

TEST REPORT

Reference No...... : WTD23X06119997W001
FCC ID : 2ALCVWBS12
Applicant : Emerson Radio Corp.
Address : 959 Route 46 East, Suite 210, 2nd Floor, Parsippany NJ 07054, USA
Manufacturer : Shenzhen Maniway Electronics Limited
Address : Bldg 8, Hualian Hebei Industrial Estate, Longhua Street, Longhua District,
SHENZHEN Guangdong
Product Name : Alarm Clock Radio with Weather Band and Wireless Charger
Model No...... : WBS12
Standards : FCC Part 15.207&15.209
Date of Receipt sample : 2023-06-01
Date of Test..... : 2023-06-01 to 2023-07-04
Date of Issue : 2023-07-04
Test Report Form No. : WTX_Part 15_207_209W
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 approver.

Prepared By:

Waltek Testing Group (Shenzhen) Co., Ltd.

Address: 1/F., Room 101, Building 1, Hongwei Industrial Park, Liuxian 2nd Road,
Block 70 Bao'an District, Shenzhen, Guangdong, China

Tel.: +86-755-33663308 Fax.: +86-755-33663309 Email: sem@waltek.com.cn

Tested by:

Approved by:



Mike Shi



Silin Chen

TABLE OF CONTENTS

1. GENERAL INFORMATION	4
1.1 PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT)	4
1.2 TEST STANDARDS.....	5
1.3 TEST METHODOLOGY	5
1.4 TEST FACILITY	5
1.5 EUT SETUP AND OPERATION MODE	6
1.6 MEASUREMENT UNCERTAINTY	7
1.7 TEST EQUIPMENT LIST AND DETAILS	8
2. SUMMARY OF TEST RESULTS.....	10
3. ANTENNA REQUIREMENT	11
3.1 STANDARD APPLICABLE	11
3.2 TEST RESULT.....	11
4. CONDUCTED EMISSIONS	12
4.1 TEST PROCEDURE	12
4.2 BASIC TEST SETUP BLOCK DIAGRAM	12
4.3 ENVIRONMENTAL CONDITIONS	12
4.4 SUMMARY OF TEST RESULTS/PLOTS.....	12
5. RADIATED EMISSION.....	19
5.1 STANDARD APPLICABLE	19
5.2 TEST PROCEDURE	19
5.3 TEST RECEIVER SETUP	21
5.4 CORRECTED AMPLITUDE & MARGIN CALCULATION.....	21
5.5 ENVIRONMENTAL CONDITIONS	21
5.6 SUMMARY OF TEST RESULTS/PLOTS.....	21
6. OCCUPIED BANDWIDTH	31
6.1 STANDARD APPLICABLE	31
6.2 TEST PROCEDURE	31
6.3 ENVIRONMENTAL CONDITIONS	31
6.4 SUMMARY OF TEST RESULTS/PLOTS.....	31
APPENDIX PHOTOGRAPHS.....	34

Report version

Version No.	Date of issue	Description
Rev.00	2023-07-04	Original
/	/	/

1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

General Description of EUT	
Product Name:	Alarm Clock Radio with Weather Band and Wireless Charger
Trade Name:	Emerson
Model No.:	WBS12
Adding Model(s):	WBSXX (where XX is alphanumeric denotes different display color or cosmetics)
Rated Voltage:	/
Power Adapter Model:	/
<i>Note: The test data is gathered from a production sample, provided by the manufacturer. The appearance of others models listed in the report is different from main-test model WBS12, but the circuit and the electronic construction do not change, declared by the manufacturer.</i>	

Technical Characteristics of EUT	
Frequency Range:	112~205kHz
Modulation Type:	ASK
Antenna Type:	Coil Antenna
Input:	/
Wireless output:	5W,7.5W,10W,15W(MAX)
Adapter:	INPUT:120VAC~60Hz POWER CONSUMPTION:30W
Radio Technology:	/

1.2 Test Standards

The tests were performed according to following standards:

FCC Rules Part 15.207: Conducted limits.

FCC Rules Part 15.209: Radiated emission limits; general requirements.

ANSI C63.10-2013: American National Standard for Testing Unlicensed Wireless Devices.

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 C63.10-2013, the equipment under test (EUT) was configured to measure its highest possible emission level. The test modes were adapted accordingly in reference to the Operating Instructions.

1.4 Test Facility

Address of the test laboratory

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

Address: 1/F., Room 101, Building 1, Hongwei Industrial Park, Liuxian 2nd Road, Block 70 Bao'an District, Shenzhen, Guangdong, China

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 and the CAB identifier is CN0057.

1.5 EUT Setup and Operation Mode

The equipment under test (EUT) was configured to measure its highest possible emission. 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	Wireless output(5W)	Input: DC5V/9V
TM2	Wireless charging	Wireless output(10W)	Input: DC5V/9V
TM3	Wireless charging	Wireless output(15W)	Input: DC5V/9V

EUT Cable List and Details			
Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite
/	/	/	/

Special Cable List and Details			
Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite
USB-C Cable	1.22	Unshielded	Without Ferrite

Auxiliary Equipment List and Details			
Description	Manufacturer	Model	Serial Number
Wireless charging load	/	YBZ	/
Adapter	GaN2 Pro	CCDAN65C2	/

1.6 Measurement Uncertainty

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

1.7 Test Equipment List and Details

Fixed asset Number	Description	Manufacturer	Model	Serial No.	Cal Date	Due. Date
WTXE1005A 1005	Spectrum Analyzer	Agilent	N9020A	US471401 02	2023-02-25	2024-02-24
WTXE1004A 1-001	Spectrum Analyzer	Rohde & Schwarz	FSP40	100612	2023-02-25	2024-02-24
☒ Chamber A: Below 1GHz						
WTXE1005A 1003	Spectrum Analyzer	Rohde & Schwarz	FSP30	836079/03 5	2023-02-25	2024-02-24
WTXE1007A 1001	EMI Test Receiver	Rohde & Schwarz	ESVB	825471/00 5	2023-02-25	2024-02-24
WTXE1007A 1001	Amplifier	HP	8447F	2805A034 75	2023-02-25	2024-02-24
WTXE1010A 1007	Loop Antenna	Schwarz beck	FMZB 1516	9773	2021-03-20	2024-03-19
WTXE1010A 1006	Broadband Antenna	Schwarz beck	VULB9163	9163-333	2023-03-20	2026-03-19
☒ Chamber A: Above 1GHz						
WTXE1005A 1003	Spectrum Analyzer	Rohde & Schwarz	FSP30	836079/03 5	2023-02-25	2024-02-24
WTXE1007A 1001	EMI Test Receiver	Rohde & Schwarz	ESVB	825471/00 5	2023-02-25	2024-02-24
WTXE1065A 1001	Amplifier	C&D	PAP-1G18	14918	2023-02-25	2024-02-24
WTXE1010A 1005	Horn Antenna	ETS	3117	00086197	2021-03-19	2024-03-18
WTXE1010A 1010	DRG Horn Antenna	A.H. SYSTEMS	SAS-574	571	2021-03-19	2024-03-18
WTXE1003A 1001	Pre-amplifier	Schwarzbeck	BBV 9721	9721-031	2023-02-25	2024-02-24
☐ Chamber B:Below 1GHz						
WTXE1010A 1006	Trilog Broadband Antenna	Schwarz beck	VULB9163(B)	9163-635	2021-04-09	2024-04-08
WTXE1038A 1001	Amplifier	Agilent	8447D	2944A101 79	2023-02-25	2024-02-24
WTXE1001A 1002	EMI Test Receiver	Rohde & Schwarz	ESPI	101391	2023-02-25	2024-02-24
☐ Chamber C:Below 1GHz						

WTXE1093A 1001	EMI Test Receiver	Rohde & Schwarz	ESIB 26	100401	2023-02-25	2024-02-24
WTXE1010A 1013-1	Trilog Broadband Antenna	Schwarz beck	VULB 9168	1194	2021-05-28	2024-05-27
WTXE1007A 1002	Amplifier	HP	8447F	2944A038 69	2023-02-25	2024-02-24
WTXE1010A 1007	Loop Antenna	Schwarz beck	FMZB 1516	9773	2021-03-20	2024-03-19
☐ Chamber C: Above 1GHz						
WTXE1093A 1001	EMI Test Receiver	Rohde & Schwarz	ESIB 26	100401	2023-02-25	2024-02-24
WTXE1103A 1005	Horn Antenna	POAM	RTF-11A	LP228060 221	2023-03-10	2026-03-09
WTXE1103A 1006	Amplifier	Tonscend	TAP01018050	AP22E806 235	2023-02-25	2024-02-24
☒ Conducted Room 1#						
WTXE1001A 1001	EMI Test Receiver	Rohde & Schwarz	ESPI	101611	2023-02-25	2024-02-24
WTXE1002A 1001	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100911	2023-02-25	2024-02-24
WTXE1003A 1001	AC LISN	Schwarz beck	NSLK8126	8126-224	2023-02-25	2024-02-24
☐ Conducted Room 2#						
WTXE1001A 1004	EMI Test Receiver	Rohde & Schwarz	ESPI	101259	2023-02-25	2024-02-24
WTXE1003A 1003	LISN	Rohde & Schwarz	ENV 216	100097	2023-02-25	2024-02-24

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

Description of Test	Result
§15.203 Antenna Requirement	Compliant
§15.207 (a) Conducted Emission	Compliant
§15.209 Radiated Emission	Compliant

N/A: not applicable.

3. Antenna Requirement

3.1 Standard Applicable

According to FCC Part 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

3.2 Test Result

This product has a Coil Antenna, fulfill the requirement of this section.

