



Test Report issued under the responsibility of:

Intertek Testing Services NA, Inc.

TEST REPORT
IEC 62368-1
Audio/video, information and communication technology equipment
Part 1: Safety requirements

Report Number : 104228801MIN-003
Date of issue..... : 2020-08-14
Total number of pages : 83

Applicant's name..... : Zivix, LLC
Address : 181 Cheshire Ln North, Suite 700
 Minneapolis, MN 55441 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_B
Test Report Form(s) Originator : UL(US)
Master TRF..... : 2014-03

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Test Item description	Jamstik Studio MIDI Guitar
Trade Mark	Jamstik [®] , Zivix
Manufacturer	Zivix, LLC 181 Cheshire Ln North Suite 700 Minneapolis, MN 55441 USA
Model/Type reference.....	JSMG172100
Rating	Battery: 3.7Vdc, 3000mAh

Testing procedure and testing location:		
<input checked="" type="checkbox"/>	CB Testing Laboratory:	Intertek Testing Services NA, Inc.
Testing location/ address		40 51st Way NE, Suite 100, Fridley, MN 55421 USA
<input type="checkbox"/>	Associated CB Testing Laboratory:	N/A
Testing location/ address.....		
Tested by (name, function, signature)....		Edward Wang Project Handler <i>Edward Wang</i>
Approved by (name, function, signature) :		Brian Siuta Reviewer <i>Brian Siuta</i>
<input type="checkbox"/>	Testing procedure: CTF Stage 1	N/A
Testing location/ address.....		
Tested by (name, function, signature)....		
Approved by (name, function, signature) :		
<input type="checkbox"/>	Testing procedure: CTF Stage 2	N/A
Testing location/ address.....		
Tested by (name, function, signature)....		
Witnessed by (name, function, signature)		
Approved by (name, function, signature) :		
<input type="checkbox"/>	Testing procedure: CTF Stage 3	N/A
<input type="checkbox"/>	Testing procedure: CTF Stage 4	N/A
Testing location/ address.....		
Tested by (name, function, signature)....		
Approved by (name, function, signature) :		
Supervised by (name, function, signature):		

List of Attachments (including a total number of pages in each attachment):

European Group difference – (3 Pages)
 United States National Deviations and Canada National Deviations – (5 Pages)
 Australia / New Zealand National Differences – (10 Pages)
 Japan National Differences – (5 Pages)
 Photos – (3 Pages)
 CB Certificate for Battery (1)

Summary of testing:**Tests performed (name of test and test clause):**

Temperature Test	5.4.1.4, 6.3.2, 9.0, B.2.6
Marking Durability	F.3.10
Electrical power sources (PS) measurements for classification	6.2.2
Simulated single fault conditions	B.4
Steady Force Test	T.2, T.5
Impact Test	T.6
Drop Test	T.7

Testing location:

Intertek Testing Services NA, Inc. (Minnesota)
 40 51st Way NE, Suite 100
 Fridley, MN 55421 USA

Summary of compliance with National Differences:**List of countries addressed:**




EU, CA, US, AS, NZ, JP


The product fulfils the requirements of



1. **EN 62368-1:2014**
2. **CSA/UL 62368-1:2014**
3. **AS/NZS 62368.1:2018**
4. **J62368-1 (H30): 2018**

Copy of marking plate:

Jamstik[®]
Studio MIDI Guitar
Designed in the USA by Jamstik
Made in China

Model: JSMG172100
Battery: 3.7V 3000mAh 
CAN ICES-3(B)/NMB-3(B)
Contains
FCC ID: WAP3034 IC: 7922A-3034

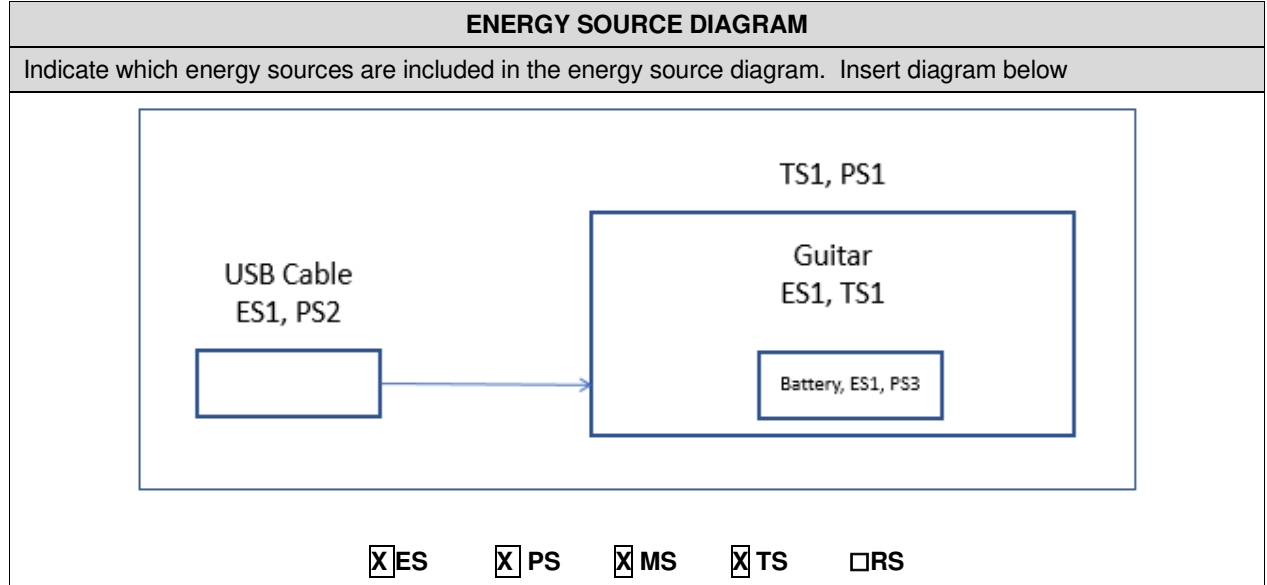
  203-JN0874 Jamstik.com

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 checked="" type="checkbox"/> AC Mains <input type="checkbox"/> DC Mains <input 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: Internal battery powered
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 type="checkbox"/> other: Not mains connected
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"/> IP54
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 type="checkbox"/> 2000 m or less <input checked="" type="checkbox"/> 300 m
Mass of equipment (kg)	<input checked="" type="checkbox"/> 2.5kg
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..... :	2020-01-28
Date (s) of performance of tests..... :	2020-02-12 to 2020-08-03
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 type="checkbox"/> comma / <input checked="" type="checkbox"/> point is used as the decimal separator.</p> <p>This Test Report covers test results for IEC 62368-1: 2014 (Second Edition).</p>	
Manufacturer’s Declaration per sub-clause 4.2.5 of IECEE 02:	
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)	Risingguitar Ltd. Room 4-1111, No.4 Building Haichuang Technology Center 1288 Wenyi West Road Hangzhou, Zhejiang 311100, China
GENERAL PRODUCT INFORMATION:	
<p>The product is a digital MIDI guitar using Bluetooth Low Energy wireless interface to an iPad, iPhone, Mac, or other computing devices allowing a user to control and create music using iOS apps, Mac software, or other Apps.</p> <p>Powered by a rechargeable Lithium-Ion battery rated 3.7Vdc, 3000m mAh. A USBC port was provided for wired communication and battery charging. Also provided is a 3.5mm TRS MIDI jack where a 3.5mm to 5 pin DIN cable can be plugged in. It could be used in either wired mode (via USBC), or via Bluetooth Low Energy (BLE). Battery powered for dry location use.</p>	
Model Differences – NA	
Additional application considerations – (Considerations used to test a component or sub-assembly) –	
<ul style="list-style-type: none"> • Manufacturer assumes responsibility of providing manuals and markings in the official language of the country in which the equipment is installed. • The safety related fire, shock, and injury aspects of the equipment have been investigated to IEC 62368-1. Burglary and theft protection features have not been evaluated. • The marking plate shown in the Marking plate enclosure is representative of all Models. • The product was investigated to the following additional standards: EN 62368-1:2014 (which includes all European national differences, including those specified in this test report); and • CSA/UL 62368-1:2014; and • AS/NZS 62368.1:2018; and 	

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)
Power Supply, 3.7Vdc	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)
Battery, 3.7Vdc, 3000mAh	PS3
USB cable	PS2
Injury caused by hazardous substances (Clause 7) (Note: Specify hazardous chemicals, whether produces ozone or other chemical construction not addressed as part of the component evaluation.) Example: Liquid in filled component	
Glycol	
Source of hazardous substances	Corresponding chemical
No source of 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)
Control Box: 2.5 kg	MS1
Chassis of guitar - No sharp edges and corners; no moving parts; no fan blades; no loosening, exploding or imploding parts	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)
Outer surface of Guitar	TS-1

ENERGY SOURCE IDENTIFICATION AND CLASSIFICATION TABLE:	
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 from laser, visible, infra-red, ultraviolet, x-ray, and acoustic energy	N/A



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	Supplement ary	Reinforced (Enclosure)
Electric compartment (Wood with plastic cover)	ES1, (powered by 3.7Vdc battery)	N/A	N/A	N/A
USB port (Plastic)	ES1	N/A	N/A	N/A
6.1	Electrically-caused fire			
Material part (e.g. mouse enclosure)	Energy Source (PS2: 100 Watt circuit)	Safeguards		
		Basic	Supplement ary	Reinforced
Rechargeable Lithium battery	PS3 (3.7Vdc, 3000mAh)	N/A	N/A	N/A
USB port	PS2 (5Vdc)			
7.1	Injury caused by hazardous substances			
Body Part (e.g., skilled)	Energy Source (hazardous material)	Safeguards		
		Basic	Supplement ary	Reinforced
N/A	N/A	N/A	N/A	N/A

8.1		Mechanically-caused injury		
Body Part (e.g. Ordinary)	Energy Source (MS3:High Pressure Lamp)	Safeguards		
		Basic	Supplement ary	Reinforced (Enclosure)
Guitar: 2.5 kg < 7 kg	MS1	-	-	-
9.1				
Thermal Burn				
Body Part (e.g., Ordinary)	Energy Source (TS2)	Safeguards		
		Basic	Supplement ary	Reinforced
Guitar body	TS1	N/A	N/A	Surface temperatures did not exceeded in normal and in single fault conditions
Interface port (USB, Microphone)	TS1	N/A	N/A	Surface temperatures did not exceeded in normal and in single fault conditions
10.1				
Radiation				
Body Part (e.g., Ordinary)	Energy Source (Output from audio port)	Safeguards		
		Basic	Supplement ary	Reinforced
N/A	N/A	N/A	N/A	N/A
Supplementary Information:				
(1) See attached energy source diagram for additional details.				
(2) "N" – Normal Condition; "A" – Abnormal Condition; "S" Single Fault				

