



TEST REPORT

FOR

Internal Power, AC to DC

MODEL : TPP 180-124A-M

SERIES MODEL: Refer to item 5.1 for more details.

REPORT NUMBER: 4789855728A-EN-E1-V0

ISSUE DATE: Jun. 4, 2021

Prepared for

TRACO ELECTRONIC AG

Sihlbruggstrasse 111 CH-6340 Baar Switzerland

Prepared by

Underwriters Laboratories Taiwan Co., Ltd.,

Building B and Building E, No. 372-7, Sec. 4, Zhongxing Rd., Zhudong Township,
Hsinchu County, Taiwan

Tel: +886.2.2896.7790

Fax: +886.3.583.7948

Website: www.ul.com



The results reported herein have been performed in accordance with the laboratory's terms of accreditation. This report shall not be reproduced except in full without the written approval of the Laboratory. The results in this report are responsible of the test sample(s) provided by the client only and are not to be used to indicate applicability to other similar products.

Revision History

Rev.	Issue Date	Revisions	Revised By
--	Jun. 4, 2021	Initial Issue	Cindy Hsin

Summary of Test Results				
EMISSION (IEC 60601-1-2:2014, EN 60601-1-2:2015 standards)				
Standard	Test Item	Limit	Result	Remark
CISPR 11 Ed 5.1 EN55011: 2009+A1 : 2010	Conducted disturbance at mains terminals ports	Class B (Note 3)	PASS	Note 4
	Patient-coupled cable conducted emission	24dBuA	N/A	Note 1
	Radiated disturbance below 1GHz	Class A (Note 3)	PASS	Note 4
	Radiated disturbance above 1 GHz	Class A	N/A	Note 2
IEC 61000-3-2:2014	Harmonic current disturbance	Class D	PASS	Note 4
IEC 61000-3-3:2013	Voltage Fluctuations & Flicker	Refer to chapter 6.4.1	PASS	Note 4

Note: (1) There is no patient-coupled cable, so the test is unnecessary.

Note: (2) For Group 1, in the frequency range 1 to 18GHz limits are not specified.

Note: (3) The test performed of laboratory was according to the client requirements

Note: (4) Please refer to original report no.: 4789548226A-EN-E1-V0.

Summary of Test Results					
IMMUNITY (IEC 60601-1-2:2014, EN 60601-1-2:2015 standards)					
Professional healthcare facility environment					
Basic Standard	Test Item	Test Level	Criteria	Result	Remark
IEC 61000-4-2:2008	Electrostatic discharge immunity	Contact ± 8 kV Air ± 15 kV	Clause 7.1	PASS	Note 4
IEC 61000-4-3: 2006+ A1:2007+A2:2010	Radiated, radio frequency electromagnetic field immunity	3V/m 80%, 1kHz, AM 80MHz~2.7GHz	Clause 7.1	PASS	
	Proximity fields from RF wireless communications equipment	See page 6	Clause 7.1	PASS	
IEC 61000-4-4:2012	Electrical fast transient/burst immunity	2.0kV(AC Mains) 1kV(Signal Lines) 5/50ns, 100kHz	Clause 7.1	PASS	
IEC 61000-4-5: 2014 + A1: 2017	Surge immunity	2.0kV(Common) 1.0kV(Differential) 1.2/50us	Clause 7.1	PASS	
IEC 61000-4-6: 2013+ COR1: 2015	Immunity to conducted disturbances, induced by radio-frequency fields	3V(rms) 80%, 1kHz AM. 0.15MHz~80MHz 6 V(rms) in ISM bands between 0,15 MHz and 80 MHz.(Note1)	Clause 7.1	PASS	
IEC 61000-4-8:2009	Power frequency magnetic fieldimmunity	50Hz, 30 A/m	Clause 7.1	PASS	
IEC 61000-4-11:2004+ A1: 2017	Voltage dips, short interruptions and voltage variations immunity	Voltage dips, 0% residual for 0.5 cycle (Note 3)	Clause 7.1	PASS	
		Voltage dips, 0% residual for 1cycle (Note 3)	Clause 7.1		
		Voltage dips, 70% residual for 25/30 cycle (Note 2,3)	Clause 7.1		
		Voltage interruptions For 250/300 cycle (NOTE 2,3)	Clause 7.1		

Note: (1) The ISM (industrial, scientific and medical) bands between 0,15 MHz and 80 MHz are 6,765 MHz to 6,795 MHz; 13,553 MHz to 13,567 MHz; 26,957 MHz to 27,283 MHz; and 40,66 MHz to 40,70 MHz. The amateur radio bands between 0,15 MHz and 80 MHz are 1,8 MHz to 2,0 MHz, 3,5 MHz to 4,0 MHz, 5,3 MHz to 5,4 MHz, 7 MHz to 7,3 MHz, 10,1 MHz to 10,15 MHz, 14 MHz to 14,2 MHz, 18,07 MHz to 18,17 MHz, 21,0 MHz to 21,4 MHz, 24,89 MHz to 24,99 MHz, 28,0 MHz to 29,7 MHz and 50,0 MHz to 54,0 MHz.

Note: (2) 25/30 or 250/300 means 25 or 250 periods at 50 Hz or 30 or 300 periods at 60 Hz.

Note: (3) For ME EQUIPMENT and ME SYSTEMS that have multiple voltage settings or auto ranging voltage capability, the test shall be performed at the minimum and maximum RATED input voltage. ME EQUIPMENT and ME SYSTEMS with a RATED input voltage range of less than 25 % of the highest RATED input voltage shall be tested at one RATED input voltage within the range.

Note: (4) Please refer to original report no.: 4789548226A-EN-E1-V0.

Test specifications for ENCLOSURE PORT IMMUNITY to RF wireless communications equipment						
Test frequency	Band	Service	Modulation	Maximum power	Distance	IMMUNITY TEST LEVEL
385	380 – 390	TETRA 400	Pulse modulation 18 Hz	1,8	0,3	27
450	430 – 470	GMRS 460, FRS 460	FM ± 5 kHz deviation 1 kHz sine	2	0,3	28
710	704 – 787	LTE Band 13, 17	Pulse modulation 217 Hz	0,2	0,3	9
745						
780						
810	800 – 960	GSM 800/900, TETRA 800, iDEN 820, CDMA 850, LTE Band 5	Pulse modulation 18 Hz	2	0,3	28
870						
930						
1720	1700 – 1990	GSM 1800; CDMA 1900; GSM 1900; DECT; LTE Band 1, 3, 4, 25; UMTS	Pulse modulation 217 Hz	2	0,3	28
1845						
1970						
2450	2400 – 2570	Bluetooth, WLAN,802.11 b/g/n, RFID 2450, LTE Band 7	Pulse modulation 217 Hz	2	0,3	28
5240	5100 – 5800	WLAN 802.11 a/n	Pulse Modulation 217 Hz	0,2	0,3	9
5500						
5785						
NOTE: If necessary to achieve the IMMUNITY TEST LEVEL, the distance between the transmitting antenna and the ME EQUIPMENT or ME SYSTEM may be reduced to 1 m. The 1 m test distance is permitted by IEC 61000-4-3.						

TABLE OF CONTENTS

1. ATTESTATION OF TEST RESULTS.....	9
2. TEST METHODOLOGY	10
3. FACILITIES AND ACCREDITATION.....	10
4. CALIBRATION AND UNCERTAINTY	11
4.1. Measuring Instrument Calibration	11
4.2. Measurement Uncertainty	11
5. EQUIPMENT UNDER TEST	13
5.1. Description of EUT	13
5.2. Test Mode	15
5.3. EUT Configuration Test Setup	16
5.4. Monitoring of EUT for All Immunity Test.....	16
5.5. Accessory	16
5.6. Block diagram showing the configuration of system tested.....	17
5.7. Description of support units	18
5.8. Measuring Instrument List	19
6. EMISSION TEST	22
6.1. Conducted Disturbance Measurement.....	22
6.1.1. Limits of conducted disturbance voltage and common mode disturbance.	22
6.1.2. Test Procedure	23
6.1.3. Test Setup and Configuration :	23
6.1.4. Test Result	24
6.2. Radiated Disturbance Measurement	28
6.2.1. Limits of radiated disturbance measurement	28
6.2.2. Test Procedure	30
6.2.3. Test Setup and Configuration.....	31
6.2.4. Test Result	32
6.3. Harmonic Current Disturbance Measurement	34
6.3.1. Limits of Harmonic Current.....	34
6.3.2. Test Procedure	35
6.3.3. Test Setup and Configuration.....	35
6.3.4. Test Condition	35
6.3.5. Test Result	36
6.4. Voltage Fluctuation and Flicker Measurement	39
6.4.1. Limits of Voltage Fluctuation and Flicker.....	39
6.4.2. Test Procedure	40
6.4.3. Test Setup and Configuration.....	40
6.4.4. Test Condition	40
6.4.5. Test Result	41

7. IMMUNITY TEST	42
7.1. Performance Criteria	42
7.2. Electrostatic Discharge Immunity Test	43
7.2.1. Test Specification	43
7.2.2. Test Procedure	43
7.2.3. Test Setup and Configuration.....	44
7.2.4. Test Result	45
7.3. Radio Frequency Electromagnetic Field Immunity Test	47
7.3.1. Test Specification	47
7.3.2. Test Procedure	47
7.3.3. Test Setup and Configuration.....	48
7.3.4. RS proximity fields from RF Wireless Communication Test Specification.....	49
7.3.5. Test Procedure	49
7.3.6. Test Setup and Configuration.....	49
7.3.7. Test Result	50
7.4. Electrical Fast Transient/Burst Immunity Test	51
7.4.1. Test Specification	51
7.4.2. Test Procedure	51
7.4.3. Test Setup and Configuration.....	52
7.4.4. Test Result	53
7.5. Surge Immunity Test	54
7.5.1. Test Specification	54
7.5.2. Test Procedure	54
7.5.3. Test Setup and Configuration.....	55
7.5.4. Test Result	56
7.6. Immunity to Conducted Disturbances Induced by RF Fields	58
7.6.1. Test Specification	58
7.6.2. Test Procedure	58
7.6.3. Test Setup and Configuration.....	59
7.6.4. Test Result	60
7.7. Power frequency magnetic field immunity Test.....	61
7.7.1. Test Specification	61
7.7.2. Test Procedure	61
7.7.3. Test Setup and Configuration.....	62
7.7.4. Test Results	63
7.8. Voltage Dips and Short Interruptions Immunity Test	64
7.8.1. Test Specification	64
7.8.2. Test Procedure	64
7.8.3. Test Setup and Configuration.....	65
7.8.4. Test Result	66
Appendix I: Photographs of EMC Test Configuration.....	68
Appendix II: Photographs of the EUT	68
Appendix III: Preliminary Test Raw Data	69

Annex : Additional test request by client.	112
--	------------

1. ATTESTATION OF TEST RESULTS

COMPANY NAME: TRACO ELECTRONIC AG
Sihlbruggstrasse 111 CH-6340 Baar Switzerland

MANUFACTURER: TRACO ELECTRONIC AG
Sihlbruggstrasse 111 CH-6340 Baar Switzerland

EUT DESCRIPTION: Internal Power, AC to DC

MODEL: TPP 180-124A-M

SERIES MODEL : Refer to item 5.1 for more details.


DATE of TESTED: Jul. 3, 2020 ~ Aug. 21, 2020

APPLICABLE STANDARDS	
STANDARDS	TEST RESULTS
IEC 60601-1-2:2014 EN 60601-1-2:2015	PASS

Underwriters Laboratories Taiwan Co., Ltd. tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by Underwriters Laboratories Taiwan Co., Ltd. based on interpretations and/or observations of test results. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.


Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by Underwriters Laboratories Taiwan Co., Ltd. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by Underwriters Laboratories Taiwan Co., Ltd. will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, any agency of the Federal Government, or any agency of any government.

Prepared By:


Cindy Hsin
Project Handler

Date : Jun. 4, 2021

Approved and Authorized By:


Roy Chen
Operations Manager

Date : Jun. 4, 2021

2. TEST METHODOLOGY

All tests were performed in accordance with the procedures documented in the reference standards listed in summary of test results page 3 and page 4.

3. FACILITIES AND ACCREDITATION

Test Location	Underwriters Laboratories Taiwan Co., Ltd.,
Address	Building B and Building E, No. 372-7, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County, Taiwan
Description	All measurement facilities use to collect the measurement data are located at Building B and Building E, No. 372-7, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County, Taiwan

4. CALIBRATION AND UNCERTAINTY

4.1. Measuring Instrument Calibration

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

4.2. Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

Electromagnetic interference:

Test Item	Measurement Frequency Range	K	U(dB)
Conducted disturbance at mains terminals ports	0.15MHz ~ 30MHz	2	1.5
966-1 Test Site			
Radiated disturbance below 1 GHz	30MHz ~ 1000MHz	2	5.7

Test Item	K	Voltage(%)	Current(%)
Harmonic&Flicker	2	0.1	0.15

Electromagnetic sensitivity:

Test Item	Measurement Frequency Range	K	U(dB)
Radiated, radio frequency electromagnetic field immunity	80MHz ~ 1000MHz	2	1.9
Immunity to conducted disturbances, induced by radio-frequency fields (CDN)	0.15MHz ~ 80MHz	2	2.4

Test Item	K	Voltage(%)	Rise Time(%)	First Peak Current (%)	Current @ 30ns (%)	Current @ 60ns (%)
Electrostatic discharge immunity	2	2.6	6.9	3.9	4.0	4.0

Test Item	K	Peak Voltage(%)	Rise Time(%)	Pulse width(%)	Burst duration & Period (%)	Repetition rate (%)
Electrical fast transient/burst immunity	2	1.0	2.4	5.1	0.74	0.22

Test Item	K	Phase Shifting (%)	Voltage (%)	Current (%)	Front Time & Duration(For waveform of the surge voltage)(%)	Front Time & Duration(For waveform of the surge current)(%)
Surge immunity	2	0.31	3.6	2.7	1.5	5.9

Test Item	K	Magnetic field Strength(%)	Current (mA/A)
Power Frequency Magnetic Field Immunity Test	2	1.0	31

Test Item	K	Voltage(%)	Time (%)	Phase Angle (%)
Voltage dips, short interruptions and voltage variations immunity	2	1.8	6.5	2.4

5. EQUIPMENT UNDER TEST

5.1. Description of EUT

EUT Name:	Internal Power, AC to DC
Model:	TPP 180-124A-M
Series Model:	TPP 180-112BA-M, TPP 180-112B-M, TPP 180-112A-M, TPP 180-112-M, TPP 180-115BA-M, TPP 180-115B-M, TPP 180-115A-M, TPP 180-115-M, TPP 180-118BA-M, TPP 180-118B-M, TPP 180-118A-M, TPP 180-118-M, TPP 180-124BA-M, TPP 180-124B-M, TPP 180-124A-M, TPP 180-124-M, TPP 180-128BA-M, TPP 180-128B-M, TPP 180-128A-M, TPP 180-128-M, TPP 180-136BA-M, TPP 180-136B-M, TPP 180-136A-M, TPP 180-136-M, TPP 180-148BA-M, TPP 180-148B-M, TPP 180-148A-M, TPP 180-148-M, TPP 180-153BA-M, TPP 180-153B-M, TPP 180-153A-M, TPP 180-153-M
Power Rating :	From AC power
Group :	Group 1
Condition of EUT:	Pre-Production
Environments:	Professional healthcare facility environment
DATE of Sample Received:	May 18, 2020

Note :

1. This report was issued base on original report which report number is 4789548226A-EN-E1-V0, the differences were only change models' name and the applicant. There is no additional test shall be verified. For the test data, copied from original report 4789548226A-EN-E1-V0 show on this report.

2. The models difference table as below:

Model Number	Input Voltage Range (Vac)	Output Voltage (Vdc)
TPP 180-112BA-M	85~264	12
TPP 180-115BA-M	85~264	15
TPP 180-118BA-M	85~264	18
TPP 180-124BA-M	85~264	24
TPP 180-128BA-M	85~264	28
TPP 180-136BA-M	85~264	36
TPP 180-148BA-M	85~264	48
TPP 180-153BA-M	85~264	53
TPP 180-112B-M	85~264	12
TPP 180-115B-M	85~264	15
TPP 180-118B-M	85~264	18
TPP 180-124B-M	85~264	24
TPP 180-128B-M	85~264	28
TPP 180-136B-M	85~264	36
TPP 180-148B-M	85~264	48
TPP 180-153B-M	85~264	53
TPP 180-112A-M	85~264	12
TPP 180-115A-M	85~264	15
TPP 180-118A-M	85~264	18
TPP 180-124A-M	85~264	24
TPP 180-128A-M	85~264	28
TPP 180-136A-M	85~264	36
TPP 180-148A-M	85~264	48
TPP 180-153A-M	85~264	53
TPP 180-112-M	85~264	12
TPP 180-115-M	85~264	15
TPP 180-118-M	85~264	18
TPP 180-124-M	85~264	24
TPP 180-128-M	85~264	28
TPP 180-136-M	85~264	36
TPP 180-148-M	85~264	48
TPP 180-153-M	85~264	53

1. Protection class:
“B” represents Class I,
“blank” represents Class II.
2. Package type:
“A” represents Open Frame type,
“blank” represents Enclosed type.

5.2. Test Mode

The Pre-test modes:

Mode	Description	Conducted Emission	Radiated Emission
Mode 1	Full Load-TPP 180-112B-M	v	v
Mode 2	Full Load-TPP 180-124B-M	v	v
Mode 3	Full Load-TPP 180-112BA-M	v	v
Mode 4	Full Load-TPP 180-124BA-M	v	v
Mode 5	Full Load-TPP 180-112-M	v	v
Mode 6	Full Load-TPP 180-124-M	v	v
Mode 7	Full Load-TPP 180-112A-M	v	v
Mode 8	Full Load-TPP 180-124A-M	v	v

After pre-testing, the final test mode was displayed as below table.

Test Items		Test Mode
Emission	Conducted Emission	Mode 8
	Radiated Emission	Mode 8
	Harmonic & Flicker	Mode 8
Immunity	Electrostatic Discharge	Mode 8
	Radio Frequency Electromagnetic Field	Mode 8
	Electrical Fast Transients	Mode 8
	Surge immunity	Mode 8
	Conducted disturbances immunity	Mode 8
	Power frequency magnetic field	Mode 8
	Voltage Dip and Short interruption	Mode 8

Note: The customer only provided TPP 180-112B-M, TPP 180-112-M, TPP 180-124B-M, TPP 180-124-M, TPP 180-112BA-M, TPP 180-112A-M, TPP 180-124BA-M, TPP 180-124A-M for the EMI pretest and choose the worst mode do the EMI and EMS final test.

5.3. EUT Configuration Test Setup

For Emission test:

- a. The EUT was linked to resistance load with full load during the testing.
- b. Power on the EUT and run test.

For Immunity test:

- a. The EUT was linked to resistance load with full load and the resistance load was connected with a meter during the testing.
- b. Power on the EUT and run test.

5.4. Monitoring of EUT for All Immunity Test

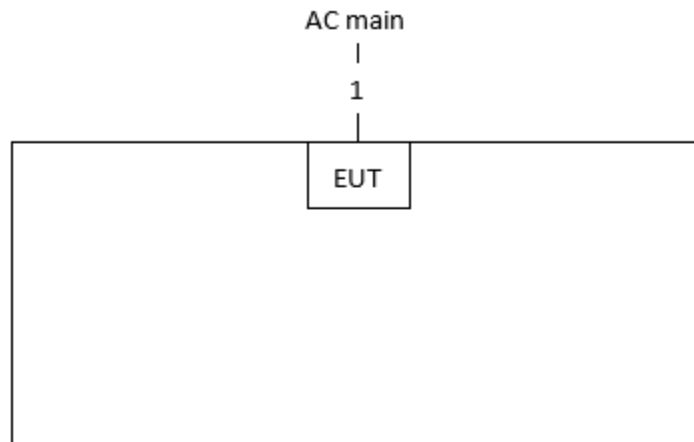
Audio	N/A
Visual	Monitor the output voltage through the meter.

5.5. Accessory

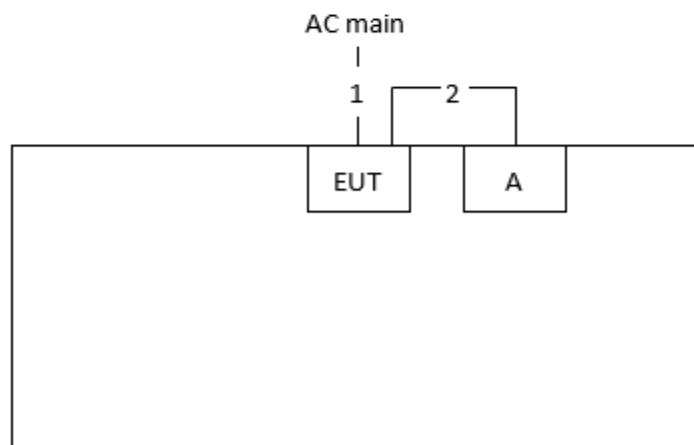
N/A

5.6. Block diagram showing the configuration of system tested

For EMI test:



For EMS test:



5.7. Description of support units

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	Series No.	FCC ID	Note
A	Meter	CNSCKJ	C85C1-V	N/A	N/A	N/A

Item	Connection	Shielded Type	Length	Note
1	AC power cable	Non-shielded	1.2 m	Provide by the customer
2	Power Wire*2	Non-shielded	0.3 m	N/A

5.8. Measuring Instrument List

Instrument					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Expired date
Conducted Disturbance					
EMI Test Receiver	Rohde & Schwarz	ESR7	101753	2019/11/19	2020/11/17
Two-Line V-Network	Rohde & Schwarz	ENV216	102136	2019/8/8	2020/8/6
RF Current Probe	FCC	F-52	171502	2020/2/5	2021/2/3
Impuls-Begrenzer Pulse Limiter	Rohde & Schwarz	ESH3-Z2	102219-Qt	2019/8/6	2020/8/4
Cable	HARBOUR INDUSTRIES	LL142	170205-5000-1	2020/2/5	2021/2/3
Measurement Software	Farad	EZ-EMC Ver: UL-3A1.2	N/A	N/A	N/A
Radiated Disturbance					
966-1					
EMI Test Receiver	Rohde & Schwarz	ESR7	101755	2019/12/4	2020/12/3
Loop Antenna	ETS Lindgren	6502	00213440	2019/12/19	2020/12/18
Trilog-Broadband Antena with 5dB Attenuator	SCHWARZBECK	VULB 9168 & N-6-05	9168-773 & AT-N0539	2020/2/11	2021/2/9
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	1686	2019/12/27	2020/12/25
Preamplifier	EMC Instrument	EMC330E	980405	2020/2/4	2021/2/3
Preamplifier	EMC Instrument	EMC051835BE	980407	2020/1/15	2021/1/13
Cables	UltraPhase&EMC Instrument	A1K50-UP0358-A1K50-1500&EMC106-NM-SM-2500/8000	170111-3&170104/170223	2020/2/5	2021/2/3
Measurement Software	Farad	EZ-EMC Ver: UL-3A1	N/A	N/A	N/A
Voltage Harmonic & Flicker					
single phase coupling unit	TESEQ	CCN1000-1	1652A01270	2020/4/15	2021/4/14
Programmable AC and DC Power Sources	TESEQ	NSG1007	1652A00760	2020/4/15	2021/4/14
Measurement Software	TESEQ	WIN2100(4.14.0)	N/A	N/A	N/A

Instrument					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Expired date
Electrostatic discharge					
ESD Generator	TESEQ	NSG 437	1125	2019/12/9	2020/12/7
Barometer	TFA	DIVA PLUS	35.1078.10.IT	2020/6/12	2021/6/11
Radio frequency electromagnetic field immunity					
RF and Microwave Signal Generator	Rohde & Schwarz	SMB100A	113793	2020/2/26	2021/2/24
Power amplifier	Milmega	80RF1000-300	1077558	N/A	N/A
Directional coupler	Werlatone	C8719-20	111759	N/A	N/A
Antenna	AR	ATR80M6G	346008	N/A	N/A
RF switch	OSP	OSP	N/A	N/A	N/A
Power Meter	Rohde & Schwarz	NRP2	105524	2019/10/21	2020/10/19
Power Sensor	Rohde & Schwarz	NRP-Z91	103732	2019/10/21	2020/10/19
Power Sensor	Rohde & Schwarz	NRP-Z91	103733	2019/10/21	2020/10/19
Measurement Software	Rohde & Schwarz	EMC32, VER.10.20.01	N/A	N/A	N/A
Electrical fast transient					
Ultra Compact Simulator	EM TEST	UCS 500N7	P1628180275	2019/12/12	2020/12/10
Capacitive Coupling Clamp	EM TEST	HFK	P1642185790	2019/11/27	2020/11/25
Measurement Software	TESEQ	IEC.control, VER.7.1.5	N/A	N/A	N/A
Surge					
Ultra Compact Simulator	EM TEST	UCS 500N7	P1628180275	2019/12/12	2020/12/10
Telecom Surge Generator	EM TEST	TSurge7	P1620180015	2019/12/11	2020/12/9
Coupling and Decoupling Network	EM TEST	CNV 508T5	P1637184038	2019/12/16	2020/12/14
Coupling and Decoupling Network	TESEQ	CDN HSS-2	45091	2019/12/16	2020/12/14
Measurement Software	TESEQ	IEC.control, VER.7.1.5	N/A	N/A	N/A

Instrument					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Expired date
Immunity to conducted disturbances, induced by radio-frequency fields					
Signal Generator	Rohde & Schwarz	SMC100A	105811	2019/10/24	2020/10/22
Power amplifier	Rohde & Schwarz	BBA150-A125B125	102340	N/A	N/A
Coupling and Decoupling Network	TESEQ	CDN M016	45073	2020/3/13	2021/3/12
Coupling and Decoupling Network	TESEQ	CDN T2-10	45003	2020/3/13	2021/3/12
Coupling and Decoupling Network	TESEQ	CDN T4-10	44939	2020/3/13	2021/3/12
Coupling and Decoupling Network	TESEQ	CDN T8-10	49203	2019/12/23	2020/12/21
EM Injection Clamp	TESEQ	CAL 801A & KEMZ 801A	75454.1, 75454.2 & 45181	2020/3/18	2021/3/17
Current injection Probe	TESEQ	CIP 9136A	44618	2019/9/20	2020/9/18
Power - Sensor	Rohde & Schwarz	NRP-Z91	103730	2019/12/5	2020/12/3
Power - Sensor	Rohde & Schwarz	NRP-Z91	103731	2019/12/5	2020/12/3
Measurement Software	Rohde & Schwarz	EMC32, VER.10.20.01	N/A	N/A	N/A
Power frequency magnetic field immunity					
Ultra Compact Simulator	EM TEST	UCS 500N7	P1628180275	2019/12/12	2020/12/10
Current Transformer	EM TEST	MC 2630	P1644186773	2019/11/15	2020/11/13
Magnetic Field Test Antena	EM TEST	MS 100N	P1627181324	2019/11/15	2020/11/13
Voltage dips and interruptions					
Ultra Compact Simulator	EM TEST	UCS 500N7	P1628180275	2019/12/12	2020/12/10
Motorized Variac	EM TEST	MV 2616 (varic NX1-260-16)	P1643186426	2019/12/11	2020/12/9
Measurement Software	TESEQ	IEC.control, VER.7.1.5	N/A	N/A	N/A

6. EMISSION TEST

6.1. Conducted Disturbance Measurement

6.1.1. Limits of conducted disturbance voltage and common mode disturbance.

AC mains port:

FREQUENCY (MHz)	<input type="checkbox"/> Group 1 Class A (dBμV) ≤ 20kVA		<input checked="" type="checkbox"/> Group 1 Class B (dBμV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 -0.5	79	66	66 - 56 *	56 - 46*
0.50 -5.0	73	60	56	46
5.0 -30.0	73	60	60	50

FREQUENCY (MHz)	<input type="checkbox"/> Group 2 Class A (dBμV) ≤ 75kVA		<input type="checkbox"/> Group 2 Class B (dBμV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 -0.5	100	90	66 - 56 *	56 - 46*
0.50 -5.0	86	76	56	46
5.0 -30.0	90 - 73 *	80 - 60 *	60	50

Limit of patient-couple port cable emission :

Frequency (MHz)	Peak Current (dBuA)
1-30	24

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.
- (3) The test result calculated as following:
Measurement Value = Reading Level + Correct Factor
Correct Factor = Insertion Loss + Cable Loss + Attenuator Factor(if use)
Margin Level = Measurement Value - Limit Value

The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

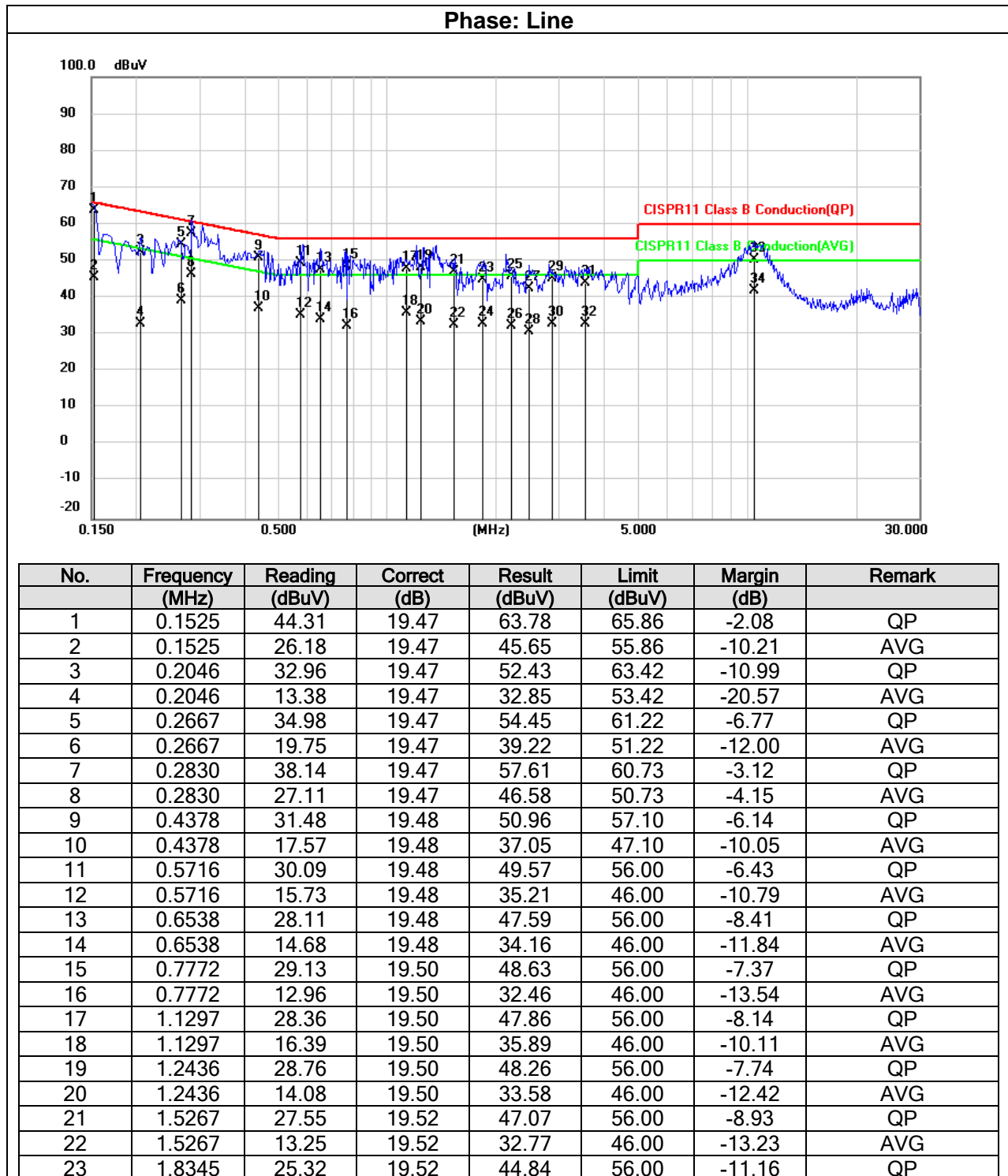
- a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall at least 1 m.
- d. LISN at least 80 cm from nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item:EUT Test Photos.

