

TEST REPORT

Reference No..... : WTX21X08091829W-1
FCC ID : GV3M01602
Applicant : ACCO Brands, Inc.
Address..... : 1500 Fashion Island Blvd., 3rd Floor, San Mateo, CA 94404, USA
Product Name : StudioCaddy™ with Wireless Charging
Test Model. : M01602
Standards : FCC Part 18
Date of Receipt sample : Aug. 31, 2021
Date of Test..... : Aug. 31, 2021 to Sept. 14, 2021
Date of Issue : Sept. 14, 2021
Test Result..... : **Pass**

Remarks:

The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

Prepared By:

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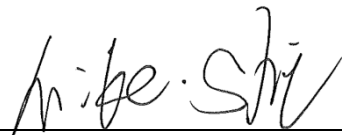
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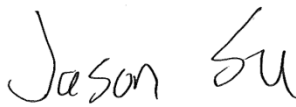
Tested by:

Reviewed By:

Approved & Authorized By:



Mike Shi / Project Engineer



Jason Su / RF Manager



Silin Chen / Manager

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Report version

Version No.	Date of issue	Description
Rev.00	Sept. 14, 2021	Original
/	/	/

1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

Client Information

Applicant: ACCO Brands, Inc.
 Address of applicant: 1500 Fashion Island Blvd., 3rd Floor, San Mateo, CA 94404, USA

Manufacturer: ACCO Brands, Inc.
 Address of manufacturer: 1500 Fashion Island Blvd., 3rd Floor, San Mateo, CA 94404, USA

General Description of EUT	
Product Name:	StudioCaddy™ with Wireless Charging
Trade Name:	Kensington
Model No.:	M01602
Adding Model(s):	/
<i>Note: The test data is gathered from a production sample, provided by the manufacturer.</i>	

Technical Characteristics of EUT	
Frequency Range:	112~205KHz
Modulation Type:	ASK
Antenna Type:	Coil Antenna
Antenna Gain	0dBi
Input:	DC12V
Wireless output:	Wireless Output 1: 5.0V, 1A, 9.0V, 1.1A Wireless Output 2: 5.0V, 1A, 9.0V, 1.1A
Power adapter:	MODEL:ICP65-120-5000 INPUT:AC100-240V, 50/60Hz, 1.5A OUTPUT:DC12.0V, 5A, 60.0W

1.2 Test Standards

The tests were performed according to following standards:

FCC Part 18 Subpart C: Industrial, Scientific, and medical medical equipment.

ANSI C63.4-2014: American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.

Maintenance of compliance is the responsibility of the manufacturer. Any modification of the product, which result in lowering the emission, should be checked to ensure compliance has been maintained.

1.3 Test Methodology

All measurements contained in this report were conducted with ANSI C63.4-2014, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.

1.4 Test Facility

Laboratory: Waltek Testing Group (Shenzhen) Co., Ltd.

Address: 1/F., Room 101, Building 1, Hongwei Industrial Park, Liuxian 2nd Road, Bao'an District, Shenzhen, P.R.C. (518101)

FCC – Registration No.: 125990

Waltek Testing Group (Shenzhen) Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The acceptance letter from the FCC is maintained in our files. The Designation Number is CN5010, and Test Firm Registration Number is 125990.

Industry Canada (IC) Registration No.: 11464A

The 3m Semi-anechoic chamber of Waltek Testing Group (Shenzhen) Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 11464A.

1.5 EUT Setup and Operation Mode

The equipment under test (EUT) was configured to measure its highest possible emission level. The test modes were adapted according to the operation manual for use, more detailed description as follows:

Test Mode List:

Test Mode	Description	Remark	Power Supply Mode
TM1	Wireless charging	Connect to the Adapter;	AC120V 60Hz for adapter, Wireless Charging Output 1: DC5V/1A; Wireless Charging Output 2: DC5V/1A
TM2	Wireless charging	Connect to the Adapter;	AC120V 60Hz for adapter, Wireless Charging Output 1: DC9V/1.1A; Wireless Charging Output 2: DC9V/1.1A

EUT Cable List and Details

Cable Description	Length (M)	Shielded/Unshielded	With Core/Without Core
DC cable	1.5	Unshielded	Without Ferrite

Auxiliary Equipment List and Details

Description	Manufacturer	Model	Serial Number
/	/	/	/

Special Cable List and Details

Cable Description	Length (M)	Shielded/Unshielded	With Core/Without Core
/	/	/	/

1.6 Measurement Uncertainty

Measurement uncertainty		
Parameter	Conditions	Uncertainty
Conducted Emissions	Conducted	9-150kHz ± 3.74 dB
		0.15-30MHz ± 3.34 dB
Radiated Emissions	Radiated	30-200MHz ± 4.52 dB
		0.2-1GHz ± 5.56 dB
		1-6GHz ± 3.84 dB
		6-18GHz ± 3.92 dB

1.7 Test Equipment List and Details

Description	Manufacturer	Model	Serial No.	Cal Date	Due Date
Spectrum Analyzer	Rohde & Schwarz	FSP	836079/035	2021-03-30	2022-03-29
EMI Test Receiver	Rohde & Schwarz	ESVB	825471/005	2021-04-12	2022-04-11
Amplifier	Agilent	8447F	3113A06717	2021-04-12	2022-04-11
Amplifier	C&D	PAP-1G18	2002	2021-04-12	2022-04-11
Trilog Broadband Antenna	Schwarz beck	VULB9163	9163-333	2021-03-20	2023-03-19
Horn Antenna	ETS	3117	00086197	2021-03-19	2023-03-18
Loop Antenna	Schwarz beck	FMZB 1516	9773	2021-03-20	2023-03-19
Trilog Broadband Antenna	Schwarz beck	VULB9163(B)	9163-635	2021-04-09	2023-04-08
Amplifier	Agilent	8447D	2944A10179	2021-04-12	2022-04-11
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100911	2021-04-15	2022-04-14

Software List			
Description	Manufacturer	Model	Version
EMI Test Software (Radiated Emission)*	Farad	EZ-EMC	RA-03A1
EMI Test Software (Conducted Emission)*	Farad	EZ-EMC	RA-03A1

*Remark: indicates software version used in the compliance certification testing

2. SUMMARY OF TEST RESULTS

FCC RULES	DESCRIPTION OF TEST	RESULT
§ 18.307 (b)	Conducted Emission	Compliant
§ 18.305 (b)	Radiated Emission	Compliant

3. Conducted Emissions

3.1 Standard Applicable

According to FCC 18.307(b), the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies shall not exceed the limits in the following tables:

Frequency (MHz)	Conducted limit (dB μ V)	
	Quasi-peak	Average
0.15-0.5	66 to 56	56 to 46
0.5-5	56	46
5-30	60	50

