



Test Report issued under the responsibility of:

SGS Fimko Ltd.

TEST REPORT

IEC 62368-1

Audio/video, information and communication technology equipment

Part 1: Safety requirements

Report Number : GZES190712019001

Date of issue : 2019-07-23

Total number of pages : 45

Applicant's name : Fitbit, Inc.

Address : 199 Fremont Street, 14th Floor, San Francisco, CA 94105 USA

Test specification:

Standard : IEC 62368-1:2014 (Second Edition)

Test procedure : CB Scheme

Non-standard test method : N/A

Test Report Form No. : IEC62368_1B

Test Report Form(s) Originator : UL(US)

Master TRF : 2014-03

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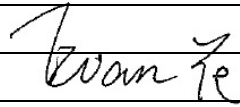
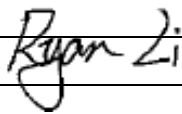
If this Test Report Form is used by non-IECEE members, the IECEE/IEC logo and the reference to the CB Scheme procedure shall be removed.

This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.

General disclaimer:

The test results presented in this report relate only to the object tested.

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Test Item description	Electronic scale (Product name: Body Scale)	
Trade Mark		
Manufacturer	Same as applicant	
Model/Type reference	FB203	
Ratings	4,5 V d.c. (powered by 3 AAA batteries), Class III	
Testing procedure and testing location:		
<input checked="" type="checkbox"/> CB Testing Laboratory:	SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch	
Testing location/ address	198 Kezhu Road, Science City, Economic & Technology Development Area, Guangzhou, Guangdong, China	
<input type="checkbox"/> Associated CB Testing Laboratory:		
Testing location/ address		
Tested by (name + signature)	Evan Ye / Project Engineer	
Approved by (name + signature)	Ryan Li / Reviewer	
<input type="checkbox"/> Testing procedure: TMP/CTF Stage 1	N/A	
Testing location/ address		
Tested by (name + signature)		
Approved by (name + signature)		
<input type="checkbox"/> Testing procedure: WMT/CTF Stage 2	N/A	
Testing location/ address		
Tested by (name + signature)		
Witnessed by (name + signature)		
Approved by (name + signature)		
<input type="checkbox"/> Testing procedure: SMT/CTF Stage 3 or 4	N/A	
Testing location/ address		
Tested by (name + signature)		
Approved by (name + signature)		
Supervised by (name + signature)		

<p>List of Attachments (including a total number of pages in each attachment):</p> <p>Attachment 1: 4 pages of Photos;</p> <p>Attachment 2: 2 pages of Circuit diagram & Layout;</p> <p>Attachment 3: 3 pages of Safety information in user manual;</p> <p>Attachment 4: 11 pages of EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES.</p> <p>Attachment 5: 1 page of Deviations of Italy</p> <p>Attachment 6: 5 pages of Deviations of United States</p> <p>Attachment 7: 11 pages of Deviations of Canada</p> <p>Attachment 8: 10 pages of Deviations of Australia and New Zealand</p> <p>Attachment 9: 12 pages of Deviations of Japan</p>	
<p>Summary of testing:</p> <p>The sample(s) tested complies with the requirements of IEC 62368-1:2014</p> <p>When determining the test conclusion, the Measurement Uncertainty of test has been considered.</p> <p>The recommended ambient temperature range is 40 °C by manufacturer</p> <p>Test voltage: 4,5 V DC</p>	
<p>Tests performed (name of test and test clause):</p> <p><input checked="" type="checkbox"/> 4. General requirements</p> <p><input checked="" type="checkbox"/> 5. Electrically-caused injury</p> <p><input checked="" type="checkbox"/> 6. Electrically-caused fire</p> <p><input type="checkbox"/> 7. Injury caused by hazardous substances</p> <p><input checked="" type="checkbox"/> 8. Mechanically-caused injury</p> <p><input checked="" type="checkbox"/> 9. Thermal burn injury</p> <p><input type="checkbox"/> 10. Radiation</p> <p><input checked="" type="checkbox"/> Annex B. Normal operating condition tests, abnormal operating condition tests and single fault condition tests</p> <p><input checked="" type="checkbox"/> Annex F.3.9. Performance of Marking test</p>	<p>Testing location:</p> <p>CBTL as on page 2</p>
<p>Summary of compliance with National Differences:</p> <p>List of countries addressed</p> <ol style="list-style-type: none"> 1. EU Group Differences (EN 62368-1:2014 + A11: 2017); 2. Compliance with Deviations of United States (UL 62368-1:2014) 3. Compliance with Deviations of Canada (CAN/CSA-C22.2 No. 62368-1-14) 4. Compliance with Deviations of Italy (CEI EN 62368-1:2016) 5. Compliance with Deviations of Australia and New Zealand (AS/NZS 62368.1:2018) 6. Compliance with Deviations of Japan J62368-1 (H30) <p>The product fulfils the above requirements.</p>	

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.

**Remark:**

1. The Height of CE logo shall not be less than 5 mm; Height of WEEE logo shall not be less than 7 mm.
2. As declared by the applicant, the importer (and manufacturer, if it is different)'s name, registered trade name or registered trade mark and the postal address will be marked on the products before being place on the market. The contact details shall be in a language easily understood by end-users and market surveillance authorities.
3. Marking on the packaging or in a document accompanying the electrical equipment is only acceptable if it is not possible to place such markings on the product.

TEST ITEM PARTICULARS:	
Classification of use by	<input checked="" type="checkbox"/> Ordinary person <input type="checkbox"/> Instructed person <input type="checkbox"/> Skilled person <input checked="" type="checkbox"/> Children likely to be present
Supply Connection.....	<input type="checkbox"/> AC Mains <input type="checkbox"/> DC Mains <input checked="" type="checkbox"/> External Circuit - not Mains connected - <input checked="" type="checkbox"/> ES1 <input type="checkbox"/> ES2 <input type="checkbox"/> ES3
Supply % Tolerance	<input type="checkbox"/> +10%/-10% <input type="checkbox"/> +20%/-15% <input type="checkbox"/> + ____ %/ - ____ % <input checked="" type="checkbox"/> None
Supply Connection – Type	<input type="checkbox"/> pluggable equipment type A - <input type="checkbox"/> non-detachable supply cord <input type="checkbox"/> appliance coupler <input type="checkbox"/> direct plug-in <input type="checkbox"/> mating connector <input type="checkbox"/> pluggable equipment type B - <input type="checkbox"/> non-detachable supply cord <input type="checkbox"/> appliance coupler <input type="checkbox"/> permanent connection <input type="checkbox"/> mating connector <input checked="" type="checkbox"/> other: not directly connected to the mains
Considered current rating of protective device as part of building or equipment installation	N/A; Installation location: <input type="checkbox"/> building; <input type="checkbox"/> equipment
Equipment mobility	<input checked="" type="checkbox"/> movable <input type="checkbox"/> hand-held <input type="checkbox"/> transportable <input type="checkbox"/> stationary <input type="checkbox"/> for building-in <input type="checkbox"/> direct plug-in <input type="checkbox"/> rack-mounting <input type="checkbox"/> wall-mounted
Over voltage category (OVC)	<input type="checkbox"/> OVC I <input type="checkbox"/> OVC II <input type="checkbox"/> OVC III <input type="checkbox"/> OVC IV <input checked="" type="checkbox"/> other: not directly connected to the mains
Class of equipment	<input type="checkbox"/> Class I <input type="checkbox"/> Class II <input checked="" type="checkbox"/> Class III
Access location	<input type="checkbox"/> restricted access location <input checked="" type="checkbox"/> N/A
Pollution degree (PD)	<input type="checkbox"/> PD 1 <input checked="" type="checkbox"/> PD 2 <input type="checkbox"/> PD 3
Manufacturer's specified maximum operating ambient:	40 °C
IP protection class	<input checked="" type="checkbox"/> IPX0 <input type="checkbox"/> IP____
Power Systems	<input checked="" type="checkbox"/> TN <input type="checkbox"/> TT <input type="checkbox"/> IT - ____ V L-L
Altitude during operation (m)	<input checked="" type="checkbox"/> 2000 m or less <input type="checkbox"/> ____ m
Altitude of test laboratory (m)	<input checked="" type="checkbox"/> 2000 m or less <input type="checkbox"/> ____ m
Mass of equipment (kg)	<input checked="" type="checkbox"/> 1,75 kg

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..... :	2019-07-09
Date (s) of performance of tests..... :	2019-07-09 to 2019-07-23
GENERAL REMARKS:	
<p>"(See Enclosure #)" refers to additional information appended to the report. "(See appended table)" refers to a table appended to the report.</p> <p>Throughout this report a <input checked="" type="checkbox"/> comma / <input type="checkbox"/> point is used as the decimal separator.</p> <p>This document is issued by the Company subject to its General Conditions of Service, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.</p> <p>Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.</p> <p>Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 3 months only.</p>	
Manufacturer's Declaration per sub-clause 4.2.5 of IEC 60335-1:	
The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not applicable
When differences exist; they shall be identified in the General product information section.	
Name and address of factory (ies)	Zhongshan Transtek Electronics Co., Ltd. 23 Jin'an Road, Minzhong, Zhongshan, Guangdong, China

GENERAL PRODUCT INFORMATION:**Product Description –**

Product name	Body Scale
Functions / interface	Electronic scale, with bluetooth function
Power source	powered by DC (3 AAA batteries)
Enclosure	Plastic enclosure and glass surface are fixed by screw and plastic clips
Other feature	For indoor used only.

Model Differences –

N/A

Additional application considerations – (Considerations used to test a component or sub-assembly) –

N/A

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: +5 V dc input ES1	
Source of electrical energy	Corresponding classification (ES)
Whole unit	ES1
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)
Whole unit	PS1
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
No hazardous substances	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)
Mass of the whole unit (<7kg)	MS1
Edges and corners	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)
Accessible surface	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)
No radiation	N/A

ENERGY SOURCE DIAGRAM
Indicate which energy sources are included in the energy source diagram. Insert diagram below
<input checked="" type="checkbox"/> ES <input checked="" type="checkbox"/> PS <input checked="" type="checkbox"/> MS <input checked="" type="checkbox"/> TS <input type="checkbox"/> RS

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	ES1: Whole unit	--	--	--
6.1	Electrically-caused fire			
Material part (e.g. mouse enclosure)	Energy Source (PS2: 100 Watt circuit)	Safeguards		
		Basic	Supplementary	Reinforced
Internal combustible material, conductors and devices within product	PS1: Whole unit	--	--	--
7.1	Injury caused by hazardous substances			
Body Part (e.g., skilled)	Energy Source (hazardous material)	Safeguards		
		Basic	Supplementary	Reinforced
N/A	No contain of hazardous substances	--	--	--
8.1	Mechanically-caused injury			
Body Part (e.g. Ordinary)	Energy Source (MS3:High Pressure Lamp)	Safeguards		
		Basic	Supplementary	Reinforced (Enclosure)
Ordinary	MS1: Mass of the unit	--	--	--
Ordinary	MS1: Edges and corners	--	--	--
9.1	Thermal Burn			
Body Part (e.g., Ordinary)	Energy Source (TS2)	Safeguards		
		Basic	Supplementary	Reinforced
Ordinary	TS1: Accessible surface	--	--	--
10.1	Radiation			
Body Part (e.g., Ordinary)	Energy Source (Output from audio port)	Safeguards		
		Basic	Supplementary	Reinforced
N/A	No Radiation	--	--	--
Supplementary Information:				
(1) See attached energy source diagram for additional details.				
(2) "N" – Normal Condition; "A" – Abnormal Condition; "S" Single Fault				

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Clause	Requirement + Test	Result - Remark	Verdict

4	GENERAL REQUIREMENTS		--
4.1.1	Acceptance of materials, components and subassemblies		P
4.1.2	Use of components		P
4.1.3	Equipment design and construction		P
4.1.15	Markings and instructions.....:	(See Annex F)	P
4.4.4	Safeguard robustness		N/A
4.4.4.2	Steady force tests.....:		N/A
4.4.4.3	Drop tests		N/A
4.4.4.4	Impact tests		N/A
4.4.4.5	Internal accessible safeguard enclosure and barrier tests.....:		N/A
4.4.4.6	Glass Impact tests		N/A
4.4.4.74	Thermoplastic material tests		N/A
4.4.4.8	Air comprising a safeguard.....:		N/A
4.4.4.9	Accessibility and safeguard effectiveness		N/A
4.5	Explosion		N/A
4.6	Fixing of conductors		N/A
4.6.1	Fix conductors not to defeat a safeguard		N/A
4.6.2	10 N force test applied to		N/A
4.7	Equipment for direct insertion into mains socket - outlets		N/A
4.7.2	Mains plug part complies with the relevant standard.....:		N/A
4.7.3	Torque (Nm)		N/A
4.8	Products containing coin/button cell batteries		N/A
4.8.2	Instructional safeguard		N/A
4.8.3	Battery Compartment Construction		N/A
	Means to reduce the possibility of children removing the battery		—
4.8.4	Battery Compartment Mechanical Tests		N/A
4.8.5	Battery Accessibility		N/A
4.9	Likelihood of fire or shock due to entry of conductive object.....:		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

5	ELECTRICALLY-CAUSED INJURY		--
5.2.1	Electrical energy source classifications..... :	(See appended table 5.2)	P
5.2.2	ES1, ES2 and ES3 limits	ES1	P
5.2.2.2	Steady-state voltage and current..... :	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		N/A
5.2.2.7	Audio signals		N/A
5.3	Protection against electrical energy sources		N/A
5.3.1	General Requirements for accessible parts to ordinary, instructed and skilled persons		N/A
5.3.2.1	Accessibility to electrical energy sources and safeguards		N/A
5.3.2.2	Contact requirements		N/A
	a) Test with test probe from Annex V		N/A
	b) Electric strength test potential (V)		N/A
	c) Air gap (mm)		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	Humidity conditioning		N/A
5.4.1.4	Maximum operating temperature for insulating materials		N/A
5.4.1.5	Pollution degree		—
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		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 softening temperature..... :		N/A
5.4.1.10.3	Ball pressure		N/A
5.4.2	Clearances		N/A
5.4.2.2	Determining clearance using peak working voltage		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
5.4.2.3	Determining clearance using required withstand voltage		N/A
	a) a.c. mains transient voltage		—
	b) d.c. mains transient voltage		—
	c) external circuit transient voltage		—
	d) transient voltage determined by measurement		—
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
5.4.3	Creepage distances		N/A
5.4.3.1	General		N/A
5.4.3.3	Material Group		—
5.4.4	Solid insulation		N/A
5.4.4.2	Minimum distance through insulation		N/A
5.4.4.3	Insulation compound forming solid insulation		N/A
5.4.4.4	Solid insulation in semiconductor devices		N/A
5.4.4.5	Cemented joints		N/A
5.4.4.6	Thin sheet material		N/A
5.4.4.6.1	General requirements		N/A
5.4.4.6.2	Separable thin sheet material		N/A
	Number of layers (pcs)		N/A
5.4.4.6.3	Non-separable thin sheet material		N/A
5.4.4.6.4	Standard test procedure for non-separable thin sheet material		N/A
5.4.4.6.5	Mandrel test		N/A
5.4.4.7	Solid insulation in wound components		N/A
5.4.4.9	Solid insulation at frequencies >30 kHz		N/A
5.4.5	Antenna terminal insulation		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		N/A
5.4.7	Tests for semiconductor components and for cemented joints		N/A
5.4.8	Humidity conditioning		N/A
	Relative humidity (%).....		—

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Clause	Requirement + Test	Result - Remark	Verdict
	Temperature (°C)		—
	Duration (h)		—
5.4.9	Electric strength test		N/A
5.4.9.1	Test procedure for a solid insulation type test		N/A
5.4.9.2	Test procedure for routine tests		N/A
5.4.10	Protection against transient voltages between external circuit		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
5.4.11	Insulation between external circuits and earthed circuitry		N/A
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		
5.5.1	General		N/A
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
5.5.5	Relays		N/A
5.5.6	Resistors		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.....		N/A
5.6	Protective conductor		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
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)		—
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).		—
	Protective current rating (A)		—
5.6.4.3	Current limiting and overcurrent protective devices		N/A
5.6.5	Terminals for protective conductors		N/A
5.6.5.1	Requirement		N/A
	Conductor size (mm ²), nominal thread diameter (mm).		N/A
5.6.5.2	Corrosion		N/A
5.6.6	Resistance of the protective system		N/A
5.6.6.1	Requirements		N/A
5.6.6.2	Test Method Resistance (Ω).....		N/A
5.6.7	Reliable earthing		N/A
5.7	Prospective touch voltage, touch current and protective conductor current		N/A
5.7.2	Measuring devices and networks		N/A
5.7.2.1	Measurement of touch current		N/A
5.7.2.2	Measurement of prospective touch voltage		N/A
5.7.3	Equipment set-up, supply connections and earth connections		N/A
	System of interconnected equipment (separate connections/single connection)		—
	Multiple connections to mains (one connection at a time/simultaneous connections)		—
5.7.4	Earthed conductive accessible parts		N/A
5.7.5	Protective conductor current		N/A
	Supply Voltage (V).....		—
	Measured current (mA).....		—
	Instructional Safeguard.....		N/A
5.7.6	Prospective touch voltage and touch current due to external circuits		N/A
5.7.6.1	Touch current from coaxial cables		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
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).....:		N/A
	b) Equipment whose external circuits are not referenced to earth. Measured current (mA).....:		N/A

6	ELECTRICALLY- CAUSED FIRE		--
6.2	Classification of power sources (PS) and potential ignition sources (PIS)		P
6.2.2	Power source circuit classifications	Power by AAA batteries	P
6.2.2.1	General		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 :	(See appended table 6.2.2)	P
6.2.2.5	PS2 :		N/A
6.2.2.6	PS3 :		N/A
6.2.3	Classification of potential ignition sources		N/A
6.2.3.1	Arcing PIS :		N/A
6.2.3.2	Resistive PIS :		N/A
6.3	Safeguards against fire under normal operating and abnormal operating conditions		P
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 :	(See appended table 5.4.1.5, 6.3.2, 9.0, B.2.6)	P
6.3.1 (b)	Combustible materials outside fire enclosure		N/A
6.4	Safeguards against fire under single fault conditions		P
6.4.1	Safeguard Method	Control of fire spread	P
6.4.2	Reduction of the likelihood of ignition under single fault conditions in PS1 circuits		P
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..... :	(See appended table 6.4.3)	N/A
	Special conditions for temperature limited by fuse		N/A
6.4.4	Control of fire spread in PS1 circuits		P

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Clause	Requirement + Test	Result - Remark	Verdict
6.4.5	Control of fire spread in PS2 circuits		N/A
6.4.5.2	Supplementary safeguards		N/A
6.4.6	Control of fire spread in PS3 circuit		N/A
6.4.7	Separation of combustible materials from a PIS		N/A
6.4.7.1	General		N/A
6.4.7.2	Separation by distance		N/A
6.4.7.3	Separation by a fire barrier		N/A
6.4.8	Fire enclosures and fire barriers		N/A
6.4.8.1	Fire enclosure and fire barrier material properties		N/A
6.4.8.2.1	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)		N/A
	Needle Flame test		N/A
6.4.8.3.4	Bottom Openings in Fire Enclosure, condition met a), b) and/or c) dimensions (mm)		N/A
	Flammability tests for the bottom of a fire enclosure		N/A
6.4.8.3.5	Integrity of the fire enclosure, condition met: a), b) or c)		N/A
6.4.8.4	Separation of PIS from fire enclosure and fire barrier distance (mm) or flammability rating		N/A
6.5	Internal and external wiring		N/A
6.5.1	Requirements		N/A
6.5.2	Cross-sectional area (mm ²)		—
6.5.3	Requirements for interconnection to building wiring		N/A
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