The diagram illustrates a test setup for an EUT/AE and its PSU on a table. The table has a height of 0.8 m. The EUT/AE and PSU are placed on the table surface, with a minimum distance of 0.1 m between them. The PSU is connected to the EUT/AE. The setup is positioned at least 0.8 m away from other metallic objects. The table is supported by legs, and the distance from the bottom of the legs to the vertical reference ground plane is 0.4 m. The table is insulated from the ground plane. Cables connect the EUT/AE and PSU to the ground plane. The diagram also shows the connection of AMNs or AANs to the reference ground plane.

This report shall not be reproduced except in full, without the written approval of Underwriters Laboratories Taiwan Co., Ltd.,

6.1.4. Test Result

Test Mode:	Mode 8	Temperature:	23°C
Test Voltage:	AC 230V/50Hz	Humidity:	60%RH
Tested By:	Edison Lin	Test Date:	Jul. 3, 2020



24	1.8345	13.49	19.52	33.01	46.00	-12.99	AVG
25	2.2042	26.42	19.53	45.95	56.00	-10.05	QP
26	2.2042	12.97	19.53	32.50	46.00	-13.50	AVG
27	2.4773	23.16	19.53	42.69	56.00	-13.31	QP
28	2.4773	11.43	19.53	30.96	46.00	-15.04	AVG
29	2.8869	25.64	19.55	45.19	56.00	-10.81	QP
30	2.8869	13.55	19.55	33.10	46.00	-12.90	AVG
31	3.5350	24.35	19.58	43.93	56.00	-12.07	QP
32	3.5350	13.27	19.58	32.85	46.00	-13.15	AVG
33	10.4125	30.67	19.67	50.34	60.00	-9.66	QP
34	10.4125	22.24	19.67	41.91	50.00	-8.09	AVG

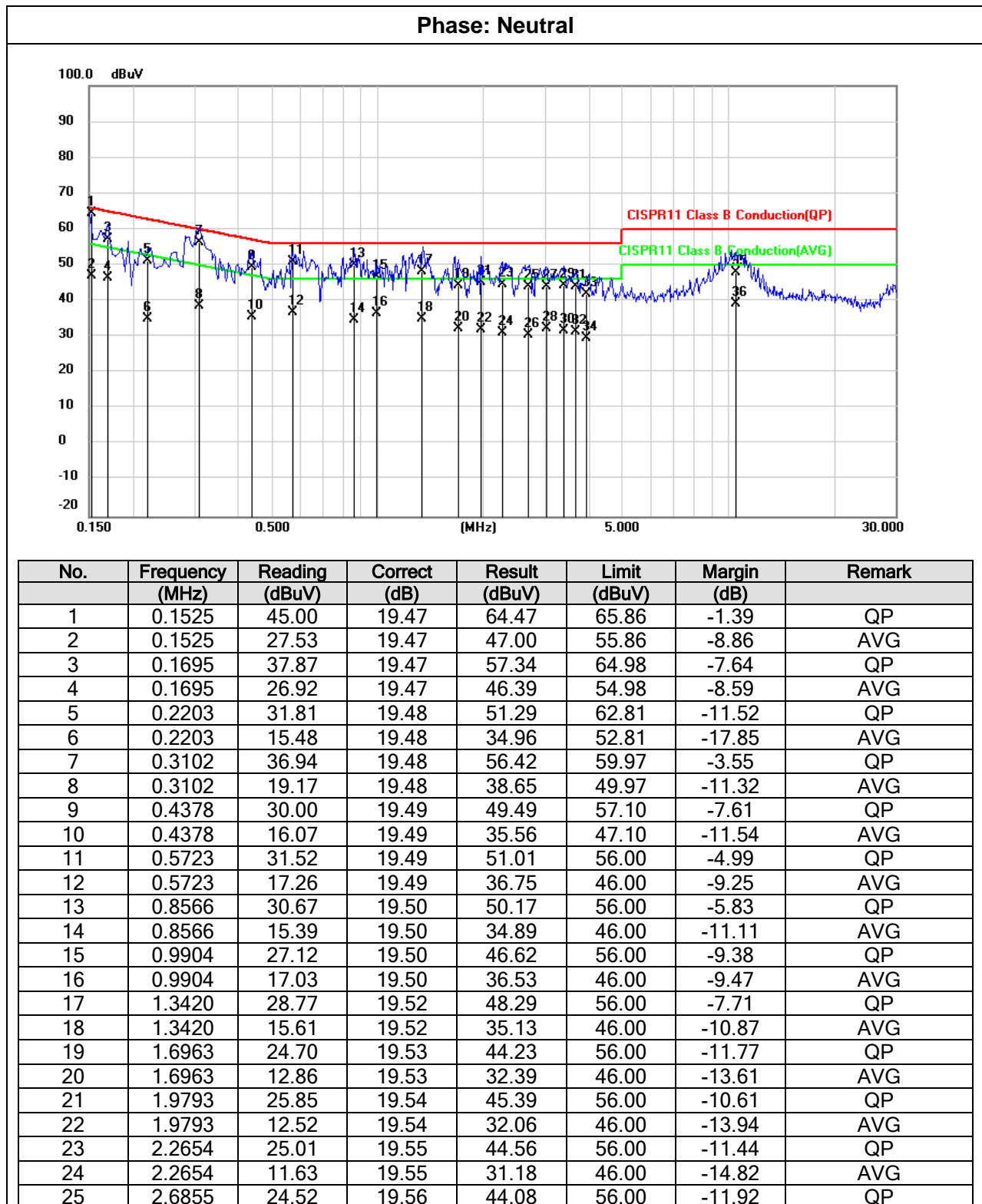
Remark:

Result = Reading +Correct

Correct = Insertion Loss + Cable Loss + Attenuator factor

Margin = Result – Limit

Test Mode:	Mode 8	Temperature:	23°C
Test Voltage:	AC 230V/50Hz	Humidity:	60%RH
Tested By:	Hank Yang	Test Date:	Jul. 3, 2020



26	2.6855	11.10	19.56	30.66	46.00	-15.34	AVG
27	3.0520	24.55	19.57	44.12	56.00	-11.88	QP
28	3.0520	12.77	19.57	32.34	46.00	-13.66	AVG
29	3.3928	24.66	19.58	44.24	56.00	-11.76	QP
30	3.3928	12.20	19.58	31.78	46.00	-14.22	AVG
31	3.6821	24.39	19.59	43.98	56.00	-12.02	QP
32	3.6821	11.80	19.59	31.39	46.00	-14.61	AVG
33	3.9687	22.48	19.59	42.07	56.00	-13.93	QP
34	3.9687	9.93	19.59	29.52	46.00	-16.48	AVG
35	10.5483	28.24	19.71	47.95	60.00	-12.05	QP
36	10.5483	19.55	19.71	39.26	50.00	-10.74	AVG

Remark:

Result = Reading +Correct

Correct = Insertion Loss + Cable Loss + Attenuator factor

Margin = Result – Limit

6.2. Radiated Disturbance Measurement

6.2.1. Limits of radiated disturbance measurement

FREQUENCY (MHz)	<input checked="" type="checkbox"/> Group 1 Class A ≤ 20 kVA		<input type="checkbox"/> Group 1 Class B	
	<input type="checkbox"/> At 10m	<input checked="" type="checkbox"/> At 3m	<input type="checkbox"/> At 10m	<input type="checkbox"/> At 3m
	Quasi-peak dB μ V/m	Quasi-peak dB μ V/m	Quasi-peak dB μ V/m	Quasi-peak dB μ V/m
30 – 230	40	50	30	40
230 – 1000	47	57	37	47

FREQUENCY (MHz)	☐Group 2 Class A ≤ 20 kVA		FREQUENCY (MHz)	☐Group 2 Class B		
	☐At 3m			☐At 3m		
	Magnetic Field Quasi-peak* dBμA/m	Electric Field Quasi-peak* dBμV/m		Magnetic Field Quasi-peak* dBμA/m	Electric Field	
					Quasi-peak* dBuV/m	Average* dBuV/m
0.15 – 0.49	82	-	0.15 - 30	39 - 3	-	-
0.49 – 1.705	72	-				
1.705 – 2.194	77	-				
2.194 – 3.95	68	-				
3.95 – 11	43.5 – 28.5*	-				
11 – 20	28.5	-				
20 – 30	18.5	-				
30 - 47	-	78	30 – 80.872	-	40	35
47 – 53.91	-	60				
53.91 – 54.56	-	60				
54.56 – 68	-	60				
68 – 80.872	-	73				
80.872 – 81.848	-	88	80.872 – 81.848	-	60	55
81.848 – 87	-	73	81.848 – 134.786	-	40	35
87 – 134.786	-	70	134.786 – 136.414	-	60	55
134.786 – 136.414	-	80	136.414 – 230	-	40	35
136.414 – 156	-	70				
156 – 174	-	84				
174 – 188.7	-	60				
188.7 – 190.979	-	70				
190.979 – 230	-	60	230 - 1000	-	47	42
230 – 400	-	70				
400 – 470	-	73				
470 – 1000	-	70				

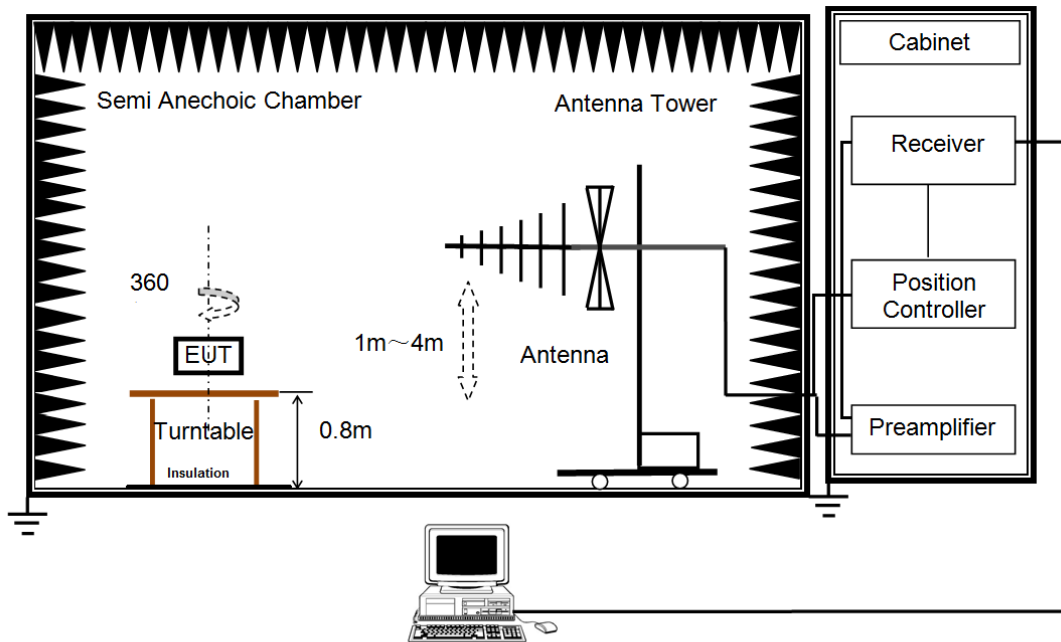
NOTE:

- (1) The limit for radiated test was performed according to EN55011.
- (2) The tighter limit applies at the band edges.
- (3) The test result calculated as following:
Measurement Value = Reading Level + Correct Factor,
Correct Factor = Antenna Factor + Cable Loss - Amplifier Gain(if use),
Margin Level = Measurement Value - Limit Value.
- (4) For Group 2 at 3m distance radiated magnetic field test, EUT shall be meet the small equipment requirement.
- (5) The average limits apply to magnetron driven equipment only. If magnetron driven equipment exceeds the quasi-peak limit at certain frequencies, then the measurement shall be repeated at these frequencies with the average detector, and the average limits specified in this table apply.
- (6) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

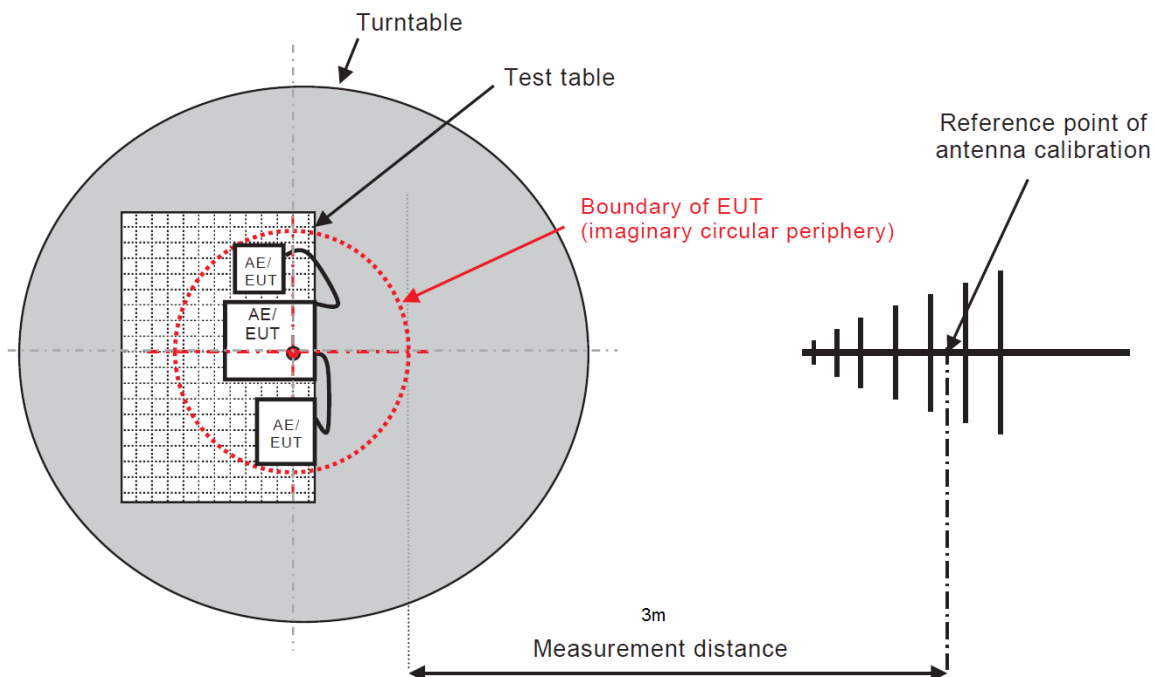
6.2.2. Test Procedure

- a. The measuring distance of at 3m shall be used for measurements at frequency from 30 to 1000MHz.
- b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The height of the equipment shall be set at 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. The initial step in collecting radiated emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- e. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
- f. For the actual test configuration, please refer to the related Item:EUT Test Photos.

6.2.3. Test Setup and Configuration



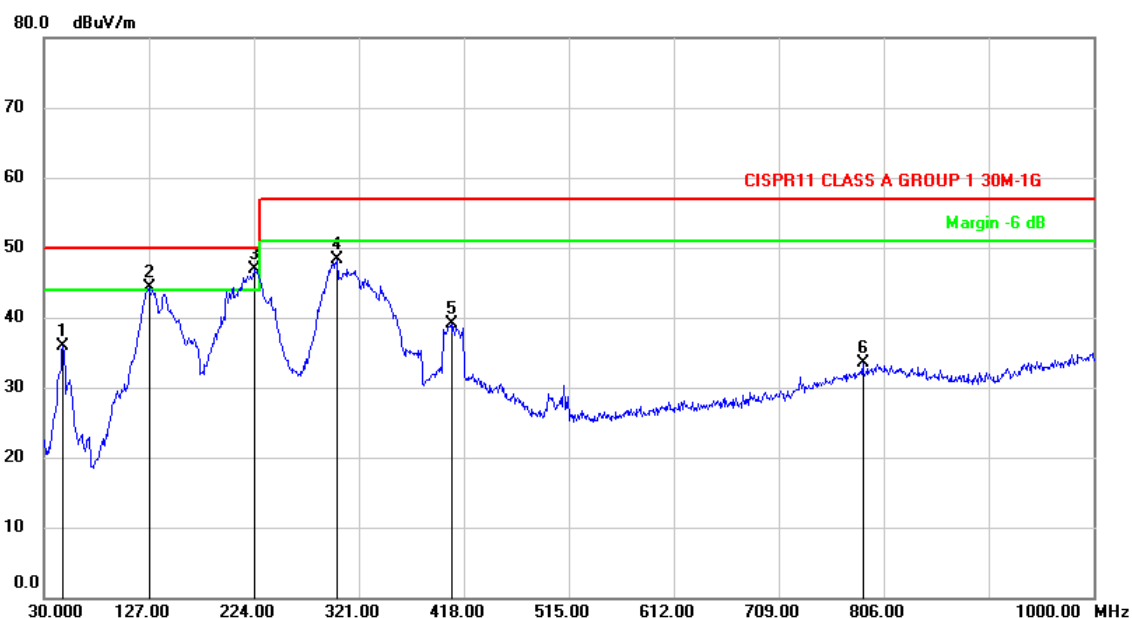
For the actual test configuration, please refer to Appendix I: Photographs of the Test Configuration.



6.2.4. Test Result

Test Mode:	Mode 8	Temperature:	25°C
Test Voltage:	AC 230V/50Hz	Humidity:	59%RH
Tested By:	Edison Lin	Test Date:	Jul. 6, 2020

30-1000MHz Polarization: Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	47.8479	47.31	-11.42	35.89	50.00	-14.11	peak
2	127.8730	57.61	-13.38	44.23	50.00	-5.77	peak
3	224.2909	60.20	-13.37	46.83	50.00	-3.17	peak
4	301.5029	58.71	-10.38	48.33	57.00	-8.67	peak
5	406.8450	46.46	-7.32	39.14	57.00	-17.86	peak
6	787.4729	30.74	2.70	33.44	57.00	-23.56	peak

Remark:

Result = Reading +Correct

Correct Factor = Antenna Factor + Cable Loss - Amplifier Gain

Margin = Result - Limit

Test Mode:	Mode 8	Temperature:	25°C
Test Voltage:	AC 230V/50Hz	Humidity:	59%RH
Tested By:	Edison Lin	Test Date:	Jul. 6, 2020

30-1000MHz Polarization: Vertical



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	47.6216	58.22	-11.42	46.80	50.00	-3.20	QP
2	132.7876	59.06	-12.86	46.20	50.00	-3.80	peak
3	143.4576	56.56	-11.76	44.80	50.00	-5.20	QP
4	172.3636	58.45	-11.92	46.53	50.00	-3.47	peak
5	224.7760	58.87	-13.36	45.51	50.00	-4.49	peak
6	302.0526	52.49	-10.37	42.12	57.00	-14.88	peak

Remark:

Result = Reading +Correct

Correct Factor = Antenna Factor + Cable Loss - Amplifier Gain

Margin = Result - Limit

6.3. Harmonic Current Disturbance Measurement

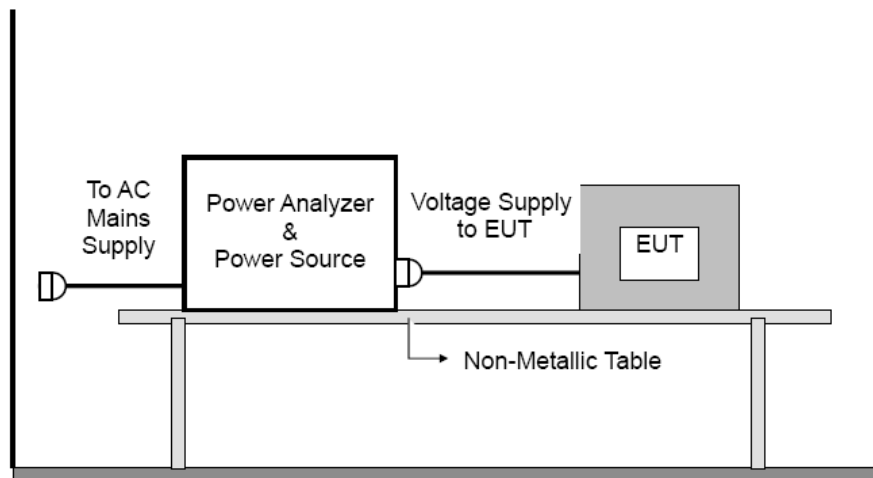
6.3.1. Limits of Harmonic Current

EN 61000-3-2/IEC 61000-3-2					
Equipment Category	Harmonic Order n	Max. Permissible Harmonic Current A	Equipment Category	Harmonic Order n	Max. Permissible Harmonic Current A mA/w
Class A	Odd Harmonics		Class D	Odd Harmonics only	
	3	2.30		3	2.30 3.4
	5	1.14		5	1.14 1.9
	7	0.77		7	0.77 1.0
	9	0.40		9	0.40 0.5
	11	0.33		11	0.33 0.35
	13	0.21		13	0.21 0.30
	15≤n≤39	0.15 x 15/n		15≤n≤39	0.15 x 15/n 3.85/n
	Even Harmonics				
	2	1.08			
	4	0.43			
	6	0.30			
	8≤n≤40	0.23 x 8/n			

6.3.2. Test Procedure

- The EUT was placed on the top of a wooden table 0.8 meters above the ground and operated to produce under normal conditions
- Tests was performed according to the Test the measured values of the harmonics components of the input current in Clause 7 of IEC/EN 61000-3-2 depend on which standard adopted for compliance measurement.

6.3.3. Test Setup and Configuration



For the actual test configuration, please refer to Appendix I: Photographs of the Test Configuration.

6.3.4. Test Condition

Test Mode:	Mode 8	Temperature:	24°C
Test Voltage:	AC 230V/50Hz	Humidity:	61%RH
Tested By:	Edison Lin	Test Date:	Aug. 21, 2020

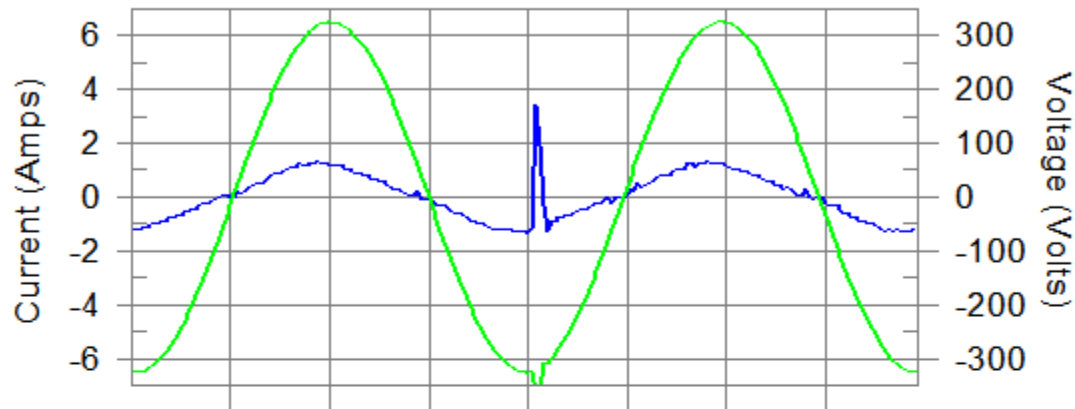
6.3.5. Test Result

Mode 8

Harmonics – Class-D per Ed. 4.0 (2014)(Run time) incl. inter-harmonics

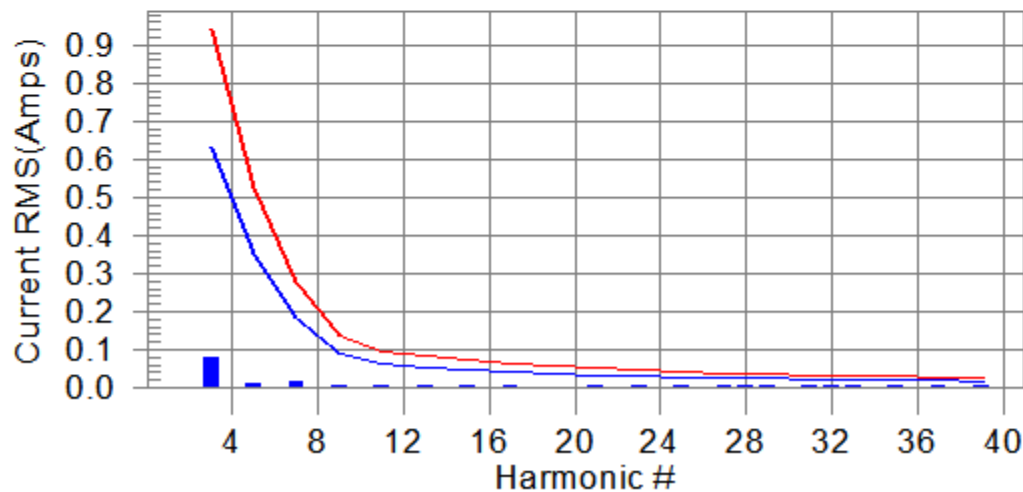
Test Result: Pass Source qualification: Normal

Current & voltage waveforms



Harmonics and Class D limit line

European Limits



Test result: Pass Worst harmonics H25-17.9% of 150% limit, H25-17.7% of 100% limit

Current Test Result Summary (Run Time)

Test Result: Pass Source qualification: Normal
THC(A): 0.083 I-THD(%): 10.2 POHC(A): 0.014 POHC Limit(A): 0.079

Highest parameter values during test:

V RMS (Volts): 229.98	Frequency(Hz): 50.00
I Peak (Amps): 5.428	I RMS (Amps): 0.833
I Fund (Amps): 0.816	Crest Factor: 6.517
Power (Watts): 184.8	Power Factor: 0.980