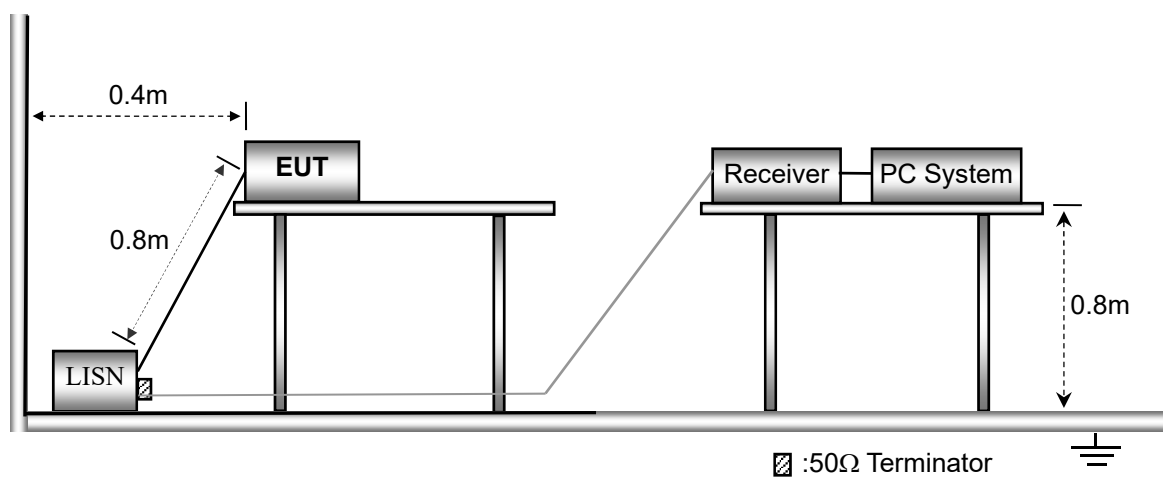
4. Conducted Emissions

4.1 Test Procedure

The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC Part 15.207 Limit.

The external I/O cables were draped along the test table and formed a bundle 30 to 40cm long in the middle. The spacing between the peripherals was 10cm.

4.2 Basic Test Setup Block Diagram

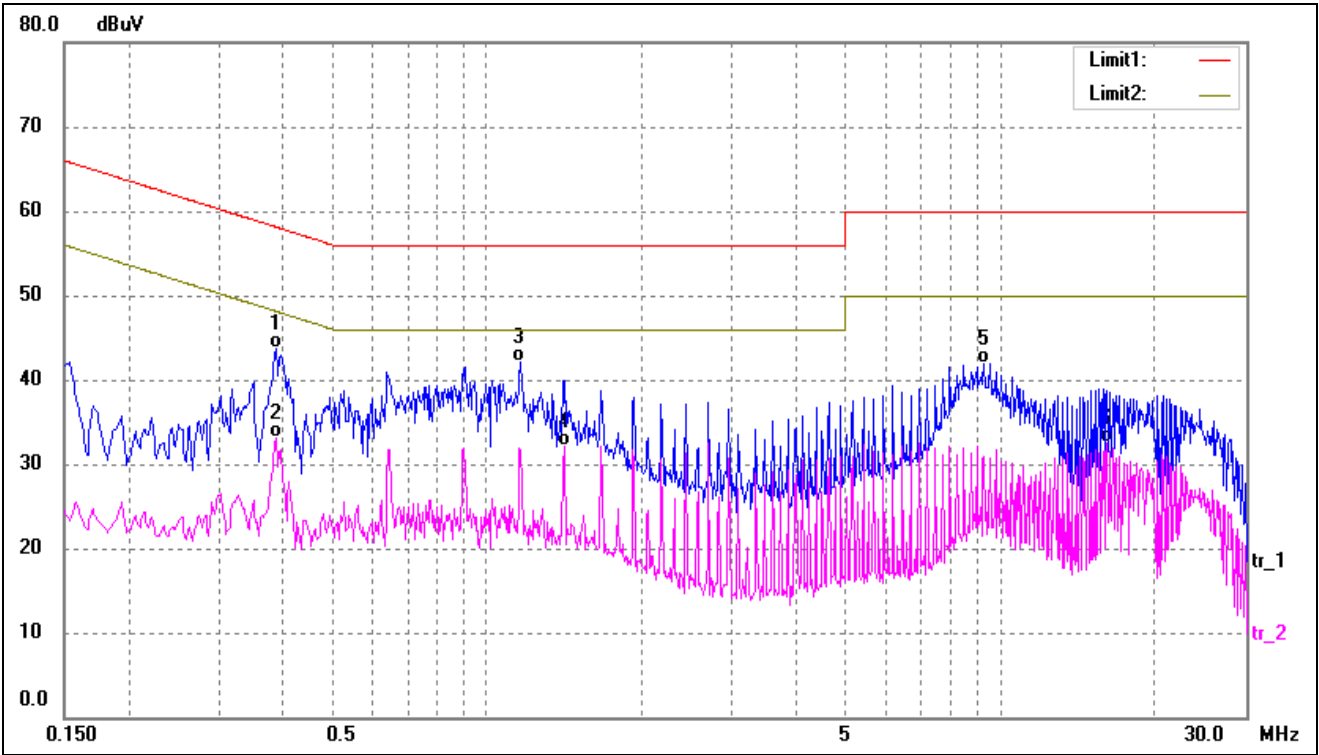


4.3 Environmental Conditions

Temperature:	25 °C
Relative Humidity:	55 %
ATM Pressure:	1011 mbar

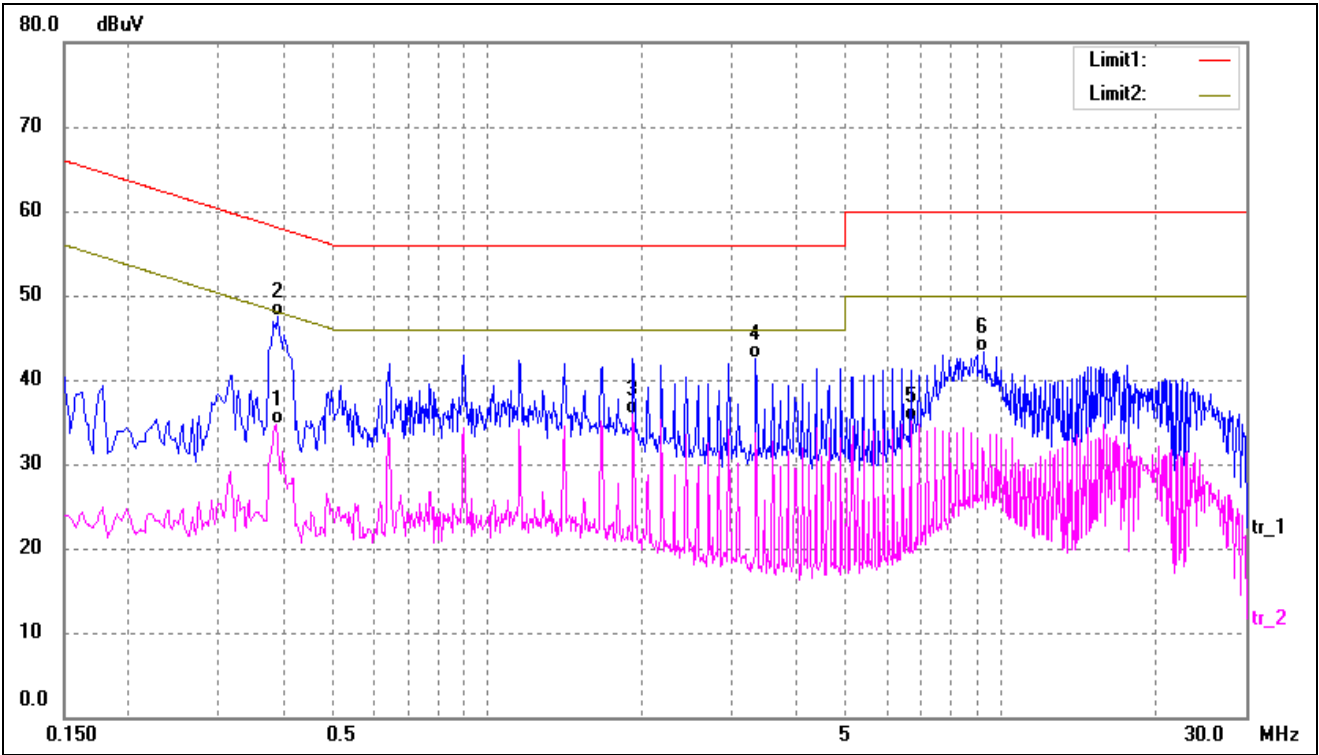
4.4 Summary of Test Results/Plots

Test mode:	TM1	Polarity:	Line
------------	-----	-----------	------



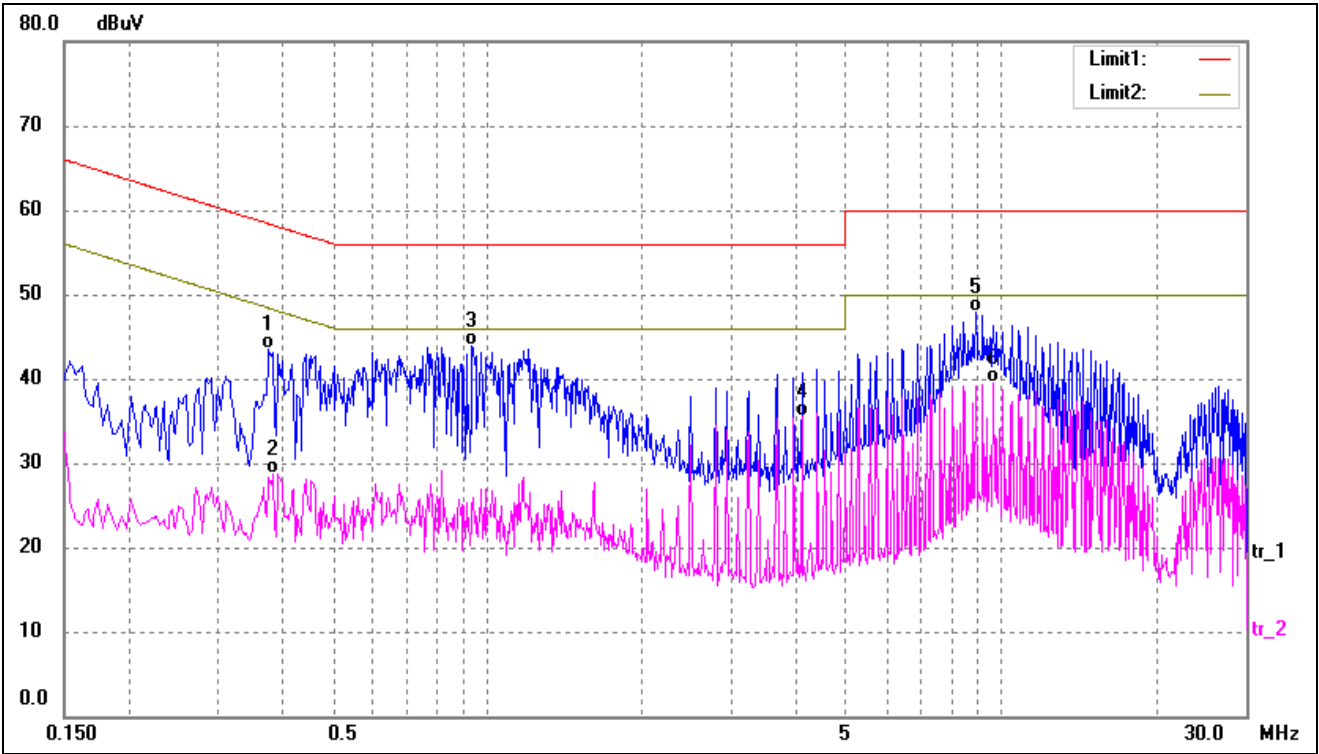
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.3860	33.37	10.27	43.64	58.15	-14.51	QP
2	0.3860	22.90	10.27	33.17	48.15	-14.98	AVG
3	1.1620	31.86	10.17	42.03	56.00	-13.97	QP
4*	1.4140	21.95	10.22	32.17	46.00	-13.83	AVG
5	9.2540	31.52	10.38	41.90	60.00	-18.10	QP
6	16.0620	22.32	10.25	32.57	50.00	-17.43	AVG

