FCC Part 18

TEST REPORT

For

EM25AP-**
(:GA,GB,GC,GH,G1)**

MODEL NUMBER: EM25AP-GA(JES1095DRBB,JES1095DRWW), EM25AP-G1(JES1095SRSS, JES1095BRTS), EM25AP-GH,EM25AP-GC,EM25AP-GB

REPORT NUMBER: 4790189076.1

ISSUE DATE: Mar. 25, 2022

FCC ID: 2A5XWEM25APGA

Prepared for

Qingdao Xingbang Cookers&Ovens Appliances Co., LTD.
No.132, Taizigou Changjiang Road, Qingdao Economic & Technological Development Zone, Qingdao City, Shandong Province, P.R.China

Prepared by

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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 apply to the test sample(s) mentioned above at the time of the testing period only and are not to be used to indicate applicability to other similar products. This report does not imply that the product(s) has met the criteria for certification.

Revision History

Rev.	Issue Date	Revisions	Revised By
V0	03/25/2022	Initial Issue	

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Summary of Test Results				
Standard	**Test Item**	**Test Method**	**Class / Severity**	**Result**
FCC CFR 47 Part 18	Conducted Emission (150 kHz to 30 MHz)	FCC OST/ MP-5:1986	18.307(b)	PASS
	Radiated Emission (9 kHz to 30 MHz)	FCC OST/ MP-5:1986	18.305(b)	PASS
	Radiated Emission (30 MHz to1 GHz)	FCC OST/ MP-5:1986	18.305(b)	PASS
	Radiation Hazard	FCC OST/ MP-5:1986	Clause 3.1	PASS
	Operating Frequency	FCC OST/ MP-5:1986	Clause 4.5	PASS
	Output Power Measurement	FCC OST/ MP-5:1986	Clause 4.3	PASS

Remark :
EUT: In this whole report EUT means Equipment Under Test.
Model named description: /
This report only tests the microwave part.

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1. ATTESTATION OF TEST RESULTS

Applicant Information

Company Name:	Qingdao Xingbang Cookers&Ovens Appliances Co., LTD.
Address:	No.132, Taizigou Changjiang Road, Qingdao Economic & Technological Development Zone, Qingdao City, Shandong Province, P.R.China

Manufacturer Information

Company Name:	Qingdao Xingbang Cookers&Ovens Appliances Co., LTD.
Address:	No.132, Taizigou Changjiang Road, Qingdao Economic & Technological Development Zone, Qingdao City, Shandong Province, P.R.China

EUT Information

EUT Name:	EM25AP-**
Model:	EM25AP-GA
Series Model:	EM25AP-GA(JES1095DRBB, JES1095DRWW), EM25AP-G1(JES1095SRSS, JES1095BRTS), EM25AP-GH, EM25AP-GC,EM25AP-GB
Model difference:	Only the exterior color is different.
Brand:	N/A
Sample Status:	Normal
Sample ID:	220224010-2
Sample Received Date:	Feb. 25, 2022
Date of Tested:	Feb. 25, 2022 ~ Mar. 24, 2022

APPLICABLE STANDARDS	
STANDARDS	**TEST RESULTS**
FCC CFR 47 Part 18	**PASS**

Prepared By:

Gary Zhang
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Checked By:

Shawn Wen
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Laboratory Manager

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2. TEST METHODOLOGY

All tests were performed in accordance with the standard FCC CFR 47 Part 18 (FCC MP-5).

3. FACILITIES AND ACCREDITATION

Accreditation Certificate	**A2LA (Certificate No.: 4338.01)** Shenzhen STS Test Services Co., Ltd. has been assessed and proved to be in compliance with A2LA. **CNAS (Registration No.: L7649)** Shenzhen STS Test Services Co., Ltd. has been assessed and proved to be in compliance with CNAS.

Note: All tests measurement facilities use to collect the measurement data are located at A 1/F, Building B, Zhuoke Science Park, No.190 Chongqing Road, HepingShequ, Fuyong Sub-District,Bao'an District, Shenzhen, Guang Dong, China

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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:

Test Item	Measurement Frequency Range	K	U(dB)
Conducted disturbance at mains terminals ports	9KHz ~ 30MHz	2	2.73 dB
Radiated disturbance Test	30MHz ~ 1000MHz	2	4.09 dB
Radiated disturbance Test	1GHz ~ 6 GHz	2	4.92 dB
Radiated disturbance Test	6GHz ~ 18GHz	2	5.49 dB
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.			

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5. EQUIPMENT UNDER TEST

5.1. Description of EUT

EUT Name	EM25AP-**
EUT Description	The device is a microwave oven
Model	EM25AP-GA
Series Model:	EM25AP-GA(JES1095DRBB, JES1095DRWW), EM25AP-G1(JES1095SRSS, JES1095BRTS), EM25AP-GH, EM25AP-GC,EM25AP-GB
Model Difference	Only the exterior color is different.
Rated Input	AC 120V 60Hz 11.5A

5.2. Test Mode

Test Mode	Description
Mode 1	Maximum microwave power
Mode 2	Stand-by and operation

Note:The EUT has been tested independently.

5.3. EUT Accessory

Item	Accessory	Brand Name	Model Name	Description
N/A	N/A	N/A	N/A	N/A

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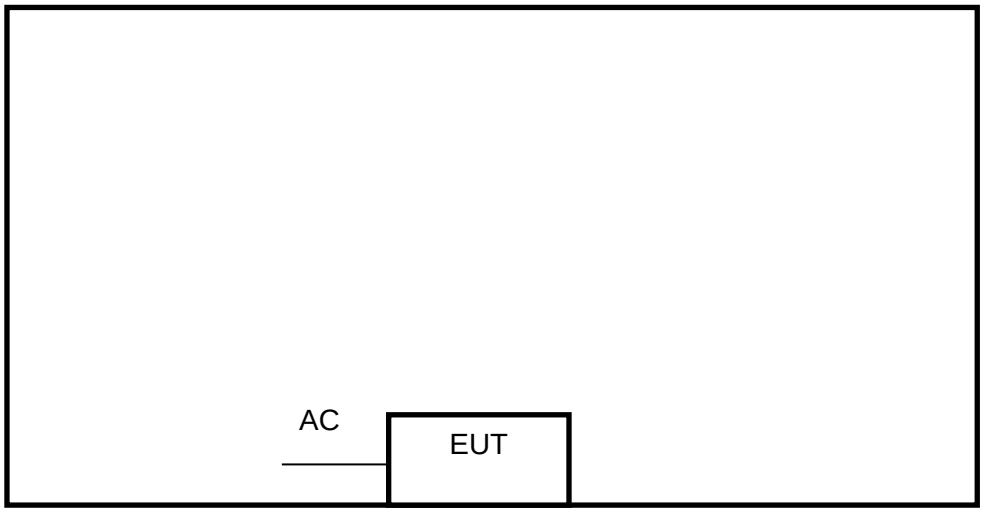
5.4. Block Diagram Showing the Configuration of System Tested



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.	Specification	Series No.
--	--	--	--	--	--
Load for power output measurement :1000 milliliters of water in the beaker located in the center of the oven; Load for frequency measurement :1000 milliliters of water in the beaker located in the center of the oven; Load for measurement of radiation on second and third harmonic; Two loads, one of 700 and the other of 300 milliliters, of water are used. Each load is tested both with the beaker located in the center of the oven and with it in the right front corner. Load for all other measurements: 700 milliliters of water, with the beaker located in the center of the oven.					

Item	Type of cable	Shielded Type	Ferrite Core	Length
--	--	--	--	--

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6. MEASURING EQUIPMENT AND SOFTWARE USED

Conducted Disturbance						
Used	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
☑	EMI Test Receiver	R&S	ESCI	101427	2021.09.30	2022.09.29
☑	LISN	R&S	ENV216	101242	2021.09.30	2022.09.29
☑	LISN	ETS	3810/2NM	00023625	2021.09.30	2022.09.29
☑	CE Cable	N/A	C01	N/A	2021.04.11	2022.04.10
☑	Temperature & Humidity	Mieo	HH660	N/A	2021.10.09	2022.10.08
☑	EMF Antenna	SCHWARZBECK	VDHH 9502	147	2021.09.30	2022.09.29
☑	Testing Software		EZ-EMC(Ver.STSLAB-03A1 CE)			

Software				
Used	Description	Manufacturer	Name	Version
☑	Test Software for Conducted Emissions	Farad	EZ-EMC	Ver. UL-3A1

Radiated Disturbance						
Used	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
☑	EMI Test Receiver	R&S	ESCI	101427	2021.09.30	2022.09.29
☑	Bi-log Antenna	TESEQ	CBL6111D	34678	2021.10.08	2023.10.07
☑	Horn Antenna	SCHWARZBECK	BBHA 9120D	1343	2020.10.12	2022.10.11
☑	Pre-amplifier(1-26.5G)	Agilent	8449B	3008A02383	2021.10.09	2022.10.08
☑	Pre-amplifier(0.1M-3GHz)	EM	EM330	060665	2021.10.09	2022.10.08
☑	Spectrum Analyzer	Agilent	N9020A	MY49100060	2021.09.30	2022.09.29
☑	RE Cable (9K-1G)	N/A	R01	N/A	2021.10.09	2022.10.08
☑	RE Cable (1-26G)	N/A	R02	N/A	2021.10.09	2022.10.08
☑	Temperature & Humidity	Mieo	HH660	N/A	2021.10.09	2022.10.08
☑	Testing Software		EZ-EMC(Ver.STSLAB-03A1 RE)			

Software				
Used	Description	Manufacturer	Name	Version
☑	Test Software for Radiated Emissions	Farad	EZ-EMC	Ver. UL-3A1

Radiation Hazard Disturbance					
Used	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
☑	MICROWAVE SURVEY METER	Lutron	EMF-839	2021.10.09	2022.10.08

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7. EMISSION TEST

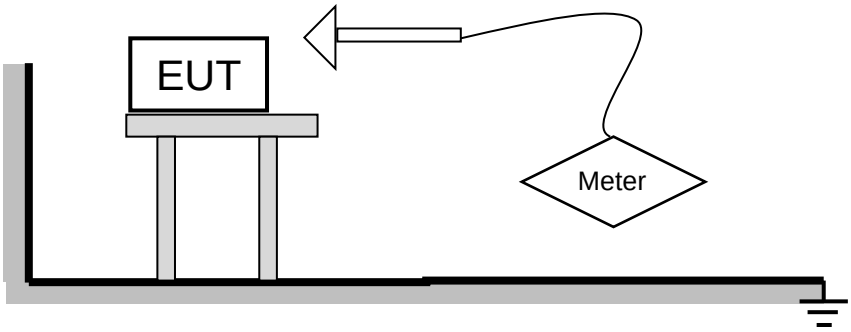
7.1. Radiation Hazard

7.1.1. Limits of Radiation Hazard

Maximum Emission, mW/cm^2
1.00

7.1.2. Test Procuedure

The EUT was set-up according to the FCC MP-5 and FCC Part 18 for Radiation Hazard Measurement. The measurement was using a microwave leakage meter to measure the Radiation leakage in the as-received condition with the oven door closed. A 1000ml water load in a beaker was located in the center of the oven and the Microwave Oven was set to maximum power. While the oven operating, the microwave meter will check the leakage and then record the maximum leakage.



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

7.1.3. Test Datas

Condition	Maximum Emission, mW/cm^2
A	0.3231
B	0.1742
C	0.1653
D	0.1756
E	0.1657
F	0.1451
G	--
M. UNCERTAINTY:	0.0002

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7.2. Operating Frequency

7.2.1. Limits of Operating Ferquency

ISM equipment may be operated on any frequency above 9 kHz. And the frequency band 2400-2500MHz is allocated for use by ISM equipment. (§18.301)

ISM frequency	Tolerance
6.78 MHz	±15.0 kHz
13.56 MHz	±7.0 kHz
27.12 MHz	±163.0 kHz
40.68 MHz	±20.0 kHz
915 MHz	±13.0 MHz
2,450 MHz	±50.0 MHz
5,800 MHz	±75.0 MHz
24,125 MHz	±125.0 MHz
61.25 GHz	±250.0 MHz
122.50 GHz	±500.0 MHz
245.00 GHz	±1.0 GHz

7.2.2. Test Procuedure

a. FREQUENCY FOR NORMAL VOLTAGE
The operating frequency was measured using a spectrum analyzer. Starting with the EUT at room temperature, a 1000mL water load was placed in the center of the oven and the oven was operated at maximum output power. The fundamental operating frequency was monitored until the water load was reduced to 20 percent of the original load.

b. FREQUENCY FOR LINE VOLTAGE
The EUT was operated / warmed by at least 10 minutes of use with a 1000 mL water load at room temperature at the beginning of the test. Then the operating frequency was monitored as the input voltage was varied between 80 and 125 percent of the nominal rating.

7.2.3. Test Datas

Item	START Frequency (MHz)	STOP Frequency (MHz)	Detector
FREQUENCY FOR NORMAL VOLTAGE	2403.00	2481.25	Peak
FREQUENCY FOR LINE VOLTAGE	2403.34	2481.17	Peak

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7.3. RF Output Power Measurement

7.3.1. Test Procuedure

Formula :

$$P = \frac{4.2 \times m_w (T_2 - T_1) + 0.5 \times m_c (T_2 - T_0)}{t}$$

NOTE :
P is the microwave power output, in watts
m_w is the mass of the water, in grams
m_c is the mass of the container, in grams
T_0 is the ambient temperature, in degrees Celsius
T_1 is the initial temperature of the water, in degrees Celsius
T_2 is the final temperature of the water, in degrees Celsius
***t* is the heating time, in seconds, excluding the magnetron filament heating-up time.**

7.3.2. EUT operation

The EUT in microwave mode with full power.

7.3.3. Test Datas

Mass of water(g)	Mass of the container(g)	Ambient temperature(℃)	Initial temperature(℃)	Final temperature(℃)	Heating time(S)	Power output(watts)
1000	480	25.2	10	31	120	747.76

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7.4. Conducted Disturbance Measurement

7.4.1. Limits of conducted disturbance voltage

(A) All other part 18 consumer devices:		
Frequency of emission (MHz)	**Conducted limit (dBμV)**	
	Quasi-peak	**Average**
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

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.

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

7.4.2. Test Procedure

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. LISN at least 80 cm from nearest part of EUT chassis.
d. For the actual test configuration, please refer to the related Item:EUT Test Photos.