Harm#	Harms(avg)	100%Limit	%of Limit	Harms(max)	150%Limit	%of Limit	Status
2	0.002	0.000	N/A	0.006	0.000	N/A	Pass
3	0.078	0.628	12.4	0.079	0.943	8.4	Pass
4	0.002	0.000	N/A	0.008	0.000	N/A	Pass
5	0.011	0.351	3.1	0.015	0.527	2.9	Pass
6	0.002	0.000	N/A	0.007	0.000	N/A	Pass
7	0.014	0.185	7.4	0.017	0.277	6.3	Pass
8	0.003	0.000	N/A	0.007	0.000	N/A	Pass
9	0.007	0.092	7.4	0.010	0.139	7.2	Pass
10	0.002	0.000	N/A	0.006	0.000	N/A	Pass
11	0.006	0.065	9.7	0.009	0.097	9.3	Pass
12	0.002	0.000	N/A	0.005	0.000	N/A	Pass
13	0.004	0.055	N/A	0.007	0.083	N/A	Pass
14	0.003	0.000	N/A	0.005	0.000	N/A	Pass
15	0.005	0.048	11.3	0.007	0.072	9.3	Pass
16	0.002	0.000	N/A	0.004	0.000	N/A	Pass
17	0.003	0.043	N/A	0.005	0.064	N/A	Pass
18	0.003	0.000	N/A	0.004	0.000	N/A	Pass
19	0.003	0.038	N/A	0.005	0.056	N/A	Pass
20	0.003	0.000	N/A	0.004	0.000	N/A	Pass
21	0.005	0.034	14.9	0.007	0.051	14.1	Pass
22	0.003	0.000	N/A	0.005	0.000	N/A	Pass
23	0.003	0.031	N/A	0.006	0.046	N/A	Pass
24	0.003	0.000	N/A	0.005	0.000	N/A	Pass
25	0.005	0.028	17.7	0.008	0.043	17.9	Pass
26	0.003	0.000	N/A	0.006	0.000	N/A	Pass
27	0.004	0.026	N/A	0.006	0.040	N/A	Pass
28	0.004	0.000	N/A	0.007	0.000	N/A	Pass
29	0.004	0.025	N/A	0.007	0.037	N/A	Pass
30	0.003	0.000	N/A	0.006	0.000	N/A	Pass
31	0.004	0.023	N/A	0.007	0.034	N/A	Pass
32	0.004	0.000	N/A	0.006	0.000	N/A	Pass
33	0.005	0.021	N/A	0.007	0.032	N/A	Pass
34	0.003	0.000	N/A	0.006	0.000	N/A	Pass
35	0.004	0.020	N/A	0.007	0.030	N/A	Pass
36	0.002	0.000	N/A	0.006	0.000	N/A	Pass
37	0.004	0.019	N/A	0.007	0.029	N/A	Pass
38	0.002	0.000	N/A	0.006	0.000	N/A	Pass
39	0.004	0.018	N/A	0.007	0.027	N/A	Pass
40	0.002	0.000	N/A	0.004	0.000	N/A	Pass

Voltage Source Verification Data (Run time)

Test Result: Pass Source qualification: Normal

Highest parameter values during test:

Voltage (Vrms):	229.98	Frequency(Hz):	50.00
I Peak (Amps):	5.428	I RMS (Amps):	0.833
I Fund (Amps):	0.816	Crest Factor:	6.517
Power (Watts):	184.8	Power Factor:	0.980

Harm#	Harmonics V-rms	Limit V-rms	% of Limit	Status
2	0.053	0.460	11.53	OK
3	0.367	2.070	17.73	OK
4	0.028	0.460	6.06	OK
5	0.052	0.920	5.65	OK
6	0.031	0.460	6.74	OK
7	0.021	0.690	3.05	OK
8	0.022	0.460	4.89	OK
9	0.017	0.460	3.68	OK
10	0.018	0.460	4.00	OK
11	0.018	0.230	7.73	OK
12	0.020	0.230	8.67	OK
13	0.018	0.230	7.73	OK
14	0.013	0.230	5.46	OK
15	0.014	0.230	5.91	OK
16	0.011	0.230	4.96	OK
17	0.012	0.230	5.13	OK
18	0.015	0.230	6.31	OK
19	0.010	0.230	4.22	OK
20	0.014	0.230	6.06	OK
21	0.011	0.230	4.88	OK
22	0.012	0.230	5.32	OK
23	0.014	0.230	6.09	OK
24	0.013	0.230	5.63	OK
25	0.014	0.230	6.19	OK
26	0.014	0.230	6.03	OK
27	0.017	0.230	7.24	OK
28	0.015	0.230	6.60	OK
29	0.016	0.230	7.05	OK
30	0.016	0.230	6.92	OK
31	0.017	0.230	7.49	OK
32	0.014	0.230	6.22	OK
33	0.015	0.230	6.69	OK
34	0.013	0.230	5.73	OK
35	0.017	0.230	7.31	OK
36	0.012	0.230	5.18	OK
37	0.012	0.230	5.34	OK
38	0.011	0.230	4.69	OK
39	0.014	0.230	5.96	OK
40	0.012	0.230	5.04	OK

6.4. Voltage Fluctuation and Flicker Measurement

6.4.1. Limits of Voltage Fluctuation and Flicker

Test items	Limits	Descriptions
P_{st}	≤ 1.0 , $T_p=10\text{min}$	short-term flicker indicator
P_{lt}	≤ 0.65 , $T_p=2\text{h}$	long-term flicker indicator
d_c	$\leq 3.3\%$	relative steady-state voltage change
d_{max}	$\leq 4\%$ (or 6% <small>Note(1)</small> , 7% <small>Note(2)</small>)	maximum relative voltage change:
$d_{(t)}$	$\leq 3.3\%$, more than 500ms	relative voltage change characteristic

Note:

(1) 6 % for equipment which is:

- a. switched manually, or
- b. switched automatically more frequently than twice per day, and also has either a delayed restart (the delay being not less than a few tens of seconds), or manual restart, after a power supply interruption.

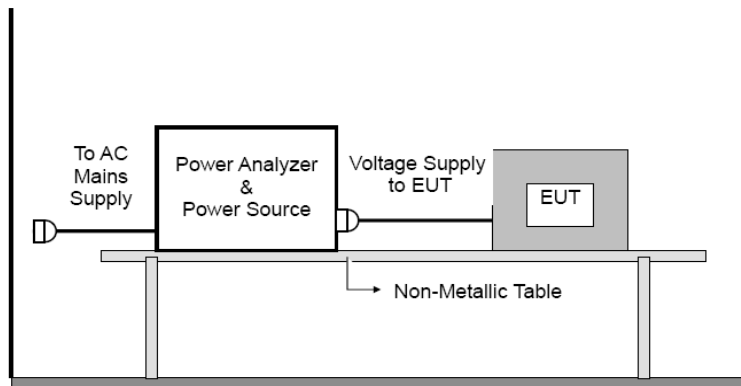
(2) 7 % for equipment which is

- a. attended whilst in use (for example: hair dryers, vacuum cleaners, kitchen equipment such as mixers, garden equipment such as lawn mowers, portable tools such as electric drills), or
- b. switched on automatically, or is intended to be switched on manually, no more than twice per day, and also has either a delayed restart (the delay being not less than a few tens of seconds) or manual restart, after a power supply interruption.

6.4.2. Test Procedure

- The EUT was placed on the top of a wooden table 0.8 meters above the ground and operated to produce the most unfavorable sequence of voltage changes under normal conditions
- During the flick measurement, the measure time shall include that part of whole operation changes according to IEC/EN 61000-3-3 Annex A for each product type has different requirement.
- Tests was performed according to the Test Conditions/Assessment of Voltage Fluctuations specified in Clause 6.0/4.0 of IEC/EN 61000-3-3 depend on which standard adopted for compliance measurement.
- All types of harmonic current and/or voltage fluctuation in this report are assessed by direct measurement using flicker-meter.

6.4.3. Test Setup and Configuration



For the actual test configuration, please refer to Appendix I: Photographs of the Test Configuration.

6.4.4. Test Condition

Test Mode:	Mode 8	Temperature:	24°C
Test Voltage:	AC 230V/50Hz	Humidity:	61%RH
Tested By:	Edison Lin	Test Date:	Jul. 6, 2020

6.4.5. Test Result

Mode 8

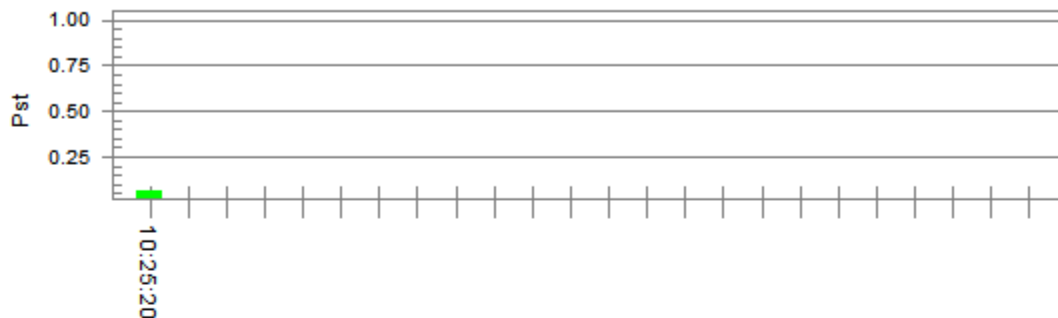
Flicker Test Summary per EN/IEC61000-3-3 Ed. 3.0 (2013) (Run time)

Test Result: Pass

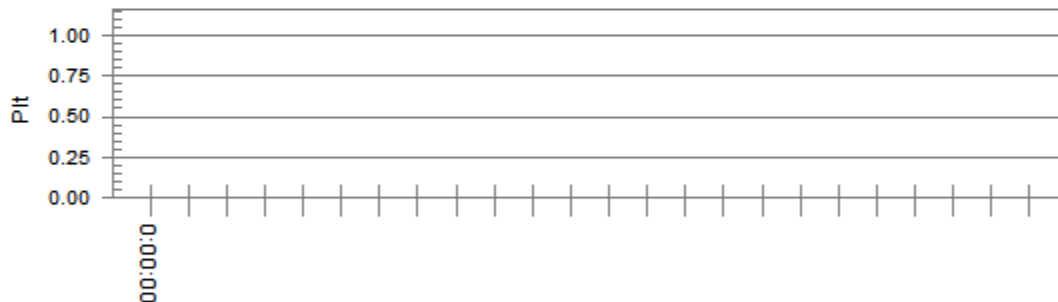
Status: Test Completed

Pst_i and limit line

European Limits



Plt and limit line



Parameter values recorded during the test:

Vrms at the end of test (Volt):	229.61		
Highest dt (%):	0.00	Test limit (%):	N/A
T-max (mS):	0	Test limit (mS):	500.0
Highest dc (%):	0.00	Test limit (%):	3.30
Highest dmax (%):	0.00	Test limit (%):	4.00
Highest Pst (10 min. period):	0.064	Test limit:	1.000
Highest Plt (2 hr. period):	0.028	Test limit:	0.650

7. IMMUNITY TEST

7.1. Performance Criteria

According to EN 60601-1-2 standard, the general performance criteria as following:

Type of test	Reaction of ME EQUIPMENT or ME SYSTEM during test	How to continue with testing
Transient(a)	The ME EQUIPMENT or ME SYSTEM is permanently damaged. However, BASIC SAFETY and ESSENTIAL PERFORMANCE continue to be provided.	The test sequence shall be repeated two times with this IMMUNITY TEST LEVEL and polarity. The ME EQUIPMENT or ME SYSTEM passes the test if it continues to provide its BASIC SAFETY and ESSENTIAL PERFORMANCE. If any equipment is damaged, it can continue to be used for the IMMUNITY test for this specific phenomenon, as long as it can be proven (e.g. by RISK MANAGEMENT, engineering analysis, experience, redundancy) that the ability of the ME EQUIPMENT or ME SYSTEM to provide its BASIC SAFETY and ESSENTIAL PERFORMANCE can still be determined while using the damaged equipment. If a PORT of the ME EQUIPMENT or ME SYSTEM is damaged and the ME EQUIPMENT or ME SYSTEM has multiple identical ports, the test shall not be repeated on any of the identical ports. To test the next non-identical PORT, the ME EQUIPMENT or ME SYSTEM shall be restored to normal operation. To continue with the IMMUNITY test of the next EM phenomenon, the ME EQUIPMENT or ME SYSTEM shall be restored to normal operation.
	The ME EQUIPMENT or ME SYSTEM is permanently damaged. BASIC SAFETY or ESSENTIAL PERFORMANCE does not continue to be provided.	The ME EQUIPMENT or ME SYSTEM has failed the test.
Continuous(b)	The ME EQUIPMENT or ME SYSTEM is permanently damaged. However, BASIC SAFETY and ESSENTIAL PERFORMANCE continue to be provided.	The test sequence shall be repeated two times with this IMMUNITY TEST LEVEL and polarity or frequency. BASIC SAFETY and ESSENTIAL PERFORMANCE shall continue to be provided. To continue with the next frequency step the ME EQUIPMENT or ME SYSTEM shall be restored to normal operation.
	The ME EQUIPMENT or ME SYSTEM is permanently damaged. BASIC SAFETY or ESSENTIAL PERFORMANCE does not continue to be provided.	The ME EQUIPMENT or ME SYSTEM has failed the test.
(a) Tests according to IEC 61000-4-2, IEC 61000-4-4, IEC 61000-4-5 and IEC 61000-4-11		
(b) Tests according to IEC 61000-4-3, IEC 61000-4-6 and IEC 61000-4-8		

7.2. Electrostatic Discharge Immunity Test

7.2.1. Test Specification

Standard:	IEC 60601-1-2、EN 60601-1-2 (refer to IEC 61000-4-2)
Colleteral Standard:	N/A
Discharge Impedance:	330(1±10%)Ω / 150(1±10%)pF
Discharge Voltage:	Air Discharge: ±2kV/±4kV/±8kV/±15kV (Direct)
Polarity:	Contact Discharge: ±2kV/±4kV/±8kV (Direct/Indirect)
	10 times each polarity
Discharge mode of operation:	Single discharges
Discharge Period:	1 second minimum
Repeat test time:	1 times (Note 1)

Note: (1) The test performed of laboratory was according to the client requirements.

7.2.2. Test Procedure

The test generator necessary to perform direct and indirect application of discharges to the EUT in the following manner:

- Contact discharge was applied to conductive surfaces and coupling planes of the EUT. During the test, it was performed with single discharges. For the single discharge time between successive single discharges was at least 1 second. On each pre-selected point at least 25 single discharges (in the most sensitive polarity) shall be applied. Test shall be performed at a maximum repetition rate of one discharge per second.

Vertical Coupling Plane (VCP):

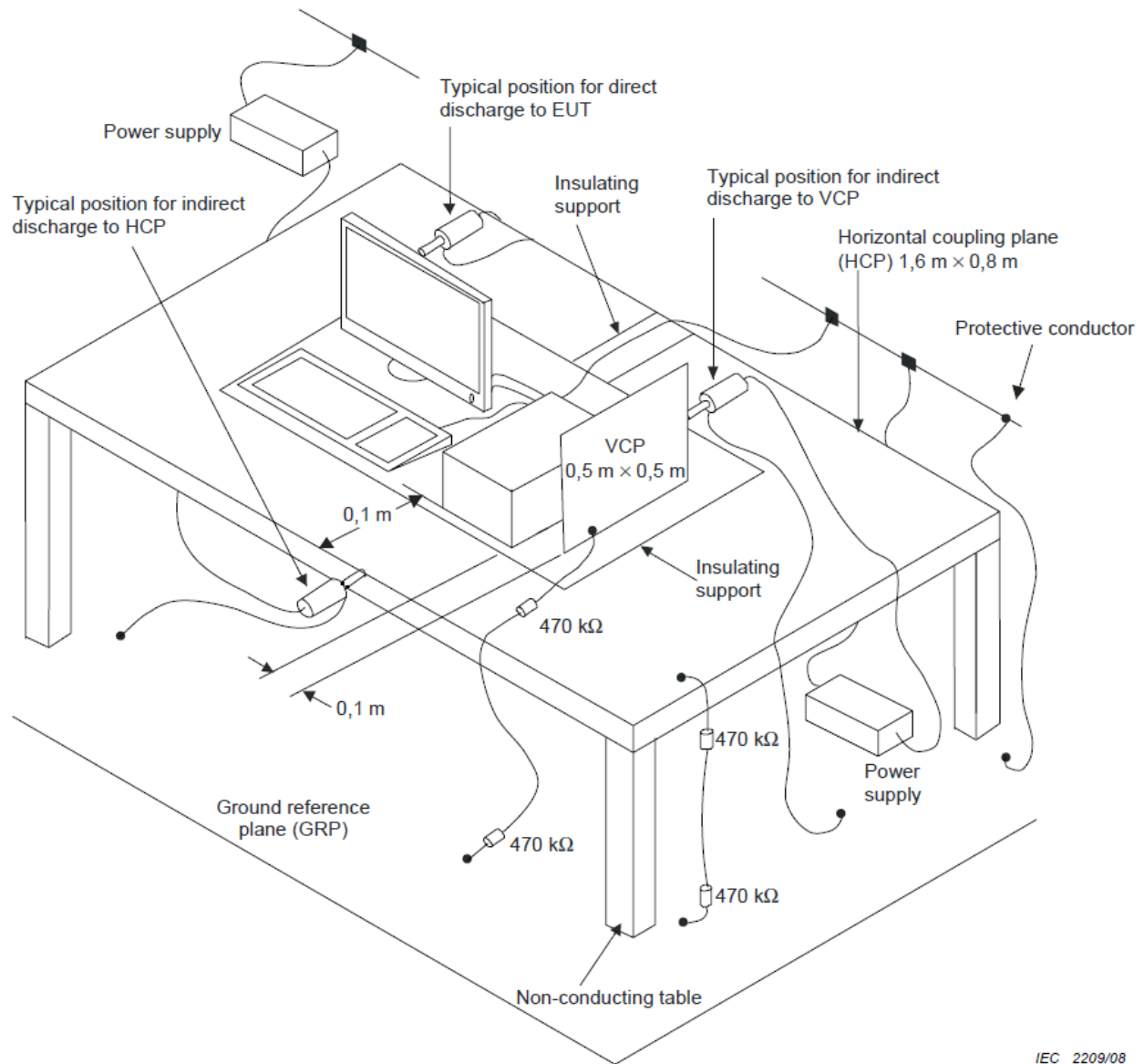
The coupling plane, of dimensions 0.5m x 0.5m, is placed parallel to, and positioned at a distance 0.1m from, the EUT, with the Discharge Electrode touching the coupling plane. The four faces of the EUT will be performed with electrostatic discharge.

Horizontal Coupling Plane (HCP):

The coupling plane is placed under to the EUT. The generator shall be positioned vertically at a distance of 0.1m from the EUT, with the Discharge Electrode touching the coupling plane. The four faces of the EUT will be performed with electrostatic discharge.

- Air discharges at insulation surfaces of the EUT.
It was at least 10 single discharges with positive and negative at the same selected point.
- For the actual test configuration, please refer to the related Item :EUT Test Photos.

7.2.3. Test Setup and Configuration



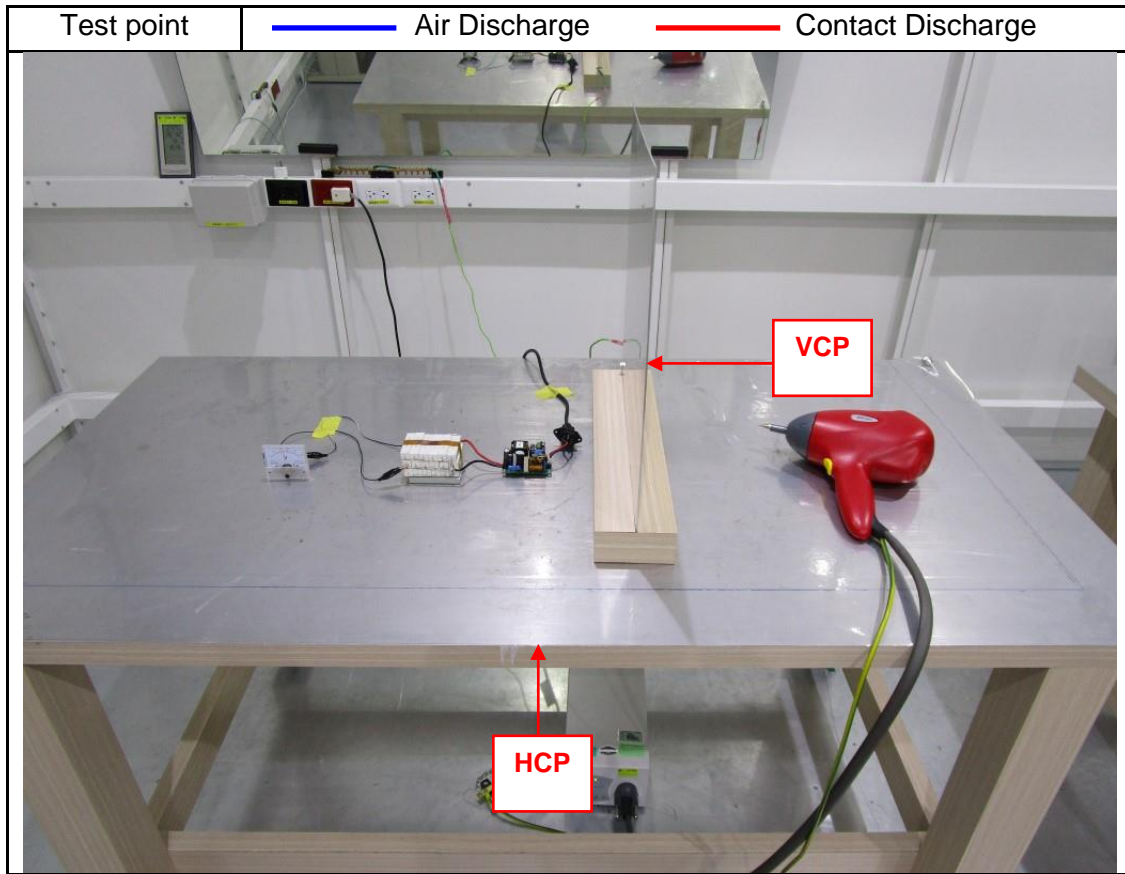
For the actual test configuration, please refer to Appendix I: Photographs of the Test Configuration.

7.2.4. Test Result

Test Mode:	Mode 8	Temperature:	24°C
Test Voltage:	AC 230V/50Hz	Humidity:	48%RH
Discharge of times:	Air: 10 times Contact: 10 times	ATM pressure:	1017 hpa
Tested By:	Edison Lin	Test Date:	Jul. 7, 2020

Mode	Air Discharge								Contact Discharge							
	2kV		4kV		8kV		15kV		2kV		4kV		8kV		-kV	
Location	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-
-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-
Criteria	Please refer to 7.1															
Results	-															
Note	NA: This product is an internal component of system. Contact & Air discharge cannot be performed on this component after assembly, so the test is not applicable.															

Mode	HCP Discharge								VCP Discharge							
	2kV		4kV		8kV		-kV		2kV		4kV		8kV		-kV	
Location	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-
front	PASS	PASS	PASS	PASS	PASS	PASS	-	-	PASS	PASS	PASS	PASS	PASS	PASS	-	-
rear	PASS	PASS	PASS	PASS	PASS	PASS	-	-	PASS	PASS	PASS	PASS	PASS	PASS	-	-
left	PASS	PASS	PASS	PASS	PASS	PASS	-	-	PASS	PASS	PASS	PASS	PASS	PASS	-	-
right	PASS	PASS	PASS	PASS	PASS	PASS	-	-	PASS	PASS	PASS	PASS	PASS	PASS	-	-
Criteria	Please refer to 7.1															
Results	PASS															
Note	There was no abnormal situation during the test compared with initial operation. Pass means that the test performance criteria meet Criteria A which identical with EN 55035.															



7.3. Radio Frequency Electromagnetic Field Immunity Test

7.3.1. Test Specification

Standard:	IEC 60601-1-2、EN 60601-1-2 (refer to IEC 61000-4-3)
Colleteral Standard:	N/A
Frequency Range:	80 MHz to 2700MHz
Field Strength:	3V/m (unmodulated)
Modulation:	80%, AM(1 KHz)
Frequency Step:	1% of fundamental
Polarity of Antenna	Vertical and Horizontal
Test Distance:	3 meters
Antenna Height:	1.55 meters
Dwell Time:	3 s
Repeat test time:	1 times (Note 1)

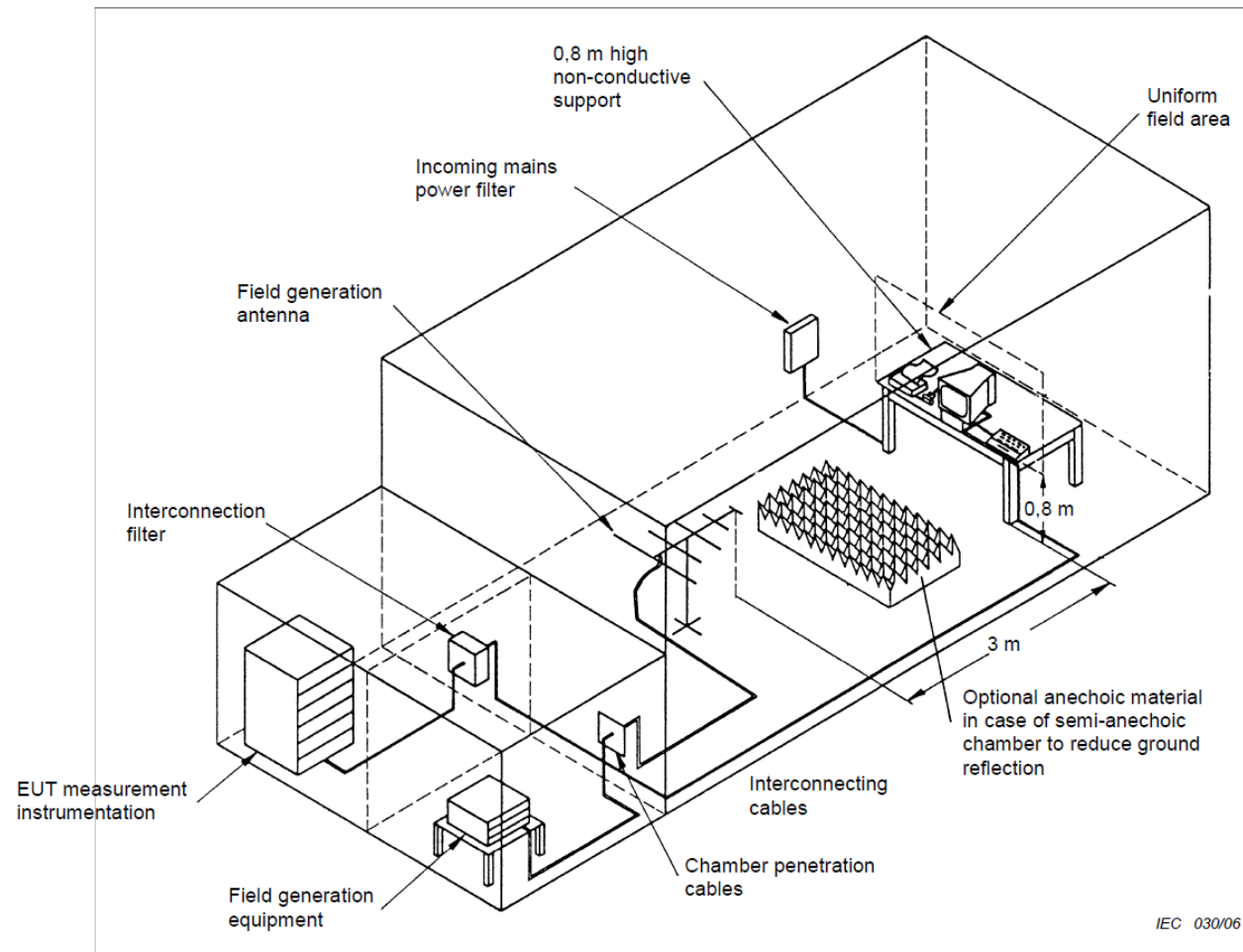
Note: (1) The test performed of laboratory was according to the client requirements.

7.3.2. Test Procedure

The test procedure was in accordance with IEC/EN 61000-4-3.

- The testing was performed in a fully anechoic chamber. The transmit antenna was located at a distance of 3 meters from the EUT.
- The frequency range is swept from 80 MHz to 2700MHz with the signal 80% amplitude modulated with a 1 KHz sine wave. The rate of sweep did not exceed 1.5×10^{-3} decade/s. Where the frequency range is swept incrementally, the step size was 1% of fundamental.
- The dwell time at each frequency shall be not less than the time necessary for the EUT to be able to respond.
- The field strength level 80 MHz to 2700MHz was 3V/m.
- The test was performed with the EUT exposed to both vertically and horizontally polarized fields on each of the four sides.

7.3.3. Test Setup and Configuration



For the actual test configuration, please refer to Appendix I: Photographs of the Test Configuration.

7.3.4. RS proximity fields from RF Wireless Communication Test Specification

Standard:	IEC 60601-1-2、EN 60601-1-2 (refer to IEC 61000-4-3)
Colleteral Standard:	N/A
Frequency Range:	See page 5
Field Strength:	
Modulation:	
Polarity of Antenna	Vertical and Horizontal
Test Distance:	3 meters
Dwell Time:	3 s

7.3.5. Test Procedure

The test procedure was in accordance with IEC/EN 61000-4-3.

- The testing was performed in a fully anechoic chamber. The transmit antenna was located at a distance of 3 meters from the EUT.
- The test frequency is according to page 5 table
- The dwell time at each frequency shall be not less than the time necessary for the EUT to be able to respond.
- The field strength and modulation are according to page 5 table.
- The test was performed with the EUT exposed to both vertically and horizontally polarized fields on each of the four sides.

7.3.6. Test Setup and Configuration

Please refer to Clause 7.3.3.

