

**IECEE**

TM

Ref. Certif. No.

JPTUV-115248

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

Product

LCD Monitor

Name and address of the applicant

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

Name and address of the manufacturer

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

Name and address of the factory

See additional page(s)

Ratings and principal characteristics

AC 100-240V; 50/60Hz; 1) 3.3-1.4A, 2) 2.8-1.2A, 3) 3.2-1.3A,
4) 2.7-1.1A; Class I

Trademark (if any)

NEC

Customer's Testing Facility (CTF) Stage used

N/A

Model / Type Ref.

1) P555, 2) MA551, 3) P495, 4) MA491

Additional information (if necessary may
also be reported on page 2)

For model differences, refer to the test report.

A sample of the product was tested and
found to be in conformity withIEC 62368-1:2014
See Test Report for National DifferencesAs shown in the Test Report Ref. No. which
forms part of this Certificate

60399407 001

This CB Test Certificate is issued by the National Certification Body

**TÜVRheinland®**TÜV Rheinland Japan Ltd.
Global Technology Assessment Center
4-25-2 Kita-Yamata, Tsuzuki-ku
Yokohama 224-0021, Japan
Phone + 81 45 914-3888
Fax + 81 45 914-3354
Mail: info@jpn.tuv.com
Web : www.tuv.com

Date: 2020-10-22

Signature:

Dipl.-Ing. F. Stoelzel

1. TPV Display Technology (Wuhan)
Co., Ltd.
Unique No. 11, Zhuankou Development
District of Economic Technological
Development Zone, 430056 Wuhan City, P.R. China
2. TPV Electronics (Fujian) Co., Ltd.
Shangzheng, Yuan Hong Road
Fuqing City
Fujian
P.R. China
3. L&T Display Technology (Fujian) Ltd.
Optoelectronic Park, Rongqiao
Economic and Technological
Development Zone
Fuqing, 350301 Fujian, P.R. China
4. TPV Electronics (Fujian) Co., Ltd.
Rongqiao Economic and
Technological Development Zone
Fuqing City
Fujian, P.R. China
5. 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
6. TPV Display Technology (China) Co., Ltd.
No. 106 Jinghai 3 Rd.,
BDA
100176 Beijing
P.R. China
7. 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

Additional information (if necessary)

Report Ref. No. : 60399407 001

Date: 2020-10-22

Signature:



Dipl.-Ing. F. Stoelzel

8. TPV Technology (Qingdao)
Co., Ltd.
No.99 Huoju Road, High-tech
Industrial Development Zone
Qingdao City, Shandong, P.R. China
9. Envision Indústria de Produtos
Eletrônicos Ltda.
Av. Torquato Tapajós, 2236,
Flores - CEP 69058-830 - Manaus/AM
Brazil
10. Pro Concept Manufacturer Co., Ltd
88/1 Moo 12, Soi
Phetkasem 120, Phetkasem
Road, Omnoi, Krathumbaen,
Samutsakhon 74130, Thailand
11. TPV Technology (Thailand) Co., Ltd.
No.267 Mu7,
Tha Tum Sub- District, Si Maha Pho District,
Prachin Buri Province
Thailand
12. GeneTouch Corp.
No. 9 Neixi Rd.,
Luzhu Dist., Taoyuan City 33852
Taiwan
13. TPV Electronics (Fujian) Co., Ltd.
Optoelectronic Park,
Rongqiao Economic and
Technological Development Zone,
Fuqing City, 350301 Fujian, P.R. China
14. Treeview Co., Ltd.
106/29 Moo 8,
Sukhumvit Road, T.Banglamung,
A.Banglamung, Chonburi 20150
Thailand

Additional information (if necessary)

Report Ref. No. : 60399407 001

Date: 2020-10-22

Signature:



Dipl.-Ing. F. Stoelzel



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 : 60399407 001

Date of issue : Oct, 20, 2020

Total number of pages : 128

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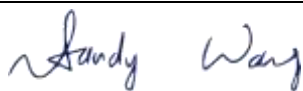
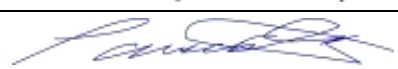
If this Test Report Form is used by non-IECEE members, the IECEE/IEC logo and the reference to the CB Scheme procedure shall be removed.

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.

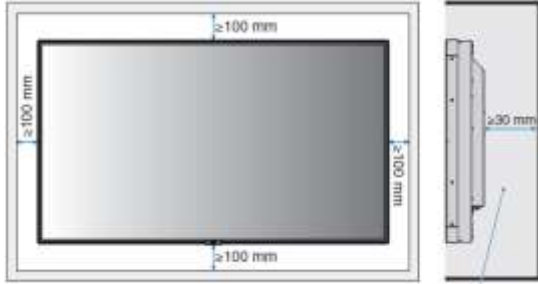
This report shall not be reproduced, except in full, without the written approval of the Issuing CB Testing Laboratory. The authenticity of this Test Report and its contents can be verified by contacting the NCB, responsible for this Test Report.

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	1) P555, 2) MA551, 3) P495, 4) MA491	
Ratings	100-240V~, 50/60Hz, 1) 3.3-1.4A, 2) 2.8-1.2A, 3) 3.2-1.3A, 4) 2.7-1.1A	
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)...	Lawrence Chang / 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 (17 pages) - National Differences (38 pages) - ATTACHMENT (included working voltage and Transformer specifications, page 113 to page 128) 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, refer to appended table B.2.6: 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 main board: 5V/2A for USB 2.0 x1, 5V/0.5A for USB 2.0 x1, 3.3V/0.5A for Display x3 (provided two load when Display mode), connected to internet via RJ45 port and transmission data. Without SDM card and compute module: dummy load of main board: For SDM card (CN509) provided 12.0V/ 5.5A. (by client required) With SDM card: dummy load of SDM card: 5V/ 0.9A for USB 3.0 port x2. With SDM card and compute module: dummy load of SDM card: 5V/ 0.9A for USB 3.0 port x2. dummy load of compute module: 5V/ 0.5A for USB 2.0 port x2. • The test samples are pre-production without serial number. • The equipment provided wall mounting function and complied with loading test mentioned at sub-clause 8.7. (Assessment for tipping at 30 angles forward) • The equipment has been evaluated according to the specified by the manufacturer maximum operating altitude of 5000m (correction factor for clearances according to IEC 60664-1:2007 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	Testing location: Unless otherwise indicated, all tests were performed at the location stated in "Testing procedure and testing location".

the consideration of Measurement Uncertainty.

- During the heating tests, all openings are blocked system fans locked and SDM card fan locked.
- Heating test performed in wooden box as illustrate below:



Summary of compliance with National Differences:

List of countries addressed:

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):

EU Group Differences, EU Special National Conditions, AU, DK, JP, NZ, US, IT.

Explanation of used codes: AU=Australia, DK=Denmark, JP=Japan, NZ=New Zealand, US=United States of America, IT=Italy.

☒ **The product fulfils the requirements of EN 62368-1:2014+A11:2017.**

For National Differences see corresponding Attachment.

Copy of marking plate:

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

NEC MultiSync P555

LCD MONITOR
ЖК-МОНИТОР
液晶显示器 彩色显示器
모니터 (55인치 LCD 모니터)
(MODEL / Модель / 型号 / 型號 / 모델명: P555)

VOLTS Rating: 輸入電圧 輸入電壓: 100-240V~,
AMPERES Rating: 電流 電流: 3.3-1.1A
FREQUENCY: 周波数 工作頻率: 50/60Hz

CAUTION: TO PREVENT ELECTRIC SHOCK, DO NOT REMOVE THE ENCLOSURE.
NO USER-SERVICEABLE PARTS INSIDE.

ATTENTION: AFIN DE PREVENIR DE TOUT CHOC ELECTRIQUE, NE PAS OUVRIRE CE COFFRET.
AUCUNE PIECE INTERIEURE NE PEUT-ETRE CHANGE PAR L'UTILISATEUR.

ACHTUNG: ZUR TRENNUNG VOM NETZ IST DER NETZSTECKER AUS DER STECKDOSE ZU ZIEHEN.
GERÄT NICHT ÖFFNEN, ES SIND KEINE DURCH DEN BENUTZER AUSWECHSELBAREN TEILE IM GERÄT VORHANDEN.

PRECAUCIÓN: PARA PREVENIR DESCARGA ELÉCTRICA, NO QUITÉ EL RECINTO.
NINGUNAS PIEZAS DEL USUARIO SERVICABLE ADENTRO.

VAROITUS: ÄLTTÄ ON LIIETÄVÄ SUOJAOSKOKETTILLA VARUSTETTUUN PESTORAABAN.
VARNING: APPARATEN SKALL ANSLUTAS TILL JORDAT UTTAG.

ADVARSEL: APPARATET MÅ TILKOPLES JORDET STROKONTAKT.

ADVARSEL: APPARATETS STROKOP SKAL TILSLUTES I STROKONTAKT
MED JORD SOM GIVER FORBØJDELSE TIL STROKOPPENS JORD.

△注意: 請勿打開殼蓋, 小心高壓電壓, 機內並無用戶配件。
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사용상 주의사항: 강전압 위험 및 제품적 손상이 발생할 수 있으므로 제품의 케이블을 잘 관리하십시오.
인용 서비스 센터 전화 번호: 080-022-4155 (호성TX주식회사)
* 본 라벨과 전파인증은 국내 규정 내에서 적용된 특색으로만 사용되어야 합니다.

CAN ICES-3(B) / NMB-3(B)

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES.
OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS:
(1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND
(2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED,
INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRABLE OPERATION.

For Japan only

警告

高圧注意
サービス・ユーザの安全のため、
電源・接地端子に直接触れず、
必ず電源プラグを抜いてから
本体を開けてください。

電圧注意
電源・接地端子に直接触れず、
必ず電源プラグを抜いてから
本体を開けてください。

仕様: 100V-240V
消費電流: 3.3A
周波数: 50/60Hz

PS

IP30

UL LISTED E135889 US L.T.E. 1K81

SAFETY MARK

CE ENEC R33037 RoHS

HDMI

Brand contact:
NEC Display Solutions, Ltd.
NECディスプレイソリューションズ株式会社
東京都港区三田一丁目4番28号
日本橋区東馬場三丁目一丁目4番28号
4-28, Mitai 1-chome, Minato-ku, Tokyo, Japan

Сделано в Китае
MADE IN CHINA 中国製造 中國製造
生産廠: 福建建寧電子有限公司
生产厂: 福建建寧電子有限公司
北平地区: 福建建寧電子有限公司
изготовитель / 製造: TPV Electronics (Fujian) Co., Ltd.

NEC MultiSync P555

LCD MONITOR
ЖК-МОНИТОР
液晶显示器 彩色显示器
모니터 (55인치 LCD 모니터)
(MODEL / Модель / 型号 / 型號 / 모델명: P555)

VOLTS Rating: 輸入電圧 輸入電壓: 100-240V~,
AMPERES Rating: 電流 電流: 3.3-1.1A
FREQUENCY: 周波数 工作頻率: 50/60Hz

CAUTION: TO PREVENT ELECTRIC SHOCK, DO NOT REMOVE THE ENCLOSURE.
NO USER-SERVICEABLE PARTS INSIDE.

ATTENTION: AFIN DE PREVENIR DE TOUT CHOC ELECTRIQUE, NE PAS OUVRIRE CE COFFRET.
AUCUNE PIECE INTERIEURE NE PEUT-ETRE CHANGE PAR L'UTILISATEUR.

ACHTUNG: ZUR TRENNUNG VOM NETZ IST DER NETZSTECKER AUS DER STECKDOSE ZU ZIEHEN.
GERÄT NICHT ÖFFNEN, ES SIND KEINE DURCH DEN BENUTZER AUSWECHSELBAREN TEILE IM GERÄT VORHANDEN.

PRECAUCIÓN: PARA PREVENIR DESCARGA ELÉCTRICA, NO QUITÉ EL RECINTO.
NINGUNAS PIEZAS DEL USUARIO SERVICABLE ADENTRO.

VAROITUS: ÄLTTÄ ON LIIETÄVÄ SUOJAOSKOKETTILLA VARUSTETTUUN PESTORAABAN.
VARNING: APPARATEN SKALL ANSLUTAS TILL JORDAT UTTAG.

ADVARSEL: APPARATET MÅ TILKOPLES JORDET STROKONTAKT.

ADVARSEL: APPARATETS STROKOP SKAL TILSLUTES I STROKONTAKT
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CAN ICES-3(B) / NMB-3(B)

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電圧注意
電源・接地端子に直接触れず、
必ず電源プラグを抜いてから
本体を開けてください。

仕様: 100V-240V
消費電流: 3.3A
周波数: 50/60Hz

PS

IP30

UL LISTED E135889 US L.T.E. 1K81

SAFETY MARK

CE ENEC R33037 RoHS

HDMI

Brand contact:
NEC Display Solutions, Ltd.
NECディスプレイソリューションズ株式会社
東京都港区三田一丁目4番28号
日本橋区東馬場三丁目一丁目4番28号
4-28, Mitai 1-chome, Minato-ku, Tokyo, Japan

Сделано в Китае
MADE IN CHINA 中国製造 中國製造
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生产厂: 福建建寧電子有限公司
北平地区: 福建建寧電子有限公司
изготовитель / 製造: TPV Electronics (Fujian) Co., Ltd.

NEC MultiSync MA551

LCD MONITOR
ЖК-МОНИТОР
液晶显示器 彩色显示器
모니터 (55인치 LCD 모니터)
(MODEL / Модель / 型号 / 型號 / 모델명: MA551)

VOLTS Rating: 輸入電圧 輸入電壓: 100-240V~,
AMPERES Rating: 電流 電流: 3.3-1.2A
FREQUENCY: 周波数 工作頻率: 50/60Hz

CAUTION: TO PREVENT ELECTRIC SHOCK, DO NOT REMOVE THE ENCLOSURE.
NO USER-SERVICEABLE PARTS INSIDE.

ATTENTION: AFIN DE PREVENIR DE TOUT CHOC ELECTRIQUE, NE PAS OUVRIRE CE COFFRET.
AUCUNE PIECE INTERIEURE NE PEUT-ETRE CHANGE PAR L'UTILISATEUR.

ACHTUNG: ZUR TRENNUNG VOM NETZ IST DER NETZSTECKER AUS DER STECKDOSE ZU ZIEHEN.
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ADVARSEL: APPARATET MÅ TILKOPLES JORDET STROKONTAKT.

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인용 서비스 센터 전화 번호: 080-022-4155 (호성TX주식회사)
* 본 라벨과 전파인증은 국내 규정 내에서 적용된 특색으로만 사용되어야 합니다.

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電圧注意
電源・接地端子に直接触れず、
必ず電源プラグを抜いてから
本体を開けてください。

仕様: 100V-240V
消費電流: 3.3A
周波数: 50/60Hz

PS

IP30

UL LISTED E135889 US L.T.E. 1K81

SAFETY MARK

CE ENEC R33037 RoHS

HDMI

Brand contact:
NEC Display Solutions, Ltd.
NECディスプレイソリューションズ株式会社
東京都港区三田一丁目4番28号
日本橋区東馬場三丁目一丁目4番28号
4-28, Mitai 1-chome, Minato-ku, Tokyo, Japan

Сделано в Китае
MADE IN CHINA 中国製造 中國製造
生産廠: 福建建寧電子有限公司
生产厂: 福建建寧電子有限公司
北平地区: 福建建寧電子有限公司
изготовитель / 製造: TPV Electronics (Fujian) Co., Ltd.

NEC MultiSync MA551

LCD MONITOR
ЖК-МОНИТОР
液晶显示器 彩色显示器
모니터 (55인치 LCD 모니터)
(MODEL / Модель / 型号 / 型號 / 모델명: MA551)

VOLTS Rating: 輸入電圧 輸入電壓: 100-240V~,
AMPERES Rating: 電流 電流: 3.3-1.2A
FREQUENCY: 周波数 工作頻率: 50/60Hz

CAUTION: TO PREVENT ELECTRIC SHOCK, DO NOT REMOVE THE ENCLOSURE.
NO USER-SERVICEABLE PARTS INSIDE.

ATTENTION: AFIN DE PREVENIR DE TOUT CHOC ELECTRIQUE, NE PAS OUVRIRE CE COFFRET.
AUCUNE PIECE INTERIEURE NE PEUT-ETRE CHANGE PAR L'UTILISATEUR.

ACHTUNG: ZUR TRENNUNG VOM NETZ IST DER NETZSTECKER AUS DER STECKDOSE ZU ZIEHEN.
GERÄT NICHT ÖFFNEN, ES SIND KEINE DURCH DEN BENUTZER AUSWECHSELBAREN TEILE IM GERÄT VORHANDEN.

PRECAUCIÓN: PARA PREVENIR DESCARGA ELÉCTRICA, NO QUITÉ EL RECINTO.
NINGUNAS PIEZAS DEL USUARIO SERVICABLE ADENTRO.

VAROITUS: ÄLTTÄ ON LIIETÄVÄ SUOJAOSKOKETTILLA VARUSTETTUUN PESTORAABAN.
VARNING: APPARATEN SKALL ANSLUTAS TILL JORDAT UTTAG.

ADVARSEL: APPARATET MÅ TILKOPLES JORDET STROKONTAKT.

ADVARSEL: APPARATETS STROKOP SKAL TILSLUTES I STROKONTAKT
MED JORD SOM GIVER FORBØJDELSE TIL STROKOPPENS JORD.

△注意: 請勿打開殼蓋, 小心高壓電壓, 機內並無用戶配件。
△注意: 請勿打開殼蓋, 小心高壓電壓, 機內並無用戶配件。

△警告: 使用時應注意電壓。
△警告: 使用時應注意電壓。

사용상 주의사항: 강전압 위험 및 제품적 손상이 발생할 수 있으므로 제품의 케이블을 잘 관리하십시오.
인용 서비스 센터 전화 번호: 080-022-4155 (호성TX주식회사)
* 본 라벨과 전파인증은 국내 규정 내에서 적용된 특색으로만 사용되어야 합니다.

CAN ICES-3(B) / NMB-3(B)

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES.
OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS:
(1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND
(2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED,
INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRABLE OPERATION.

For Japan only

警告

高圧注意
서비스・ユーザ의 안전을 위하여,
전원·접지 단자에 직접 접촉하지
않고, 반드시 전원 플러그를
빼고 본체를 열어주세요.

전압 주의
전원·접지 단자에 직접 접촉하지
않고, 반드시 전원 플러그를
빼고 본체를 열어주세요.

규격: 100V-240V
소비전력: 3.3A
주파수: 50/60Hz

PS

IP30

UL LISTED E135889 US L.T.E. 1K81

SAFETY MARK

CE ENEC R33037 RoHS

HDMI

Brand contact:
NEC Display Solutions, Ltd.
NECディスプレイソリューションズ株式会社
東京都港区三田一丁目4番28号
日本橋区東馬場三丁目一丁目4番28号
4-28, Mitai 1-chome, Minato-ku, Tokyo, Japan

Сделано в Китае
MADE IN CHINA 中国製造 中國製造
生産廠: 福建建寧電子有限公司
生产厂: 福建建寧電子有限公司
北平地区: 福建建寧電子有限公司
изготовитель / 製造: TPV Electronics (Fujian) Co., Ltd.

[illegible][illegible][illegible][illegible]

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 (8A for Equipment)
Equipment mobility.....:	☐ movable ☐ hand-held ☐ transportable ☒ stationary ☒ for building-in manufacture (when installed within a wooden box which provided by the 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	☒ IP30
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)	☒ Max. 27.18kg (P555, MA551) Max. 22.70kg (P495, MA491) (without base stand, SDM card, compute module and external speaker) Max. 1.88kg (Base stand) Max. 0.23kg (SDM card) Max. 0.86kg (External speaker: SP-TF1) Max. 0.10kg (compute module)
POSSIBLE TEST CASE VERDICTS:	
- test case does not apply to the test object	N/A
- test object does meet the requirement	P (Pass)
- test object does not meet the requirement	F (Fail)
TESTING:	
Date of receipt of test item	2020-08-18
Date (s) of performance of tests	2020-09-07 to 2020-09-27
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 IEC 60335-1:	
The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided	☒ Yes ☐ Not applicable
When differences exist; they shall be identified in the General product information section.	

Name and of factory (ies)	1) TPV Display Technology (Wuhan) Co., Ltd. Unique No. 11, Zhuankou Development District of Economic Technological Development Zone, 430056 Wuhan City, P.R. China 2) TPV Electronics (Fujian) Co., Ltd. Shangzheng, Yuan Hong Road Fuqing City Fujian P.R. China 3) L&T Display Technology (Fujian) Ltd. Optoelectronic Park, Rongqiao Economic and Technological Development Zone Fuqing, 350301 Fujian, P.R. China 4) TPV Electronics (Fujian) Co., Ltd. Rongqiao Economic and Technological Development Zone Fuqing City Fujian, P.R. China 5) 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 6) TPV Display Technology (China) Co., Ltd. No. 106 Jinghai 3 Rd., BDA 100176 Beijing P.R. China 7) 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 8) TPV Technology (Qingdao) Co., Ltd. No.99 Huoju Road, High-tech Industrial Development Zone Qingdao City, Shandong, P.R. China 9) Envision Indústria de Produtos Eletrônicos Ltda. Av. Torquato Tapajós, 2236, Flores – CEP 69058- 830 - Manaus/AM Brazil 10) Pro Concept Manufacturer Co., Ltd 88/1 Moo 12, Soi Phetkasem 120, Phetkasem Road, Omnoi, Krathumbaen, Samutsakhon 74130, Thailand 11) Treeview Co., Ltd. 106/29 Moo 8, Sukhumvit Road, T.Banglamung, A.Banglamung, Chonburi 20150 Thailand 12) TPV Technology (Thailand) Co., Ltd. No.267 Mu7, Tha Tum Sub- District, Si Maha Pho District, Prachin Buri Province Thailand 13) GeneTouch Corp. No. 9 Neixi Rd., Luzhu Dist., Taoyuan City 33852 Taiwan 14) TPV Electronics (Fujian) Co., Ltd. Optoelectronic Park, Rongqiao Economic and Technological Development Zone, Fuqing City, 350301 Fujian, P.R. China
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GENERAL PRODUCT INFORMATION:**Product Description –**

The equipment models which shown as page 2 are LCD Monitor intended for information technology equipment scope of this standard use.

The equipment consists of the following critical components:

- LCD panel (LED backlight type)
- Building-in type non-approved switching power supply board
- Main board (Speaker terminal x1, Audio OUT x1, LAN x2, Remote IN x1, Display x3, HDMI x3, USB 2.0 x2, USB type B x1 and RS-232C)
- Key control board (secondary circuit)
- IR board (secondary circuit)
- Metal enclosure for rear and front side
- Metal cover for AC inlet and I/O port
- Plastic cover for IR board and Key control board
- Base stand (optional)
- System DC fan x3 (optional)
- SDM card (with USB 3.0 x2, RJ45 x1) (optional)
- External speaker : SP-TF1 (optional)
- compute module (optional) (USB 2.0 port x2, micro USB x1)

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

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

AC Inlet to Primary connector wire (L/N) use style 1617.

Switching Power Supply board type 715GB062

All sources of L9901, L9902 are similar to each other except for type designation and manufacturer.

All sources of L9801, L9802 are similar to each other except for type designation and manufacturer.

All sources of T9302 are similar to each other except for type designation and manufacturer.

All sources of T9102 are similar to each other except for type designation and manufacturer.

Model Differences

Model name	P555	MA551	P495	MA491
Metal Enclosure	Type A		Type B	
Panel	LD550Eqx		LD490*****	
Rating	100-240V~, 50/60Hz, 3.3-1.4A	100-240V~, 50/60Hz, 2.8-1.2A	100-240V~, 50/60Hz, 3.2-1.3A	100-240V~, 50/60Hz, 2.7-1.1A
Mylar sheet (between power board component side and metal enclosure)	Type A (430x355mm)		Type B (430x361mm)	

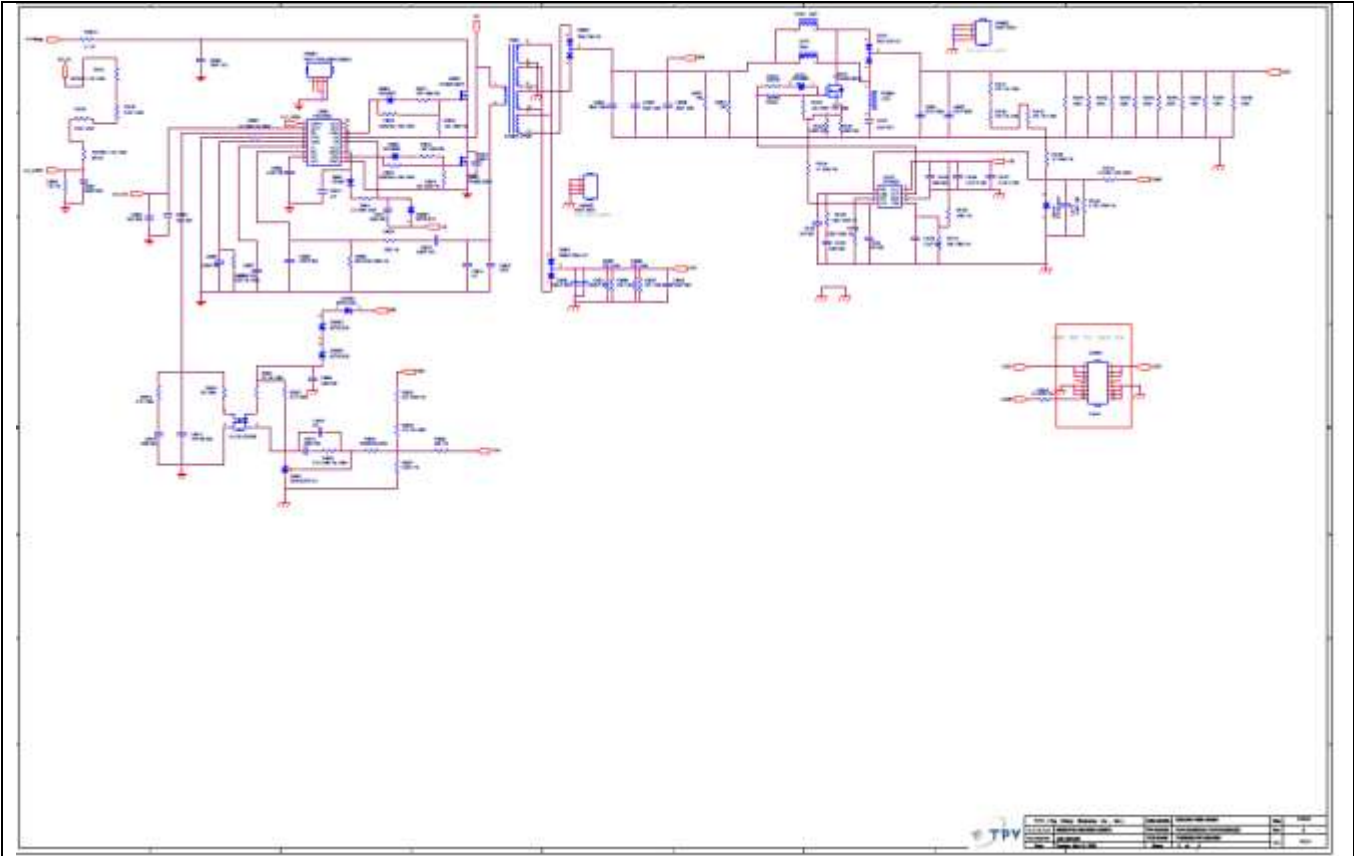
Additional application considerations – (Considerations used to test a component or sub-assembly) –
N/A