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Clause	REQUIREMENT + TEST	RESULT - REMARK	Verdict
4	GENERAL REQUIREMENTS		P
4.1.1	Acceptance of materials, components and subassemblies	Product is for indoor and dry place use. Compliance of materials, components or subassemblies is demonstrated by inspection, by review of published data.	P
4.1.2	Use of components	Components used within ratings, and subjected to the applicable tests of this standard. Certified components used.	P
4.1.3	Equipment design and construction		P
4.1.15	Markings and instructions	(See Annex F)	P
4.4.4	Safeguard robustness		P
4.4.4.2	Steady force tests	(See Annex T.5)	P
4.4.4.3	Drop tests.....	Fixed equipment	N/A
4.4.4.4	Impact tests.....	Control box made of wood and plastic (See Annex T.6)	P
4.4.4.5	Internal accessible safeguard enclosure and barrier tests	No live parts inside	N/A
4.4.4.6	Glass Impact tests	No glass	N/A
4.4.4.74	Thermoplastic material tests.....	Made of wood with a small plastic cover	N/A
4.4.4.8	Air comprising a safeguard	Air not used as a safeguard	N/A
4.4.4.9	Accessibility and safeguard effectiveness		P
4.5	Explosion	No chemicals, sealed container, gases, high pressure, or high temperature risks	P
4.6	Fixing of conductors	No live parts inside	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	Not for direct insertion into mains socket outlet	N/A
4.7.2	Mains plug part complies with the relevant standard.....	Not direct plug in equipment. Cord connected	N/A
4.7.3	Torque (Nm).....	Not direct plug in equipment. Cord connected	N/A
4.8	Products containing coin/button cell batteries	No coin/button cell batteries used	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	Battery cover was fixed to	P

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Clause	REQUIREMENT + TEST	RESULT - REMARK	Verdict
		guitar body with four screws. The screws are to be completely removed and reinserted each time	
4.8.5	Battery Accessibility		N/A
4.9	Likelihood of fire or shock due to entry of conductive object	No openings. No conductive object from outside equipment can enter side openings and result in bridging of PS2, PS3, or ES3 circuits	N/A

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Clause	REQUIREMENT + TEST	RESULT - REMARK	Verdict
5	ELECTRICALLY-CAUSED INJURY		P
5.2.1	Electrical energy source classifications..... :	ES1	P
5.2.2	ES1, ES2 and ES3 limits		P
5.2.2.2	Steady-state voltage and current..... :	No such accessible parts (circuits)	N/A
5.2.2.3	Capacitance limits..... :	No such accessible parts (circuits)	N/A
5.2.2.4	Single pulse limits..... :	No such accessible parts (circuits)	N/A
5.2.2.5	Limits for repetitive pulses..... :	No such accessible parts (circuits)	N/A
5.2.2.6	Ringing signals..... :	No ringing signals	N/A
5.2.2.7	Audio signals..... :		P
5.3	Protection against electrical energy sources		P
5.3.1	General Requirements for accessible parts to ordinary, instructed and skilled persons	ES1 only	P
5.3.2.1	Accessibility to electrical energy sources and safeguards	ES1 only	P
5.3.2.2	Contact requirements		P
	a) Test with test probe from Annex V..... :	Test for ordinary and instructed persons with probed in Figure V.2,	P
	b) Electric strength test potential (V)..... :	No air gap considered, no opening	N/A
	c) Air gap (mm)..... :	No air gap considered, no opening	N/A
5.3.2.4	Terminals for connecting stripped wire	No terminals for stripped wire intended to be used by ordinary persons	N/A
5.4	Insulation materials and requirements		N/A
5.4.1.2	Properties of insulating material	Basic, supplementary, and reinforced insulation used	P
5.4.1.3	Humidity conditioning..... :	No live parts, powered by 3.7Vdc battery	N/A
5.4.1.4	Maximum operating temperature for insulating materials..... :	(See appended table 5.4.1.4)	P
5.4.1.5	Pollution degree..... :	Pollution degree 2 considered for parts inside Guitar	—
5.4.1.5.2	Test for pollution degree 1 environment and for an insulating compound	No pollution degree 1 environment considered	N/A
5.4.1.5.3	Thermal cycling	No pollution degree 1 environment considered	N/A
5.4.1.6	Insulation in transformers with varying dimensions	No different working voltages along the length of the wire	N/A
5.4.1.7	Insulation in circuits generating starting pulses	No circuits generating starting pulses	N/A
5.4.1.8	Determination of working voltage		P
5.4.1.9	Insulating surfaces		P

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Clause	REQUIREMENT + TEST	RESULT - REMARK	Verdict
5.4.1.10	Thermoplastic parts on which conductive metallic parts are directly mounted	Adequate spacings provided between thermoplastic enclosure of guitar and nearest conductive parts, no ball pressure test deemed necessary	P
5.4.1.10.2	Vicat softening temperature..... :	Live parts directly mounted on thermoplastic; parts are part of certified power supply	N/A
5.4.1.10.3	Ball pressure :	No ball pressure test deemed necessary	N/A
5.4.2	Clearances		N/A
5.4.2.2	Determining clearance using peak working voltage	No live parts, powered by 3.7Vdc battery	N/A
5.4.2.3	Determining clearance using required withstand voltage :	3.7Vdc only	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	(See appended table 5.4.2.4)	P
5.4.2.5	Multiplication factors for clearances and test voltages :	Not intended for use above 2000m	N/A
5.4.3	Creepage distances :	No live parts, powered by 3.7Vdc battery	N/A
5.4.3.1	General		P
5.4.3.3	Material Group :	Assumed Material Group IIIb	—
5.4.4	Solid insulation	No live parts, powered by 3.7Vdc battery	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

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Clause	REQUIREMENT + TEST	RESULT - REMARK	Verdict
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 (M Ω).....		—
5.4.6	Insulation of internal wire as part of supplementary safeguard	No wire insulation accessible to an ordinary person. Internal wiring not used as supplementary safeguard.	N/A
5.4.7	Tests for semiconductor components and for cemented joints	No such components or cemented joints	N/A
5.4.8	Humidity conditioning	No live parts, powered by 3.7Vdc battery	N/A
	Relative humidity (%).....		—
	Temperature (°C)		—
	Duration (h)		—
5.4.9	Electric strength test	No live parts, powered by 3.7Vdc battery	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	No TNV circuits	N/A
5.4.10.1	Parts and circuits separated from external circuits	No TNV circuits	N/A
5.4.10.2	Test methods	No TNV circuits	N/A
5.4.10.2.1	General	No TNV circuits	N/A
5.4.10.2.2	Impulse test	No TNV circuits	N/A
5.4.10.2.3	Steady-state test.....	No TNV circuits	N/A
5.4.11	Insulation between external circuits and earthed circuitry	No connections to TNV circuits or other types of external circuits that would be subject to transient voltage	N/A
5.4.11.1	Exceptions to separation between external circuits and earth	No connections to TNV circuits or other types of external circuits that would be subject to transient voltage	N/A
5.4.11.2	Requirements	No connections to TNV circuits or other types of external circuits that would be subject to transient voltage	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}		—

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Clause	REQUIREMENT + TEST	RESULT - REMARK	Verdict
	$U_{op} = U_{peak} + \Delta U_{sp} + \Delta U_{sa}$		—
5.5	Components as safeguards		N/A
5.5.1	General		N/A
5.5.2	Capacitors and RC units	No such 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	No such transformers	N/A
5.5.4	Optocouplers	No such optocouplers	N/A
5.5.5	Relays	No such relays	N/A
5.5.6	Resistors	No such resistors	N/A
5.5.7	SPD's	No SPD's	N/A
5.5.7.1	Use of an SPD connected to reliable earthing	No SPD's	N/A
5.5.7.2	Use of an SPD between mains and protective earth	No SPD's	N/A
5.5.8	Insulation between the mains and external circuit consisting of a coaxial cable	No coaxial cable	N/A
5.6	Protective conductor		N/A
5.6.2	Requirement for protective conductors	No protective conductors employed	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

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Clause	REQUIREMENT + TEST	RESULT - REMARK	Verdict
5.7.2	Measuring devices and networks	No such device	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
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		P
6.2	Classification of power sources (PS) and potential ignition sources (PIS)		P
6.2.2	Power source circuit classifications		P
6.2.2.1	General		P
6.2.2.2	Power measurement for worst-case load fault ... :	See table 6.2.2	P
6.2.2.3	Power measurement for worst-case power source fault	See table 6.2.2	P
6.2.2.4	PS1	All circuit is PS1 except for battery and USB port	P
6.2.2.5	PS2	USP port is PS2	P
6.2.2.6	PS3	Battery pack is PS3	P
6.2.3	Classification of potential ignition sources	No arcing PIS	P
6.2.3.1	Arcing PIS	No arcing PIS, may be integral to certified components	N/A
6.2.3.2	Resistive PIS	No resistive PIS	N/A

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Clause	REQUIREMENT + TEST	RESULT - REMARK	Verdict
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	The electric compartment guitar was made of wood and V-0 plastic with minimum thickness 2.0mm	P
6.4	Safeguards against fire under single fault conditions		P
6.4.1	Safeguard Method	Rated wood and V-0 rated material was used for battery cover (PS3), to minimize the propagation of flames. Abnormal fault testing conducted to verify no fire. See table B.4	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		P
6.4.3.1	General		P
6.4.3.2	Supplementary Safeguards	No arcing PIS or resistive PIS. Printed circuit boards are rated V-0 minimum. Other components are certified to applicable IEC standards.	P
	Special conditions if conductors on printed boards are opened or peeled	Printed boards did not open or peel	N/A
6.4.3.3	Single Fault Conditions	(See appended table B.4)	P
	Special conditions for temperature limited by fuse	No such components	N/A
6.4.4	Control of fire spread in PS1 circuits	V-0 rated material used for PS3 battery cover	P
6.4.5	Control of fire spread in PS2 circuits	Mounted on the chassis made of wood	P
6.4.5.2	Supplementary safeguards	Printed wiring boards are rated V-0	P
6.4.6	Control of fire spread in PS3 circuit	Batty was mounted on V-0 rated Circuit board	P
6.4.7	Separation of combustible materials from a PIS	No arcing or resistive 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		P
6.4.8.1	Fire enclosure and fire barrier material properties	Batter was mounted on V-0 rated PCB board while the enclosure is made of wood and V-0 rated plastic. Abnormal fault testing conducted to verify no fire.	P
6.4.8.2.1	Requirements for a fire barrier	No fire barrier	N/A

