

TPV Electronics (Fujian) Co., Ltd.  
Mr. Xinliang Wu  
RD-SE  
Rongqiao Economic and  
Technological Development Zone  
Fuqing City, Fujian Province  
P. R. China

Date : 11.11.2019  
Our ref. : WangAn SZ  
Your ref.: 168133694

**Ref : CB Certificate Japan**

Type of Equipment : LCD MONITOR  
Model Designation : See Certificate  
Certificate No. : JPTUV-102172  
Report No. : 17062016 001

Dear Mr. Xinliang Wu,

Thank you very much for your interest in our services.

Please find enclosed your certification documents.

We appreciate your support and would like to offer our assistance in the approval of your future products through our extensive range of technical services.

Please feel free to contact us whatever your requirements may be.

With kind regards,

Certification Body

Aegean Li



Enclosure

证书的详细资料请登陆[www.tuvdotcom.com](http://www.tuvdotcom.com)查阅,或拨打我司客服热线800 999 3668 / 400 883 1300咨询



Ref. Certif. No.

JPTUV-102172

IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST CERTIFICATES FOR ELECTRICAL EQUIPMENT (IECEE) CB SCHEME

SYSTEME CEI D'ACCEPTATION MUTUELLE DE CERTIFICATS D ESSAIS DES EQUIPEMENTS ELECTRIQUES (IECEE) METHODE OC

### CB TEST CERTIFICATE

### CERTIFICAT D'ESSAI OC

Product  
Produit

LCD MONITOR

Name and address of the applicant  
Nom et adresse du demandeur

TPV Electronics (Fujian) Co., Ltd.  
Rongqiao Economic and Technological Development Zone, Fuqing City, Fujian Province, P. R. China

Name and address of the manufacturer  
Nom et adresse du fabricant

TPV Electronics (Fujian) Co., Ltd.  
Rongqiao Economic and Technological Development Zone, Fuqing City, Fujian Province, P. R. China

Name and address of the factory  
Nom et adresse de l'usine

See additional page(s)

Ratings and principal characteristics  
Valeurs nominales et caractéristiques principales

19.5VDC; 11.79A; Class III

Trademark (if any)  
Marque de fabrique (si elle existe)

AOC

Type of Manufacturer's Testing Laboratories used  
Type de programme du laboratoire d'essais constructeur

N/A

Model / Type Ref.  
Ref. de type

AG353UCG, \*\*353\*\*\*\*\*  
(\* can be 0-9, A-Z, a-z, -, \, /, + or blank)

Additional information (if necessary may also be reported on page 2)  
Les informations complémentaires (si nécessaire, peuvent être indiqués sur la 2<sup>ème</sup> page)

For model differences, refer to the test report.

A sample of the product was tested and found to be in conformity with  
Un échantillon de ce produit a été essayé et a été considéré conforme à la

IEC 62368-1:2014  
See Test Report for National Differences

As shown in the Test Report Ref. No. which forms part of this Certificate  
Comme indiqué dans le Rapport d'essais numéro de référence qui constitue partie de ce Certificat

17062016 001

This CB Test Certificate is issued by the National Certification Body  
Ce Certificat d'essai OC est établi par l'Organisme National de Certification



TÜV Rheinland Japan Ltd.  
Global Technology Assessment Center  
4-25-2 Kita-Yamata, Tsuzuki-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: 11.11.2019

Signature:

Aegean Li

1. TPV Display Technology (Wuhan) Co., Ltd.  
Unique No. 11, Zhuankou Development District of Economic Technological Development Zone, Wuhan City 430056, P. R. China
2. TPV Electronics (Fujian) Co., Ltd.  
Shangzheng, Yuan Hong Road  
Fuqing City, Fujian Province  
P. R. China
3. L&T Display Technology (Fujian) Ltd.  
Optoelectronic Park, Rongqiao Economic and Technological Development Zone  
Fuqing, Fujian 350301, P. R. China
4. TPV Electronics (Fujian) Co., Ltd.  
Rongqiao Economic and Technological Development Zone  
Fuqing City, Fujian Province  
P. R. China
5. Trend Smart CE Mexico S de RL de CV  
Avenida Sor Juana Ines de la Cruz de 19602 Nueva Tijuana,  
22435 Tijuana Baja California  
MEXICO
6. TPV Display Technology (Beihai) Co., Ltd.  
China Electronic Beihai Industry Park, Northeast of the Crossing Between Taiwan Road and Jilin Road, Beihai City, Guangxi, P. R. China
7. TPV Technology (Qingdao) Co., Ltd.  
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Qingdao City, Shandong Province, P. R. China
8. TPV Display Technology (China) Co., Ltd.  
No. 106 Jinghai 3 Rd., BDA  
Beijing City 100176  
P. R. China
9. TPV Electronics (Fujian) Co., Ltd.  
Optoelectronic Park,  
Rongqiao Economic and Technological Development Zone,  
Fuqing City, Fujian Province 350301, P. R. China

**Additional information (if necessary)**  
**Information complémentaire (si nécessaire)**

Report Ref. No.: 17062016 001

Date: 11.11.2019

Signature:



Aegean LI

10. Envision Indústria de Produtos Eletrônicos Ltda.  
Av. Torquato Tapajós, 2236,  
Flores - CEP 69058-830 - Manaus/AM  
Brazil
11. Pro Concept Manufacturer Co., Ltd  
88/1 Moo 12, Soi  
Phetkasem120, Phetkasem  
Road, Omnoi, Krathumbaen,  
Samutsakhon 74130, Thailand
12. Treeview Co., Ltd.  
106/29 Moo 8, Sukhumvit Road, T.Banglamung,  
A.Banglamung, Chonburi 20150  
Thailand
13. TPV Technology (Thailand) Co., Ltd.  
Tambon Tha Turn,  
Amphoe Si Maha Phot,  
Chang Wat Prachin Buri 25140  
Thailand

**Additional information (if necessary)**  
**Information complémentaire (si nécessaire)**

Report Ref. No.: 17062016 001

Date: 11.11.2019

Signature:



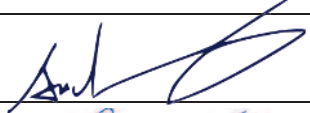

Aegean Li



Test Report issued under the responsibility of:



<b>TEST REPORT</b> <b>IEC 62368-1</b> <b>Audio/video, information and communication technology equipment</b> <b>Part 1: Safety requirements</b>	
Report Number .....	17062016 001
Date of issue .....	Nov.07.2019
Total number of pages .....	51
<b>Applicant's name</b> .....	<b>TPV Electronics (Fujian) Co., Ltd.</b>
Address .....	Rongqiao Economic and Technological Development Zone, Fuqing City, Fujian Province, P.R.China
<b>Test specification:</b>	
Standard .....	IEC 62368-1:2014 (Second Edition)
Test procedure .....	CB Scheme
Non-standard test method.....	N/A
<b>Test Report Form No.</b> .....	IEC62368_1B
Test Report Form(s) Originator .....	UL(US)
Master TRF .....	2014-03
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<b>General disclaimer:</b>	
<p>The test results presented in this report relate only to the object tested.            This report shall not be reproduced, except in full, without the written approval of the Issuing CB Testing Laboratory. The authenticity of this Test Report and its contents can be verified by contacting the NCB, responsible for this Test Report.</p>	
Test Item description .....	LCD MONITOR
Trade Mark .....	AOC
Manufacturer .....	<b>Same as applicant.</b>
Model/Type reference .....	AG353UCG, **353***** (* can be 0-9, A-Z, a-z, -, \, /, + or blank, represent different enclosure colour for marketing purpose)
Ratings .....	I/P: 19.5Vdc, 11.79A

<b>Testing procedure and testing location:</b>		
<input checked="" type="checkbox"/>	<b>CB Testing Laboratory:</b>	<b>TÜV Rheinland (Shenzhen) Co., Ltd.</b>
<b>Testing location/ address .....</b>		1F East & 2-4F, Cybio Technology Building No. 1, No. 16 Kejibei 2nd Road, High-Tech Industrial Park North, Nanshan District 518057, Shenzhen, China
<input type="checkbox"/>	<b>Associated CB Testing Laboratory:</b>	
<b>Testing location/ address .....</b>		
<b>Tested by (name + signature) .....</b>		Anderson Wang Senior Project Manager 
<b>Approved by (name + signature) .....</b>		Steven Lin Technical Reviewer 
<hr/>		
<input type="checkbox"/>	<b>Testing procedure: TMP/CTF Stage 1:</b>	
<b>Testing location/ address .....</b>		
<b>Tested by (name + signature) .....</b>		
<b>Approved by (name + signature) .....</b>		
<hr/>		
<input type="checkbox"/>	<b>Testing procedure: WMT/CTF Stage 2:</b>	
<b>Testing location/ address .....</b>		
<b>Tested by (name + signature) .....</b>		
<b>Witnessed by (name + signature) .....</b>		
<b>Approved by (name + signature) .....</b>		
<hr/>		
<input type="checkbox"/>	<b>Testing procedure: SMT/CTF Stage 3 or 4:</b>	
<b>Testing location/ address .....</b>		
<b>Tested by (name + signature) .....</b>		
<b>Witnessed by (name + signature) .....</b>		
<b>Approved by (name + signature) .....</b>		
<b>Supervised by (name + signature) .....</b>		
<hr/>		

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

- Photo documentation (5 Pages)
- National Differences (10 Pages)

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

The tests were carried out under the most unfavorable combination within the manufacturer's operating specifications of the following parameters:

- supply voltage 19.5Vdc
- operating temperature, Max. ambient temperature 40°C declared by the client
- operating mode: continuous
- operating load:

The equipment operated under full screen with three vertical bar signal according IEC60107-1 with max. brightness and contrast; with 1KHz sinusoidal signal and turned to maximum volume; each USB 3.0 port loaded with 5V/0.9A, each USB 3.0 with fast charging loaded with 5V/1.5A.

**Testing location:**

All tests as described in Test Case and Measurement Sections were performed at the laboratory described on page 2.

name of test	test clause number
Classification of electrical energy sources	5.2
Maximum operating temperature test (Heating test)	5.4.1.4, 6.3.2, 9.0, B.2.6
Electrical Power Source (PS) measurements for classification	6.2.2
Stability	8.6
Simulated abnormal operating and single fault conditions	B.3, B.4
Locked-rotor overload test	G.5.4.6
Input test	Annex B.2.5
Test for permanence of markings	Annex F.3.10
Limited power source test (LPS)	Annex Q.1
Steady force test, 250N	Annex T.5
Enclosure impact test	Annex T.6
Stress relief test	Annex T.8

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

EU Group Differences, EU Special National Conditions, CA, DK, US.

Explanation of used codes: CA = Canada, DK=Demark, US=United States of America.

**The product fulfils the requirements of EN 62368-1:2014.**

**Copy of marking plate:**

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

<b>AOC</b> LCD MONITOR (LED backlight) / ЖК-монитор		<b>Warning: Shock Hazard, Do Not Open.</b> Pour éviter une électrocution, ne retirez pas le couvercle!	
Product No. : Model No./ модель номер : Power Rating/ Tegangan/ Входная мощность:	AG353UCG 353UCG 19.5V $\equiv$ 11.79A	 Type Approved Safety Regular Production Surrenderable <a href="http://www.aoc.com">www.aoc.com</a> ID: 400003413	 Bluewin IT ISO 9001:2007 <a href="http://www.aoc.com">www.aoc.com</a> ID: 400003413
<a href="http://www.aoc.com">www.aoc.com</a> Made in China/Сделано в Китае For applicable power supplies see user manual Voir le manuel d'utilisateur pour les courants d'alimentation applicables TPV Electronics (Fujian) Co., Ltd. CAN ICES-3(B)/NMB-3(B) Q40G035E-615-08A	Envision Peripherals, Inc. 490 N McCarthy Blvd, Suite #120 Milpitas, CA 95035 USA AOC International Europe B.V. Amstelgebouw, 6th floor Prins Bernhardplein 200 1097 JB Amsterdam The Netherlands	XXXXXXXXXXXXXXXX Serial/No. : XXXXX XXXXXXXX  Manufactured: 201X-XX-XX	

# 19.5V $\equiv$ 11.79A

The above label represents labels for model names other than above covered by the model name.



TEST ITEM PARTICULARS:	
Classification of use by.....:	<input checked="" type="checkbox"/> Ordinary person <input type="checkbox"/> Instructed person <input type="checkbox"/> Skilled person <input checked="" type="checkbox"/> Children likely to be present
Supply Connection .....	<input type="checkbox"/> AC Mains <input type="checkbox"/> DC Mains <input checked="" type="checkbox"/> External Circuit - not Mains connected - <input checked="" type="checkbox"/> ES1 <input type="checkbox"/> ES2 <input type="checkbox"/> ES3
Supply % Tolerance .....	<input type="checkbox"/> +10%/-10% <input type="checkbox"/> +20%/-15% <input type="checkbox"/> + ___ %/ - ___ % <input checked="" type="checkbox"/> None
Supply Connection – Type .....	<input type="checkbox"/> pluggable equipment type A - <input type="checkbox"/> non-detachable supply cord <input type="checkbox"/> appliance coupler <input type="checkbox"/> direct plug-in <input type="checkbox"/> mating connector <input type="checkbox"/> pluggable equipment type B - <input type="checkbox"/> non-detachable supply cord <input type="checkbox"/> appliance coupler <input type="checkbox"/> permanent connection <input type="checkbox"/> mating connector <input checked="" type="checkbox"/> other: <u>not directly connected to the mains</u>
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 checked="" type="checkbox"/> wall-mounted
Over voltage category (OVC) .....	<input type="checkbox"/> OVC I <input type="checkbox"/> OVC II <input type="checkbox"/> OVC III <input type="checkbox"/> OVC IV <input checked="" type="checkbox"/> other: <u>not directly connected to the mains</u>
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:	<u>40</u> °C
IP protection class .....	<input checked="" type="checkbox"/> IPX0 <input type="checkbox"/> IP___
Power Systems .....	<input type="checkbox"/> TN <input type="checkbox"/> TT <input type="checkbox"/> IT - ___ V <sub>L-L</sub>
Altitude during operation (m) .....	<input type="checkbox"/> 2000 m or less <input checked="" type="checkbox"/> <u>5000</u> m
Altitude of test laboratory (m) .....	<input checked="" type="checkbox"/> 2000 m or less <input type="checkbox"/> ___ m
Mass of equipment (kg) .....	<input checked="" type="checkbox"/> Whole unit: 13.73kg Base weight: 2.73kg.