ENERGY SOURCE IDENTIFICATION AND CLASSIFICATION TABLE:	
(Note 1: Identify the following six (6) energy source forms based on the origin of the energy.) (Note 2: The identified classification e.g., ES2, TS1, should be with respect to its ability to cause pain or injury on the body or its ability to ignite a combustible material. Any energy source can be declared Class 3 as a worse case classification e.g. PS3, ES3.	
Electrically-caused injury (Clause 5): (Note: Identify type of source, list sub-assembly or circuit designation and corresponding energy source classification) Example: +5 V dc input ES1	
Source of electrical energy	Corresponding classification (ES)
All power board circuit except for output	ES3
X capacitor connected between L and N	ES3
All outputs of power board	ES1
Local dimming board output circuit	ES1
Output connectors of Main board	ES1
SDM card	ES1
External accessible part	ES1
Compute module	ES1
Electrically-caused fire (Clause 6): (Note: List sub-assembly or circuit designation and corresponding energy source classification) Example: Battery pack (maximum 85 watts): PS2	
Source of power or PIS	Corresponding classification (PS)
All circuit within fire enclosure except for Key control board and IR board	PS3
Key control board and IR board	PS2
Mainboard circuit	PS3
Output connector	PS2
Power board output	PS3
SDM card	PS2
Internal speaker	PS2
Compute module	PS2
Injury caused by hazardous substances (Clause 7) (Note: Specify hazardous chemicals, whether produces ozone or other chemical construction not addressed as part of the component evaluation.) Example: Liquid in filled component Glycol	
Source of hazardous substances	Corresponding chemical
RTC battery	See Annex M
Mechanically-caused injury (Clause 8) (Note: List moving part(s), fan, special installations, etc. & corresponding MS classification based on Table 35.) Example: Wall mount unit MS2	
Source of kinetic/mechanical energy	Corresponding classification (MS)
Sharp edges and corners	MS1

ENERGY SOURCE IDENTIFICATION AND CLASSIFICATION TABLE:	
Equipment mass	MS3
Wall mount	MS3
DC Fan at Monitor	MS3
DC fan at SDM card	MS1
Thermal burn injury (Clause 9) (Note: Identify the surface or support, and corresponding energy source classification based on type of part, location, operating temperature and contact time in Table 38.) Example: Hand-held scanner – thermoplastic enclosure TS1	
Source of thermal energy	Corresponding classification (TS)
All accessible parts	TS1
Internal parts	TS3
SDM card, compute card and accessible parts	TS1
Radiation (Clause 10) (Note: List the types of radiation present in the product and the corresponding energy source classification.) Example: DVD – Class 1 Laser Product RS1	
Type of radiation	Corresponding classification (RS)
Photocoupler	RS1
Panel	RS1
Indicating Light	RS1

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

TPV (The Video Electronics Co., Ltd.)
 100W Class D Audio Amplifier
 Rev. A



■ 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 Enclosure see 5.4.2, 5.4.3, 5.5.3, 5.5.4 and 5.5.2.2
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
Ordinary	ES1: SDM card and compute card	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, 6.4.6 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
SDM card and compute card	PS2: < 100 Watt circuit (Secondary circuits)	Equipment safeguard	N/A	N/A
7.1	Injury caused by hazardous substances			
Body Part (e.g., skilled)	Energy Source (hazardous material)	Safeguards		
		Basic	Supplementary	Reinforced

Ordinary	RTC battery	N/A	N/A	N/A
8.1	Mechanically-caused injury			
Body Part (e.g. Ordinary)	Energy Source (MS3: High Pressure Lamp)	Safeguards		
		Basic	Supplementary	Reinforced (Enclosure)
Ordinary	MS1: Sharp edges and corners	N/A	N/A	N/A
Ordinary	MS3: Equipment mass – mass >25 kg	see sub-clause 8.6	N/A	N/A
Ordinary	MS3: Wall mount	N/A	N/A	see sub-clause 8.7
Ordinary	MS3: DC fan at Monitor	N/A	N/A	Enclosure
Ordinary	MS1: DC fan at SDM card	N/A	N/A	N/A
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
Ordinary	TS3: Internal parts	N/A	N/A	Enclosure
Ordinary	TS1: SDM card, compute card and accessible parts	N/A	N/A	N/A
10.1	Radiation			
Body Part (e.g., Ordinary)	Energy Source (Output from audio port)	Safeguards		
		Basic	Supplementary	Reinforced
Ordinary	RS1: Indicating lights	N/A	N/A	N/A
Ordinary	RS1: Panel	N/A	N/A	N/A
Ordinary	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	RTC battery provided.	P
4.8.2	Instructional safeguard	Provided on user's manual	P
4.8.3	Battery Compartment Construction		P
	Means to reduce the possibility of children removing the battery		—
4.8.4	Battery Compartment Mechanical Tests.....	Complied.	P
4.8.5	Battery Accessibility	Complied.	P
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
	b) Electric strength test potential (V)		N/A

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
	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	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 appended table 5.4.2.2)	P
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
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.	—

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
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	Certified optocouplers used.	P
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		P
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
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

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
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		N/A
5.5.7.2	Use of an SPD between mains and protective earth	See sub-clause 5.6.7 and Annex G.8.	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		
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	Green/Yellow wire used.	P

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Clause	Requirement + Test	Result - Remark	Verdict
5.6.3	Requirement for protective earthing conductors	Appliance inlet used.	N/A
	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
5.7.2.2	Measurement of prospective touch voltage		N/A
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)	1 mA/1 mArms	—
	Instructional Safeguard		N/A
5.7.6	Prospective touch voltage and touch current due to external circuits		N/A
5.7.6.1	Touch current from coaxial cables		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
5.7.6.2	Prospective touch voltage and touch current from external circuits		N/A
5.7.7	Summation of touch currents from external circuits		N/A
	a) Equipment with earthed external circuits Measured current (mA)		N/A
	b) Equipment whose external circuits are not referenced to earth. Measured current (mA)		N/A

6	ELECTRICALLY- CAUSED FIRE		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		N/A
6.2.2.3	Power measurement for worst-case power source fault.....		N/A
6.2.2.4	PS1		N/A
6.2.2.5	PS2		N/A
6.2.2.6	PS3	Building-power board circuit were considered to be PS3.	P
6.2.3	Classification of potential ignition sources	See the following details.	P
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 metal 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

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Clause	Requirement + Test	Result - Remark	Verdict
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. - <u>DC fan</u>: complying with G.5.4. (See appended tables 4.1.2 and Annex G)	P
6.4.6	Control of fire spread in PS3 circuit	In addition 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

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Clause	Requirement + Test	Result - Remark	Verdict
6.4.8.3.2	Fire barrier dimensions		N/A
6.4.8.3.3	Top Openings in Fire Enclosure: dimensions (mm)	For Both four model names, All openings are provide as below. Ø 2.4mm max.	P
	Needle Flame test		N/A
6.4.8.3.4	Bottom Openings in Fire Enclosure, condition met a), b) and/or c) dimensions (mm)	No openings on the bottom side.	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, FT-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

7	INJURY CAUSED BY HAZARDOUS SUBSTANCES		P
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	See Annex M	P

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Clause	Requirement + Test	Result - Remark	Verdict
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	DC fan cannot be accessible.	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
8.5.5.2	High Pressure Lamp Explosion Test		N/A
8.6	Stability	See the following details. With skid proof pad and remove skid proof pad to test.	P
8.6.1	Product classification	Classified as 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

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Clause	Requirement + Test	Result - Remark	Verdict
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)	Move through any angle after being titled 15 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 8.5mm 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 for model name P555, MA551:28.37 kg and for model name P495, MA491: 23.89kg (unit without base stand) for six directions also including push/pull force. Test 3: Metal screw (Ø5.85 mm) for attachment of the mounting means. Each threaded part subjected to 2.5 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	52.7kg applied for model name P555, MA551 50.4kg applied for model name P495, MA491	P
8.9	Wheels or casters attachment requirements		N/A
8.9.1	Classification		N/A
8.9.2	Applied force		—
8.10	Carts, stands and similar carriers		N/A
8.10.1	General		N/A
8.10.2	Marking and instructions		N/A
	Instructional Safeguard.....		—
8.10.3	Cart, stand or carrier loading test and compliance		N/A
	Applied force		—

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Clause	Requirement + Test	Result - Remark	Verdict
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 :		—
	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

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Clause	Requirement + Test	Result - Remark	Verdict
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		—
	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

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Clause	Requirement + Test	Result - Remark	Verdict
	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)	P
B.3	Simulated abnormal operating conditions		P
B.3.1	General requirements	(See appended table B.3)	P
B.3.2	Covering of ventilation openings	(See appended table B.3)	P
B.3.3	D.C. mains polarity test		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
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		P
B.4.3.1	Motor blocked or rotor locked increasing the internal ambient temperature		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
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:	See annex M	P
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
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	—

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Clause	Requirement + Test	Result - Remark	Verdict
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. -  (IEC 60417-5008) for "OFF" of the switch.	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		—
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

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Clause	Requirement + Test	Result - Remark	Verdict
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 : F901, T8AL/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		P
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 IP30.	—
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
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

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Clause	Requirement + Test	Result - Remark	Verdict
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
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		P
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

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Clause	Requirement + Test	Result - Remark	Verdict
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	Considered.	P
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 are provided for all windings of transformer (T9302) 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
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.	—

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Clause	Requirement + Test	Result - Remark	Verdict
	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		P
G.5.4.1	General requirements	Approved fan used in monitor and SDM card.	P
	Position		—
G.5.4.2	Test conditions		N/A
G.5.4.3	Running overload test		N/A
G.5.4.4	Locked-rotor overload test		N/A
	Test duration (days)		—
G.5.4.5	Running overload test for d.c. motors in secondary circuits		N/A
G.5.4.5.2	Tested in the unit		N/A
	Electric strength test (V).....		—
G.5.4.5.3	Tested on the Bench - Alternative test method; test time (h)		N/A
	Electric strength test (V).....		—
G.5.4.6	Locked-rotor overload test for d.c. motors in secondary circuits		N/A
G.5.4.6.2	Tested in the unit		N/A
	Maximum Temperature		N/A
	Electric strength test (V)		N/A
G.5.4.6.3	Tested on the bench - Alternative test method; test time (h)		N/A
	Electric strength test (V).....		N/A
G.5.4.7	Motors with capacitors		N/A
G.5.4.8	Three-phase motors		N/A
G.5.4.9	Series motors		N/A
	Operating voltage		—
G.6	Wire Insulation		P
G.6.1	General	See G.5 for insulation in wound component.	P

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Clause	Requirement + Test	Result - Remark	Verdict
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
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.	Approved IC used.	P
G.9.1 b)	Limiters do not have manual operator or reset	Electronic type.	P

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Clause	Requirement + Test	Result - Remark	Verdict
G.9.1 c)	Supply source does not exceed 250 VA	< 250VA	—
G.9.1 d)	IC limiter output current (max. 5A)	4.0A for power Distribution Switch (U6) for JUSB1 for SDM card	—
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+A1:2016 (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
	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 V_{ini}	See above.	—
	Routine test voltage, $V_{ini,b}$	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

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Clause	Requirement + Test	Result - Remark	Verdict
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) <i>Certified component used.</i>		P
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 :		N/A
C1)	Application of ac voltage at 110% of rated voltage for 2.5 minutes		N/A
C2)	Test voltage :		—
D1)	10,000 cycles on and off using capacitor with smallest capacitance resistor with largest resistance specified by manufacturer		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
D2)	Capacitance		—
D3)	Resistance		—
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	Ringling signal		N/A
H.3.1.1	Frequency (Hz)		—
H.3.1.2	Voltage (V)		—
H.3.1.3	Cadence; time (s) and voltage (V)		—
H.3.1.4	Single fault current (mA):		—
H.3.2	Tripping device and monitoring voltage		N/A
H.3.2.1	Conditions for use of a tripping device or a monitoring voltage complied with		N/A
H.3.2.2	Tripping device		N/A
H.3.2.3	Monitoring voltage (V)		—
J	INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION		P
	General requirements	Complied.	P
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
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

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Clause	Requirement + Test	Result - Remark	Verdict
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		P
M.1	General requirements	- Two consumer grade AAA type batteries used in remote control	P
M.2	Safety of batteries and their cells		N/A
M.2.1	Requirements		N/A
M.2.2	Compliance and test method (identify method) .. :		N/A
M.3	Protection circuits		N/A
M.3.1	Requirements		N/A
M.3.2	Tests	Test for RTC battery on SDM card.	P
	- Overcharging of a rechargeable battery	See appended table annex M for details.	P
	- Unintentional charging of a non-rechargeable battery	Not possible for unintentional charging.	N/A
	- Reverse charging of a rechargeable battery		N/A
	- Excessive discharging rate for any battery		N/A
M.3.3	Compliance		N/A
M.4	Additional safeguards for equipment containing secondary lithium battery		N/A
M.4.1	General		N/A
M.4.2	Charging safeguards		N/A
M.4.2.1	Charging operating limits		N/A
M.4.2.2a)	Charging voltage, current and temperature		—
M.4.2.2 b)	Single faults in charging circuitry		—
M.4.3	Fire Enclosure		N/A

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

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Clause	Requirement + Test	Result - Remark	Verdict
M.10	Instructions to prevent reasonably foreseeable misuse (Determination of compliance: inspection, data review; or abnormal testing)	Warning sentence provided on the manual.	P
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		N/A
P.2.3.1	Safeguards against the entry of a foreign object		N/A
	Openings in transportable equipment		N/A
	Transportable equipment with metalized plastic parts		N/A
P.2.3.2	Openings in transportable equipment in relation to metallized parts of a barrier or enclosure (identification of supplementary safeguard)		N/A
P.3	Safeguards against spillage of internal liquids	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, mylar sheet, wire buckle and internal wire. Adhesive test, material: see table 4.1.2.	P
	Tc (°C).....	Insulation tape for internal wire, mylar sheet, wire buckle: 100 (100+0=100) (for metal enclosure)	—
	Tr (°C)	100± 2°C (for metal enclosure)	—
	Ta (°C)	88.1°C (Reference Mylar sheet temp.)	—
P.4.2 b)	Abrasion testing		N/A
P.4.2 c)	Mechanical strength testing	Complied with 4.4.4.	P

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Clause	Requirement + Test	Result - Remark	Verdict
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
	- 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

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Clause	Requirement + Test	Result - Remark	Verdict
S.3	Flammability test for the bottom of a fire enclosure		N/A
	Samples, material		—
	Wall thickness (mm).....		—
	Cheesecloth did not ignite		N/A
S.4	Flammability classification of materials		N/A
S.5	Flammability test for fire enclosures and fire barrier materials of equipment where the steady state power does not exceed 4 000 W		N/A
	Samples, material		—
	Wall thickness (mm).....		—
	Conditioning (test condition), (°C).....		—
	Test flame according to IEC 60695-11-20 with conditions as set out		N/A
	After every test specimen was not consumed completely		N/A
	After fifth flame application, flame extinguished within 1 min		N/A
T	MECHANICAL STRENGTH TESTS		P
T.1	General requirements	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
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

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Clause	Requirement + Test	Result - Remark	Verdict
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
LCD Panel (for P555, MA551)	LG Display	LD550Eqx ('q' can be Q to G denoting for resolution, `x' can be E, F, R, G, H or S denoting for Control Board option)	Control Board: 12.0 V d.c., Max. 2.25 A	IEC 62368- 1:2018; UL/CSA 62368-1	CB by TUV SUD (SG PSB-IV- 02184) UL
LCD Panel (for P495, MA491)	LG Display	LD490***** (* can be 0-9, a- z, A-Z, /, \, +, -, • or blank)	48.50" TFT type, with LED backlight.	--	--
System DC Fan (three provide) (optional)	SUNONWEALTH ELECTRIC MACHINE INDUSTRY CO LTD	MF60101V1-1	12Vdc, max. 125mA, 16.3 CFM.	EN 60950-1 : 2006+A11+A1+A 12+A2; IEC 60950- 1:2005+A1+A2; UL507 Edition Number 10	TUV, UL
-alt.	SUNONWEALTH ELECTRIC MACHINE INDUSTRY CO LTD	MB60101V1	12Vdc, max. 138mA,16.0 CFM	EN 60950-1 : 2006+A11+A1+A 12+A2; IEC 60950- 1:2005+A1+A2; UL507 Edition Number 10	TUV, UL
AC Inlet	Solteam	ST-01	10A, 250Vac, 15A, 250Vac.	IEC/EN 60320- 1:2015, UL 498 Edition Number 16	UL, VDE, ENEC
-alt.	Zhang Jia Gang- Hua Jie	SA-4S	10A, 250Vac, 15A, 250Vac.	IEC/EN 60320- 1:2015, UL 498 Edition Number 16	UL, VDE
-alt.	Rong Feng	SS-120, SS-7B	10A, 250Vac, 15A, 250Vac.	IEC/EN 60320- 1:2015, UL 498 Edition Number 16	UL, VDE

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Clause	Requirement + Test		Result - Remark		Verdict
-alt.	Shenzhen Delikang / Douling	CDJ-3, CDJ-3-1	10A, 250Vac.	IEC/EN 60320-1:2015, UL 498 Edition Number 16	UL, VDE
-alt.	Inalways	0707-1, 0711-2	10A, 250Vac, 15A, 250Vac.	IEC/EN 60320-1:2015, UL 498 Edition Number 16	UL, N
-alt.	Inalways	0714	10A, 250Vac,	IEC/EN 60320-1:2015, UL 498 Edition Number 16	UL, VDE
-alt.	TECX	TU-301 series	10A, 250Vac, 15A, 250Vac.	IEC/EN 60320-1:2015, UL 498 Edition Number 16	UL, VDE
-alt.	Yueqing Hongchang	DB-14	10A/250Vac, 15A, 250Vac.	IEC/EN 60320-1:2015, UL 498 Edition Number 16	UL, VDE
-alt.	Solteam	SC04	10A/250Vac, UL: 10A / 250Vac, 12A / 250Vac.	IEC/EN 60320-1:2015, UL 498 Edition Number 16	UL, VDE
-alt.	Zhang Jia Gang-Hua Jie	SA-4D	10A, 250Vac, 15A, 250Vac.	IEC/EN 60320-1:2015, UL 498 Edition Number 16	UL, TUV
Power Switch	CHILY	3024 series	16(4)A, 250Vac 15A, 125/250Vac, 8A, 277Vac.	IEC/EN 61058-1:2002+A2:2008, UL 61058-1 Edition Number 5	ENEC, UL
-alt.	Solteam Electronics Co Ltd	MR-21 series	10A, 250Vac.	IEC/EN 61058-1:2002+A2:2008, UL 61058-1 Edition Number 5	ENEC, UL
-alt.	Solteam Electronics Co Ltd	MR-21S	ENEC: 6A, 250V. UL: 10A, 125/250Vac.	IEC/EN 61058-1:2002+A2:2008, UL 61058-1 Edition Number 5	ENEC, UL

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
-alt.	Solteam Electronics Co Ltd	MR-22 series	ENEC: 12(4)A, 250V. UL: 12A, 125/250Vac, 8A, 125/250Vac.	IEC/EN 61058-1:2002+A2:2008, UL 61058-1 Edition Number 5	ENEC, UL
-alt.	Solteam Electronics Co Ltd	OR-L, OR-P	6A, 250Vac, 10A, 125Vac.	IEC/EN 61058-1:2002+A2:2008, UL 61058-1 Edition Number 5	ENEC, UL
-alt.	Zhangjiagang Huajie	PS8-338	8A, 250Vac, 12(4), 250Vac.	IEC/EN 61058-1:2002+A2:2008, UL 61058-1 Edition Number 5	TUV, UL
-alt.	CHILY	3024	16(8)A, 250Vac, 8A, 250Vac, 5A, 125Vac.	IEC/EN 61058-1:2002+A2:2008, UL 61058-1 Edition Number 5	ENEC, UL
-alt.	Hongchang	RS and RT series	10A,125Vac, 6A, 250Vac.	IEC/EN 61058-1:2002+A2:2008, UL 61058-1 Edition Number 5	ENEC, UL
Mylar sheet (near power board HS8602, between power board trace side and panel chassis, between power board component side and metal chassis) (type A and B)	CHENGDU KANGLONGXIN PLASTICS CO LTD	KLX FRPC-1860B, KLX FRPC-1870B	V-0, Thick min. 0.4mm, min. 80 degree C.	UL 94 Edition Number 6	UL
-alt.	SUZHOU OMay OPTICAL MATERIAL CO LTD	SE42B, SE42B-F	V-0, Thick min. 0.4mm, min. 80 degree C.	UL 94 Edition Number 6	UL
-alt.	SICHUAN DONGFANG INSULATING MATERIAL CO LTD	DFR117, DFR117ECO, DFR117ECOB, DFR117ECOC	V-0, Thick min. 0.4mm, min. 80 degree C.	UL 94 Edition Number 6	UL
-alt.	Sichuan Dongfang Insulating Material Co., Ltd.	DFR700, DFR700F	V-0, Thick min. 0.4mm, min. 80 degree C.	UL 94 Edition Number 6	UL

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
-alt.	KUNSHAN DOBESTY OPTOELECTRONIC MATERIALS CO LTD	PC9821B, PC9832B, PC9842B, DB98HD, DB98	V-0 or VTM-0, Thick min. 0.4mm, min. 80 degree C.	UL 94	UL
-Adhesive	3M CHINA CO LTD	55236@\$	80°C.	UL 510A Edition Number 1	UL
-alt.	TESA SE	68646	80°C.	UL 510A Edition Number 1	UL
-alt.	Symbio Inc	DS50-A	100°C.	UL 510A Edition Number 1	UL
-alt.	NITTO DENKO CORP	GA606	80°C.	UL 510A Edition Number 1	UL
-alt.	3M CHINA CO LTD	9448A	80°C.	UL 510A Edition Number 1	UL
Tape for internal wire	JIANGSU YONGJIA ELECTRONIC MATERIAL CO LTD	YJC-810H(B)-2	For securing secondary internal wirings. Overall measured minimum 50 by 18 mm.	UL 510A Edition Number 2	UL
-Alt.	TAE HWA INDUSTRIAL CO LTD	6701	For securing secondary internal wirings. Overall measured minimum 50 by 18 mm.	UL 510A Edition Number 2	UL
-Alt.	DUCK SUNG HITECH CO LTD	231	105 degree C min. For securing secondary internal wirings. Overall measured minimum 50 by 18 mm.	UL 510A Edition Number 2	UL
-Alt.	GUANGDONG NEW ERA NEW MATERIALS TECHNOLOGY CO.,LTD	FGB-0011-200PP1	80 degree C min. For securing secondary internal wirings. Overall measured minimum 50 by 18 mm.	UL 510A Edition Number 2	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 50 by 18 mm.	UL 510A Edition Number 2	UL
-Alt.	IDEAL TAPE CO INC	IT-720 (b)	130 degree C min. For securing secondary internal wirings. Overall measured minimum 50 by 18 mm.	UL 510A Edition Number 2	UL
Metal Enclosure and (type A and type B) Metal Cover	Interchangeable	Interchangeable	SGCC, thickness 0.6mm min.	--	--
Internal fire barrier on top of main board	LG CHEM LTD	LUPOY GN5001RF(T), LUPOY GN- 5001RF(T), LUPOY GN5001TF(#), LUPOY GN- 5001TF(#), LUPOY GN- 5008HF(#), AF342(#), AF312T1,	Min. V-1.	UL 94 Edition Number 6	UL

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
-alt.	LOTTE CHEMICAL CORPORATION	VH-0810(+), VE-1890(+), VE-1890(+), VE-0812(+), VE-0819F, EN-1052(+), VH-0815(+), VH-819(+), HM-1100(+), NH-1017(p), NH-1000T(+)(&), NE-1030(+), LS-1159(r), LS-1159F, LS-1159SF, GC-1017	Min. V-1.	UL 94 Edition Number 6	UL
-alt.	GRAND PACIFIC PETROCHEMICAL CORP	D-1000A	Min. V-1.	UL 94 Edition Number 6	UL
-alt.	KINGFA SCI & TECH CO LTD	HF-606, HF-626, FRABS-518, JH960 6(M), FRHIPS-960	Min. V-1.	UL 94 Edition Number 6	UL
-alt.	TEIJIN CHEMICALS PLASTIC COMPOUNDS SHANGHAI LTD	MN-3600H(#), TN-7500(c), TN-7500F(#), TN-7500M(#)	Min. V-1.	UL 94 Edition Number 6	UL
-alt.	SAMYANG CORPORATION	210NHF(@), 210NHF	Min. V-1.	UL 94 Edition Number 6	UL
-alt.	CHI MEI CORPORATION	PC-540(Y)(a)	Min. V-1.	UL 94 Edition Number 6	UL
-alt.	GUO HENG(DONGGUAN) PLASTIC TECHNOLOGY CO LTD	YOUHE26(##)	Min. V-1.	UL 94 Edition Number 6	UL
Power cord set listed below by client's request					
Mains cord set (Saudi Arabia) (Optional)					

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
Plug	I-Sheng	SP-62	3A/5A/10A/13A, 250V~	BS 1363 SASO 2203:2018	CVC
-alt.	I-Sheng	SP-65	3A/5A/10A, 250V~	BS 1363 SASO 2203:2018	CVC
Cable	I-Sheng	H05VV-F	3 x 0.75mm ² 3 x 1.0mm ² 3 x 1.5mm ²	BS 1363 SASO 2203:2018	CVC
-alt.	I-Sheng	H05RR-F	3 x 0.75mm ²	BS 1363 SASO 2203:2018	CVC
-alt.	I-Sheng	H03VV-F	3 x 0.75mm ²	BS 1363 SASO 2203:2018	CVC
Switching Power Supply board type 715GB062					
Primary connector (CN901)	Pontronics	3962 –Y2-X2 series (Y2=WR, WS, X2=2-14)	7A, 250Vac.	IEC 61984:2008, EN 61984:2009, UL 1977 Edition Number 16	TUV
-alt.	Jowle	A3963 series	7A, 250Vac.	IEC 61984:2008, EN 61984:2009, UL 1977 Edition Number 16	TUV, UL
-alt.	J.S.T	VH series	7A, 250Vac.	IEC 61984:2008, EN 61984:2009, UL 1977 Edition Number 16	TUV, UL
-alt.	J.S.T	VT series	Max. 12A, 250Vac.	IEC 61984:2008, EN 61984:2009, UL 1977 Edition Number 16	TUV, UL
-alt.	Xinya	TÜV: M3962 series UL: 3962 series	7A, 250Vac.	IEC 61984:2008, EN 61984:2009, UL 1977 Edition Number 16	TUV NORD, UL
-alt.	Xinya	W7913 series	7A, 250Vac.	IEC 61984:2008, EN 61984:2009, UL 1977 Edition Number 16	TUV NORD, UL

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
Fuse (F901)	Walter	TSC series	T8A, 250Vac.	IEC/EN 60127-1:2006+A1:2011+A2:2015, IEC/EN 60127-2:2006+A1:2011+A2:2015, UL 248-1 Edition Number 3, UL 248-14 Edition Number 2	VDE, UL
-alt.	LITTELFUSE	215 series	T8A, 250Vac.	IEC/EN 60127-1:2006+A1:2011+A2:2015, IEC/EN 60127-2:2006+A1:2011+A2:2015, UL 248-1 Edition Number 3, UL 248-14 Edition Number 2	VDE, UL
-alt.	Conquer	UDA, UDA-A+	T8A, 250Vac.	IEC/EN 60127-1:2006+A1:2011+A2:2015, IEC/EN 60127-2:2006+A1:2011+A2:2015, UL 248-1 Edition Number 3, UL 248-14 Edition Number 2	VDE, UL
-alt.	Cooper Bussmann	S505-xxx-R, S505-V-xxx-R	T8A, 250Vac.	IEC/EN 60127-1:2006+A1:2011+A2:2015, IEC/EN 60127-2:2006+A1:2011+A2:2015, UL 248-1 Edition Number 3, UL 248-14 Edition Number 2	VDE, UL
Varistor (RV9901, RV9902)	Thinking Electronic Industrial Co., Ltd.	TVR14681	Rated 420Vac, 560Vdc, 40/85/56, 6KV/3KA, pulse test passed V-0 coating.	IEC 61051-1:2007, IEC 61051-2:1991/AMD1:2009, IEC 61051-2:1991, UL 1449 Edition Number 4	VDE, UL