7.3.7. Test Result

Test Mode:	Mode 8	Temperature:	23°C
Test Voltage:	AC 230V/50Hz	Humidity:	58%RH
Tested By:	Edison Lin	Test Date:	Jul. 13, 2020

Freq. Range (MHz)	Position (Face)	Polarity (H & V)	Field Strength (V/m)	Criteria	Results
80~2700	Front	H&V	3V/m	Please refer to 7.1	PASS
80~2700	Left	H&V	3V/m	Please refer to 7.1	PASS
80~2700	Rear	H&V	3V/m	Please refer to 7.1	PASS
80~2700	Right	H&V	3V/m	Please refer to 7.1	PASS
385	Front/ Left/ Rear/ Right	H&V	27V/m	Please refer to 7.1	PASS
450	Front/ Left/ Rear/ Right	H&V	28V/m	Please refer to 7.1	PASS
710	Front/ Left/ Rear/ Right	H&V	9V/m	Please refer to 7.1	PASS
745	Front/ Left/ Rear/ Right	H&V	9V/m	Please refer to 7.1	PASS
780	Front/ Left/ Rear/ Right	H&V	9V/m	Please refer to 7.1	PASS
810	Front/ Left/ Rear/ Right	H&V	28V/m	Please refer to 7.1	PASS
870	Front/ Left/ Rear/ Right	H&V	28V/m	Please refer to 7.1	PASS
930	Front/ Left/ Rear/ Right	H&V	28V/m	Please refer to 7.1	PASS
1720	Front/ Left/ Rear/ Right	H&V	28V/m	Please refer to 7.1	PASS
1845	Front/ Left/ Rear/ Right	H&V	28V/m	Please refer to 7.1	PASS
1970	Front/ Left/ Rear/ Right	H&V	28V/m	Please refer to 7.1	PASS
2450	Front/ Left/ Rear/ Right	H&V	28V/m	Please refer to 7.1	PASS
5240	Front/ Left/ Rear/ Right	H&V	9V/m	Please refer to 7.1	PASS
5500	Front/ Left/ Rear/ Right	H&V	9V/m	Please refer to 7.1	PASS
5785	Front/ Left/ Rear/ Right	H&V	9V/m	Please refer to 7.1	PASS
Note	There was no abnormal situation during the test compared with initial operation. Pass means that the test performance criteria meet Criteria A which identical with EN 55035.				

Customer Request:

Freq. Range (MHz)	Position (Face)	Polarity (H & V)	Field Strength (V/m)	Criteria	Results
80~2700	Front	H&V	10V/m	Please refer to 7.1	PASS
80~2700	Left	H&V	10V/m	Please refer to 7.1	PASS
80~2700	Rear	H&V	10V/m	Please refer to 7.1	PASS
80~2700	Right	H&V	10V/m	Please refer to 7.1	PASS
Note	There was no abnormal situation during the test compared with initial operation. Pass means that the test performance criteria meet Criteria A which identical with EN 55035.				

7.4. Electrical Fast Transient/Burst Immunity Test

7.4.1. Test Specification

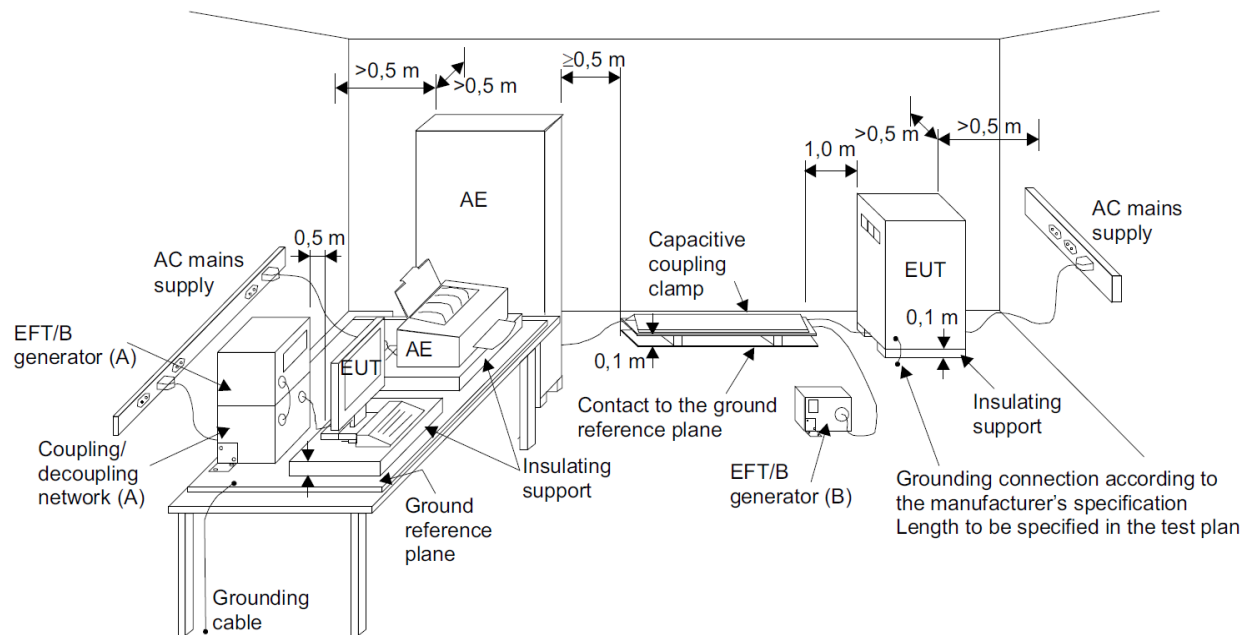
Standard:	IEC 60601-1-2、 EN 60601-1-2 (refer to IEC 61000-4-4)
Colleteral Standard:	N/A
Test Voltage:	2 kV for AC Mains and DC port, 1kV for signal
Polarity:	Positive and Negative
Impulse Frequency:	100 KHz
Impulse wave shape:	5/50 Tr/Th ns
Burst Duration:	0.75ms
Burst Period:	300ms
Test Duration:	1 Minute
Repeat test time:	1 times (Note 1)

Note: (1) The test performed of laboratory was according to the client requirements.

7.4.2. Test Procedure

- The EUT was tested with 1000 volt discharges to the AC power input leads, 500 volt discharges to the signal/control ports.
- Both positive and negative polarity discharges were applied.
- Table-top equipment and equipment normally mounted on ceilings or walls as well as built-in equipment shall be tested with the EUT located $(0,1 \pm 0,01)$ m above the ground reference plane.
- The EUT and the auxiliary equipment were placed on a table of 0.8 m heights above a metal ground reference plane. The size of ground plane is greater than 0.8m×1m and project beyond the EUT by at least 0.1m on all sides. The ground plane is connected to the protective earth. The minimum distance between the EUT and all other conductive structures (including the generator, AE and the walls of a shielded room), except the ground reference plane, shall be more than 0,5 m.
- The duration time of each test sequential was 1 minute.
- The transient/burst waveform was in accordance with IEC/EN 61000-4-4, 5/50ns.

7.4.3. Test Setup and Configuration



IEC 645/12

- (A) location for supply line coupling
- (B) location for signal lines coupling

For the actual test configuration, please refer to Appendix I: Photographs of the Test Configuration.

7.4.4. Test Result

Test Mode:	Mode 8	Temperature:	23°C
Test Voltage:	AC 230V/50Hz	Humidity:	62%RH
Tested By:	Edison Lin	Test Date:	Jul. 7, 2020

Test Port		Test Levels (kV)						Criteria	Results
		+0.5	-0.5	+1.0	-1.0	+2.0	-2.0		
AC Power Port	L	-	-	-	-	PASS	PASS	Please refer to 7.1	PASS
	N	-	-	-	-	PASS	PASS	Please refer to 7.1	PASS
	L + N	-	-	-	-	PASS	PASS	Please refer to 7.1	PASS
Note		<p>There was no abnormal situation during the test compared with initial operation.</p> <p>Pass means that the test performance criteria meet Criteria A which identical with EN 55035.</p>							

7.5. Surge Immunity Test

7.5.1. Test Specification

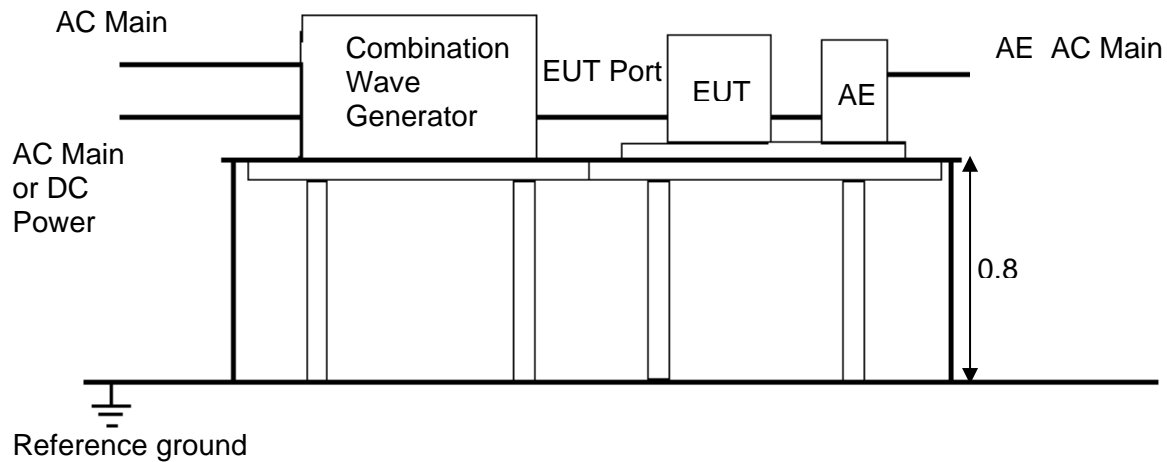
Standard:	IEC 60601-1-2、EN 60601-1-2 (refer to IEC 61000-4-5)
Colleteral Standard:	N/A
Waveform:	1.2/50 (8/20) Tr/Th μ s
Test Voltage:	0.5, 1, 2 kV
Polarity:	Positive and Negative
Phase Angle:	0°/90°/180°/270°
Repetition Rate:	1 per minute
Discharge Times:	5
Repeat test time:	1 times (Note 1)

Note: (1) The test performed of laboratory was according to the client requirements.

7.5.2. Test Procedure

- The EUT and the auxiliary equipment were placed on a table of 0.8m heights above a metal ground reference plane. The size of ground plane is greater than 1m×1m and project beyond the EUT by at least 0.1m on all sides. The ground plane is connected to the protective earth. The length of power cord between the coupling device and the EUT shall not exceed 2 meters (provided by the manufacturer).
- The EUT was connected to the power mains through a coupling device that directly couples the surge interference signal. The surge noise was applied synchronized to the voltage phase at the zero crossing and the peak value of the AC voltage wave (positive and negative).
- The surges were applied line to line and line(s) to earth. When testing line to earth the test voltage was applied successively between each of the lines and earth. Steps up to the test level specified increased the test voltage. All lower levels including the selected test level were tested. The polarity of each surge level included positive and negative test pulses.
- If EUT was included telecom port and connected to outdoor directly, test shall be applied to line to earth test using 10/700 surge wave form. If the wave form affects the functioning of high speed data port, the test shall be carried out using 1.2/50 wave form do the test.

7.5.3. Test Setup and Configuration



For the actual test configuration, please refer to Appendix I: Photographs of the Test Configuration.

7.5.4. Test Result

Test Mode:	Mode 8	Temperature:	22°C
Test Voltage:	AC 230V/50Hz	Humidity:	59%RH
Tested By:	Edison Lin	Test Date:	Aug. 21, 2020

Wave Form EUT Ports Tested	1.2/50(8/20)Ti/Th us						Criteria	Results
	Polarity	Phase	Voltage					
			0.5kV	1kV	2kV	-kV		
L - N	+	0°	PASS	PASS	-	-	Please refer to 7.1	PASS
	-		PASS	PASS	-	-		
	+	90°	PASS	PASS	-	-		
	-		PASS	PASS	-	-		
	+	180°	PASS	PASS	-	-		
	-		PASS	PASS	-	-		
	+	270°	PASS	PASS	-	-		
	-		PASS	PASS	-	-		
Note	There was no abnormal situation during the test compared with initial operation. Pass means that the test performance criteria meet Criteria A which identical with EN 55035.							

Customer Request (for 3 pin):

Wave Form EUT Ports Tested	1.2/50(8/20)Ti/Th us						Criteria	Results
	Polarity	Phase	Voltage					
			0.5kV	1kV	2kV	-kV		
L - N	+	0°	PASS	PASS	-	-	Please refer to 7.1	PASS
	-		PASS	PASS	-	-		
	+	90°	PASS	PASS	-	-		
	-		PASS	PASS	-	-		
	+	180°	PASS	PASS	-	-		
	-		PASS	PASS	-	-		
	+	270°	PASS	PASS	-	-		
	-		PASS	PASS	-	-		
L – PE	+	0°	PASS	PASS	PASS	-	Please refer to 7.1	PASS
	-		PASS	PASS	PASS	-		
	+	90°	PASS	PASS	PASS	-		
	-		PASS	PASS	PASS	-		
	+	180°	PASS	PASS	PASS	-		
	-		PASS	PASS	PASS	-		
	+	270°	PASS	PASS	PASS	-		
	-		PASS	PASS	PASS	-		
N - PE	+	0°	PASS	PASS	PASS	-	Please refer to 7.1	PASS
	-		PASS	PASS	PASS	-		
	+	90°	PASS	PASS	PASS	-		
	-		PASS	PASS	PASS	-		
	+	180°	PASS	PASS	PASS	-		
	-		PASS	PASS	PASS	-		
	+	270°	PASS	PASS	PASS	-		
	-		PASS	PASS	PASS	-		
Note	There was no abnormal situation during the test compared with initial operation. Pass means that the test performance criteria meet Criteria A which identical with EN 55035.							

7.6. Immunity to Conducted Disturbances Induced by RF Fields

7.6.1. Test Specification

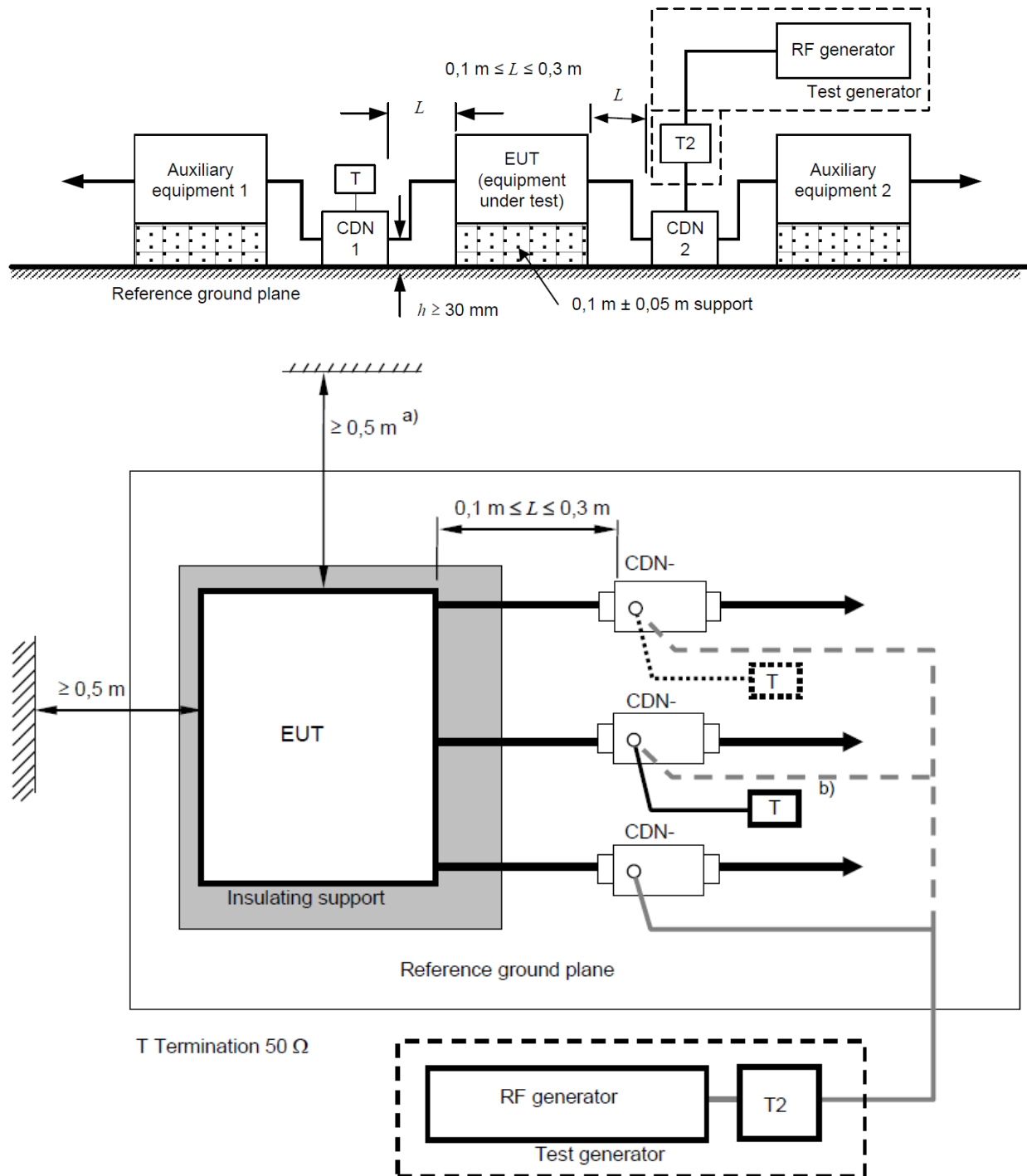
Standard:	IEC 60601-1-2、 EN 60601-1-2 (refer to IEC 61000-4-6)
Colleteral Standard:	N/A
Frequency Range:	0.15-80MHz
Field Strength:	3V, 6V (unmodulated, r.m.s.)
Modulation:	80% AM (1 kHz)
Frequency Step:	1% of fundamental
Dwell Time:	3 s
Repeat test time:	1 times (Note 1)

Note: (1) The test performed of laboratory was according to the client requirements.

7.6.2. Test Procedure

- The EUT shall be tested within its intended operating and climatic conditions.
- The test shall be performed with the test generator connected to each of the coupling and decoupling devices in turn, while the other non-excited RF input ports of the coupling devices are terminated by a 50-ohm load resistor.
- The frequency range is swept from 150 kHz to 80 MHz, using the signal level established during the setting process and with a disturbance signal of 80% amplitude. The signal is modulated with a 1 kHz sine wave, pausing to adjust the RF signal level or the switch coupling devices as necessary. The step size shall not exceed 1% of the start and thereafter 1% of the preceding frequency value where the frequency is swept incrementally.
- The dwell time at each frequency shall not be less than the time necessary for the EUT to be exercised, and able to respond. Sensitive frequencies such as clock frequencies and harmonics or frequencies of dominant interest, shall be analyzed separately.
- For professional healthcare environment shall be test additional 6V ISM band which test spot frequency as state in the report page 4.
- Attempts should be made to fully exercise the EUT during test, and to fully interrogate all exercise modes selected for susceptibility.

7.6.3. Test Setup and Configuration



For the actual test configuration, please refer to Appendix I: Photographs of the Test Configuration.

7.6.4. Test Result

Test Mode:	Mode 8	Temperature:	23°C
Test Voltage:	AC 230V/50Hz	Humidity:	58%RH
Tested By:	Edison Lin	Test Date:	Jul. 6, 2020

Test Ports (Mode)	Freq. Range (MHz)	Field Strength	CDN	Criteria	Results
AC. Power Port	0.15 ---80	3V	M016(M2)	Please refer to 7.1	PASS
AC. Power Port	ISM bands	6V	M016(M2)	Please refer to 7.1	PASS
Note	There was no abnormal situation during the test compared with initial operation. Pass means that the test performance criteria meet Criteria A which identical with EN 55035.				

Customer Request:

Test Ports (Mode)	Freq. Range (MHz)	Field Strength	CDN	Criteria	Results
AC. Power Port	0.15 ---80	10V	M016(M2)	Please refer to 7.1	PASS
Note	There was no abnormal situation during the test compared with initial operation. Pass means that the test performance criteria meet Criteria A which identical with EN 55035.				

7.7. Power frequency magnetic field immunity Test

7.7.1. Test Specification

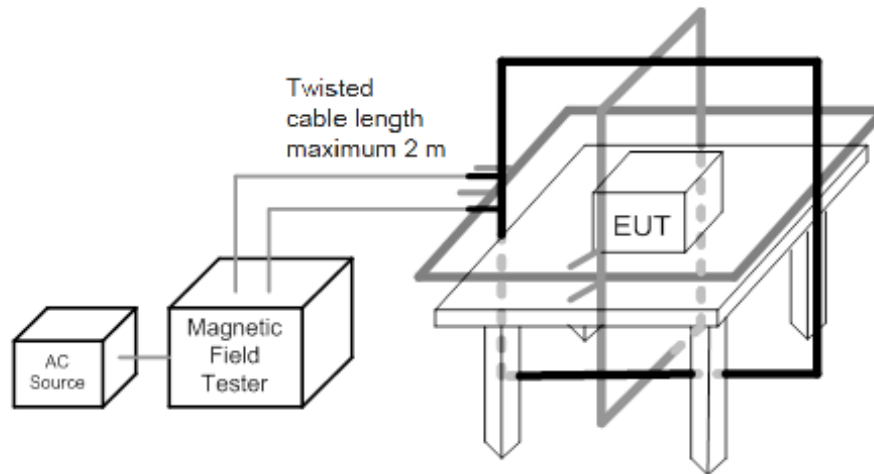
Standard:	IEC 60601-1-2、EN 60601-1-2 (refer to IEC 61000-4-8)
Collateral Standard:	N/A
Frequency Range:	50 Hz
Field Strength:	30 A/m
Axis:	X, Y, Z
Observation Time:	1 minute
Inductance Coil:	Rectangular type, 1mx1m
Repeat test time:	1 times (Note 1)

Note: (1) The test performed of laboratory was according to the client requirements.

7.7.2. Test Procedure

- The EUT and support equipment, are placed on a table that is 0.8 meter above a metal ground plane measured 1m*1m min. and 0.65mm thick min.
- The equipment cabinets shall be connected to the safety earth directly on the GRP via the earth terminal of the EUT.
- The cables supplied or recommended by the equipment manufacturer shall be used 1 meter of all cables used shall be exposed to the magnetic field.
- The EUT with coil shall be leave all magnetic material and wall 1m away in any axis during the test.
- The cable length from generator to coil shall be less than 2m
- The background noise shall be 20dB less than test field strength.
- Test shall be applied to three axis X, Y, Z and disturbance over 1 minute.
- All cables shall be exposed to the magnetic field for 1m of their length.

7.7.3. Test Setup and Configuration



Note:

TABLE-TOP EQUIPMENT

The equipment shall be subjected to the test magnetic field by using the induction coil of standard dimension (1 m x 1 m). The induction coil shall then be rotated by 90 degrees in order to expose the EUT to the test field with different orientations.

FLOOR-STANDING EQUIPMENT

The equipment shall be subjected to the test magnetic field by using induction coils of suitable dimensions. The test shall be repeated by moving and shifting the induction coils, in order to test the whole volume of the EUT for each orthogonal direction. The test shall be repeated with the coil shifted to different positions along the side of the EUT, in steps corresponding to 50% of the shortest side of the coil. The induction coil shall then be rotated by 90 degrees in order to expose the EUT to the test field with different orientations.

For the actual test configuration, please refer to Appendix I: Photographs of the Test Configuration.

7.7.4. Test Results

Test Mode:	Mode 8	Temperature:	22°C
Test Voltage:	AC 230V/50Hz	Humidity:	61%RH
Tested By:	Edison Lin	Test Date:	Jul. 7, 2020

Level	Magnetic Field Strength (A/m)	Criteria	Results		
			X	Y	Z
1	1	-	-	-	-
2	3	-	-	-	-
3	10	-	-	-	-
4	30	Please refer to 7.1	PASS	PASS	PASS
5	100	-	-	-	-
X	Special	-	-	-	-
Note	There was no abnormal situation during the test compared with initial operation. Pass means that the test performance criteria meet Criteria A which identical with EN 55035.				

7.8. Voltage Dips and Short Interruptions Immunity Test

7.8.1. Test Specification

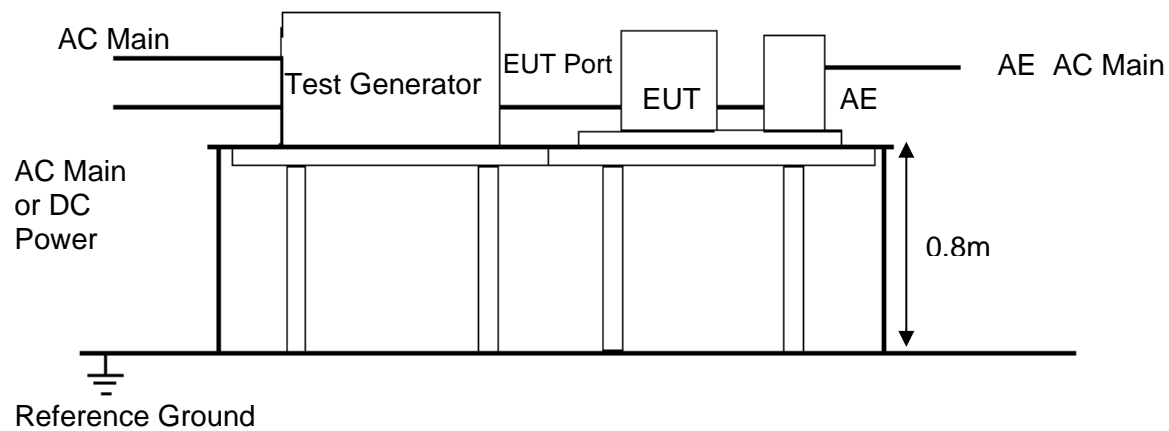
Standard:	IEC 60601-1-2、EN 60601-1-2 (refer to IEC 61000-4-11)
Voltage Dips:	0% residual(0.5 & 1cycles) ; 70% residual (25/30 cycles with 50/60Hz)
Voltage Interruptions:	0% residual (250/300 cycles with 50/60Hz)
Voltage Phase Angle:	0°/45°/90°/135°/180°/225°/270°/315°
Test Voltage:	100V/50Hz and 240V/50Hz
Repeat test time:	1 times (Note 1)

Note: (1) The test performed of laboratory was according to the client requirements.

7.8.2. Test Procedure

- The power cord was used as supplied by the manufacturer. The EUT was connected to the line output of the Voltage Dips and Interruption Generator.
- For voltage dips, changes in supply voltage shall occur at zero crossings of the voltage, and at additional angles considered critical by product committees or individual product specifications preferably selected from 45°, 90°, 135°, 180°, 225°, 270° and 315° on each phase.
- For short interruptions, the angle shall be defined by the product committee as the worst case. In the absence of definition, it is recommended to use 0° for one of the phases.

7.8.3. Test Setup and Configuration



For the actual test configuration, please refer to Appendix I: Photographs of the Test Configuration.

7.8.4. Test Result

Test Mode:	Mode 8	Temperature:	23°C
Test Voltage:	AC 100V/50Hz 240V/50Hz	Humidity:	62%RH
Tested By:	Edison Lin	Test Date:	Jul. 7, 2020

100V/50Hz				
Interruption & Dips	Duration (T)	Residual voltage	Perform Criteria	Results
Voltage dips	0.5	0%	Please refer to 7.1	PASS
	1	0%	Please refer to 7.1	PASS
	25	70%	Please refer to 7.1	PASS
Voltage interruptions	250	0%	Please refer to 7.1	PASS
Note	Voltage dips 0%, 0.5/1 cycle: The output voltage is unstable during the test, but it will automatically return to normal conditions after the test. Pass means that the test performance meet Criteria B which identical with EN 55035.			
	Voltage dips 70%, 25 cycle: There was no abnormal situation during the test compared with initial operation. Pass means that the test performance meet Criteria A which identical with EN 55035.			
	Voltage interruptions: The output voltage was lost during the test, but it will automatically return to normal conditions after the test. Pass means that the test performance meet Criteria B which identical with EN 55035.			

240V/50Hz				
Interruption & Dips	Duration (T)	Residual voltage	Perform Criteria	Results
Voltage dips	0.5	0%	Please refer to 7.1	PASS
	1	0%	Please refer to 7.1	PASS
	25	70%	Please refer to 7.1	PASS
Voltage interruptions	250	0%	Please refer to 7.1	PASS
Note	Voltage dips 0%, 0.5/1 cycle: The output voltage is unstable during the test, but it will automatically return to normal conditions after the test. Pass means that the test performance meet Criteria B which identical with EN 55035.			
	Voltage dips 70%, 25 cycle: There was no abnormal situation during the test compared with initial operation. Pass means that the test performance meet Criteria A which identical with EN 55035.			
	Voltage interruptions: The output voltage was lost during the test, but it will automatically return to normal conditions after the test. Pass means that the test performance meet Criteria B which identical with EN 55035.			

Note:

The test shall be carried out at the frequencies appropriate to the power supply frequency. Equipment intended to be used in regions where only one of these frequencies is applied needs to be tested at this specific frequency only. 25/30 or 250/300 at 50/60 Hz.

Appendix I: Photographs of EMC Test Configuration

Please refer to the attachment of Appendix I_Photographs of EMC Test Configuration_TPP 180-124A-M.

Appendix II: Photographs of the EUT

Please see the photographs of EUT in the test report no.: 4789855728-EP.

