



Ref. Certif. No.

JPTUV-096720

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

Top Victory Electronics (Taiwan) Co., Ltd.
10F., No. 230, Liancheng Rd.
Zhonghe Dist., New Taipei City, 23553 Taiwan

Name and address of the manufacturer
Nom et adresse du fabricant

NEC Display Solutions, Ltd.
4-28, Mita 1-chome, Minato-ku
Tokyo, 108-0073 Japan

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

AC 100-240V; 50/60Hz; 2.40-1.0A (2.4A for Mexico); Class I

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

NEC

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

N/A

Model / Type Ref.
Ref. de type

PA311D-BK

Additional information (if necessary may also be
reported on page 2)
Les informations complémentaires (si nécessaire,
peuvent être indiqués sur la 2^{ème} page)

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

50244976 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



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Global Technology Assessment Center
4-25-2 Kita-Yamata, Tsuzuki-ku
Yokohama 224-0021 Japan
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Signature:

Dipl.-Ing. F. Stoelzel

Date: 09.05.2019

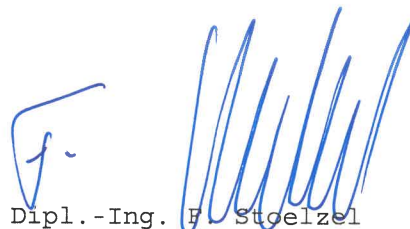
1. TPV Display Technology (Wuhan)
Co., Ltd.
Unique No. 11, Zhuankou Development
District of Economic Technological
Development Zone, Wuhan City 430056, P. R. China
2. TPV Electronics (Fujian) Co., Ltd.
Shangzheng, Yuan Hong Road
Fuqing City, Fujian Province
P. R. China
3. Envision Industry of Electronic
Products Ltd.
Rodovia Anhanguera S/N-KM 49
Tijucó Preto-Jundiá-SP-
13.205-700, Brazil
4. L&T Display Technology (Fujian) Ltd.
Optoelectronic Park, Rongqiao
Economic and Technological
Development Zone
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5. TPV Electronics (Fujian) Co., Ltd.
Rongqiao Economic and
Technological Development Zone
Fuqing City, Fujian Province
P. R. China
6. 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
7. 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
8. Envision Industry of Electronic
Products Ltd.
Av Torquato Tapajós 7503,
Galpão : II Bloco: B-Condomínio
de Galpões-Tarumã-Manaus, AM, Brazil
9. TPV Technology (Qingdao)
Co., Ltd.
No.99 Huoju Road, High-tech
Industrial Development Zone
Qingdao City, Shandong Province, P. R. China

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

Report Ref. No.: 50244976 001

Date: 09.05.2019

Signature:


Dipl.-Ing. F. Stöelzel

10. TPV Display Technology (China)
Co., Ltd.
No. 106 Jinghai 3 Rd., BDA
Beijing City 100176
P. R. China
11. Hefei Huntkey Display Technology
Co., Ltd.
South Jinxiu Road,
East Qingtian Road, Economic And
Technological Development Zone, Hefei, Anhui 230601, P. R. China
12. TPV Electronics (Fujian) Co., Ltd.
Optoelectronic Park,
Rongqiao Economic and
Technological Development Zone,
Fuqing City, Fujian Province 350301, P. R. China
13. Envision Indústria de Produtos
Eletrônicos Ltda.
Av. Torquato Tapajós, 2236,
Flores - CEP 69058-830 - Manaus/AM
Brazil

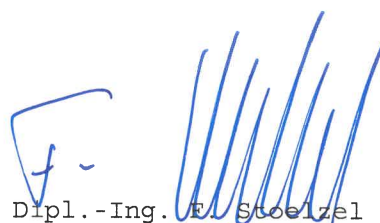
Additional information (if necessary)
Information complémentaire (si nécessaire)

Report Ref. No.: 50244976 001

Date:

09.05.2019

Signature:


Dipl.-Ing. F. Stöelzel



Test Report issued under the responsibility of:



TEST REPORT

IEC 62368-1

Audio/video, information and communication technology equipment

Part 1: Safety requirements

Report Number : 50244976 001

Date of issue : May, 06, 2019

Total number of pages : 100

Applicant's name : Top Victory Electronics (Taiwan) Co., Ltd.

Address : 10F., No. 230, Liancheng Rd., Zhonghe Dist., New Taipei City, 23553
Taiwan

Test specification:

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

Test procedure : CB Scheme

Non-standard test method : N/A

Test Report Form No. : IEC62368_1B

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

Master TRF : 2014-03

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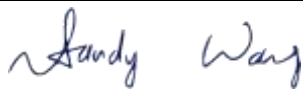
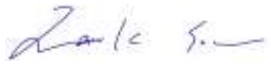
If this Test Report Form is used by non-IECEE members, the IECEE/IEC logo and the reference to the CB Scheme procedure shall be removed.

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

General disclaimer:

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

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.

Test Item description	LCD Monitor	
Trade Mark	NEC	
Manufacturer	NEC Display Solutions, Ltd. 4-28, Mita 1-chome, Minato-ku, Tokyo, 108-0073 Japan	
Model/Type reference	PA311D-BK	
Ratings	100-240V~, 50/60Hz, 2.40-1.0A (2.4A for Mexico)	
Testing procedure and testing location:		
☒ CB Testing Laboratory:	TÜV Rheinland Taiwan Ltd., Taichung Branch	
Testing location/ address	No. 9, Ln. 36, Sec. 3, Minsheng Rd., Daya District, Taichung City, 428 Taiwan, Chinese Taipei	
Tested by (name, function + signature)	Sandy Wang / Project handler	
Approved by (name, function + signature) ..	Frank Sun / Reviewer	
☐ Testing procedure: CTF Stage 1		
Testing location/ address		
Tested by (name, function + signature)		
Approved by (name, function + signature) ..		
☐ Testing procedure: CTF Stage 2		
Testing location/ address		
Tested by (name, function + signature)		
Witnessed by (name, function + signature) :		
Approved by (name, function + signature) ..		
☐ Testing procedure: CTF Stage 3		
☐ Testing procedure: CTF Stage 4		
Testing location/ address		
Tested by (name, function + signature)		
Approved by (name, function + signature) ..		
Supervised by (name, function + signature):		

List of Attachments (including a total number of pages in each attachment): - Photo Documentation - National Differences - ATTACHMENT (included Transformer specifications) Total number of pages in each attachment is indicated in each individual attachment.	
Summary of testing:	
Tests performed (name of test and test clause): All applicable tests as described in Test Case and Measurement Sections were performed. - The maximum normal load condition used as below during testing: - The equipment operated under maximum brightness, maximum contrast of LED backlight circuit and the volume with 1kHz sinusoidal waveform of unit adjusted to maximum attainable output and dummy load of 5V/0.5A for SENS/MEM port, 5V/0.9A for each USB downstream port (Type-A) (total three provided) and 3.3V/0.5A for Display port (total two provided) and 20V / 3.25A for USB Type C, RJ45 port connected to computer, refer to appended table B.2 - The equipment operated under maximum brightness, maximum contrast of LED backlight circuit and the volume with 1kHz sinusoidal waveform of unit adjusted to maximum attainable output and dummy load of 5V/0.5A for SENS/MEM port, 5V/0.9A for each USB downstream port (Type-A) (total three provided) and 3.3V/0.5A for Display port (total two provided) refer to appended table 1.6.2 for USB type C mode. - The test samples are pre-production without serial numbers. - The equipment provided wall mounting function and complied with loading test mentioned at sub-clause 8.10.3. - The equipment has been evaluated according to the specified by the manufacturer maximum operating altitude of 5000m (correction factor for clearances according to IEC 60664:2007 of 1.48 is considered). - The manufacturer specified the maximum ambient temperature as +40°C. - The LCD Monitor can be operated in landscape (0°) to portrait mode (90°) when main board downside. - The decision rule of conformity of this test report is following the requirements of the requested standard in this test report, and agreed among testing laboratory and manufacturer (applicant) to exclude the consideration of Measurement Uncertainty. - Tests are performed for following details. - Classification and limits of electrical energy sources (5.2) - Temperature tests (5.4.1.4, 6.3.2, 9.0, B.2.6) - Temperature of working voltage (5.4.1.8)	Testing location: Unless otherwise indicated, all tests were performed at the location stated in "Testing procedure and testing location".

- Humidity conditioning (5.4.8) - Electric strength (5.4.9) - Stored Discharge on Capacitors (5.5.2.2) - Protective conductor (5.6.6.2) - Earthed accessible conductive parts (5.7.2.2, 5.7.4) - Protective conductor current (5.7.5) - Classification of power sources (PS) and potential ignition sources (PIS) (6.2.2) - Safeguards against fire under normal operating conditions and abnormal operating conditions (6.3) - Safeguards against fire under single fault conditions (6.4) - Static stability (8.6.2) - Glass slide test (8.6.4) - Horizontal force test (8.6.5) - Equipment mounted to a wall or ceiling (8.7) - Handle Strength (8.8) - Input current (B.2.5) - Abnormal operating and fault conditions (B.3, B.4) - Equipment markings, instructions, and instructional safeguards (Annex F) - Circuits intended for interconnection with building wiring (Q.1) - Transformer overload test (G.5.3.3) - Steady force test (T.5) - Impact test (T.6)	
Summary of compliance with National Differences: List of countries addressed: <u>Summary of compliance with National Differences to IEC 62368-1:2014 (Second Edition) and EN 62368-1:2014+ A11: 2017 (for explanation of codes see below):</u> EU Group Differences, EU Special National Conditions, AU, CA, DE, DK, FI, IT, NO, SE, US, JP. Explanation of used codes: AU=Australia, CA=Canada, DE=Germany, DK=Denmark, FI=Finland, IT=Italy, JP=Japan, NO=Norway, SE=Sweden, US=United States of America. ☒ The product fulfils the requirements of <u>EN 62368-1:2014+ A11:2017</u> For National Differences see corresponding Attachment.	

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.



TEST ITEM PARTICULARS:	
Classification of use by.....:	☒ Ordinary person ☐ Instructed person ☐ Skilled person ☒ Children likely to be present
Supply Connection	☒ AC Mains ☐ DC Mains ☐ External Circuit - not Mains connected - ☐ ES1 ☐ ES2 ☐ ES3
Supply % Tolerance	☒ +10%/-10% ☐ +20%/-15% ☐ +15 %/-15 % ☐ None
Supply Connection – Type	☒ pluggable equipment type A - ☐ non-detachable supply cord ☒ appliance coupler ☐ direct plug-in ☐ mating connector ☐ pluggable equipment type B - ☐ non-detachable supply cord ☐ appliance coupler ☐ permanent connection ☐ mating connector ☐ other: _____
Considered current rating of protective device as part of building or equipment installation.....:	16 A, 13 A (GB) or 20 A (US and Canada) (For building) Installation location: ☒ building; ☒ equipment (5A for Equipment)
Equipment mobility.....:	☒ movable ☐ hand-held ☐ transportable ☒ stationary (when with mounting function) ☐ for building-in manufacture ☐ direct plug-in ☐ rack-mounting ☒ wall-mounted
Over voltage category (OVC)	☐ OVC I ☒ OVC II ☐ OVC III ☐ OVC IV ☐ other: _____
Class of equipment	☒ Class I ☐ Class II ☐ Class III
Access location	☐ restricted access location ☒ N/A
Pollution degree (PD)	☐ PD 1 ☒ PD 2 ☐ PD 3
Manufacturer's specified maximum operating ambient	40 °C
IP protection class	☒ IPX0
Power Systems	☒ TN ☐ TT ☒ IT - 230 V _{L-L}
Altitude during operation (m)	☐ 2000 m or less ☒ Up to 5000 m
Altitude of test laboratory (m)	☒ 2000 m or less ☐ _____ m
Mass of equipment (kg)	☒ Approx. 14.6kg (unit with base stand); Base stand 6.26kg

POSSIBLE TEST CASE VERDICTS:	
- test case does not apply to the test object	N/A
- test object does meet the requirement	P (Pass)
- test object does not meet the requirement	F (Fail)
TESTING:	
Date of receipt of test item	2019-01-07
Date (s) of performance of tests	2019-01-14 to 2019-02-11
GENERAL REMARKS:	
"(See Enclosure #)" refers to additional information appended to the report. "(See appended table)" refers to a table appended to the report. Throughout this report a ☐ comma / ☒ point is used as the decimal separator.	
Manufacturer's Declaration per sub-clause 4.2.5 of IECEE 02:	
The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided.....	☒ Yes ☐ Not applicable
When differences exist; they shall be identified in the General product information section.	

Name and address of factory (ies).....:	Name and address of factory (ies):
	1) TPV Electronics (Fujian) Co., Ltd. Shangzheng, Yuan Hong Road, Fuqing City, Fujian Province, P. R. China 2) TPV Display Technology (Wuhan) Co., Ltd. Unique No. 11, Zhuankou Development District of Economic Technological Development Zone, Wuhan City 430056, P. R. China 3) Envision Industry of Electronic Products Ltd. Rodovia Anhanguera S/N - KM 49 Tijuco Preto-Jundiaí - SP- 13.205-700, Brazil 4) Envision Industry of Electronic Products Ltd. Av Torquato Tapajós 7503, Galpão : II Bloco: B Condomínio de Galpões - Tarumã -Manaus, AM, Brazil 5) L&T Display Technology (Fujian) Ltd. Optoelectronic Park, Rongqiao Economic and Technological Development Zone, Fuqing, Fujian 350301, P. R. China 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. No.99 Huoju Road, High-tech Industrial Development Zone, 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) Hefei Huntkey Display Technology Co., Ltd. South Jinxiu Road, East Qingtan Road, Economic And Technological Development Zone, Hefei, Anhui 230601, P. R. China 10) 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 11) TPV Electronics (Fujian) Co., Ltd. Optoelectronic Park, Rongqiao Economic and Technological Development Zone, Fuqing City, Fujian Province 350301, P. R. China 12) Envision Indústria de Produtos Eletrônicos Ltda. Av. Torquato Tapajós, 2236, Flores - CEP 69058-830 - Manaus/AM Brazil 13) TPV Electronics (Fujian) Co., Ltd. Rongqiao Economic and Technological Development Zone, Fuqing City, Fujian Province, P. R. China

GENERAL PRODUCT INFORMATION:**Product Description –**

The equipment models which see page 2 is a LCD Monitor for using within the scope of this standard.

The equipment consists of the following critical components:

- LCD panel (LED backlight type)
- Building-in type non-approved switching power supply board;
- Main board type 715GA088 (with HDMI port IN x2, Display port IN x2, LAN port IN, Headphone Jack, USB downstream port (Type-A) x3, USB Upstream port (Type-B) x2, SENS/MEM Port (not USB hub connection), USB-C port(5V, 9V, 12V, 15V, 20V));
- T-Con board
- Internal speak;
- Key control board;
- Base;
- Internal metal enclosure;
- External plastic enclosure

The suitable power supply cord will be provided and evaluated during national approval.

This equipment is intended to be installed by qualified service personnel.

All sources of L9901 are similar to each other except for type designation and manufacturer.

All sources of L9903 are similar to each other except for type designation and manufacturer.

All sources of L9801 are similar to each other except for type designation and manufacturer.

All sources of T9101 are similar to each other except for type designation and manufacturer.

All sources of T9301 are similar to each other except for type designation and manufacturer.

Model Differences

- N/A

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

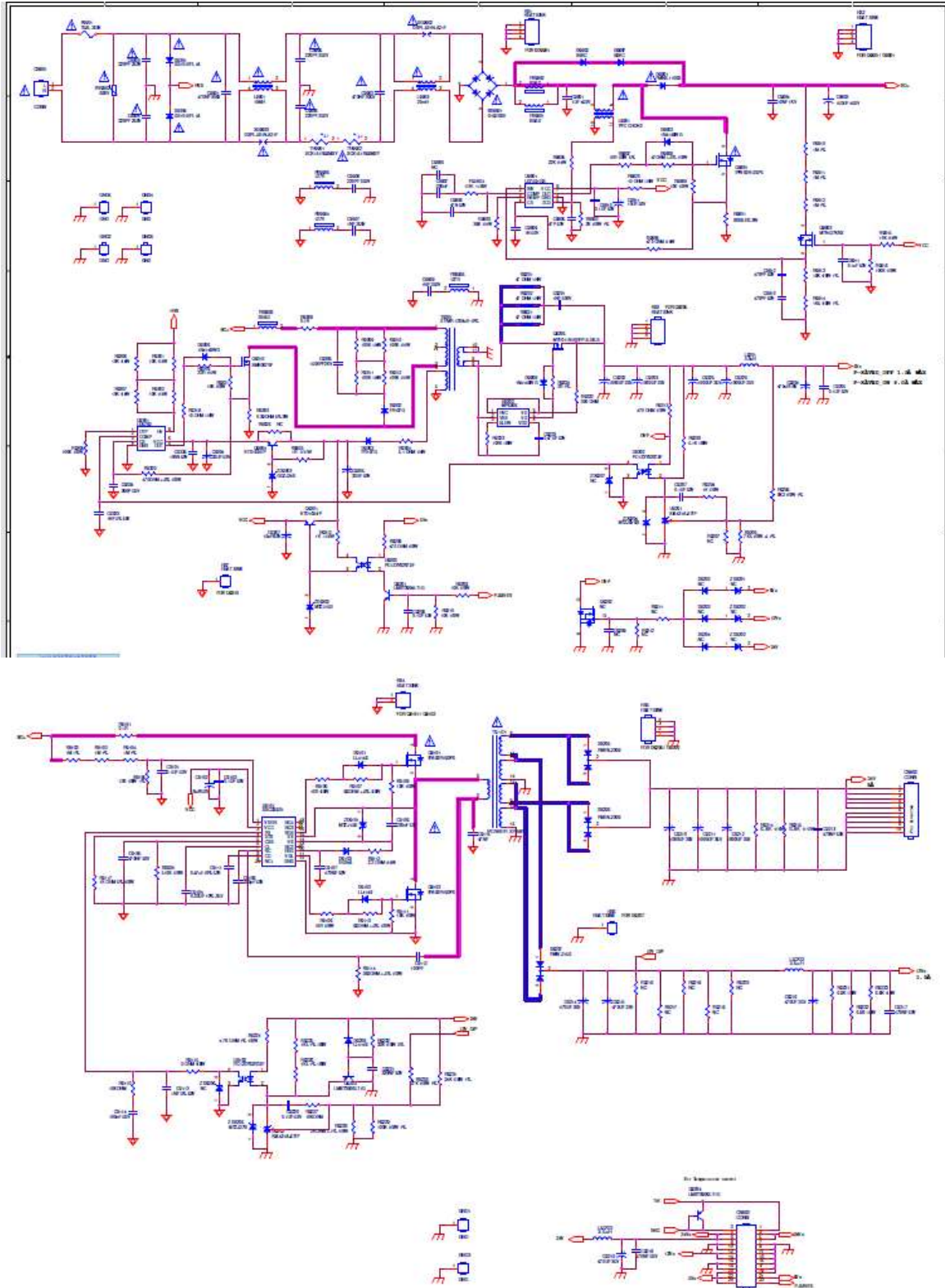
N/A

IEC62368 1B

ENERGY SOURCE IDENTIFICATION AND CLASSIFICATION TABLE:	
Radiation (Clause 10) (Note: List the types of radiation present in the product and the corresponding energy source classification.) Example: DVD – Class 1 Laser Product RS1	
Type of radiation	Corresponding classification (RS)
Photocoupler	RS1
Panel	RS1
Indicating Light	RS1

ENERGY SOURCE DIAGRAM

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

For Building-in Power board

■ ES ■ PS ■ MS ■ TS ■ RS

OVERVIEW OF EMPLOYED SAFEGUARDS				
Clause	Possible Hazard			
5.1	Electrically-caused injury			
Body Part (e.g. Ordinary)	Energy Source (ES3: Primary Filter circuit)	Safeguards		
		Basic	Supplementary	Reinforced (Enclosure)
Ordinary	ES3: Primary circuit	N/A	N/A	Metal Enclosure Transformer, optocoupler, bridging capacitor, Bleeder Resistors and Discharge IC
Ordinary	ES1: LED driver circuit output	N/A	N/A	N/A
Ordinary	ES1: Secondary Circuit	N/A	N/A	N/A
Ordinary	ES1: All output connector	N/A	N/A	N/A
Ordinary	ES1: Metal enclosure	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
Combustible materials within equipment fire enclosure	PS3: > 100 Watt circuit (Primary circuits)	No ignition occurs see sub-clause 6.3	see sub-clause 6.4.5, 6.4.6 for detail	N/A
	PS3: > 100 Watt circuit (Secondary circuits)		see sub-clause 6.4.5 for detail	
Metal enclosure	PS3: > 100 Watt circuit (Primary circuits)	No ignition occurs see sub-clause 6.3	see sub-clause 6.4.5 for detail	N/A
	PS3: > 100 Watt circuit (Secondary circuits)		see sub-clause 6.4.5 for detail	
Internal wiring material	PS3: > 100 Watt circuit (Secondary circuits)	No ignition occurs see sub-clause 6.3	see sub-clause 6.5 for detail	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	N/A	N/A	N/A

	corners			
Ordinary	MS2: Equipment mass – mass < 25 kg	see sub-clause 8.6 (skid proof pad provided for stand)	N/A	N/A
Ordinary	MS3: Wall mount	N/A	N/A	see sub-clause 8.7
9.1	Thermal Burn			
Body Part (e.g., Ordinary)	Energy Source (TS2)	Safeguards		
		Basic	Supplementary	Reinforced
Ordinary	TS1: All 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
N/A	RS1: Indicating lights	N/A	N/A	N/A
N/A	RS1: Panel	N/A	N/A	N/A
N/A	RS1: Photo coupler	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. Also see sub-clause B.2, B.3 and B.4	P
4.1.15	Markings and instructions	(See Annex F)	P
4.4.4	Safeguard robustness	For adhesives securing parts serving as safeguards, see Annex P.4. Others see below.	P
4.4.4.2	Steady force tests	See Annex T.	P
4.4.4.3	Drop tests		N/A
4.4.4.4	Impact tests	See Annex T.	P
4.4.4.5	Internal accessible safeguard enclosure and barrier tests		N/A
4.4.4.6	Glass Impact tests.....	No such glass is accessible to ordinary person or instructed person.	N/A
4.4.4.7	Thermoplastic material tests	Phenolic material used and described in sub-clauses 5.4.1.10 to 5.4.1.10.3.	P
4.4.4.8	Air comprising a safeguard	(See Annex T)	P
4.4.4.9	Accessibility and safeguard effectiveness	No damaged. The class 3 or 2 energy sources could not become accessible to an ordinary person, and all other safeguards remain effective during and after above tests.	P
4.5	Explosion	No explosion occurs during normal/abnormal operation and single fault conditions.	P
4.6	Fixing of conductors	See below.	P
4.6.1	Fix conductors not to defeat a safeguard	Compliance checked.	P
4.6.2	10 N force test applied to	10 N applied to all components other than the parts serving as an enclosure (See appended table	P

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
		5.4.2.2, 5.4.2.4 and 5.4.3).	
4.7	Equipment for direct insertion into mains socket - outlets	The equipment is not 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 are used.	N/A
4.8.2	Instructional safeguard		N/A
4.8.3	Battery Compartment Construction		N/A
	Means to reduce the possibility of children removing the battery		—
4.8.4	Battery Compartment Mechanical Tests.....		N/A
4.8.5	Battery Accessibility		N/A
4.9	Likelihood of fire or shock due to entry of conductive object	See Annex P	P

5	ELECTRICALLY-CAUSED INJURY		P
5.2.1	Electrical energy source classifications	See ENERGY SOURCE IDENTIFICATION AND CLASSIFICATION TABLE.	P
5.2.2	ES1, ES2 and ES3 limits	See below.	P
5.2.2.2	Steady-state voltage and current	(See appended table 5.2)	P
5.2.2.3	Capacitance limits	(See appended table 5.2)	P
5.2.2.4	Single pulse limits		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	(See Clause E.1)	P
5.3	Protection against electrical energy sources	See below.	P
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	ES2 or ES3 source cannot access by ordinary persons Double or reinforced safeguard is provided between ES2 or ES3 and ordinary persons.	P
5.3.2.2	Contact requirements	See below.	P
	a) Test with test probe from Annex V.....	No bare parts at ES2 or ES3 or ES3 basic safeguard could be accessed by operator.	P

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
	b) Electric strength test potential (V)		N/A
	c) Air gap (mm)	Complied with the minimum distance requirement.	P
5.3.2.4	Terminals for connecting stripped wire	No such terminals.	N/A
5.4	Insulation materials and requirements		P
5.4.1.2	Properties of insulating material	Hygroscopic materials are not used for insulating material. Also see sub-clause 5.4.8 and 5.4.9.1	P
5.4.1.3	Humidity conditioning	(See sub-clause 5.4.8)	P
5.4.1.4	Maximum operating temperature for insulating materials	(See appended table 5.4.1.4)	P
5.4.1.5	Pollution degree	2	—
5.4.1.5.2	Test for pollution degree 1 environment and for an insulating compound	Certified sources of optical isolators used.	P
5.4.1.5.3	Thermal cycling	Certified sources of optical isolators used.	P
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	Max. V _{peak} of T9301 = 580V Max. V _{rms} of T9301 = 358V Max. V _{peak} of T9101 = 470V Max. V _{rms} of T9101 = 266V Other see table 5.4.2.2, 5.4.2.4, 5.4.3	P
5.4.1.9	Insulating surfaces	Considered.	P
5.4.1.10	Thermoplastic parts on which conductive metallic parts are directly mounted	Bobbin materials of transformers and primary choke are phenolic that is accepted without further tests.	P
5.4.1.10.2	Vicat softening temperature		N/A
5.4.1.10.3	Ball pressure		N/A
5.4.2	Clearances	See below.	P
5.4.2.2	Determining clearance using peak working voltage	See 5.4.2.3	N/A
5.4.2.3	Determining clearance using required withstand voltage	(See appended table 5.4.2.3)	P
	a) a.c. mains transient voltage	2500 V _{peak}	—
	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	Not applicable.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
5.4.2.5	Multiplication factors for clearances and test voltages	Multiplication factor is 1.48 for altitude up to 5000m.	P
5.4.3	Creepage distances	(See appended table 5.4.2.2, 5.4.2.4 and 5.4.3)	P
5.4.3.1	General	See below.	P
5.4.3.3	Material Group	Material group IIIb assumed.	—
5.4.4	Solid insulation	See below.	P
5.4.4.2	Minimum distance through insulation	(See appended table 5.4.4.2, 5.4.4.5 c) and 5.4.4.9)	P
5.4.4.3	Insulation compound forming solid insulation	Alternative by 5.4.4.4.	N/A
5.4.4.4	Solid insulation in semiconductor devices	Complies with Clause G.12.	P
5.4.4.5	Cemented joints		N/A
5.4.4.6	Thin sheet material	See below.	P
5.4.4.6.1	General requirements	See table 5.4.9.	P
5.4.4.6.2	Separable thin sheet material	See table 5.4.9.	P
	Number of layers (pcs)	See table 5.4.9.	P
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	(See appended Table 5.4.4.9) and (See appended Table 5.4.9)	P
5.4.5	Antenna terminal insulation		N/A
5.4.5.1	General		N/A
5.4.5.2	Voltage surge test		N/A
	Insulation resistance (MΩ)		—
5.4.6	Insulation of internal wire as part of supplementary safeguard		N/A
5.4.7	Tests for semiconductor components and for cemented joints		N/A
5.4.8	Humidity conditioning	Complied (Electric strength test conducted after humidity treatment.)	P
	Relative humidity (%)	95	—
	Temperature (°C)	40	—
	Duration (h)	120	—
5.4.9	Electric strength test	(See appended table 5.4.9)	P

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Clause	Requirement + Test	Result - Remark	Verdict
5.4.9.1	Test procedure for a solid insulation type test	Method 1 is chose.	P
5.4.9.2	Test procedure for routine tests		N/A
5.4.10	Protection against transient voltages between external circuit		N/A
5.4.10.1	Parts and circuits separated from external circuits		N/A
5.4.10.2	Test methods		N/A
5.4.10.2.1	General		N/A
5.4.10.2.2	Impulse test		N/A
5.4.10.2.3	Steady-state test		N/A
5.4.11	Insulation between external circuits and earthed circuitry		N/A
5.4.11.1	Exceptions to separation between external circuits and earth		N/A
5.4.11.2	Requirements		N/A
	Rated operating voltage U_{op} (V)		—
	Nominal voltage U_{peak} (V)		—
	Max increase due to variation U_{sp}		—
	Max increase due to ageing ΔU_{sa}		—
	$U_{op} = U_{peak} + \Delta U_{sp} + \Delta U_{sa}$		—
5.5	Components as safeguards		
5.5.1	General	See the following details.	P
5.5.2	Capacitors and RC units	See below.	P
5.5.2.1	General requirement	X-Cap. and Y-Cap. are IEC 60384-14 approval components and complied with Annex G.11.	P
5.5.2.2	Safeguards against capacitor discharge after disconnection of a connector	(See appended table 5.5.2.2)	P
5.5.3	Transformers	(See Annex G.5.3)	P
5.5.4	Optocouplers	(See subclause 5.4 or Annex G.12)	P
5.5.5	Relays	(See Annex G.2)	P
5.5.6	Resistors		N/A
5.5.7	SPD's	See as below.	P
5.5.7.1	Use of an SPD connected to reliable earthing	See sub-clause 5.6.7 and Annex G.8 in previous report.	P

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Clause	Requirement + Test	Result - Remark	Verdict
5.5.7.2	Use of an SPD between mains and protective earth	One Gas Tube whose external clearance and creepage are complied with basic insulation and passed the 5.4.9 test for basic insulation is provided in series with a VDR (RV9902) to bridge of basic insulation between L and earth.	P
5.5.8	Insulation between the mains and external circuit consisting of a coaxial cable..... :	No such external circuits.	N/A
5.6	Protective conductor		P
5.6.2	Requirement for protective conductors	Protective conductor served as a supplementary safeguard to prevent accessible conductive parts from exceeding ES2 limits.	P
5.6.2.1	General requirements	No switch or overcurrent protective device in protective conductor.	P
5.6.2.2	Colour of insulation	No insulation used for protective bonding conductor	N/A
5.6.3	Requirement for protective earthing conductors	Appliance inlet used.	P
	Protective earthing conductor size (mm ²) :		—
5.6.4	Requirement for protective bonding conductors	See below.	P
5.6.4.1	Protective bonding conductors	Protective bonding conductors complied based on table 31	P
	Protective bonding conductor size (mm ²)..... :	18AWG, 0.75mm ²	—
	Protective current rating (A) :	16 or 20A	—
5.6.4.3	Current limiting and overcurrent protective devices	No current limiting and overcurrent protective devices in parallel with any other components.	P
5.6.5	Terminals for protective conductors	See below.	P
5.6.5.1	Requirement	Complied with Table 32	P
	Conductor size (mm ²), nominal thread diameter (mm). :	Min. 3.5mm	P
5.6.5.2	Corrosion	Complied.	P
5.6.6	Resistance of the protective system	See below.	P
5.6.6.1	Requirements	See below.	P
5.6.6.2	Test Method Resistance (Ω) :	(See appended table 5.6.6.2)	P
5.6.7	Reliable earthing		N/A
5.7	Prospective touch voltage, touch current and protective conductor current		P
5.7.2	Measuring devices and networks	Figure 4 of IEC 60990 was used in determining of the limit of ES1.	P
5.7.2.1	Measurement of touch current :	(See appended table 5.7.2.2, 5.7.4)	P

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Clause	Requirement + Test	Result - Remark	Verdict
5.7.2.2	Measurement of prospective touch voltage		P
5.7.3	Equipment set-up, supply connections and earth connections	Clause 4, 5.3 and 5.4 of IEC 60990: 1999 applied.	P
	System of interconnected equipment (separate connections/single connection)	Single equipment.	—
	Multiple connections to mains (one connection at a time/simultaneous connections)	Single connection.	—
5.7.4	Earthed conductive accessible parts.....	(See appended Table 5.7.4)	P
5.7.5	Protective conductor current	Protective conductor current does not exceed the ES2 limits.	P
	Supply Voltage (V)	90Vac/264Vac	—
	Measured current (mA)	0.41mA/0.38mA	—
	Instructional Safeguard		N/A
5.7.6	Prospective touch voltage and touch current due to external circuits		N/A
5.7.6.1	Touch current from coaxial cables		N/A
5.7.6.2	Prospective touch voltage and touch current from external circuits		N/A
5.7.7	Summation of touch currents from external circuits		N/A
	a) Equipment with earthed external circuits Measured current (mA)		N/A
	b) Equipment whose external circuits are not referenced to earth. Measured current (mA).....		N/A

6	ELECTRICALLY- CAUSED FIRE		P
6.2	Classification of power sources (PS) and potential ignition sources (PIS)		P
6.2.2	Power source circuit classifications	See ENERGY SOURCE IDENTIFICATION AND CLASSIFICATION TABLE.	P
6.2.2.1	General	See the following details.	P
6.2.2.2	Power measurement for worst-case load fault	(See appended table 6.2.2)	P
6.2.2.3	Power measurement for worst-case power source fault.....	(See appended table 6.2.2)	P
6.2.2.4	PS1	(See appended table 6.2.2)	N/A
6.2.2.5	PS2	(See appended table 6.2.2)	P
6.2.2.6	PS3	Building-power board circuit were considered to be PS3.	P
6.2.3	Classification of potential ignition sources		P

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Clause	Requirement + Test	Result - Remark	Verdict
6.2.3.1	Arcing PIS	All components located within the equipment are considered as arcing PIS.	P
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
6.3.1 (a)	No ignition and attainable temperature value less than 90 % defined by ISO 871 or less than 300 °C for unknown materials	No ignition and such temperature attained within the plastic fire enclosure (See appended table 5.4.1.4, 6.3.2, 9.0, B.2.6).	P
6.3.1 (b)	Combustible materials outside fire enclosure	HB used (see appended table 4.1.2 for detail)	P
6.4	Safeguards against fire under single fault conditions		P
6.4.1	Safeguard Method	Method by control fire spread. See the appropriate requirements are detailed in 6.4.4, 6.4.5, 6.4.6, 6.4.8	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	Compliance detailed as follows: - <u>Printed board</u>: rated min. V-1 class material; - <u>Wire insulation and tubing</u>: complying with Clause 6. - <u>All other components</u>: - Min. V-2 - Mounted on V-1 PCB - <u>Isolating transformer</u>: complying with G.5.3. (See appended tables 4.1.2 and Annex G)	P