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Clause	REQUIREMENT + TEST	RESULT - REMARK	Verdict
6.4.8.2.2	Requirements for a fire enclosure	Batter was mounted on V-0 rated PCB board while the enclosure is made of wood and V-0 rated plastic. Abnormal fault testing conducted to verify no fire.	P
6.4.8.3	Constructional requirements for a fire enclosure and a fire barrier		P
6.4.8.3.1	Fire enclosure and fire barrier openings		P
6.4.8.3.2	Fire barrier dimensions	No fire barrier	N/A
6.4.8.3.3	Top Openings in Fire Enclosure: dimensions (mm)	No top openings No side openings	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)	No bottom openings	N/A
	Flammability tests for the bottom of a fire enclosure	Wood enclosure for compartment, covered with V-0 plastic cover	N/A
6.4.8.3.5	Integrity of the fire enclosure, condition met: a), b) or c)	No doors or covers intended to be opened by an ordinary person	N/A
6.4.8.4	Separation of PIS from fire enclosure and fire barrier distance (mm) or flammability rating.....	No arcing or resistive PIS	N/A
6.5	Internal and external wiring		P
6.5.1	Requirements		P
6.5.2	Cross-sectional area (mm ²)	All conductors are VW-1 or FT-1	—
6.5.3	Requirements for interconnection to building wiring	No such connection to building wiring	N/A
6.6	Safeguards against fire due to connection to additional equipment	No such external connection of 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		N/A
7.2	Reduction of exposure to hazardous substances	The equipment does not employ hazardous substances	N/A
7.3	Ozone exposure	None	N/A
7.4	Use of personal safeguards (PPE)	Not required and not used	N/A
	Personal safeguards and instructions		—
7.5	Use of instructional safeguards and instructions	Not required and not used	N/A
	Instructional safeguard (ISO 7010)		—
7.6	Batteries.....	No internal batteries	N/A

8	MECHANICALLY-CAUSED INJURY		P
8.1	General		P
8.2	Mechanical energy source classifications	Whole guitar was weighted 2.5kg – MS1	P
8.3	Safeguards against mechanical energy sources	No servicing to be conducted by ordinary person.	P
8.4	Safeguards against parts with sharp edges and corners	No sharp edges and corners	N/A
8.4.1	Safeguards		N/A
8.5	Safeguards against moving parts	No moving parts	N/A
8.5.1	MS2 or MS3 part required to be accessible for the function of the equipment	No moving parts for either control box or bookshelf	N/A
8.5.2	Instructional Safeguard.....	No moving parts	—
8.5.4	Special categories of equipment comprising moving parts	No moving parts	N/A
8.5.4.1	Large data storage equipment	Not considered large data storage equipment	N/A
8.5.4.2	Equipment having electromechanical device for destruction of media	Equipment does not employ electromechanical device for destruction of media	N/A
8.5.4.2.1	Safeguards and Safety Interlocks	Does not employ Safety Interlocks	N/A
8.5.4.2.2	Instructional safeguards against moving parts	No moving parts	N/A
	Instructional Safeguard.....		—
8.5.4.2.3	Disconnection from the supply	The equipment does not employ accessible moving parts	N/A
8.5.4.2.4	Probe type and force (N)		N/A
8.5.5	High Pressure Lamps	No high Pressure Lamps	N/A
8.5.5.1	Energy Source Classification		N/A
8.5.5.2	High Pressure Lamp Explosion Test.....		N/A

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Clause	REQUIREMENT + TEST	RESULT - REMARK	Verdict
8.6	Stability	Handheld device	N/A
8.6.1	Product classification		N/A
	Instructional Safeguard.....:	No service to be conducted by ordinary person	—
8.6.2	Static stability	Handheld	N/A
8.6.2.2	Static stability test		N/A
	Applied Force.....:		—
8.6.2.3	Downward Force Test	Handheld	N/A
8.6.3	Relocation stability test		N/A
	Unit configuration during 10° tilt.....:		—
8.6.4	Glass slide test	No glass	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	Handheld	N/A
8.7.1	Mounting Means (Length of screws (mm) and mounting surface).....:	Two mounting brackets mounted on two vertical mounting rails	P
8.7.2	Direction and applied force.....:		N/A
8.8	Handles strength	No handles used	N/A
8.8.1	Classification		N/A
8.8.2	Applied Force.....:		N/A
8.9	Wheels or casters attachment requirements	No wheels or casters	N/A
8.9.1	Classification		N/A
8.9.2	Applied force.....:		—
8.10	Carts, stands and similar carriers	No carts, 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	Not rack mounted	N/A
8.11.1	General		N/A
8.11.2	Product Classification		N/A
8.11.3	Mechanical strength test, variable <i>N</i>:		N/A

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Clause	REQUIREMENT + TEST	RESULT - REMARK	Verdict
8.11.4	Mechanical strength test 250N, including end stops		N/A
8.12	Telescoping or rod antennas.....	Not a telescoping or rod antennas	N/A
	Button/Ball diameter (mm).....:		—

9	THERMAL BURN INJURY		P
9.2	Thermal energy source classifications	TS1 limits not exceeded in normal operating conditions; TS2 limits not exceeded in abnormal or single fault condition	P
9.3	Safeguard against thermal energy sources	Not required, TS1	N/A
9.4	Requirements for safeguards		N/A
9.4.1	Equipment safeguard	No further additional safeguard required	N/A
9.4.2	Instructional safeguard	Not required	N/A

10	RADIATION		N/A
10.2	Radiation energy source classification	RS1, No radiation from laser, visible, infra-red, ultraviolet, x-ray, and acoustic energy. Equipment does not produce or emit radiation.	N/A
10.2.1	General classification		N/A
10.3	Protection against laser radiation	No 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	Equipment does not produce or emit 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		P
10.4.1.h)	Enclosure containment of optical radiation..... :		N/A

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Clause	REQUIREMENT + TEST	RESULT - REMARK	Verdict
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	Equipment does not produce or emit 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		—
	Abnormal and single-fault condition		N/A
	Maximum radiation (pA/kg)..... :		N/A
10.6	Protection against acoustic energy sources	Not a personal music player, no earphone, no headphone or other listening device.	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		P
B.2	Normal Operating Conditions		P

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Clause	REQUIREMENT + TEST	RESULT - REMARK	Verdict
B.2.1	General requirements..... :	Testing was conducted under the most unfavourable normal operating conditions - Device was set up running at maximum load which was running searching mode, which is the maximum load condition.	P
	Audio Amplifiers and equipment with audio amplifiers		N/A
B.2.3	Supply voltage and tolerances	Not mains connected	N/A
B.2.5	Input test..... :	Not mains connected	N/A
B.3	Simulated abnormal operating conditions		N/A
B.3.1	General requirements..... :	No components would likely cause hazardous condition	N/A
B.3.2	Covering of ventilation openings	No vent openings	N/A
B.3.3	D.C. mains polarity test	No D.C. mains connections	N/A
B.3.4	Setting of voltage selector	No voltage selector switch	N/A
B.3.5	Maximum load at output terminals	No output terminals	N/A
B.3.6	Reverse battery polarity	No internal battery	N/A
B.3.7	Abnormal operating conditions as specified in Clause E.2.	No audio amplifiers	N/A
B.3.8	Safeguards functional during and after abnormal operating conditions		N/A
B.4	Simulated single fault conditions		P
B.4.2	Temperature controlling device open or short-circuited	No such temperature control device	N/A
B.4.3	Motor tests	No motor used	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	Testing conducted. See table B.4	P
B.4.4.1	Short circuit of clearances for functional insulation	The PCB board was wrapped with aluminium foil to short components. Powered by internal battery and charged via USB C cable. The sample was unable to be turned on as it was turned into protection mode.	P
B.4.4.2	Short circuit of creepage distances for functional insulation		N/A
B.4.4.3	Short circuit of functional insulation on coated printed boards	No coated printed boards	N/A
B.4.5	Short circuit and interruption of electrodes in tubes and semiconductors	No such electrodes	N/A
B.4.6	Short circuit or disconnect of passive components	No such passive components	N/A

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Clause	REQUIREMENT + TEST	RESULT - REMARK	Verdict
B.4.7	Continuous operation of components	No motors, relay coils or the like components which intended for short-time operation or intermittent operation	N/A
B.4.8	Class 1 and Class 2 energy sources within limits during and after single fault conditions	Class III	N/A
B.4.9	Battery charging under single fault conditions ... :	Battery is to be charged via USB	N/A
C	UV RADIATION		N/A
C.1	Protection of materials in equipment from UV radiation	Does not exposed to UV	N/A
C.1.2	Requirements		N/A
C.1.3	Test method		N/A
C.2	UV light conditioning test		N/A
C.2.1	Test apparatus		N/A
C.2.2	Mounting of test samples		N/A
C.2.3	Carbon-arc light-exposure apparatus		N/A
C.2.4	Xenon-arc light exposure apparatus		N/A
D	TEST GENERATORS		N/A
D.1	Impulse test generators	No impulse test generators	N/A
D.2	Antenna interface test generator		N/A
D.3	Electronic pulse generator		N/A
E	TEST CONDITIONS FOR EQUIPMENT CONTAINING AUDIO AMPLIFIERS		N/A
E.1	Audio amplifier normal operating conditions	Dose not contain an audio amplifier	N/A
	Audio signal voltage (V)		—
	Rated load impedance (Ω)		
E.2	Audio amplifier abnormal operating conditions		N/A
F	EQUIPMENT MARKINGS, INSTRUCTIONS, AND INSTRUCTIONAL SAFEGUARDS		P
F.1	General requirements		P
	Instructions – Language	User instruction in English was provided and reviewed.	—
F.2	Letter symbols and graphical symbols	None used	P
F.2.1	Letter symbols according to IEC60027-1	"I" for On and "0" for Off on Power Button used	P
F.2.2	Graphic symbols IEC, ISO or manufacturer specific	DC symbol on nameplate used per IEC 60417	P
F.3	Equipment markings		P
F.3.1	Equipment marking locations	Located on the back of guitar	P
F.3.2	Equipment identification markings		P
F.3.2.1	Manufacturer identification	Jamstik	—
F.3.2.2	Model identification	JSMG172100	—

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Clause	REQUIREMENT + TEST	RESULT - REMARK	Verdict
F.3.3	Equipment rating markings	No rating required. It is powered by 3.7Vdc battery	N/A
F.3.3.1	Equipment with direct connection to mains	Not mains connected	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	No voltage setting device	N/A
F.3.5	Terminals and operating devices	No such terminals and 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	Class III device	N/A
F.3.6.1	Class I Equipment		N/A
F.3.6.1.1	Protective earthing conductor terminal		N/A
F.3.6.1.2	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	IP X0	—
F.3.8	External power supply output marking	No external power supply	N/A
F.3.9	Durability, legibility and permanence of marking	Testing conducted	P
F.3.10	Test for permanence of markings	Testing conducted	P
F.4	Instructions		P
	a) Equipment for use in locations where children not likely to be present - marking	Children are most likely to be present	N/A
	b) Instructions given for installation or initial use	Handheld music instrument	N/A
	c) Equipment intended to be fastened in place	Handheld music instrument	N/A
	d) Equipment intended for use only in restricted access area	Not for use in restricted access area	N/A