Test mode:	TM1	Polarity:	Neutral
------------	-----	-----------	---------



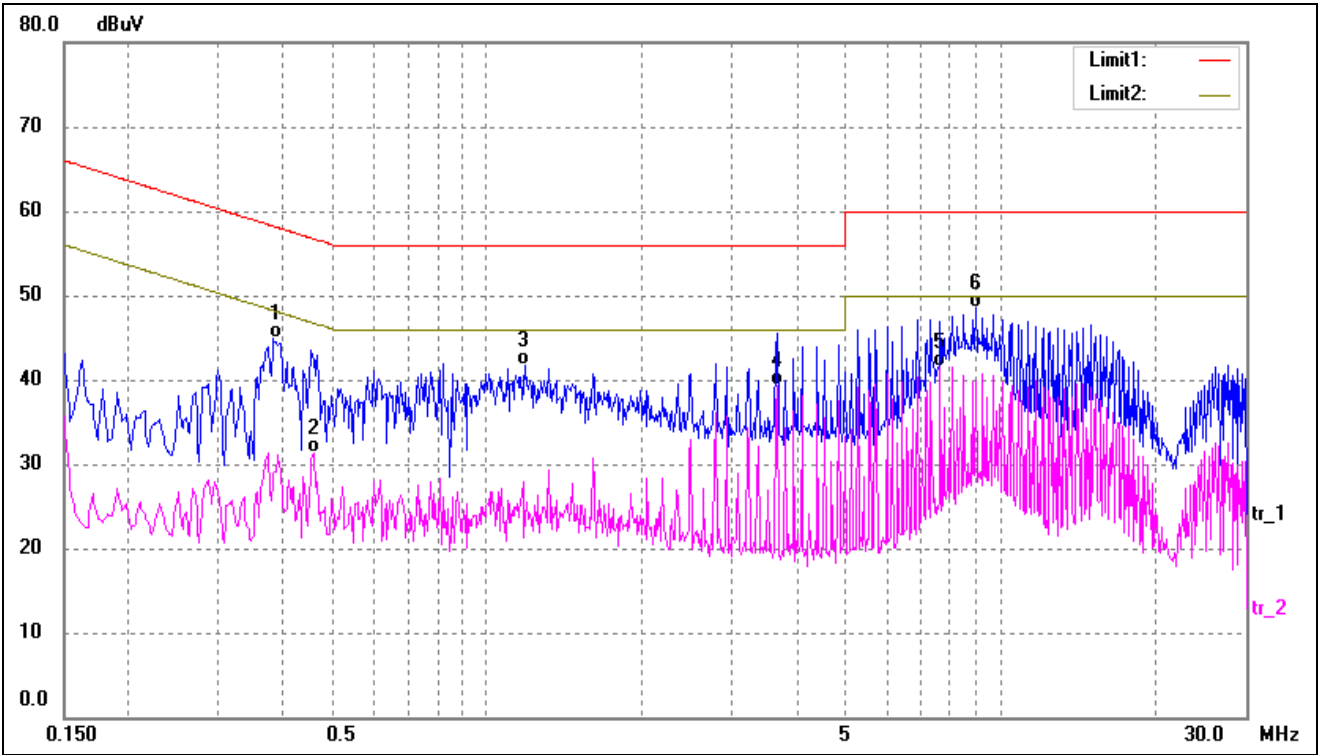
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.3860	24.53	10.27	34.80	48.15	-13.35	AVG
2	0.3900	37.24	10.27	47.51	58.06	-10.55	QP
3*	1.9260	25.56	10.31	35.87	46.00	-10.13	AVG
4	3.3420	32.24	10.35	42.59	56.00	-13.41	QP
5	6.6820	24.73	10.38	35.11	50.00	-14.89	AVG
6	9.2540	32.87	10.38	43.25	60.00	-16.75	QP

Test mode:	TM2	Polarity:	Line
------------	-----	-----------	------



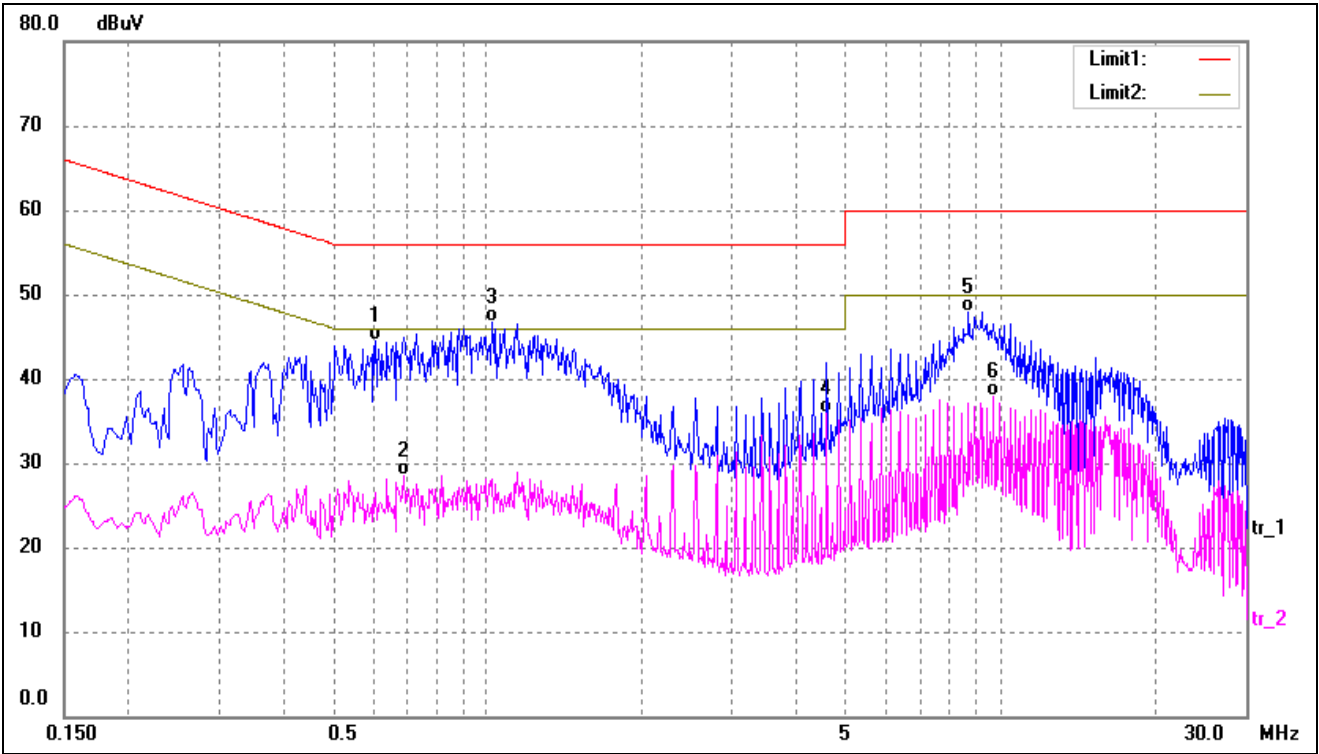
No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	
1	0.3740	33.27	10.28	43.55	58.41	-14.86	QP
2	0.3820	18.51	10.27	28.78	48.24	-19.46	AVG
3	0.9380	33.69	10.15	43.84	56.00	-12.16	QP
4	4.1020	25.05	10.37	35.42	46.00	-10.58	AVG
5	8.9380	37.57	10.38	47.95	60.00	-12.05	QP
6*	9.6660	29.16	10.38	39.54	50.00	-10.46	AVG

