.2 a)	Two wires in contact inside wound component, angle between 45° and 90°	Approved Insulated wire used as Reinforced insulation for secondary winding of T3.	P
G.5.1.2 b)	Construction subject to routine testing	Physical separation provided by tape and tube.	P
G.5.2	Endurance test on wound components		N/A
G.5.2.1	General test requirements		N/A
G.5.2.2	Heat run test		N/A
	Time (s)..... :		—



	Temperature (°C)..... :		—
G.5.2.3	Wound Components supplied by mains		N/A
G.5.3	Transformers		N/A
G.5.3.1	Requirements applied (IEC 61204-7, IEC61558-1/-2, and/or IEC 62368-1)..... :	The transformer meets the requirements given in G.5.3.2 and G.5.3.3.	P
	Position..... :	T1, T2, T3, T4	—
	Method of protection	See G.5.3.3.	—
G.5.3.2	Insulation	For T3: Primary windings and secondary windings are separated by Reinforced insulation (The core is considered as primary part as it is not isolated from Primary) For T1, T2, T4: Primary windings and secondary windings are separated by Reinforced insulation (The core is considered as floating)	P
	Protection from displacement of windings		—
G.5.3.3	Overload test	(See appended table B.3 & B.4)	P
G.5.3.3.1	Test conditions	Tested in the complete equipment as an SMPS.	P
G.5.3.3.2	Winding Temperatures testing in the unit	(See appended table B.3 & B.4)	P
G.5.3.3.3	Winding Temperatures - Alternative test method	Alternative test method was not considered.	N/A
G.5.4	Motors		N/A
G.5.4.1	General requirements	No motors.	N/A
	Position		—
G.5.4.2	Test conditions		N/A
G.5.4.3	Running overload test		N/A
G.5.4.4	Locked-rotor overload test		N/A
	Test duration (days)		—
G.5.4.5	Running overload test for d.c. motors in secondary circuits		N/A
G.5.4.5.2	Tested in the unit		N/A
	Electric strength test (V)..... :		—
G.5.4.5.3	Tested on the Bench - Alternative test method; test time (h)		—
	Electric strength test (V)..... :		—
G.5.4.6	Locked-rotor overload test for d.c. motors in secondary circuits		N/A
G.5.4.6.2	Tested in the unit		N/A

	Maximum Temperature		—
	Electric strength test (V)		—
G.5.4.6.3	Tested on the bench - Alternative test method; test time (h).....		—
	Electric strength test (V).....		—
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		P
G.6.2	Solvent-based enamel wiring insulation		N/A
G.7	Mains supply cords		N/A
G.7.1	General requirements		N/A
	Type.....		—
	Rated current (A).....		—
	Cross-sectional area (mm ²), (AWG).....		—
G.7.2	Compliance and test method		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).....		—
G.7.3.2.2	Strain relief mechanism failure		N/A
G.7.3.2.3	Cord sheath or jacket position, distance (mm):		—
G.7.3.2.4	Strain relief comprised of polymeric material		N/A
G.7.4	Cord Entry.....	(See appended table 5.4.11.1)	—
G.7.5	Non-detachable cord bend protection		N/A
G.7.5.1	Requirements		N/A
G.7.5.2	Mass (g)		—
	Diameter (m).....		—
	Temperature (°C).....		—
G.7.6	Supply wiring space		N/A
G.7.6.2	Stranded wire	No such wire.	N/A
G.7.6.2.1	Test with 8 mm strand		N/A
G.8	Varistors		N/A
G.8.1	General requirements	Approved varistor used. See appended table 4.1.2.	P

G.8.2	Safeguard against shock		N/A
G.8.3	Safeguard against fire		N/A
G.8.3.2	Varistor overload test..... :		—
G.8.3.3	Temporary overvoltage..... :		—
G.9	Integrated Circuit (IC) Current Limiters		N/A
G.9.1 a)	Manufacturer defines limit at max. 5A.	No such components used	N/A
G.9.1 b)	Limiters do not have manual operator or reset		N/A
G.9.1 c)	Supply source does not exceed 250 VA :		—
G.9.1 d)	IC limiter output current (max. 5A)..... :		—
G.9.1 e)	Manufacturers' defined drift :		—
G.9.2	Test Program 1		N/A
G.9.3	Test Program 2		N/A
G.9.4	Test Program 3		N/A
G.10	Resistors		N/A
G.10.1	General requirements		N/A
G.10.2	Resistor test		N/A
G.10.3	Test for resistors serving as safeguards between the mains and an external circuit consisting of a coaxial cable		N/A
G.10.3.1	General requirements		N/A
G.10.3.2	Voltage surge test		N/A
G.10.3.3	Impulse test		N/A
G.11	Capacitor and RC units		N/A
G.11.1	General requirements		N/A
G.11.2	Conditioning of capacitors and RC units	Approved X and Y capacitors used. See appended table 4.1.2.	P
G.11.3	Rules for selecting capacitors	Same as above.	P
G.12	Optocouplers		N/A
	Optocouplers comply with IEC 60747-5-5:2007 Spacing or Electric Strength Test (specify option and test results)..... :	Approved photo coupler used which is complied with IEC 60747-5-5 or clause 5.4. See appended table 4.1.2.	P
	Type test voltage Vini :		—
	Routine test voltage, Vini,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
G.13.4	Insulation between conductors on the same inner surface		N/A

	Compliance with cemented joint requirements (Specify construction)..... :		—
G.13.5	Insulation between conductors on different surfaces		N/A
	Distance through insulation..... :		—
	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.13.6.2a)	Thermal conditioning		N/A
G.13.6.2b)	Electric strength test		N/A
G.13.6.2c)	Abrasion resistance test		N/A
G.14	Coating on components terminals		N/A
G.14.1	Requirements		—
G.15	Liquid filled components		N/A
G.15.1	General requirements	No such components used	N/A
G.15.2	Requirements		N/A
G.15.3	Compliance and test methods		N/A
G.15.3.1	Hydrostatic pressure test		N/A
G.15.3.2	Creep resistance test		N/A
G.15.3.3	Tubing and fittings compatibility test		N/A
G.15.3.4	Vibration test		N/A
G.15.3.5	Thermal cycling test		N/A
G.15.3.6	Force test		N/A
G.15.4	Compliance		N/A
G.16	IC including capacitor discharge function (ICX)		N/A
a)	Humidity treatment in accordance with sc5.4.8 – 120 hours	No such components used	N/A
b)	Impulse test using circuit 2 with $U_c =$ to transient voltage		—
C1)	Application of ac voltage at 110% of rated voltage for 2.5 minutes		N/A
C2)	Test voltage		—
D1)	10,000 cycles on and off using capacitor with smallest capacitance resistor with largest resistance specified by manufacturer		N/A
D2)	Capacitance		—
D3)	Resistance		—
H	CRITERIA FOR TELEPHONE RINGING SIGNALS		N/A
H.1	General	Not such apparatus.	N/A
H.2	Method A		N/A