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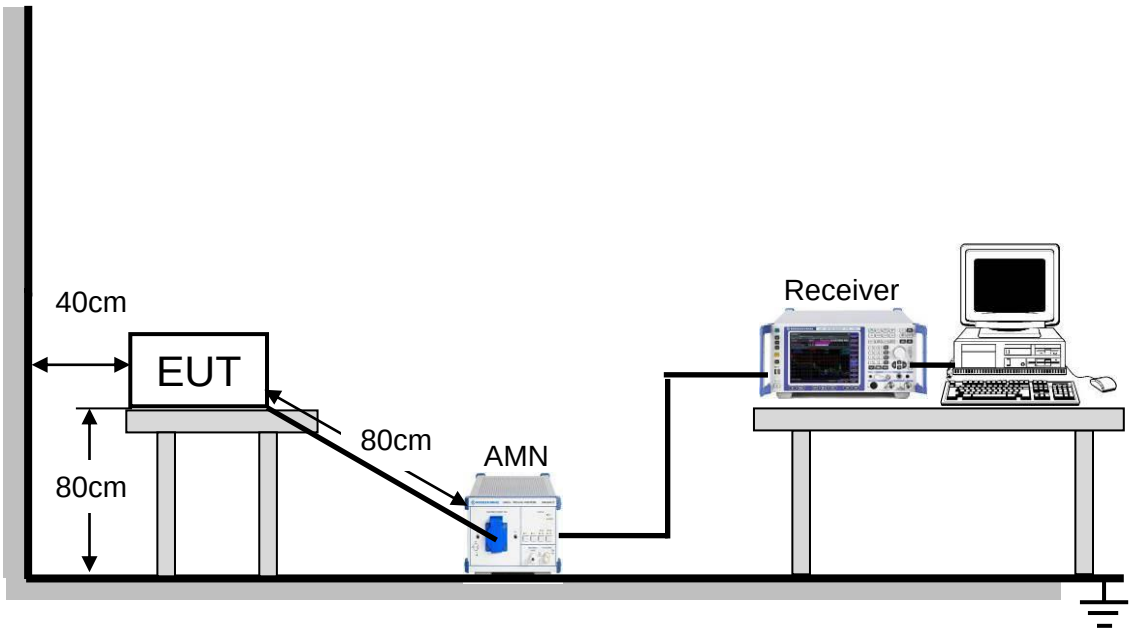
7.4.3. Test Setup



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

7.4.4. Test Environment

Temperature:	24.4℃
Humidity:	39%
ATM pressure:	101kPa

7.4.5. Test Mode

Pre-test Mode:	Mode 1
Final Test Mode:	Mode 1

Note: According to pre-test results, the final test mode is each independent function's worst case and only shown in the report.

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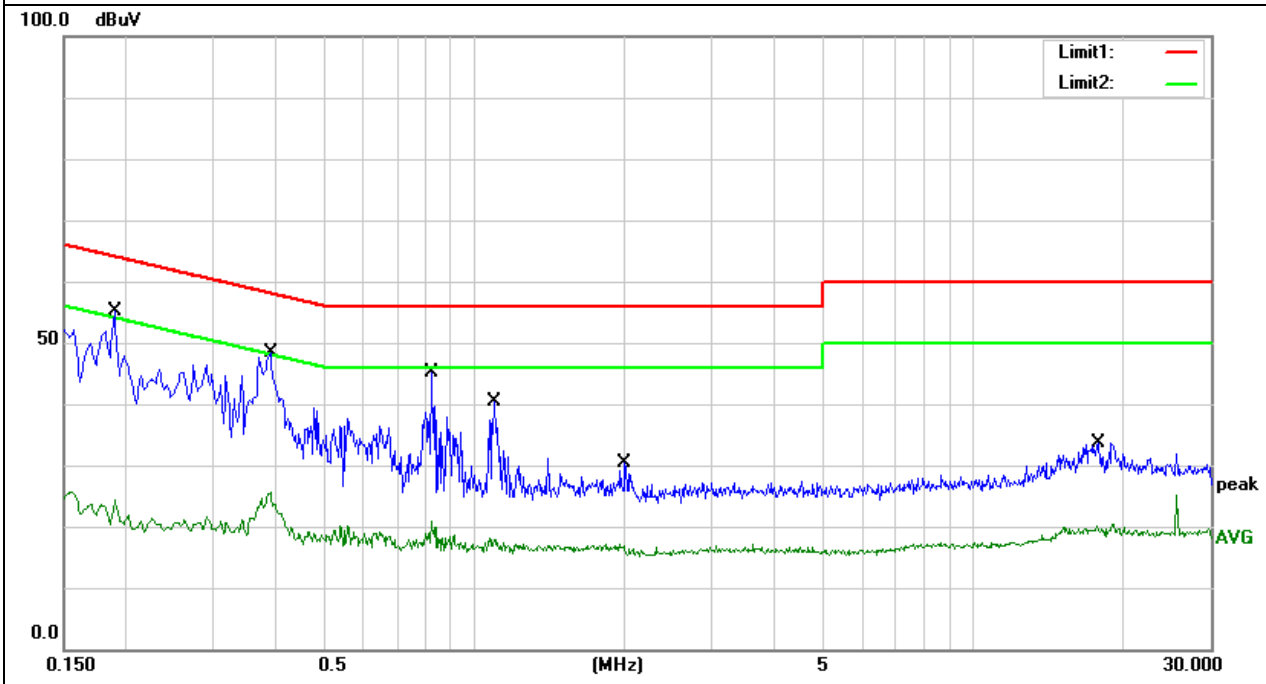
7.4.6. Test Results

Test Mode:	Mode 1
Test Voltage:	AC 120V/60Hz

Phase 1



No.	Frequency (MHz)	Reading (dBuV)	Correct dB	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1900	34.81	20.31	55.12	64.04	-8.92	QP
2	0.1900	4.03	20.31	24.34	54.04	-29.70	AVG
3	0.3871	27.41	20.57	47.98	58.13	-10.15	QP
4	0.3871	4.95	20.57	25.52	48.13	-22.61	AVG
5	0.8180	24.68	20.33	45.01	56.00	-10.99	QP
6	0.8180	0.46	20.33	20.79	46.00	-25.21	AVG
7	1.0940	20.03	20.30	40.33	56.00	-15.67	QP
8	1.0940	-2.15	20.30	18.15	46.00	-27.85	AVG
9	2.0020	10.05	20.30	30.35	56.00	-25.65	QP
10	2.0020	-3.25	20.30	17.05	46.00	-28.95	AVG
11	17.9180	11.12	22.41	33.53	60.00	-26.47	QP
12	17.9180	-2.18	22.41	20.23	50.00	-29.77	AVG

Remark:
Result = Reading +Correct
Margin = Result - Limit
Factor = Insertion loss + Cable loss

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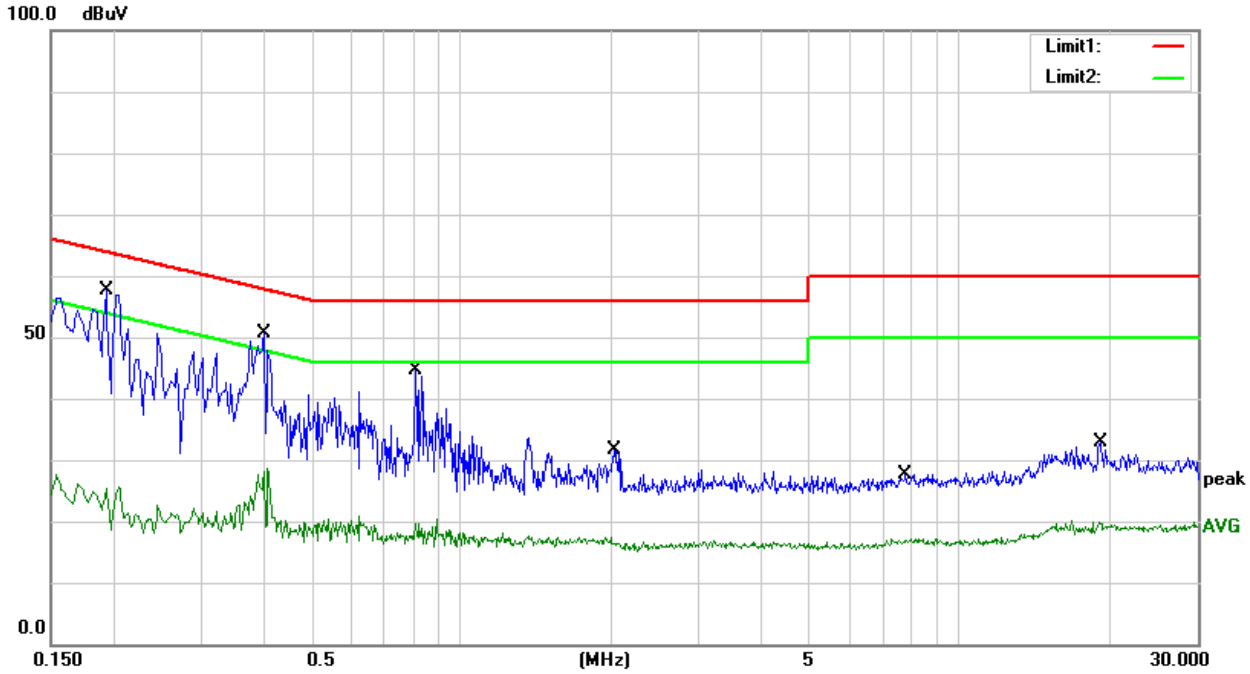
Test Mode:	Mode 1
Test Voltage:	AC 120V/60Hz

Phase 2



No.	Frequency (MHz)	Reading (dBuV)	Correct dB	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1940	37.35	20.31	57.66	63.86	-6.20	QP
2	0.1940	5.24	20.31	25.55	53.86	-28.31	AVG
3	0.4020	30.16	20.54	50.70	57.81	-7.11	QP
4	0.4020	8.10	20.54	28.64	47.81	-19.17	AVG
5	0.8100	24.20	20.33	44.53	56.00	-11.47	QP
6	0.8100	-0.03	20.33	20.30	46.00	-25.70	AVG
7	2.0260	11.27	20.30	31.57	56.00	-24.43	QP
8	2.0260	-3.01	20.30	17.29	46.00	-28.71	AVG
9	7.7860	6.82	20.74	27.56	60.00	-32.44	QP
10	7.7860	-3.64	20.74	17.10	50.00	-32.90	AVG
11	19.1860	10.15	22.71	32.86	60.00	-27.14	QP
12	19.1860	-2.83	22.71	19.88	50.00	-30.12	AVG

Remark:
Result = Reading +Correct
Margin = Result – Limit
Factor = Insertion loss + Cable loss

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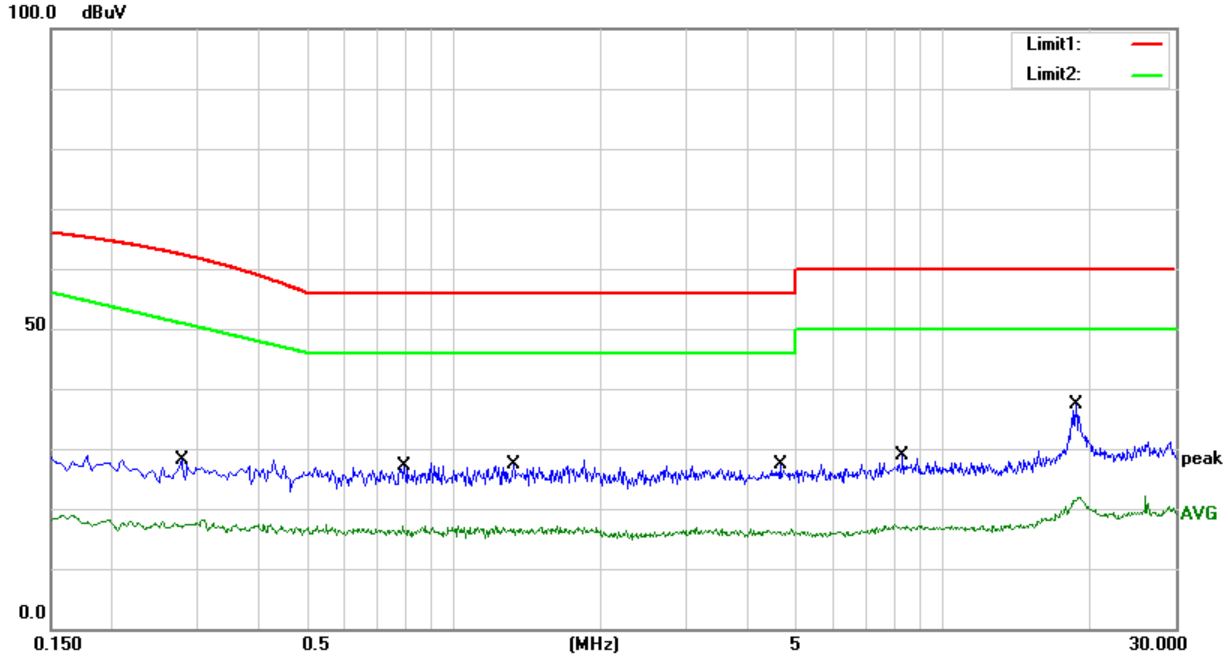
Test Mode:	Mode 2
Test Voltage:	AC 120V/60Hz

Phase 1



No.	Frequency (MHz)	Reading (dBuV)	Correct dB	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.2780	7.44	20.65	28.09	62.34	-34.25	QP
2	0.2780	-2.43	20.65	18.22	50.88	-32.66	AVG
3	0.7940	6.74	20.33	27.07	56.00	-28.93	QP
4	0.7940	-3.04	20.33	17.29	46.00	-28.71	AVG
5	1.3260	7.09	20.30	27.39	56.00	-28.61	QP
6	1.3260	-3.09	20.30	17.21	46.00	-28.79	AVG
7	4.6620	6.90	20.44	27.34	56.00	-28.66	QP
8	4.6620	-3.85	20.44	16.59	46.00	-29.41	AVG
9	8.3060	7.96	20.84	28.80	60.00	-31.20	QP
10	8.3060	-3.49	20.84	17.35	50.00	-32.65	AVG
11	18.7260	14.87	22.60	37.47	60.00	-22.53	QP
12	18.7260	-0.76	22.60	21.84	50.00	-28.16	AVG

Remark:
Result = Reading +Correct
Margin = Result - Limit
Factor = Insertion loss + Cable loss