<b>POSSIBLE TEST CASE VERDICTS:</b>	
- 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)
- test object not yet conducted .....	N/T
<b>TESTING:</b>	
Date of receipt of test item .....	25.Sep.2019
Date (s) of performance of tests .....	25.Sep.2019 - 30.Oct.2019
<b>GENERAL REMARKS:</b>	
<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>	
<b>Manufacturer's Declaration per sub-clause 4.2.5 of IEC62368-1:</b>	
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 checked="" type="checkbox"/> <b>Yes</b> <input type="checkbox"/> <b>Not applicable</b>
<b>When differences exist; they shall be identified in the General product information section.</b>	
<b>Name and address of factory (ies).....:</b>	
<ol style="list-style-type: none"> <li>1 TPV Display Technology (Wuhan) Co., Ltd. Unique No. 11, Zhuankou Development District of Economic Technological Development Zone, Wuhan City 430056, P.R. China</li> <li>2 TPV Electronics (Fujian) Co., Ltd. Shangzheng, Yuan Hong Road, Fuqing City, Fujian Province, P.R. China</li> <li>3 L&amp;T Display Technology (Fujian) Ltd. Optoelectronic Park, Rongqiao Economic and Technological, Development Zone, Fuqing, Fujian 350301, P.R. China</li> <li>4 TPV Electronics (Fujian) Co., Ltd. Rongqiao Economic and Technological Development Zone, Fuqing City, Fujian Province, P.R. China</li> <li>5 Trend Smart CE Mexico S de RL de CV Avenida Sor Juana Ines de la Cruz de 19602 Nueva Tijuana, 22435 Tijuans Baja California, MEXICO</li> <li>6 TPV Display Technology (Beihai) Co., Ltd. China Electronic Beihai Industry Park, Northeast of the Crossing Between Taiwan Road and Jilin Road, Beihai City, Guangxi, P.R. China</li> <li>7 TPV Technology (Qingdao) Co., Ltd. No.99 Huoju Road, High-tech Industrial Development Zone, Qingdao City, Shandong Province, P.R. China</li> <li>8 TPV Display Technology (China) Co., Ltd. No.106 Jinghai 3 Rd., BDA, Beijing City 100176, P.R. China.</li> </ol>	

9	TPV Electronics (Fujian) Co., Ltd. Optoelectronic Park, Rongqiao Economic and Technological Development Zone, Fuqing City, Fujian Province, P.R. China
10	Envision Indústria de Produtos Eletrônicos Ltda. Av. Torquato Tapajós, 2236, Flores - CEP 69058-830 - Manaus/AM Brasil
11	Pro Concept Manufacturer Co., Ltd. 88/1 Moo 12, Soi Phetkasem 120, Phetkasem Road, Omnoi, Krathumbaen, Samutsakhon 74130, Thailand
12	Treeview Co., Ltd. 106/29 Moo 8, Sukhumvit Road, T.Banglamung, A.Banglamung, Chonburi 20150 Thailand
13	TPV Technology (Thailand) Co., Ltd. Tambon Tha Turn, Amphoe Si Maha Phot, Chang Wat Prachin Buri 25140 Thailand

#### GENERAL PRODUCT INFORMATION:

##### Product Description –

The models are an LCD monitor intended for general office use with following features:

1. LCD Type: TFT LCD with LED backlight;
2. External approved adapter used, which output complies with SELV;
3. Built in main boards 715GA365, which has HDMI, DisplayPort, audio-out and Micro USB 3.0 ports;
4. GPU board;
5. Extend USB board with 715G9272 with USB 3.0 type B, USB 3.0 type A , USB 3.0 type A with fast charging function, Audio-in and Audio-out ports;
6. The external plastic enclosure is regarded as mechanical enclosure, made of min. V-0 material; the internal metal enclosure is regarded as fire enclosure and mechanical enclosure;
7. Base stand;
8. Maximum declared ambient: 40°C.

##### Definition of variable(s):

Variable:	Range of variable:	Content:
*	0-9, A-Z, a-z, -, \, /, + or blank	For marketing purpose only, no technical difference.

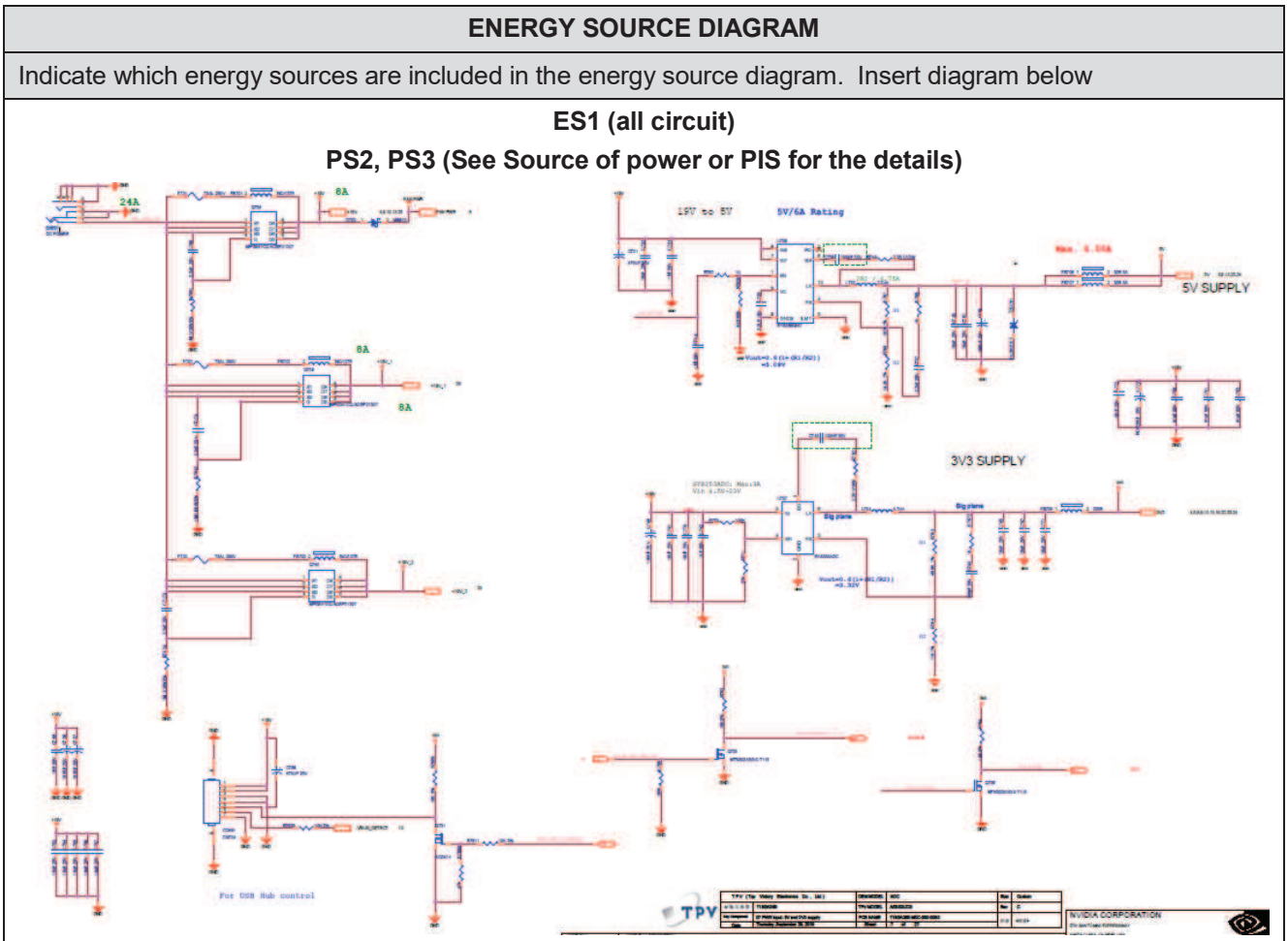
##### Model Differences –

Model AG353UCG is specified model of model \*\*353\*\*\*\*\* listed by client's request.

##### Additional application considerations –

N/A

<b>ENERGY SOURCE IDENTIFICATION AND CLASSIFICATION TABLE:</b>	
(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.)	
<b>Electrically-caused injury (Clause 5):</b> (Note: Identify type of source, list sub-assembly or circuit designation and corresponding energy source classification) Example: +5 V dc input <span style="float: right;">ES1</span>	
<b>Source of electrical energy</b>	<b>Corresponding classification (ES)</b>
DC input port of main board	ES1
Data port of main board	ES1
<b>Electrically-caused fire (Clause 6):</b> (Note: List sub-assembly or circuit designation and corresponding energy source classification) Example: Battery pack (maximum 85 watts): <span style="float: right;">PS2</span>	
<b>Source of power or PIS</b>	<b>Corresponding classification (PS)</b>
DC input port of main board	PS3
All circuit of main board	PS3
Data port of all main boards	PS2
<b>Injury caused by hazardous substances (Clause 7)</b> (Note: Specify hazardous chemicals, whether produces ozone or other chemical construction not addressed as part of the component evaluation.) Example: Liquid in filled component <span style="float: right;">Glycol</span>	
<b>Source of hazardous substances</b>	<b>Corresponding chemical</b>
N/A	N/A
<b>Mechanically-caused injury (Clause 8)</b> (Note: List moving part(s), fan, special installations, etc. & corresponding MS classification based on Table 35.) Example: Wall mount unit <span style="float: right;">MS2</span>	
<b>Source of kinetic/mechanical energy</b>	<b>Corresponding classification (MS)</b>
Sharp edges and corners	MS1
Equipment mass	MS2
DC fan	MS3
<b>Thermal burn injury (Clause 9)</b> (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 <span style="float: right;">TS1</span>	
<b>Source of thermal energy</b>	<b>Corresponding classification (TS)</b>
Accessible parts	TS1
<b>Radiation (Clause 10)</b> (Note: List the types of radiation present in the product and the corresponding energy source classification.) Example: DVD – Class 1 Laser Product <span style="float: right;">RS1</span>	
<b>Type of radiation</b>	<b>Corresponding classification (RS)</b>
Indicating lights	RS1
Backlight of LCD panel	RS1



OVERVIEW OF EMPLOYED SAFEGUARDS				
Clause	Possible Hazard			
5.1	Electrically-caused injury			
Body Part (e.g. Ordinary)	Energy Source (ES3: Primary Filter circuit)	Safeguards		
		Basic	Supplementary	Reinforced (Enclosure)
Ordinary	ES1: Data port of main board	N/A	N/A	N/A
Ordinary	ES1: DC input port of main board	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	Supplementary	Reinforced
DC inlet on main board	PS3	Ignition not occur	V-1 min. of material	--
Combustible materials of main board	PS3	Ignition not occur	Fire enclosure	--

Plastic Enclosure	PS3	Comply with Clause 6.3	See 6.4.3 and 6.4.7 (V-1 class material)	N/A
7.1	Injury caused by hazardous substances			
Body Part (e.g., skilled)	Energy Source (hazardous material)	Safeguards		
		Basic	Supplementary	Reinforced
N/A	N/A	N/A	N/A	N/A
8.1	Mechanically-caused injury			
Body Part (e.g. Ordinary)	Energy Source (MS3:High Pressure Lamp)	Safeguards		
		Basic	Supplementary	Reinforced (Enclosure)
Ordinary	MS1: Sharp edges and corners	N/A	N/A	N/A
Ordinary	MS2: Equipment mass	--	--	Compliance with test 8.6
Ordinary	MS3: DC fan	--	--	Plastic enclosure
9.1	Thermal Burn			
Body Part (e.g., Ordinary)	Energy Source (TS2)	Safeguards		
		Basic	Supplementary	Reinforced
Ordinary	TS1: Accessible parts	N/A	N/A	N/A
10.1	Radiation			
Body Part (e.g., Ordinary)	Energy Source (Output from audio port)	Safeguards		
		Basic	Supplementary	Reinforced
Ordinary	RS1: Indicating lights	N/A	N/A	N/A
Ordinary	RS1: backlight of LCD panel	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				

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

4	GENERAL REQUIREMENTS		P
4.1.1	Acceptance of materials, components and subassemblies	See appended table 4.1.2.	P
4.1.2	Use of components	Components which are certified to IEC and/or national standards are used correctly within their ratings. Components not covered by IEC standards are tested under the conditions present in the equipment.	P
4.1.3	Equipment design and construction	No accessible part which could cause injury.	P
4.1.15	Markings and instructions .....	(See Annex F)	P
4.4.4	Safeguard robustness	EUT supplied by approved AC/DC adapter considered as ES1, no hazardous live parts inside.	N/A
4.4.4.2	Steady force tests .....	See above	N/A
4.4.4.3	Drop tests .....		N/A
4.4.4.4	Impact tests .....	See above	N/A
4.4.4.5	Internal accessible safeguard enclosure and barrier tests .....	See above	N/A
4.4.4.6	Glass Impact tests .....	Laminated glass used.	N/A
4.4.4.7	Thermoplastic material tests.....		N/A
4.4.4.8	Air comprising a safeguard.....		N/A
4.4.4.9	Accessibility and safeguard effectiveness		N/A
4.5	Explosion	No explosion occurs during normal/abnormal operation and single fault conditions.	P
4.6	Fixing of conductors		N/A
4.6.1	Fix conductors not to defeat a safeguard		N/A
4.6.2	10 N force test applied to .....		N/A
4.7	Equipment for direct insertion into mains socket - outlets		N/A
4.7.2	Mains plug part complies with the relevant standard .....		N/A
4.7.3	Torque (Nm) .....		N/A
4.8	Products containing coin/button cell batteries	No lithium coin/button batteries	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
		used.	
4.8.2	Instructional safeguard		N/A
4.8.3	Battery Compartment Construction		N/A
	Means to reduce the possibility of children removing the battery .....		—
4.8.4	Battery Compartment Mechanical Tests .....		N/A
4.8.5	Battery Accessibility		N/A
4.9	Likelihood of fire or shock due to entry of conductive object .....	All circuits within test unit are ES1	N/A