H.3	Method B		N/A
H.3.1	Ringing signal		N/A
H.3.1.1	Frequency (Hz)		—
H.3.1.2	Voltage (V)		—
H.3.1.3	Cadence; time (s) and voltage (V)		—
H.3.1.4	Single fault current (mA):.....		—
H.3.2	Tripping device and monitoring voltage.....		—
H.3.2.1	Conditions for use of a tripping device or a monitoring voltage complied with		N/A
H.3.2.2	Tripping device		N/A
H.3.2.3	Monitoring voltage (V).....		—

J	INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION		P
	General requirements	Approved triple insulated wire used. See appended table 4.1.2.	P

K	SAFETY INTERLOCKS		N/A
K.1	General requirements	No safety interlocks in the EUT.	N/A
K.2	Components of safety interlock safeguard mechanism		—
K.3	Inadvertent change of operating mode		N/A
K.4	Interlock safeguard override		N/A
K.5	Fail-safe		N/A
	Compliance.....		—
K.6	Mechanically operated safety interlocks		N/A
K.6.1	Endurance requirement		N/A
K.6.2	Compliance and Test method.....		—
K.7	Interlock circuit isolation		N/A
K.7.1	Separation distance for contact gaps & interlock circuit elements (type and circuit location)		—
K.7.2	Overload test, Current (A).....		—
K.7.3	Endurance test		N/A
K.7.4	Electric strength test		—
L	DISCONNECT DEVICES		N/A
L.1	General requirements	Appliance coupler used.	N/A
L.2	Permanently connected equipment		N/A



L.3	Parts that remain energized		N/A
L.4	Single phase equipment	Appliance coupler disconnects both poles simultaneously.	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

M	EQUIPMENT CONTAINING BATTERIES AND THEIR PROTECTION CIRCUITS		N/A
M.1	General requirements	No battery used.	N/A
M.2	Safety of batteries and their cells		N/A
M.2.1	Requirements		N/A
M.2.2	Compliance and test method (identify method)..		—
M.3	Protection circuits		N/A
M.3.1	Requirements		N/A
M.3.2	Tests		N/A
	- Overcharging of a rechargeable battery		N/A
	- Unintentional charging of a non-rechargeable battery		N/A
	- Reverse charging of a rechargeable battery		N/A
	- Excessive discharging rate for any battery		N/A
M.3.3	Compliance		—
M.4	Additional safeguards for equipment containing secondary lithium battery		N/A
M.4.1	General		N/A
M.4.2	Charging safeguards		N/A
M.4.2.1	Charging operating limits		N/A
M.4.2.2a)	Charging voltage, current and temperature..... :		—
M.4.2.2 b)	Single faults in charging circuitry..... :		—
M.4.3	Fire Enclosure		N/A
M.4.4	Endurance of equipment containing a secondary lithium battery		N/A
M.4.4.2	Preparation		N/A
M.4.4.3	Drop and charge/discharge function tests		N/A
	Drop		N/A
	Charge		N/A
	Discharge		N/A
M.4.4.4	Charge-discharge cycle test		N/A
M.4.4.5	Result of charge-discharge cycle test		N/A

M.5	Risk of burn due to short circuit during carrying	N/A
M.5.1	Requirement	N/A
M.5.2	Compliance and Test Method (Test of P.2.3)	N/A
M.6	Prevention of short circuits and protection from other effects of electric current	N/A
M.6.1	Short circuits	N/A
M.6.1.1	General requirements	N/A
M.6.1.2	Test method to simulate an internal fault	N/A
M.6.1.3	Compliance (Specify M.6.1.2 or alternative method)	N/A
M.6.2	Leakage current (mA)	—
M.7	Risk of explosion from lead acid and NiCd batteries	N/A
M.7.1	Ventilation preventing explosive gas concentration	N/A
M.7.2	Compliance and test method	N/A
M.8	Protection against internal ignition from external spark sources of lead acid batteries	N/A
M.8.1	General requirements	N/A
M.8.2	Test method	N/A
M.8.2.1	General requirements	N/A
M.8.2.2	Estimation of hypothetical volume Vz (m ³ /s).....	—
M.8.2.3	Correction factors.....	—
M.8.2.4	Calculation of distance d (mm)	—
M.9	Preventing electrolyte spillage	N/A
M.9.1	Protection from electrolyte spillage	N/A
M.9.2	Tray for preventing electrolyte spillage	N/A
M.10	Instructions to prevent reasonably foreseeable misuse (Determination of compliance: inspection, data review; or abnormal testing) ..	—

N	ELECTROCHEMICAL POTENTIALS	N/A
	Metal(s) used.....	—

O	MEASUREMENT OF CREEPAGE DISTANCES AND CLEARANCES	N/A
	Figures O.1 to O.20 of this Annex applied.....	—
P	SAFEGUARDS AGAINST ENTRY OF FOREIGN OBJECTS AND SPILLAGE OF INTERNAL LIQUIDS	N/A
P.1	General requirements	N/A

P.2.2	Safeguards against entry of foreign object	Foreign objects entering the enclosure will not contact bare part at PS3 or ES3 circuits.	P
	Location and Dimensions (mm)	Do not exceed 5 mm in any dimension.	—
P.2.3	Safeguard against the consequences of entry of foreign object	See above.	P
P.2.3.1	Safeguards against the entry of a foreign object		N/A
	Openings in transportable equipment		N/A
	Transportable equipment with metalized plastic parts.....		—
P.2.3.2	Openings in transportable equipment in relation to metallized parts of a barrier or enclosure (identification of supplementary safeguard)		—
P.3	Safeguards against spillage of internal liquids	No internal liquids.	N/A
P.3.1	General requirements		N/A
P.3.2	Determination of spillage consequences		N/A
P.3.3	Spillage safeguards		N/A
P.3.4	Safeguards effectiveness		N/A
P.4	Metallized coatings and adhesive securing parts	No metallized coatings or adhesive securing parts.	N/A
P.4.2 a)	Conditioning testing		N/A
	Tc (°C).....		—
	Tr (°C).....		—
	Ta (°C).....		—
P.4.2 b)	Abrasion testing		—
P.4.2 c)	Mechanical strength testing.....		—

