

POE INJECTOR



Provide both power and data to Tarana hardware with this simple and reliable PoE injector.



Description	PoE injector
Product SKU	44-0017-001
Manufacturer	Gospell Digital Technology (Gospower)
Manufacturer Model	G0566-500-120
Operating Temperature	-20°C to 40°C
Operating Humidity	35°C to 95°C non-condensing
Input Voltage	100-240 VAC
Input Current	1300 mA max at 90 VAC
Rated Output Current	1200 mA
Rated Power	60 W continuous
Dimensions	138.5 mm (L) x 62.5 mm (W) x 33.8 mm (H)
LED	Power, active indicators
Safety	Over current protection Short circuit protection
Standards	CE/EN55013 & EN55032; EN55024, EN55020 FCC FCC Part 15 Subpart B, Class B; ANSI C63.4 IEC61000-4-5



Certificate of Suitability

Global-Mark Pty. Ltd., certify the electrical equipment described hereunder complies with standards listed herein and notifies the certificate holder to affix the Regulatory Compliance Mark (RCM) mark on the product of the same type provided that the requirements of all relevant parts of AS/NZS 4417 applicable to the article are fulfilled. In placing the RCM mark on the product, the Responsible Supplier makes a declaration of compliance with the certification standard(s) and confirms that the product is identical to the product certified herein. This Certificate meets the requirements of a Recognised External Certification Scheme (RECS).

CERTIFICATION AND CERTIFICATE HOLDER DETAILS			
Company Name	Shen Zhen Comlli Intel Technology Co.,Ltd	Other Name	
Address	G Zone, 3/F, Building 1, Baisha High-Tech Park, No. 3011 Shahe Road West, Xili Street, Nanshan District, Shenzhen, Guangdong - China		
Client ID	108822	Global-Mark File Number:	108822-001
Certification Number	GMA-513931	Revision Number	00
Certificate Standard(s)	AS/NZS 62368.1:2018 Audio/video, information and communication technology equipment - Safety requirements		
Type of Certification	Electrical Safety Product	Scheme	Global-Mark Electrical Product Safety Certification Scheme

CERTIFICATE DATES	
Certificate Issue Date	28/10/2022
Certificate Last Update Date	
Certification Expiry Date	28/10/2027

This certification remains valid until the above mentioned expiry date and subject to the organisation's continued compliance with the certification standard, and Global-Mark's Terms and Conditions. This Certificate remains the property of Global-Mark Pty Ltd, Company Number: ACN.108-087-654. The use of the Accreditation Mark indicates accreditation by the Joint Accreditation System of Australia and New Zealand in respect to those activities covered by JAS-ANZ accreditation. Refer to www.jas-anz.org/register for verification.



Certification Manager

Global-Mark Pty Ltd, Copyright 2012 - 407, 32 Delhi Road, North Ryde NSW 2113, Australia



Global-Mark.com.au®



Certificate of Suitability

CERTIFIED ELECTRICAL EQUIPMENT				
Declared Article	Product Description	Trade Name	Model Number	Rating
Non declared	Switching Gigabit Power Supply	SHEN ZHEN COMLLI INTEL TECHNOLOGY CO.,LTD	POE-173	Input: 100-240V~, 50/60Hz, 1.5A MAX Output :50Vdc,1.2A
Non declared	Switching Gigabit Power Supply	SHEN ZHEN COMLLI INTEL TECHNOLOGY CO.,LTD	G0566-500-120	Input: 100-240V~, 50/60Hz, 1.5A MAX Output :50Vdc,1.2A
Non declared	Switching Gigabit Power Supply	Gospower	POE-173	Input: 100-240V~, 50/60Hz, 1.5A MAX Output :50Vdc,1.2A
Non declared	Switching Gigabit Power Supply	Gospower	G0566-500-120	Input: 100-240V~, 50/60Hz, 1.5A MAX Output :50Vdc,1.2A

RELEVANT TRADEMARK (S)

COMMENTS OR CONDITIONS ON THE CERTIFICATION
Nil

End of document

This certification remains valid until the above mentioned expiry date and subject to the organisation's continued compliance with the certification standard, and Global-Mark's Terms and Conditions. This Certificate remains the property of Global-Mark Pty Ltd, Company Number: ACN.108-087-654. The use of the Accreditation Mark indicates accreditation by the Joint Accreditation System of Australia and New Zealand in respect to those activities covered by JAS-ANZ accreditation. Refer to www.jas-anz.org/register for verification.



Certification Manager

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CERTIFICATE OF CONFORMITY

This device is in conformance with 47 CFR Part 15 of the FCC Rules.

Registration No.: NTC1808150FV01

Applicant : SHENZHEN GOSPELL DIGITAL TECHNOLOGY CO.,LTD.
Address : 101, Area A, Building A, Jingfa Manufacture Park, Xiawei Park, Gushu Community, Xixiang Street, Bao'an, Shenzhen, 518126 Guangdong P.R.China.

Manufacturer : SHENZHEN GOSPELL DIGITAL TECHNOLOGY CO.,LTD.
Address : 101, Area A, Building A, Jingfa Manufacture Park, Xiawei Park, Gushu Community, Xixiang Street, Bao'an, Shenzhen, 518126 Guangdong P.R.China.

Factory 1 : SHENZHEN GOSPELL DIGITAL TECHNOLOGY CO.,LTD.
Address : 101, Area A, Building A, Jingfa Manufacture Park, Xiawei Park, Gushu Community, Xixiang Street, Bao'an, Shenzhen, 518126 Guangdong P.R.China.

Factory 2 : GOSPOWER ELECTRIC TECHNOLOGY CO., LTD.
Address : Building 1, No.5 XingYe Road, SongShan Lake Park, DongGuan City, 523000 Guangdong P.R. China.

Factory 3 : ChenZhou LiYuan Technology Co. ,Ltd.
Address : 3/F,1Building, Gospell Industrial Park, SuXian District, ChenZhou City, Hunan Province, 423000, China.

E.U.T. : Switching Gigabit Power Supply

Brand Name : N/A

Model No. : POE-173, G0566-xxx-yyy (xxx: Three digits indicate output voltage from 42V to 57V, yyy: Three digits indicate output current from 0.01A to 1.43A.)

Standard : 47 CFR FCC Part 15, Subpart B, Class B
Canadian ICES-003 Issue 7, Class B



This certificate of conformity is based on an evaluation of a sample of the above mentioned product. The certificate and test report can be used for demonstration of technical compliance with FCC Equipment Authorization Procedure-Supplier's Declaration of Conformity (SDoC, 47 CFR PART 2 section §2.906) and ISED requirements of Supplier's Declaration of Conformity. The certificate does not imply assessment of the production and does not permit the use of Lab's logo.

EMC TEST REPORT

The device described below is tested by Dongguan NTC Co., Ltd. to determine the maximum emission levels emanating from the device, the severe levels which the device can endure and E.U.T.'s performance criterion. The test results are contained in this test report. Dongguan NTC Co., Ltd. is assumed of full responsibility for the accuracy and completeness of these tests.

Applicant / Manufacturer : SHENZHEN GOSPELL DIGITAL TECHNOLOGY CO.,LTD.

Address : 101, Area A, Building A, Jingfa Manufacture Park, Xiawei Park, Gushu Community, Xixiang Street, Bao'an, Shenzhen, 518126 Guangdong P.R.China.

Factory 1 : SHENZHEN GOSPELL DIGITAL TECHNOLOGY CO.,LTD.

Address : 101, Area A, Building A, Jingfa Manufacture Park, Xiawei Park, Gushu Community, Xixiang Street, Bao'an, Shenzhen, 518126 Guangdong P.R.China.

Factory 2 : GOSPOWER ELECTRIC TECHNOLOGY CO., LTD.

Address : Building 1, No.5 XingYe Road, SongShan Lake Park, DongGuan City, 523000 Guangdong P.R. China.

Factory 3 : ChenZhou LiYuan Technology Co. ,Ltd.

Address : 3/F,1Building, Gospell Industrial Park, SuXian District, ChenZhou City, Hunan Province, 423000, China.

E.U.T. : Switching Gigabit Power Supply

Brand Name : N/A

Model No. : POE-173, G0566-xxx-yyy (For details refer to section 2.1)

Measurement Standard : 47 CFR FCC Part 15, Subpart B, Class B
Canadian ICES-003 Issue 7, Class B

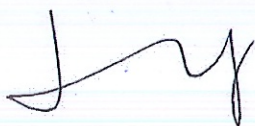
Date of Receiver : January 05, 2018, August 18, 2018; September 13, 2021

Date of Test : January 05, 2018 to January 26, 2018
August 18, 2018 to November 07, 2018
September 13, 2021 to October 26, 2021

Date of Report : November 08, 2021

This Test Report is Issued Under the Authority of :

Prepared by



Jenny Liu / Engineer

Approved & Authorized Signer



Iori Fan / Authorized Signatory

This report shows that the E.U.T. is technically compliant with the 47 CFR FCC Part 15, Subpart B, Class B and Canadian ICES-003 Issue 7, Class B. This report applies to above tested sample only and shall not be reproduced in part without written approval of Dongguan Nore Testing Center Co., Ltd.

TEL: +86-769-22022444 FAX: +86-769-22022799 Web: www.ntc-c.com

Address: Building D, Gaosheng Science and Technology park, Hongtu road, Nancheng district,
Dongguan city, Guangdong province, China

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Appendix I (Photos of E.U.T.) (6 pages)

Revision History of This Test Report

Report Number	Description	Issued Date
NTC1808150FV00	Initial Issue	2018-11-08
NTC1808151FV01	Changed the information of applicant, manufacturer and factory, and updated the edition of test standard	2021-11-08

1. SUMMARY OF TEST RESULTS

The E.U.T. has been tested according to the following specifications:

EMISSION			
Standard	Test Type	Result	Remarks
47 CFR FCC Part 15, Subpart B, Class B & Canadian ICES-003 Issue 7, Class B; ANSI C63.4-2014	Mains Terminal Disturbance Voltage Test	PASS	Uncertainty: 2.7dB
	Radiated Emission Test	PASS	Uncertainty: 3.4dB

2. GENERAL INFORMATION

2.1 Details of E.U.T.

E.U.T.	: Switching Gigabit Power Supply
Main Model Name	: G0566-420-143, G0566-570-105
Additional Model name	: POE-173, G0566-xxx-yyy (xxx: Three digits indicate output voltage from 42V to 57V, yyy: Three digits indicate output current from 0.01A to 1.43A.)
Rating	: M/N: G0566-420-143 Input: AC 100-240V, 50/60Hz Output: 42Vdc, 1.43A M/N: G0566-570-105 Input: AC 100-240V, 50/60Hz Output: 57Vdc, 1.05A
Adapter	: N/A
Test Voltage	: AC 120V/ 60Hz, AC 240V/50Hz (Only the worst case was recorded in this report.)
E.U.T. Type	: Class B
Operation Frequency	: Below 108MHz (Declaration by manufacturer)
Cable	: N/A
I/O Port	: N/A
Hardware version	: V1.0
Software version	: V1.0
Description of model difference	: These models have the same circuitry, electrical mechanical, PCB Layout and physical construction. The differences in model number, output voltage, output current and color of the appearance due to trading purpose.
Note	: According to the model difference, all tests performed on model G0566-420-143, G0566-570-105.

- Remark : 1. This report was additional based on original report NTC1808150FV00
2. Compare with the original report, this report has updated the edition of the standard and changed the address of the applicant, manufacturer and factory, details as below:
- Before change:
- The address of Applicant/ Manufacturer/ Factory 1:
E. of 5F, Zone A,1st Ind. Area, Fenghuanggang, Sou. BaoTian 1Rd., Xixiang, St., Bao An District, Shenzhen, Guangdong 518102, P.R. China
- The information of Factory 2:
Factory 2: Shenzhen Gospell Smarthome Electronic Co., Ltd.
Address: 3rd Floor Block A No.1 Industrial Park
FENGHUANGGANG XIXIANG BAO'AN SHENZHEN
P.R.CHINA
- The edition of standard:
IC Regulation ICES-003 Issue 6
47 CFR FCC Part 15, Subpart B, Class B 2017
- After change:
- The address of Applicant/ Manufacturer/ Factory 1:
101, Area A, Building A, Jingfa Manufacture Park, Xiawei Park, Gushu Community, Xixiang Street, Bao'an, Shenzhen, 518126 Guangdong P.R. China.
- The information of Factory 2:
Factory 2: SHENZHEN GOSPELL DIGITAL TECHNOLOGY CO.,LTD.
Address: Building 1, No.5 XingYe Road, SongShan Lake Park, DongGuan City, 523000 Guangdong P.R. China.
- The information of Factory 3:
Factory 2: ChenZhou LiYuan Technology Co. ,Ltd.
Address: 3/F,1Building, Gospell Industrial Park, SuXian District, ChenZhou City, Hunan Province, 423000, China.
- The edition of standard:
Canadian ICES-003 Issue 7, Class B
47 CFR FCC Part 15, Subpart B, Class B
3. According to this change, we've re-tested all items, details refer to the report.

2.2 Description of Support Device

N/A

2.3 Block Diagram of Test Setup

Block diagram of connection between the E.U.T. and simulators



2.4 Test Facility

Site Description	
EMC Lab	: Listed by CNAS, August 13, 2018 The certificate is valid until August 13, 2024 The Laboratory has been assessed and proved to be in compliance with CNAS/CL01 The Certificate Registration Number is L5795. Listed by A2LA, November 01, 2017 The certificate is valid until December 31, 2019 The Laboratory has been assessed and proved to be in compliance with ISO17025 The Certificate Registration Number is 4429.01 Listed by FCC, November 06, 2017 The Designation Number is CN1214 Test Firm Registration Number: 907417 Listed by Industry Canada, June 08, 2017 The Certificate Registration Number. Is 46405-9743
Name of Firm	: Dongguan NTC Co., Ltd.
Site Location	: Building D, Gaosheng Science and Technology Park, Hongtu Road, Nancheng District, Dongguan City, Guangdong Province, China.

2.5 Abnormalities from Standard Conditions

The test configurations is recommended by the manufacturer.

2.6 Documentation Requirements

Label requirements:

a) In addition to the requirements in part 2 of this chapter, a device subject to certification, or Supplier's Declaration of Conformity shall be labeled as follows:

1) Receivers associated with the operation of a licensed radio service, e.g., FM broadcast under part 73 of this chapter, land mobile operation under part 90, etc., shall bear the following statement in a conspicuous location on the device:

This device complies with part 15 of the FCC Rules. Operation is subject to the condition that this device does not cause harmful interference.

(2) A stand-alone cable input selector switch, shall bear the following statement in a conspicuous location on the device:

This device complies with part 15 of the FCC Rules for use with cable television service.

(3) All other devices shall bear the following statement in a conspicuous location on the device:

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 undesired operation.

(4) Where a device is constructed in two or more sections connected by wires and marketed together, the statement specified under paragraph (a) of this section is required to be affixed only to the main control unit.

(5) When the device is so small or for such use that it is impracticable to label it with the statement specified under paragraph (a) of this section in a font that is four-point or larger, and the device does not have a display that can show electronic labeling, then the information required by this paragraph shall be placed in the user manual and must also either be placed on the device packaging or on a removable label attached to the device.

Identification:

(a) Devices subject only to Supplier's Declaration of Conformity shall be uniquely identified by the party responsible for marketing or importing the equipment within the United States. However, the identification shall not be of a format which could be confused with the FCC Identifier required on certified equipment. The responsible party shall maintain adequate identification records to facilitate positive identification for each device.

(b) Devices subject to authorization under Supplier's Declaration of Conformity may be labeled with the following logo on a voluntary basis as a visual indication that the product complies with the applicable FCC requirements. The use of the logo on the device does not alleviate the requirement to provide the compliance information required by §2.1077.



User's Manual requirements (Information to user) :

(a) For a Class A digital device or peripheral, the instructions furnished the user shall include the following or similar statement, placed in a prominent location in the text of the manual:

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

(b) For a Class B digital device or peripheral, the instructions furnished the user shall include the following or similar statement, placed in a prominent location in the text of the manual:

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.*
- Increase the separation between the equipment and receiver.*
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.*
- Consult the dealer or an experienced radio/TV technician for help.*

Notice: The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equivalent.

If the EUT was tested with special shielded cables the operator's manual for such product shall also contain the following statements or their equivalent:

Shielded interface cables and/or AC power cord, if any, must be used in order to comply with the emission limits.

Compliance Information Statement:

Identification of Product :
Applicable compliance statements :
Responsible Party (In USA) Name :
ADDRESS :
Telephone :
Internet Contact Information :
Responsible Party Website :

Note: 1. The information above may include in user's manual or separate sheet.

2. Identification of product: e.g., name and model number;

3. Applicable compliance statements: e.g. for part 15 devices see §15.19(a)(3)

4. Responsible Party (In USA) Name : e.g. Manufacturer, assembler, importer, or retailer. The responsible party must be located within the United States.

Compliance Information Statement for products assembled from modular components that are themselves SDoC or Certified :

Identification of Assembled Product :
Identification of Modular Components used :
Applicable compliance statements :
Responsible Party that assembled product (In USA) Name :
ADDRESS :
Telephone :
Internet Contact Information :
Responsible Party Website :
Copied of compliance state

Note: 1. The information above may include in user's manual or separate sheet.

2. Identification of product: e.g., name and model number;

3. Applicable compliance statements: e.g. for part 15 devices see §15.19(a)(3)

4. Responsible Party (In USA) Name : e.g. Manufacturer, assembler, importer, or retailer. The responsible party must be located within the United States.

5. Identification of Modular Components used: e.g. AS identified on it's SDoC, or Name and Model and FCC ID if certified.

6. Copies of compliance statement for each SDoC modular components used must be included.

7. The responsible party must be located in the United States. The information above may be provided electronically per §2.935

3. MEASURING DEVICES AND TEST EQUIPMENT

3.1 For Mains terminals Disturbance voltage Test

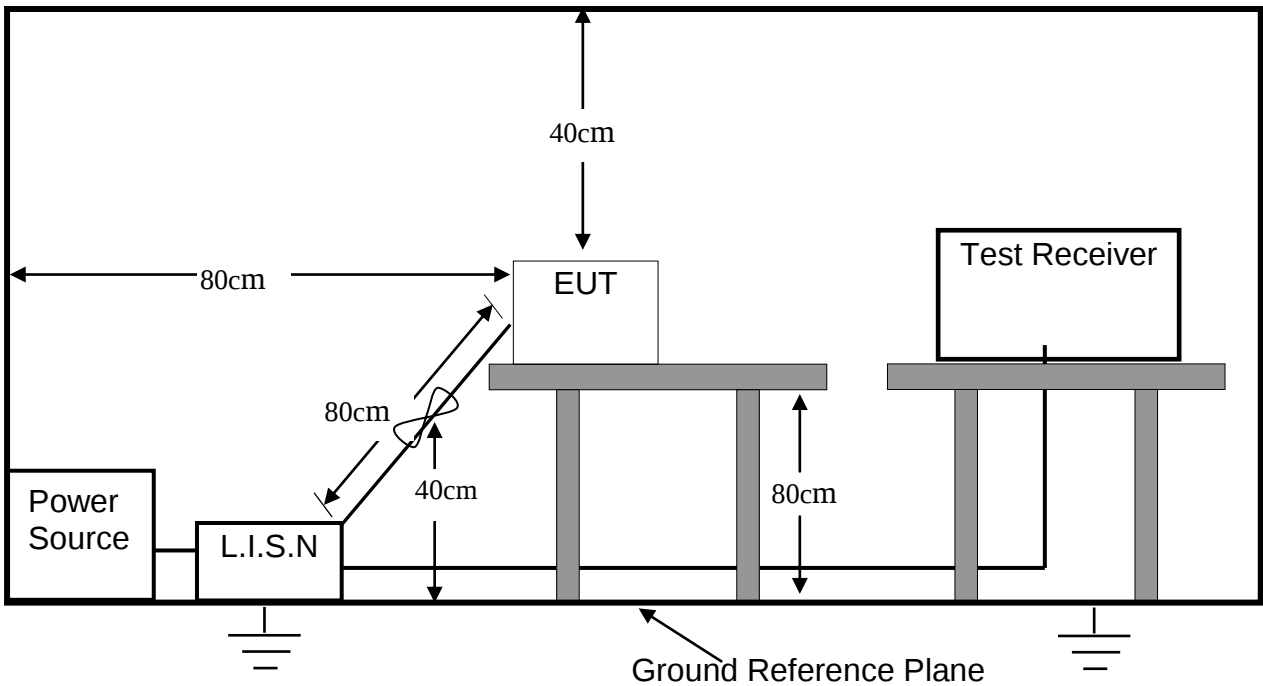
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESCI	101152	Mar. 13, 2021	1 Year
2.	L.I.S.N	Rohde & Schwarz	ENV 216	101317	Mar. 13, 2021	1 Year
3.	L.I.S.N	Rohde & Schwarz	ESH2-Z5	893606/014	Mar. 13, 2021	1 Year
4.	RF Switching Unit	Compliance Direction Systems Inc.	RSU-M2	38311	Mar. 13, 2021	1 Year
5.	Test Software	EZ	EZ EMC	N/A	N/A	N/A

3.2 For Radiated Emission Measurement

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESCI7	100837	Mar. 13, 2021	1 Year
2.	Antenna	Schwarzbeck	VULB9162	9162-010	Mar. 13, 2021	1 Year
3.	Positioning Controller	UC	UC 3000	N/A	N/A	N/A
4.	Color Monitor	SUNSPO	SP-140A	N/A	N/A	N/A
5.	Single Phase Power Line Filter	SAEMC	PF201A-32	110210	N/A	N/A
6.	3 Phase Power Line Filter	SAEMC	PF401A-200	110318	N/A	N/A
7.	DC Power Filter	SAEMC	PF301A-200	110245	N/A	N/A
8.	Spectrum Analyzer	Rohde & Schwarz	FSU26	200409/026	Mar. 13, 2021	1 Year
9.	Horn Antenna	COM-Power	AH-118	071078	Mar. 13, 2021	1 Year
10.	Loop Antenna	Schwarzbeck	FMZB 1513	1513-272	Mar. 13, 2021	1 Year
11.	Pre-Amplifier	HP	HP 8449B	3008A00964	Mar. 13, 2021	1 Year
12..	Pre-Amplifier	HP	HP 8447D	1145A00203	Mar. 13, 2021	1 Year
13.	Test Software	EZ	EZ EMC	N/A	N/A	N/A

4. MAINS TERMINAL DISTURBANCE VOLTAGE MEASUREMENT

4.1 Block Diagram of Test Setup



4.2 Limit of Mains Terminal Disturbance voltage measurement

Test Standard: 47 CFR FCC Part 15, Class B
Canadian ICES-003 Issue 7, Class B

Frequency range	Limits (dB(uV))	
(MHz)	Quasi-peak	Average
0.15 to 0.5	66 to 56	56 to 46
0.5 to 5	56	46
5 to 30	60	50

- Note:
1. The lower limit shall apply at the transition frequencies.
 2. The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

4.3 Test Procedure

The E.U.T. is put on the 0.8 m high table and connected to the AC mains through a Artificial Mains Network (AMN). This provided a 50ohm coupling impedance for the tested equipments. Both sides of AC line are checked to find out the maximum conducted emission levels according to the FCC ANSI C63.4-2014 regulations during conducted emission test.

The bandwidth of the test receiver (R&S Test Receiver ESCI) is set at 9 KHz.

Sample of data calculate:

Level=Reading + Factor

Margin= Level-Limit

Factor=LF+CF+SWF

Where LF= L.I.S.N attenuation factor in dB
(L.I.S.N contain 10dB attenuator)

CF= Cable attenuation factor in dB

SWF= RF Switching Unit attenuation factor in dB

4.4 Operating Condition of E.U.T.

4.4.1 Setup the E.U.T. and simulators as shown in Section 2.3.

4.4.2 Turn on the power of all equipments.

4.4.3 Let the E.U.T. work in test modes (Full Load, Half Load, Empty Load) and test it.

4.5 Mains Terminal Disturbance Voltage Test Results

PASS.

Please refer to the following pages of the worst case: Full Load, Half Load.



Dongguan NTC Co., Ltd.

Tel: +86-769-22022444 Fax: +86-769-22022799

Web: Http://www.ntc-c.com

Site: Shielding Room

Phase: **L1**

Temperature: 27

Limit: FCC PART 15B_Class B_QP

Power: AC120V/60Hz

Humidity: 43 %

EUT: SWITCHING GIGABIT POWER SUPPLY

M/N: G0566-420-143

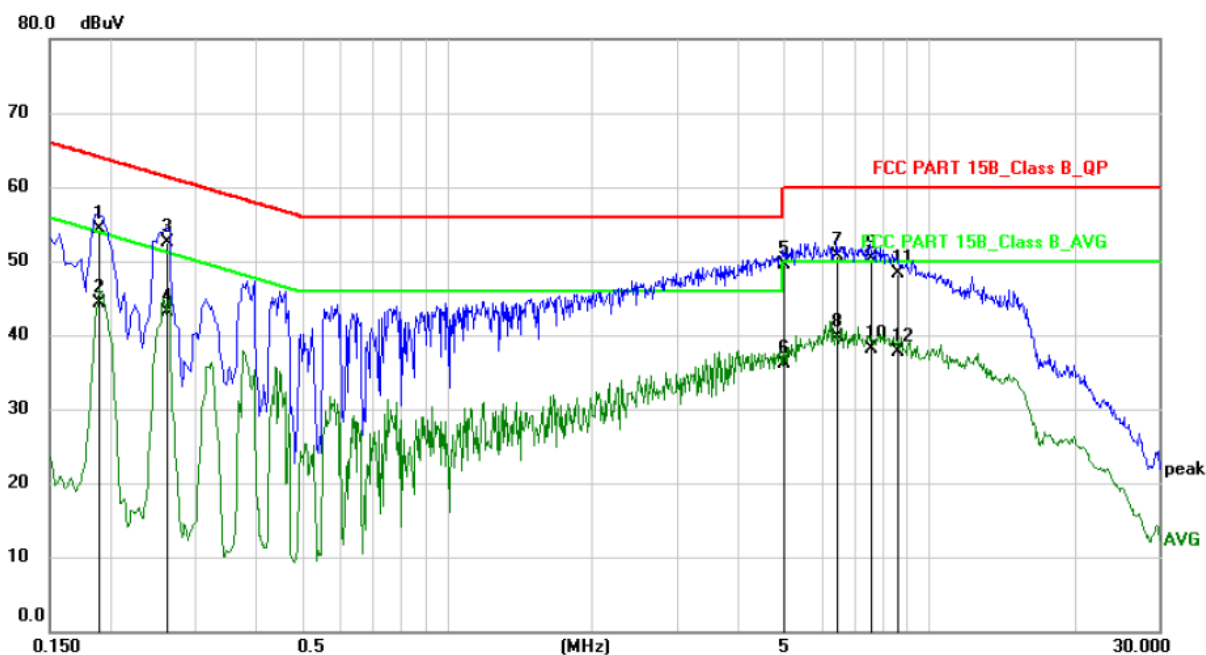
Mode: Full Load

Note:

Conducted Emission Measurement

Date: 2021/9/16

Time: 10:50:24



No. Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0.1900	43.70	10.60	54.30	64.04	-9.74	QP	
2	0.1900	33.70	10.60	44.30	54.04	-9.74	AVG	
3	0.2620	41.90	10.60	52.50	61.37	-8.87	QP	
4	0.2620	32.60	10.60	43.20	51.37	-8.17	AVG	
5 *	4.9979	38.79	10.71	49.50	56.00	-6.50	QP	
6	4.9979	25.49	10.71	36.20	46.00	-9.80	AVG	
7	6.4259	40.08	10.72	50.80	60.00	-9.20	QP	
8	6.4259	29.08	10.72	39.80	50.00	-10.20	AVG	
9	7.5539	39.58	10.72	50.30	60.00	-9.70	QP	
10	7.5539	27.38	10.72	38.10	50.00	-11.90	AVG	
11	8.5739	37.67	10.73	48.40	60.00	-11.60	QP	
12	8.5739	26.97	10.73	37.70	50.00	-12.30	AVG	



Dongguan NTC Co., Ltd.

Tel: +86-769-22022444 Fax: +86-769-22022799

Web: Http://www.ntc-c.com

Site: Shielding Room

Phase: **N**

Temperature: 27

Limit: FCC PART 15B_Class B_QP

Power: AC120V/60Hz

Humidity: 43 %

EUT: SWITCHING GIGABIT POWER SUPPLY

M/N: G0566-420-143

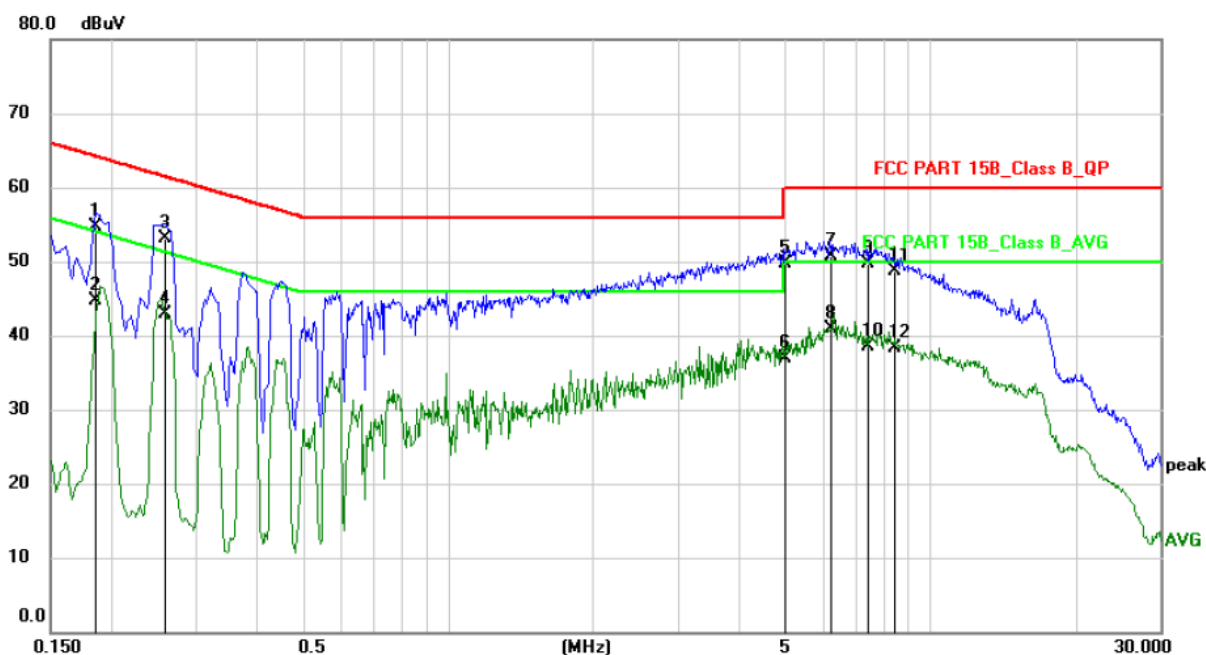
Mode: Full Load

Note:

Conducted Emission Measurement

Date: 2021/9/16

Time: 10:55:17



No. Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0.1860	44.20	10.60	54.80	64.21	-9.41	QP	
2	0.1860	34.10	10.60	44.70	54.21	-9.51	AVG	
3	0.2580	42.50	10.60	53.10	61.50	-8.40	QP	
4	0.2580	32.30	10.60	42.90	51.50	-8.60	AVG	
5 *	4.9899	38.99	10.71	49.70	56.00	-6.30	QP	
6	4.9899	26.19	10.71	36.90	46.00	-9.10	AVG	
7	6.1979	40.08	10.72	50.80	60.00	-9.20	QP	
8	6.1979	30.18	10.72	40.90	50.00	-9.10	AVG	
9	7.3859	38.98	10.72	49.70	60.00	-10.30	QP	
10	7.3859	27.78	10.72	38.50	50.00	-11.50	AVG	
11	8.3900	37.97	10.73	48.70	60.00	-11.30	QP	
12	8.3900	27.67	10.73	38.40	50.00	-11.60	AVG	



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Web: <http://www.ntc-c.com>

Site: Shielding Room

Phase: **L1**

Temperature: 27

Limit: FCC PART 15_Class B_QP

Power: AC240V/50Hz

Humidity: 43 %

EUT: SWITCHING GIGABIT POWER SUPPLY

M/N: G0566-570-105

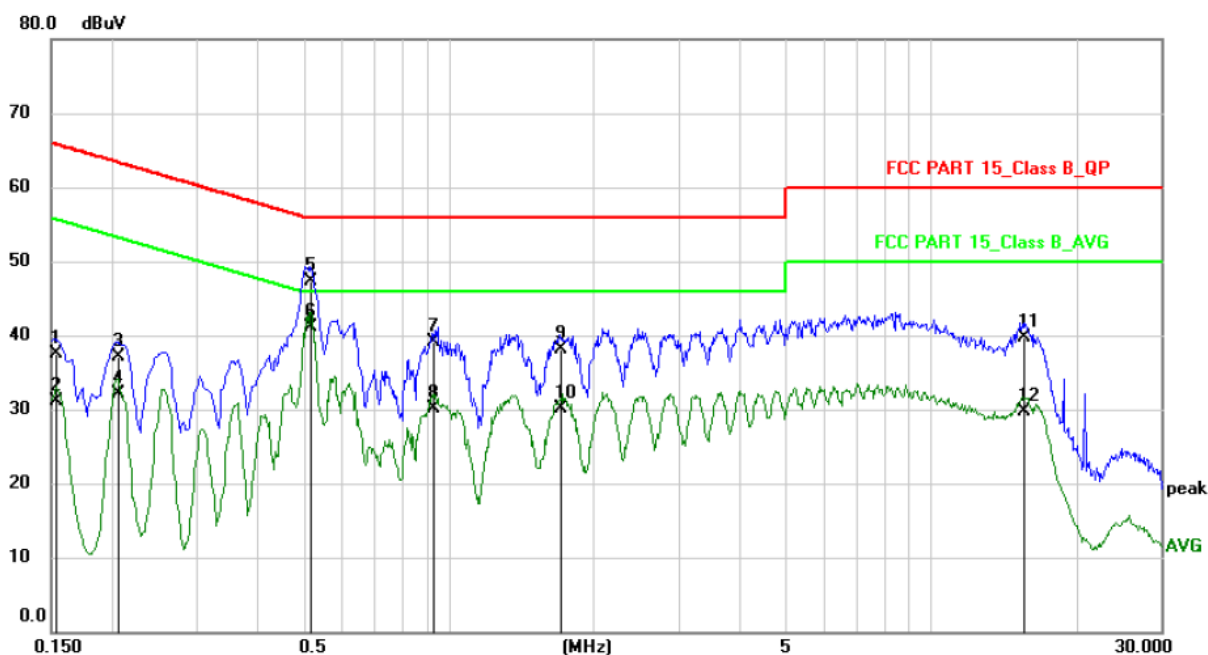
Mode: Half Load

Note:

Conducted Emission Measurement

Date: 2021/10/25

Time: 11:06:02



No. Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0.1539	26.90	10.60	37.50	65.79	-28.29	QP	
2	0.1539	20.50	10.60	31.10	55.79	-24.69	AVG	
3	0.2059	26.50	10.60	37.10	63.37	-26.27	QP	
4	0.2059	21.50	10.60	32.10	53.37	-21.27	AVG	
5	0.5180	36.67	10.63	47.30	56.00	-8.70	QP	
6 *	0.5180	30.47	10.63	41.10	46.00	-4.90	AVG	
7	0.9300	28.41	10.69	39.10	56.00	-16.90	QP	
8	0.9300	19.41	10.69	30.10	46.00	-15.90	AVG	
9	1.7019	27.40	10.70	38.10	56.00	-17.90	QP	
10	1.7019	19.40	10.70	30.10	46.00	-15.90	AVG	
11	15.5100	28.95	10.75	39.70	60.00	-20.30	QP	
12	15.5100	18.95	10.75	29.70	50.00	-20.30	AVG	



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Tel: +86-769-22022444 Fax: +86-769-22022799

Web: [Http://www.ntc-c.com](http://www.ntc-c.com)

Site: Shielding Room

Phase: **N**

Temperature: 27

Limit: FCC PART 15_Class B_QP

Power: AC240V/50Hz

Humidity: 43 %

EUT: SWITCHING GIGABIT POWER SUPPLY

M/N: G0566-570-105

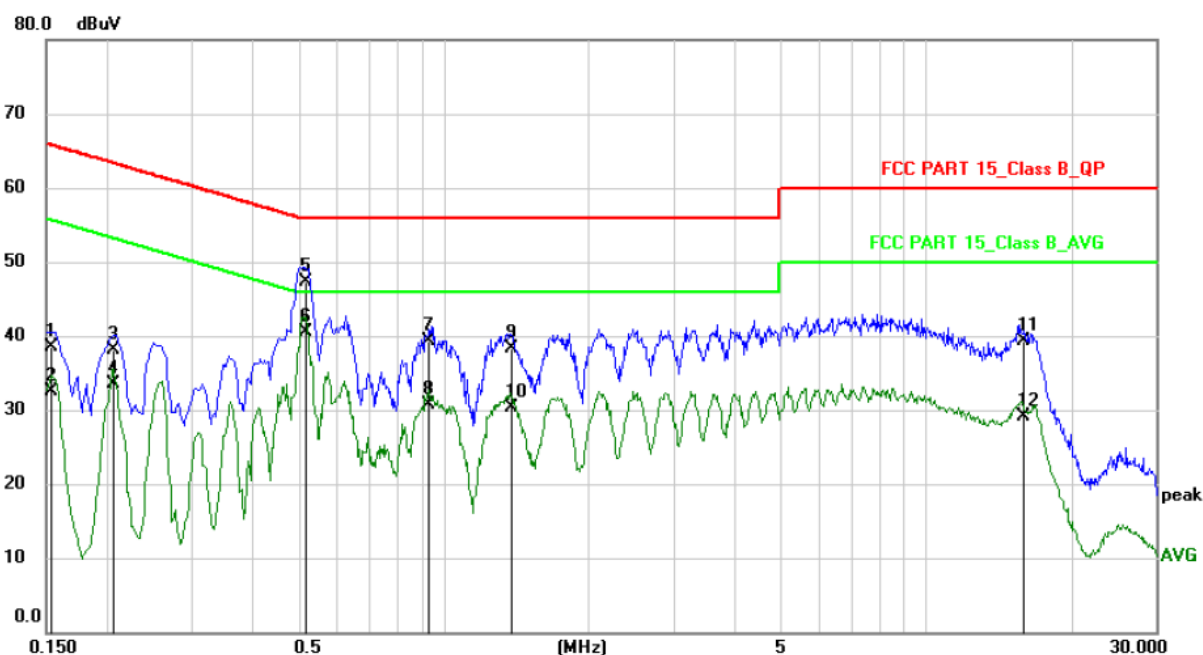
Mode: Half Load

Note:

Conducted Emission Measurement

Date: 2021/10/25

Time: 11:12:47

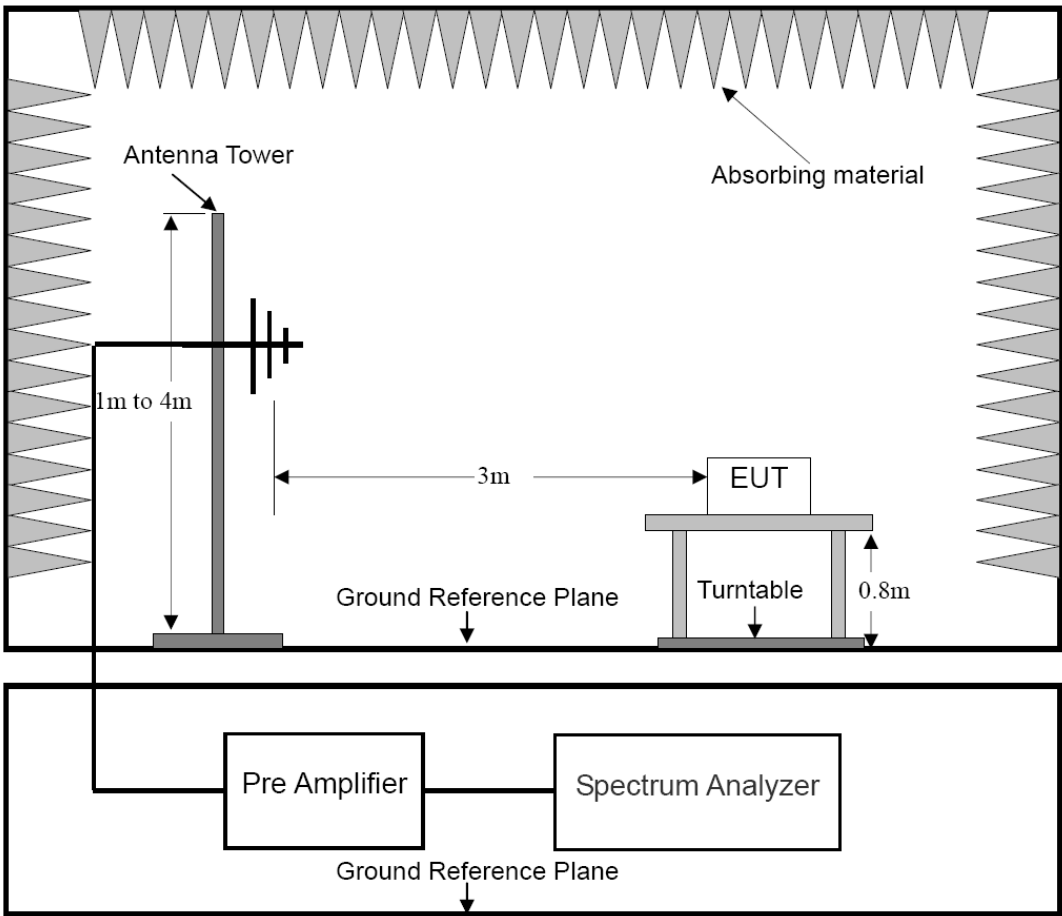


No. Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
	MHz	dBuV	dB	dBuV	dBuV	dB		
1	0.1539	27.90	10.60	38.50	65.79	-27.29	QP	
2	0.1539	22.00	10.60	32.60	55.79	-23.19	AVG	
3	0.2060	27.50	10.60	38.10	63.37	-25.27	QP	
4	0.2060	22.90	10.60	33.50	53.37	-19.87	AVG	
5	0.5180	36.67	10.63	47.30	56.00	-8.70	QP	
6 *	0.5180	29.87	10.63	40.50	46.00	-5.50	AVG	
7	0.9300	28.61	10.69	39.30	56.00	-16.70	QP	
8	0.9300	20.01	10.69	30.70	46.00	-15.30	AVG	
9	1.3779	27.60	10.70	38.30	56.00	-17.70	QP	
10	1.3779	19.60	10.70	30.30	46.00	-15.70	AVG	
11	15.8339	28.65	10.75	39.40	60.00	-20.60	QP	
12	15.8339	18.35	10.75	29.10	50.00	-20.90	AVG	

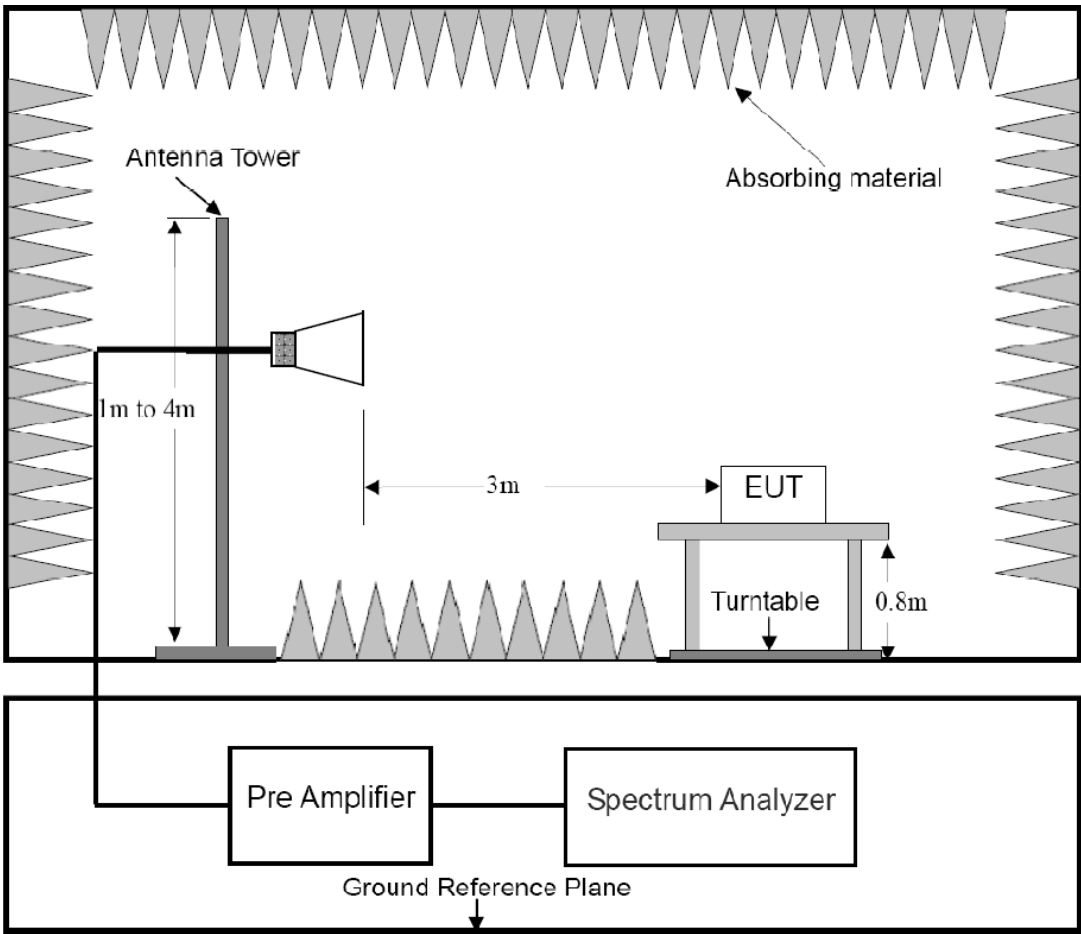
5. RADIATED EMISSION MEASUREMENT

5.1 Block Diagram of Test

(1) Radiated Emission Test Set-Up, Frequency Below 1000MHz



(2) Radiated Emission Test Set-Up, Frequency Above 1000MHz



5.2 Limit of Radiated Emission Measurement

Test Standard: 47 CFR FCC Part 15, Class B
Canadian ICES-003 Issue 7, Class B

Below 1GHz for 47 CFR FCC Part 15, Class B:

Frequency range MHz	Distance Meters	Field Strengths Limit	
		$\mu\text{V/m}$	$\text{dB}(\mu\text{V})/\text{m}$
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0

Remark : (1) Emission level $(\text{dB})\mu\text{V} = 20 \log \text{Emission level } \mu\text{V/m}$

- (2) The smaller limit shall apply at the cross point between two frequency bands.
- (3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

Below 1GHz for Canadian ICES-003 Issue 7, Class B:

Frequency range MHz	Distance Meters	Field Strengths Limit
		$\text{dB}(\mu\text{V}/\text{m})$
30 ~ 88	3	40.0
88 ~ 216	3	43.5
216 ~ 230	3	46.0
230 ~ 960	3	47.0
960 ~ 1000	3	54.0

Remark : (1) Emission level $(\text{dB})\mu\text{V} = 20 \log \text{Emission level } \mu\text{V}/\text{m}$

(2) The smaller limit shall apply at the cross point between two frequency bands.

(3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

Above 1GHz:

Frequency range GHz	Average limit $\text{dB}(\mu\text{V}/\text{m})$	Peak limit $\text{dB}(\mu\text{V}/\text{m})$
Above 1000	54	74

Note: The highest internal source of an EUT is defined as the highest frequency generated or used within the EUT or on which the EUT operates or tunes.

(1) If the highest frequency of the internal sources of the EUT is less than 108MHz, the measurement shall only be made up to 1GHz.

(2) If the highest frequency of the internal sources of the EUT is between 108MHz and 500MHz, the measurement shall only be made up to 2GHz.

(3) If the highest frequency of the internal sources of the EUT is between 500MHz and 1GHz, the measurement shall only be made up to 5GHz.

(4) If the highest frequency of the internal sources of the EUT is above 1GHz, the measurement shall be made up to 5 times the highest frequency or 40GHz, whichever is less.

5.3 Test Procedure

E.U.T. and its simulators are placed on a turntable, which is 0.8 meter high above ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. E.U.T. is set 3.0 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna. Both horizontal and vertical polarization of the antenna is set on measurement. In order to find the maximum emission levels, all of the interface cables must be manipulated according to FCC ANSI C63.4-2014 on radiated emission measurement.

Class B on radiated emission measurement.

Below 1GHz, the bandwidth of the EMI test is set at 120 KHz.

Above 1GHz, the bandwidth of the EMI test is set at 1MHz.

The frequency range from 30 MHz to 1 GHz is checked

Sample of data calculate:

Level=Reading + Factor; Margin= Level-Limit

Factor=CF+AF+AG

Where CF=Cable attenuation factor in dB

AF= Antenna factor in dB

AG=Amplifier Gain in dB.

5.4 Operating Condition of E.U.T.

5.4.1 Setup the E.U.T. and simulators as shown in Section 2.3.

5.4.2 Turn on the power of all equipments.

5.4.3 Let the E.U.T. work in test modes (Full Load, Half Load, Empty Load) and test it.

5.5 Radiated Emission Measurement Result

PASS.

Please refer to the following pages of the worst case: Full Load, Half Load.