Test mode:	TM2	Polarity:	Neutral
------------	-----	-----------	---------



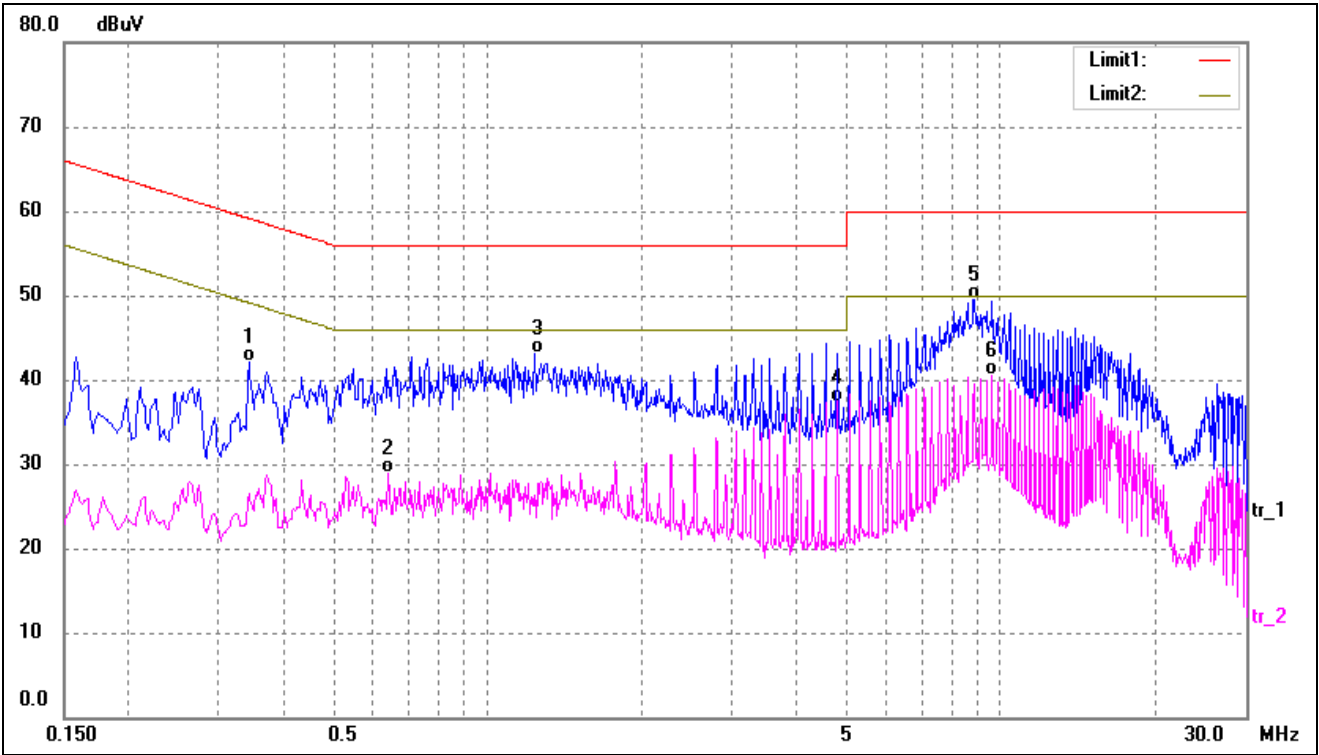
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.3820	34.61	10.27	44.88	58.24	-13.36	QP
2	0.4580	21.10	10.25	31.35	46.73	-15.38	AVG
3	1.1900	31.48	10.18	41.66	56.00	-14.34	QP
4*	3.6620	29.03	10.36	39.39	46.00	-6.61	AVG
5	7.6140	31.11	10.38	41.49	50.00	-8.51	AVG
6	8.9300	38.12	10.38	48.50	60.00	-11.50	QP

Test mode:	TM3	Polarity:	Line
------------	-----	-----------	------



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.6060	34.35	10.22	44.57	56.00	-11.43	QP
2	0.6860	18.26	10.19	28.45	46.00	-17.55	AVG
3*	1.0220	36.49	10.14	46.63	56.00	-9.37	QP
4	4.5780	25.56	10.37	35.93	46.00	-10.07	AVG
5	8.6460	37.60	10.38	47.98	60.00	-12.02	QP
6	9.6620	27.46	10.38	37.84	50.00	-12.16	AVG

Test mode:	TM3	Polarity:	Neutral
------------	-----	-----------	---------



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.3420	31.81	10.28	42.09	59.15	-17.06	QP
2	0.6420	18.72	10.20	28.92	46.00	-17.08	AVG
3	1.2380	32.96	10.18	43.14	56.00	-12.86	QP
4*	4.8180	27.02	10.38	37.40	46.00	-8.60	AVG
5	8.8700	39.14	10.38	49.52	60.00	-10.48	QP
6	9.6340	30.12	10.38	40.50	50.00	-9.50	AVG

5. RADIATED EMISSION

5.1 Standard Applicable

According to 15.209(a), radiated emission limits; general requirements.

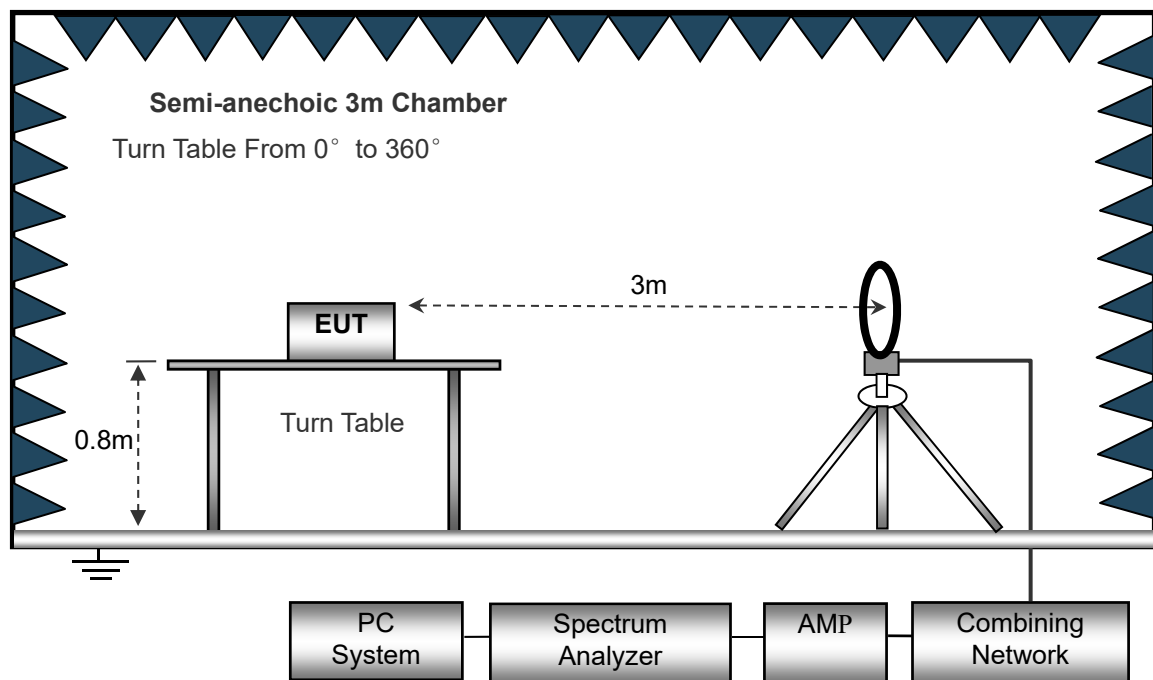
Frequency (MHz)	Field Strength		Field Strength Limit at 3m Measurement Dist	
	uV/m	Distance (m)	uV/m	dBuV/m
0.009 ~ 0.490	$2400/F(\text{kHz})$	300	$10000 * 2400/F(\text{kHz})$	$20\log^{(2400/F(\text{kHz}))} + 80$
0.490 ~ 1.705	$24000/F(\text{kHz})$	30	$100 * 24000/F(\text{kHz})$	$20\log^{(24000/F(\text{kHz}))} + 40$
1.705 ~ 30	30	30	$100 * 30$	$20\log^{(30)} + 40$
30 ~ 88	100	3	100	$20\log^{(100)}$
88 ~ 216	150	3	150	$20\log^{(150)}$
216 ~ 960	200	3	200	$20\log^{(200)}$
Above 960	500	3	500	$20\log^{(500)}$

5.2 Test Procedure

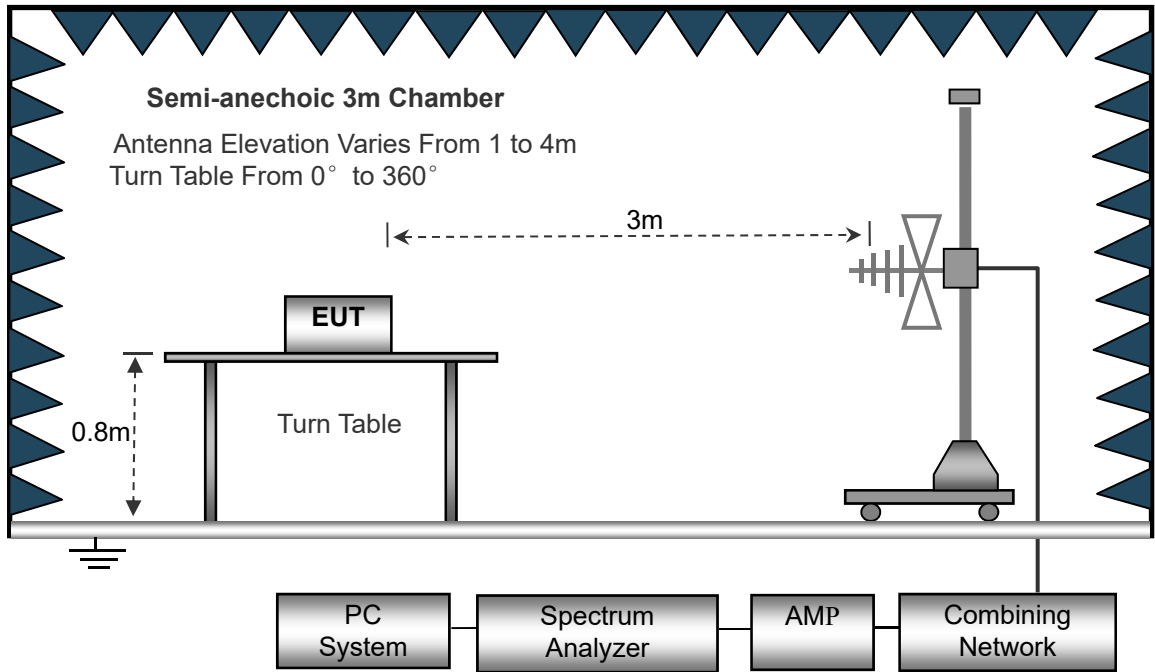
The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC Part 15.209 Limit.

The external I/O cables were draped along the test table and formed a bundle 30 to 40cm long in the middle. The spacing between the peripherals was 10cm.