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Clause	REQUIREMENT + TEST	RESULT - REMARK	Verdict
	e) Audio equipment terminals classified as ES3 and other equipment with terminals marked in accordance F.3.6.1	ES1	N/A
	f) Protective earthing employed as safeguard	Battery powered	N/A
	g) Protective earthing conductor current exceeding ES 2 limits	Did not exceed ES2 limit	N/A
	h) Symbols used on equipment	No symbol used on device	N/A
	i) Permanently connected equipment not provided with all-pole mains switch	Not permanently connected	N/A
j)	j) Replaceable components or modules providing safeguard function	No such or modules replacement components	N/A
F.5	Instructional safeguards	No such instructional safeguards required	N/A
	Where "instructional safeguard" is referenced in the test report it specifies the required elements, location of marking and/or instruction		N/A
G	COMPONENTS		P
G.1	Switches		N/A
G.1.1	General requirements	No switch is located in PS3 circuit	N/A
G.1.2	Ratings, endurance, spacing, maximum load		N/A
G.2	Relays		N/A
G.2.1	General requirements	No such relays	N/A
G.2.2	Overload test		N/A
G.2.3	Relay controlling connectors supply power		N/A
G.2.4	Mains relay, modified as stated in G.2		N/A
G.3	Protection Devices		P
G.3.1	Thermal cut-offs	Thermal cut-offs used for battery protection circuit on the board	P
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)		P
G.3.1.2	Thermal cut-off connections maintained and secure	Was part of PCB board	P
G.3.2	Thermal links		N/A
G.3.2.1a)	Thermal links separately tested with IEC 60691	No thermal links used	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	No such devices employed	N/A

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Clause	REQUIREMENT + TEST	RESULT - REMARK	Verdict
G.3.5	Safeguards components not mentioned in G.3.1 to G.3.5		
G.3.5.1	Non-resettable devices suitably rated and marking provided	No such a device used	N/A
G.3.5.2	Single faults conditions.....:		N/A
G.4	Connectors		N/A
G.4.1	Spacings	No live parts	N/A
G.4.2	Mains connector configuration	No such connector	N/A
G.4.3	Plug is shaped that insertion into mains socket-outlets or appliance coupler is unlikely	No such plugs used	N/A
G.5	Wound Components		N/A
G.5.1	Wire insulation in wound components.....	No wound components employed	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).....:	No transformers employed	N/A
	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	No motor used	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)		—

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Clause	REQUIREMENT + TEST	RESULT - REMARK	Verdict
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		P
G.6.1	General		P
G.6.2	Solvent-based enamel wiring insulation		P
G.7	Mains supply cords		N/A
G.7.1	General requirements	Not mains connected	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

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Clause	REQUIREMENT + TEST	RESULT - REMARK	Verdict
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	No varistor used	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.	May be integral to certified components	N/A
G.9.1 b)	Limiters do not have manual operator or reset		N/A
G.9.1 c)	Supply source does not exceed 250 VA		—
G.9.1 d)	IC limiter output current (max. 5A)		—
G.9.1 e)	Manufacturers' defined drift		—
G.9.2	Test Program 1		N/A
G.9.3	Test Program 2		N/A
G.9.4	Test Program 3		N/A
G.10	Resistors		N/A
G.10.1	General requirements	May be integral to certified components	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	May be integral to certified components	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

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Clause	REQUIREMENT + TEST	RESULT - REMARK	Verdict
	Optocouplers comply with IEC 60747-5-5:2007 Spacing or Electric Strength Test (specify option and test results)	May be integral to certified components	N/A
	Type test voltage Vini		—
	Routine test voltage, Vini,b		—
G.13	Printed boards		P
G.13.1	General requirements		P
G.13.2	Uncoated printed boards		P
G.13.3	Coated printed boards	Uncoated printed boards used	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	May be integral to certified components	N/A
	Distance through insulation		N/A
	Number of insulation layers (pcs)	Double sided board	—
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	None used	N/A
G.15	Liquid filled components		N/A
G.15.1	General requirements	No liquid filled components used	N/A
G.15.2	Requirements		N/A
G.15.3	Compliance and test methods		N/A
G.15.3.1	Hydrostatic pressure test		N/A
G.15.3.2	Creep resistance test		N/A
G.15.3.3	Tubing and fittings compatibility test		N/A
G.15.3.4	Vibration test		N/A
G.15.3.5	Thermal cycling test		N/A
G.15.3.6	Force test		N/A
G.15.4	Compliance		N/A
G.16	IC including capacitor discharge function (ICX)		N/A
a)	Humidity treatment in accordance with sc5.4.8 – 120 hours	No such components used	N/A
b)	Impulse test using circuit 2 with Uc = to transient voltage		N/A

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Clause	REQUIREMENT + TEST	RESULT - REMARK	Verdict
C1)	Application of ac voltage at 110% of rated voltage for 2.5 minutes		N/A
C2)	Test voltage		—
D1)	10,000 cycles on and off using capacitor with smallest capacitance resistor with largest resistance specified by manufacturer		N/A
D2)	Capacitance		—
D3)	Resistance		—
H	CRITERIA FOR TELEPHONE RINGING SIGNALS		N/A
H.1	General	No telephone ringing signals	N/A
H.2	Method A		N/A
H.3	Method B		N/A
H.3.1	Ringling 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		N/A
	General requirements	Not used	N/A
K	SAFETY INTERLOCKS		N/A
K.1	General requirements	No safety interlock used	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

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Clause	REQUIREMENT + TEST	RESULT - REMARK	Verdict
K.7.3	Endurance test		N/A
K.7.4	Electric strength test		N/A
L	DISCONNECT DEVICES		N/A
L.1	General requirements	Not mains connected	N/A
L.2	Permanently connected equipment		N/A
L.3	Parts that remain energized		N/A
L.4	Single phase equipment		P
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		P
M.1	General requirements	Internal battery used	P
M.2	Safety of batteries and their cells	Certified battery used	P
M.2.1	Requirements	Battery was certified to IEC 62133	P
M.2.2	Compliance and test method (identify method) .. :	<i>Checked by inspection</i>	P
M.3	Protection circuits	Protection circuits was built to device circuit board	P
M.3.1	Requirements		P
M.3.2	Tests	Part of certification report	P
	- Overcharging of a rechargeable battery		P
	- Unintentional charging of a non-rechargeable battery		P
	- Reverse charging of a rechargeable battery		P
	- Excessive discharging rate for any battery		P
M.3.3	Compliance		P
M.4	Additional safeguards for equipment containing secondary lithium battery		-
M.4.1	General	Equipment designed to be operated while incorporating one portable sealed secondary lithium batteries.	P
M.4.2	Charging safeguards		-
M.4.2.1	Charging operating limits	To be charged via USB C cable.	P
M.4.2.2a)	Charging voltage, current and temperature	4.0V, 2.0A and 22.8 °C at ambient 20.2 °C	—
M.4.2.2 b)	Single faults in charging circuitry	Not operative	—
M.4.3	Fire Enclosure	Wood and V-0 Plastic	P
M.4.4	Endurance of equipment containing a secondary lithium battery	Test for hand-held equipment .	P

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Clause	REQUIREMENT + TEST	RESULT - REMARK	Verdict
M.4.4.2	Preparation	Followed orders as described in the standard	P
M.4.4.3	Drop and charge/discharge function tests	Drop test of Clause T.7 conducted	P
	Drop	Testing conducted, see table T.7	P
	Charge	The charge function did not operate after drop test	N/A
	Discharge	The discharge function did not operate after drop test	N/A
M.4.4.4	Charge-discharge cycle test	<i>The charge/discharge function did not operate after drop test</i>	P
M.4.4.5	Result of charge-discharge cycle test	The device is no longer functioning after drop test	N/A
M.5	Risk of burn due to short circuit during carrying		P
M.5.1	Requirement		-
M.5.2	Compliance and Test Method (Test of P.2.3)	No bare conductive terminals for battery	N/A
M.6	Prevention of short circuits and protection from other effects of electric current	.	P
M.6.1	Short circuits	Testing was to cover the circuit board with aluminium foil. The device became non-operative, no fire, no explosion	P
M.6.1.1	General requirements		P
M.6.1.2	Test method to simulate an internal fault		P
M.6.1.3	Compliance (Specify M.6.1.2 or alternative method)		P
M.6.2	Leakage current (mA)	Not cord connected	N/A
M.7	Risk of explosion from lead acid and NiCd batteries	Not a lead acid or NiCd battery	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	Not a lead acid battery	N/A
M.8.1	General requirements		N/A
M.8.2	Test method		N/A
M.8.2.1	General requirements		N/A
M.8.2.2	Estimation of hypothetical volume 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	Not a lead acid battery	N/A
M.9.1	Protection from electrolyte spillage		N/A

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Clause	REQUIREMENT + TEST	RESULT - REMARK	Verdict
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)	The battery was certified, and went through following testing: continuous charging at constant voltage, external short circuit, free fall, thermal abuse, crush, forced discharge and transport tests per IEC 62133: 2012 (Second Edition)	P
N	ELECTROCHEMICAL POTENTIALS		P
	Metal(s) used	Copper and steel	—
O	MEASUREMENT OF CREEPAGE DISTANCES AND CLEARANCES		P
	Figures O.1 to O.20 of this Annex applied	Considered	—
P	SAFEGUARDS AGAINST ENTRY OF FOREIGN OBJECTS AND SPILLAGE OF INTERNAL LIQUIDS		P
P.1	General requirements	IPX0	P
P.2.2	Safeguards against entry of foreign object	No top or side openings	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	Does not employ internal liquids	N/A
P.3.1	General requirements		N/A
P.3.2	Determination of spillage consequences		N/A
P.3.3	Spillage safeguards		N/A
P.3.4	Safeguards effectiveness		N/A
P.4	Metallized coatings and adhesive securing parts	No metallized coatings and adhesive securing parts used	N/A
P.4.2 a)	Conditioning testing		N/A
	Tc (°C)		—
	Tr (°C)		—
	Ta (°C)		—
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		N/A
Q.1	Limited power sources	Not intended for interconnection with building wiring	N/A

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Clause	REQUIREMENT + TEST	RESULT - REMARK	Verdict
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		N/A
R.1	General requirements	Test of 5.6.6 conducted, Annex R not applied	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		N/A
S.1	Flammability test for fire enclosures and fire barrier materials of equipment where the steady state power does not exceed 4 000 W	Control fire spread method for the electrical control box by using woods and plastic rated V-0 to minimize the propagation of flames. Single fault and abnormal fault testing conducted to verify no fire.	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	V-0	N/A
	Samples, material		—
	Wall thickness (mm)		—
	Conditioning (°C)		—
	Test flame according to IEC 60695-11-5 with conditions as set out		N/A
	Test specimen does not show any additional hole		N/A

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Clause	REQUIREMENT + TEST	RESULT - REMARK	Verdict
S.3	Flammability test for the bottom of a fire enclosure		N/A
	Samples, material		—
	Wall thickness (mm)		—
	Cheesecloth did not ignite		N/A
S.4	Flammability classification of materials		N/A
S.5	Flammability test for fire enclosures and fire barrier materials of equipment where the steady state power does not exceed 4 000 W		N/A
	Samples, material		—
	Wall thickness (mm)		—
	Conditioning (test condition), (°C)		—
	Test flame according to IEC 60695-11-20 with conditions as set out		N/A
	After every test specimen was not consumed completely		N/A
	After fifth flame application, flame extinguished within 1 min		N/A
T	MECHANICAL STRENGTH TESTS		P
T.1	General requirements		P
T.2	Steady force test, 10 N	(See appended table T.2)	P
T.3	Steady force test, 30 N	No such components	N/A
T.4	Steady force test, 100 N	No such components	N/A
T.5	Steady force test, 250 N	(See appended table T5)	P
T.6	Enclosure impact test	(See appended table T6)	P
	Fall test	Fall test used	P
	Swing test	Fall test used	N/A
T.7	Drop test	See table T.7	P
T.8	Stress relief test	Wood enclosure, testing not required	N/A
T.9	Impact Test (glass)	Does not employ 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	Does not employ glass	N/A
T.11	Test for telescoping or rod antennas		N/A
	Torque value (Nm)		—