END OF REPORT

Appendix III: Preliminary Test Raw Data

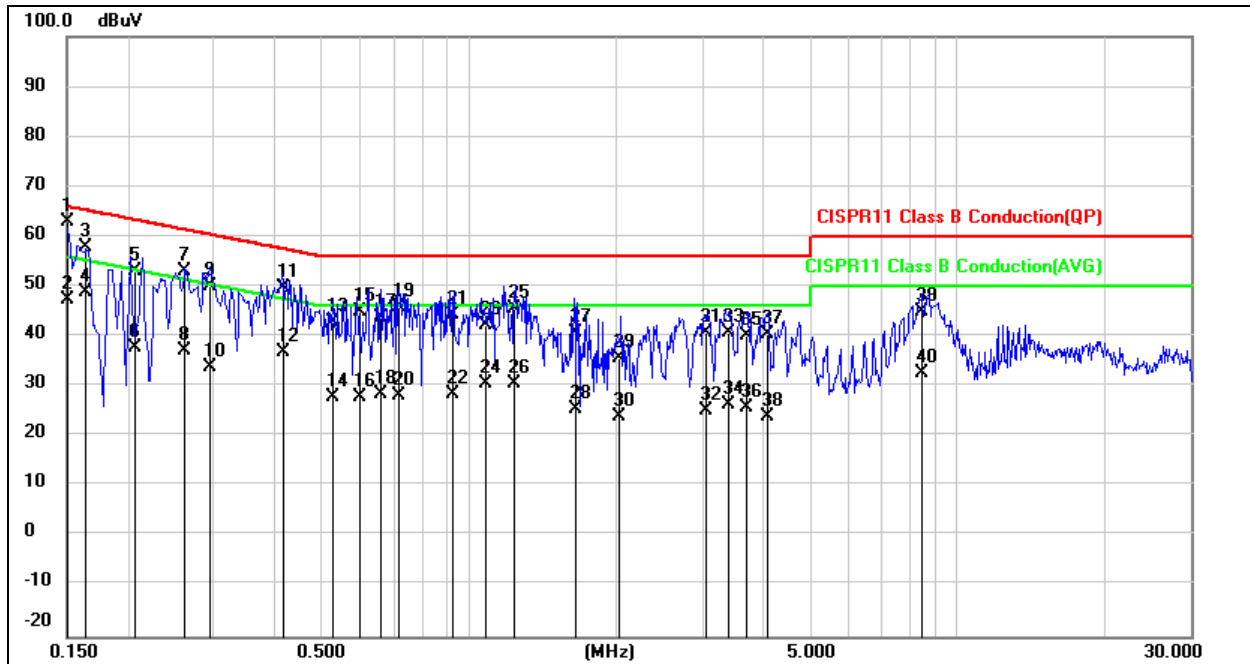
Each modes are correspond to original report 4789548226A-EN-E1-V0.

The difference are the list corresponding models(as below table) and applicant , others circuit design, enclosure and materials are the same.

Mode	TRACO
Mode 1	TPP 180-112B-M
Mode 2	TPP 180-124B-M
Mode 3	TPP 180-112BA-M
Mode 4	TPP 180-124BA-M
Mode 5	TPP 180-112-M
Mode 6	TPP 180-124-M
Mode 7	TPP 180-112A-M
Mode 8	TPP 180-124A-M

Conducted Emission

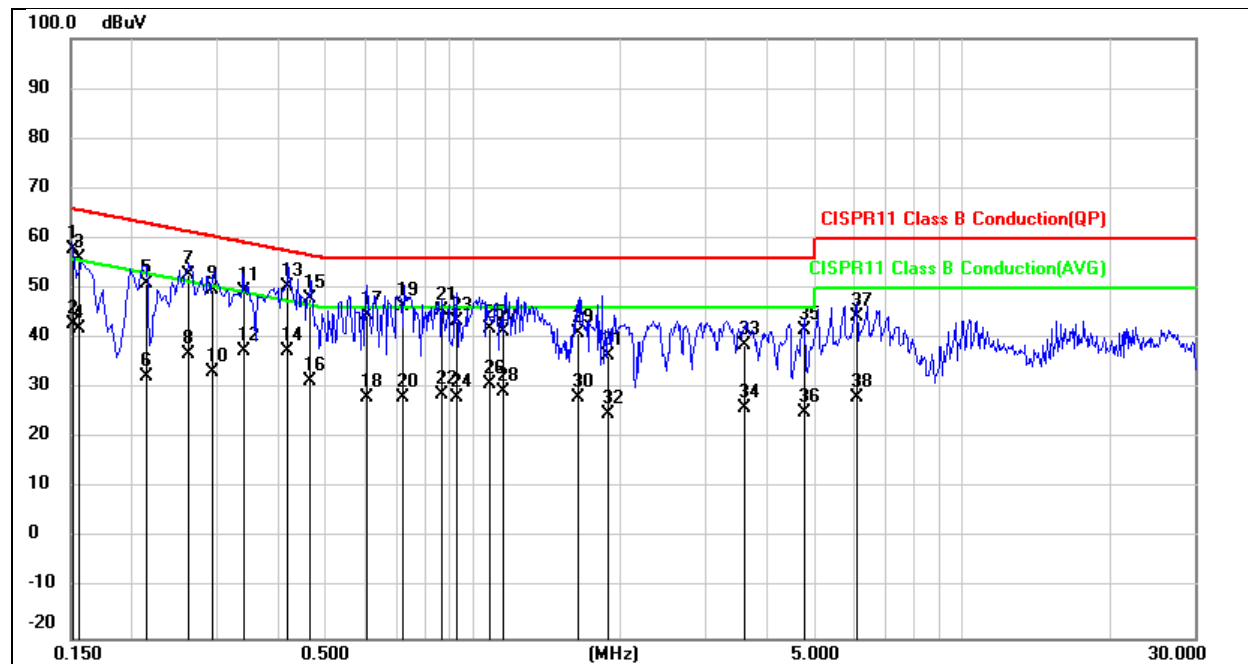
Project No.:	4789548226	Probe:	L1
Standard:	CISPR11 Class B Conduction(QP)	Power Source:	from AC power
Test item:	Conduction Test	Date:	7/3/2020
Temp./Hum.(%RH):	23(C)/60%RH	Time:	10:56:34 AM
EUT:		Test By:	Edison
Model:			
Mode:	mode 1		
Note:			



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1501	43.61	19.47	63.08	65.99	-2.91	QP
2	0.1501	28.00	19.47	47.47	55.99	-8.52	AVG
3	0.1634	38.35	19.47	57.82	65.29	-7.47	QP
4	0.1634	29.26	19.47	48.73	55.29	-6.56	AVG
5	0.2065	33.48	19.47	52.95	63.34	-10.39	QP
6	0.2065	18.38	19.47	37.85	53.34	-15.49	AVG
7	0.2618	33.65	19.47	53.12	61.37	-8.25	QP
8	0.2618	17.65	19.47	37.12	51.37	-14.25	AVG
9	0.2928	30.45	19.47	49.92	60.44	-10.52	QP
10	0.2928	14.53	19.47	34.00	50.44	-16.44	AVG
11	0.4178	30.29	19.48	49.77	57.49	-7.72	QP
12	0.4178	17.29	19.48	36.77	47.49	-10.72	AVG
13	0.5267	23.49	19.48	42.97	56.00	-13.03	QP
14	0.5267	8.46	19.48	27.94	46.00	-18.06	AVG
15	0.5998	25.57	19.48	45.05	56.00	-10.95	QP
16	0.5998	8.23	19.48	27.71	46.00	-18.29	AVG
17	0.6580	24.16	19.48	43.64	56.00	-12.36	QP
18	0.6580	8.98	19.48	28.46	46.00	-17.54	AVG

19	0.7166	26.23	19.49	45.72	56.00	-10.28	QP
20	0.7166	8.68	19.49	28.17	46.00	-17.83	AVG
21	0.9255	24.79	19.50	44.29	56.00	-11.71	QP
22	0.9255	8.98	19.50	28.48	46.00	-17.52	AVG
23	1.0887	22.72	19.50	42.22	56.00	-13.78	QP
24	1.0887	11.18	19.50	30.68	46.00	-15.32	AVG
25	1.2375	26.00	19.50	45.50	56.00	-10.50	QP
26	1.2375	10.98	19.50	30.48	46.00	-15.52	AVG
27	1.6475	21.13	19.52	40.65	56.00	-15.35	QP
28	1.6475	6.07	19.52	25.59	46.00	-20.41	AVG
29	2.0390	16.00	19.53	35.53	56.00	-20.47	QP
30	2.0390	4.47	19.53	24.00	46.00	-22.00	AVG
31	3.0576	21.10	19.55	40.65	56.00	-15.35	QP
32	3.0576	5.46	19.55	25.01	46.00	-20.99	AVG
33	3.3963	21.15	19.56	40.71	56.00	-15.29	QP
34	3.3963	6.93	19.56	26.49	46.00	-19.51	AVG
35	3.6914	20.62	19.58	40.20	56.00	-15.80	QP
36	3.6914	6.19	19.58	25.77	46.00	-20.23	AVG
37	4.0747	20.77	19.59	40.36	56.00	-15.64	QP
38	4.0747	4.37	19.59	23.96	46.00	-22.04	AVG
39	8.4225	25.23	19.65	44.88	60.00	-15.12	QP
40	8.4225	13.10	19.65	32.75	50.00	-17.25	AVG

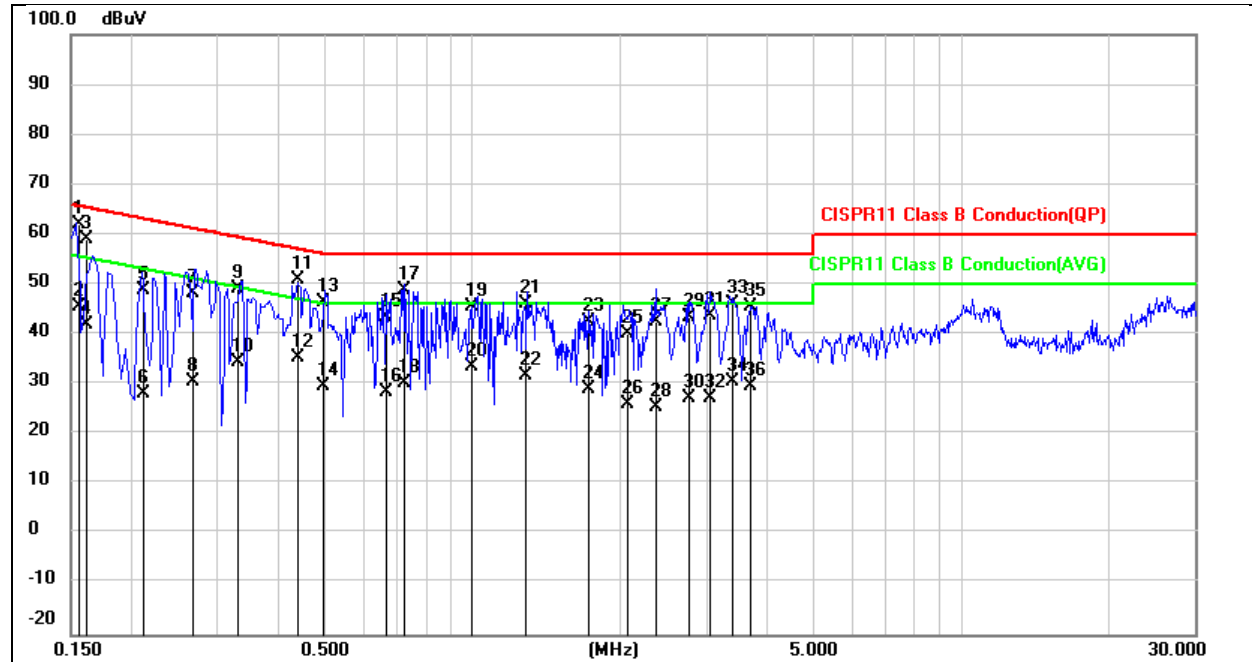
Project No.:	4789548226	Probe:	N
Standard:	CISPR11 Class B Conduction(QP)	Power Source:	from AC power
Test item:	Conduction Test	Date:	7/3/2020
Temp./Hum.(%RH):	23(C)/60%RH	Time:	11:02:58 AM
EUT:		Test By:	Edison
Model:			
Mode:	mode 1		
Note:			



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1517	38.38	19.47	57.85	65.91	-8.06	QP
2	0.1517	23.41	19.47	42.88	55.91	-13.03	AVG
3	0.1548	36.67	19.47	56.14	65.74	-9.60	QP
4	0.1548	22.38	19.47	41.85	55.74	-13.89	AVG
5	0.2147	31.45	19.48	50.93	63.02	-12.09	QP
6	0.2147	12.89	19.48	32.37	53.02	-20.65	AVG
7	0.2601	33.37	19.48	52.85	61.43	-8.58	QP
8	0.2601	17.32	19.48	36.80	51.43	-14.63	AVG
9	0.2923	30.28	19.48	49.76	60.46	-10.70	QP
10	0.2923	13.90	19.48	33.38	50.46	-17.08	AVG
11	0.3407	30.07	19.48	49.55	59.19	-9.64	QP
12	0.3407	18.06	19.48	37.54	49.19	-11.65	AVG
13	0.4158	30.98	19.49	50.47	57.53	-7.06	QP
14	0.4158	17.82	19.49	37.31	47.53	-10.22	AVG
15	0.4646	28.55	19.49	48.04	56.61	-8.57	QP
16	0.4646	11.84	19.49	31.33	46.61	-15.28	AVG
17	0.6054	25.11	19.49	44.60	56.00	-11.40	QP
18	0.6054	8.75	19.49	28.24	46.00	-17.76	AVG
19	0.7178	27.02	19.49	46.51	56.00	-9.49	QP
20	0.7178	8.58	19.49	28.07	46.00	-17.93	AVG
21	0.8685	26.06	19.50	45.56	56.00	-10.44	QP
22	0.8685	9.23	19.50	28.73	46.00	-17.27	AVG

23	0.9297	24.01	19.50	43.51	56.00	-12.49	QP
24	0.9297	8.68	19.50	28.18	46.00	-17.82	AVG
25	1.0889	22.46	19.50	41.96	56.00	-14.04	QP
26	1.0889	11.26	19.50	30.76	46.00	-15.24	AVG
27	1.1541	21.97	19.50	41.47	56.00	-14.53	QP
28	1.1541	9.73	19.50	29.23	46.00	-16.77	AVG
29	1.6328	21.41	19.53	40.94	56.00	-15.06	QP
30	1.6328	8.59	19.53	28.12	46.00	-17.88	AVG
31	1.9038	16.93	19.54	36.47	56.00	-19.53	QP
32	1.9038	5.29	19.54	24.83	46.00	-21.17	AVG
33	3.6002	19.14	19.59	38.73	56.00	-17.27	QP
34	3.6002	6.45	19.59	26.04	46.00	-19.96	AVG
35	4.7795	22.18	19.62	41.80	56.00	-14.20	QP
36	4.7795	5.47	19.62	25.09	46.00	-20.91	AVG
37	6.0991	24.77	19.63	44.40	60.00	-15.60	QP
38	6.0991	8.41	19.63	28.04	50.00	-21.96	AVG

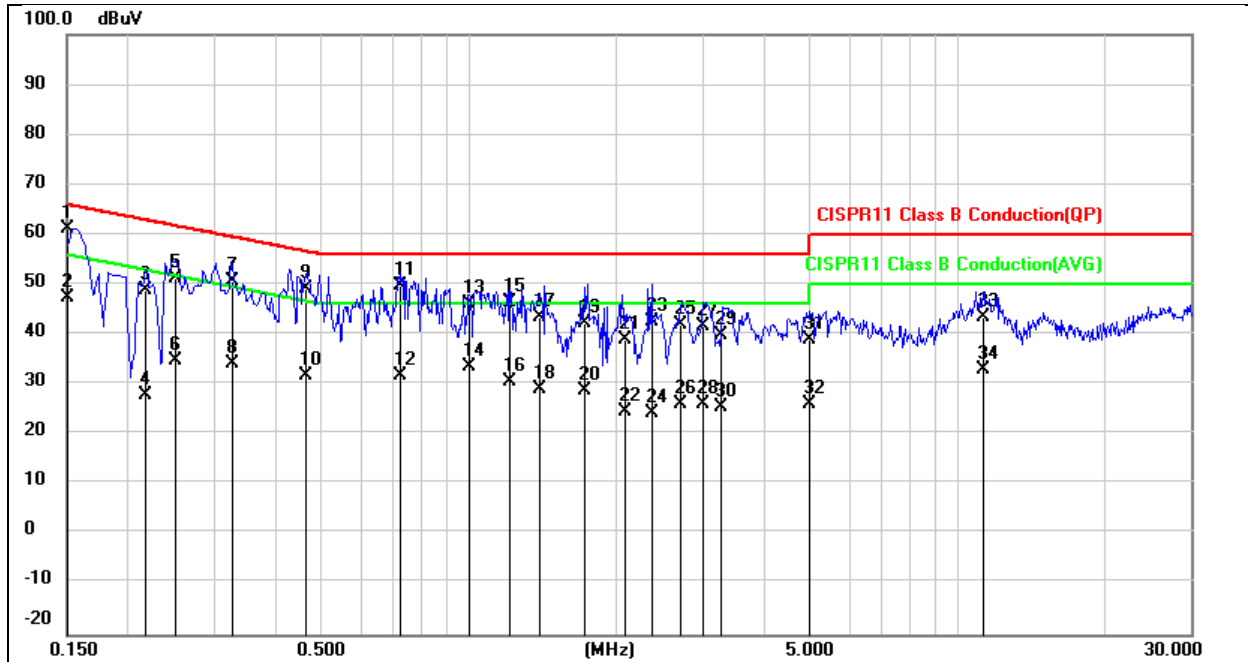
Project No.:	4789548226	Probe:	L1
Standard:	CISPR11 Class B Conduction(QP)	Power Source:	from AC power
Test item:	Conduction Test	Date:	7/3/2020
Temp./Hum.(%RH):	23(C)/60%RH	Time:	2:22:12 PM
EUT:		Test By:	Hank
Model:			
Mode:	mode 2		
Note:			



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1563	42.60	19.47	62.07	65.66	-3.59	QP
2	0.1563	26.09	19.47	45.56	55.66	-10.10	AVG
3	0.1612	39.56	19.47	59.03	65.40	-6.37	QP
4	0.1612	22.63	19.47	42.10	55.40	-13.30	AVG
5	0.2104	29.37	19.47	48.84	63.19	-14.35	QP
6	0.2104	8.76	19.47	28.23	53.19	-24.96	AVG
7	0.2669	28.91	19.47	48.38	61.21	-12.83	QP
8	0.2669	11.13	19.47	30.60	51.21	-20.61	AVG
9	0.3291	29.63	19.47	49.10	59.47	-10.37	QP
10	0.3291	14.94	19.47	34.41	49.47	-15.06	AVG
11	0.4371	31.50	19.48	50.98	57.12	-6.14	QP
12	0.4371	15.88	19.48	35.36	47.12	-11.76	AVG
13	0.4933	26.84	19.48	46.32	56.11	-9.79	QP
14	0.4933	10.25	19.48	29.73	46.11	-16.38	AVG
15	0.6639	24.09	19.48	43.57	56.00	-12.43	QP
16	0.6639	8.89	19.48	28.37	46.00	-17.63	AVG
17	0.7289	29.26	19.49	48.75	56.00	-7.25	QP
18	0.7289	10.63	19.49	30.12	46.00	-15.88	AVG
19	1.0002	26.14	19.50	45.64	56.00	-10.36	QP
20	1.0002	14.12	19.50	33.62	46.00	-12.38	AVG
21	1.2841	26.61	19.50	46.11	56.00	-9.89	QP
22	1.2841	12.38	19.50	31.88	46.00	-14.12	AVG

23	1.7154	22.94	19.52	42.46	56.00	-13.54	QP
24	1.7154	9.45	19.52	28.97	46.00	-17.03	AVG
25	2.0712	20.51	19.53	40.04	56.00	-15.96	QP
26	2.0712	6.41	19.53	25.94	46.00	-20.06	AVG
27	2.3585	22.98	19.53	42.51	56.00	-13.49	QP
28	2.3585	5.99	19.53	25.52	46.00	-20.48	AVG
29	2.7824	23.92	19.55	43.47	56.00	-12.53	QP
30	2.7824	7.82	19.55	27.37	46.00	-18.63	AVG
31	3.0709	24.09	19.55	43.64	56.00	-12.36	QP
32	3.0709	7.63	19.55	27.18	46.00	-18.82	AVG
33	3.4277	26.47	19.56	46.03	56.00	-9.97	QP
34	3.4277	11.07	19.56	30.63	46.00	-15.37	AVG
35	3.7131	25.93	19.58	45.51	56.00	-10.49	QP
36	3.7131	10.20	19.58	29.78	46.00	-16.22	AVG

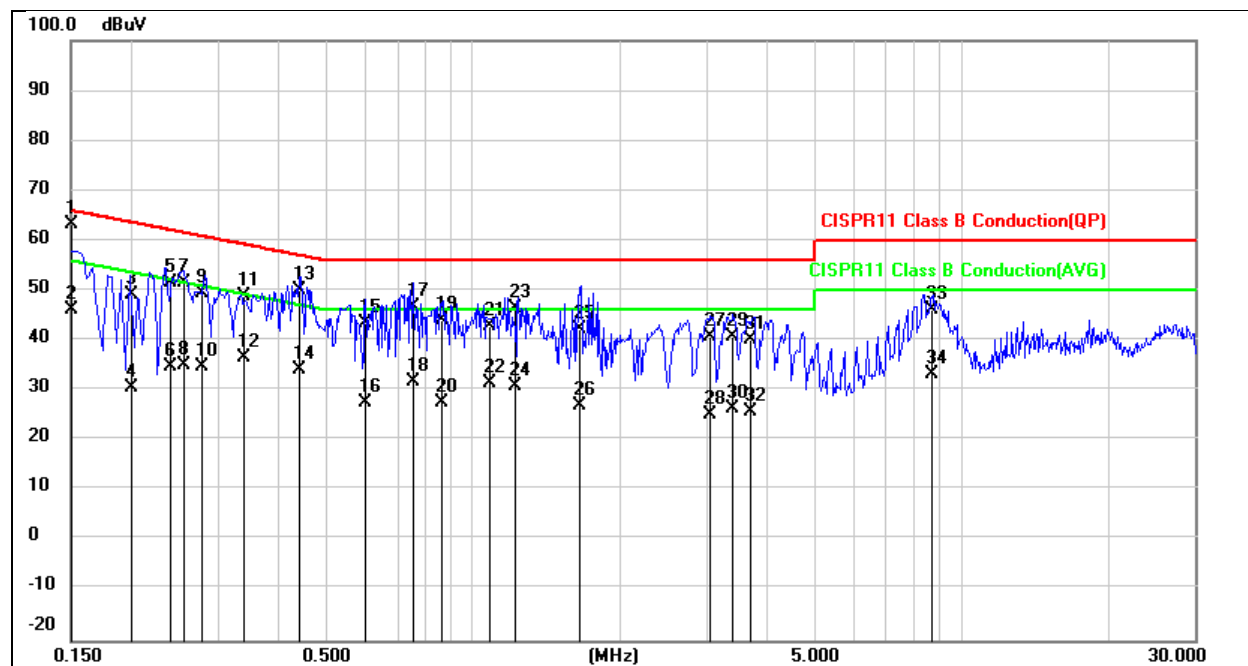
Project No.:	4789548226	Probe:	N
Standard:	CISPR11 Class B Conduction(QP)	Power Source:	from AC power
Test item:	Conduction Test	Date:	7/3/2020
Temp./Hum.(%RH):	23(C)/60%RH	Time:	2:28:29 PM
EUT:		Test By:	Hank
Model:			
Mode:	mode 2		
Note:			



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1507	41.76	19.47	61.23	65.96	-4.73	QP
2	0.1507	27.96	19.47	47.43	55.96	-8.53	AVG
3	0.2183	29.40	19.48	48.88	62.88	-14.00	QP
4	0.2183	8.31	19.48	27.79	52.88	-25.09	AVG
5	0.2508	31.88	19.48	51.36	61.73	-10.37	QP
6	0.2508	15.25	19.48	34.73	51.73	-17.00	AVG
7	0.3269	31.26	19.48	50.74	59.53	-8.79	QP
8	0.3269	14.56	19.48	34.04	49.53	-15.49	AVG
9	0.4644	29.76	19.49	49.25	56.61	-7.36	QP
10	0.4644	12.34	19.49	31.83	46.61	-14.78	AVG
11	0.7257	30.20	19.49	49.69	56.00	-6.31	QP
12	0.7257	12.39	19.49	31.88	46.00	-14.12	AVG
13	1.0016	26.65	19.50	46.15	56.00	-9.85	QP
14	1.0016	14.17	19.50	33.67	46.00	-12.33	AVG
15	1.2101	26.97	19.50	46.47	56.00	-9.53	QP
16	1.2101	11.10	19.50	30.60	46.00	-15.40	AVG
17	1.3891	24.00	19.52	43.52	56.00	-12.48	QP
18	1.3891	9.67	19.52	29.19	46.00	-16.81	AVG
19	1.7155	22.58	19.53	42.11	56.00	-13.89	QP
20	1.7155	9.11	19.53	28.64	46.00	-17.36	AVG
21	2.0724	19.42	19.55	38.97	56.00	-17.03	QP
22	2.0724	5.05	19.55	24.60	46.00	-21.40	AVG

23	2.3583	23.00	19.55	42.55	56.00	-13.45	QP
24	2.3583	4.67	19.55	24.22	46.00	-21.78	AVG
25	2.7147	22.37	19.56	41.93	56.00	-14.07	QP
26	2.7147	6.38	19.56	25.94	46.00	-20.06	AVG
27	3.0000	22.05	19.56	41.61	56.00	-14.39	QP
28	3.0000	6.41	19.56	25.97	46.00	-20.03	AVG
29	3.2856	20.24	19.57	39.81	56.00	-16.19	QP
30	3.2856	5.90	19.57	25.47	46.00	-20.53	AVG
31	4.9982	19.45	19.62	39.07	56.00	-16.93	QP
32	4.9982	6.47	19.62	26.09	46.00	-19.91	AVG
33	11.2790	23.80	19.73	43.53	60.00	-16.47	QP
34	11.2790	13.34	19.73	33.07	50.00	-16.93	AVG

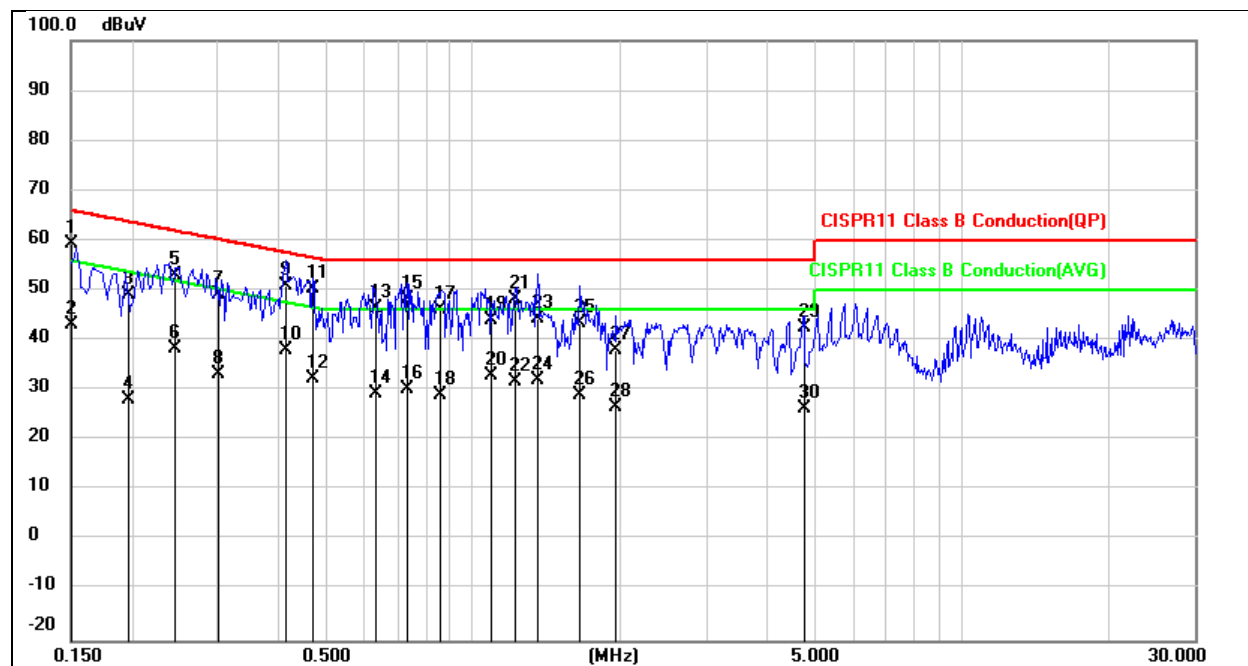
Project No.:	4789548226	Probe:	L1
Standard:	CISPR11 Class B Conduction(QP)	Power Source:	from AC power
Test item:	Conduction Test	Date:	7/3/2020
Temp./Hum.(%RH):	23(C)/60%RH	Time:	3:31:12 PM
EUT:		Test By:	Hank
Model:			
Mode:	mode 3		
Note:			