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Clause	Requirement + Test	Result - Remark	Verdict
6.4.6	Control of fire spread in PS3 circuit	In additional of the compliance of sub-clause 6.4.5, a fire enclosure according to sub-clause 6.4.8 is provided with the equipment.	P
6.4.7	Separation of combustible materials from a PIS		N/A
6.4.7.1	General		N/A
6.4.7.2	Separation by distance		N/A
6.4.7.3	Separation by a fire barrier		N/A
6.4.8	Fire enclosures and fire barriers	Metal enclosure provided as top/sides and bottom fire enclosure.	P
6.4.8.1	Fire enclosure and fire barrier material properties	See 6.4.8	P
6.4.8.2.1	Requirements for a fire barrier		N/A
6.4.8.2.2	Requirements for a fire enclosure	See 6.4.8	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	Figure 41 and Figure 42 considered, detail see 6.4.8.3.3 and 6.4.8.3.4.	P
6.4.8.3.2	Fire barrier dimensions		N/A
6.4.8.3.3	Top Openings in Fire Enclosure: dimensions (mm)	<i>For metal chassis:</i> - Top (can be side when rotated) 1) Ø1.8mm max. 2) Ø3.4mm max. 3) 10.6mm x 5.9mm max. 4) 12.7mm x 3.4mm max. - Rear 1) Ø 4.8mm max. 2) Ø 6.4mm max. 3)12.0mm x 13.8mm max. 4)15.2mm x 24.2mm max. 5) 26.8mm x 4.1mm max. - Side (near main board) 1) Ø1.8mm max. (center to center min. 5.0mm), thickness: min. 1.0mm. - Side (near Power board) (can be top when rotated) 1) Ø 3.4mm max. - Bottom (can be side when rotated): 1) Ø1.8mm max. (center to center min. 5.0mm),	P

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Clause	Requirement + Test	Result - Remark	Verdict
		thickness: min. 1.0mm. 2) Ø15.9mm max. Rear Plastic enclosure -Top (can be side when rotated) 2.5mm x 45.0mm max. - Side (near main board) (can be bottom when rotated) 2.5mm x 45.0mm max. - Side (near Power board) (can be top when rotated) 2.5mm x 45.0mm max. - Bottom (can be side when rotated) 2.5mm x 40.0mm max.	
	Needle Flame test		N/A
6.4.8.3.4	Bottom Openings in Fire Enclosure, condition met a), b) and/or c) dimensions (mm)	<i>For metal chassis:</i> - Bottom: 1) Ø1.8mm max. (center to center min. 5.0mm), thickness: min. 1.0mm. 2) Ø15.9mm max. Rear Plastic enclosure 2.5mm x 45.0mm max.	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 such door or cover can be opened by ordinary persons.	N/A
6.4.8.4	Separation of PIS from fire enclosure and fire barrier distance (mm) or flammability rating	Metal enclosure provided.	P
6.5	Internal and external wiring		P
6.5.1	Requirements	The material of VW-1 on internal or external wiring were considered compliance equivalent to IEC/TS 60695-11-21 relevant standards.	P
6.5.2	Cross-sectional area (mm ²)	See above.	—
6.5.3	Requirements for interconnection to building wiring	No such interconnection to building wiring.	N/A
6.6	Safeguards against fire due to connection to additional equipment	All power delivering output connectors complied with Annex Q.1	P
	External port limited to PS2 or complies with Clause Q.1	See above.	P

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Clause	Requirement + Test	Result - Remark	Verdict
7	INJURY CAUSED BY HAZARDOUS SUBSTANCES		N/A
7.2	Reduction of exposure to hazardous substances	No hazardous chemicals within the equipment.	N/A
7.3	Ozone exposure	No ozone production within the equipment.	N/A
7.4	Use of personal safeguards (PPE)	No such consideration.	N/A
	Personal safeguards and instructions.....:	See above.	—
7.5	Use of instructional safeguards and instructions	No chemical-caused injuries, the instruction safeguard was not required.	N/A
	Instructional safeguard (ISO 7010).....:	(See Annex F)	—
7.6	Batteries.....:	No batteries are used.	N/A

8	MECHANICALLY-CAUSED INJURY		P
8.1	General	See the following details.	P
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		N/A
8.5	Safeguards against moving parts	See below.	P
8.5.1	MS2 or MS3 part required to be accessible for the function of the equipment		N/A
8.5.2	Instructional Safeguard.....:		—
8.5.4	Special categories of equipment comprising moving parts		N/A
8.5.4.1	Large data storage equipment		N/A
8.5.4.2	Equipment having electromechanical device for destruction of media		N/A
8.5.4.2.1	Safeguards and Safety Interlocks.....:		N/A
8.5.4.2.2	Instructional safeguards against moving parts		N/A
	Instructional Safeguard.....:		—
8.5.4.2.3	Disconnection from the supply		N/A
8.5.4.2.4	Probe type and force (N).....:		N/A
8.5.5	High Pressure Lamps		N/A
8.5.5.1	Energy Source Classification		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
8.5.5.2	High Pressure Lamp Explosion Test		N/A
8.6	Stability	See the following details.	P
8.6.1	Product classification	Classified as MS2 & MS3.	P
	Instructional Safeguard.....	Not television sets.	—
8.6.2	Static stability	See below	P
8.6.2.2	Static stability test	During the test, the EUT did not tip over.	P
	Applied Force	The equipment remains stable after being titled 10° from vertical.	—
8.6.2.3	Downward Force Test		N/A
8.6.3	Relocation stability test		N/A
	Unit configuration during 10° tilt		—
8.6.4	Glass slide test	During the test, the EUT did not tip over or slide.	P
8.6.5	Horizontal force test (Applied Force)	Tilt 15 degree with rotating 360 degree. During the test, the EUT did not tip over.	P
	Position of feet or movable parts.....	No such parts	—
8.7	Equipment mounted to wall or ceiling	See below	P
8.7.1	Mounting Means (Length of screws (mm) and mounting surface)	Length 16.5mm of screws, wall	P
8.7.2	Direction and applied force.....	Test 2 and Test 3 test consider and performed after stress relief test Test 2: Each point (total four attachment points) in the mounting system subject to force 8.34 kg (unit without base stand) for six directions also including push/pull force. Test 3: Metal screw (Ø3.88 mm) for attachment of the mounting means. Each threaded part subjected to 1.2 Nm. The each threaded part not become dislodged and remain mechanically intact and secure during the test.	P
8.8	Handles strength	See below	P
8.8.1	Classification	See 8.6.1	P
8.8.2	Applied Force	43.8kg applied.	P
8.9	Wheels or casters attachment requirements		N/A
8.9.1	Classification		N/A
8.9.2	Applied force		—

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Clause	Requirement + Test	Result - Remark	Verdict
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)..... :		—

9	THERMAL BURN INJURY		P
9.2	Thermal energy source classifications	See ENERGY SOURCE IDENTIFICATION AND CLASSIFICATION TABLE.	P
9.3	Safeguard against thermal energy sources	See above.	P
9.4	Requirements for safeguards		P
9.4.1	Equipment safeguard	See above.	P
9.4.2	Instructional safeguard :	See above.	N/A

10	RADIATION		P
10.2	Radiation energy source classification	See below.	P
10.2.1	General classification	The following parts are considered as RS1 without tests: - Photo coupler - Indicating lights - LED panel back light module	P
10.3	Protection against laser radiation		N/A
	Laser radiation that exists equipment:		—
	Normal, abnormal, single-fault :		—

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

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Clause	Requirement + Test	Result - Remark	Verdict
	Means to actively inform user of increase sound pressure		—
	Equipment safeguard prevent ordinary person to RS2		—
10.6.5	Requirements for listening devices (headphones, earphones, etc.)		N/A
10.6.5.1	Corded passive listening devices with analog input		N/A
	Input voltage with 94 dB(A) L_{Aeq} acoustic pressure output		—
10.6.5.2	Corded listening devices with digital input		N/A
	Maximum dB(A).....		—
10.6.5.3	Cordless listening device		N/A
	Maximum dB(A).....		—

B	NORMAL OPERATING CONDITION TESTS, ABNORMAL OPERATING CONDITION TESTS AND SINGLE FAULT CONDITION TESTS		P
B.2	Normal Operating Conditions	See the following details.	P
B.2.1	General requirements	(See Test Item Particulars and appended test tables)	P
	Audio Amplifiers and equipment with audio amplifiers	(See Annex E)	P
B.2.3	Supply voltage and tolerances	Considered	P
B.2.5	Input test	(See appended table B.2.5)	F
B.3	Simulated abnormal operating conditions		P
B.3.1	General requirements	(See appended table B.3)	P
B.3.2	Covering of ventilation openings	(See appended table B.3)	P
B.3.3	D.C. mains polarity test		N/A
B.3.4	Setting of voltage selector		N/A
B.3.5	Maximum load at output terminals	(See appended table B.3)	P
B.3.6	Reverse battery polarity		N/A
B.3.7	Abnormal operating conditions as specified in Clause E.2.	(See appended table B.3)	P
B.3.8	Safeguards functional during and after abnormal operating conditions	Abnormal operating condition does not lead to a single fault condition, all safeguards remain effective. After restoration of normal operating conditions, all safeguards comply with applicable requirements.	P

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Clause	Requirement + Test	Result - Remark	Verdict
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	For traces before fuse, comply with the clearance/creepage for basic insulation, others are considered to perform short-circuited during the tests.	P
B.4.4.1	Short circuit of clearances for functional insulation	See above.	P
B.4.4.2	Short circuit of creepage distances for functional insulation	See above.	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		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
C	UV RADIATION		N/A
C.1	Protection of materials in equipment from UV radiation		N/A
C.1.2	Requirements		N/A
C.1.3	Test method		N/A
C.2	UV light conditioning test		N/A
C.2.1	Test apparatus		N/A
C.2.2	Mounting of test samples		N/A
C.2.3	Carbon-arc light-exposure apparatus		N/A
C.2.4	Xenon-arc light exposure apparatus		N/A
D	TEST GENERATORS		N/A
D.1	Impulse test generators		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
E	TEST CONDITIONS FOR EQUIPMENT CONTAINING AUDIO AMPLIFIERS		P
E.1	Audio amplifier normal operating conditions	The audio with maximum volume with 1 kHz recorder adjusted to maximum output power	P
	Audio signal voltage (V)	The signal voltage for this kinds of speakers are considered to be within ES1 limit according to Table E.1.	—
	Rated load impedance (Ω)	Refer to table 4.1.2	—
E.2	Audio amplifier abnormal operating conditions	(See appended table B.3 and B.4)	P
F	EQUIPMENT MARKINGS, INSTRUCTIONS, AND INSTRUCTIONAL SAFEGUARDS		P
F.1	General requirements	See the following details.	P
	Instructions – Language	English. The other languages will be provided during the national approval.	—
F.2	Letter symbols and graphical symbols	See the following details.	P
F.2.1	Letter symbols according to IEC 60027-1		P
F.2.2	Graphic symbols IEC, ISO or manufacturer specific	Graphical symbols are complied with IEC 60417, ISO 3864-2, ISO 7000 or ISO 7010. -  (IEC 60417-5019) for the wiring terminal of protective earthing - The product also marked with  (IEC 60417-5009) for the stand-by condition. -  (IEC 60417-5007) for "ON" of the switch. (See subclause 1.7.8.3) -  (IEC 60417-5008) for "OFF" of the switch. (See subclause 1.7.8.3)	P
F.3	Equipment markings		P
F.3.1	Equipment marking locations	Equipment marking is located on the exterior surface and is easily visible.	P
F.3.2	Equipment identification markings	See the following details.	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 the following details.	P
F.3.3.1	Equipment with direct connection to mains	The equipment is connected to AC mains supply.	P
F.3.3.2	Equipment without direct connection to mains	See above.	N/A
F.3.3.3	Nature of supply voltage		—

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Clause	Requirement + Test	Result - Remark	Verdict
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	Only one supply connection.	N/A
F.3.4	Voltage setting device	No such devices within the equipment.	N/A
F.3.5	Terminals and operating devices	See below.	P
F.3.5.1	Mains appliance outlet and socket-outlet markings.....	No such devices within the equipment.	N/A
F.3.5.2	Switch position identification marking		N/A
F.3.5.3	Replacement fuse identification and rating markings.....	The fuse is located within the equipment and not replaceable by an ordinary person or an instructed person. The fuse marking is marked on PCB near fuse : F9901 T5A/250V	P
F.3.5.4	Replacement battery identification marking	No such battery within the equipment.	N/A
F.3.5.5	Terminal marking location	See markings specified in F.3.6.1 and F.3.6.2.2 is not placed on removable parts such as screws.	P
F.3.6	Equipment markings related to equipment classification	See the following details.	P
F.3.6.1	Class I Equipment	See the following details.	P
F.3.6.1.1	Protective earthing conductor terminal	See F.2.2	P
F.3.6.1.2	Neutral conductor terminal	The equipment is not permanently connected equipment.	N/A
F.3.6.1.3	Protective bonding conductor terminals		N/A
F.3.6.2	Class II equipment (IEC 60417-5172)		N/A
F.3.6.2.1	Class II equipment with or without functional earth		N/A
F.3.6.2.2	Class II equipment with functional earth terminal marking		N/A
F.3.7	Equipment IP rating marking	This equipment is classified as IP20.	—
F.3.8	External power supply output marking	Not external power supply	N/A
F.3.9	Durability, legibility and permanence of marking	See the following details.	P

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Clause	Requirement + Test	Result - Remark	Verdict
F.3.10	Test for permanence of markings	The marking plate was subjected to the permanence of marking test. The marking plate was rubbed with cloth soaked with water for 15 s and then again for 15 s with the cloth soaked with petroleum spirit. After each test, there was no damage to the marking plate. The marking on the label did not fade. There was no curling of the marking plate and removed by hand.	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	Provided in user's manual.	P
	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	The instruction is provided in the user's manual.	P
	g) Protective earthing conductor current exceeding ES2 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) 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
G	COMPONENTS		P
G.1	Switches		P
G.1.1	General requirements	See appended table 4.1.2 for details.	P
G.1.2	Ratings, endurance, spacing, maximum load	See appended table 4.1.2 for details.	P
G.2	Relays		P

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Clause	Requirement + Test	Result - Remark	Verdict
G.2.1	General requirements	Approved source used.	P
G.2.2	Overload test	Approved source used.	P
G.2.3	Relay controlling connectors supply power		N/A
G.2.4	Mains relay, modified as stated in G.2		N/A
G.3	Protection Devices		P
G.3.1	Thermal cut-offs		N/A
G.3.1.1a) &b)	Thermal cut-outs separately approved according to IEC 60730 with conditions indicated in a) & b)		N/A
G.3.1.1c)	Thermal cut-outs tested as part of the equipment as indicated in c)		N/A
G.3.1.2	Thermal cut-off connections maintained and secure		N/A
G.3.2	Thermal links		N/A
G.3.2.1a)	Thermal links separately tested with IEC 60691		N/A
G.3.2.1b)	Thermal links tested as part of the equipment		N/A
	Aging hours (H)		—
	Single Fault Condition		—
	Test Voltage (V) and Insulation Resistance (Ω)..:		—
G.3.3	PTC Thermistors		N/A
G.3.4	Overcurrent protection devices	All source of fuse complied with IEC standard.	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
G.4	Connectors		P
G.4.1	Spacings	The distances exceed 10mm.	P
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	No misconnection likely.	P
G.5	Wound Components		P
G.5.1	Wire insulation in wound components	Complied with 5.4.4.1	P
G.5.1.2 a)	Two wires in contact inside wound component, angle between 45° and 90°	The tubing and mylar tape are provided for all windings of transformer (T9301, T9101) to protect against mechanical stress.	P
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
G.5.3	Transformers		P
G.5.3.1	Requirements applied (IEC61204-7, IEC61558-1/-2, and/or IEC62368-1)	Meet the requirements in G.5.3.2 and G.5.3.3.	P
	Position.....	See appended table 4.1.2.	—
	Method of protection	Overcurrent protection.	—
G.5.3.2	Insulation	See attachment Transformer table.	P
	Protection from displacement of windings	Displacement of windings is unlikely.	—
G.5.3.3	Overload test.....	(See appended table B.3 & B.4)	P
G.5.3.3.1	Test conditions	Tested in the complete equipment.	P
G.5.3.3.2	Winding Temperatures testing in the unit	(See appended table B.3 & B.4)	P
G.5.3.3.3	Winding Temperatures - Alternative test method		N/A
G.5.4	Motors		N/A
G.5.4.1	General requirements		N/A
	Position		—
G.5.4.2	Test conditions		N/A
G.5.4.3	Running overload test		N/A
G.5.4.4	Locked-rotor overload test		N/A
	Test duration (days)		—
G.5.4.5	Running overload test for d.c. motors in secondary circuits		N/A
G.5.4.5.2	Tested in the unit		N/A
	Electric strength test (V).....		—
G.5.4.5.3	Tested on the Bench - Alternative test method; test time (h)		N/A
	Electric strength test (V).....		—
G.5.4.6	Locked-rotor overload test for d.c. motors in secondary circuits		N/A
G.5.4.6.2	Tested in the unit		N/A
	Maximum Temperature		N/A
	Electric strength test (V)		N/A

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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)		N/A
	Electric strength test (V).....		N/A
G.5.4.7	Motors with capacitors		N/A
G.5.4.8	Three-phase motors		N/A
G.5.4.9	Series motors		N/A
	Operating voltage		—
G.6	Wire Insulation		P
G.6.1	General	See G.5 for insulation in wound component.	P
G.6.2	Solvent-based enamel wiring insulation		N/A
G.7	Mains supply cords		N/A
G.7.1	General requirements	Approved appliance inlet is used.	N/A
	Type		—
	Rated current (A).....		—
	Cross-sectional area (mm ²), (AWG)		—
G.7.2	Compliance and test method		N/A
G.7.3	Cord anchorages and strain relief for non-detachable power supply cords		N/A
G.7.3.2	Cord strain relief		N/A
G.7.3.2.1	Requirements		N/A
	Strain relief test force (N)		—
G.7.3.2.2	Strain relief mechanism failure		N/A
G.7.3.2.3	Cord sheath or jacket position, distance (mm) ...		—
G.7.3.2.4	Strain relief comprised of polymeric material		N/A
G.7.4	Cord Entry		N/A
G.7.5	Non-detachable cord bend protection		N/A
G.7.5.1	Requirements		N/A
G.7.5.2	Mass (g)		—
	Diameter (m)		—
	Temperature (°C)		—
G.7.6	Supply wiring space		N/A
G.7.6.2	Stranded wire		N/A
G.7.6.2.1	Test with 8 mm strand		N/A
G.8	Varistors		P

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Clause	Requirement + Test	Result - Remark	Verdict
G.8.1	General requirements	The varistor connected across the mains provided within the equipment. (See appended table 4.1.2)	P
G.8.2	Safeguard against shock	Complied.	P
G.8.3	Safeguard against fire		N/A
G.8.3.2	Varistor overload test		N/A
G.8.3.3	Temporary overvoltage		N/A
G.9	Integrated Circuit (IC) Current Limiters		P
G.9.1 a)	Manufacturer defines limit at max. 5A.	See below.	P
G.9.1 b)	Limiters do not have manual operator or reset	Electronic type.	P
G.9.1 c)	Supply source does not exceed 250 VA	< 250VA	—
G.9.1 d)	IC limiter output current (max. 5A)	1.5A	—
G.9.1 e)	Manufacturers' defined drift		—
G.9.2	Test Program 1	Integrated circuit (IC) current limiter complies with test program 1.	P
G.9.3	Test Program 2	Integrated circuit (IC) current limiter complies with test program 2.	P
G.9.4	Test Program 3		N/A
G.10	Resistors		N/A
G.10.1	General requirements		N/A
G.10.2	Resistor test		N/A
G.10.3	Test for resistors serving as safeguards between the mains and an external circuit consisting of a coaxial cable		N/A
G.10.3.1	General requirements		N/A
G.10.3.2	Voltage surge test		N/A
G.10.3.3	Impulse test		N/A
G.11	Capacitor and RC units		P
G.11.1	General requirements	The X-Capacitor and the Y-Capacitor are used as safeguard and complied with IEC/EN 60384-14:2013 (See appended table 4.1.2).	P
G.11.2	Conditioning of capacitors and RC units	At least 21 days at 40 ± 2 °C and 93 ± 3 % RH.	P
G.11.3	Rules for selecting capacitors	The selection followed with tables G.9 and G.12.	P
G.12	Optocouplers		P

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Clause	Requirement + Test	Result - Remark	Verdict
	Optocouplers comply with IEC 60747-5-5:2007 Spacing or Electric Strength Test (specify option and test results)..... :	The optocouplers used in the equipment are complied with the requirements of IEC 60747-5-5. (see appended table 4.1.2)	P
	Type test voltage Vini :	See above.	—
	Routine test voltage, Vini,b :	See above.	—
G.13	Printed boards		P
G.13.1	General requirements	See below.	P
G.13.2	Uncoated printed boards	(see appended table 5.4.2.2, 5.4.2.4 and 5.4.3)	P
G.13.3	Coated printed boards		N/A
G.13.4	Insulation between conductors on the same inner surface		N/A
	Compliance with cemented joint requirements (Specify construction)..... :		—
G.13.5	Insulation between conductors on different surfaces		N/A
	Distance through insulation..... :		N/A
	Number of insulation layers (pcs) :		—
G.13.6	Tests on coated printed boards		N/A
G.13.6.1	Sample preparation and preliminary inspection		N/A
G.13.6.2a)	Thermal conditioning		N/A
G.13.6.2b)	Electric strength test		N/A
G.13.6.2c)	Abrasion resistance test		N/A
G.14	Coating on components terminals		N/A
G.14.1	Requirements :		N/A
G.15	Liquid filled components		N/A
G.15.1	General requirements		N/A
G.15.2	Requirements		N/A
G.15.3	Compliance and test methods		N/A
G.15.3.1	Hydrostatic pressure test		N/A
G.15.3.2	Creep resistance test		N/A
G.15.3.3	Tubing and fittings compatibility test		N/A
G.15.3.4	Vibration test		N/A
G.15.3.5	Thermal cycling test		N/A
G.15.3.6	Force test		N/A
G.15.4	Compliance		N/A
G.16	IC including capacitor discharge function (ICX)		P

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Clause	Requirement + Test	Result - Remark	Verdict
a)	Humidity treatment in accordance with sc5.4.8 – 120 hours	Certified component used.	P
b)	Impulse test using circuit 2 with $U_c =$ to transient voltage	Certified component used.	P
C1)	Application of ac voltage at 110% of rated voltage for 2.5 minutes	Certified component with suitable application of the EUT.	P
C2)	Test voltage	See above	—
D1)	10,000 cycles on and off using capacitor with smallest capacitance resistor with largest resistance specified by manufacturer	Certified component with suitable application of the EUT.	P
D2)	Capacitance	See above	—
D3)	Resistance	See above	—
H	CRITERIA FOR TELEPHONE RINGING SIGNALS		N/A
H.1	General		N/A
H.2	Method A		N/A
H.3	Method B		N/A
H.3.1	Ringing signal		N/A
H.3.1.1	Frequency (Hz)		—
H.3.1.2	Voltage (V)		—
H.3.1.3	Cadence; time (s) and voltage (V)		—
H.3.1.4	Single fault current (mA):		—
H.3.2	Tripping device and monitoring voltage		N/A
H.3.2.1	Conditions for use of a tripping device or a monitoring voltage complied with		N/A
H.3.2.2	Tripping device		N/A
H.3.2.3	Monitoring voltage (V)		—
J	INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION		N/A
	General requirements		N/A
K	SAFETY INTERLOCKS		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

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Clause	Requirement + Test	Result - Remark	Verdict
K.6.2	Compliance and Test method		N/A
K.7	Interlock circuit isolation		N/A
K.7.1	Separation distance for contact gaps & interlock circuit elements (type and circuit location)		N/A
K.7.2	Overload test, Current (A)		N/A
K.7.3	Endurance test		N/A
K.7.4	Electric strength test		N/A
L	DISCONNECT DEVICES		P
L.1	General requirements	Appliance Inlet as disconnect device.	P
L.2	Permanently connected equipment		N/A
L.3	Parts that remain energized	When the power cord is removed from the inlet no remaining parts with hazardous voltage in the equipment.	P
L.4	Single phase equipment	The disconnect device disconnects both poles simultaneously.	P
L.5	Three-phase equipment		N/A
L.6	Switches as disconnect devices		N/A
L.7	Plugs as disconnect devices		N/A
L.8	Multiple power sources		N/A
M	EQUIPMENT CONTAINING BATTERIES AND THEIR PROTECTION CIRCUITS		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

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Clause	Requirement + Test	Result - Remark	Verdict
M.4.2	Charging safeguards		N/A
M.4.2.1	Charging operating limits		N/A
M.4.2.2a)	Charging voltage, current and temperature		—
M.4.2.2 b)	Single faults in charging circuitry		—
M.4.3	Fire Enclosure		N/A
M.4.4	Endurance of equipment containing a secondary lithium battery		N/A
M.4.4.2	Preparation		N/A
M.4.4.3	Drop and charge/discharge function tests		N/A
	Drop		N/A
	Charge		N/A
	Discharge		N/A
M.4.4.4	Charge-discharge cycle test		N/A
M.4.4.5	Result of charge-discharge cycle test		N/A
M.5	Risk of burn due to short circuit during carrying		N/A
M.5.1	Requirement		N/A
M.5.2	Compliance and Test Method (Test of P.2.3)		N/A
M.6	Prevention of short circuits and protection from other effects of electric current		N/A
M.6.1	Short circuits		N/A
M.6.1.1	General requirements		N/A
M.6.1.2	Test method to simulate an internal fault		N/A
M.6.1.3	Compliance (Specify M.6.1.2 or alternative method)		N/A
M.6.2	Leakage current (mA)		N/A
M.7	Risk of explosion from lead acid and NiCd batteries		N/A
M.7.1	Ventilation preventing explosive gas concentration		N/A
M.7.2	Compliance and test method		N/A
M.8	Protection against internal ignition from external spark sources of lead acid batteries		N/A
M.8.1	General requirements		N/A
M.8.2	Test method		N/A
M.8.2.1	General requirements		N/A
M.8.2.2	Estimation of hypothetical volume V_z (m ³ /s)		—
M.8.2.3	Correction factors.....		—

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Clause	Requirement + Test	Result - Remark	Verdict
M.8.2.4	Calculation of distance d (mm)		—
M.9	Preventing electrolyte spillage		N/A
M.9.1	Protection from electrolyte spillage		N/A
M.9.2	Tray for preventing electrolyte spillage		N/A
M.10	Instructions to prevent reasonably foreseeable misuse (Determination of compliance: inspection, data review; or abnormal testing)		N/A
N	ELECTROCHEMICAL POTENTIALS		P
	Metal(s) used	Complied.	—
O	MEASUREMENT OF CREEPAGE DISTANCES AND CLEARANCES		P
	Figures O.1 to O.20 of this Annex applied.....	Considered.	—
P	SAFEGUARDS AGAINST ENTRY OF FOREIGN OBJECTS AND SPILLAGE OF INTERNAL LIQUIDS		P
P.1	General requirements	See the following details.	P
P.2.2	Safeguards against entry of foreign object	See below.	P
	Location and Dimensions (mm)	See subclause 6.4.8.3.3 and 6.4.8.3.4.	—
P.2.3	Safeguard against the consequences of entry of foreign object	See above.	P
P.2.3.1	Safeguards against the entry of a foreign object	See above.	P
	Openings in transportable equipment		N/A
	Transportable equipment with metalized plastic parts		N/A
P.2.3.2	Openings in transportable equipment in relation to metallized parts of a barrier or enclosure (identification of supplementary safeguard)		N/A
P.3	Safeguards against spillage of internal liquids	No such consideration.	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	See below.	P
P.4.2 a)	Conditioning testing	Insulation tape for securing secondary internal wirings, and base stand non-slip mat, Adhesive test, material: see table 4.1.2.	P

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Clause	Requirement + Test	Result - Remark	Verdict
	Tc (°C)..... :	Insulation tape : 100 (100+0=100) (for metal enclosure) 90 (90+0=90) (for plastic enclosure) base stand non-slip mat: 100 (100+0=100)	—
	Tr (°C) :	100± 2°C (for metal enclosure), 90± 2°C (for plastic enclosure)	—
	Ta (°C) :	57.1°C (Reference insulation mylar sheet temp)	—
P.4.2 b)	Abrasion testing :		N/A
P.4.2 c)	Mechanical strength testing :	Complied with 4.4.4.	P
Q	CIRCUITS INTENDED FOR INTERCONNECTION WITH BUILDING WIRING		P
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		P
	- Regulating network limited output under normal operating and simulated single fault condition	(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	(See appended table Annex Q.1)	P
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..... :		—
R	LIMITED SHORT CIRCUIT TEST		N/A
R.1	General requirements		N/A
R.2	Determination of the overcurrent protective device and circuit		N/A
R.3	Test method Supply voltage (V) and short-circuit current (A)). :	-	N/A
S	TESTS FOR RESISTANCE TO HEAT AND FIRE		N/A
S.1	Flammability test for fire enclosures and fire barrier materials of equipment where the steady state power does not exceed 4 000 W		N/A
	Samples, material :		—
	Wall thickness (mm)..... :		—
	Conditioning (°C)..... :		—
	Test flame according to IEC 60695-11-5 with conditions as set out		N/A

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

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
T.6	Enclosure impact test	See appended table T.6, T.9	P
	Fall test	A 500 g steel sphere ball fell freely from rest through a vertical distance of 1300 mm onto the sample.	P
	Swing test	A 500 g steel sphere ball suspended by a cord dropping through a vertical distance of 1300 mm onto the sample	P
T.7	Drop test		N/A
T.8	Stress relief test	See table T.8.	P
T.9	Impact Test (glass)	No such glass is provided within the equipment.	N/A
T.9.1	General requirements	See above.	N/A
T.9.2	Impact test and compliance	See above.	N/A
	Impact energy (J).....	See above.	—
	Height (m)	See above.	—
T.10	Glass fragmentation test	(See subclause 4.4.4.9)	N/A
T.11	Test for telescoping or rod antennas	No such antennas are provided within the equipment.	N/A
	Torque value (Nm)	See above.	—
U	MECHANICAL STRENGTH OF CATHODE RAY TUBES (CRT) AND PROTECTION AGAINST THE EFFECTS OF IMPLOSION		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
V	DETERMINATION OF ACCESSIBLE PARTS (FINGERS, PROBES AND WEDGES)		P
V.1	Accessible parts of equipment	Suitable Test Probe used.	P
V.2	Accessible part criterion		P

IEC 62368-1						
Clause	Requirement + Test		Result - Remark		Verdict	
4.1.2	TABLE: List of critical components					P
Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity ¹	
External Plastic Enclosure (Rear enclosure)	LG CHEM Ltd	LUPOY GN 5001RF(T), LUPOY GN-5001RF(T)	5VB or better, thickness 1.5mm min.	UL 94	UL	
External Plastic Enclosure (Front Bezel)	LG CHEM Ltd	LUPOY GN 5001RF(T), LUPOY GN-5001RF(T)	V-0 or better, thickness 1.5mm min.	UL 94	UL	
LCD Panel	Panasonic Liquid Crystal Display Co Ltd	VVX31P149H00	31.0" TFT type, with LED backlight.	--	--	
AC inlet	Interchangeable	Interchangeable	15A max., 250Vac.	IEC/EN 60320-1, ANSI/UL498	UL, VDE, TUV, ENEC	
-Alt.	Solteam	ST-01	10A, 250Vac; 15A, 250Vac.	IEC/EN 60320-1, ANSI/UL498	UL, VDE	
-Alt.	Zhang Jia Gang-Hua Jie	SA-4S	10A, 250Vac; 15A, 250Vac.	IEC/EN 60320-1, ANSI/UL498	UL, VDE	
-Alt.	Rong Feng	SS-120, SS-7B	10A, 250Vac; 15A, 250Vac.	IEC/EN 60320-1, ANSI/UL498	UL, VDE	
-Alt.	Shenzhen Delikang / Douling	CDJ-3, CDJ-3-1	10A, 250Vac.	IEC/EN 60320-1, ANSI/UL498	UL,VDE	
-Alt.	Inalways	0707-1, 0711-2	10A, 250Vac; 15A, 250Vac.	IEC/EN 60320-1, ANSI/UL498	UL, N	
-Alt.	Inalways	0714	10A, 250Vac.	IEC/EN 60320-1, ANSI/UL498	UL, VDE	
-Alt.	TECX	TU-301 series	10A, 250Vac; 15A, 250Vac.	IEC/EN 60320-1, ANSI/UL498	UL, VDE	
-Alt.	Yueqing Hongchang	DB-14	10A/250Vac; 15A, 250Vac.	IEC/EN 60320-1, ANSI/UL498	UL, VDE	
-Alt.	Solteam	SC04	10A/250Vac; UL: 10A / 250Vac; 12A / 250Vac.	IEC/EN 60320-1, ANSI/UL498	UL, VDE	
-Alt.	Zhang Jia Gang-Hua Jie	SA-4D	10A, 250Vac; 15A, 250Vac.	IEC/EN 60320-1, ANSI/UL498	UL, TUV	

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
Power Switch	CHILY	3024 series	16(4)A, 250Vac; 15A, 125/250Vac; 8A, 277Vac.	IEC/EN 61058-1, ANSI/UL 1054	ENEC, UL
-Alt.	Zhangjiagang Huajie	PS8-338	8A, 250Vac; 12(4), 250Vac.	IEC/EN 61058-1, ANSI/UL 1054	TUV, UL
-Alt.	Hongchang	RS and RT series	10A,125Vac; 6A, 250Vac.	IEC/EN 61058-1, ANSI/UL 1054	ENEC, UL
-Alt.	Solteam Electronics Co Ltd	MR-22 series	ENEC: 12(4)A,250V UL: 12A,125/250Vac ;8A,125/250Vac.	IEC/EN 61058-1, ANSI/UL 1054	ENEC, UL
Mylar sheet (Between power trace side and secondary LED board)	CHENGDU KANGLONGXIN PLASTICS CO LTD	KLX FRPC- 1860B, KLX FRPC-1870B	V-0 or VTM-0, dimension 333mm by 156mm.	UL 94	UL
-Alt.	SUZHOU OMay OPTICAL MATERIAL CO LTD	SE42B, SE42B-F	V-0 or VTM-0, dimension 333mm by 156mm.	UL 94	UL
-Alt.	SICHUAN DONGFANG INSULATING MATERIAL CO LTD	DFR117, DFR117ECO, A, DFR117ECOB, DFR117ECOC	V-0 or VTM-0, dimension 333mm by 156mm.	UL 94	UL
-Alt.	Sichuan Dongfang Insulating Material Co., Ltd.	DFPET 6023, DFR700, DFR700F	V-0 or VTM-0, dimension 333mm by 156mm.	UL 94	UL
Mylar sheet (Metal inside near speaker)	CHENGDU KANGLONGXIN PLASTICS CO LTD	KLX FRPC- 1860B, KLX FRPC-1870B	V-0 or VTM-0, dimension 50mm by 47.2mm by 25mm.	UL 94	UL
-Alt.	SUZHOU OMay OPTICAL MATERIAL CO LTD	SE42B, SE42B-F	V-0 or VTM-0, dimension 50mm by 47.2mm by 25mm.	UL 94	UL