IEC 62368-1			
Clause	REQUIREMENT + TEST	RESULT - REMARK	Verdict
U	MECHANICAL STRENGTH OF CATHODE RAY TUBES (CRT) AND PROTECTION AGAINST THE EFFECTS OF IMPLOSION		N/A
U.1	General requirements	No Cathode Ray Tubes (CRT) used	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)		P
V.1	Accessible parts of equipment	No openings, no access to conductive parts.	P
V.2	Accessible part criterion		P

IEC 62368-1			
Clause	REQUIREMENT + TEST	RESULT - REMARK	Verdict

4.1.2	TABLE: List of critical components					P
Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity ¹	
Li-ion rechargeable battery	Shenzhen Fest Technology Co., Ltd	IMR 18650	3.7Vdc, 3000mAH, 11.1Wh	IEC/EN 62133: 2017; Additionally evaluated in end product to IEC 62368-1:2014 (Second Edition)	TUV	
Raw material for Battery Compartment Cover	Dsm Engineering Plastics Inc	K225-KS	V-0, overall dimensions: 214mm x 82mm x 2.0mm approx.	UL 94; UL 746; UL 746A; UL 746B; IEC 60695-11-10; IEC 60695-2-12; IEC 60695-2-13; IEC 60695-10-2; Additionally evaluated in end product to IEC 62368-1:2014 (Second Edition)	UL	
I/O cover	Dsm Engineering Plastics Inc	K225-KS	V-0; Overall dimensions: 60mm x 24mm x 1.0mm thick minimum approx.	UL 94; UL 746; UL 746A; UL 746B; IEC 60695-11-10; IEC 60695-2-12; IEC 60695-2-13; IEC 60695-10-2; Additionally evaluated in end product to IEC 62368-1:2014 (Second Edition)	UL	
Raw material for PCBs	Kingboard Laminates Holdings Ltd	KB-6150	Raw material rated V-0, 120°C, 0.10mm minimum, for 5Vdc circuit only.	UL 796; Additionally, evaluated in end product to IEC 62368-1:2014 (Second Edition)	UL	
	Interchangeable	Interchangeable	V-1 minimum, 105 °C minimum			
Marking Label	Brady Worldwide Inc	B-423	B-423 is a UL Recognized Component to UL969 Labeling and Marking Standard when printed with the Brady Series R6000 Halogen Free and Brady Series R4900 ribbons. See UL file MH17154 for specific details. Also it is UL Recognized for Outdoor Use on glass, thermoset polyester plastic and	UL 969; also evaluated in end product to IEC 62368-1:2014 (Second Edition)	UL	

IEC 62368-1			
Clause	REQUIREMENT + TEST	RESULT - REMARK	Verdict

4.1.2	TABLE: List of critical components					P
Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity ¹	
			polyvinyl fluoride plastic surfaces to support solar panel identification applications.			
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						

IEC 62368-1			
Clause	REQUIREMENT + TEST	RESULT - REMARK	Verdict
4.8.4, 4.8.5	TABLE: Lithium coin/button cell batteries mechanical tests		N/A
(The following mechanical tests are conducted in the sequence noted.)			
4.8.4.2	TABLE: Stress Relief test		—
	Part	Material	Oven Temperature (°C)
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.
			1
			2
			3
4.8.4.5	TABLE: Impact		—
	Impacts per surface	Surface tested	Impact energy (Nm)
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						N/A
5.2.2.2 – Steady State Voltage and Current conditions							
No.	Supply Voltage	Location (e.g. circuit designation)	Test conditions	Parameters			ES Class
				U (Vrms or Vpk)	I (Apk or Arms)	Hz	
-	-	-	Normal	--	--	--	-
			Abnormal	--	--	--	
			Single fault – SC/OC	--	--	--	
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 – SC/OC				
5.2.2.4 - Single Pulses							
No.	Supply Voltage	Location (e.g. circuit designation)	Test conditions	Parameters			ES Class
				Duration (ms)	Upk (V)	Ipk (mA)	
			Normal				
			Abnormal				
			Single fault – SC/OC				
5.2.2.5 - Repetitive Pulses							
No.	Supply Voltage	Location (e.g. circuit designation)	Test conditions	Parameters			ES Class
				Off time (ms)	Upk (V)	Ipk (mA)	
			Normal				
			Abnormal				
			Single fault – SC/OC				

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Clause	REQUIREMENT + TEST	RESULT - REMARK	Verdict

Test Conditions:
 Normal –
 Abnormal -
 Supplementary information: SC=Short Circuit, OC=Short Circuit

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

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

5.4.2.2, 5.4.2.4 and 5.4.3	TABLE: Minimum Clearances/Creepage distance						P
Clearance (cl) and creepage distance (cr) at/of/between:	Up (V)	U r.m.s. (V)	Frequency (kHz) ¹	Required cl (mm)	cl (mm) ²	Required ³ cr (mm)	cr (mm)
Line and grounded metal parts in control box	2500	240	50/60	2.0	6.3	2.5	7.3
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: assume IIIB Note 4:Smallest creepage and clearance measurements noted in table above. Primary to secondary spacings integral to certified power supply.							

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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)	5Vdc via USB C (Charging mode)	3.7Vdc Powered by fully charged Battery (Normal operating mode)			—	
	Ambient T _{min} (°C)	20.2	20.4			—	
	Ambient T _{max} (°C)	21.0	20.6			—	
	T _{ma} (°C)					—	
Maximum measured temperature T of part/at:		T (°C)			Allowed T _{max} (°C)		
1. Exterior Surface of Guitar #1	22.2	22.9			60		
2. Exterior Surface of Guitar #2	23.0	22.8			60		
3. Exterior Surface of Guitar #3	22.2	24.6			60		
4. Exterior Surface of Guitar #4	22.2	23			60		
5. Exterior Surface of Guitar #5	22.1	22.8			60		
6. Exterior Surface of Guitar #6	21.7	22.5			60		
7. Exterior Surface of Guitar #7	21.8	23			60		
8. Exterior Surface of battery	22.8	22.9			50		
9. PCB board (Main)	23.5	23.5			105		
10. PCB board (Small)	22.4	23.2			60		
11. Wire connector	23.3	23.3			70		
12. Body of toggle power switch	24.6	23.2			85		
13. Wire (Thin, balck color)	22.2	22.8			60		
14. Interior siface of electrical compartment #1	23.1	23.3			Ref.		
15. Wire (Thick, balck color)	23.2	23.2			70		
16. Body of volume control	23.7	24.7			85		
17. Interior siface of electrical compartment #2	22.8	22.5			Ref.		
18. Ambient	21.0	20.6			--		
Supplementary information: Device was running searching mode with GPS indicator in blue color, which is the maxiumu load condition.							
Temperature T of winding:	t ₁ (°C)	R ₁ (Ω)	t ₂ (°C)	R ₂ (Ω)	T (°C)	Allowed T _{max} (°C)	Insulation class

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)	5Vdc via USB C (Charging mode)	3.7Vdc Powered by fully charged Battery (Normal operating mode)				—
	Ambient T _{min} (°C)	20.2	20.4				—
	Ambient T _{max} (°C)	21.0	20.6				—
	T _{ma} (°C)						—
Maximum measured temperature T of part/at:		T (°C)				Allowed T _{max} (°C)	
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)							

5.4.2.3	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

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Clause	REQUIREMENT + TEST	RESULT - REMARK	Verdict

Supplementary information:			
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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:						

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Clause	REQUIREMENT + TEST	RESULT - REMARK	Verdict

5.4.9	TABLE: Electric strength tests			N/A
Test voltage applied between:	Voltage shape (AC, DC)	Test voltage (V)	Breakdown Yes / No	
Functional:				
DC output of power supply and Ground*	DC	500		
Basic/supplementary:				
Line and ground of control box	AC			
Reinforced:				
Power supply input and output	AC			
Routine Tests:				
Line and ground of control box	AC			
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	
	Line to Neutral (910nF)					
	Line to Ground					
	Neutral to Ground					
	Line to Neutral					
	Line to Ground					
	Neutral to Ground					
Supplementary information: Test conducted at 264 Vac, 60Hz. 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 (mΩ)	
Metal enclosure of control box					
Supplementary information: Not mains connected					

5.7.2.2, 5.7.4	TABLE: Earthed accessible conductive part		N/A
Supply voltage	See table 5.7.4 below		—
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)
See table 5.7.4 for touch current measurements	1		N/A
	2*		N/A
	3		N/A
	4		See table 5.7.4 below
	5		N/A
	6		N/A
	8		N/A
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.			

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Clause	REQUIREMENT + TEST	RESULT - REMARK	Verdict

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	
A	Battery – EFEST IMR 18650	Power (W) :	129.5	129.5	PS3	
		V _A (V) :	3.7	3.7		
		I _A (A) :	35	35		
B	Battery charging circuit*	Power (W) :	8	8	PS2**	
		V _A (V) :	4	4		
		I _A (A) :	2	2		
C	USB C**	Power (W) :	10	10	PS2**	
		V _A (V) :	5	5		
		I _A (A) :	2	2		
Supplementary Information:						
(*) Measurement taken only when limits at 3 seconds exceed PS1 limits						
(**) In place of PS1, PS2 was defined due to unknown source the device potentially could be connected to.						

6.2.3.1	Table: Determination of Potential Ignition Sources (Arcing PIS)				N/A
Location	Open circuit voltage After 3 s (V _p)	Measured r.m.s current (I _{rms})	Calculated value (V _p x I _{rms})	Arcing PIS? Yes / No	
Supplementary information:					
An Arcing PIS requires a minimum of 50 V (peak) a.c. or d.c. An Arcing PIS is established when the product of the open circuit voltage (V _p) and normal operating condition rms current (I _{rms}) is greater than 15.					

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Clause	REQUIREMENT + TEST	RESULT - REMARK	Verdict

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 x IA) is used to determine Resistive PIS classification.

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

8.7	TABLE: Equipment mounted to wall test				N/A
Location	Shelf weight, N	Max load (books), N	Test load, N	Comments	

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Clause	REQUIREMENT + TEST	RESULT - REMARK	Verdict	
Supplementary information: Test duration: 1 minute The additional force applied to large book shelf shall be: – three times the weight of the equipment; or – the weight of the equipment plus 880 N, whichever is less. 1 kg (2.20 lb) = 9.807 N				

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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
							Maximum working load - Device was set up running at maximum load which was running searching mode.
Supplementary information: Battery powered							

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.								