<b>5</b>	<b>ELECTRICALLY-CAUSED INJURY</b>		P
5.2.1	Electrical energy source classifications .....	EUT supplied by approved AC/DC adapter considered as ES1, no hazardous live parts inside.	P
5.2.2	ES1, ES2 and ES3 limits	See above.	P
5.2.2.2	Steady-state voltage and current .....		N/A
5.2.2.3	Capacitance limits .....		N/A
5.2.2.4	Single pulse limits .....		N/A
5.2.2.5	Limits for repetitive pulses .....		N/A
5.2.2.6	Ringing signals .....		N/A
5.2.2.7	Audio signals .....		N/A
5.3	Protection against electrical energy sources	ES1.	N/A
5.3.1	General Requirements for accessible parts to ordinary, instructed and skilled persons	See "OVERVIEW OF EMPLOYED SAFEGUARDS" table.	P
5.3.2.1	Accessibility to electrical energy sources and safeguards	ES1.	N/A
5.3.2.2	Contact requirements	ES1.	N/A
	a) Test with test probe from Annex V .....		N/A
	b) Electric strength test potential (V) .....		N/A
	c) Air gap (mm) .....		N/A
5.3.2.4	Terminals for connecting stripped wire	No such terminals.	N/A
5.4	Insulation materials and requirements		N/A
5.4.1.2	Properties of insulating material		N/A
5.4.1.3	Humidity conditioning .....		N/A
5.4.1.4	Maximum operating temperature for insulating materials .....		N/A
5.4.1.5	Pollution degree .....	Pollution degree 2.	—
5.4.1.5.2	Test for pollution degree 1 environment and for an insulating compound		N/A
5.4.1.5.3	Thermal cycling		N/A



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Clause	Requirement + Test	Result - Remark	Verdict
5.4.1.6	Insulation in transformers with varying dimensions		N/A
5.4.1.7	Insulation in circuits generating starting pulses		N/A
5.4.1.8	Determination of working voltage		N/A
5.4.1.9	Insulating surfaces		N/A
5.4.1.10	Thermoplastic parts on which conductive metallic parts are directly mounted		N/A
5.4.1.10.2	Vicat softening temperature .....		N/A
5.4.1.10.3	Ball pressure .....		N/A
5.4.2	Clearances		N/A
5.4.2.2	Determining clearance using peak working voltage		N/A
5.4.2.3	Determining clearance using required withstand voltage .....		N/A
	a) a.c. mains transient voltage .....		—
	b) d.c. mains transient voltage .....		—
	c) external circuit transient voltage .....		—
	d) transient voltage determined by measurement ... :		—
5.4.2.4	Determining the adequacy of a clearance using an electric strength test		N/A
5.4.2.5	Multiplication factors for clearances and test voltages .....		N/A
5.4.3	Creepage distances .....		N/A
5.4.3.1	General		N/A
5.4.3.3	Material Group .....		—
5.4.4	Solid insulation		N/A
5.4.4.2	Minimum distance through insulation .....		N/A
5.4.4.3	Insulation compound forming solid insulation		N/A
5.4.4.4	Solid insulation in semiconductor devices		N/A
5.4.4.5	Cemented joints		N/A
5.4.4.6	Thin sheet material		N/A
5.4.4.6.1	General requirements		N/A
5.4.4.6.2	Separable thin sheet material		N/A
	Number of layers (pcs) .....		N/A
5.4.4.6.3	Non-separable thin sheet material		N/A
5.4.4.6.4	Standard test procedure for non-separable thin sheet material .....		N/A
5.4.4.6.5	Mandrel test		N/A
5.4.4.7	Solid insulation in wound components		N/A
5.4.4.9	Solid insulation at frequencies >30 kHz .....		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
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 ( $M\Omega$ ).....:		—
5.4.6	Insulation of internal wire as part of supplementary safeguard.....:		N/A
5.4.7	Tests for semiconductor components and for cemented joints		N/A
5.4.8	Humidity conditioning		N/A
	Relative humidity (%).....:		—
	Temperature ( $^{\circ}C$ ).....:		—
	Duration (h).....:		—
5.4.9	Electric strength test.....:		N/A
5.4.9.1	Test procedure for a solid insulation type test		N/A
5.4.9.2	Test procedure for routine tests		N/A
5.4.10	Protection against transient voltages between external circuit		N/A
5.4.10.1	Parts and circuits separated from external circuits		N/A
5.4.10.2	Test methods		N/A
5.4.10.2.1	General		N/A
5.4.10.2.2	Impulse test.....:		N/A
5.4.10.2.3	Steady-state test.....:		N/A
5.4.11	Insulation between external circuits and earthed circuitry.....:		N/A
5.4.11.1	Exceptions to separation between external circuits and earth		N/A
5.4.11.2	Requirements		N/A
	Rated operating voltage $U_{op}$ (V).....:		—
	Nominal voltage $U_{peak}$ (V).....:		—
	Max increase due to variation $U_{sp}$ .....:		—
	Max increase due to ageing $\Delta U_{sa}$ .....:		—
	$U_{op} = U_{peak} + \Delta U_{sp} + \Delta U_{sa}$ .....:		—
5.5	Components as safeguards		N/A
5.5.1	General		N/A
5.5.2	Capacitors and RC units		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

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Clause	Requirement + Test	Result - Remark	Verdict
5.5.3	Transformers		N/A
5.5.4	Optocouplers		N/A
5.5.5	Relays		N/A
5.5.6	Resistors		N/A
5.5.7	SPD's		N/A
5.5.7.1	Use of an SPD connected to reliable earthing		N/A
5.5.7.2	Use of an SPD between mains and protective earth		N/A
5.5.8	Insulation between the mains and external circuit consisting of a coaxial cable.....:		N/A
5.6	Protective conductor		N/A
5.6.2	Requirement for protective conductors		N/A
5.6.2.1	General requirements		N/A
5.6.2.2	Colour of insulation		N/A
5.6.3	Requirement for protective earthing conductors		N/A
	Protective earthing conductor size (mm <sup>2</sup> ) .....		—
5.6.4	Requirement for protective bonding conductors		N/A
5.6.4.1	Protective bonding conductors		N/A
	Protective bonding conductor size (mm <sup>2</sup> ). .....		—
	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 <sup>2</sup> ), 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 (□) .....		N/A
5.6.7	Reliable earthing		N/A
5.7	Prospective touch voltage, touch current and protective conductor current		N/A
5.7.2	Measuring devices and networks		N/A
5.7.2.1	Measurement of touch current .....		N/A
5.7.2.2	Measurement of prospective touch voltage		N/A
5.7.3	Equipment set-up, supply connections and earth connections		N/A
	System of interconnected equipment (separate connections/single connection) .....	Single equipment.	—

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Clause	Requirement + Test	Result - Remark	Verdict
	Multiple connections to mains (one connection at a time/simultaneous connections) .....	Single connection.	—
5.7.4	Earthed conductive accessible parts .....		N/A
5.7.5	Protective conductor current	Protective conductor current does not exceed the ES2 limits.	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

<b>6</b>	<b>ELECTRICALLY- CAUSED FIRE</b>		P
6.2	Classification of power sources (PS) and potential ignition sources (PIS)		P
6.2.2	Power source circuit classifications	EUT supplied by approved AC/DC adapter, so all circuit of main board except data ports considered as PS3, so data ports on main board considered as PS2.	P
6.2.2.1	General		N/A
6.2.2.2	Power measurement for worst-case load fault ... :		N/A
6.2.2.3	Power measurement for worst-case power source fault .....		N/A
6.2.2.4	PS1 .....		N/A
6.2.2.5	PS2 .....	See above.	P
6.2.2.6	PS3 .....	See above.	P
6.2.3	Classification of potential ignition sources		P
6.2.3.1	Arcing PIS .....	EUT supplied by approved AC/DC adapter complied with SELV.	N/A
6.2.3.2	Resistive PIS .....	All components located within the equipment are considered as resistive PIS.	P
6.3	Safeguards against fire under normal operating and abnormal operating conditions		P

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Clause	Requirement + Test	Result - Remark	Verdict
6.3.1 (a)	No ignition and attainable temperature value less than 90 % defined by ISO 871 or less than 300 °C for unknown materials .....	(See appended table 5.4.1.5, 6.3.2, 9.0, B.2.6)	P
6.3.1 (b)	Combustible materials outside fire enclosure		N/A
6.4	Safeguards against fire under single fault conditions		P
6.4.1	Safeguard Method	The method "Control fire spread" is selected.	P
6.4.2	Reduction of the likelihood of ignition under single fault conditions in PS1 circuits		N/A
6.4.3	Reduction of the likelihood of ignition under single fault conditions in PS2 and PS3 circuits		N/A
6.4.3.1	General		N/A
6.4.3.2	Supplementary Safeguards		N/A
	Special conditions if conductors on printed boards are opened or peeled		N/A
6.4.3.3	Single Fault Conditions .....		N/A
	Special conditions for temperature limited by fuse		N/A
6.4.4	Control of fire spread in PS1 circuits		N/A
6.4.5	Control of fire spread in PS2 circuits	See below.	P
6.4.5.2	Supplementary safeguards .....	- All components in a PS2 are mounted on V-1 class material of printed boards and comply with the requirements of the relevant IEC components standard. - Certified wire insulation is used.	P
6.4.6	Control of fire spread in PS3 circuit	Providing fire enclosure for PS3 circuit.	P
6.4.7	Separation of combustible materials from a PIS	Providing fire enclosure for PS3 circuit.	P
6.4.7.1	General .....	See above.	P
6.4.7.2	Separation by distance	The plastic enclosure is made of V-0 class min.	P
6.4.7.3	Separation by a fire barrier		N/A
6.4.8	Fire enclosures and fire barriers	See below.	P
6.4.8.1	Fire enclosure and fire barrier material properties		P
6.4.8.2.1	Requirements for a fire barrier		N/A
6.4.8.2.2	Requirements for a fire enclosure	Metal enclosure as fire enclosure.	P
6.4.8.3	Constructional requirements for a fire enclosure and a fire barrier	See below.	P
6.4.8.3.1	Fire enclosure and fire barrier openings		P
6.4.8.3.2	Fire barrier dimensions		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
6.4.8.3.3	Top Openings in Fire Enclosure: dimensions (mm) .....	No opening within the circular cone volume of PIS shown as figure 41 in Clause 6.4.8.3.3.	P
	Needle Flame test		N/A
6.4.8.3.4	Bottom Openings in Fire Enclosure, condition met a), b) and/or c) dimensions (mm) .....	No opening on the bottom of metal enclosure.	P
	Flammability tests for the bottom of a fire enclosure .....		N/A
6.4.8.3.5	Integrity of the fire enclosure, condition met: a), b) or c) .....	No door or cover in fire enclosure	N/A
6.4.8.4	Separation of PIS from fire enclosure and fire barrier distance (mm) or flammability rating .....	More than 5mm.	P
6.5	Internal and external wiring		P
6.5.1	Requirements	Internal or external wiring materials are compliant with IEC 60950-1 according to Sub-clause 4.1.1. Furthermore, the test method described in IEC 60695-11-21 is considered equivalent to that test wiring materials for VW-1. All internal wiring are using VW-1 material.	P
6.5.2	Cross-sectional area (mm <sup>2</sup> ) .....	See above.	—
6.5.3	Requirements for interconnection to building wiring .....		N/A
6.6	Safeguards against fire due to connection to additional equipment	No such component.	N/A
	External port limited to PS2 or complies with Clause Q.1	No such component.	N/A

<b>7</b>	<b>INJURY CAUSED BY HAZARDOUS SUBSTANCES</b>		N/A
7.2	Reduction of exposure to hazardous substances		N/A
7.3	Ozone exposure		N/A
7.4	Use of personal safeguards (PPE)		N/A
	Personal safeguards and instructions .....		—
7.5	Use of instructional safeguards and instructions		N/A
	Instructional safeguard (ISO 7010).....		—
7.6	Batteries.....		N/A

<b>8</b>	<b>MECHANICALLY-CAUSED INJURY</b>		P
8.1	General		P

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Clause	Requirement + Test	Result - Remark	Verdict
8.2	Mechanical energy source classifications	See ENERGY SOURCE IDENTIFICATION AND CLASSIFICATION TABLE.	P
8.3	Safeguards against mechanical energy sources	See "OVERVIEW OF EMPLOYED SAFEGUARDS" table.	P
8.4	Safeguards against parts with sharp edges and corners	No sharp edges and corners in accessible area.	P
8.4.1	Safeguards		P
8.5	Safeguards against moving parts	DC fan is within equipment and isolated by external plastic enclosure as mechanical enclosure.	P
8.5.1	MS2 or MS3 part required to be accessible for the function of the equipment	See above.	N/A
8.5.2	Instructional Safeguard .....		—
8.5.4	Special categories of equipment comprising moving parts		N/A
8.5.4.1	Large data storage equipment		N/A
8.5.4.2	Equipment having electromechanical device for destruction of media		N/A
8.5.4.2.1	Safeguards and Safety Interlocks .....		N/A
8.5.4.2.2	Instructional safeguards against moving parts		N/A
	Instructional Safeguard .....		—
8.5.4.2.3	Disconnection from the supply		N/A
8.5.4.2.4	Probe type and force (N) .....		N/A
8.5.5	High Pressure Lamps		N/A
8.5.5.1	Energy Source Classification		N/A
8.5.5.2	High Pressure Lamp Explosion Test .....		N/A
8.6	Stability	See below	P
8.6.1	Product classification	See Clause 8.2 & 8.3	P
	Instructional Safeguard .....	Shown on user manual.	—
8.6.2	Static stability		P
8.6.2.2	Static stability test	Test was conducted. Unit did not fall over when tilted to an angle of 10° from its normal upright position.	P
	Applied Force .....	See above.	—
8.6.2.3	Downward Force Test	Not floor standing equipment.	N/A
8.6.3	Relocation stability test	See below	N/A
	Unit configuration during 10° tilt .....		—
8.6.4	Glass slide test	The equipment does not tip over during the test.	P

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Clause	Requirement + Test	Result - Remark	Verdict
8.6.5	Horizontal force test (Applied Force).....:	It did not fall over when tilted to an angle of 15° from its normal upright position.	P
	Position of feet or movable parts .....	See above.	—
8.7	Equipment mounted to wall or ceiling		P
8.7.1	Mounting Means (Length of screws (mm) and mounting surface) .....	See below	P
8.7.2	Direction and applied force .....	Test 2: 11.0kg applied for each point (four directions plus inward and outward). Test 3: 2.5Nm applied.	P
8.8	Handles strength	No handles.	N/A
8.8.1	Classification		N/A
8.8.2	Applied Force .....		N/A
8.9	Wheels or casters attachment requirements		N/A
8.9.1	Classification		N/A
8.9.2	Applied force .....		—
8.10	Carts, stands and similar carriers		N/A
8.10.1	General		N/A
8.10.2	Marking and instructions		N/A
	Instructional Safeguard .....		—
8.10.3	Cart, stand or carrier loading test and compliance		N/A
	Applied force .....		—
8.10.4	Cart, stand or carrier impact test		N/A
8.10.5	Mechanical stability		N/A
	Applied horizontal force (N) .....		—
8.10.6	Thermoplastic temperature stability (°C).....:		N/A
8.11	Mounting means for rack mounted equipment		N/A
8.11.1	General		N/A
8.11.2	Product Classification		N/A
8.11.3	Mechanical strength test, variable <i>N</i> .....		N/A
8.11.4	Mechanical strength test 250N, including end stops		N/A
8.12	Telescoping or rod antennas .....		N/A
	Button/Ball diameter (mm) .....		—
<b>9</b>	<b>THERMAL BURN INJURY</b>		
9.2	Thermal energy source classifications	See ENERGY SOURCE IDENTIFICATION AND CLASSIFICATION TABLE.	P