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Clause	Requirement + Test	Result - Remark	Verdict

7	INJURY CAUSED BY HAZARDOUS SUBSTANCES		--
7.2	Reduction of exposure to hazardous substances		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		--
8.1	General		P
8.2	Mechanical energy source classifications	MS1	P
8.3	Safeguards against mechanical energy sources		P
8.4	Safeguards against parts with sharp edges and corners	No sharp edge or corner	P
8.4.1	Safeguards		N/A
8.5	Safeguards against 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		N/A
8.5.4.2.2	Instructional safeguards against moving parts		N/A
	Instructional Safeguard		—
8.5.4.2.3	Disconnection from the supply		N/A
8.5.4.2.4	Probe type and force (N)		N/A
8.5.5	High Pressure Lamps		N/A
8.5.5.1	Energy Source Classification		N/A
8.5.5.2	High Pressure Lamp Explosion Test		N/A
8.6	Stability		N/A
8.6.1	Product classification		N/A
	Instructional Safeguard		—
8.6.2	Static stability		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
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).....		N/A
	Position of feet or movable parts		—
8.7	Equipment mounted to wall or ceiling		N/A
8.7.1	Mounting Means (Length of screws (mm) and mounting surface)		N/A
8.7.2	Direction and applied force		N/A
8.8	Handles strength		N/A
8.8.1	Classification		N/A
8.8.2	Applied Force		N/A
8.9	Wheels or casters attachment requirements		N/A
8.9.1	Classification		N/A
8.9.2	Applied force		—
8.10	Carts, stands and similar carriers		N/A
8.10.1	General		N/A
8.10.2	Marking and instructions		N/A
	Instructional Safeguard		—
8.10.3	Cart, stand or carrier loading test and compliance		N/A
	Applied force		—
8.10.4	Cart, stand or carrier impact test		N/A
8.10.5	Mechanical stability		N/A
	Applied horizontal force (N)		—
8.10.6	Thermoplastic temperature stability (°C).....		N/A
8.11	Mounting means for rack mounted equipment		N/A
8.11.1	General		N/A
8.11.2	Product Classification		N/A
8.11.3	Mechanical strength test, variable <i>N</i>		N/A
8.11.4	Mechanical strength test 250N, including end stops		N/A
8.12	Telescoping or rod antennas		N/A
	Button/Ball diameter (mm)		—

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Clause	Requirement + Test		Verdict
9	THERMAL BURN INJURY		--
9.2	Thermal energy source classifications	TS1	P
9.3	Safeguard against thermal energy sources		N/A
9.4	Requirements for safeguards		N/A
9.4.1	Equipment safeguard		N/A
9.4.2	Instructional safeguard		N/A

10	RADIATION		--
10.2	Radiation energy source classification		N/A
10.2.1	General classification		N/A
10.3	Protection against laser radiation		N/A
	Laser radiation that exists equipment:		—
	Normal, abnormal, single-fault		N/A
	Instructional safeguard		—
	Tool.....		—
10.4	Protection against visible, infrared, and UV radiation		N/A
10.4.1	General		N/A
10.4.1.a)	RS3 for Ordinary and instructed persons		N/A
10.4.1.b)	RS3 accessible to a skilled person.....		N/A
	Personal safeguard (PPE) instructional safeguard.....		—
10.4.1.c)	Equipment visible, IR, UV does not exceed RS1 .:		N/A
10.4.1.d)	Normal, abnormal, single-fault conditions		N/A
10.4.1.e)	Enclosure material employed as safeguard is opaque.....		N/A
10.4.1.f)	UV attenuation.....		N/A
10.4.1.g)	Materials resistant to degradation UV		N/A
10.4.1.h)	Enclosure containment of optical radiation.....		N/A
10.4.1.i)	Exempt Group under normal operating conditions		N/A
10.4.2	Instructional safeguard		N/A
10.5	Protection against x-radiation		N/A
10.5.1	X- radiation energy source that exists equipment:		N/A
	Normal, abnormal, single fault conditions		N/A
	Equipment safeguards.....		N/A
	Instructional safeguard for skilled person.....		N/A
10.5.3	Most unfavourable supply voltage to give maximum radiation		—

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Clause	Requirement + Test	Result - Remark	Verdict
	Abnormal and single-fault condition		N/A
	Maximum radiation (pA/kg).....		N/A
10.6	Protection against acoustic energy sources		N/A
10.6.1	General		N/A
10.6.2	Classification		N/A
	Acoustic output, dB(A).....		N/A
	Output voltage, unweighted r.m.s.....		N/A
10.6.4	Protection of persons		N/A
	Instructional safeguards		N/A
	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) L_{Aeq} 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		--
B.2	Normal Operating Conditions		P
B.2.1	General requirements.....	(See Test Item Particulars and appended test tables)	P
	Audio Amplifiers and equipment with audio amplifiers		N/A
B.2.3	Supply voltage and tolerances		N/A
B.2.5	Input test.....		N/A
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		N/A
B.3.3	D.C. mains polarity test		N/A
B.3.4	Setting of voltage selector		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
B.3.5	Maximum load at output terminals		N/A
B.3.6	Reverse battery polarity		N/A
B.3.7	Abnormal operating conditions as specified in Clause E.2.		N/A
B.3.8	Safeguards functional during and after abnormal operating conditions		P
B.4	Simulated single fault conditions		P
B.4.2	Temperature controlling device open or short-circuited		N/A
B.4.3	Motor tests		N/A
B.4.3.1	Motor blocked or rotor locked increasing the internal ambient temperature		N/A
B.4.4	Short circuit of functional insulation	(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 disconnect of passive components		P
B.4.7	Continuous operation of components		N/A
B.4.8	Class 1 and Class 2 energy sources within limits during and after single fault conditions		P
B.4.9	Battery charging under single fault conditions ... :	(See Annex M)	N/A
C	UV RADIATION		--
C.1	Protection of materials in equipment from UV radiation		N/A
C.1.2	Requirements		N/A
C.1.3	Test method		N/A
C.2	UV light conditioning test		N/A
C.2.1	Test apparatus		N/A
C.2.2	Mounting of test samples		N/A
C.2.3	Carbon-arc light-exposure apparatus		N/A
C.2.4	Xenon-arc light exposure apparatus		N/A
D	TEST GENERATORS		--
D.1	Impulse test generators		N/A
D.2	Antenna interface test generator		N/A
D.3	Electronic pulse generator		N/A

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Clause	Requirement + Test		Verdict
E	TEST CONDITIONS FOR EQUIPMENT CONTAINING AUDIO AMPLIFIERS		--
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		--
F.1	General requirements		P
	Instructions – Language	English	—
F.2	Letter symbols and graphical symbols	See marking plate	P
F.2.1	Letter symbols according to IEC60027-1		N/A
F.2.2	Graphic symbols IEC, ISO or manufacturer specific		N/A
F.3	Equipment markings		P
F.3.1	Equipment marking locations		P
F.3.2	Equipment identification markings		P
F.3.2.1	Manufacturer identification	See marking plate	—
F.3.2.2	Model identification	See marking plate	—
F.3.3	Equipment rating markings		N/A
F.3.3.1	Equipment with direct connection to mains		N/A
F.3.3.2	Equipment without direct connection to mains		N/A
F.3.3.3	Nature of supply voltage		—
F.3.3.4	Rated voltage		—
F.3.3.4	Rated frequency		—
F.3.3.6	Rated current or rated power		—
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		N/A
F.3.5.2	Switch position identification marking		N/A
F.3.5.3	Replacement fuse identification and rating markings		N/A
F.3.5.4	Replacement battery identification marking		N/A
F.3.5.5	Terminal marking location		N/A
F.3.6	Equipment markings related to equipment classification		N/A
F.3.6.1	Class I Equipment		N/A
F.3.6.1.1	Protective earthing conductor terminal		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
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 (IEC60417-5172)		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		—
F.3.8	External power supply output marking		N/A
F.3.9	Durability, legibility and permanence of marking		N/A
F.3.10	Test for permanence of markings		N/A
F.4	Instructions		P
	a) Equipment for use in locations where children not likely to be present - marking		N/A
	b) Instructions given for installation or initial use		P
	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		P
	i) Permanently connected equipment not provided with all-pole mains switch		N/A
j)	j) Replaceable components or modules providing safeguard function		N/A
F.5	Instructional safeguards		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		--
G.1	Switches		N/A
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		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

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Clause	Requirement + Test	Result - Remark	Verdict
G.3	Protection Devices		N/A
G.3.1	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		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.....		N/A
G.4	Connectors		N/A
G.4.1	Spacings		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		N/A
G.5	Wound Components		N/A
G.5.1	Wire insulation in wound components.....		N/A
G.5.1.2 a)	Two wires in contact inside wound component, angle between 45° and 90°		N/A
G.5.1.2 b)	Construction subject to routine testing		N/A
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 (IEC61204-7, IEC61558-1/-2, and/or IEC62368-1)		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Position..... :		—
	Method of protection :		—
G.5.3.2	Insulation		N/A
	Protection from displacement of windings..... :		—
G.5.3.3	Overload test :		N/A
G.5.3.3.1	Test conditions		N/A
G.5.3.3.2	Winding Temperatures testing in the unit		N/A
G.5.3.3.3	Winding Temperatures - Alternative test method		N/A
G.5.4	Motors		N/A
G.5.4.1	General requirements		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) :		N/A
	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 :		N/A
	Electric strength test (V) :		N/A
G.5.4.6.3	Tested on the bench - Alternative test method; test time (h) :		N/A
	Electric strength test (V)..... :		N/A
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	Solvent-based enamel wiring insulation		N/A
G.7	Mains supply cords		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
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 :		N/A
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		N/A
G.7.6.2.1	Test with 8 mm strand		N/A
G.8	Varistors		N/A
G.8.1	General requirements		N/A
G.8.2	Safeguard against shock		N/A
G.8.3	Safeguard against fire		N/A
G.8.3.2	Varistor overload test:		N/A
G.8.3.3	Temporary overvoltage:		N/A
G.9	Integrated Circuit (IC) Current Limiters		N/A
G.9.1 a)	Manufacturer defines limit at max. 5A.		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

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Clause	Requirement + Test	Result - Remark	Verdict
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		N/A
G.11.3	Rules for selecting capacitors		N/A
G.12	Optocouplers		N/A
	Optocouplers comply with IEC 60747-5-5:2007 Spacing or Electric Strength Test (specify option and test results).....:		N/A
	Type test voltage Vini		—
	Routine test voltage, Vini,b		—
G.13	Printed boards		N/A
G.13.1	General requirements		N/A
G.13.2	Uncoated printed boards		N/A
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		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.13.6.2a)	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		N/A
G.15	Liquid filled components		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
G.15.1	General requirements		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		N/A
b)	Impulse test using circuit 2 with $U_c =$ to transient voltage		N/A
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		--
H.1	General		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		N/A
H.3.2.1	Conditions for use of a tripping device or a monitoring voltage complied with		N/A
H.3.2.2	Tripping device		N/A
H.3.2.3	Monitoring voltage (V)		—
J	INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION		--
	General requirements		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
K	SAFETY INTERLOCKS		--
K.1	General requirements		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
	Compliance		N/A
K.6	Mechanically operated safety interlocks		N/A
K.6.1	Endurance requirement		N/A
K.6.2	Compliance and Test method		N/A
K.7	Interlock circuit isolation		N/A
K.7.1	Separation distance for contact gaps & interlock circuit elements (type and circuit location)		N/A
K.7.2	Overload test, Current (A).....		N/A
K.7.3	Endurance test		N/A
K.7.4	Electric strength test		N/A
L	DISCONNECT DEVICES		--
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
M	EQUIPMENT CONTAINING BATTERIES AND THEIR PROTECTION CIRCUITS		--
M.1	General requirements		P
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) .. :		N/A
M.3	Protection circuits		P
M.3.1	Requirements		P
M.3.2	Tests	Power by 3 Consumer grade AAA battery	P
	- Overcharging of a rechargeable battery		N/A
	- Unintentional charging of a non-rechargeable battery		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	- Reverse charging of a rechargeable battery		N/A
	- Excessive discharging rate for any battery		N/A
M.3.3	Compliance		N/A
M.4	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)		N/A
M.7	Risk of explosion from lead acid and NiCd batteries		N/A
M.7.1	Ventilation preventing explosive gas concentration		N/A
M.7.2	Compliance and test method		N/A
M.8	Protection against internal ignition from external spark sources of lead acid batteries		N/A
M.8.1	General requirements		N/A

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Clause	Requirement + Test		Verdict
M.8.2	Test method		N/A
M.8.2.1	General requirements		N/A
M.8.2.2	Estimation of hypothetical volume V_z (m ³ /s)..... :		—
M.8.2.3	Correction factors..... :		—
M.8.2.4	Calculation of distance d (mm) :		—
M.9	Preventing electrolyte spillage		N/A
M.9.1	Protection from electrolyte spillage		N/A
M.9.2	Tray for preventing electrolyte spillage		N/A
M.10	Instructions to prevent reasonably foreseeable misuse (Determination of compliance: inspection, data review; or abnormal testing) :		N/A
N	ELECTROCHEMICAL POTENTIALS		--
	Metal(s) used :	Pollution degree considered	—
O	MEASUREMENT OF CREEPAGE DISTANCES AND CLEARANCES		--
	Figures O.1 to O.20 of this Annex applied :		—
P	SAFEGUARDS AGAINST ENTRY OF FOREIGN OBJECTS AND SPILLAGE OF INTERNAL LIQUIDS		--
P.1	General requirements		N/A
P.2.2	Safeguards against entry of foreign object		N/A
	Location and Dimensions (mm) :		—
P.2.3	Safeguard against the consequences of entry of foreign object		N/A
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 :		N/A
P.2.3.2	Openings in transportable equipment in relation to metallized parts of a barrier or enclosure (identification of supplementary safeguard) :		N/A
P.3	Safeguards against spillage of internal liquids		N/A
P.3.1	General requirements		N/A
P.3.2	Determination of spillage consequences		N/A
P.3.3	Spillage safeguards		N/A
P.3.4	Safeguards effectiveness		N/A
P.4	Metalized coatings and adhesive securing parts		N/A
P.4.2 a)	Conditioning testing		N/A
	T_c (°C)..... :		—
	T_r (°C) :		—
	T_a (°C)..... :		—

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Clause	Requirement + Test	Result - Remark	Verdict
P.4.2 b)	Abrasion testing		N/A
P.4.2 c)	Mechanical strength testing		N/A
Q	CIRCUITS INTENDED FOR INTERCONNECTION WITH BUILDING WIRING		--
Q.1	Limited power sources		N/A
Q.1.1 a)	Inherently limited output		N/A
Q.1.1 b)	Impedance limited output		N/A
	- Regulating network limited output under normal operating and simulated single fault condition		N/A
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		N/A
Q.2	Test for external circuits – paired conductor cable		N/A
	Maximum output current (A)		—
	Current limiting method		—
R	LIMITED SHORT CIRCUIT TEST		--
R.1	General requirements		N/A
R.2	Determination of the overcurrent protective device and circuit		N/A
R.3	Test method Supply voltage (V) and short-circuit current (A)).		N/A
S	TESTS FOR RESISTANCE TO HEAT AND FIRE		--
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).....		—
	Test flame according to IEC 60695-11-5 with conditions as set out		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	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		--
T.1	General requirements		N/A
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		N/A
T.5	Steady force test, 250 N		N/A
T.6	Enclosure impact test		N/A
	Fall test		N/A
	Swing test		N/A
T.7	Drop test		N/A
T.8	Stress relief test		N/A
T.9	Impact Test (glass)		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		N/A
T.11	Test for telescoping or rod antennas		N/A
	Torque value (Nm)		—

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Clause	Requirement + Test	Result - Remark	Verdict
U	MECHANICAL STRENGTH OF CATHODE RAY TUBES (CRT) AND PROTECTION AGAINST THE EFFECTS OF IMPLOSION		--
U.1	General requirements		N/A
U.2	Compliance and test method for non-intrinsically protected CRTs		N/A
U.3	Protective Screen.....:		N/A
V	DETERMINATION OF ACCESSIBLE PARTS (FINGERS, PROBES AND WEDGES)		--
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	
Plastic enclosure	NINGBO LG YONGXING CHEMICAL CO LTD	HI-121H	HB; 90 °C, min. thickness 1,5 mm	--	UL (E203955)	
PWB	HE SHAN RUN CHANG ELECTRON & ELECTRIC CO LTD	HE-02, HE-01, HE-03	V-0; 130 °C	--	UL (E242464)	
Alt.	Interchangeable	Interchangeabl e	V-0; 130 °C	--	UL	

Supplementary information:

¹⁾ Provided evidence ensures the agreed level of compliance. See OD-CB2039.

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

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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:				

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Clause	Requirement + Test	Result - Remark	Verdict

4.8.5	TABLE: Lithium coin/button cell batteries mechanical test result			N/A
Test position		Surface tested	Force (N)	Duration force applied (s)
--		--	--	--
Supplementary information:				

5.2	Table: Classification of electrical energy sources						P
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	4,5 V DC	Input + to -	Normal	4,5 V DC	--	--	ES1
			Abnormal	--	--	--	
			Single fault	--	--	--	
5.2.2.3 - Capacitance Limits							
No.	Supply Voltage	Location (e.g. circuit designation)	Test conditions	Parameters		ES Class	
				Capacitance, nF	Upk (V)		
--	--	--	Normal	--	--	--	
			Abnormal	--	--		
			Single fault	--	--		
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	--	--	--	
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	--	--	--	
Test Conditions:							
Normal –							
Abnormal -							
Supplementary information: SC=Short Circuit, OC=Short Circuit							

IEC 62368-1							
Clause	Requirement + Test			Result - Remark			Verdict
5.4.1.4, 6.3.2, 9.0, B.2.6	TABLE: Temperature measurements						P
	Supply voltage (V)	4,5 Vd.c.					—
	Ambient T _{min} (°C)	40					—
	Ambient T _{max} (°C)	40					—
	T _{ma} (°C)	40					—
Maximum measured temperature T of part/at:		T (°C)				Allowed T _{max} (°C)	
Surface of AAA battery		40,5					Ref.
PWB surface(IC3)		40,5					130
PWB surface(IC2)		41,8					130
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: T _{ma} should be considered as directed by applicable requirement							
Note 2: T _{ma} is not included in assessment of Touch Temperatures (Clause 9)							

5.4.1.4, 6.3.2, 9.0, B.2.6	TABLE: Temperature measurements						P	
	Supply voltage (V) :	4,5 Vd.c.					—	
	Ambient T _{min} (°C) :	25					—	
	Ambient T _{max} (°C) :	25					—	
	Tma (°C) :	40					—	
Maximum measured temperature T of part/at:		T (°C)					Allowed T _{max} (°C)	
Non-metallic enclosure surface (bottom)		40,5					77	
Non-metallic enclosure surface (near top)		40,2					56	
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)								

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Clause	Requirement + Test	Result - Remark	Verdict

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)	
--	--	--	--	

5.4.2.2, 5.4.2.4 and 5.4.3	TABLE: Minimum Clearances/Creepage distance						N/A
Clearance (cl) and creepage distance (cr) at/of/between:	Up (V)	U r.m.s. (V)	Frequency (kHz) ¹	Required cl (mm)	cl (mm) ²	Required ³ cr (mm)	cr (mm)
--	--	--	--	--	--	--	--
Supplementary information:							
Note 1: Only for frequency above 30 kHz							
Note 2: See table 5.4.2.4 if this is based on electric strength test							
Note 3: Provide Material Group							

5.4.2.3	TABLE: Minimum Clearances distances using required withstand voltage				N/A
	Overvoltage Category (OV):				
	Pollution Degree:				
Clearance distanced between:		Required withstand voltage	Required cl (mm)	Measured cl (mm)	
--		--	--	--	
Supplementary information:					

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:				

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Clause	Requirement + Test	Result - Remark	Verdict

5.4.4.2, 5.4.4.5 c) 5.4.4.9	TABLE: Distance through insulation measurements					N/A
Distance through insulation di at/of:	Peak voltage (V)	Frequency (kHz)	Material	Required DTI (mm)	DTI (mm)	
--	--	--	--	--	--	
Supplementary information:						

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

5.5.2.2	TABLE: Stored discharge on capacitors					N/A
Supply Voltage (V), Hz	Test Location	Operating Condition (N, S)	Switch position On or off	Measured Voltage (after 2 seconds)	ES Classification	
--	--	--	--	--	--	
Supplementary information:						
X-capacitors installed for testing are:						
<input type="checkbox"/> bleeding resistor rating:						
<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						

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Clause	Requirement + Test	Result - Remark	Verdict

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

5.7.2.2, 5.7.4	TABLE: Earthed accessible conductive part		N/A
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)
		1	--
		2*	--
		3	--
		4	--
		5	--
		6	--
		8	--
Supplementary Information:			
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] 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.			