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
-alt.	Centra Science corp.	CNR-14D681K	Rated 420Vac, 560Vdc, 40/85/56, 6KV/3KA, pulse test passed V-0 coating.	IEC 61051-1:2007, IEC 61051-2:1991/AMD1:2009, IEC 61051-2:1991, UL 1449 Edition Number 4	VDE, UL
-alt.	TDK	SIOV-S14KV681	Rated 420Vac, 560Vdc, 40/105/56, 6KV/3KA, pulse test passed V-0 coating.	IEC 61051-1:2007, IEC 61051-2:1991/AMD1:2009, IEC 61051-2:1991, UL 1449 Edition Number 4	VDE, UL
-alt.	TDK	SIOV-SNF14K420	Rated 420Vac, 560Vdc, 40/125/56, 6KV/3KA, pulse test passed V-0 coating.	IEC 61051-1:2007, IEC 61051-2:1991/AMD1:2009, IEC 61051-2:1991, UL 1449 Edition Number 4	VDE, UL
Bridge-Capacitors (C9909, C9910) (Y1 type) (Optional)	Walsin	AH	Max.2200pF, min. 250Vac, min. 85°C.	IEC /EN 60384-14:2013/AMD1:2016, UL 60384-14 Edition Number 2	VDE, FI, UL
-alt.	TDK	CD	Max.2200pF, min. 250Vac, min. 85°C.	IEC /EN 60384-14:2013/AMD1:2016, UL 60384-14 Edition Number 2	VDE, FI, UL
-alt.	Murata	KX	Max.2200pF, min. 250Vac, min. 85°C.	IEC /EN 60384-14:2013/AMD1:2016, UL 60384-14 Edition Number 2	VDE, UL
-alt.	JYA-NAY	JN	Max.2200pF, min. 250Vac, min. 85°C.	IEC /EN 60384-14:2013/AMD1:2016, UL 60384-14 Edition Number 2	VDE, UL

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
-alt.	Kunshan Wansheng	CT7	Max.2200pF, min. 250Vac, min. 85°C.	IEC /EN 60384-14:2013/AMD1:2016, UL 60384-14 Edition Number 2	VDE, UL
-alt.	YINAN DON'S ELECTRONIC COMPONENT CO., LTD.	CT81	Max.2200pF, min. 250Vac, min. 85°C.	IEC /EN 60384-14:2013/AMD1:2016, UL 60384-14 Edition Number 2	VDE, UL
-alt.	SUCCESS	SE, SB	Max. 2200pF, min. 250Vac, min. 85°C.	IEC /EN 60384-14:2013/AMD1:2016, UL 60384-14 Edition Number 2	VDE, UL
-alt.	Interchangeable	Interchangeable	Max. 2200pF, min. 250Vac, min. 85°C.	IEC /EN 60384-14:2013/AMD1:2016, UL 60384-14 Edition Number 2	VDE, UL
Y-Capacitors (C9901, C9902, C9904, C9905, C9907, C9908) (Y1 or Y2 type) (Optional)	Walsin	AH, AC	Max.4700pF, min. 250Vac, min. 85°C.	IEC /EN 60384-14:2013/AMD1:2016, UL 60384-14 Edition Number 2	VDE, FI, UL
-alt.	TDK	CD, CS	Max.4700pF, min. 250Vac, min. 85°C.	IEC /EN 60384-14:2013/AMD1:2016, UL 60384-14 Edition Number 2	VDE, FI, UL
-alt.	Murata	KX, KH	Max.4700pF, min. 250Vac, min. 85°C.	IEC /EN 60384-14:2013/AMD1:2016, UL 60384-14 Edition Number 2	VDE, FI, UL
-alt.	JYA-NAY	JN	Max.4700pF, min. 250Vac, min. 85°C.	IEC /EN 60384-14:2013/AMD1:2016, UL 60384-14 Edition Number 2	VDE, UL

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
-alt.	Kunshan Wansheng	CT7	Max.4700pF, min. 250Vac, min. 85°C.	IEC /EN 60384-14:2013/AMD1:2016, UL 60384-14 Edition Number 2	VDE, UL
-alt.	YINAN DON'S ELECTRONIC COMPONENT CO., LTD.	CT81	Max.4700pF, min. 250Vac, min. 85°C.	IEC /EN 60384-14:2013/AMD1:2016, UL 60384-14 Edition Number 2	VDE, UL
-alt.	SUCCESS	SE	Max. 4700pF, min. 250Vac, min. 85°C.	IEC /EN 60384-14:2013/AMD1:2016, UL 60384-14 Edition Number 2	VDE, UL
-alt.	SUCCESS	SL	Max. 82pF, min. 250Vac, min. 85°C.	IEC /EN 60384-14:2013/AMD1:2016, UL 60384-14 Edition Number 2	VDE, UL
-alt.	Interchangeable	Interchangeable	Max. 4700pF, min. 250Vac, min. 85°C.	IEC / EN 60384-14:2013/AMD1:2016, UL 60384-14 Edition Number 2	VDE, UL
X-Capacitors (C9911, C9903) (X1 or X2 type) (Optional)	Ultra Tech Xiphi Enterprise Co., Ltd.	HQX	Max. 0.33μF, min. 250Vac, min. 85°C.	IEC /EN 60384-14:2013/AMD1:2016, UL 60384-14 Edition Number 2	VDE, FI, UL
-alt.	Hua Jung Components Co., Ltd.	MKP	Max. 0.33μF, min. 250Vac, min. 85°C.	IEC /EN 60384-14:2013/AMD1:2016, UL 60384-14 Edition Number 2	ENEC, FI, UL
-alt.	Europtronic (Taiwan) Industrial Corp.	MPX, MPX2	Max. 0.33μF, min. 250Vac, min. 85°C.	IEC /EN 60384-14:2013/AMD1:2016, UL 60384-14 Edition Number 2	VDE, FI, UL

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
-alt.	Liow Gu Electronics Industry Co., Ltd.	GS-L	Max. 0.33μF, min. 250Vac, min. 85°C.	IEC /EN 60384-14:2013/AMD1:2016, UL 60384-14 Edition Number 2	VDE, FI
-alt.	Kemet	R.46	Max. 0.33μF, min. 250Vac, min. 85°C.	IEC /EN 60384-14:2013/AMD1:2016, UL 60384-14 Edition Number 2	VDE, UL
-alt.	TDK	B3292#	Max. 0.33μF, min. 250Vac, min. 85°C.	IEC /EN 60384-14:2013/AMD1:2016, UL 60384-14 Edition Number 2	VDE, UL
-alt.	NANJING TENGGEN RONG GUANG DA ELECTRONIC SALES CO LTD	MKP	Max. 0.33μF, min. 250Vac, min. 85°C.	IEC /EN 60384-14:2013/AMD1:2016, UL 60384-14 Edition Number 2	VDE, UL
-alt.	FARAD	PXK	Max. 0.33μF, min. 250Vac, min. 85°C.	IEC /EN 60384-14:2013/AMD1:2016, UL 60384-14 Edition Number 2	VDE, UL
-alt.	Interchangeable	Interchangeable	Max. 0.33μF, min. 250Vac, min. 85°C.	IEC /EN 60384-14:2013/AMD1:2016, UL 60384-14 Edition Number 2	VDE,UL
X-Capacitors (C9906) (X1 or X2 type) (Optional)	Ultra Tech Xiphi Enterprise Co., Ltd.	HQX	Max. 0.47μF, min. 250Vac, min. 85°C.	IEC /EN 60384-14:2013/AMD1:2016, UL 60384-14 Edition Number 2	VDE, FI, UL
-alt.	Hua Jung Components Co., Ltd.	MKP	Max. 0.47μF, min. 250Vac, min. 85°C.	IEC /EN 60384-14:2013/AMD1:2016, UL 60384-14 Edition Number 2	ENEC, FI, UL
-alt.	Euoptronic (Taiwan) Industrial Corp.	MPX, MPX2	Max. 0.47μF, min. 250Vac, min. 85°C.	IEC /EN 60384-14:2013/AMD1:2016, UL 60384-14 Edition Number 2	VDE, FI, UL

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
-alt.	Liow Gu Electronics Industry Co., Ltd.	GS-L	Max. 0.47μF min. 250Vac, min. 85°C.	IEC /EN 60384-14:2013/AMD1:2016, UL 60384-14 Edition Number 2	VDE, FI
-alt.	Kemet	R.46	Max. 0.47μF min. 250Vac, min. 85°C.	IEC /EN 60384-14:2013/AMD1:2016, UL 60384-14 Edition Number 2	VDE, UL
-alt.	TDK	B3292#	Max. 0.47μF min. 250Vac, min. 85°C.	IEC /EN 60384-14:2013/AMD1:2016, UL 60384-14 Edition Number 2	VDE, UL
-alt.	NANJING TENGGEN RONG GUANG DA ELECTRONIC SALES CO LTD	MKP	Max. 0.47μF min. 250Vac, min. 85°C.	IEC /EN 60384-14:2013/AMD1:2016, UL 60384-14 Edition Number 2	VDE, UL
-alt.	FARAD	PXK	Max. 0.47μF min. 250Vac, min. 85°C.	IEC /EN 60384-14:2013/AMD1:2016, UL 60384-14 Edition Number 2	VDE, UL
-alt.	Interchangeable	Interchangeable	Max. 0.47μF min. 250Vac, min. 85°C.	IEC /EN 60384-14:2013/AMD1:2016, UL 60384-14 Edition Number 2	VDE,UL
Inductor (L9901, L9902) (Optional)	ASET	73G174-272-X	Min. 130°C.	--	--
-alt.	Dadon / Channelon / HA	73G174-272-H	Min. 130°C.	--	--
Inductor (L9801, L9802) (Optional)	Dadon / Channelon / HA	373G0174450H	Min. 130°C.	--	--
-alt.	LFDJ	373G0174450J	Min. 130°C.	--	--
-alt.	LI TAI	373G0174450L	Min. 130°C.	--	--

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
Discharge IC (U9901)	POWER INTEGRATIONS	CAP200DG	1000V, 100nF - 6μF, 7.5MΩ - 142kΩ.	IEC 60950-1:2005+A1+A2, IEC/EN 62368-1:2014	CB by Nemko (NO82701/A1), CB by UL (DK-70248-UL)
Transformer (T9302)	Dadon / Channelon / HA	380GL32P689H	Class 130, material (B).	Applicable parts of IEC 62368-1 and according to IEC 60085	--
-Bobbin	CHANG CHUN	T200NA	V-0, phenolic, 150°C, min. 0.45 mm thick.	UL 94 Edition Number 6	UL
-Insulation Tape	Jingjiang Yahua Pressure Sensitive Co Ltd	CT	130°C.	UL 510A Edition Number 9	UL
-Triple Insulation Wire	KBI COSMOLINK CO LTD	TIW-M series	130°C.	IEC 62368-1:2014, EN 62368-1 (VDE 0868-1):2016-05; EN 62368-1:2014, UL 2353 Edition Number 3	VDE, UL
Transformer (T9302) (alternate)	LFDJ	380GL32P689J	Class 130, material (B).	Applicable parts of IEC 62368-1 and according to IEC 60085	--
-Bobbin	CHANG CHUN	T200NA	V-0, phenolic, 150°C, min. 0.45 mm thick.	UL 94 Edition Number 6	UL
-Insulation Tape	Jingjiang Yahua Pressure Sensitive Co Ltd	CT	130°C.	UL 510A Edition Number 9	UL
-Triple Insulation Wire	KBI COSMOLINK CO LTD	TIW-M series	130°C.	IEC 62368-1:2014, EN 62368-1 (VDE 0868-1):2016-05; EN 62368-1:2014, UL 2353 Edition Number 3	VDE, UL

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
Transformer (T9302) (alternate)	PHOENIX	380GL32P689P	Class 130, material (B).	Applicable parts of IEC 62368-1 and according to IEC 60085	--
-Bobbin	SUMITOMO BAKELITE CO LTD	PM-9750	V-0, phenolic, 150°C, min. 0.45 mm thick.	UL 94 Edition Number 6	UL
-Insulation Tape	Jingjiang Yahua Pressure Sensitive Co Ltd	CT	130°C.	UL 510A Edition Number 9	UL
-Triple Insulation Wire	SUZHOU YUSHENG ELECTRONIC CO LTD	VDE: TIW-B, UL: TIW-B*	130°C.	IEC 62368- 1:2014, EN 62368-1 (VDE0868- 1) :2016-05; EN 62368-1:2014, UL 2353 Edition Number 3	VDE, UL
Transformer (T8601)	Dadon / Channelon / HA	380GL32P685H	Class 130, material (B)	Applicable parts of IEC 62368-1 and according to IEC 60085	--
-Bobbin	CHANG CHUN	T200HF	V-0, phenolic, 150°C, min. 0.45 mm thick.	UL 94 Edition Number 6	UL
-Insulation Tape	Jingjiang Yahua Pressure Sensitive Co Ltd	CT	130°C.	UL 510A Edition Number 9	UL
Transformer (T8601) Alternate	TAICHANG	380GL32P685S	Class 130, material (B)	Applicable parts of IEC 62368-1 and according to IEC 60085	--
-Bobbin	CHANG CHUN	T200HF	V-0, phenolic, 150°C, min. 0.45 mm thick.	UL 94 Edition Number 6	UL
-Insulation Tape	Jingjiang Yahua Pressure Sensitive Co Ltd	CT	130°C.	UL 510A Edition Number 9	UL
Transformer (T9102)	Dadon / Channelon / HA	380GL32P691H	Class 130, material (B)	Applicable parts of IEC 62368-1 and according to IEC 60085	--

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
-Bobbin	SUMITOMO BAKELITE CO LTD	PM-9750	V-0, phenolic, 150°C, min. 0.45 mm thick.	UL 94 Edition Number 6	UL
-Insulation Tape	Jingjiang Yahua Pressure Sensitive Co Ltd	CT	130°C.	UL 510A Edition Number 9	UL
Transformer (T9102) (alternate)	ASET	380GL32P691X	Class 130, material (B)	Applicable parts of IEC 62368-1 and according to IEC 60085	--
-Bobbin	SUMITOMO BAKELITE CO LTD	PM-9750	V-0, phenolic, 150°C, min. 0.45 mm thick.	UL 94 Edition Number 6	UL
-Insulation Tape	Jingjiang Yahua Pressure Sensitive Co Ltd	CT	130°C.	UL 510A Edition Number 9	UL
Optocoupler (U9302, U9304, U9102, U8602)	Sharp	PC123	Di more than 0.4mm, int = thermal cycling test, ext. more than 8.0mm, 5000Vac, 100°C.	EN 60747-5- 5:2015-11, EN 60747-5-5:2011; A1:2015, IEC/EN 60747-5- 5:2007, IEC 60747-5- 5:2007/AMD1:20 13, UL 1577 Edition Number 5	VDE, UL, Semko, Fimko, Nemko
-alt.	VISHAY INFRARED COMPONENTS INC	TCET1103	Di more than 0.5mm, int. cr more than 6.0mm, ext. cr more than 7.7mm, 3000Vac, 100°C.	EN 60747-5- 5:2015-11, EN 60747-5-5:2011; A1:2015, IEC/EN 60747-5- 5:2007, IEC 60747-5- 5:2007/AMD1:20 13, UL 1577 Edition Number 5	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.	EN 60747-5-5:2015-11, EN 60747-5-5:2011; A1:2015, IEC/EN 60747-5-5:2007, IEC 60747-5-5:2007/AMD1:2013, UL 1577 Edition Number 5	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.	EN 60747-5-5:2015-11, EN 60747-5-5:2011; A1:2015, IEC/EN 60747-5-5:2007, IEC 60747-5-5:2007/AMD1:2013, UL 1577 Edition Number 5	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.	EN 60747-5-5:2015-11, EN 60747-5-5:2011; A1:2015, IEC/EN 60747-5-5:2007, IEC 60747-5-5:2007/AMD1:2013, UL 1577 Edition Number 5	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.	EN 60747-5-5:2015-11, EN 60747-5-5:2011; A1:2015, IEC/EN 60747-5-5:2007, IEC 60747-5-5:2007/AMD1:2013, UL 1577 Edition Number 5	VDE, UL, Nemko, Fimko

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
-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.	EN 60747-5-5:2015-11, EN 60747-5-5:2011; A1:2015, IEC/EN 60747-5-5:2007, IEC 60747-5-5:2007/AMD1:2013, UL 1577 Edition Number 5	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.	EN 60747-5-5:2015-11, EN 60747-5-5:2011; A1:2015, IEC/EN 60747-5-5:2007, IEC 60747-5-5:2007/AMD1:2013, UL 1577 Edition Number 5	VDE, UL, Semko, Fimko, Nemko
Gas tube (SG9901)	Mitsubishi	DA38-362MBy (y=0 to 9 or A to X), DA38-452MTy (y=0 to 9 or A to X)	250Vac, basic Insulation.	IEC/EN 60950-1:2006 cl.1.5, 2.9, 2.10, 5.2 and Annex G, UL 1449 Edition Number 4	TUV, UL
-alt.	MITSUBISHI MATERIALS CORP	FA55-302, FA55-362, FA55-402	250Vac, basic insulation.	IEC/EN 60950-1:2006 cl.1.5, 2.9, 2.10, 5.2 and Annex G, UL 1449 Edition Number 4	TUV, UL
-alt.	SIN NAGATA ELECTRONICS CO LTD	LSE-4500LX2P	250Vac, basic insulation.	UL 1449 Edition Number 4	UL
-alt.	SIN NAGATA ELECTRONICS CO LTD	LSE-402M	220Vac, basic insulation.	UL 1449 Edition Number 4	UL
Relay (SW9901)	HONGFA	HF162F	VDE: 8A/250Vac; UL: 8A/277Vac, 10A/125Vac	EN/IEC 61810-1:2015, UL 508 Edition Number 18	VDE, UL

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
-alt.	Panasonic	LKG1aF-12V	16A, 250Vac.	EN/IEC 61810-1:2015, UL 508 Edition Number 18	TUV, UL
-alt.	Panasonic	LKP1aF-12V	10A, 250Vac.	EN/IEC 61810-1:2015, UL 508 Edition Number 18	TUV, UL
-alt.	Song Chuan	834	10A, 250Vac.	EN/IEC 61810-1:2015, UL 508 Edition Number 18	VDE, UL
-alt.	HONGFA	HF140FF	10A/250Vac.	EN/IEC 61810-1:2015, UL 508 Edition Number 18	TUV, UL
SDM card (optional)					
Power Distribution Switch (U6) for JUSB1	Excelliance MOS Corporation	EM5203AJ-20, EM5203AN-20, EM5203J-20, EM5203N-20	2.5 to 5.5 Vdc, maximum Continuous Current 2.0 A, Protective Current 4.0 A	UL2367, Ed.1; IEC/EN 60950-1:2005 + A1:2009 + A2:2013	UL, CB by UL (issued by US-26371-UL)
RTC battery	Maxell Ltd.	CR1632	3V dc, maximum abnormal charging current 4 mA.	UL 1642 Edition Number 5	UL
-alt.	Interchangeable	CR1632	3V dc, maximum abnormal charging current 4 mA.	UL 1642 Edition Number 5	UL
DC fan	Sunonwealth Electric Machine Industry Co., Ltd	MF40060V1-1Z (Z stands for 30 characters. Each character stands for one of the following signs: 0-9, A-Z, (,), ., /, - order (or) freibleibend (blank)	5V dc, max. 0.65W, 6.3 CFM, mass(m) =0.003kg, radius(r) =18.4mm, rotational speed (N) = 7000rpm, K factor =29.861	UL507, Ed. 10; IEC/EN 60950-1:2005 + 1:2009 + A2:2013; UL 60950-1; IEC 62368-1:2014	UL, CB by TUV (issued by TUV Rh R 50275749)

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
-alt.	Interchangeable	Interchangeable	5V dc, max. 0.65W, 6.3 CFM, K factor =29.861	UL507, Ed. 10; IEC/EN 60950-1:2005 + 1:2009 + A2:2013; UL 60950-1; IEC 62368-1:2014	UL
Functional					
Metal Enclosure and Metal Cover	Interchangeable	Interchangeable	SGCC, thickness 0.6mm min.	--	--
Battery for remote controller used (Optional)	Interchangeable	Interchangeable	1.5Vdc, Two AA or AAA consumer type batteries provide.	--	--
Base Stand (optional)	Interchangeable	Interchangeable	SGCC, total weight: 1.88kg.	--	--
External speaker (two provided) (Optional)	Interchangeable	Interchangeable	Each rated 8ohm, max. 40W.	--	--
Speaker terminal plastic part of main board	Interchangeable	Interchangeable	Min. V-1.	UL 94 Edition Number 6	UL
IR board plastic cover and Key control board plastic cover	Interchangeable	Interchangeable	HB or batter.	UL 94 Edition Number 6	UL
PCB	Interchangeable	Interchangeable	V-1 or better Min. 105°C.	UL 796 Edition Number 11	UL
Switching Power Supply board type 715GB062					
Bleeder Resistors (R9901, R9902, R9903, R9904)	Interchangeable	Interchangeable	390KΩ, min. 1/4W. (four provided, located after fuse, SMD type)	--	--
Thermistors (TH9901)	Interchangeable	Interchangeable	Min. 10ohm, min. 5A at 25°C.	--	--
Transistors (Q9801, Q9802, Q9101, Q9102, Q8602, Q8603)	Interchangeable	Interchangeable	Min. 600V, 9-30A	--	--

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
Bridge Diodes (BD9901, BD9902)	Interchangeable	Interchangeable	Min. 10A, min. 800V.	--	--
Ripple Capacitors (C9814, C9815)	Interchangeable	Interchangeable	150µF, min. 450V, 105°C.	--	--
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	
			10	
4.8.4.4	TABLE: Drop test			—
Impact Area		Drop Distance	Drop No.	Observations
			1	
			2	
			3	
4.8.4.5	TABLE: Impact			—
Impacts per surface		Surface tested	Impact energy (Nm)	Comments

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.)			
4.8.4.6	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	
For power board							
1	264Vac	24Vdc to GND (earth) for all model name	Normal	23.7Vdc	--	--	ES1
			Abnormal - Output short	23.7Vdc	--	--	
			Abnormal - opening block	23.7Vdc	--	--	
			Abnormal - output overload	23.7Vdc	--	--	
			Single fault - Fuse open	0	--	--	
			Single fault - Unit shutdown	0	--	--	
			Single fault - normal	23.7Vdc	--	--	
			Transformer overload	23.7Vdc	--	--	
			Fan lock	23.7Vdc	--	--	

IEC 62368-1							
Clause	Requirement + Test			Result - Remark			Verdict
2	264Vac	VLED to GND (earth) for P555, MA551	Normal	108Vdc	--	--	ES3
			Abnormal - Output short	108Vdc	--	--	
			Abnormal - opening block	108Vdc	--	--	
			Abnormal - output overload	108Vdc			
			Single fault - Fuse open	0	--	--	
			Single fault - Unit shutdown	0	--	--	
			Single fault - normal	108Vdc	--	--	
			Transformer overload	108Vdc	--	--	
			Fan lock	108Vdc	--	--	
3.	264Vac	VLED to GND (earth) for P495, MA491	Normal	103Vdc	--	--	ES3
			Abnormal - Output short	103Vdc	--	--	
			Abnormal - opening block	103Vdc	--	--	
			Abnormal - output overload	103Vdc			
			Single fault - Fuse open	0	--	--	
			Single fault - Unit shutdown	0	--	--	
			Single fault - normal	103Vdc	--	--	
			Transformer overload	103Vdc	--	--	
			Fan lock	103Vdc	--	--	
4.	264Vac	12Vdc to GND (earth) for all model name	Normal	12.1Vdc	--	--	ES1
			Abnormal - Output short	12.1Vdc	--	--	
			Abnormal - opening block	12.1Vdc	--	--	

IEC 62368-1							
Clause	Requirement + Test			Result - Remark			Verdict
			Abnormal - output overload	12.1Vdc	--	--	
			Single fault - Fuse open	0	--	--	
			Single fault - Unit shutdown	0	--	--	
			Single fault - normal	12.1Vdc	--	--	
			Transformer overload	12.1Vdc	--	--	
			Fan lock	12.1Vdc	--	--	
5.	264Vac	5Vdc to GND (earth) for all model name	Normal	5.24Vdc	--	--	ES3
			Abnormal - Output short	5.24Vdc	--	--	
			Abnormal - opening block	5.24Vdc	--	--	
			Abnormal - output overload	5.24Vdc	--	--	
			Single fault - Fuse open	0	--	--	
			Single fault - Unit shutdown	0	--	--	
			Single fault - normal	5.24Vdc	--	--	
			Transformer overload	5.24Vdc	--	--	
			Fan lock	5.24Vdc	--	--	
For main board							
For P555, MA551							
1.	264Vac	CN8606 pin 1, 2, 3, 4, 5, 6, 7, 8 to GND (earth)	Normal	108Vdc	--	--	ES3
			Abnormal - Output short	108Vdc	--	--	
			Abnormal - opening block	108Vdc	--	--	
			Abnormal - output overload	108Vdc			
			Single fault - Fuse open	0	--	--	

IEC 62368-1							
Clause	Requirement + Test			Result - Remark			Verdict
			Single fault - Unit shutdown	0	--	--	
			Single fault - normal	108Vdc	--	--	
			Transformer overload	108Vdc	--	--	
			Fan lock	108Vdc	--	--	
For P495, MA491							
1	264Vac	CN8606 pin 1, 2, 3, 4, 5, 6, 7, 8 to GND (earth) (for P495, MA491)	Normal	103Vdc	--	--	ES3
			Abnormal - Output short	103Vdc	--	--	
			Abnormal - opening block	103Vdc	--	--	
			Abnormal - output overload	103Vdc	--	--	
			Single fault - Fuse open	0	--	--	
			Single fault - Unit shutdown	0	--	--	
			Single fault - normal	103Vdc	--	--	
			Transformer overload	103Vdc	--	--	
5.2.2.3 - Capacitance Limits							
No.	Supply Voltage	Location (e.g. circuit designation)	Test conditions	Parameters		ES Class	
				Capacitance, nF	Upk (V)		
1	264Vac	C9906 / C9911, C9903	Normal	C9911=C9903=0.33 uF, C9906=0.47uF (±20%)	380	ES3	
			Abnormal	--	--		
			Single fault – SC/OC	--	--		
2.	110Vac 60Hz	C9906 / C9911, C9903	Normal	C9911=C9903=0.33 uF, C9906=0.47uF (±20%)	142		
			Abnormal	--	--		
			Single fault – SC/OC	--	--		
5.2.2.4 - Single Pulses							

IEC 62368-1							
Clause	Requirement + Test			Result - Remark			Verdict
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		—
	T _{ma} (°C):	--		—
Maximum measured temperature T of part/at:		T (°C)		Allowed T _{max} (°C)
For P555, MA551				
Test Orientation	Horizontal (without SDM card and compute module)	Vertical (The main board downside) (without SDM card and compute module)	Horizontal (without SDM card and compute module)	--
Supply voltage (V/Hz)	90/60	90/60	110/60	--
CN901 body	49.9	48.8	48.7	60

IEC 62368-1				
Clause	Requirement + Test	Result - Remark		Verdict
AC inlet near L pin	53.1	52.7	52.5	60
RV9901 body	52.7	53.9	53.7	85
PCB near TH9901	50.1	52.5	52.6	105
C9902 body	48.2	53.1	53.2	85
L9901 coil	62.9	68.6	63.6	130
C9906 body	56.1	63.7	60.9	85
L9902 coil	61.9	69.5	64.2	130
PCB near BD9902	67.6	72.5	68.7	105
PCB near BD9901	71.3	71.1	67.8	105
SW9901 body	68.0	66.0	66.1	70
PCB near Q9302	57.6	53.6	53.4	105
U9302 body	62.2	60.4	60.3	100
T9302 core	61.3	58.5	58.3	110
T9302 coil	61.4	59.2	58.8	110
L9802 coil	72.3	66.2	64.8	130
L9801 coil	71.5	68.9	66.4	130
PCB near Q9801	66.7	67.0	64.4	105
PCB near Q9802	69.0	63.8	61.7	105
PCB near Q9101, Q9102	69.5	64.8	64.4	105
C9910 body	67.7	68.6	68.4	85
T9102 core	73.7	70.4	70.1	110
T9102 coil	73.8	71.4	71.5	110
T8601 core	87.3	86.0	85.6	110
T8601 coil	90.6	88.2	88.1	110
Mylar sheet near T8601 (between power board trace side and panel chassis)	66.4	63.5	62.4	80
PCB near D9804, D9802	72.8	70.0	69.3	105
PCB near Q8602, Q8603	68.8	66.9	66.5	105
C9815 body	61.0	62.7	61.8	105
PCB near D8604, D8605	74.1	72.4	72.5	105
L8101 coil	73.8	70.0	70.2	105
PCB near Q8101, D8101	75.4	71.3	71.4	105
PCB near Q9107, Q9108	72.3	70.3	70.0	105