Dongguan NTC Co., Ltd.
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Site: 3m Chamber

Polarization: **Horizontal**

Temperature: 26

Limit: FCC_Part 15_Class B_3m

Power: AC 120V/60Hz

Humidity: 47 %

EUT: SWITCHING GIGABIT POWER SUPPLY

Distance: 3m

M/N: G0566-420-143

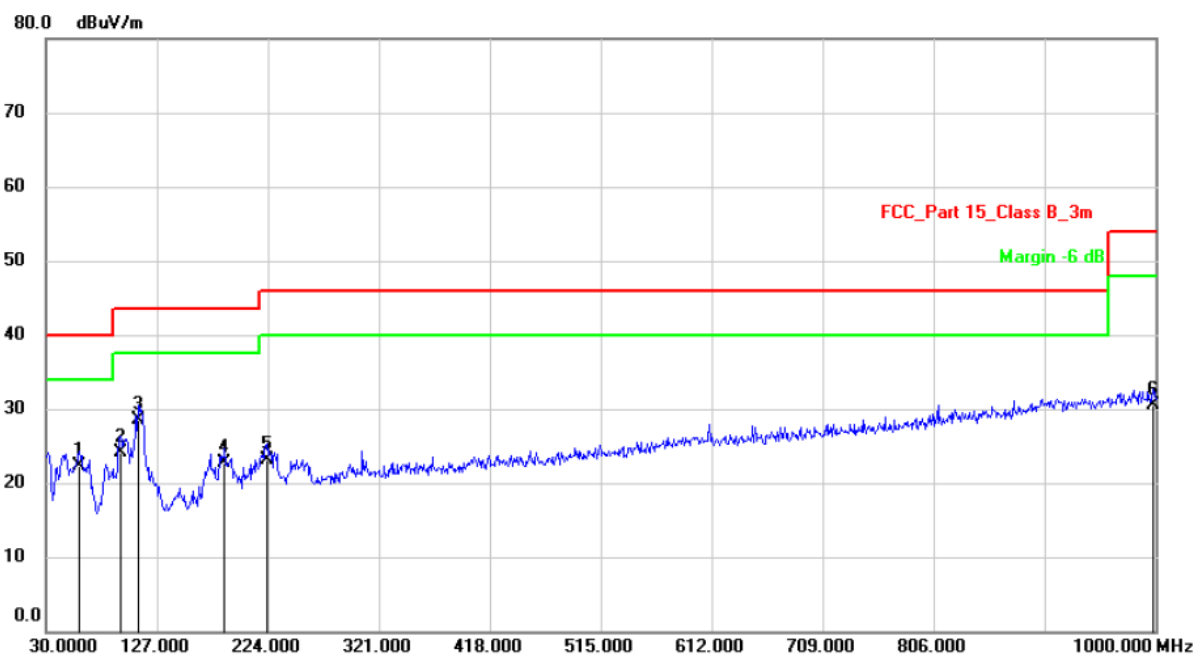
Mode: Full Load

Note:

Radiated Emission Measurement

Date: 2021/9/16

Time: 16:16:57



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		59.1000	29.60	-7.30	22.30	40.00	-17.70	QP	
2		94.9900	32.40	-8.20	24.20	43.50	-19.30	QP	
3	*	110.5100	36.22	-7.62	28.60	43.50	-14.90	QP	
4		186.1700	31.43	-8.63	22.80	43.50	-20.70	QP	
5		223.0300	30.47	-7.27	23.20	46.00	-22.80	QP	
6		998.0600	23.99	6.61	30.60	54.00	-23.40	QP	



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Tel: +86-769-2202 2444
Web: www.ntc-c.com

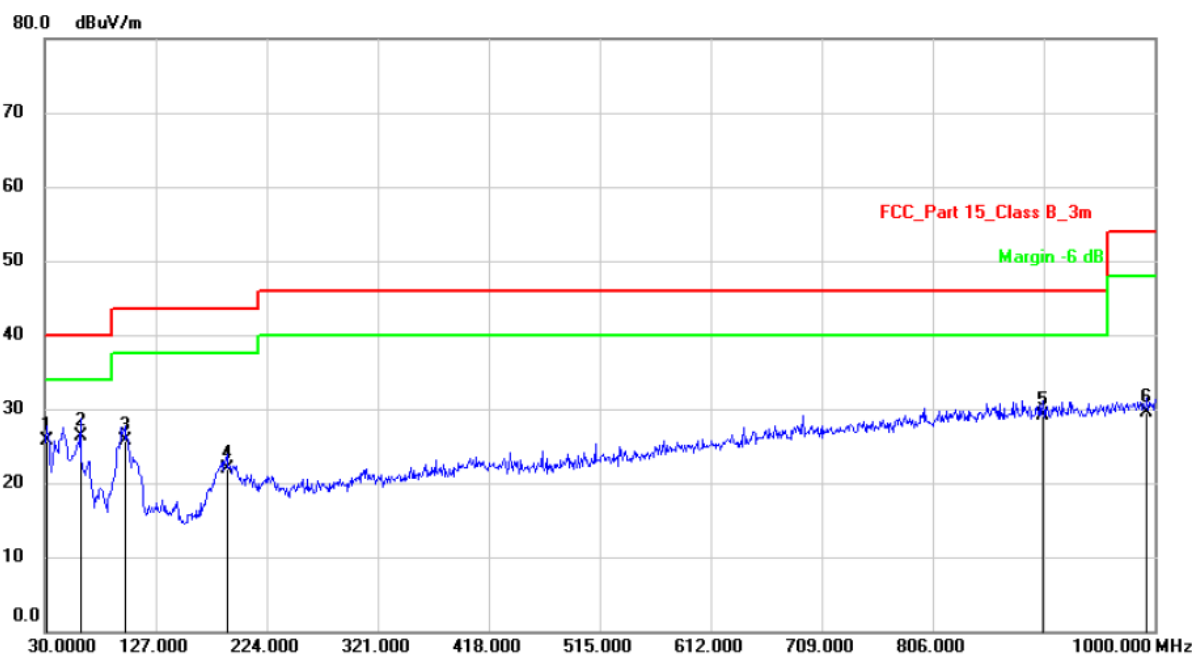
Fax: +86-769-2202 2799

Site: 3m Chamber	Polarization: Vertical	Temperature: 26
Limit: FCC_Part 15_Class B_3m	Power: AC 120V/60Hz	Humidity: 47 %
EUT: SWITCHING GIGABIT POWER SUPPLY	Distance: 3m	
M/N: G0566-420-143		
Mode: Full Load		
Note:		

Radiated Emission Measurement

Date: 2021/9/16

Time: 16:10:18



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		31.9400	35.30	-9.60	25.70	40.00	-14.30	QP	
2	*	61.0400	34.26	-7.96	26.30	40.00	-13.70	QP	
3		99.8399	34.20	-8.40	25.80	43.50	-17.70	QP	
4		189.0800	31.02	-9.12	21.90	43.50	-21.60	QP	
5		902.0300	24.14	4.96	29.10	46.00	-16.90	QP	
6		993.2100	24.10	5.40	29.50	54.00	-24.50	QP	



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Site: 3m Chamber

Polarization: **Horizontal**

Temperature: 26

Limit: FCC_Part 15_Class B_3m

Power: AC 120V/60Hz

Humidity: 47 %

EUT: SWITCHING GIGABIT POWER SUPPLY

Distance: 3m

M/N: G0566-570-105

Mode: Half Load

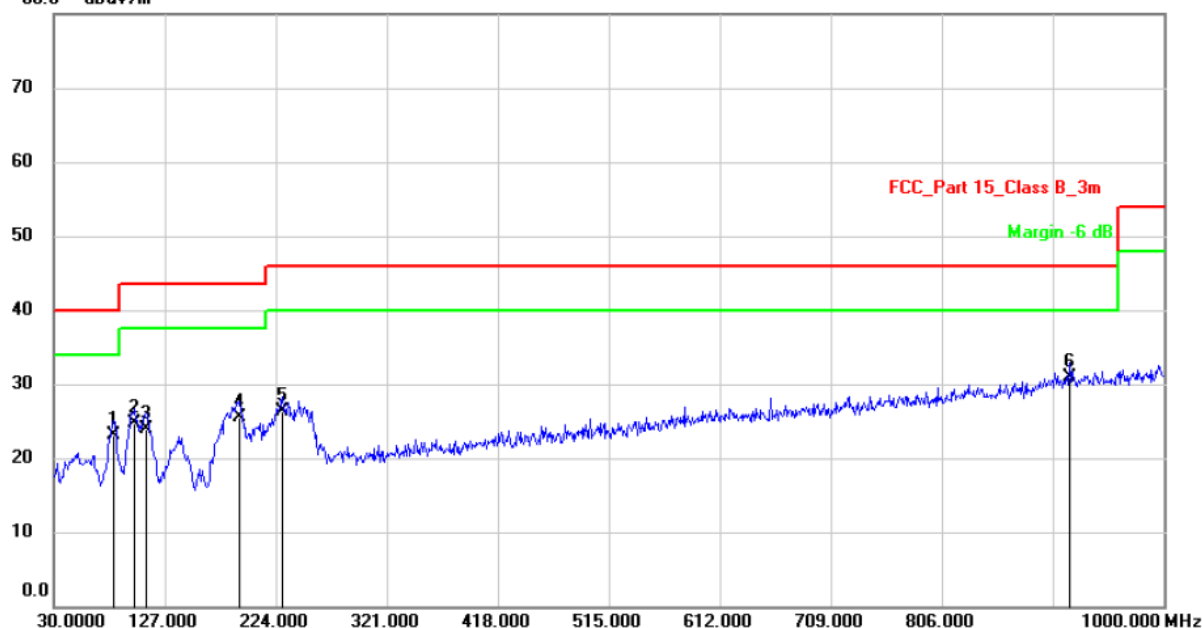
Note:

Radiated Emission Measurement

Date: 2021/9/16

Time: 19:18:53

80.0 dBuV/m



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector Comment
1		82.3800	34.47	-11.27	23.20	40.00	-16.80	QP
2		100.8100	32.21	-7.51	24.70	43.50	-18.80	QP
3		110.5100	31.62	-7.62	24.00	43.50	-19.50	QP
4		191.9900	33.72	-8.12	25.60	43.50	-17.90	QP
5		229.8200	33.27	-6.97	26.30	46.00	-19.70	QP
6	*	917.5500	24.78	6.22	31.00	46.00	-15.00	QP



Dongguan NTC Co., Ltd.

Tel: +86-769-2202 2444

Web: www.ntc-c.com

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Site: 3m Chamber

Polarization: **Vertical**

Temperature: 26

Limit: FCC_Part 15_Class B_3m

Power: AC 120V/60Hz

Humidity: 47 %

EUT: SWITCHING GIGABIT POWER SUPPLY

Distance: 3m

M/N: G0566-570-105

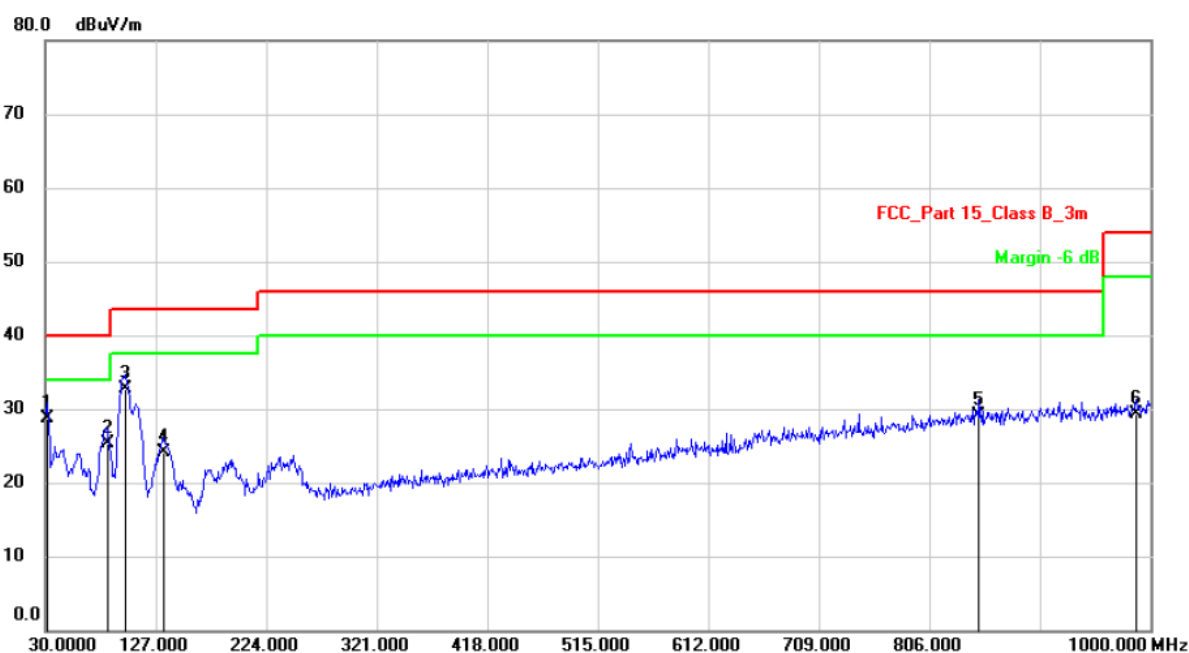
Mode: Half Load

Note:

Radiated Emission Measurement

Date: 2021/9/16

Time: 19:12:20



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Detector	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		
1		31.9400	38.40	-9.60	28.80	40.00	-11.20	QP	
2		84.3200	36.37	-10.97	25.40	40.00	-14.60	QP	
3	*	99.8399	41.10	-8.40	32.70	43.50	-10.80	QP	
4		133.7899	35.53	-11.33	24.20	43.50	-19.30	QP	
5		849.6500	24.41	4.79	29.20	46.00	-16.80	QP	
6		987.3900	23.95	5.35	29.30	54.00	-24.70	QP	



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Site: 3m Chamber

Polarization: **Horizontal**

Temperature: 26

Limit: ICES 003_Class B_3m

Power: AC 120V/60Hz

Humidity: 47 %

EUT: SWITCHING GIGABIT POWER SUPPLY

Distance: 3m

M/N: G0566-420-143

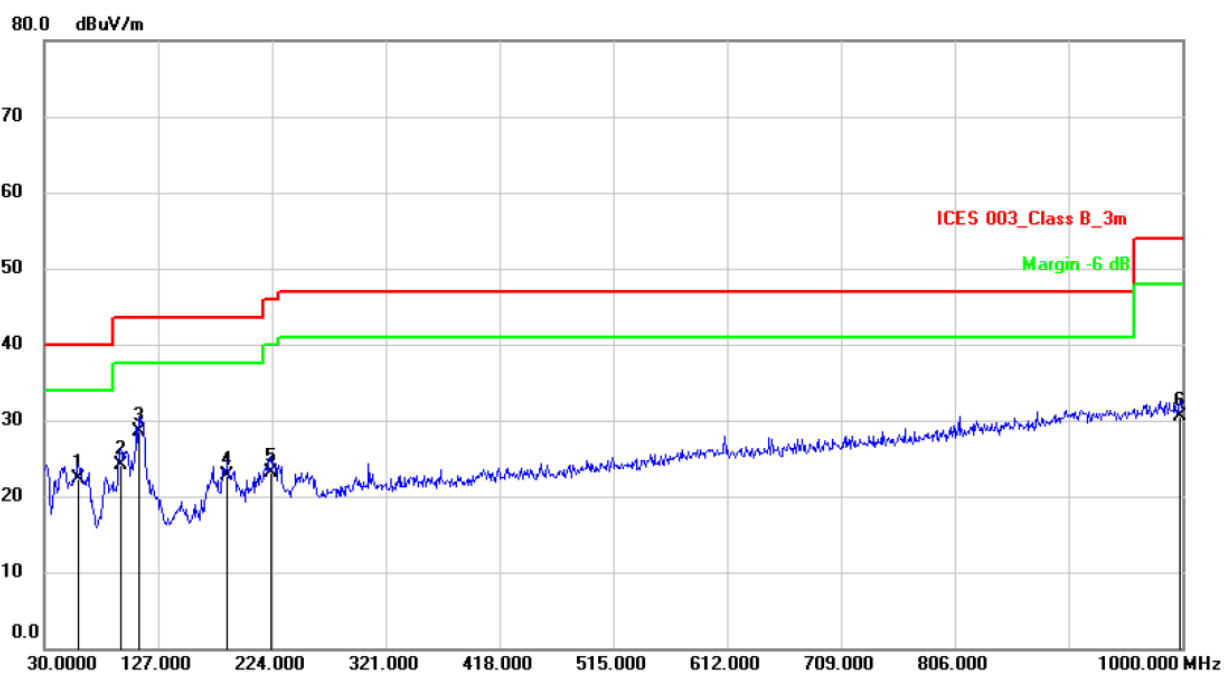
Mode: Full Load

Note:

Radiated Emission Measurement

Date: 2021/9/16

Time: 16:16:57



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		59.1000	29.60	-7.30	22.30	40.00	-17.70	QP	
2		94.9900	32.40	-8.20	24.20	43.50	-19.30	QP	
3	*	110.5100	36.22	-7.62	28.60	43.50	-14.90	QP	
4		186.1700	31.43	-8.63	22.80	43.50	-20.70	QP	
5		223.0300	30.47	-7.27	23.20	46.00	-22.80	QP	
6		998.0600	23.99	6.61	30.60	54.00	-23.40	QP	



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Site: 3m Chamber

Limit: ICES 003_Class B_3m

EUT: SWITCHING GIGABIT POWER SUPPLY

M/N: G0566-420-143

Mode: Full Load

Note:

Polarization: **Vertical**

Power: AC 120V/60Hz

Distance: 3m

Temperature: 26

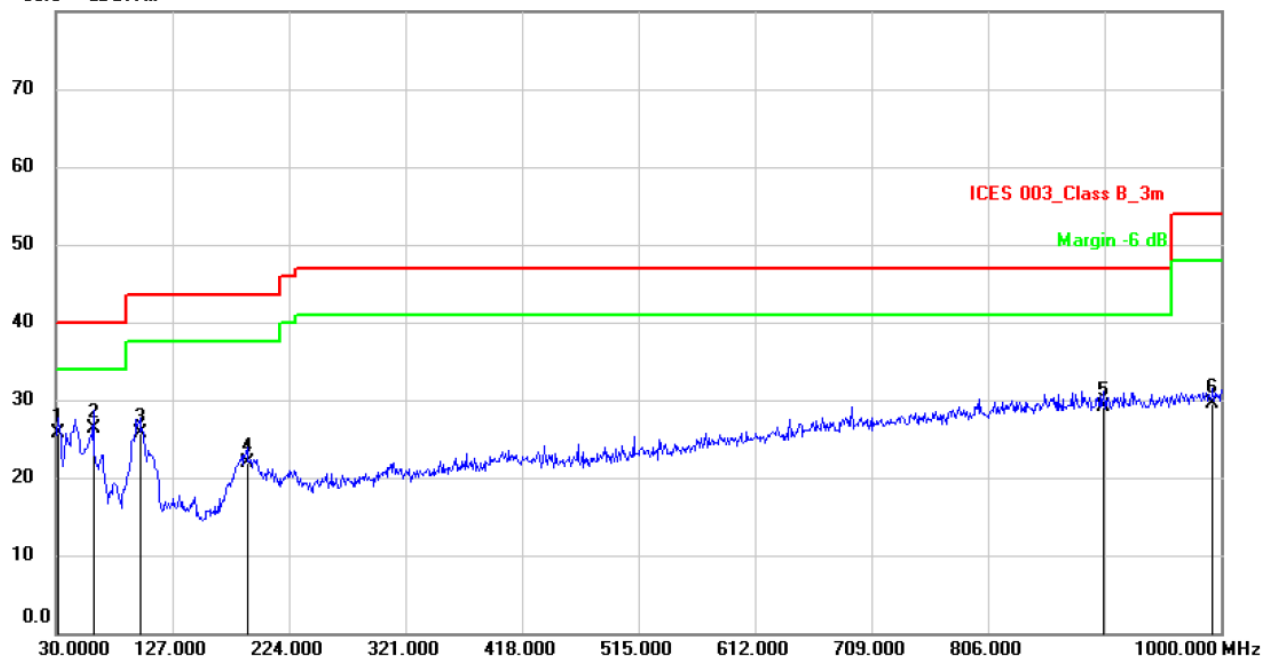
Humidity: 47 %

Radiated Emission Measurement

Date: 2021/9/16

Time: 16:10:18

80.0 dBuV/m



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		31.9400	35.30	-9.60	25.70	40.00	-14.30	QP	
2	*	61.0400	34.26	-7.96	26.30	40.00	-13.70	QP	
3		99.8399	34.20	-8.40	25.80	43.50	-17.70	QP	
4		189.0800	31.02	-9.12	21.90	43.50	-21.60	QP	
5		902.0300	24.14	4.96	29.10	47.00	-17.90	QP	
6		993.2100	24.10	5.40	29.50	54.00	-24.50	QP	



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Web: www.ntc-c.com

Fax: +86-769-2202 2799

Site: 3m Chamber

Polarization: **Horizontal**

Temperature: 26

Limit: ICES 003_Class B_3m

Power: AC 120V/60Hz

Humidity: 47 %

EUT: SWITCHING GIGABIT POWER SUPPLY

Distance: 3m

M/N: G0566-570-105

Mode: Half Load

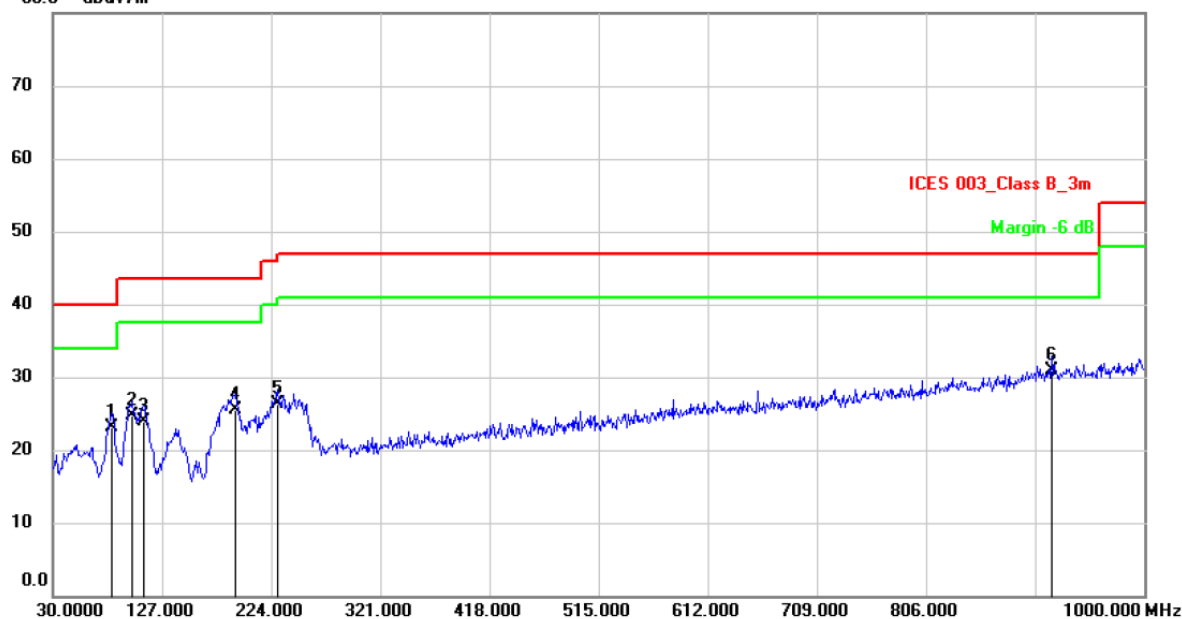
Note:

Radiated Emission Measurement

Date: 2021/9/16

Time: 19:18:53

80.0 dBuV/m



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		82.3800	34.47	-11.27	23.20	40.00	-16.80	QP	
2		100.8100	32.21	-7.51	24.70	43.50	-18.80	QP	
3		110.5100	31.62	-7.62	24.00	43.50	-19.50	QP	
4		191.9900	33.72	-8.12	25.60	43.50	-17.90	QP	
5		229.8200	33.27	-6.97	26.30	46.00	-19.70	QP	
6	*	917.5500	24.78	6.22	31.00	47.00	-16.00	QP	



Dongguan NTC Co., Ltd.

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Site: 3m Chamber

Polarization: **Vertical**

Temperature: 26

Limit: ICES 003_Class B_3m

Power: AC 120V/60Hz

Humidity: 47 %

EUT: SWITCHING GIGABIT POWER SUPPLY

Distance: 3m

M/N: G0566-570-105

Mode: Half Load

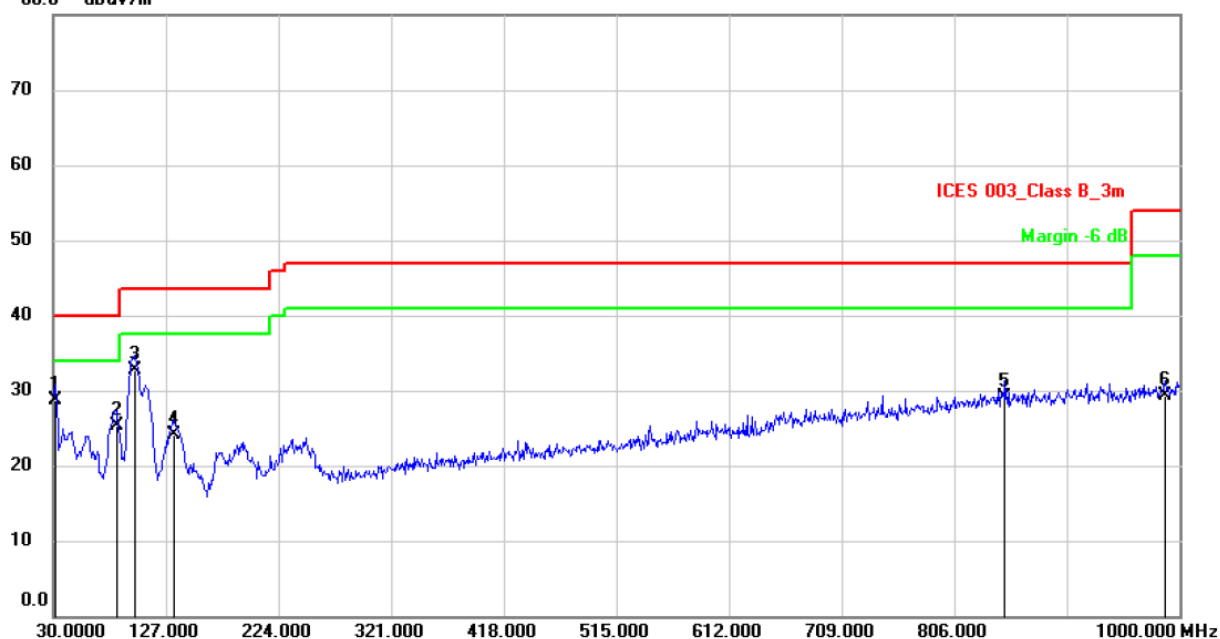
Note:

Radiated Emission Measurement

Date: 2021/9/16

Time: 19:12:20

80.0 dBuV/m



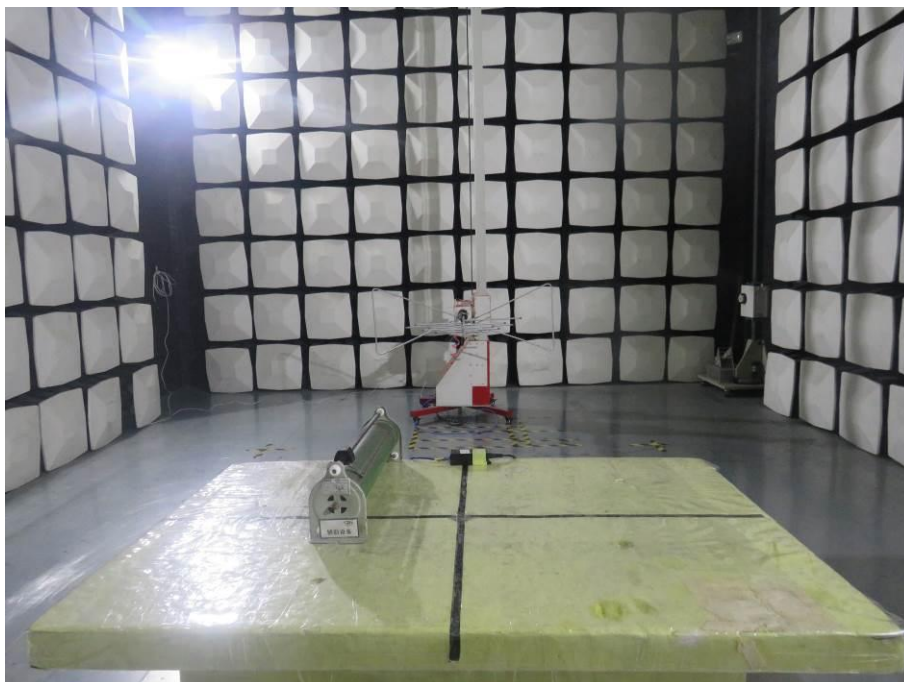
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		
1		31.9400	38.40	-9.60	28.80	40.00	-11.20	QP	
2		84.3200	36.37	-10.97	25.40	40.00	-14.60	QP	
3	*	99.8399	41.10	-8.40	32.70	43.50	-10.80	QP	
4		133.7899	35.53	-11.33	24.20	43.50	-19.30	QP	
5		849.6500	24.41	4.79	29.20	47.00	-17.80	QP	
6		987.3900	23.95	5.35	29.30	54.00	-24.70	QP	

6. PHOTOGRAPH

6.1 Photo of Conducted Emission Measurement



6.2 Photo of Radiation Emission Measurement

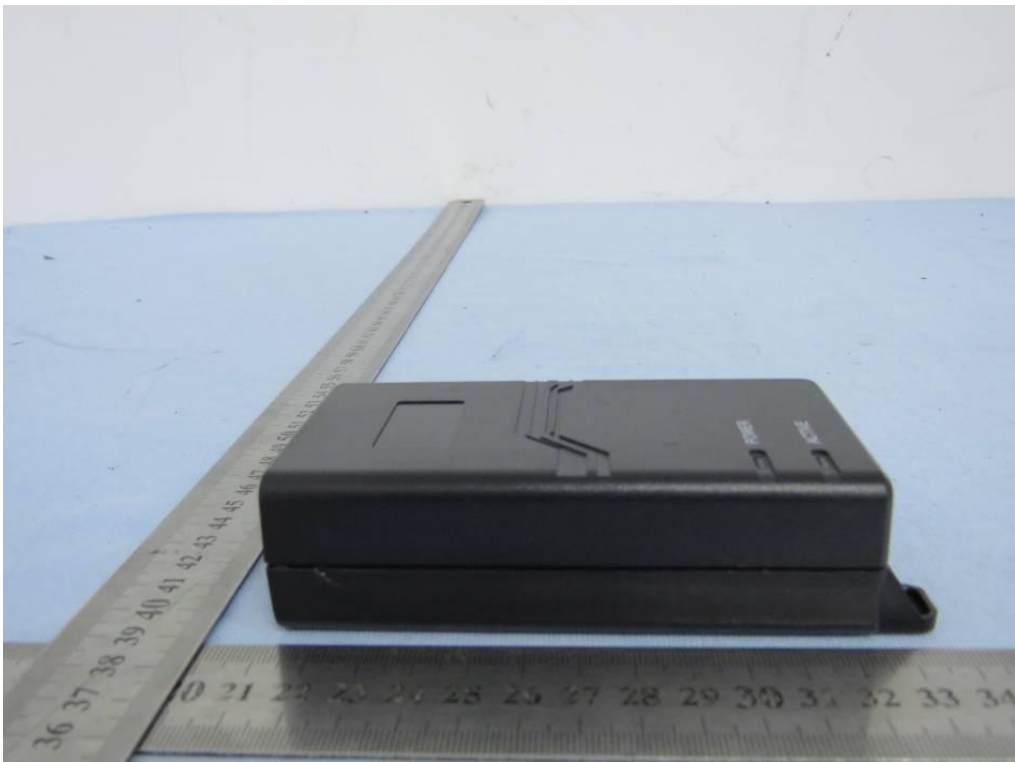


APPENDIX I (Photos of E.U.T.)

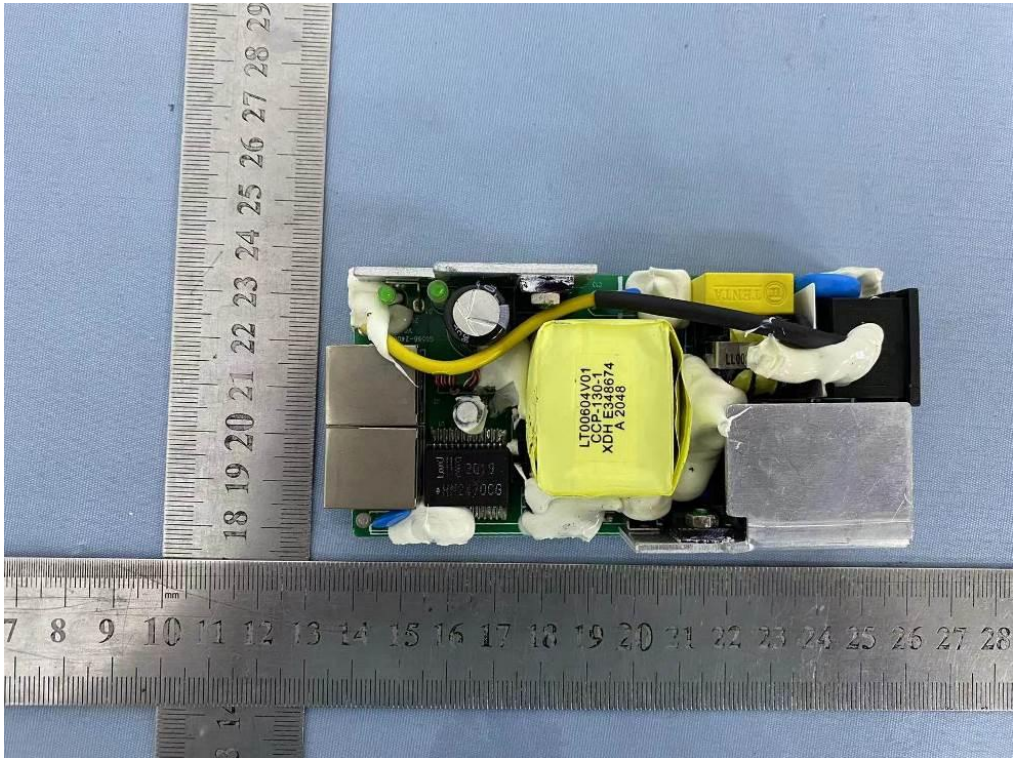
General Appearance of the EUT

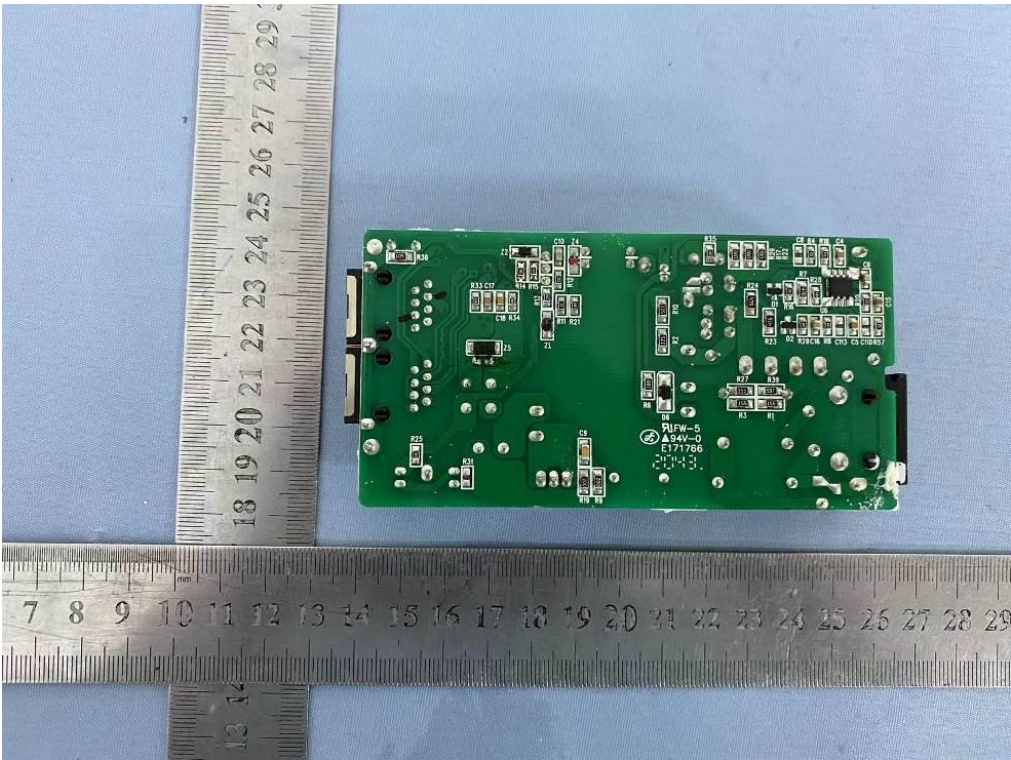




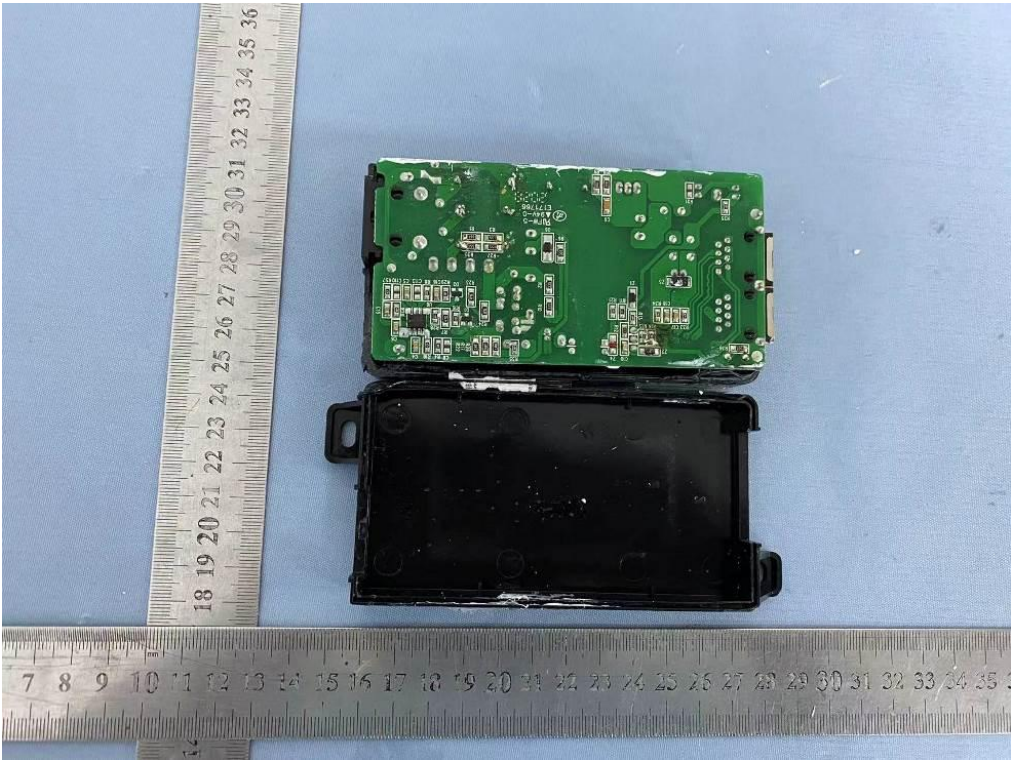


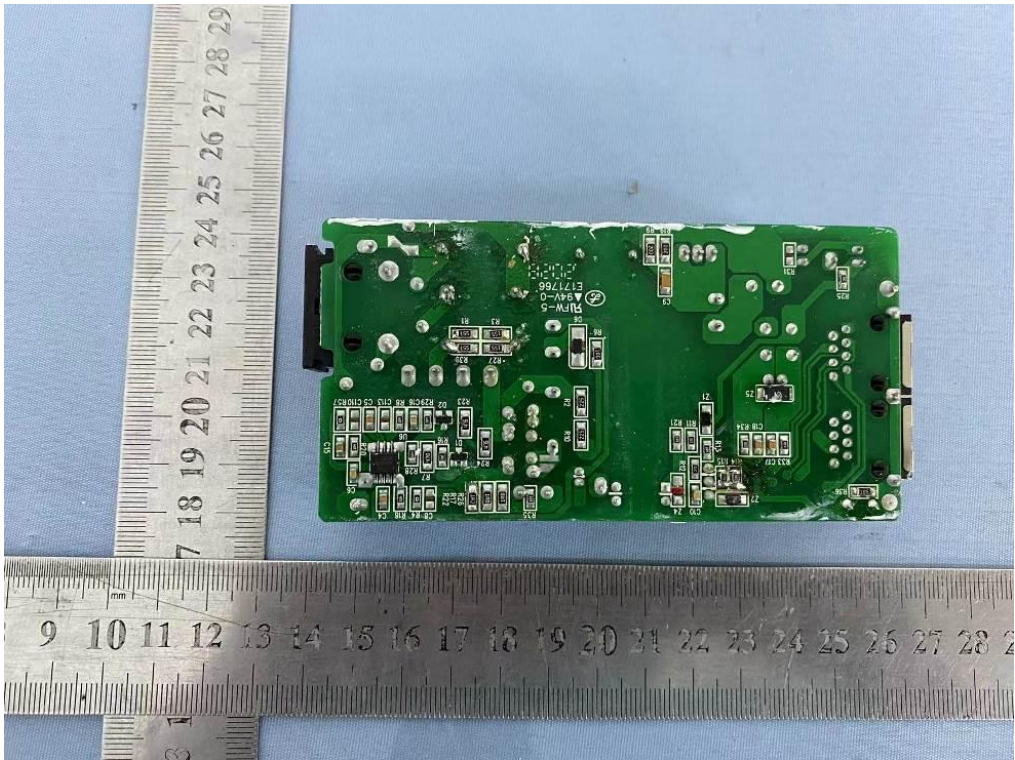
M/N: G0566-420-143





M/N: G0566-570-105







TM

Ref. Certif. No.

JPTUV-118861-M1

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

Product

Switching Gigabit Power Supply

Name and address of the applicant

SHENZHEN GOSPELL DIGITAL TECHNOLOGY CO., LTD.
101, Area A, Building A, Jingfa
Manufacture Park, Xiawei Park, Gushu Community, Xixiang
Street, Bao'an, Shenzhen, 518126, Guangdong, P.R. China

Name and address of the manufacturer

SHENZHEN GOSPELL DIGITAL TECHNOLOGY CO., LTD.
101, Area A, Building A, Jingfa
Manufacture Park, Xiawei Park, Gushu Community, Xixiang
Street, Bao'an, Shenzhen, 518126, Guangdong, P.R. China

Name and address of the factory

See additional page(s)

Ratings and principal characteristics

Input : 100-240VAC; 50/60Hz; MAX 1.5A; Class I
Output: 1) 42.0-57.0Vdc; 0.01-1.43A; 60W Max.
2) 50Vdc; 1.2A; 60W Max.

Trademark (if any)

Customer's Testing Facility (CTF) Stage used

N/A

Model / Type Ref.

- 1) G0566-xxx-yyy (xxx = 420-570; yyy = 001-143)
2) POE-173 (Same as G0566-500-120)

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

For model differences, refer to the test report.
Re-issue of JPTUV-3118861 dated 19.01.2021,
due to first modification.

A sample of the product was tested and
found to be in conformity with

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

As shown in the Test Report Ref. No. which
forms part of this Certificate

CN206PGA 002

This CB Test Certificate is issued by the National Certification Body

**TÜVRheinland®**

TÜV Rheinland Japan Ltd.
Global Technology Assessment Center
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Mail: info@jpn.tuv.com
Web : www.tuv.com

Date: 2022-02-21

Signature:

Sommy Chen

1. SHENZHEN GOSPELL DIGITAL
TECHNOLOGY CO., LTD.
101, Area A, Building A, Jingfa
Manufacture Park, Xiawei Park
Gushu Community, Xixiang Street, Bao'an, Shenzhen, 518126, Guangdong,
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2. GOSPOWER ELECTRIC TECHNOLOGY
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Songshan Lake Park, Dongguan City,
523000 Guangdong, P.R. China
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3/F, 1 Building,
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Additional information (if necessary)

Report Ref. No. : CN206PGA 002

Date: 2022-02-21

Signature:



Sommy Chen



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 :	JPTUV-3118861
Date of issue	January19, 2021
Total number of pages	67
Applicant's name	SHENZHEN GOSPELL DIGITAL TECHNOLOGY CO., LTD.
Address	E. of 5F, Zone A, 1st Ind., Area, Fenghuanggang, Sou BaoTian 1Rd., Xixiang, Str., Bao An District, Shenzhen, Guangdong 518102, P.R.China
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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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.	

Test Item description	Switching Gigabit Power Supply	
Trade Mark	Manufacturer name shown on the rating label	
Manufacturer	Same as applicant	
Model/Type reference	G0566-xxx-yyy, POE-173(Same as G0566-500-120) (For definition of variables "xxx", "yyy", see table A on page 7 for details)	
Ratings	Input : 100-240V ~, 50/60Hz, MAX 1.5A Output : See table B on page 7 for details.	
Testing procedure and testing location:		
☒ CB Testing Laboratory:	Dongguan Nore Testing Center Co., Ltd.	
Testing location/ address	Building D, Gaosheng Science & Technology Park, Zhouxi Longxi Road, Nancheng District, Dongguan, Guangdong, China	
☐ Associated CB Testing Laboratory:	N/A	
Testing location/ address	N/A	
Tested by (name + signature)	Peanut Liu (Project Handler)	
Approved by (name + signature)	Ryan Luo (Reviewer)	
Testing procedure: TMP/CTF Stage 1		
Testing location/ address	N/A	
Tested by (name + signature)		
Approved by (name + signature)		
Testing procedure: WMT/CTF Stage 2		
Testing location/ address	N/A	
Tested by (name + signature)		
Witnessed by (name + signature)		
Approved by (name + signature)		
Testing procedure: SMT/CTF Stage 3 or 4		
Testing location/ address	N/A	
Tested by (name + signature)		
Approved by (name + signature)		
Supervised by (name + signature)		

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

Attachment 1: National differences (31 pages)

Attachment 2: Miscellaneous Section (4 pages)

Attachment 3: Photo Documentation (14 pages)

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

All applicable tests as described in Test Case and Measurement Sections were performed.

Load conditions used during testing see appended table B.2.5 for details.

Following tests performed during evaluation:

5.2	Electrical energy source classifications
5.3.2	Accessibility to electrical energy sources and safeguards (Accessibility test)
5.4.1.4, 6.3.2, 9.0, B.2.6	Maximum operating temperatures for materials, components and systems
5.4.1.8	Determination of working voltage
5.4.2.2, 5.4.2.4 & 5.4.3	Minimum Clearances/Creepage distance
5.4.8	Humidity conditioning
5.4.9	Electric strength test
5.5.2.2	Stored discharge on capacitors
5.6.6.2	Resistance of the protective bonding system (Ground continuity test)
5.7.2.2, 5.7.4	Earthed accessible conductive part test
6.2.2	Electrical power sources (PS) measurements for classification
6.2.3.1	Determination of Potential Ignition Sources (Arcing PIS)
6.2.3.2	Determination of Potential Ignition Sources (Resistive PIS)
B.2.5	Input tests
B.3	Simulated Abnormal operating condition tests
B.4	Simulated single fault conditions
F.3.9	Durability, legibility and permanence of markings
G.5.3.2	Transformer insulation
G.5.3.3	Transformer overload
Q.1	Limited power source test (LPS)
T.2	Steady force test, 10 N
T.5	Steady force test, 250 N
T.6	Impact test
T.7	Drop test
T.8	Stress relief test

Note :

1. If not otherwise specified, tests were performed on models G0566-420-143, G0566-570-105.

Testing location:

Unless otherwise indicated, all tests were performed at the location stated in "Testing procedure and testing location".

2. The EUTs passed the test.

Summary of compliance with National Differences:

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

Explanation of used codes: AU=Australia, CA=Canada, US= United State of America.

For National Differences see attachment 1 of this test report.

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

Copy of marking plate(s): (Representative)



Remark:

The above labels are a draft of an artwork for marking plate pending approval by National Certification Bodies and it shall not be affixed to products prior to such an approval.

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% ☐ +____%/ -____% ☐ 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	US, CA:20 A; UK:13 A; Others:16 A Installation location: ☒ building; ☐ equipment
Equipment mobility	☒ movable ☐ hand-held ☐ transportable ☐ stationary ☐ for building-in ☐ direct plug-in ☐ rack-mounting ☐ wall-mounted
Over voltage category (OVC)	☐ OVC I ☒ OVC II ☐ OVC III ☐ OVC IV ☐ other: _____
Class of equipment	☒ Class I ☐ Class II ☐ Class III
Access location	☐ restricted access location ☒ N/A
Pollution degree (PD)	☐ PD 1 ☒ PD 2 ☐ PD 3
Manufacturer's specified maximum operating ambient.....	40°C
IP protection class	☒ IPX0 ☐ IP____
Power Systems	☒ TN ☐ TT ☒ IT - 230 V _{L-L}
Altitude during operation (m)	☐ 2000 m or less ☒ 5000 m
Altitude of test laboratory (m)	☒ 2000 m or less ☐ _____m
Mass of equipment (kg)	☒ Approx. 0.228kg

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..... :	December 02, 2020
Date (s) of performance of tests..... :	December 11, 2020 to December 21, 2020
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 62368-1:	
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 address of factory (ies)	1) SHENZHEN GOSPELL DIGITAL TECHNOLOGY CO., LTD. E.of 5F, Zone A, 1st Ind., Area, Fenghuanggang, Sou BaoTian 1Rd.,Xixiang, Str., Bao An District, Shenzhen, Guangdong 518102, P.R.China 2) SHENZHEN GOSPELL DIGITAL TECHNOLOGY CO., LTD. West of the 1F to 4F, Block A, Sou. Baotian 1Rd. (Xinghong Science and Technology Park), XiXiang Street, Bao An District, Shenzhen, 518102 Guangdong, P.R. China 3) GOSPOWER ELECTRIC TECHNOLOGY CO., LTD. Building 1, No.5, Xingye Road, Songshan Lake Park, Dongguan City, 523000 Guangdong, P.R. China
GENERAL PRODUCT INFORMATION:	
1. The equipment models POE-173(Same as G0566-500-120), G0566-xxx-yyy are class I switching power supply for the use in information technology equipment. 2. The bottom enclosure is secured to the top enclosure by ultrasonic welding method. 3. The equipment includes signal terminal "LAN" and output terminal "POE". 4. The maximum ambient temperature permitted by the manufacturer's specification is 40°C. 5. As applicant's request, equipment operating up to altitudes 5000m was considered, the required clearance multiplied by altitude correction factor 1.48 according to the Table 17 of IEC 62368-1:2014 standard.	

Model Differences –

1. Model POE-173 is identical to G0566-500-120 except for different model designation.
2. Model G0566-420-143 and G0566-570-105 are identical to each other except for different model designation.
3. All models are identical to each other except for type designation, output rating see table B below.