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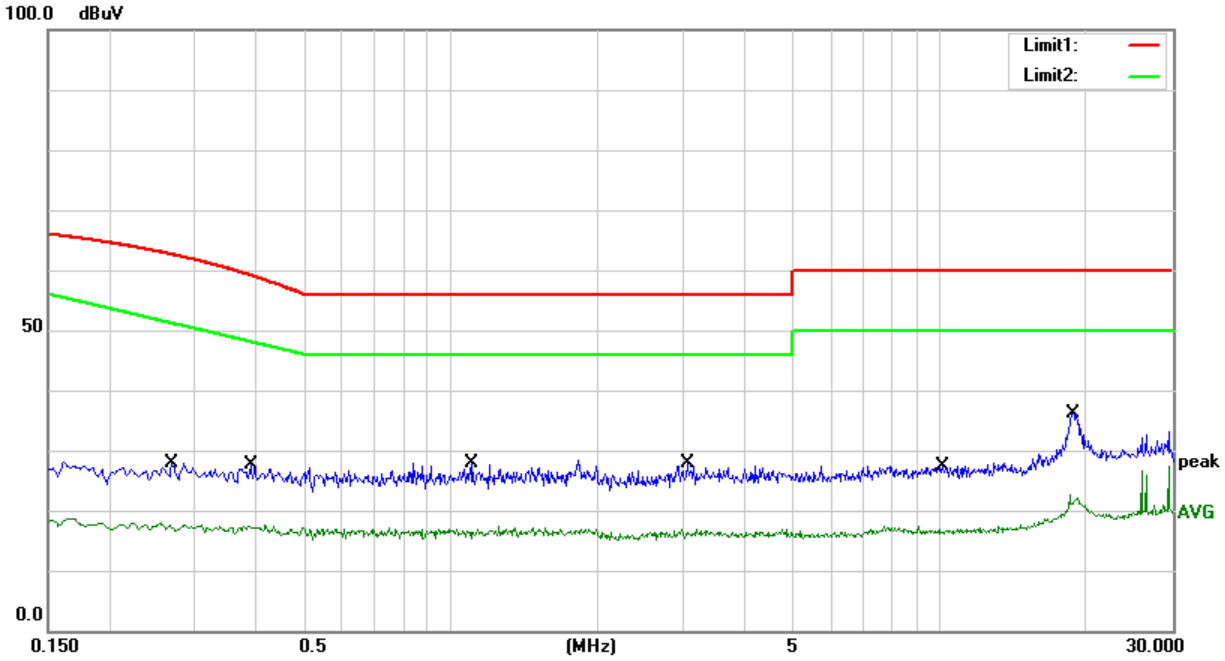
Test Mode:	Mode 2
Test Voltage:	AC 120V/60Hz

Phase 2



No.	Frequency (MHz)	Reading (dBuV)	Correct dB	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.2700	7.33	20.61	27.94	62.57	-34.63	QP
2	0.2700	-2.64	20.61	17.97	51.12	-33.15	AVG
3	0.3900	7.04	20.56	27.60	59.14	-31.54	QP
4	0.3900	-3.01	20.56	17.55	48.06	-30.51	AVG
5	1.1100	7.66	20.30	27.96	56.00	-28.04	QP
6	1.1100	-2.96	20.30	17.34	46.00	-28.66	AVG
7	3.0460	7.44	20.35	27.79	56.00	-28.21	QP
8	3.0460	-3.45	20.35	16.90	46.00	-29.10	AVG
9	10.1340	6.24	21.21	27.45	60.00	-32.55	QP
10	10.1340	-3.85	21.21	17.36	50.00	-32.64	AVG
11	18.7860	13.58	22.61	36.19	60.00	-23.81	QP
12	18.7860	3.99	22.61	26.60	50.00	-23.40	AVG

Remark:
Result = Reading +Correct
Margin = Result – Limit
Factor = Insertion loss + Cable loss

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7.5. Radiated Disturbance Measurement

7.5.1. Limits of radiated disturbance measurement

Field strength limits
(1) ISM equipment operating on a frequency specified in §18.301 is permitted unlimited radiated energy in the band specified for that frequency.
(2) The field strength levels of emissions which lie outside the bands specified in §18.301, unless otherwise indicated, shall not exceed the following:

Equipment	Operating frequency	RF Power generated by equipment (watts)	Field strength limit (uV/m)	Distance (meters)
Any type unless otherwise specified (miscellaneous)	Any ISM frequency	Below 500 500 or more	25 25 × SQRT(power/500)	300 [1]300

Power =747.76W according to 7.3 calculated value
Limit=20lg(25*SQRT(power/500))+20lg(300/3) @ 3m distance.

NOTE:
(1) The limit for radiated test was performed according to;
(2) The tighter limit applies at the band edges;
(3) Emission level (dBuV/m) = 20log Emission level (uV/m),
3m Emission level = 300m Emission level + 20log(300m/3m);

The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	-- dB
Start Frequency	0.009 MHz
Stop Frequency	25GHz
IF Bandwidth	200Hz,9 kHz,120 kHz, 1MHz

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7.5.2. Test Procedure

a. The measuring distance of at 3m shall be used for measurements at frequency up to 1GHz.

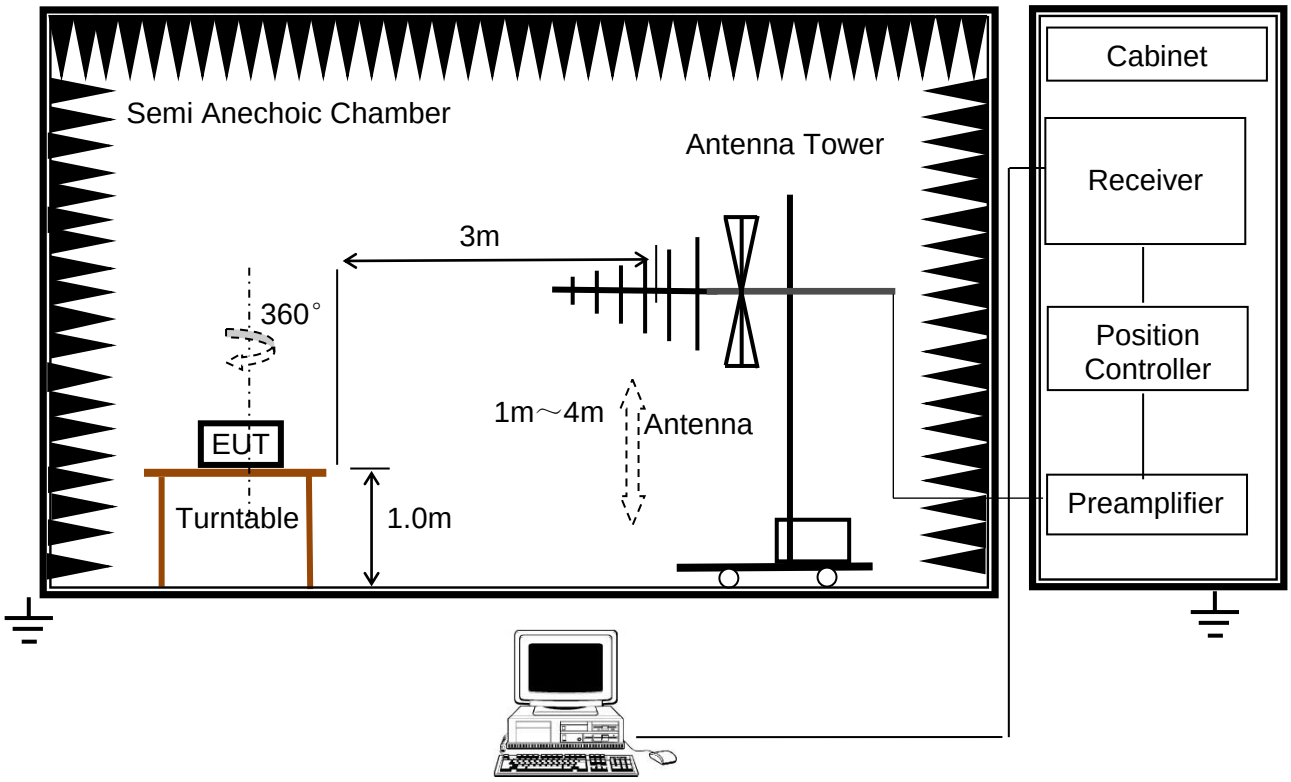
b. The EUT was placed on the top of a rotating table 1.0 meters above the ground at a 3 meter chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

c. The height of the equipment or of the substitution antenna shall be 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. For the actual test configuration, please refer to the related Item:EUT Test Photos.

7.5.3. Test Setup

(a) Radiated Disturbance Test Set-Up Frequency 30MHz - 1GHz



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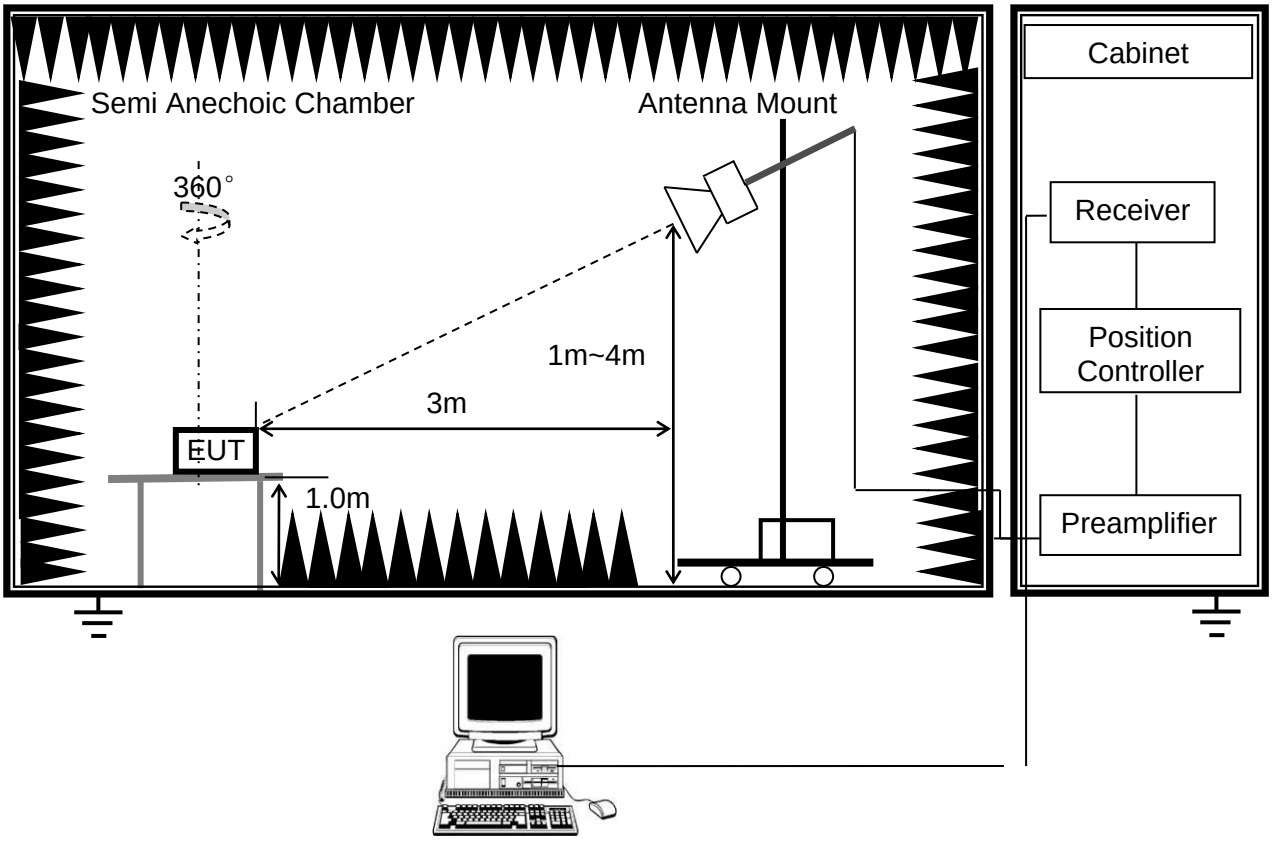
(b) Radiated Disturbance Test Set-Up Frequency above 1GHz



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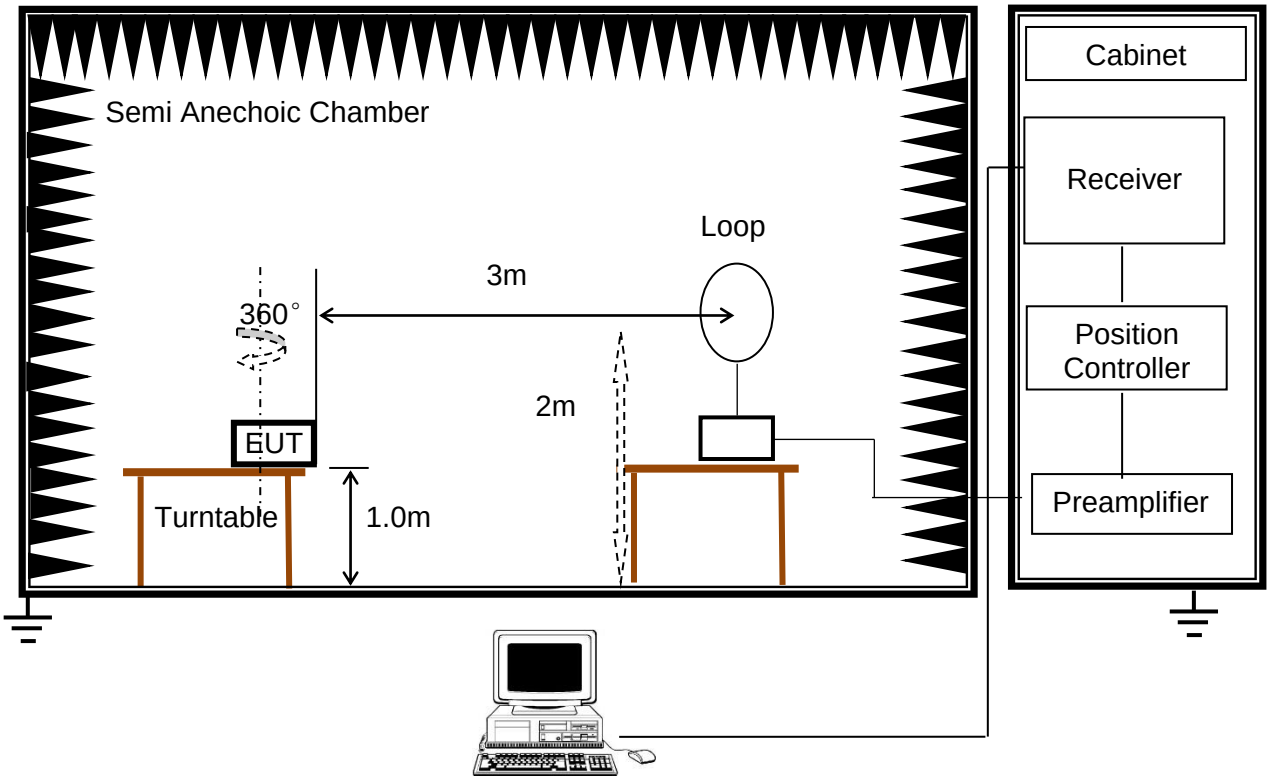
(C) Radiated Disturbance Test Set-Up Frequency 9KHz-30MHz



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

7.5.4. Test Environment

Radiated Disturbance - below 1 GHz		Radiated Disturbance - above 1 GHz	
Temperature:	24.2℃	Temperature:	24.2℃
Humidity:	54%	Humidity:	54%
ATM pressure:	101kPa	ATM pressure:	101kPa

7.5.5. Test Mode

Radiated Disturbance - below 1 GHz		Radiated Disturbance - above 1 GHz	
Pre-test Mode:	Mode 1	Pre-test Mode:	Mode 1
Final Test Mode:	Mode 1	Final Test Mode:	Mode 1

Note: According to pre-test results, the final test mode is each independent function's worst case and only shown in the report.