IEC 62368-1				
Clause	Requirement + Test	Result - Remark		Verdict
PCB near D9311, D9815	59.9	61.4	61.6	105
Mylar sheet near T8601 (between power board component side and metal enclosure)	57.8	59.9	60.1	80
PCB near U401 (main board)	65.5	63.5	63.7	105
Ambient (actual temp.)	40.0(23.2)	40.0(22.2)	40.0(21.9)	--
Panel body	34.0	35.6	32.2	77
Button body	31.0	33.1	33.2	77
Metal enclosure outside near T8601	40.1	33.9	34.0	60
Ambient (actual temp.)	25.0(23.2)	25.0(22.2)	25.0(21.9)	--
Switch body	26.7	28.9	29.1	77
Ambient (actual temp.)	25.0(22.2)	25.0(21.7)	25.0(21.6)	--
Test Orientation	Horizontal (without SDM card and compute module)	--	--	--
Supply voltage (V/Hz)	264/60	--	--	--
CN901 body	47.4	--	--	60
AC inlet near L pin	50.8	--	--	60
RV9901 body	51.4	--	--	85
PCB near TH9901	50.4	--	--	105
C9902 body	50.8	--	--	85
L9901 coil	53.7	--	--	130
C9906 body	53.4	--	--	85
L9902 coil	53.1	--	--	130
PCB near BD9902	58.1	--	--	105
PCB near BD9901	58.3	--	--	105
SW9901 body	65.4	--	--	70
PCB near Q9302	53.3	--	--	105
U9302 body	58.1	--	--	100
T9302 core	56.9	--	--	110
T9302 coil	57.6	--	--	110
L9802 coil	58.7	--	--	130
L9801 coil	59.5	--	--	130

IEC 62368-1				
Clause	Requirement + Test	Result - Remark		Verdict
PCB near Q9801	66.4	--	--	105
PCB near Q9802	62.2	--	--	105
PCB near Q9101, Q9102	63.4	--	--	105
C9910 body	67.7	--	--	85
T9102 core	69.2	--	--	110
T9102 coil	70.7	--	--	110
T8601 core	85.4	--	--	110
T8601 coil	87.8	--	--	110
Mylar sheet near T8601 (between power board trace side and panel chassis)	62.0	--	--	80
PCB near D9804, D9802	68.5	--	--	105
PCB near Q8602, Q8603	66.1	--	--	105
C9815 body	61.2	--	--	105
PCB near D8604, D8605	71.7	--	--	105
L8101 coil	69.8	--	--	105
PCB near Q8101, D8101	71.1	--	--	105
PCB near Q9107, Q9108	69.2	--	--	105
PCB near D9311, D9815	59.9	--	--	105
Mylar sheet near T8601 (between power board component side and metal enclosure)	59.0	--	--	80
PCB near U401 (main board)	63.7	--	--	105
Ambient (actual temp.)	40.0(21.9)	--	--	--
Panel body	31.2	--	--	77
Button body	33.7	--	--	77
Metal enclosure outside near T8601	34.0	--	--	60
Ambient (actual temp.)	25.0(21.9)	--	--	--
Switch body	28.7	--	--	77
Ambient (actual temp.)	25.0(21.4)	--	--	--
Test Orientation	Horizontal (with SDM card and compute module)	--	--	--
Supply voltage (V/Hz)	90/60	--	--	--

IEC 62368-1				
Clause	Requirement + Test	Result - Remark		Verdict
Test Orientation	Horizontal	--	--	--
PCB near UC1 (SDM card)	55.9	--	--	105
RTC battery body (SDM card)	53.3	--	--	100
PCB near U6 (SDM card)	55.1	--	--	105
Heatsink body (SDM card)	53.0	--	--	--
U1 body (compute module)	95.1	--	--	--
PCB near U1 (compute module)	85.0	--	--	105
PCB near U1004 (compute module)	70.5	--	--	105
PCB near U1016 (compute module)	63.7	--	--	105
C1078 body (compute module)	57.6	--	--	85
L1003 coil (compute module)	72.5	--	--	105
Ambient (actual temp.)	40.0 (22.0)	--	--	--
PCB near UC1 (SDM card)	40.9	--	--	77
RTC battery body (SDM card)	38.3	--	--	60
PCB near U6 (SDM card)	40.1	--	--	77
Heatsink body (SDM card)	38.0	--	--	60
Metal cover near USB 3.0 (JUSB1)	36.0	--	--	60
Metal enclosure outside near USB port (CN1008)	35.9	--	--	60
Ambient (actual temp.)	25.0 (22.0)	--	--	--
Abnormal condition	T9102 pin 7, 8, 9, 10 overload (Horizontal) (without SDM card and compute module)	T9302 pin 9, 10 after D9311 overload (Horizontal) (without SDM card and compute module)	T8601 pin 7, 8, 9, 10 after D8604 overload (Horizontal) (without SDM card and compute module)	--
Supply voltage (V/Hz)	90/60	90/60	90/60	--
CN901 body	51.9	54.6	52.8	300
AC inlet near L pin	58.4	61.2	58.5	300
RV9901 body	60.2	62.2	60.3	300
PCB near TH9901	57.9	59.3	57.9	300
C9902 body	58.8	60.1	58.8	300
L9901 coil	87.9	83.3	87.8	300

IEC 62368-1				
Clause	Requirement + Test	Result - Remark		Verdict
C9906 body	80.1	76.5	80.2	300
L9902 coil	89.2	85.0	89.3	300
PCB near BD9902	87.5	86.0	87.8	300
PCB near BD9901	84.5	84.1	84.4	300
SW9901 body	70.4	76.0	70.5	300
PCB near Q9302	56.2	90.5	57.6	300
U9302 body	70.2	88.7	64.1	300
T9302 core	60.2	123	61.2	175
T9302 coil	62.1	122	62.7	175
L9802 coil	77.6	84.1	77.0	300
L9801 coil	81.4	83.2	81.6	300
PCB near Q9801	85.3	86.1	83.2	300
PCB near Q9802	79.0	83.0	75.9	300
PCB near Q9101, Q9102	84.4	78.4	70.9	300
C9910 body	83.0	72.6	78.0	300
T9102 coil	96.0	77.4	73.6	175
T9102 core	90.6	75.1	73.4	175
T8601 coil	94.6	89.0	126	175
T8601 core	94.4	88.0	124	175
Mylar sheet near T8601 (between power board trace side and panel chassis)	76.2	71.6	88.1	300
PCB near D9804, D9802	85.0	84.7	82.8	300
PCB near Q8602, Q8603	76.3	72.5	88.2	300
C9815 body	71.4	68.0	77.8	300
PCB near D8604, D8605	76.1	72.0	86.9	300
L8101 coil	70.8	68.9	71.9	300
PCB near Q8101, D8101	72.6	70.6	71.2	300
PCB near Q9107, Q9108	97.6	78.5	71.5	300
PCB near D9311, D9815	62.9	100.7	61.4	300
Mylar sheet near T8601 (between power board component side and metal enclosure)	60.6	81.0	59.6	300
PCB near U401 (main board)	60.7	61.7	61.7	300
Ambient (actual temp.)	40.0 (21.7)	40.0(23.3)	40.0(22.7)	--

IEC 62368-1				
Clause	Requirement + Test	Result - Remark		Verdict
Panel body	35.0	37.0	35.7	87
Button body	32.2	31.6	31.9	87
Metal enclosure outside near T8601	33.3	33.0	33.0	70
Ambient (actual temp.)	25.0 (21.7)	25.0(23.3)	25.0(22.7)	--
Switch body	27.0	28.7	28.3	87
Ambient (actual temp.)	25.0 (22.0)	25.0(23.8)	25.0(23.2)	--
Abnormal condition	T8601 pin 11, 12 after D8605 (Horizontal) (without SDM card and compute module)	--	--	--
Supply voltage (V/Hz)	90/60	--	--	--
CN901 body	51.8	--	--	300
AC inlet near L pin	58.1	--	--	300
RV9901 body	60.1	--	--	300
PCB near TH9901	57.8	--	--	300
C9902 body	58.7	--	--	300
L9901 coil	88.2	--	--	300
C9906 body	80.3	--	--	300
L9902 coil	89.7	--	--	300
PCB near BD9902	88.2	--	--	300
PCB near BD9901	84.6	--	--	300
SW9901 body	70.2	--	--	300
PCB near Q9302	55.9	--	--	300
U9302 body	63.4	--	--	300
T9302 core	59.4	--	--	175
T9302 coil	61.1	--	--	175
L9802 coil	77.2	--	--	300
L9801 coil	82.0	--	--	300
PCB near Q9801	83.7	--	--	300
PCB near Q9802	76.2	--	--	300
PCB near Q9101, Q9102	69.1	--	--	300

IEC 62368-1				
Clause	Requirement + Test	Result - Remark		Verdict
C9910 body	74.7	--	--	300
T9102 core	71.5	--	--	175
T9102 coil	71.6	--	--	175
T8601 core	143	--	--	175
T8601 coil	117	--	--	175
Mylar sheet near T8601 (between power board trace side and panel chassis)	86.4	--	--	300
PCB near D9804, D9802	82.5	--	--	300
PCB near Q8602, Q8603	88.4	--	--	300
C9815 body	77.7	--	--	300
PCB near D8604, D8605	79.3	--	--	300
L8101 coil	71.2	--	--	300
PCB near Q8101, D8101	70.8	--	--	300
PCB near Q9107, Q9108	70.0	--	--	300
PCB near D9311, D9815	61.8	--	--	300
Mylar sheet near T8601 (between power board component side and metal enclosure)	60.3	--	--	300
PCB near U401 (main board)	61.4	--	--	300
Ambient (actual temp.)	40.0(24.5)	--	--	--
Panel body	35.8	--	--	87
Button body	31.9	--	--	87
Metal enclosure outside near T8601	33.4	--	--	70
Ambient (actual temp.)	25.0(24.5)	--	--	--
Switch body	27.7	--	--	87
Ambient (actual temp.)	25.0(25.0)	--	--	--
Abnormal condition	I/O port (CN406, CN706, U6) Overload (Horizontal) (with SDM card and without compute module)	I/O port Overload (CN1009) (Horizontal) (with SDM card and compute module)	--	--
Supply voltage (V/Hz)	90/60	90/60	--	--

IEC 62368-1				
Clause	Requirement + Test	Result - Remark		Verdict
PCB near U420 (main board)	71.5	--	--	300
PCB near U717 (main board)	70.2	--	--	300
PCB near U6 (SDM card)	67.3	--	--	300
CN1016 (compute module)	--	63.8	--	300
Ambient (actual temp.)	40.0(23.4)	40.0 (22.6)	--	--
Metal enclosure near USB (CN406)	38.2	--	--	70
Metal enclosure near USB (CN706)	38.6	--	--	70
Metal enclosure near USB (JUSB1)	45.4	--	--	70
Metal enclosure near USB (CN1009)	--	35.0	--	70
Ambient (actual temp.)	25.0(23.4)	25.0(22.6)	--	--
For P495, MA491				
Test Orientation	Horizontal (without SDM card and compute module)	Vertical (the main board downside) (without SDM card and compute module)	Horizontal (without SDM card and compute module)	--
Supply voltage (V/Hz)	90/60	90/60	264/60	--
AC inlet near L pin	49.4	51.4	50.2	60
CN901 body	52.8	55.6	52.5	60
RV9901 body	53.4	57.0	52.2	85
C9911 body	52.9	56.0	51.4	85
L9901 coil	65.5	69.3	53.2	130
L9902 coil	66.8	72.2	54.0	130
PCB near BD9901	70.4	72.2	59.4	105
SW9901 body	57.6	60.9	57.1	70
PCB near Q9302	56.5	64.4	61.7	105
L9801 coil	74.1	72.6	64.8	130
L9802 coil	72.8	73.7	61.7	130
PCB near Q9801, Q9802	69.1	69.9	67.8	105
PCB near D9804, D9802	69.3	68.7	68.0	105
PCB near Q8602, Q8603	66.6	62.4	68.4	105
PCB near Q9101, Q9102	64.7	66.8	64.2	105

IEC 62368-1				
Clause	Requirement + Test	Result - Remark		Verdict
C9815 body	60.1	62.2	59.9	105
T8601 core	79.9	78.7	84.7	110
T8601 coil	82.0	78.7	86.2	110
C9910 body	66.1	68.2	68.1	85
T9102 core	73.9	74.0	75.1	110
T9102 coil	74.3	74.4	75.6	110
U9102 body	62.9	64.2	64.2	100
T9302 core	63.2	65.5	64.7	110
T9302 coil	64.3	66.6	65.7	110
PCB near D9304	65.7	64.8	67.6	105
PCB near Q9107, Q9108	74.1	67.7	75.9	105
PCB near Q8101, D8101	67.7	58.1	69.1	105
Ambient (actual temp.)	40.0 (21.6)	40.0 (22.0)	40.0 (22.9)	--
L8101 coil	71.7	62.1	72.6	105
PCB near Q8609 (main board)	62.8	54.6	64.7	105
PCB near U531 (main board)	69.7	63.5	71.4	105
PCB near U523 (main board)	54.5	53.4	56.6	105
Mylar near T8601 (between power board component side and metal enclosure)	56.5	50.4	57.1	80
Mylar sheet near T8601 (between power board trace side and panel chassis)	51.0	53.2	48.4	80
Ambient (actual temp.)	40.0	40.0	40.0	--
Metal enclosure outside near USB port (CN406)	31.4	30.2	33.0	60
Metal enclosure outside near T8601	35.6	32.3	36.1	60
Panel body	32.8	34.3	36.9	77
Power Switch body	34.1	35.3	34.9	77
Button body	32.7	34.6	34.0	77
Ambient (actual temp.)	25.0 (21.6)	25.0 (22.1)	25.0 (22.9)	--

IEC 62368-1				
Clause	Requirement + Test	Result - Remark		Verdict
Test Orientation	Horizontal (the main board downside) (with SDM card and compute module)	--	--	--
Supply voltage (V/Hz)	90/60	--	--	--
AC inlet near L pin	48.2	--	--	60
CN901 body	50.6	--	--	60
RV9901 body	50.7	--	--	85
C9911 body	50.1	--	--	85
L9901 coil	56.4	--	--	130
L9902 coil	56.9	--	--	130
PCB near BD9901	62.7	--	--	105
SW9901 body	55.3	--	--	70
PCB near Q9302	59.0	--	--	105
L9801 coil	66.5	--	--	130
L9802 coil	64.6	--	--	130
PCB near Q9801, Q9802	62.0	--	--	105
PCB near D9804, D9802	62.5	--	--	105
PCB near Q8602, Q8603	61.9	--	--	105
PCB near Q9101, Q9102	58.3	--	--	105
C9815 body	56.0	--	--	105
T8601 core	72.8	--	--	110
T8601 coil	76.0	--	--	110
C9910 body	62.5	--	--	85
T9102 core	66.5	--	--	110
T9102 coil	68.2	--	--	110
U9102 body	61.2	--	--	100
T9302 core	62.3	--	--	110
T9302 coil	63.2	--	--	110
PCB near D9304	61.8	--	--	105
PCB near Q9107, Q9108	62.4	--	--	105

IEC 62368-1				
Clause	Requirement + Test	Result - Remark		Verdict
PCB near Q8101, D8101	60.8	--	--	105
Ambient (actual temp.)	40.0 (21.3)	--	--	--
L8101 coil	63.7	--	--	105
PCB near Q8609 (main board)	60.1	--	--	105
PCB near U531 (main board)	67.5	--	--	105
PCB near U523 (main board)	56.0	--	--	105
Mylar near T8601 (between power board component side and metal enclosure)	51.6	--	--	80
Mylar sheet near T8601 (between power board trace side and panel chassis)	48.4	--	--	80
Ambient (actual temp.)	40.0	--	--	--
Metal enclosure outside near USB port	32.5	--	--	60
Metal enclosure outside near T8601	33.0	--	--	60
Panel body	31.5	--	--	77
Power Switch body	32.2	--	--	77
Button body	31.5	--	--	77
Ambient (actual temp.)	25.0 (21.4)	--	--	--
PCB near UC1(SDM card)	68.5	--	--	105
RTC battery(SDM card)	62.0	--	--	100
PCB near U6(SDM card)	64.2	--	--	105
Heat sink body(SDM card)	66.2	--	--	105
U1 body (Compute module)	98.8	--	--	105
PCB near U1 (Compute module)	85.2	--	--	105
PCB near U1004 (Compute module)	73.3	--	--	105
PCB near U1016 (Compute module)	67.0	--	--	105
C1078 body (Compute module)	60.3	--	--	105
L1003 coil (Compute module)	76.4	--	--	105
Ambient (actual temp.)	40.0 (21.6)	--	--	--
PCB near UC1(SDM card)	53.5	--	--	77
RTC battery(SDM card)	47.0	--	--	60
PCB near U6(SDM card)	49.2	--	--	77
Heat sink body(SDM card)	51.2	--	--	60
Metal cover near USB (JUSB1) (SDM card)	42.0	--	--	60

IEC 62368-1				
Clause	Requirement + Test	Result - Remark		Verdict
Metal enclosure near USB (CN1009) (Compute module)		38.7	--	60
Ambient (actual temp.)		25.0 (21.6)	--	--

Supplementary information:

Note 1: The apparatus was submitted and evaluated for maximum manufacturer's recommended ambient (T_{ma}) 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 → T_{max} = 120 – 10 = 110 °C (for normal condition)

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.

Note 6: During the heating tests, all openings are blocked and fan locked.

Temperature T of winding:	t ₁ (°C)	R ₁ (Ω)	t ₂ (°C)	R ₂ (Ω)	T (°C)	Allowed T _{max} (°C)	Insulation class
--	--	--	--	--	--	--	--

Supplementary information:

Note 1: T_{ma} should be considered as directed by applicable requirement.

Note 2: T_{ma} is not included in assessment of Touch Temperatures (Clause 9).

5.4.1.10.2	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)	Frequency (kHz)	Required cl (mm)	cl (mm)	Required cr (mm)	cr (mm)
Functional:							

IEC 62368-1							
Clause	Requirement + Test			Result - Remark			Verdict
Line trace to Neutral trace before fuse	420	250	60Hz	2.3 (1.5 x 1.48)	3.4	2.5	3.4
Traces under fuse (F901)	420	250	60Hz	2.3	6.3	2.5	6.3
Basic/supplementary:							
Primary to earthed trace	420	250	>30kHz	2.3 (1.5 x 1.48)	See below	2.5	See below
Under SG9901	See above	See above	--	See above	7.6	See above	7.6
Under C9901	See above	See above	--	See above	7.5	See above	7.5
Under C9902	See above	See above	--	See above	7.4	See above	7.4
Under C9904	See above	See above	--	See above	7.4	See above	7.4
Under C9905	See above	See above	--	See above	7.4	See above	7.4
Under C9907	See above	See above	--	See above	7.4	See above	7.4
Under C9908	See above	See above	--	See above	7.4	See above	7.4
Primary to earthed components or metal chassis	420	250	--	2.3 (1.5 x 1.48)	See below	2.5	See below
T8601 primary pin to panel chassis(trace side)	550	274	--	See above	8.0	5.6	8.0
T9102 primary pin to panel chassis (trace side)	444	257	--	See above	8.0	5.2	8.0
T9302 primary pin to panel chassis (trace side)	568	369	--	See above	8.0	7.4	8.0
Reinforced:							
Primary trace to Secondary trace	420	250	>30kHz	4.5 (3.0 x 1.48)	See below	5.0	See below
Under C9909	See above	See above	--	See above	7.2	See above	7.2
Under C9910	See above	See above	--	See above	7.2	See above	7.2
Under U9302	See above	See above	--	See above	7.7	See above	7.7
Under U9304	See above	See above	--	See above	7.7	See above	7.7
Under U9102	See above	See above	--	See above	7.7	See above	7.7

IEC 62368-1							
Clause	Requirement + Test			Result - Remark			Verdict
Under U8602	See above	See above	--	See above	7.7	See above	7.7
T9102 core to C9113	444	257	--	See above	7.7	5.2	7.7
Primary traces to secondary traces	420	250	>30kHz	4.5 (3.0 x 1.48)	See below	5.0	See below
Under T8601	550	274	76kHz	See above	32.0	5.6	32.0
Under T9102	444	257	87kHz	See above	19.4	5.2	19.4
Under T9302	568	369	68kHz	See above	19.3	7.4	19.3
Supplementary information: 1. Material Group IIIa, IIIb considered. 2. The required clearances multiplied by 1.48 considering that EUT operates up to 5000m. 3. For clearance and creepage did not describe above are far larger than limit above. 4. The measurement were conducted on both component side and trace layout side, only smaller value being recorded above. 5. One mylar sheet used between power board component side and metal enclosure. 6. One mylar sheet used between power board trace side and panel chassis.							

5.4.2.3	TABLE: Minimum Clearances distances using required withstand voltage			P
	Overvoltage Category (OV):			II
	Pollution Degree:			2
Clearance distanced between:		Required withstand voltage	Required cl (mm)	Measured cl (mm)
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 table 5.4.2.2, 5.4.2.4 and 5.4.3
Line / Neutral to earth		2500	2.3	See table 5.4.2.2, 5.4.2.4 and 5.4.3
Under Y-Cap.		2500	2.3	See table 5.4.2.2, 5.4.2.4 and 5.4.3
Under T8601		2500	4.5	See appended table G.5.3.2
Under T9102		2500	4.5	See appended table G.5.3.2
Under T9302		2500	4.5	See appended table G.5.3.2
Under Photocoupler		2500	4.5	See table 5.4.2.2, 5.4.2.4 and 5.4.3
Under bridging Cap.		2500	4.5	See table 5.4.2.2, 5.4.2.4 and 5.4.3
Supplementary information: The equipment to be operated up to 5000 m above sea level, each clearance multiplied with an altitude				

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

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)
Bobbin of T9102 (For Transformer) (reinforced insulation) (all source)		444	87k	See table 4.1.2	0.4	1)
Insulation Tape of T9102 (For Transformer) (reinforced insulation) (all source)		444	87k	See table 4.1.2	Two layers	Two layers
Bobbin of T8601 (For Transformer) (reinforced insulation) (all source)		550	76k	See table 4.1.2	0.4	1)
Insulation Tape of T8601 (For Transformer) (reinforced insulation) (all source)		550	76k	See table 4.1.2	Two layers	Two layers
Mylar sheet (basic insulation) (all source)		550	60.0k	See table 4.1.2	0.4	1)
Photo couplers (reinforced insulation) (all source)		420	--	See table 4.1.2	0.4	1)
Supplementary information:						
1) For details refer to appended table 4.1.2.						
2) All sources are considered.						

5.4.9	TABLE: Electric strength tests				P
Test voltage applied between:		Voltage shape (AC, DC)	Test voltage (V)	Breakdown Yes / No	

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
Basic/supplementary:			
Unit: primary to earth	DC	2500	No
Gas Tube (SG9901) (for all source)	AC	2500Vpeak	No
Mylar sheet (for all source)	AC	2500Vpeak	No
T8601 primary to core	AC	2500Vpeak	No
T8601 secondary to core	AC	2500Vpeak	No
Reinforced:			
Primary to secondary	DC	4000	No
T8601 primary to secondary	AC	4000Vpeak	No
T8601 bobbin (for all source)	AC	4000Vpeak	No
T8601 insulation Tape (for all source)	AC	4000Vpeak	No
T9102 primary to secondary	AC	4000Vpeak	No
T9102 primary to core	AC	4000Vpeak	No
T9102 bobbin	AC	4000Vpeak	No
T9302 primary to secondary	AC	4000Vpeak	No
T9302 secondary to core	AC	4000Vpeak	No
T9302 insulation Tape (for all source)	AC	4000Vpeak	No
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	--	8	ES1	
110Vac, 60Hz	Phase to Neutral	N	--	4	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.

IEC 62368-1					
Clause	Requirement + Test		Result - Remark	Verdict	
5.6.6.2	TABLE: Resistance of protective conductors and terminations			P	
Accessible part		Test current (A)	Duration (min)	Voltage drop (mV)	Resistance (mΩ)
For P555, MA551					
Connector earth pin to metal enclosure/		32/40	2	224/320	7/8
For P495, MA491					
Connector earth pin to metal enclosure/		32/40	2	256/360	8/9
Supplementary information:					

5.7.2.2, 5.7.4	TABLE: Earthed accessible conductive part		P
Supply voltage	264 Vac/110Vac	—	
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	3.72mAvpeak / 1.03mAvpeak	
	2*	--	
	3	--	
	4	--	
	5	--	
	6	--	
	8	--	
C9901=C9902=C9904=C9905=C9907=C9908=4700pF C9909=C9910=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				N/A
Source	Description	Measurement	Max Power after 3 s	Max Power after 5 s ^{*)}	PS Classification
		Power (W) :			
		V _A (V) :			

IEC 62368-1				
Clause	Requirement + Test		Result - Remark	Verdict
		I_A (A) :		
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 I_A may be used instead of a wattmeter. If a separate voltmeter and ammeter are used, the product of ($V_A \times I_A$) 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:				—
Manufacturer:				—
Cat no.:				—
Pressure (cold) (MPa):				MS_
Pressure (operating) (MPa):				MS_
Operating time (minutes):				—

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Clause	Requirement + Test	Result - Remark	Verdict
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	
For P555 and MA551 with external speaker								
HDMI mode (without SDM card and compute module)								
90/50	2.79	--	251	--	F901	2.79	Maximum Normal Load.	
90/60	2.79	--	251	--	F901	2.79	Maximum Normal Load.	
100/50	2.45	3.3 or 2.8	244	--	F901	2.45	Maximum Normal Load.	
100/60	2.45	3.3 or 2.8	244	--	F901	2.45	Maximum Normal Load.	
110/50	2.22	--	243	--	F901	2.22	Maximum Normal Load.	
110/60	2.22	--	243	--	F901	2.22	Maximum Normal Load.	
240/50	1.05	1.4 or 1.2	242	--	F901	1.05	Maximum Normal Load.	
240/60	1.05	1.4 or 1.2	242	--	F901	1.05	Maximum Normal Load.	
264/50	0.98	--	240	--	F901	0.98	Maximum Normal Load.	
264/60	0.98	--	240	--	F901	0.98	Maximum Normal Load.	
Display mode (without SDM card and compute module)								
90/50	2.66	--	239	--	F901	2.66	Maximum Normal Load.	
90/60	2.66	--	239	--	F901	2.66	Maximum Normal Load.	
100/50	2.38	3.3 or 2.8	237	--	F901	2.38	Maximum Normal Load.	
100/60	2.38	3.3 or 2.8	237	--	F901	2.38	Maximum Normal Load.	
110/50	2.18	--	236	--	F901	2.18	Maximum Normal Load.	
110/60	2.18	--	236	--	F901	2.18	Maximum Normal Load.	
240/50	1.03	1.4 or 1.2	235	--	F901	1.03	Maximum Normal Load.	

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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
240/60	1.03	1.4 or 1.2	235	--	F901	1.03	Maximum Normal Load.
264/50	0.96	--	233	--	F901	0.96	Maximum Normal Load.
264/60	0.96	--	233	--	F901	0.96	Maximum Normal Load.
SDM mode (with compute module)							
90/50	1.90	--	170	--	F901	1.90	Maximum Normal Load.
90/60	1.90	--	170	--	F901	1.90	Maximum Normal Load.
100/50	1.71	3.3 or 2.8	169	--	F901	1.71	Maximum Normal Load.
100/60	1.71	3.3 or 2.8	169	--	F901	1.71	Maximum Normal Load.
110/50	1.60	--	1667	--	F901	1.60	Maximum Normal Load.
110/60	1.60	--	167	--	F901	1.60	Maximum Normal Load.
240/50	0.73	1.4 or 1.2	165	--	F901	0.73	Maximum Normal Load.
240/60	0.73	1.4 or 1.2	165	--	F901	0.73	Maximum Normal Load.
264/50	0.71	--	165	--	F901	0.71	Maximum Normal Load.
264/60	0.71	--	163	--	F901	0.71	Maximum Normal Load.
Compute mode (with SDM card)							
90/50	2.37	--	211	--	F901	2.37	Maximum Normal Load.
90/60	2.37	--	211	--	F901	2.37	Maximum Normal Load.
100/50	2.10	3.3 or 2.8	209	--	F901	2.10	Maximum Normal Load.
100/60	2.10	3.3 or 2.8	209	--	F901	2.10	Maximum Normal Load.
110/50	1.98	--	201	--	F901	1.98	Maximum Normal Load.
110/60	1.98	--	201	--	F901	1.98	Maximum Normal Load.
240/50	0.90	1.4 or 1.2	204	--	F901	0.90	Maximum Normal Load.
240/60	0.90	1.4 or 1.2	204	--	F901	0.90	Maximum Normal Load.
264/50	0.83	--	203	--	F901	0.83	Maximum Normal Load.