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
-Alt.	SICHUAN DONGFANG INSULATING MATERIAL CO LTD	DFR117, DFR117ECOA, DFR117ECOB, DFR117ECOC	V-0 or VTM-0, dimension 50mm by 47.2mm by 25mm.	UL 94	UL
-Alt.	Sichuan Dongfang Insulating Material Co., Ltd.	DFPET 6023, DFR700, DFR700F	V-0 or VTM-0, dimension 50mm by 47.2mm by 25mm.	UL 94	UL
Tape for internal wire	JIANGSU YONGJIA ELECTRONIC MATERIAL CO LTD	YJC-810H(B)-2	For securing secondary internal wirings. Overall measured minimum 50mm by 18mm.	UL 510	UL
-Alt.	TAE HWA INDUSTRIAL CO LTD	6701	For securing secondary internal wirings. Overall measured minimum 50mm by 18mm.	UL 510	UL
-Alt.	DUCK SUNG HITECH CO LTD	231	105 degree C min. For securing secondary internal wirings. Overall measured minimum 50mm by 18mm.	UL 510	UL
-Alt.	JIANGMEN NEW ERA ADHESIVES TECHNOLOGY CO LTD	FGB-0011-200PP1	80 degree C min. For securing secondary internal wirings. Overall measured minimum 50mm by 18mm.	UL 510	UL

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
-Alt.	TAEYOUNG CHEMICAL IND CO LTD	TY301A	105 degree C min. For securing secondary internal wirings. Overall measured minimum 50mm by 18mm.	UL 510	UL
Skid proof pad on base stand	JIANGSU PEARL SILICONE RUBBER MATERIAL CO LTD	HD-87	V-0 or better, Min. 150°C.	UL 94	UL
-Adhesive (for base stand non-slip mat)	3M	9448A	80°C.	UL 510A	UL
Switching Power Supply Board type 715GA191					
Primary connector (CN901)	Interchangeable	Interchangeable	7A max., 250Vac.	IEC/EN 61984, UL1977	TÜV, UL
-Alt.	Pontronics	3962 –Y2-X2 series (Y2=WR, WS, X2=2-14)	7 A, 250Vac.	IEC/EN 61984, UL1977	TÜV , UL
-Alt.	Jowle	A3963 series	7 A, 250Vac.	IEC/EN 61984 , UL1977	TÜV ,UL
-Alt.	J.S.T	VH series	7 A, 250Vac.	IEC/EN 61984, UL1977	TÜV ,UL
-Alt.	J.S.T	VT series	7 A, 250Vac.	IEC/EN 61984, UL1977	TÜV ,UL
-Alt.	Xinya	TÜV: M3962 series UL: 3962 series	TÜV: 6 A, 250Vac; UL: 7 A, 250Vac.	IEC/EN 61984 UL 1977	TÜV NORD UL
-Alt.	Xinya	W7913 series	7 A, 250Vac.	IEC/EN 61984 UL 1977	TÜV NORD UL
Fuse (F9901)	Littelfuse / Wickmann	392, 382 series	T5A, 250Vac.	IEC/EN 60127-1, IEC/EN 60127-3, ANSI/UL 248-1, ANSI/ UL 248-14	VDE, UL
-Alt.	Conquer	MET, MST	T5A, 250Vac.	IEC/EN 60127-1, IEC/EN 60127-3, ANSI/UL 248-1, ANSI/ UL 248-14	VDE, UL

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
-Alt.	Cooper Bussmann	SR-5, SS-5	T5A, 250Vac.	IEC/EN 60127-1, IEC/EN 60127-3, ANSI/UL 248-1, ANSI/ UL 248-14	VDE, UL
-Alt.	Ever Island Electric Co., Ltd & Walter Electric	2010 series	T5A, 250Vac.	IEC/EN 60127-1, IEC/EN 60127-3, ANSI/UL 248-1, ANSI/ UL 248-14	VDE, UL
Y- Capacitors (C9904, C9905, C9906, C9907, C9908) (Y1 or Y2 type) (Optional)	Walsin	AC, AH	Max. 4700pF, min. 250Vac, min. 85°C.	IEC / EN 60384-14: 2013 UL 60384-14	VDE, FI, UL
-Alt.	TDK	CS, CD	Max. 4700pF, min. 250Vac, min. 85°C.	IEC / EN 60384-14: 2013 UL 60384-14	VDE, FI, UL
-Alt.	Murata	KH, KX	Max. 4700pF, min. 250Vac, min. 85°C.	IEC / EN 60384-14: 2013 UL 60384-14	VDE, FI, UL
-Alt.	JYA-NAY	JN	Max. 4700pF, min. 250Vac, min. 85°C.	IEC / EN 60384-14: 2013 UL 60384-14	VDE, UL
-Alt.	YINAN DON'S ELECTRONIC COMPONENT CO.,LTD	CT81	Max. 4700pF, min. 250Vac, min. 85°C.	IEC / EN 60384-14: 2013 UL 60384-14	VDE, UL
-Alt.	Kunshan Wansheng	CT7	Max. 4700pF, min. 250Vac, min. 85°C.	IEC / EN 60384-14: 2013 UL 60384-14	VDE, UL
-Alt.	SUCCESS	SE	Max. 4700pF, min. 250Vac, min. 85°C.	IEC / EN 60384-14: 2013 UL 60384-14	VDE, UL
-Alt.	Interchangeable	Interchangeable	Max. 4700pF, min. 250Vac, min. 85°C.	IEC / EN 60384-14: 2013 UL 60384-14	VDE, UL
Bridging - Capacitor (C9903, C9909) (Y1 type) (Optional)	Walsin	AH	Max. 2200pF, min. 250Vac, min. 85°C.	IEC / EN 60384-14: 2013 UL 60384-14	VDE, FI, UL
-Alt.	TDK	CD	Max. 2200pF, min. 250Vac, min. 85°C.	IEC / EN 60384-14: 2013 UL 60384-14	VDE, FI, UL

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
-Alt.	Murata	KX	Max. 2200pF, min. 250Vac, min. 85°C.	IEC / EN 60384-14: 2013 UL 60384-14	VDE, UL
-Alt.	JYA-NAY	JN	Max. 2200pF, min. 250Vac, min. 85°C.	IEC / EN 60384-14: 2013 UL 60384-14	VDE, UL
-Alt.	YINAN DON'S ELECTRONIC COMPONENT CO.,LTD	CT81	Max. 2200pF, min. 250Vac, min. 85°C.	IEC / EN 60384-14: 2013 UL 60384-14	VDE, UL
-Alt.	Kunshan Wansheng	CT7	Max. 2200pF, min. 250Vac, min. 85°C.	IEC / EN 60384-14: 2013 UL 60384-14	VDE, UL
-Alt.	SUCCESS	SE, SB	Max. 2200pF, min. 250Vac, min. 85°C.	IEC / EN 60384-14: 2013 UL 60384-14	VDE, UL
-Alt.	Interchangeable	Interchangeable	Max. 2200pF, min. 250Vac, min. 85°C.	IEC / EN 60384-14: 2013 UL 60384-14	VDE, UL
X- Capacitor (C9901, C9902) (X1 or X2 type) (Optional)	Ultra Tech Xiphi Enterprise Co., Ltd.	HQX	Max. 0.47μF, min. 250Vac, min. 100°C.	IEC / EN 60384-14: 2013 UL 60384-14	VDE, FI, UL
-Alt.	Hua Jung Components Co., Ltd.	MKP	Max. 0.47μF, min. 250Vac, min. 100°C.	IEC / EN 60384-14: 2013 UL 60384-14	ENEC, FI, UL
-Alt.	Euoptronic (Taiwan) Industrial Corp.	MPX, MPX2	Max. 0.47μF, min. 250Vac, min. 100°C.	IEC / EN 60384-14: 2013 UL 60384-14	VDE, FI, UL
-Alt.	Liow Gu Electronics Industry Co., Ltd.	GS-L	Max. 0.47μF, min. 250Vac, min. 100°C.	IEC / EN 60384-14: 2013 UL 60384-14	VDE, FI
-Alt.	Kemet	R.46	Max. 0.47μF, min. 250Vac, min. 100°C.	IEC / EN 60384-14: 2013 UL 60384-14	VDE, UL
-Alt.	Epcos Electronic Components S A	B3292#	Max. 0.47μF, min. 250Vac, min. 100°C.	IEC / EN 60384-14: 2013 UL 60384-14	VDE, UL
-Alt.	NANJING TENGGEN RONG GUANG DA ELECTRONICS SALES CO LTD	MKP	Max. 0.47μF, min. 250Vac, min. 100°C.	IEC / EN 60384-14: 2013 UL 60384-14	VDE, UL

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
-Alt.	FARAD	PXK	Max. 0.47 μ F, min. 250Vac, min. 100°C.	IEC / EN 60384-14: 2013 UL 60384-14	VDE,UL
-Alt.	Interchangeable	Interchangeable	Max. 0.47 μ F, min. 250Vac, min. 100°C.	IEC / EN 60384-14: 2013 UL 60384-14	VDE, UL
Varistor (RV9902) (Optional)	Thinking Electronic Industrial Co., Ltd.	TVR14681	Rated 420Vac, 560Vdc, 40/85/56, 6KV/3KA, pluse test passed. V-0 coating.	IEC 61051-1, IEC 61051-2, IEC 61051-2-2, UL 1449 3rd	VDE, UL
-Alt.	Centra Science corp.	CNR-14D681K	Rated 420Vac, 560Vdc, 40/85/56, 6KV/3KA, pluse test passed. V-0 coating.	IEC 61051-1, IEC 61051-2, IEC 61051-2-2, UL 1449 3rd	VDE, UL
-Alt.	EPCOS	SIOV-S14KV681, SIOV-SNF14K420	Rated 420Vac, 560Vdc, 40/85/56, 6KV/3KA, pluse test passed. V-0 coating.	IEC 61051-1, IEC 61051-2, IEC 61051-2-2, UL 1449 3rd	VDE, UL
Line Choke (L9901) (Optional)	ASET	373G0174048X	130°C.	--	--
-Alt.	GUANGDONG, SHENZHEN, CHINA / LZ	373G0174048Z	130°C.	--	--
-Alt.	CHANNELON / HA / DADON	373G0174048H	130°C.	--	--
Line Choke (L9903) (Optional)	ASET	373G0174049X	130°C.	--	--
-Alt.	CHANNELON / HA / DADON	373G0174049H	130°C.	--	--
Line Choke (L9801) (Optional)	YUVA	373G0174520N	130°C.	--	--
-Alt.	LITAI	373G0174520L	130°C.	--	--
Transformer (T9101)	YUVA	80GL52P-502-N	Class B.	Applicable parts of IEC 62368-1 and according to IEC 60085	Accepted by TUV Rheinland

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
-Bobbin	SUMITOMO BAKELITE CO LTD	PM-9820	V-0, phenolic, 150°C.	UL 94	UL
-Case	E I DUPONT DE NEMOURS & CO INC	FR530(l)(+)(f1), FR530L(l)(+)(f1)	V-0, 155°C.	UL 94	UL
-Insulation Tape	SYMBIO INC	35660Y (e)	130°C.	UL 510A	UL
Transformer (T9101) (Alternate)	LITAI	80GL52P-502-L	Class B.	Applicable parts of IEC 62368-1 and according to IEC 60085	Accepted by TUV Rheinland
-Bobbin	CHANG CHUN PLASTICS CO LTD	T200HF	V-0, phenolic, 150°C.	UL 94	UL
-Case	CHANG CHUN PLASTICS CO LTD	T200HF	V-0, 150°C.	UL 94	UL
-Insulation Tape	SYMBIO INC	35660Y (e)	130°C.	UL 510A	UL
-Alt.	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	CT* (c)(g)	130°C.	UL 510A	UL
Transformer (T9301)	PHOENIX	380GL32P621P	Class B.	Applicable parts of IEC 62368-1 and according to IEC 60085	Accepted by TUV Rheinland
-Bobbin	SUMITOMO BAKELITE CO LTD	PM-9750	V-0, phenolic, 150°C.	UL 94	UL
-Insulation Tape	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	CT* (c)(g)	130°C.	UL 510A	UL
-Triple insulation wire	COSMOLINK CO., LTD	TIW-B	130°C.	IEC/EN 60950-1, UL 2353	VDE, UL
Transformer (T9301) (Alternate)	TAICHANG / TC	380GL32P621S	Class B.	Applicable parts of IEC 62368-1 and according to IEC 60085	Accepted by TUV Rheinland

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
-Bobbin	SUMITOMO BAKELITE CO LTD	PM-9630	V-0, phenolic, 150°C.	UL 94	UL
-Insulation Tape	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	CT* (c)(g)	130°C.	UL 510A	UL
-Triple insulation wire	Great Leoflon Industrial Co., Ltd	TRW(B) serie(s)	130°C.	IEC/EN 60950-1, UL 2353	VDE, UL
Transformer (T9301) (Alternate)	ASET	380GL32P621X	Class B.	Applicable parts of IEC 62368-1 and according to IEC 60085	Accepted by TUV Rheinland
-Bobbin	SUMITOMO BAKELITE CO LTD	PM-9750	V-0, phenolic, 150°C.	UL 94	UL
-Insulation Tape	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	CT* (c)(g)	130°C.	UL 510A	UL
-Triple insulation wire	COSMOLINK CO., LTD	TIW-B	130°C.	IEC/EN 60950-1, UL 2353	VDE, UL
Optocouplers (U9302, U9303, U9102)	Sharp	PC123	Di more than 0.4mm, int = thermal cycling test, ext. more than 8.0mm, 5000 Vac, 100°C.	DIN EN 60747-5- 5:2003 IEC/EN 60950-1 UL 1577	VDE, UL, Semko, Fimko, Nemko
-Alt.	Vishay Semiconductor	TCET1103	Di more than 0.5mm, int. cr more than 6.0mm, ext. cr more than 7.7mm, 3000Vac, 100 °C.	DIN EN 60747-5- 5:2003, IEC/EN 60950-1, UL 1577	VDE, UL, Semko, Fimko, Nemko

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
-Alt.	Everlight Electronics Co., Ltd.	EL817, EL817M	Di more than 0.5mm, int. cr = thermal cycling test, ext. cr more than 7.7mm, 3000Vac, 100°C.	DIN EN 60747-5-5:2003 IEC/EN 60950-1 UL 1577	VDE,UL, Semko, Fimko, Nemko
-Alt.	TOSHIBA	TLP781F, TLP781	Di more than 0.5mm, int. cr =thermal cycling test, ext. cr more than 8.0mm, 4800Vac, 100°C.	DIN EN 60747-5-5:2003, IEC/EN 60950-1, UL 1577	VDE,UL, Semko, Fimko
-Alt.	TOSHIBA	TLP421F	Di more than 0.4mm, int.cr=thermal cycling test, ext. cr more than 8.0mm, 5000Vac, 100°C.	DIN EN 60747-5-5:2003 IEC/EN 60950-1 UL 1577	VDE,UL, Semko, Fimko
-Alt.	RENESAS ELECTRONICS CORPORATION	PS2561-1, PS2561L-1, PS2561L1-1, PS2561L2-1. PS2561DL1-1	Di more than 0.4mm, int.cr=thermal cycling test, ext. cr more than 8.0mm, 5000Vac, 100°C.	DIN EN 60747-5-5:2003 IEC/EN 60950-1 UL 1577	VDE,UL, Nemko, Fimko
-Alt.	Everlight Electronics Co., Ltd.	EL1013	Di more than 0.4mm, int.cr=thermal cycling test, ext. cr more than 8.1mm, 3000Vac, 100°C.	DIN EN 60747-5-5:2003 IEC/EN 60950-1 UL 1577	VDE,UL, Semko, Fimko, Nemko
-Alt.	Lite-On	LTV-817	Di more than 0.6mm, int.cr=thermal cycling test, ext. cr more than 8.0mm, 4800Vac, 100°C.	DIN EN 60747-5-5:2003, IEC/EN 60950-1, UL 1577	VDE,UL, Semko, Fimko, Nemko

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
Main board type 715GA088					
Protective IC (U5504) (for SENS/MEM port (CN7504) use)	DIODES Incorporated	AP2161D	2.7-5.5Vdc, Current limit (typical) 1.5A,Recommended maximum continuous load current 1.0A.	IEC 60950-1, UL 2367	Nemko (CB by Nemko Certificate NO83682), UL
Functional Component					
Inter Metal enclosure	Interchangeable	Interchangeable	Metallic, min. 0.6mm thickness.	--	--
Internal metal sheet (provided for bottom enclosure and side enclosure near main board which will be bottom after rotate to vertical)	Interchangeable	Interchangeable	Metallic, min. 0.25mm thickness.	--	--
Stand base (Optional)	Interchangeable	Interchangeable	HB or batter, weight approx. 6.26 kg.	UL 94	UL
Internal speaker	Interchangeable	Interchangeable	Each rated 4 ohm max., Max. 3.6W.	--	--
Rubber stand for speaker	Interchangeable	Interchangeable	V-1 or better, Min. 105°C.	UL 94	UL
P.C.B	Interchangeable	Interchangeable	V-1 or better, Min. 105°C.	UL 796	UL
Switching Power Supply board type 715GA191					
Bleeder Resistors (R301,R302,R306,R 307)	Interchangeable	SMD type	10KΩ, min. 1/4W (four provided, located after fuse).	--	--
Discharge IC (U9301)	Leadtrend Technology Corp.	LD5760	650V, Range of discharge resistor 1KΩ to 124KΩ.	IEC 60950-1:2005+A1 (CB by Nemko (NO77082))	--
Bridging Diode (BD9901)	Interchangeable	Interchangeable	Min. 15A, min. 800Vac.	--	--

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
Ripple Capacitor (C9803)	Interchangeable	Interchangeable	150 μ F, min. 450 V, min. 105°C.	--	--
Transistors (Q9101, Q9102)	Interchangeable	Interchangeable	Min. 600V, min. 20.2A.	--	--
Transistors (Q9801)	Interchangeable	Interchangeable	Min. 600V, min. 10A.	--	--
Transistors (Q9310)	Interchangeable	Interchangeable	Min. 650V, min. 5.5A.	--	--
Transistors (Q9301, Q9804)	Interchangeable	Interchangeable	Min. 60V, min. 5A.	--	--
Thermistor (TH9901, TH9902) (Optional)	Interchangeable	Interchangeable	Min. 1.5 Ω , min. 2.4A at 25°C.	--	--
PCB	Interchangeable	Interchangeable	V-1 or better Min. 105°C.	UL 94, UL 796	UL
Supplementary information:					
1) Provided evidence ensures the agreed level of compliance. See OD-CB2039.					
2) In the technical data column of optocoupler, where "Dti" means distance through insulation, "Int. cr" means internal creepage distance, and "Ext. cr" means external creepage distance.					

4.8.4, 4.8.5	TABLE: Lithium coin/button cell batteries mechanical tests			N/A
(The following mechanical tests are conducted in the sequence noted.)				
4.8.4.2	TABLE: Stress Relief test			—
Part		Material	Oven Temperature (°C)	Comments
4.8.4.3	TABLE: Battery replacement test			—
Battery part no.:				—
Battery Installation/withdrawal			Battery Installation/Removal Cycle	Comments
			1	
			2	
			3	
			4	
			5	
			6	
			8	
			9	

IEC 62368-1				
Clause	Requirement + Test	Result - Remark	Verdict	
4.8.4, 4.8.5	TABLE: Lithium coin/button cell batteries mechanical tests		N/A	
(The following mechanical tests are conducted in the sequence noted.)				
4.8.4.4	TABLE: Drop test		—	
Impact Area		Drop Distance	Drop No.	Observations
			1	
			2	
			3	
4.8.4.5	TABLE: Impact		—	
Impacts per surface		Surface tested	Impact energy (Nm)	Comments
4.8.4.6	TABLE: Crush test		—	
Test position		Surface tested	Crushing Force (N)	Duration force applied (s)
Supplementary information:				

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

5.2		TABLE: Classification of electrical energy sources					P
5.2.2.2 – Steady State Voltage and Current conditions							
No.	Supply Voltage	Location (e.g. circuit designation)	Test conditions ¹⁾	Parameters			ES Class
				U (Vrms or Vpk)	I (Apk or Arms)	Hz	
1	264Vac	CN902 Pin1-5	Normal	24.3Vdc	--	--	ES1
		CN903Pin3-6	Abnormal -	0	--	--	
		(+24V)	Output short	24.3Vdc	--	--	
			Abnormal -				
			Opening block				

IEC 62368-1							
Clause	Requirement + Test			Result - Remark		Verdict	
			Single fault - Fuse open	0	--	--	
			Single fault - Unit shutdown	0	--	--	
			Single fault - normal	24.3Vdc	--	--	
			Transformer overload	24.3Vdc	--	--	
2	264Vac	CN903Pin11-14 (+12V)	Normal	12.2Vdc	--	--	ES1
			Abnormal - Output short	0	--	--	
			Abnormal - Opening block	12.2Vdc	--	--	
			Single fault - Fuse open	0	--	--	
			Single fault - Unit shutdown	0	--	--	
			Single fault - normal	12.2Vdc	--	--	
			Transformer overload	12.2Vdc	--	--	
3	264Vac	CN903Pin21-24 (+5V)	Normal	5.3Vdc	--	--	ES1
			Abnormal - Output short	0	--	--	
			Abnormal - Opening block	5.3Vdc	--	--	
			Single fault - Fuse open	0	--	--	
			Single fault - Unit shutdown	0	--	--	
			Single fault - normal	5.3Vdc	--	--	
			Transformer overload	5.3Vdc	--	--	
5.2.2.3 - Capacitance Limits							
No.	Supply Voltage	Location (e.g. circuit designation)	Test conditions	Parameters		ES Class	
				Capacitance, nF	Upk (V)		
1	264 Vac	C9901,C9902	Normal	See table 4.1.2	379	ES3	

IEC 62368-1							
Clause	Requirement + Test			Result - Remark			Verdict
	60 Hz		Abnormal	--	--		
			Single fault – SC/OC	--	--		
2.	110Vac 60Hz	C9901,C9902	Normal	See table 4.1.2	154		
			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
				Duration (ms)	Upk (V)	Ipk (mA)	
--	--	--	Normal	--	--	--	--
			Abnormal	--	--	--	
			Single fault – SC/OC	--	--	--	
Test Conditions: Normal – Max. normal load Abnormal – No load Supplementary information: SC = Short-circuited, OC = Open-circuited 1) All abnormal and single fault condition has been evaluated, however, only the highest value had recorded.							

5.4.1.4, 6.3.2, 9.0, B.2.6	TABLE: Temperature measurements				P
	Supply voltage (V)	See below			—
	Ambient T _{min} (°C)	--			—
	Ambient T _{max} (°C)	See below			—
	Tma (°C)	--			—
Maximum measured temperature T of part/at:		T (°C)			Allowed T _{max} (°C)
Supply voltage (V/Hz)		90V/60Hz	90V/60Hz	264V/60Hz	--
Test Orientation		Horizontal	Vertical (main board downward)	Horizontal	--

IEC 62368-1					
Clause	Requirement + Test	Result - Remark		Verdict	
01.CN901 near L pin		69.5	74.2	58.7	85
02.RV9902 body		71.2	74.6	60.4	85
03.C9902 body		75.0	75.4	62.3	100
04.L9901 coil		87.0	82.5	64.3	130
05.PCB near TH9901		100.8	94.9	72.1	105
06.C9906 body		83.7	63.8	67.4	85
07.L9903 coil		81.4	80.5	62.2	130
08.PCB near BD9901		80.9	84.2	64.1	105
09.L9801 coil		78.1	84.2	64.9	130
10.PCB near D9801		62.8	71.3	60.3	105
11.C9803 body		66.2	72.1	62.2	105
12.PCB near Q9310		74.3	76.3	70.6	105
13.PCB near Q9102		68.3	72.1	67.9	105
14.U9102 body		58.7	58.6	58.0	100
15.C9909 body		64.2	80.4	62.4	85
16.T9101 core		91.0	76.1	90.8	110
17.T9101 coil		91.7	76.6	91.6	110
18.T9301 coil		78.0	90.9	75.7	110
19.T9301 core		76.2	86.5	73.9	110
20.U9303 body		74.0	63.7	70.8	100
21.PCB near D9207,Q9205		84.8	74.8	84.4	105
22.PCB near D9206		78.3	73.2	77.7	105
23.L9203 coil		72.4	60.3	72.1	105
24.L9202 coil		77.7	64.4	77.2	105
25.L9201 coil		77.1	61.9	76.4	105
26.L801 coil(Main board)		64.9	65.4	64.7	105
27.L802 coil(Main board)		71.1	68.0	70.6	105
28.PCB near D803(Main board)		70.4	67.9	70.1	105
29.PCB near HS401(Main board)		72.4	58.7	72.4	105
30.PCB near HS501(Main board)		70.0	62.9	70.2	105
31.Mylar surface		52.8	57.1	52.3	80
32.AC inlet near L pin		44.1	52.7	43.4	65
33.Plastic enclosure inside		49.4	49.6	47.8	--
Ambient (Actually temp.)		40.0(24.5)	40.0(24.2)	40.0(24.7)	--
34.Plastic enclosure outside		31.8	33.2	30.2	48
35.Switch body		30.0	42.7	29.3	48

IEC 62368-1					
Clause	Requirement + Test	Result - Remark		Verdict	
36.Button body		33.7	32.8	33.6	48
37.Panel body		36.2	33.1	36.4	48
Ambient (Actually temp.)		25.0(24.5)	25.0(24.2)	25.0(24.7)	--
Supply voltage (V/Hz)		264V/60Hz	--	--	--
Test Orientation		Opening Block	--	--	--
01.CN901 near L pin		67.0	--	--	300
02.RV9902 body		68.4	--	--	300
03.C9902 body		71.2	--	--	300
04.L9901 coil		72.6	--	--	300
05.PCB near TH9901		78.9	--	--	300
06.C9906 body		74.0	--	--	300
07.L9903 coil		70.8	--	--	300
08.PCB near BD9901		73.0	--	--	300
09.L9801 coil		74.5	--	--	300
10.PCB near D9801		68.9	--	--	300
11.C9803 body		70.0	--	--	300
12.PCB near Q9310		79.9	--	--	300
13.PCB near Q9102		76.7	--	--	300
14.U9102 body		67.3	--	--	300
15.C9909 body		72.5	--	--	300
16.T9101 core		98.9	--	--	300
17.T9101 coil		100.0	--	--	300
18.T9301 coil		84.2	--	--	300
19.T9301 core		82.7	--	--	300
20.U9303 body		79.8	--	--	300
21.PCB near D9207,Q9205		92.3	--	--	300
22.PCB near D9206		87.1	--	--	300
23.L9203 coil		80.6	--	--	300
24.L9202 coil		84.9	--	--	300
25.L9201 coil		84.1	--	--	300
26.L801 coil(Main board)		72.6	--	--	300
27.L802 coil(Main board)		79.3	--	--	300
28.PCB near D803(Main board)		78.7	--	--	300
29.PCB near HS401(Main board)		79.8	--	--	300
30.PCB near HS501(Main board)		78.1	--	--	300

IEC 62368-1				
Clause	Requirement + Test	Result - Remark		Verdict
31.Mylar surface	57.9	--	--	80
32.AC inlet near L pin	48.9	--	--	300
33.Plastic enclosure inside	50.7	--	--	--
Ambient (Actually temp.)	40.0(24.1)	--	--	--
34.Plastic enclosure outside	32.4	--	--	58
35.Switch body	35.6	--	--	58
36.Button body	34.5	--	--	58
37.Panel body	38.0	--	--	58
Ambient (Actually temp.)	25.0(24.1)	--	--	--
Supply voltage (V/Hz)	264V/60Hz	264V/60Hz	264V/60Hz	--
Test Orientation	T9101 After D9207 OL (+12V)	T9301 After Pin10,11 OL (+5V)	T9101 After D9205 OL (+24V)	--
01.CN901 near L pin	58.2	60.1	61.8	300
02.RV9902 body	60.1	62.7	64.4	300
03.C9902 body	63.2	66.9	67.7	300
04.L9901 coil	65.0	69.7	73.2	300
05.PCB near TH9901	75.4	80.8	86.7	300
06.C9906 body	68.6	71.4	73.7	300
07.L9903 coil	63.7	66.4	69.7	300
08.PCB near BD9901	65.3	67.1	70.3	300
09.L9801 coil	65.8	66.0	68.3	300
10.PCB near D9801	58.8	60.4	61.3	300
11.C9803 body	61.2	63.6	65.8	300
12.PCB near Q9310	69.2	92.5	72.9	300
13.PCB near Q9102	68.3	67.1	75.7	300
14.U9102 body	56.5	56.4	59.7	300
15.C9909 body	59.8	65.6	69.3	300
16.T9101 core	96.9	100.4	78.4	300
17.T9101 coil	85.8	100.9	80.3	300
18.T9301 coil	74.7	92.7	121.3	300
19.T9301 core	73.2	92.2	106.7	300
20.U9303 body	71.5	87.6	75.7	300
21.PCB near D9207,Q9205	104.7	108.9	98.7	300
22.PCB near D9206	77.6	78.8	105.3	300
23.L9203 coil	74.0	75.2	82.8	300
24.L9202 coil	84.4	86.9	92.6	300

IEC 62368-1					
Clause	Requirement + Test	Result - Remark		Verdict	
25.L9201 coil		86.6	99.1	87.8	300
26.L801 coil(Main board)		64.2	66.1	65.9	300
27.L802 coil(Main board)		70.1	71.4	71.4	300
28.PCB near D803(Main board)		70.0	71.6	71.6	300
29.PCB near HS401(Main board)		71.9	73.4	72.9	300
30.PCB near HS501(Main board)		69.4	70.8	70.1	300
31.Mylar surface		50.2	51.3	51.0	80
32.AC inlet near L pin		42.9	43.9	43.2	300
33.Plastic enclosure inside		47.5	50.5	49.4	--
Ambient (Actually temp.)		40.0(24.6)	40.0(24.3)	40.0(24.8)	--
34.Plastic enclosure outside		29.5	31.4	30.8	58
35.Switch body		29.0	28.6	27.8	58
36.Button body		32.5	34.1	33.3	58
37.Panel body		36.3	37.0	36.3	58
Ambient (Actually temp.)		25.0(24.6)	25.0(24.3)	25.0(24.8)	--
Supply voltage (V/Hz)		264V/60Hz	--	--	--
Test Orientation		Type C OL	--	--	--
38.PCB near U1426		66.2	--	--	300
Ambient (Actually temp.)		40.0(22.6)	--	--	--
39.Metal enclosure outside near Type C port		32.3	--	--	58
Ambient (Actually temp.)		25.0(22.6)	--	--	--
Supply voltage (V/Hz)		264V/60Hz	--	--	--
Test Orientation		USB2.0 OL	--	--	--
38.PCB near U5504		76.6	--	--	300
Ambient (Actually temp.)		40.0(21.2)	--	--	--
39.Metal enclosure outside near USB2.0 port		33.0	--	--	58
Ambient (Actually temp.)		25.0(21.2)	--	--	--
Supply voltage (V/Hz)		264V/60Hz	--	--	--
Test Orientation		USB3.0 OL	--	--	--
38.PCB near U1408		64.7	--	--	300
Ambient (Actually temp.)		40.0(22.7)	--	--	--
39.Metal enclosure outside near USB3.0 port		64.7	--	--	58
Ambient (Actually temp.)		25.0(22.7)	--	--	--
Supply voltage (V/Hz)		264V/60Hz	--	--	--
Test Orientation		DP OL	--	--	--
38.PCB near U5204		72.8	--	--	300

IEC 62368-1									
Clause	Requirement + Test			Result - Remark			Verdict		
Ambient (Actually temp.)				40.0(22.5)	--	--	--		
39.Metal enclosure outside near DP port				36.4	--	--	58		
Ambient (Actually temp.)				25.0(22.5)	--	--	--		
Supplementary information: Note 1: The apparatus was submitted and evaluated for maximum manufacturer's recommended ambient (Tma) of 40 °C. Note 2: The temperatures were measured under the worse case normal mode defined in table B.2.5. Note 3: Temperature limits are calculated as follows: Winding components providing safety isolation: Class B → Tmax = 120 – 10 = 110 °C (for normal condnion) Class B → Tmax = 175 – 10 = 165 °C (for abnoral or single fault condnion) Note 4: The values for T (°C) are re-calculated from ambient to reflect the ambient temperature value of 25°C. Note 5: The tests were performed with speaker adjust to max. volume.									
Temperature T of winding:			t ₁ (°C)	R ₁ (Ω)	t ₂ (°C)	R ₂ (Ω)	T (°C)	Allowed T _{max} (°C)	Insulat ion class
--			--	--	--	--	--	--	--
Supplementary information: Note 1: Tma should be considered as directed by applicable requirement. Note 2: Tma is not included in assessment of Touch Temperatures (Clause 9).									

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

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

5.4.2.2, 5.4.2.4 and 5.4.3	TABLE: Minimum Clearances/Creepage distance						P
Clearance (cl) and creepage distance (cr) at/of/between:		Up (V)	U r.m.s. (V)	Frequenc y (kHz)	Required cl (mm)	cl (mm)	Required cr (mm)
Functional:							
Under fuse (F901)		420	250	60Hz	2.3 (1.5 x 1.48)	2.6	2.5
							2.6

IEC 62368-1							
Clause	Requirement + Test			Result - Remark			Verdict
Before fuse (between L-N)	420	250	60Hz	2.3	2.8	2.5	2.8
Basic/supplementary:							
Primary component to earthed part	420	250	>30kHz	2.3 (1.5 x 1.48)	See below	2.5	See below
L/N to earth trace					7.0		7.0
Under C9904/C9905/C9906					7.5		7.5
Under C9907					7.2		7.2
Under C9908					7.2		7.2
Primary / secondary component to metal chassis					6.2		6.2
Primary component to user accessible metal part					More than 10		More than 10
Reinforced:							
Primary trace to Secondary trace	420	250	>30kHz	4.5 (3.0 x 1.48)	See below	5.0	See below
Under C9909					7.5		7.5
Under C9903					7.4		7.4
Under U9302					7.5		7.5
Under U9303					7.5		7.5
Under U9102					7.8		7.8
Under T9101	470	266	73kHz	4.5 (3.0 x 1.48)	9.1	5.4	9.1
Under T9301	580	358	73kHz	4.5 (3.0 x 1.48)	7.8	7.2	7.8
Supplementary information:							
1) Material Group IIIa, IIIb considered. 2) Core of transformer T9101, T9301 is considered as floating part. 3) Consider the altitude up to 5000m, multiplication factor (according to Table 17) is 1.48. 4) All internal wires are located by mechanical fixings to keep distance. 5) The measurements were conducted on both component side and trace layout side, only smaller value being recorded above.							

5.4.2.3	TABLE: Minimum Clearances distances using required withstand voltage	P
	Overvoltage Category (OV):	II
	Pollution Degree:	2

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
Clearance distanced between:	Required withstand voltage	Required cl (mm)	Measured cl (mm)
Under fuse	2500	2.3	See table 5.4.2.2, 5.4.2.4 and 5.4.3
Before fuse (between L-N)	2500	2.3	See above
Line / Neutral to earth	2500	2.3	See above
Under Y-Cap. (C9904, C9905, C9906, C9907, C9908)	2500	2.3	See above
Under T9101	2500	4.5	See above
Under T9301	2500	4.5	See above
Under U9302, U9303, U9102	2500	4.5	See above
Under bridging Cap. (C9903, C9909)	2500	4.5	See above
Supplementary information: The equipment to be operated up to 5000 m above sea level, each clearance multiplied with an altitude correction factor of 1.48.			