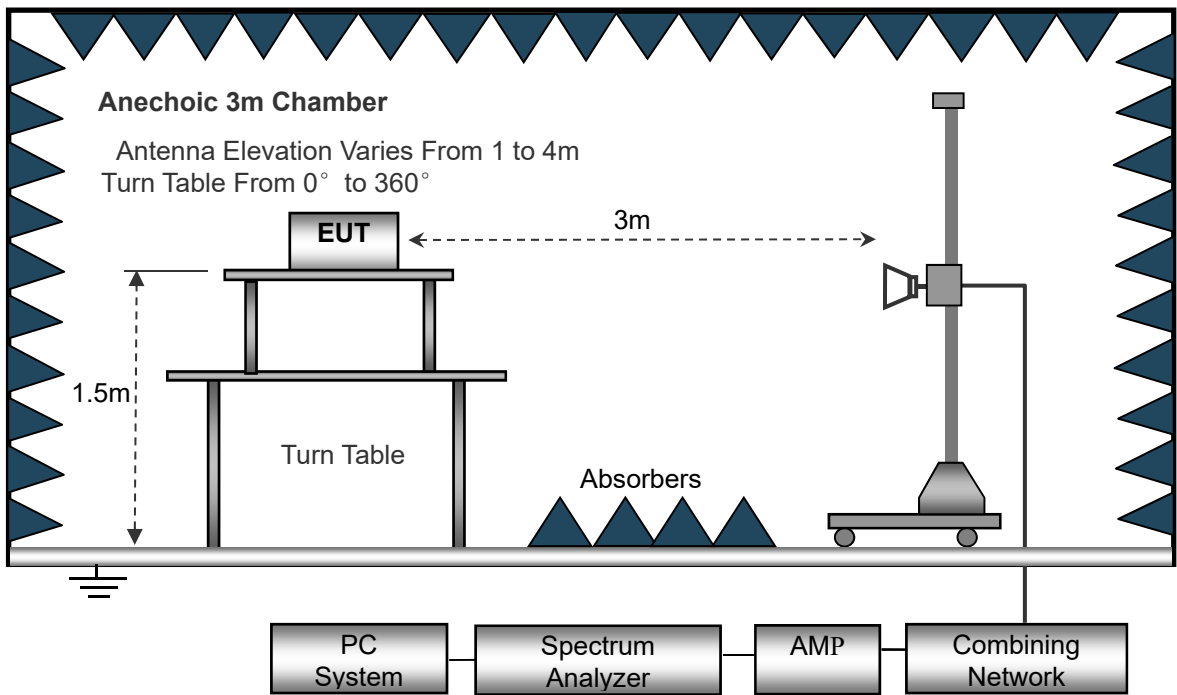
The test setup for emission measurement below 30MHz.



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



The test setup for emission measurement above 1GHz.



5.3 Test Receiver Setup

Frequency :9kHz-30MHz	Frequency :30MHz-1GHz	Frequency :Above 1GHz
RBW=10kHz,	RBW=120kHz,	RBW=1MHz,
VBW =30kHz	VBW=300kHz	VBW=3MHz(Peak), 10Hz(AV)
Sweep time= Auto	Sweep time= Auto	Sweep time= Auto
Trace = max hold	Trace = max hold	Trace = max hold
Detector function = peak	Detector function = peak, QP	Detector function = peak, AV

5.4 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 a Class B device. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Corr. Ampl.} - \text{FCC Part 15.209(a) Limit}$$

5.5 Environmental Conditions

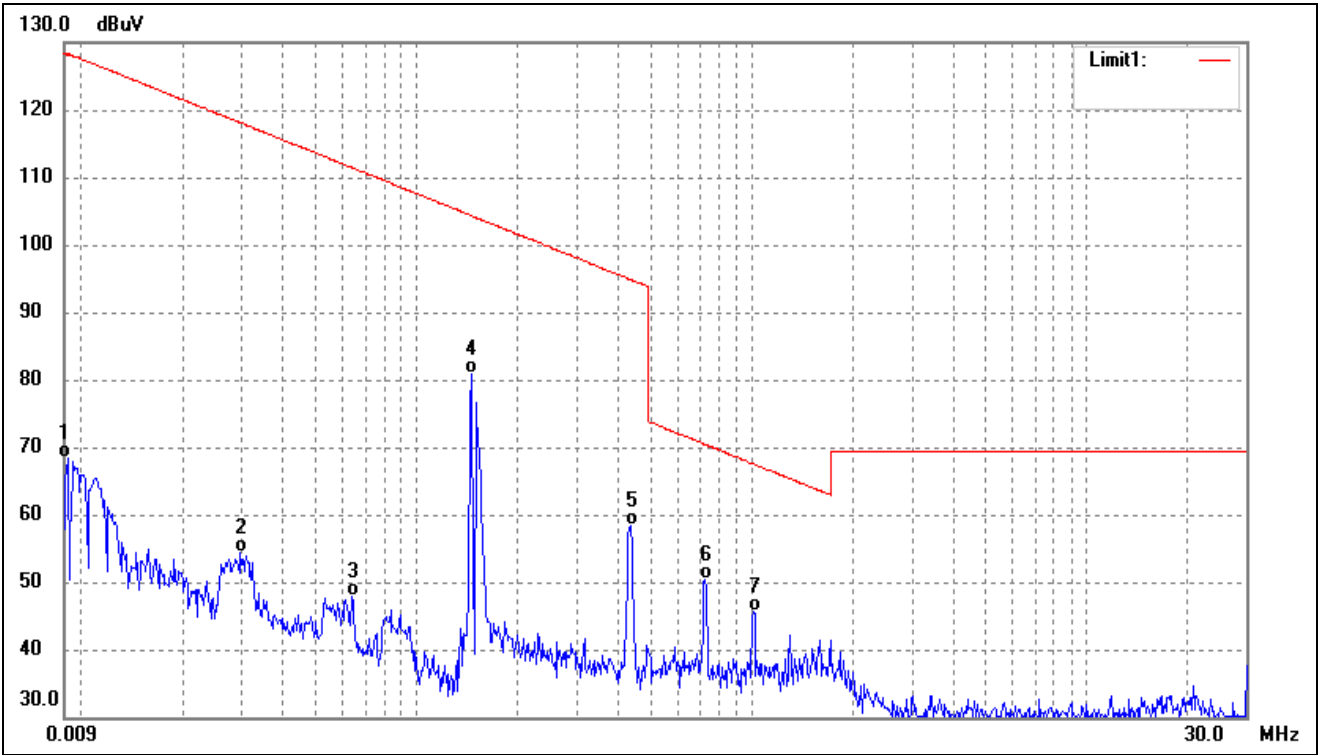
Temperature:	25 °C
Relative Humidity:	55 %
ATM Pressure:	1011 mbar

5.6 Summary of Test Results/Plots

Note: this EUT was tested in 3 orthogonal positions and the worst case position data was reported.