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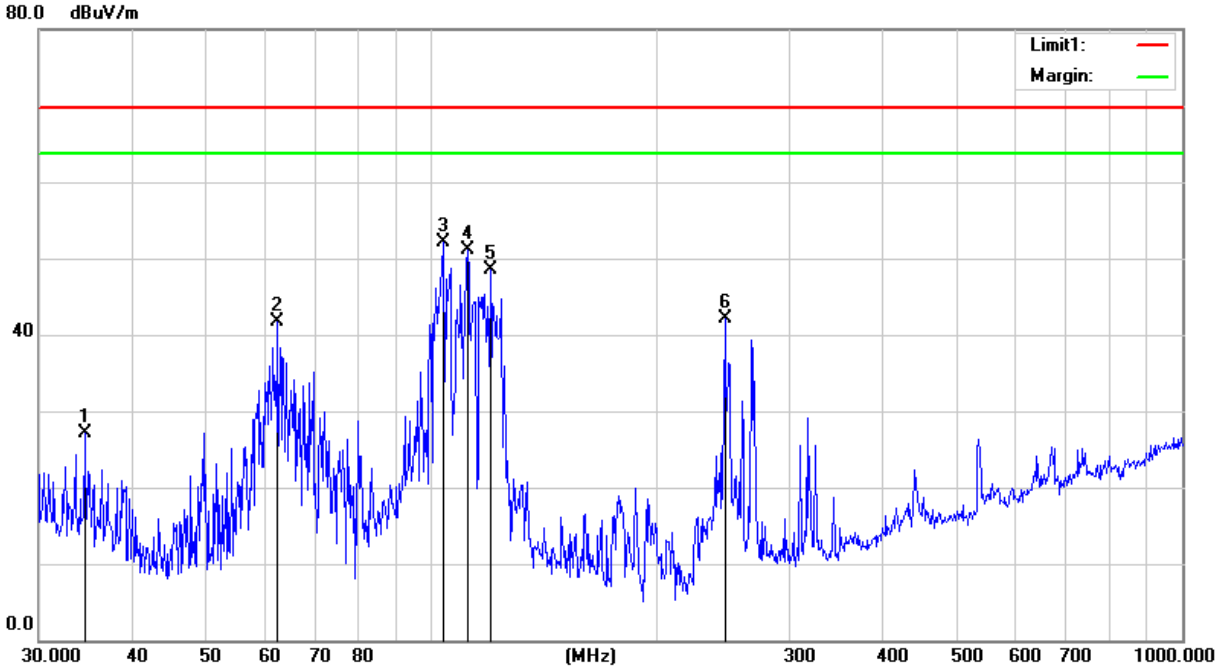
7.5.6. Test Results – below 1GHz(30~1000MHz)

Test Mode:	Mode 1
Test Voltage:	AC 120V/60Hz

Polarization: Vertical



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	34.5172	40.64	-13.54	27.10	69.70	-42.60	QP
2	62.4314	67.57	-25.93	41.64	69.70	-28.06	QP
3	103.8055	71.96	-19.82	52.14	69.70	-17.56	QP
4	111.7380	70.38	-19.37	51.01	69.70	-18.69	QP
5	119.8555	66.82	-18.26	48.56	69.70	-21.14	QP
6	245.9508	60.23	-18.17	42.06	69.70	-27.64	QP

Remark:
Result = Reading +Correct
Margin = Result – Limit
Factor= Cable Loss +Antenna Factor-Amplifier Gain
The measured PK/QP value is lower than the Average limit

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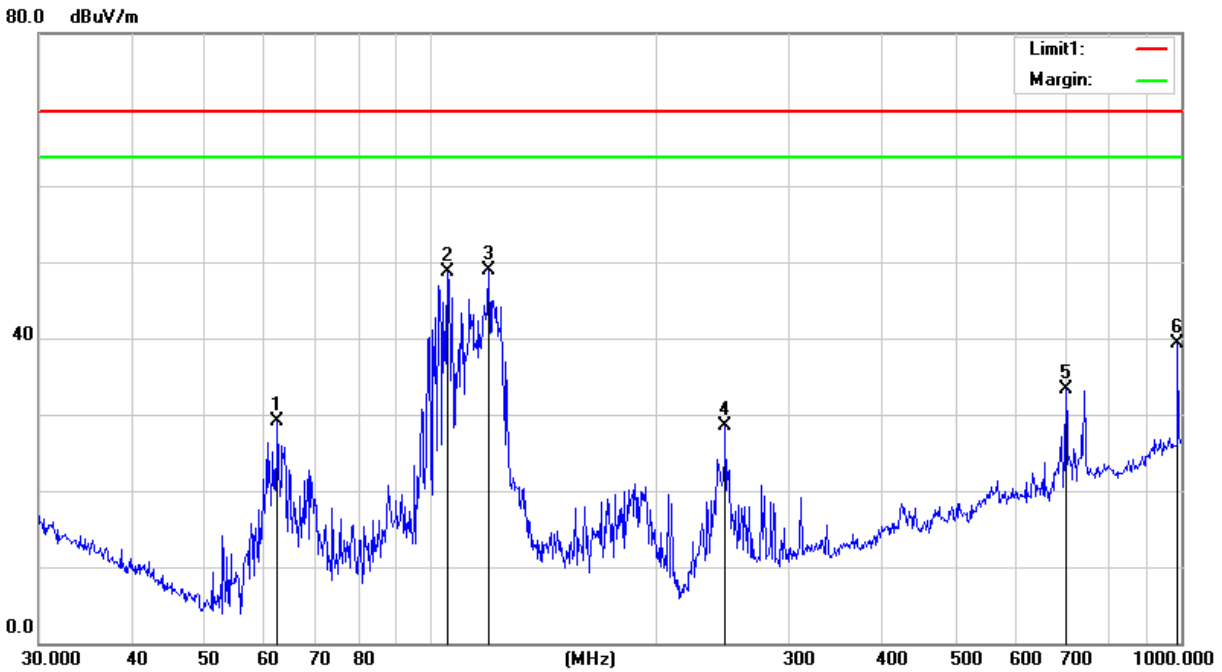
Test Mode:	Mode 1
Test Voltage:	AC 120V/60Hz

Polarization: Horizontal



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	62.4314	55.00	-25.93	29.07	69.70	-40.63	QP
2	105.2718	68.54	-19.77	48.77	69.70	-20.93	QP
3	119.4361	67.17	-18.32	48.85	69.70	-20.85	QP
4	246.8150	46.47	-18.01	28.46	69.70	-41.24	QP
5	701.7610	40.22	-6.99	33.23	69.70	-36.47	QP
6	989.5355	41.47	-2.14	39.33	69.70	-30.37	QP

Remark:
Result = Reading +Correct
Margin = Result – Limit
Factor= Cable Loss +Antenna Factor-Amplifier Gain
The measured PK/QP value is lower than the Average limit

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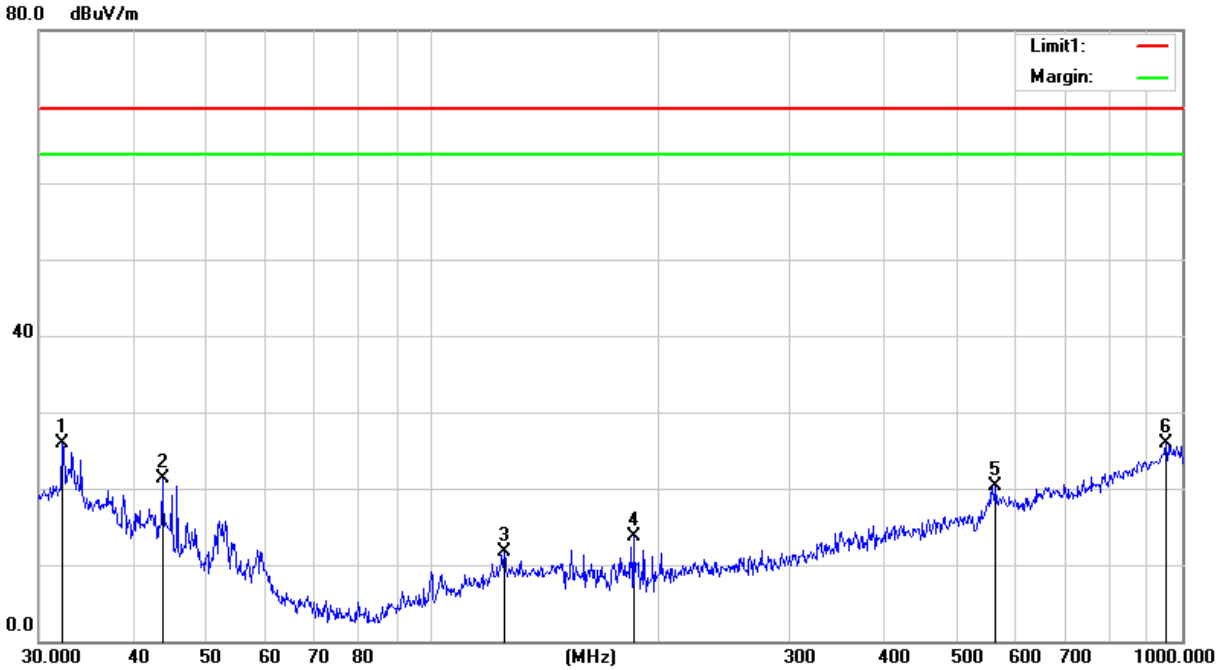
Test Mode:	Mode 2
Test Voltage:	AC 120V/60Hz

Polarization: Vertical



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	32.1795	33.67	-7.78	25.89	69.70	-43.81	QP
2	43.8120	35.02	-13.75	21.27	69.70	-48.43	QP
3	125.0066	29.46	-17.76	11.70	69.70	-58.00	QP
4	185.7882	32.30	-18.59	13.71	69.70	-55.99	QP
5	564.6390	29.31	-9.05	20.26	69.70	-49.44	QP
6	952.0937	28.91	-2.96	25.95	69.70	-43.75	QP

Remark:
Result = Reading +Correct
Margin = Result – Limit
Factor= Cable Loss +Antenna Factor-Amplifier Gain
The measured PK/QP value is lower than the Average limit

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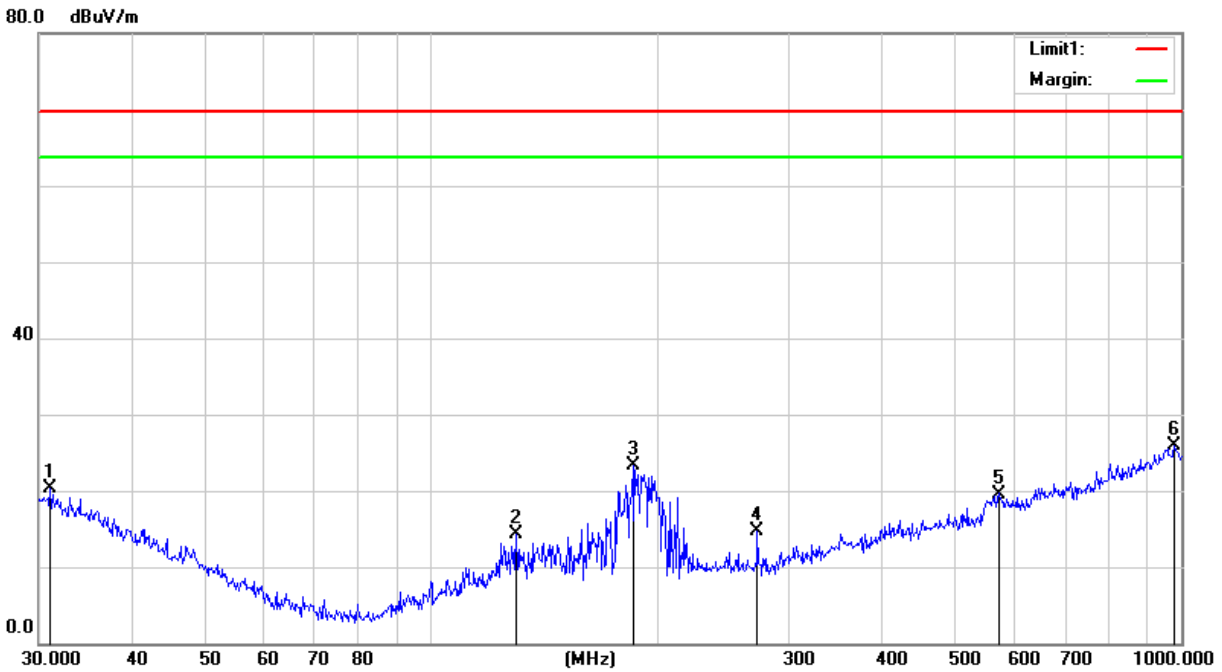
Test Mode:	Mode 2
Test Voltage:	AC 120V/60Hz

Polarization: Horizontal



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	31.0706	27.56	-7.20	20.36	69.70	-49.34	QP
2	129.9226	31.94	-17.68	14.26	69.70	-55.44	QP
3	185.7882	41.82	-18.59	23.23	69.70	-46.47	QP
4	272.2776	31.51	-16.82	14.69	69.70	-55.01	QP
5	570.6100	28.65	-9.05	19.60	69.70	-50.10	QP
6	979.1804	28.82	-2.98	25.84	69.70	-43.86	QP

Remark:
Result = Reading +Correct
Margin = Result – Limit
Factor= Cable Loss +Antenna Factor-Amplifier Gain
The measured PK/QP value is lower than the Average limit