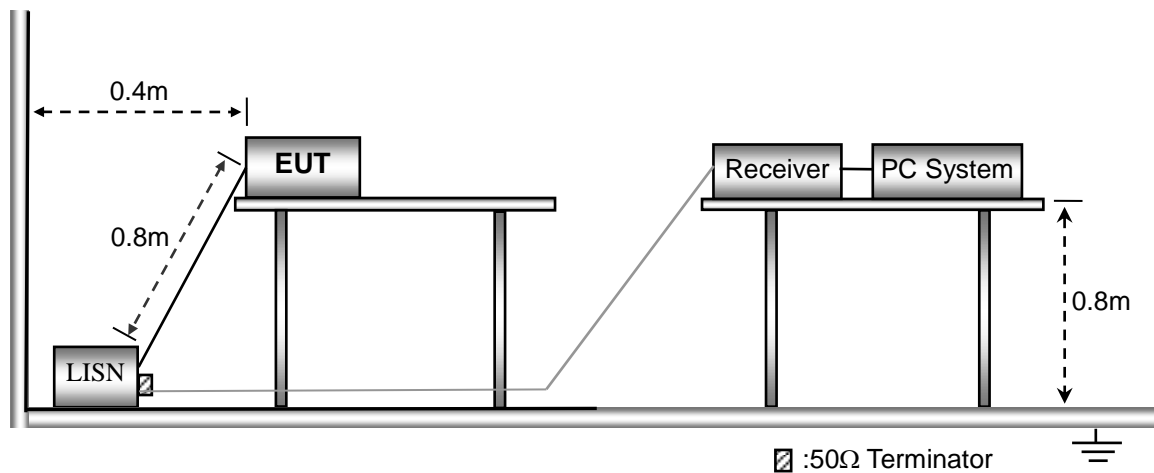
3.2 Test Procedure

The setup of EUT is according with per ANSI C63.4-2014 measurement procedure. The specification used was with the FCC Part 18.307 Limit.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.

3.3 Basic Test Setup Block Diagram



3.4 Environmental Conditions

Temperature:	23.5° C
Relative Humidity:	54%
ATM Pressure:	1016 mbar

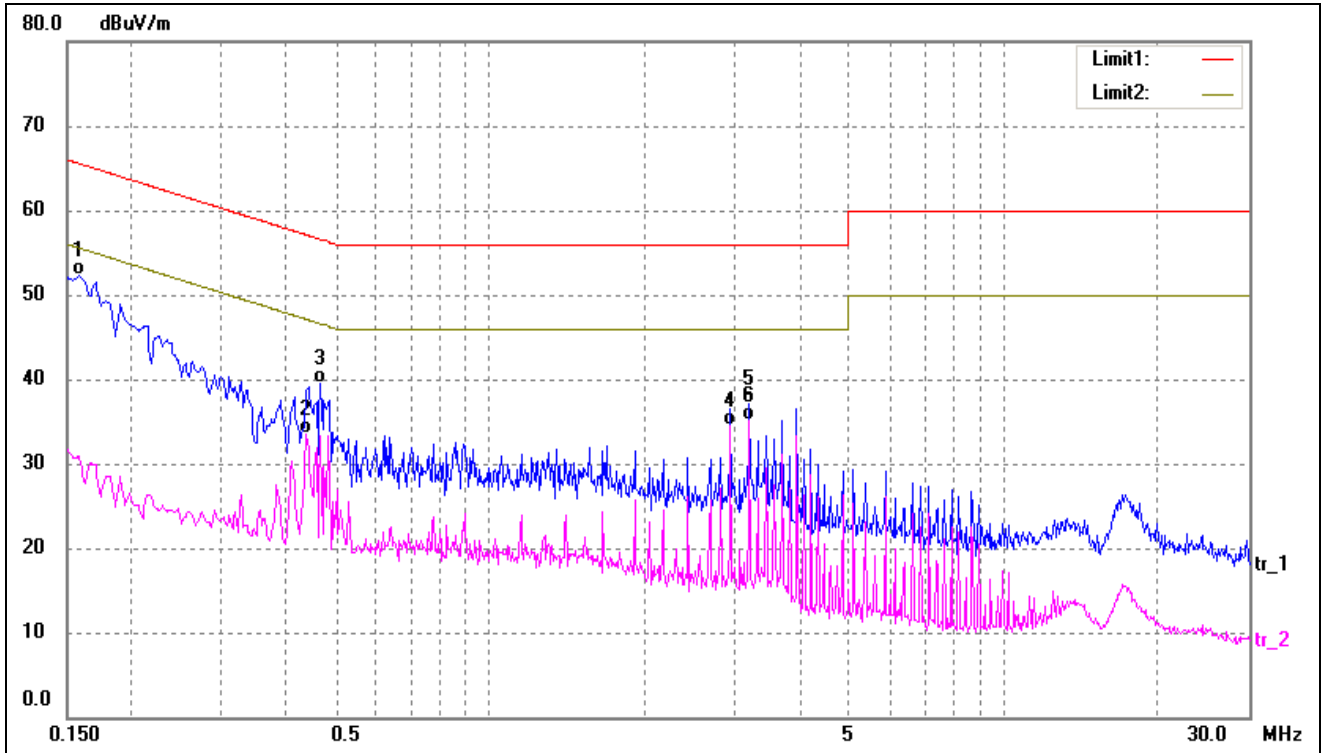
3.5 Test Receiver Setup

During the conducted emission test, the test receiver was set with the following configurations:

Start Frequency 150 kHz
Stop Frequency..... 30 MHz
Sweep Speed Auto
IF Bandwidth..... 10 kHz
Quasi-Peak Adapter Bandwidth 9 kHz
Quasi-Peak Adapter Mode..... Normal