Table A: Definition of variables

Variable	Range of variable	Content
xxx	420-570	'xxx' are 3 digit number, denotes 10 times of output voltage value in V. For example, 420 represents the output voltage is 42.0V, 570 represents the output voltage is 57.0V.
yyy	001-143	'yyy' are 3 digit number, denotes 100 times of output current value in A. For example, 001 represents the output current is 0.01A, 143 represents the output current is 1.43A.

Table B: Model list

Model No.	Output voltage (Vdc)	Output current (A)	Max. output power (W)	Transformer
G0566-xxx-yyy	42.0-57.0	0.01-1.43	60	LT00604V01
POE-173	50	1.2		

Note:

1. The minimum rise step of output voltage is 0.1V between specified voltage range.
2. The minimum rise step of output current is 0.01A, but not more than the indicated max output current.
3. Actual output current depends on range of output voltage. The max. output current multiplied by output voltage cannot exceed the max. output power.

Table C: Model difference list:

Model No.	Output voltage(V)	R14(KΩ)	R15(MΩ)
G0566-xxx-yyy,	42.0-50.0	10-15	1.5-2
POE-173	50.1-57.0	9-12	0-1.5

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

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 circuits except for output circuits	ES3
Output circuit (connector)	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 circuits except for output circuit (connector)	PS3, Arching PIS, Resistive PIS
Output circuit (connector)	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
N/A	None
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)
Edges and corners of enclosure	MS1
Mass of the unit	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)
External surface	TS1
Radiation (Clause 10) (Note: List the types of radiation present in the product and the corresponding energy source classification.) Example: DVD – Class 1 Laser Product	
	RS1
Type of radiation	Corresponding classification (RS)
LED Indicator	RS1

ENERGY SOURCE DIAGRAM
Indicate which energy sources are included in the energy source diagram. Insert diagram below
☒ ES ☒ PS ☒ MS ☒ TS ☐ RS Main unit Power supply (ES3/PS3) → Primary circuits (ES3/PS3) → Transformer (T1) → Secondary circuit All circuits except for LAN and output circuit (connector) (ES3/PS3) → output (ES1/PS2) ES3: Primary circuits ES3: Secondary circuit All circuits except for LAN and output circuit (connector) PS2: output connector MS1: Edges and corners of enclosure TS1: External surface

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 person	ES3: All circuits except for output connector	N/A	N/A	Enclosure, See 5.4.2, 5.4.3, 5.5.3 and 5.5.4
6.1	Electrically-caused fire			
Material part (e.g. mouse enclosure)	Energy Source	Safeguards		
		Basic	Supplementary	Reinforced
Enclosure	PS3 circuit	See 6.3	V-0	N/A
PCB	PS3 circuit	See 6.3	V-1 or better	N/A
Internal wiring	PS3 circuit	N/A	N/A	See 6.5
The other components/materials	PS3 circuit	See 6.3	See 6.4.5, 6.4.6	N/A
7.1	Injury caused by hazardous substances			
Body Part (e.g., skilled)	Energy Source (hazardous material)	Safeguards		
		Basic	Supplementary	Reinforced
N/A (no such sources)	N/A	N/A	N/A	N/A
8.1	Mechanically-caused injury			
Body Part (e.g. Ordinary)	Energy Source (MS3:High Pressure Lamp)	Safeguards		
		Basic	Supplementary	Reinforced (Enclosure)
Ordinary person	MS1: Edges and corners	N/A	N/A	N/A
Ordinary person	MS1: Mass of the unit	N/A	N/A	N/A
9.1	Thermal Burn –			
Body Part (e.g., Ordinary)	Energy Source (TS2)	Safeguards		
		Basic	Supplementary	Reinforced
Ordinary person	TS1: External surface	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 person	RS1:LED Indicator	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. See also Annex G	P
4.1.3	Equipment design and construction	Evaluation of safeguards regarding access to ES3 and to limiting the outputs to fulfill ES1. Protection in regard to risk of spread of fire, mechanical-caused injury and thermal burn should be evaluated in the end system.	P
4.1.15	Markings and instructions	(See Annex F)	P
4.4.4	Safeguard robustness	See below.	P
4.4.4.2	Steady force tests	(See Annex T.2, T.5)	P
4.4.4.3	Drop test.....	(See Annex T.7)	P
4.4.4.4	Impact tests.....	(See Annex T.6)	P
4.4.4.5	Internal accessible safeguard enclosure and barrier tests	The external enclosure cannot be opened without damaging the product	N/A
4.4.4.6	Glass Impact tests.....	No such glass used.	N/A
4.4.4.7	Thermoplastic material tests	(See Annex T.8)	P
4.4.4.8	Air comprising a safeguard	(See Annex T)	P
4.4.4.9	Accessibility and safeguard effectiveness	After tests of 4.4.4.2, 4.4.4.3, 4.4.4.4, 4.4.4.7, no safeguard damaged.	P
4.5	Explosion	No explosion occurs during normal/abnormal operation and single fault conditions	P
4.6	Fixing of conductors		P
4.6.1	Fix conductors not to defeat a safeguard	Considered	P
4.6.2	10 N force test applied to	(See appended table 5.4.2.2, 5.4.2.4 and 5.4.3)	P
4.7	Equipment for direct insertion into mains socket - outlets	The EUT is not for direct insertion into mains socket-outlets	N/A
4.7.2	Mains plug part complies with the relevant standard	See above	N/A
4.7.3	Torque (Nm).....	See above	N/A
4.8	Products containing coin/button cell batteries	No coin/button cell batteries used.	N/A
4.8.2	Instructional safeguard		N/A

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
4.8.3	Battery Compartment Construction		N/A
	Means to reduce the possibility of children removing the battery :		—
4.8.4	Battery Compartment Mechanical Tests..... :		N/A
4.8.5	Battery Accessibility		N/A
4.9	Likelihood of fire or shock due to entry of conductive object :	(See Annex P)	P

5	ELECTRICALLY-CAUSED INJURY		P
5.2.1	Electrical energy source classifications:	(See appended table 5.2)	P
5.2.2	ES1, ES2 and ES3 limits		P
5.2.2.2	Steady-state voltage and current.....:	(See appended table 5.2)	P
5.2.2.3	Capacitance limits:	(See sub-clause 5.5.2.2)	P
5.2.2.4	Single pulse limits.....:	No such single pulses generated in the EUT or applied to it.	N/A
5.2.2.5	Limits for repetitive pulses.....:	No such repetitive pulses within the EUT	N/A
5.2.2.6	Ringing signals:	No such ringing signals within the EUT	N/A
5.2.2.7	Audio signals:	No such audio signals	N/A
5.3	Protection against electrical energy sources	See only 4.3 and 5.3 to 5.6 which applies to protection between the accessible parts and hazardous parts of other circuits.	P
5.3.1	General Requirements for accessible parts to ordinary, instructed and skilled persons		P
5.3.2.1	Accessibility to electrical energy sources and safeguards	Only ES1 circuit can be accessed for this product.	P
5.3.2.2	Contact requirements	No opening of enclosure, no access with test probe to any ES3 circuit or parts.	P
	a) Test with test probe from Annex V:		P
	b) Electric strength test potential (V).....:		N/A
	c) Air gap (mm):		N/A
5.3.2.4	Terminals for connecting stripped wire	No stripped wire used.	N/A
5.4	Insulation materials and requirements		P
5.4.1.2	Properties of insulating material	The choice and application have been taken into account as specified in this Clause 5 and Annex T. Natural rubber, hygroscopic materials or asbestos are not used as insulation.	P
5.4.1.3	Humidity conditioning..... :	No hygroscopic material used.	N/A

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
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	Pollution degree 2 is applied. No insulating compound applied for except as in 5.4.4.	N/A
5.4.1.5.3	Thermal cycling	See above	N/A
5.4.1.6	Insulation in transformers with varying dimensions	No such transformer within the EUT	N/A
5.4.1.7	Insulation in circuits generating starting pulses	No such starting pulses within the EUT	N/A
5.4.1.8	Determination of working voltage	(See appendix 1 appended table 5.4.1.8)	P
5.4.1.9	Insulating surfaces	Considered for accessible surface of enclosure.	P
5.4.1.10	Thermoplastic parts on which conductive metallic parts are directly mounted	The bobbin materials of T1 and L2 is phenolic. No other parts need to be tested.	N/A
5.4.1.10.2	Vicat softening temperature		N/A
5.4.1.10.3	Ball pressure		N/A
5.4.2	Clearances		P
5.4.2.2	Determining clearance using peak working voltage	(See appended table 5.4.2.2, 5.4.2.4 and 5.4.3)	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.....	2500Vpeak	—
	b) d.c. mains transient voltage	No such transient	—
	c) external circuit transient voltage	No such transient	—
	d) transient voltage determined by measurement :		—
5.4.2.4	Determining the adequacy of a clearance using an electric strength test		N/A
5.4.2.5	Multiplication factors for clearances and test voltages.....	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		P
5.4.3.3	Material Group	IIla&IIlb	—
5.4.4	Solid insulation	See below	P
5.4.4.2	Minimum distance through insulation	(See appended table 5.4.4.2)	P
5.4.4.3	Insulation compound forming solid insulation	See only 5.4.4.4 regarding to optocoupler.	N/A

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
5.4.4.4	Solid insulation in semiconductor devices	Approved optocoupler used. Requirements of G.12 met, see table 4.1.2 for listed component used.	P
5.4.4.5	Cemented joints	No such construction within the EUT.	N/A
5.4.4.6	Thin sheet material	See below	P
5.4.4.6.1	General requirements	At least 2 layers of insulation tape are used for reinforced insulation and are not expected to be subject to handling or abrasion during ordinary or instructed person servicing.	P
5.4.4.6.2	Separable thin sheet material	T1 used two layers are provided as reinforced insulation any one layer passed the electric strength test for reinforced insulation.	P
	Number of layers (pcs)	See above	P
5.4.4.6.3	Non-separable thin sheet material	No such thin sheet material within the EUT	N/A
5.4.4.6.4	Standard test procedure for non-separable thin sheet material..... :	See above	N/A
5.4.4.6.5	Mandrel test		N/A
5.4.4.7	Solid insulation in wound components	See G.5.3 and G.6.1	P
5.4.4.9	Solid insulation at frequencies >30 kHz..... :		N/A
5.4.5	Antenna terminal insulation		N/A
5.4.5.1	General		N/A
5.4.5.2	Voltage surge test		N/A
	Insulation resistance (MΩ)		N/A
5.4.6	Insulation of internal wire as part of supplementary safeguard	No such insulation of internal wire used alone as supplementary safeguard.	N/A
5.4.7	Tests for semiconductor components and for cemented joints	No tests necessary –see only 5.4.4.4.	N/A
5.4.8	Humidity conditioning	Requested by manufacturer, test was performed on product with each source of transformer listed in table 4.1.2.	P
	Relative humidity (%)	95%	—
	Temperature (°C)	40°C	—
	Duration (h)	120h	—
5.4.9	Electric strength test	(See appended table 5.4.9)	P

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
5.4.9.1	Test procedure for a solid insulation type test	Compliance was checked immediately following temperature test in 5.4.1.4 on the complete unit and on a sample of the transformer raised to the relevant temperature as measured during that test. (See appended table 5.4.9)	P
5.4.9.2	Test procedure for routine tests	No routine tests considered. To be considered during the relevant national approval.	N/A
5.4.10	Protection against transient voltages between external circuit	POE Power Supply intended to be used for information technology equipment as a PoE power supply for connection to Ethernet networks limited to the same building.	N/A
5.4.10.1	Parts and circuits separated from external circuits		N/A
5.4.10.2	Test methods		N/A
5.4.10.2.1	General		N/A
5.4.10.2.2	Impulse test..... :		N/A
5.4.10.2.3	Steady-state test :		N/A
5.4.11	Insulation between external circuits and earthed circuitry..... :		N/A
5.4.11.1	Exceptions to separation between external circuits and earth		N/A
5.4.11.2	Requirements		N/A
	Rated operating voltage U_{op} (V) :		—
	Nominal voltage U_{peak} (V) :		—
	Max increase due to variation U_{sp} :		—
	Max increase due to ageing U_{sa} :		—
	$U_{op} = U_{peak} + U_{sp} + U_{sa}$:		—
5.5	Components as safeguards		
5.5.1	General	See the following details.	P
5.5.2	Capacitors and RC units	Approved X capacitor (C14) and Y capacitor (C13) provided.	P
5.5.2.1	General requirement		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 Annex G.12)	P
5.5.5	Relays	No such relay used as safeguard.	N/A
5.5.6	Resistors	No such resistor used as safeguard.	N/A
5.5.7	SPD's	No such component as safeguard.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
5.5.7.1	Use of an SPD connected to reliable earthing	No such construction.	N/A
5.5.7.2	Use of an SPD between mains and protective earth		N/A
5.5.8	Insulation between the mains and external circuit consisting of a coaxial cable :	No such external circuits.	N/A
5.6	Protective conductor		P
5.6.2	Requirement for protective conductors		P
5.6.2.1	General requirements		P
5.6.2.2	Colour of insulation	Yellow/Green wire from appliance inlet to secondary PCB.	P
5.6.3	Requirement for protective earthing conductors	No power cord provided	N/A
	Protective earthing conductor size (mm ²) :		—
5.6.4	Requirement for protective bonding conductors		P
5.6.4.1	Protective bonding conductors	The yellow/green wire soldered from earth pin of appliance inlet soldered to secondary PCB as protective bonding conductor.	P
	Protective bonding conductor size (mm ²). :	Min.18 AWG (0.8 mm ²)	—
	Protective current rating (A) :	Rated : 1.5A	—
5.6.4.3	Current limiting and overcurrent protective devices		P
5.6.5	Terminals for protective conductors	The earth pin of the approved appliance inlet is considered as protective earthing terminal. The yellow/green wire soldered from earth terminal of appliance inlet soldered to secondary PCB as protective bonding conductor.	N/A
5.6.5.1	Requirement		N/A
	Conductor size (mm ²), nominal thread diameter (mm)..... :		N/A
5.6.5.2	Corrosion		N/A
5.6.6	Resistance of the protective system		P
5.6.6.1	Requirements		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 5.2)	P
5.7.2.2	Measurement of prospective touch voltage		P

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Clause	Requirement + Test	Result - Remark	Verdict
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 5.7.2.2, 5.7.4)	P
5.7.5	Protective conductor current		N/A
	Supply Voltage (V)		—
	Measured current (mA)		—
	Instructional Safeguard		N/A
5.7.6	Prospective touch voltage and touch current due to external circuits	No such external circuits.	N/A
5.7.6.1	Touch current from coaxial cables	No such parts	N/A
5.7.6.2	Prospective touch voltage and touch current from external circuits		N/A
5.7.7	Summation of touch currents from external circuits	No such 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	PS (power source) classification determined by measuring the maximum power in Figures 34 and 35 for load and power source circuits.	P
6.2.2.1	General	See the following details.	P
6.2.2.2	Power measurement for worst-case load fault.....:	(See appended table 6.2.2)	P
6.2.2.3	Power measurement for worst-case power source fault.....:	(See appended table 6.2.2)	P
6.2.2.4	PS1		N/A
6.2.2.5	PS2	(See appended table 6.2.2)	P
6.2.2.6	PS3	(See appended table 6.2.2)	P
6.2.3	Classification of potential ignition sources	See the following details.	P
6.2.3.1	Arcing PIS	(See appended table 6.2.3.1)	P
6.2.3.2	Resistive PIS	(See appended table 6.2.3.2)	P
6.3	Safeguards against fire under normal operating and abnormal operating conditions		P

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Clause	Requirement + Test	Result - Remark	Verdict
6.3.1 (a)	No ignition and attainable temperature value less than 90 °C defined by ISO 871 or less than 300 °C for unknown materials..... :	No ignition and no such temperature attained within the equipment. (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		N/A
6.4	Safeguards against fire under single fault conditions		P
6.4.1	Safeguard Method	Method by control of fire spread applied. Fire enclosure is required for the end system.	P
6.4.2	Reduction of the likelihood of ignition under single fault conditions in PS1 circuits	See above.	N/A
6.4.3	Reduction of the likelihood of ignition under single fault conditions in PS2 and PS3 circuits	See above.	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	No such consideration.	N/A
6.4.4	Control of fire spread in PS1 circuits	PS2 and PS3 circuits inside.	N/A
6.4.5	Control of fire spread in PS2 circuits		P
6.4.5.2	Supplementary safeguards :	Compliance detailed as follows: – <u>Printed board</u> : rated min. V-1 – <u>Internal wire</u> : complying with 6.5. – <u>All other components</u> : at least V-2 except for components mounted on min. V-1 material or small parts of combustible material. <u>Isolating transformer</u> : complying with G.5.3.	P
6.4.6	Control of fire spread in PS3 circuit	Compliance detailed as follows: – Parts as in 6.4.5 above – Inlet : complying to IEC standard – Fire enclosure : rated V-0 used.	P
6.4.7	Separation of combustible materials from a PIS	Fire enclosure provided for all internal parts.	N/A
6.4.7.1	General :		N/A
6.4.7.2	Separation by distance		N/A
6.4.7.3	Separation by a fire barrier		N/A
6.4.8	Fire enclosures and fire barriers		P
6.4.8.1	Fire enclosure and fire barrier material properties		P
6.4.8.2.1	Requirements for a fire barrier	No fire barrier used.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
6.4.8.2.2	Requirements for a fire enclosure	Fire enclosure : rated V-0 used. Metal surround of RJ45 connector provides part of fire enclosure.	P
6.4.8.3	Constructional requirements for a fire enclosure and a fire barrier		P
6.4.8.3.1	Fire enclosure and fire barrier openings		P
6.4.8.3.2	Fire barrier dimensions		N/A
6.4.8.3.3	Top Openings in Fire Enclosure: dimensions (mm)	No openings	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	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).....		N/A
6.4.8.4	Separation of PIS from fire enclosure and fire barrier distance (mm) or flammability rating	Fire enclosure is made of V-0 material, other part (see 6.4.8.1) is metal.	P
6.5	Internal and external wiring		N/A
6.5.1	Requirements	Internal wire comply with UL 758, which has the equivalent requirement with IEC/TS 60695-11-21.	N/A
6.5.2	Cross-sectional area (mm ²)	(See appended table 4.1.2)	—
6.5.3	Requirements for interconnection to building wiring.....		N/A
6.6	Safeguards against fire due to connection to additional equipment		P
	External port limited to PS2 or complies with Clause Q.1	Output limited to PS2.	P

7	INJURY CAUSED BY HAZARDOUS SUBSTANCES		N/A
7.2	Reduction of exposure to hazardous substances	No hazardous chemicals within the equipment.	N/A
7.3	Ozone exposure	No ozone production within the equipment.	N/A
7.4	Use of personal safeguards (PPE)		N/A
	Personal safeguards and instructions.....		—
7.5	Use of instructional safeguards and instructions		N/A
	Instructional safeguard (ISO 7010)		—
7.6	Batteries	No battery used.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
8	MECHANICALLY-CAUSED INJURY		P
8.1	General	No moving parts in the equipment; see below regarding edges and corners.	P
8.2	Mechanical energy source classifications	MS1 applied for mass of equipment and edges and corners.	P
8.3	Safeguards against mechanical energy sources		N/A
8.4	Safeguards against parts with sharp edges and corners	Edges and corners of the enclosure are rounded.	P
8.4.1	Safeguards		N/A
8.5	Safeguards against moving parts	No moving parts.	N/A
8.5.1	MS2 or MS3 part required to be accessible for the function of the equipment		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	MS1 for Mass of equipment, no stability requirements.	N/A
8.6.1	Product classification		N/A
	Instructional Safeguard		—
8.6.2	Static stability		N/A
8.6.2.2	Static stability test		N/A
	Applied Force.....		—
8.6.2.3	Downward Force Test		N/A
8.6.3	Relocation stability test		N/A
	Unit configuration during 10° tilt		—
8.6.4	Glass slide test		N/A
8.6.5	Horizontal force test (Applied Force)		N/A

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

9	THERMAL BURN INJURY		P
9.2	Thermal energy source classifications	All accessible surfaces are classified as TS1, see appended table 5.4.1.4, 6.3.2, 9.0, B.2.6.	P
9.3	Safeguard against thermal energy sources	No safeguard required for TS1.	N/A
9.4	Requirements for safeguards		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
9.4.1	Equipment safeguard	Enclosure provided to limit the transfer of thermal energy of internal parts under normal operating conditions and abnormal operating conditions.	P
9.4.2	Instructional safeguard	Instructional safeguard is not required	N/A

10	RADIATION		P
10.2	Radiation energy source classification		P
10.2.1	General classification	Indicating LED classed as RS1	P
10.3	Protection against laser radiation		N/A
	Laser radiation that exists equipment:		—
	Normal, abnormal, single-fault		N/A
	Instructional safeguard.....		—
	Tool		—
10.4	Protection against visible, infrared, and UV radiation		N/A
10.4.1	General		N/A
10.4.1.a)	RS3 for Ordinary and instructed persons.....		N/A
10.4.1.b)	RS3 accessible to a skilled person		N/A
	Personal safeguard (PPE) instructional safeguard		—
10.4.1.c)	Equipment visible, IR, UV does not exceed RS1..		N/A
10.4.1.d)	Normal, abnormal, single-fault conditions		N/A
10.4.1.e)	Enclosure material employed as safeguard is opaque		N/A
10.4.1.f)	UV attenuation		N/A
10.4.1.g)	Materials resistant to degradation UV.....		N/A
10.4.1.h)	Enclosure containment of optical radiation		N/A
10.4.1.i)	Exempt Group under normal operating conditions		N/A
10.4.2	Instructional safeguard.....		N/A
10.5	Protection against x-radiation	No such x-radiation generated from the equipment	N/A
10.5.1	X- radiation energy source that exists equipment:		N/A
	Normal, abnormal, single fault conditions		N/A
	Equipment safeguards		N/A
	Instructional safeguard for skilled person		N/A
10.5.3	Most unfavourable supply voltage to give maximum radiation.....		—

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Clause	Requirement + Test	Result - Remark	Verdict
	Abnormal and single-fault condition.....:		N/A
	Maximum radiation (pA/kg)		N/A
10.6	Protection against acoustic energy sources	Not such equipment.	N/A
10.6.1	General		N/A
10.6.2	Classification		N/A
	Acoustic output, dB(A)		N/A
	Output voltage, unweighted r.m.s.:		N/A
10.6.4	Protection of persons		N/A
	Instructional safeguards		N/A
	Equipment safeguard prevent ordinary person to RS2		—
	Means to actively inform user of increase sound pressure		—
	Equipment safeguard prevent ordinary person to RS2		—
10.6.5	Requirements for listening devices (headphones, earphones, etc.)		N/A
10.6.5.1	Corded passive listening devices with analog input		N/A
	Input voltage with 94 dB(A) L_{Aeq} acoustic pressure output		—
10.6.5.2	Corded listening devices with digital input		N/A
	Maximum dB(A)		—
10.6.5.3	Cordless listening device		N/A
	Maximum dB(A)		—

B	NORMAL OPERATING CONDITION TESTS, ABNORMAL OPERATING CONDITION TESTS AND SINGLE FAULT CONDITION TESTS		P
B.2	Normal Operating Conditions	See the following details.	P
B.2.1	General requirements	(See summary of testing and appended table)	P
	Audio Amplifiers and equipment with audio amplifiers.....:	Not such equipment.	N/A
B.2.3	Supply voltage and tolerances	Rated voltage tolerance $\pm 10\%$ applied.	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, B.4)	P
B.3.2	Covering of ventilation openings		N/A
B.3.3	D.C. mains polarity test	The EUT is not connected to a D.C. mains	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
B.3.4	Setting of voltage selector.....:	No voltage selector used within the EUT	N/A
B.3.5	Maximum load at output terminals.....:	(See appended table B.3, B.4)	P
B.3.6	Reverse battery polarity	No battery within the EUT	N/A
B.3.7	Abnormal operating conditions as specified in Clause E.2.	Not such equipment.	N/A
B.3.8	Safeguards functional during and after abnormal operating conditions	All safeguards remained effective.	P
B.4	Simulated single fault conditions		P
B.4.2	Temperature controlling device open or short-circuited.....:	No such device used.	N/A
B.4.3	Motor tests	No such device used.	N/A
B.4.3.1	Motor blocked or rotor locked increasing the internal ambient temperature		N/A
B.4.4	Short circuit of functional insulation	See the following details.	P
B.4.4.1	Short circuit of clearances for functional insulation	(See appended tables B.3, B.4)	P
B.4.4.2	Short circuit of creepage distances for functional insulation	(See appended tables B.3, B.4)	P
B.4.4.3	Short circuit of functional insulation on coated printed boards	No coated printed boards within the EUT	N/A
B.4.5	Short circuit and interruption of electrodes in tubes and semiconductors	(See appended tables B.3, B.4 for faults on electronic components)	P
B.4.6	Short circuit or disconnect of passive components	(See appended tables B.3, B.4)	P
B.4.7	Continuous operation of components	The EUT is continuous operating type and no such components intended for short time operation or intermittent operation	N/A
B.4.8	Class 1 and Class 2 energy sources within limits during and after single fault conditions	No change to circuits classified in 5.3.	P
B.4.9	Battery charging under single fault conditions	No battery involved in the EUT	N/A

C	UV RADIATION		N/A
C.1	Protection of materials in equipment from UV radiation	No such UV generated from the equipment.	N/A
C.1.2	Requirements	See above.	N/A
C.1.3	Test method	See above.	N/A
C.2	UV light conditioning test	See above.	N/A
C.2.1	Test apparatus	See above.	N/A
C.2.2	Mounting of test samples	See above.	N/A
C.2.3	Carbon-arc light-exposure apparatus	See above.	N/A
C.2.4	Xenon-arc light exposure apparatus	See above.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict

D	TEST GENERATORS		P
D.1	Impulse test generators		N/A
D.2	Antenna interface test generator		P
D.3	Electronic pulse generator		N/A
E	TEST CONDITIONS FOR EQUIPMENT CONTAINING AUDIO AMPLIFIERS		N/A
E.1	Audio amplifier normal operating conditions	Not such equipment.	N/A
	Audio signal voltage (V)..... :	See above.	—
	Rated load impedance (Ω) :	See above.	—
E.2	Audio amplifier abnormal operating conditions	See above.	N/A

F	EQUIPMENT MARKINGS, INSTRUCTIONS, AND INSTRUCTIONAL SAFEGUARDS		P
F.1	General requirements	See the following details.	P
	Instructions – Language :	English version provided. (Version in other language will be provided when submitted for national approval)	—
F.2	Letter symbols and graphical symbols	See the following details.	P
F.2.1	Letter symbols according to IEC60027-1	Letter symbols for quantities and units are complied with 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.	P
F.3	Equipment markings		P
F.3.1	Equipment marking locations	Equipment marking is located on the enclosure 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 :	See copy of marking plate.	—
F.3.3.4	Rated voltage..... :	See copy of marking plate.	—
F.3.3.4	Rated frequency..... :	See copy of marking plate.	—
F.3.3.6	Rated current or rated power :	See copy of marking plate.	—
F.3.3.7	Equipment with multiple supply connections	Only one supply connection.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
F.3.4	Voltage setting device	Auto range and no voltage selector provide within the equipment.	N/A
F.3.5	Terminals and operating devices	See below.	P
F.3.5.1	Mains appliance outlet and socket-outlet markings.....:	No such devices on the equipment.	N/A
F.3.5.2	Switch position identification marking	No such switch on the equipment.	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 marked with F1 T3.15AL, 250V~.	P
F.3.5.4	Replacement battery identification marking.....:	No such battery on the equipment.	N/A
F.3.5.5	Terminal marking location		N/A
F.3.6	Equipment markings related to equipment classification	See below.	P
F.3.6.1	Class I Equipment		P
F.3.6.1.1	Protective earthing conductor terminal	Protective earthing symbol marked on the appliance inlet.	P
F.3.6.1.2	Neutral conductor terminal		N/A
F.3.6.1.3	Protective bonding conductor terminals		N/A
F.3.6.2	Class II equipment (IEC60417-5172)	Class I equipment	N/A
F.3.6.2.1	Class II equipment with or without functional earth	Class I equipment	N/A
F.3.6.2.2	Class II equipment with functional earth terminal marking	Class I equipment	N/A
F.3.7	Equipment IP rating marking	IPX0.	—
F.3.8	External power supply output marking	See copy of marking plate.	P
F.3.9	Durability, legibility and permanence of marking	Marking is considered to be legible and easily discernible. See also the following details.	P
F.3.10	Test for permanence of markings	The label was subjected to the permanence of marking test. The label was rubbed with cloth soaked with water for 15 sec. And then again for 15 sec. With the cloth soaked with petroleum spirit. After this test there was no damage to the label. The marking on the label did not fade. There was no curling and lifting of the label edge. After each test, the marking remained legible.	P
F.4	Instructions		P
	a) Equipment for use in locations where children not likely to be present - marking		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	b) Instructions given for installation or initial use		P
	c) Equipment intended to be fastened in place		N/A
	d) Equipment intended for use only in restricted access area		N/A
	e) Audio equipment terminals classified as ES3 and other equipment with terminals marked in accordance F.3.6.1	No such terminals provided.	N/A
	f) Protective earthing employed as safeguard		P
	g) Protective earthing conductor current exceeding ES2 limits		N/A
	h) Symbols used on equipment	No such symbols	N/A
	i) Permanently connected equipment not provided with all-pole mains switch	Not permanently connected equipment.	N/A
	j) Replaceable components or modules providing safeguard function	No such markings.	N/A
F.5	Instructional safeguards	No instructional safeguard is considered as necessary.	N/A
	Where "instructional safeguard" is referenced in the test report it specifies the required elements, location of marking and/or instruction	No instructional safeguard required in the equipment.	N/A

G	COMPONENTS		P
G.1	Switches		N/A
G.1.1	General requirements	No switch used.	N/A
G.1.2	Ratings, endurance, spacing, maximum load		N/A
G.2	Relays		N/A
G.2.1	General requirements	No relay used.	N/A
G.2.2	Overload test		N/A
G.2.3	Relay controlling connectors supply power		N/A
G.2.4	Mains relay, modified as stated in G.2		N/A
G.3	Protection Devices		P
G.3.1	Thermal cut-offs	No thermal cut-off provided within the equipment.	N/A
G.3.1.1a) &b)	Thermal cut-outs separately approved according to IEC 60730 with conditions indicated in a) & b)	See above.	N/A
G.3.1.1c)	Thermal cut-outs tested as part of the equipment as indicated in c)	See above.	N/A
G.3.1.2	Thermal cut-off connections maintained and secure	See above.	N/A
G.3.2	Thermal links		N/A
G.3.2.1a)	Thermal links separately tested with IEC 60691	No thermal link provided within the equipment.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
G.3.2.1b)	Thermal links tested as part of the equipment	See above.	N/A
	Aging hours (H).....:	See above.	—
	Single Fault Condition.....:	See above.	—
	Test Voltage (V) and Insulation Resistance (Ω) ..:	See above.	—
G.3.3	PTC Thermistors	No PTC thermistor provided within the equipment.	N/A
G.3.4	Overcurrent protection devices	Current fuse complying with IEC 60127 as overcurrent protection device. (see appended table 4.1.2)	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	No such connector with insulated surfaces accessible within the EUT	N/A
G.4.2	Mains connector configuration	IEC 60320-1 approved appliance inlet used	P
G.4.3	Plug is shaped that insertion into mains socket-outlets or appliance coupler is unlikely	Output connector (RJ45) so designed that insert into a mains socket is unlikely to occur.	P
G.5	Wound Components		P
G.5.1	Wire insulation in wound components	Approved TIW used for secondary winding of T1.	P
G.5.1.2 a)	Two wires in contact inside wound component, angle between 45° and 90°	Physical separation is provided by tubing on both secondary leads and primary leads.	P
G.5.1.2 b)	Construction subject to routine testing	See 5.4.9.2.	N/A
G.5.2	Endurance test on wound components	Not applied for.	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)	The transformers meet the requirements given in G.5.3.2 and G.5.3.3.	P
	Position	T1	—
	Method of protection	Over current protection by circuit design.	—

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Clause	Requirement + Test	Result - Remark	Verdict
G.5.3.2	Insulation	Primary windings and secondary windings are separated by Reinforced insulation. (See appendix 2 appended table G.5.3)	P
	Protection from displacement of windings :	By bobbin and insulating tape	—
G.5.3.3	Overload test.....:	(See appended tables 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 tables B.3, B.4)	P
G.5.3.3.3	Winding Temperatures - Alternative test method	Alternative test method was not considered.	N/A
G.5.4	Motors		N/A
G.5.4.1	General requirements	No motors used.	N/A
	Position :		—
G.5.4.2	Test conditions		N/A
G.5.4.3	Running overload test		N/A
G.5.4.4	Locked-rotor overload test		N/A
	Test duration (days) :		—
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

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Clause	Requirement + Test	Result - Remark	Verdict
G.6.1	General	Triple insulated winding in T1 secondary windings used as reinforced safeguard in the isolating transformer that has separately complied with Annex J. See Appended table 4.1.2. No other wires other than Basic insulated wires not under stress used in the EUT.	P
G.6.2	Solvent-based enamel wiring insulation	Insulation does not rely on solvent-based enamel.	N/A
G.7	Mains supply cords		N/A
G.7.1	General requirements	No power supply cord provided.	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	Approved varistor(MOV1) used in primary (mains) and G.8.3 does not apply.	P
G.8.2	Safeguard against shock	Approved varistor MOV1 used, see table 4.1.2 for details.	P
G.8.3	Safeguard against fire		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
G.8.3.2	Varistor overload test		N/A
G.8.3.3	Temporary overvoltage		N/A
G.9	Integrated Circuit (IC) Current Limiters		N/A
G.9.1 a)	Manufacturer defines limit at max. 5A.	No IC current limiter provided within the equipment.	N/A
G.9.1 b)	Limiters do not have manual operator or reset		N/A
G.9.1 c)	Supply source does not exceed 250 VA		—
G.9.1 d)	IC limiter output current (max. 5A)		—
G.9.1 e)	Manufacturers' defined drift		—
G.9.2	Test Program 1		N/A
G.9.3	Test Program 2		N/A
G.9.4	Test Program 3		N/A
G.10	Resistors		N/A
G.10.1	General requirements	No such resistor used.	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	Capacitors used in accordance with their rating and complied with subclasses of IEC 60384-14. (see appended table 4.1.2)	P
G.11.2	Conditioning of capacitors and RC units		P
G.11.3	Rules for selecting capacitors		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 and complied with IEC 60747-5-5. (see appended table 4.1.2)	P
	Type test voltage Vini, a	Considered	—
	Routine test voltage, Vini,b	Considered	—
G.13	Printed boards		P
G.13.1	General requirements	See the following details.	P

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
G.13.2	Uncoated printed boards	The insulation between conductors on the outer surfaces of an uncoated printed board or over the outer surface of coated printed boards complied with the minimum clearance and creepage requirements of 5.4.2 and 5.4.3.	P
G.13.3	Coated printed boards	No coated printed board applied for within the equipment.	N/A
G.13.4	Insulation between conductors on the same inner surface	See above.	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:	No coating on component terminals considered to affect creepage or clearances.	N/A
G.15	Liquid filled components		N/A
G.15.1	General requirements	No such device provided within the equipment.	N/A
G.15.2	Requirements		N/A
G.15.3	Compliance and test methods		N/A
G.15.3.1	Hydrostatic pressure test		N/A
G.15.3.2	Creep resistance test		N/A
G.15.3.3	Tubing and fittings compatibility test		N/A
G.15.3.4	Vibration test		N/A
G.15.3.5	Thermal cycling test		N/A
G.15.3.6	Force test		N/A
G.15.4	Compliance		N/A
G.16	IC including capacitor discharge function (ICX)		N/A
a)	Humidity treatment in accordance with sc5.4.8 – 120 hours	No such discharge IC used.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
b)	Impulse test using circuit 2 with U_c = to transient voltage	see above	N/A
C1)	Application of ac voltage at 110% of rated voltage for 2.5 minutes	see above	N/A
C2)	Test voltage	see above	—
D1)	10,000 cycles on and off using capacitor with smallest capacitance resistor with largest resistance specified by manufacturer	see above	N/A
D2)	Capacitance	see above	—
D3)	Resistance	see above	—

H	CRITERIA FOR TELEPHONE RINGING SIGNALS		N/A
H.1	General	No telephone ringing signal generated within the equipment.	N/A
H.2	Method A		N/A
H.3	Method B		N/A
H.3.1	Ringing signal		N/A
H.3.1.1	Frequency (Hz)		—
H.3.1.2	Voltage (V)		—
H.3.1.3	Cadence; time (s) and voltage (V)		—
H.3.1.4	Single fault current (mA):		—
H.3.2	Tripping device and monitoring voltage		N/A
H.3.2.1	Conditions for use of a tripping device or a monitoring voltage complied with		N/A
H.3.2.2	Tripping device		N/A
H.3.2.3	Monitoring voltage (V).....		—

J	INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION		P
	General requirements	Triple insulated winding wiring used as reinforced safeguard in the isolating transformer that has been evaluated to Annex J as follows: Requirements of Annex U of IEC 60950-1/A2 are identical to Annex J of this standard (for wires providing Reinforced insulation). See Table 4.1.2.	P

K	SAFETY INTERLOCKS		N/A
K.1	General requirements	No safety interlock provided within the equipment.	N/A
K.2	Components of safety interlock safeguard mechanism		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
K.3	Inadvertent change of operating mode		N/A
K.4	Interlock safeguard override		N/A
K.5	Fail-safe		N/A
	Compliance..... :		N/A
K.6	Mechanically operated safety interlocks		N/A
K.6.1	Endurance requirement		N/A
K.6.2	Compliance and Test method..... :		N/A
K.7	Interlock circuit isolation		N/A
K.7.1	Separation distance for contact gaps & interlock circuit elements (type and circuit location) :		N/A
K.7.2	Overload test, Current (A)..... :		N/A
K.7.3	Endurance test		N/A
K.7.4	Electric strength test :		N/A

L	DISCONNECT DEVICES		P
L.1	General requirements	Appliance inlet (coupler) used as disconnect device.	P
L.2	Permanently connected equipment		N/A
L.3	Parts that remain energized		N/A
L.4	Single phase equipment		P
L.5	Three-phase equipment		N/A
L.6	Switches as disconnect devices		N/A
L.7	Plugs as disconnect devices		N/A
L.8	Multiple power sources	Only one a.c. mains connection.	N/A

M	EQUIPMENT CONTAINING BATTERIES AND THEIR PROTECTION CIRCUITS		N/A
M.1	General requirements	No battery used.	N/A
M.2	Safety of batteries and their cells		N/A
M.2.1	Requirements		N/A
M.2.2	Compliance and test method (identify method) .. :		N/A
M.3	Protection circuits		N/A
M.3.1	Requirements		N/A
M.3.2	Tests		N/A
	- Overcharging of a rechargeable battery		N/A
	- Unintentional charging of a non-rechargeable battery		N/A
	- Reverse charging of a rechargeable battery		N/A
	- Excessive discharging rate for any battery		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
M.3.3	Compliance.....		N/A
M.4	Additional safeguards for equipment containing secondary lithium battery		N/A
M.4.1	General		N/A
M.4.2	Charging safeguards		N/A
M.4.2.1	Charging operating limits		N/A
M.4.2.2a)	Charging voltage, current and temperature.....:		—
M.4.2.2 b)	Single faults in charging circuitry:		—
M.4.3	Fire Enclosure		N/A
M.4.4	Endurance of equipment containing a secondary lithium battery		N/A
M.4.4.2	Preparation		N/A
M.4.4.3	Drop and charge/discharge function tests		N/A
	Drop		N/A
	Charge		N/A
	Discharge		N/A
M.4.4.4	Charge-discharge cycle test		N/A
M.4.4.5	Result of charge-discharge cycle test		N/A
M.5	Risk of burn due to short circuit during carrying		N/A
M.5.1	Requirement		N/A
M.5.2	Compliance and Test Method (Test of P.2.3)		N/A
M.6	Prevention of short circuits and protection from other effects of electric current		N/A
M.6.1	Short circuits		N/A
M.6.1.1	General requirements		N/A
M.6.1.2	Test method to simulate an internal fault		N/A
M.6.1.3	Compliance (Specify M.6.1.2 or alternative method):		N/A
M.6.2	Leakage current (mA):		N/A
M.7	Risk of explosion from lead acid and NiCd batteries		N/A
M.7.1	Ventilation preventing explosive gas concentration		N/A
M.7.2	Compliance and test method		N/A
M.8	Protection against internal ignition from external spark sources of lead acid batteries		N/A
M.8.1	General requirements		N/A
M.8.2	Test method		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
M.8.2.1	General requirements		N/A
M.8.2.2	Estimation of hypothetical volume V_z (m ³ /s) :		—
M.8.2.3	Correction factors :		—
M.8.2.4	Calculation of distance d (mm) :		—
M.9	Preventing electrolyte spillage		N/A
M.9.1	Protection from electrolyte spillage		N/A
M.9.2	Tray for preventing electrolyte spillage		N/A
M.10	Instructions to prevent reasonably foreseeable misuse (Determination of compliance: inspection, data review; or abnormal testing) :		N/A

N	ELECTROCHEMICAL POTENTIALS		N/A
	Metal(s) used :		—

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	No openings of enclosure.	P
P.2.2	Safeguards against entry of foreign object	Enclosure without openings inherently complies.	N/A
	Location and Dimensions (mm) :		—
P.2.3	Safeguard against the consequences of entry of foreign object		N/A
P.2.3.1	Safeguards against the entry of a foreign object		N/A
	Openings in transportable equipment		N/A
	Transportable equipment with metalized plastic parts :		N/A
P.2.3.2	Openings in transportable equipment in relation to metallized parts of a barrier or enclosure (identification of supplementary safeguard) :		N/A
P.3	Safeguards against spillage of internal liquids		N/A
P.3.1	General requirements		N/A
P.3.2	Determination of spillage consequences		N/A
P.3.3	Spillage safeguards		N/A
P.3.4	Safeguards effectiveness		N/A
P.4	Metallized coatings and adhesive securing parts		N/A
P.4.2 a)	Conditioning testing		N/A
	Tc (°C)..... :		—

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Clause	Requirement + Test	Result - Remark	Verdict
	Tr (°C)		—
	Ta (°C)		—
P.4.2 b)	Abrasion testing		N/A
P.4.2 c)	Mechanical strength testing.....		N/A

Q	CIRCUITS INTENDED FOR INTERCONNECTION WITH BUILDING WIRING		P
Q.1	Limited power sources	See appended table Annex Q.1	P
Q.1.1 a)	Inherently limited output		N/A
Q.1.1 b)	Impedance limited output		P
	- Regulating network limited output under normal operating and simulated single fault condition	A regulating network limits the output in compliance with table Q.1 both under normal operating conditions and after any single fault.	P
Q.1.1 c)	Overcurrent protective device limited output		N/A
Q.1.1 d)	IC current limiter complying with G.9		N/A
Q.1.2	Compliance and test method	See appended table Annex Q.1	P
Q.2	Test for external circuits – paired conductor cable	No such circuit for connection to the EUT	N/A
	Maximum output current (A)		—
	Current limiting method.....		—

R	LIMITED SHORT CIRCUIT TEST		N/A
R.1	General requirements	No such consideration.	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	Approved fire enclosure with V-0 material used.	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

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Clause	Requirement + Test	Result - Remark	Verdict
S.2	Flammability test for fire enclosure and fire barrier integrity		N/A
	Samples, material		—
	Wall thickness (mm)		—
	Conditioning (°C)		—
	Test flame according to IEC 60695-11-5 with conditions as set out		N/A
	Test specimen does not show any additional hole		N/A
S.3	Flammability test for the bottom of a fire enclosure		N/A
	Samples, material		—
	Wall thickness (mm)		—
	Cheesecloth did not ignite		N/A
S.4	Flammability classification of materials		N/A
S.5	Flammability test for fire enclosures and fire barrier materials of equipment where the steady state power does not exceed 4 000 W		N/A
	Samples, material		—
	Wall thickness (mm)		—
	Conditioning (test condition), (°C).....		—
	Test flame according to IEC 60695-11-20 with conditions as set out		N/A
	After every test specimen was not consumed completely		N/A
	After fifth flame application, flame extinguished within 1 min		N/A

T	MECHANICAL STRENGTH TESTS		P
T.1	General requirements		P
T.2	Steady force test, 10 N	(See appended table T.2, T.3, T.4, T.5)	P
T.3	Steady force test, 30 N		N/A
T.4	Steady force test, 100 N		N/A
T.5	Steady force test, 250 N	(See appended table T.2, T.3, T.4, T.5)	P
T.6	Enclosure impact test	(See appended table T.6)	P
	Fall test		P
	Swing test		P
T.7	Drop test	(See appended table T.7)	P

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Clause	Requirement + Test	Result - Remark	Verdict
T.8	Stress relief test	(See appended table T.8)	P
T.9	Impact Test (glass)		N/A
T.9.1	General requirements		N/A
T.9.2	Impact test and compliance		N/A
	Impact energy (J)		—
	Height (m).....		—
T.10	Glass fragmentation test		N/A
T.11	Test for telescoping or rod antennas	No such part.	N/A
	Torque value (Nm)		—

U	MECHANICAL STRENGTH OF CATHODE RAY TUBES (CRT) AND PROTECTION AGAINST THE EFFECTS OF IMPLOSION		N/A
U.1	General requirements	No CRT provided within the equipment.	N/A
U.2	Compliance and test method for non-intrinsically protected CRTs	See above.	N/A
U.3	Protective Screen	See above.	N/A

V	DETERMINATION OF ACCESSIBLE PARTS (FINGERS, PROBES AND WEDGES)		P
V.1	Accessible parts of equipment	No access with test probes to any hazardous parts	P
V.2	Accessible part criterion	See above.	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	
Plastic Enclosure	SABIC JAPAN L L C	945 (GG)	PC, V-0, 120°C, min. thickness 1.0mm	UL 94	UL E121562	
(Alternative)	SABIC INNOVATIVE PLASTICS B V	CH6410(GG)	PC, V-0, 100°C, min. thickness 1.5mm	UL 94	UL E207780	
Appliance Inlet (AC1)	DONGGUAN HUACONN ELECTRONICS CO LTD	HC-66	2.5A, 250Vac	IEC/EN 60320-1 IEC/EN 60320-3 UL 60320-1	VDE 40032581 UL E340249	
(Alternative)	Zhe Jiang Bei Er Jia Electronic Co., Ltd.	ST-A04-001	2.5A, 250Vac	IEC/EN 60320-1 IEC/EN 60320-3 UL 60320-1	VDE 40016045 UL E225980	
(Alternative)	LECI Electronics Co., Ltd	DB-8-Serie(s)	2.5A, 250Vac	IEC/EN 60320-1 UL 60320-1	VDE 40032028 UL E302229	
(Alternative)	Yueqing Yanhui Electronic Co., Ltd.	DB-14-S-Serie(s)	2.5A, 250Vac	IEC/EN 60320-1 UL 60320-1	VDE 40035402 UL E334847	
Earthing wire	SHEN ZHEN HENG LI DE ELECTRICITY CO LTD	1015	Min. 18 AWG, 300V, 105°C, green/yellow wire	UL 758	UL E256832	
(Alternative)	Interchangeable	Interchangeable	Min. 18 AWG, 300V, 105°C, green/yellow wire	UL 758	UL	
PCB	FAI WONG ELECTRONIC P C B CO	FW-5	Min. 130°C, V-1 or better	UL 94 UL 796	UL E171766	
(Alternative)	Interchangeable	Interchangeable	Min. 130°C, V-1 or better	UL 94 UL 796	UL	
Fuse (F1)	XC Electronics (Shen Zhen) Corp. Ltd.	3T	T3.15AL, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3 UL 248-1 UL 248-14	VDE 40019614 UL E315707	

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
(Alternative)	ZHONG SHAN LANBAO ELECTRICAL APPLIANCES CO LTD	RTI-10	T3.15AL, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3 UL 248-1 UL 248-14	VDE 40017009 UL E213695
(Alternative)	Shenzhen Lanson Electronics Co. Ltd.	3K	T3.15AL, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3 UL 248-1 UL 248-14	VDE 40010682 UL E221465
(Alternative)	Honghu Bluelight Electronic Co., Ltd.	L3T	T3.15AL, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3 UL 248-1 UL 248-14	VDE 40026874 UL E324232
(Alternative)	XC Electronics (Shen Zhen) Corp. Ltd.	4T	T3.15AL, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3 UL 248-1 UL 248-14	VDE 40029295 UL E249609
(Alternative)	Conquer Electronics Co., Ltd.	PTU	T3.15AL, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3 UL 248-1 UL 248-14	VDE 40001462 UL E82636
(Alternative)	Honghu Bluelight Electronic Co., Ltd.	L3CT	T3.15AL, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3 UL 248-1 UL 248-14	VDE 40033206 UL E324232
Varistor (MOV1) (Optional)	Thinking Electronic Industrial Co., Ltd.	TVR10561	Min. 300Vac, min. 85°C (Test for 6KV/3KA combination pulse), coating V-0	IEC 61051-1 IEC 61051-2 UL 1449	VDE 40031391 UL E314979
(Alternative)	Cerglass MFG Inc.	10D561K	Min. 350Vac, min. 85°C (Test for 6KV/3KA combination pulse), coating V-0	IEC 61051-1 IEC 61051-2 UL 1449	VDE 40028836 UL E317616
(Alternative)	Shantou High-New Technology Dev. Zone Songtian Enterprise Co., Ltd.	10D561K	Min. 350Vac, min. 85°C (Test for 6KV/3KA combination pulse), coating V-0	IEC 61051-1 IEC 61051-2 UL 1449	VDE 40023049 UL E330837

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
(Alternative)	Joyin Co., Ltd.	10S561K	Min. 350Vac, min. 85°C (Test for 6KV/3KA combination pulse), coating V-0	IEC 61051-1 IEC 61051-2 UL 1449	VDE 40004658 UL E325508
(Alternative)	SHAANXI HUAXING ELECTRONIC GROUP CO LTD	MYG20G10K561	Min. 350Vac, min. 85°C (Test for 6KV/3KA combination pulse), coating V-0	IEC 61051-1 IEC 61051-2 UL 1449	VDE 40018747 UL E329651
(Alternative)	Guangdong Fenghua Advanced Technology Holding Co., Ltd.	FNR-10K561	Min. 350Vac, min. 85°C (Test for 6KV/3KA combination pulse), coating V-0	IEC 61051-1 IEC 61051-2 UL 1449	VDE 40008242 UL E325462
X-Capacitors (C14) (Optional)	Tenta Electric Industrial Co. Ltd.	MEX	Max. 0.47μF, min. 275Vac, 100°C, X2 type	IEC 60384-14 EN 60384-14 UL 60384-14	VDE 119119 UL E222911
(Alternative)	SHANTOU HIGH- NEW TECHNOLOGY DEVELOPMNT ZONE SONGTIAN ENTERPRISE CO LTD	MPX	Max. 0.47μF, min. 275Vac, min.110°C, X2 type	IEC 60384-14 EN 60384-14 UL 60384-14	VDE 40034679 UL E208107
(Alternative)	Shenzhen Su Rong Capacitors Co., Ltd.	MPX/MKP	Max. 0.47μF, min. 280Vac, min. 100°C, X2 type	IEC 60384-14 EN 60384-14 UL 60384-14	VDE 40008924 UL E256815
(Alternative)	Dain Electronics Co., Ltd.	MPX	Max. 0.47μF, 275Vac, min. 100°C, X2 type	IEC 60384-14 EN 60384-14 UL 60384-14	VDE 40018798 UL E147776
(Alternative)	Shenzhen Yimanfeng Science And Technology Co., Ltd.	MPX/MKP	Max. 0.47μF, min. 275Vac, min. 100°C, X2 type	IEC 60384-14 EN 60384-14 UL 60384-14	VDE 40028516 UL E315567
(Alternative)	Hsuan Tai Electronic Co. Ltd.	MCY	Max. 0.47μF, 275Vac, 110°C, X2 type	IEC 60384-14 EN 60384-14 UL 60384-14	VDE 125205 UL E199069

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
(Alternative)	Shenzhen Jing Yu Electronics Co., Ltd.	CBBX2	Max. 0.47 μ F, 275Vac, 100°C, X2 type	IEC 60384-14 EN 60384-14 UL 60384-14	VDE 40025597 UL E230035
(Alternative)	Guangdong JURCC electronics Co., LTD.	MPX/MKP	Max. 0.47 μ F, 275Vac, 110C, X2 type	IEC 60384-14 EN 60384-14 UL 60384-14	VDE 40034920 UL E343072
Y-Capacitor (C13) (Optional)	Shantou High-New Technology Dev. Zone Songtian Enterprise Co., Ltd.	CD-Series	Max. 2200pF, Min. 250Vac, 125°C, Y1 type	IEC 60384-14 EN 60384-14 UL 60384-14	VDE 40025754 UL E208107
(Alternative)	Guangdong South Hongming Electronic Science and Technology Co., Ltd.	F	Max. 2200pF, Min. 250Vac, 125°C, Y1 type	IEC 60384-14 EN 60384-14 UL 60384-14	VDE 40036246 UL E154899
(Alternative)	XIAMEN WANMING ELECTRONICS CO LTD	HJ	Max. 2200pF, 400Vac, 125°C, Y1 type	IEC 60384-14 EN 60384-14 UL 60384-14	VDE 40034438 UL E221839
(Alternative)	Shaanxi Huaxing Electronic Development Co. Ltd.	CT7Y1	Max. 2200pF, 400Vac, 125°C, Y1 type	IEC 60384-14 EN 60384-14 UL 60384-14	VDE 40015542 UL E217400
(Alternative)	Hsuan Tai Electronic Co. Ltd.	CY	Max. 2200pF, 400Vac, 125°C, Y1 type	IEC 60384-14 EN 60384-14 UL 60384-14	VDE 40008912 UL E199069
(Alternative)	Dongguan Easy-gather Electronic Co., Ltd.	DCF	Max. 2200pF, 400Vac, 125°C, Y1 type	IEC 60384-14 EN 60384-14 UL 60384-14	VDE 40015758 UL E252221
(Alternative)	Jyh Chung Electronic Co., Ltd.	JD	Max. 2200pF, 400Vac, 125°C, Y1 type	IEC 60384-14 EN 60384-14 UL 60384-14	VDE 137027 UL E187963
Optocoupler (OT1)	COSMO Electronics Corporation	K1010, KPC817	Ext.cl $\geq$ 6.5mm, 115°C	IEC 60747-5-5 EN 60747-5-5 UL 1577	VDE 101347 UL E169586
(Alternative)	Lite-On Technology Corporation	LTV-817	Ext.cl $\geq$ 7.0mm, 115°C	IEC 60747-5-5 EN 60747-5-5 UL	VDE 40015248 UL E113898

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
(Alternative)	Everlight Electronics Co., Ltd.	EL817	Ext.cl≥7.6mm, 110°C	IEC 60747-5-5 EN 60747-5-5 UL 1577	VDE 132249 UL E214129
(Alternative)	Fairchild Semiconductor Pte Ltd	H11A817(A; B; C; D; X)	Ext.cl≥7.0mm, 115°C	IEC 60747-5-5 EN 60747-5-5 UL 1577	VDE 40026857 UL E90700
(Alternative)	Bright Led Electronics Corp.	BPC-817 (A,B,C,D,L), BPC-817S	Ext.cl≥7.6mm, 110°C	IEC 60747-5-5 EN 60747-5-5 UL 1577	VDE 40007240 UL E236324
Thermistor (RT1)	Interchangeable	Interchangeable	Max.5.5A,2.5ohm , at 25°C	--	Tested with appliance
Bleeder resistor (R1, R3, R27, R39)	Interchangeable	Interchangeable	Each of max. 1.5M ohm, 1/4W		Tested with appliance
Current-limiting resistor (R17, R22, R26)	Interchangeable	Interchangeable	Each of 0.56ohm-10ohm ohm, 1/4W	--	Tested with appliance
Bridge Diode (BRG1)	Interchangeable	Interchangeable	Each of min.800V, min. 6A	--	Tested with appliance
Transistor (Q1)	Interchangeable	Interchangeable	Min. 12A, Min. 600V	--	Tested with appliance
Electrolytic capacitor (C2)	Interchangeable	Interchangeable	68-120uF, 105°C, Min.400V	--	Tested with appliance
Inductor (L2)	DONGGUANSHI DENG DING Electronic Co., LTD.	LL00218V00	130°C	IEC/EN/UL 62368-1	Tested with appliance
--Bobbin of L2	CHANG CHUN PLASTICS CO LTD	T375J(G5)(G6)	Phenolic, V-0, 150°C, Min. thickness: 0.45mm	UL 94	UL E59481
--Magnet wire of L2	Interchangeable	Interchangeable	Min.130°C	UL 1446	UL
--Varnishes of L2	HANG CHEUNG COATINGS (HUIYANG) LTD	8562*	155°C	UL 1446	UL E200154
Transformer (T1)	SHENZHEN WANZHUYU TECHNOLOGY CO LTD	LT00604V01	Class B	IEC/EN/UL 62368-1	Tested with appliance

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
--Bobbin of T1	CHANG CHUN PLASTICS CO LTD	T200NA	Phenolic, V-0, 150°C, Min. thickness: 0.38mm	UL 94	UL E59481
--Magnet wire of T1	Interchangeable	Interchangeable	Polyurethane, Min.130°C	UL 1446	UL
--Triple insulated wire of T1	TOTOKU ELECTRIC CO LTD	TIW-3	130°C	IEC 60950-1 EN 60950-1 UL 2353	VDE 40005154 UL E166483
--Tubing of T1	GREAT HOLDING INDUSTRIAL CO LTD	TFS	600V, 200°C, VW-1	UL 224	UL E156256
--Insulation tape of T1	3M COMPANY ELECTRICAL MARKETS DIV (EMD)	1350T-1 (b)	130°C	UL 510A	UL E17385
--Varnishes of T1	JOHN C DOLPH CO	BC-359	130°C	UL 1446	UL E317427
Supplementary information:					
1) Provided evidence ensures the agreed level of compliance. See OD-CB2039.					