Q	CIRCUITS INTENDED FOR INTERCONNECTION WITH BUILDING WIRING		N/A
Q.1	Limited power sources	See appended table Annex Q.1.	P
Q.1.1 a)	Inherently limited output		N/A
Q.1.1 b)	Impedance limited output		P
	- Regulating network limited output under normal operating and simulated single fault condition	A regulating network limits the output in compliance with table Q.1 both under normal operating conditions and after any single fault.	P
Q.1.1 c)	Overcurrent protective device limited output		N/A
Q.1.1 d)	IC current limiter complying with G.9		N/A
Q.1.2	Compliance and test method	See appended table Annex Q.1	P

Q.2	Test for external circuits – paired conductor cable	No such circuit for connection to the EUT	N/A
	Maximum output current (A)		—
	Current limiting method.....		—

R	LIMITED SHORT CIRCUIT TEST		N/A
R.1	General requirements	No such consideration.	N/A
R.2	Determination of the overcurrent protective device and circuit		N/A
R.3	Test method Supply voltage (V) and short-circuit current (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	Approved fire enclosure with metallic and V-0 plastic material used.	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).....		—
	Test flame according to IEC 60695-11-5 with conditions as set out		N/A
	Test specimen does not show any additional hole		N/A
S.3	Flammability test for the bottom of a fire enclosure		N/A
	Samples, material.....		—
	Wall thickness (mm).....		—
	Cheesecloth did not ignite		N/A
S.4	Flammability classification of materials		N/A

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

T	MECHANICAL STRENGTH TESTS		P
T.1	General requirements		P
T.2	Steady force test, 10 N		P
T.3	Steady force test, 30 N		—
T.4	Steady force test, 100 N		N/A
T.5	Steady force test, 250 N	(See appended table T5)	P
T.6	Enclosure impact test		N/A
	Fall test		N/A
	Swing test		N/A
T.7	Drop test		N/A
T.8	Stress relief test.....		N/A
T.9	Impact Test (glass)	No glass used.	N/A
T.9.1	General requirements		N/A
T.9.2	Impact test and compliance		N/A
	Impact energy (J).....:		—
	Height (m).....:		—
T.10	Glass fragmentation test.....:		—
T.11	Test for telescoping or rod antennas	No such device.	N/A
	Torque value (Nm)		—

U	MECHANICAL STRENGTH OF CATHODE RAY TUBES (CRT) AND PROTECTION AGAINST THE EFFECTS OF IMPLSION		N/A
U.1	General requirements	No CRTs.	N/A
U.2	Compliance and test method for non-intrinsically protected CRTs		N/A
U.3	Protective Screen.....:	(See Annex T)	—

V	DETERMINATION OF ACCESSIBLE PARTS (FINGERS, PROBES AND WEDGES)		N/A
V.1	Accessible parts of equipment		N/A
V.2	Accessible part criterion		N/A

4.1.2		TABLE: List of critical components				P
Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity ¹	
01.Metal Housing	-	-	Die-cast Magnesium box, specification: 640*480mm			
02.LED lights	Yancheng Dongshan Precision manufacturing Co.,LTD	DS1010H/RG B/T07	Red: IF(max.)=20mA,V F(max.)=2.3V; Green: IF(max.)=20mA,V F(max.)=3.5V; Blue: IF(max.)=20mA,V F(max.)=3.5V.	--	-	
03.Switching Power supply	Guangzhou Shiyuan Electronics Co.,Ltd	UF-220-2.8/3.8-D	Input:200-240V ac,max input ac current:3.5A,Output:2.8V/3.8V dc,35A. frequency:50/60Hz Tma:50°C	IEC/EN 60950-1 IEC/EN 62368-1		
04. LED tile plastic enclouse	SABIC INNOVATIVE PLASTICS US LLC	RF0057E(f1)	5VA, 110 degree C, minimum 0.9mm thick.	UL94 UL746C IEC60695	UL121562	
05.Protective Earthing/Bonding wire	DONG GUAN YONG SHENG CABLES TECHNOLOGY CO.,LTD	1015-14-#-41-0.254-3.4	Min. 105 degree C, min. 300V,min. 14AWG, green/yellow.	UL758	UL	
(Alternative)	Interchangeable	Interchangeable	Min. 105 degree C, min. 300V,min. 14AWG, green/yellow.	UL758	UL	
06.PWB	MEIZHOU DINGTAT PCB CO LTD	DT-2,DT-4	Min. V-0,min. 130 degree C.	UL796	UL	
(Alternative)	Interchangeable	Interchangeable	Min. V-0,min. 130 degree C.	UL796	UL	
07.Heat shrinkable tube	GUANGZHOU KAIHENG NEW MATERIAL CO.,LTD	K-102	VW-1,min. 300V,125 degree C.	UL224	UL E321827	
(Alternative)	(Alternative)	(Alternative)	VW-1,min. 300V,125 degree C.	UL224	UL	

08.Internal wires between hub board and button	DONG GUAN YAOBO ELECTRONICS CO LTD	2468	VW-1,min. 300V,80 degree C	UL758	UL E332441
(Alternative)	(Alternative)	(Alternative)	VW-1,min. 300V,80 degree C	UL758	UL

Supplementary information:

1) Provided evidence ensures the agreed level of compliance.