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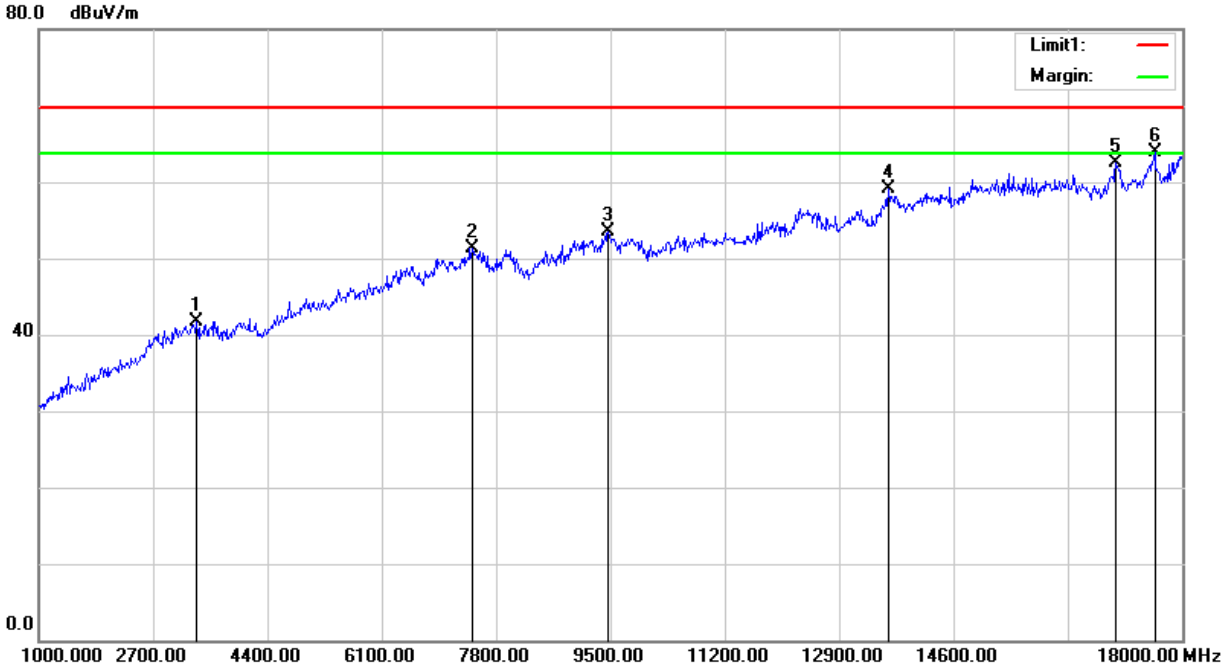
7.5.7. Test Results – above 1GHz

(1GHz-18GHz)

Test Mode:	Mode 1
Test Voltage:	AC 120V/60Hz

Polarization: Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3346.000	39.48	2.27	41.75	69.70	-27.95	peak
2	7443.000	39.98	11.42	51.40	69.70	-18.30	peak
3	9466.000	39.66	13.80	53.46	69.70	-16.24	peak
4	13631.000	43.09	16.04	59.13	69.70	-10.57	peak
5	17014.000	43.82	18.73	62.55	69.70	-7.15	peak
6	17592.000	41.07	22.93	64.00	69.70	-5.70	peak

Remark:
Result = Reading +Correct
Margin = Result - Limit
Factor= Cable Loss +Antenna Factor-Amplifier Gain
The measured PK/QP value is lower than the Average limit

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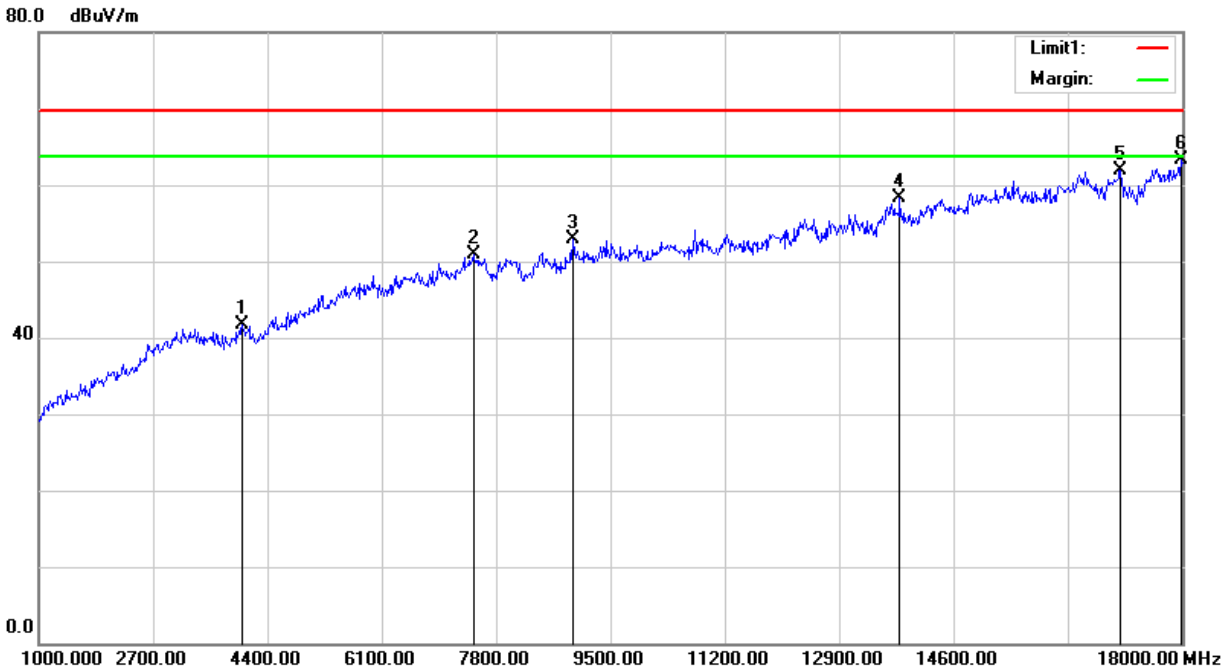
Test Mode:	Mode 1
Test Voltage:	AC 120V/60Hz

Polarization: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4026.000	37.30	4.40	41.70	69.70	-28.00	peak
2	7460.000	39.60	11.40	51.00	69.70	-18.70	peak
3	8939.000	39.56	13.38	52.94	69.70	-16.76	peak
4	13801.000	41.68	16.61	58.29	69.70	-11.41	peak
5	17082.000	43.02	18.97	61.99	69.70	-7.71	peak
6	17983.000	38.78	24.47	63.25	69.70	-6.45	peak

Remark:
Result = Reading +Correct
Margin = Result - Limit
Factor= Cable Loss +Antenna Factor-Amplifier Gain
The measured PK/QP value is lower than the Average limit

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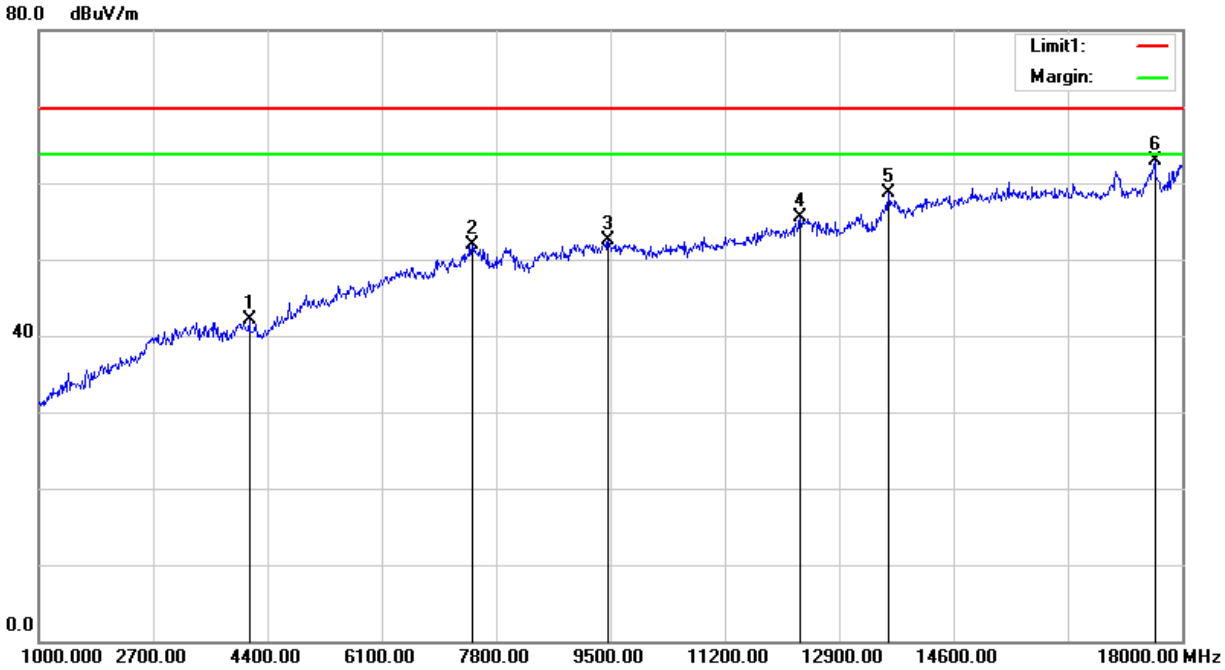
Test Mode:	Mode 2
Test Voltage:	AC 120V/60Hz

Polarization: Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4128.000	37.69	4.47	42.16	69.70	-27.54	peak
2	7443.000	40.48	11.42	51.90	69.70	-17.80	peak
3	9466.000	38.66	13.80	52.46	69.70	-17.24	peak
4	12322.000	40.23	15.27	55.50	69.70	-14.20	peak
5	13631.000	42.59	16.04	58.63	69.70	-11.07	peak
6	17592.000	40.07	22.93	63.00	69.70	-6.70	peak

Remark:
Result = Reading +Correct
Margin = Result - Limit
Factor= Cable Loss +Antenna Factor-Amplifier Gain
The measured PK/QP value is lower than the Average limit

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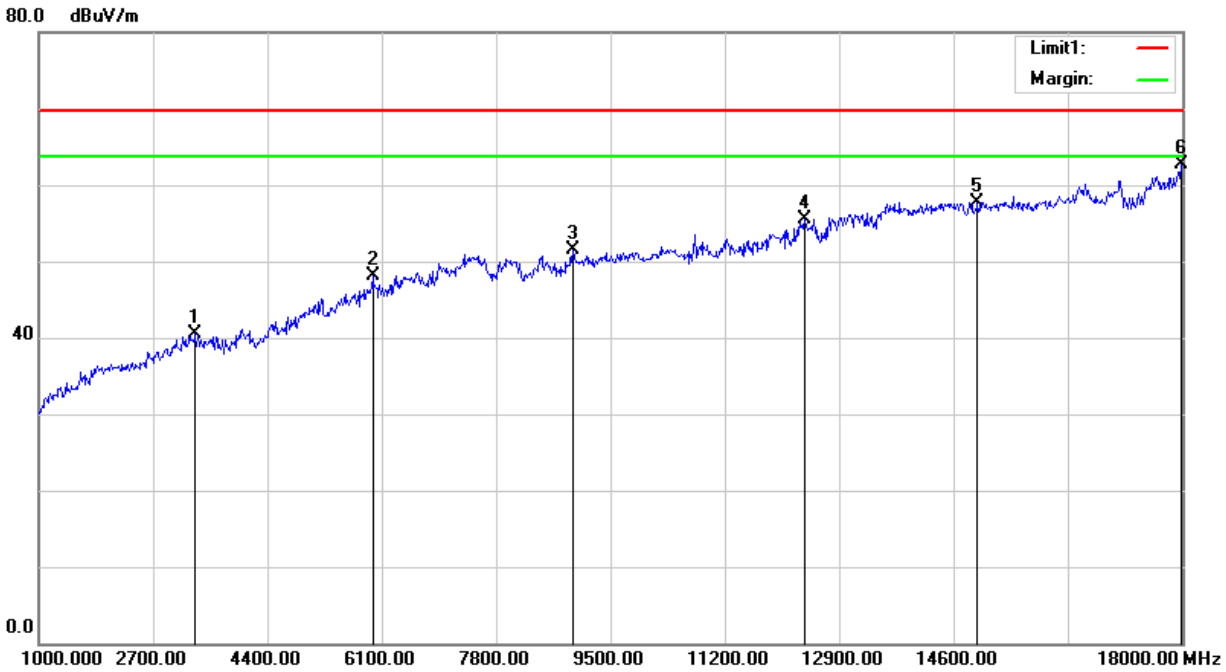
Test Mode:	Mode 2
Test Voltage:	AC 120V/60Hz

Polarization: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3329.000	38.29	2.25	40.54	69.70	-29.16	peak
2	5964.000	40.46	7.56	48.02	69.70	-21.68	peak
3	8939.000	38.06	13.38	51.44	69.70	-18.26	peak
4	12390.000	40.20	15.38	55.58	69.70	-14.12	peak
5	14957.000	39.88	17.83	57.71	69.70	-11.99	peak
6	17983.000	38.28	24.47	62.75	69.70	-6.95	peak

Remark:
Result = Reading +Correct
Margin = Result - Limit
Factor= Cable Loss +Antenna Factor-Amplifier Gain
The measured PK/QP value is lower than the Average limit

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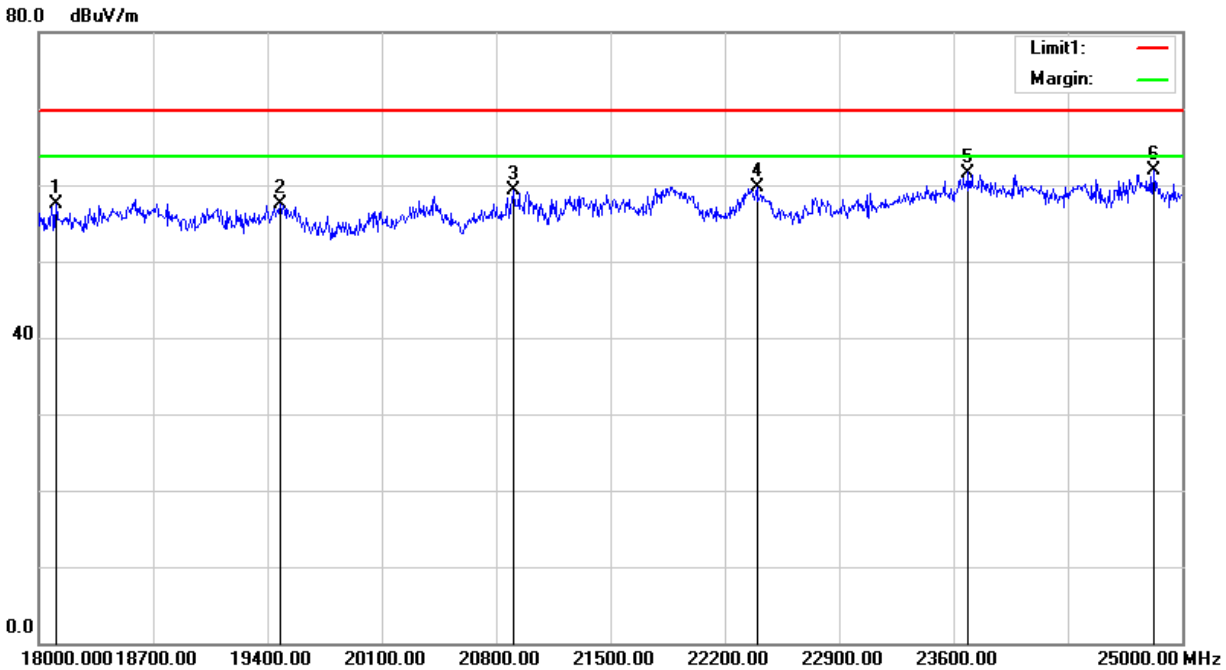
(18GHz-25GHz)