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			—

IEC 62368-1			
Clause	Requirement + Test		Verdict
Impact Area	Drop Distance	Drop No.	Observations
--	--	--	--
--	--	--	--
4.8.4.5	TABLE: Impact		—
Impacts per surface	Surface tested	Impact energy (Nm)	Comments
--	--	--	--
--	--	--	--
4.8.4.6	TABLE: Crush test		—
Test position	Surface tested	Crushing Force (N)	Duration force applied (s)
--	--	--	--
--	--	--	--
Supplementary information:			

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

5.2	Table: Classification of electrical energy sources						P
5.2.2.2 – Steady State Voltage and Current conditions							
No.	Supply Voltage	Location (e.g. circuit designation)	Test conditions ¹⁾	Parameters			ES Class
				U (Vrms or Vpk)	I (A _{pk} or A _{rms})	Hz	
1	264Va.c. 60Hz	Primary circuits supplied by a.c. mains supply	Normal :	264Vrms	--	60	ES3
			Abnormal :	--	--	--	
			Single fault :	--	--	--	
Model No.: G0566-420-143							
1	264Va.c. 60Hz	Output "+" to "-"	Normal :	42.1Vdc	--	DC	ES1
			Abnormal : Overload	Max. 42.1Vdc	--	DC	
			Signal fault : D8short	0	--	--	
			Signal fault : C9 short	42.1Vdc	--	DC	

IEC 62368-1							
Clause	Requirement + Test			Result - Remark		Verdict	
			Signal fault : OT1 Pin1-2 short	0	--	--	
			Signal fault : OT1 Pin3-4 short	0	--	--	
			Signal fault : OT1 Pin1 open	0	--	--	
			Signal fault : OT1 Pin3 open	0	--	--	
2	264Va.c. 60Hz	Output "+"/"-" to earth	Normal :	--	0.23mA _{pk}	60	ES1
			Abnormal : Overload	--	0.23mA _{pk}	60	
			Signal fault : D8 short	--	0.23mA _{pk}	60	
			Signal fault : C9 short	--	0.23mA _{pk}	60	
			Signal fault : OT1 Pin1-2 short	--	0.23mA _{pk}	60	
			Signal fault : OT1 Pin3-4 short	--	0.23mA _{pk}	60	
			Signal fault : OT1 Pin1 open	--	0.23mA _{pk}	60	
			Signal fault : OT1 Pin3 open	--	0.23mA _{pk}	60	
3	264Va.c. 60Hz	LAN port to earth	Normal :	--	0.22mA _{pk}	60	ES1
			Abnormal : Overload	--	0.22mA _{pk}	60	
			Signal fault : D8 short	--	0.22mA _{pk}	60	
			Signal fault : C9 short	--	0.22mA _{pk}	60	
			Signal fault : OT1 Pin1-2 short	--	0.22mA _{pk}	60	
			Signal fault : OT1 Pin3-4 short	--	0.22mA _{pk}	60	
			Signal fault : OT1 Pin1 open	--	0.22mA _{pk}	60	
			Signal fault : OT1 Pin3 open	--	0.22mA _{pk}	60	
Model No.: G0566-570-105							
1	264Va.c. 60Hz	Output "+" to "-"	Normal :	56.8Vdc		DC	ES1
			Abnormal : Overload	Max. 56.8Vdc	--	DC	
			Signal fault : D8short	0	--	--	

IEC 62368-1							
Clause		Requirement + Test		Result - Remark		Verdict	
			Signal fault : C9 short	56.8Vdc	--	DC	
			Signal fault : OT1 Pin1-2 short	0	--	--	
			Signal fault : OT1 Pin3-4 short	0	--	--	
			Signal fault : OT1 Pin1 open	0	--	--	
			Signal fault : OT1 Pin3 open	0	--	--	
2	264Va.c. 60Hz	Output "+" / "-" to earth	Normal :	--	0.23mA _{pk}	60	ES1
			Abnormal : Overload	--	0.23mA _{pk}	60	
			Signal fault : D8short	--	0.23mA _{pk}	60	
			Signal fault : C9 short	--	0.23mA _{pk}	60	
			Signal fault : OT1 Pin1-2 short	--	0.23mA _{pk}	60	
			Signal fault : OT1 Pin3-4 short	--	0.23mA _{pk}	60	
			Signal fault : OT1 Pin1 open	--	0.23mA _{pk}	60	
			Signal fault : OT1 Pin3 open	--	0.23mA _{pk}	60	
3	264Va.c. 60Hz	LAN port to earth	Normal :	--	0.22mA _{pk}	60	ES1
			Abnormal : Overload	--	0.22mA _{pk}	60	
			Signal fault : D8 short	--	0.22mA _{pk}	60	
			Signal fault : C9 short	--	0.22mA _{pk}	60	
			Signal fault : OT1 Pin1-2 short	--	0.22mA _{pk}	60	
			Signal fault : OT1 Pin3-4 short	--	0.22mA _{pk}	60	
			Signal fault : OT1 Pin1 open	--	0.22mA _{pk}	60	
			Signal fault : OT1 Pin3 open	--	0.22mA _{pk}	60	
Note:							

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

5.2.2.3 - Capacitance Limits

No.	Supply Voltage	Location (e.g. circuit designation)	Test conditions	Parameters		ES Class
				Capacitance, nF	Upk (V)	
1	264Va.c. 60Hz	Between L & N (X capacitor C14)	Normal	517	60	ES1
			Abnormal	--	--	--
			Single fault	517	120	ES2

Overall capacity: C14=0.47uF±10%

Limit: ES1=60V; ES2=120V.

5.2.2.4 - Single Pulses

No.	Supply Voltage	Location (e.g. circuit designation)	Test conditions	Parameters			ES Class
				Duration (ms)	Upk (V)	Ipk (mA)	
--	--	--	Normal	--	--	--	--
			Abnormal	--	--	--	
			Single fault – SC/OC	--	--	--	

5.2.2.5 - Repetitive Pulses

No.	Supply Voltage	Location (e.g. circuit designation)	Test conditions	Parameters			ES Class
				Off time (ms)	Upk (V)	Ipk (mA)	
--	--	--	Normal	--	--	--	--
			Abnormal	--	--	--	
			Single fault – SC/OC	--	--	--	

Test Conditions: Normal – Full load and no load.

Abnormal – Overload output

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

5.4.1.4, 6.3.2, 9.0, B.2.6	TABLE: Temperature measurements						P
	Supply voltage (V) :	90V / 60Hz	264V / 50Hz	90V / 60Hz	264V / 50Hz	—	
	Ambient Tmin (°C) :	--	--	--	--	—	
	Ambient Tmax (°C) :	--	--	--	--	—	
	Tma (°C) :	40.0	40.0	40.0	40.0	—	
Maximum measured temperature T of part/at:		T (°C)				Allowed T _{max} (°C)	
		Label up		Label down			
Model No.: G0566-420-143							
AC inlet (AC1)		67.0	58.0	68.5	59.1	70	

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
Earth wire near T1 top	100.5	101.5	101.4	101.9	105
Varistor (MOV1)	70.7	62.4	74.2	64.8	85
PCB under RT1	86.2	72.6	90.9	75.5	130
X-cap (C14) near L2	86.9	76.0	90.7	79.3	100
L2 winding	114.2	96.8	115.1	98.0	130
PCB under BRG1	117.2	96.6	119.0	98.0	130
E-cap(C2)	100.7	87.5	101.9	88.5	105
PCB near Q1	118.0	102.5	119.1	103.6	130
PCB near U6	103.3	89.0	106.1	91.2	130
Y-cap(C13)	88.6	88.7	92.2	92.3	125
Optocoupler (OT1)	91.2	89.1	95.1	93.3	110
T1 winding	103.7	107.6	103.6	107.1	110
T1 core	98.8	105.0	99.3	104.9	110
PCB under D8	100.4	102.6	102.9	104.9	130
E-cap(C7)	100.1	96.4	101.1	97.6	105
L3 winding	110.0	111.4	113.4	114.6	130
PCB near U1	103.8	104.3	115.0	115.8	130
Plastic enclosure near T1, inside	95.5	96.0	92.5	96.9	100
Plastic enclosure near D8, inside	76.6	76.7	77.3	76.5	100
Ambient	40.0	40.0	40.0	40.0	--
Below points are tested based on ambient at 25°C					
AC Intel surface	39.7	35.7	41.3	36.7	77
Output terminal surface	48.2	48.1	52.1	52.6	60
Plastic enclosure near T1, outside	61.8	59.2	67.9	64.2	77
Plastic enclosure near D8, outside	59.5	59.9	59.4	59.5	77
Ambient	25.0	25.0	25.0	25.0	--
Model No.: G0566-570-105					
AC inlet (AC1)	66.5	66.9	57.2	57.0	70
Earth wire near T1 top	80.3	80.1	75.8	75.0	105
Varistor (MOV1)	68.7	67.9	58.9	58.3	85
PCB under RT1	76.6	77.8	64.3	64.3	130
X-cap (C14) near L2	95.1	95.8	75.2	75.3	100
L2 winding	102.0	102.1	82.9	83.0	130
PCB under BRG1	102.7	103.4	82.7	82.7	130
E-cap(C2)	100.2	101.0	82.7	82.7	105
PCB near Q1	99.9	100.6	85.2	85.2	130
PCB near U6	98.1	98.6	81.5	81.4	130

IEC 62368-1							
Clause	Requirement + Test			Result - Remark		Verdict	
Y-cap(C13)	77.9	79.6	76.4	78.1	125		
Optocoupler (OT1)	65.7	70.5	66.4	70.5	110		
T1 winding	96.2	97.0	99.8	99.7	110		
T1 core	95.0	94.2	99.7	97.8	110		
PCB under D8	95.0	94.2	99.7	97.8	130		
E-cap(C7)	94.2	93.4	98.9	97.0	105		
L3 winding	85.3	86.9	87.1	88.1	130		
PCB near U1	85.7	86.5	86.9	87.4	130		
Plastic enclosure near T1, inside	85.2	90.3	83.5	87.5	100		
Plastic enclosure near D8, inside	83.0	86.5	84.7	87.0	100		
Ambient	40.0	40.0	40.0	40.0	--		
Below points are tested based on ambient at 25°C							
AC Intel surface	39.5	41.1	35.5	36.4	77		
Output terminal surface	48.0	51.9	48.3	52.4	60		
Plastic enclosure near T1, outside	51.9	52.7	52.2	52.0	77		
Plastic enclosure near D8, outside	58.0	59.9	60.7	60.6	77		
Ambient	25.0	25.0	25.0	25.0	--		
Supplementary information:							
Note 1: The apparatus was submitted and evaluated for maximum manufacturer's recommended ambient (Tma) of 40°C.							
Note 2: The temperatures were measured under the worse case normal mode defined in clause B.2.1.							
Note 3. Temperature limits are calculated as follows:							
Winding components providing safety isolation: Class B → Tmax = 120 - 10=110 °C							
Temperature T of winding:	t ₁ (°C)	R ₁ (Ω)	t ₂ (°C)	R ₂ (Ω)	T (°C)	Allowed T _{max} (°C)	Insulation class
--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--
Supplementary information:							
Note 1: Tma should be considered as directed by applicable requirement							
Note 2: Tma is not included in assessment of Touch Temperatures (Clause 9)							

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:			

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

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) ¹	cl (mm) ²	Required ³ cr (mm)	cr (mm)
Line and Neutral before fuse F1 on PCB trace (B)	420	250	0.06	1.9*	9.7	2.5	9.7
Different polarity of fuse F1 on PCB trace (B)	420	250	0.06	1.9*	3.9	2.5	3.9
Primary trace to PE trace (B)	420	250	0.06	1.9*	7.7	2.5	7.7
Primary traces to secondary traces under Y- Capacitor C13 (R)	420	250	0.06	3.8*	7.7	5.0	7.7
Primary traces to secondary traces under optocoupler OT1 (R)	420	250	0.06	3.8*	6.2	5.0	6.2
Primary traces to secondary traces under transformer T1 (R)	496	269	29.0	3.8*	11.0	5.4	11.0
Transformer T1 : primary winding to secondary pins (R)	496	269	29.0	3.8*	11.0	5.4	11.0
Transformer T1 : core to secondary pins (R)	496	269	29.0	3.8*	11.0	5.4	11.0
Transformer T1 : core to secondary D8 (10N applied) (R)	496	269	29.0	3.8*	5.8	5.4	5.8
X- Capacitor C14 (10N applied) to outside of enclosure (R)	420	250	0.06	3.8*	2.0	5.0	19.0
Primary heat sink of HS1 (10N applied) to outside of enclosure (R)	420	250	0.06	3.8*	2.0	5.0	13.0
Primary trace under AC inlet to enclosure (R)	420	250	0.06	3.8*	3.0	5.0	6.0

Supplementary information:

1) Triple insulated wire used as secondary winding, core is considered as primary part.

2) At least 2 layers of insulation tape are wrapped around transformer and over bottom core of T1.

*As applicant's request, equipment operating up to altitudes 5000m was considered, the required clearance multiplied by altitude correction factor 1.48 according to the Table 17 of IEC 62368-1:2014 standard.

4) B= Basic insulation, R=Reinforced insulation.

Note 1: Only for frequency above 30 kHz

Note 2: See table 5.4.2.4 if this is based on electric strength test

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Clause	Requirement + Test	Result - Remark	Verdict

Note 3: Provide Material Group IIIa/IIIb.

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)
See table 5.4.2.2, 5.4.2.4 and 5.4.3 above.		2500Vpeak	1.5*1.48 for BI/SI 3.0*1.48 for RI	See table 5.4.2.2, 5.4.2.4 and 5.4.3 above.
Supplementary information:				

5.4.2.4	TABLE: Clearances based on electric strength test			N/A
Test voltage applied between:		Required cl (mm)	Test voltage (kV) peak/ r.m.s. / d.c.	Breakdown Yes / No
--		--	--	--
Supplementary information: Using procedure 2 to determine the clearance.				

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 (Hz)	Material	Required DTI (mm)	DTI (mm)
Plastic Enclosure (R)		420	0.06K	1)	0.4	1)
Optocoupler (R)		420	0.06K	1)	0.4	1)
Bobbin of T1 (R)		496	29.0k	1)	0.4	1)
Supplementary information: See also sub-clause 5.4.4.9. 1) See appended table 4.1.2 for details. B= Basic insulation; R= Reinforced insulation						

5.4.9	TABLE: Electric strength tests			P
Test voltage applied between:		Voltage shape (AC, DC)	Test voltage (Vpeak)	Breakdown Yes / No
Basic/supplementary:				
L and N (with fuse disconnect)		DC	2500	No
L/N and PE		DC	2500	No
Reinforced:				
L/N and Output connector		DC	4000	No
L/N and plastic enclosure with metal foil		DC	4000	No
Transformer T1 : primary pin and secondary pin		DC	4000	No

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Transformer T1 : core and secondary pins	DC	4000	No
1 layer of insulation tape of all transformers	DC	4000	No
Supplementary information: 1. Core of transformer T1 was considered as primary part. Test after humidity treatment, heating test, and for unit primary to secondary, primary to earth electric strength after each fault condition test. Tests were performed on product with each source listed in table 4.1.2. 2. The DC voltage source was performed on all testing once in forward and once in reverse.			

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	--	4Vpk	ES1	
264Vac, 60Hz	Phase to Neutral	S (R1 open circuit)	--	8 Vpk	ES1	
Supplementary information: The end system will be pluggable equipment type A. Limit of ES1 applied for mains terminal as accessible part for ordinary persons. X-capacitors installed for testing are: C14=0.47uF±10% . ☒ bleeding resistor rating: R1=R3=R27=R39=1.5M ohm. ☐ ICX: Notes: A. Test Location: Phase to Neutral; Phase to Earth; and/or Neutral to Earth B. Operating condition abbreviations: N – Normal operating condition (e.g., normal operation, or open fuse); S –Single fault condition						

5.6.6.2	TABLE: Resistance of protective conductors and terminations				P
Accessible part	Test current (A)	Duration (min)	Voltage drop (V)	Resistance (Ω)	
Earthing pin of inlet to farthest point of green/yellow wire	32	2	0.26	0.008	
Earthing pin of inlet to farthest point of green/yellow wire	40	2	0.40	0.010	
Supplementary Information: --					

5.7.2.2, 5.7.4	TABLE: Earthed accessible conductive part		P
Supply voltage	264Vac	—	
Location	Test conditions specified in 6.1 of IEC 60990 or Fault Condition No in IEC 60990 clause 6.2.2.1	Touch current (mA)	

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Clause	Requirement + Test	Result - Remark	Verdict

	through 6.2.2.8, except for 6.2.2.7	
Earthing part	1 (e open, normal and reverse polarity p)	0.34mA _p k
--	2* (netural open (switch n), earth intact and normal polarity, again in reverse polarity (switch p)	--
--	3 (for IT system, each phase conductor faulted to earth, one at a time (switch g)	--
--	4 (for three-phase, each phase conductor open, one at a time switches l)	--
--	5 (IT power system or three phase delta system)	--
--	6 (three-phase for use on centre-earthed dalta supply system)	--
--	8 (incidental electrically connected to other parts)	--

Notes:

[1] Supply voltage is the anticipated maximum Touch Voltage

[2] Earthed neutral conductor [Voltage differences less than 1% or more]

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

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

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

a) Not considered IT power system.

b) Not three phase equipment.

c) Not IT power system or three phase delta system.

d) Not three-phase for use on centre-earthed dalta supply system.

e) Not such parts.

6.2.2	Table: Electrical power sources (PS) measurements for classification					P
Source	Description	Measurement	Max Power after 3 s	Max Power after 5 s ^{*)}	PS Classification	
Power supply	Normal operation	Power (W) :	>100	>100	PS3	
		V _A (V) :	240	240		
		I _A (A) :	--	--		
Model: G0566-420-143						
Output “+” to “-”	Normal operation	Power (W) :	68.8	68.8	PS2	
		V _A (V) :	41.2	41.2		
		I _A (A) :	1.67	1.67		
	D8 shorted	Power (W) :	0	--	PS1	
		V _A (V) :	0	--		
		I _A (A) :	0	--		

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Clause	Requirement + Test	Result - Remark	Verdict

	OT1 pin 1-2 Shorted	Power (W) :	0	--	PS1
		V _A (V) :	0	--	
		I _A (A) :	0	--	
	OT1 pin 3-4 Shorted	Power (W) :	0	--	PS1
		V _A (V) :	0	--	
		I _A (A) :	0	--	
	OT1 pin 1 opened	Power (W) :	0	--	PS1
		V _A (V) :	0	--	
		I _A (A) :	0	--	
	OT1 pin 3 opened	Power (W) :	0	--	PS1
		V _A (V) :	0	--	
		I _A (A) :	0	--	
	R17 shorted	Power (W) :	0	--	PS1
		V _A (V) :	0	--	
		I _A (A) :	0	--	

Model: G0566-570-105

Output "+" to "-"	Normal operation	Power (W) :	88.9	88.9	PS2
		V _A (V) :	53.9	53.9	
		I _A (A) :	1.65	1.65	
	D8 shorted	Power (W) :	0	--	PS1
		V _A (V) :	0	--	
		I _A (A) :	0	--	
	OT1 pin 1-2 Shorted	Power (W) :	0	--	PS1
		V _A (V) :	0	--	
		I _A (A) :	0	--	
	OT1 pin 3-4 Shorted	Power (W) :	0	--	PS1
		V _A (V) :	0	--	
		I _A (A) :	0	--	
	OT1 pin 1 opened	Power (W) :	0	--	PS1
		V _A (V) :	0	--	
		I _A (A) :	0	--	
	OT1 pin 3 opened	Power (W) :	0	--	PS1
		V _A (V) :	0	--	
		I _A (A) :	0	--	
	R17 shorted	Power (W) :	0	--	PS1
		V _A (V) :	0	--	
		I _A (A) :	0	--	

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Clause	Requirement + Test	Result - Remark	Verdict

Supplementary Information:

*) Measurement taken only when limits at 3 seconds exceed PS1 limits

6.2.3.1	Table: Determination of Potential Ignition Sources (Arcing PIS)				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	
Primary circuits and secondary circuit / parts except for output connector	--	--	--	Yes (declaration)	
Supplementary information: An Arcing PIS requires a minimum of 50 V (peak) a.c. or d.c. An Arcing PIS is established when the product of the open circuit voltage (V _p) and normal operating condition rms current (I _{rms}) is greater than 15. All conductors and devices are considered as 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
All internal circuits/ components	--	--	--	--	Yes (declaration)
Supplementary Information: All power dissipating components in primary and secondary circuit are considered as resistive PIS due to the available power as declared by manufacturer. A combination of voltmeter, VA and ammeter IA may be used instead of a wattmeter. If a separate voltmeter and ammeter are used, the product of (VA × IA) is used to determine Resistive PIS classification. A Resistive PIS: (a) dissipates more than 15 W, measured after 30 s of normal operation, or (b) under single fault conditions has either a power exceeding 100 W measured immediately after the introduction of the fault if electronic circuits, regulators or PTC devices are used, or has an available power exceeding 15 W measured 30 s after introduction of the fault.					

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

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
Max particle length beyond 1 m (mm).....:			MS_
Overall result			
Supplementary information:			

B.2.5	TABLE: Input test							P
U (V/Hz)	I (A)	I rated (A)	P (W)	P rated (W)	Fuse No	I fuse (A)	Condition/status	
Model: G0566-420-143								
90Vac/50	1.234	--	68.8	--	F1	1.234	Max. normal load 42.0Vdc, 1.43A	
90Vac/60	1.266	--	68.8	--	F1	1.266		
100Vac/50	1.115	1.5	68.4	--	F1	1.115		
100Vac/60	1.162	1.5	68.1	--	F1	1.162		
240Vac/50	0.517	1.5	66.8	--	F1	0.517		
240Vac/60	0.595	1.5	66.7	--	F1	0.595		
264Vac/50	0.483	--	67.2	--	F1	0.483		
264Vac/60	0.536	--	66.9	--	F1	0.536		
Model No.: G0566-570-105								
90Vac/50	1.211	--	67.9	--	F1	1.211	Max. normal load 57.0Vdc, 1.05A	
90Vac/60	1.254	--	67.7	--	F1	1.254		
100Vac/50	1.093	1.5	67.7	--	F1	1.093		
100Vac/60	1.136	1.5	67.3	--	F1	1.136		
240Vac/50	0.513	1.5	67.3	--	F1	0.513		
240Vac/60	0.572	1.5	67.3	--	F1	0.572		
264Vac/50	0.476	--	67.2	--	F1	0.476		
264Vac/60	0.524	--	67.1	--	F1	0.524		
Supplementary information: The maximum measured current under rated voltage did not exceed 110% of the rated current.								

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	Supply voltage (V)	Test time	Fuse no.	Fuse current (A)	T-couple	Temp. (°C)	Observation
Model: G0566-420-143								

IEC 62368-1								
Clause	Requirement + Test					Result - Remark		Verdict
Output "+" to "-"	O-L	264	8h	F1	0.483→ 0.513→ 0.013	Type J	T1 winding : 109.5°C; T1 core : 105.9°C; Ambient : 40.0°C; AC Intel surface : 47.3°C; Output terminal surface : 56.3°C; Plastic enclosure near T1, outside : 79.6°C; Plastic enclosure near D8, outside :71.4°C; Ambient : 25.0°C	Max. overload current is 1.55A, unit shutdown when load to 1.60A, no damage, no hazards.
T1 output	O-L	264	7h	F1	0.483→0.506→0.522→0.013	Type J	T1 winding : 113.2°C; T1 core : 107.7°C; Ambient : 40.0°C; AC Intel surface : 49.4°C; Output terminal surface : 57.5°C; Plastic enclosure near T1, outside : 80.2°C; Plastic enclosure near D8, outside :75.2°C; Ambient : 25.0°C	Max. overload current is 1.60A, unit shutdown when load to 1.65A, no damage, no hazards.
Model No.: G0566-570-105								
Output "+" to "-"	O-L	264	8h	F1	0.476→ 0.536→ 0.558→ 0.010	Type J	T1 winding : 116.7°C; T1 core : 115.7°C; Ambient : 40.0°C; AC Intel surface : 47.3°C; Output terminal surface : 56.3°C; Plastic enclosure near T1, outside : 60.5°C; Plastic enclosure near D8, outside :68.6°C; Ambient : 25.0°C	Max. overload current is 1.55A, unit shutdown when load to 1.60A, no damage, no hazards.

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Clause	Requirement + Test					Result - Remark		Verdict

T1 output	O-L	264	5h 30min	F1	0.476→ 0.547→ 0.564→ 0.011	Type J	T1 winding : 118.3°C; T1 core : 110.1°C; Ambient : 40.0°C; AC Intel surface : 48.5°C; Output terminal surface : 55.5°C; Plastic enclosure near T1, outside : 65.8°C; Plastic enclosure near D8, outside :68.7°C; Ambient : 25.0°C	Max. overload current is 1.60A, unit shutdown when load to 1.65A, no damage, no hazards.
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Supplementary information:

- 1) O-L: Overloaded
- 2) The test result shown all safeguards remained effective and didn't lead to a single fault condition during abnormal operating condition; In addition all safeguards complied with applicable requirements in this standard after restoration of normal operating conditions.
- 3) The overloaded condition is applied according to annex G.5.3.3.
- 4) Winding temperature Limit for T1: 175-10=165°C

B.4		TABLE: Fault condition tests						P
Ambient temperature (°C)						25°C, if not specified		—
Power source for EUT: Manufacturer, model/type, output rating ...						--		—
Component No.	Abnormal Condition	Supply voltage, (V)	Test time (ms)	Fuse no.	Fuse current, (A)	T-couple	Temp. (°C)	Observation
Model: G0566-420-143								
BRG1 Pin1-2	S-C	264	1s	F1	0	--	--	F1 opened immediately. After testing, no hazards.
C2	S-C	264	1s	F1	0	--	--	F1 opened immediately. After testing, no hazards.
Q1 Pin G-S	S-C	264	10min	F1	0.010	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
Q1 Pin G-D	S-C	264	1s	F1	0	--	--	F1 opened immediately. After testing, no hazards.

IEC 62368-1								
Clause	Requirement + Test					Result - Remark		Verdict
Q1 Pin S-D	S-C	264	1s	F1	0	--	--	F1 opened immediately. After testing, no hazards.
R17	S-C	264	1s	F1	0	--	--	F1 opened immediately. After testing, no hazards.
U6 Pin 1-2	S-C	264	10min	F1	0.010	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
U1 Pin 1-7	S-C	264	1s	F1	0	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
U1 Pin 1-3	S-C	264	1s	F1	0	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
OT1 Pin1-2	S-C	264	10min	F1	0.012	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
OT1 Pin3-4	S-C	264	10min	F1	0.012	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
OT1 Pin1	O-C	264	10min	F1	0.011	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
OT1 Pin3	O-C	264	10min	F1	0.010	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
T1 Pin1-3	S-C	264	10min	F1	0.010	--	--	Unit shut down immediately. After testing, no damaged, no hazards.

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Clause	Requirement + Test					Result - Remark		Verdict
T1 Pin4-5	S-C	264	10min	F1	0.010	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
T1 Pin7-8	S-C	264	10min	F1	0.010	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
D8	S-C	264	10min	F1	0.011	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
C11	S-C	264	10min	F1	0.010	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
Output	S-C	264	10min	F1	0.010	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
Model No.: G0566-570-105								
BRG1 Pin1-2	S-C	264	1s	F1	0	--	--	F1 opened immediately. After testing, no hazards.
C2	S-C	264	1s	F1	0	--	--	F1 opened immediately. After testing, no hazards.
Q1 Pin G-S	S-C	264	10min	F1	0.011	--	--	Unit shut down immediately, No hazards.
Q1 Pin G-D	S-C	264	1s	F1	0	--	--	F1 open immediately. Q1 damaged. No hazards.
Q1 Pin S-D	S-C	264	1s	F1	0	--	--	F1 open immediately. Q1 damaged. No hazards.
R17	S-C	264	1s	F1	0	--	--	F1 open immediately. Q1 damaged. No hazards.

IEC 62368-1								
Clause	Requirement + Test					Result - Remark		Verdict
U6 Pin 1-2	S-C	264	10min	F1	0.011	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
U6 Pin 1-7	S-C	264	1s	F1	0	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
U6 Pin 1-3	S-C	264	1s	F1	0	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
OT1 Pin1-2	S-C	264	10min	F1	0.012	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
OT1 Pin3-4	S-C	264	10min	F1	0.011	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
OT1 Pin1	O-C	264	10min	F1	0.010	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
OT1 Pin3	O-C	264	10min	F1	0.011	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
T1 Pin1-3	S-C	264	10min	F1	0.011	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
T1 Pin4-5	S-C	264	10min	F1	0.011	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
T1 Pin7-8	S-C	264	10min	F1	0.010	--	--	Unit shut down immediately. After testing, no damaged, no hazards.

IEC 62368-1								
Clause	Requirement + Test					Result - Remark		Verdict
D8	S-C	264	10min	F1	0.010	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
C11	S-C	264	10min	F1	0.010	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
Output	S-C	264	10min	F1	0.011	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
Supplementary information: 1) S-C: Short-circuited; O-C: Open-circuited. 2) The test result shown all safeguards remained effective and didn't lead to a single fault condition during abnormal operating condition; In addition all safeguards complied with applicable requirements in this standard after restoration of normal operating conditions. 3) The same as result test conducted on all fuse sources when fuse opened, all fuse sources see table 4.1.2 for details.								

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

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Clause	Requirement + Test	Result - Remark	Verdict

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	--	--	--	--
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} (V)	I _{sc} (A)		S (VA)	
			Meas.	Limit	Meas.	Limit
Model: G0566-420-143						
Output “+” to “-”	Normal condition	42.1	1.67	3.57	68.8	100
Output “+” to “-”	R17 shorted	0	0	8	0	100
Output “+” to “-”	OT1 pin 1-2 shorted	0	0	8	0	100
Output “+” to “-”	OT1 pin 3-4 shorted	0	0	8	0	100
Output “+” to “-”	OT1 pin 1 opened	0	0	8	0	100
Output “+” to “-”	OT1 pin 3 opened	0	0	8	0	100
Output “+” to “-”	D8 shorted	0	0	8	0	100
Model: 0566-570-105						
Output “+” to “-”	Normal condition	56.8	1.65	2.63	88.9	100
Output “+” to “-”	R17 shorted	0	0	8	0	100
Output “+” to “-”	OT1 pin 1-2 shorted	0	0	8	0	100
Output “+” to “-”	OT1 pin 3-4 shorted	0	0	8	0	100
Output “+” to “-”	OT1 pin 1 opened	0	0	8	0	100
Output “+” to “-”	OT1 pin 3 opened	0	0	8	0	100

IEC 62368-1						
Clause	Requirement + Test			Result - Remark		Verdict
Output "+" to "-"	D8 shorted	0	0	8	0	100
Supplementary information: --						

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 (T.2)	--	--	10	5	No insulation breakdown. No reduction the clearances and creepage distances	
Enclosure top, closed to transformer (T.5)	Plastics	2.6	250	5	Enclosure remained intact, no crack/ opening developed. Internal ES3, TS3 were not accessible after test. No insulation breakdown.	
Enclosure side (T.5)	Plastics	2.6	250	5	Enclosure remained intact, no crack/ opening developed. Internal ES3, TS3 were not accessible after test. No insulation breakdown.	
Enclosure bottom, closed to transformer (T.5)	Plastics	2.6	250	5	Enclosure remained intact, no crack/ opening developed. Internal ES3, TS3 were not accessible after test. No insulation breakdown.	
Supplementary information:						
Each source of enclosure in table 4.1.2 was applied and passed the relevant tests.						

T.6, T.9	TABLE: Impact tests				P
Part/Location	Material	Thickness (mm)	Vertical distance (mm)	Observation	
Enclosure top, closed to transformer (T.6)	Plastics	2.6	1300	Enclosure remained intact, no crack/ opening developed. Internal ES3, TS3 were not accessible after test. No insulation breakdown.	
Enclosure side (T.6)	Plastics	2.6	1300	Enclosure remained intact, no crack/ opening developed. Internal ES3, TS3 were not accessible after test. No insulation breakdown.	

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Clause	Requirement + Test		Result - Remark	Verdict
Enclosure bottom, closed to transformer (T.6)	Plastics	2.6	1300	Enclosure remained intact, no crack/ opening developed. Internal ES3, TS3 were not accessible after test. No insulation breakdown.
Supplementary information: Each source of enclosure in table 4.1.2 was applied and passed the relevant tests.				

T.7	TABLE: Drop tests				P
Part/Location	Material	Thickness (mm)	Drop Height (mm)	Observation	
Whole EUT	Plastic	2.6	750	After the test, enclosure remained intact, no cracking/opening developed in the enclosure joint. Internal TS3 were not accessible after test.	
Supplementary information:					
Each source of enclosure in table 4.1.2 was applied and passed the relevant tests.					

T.8	TABLE: Stress relief test					P
Part/Location	Material	Thickness (mm)	Oven Temperature (°C)	Duration (h)	Observation	
Whole equipment	Plastics	2.6	107	7	Enclosure remained intact, no crack/ opening developed. Internal ES3, TS3 were not accessible after test. No insulation breakdown.	
Supplementary information: Each source of enclosure in table 4.1.2 was applied and passed the relevant tests.						

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IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result – Remark	Verdict
ATTACHMENT TO TEST REPORT IEC 62368-1 EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES (Audio/video, information and communication technology equipment Part 1: Safety requirements)			
Differences according to.....: EN 62368-1:2014+A11:2017			
Attachment Form No.....: EU_GD_IEC62368_1B_II			
Attachment Originator : Nemko AS			
Master Attachment : Date 2017-09-22			
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	CENELEC common modifications EN	--																																				
	Clauses, subclauses, notes, tables, figures and annexes which are additional to those in IEC 62368-1:2014 are prefixed "Z".	--																																				
CONTENTS	Add the following annexes: 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: <table><tr><td>0.2.1</td><td>Note</td><td>1</td><td>Note 3</td><td>4.1.15</td><td>Note</td></tr><tr><td>4.7.3</td><td>Note 1 and 2</td><td>5.2.2.2</td><td>Note</td><td>5.4.2.3.2.2 Table 13</td><td>Note c</td></tr><tr><td>5.4.2.3.2.4</td><td>Note 1 and 3</td><td>5.4.2.5</td><td>Note 2</td><td>5.4.5.1</td><td>Note</td></tr><tr><td>5.5.2.1</td><td>Note</td><td>5.5.6</td><td>Note</td><td>5.6.4.2.1</td><td>Note 2 and 3</td></tr><tr><td>5.7.5</td><td>Note</td><td>5.7.6.1</td><td>Note 1 and 2</td><td>10.2.1 Table 39</td><td>Note 2, 3 and 4</td></tr><tr><td>10.5.3</td><td>Note 2</td><td>10.6.2.1</td><td>Note 3</td><td>F.3.3.6</td><td>Note 3</td></tr></table>	0.2.1	Note	1	Note 3	4.1.15	Note	4.7.3	Note 1 and 2	5.2.2.2	Note	5.4.2.3.2.2 Table 13	Note c	5.4.2.3.2.4	Note 1 and 3	5.4.2.5	Note 2	5.4.5.1	Note	5.5.2.1	Note	5.5.6	Note	5.6.4.2.1	Note 2 and 3	5.7.5	Note	5.7.6.1	Note 1 and 2	10.2.1 Table 39	Note 2, 3 and 4	10.5.3	Note 2	10.6.2.1	Note 3	F.3.3.6	Note 3	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.	P																																				

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IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result – Remark	Verdict
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.		P
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.	Considered. Complied with item a) for internal fuse (F1) used and for parts as described in b) reliance on the protection in the building installation.	P
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.		P
10.2.1	Add the following to ^{c)} and ^{d)} in table 39: For additional requirements, see 10.5.1.	No radiation.	N/A

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IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result – Remark	Verdict
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 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.	Added.	N/A
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		N/A

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IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result – Remark	Verdict
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. 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.		N/A

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IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result – Remark	Verdict
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 jordnet stikkontakt” In Sweden: “Apparaten skall anslutas till jordat uttag”	Not such equipment	N/A
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	Not a direct plug-in equipment.	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 the limits of 3,5 mA a.c. or 10 mA d.c.	No high touch current measured.	N/A
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		N/A

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Clause	Requirement + Test	Result – Remark	Verdict
	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.		
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).		P

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Clause	Requirement + Test	Result – Remark	Verdict
5.5.6	Finland, Norway and Sweden To the end of the subclause the following is added: Resistors used as basic safeguard or bridging basic insulation in class I pluggable equipment type A shall comply with G.10.1 and the test of G.10.2.		N/A
5.6.1	Denmark Add to the end of the subclause Due to many existing installations where the socket-outlets can be protected with fuses with higher rating than the rating of the socket-outlets the protection for pluggable equipment type A shall be an integral part of the equipment. <i>Justification:</i> In Denmark an existing 13 A socket outlet can be protected by a 20 A fuse.		N/A
5.6.4.2.1	Ireland and United Kingdom After the indent for pluggable equipment type A , the following is added: – the protective current rating is taken to be 13 A, this being the largest rating of fuse used in the mains plug.	Add.	N/A
5.6.5.1	To the second paragraph the following is added: The range of conductor sizes of flexible cords to be accepted by terminals for equipment with a rated current over 10 A and up to and including 13 A is: 1,25 mm ² to 1,5 mm ² in cross-sectional area.		N/A
5.7.5	Denmark To the end of the subclause the following is added: The installation instruction shall be affixed to the equipment if the protective conductor current exceeds the limits of 3,5 mA a.c. or 10 mA d.c.	No high protective conductor current.	N/A

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Clause	Requirement + Test	Result – Remark	Verdict
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 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.”	Not such system.	N/A

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Clause	Requirement + Test	Result – Remark	Verdict
	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: 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	No external circuits.	N/A
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

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IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result – Remark	Verdict
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	No power supply cord provided.	N/A
G.4.2	United Kingdom To the end of the subclause the following is added: The plug part of direct plug-in equipment shall be assessed to BS 1363: Part 1, 12.1, 12.2, 12.3, 12.9, 12.11, 12.12, 12.13, 12.16, and 12.17, except that the test of 12.17 is performed at not less than 125 °C. Where the metal earth pin is replaced by an Insulated Shutter Opening Device (ISOD), the requirements of clauses 22.2 and 23 also apply.	Not a direct plug-in equipment.	N/A

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IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result – Remark	Verdict
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 mm² is allowed for equipment which is rated over 10 A and up to and including 13 A.		N/A

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Clause	Requirement + Test	Result – Remark	Verdict
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> 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	Not such equipment.	N/A



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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.		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.		N/A
4.8	Lithium coin / button cell batteries have modified special construction and performance requirements.		N/A

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Clause	Requirement + Test	Result – Remark	Verdict
5.6.3	Protective earthing conductors comply with the minimum conductor sizes in Table G.5, except as required by Table G.7ADV.1 for cord connected equipment, or Annex DVH for permanently connected equipment	No power cord provided	N/A
5.7.7	Equipment intended to receive telecommunication ringing signals complies with a special touch current measurement tests.	Not such 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.		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.	See copy of marking plate.	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.	The equipment is not permanent connection equipment.	N/A
Annex G (G.7.3)	Power supply cords are required to have attachment plugs rated not less than 125 percent of the rated current of the equipment.	No power 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.	No power cord provided	N/A
Annex G (G.7.5)	Minimum cord length is required to be 1.5 m, with certain constructions such as external power supplies allowed to consider both input and output cord lengths into the requirement. Power supply cords are required to be no longer than 4.5 m in length if used in ITE Rooms.		N/A
Annex H.2	Continuous ringing signals under normal operating conditions up to 16 mA only are permitted if the equipment is subjected to special installation and performance restrictions.	No such 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 such circuits within the equipment.	N/A

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Clause	Requirement + Test	Result – Remark	Verdict
Annex M	Battery packs for stationary applications comply with special component requirements.	No battery.	N/A
Annex DVA (1)	Equipment intended for use in spaces used for environmental air are subjected to special flammability requirements for heat and visible smoke release.	Not such equipment or application.	N/A
	For ITE room applications, automated information storage systems with combustible media greater than 0.76 m ³ (27 cu ft) have a provision for connection of either automatic sprinklers or a gaseous agent extinguishing system with an extended discharge.	Not such equipment.	N/A
	Consumer products designed or intended primarily for children 12 years of age or younger are subject to additional requirements in accordance with U.S. & Canadian Regulations.	The equipment is not for children used.	N/A
	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.	Considered.	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 metal 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.	No such application.	N/A
Annex DVA (10.3.1)	Equipment with lasers meets the U.S. Code of Federal Regulations 21 CFR 1040 (and the Canadian Radiation Emitting Devices Act, REDR C1370).	No such parts.	N/A
Annex DVA (10.5.1)	Equipment that produces ionizing radiation complies with the U.S. Code of Federal Regulations, 21 CFR 1020 (and the Canadian Radiation Emitting Devices Act, REDR C1370).	No such parts.	N/A

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Clause	Requirement + Test	Result – Remark	Verdict
Annex DVA (F.3.3.3)	Equipment for use on a.c. mains supply systems with a neutral and more than one phase conductor (e.g. 120/240 V, 3-wire) require a special marking format for electrical ratings. Additional considerations apply for voltage ratings that exceed the attachment cap rating or are lower than the "Normal Operating Condition" in Table 2 of CAN/CSA C22.2 No. 235."	Single phase only.	N/A
Annex DVA (F.3.3.5)	Equipment identified for ITE (computer) room installation is marked with the rated current	Not such application.	N/A
Annex DVA (G.1)	Vertically-mounted disconnect switches and circuit breakers have the "on" position indicated by the handle in the up position	No such parts.	N/A
Annex DVA (G.3.4)	Suitable NEC/CEC branch circuit protection rated at the maximum circuit rating is required for all standard supply outlets and receptacles (such as supplied in power distribution units) if the supply branch circuit protection is not suitable.	No standard supply outlets, receptacles, medium-base or smaller lampholders 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 fuse provided.	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 motor used.	N/A
Annex DVA (Annex M)	For ITE room applications, equipment with battery systems capable of supplying 750 VA for five minutes have a battery disconnect means that may be connected to the ITE room remote power-off circuit.	Not such application.	N/A

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Clause	Requirement + Test	Result – Remark	Verdict
Annex DVA (Q)	Wiring terminals intended to supply Class 2 outputs according to the NEC or CEC Part 1 are marked with the voltage rating and “Class 2” or equivalent; marking is located adjacent to the terminals and visible during wiring.	Not applicable for the equipment.	N/A
Annex DVB (1)	Additional requirements apply for equipment used for entertainment purposes intended for installation in general patient care areas of health care facilities.	Not such application.	N/A
Annex DVC (1)	Additional requirements apply for equipment intended for mounting under kitchen cabinets.	Not such application.	N/A
Annex DVE (4.1.1)	Some equipment, components, sub-assemblies and materials associated with the risk of fire, electric shock, or personal injury have component or material ratings in accordance with the applicable national (U.S. and Canadian) component or material requirements. Components required to comply include: appliance couplers, attachment plugs, battery back-up systems, battery packs, circuit breakers, communication circuit accessories, connectors (used for current interruption of non-LPS circuits), power supply cords, direct plug-in equipment, electrochemical capacitor modules (energy storage modules with ultra-capacitors), enclosures (outdoor), flexible cords and cables, fuses (branch circuit), ground-fault current interrupters, interconnecting cables, data storage equipment, printed wiring, protectors for communications circuits, receptacles, surge protective devices, vehicle battery adapters, wire connectors, and wire and cables.	UL approved components used. Refer to table 4.1.2 of IEC 62368-1 test report for details.	P
Annex DVH	Equipment for permanent connection to the mains supply is subjected to additional requirements.	The equipment is not permanently connected equipment.	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.		P
Annex DVH (DVH.3.2)	Terminals for permanent wiring, including protective earthing terminals, are suitable for U.S./Canadian wire gauge sizes, rated 125 percent of the equipment rating, and are specially marked when specified.	No terminals for permanent wiring	N/A