2)Description line content is optional. Main line description needs to clearly detail the component used for testing

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			—

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	N/A
------------	---	-----

5.2.2.2 – Steady State Voltage and Current conditions

No.	Supply Voltage	Location (e.g. circuit designation)	Test conditions	Parameters			ES Class
				U (Vrms or Vpk)	I (Apk or Arms)	Hz	
1	264Va.c. 60Hz	All primary circuits	Normal	264Vrms	--	--	ES3
			Abnormal	--	--	--	
			Single fault – SC/OC	--	--	--	
2	264Va.c. 60Hz	All RJ45 data port “+” to “-	Normal	0	--	--	ES1
			Abnormal	--	--	--	
			Single fault – SC/OC (Q2 pin D-S)	0	--	--	

5.2.2.3 - Capacitance Limits

No.	Supply Voltage	Location (e.g. circuit designation)	Test conditions	Parameters		ES Class
				Capacitance, nF	Upk (V)	
1	AC 264	Plastic material of LED mask to Earth	Normal	--	0.038mApk	ES3
			Abnormal	--	--	
			Single fault SC/OC	--	0.038mApk	

5.2.2.4 - Single Pulses

No.	Supply Voltage	Location (e.g. circuit designation)	Test conditions	Parameters			ES Class
				Duration (ms)	Upk (V)	Ipk (mA)	
--	--	--	Normal	--	--	--	--
			Abnormal	--	--	--	
			Single fault – SC/OC	--	--	--	

5.2.2.5 - Repetitive Pulses

No.	Supply Voltage	Location (e.g. circuit designation)	Test conditions	Parameters			ES Class
				Off time (ms)	Upk (V)	Ipk (mA)	
--	--	--	Normal	--	--	--	--
			Abnormal	--	--	--	
			Single fault – SC/OC	--	--	--	

Test Conditions:

Normal –

Abnormal -

Supplementary information: SC=Short Circuit, OC=Short Circuit

5.2.2.3 - Capacitance Limits

No.	Supply Voltage	Location (e.g. circuit designation)	Test conditions	Parameters		ES Class
				Capacitance, nF	Upk (V)	
1	AC 264	X-cap. in Build-in power supply module	Normal	--	0	ES3
			Abnormal	--	--	
			Single fault SC/OC	--	--	

5.2.2.4 - Single Pulses

No.	Supply Voltage	Location (e.g. circuit designation)	Test conditions	Parameters			ES Class
				Duration (ms)	Upk (V)	Ipk (mA)	
--	--	--	Normal	--	--	--	--
			Abnormal	--	--	--	
			Single fault – SC/OC	--	--	--	

5.2.2.5 - Repetitive Pulses

No.	Supply Voltage	Location (e.g. circuit designation)	Test conditions	Parameters			ES Class
				Off time (ms)	Upk (V)	Ipk (mA)	
--	--	--	Normal	--	--	--	--
			Abnormal	--	--	--	
			Single fault – SC/OC	--	--	--	

Test Conditions:

- Normal –
- Abnormal -

Supplementary information: SC=Short Circuit, OC=Short Circuit

5.4.1.4, 6.3.2, 9.0, B.2.6		TABLE: Temperature measurements					P	
Supply voltage (V)		180/60Hz		264/50Hz		—		
Ambient T _{min} (°C)		25.0	--	25.0	--	—		
Ambient T _{max} (°C)		24.9	--	25.2	--	—		
T _{ma} (°C)		25.0	40.0	25.0	40.0	—		
Maximum measured temperature T of part/at:			T (°C)			Allowed T _{max} (°C)		
Test location		Measured	Adjust to T _{ma}	Measured	Adjust to T _{ma}	--		
DC wires of power supply output		58.6	73.6	56.9	71.9	85		
Plastic enclosure		36.6	51.6	38.3	53.3	80		
PCB		35.3	50.3	36.6	51.6	130		
Metal chassis		38.5	53.5	39.3	54.3	70		
LEDs		38.9	43.9	39.8	54.8	80		
Ambient		25.0	40.0	25.0	40.0	Ref.		
Supplementary information:								
Temperature T of winding:		t ₁ (°C)	R ₁ (Ω)	t ₂ (°C)	R ₂ (Ω)	T (°C)	Allowed T _{max} (°C)	Insulation class

--	--	--	--	--	--	--	--
Supplementary information: Note 1: Tma should be considered as directed by applicable requirement Note 2: Tma is not included in assessment of Touch Temperatures (Clause 9)							

5.4.1.10.2	TABLE: Vicat softening temperature of thermoplastics			N/A
Penetration (mm).....:		--	—	
Object/ Part No./Material		Manufacturer/t rademark	T softening (°C)	
--		--	--	
supplementary information:				

5.4.1.10.3	TABLE: Ball pressure test of thermoplastics			N/A
Allowed impression diameter (mm)		≤ 2 mm	—	
Object/Part No./Material	Manufacturer/trademark	Test temperature (°C)	Impression diameter (mm)	
Supplementary information: 1). See appended table 4.1.2.				

5.4.2.2, 5.4.2.4 and 5.4.3	TABLE: Minimum Clearances/Creepage distance						P
Clearance (cl) and creepage distance (cr) at/of/between:	Up (V)	U r.m.s. (V)	Frequency (kHz) ¹	Required cl (mm)	cl (mm) ²	Required ³ cr (mm)	cr (mm)
Line of switch power supply to metal enclosure (B)	420	250	60Hz	1.27	3.6	2.5	3.6
Secondary line to primary parts of switch power supply (R)	420	250	60Hz	1.27	11.8	2.5	11.8
Supplementary information: 1). A force of 10N is applied to the internal components and 250N is applied to the enclosure for measure. 2). The triple insulated wire used as secondary winding of transformer T3, the core considered as primary part. 3) The core of T1, T2, T4 considered as floating. 4)*: Means the frequencies above and below 30 kHz.							

5.4.2.3	TABLE: Minimum Clearances distances using required withstand voltage			P
Overvoltage Category (OV):			II	
Pollution Degree:			2	
Clearance distanced between:	Required withstand voltage	Required cl (mm)	Measured cl (mm)	

5.4.2.3	TABLE: Minimum Clearances distances using required withstand voltage			P
	Overvoltage Category (OV):			II
	Pollution Degree:			2
Clearance distanced between:		Required withstand voltage	Required cl (mm)	Measured cl (mm)
Basic insulation (See table 5.4.2.2, 5.4.2.4 and 5.4.3 above)		2500V	1.5	See table 5.4.2.2, 5.4.2.4 and 5.4.3 above
Reinforced insulation (See table 5.4.2.2, 5.4.2.4 and 5.4.3 above)		2500V	3.0	See table 5.4.2.2, 5.4.2.4 and 5.4.3 above
Supplementary information: Supplementary information: Limits in previous table for clearance selected based on Table 15 for Required, Withstand Voltage 2.5kV (mains transient voltage 2.5kV).				

5.4.2.4	TABLE: Clearances based on electric strength test			N/A
Test voltage applied between:		Required cl (mm)	Test voltage (kV) peak/ r.m.s. / d.c.	Breakdown Yes / No
--		--	--	--
Supplementary information: Using procedure 2 to determine the clearance.				