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

5.4.4.2, 5.4.4.5 c) 5.4.4.9	TABLE: Distance through insulation measurements					P
Distance through insulation di at/of:	Peak voltage (V)	Frequency (kHz)	Material	Required DTI (mm)	DTI (mm)	
Optocouplers	420	>30	¹⁾	0.4	¹⁾	
Bobbin of T9101	580	>30	¹⁾	0.4	¹⁾	
Insulation tape	580	>30	¹⁾	2 layers	¹⁾	
Insulation sheet	580	>30	¹⁾	0.4	¹⁾	
Supplementary information: 1) For details refer to appended table 4.1.2. 2) All sources are considered. 3) According to clause 5.4.4.9: For insulation tape, alternate method is used: Kr=0.46, Vpw=580Vp. Required electric strength test voltage: $1.2 \cdot 2 \cdot 580 / 0.46 = 3027 \text{Vpeak}$ Kr=0.71, Vpeak=580Vp. Required electric strength test voltage: $1.2 \cdot 2 \cdot 580 / 0.71 = 1961 \text{Vpeak}$ Kr=0.35, Vpeak =580Vp. Required electric strength test voltage: $1.2 \cdot 2 \cdot 580 / 0.35 = 3977 \text{Vpeak}$						

5.4.9	TABLE: Electric strength tests	P
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IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
Test voltage applied between:		Voltage shape (AC, DC)	Test voltage (V)
Basic/supplementary:		Breakdown Yes / No	
Unit: primary and earth		DC	2500
Transformer (T9101): primary and core		AC	2500 Vpeak
Transformer (T9101): Secondary and core		AC	2500 Vpeak
Gas Tube		DC	2500
Reinforced:			
Unit: primary and secondary		DC	4000
Transformer (T9101): primary and secondary		AC	4000Vpeak
Transformer (T9301): primary and secondary		AC	4000Vpeak
Transformer (T9301): secondary and core		AC	4000Vpeak
Insulation tape		AC	4000Vpeak
Insulation mylar		AC	4000Vpeak
Transformer (T9101) Bobbin		AC	4000Vpeak
Supplementary information:			

5.5.2.2	TABLE: Stored discharge on capacitors					P
Supply Voltage (V), Hz	Test Location	Operating Condition (N, S)	Switch position On or off	Measured Voltage (after 2 seconds)	ES Classification	
264Vac, 60Hz	Phase to Neutral	N	--	0	ES1	
264Vac, 60Hz	Phase to Neutral	S (R9306 open)	--	4	ES1	
264Vac, 60Hz	Phase to Neutral	S (R9307 open)	--	4	ES1	
264Vac, 60Hz	Phase to Neutral	S (R9301 open)	--	4	ES1	
264Vac, 60Hz	Phase to Neutral	S (R9302 open)	--	4	ES1	
100Vac, 60Hz	Phase to Neutral	N	--	0	ES1	

IEC 62368-1					
Clause	Requirement + Test			Result - Remark	Verdict
264Vac, 60Hz	Phase to Neutral	S (R9306 open)	--	1.86	ES1
264Vac, 60Hz	Phase to Neutral	S (R9307 open)	--	1.86	ES1
264Vac, 60Hz	Phase to Neutral	S (R9301 open)	--	1.86	ES1
264Vac, 60Hz	Phase to Neutral	S (R9302 open)	--	1.86	ES1
Supplementary information: X-capacitors installed for testing are: refer to table 4.1.2 ☒ bleeding resistor rating: refer to table 4.1.2 ☒ Additional test for ICX: approved ICX used. Notes: A. Test Location: Phase to Neutral; Phase to Phase; Phase to Earth; and/or Neutral to Earth. B. Operating condition abbreviations: N – Normal operating condition (e.g., normal operation, or open fuse); S – Single fault condition.					

5.6.6.2	TABLE: Resistance of protective conductors and terminations				P
Accessible part	Test current (A)	Duration (min)	Voltage drop (V)	Resistance (mΩ)	
AC inlet to metal part	32	2	0.320	10	
AC inlet to metal part	40	2	0.440	11	
C9904	32	2	0.192	6	
C9904	40	2	0.240	6	
C9905	32	2	0.224	7	
C9905	40	2	0.280	7	
C9906	32	2	0.192	6	
C9906	40	2	0.240	6	
C9907	32	2	0.096	3	
Supplementary information:					

5.7.2.2, 5.7.4	TABLE: Earthed accessible conductive part			P
Supply voltage	264 Vac			—

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
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)
Line to earth Neutral to earth		1	Max. 3.0mA _{pk}
		2*	--
		3	--
		4	--
		5	--
		6	--
		8	--
Supplementary information: C9904=C9905=C9906=C9907=4700pF, C9903,C9909=2200pF Notes: [1] Supply voltage is the anticipated maximum Touch Voltage. [2] Earthed neutral conductor [Voltage differences less than 1% or more]. [3] Specify method used for measurement as described in IEC 60990 subclause 4.3. [4] IEC60990, subclause 6.2.2.7, Fault 7 not applicable. [5] (*) IEC60990, subclause 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	
For 24V output (power board) CN902 Pin1-5 CN903 Pin3-6 (Normal)	Worse case fault	Power (W) :	--	250.11	PS3	
		V _A (V) :	--	24.20		
		I _A (A) :	--	10.66		
For 12V output (power board) CN903 Pin11-14 (Normal)	Worse case fault	Power (W) :	--	150.82	PS3	
		V _A (V) :	--	12.15		
		I _A (A) :	--	15.5		
For 5V output (power board) CN903 Pin21-24 (Normal)	Worse case fault	Power (W) :	--	40.34	PS2	
		V _A (V) :	--	5.20		
		I _A (A) :	--	9.60		
R9306 SC	Worse-case power source fault	Power (W) :	4.98	--	PS1	
		V _A (V) :	5.18	--		
		I _A (A) :	0.96	--		
R9318 SC	Worse-	Power (W) :	4.98	--	PS1	

IEC 62368-1					
Clause	Requirement + Test			Result - Remark	Verdict
	case power source fault	V _A (V) :	5.18	--	
		I _A (A) :	0.96	--	
R9319 SC)	Worse-case power source fault	Power (W) :	4.98	--	PS1
		V _A (V) :	5.18	--	
		I _A (A) :	0.96	--	
Supplementary information: (*) Measurement taken only when limits at 3 seconds exceed PS1 limits. Note: The worst case is considered at the power measurement for worst-case fault. The output circuit of power board was considered as PS3 due to all outputs were supply to main board.					

6.2.3.1	TABLE: Determination of Potential Ignition Sources (Arcing PIS)				P
Location	Open circuit voltage After 3 s (V _p)	Measured r.m.s current (I _{rms})	Calculated value (V _p × I _{rms})	Arcing PIS? Yes / No	
2)	2)	2)	2)	Yes	
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 _p) and normal operating condition rms current (I _{rms}) is greater than 15. 2) All components located within the EUT are considered as arcing PIS.					

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 × 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.					

8.5.5	TABLE: High Pressure Lamp			N/A
Description	Values			Energy Source Classification
Lamp type:				—

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
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 (Vac)/Freq (Hz)	I (A)	I rated (A)	P (W)	P rated (W)	Fuse No.	I fuse (A)	Condition/status	
The equipment operated under maximum brightness, maximum contrast of LED backlight circuit and the volume with 1kHz sinusoidal waveform of unit adjusted to maximum attainable output and dummy load of 5V/0.5A for SENS/MEM port, 5V/0.9A for each USB downstream port (Type-A) (total three provided) and 3.3V/0.5A for Display port (total two provided) and 20V / 3.25A for USB Type C, RJ45 port connected to computer.								
HDMI Mode								
90/50	2.05	--	182.9	--	F9901	2.05	A/Maximum Normal Load.	
90/60	2.05	--	183.3	--	F9901	2.05	A/Maximum Normal Load.	
100/50	1.83	2.4	181.5	--	F9901	1.83	A/Maximum Normal Load.	
100/60	1.84	2.4	181.8	--	F9901	1.84	A/Maximum Normal Load.	
240/50	0.76	1.0	175.5	--	F9901	0.76	A/Maximum Normal Load.	
240/60	0.76	1.0	175.5	--	F9901	0.76	A/Maximum Normal Load.	
264/50	0.70	--	175.2	--	F9901	0.70	A/Maximum Normal Load.	
264/60	0.70	--	175.2	--	F9901	0.70	A/Maximum Normal Load.	
DP mode								

IEC 62368-1								
Clause	Requirement + Test				Result - Remark			Verdict
B.2.5	TABLE: Input test							P
U (Vac)/Freq (Hz)	I (A)	I rated (A)	P (W)	P rated (W)	Fuse No.	I fuse (A)	Condition/status	
90/50	2.03	--	181.4	--	F9901	2.03	A/Maximum Normal Load.	
90/60	2.03	--	181.4	--	F9901	2.03	A/Maximum Normal Load.	
100/50	1.83	2.4	180.2	--	F9901	1.83	A/Maximum Normal Load.	
100/60	1.83	2.4	180.2	--	F9901	1.83	A/Maximum Normal Load.	
240/50	0.76	1.0	174.1	--	F9901	0.76	A/Maximum Normal Load.	
240/60	0.76	1.0	174.1	--	F9901	0.76	A/Maximum Normal Load.	
264/50	0.70	--	173.9	--	F9901	0.70	A/Maximum Normal Load.	
264/60	0.70	--	174.1	--	F9901	0.70	A/Maximum Normal Load.	
The equipment operated under maximum brightness, maximum contrast of LED backlight circuit and the volume with 1kHz sinusoidal waveform of unit adjusted to maximum attainable output and dummy load of 5V/0.5A for SENS/MEM port, 5V/0.9A for each USB downstream port (Type-A) (total three provided) and 3.3V/0.5A for Display port (total two provided).								
Type C Mode								
90/50	1.14	--	102.6	--	F9901	1.14	B/Maximum Normal Load.	
90/60	1.15	--	103.9	--	F9901	1.15	B/Maximum Normal Load.	
100/50	1.02	2.4	102.3	--	F9901	1.02	B/Maximum Normal Load.	
100/60	1.02	2.4	102.6	--	F9901	1.02	B/Maximum Normal Load.	
240/50	0.45	1.0	100.2	--	F9901	0.45	B/Maximum Normal Load.	
240/60	0.46	1.0	100.4	--	F9901	0.46	B/Maximum Normal Load.	
264/50	0.45	--	100.6	--	F9901	0.45	B/Maximum Normal Load.	
264/60	0.46	--	100.7	--	F9901	0.46	B/Maximum Normal Load.	
Supplementary information:								

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Clause	Requirement + Test	Result - Remark	Verdict

B.3	TABLE: Abnormal operating condition tests							P
Ambient temperature (°C)					25 °C, if not specified			—
Power source for EUT: Manufacturer, model/type, output rating ...					--			—
Component No.	Abnormal condition / Fault condition	Supply voltage, (Vac)	Test time (s)	Fuse No.	Fuse current, (A)	T-couple	Temp. (°C)	Observation
Openings	Block	264	39mins	F9901	0.70	--	3)	Normal operation, NB, NC, NT, no hazards, ARSE.
T9101 After D9207	Overload	264	3hr 57mins	F9901	0.81	--	3)	Temperature is stabled at output overload condition 3.5A, then unit shutdown when increase to 4.0 A. No damage, NB, NC, NT, ASRE.
T9301 After Pin10,11	Overload	264	2hr 10mins	F9901	0.82	--	3)	Temperature is stabled at output overload condition 7.5 A, then unit shutdown when increase to 8.0 A. No damage, NB, NC, NT, ASRE.
T9101 After D9205	Overload	264	2hr 26mins	F9901	1.20	--	3)	Temperature is stabled at output overload condition 5.5 A, then unit shutdown when increase to 5.8 A. No damage, NB, NC, NT, ASRE.

IEC 62368-1								
Clause	Requirement + Test				Result - Remark			Verdict
B.3	TABLE: Abnormal operating condition tests							P
Ambient temperature (°C)					25 °C, if not specified			—
Power source for EUT: Manufacturer, model/type, output rating ...					--			—
Component No.	Abnormal condition / Fault condition	Supply voltage, (Vac)	Test time (s)	Fuse No.	Fuse current, (A)	T-couple	Temp. (°C)	Observation
USB Type C (CN1409)	Overload	264Vac	2hr 3mins	F9901	0.75	--	3)	Temperature is stabled at output overload condition 3.9A, then unit shutdown when increase to 4.0 A. No damage, NB, NC, NT, ASRE.
USB2.0 (CN7504)	Overload	264Vac	2hr 18mins	F9901	0.72	--	3)	Temperature is stabled at output overload condition 1.5A, then unit shutdown when increase to 1.7 A. No damage, NB, NC, NT, ASRE.
USB2.0 (CN1402)	Overload	264Vac	3hr 33mins	F9901	0.72	--	3)	Temperature is stabled at output overload condition 1.5A, then unit shutdown when increase to 1.7 A. No damage, NB, NC, NT, ASRE.

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

B.3	TABLE: Abnormal operating condition tests							P
Ambient temperature (°C)					25 °C, if not specified			—
Power source for EUT: Manufacturer, model/type, output rating ..					--			—
Component No.	Abnormal condition / Fault condition	Supply voltage, (Vac)	Test time (s)	Fuse No.	Fuse current, (A)	T-couple	Temp. (°C)	Observation
DP (CN5202)	Overload	264Vac	2hr 49mins	F9901	0.73	--	3)	Temperature is stabled at output overload condition 1.0A, then unit shutdown when increase to 1.1A No damage, NB, NC, NT, ASRE.
24V – Earth	Short	264Vac	10mins	F9901	0.17	--	--	Unit Shutdown, NB, NC, NT, no hazards, ARSE.
12Vo – Earth	Short	264Vac	10mins	F9901	0.17	--	--	Unit Shutdown, NB, NC, NT, no hazards, ARSE.
5Vo – Earth	Short	264Vac	10mins	F9901	0.11	--	--	Unit Shutdown, NB, NC, NT, no hazards, ARSE.
Supplementary information: 1) 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. 2) Results Key: IP = Internal protection operated (Component indicated); CT = Constant temperatures were obtained; TW = Transformer winding opened; CD = Components damaged (damaged components indicated); NB = No indication of dielectric breakdown; YB = Dielectric breakdown (time and location indicated); NC = Cheesecloth remained intact; YC = Cheesecloth charred or flamed; NT = Tissue paper remained intact; YT = Tissue paper charred or flamed. TC = Touch Current measured; ASRE = All safeguards remained effectively. 3) All temperature measurement refer to appended table 5.4.1.4 4) All ES measurement refer to table 5.2								

B.4	TABLE: Fault condition tests							P
Ambient temperature (°C)					25°C if no other specified.			—
Power source for EUT: Manufacturer, model/type, output rating . :					See copy of marking plate			—

IEC 62368-1								
Clause	Requirement + Test				Result - Remark			Verdict
Component No.	Fault Condition	Supply voltage, (V)	Test time (ms)	Fuse no.	Fuse current, (A)	T-couple	Temp. (°C)	Observation
BD9901 Pin1-4	Short	264Vac	1sec	F9901	0	--	--	Fuse open, NB, NC, NT, no hazards, ARSE.
C9803	Short	264Vac	1sec	F9901	0	--	--	Fuse open, NB, NC, NT, no hazards, ARSE.
U9801 Pin2-7	Short	264Vac	10mins	F9901	0.68	--	--	Normal operation, NB, NC, NT, no hazards, ARSE.
Q9801 PinG-S	Short	264Vac	10mins	F9901	0.68	--	--	Normal operation, NB, NC, NT, no hazards, ARSE.
Q9801 PinG-D	Short	264Vac	1sec	F9901	0	--	--	Fuse open, NB, NC, NT, no hazards, ARSE.
Q9801 PinD-S	Short	264Vac	1sec	F9901	0	--	--	Fuse open, NB, NC, NT, no hazards, ARSE.
Q9803 PinG-S	Short	264Vac	10mins	F9901	0.68	--	--	Normal operation, NB, NC, NT, no hazards, ARSE.
Q9803 PinG-D	Short	264Vac	10mins	F9901	0.68	--	--	Normal operation, NB, NC, NT, no hazards, ARSE.
Q9803 PinD-S	Short	264Vac	10mins	F9901	0.68	--	--	Normal operation, NB, NC, NT, no hazards, ARSE.

IEC 62368-1								
Clause	Requirement + Test			Result - Remark				Verdict
U9301 Pin2-5	Short	264Vac	10mins	F9901	0.11	--	--	Unit Shutdown, NB, NC, NT, no hazards, ARSE.
U9301 Pin2-8	Short	264Vac	10mins	F9901	0.11	--	--	Unit Shutdown, NB, NC, NT, no hazards, ARSE.
Q9310 PinG-S	Short	264Vac	10mins	F9901	0.10	--	--	Unit Shutdown, NB, NC, NT, no hazards, ARSE.
Q9310 PinG-D	Short	264Vac	1sec	F9901	0	--	--	Fuse open, NB, NC, NT, no hazards, ARSE.
Q9310 PinD-S	Short	264Vac	1sec	F9901	0	--	--	Fuse open, NB, NC, NT, no hazards, ARSE.
T9301 Pin1-3	Short	264Vac	10mins	F9901	0.16	--	--	Unit Shutdown, NB, NC, NT, no hazards, ARSE.
T9301 Pin4-5	Short	264Vac	10mins	F9901	0.11	--	--	Unit Shutdown, NB, NC, NT, no hazards, ARSE.
T9301 Pin8,9-10,11	Short	264Vac	10mins	F9901	0.11	--	--	Unit Shutdown, NB, NC, NT, no hazards, ARSE.
U9101 Pin3-16	Short	264Vac	10mins	F9901	0.17	--	--	Unit Shutdown, NB, NC, NT, no hazards, ARSE.
U9101 Pin3-11	Short	264Vac	10mins	F9901	0.17	--	--	Unit Shutdown, NB, NC, NT, no hazards, ARSE.

IEC 62368-1								
Clause	Requirement + Test			Result - Remark				Verdict
Q9101 PinG-S	Short	264Vac	10mins	F9901	0.11	--	--	Unit Shutdown, NB, NC, NT, no hazards, ARSE.
Q9101 PinG-D	Short	264Vac	1sec	F9901	0	--	--	Fuse open, NB, NC, NT, no hazards, ARSE.
Q9101 PinD-S	Short	264Vac	1sec	F9901	0	--	--	Fuse open, NB, NC, NT, no hazards, ARSE.
Q9102 PinG-S	Short	264Vac	10mins	F9901	0.11	--	--	Unit Shutdown, NB, NC, NT, no hazards.
Q9102 PinG-D	Short	264Vac	1sec	F9901	0	--	--	Fuse open, NB, NC, NT, no hazards, ARSE.
Q9102 PinD-S	Short	264Vac	1sec	F9901	0	--	--	Fuse open, NB, NC, NT, no hazards, ARSE.
T9101 Pin2-6	Short	264Vac	10mins	F9901	0.11	--	--	Unit Shutdown, NB, NC, NT, no hazards, ARSE.
T9101 Pin8-10,11	Short	264Vac	10mins	F9901	0.17	--	--	Unit Shutdown, NB, NC, NT, no hazards, ARSE.
T9101 Pin9-12,13	Short	264Vac	10mins	F9901	0.17	--	--	Unit Shutdown, NB, NC, NT, no hazards, ARSE.
T9101 Pin10,11-14	Short	264Vac	10mins	F9901	0.17	--	--	Unit Shutdown, NB, NC, NT, no hazards, ARSE.

IEC 62368-1								
Clause	Requirement + Test			Result - Remark				Verdict
T9101 Pin12,13-15	Short	264Vac	10mins	F9901	0.17	--	--	Unit Shutdown, NB, NC, NT, no hazards, ARSE.
D9205	Short	264Vac	10mins	F9901	0.17	--	--	Unit Shutdown, NB, NC, NT, no hazards, ARSE.
D9206	Short	264Vac	10mins	F9901	0.17	--	--	Unit Shutdown, NB, NC, NT, no hazards, ARSE.
D9207	Short	264Vac	10mins	F9901	0.17	--	--	Unit Shutdown, NB, NC, NT, no hazards, ARSE.
U9102 Pin1-2	Short	264Vac	10mins	F9901	0.11	--	--	Unit Shutdown, NB, NC, NT, no hazards, ARSE.
U9102 Pin3-4	Short	264Vac	10mins	F9901	0.16	--	--	Unit Shutdown, NB, NC, NT, no hazards, ARSE.
U9102 Pin1	Open	264Vac	10mins	F9901	0.11	--	--	Unit Shutdown, NB, NC, NT, no hazards, ARSE.
U9204 Pin1-2	Short	264Vac	10mins	F9901	0.13	--	--	Unit Shutdown, NB, NC, NT, no hazards, ARSE.
U9204 Pin3-4	Short	264Vac	10mins	F9901	0.11	--	--	Unit Shutdown, NB, NC, NT, no hazards, ARSE.

IEC 62368-1								
Clause	Requirement + Test			Result - Remark				Verdict
U9204 Pin1	Open	264Vac	10mins	F9901	0.11	--	--	Unit Shutdown, NB, NC, NT, no hazards, ARSE.
U9203 Pin1-2	Short	264Vac	10mins	F9901	0.11	--	--	Unit Shutdown, NB, NC, NT, no hazards, ARSE.
U9203 Pin3-4	Short	264Vac	10mins	F9901	0.11	--	--	Unit Shutdown, NB, NC, NT, no hazards, ARSE.
U9203 Pin1	Open	264Vac	10mins	F9901	0.11	--	--	Unit Shutdown, NB, NC, NT, no hazards, ARSE.
Speaker	Short	264Vac	10mins	F9901	0.66	--	--	Only speaker shutdown, no hazards, no damage.
Supplementary information: 1) Results Key: IP = Internal protection operated (Component indicated); CT = Constant temperatures were obtained; TW = Transformer winding opened; CD = Components damaged (damaged components indicated); NB = No indication of dielectric breakdown; YB = Dielectric breakdown (time and location indicated); NC = Cheesecloth remained intact; YC = Cheesecloth charred or flamed; NT = Tissue paper remained intact; YT = Tissue paper charred or flamed. TV = Touch voltage measured; ASRE = All safeguards remained effectively. 2) All temperature measurement refer to appended table 5.4.1.4 3) All ES measurement refer to table 5.2								

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									

IEC 62368-1			
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 fault condition									
Test results:								Verdict	
- Chemical leaks									
- Explosion of the battery									
- Emission of flame or expulsion of molten metal									
- Electric strength tests of equipment after completion of tests									
Supplementary information:									

Annex M.4	Table: Additional safeguards for equipment containing secondary lithium batteries					N/A
Battery/Cell No.	Test conditions	Measurements			Observation	
		U	I (A)	Temp (C)		
	Normal					
	Abnormal					
	Single fault –SC/OC					
	Normal					
	Abnormal					
	Single fault – SC/OC					
Supplementary Information:						

Battery identification	Charging at T_{lowest} (°C)	Observation	Charging at $T_{highest}$ (°C)	Observation
Supplementary Information:				

Annex Q.1	TABLE: Circuits intended for interconnection with building wiring (LPS)						P
Note: Measured UOC (V) with all load circuits disconnected:							
Output Circuit	Components	U _{oc} (Vdc)	I _{sc} (A)		S (VA)		
			Meas.	Limit	Meas.	Limit	

IEC 62368-1						
Clause	Requirement + Test			Result - Remark		Verdict
According to table Q.1 / USB upstream Type B (CN1404)						
All pins	Normal	0	--	8.0	--	100
According to table Q.1 / USB upstream Type B (CN1403)						
All pins	Normal	0	--	8.0	--	100
According to table Q.1 / USB Type C (CN1409) (+5V)						
Pin4,9,16,21	Normal	5.33	4.5	8.0	16.34	100
Pin4,9,16,21	U1426 Pin13,14- 11,12 SC	0	--	8.0	--	100
Other pins	Normal	0	0	8.0	0	100
According to table Q.1 / USB Type C (CN1409) (+9V)						
Pin4,9,16,21	Normal	9.28	4.8	8.0	34.28	100
Pin4,9,16,21	U1426 Pin13,14- 11,12 SC	0	--	8.0	--	100
Other pins	Normal	0	0	8.0	0	100
According to table Q.1 / USB Type C (CN1409) (+12V)						
Pin4,9,16,21	Normal	12.30	4.6	8.0	46.08	100
Pin4,9,16,21	U1426 Pin13,14- 11,12 SC	0	--	8.0	--	100
Other pins	Normal	0	0	8.0	0	100
According to table Q.1 / USB Type C (CN1409) (+15V)						
Pin4,9,16,21	Normal	15.09	4.4	8.0	55.20	100
Pin4,9,16,21	U1426 Pin13,14- 11,12 SC	0	--	8.0	--	100
Other pins	Normal	0	0	8.0	0	100
According to table Q.1 / USB Type C (CN1409) (+20V)						
Pin4,9,16,21	Normal	20.48	3.9	8.0	73.79	100
Pin4,9,16,21	U1426 Pin13,14- 11,12 SC	0	--	8.0	--	100
Other pins	Normal	0	0	8.0	0	100
According to table Q.1 / Display port IN (CN5202)						
Pin18	Normal	3.27	Can't load	8.0	Can't load	100
Pin20	Normal	3.30	1.0	8.0	2.80	100
Pin20	U5204 Pin1- 5 SC	3.30	1.2	8.0	3.16	100

IEC 62368-1						
Clause	Requirement + Test		Result - Remark			Verdict
Other pins	Normal	0	0	8.0	0	100
According to table Q.1 / Display port IN (CN5201)						
Pin18	Normal	3.27	Can't load	8.0	Can't load	100
Pin20	Normal	3.30	1.0	8.0	2.74	100
Pin20	U5204 Pin1-5 SC	3.30	1.2	8.0	3.21	100
Other pins	Normal	0	0	8.0	0	100
According to table Q.1 / HDMI IN (CN5102)						
Pin1,3,4,6,7,9,10,12	Normal	3.28	Can't load	8.0	Can't load	100
Pin13	Normal	3.10	Can't load	8.0	Can't load	100
Pin14	Normal	2.78	Can't load	8.0	Can't load	100
Other pins	Normal	0	0	8.0	0	100
According to table Q.1 / HDMI IN (CN5101)						
Pin1,3,4,6,7,9,10,12	Normal	3.28	Can't load	8.0	Can't load	100
Pin15,16	Normal	4.53	Can't load	8.0	Can't load	100
Other pins	Normal	0	0	8.0	0	100
According to table Q.1 / USB Downstream Port Type A (CN1402)						
Pin1	Normal	5.14	1.5	8.0	7.23	100
Pin1	U1408 Pin1-5 SC	5.14	7.0	8.0	18.44	100
Other pins	Normal	0	0	8.0	0	100
According to table Q.1 / USB Downstream Port Type A (CN1407)						
Pin1	Normal	5.14	1.7	8.0	7.97	100
Pin1	U1407 Pin1-5 SC	5.14	7.4	8.0	18.63	100
Other pins	Normal	0	0	8.0	0	100
According to table Q.1 / USB Downstream Port Type A (CN1408)						
Pin1	Normal	5.14	1.6	8.0	7.63	100
Pin1	U1406 Pin1-5 SC	5.14	7.5	8.0	19.09	100
Other pins	Normal	0	0	8.0	0	100
According to table Q.2 / SENS/MEM (CN7504)						
Pin1	Normal	5.17	1.4	8.0	6.62	100
Other pins	Normal	0	0	8.0	0	100
Supplementary information: SC = Short-circuited; OC = Open-circuited.						

IEC 62368-1					
Clause	Requirement + Test			Result - Remark	Verdict
T.2, T.3, T.4, T.5	TABLE: Steady force test				P
Part/Location	Material	Thickness (mm)	Force (N)	Test duration (sec)	Observation
Internal component	--	--	10	5	The clearance and creepage distances do not be reduced below the required values.
Metal enclosure (Top rear and sides)	See table 4.1.2	See table 4.1.2	250	5	All safeguards remained effective.
Supplementary information: Containing all sources during the test. For details refer to appended table 4.1.2.					

T.6, T.9		TABLE: Impact tests			P
Part/Location	Material	Thickness (mm)	Vertical distance (mm)	Observation	
Metal enclosure (Top rear and sides)	See table 4.1.2	See table 4.1.2	1300	All safeguards remained effective.	
Supplementary information: Containing all sources during the test. For details refer to appended table 4.1.2.					

T.7	TABLE: Drop tests				N/A
Part/Location	Material	Thickness (mm)	Drop height (mm)	Observation	
Supplementary information: Containing all sources during the test. For details refer to appended table 4.1.2.					

T.8	TABLE: Stress relief test				P
Part/Location	Material	Thickness (mm)	Oven temperature (°C)	Duration (h)	Observation
Unit	See appended table 4.1.2	See appended table 4.1.2	70	7	No indication of shrinkage or distortion on enclosures due to the stress relief test.
Supplementary information: Containing all sources during the test. For details refer to appended table 4.1.2.					

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

5.4.1.8	TABLE: Determination of working voltage			P
Test voltage / Frequency.....:		240Vac / 60Hz		
Location	Measured voltage/frequency			Comments
	RMS voltage (V)	Peak Voltage (V)	Hz	
T9301 Pin1 – 8,9	301	560	30k	--
T9301 Pin1 – 10,11	300	492	30k	--
T9301 Pin3– 8,9	322	580	30k	Maximum Vp / Vrms of T9301
T9301 Pin3– 10,11	317	570	30k	--
T9301 Pin4– 8,9	173	480	30k	--
T9301 Pin4– 10,11	174	452	30k	--
T9301 Pin5– 8,9	172	412	30k	--
T9301 Pin5– 10,11	171	408	30k	--
T9101 Pin2 – 8	165	324	73k	--
T9101 Pin2 – 9	157	296	73k	--
T9101 Pin2 – 10,11	161	308	73k	--
T9101 Pin2 – 12,13	157	288	73k	--
T9101 Pin2 – 14,15	159	296	73k	--
T9101 Pin6 – 8	226	424	73k	--
T9101 Pin6 – 9	264	470	73k	Maximum Vp / Vrms of T9101
T9101 Pin6 – 10,11	233	430	73k	--
T9101 Pin6 – 12,13	255	460	73k	--
T9101 Pin6 – 14,15	245	450	73k	--
U9303 Pin1 - 3	160	376	--	--
U9303 Pin1 - 4	160	376	--	--
U9303 Pin2 - 3	162	374	--	--
U9303 Pin2 - 4	162	376	--	--
U9302 Pin1 - 3	173	396	--	--
U9302 Pin1 - 4	172	396	--	--
U9302 Pin2 - 3	172	396	--	--
U9302 Pin2 - 4	173	396	--	--
U9102 Pin1 - 3	180	404	--	--
U9102 Pin1 - 4	180	404	--	--
U9102 Pin2 - 3	178	404	--	--

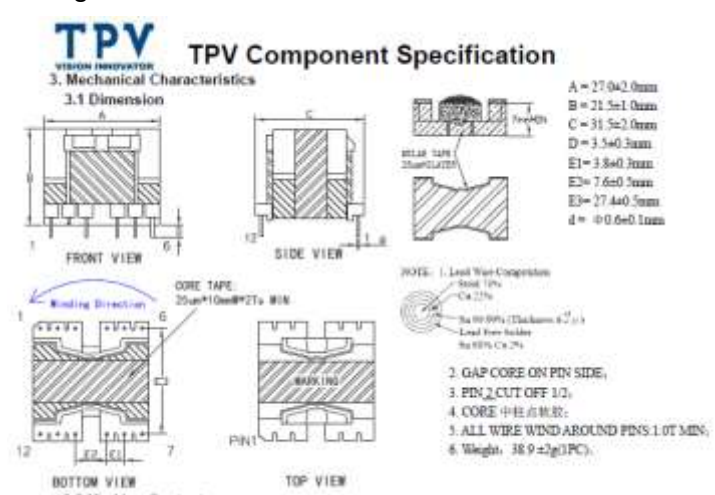
IEC 62368-1				
Clause	Requirement + Test		Result - Remark	Verdict
U9102 Pin2 - 4	179	404	--	--
C9909 Primary – Secondary	167	392	--	--
C9907 Primary – Secondary	168	384	--	--
C9905 Primary – Secondary	243	400	--	--
For 100V, 60Hz				
T9301 Pin 1 to Pin 8,9	345	436	30k	
T9301 Pin 1 to Pin 10,11	348	428	30k	
T9301 Pin 3 to Pin 8,9	358	580	30k	Maximum Vp / Vrms of T9301
T9301 Pin 3 to Pin 10,11	354	580	30k	
T9301 Pin 4 to Pin 8,9	77.5	282	30k	
T9301 Pin 4 to Pin 10,11	75.3	250	30k	
T9301 Pin 5 to Pin 8,9	74.0	192	30k	
T9301 Pin 5 to Pin 10,11	73.7	190	30k	
T9101 Pin 2 to Pin 8	168	292	73k	
T9101 Pin 2 to Pin 9	165	264	73k	
T9101 Pin 2 to Pin 10, 11	166	284	73k	
T9101 Pin 2 to Pin 12, 13	166	256	73k	
T9101 Pin 2 to Pin 14, 15	164	272	73k	
T9101 Pin 6 to Pin 8	229	408	73k	
T9101 Pin 6 to Pin 9	266	460	73k	Maximum Vp / Vrms of T9101
T9101 Pin 6 to Pin 10, 11	238	420	73k	
T9101 Pin 6 to Pin 12, 13	258	444	73k	
T9101 Pin 6 to Pin 14, 15	249	432	73k	
U9303 Pin 1 to Pin 3	64.3	172		
U9303 Pin 1 to Pin 4	64.0	172		
U9303 Pin 2 to Pin 3	64.2	172		
U9303 Pin 2 to Pin 3	64.2	172		
U9302 Pin 1 to Pin 3	73.0	188		
U9302 Pin 1 to Pin 4	73.2	188		
U9302 Pin 2 to Pin 3	73.1	186		
U9302 Pin 2 to Pin 3	73.0	190		
U9102 Pin 1 to Pin 3	89.3	200		
U9102 Pin 1 to Pin 4	89.1	200		
U9102 Pin 2 to Pin 3	89.1	199		

IEC 62368-1				
Clause	Requirement + Test		Result - Remark	Verdict
U9102 Pin 2 to Pin 3	89.0	200		
C9909 Primary to Secondary	72.0	168		
C9907 Primary to Secondary	70.0	156		
C9905 Primary to Secondary	101	156		
Supplementary information:				