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Clause	Requirement + Test	Result - Remark	Verdict
9.3	Safeguard against thermal energy sources	No safeguards are required for TS1.	N/A
9.4	Requirements for safeguards		N/A
9.4.1	Equipment safeguard		N/A
9.4.2	Instructional safeguard .....		N/A

<b>10</b>	<b>RADIATION</b>		P
10.2	Radiation energy source classification	See below.	P
10.2.1	General classification	The following parts are considered as RS1 without tests: - Indicating lights; - backlight of LCD panel	P
10.3	Protection against laser radiation		N/A
	Laser radiation that exists equipment:		—
	Normal, abnormal, single-fault..... :		N/A
	Instructional safeguard .....		—
	Tool..... :		—
10.4	Protection against visible, infrared, and UV radiation		N/A
10.4.1	General		N/A
10.4.1.a)	RS3 for Ordinary and instructed persons .....		N/A
10.4.1.b)	RS3 accessible to a skilled person..... :		N/A
	Personal safeguard (PPE) instructional safeguard .....		—
10.4.1.c)	Equipment visible, IR, UV does not exceed RS1 . :		N/A
10.4.1.d)	Normal, abnormal, single-fault conditions .....		N/A
10.4.1.e)	Enclosure material employed as safeguard is opaque..... :		N/A
10.4.1.f)	UV attenuation .....		N/A
10.4.1.g)	Materials resistant to degradation UV .....		N/A
10.4.1.h)	Enclosure containment of optical radiation..... :		N/A
10.4.1.i)	Exempt Group under normal operating conditions..... :		N/A
10.4.2	Instructional safeguard .....		N/A
10.5	Protection against x-radiation		N/A
10.5.1	X- radiation energy source that exists equipment :		N/A
	Normal, abnormal, single fault conditions		N/A
	Equipment safeguards..... :		N/A
	Instructional safeguard for skilled person .....		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
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		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>B</b>	<b>NORMAL OPERATING CONDITION TESTS, ABNORMAL OPERATING CONDITION TESTS AND SINGLE FAULT CONDITION TESTS</b>		P
B.2	Normal Operating Conditions	See below	P
B.2.1	General requirements .....	(See Test Item Particulars and appended test tables)	P
	Audio Amplifiers and equipment with audio amplifiers .....	No such component.	N/A
B.2.3	Supply voltage and tolerances		N/A
B.2.5	Input test .....	(See appended table B.2.5)	P
B.3	Simulated abnormal operating conditions		P
B.3.1	General requirements .....		N/A
B.3.2	Covering of ventilation openings		N/A
B.3.3	D.C. mains polarity test		N/A
B.3.4	Setting of voltage selector .....		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
B.3.5	Maximum load at output terminals .....		N/A
B.3.6	Reverse battery polarity		N/A
B.3.7	Abnormal operating conditions as specified in Clause E.2.		N/A
B.3.8	Safeguards functional during and after abnormal operating conditions		N/A
B.4	Simulated single fault conditions		P
B.4.2	Temperature controlling device open or short-circuited .....	No such devices.	N/A
B.4.3	Motor tests		N/A
B.4.3.1	Motor blocked or rotor locked increasing the internal ambient temperature .....		N/A
B.4.4	Short circuit of functional insulation	(See appended table B.4)	P
B.4.4.1	Short circuit of clearances for functional insulation	(See appended table B.4)	P
B.4.4.2	Short circuit of creepage distances for functional insulation	(See appended table B.4)	P
B.4.4.3	Short circuit of functional insulation on coated printed boards		N/A
B.4.5	Short circuit and interruption of electrodes in tubes and semiconductors	(See appended table B.4)	P
B.4.6	Short circuit or disconnect of passive components		P
B.4.7	Continuous operation of components		N/A
B.4.8	Class 1 and Class 2 energy sources within limits during and after single fault conditions		P
B.4.9	Battery charging under single fault conditions.... :		N/A
<b>C</b>	<b>UV RADIATION</b>		N/A
C.1	Protection of materials in equipment from UV radiation		N/A
C.1.2	Requirements		N/A
C.1.3	Test method		N/A
C.2	UV light conditioning test		N/A
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
<b>D</b>	<b>TEST GENERATORS</b>		N/A
D.1	Impulse test generators		N/A
D.2	Antenna interface test generator		N/A
D.3	Electronic pulse generator		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
<b>E</b>	<b>TEST CONDITIONS FOR EQUIPMENT CONTAINING AUDIO AMPLIFIERS</b>		N/A
E.1	Audio amplifier normal operating conditions	No such equipment.	N/A
	Audio signal voltage (V).....:		—
	Rated load impedance ( $\Omega$ ) .....		
E.2	Audio amplifier abnormal operating conditions		N/A
<b>F</b>	<b>EQUIPMENT MARKINGS, INSTRUCTIONS, AND INSTRUCTIONAL SAFEGUARDS</b>		P
F.1	General requirements	See below.	P
	Instructions – Language .....	English. Versions in other languages will be provided when national certificate approval.	—
F.2	Letter symbols and graphical symbols		P
F.2.1	Letter symbols according to IEC60027-1		P
F.2.2	Graphic symbols IEC, ISO or manufacturer specific		P
F.3	Equipment markings		P
F.3.1	Equipment marking locations	The equipment marking is provided and is readily visible in operator access area.	P
F.3.2	Equipment identification markings	See below.	P
F.3.2.1	Manufacturer identification .....	See copy of marking plate.	—
F.3.2.2	Model identification .....	See copy of marking plate.	—
F.3.3	Equipment rating markings	See below.	P
F.3.3.1	Equipment with direct connection to mains		N/A
F.3.3.2	Equipment without direct connection to mains	See below.	P
F.3.3.3	Nature of supply voltage.....:	See copy of marking plate.	—
F.3.3.4	Rated voltage .....	See copy of marking plate.	—
F.3.3.4	Rated frequency .....	See copy of marking plate.	—
F.3.3.6	Rated current or rated power.....:	See copy of marking plate.	—
F.3.3.7	Equipment with multiple supply connections		N/A
F.3.4	Voltage setting device		N/A
F.3.5	Terminals and operating devices	See below.	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 .....	Supplied by approved AC/DC adapter.	N/A
F.3.5.4	Replacement battery identification marking .....		N/A
F.3.5.5	Terminal marking location		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
F.3.6	Equipment markings related to equipment classification		N/A
F.3.6.1	Class I Equipment	Class III 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)	Class III equipment.	N/A
F.3.6.2.1	Class II equipment with or without functional earth		N/A
F.3.6.2.2	Class II equipment with functional earth terminal marking		N/A
F.3.7	Equipment IP rating marking .....		—
F.3.8	External power supply output marking		N/A
F.3.9	Durability, legibility and permanence of marking	See below.	P
F.3.10	Test for permanence of markings	Marking is durable and legible. The marking plate has no curling and is not able to be removed easily.	P
F.4	Instructions		P
	a) Equipment for use in locations where children not likely to be present - marking		N/A
	b) Instructions given for installation or initial use	Provided in user's manual.	P
	c) Equipment intended to be fastened in place		N/A
	d) Equipment intended for use only in restricted access area		N/A
	e) Audio equipment terminals classified as ES3 and other equipment with terminals marked in accordance F.3.6.1		N/A
	f) Protective earthing employed as safeguard		N/A
	g) Protective earthing conductor current exceeding ES 2 limits	Not exceed the ES2 limits.	N/A
	h) Symbols used on equipment	Graphical symbols not used as an instructional safeguard.	N/A
	i) Permanently connected equipment not provided with all-pole mains switch		N/A
j)	j) Replaceable components or modules providing safeguard function		N/A
F.5	Instructional safeguards	No instructional safeguard 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
<b>G</b>	<b>COMPONENTS</b>	<i>Supplied by approved AC/DC adapter.</i>	N/A
<b>G.1</b>	<b>Switches</b>		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
G.1.1	General requirements		N/A
G.1.2	Ratings, endurance, spacing, maximum load		N/A
<b>G.2</b>	<b>Relays</b>		N/A
G.2.1	General requirements		N/A
G.2.2	Overload test		N/A
G.2.3	Relay controlling connectors supply power		N/A
G.2.4	Mains relay, modified as stated in G.2		N/A
<b>G.3</b>	<b>Protection Devices</b>		N/A
G.3.1	Thermal cut-offs		N/A
G.3.1.1a) &b)	Thermal cut-outs separately approved according to IEC 60730 with conditions indicated in a) & b)		N/A
G.3.1.1c)	Thermal cut-outs tested as part of the equipment as indicated in c)		N/A
G.3.1.2	Thermal cut-off connections maintained and secure		N/A
G.3.2	Thermal links		N/A
G.3.2.1a)	Thermal links separately tested with IEC 60691		N/A
G.3.2.1b)	Thermal links tested as part of the equipment		N/A
	Aging hours (H) .....		—
	Single Fault Condition .....		—
	Test Voltage (V) and Insulation Resistance ( $\Omega$ ) ..		—
G.3.3	PTC Thermistors		P
G.3.4	Overcurrent protection devices	Current fuse complying with IEC 60127 as overcurrent protection device.	P
G.3.5	Safeguards components not mentioned in G.3.1 to G.3.5		N/A
G.3.5.1	Non-resettable devices suitably rated and marking provided		N/A
G.3.5.2	Single faults conditions .....		N/A
<b>G.4</b>	<b>Connectors</b>		N/A
G.4.1	Spacings		N/A
G.4.2	Mains connector configuration .....		N/A
G.4.3	Plug is shaped that insertion into mains socket-outlets or appliance coupler is unlikely		N/A
<b>G.5</b>	<b>Wound Components</b>		N/A
G.5.1	Wire insulation in wound components .....		N/A
G.5.1.2 a)	Two wires in contact inside wound component, angle between 45° and 90°		N/A
G.5.1.2 b)	Construction subject to routine testing		N/A
G.5.2	Endurance test on wound components		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
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
<b>G.5.3</b>	<b>Transformers</b>		N/A
G.5.3.1	Requirements applied (IEC61204-7, IEC61558-1/-2, and/or IEC62368-1).....:	No such component.	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
<b>G.5.4</b>	<b>Motors</b>		P
G.5.4.1	General requirements	See below.	P
	Position.....:	DC motors used for air-handling only and where the air propelling component is directly coupled to the motor shaft. See Clause G.5.4.6 for the details.	—
G.5.4.2	Test conditions		N/A
G.5.4.3	Running overload test		N/A
G.5.4.4	Locked-rotor overload test		N/A
	Test duration (days).....:		—
G.5.4.5	Running overload test for d.c. motors in secondary circuits		N/A
G.5.4.5.2	Tested in the unit		N/A
	Electric strength test (V).....:		—
G.5.4.5.3	Tested on the Bench - Alternative test method; test time (h).....:		N/A
	Electric strength test (V).....:		—
G.5.4.6	Locked-rotor overload test for d.c. motors in secondary circuits	See below.	P
G.5.4.6.2	Tested in the unit	See sub-clause G.5.4.6.3.	N/A
	Maximum Temperature.....:		N/A
	Electric strength test (V).....:		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
G.5.4.6.3	Tested on the bench - Alternative test method; test time (h).....:	During the test, the motor did not emit flames or molten metal.	P
	Electric strength test (V).....:	Within ES1 limit.	P
G.5.4.7	Motors with capacitors		N/A
G.5.4.8	Three-phase motors		N/A
G.5.4.9	Series motors		N/A
	Operating voltage.....:		—
<b>G.6</b>	<b>Wire Insulation</b>		N/A
G.6.1	General		N/A
G.6.2	Solvent-based enamel wiring insulation		N/A
<b>G.7</b>	<b>Mains supply cords</b>		N/A
G.7.1	General requirements	No mains supply cord provided.	N/A
	Type.....:		—
	Rated current (A).....:		—
	Cross-sectional area (mm <sup>2</sup> ), (AWG).....:		—
G.7.2	Compliance and test method		N/A
G.7.3	Cord anchorages and strain relief for non-detachable power supply cords		N/A
G.7.3.2	Cord strain relief		N/A
G.7.3.2.1	Requirements		N/A
	Strain relief test force (N).....:		—
G.7.3.2.2	Strain relief mechanism failure		N/A
G.7.3.2.3	Cord sheath or jacket position, distance (mm).....:		—
G.7.3.2.4	Strain relief comprised of polymeric material		N/A
G.7.4	Cord Entry.....:		N/A
G.7.5	Non-detachable cord bend protection		N/A
G.7.5.1	Requirements		N/A
G.7.5.2	Mass (g).....:		—
	Diameter (m).....:		—
	Temperature (°C).....:		—
G.7.6	Supply wiring space		N/A
G.7.6.2	Stranded wire		N/A
G.7.6.2.1	Test with 8 mm strand		N/A
<b>G.8</b>	<b>Varistors</b>		N/A
G.8.1	General requirements		N/A
G.8.2	Safeguard against shock		N/A
G.8.3	Safeguard against fire		N/A



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Clause	Requirement + Test	Result - Remark	Verdict
G.8.3.2	Varistor overload test.....:		N/A
G.8.3.3	Temporary overvoltage.....:		N/A
<b>G.9</b>	<b>Integrated Circuit (IC) Current Limiters</b>		N/A
G.9.1 a)	Manufacturer defines limit at max. 5A.		N/A
G.9.1 b)	Limiters do not have manual operator or reset		N/A
G.9.1 c)	Supply source does not exceed 250 VA .....		—
G.9.1 d)	IC limiter output current (max. 5A) .....		—
G.9.1 e)	Manufacturers' defined drift .....		—
G.9.2	Test Program 1		N/A
G.9.3	Test Program 2		N/A
G.9.4	Test Program 3		N/A
<b>G.10</b>	<b>Resistors</b>		N/A
G.10.1	General requirements		N/A
G.10.2	Resistor test		N/A
G.10.3	Test for resistors serving as safeguards between the mains and an external circuit consisting of a coaxial cable		N/A
G.10.3.1	General requirements		N/A
G.10.3.2	Voltage surge test		N/A
G.10.3.3	Impulse test		N/A
<b>G.11</b>	<b>Capacitor and RC units</b>		N/A
G.11.1	General requirements		N/A
G.11.2	Conditioning of capacitors and RC units		N/A
G.11.3	Rules for selecting capacitors		N/A
<b>G.12</b>	<b>Optocouplers</b>		N/A
	Optocouplers comply with IEC 60747-5-5:2007 Spacing or Electric Strength Test (specify option and test results) .....	No such component.	N/A
	Type test voltage Vini .....		—
	Routine test voltage, Vini,b .....		—
<b>G.13</b>	<b>Printed boards</b>		N/A
G.13.1	General requirements		N/A
G.13.2	Uncoated printed boards		N/A
G.13.3	Coated printed boards		N/A
G.13.4	Insulation between conductors on the same inner surface		N/A
	Compliance with cemented joint requirements (Specify construction) .....		—