5.4.4.2, 5.4.4.5 c) 5.4.4.9	TABLE: Distance through insulation measurements				P
Distance through insulation di at/of:	Peak voltage (V)	Frequency (kHz)	Material	Required DTI (mm)	DTI (mm)
Plastic parts for front panel	420	60	1)	0.4	1)
Heat shrinkable tube (wrapped on internal input wires)	420	60	1)	0.4	1)
Supplementary information: 1): See appended table 4.1.2 2)*: Means the frequencies above and below 30 kHz.					

5.4.9	TABLE: Electric strength tests			P
Test voltage applied between:		Voltage shape (AC, DC)	Test voltage (V)	Breakdown Yes / No
Basic/supplementary:				
Line to Neutral (fuse F1 disconnect)		DC	2500	No
L/N to metal enclosure		DC	2500	No
Reinforced:				
Unit primary to secondary (Plastic material of LED mask with metal foil)		DC	4000	No

5.4.9	TABLE: Electric strength tests			P
Test voltage applied between:	Voltage shape (AC, DC)	Test voltage (V)	Breakdown Yes / No	
Supplementary information: Core of transformer T1 was considered as primary. The core of transformer T1 considered as floating.				

5.5.2.2	TABLE: Stored discharge on capacitors					P
Supply Voltage (V), Hz	Test Location	Operating Condition (N, S)	Switch position On or off	Measured Voltage (after 2 seconds)	ES Classification	
264V/60Hz	Line and nature	N	--	0	ES1	
Supplementary information: X-capacitors installed for testing are: CX1=0.47 μ F, CX2=0.22 μ F <input checked="" type="checkbox"/> bleeding resistor rating: R1=R2=R3=R4=1.5M ohm, R5=R6=2.0M ohm <input type="checkbox"/> ICX: Notes: A. Test Location: Phase to Neutral; Phase to Phase; Phase to Earth; and/or Neutral to Earth B. Operating condition abbreviations: N – Normal operating condition (e.g., normal operation, or open fuse); S –Single fault condition						

5.6.6.2	TABLE: Resistance of protective conductors and terminations				P
Accessible part	Test current (A)	Duration (min)	Voltage drop (V)	Resistance (Ω)	
Input PE of Inlet furthest earthed enclosure and metal chassis	32	2	0.992	0.031	
Supplementary information:					

5.7.2.2, 5.7.4	TABLE: Earthed accessible conductive part		P
Supply voltage.....:			—
Location	Test conditions specified in 6.1 of IEC 60990 or Fault Condition No in IEC 60990 clause 6.2.2.1 through 6.2.2.8, except for 6.2.2.7		Touch current (mA)
Earthed to metal enclosure	1		3.79/3.96
Supplementary Information: *: See appended table 5.2.2.2. Notes: [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] IEC 60990, sub-clause 6.2.2.7, Fault 7 not applicable.
 [5] (*) IEC 60990, sub-clause 6.2.2.2 is not applicable if switch or disconnect device (e.g., appliance coupler) provided.

6.2.2 Table: Electrical power sources (PS) measurements for classification					N/A
Source	Description	Measurement	Max Power after 3 s	Max Power after 5 s	PS Classification
See below	Normal & fault condition	Power (W) :	--	--	
		V _A (V) :	--	--	
		I _A (A) :	--	--	

Supplementary Information:
 All circuits are considered PS3.
 Output connector complied with Annex Q.1.
 #: All assessable connectors/parts only for signal terminal, exceeding 15W power is not exists.

6.2.3.1 Table: Determination of Potential Ignition Sources (Arcing PIS)					N/A
Location	Open circuit voltage After 3 s (V _p)	Measured r.m.s current (I _{rms})	Calculated value (V _p x I _{rms})	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.
 All conductors and devices are considered as arcing PIS.

6.2.3.2 Table: Determination of Potential Ignition Sources (Resistive PIS)					N/A
Circuit Location (x-y)	Operating Condition (Normal / Describe Single Fault)	Measured wattage or VA During first 30 s (W / VA)	Measured wattage or VA After 30 s (W / VA)	Protective Circuit, Regulator, or PTC Operated? Yes / No (Comment)	Resistive PIS? Yes/No
--	--	--	--	--	--

Supplementary Information:
 All components were considered as resistive PIS.
 A combination of voltmeter, VA and ammeter I_A may be used instead of a wattmeter.
 If a separate voltmeter and ammeter are used, the product of (VA x I_A) is used to determine Resistive PIS classification.
 A Resistive PIS: (a) dissipates more than 15 W, measured after 30 s of normal operation, or (b) under single fault conditions has either a power exceeding 100 W measured immediately after the introduction of the fault if electronic circuits, regulators or PTC devices are used, or has an available power exceeding 15 W measured 30 s after introduction of the fault.

8.5.5	TABLE: High Pressure Lamp		N/A
Description	Values	Energy Source Classification	
Lamp type.....:	--	—	
Manufacturer.....:	--	—	
Cat no.....:	--	—	
Pressure (cold) (MPa).....:	--	MS_	
Pressure (operating) (MPa).....:	--	MS_	
Operating time (minutes).....:	--	—	
Explosion method.....:	--	—	
Max particle length escaping enclosure (mm) .:	--	MS_	
Max particle length beyond 1 m (mm).....:	--	MS_	
Overall result	--		
Supplementary information:			

B.2.5	TABLE: Input test						P
U (V)	I (A)	I rated (A)	P (W)	P rated (W)	Fuse No	I fuse (A)	Condition/status
(Maximum mode)							
180V/50Hz	2.895	--	516.6	--	F1	2.895	Maximum normal load
180V/60Hz	2.898	--	516.6	--	F1	2.898	Maximum normal load
200V/50Hz	2.607	--	515.6	220	F1	2.607	Maximum normal load
200V/60Hz	2.612	--	516.0	220	F1	2.612	Maximum normal load
240V/50Hz	2.203	--	515.6	220	F1	2.203	Maximum normal load
240V/60Hz	2.214	--	515.4	220	F1	2.214	Maximum normal load
264V/50Hz	2.021	--	516.0	--	F1	2.021	Maximum normal load
264V/60Hz	2.042	--	116.3	--	F1	515.8	Maximum normal load
Supplementary information: Operated at three vertical bar signal maximum brightness and contrast of LED backlight, the audio with maximum volume of speaker with 1kHz sine wave signal, USB2.0 load 0.5A, USB3.0 load 1.0A, and continuous operation.							