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1503	43.77	19.47	63.24	65.98	-2.74	QP
2	0.1503	26.55	19.47	46.02	55.98	-9.96	AVG
3	0.1997	29.59	19.46	49.05	63.62	-14.57	QP
4	0.1997	11.11	19.46	30.57	53.62	-23.05	AVG
5	0.2389	32.04	19.47	51.51	62.13	-10.62	QP
6	0.2389	15.19	19.47	34.66	52.13	-17.47	AVG
7	0.2561	32.09	19.47	51.56	61.56	-10.00	QP
8	0.2561	15.72	19.47	35.19	51.56	-16.37	AVG
9	0.2782	30.10	19.47	49.57	60.87	-11.30	QP
10	0.2782	15.42	19.47	34.89	50.87	-15.98	AVG
11	0.3389	29.29	19.47	48.76	59.23	-10.47	QP
12	0.3389	17.18	19.47	36.65	49.23	-12.58	AVG
13	0.4415	30.61	19.48	50.09	57.03	-6.94	QP
14	0.4415	14.69	19.48	34.17	47.03	-12.86	AVG
15	0.5985	24.12	19.48	43.60	56.00	-12.40	QP
16	0.5985	8.00	19.48	27.48	46.00	-18.52	AVG
17	0.7528	27.18	19.49	46.67	56.00	-9.33	QP
18	0.7528	12.41	19.49	31.90	46.00	-14.10	AVG
19	0.8622	24.46	19.50	43.96	56.00	-12.04	QP
20	0.8622	8.11	19.50	27.61	46.00	-18.39	AVG
21	1.0862	23.45	19.50	42.95	56.00	-13.05	QP
22	1.0862	11.90	19.50	31.40	46.00	-14.60	AVG

23	1.2245	27.09	19.50	46.59	56.00	-9.41	QP
24	1.2245	11.41	19.50	30.91	46.00	-15.09	AVG
25	1.6406	22.60	19.52	42.12	56.00	-13.88	QP
26	1.6406	7.43	19.52	26.95	46.00	-19.05	AVG
27	3.0507	21.13	19.55	40.68	56.00	-15.32	QP
28	3.0507	5.57	19.55	25.12	46.00	-20.88	AVG
29	3.3869	21.08	19.56	40.64	56.00	-15.36	QP
30	3.3869	6.90	19.56	26.46	46.00	-19.54	AVG
31	3.6825	20.45	19.58	40.03	56.00	-15.97	QP
32	3.6825	6.23	19.58	25.81	46.00	-20.19	AVG
33	8.7035	26.42	19.65	46.07	60.00	-13.93	QP
34	8.7035	13.64	19.65	33.29	50.00	-16.71	AVG

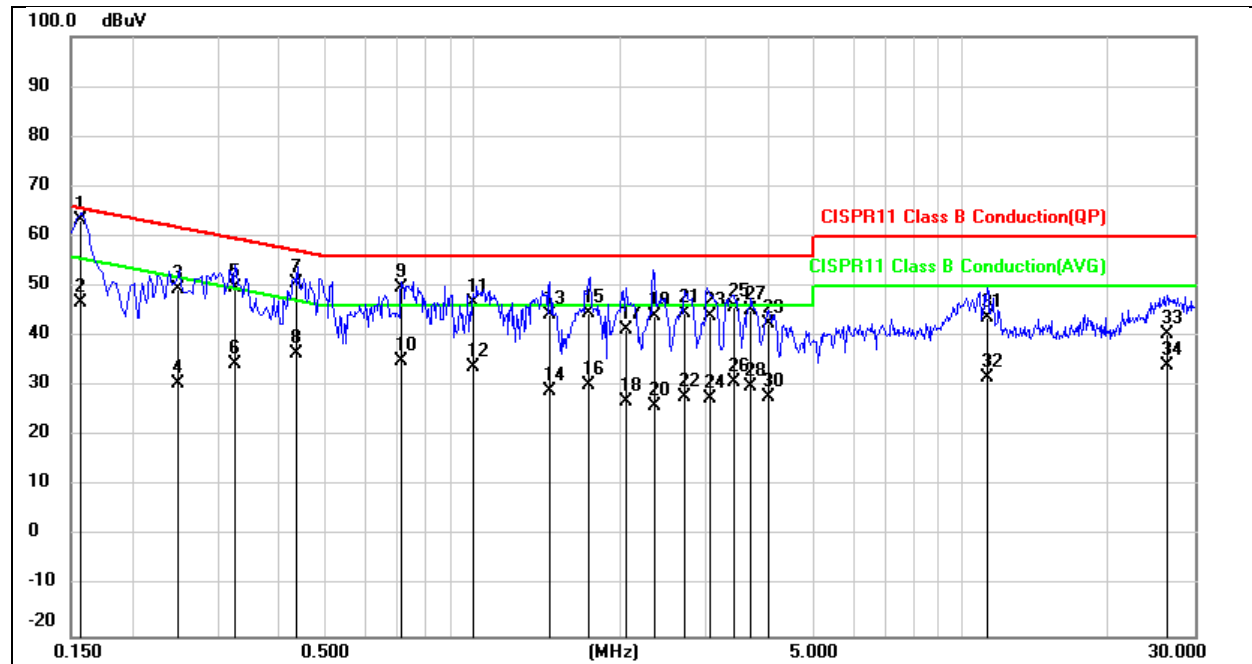
Project No.:	4789548226	Probe:	N
Standard:	CISPR11 Class B Conduction(QP)	Power Source:	from AC power
Test item:	Conduction Test	Date:	7/3/2020
Temp./Hum.(%RH):	23(C)/60%RH	Time:	3:37:11 PM
EUT:		Test By:	Hank
Model:			
Mode:	mode 3		
Note:			



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1507	39.99	19.47	59.46	65.96	-6.50	QP
2	0.1507	23.73	19.47	43.20	55.96	-12.76	AVG
3	0.1966	29.74	19.47	49.21	63.75	-14.54	QP
4	0.1966	8.79	19.47	28.26	53.75	-25.49	AVG
5	0.2434	33.67	19.48	53.15	61.98	-8.83	QP
6	0.2434	18.94	19.48	38.42	51.98	-13.56	AVG
7	0.3016	29.62	19.48	49.10	60.20	-11.10	QP
8	0.3016	13.68	19.48	33.16	50.20	-17.04	AVG
9	0.4147	31.57	19.49	51.06	57.55	-6.49	QP
10	0.4147	18.48	19.49	37.97	47.55	-9.58	AVG
11	0.4665	30.90	19.49	50.39	56.58	-6.19	QP
12	0.4665	12.98	19.49	32.47	46.58	-14.11	AVG
13	0.6309	27.04	19.49	46.53	56.00	-9.47	QP
14	0.6309	9.91	19.49	29.40	46.00	-16.60	AVG
15	0.7361	28.61	19.49	48.10	56.00	-7.90	QP
16	0.7361	10.83	19.49	30.32	46.00	-15.68	AVG
17	0.8539	26.52	19.50	46.02	56.00	-9.98	QP
18	0.8539	9.52	19.50	29.02	46.00	-16.98	AVG
19	1.0864	24.41	19.50	43.91	56.00	-12.09	QP
20	1.0864	13.57	19.50	33.07	46.00	-12.93	AVG
21	1.2183	28.64	19.50	48.14	56.00	-7.86	QP
22	1.2183	12.24	19.50	31.74	46.00	-14.26	AVG

23	1.3559	24.71	19.52	44.23	56.00	-11.77	QP
24	1.3559	12.48	19.52	32.00	46.00	-14.00	AVG
25	1.6388	23.81	19.53	43.34	56.00	-12.66	QP
26	1.6388	9.60	19.53	29.13	46.00	-16.87	AVG
27	1.9661	18.60	19.54	38.14	56.00	-17.86	QP
28	1.9661	7.11	19.54	26.65	46.00	-19.35	AVG
29	4.7564	23.00	19.62	42.62	56.00	-13.38	QP
30	4.7564	6.71	19.62	26.33	46.00	-19.67	AVG

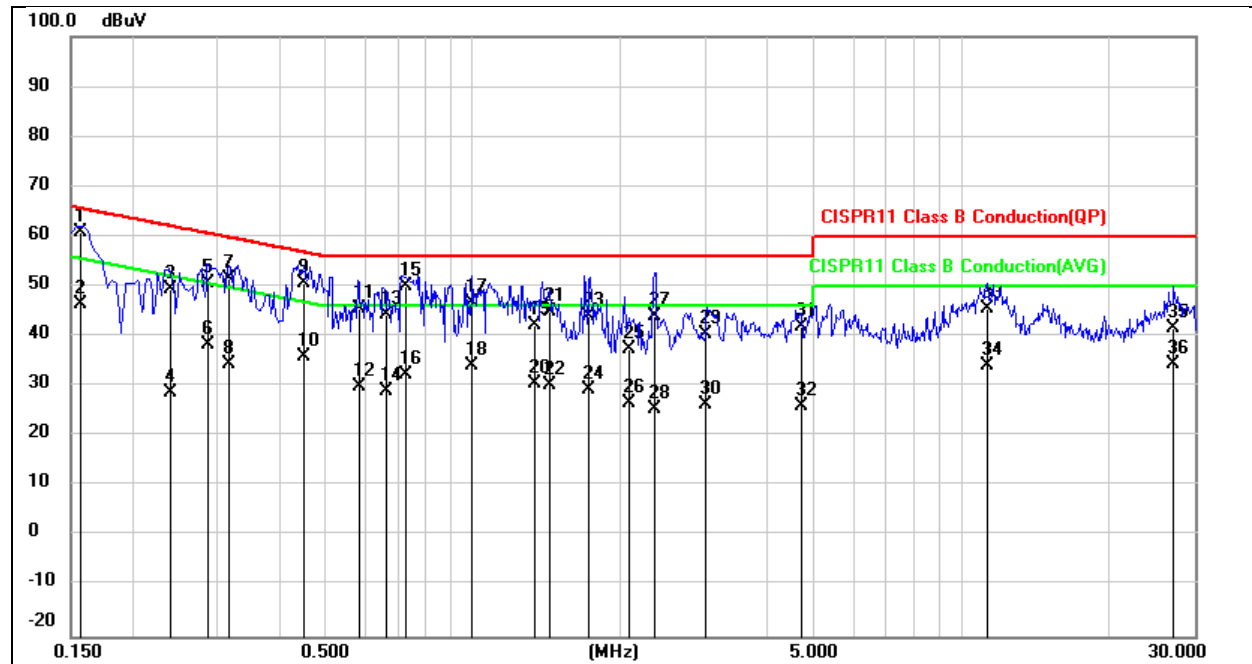
Project No.:	4789548226	Probe:	L1
Standard:	CISPR11 Class B Conduction(QP)	Power Source:	from AC power
Test item:	Conduction Test	Date:	7/3/2020
Temp./Hum.(%RH):	23(C)/60%RH	Time:	2:39:38 PM
EUT:		Test By:	Hank
Model:			
Mode:	mode 4		
Note:			



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1575	43.75	19.47	63.22	65.59	-2.37	QP
2	0.1575	27.28	19.47	46.75	55.59	-8.84	AVG
3	0.2471	29.93	19.47	49.40	61.85	-12.45	QP
4	0.2471	11.13	19.47	30.60	51.85	-21.25	AVG
5	0.3253	30.17	19.47	49.64	59.57	-9.93	QP
6	0.3253	15.08	19.47	34.55	49.57	-15.02	AVG
7	0.4349	31.29	19.48	50.77	57.16	-6.39	QP
8	0.4349	17.19	19.48	36.67	47.16	-10.49	AVG
9	0.7141	30.21	19.49	49.70	56.00	-6.30	QP
10	0.7141	15.54	19.49	35.03	46.00	-10.97	AVG
11	1.0011	27.26	19.50	46.76	56.00	-9.24	QP
12	1.0011	14.35	19.50	33.85	46.00	-12.15	AVG
13	1.4278	24.70	19.51	44.21	56.00	-11.79	QP
14	1.4278	9.64	19.51	29.15	46.00	-16.85	AVG
15	1.7143	25.21	19.52	44.73	56.00	-11.27	QP
16	1.7143	10.63	19.52	30.15	46.00	-15.85	AVG
17	2.0722	21.72	19.53	41.25	56.00	-14.75	QP
18	2.0722	7.36	19.53	26.89	46.00	-19.11	AVG
19	2.3561	24.54	19.53	44.07	56.00	-11.93	QP
20	2.3561	6.53	19.53	26.06	46.00	-19.94	AVG
21	2.7131	25.06	19.55	44.61	56.00	-11.39	QP
22	2.7131	8.35	19.55	27.90	46.00	-18.10	AVG

23	3.0705	24.45	19.55	44.00	56.00	-12.00	QP
24	3.0705	7.96	19.55	27.51	46.00	-18.49	AVG
25	3.4270	26.27	19.56	45.83	56.00	-10.17	QP
26	3.4270	11.18	19.56	30.74	46.00	-15.26	AVG
27	3.7125	25.67	19.58	45.25	56.00	-10.75	QP
28	3.7125	10.38	19.58	29.96	46.00	-16.04	AVG
29	3.9983	22.90	19.58	42.48	56.00	-13.52	QP
30	3.9983	8.35	19.58	27.93	46.00	-18.07	AVG
31	11.2764	24.05	19.69	43.74	60.00	-16.26	QP
32	11.2764	11.96	19.69	31.65	50.00	-18.35	AVG
33	26.3025	20.77	19.80	40.57	60.00	-19.43	QP
34	26.3025	14.35	19.80	34.15	50.00	-15.85	AVG

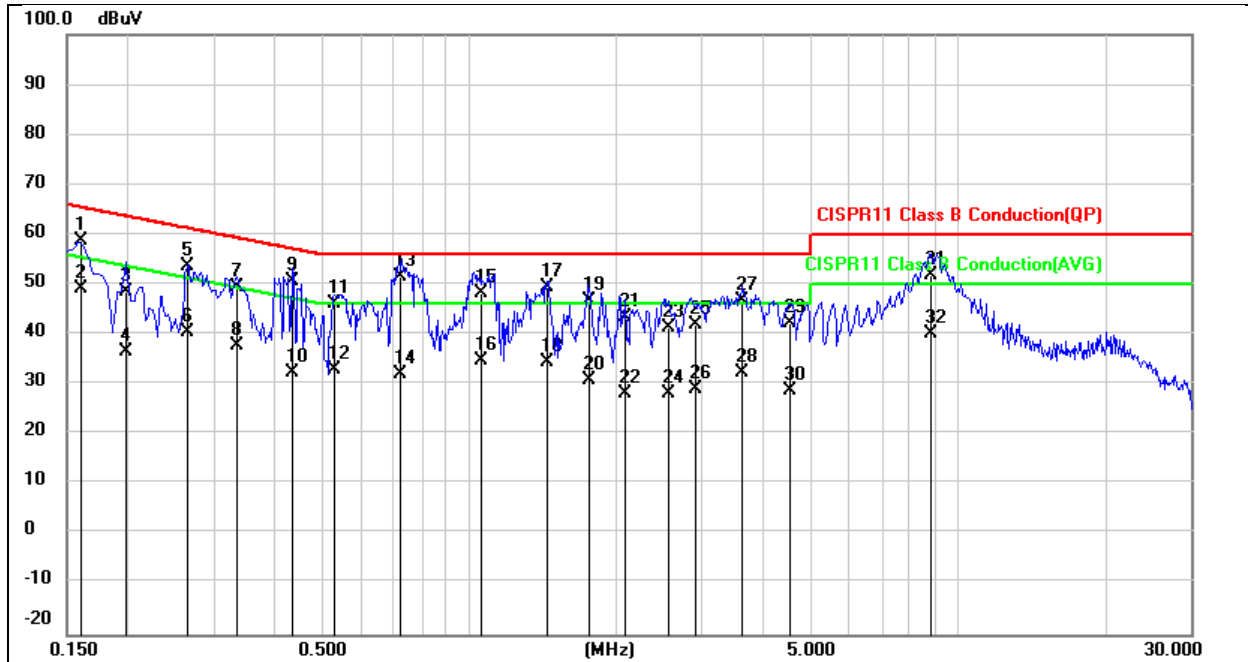
Project No.:	4789548226	Probe:	N
Standard:	CISPR11 Class B Conduction(QP)	Power Source:	from AC power
Test item:	Conduction Test	Date:	7/3/2020
Temp./Hum.(%RH):	23(C)/60%RH	Time:	2:45:52 PM
EUT:		Test By:	Hank
Model:			
Mode:	mode 4		
Note:			



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1578	41.51	19.47	60.98	65.58	-4.60	QP
2	0.1578	26.87	19.47	46.34	55.58	-9.24	AVG
3	0.2407	29.95	19.48	49.43	62.07	-12.64	QP
4	0.2407	9.17	19.48	28.65	52.07	-23.42	AVG
5	0.2871	31.07	19.48	50.55	60.61	-10.06	QP
6	0.2871	18.79	19.48	38.27	50.61	-12.34	AVG
7	0.3141	32.06	19.48	51.54	59.86	-8.32	QP
8	0.3141	14.96	19.48	34.44	49.86	-15.42	AVG
9	0.4485	31.19	19.49	50.68	56.90	-6.22	QP
10	0.4485	16.50	19.49	35.99	46.90	-10.91	AVG
11	0.5830	26.10	19.49	45.59	56.00	-10.41	QP
12	0.5830	10.56	19.49	30.05	46.00	-15.95	AVG
13	0.6620	24.94	19.49	44.43	56.00	-11.57	QP
14	0.6620	9.48	19.49	28.97	46.00	-17.03	AVG
15	0.7273	30.60	19.49	50.09	56.00	-5.91	QP
16	0.7273	12.82	19.49	32.31	46.00	-13.69	AVG
17	1.0009	27.32	19.50	46.82	56.00	-9.18	QP
18	1.0009	14.59	19.50	34.09	46.00	-11.91	AVG
19	1.3362	22.74	19.52	42.26	56.00	-13.74	QP
20	1.3362	11.00	19.52	30.52	46.00	-15.48	AVG
21	1.4283	25.46	19.52	44.98	56.00	-11.02	QP
22	1.4283	10.70	19.52	30.22	46.00	-15.78	AVG

23	1.7146	24.45	19.53	43.98	56.00	-12.02	QP
24	1.7146	9.97	19.53	29.50	46.00	-16.50	AVG
25	2.0793	18.02	19.55	37.57	56.00	-18.43	QP
26	2.0793	6.99	19.55	26.54	46.00	-19.46	AVG
27	2.3549	24.43	19.55	43.98	56.00	-12.02	QP
28	2.3549	5.79	19.55	25.34	46.00	-20.66	AVG
29	2.9989	20.77	19.56	40.33	56.00	-15.67	QP
30	2.9989	6.80	19.56	26.36	46.00	-19.64	AVG
31	4.6773	22.32	19.62	41.94	56.00	-14.06	QP
32	4.6773	6.51	19.62	26.13	46.00	-19.87	AVG
33	11.2702	25.74	19.73	45.47	60.00	-14.53	QP
34	11.2702	14.32	19.73	34.05	50.00	-15.95	AVG
35	27.1373	21.67	19.95	41.62	60.00	-18.38	QP
36	27.1373	14.48	19.95	34.43	50.00	-15.57	AVG

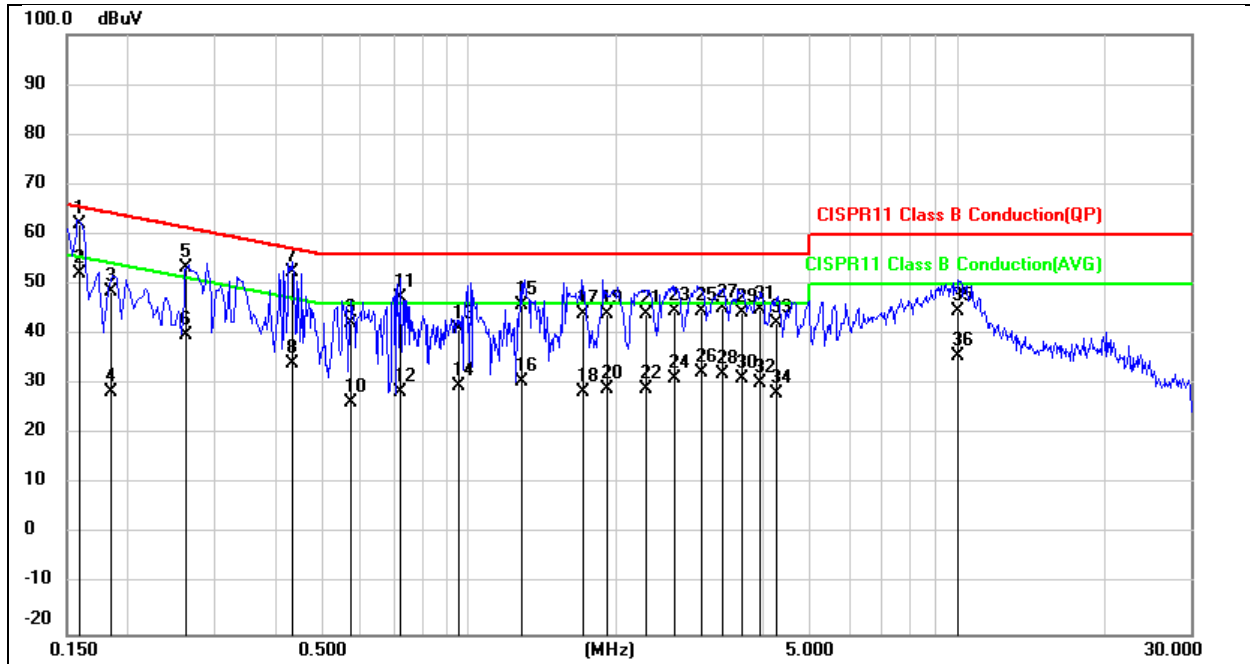
Project No.:	4789548226	Probe:	L1
Standard:	CISPR11 Class B Conduction(QP)	Power Source:	from AC power
Test item:	Conduction Test	Date:	7/3/2020
Temp./Hum.(%RH):	23(C)/60%RH	Time:	11:43:06 AM
EUT:		Test By:	Hank
Model:			
Mode:	mode 5		
Note:			



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1597	39.33	19.47	58.80	65.48	-6.68	QP
2	0.1597	29.57	19.47	49.04	55.48	-6.44	AVG
3	0.1986	29.06	19.46	48.52	63.67	-15.15	QP
4	0.1986	16.98	19.46	36.44	53.67	-17.23	AVG
5	0.2642	34.23	19.47	53.70	61.30	-7.60	QP
6	0.2642	21.12	19.47	40.59	51.30	-10.71	AVG
7	0.3322	30.11	19.47	49.58	59.40	-9.82	QP
8	0.3322	18.16	19.47	37.63	49.40	-11.77	AVG
9	0.4345	31.09	19.48	50.57	57.17	-6.60	QP
10	0.4345	12.94	19.48	32.42	47.17	-14.75	AVG
11	0.5296	26.80	19.48	46.28	56.00	-9.72	QP
12	0.5296	13.50	19.48	32.98	46.00	-13.02	AVG
13	0.7231	32.07	19.49	51.56	56.00	-4.44	QP
14	0.7231	12.50	19.49	31.99	46.00	-14.01	AVG
15	1.0567	28.85	19.50	48.35	56.00	-7.65	QP
16	1.0567	15.11	19.50	34.61	46.00	-11.39	AVG
17	1.4471	29.84	19.51	49.35	56.00	-6.65	QP
18	1.4471	14.94	19.51	34.45	46.00	-11.55	AVG
19	1.7610	27.18	19.52	46.70	56.00	-9.30	QP
20	1.7610	11.41	19.52	30.93	46.00	-15.07	AVG
21	2.0784	23.78	19.53	43.31	56.00	-12.69	QP
22	2.0784	8.55	19.53	28.08	46.00	-17.92	AVG

23	2.5613	21.93	19.54	41.47	56.00	-14.53	QP
24	2.5613	8.63	19.54	28.17	46.00	-17.83	AVG
25	2.8983	22.30	19.55	41.85	56.00	-14.15	QP
26	2.8983	9.40	19.55	28.95	46.00	-17.05	AVG
27	3.6244	27.08	19.58	46.66	56.00	-9.34	QP
28	3.6244	12.78	19.58	32.36	46.00	-13.64	AVG
29	4.5566	22.61	19.59	42.20	56.00	-13.80	QP
30	4.5566	9.15	19.59	28.74	46.00	-17.26	AVG
31	8.8262	32.32	19.66	51.98	60.00	-8.02	QP
32	8.8262	20.52	19.66	40.18	50.00	-9.82	AVG

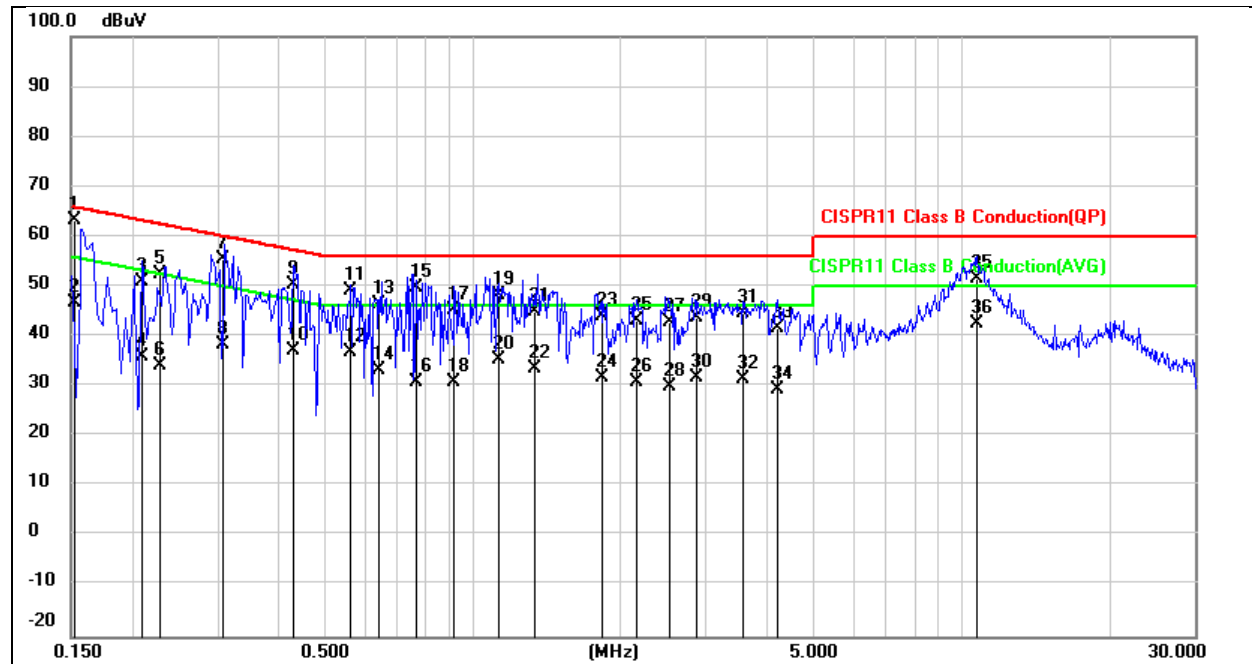
Project No.:	4789548226	Probe:	N
Standard:	CISPR11 Class B Conduction(QP)	Power Source:	from AC power
Test item:	Conduction Test	Date:	7/3/2020
Temp./Hum.(%RH):	23(C)/60%RH	Time:	11:49:23 AM
EUT:		Test By:	Hank
Model:			
Mode:	mode 5		
Note:			



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1590	42.61	19.47	62.08	65.52	-3.44	QP
2	0.1590	32.59	19.47	52.06	55.52	-3.46	AVG
3	0.1836	29.14	19.47	48.61	64.32	-15.71	QP
4	0.1836	9.11	19.47	28.58	54.32	-25.74	AVG
5	0.2628	33.92	19.48	53.40	61.34	-7.94	QP
6	0.2628	20.30	19.48	39.78	51.34	-11.56	AVG
7	0.4345	32.85	19.49	52.34	57.17	-4.83	QP
8	0.4345	14.54	19.49	34.03	47.17	-13.14	AVG
9	0.5748	22.91	19.49	42.40	56.00	-13.60	QP
10	0.5748	6.76	19.49	26.25	46.00	-19.75	AVG
11	0.7224	28.01	19.49	47.50	56.00	-8.50	QP
12	0.7224	9.06	19.49	28.55	46.00	-17.45	AVG
13	0.9599	21.52	19.50	41.02	56.00	-14.98	QP
14	0.9599	10.08	19.50	29.58	46.00	-16.42	AVG
15	1.2817	26.20	19.51	45.71	56.00	-10.29	QP
16	1.2817	11.19	19.51	30.70	46.00	-15.30	AVG
17	1.7126	24.41	19.53	43.94	56.00	-12.06	QP
18	1.7126	9.06	19.53	28.59	46.00	-17.41	AVG
19	1.9207	24.52	19.54	44.06	56.00	-11.94	QP
20	1.9207	9.41	19.54	28.95	46.00	-17.05	AVG
21	2.3052	24.64	19.55	44.19	56.00	-11.81	QP
22	2.3052	9.59	19.55	29.14	46.00	-16.86	AVG