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Clause	Requirement + Test	Result - Remark	Verdict
G.13.5	Insulation between conductors on different surfaces		N/A
	Distance through insulation .....		N/A
	Number of insulation layers (pcs) .....		—
G.13.6	Tests on coated printed boards		N/A
G.13.6.1	Sample preparation and preliminary inspection		N/A
G.13.6.2a)	Thermal conditioning		N/A
G.13.6.2b)	Electric strength test		N/A
G.13.6.2c)	Abrasion resistance test		N/A
<b>G.14</b>	<b>Coating on components terminals</b>		N/A
G.14.1	Requirements .....		N/A
<b>G.15</b>	<b>Liquid filled components</b>		N/A
G.15.1	General requirements		N/A
G.15.2	Requirements		N/A
G.15.3	Compliance and test methods		N/A
G.15.3.1	Hydrostatic pressure test		N/A
G.15.3.2	Creep resistance test		N/A
G.15.3.3	Tubing and fittings compatibility test		N/A
G.15.3.4	Vibration test		N/A
G.15.3.5	Thermal cycling test		N/A
G.15.3.6	Force test		N/A
G.15.4	Compliance		N/A
<b>G.16</b>	<b>IC including capacitor discharge function (ICX)</b>		N/A
a)	Humidity treatment in accordance with sc5.4.8 – 120 hours		N/A
b)	Impulse test using circuit 2 with $U_c =$ to transient voltage .....		N/A
C1)	Application of ac voltage at 110% of rated voltage for 2.5 minutes		N/A
C2)	Test voltage .....		—
D1)	10,000 cycles on and off using capacitor with smallest capacitance resistor with largest resistance specified by manufacturer		N/A
D2)	Capacitance .....		—
D3)	Resistance .....		—
<b>H</b>	<b>CRITERIA FOR TELEPHONE RINGING SIGNALS</b>		N/A
H.1	General		N/A
H.2	Method A		N/A
H.3	Method B		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
H.3.1	Ringing signal		N/A
H.3.1.1	Frequency (Hz) .....		—
H.3.1.2	Voltage (V) .....		—
H.3.1.3	Cadence; time (s) and voltage (V) .....		—
H.3.1.4	Single fault current (mA):.....		—
H.3.2	Tripping device and monitoring voltage.....		N/A
H.3.2.1	Conditions for use of a tripping device or a monitoring voltage complied with		N/A
H.3.2.2	Tripping device		N/A
H.3.2.3	Monitoring voltage (V) .....		—
<b>J</b>	<b>INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION</b>		N/A
	General requirements		N/A
<b>K</b>	<b>SAFETY INTERLOCKS</b>		N/A
K.1	General requirements		N/A
K.2	Components of safety interlock safeguard mechanism .....		N/A
K.3	Inadvertent change of operating mode		N/A
K.4	Interlock safeguard override		N/A
K.5	Fail-safe		N/A
	Compliance .....		N/A
K.6	Mechanically operated safety interlocks		N/A
K.6.1	Endurance requirement		N/A
K.6.2	Compliance and Test method .....		N/A
K.7	Interlock circuit isolation		N/A
K.7.1	Separation distance for contact gaps & interlock circuit elements (type and circuit location) .....		N/A
K.7.2	Overload test, Current (A) .....		N/A
K.7.3	Endurance test		N/A
K.7.4	Electric strength test .....		N/A
<b>L</b>	<b>DISCONNECT DEVICES</b>		N/A
L.1	General requirements		N/A
L.2	Permanently connected equipment		N/A
L.3	Parts that remain energized		N/A
L.4	Single phase equipment		N/A
L.5	Three-phase equipment		N/A
L.6	Switches as disconnect devices		N/A
L.7	Plugs as disconnect devices		N/A
L.8	Multiple power sources		N/A

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
<b>M</b>	<b>EQUIPMENT CONTAINING BATTERIES AND THEIR PROTECTION CIRCUITS</b>		N/A
M.1	General requirements		N/A
M.2	Safety of batteries and their cells		N/A
M.2.1	Requirements		N/A
M.2.2	Compliance and test method (identify method) ...:		N/A
M.3	Protection circuits		N/A
M.3.1	Requirements		N/A
M.3.2	Tests		N/A
	- Overcharging of a rechargeable battery		N/A
	- Unintentional charging of a non-rechargeable battery		N/A
	- Reverse charging of a rechargeable battery		N/A
	- Excessive discharging rate for any battery		N/A
M.3.3	Compliance .....		N/A
M.4	Additional safeguards for equipment containing secondary lithium battery		N/A
M.4.1	General		N/A
M.4.2	Charging safeguards		N/A
M.4.2.1	Charging operating limits		N/A
M.4.2.2a)	Charging voltage, current and temperature .....		—
M.4.2.2 b)	Single faults in charging circuitry.....		—
M.4.3	Fire Enclosure		N/A
M.4.4	Endurance of equipment containing a secondary lithium battery		N/A
M.4.4.2	Preparation		N/A
M.4.4.3	Drop and charge/discharge function tests		N/A
	Drop		N/A
	Charge		N/A
	Discharge		N/A
M.4.4.4	Charge-discharge cycle test		N/A
M.4.4.5	Result of charge-discharge cycle test		N/A
M.5	Risk of burn due to short circuit during carrying		N/A
M.5.1	Requirement		N/A
M.5.2	Compliance and Test Method (Test of P.2.3)		N/A
M.6	Prevention of short circuits and protection from other effects of electric current		N/A
M.6.1	Short circuits		N/A
M.6.1.1	General requirements		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
M.6.1.2	Test method to simulate an internal fault		N/A
M.6.1.3	Compliance (Specify M.6.1.2 or alternative method) .....		N/A
M.6.2	Leakage current (mA) .....		N/A
M.7	Risk of explosion from lead acid and NiCd batteries		N/A
M.7.1	Ventilation preventing explosive gas concentration		N/A
M.7.2	Compliance and test method		N/A
M.8	Protection against internal ignition from external spark sources of lead acid batteries		N/A
M.8.1	General requirements		N/A
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 <sup>3</sup> /s).....		—
M.8.2.3	Correction factors .....		—
M.8.2.4	Calculation of distance $d$ (mm) .....		—
M.9	Preventing electrolyte spillage		N/A
M.9.1	Protection from electrolyte spillage		N/A
M.9.2	Tray for preventing electrolyte spillage		N/A
M.10	Instructions to prevent reasonably foreseeable misuse (Determination of compliance: inspection, data review; or abnormal testing) .....		N/A
<b>N</b>	<b>ELECTROCHEMICAL POTENTIALS</b>		<b>P</b>
	Metal(s) used.....	Complied.	—
<b>O</b>	<b>MEASUREMENT OF CREEPAGE DISTANCES AND CLEARANCES</b>		<b>N/A</b>
	Figures O.1 to O.20 of this Annex applied .....	Class III equipment.	—
<b>P</b>	<b>SAFEGUARDS AGAINST ENTRY OF FOREIGN OBJECTS AND SPILLAGE OF INTERNAL LIQUIDS</b>		<b>N/A</b>
P.1	General requirements		N/A
P.2.2	Safeguards against entry of foreign object		N/A
	Location and Dimensions (mm) .....		—
P.2.3	Safeguard against the consequences of entry of foreign object		N/A
P.2.3.1	Safeguards against the entry of a foreign object		N/A
	Openings in transportable equipment		N/A
	Transportable equipment with metalized plastic parts.....		N/A
P.2.3.2	Openings in transportable equipment in relation to metallized parts of a barrier or enclosure (identification of supplementary safeguard) .....		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
P.3	Safeguards against spillage of internal liquids		N/A
P.3.1	General requirements		N/A
P.3.2	Determination of spillage consequences		N/A
P.3.3	Spillage safeguards		N/A
P.3.4	Safeguards effectiveness		N/A
P.4	Metallized coatings and adhesive securing parts		N/A
P.4.2 a)	Conditioning testing		N/A
	Tc (°C).....:		—
	Tr (°C).....:		—
	Ta (°C).....:		—
P.4.2 b)	Abrasion testing .....		N/A
P.4.2 c)	Mechanical strength testing .....		N/A
<b>Q</b>	<b>CIRCUITS INTENDED FOR INTERCONNECTION WITH BUILDING WIRING</b>		<b>P</b>
Q.1	Limited power sources		P
Q.1.1 a)	Inherently limited output	(See appended table Annex Q.1)	P
Q.1.1 b)	Impedance limited output		N/A
	- Regulating network limited output under normal operating and simulated single fault condition	All data port of main board are applied by L.P.S.. (See appended table Annex Q.1)	P
Q.1.1 c)	Overcurrent protective device limited output		N/A
Q.1.1 d)	IC current limiter complying with G.9		N/A
Q.1.2	Compliance and test method	(See appended table Annex Q.1)	P
Q.2	Test for external circuits – paired conductor cable		N/A
	Maximum output current (A) .....		—
	Current limiting method .....		—
<b>R</b>	<b>LIMITED SHORT CIRCUIT TEST</b>		<b>N/A</b>
R.1	General requirements	Class III equipment.	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
<b>S</b>	<b>TESTS FOR RESISTANCE TO HEAT AND FIRE</b>		<b>N/A</b>
S.1	Flammability test for fire enclosures and fire barrier materials of equipment where the steady state power does not exceed 4 000 W		N/A
	Samples, material.....:		—
	Wall thickness (mm) .....		—
	Conditioning (°C).....:		—

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Clause	Requirement + Test	Result - Remark	Verdict
	Test flame according to IEC 60695-11-5 with conditions as set out		N/A
	- Material not consumed completely		N/A
	- Material extinguishes within 30s		N/A
	- No burning of layer or wrapping tissue		N/A
S.2	Flammability test for fire enclosure and fire barrier integrity		N/A
	Samples, material.....:		—
	Wall thickness (mm).....:		—
	Conditioning (°C).....:		—
	Test flame according to IEC 60695-11-5 with conditions as set out		N/A
	Test specimen does not show any additional hole		N/A
S.3	Flammability test for the bottom of a fire enclosure		N/A
	Samples, material.....:		—
	Wall thickness (mm).....:		—
	Cheesecloth did not ignite		N/A
S.4	Flammability classification of materials		N/A
S.5	Flammability test for fire enclosures and fire barrier materials of equipment where the steady state power does not exceed 4 000 W		N/A
	Samples, material.....:		—
	Wall thickness (mm).....:		—
	Conditioning (test condition), (°C).....:		—
	Test flame according to IEC 60695-11-20 with conditions as set out		N/A
	After every test specimen was not consumed completely		N/A
	After fifth flame application, flame extinguished within 1 min		N/A
<b>T</b>	<b>MECHANICAL STRENGTH TESTS</b>		<b>P</b>
T.1	General requirements		P
T.2	Steady force test, 10 N.....:		N/A
T.3	Steady force test, 30 N.....:		N/A
T.4	Steady force test, 100 N.....:		N/A
T.5	Steady force test, 250 N.....:	(See appended table T.2, T.3, T.4, T.5)	P
T.6	Enclosure impact test	(See appended table T.6, T.9)	P
	Fall test		P

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Clause	Requirement + Test	Result - Remark	Verdict
	Swing test		P
T.7	Drop test .....		N/A
T.8	Stress relief test.....	(See appended table T.8)	P
T.9	Impact Test (glass)		N/A
T.9.1	General requirements		N/A
T.9.2	Impact test and compliance		N/A
	Impact energy (J) .....		—
	Height (m).....		—
T.10	Glass fragmentation test.....		N/A
T.11	Test for telescoping or rod antennas		N/A
	Torque value (Nm) .....		—
<b>U</b>	<b>MECHANICAL STRENGTH OF CATHODE RAY TUBES (CRT) AND PROTECTION AGAINST THE EFFECTS OF IMPLOSION</b>		N/A
U.1	General requirements		N/A
U.2	Compliance and test method for non-intrinsically protected CRTs		N/A
U.3	Protective Screen.....		N/A
<b>V</b>	<b>DETERMINATION OF ACCESSIBLE PARTS (FINGERS, PROBES AND WEDGES)</b>		N/A
V.1	Accessible parts of equipment		N/A
V.2	Accessible part criterion		N/A



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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 <sup>1</sup>	
LCD Panel with LED backlight	TPV	M350Q***** (* can be A-Z, a-z, 0 - 9, "+", "-", "." or blank, for market purpose only.)	35 inch TFT LCD (power consumption: 116.19W; LED array voltage: 19.95V)	--	Tested in equipment	
Metal enclosure	Interchangeable	Interchangeable	Min. 0.5mm thickness	--	--	
Plastic enclosure	LG Chem Ltd	AF312T, AF365(&), LUPOY GN5001RF(T), LUPOY GN- 5001RF(T) , LUPOY GN- 1001F(#), LUPOY GN- 5007F(#), AF303S, GN-5101RF(#)	Min. V-1, thickness min. 1.5mm	UL94	UL E67171	
Alt.)	Covestro Deutschland AG [PC Resins]	FR3005 + BBS310, GF9011 MF + (z)	Min. V-1, thickness min. 1.5mm	UL94	UL E41613	
Alt.)	ORINKO ADVANCED PLASTICS CO., LTD	ABS900F23, HIPS-2230, HIPS-2230+, PC-TH112, PC/ABS-514	Min. V-1, thickness min. 1.5mm	UL94	UL E328304	
Alt.)	KINGFA SCI & TECH CO LTD	FRHIPSV-0, FRABS-518, HF-606, FRHIPS-960, JH960- 6100/6300/6111	Min. V-1, thickness min. 1.5mm	UL94	UL E171666	
Alt.)	UNIC	UR-360+	Min. V-1, thickness min. 1.5mm	UL94	UL E135175	
Alt.)	SABIC INNOVATIVE PLASTICS US L L C	CM4219, 945A, 925A, 955A	Min. V-1, thickness min. 1.5mm	UL94	UL E121562	
Alt.)	SAMYANG	210NHF(@), 210NHF	Min. V-1, thickness min. 1.5mm	UL94	UL E257054	
Alt.)	Samyang Corporation	3025N1	Min. V-1, thickness min. 1.5mm	UL94	UL E121254	