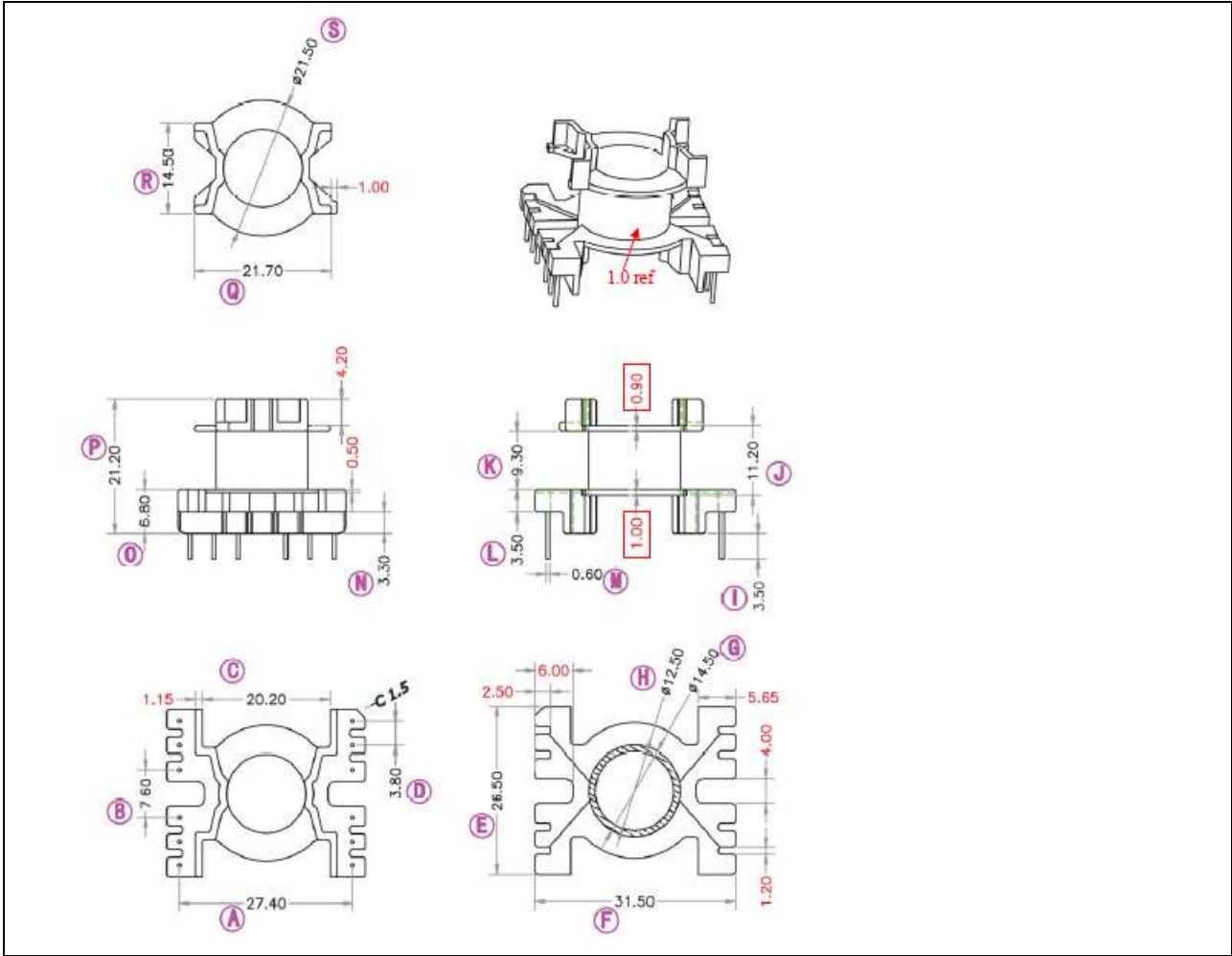
Clause	Requirement + Test	Result - Remark	Verdict
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G.5.3.2	TABLE: transformers						P
Loc.	Tested insulation	Working voltage peak / V (2.10.2)	Working voltage rms / V (2.10.2)	Required electric strength (5.2)	Required clearance / mm (2.10.3)	Required creepage distance / mm (2.10.4)	Required distance thr. insul. (2.10.5)
T9301	Primary / input winding and secondary / output winding (internal) (DI)	580	358	AC 4000 Vpeak	4.5	7.2	See below transformer construction
T9301	Primary / input winding and core (internal) (FI)	--	--	--	--	--	--
T9301	Secondary / output winding and core (internal) (DI)	580	358	AC 4000 Vpeak	4.5	7.2	See below transformer construction
T9301	Primary / input part and secondary / output part (external) (DI)	580	358	AC 4000 Vpeak	4.5	7.2	See below transformer construction
T9301	Primary / input part and secondary / output winding (external) (DI)	580	358	AC 4000 Vpeak	4.5	7.2	See below transformer construction
T9301	Primary / input part and core (external) (FI)	--	--	--	--	--	--
T9301	Secondary / output part and core (external) (DI)	580	358	AC 4000 Vpeak	4.5	7.2	See below transformer construction
T9301	Secondary / output part and primary / input winding (external) (DI)	580	358	AC 4000 Vpeak	4.5	7.5	See below transformer construction
Loc.	Tested insulation			Test voltage / V	Measured clearance / mm	Measured creepage dist. / mm	Measured distance thr. insul. / mm; number of layers
T9301	Primary / input winding and secondary / output winding (internal) (DI)			AC 4000 Vpeak	9.0	9.0	See below
T9301	Primary / input winding and core (internal) (FI)			--	--	--	--
T9301	Secondary / output winding and core (internal) (DI)			AC 4000 Vpeak	9.0	9.0	See below

Clause	Requirement + Test	Result - Remark			Verdict
T9301	Primary / input part and secondary / output part (external) (DI)	AC 4000 Vpeak	27.1	27.1	See below
T9301	Primary / input part and secondary / output winding (external) (DI)	AC 4000 Vpeak	9.0	9.0	See below
T9301	Primary / input part and core (external)	--	--	--	--
T9301	Secondary / output part and core (external)	AC 4000 Vpeak	9.0	9.0	See below
T9301	Secondary / output part and primary / input winding (external) (DI)	AC 4000 Vpeak	9.0	9.0	See below
supplementary information:					
1. The constructions of all sources of T9301 are identical, only model designation, manufacturer, and the material of bobbin are different.					
2. Altitude correction factor for clearances for an altitude of 5000 m (based on IEC 60664-1:1992): 1.48.					

G.5.3.2	TABLE: transformers	P									
Concentric windings on bobbin (vertical type core), outer winding is primary windings. Certificate triple insulated wire used in secondary windings, therefore core is considered as primary circuit. The bobbin which near secondary pin side to keep least min. 10 mm length. The angle of triple insulated wire between 45° and 90° provided with tape to against winding contact each other. There are two layer of insulation tapes provided on complete core of transformer to keep sufficient insulation for double insulation request. There are three layer of insulation tape provided on outer winding. the details information see below.											
TPV VISION INNOVATOR 3. Mechanical Characteristics 3.1 Dimension  TPV Component Specification 3.2 Marking Contents 3.2.1 TPV P/N : 380GL32P621P_00 3.2.2 Vendor Name or Trade Mark : PHOENIX 3.2.3 Date Code: XXXX X-XX(YEAR) & XX(WEEK) & X(PRODUCT LINE) 3.2.4 "HI-POT OK" Model of Written Characters. 3.2.5 Insulation System Designation: E480767 PH-130 CLASS B(130°C) TABLE I 3.2.6 Marking Standards: 380GL32P621P_00 HI-POT OK E480767 PH-130 XXXX X 3.2.7 Manufacture site: PHOENIX: HEFEI ANHUI CHINA <table border="1"> <thead> <tr> <th>NO.</th><th>Supply of core</th><th>Color dot</th></tr> </thead> <tbody> <tr> <td>02</td><td>DMEGC</td><td>红色一点</td></tr> <tr> <td>09</td><td>LFG</td><td>绿色两点</td></tr> </tbody> </table>			NO.	Supply of core	Color dot	02	DMEGC	红色一点	09	LFG	绿色两点
NO.	Supply of core	Color dot									
02	DMEGC	红色一点									
09	LFG	绿色两点									

Clause	Requirement + Test	Result - Remark	Verdict
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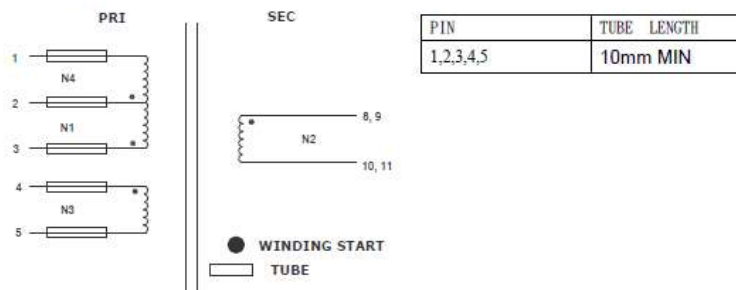


Clause	Requirement + Test	Result - Remark	Verdict
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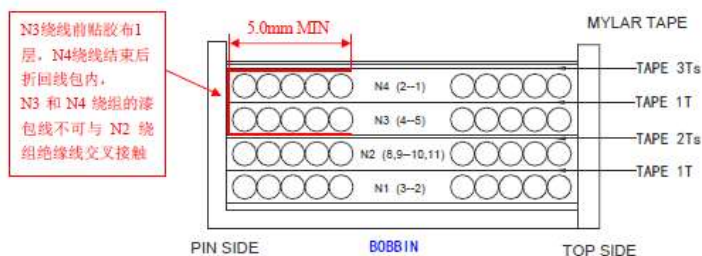


TPV Component Specification

3.4 Schematic



3.5 Winding Specification



NOTE: 1) Mylar tape: 25um*9.5mmW REF;
2) PIN 1,2,3,4,5 ADDED TUBE.

3.6 Winding mode:

NO.	Winding	Terminal	Wire	Turns	Remark	Margin Tape mm	Tape
1	N1	3-2	UEW ϕ 0.30	26	CLOSED	/	1T
2	N2	8,9-10,11	TIW-B ϕ 0.50*6	4	CLOSED	/	2Ts
3	N3	4-5	UEW ϕ 0.20*3	12	CLOSED	/	1T
4	N4	2-1	UEW ϕ 0.30	27	CLOSED	/	3Ts

3.7 Winding direction: IT IS ANTI-CLOCKWISE FROM BOTTOM SIDE

Note: 1) Bare wires and insulated wires should not intersect contacts each other.
(漆包线和绝缘线不能相互交叉和接触)
2) Reflexed tape of copper foil : N/A

Description of design:

(a) Bobbin

Primary/input pins	3-2-1; 4-5
Secondary/output pins	8, 9-10, 11
Material (manufacturer, type, ratings)	See table1.5.1
Thickness (mm)	Min. 0.45mm

Clause	Requirement + Test	Result - Remark	Verdict
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G.5.3.2	TABLE: transformers						P
Loc.	Tested insulation	Working voltage peak / V (2.10.2)	Working voltage rms / V (2.10.2)	Required electric strength (5.2)	Required clearance / mm (2.10.3)	Required creepage distance / mm (2.10.4)	Required distance thr. insul. (2.10.5)
T9101	Primary / input winding and secondary / output winding (internal) (DI)	470	266	DC 4000	4.5	5.4	See below transformer construction
T9101	Primary / input winding and core (internal) (BI/SI)	470	266	DC 2500	2.3	2.7	See below transformer construction
T9101	Secondary / output winding and core (internal) (BI/SI)	470	266	DC 2500	2.3	2.7	See below transformer construction
T9101	Primary / input part and secondary / output part (external) (DI)	470	266	DC 4000	4.5	5.4	See below transformer construction
T9101	Primary / input part and secondary / output winding (external) (DI)	470	266	DC 4000	4.5	5.4	See below transformer construction
T9101	Primary / input part and core (external) (BI/SI)	470	266	DC 2500	2.3	2.7	See below transformer construction
T9101	Secondary / output part and core (external) (BI/SI)	470	266	DC 2500	2.3	2.7	See below transformer construction
T9101	Secondary / output part and primary / input winding (external) (DI)	470	266	DC 4000	4.5	5.4	See below transformer construction
Loc.	Tested insulation			Test voltage / V	Measured clearance / mm	Measured creepage dist. / mm	Measured distance thr. insul. / mm; number of layers
T9101	Primary / input winding and secondary / output winding (internal) (DI)			DC 4000	6.5	6.5	See below transformer construction
T9101	Primary / input winding and core (internal) (BI/SI)			DC 2500	4.0	4.0	See below transformer construction

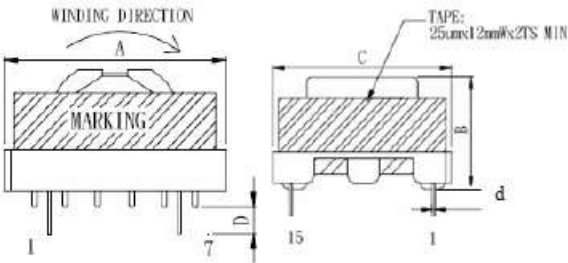
Clause	Requirement + Test	Result - Remark			Verdict
T9101	Secondary / output winding and core (internal) (BI/SI)	DC 2500	4.0	4.0	See below transformer construction
T9101	Primary / input part and secondary / output part (external) (DI)	DC 4000	38.5	38.5	See below transformer construction
T9101	Primary / input part and secondary / output winding (external) (DI)	DC 4000	6.5	6.5	See below transformer construction
T9101	Primary / input part and core (external) (BI/SI)	DC 2500	4.0	4.0	See below transformer construction
T9101	Secondary / output part and core (external) (BI/SI)	DC 2500	4.0	4.0	See below transformer construction
T9101	Secondary / output part and primary / input winding (external) (DI)	DC 4000	6.5	6.5	See below transformer construction
supplementary information:					
1. The constructions of all sources of T9101, T9102 are identical, only model designation, manufacturer, and the material of bobbin are different. 2. Altitude correction factor for clearances for an altitude of 5000 m (based on IEC 60664-1:1992): 1.48.					

G.5.3.2	TABLE: transformers	P
Two separated windings (primary and secondary) on bobbin design (horizontal type core). Bobbin partition that thickness 6.5mm separated primary and secondary winding. Two layers of insulation tape around the core. The core is considered as floating part.		

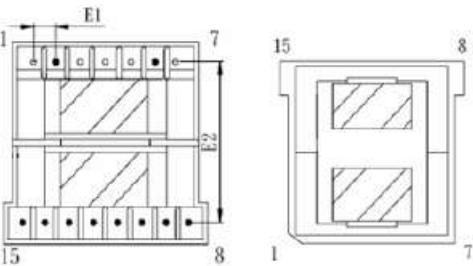
Clause	Requirement + Test	Result - Remark	Verdict
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1. Mechanical Characteristics

1.1Dimensions



A = 48.0mm MAX
B = 27.0mm MAX
C = 48.0mm MAX
D = 3.5 ± 0.3mm
E1 = 5.8 ± 0.5mm
E2 = 39.3 ± 0.5mm
Φ d = 0.8 ± 0.1mm

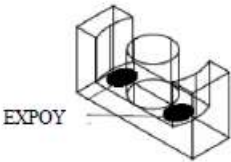


2 GAP CORE ON PIN1-7 SIDE.
3 PIN 1,3,4,5,7 CUT OFF
4. 引脚挂 PIN 圈数
配线 ALL PIN 1.0T MIN
5 NO GAP CORE 两腿内侧点软胶
6. Weight: 106±2g (1PC)

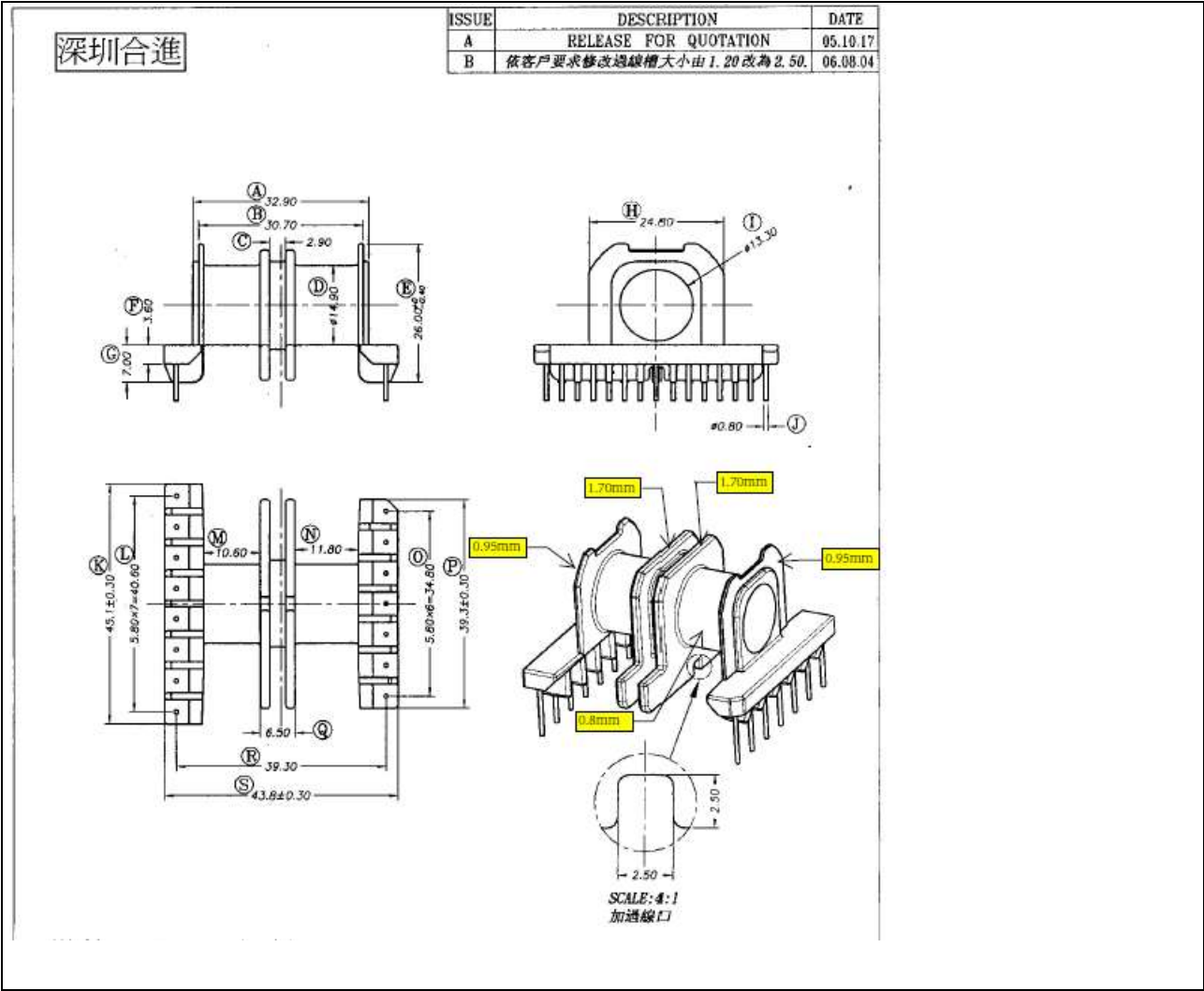
1.2 Marking Contents:

- (1)TPV P/N : 80GL52P-502-N
- (2)Vendor Name or Trade Mark : YUVA
- (3)Date Code: XX(YEAR) & XX (WEEK)
- (4)"HI-POT OK" Model of Written Characters.
- (5) Insulation System Designation: CIS.04 TABLE III CLASS B (I
- (6)Marking Standards:

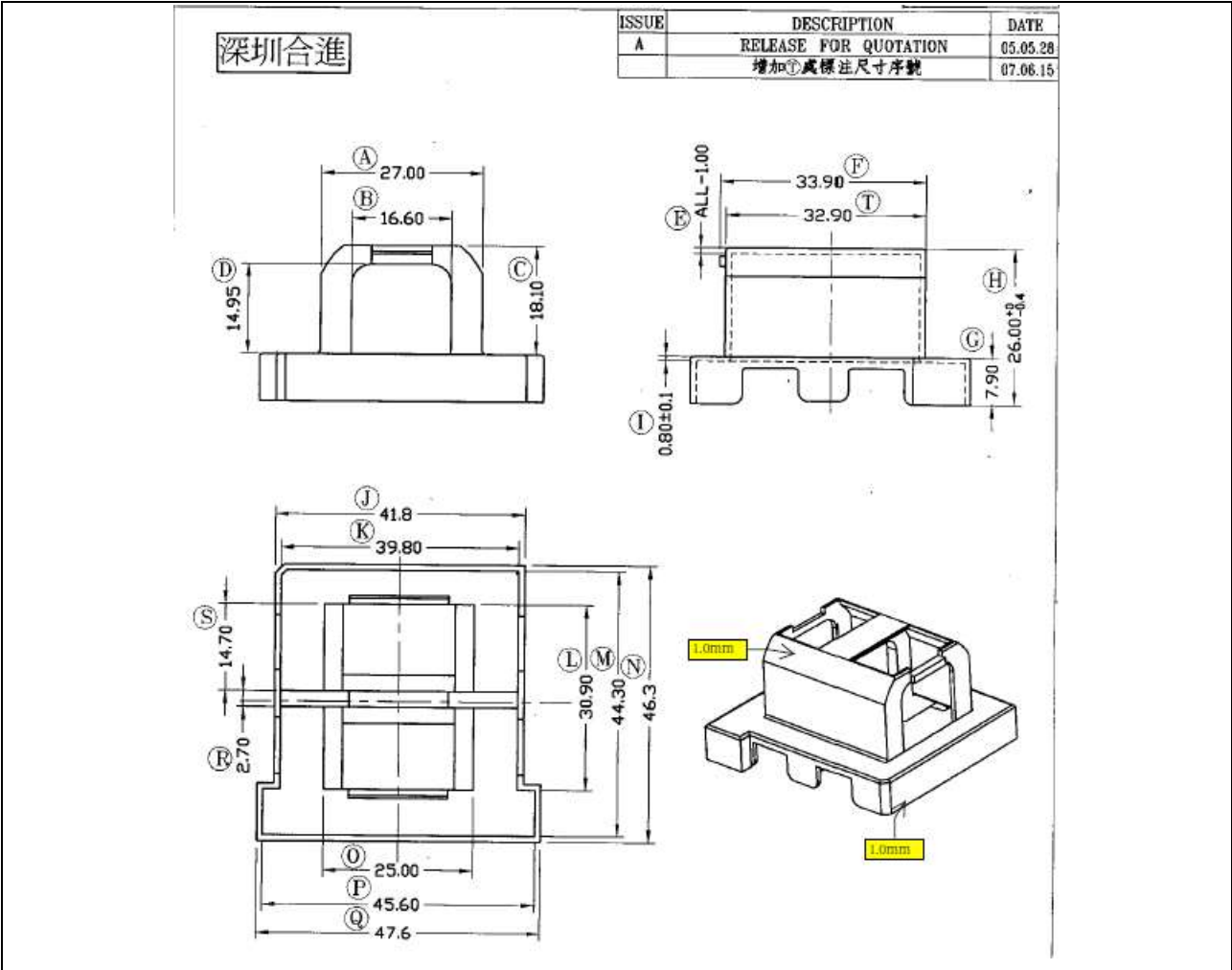
80GL52P-502-N HI-POT OK
YUVA CIS.04 xxxx



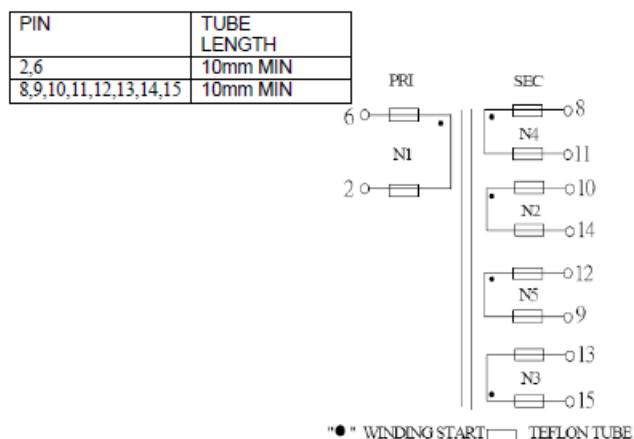
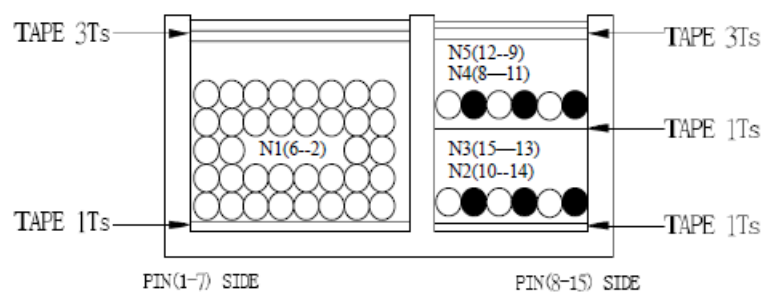
Clause	Requirement + Test	Result - Remark	Verdict
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Clause	Requirement + Test	Result - Remark	Verdict
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Clause	Requirement + Test	Result - Remark	Verdict
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1.4 Schematic**1.5 Winding construction**

NOTE: 1. ALL PINS ADD TUBE,

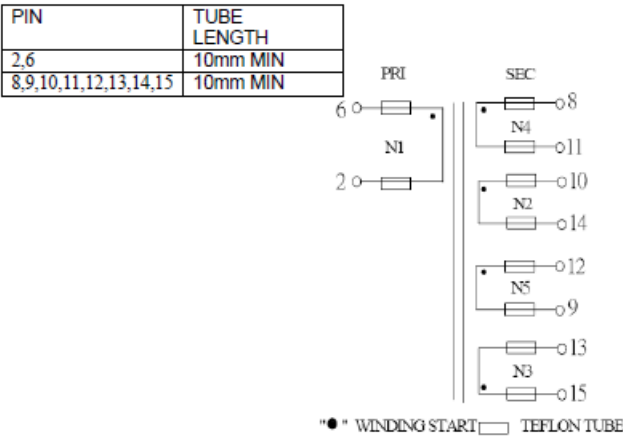
1.6 Winding mode:

NO.	Winding	Terminal	Wire	Turns	Remark	MARGIN mm	TAPE 1T
1	N1	6—2	LITZ UEW $\varnothing 0.1 \times 80$	33	CLOSED	/	3Ts
2	N2	10—14	LITZ UEW $\varnothing 0.1 \times 150$	2	CLOSED 并绕	/	1Ts
3	N3	15—13	LITZ UEW $\varnothing 0.1 \times 150$	2	CLOSED 并绕	/	3Ts
4	N4	8—11	LITZ UEW $\varnothing 0.1 \times 150$	2	CLOSED 并绕	/	3Ts
5	N5	12—9	LITZ UEW $\varnothing 0.1 \times 150$	2	CLOSED 并绕	/	3Ts

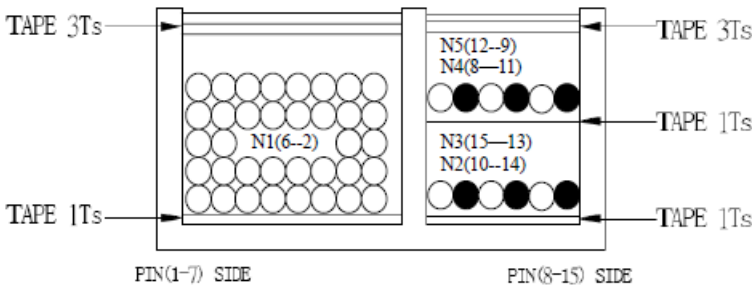
1.7 Winding direction: IT IS CLOCKWISE FROM PIN 1-7 SIDE

Clause	Requirement + Test	Result - Remark	Verdict
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1.4 Schematic



1.5 Winding construction



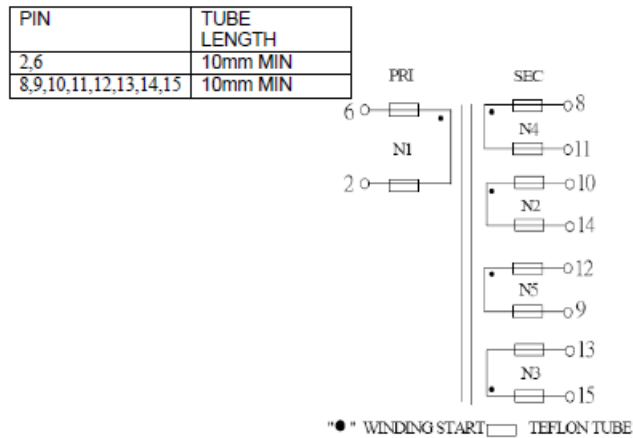
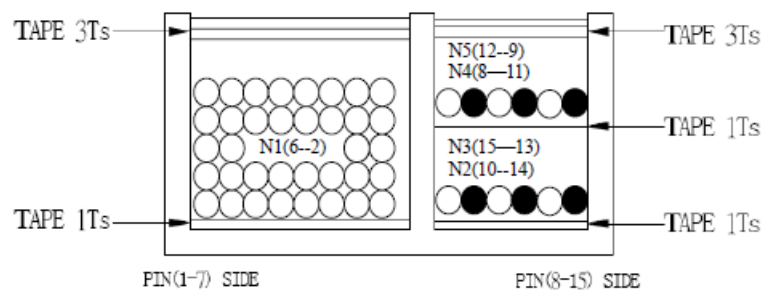
NOTE: 1. ALL PINS ADD TUBE,

1.6 Winding mode:

NO.	Winding	Terminal	Wire	Turns	Remark	MARGIN mm	TAPE 1T
1	N1	6—2	LITZ UEW $\varnothing 0.1 \times 80$	33	CLOSED	/	3T ₃
2	N2	10--14	LITZ UEW $\varnothing 0.1 \times 150$	2	CLOSED 并绕	/	1T ₃
3	N3	15—13	LITZ UEW $\varnothing 0.1 \times 150$	2	CLOSED 并绕	/	3T ₃
4	N4	8—11	LITZ UEW $\varnothing 0.1 \times 150$	2	CLOSED 并绕	/	3T ₃
5	N5	12—9	LITZ UEW $\varnothing 0.1 \times 150$	2	CLOSED 并绕	/	3T ₃

1.7 Winding direction: IT IS CLOCKWISE FROM PIN 1-7 SIDE

Clause	Requirement + Test	Result - Remark	Verdict
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1.4 Schematic**1.5 Winding construction**

NOTE: 1. ALL PINS ADD TUBE,

1.6 Winding mode:

NO.	Winding	Terminal	Wire	Turns	Remark	MARGIN mm	TAPE 1T
1	N1	6—2	LITZ UEW $\varnothing 0.1 \times 80$	33	CLOSED	/	3Ts
2	N2	10—14	LITZ UEW $\varnothing 0.1 \times 150$	2	CLOSED 并绕	/	1Ts
3	N3	15—13	LITZ UEW $\varnothing 0.1 \times 150$	2	CLOSED 并绕	/	3Ts
4	N4	8—11	LITZ UEW $\varnothing 0.1 \times 150$	2	CLOSED 并绕	/	3Ts
5	N5	12—9	LITZ UEW $\varnothing 0.1 \times 150$	2	CLOSED 并绕	/	3Ts

1.7 Winding direction: IT IS CLOCKWISE FROM PIN 1-7 SIDE**Description of design:****(a) Bobbin**

Primary/input pins	6-2
Secondary/output pins	8-11; 10-14; 12-9; 15-13
Material (manufacturer, type, ratings)	See table 1.5.1
Thickness (mm)	Min. 0.45mm

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 62368-1 EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES (Audio/video, information and communication technology equipment Part 1: Safety requirements)	
Differences according to.....:	EN 62368-1:2014+A11:2017
Attachment Form No.....:	EU_GD_IEC62368_1B_II
Attachment Originator	Nemko AS
Master Attachment	Date 2017-09-22
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	CENELEC COMMON MODIFICATIONS (EN)					P
	Clauses, subclauses, notes, tables, figures and annexes which are additional to those in IEC 62368-1:2014 are prefixed "Z".					P
CONTENTS	Add the following annexes: Annex ZA (normative) Normative references to international publications with their corresponding European publications Annex ZB (normative) Special national conditions Annex ZC (informative) A-deviations Annex ZD (informative) IEC and CENELEC code designations for flexible cords					P
	Delete all the "country" notes in the reference document (IEC 62368-1:2014) according to the following list:					P
	0.2.1	Note	1	Note 3	4.1.15	Note
	4.7.3	Note 1 and 2	5.2.2.2	Note	5.4.2.3.2.2 Table 13	Note c
	5.4.2.3.2.4	Note 1 and 3	5.4.2.5	Note 2	5.4.5.1	Note
	5.5.2.1	Note	5.5.6	Note	5.6.4.2.1	Note 2 and 3
	5.7.5	Note	5.7.6.1	Note 1 and 2	10.2.1 Table 39	Note 2, 3 and 4
	10.5.3	Note 2	10.6.2.1	Note 3	F.3.3.6	Note 3
	For special national conditions, see Annex ZB.					
1	Add the following note: NOTE Z1 The use of certain substances in electrical and electronic equipment is restricted within the EU: see Directive 2011/65/EU.		Added.			P