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Clause	REQUIREMENT + TEST	RESULT - REMARK	Verdict

Annex M	TABLE: Batteries								N/A
The tests of Annex M are applicable only when appropriate battery data is not available									
Is it possible to install the battery in a reverse polarity position?..... :									
	Non-rechargeable batteries			Rechargeable batteries					
	Discharging		Un-intentional charging	Charging		Discharging		Reversed charging	
	Meas. current	Manuf. Specs.		Meas. current	Manuf. Specs.	Meas. current	Manuf. Specs.	Meas. current	Manuf. Specs.
Max. current during normal condition									
Max. current during fault condition									
Test results:									
- Chemical leaks									Verdict
- Explosion of the battery									
- Emission of flame or expulsion of molten metal									
- Electric strength tests of equipment after completion of tests									
Supplementary information: battery data is available for evaluation.									

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Clause	REQUIREMENT + TEST	RESULT - REMARK	Verdict

Annex M.4		Table: Additional safeguards for equipment containing secondary lithium batteries				P
Battery/Cell No.	Test conditions	Measurements			Observation	
		U	I (A)	Temp (C)		
1	Normal	4.0	2.0	22.8	-	
1	Abnormal	-	-	-	Not operative	
1	Single fault –SC/OC	-	-	-	Not operative	
	Normal					
	Abnormal					
	Single fault – SC/OC					
Supplementary Information:						
Battery identification	Charging at T _{lowest} (°C)	Observation	Charging at T _{highest} (°C)	Observation		
Supplementary Information:						

Annex Q.1		TABLE: Circuits intended for interconnection with building wiring (LPS)				N/A
Note: Measured UOC (V) with all load circuits disconnected:						
Output Circuit	Components	U _{oc} (V)	I _{sc} (A)		S (VA)	
			Meas.	Limit	Meas.	Limit
Supplementary Information: SC=Short circuit, OC=Open circuit						

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Clause	REQUIREMENT + TEST	RESULT - REMARK	Verdict

T.2, T.5	TABLE: Steady force test					P
Part/Location	Material	Thickness (mm)	Force (N)	Test Duration (sec)	Observation	
Components inside electric compartment	Metal	--	10	5s	There was no access to internal wiring, unearthed conductive parts. No damage to protective earthing terminal or conductors. No reduction of spacings.	
Front panel of Guitar	Wood	TBD	250	5s	There was no access to internal wiring, unearthed conductive parts. No damage to protective earthing terminal or conductors. No reduction of spacings.	
Battery Compartment Cover	Thermoplastic: Dsm Engineering Plastics Inc model K225-KS	2.1	250	5s	There was no access to internal wiring, unearthed conductive parts. No damage to protective earthing terminal or conductors. No reduction of spacings.	
Supplementary information: 250N test done on top, front, back, left side and right side.						

T.6	TABLE: Impact test				P
Part/Location	Material	Thickness (mm)	Vertical Distance (mm)	Observation	
Front panel of Guitar	Wood	TBD	1300	There was no access to internal wiring, unearthed conductive parts, moving parts.	
Battery Compartment Cover	Thermoplastic: Dsm Engineering Plastics Inc model K225-KS	2.1		The enclosure did not show cracks which could cause a hazard.	
Supplementary information:					

T.7	TABLE: Drop tests				P
Part/Location	Material	Thickness (mm)	Drop Height (mm)	Observation	
Front panel of Guitar	Wood	-	1000	Enclosure cracked	
Rear panel of Guitar	Wood	-	1000	Enclosure cracked	
Side panel of Guitar	Wood	-	1000	Enclosure cracked	
Battery Compartment Cover	Thermoplastic: Dsm Engineering Plastics Inc model K225-KS	2.1	1000	No damage to the cover	

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Clause	REQUIREMENT + TEST	RESULT - REMARK	Verdict
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Supplementary information:

After the drop test, the sample was unable to turn on, and was unable to be charged. No overheating or fire hazard.

The sample does not have live parts, as it was operated by its internal battery rated 3.7Vdc.

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Clause	REQUIREMENT + TEST	RESULT - REMARK	Verdict

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

Supplementary information: Wood enclosure and no live parts inside, no stress relief test request.

F.3.10	TABLE: Test for the permanence of markings					P
Marking method (see NOTE)				Agent		
1) Adhesive label				A Water		
2) Ink printed				B a reagent grade hexane with a minimum of 85 % n-hexane		
3) Laser marked				C (specify agent)		
4) Filmcoated (plastic foil control panel)				D (specify agent)		
5) Imprinted on plastic (moulded in)				E (specify agent)		
NOTE – Where applicable include print method, label material, ink or paint type, fixing method, adhesive and surface to which marking is fixed.						
Marking location			Marking method (see above)			
Identification (Nameplate with S/N)			1) Adhesive label			
Brand name (Jamstik)			3) Laser marked			
Method	Test agent	Remains legible	Label loose	Curled edges	Comments	
		Verdict	Verdict	Verdict		
1	A	Yes	No	No	Pass	
1	B	Yes	No	No	Pass	
3	A	Yes	No	No	Pass	
3	B	Yes	No	No	Pass	

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Clause	REQUIREMENT + TEST	RESULT - REMARK	Verdict

ATTACHMENT TO TEST REPORT IEC 62368-1 EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES (Audio/video, information and communication technology equipment Part 1: Safety requirements)			
Differences according to: EN 62368-1:2014			
Attachment Form No: EU_GD_IEC62368_1B			
Attachment Originator: Intertek Semko AB			
Master Attachment: Date (2015-08)			
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	CENELEC COMMON MODIFICATIONS (EN)		-
1	NOTE Z1		-
4.Z1	Protective devices included as integral parts of the equipment or as parts of the building installation:	Battery powered	N/A
	a) Included as parts of the equipment		N/a
	b) For components in series with the mains; by devices in the building installation		N/A
	c) For pluggable type B or permanently connected; by devices in the building installation		N/A
5.4.2.3.2.4	Interconnection with external circuit	Not used	N/A
10.2.1	Additional requirements in 10.5.1	No x-radiation	N/A
10.5.1	RS1 compliance measurement conditions		N/A
10.6.2.1	EN 71-1:2011, 4.20 and methods and distances	Guitar	P
10.Z1	Non-ionizing radiation from radio frequencies in the range 0 to 300 GHz		N/A
G.7.1	NOTE Z1	Not mains connected	N/A

ZB	ANNEX ZB, SPECIAL NATIONAL CONDITIONS (EN)		-
4.1.15	Denmark, Finland, Norway and Sweden: Class I pluggable equipment type A marking	Not mains connected	N/A
4.7.3	United Kingdom: Torque test socket-outlet BS 1363, and the plug part BS 1363.	Not mains connected	N/A
5.2.2.2	Denmark: Warning for high touch current	Battery powered	N/A
5.4.11.1 and Annex G	Finland and Sweden: Separation of the telecommunication network from earth	Not being connected to external circuits	N/A
5.5.2.1	Norway: Capacitors rated for the applicable line-to-line voltage (230 V).		

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Clause	REQUIREMENT + TEST	RESULT - REMARK	Verdict
5.5.6	Finland, Norway and Sweden: Resistors used as basic safeguard or bridging basic insulation comply with G.10.1 and G.10.2.	No resistors used as basic safeguard or bridging basic insulation	N/A
5.6.1	Denmark: Protection for pluggable equipment type A; integral part of the equipment	Battery powered	N/A
5.6.4.2.1	Ireland and United Kingdom: The protective current rating is taken to be 13 A	Battery powered	N/A
5.6.5.1	Ireland and United Kingdom: Conductor sizes of flexible cords to be accepted by terminals for equipment rated 10 A to 13 A	Battery powered	N/A
5.7.5	Denmark: The installation instruction affixed to the equipment if high protective conductor current	Battery powered	N/A
5.7.6.1	Norway and Sweden: Television distribution system isolation text in user manual	Not a television distribution system	N/A
5.7.6.2	Denmark: Warning for high touch current	Battery powered	N/A
B.3.1 and B.4	Ireland and United Kingdom: Tests conducted using an external miniature circuit breaker or protective devices included as an integral part of the direct plug-in equipment	Not a direct plug-in equipment	N/A
G.4.2	Denmark: Appliances rated ≤ 13 A provided with a plug according to DS 60884-2-D1:2011.	Battery powered	N/A
	Class I equipment provided with socket-outlets provided with a plug in accordance with standard sheet DK 2-1a or DK 2-5a.		N/A
	If a single-phase equipment having rated >13 A or poly-phase equipment provided with a supply cord with a plug, plug in accordance with the standard sheets DK 6-1a in DS 60884-2-D1 or EN 60309-2.		N/A
	Mains socket outlets intended for providing power to Class II apparatus rated 2,5 A in accordance with DS 60884-2-D1:2011 standard sheet DKA 1-4a.		N/A
	Other current rating socket outlets in compliance with Standard Sheet DKA 1-3a or DKA 1-1c.		N/A
	Mains socket-outlets with earth 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		N/A
G.4.2	United Kingdom: The plug part of direct plug-in equipment assessed to BS 1363	Battery powered	N/A
G.7.1	United Kingdom: Equipment fitted with a 'standard plug' in accordance with the Plugs and Sockets etc (Safety) Regulations 1994, Statutory Instrument 1994 No. 1768	Battery powered	N/A

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Clause	REQUIREMENT + TEST	RESULT - REMARK	Verdict
G.7.1	Ireland: Apparatus provided with a plug in accordance with Statutory Instrument 525: 1997, "13 A Plugs and Conversion Adapters for Domestic Use	Battery powered	N/A
G.7.2	Ireland and United Kingdom: A power supply cord for equipment which is rated over 10 A and up to and including 13 A.	Battery powered	N/A

ZC	ANNEX ZC, NATIONAL DEVIATIONS (EN)		N/A
10.5.2	Germany: Cathode ray tube intended for the display of visual images, authorization or application of type approval and marking.	No cathode ray tube used	N/A
F.1	Italy: The power consumption in Watts (W) indicated on TV receiver and in instruction for use	Not a TV	N/A
	TV receivers provided with an instruction for use, schematic diagrams and adjustments procedure in Italian language.		N/A
	Marking for controls and terminals in Italian language.		N/A
	Conformity declaration according to the above requirements in the instruction manual		N/A
	First importers of TV receivers manufactured outside EEC previous conformity certification to the Italian Post Ministry and Certification number on the backcover.		N/A

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	CSA/UL 62368-1:2014
Attachment Form No.	US&CA_ND_IEC623681B
Attachment Originator	UL(US)
Master Attachment	Date 2015-06
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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.	Not a power distribution equipment	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.	No external interconnecting flexible cord used	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.	Button cell batteries are not used	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	Battery powered	N/A
5.7.7	Equipment intended to receive telecommunication ringing signals complies with a special touch current measurement tests.	Equipment does not intend to receive telecommunication ringing signals	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.	No PS3 wiring outside a fire enclosure	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.	No output terminals provided for supply of other equipment	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.	Not permanently connected	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.	Battery powered	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.	No telephone ringing signals	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.	A battery pack was used, but not for stationary applicaiton	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.	Not such an equipment	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.		P
Annex DVA (6.3)	The maximum quantity of flammable liquid stored in equipment complies with NFPA 30.	No flammable liquid used	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.	Not for ITE room applications	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).	No laser	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).	Does not produce ionizing radiation	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."	Battery powered	N/A
Annex DVA (F.3.3.5)	Equipment identified for ITE (computer) room installation is marked with the rated current	Not for ITE (computer) room installation	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	Battery powered	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.	No supply outlets and receptacles used	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).	No isolated ground (earthing) receptacles used	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.	No such fuses are used	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.	No power distribution transformers used	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).	No motor used	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.	Not for ITE room applications	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.	No such wiring terminals are used	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.	Not a such equipment	N/A
Annex DVC (1)	Additional requirements apply for equipment intended for mounting under kitchen cabinets.	Not 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.	Components with appropriate rating used	P
Annex DVH	Equipment for permanent connection to the mains supply is subjected to additional requirements.	Not permanently connected	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.	Not permanently connected	N/A
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.	Not permanently connected	N/A