B.3	TABLE: Abnormal operating condition tests		N/A
Ambient temperature (°C)	25°C, if not specified		—
Power source for EUT: Manufacturer, model/type, output rating :	--		—

Component No.	Abnormal Condition	Supply voltage, (V)	Test time (ms)	Fuse no.	Fuse current, (A)	T-couple	Temp. (°C)	Observation

Supplementary information:

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

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

B.4 TABLE: Fault condition tests								P
Ambient temperature (°C)						25	—	
Power source for EUT: Manufacturer, model/type, output rating :						See page 2 for details		—
Component No.	Fault Condition	Supply voltage, (V)	Test time (ms)	Fuse no.	Fuse current, (A)	T-couple	Temp. (°C)	Observation
LED(+) to (-)	SC	264	10min	F1	0.15	--	--	Unit shut down immediately, No damage, no hazards
Supplementary information:								
- SC=short circuit;								

Annex M TABLE: Batteries									N/A
The tests of Annex M are applicable only when appropriate battery data is not available									N/A
Is it possible to install the battery in a reverse polarity position?.....								No	N/A
	Non-rechargeable batteries			Rechargeable batteries					
	Discharging		Un-intentional charging	Charging		Discharging		Reversed charging	
	Meas. current	Manuf. Specs.		Meas. current	Manuf. Specs.	Meas. current	Manuf. Specs.	Meas. current	Manuf. Specs.
Max. current during normal condition	--	--	--	--	--	--	--	--	--
Max. current during fault condition	--	--	--	--	--	--	--	--	--
Test results:									Verdict
- Chemical leaks									
- Explosion of the battery									
- Emission of flame or expulsion of molten metal									
- Electric strength tests of equipment after completion of tests									

Annex M	TABLE: Batteries								N/A
The tests of Annex M are applicable only when appropriate battery data is not available									N/A
Is it possible to install the battery in a reverse polarity position?.....:								No	N/A
Non-rechargeable batteries			Rechargeable batteries						
Discharging		Un-intentional charging	Charging		Discharging		Reversed charging		
Meas. current	Manuf. Specs.		Meas. current	Manuf. Specs.	Meas. current	Manuf. Specs.	Meas. current	Manuf. Specs.	
Supplementary information:									

Annex M.4	Table: Additional safeguards for equipment containing secondary lithium batteries						N/A
Battery/Cell No.	Test conditions	Measurements			Observation		
		U	I (A)	Temp (C)			
Supplementary Information:							
1): See appended table 5.4.1.4, 6.3.2, 9.0, B.2.6, appended table B.3, appended table B.4, appended table Annex M							
Battery identification	Charging at T_{lowest} (°C)	Observation	Charging at $T_{highest}$ (°C)	Observation			
Supplementary Information:							

Annex Q.1	TABLE: Circuits intended for interconnection with building wiring (LPS)					N/A
Note: Measured UOC (V) with all load circuits disconnected:						
Output Circuit	Components	U _{oc} (V)	I _{sc} (A)		S (VA)	
			Meas.	Limit	Meas.	Limit
port output	Normal					
	Singlefault (IC5 pin1-2 SC)					
Supplementary Information: *: Indicate unit shut down. SC=Short circuit, OC=Open circuit						

T.2, T.3, T.4, T.5	TABLE: Steady force test					P
Part/Location	Material	Thickness (mm)	Force (N)	Test Duration (sec)	Observation	
All components	--	--	10	5	All safeguards remain effective.	

Metal enclosure	Metal	See table 4.1.2	250	5	No cracking, all safeguards remain effective.
Supplementary information:					

T.6, T.9	TABLE: Impact tests				P
Part/Location	Material	Thickness (mm)	Vertical distance (mm)	Observation	
Metal enclosure	Metal	See table 4.1.2	1300	No cracking, all safeguards remain effective.	
Supplementary information:					

T.7	TABLE: Drop tests				N/A
Part/Location	Material	Thickness (mm)	Drop Height (mm)	Observation	
--	--	--	--	--	
Supplementary information:					

T.8	TABLE: Stress relief test				N/A
Part/Location	Material	Thickness (mm)	Oven Temperature (°C)	Duration (h)	Observation
Supplementary information:					

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 62368-1:2020+A11:2020																																					
Attachment Form No.:	EU_GD_IEC62368_1B_II																																					
Master Attachment:	Date 2017-09-22																																					
Copyright © 2017 IEC System for Conformity Testing and Certification of Electrical Equipment (IECEE), Geneva, Switzerland. All rights reserved.																																						
	CENELEC COMMON MODIFICATIONS (EN)	P																																				
	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																																				
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td style="width: 15%;">0.2.1</td> <td style="width: 15%;">Note</td> <td style="width: 15%;">1</td> <td style="width: 15%;">Note 3</td> <td style="width: 15%;">4.1.15</td> <td style="width: 15%;">Note</td> </tr> <tr> <td>4.7.3</td> <td>Note 1 and 2</td> <td>5.2.2.2</td> <td>Note</td> <td>5.4.2.3.2.2 Table 13</td> <td>Note c</td> </tr> <tr> <td>5.4.2.3.2.4</td> <td>Note 1 and 3</td> <td>5.4.2.5</td> <td>Note 2</td> <td>5.4.5.1</td> <td>Note</td> </tr> <tr> <td>5.5.2.1</td> <td>Note</td> <td>5.5.6</td> <td>Note</td> <td>5.6.4.2.1</td> <td>Note 2 and 3</td> </tr> <tr> <td>5.7.5</td> <td>Note</td> <td>5.7.6.1</td> <td>Note 1 and 2</td> <td>10.2.1 Table 39</td> <td>Note 2, 3 and 4</td> </tr> <tr> <td>10.5.3</td> <td>Note 2</td> <td>10.6.2.1</td> <td>Note 3</td> <td>F.3.3.6</td> <td>Note 3</td> </tr> </tbody> </table>	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	
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10.5.3	Note 2	10.6.2.1	Note 3	F.3.3.6	Note 3																																	
	For special national conditions, see Annex ZB.	—																																				
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	<p>Add the following new subclause after 4.9:</p> <p>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):</p> <p>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;</p> <p>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;</p> <p>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.</p> <p>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.</p>	Type-A equipment.	N/A
5.4.2.3.2.4	<p>Add the following to the end of this subclause:</p> <p>The requirement for interconnection with external circuit is in addition given in EN 50491-3:2009.</p>		N/A
10.2.1	<p>Add the following to ^{c)} and ^{d)} in table 39:</p> <p>For additional requirements, see 10.5.1.</p>		N/A
10.5.1	<p>Add the following after the first paragraph:</p> <p><i>For RS 1 compliance is checked by measurement under the following conditions:</i></p> <p><i>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.</i></p> <p>NOTE Z1 Soldered joints and paint lockings are examples of adequate locking.</p> <p><i>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.</i></p> <p><i>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.</i></p> <p><i>For RS1, the dose-rate shall not exceed 1 μSv/h taking account of the background level.</i></p> <p>NOTE Z2 These values appear in Directive 96/29/Euratom of 13 May 1996.</p>		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
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 NOTE some parts harmonized in HD 384/HD 60364 series. 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.		N/A
ZB	ANNEX ZB, SPECIAL NATIONAL CONDITIONS (EN)		N/A