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Clause	Requirement + Test	Result - Remark	Verdict
4.Z1	Add the following new subclause after 4.9: To protect against excessive current, short-circuits and earth faults in circuits connected to an a.c. mains, protective devices shall be included either as integral parts of the equipment or as parts of the building installation, subject to the following, a), b) and c): a) except as detailed in b) and c), protective devices necessary to comply with the requirements of B.3.1 and B.4 shall be included as parts of the equipment; b) for components in series with the mains input to the equipment such as the supply cord, appliance coupler, r.f.i. filter and switch, short-circuit and earth fault protection may be provided by protective devices in the building installation; c) it is permitted for pluggable equipment type B or permanently connected equipment, to rely on dedicated overcurrent and short-circuit protection in the building installation, provided that the means of protection, e.g. fuses or circuit breakers, is fully specified in the installation instructions. If reliance is placed on protection in the building installation, the installation instructions shall so state, except that for pluggable equipment type A the building installation shall be regarded as providing protection in accordance with the rating of the wall socket outlet.	Added.	N/A
5.4.2.3.2.4	Add the following to the end of this subclause: The requirement for interconnection with external circuit is in addition given in EN 50491-3:2009.	Added.	N/A
10.2.1	Add the following to ^{c)} and ^{d)} in table 39: For additional requirements, see 10.5.1.	Added.	N/A
10.5.1	Add the following after the first paragraph: <i>For RS 1 compliance is checked by measurement under the following conditions:</i> <i>In addition to the normal operating conditions, all controls adjustable from the outside by hand, by any object such as a tool or a coin, and those internal adjustments or presets which are not locked in a reliable manner, are adjusted so as to give maximum radiation whilst maintaining an intelligible picture for 1 h, at the end of which the measurement is made.</i> NOTE Z1 Soldered joints and paint lockings are examples of	Added.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	adequate locking. <i>The dose-rate is determined by means of a radiation monitor with an effective area of 10 cm², at any point 10 cm from the outer surface of the apparatus.</i> <i>Moreover, the measurement shall be made under fault conditions causing an increase of the high-voltage, provided an intelligible picture is maintained for 1 h, at the end of which the measurement is made.</i> <i>For RS1, the dose-rate shall not exceed 1 µSv/h taking account of the background level.</i> NOTE Z2 These values appear in Directive 96/29/Euratom of 13 May 1996.		
10.6.1	Add the following paragraph to the end of the subclause: EN 71-1:2011, 4.20 and the related tests methods and measurement distances apply.	Added.	N/A
10.Z1	Add the following new subclause after 10.6.5. 10.Z1 Non-ionizing radiation from radio frequencies in the range 0 to 300 GHz The amount of non-ionizing radiation is regulated by European Council Recommendation 1999/519/EC of 12 July 1999 on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz). For intentional radiators, ICNIRP guidelines should be taken into account for Limiting Exposure to Time-Varying Electric, Magnetic, and Electromagnetic Fields (up to 300 GHz). For hand-held and body-mounted devices, attention is drawn to EN 50360 and EN 50566	Added.	N/A
G.7.1	Add the following note: NOTE Z1 The harmonized code designations corresponding to the IEC cord types are given in Annex ZD.	Added.	N/A
Bibliography	Add the following standards: Add the following notes for the standards indicated: IEC 60130-9 NOTE Harmonized as EN 60130-9. IEC 60269-2 NOTE Harmonized as HD 60269-2. IEC 60309-1 NOTE Harmonized as EN 60309-1. IEC 60364 NOTE some parts harmonized in HD 384/HD 60364 series. IEC 60601-2-4 NOTE Harmonized as EN 60601-2-4. IEC 60664-5 NOTE Harmonized as EN 60664-5.		P

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Clause	Requirement + Test	Result - Remark	Verdict
	IEC 61032:1997 NOTE Harmonized as EN 61032:1998 (not modified). IEC 61508-1 NOTE Harmonized as EN 61508-1. IEC 61558-2-1 NOTE Harmonized as EN 61558-2-1. IEC 61558-2-4 NOTE Harmonized as EN 61558-2-4. IEC 61558-2-6 NOTE Harmonized as EN 61558-2-6. IEC 61643-1 NOTE Harmonized as EN 61643-1. IEC 61643-21 NOTE Harmonized as EN 61643-21. IEC 61643-311 NOTE Harmonized as EN 61643-311. IEC 61643-321 NOTE Harmonized as EN 61643-321. IEC 61643-331 NOTE Harmonized as EN 61643-331.		
ZB	ANNEX ZB, SPECIAL NATIONAL CONDITIONS (EN)		P
4.1.15	Denmark, Finland, Norway and Sweden To the end of the subclause the following is added: Class I pluggable equipment type A intended for connection to other equipment or a network shall, if safety relies on connection to reliable earthing or if surge suppressors are connected between the network terminals and accessible parts, have a marking stating that the equipment shall be connected to an earthed mains socket-outlet. The marking text in the applicable countries shall be as follows: In Denmark : "Apparatets stikprop skal tilsluttes en stikkontakt med jord som giver forbindelse til stikproppens jord." In Finland : "Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan" In Norway : "Apparatet må tilkoples jordet stikkontakt" In Sweden : "Apparaten skall anslutas till jordat uttag"		P
4.7.3	United Kingdom To the end of the subclause the following is added: The torque test is performed using a socket-outlet complying with BS 1363, and the plug part shall be assessed to the relevant clauses of BS 1363. Also see Annex G.4.2 of this annex		N/A
5.2.2.2	Denmark After the 2nd paragraph add the following: A warning (marking safeguard) for high touch current is required if the touch current exceeds	No high touch current.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	the limits of 3,5 mA a.c. or 10 mA d.c.		
5.4.11.1 and Annex G	Finland and Sweden To the end of the subclause the following is added: For separation of the telecommunication network from earth the following is applicable: If this insulation is solid, including insulation forming part of a component, it shall at least consist of either • two layers of thin sheet material, each of which shall pass the electric strength test below, or • one layer having a distance through insulation of at least 0,4 mm, which shall pass the electric strength test below. If this insulation forms part of a semiconductor component (e.g. an optocoupler), there is no distance through insulation requirement for the insulation consisting of an insulating compound completely filling the casing, so that clearances and creepage distances do not exist, if the component passes the electric strength test in accordance with the compliance clause below and in addition • passes the tests and inspection criteria of 5.4.8 with an electric strength test of 1,5 kV multiplied by 1,6 (the electric strength test of 5.4.9 shall be performed using 1,5 kV), and • is subject to routine testing for electric strength during manufacturing, using a test voltage of 1,5kV. It is permitted to bridge this insulation with a capacitor complying with EN 60384-14:2005, subclass Y2. A capacitor classified Y3 according to EN 60384-14:2005, may bridge this insulation under the following conditions: • the insulation requirements are satisfied by having a capacitor classified Y3 as defined by EN 60384-14, which in addition to the Y3 testing, is tested with an impulse test of 2,5 kV defined in 5.4.11; • the additional testing shall be performed on all the test specimens as described in EN 60384-14; the impulse test of 2,5 kV is to be performed before the endurance test in EN 60384-14, in the sequence of tests as described in EN 60384-14.	No TNV circuits.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
5.5.2.1	Norway After the 3rd paragraph the following is added: Due to the IT power system used, capacitors are required to be rated for the applicable line-to-line voltage (230 V).		N/A
5.5.6	Finland, Norway and Sweden To the end of the subclause the following is added: Resistors used as basic safeguard or bridging basic insulation in class I pluggable equipment type A shall comply with G.10.1 and the test of G.10.2.		N/A
5.6.1	Denmark Add to the end of the subclause Due to many existing installations where the socket-outlets can be protected with fuses with higher rating than the rating of the socket-outlets the protection for pluggable equipment type A shall be an integral part of the equipment. <i>Justification:</i> In Denmark an existing 13 A socket outlet can be protected by a 20 A fuse.	Considered.	P
5.6.4.2.1	Ireland and United Kingdom After the indent for pluggable equipment type A , the following is added: – the protective current rating is taken to be 13 A, this being the largest rating of fuse used in the mains plug.	Considered.	P
5.6.5.1	To the second paragraph the following is added: The range of conductor sizes of flexible cords to be accepted by terminals for equipment with a rated current over 10 A and up to and including 13 A is: 1,25 mm ² to 1,5 mm ² in cross-sectional area.		N/A
5.7.5	Denmark To the end of the subclause the following is added: The installation instruction shall be affixed to the equipment if the protective conductor current exceeds the limits of 3,5 mA a.c. or 10 mA d.c.		N/A
5.7.6.1	Norway and Sweden To the end of the subclause the following is added: The screen of the television distribution system is normally not earthed at the entrance of the building and there is normally no equipotential bonding	Not such system.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	system within the building. Therefore the protective earthing of the building installation needs to be isolated from the screen of a cable distribution system. It is however accepted to provide the insulation external to the equipment by an adapter or an interconnection cable with galvanic isolator, which may be provided by a retailer, for example. The user manual shall then have the following or similar information in Norwegian and Swedish language respectively, depending on in what country the equipment is intended to be used in: “Apparatus connected to the protective earthing of the building installation through the mains connection or through other apparatus with a connection to protective earthing – and to a television distribution system using coaxial cable, may in some circumstances create a fire hazard. Connection to a television distribution system therefore has to be provided through a device providing electrical isolation below a certain frequency range (galvanic isolator, see EN 60728-11)” NOTE In Norway, due to regulation for CATV-installations, and in Sweden, a galvanic isolator shall provide electrical insulation below 5 MHz. The insulation shall withstand a dielectric strength of 1,5 kV r.m.s., 50 Hz or 60 Hz, for 1 min. Translation to Norwegian (the Swedish text will also be accepted in Norway): “Apparater som er koplet til beskyttelsesjord via nettplugg og/eller via annet jordtilkøp utstyr – og er tilkøp et koaksialbasert kabel-TV nett, kan forårsake brannfare. For å unngå dette skal det ved tilkøp av apparater til kabel-TV nett installeres en galvanisk isolator mellom apparatet og kabel-TV nettet.” Translation to Swedish: “Apparater som är kopplad till skyddsjord via jordat vägguttag och/eller via annan utrustning och samtidigt är kopplad till kabel-TV nät kan i vissa fall medföra risk för brand. För att undvika detta skall vid anslutning av apparaten till kabel-TV nät galvanisk isolator finnas mellan apparaten och kabel-TV nätet.”		
5.7.6.2	Denmark To the end of the subclause the following is added:		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	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 .		
B.3.1 and B.4	Ireland and United Kingdom The following is applicable: To protect against excessive currents and short-circuits in the primary circuit of direct plug-in equipment , tests according to Annexes B.3.1 and B.4 shall be conducted using an external miniature circuit breaker complying with EN 60898-1, Type B, rated 32A. If the equipment does not pass these tests, suitable protective devices shall be included as an integral part of the direct plug-in equipment , until the requirements of Annexes B.3.1 and B.4 are met		N/A
G.4.2	Denmark To the end of the subclause the following is added: Supply cords of single phase appliances having a rated current not exceeding 13 A shall be provided with a plug according to DS 60884-2-D1:2011. CLASS I EQUIPMENT provided with socket-outlets with earth contacts or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules shall be provided with a plug in accordance with standard sheet DK 2-1a or DK 2-5a. If a single-phase equipment having a RATED CURRENT exceeding 13 A or if a poly-phase equipment is provided with a supply cord with a plug, this plug shall be in accordance with the standard sheets DK 6-1a in DS 60884-2-D1 or EN 60309-2. Mains socket outlets intended for providing power to Class II apparatus with a rated current of 2,5 A shall be in accordance DS 60884-2-D1:2011 standard sheet DKA 1-4a. Other current rating socket outlets shall be in compliance with Standard Sheet DKA 1-3a or DKA 1-1c. Mains socket-outlets with earth shall be in compliance with DS 60884-2-D1:2011 Standard Sheet DK 1-3a, DK 1-1c, DK1-1d, DK 1-5a or DK 1-7a <i>Justification:</i> Heavy Current Regulations, Section 6c		N/A
G.4.2	United Kingdom To the end of the subclause the following is added:		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	The plug part of direct plug-in equipment shall be assessed to BS 1363: Part 1, 12.1, 12.2, 12.3, 12.9, 12.11, 12.12, 12.13, 12.16, and 12.17, except that the test of 12.17 is performed at not less than 125 °C. Where the metal earth pin is replaced by an Insulated Shutter Opening Device (ISOD), the requirements of clauses 22.2 and 23 also apply.		
G.7.1	United Kingdom To the first paragraph the following is added: Equipment which is fitted with a flexible cable or cord and is designed to be connected to a mains socket conforming to BS 1363 by means of that flexible cable or cord shall be fitted with a 'standard plug' in accordance with the Plugs and Sockets etc (Safety) Regulations 1994, Statutory Instrument 1994 No. 1768, unless exempted by those regulations. NOTE "Standard plug" is defined in SI 1768:1994 and essentially means an approved plug conforming to BS 1363 or an approved conversion plug.		N/A
G.7.1	Ireland To the first paragraph the following is added: Apparatus which is fitted with a flexible cable or cord shall be provided with a plug in accordance with Statutory Instrument 525: 1997, "13 A Plugs and Conversion Adapters for Domestic Use Regulations: 1997. S.I. 525 provides for the recognition of a standard of another Member State which is equivalent to the relevant Irish Standard		N/A
G.7.2	Ireland and United Kingdom To the first paragraph the following is added: A power supply cord with a conductor of 1,25 mm ² is allowed for equipment which is rated over 10 A and up to and including 13 A.		N/A
ZC	ANNEX ZC, NATIONAL DEVIATIONS (EN)		P
10.5.2	Germany The following requirement applies: For the operation of any cathode ray tube intended for the display of visual images operating at an acceleration voltage exceeding 40 kV, authorization is required, or application of type approval (Bauartzulassung) and marking. <i>Justification:</i>	No CRT within the equipment.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	German ministerial decree against ionizing radiation (Röntgenverordnung), in force since 2002-07-01, implementing the European Directive 96/29/EURATOM. NOTE Contact address: Physikalisch-Technische Bundesanstalt, Bundesallee 100, D-38116 Braunschweig, Tel.: Int +49-531-592-6320, Internet: http://www.ptb.de		
F.1	Italy: The power consumption in Watts (W) indicated on TV receiver and in instruction for use		N/A
	TV receivers provided with an instruction for use, schematic diagrams and adjustments procedure in Italian language.		N/A
	Marking for controls and terminals in Italian language.		N/A
	Conformity declaration according to the above requirements in the instruction manual		N/A
	First importers of TV receivers manufactured outside EEC previous conformity certification to the Italian Post Ministry and Certification number on the backcover.		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 62368-1 (AUSTRALIA / NEW ZEALAND) NATIONAL DIFFERENCES (Audio/video, information and communication technology equipment)			
Differences according to : AS/NZS 62368.1:2018			
Attachment Form No. : AU_NZ_ND_IEC62368_1B			
Attachment Originator : JAS-ANZ			
Master Attachment : 2018-02			
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	National Differences		P
Appendix ZZ	Variations to IEC 62368-1:2014 (ED. 2.0) for Australia and New Zealand		P
ZZ1 Scope	This Appendix lists the normative variations to IEC 62368-1:2014 (ED. 2.0)		P
ZZ2 Variations	The following modifications are required for Australian/New Zealand conditions:		P
2	Add the following to the list of normative references: The following normative documents are referenced in Appendix ZZ: -AS/NZS 3112, <i>Approval and test specification—Plugs and socket-outlets</i> -AS/NZS 3123, <i>Approval and test specification—Plugs, socket-outlets and couplers for general industrial application</i> -AS/NZS 3191, <i>Electric flexible cords</i> -AS/NZS 60065, <i>Audio, video and similar electronic apparatus—Safety requirements (IEC 60065:2015 (ED.8.0) MOD)</i> -AS/NZS 60320.1, <i>Appliance couplers for household and similar general purposes, Part 1: General requirements (IEC 60320-1, Ed.2.1 (2007) MOD)</i> -AS/NZS 60320.2.2, <i>Appliance couplers for household and similar general purposes Part 2.2: Interconnection couplers for household and similar equipment (IEC 60320-2-2, Ed.2.0 (1998) MOD)</i> -AS/NZS 60695.2.11, <i>Fire hazard testing, Part</i>	Added.	P

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Clause	Requirement + Test	Result - Remark	Verdict
	<i>2.11: Glowing/hot wire based test methods—Glow-wire flammability test method for end-products</i> <i>-AS/NZS 60695.11.5, Fire hazard testing, Part 11.5: Test flames—Needle-flame test method—Apparatus, confirmatory test arrangement and guidance</i> <i>-AS/NZS 60695.11.10, Fire hazard testing, Part 11.10: Test flames—50 W horizontal and vertical flame test methods</i> <i>-AS/NZS 60884.1, Plugs and socket-outlets for household and similar purposes, Part 1: General requirements</i> <i>-AS/NZS 60950.1:2015, Information technology equipment—Safety, Part 1: General requirements (IEC 60950-1, Ed.2.2 (2013), MOD)</i> <i>IEC 61032:1997, Protection of persons and equipment by enclosures—Probes for verification</i> <i>-AS/NZS 61558.1:2008 (including Amendment 2:2015), Safety of Power Transformers, Power Supplies, Reactors and Similar Products, Part 1: General requirements and tests (IEC 61558-1 Ed 2.1, MOD)</i> <i>-AS/NZS 61558.2.16, Safety of transformers, reactors, power supply units and similar products for voltages up to 1 100 V, Part 2.16: Particular requirements and tests for switch mode power supply units and transformers for switch mode power supply units.</i>		
4.1.1	Application of requirements and acceptance of materials, components and subassemblies 1 Replace the text 'IEC 60950-1' with 'AS/NZS 60950.1:2015'. 2 Replace the text 'IEC 60065' with 'AS/NZS 60065'.	Replaced.	P
4.7	Equipment for direct insertion into mains socket-outlets		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
4.7.2	Requirements Delete the text of the second paragraph and replace with the following: Equipment with a plug portion, suitable for insertion into a 10 A 3-pin flat-pin socket-outlet complying with AS/NZS 3112 shall comply with the requirements in AS/NZS 3112 for equipment with integral pins for insertion into socket-outlets.	The equipment is not direct plug-in equipment.	N/A
4.7.3	Compliance Criteria Delete the first paragraph and Note 1 and Note 2 and replace with the following: Compliance is checked by inspection and, if necessary, by the tests in AS/NZS 3112.		N/A
4.8	Delete existing clause title and replace with the following: 4.8 Products containing coin/button cell batteries		N/A
4.8.1	General 1 Second dashed point, delete the text and replace with the following: – include coin/button cell batteries with a diameter of 32 mm or less. 2 After the second dashed point, insert the following Note: NOTE 1: Batteries are specified in IEC 60086-2. 3 After the third dashed point, renumber the existing Note as 'NOTE 2'. 4 Fifth dashed point, delete the word 'lithium'.	No battery provided.	N/A
4.8.2	Instructional Safeguard First line, delete the word 'lithium'.		N/A
4.8.3	Construction First line, after the word 'Equipment' insert the words 'containing one or more coin/button batteries and'		N/A
4.8.5	Compliance criteria Delete the first paragraph and replace with the following: Compliance is checked by applying a force of 30 N +/-1 N for 10 s to the battery compartment door/cover by a rigid test finger according to test probe 11 of IEC 61032:1997 at the most unfavourable place and in the most unfavourable direction. The force shall be applied in one direction at a time.		N/A

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Clause	Requirement + Test		Result - Remark	Verdict
5.4.10.2	Test methods			N/A
5.4.10.2.1	General Delete the first paragraph and <i>replace</i> with the following: In Australia only, the separation is checked by the test of both Clause 5.4.10.2.2 and Clause 5.4.10.2.3. In New Zealand, the separation is checked by the test of either Clause 5.4.10.2.2 or Clause 5.4.10.2.3.		No external circuits connection	N/A
Table 29	Replace the table with the following:			N/A
Parts		Impulse test		Steady state test
		New Zealand	Australia	New Zealand Australia
Parts indicated in Clause 5.4.10.1 a) ^a		2.5 kV 10/700 µs	7.0 kV for hand-held telephones and headsets, 2.5 kV for other equipment. 10/700 µs	1.5 kV 3 kV
Parts indicated in Clause 5.4.10.1 b) and c) ^b		1.5 kV 10/700 µs ^c		1.0 kV 1.5 kV
^a Surge suppressors shall not be removed.				
^b Surge suppressors may be removed, provided that such devices pass the impulse test of Clause 5.4.10.2.2 when tested as components outside the equipment.				
^c During this test, it is allowed for a surge suppressor to operate and for a sparkover to occur in a GDT.				
5.4.10.2.2	After the first paragraph, <i>insert</i> new Notes 201 and 202 as follows: NOTE 201 For Australia, the 7 kV impulse simulates lightning surges on typical rural and semi-rural network lines. NOTE 202 For Australia, the value of 2.5 kV for Clause 5.4.10.1 a) was chosen to ensure the adequacy of the insulation concerned and does not necessarily simulate likely overvoltages.			N/A
5.4.10.2.3	After the first paragraph, <i>insert</i> new Notes 201 and 202 as follows: NOTE 201 For Australia, where there are capacitors across the insulation under test, it is recommended that d.c. test voltages are used. NOTE 202 The 3 kV and 1.5 kV values for Australia have been determined considering the low frequency induced voltages from the power supply distribution system.			N/A

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Clause	Requirement + Test	Result - Remark	Verdict
6	Electrically-caused fire		P
6.1	General After the first paragraph, <i>insert</i> the following new paragraph: Alternatively, the requirements of Clauses 6.2 to 6.5.2 are considered to be fulfilled if the equipment complies with the requirements of Clause 6.202	Inserted.	P
6.6	After Clause 6.6, <i>add</i> the new Clauses 6.201 and 6.202 as follows: 6.201 External power supplies, docking stations and other similar devices and 6.202 Resistance to fire—Alternative tests (see special national conditions)		N/A
8.5.4	Special categories of equipment comprising moving parts		N/A
8.5.4.1	Large data storage equipment In the first dashed row and the second dashed rows <i>replace</i> 'IEC 60950-1:2005' with 'AS/NZS 60950.1:2015'.		N/A
8.6	Stability of equipment		P
8.6.1 and Table 36	Requirements 1. Table 36, <i>insert</i> Footnote c at the end of the 'Glass slide' heading, and <i>add</i> a new Footnote c after the text of Footnote b in the last row of Table 36 as follows: ^c The glass slide test is not applicable to floor standing equipment, even though the equipment may have controls or a display. 2. Table 36, fifth row, <i>insert</i> ²⁰¹ at the end of 'No stability requirements' 3. Table 36, ninth row, <i>insert</i> ²⁰¹ at the end of 'No stability requirements' 4. Table 36, <i>add</i> the following new footnote: ²⁰¹ MS2 and MS3 television sets and display devices, designed only for fixing to a wall, ceiling or equipment rack, are not subjected to stability requirements only if the instructional safeguard of Clause 8.6.1.201 is provided. Otherwise, the glass slide requirements of Clause 8.6.4 and horizontal force requirements of Clause 8.6.5 apply. 5. Second paragraph beneath Table 36, <i>delete</i> the words 'MS2 and MS3 television sets' and <i>replace</i> with 'MS2 and MS3 television sets and display devices'		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
8.6.1	After Clause 8.6.1 <i>add</i> the following new clauses: 8.6.1.201 Instructional safeguard for fixed-mount television sets (see special national conditions)		N/A
Annex F Paragraph F.3.5.1	Mains appliance outlet and socket-outlet markings <i>Replace</i> 'IEC 60320-2-2' with 'AS/NZS 60320.2.2'.		N/A
Annex G Paragraph G.4.2	Mains connectors 1 In the second line <i>insert</i> 'or AS/NZS 3123' after 'IEC 60906-1'. 2 In the second line <i>insert</i> 'or AS/NZS 60320 series' after 'IEC 60320 series' 3 <i>Add</i> the following new paragraph: 10 A or 15 A 250 V flat pin plugs for the connection of equipment to mains-powered socket-outlets for household or similar general use shall comply with AS/NZS 3112 or AS/NZS 60884.1.		N/A
Paragraph G.5.3.1	Transformers, General 1 In the third dashed point <i>replace</i> 'IEC 61558-1 and the relevant parts of IEC 61558-2' with 'AS/NZS 61558-1 and the relevant parts of AS/NZS 61558.2' 2 In the fourth dashed point <i>replace</i> 'IEC 61558-2-16' with 'AS/NZS 61558.2.16'.		N/A
Paragraph G.7.1	Mains supply cords, General In the fourth dashed paragraph, <i>replace</i> 'IEC 60320-1' with 'AS/NZS 60320.1'		N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
Table G.5	Sizes of conductors 1 In the second row, first column, <i>delete</i> '6' and <i>replace</i> with '7.5' 2 In the second row, second column, <i>delete</i> '0,75' and <i>replace</i> with '0.75' ^b 3 <i>Delete</i> Note 1. 4 <i>Replace</i> 'NOTE 2' with 'NOTE:'. 5 <i>Delete</i> the text of 'Footnote b' and <i>replace</i> with the following: ^b This nominal cross-sectional area is only allowed for Class II appliances if the length of the power supply cord, measured between the point where the cord, or cord guard, enters the appliance, and the entry to the plug does not exceed 2 m (0.5 mm ² three-core supply flexible cords are not permitted; see AS/NZS 3191). 6 In Footnote c <i>replace</i> 'IEC 60320-1' with 'AS/NZS 60320.1' 7 In Footnote d <i>replace</i> 'IEC 60320-1' with 'AS/NZS 60320.1'		N/A
Annex M Paragraph M.3.2	Protection circuits for batteries provided within the equipment, Test method After the first dashed point <i>add</i> the following Note: NOTE 201: In cases where the voltage source is provided by power from an unassociated power source, consideration should be given to the effects of possible single fault conditions in the unassociated equipment. If the power source is unknown then it should be assumed that the maximum limit of SELV may be applied to the source input under assumed single fault conditions in the source when assessing the charging circuit in the equipment under test.	No Battery provided.	N/A
	Special national conditions (if any)		

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Clause	Requirement + Test	Result - Remark	Verdict
6.201	External power supplies, docking stations and other similar devices For external power supplies, docking stations and other similar devices, during and after abnormal operating conditions and during single fault conditions the output voltage— – at all ES1 outlets or connectors shall not increase by more than 10% of its rated output voltage under normal operating condition; and – of a USB outlet or connector shall not increase by more than 3 V or 10% of its rated output voltage under normal operating conditions, whichever is higher. For equipment with multiple rated output voltages, the requirements apply with the equipment configured for each rated output voltage in turn. NOTE: This is intended to reduce the possibility of battery fire or explosion in attached equipment or accessories when charging secondary lithium batteries. <i>Compliance shall be checked by measurement, taking into account the abnormal operating conditions of Annex B.3 and the simulated single-fault conditions of Annex B.4</i>	The output voltage not increase by more than 10% after abnormal operating conditions and during single fault conditions.	P
6.202	Resistance to fire—Alternative tests		N/A
6.202.1	General Parts of non-metallic material shall be resistant to ignition and spread of fire. This requirement does not apply to decorative trims, knobs and other parts unlikely to be ignited or to propagate flames from inside the equipment, or the following: a) Components that are contained in an enclosure having a flammability category of V-0 according to AS/NZS 60695.11.10 and having openings only for the connecting wires filling the openings completely, and for ventilation not exceeding 1 mm in width regardless of length. b) The following parts which would contribute negligible fuel to a fire: – small mechanical parts, the mass of which does not exceed 4 g, such as mounting parts, gears, cams, belts and bearings;		N/A

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	– small electrical components, such as capacitors with a volume not exceeding 1 750 mm³, integrated circuits, transistors and optocoupler packages, if these components are mounted on material of flammability category V-1, or better, according to AS/NZS 60695.11.10. NOTE: In considering how to minimize propagation of fire and what 'small parts' are, account should be taken of the cumulative effect of small parts adjacent to each other for the possible effect of propagating the fire from one part to another.		
	<i>Compliance shall be checked by the tests of Clauses 6.202.2, 6.202.3 and 6.202.4.</i> For the base material of printed boards, compliance shall be checked by the test of Clause 6.202.5. The tests shall be carried out on parts of non-metallic material which have been removed from the equipment. When the glow-wire test is carried out, the parts shall be placed in the same orientation as they would be in normal use. These tests are not carried out on internal wiring.		N/A
6.202.2	Testing of non-metallic materials Parts of non-metallic material shall be subject to the glow-wire test of AS/NZS 60695.2.11 which shall be carried out at 550°C. Parts for which the glow-wire test cannot be carried out, such as those made of soft or foamy material, shall meet the requirements specified in ISO 9772 for category FH-3 material. The glow-wire test shall be not carried out on parts of material classified at least FH-3 according to ISO 9772 provided that the relevant part is not thinner than the sample tested.		N/A
6.202.3	Testing of insulating materials Parts of insulating material supporting Potential Ignition Sources shall be subject to the glow-wire test of AS/NZS 60695.2.11 which shall be carried out at 750°C. The test shall be also carried out on other parts of insulating material which are within a distance of 3 mm of the connection. NOTE: Contacts in components such as switch contacts are considered to be connections		N/A

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Clause	Requirement + Test	Result - Remark	Verdict								
	For parts which withstand the glow-wire test but produce a flame, other parts above the connection within the envelope of a vertical cylinder having a diameter of 20 mm and a height of 50 mm shall be subjected to the needle-flame test. However, parts shielded by a barrier which meets the needle-flame test need not be tested										
	The needle-flame test shall be made in accordance with AS/NZS 60695.11.5 with the following modifications: <table><tr><td>Clause of AS/NZS 60695.11.5</td><td>Change</td></tr><tr><td>9 Test procedure</td><td></td></tr><tr><td>9.2 Application of needle-flame</td><td> <i>Delete</i> the first and second paragraphs and <i>replace</i> with the following: The specimen shall be arranged so that the flame can be applied to a vertical or horizontal edge as shown in the examples of Figure 1. If possible the flame shall be applied at least 10 mm from a corner. The duration of application of the test flame shall be 30 s 1 s. </td></tr><tr><td>9.3 Number of test specimens</td><td> <i>Replace</i> with the following: The test shall be made on one specimen. If the specimen does not withstand the test, the test may be repeated on two further specimens, both of </td></tr></table>	Clause of AS/NZS 60695.11.5	Change	9 Test procedure		9.2 Application of needle-flame	<i>Delete</i> the first and second paragraphs and <i>replace</i> with the following: The specimen shall be arranged so that the flame can be applied to a vertical or horizontal edge as shown in the examples of Figure 1. If possible the flame shall be applied at least 10 mm from a corner. The duration of application of the test flame shall be 30 s 1 s.	9.3 Number of test specimens	<i>Replace</i> with the following: The test shall be made on one specimen. If the specimen does not withstand the test, the test may be repeated on two further specimens, both of		N/A
Clause of AS/NZS 60695.11.5	Change										
9 Test procedure											
9.2 Application of needle-flame	<i>Delete</i> the first and second paragraphs and <i>replace</i> with the following: The specimen shall be arranged so that the flame can be applied to a vertical or horizontal edge as shown in the examples of Figure 1. If possible the flame shall be applied at least 10 mm from a corner. The duration of application of the test flame shall be 30 s 1 s.										
9.3 Number of test specimens	<i>Replace</i> with the following: The test shall be made on one specimen. If the specimen does not withstand the test, the test may be repeated on two further specimens, both of										

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Clause	Requirement + Test		Result - Remark	Verdict
		which shall withstand the test. 11 Evaluation of test results <i>Replace with the following:</i> The duration of burning (tb) shall not exceed 30 s. However, for printed circuit boards, it shall not exceed 15 s.		
	The needle-flame test shall not be carried out on parts of material classified as V-0 or V-1 according to AS/NZS 60695.11.10, provided that the relevant part is not thinner than the sample tested.			
6.202.4	Testing in the event of non-extinguishing material If parts, other than enclosures, do not withstand the glow wire tests of Clause 6.202.3, by failure to extinguish within 30 s after the removal of the glowwire tip, the needle-flame test detailed in Clause 6.202.3 shall be made on all parts of non-metallic material which are within a distance of 50 mm or which are likely to be impinged upon by flame during the tests of Clause 6.202.3. Parts shielded by a separate barrier which meets the needle-flame test need not be tested. NOTE 1: If the enclosure does not withstand the glow-wire test the equipment is considered to have failed to meet the requirements of Clause 6.202 without the need for consequential testing. NOTE 2: If other parts do not withstand the glow-wire test due to ignition of the tissue paper and if this indicates that burning or glowing particles can fall onto an external surface underneath the equipment, the equipment is considered to have failed to meet the requirements of Clause 6.202 without the need for consequential testing. NOTE 3: Parts likely to be impinged upon by the flame are considered to be those within the envelope of a vertical cylinder having a radius of 10 mm and a height equal to the height of the flame, positioned above the point of the material supporting, in contact with, or in close proximity to, connections.			N/A
6.202.5	Testing of printed boards The base material of printed boards shall be subjected to the needle-flame test of Clause 6.202.3. The flame shall be applied to the edge of the board where the heat sink effect is lowest			N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	when the board is positioned as in normal use. The flame shall not be applied to an edge, consisting of broken perforations, unless the edge is less than 3 mm from a potential ignition source. The test is not carried out if— – the printed board does not carry any potential ignition source; – the base material of printed boards, on which the available apparent power at a connection exceeds 15 VA operating at a voltage exceeding 50 V and equal or less than 400 V (peak) a.c. or d.c. under normal operating conditions, is of flammability category V-1 or better according to AS/NZS 60695.11.10, or the printed boards are protected by an enclosure meeting the flammability category V-0 according to AS/NZS 60695.11.10, or made of metal, having openings only for connecting wires which fill the openings completely; or – the base material of printed boards, on which the available equipment power at a connection exceeds 15 VA operating at a voltage exceeding 400 V (peak) a.c. or d.c. under normal operating conditions, and base material of printed boards supporting spark gaps which provides protection against overvoltages, is of flammability category V-0 according to AS/NZS 60695.11.10 or the printed boards are contained in a metal enclosure, having openings only for connecting wires which fill the openings completely. <i>Conformance shall be determined using the smallest thickness of the material.</i> NOTE: Available apparent power is the maximum apparent power which can be drawn from the supplying circuit through a resistive load whose value is chosen to maximize the apparent power for more than 2 min when the circuit supplied is disconnected.		
6.202.6	For open circuit voltages greater than 4 kV Potential ignition sources with open circuit voltages exceeding 4 kV (peak) a.c. or d.c. under normal operating conditions shall be contained in a FIRE ENCLOSURE which shall comply with flammability category V-1 or better according to AS/NZS 60695.11.10.		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
8.6.1.201	8.6.1.201 Instructional safeguard for fixed-mount television sets MS2 and MS3 television sets and display devices designed only for fixed mounting to a wall of ceiling or equipment rack shall, where required in Table 36, footnote 201, have an instructional safeguard in accordance with Clause F.5 which may be on the equipment or included in the installation instructions or equivalent document accompanying the equipment. The elements of the instructional safeguard shall be as follows: – element 1a: not available; – element 2: 'Stability Hazard' or equivalent wording; – element 3: 'The television set may fall, causing serious personal injury or death' or equivalent text; – element 4: the following or equivalent text: To prevent injury, this television set must be securely attached to the floor/wall in accordance with the installation instructions		N/A
8.6.1.202	Restraining device MS2 and MS3 television sets and display devices that are not solely fixed-mounted should be provided with a restraining device such as a fixing point to facilitate restraining the equipment from toppling forward. The restraining device shall be capable of withstanding a pull of 100 N in all directions without damage. Where a restraining device is provided, instructions shall be provided in the instructions for installation or instructions for use to ensure correct and safe installation.		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 62368-1 2th Ed. U.S.A. NATIONAL DIFFERENCES Audio/video, information and communication technology equipment – Part 1: Safety requirements	
Differences according to.....:	CSA/UL 62368-1:2014
Attachment Form No.....:	US&CA_ND_IEC623681B
Attachment Originator	UL(US)
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IEC 62368-1 - US and Canadian National Differences Special National Conditions based on Regulations and Other National Differences			
1.1	All equipment is to be designed to allow installation according to the National Electrical Code (NEC), ANSI/NFPA 70, the Canadian Electrical Code (CEC), Part I, CAN/CSA C22.1, and when applicable, the National Electrical Safety Code, IEEE C2. Also, for such equipment marked or otherwise identified, installation is allowed per the Standard for the Protection of Information Technology Equipment, ANSI/NFPA 75.	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.	Considered.	P
4.1.17	For lengths exceeding 3.05 m, external interconnecting flexible cord and cable assemblies are required to be a suitable cable type (e.g., DP, CL2) specified in the NEC.		N/A
	For lengths 3.05 m or less, external interconnecting flexible cord and cable assemblies that are not types specified in the NEC generally are required to have special construction features and identification markings.		P
4.8	Lithium coin / button cell batteries have modified special construction and performance requirements.	No such batteries.	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		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	equipment, or Annex DVH for permanently connected equipment		
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
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.		P
Annex G (G.7.1)	Permanent connection of equipment to the mains supply by a power supply cord is not permitted, except for certain equipment, such as ATMs.		N/A
Annex G (G.7.3)	Power supply cords are required to have attachment plugs rated not less than 125 percent of the rated current of the equipment.	No power supply cord 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.		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.	No power supply cord provided.	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 _{peak} or 60 V d.c., the maximum acceptable current through a 2000 ohm resistor (or greater) connected across the voltage source with other loads disconnected is 7.1 mA peak or 30 mA d.c. under normal operating conditions.	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	The equipment not intended to be used within such environments.	N/A

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	smoke release.		
	For ITE room applications, automated information storage systems with combustible media greater than 0.76 m ³ (27 cu ft) have a provision for connection of either automatic sprinklers or a gaseous agent extinguishing system with an extended discharge.	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.		N/A
	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.		P
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 ² (10 sq ft) or a single dimension greater than 1.8 m (6 ft) have a flame spread rating of 50 or less. For equipment with the same dimensions for other applications, an external surface that is not a fire enclosure requires a min. flammability classification of V-1.	The equipment has no combustible material greater than 0.9m ² or single dimension greater than 1.8m.	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."		N/A
Annex DVA	Equipment identified for ITE (computer) room	Not such application.	N/A

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(F.3.3.5)	installation is marked with the rated current		
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 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
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	UL approved components used. Refer to table 4.1.2 of IEC 62368-1 test report for	P

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	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.	details.	
Annex DVH	Equipment for permanent connection to the mains supply is subjected to additional requirements.		N/A
Annex DVH (DVH.1)	Wiring methods (terminals, leads, etc.) used for the connection of the equipment to the mains are in accordance with the NEC/CEC.		N/A
Annex DVH (DVH.3.2)	Terminals for permanent wiring, including protective earthing terminals, are suitable for U.S./Canadian wire gauge sizes, rated 125 percent of the equipment rating, and are specially marked when specified.		N/A
Annex DVH (DVH.3.2)	Wire binding screws are not permitted to attach conductors larger than 10 AWG (5.3 mm ²).	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.		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	No TNV circuits within the equipment.	N/A

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	earphone intended to be held against, or in the ear is required to comply with special acoustic pressure requirements.		