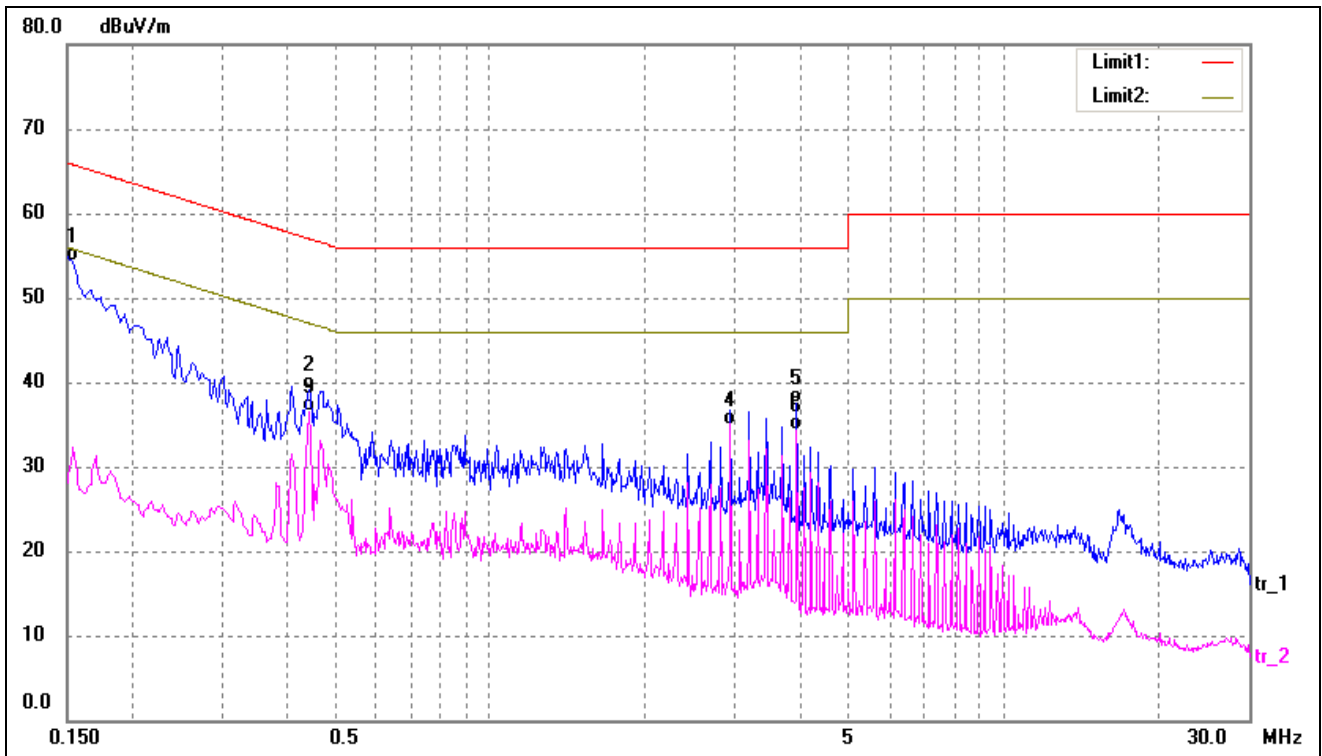
3.6 Summary of Test Results/Plots

Test mode:	TM1	Polarity:	Line
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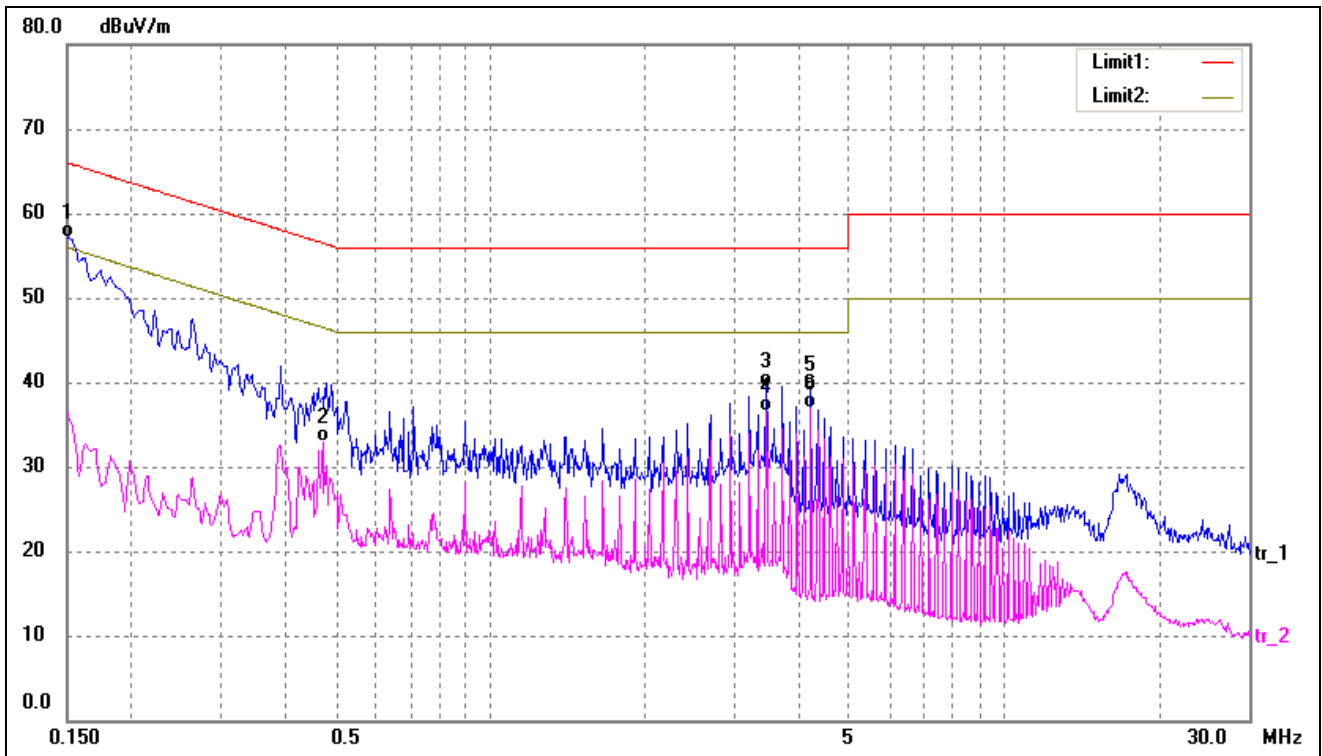
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.1580	42.05	10.25	52.30	65.57	-13.27	QP
2	0.4380	23.20	10.22	33.42	47.10	-13.68	AVG
3	0.4660	29.24	10.23	39.47	56.58	-17.11	QP
4	2.9380	24.24	10.27	34.51	46.00	-11.49	AVG
5	3.1940	26.83	10.27	37.10	56.00	-18.90	QP
6*	3.1940	24.81	10.27	35.08	46.00	-10.92	AVG