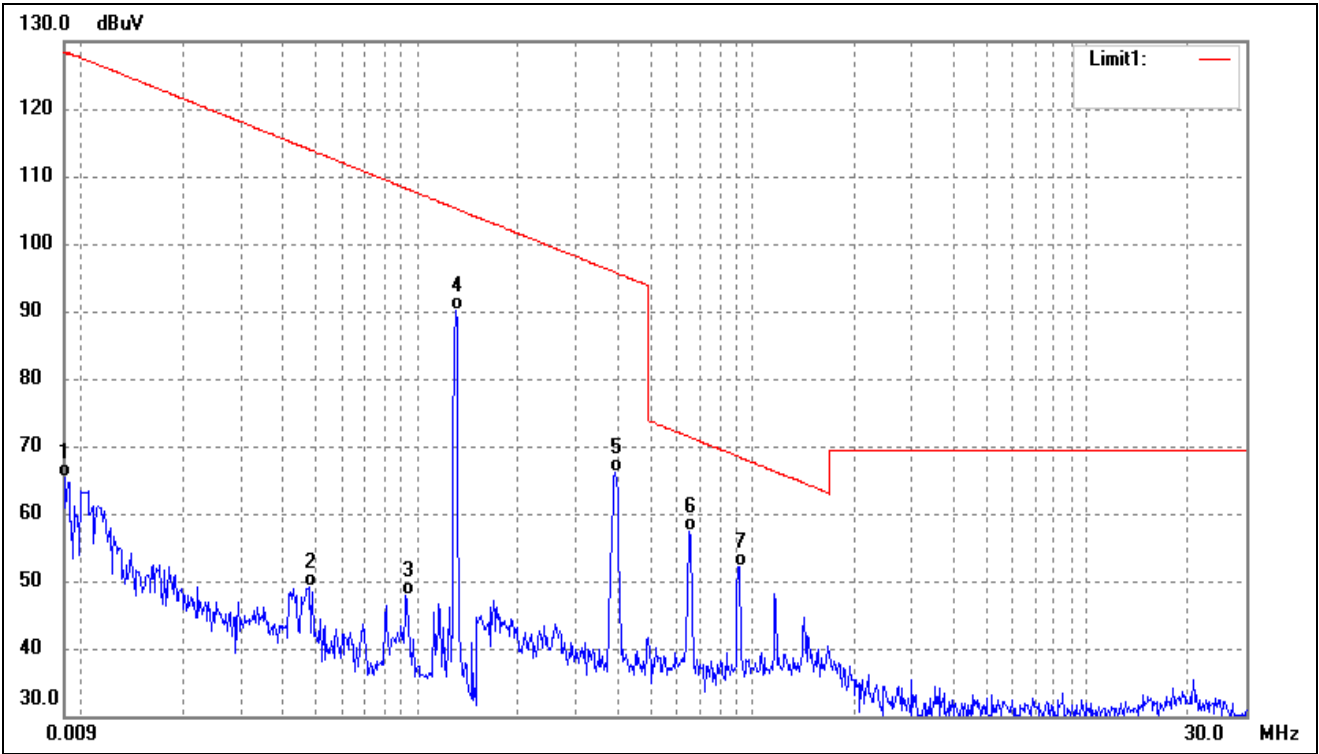
➤ Below 30MHz

Test mode:	TM1	Polarity:	X
------------	-----	-----------	---



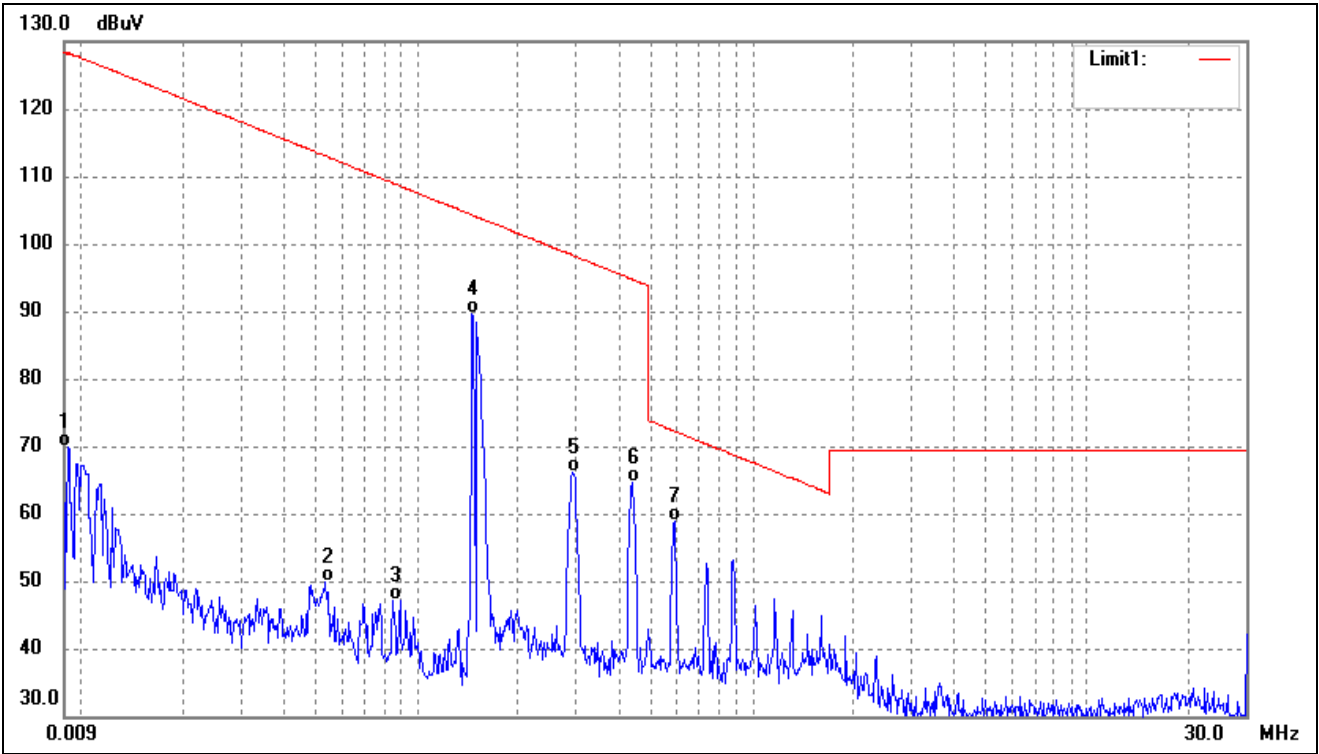
No.	Frequency (MHz)	Reading (dBuV)	Correct dB	Result (dBuV)	Limit (dBuV)	Margin (dB)	Degree ()	Height (cm)	Remark
1	0.0091	74.77	-6.43	68.34	128.40	-60.06	-	-	QP
2	0.0298	60.99	-6.51	54.48	118.11	-63.63	-	-	QP
3	0.0638	53.76	-5.99	47.77	111.50	-63.73	-	-	QP
4	0.1450	87.27	-6.36	80.91	104.37	-23.46	-	-	QP
5	0.4328	66.01	-7.64	58.37	94.88	-36.51	-	-	QP
6	0.7236	56.91	-6.53	50.38	70.42	-20.04	-	-	QP
7	1.0103	51.79	-6.25	45.54	67.53	-21.99	-	-	QP

Test mode:	TM2	Polarity:	X
------------	-----	-----------	---



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV)	dB	(dBuV)	(dBuV)	(dB)	()	(cm)	
1	0.0090	71.85	-6.36	65.49	128.50	-63.01	-	-	QP
2	0.0475	54.59	-5.57	49.02	114.06	-65.04	-	-	QP
3	0.0930	54.32	-6.56	47.76	108.23	-60.47	-	-	QP
4	0.1303	96.68	-6.44	90.24	105.30	-15.06	-	-	QP
5	0.3914	73.77	-7.70	66.07	95.75	-29.68	-	-	QP
6	0.6508	64.36	-6.86	57.50	71.34	-13.84	-	-	QP
7	0.9136	58.50	-6.29	52.21	68.40	-16.19	-	-	QP

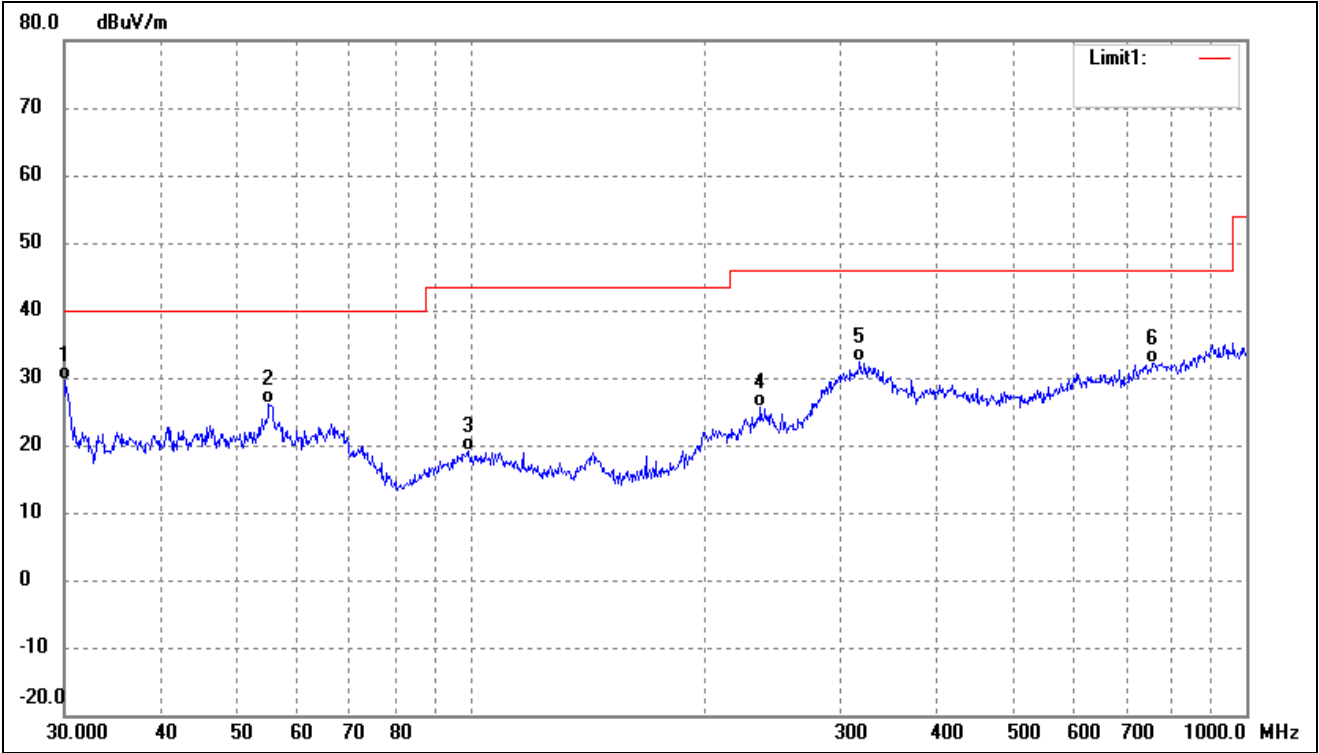
Test mode:	TM3	Polarity:	X
------------	-----	-----------	---



No.	Frequency (MHz)	Reading (dBuV)	Correct dB	Result (dBuV)	Limit (dBuV)	Margin (dB)	Degree ()	Height (cm)	Remark
1	0.0092	76.33	-6.49	69.84	128.31	-58.47	-	-	QP
2	0.0536	55.49	-5.58	49.91	113.01	-63.10	-	-	QP
3	0.0851	53.66	-6.50	47.16	109.00	-61.84	-	-	QP
4	0.1467	95.90	-6.35	89.55	104.27	-14.72	-	-	QP
5	0.2924	73.94	-7.81	66.13	98.28	-32.15	-	-	QP
6	0.4397	72.20	-7.63	64.57	94.74	-30.17	-	-	QP
7	0.5854	65.99	-7.15	58.84	72.26	-13.42	-	-	QP