Test Mode:	Mode 1
Test Voltage:	AC 120V/60Hz

Polarization: Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	18105.000	32.98	24.58	57.56	69.70	-12.14	peak
2	19477.000	31.90	25.55	57.45	69.70	-12.25	peak
3	20905.000	34.40	24.92	59.32	69.70	-10.38	peak
4	22396.000	35.18	24.45	59.63	69.70	-10.07	peak
5	23691.000	36.83	24.77	61.60	69.70	-8.10	peak
6	24825.000	37.02	24.96	61.98	69.70	-7.72	peak

Remark:
Result = Reading +Correct
Margin = Result - Limit
Factor= Cable Loss +Antenna Factor-Amplifier Gain
The measured PK/QP value is lower than the Average limit

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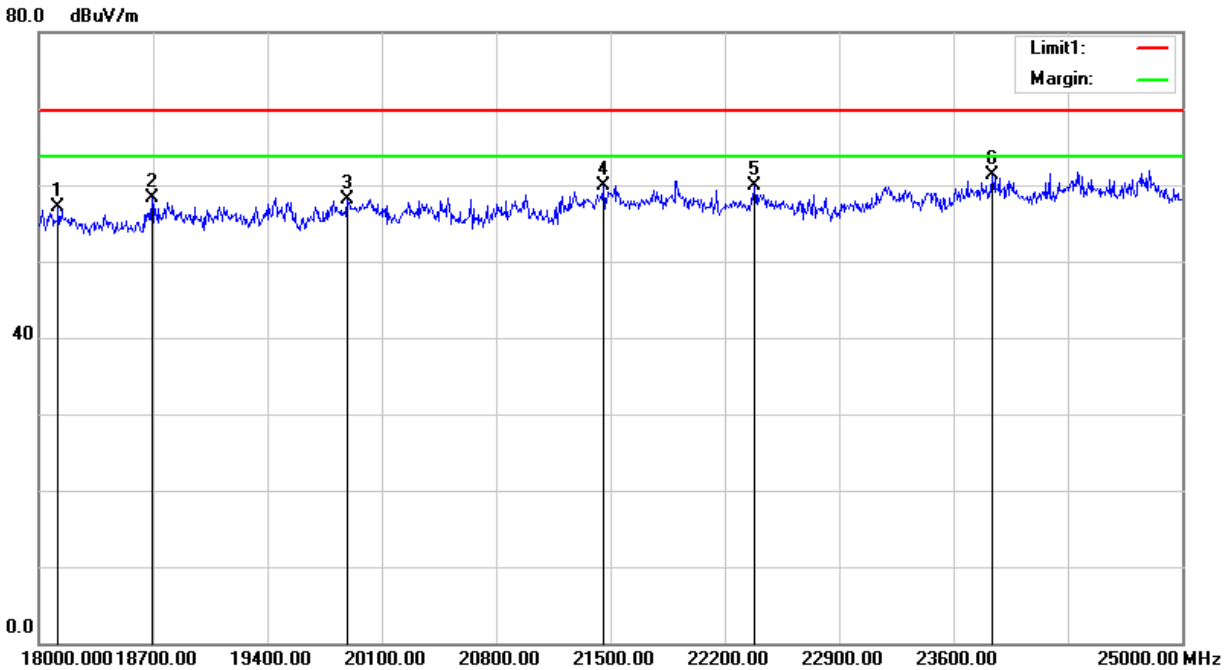
Test Mode:	Mode 1
Test Voltage:	AC 120V/60Hz

Polarization: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	18119.000	32.53	24.57	57.10	69.70	-12.60	peak
2	18693.000	33.65	24.63	58.28	69.70	-11.42	peak
3	19890.000	33.21	24.88	58.09	69.70	-11.61	peak
4	21458.000	35.12	24.75	59.87	69.70	-9.83	peak
5	22382.000	35.47	24.45	59.92	69.70	-9.78	peak
6	23838.000	36.42	24.81	61.23	69.70	-8.47	peak

Remark:
Result = Reading +Correct
Margin = Result - Limit
Factor= Cable Loss +Antenna Factor-Amplifier Gain
The measured PK/QP value is lower than the Average limit

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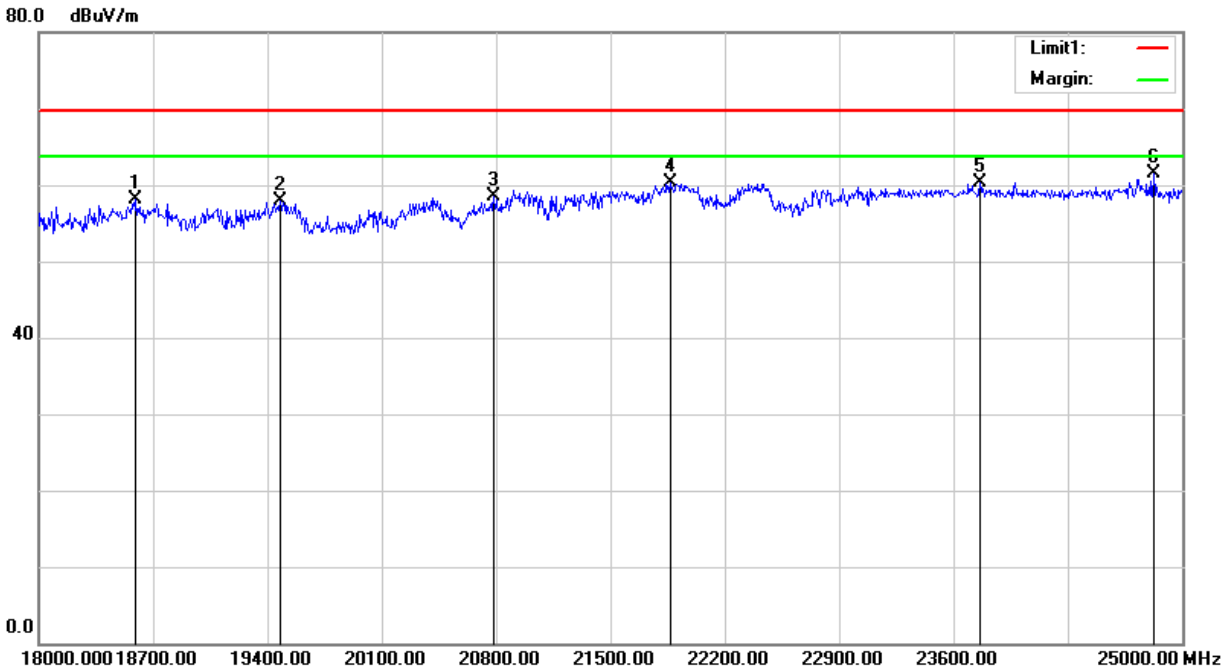
Test Mode:	Mode 2
Test Voltage:	AC 120V/60Hz

Polarization: Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	18595.000	33.53	24.58	58.11	69.70	-11.59	peak
2	19477.000	32.40	25.55	57.95	69.70	-11.75	peak
3	20786.000	33.56	24.92	58.48	69.70	-11.22	peak
4	21864.000	35.63	24.62	60.25	69.70	-9.45	peak
5	23761.000	35.61	24.79	60.40	69.70	-9.30	peak
6	24825.000	36.52	24.96	61.48	69.70	-8.22	peak

Remark:
Result = Reading +Correct
Margin = Result - Limit
Factor= Cable Loss +Antenna Factor-Amplifier Gain
The measured PK/QP value is lower than the Average limit

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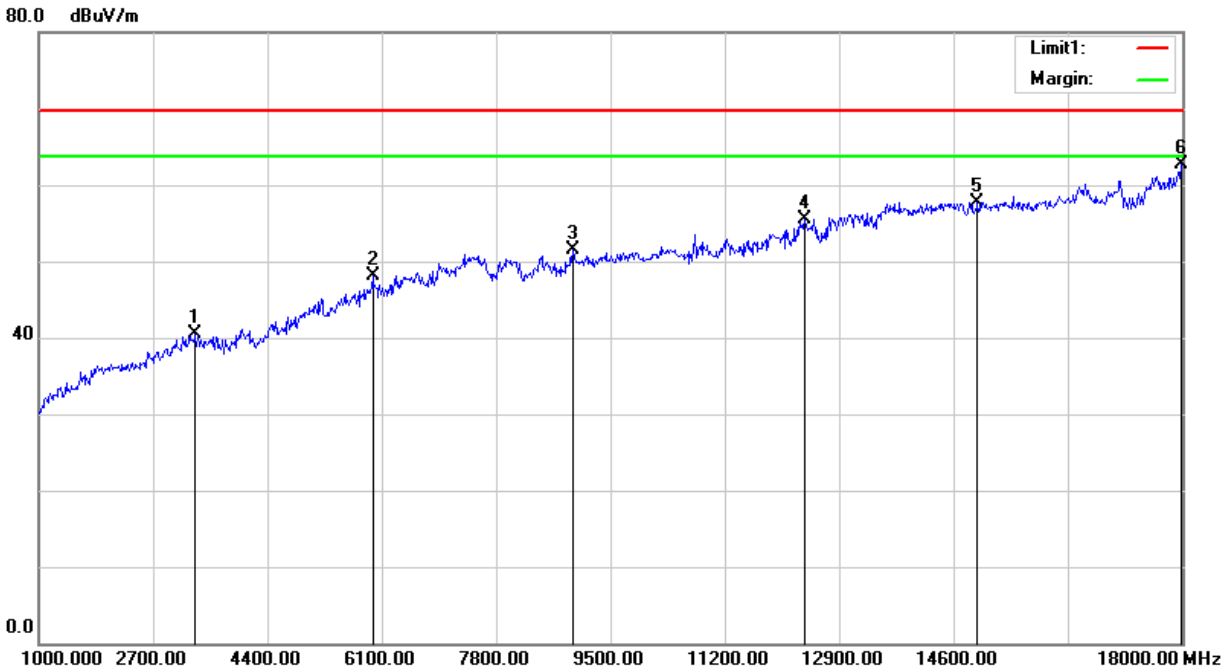
Test Mode:	Mode 2
Test Voltage:	AC 120V/60Hz

Polarization: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	18693.000	33.65	24.63	58.28	69.70	-11.42	peak
2	19449.000	33.29	25.43	58.72	69.70	-10.98	peak
3	21458.000	34.12	24.75	58.87	69.70	-10.83	peak
4	22746.000	34.65	24.48	59.13	69.70	-10.57	peak
5	24188.000	35.58	24.89	60.47	69.70	-9.23	peak
6	24797.000	36.36	24.95	61.31	69.70	-8.39	peak

Remark:
Result = Reading +Correct
Margin = Result - Limit
Factor= Cable Loss +Antenna Factor-Amplifier Gain
The measured PK/QP value is lower than the Average limit

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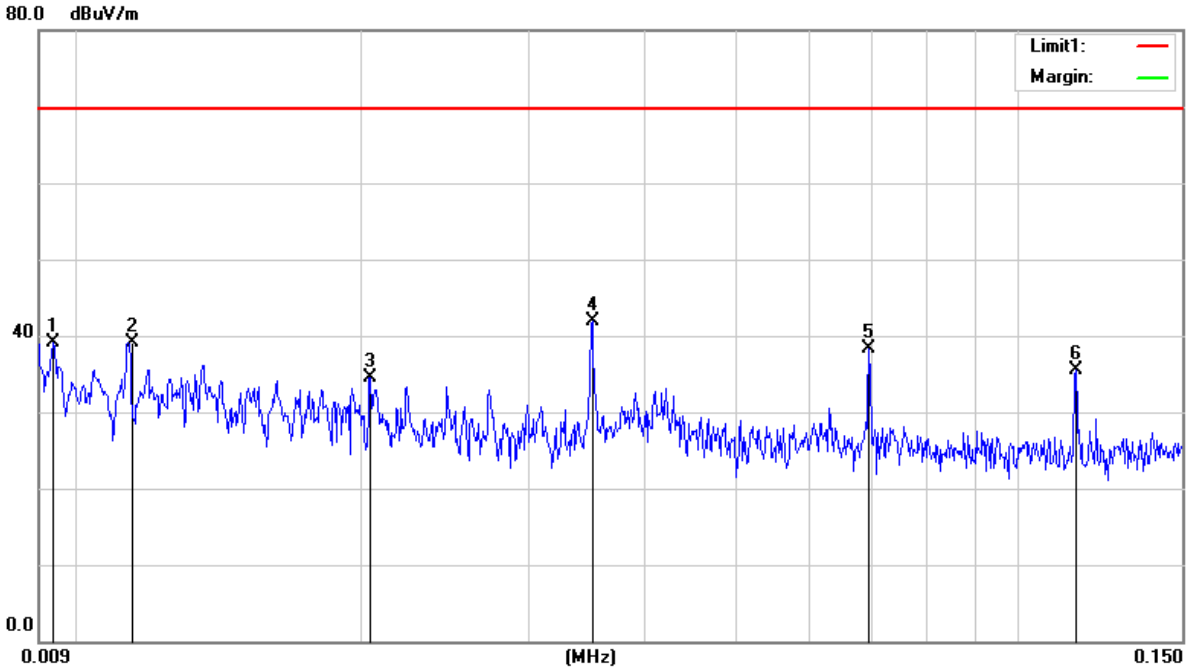
7.5.8. Test Results – 9KHz-150KHz

Test Mode:	Mode 1
Test Voltage:	AC 120V/60Hz

Polarization: Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correct dB	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.0093	19.73	19.33	39.06	69.70	-30.64	QP
2	0.0112	19.68	19.47	39.15	69.70	-30.55	QP
3	0.0204	14.44	20.10	34.54	69.70	-35.16	QP
4	0.0351	22.09	19.81	41.90	69.70	-27.80	QP
5	0.0694	19.26	18.98	38.24	69.70	-31.46	QP
6	0.1155	17.89	17.60	35.49	69.70	-34.21	QP

Remark:
Result = Reading +Correct
Margin = Result - Limit
Factor= Cable Loss +Antenna Factor-Amplifier Gain
The measured PK/QP value is lower than the Average limit