Test mode:	TM1	Polarity:	Neutral
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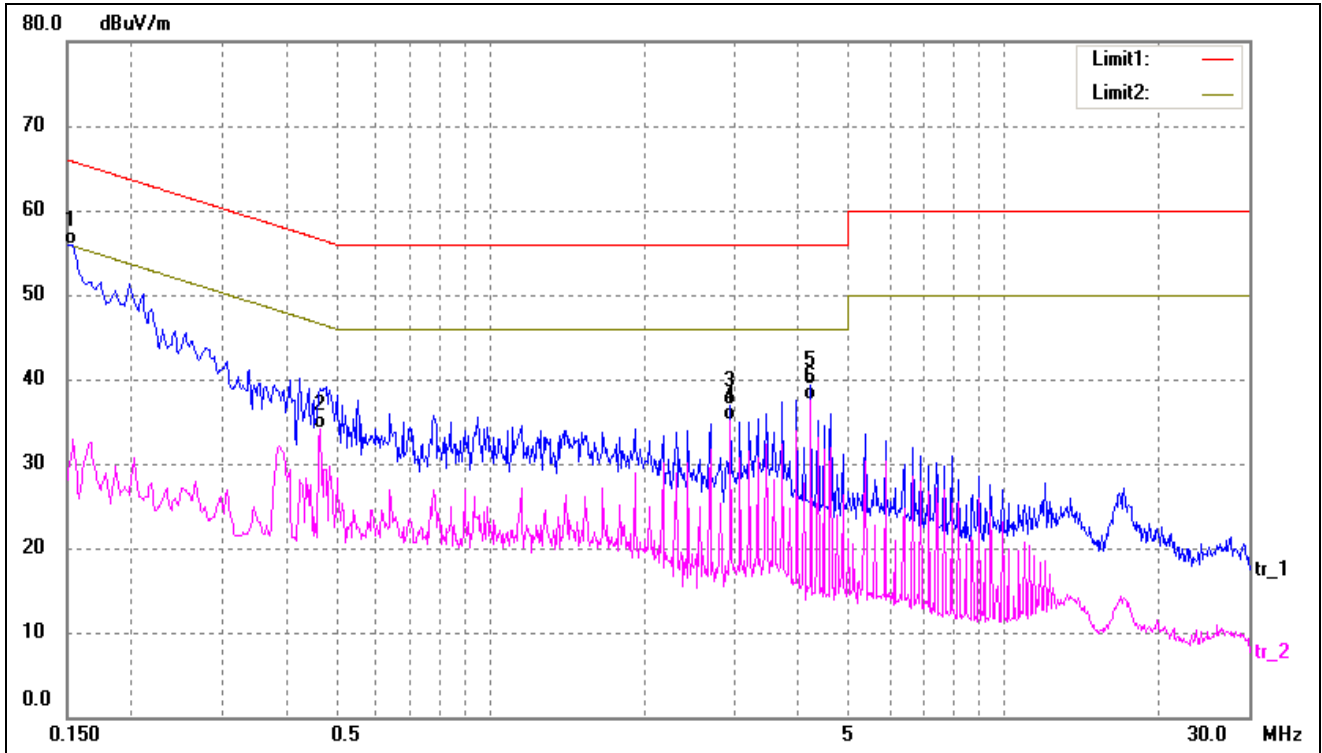
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.1540	44.02	10.25	54.27	65.78	-11.51	QP
2	0.4420	28.95	10.22	39.17	57.02	-17.85	QP
3*	0.4420	26.25	10.22	36.47	47.02	-10.55	AVG
4	2.9380	24.73	10.27	35.00	46.00	-11.00	AVG
5	3.9580	27.30	10.25	37.55	56.00	-18.45	QP
6	3.9580	24.13	10.25	34.38	46.00	-11.62	AVG

Test mode:	TM2	Polarity:	Line
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No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1*	0.1500	46.95	10.25	57.20	66.00	-8.80	QP
2	0.4700	22.61	10.23	32.84	46.51	-13.67	AVG
3	3.4460	29.26	10.25	39.51	56.00	-16.49	QP
4	3.4460	26.20	10.25	36.45	46.00	-9.55	AVG
5	4.2140	28.86	10.24	39.10	56.00	-16.90	QP
6	4.2140	26.74	10.24	36.98	46.00	-9.02	AVG

Test mode:	TM2	Polarity:	Neutral
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No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.1500	45.72	10.25	55.97	66.00	-10.03	QP
2	0.4660	23.95	10.23	34.18	46.58	-12.40	AVG
3	2.9380	26.72	10.27	36.99	56.00	-19.01	QP
4	2.9380	24.82	10.27	35.09	46.00	-10.91	AVG
5	4.2140	29.10	10.24	39.34	56.00	-16.66	QP
6*	4.2140	27.33	10.24	37.57	46.00	-8.43	AVG

4. Radiated Emissions

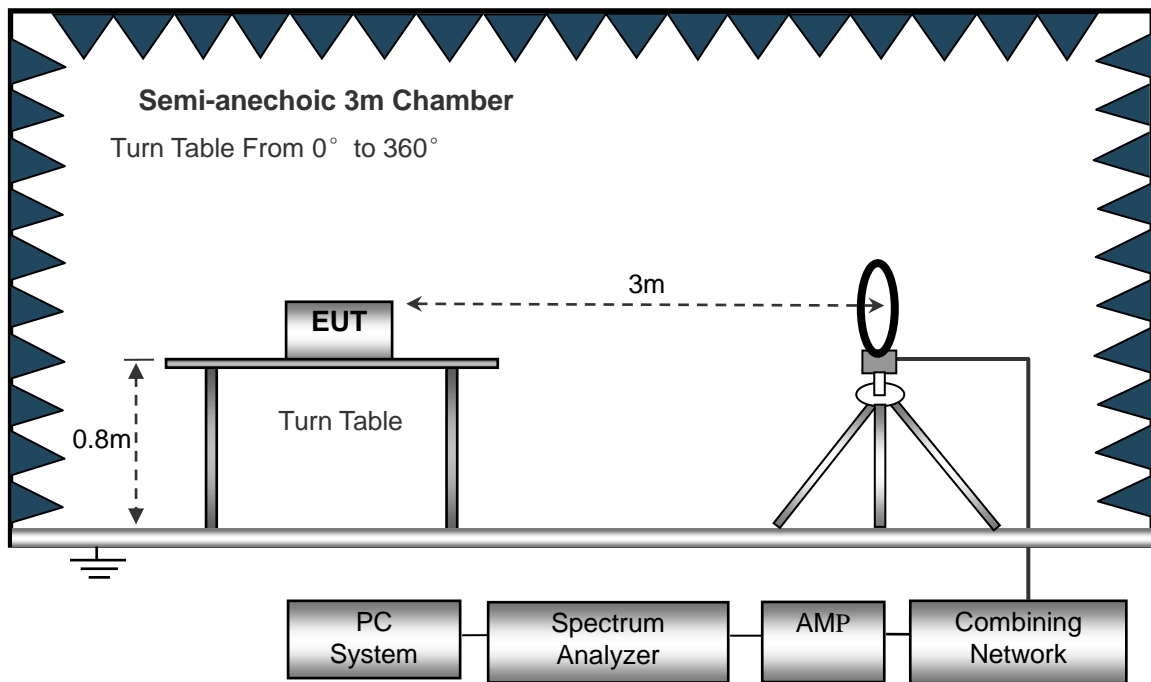
4.1 Test Procedure

The setup of EUT is according with per ANSI C63.4-2014 measurement procedure. The specification used was with the FCC Part 18.305 Limit.