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
Alt.)	Lotte Advanced Materials Co Ltd	VH-0815(+), NH-1017(p), EN-1052(+), NE-1030(+), VE-1890(+), VE-1897(+), VH-0819(+), GC-1017(+) NE-1030(+), HR-1360(+), NH-1036(+), TH-1100(+), LS-1159(+)	Min. V-1, thickness min. 1.5mm	UL94	UL E115797
Alt.)	Teijin Chemicals Plastic Compounds Shanghai Ltd	MN-3600H, MN-3600HA	Min. V-1, thickness min. 1.5mm	UL94	UL E244324
PCB	Fujian Milky-Way Technology Co Ltd	MW-CEM1	Min. V-1, thickness min. 1.5mm	UL94	UL E168066
Alt.)	Interchangeable	Interchangeable	Min. V-1, thickness min. 1.5mm	UL94	UL
AC/DC Adapter	FSP	FSP230-AJAN3	I/P: 100-240V~, 3A, 50-60Hz O/P: 19.5Vdc/11.79A	IEC 62368-1:2014 (Second Edition)	TUV CB (Certif. No. JPTUV-091475-M1)
Alt.)	FSP	FSP330-AJAN3	I/P: 100-240V~, 4.2A, 50-60Hz O/P: 19.5Vdc/16.9A	IEC 62368-1:2014 (Second Edition)	TUV CB (Certif. No. JPTUV-091269)
PTC (F101 on main board) (F7001, F7002 and F7003 on USB board)	LITTELFUSE INC	1206L075THYR	V <sub>max</sub> : 8Vdc, I <sub>h</sub> : 1.9A, I <sub>t</sub> : 3.9A	UL 1434 ANSI/UL 60730-1	UL (E183209)
DC fan	DongGuan WanHang-EIElectronics Technology Co., Ltd	WSA07010B12H	12Vdc, Max. 0.35, 6.44 CFM	--	Tested in equipment
Plastic material of Audio port on main board and USB board	Interchangeable	Interchangeable	Min. V-1	UL94	UL
Plastic material of data port on main board for software upgrade	Interchangeable	Interchangeable	Min. V-1	UL94	UL

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Clause	Requirement + Test	Result - Remark	Verdict

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

4.8.4, 4.8.5	<b>TABLE: Lithium coin/button cell batteries mechanical tests</b>			N/A
<b>(The following mechanical tests are conducted in the sequence noted.)</b>				
4.8.4.2	<b>TABLE: Stress Relief test</b>			—
	<b>Part</b>	<b>Material</b>	<b>Oven Temperature (°C)</b>	<b>Comments</b>
4.8.4.3	<b>TABLE: Battery replacement test</b>			—
	Battery part no. .... :			—
	Battery Installation/withdrawal	Battery Installation/Removal Cycle		Comments
		1		
		2		
		3		
		4		
		5		
		6		
		7		
		8		
		9		
		10		
4.8.4.4	<b>TABLE: Drop test</b>			—
	Impact Area	Drop Distance	Drop No.	Observations
			2	
4.8.4.5	<b>TABLE: Impact</b>			—
	<b>Impacts per surface</b>	<b>Surface tested</b>	<b>Impact energy (Nm)</b>	<b>Comments</b>
4.8.4.6	<b>TABLE: Crush test</b>			—
	<b>Test position</b>	<b>Surface tested</b>	<b>Crushing Force (N)</b>	<b>Duration force applied (s)</b>
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	
1	--	--	Normal	--	--	--	--
			Abnormal	--	--	--	
			Single fault – D801 short	--	--	--	
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	--	--	--	

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

Test Conditions:

Normal – Max. normal load

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

5.4.1.4, 6.3.2, 9.0, B.2.6	TABLE: Temperature measurements					P	
	Supply voltage (V) .....	19.5Vdc	--	--	--	—	
	Ambient T <sub>min</sub> (°C) .....	24.8	--	--	--	—	
	Ambient T <sub>max</sub> (°C) .....	24.8	--	--	--	—	
	T <sub>ma</sub> (°C) .....	40.0	--	--	--	—	
Maximum measured temperature T of part/at:		T (°C)			Allowed T <sub>max</sub> (°C)		
Tested with DP mode							
DC inlet CN702 (on main board)		49.5	--	--	--	54.8	
PCB near HS401 (on main board)		55.4	--	--	--	89.8	
Heat sink on main GPU		41.6	--	--	--	89.8	
Plastic cover of DC fan		35.2	--	--	--	For ref.	
Metal cover of DC fan		41.0	--	--	--	For ref.	
Copper pipe of heat sink		42.2	--	--	--	89.8	
PCB near Main IC (on main board)		47.2	--	--	--	89.8	
Ambient		24.8 (40)	--	--	--	--	
Touch temperature for accessible part under normal condition							
Plastic enclosure outside		35.1	--	--	--	94	
Metal enclosure		34.7	--	--	--	70	
Panel surface		29.3	--	--	--	94	
Button		28.0	--	--	--	77	
Ambient		24.8 (40)	--	--	--	--	
Supplementary information:							
Temperature T of winding:	t <sub>1</sub> (°C)	R <sub>1</sub> (Ω)	t <sub>2</sub> (°C)	R <sub>2</sub> (Ω)	T (°C)	Allowed T <sub>max</sub> (°C)	Insulation class
Supplementary information:							
Note 1: T <sub>ma</sub> should be considered as directed by applicable requirement							
Note 2: T <sub>ma</sub> is not included in assessment of Touch Temperatures (Clause 9)							

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Clause	Requirement + Test	Result - Remark	Verdict
<b>5.4.1.10.2</b>	<b>TABLE: Vicat softening temperature of thermoplastics</b>		N/A
Penetration (mm).....:			—
Object/ Part No./Material	Manufacturer/t rademark	T softening (°C)	
Supplementary information:			

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

<b>5.4.2.2, 5.4.2.4 and 5.4.3</b>	<b>TABLE: Minimum Clearances/Creepage distance</b>							N/A
Clearance (cl) and creepage distance (cr) at/of/between:	Up (V)	U r.m.s. (V)	Frequency (kHz)	Required cl (mm)	cl (mm)	Required cr (mm)	cr (mm)	
Supplementary information:								

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

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Clause	Requirement + Test	Result - Remark	Verdict
<b>5.4.2.4</b>	<b>TABLE: Clearances based on electric strength test</b>		N/A
Test voltage applied between:	Required cl (mm)	Test voltage (kV) peak/ r.m.s. / d.c.	Breakdown Yes / No
Supplementary information:			

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

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

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Clause	Requirement + Test	Result - Remark	Verdict

5.5.2.2	TABLE: Stored discharge on capacitors					N/A
Supply Voltage (V), Hz	Test Location	Operating Condition (N, S)	Switch position On or off	Measured Voltage (after 2 seconds)	ES Classification	

Supplementary information:  
X-capacitors installed for testing are:  
 bleeding resistor rating:  
 ICX:  
Notes:  
A. Test Location:  
Phase to Neutral; Phase to Phase; Phase to Earth; and/or Neutral to Earth  
B. Operating condition abbreviations:  
N – Normal operating condition (e.g., normal operation, or open fuse); S –Single fault condition

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

Supplementary information:

5.7.2.2, 5.7.4	TABLE: Earthed accessible conductive part		N/A
Supply voltage .....			—
Location	Test conditions specified in 6.1 of IEC 60990 or Fault Condition No in IEC 60990 clause 6.2.2.1 through 6.2.2.8, except for 6.2.2.7		Touch current (mA)
	1		
	2*		--
	3		--
	4		--
	5		--
	6		--
	8		--

Supplementary Information:

Notes:  
[1] Supply voltage is the anticipated maximum Touch Voltage  
[2] Earthed neutral conductor [Voltage differences less than 1% or more]



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Clause	Requirement + Test	Result - Remark	Verdict

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

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

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

6.2.2	TABLE: Electrical power sources (PS) measurements for classification				P
Source	Description	Measurement	Max Power after 3 s	Max Power after 5 s*)	PS Classification
A	DC input on main board	Power (W) .....	--	--	PS3
		VA (V).....	--	--	
		IA (A) .....	--	--	
B	Data ports on main board	Power (W) .....	--	--	PS2 (See Table Annex Q.1)
		VA (V).....	--	--	
		IA (A) .....	--	--	

Supplementary Information:  
(\*) Measurement taken only when limits at 3 seconds exceed PS1 limits

6.2.3.1	Table: Determination of Potential Ignition Sources (Arcing PIS)				N/A
Location	Open circuit voltage After 3 s (V <sub>p</sub> )	Measured r.m.s current (I <sub>rms</sub> )	Calculated value (V <sub>p</sub> x I <sub>rms</sub> )	Arcing PIS? Yes / No	

Supplementary information:  
1) 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<sub>p</sub>) and normal operating condition rms current (I<sub>rms</sub>) is greater than 15.

6.2.3.2	Table: Determination of Potential Ignition Sources (Resistive PIS)				P
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
3)	3)	3)	3)	--	Yes

Supplementary information:  
1) 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.  
2) 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.  
3) All components located within the EUT are considered as resistive PIS.

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Clause	Requirement + Test	Result - Remark	Verdict

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

B.2.5	TABLE: Input test						P
U (V)	I (A)	I rated (A)	P (W)	P rated (W)	Fuse No	I fuse (A)	Condition/status
HDMI mode							
19.5	6.80	11.79	132.6	--	--	--	Max. normal load condition.
DP mode							
19.5	6.54	11.79	127.5	--	--	--	Max. normal load condition.
Supplementary information:							
Equipment may be have rated current or rated power or both. Both should be measured.							

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Clause	Requirement + Test					Result - Remark			Verdict
<b>B.3</b>	<b>TABLE: Abnormal operating condition tests</b>								<b>N/A</b>
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
Openings	Blocked	19.5	4hrs	--	--	Yes	After temperature reached stable, max. measured temp. in Heat sink = 50.9°C, Copper pipe = 49.9°C, Metal enclosure =39.4°C, Plastic enclosure outside near main IC =39.4°C, Panel = 35.3°C, Ambient = 26.5°C		Unit normal operation, No hazards. No damage.
DC fan	Locked	19.5	7hrs	--	--	Yes	After temperature reached stable, max. measured temp. in Heat sink = 81.2°C, Copper pipe = 71.1°C, Metal enclosure =50.4°C, Plastic enclosure outside near main IC =25.6°C, Panel = 34.1°C, Ambient = 24.6°C		Unit normal operation, No hazards. No damage.
Supplementary information: Test table is provided to record abnormal and fault conditions for all applicable energy sources including Thermal burn injury. Column "Abnormal/Fault." Specify if test condition by indicating "Abnormal" then the condition for a Clause B.3 test or "Single Fault" then the condition for Clause B.4.									

<b>B.4</b>	<b>TABLE: Fault condition tests</b>								<b>N/A</b>
Ambient temperature (°C) .....						See below			—
Power source for EUT: Manufacturer, model/type, output rating ...						See table 4.1.2			—
Component No.	Fault Condition	Supply voltage, (V)	Test time (ms)	Fuse no.	Fuse current, (A)	T-couple	Temp. (°C)	Observation	
Supplementary information: 1) SC=Short circuit, OC=Open circuit, OL=Over load									

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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:									

Annex M.4	Table: Additional safeguards for equipment containing secondary lithium batteries							N/A
Battery/Cell No.	Test conditions	Measurements			Observation			
		U	I (A)	Temp (C)				
	Normal							
	Abnormal							
	Single fault –SC/OC							
	Normal							
	Abnormal							
	Single fault – SC/OC							
Supplementary information:								
Battery identification	Charging at T <sub>lowest</sub> (°C)	Observation	Charging at T <sub>highest</sub> (°C)	Observation				
Supplementary information:								

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Clause	Requirement + Test	Result - Remark			Verdict	
<b>Annex Q.1</b>	<b>TABLE: Circuits intended for interconnection with building wiring (LPS)</b>					P
Note: Measured UOC (V) with all load circuits disconnected: See below.						
Output Circuit	Components	U <sub>oc</sub> (V)	I <sub>sc</sub> (A)		S (VA)	
			Meas.	Limit	Meas.	Limit
Tested on main board						
HDMI (CN501) Pin 18 to earth	Normal condition	5.06	0.30	8	1.33	100
See above	Single fault condition C502 short	0	--	8	--	100
HDMI (CN501) others pins to earth	Normal condition	0	--	8	--	100
DP (CN101) Pin 20 to earth <sup>2)</sup> .	Normal condition	3.31	1.80	8	4.52	100
DP (CN101) others pins to earth	Normal condition	0	--	8	--	100
Data port on main board for software upgrade (CN703) Pin 3 to earth	Normal condition	2.30	0 (Can't loaded)	8	0 (Can't loaded)	100
Data port on main board for software upgrade (CN703) Pin 4,8 to earth	Normal condition	3.06	0 (Can't loaded)	8	0 (Can't loaded)	100
Data port on main board for software upgrade (CN703) others pins to earth	Normal condition	0	--	8	--	100

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Clause	Requirement + Test			Result - Remark		Verdict
Micro USB (CN406) Pin1 to earth	Normal condition	5.10	1.34	8	6.21	100
See above	Single fault condition C439 short	0	--	8	--	100
Micro USB (CN406) others pins to earth	Normal condition	0	--	8	--	100
Tested on USB board						
USB 3.0 port (CN7003) (5V/1.5A) pin 1 to GND						
See above	Normal condition	5.01	2.20	8	8.26	100
See above	Single fault condition C7043 Short	0	--	8	--	100
USB 3.0 port (CN7003) (5V/0.9A) other pins to GND						
See above	Normal condition	0	--	8	--	100
USB 3.0 port (CN7002) (5V/0.9A) pin 1 to GND <sup>2)</sup>						
See above	Normal condition	5.01	2.2	8	7.98	100
USB 3.0 port (CN7002) (5V/0.9A) other pins to GND						
See above	Normal condition	0	0 (Can't load)	8	0 (Can't load)	100
Supplementary Information:						
1. Input Voltage is 19.5Vdc.						
2. Approved PTC to meet the requirement of L.P.S. protects output of Data ports, source information see Table 4.1.2.						