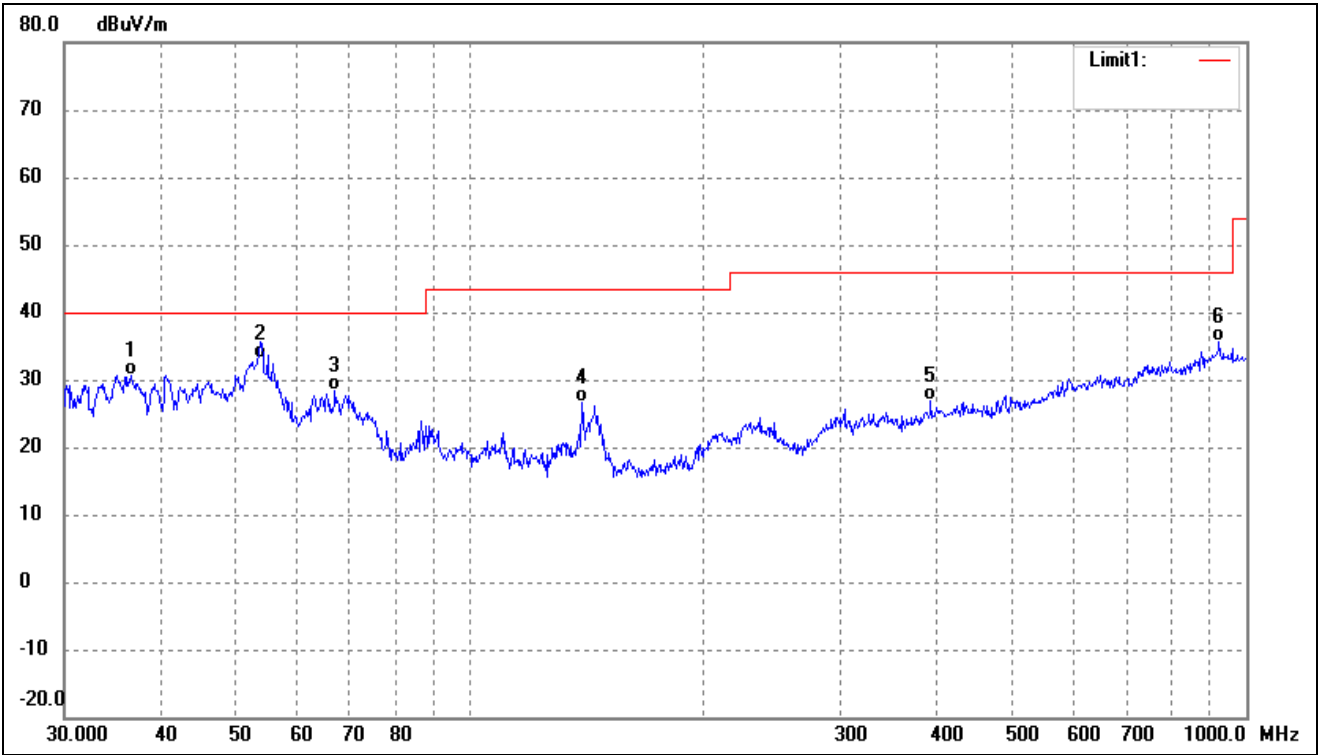
➤ 30MHz-1GHz

Test mode:	TM1	Polarity:	Horizontal
------------	-----	-----------	------------



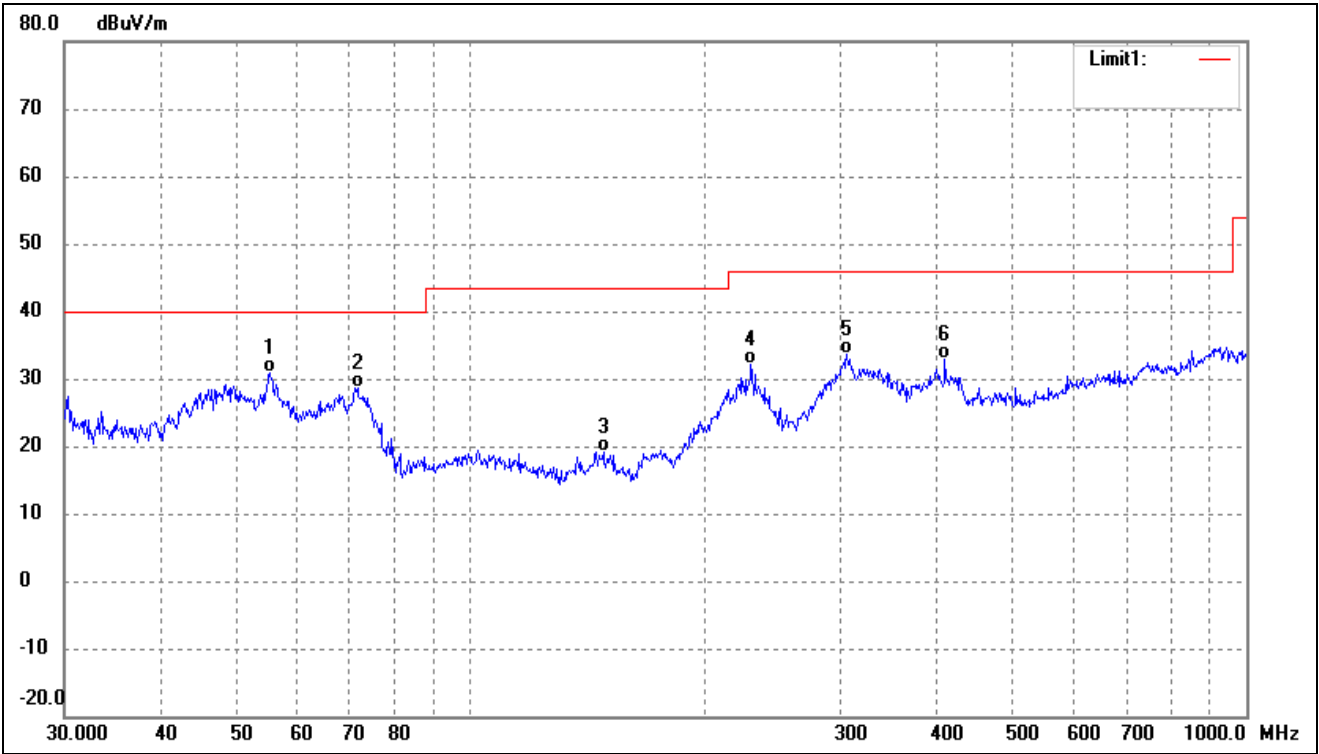
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	30.1054	40.50	-10.76	29.74	40.00	-10.26			QP
2	55.0274	33.65	-7.62	26.03	40.00	-13.97			QP
3	99.5281	27.76	-8.66	19.10	43.50	-24.40			QP
4	236.6447	32.39	-6.82	25.57	46.00	-20.43			QP
5	317.7011	36.83	-4.37	32.46	46.00	-13.54			QP
6	755.3873	28.22	3.89	32.11	46.00	-13.89			QP

Test mode:	TM1	Polarity:	Vertical
------------	-----	-----------	----------



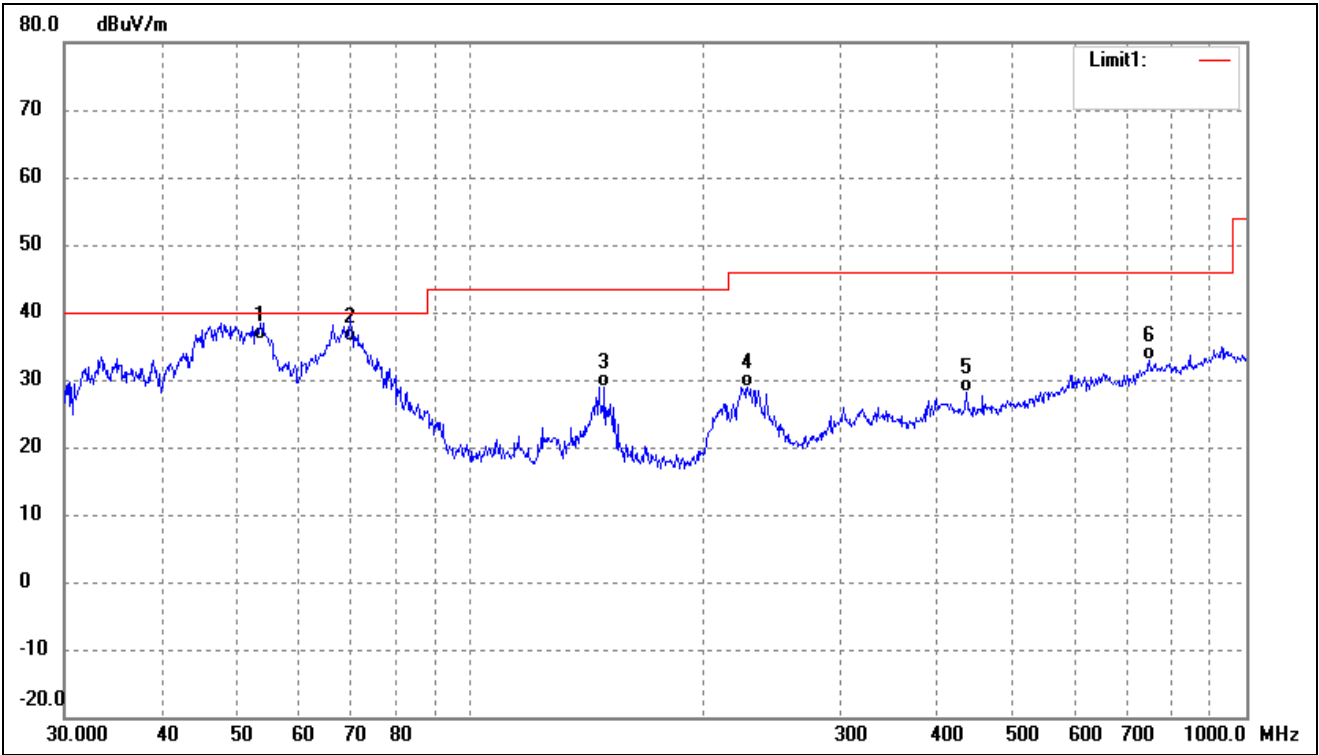
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	36.6375	39.95	-9.28	30.67	40.00	-9.33	-	-	QP
2	53.6932	40.58	-7.49	33.09	40.00	-6.91	-	-	QP
3	66.9669	38.90	-10.45	28.45	40.00	-11.55	-	-	QP
4	139.3613	38.39	-11.79	26.60	43.50	-16.90	-	-	QP
5	392.0951	29.57	-2.76	26.81	46.00	-19.19	-	-	QP
6	922.5157	29.33	6.27	35.60	46.00	-10.40	-	-	QP

Test mode:	TM2	Polarity:	Horizontal
------------	-----	-----------	------------



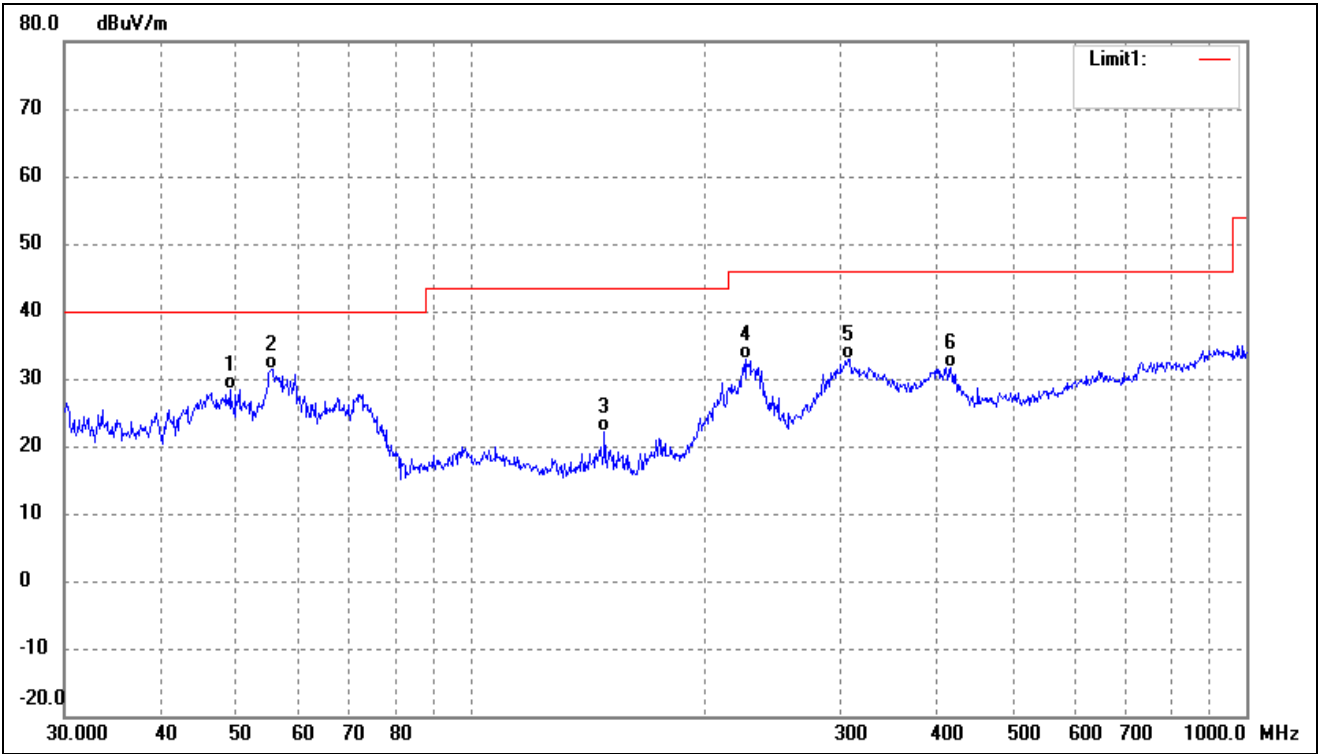
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	55.2207	38.46	-7.65	30.81	40.00	-9.19	-	-	QP
2	71.5806	40.56	-11.85	28.71	40.00	-11.29	-	-	QP
3	148.4410	31.01	-11.76	19.25	43.50	-24.25	-	-	QP
4	230.0985	39.22	-7.14	32.08	46.00	-13.92	-	-	QP
5	305.6800	38.37	-4.65	33.72	46.00	-12.28	-	-	QP
6	408.9460	35.22	-2.33	32.89	46.00	-13.11	-	-	QP