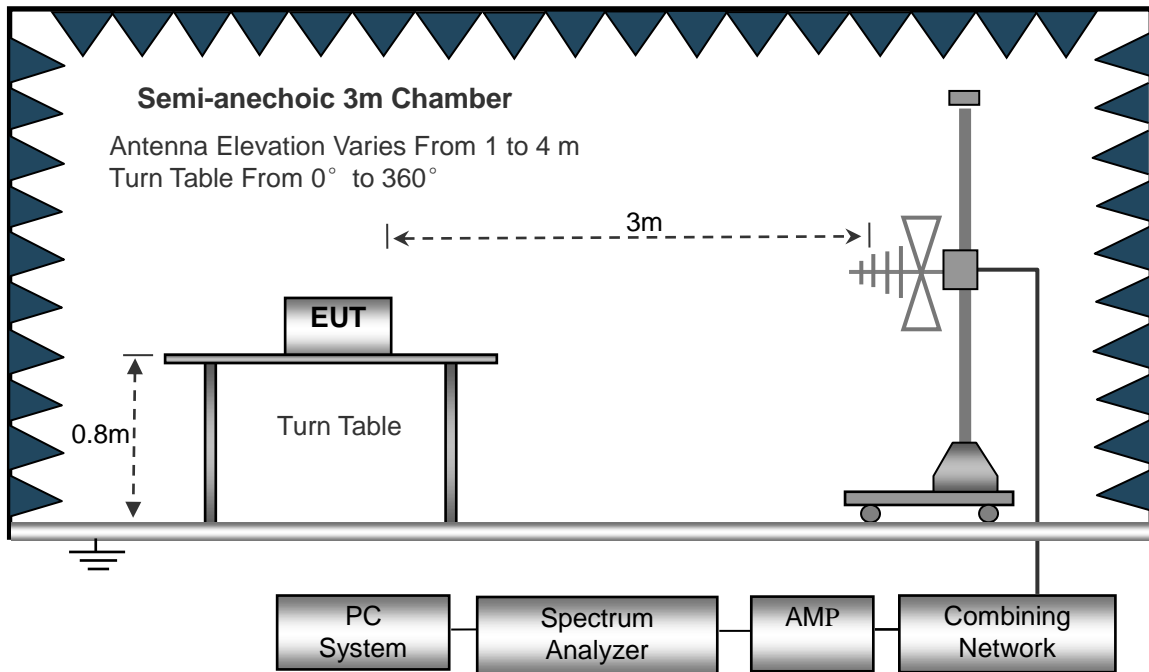
The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.

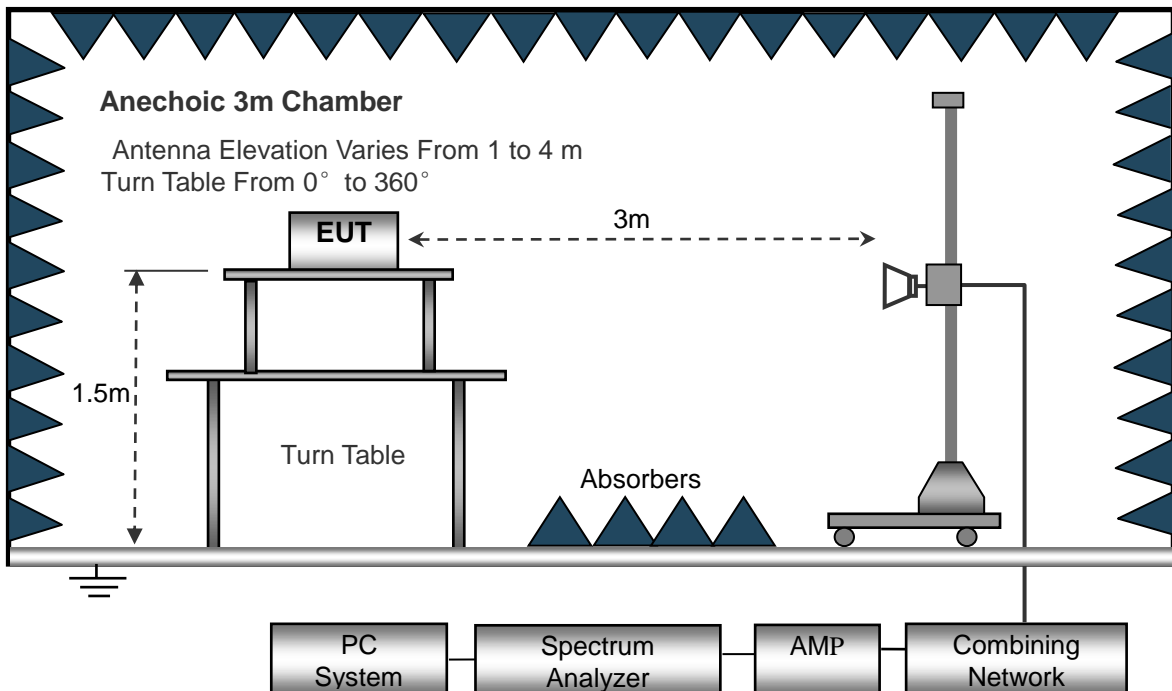
The test setup for emission measurement below 30MHz..



The test setup for emission measurement from 30 MHz to 1 GHz..



The test setup for emission measurement above 1 GHz..



4.2 Test Receiver Setup

Frequency :9kHz-30MHz

RBW=10KHz,

VBW =30KHz

Sweep time= Auto

Trace = max hold

Detector function = peak

Frequency :30MHz-1GHz

RBW=120KHz,

VBW=300KHz

Sweep time= Auto

Trace = max hold

Detector function = peak, QP

Frequency :Above 1GHz

RBW=1MHz,

VBW=3MHz(Peak), 10Hz(AV)

Sweep time= Auto

Trace = max hold

Detector function = peak, AV

4.3 Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and the Cable Factor, and subtracting the Amplifier Gain from the Amplitude reading. The basic equation is as follows:

$$\text{Corr. Ampl.} = \text{Indicated Reading} - \text{Corr. Factor}$$

The “**Margin**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -6dB μ V means the emission is 6dB μ V below the maximum limit for Any non-ISM frequency device. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Corr. Ampl.} - \text{FCC Part 18.305 Limit}$$