T.2, T.3, T.4, T.5	TABLE: Steady force test					P
Part/Location	Material	Thickness (mm)	Force (N)	Test Duration (sec)	Observation	
External plastic enclosure	See table 4.1.2	See table 4.1.2	250	5	All safeguards remained effective.	
Internal metal enclosure	See table 4.1.2	See table 4.1.2	30	5	All safeguards remained effective.	
Supplementary information:						

T.6, T.9	TABLE: Impact tests				P
Part/Location	Material	Thickness (mm)	Vertical distance (mm)	Observation	
External plastic enclosure	See table 4.1.2	See table 4.1.2	1300	All safeguards remained effective.	

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Clause	Requirement + Test	Result - Remark	Verdict

Supplementary information:

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

Supplementary information:

T.8	TABLE: Stress relief test					P
Part/Location	Material	Thickness (mm)	Oven Temperature (°C)	Duration (h)	Observation	
Whole unit	See table 4.1.2	See table 4.1.2	70	7	All safeguards remained effective.	

Supplementary information:

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

<b>ATTACHMENT TO TEST REPORT IEC 62368-1</b> <b>EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES</b> <b>(Audio/video, information and communication technology equipment Part 1: Safety requirements)</b>			
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)			P
1	NOTE Z1		P
4.Z1	Protective devices included as integral parts of the equipment or as parts of the building installation:	See below.	P
	a) Included as parts of the equipment		P
	b) For components in series with the mains; by devices in the building installation		P
	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	No external circuits.	N/A
10.2.1	Additional requirements in 10.5.1	No such radiation from the equipment.	N/A
10.5.1	RS1 compliance measurement conditions	LED indicator used.	N/A
10.6.2.1	EN 71-1:2011, 4.20 and methods and distances	No such consideration for the purpose of personal music players.	N/A
10.Z1	Non-ionizing radiation from radio frequencies in the range 0 to 300 GHz		N/A
G.7.1	NOTE Z1		P

ZB	ANNEX ZB, SPECIAL NATIONAL CONDITIONS (EN)		P
4.1.15	<b>Denmark, Finland, Norway and Sweden:</b> Class I pluggable equipment type A marking	The equipment is Class III equipment.	N/A
4.7.3	<b>United Kingdom:</b> Torque test socket-outlet BS 1363, and the plug part BS 1363.	The equipment is not direct plug-in equipment.	N/A
5.2.2.2	<b>Denmark:</b> Warning for high touch current	No high touch current.	N/A



IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
5.4.11.1 and Annex G	<b>Finland and Sweden:</b> Separation of the telecommunication network from earth	No TNV circuits.	N/A
5.5.2.1	<b>Norway:</b> Capacitors rated for the applicable line-to-line voltage (230 V).	The equipment is Class III equipment.	N/A
5.5.6	<b>Finland, Norway and Sweden:</b> Resistors used as basic safeguard or bridging basic insulation comply with G.10.1 and G.10.2.	No such resistors.	N/A
5.6.1	<b>Denmark:</b> Protection for pluggable equipment type A; integral part of the equipment	The equipment is Class III equipment.	N/A
5.6.4.2.1	<b>Ireland and United Kingdom:</b> The protective current rating is taken to be 13 A	The equipment is Class III equipment.	N/A
5.6.5.1	<b>Ireland and United Kingdom:</b> Conductor sizes of flexible cords to be accepted by terminals for equipment rated 10 A to 13 A	See above.	N/A
5.7.5	<b>Denmark:</b> The installation instruction affixed to the equipment if high protective conductor current	No high protective conductor current.	N/A
5.7.6.1	<b>Norway and Sweden:</b> Television distribution system isolation text in user manual	Not such system.	N/A
5.7.6.2	<b>Denmark:</b> Warning for high touch current	No external circuits.	N/A
B.3.1 and B.4	<b>Ireland and United Kingdom:</b> Tests conducted using an external miniature circuit breaker or protective devices included as an integral part of the direct plug-in equipment	The equipment is not direct plug-in equipment.	N/A
G.4.2	<b>Denmark:</b> Appliances rated $\leq 13$ A provided with a plug according to DS 60884-2-D1:2011.	No power supply cord is provided.	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.	No socket outlets are provided.	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.	No such equipment.	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.	No socket outlets are provided.	N/A
	Other current rating socket outlets in compliance with Standard Sheet DKA 1-3a or DKA 1-1c.	See above.	N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	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	See above.	N/A
G.4.2	<b>United Kingdom:</b> The plug part of direct plug-in equipment assessed to BS 1363	The equipment is not direct plug-in equipment.	N/A
G.7.1	<b>United Kingdom:</b> Equipment fitted with a 'standard plug' in accordance with the Plugs and Sockets etc (Safety) Regulations 1994, Statutory Instrument 1994 No. 1768	No power supply cord is provided.	N/A
G.7.1	<b>Ireland:</b> Apparatus provided with a plug in accordance with Statutory Instrument 525: 1997, "13 A Plugs and Conversion Adapters for Domestic Use	The power supply cord has not been checked, see GENERAL PRODUCT INFORMATION.	N/A
G.7.2	<b>Ireland and United Kingdom:</b> A power supply cord for equipment which is rated over 10 A and up to and including 13 A.	The power supply cord has not been checked, see GENERAL PRODUCT INFORMATION.	N/A

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

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

<b>ATTACHMENT TO TEST REPORT IEC 62368-1</b> <b>DENMARK NATIONAL DIFFERENCES</b> Audio/video, information and communication technology equipment – Part 1: Safety requirements			
<b>Differences according to</b> .....: DS/EN 62368-1:2014			
<b>Attachment Form No.</b> .....: DK_ND_IEC62368_1B			
<b>Attachment Originator</b> .....: UL (Demko)			
<b>Master Attachment</b> .....: 2014-10			
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	National Differences		P
4.1.15	<p>To the end of the subclause the following is added:</p> <p>Class I pluggable equipment type A intended for connection to other equipment or a network shall, if safety relies on connection to reliable earthing or if surge suppressors are connected between the network terminals and accessible parts, have a marking stating that the equipment shall be connected to an earthed mains socket-outlet.</p> <p>The marking text in the applicable countries shall be as follows:</p> <p>“Apparatets stikprop skal tilsluttes en stikkontakt med jord som giver forbindelse til stikproppens jord.”</p>	The equipment is Class III equipment.	N/A
5.2.2.2	<p>After the 2nd paragraph add the following:</p> <p>A warning (marking safeguard) for high touch current is required if the touch current exceeds the limits of 3,5 mA a.c. or 10 mA d.c.</p>	Added.	N/A
5.6.1	<p>Add to the end of the subclause:</p> <p>Due to many existing installations where the socket-outlets can be protected with fuses with higher rating than the rating of the socket-outlets the protection for pluggable equipment type A shall be an integral part of the equipment.</p> <p>Justification:</p> <p>In Denmark an existing 13 A socket outlet can be protected by a 20 A fuse.</p>	The equipment is Class III equipment.	N/A
5.7.5	<p>To the end of the subclause the following is added:</p> <p>The installation instruction shall be affixed to the equipment if the protective conductor current exceeds the limits of 3,5 mA a.c. or 10 mA d.c.</p>	Added.	N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
5.7.6.2	<p>To the end of the subclause the following is added:</p> <p>The warning (marking safeguard) for high touch current is required if the touch current or the protective current exceed the limits of 3,5 mA.</p>	Added.	N/A
G.4.2	<p>To the end of the subclause the following is added:</p> <p>Supply cords of single phase appliances having a rated current not exceeding 13 A shall be provided with a plug according to DS 60884-2-D1:2011.</p> <p>CLASS I EQUIPMENT provided with socket-outlets with earth contacts or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules shall be provided with a plug in accordance with standard sheet DK 2-1a or DK 2-5a.</p> <p>If a single-phase equipment having a RATED CURRENT exceeding 13 A or if a poly-phase equipment is provided with a supply cord with a plug, this plug shall be in accordance with the standard sheets DK 6-1a in DS 60884-2-D1 or EN 60309-2.</p> <p>Mains socket outlets intended for providing power to Class II apparatus with a rated current of 2,5 A shall be in accordance DS 60884-2-D1:2011 standard sheet DKA 1-4a.</p> <p>Other current rating socket outlets shall be in compliance with Standard Sheet DKA 1-3a or DKA 1-1c.</p> <p>Mains socket-outlets with earth shall be in compliance with DS 60884-2-D1:2011 Standard Sheet DK 1-3a, DK 1-1c, DK1-1d, DK 1-5a or DK 1-7a</p> <p>Justification: Heavy Current Regulations, Section 6c</p>	Added.	N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

<b>ATTACHMENT TO TEST REPORT IEC 62368-1 2<sup>th</sup> Ed.</b> <b>U.S.A. NATIONAL DIFFERENCES</b> Audio/video, information and communication technology equipment – Part 1: Safety requirements			
<b>Differences according to</b> .....	CSA/UL 62368-1:2014		
<b>Attachment Form No.</b> .....	US&CA_ND_IEC623681B		
<b>Attachment Originator</b> .....	UL(US)		
<b>Master Attachment</b> .....	Date 2015-06		
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<b>IEC 62368-1 - US and Canadian National Differences</b> <b>Special National Conditions based on Regulations and Other National Differences</b>			
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.	In accordance with the National Electrical Code (NEC) and the Canadian Electrical Code (CEC) part 1 CAN/CSA C22.1, ANSI/NFPA 70, and unless marked or otherwise identified, the Standard for Electronic Computer/Data-Processing Equipment, ANSI/NFPA 75.	P
1.4	Additional requirements apply to some forms of power distribution equipment, including sub-assemblies.	The equipment is Class III 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.	Not exceeding 3.05 m.	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.	Overall acceptance has to be evaluated during the national approval process.	N/A
4.8	Lithium coin / button cell batteries have modified special construction and performance requirements.	No such parts.	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	The equipment is Class III equipment.	N/A
5.7.7	Equipment intended to receive telecommunication ringing signals complies with a special touch current measurement tests.	No TNV circuits within the equipment.	N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
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 such parts.	N/A
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 DC output connector is provided.	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.	The equipment is not permanent connection equipment.	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.	No power supply cord is provided.	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.	See above.	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.	See above.	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 TNV circuits within the equipment.	N/A
Annex H.4	For circuits with other than ringing signals and with voltages exceeding 42.4 V <sub>peak</sub> 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.	No TNV circuits within the equipment.	N/A
Annex M	Battery packs for stationary applications comply with special component requirements.	No such parts.	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.	The equipment not intended to be used within such environments.	N/A
	For ITE room applications, automated information storage systems with combustible media greater than 0.76 m <sup>3</sup> (27 cu ft) have a provision for connection of either automatic sprinklers or a gaseous agent extinguishing system with an extended discharge.	Not such equipment.	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.	The equipment is not for children used.	N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Baby monitors additionally comply with ASTM F2951, Consumer Safety Specification for Baby Monitors.	Not a baby monitors.	N/A
Annex DVA (5.6.3)	For Pluggable Equipment Type A, the protection in the installation is assumed to be 20A.	The equipment is Class III equipment.	N/A
Annex DVA (6.3)	The maximum quantity of flammable liquid stored in equipment complies with NFPA 30.	No flammable liquids within the equipment.	N/A
Annex DVA (6.4.8)	For ITE room applications, enclosures with combustible material measuring greater than 0.9 m <sup>2</sup> (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.	No such application.	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 such parts.	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).	No such parts.	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."	Single phase only.	N/A
Annex DVA (F.3.3.5)	Equipment identified for ITE (computer) room installation is marked with the rated current	Not such application.	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	No such parts.	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 standard supply outlets, receptacles, medium-base or smaller lampholders are provided.	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 such parts.	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 parts.	N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
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 such parts.	N/A
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 such parts.	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 such application.	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.	Not applicable for the equipment.	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 such application.	N/A
Annex DVC (1)	Additional requirements apply for equipment intended for mounting under kitchen cabinets.	Not such application.	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.	The equipment is Class III equipment.	N/A
Annex DVH	Equipment for permanent connection to the mains supply is subjected to additional requirements.	The equipment is not permanently connected equipment.	N/A



IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
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.	The equipment is pluggable equipment type A.	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.	No terminals for permanent wiring.	N/A
Annex DVH (DVH.3.2)	Wire binding screws are not permitted to attach conductors larger than 10 AWG (5.3 mm <sup>2</sup> ).	No wire binding screws.	N/A
Annex DVH (DVH.4)	Permanently connected equipment is required to have a suitable wiring compartment and wire bending space.	The equipment is not permanently connected equipment.	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.	The equipment 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.	No TNV circuits within the equipment.	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.	No TNV circuits within the equipment.	N/A

Product: LCD MONITOR

Type Designation: AG353UCG, \*\*353\*\*\*\*\* (\* can be 0-9, A-Z, a-z, -, \, /, + or blank, represent different enclosure colour for marketing purpose)



Figure 1. Front view



Figure 2. Rear view

Product: LCD MONITOR

Type Designation: AG353UCG, \*\*353\*\*\*\*\* (\* can be 0-9, A-Z, a-z, -, \, /, + or blank, represent different enclosure colour for marketing purpose)



Figure 3. Stand base

Product: LCD MONITOR

Type Designation: AG353UCG, \*\*353\*\*\*\*\* (\* can be 0-9, A-Z, a-z, -, \, /, + or blank, represent different enclosure colour for marketing purpose)