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Clause	Requirement + Test	Result - Remark	Verdict
ATTACHMENT TO TEST REPORT IEC 62368-1 (JAPAN) NATIONAL DIFFERENCES (Audio/video, information and communication technology equipment – Part 1: Safety requirements)			
Differences according to: J62368-1 (H30)			
Attachment Form No.: JP_ND_IEC62368_1B			
Attachment Originator: UL (JP)			
Master Attachment: Date 2018-11-22			
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	National Differences		—
4.1.2	Where the component, or a characteristic of a component, is a safeguard or a part of a safeguard, components shall comply with the requirements of this standard or, where specified in a requirements clause, with the safety aspects of the relevant JIS component standards or IEC component standards, or components shall have properties equivalent to or better than these.	Replaced.	P
5.6.1	Mains socket-outlet and appliance outlet shall comply with Clause G.4.2A if they are incorporated as part of the equipment.		N/A
5.6.2.1	Mains connection of class 0I equipment: Instructional safeguard in accordance with Clause F.3.6.1A; Mains plug having a lead wire for protective earthing connection of class 0I equipment; Independent main protective earthing terminal installed by ordinary person.		N/A
5.6.2.2	This requirement does not apply to internal conductor of the cord set that is covered by the sheath of mains cord and is formed together with mains plug and appliance connector.		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

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Clause	Requirement + Test	Result - Remark	Verdict
5.6.3	In case of class 0I equipment using power supply cord having two conductors (no earthing conductor), the conductor of protective earthing lead wire shall comply with either of the following: – use of annealed copper wire with 1.6 mm diameter or corrosion-inhibiting metal wire having size and strength that are equivalent to or more than the above copper wire – single core cord or single core cable with 1.25 mm ² or more cross-sectional area		N/A
5.7.3	For class 0I equipment that is provided with mains socket-outlet in the configuration as specified in JIS C 8282 series or JIS C 8303, or otherwise being considered to comply with relevant regulations, or that is provided with mains appliance outlet as specified in JIS C 8283-2-2 for the purpose of interconnection, the measurement is conducted on the system of the interconnected equipment having a single connection to the mains.		N/A
5.7.4	In case of class 0I equipment, touch current shall not exceed 1.41 mA peak or for sinusoidal wave, 1.0 mA r.m.s. when measured using the network specified in Figure 4 of IEC 60990.		N/A
6.4.3.3	A fuse complying with JIS C 6575 series or a fuse having equivalent characteristics shall open within 1 s. For Class A fuse of JIS C 6575, replace “2.1 times” by “1.35 times” and in case of Class B fuse of JIS C 6575, replace “2.1 times” by “1.6 times”. A fuse not complying with JIS C 6575 series shall be tested with the breaking capacity taken into account.		N/A
8.5.4.2.1	Only three-phase stationary equipment rated more than 200 V ac can be considered as being for use in locations where children are not likely to be present, when complying with Clause F.4.		N/A
8.5.4.2.2	For equipment installed where children may be present, an instructional safeguard shall be provided by easily understandable wording in accordance with Clause F.5, except that element 3 is optional.		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
8.5.4.2.4	The media destruction device is tested according to Clause V.1.2 with applicable jointed test probes to the opening. And then the wedge probe per Figure V.4 shall not contact any moving part.		N/A
8.5.4.2.5	The wedge probe of Figure V.4 and applicable jointed test probes specified in Clause V.1.2 shall not contact any moving part. Instructional safeguard shall not be used instead of equipment safeguard for preventing access to hazardous moving parts.		N/A
9.2.6, Table 38	Handles, Knobs, grips, etc. and external surfaces either held, touched or worn against the body in normal use (> 1 min) ^{b,c}		P
F.3.5.1	Instructional safeguard of class 0I equipment in accordance with Clause F.5 when a mains socket-outlet as specified in JIS C 8282 series, JIS C 8303 or relevant regulation to which class I equipment can be connected is provided in accordance with Clause G.4.2A except for the cases where the socket-outlet is accessible only to skilled persons.		N/A
F.3.5.3	If the fuse is necessary for the safeguard function, the symbols indicating pre-arcing time-current characteristic.	Added.	P
F.3.6.1A	Marking for class 0I equipment The requirements of Clauses F.3.6.1.1 and F.3.6.1.3 shall be applied to class 0I equipment. For class 0I equipment, a marking of instructions and instructional safeguard shall be provided regarding the earthing connection.		N/A
F.3.6.2.1	Symbols, IEC 60417-5172 (2003-02) or IEC 60417-6092 (2011-10), shall not be used for class I equipment or class 0I equipment.		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
F.4	Instruction for audio equipment with terminals classified as ES3 in accordance with Table E.1, and for other equipment with terminals marked in accordance with F.3.6.1 and F.3.6.1A. Installation instruction for the protective earthing connection for class 0I equipment provided with independent main protective earthing terminal, where the cord for the protective earthing connection is not provided within the package for the equipment.		N/A
G.3.2.1	The thermal link when tested as a separate component, shall comply with the requirements of JIS C 6691 or have properties equivalent to or better than that.		N/A
G.3.4	Except for devices covered by Clause G.3.5, overcurrent protective devices used as a safeguard shall comply with the relevant part of JIS C 6575 (corresponding to IEC60127) or shall have equivalent characteristics. If there are no applicable IEC standards, overcurrent protective devices used as a safeguard shall comply with their applicable IEC standards.	Replaced.	P
G.4.1	This requirement is not applicable to Clauses G.4.2 and G.4.2A.		N/A
G.4.2	Mains connector shall comply with JIS C 8282 series, JIS C 8283 series, JIS C 8285, JIS C 8303 or IEC 60309 series. Mains plugs and socket-outlets shall comply with JIS C 8282 series, JIS C 8303, IEC 60309 series, or have equivalent or better performance. A power supply cord set provided with appliance connector that can fit appliance inlet complying with JIS C 8283-1 shall comply with JIS C 8286. Construction preventing mechanical stress not to transmit to the soldering part of inlet terminal. Consideration for an equipment rated not more than 125 V provided with Type C14 and C18 appliance coupler complying with JIS C 8283 series.		N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
G.4.2A	Mains socket-outlet and interconnection coupler provided with the class II, class I and class 0I equipment respectively.		N/A
G.7.1	A mains supply cord need not include the protective earthing conductor for class 0I equipment provided with independent protective earthing conductor.		N/A
G.8.3.3	Withstand $1,71 \times 1,1 \times U_0$ for 5 s.		N/A

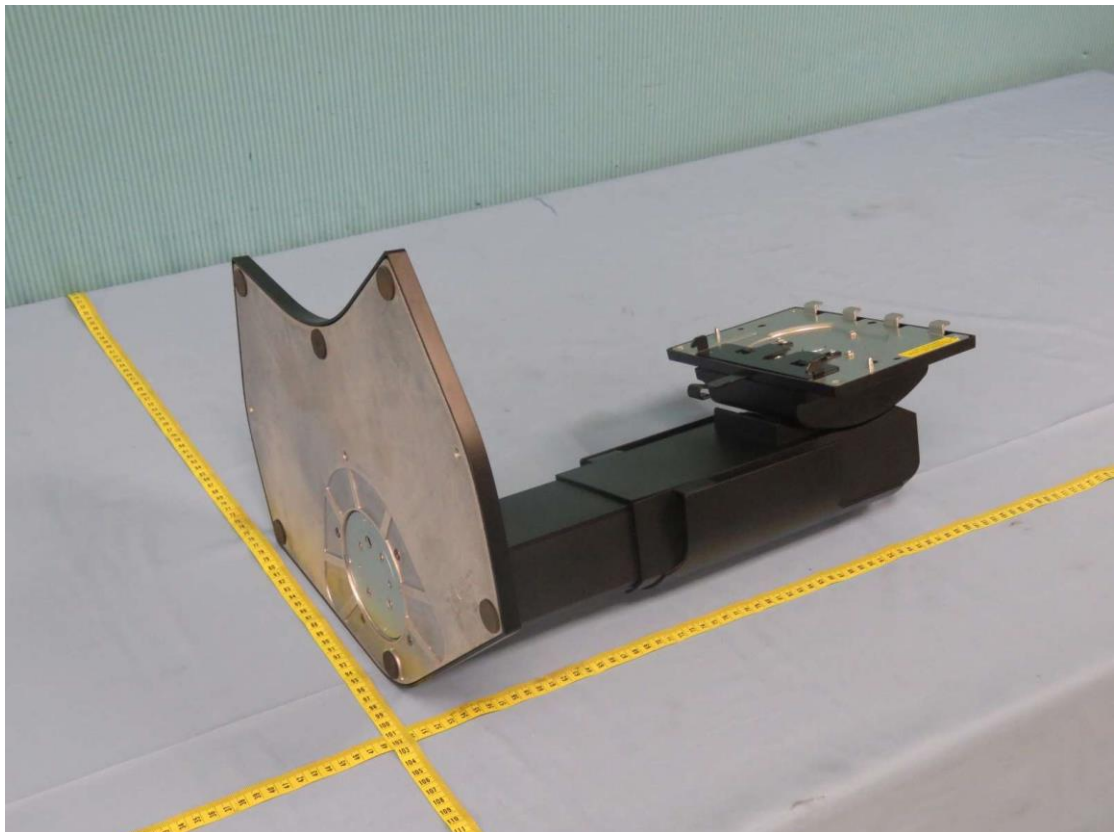
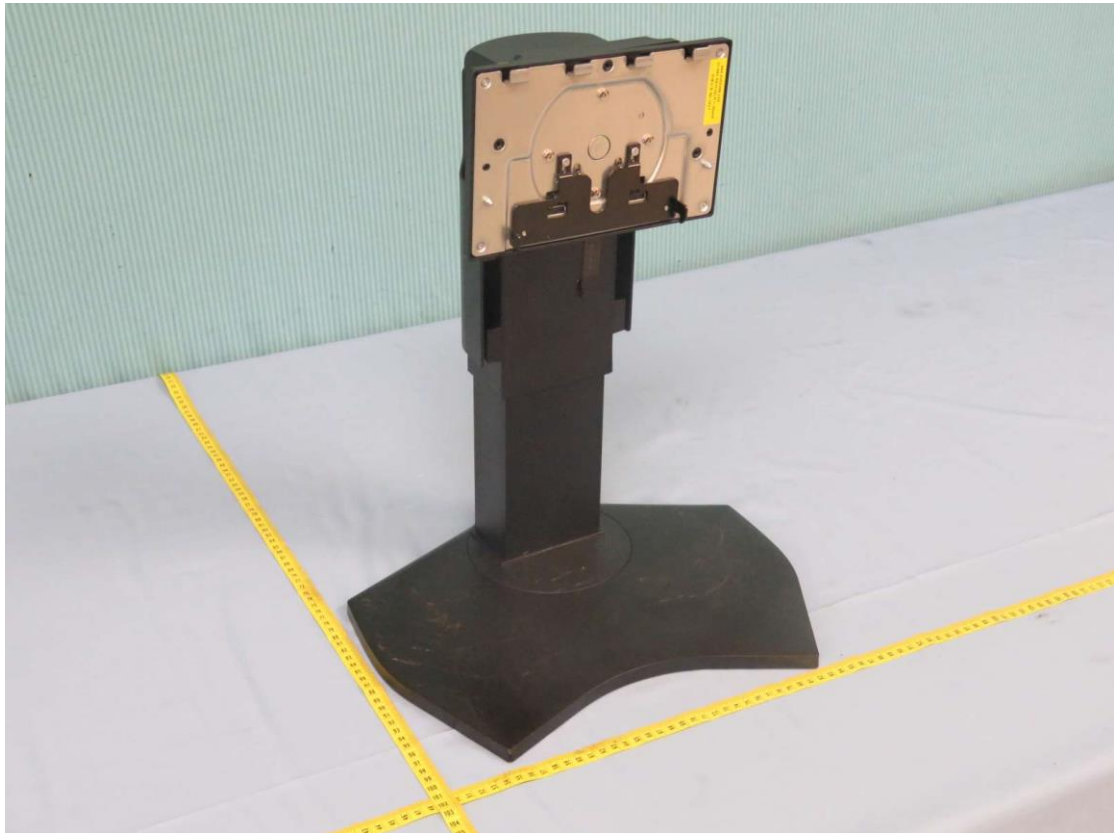
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Type Designation: PA311D-BK



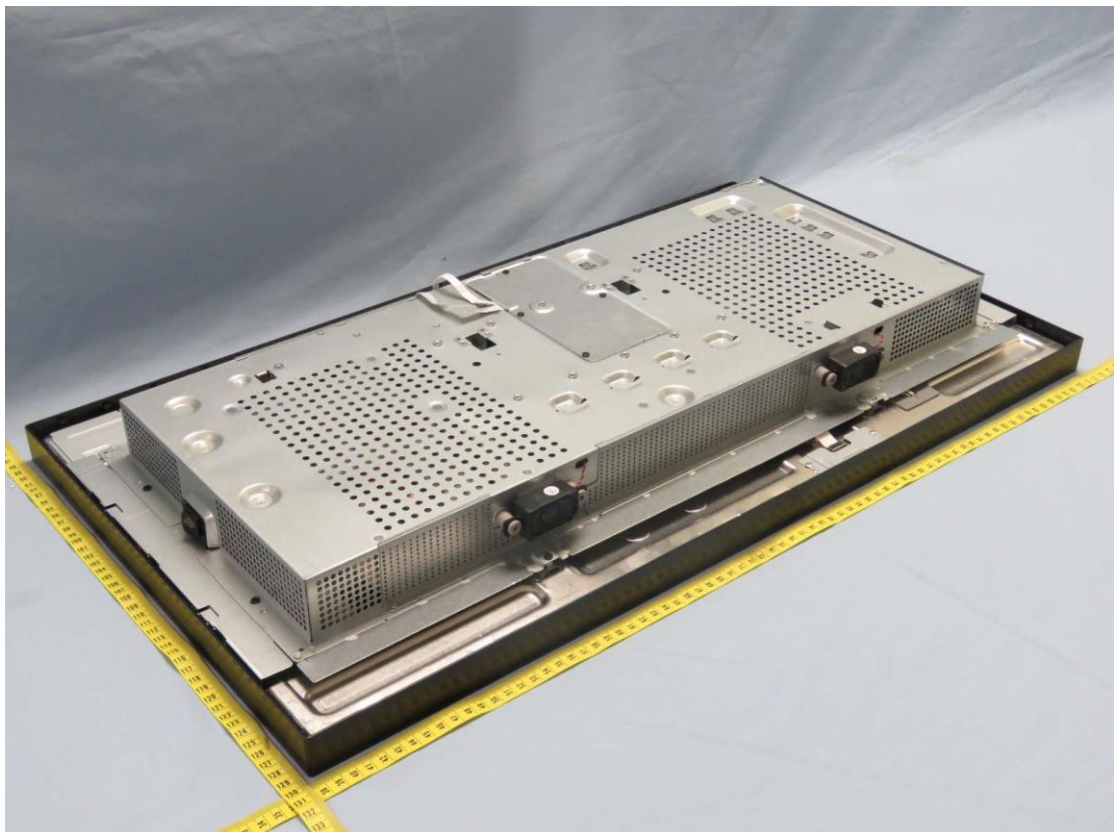
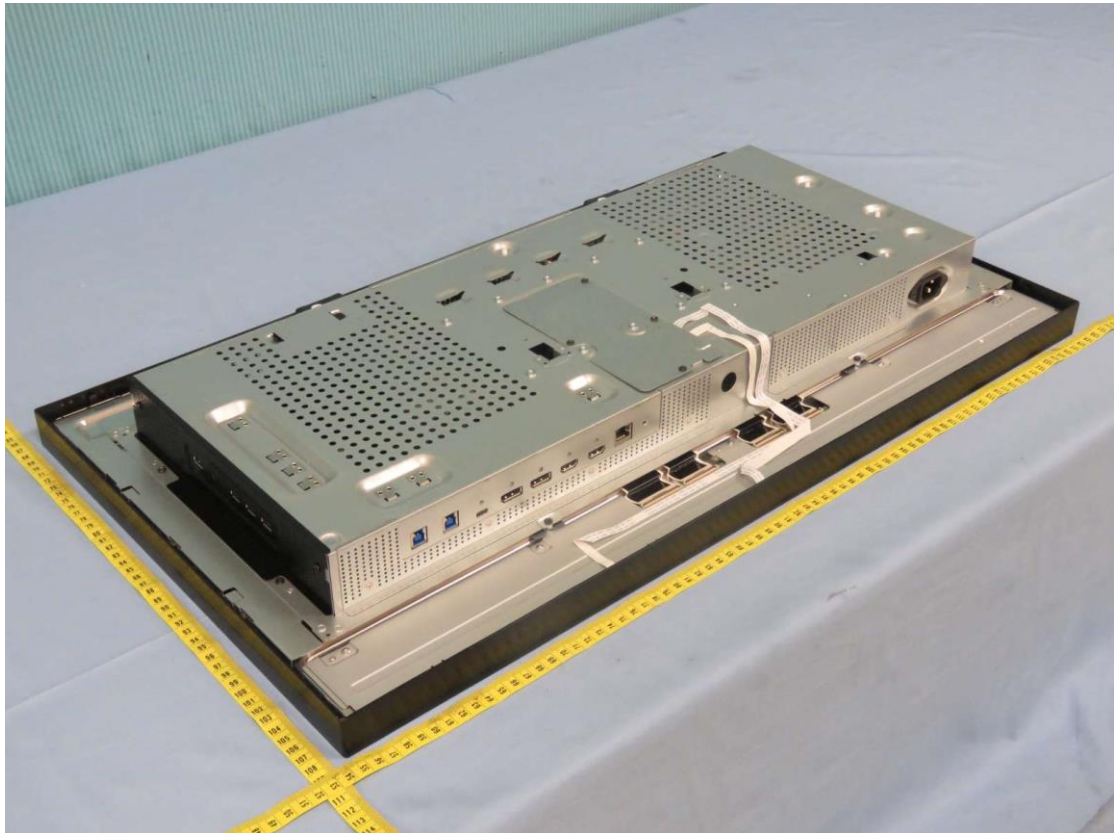
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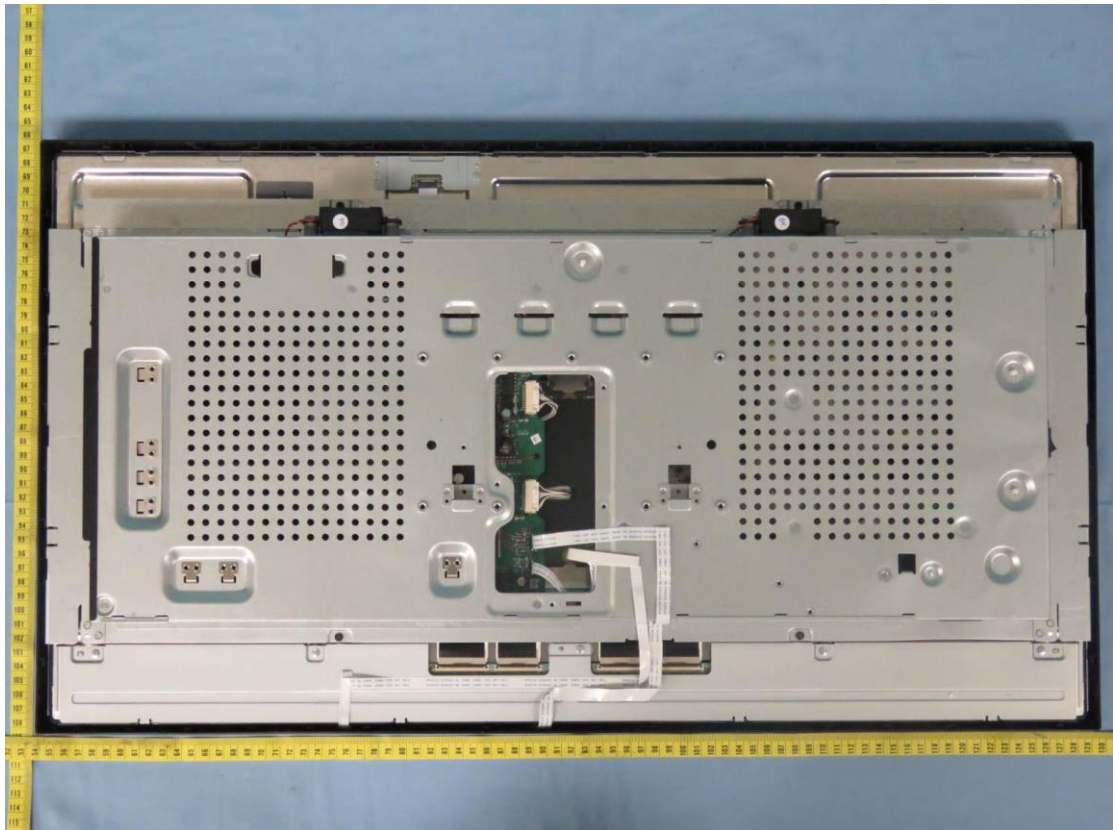
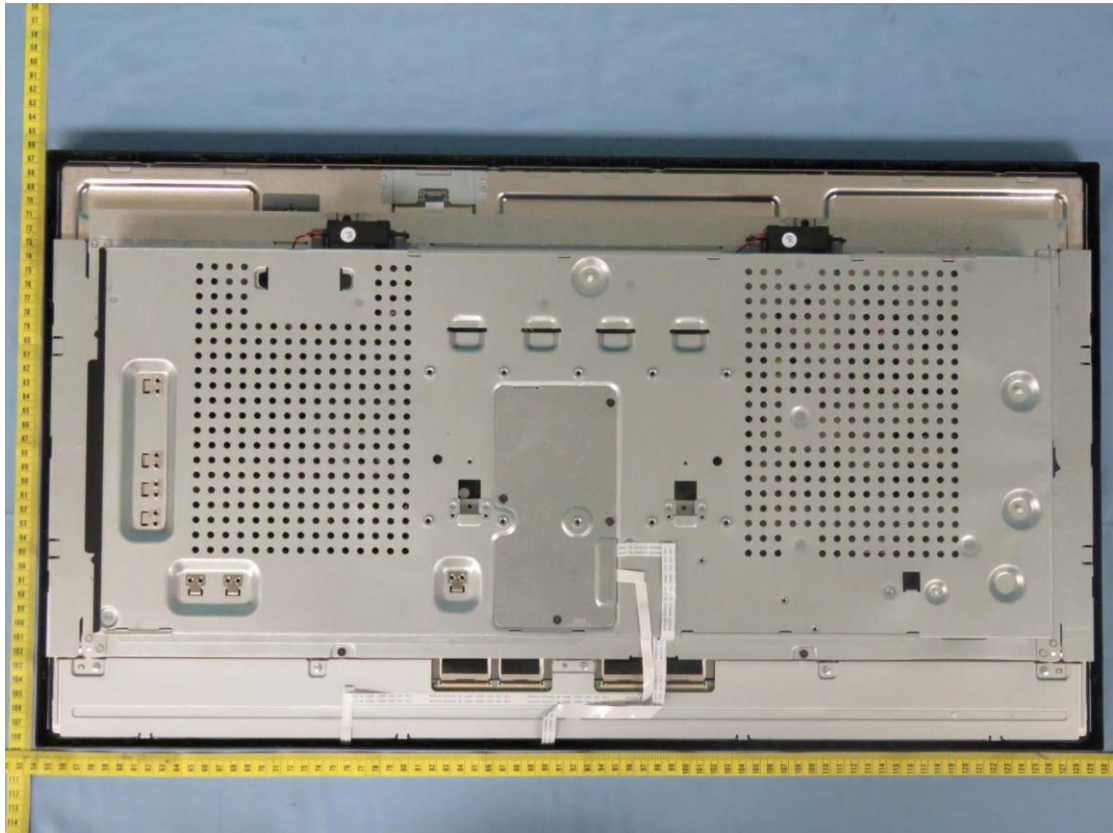
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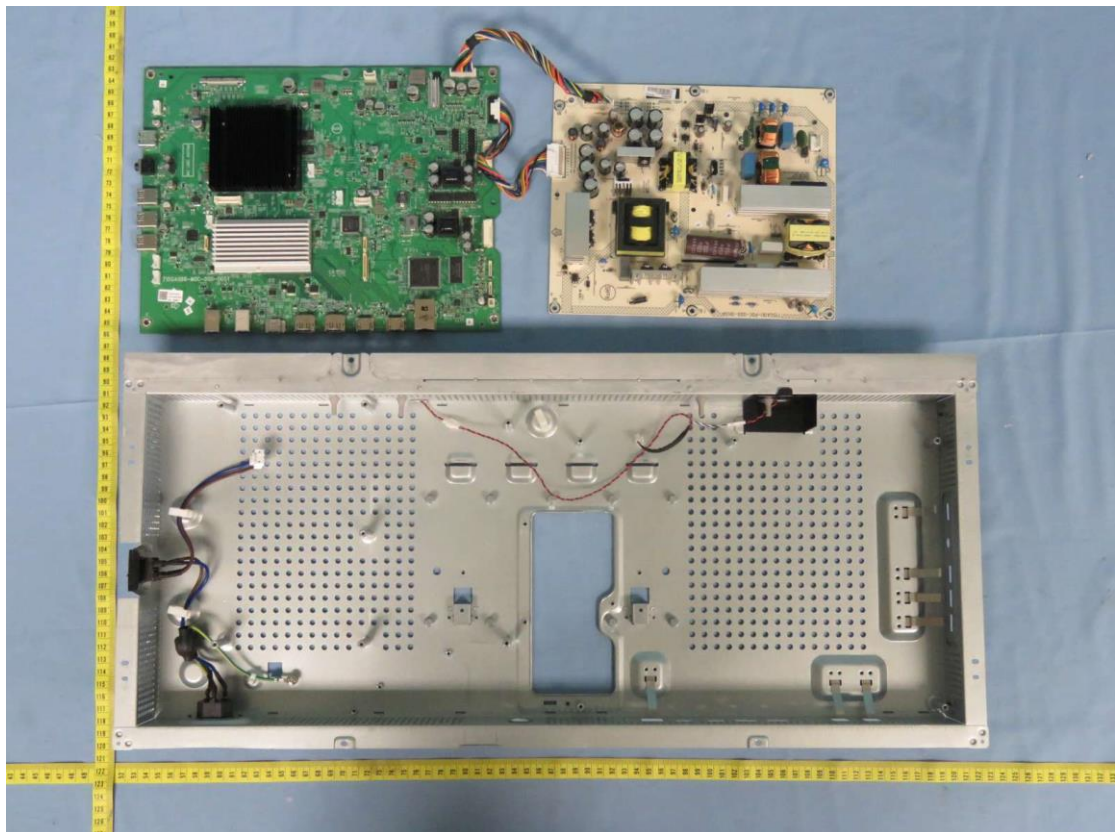
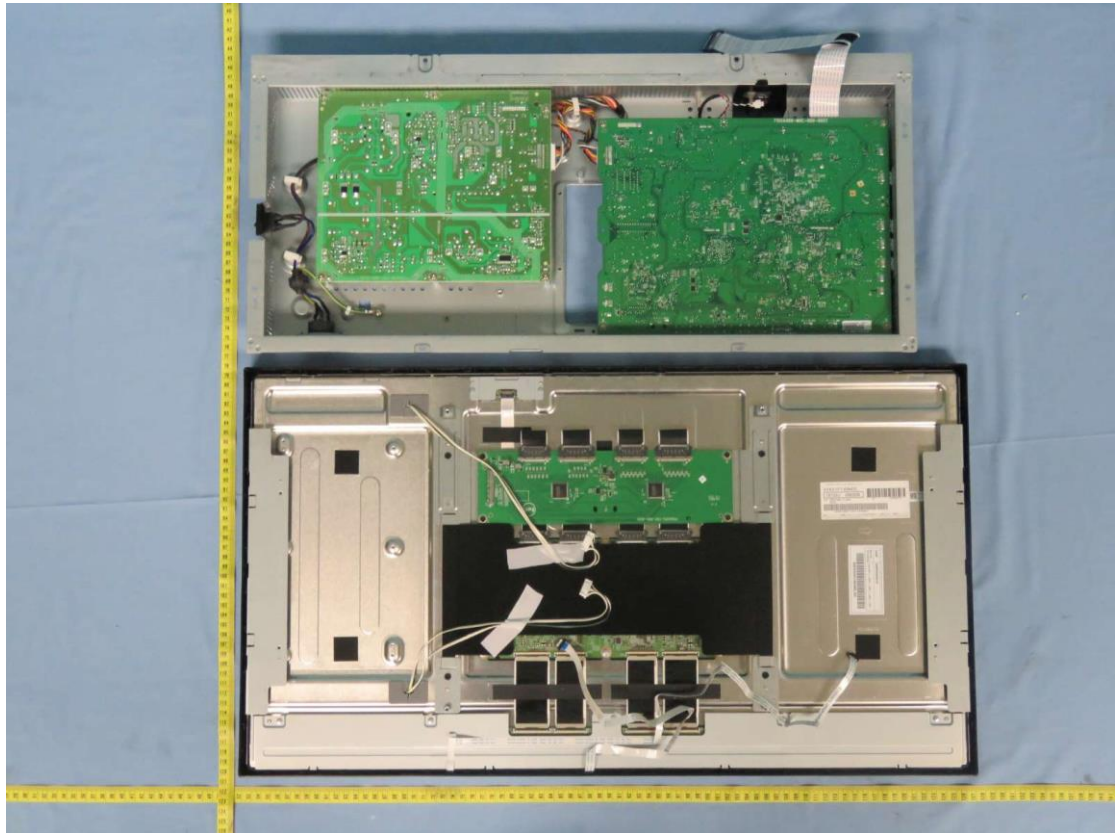
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Type Designation: PA311D-BK