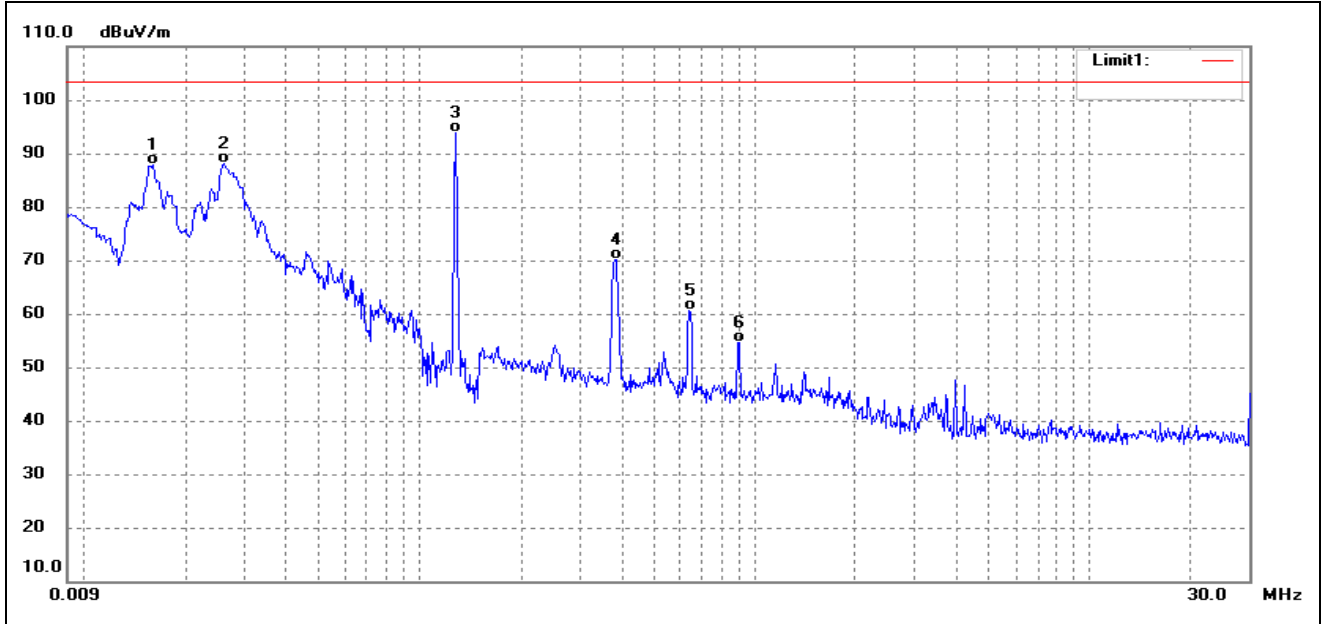
4.4 Environmental Conditions

Temperature:	22.5 °C
Relative Humidity:	54 %
ATM Pressure:	1011 mbar

4.5 Summary of Test Results/Plots

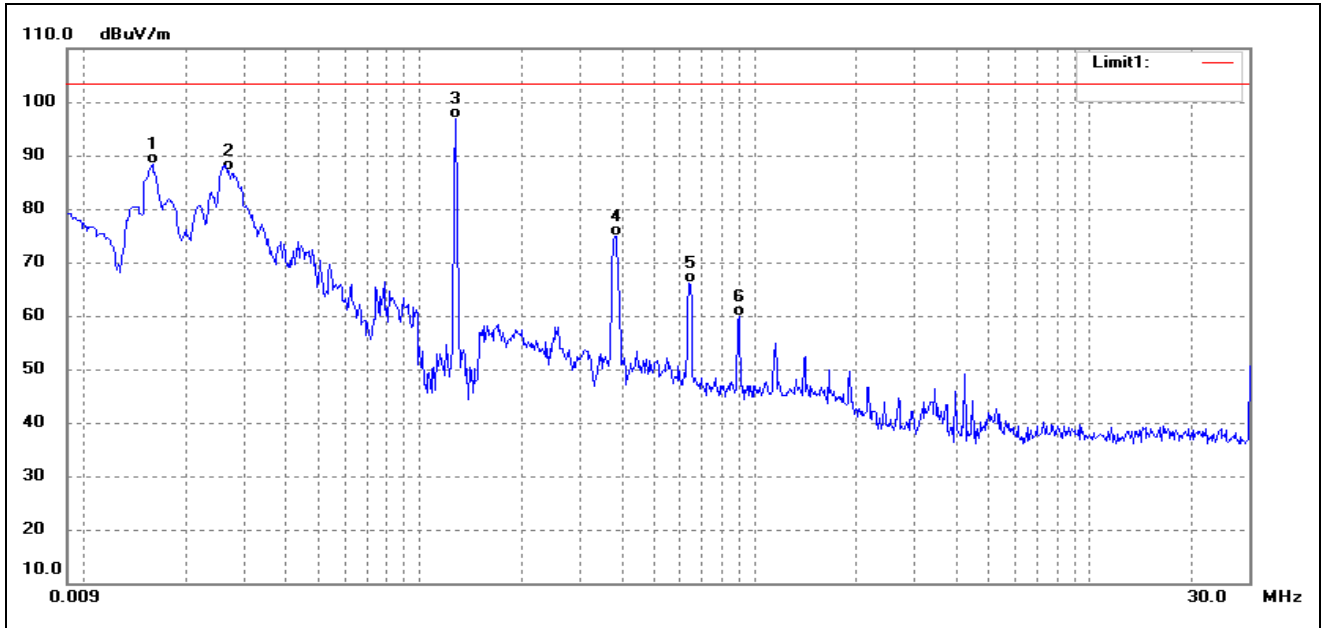
Plot of Radiated Emissions Test Data (Below 30MHz)

Test mode:	TM1	Polarity:	Vertical
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No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	0.0161	165.65	-77.68	87.97	103.50	-15.53	-	-	QP
2	0.0261	165.81	-77.67	88.14	103.50	-15.36	-	-	QP
3	0.1278	171.36	-77.50	93.86	103.50	-9.64	-	-	QP
4	0.3832	147.53	-77.28	70.25	103.50	-33.25	-	-	QP
5	0.6372	137.72	-77.06	60.66	103.50	-42.84	-	-	QP
6	0.8944	131.54	-76.85	54.69	103.50	-48.81	-	-	QP