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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
264/60	0.83	--	203	--	F901	0.83	Maximum Normal Load.
For P495 and MA491 with external speaker							
HDMI mode (without SDM card and compute module)							
90/50	2.78	--	249	--	F901	2.78	Maximum Normal Load.
90/60	2.78	--	249	--	F901	2.78	Maximum Normal Load.
100/50	2.44	3.2 or 2.7	243	--	F901	2.44	Maximum Normal Load.
100/60	2.44	3.2 or 2.7	243	--	F901	2.44	Maximum Normal Load.
110/50	2.21	--	241		F901	2.21	Maximum Normal Load.
110/60	2.21	--	241		F901	2.21	Maximum Normal Load.
240/50	1.04	1.3 or 1.1	238	--	F901	1.04	Maximum Normal Load.
240/60	1.04	1.3 or 1.1	238	--	F901	1.04	Maximum Normal Load.
264/50	0.96	--	237	--	F901	0.96	Maximum Normal Load.
264/60	0.96	--	237	--	F901	0.96	Maximum Normal Load.
Display mode (without SDM card and compute module)							
90/50	2.65	--	237	--	F901	2.65	Maximum Normal Load.
90/60	2.65	--	237	--	F901	2.65	Maximum Normal Load.
100/50	2.36	3.2 or 2.7	235	--	F901	2.36	Maximum Normal Load.
100/60	2.36	3.2 or 2.7	235	--	F901	2.36	Maximum Normal Load.
110/50	2.16	--	235		F901	2.16	Maximum Normal Load.
110/60	2.16	--	235		F901	2.16	Maximum Normal Load.
240/50	1.01	1.3 or 1.1	230	--	F901	1.01	Maximum Normal Load.
240/60	1.01	1.3 or 1.1	230	--	F901	1.01	Maximum Normal Load.
264/50	0.93	--	229	--	F901	0.93	Maximum Normal Load.
264/60	0.93	--	229	--	F901	0.93	Maximum Normal Load.

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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
SDM mode (with compute module)							
90/50	1.42	--	126	--	F901	1.42	Maximum Normal Load.
90/60	1.42	--	126	--	F901	1.42	Maximum Normal Load.
100/50	1.27	3.2 or 2.7	125	--	F901	1.27	Maximum Normal Load.
100/60	1.27	3.2 or 2.7	125	--	F901	1.27	Maximum Normal Load.
110/50	1.14	--	124		F901	1.14	Maximum Normal Load.
110/60	1.14	--	124		F901	1.14	Maximum Normal Load.
240/50	0.53	1.3 or 1.1	119	--	F901	0.53	Maximum Normal Load.
240/60	0.53	1.3 or 1.1	119	--	F901	0.53	Maximum Normal Load.
264/50	0.48	--	118	--	F901	0.48	Maximum Normal Load.
264/60	0.48	--	118	--	F901	0.48	Maximum Normal Load.
Compute mode (with SDM card)							
90/50	2.11	--	188	--	F901	2.11	Maximum Normal Load.
90/60	2.11	--	188	--	F901	2.11	Maximum Normal Load.
100/50	1.89	3.2 or 2.7	187	--	F901	1.89	Maximum Normal Load.
100/60	1.89	3.2 or 2.7	187	--	F901	1.89	Maximum Normal Load.
110/50	1.76	--	185		F901	1.76	Maximum Normal Load.
110/60	1.76	--	185		F901	1.76	Maximum Normal Load.
240/50	0.78	1.3 or 1.1	179	--	F901	0.78	Maximum Normal Load.
240/60	0.78	1.3 or 1.1	179	--	F901	0.78	Maximum Normal Load.
264/50	0.72	--	178	--	F901	0.72	Maximum Normal Load.
264/60	0.72	--	178	--	F901	0.72	Maximum Normal Load.
Supplementary information: Max. normal load see summary of testing.							

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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
P555, MA551								
T9102 Pin 7, 8, 9, 10 (+12)	Overload	90	2hrs 16mins	F901	4.16	--	3)	Temperature is stabled at Output overload condition 15A, then unit shutdown when increase to 15.2A. No damage, NB, NC, NT, ASRE.
T9302 pin 9, 10 after D9311(+5V)	Overload	90	3hrs 3mins	F901	3.66	--	3)	Temperature is stabled at Output overload condition 13A, then unit shutdown when increase to 13.3A. No damage, NB, NC, NT, ASRE.
T8601 pin 7, 8, 9, 10 after D8604 (+24V)	Overload	90	1hr 26mins	F901	3.97	--	3)	Temperature is stabled at Output overload condition 4.5A, then unit shutdown when increase to 4.8A. 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
T8601 Pin 11, 12 after D8605 (VLED)	Overload	90	3hrs 12mins	F901	4.20	--	3)	Temperature is stabled at Output overload condition 1.5A, then unit shutdown when increase to 1.8A. No damage, NB, NC, NT, ASRE.
USB2.0 for main board (CN406)	Overload	90	3hrs 22mins	F901	2.05	--	3)	Temperature is stabled at Output overload condition 2.3A, then unit shutdown when increase to 2.5A. No damage, NB, NC, NT, ASRE.
USB2.0 for main board (CN706)	Overload	90	3hrs 22mins	F901	2.05	--	3)	Temperature is stabled at Output overload condition 1.5A, then unit shutdown when increase to 1.7A. 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
USB3.0 for SDM card (JUSB1)	Overload	90	3hrs 22mins	F901	2.05	--	3)	Temperature is stabled at Output overload condition 2.7A, then unit shutdown when increase to 3.0A. No damage, NB, NC, NT, ASRE.
USB3.0 for compute module (CN1009)	Overload	90	1hrs 44mins	F901	2.37	--	3)	Temperature is stabled at Output overload condition 0.5A, then unit shutdown when increase to 0.6A. No damage, NB, NC, NT, ASRE.
5Vout to Earth	SC	264	10 min	F901	0.13	--	--	Unit shutdown, NT, NB, NC, no hazards, NCD.
12Vout to Earth	SC	264	10 min	F901	0.14	--	--	Unit shutdown, NT, NB, NC, no hazards, NCD.
24Vout to Earth	SC	264	10 min	F901	0.14	--	--	Unit shutdown, NT, NB, NC, no hazards, NCD.
VLED out to Earth	SC	264	10 min	F901	0.17	--	--	Unit shutdown, NT, NB, NC, no hazards, NCD.
VLED to secondary (I/O port)	SC	264	10 min	F901	0.17	--	--	Unit shutdown, NT, NB, NC, no hazards, NCD.
For model name P495, MA491								

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
VLED out to Earth	Short	264	10 mins	F901	0.17	--	--	Unit shutdown, NB, NC, NT, ASRE.
VLED to secondary (I/O port)	Short	264	10 mins	F901	0.17	--	--	Unit shutdown, NB, NC, NT, ASRE.
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			—
Component No.	Fault Condition	Supply voltage, (V)	Test time (ms)	Fuse no.	Fuse current, (A)	T-couple	Temp. (°C)	Observation
BD9902 Pin1-4	SC	264	1 sec	F901	0	--	--	F901 open, NT, NB, NC, no hazards.
BD9902 Pin1-4	SC	110	1 sec	F901	0	--	--	F901 open, NT, NB, NC, no hazards.
BD9901 Pin1-4	SC	264	1 sec	F901	0	--	--	F901 open, NT, NB, NC, no hazards.

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Clause	Requirement + Test			Result - Remark				Verdict
BD9901 Pin1-4	SC	110	1 sec	F901	0	--	--	F901 open, NT, NB, NC, no hazards.
Q9801 (G-S)	SC	264	10 min	F901	0.98	--	--	Unit normal, NT, NB, NC, no hazards, NCD.
Q9801 (S-D)	SC	264	1 sec	F901	0	--	--	F901 open, NT, NB, NC, no hazards, NCD.
Q9801 (S-D)	SC	110	1 sec	F901	0	--	--	F901 open, NT, NB, NC, no hazards, NCD.
Q9801 (G-D)	SC	264	1 sec	F901	0	--	--	F901 open, NT, NB, NC, no hazards, NCD.
Q9801 (G-D)	SC	110	1 sec	F901	0	--	--	F901 open, NT, NB, NC, no hazards, NCD.
Q9802 (G-S)	SC	264	10 min	F901	0.98	--	--	Unit normal, NT, NB, NC, no hazards, NCD.
Q9802 (S-D)	SC	264	1 sec	F901	0	--	--	F901 open, NT, NB, NC, no hazards, NCD.
Q9802 (S-D)	SC	110	1 sec	F901	0	--	--	F901 open, NT, NB, NC, no hazards, NCD.
Q9802 (G-D)	SC	264	1 sec	F901	0	--	--	F901 open, NT, NB, NC, no hazards, NCD.
Q9802 (G-D)	SC	110	1 sec	F901	0	--	--	F901 open, NT, NB, NC, no hazards, NCD.
U9301 Pin2-7	SC	264	10 min	F901	0.13	--	--	Unit shutdown, NT, NB, NC, no hazards, NCD.
Q9302 (G-S)	SC	264	10 min	F901	0.13	--	--	Unit shutdown, NT, NB, NC, no hazards, NCD
Q9302 (S-D)	SC	264	1 sec	F901	0	--	--	F901 open, NT, NB, NC, no hazards, NCD.

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Clause	Requirement + Test			Result - Remark				Verdict
Q9302 (S-D)	SC	110	1 sec	F901	0	--	--	F901 open, NT, NB, NC, no hazards, NCD.
Q9302 (G-D)	SC	264	1 sec	F901	0	--	--	F901 open, NT, NB, NC, no hazards, NCD.
Q9302 (G-D)	SC	110	1 sec	F901	0	--	--	F901 open, NT, NB, NC, no hazards, NCD.
U9302 Pin1-2	SC	264	10 min	F901	0.13	--	--	Unit shutdown, NT, NB, NC, no hazards, NCD.
U9302 Pin4-3	SC	264	10 min	F901	0.13	--	--	Unit shutdown, NT, NB, NC, no hazards, NCD.
U9302 Pin1	OC	264	10 min	F901	0.13	--	--	Unit shutdown, NT, NB, NC, no hazards, NCD.
U9304 Pin1-2	SC	264	10 min	F901	0.13	--	--	Unit shutdown, NT, NB, NC, no hazards, NCD.
U9304 Pin4-3	SC	264	10 min	F901	0.13	--	--	Unit shutdown, NT, NB, NC, no hazards, NCD.
U9304 Pin1	OC	264	10 min	F901	0.13	--	--	Unit shutdown, NT, NB, NC, no hazards, NCD.
T9302 Pin6,7-9,10	SC	264	10 min	F901	0.13	--	--	Unit shutdown, NT, NB, NC, no hazards, NCD.
T9302 Pin1-3	SC	264	10 min	F901	0.12	--	--	Unit shutdown, NT, NB, NC, no hazards, NCD.
T9302 Pin4-5	SC	264	10 min	F901	0.12	--	--	Unit shutdown, NT, NB, NC, no hazards, NCD.
D9311 Pin2-3	SC	264	10 min	F901	0.15	--	--	Unit shutdown, NT, NB, NC, no hazards, NCD.
Q9101 (G-S)	SC	264	10 min	F901	0.13	--	--	Unit shutdown, NT, NB, NC, no hazards, NCD.

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Clause	Requirement + Test				Result - Remark			Verdict
Q9101 (S-D)	SC	264	1 sec	F901	0	--	--	F901 open, NT, NB, NC, no hazards.
Q9101 (S-D)	SC	110	1 sec	F901	0	--	--	F901 open, NT, NB, NC, no hazards.
Q9101 (G-D)	SC	264	1 sec	F901	0	--	--	F901 open, NT, NB, NC, no hazards.
Q9101 (G-D)	SC	110	1 sec	F901	0	--	--	F901 open, NT, NB, NC, no hazards.
Q9102 (G-S)	SC	264	10 min	F901	0.13	--	--	Unit shutdown, NT, NB, NC, no hazards, NCD.
Q9102 (S-D)	SC	264	1 sec	F901	0	--	--	F901 open, NT, NB, NC, no hazards, NCD.
Q9102 (S-D)	SC	110	1 sec	F901	0	--	--	F901 open, NT, NB, NC, no hazards, NCD.
Q9102 (G-D)	SC	264	1 sec	F901	0	--	--	F901 open, NT, NB, NC, no hazards, NCD.
Q9102 (G-D)	SC	110	1 sec	F901	0	--	--	F901 open, NT, NB, NC, no hazards, NCD.
U9902 Pin15-3	SC	264	10 min	F901	0.13	--	--	Unit shutdown, NT, NB, NC, no hazards, NCD.
U9902 Pin16-2	SC	264	10 min	F901	0.13	--	--	Unit shutdown, NT, NB, NC, no hazards, NCD.
U9902 Pin16-3	SC	264	10 min	F901	0.13	--	--	Unit shutdown, NT, NB, NC, no hazards, NCD.
U9902 Pin11-3	SC	264	10 min	F901	0.13	--	--	Unit shutdown, NT, NB, NC, no hazards, NCD.
U9902 Pin11-2	SC	264	10 min	F901	0.13	--	--	Unit shutdown, NT, NB, NC, no hazards, NCD.

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Clause	Requirement + Test			Result - Remark				Verdict
U9102 Pin1-2	SC	264	10 min	F901	0.13	--	--	Unit shutdown, NT, NB, NC, no hazards, NCD.
U9102 Pin4-3	SC	264	10 min	F901	0.13	--	--	Unit shutdown, NT, NB, NC, no hazards, NCD.
U9102 Pin1	OC	264	10 min	F901	0.14	--	--	Unit shutdown, NT, NB, NC, no hazards, NCD.
U8601 Pin15-3	SC	264	10 min	F901	0.16	--	--	Unit shutdown, NT, NB, NC, no hazards, NCD.
U8601 Pin16-2	SC	264	10 min	F901	0.14	--	--	Unit shutdown, NT, NB, NC, no hazards, NCD.
U8601 Pin16-3	SC	264	10 min	F901	0.98	--	--	Unit Normal operation, NT, NB, NC, no hazards, NCD.
U8601 Pin11-3	SC	264	10 min	F901	0.98	--	--	Unit Normal operation, NT, NB, NC, no hazards, NCD.
U8601 Pin11-2	SC	264	10 min	F901	0.14	--	--	Unit shutdown, NT, NB, NC, no hazards, NCD.
U8602 Pin1-2	SC	264	10 min	F901	0.13	--	--	Unit shutdown, NT, NB, NC, no hazards, NCD.
U8602 Pin4-3	SC	264	10 min	F901	0.13	--	--	Unit shutdown, NT, NB, NC, no hazards, NCD.
U8602 Pin1	OC	264	10 min	F901	0.14	--	--	Unit shutdown, NT, NB, NC, no hazards, NCD.
T8601 Pin1-4	SC	264	10 min	F901	0.16	--	--	Unit shutdown, NT, NB, NC, no hazards, NCD.
T8601 Pin11-7, 8	SC	264	10 min	F901	0.12	--	--	Unit shutdown, NT, NB, NC, no hazards, NCD.

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Clause	Requirement + Test			Result - Remark				Verdict
T8601 Pin5, 6-7, 8	SC	264	10 min	F901	0.12	--	--	Unit shutdown, NT, NB, NC, no hazards, NCD.
T8601 Pin10, 9-6, 5	SC	264	10 min	F901	0.12	--	--	Unit shutdown, NT, NB, NC, no hazards, NCD.
T8601 Pin12-10, 9	SC	264	10 min	F901	0.15	--	--	Unit shutdown, NT, NB, NC, no hazards, NCD.
D8605 Pin3-2	SC	264	10 min	F901	0.15	--	--	Unit shutdown, NT, NB, NC, no hazards, NCD.
Q8602 (G-S)	SC	264	10 min	F901	0.13	--	--	Unit shutdown, NT, NB, NC, no hazards, NCD.
Q8602 (S-D)	SC	264	1 sec	F901	0	--	--	F901 open, NT, NB, NC, no hazards, NCD.
Q8602 (S-D)	SC	110	1 sec	F901	0	--	--	F901 open, NT, NB, NC, no hazards, NCD.
Q8602 (G-D)	SC	264	1 sec	F901	0	--	--	F901 open, NT, NB, NC, no hazards, NCD.
Q8602 (G-D)	SC	110	1 sec	F901	0	--	--	F901 open, NT, NB, NC, no hazards, NCD.
Q8603 (G-S)	SC	264	10 min	F901	0.13	--	--	Unit shutdown, NT, NB, NC, no hazards, NCD.
Q8603 (S-D)	SC	264	1 sec	F901	0	--	--	F901 open, NT, NB, NC, no hazards, NCD.
Q8603 (S-D)	SC	264	1 sec	F901	0	--	--	F901 open, NT, NB, NC, no hazards, NCD.
Q8603 (S-D)	SC	110	1 sec	F901	0	--	--	F901 open, NT, NB, NC, no hazards, NCD.
Q8603 (G-D)	SC	264	1 sec	F901	0	--	--	F901 open, NT, NB, NC, no hazards, NCD.

IEC 62368-1								
Clause	Requirement + Test			Result - Remark				Verdict
Q8603 (G-D)	SC	110	1 sec	F901	0	--	--	F901 open, NT, NB, NC, no hazards, NCD.
D8101 Pin3-2	SC	264	10 min	F901	0.17	--	--	Unit shutdown, NT, NB, NC, no hazards, NCD.
D8604 Pin3-2	SC	264	10 min	F901	0.17	--	--	Unit shutdown, NT, NB, NC, no hazards, NCD.
T9102 pin 1-4	SC	264	10 min	F901	0.14	--	--	Unit shutdown, NT, NB, NC, no hazards, NCD.
T9102 pin 11, 12-10, 9, 8, 7	SC	264	10 min	F901	0.14	--	--	Unit shutdown, NT, NB, NC, no hazards, NCD.
T9102 pin 10, 9, 8, 7-5, 6	SC	264	10 min	F901	0.14	--	--	Unit shutdown, NT, NB, NC, no hazards, NCD.
For overcharging								
Q423 C-E	SC	264	8hr 59min	F901	0.98	--	--	Normal operation, no damage, no hazards. Max. temp. at C4282 = 60.4°C, Ambient = 40.0°C.
R4203	SC	264	9hr 29min	F901	0.98	--	--	Normal operation, no damage, no hazards. Max. temp. at C4282 = 58.3°C, Ambient = 40.0°C.
C4282	SC	264	13hr 50min	F901	0.98	--	--	Normal operation, no damage, no hazards. Max. temp. at C4282 = 61.5°C, Ambient = 40.0°C.
For excessive discharging								
Q423 C-E	SC	264	1hr 21min	F901	0.98	--	--	Normal operation, no damage, no hazards. Max. temp. at C4282 = 41.4°C, Ambient = 40.0°C.

IEC 62368-1								
Clause	Requirement + Test				Result - Remark			Verdict
R4203	SC	264	1hr 29min	F901	0.98	--	--	Normal operation, no damage, no hazards. Max. temp. at C4282 = 41.1°C, Ambient = 40.0°C.
C4282	SC	264	1hr 19min	F901	0.98	--	--	Normal operation, no damage, no hazards. Max. temp. at C4282 = 41.2°C, Ambient = 40.0°C.
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								P
The tests of Annex M are applicable only when appropriate battery data is not available									P
Is it possible to install the battery in a reverse polarity position?:							See below		P
	Non-rechargeable batteries			Rechargeable batteries					
	Discharging		Un-intentional charging	Charging		Discharging		Reversed charging	
	Meas. current	Manuf. Specs.		Meas. current	Manuf. Specs.	Meas. current	Manuf. Specs.	Meas. current	Manuf. Specs.
Max. current during normal condition	--	--	0.01 mA	--	--	--	--	--	--
Max. current during fault condition (D1 pin 1-2 short)	--	--	3.3 mA	--	--	--	--	--	--
Max. current during fault condition (RC166 short)	--	--	0.01 mA	--	--	--	--	--	--
Test results:									Verdict
- Chemical leaks							No chemical leaks occurred.		P

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
- Explosion of the battery		No explosion occurred.	P
- Emission of flame or expulsion of molten metal		No emission of flame occurred.	P
- Electric strength tests of equipment after completion of tests		Performed and pass.	P
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
For main board						
According to table Q.1, for USB 2.0 (CN406)						
Pin 1 to earth	Normal	5.1	2.3	8	6.44	100
Pin 1 to earth	U420 pin 1-6 SC	5.1	7.5	8	12.5	100
Other pins to earth	Normal	0	--	8	--	100
According to table Q.1, for USB type B (CN704)						
All pins to earth	Normal	0	--	8	--	100

IEC 62368-1						
Clause	Requirement + Test		Result - Remark			Verdict
According to table Q.1, for USB 2.0 (CN706)						
Pin 1 to earth	Normal	5.1	1.5	8	6.6	100
Pin 1 to earth	U717 pin 1-5 SC	5.1	7.5	8	11.3	100
Other pins to earth	Normal	0	--	8	--	100
According to table Q.1, for HDMI (CN501)						
Pin 1, 2, 3, 6, 7, 9, 10, 12 to earth	Normal	3.0	Can't loading	8	Can't loading	100
Pin 13 to earth	Normal	3.0	Can't loading	8	Can't loading	100
Pin 15, 16 to earth	Normal	3.0	Can't loading	8	Can't loading	100
Other pins to earth	Normal	0	--	8	--	100
According to table Q.1, for HDMI (CN502)						
Pin 1, 2, 3, 6, 7, 9, 10, 12 to earth	Normal	3.0	Can't loading	8	Can't loading	100
Pin 13 to earth	Normal	3.0	Can't loading	8	Can't loading	100
Pin 15, 16 to earth	Normal	3.0	Can't loading	8	Can't loading	100
Other pins to earth	Normal	0	--	8	--	100
According to table Q.1, for HDMI (CN503)						
Pin 1, 2, 3, 6, 7, 9, 10, 12 to earth	Normal	3.0	Can't loading	8	Can't loading	100
Pin 13 to earth	Normal	3.0	Can't loading	8	Can't loading	100
Pin 15, 16 to earth	Normal	3.0	Can't loading	8	Can't loading	100
Other pins to earth	Normal	0	--	8	--	100
According to table Q.1, for Display (CN505)						
Pin 16, 17 to earth	Normal	2.2	Can't loading	8	Can't loading	100
Pin 18 to earth	Normal	3.3	Can't loading	8	Can't loading	100
Pin 20 to earth	Normal	3.33	1.0	8	3.3	100
Pin 20 to earth	U527 pin 1-5 SC	3.33	3.0	8	4.6	100
Other pins to earth	Normal	0	--	8	--	100

IEC 62368-1						
Clause	Requirement + Test		Result - Remark			Verdict
According to table Q.1, for Display (CN506)						
Pin 16, 17 to earth	Normal	2.2	Can't loading	8	Can't loading	100
Pin 18 to earth	Normal	3.3	Can't loading	8	Can't loading	100
Pin 20 to earth	Normal	3.33	1.0	8	3.3	100
Pin 20 to earth	U530 pin 1-5 SC	3.33	3.0	8	4.6	100
Other pins to earth	Normal	0	--	8	--	100
According to table Q.1, for Display (CN507)						
Pin 16, 17 to earth	Normal	2.2	Can't loading	8	Can't loading	100
Pin 18 to earth	Normal	3.3	Can't loading	8	Can't loading	100
Pin 20 to earth	Normal	3.33	1.0	8	3.3	100
Pin 20 to earth	U532 pin 1-5 SC	3.33	3.0	8	4.6	100
Other pins to earth	Normal	0	--	8	--	100
According to table Q.1, for LAN (CN707)						
All pins to earth	Normal	0	--	8	--	100
According to table Q.1, for LAN (CN708)						
All pins to earth	Normal	0	--	8	--	100
According to table Q.1, for Remote in (CN407)						
Pin 4 to earth	Normal	3.3	1.8	8	--	100
Pin 4 to earth	U701 pin 3-4 SC	0	--	8	--	100
Other pins to earth	Normal	0	--	8	--	100
According to table Q.1, for Audio out (CN602)						
All pins to earth	Normal	0	--	8	--	100
According to table Q.1, for Speaker terminal (CN601)						
Pin 1 to 2	Normal	4.25	2.8	8	7.6	100
Pin 1 to 2	U601 pin 26 - 27, 28	0	--	8	--	100
Pin 1 to 2	U601 pin 23 - 27, 28	0	--	8	--	100
Pin 3 to 4	Normal	4.27	2.8	8	7.5	100
Pin 3 to 4	U601 pin 17 - 27, 28	0	--	8	--	100

IEC 62368-1						
Clause	Requirement + Test			Result - Remark		Verdict
Pin 3 to 4	U601 pin 20 - 27, 28	0	--	8	--	100
According to table Q.1, for Raspberry Pi (CN508)						
Pin 1, 2, 3, 50, 51 to earth	Normal	12.1	4.2	8	42.0	100
Pin 1, 2, 3, 50, 51 to earth	U534 pin 1 to 6 SC	12.1	6.8	8	76.9	100
Pin 8, 9, 29, 30, 32, 33, 35, 36, 45, 46 to earth	Normal	3.3	Can't loading	8	Can't loading	100
Other pins to earth	Normal	0	--	8	--	100
According to table Q.1, for SDM (CN509)						
Pin 1, 2, 3, 50, 51 to earth	Normal	12.1	6.8	8	74.8	100
Pin 1, 2, 3, 50, 51 to earth	U546 pin 1, 2, 3, 25, 16 to 17, 18, 19, 20, 21, 22, 23, 24 SC	12.1	6.8	8	76.9	100
Pin 1, 2, 3, 50, 51 to earth	U547 pin 1, 2, 3, 25, 16 to 17, 18, 19, 20, 21, 22, 23, 24 SC	12.1	6.8	8	76.9	100
Other pins to earth	Normal	0	--	8	--	100
According to table Q.1, for IR (CN404)						
Pin 1 to earth	Normal	3.3	3.6	8	7.92	100
Pin 1 to earth	U701 pin 3-4 SC	0	--	8	--	100
Pin 4 to earth	Normal	3.2	Can't loading	8	Can't loading	100
Pin 7, 9 to earth	Normal	2.6	Can't loading	8	Can't loading	100
Other pins to earth	Normal	0	--	8	--	100
According to table Q.1, for Key control (CN403)						
Pin 1, 3 to earth	Normal	3.3	Can't loading	8	Can't loading	100
Other pins to earth	Normal	0	--	8	--	100

IEC 62368-1						
Clause	Requirement + Test			Result - Remark		Verdict
For SDM card						
According to table Q3.1, for USB3.0 (JUSB1)						
Pin 1 to earth	Normal	5.04	2.7	8	11.6	100
Pin 10 to earth	Normal	5.04	2.7	8	11.6	100
Other pins to earth	Normal	0	--	8	--	100
According to table Q.1, for RJ45 (JLAN)						
All pins to earth	Normal	0	--	8	--	100
For compute module						
According to table Q.1, for USB 2.0 (CN1008)						
Pin 1 to earth	Normal	5.1	0.5	8	2.55	100
Pin 1 to earth	U1015 pin 1-5 SC	5.1	3.4	8	17.4	100
Pin 1 to earth	U1009 pin 5-6 SC	0	0	8	0	100
Other pins to earth	Normal	0	--	8	--	100
According to table Q.1, for USB 2.0 (CN1009)						
Pin 1 to earth	Normal	5.1	0.5	8	2.55	100
Pin 1 to earth	U1016 pin 1-5 SC	5.1	3.4	8	17.4	100
Pin 1 to earth	U1009 pin 5-6 SC	0	0	8	0	100
Other pins to earth	Normal	0	--	8	--	100
According to table Q.1, for Micro USB (CN1002)						
All pins to earth	Normal	0	--	8	--	100
Supplementary Information: SC=Short circuit, OC=Open circuit						

T.2, T.3, T.4, T.5		TABLE: Steady force test				P
Part/Location	Material	Thickness (mm)	Force (N)	Test duration (sec)	Observation	
Internal component	--	--	10	5	The clearance and creepage distances do not be reduced below the required values.	
Metal enclosure (Top rear bottom and sides)	See table 4.1.2	See table 4.1.2	250	5	All safeguards remained effective.	