4.1.15	<p>Denmark, Finland, Norway and Sweden</p> <p>To the end of the subclause the following is added:</p> <p>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.</p> <p>The marking text in the applicable countries shall be as follows:</p> <p>In Denmark: "Apparatets stikprop skal tilsluttes en stikkontakt med jord som giver forbindelse til stikproppens jord."</p> <p>In Finland: "Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan"</p> <p>In Norway: "Apparatet må tilkoples jordet stikkontakt"</p> <p>In Sweden: "Apparaten skall anslutas till jordat uttag"</p>	Shall be evaluated during the national approval.	N/A
4.7.3	<p>United Kingdom</p> <p>To the end of the subclause the following is added:</p> <p>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</p>		N/A
5.2.2.2	<p>Denmark</p> <p>After the 2nd paragraph add the following:</p> <p>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.</p>		N/A

5.4.11.1 and Annex G	<p>Finland and Sweden</p> <p>To the end of the subclause the following is added:</p> <p>For separation of the telecommunication network from earth the following is applicable:</p> <p>If this insulation is solid, including insulation forming part of a component, it shall at least consist of either</p> <ul style="list-style-type: none"> • 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. <p>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</p> <ul style="list-style-type: none"> • 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. <p>It is permitted to bridge this insulation with a capacitor complying with EN 60384-14:2005, subclass Y2.</p> <p>A capacitor classified Y3 according to EN 60384-14:2005, may bridge this insulation under the following conditions:</p> <ul style="list-style-type: none"> • 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; <p>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.</p>		N/A
5.5.2.1	<p>Norway</p> <p>After the 3rd paragraph the following is added:</p> <p>Due to the IT power system used, capacitors are required to be rated for the applicable line-to-line voltage (230 V).</p>		N/A
5.5.6	<p>Finland, Norway and Sweden</p> <p>To the end of the subclause the following is added:</p> <p>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.</p>		N/A

5.6.1	<p>Denmark</p> <p>Add to the end of the subclause</p> <p>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.</p> <p><i>Justification:</i></p> <p>In Denmark an existing 13 A socket outlet can be protected by a 20 A fuse.</p>		N/A
5.6.4.2.1	<p>Ireland and United Kingdom</p> <p>After the indent for pluggable equipment type A, the following is added:</p> <p>– the protective current rating is taken to be 13 A, this being the largest rating of fuse used in the mains plug.</p>		P
5.6.5.1	<p>To the second paragraph the following is added:</p> <p>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:</p> <p>1,25 mm² to 1,5 mm² in cross-sectional area.</p>		N/A
5.7.5	<p>Denmark</p> <p>To the end of the subclause the following is added:</p> <p>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.</p>		N/A

5.7.6.1	<p>Norway and Sweden</p> <p>To the end of the subclause the following is added:</p> <p>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.</p> <p>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.</p> <p>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:</p> <p>“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)”</p> <p>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.</p> <p>Translation to Norwegian (the Swedish text will also be accepted in Norway):</p> <p>“Apparater som er koplet til beskyttelsesjord via nettplugg og/eller via annet jordtilkøpnet utstyr – og er tilkøpnet et koaksialbasert kabel-TV nett, kan forårsake brannfare. For å unngå dette skal det ved tilkøpning av apparater til kabel-TV nett installeres en galvanisk isolator mellom apparatet og kabel-TV nettet.”</p> <p>Translation to Swedish:</p> <p>”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.”.</p>		N/A
5.7.6.2	<p>Denmark</p> <p>To the end of the subclause the following is added:</p> <p>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 .</p>		N/A

B.3.1 and B.4	<p>Ireland and United Kingdom</p> <p>The following is applicable:</p> <p>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</p>		N/A
G.4.2	<p>Denmark</p> <p>To the end of the subclause the following is added:</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>Other current rating socket outlets shall be in compliance with Standard Sheet DKA 1-3a or DKA 1-1c.</p> <p>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</p> <p><i>Justification:</i> Heavy Current Regulations, Section 6c</p>		N/A
G.4.2	<p>United Kingdom</p> <p>To the end of the subclause the following is added:</p> <p>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.</p>		N/A

G.7.1	<p>United Kingdom</p> <p>To the first paragraph the following is added:</p> <p>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.</p> <p>NOTE "Standard plug" is defined in SI 1768:1994 and essentially means an approved plug conforming to BS 1363 or an approved conversion plug.</p>		N/A
G.7.1	<p>Ireland</p> <p>To the first paragraph the following is added:</p> <p>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</p>		N/A
G.7.2	<p>Ireland and United Kingdom</p> <p>To the first paragraph the following is added:</p> <p>A power supply cord with a conductor of 1,25 mm² is allowed for equipment which is rated over 10 A and up to and including 13 A.</p>		N/A
ZC	ANNEX ZC, NATIONAL DEVIATIONS (EN)		N/A
10.5.2	<p>Germany</p> <p>The following requirement applies:</p> <p>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.</p> <p><i>Justification:</i></p> <p>German ministerial decree against ionizing radiation (Röntgenverordnung), in force since 2002-07-01, implementing the European Directive 96/29/EURATOM.</p> <p>NOTE Contact address: Physikalisch-Technische Bundesanstalt, Bundesallee 100, D-38116 Braunschweig, Tel.: Int +49-531-592-6320, Internet: http://www.ptb.de</p>		N/A