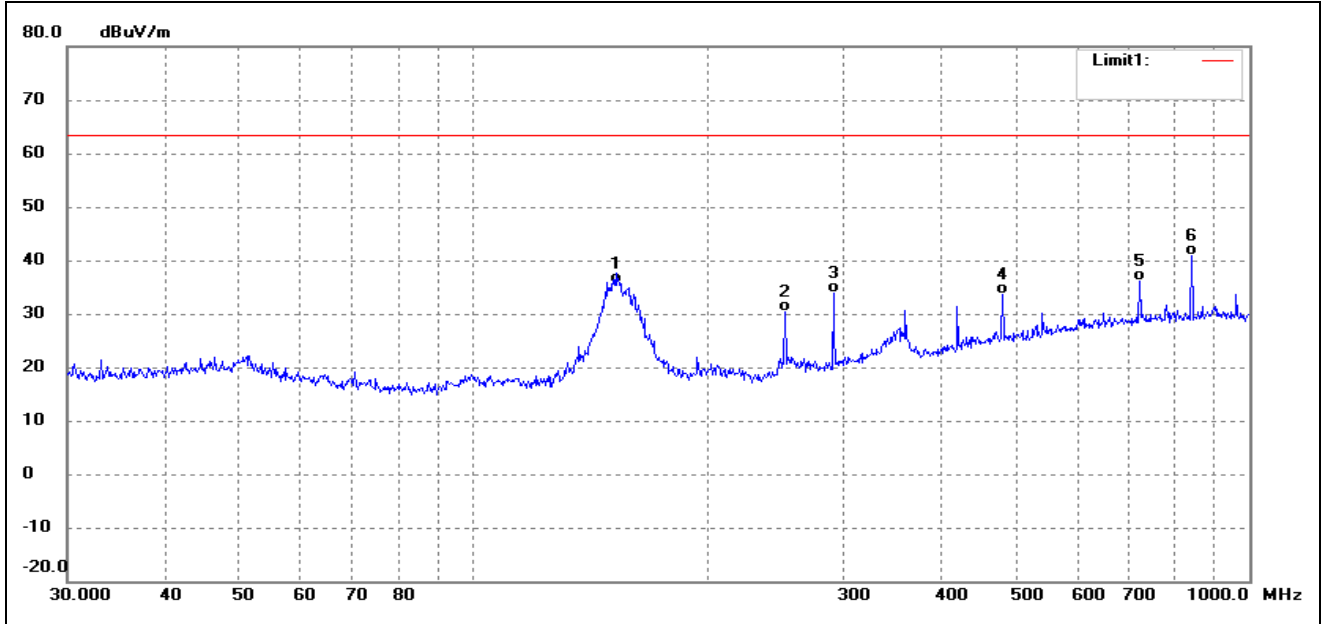
Test mode:	TM2	Polarity:	Vertical
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No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	0.0160	166.14	-77.68	88.46	103.50	-15.04	-	-	QP
2	0.0269	164.71	-77.67	87.04	103.50	-16.46	-	-	QP
3	0.1278	174.50	-77.50	97.00	103.50	-6.50	-	-	QP
4	0.3832	152.26	-77.28	74.98	103.50	-28.52	-	-	QP
5	0.6372	143.18	-77.06	66.12	103.50	-37.38	-	-	QP
6	0.8944	136.68	-76.85	59.83	103.50	-43.67	-	-	QP

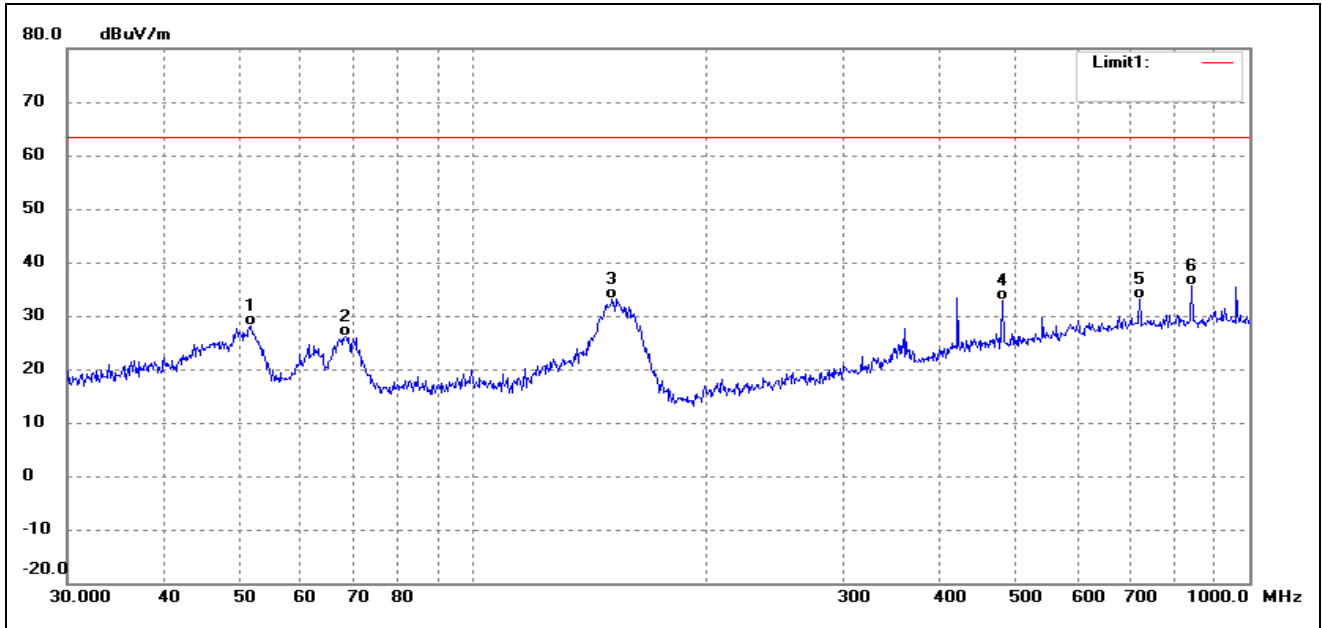
Plot of Radiated Emissions Test Data (Above 30MHz)