6.2.2	Table: Electrical power sources (PS) measurements for classification					P
Source	Description	Measurement	Max Power after 3 s	Max Power after 5 s*)	PS Classification	
3 AAA battery	normal	Power (W) :	9,36	7,28	PS1	
		V _A (V) :	2,6	2,02		
		I _A (A) :	3,6	3,6		
Supplementary Information:						
(*) Measurement taken only when limits at 3 seconds exceed PS1 limits						

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Clause	Requirement + Test	Result - Remark	Verdict

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 ($V_p \times I_{rms}$)	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.				

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: A combination of voltmeter, VA and ammeter IA may be used instead of a wattmeter. If a separate voltmeter and ammeter are used, the product of ($VA \times IA$) is used to determine Resistive PIS classification. A Resistive PIS: (a) dissipates more than 15 W, measured after 30 s of normal operation, <u>or</u> (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:			

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Clause	Requirement + Test	Result - Remark	Verdict

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

B.3	TABLE: Abnormal operating condition tests								N/A
Ambient temperature (°C)					--				—
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.									

B.4	TABLE: Fault condition tests								P
Ambient temperature (°C)					25				—
Power source for EUT: Manufacturer, model/type, output rating ..					--				—
Component No.	Fault Condition	Supply voltage, (V)	Test time (ms)	Fuse no.	Fuse current, (A)	T-couple	Temp. (°C)	Observation	
IC3	S-c Pin I-O	4,5 Vd.c.	10 min	--	--	--	--	Unit protected. No hazard. In = 0,02 A, Pn = 0,13W	
IC2	S-c Pin 2-37	4,5 Vd.c.	10 min	--	--	--	--	Unit protected. No hazard. In = 0,02 A, Pn = 0,13W	
IC8	S-c Pin 1-8	4,5 Vd.c.	10 min	--	--	--	--	Unit protected. No hazard. In = 0,02 A, Pn = 0,13W	
C13	S-c	4,5 Vd.c.	10 min	--	--	--	--	Unit protected. No hazard. In = 0,02 A, Pn = 0,13W	
C1 (Over discharger)	S-c	4,5 Vd.c.	10 min	--	--	--	--	Unit protected. No hazard. In = 0A, Pn = 0W	
Supplementary information:									

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Clause	Requirement + Test	Result - Remark	Verdict

Annex M	TABLE: Batteries								P
The tests of Annex M are applicable only when appropriate battery data is not available									Yes
Is it possible to install the battery in a reverse polarity position?..... :							No		P
	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	0,3 A	--	--	--	--	--	--	--	--
Max. current during fault condition	0 A S-c C1	--	--	--	--	--	--	--	--
Test results:									Verdict
- Chemical leaks							No		P
- Explosion of the battery							No		P
- Emission of flame or expulsion of molten metal							No		P
- Electric strength tests of equipment after completion of tests							--		N/A
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)		
--	Normal	--	--	--	--	
--	Abnormal	--	--	--	--	
--	Single fault –SC/OC	--	--	--	--	
--	Normal	--	--	--	--	
--	Abnormal	--	--	--	--	
--	Single fault – SC/OC	--	--	--	--	
Supplementary Information:						
Battery identification	Charging at T_{lowest} (°C)	Observation	Charging at $T_{highest}$ (°C)	Observation		
--	--	--	--	--		
Supplementary Information:						

IEC 62368-1						
Clause	Requirement + Test			Result - Remark		Verdict
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
--	--	--	--	--	--	--
Supplementary Information: SC=Short circuit, OC=Open circuit						

T.2, T.3, T.4, T.5	TABLE: Steady force test					N/A
Part/Location	Material	Thickness (mm)	Force (N)	Test Duration (sec)	Observation	
--	--	--	--	--	--	
Supplementary information:						

T.6, T.9	TABLE: Impact tests				N/A
Part/Location	Material	Thickness (mm)	Vertical distance (mm)	Observation	
--	--	--	--	--	
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:						

--- End of Report ---

Attachment 1 Photos

Details of: _____

View:

☒ [x] general☐ [] front☐ [] rear☐ [] right☐ [] left☐ [] top☐ [] bottom☐ [] Internal

Details of: _____

View:

☒ [x] general☐ [] front☐ [] rear☐ [] right☐ [] left☐ [] top☐ [] bottom☐ [] Internal

Attachment 1 Photos

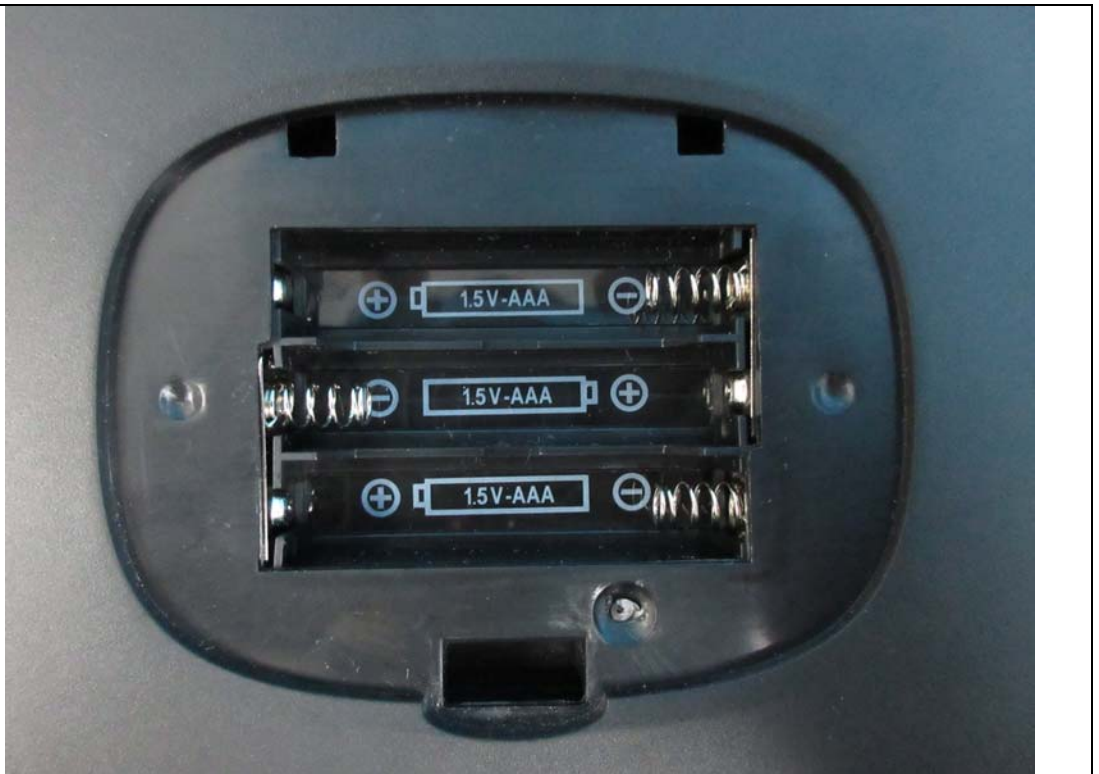
Details of: _____

View:

☐ general☐ front☐ rear☐ right☐ left☐ top☐ bottom☒ Internal

Details of: _____

View:

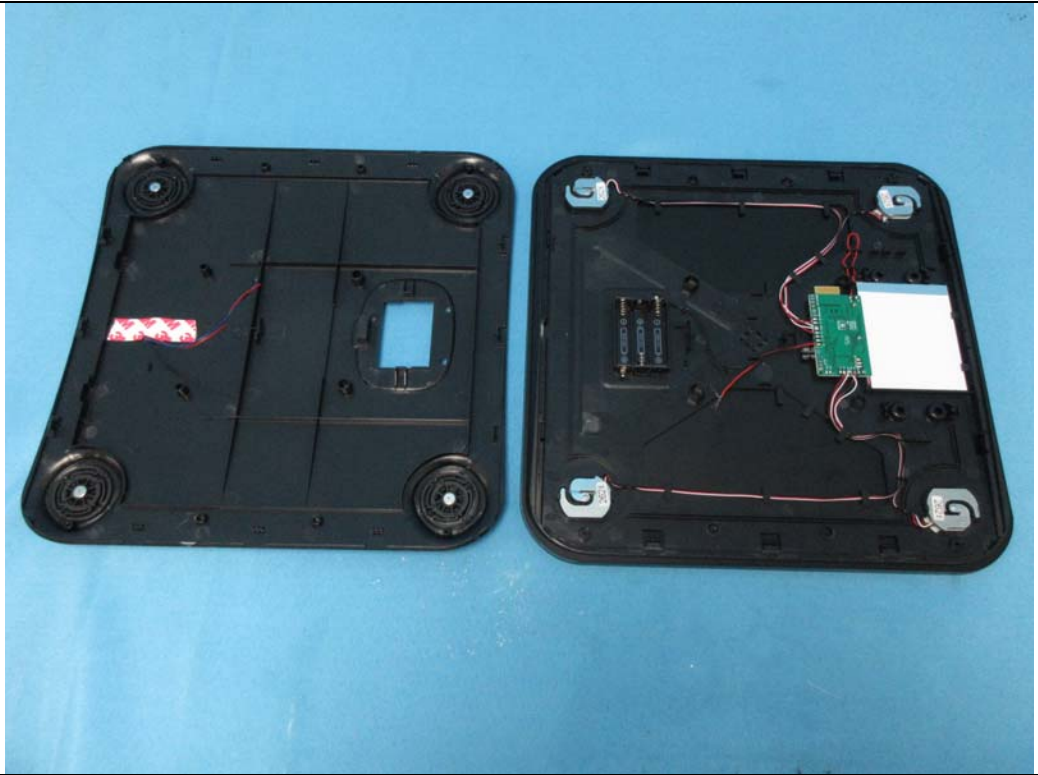
☐ general☐ front☐ rear☐ right☐ left☐ top☐ bottom☒ Internal

Attachment 1 Photos

Details of: -----

View:

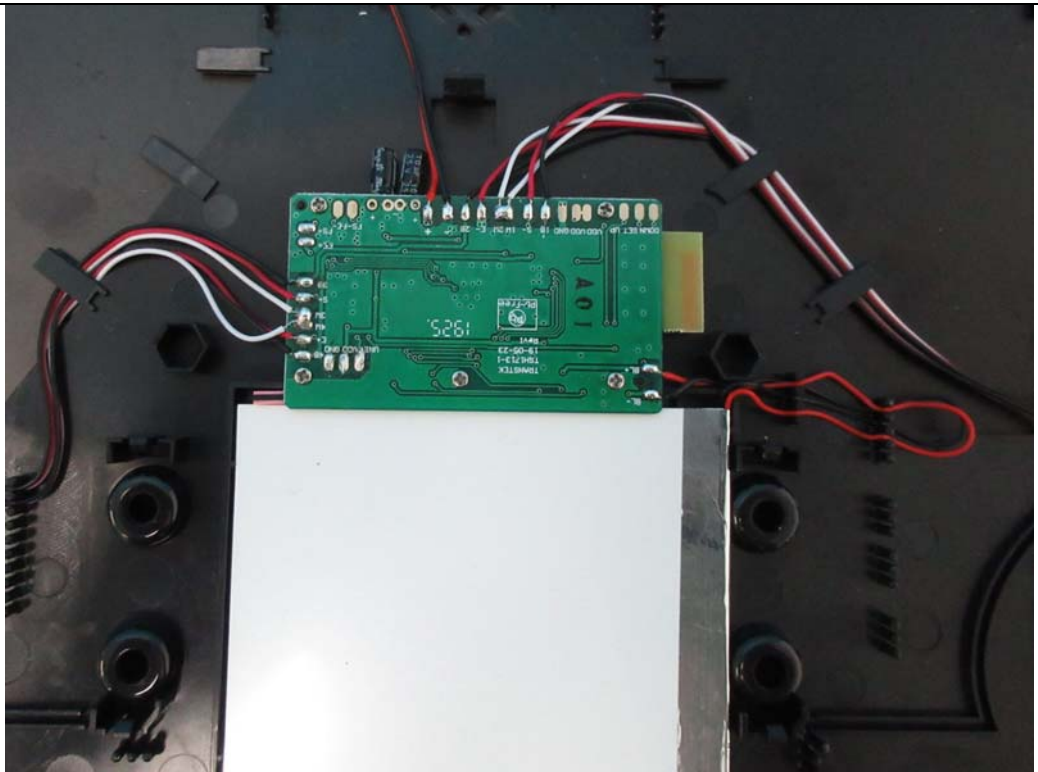
- ☐ general
- ☐ front
- ☐ rear
- ☐ right
- ☐ left
- ☐ top
- ☐ bottom
- ☒ Internal



Details of: -----

View:

- ☐ general
- ☐ front
- ☐ rear
- ☐ right
- ☐ left
- ☐ top
- ☐ bottom
- ☒ Internal

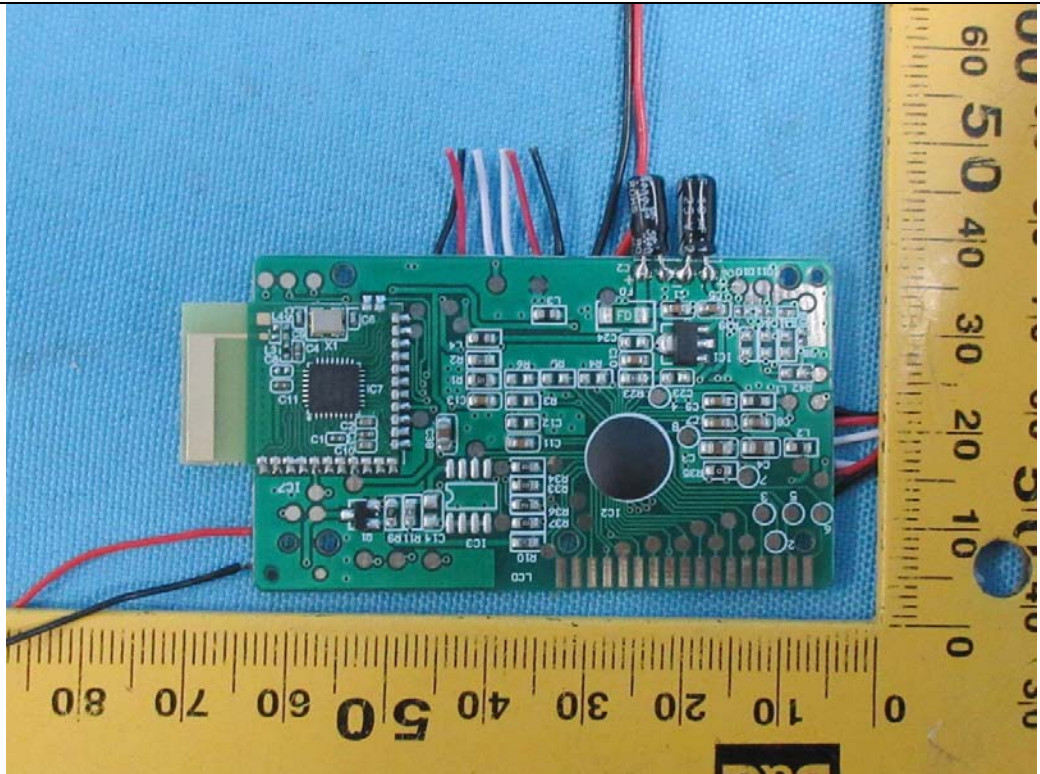


Attachment 1 Photos

Details of: _____

View:

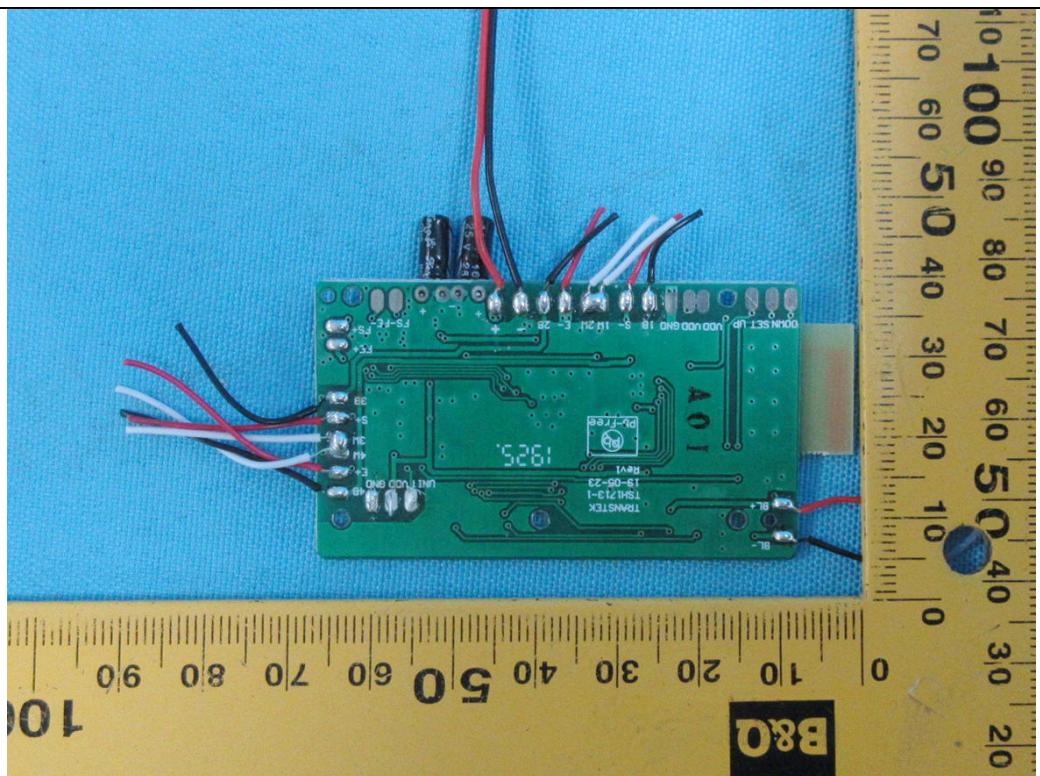
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☐ bottom
☐ Internal