23	2.6328	25.09	19.55	44.64	56.00	-11.36	QP
24	2.6328	11.62	19.55	31.17	46.00	-14.83	AVG
25	2.9709	25.12	19.56	44.68	56.00	-11.32	QP
26	2.9709	12.67	19.56	32.23	46.00	-13.77	AVG
27	3.2902	25.68	19.57	45.25	56.00	-10.75	QP
28	3.2902	12.39	19.57	31.96	46.00	-14.04	AVG
29	3.6075	24.83	19.59	44.42	56.00	-11.58	QP
30	3.6075	11.57	19.59	31.16	46.00	-14.84	AVG
31	3.9486	25.27	19.59	44.86	56.00	-11.14	QP
32	3.9486	10.67	19.59	30.26	46.00	-15.74	AVG
33	4.2464	22.72	19.60	42.32	56.00	-13.68	QP
34	4.2464	8.59	19.60	28.19	46.00	-17.81	AVG
35	10.0608	24.94	19.70	44.64	60.00	-15.36	QP
36	10.0608	15.88	19.70	35.58	50.00	-14.42	AVG

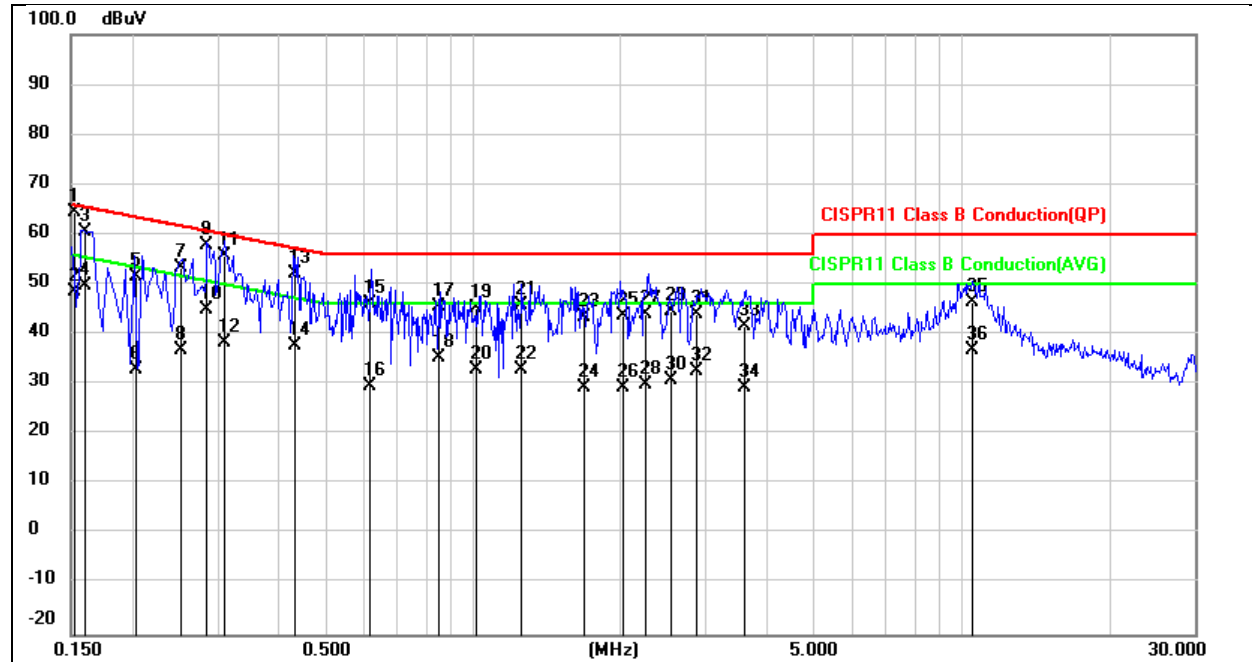
Project No.:	4789548226	Probe:	L1
Standard:	CISPR11 Class B Conduction(QP)	Power Source:	from AC power
Test item:	Conduction Test	Date:	7/3/2020
Temp./Hum.(%RH):	23(C)/60%RH	Time:	11:13:28 AM
EUT:		Test By:	Edison
Model:			
Mode:	mode 6		
Note:			



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1530	43.92	19.47	63.39	65.84	-2.45	QP
2	0.1530	27.25	19.47	46.72	55.84	-9.12	AVG
3	0.2091	31.37	19.47	50.84	63.24	-12.40	QP
4	0.2091	16.60	19.47	36.07	53.24	-17.17	AVG
5	0.2295	33.11	19.47	52.58	62.47	-9.89	QP
6	0.2295	14.71	19.47	34.18	52.47	-18.29	AVG
7	0.3064	35.85	19.47	55.32	60.07	-4.75	QP
8	0.3064	18.95	19.47	38.42	50.07	-11.65	AVG
9	0.4278	30.84	19.48	50.32	57.30	-6.98	QP
10	0.4278	17.76	19.48	37.24	47.30	-10.06	AVG
11	0.5647	29.72	19.48	49.20	56.00	-6.80	QP
12	0.5647	17.50	19.48	36.98	46.00	-9.02	AVG
13	0.6441	27.06	19.48	46.54	56.00	-9.46	QP
14	0.6441	13.89	19.48	33.37	46.00	-12.63	AVG
15	0.7628	30.16	19.50	49.66	56.00	-6.34	QP
16	0.7628	11.49	19.50	30.99	46.00	-15.01	AVG
17	0.9192	25.90	19.50	45.40	56.00	-10.60	QP
18	0.9192	11.50	19.50	31.00	46.00	-15.00	AVG
19	1.1259	28.69	19.50	48.19	56.00	-7.81	QP
20	1.1259	15.91	19.50	35.41	46.00	-10.59	AVG
21	1.3363	25.57	19.51	45.08	56.00	-10.92	QP
22	1.3363	13.92	19.51	33.43	46.00	-12.57	AVG

23	1.8264	24.63	19.52	44.15	56.00	-11.85	QP
24	1.8264	12.17	19.52	31.69	46.00	-14.31	AVG
25	2.1765	23.68	19.53	43.21	56.00	-12.79	QP
26	2.1765	11.35	19.53	30.88	46.00	-15.12	AVG
27	2.5272	23.23	19.54	42.77	56.00	-13.23	QP
28	2.5272	10.39	19.54	29.93	46.00	-16.07	AVG
29	2.8790	24.10	19.55	43.65	56.00	-12.35	QP
30	2.8790	12.14	19.55	31.69	46.00	-14.31	AVG
31	3.5777	25.09	19.58	44.67	56.00	-11.33	QP
32	3.5777	11.78	19.58	31.36	46.00	-14.64	AVG
33	4.2096	22.01	19.59	41.60	56.00	-14.40	QP
34	4.2096	9.71	19.59	29.30	46.00	-16.70	AVG
35	10.7013	31.77	19.68	51.45	60.00	-8.55	QP
36	10.7013	22.83	19.68	42.51	50.00	-7.49	AVG

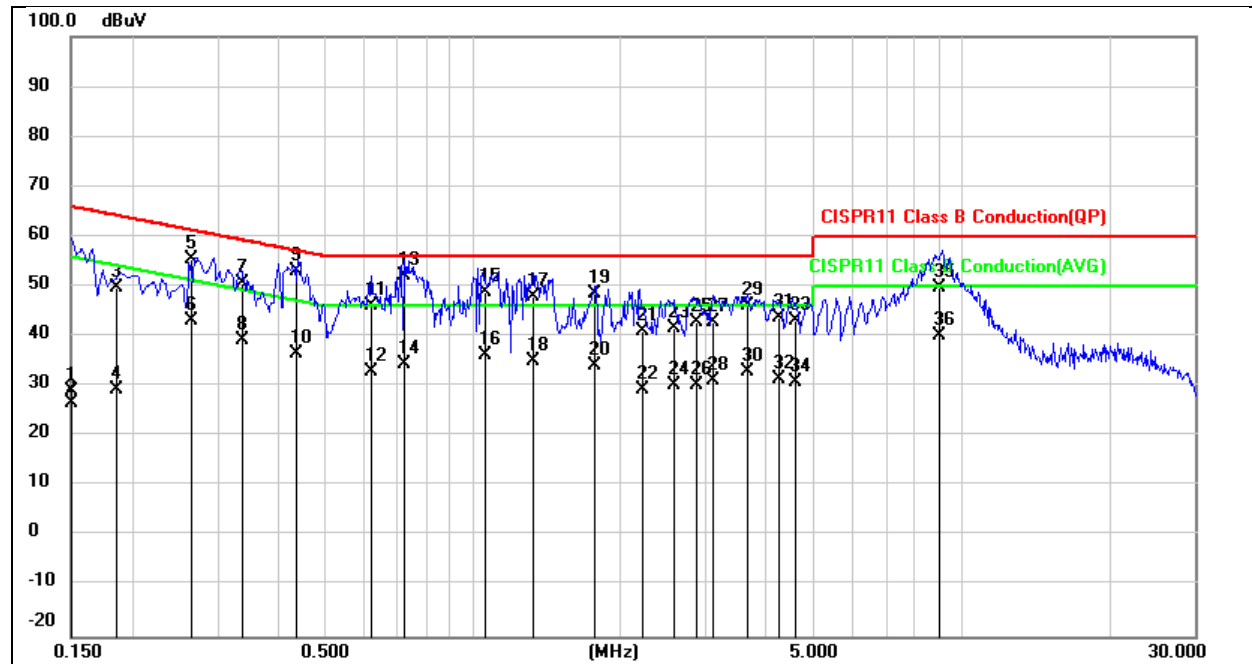
Project No.:	4789548226	Probe:	N
Standard:	CISPR11 Class B Conduction(QP)	Power Source:	from AC power
Test item:	Conduction Test	Date:	7/3/2020
Temp./Hum.(%RH):	23(C)/60%RH	Time:	11:18:53 AM
EUT:		Test By:	Edison
Model:			
Mode:	mode 6		
Note:			



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1531	44.87	19.47	64.34	65.83	-1.49	QP
2	0.1531	29.00	19.47	48.47	55.83	-7.36	AVG
3	0.1611	40.99	19.47	60.46	65.41	-4.95	QP
4	0.1611	30.14	19.47	49.61	55.41	-5.80	AVG
5	0.2055	32.04	19.48	51.52	63.39	-11.87	QP
6	0.2055	13.40	19.48	32.88	53.39	-20.51	AVG
7	0.2518	33.79	19.48	53.27	61.70	-8.43	QP
8	0.2518	17.44	19.48	36.92	51.70	-14.78	AVG
9	0.2835	38.26	19.48	57.74	60.71	-2.97	QP
10	0.2835	25.61	19.48	45.09	50.71	-5.62	AVG
11	0.3075	36.17	19.48	55.65	60.04	-4.39	QP
12	0.3075	19.00	19.48	38.48	50.04	-11.56	AVG
13	0.4304	32.58	19.49	52.07	57.24	-5.17	QP
14	0.4304	18.37	19.49	37.86	47.24	-9.38	AVG
15	0.6134	26.68	19.49	46.17	56.00	-9.83	QP
16	0.6134	10.26	19.49	29.75	46.00	-16.25	AVG
17	0.8477	26.16	19.50	45.66	56.00	-10.34	QP
18	0.8477	15.93	19.50	35.43	46.00	-10.57	AVG
19	1.0168	25.81	19.50	45.31	56.00	-10.69	QP
20	1.0168	13.34	19.50	32.84	46.00	-13.16	AVG
21	1.2646	26.30	19.51	45.81	56.00	-10.19	QP
22	1.2646	13.58	19.51	33.09	46.00	-12.91	AVG

23	1.6934	23.82	19.53	43.35	56.00	-12.65	QP
24	1.6934	9.92	19.53	29.45	46.00	-16.55	AVG
25	2.0340	24.24	19.55	43.79	56.00	-12.21	QP
26	2.0340	9.72	19.55	29.27	46.00	-16.73	AVG
27	2.2482	24.49	19.55	44.04	56.00	-11.96	QP
28	2.2482	10.46	19.55	30.01	46.00	-15.99	AVG
29	2.5476	25.19	19.55	44.74	56.00	-11.26	QP
30	2.5476	11.26	19.55	30.81	46.00	-15.19	AVG
31	2.8817	24.62	19.56	44.18	56.00	-11.82	QP
32	2.8817	13.19	19.56	32.75	46.00	-13.25	AVG
33	3.5800	22.19	19.59	41.78	56.00	-14.22	QP
34	3.5800	9.85	19.59	29.44	46.00	-16.56	AVG
35	10.5040	26.76	19.71	46.47	60.00	-13.53	QP
36	10.5040	17.04	19.71	36.75	50.00	-13.25	AVG

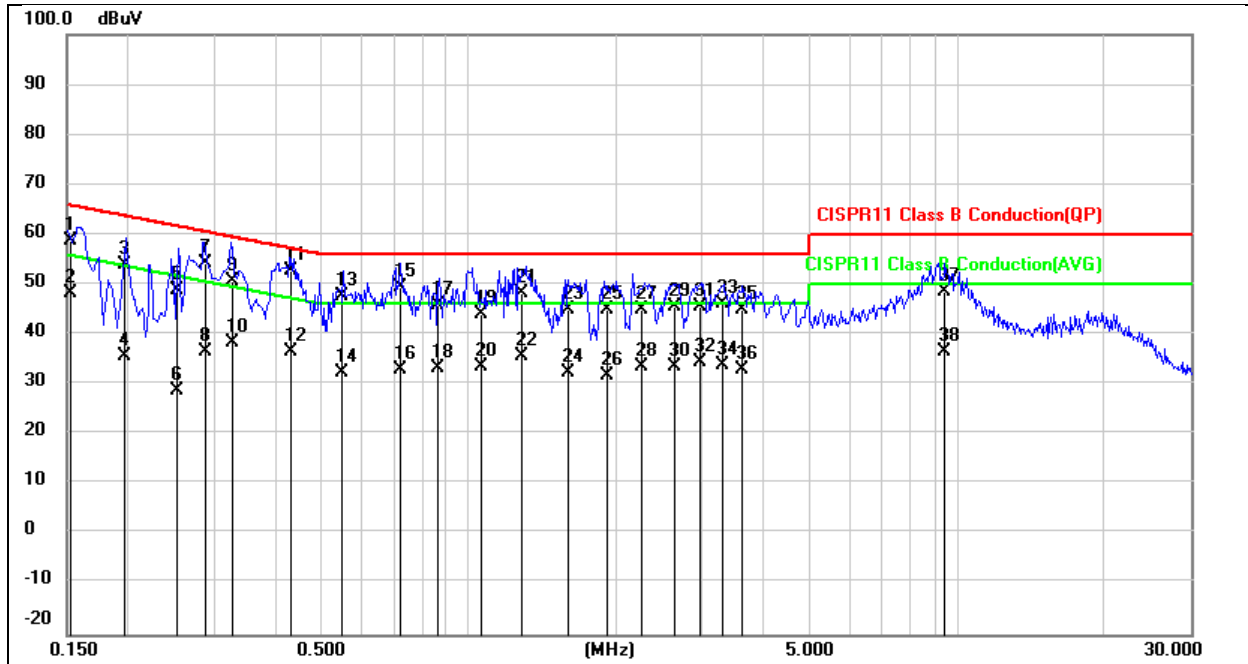
Project No.:	4789548226	Probe:	L1
Standard:	CISPR11 Class B Conduction(QP)	Power Source:	from AC power
Test item:	Conduction Test	Date:	7/3/2020
Temp./Hum.(%RH):	23(C)/60%RH	Time:	4:04:20 PM
EUT:		Test By:	Hank
Model:			
Mode:	mode 7		
Note:			



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1488	9.60	19.47	29.07	66.07	-37.00	QP
2	0.1488	7.12	19.47	26.59	56.07	-29.48	AVG
3	0.1858	30.34	19.46	49.80	64.22	-14.42	QP
4	0.1858	10.04	19.46	29.50	54.22	-24.72	AVG
5	0.2655	35.90	19.47	55.37	61.26	-5.89	QP
6	0.2655	23.62	19.47	43.09	51.26	-8.17	AVG
7	0.3365	31.23	19.47	50.70	59.29	-8.59	QP
8	0.3365	19.64	19.47	39.11	49.29	-10.18	AVG
9	0.4342	33.53	19.48	53.01	57.17	-4.16	QP
10	0.4342	17.19	19.48	36.67	47.17	-10.50	AVG
11	0.6173	26.74	19.48	46.22	56.00	-9.78	QP
12	0.6173	13.60	19.48	33.08	46.00	-12.92	AVG
13	0.7292	32.58	19.49	52.07	56.00	-3.93	QP
14	0.7292	14.85	19.49	34.34	46.00	-11.66	AVG
15	1.0594	29.43	19.50	48.93	56.00	-7.07	QP
16	1.0594	16.80	19.50	36.30	46.00	-9.70	AVG
17	1.3221	28.42	19.50	47.92	56.00	-8.08	QP
18	1.3221	15.61	19.50	35.11	46.00	-10.89	AVG
19	1.7671	29.11	19.52	48.63	56.00	-7.37	QP
20	1.7671	14.67	19.52	34.19	46.00	-11.81	AVG
21	2.2045	21.40	19.53	40.93	56.00	-15.07	QP
22	2.2045	9.75	19.53	29.28	46.00	-16.72	AVG

23	2.5726	22.02	19.54	41.56	56.00	-14.44	QP
24	2.5726	10.62	19.54	30.16	46.00	-15.84	AVG
25	2.8685	23.34	19.55	42.89	56.00	-13.11	QP
26	2.8685	10.67	19.55	30.22	46.00	-15.78	AVG
27	3.1029	23.19	19.55	42.74	56.00	-13.26	QP
28	3.1029	11.53	19.55	31.08	46.00	-14.92	AVG
29	3.6317	26.45	19.58	46.03	56.00	-9.97	QP
30	3.6317	13.30	19.58	32.88	46.00	-13.12	AVG
31	4.2245	24.17	19.59	43.76	56.00	-12.24	QP
32	4.2245	11.83	19.59	31.42	46.00	-14.58	AVG
33	4.5548	23.42	19.59	43.01	56.00	-12.99	QP
34	4.5548	11.20	19.59	30.79	46.00	-15.21	AVG
35	9.0375	30.24	19.66	49.90	60.00	-10.10	QP
36	9.0375	20.58	19.66	40.24	50.00	-9.76	AVG

Project No.:	4789548226	Probe:	N
Standard:	CISPR11 Class B Conduction(QP)	Power Source:	from AC power
Test item:	Conduction Test	Date:	7/3/2020
Temp./Hum.(%RH):	23(C)/60%RH	Time:	4:10:42 PM
EUT:		Test By:	Hank
Model:			
Mode:	mode 7		
Note:			



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1533	39.35	19.47	58.82	65.82	-7.00	QP
2	0.1533	28.66	19.47	48.13	55.82	-7.69	AVG
3	0.1963	34.36	19.47	53.83	63.77	-9.94	QP
4	0.1963	16.10	19.47	35.57	53.77	-18.20	AVG
5	0.2511	29.36	19.48	48.84	61.72	-12.88	QP
6	0.2511	9.37	19.48	28.85	51.72	-22.87	AVG
7	0.2894	34.77	19.48	54.25	60.54	-6.29	QP
8	0.2894	17.15	19.48	36.63	50.54	-13.91	AVG
9	0.3286	31.19	19.48	50.67	59.49	-8.82	QP
10	0.3286	18.92	19.48	38.40	49.49	-11.09	AVG
11	0.4314	33.34	19.49	52.83	57.23	-4.40	QP
12	0.4314	17.18	19.49	36.67	47.23	-10.56	AVG
13	0.5488	28.15	19.49	47.64	56.00	-8.36	QP
14	0.5488	12.75	19.49	32.24	46.00	-13.76	AVG
15	0.7188	29.94	19.49	49.43	56.00	-6.57	QP
16	0.7188	13.47	19.49	32.96	46.00	-13.04	AVG
17	0.8610	26.25	19.50	45.75	56.00	-10.25	QP
18	0.8610	13.75	19.50	33.25	46.00	-12.75	AVG
19	1.0568	24.50	19.50	44.00	56.00	-12.00	QP
20	1.0568	14.06	19.50	33.56	46.00	-12.44	AVG
21	1.2782	28.85	19.51	48.36	56.00	-7.64	QP
22	1.2782	16.29	19.51	35.80	46.00	-10.20	AVG

23	1.6025	25.37	19.53	44.90	56.00	-11.10	QP
24	1.6025	12.97	19.53	32.50	46.00	-13.50	AVG
25	1.9198	25.46	19.54	45.00	56.00	-11.00	QP
26	1.9198	12.32	19.54	31.86	46.00	-14.14	AVG
27	2.2424	25.43	19.55	44.98	56.00	-11.02	QP
28	2.2424	14.14	19.55	33.69	46.00	-12.31	AVG
29	2.6389	26.10	19.55	45.65	56.00	-10.35	QP
30	2.6389	13.87	19.55	33.42	46.00	-12.58	AVG
31	2.9689	26.07	19.56	45.63	56.00	-10.37	QP
32	2.9689	14.77	19.56	34.33	46.00	-11.67	AVG
33	3.2953	26.45	19.57	46.02	56.00	-9.98	QP
34	3.2953	14.19	19.57	33.76	46.00	-12.24	AVG
35	3.6262	25.42	19.59	45.01	56.00	-10.99	QP
36	3.6262	13.50	19.59	33.09	46.00	-12.91	AVG
37	9.4450	28.89	19.69	48.58	60.00	-11.42	QP
38	9.4450	16.74	19.69	36.43	50.00	-13.57	AVG

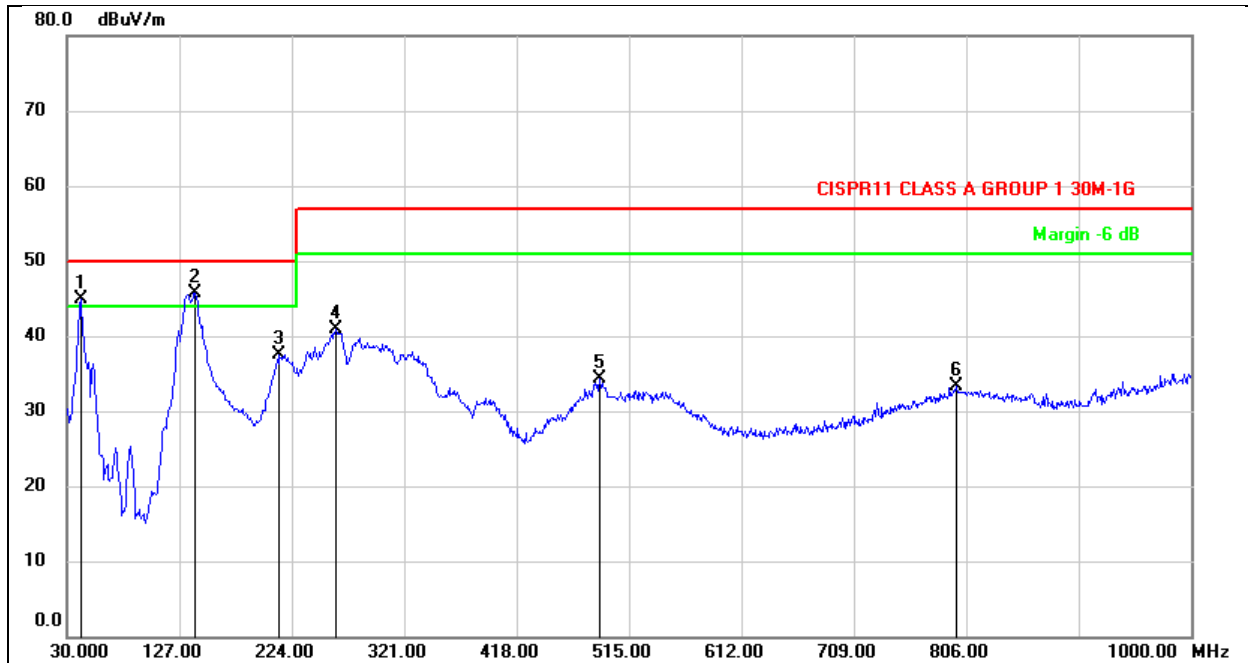
Radiated Emission

Project No.:	4789548226	Polarization:	Horizontal
Standard:	CISPR11 CLASS A GROUP 1 30M-1G	Power Source:	from AC power
Test item:	Radiation Test	Date:	7/6/2020
Temp./Hum.(%RH):	25(C)/59%RH	Time:	2:06:40 PM
EUT:		Test By:	Edison
Model:		Distance:	3m
Mode:	mode 1		
Note:			



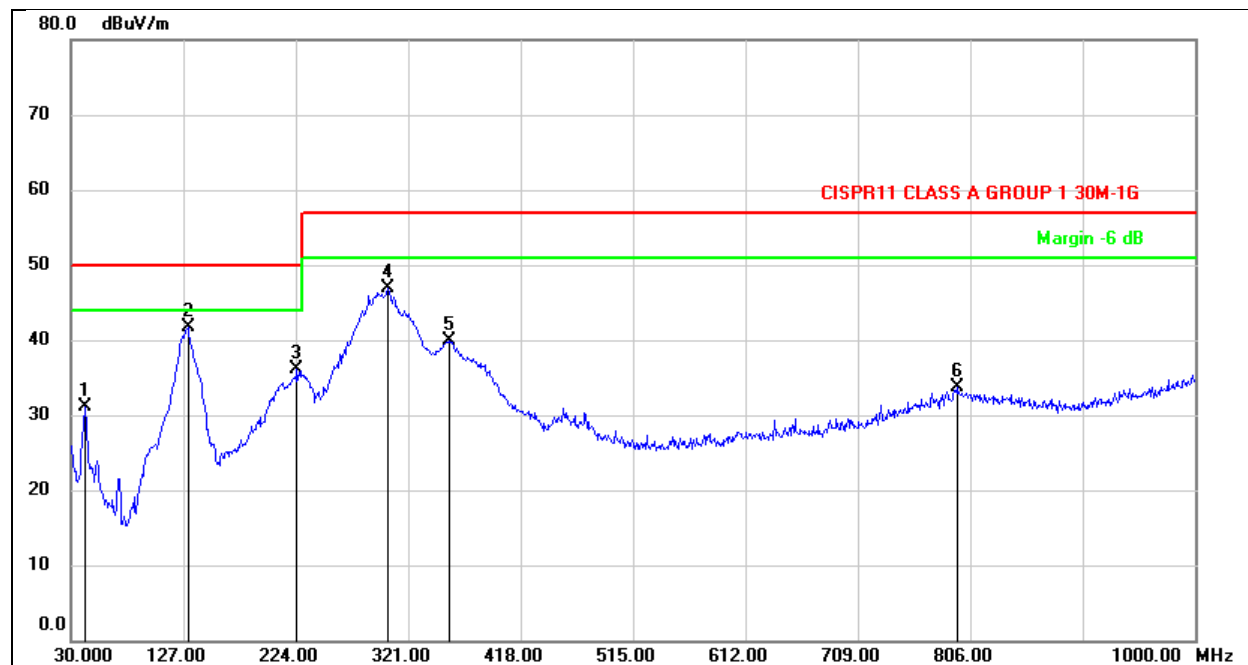
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	132.9816	54.02	-12.84	41.18	50.00	-8.82	peak
2	224.1939	54.44	-13.38	41.06	50.00	-8.94	peak
3	307.0319	56.71	-10.20	46.51	57.00	-10.49	peak
4	384.3410	45.84	-7.78	38.06	57.00	-18.94	peak
5	729.1113	33.47	0.00	33.47	57.00	-23.53	peak
6	802.7343	31.14	3.16	34.30	57.00	-22.70	peak

Project No.:	4789548226	Polarization:	Vertical
Standard:	CISPR11 CLASS A GROUP 1 30M-1G	Power Source:	from AC power
Test item:	Radiation Test	Date:	7/6/2020
Temp./Hum.(%RH):	25(C)/59%RH	Time:	2:09:42 PM
EUT:		Test By:	Edison
Model:		Distance:	3m
Mode:	mode 1		
Note:			