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

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 bottom 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 (mylar)	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.

List of test equipment used:

"No listing of test equipment used necessary for chosen test procedure."

5.4.1.8	TABLE: Determination of working voltage				P
Test voltage / Frequency.....:		See below.			
Location	Measured voltage/frequency			Comments	
	RMS voltage (V)	Peak Voltage (V)	Hz		
100Vac / 60Hz					
T8601 pin1 to pin5,6	253	480	76k		
T8601 pin1 to pin7,8	234	480	76k		
T8601 pin1 to pin9,10	270	460	76k		
T8601 pin1 to pin11	202	550	76k		
T8601 pin1 to pin12	270	448	76k		
T8601 pin4 to pin5,6	160	264	76k		
T8601 pin4 to pin7,8	165	296	76k		
T8601 pin4 to pin9,10	158	272	76k		
T8601 pin4 to pin 11	191	396	76k		
T8601 pin4 to pin 12	187	348	76k		
T9102 pin1 to pin 5,6	257	440	87k		
T9102 pin1 to pin 7,8,9,10	245	420	87k		
T9102 pin1 to pin 11,12	236	430	87k		
T9102 pin4 to pin5,6	152	250	87k		
T9102 pin4 to pin7,8,9,10	153	260	87k		
T9102 pin4 to pin11,12	156	270	87k		
T9302 pin1 to pin6,7	344	404	68k		
T9302 pin1 to pin9,10	345	428	68k		
T9302 pin3 to pin6,7	365	540	68k		
T9302 pin3 to pin9,10	363	532	68k		
T9302 pin4 to pin6,7	84	242	68k		
T9302 pin4 to pin9,10	83	212	68k		
T9302 pin5 to pin6,7	81	160	68k		
T9302 pin5 to pin9,10	77	166	68k		
C9910 primary to secondary	82	160	--		
C9909 primary to secondary	83	162	--		
U9302 pin 1 to pin 3	75	148	--		
U9302 pin 1 to pin 4	76	149	--		
U9302 pin 2 to pin 3	75	148	--		
U9302 pin 2 to pin 4	75	148	--		

IEC 62368-1				
Clause	Requirement + Test		Result - Remark	Verdict
U9304 pin 1 to pin 3	65	132	--	
U9304 pin 1 to pin 4	64	130	--	
U9304 pin 2 to pin 3	66	131	--	
U9304 pin 2 to pin 4	64	132	--	
U9102 pin 1 to pin 3	75	156	--	
U9102 pin 1 to pin 4	74	157	--	
U9102 pin 2 to pin 3	76	156	--	
U9102 pin 2 to pin 4	75	156	--	
U8602 pin 1 to pin 3	82	160	--	
U8602 pin 1 to pin 4	83	161	--	
U8602 pin 2 to pin 3	83	160	--	
U8602 pin 2 to pin 4	83	162	--	
100Vac / 60Hz				
T8601 pin1 to pin5,6	255	464	76k	--
T8601 pin1 to pin7,8	239	480	76k	--
T8601 pin1 to pin9,10	274	452	76k	Highest Vrms of T8601
T8601 pin1 to pin11	204	550	76k	Highest Vpeak of T8601
T8601 pin1 to pin12	265	450	76k	--
T8601 pin4 to pin5,6	163	264	76k	--
T8601 pin4 to pin7,8	169	296	76k	--
T8601 pin4 to pin9,10	161	272	76k	--
T8601 pin4 to pin 11	195	392	76k	--
T8601 pin4 to pin 12	180	344	76k	--
T9102 pin1 to pin 5,6	257	444	87k	Highest Vpeak / Vrms of T9102
T9102 pin1 to pin 7,8,9,10	246	424	87k	--
T9102 pin1 to pin 11,12	237	432	87k	--
T9102 pin4 to pin5,6	149	248	87k	--
T9102 pin4 to pin7,8,9,10	151	256	87k	--
T9102 pin4 to pin11,12	154	268	87k	--
T9302 pin1 to pin6,7	306	404	68k	--

IEC 62368-1				
Clause	Requirement + Test		Result - Remark	Verdict
T9302 pin1 to pin9,10	307	432	68k	--
T9302 pin3 to pin6,7	330	530	68k	--
T9302 pin3 to pin9,10	369	568	68k	Highest Vpeak / Vrms of T9302
T9302 pin4 to pin6,7	186	432	68k	--
T9302 pin4 to pin9,10	183	404	68k	--
T9302 pin5 to pin6,7	183	348	68k	--
T9302 pin5 to pin9,10	183	356	68k	--
C9910 primary to secondary	170	348	--	--
C9909 primary to secondary	181	348	--	--
U9302 pin 1 to pin 3	175	344	--	--
U9302 pin 1 to pin 4	176	345	--	--
U9302 pin 2 to pin 3	175	344	--	--
U9302 pin 2 to pin 4	175	346	--	--
U9304 pin 1 to pin 3	164	364	--	--
U9304 pin 1 to pin 4	164	364	--	--
U9304 pin 2 to pin 3	165	365	--	--
U9304 pin 2 to pin 4	165	364	--	--
U9102 pin 1 to pin 3	180	356	--	--
U9102 pin 1 to pin 4	181	356	--	--
U9102 pin 2 to pin 3	180	355	--	--
U9102 pin 2 to pin 4	181	357	--	--
U8602 pin 1 to pin 3	183	360	--	--
U8602 pin 1 to pin 4	184	361	--	--
U8602 pin 2 to pin 3	183	360	--	--
U8602 pin 2 to pin 4	183	360	--	--
Supplementary information:				

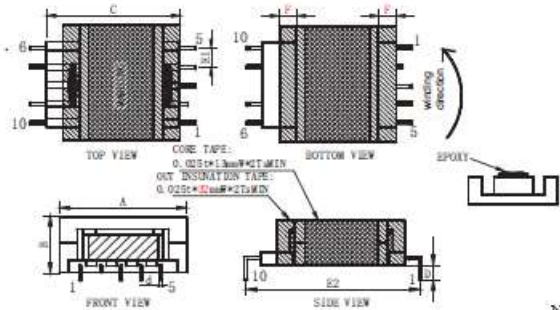
Clause	Requirement + Test	Result - Remark	Verdict
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G.5.3.2	TABLE: transformers						P
Loc.	Tested insulation	Working voltage peak / V (5.4.1.8)	Working voltage rms / V (5.4.1.8)	Required electric strength (5.4.9)	Required clearance / mm (5.4.2)	Required creepage distance / mm (5.4.3)	Required distance thr. insul. (5.4.4)
T9302	Primary wire to secondary pin	568	369	AC 4000 Vpeak	4.5 (3.0*1.48)	7.4	Triple insulation wire used
T9302	Primary wire to core	--	--	--	--	--	--
T9302	Secondary pin to core	568	369	AC 4000 Vpeak	4.5 (3.0*1.48)	7.4	Triple insulation wire used
Loc.	Tested insulation			Test voltage/ V	Measured clearance / mm	Measure d creepage dist./ mm	Measured distance thr. insul. / mm; number of layers
T9302	Primary wire to secondary pin			AC 4000 Vpeak	9.9	9.9	Triple insulation wire used.
T9302	Primary wire to core			--	--	--	--
T9302	Secondary pin to core			AC 4000 Vpeak	9.9	9.9	Triple insulation wire used.
supplementary information:							
1. The constructions of all sources of T9302 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 60664-1:2007): 1.48.							

G.5.3.2	TABLE: transformers	P
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Clause	Requirement + Test	Result - Remark	Verdict
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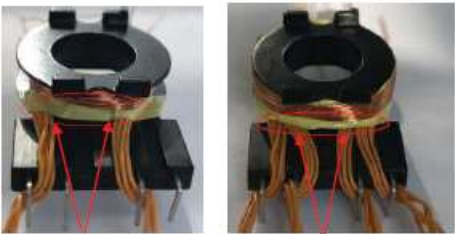
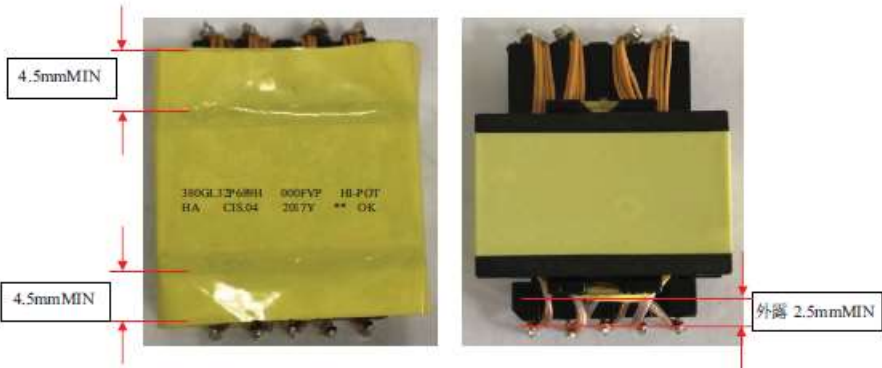
3. APPEARANCE & MECHANICAL CHARACTERISTICS
3.1. DIMENSIONS



A=32.0+2.0 mm
B=14.5+0/-2.0 mm
C=37.5+1.5 mm
D=3.5±0.3 mm
E1=5.0±0.3 mm
E2=42.5+0.5 mm
F=4.5mmMIN
d=0.64*0.64+0.1 mm

- 1 PCS PFC CHOKE WEIGHT IS: 37.0±2g
b. 引线镀层结构图
c. MARKING 打印在产品上端。
d. 引脚挂PIN圈数: 配线ALL PIN 1.0Ts MIN.
e. CORE GAP(单边) AT TOP SIDE: 中柱点胶;
f. PIN 8 CUT OFF ,PIN 2 CUT OFF 1/2.

NOTE: 1. Lead Wire Composition
Steel 78%
Cu 22%
Sn 99.99% (Thickness 6-12 μ)
Lead Free Solder
Sn 98% Cu 2%

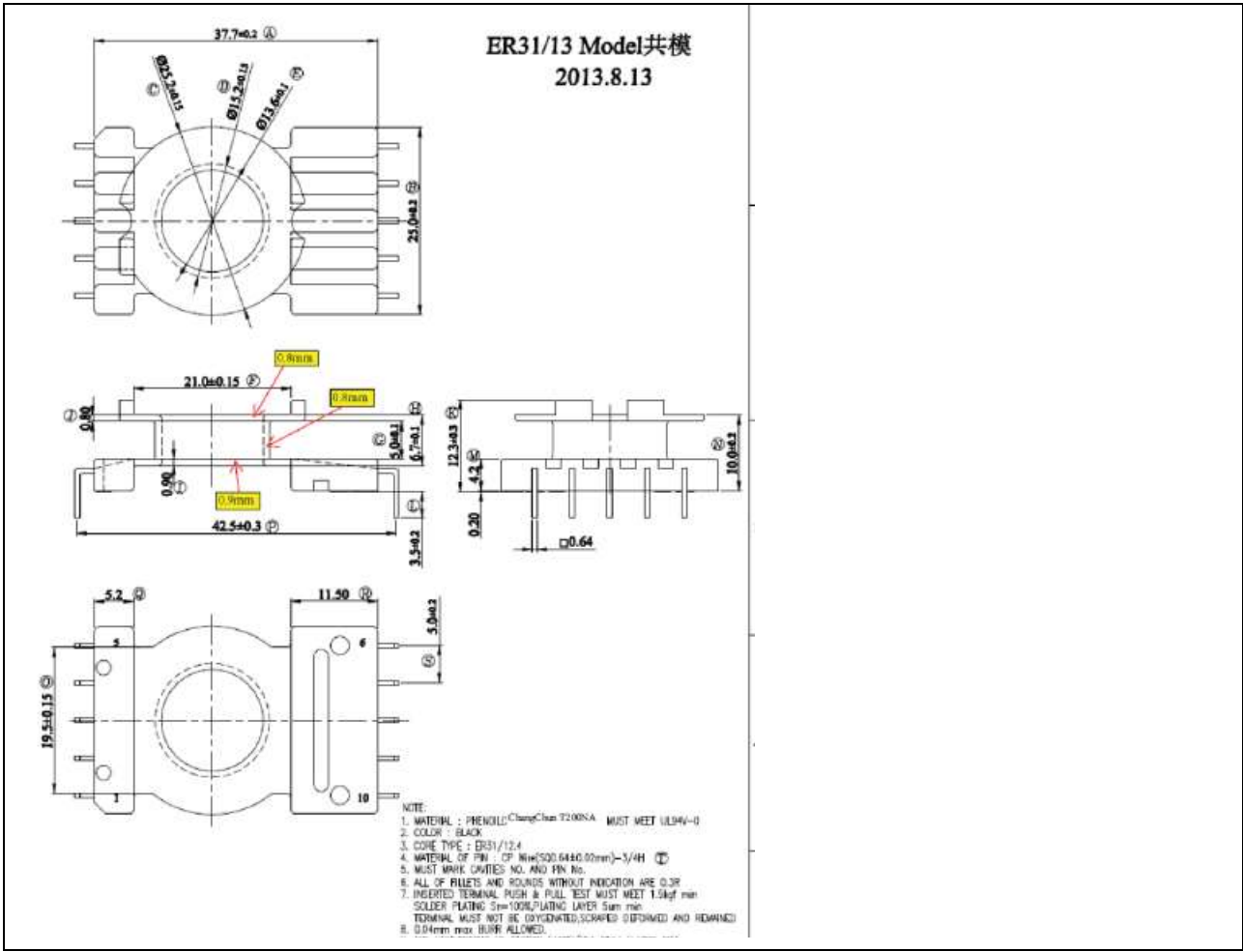


次级绕组TAPE适当加宽为5.5mm及在次级侧三层线上贴一层宽度约为4.5mm的TAPE, 使得TAPE向三层线方向偏移约1mm贴到三层线上及直接贴TAPE在三层线上, 使得初级线圈与三层线交叉处不接触



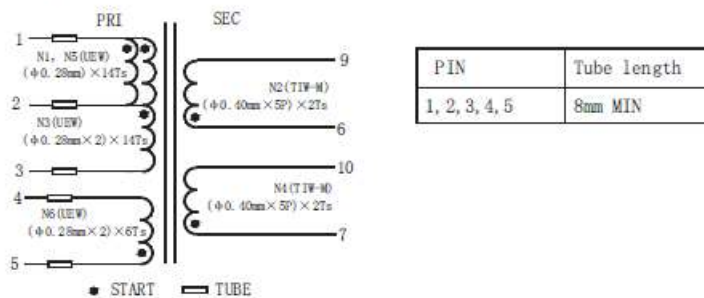
4.5mm tape bottom View(靠二次侧贴一层 tape)
N3,N5 绕组前各贴一层, 共二层

Clause	Requirement + Test	Result - Remark	Verdict
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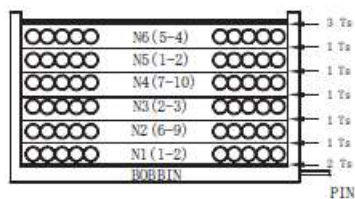


Clause	Requirement + Test	Result - Remark	Verdict
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3.4. SCHEMATIC:



3.5. WINDING CONSTRUCTION:



Mylar tape: t 0.025mm*5.3mmW

- 1.) PIN1,2,3,4,5 ADDED TUBE,
- 2.) TUBE over winding 2.5mm min

3.6. WINDING MODE:

No.	COIL	TERMINAL	WIRE GAUGE	WIRE TYPE	TUNS	WINDING METHOD	TAPE 2Ts
1	N1	1-2	φ 0.28 mm	UEW	14	CLOSED	1Ts
2	N2	6-9	φ 0.40mm×5	TIW-M	2	CLOSED	1Ts
3	N3	2-3	φ 0.28 mm×2	UEW	14	CLOSED	1Ts
4	N4	7-10	φ 0.40 mm×5	TIW-M	2	CLOSED	1Ts
5	N5	1-2	φ 0.28 mm	UEW	14	CLOSED	1Ts
6	N6	5-4	φ 0.28 mm×2	UEW	6	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接触)

2) Reflexed tape of copper foil :N/A

Description of design:

(a) Bobbin

Primary/input pins 1-2-3, 5-4

Secondary/output pins 6-9, 7-10

Material (manufacturer, type, ratings)..... See table 4.1.2

Thickness (mm) Min. 0.45mm.

Clause	Requirement + Test	Result - Remark	Verdict
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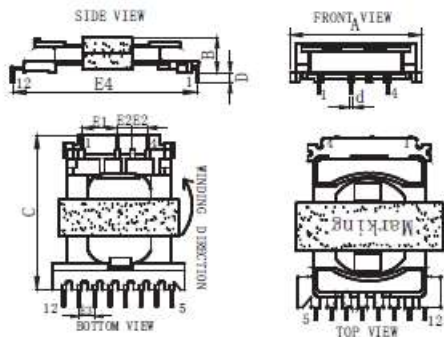
G.5.3.2	TABLE: transformers						P
Loc.	Tested insulation	Working voltage peak / V (5.4.1.8)	Working voltage rms / V (5.4.1.8)	Required electric strength (5.4.9)	Required clearance / mm (5.4.2)	Required creepage distance / mm (5.4.3)	Required distance thr. insul. (5.4.4)
T8601	Primary wire to secondary wire	550	274	AC 4000Vpeak	4.5	5.6	--
T8601	Primary wire to core	550	274	AC 2500Vpeak	2.3	2.8	--
T8601	Secondary wire to core	550	274	AC 2500Vpeak	2.3	2.8	--
Loc.	Tested insulation			Test voltage/ V	Measured clearance / mm	Measured creepage dist./ mm	Measured distance thr. insul. / mm; number of layers
T8601	Primary wire to secondary wire			AC 4000Vpeak	8.1	8.1	Bobbin 0,45mm used.
T8601	Primary wire to core			AC 2500Vpeak	3.5	3.5	Bobbin 0,45mm used.
T8601	Secondary wire to core			AC 2500Vpeak	3.5	3.5	Bobbin 0,45mm used.
supplementary information:							
1. The constructions of all sources of T8601 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 60664-1:2007): 1.48.							

G.5.3.2	TABLE: transformers	P
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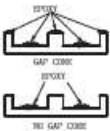
Clause	Requirement + Test	Result - Remark	Verdict
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3. APPEARANCE & MECHANICAL CHARACTERISTICS

3.1. DIMENSIONS

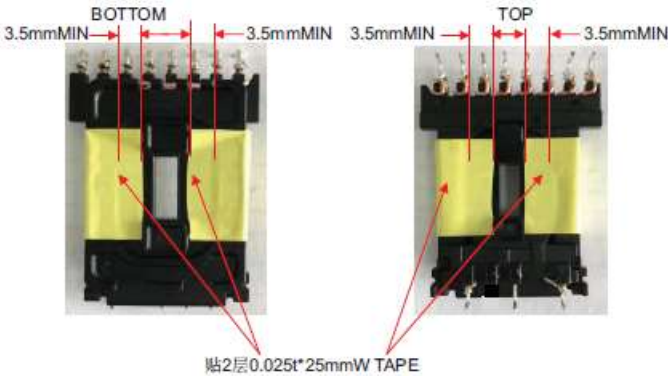
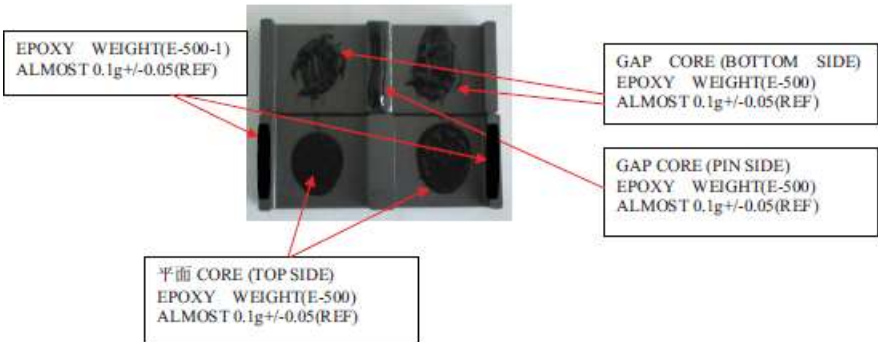


A=46.2±2.0 mm
B=14.5+0/-1.5 mm
C=55.45±2.0 mm
D=3.5±0.5 mm
E1=12.0+0.3 mm
E2=6.0+0.3 mm
E3=5.5+0.3 mm
E4=62.2±0.5 mm
d=0.8±0.8±0.1 mm

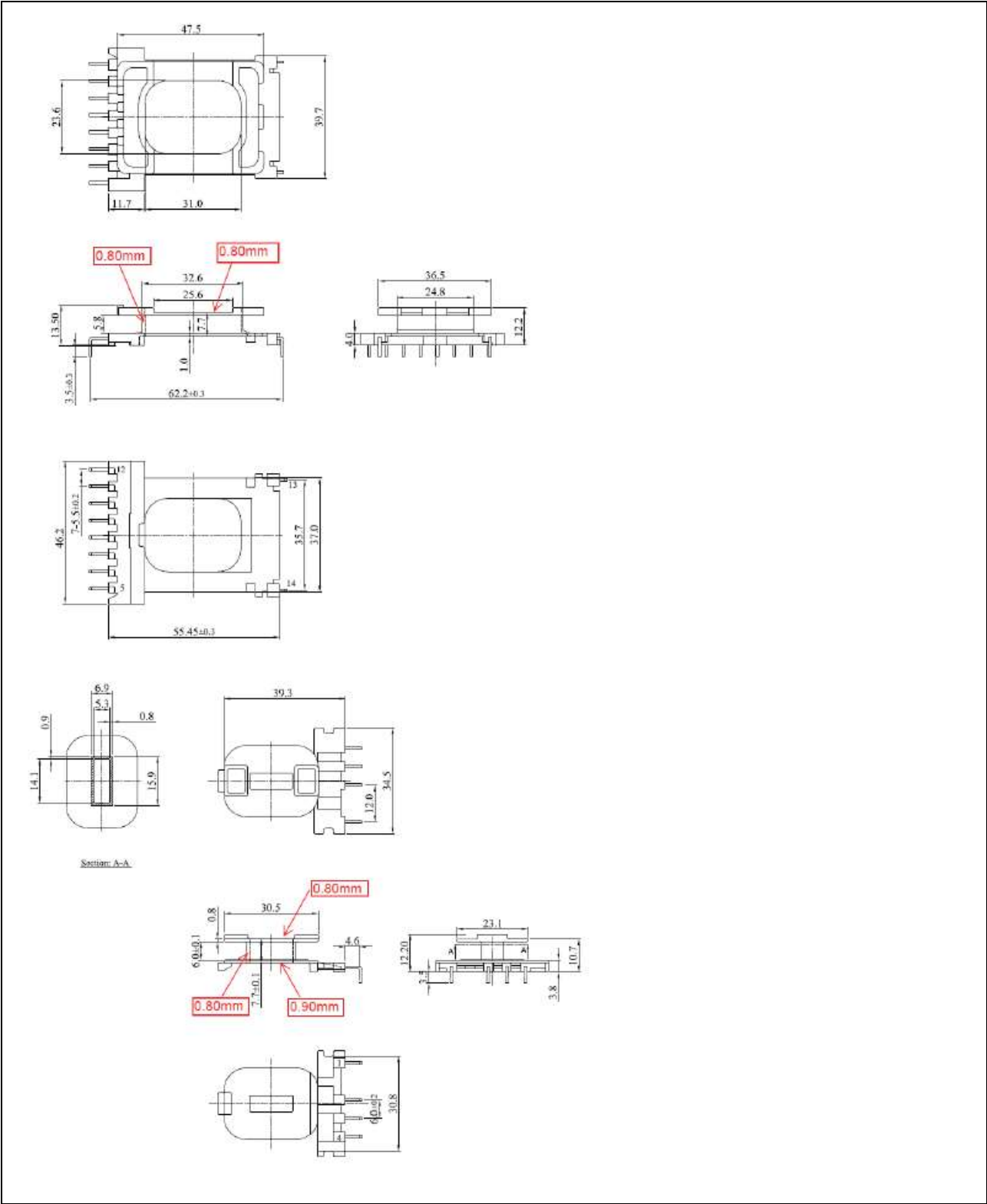


NOTE: 1. Lead Wire Composition
Steel 78%
Cu 22%
Sn 99.99% (Thickness 6 ± 1 μ)
Lead Free Solder
Sn 98% Cu 2%

- a. 1 PCS POWER TRANS WEIGHT IS: 46.9±3g
- b. 引线镀层结构图
- c. MARKING 打印在产品TOP端。
- d. 引脚挂PIN 圈数: 配线 ALL PIN 1.0Ts MIN
- e. CORE GAP(单边) AT PIN SIDE; 中柱及两边柱点胶
CORE与骨架接触处按图示4点位置点胶。
- f. PIN 3,13,14 CUT OFF;

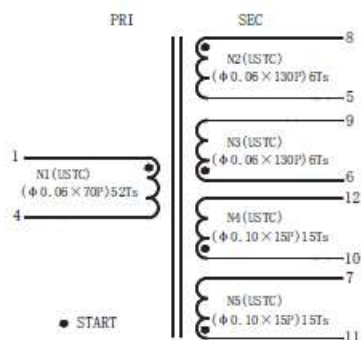


Clause	Requirement + Test	Result - Remark	Verdict
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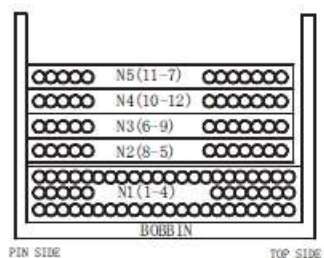


Clause	Requirement + Test	Result - Remark	Verdict
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3.4. SCHEMATIC:



3.5. WINDING CONSTRUCTION:



3.6. WINDING MODE:

No.	COIL	TERMINAL	WIRE GAUGE	WIRE TYPE	TURNS	WINDING METHOD	TAPE
1	N1	1-4	$\phi 0.06\text{mm} \times 70$	USTC	52	CLOSE	/
2	N2	8-5	$\phi 0.06\text{mm} \times 130$	USTC	6	CLOSE	/
3	N3	6-9	$\phi 0.06\text{mm} \times 130$	USTC	6	CLOSE	/
4	N4	10-12	$\phi 0.10\text{mm} \times 15$	USTC	15	CLOSE	/
5	N5	11-7	$\phi 0.10\text{mm} \times 15$	USTC	15	CLOSE	/

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接触):

2) Reflexed tape of copper foil :N/A

Description of design:

(a) Bobbin

Primary/input pins	1-4
Secondary/output pins	8-5, 6-9, 10-12, 1-7
Material (manufacturer, type, ratings)	See table 4.1.2
Thickness (mm).....	Min. 0.45mm.