Details of: _____

View:

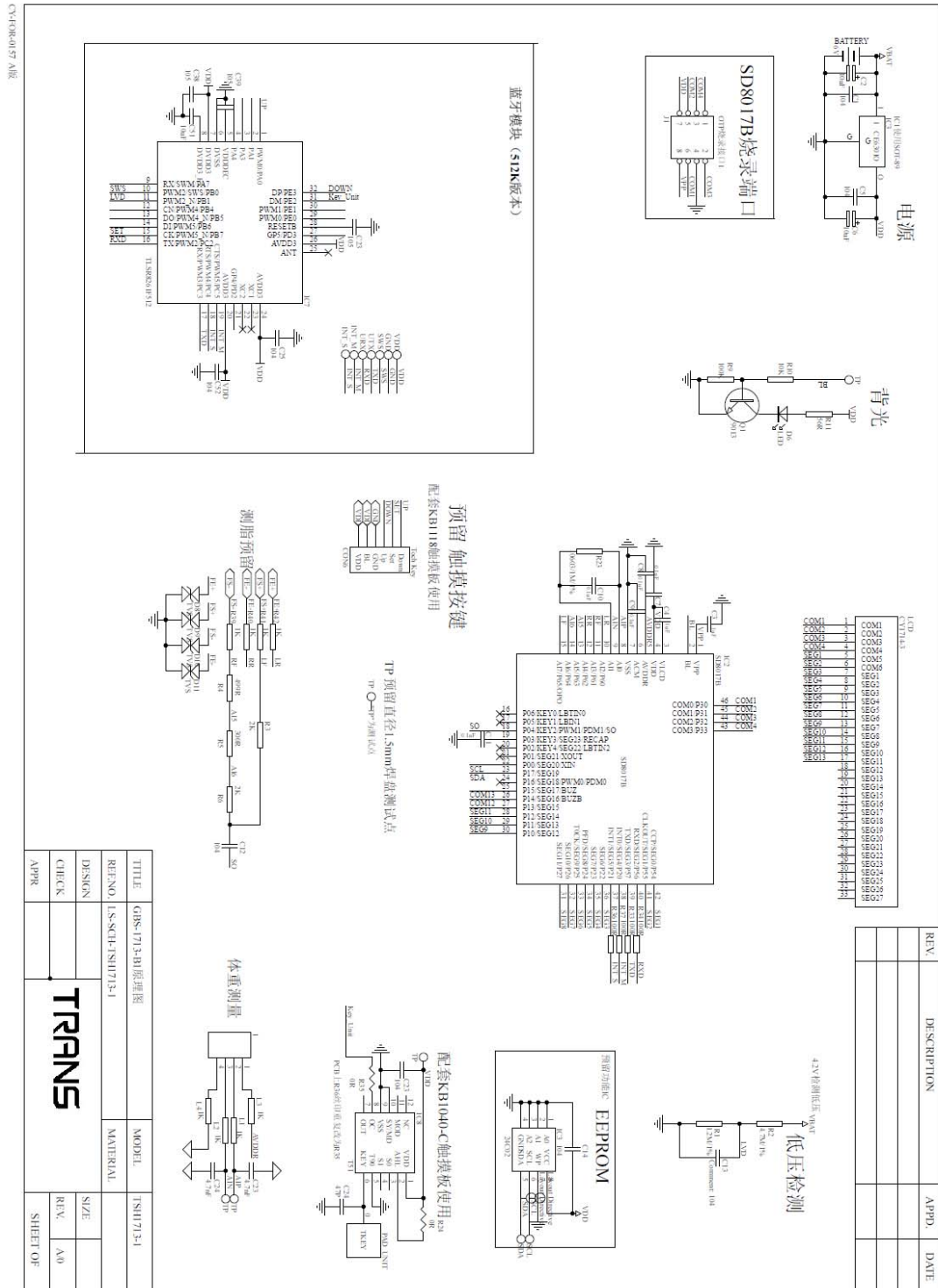
- ☐ general
☐ front
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☒ bottom
☐ Internal

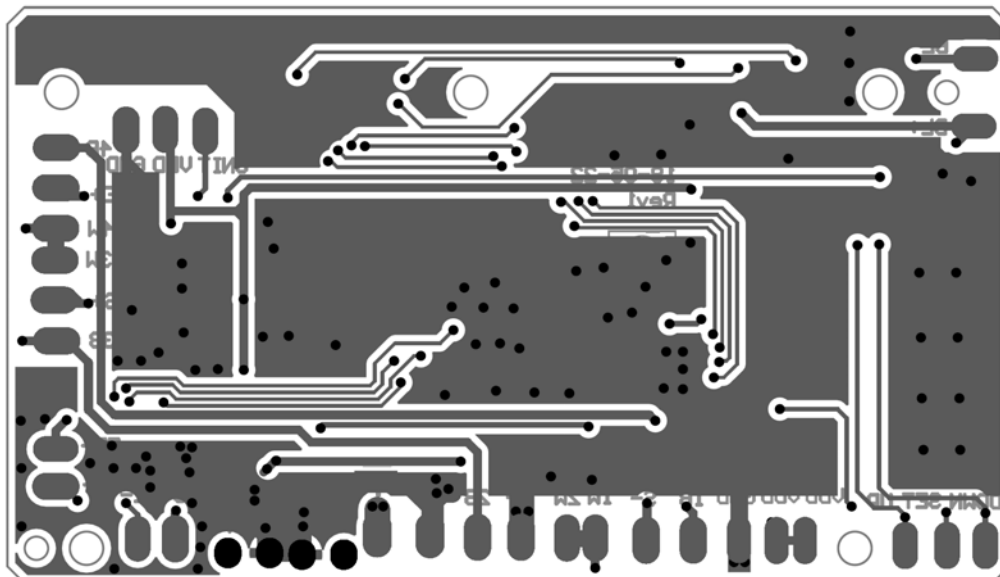
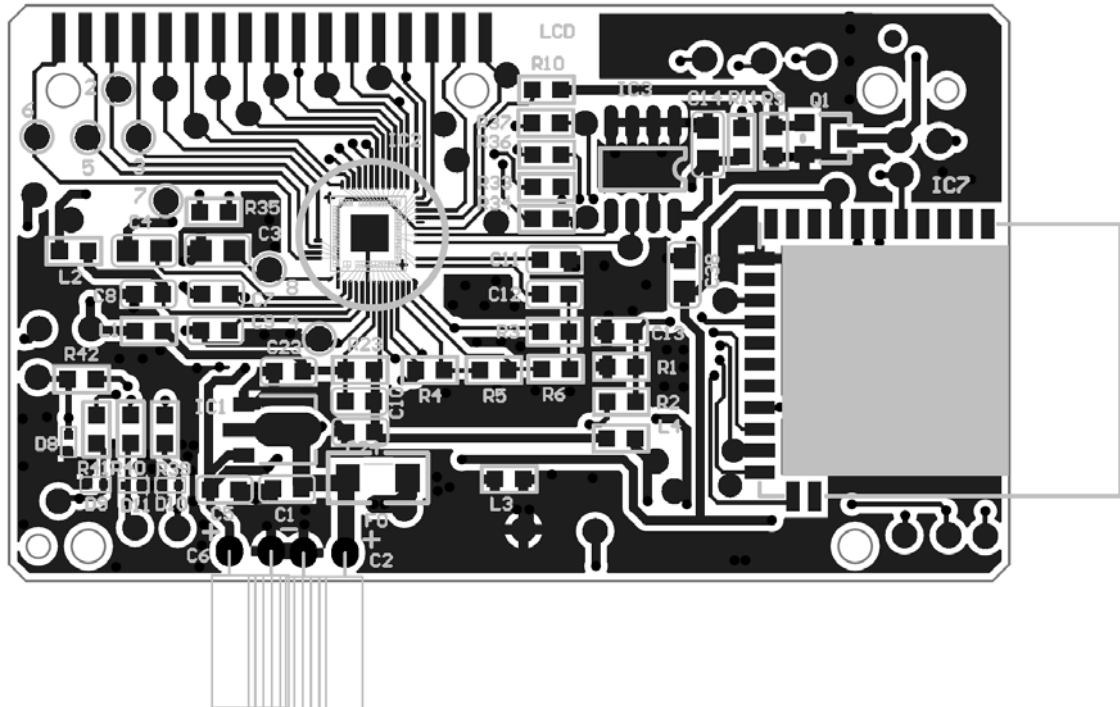


*****End of Attachment 1*****

Attachment 2 Circuit Diagram and PWB Layout

Circuit Diagram



Attachment 2 Circuit Diagram and PWB Layout**PWB Layout**

*****End of Attachment 2*****

Attachment 3 Safety information in user manual



Limited Product Warranty Summary

Need help?

For product and troubleshooting information, visit help.fitbit.com

If you're experiencing an issue with your Fitbit device, please don't return it to the retailer. Instead, visit help.fitbit.com, where you can find:

- Setup instructions
- Product manual (including country-specific regulatory information)
- Help and troubleshooting information
- Community forums
- Warranty information

Regulatory Information

To setup, go to: www.fitbit.com/setup.

Warning

Not intended for use by children under 13 years of age. Slippery when wet. Do not use if cracks are present on the glass surface.

Important Safety Instructions Read the important Safety Instructions
www.fitbit.com/legal/safety-instructions

Battery Precautions Handle the battery in accordance with the instructions supplied by the manufacturer.

The Bluetooth® word mark and logos are registered trademarks owned by the Bluetooth SIG Inc. and any use of such marks by Fitbit, Inc. is under license.

Limited Product Warranty

Please visit www.fitbit.com/legal/returns-and-warranty for more information for our full Limited Product Warranty information. If anything in this summary conflicts with the terms of the Limited Product Warranty, the Limited Product Warranty will control.

Fitbit warrants to the original purchaser that the included Fitbit-branded hardware product and/or accessories, if new, shall be free from defects in materials and workmanship under normal use for a period of one year from the date of purchase, except that the warranty period is two years from the date of purchase by the original purchaser anywhere in the European Economic Area and Switzerland. If the included Fitbit-branded hardware product and/or accessories are certified refurbished, by or on behalf of Fitbit, the applicable warranty period may be shorter.

Fitbit does not warrant against normal wear and tear nor damage caused by accident or misuse.

To obtain warranty service, please contact Fitbit customer support via www.help.fitbit.com. Subject to the full terms and detailed

warranty information on www.fitbit.com/legal/returns-and-warranty, if you submit a valid claim under this warranty, Fitbit will, at its option and to the extent permitted by law, either repair or replace the defective hardware product or accessory. This warranty is valid only in the jurisdictions where the product is sold by Fitbit or its authorized resellers. Fitbit may require you to furnish proof of purchase details and/or comply with other requirements before receiving warranty service. The benefits provided for by this warranty are in addition to the rights provided under your statutory warranty rights.

AUSTRALIAN CONSUMER LAW

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure. The Limited Product Warranty in Australia is given by Fitbit (Australia) Pty Ltd, AMP Centre, Level 27, 50 Bridge Street, Sydney, NSW 2000. Tel: +1 (877) 623-4997.

Intellectual Property Notices

©2019 Fitbit, Inc. All rights reserved. Fitbit and the Fitbit logo are trademarks or registered trademarks of Fitbit, Inc. in the US and other countries. Additional Fitbit trademarks can be found at www.fitbit.com/legal/trademark-list. Third-party trademarks are the property of their respective owners. Patent notice under 35 U.S.C. § 287(a) may be found at pat.fpat.co. Open Source Software Notices may be found at www.fitbit.com/legal.

REGULATORY INFORMATION

Federal Communications Commission (FCC) Statement

This device complies with part 15 FCC Rules.

Industry Canada (IC) Information

Attachment 3 Safety information in user manual

This Class B digital apparatus complies with CAN ICES-3 (B)/NMB-3(B).

Simplified EU Declaration of Conformity:



Hereby, Fitbit, Inc. declares that this wireless product (model number shown on UPC) is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity, including frequency bands and max radio frequency power, is available at www.fitbit.com/legal/safety-instructions.

Frequency band: 2.4GHz - 2.4835GHz
Max radio frequency power: 0dBm

Disposal and Recycling Information



The symbol above signifies that this product must be disposed separately from ordinary household waste. Ensure that you dispose of this product at an appropriate recycling center or collection point designated by local authorities.



Printed in China.

FR: Mentions réglementaires

Pour la configuration, rendez-vous sur : www.fitbit.com/setup.



Avertissement

Ne convient pas aux enfants de moins de 13 ans. Peut être glissant si la surface est humide. Ne pas utiliser si des fissures sont visibles à la surface du verre.

Instructions de sécurité importantes : Lisez les instructions de sécurité importantes sur le site www.fitbit.com/legal/safety-instructions

Précautions concernant les batteries : Manipulez et jetez les batteries conformément aux instructions du fabricant.

La marque et les logos Bluetooth® sont des marques déposées appartenant à Bluetooth SIG, Inc. et toute utilisation de ces marques par Fitbit, Inc. se fait sous licence.

Résumé de la garantie limitée du produit

Veuillez visiter www.fitbit.com/legal/returns-and-warranty pour de plus amples informations relatives à notre garantie limitée du produit. En cas de conflit éventuel des informations de ce résumé avec les conditions de la Garantie limitée du produit, la Garantie limitée du produit prédominera.

Fitbit garantit à l'acheteur initial que le matériel de la marque Fitbit et/ou les accessoires inclus, sont exempts de défauts de matériel et de fabrication, s'ils sont neufs, sous conditions d'usage normal pendant une période d'un an à compter de la date d'achat, sauf si l'acheteur initial réside dans l'Espace Economique Européen ou la Suisse, dans ce cas, la période de garantie sera de deux ans à compter de la date d'achat. Si le matériel et/ou les accessoires de la marque Fitbit inclus sont certifiés remis à neuf, par ou au nom de Fitbit, la période de garantie applicable peut être plus courte.

La garantie de Fitbit ne couvre pas l'usure normale, ni les dommages causés par accident ou un mauvais usage.

Pour bénéficier d'un service sous garantie, veuillez contacter le service client Fitbit via www.help.fitbit.com. Sous réserve de l'ensemble des conditions et des informations détaillées sur la garantie sous www.fitbit.com/legal/returns-and-warranty, si vous soumettez une réclamation fondée en vertu de cette garantie, Fitbit réparera ou remplacera, à sa discrétion et dans la mesure permise par la loi, le matériel ou l'accessoire défectueux. Cette garantie est uniquement valable dans les juridictions où

Attachment 3 Safety information in user manual

- high or low extreme temperatures that a **battery** can be subjected to during use, storage or transportation; and
 - low air pressure at high altitude.
 - replacement of a **battery** with an incorrect type that can defeat a **safeguard** (for example, in the case of some lithium **battery** types);
 - disposal of a **battery** into fire or a hot oven, or mechanically crushing or cutting of a battery , that can result in an **explosion**;
 - leaving a **battery** in an extremely high temperature surrounding environment that can result in an **explosion** or the leakage of flammable liquid or gas;
 - a **battery** subjected to extremely low air pressure that may result in an **explosion** or the leakage of flammable liquid or gas.
- The elements of the **Instructional safeguard** shall be as follows:
- element 1a: not available
 - element 2: "CAUTION" or equivalent word or text
 - element 3: "Risk of explosion if the battery is replaced by an incorrect type" or equivalent text
 - element 4: optional
 - Power : 4.5V(3*AAA batteries)

CAUTION

Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type.
Batteries (battery pack or batteries installed) shall not be exposed to excessive heat such as sunshine, fire or the like.

CAUTION

**RISK OF EXPLOSION IF BATTERY IS REPLACED
BY AN INCORRECT TYPE.
DISPOSE OF USED BATTERIES ACCORDING
TO THE INSTRUCTIONS**

*****End of Attachment 3*****

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

Attachment 4 EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES

<p align="center">ATTACHMENT TO TEST REPORT IEC 62368-1 EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES (Audio/video, information and communication technology equipment Part 1: Safety requirements)</p>	
Differences according to.....:	EN 62368-1:2014 + A11: 2017
Attachment Form No.....:	EU_GD_IEC62368_1B_II
Attachment Originator	Nemko AS
Master Attachment.....:	Date 2017-09-22
<p>Copyright © 2017 IEC System for Conformity Testing and Certification of Electrical Equipment (IECEE), Geneva, Switzerland. All rights reserved.</p>	

	CENELEC COMMON MODIFICATIONS (EN)					--																																
	Clauses, subclauses, notes, tables, figures and annexes which are additional to those in IEC 62368-1:2014 are prefixed “Z”.					--																																
CONTENTS	Add the following annexes: <table><tr><td>Annex ZA (normative) publications</td><td>Normative references to international publications</td></tr><tr><td>Annex ZB (normative)</td><td>Special national conditions</td></tr><tr><td>Annex ZC (informative)</td><td>A-deviations</td></tr><tr><td>Annex ZD (informative) flexible</td><td>IEC and CENELEC code designations for cords</td></tr></table>					Annex ZA (normative) publications	Normative references to international publications	Annex ZB (normative)	Special national conditions	Annex ZC (informative)	A-deviations	Annex ZD (informative) flexible	IEC and CENELEC code designations for cords	P																								
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Annex ZD (informative) flexible	IEC and CENELEC code designations for cords																																					
	Delete all the “country” notes in the reference document (IEC 62368-1:2014) according to the following list:					P																																
	<table><tr><td>0.2.1</td><td>Note</td><td>1</td><td>Note 3</td><td>4.1.15</td><td>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></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	
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																																	
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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.					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																																

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
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>		P
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

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
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	<p>Add the following paragraph to the end of the subclause:</p> <p>EN 71-1:2011, 4.20 and the related tests methods and measurement distances apply.</p>		N/A
10.Z1	<p>Add the following new subclause after 10.6.5.</p> <p>10.Z1 Non-ionizing radiation from radio frequencies in the range 0 to 300 GHz</p> <p>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).</p> <p>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</p>		N/A
G.7.1	<p>Add the following note:</p> <p>NOTE Z1 The harmonized code designations corresponding to the IEC cord types are given in Annex ZD.</p>		N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
Bibliography	<p>Add the following standards:</p> <p>Add the following notes for the standards indicated:</p> <p>IEC 60130-9 NOTE Harmonized as EN 60130-9.</p> <p>IEC 60269-2 NOTE Harmonized as HD 60269-2.</p> <p>IEC 60309-1 NOTE Harmonized as EN 60309-1.</p> <p>IEC 60364 NOTE some parts harmonized in HD 384/HD 60364 series.</p> <p>IEC 60601-2-4 NOTE Harmonized as EN 60601-2-4.</p> <p>IEC 60664-5 NOTE Harmonized as EN 60664-5.</p> <p>IEC 61032:1997 NOTE Harmonized as EN 61032:1998 (not modified).</p> <p>IEC 61508-1 NOTE Harmonized as EN 61508-1.</p> <p>IEC 61558-2-1 NOTE Harmonized as EN 61558-2-1.</p> <p>IEC 61558-2-4 NOTE Harmonized as EN 61558-2-4.</p> <p>IEC 61558-2-6 NOTE Harmonized as EN 61558-2-6.</p> <p>IEC 61643-1 NOTE Harmonized as EN 61643-1.</p> <p>IEC 61643-21 NOTE Harmonized as EN 61643-21.</p> <p>IEC 61643-311 NOTE Harmonized as EN 61643-311.</p> <p>IEC 61643-321 NOTE Harmonized as EN 61643-321.</p> <p>IEC 61643-331 NOTE Harmonized as EN 61643-331.</p>		N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
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>		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