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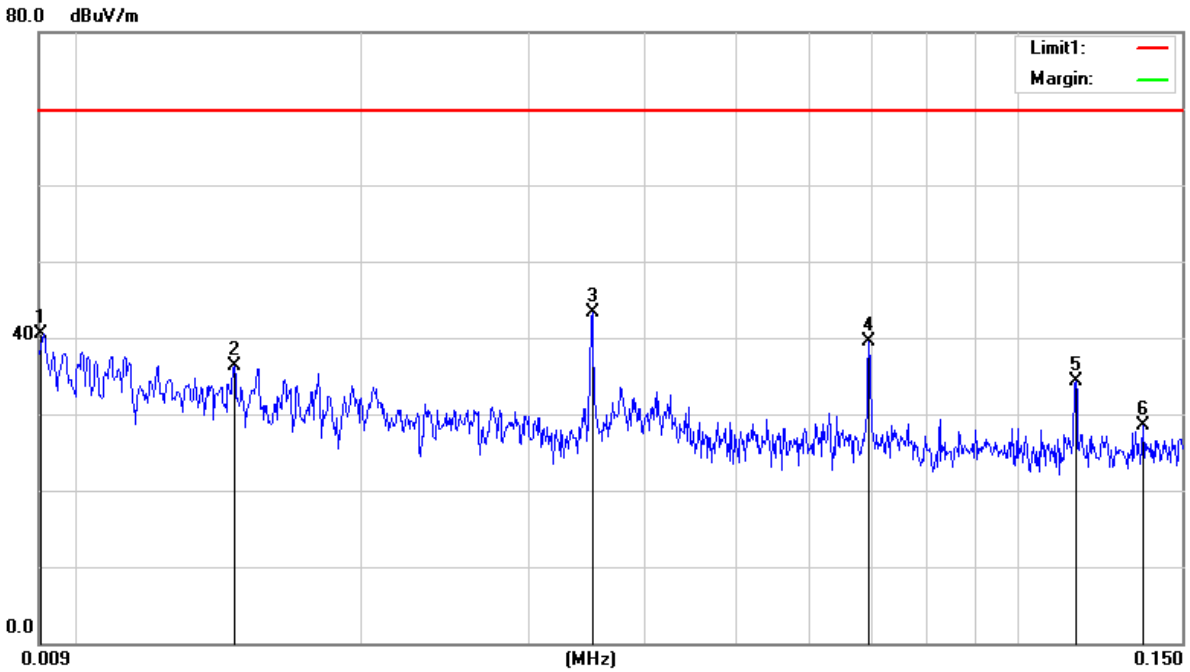
Test Mode:	Mode 1
Test Voltage:	AC 120V/60Hz

Polarization: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.0091	21.13	19.32	40.45	69.70	-29.25	peak
2	0.0146	16.64	19.72	36.36	69.70	-33.34	peak
3	0.0351	23.49	19.81	43.30	69.70	-26.40	peak
4	0.0694	20.51	18.98	39.49	69.70	-30.21	peak
5	0.1155	16.71	17.60	34.31	69.70	-35.39	peak
6	0.1363	11.01	17.56	28.57	69.70	-41.13	peak

Remark:
Result = Reading +Correct
Margin = Result - Limit
Factor= Cable Loss +Antenna Factor-Amplifier Gain
The measured PK/QP value is lower than the Average limit

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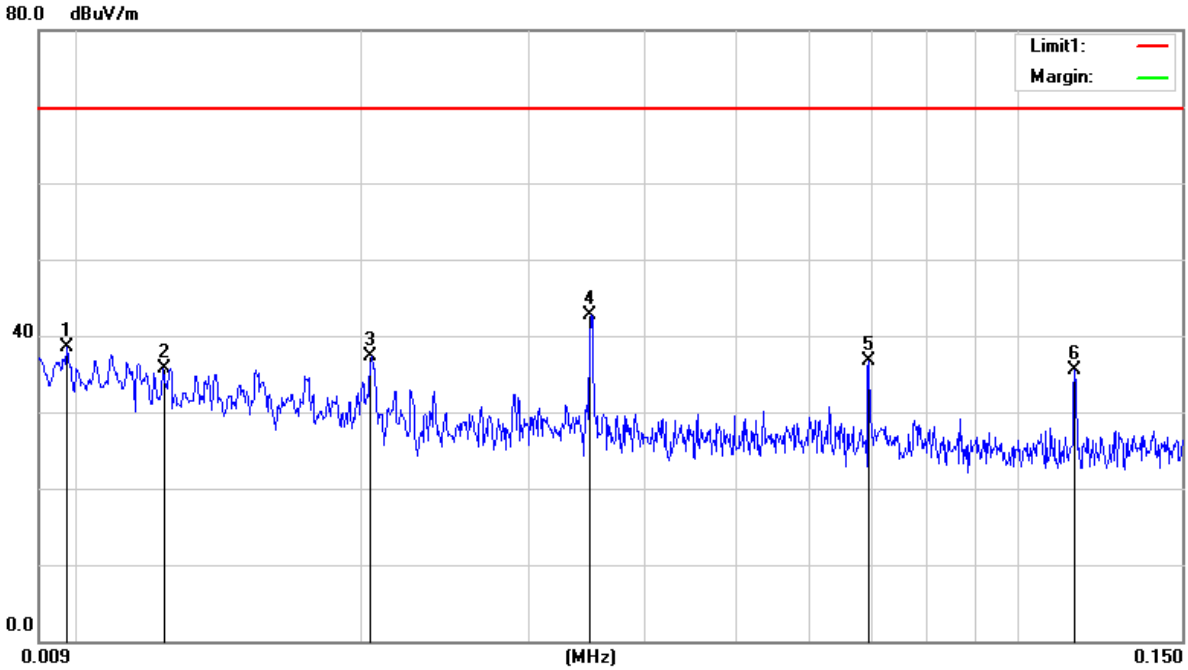
Test Mode:	Mode 2
Test Voltage:	AC 120V/60Hz

Polarization: Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correct dB	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.0097	19.13	19.36	38.49	69.70	-31.21	QP
2	0.0123	16.22	19.55	35.77	69.70	-33.93	QP
3	0.0204	17.27	20.10	37.37	69.70	-32.33	QP
4	0.0350	22.91	19.81	42.72	69.70	-26.98	QP
5	0.0694	17.69	18.98	36.67	69.70	-33.03	QP
6	0.1150	17.85	17.60	35.45	69.70	-34.25	QP

Remark:
Result = Reading +Correct
Margin = Result - Limit
Factor= Cable Loss +Antenna Factor-Amplifier Gain
The measured PK/QP value is lower than the Average limit

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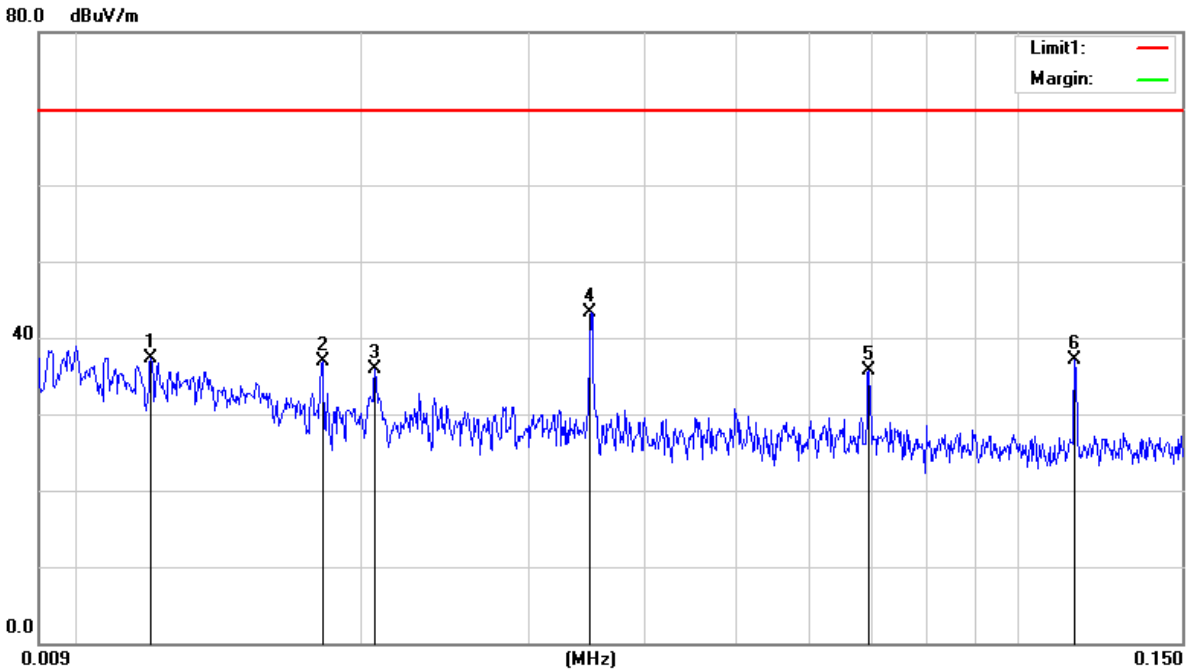
Test Mode:	Mode 2
Test Voltage:	AC 120V/60Hz

Polarization: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.0120	17.78	19.53	37.31	69.70	-32.39	peak
2	0.0181	17.02	19.97	36.99	69.70	-32.71	peak
3	0.0206	15.75	20.10	35.85	69.70	-33.85	peak
4	0.0350	23.59	19.81	43.40	69.70	-26.30	peak
5	0.0694	16.76	18.98	35.74	69.70	-33.96	peak
6	0.1150	19.55	17.60	37.15	69.70	-32.55	peak

Remark:
Result = Reading +Correct
Margin = Result - Limit
Factor= Cable Loss +Antenna Factor-Amplifier Gain
The measured PK/QP value is lower than the Average limit

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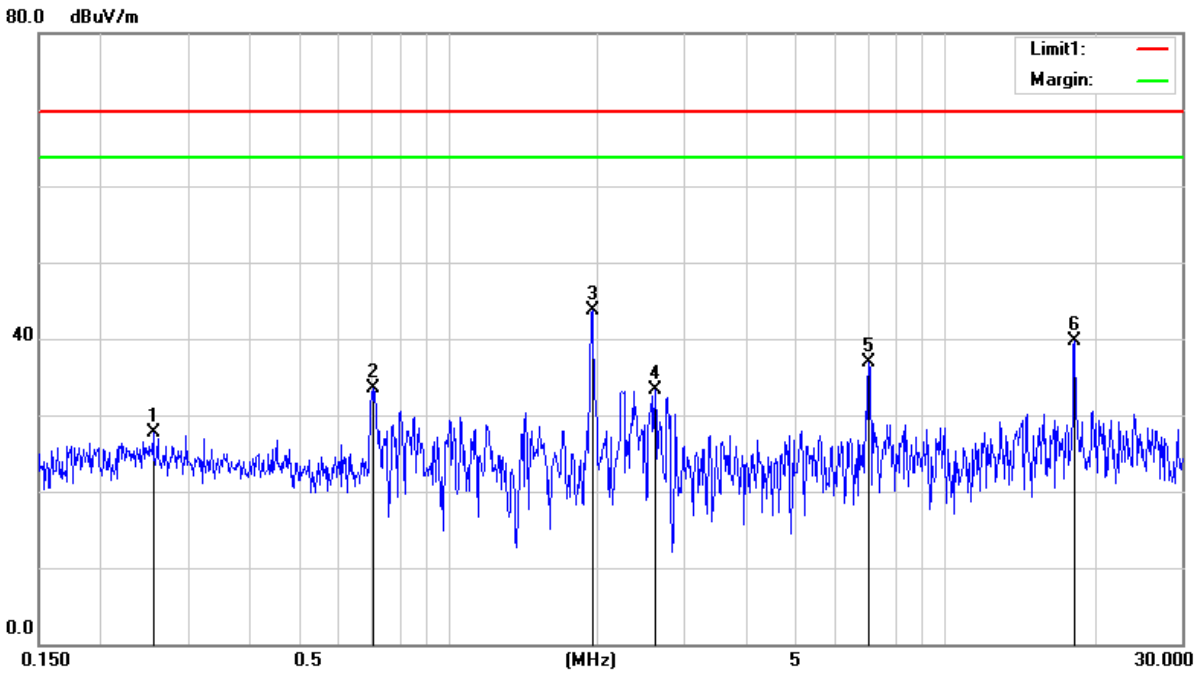
7.5.9. Test Results – 150KHz-30MHz

Test Mode:	Mode 1
Test Voltage:	AC 120V/60Hz

Polarization: Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correct dB	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.2548	7.51	20.13	27.64	69.70	-42.06	QP
2	0.7046	13.09	20.32	33.41	69.70	-36.29	QP
3	1.9490	23.26	20.44	43.70	69.70	-26.00	QP
4	2.6082	13.02	20.28	33.30	69.70	-36.40	QP
5	7.0248	16.40	20.46	36.86	69.70	-32.84	QP
6	18.2316	17.54	22.24	39.78	69.70	-29.92	QP

Remark:
Result = Reading +Correct
Margin = Result - Limit
Factor= Cable Loss +Antenna Factor-Amplifier Gain
The measured PK/QP value is lower than the Average limit

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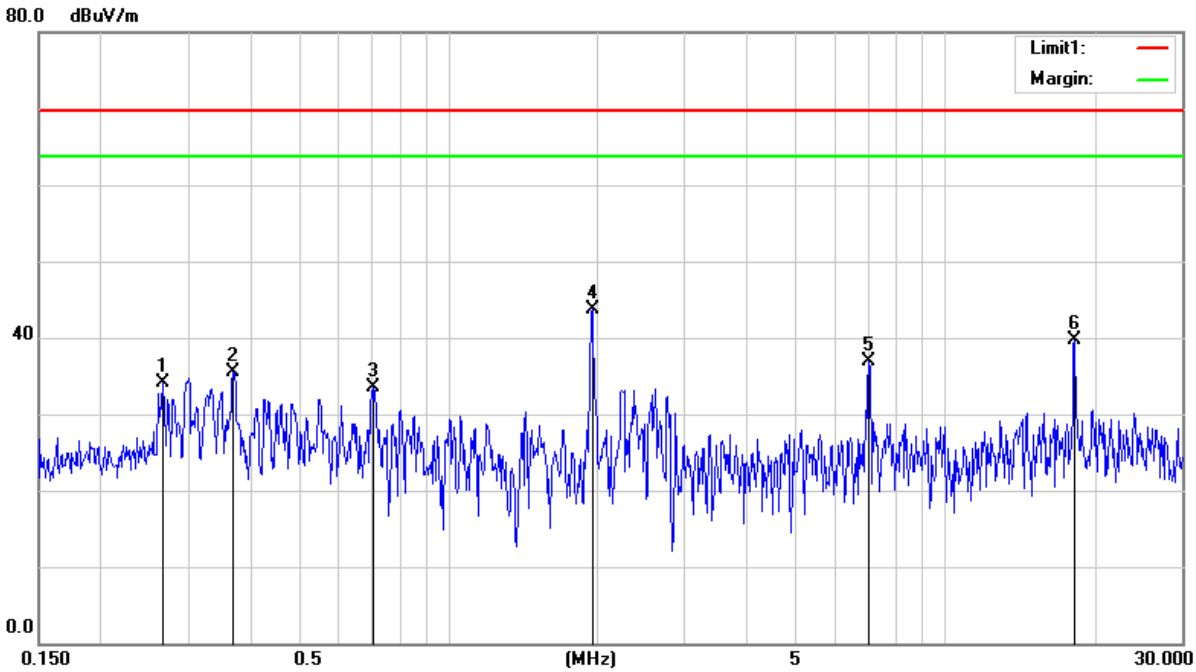
Test Mode:	Mode 1
Test Voltage:	AC 120V/60Hz