Appendix
Photo documentation

Photo 1

- front
- rear
- right side
- left side
- top
- bottom
- internal

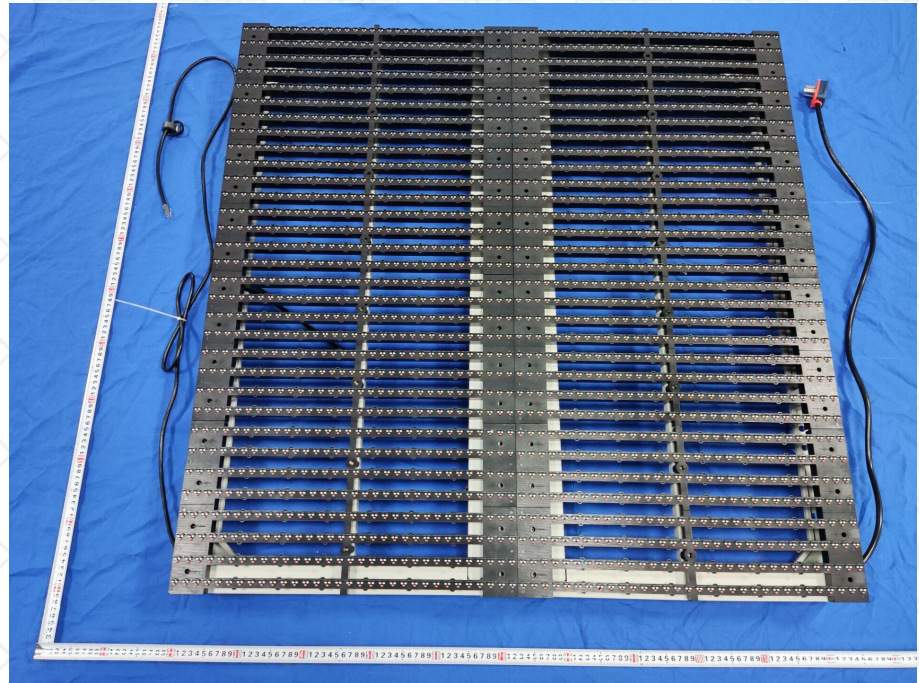


Photo 2

- front
- rear
- right side
- left side
- top
- bottom
- internal

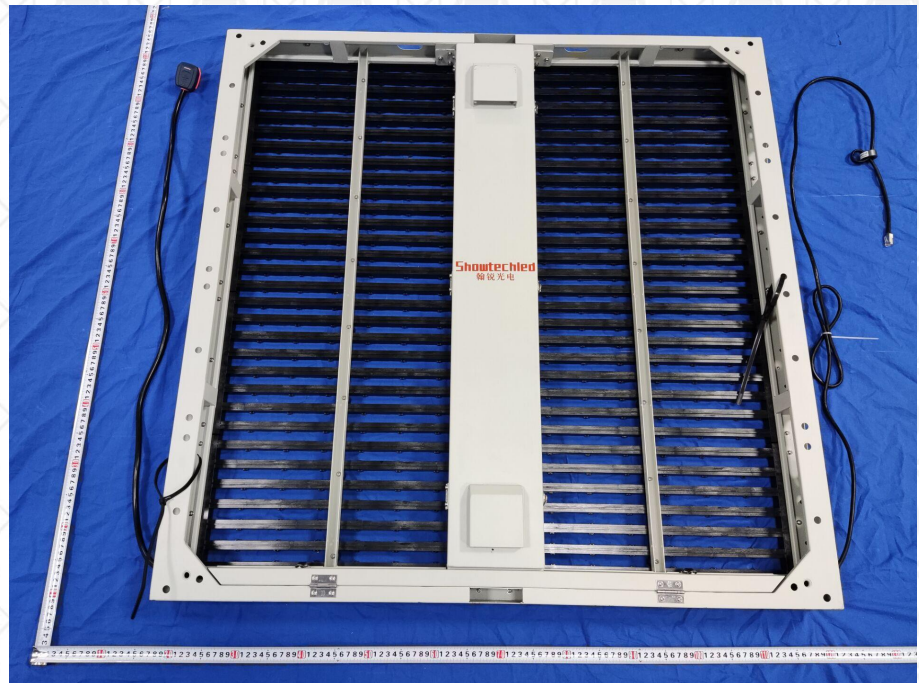
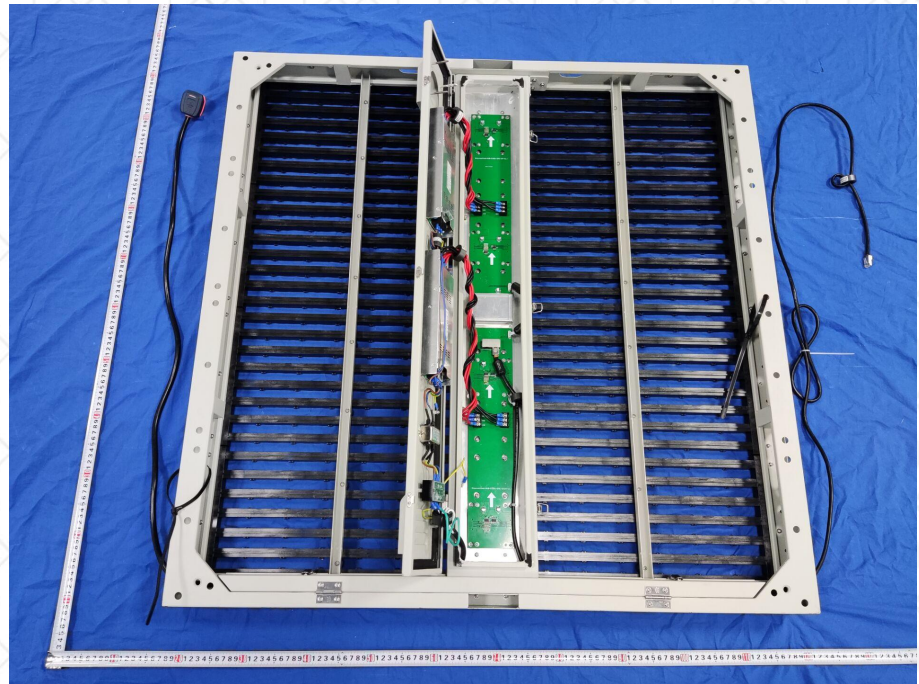


Photo 3

- front
- rear
- right side
- left side
- top
- bottom
- internal



*****End of the report*****