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
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; 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
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

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
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. <i>Justification:</i> 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

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
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 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.”</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

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
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

IEC62368_1B - ATTACHMENT			
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.		P
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

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
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

*****End of Attachment 4*****

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

Attachment 5 Deviations of Italy

<p align="center">ATTACHMENT TO TEST REPORT IEC 62368-1 (COUNTRY) NATIONAL DIFFERENCES</p> <p align="center">Audio/video, information and communication technology equipment – Part 1: Safety requirements</p>	
Differences according to	CEI EN 62368-1:2016
Attachment Form No.	CEI_ND_IEC62368_1B
Master Attachment	2017-10

	National Differences	--
The following requirements shall be fulfilled:		--
F.1	<ul style="list-style-type: none"> • The power consumption in Watts (W) shall be indicated on TV receivers and in their instruction for use (Measurement according to EN 60555-2). <p><i>Note/Nota EN 60555-2 has since been replaced by IEC 60107-1:1997.</i></p> <ul style="list-style-type: none"> • TV receivers shall be provided with an instruction for use, schematic diagrams and adjustments procedure in Italian language. • Marking for controls and terminals shall be in Italian language. Abbreviation and international symbols are allowed provided that they are explained in the instruction for use. • The ECC manufacturers are bound to issue a conformity declaration according to the above requirements in the instruction manual. The correct statement for conformity to be written in the instruction manual, shall be: <p><i>Questo apparecchio è fabbricato nella CEE nel rispetto delle disposizioni del D.M. marzo 1992 ed è in particolare conforme alle prescrizioni dell'art. 1 dello stesso D.M.</i></p> <ul style="list-style-type: none"> • The first importers of TV receivers manufactured outside EEC are bound to submit the TV receivers for previous conformity certification to the Italian Post Ministry (PP.TT). The TV receivers shall have on the backcover the certification number in the following form: <p>D.M. 26/03/1992 xxxxx/xxxxx/S or T or pT</p> <p>S for stereo</p> <p>T for Teletext</p> <p>pT for retrofitable teletext</p> <p><i>Justification:</i></p> <p>Ministerial Decree of 26 March 1992 : National rules for television receivers trade.</p> <p><i>NOTE/NOTA: Ministerial decree above contains additional, but not safety relevant requirements</i></p>	N/A

*****End of Attachment 5*****

Attachment 6 Deviations of United States

ATTACHMENT TO TEST REPORT IEC 62368-1 2th Ed. U.S.A. NATIONAL DIFFERENCES Audio/video, information and communication technology equipment – Part 1: Safety requirements	
Differences according to.....:	UL 62368-1:2014
Attachment Form No.....:	US_ND_IEC62368_1B
Master Attachment.....:	Date 2015-06

Clause	Requirement + Test	Result - Remark	Verdict
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IEC 62368-1 - US and Canadian National Differences Special National Conditions based on Regulations and Other National Differences			
1.1	All equipment is to be designed to allow installation according to the National Electrical Code (NEC), ANSI/NFPA 70, the Canadian Electrical Code (CEC), Part I, CAN/CSA C22.1, and when applicable, the National Electrical Safety Code, IEEE C2. Also, for such equipment marked or otherwise identified, installation is allowed per the Standard for the Protection of Information Technology Equipment, ANSI/NFPA 75.		P
1.4	Additional requirements apply to some forms of power distribution equipment, including sub-assemblies.		N/A
4.1.17	For lengths exceeding 3.05 m, external interconnecting flexible cord and cable assemblies are required to be a suitable cable type (e.g., DP, CL2) specified in the NEC.		N/A
	For lengths 3.05 m or less, external interconnecting flexible cord and cable assemblies that are not types specified in the NEC generally are required to have special construction features and identification markings.		N/A
4.8	Lithium coin / button cell batteries have modified special construction and performance requirements.		N/A
5.6.3	Protective earthing conductors comply with the minimum conductor sizes in Table G.5, except as required by Table G.7ADV.1 for cord connected equipment, or Annex DVH for permanently connected equipment		N/A
5.7.7	Equipment intended to receive telecommunication ringing signals complies with a special touch current measurement tests.		N/A
6.5.1	PS3 wiring outside a fire enclosure complies with single fault testing in B.4, or be current limited per one of the permitted methods.		N/A

Clause	Requirement + Test	Result - Remark	Verdict
Annex F (F.3.3.8)	Output terminals provided for supply of other equipment, except mains, supply are marked with a maximum rating or references to which equipment it is permitted to be connected.		N/A
Annex G (G.7.1)	Permanent connection of equipment to the mains supply by a power supply cord is not permitted, except for certain equipment, such as ATMs.		N/A
Annex G (G.7.3)	Power supply cords are required to have attachment plugs rated not less than 125 percent of the rated current of the equipment.		N/A
	Flexible power supply cords are required to be compatible with Article 400 of the NEC, and Tables 11 and 12 of the CEC.		N/A
Annex G (G.7.5)	Minimum cord length is required to be 1.5 m, with certain constructions such as external power supplies allowed to consider both input and output cord lengths into the requirement. Power supply cords are required to be no longer than 4.5 m in length if used in ITE Rooms.		N/A
Annex H.2	Continuous ringing signals under normal operating conditions up to 16 mA only are permitted if the equipment is subjected to special installation and performance restrictions.		N/A
Annex H.4	For circuits with other than ringing signals and with voltages exceeding 42.4 V _{peak} or 60 V d.c., the maximum acceptable current through a 2000 ohm resistor (or greater) connected across the voltage source with other loads disconnected is 7.1 mA peak or 30 mA d.c. under normal operating conditions.		N/A
Annex M	Battery packs for stationary applications comply with special component requirements.		N/A
Annex DVA (1)	Equipment intended for use in spaces used for environmental air are subjected to special flammability requirements for heat and visible smoke release.		N/A
	For ITE room applications, automated information storage systems with combustible media greater than 0.76 m ³ (27 cu ft) have a provision for connection of either automatic sprinklers or a gaseous agent extinguishing system with an extended discharge.		N/A
	Consumer products designed or intended primarily for children 12 years of age or younger are subject to additional requirements in accordance with U.S. & Canadian Regulations.		N/A
	Baby monitors additionally comply with ASTM F2951, Consumer Safety Specification for Baby Monitors.		N/A

Clause	Requirement + Test	Result - Remark	Verdict
Annex DVA (5.6.3)	For Pluggable Equipment Type A, the protection in the installation is assumed to be 20A.		N/A
Annex DVA (6.3)	The maximum quantity of flammable liquid stored in equipment complies with NFPA 30.		N/A
Annex DVA (6.4.8)	For ITE room applications, enclosures with combustible material measuring greater than 0.9 m ² (10 sq ft) or a single dimension greater than 1.8 m (6 ft) have a flame spread rating of 50 or less. For equipment with the same dimensions for other applications, an external surface that is not a fire enclosure requires a min. flammability classification of V-1.		N/A
Annex DVA (10.3.1)	Equipment with lasers meets the U.S. Code of Federal Regulations 21 CFR 1040 (and the Canadian Radiation Emitting Devices Act, REDR C1370).		N/A
Annex DVA (10.5.1)	Equipment that produces ionizing radiation complies with the U.S. Code of Federal Regulations, 21 CFR 1020 (and the Canadian Radiation Emitting Devices Act, REDR C1370).		N/A
Annex DVA (F.3.3.3)	Equipment for use on a.c. mains supply systems with a neutral and more than one phase conductor (e.g. 120/240 V, 3-wire) require a special marking format for electrical ratings. Additional considerations apply for voltage ratings that exceed the attachment cap rating or are lower than the "Normal Operating Condition" in Table 2 of CAN/CSA C22.2 No. 235."		N/A
Annex DVA (F.3.3.5)	Equipment identified for ITE (computer) room installation is marked with the rated current		N/A
Annex DVA (G.1)	Vertically-mounted disconnect switches and circuit breakers have the "on" position indicated by the handle in the up position		N/A
Annex DVA (G.3.4)	Suitable NEC/CEC branch circuit protection rated at the maximum circuit rating is required for all standard supply outlets and receptacles (such as supplied in power distribution units) if the supply branch circuit protection is not suitable.		N/A
Annex DVA (G.4.2)	Equipment with isolated ground (earthing) receptacles complies with NEC 250.146(D) and CEC 10-112 and 10-906(8).		N/A
Annex DVA (G.4.3)	Where a fuse is used to provide Class 2 or Class 3 current limiting, it is not operator-accessible unless it is non- interchangeable.		N/A
Annex DVA (G.5.3)	Power distribution transformers distributing power at 100 volts or more, and rated 10 kVA or more, require special transformer overcurrent protection.		N/A

Clause	Requirement + Test	Result - Remark	Verdict
Annex DVA (G.5.4)	Motor control devices are required for cord-connected equipment with a mains-connected motor if the equipment is rated more than 12 A, or if the equipment has a nominal voltage rating greater than 120 V, or if the motor is rated more than 1/3 hp (locked rotor current over 43 A).		N/A
Annex DVA (Annex M)	For ITE room applications, equipment with battery systems capable of supplying 750 VA for five minutes have a battery disconnect means that may be connected to the ITE room remote power-off circuit.		N/A
Annex DVA (Q)	Wiring terminals intended to supply Class 2 outputs according to the NEC or CEC Part 1 are marked with the voltage rating and "Class 2" or equivalent; marking is located adjacent to the terminals and visible during wiring.		N/A
Annex DVB (1)	Additional requirements apply for equipment used for entertainment purposes intended for installation in general patient care areas of health care facilities.		N/A
Annex DVC (1)	Additional requirements apply for equipment intended for mounting under kitchen cabinets.		N/A
Annex DVE (4.1.1)	Some equipment, components, sub-assemblies and materials associated with the risk of fire, electric shock, or personal injury have component or material ratings in accordance with the applicable national (U.S. and Canadian) component or material requirements. Components required to comply include: appliance couplers, attachment plugs, battery back-up systems, battery packs, circuit breakers, communication circuit accessories, connectors (used for current interruption of non-LPS circuits), power supply cords, direct plug-in equipment, electrochemical capacitor modules (energy storage modules with ultra-capacitors), enclosures (outdoor), flexible cords and cables, fuses (branch circuit), ground-fault current interrupters, interconnecting cables, data storage equipment, printed wiring, protectors for communications circuits, receptacles, surge protective devices, vehicle battery adapters, wire connectors, and wire and cables.		N/A
Annex DVH	Equipment for permanent connection to the mains supply is subjected to additional requirements.		N/A
Annex DVH (DVH.1)	Wiring methods (terminals, leads, etc.) used for the connection of the equipment to the mains are in accordance with the NEC/CEC.		N/A

Clause	Requirement + Test	Result - Remark	Verdict
Annex DVH (DVH.3.2)	Terminals for permanent wiring, including protective earthing terminals, are suitable for U.S./Canadian wire gauge sizes, rated 125 percent of the equipment rating, and are specially marked when specified.		N/A
Annex DVH (DVH.3.2)	Wire binding screws are not permitted to attach conductors larger than 10 AWG (5.3 mm ²).		N/A
Annex DVH (DVH.4)	Permanently connected equipment is required to have a suitable wiring compartment and wire bending space.		N/A
Annex DVH (DVH 5.5)	Equipment connected to a centralized d.c. power system, and having one pole of the DC mains input terminal connected to the main protective earthing terminal in the equipment, complies with special earthing, wiring, marking and installation instruction requirements.		N/A
Annex DVI (6.7)	Equipment intended for connection to telecommunication network outside plant cable is required to be protected against overvoltage from power line crosses.		N/A
Annex DVJ (10.6.1)	Equipment connected to a telecommunication and cable distribution networks and supplied with an earphone intended to be held against, or in the ear is required to comply with special acoustic pressure requirements.		N/A

-*****End of Attachment 6*****

Attachment 7 Deviations of Canada

ATTACHMENT TO TEST REPORT IEC 62368-1 2th Ed. Canada NATIONAL DIFFERENCES	
Audio/video, information and communication technology equipment – Part 1: Safety requirements	
Differences according to.....:	CAN/CSA C22.2 No. 62368-1-14
Attachment Form No.....:	CA_ND_IEC62368_1B
Master Attachment.....:	Date 2017-10

Clause	Requirement + Test	Result - Remark	Verdict
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IEC 62368-1 - Canadian National Differences Special National Conditions based on Regulations and Other National Differences			
1DV.1	Battery backup systems that are not an integral part of stationary equipment, such as provided in separate cabinets, are subject to the appropriate standard for battery backup systems, such as UL 1973, Batteries for Use in Light Electric Rail (LER) Applications and Stationary Applications.		N/A
1DV.2	For equipment intended for outdoor installation, additional requirements for Information and communication technology equipment are covered by CSA/UL 60950-22 and for Audio/video equipment are covered by the relevant requirements in CSA C22.2 No. 60065 or UL 60065.		N/A
1DV.3.1	Standard is applicable to equipment designed to be installed in accordance with the Canadian Electrical Code, Part I, C22.1-12; Canadian Electrical Code, Part II, General Requirements, CAN/CSA C22.2 No. 0-10; the National Electrical Code, NFPA 70-2014; and the National Electrical Safety Code, IEEE C2-2012.		P
1DV.3.2	For equipment designed to be installed in accordance with Article 645 of the National Electrical Code, NFPA 70- 2014, and the Standard for the Protection of Information Technology Equipment, NFPA 75-2013, identification by a marking or instruction [see Annex DVK (Annex DVA, Clause 1)] is required.		N/A
1DV.3.3	Additional regulatory requirements that apply to this equipment per Annex DVA, as applicable.		N/A
1DV.4.1	Additional requirements for equipment used for entertainment purposes intended for installation in general patient care areas of health care facilities per Annex DVB.		N/A
1DV.4.2	This standard includes additional requirements for equipment intended for mounting under kitchen cabinets. See Annex DVC.		N/A
1DV.4.3	This standard does not apply to equipment having Remote Feeding Telecommunication (RFT) circuits. Equipment having RFT circuits is covered by CSA/UL 60950-21.		N/A

Clause	Requirement + Test	Result - Remark	Verdict
1DV.4.4	Additional requirements may apply to large data storage equipment. Refer to CSA/UL 60950-23.		N/A
1DV.4.5	Does not cover Modular Data Centers (MDCs) but only the information and communication technology equipment contained within.		N/A
1DV.5.1	Power Distribution Equipment and Sub-Assemblies		N/A
1DV.5.1.1	Power distribution sub-assemblies connected to a mains used to distribute power entirely within a system of equipment, such as power distribution units (PDUs), cord-connected power strips, shelves with multiple power outlets (receptacles) etc., and intended to be installed in system racks, cabinets, home entertainment centers, etc. are covered by this standard		N/A
1DV.5.1.2	For equipment covered by this standard that incorporates components and sub-assemblies that perform a power distribution and control function covered by other standards, such as panelboards, load transfer equipment, or uninterruptible power systems utilized in power conditioners and computer power centers, this standard only may be used for investigation of safety for those aspects not covered by the other standards.		N/A
1DV.5.1.3	This standard also does not apply to stand-alone equipment used for distribution of mains power that is covered by individual power distribution equipment standards.		N/A
1DV.5.1.4	Based on the specific function, the following requirements are applicable to the stand-alone distribution equipment, or apply additionally to power distribution sub-assemblies and components of equipment covered by this standard, as described in 1DV.5.1.2 and 1DV.5.1.3:		N/A
	– For Industrial Control Equipment, see CSA C22.2 No. 14 and UL 508.		N/A
	– For Panelboards, see CSA C22.2 No. 29 and UL 67.		N/A
	– For Switchboards, see CSA C22.2 No 244 and UL 891.		N/A
	– For Transfer Switch Equipment, see CSA C22.2 No 178.1 and UL 1008.		N/A
	– For Uninterruptible Power Systems, see CSA C22.2 No. 107.3 and UL 1778.		N/A
	– For Power Distribution Centers for Communications Equipment, see UL Subject 1801.		N/A

Clause	Requirement + Test	Result - Remark	Verdict
	<ul style="list-style-type: none"> – Other forms of power distribution units for general applications, such as, <ul style="list-style-type: none"> • Relocatable Power Taps, CSA-C22.2 No. 21, Cord Sets and Power Supply Cords, and UL 1363, Relocatable Power Taps. • Cord connected Surge Protective Devices, CSA Technical Information Letter No. A-24, Interim Certification Requirements for AC Line Connected Wiring Devices with Varistors, and UL 1449, Surge Protective Devices. • Furniture Power Distributi 		N/A
3.3.1.2DV D2	For additional information regarding low voltage d.c. mains (centralized d.c. power systems) equipment, refer to Annex DVD. This standard covers high voltage d.c. mains up to 600 Vdc.		N/A
3.3.1.3DV.1	<p>New definition: telecommunication network – metallicallly terminated transmission medium intended for communication between equipment that may be located in separate buildings, excluding:</p> <ul style="list-style-type: none"> – the mains system for supply, transmission and distribution of electrical power, if used as a telecommunication transmission medium; – cable distribution systems; – ES1 circuits connecting units of audio/video, information and communication technology equipment. 		N/A
4.1.1DV.1 D2	In the U.S. and Canada, components and subassemblies that comply with the standards referenced in Annex DVE are required in addition to or as a replacement for the requirements in this standard. Components complying with these standards are considered acceptable as part of equipment covered by this standard without further evaluation other than to give consideration to the appropriate use of the component or subassembly in the end product.		N/A
4.1.1DV.2 DC	In the U.S. and Canada, components and subassemblies that comply with the standards referenced in Annex DVG are acceptable as an alternative to requirements as part of equipment covered by this standard without further evaluation other than to give consideration to the appropriate use of the component or subassembly in the end product.		N/A

Clause	Requirement + Test	Result - Remark	Verdict
4.1.2DV DC	In the U.S. and Canada, some UL/CSA component standards may be used as alternatives to referenced IEC standards for the purposes of North America certifications or surveillance programs. Components and subassemblies that comply with the standards referenced in Annex DVF are acceptable as part of equipment covered by this standard without further evaluation other than to give consideration to the appropriate use of the component or subassembly in the end product.		P
4.1.16DV.1	Mains connections		N/A
4.1.16DV.1.1 DE, 4.1.16DV.1.2 DR	Requirements for Mains Supply Cords for Pluggable (Cord Connected) Equipment (Canadian and U.S. regulatorybased requirements) - Annex G.7 and G.7ADV		N/A
4.1.16DV.1.3 D2, 4.1.16DV.1.4 DR	Requirements for Permanently Connected Equipment. (Canadian and U.S. regulatory-based requirements) – Annex DVH		N/A
4.1.17DV.1	External interconnecting cable and wiring		N/A
4.1.17DV.1.1	General External interconnecting cable and wiring are investigated to the requirements of 6.5 and either 4.1.17DV.1.2 or 4.1.17DV.1.3, as appropriate.		N/A
	– External interconnecting cable and wiring 3,05 m or less may be investigated as part of the equipment (system) to the requirements of this standard. See 4.1.17DV.1.2.		N/A
	– External interconnect cable and wiring longer than 3,05 m are regulated by the Canadian Electrical Code, C22.1, and the National Electrical Code, NFPA 70, and are subject to associated requirements. See 4.1.17DV.1.3.		N/A
	– External interconnect cable longer than 3,05 m designed to carry audio and/or video signals only, and that is not specified by the manufacturer to be routed inside the building structure (e.g., walls, ceilings, etc.), is subject to the applicable requirements of 4.1.17DV.1.2. For purposes of 4.1.17DV.1.2, it is assumed such cables are connected to PS1 circuits.		N/A
	Alternatively, detachable external interconnecting cable and wiring (with terminations) may be excluded from the equipment evaluation if specified by the manufacturer.		N/A
4.1.17DV.1.2	Equipment (system) interconnecting cable and wiring		N/A
	The following requirements apply to detachable and nondetachable external interconnecting cable and wiring investigated as part of the equipment (system).		N/A