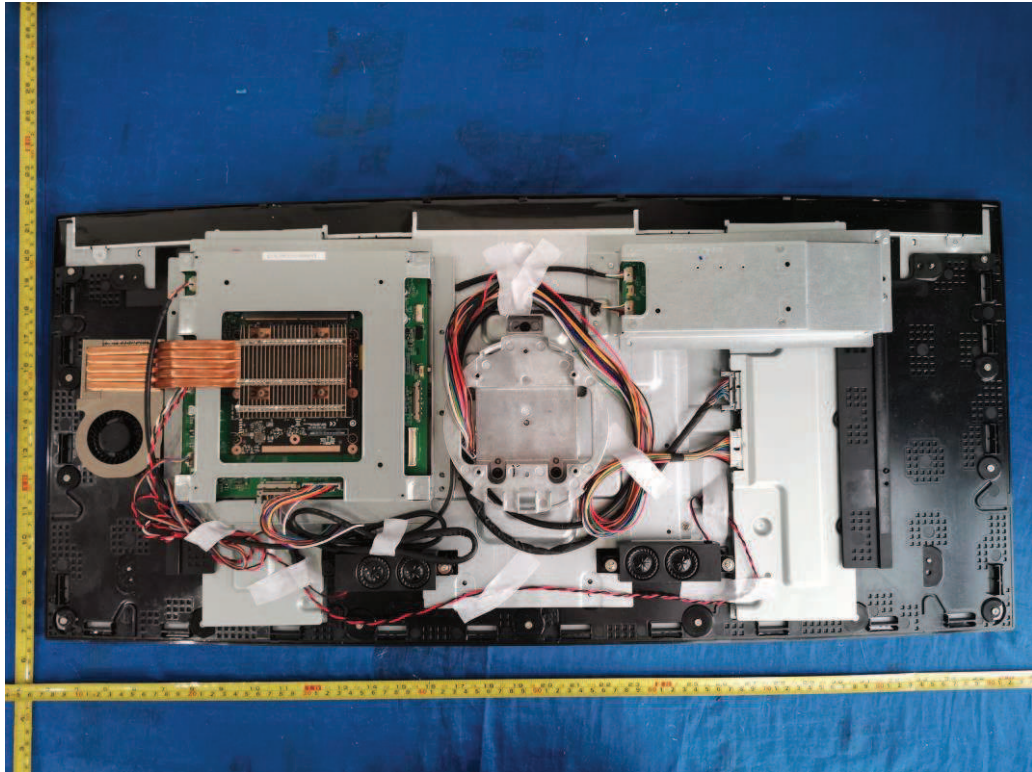


Figure 4. Internal view

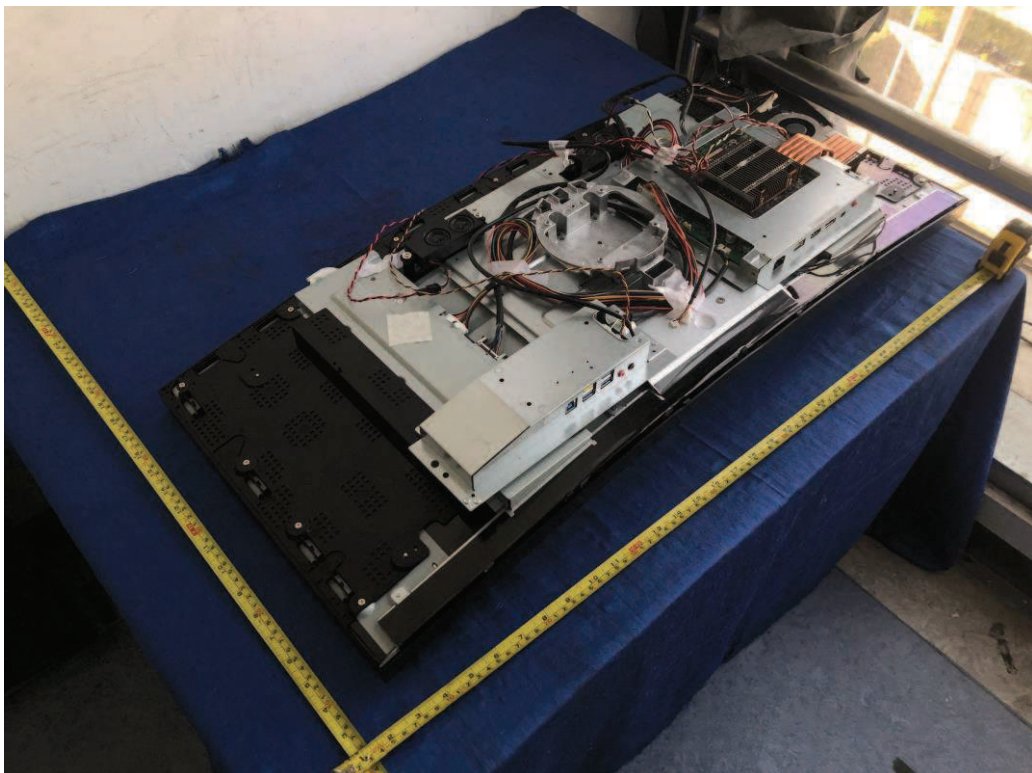


Figure 5. Internal view

Product: LCD MONITOR

Type Designation: AG353UCG, \*\*353\*\*\*\*\* (\* can be 0-9, A-Z, a-z, -, \, /, + or blank, represent different enclosure colour for marketing purpose)

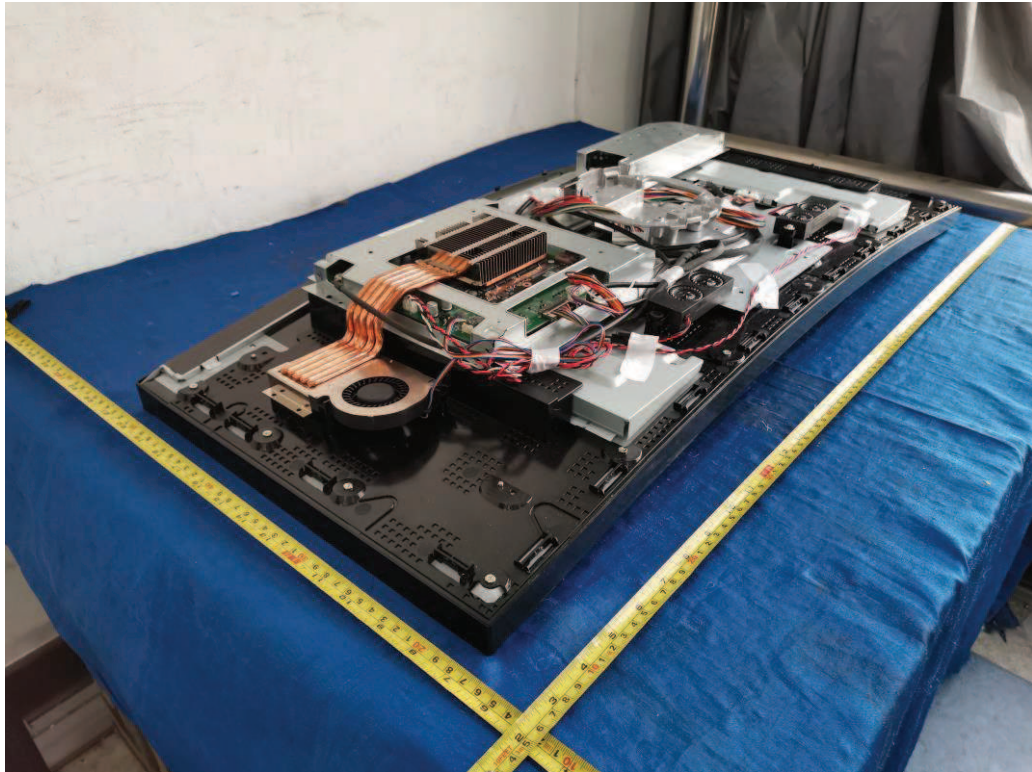


Figure 6. Internal view

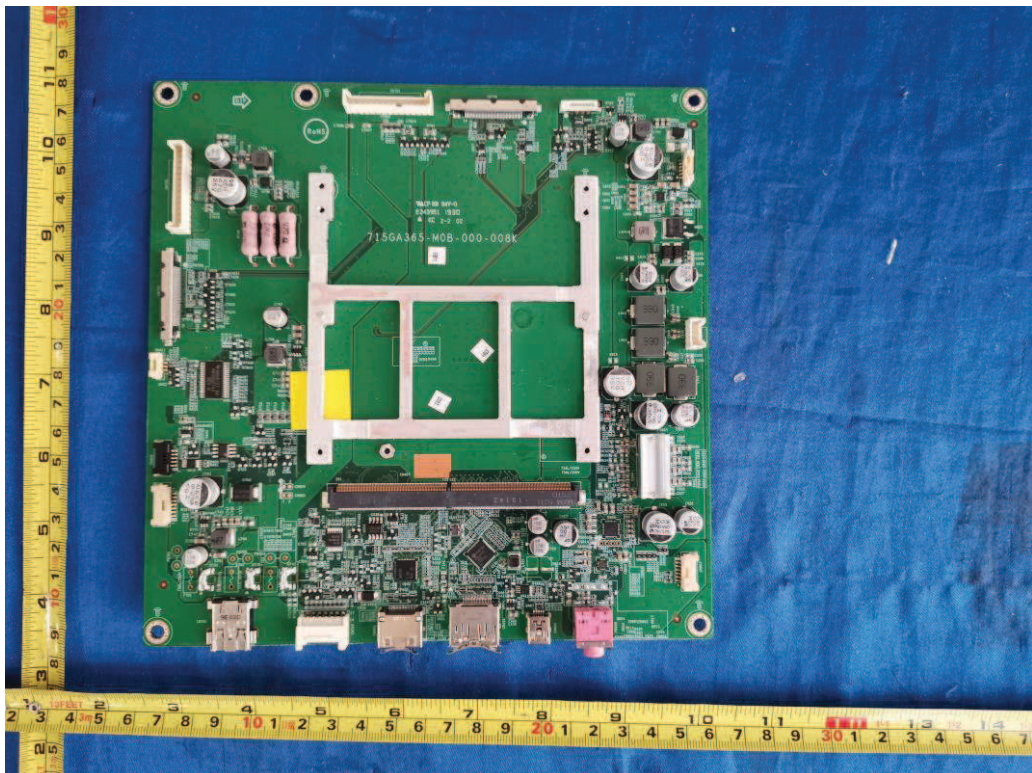


Figure 7. Main board

Product: LCD MONITOR

Type Designation: AG353UCG, \*\*353\*\*\*\*\* (\* can be 0-9, A-Z, a-z, -, \, /, + or blank, represent different enclosure colour for marketing purpose)

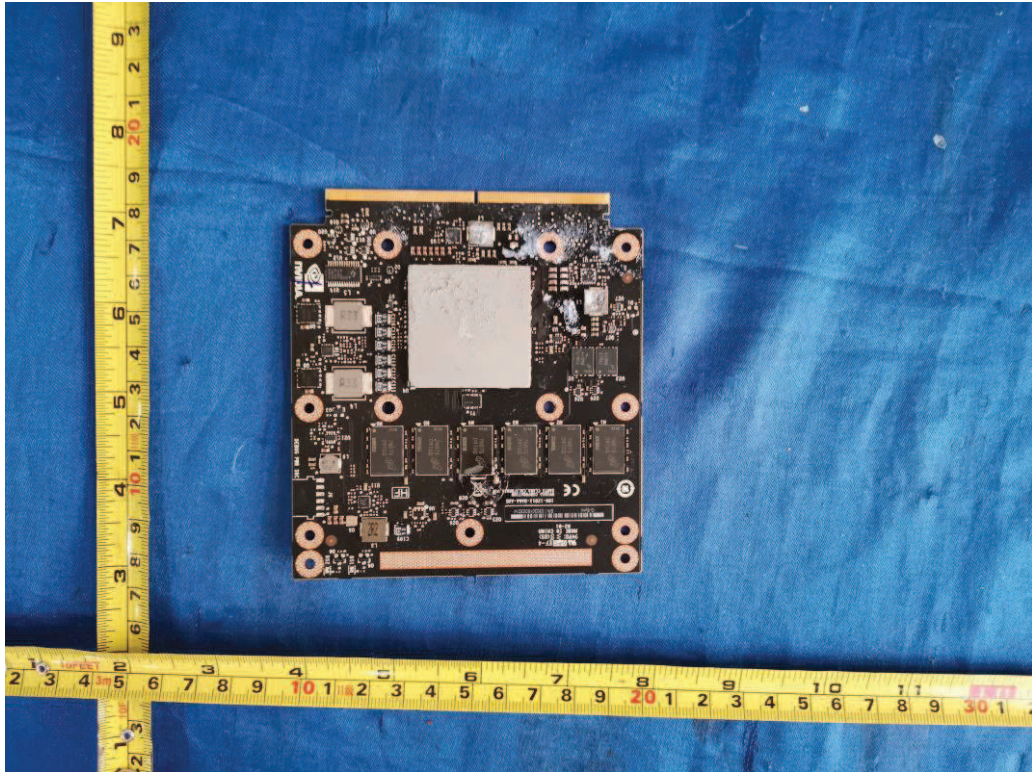


Figure 8. GPU board

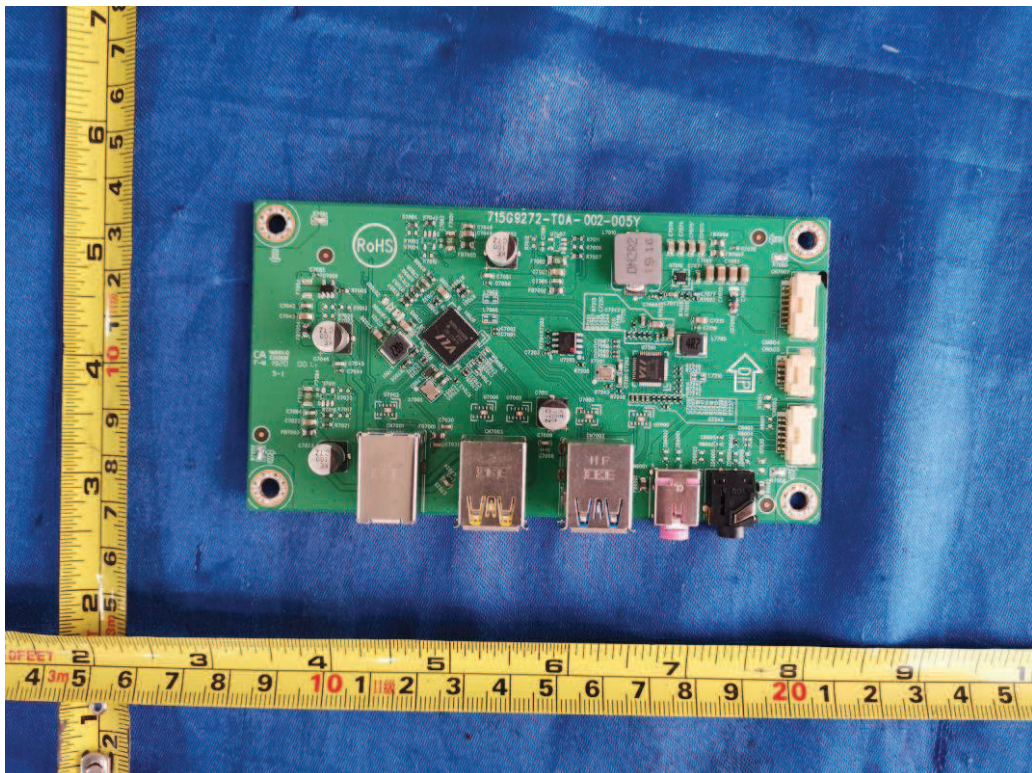


Figure 9. USB board