Clause	Requirement + Test	Result - Remark	Verdict
Annex DVH (DVH.3.2)	Wire binding screws are not permitted to attach conductors larger than 10 AWG (5.3 mm ²).	Not permanently connected	N/A
Annex DVH (DVH.4)	Permanently connected equipment is required to have a suitable wiring compartment and wire bending space.	Not permanently connected	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.	Not connected to a centralized d.c. power system,	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.	Not connection to telecommunication network	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.	Not connection to telecommunication network	N/A

IEC 62368_1B ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
ATTACHMENT TO TEST REPORT			
IEC 62368-1 (AUSTRALIA / NEW ZEALAND) NATIONAL DIFFERENCES (Audio/video, information and communication technology equipment)			
Differences according to : AS/NZS 62368.1:2018			
Attachment Form No. : AU_NZ_ND_IEC62368_1B			
Attachment Originator..... : JAS-ANZ			
Master Attachment..... : 2018-02			
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	National Differences		-
Appendix ZZ	Variations to IEC 62368-1:2014 (ED. 2.0) for Australia and New Zealand		P
ZZ1 Scope	This Appendix lists the normative variations to IEC 62368-1:2014 (ED. 2.0)		P
ZZ2 Variations	The following modifications are required for Australian/New Zealand conditions:		P
2	<p>Add the following to the list of normative references:</p> <p>The following normative documents are referenced in Appendix ZZ:</p> <ul style="list-style-type: none"> -AS/NZS 3112, <i>Approval and test specification—Plugs and socket-outlets</i> -AS/NZS 3123, <i>Approval and test specification—Plugs, socket-outlets and couplers for general industrial application</i> -AS/NZS 3191, <i>Electric flexible cords</i> -AS/NZS 60065, <i>Audio, video and similar electronic apparatus—Safety requirements (IEC 60065:2015 (ED.8.0) MOD)</i> -AS/NZS 60320.1, <i>Appliance couplers for household and similar general purposes, Part 1: General requirements (IEC 60320-1, Ed.2.1 (2007) MOD)</i> -AS/NZS 60320.2.2, <i>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)</i> -AS/NZS 60695.2.11, <i>Fire hazard testing, Part 2.11: Glowing/hot wire based test methods—Glow-wire flammability test method for end-products</i> -AS/NZS 60695.11.5, <i>Fire hazard testing, Part 11.5: Test flames—Needle-flame test method—Apparatus, confirmatory test arrangement and guidance</i> -AS/NZS 60695.11.10, <i>Fire hazard testing, Part 11.10: Test flames—50 W horizontal and vertical flame test methods</i> -AS/NZS 60884.1, <i>Plugs and socket-outlets for household and similar purposes,</i> 		P

IEC 62368_1B ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	<p><i>Part 1: General requirements</i></p> <p>-AS/NZS 60950.1:2015, <i>Information technology equipment—Safety, Part 1: General requirements (IEC 60950-1, Ed.2.2 (2013), MOD)</i></p> <p>IEC 61032:1997, <i>Protection of persons and equipment by enclosures—Probes for verification</i></p> <p>-AS/NZS 61558.1:2008 (including Amendment 2:2015), <i>Safety of Power Transformers, Power Supplies, Reactors and Similar Products, Part 1: General requirements and tests (IEC 61558-1 Ed 2.1, MOD)</i></p> <p>-AS/NZS 61558.2.16, <i>Safety of transformers, reactors, power supply units and similar products for voltages up to 1 100 V, Part 2.16: Particular requirements and tests for switch mode power supply units and transformers for switch mode power supply units.</i></p>		
4.1.1	<p>Application of requirements and acceptance of materials, components and subassemblies</p> <p>1 <i>Replace</i> the text 'IEC 60950-1' with 'AS/NZS 60950.1:2015'.</p> <p>2 <i>Replace</i> the text 'IEC 60065' with 'AS/NZS 60065'.</p>		P
4.7	Equipment for direct insertion into mains socket-outlets		N/A
4.7.2	<p>Requirements</p> <p><i>Delete</i> the text of the second paragraph and <i>replace</i> 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.</p>	Not an equipment for direct insertion into mains socket-outlets	N/A
4.7.3	<p>Compliance Criteria</p> <p><i>Delete</i> the first paragraph and Note 1 and Note 2 and <i>replace</i> with the following: <i>Compliance is checked by inspection and, if necessary, by the tests in AS/NZS 3112.</i></p>		N/A
4.8	<p><i>Delete</i> existing clause title and <i>replace</i> with the following: 4.8 Products containing coin/button cell batteries</p>		N/A
4.8.1	<p>General</p> <p>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.</p> <p>2 After the second dashed point, <i>insert</i> the following Note: NOTE 1: Batteries are specified in IEC 60086-2.</p> <p>3 After the third dashed point, <i>renumber</i> the existing Note as 'NOTE 2'.</p> <p>4 Fifth dashed point, <i>delete</i> the word 'lithium'.</p>	No coin/button cell batteries used	N/A
4.8.2	<p>Instructional Safeguard</p> <p>First line, <i>delete</i> the word 'lithium'.</p>		

IEC 62368_1B ATTACHMENT					
Clause	Requirement + Test		Result - Remark		Verdict
4.8.3	Construction First line, after the word 'Equipment' <i>insert</i> the words 'containing one or more coin/button batteries and'				N/A
4.8.5	Compliance criteria <i>Delete</i> the first paragraph and <i>replace</i> with the following: <i>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.</i>				N/A
5.4.10.2	Test methods			N/A	
5.4.10.2.1	General <i>Delete</i> the first paragraph and <i>replace</i> 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.		No TNV circuits		N/A
Table 29	<i>Replace</i> the table with the following:			N/A	
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.					
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. 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.		No TNV circuits		N/A

IEC 62368_1B ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
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. 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.	No TNV circuits	N/A
6	Electrically-caused fire		P
6.1	General 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		P
6.6	After Clause 6.6, <i>add</i> the new Clauses 6.201 and 6.202 as follows: 6.201 External power supplies, docking stations and other similar devices and 6.202 Resistance to fire—Alternative tests (see special national conditions)		N/A
8.5.4	Special categories of equipment comprising moving parts		N/A
8.5.4.1	Large data storage equipment In the first dashed row and the second dashed rows <i>replace</i> 'IEC 60950-1:2005' with 'AS/NZS 60950.1:2015'.	Not a large data storage equipment	N/A
8.6	Stability of equipment		N/A
8.6.1 and Table 36	Requirements 1. Table 36, <i>insert</i> Footnote c at the end of the 'Glass slide' heading, and <i>add</i> a new Footnote c after the text of Footnote b in the last row of Table 36 as follows: c The glass slide test is not applicable to floor standing equipment, even though the equipment may have controls or a display. 2. Table 36, fifth row, <i>insert</i> ²⁰¹ at the end of 'No stability requirements' 3. Table 36, ninth row, <i>insert</i> ²⁰¹ at the end of 'No stability requirements' 4. 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. 5. Second paragraph beneath Table 36, <i>delete</i> the words 'MS2 and MS3 television sets' and <i>replace</i> with 'MS2 and MS3 television sets and display devices'	Handheld equipment	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 (see special national conditions)	Not a fixed-mount television sets	N/A

IEC 62368_1B ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
Annex F Paragraph F.3.5.1	Mains appliance outlet and socket-outlet markings <i>Replace 'IEC 60320-2-2' with 'AS/NZS 60320.2.2'.</i>	Not mains connected	N/A
Annex G Paragraph G.4.2	Mains connectors 1 In the second line <i>insert 'or AS/NZS 3123' after 'IEC 60906-1'.</i> 2 In the second line <i>insert 'or AS/NZS 60320 series' after 'IEC 60320 series'</i> 3 <i>Add the following new paragraph:</i> 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.	Not mains connected	N/A
Paragraph G.5.3.1	Transformers, General 1 In the third dashed point <i>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'</i> 2 In the fourth dashed point <i>replace 'IEC 61558-2-16' with 'AS/NZS 61558.2.16'.</i>	No such mains transformers used except in certified power supply	N/A
Paragraph G.7.1	Mains supply cords, General In the fourth dashed paragraph, <i>replace 'IEC 60320-1' with 'AS/NZS 60320.1'</i>	Not mains connected	N/A
Table G.5	Sizes of conductors 1 In the second row, first column, <i>delete '6' and replace with '7.5'</i> 2 In the second row, second column, <i>delete '0,75' and replace with '0.75^b'</i> 3 <i>Delete Note 1.</i> 4 <i>Replace 'NOTE 2' with 'NOTE:'.</i> 5 <i>Delete the text of 'Footnote b' and replace with the following:</i> ^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 'IEC 60320-1' with 'AS/NZS 60320.1'</i> 7 In Footnote d <i>replace 'IEC 60320-1' with 'AS/NZS 60320.1'</i>	Noted	P
Annex M Paragraph M.3.2	Protection circuits for batteries provided within the equipment, Test method After the first dashed point <i>add the following Note:</i> 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.	Charging voltage was limited to 5Vdc vid USB C	P

IEC 62368_1B ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Special national conditions (if any)		
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><i>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</i></p>	No external power supplies, docking stations and other similar devices used	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 spread of fire. This requirement does not apply to decorative trims, knobs and other parts unlikely to be ignited or to propagate flames from inside the equipment, 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 1 750 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. <p>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 the fire from one part to</p>	Wood enclosure with V-0 rated plastic cover	N/A