Clause	Requirement + Test	Result - Remark	Verdict
	– The length of the external interconnecting cable or wiring shall not exceed 3,05 m;		N/A
	– For external interconnecting cable and wiring connected to PS2 and PS3 circuits, see 6.5 for fire (flammability) considerations;		N/A
	– There are no fire (flammability) considerations for external interconnecting cable and wiring specified by the manufacturer for connection to circuits that are PS1.		N/A
	– External interconnecting cable and wiring intended to be connected to an ES3 or PS3 circuit require a jacket for mechanical protection in accordance with Table G.7ADV.2, or equivalent;		N/A
	– Detachable external interconnecting cable and wiring (with terminations) intended to be connected to a PS2, PS3, ES2 or ES3 circuit and furnished as part of the equipment shall be either marked, or similarly identified in the installation instructions with (a) the name, trademark or trade name of the organization that is responsible for the equipment, and (b) the organization's identifying number or equivalent designation for the cable. See Annex DVK. – The marking may be applied on the cable and wiring at any location – This marking is not required to comply with the test for permanence of markings, F.3.9		N/A
	Optical fiber interconnecting cables 3,05 m or less are not subject to the above requirements		N/A
4.1.17DV.1.3	External interconnecting cable and wiring considered part of the building installation.		N/A
	External interconnecting cables and wiring longer than 3,05 m are regulated by the Canadian Electrical Code, C22.1, and the National Electrical Code, NFPA 70. See Annex DVA(Annex Q entry).		N/A
4.6.2DV D2	Additional examples of compliance: - wire-wrap terminals used for the connection of ES1 and ES2 that are: • provided on equipment that forms part of the telecommunication network, up to and including the demarcation point, and are located in service access areas only. (This equipment is generally considered Central Office Equipment, although it may be deployed elsewhere in similarly controlled environments.) and • provided with a guard or cover that prevents unintentional contact during normal operation. are tested with a steady force of 2,5 N ± 0,25 N.		N/A

Clause	Requirement + Test	Result - Remark	Verdict
4.8.3DV D2	If screws or similar fasteners are used to secure the door/cover providing access to the battery compartment, the fasteners shall be captive to ensure that they remain with the door/cover. This does not apply to side panel doors on larger devices which are necessary for the functioning of the equipment and which are not likely to be discarded or left off the equipment		N/A
4.8.4.5DV D2	0,5 J impact test deleted.		N/A
4.8.5DV.1 D2	Replace 30 N battery compartment door/cover test with 45 N		N/A
4.8.5DV.2 D2	Additional compliance criteria replaced with: - the battery compartment door/cover shall not open; and - the battery shall not become accessible.		N/A
5.4.4.1DV D1	For printed boards, see Clause G.13		N/A
	For antenna terminals, see Clause 5.4.5		N/A
	For solid insulation on internal and external wiring, see Clause G.6.		N/A
	Additionally, for internal wiring accessible to an ordinary person, see Clause 5.4.6.		N/A
5.6.3DV.1 DR to 5.6.3DV.3 DR	Protective earthing conductors shall comply with the minimum conductor sizes in Table G.5, except as required by • Table G.7ADV.1 for cord connected equipment; or • Annex DVH for permanently connected equipment		N/A
5.6.4.1DV DR	Minimum conductor size alternative compliance to Table G.5 or Table G.7ADV.1 as applicable , or Table 31 Minimum protective bonding conductor size of copper conductors		N/A
5.6.4.4DV DR	Protective bonding conductor sizes alternative compliance to Table G.7ADV.1 in addition to Table 31 or Table G.5		N/A
Table 32 DV DR	Include alternative conductor size compliance with Table G.7ADV.1 in the first column heading for protective conductor terminals.		N/A
5.6.6.1 DV DR	Protective bonding conductors that meet the minimum conductor sizes in Table G.5 or Table G.7ADV.1 as applicable, throughout their length and whose terminals all meet the minimum sizes in Table 32 are considered to comply without test.		N/A
5.7.6.2DV DE	Clause title modified to read "Prospective touch voltage and touch current to external circuits"		N/A
5.7.7DV.1 D2	Clause 5.7.7 to apply to stationary pluggable equipment type A or pluggable equipment type B		N/A
5.7.7DV.2 D2	Summation of touch currents not exceeding the limits of ES2 exception per Clause 5.7.7(a)(1)		N/A

Clause	Requirement + Test	Result - Remark	Verdict
5.7.7DV.3 D2	<p>Clause 5.7.7(a)(2) replaced with: Such equipment shall comply with Clause 5.7.5. The value of $S(I_1)$ shall be added to the measured protective conductor current to determine compliance with the 5 % input current limit per phase specified in Clause 5.7.5.</p>		N/A
5.7.7.1DV D2	<p>Limitation of touch current due to ringing signals Limitation of touch current due to ringing signals Equipment containing input telecommunication network leads over which ringing voltages are applied to the equipment shall be tested using the circuit of Figure 5.7.7.1DV.1 for mains-connected equipment or Figure 5.7.7.1DV.2 for other equipment. For any position of the selector switches, the total touch current including consideration of 5.7.7 shall not exceed the relevant limits for ES2 specified in Table 4, unless the equipment complies with 5.7.7(a) with the protective conductor current due to ringing signal taken into account. An EUT that receives ringing voltages on up to three telecommunication network connection ports shall have simulated ringing applied to each network connection. For four or more ports receiving ringing, simulated ringing shall be applied to three ports and an additional 3 % (rounding down) of the remaining ports. Compliance is checked by the following tests, which are conducted using the measuring network described in IEC 60990, Figure 4. Simulated ringing at 120 V, 50 to 60 Hz, shall be applied to ringing input telecommunication network leads, either one lead at a time or connected together. Other telecommunication network leads shall be left disconnected. Equipment shall be evaluated in each operating state, including ground start. The general test methods of 5.7 shall apply, checking touch current for all positions of switches S1, S2, and S3 in Figure 5.7.7.1DV.1. In case the total touch current exceeds the ES2 limits, the protective conductor current is measured using the test set up of Figure 5.7.7.1DV.1 or Figure 5.7.7.1DV.2 with the measuring instrument replaced with an ammeter having negligible impedance</p>		N/A
6.5.1DV.1 DC	<p>Add the following text to the end of the second, third and fourth paragraphs: or the insulation of the conductor or cable assembly shall be rated VW-1 or FT-1.</p>		N/A

Clause	Requirement + Test	Result - Remark	Verdict
6.5.1DV.2 D2	Add the following after the third paragraph: PS3 wiring outside a fire enclosure shall comply with single fault testing in B.4. Alternatively, the following constructions are considered to comply: – conductors provided with overcurrent protection in accordance with Article 240 of the National Electrical Code, NFPA 70, and the Canadian Electrical Code, Part I, C22.1, Section 14; – internal conductors supplied by a power source that is limited to the output voltage and current values specified in Table Q.1 or is limited to the output voltage values and provided with an overcurrent protective device with a rated current value as specified in Table Q.2; – interconnecting cables supplied by a limited power source (see Q.1); – a 20-A protective device used with any size wire in the primary.		N/A
6.7DV.1	Safeguards against electrically-caused fire due to overvoltage from power line crosses		N/A
6.7DV.1.1	Equipment with external circuits intended for connection to a telecommunication network that uses outside cable subject to overvoltage from power line failures shall comply with Annex DVI		N/A
10.6.1DV D2	For telecommunication-network connected equipment, see Annex DVJ.		N/A
F.1DV DR	F.1DV.1 See Annex DVK for U.S. and Canadian markings and instructions.		N/A
F.3.3.9DV.1	Equipment with output terminals Output terminals provided for supply of other equipment except mains supply shall be marked with the nominal output voltage and frequency, and, in addition, the maximum output current or power, unless the terminals are marked with the type references of the equipment which are permitted to be connected. When intended to be installed or interconnected in the field by a skilled person, the Class of wiring shall be marked adjacent to the terminals.		N/A
G.4.3DV D2	Delete the 2nd sentence reference to “banana plug” of the EXAMPLE		N/A
G.7.2DV DR	In the second paragraph, replace the reference to Table G.4 with a reference to Table G.7ADV.1.		N/A
G.7ADV DR	Additional requirements: Power supply cords – detachable and non-detachable		N/A

Clause	Requirement + Test	Result - Remark	Verdict
G.7ADV.1	General Flexible cords and plugs are permitted for movable equipment, hand-held equipment, stationary equipment and transportable equipment, and for fixed equipment where the fastening means and mechanical connections of the equipment are designed to permit removal for maintenance and repair.		N/A
G.7ADV.2	Methods of connection Flexible cords shall be provided with an attachment plug for connection to the branch circuit.		N/A
G.7ADV.3	Sizing and ratings The attachment plug configuration shall be one that is rated not less than 125 percent of the current rating of the equipment.		N/A
	Power supply cords shall have conductors with cross-sectional areas sufficient for the rated current of the equipment. Conductors shall be sized based on the requirements in the National Electrical Code (NEC), NFPA 70, and the Canadian Electrical Code, Part I, C22.1.		N/A
	Table G.7ADV.1 provides allowable ampacity for flexible cords and cables based on Table 400.5(a)(1) of the NEC. See Table 400.5(a)(2) of the NEC for ampacity information on portable power cables.		N/A
	For equipment with a rated current up to and including 2 A, 20 AWG is acceptable provided that the mains plug is provided with a 2 A fuse maximum and the equipment is not provided with a socket outlet.		N/A
G.7ADV.4	Serviceability Power supply cords and cord sets shall incorporate flexible cords suitable for the particular application or shall be of a type at least as serviceable for the particular application. Table G.7ADV.2 lists common applications and associated suitable cord types.		N/A
G.7ADV.5.1	Minimum length The minimum length of a power supply cord shall be 1,5 m unless it is intended for a special installation, such as dedicated equipment intended to be mounted near a mains socket-outlet.		N/A
	For equipment provided with an external power supply, the minimum length of the power supply cord shall be 0,5 m, provided that the total length of the conductive path from the receptacle to the equipment is 1,5 m or greater.		N/A

Clause	Requirement + Test	Result - Remark	Verdict
G.7ADV.5.2	Maximum length For equipment intended for installation in ITE Rooms, the length of a power supply cord shall not exceed 4,5 m. For other intended installations, see Table G.7ADV.2.		N/A
H.2DV D2	item a: Continuous ringing signals shall: • be located only in areas where a skilled person has access during servicing; • be so located and guarded that unintentional contact with such parts is unlikely during servicing by a skilled person, or be provided with a marking to warn a skilled person of the presence of continuous ringing signals; and • not become accessible to an ordinary person under single fault conditions		N/A
H.4DV.1	Other telecommunication signals: Telecommunication signaling systems (e.g., some message waiting systems) using voltages or current, or both, greater than those specified in 5.2.1.1 and 5.2.1.2 shall be permitted if they comply with the following:		N/A
	– continuous signal: For a signal of duration greater than 5 s, the current through the relevant measuring instrument described in IEC 60990:1999, Figure 4, shall be not greater than 7.1 mA peak a.c., or 30 mA d.c., or the limit shown in Figure H.4DV.1 for combinations of a.c. and d.c., when measured in accordance with 5.7.		N/A
M.2.1DV DC	Battery packs with sealed secondary cells and batteries (other than button) containing alkaline or other non-acid electrolyte and used in stationary equipment shall comply with either IEC 62133, UL 2054 or UL 1973. Additionally, such battery packs that rely on solid-state circuits and software controls as safeguards shall comply with either the requirements in UL 1973 for System Safety Analysis (5.7) and Protective Circuit and Controls (5.8), or similar requirements in an appropriate standard for electronic safety-related controls that are suitable for investigation of such protection of secondary cells and batteries.		N/A
P.4.1DV DE	Additional text added to correct for editing error: For metalized coatings, clearances and creepage distances for pollution degree 3 shall be maintained instead of the tests of P.4.2DV.1.		N/A
P.4.2DV DE	Added test requirements text from Clause P.5 as new Clause P.4.2DV DE to correct for editing error.		N/A
P.5DV DE	Clause P.5 relocated to P.4.1 and P.4.2		N/A

Clause	Requirement + Test	Result - Remark	Verdict
U.1DV D1	Added the following text: The outer enclosure housing a CRT shall have no opening that exceeds 130 mm ² unless the minor dimension of the opening is 10 mm or less.		N/A
Table W.3DV DE	Modify Table W.3 by replacing the entry for 1.2.8.14 in the first column with the following to correct a typographical error: TNV-3 CIRCUIT TNV CIRCUIT – whose normal operating voltages exceed the limits for an SELV circuit under normal operating conditions and – on which overvoltages from telecommunication networks and cable distribution systems are possible		N/A
Annex DVA	(normative) Canadian and U.S. regulatory-based requirements		N/A
Annex DVB	(normative) Equipment used in health care facilities		N/A
Annex DVC	(normative) Under kitchen cabinet equipment		N/A
Annex DVD	informative) D.C. powered equipment and centralized d.c. power systems (DC mains)		N/A
Annex DVE	(normative) UL and CSA component requirements (mandatory)		N/A
Annex DVF	(normative) UL and CSA component requirements (alternative to IEC standards)		N/A
Annex DVG	(normative) UL and CSA component requirements (alternative)		N/A
Annex DVH	(normative) Permanently connected equipment – mains connections		N/A
Annex DVI	(normative) Safeguards against electrically-caused fire due to overvoltage from power line crosses		N/A
Annex DVJ	(normative) Acoustic tests for telecommunications equipment		N/A
Annex DVK	(normative) Canadian and U.S. marking and instructions		N/A

*****End of Attachment 7*****

ATTACHMENT 8 Deviations of Australia and New Zealand

Clause	Requirement + Test	Result - Remark	Verdict
--	Variations to IEC 62368-1:2014 (ED. 2.0) for application in Australia and New Zealand (AS/NZS 62368.1:2018)		
ZZ1	SCOPE This Appendix lists the normative variations to IEC 62368-1:2014 (ED. 2.0).		—
ZZ2	VARIATIONS The following modifications are required for Australian/New Zealand conditions:		—
2	<p>Add the following to the list of normative references: The following normative documents are referenced in Appendix ZZ:</p> <p>AS/NZS 3112, Approval and test specification—Plugs and socket-outlets</p> <p>AS/NZS 3123, Approval and test specification—Plugs, socket-outlets and couplers for general industrial application</p> <p>AS/NZS 3191, Electric flexible cords</p> <p>AS/NZS 60065, Audio, video and similar electronic apparatus—Safety requirements (IEC 60065:2015 (ED.8.0) MOD)</p> <p>AS/NZS 60320.1, Appliance couplers for household and similar general purposes, Part 1: General requirements (IEC 60320-1, Ed.2.1 (2007) MOD)</p> <p>AS/NZS 60320.2.2, Appliance couplers for household and similar general purposes Part 2.2: Interconnection couplers for household and similar equipment (IEC 60320-2-2, Ed.2.0 (1998) MOD)</p> <p>AS/NZS 60695.2.11, Fire hazard testing, Part 2.11: Glowing/hot wire based test methods—Glow-wire flammability test method for end-products</p> <p>AS/NZS 60695.11.5, Fire hazard testing, Part 11.5: Test flames—Needle-flame test method—Apparatus, confirmatory test arrangement and guidance</p> <p>AS/NZS 60695.11.10, Fire hazard testing, Part 11.10: Test flames—50 W horizontal and vertical flame test methods</p> <p>AS/NZS 60884.1, Plugs and socket-outlets for household and similar purposes, Part 1: General requirements</p> <p>AS/NZS 60950.1:2015, Information technology equipment—Safety, Part 1: General requirements (IEC 60950-1, Ed.2.2 (2013), MOD)</p> <p>IEC 61032:1997, Protection of persons and equipment by enclosures—Probes for verification</p> <p>AS/NZS 61558.1:2008 (including Amendment 2:2015), Safety of Power Transformers, Power Supplies, Reactors and Similar Products, Part 1: General requirements and tests (IEC 61558-1 Ed 2.1, MOD)</p> <p>AS/NZS 61558.2.16, Safety of transformers, reactors, power supply units and similar products for voltages up to 100 V, Part 2.16: Particular requirements and tests for switch mode power supply units and transformers for switch mode power supply units.</p>		P
4.1.1	Replace the text 'IEC 60950-1' with 'AS/NZS 60950.1:2015'.		P
	Replace the text 'IEC 60065' with 'AS/NZS 60065'.		P

ATTACHMENT 8 Deviations of Australia and New Zealand

Clause	Requirement + Test	Result - Remark	Verdict
--	Variations to IEC 62368-1:2014 (ED. 2.0) for application in Australia and New Zealand (AS/NZS 62368.1:2018)		
4.7.2	<i>Delete</i> the text of the second paragraph and replace with the following: Equipment with a plug portion, suitable for insertion into a 10 A 3-pin flat-pin socket-outlet complying with AS/NZS 3112 shall comply with the requirements in AS/NZS 3112 for equipment with integral pins for insertion into socket-outlets.		N/A
4.7.3	<i>Delete the first paragraph and Note 1 and Note 2 and replace with the following:</i> <i>Compliance is checked by inspection and, if necessary, by the tests in AS/NZS 3112.</i>		N/A
4.8	<i>Delete</i> existing clause title and replace with the following: 4.8 Products containing coin/button cell batteries		N/A
4.8.1	Second dashed point, <i>delete</i> the text and <i>replace</i> with the following: – include coin/button cell batteries with a diameter of 32 mm or less.		N/A
	After the second dashed point, <i>insert</i> the following Note: NOTE 1: Batteries are specified in IEC 60086-2.		N/A
	After the third dashed point, <i>renumber</i> the existing Note as 'NOTE 2'.		N/A
	Fifth dashed point, <i>delete</i> the word 'lithium'.		N/A
4.8.2	First line, <i>delete</i> the word 'lithium'.		N/A
4.8.3	First line, after the word 'Equipment' insert the words 'containing one or more coin/button batteries and'		N/A
4.8.5	<i>Delete</i> the first paragraph and replace with the following: Compliance is checked by applying a force of 30 N ±1 N for 10 s to the battery compartment door/cover by a rigid test finger according to test probe 11 of IEC 61032:1997 at the most unfavourable place and in the most unfavourable direction. The force shall be applied in one direction at a time.		N/A
5.4.10.2.1	<i>Delete</i> the first paragraph and replace with the following: In Australia only, the separation is checked by the test of both Clause 5.4.10.2.2 and Clause 5.4.10.2.3. In New Zealand, the separation is checked by the test of either Clause 5.4.10.2.2 or Clause 5.4.10.2.3.		N/A
Table 29	<i>Replace</i> the table with the following:		N/A