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Clause	Requirement + Test	Result – Remark	Verdict
Annex DVH (DVH.3.2)	Wire binding screws are not permitted to attach conductors larger than 10 AWG (5.3 mm ²).	No wire binding screws.	N/A
Annex DVH (DVH.4)	Permanently connected equipment is required to have a suitable wiring compartment and wire bending space.	The equipment is not permanently connected equipment.	N/A
Annex DVH (DVH 5.5)	Equipment connected to a centralized d.c. power system, and having one pole of the DC mains input terminal connected to the main protective earthing terminal in the equipment, complies with special earthing, wiring, marking and installation instruction requirements.	The equipment not connected to a centralized d.c. power system	N/A
Annex DVI (6.7)	Equipment intended for connection to telecommunication network outside plant cable is required to be protected against overvoltage from power line crosses.	Not such equipment.	N/A
Annex DVJ (10.6.1)	Equipment connected to a telecommunication and cable distribution networks and supplied with an earphone intended to be held against, or in the ear is required to comply with special acoustic pressure requirements.	Not such equipment.	N/A



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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: 2019-02-04			
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	National Differences		
Appendix ZZ	Variations to IEC 62368-1:2014 (ED. 2.0) for Australia and New Zealand		P
ZZ1 Scope	This Appendix lists the normative variations to IEC 62368-1:2014 (ED. 2.0)		P
ZZ2 Variations	The following modifications are required for Australian/New Zealand conditions:		P
2	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 2.11: Glowing/hot wire based test methods—</i>		P

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IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result – Remark	Verdict
	<i>Glow-wire flammability test method for end-products</i> -AS/NZS 60695.11.5, <i>Fire hazard testing, Part 11.5: Test flames—Needle-flame test method—Apparatus, confirmatory test arrangement and guidance</i> -AS/NZS 60695.11.10, <i>Fire hazard testing, Part 11.10: Test flames—50 W horizontal and vertical flame test methods</i> -AS/NZS 60884.1, <i>Plugs and socket-outlets for household and similar purposes, Part 1: General requirements</i> -AS/NZS 60950.1:2015, <i>Information technology equipment—Safety, Part 1: General requirements (IEC 60950-1, Ed.2.2 (2013), MOD)</i> IEC 61032:1997, <i>Protection of persons and equipment by enclosures—Probes for verification</i> -AS/NZS 61558.1:2008 (including Amendment 2:2015), <i>Safety of Power Transformers, Power Supplies, Reactors and Similar Products, Part 1: General requirements and tests (IEC 61558-1 Ed 2.1, MOD)</i> -AS/NZS 61558.2.16, <i>Safety of transformers, reactors, power supply units and similar products for voltages up to 1 100 V, Part 2.16: Particular requirements and tests for switch mode power supply units and transformers for switch mode power supply units.</i>		
4.1.1	Application of requirements and acceptance of materials, components and subassemblies 1 <i>Replace the text 'IEC 60950-1' with 'AS/NZS 60950.1:2015'.</i> 2 <i>Replace the text 'IEC 60065' with 'AS/NZS 60065'.</i>		P
4.7	Equipment for direct insertion into mains socket-outlets		N/A

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Clause	Requirement + Test	Result – Remark	Verdict
4.7.2	Requirements <i>Delete</i> the text of the second paragraph and <i>replace</i> with the following: Equipment with a plug portion, suitable for insertion into a 10 A 3-pin flat-pin socket-outlet complying with AS/NZS 3112 shall comply with the requirements in AS/NZS 3112 for equipment with integral pins for insertion into socket-outlets.		N/A
4.7.3	Compliance Criteria <i>Delete</i> the first paragraph and Note 1 and Note 2 and <i>replace</i> with the following: <i>Compliance is checked by inspection and, if necessary, by the tests in AS/NZS 3112.</i>		N/A
4.8	<i>Delete</i> existing clause title and <i>replace</i> with the following: 4.8 Products containing coin/button cell batteries		N/A
4.8.1	General 1 Second dashed point, <i>delete</i> the text and <i>replace</i> with the following: – include coin/button cell batteries with a diameter of 32 mm or less. 2 After the second dashed point, <i>insert</i> the following Note: NOTE 1: Batteries are specified in IEC 60086-2. 3 After the third dashed point, <i>renumber</i> the existing Note as 'NOTE 2'. 4 Fifth dashed point, <i>delete</i> the word 'lithium'.		N/A
4.8.2	Instructional Safeguard First line, <i>delete</i> the word 'lithium'.		N/A
4.8.3	Construction First line, after the word 'Equipment' <i>insert</i> the words 'containing one or more coin/button batteries and'		N/A
4.8.5	Compliance criteria <i>Delete</i> the first paragraph and <i>replace</i> with the following: <i>Compliance is checked by applying a force of 30 N +/-1 N for 10 s to the battery compartment door/cover by a rigid test finger according to test probe 11 of IEC 61032:1997 at the most unfavourable place and in the most unfavourable direction. The force shall be applied in one direction at a time.</i>		N/A
5.4.10.2	Test methods		N/A

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Clause	Requirement + Test		Result – Remark		Verdict	
5.4.10.2.1	General <i>Delete</i> the first paragraph and <i>replace</i> with the following: In Australia only, the separation is checked by the test of both Clause 5.4.10.2.2 and Clause 5.4.10.2.3. In New Zealand, the separation is checked by the test of either Clause 5.4.10.2.2 or Clause 5.4.10.2.3.				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	
6	Electrically-caused fire				P	

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

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

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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.		N/A
	Special national conditions (if any)		P

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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>	Should be evaluated in national approval	N/A
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; – small electrical components, such as		N/A

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Clause	Requirement + Test	Result – Remark	Verdict
	capacitors with a volume not exceeding 1750 mm ³ , 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		N/A										
	<table><tr><td colspan="2">The needle-flame test shall be made in accordance with AS/NZS 60695.11.5 with the following modifications:</td></tr><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>Delete 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>Replace 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 which shall withstand</td></tr></table>	The needle-flame test shall be made in accordance with AS/NZS 60695.11.5 with the following modifications:		Clause of AS/NZS 60695.11.5	Change	9 Test procedure		9.2 Application of needle-flame	Delete 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	Replace 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 which shall withstand		N/A
The needle-flame test shall be made in accordance with AS/NZS 60695.11.5 with the following modifications:													
Clause of AS/NZS 60695.11.5	Change												
9 Test procedure													
9.2 Application of needle-flame	Delete 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	Replace 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 which shall withstand												

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Clause	Requirement + Test		Verdict
	the test. 11 Evaluation of test results <i>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.</i> 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 when the board is positioned as in normal use. The flame shall not be applied to an edge,		N/A

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IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result – Remark	Verdict
	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

Attachment 1

Page 31 of 31

Report No.: JPTUV-3118861

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		N/A
8.6.1.202	Restraining device MS2 and MS3 television sets and display devices that are not solely fixed-mounted should be provided with a restraining device such as a fixing point to facilitate restraining the equipment from toppling forward. The restraining device shall be capable of withstanding a pull of 100 N in all directions without damage. Where a restraining device is provided, instructions shall be provided in the instructions for installation or instructions for use to ensure correct and safe installation.		N/A

Miscellaneous Section			
Clause	Requirement + Test	Result - Remark	Verdict

5.4.1.8	Table: working voltage measurement				P
Location		Peak voltage (V)	RMS voltage (V)	Frequency (kHz)	Comments
Model: G0566-420-143					
OT1 Pin 1 to 3		364	211	0.06	---
OT1 Pin 2 to 3		364	210	0.06	---
OT1 Pin 1 to 4		364	210	0.06	---
OT1 Pin 2 to 4		364	210	0.06	---
C13 primary to secondary		348	200	14.0	---
T1 Pin 1-7		488	260	26	Max. Vrms and Vpeak of T1
T1 Pin 3-7		348	200	26	---
T1 Pin 4-7		392	200	26	---
T1 Pin 5-7		348	199	26	---
T1 Pin 1-8		460	219	26	---
T1 Pin 3-8		432	213	26	---
T1 Pin 4-8		372	204	26	---
T1 Pin 5-8		392	210	26	---
Model: G0566-570-105					
OT1 Pin 1 to 3		380	220	0.06	---
OT1 Pin 2 to 3		372	220	0.06	---
OT1 Pin 1 to 4		372	220	0.06	---
OT1 Pin 2 to 4		368	220	0.06	---
C13 primary to secondary		348	202	15	---
T1 Pin 1-7		496	269	29	Max. Vrms and Vpeak of T1
T1 Pin 3-7		344	202	29	---
T1 Pin 4-7		396	205	29	---
T1 Pin 5-7		344	204	29	---
T1 Pin 1-8		480	224	29	
T1 Pin 3-8		444	220	29	---
T1 Pin 4-8		384	212	29	---
T1 Pin 5-8		404	202	29	---
supplementary information:					
Test voltage: 240V/60Hz					

Miscellaneous Section			
Clause	Requirement + Test	Result - Remark	Verdict

Supplementary test results for subclause G.5.3:

G.5.3	TABLE: transformers (T1)						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 (5.4.2.2)	Required creepage distance / mm (5.4.3)	Required distance thr. insul. (5.4.4.6)
Primary winding/pins to secondary winding	RI	496	269	4000Vdc	4.5*	5.4	2 layers or 0.4mm
Core to secondary winding	RI	496	269	4000Vdc	4.5*	5.4	2 layers or 0.4mm
Loc.	Tested insulation			Test voltage/ V	Measured clearance / mm	Measured creepage dist./ mm	Measured distance thr. insul. / mm; number of layers
Primary winding/pins to secondary winding	RI			4000Vdc	6.2	6.2	TIW
Core to secondary winding	RI			4000Vdc	6.5	6.5	TIW

Supplementary information:

1. Concentric windings on phenolic bobbin.
2. Core of T1 is considered as primary.
3. Concentric windings on core. Three layers of insulation tape with 25mm width wrapped around the transformer. Two layers of insulation tape between primary and secondary windings. Two layers of insulation tape wrapped on bottom of core. Only the secondary windings are triple insulated wire, the rest are ordinary enamelled wire. Insulating tube used to separate primary windings and secondary triple insulated wires where crossing. Winding leads exit directly through integral flanges in bobbin and are mechanically secured and soldered to pins that are molded into bobbin.

* As applicant's request, equipment operating up to altitudes 5000m was considered, the required clearance multiplied by altitude correction factor 1.48 according to the Table 17 of IEC 62368-1:2014 standard.

More details see below.

Miscellaneous Section

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

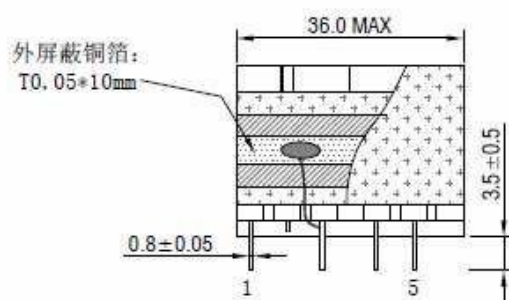
G.5.3

[illegible]

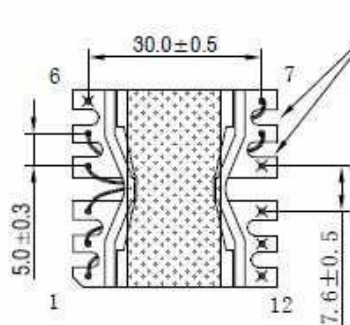
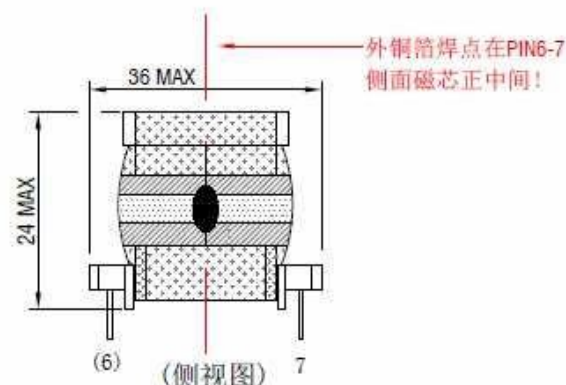
P

1. SURFACE DIMENSION/外观尺寸:

UNIT/单位: mm



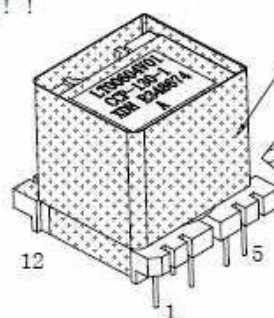
(正视图)



(底视图)

- 次级PIN7和PIN8必須按規定入槽！！

外围胶带:
17mmW*2L3



(成品图示)

胶带:
1milT*32mmW

— 骑缝胶带:
9mm*2L



(磁芯背胶图示)

产品说明:

- 1). 产品空脚位: 6, 9, 10, 11, 12. 成品后减去PIN2之2 / 3.
 - 2). 平面磁芯背胶2层, 中柱缺口处贴9mm双层胶带, 从PIN端装入线包, 整副磁芯用12mm胶带包2TS固定.
 - 3). 外屏蔽E4用T0.05*10mm铜箔, 在次级端全背胶不露铜, 沿绕线方向包1.1TS后焊接收口, 焊点在PIN6-7侧面磁芯正中间, 铜箔用Φ0.25的引线引焊至PIN3. 包铜箔前同方向先包17mm胶带2TS.
 - 4). 磁芯外再包25mm胶带2TS, 沿线包方向包17mm胶带2TS.
 - 5). 次级引线PIN7从第7, 8脚间的线槽引出; PIN8从第8, 9间的线槽引出.
 - 6). 标签贴于顶部, 字根朝PIN1-6.
- LT00604V01
 CCP-130-1
 XDH E348674

LT00604V01
CCP-130-1
XDH E348674
A

Miscellaneous Section			
Clause	Requirement + Test		Verdict

2. SCHEMATIC/电路原理图:

• 表示同名端
—— 套管 (TUBING)

3. TRANSFORMER PROFILES / 变压器剖面图:

TOP SIDE
PIN SIDE
TAPE
PQ3220 磁芯

4. WINDING TABULATION/ 绕线表:

绕线顺序	起尾线		线型/规格	圈数	绝缘层	套管	绕线要求
	起始	结尾			圈数/宽度		
E1	3	-	CP T0.025*6mm(背胶)	0.9TS	2Ts/9mm	28L	PIN端边朝右入轴 居中
N1	1	2	MW75-C Φ0.55*1P	12TS	2Ts/9mm	23L	PIN端边朝右入轴 密绕
E2	3	-	CP T0.025*6mm(背胶)	0.9TS	2Ts/9mm	28L	PIN端边朝右入轴 居中
N2	7	8	TIW-3 Φ0.70*1P	10TS	2Ts/9mm	18L	PIN端边朝右入轴 密绕
E3	3	-	CP T0.025*6mm(背胶)	0.9TS	2Ts/9mm	28L	PIN端边朝右入轴 居中
N3	2	3	MW75-C Φ0.55*1P	10TS	2Ts/9mm	23L	PIN端边朝右入轴 密绕
N4	4	5	MW75-C Φ0.20*2P	3TS	2Ts/9mm	26L	PIN端边朝右入轴 密绕
WINDING END							
E4	3	-	CP T0.05*10mm*122mm	1.1TS	2+2Ts/17mm	28L	外屏蔽铜箔, 次级端不露铜

工艺说明:
1). 绕制时PIN脚向右完成所有绕组.
2). E1, E2, E3, E4为屏蔽绕组, 用Φ0.25的引线加套管后引焊至PIN3.
3). 绕线均匀平整.

Product: Switching Gigabit Power Supply

Type Designation: G0566-xxx-yyy, POE-173(Same as G0566-500-120)



Figure 1. Overall view



Figure 2. Overall view

Product: Switching Gigabit Power Supply

Type Designation: G0566-xxx-yyy, POE-173(Same as G0566-500-120)



Figure 3. Overall view



Figure 4. Overall view

Product: Switching Gigabit Power Supply

Type Designation: G0566-xxx-yyy, POE-173(Same as G0566-500-120)



Figure 5. Internal view

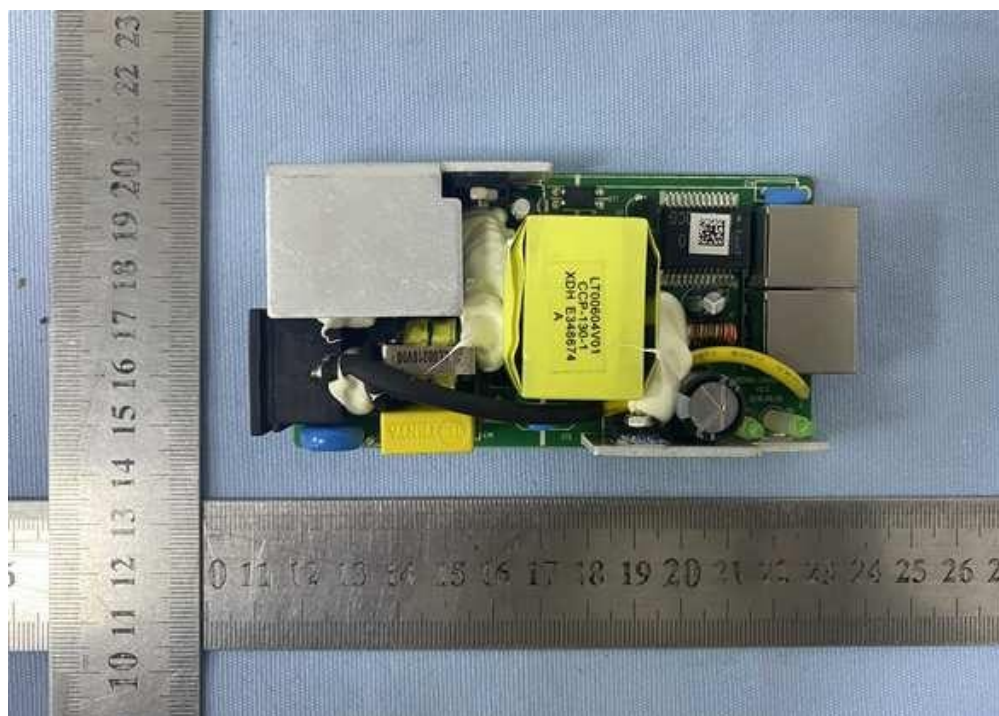


Figure 6. Components side view

Attachment 3

Photo Documentation

Page 4 of 14

Report No.: JPTUV-3118861

Product: Switching Gigabit Power Supply

Type Designation: G0566-xxx-yyy, POE-173(Same as G0566-500-120)

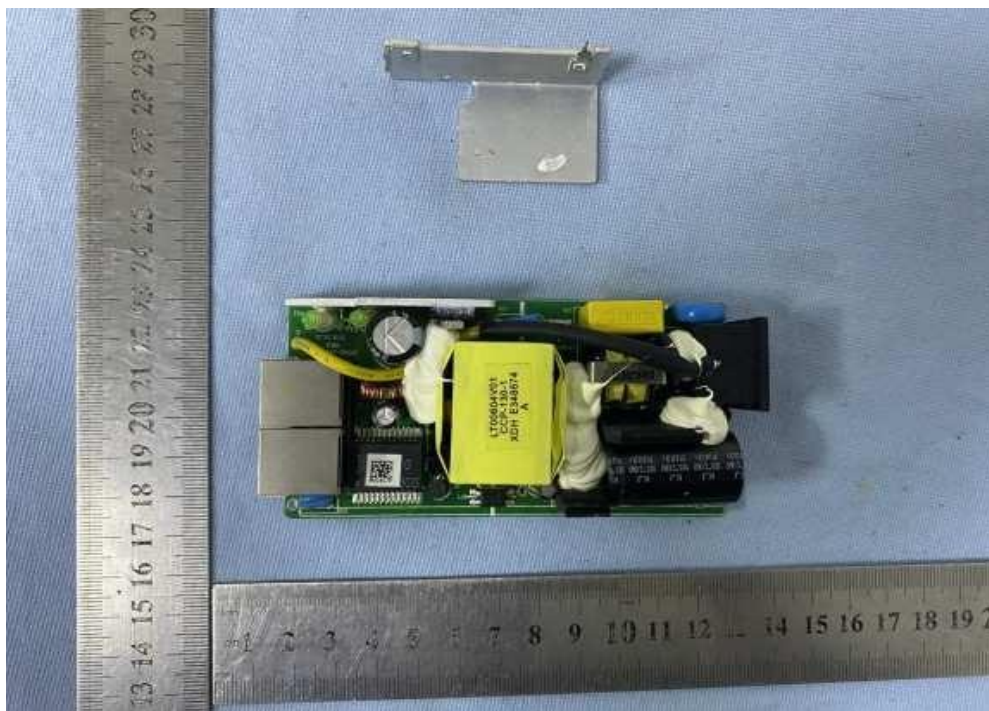


Figure 7. Components side view

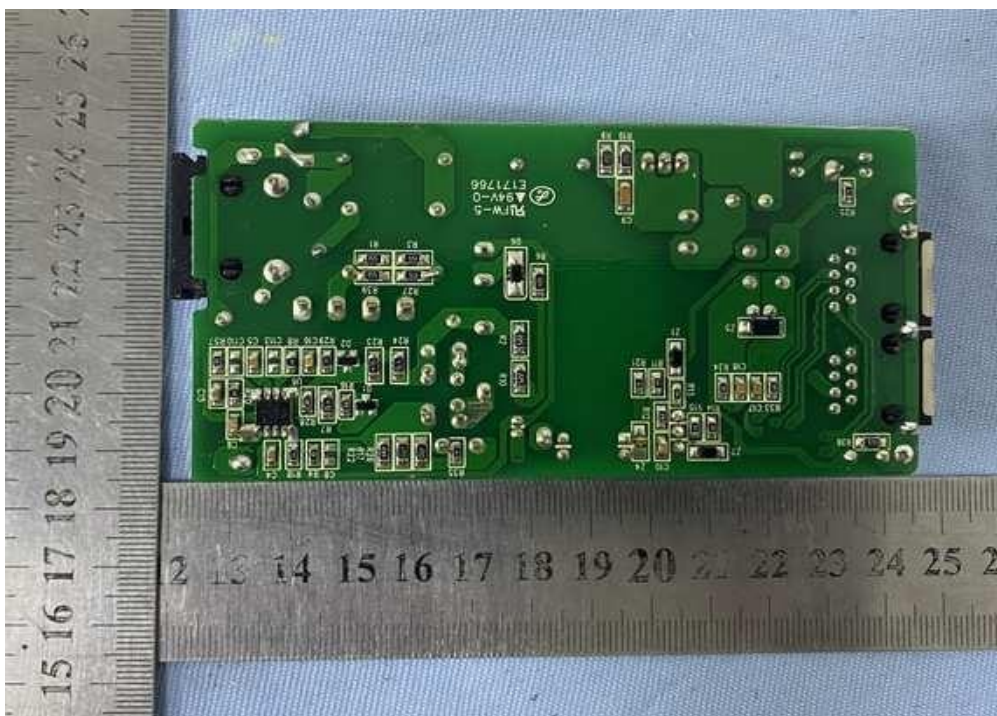


Figure 8. Trace side view

Product: Switching Gigabit Power Supply

Type Designation: G0566-xxx-yyy, POE-173(Same as G0566-500-120)



Figure 9. Top view of transformer

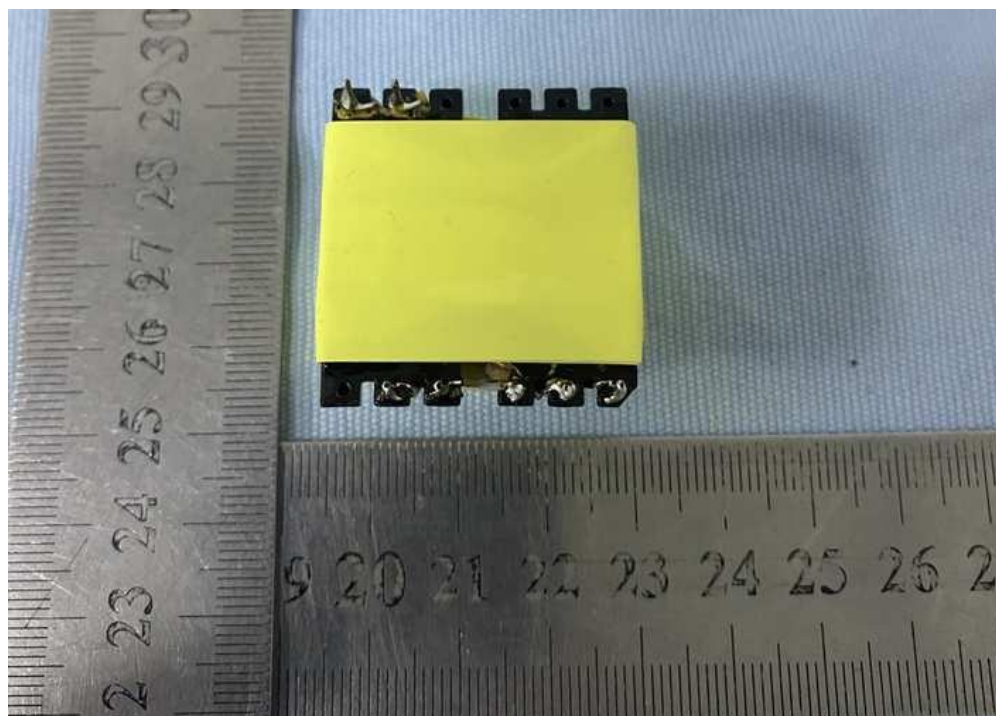


Figure 10. Bottom view of transformer

Product: Switching Gigabit Power Supply

Type Designation: G0566-xxx-yyy, POE-173(Same as G0566-500-120)



Figure 11. Internal view of transformer

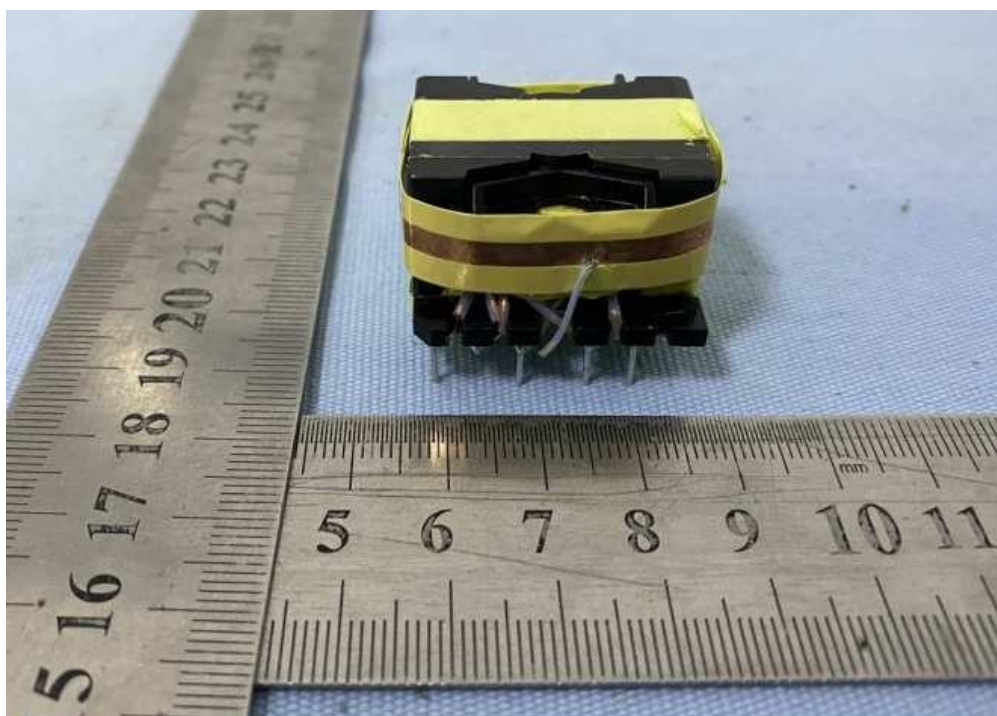


Figure 12. Internal view of transformer

Product: Switching Gigabit Power Supply

Type Designation: G0566-xxx-yyy, POE-173(Same as G0566-500-120)

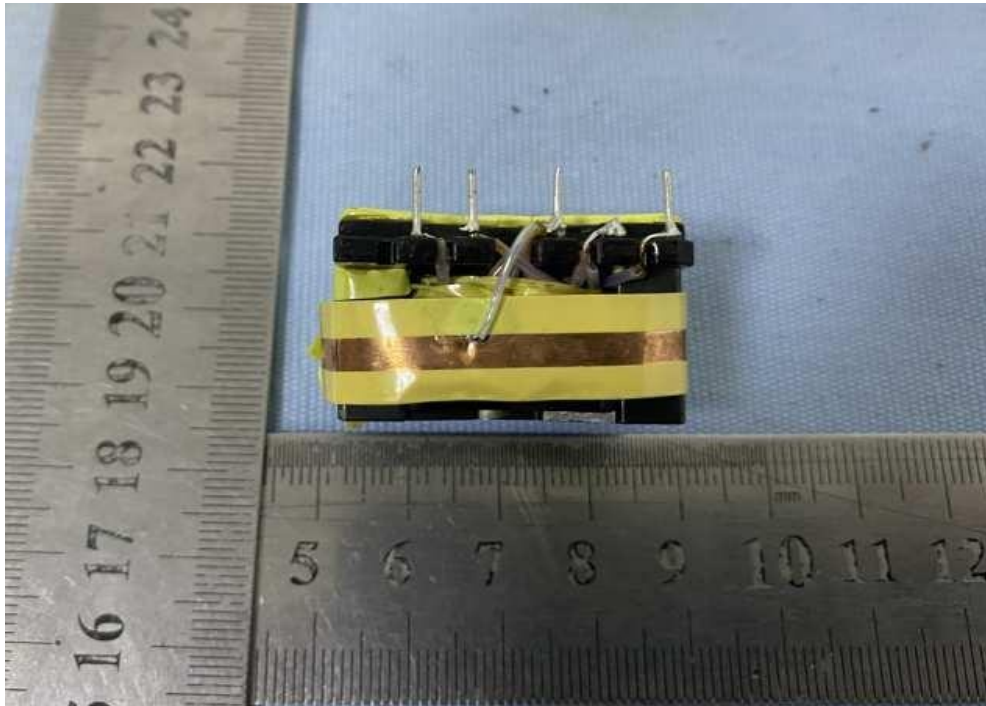


Figure 13. Internal view of transformer

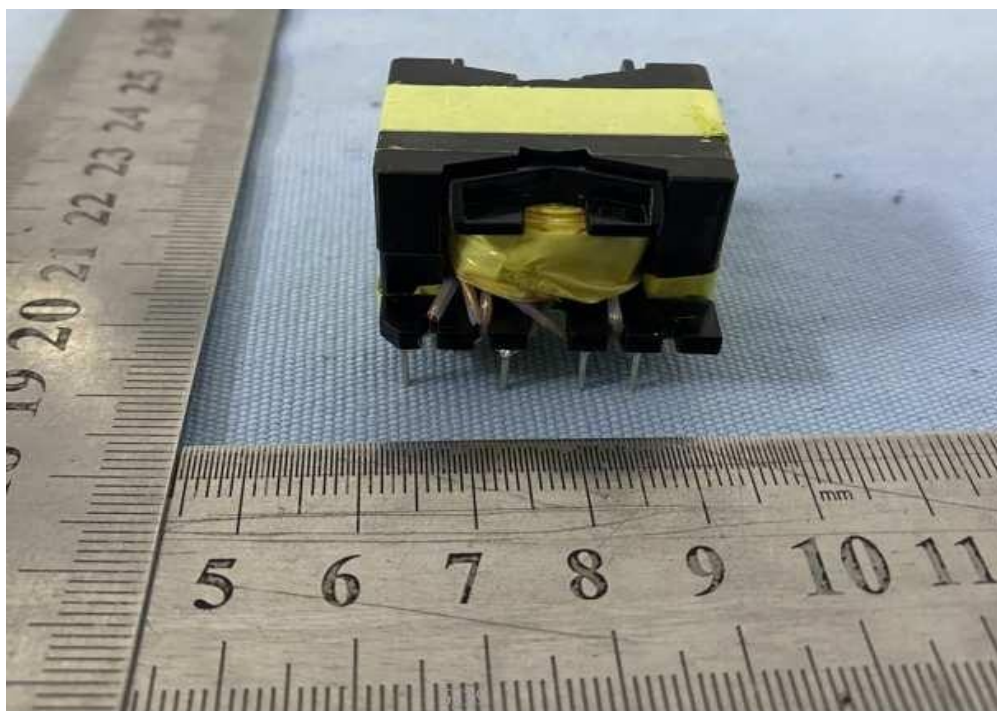


Figure 14. Internal view of transformer

Product: Switching Gigabit Power Supply

Type Designation: G0566-xxx-yyy, POE-173(Same as G0566-500-120)

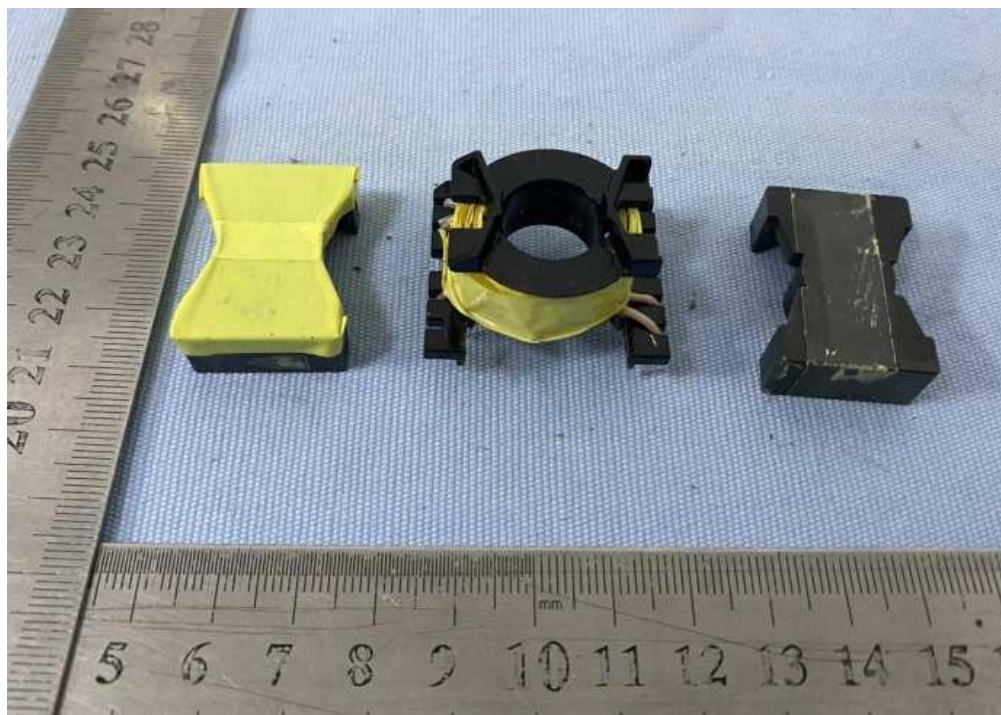


Figure 15. Internal view of transformer



Figure 16. Internal view of transformer

Product: Switching Gigabit Power Supply

Type Designation: G0566-xxx-yyy, POE-173(Same as G0566-500-120)

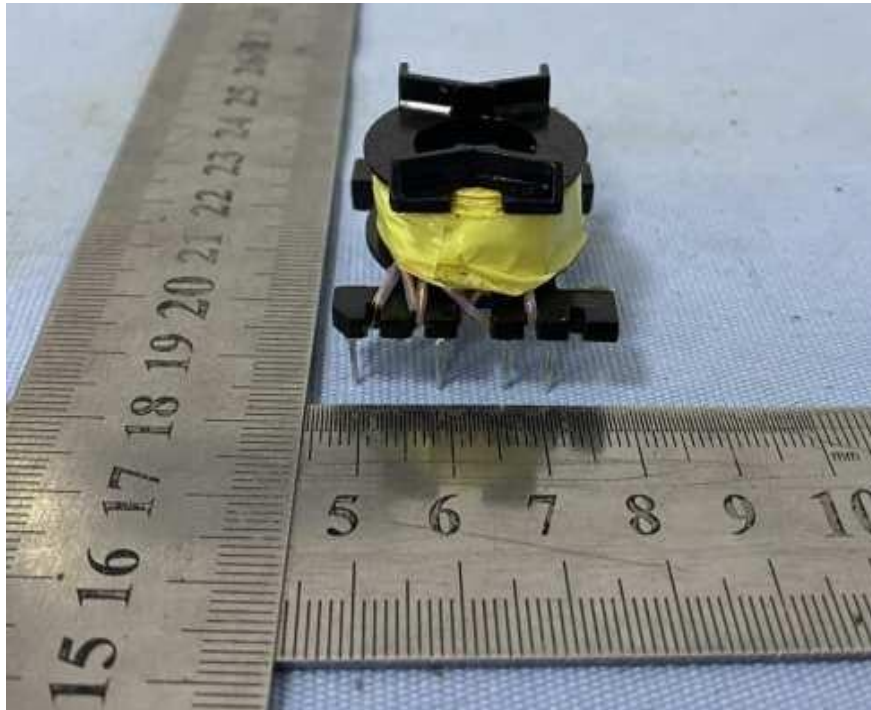


Figure 17. Internal view of transformer

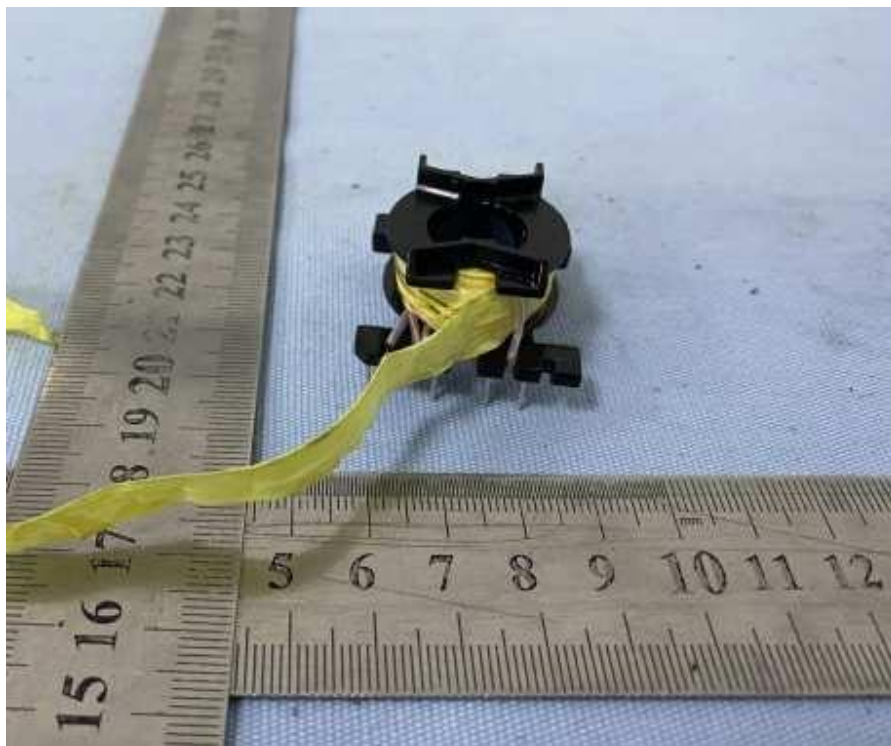


Figure 18. Internal view of transformer

Product: Switching Gigabit Power Supply

Type Designation: G0566-xxx-yyy, POE-173(Same as G0566-500-120)

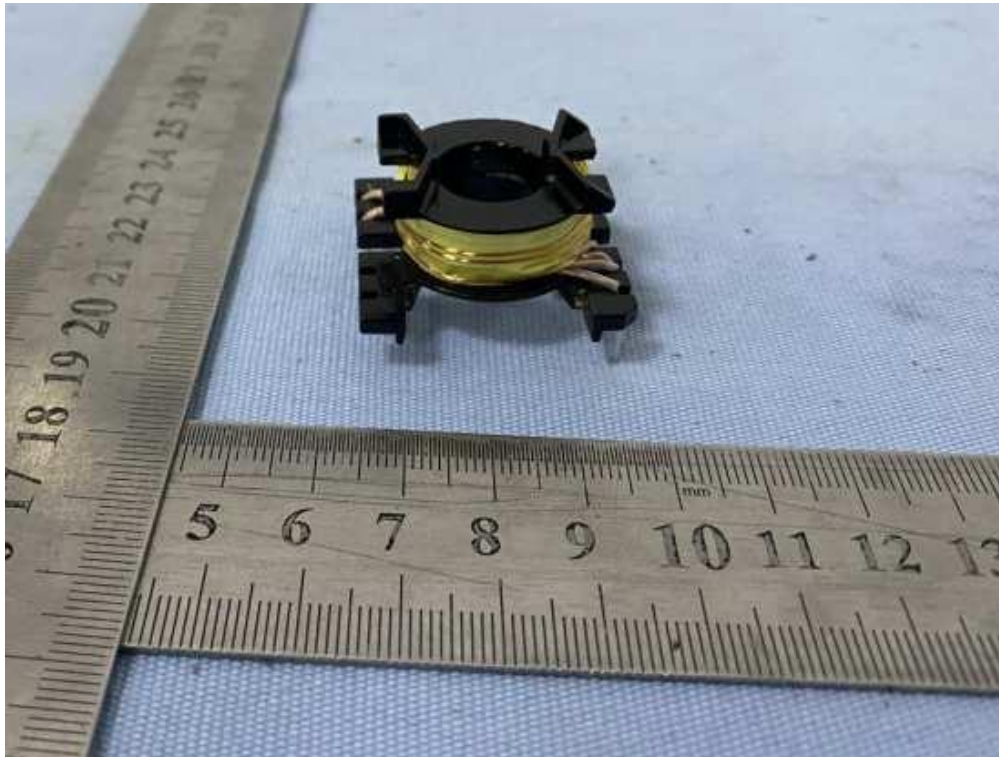


Figure 19. Internal view of transformer

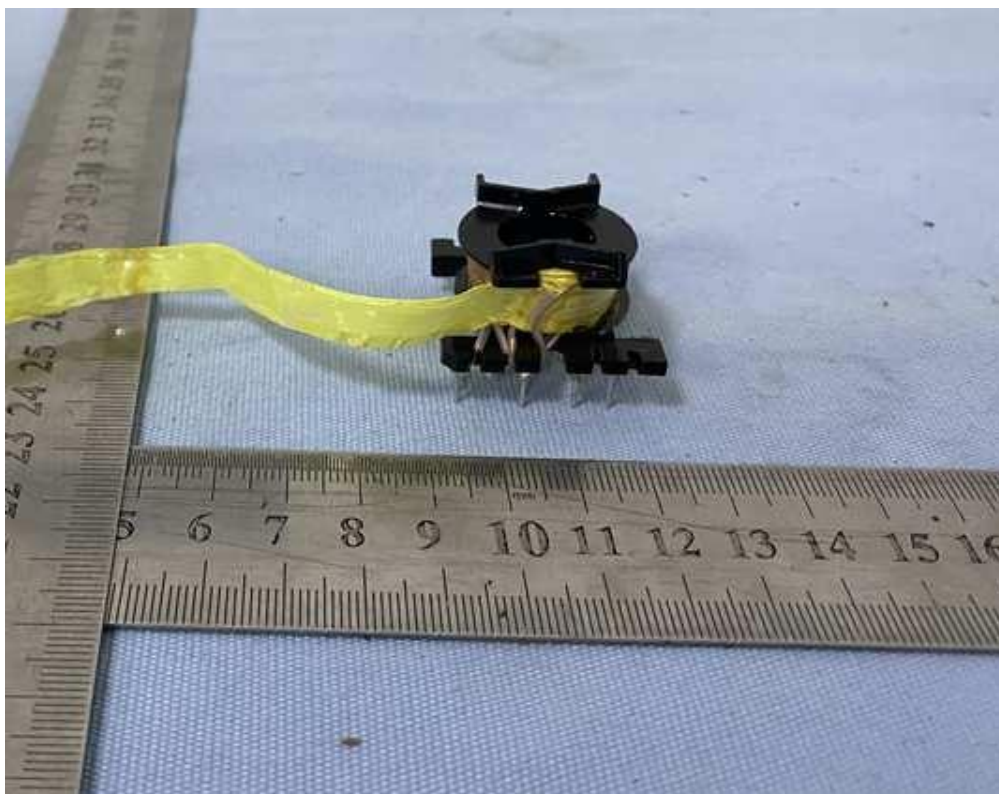


Figure 20. Internal view of transformer

Product: Switching Gigabit Power Supply

Type Designation: G0566-xxx-yyy, POE-173(Same as G0566-500-120)



Figure 21. Transformer T1 view

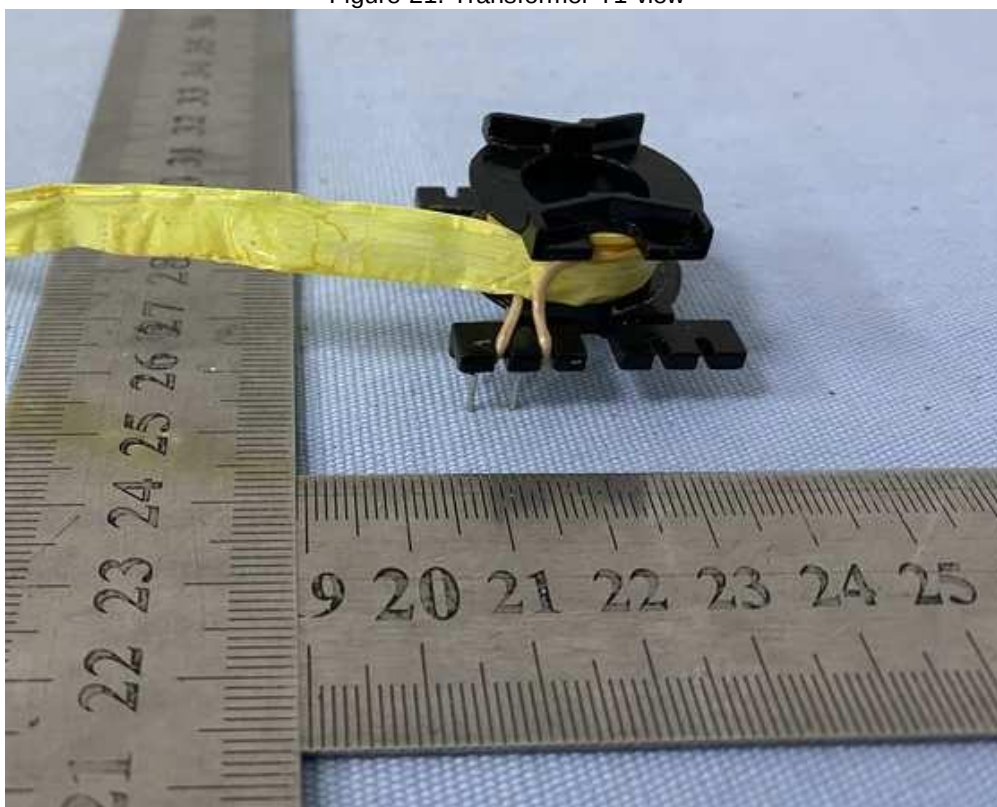


Figure 22. Internal view of transformer

Product: Switching Gigabit Power Supply

Type Designation: G0566-xxx-yyy, POE-173(Same as G0566-500-120)



Figure 23. Internal view of transformer



Figure 24. Internal view of transformer

Product: Switching Gigabit Power Supply

Type Designation: G0566-xxx-yyy, POE-173(Same as G0566-500-120)



Figure 25. Internal view of transformer

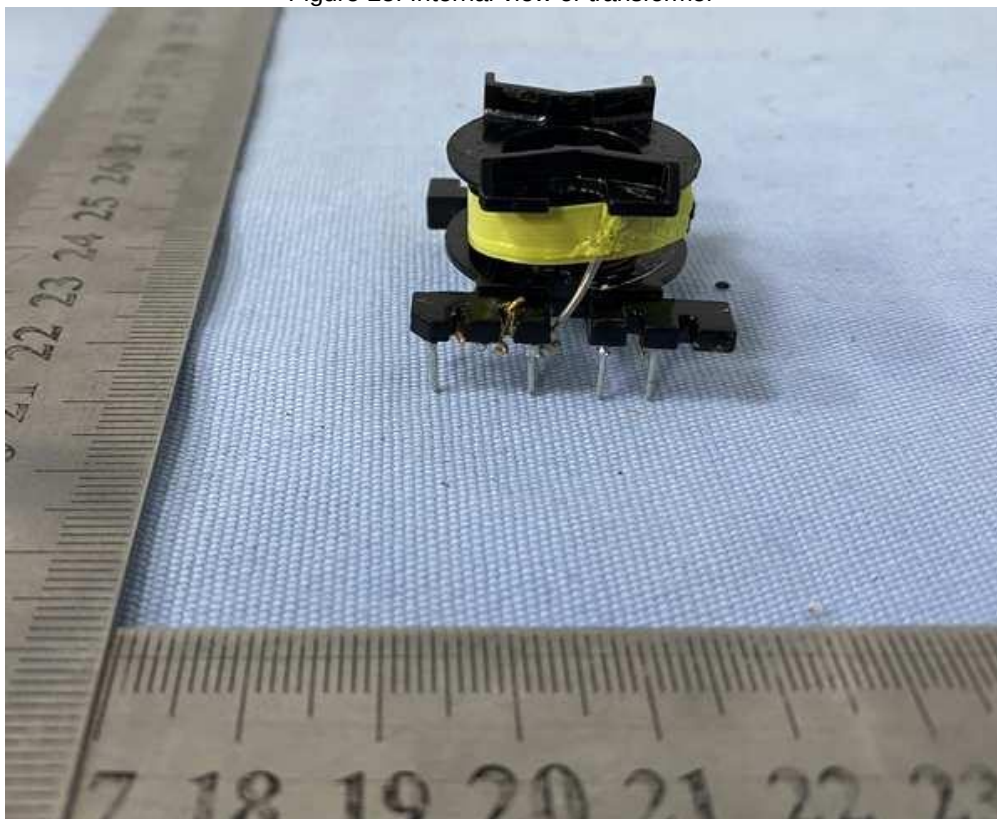


Figure 26. Internal view of transformer

Product: Switching Gigabit Power Supply

Type Designation: G0566-xxx-yyy, POE-173(Same as G0566-500-120)

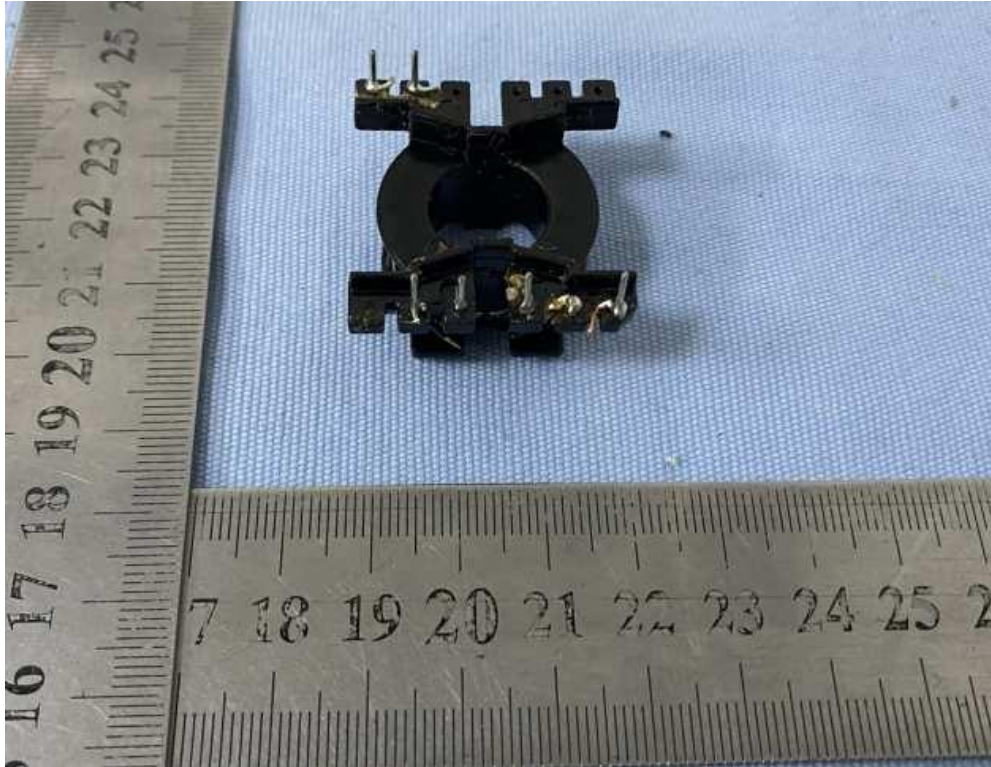


Figure 27. Internal view of transformer



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 : CN206PGA 002
Date of issue..... : February 18, 2022
Total number of pages : 13

Name of Testing Laboratory : Dongguan Nore Testing Center Co., Ltd.
preparing the Report.....:

Applicant's name : SHENZHEN GOSPELL DIGITAL TECHNOLOGY CO., LTD.
Address..... : 101, Area A, Building A, Jingfa Manufacture Park, Xiawei Park, Gushu Community, Xixiang Street, Bao'an, Shenzhen, 518126 Guangdong P.R.China.