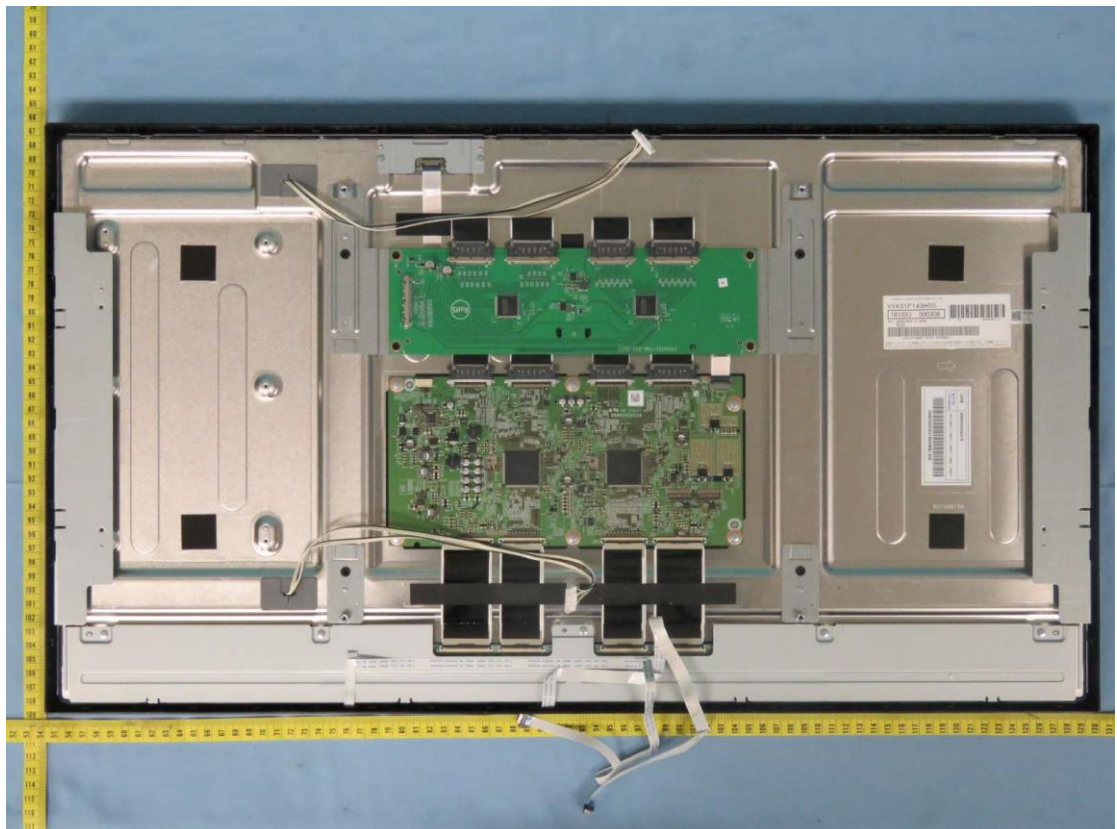
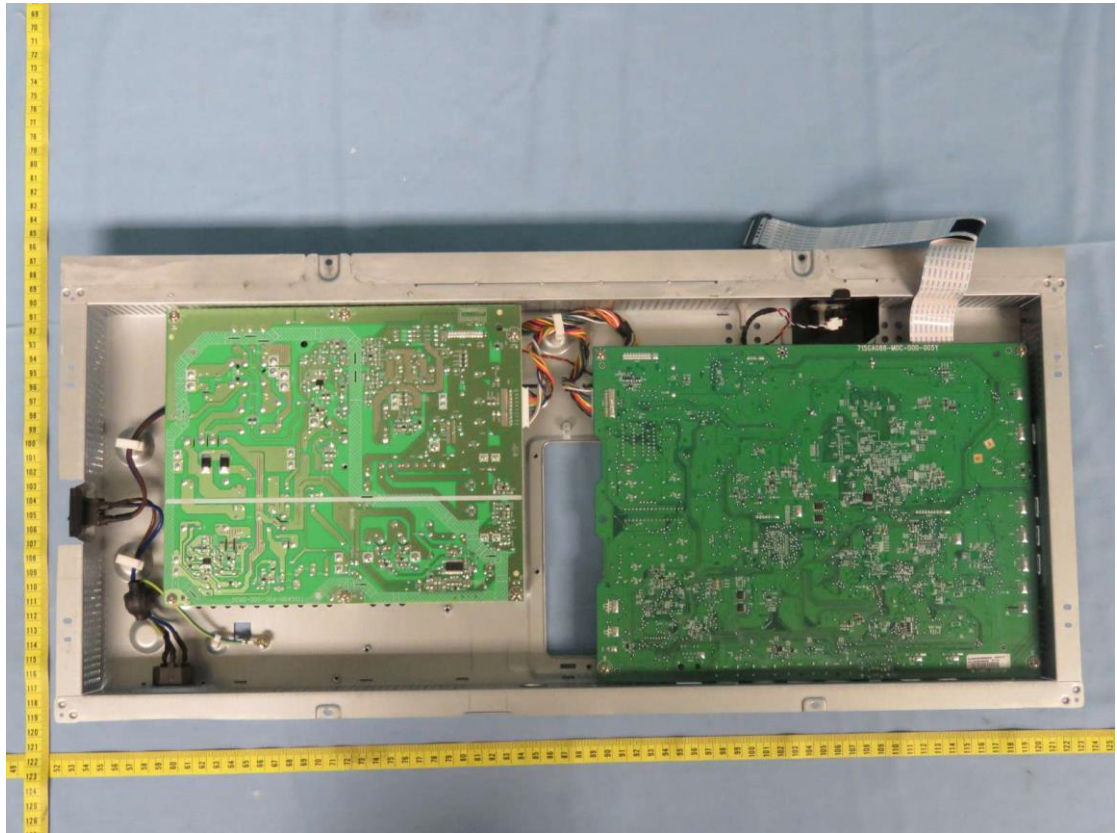
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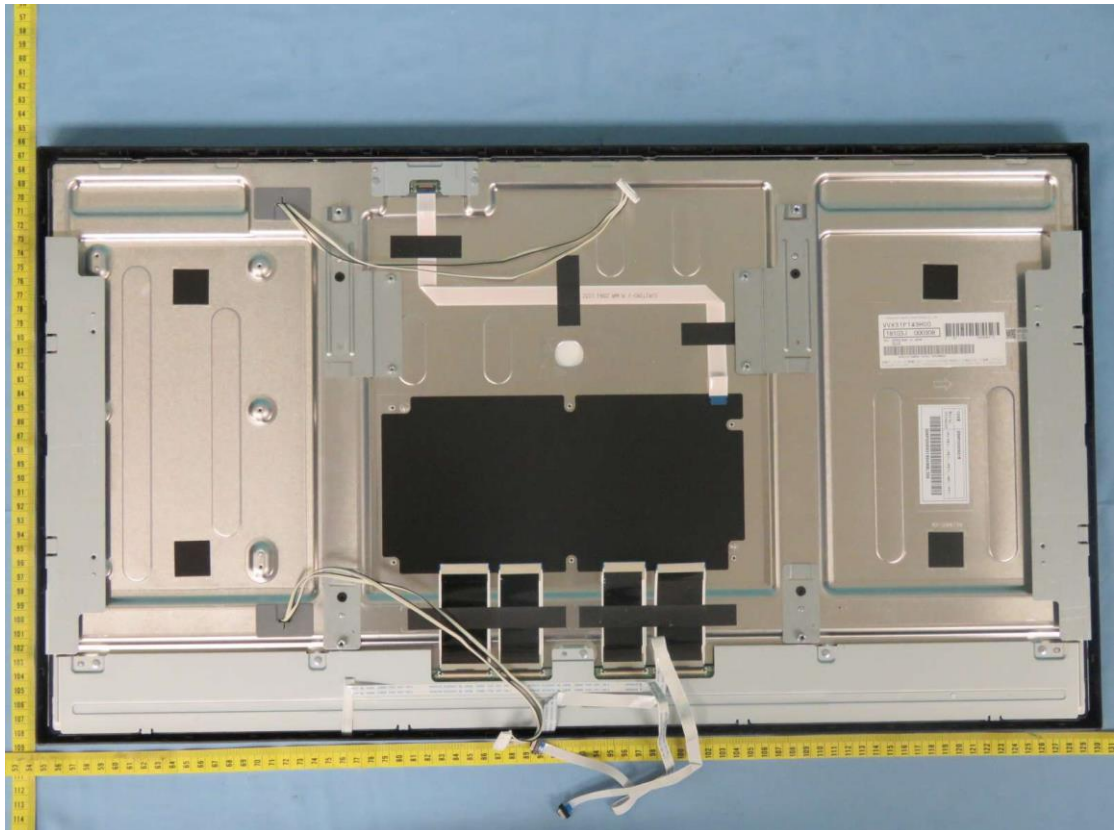
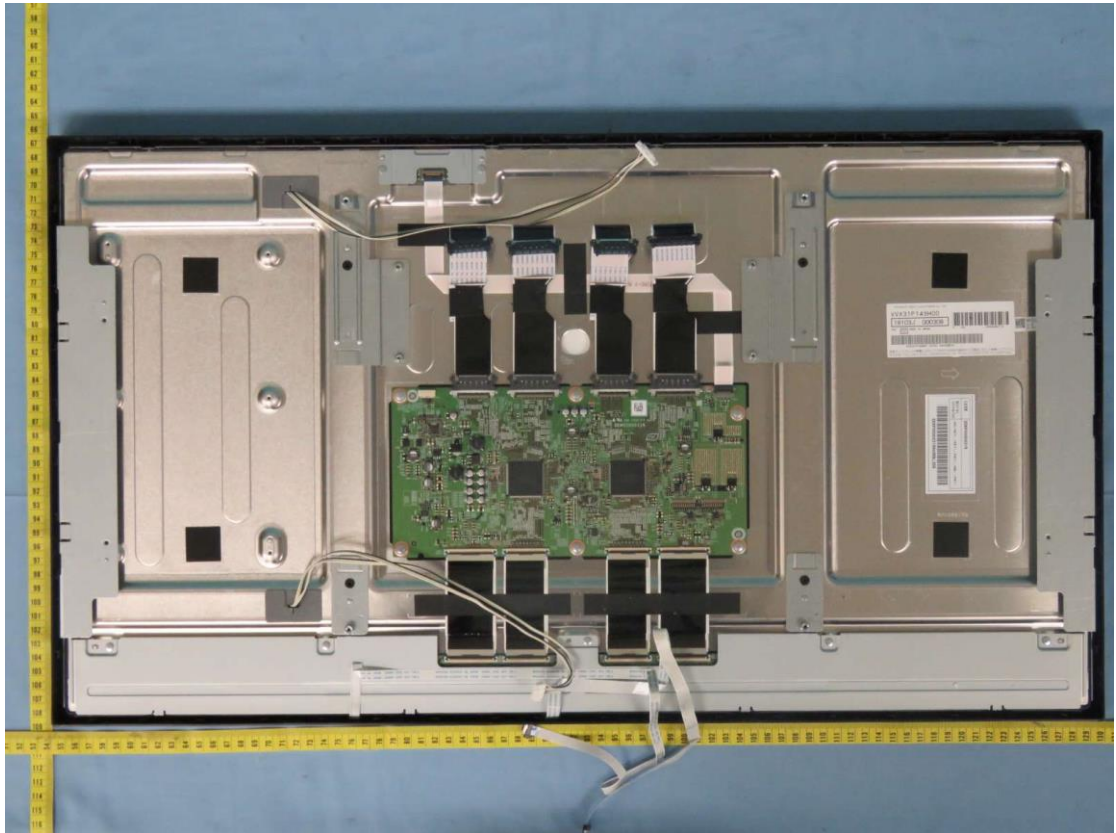
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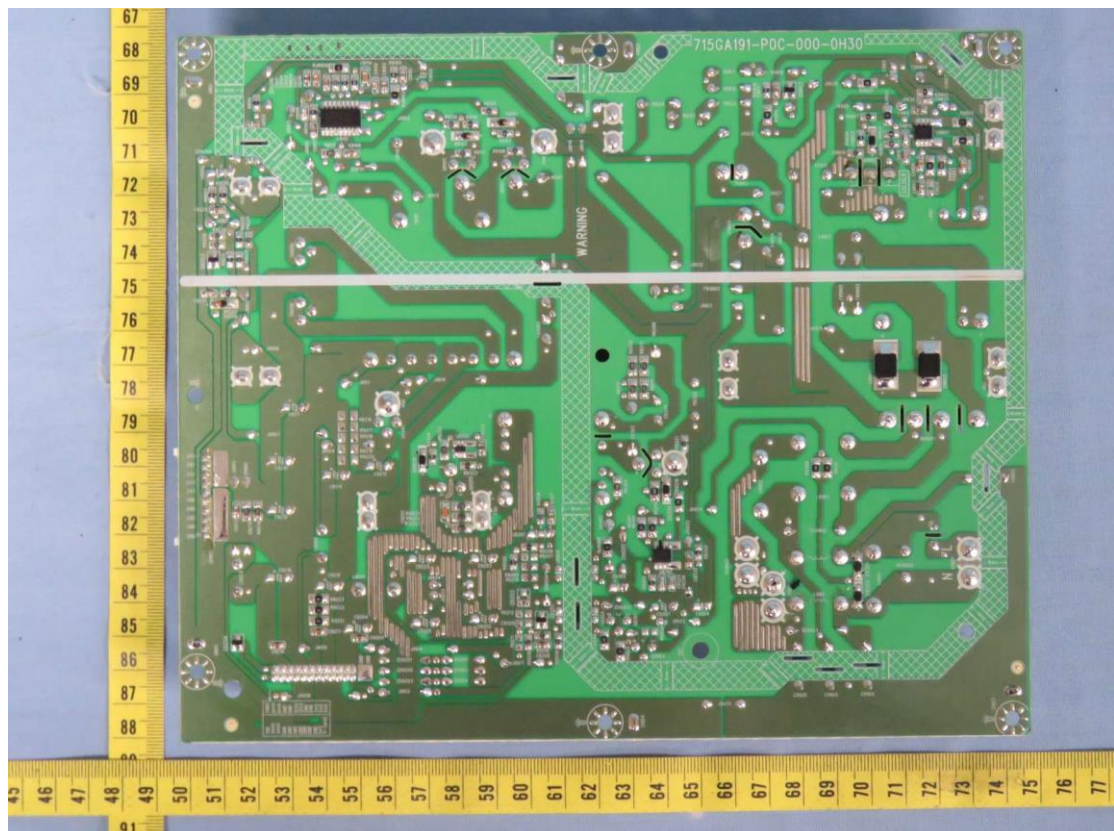
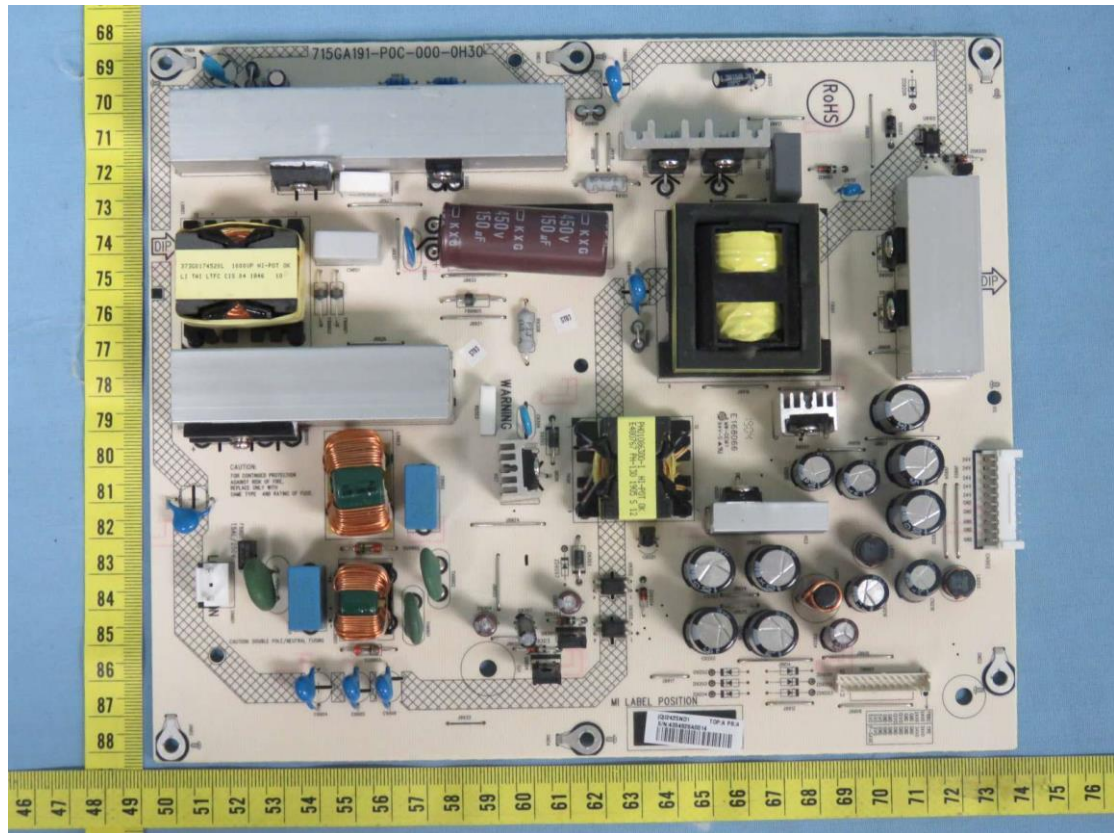
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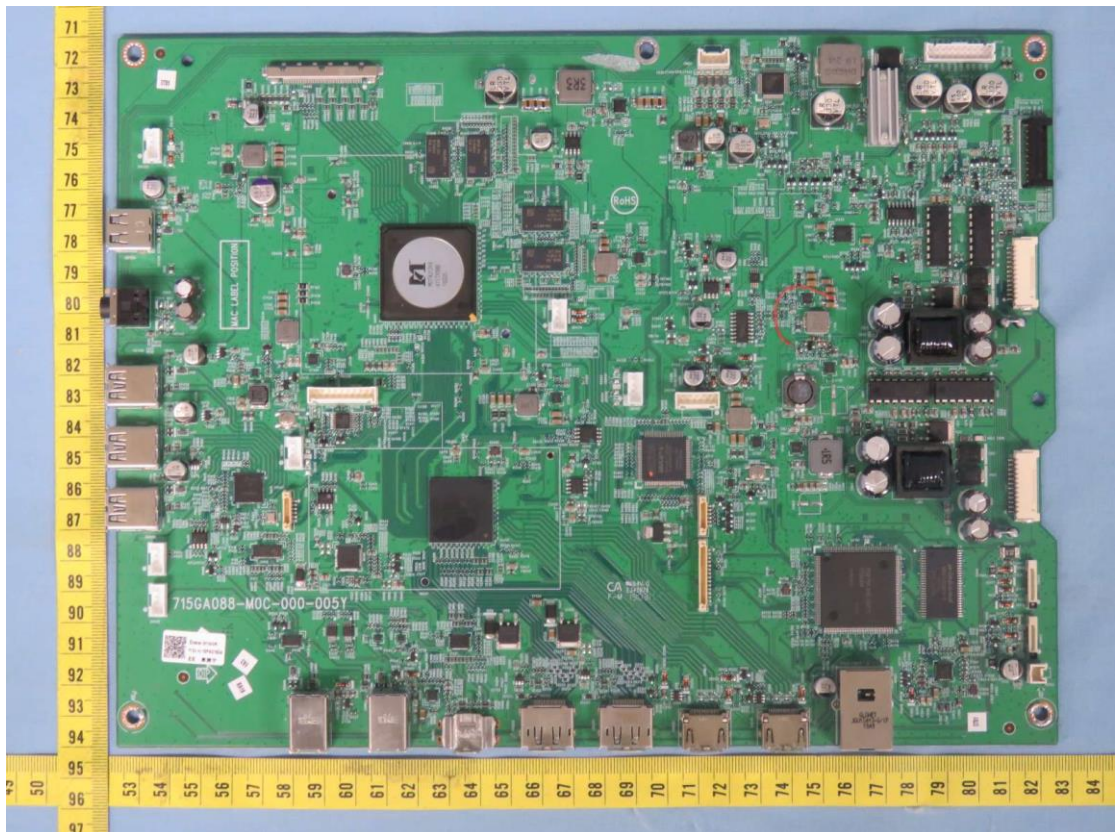
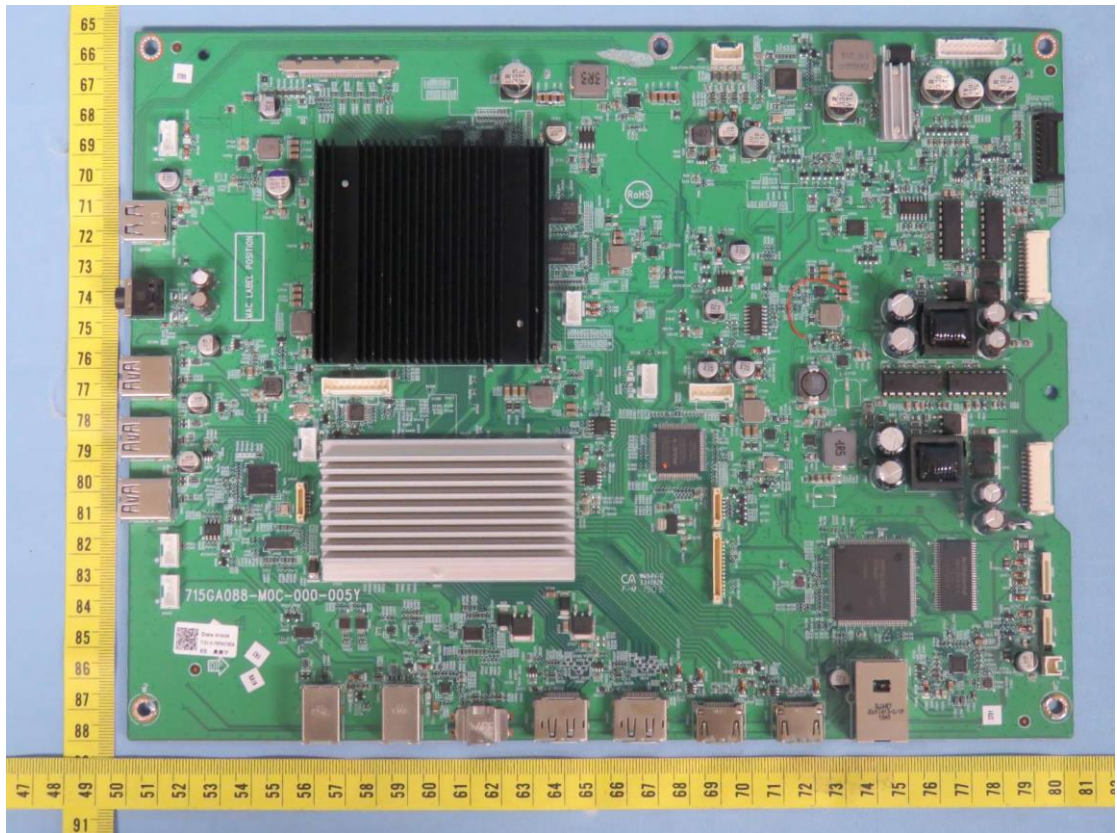
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Type Designation: PA311D-BK



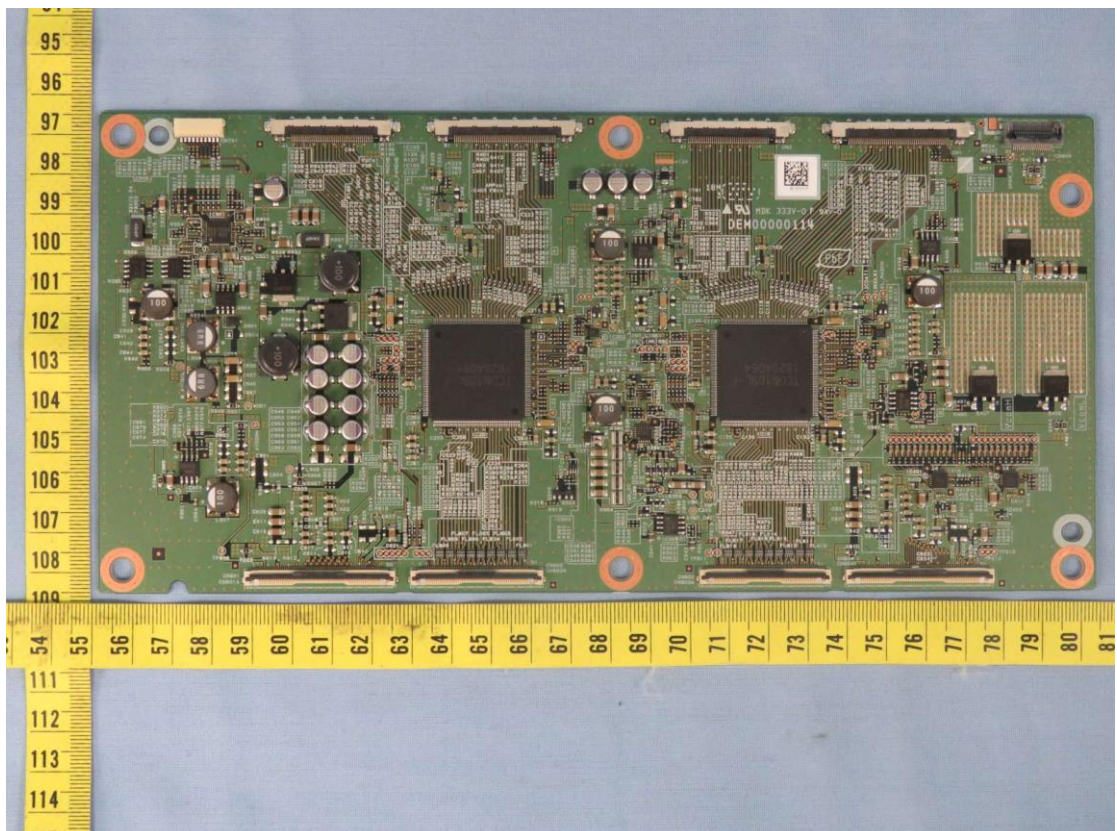
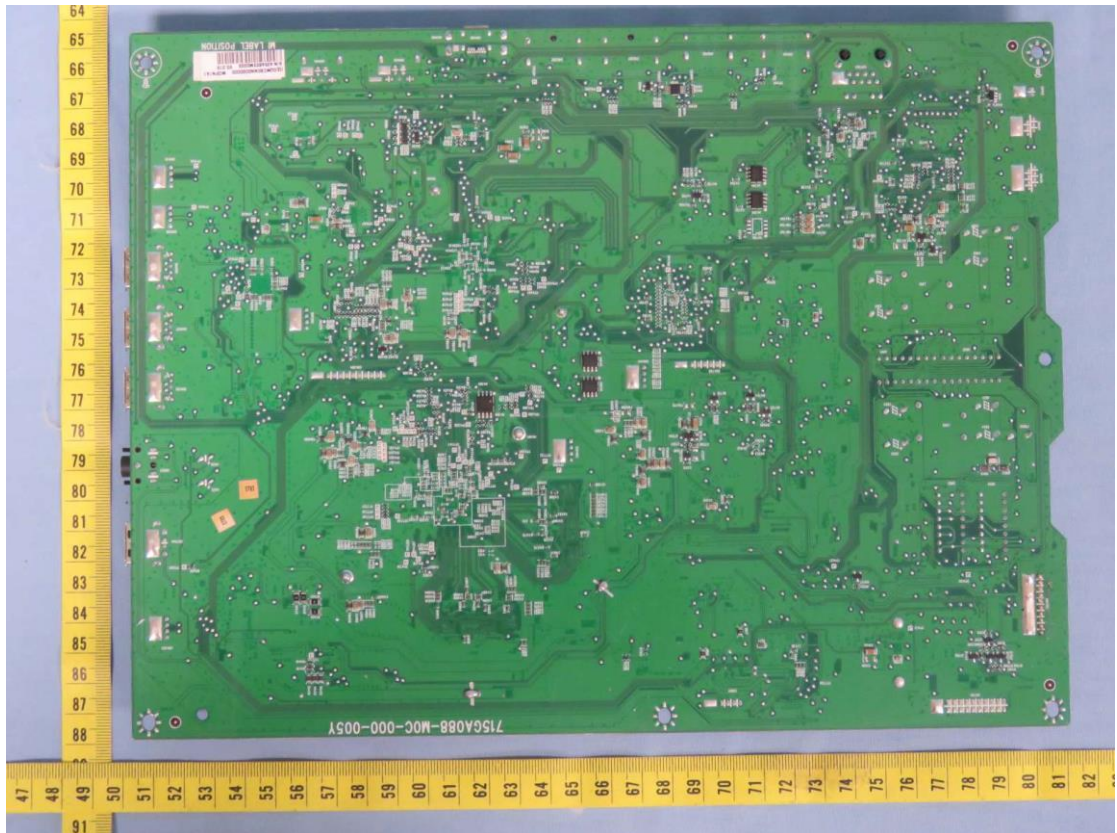
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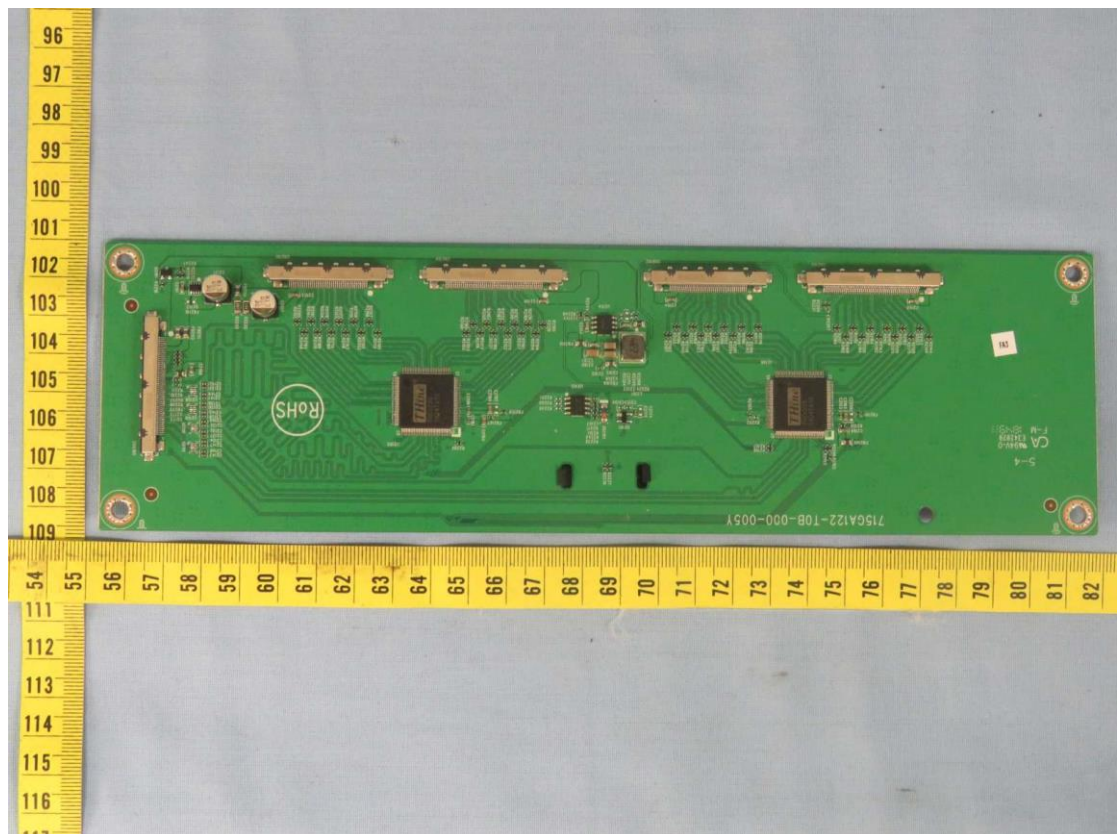
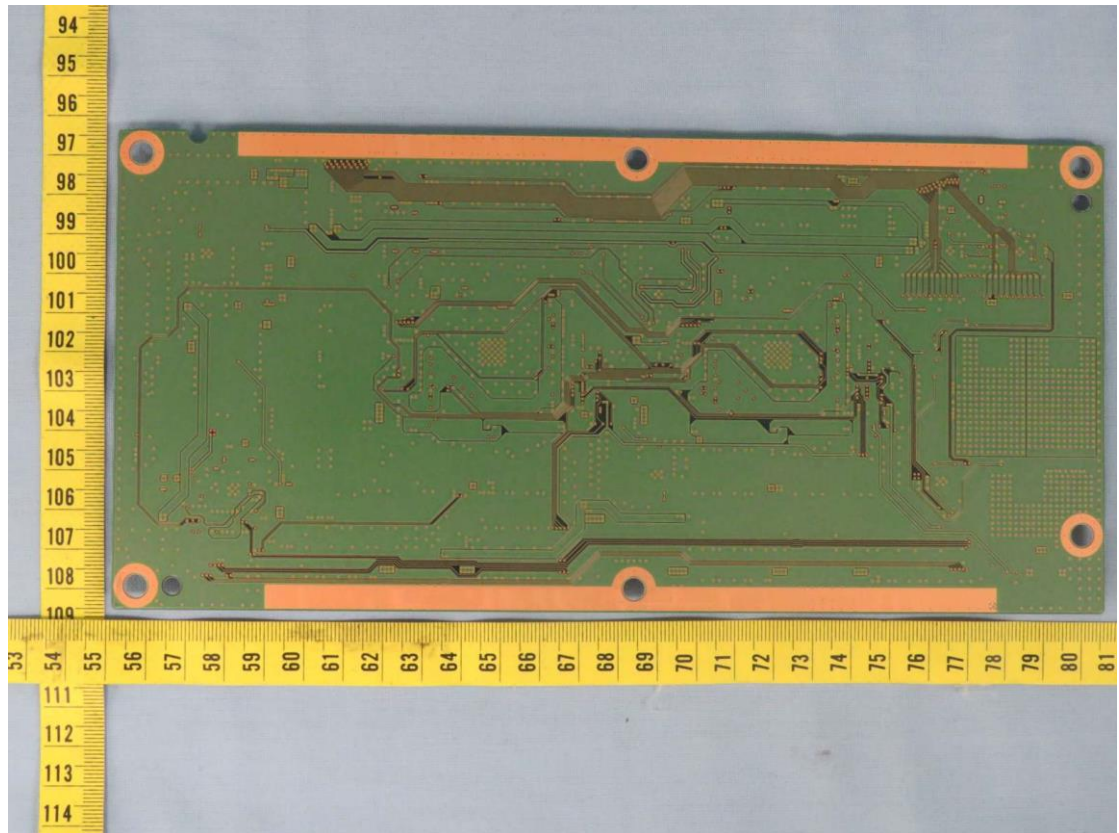
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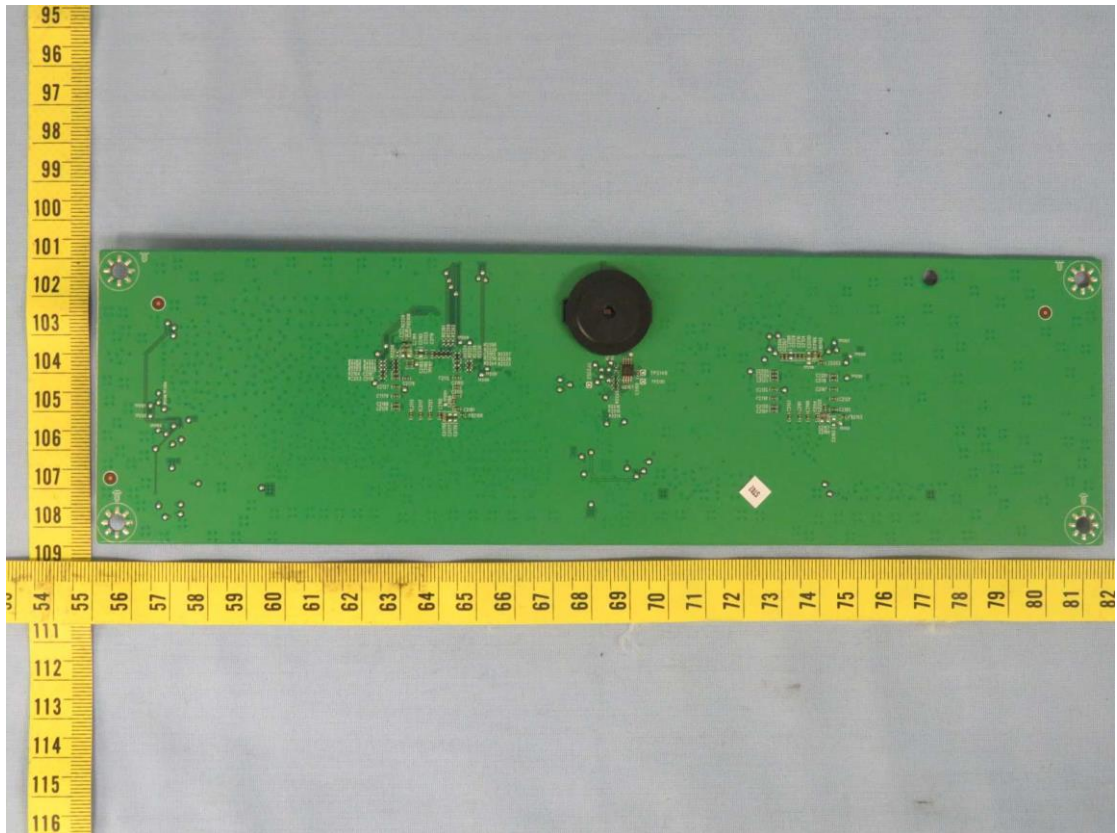
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