ATTACHMENT 8 Deviations of Australia and New Zealand

Clause	Requirement + Test	Result - Remark	Verdict																																			
--	Variations to IEC 62368-1:2014 (ED. 2.0) for application in Australia and New Zealand (AS/NZS 62368.1:2018)																																					
	<table><tr><th rowspan="2">Parts</th><th colspan="2">Impulse test</th><th colspan="2">Steady state test</th></tr><tr><th>New Zealand</th><th>Australia</th><th>New Zealand</th><th>Australia</th></tr><tr><td>Parts indicated in Clause 5.4.10.1 a) ^a</td><td>2.5 kV 10/700 μs</td><td>7.0 kV for hand-held telephones and headsets, 2.5 kV for other equipment. 10/700 μs</td><td>1.5 kV</td><td>3 kV</td></tr><tr><td>Parts indicated in Clause 5.4.10.1 b) and c) ^b</td><td colspan="2">1.5 kV 10/700 μs ^c</td><td>1.0 kV</td><td>1.5 kV</td></tr><tr><td colspan="5">^a Surge suppressors shall not be removed.</td></tr><tr><td colspan="5">^b Surge suppressors may be removed, provided that such devices pass the impulse test of Clause 5.4.10.2.2 when tested as components outside the equipment.</td></tr><tr><td colspan="5">^c During this test, it is allowed for a surge suppressor to operate and for a sparkover to occur in a GDT.</td></tr></table>	Parts	Impulse test		Steady state test		New Zealand	Australia	New Zealand	Australia	Parts indicated in Clause 5.4.10.1 a) ^a	2.5 kV 10/700 μs	7.0 kV for hand-held telephones and headsets, 2.5 kV for other equipment. 10/700 μs	1.5 kV	3 kV	Parts indicated in Clause 5.4.10.1 b) and c) ^b	1.5 kV 10/700 μs ^c		1.0 kV	1.5 kV	^a Surge suppressors shall not be removed.					^b Surge suppressors may be removed, provided that such devices pass the impulse test of Clause 5.4.10.2.2 when tested as components outside the equipment.					^c During this test, it is allowed for a surge suppressor to operate and for a sparkover to occur in a GDT.							—
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^c During this test, it is allowed for a surge suppressor to operate and for a sparkover to occur in a GDT.																																						
5.4.10.2.2	After the first paragraph, <i>insert</i> new Notes 201 and 202 as follows: NOTE 201 For Australia, the 7 kV impulse simulates lightning surges on typical rural and semi-rural network lines.			N/A																																		
	NOTE 202 For Australia, the value of 2.5 kV for Clause 5.4.10.1 a) was chosen to ensure the adequacy of the insulation concerned and does not necessarily simulate likely overvoltages.			N/A																																		
5.4.10.2.3	After the first paragraph, <i>insert</i> new Notes 201 and 202 as follows: NOTE 201 For Australia, where there are capacitors across the insulation under test, it is recommended that d.c. test voltages are used.			N/A																																		
	NOTE 202 The 3 kV and 1.5 kV values for Australia have been determined considering the low frequency induced voltages from the power supply distribution system.			N/A																																		
6.1	After the first paragraph, <i>insert</i> the following new paragraph: Alternatively, the requirements of Clauses 6.2 to 6.5.2 are considered to be fulfilled if the equipment complies with the requirements of Clause 6.202.			N/A																																		
6.6	After Clause 6.6, <i>add</i> the new Clauses 6.201 and 6.202 as follows:			—																																		

ATTACHMENT 8 Deviations of Australia and New Zealand

Clause	Requirement + Test	Result - Remark	Verdict
--	Variations to IEC 62368-1:2014 (ED. 2.0) for application in Australia and New Zealand (AS/NZS 62368.1:2018)		
6.201	<p>External power supplies, docking stations and other similar devices</p> <p>For external power supplies, docking stations and other similar devices, during and after abnormal operating conditions and during single fault conditions the output voltage—</p> <ul style="list-style-type: none"> – at all ES1 outlets or connectors shall not increase by more than 10% of its rated output voltage under normal operating condition; and – of a USB outlet or connector shall not increase by more than 3 V or 10% of its rated output voltage under normal operating conditions, whichever is higher. <p>For equipment with multiple rated output voltages, the requirements apply with the equipment configured for each rated output voltage in turn.</p> <p>NOTE: This is intended to reduce the possibility of battery fire or explosion in attached equipment or accessories when charging secondary lithium batteries.</p> <p>Compliance shall be checked by measurement, taking into account the abnormal operating conditions of Annex B.3 and the simulated single-fault conditions of Annex B.4.</p>		N/A
6.202	Resistance to fire—Alternative tests		N/A
6.202.1	<p>General</p> <p>Parts of non-metallic material shall be resistant to ignition and the spread of fire.</p> <p>This requirement does not apply to decorative trims, knobs and other parts unlikely to be ignited or to propagate flames originating from inside the apparatus, or the following:</p> <ul style="list-style-type: none"> a) Components that are contained in an enclosure having a flammability category of V-0 according to AS/NZS 60695.11.10 and having openings only for the connecting wires filling the openings completely, and for ventilation not exceeding 1 mm in width regardless of length b) The following parts which would contribute negligible fuel to a fire: <ul style="list-style-type: none"> – small mechanical parts, the mass of which does not exceed 4 g, such as mounting parts, gears, cams, belts and bearings; – small electrical components, such as capacitors with a volume not exceeding 1750 mm³, integrated circuits, transistors and optocoupler packages, if these components are mounted on material of flammability category V-1 or better according to AS/NZS 60695.11.10 		N/A
	NOTE – In considering how to minimize propagation of fire and what 'small parts' are account should be taken of the cumulative effect of small parts adjacent to each other for the possible effect of propagating fire from one part to another.		N/A

ATTACHMENT 8 Deviations of Australia and New Zealand

Clause	Requirement + Test	Result - Remark	Verdict						
--	Variations to IEC 62368-1:2014 (ED. 2.0) for application in Australia and New Zealand (AS/NZS 62368.1:2018)								
	<i>Compliance shall be checked by the tests of Clauses 6.202.2, 6.202.3 and 6.202.4. For the base material of PRINTED BOARDS, compliance shall be checked by the test of Clause 6.202.5.</i>		N/A						
	The tests shall be carried out on parts of non-metallic material which have been removed from the apparatus. When the glow-wire test is carried out, they are placed in the same orientation as they would be in normal use. These tests are not carried out on internal wiring.		N/A						
6.202.2	Testing of non-metallic parts Part of non-metallic material shall be subject to the glow-wire test of AS/NZS 60695.2.11 which shall be carried out at 550°C. Parts for which the glow-wire test cannot be carried out, such as those made of soft or foamy material, shall meet the requirements specified in ISO 9772 for category FH-3 material. The glow-wire test shall not be carried out on parts of material classified at least FH-3 according to ISO 9772 provided that the sample tested was not thicker than the relevant part		N/A						
6.202.3	Testing of insulated parts Part of insulating material supporting POTENTIAL IGNITION SOURCES shall be subject to the glow-wire test of AS/NZS 60695.2.11 which shall be carried out at 750°C. The test shall be also carried out on other parts of insulating material which are within a distance of 3 mm of the connection NOTE – Contacts in components such as switch contacts are considered to be connections.		N/A						
	For parts which withstand the glow-wire test but produce a flame, other parts above the connection within the envelope of a vertical cylinder having a diameter of 20 mm and a height of 50 mm shall be subjected to the needle-flame test. However, parts shielded by a barrier which meets the needle-flame test need not be tested		N/A						
	The needle-flame test shall be made in accordance with AS/NZS 60695.11.5 with the following modifications:		N/A						
	<table><tr><td>Clause of AS/NZS 60695.11.5</td><td>Change</td></tr><tr><td>9 Test Procedure</td><td></td></tr><tr><td>9.2 Application of needle-flame</td><td><i>Replace</i> the second sentence of the first paragraph with: The specimen shall be arranged so that the</td></tr></table>	Clause of AS/NZS 60695.11.5	Change	9 Test Procedure		9.2 Application of needle-flame	<i>Replace</i> the second sentence of the first paragraph with: The specimen shall be arranged so that the		N/A
Clause of AS/NZS 60695.11.5	Change								
9 Test Procedure									
9.2 Application of needle-flame	<i>Replace</i> the second sentence of the first paragraph with: The specimen shall be arranged so that the								

ATTACHMENT 8 Deviations of Australia and New Zealand

Clause	Requirement + Test		Result - Remark	Verdict
--	Variations to IEC 62368-1:2014 (ED. 2.0) for application in Australia and New Zealand (AS/NZS 62368.1:2018)			
		<p>flame can be applied to a vertical or horizontal edge as shown in the examples of figure 1.</p> <p>Add to the end of the first paragraph:</p> <p>If possible, the flame shall be applied at least 10 mm from a corner.</p> <p><i>Replace</i> the second paragraph with:</p> <p>The duration of application of the test flame shall be 30 ±1 s</p>		
	9.3 Number of specimens	<i>Replace</i> with: The test shall be made on one specimen. If the specimen does not withstand the test, the test may be repeated on two further specimens, both of which shall then withstand the test		
	11 Evaluation of test results	<i>Replace</i> with: The duration of burning (t_b) shall not exceed 30 s. However, for printed circuit boards, it shall not exceed 15 s		
	The needle-flame test shall not be carried out on parts of material classified as V-0 or V-1 according to AS/NZS 60695.11.10 provided that the sample tested was not thicker than the relevant part.			N/A
6.202.4	Testing in the event of non-extinguishing material If parts, other than enclosures, do not withstand the glow wire tests of 6.202.3, by failure to extinguish within 30 s after the removal of the glow wire tip, the needle-flame test detailed in 6.202.3 shall be made on all parts of non-metallic material which are within a distance of 50 mm or which are likely to be impinged upon by flame during the tests of 6.202.3. Parts shielded by a separate barrier that meets the needle-flame test shall not be tested.			N/A

ATTACHMENT 8 Deviations of Australia and New Zealand

Clause	Requirement + Test	Result - Remark	Verdict
--	Variations to IEC 62368-1:2014 (ED. 2.0) for application in Australia and New Zealand (AS/NZS 62368.1:2018)		
	NOTE 1 – If the enclosure does not withstand the glow-wire test the appliance is considered to have failed to meet the requirements of Clause 6.202 without the need for consequential testing.		N/A
	NOTE 2 – If other parts do not withstand the glow-wire test due to ignition of the tissue paper and if this indicates that burning or glowing particles can fall onto an external surface underneath the apparatus, the apparatus is considered to have failed to meet the requirements of Clause 6.202 without the need for consequential testing		N/A
	NOTE 3 – Parts likely to be impinged upon by the flame are considered to be those within the envelope of a vertical cylinder having a radius of 10 mm and a height equal to the height of the flame, positioned above the point of the material supporting, in contact with, or in close proximity to, connections.		N/A
6.202.5	Testing of printed boards The base material of PRINTED BOARDS shall be subject to the needle-flame test of Clause 6.202.3. The flame shall be applied to the edge of the board where the heatsink effect is lowest when the board is positioned as in normal use. The flame shall not be applied to an edge consisting of broken perforations, unless the edge is less than 3 mm from a POTENTIAL IGNITION SOURCE		N/A
	<p>The test is not carried out if the—</p> <ul style="list-style-type: none"> - PRINTED BOARD does not carry any potential ignition source - base material of PRINTED BOARDS, on which the available power at a connection exceeds 15 VA operating at a voltage exceeding 50 V and equal or less than 400 V (peak) a.c. or d.c. under normal operating conditions, is of flammability category V-1 or better according enclosure meeting the flammability category V-0 according to AS/NZS 60695.11.10, or made of metal, having openings only for connecting wires which fill the openings completely; or – base material of PRINTED BOARDS, on which the available power at a connection exceeds 15 VA operating at a voltage exceeding 400 V (peak) a.c. or d.c. under normal operating conditions, and base material of PRINTED BOARDS supporting spark gaps which provides protection against overvoltages, is of flammability category V-0 according to AS/NZS 60695.11.10 or the PRINTED BOARDS are contained in a metal enclosure, having openings only for connecting wires which fill the openings completely. <p><i>Compliance shall be determined using the smallest thickness of the material.</i></p>		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
--	Variations to IEC 62368-1:2014 (ED. 2.0) for application in Australia and New Zealand (AS/NZS 62368.1:2018)		
	NOTE – Available power is the maximum power which can be drawn from the supplying circuit through a resistive load whose value is chosen to maximize the power for more than 2 min when the circuit supplied is disconnected.		N/A
6.202.6	For open circuit voltages greater than 4 kV POTENTIAL IGNITION SOURCES with open circuit voltages exceeding 4 kV (peak) a.c. or d.c. under normal operating conditions shall be contained in a FIRE ENCLOSURE which shall comply with flammability category V-1 or better according to AS/NZS 60695.11.10		N/A
8.5.4.1	In the first dashed row and the second dashed rows replace 'IEC 60950-1:2005' with 'AS/NZS 60950.1:2015'.		N/A
8.6.1 and Table 36	Table 36, <i>insert</i> Footnote c at the end of the 'Glass slide' heading, and add a new Footnote c after the text of Footnote b in the last row of Table 36 as follows: ° The glass slide test is not applicable to floor standing equipment, even though the equipment may have controls or a display.		N/A
	Table 36, fifth row, <i>insert</i> ²⁰¹ at the end of 'No stability requirements'		N/A
	Table 36, ninth row, <i>insert</i> ²⁰¹ at the end of 'No stability requirements'		N/A
	Table 36, <i>add</i> the following new footnote: ²⁰¹ MS2 and MS3 television sets and display devices, designed only for fixing to a wall, ceiling or equipment rack, are not subjected to stability requirements only if the instructional safeguard of Clause 8.6.1.201 is provided. Otherwise, the glass slide requirements of Clause 8.6.4 and horizontal force requirements of Clause 8.6.5 apply.		N/A
	Second paragraph beneath Table 36, <i>delete</i> the words 'MS2 and MS3 television sets' and replace with 'MS2 and MS3 television sets and display devices'		N/A
8.6.1	After Clause 8.6.1 <i>add</i> the following new clauses:		–
8.6.1.201	Instructional safeguard for fixed-mount television sets MS2 and MS3 television sets and display devices designed only for fixed mounting to a wall of ceiling or equipment rack shall, where required in Table 36, footnote 201, have an instructional safeguard in accordance with Clause F.5 which may be on the equipment or included in the installation instructions or equivalent document accompanying the equipment. The elements of the instructional safeguard shall be as follows: <ul style="list-style-type: none"> – element 1a: not available; – element 2: 'Stability Hazard' or equivalent wording; – element 3: 'The television set may fall, causing serious personal injury or death' or equivalent text; – element 4: the following or equivalent text: To prevent injury, this television set must be securely attached to the floor/wall in accordance with the installation instructions. 		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
--	Variations to IEC 62368-1:2014 (ED. 2.0) for application in Australia and New Zealand (AS/NZS 62368.1:2018)		
8.6.1.202	Restraining device MS2 and MS3 television sets and display devices that are not solely fixed mounted should be provided with a restraining device such as a fixing point to facilitate restraining the equipment from toppling forward. The restraining device shall be capable of withstanding a pull of 100 N in all directions without damage. Where a restraining device is provided, instructions shall be provided in the instructions for installation or instructions for use to ensure correct and safe installation.		N/A
Annex F	F.3.5.1 <i>Replace 'IEC 60320-2-2' with 'AS/NZS 60320.2.2'.</i>		N/A
Annex G	G.4.2 1. In the second line <i>insert</i> 'or AS/NZS 3123' after 'IEC 60906-1'. 2. In the second line <i>insert</i> 'or AS/NZS 60320 series' after 'IEC 60320 series' 3. <i>Add</i> the following new paragraph: 10 A or 15 A 250 V flat pin plugs for the connection of equipment to mains-powered socket-outlets for household or similar general use shall comply with AS/NZS 3112 or AS/NZS 60884.1.		P
	G.5.3.1 1. In the third dashed point replace 'IEC 61558-1 and the relevant parts of IEC 61558-2' with 'AS/NZS 61558-1 and the relevant parts of AS/NZS 61558.2' 2. In the fourth dashed point replace 'IEC 61558-2-16' with 'AS/NZS 61558.2.16'.		N/A
	G.7.1 In the fourth dashed paragraph, <i>replace</i> 'IEC 60320-1' with 'AS/NZS 60320.1'		P
	Table G.5 1. In the second row, first column, <i>delete</i> '6' and replace with '7.5' 2. In the second row, second column, <i>delete</i> '0,75' and replace with '0.75' ^b 3. <i>Delete</i> Note 1. 4. <i>Replace</i> 'NOTE 2' with 'NOTE:'. 5. <i>Delete</i> the text of 'Footnote b' and replace with the following: ^b This nominal cross-sectional area is only allowed for Class II appliances if the length of the power supply cord, measured between the point where the cord, or cord guard, enters the appliance, and the entry to the plug does not exceed 2 m (0.5 mm ² three-core supply flexible cords are not permitted; see AS/NZS 3191). 6. In Footnote c <i>replace</i> 'IEC 60320-1' with 'AS/NZS 60320.1' 7. In Footnote d <i>replace</i> 'IEC 60320-1' with 'AS/NZS 60320.1'		P

ATTACHMENT 8 Deviations of Australia and New Zealand

Clause	Requirement + Test	Result - Remark	Verdict
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--	Variations to IEC 62368-1:2014 (ED. 2.0) for application in Australia and New Zealand (AS/NZS 62368.1:2018)		
Annex M	M.3.2 After the first dashed point <i>add</i> the following Note: NOTE 201: In cases where the voltage source is provided by power from an unassociated power source, consideration should be given to the effects of possible single fault conditions in the unassociated equipment. If the power source is unknown then it should be assumed that the maximum limit of SELV may be applied to the source input under assumed single fault conditions in the source when assessing the charging circuit in the equipment under test.		N/A

- - - End of Attachment 8 - - -

Attachment 9 Deviations of Japan

Clause	Requirement + Test	Result - Remark	Verdict
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ATTACHMENT TO TEST REPORT IEC 62368-1
JAPANESE NATIONAL DIFFERENCES

Audio, video and similar electronic apparatus – Safety requirements

Differences according to.....: National standard J62368-1 (H30)

Regulatory Requirements.....: Electrical Appliances and Materials Safety Act Article 8, 9 and Appendix 12

	Special national conditions (if any)	--
3.3.15.1	Add the following new note after Note 2 to entry. Note 3 to entry: See 3.3.15.4A for class I equipment, when 2-pin adaptor with earthing lead wire or cord set having 2-pin plug with earthing lead wire is provided or recommended.	N/A
3.3.15.4A	Add the following new clause after 3.3.15.4. 3.3.15.4A Class 0I equipment Equipment having attachment plug without earthing blade, where protection against electric shock is achieved by using basic insulation and providing the protective earthing terminal or earthing lead wire in order to connect accessible conductive parts to the protective earthing conductor in the building wiring as supplementary safeguard. The above includes the equipment provided with, or recommend user to use the accessory of 2-pin plug adaptor with protective earthing lead wire that adapts class I (earthed) plug into 2-pin plug or power supply cord set having 2-pin plug with earthing lead wire. Note 1 to entry: Class 0I equipment may have a part constructed with Class II.	N/A
4.1.2	Modify the first paragraph as follows: Where the component, or a characteristic of a component, is a safeguard or a part of a safeguard, components shall comply with the requirements of this standard or, where specified in a requirements clause, with the safety aspects of the relevant JIS component standards or IEC component standards, or components shall have properties equivalent to or better than these. Add the following Note before Note 1 NOTE 0A Components complying with the interpretation of Ministerial Ordinance on stipulating technical requirements for the Electrical Appliance is regarded to have equivalent to or better properties.	P