Test specification:

Standard..... : IEC 62368-1:2014
Test procedure : CB Scheme
Non-standard test method : N/A

TRF template used..... : IECEE OD-2020-F1:2020, Ed.1.3

Test Report Form No. : IEC62368_1D

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

Master TRF : Dated 2021-02-04

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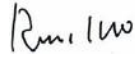
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This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.

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.

Test Item description	Switching Gigabit Power Supply	
Trade Mark(s)	Manufacturer name shown on the rating label	
Manufacturer	Same as applicant	
Model/Type reference	G0566-xxx-yyy, POE-173(Same as G0566-500-120) (For definition of variables “xxx”, “yyy”, see table A on page 8 for details)	
Ratings	Input: 100-240V~, 50/60Hz, 1.5A MAX Output: See table B on page 8 for details.	
Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):		
☒ CB Testing Laboratory:	Dongguan Nore Testing Center Co., Ltd.	
Testing location/ address	Building D, Gaosheng Science & Technology Park, Zhouxi Longxi Road, Nancheng District, Dongguan, Guangdong, China	
Tested by (name, function, signature)	Qi Yin (Project Handler)	
Approved by (name, function, signature)	Ryan Luo (Reviewer)	
Testing procedure: CTF Stage 1:		
☐ Testing procedure: CTF Stage 1:	N/A	
Testing location/ address	N/A	
Tested by (name, function, signature)		
Approved by (name, function, signature)		
Testing procedure: CTF Stage 2:		
☐ Testing procedure: CTF Stage 2:	N/A	
Testing location/ address	N/A	
Tested by (name, function, signature)		
Witnessed by (name, function, signature)		
Approved by (name, function, signature)		
Testing procedure: CTF Stage 3 :		
☐ Testing procedure: CTF Stage 3 :	N/A	
Testing procedure: CTF Stage 4:		
☐ Testing procedure: CTF Stage 4:	N/A	
Testing location/ address		
Tested by (name, function, signature)		
Witnessed 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):

See original CB test report JPTUV-3118861 for details.

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

All applicable tests as described in Test Case and Measurement Sections were performed.

Load conditions used during testing see appended table B.2.5 for details.

Following tests performed during evaluation:

5.4.1.4, 6.3.2, 9.0, B.2.6	Maximum operating temperatures for materials, components and systems
B.2.5	Input tests
B.3	Simulated Abnormal operating condition tests

Note :

1. If not otherwise specified, tests were performed on models G0566-560-100.

2. The EUTs passed the test.

Testing location:

Unless otherwise indicated, all tests were performed at the location stated in "Testing procedure and testing location".

Summary of compliance with National Differences:

See original CB test report JPTUV-3118861 for details.

Statement concerning the uncertainty of the measurement systems used for the tests (may be required by the product standard or client)

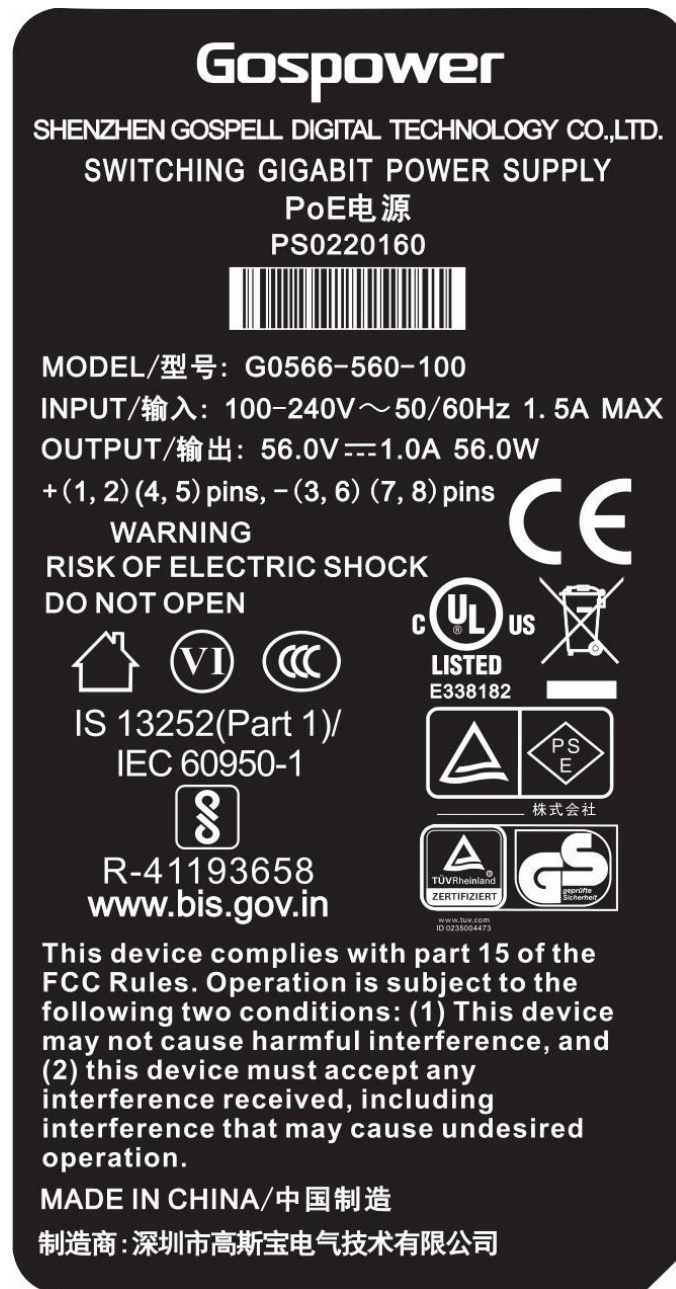
☐ Internal procedure used for type testing through which traceability of the measuring uncertainty has been established:

Procedure number, issue date and title:

Calculations leading to the reported values are on file with the NCB and testing laboratory that conducted the testing.

☒ Statement not required by the standard used for type testing

Copy of marking plate(s): (Representative)



Remark:

The above labels are a draft of an artwork for marking plate pending approval by National Certification Bodies and it shall not be affixed to products prior to such an approval.

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% ☐ + ____ %/ - ____ % ☐ 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..... :	US, CA:20 A; UK:13 A; Others:16 A Installation location: ☒ building; ☐ equipment
Equipment mobility..... :	☒ movable ☐ hand-held ☐ transportable ☐ stationary ☐ for building-in ☐ 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 ☐ Class II with functional earthing ☐ Not classified
Access location	☐ restricted access area ☒ N/A
Pollution degree (PD)	☐ PD 1 ☒ PD 2 ☐ PD 3
Manufacturer's specified maximum operating ambient	40°C (For all models); 60°C or 70°C (For model G0566-560-100 loaded with 0.56A)
IP protection class	☒ IPX0 ☐ IP____
Power Systems	☒ TN ☐ TT ☒ IT - _230_ V _{L-L} ; ☐ dc mains ☐ N/A
Altitude during operation (m)	☐ 2000 m or less ☒ _5000_ m
Altitude of test laboratory (m)	☒ 2000 m or less ☐ _____ m
Mass of equipment (kg)	☒ Approx. 0.228kg

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.....: November 30, 2021 Date (s) of performance of tests.....: December 13, 2021 to December 14, 2021					
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 IEC60068-2-1:					
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 address of factory (ies)	1. SHENZHEN GOSPELL DIGITAL TECHNOLOGY CO., LTD. 101, Area A, Building A, Jingfa Manufacture Park, Xiawei Park, Gushu Community, Xixiang Street, Bao'an, Shenzhen, 518126 Guangdong P.R.China. 2. GOSPOWER ELECTRIC TECHNOLOGY CO., LTD. Building 1, No.5, XingYe Road, Songshan Lake Park, DongGuan City, 523000 Guangdong, P.R. China 3. ChenZhou LiYuan Technology Co., Ltd. 3/F, 1 Building, Gospell Industrial Park, SuXian District, ChenZhou City, 423000 Hunan, P. R. China				
General product information and other remarks:					
This report is issued based on previous CB report JPTUV-3118861, Description of Change(s) : 1. Change the address of applicant, see below:					
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="padding: 5px;">Before change</th> <th style="padding: 5px;">After change</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;">E. of 5F, Zone A, 1st Ind., Area, Fenghuanggang, Sou BaoTian 1Rd., Xixiang, Str., Bao An District, Shenzhen, Guangdong 518102, P.R.China</td> <td style="padding: 5px;">101, Area A, Building A, Jingfa Manufacture Park, Xiawei Park, Gushu Community, Xixiang Street, Bao'an, Shenzhen, 518126 Guangdong P.R.China.</td> </tr> </tbody> </table>	Before change	After change	E. of 5F, Zone A, 1st Ind., Area, Fenghuanggang, Sou BaoTian 1Rd., Xixiang, Str., Bao An District, Shenzhen, Guangdong 518102, P.R.China	101, Area A, Building A, Jingfa Manufacture Park, Xiawei Park, Gushu Community, Xixiang Street, Bao'an, Shenzhen, 518126 Guangdong P.R.China.	
Before change	After change				
E. of 5F, Zone A, 1st Ind., Area, Fenghuanggang, Sou BaoTian 1Rd., Xixiang, Str., Bao An District, Shenzhen, Guangdong 518102, P.R.China	101, Area A, Building A, Jingfa Manufacture Park, Xiawei Park, Gushu Community, Xixiang Street, Bao'an, Shenzhen, 518126 Guangdong P.R.China.				
2. Change the name and address of factory, see below:					
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="padding: 5px;">Before change</th> <th style="padding: 5px;">After change</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;"></td> <td style="padding: 5px;"></td> </tr> </tbody> </table>	Before change	After change			
Before change	After change				

1. SHENZHEN GOSPELL DIGITAL TECHNOLOGY CO., LTD. E. of 5F, Zone A, 1st Ind., Area, Fenghuanggang, Sou BaoTian 1Rd., Xixiang, Str., Bao An District, Shenzhen, Guangdong 518102, P.R. China. 2. SHENZHEN GOSPELL DIGITAL TECHNOLOGY CO., LTD. West of the 1F to 4F, Block A, Sou. Baotian 1Rd (Xinghong Science and Technology Park), XiXiang Street, Bao An District, Shenzhen, Guangdong 518102, P.R. China. 3. GOSPOWER ELECTRIC TECHNOLOGY CO., LTD. Building 1, No.5, Xingye Road, Songshan Lake Park, Dongguan City, 523000 Guangdong, P.R. China	1. SHENZHEN GOSPELL DIGITAL TECHNOLOGY CO., LTD. 101, Area A, Building A, Jingfa Manufacture Park, Xiawei Park, Gushu Community, Xixiang Street, Bao'an, Shenzhen, 518126 Guangdong P.R.China. 2. GOSPOWER ELECTRIC TECHNOLOGY CO., LTD. Building 1, No.5 XingYe Road, SongShan Lake Park, DongGuan City, 523000 Guangdong, P.R. China 3. ChenZhou LiYuan Technology Co., Ltd. 3/F,1 Building, Gospell Industrial Park, SuXian District, ChenZhou City, 423000 Hunan, P.R. China
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3. Change the maxium operating ambient of model G0566-560-100 : 60°C or 70°C for equipment loaded with 0.56A, 40°C for equipment loaded with 1A.

4. Update the technical data of appliance Inlet (AC1), see bold in appended table 4.1.2.

5. Update the Copy of marking plate.

For the above described change(s) the following was considered to be necessary:

Change	Testing	Comments
1	N/A	No safety impact.
2	N/A	No safety impact.
3	Clause 5.4.1.4, 6.3.2, 9.0, B.2.6; Clause B.2.5; Clause B.3	See appended table 5.4.1.4, 6.3.2, 9.0, B.2.6, table B.2.5 and table B.2.5 for details.
4	N/A	See bold in appended table 4.1.2 for details.
5	N/A	No safety impact.

History of amendments and modifications:

Ref. No. JPTUV-3118861, dated January 19, 2021 (first modification.)

Ref. No. CN206PGA 002, dated February 18, 2022 (2st modification)

Model Differences –

1. Model POE-173 is identical to G0566-500-120 except for different model designation.
2. All models are identical to each other except for type designation, output rating and some component difference, see below table for details.

Table A: Definition of variables

Variable	Range of variable	Content
xxx	420-570	'xxx' are 3 digit number, denotes 10 times of output voltage value in V. For example, 420 represents the output voltage is 42.0V, 570 represents the output voltage is 57.0V.
yyy	001-143	'yyy' are 3 digit number, denotes 100 times of output current value in A. For example, 001 represents the output current is 0.01A, 143 represents the output current is 1.43A.

Table B: Model list

Model No.	Output voltage (Vdc)	Output current (A)	Max. output power (W)	Transformer
G0566-xxx-yyy	42.0-57.0	0.01-1.43	60	LT00604V01
POE-173	50	1.2		

Note:

1. The minimum rise step of output voltage is 0.1V between specified voltage range.
2. The minimum rise step of output current is 0.01A, but not more than the indicated max output current.
3. Actual output current depends on range of output voltage. The max. output current multiplied by output voltage cannot exceed the max. output power.

Table C: component difference list

Model No.	Output voltage(V)	R14(KΩ)	R15(MΩ)
G0566-xxx-yyy, (xxx=420-500)	42.0-50.0	10-15	1.5-2
G0566-xxx-yyy, (xxx=501-570)	50.1-57.0	9-12	0-1.5

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

N/A

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	
Appliance Inlet (AC1)	DONGGUAN HUACONN ELECTRONICS CO LTD	HC-66	2.5A, 250Vac, 70°C (For VDE approve) 2.5A, 250Vac, 105°C (For UL approve)	IEC/EN 60320-1 IEC/EN 60320-3 UL 60320-1	VDE 40032581 UL E340249	
(Alternative)	Zhe Jiang Bei Er Jia Electronic Co., Ltd.	ST-A04-001	2.5A, 250Vac, 70°C (For VDE approve) 2.5A, 250Vac, 105°C (For UL approve)	IEC/EN 60320-1 IEC/EN 60320-3 UL 60320-1	VDE 40016045 UL E225980	
(Alternative)	LECI Electronics Co., Ltd	DB-8-Serie(s)	2.5A, 250Vac, 70°C (For VDE approve) 2.5A, 250Vac, 105°C (For UL approve)	IEC/EN 60320-1 UL 60320-1	VDE 40032028 UL E302229	
(Alternative)	Yueqing Yanhui Electronic Co., Ltd.	DB-14-S-Serie(s)	2.5A, 250Vac, 70°C (For VDE approve) 2.5A, 250Vac, 105°C (For UL approve)	IEC/EN 60320-1 UL 60320-1	VDE 40035402 UL E334847	
Supplementary information:						
¹⁾ Provided evidence ensures the agreed level of compliance. See OD-CB2039.						

5.4.1.4, 6.3.2, 9.0, B.2.6	TABLE: Temperature measurements					P
	Supply voltage (V) :	90V / 60Hz	264V / 50Hz	90V / 60Hz	264V / 50Hz	—
	Ambient Tmin (°C) :	--	--	--	--	—
	Ambient Tmax (°C) :	--	--	--	--	—
	Tma (°C) :	70.0	70.0	70.0	70.0	—
Maximum measured temperature T of part/at:		T (°C)				Allowed T _{max} (°C)
		Label up		Label down		
Model No.: G0566-560-100						
AC inlet (AC1)		77.3	76.4	76.7	75.7	105*
Earth wire near T1 top		76.4	76.6	77.2	78.8	105
Varistor (MOV1)		78.5	75.8	76.8	74.9	85
PCB under RT1		90.6	81.5	88.8	80.8	130

IEC 62368-1							
Clause	Requirement + Test			Result - Remark		Verdict	
X-cap (C14) near L2	82.8	80.4	80.5	78.3	100		
L2 winding	91.3	85.4	90.0	85.1	130		
PCB under BRG1	95.4	88.1	95.1	90.2	130		
E-cap(C2)	87.3	83.6	87.4	87.0	105		
PCB near Q1	87.1	87.7	88.0	92.0	130		
PCB near U6	87.2	83.6	88.1	87.6	130		
Y-cap(C13)	81.8	85.6	79.6	81.9	125		
Optocoupler (OT1)	79.8	79.9	81.2	84.4	110		
T1 winding	90.0	94.0	90.3	95.5	110		
T1 core	89.5	93.9	90.1	95.2	110		
PCB under D8	82.4	86.0	82.4	85.9	130		
E-cap(C7)	78.5	79.3	79.4	81.5	105		
L3 winding	77.9	77.7	79.2	81.5	130		
PCB near U1	75.3	73.6	76.6	78.5	130		
Plastic enclosure near T1, inside	82.5	85.9	84.5	89.0	120		
Plastic enclosure near D8, inside	75.8	77.6	75.2	76.5	120		
Ambient	70.0	70.0	70.0	70.0	--		
For accessible parts							
AC Intel surface	29.6	28.0	27.4	27.2	77		
Output terminal surface	26.6	26.4	27.9	29.1	60		
Plastic enclosure near T1, outside	32.1	34.8	34.3	37.7	77		
Plastic enclosure near D8, outside	28.2	29.8	27.4	28.3	77		
Ambient	25.0	25.0	25.0	25.0	--		
Supplementary information:							
Note 1: The apparatus was submitted and evaluated for maximum manufacturer's recommended ambient (Tma) : 70°C for equipment loaded with 0.56A.							
Note 2: The temperatures were measured under the worse case normal mode defined in clause B.2.1.							
Note 3. Temperature limits are calculated as follows:							
Winding components providing safety isolation: Class B → Tmax = 120 - 10=110 °C							
* : The allowed value is from UL approve.							
Temperature T of winding:	t ₁ (°C)	R ₁ (Ω)	t ₂ (°C)	R ₂ (Ω)	T (°C)	Allowed T _{max} (°C)	Insulation class
--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--
Supplementary information:							
Note 1: Tma should be considered as directed by applicable requirement							
Note 2: Tma is not included in assessment of Touch Temperatures (Clause 9)							

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

5.4.1.4, 6.3.2, 9.0, B.2.6	TABLE: Temperature measurements					P
	Supply voltage (V) :	90V / 60Hz	264V / 50Hz	90V / 60Hz	264V / 50Hz	—
	Ambient Tmin (°C) :	--	--	--	--	—
	Ambient Tmax (°C) :	--	--	--	--	—
	Tma (°C) :	60.0	60.0	60.0	60.0	—
Maximum measured temperature T of part/at:		T (°C)				Allowed T _{max} (°C)
		Label up		Label down		
Model No.: G0566-560-100						
AC inlet (AC1)		67.3	66.4	66.7	65.7	70
Earth wire near T1 top		66.4	66.6	67.2	68.8	105
Varistor (MOV1)		68.5	65.8	66.8	64.9	85
PCB under RT1		80.6	71.5	78.8	70.8	130
X-cap (C14) near L2		72.8	70.4	70.5	68.3	100
L2 winding		81.3	75.4	80.0	75.1	130
PCB under BRG1		85.4	78.1	85.1	80.2	130
E-cap(C2)		77.3	73.6	77.4	77.0	105
PCB near Q1		77.1	77.7	78.0	82.0	130
PCB near U6		77.2	73.6	78.1	77.6	130
Y-cap(C13)		71.8	75.6	69.6	71.9	125
Optocoupler (OT1)		69.8	69.9	71.2	74.4	110
T1 winding		80.0	84.0	80.3	85.5	110
T1 core		79.5	83.9	80.1	85.2	110
PCB under D8		72.4	76.0	72.4	75.9	130
E-cap(C7)		68.5	69.3	69.4	71.5	105
L3 winding		67.9	67.7	69.2	71.5	130
PCB near U1		65.3	63.6	66.6	68.5	130
Plastic enclosure near T1, inside		72.5	75.9	74.5	79.0	120
Plastic enclosure near D8, inside		65.8	67.6	65.2	66.5	120
Ambient		60.0	60.0	60.0	60.0	--
For accessible parts						
AC Intel surface		29.6	28.0	27.4	27.2	77
Output terminal surface		26.6	26.4	27.9	29.1	60
Plastic enclosure near T1, outside		32.1	34.8	34.3	37.7	77
Plastic enclosure near D8, outside		28.2	29.8	27.4	28.3	77
Ambient		25.0	25.0	25.0	25.0	--

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

Supplementary information:

Note 1: The apparatus was submitted and evaluated for maximum manufacturer's recommended ambient (T_{ma}) : 60°C for equipment loaded with 0.56A.

Note 2: The temperatures were measured under the worse case normal mode defined in clause B.2.1.

Note 3. Temperature limits are calculated as follows:

Winding components providing safety isolation: Class B → T_{max} = 120 - 10=110 °C

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)

B.2.5		TABLE: Input test						P
U (V/Hz)	I (A)	I rated (A)	P (W)	P rated (W)	Fuse No	I fuse (A)	Condition/status	
Model: G0566-560-100								
90Vac/50	1.112	--	62.5	--	F1	1.112	Max. normal load 56.0Vdc, 1.00A	
90Vac/60	1.098	--	62.4	--	F1	1.098		
100Vac/50	1.054	1.5	62.1	--	F1	1.054		
100Vac/60	0.987	1.5	62.0	--	F1	0.987		
240Vac/50	0.419	1.5	60.2	--	F1	0.419		
240Vac/60	0.486	1.5	60.6	--	F1	0.486		
264Vac/50	0.390	--	60.4	--	F1	0.390		
264Vac/60	0.445	--	60.9	--	F1	0.445		
Supplementary information:								
The maximum measured current under rated voltage did not exceed 110% of the rated current.								

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	Supply voltage (V)	Test time	Fuse no.	Fuse current (A)	T-couple	Temp. (°C)	Observation
Model: G0566-560-100								

IEC 62368-1								
Clause	Requirement + Test					Result - Remark		Verdict
Output "+" to "-"	O-L	264	9hr 2min	F1	0.210→ 0.390→ 0.427→ 0.463→ 0.017	Type J	T1 winding : 125.7°C T1 core : 124.6°C Ambient : 70.0°C AC Intel surface : 35.1°C Output terminal surface : 43.5°C Plastic enclosure near T1,outside : 54.3°C Plastic enclosure near D8,outside : 40.7°C Ambient : 25.0°C	Max. overload current is 1.20A, unit shutdown when load to 1.21A, no damage, no hazards.
T1 output	O-L	264	8hr 50min	F1	0.210→ 0.396→ 0.431→ 0.469→ 0.017	Type J	T1 winding : 127.0°C T1 core : 125.1°C Ambient : 70.0°C AC Intel surface : 35.5°C Output terminal surface : 33.6°C Plastic enclosure near T1,outside : 55.1°C Plastic enclosure near D8,outside : 41.2°C Ambient : 25.0°C	Unit normal working and max. overload current is 0.70A, unit shutdown when load to 0.71A, no damage, no hazards.
Supplementary information: 1) O-L: Overloaded 2) The test result shown all safeguards remained effective and didn't lead to a single fault condition during abnormal operating condition; In addition all safeguards complied with applicable requirements in this standard after restoration of normal operating conditions. 3) The overloaded condition is applied according to annex G.5.3.3. 4) Winding temperature Limit for T1: 175-10=165°C								

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			DATE (日期)	2022-08-17
PART NUMBER (产品编码/样单号)	G0566-500-120 (POE-173)	CUSTOMER NAME AND MODEL (客户名称和型号)		50Vdc 1.2 A

APPROVAL SHEET

(承 认 书)

FOR

Switching Gigabit Power Supply

(PoE Adapter)

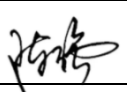
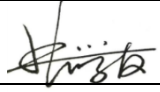
(PoE适配器)

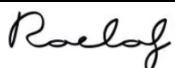
MODEL NO.

(型号)

G0566-500-120

((G0566-500-120 is the Model Representative for G0566-XXX-YYY ('xxx' are 3 digit number, denotes 10 times of output voltage value in V. For example, 420 represents the output voltage is 42.0V, 570 represents the output voltage is 57.0V. 'yyy' are 3 digit number, denotes 100 times of output current value in A. For example, 001 represents the output current is 0.01A, 143 represents the output current is 1.43A.))

SHENZHEN GOSPELL DIGITAL TECHNOLOGY CO., LTD. MANUFACTURER (制 造 商)		
Complied by (制 订)	Reviewed by (确认)	APPROVAL (批准)
		

CUSTOMER APPROVAL (客户承认)		
CONFIRM (确认)	CHECK (审核)	APPROVAL (批准)
		

公司地址: 深圳市南山区西丽沙河西路 3011 号白沙新兴产业园 1 栋 3G

□Tel: 400 026 7716

□http:// www.comlli.com

Manual	深圳市科力新智能科技有限公司 SHEN ZHEN COMLLI INTEL TECHNOLOGY CO.,LTD		REVISION (版本)	A.1
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1. Scope (适用范围)

Power supplies for Information Technology Equipment including electrical business equipment 、 Picture、 It is peaceful to defend to photograph、 Supervise 、 and control to wait the realm。

本规格适用于资讯类、视频，通讯,安防摄像,监控等领域。

2. Quote Criterion (引用标准)

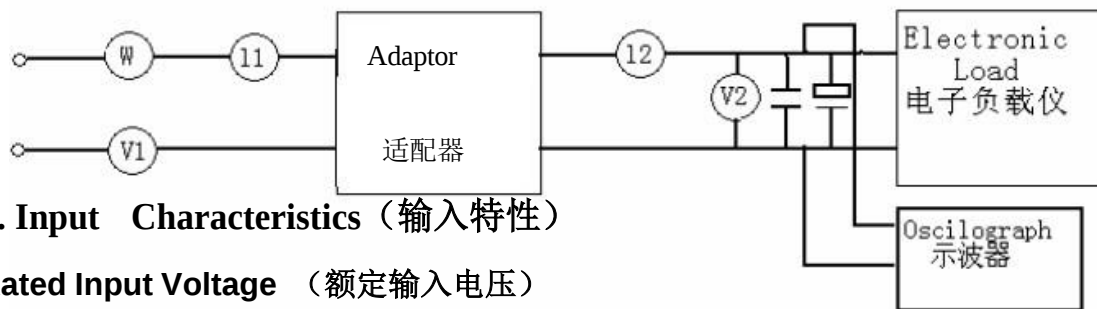
CB/IEC 62368-1

3. Electrical Characteristic (电气特性)

Test Circuit (测试电路)

If the test is to be made on a specified circuit, be sure to use the following circuit.

(无特殊规定的情况下依照下面的电路进行测试.)



4. Input Characteristics (输入特性)

Rated Input Voltage (额定输入电压)

It is normal for **100Vac to 240Vac** input AC voltage.

(额定输入交流100V~240V)

Input Voltage Range (输入电压范围)

The adaptor shall operate from **90Vac to 264Vac** and the range switching is unnecessary.

(输入电压范围交流 90V~264V)

Rated Frequency (输入频率)

It is normal for **50Hz or 60Hz** and single phase.

(输入频率50Hz/60Hz)

Frequency Range (输入频率范围)

The adaptor shall operate with an input frequency from **47Hz to 63Hz**.

(输入频率范围47Hz~63Hz)

Input Current (AC 输入电流)

Maximum steady state input current is 1300mA (**Max**) Measured at 90Vac input and maximum load.

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(90V 满载时输入电流1300mA (Max))

Peak Inrush Current (峰值输入电流)

With cold starting, the peak inrush current should less than **50A**.

(电源启动时最大峰值输入电流小于50A)

Efficiency (效率)

The average efficiency shall be according to Energy Level VI.

(效率满足EPS能效六级)

5. Output Characteristics (输出特性)

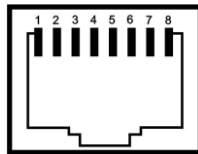
Rated Output Voltage (输出额定电压)

The rated output voltage is specified at $50 \pm 5\%$ V.

(额定输出电压范围 $50 \pm 5\%$ V)

RJ45 网口占用 Pin Assignment

3,6+; 1,2-; 4,5 +; 7,8-



RJ45 Communicate surge (RJ45 通信口雷击)

Communicate: Differential 2KV, Common 2KV

通信防雷等级差模 2KV, 共模 2KV 以上

Rated Output Current (额定输出电流)

The output current will be performed from 1200mA

(额定输出电流1200mA)

Rated Power (额定功率)

This adaptor is capable to support **60 Watts** continuously at all specified conditions.

Note: the test shall be made under the following conditions, unless otherwise specified:

Ambient Temperature 25°C, Relative Humidity 35~85%RH

Air Pressure 86~106kPa

(在无特别指定条件下, 测试温度为25°C、湿度为35~85%RH、气压为86~106kPa)

Output Ripple and Noise (输出纹波、噪音)

Output ripple voltage is less than 500mV p-p (I=1200mA) Measured methods:

Performed by 20MHz bandwidth in oscilloscope.

Applied 0.1uF ceramic capacitor and 10uF electrolytic capacitor across output connector terminals Measured at the end of DC cable.

(输出端并0.1uF 与10uF 电容, 限制示波器带宽20MHz 时, 测得纹波小于500mV p-p)

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Protection (保护)

Over Current Protection (过流保护)

Output current will be limited between 1440~2160mA

输出过流保护电流处于1440~2160mA 之间;

Short Circuit Protection (短路保护)

The adaptor is protected that a short happened between the output terminals and shall not result in a fire hazard, any damage to this adaptor and will be normal operation automatically while the short is removed.

(输出短路后不损坏该制品, 短路恢复正常输出。)

6. Reliability Items (可靠性项目)

Electrostatic Discharge (静电)

At 150pF: 330Ω, for each point, 10 shots of direct discharge or air discharge. (1MΩ/SHOT), have no malfunction. Direct discharge: ±6kV, Air discharge: ±10kV

(在接触放电±6kV 和空气中放电±10kV 模式下,各处分别放电10 次无误动作)

Hi-Pot Test (高压测试)

After AC 3000V 60s between L、N input-DC output. cutoff current 5mA, AC 1500V 60s between L、N input-earth ground. cutoff current 5mA, the adaptor have no failures like damages, arch, insulation damage etc. (at 25°C)

(在25°C 环境下, L、N线输入端与DC 输出端之间加AC3000V 60S, L、N线输入与地之间加AC1500V 60S, 电流 5mA 最大, 适配器无损伤、电弧放电、绝缘破坏等异常。)

Insulation Resistance (绝缘电阻)

At 25°C after DC 500V 1min between L、N input-DC output, insulation resistance 50MΩ min)
(在25°C 环境下, L、N线输入端与DC 输出端之间输入DC500V 1分钟后绝缘阻抗在50MΩ 以上)

Leakage Current (泄漏电流)

0.25mA maximum, at nominal AC input voltage and frequency

(额定交流输入时泄漏电流不得超过0.25mA)

Temperature Rise (温升)

At 25°C with the rated input 100-240Vac charged to the primary a rated load (Iout=1200mA) on the secondary, every parts of the case surface rise 95°C or less.

(在常温25°C下输入端施加100-240Vac 电压, 输出1200mA 负荷的状态下, 外壳表面温95°C

Continuous Working (连续工作时间)

With the rated voltage charged to the primary and output current 1200mA, after continuously work 48 hours have no damage.

(在输入额定电压和输出电流1200mA 的条件下, 连续工作48小时, 不损坏适配器。)

Mean Time Between Failure (平均无故障时间)

The adaptor shall be designed and produced to have a mean time between failures (MTBF) of 200000 operating hours 90% confidence-level while operating under the following

conditions: 80% maximum load at 25°C, nominal input voltage.

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Standard: MIL-HDBK-217F

(该适配器在25°C正常输入时,输出为80%最大负载,90%情况下其平均无故障时间为200000小时)

Standards (EMC 标准)

CE/EN55013&EN55032; EN55024,EN55020

FCC FCC Part15 Subpart B, Class B; ANSI C63.4

Electrical Fast Transient Test (电快速脉冲群测试)

Tested according to IEC61000-4-4, severity level, level 2:1KV

Performance Criterion: A

依照IEC61000-4-4, 残酷等级:等级2

判据:A

Surge Immunity Test

Tested according to IEC61000-4-5,

differential mode standard; (L-N)+/-2KV

common mode standard:(L-PE,N-PE, LN-PE) +/-4KV

Performance Criterion: A

依照EN61000-4-5, 差模: (+/-2KV); 共模: (+/-4KV)

判据:A

7. Environmental Requirement (环境要求)

Operating Temperature (工作温度)

-20°C TO 40°C

Storage Temperature (储藏温度)

-45°C TO +85°C

Operating Humidity (工作湿度)

35~95% RH. Non-condensing

Storage Humidity (储藏湿度)

10 ~ 95% RH. Non-condensing

8. Mechanical Requirement (机械要求)

Dimension (尺寸)

The nominal external dimensions of the power adaptor are 138.5 (±0.6) mm * 62.5 (±0.4) mm * 33.8(Max)mm

Input plug type (输入插头类型)

3 PIN 梅花尾

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Vibration Test Requirement (振动试验)

Non-operating, with packing) Reference to IEC publ. 68-2-6

(在包装好不工作的情况下实验,具体参照IEC publ. 68-2-6 标准)

Test conditions (测试条件)		Acceptance Criteria (规格)
Frequency (振动频率)	10~55Hz	Nominal functional test should be satisfied after the test (不发生功能损坏的异常情况)
Sweep (振动方式)	2hours, For each axis(X,Y,Z)	
Acceleration (加速度)	0.6G 1.5G (5~50Hz, peak-peak)	
Displacement (振幅)	0.35 mm(5~50Hz)	

Bending Test (弯曲强度测试)

Fix the adaptor and its plug, apply a load of 300g to the other end, turn the cable by $\pm 60^\circ$ carry out this process 2000 times, at the rate of 20 times per minutes. No abnormality in mechanical and electrical characteristic and disconnection within 30% after the test.

(拉重负载: 300g, 弯曲强度: $\pm 60^\circ$, 次数: 2000 次, 频率: 20 次/分, 测试后性能无异常, 断线率30%以下)

Tensile Strength(拉伸强度)

Apply a load of 10N to the adaptor side and the connector side for 1 minute, no mechanical damages or other failures, no electrical deterioration and other failures comparing to before test condition.

(对连接器端施加10N 1 分钟后与实验前状态比较, 没有机械破坏等, 且不出现电器性能损坏)

Drop Test (跌落试验)

Drop the adaptor from a height of 100cm onto 20mm thick hardwood floor, hitting the adaptor for 6 times, no mechanical damages or other failures, no electrical deterioration and other failures comparing to before test condition.

(制品从100cm 处落下6 次, 落下的方向任意, 落在20mm 厚的硬木地板上, 实验后与实验前状态比较没有机械破损等不良状况,且不出现电器性能损坏)

Plug In and Out Test (插拔实验)

After plug the connector in(30N max) and out(10-50N) the female-connector for 10 times, then plug in and out for 3000 times, light damage in the mechanic characteristic, but no abnormality in electric characteristic.

(插头与连接器经正常插拔10 次, 插头每次插入力度不大于30N, 拔出在10-50N 之间后持续拔插3000 次。外观允许有轻度损伤, 但导通性能良好)

Salty Fog Test for Metal Part (五金件盐雾实验)

Experiment condition, Salty water thickness: 5%, Equipment Temperature: 35~40°C, put the adaptor(unpacking)in the test equipment for 24h, after 24h recovery at 25°C checking the appearance, the metal parts have no erode and rust.

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9. Mechanical Characteristics (机械性能)

Appearance (外观)

Visual inspection the case have no visual abnormality, no obvious nick, burr and other mechanical damage, outer metal have no rust. Use limit sample to check for any failures.

(目视检查, 无外观异常, 表面无明显划痕、毛刺及其它机械损伤, 外露金属部分无锈, 其它限度根据样品确认。)

Case/Resin Materials (外壳材质)

Flame resistance applies to UL94-V0

(耐燃性遵循UL94-V0)

10. Environmental Performances(环境性能)

Operating at the Lower temperature (低温工作实验)

At $0\pm 2^{\circ}\text{C}$, with the rated voltage 100-240Vac charged to the primary and unloaded and fullload on the secondary, no abnormality in electric and mechanical characteristic, after 4 hours recovery at the room temperature.

(环境温度 $0\pm 2^{\circ}\text{C}$, 在输入端施加额定电压100-240Vac 输出端无负荷与满载状态下, 试验后常温放置4 小时, 无特性异常)

Operating at the High Temperature (高温工作实验)

At $40\pm 2^{\circ}\text{C}$, with the rated voltage100-240Vac charged to the primary and unloaded;after 4 hours recovery at the room temperature.

Storage at the Higher Temperature (高温放置)

At $70\pm 2^{\circ}\text{C}$, test of non-operated, No abnormality in electric and mechanical characteristic after 4 hours recovery at the room temperature.

(在 $70\pm 2^{\circ}\text{C}$ 非动作状态下进行试验, 试验后常温放置4 小时后测试无异常)

Storage at High Temperature and High Humidity with the Adaptor Turned On (通电高温高湿度放置)

At 40°C ,90~95%RH, operating at power supplied (100-240Vac) and unloaded and full load on the secondary, no abnormality in electric and mechanical characteristic, after 4 hours recovery at the room temperature.

(在 40°C ,90~95%RH, 加电状态下, 试验后常温放置4 小时测试特性异常)

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Storage at low Temperature and Low Humidity with the Adaptor Turned On (通电低温低湿度放置)

At 0°C,10%~40%RH, operating at power supplied (100-240Vac) and unloaded and full load on the secondary, no abnormality in electric and mechanical characteristic, after 4 hours recovery at the room temperature.

(在0°C,10%~40%RH, 加电状态下, 试验后常温放置4 小时测试异常)

11. Test Equipment List (测试设备清单)

(项目)	(设备)	(制造)	(型号)
1	(AC 变频电源)	艾诺	AN97001HSS
2	(示波器)	TEK	TDS1012B
3	(电子负载仪)	Chroma	63103
4	(万用表)	Fluke	Fluke 187
5	(功率计)	威博	PF1200
6	温度表	CENTER	304
7	电磁干扰机	BEI JINGKEHJAW	KH3925
8	恒温恒湿机	爱斯佩克	EL-04KA
9	振动测试仪	重力	NY2001D
10	数据采集器	Agilent	34970A
11	插头引线弯拆试验机	奥斯达	CM-817
12	推力器	ALGOL	20KGF 200N
13	数显卡尺	上工	200mm

12. Photograph of the Product (制品外观图)



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13. Rating Label Drawing (标贴纸图)



Or



14. Packing (包装)

Unless specially requirement of customer, the packing according to GOSPOWER default style.

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若客户未提出包装方式时，均使用本公司之包装方式

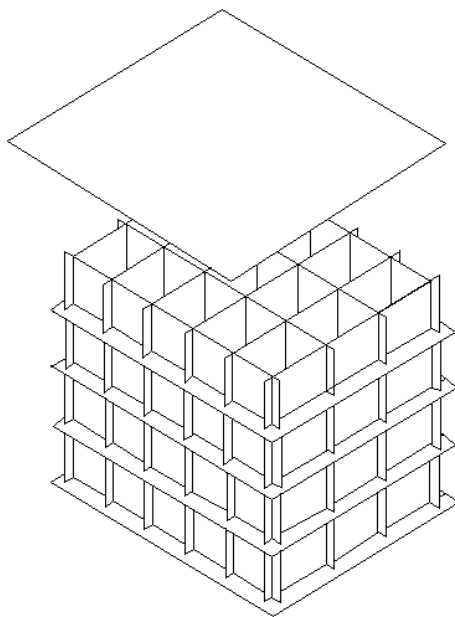
requirement of customer : The product shall be packaged in a plastic bag.

Inner PE transparent valve bag

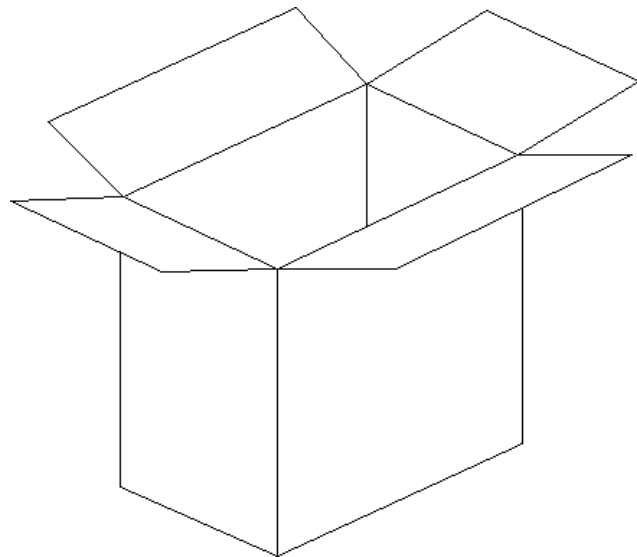
外包装: 纸箱

Outer package: paper-box.

Assembling



Printing on the carton



PE transparent valve bag



Notes:

- 1 The product is enveloped in PE bag before put into the carton
2. A carton is divided into 4 layers, 15pcs for 1 layer, total 60pcs for a carton.
- 3.The carton is for nature packing.

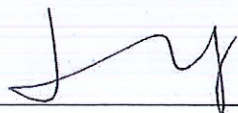
EMC TEST REPORT

The device described below is tested by Dongguan Nore Testing Center Co., Ltd. to determine the maximum emission levels emanating from the device, the severe levels which the device can endure and E.U.T.'s performance criterion. The test results are contained in this test report. Dongguan Nore Testing Center Co., Ltd. is assumed of full responsibility for the accuracy and completeness of these tests.

Applicant / Manufacturer : SHENZHEN GOSPELL DIGITAL TECHNOLOGY CO.,LTD.
Address : 101, Area A, Building A, Jingfa Manufacture Park, Xiawei Park, Gushu Community, Xixiang Street, Bao'an, Shenzhen, 518126 Guangdong P.R.China.
Factory 1 : SHENZHEN GOSPELL DIGITAL TECHNOLOGY CO.,LTD.
Address : 101, Area A, Building A, Jingfa Manufacture Park, Xiawei Park, Gushu Community, Xixiang Street, Bao'an, Shenzhen, 518126 Guangdong P.R.China.
Factory 2 : GOSPOWER ELECTRIC TECHNOLOGY CO., LTD.
Address : Building 1, No.5 XingYe Road, SongShan Lake Park, DongGuan City, 523000 Guangdong P.R. China.
Factory 3 : ChenZhou LiYuan Technology Co. ,Ltd.
Address : 3/F,1Building, Gospell Industrial Park, SuXian District, ChenZhou City, Hunan Province, 423000, China.
E.U.T. : Switching Gigabit Power Supply
Brand Name : N/A
Model No. : POE-173, G0566-xxx-yyy (For details refer to section 2.1)
Measurement Standard : EN 55032: 2015/A11: 2020
EN IEC 61000-3-2: 2019, EN 61000-3-3: 2013+A1:2019
EN 55035: 2017/A11: 2020
Date of Receiver : January 05, 2018, August 18, 2018; September 13, 2021
Date of Test : January 05, 2018 to January 26, 2018
August 18, 2018 to November 07, 2018
September 13, 2021 to October 26, 2021
Date of Report : November 08, 2021

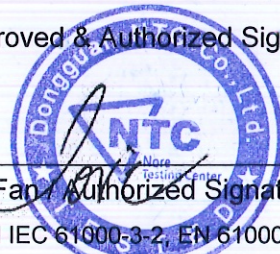
This Test Report is Issued Under the Authority of :

Prepared by



Jenny Liu / Engineer

Approved & Authorized Signer



Iori Fan / Authorized Signatory

This report shows that the E.U.T. is technically compliant with the EN 55032, EN IEC 61000-3-2, EN 61000-3-3 and EN 55035. This report applies to above tested sample only and shall not be reproduced in part without written approval of Dongguan Nore Testing Center Co., Ltd.

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Appendix I (Photos of E.U.T.) (5 pages)

Revision History of This Test Report

Report Number	Description	Issued Date
NTC1808149EV00	Initial Issue	2018-11-08
NTC1808149EV01	Changed the information of applicant, manufacturer and factory, and updated the edition of test standard	2021-11-08

1. SUMMARY OF TEST RESULTS

The E.U.T. has been tested according to the following specifications:

EMISSION			
Standard	Test Type	Result	Remarks
EN 55032: 2015/A11: 2020	Mains Terminal Disturbance Voltage Test	PASS	Uncertainty: 2.7dB
	Radiated Emission Test	PASS	Uncertainty: 3.4dB
EN IEC 61000-3-2: 2019	Harmonic current emission	PASS	Not applicable.
EN 61000-3-3: 2013+A1:2019	Voltage fluctuations & flicker	PASS	Meets the requirements.

IMMUNITY(EN 55035: 2017/A11: 2020)			
Standard	Test Type	Result	Remarks
IEC 61000-4-2: 2008	Electrostatic discharge immunity test	PASS	Meets the requirements of Performance Criterion B
IEC 61000-4-3: 2006+A1: 2007+A2: 2010	Radio-frequency, electromagnetic field immunity test	PASS	Meets the requirements of Performance Criterion A
IEC 61000-4-4: 2012	Electrical fast transient/ burst immunity test	PASS	Meets the requirements of Performance Criterion B
IEC 61000-4-5: 2014+A1: 2017	Surge immunity test	PASS	Meets the requirements of Performance Criterion B
IEC 61000-4-6: 2013	Injected Currents immunity test	PASS	Meets the requirements of Performance Criterion A
IEC 61000-4-8: 2009	Magnetic Field immunity test	N/A	The EUT do not contain magnetic field sensitive components.
IEC 61000-4-11: 2004	Voltage Dips and Interruptions	PASS	Meets the requirements of Performance Criterion B&C

2. GENERAL INFORMATION

2.1 Details of E.U.T.

E.U.T.	: Switching Gigabit Power Supply
Main Model Name	: G0566-420-143, G0566-570-105
Additional Model name	: POE-173, G0566-xxx-yyy (xxx: Three digits indicate output voltage from 42V to 57V, yyy: Three digits indicate output current from 0.01A to 1.43A.)
Rating	: M/N: G0566-420-143 Input: AC 100-240V, 50/60Hz Output: 42Vdc, 1.43A M/N: G0566-570-105 Input: AC 100-240V, 50/60Hz Output: 57Vdc, 1.05A
Adapter	: N/A
Test Voltage	: AC 230V 50Hz, AC 110V 60Hz (Only the worst case was recorded in this report.)
E.U.T. Type	: Class B
Operation Frequency	: Below 108MHz (Declaration by manufacturer)
Cable	: N/A
I/O Port	: N/A
Hardware version	: V1.0
Software version	: V1.0
Description of model difference	: These models have the same circuitry, electrical mechanical, PCB Layout and physical construction. The differences in model number, output voltage, output current and color of the appearance due to trading purpose.
Note	: According to the model difference, all the tests performed on model G0566-420-143, G0566-570-105.