Test mode:	TM2	Polarity:	Vertical
------------	-----	-----------	----------



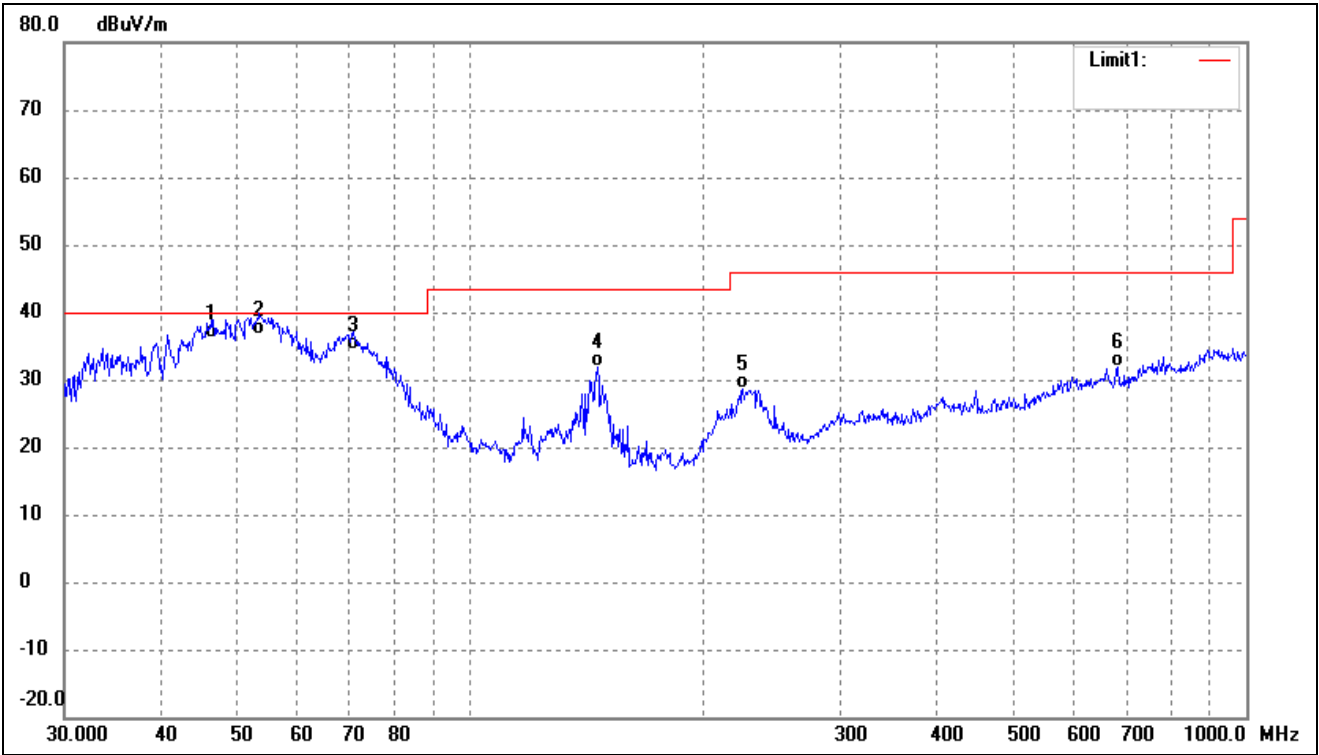
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	53.6932	43.25	-7.49	35.76	40.00	-4.24	-	-	QP
2	70.0903	47.15	-11.45	35.70	40.00	-4.30	-	-	QP
3	148.9625	40.60	-11.76	28.84	43.50	-14.66	-	-	QP
4	227.6906	36.10	-7.26	28.84	46.00	-17.16	-	-	QP
5	435.5898	30.20	-2.08	28.12	46.00	-17.88	-	-	QP
6	750.1083	29.07	3.87	32.94	46.00	-13.06	-	-	QP

Test mode:	TM3	Polarity:	Horizontal
------------	-----	-----------	------------



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	49.0145	35.84	-7.37	28.47	40.00	-11.53	-	-	QP
2	55.4147	39.13	-7.68	31.45	40.00	-8.55	-	-	QP
3	148.9625	33.99	-11.76	22.23	43.50	-21.27	-	-	QP
4	226.8936	40.07	-7.31	32.76	46.00	-13.24	-	-	QP
5	306.7537	37.59	-4.63	32.96	46.00	-13.04	-	-	QP
6	416.1791	33.91	-2.23	31.68	46.00	-14.32	-	-	QP

Test mode:	TM3	Polarity:	Vertical
------------	-----	-----------	----------



No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	46.3402	43.58	-7.56	36.02	40.00	-3.98	-	-	QP
2	53.5052	43.98	-7.47	36.51	40.00	-3.49	-	-	QP
3	70.5836	45.99	-11.58	34.41	40.00	-5.59	-	-	QP
4	145.8611	43.66	-11.80	31.86	43.50	-11.64	-	-	QP
5	224.5193	36.04	-7.43	28.61	46.00	-17.39	-	-	QP
6	682.3485	29.92	2.03	31.95	46.00	-14.05	-	-	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.

6. Occupied Bandwidth

6.1 Standard Applicable

According to 15.215,20dB emission bandwidth.

6.2 Test Procedure

- The transmitter shall be operated at its maximum carrier power measured under normal test conditions.
- The span of the analyzer shall be set to capture all products of the modulation process, including the emission skirts.
- The resolution bandwidth (RBW) shall be in the range of 1% to 5% of the occupied bandwidth (OBW) and video bandwidth (VBW) shall be approximately 3x RBW.

6.3 Environmental Conditions

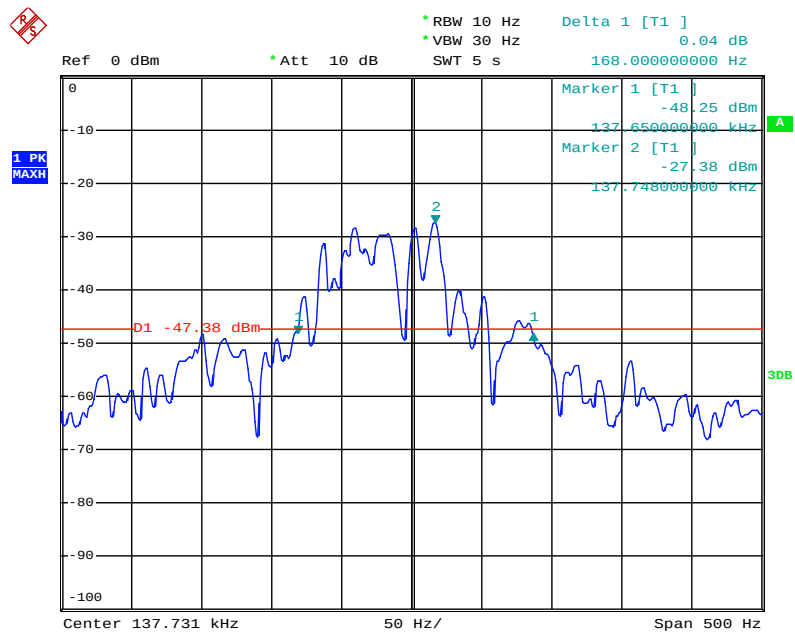
Temperature:	25 °C
Relative Humidity:	53%
ATM Pressure:	1018 mbar

6.4 Summary of Test Results/Plots

Test mode	Test Channel(kHz)	20dB Bandwidth(KHz)
TM1	137.731	168.00
TM2	146.343	214.00
TM3	146.159	204.00

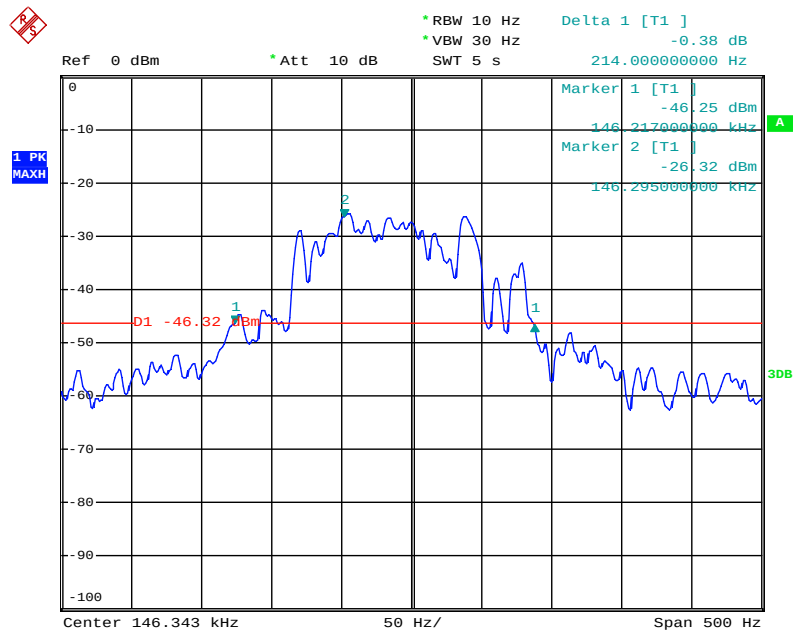
Please refer to the attached plots.

TM1



Date: 3.JUL.2023 11:55:26

TM2



Date: 3.JUL.2023 11:59:47



Note: The RBW of the analyzer measuring Bandwidth cannot be adjusted to 1%-5% OBW, the RBW of the test setting is the closest value.

APPENDIX PHOTOGRAPHS

Please refer to “ANNEX”

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