Attachment 9 Deviations of Japan			
Clause	Requirement + Test	Result - Remark	Verdict
4.1.3	<p>Add the following Note before the compliance statement:</p> <p>NOTE Considering the wiring circumstance in Japan, transportable or similar type of equipment that is frequently moved for intended usage, or equipment intended to be installed where the provision for earthing connection is unlikely should not be designed as class I or class 0I equipment unless it is intended to be installed by skilled persons or instructed persons.</p>		N/A
5.4.1.4.3	<p>Add the following as a note to Table 10:</p> <p>NOTE In case no data for the material is available, Appendix 4, 1.(1).b. 3 of the Interpretation on the Ministerial Ordinance stipulating Technical Specifications for Electrical Appliances is regarded as maximum temperature limit of the material.</p>		N/A
5.4.9.2	<p>Add the following text to the NOTE:</p> <p>Alternatively, routine test in production-line may be in accordance with 5.2 (electric strength test) of IEC 62911.</p>		N/A
5.6.1	<p>Add the following:</p> <p>Mains socket-outlet and appliance outlet shall comply with Clause G.4.2A if they are incorporated as part of the equipment.</p>		N/A
5.6.2.1	<p>Add the following to the third paragraph:</p> <p>Mains connection of class 0I equipment provided with instructional safeguard in accordance with Clause F.3.6.1A is considered to meet this requirement.</p> <p>Add the following at the end of the subclause:</p> <p>Mains plug having a lead wire for protective earthing connection of class 0I equipment shall comply with all of the following:</p> <ul style="list-style-type: none"> – Not to be used for equipment having a rated voltage of 150 V or more – The lead wire for earthing is not connected to the earth by means of clip – The lead wire for earthing is at least 10 cm long <p>If class 0I equipment provides an independent main protective earthing terminal and is intended to be installed by ordinary person, earthing wire shall be provided within the package for the equipment.</p>		N/A

Attachment 9 Deviations of Japan			
Clause	Requirement + Test	Result - Remark	Verdict
5.6.2.2	<p>Add the following after the first sentence.</p> <p>However, this requirement does not apply to internal conductor of the cord set that is covered by the sheath of mains cord and is formed together with mains plug and appliance connector.</p>		N/A
5.6.3	<p>Add the following after NOTE 2.</p> <p>In addition, for class 0I equipment using power supply cord having two conductors (no earthing conductor), the conductor of protective earthing lead wire shall also comply with either of the following:</p> <ul style="list-style-type: none"> – use of annealed copper wire with 1.6 mm diameter or corrosion-inhibiting metal wire having size and strength that are equivalent to or more than the above copper wire – single core cord or single core cable with 1.25 mm² or more cross-sectional area <p>Replace NOTE 3 with the following</p> <p>NOTE 3 Heavy duty is defined in IEC 62440.</p>		N/A
5.6.4.2.1	<p>Add NOTE 4 as follows:</p> <p>NOTE 4 In Japan, 20 A is widely used as protective current rating for mains circuit in case of mains outlet rated 20 A or less.</p>		N/A
5.7.3	<p>Change present NOTE to NOTE 1, and add the following paragraph after the NOTE 1:</p> <p>For class 0I equipment that is provided with mains socket-outlet in the configuration as specified in JIS C 8282 series or JIS C 8303, or otherwise being considered to comply with relevant regulations, or that is provided with mains appliance outlet as specified in JIS C 8283-2-2 for the purpose of interconnection, the measurement is conducted on the system of the interconnected equipment having a single connection to the mains.</p> <p>NOTE 2 Limits for class 0I equipment is specified in 5.7.4</p> <p>NOTE 3 It is regarded as being in compliance with the relevant regulations if a connector complies with Appendix 4 of the interpretation of Ministerial Ordinance on stipulating technical requirements for the Electrical Appliances.</p>		N/A

Attachment 9 Deviations of Japan			
Clause	Requirement + Test	Result - Remark	Verdict
5.7.4	<p>Add the following paragraph at the end of the first paragraph:</p> <p>In case of class 0I equipment, touch current shall not exceed 1.41 mA peak or for sinusoidal wave, 1.0 mA r.m.s. when measured using the network specified in Figure 4 of IEC 60990.</p>		N/A
6.4.3.3	<p>Replace the first dash paragraph with following:</p> <p>– a fuse complying with JIC C 6575 series or a fuse having equivalent characteristics shall open within 1 s; or</p> <p>NOTE 3 A fuse is considered to have equivalent characteristics to those complying with JIS C 6575 series if it complies with appendix 3 of the Ministerial Ordinance on stipulating technical requirements for the Electrical Appliance and Material.</p> <p>Add the following before the last paragraph:</p> <p>A fuse having time/current characteristics other than those specified in IEC 60127 shall be tested with the characteristics taken into account. In case of Class A fuse of JIS C 6575, replace “2.1 times” by “1.35 times” and in case of Class B fuse of JIS C 6575, replace “2.1 times” by “1.6 times”.</p> <p>NOTE 4 The above replacements apply also to fuses having equivalent characteristics to those specified in JIS C 6575 series.</p>		N/A
8.5.4.2.1	<p>Add the following before NOTE 2:</p> <p>However, only stationary equipment that is directly connected to the three-phase supply rated more than 200 V ac can be considered for use in locations where children are not likely to be present, when complying with Clause F.4.</p>		N/A

Attachment 9 Deviations of Japan			
Clause	Requirement + Test	Result - Remark	Verdict
8.5.4.2.2	<p>Replace the first paragraph with the following: For equipment installed where children may be present, an instructional safeguard shall be provided by easily understandable wording in accordance with Clause F.5, except that element 3 is optional.</p> <p>Replace the first dash with the following:</p> <p>– element 1a and element 2:  IEC 60417-6057 (2011-05) or  (JIS S 0101:2000, 6.2.1) and the following precautions</p> <ul style="list-style-type: none"> • “The use by infants/children may cause a hazard of injury.” or equivalent <p>Example in Japanese: 子供が使用することによって、傷害などの危害が発生するおそれがある。</p> <ul style="list-style-type: none"> • “A hand can be drawn into the mechanical section for shredding when touching the document-slot.” or equivalent <p>Example in Japanese: 文書投入口に手を触れることによって、細断機構に引き込まれるおそれがある。</p> <ul style="list-style-type: none"> • “Clothing can be drawn into the mechanical section for shredding when touching the document-slot.” or equivalent <p>Example in Japanese: 文書投入口に衣類が触れることによって、細断機構に引き込まれるおそれがある。</p> <ul style="list-style-type: none"> • “Hairs can be drawn into the mechanical section for shredding when touching the document-slot.” or equivalent <p>Example in Japanese: 文書投入口に髪の毛が触れることによって、細断機構に引き込まれるおそれがある。</p> <p>In case of equipment incorporating a commutator motor:</p> <ul style="list-style-type: none"> • “The equipment may catch fire or explode by spraying of flammable gas.” or equivalent <p>Example in Japanese: 可燃性ガスを噴射することによって引火又は爆発するおそれがある。</p> <p>Delete the second dash.</p>		N/A
8.5.4.2.4	<p>Replace the first statement with the following:</p> <p>The media destruction device is tested according to Clause V.1.2 with applicable jointed test probes to the opening. And then, tested with the wedge probe of Figure V.4 applied in any direction relative to the opening:</p>		N/A

Attachment 9 Deviations of Japan			
Clause	Requirement + Test	Result - Remark	Verdict
8.5.4.2.5	<p>Replace the second sentence in the first paragraph with the following: The wedge probe of Figure V.4 and applicable jointed test probes specified in Clause V.1.2 shall not contact any moving part.</p> <p>Add the following after the second paragraph: Instructional safeguard shall not substitute an equipment safeguard for preventing access to hazardous moving parts.</p>		N/A
9.2.6, Table 38	<p>Replace the top row of TS2 in column of "Accessible parts" with the following: Handles, Knobs, grips, etc. and external surfaces either held, touched or worn against the body in normal use (> 1 min)^{b,c}</p>		N/A
Annex F F.3.5.1	<p>Add the following after the second paragraph. Class 0I equipment shall be provided with an instructional safeguard in accordance with Clause F.5 when a mains socket-outlet as specified in JIS C 8282 series, JIS C 8303 or relevant regulation to which class I equipment can be connected is provided in accordance with Clause G.4.2A except for the cases where the socket-outlet is accessible only to skilled persons.</p> <p>NOTE Appendix 4 of the Ministerial Ordinance on stipulating technical requirements for the Electrical Appliance is an example of the relevant regulation.</p> <p>The elements of the instructional safeguard shall be as follows: – element 1a: not applicable – element 2: "Only for (equipment name)" or equivalent text Example in Japanese: (equipment name)専用コンセント</p> <p>– element 3: "This socket-outlet is for use only with (manufacturer's name), (model number or series), (equipment name)" or equivalent text Example in Japanese: このコンセントは, (manufacturer's name), (model number or series), (equipment name) だけが接続することを意図しています。</p>		N/A

Attachment 9 Deviations of Japan			
Clause	Requirement + Test	Result - Remark	Verdict
Cont'd	<p>– element 4: “Use with other equipment may result in electric shock” or equivalent text</p> <p>Example in Japanese: その他の機器を接続すると感電の危険があります。</p> <p>The elements shall be in the order 2, 4, and 3.</p> <p>The element 2 shall be marked adjacent to the mains socket-outlet.</p> <p>The rated voltage and assigned current or power of a mains socket-outlet need not be marked on the equipment provided with this instructional safeguard.</p>		N/A
Annex F F.3.5.3	<p>Replace the third dashed paragraph with the following.</p> <p>– if the fuse is necessary for the safeguard function, the symbols indicating pre-arcing time-current characteristic.</p> <p>Example</p> <p>F: Fast blow</p> <p>T: Time-delay</p> <p>Ⓐ: Class A</p> <p>Ⓑ: Class B</p>		N/A
Annex F F.3.6.1A	<p>Add the following new clause after F.3.6.1.3.</p> <p>F.3.6.1A Marking for class 0I equipment</p> <p>The requirements of Clauses F.3.6.1.1 and F.3.6.1.3 also apply to class 0I equipment.</p> <p>For class 0I equipment, the following or equivalent instructions shall be marked on the mains plug or on the visible place of the main body.</p> <p>“Provide an earthing connection”</p> <p>Example in Japanese: “必ず接地接続を行ってください。”</p> <p>In addition to the above, for class 0I equipment, the following instructional safeguard shall be marked on the visible place of the main body or shall be in the text of an accompanying document.</p> <p>“Provide an earthing connection before the mains plug is connected to the mains. And, when disconnecting the earthing connection, be sure to disconnect after pulling out the mains plug from the mains.”</p> <p>Example in Japanese: 接地接続は必ず、電源プラグを電源につなぐ前に行ってください。 また、接地接続を外す場合は、必ず電源プラグを電源から切り離してから行ってください。</p>		N/A

Attachment 9 Deviations of Japan			
Clause	Requirement + Test	Result - Remark	Verdict
Annex F F.3.6.2.1	Replace the third paragraph with the following: The above symbols shall not be used for class I equipment or class 0I equipment.		N/A
Annex F F.4	<p>Replace the fourth dashed paragraph with the following:</p> <p>– For audio equipment with terminals classified as ES3 in accordance with Table E.1, and for other equipment with terminals marked in accordance with F.3.6.1 and F.3.6.1A, the instructions shall require that the external wiring connected to these terminals shall be installed by a skilled person, or shall be connected by means of ready-made leads or cords that are constructed in a way that would prevent contact with any ES3 circuit.</p> <p>Add the following after the ninth dashed paragraph.</p> <p>– For class 0I equipment provided with independent main protective earthing terminal, where the cord for the protective earthing connection is not provided within the package for the equipment, if the protective earthing connection is made by instructed person or skilled person, the suitable installation instruction for the protective earthing connection shall be provided.</p>		N/A
Annex G G.3.2.1	<p>Replace the paragraph a) with the following.</p> <p>a) The thermal link when tested as a separate component, shall comply with the requirements of JIS C 6691 or have properties equivalent to or better than that.</p> <p>NOTE Thermal links complying with appendix 3 of the Ministerial Ordinance on stipulating technical requirements for the Electrical Appliance and Material are considered to have equivalent or better properties.</p>		N/A

Attachment 9 Deviations of Japan			
Clause	Requirement + Test	Result - Remark	Verdict
Annex G G.3.4	<p>Replace the first paragraph by the following. Except for devices covered by Clause G.3.5, overcurrent protective devices used as a safeguard shall comply with the relevant JIS harmonizing with IEC standard, or shall have equivalent or better properties. If there are no applicable JIS, they shall comply with relevant IEC standard.</p> <p>NOTE Fuses complying with appendix 3, or circuit breakers or residual current circuit breakers complying with appendix 4 of Ministerial Ordinance on stipulating technical requirements for the Electrical Appliance and Material are considered to have equivalent or better properties.</p>		N/A
Annex G G.4.1	<p>Add the following sentence at the end of this clause. This requirement is not applicable to Clauses G.4.2 and G.4.2A.</p>		N/A
Annex G G.4.2	<p>Replace with the following. G.4.2 Mains connectors (including mains plug and socket-outlet) Mains connector shall comply with JIS C 8282 series, JIS C 8283 series, JIS C 8285, JIS C 8303 or IEC 60309 series. Mains plugs and socket-outlets shall comply with JIS C 8282 series, JIS C 8303, IEC 60309 series, or have equivalent or better properties.</p> <p>NOTE Mains plug complying with appendix 4 of the interpretation of Ministerial Ordinance on stipulating technical requirements for the Electrical Appliance is regarded to have equivalent or better properties.</p> <p>A power supply cord set provided with appliance connector that can fit appliance inlet complying with JIS C 8283-1 shall comply with JIS C 8286. Equipment shall be constructed so that mechanical stress does not transmit to the soldering part of inlet terminal during insertion or removal of the connector. Construction that the body of the inlet is secured and the securement not relied on soldering only is considered to comply.</p>		N/A

Attachment 9 Deviations of Japan			
Clause	Requirement + Test	Result - Remark	Verdict
Cont'd	<p>When an equipment is rated not more than 125 V and complies with all the following requirements, Type C14 and C18 appliance coupler complying with JIS C 8283 series can be considered as rated 15 A</p> <ul style="list-style-type: none"> – The temperature of appliance coupler does not exceed the value specified in JIS C 8283-1 under the most unfavorable normal operating condition. – " Use only designated cord set attached in this equipment " or equivalent text is described in the operating instruction. If the cord set is not provided within the package for the equipment, suitable information regarding to the cord set is described in the operating instruction. <p>Example in Japanese: “この機器に同こん(細)した指定の電源コードセットだけを使用して下さい。”</p>		N/A
Annex G G.4.2A	<p>Add the following new clause after G.4.2.</p> <p>G.4.2A Mains socket-outlet and interconnection coupler provided with the equipment</p> <p>The equipment provided with mains socket-outlet configured in accordance with JIS C 8282 series, JIS C 8303 or relevant standards or with interconnection coupler configured in accordance with JIS C 8283-2-2 shall comply with the following:</p> <ul style="list-style-type: none"> – Socket-outlet and interconnection coupler provided in class II equipment can connect other class II equipment only. – Socket-outlet and interconnection coupler provided in class I equipment can connect other class II equipment only, or is provided with protective earthing pole that is reliably connected to protective earthing terminal or point of the equipment. – Interconnection coupler provided in class 0I equipment can connect other class II equipment only. If the all the followings are met, class I equipment can be connected. <ul style="list-style-type: none"> • The interconnection coupler is provided with a protective earthing pole that is reliably connected to the protective earthing point or terminal of the equipment. • Touch current measured according to 5.7.3 as a system of interconnected equipment with one connection to the mains does not exceed the limit for class 0I equipment specified in 5.7.4. 		N/A

Attachment 9 Deviations of Japan			
Clause	Requirement + Test	Result - Remark	Verdict
Cont'd	<p>– Socket-outlet provided in class 0I equipment can connect other class II equipment only. If the socket-outlet is provided for interconnection and the all the followings are met, class I equipment can be connected.</p> <ul style="list-style-type: none"> • Socket-outlet is provided with protective earthing pole that is reliably connected to protective earthing point or terminal of the equipment. • Except for socket-outlet which only skilled person can access, instructional safeguard specified in Clause F.3.5.1 is provided so that only equipment intended by the manufacturer is connected. • Touch current measured according to 5.7.3 as a system of interconnected equipment with one connection to the mains does not exceed the limited for class 0I equipment specified in 5.7.4. <p>– Cord set for interconnection provided within the package for the equipment providing the interconnection coupler complying with JIS C 8283-2-2 complies with JIS C 8286.</p> <p>NOTE 1 Considering the wiring circumstance in Japan, transportable or similar type of equipment that is frequently moved for intended usage, class 0I equipment should not be provided with mains socket-outlet configured in accordance with JIS C 8282 series, JIS C 8303 or relevant regulation unless it is intended to be installed by skilled person.</p> <p>NOTE 2 Acceptable configuration of relevant regulation refers to appendix 4 of the interpretation of Ministerial Ordinance on stipulating technical requirements for the Electrical Appliance.</p>		N/A
Annex G G.4.3	<p>Add following NOTE after EXAMPLE.</p> <p>NOTE The statement, “An example of a connector not meeting the requirements of this subclause is the so called “banana” plug” is deleted from above EXAMPLE.</p>		N/A

Attachment 9 Deviations of Japan			
Clause	Requirement + Test	Result - Remark	Verdict
Annex G G.7.1	<p>Replace the third dashed paragraph with the following.</p> <p>– other types of cords may be used if they have equivalent electro-mechanical and fire safety properties as above.</p> <p>Add the following after NOTE 3.</p> <p>NOTE 3A Sheathed mains cords complying with appendix 1 of the interpretation of Ministerial Ordinance on stipulating technical requirements for the Electrical Appliance are considered to have equivalent or better electro-mechanical and fire safety properties.</p> <p>Add the following after the first sentence in the paragraph after present NOTE 3:</p> <p>However, a mains supply cord need not include the protective earthing conductor for class 0I equipment provided with independent protective earthing conductor.</p>		N/A
Annex G G.7.2	<p>Add the following new NOTE 0A after the first sentence.</p> <p>NOTE 0A The cross-sectional area of mains cords may comply with relevant Japanese wiring regulation if it complies with appendix 1 of the interpretation of Ministerial Ordinance on stipulating technical requirements for the Electrical Appliance that is referenced in Clause G.7.1 as having equivalent or better electro-mechanical and safety properties.</p>		N/A
Annex G G.7.6.1	<p>Add the following new NOTE 0A to end of this sub-clause.</p> <p>NOTE 0A The cross-sectional area of mains cords may comply with relevant Japanese wiring regulation if it complies with appendix 1 of the interpretation of Ministerial Ordinance on stipulating technical requirements for the Electrical Appliance that is referenced in Clause G.7.1 as having equivalent or better electro-mechanical and safety properties.</p>		N/A
Annex G G.8.3.3	<p>Replace the first dotted paragraph in the first dashed paragraph with the following:</p> <ul style="list-style-type: none"> • withstand $1,71 \times 1.1 \times U_0$ for 5 s. <p>Replace the NOTE 2 with the following.</p> <p>NOTE 2 For different power distribution systems, the temporary over voltages are defined in Table B.3 of JIS C 5381-11 (TOV test parameters for Japanese systems)</p>		N/A