Test mode:	TM1	Polarity:	Horizontal
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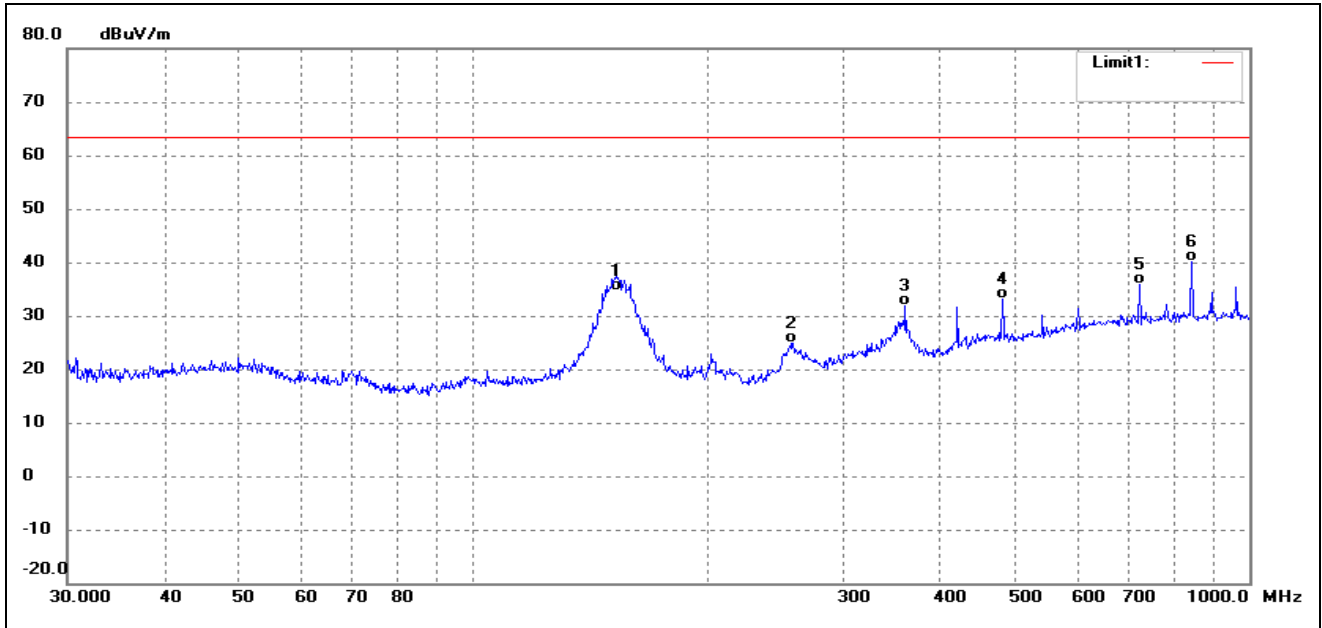
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	152.6641	48.15	-12.48	35.67	63.50	-27.83	-	-	QP
2	252.0627	38.75	-8.26	30.49	63.50	-33.01	-	-	QP
3	291.0360	41.11	-7.20	33.91	63.50	-29.59	-	-	QP
4	480.5276	35.38	-1.79	33.59	63.50	-29.91	-	-	QP
5	721.7259	34.56	1.57	36.13	63.50	-27.37	-	-	QP
6	842.1296	38.52	2.34	40.86	63.50	-22.64	-	-	QP

Test mode:	TM1	Polarity:	Vertical
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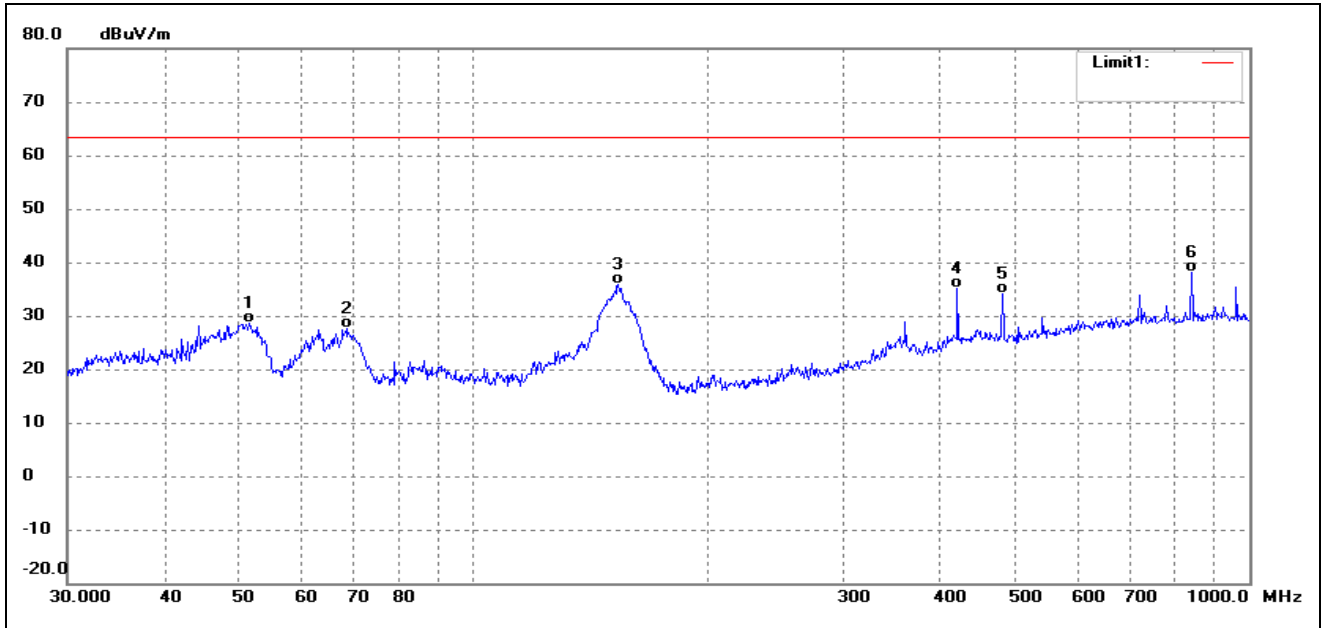
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	51.6616	35.41	-7.20	28.21	63.50	-35.29	-	-	QP
2	68.3908	35.93	-9.89	26.04	63.50	-37.46	-	-	QP
3	151.0666	45.69	-12.56	33.13	63.50	-30.37	-	-	QP
4	480.5276	34.77	-1.79	32.98	63.50	-30.52	-	-	QP
5	721.7259	31.46	1.57	33.03	63.50	-30.47	-	-	QP
6	842.1296	33.35	2.34	35.69	63.50	-27.81	-	-	QP

Test mode:	TM2	Polarity:	Horizontal
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No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	153.2004	47.15	-12.46	34.69	63.50	-28.81	-	-	QP
2	257.4221	33.00	-8.11	24.89	63.50	-38.61	-	-	QP
3	360.4476	37.06	-5.09	31.97	63.50	-31.53	-	-	QP
4	480.5276	34.98	-1.79	33.19	63.50	-30.31	-	-	QP
5	721.7259	34.20	1.57	35.77	63.50	-27.73	-	-	QP
6	842.1295	37.76	2.34	40.10	63.50	-23.40	-	-	QP

Test mode:	TM2	Polarity:	Vertical
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No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	51.4807	35.86	-7.19	28.67	63.50	-34.83	-	-	QP
2	68.6310	37.51	-9.94	27.57	63.50	-35.93	-	-	QP
3	153.7385	48.23	-12.44	35.79	63.50	-27.71	-	-	QP
4	420.5803	38.45	-3.34	35.11	63.50	-28.39	-	-	QP
5	480.5276	35.83	-1.79	34.04	63.50	-29.46	-	-	QP
6	842.1296	35.87	2.34	38.21	63.50	-25.29	-	-	QP

Remark: ‘-’ Means the test Degree and Height are not recorded by the test software and only show the worst case in the test report.

APPENDIX PHOTOGRAPHS

Please refer to “ANNEX”

******* END OF REPORT *******