IEC 62368_1B ATTACHMENT									
Clause	Requirement + Test	Result - Remark	Verdict						
	another.								
	<p><i>Compliance shall be checked by the tests of Clauses 6.202.2, 6.202.3 and 6.202.4.</i></p> <p>For the base material of printed boards, compliance shall be checked by the test of Clause 6.202.5.</p> <p>The tests shall be carried out on parts of non-metallic material which have been removed from the equipment. When the glow-wire test is carried out, the parts shall be placed in the same orientation as they would be in normal use.</p> <p>These tests are not carried out on internal wiring.</p>								
6.202.2	<p>Testing of non-metallic materials</p> <p>Parts 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.</p> <p>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 be not carried out on parts of material classified at least FH-3 according to ISO 9772 provided that the relevant part is not thinner than the sample tested.</p>	Glow-Wire Ignition (GWIT) was tested at 960 deg C with 0.38mm per IEC 60695-2-13.	P						
6.202.3	<p>Testing of insulating materials</p> <p>Parts 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.</p> <p>The test shall be also carried out on other parts of insulating material which are within a distance of 3 mm of the connection.</p> <p>NOTE: Contacts in components such as switch contacts are considered to be connections</p>	Glow-Wire Ignition (GWIT) was tested at 960 deg C with 0.38mm per IEC 60695-2-13.	P						
	<p>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.</p> <p>However, parts shielded by a barrier which meets the needle-flame test need not be tested</p>		N/A						
	<p>The needle-flame test shall be made in accordance with AS/NZS 60695.11.5 with the following modifications:</p> <table border="1" data-bbox="391 1545 954 1936"> <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>Delete</i> the first and second paragraphs and <i>replace</i> with the following: The specimen shall be arranged so that the flame can be</td> </tr> </table>	Clause of AS/NZS 60695.11.5	Change	9 Test procedure		9.2 Application of needle-flame	<i>Delete</i> the first and second paragraphs and <i>replace</i> with the following: The specimen shall be arranged so that the flame can be		N/A
Clause of AS/NZS 60695.11.5	Change								
9 Test procedure									
9.2 Application of needle-flame	<i>Delete</i> the first and second paragraphs and <i>replace</i> with the following: The specimen shall be arranged so that the flame can be								

IEC 62368_1B ATTACHMENT				
Clause	Requirement + Test		Result - Remark	Verdict
		<p>applied to a vertical or horizontal edge as shown in the examples of Figure 1. If possible the flame shall be applied at least 10 mm from a corner.</p> <p>The duration of application of the test flame shall be 30 s <input type="checkbox"/> 1 s.</p>		
	9.3 Number of test specimens	<p><i>Replace with the following:</i> 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 withstand the test.</p>		
	11 Evaluation of test results	<p><i>Replace with the following:</i> The duration of burning (tb) shall not exceed 30 s. However, for printed circuit boards, it shall not exceed 15 s.</p>		
	<p>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 relevant part is not thinner than the sample tested.</p>			
6.202.4	<p>Testing in the event of non-extinguishing material</p> <p>If parts, other than enclosures, do not withstand the glow wire tests of Clause 6.202.3, by failure to extinguish within 30 s after the removal of the glowwire tip, the needle-flame test detailed in Clause 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 Clause 6.202.3. Parts shielded by a separate barrier which meets the needle-flame test need not be tested.</p> <p>NOTE 1: If the enclosure does not withstand the glow-wire test the equipment is considered to have failed to meet the requirements of Clause 6.202 without the need for consequential testing.</p> <p>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 equipment, the equipment is considered to</p>			N/A

IEC 62368_1B ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>have failed to meet the requirements of Clause 6.202 without the need for consequential testing.</p> <p>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.</p>		
6.202.5	<p>Testing of printed boards</p> <p>The base material of printed boards shall be subjected to the needle-flame test of Clause 6.202.3. The flame shall be applied to the edge of the board where the heat sink 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.</p> <p>The test is not carried out if—</p> <ul style="list-style-type: none"> – the printed board does not carry any potential ignition source; – the base material of printed boards, on which the available apparent 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 to AS/NZS 60695.11.10, or the printed boards are protected by an 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 – the base material of printed boards, on which the available equipment 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>Conformance shall be determined using the smallest thickness of the material.</i></p> <p>NOTE: Available apparent power is the maximum apparent power which can be drawn from the supplying circuit through a resistive load whose value is chosen to maximize the apparent power for more than 2 min when the circuit supplied is disconnected.</p>	<p>Certified raw material used, per UL 796, rated V-0.</p>	P
6.202.6	<p>For open circuit voltages greater than 4 kV</p> <p>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.</p>	<p>Not more than 4 kV</p>	N/A

IEC 62368_1B ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
8.6.1.201	<p>8.6.1.201 Instructional safeguard for fixed-mount television sets</p> <p>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.</p> <p>The elements of the instructional safeguard shall be as follows:</p> <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 	Not a fixed-mount television sets	N/A
8.6.1.202	<p>Restraining device</p> <p>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.</p> <p>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.</p>	Not a television sets and display devices	N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
ATTACHMENT TO TEST REPORT IEC 62368-1 (JAPAN) NATIONAL DIFFERENCES (Audio/video, information and communication technology equipment – Part 1: Safety requirements)			
Differences according to : J62368-1 (H30)			
Attachment Form No. : JP_ND_IEC62368_1B			
Attachment Originator : UL (JP)			
Master Attachment : Date 2018-11-22			
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	National Differences		—
4.1.2	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.		P
5.6.1	Mains socket-outlet and appliance outlet shall comply with Clause G.4.2A if they are incorporated as part of the equipment.	Not cord connected	N/A
5.6.2.1	Mains connection of class 0I equipment: Instructional safeguard in accordance with Clause F.3.6.1A; Mains plug having a lead wire for protective earthing connection of class 0I equipment; Independent main protective earthing terminal installed by ordinary person.	Not a mains connection of class 0I equipment	N/A
5.6.2.2	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.		N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
5.6.3	<p>In case of class 0I equipment using power supply cord having two conductors (no earthing conductor), the conductor of protective earthing lead wire shall 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 	Not a class 0I equipment	N/A
5.7.3	<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>	Not a class 0I equipment	N/A
5.7.4	<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>	Not a class 0I equipment	N/A
6.4.3.3	<p>A fuse complying with JIS C 6575 series or a fuse having equivalent characteristics shall open within 1 s.</p> <p>For 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”. A fuse not complying with JIS C 6575 series shall be tested with the breaking capacity taken into account.</p>	No such a fuse used	N/A
8.5.4.2.1	<p>Only three-phase stationary equipment rated more than 200 V ac can be considered as being for use in locations where children are not likely to be present, when complying with Clause F.4.</p>	Battery powered	N/A
8.5.4.2.2	<p>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

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Clause	Requirement + Test	Result - Remark	Verdict
8.5.4.2.4	The media destruction device is tested according to Clause V.1.2 with applicable jointed test probes to the opening. And then the wedge probe per Figure V.4 shall not contact any moving part.	Not a media destruction device	N/A
8.5.4.2.5	The wedge probe of Figure V.4 and applicable jointed test probes specified in Clause V.1.2 shall not contact any moving part. Instructional safeguard shall not be used instead of equipment safeguard for preventing access to hazardous moving parts.	No moving parts	N/A
9.2.6, Table 38	Handles, Knobs, grips, etc. and external surfaces either held, touched or worn against the body in normal use (> 1 min) ^{b,c}		P
F.3.5.1	Instructional safeguard of class 0I equipment 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.	Not a class 0I equipment	N/A
F.3.5.3	If the fuse is necessary for the safeguard function, the symbols indicating pre-arcing time-current characteristic.	No fuse used	N/A
F.3.6.1A	Marking for class 0I equipment The requirements of Clauses F.3.6.1.1 and F.3.6.1.3 shall be applied to class 0I equipment. For class 0I equipment, a marking of instructions and instructional safeguard shall be provided regarding the earthing connection.	Not a class 0I equipment	N/A
F.3.6.2.1	Symbols, IEC 60417-5172 (2003-02) or IEC 60417-6092 (2011-10), shall not be used for class I equipment or class 0I equipment.	Symbols, IEC 60417-5172 (2003-02) or IEC 60417-6092 (2011-10) is not used	P

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Clause	Requirement + Test	Result - Remark	Verdict
F.4	<p>Instruction 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.</p> <p>Installation instruction for the protective earthing connection 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.</p>	Not classified as ES3	N/A
G.3.2.1	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.	A thermal link is not used	N/A
G.3.4	<p>Except for devices covered by Clause G.3.5, overcurrent protective devices used as a safeguard shall comply with the relevant part of JIS C 6575 (corresponding to IEC60127) or shall have equivalent characteristics.</p> <p>If there are no applicable IEC standards, overcurrent protective devices used as a safeguard shall comply with their applicable IEC standards.</p>	Not such a device	N/A
G.4.1	This requirement is not applicable to Clauses G.4.2 and G.4.2A.		N/A
G.4.2	<p>Mains connector shall comply with JIS C 8282 series, JIS C 8283 series, JIS C 8285, JIS C 8303 or IEC 60309 series.</p> <p>Mains plugs and socket-outlets shall comply with JIS C 8282 series, JIS C 8303, IEC 60309 series, or have equivalent or better performance.</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.</p> <p>Construction preventing mechanical stress not to transmit to the soldering part of inlet terminal. Consideration for an equipment rated not more than 125 V provided with Type C14 and C18 appliance coupler complying with JIS C 8283 series.</p>	Not cord connected	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
G.4.2A	Mains socket-outlet and interconnection coupler provided with the class II, class I and class 0I equipment respectively.	Not mains connected	N/A
G.7.1	A mains supply cord need not include the protective earthing conductor for class 0I equipment provided with independent protective earthing conductor.	Not a class 0I equipment	N/A
G.8.3.3	Withstand $1,71 \times 1.1 \times U_0$ for 5 s.		P

Device Photos

Photo 1 – Exterior view



Photo 2 - Exterior view



Photo 3 – Internal view



Photo 4 – Internal view




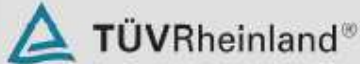

Photo 5 – Power On/Off button, USB C port, Charging indicator LED, 3.5mm TRS MIDI Out and ¼” Analog Out



Photo 6 – Brand name on guitar



CB Certificate for Rechargeable Battery Model IMR 18650 3000mAh:

		Ref. Certif. No. JPTUV-111086
IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST CERTIFICATES FOR ELECTRICAL EQUIPMENT (IECEE) CB SCHEME		
<h3>CB TEST CERTIFICATE</h3>		
Product	Li-ion Cylindrical Rechargeable Cell	
Name and address of the applicant	Zivix LLC 181 Cheshire Lane W., Ste 700, Plymouth, MN 55411, USA	
Name and address of the manufacturer	Shenzhen Feat Technology Co., Ltd Floor 8, Building C, SAR 1980 Cultural Industry park, Minfu Road, Minzhi, Longhua new district, Shenzhen, Guangdong, P.R. China	
Name and address of the factory	Shenzhen Feat Technology Co., Ltd Floor 8, Building C, SAR 1980 Cultural Industry park, Minfu Road, Minzhi, Longhua new district, Shenzhen, Guangdong, P.R. China	
Ratings and principal characteristics	3.7V, 3000mAh, 11.1Wh	
Trademark (if any)		
Customer's Testing Facility (CTF) Stage used	N/A	
Model / Type Ref.	IMR18650	
Additional information (if necessary may also be reported on page 2)		
A sample of the product was tested and found to be in conformity with	IEC 62133-2:2017 See Test Report for National Differences	
As shown in the Test Report Ref. No. which forms part of this Certificate	60383749 001	
This CB Test Certificate is issued by the National Certification Body		
		TÜV Rheinland Japan Ltd. Global Technology Assessment Center 4-25-2 Kita-Yamata, Tsuruki-ku Yokohama 224-0021, Japan Phone + 81 45 914-3888 Fax + 81 45 914-3354 Mail: info@jpn.tuv.com Web: www.tuv.com
Date:	2020-07-15	Signature:  Jason Tang

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