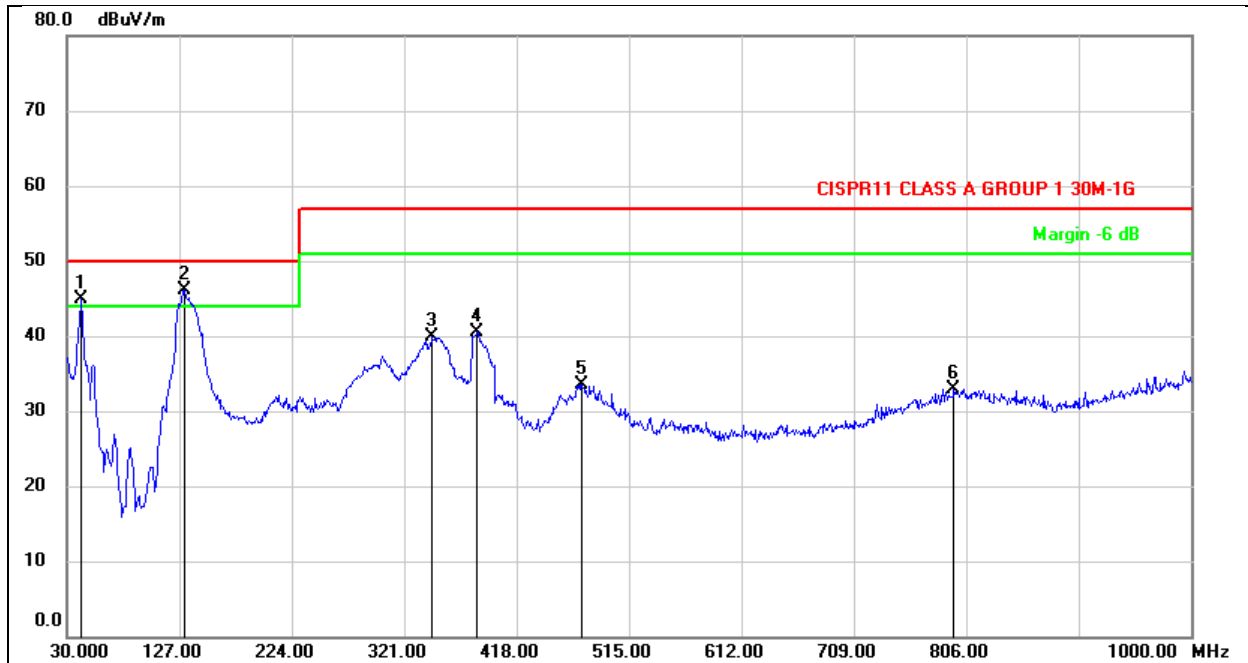
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	42.1250	56.70	-11.72	44.98	50.00	-5.02	peak
2	140.8387	57.71	-11.91	45.80	50.00	-4.20	peak
3	214.0090	51.22	-13.66	37.56	50.00	-12.44	peak
4	262.2180	52.66	-11.75	40.91	57.00	-16.09	peak
5	489.9740	39.77	-5.54	34.23	57.00	-22.77	peak
6	797.8197	30.15	3.20	33.35	57.00	-23.65	peak

Project No.:	4789548226	Polarization:	Horizontal
Standard:	CISPR11 CLASS A GROUP 1 30M-1G	Power Source:	from AC power
Test item:	Radiation Test	Date:	7/6/2020
Temp./Hum.(%RH):	25(C)/59%RH	Time:	2:18:00 PM
EUT:		Test By:	Edison
Model:		Distance:	3m
Mode:	mode 2		
Note:			



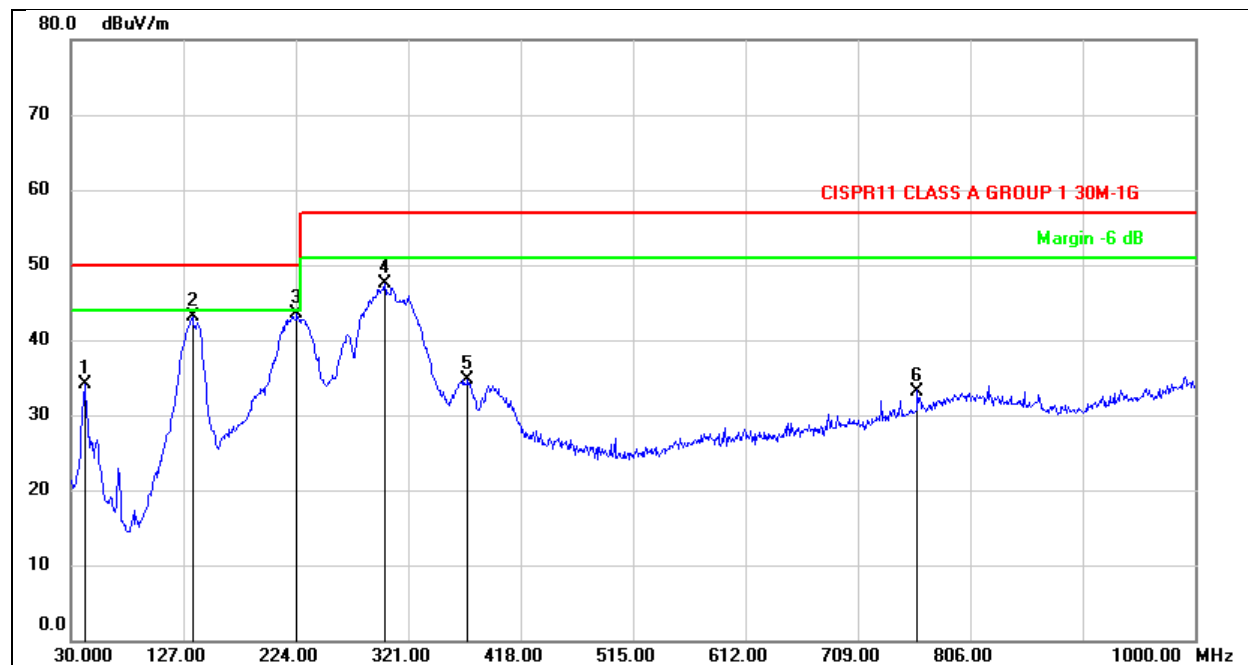
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	42.3513	42.80	-11.69	31.11	50.00	-18.89	peak
2	131.3973	54.70	-13.00	41.70	50.00	-8.30	peak
3	225.6167	49.34	-13.33	36.01	50.00	-13.99	peak
4	303.6693	57.16	-10.33	46.83	57.00	-10.17	peak
5	356.6313	48.63	-8.79	39.84	57.00	-17.16	peak
6	796.2353	30.60	3.18	33.78	57.00	-23.22	peak

Project No.:	4789548226	Polarization:	Vertical
Standard:	CISPR11 CLASS A GROUP 1 30M-1G	Power Source:	from AC power
Test item:	Radiation Test	Date:	7/6/2020
Temp./Hum.(%RH):	25(C)/59%RH	Time:	2:20:10 PM
EUT:		Test By:	Edison
Model:		Distance:	3m
Mode:	mode 2		
Note:			



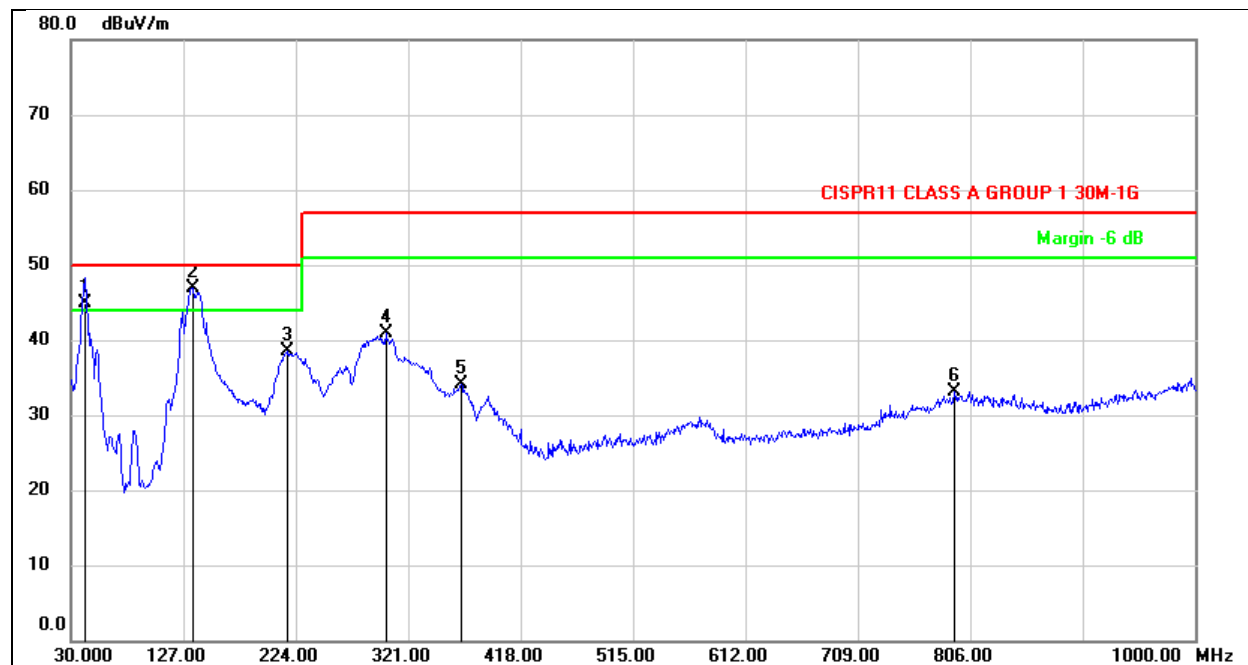
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	42.7717	56.49	-11.65	44.84	50.00	-5.16	peak
2	131.7530	59.11	-12.96	46.15	50.00	-3.85	peak
3	345.5733	48.88	-9.07	39.81	57.00	-17.19	peak
4	384.5350	48.35	-7.78	40.57	57.00	-16.43	peak
5	474.5187	39.32	-5.73	33.59	57.00	-23.41	peak
6	795.9120	29.80	3.17	32.97	57.00	-24.03	peak

Project No.:	4789548226	Polarization:	Horizontal
Standard:	CISPR11 CLASS A GROUP 1 30M-1G	Power Source:	from AC power
Test item:	Radiation Test	Date:	7/6/2020
Temp./Hum.(%RH):	25(C)/59%RH	Time:	2:36:58 PM
EUT:		Test By:	Edison
Model:		Distance:	3m
Mode:	mode 3		
Note:			



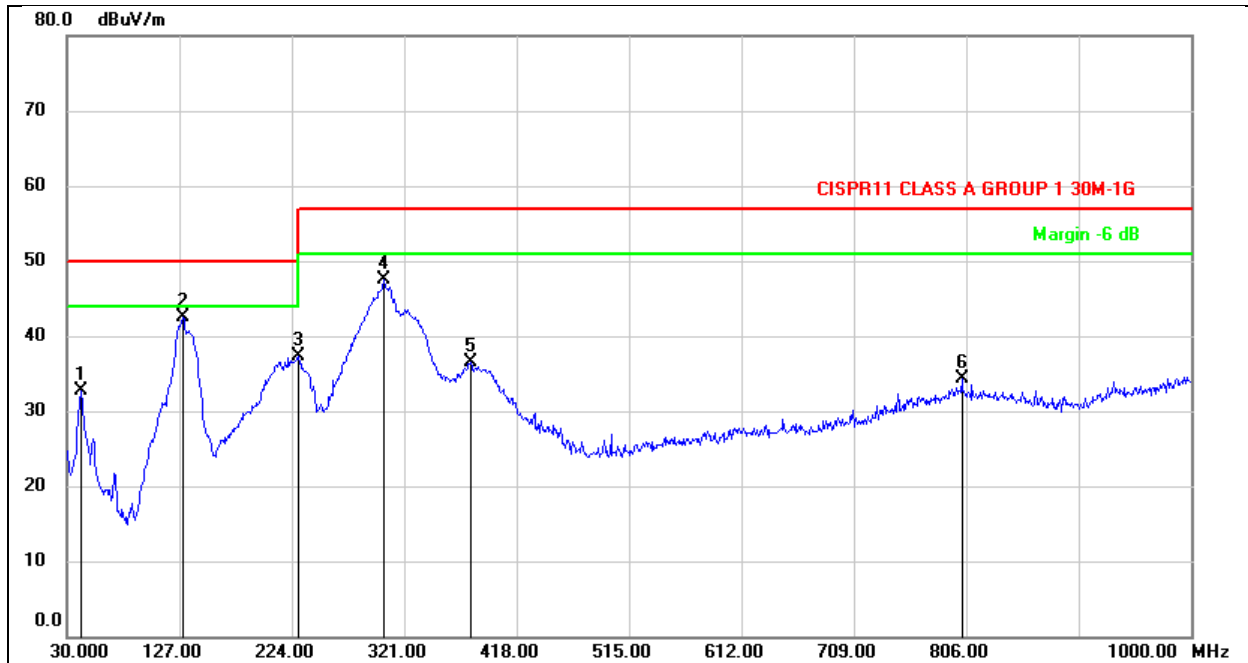
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	42.1573	45.80	-11.71	34.09	50.00	-15.91	peak
2	134.9540	55.57	-12.53	43.04	50.00	-6.96	peak
3	225.2933	56.83	-13.34	43.49	50.00	-6.51	peak
4	301.3090	57.88	-10.39	47.49	57.00	-9.51	peak
5	372.4747	42.91	-8.18	34.73	57.00	-22.27	peak
6	760.9920	31.40	1.80	33.20	57.00	-23.80	peak

Project No.:	4789548226	Polarization:	Vertical
Standard:	CISPR11 CLASS A GROUP 1 30M-1G	Power Source:	from AC power
Test item:	Radiation Test	Date:	7/6/2020
Temp./Hum.(%RH):	25(C)/59%RH	Time:	2:39:09 PM
EUT:		Test By:	Edison
Model:		Distance:	3m
Mode:	mode 3		
Note:			



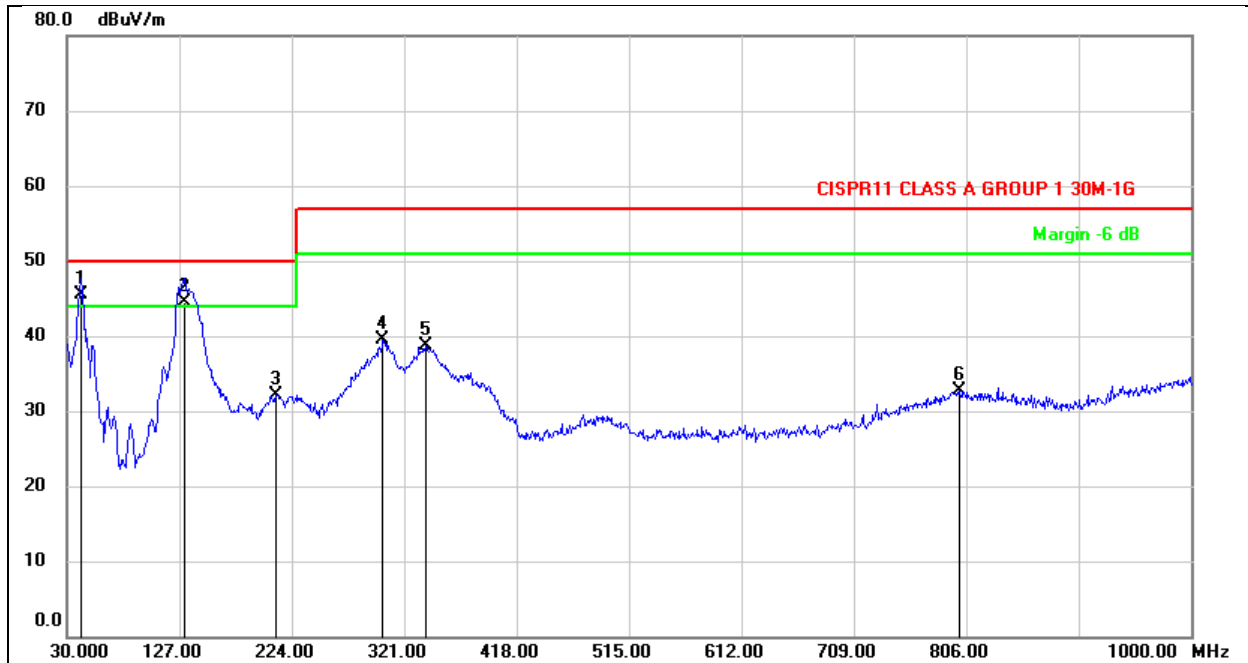
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	42.6747	56.55	-11.65	44.90	50.00	-5.10	peak
2	135.6653	59.43	-12.45	46.98	50.00	-3.02	peak
3	217.6303	51.98	-13.55	38.43	50.00	-11.57	peak
4	301.7293	51.35	-10.38	40.97	57.00	-16.03	peak
5	366.8487	42.50	-8.40	34.10	57.00	-22.90	peak
6	792.6463	30.14	3.03	33.17	57.00	-23.83	peak

Project No.:	4789548226	Polarization:	Horizontal
Standard:	CISPR11 CLASS A GROUP 1 30M-1G	Power Source:	from AC power
Test item:	Radiation Test	Date:	7/6/2020
Temp./Hum.(%RH):	25(C)/59%RH	Time:	2:25:02 PM
EUT:		Test By:	Edison
Model:		Distance:	3m
Mode:	mode 4		
Note:			



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	42.5777	44.42	-11.67	32.75	50.00	-17.25	peak
2	130.4920	55.57	-13.10	42.47	50.00	-7.53	peak
3	230.4990	50.31	-13.09	37.22	57.00	-19.78	peak
4	303.9280	57.91	-10.32	47.59	57.00	-9.41	peak
5	379.1353	44.38	-7.93	36.45	57.00	-20.55	peak
6	802.4433	31.06	3.17	34.23	57.00	-22.77	peak

Project No.:	4789548226	Polarization:	Vertical
Standard:	CISPR11 CLASS A GROUP 1 30M-1G	Power Source:	from AC power
Test item:	Radiation Test	Date:	7/6/2020
Temp./Hum.(%RH):	25(C)/59%RH	Time:	2:26:29 PM
EUT:		Test By:	Edison
Model:		Distance:	3m
Mode:	mode 4		
Note:			



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	42.6100	57.27	-11.67	45.60	50.00	-4.40	peak
2	131.0740	57.64	-13.04	44.60	50.00	-5.40	peak
3	211.0990	45.98	-13.79	32.19	50.00	-17.81	peak
4	303.0550	49.87	-10.35	39.52	57.00	-17.48	peak
5	340.3352	47.74	-9.11	38.63	57.00	-18.37	peak
6	800.9237	29.43	3.20	32.63	57.00	-24.37	peak

Project No.:	4789548226	Polarization:	Horizontal
Standard:	CISPR11 CLASS A GROUP 1 30M-1G	Power Source:	from AC power
Test item:	Radiation Test	Date:	7/6/2020
Temp./Hum.(%RH):	25(C)/59%RH	Time:	1:56:41 PM
EUT:		Test By:	Edison
Model:		Distance:	3m
Mode:	mode 5		
Note:			



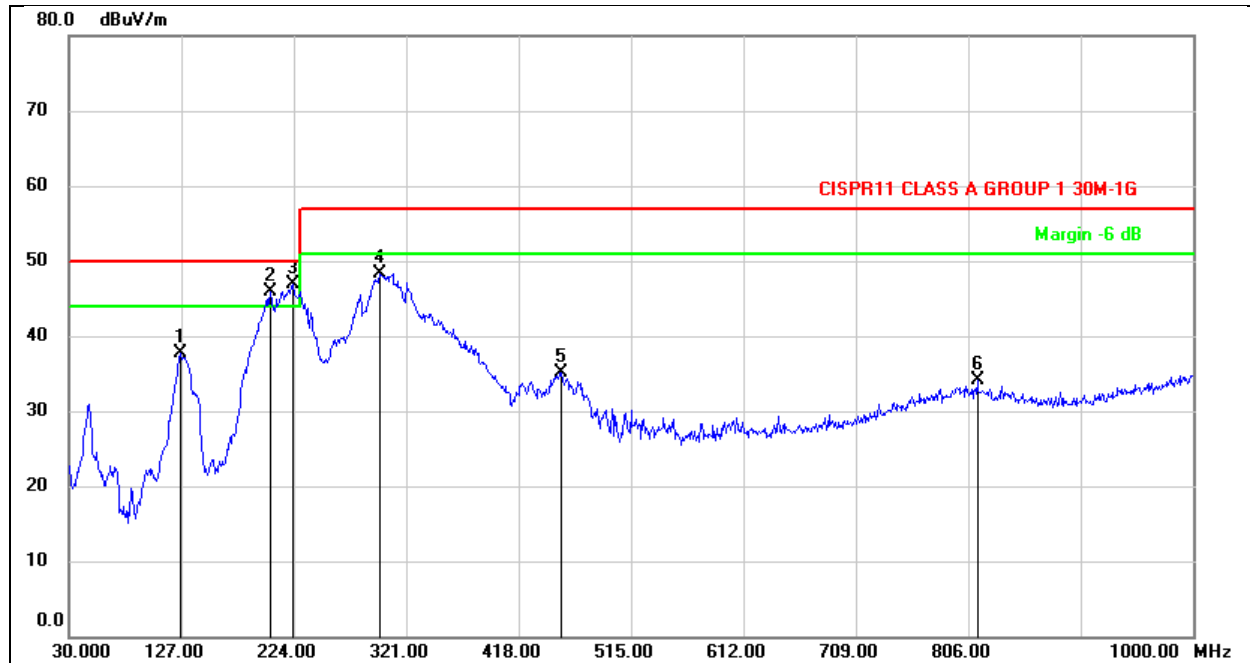
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	141.0327	48.16	-11.89	36.27	50.00	-13.73	peak
2	225.3903	60.30	-13.33	46.97	50.00	-3.03	peak
3	270.0426	57.87	-11.39	46.48	57.00	-10.52	peak
4	300.9533	60.26	-10.40	49.86	57.00	-7.14	peak
5	315.7620	60.32	-10.01	50.31	57.00	-6.69	peak
6	794.0690	30.76	3.11	33.87	57.00	-23.13	peak

Project No.:	4789548226	Polarization:	Vertical
Standard:	CISPR11 CLASS A GROUP 1 30M-1G	Power Source:	from AC power
Test item:	Radiation Test	Date:	7/6/2020
Temp./Hum.(%RH):	25(C)/59%RH	Time:	1:58:42 PM
EUT:		Test By:	Edison
Model:		Distance:	3m
Mode:	mode 5		
Note:			



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	48.1067	53.73	-11.42	42.31	50.00	-7.69	peak
2	146.0443	58.43	-11.65	46.78	50.00	-3.22	peak
3	227.2657	57.41	-13.25	44.16	50.00	-5.84	peak
4	307.5817	55.77	-10.18	45.59	57.00	-11.41	peak
5	501.6463	39.26	-5.32	33.94	57.00	-23.06	peak
6	793.4223	30.14	3.08	33.22	57.00	-23.78	peak

Project No.:	4789548226	Polarization:	Horizontal
Standard:	CISPR11 CLASS A GROUP 1 30M-1G	Power Source:	from AC power
Test item:	Radiation Test	Date:	7/6/2020
Temp./Hum.(%RH):	25(C)/59%RH	Time:	3:01:21 PM
EUT:		Test By:	Edison
Model:		Distance:	3m
Mode:	mode 6		
Note:			



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	126.4180	51.26	-13.59	37.67	50.00	-12.33	peak
2	204.0180	59.98	-14.07	45.91	50.00	-4.09	peak
3	223.3856	60.25	-13.40	46.85	50.00	-3.15	peak
4	297.8816	58.81	-10.43	48.38	57.00	-8.62	peak
5	454.8600	41.30	-6.11	35.19	57.00	-21.81	peak
6	814.5036	31.13	2.96	34.09	57.00	-22.91	peak

Project No.:	4789548226	Polarization:	Vertical
Standard:	CISPR11 CLASS A GROUP 1 30M-1G	Power Source:	from AC power
Test item:	Radiation Test	Date:	7/6/2020
Temp./Hum.(%RH):	25(C)/59%RH	Time:	3:03:15 PM
EUT:		Test By:	Edison
Model:		Distance:	3m
Mode:	mode 6		
Note:			



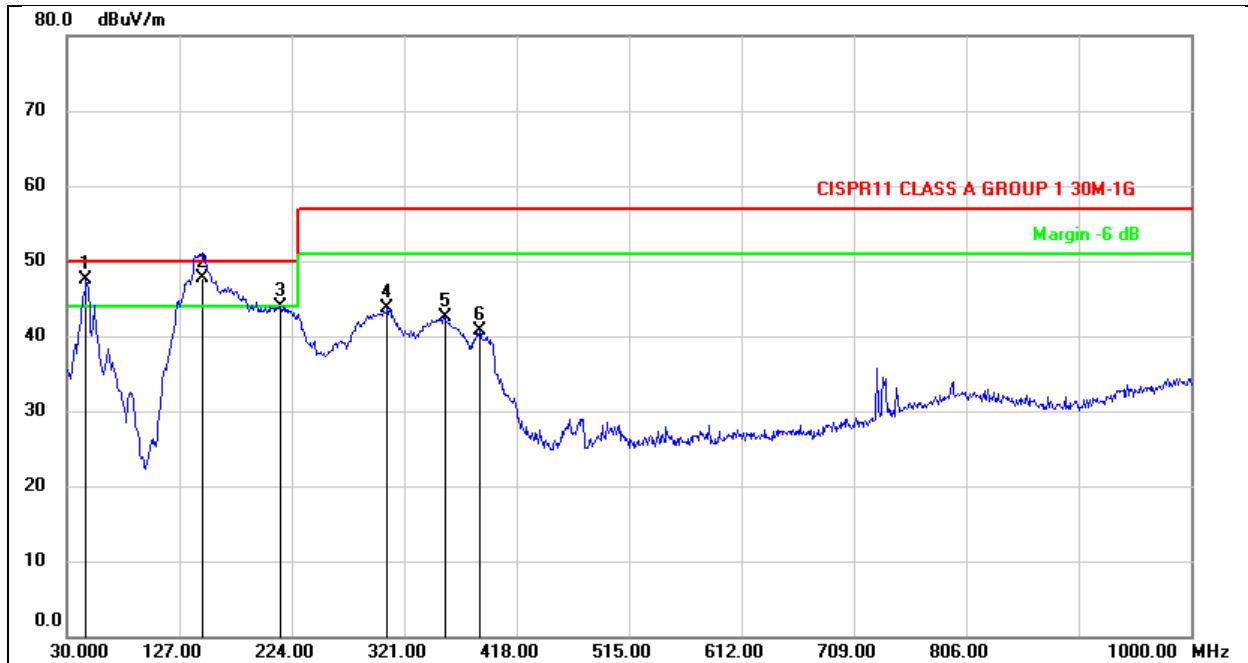
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	47.2013	56.51	-11.42	45.09	50.00	-4.91	peak
2	132.6260	56.01	-12.88	43.13	50.00	-6.87	peak
3	210.9697	57.84	-13.79	44.05	50.00	-5.95	peak
4	302.7963	53.66	-10.35	43.31	57.00	-13.69	peak
5	405.1637	44.53	-7.36	37.17	57.00	-19.83	peak
6	505.2353	41.41	-5.17	36.24	57.00	-20.76	peak

Project No.:	4789548226	Polarization:	Horizontal
Standard:	CISPR11 CLASS A GROUP 1 30M-1G	Power Source:	from AC power
Test item:	Radiation Test	Date:	7/6/2020
Temp./Hum.(%RH):	25(C)/59%RH	Time:	2:46:08 PM
EUT:		Test By:	Edison
Model:		Distance:	3m
Mode:	mode 7		
Note:			



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	47.6216	44.39	-11.42	32.97	50.00	-17.03	peak
2	141.7763	57.40	-11.87	45.53	50.00	-4.47	peak
3	227.4273	56.04	-13.24	42.80	50.00	-7.20	QP
4	312.4316	57.40	-10.05	47.35	57.00	-9.65	peak
5	376.1928	49.43	-8.07	41.36	57.00	-15.64	peak
6	799.7596	30.33	3.22	33.55	57.00	-23.45	peak

Project No.:	4789548226	Polarization:	Vertical
Standard:	CISPR11 CLASS A GROUP 1 30M-1G	Power Source:	from AC power
Test item:	Radiation Test	Date:	7/6/2020
Temp./Hum.(%RH):	25(C)/59%RH	Time:	2:50:22 PM
EUT:		Test By:	Edison
Model:		Distance:	3m
Mode:	mode 7		
Note:			



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	47.2013	58.90	-11.42	47.48	50.00	-2.52	peak
2	147.8548	59.34	-11.64	47.70	50.00	-2.30	QP
3	214.9143	57.61	-13.61	44.00	50.00	-6.00	peak
4	307.2259	53.92	-10.19	43.73	57.00	-13.27	peak
5	355.9200	51.24	-8.81	42.43	57.00	-14.57	peak
6	386.5073	48.50	-7.76	40.74	57.00	-16.26	peak

Annex : Additional test request by client.

In this appendix test item and level, lab has not accredited by TAF, the test data just for client reference.



RS TEST RESULT FORM

Project No.: 4789548226

Product Name	Internal Power, AC to DC	Standard	EN 60601-1-2
--------------	--------------------------	----------	--------------

Test Mode:	Mode 8	Temperature:	23°C
Test Voltage:	From AC power	Humidity:	58%RH
Tested By:	Edison	Test Date:	Jul 13, 2020

Customer Request: H: Horizontal V: Vertical

Freq. Range (MHz)	Position (Face)	Polarity (H or V)	Field Strength (V/m)	Criterion	Results
80-2700	Front	H / V	20	Please refer to 7.1	Pass
	Left	H / V	20	Please refer to 7.1	Pass
	Right	H / V	20	Please refer to 7.1	Pass
	Rear	H / V	20	Please refer to 7.1	Pass
Note	There was no abnormal situation during the test compared with initial operation. Pass means that the test performance meet Criteria A which identical with EN 55035.				



CS TEST RESULT FORM

Project No.: 4789548226

Product Name	Internal Power, AC to DC	Standard	EN 60601-1-2
--------------	--------------------------	----------	--------------

Test Mode:	Mode 8	Temperature:	23°C
Test Voltage:	From AC power	Humidity:	58%RH
Tested By:	Edison	Test Date:	Jul 06, 2020

Customer Request:

Test Ports (Mode)	Freq. Range (MHz)	Field Strength	CDN	Criteria	Results
AC Power	0.15 --- 80	20V(rms) AM Modulated 1000Hz, 80%	M016(M2)	Please refer to 7.1	Pass
Note	There was no abnormal situation during the test compared with initial operation. Pass means that the test performance meet Criteria A which identical with EN 55035.				