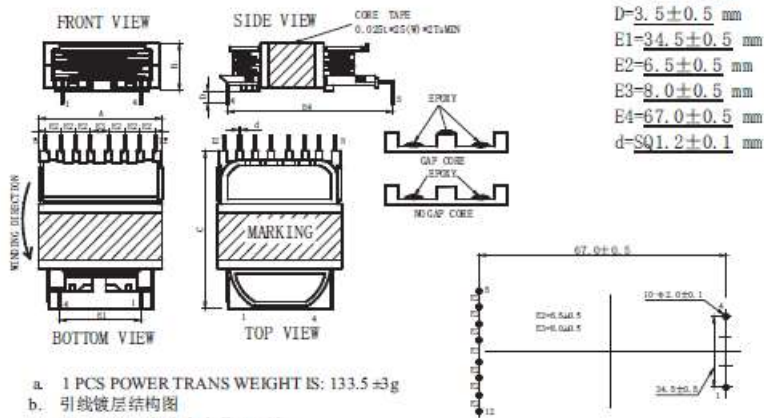
Clause	Requirement + Test	Result - Remark	Verdict
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G.5.3.2	TABLE: transformers						P
Loc.	Tested insulation	Working voltage peak / V (5.4.1.8)	Working voltage rms / V (5.4.1.8)	Required electric strength (5.4.9)	Required clearance / mm (5.4.2)	Required creepage distance / mm (5.4.3)	Required distance thr. insul. (5.4.4)
T9102	Primary wire to secondary wire	444	257	AC 4000Vpeak	4.5	5.2	--
T9102	Primary wire to core	444	257	AC 4000Vpeak	4.5	5.2	--
T9102	Secondary wire to core	--	--	--	--	--	--
Loc.	Tested insulation			Test voltage/ V	Measured clearance / mm	Measured creepage dist./ mm	Measured distance thr. insul. / mm; number of layers
T9102	Primary wire to secondary wire			AC 4000Vpeak	8.6	8.6	Bobbin 0,45mm used.
T9102	Primary wire to core			AC 4000Vpeak	8.6	8.6	Bobbin 0,45mm used.
T9102	Secondary wire to core			--	--	--	--
supplementary information:							
1. The constructions of all sources of 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 60664-1:2007): 1.48.							

G.5.3.2	TABLE: transformers	P

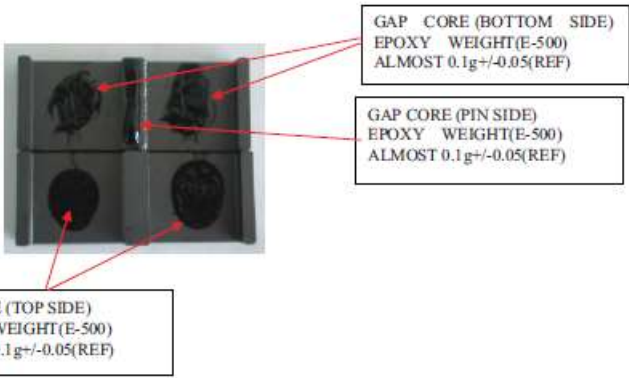
Clause	Requirement + Test	Result - Remark	Verdict
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3. APPEARANCE & MECHANICAL CHARACTERISTICS
3.1. DIMENSIONS

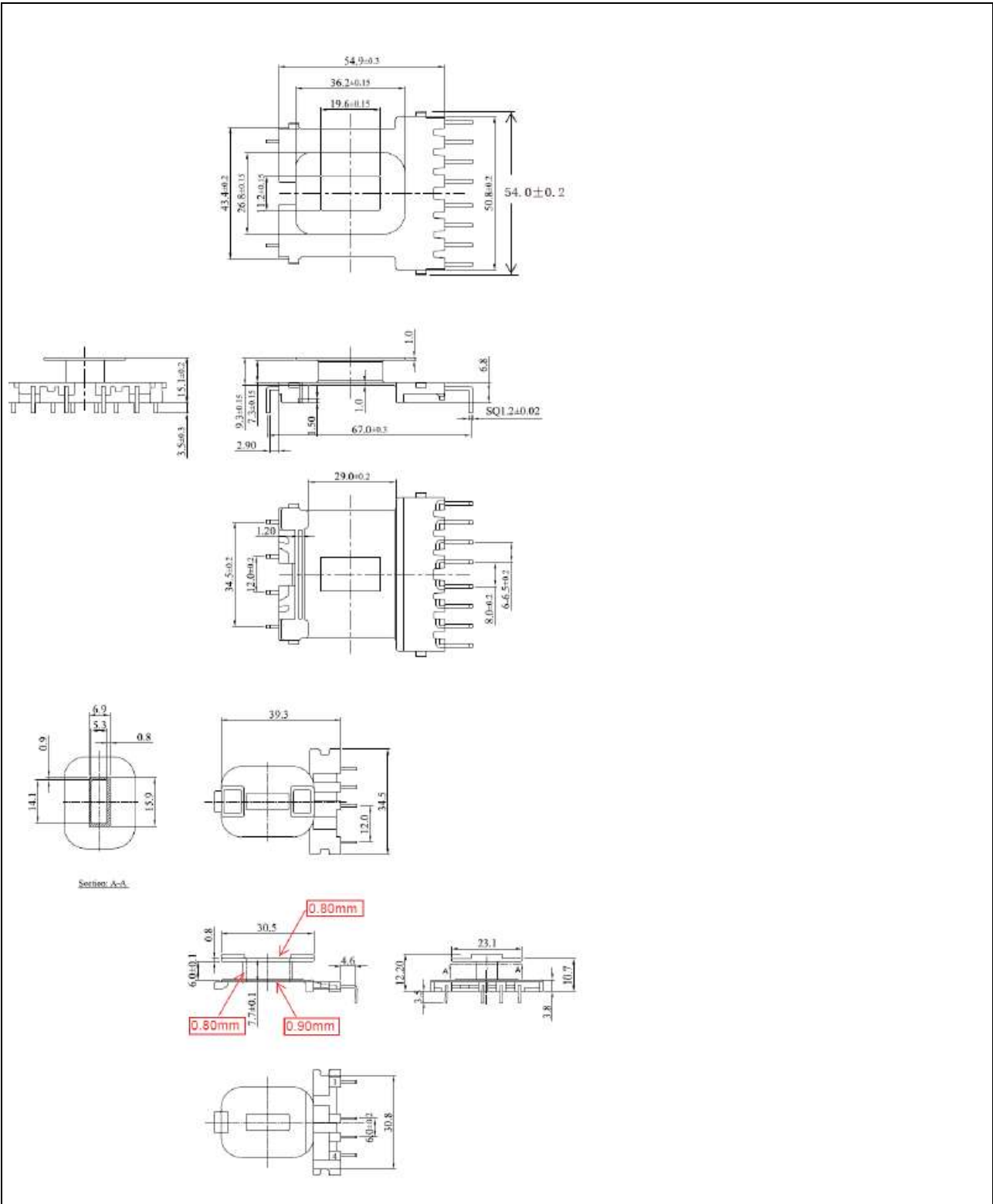


- a. 1 PCS POWER TRANS WEIGHT IS: 133.5 ±3 g
- b. 引线镀层结构图
- c. MARKING 打印在产品TOP端。
- d. 引脚挂 PIN 圈数: 配线 ALL PIN 1.0Ts MIN
- e. CORE GAP(单边) AT PIN SIDE; 中柱点胶
CORE与骨架接触处按图示4点位置点胶。
- f. PIN 2,3 CUT OFF;

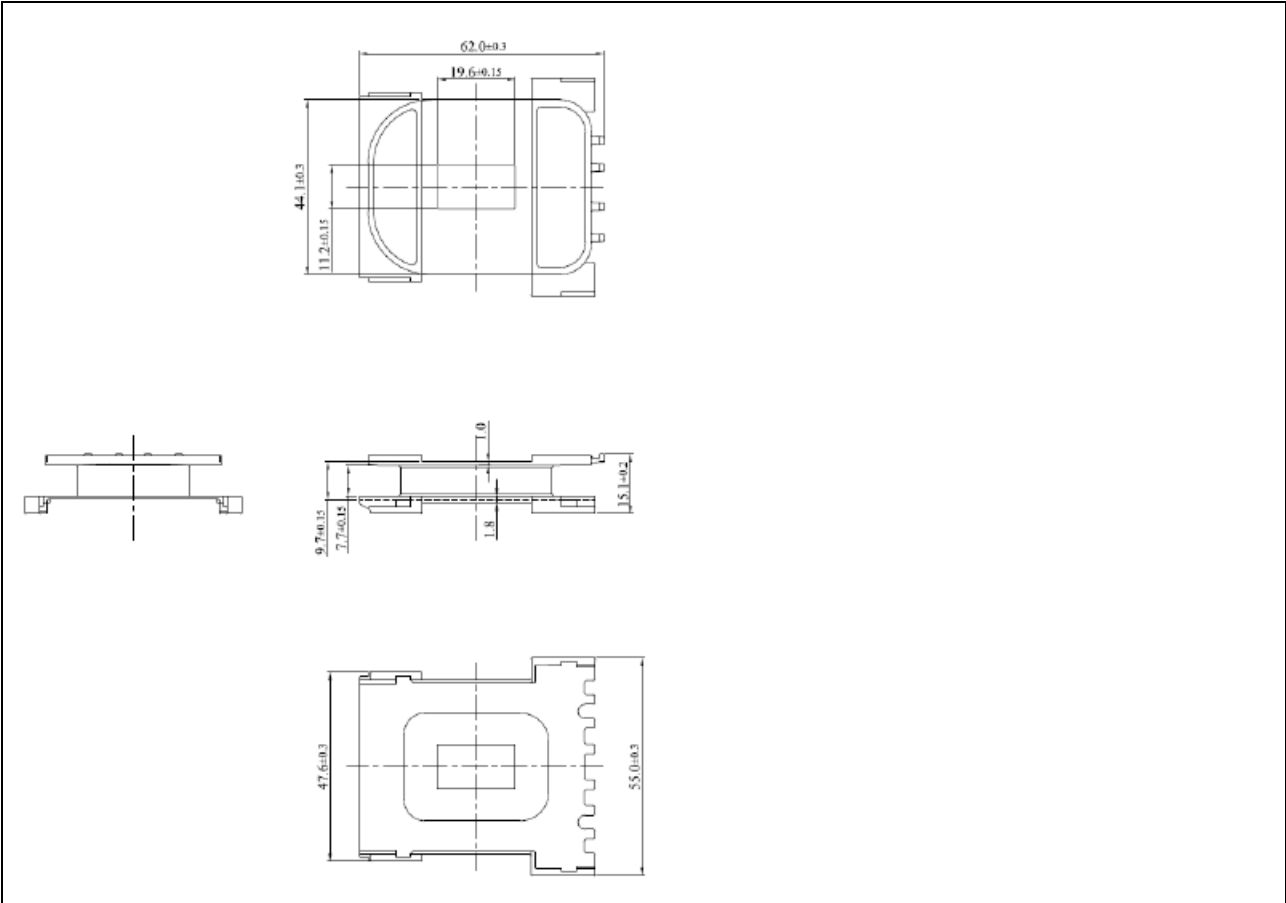
NOTE: 1. Lead Wire Composition
Steel 78%
Cu 22%



Clause	Requirement + Test	Result - Remark	Verdict
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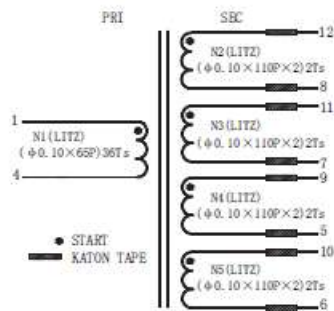


Clause	Requirement + Test	Result - Remark	Verdict
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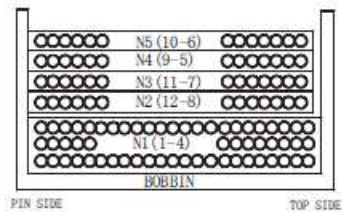
Clause	Requirement + Test	Result - Remark	Verdict
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3.4. SCHEMATIC:



PIN	Tube length
5, 6, 7, 8, 9, 10, 11, 12	12mm MIN

3.5. WINDING CONSTRUCTION:



Note:

- 1.) PIN5,6,7,8,9,10,11,12 ADDED TUBE/TAPE,
- 2.) TUBE/TAPE over winding 2.5mm min

3.6. WINDING MODE:

No.	COIL	TERMINAL	WIRE GAUGE	WIRE TYPE	TURNS	WINDING METHOD	TAPE
1	N1	1-4	φ 0.10mm × 65	LITZ	36	CLOSE	/
2	N2	12-8	φ 0.10mm × 110 × 2	LITZ	2	CLOSE	/
3	N3	11-7	φ 0.10mm × 110 × 2	LITZ	2	CLOSE	/
4	N4	9-5	φ 0.10mm × 110 × 2	LITZ	2	CLOSE	/
5	N5	10-6	φ 0.10mm × 110 × 2	LITZ	2	CLOSE	/

3.7. Winding Direction: It Is anti-clockwise From bottom Side

Description of design:

(a) Bobbin

Primary/input pins	1-4
Secondary/output pins	12-8, 11-7, 9-5, 10-6
Material (manufacturer, type, ratings)	See table 4.1.2
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
Copyright © 2017 IEC System for Conformity Testing and Certification of Electrical Equipment (IECEE), Geneva, Switzerland. All rights reserved.	

	CENELEC COMMON MODIFICATIONS (EN)					P
	Clauses, subclauses, notes, tables, figures and annexes which are additional to those in IEC 62368-1:2014 are prefixed "Z".					P
CONTENTS	Add the following annexes: Annex ZA (normative) Normative references to international publications with their corresponding European publications Annex ZB (normative) Special national conditions Annex ZC (informative) A-deviations Annex ZD (informative) IEC and CENELEC code designations for flexible cords					P
	Delete all the "country" notes in the reference document (IEC 62368-1:2014) according to the following list:					P
	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

IEC62368_1B - ATTACHMENT			
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

IEC62368_1B - ATTACHMENT			
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

IEC62368_1B - ATTACHMENT			
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

IEC62368_1B - ATTACHMENT			
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

IEC62368_1B - ATTACHMENT			
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

IEC62368_1B - ATTACHMENT			
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 jordtilkoplet utstyr – og er tilkoplet et koaksialbasert kabel-TV nett, kan forårsake brannfare. For å unngå dette skal det ved tilkopling av apparater til kabel-TV nett installeres en galvanisk isolator mellom apparatet og kabel-TV nettet.” 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

IEC62368_1B - ATTACHMENT			
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

IEC62368_1B - ATTACHMENT			
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

IEC62368_1B - ATTACHMENT			
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

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 62368-1 (AUSTRALIA / NEW ZEALAND) NATIONAL DIFFERENCES (Audio/video, information and communication technology equipment)			
Differences according to : AS/NZS 62368.1:2018			
Attachment Form No. : AU_NZ_ND_IEC62368_1B			
Attachment Originator : JAS-ANZ			
Master Attachment..... : 2018-02			
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	National Differences		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

IEC62368_1B - ATTACHMENT			
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

IEC62368_1B - ATTACHMENT			
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

IEC62368_1B - ATTACHMENT				
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

IEC62368_1B - ATTACHMENT			
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: ° 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'	Provide warning in user's manual.	P

IEC62368_1B - ATTACHMENT			
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

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

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test		Verdict
		which shall withstand the test.	
	11 Evaluation of test results	Replace with the following: 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

IEC62368_1B - ATTACHMENT			
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

IEC62368_1B - ATTACHMENT			
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	Warnings provide in user's manual.	P
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.	Suitable rope is consider as restraining device and withstand a pull of 100N in all directions without damaged. Instruction manual provided.	P

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 62368-1 DENMARK NATIONAL DIFFERENCES Audio/video, information and communication technology equipment – Part 1: Safety requirements	
Differences according to.....	DS/EN 62368-1:2014
Attachment Form No.....	DK_ND_IEC62368_1B
Attachment Originator	UL (Demko)
Master Attachment	2014-10
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	National Differences		P
4.1.15	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: “Apparatets stikprop skal tilsluttes en stikkontakt med jord som giver forbindelse til stikproppens jord.”	Added. The equipment is for building-in into a Class I equipment. The marking text must be provided when marketed in Denmark.	N/A
5.2.2.2	After the 2nd paragraph add the following: A warning (marking safeguard) for high touch current is required if the touch current exceeds the limits of 3,5 mA a.c. or 10 mA d.c.	Added. No high touch current is generated.	N/A
5.6.1	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. Justification: In Denmark an existing 13 A socket outlet can be protected by a 20 A fuse.	Added. No socket outlet is provided.	N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
5.7.5	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.	Added. No protective conductor current exceeded.	N/A
5.7.6.2	To the end of the subclause the following is added: 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.	Added. No protective current exceeded.	N/A
G.4.2	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 Justification: Heavy Current Regulations, Section 6c	Added.	N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 62368-1 ITALY NATIONAL DIFFERENCES (Audio/video, information and communication technology equipment – Part 1: Safety requirements)			
Differences according to: CEI EN 62368-1:2016			
Attachment Form No.: IT_ND_IEC62368_1B			
Attachment Originator: IMQ S.p.A.			
Master Attachment: Date 2020-01-31			
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	National Differences		P
F.1	Italy The following requirements shall be fulfilled: • The power consumption in Watts (W) shall be indicated on TV receivers and in their instruction for use (Measurement according to EN 60555-2). Note: <i>EN 60555-2 has since been replaced by IEC 60107-1:1997.</i> • TV receivers shall be provided with an instruction for use, schematic diagrams and adjustments procedure in Italian language. • Marking for controls and terminals shall be in Italian language. Abbreviation and international symbols are allowed provided that they are explained in the instruction for use. • The ECC manufacturers are bound to issue a conformity declaration according to the above requirements in the instruction manual. The correct statement for conformity to be written in the instruction manual, shall be: <i>Questo apparecchio è fabbricato nella CEE nel rispetto delle disposizioni del D.M. marzo 1992 ed è in particolare conforme alle prescrizioni dell'art. 1 dello stesso D.M.</i> • The first importers of TV receivers manufactured outside EEC are bound to submit the TV receivers for previous conformity certification to the Italian Post Ministry (PP.TT). The TV receivers shall have on the backcover the certification number in the following form:	Not such equipment.	N/A



IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	D.M. 26/03/1992 xxxxx/xxxxx/S or T or pT S for stereo T for Teletext pT for retrofitable teletext <i>Justification:</i> Ministerial Decree of 26 March 1992 : National rules for television receivers trade. NOTE/ : <i>Ministerial decree above contains additional, but not safety relevant requirements</i>		

IEC62368_1B - ATTACHMENT			
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)
Master Attachment	Date 2015-06
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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

IEC62368_1B - ATTACHMENT			
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

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	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

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

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	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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Clause	Requirement + Test	Result - Remark	Verdict
	earphone intended to be held against, or in the ear is required to comply with special acoustic pressure requirements.		

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
ATTACHMENT TO TEST REPORT IEC 62368-1 (JAPAN) NATIONAL DIFFERENCES (Audio/video, information and communication technology equipment – Part 1: Safety requirements)			
Differences according to: J62368-1 (H30)			
Attachment Form No.: JP_ND_IEC62368_1B			
Attachment Originator: UL (JP)			
Master Attachment: Date 2018-11-22			
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	National Differences		—
4.1.2	Where the component, or a characteristic of a component, is a safeguard or a part of a safeguard, components shall comply with the requirements of this standard or, where specified in a requirements clause, with the safety aspects of the relevant JIS component standards or IEC component standards, or components shall have properties equivalent to or better than these.	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.	Considered.	P
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

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

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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.	Shall be evaluated during national approval.	P
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

IEC62368_1B - ATTACHMENT			
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



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Clause	Requirement + Test	Result - Remark	Verdict

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Clause	Requirement + Test	Result - Remark	Verdict
G.4.2A	Mains socket-outlet and interconnection coupler provided with the class II, class I and class 0I equipment respectively.		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

Product: LCD Monitor

Type Designation: P555, MA551, P495, MA491

Overall front view (Horizontal) (for P555, MA551)



Overall front view (Horizontal) (with external speaker) (for P555, MA551)



Product: LCD Monitor

Type Designation: P555, MA551, P495, MA491

Overall rear view (Horizontal) (with external speaker) (for P555, MA551)



Overall rear view (Horizontal) (Minimum height) (for P555, MA551)



Product: LCD Monitor

Type Designation: P555, MA551, P495, MA491

Overall rear view (Horizontal) (Maximum height) (for P555, MA551)



Overall front view (Vertical) (for P555, MA551)



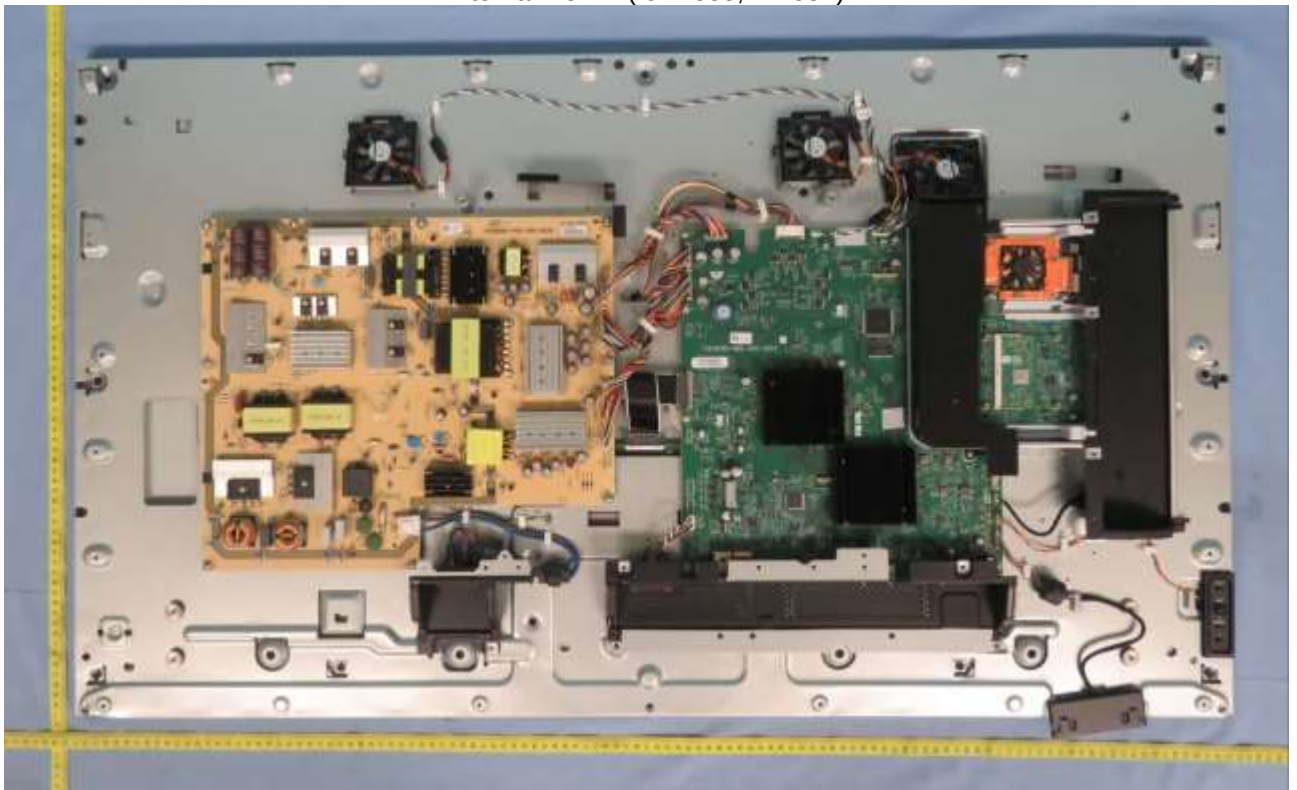
Product: LCD Monitor

Type Designation: P555, MA551, P495, MA491

Overall rear view (Vertical) (for P555, MA551)



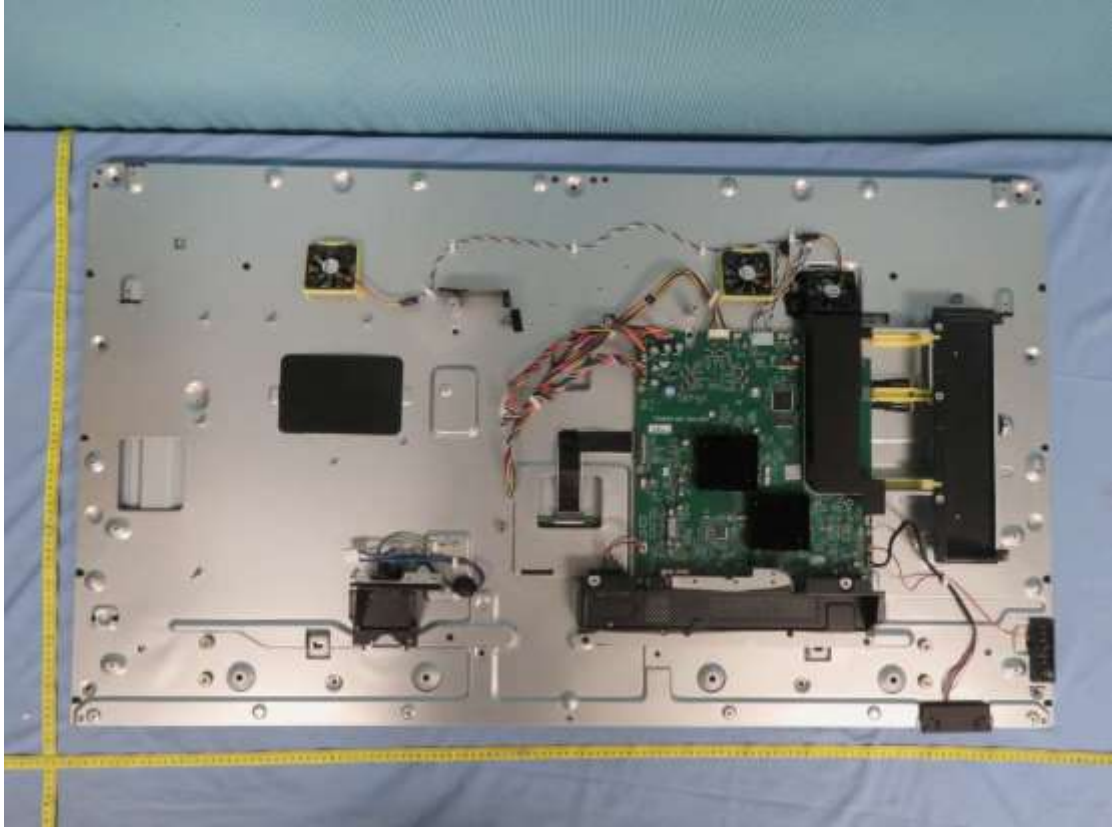
Internal view 1 (for P555, MA551)



Product: LCD Monitor

Type Designation: P555, MA551, P495, MA491

Internal view 2 (for P555, MA551)



Metal enclosure internal view (for P555, MA551)



Product: LCD Monitor

Type Designation: P555, MA551, P495, MA491

Overall front view (Horizontal) (with external speaker) (for P495, MA491)



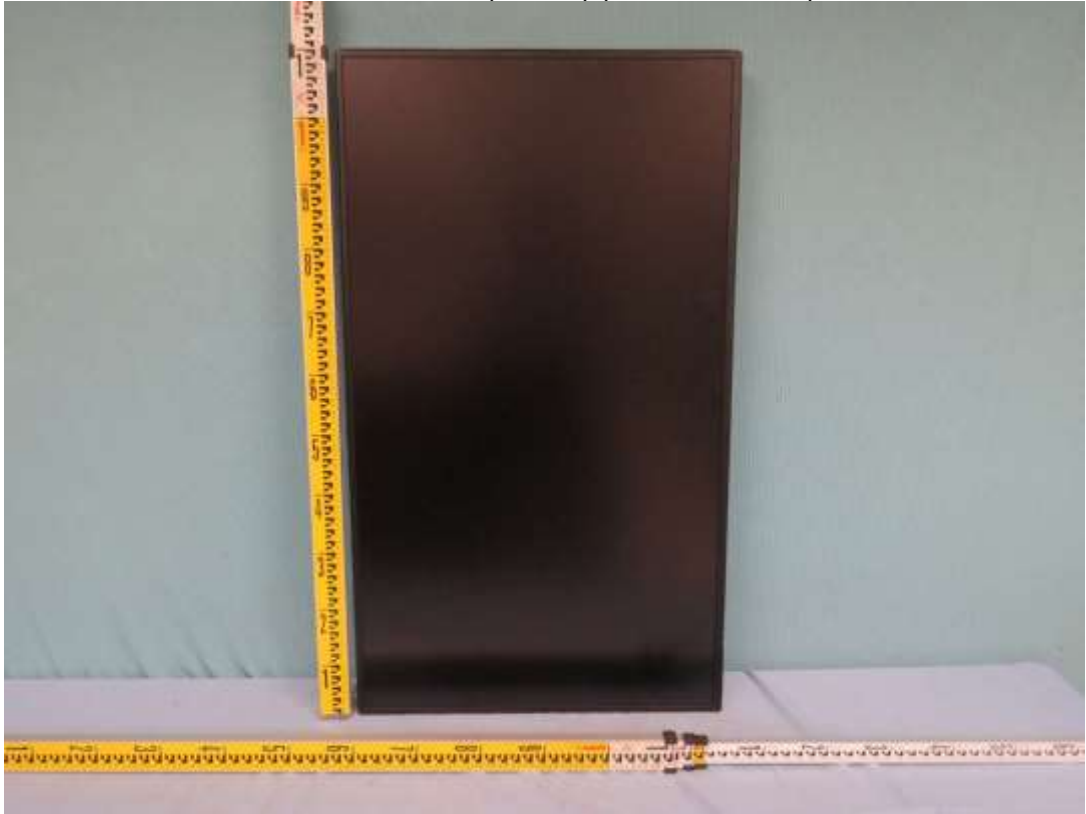
Overall rear view (Horizontal) (with external speaker) (for P495, MA491)