- Remark : 1. This report was additional based on original report NTC1808149EV00
2. Compare with the original report, this report has updated the edition of the standard and changed the address of the applicant, manufacturer and factory, details as below:
- Before change:**
The address of Applicant/ Manufacturer/ Factory 1:
E. of 5F, Zone A,1st Ind. Area, Fenghuanggang, Sou. BaoTian 1Rd., Xixiang, St., Bao An District, Shenzhen, Guangdong 518102, P.R. China
- The information of Factory 2:
Factory 2: Shenzhen Gospell Smarthome Electronic Co., Ltd.
Address: 3rd Floor Block A No.1 Industrial Park
FENGHUANGGANG XIXIANG BAO'AN SHENZHEN
P.R.CHINA
- The edition of standard:
EN 55032: 2015
EN 61000-3-2: 2014, EN 61000-3-3: 2013
EN 55024: 2010+A1: 2015
- After change:**
The address of Applicant/ Manufacturer/ Factory 1:
101, Area A, Building A, Jingfa Manufacture Park, Xiawei Park, Gushu Community, Xixiang Street, Bao'an, Shenzhen, 518126 Guangdong P.R. China.
- The information of Factory 2:
Factory 2: GOSPOWER ELECTRIC TECHNOLOGY CO., LTD.
Address: Building 1, No.5 XingYe Road, SongShan Lake Park, DongGuan City, 523000 Guangdong P.R. China.
- The information of Factory 3:
Factory 2: ChenZhou LiYuan Technology Co. ,Ltd.
Address: 3/F,1Building, Gospell Industrial Park, SuXian District, ChenZhou City, Hunan Province, 423000, China.
- The edition of standard:
EN 55032: 2015/A11: 2020
EN IEC 61000-3-2: 2019, EN 61000-3-3: 2013+A1:2019
EN 55035: 2017/A11: 2020
3. According to this change, we've re-tested all items, details refer to the report.

2.2 Description of Support Device

N/A

2.3 Block Diagram of Test Setup

Block diagram of connection between the E.U.T. and simulators



2.4 Test Facility

Site Description

EMC Lab : Listed by CNAS, August 13, 2018
The certificate is valid until August 13, 2024
The Laboratory has been assessed and proved to be in compliance with CNAS/CL01
The Certificate Registration Number is L5795.

Listed by A2LA, November 01, 2017
The certificate is valid until December 31, 2019
The Laboratory has been assessed and proved to be in compliance with ISO17025
The Certificate Registration Number is 4429.01

Listed by FCC, November 06, 2017
The Designation Number is CN1214
Test Firm Registration Number: 907417

Listed by Industry Canada, June 08, 2017
The Certificate Registration Number. Is 46405-9743

Name of Firm : Dongguan Nore Testing Center Co., Ltd.
(Dongguan NTC Co., Ltd.)
Site Location : Building D, Gaosheng Science and Technology
Park, Hongtu Road, Nancheng District, Dongguan
City, Guangdong Province, China.

2.5 Abnormalities from Standard Conditions

The test configurations is recommended by the manufacturer.

3. MEASURING DEVICES AND TEST EQUIPMENT

3.1 For Mains terminals Disturbance voltage Test

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESCI	101152	Mar. 13, 2021	1 Year
2.	L.I.S.N	Rohde & Schwarz	ENV 216	101317	Mar. 13, 2021	1 Year
3.	L.I.S.N	Rohde & Schwarz	ESH2-Z5	893606/014	Mar. 13, 2021	1 Year
4.	RF Switching Unit	Compliance Direction Systems Inc.	RSU-M2	38311	Mar. 13, 2021	1 Year
5.	Test Software	EZ	EZ EMC	N/A	N/A	N/A

3.2 For Radiated Emission Measurement

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESCI7	100837	Mar. 13, 2021	1 Year
2.	Antenna	Schwarzbeck	VULB9162	9162-010	Mar. 13, 2021	1 Year
3.	Positioning Controller	UC	UC 3000	N/A	N/A	N/A
4.	Color Monitor	SUNSP0	SP-140A	N/A	N/A	N/A
5.	Single Phase Power Line Filter	SAEMC	PF201A-32	110210	N/A	N/A
6.	3 Phase Power Line Filter	SAEMC	PF401A-200	110318	N/A	N/A
7.	DC Power Filter	SAEMC	PF301A-200	110245	N/A	N/A
8.	Spectrum Analyzer	Rohde & Schwarz	FSU26	200409/026	Mar. 13, 2021	1 Year
9.	Horn Antenna	COM-Power	AH-118	071078	Mar. 13, 2021	1 Year
10.	Loop Antenna	Schwarzbeck	FMZB 1513	1513-272	Mar. 13, 2021	1 Year
11.	Pre-Amplifier	HP	HP 8449B	3008A00964	Mar. 13, 2021	1 Year
12..	Pre-Amplifier	HP	HP 8447D	1145A00203	Mar. 13, 2021	1 Year
13.	Test Software	EZ	EZ EMC	N/A	N/A	N/A

3.3 For Harmonic / Flicker Measurement

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Power Frequency Analyser	California Instruments	PACS-1	72846	Mar. 13, 2021	1 Year
2.	5KVA AC Power Source	California Instruments	500liX	60137	Mar. 13, 2021	1 Year
3.	Software	California Instruments	CTS30	N/A	N/A	N/A

3.4 For Electrostatic Discharge Immunity Test

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	ESD Tester	TESEQ	NSG 437	432	Mar. 13, 2021	1 Year

3.5 For RF Electromagnetic Field Immunity Test

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Signal Generator	Agilent	N5181A	MY47070160	Mar. 13, 2021	1 Year
2.	RF Switch	SKET	N/A	N/A	N/A	N/A
3.	Power Amplifier	SKET	HAP801000M_250W	201804008	N/A	N/A
4.	Power Amplifier	SKET	HAP0103G75W	201804009	N/A	N/A
5.	Power Amplifier	SKET	HAP0306G50W	201804010	N/A	N/A
6.	Power Meter	Agilent	E4419B	GB40201469	Mar. 13, 2021	1 Year
7.	Power Sensor	Agilent	E9304A	MY41498919	Mar. 13, 2021	1 Year
8.	Power Sensor	Agilent	E9300A	US39211259	Mar. 13, 2021	1 Year
9.	E-Field Probe	Narda	EP-601	N/A	Mar. 23, 2021	1 Year
10.	Antenna	Schwarzbeck	STLP 9129	9129071	N/A	N/A
11.	Audio Analyzer	Rohde & Schwarz	UPV	100894	Mar. 13, 2021	1 Year
12.	Chamber	Chengyu	7*5*3.5m	N/A	Mar. 26, 2021	3 Year
13.	Test Software	SKET	SKET_RS	N/A	N/A	N/A

3.6 For Electrical Fast Transient /Burst Immunity Test

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Burst Tester	EM TEST	UCS 500N	V1104108683	Mar. 13, 2021	1 Year
2.	Coupling Clamp	EM TEST	HFK	0311-94	Mar. 13, 2021	1 Year
3.	Test Soft	EM TEST	lec. control	N/A	N/A	N/A

3.7 For Surge Immunity Test

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Surge Tester	EM TEST	UCS 500N	V1104108683	Mar. 14, 2018	1 Year
2.	Test Soft	EM TEST	lec. control	N/A	N/A	N/A

3.8 For Injected Currents Immunity Measurement

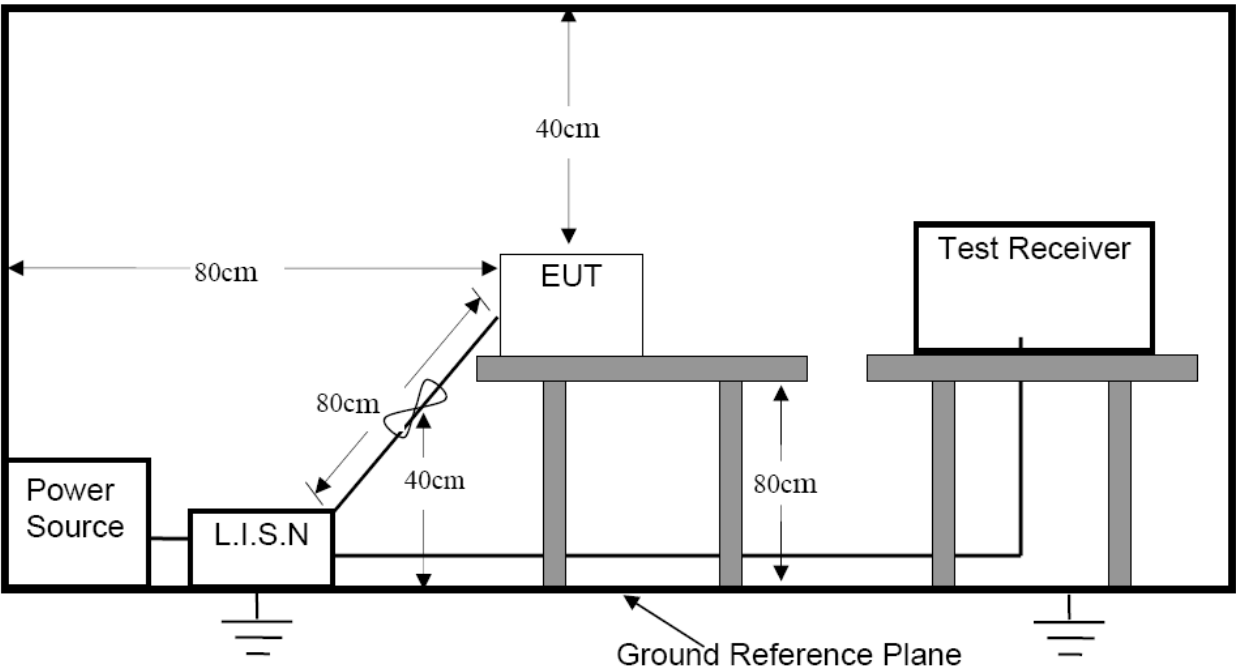
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Signal generator	IFR	2023A	2023051280	Mar. 13, 2021	1 Year
2.	Power Amplifier	SCHAFFNER	CBA9425	1022	Mar. 13, 2021	1 Year
3.	6dB 50Watt Attenuator	SCHAFFNER	ATN6025	N/A	Mar. 13, 2021	1 Year
4.	CDN	Lioncel	CDN-M3-16	0170703	Mar. 13, 2021	1 Year
5.	CDN	Lioncel	CDN-M2-16	0170708	Mar. 13, 2021	1 Year
6.	CDN	CDSI	ADN-M5/AF 5	8105001	Mar. 13, 2021	1 Year
7.	EM Clamp	CDSI	EMCL-22	8192007	Mar. 13, 2021	1 Year
8.	Directional Coupler	SCHAFFNER	255	19184	Mar. 13, 2021	1 Year
9.	Audio Analyzer	Rohde & Schwarz	UPV	100894	Mar. 13, 2021	1 Year
10.	Test Software	EZ	EZ_CS	N/A	N/A	N/A

3.9 For Voltage Dips and Interruptions Measurement

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Dips Tester	EM TEST	UCS500N	V1104108683	Mar. 13, 2021	1 Year
2.	Test Soft	EM TEST	lec.control	N/A	N/A	N/A
3.	Dips Modulator	EM TEST	V4780S2	0111-11	Mar. 13, 2021	1 Year

4. MAINS TERMINAL DISTURBANCE VOLTAGE MEASUREMENT

4.1 Block Diagram of Test Setup



4.2 Limit of Mains Terminal Disturbance voltage measurement

Test Standard: EN 55032

Limits for conducted disturbance at the mains ports of class B ITE.

Frequency range	Limits (dB(uV))	
(MHz)	Quasi-peak	Average
0.15 to 0.5	66 to 56	56 to 46
0.5 to 5	56	46
5 to 30	60	50

- Note:
1. The lower limit shall apply at the transition frequencies.
 2. The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

4.3 Test Procedure

The E.U.T. is put on the 0.8 m high table and connected to the AC mains through a Artificial Mains Network (AMN). This provided a 50ohm coupling impedance for the tested equipments. Both sides of AC line are checked to find out the maximum conducted emission levels according to the EN55032 regulations during conducted emission test.

The bandwidth of the test receiver (R&S Test Receiver ESCI) is set at 9 KHz.

4.4 Operating Condition of E.U.T.

4.4.1 Setup the E.U.T. and simulators as shown in Section 2.3.

4.4.2 Turn on the power of all equipments.

4.4.3 Let the E.U.T. work in test modes (Full Load, Half Load, Empty Load) and test it.

4.5 Mains Terminal Disturbance Voltage Test Results

PASS.

Please refer to the following pages of the worst case: Half Load.



Dongguan NTC Co., Ltd.

Tel: +86-769-22022444 Fax: +86-769-22022799

Web: <http://www.ntc-c.com>

Site: Shielding Room

Phase: **L1**

Temperature: 27

Limit: EN55032_Class B_QP

Power: AC230V/50Hz

Humidity: 43 %

EUT: SWITCHING GIGABIT POWER SUPPLY

M/N: G0566-420-143

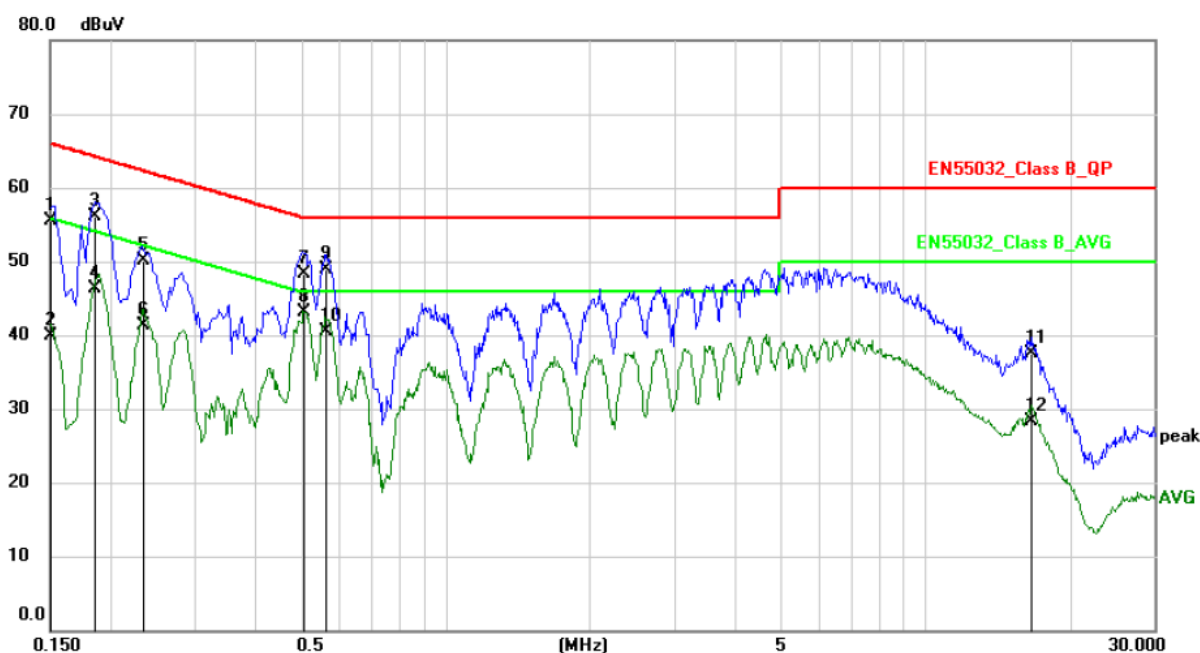
Mode: Half Load

Note:

Conducted Emission Measurement

Date: 2021/9/16

Time: 10:11:15



No. Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
	MHz	dBuV	dB	dBuV	dBuV	dB		
1	0.1500	44.90	10.60	55.50	66.00	-10.50	QP	
2	0.1500	29.30	10.60	39.90	56.00	-16.10	AVG	
3	0.1859	45.50	10.60	56.10	64.22	-8.12	QP	
4	0.1859	35.70	10.60	46.30	54.22	-7.92	AVG	
5	0.2340	39.50	10.60	50.10	62.31	-12.21	QP	
6	0.2340	30.80	10.60	41.40	52.31	-10.91	AVG	
7	0.5060	37.77	10.63	48.40	56.00	-7.60	QP	
8 *	0.5060	32.47	10.63	43.10	46.00	-2.90	AVG	
9	0.5620	38.26	10.64	48.90	56.00	-7.10	QP	
10	0.5620	29.86	10.64	40.50	46.00	-5.50	AVG	
11	16.6418	26.85	10.75	37.60	60.00	-22.40	QP	
12	16.6418	17.65	10.75	28.40	50.00	-21.60	AVG	



Dongguan NTC Co., Ltd.

Tel: +86-769-22022444 Fax: +86-769-22022799

Web: <http://www.ntc-c.com>

Site: Shielding Room

Phase: **N**

Temperature: 27

Limit: EN55032_Class B_QP

Power: AC230V/50Hz

Humidity: 43 %

EUT: SWITCHING GIGABIT POWER SUPPLY

M/N: G0566-420-143

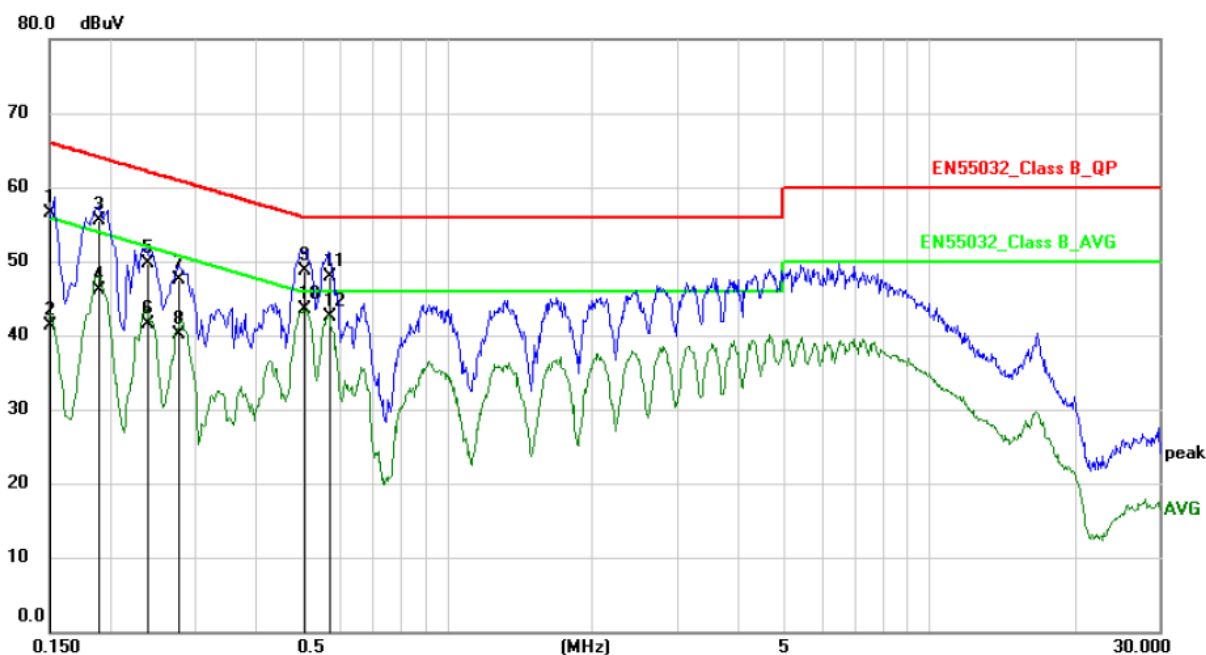
Mode: Half Load

Note:

Conducted Emission Measurement

Date: 2021/9/16

Time: 10:16:17



No. Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
	MHz	dBuV	dB	dBuV	dBuV	dB		
1	0.1500	46.00	10.60	56.60	66.00	-9.40	QP	
2	0.1500	30.80	10.60	41.40	56.00	-14.60	AVG	
3	0.1900	44.90	10.60	55.50	64.04	-8.54	QP	
4	0.1900	35.50	10.60	46.10	54.04	-7.94	AVG	
5	0.2379	39.10	10.60	49.70	62.17	-12.47	QP	
6	0.2379	30.90	10.60	41.50	52.17	-10.67	AVG	
7	0.2779	36.90	10.60	47.50	60.88	-13.38	QP	
8	0.2779	29.50	10.60	40.10	50.88	-10.78	AVG	
9	0.5060	38.07	10.63	48.70	56.00	-7.30	QP	
10 *	0.5060	32.97	10.63	43.60	46.00	-2.40	AVG	
11	0.5700	37.26	10.64	47.90	56.00	-8.10	QP	
12	0.5700	31.86	10.64	42.50	46.00	-3.50	AVG	



Dongguan NTC Co., Ltd.

Tel: +86-769-22022444 Fax: +86-769-22022799

Web: [Http://www.ntc-c.com](http://www.ntc-c.com)

Site: Shielding Room

Phase: **L1**

Temperature: 27

Limit: EN55032_Class B_QP

Power: AC230V/50Hz

Humidity: 43 %

EUT: SWITCHING GIGABIT POWER SUPPLY

M/N: G0566-570-105

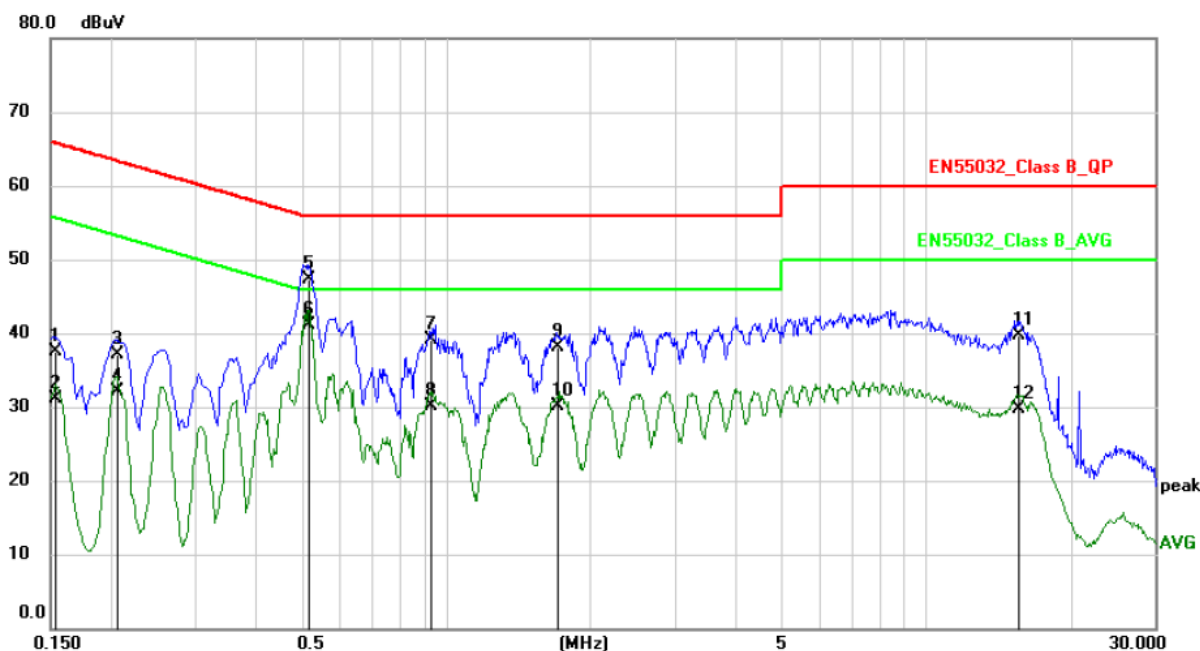
Mode: Half Load

Note:

Conducted Emission Measurement

Date: 2021/10/25

Time: 10:13:02



No. Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
	MHz	dBuV	dB	dBuV	dBuV	dB		
1	0.1539	26.90	10.60	37.50	65.79	-28.29	QP	
2	0.1539	20.50	10.60	31.10	55.79	-24.69	AVG	
3	0.2059	26.50	10.60	37.10	63.37	-26.27	QP	
4	0.2059	21.50	10.60	32.10	53.37	-21.27	AVG	
5	0.5180	36.67	10.63	47.30	56.00	-8.70	QP	
6 *	0.5180	30.47	10.63	41.10	46.00	-4.90	AVG	
7	0.9300	28.41	10.69	39.10	56.00	-16.90	QP	
8	0.9300	19.41	10.69	30.10	46.00	-15.90	AVG	
9	1.7019	27.40	10.70	38.10	56.00	-17.90	QP	
10	1.7019	19.40	10.70	30.10	46.00	-15.90	AVG	
11	15.5100	28.95	10.75	39.70	60.00	-20.30	QP	
12	15.5100	18.95	10.75	29.70	50.00	-20.30	AVG	



Dongguan NTC Co., Ltd.

Tel: +86-769-22022444 Fax: +86-769-22022799

Web: <http://www.ntc-c.com>

Site: Shielding Room

Phase: **N**

Temperature: 27

Limit: EN55032_Class B_QP

Power: AC230V/50Hz

Humidity: 43 %

EUT: SWITCHING GIGABIT POWER SUPPLY

M/N: G0566-570-105

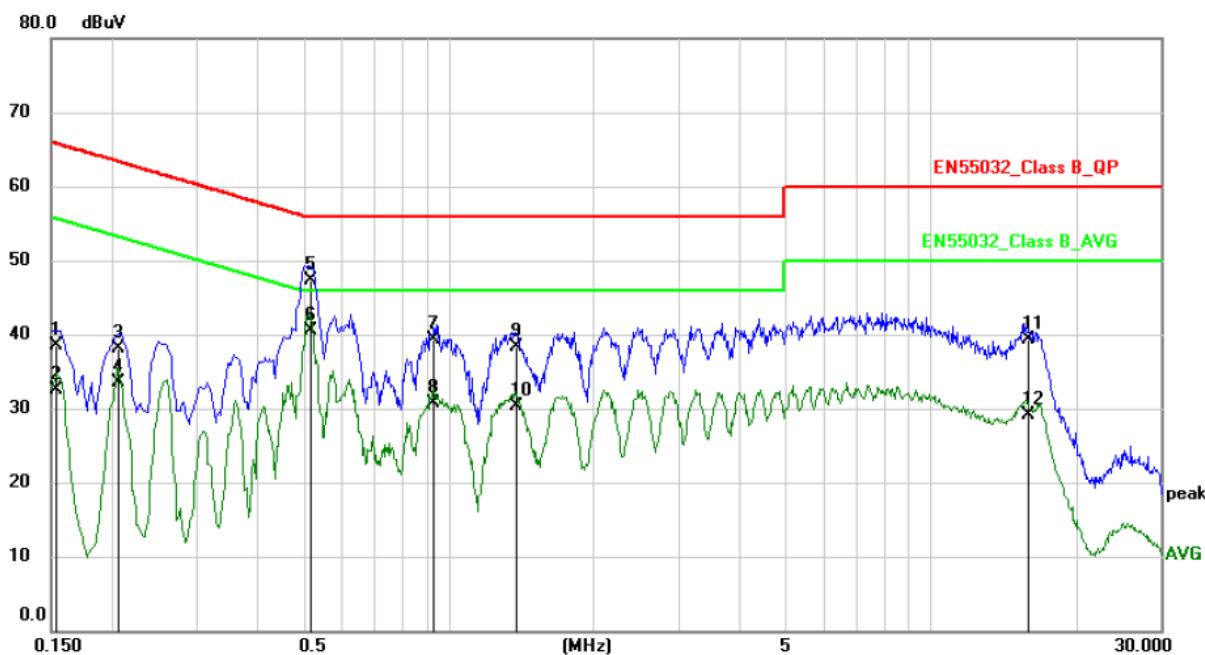
Mode: Half Load

Note:

Conducted Emission Measurement

Date: 2021/10/25

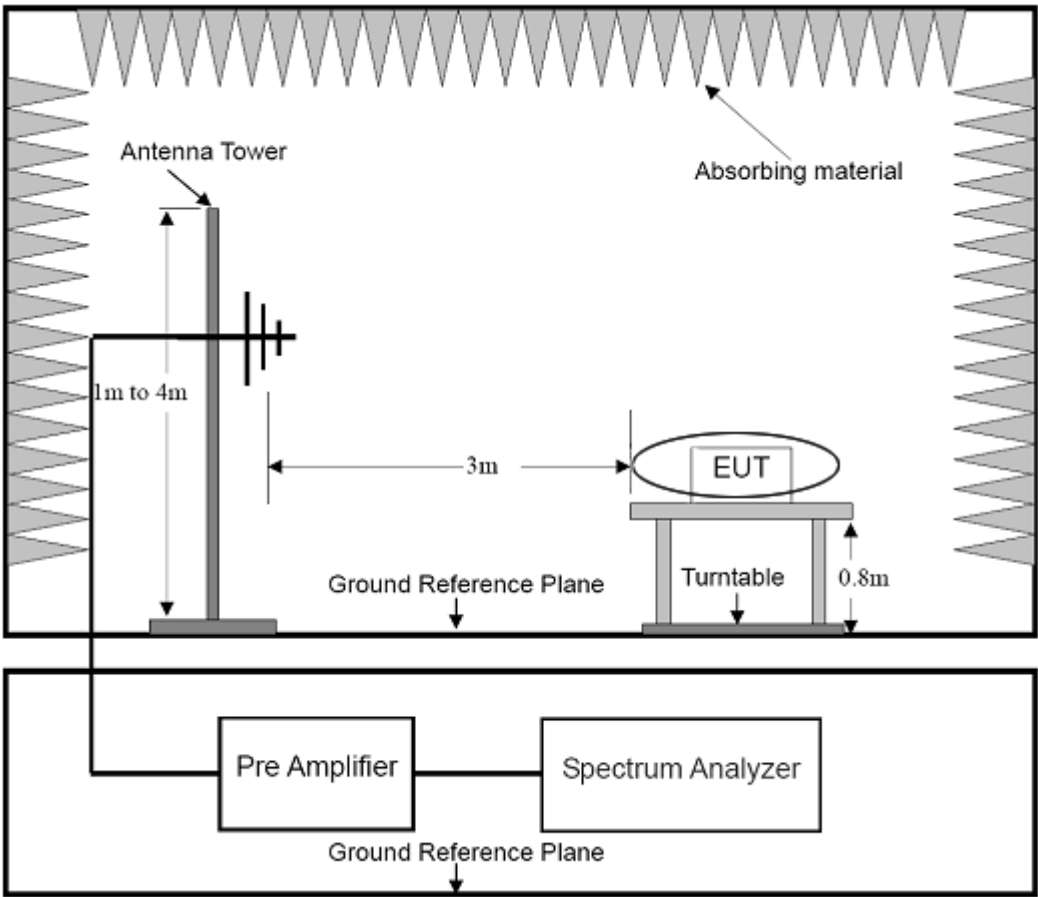
Time: 10:18:47



No. Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
	MHz	dBuV	dB	dBuV	dBuV	dB		
1	0.1539	27.90	10.60	38.50	65.79	-27.29	QP	
2	0.1539	22.00	10.60	32.60	55.79	-23.19	AVG	
3	0.2060	27.50	10.60	38.10	63.37	-25.27	QP	
4	0.2060	22.90	10.60	33.50	53.37	-19.87	AVG	
5	0.5180	36.67	10.63	47.30	56.00	-8.70	QP	
6 *	0.5180	29.87	10.63	40.50	46.00	-5.50	AVG	
7	0.9300	28.61	10.69	39.30	56.00	-16.70	QP	
8	0.9300	20.01	10.69	30.70	46.00	-15.30	AVG	
9	1.3779	27.60	10.70	38.30	56.00	-17.70	QP	
10	1.3779	19.60	10.70	30.30	46.00	-15.70	AVG	
11	15.8339	28.65	10.75	39.40	60.00	-20.60	QP	
12	15.8339	18.35	10.75	29.10	50.00	-20.90	AVG	

5. RADIATED EMISSION MEASUREMENT

5.1 Block Diagram of Test



5.2 Limit of Radiated Emission Measurement

Test Standard: EN 55032

Limits for radiated disturbance of class B ITE at a measuring distance of 3m

Frequency range MHz	Quasi-peak limits dB(uV/m)
30 to 230	40
230 to 1000	47

Note 1 The lower limit shall apply at the transition frequency.
Note 2 Additional provisions may be required for cases where interference occurs.

5.3 Test Procedure

E.U.T. and its simulators are placed on a turntable, which is 0.8 meter high above ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. E.U.T. is set 3.0 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna. Both horizontal and vertical polarization of the antenna is set on measurement. In order to find the maximum emission levels, all of the interface cables must be manipulated according to EN 55032 on radiated emission measurement.

The bandwidth of the EMI test receiver (R&S ESCI7) is set at 120 KHz.

The frequency range from 30 MHz to 1000 MHz is checked.

5.4 Operating Condition of E.U.T.

5.4.1 Setup the E.U.T. and simulators as shown in Section 2.3.

5.4.2 Turn on the power of all equipments.

5.4.3 Let the E.U.T. work in test modes (Full Load, Half Load, Empty Load) and test it.

5.5 Radiated Emission Measurement Result

PASS.

Please refer to the following pages of the worst case: Full Load.



Dongguan NTC Co., Ltd.

Tel: +86-769-2202 2444

Web: www.ntc-c.com

Fax: +86-769-2202 2799

Site: 3m Chamber

Polarization: **Horizontal**

Temperature: 26

Limit: EN 55032_Class B_3m

Power: AC 110V/60Hz

Humidity: 47 %

EUT: SWITCHING GIGABIT POWER SUPPLY

Distance: 3m

M/N: G0566-420-143

Mode: Full Load

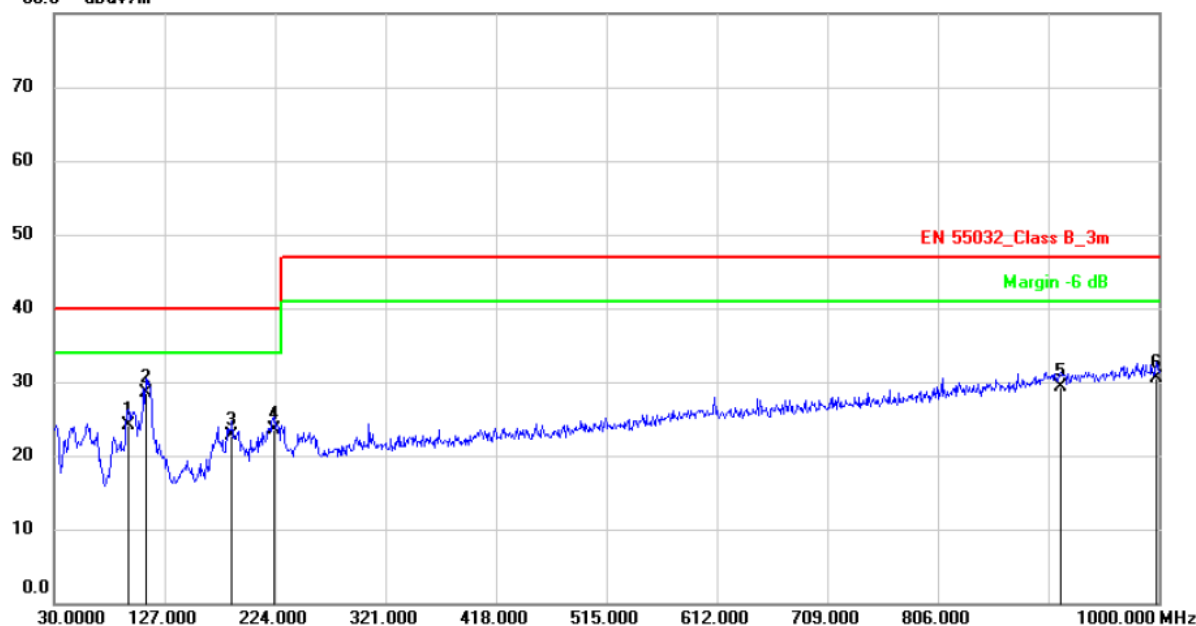
Note:

Radiated Emission Measurement

Date: 2021/9/16

Time: 17:33:57

80.0 dBuV/m



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		
1		94.9900	32.40	-8.20	24.20	40.00	-15.80	QP	
2	*	110.5100	36.12	-7.62	28.50	40.00	-11.50	QP	
3		186.1700	31.43	-8.63	22.80	40.00	-17.20	QP	
4		223.0300	30.77	-7.27	23.50	40.00	-16.50	QP	
5		913.6700	23.08	6.22	29.30	47.00	-17.70	QP	
6		998.0600	23.99	6.61	30.60	47.00	-16.40	QP	



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Tel: +86-769-2202 2444
Web: www.ntc-c.com

Fax: +86-769-2202 2799

Site: 3m Chamber

Polarization: **Vertical**

Temperature: 26

Limit: EN 55032_Class B_3m

Power: AC 110V/60Hz

Humidity: 47 %

EUT: SWITCHING GIGABIT POWER SUPPLY

Distance: 3m

M/N: G0566-420-143

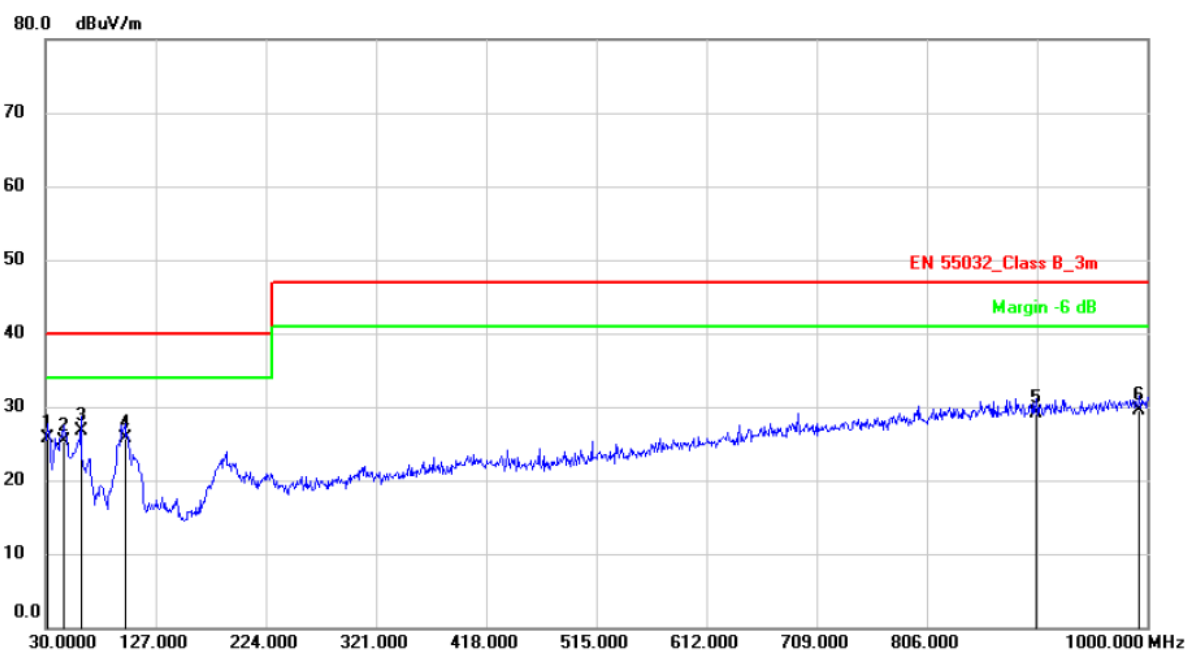
Mode: Full Load

Note:

Radiated Emission Measurement

Date: 2021/9/16

Time: 17:27:18



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		31.9400	35.30	-9.60	25.70	40.00	-14.30	QP	
2		45.5200	32.96	-7.56	25.40	40.00	-14.60	QP	
3	*	61.0400	34.66	-7.96	26.70	40.00	-13.30	QP	
4		99.8399	34.20	-8.40	25.80	40.00	-14.20	QP	
5		902.0300	24.14	4.96	29.10	47.00	-17.90	QP	
6		993.2100	24.10	5.40	29.50	47.00	-17.50	QP	



Dongguan NTC Co., Ltd.

Tel: +86-769-2202 2444

Web: www.ntc-c.com

Fax: +86-769-2202 2799

Site: 3m Chamber

Polarization: **Horizontal**

Temperature: 26

Limit: EN 55032_Class B_3m

Power: AC 230V/50Hz

Humidity: 47 %

EUT: SWITCHING GIGABIT POWER SUPPLY

Distance: 3m

M/N: G0566-570-105

Mode: Full Load

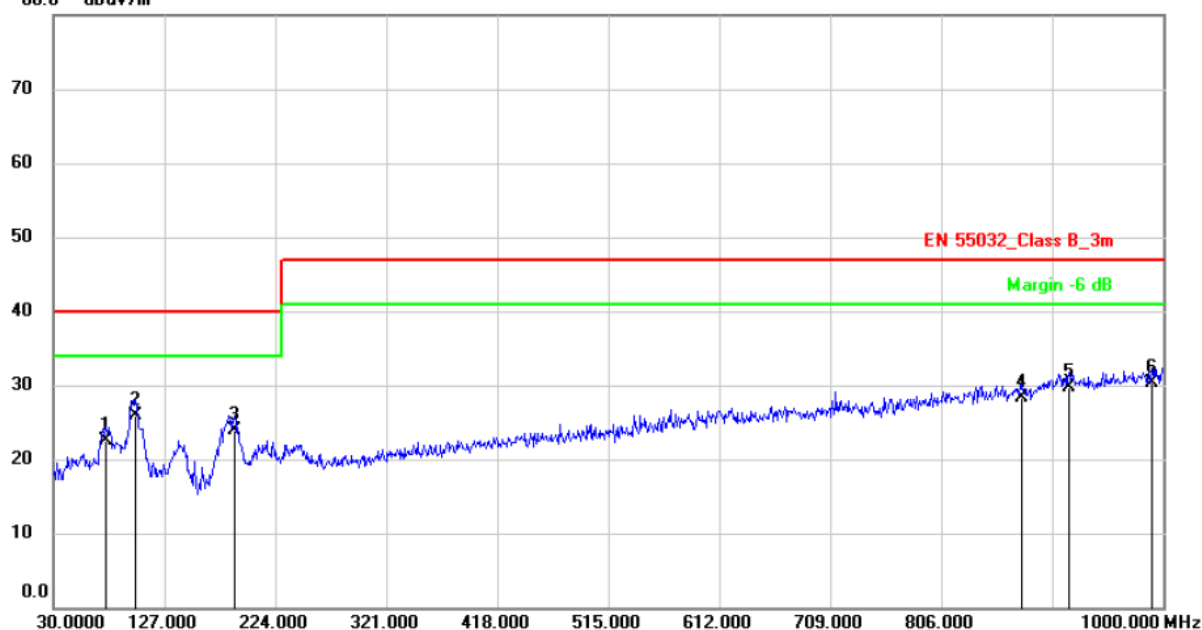
Note:

Radiated Emission Measurement

Date: 2021/9/16

Time: 18:12:28

80.0 dBuV/m



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		
1		75.5899	34.83	-12.33	22.50	40.00	-17.50	QP	
2	*	101.7800	33.51	-7.51	26.00	40.00	-14.00	QP	
3		188.1100	32.35	-8.45	23.90	40.00	-16.10	QP	
4		876.8100	23.38	4.92	28.30	47.00	-18.70	QP	
5		917.5500	23.48	6.22	29.70	47.00	-17.30	QP	
6		990.3000	23.85	6.55	30.40	47.00	-16.60	QP	



Dongguan NTC Co., Ltd.

Tel: +86-769-2202 2444

Web: www.ntc-c.com

Fax: +86-769-2202 2799

Site: 3m Chamber

Polarization: **Vertical**

Temperature: 26

Limit: EN 55032_Class B_3m

Power: AC 230V/50Hz

Humidity: 47 %

EUT: SWITCHING GIGABIT POWER SUPPLY

Distance: 3m

M/N: G0566-570-105

Mode: Full Load

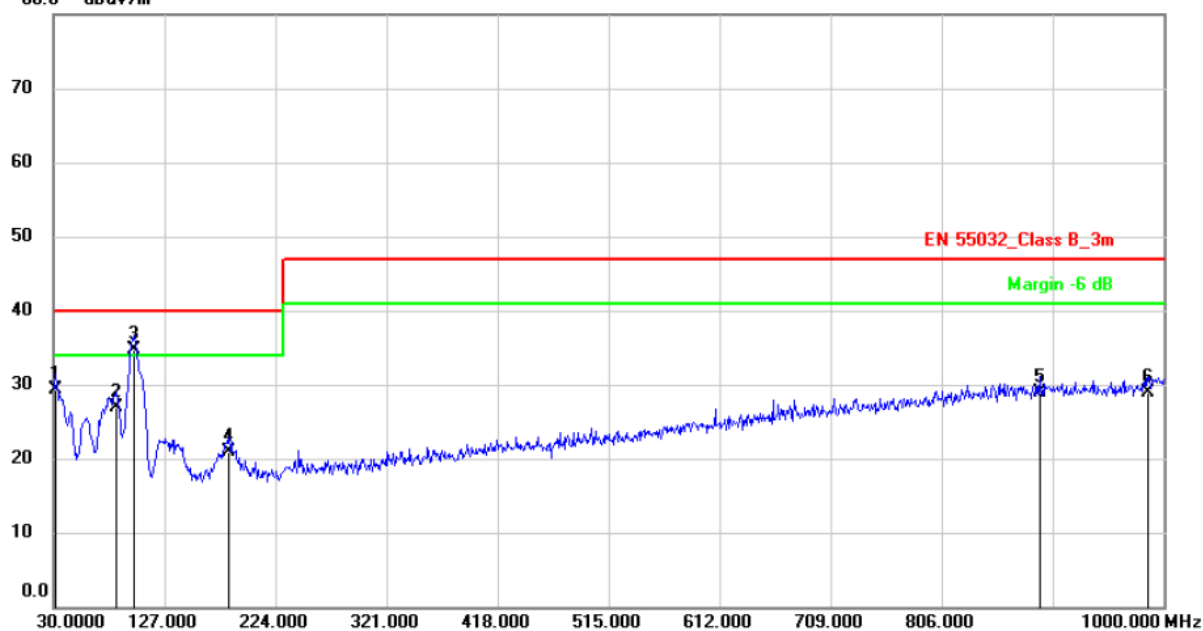
Note:

Radiated Emission Measurement

Date: 2021/9/16

Time: 18:05:58

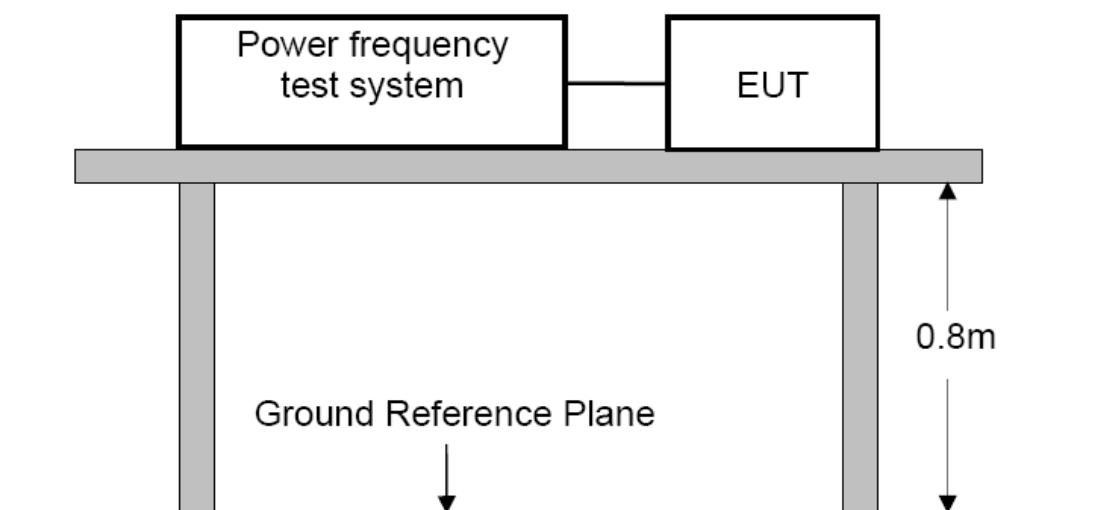
80.0 dBuV/m



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		
1		31.9400	39.00	-9.60	29.40	40.00	-10.60	QP	
2		85.2900	37.72	-10.72	27.00	40.00	-13.00	QP	
3	*	100.8100	43.24	-8.54	34.70	40.00	-5.30	QP	
4		183.2600	30.20	-9.30	20.90	40.00	-19.10	QP	
5		891.3600	24.05	4.95	29.00	47.00	-18.00	QP	
6		986.4200	23.67	5.33	29.00	47.00	-18.00	QP	

6. HARMONIC CURRENT EMISSION TEST

6.1 Block Diagram of Test Setup



6.2 Limits of Harmonics current measurement

Test Standard: EN IEC 61000-3-2

Limits for Class A equipment	
Harmonics Order n	Max. permissible harmonics current A
Odd harmonics	
3	2.30
5	1.14
7	0.77
9	0.40
11	0.33
13	0.21
$15 \leq n \leq 39$	$0.15 \times 15/n$
Even harmonics	
2	1.08
4	0.43
6	0.30
$8 \leq n \leq 40$	$0.23 \times 8/n$

For the following categories of equipment limits are not specified in this edition of the standard.

Note 1: Equipment with a rated power of 75W or less, other than lighting equipment.

6.3 Test Procedure

The E.U.T. was put on the top of a wooden table 0.8m above the ground and operated to produce the maximum harmonic components under normal operating conditions for each successive harmonic component in turn.

The E.U.T. is classified as follows:

Class A:

Balanced three-phase equipment, Household appliances excluding equipment as Class D, Tools excluding portable tools, Dimmers for incandescent lamps, audio equipment, equipment not specified in one of the three other classes.

Class B:

Portable tools; Arc welding equipment which is not professional equipment.

Class C:

Lighting equipment.

Class D:

Equipment having a specified power less than or equal to 600W of the following types: Personal computers and personal computer monitors and television receivers.