Polarization: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.2655	13.89	20.14	34.03	69.70	-35.67	peak
2	0.3690	15.27	20.19	35.46	69.70	-34.24	peak
3	0.7046	13.09	20.32	33.41	69.70	-36.29	peak
4	1.9490	23.26	20.44	43.70	69.70	-26.00	peak
5	7.0247	16.40	20.46	36.86	69.70	-32.84	peak
6	18.2316	17.54	22.24	39.78	69.70	-29.92	peak

Remark:
Result = Reading +Correct
Margin = Result - Limit
Factor= Cable Loss +Antenna Factor-Amplifier Gain
The measured PK/QP value is lower than the Average limit

Test Mode:	Mode 2
Test Voltage:	AC 120V/60Hz

Polarization: Vertical

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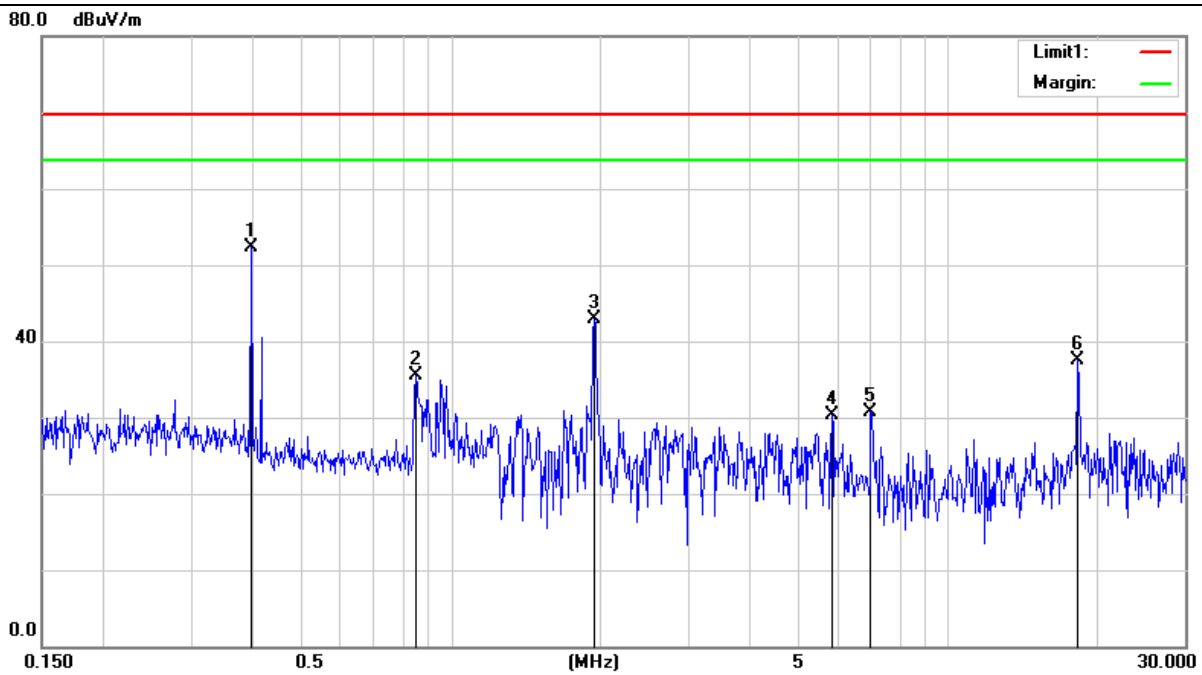

No.	Frequency (MHz)	Reading (dBuV)	Correct dB	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.3955	29.81	22.41	52.22	69.70	-17.48	QP
2	0.8483	13.69	21.85	35.54	69.70	-34.16	QP
3	1.9386	21.65	21.21	42.86	69.70	-26.84	QP
4	5.8357	11.02	19.30	30.32	69.70	-39.38	QP
5	6.9878	12.54	18.19	30.73	69.70	-38.97	QP
6	18.2316	18.31	19.21	37.52	69.70	-32.18	QP

Remark:
Result = Reading +Correct
Margin = Result - Limit
Factor= Cable Loss +Antenna Factor-Amplifier Gain
The measured PK/QP value is lower than the Average limit

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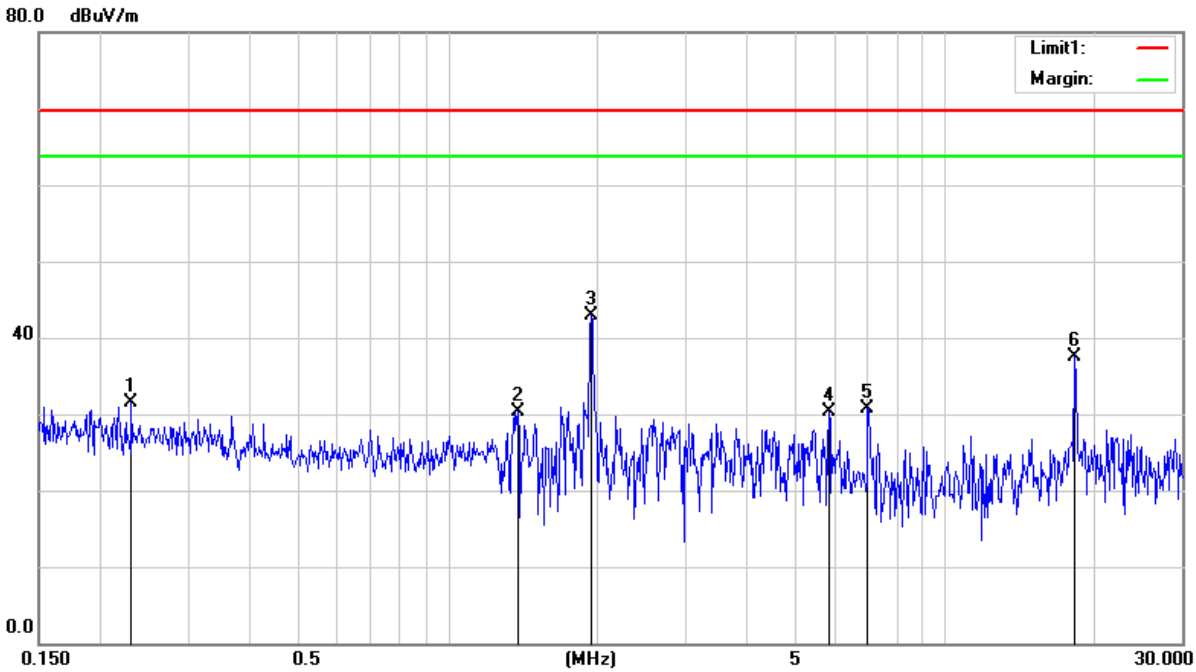
Test Mode:	Mode 2
Test Voltage:	AC 120V/60Hz

Polarization: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.2303	9.08	22.51	31.59	69.70	-38.11	peak
2	1.3810	8.62	21.77	30.39	69.70	-39.31	peak
3	1.9386	21.65	21.21	42.86	69.70	-26.84	peak
4	5.8357	11.02	19.30	30.32	69.70	-39.38	peak
5	6.9878	12.54	18.19	30.73	69.70	-38.97	peak
6	18.2316	18.31	19.21	37.52	69.70	-32.18	peak

Remark:
Result = Reading +Correct
Margin = Result - Limit
Factor= Cable Loss +Antenna Factor-Amplifier Gain
The measured PK/QP value is lower than the Average limit

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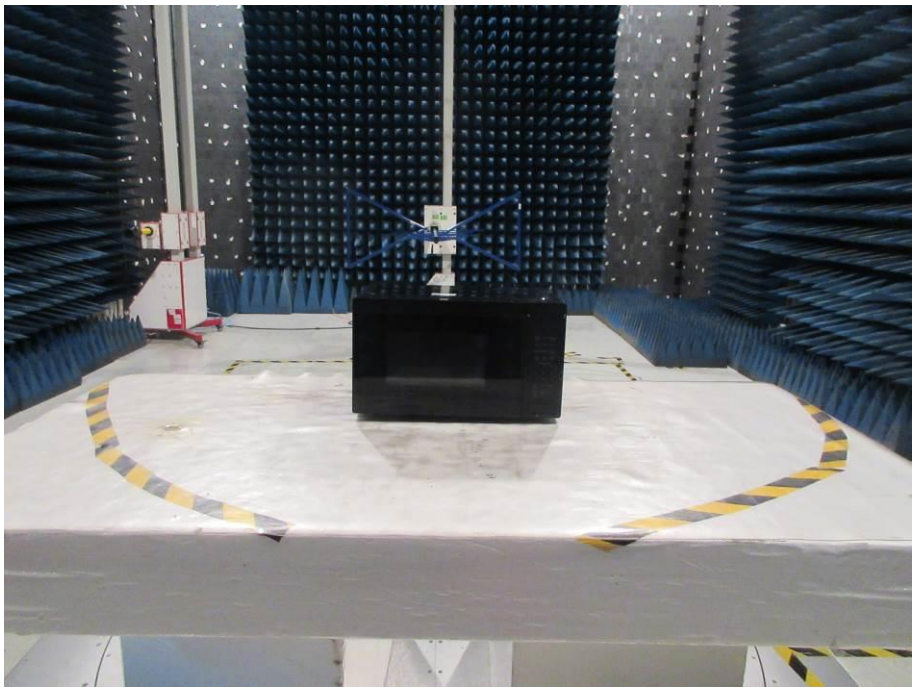
Appendix I: Photographs of EMC Test Configuration

Conducted Disturbance

Radiated Disturbance below 1GHz



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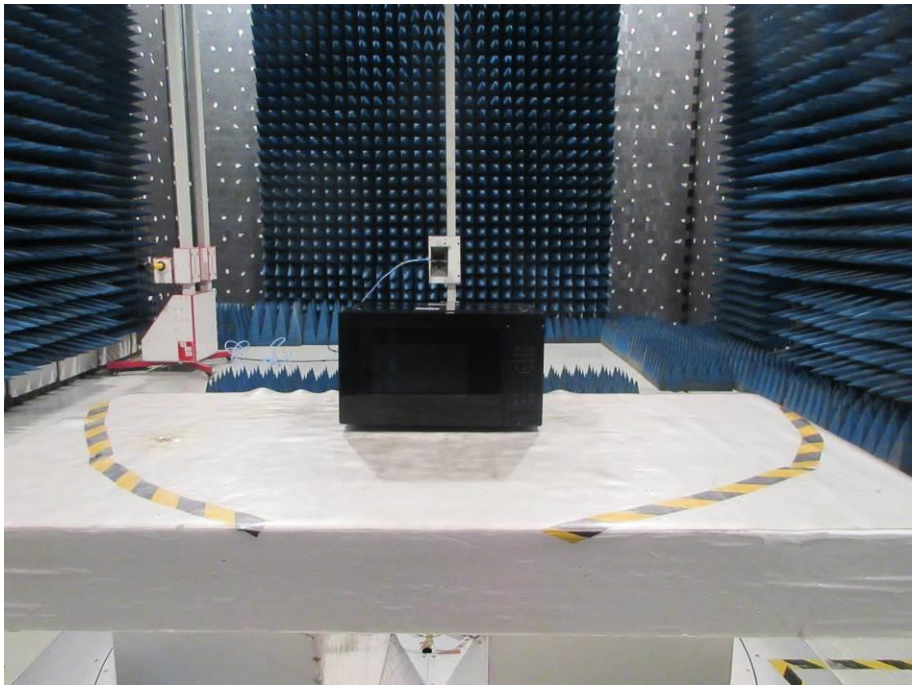
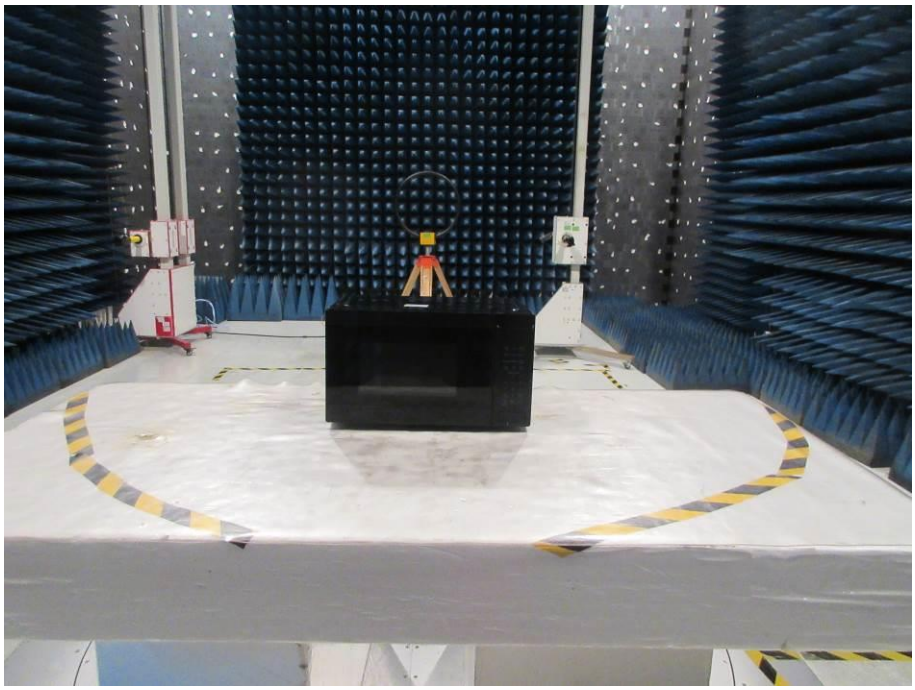
Radiated Disturbance above 1GHz



Radiated Disturbance above 9KHz-30MHz



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Power Test

Radiation Hazard

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