Product: LCD Monitor

Type Designation: P555, MA551, P495, MA491

Overall front view (Vertical) (for P495, MA491)



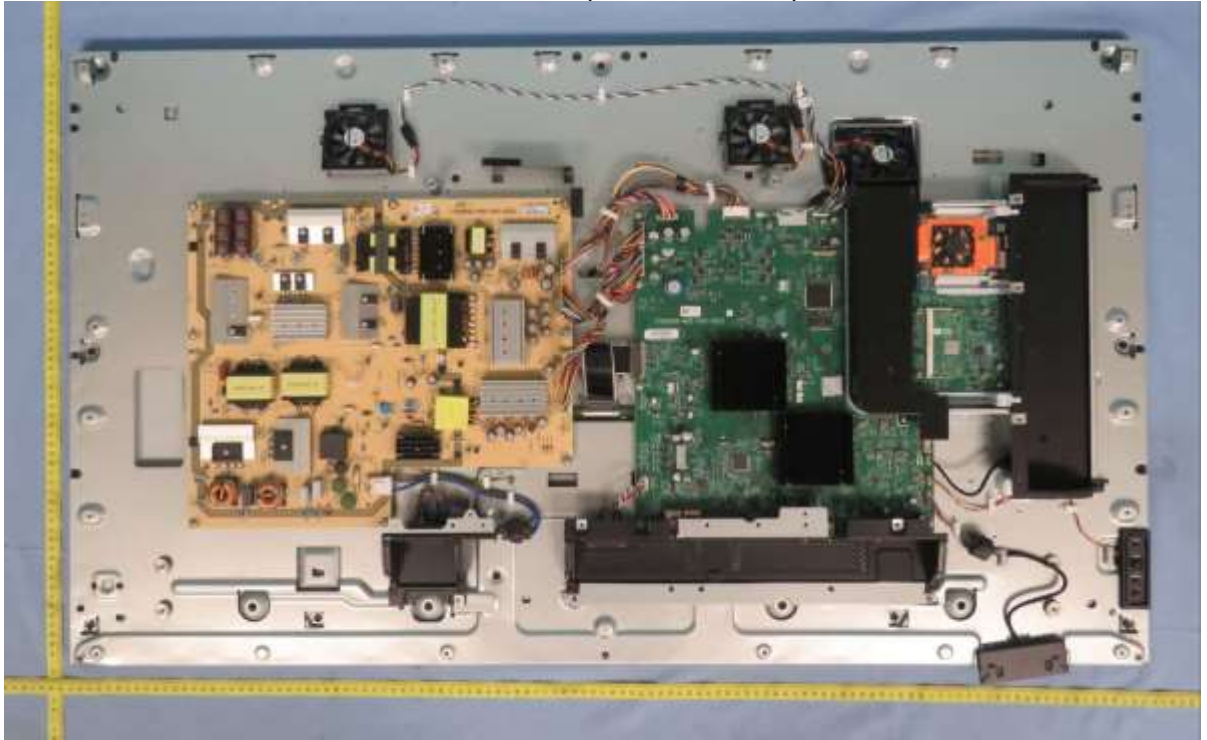
Overall rear view (Vertical) (for P495, MA491)



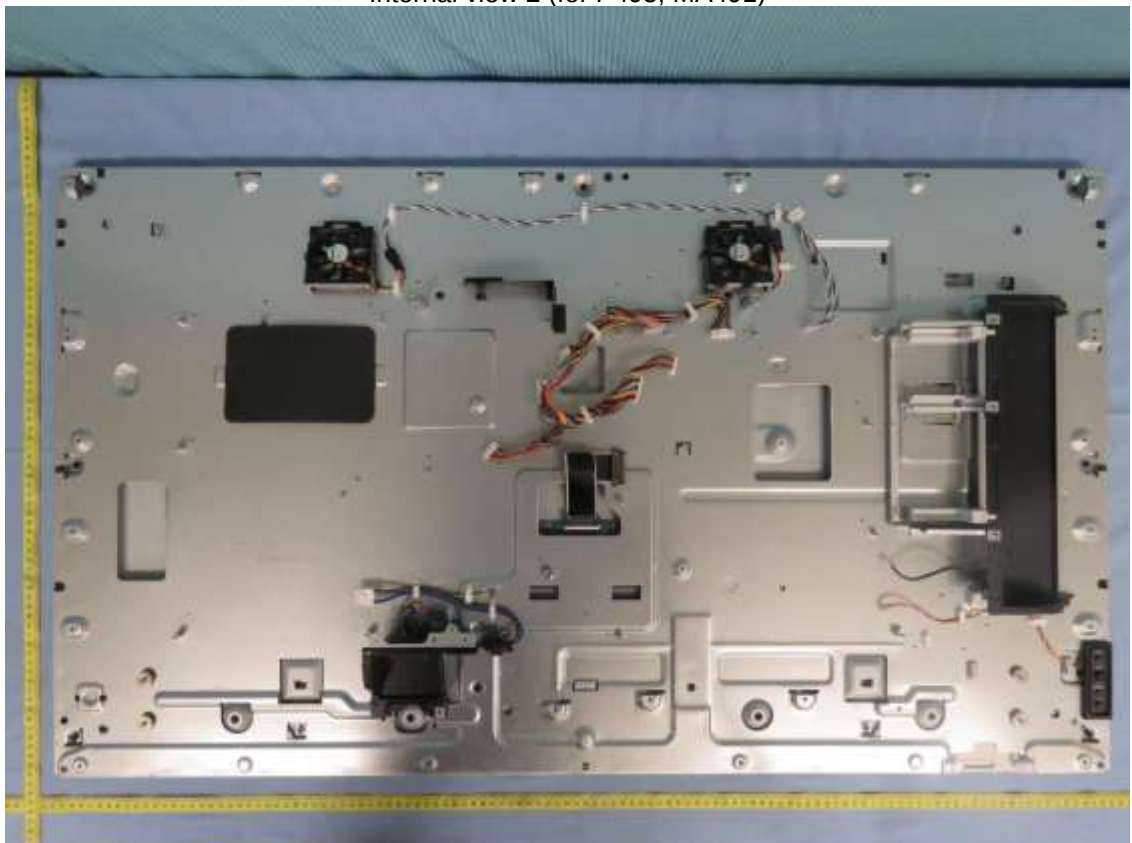
Product: LCD Monitor

Type Designation: P555, MA551, P495, MA491

Internal view 1 (for P495, MA491)



Internal view 2 (for P495, MA491)



Product: LCD Monitor

Type Designation: P555, MA551, P495, MA491

Metal enclosure internal view (for P495, MA491)



Connector side view 1



Product: LCD Monitor

Type Designation: P555, MA551, P495, MA491

Connector side view 2 (without SDM card and compute module)



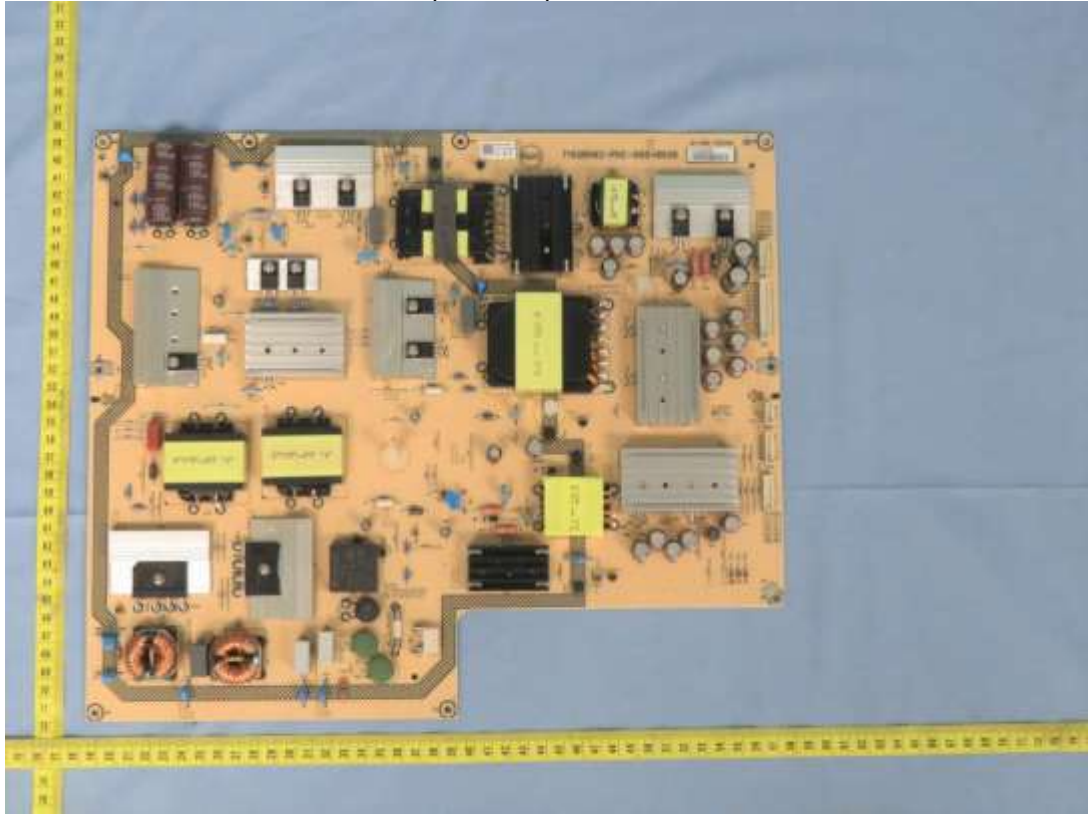
Connector side view 3 (with SDM card)



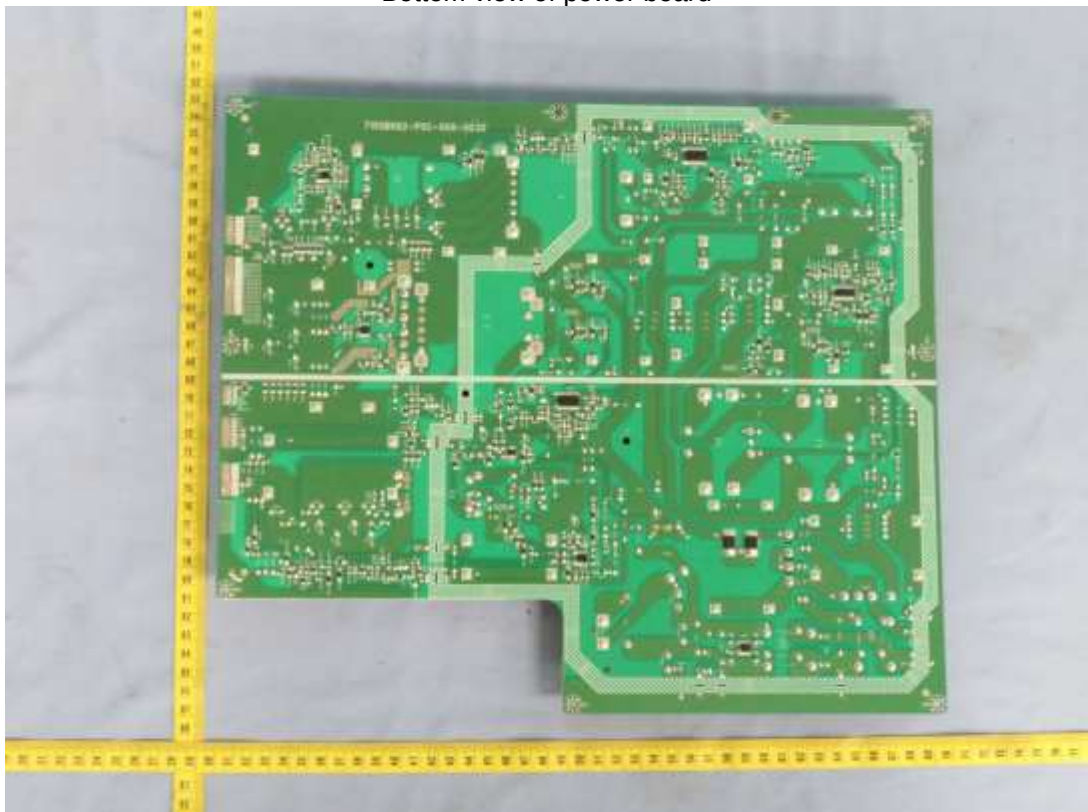
Product: LCD Monitor

Type Designation: P555, MA551, P495, MA491

Top view of power board



Bottom view of power board



Product: LCD Monitor

Type Designation: P555, MA551, P495, MA491

Top view of main board



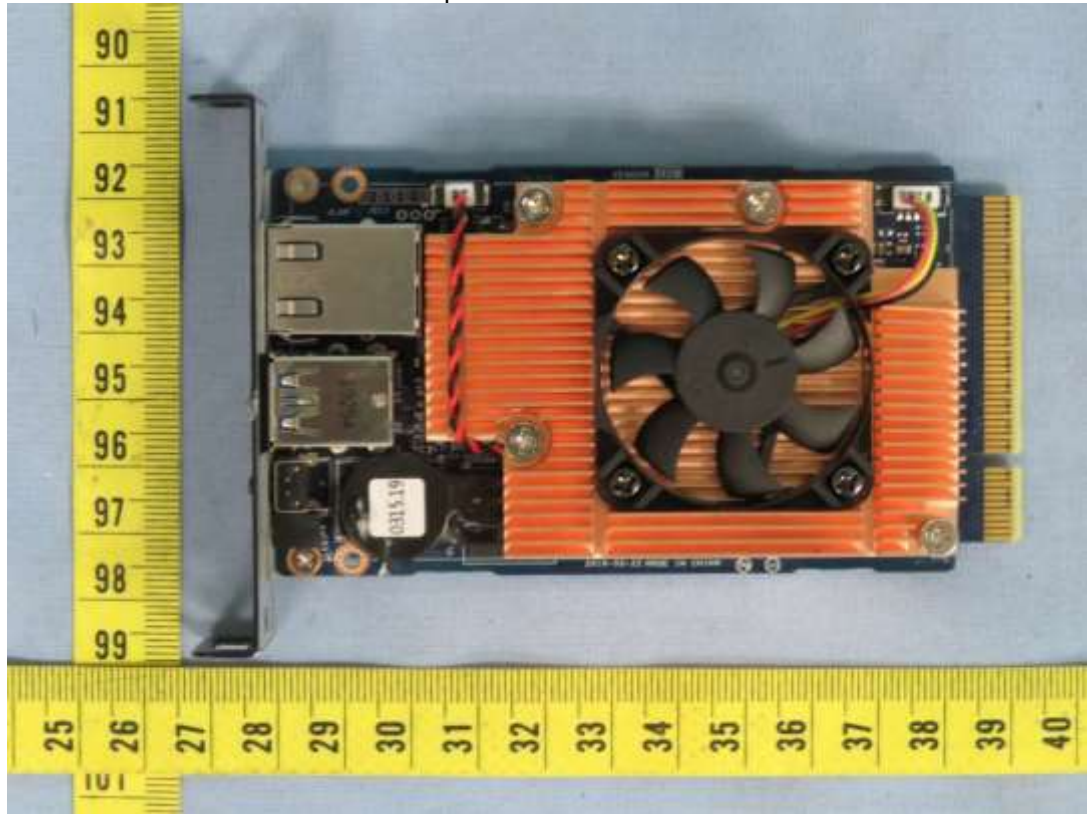
Bottom view of main board



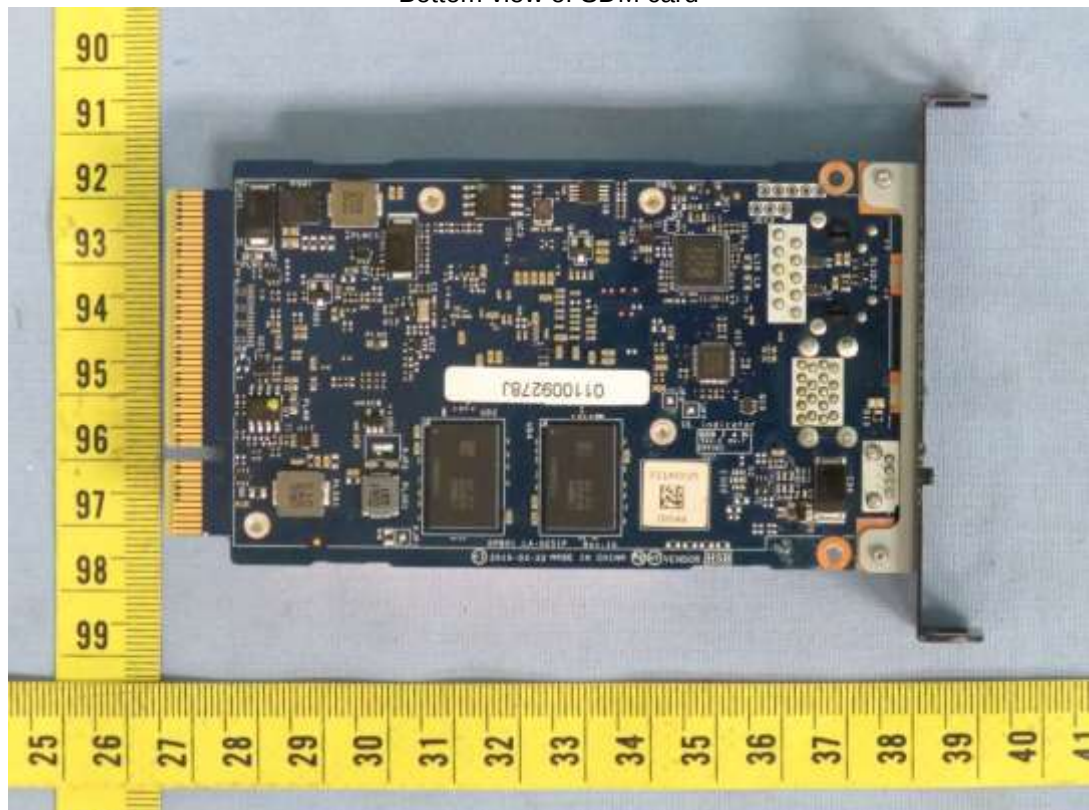
Product: LCD Monitor

Type Designation: P555, MA551, P495, MA491

Top view of SDM card



Bottom view of SDM card



Product: LCD Monitor

Type Designation: P555, MA551, P495, MA491

Base stand



AC inlet and switch view



Product: LCD Monitor

Type Designation: P555, MA551, P495, MA491

Connector side view (with SDM card and compute module)



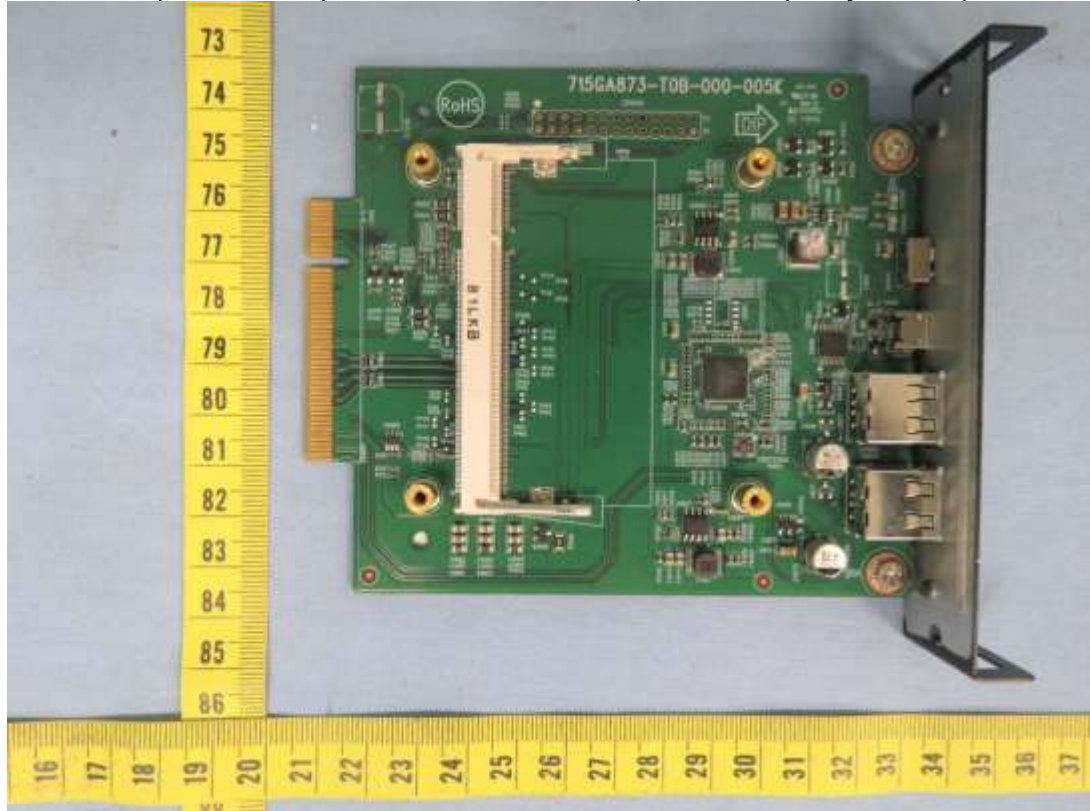
Top view of compute module view



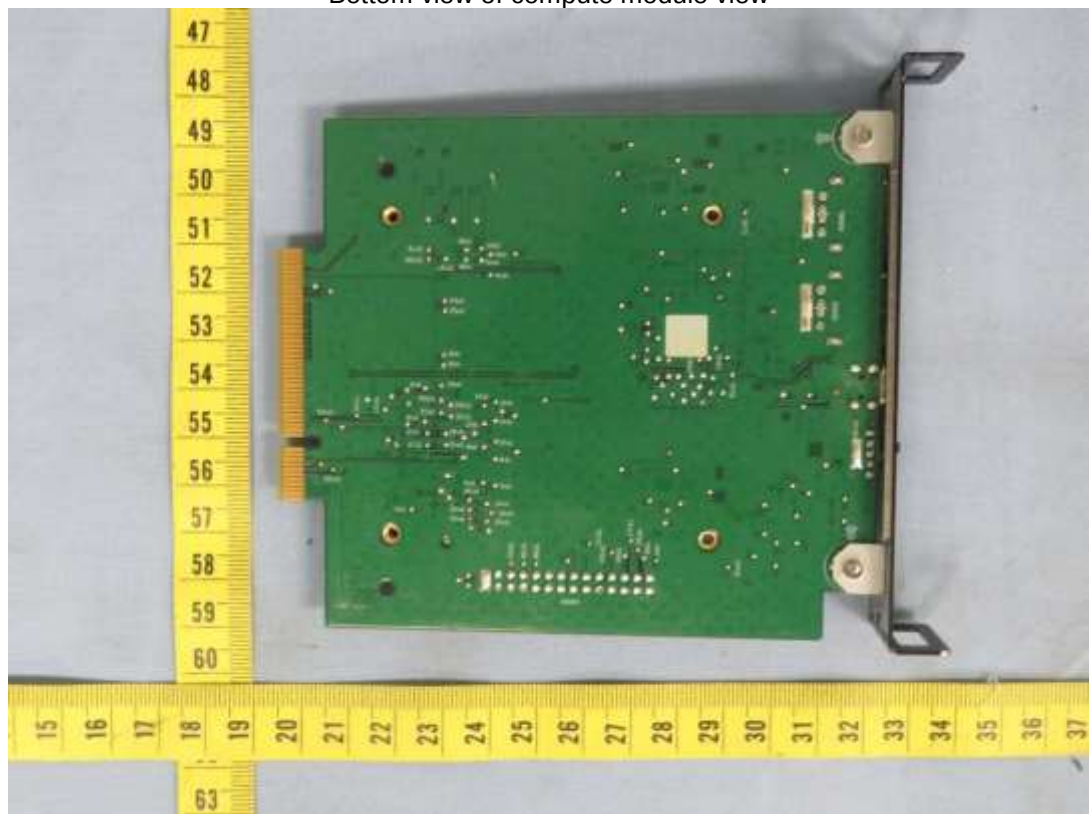
Product: LCD Monitor

Type Designation: P555, MA551, P495, MA491

Top view of compute module if board view (remove Raspberry Pi Linux)



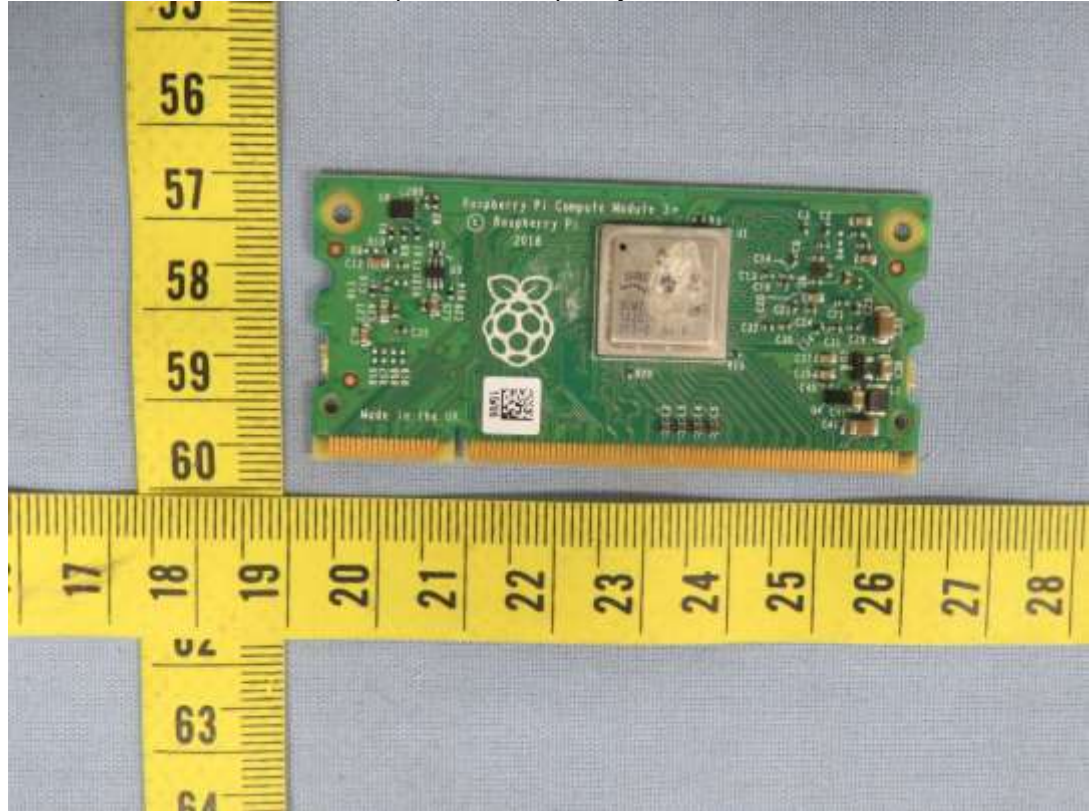
Bottom view of compute module view



Product: LCD Monitor

Type Designation: P555, MA551, P495, MA491

Top view of Raspberry Pi Linux



Bottom view of Raspberry Pi Linux