6.4 Operating Condition of E.U.T.

6.4.1 Setup the E.U.T. and simulators as shown in Section 2.3.

6.4.2 Turn on the power of all equipments.

6.4.3 Let the E.U.T. work in test modes (Full Load, Half Load, Empty Load) and test it.

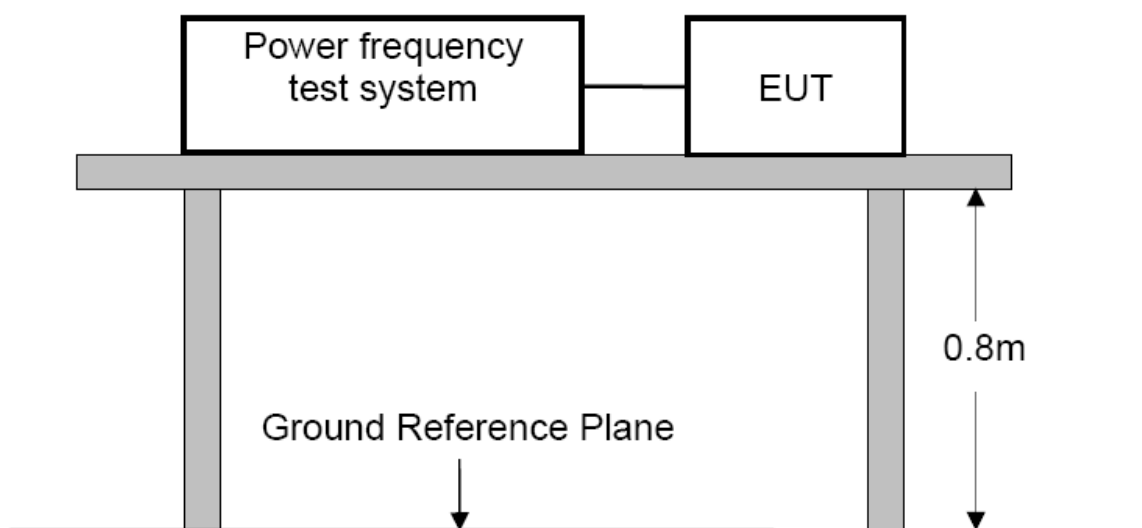
6.5 Harmonics Current Measurement Result

PASS.

According to clause 7 of EN IEC 61000-3-2, equipment with a rated power of 75W or less, no limits apply. It is considered to meet the requirements of the standard.

7. VOLTAGE FLUCTUATIONS & FLICKER TEST

7.1 Block Diagram of Test Setup



7.2 Limits of Voltage Fluctuations & Flicker Measurement

Test Standard: EN 61000-3-3

Test Item	Limit
P_{st} (Short-term flicker indicator.)	1.0
P_{lt} (Long-term flicker indicator.)	0.65
$T_{d(t)}$ (ms) (Maximum time that $d(t)$ exceeds 3.3%)	500
$d_{max}(\%)$ (Maximum relative voltage change.)	4
$d_c(\%)$ (Relative steady-state voltage change)	3.3

7.3 Test Procedure

The E.U.T. was put on the top of a wooden table 0.8m above the ground and operated to produce the most unfavorable sequence of voltage changes under normal operating conditions.

7.4 Operating Condition of E.U.T.

7.4.1 Setup the E.U.T. and simulators as shown in Section 2.3.

7.4.2 Turn on the power of all equipments.

7.4.3 Let the E.U.T. work in test modes (Full Load, Half Load, Empty Load) and test it.

7.5 Test Results

PASS.

Please refer to the following pages of the worst case: Full Load.

Flicker Test Summary per IEC61000-3-3 (Run time)

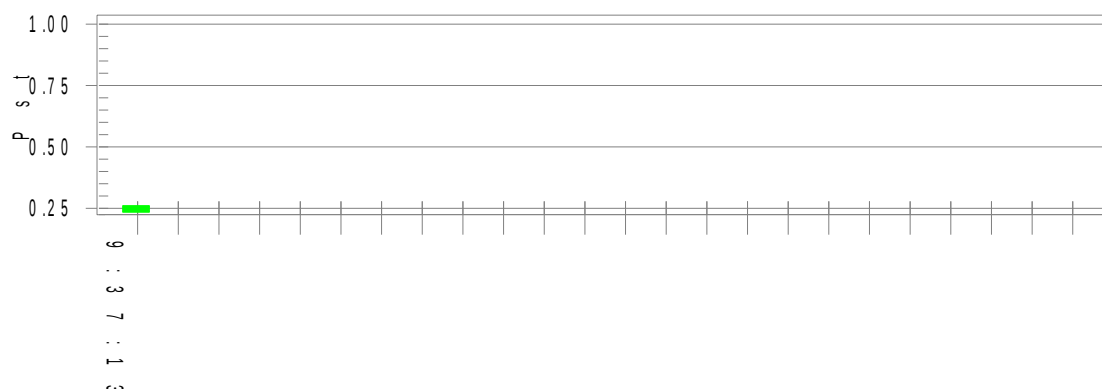
EUT: SWITCHING GIGABIT POWER SUPPLY
Test category: All parameters (European limits)
Test date: 2021/9/17
Test duration (min): 10
Comment: Full Load
Customer: Siklu
M/N:G0566-420-143
Test Result: Pass

Tested by: Rick
Test Margin: 100
Start time: 9:26:52
End time: 9:37:19
Data file name: F-000909.cts_data

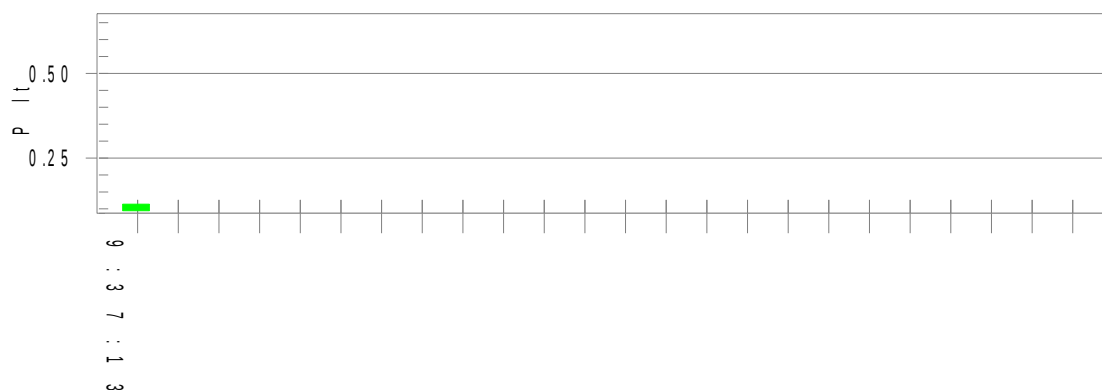
Status: Test Completed

Pst and limit line

European Limits



Plt and limit line



Parameter values recorded during the test:

Vrms at the end of test (Volt): 230.43

Highest dt (%):

T-max (mS): 0

Highest dc (%): 0.00

Highest dmax (%): 0.00

Highest Pst (10 min. period): 0.261

Highest Plt (2 hr. period): 0.114

Test limit (%):

Test limit (mS): 500.0 Pass

Test limit (%): 3.30 Pass

Test limit (%): 4.00 Pass

Test limit: 1.000 Pass

Test limit: 0.650 Pass

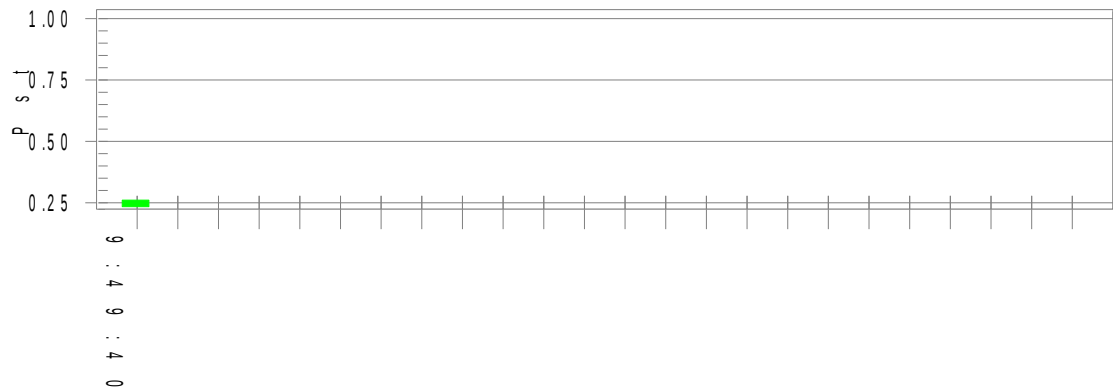
Flicker Test Summary per IEC61000-3-3 (Run time)

EUT: SWITCHING GIGABIT POWER SUPPLY
Test category: All parameters (European limits)
Test date: 2021/9/17
Test duration (min): 10
Comment: Full Load
Customer: Siklu
M/N:G0566-570-105
Test Result: Pass

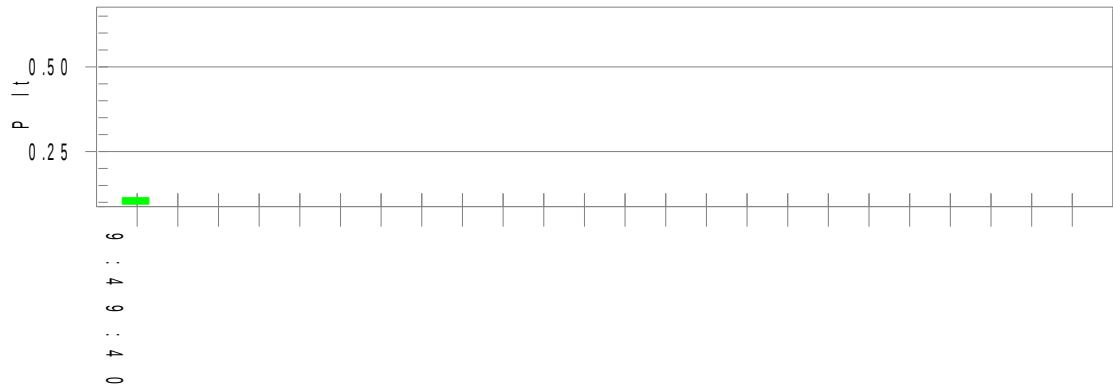
Tested by: Rick
Test Margin: 100
Start time: 9:39:19
End time: 9:49:46
Data file name: F-000910.cts_data

Status: Test Completed

Pst_i and limit line European Limits



Plt and limit line



Parameter values recorded during the test:			
Vrms at the end of test (Volt):		230.50	
Highest dt (%):			
T-max (mS):	0	Test limit (%):	
Highest dc (%):	0.00	Test limit (mS):	500.0 Pass
Highest dmax (%):	0.00	Test limit (%):	3.30 Pass
Highest Pst (10 min. period):	0.261	Test limit (%):	4.00 Pass
Highest Plt (2 hr. period):	0.114	Test limit:	1.000 Pass
		Test limit:	0.650 Pass

8. PERFORMANCE CRITERIA FOR IMMUNITY

The performance criteria are referred to the test standard: **EN 55035**

Performance Criteria A

The equipment shall continue to operate as intended without operator intervention. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer when the equipment is used as intended. The performance level may be replaced by a permissible loss of performance. If the minimum performance level or the permissible performance loss is not specified by the manufacturer, then either of these may be derived from the product description and documentation, and by what the user may reasonably expect from the equipment if used as intended.

Performance Criteria B

After the test, the equipment shall continue to operate as intended without operator intervention. No degradation of performance or loss of function is allowed, after the application of the phenomena below a performance level specified by the manufacturer, when the equipment is used as intended. The performance level may be replaced by a permissible loss of performance.

During the test, degradation of performance is allowed. However, no change of operation state or stored data is allowed to persist after test.

If the minimum performance level (or the permissible performance loss) is not specified by the manufacturer, then either of these may be derived from the product description and documentation, and by what the user may reasonably expect from the equipment if used as intended.

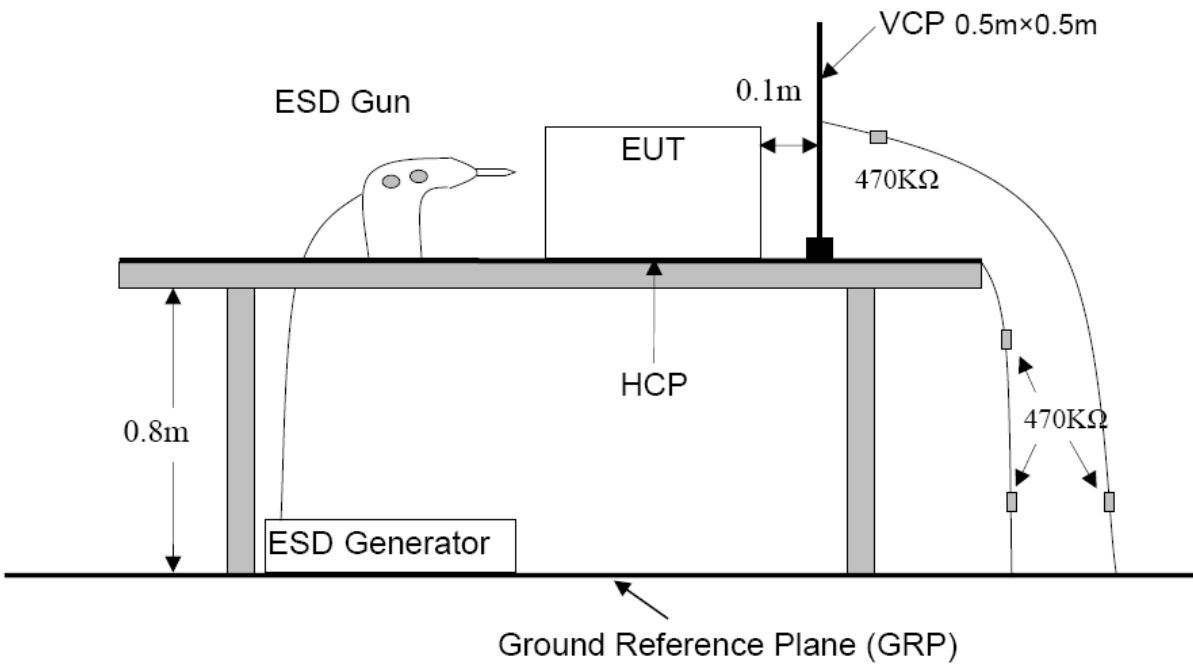
Performance Criteria C

Loss of function is allowed, provided the function is self-recoverable, or can be restored by the operation of the controls by the user in accordance with the manufacturer's instructions.

Functions, and/or information stored in non-volatile memory, or protected by a battery backup, shall not be lost.

9. ELECTROSTATIC DISCHARGE TEST

9.1 Block Diagram of Test Setup



9.2 Test Standard and Severity Levels

9.2.1 Test Standard:

EN 55035

(IEC 61000-4-2 Air Discharge: Severity Level: 3, ± 8 KV;

Contact Discharge: Level: 2, ± 4 KV)

9.2.2 Severity Levels:

Level	Test Voltage Contact Discharge (KV)	Test Voltage Air Discharge (KV)
1.	± 2	± 2
2.	± 4	± 4
3.	± 6	± 8
4.	± 8	± 15
X	Special	Special

9.3 Test Procedure

9.3.1 Air Discharge:

This test is done on a non-conductive surface. The round discharge tip of the discharge electrode shall be approached as fast as possible to touch the E.U.T.. After each discharge, the discharge electrode shall be removed from the E.U.T.. The generator is then re-triggered for a new single discharge and repeated 25 times for each pre-selected test point. This procedure shall be repeated until all the air discharge completed

9.3.2 Contact Discharge:

All the procedure shall be same as Section 9.3.1. except that the tip of the discharge electrode shall touch the E.U.T..

9.3.3 Indirect discharge for horizontal coupling plane

At least 10 single discharges (in the most sensitive polarity) shall be applied at the front edge of each HCP opposite the center point of each unit(if applicable) of the E.U.T. and 0.1m from the front of the E.U.T.. The long axis of the discharge electrode shall be in the plane of the HCP and perpendicular to its front edge during the discharge.

9.3.4 Indirect discharge for vertical coupling plane

At least 10 single discharge (in the most sensitive polarity) shall be applied to the center of one vertical edge of the coupling plane. The coupling plane, of dimensions 0.5m X 0.5m, is placed parallel to, and positioned at a distance of 0.1m from the E.U.T.. Discharges shall be applied to the coupling plane, with this plane in sufficient different positions that the four faces of the E.U.T. are completely illuminated.

9.4 Test Results

PASS.

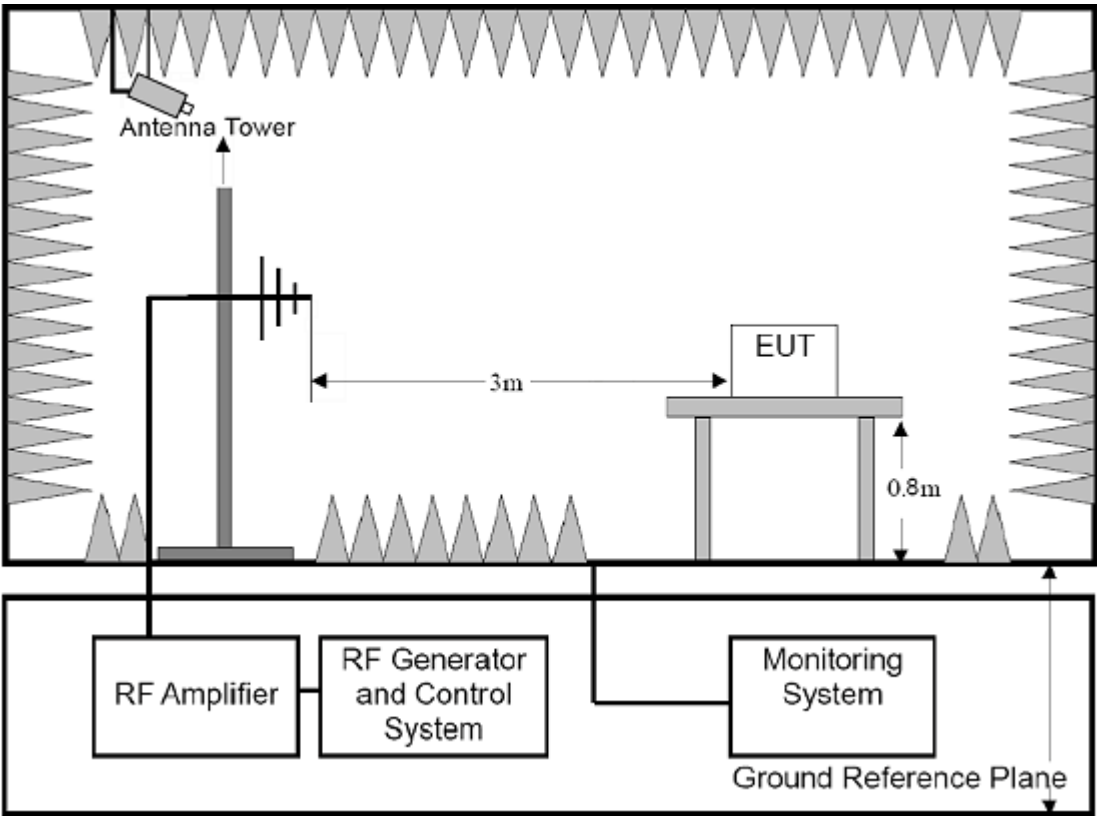
Please refer to the following page.

Electrostatic Discharge Test Results

Ambient Condition:	Temp.: 23℃	R.H.: 47%	Air Pressure : 101 kPa
Power Supply:	AC 230V 50Hz	Required Performance Criterion : B	
Test level:	±4 KV Contact Discharge; For each point positive 25 times and negative 25 times ± 8 KV Air Discharge For each point positive 10 times and negative 10 times		
Tested mode:	Full Load, Half Load, Empty Load		
Model number :	G0566-420-143, G0566-570-105		
Test Point		Kind A-Air Discharge C-Contact Discharge	Result (Performance Criterion)
Surface of EUT		A	A
Light		A	A
Network Port		C	B
Indirect Discharge (HCP)		C	A
Indirect Discharge (VCP)		C	A
Note: The output voltage of EUT fluctuates during the test and it can be recovered to normal operation by itself after the test.			
Test Equipment : ESD Tester (TESEQ, NSG 437)		Test Engineer : Rick	

10. RF FIELD STRENGTH SUSCEPTIBILITY TEST

10.1 Block Diagram of Test Setup



10.2 Test Standard and Severity Levels

10.2.1 Test Standard
EN 55035
(IEC 61000-4-3, Severity Level: 2, 3V / m)

10.2.2 Severity Levels

Level	Field Strength V/m
1.	1
2.	3
3.	10
X	Special

10.3 Test Procedure

The E.U.T. and its simulators are placed on a turn table which is 0.8 meter above ground. E.U.T. is set 3 meter away from the transmitting antenna which is mounted on an antenna tower. Both horizontal and vertical polarization of the antenna are set on test. Each of the four sides of E.U.T. must be faced this transmitting antenna and measured individually.

All the scanning conditions are as follows :

Condition of Test	Remarks
1. Fielded Strength	3 V/m (Severity Level 2)
2. Radiated Signal	Modulated
3. Scanning Frequency	80 - 1000 MHz, 1800MHz, 2600MHz,3500MHz, 5000MHz
4. Dwell time of radiated	0.0015 decade/s
5. Waiting Time	1 Sec.

10.4 Test Results

PASS.

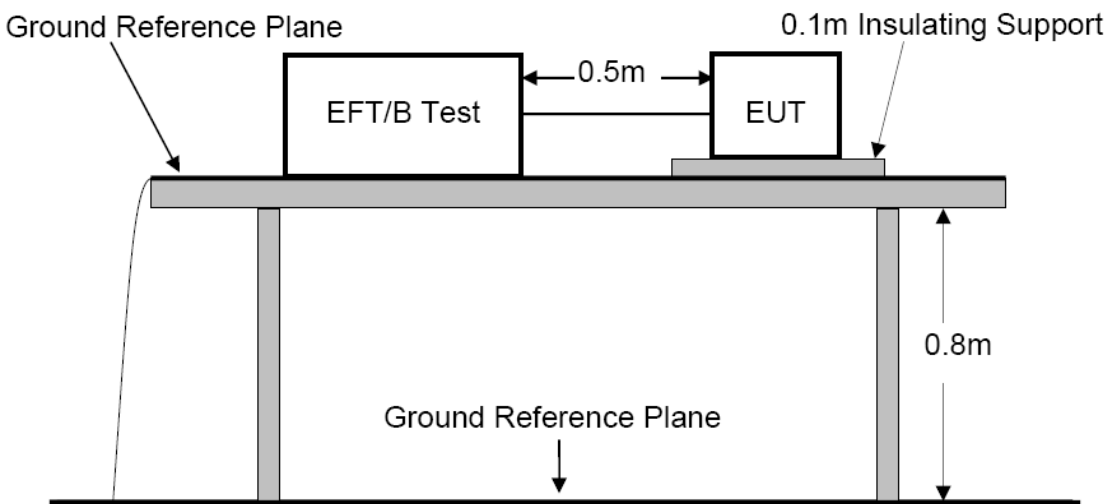
Please refer to the following page.

RF Field Strength Susceptibility Test Results

Ambient Condition:	Temp.: 25 °C	R.H.: 52 %	Air Pressure: 101 kPa	
Power Supply:	AC 230V 50Hz	Required Performance Criterion: A		
Test Specifications:	Modulation: 1kHz, 80%AM; Step Size: 1%; Dwell Time: 1s			
Tested mode:	Full Load, Half Load, Empty Load			
Model number :	G0566-420-143, G0566-570-105			
Frequency (MHz)	Level (V/m)	Antenna polarity	Side	Result (Performance Criterion)
80-1000 1800 2600 3500 5000	3	Horizontal	Front	A
			Left	A
			Right	A
			Back	A
		Vertical	Front	A
			Left	A
			Right	A
			Back	A
Note:				
Test Equipment : 1. RF Power Meter : 4242 (ESE) 2. Power Amplifier : (TESEQ, CBA 1G-150) 3. Signal Generator : (Agilent, N5181A) 4. Power Sensor: 51011EMC (ESE) 5. Antenna Log-Periodic: (ATR80M6G, AR)				
				Test Engineer : David

11. ELECTRICAL FAST TRANSIENT/BURST TEST

11.1 Block Diagram of Test Setup



11.2 Test Standard and Severity Levels

11.2.1 Test Standard

EN 55035

(IEC 61000-4-4, Severity Level, Level 2: 1KV)

11.2.2 Severity level

Open circuit output test voltage and repetition rate of the impulses				
Level	On power port, PE		On I/O (Input/Output) Signal data and control ports	
	Voltage peak KV	Repetition rate KHz	Voltage peak KV	Repetition rate KHz
1.	0.5	5 or 100	0.25	5 or 100
2.	1.0	5 or 100	0.5	5 or 100
3.	2.0	5 or 100	1.0	5 or 100
4.	4.0	5 or 100	2.0	5 or 100
X	Special	Special	Special	Special
Note 1 Use of 5 KHz repetition rates is traditional; however, 100 KHz is closer to reality. Product committees should determine which frequencies are relevant for specific products or product types. Note 2 With some products, there may be no clear distinction, between power ports and I/O ports, in which case it is up to product committees to make this determination for test purposes. Note 3 "X" is an open level. The level has to be specified in the dedicated equipment specification.				

11.3 Test Procedure

The E.U.T. is put on the table which is 0.8 meter high above the ground. This reference ground plane shall project beyond the E.U.T. by at least 0.1m on all sides and the minimum distance between E.U.T. and all other conductive structure, except the ground plane beneath the E.U.T., shall be more than 0.5m.

11.3.1 For input and output AC power ports:

The E.U.T. is connected to the power mains by using a coupling device which couples the EFT interference signal to AC power lines. Both polarities of the test voltage should be applied during compliance test and the duration of the test is 2 minus.

11.3.2 For signal lines ports:

It's unnecessary to test.

11.3.3 For DC ports:

It's unnecessary to test.

11.4 Test Result

PASS.

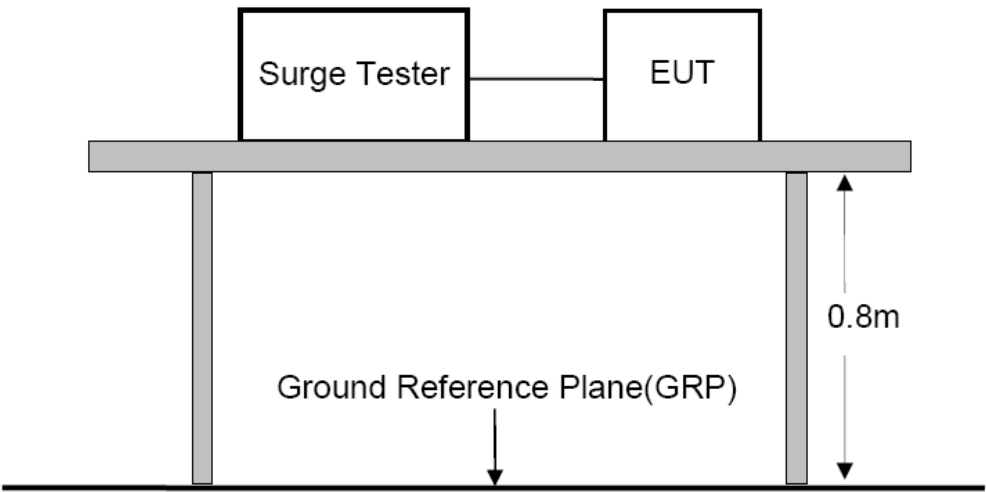
Please refer to the following page.

Electrical Fast Transient/Burst Test Results

Ambient Condition:	Temp.: 23°C	R.H.:47 %	Air Pressure: 101 kPa
Power Supply:	AC 230V 50Hz	Required Performance Criterion: B	
Test Specifications:	Repetition Frequency: 5kHz; Duration: 15ms; Period: 300ms		
Test mode:	Full Load, Half Load, Empty Load		
Model number :	G0566-420-143, G0566-570-105		
Line : ☒ AC Mains ☐ Signal line ☐ DC line Coupling : ☒ Direct ☐ Capacitive			
Line	Test Voltage	Result (Performance Criterion)	
L	±1KV	A	
N	±1KV	A	
PE	±1KV	A	
L、N	±1KV	A	
L、PE	±1KV	A	
N、PE	±1KV	A	
L、N、PE	±1KV	A	
Signal line			
DC line			
Note :			
Test Equipment : Burst Tester(EM TEST, UCS500N)		Test Engineer : Rick	

12. SURGE IMMUNITY TEST

12.1 Block Diagram of Test Setup



12.2 Test Standard and Severity Levels

12.2.1 Test Standard

EN 55035

(IEC 61000-4-5, Severity Level: Line To Line, Level 3: 2.0KV,
Line To Earth, Level 4: 4.0KV)

12.2.2 Severity level

Severity Level	Open-Circuit Test Voltage KV
1	0.5
2	1.0
3	2.0
4	4.0
*	Special

12.3 Test Procedure

1. Set up the E.U.T. and test generator as shown on Section 12.1.
2. For line to line coupling mode, provide a 4.0KV 1.2/50us voltage surge (at open-circuit condition) and 8/20us current surge to E.U.T. selected points.
3. At least 5 positive and 5 negative (polarity) tests with a maximum 1/min repetition rate are conducted during test.
4. Different phase angles are done individually.
5. Record the E.U.T. operating situation during compliance test and decide the E.U.T. immunity criterion for above each test.

12.4 Test Result

PASS.

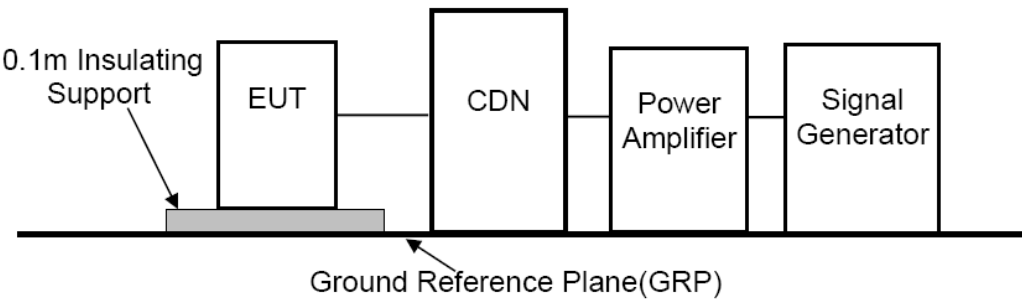
Please refer to the following page.

Surge Immunity Test Results

Ambient Condition:	Temp.: 23 °C	R.H.:47 %	Air Pressure: 101 kPa
Power Supply:	AC 230V 50Hz, AC 110V 60Hz	Required Performance Criterion: B	
Test Specifications:	Voltage surge 1.2/50 us ; Current surge 8/20 us ; Five positive and five negative pulses each at 90° and 270°.		
Test mode:	Full Load, Half Load, Empty Load		
Model number :	G0566-420-143, G0566-570-105		
Line	Phase Angle	Test Voltage	Result (Performance Criterion)
L-N	90°, 270°	±1KV	A
L-PE	90°, 270°	±2KV	A
N-PE	90°, 270°	±2KV	A
Signal line			
DC line			
Note :			
Test Equipment : Burst Tester(EM TEST, UCS500N)		Test Engineer : Rick	

13. INJECTED CURRENTS SUSCEPTIBILITY TEST

13.1 Block Diagram of Test Setup



13.2 Test Standard and Severity Levels

13.2.1 Test Standard

EN 55035

(IEC 61000-4-6, Severity Level: 3-1V (rms),0.15MHz ~ 80MHz)

13.2.2 Severity level

Level	Field Strength V
1.	1
2.	3
3.	10
X	Special

13.3 Test Procedure

1. Set up the E.U.T., CDN and test generators as shown on Section 13.1.
2. Let the E.U.T. work in test mode and measure it.
3. The E.U.T. are placed on an insulating support 0.1m high above a ground reference plane. CDN (coupling and decoupling device) is placed on the ground plane about 0.3m from E.U.T.. Cables between CDN and E.U.T. are as short as possible, and their height above the ground reference plane shall be between 30 and 50 mm (where possible).
4. The disturbance signal described below is injected to E.U.T. through CDN.
5. The E.U.T. operates within its operational mode(s) under intended climatic conditions after power on.
6. The frequency range is swept from 150 KHz to 80 MHz using 3-1V signal level, and with the disturbance signal 80% amplitude modulated with a 1KHz sine wave.
7. The rate of sweep shall not exceed 1.5×10^{-3} decades/s. Where the frequency is swept incrementally, the step size shall not exceed 1% of the start and thereafter 1% of the preceding frequency value.
8. Recording the E.U.T. operating situation during compliance testing and decide the E.U.T. immunity criterion.

13.4 Test Result

PASS.

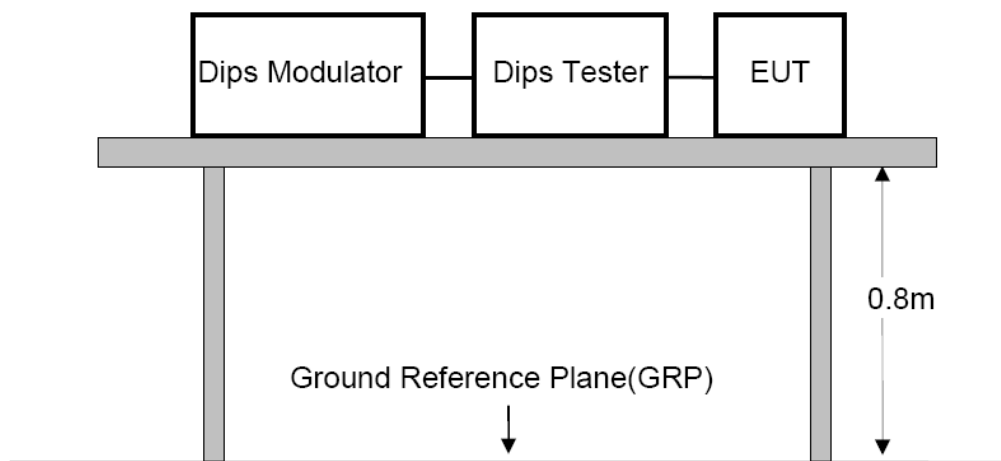
Please refer to the following page.

Injected Currents Susceptibility Test Results

Ambient Condition:	Temp.: 25℃	R.H.: 52 %	Air Pressure:101 kPa
Power Supply:	AC 230V 50Hz	Required Performance Criterion: A	
Test Specifications:	Modulation : 1KHz, 80%AM, Step Size : 1%, Dwell Time : 1s		
Test mode:	Full Load, Half Load, Empty Load		
Model number :	G0566-420-143, G0566-570-105		
Test Port	Frequency (MHz)	Level(V)	Result (Performance Criterion)
AC Mains	0.15~10	3	A
AC Mains	10~30	3 to 1	A
AC Mains	30~80	1	A
Note :			
Test Equipment : FRANNOKIA, CIT-10		Test Engineer : David	

14. VOLTAGE DIPS AND INTERRUPTIONS TEST

14.1 Block Diagram of Test Setup



14.2 Test Standard and Severity Levels

14.2.1 Test Standard
EN 55035
(IEC 61000-4-11)

14.2.2 Severity level

Test Level $\%U_T$	Voltage dip and short interruptions $\%U_T$	Duration (in period)
0	100	0.5
40	60	1
70	30	5
		10
		25
		50
		*

14.3 Test Procedure

1. Set up the E.U.T. and test generator as shown on Section 14.1.
2. The interruptions is introduced at selected phase angles with specified duration.
3. Record any degradation of performance.

14.4 Test Result

PASS.

Please refer to the following page.

Voltage Dips And Interruptions Test Results

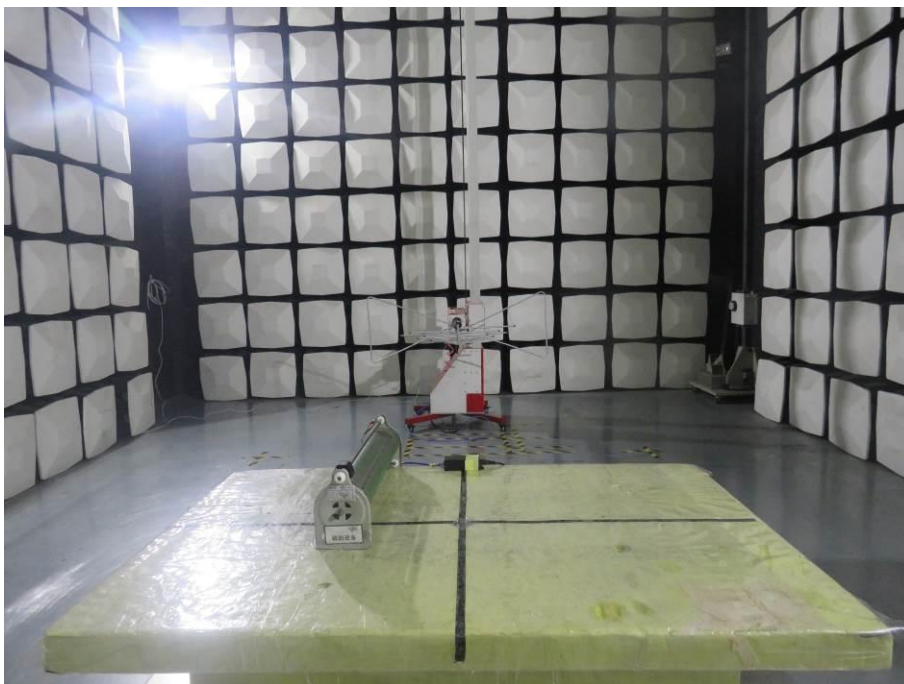
Ambient Condition:	Temp.: 23°C	R.H.: 47 %	Air Pressure: 101 kPa
Power Supply:	AC 230V 50Hz	Required Performance Criterion: B & C	
Test Specifications:	0%U _T , 0.5Cycle; 70%U _T , 25/30Cycle; 0%U _T ,250/300Cycle		
Test mode:	Full Load, Half Load, Empty Load		
Model number :	G0566-420-143, G0566-570-105		
Test Level % UT	Duration (in period)	Result (Performance Criterion)	
0	0.5P	A	
70	25P/30P	A	
0	250P/300P	B	
Note : During the test, the EUT stops output but it can be resumed by itself after test.			
Test Equipment : Dips Tester: EM TEST, UCS 500N		Test Engineer : Rick	

15. PHOTOGRAPH

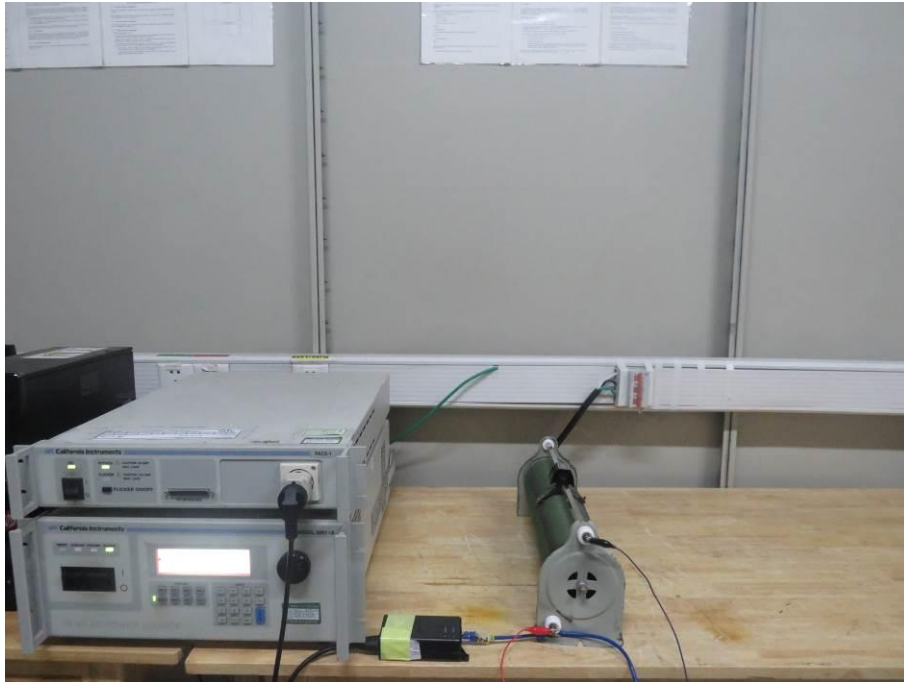
15.1. Photo of Conducted Emission Measurement



15.2. Photo of Radiation Emission Measurement



15.3. Photo of Harmonic/Flicker Measurement



15.4. Photo of Electrostatic Discharge Test



15.5. Photo of RF Field Strength susceptibility Test



15.6. Photo of Electrical Fast Transient /Surge /Voltage Dips Test



15.7. Photo of Injected Currents immunity test

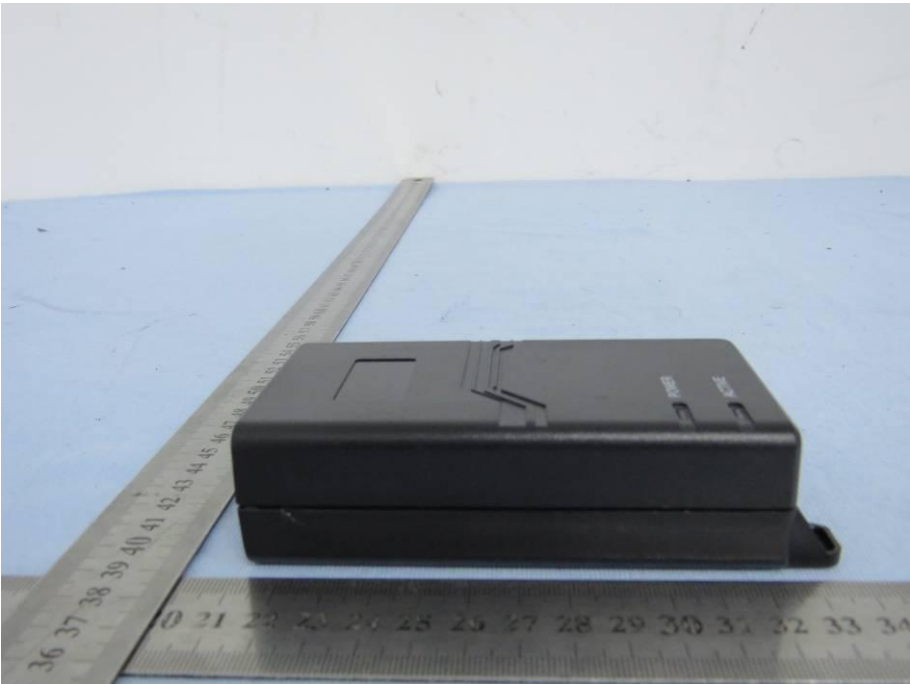


APPENDIX I (Photos of E.U.T.)

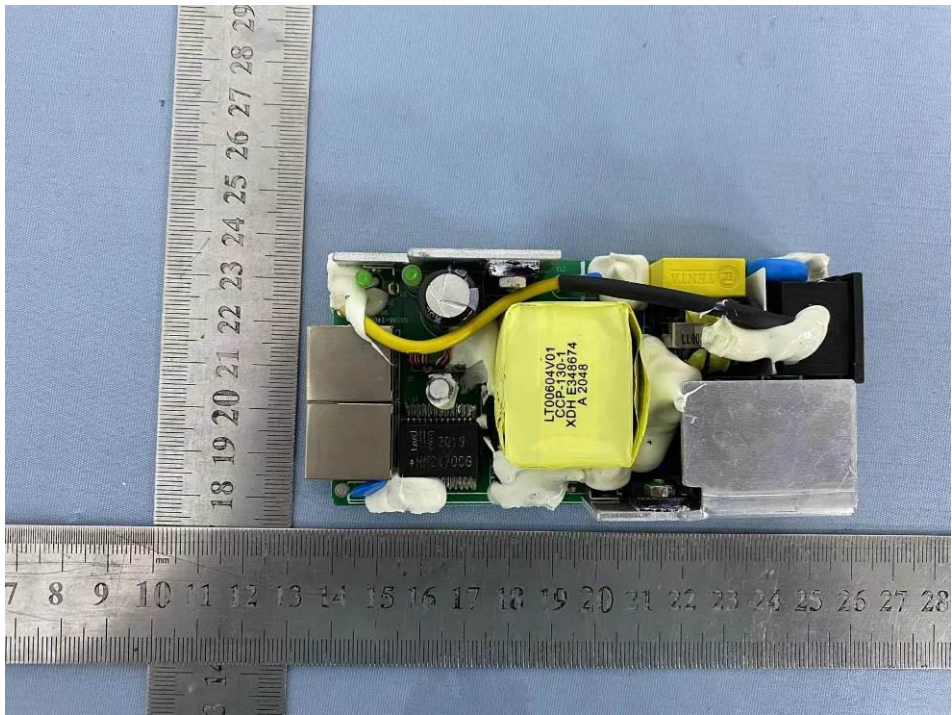
General Appearance of the EUT

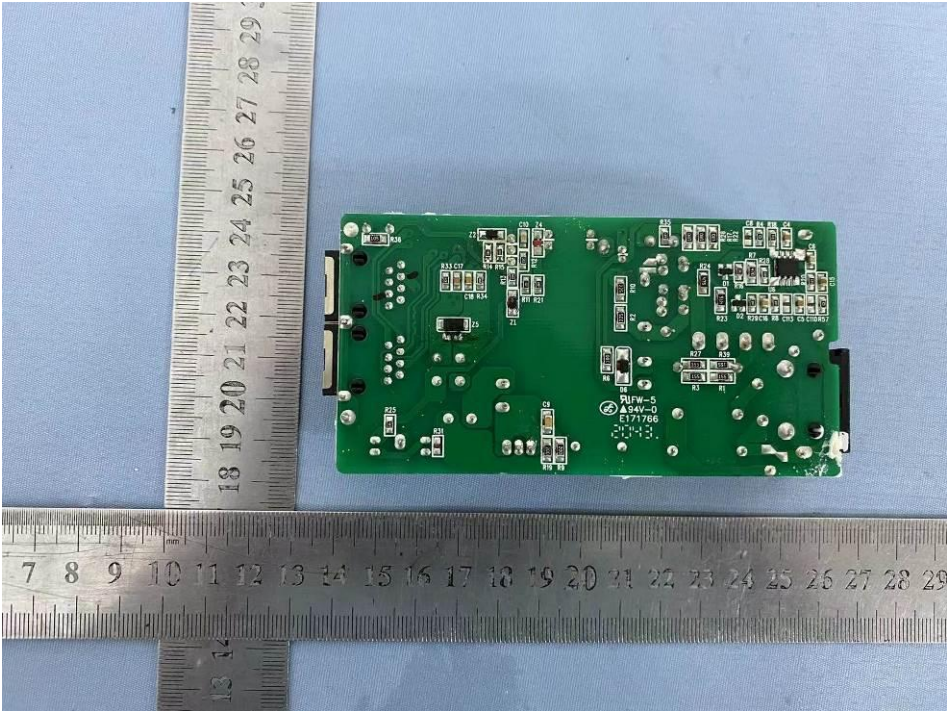




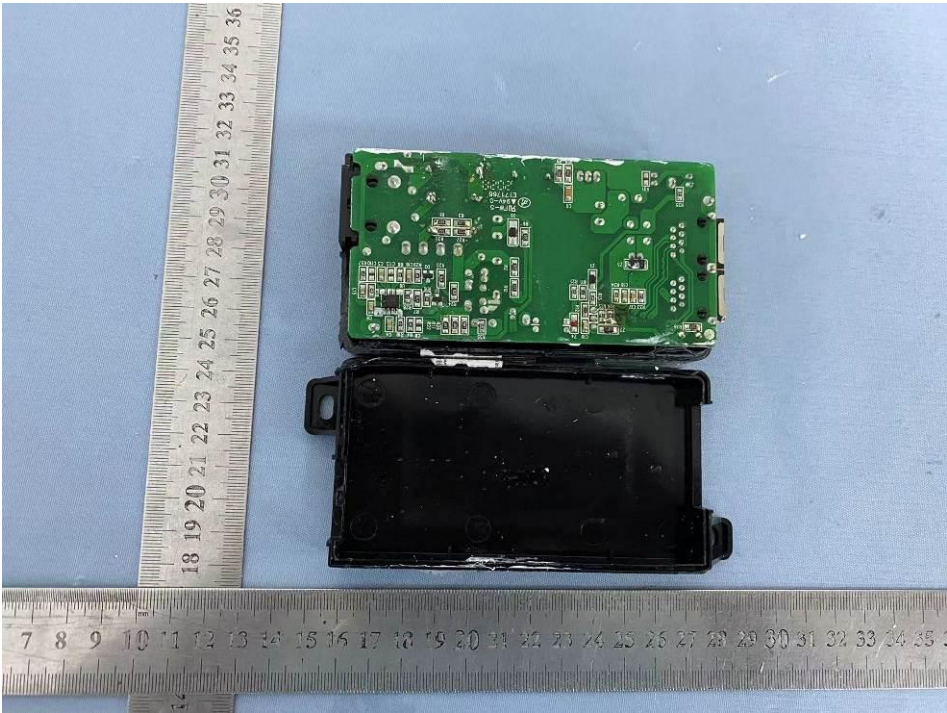


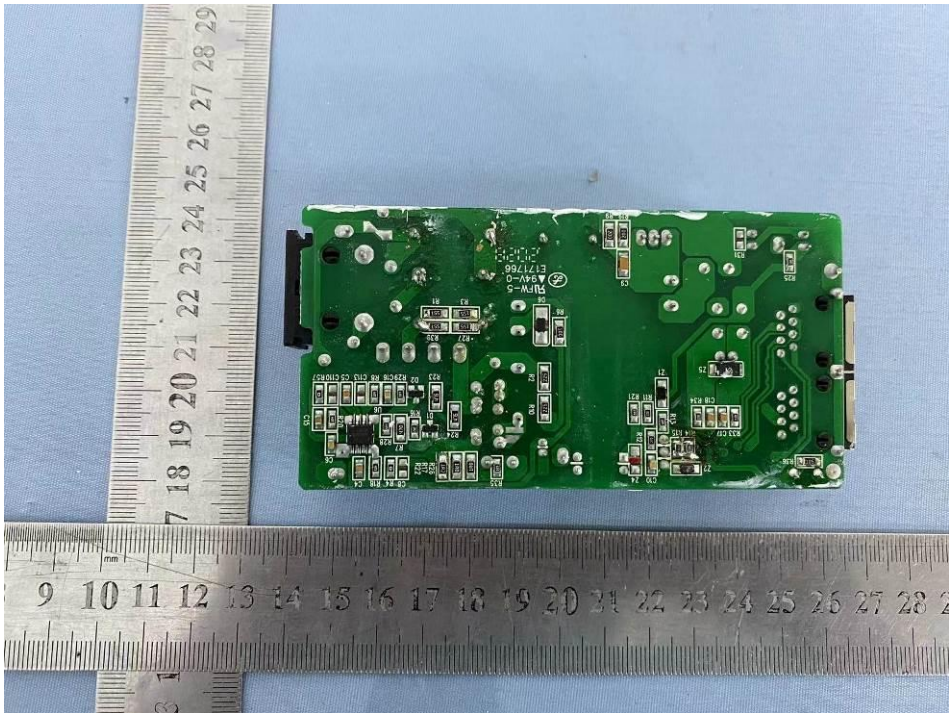
M/N: G0566-420-143





M/N: G0566-570-105





---End ---