TEST REPORT

Reference No.	:	WTX20X08054794W-1
FCC ID	:	A4X-WPC30-2XCNA
Applicant	:	CE LINK LIMITED
Address	:	Building M,LiCheng Technology Industrial Zone,GongHe Village,ShaJing Town,ShenZhen City,China
Product Name	:	Wireless charger Dual Pad 15W
Test Model	:	WPC30-2XCNA
Standards	:	FCC Part 18
Date of Receipt sample	:	Aug.11, 2020
Date of Test	:	Aug.11, 2020 to Aug.19, 2020
Date of Issue	:	Aug.19, 2020
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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Report version

Version No.	Date of issue	Description
Rev.00	Aug.19, 2020	Original
/	/	/

1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

Client Information

Applicant:	CE LINK LIMITED
Address of applicant:	Building M,LiCheng Technology Industrial Zone, GongHe Village,ShaJing Town,ShenZhen City,China
Manufacturer:	CE LINK LIMITED
Address of manufacturer:	Building M,LiCheng Technology Industrial Zone, GongHe Village,ShaJing Town,ShenZhen City,China

General Description of EUT	
Product Name:	Wireless charger Dual Pad 15W
Trade Name:	CE-LINK
Model No.:	WPC30-2XCNA
Adding Model(s):	/
Power adapter:	K48V150300U Input: AC100-240V, 50/60Hz, 1.2A, Output: DC15.0V, 3.0A
Note: The test data is gathered from a production sample, provided by the manufacturer.	

Technical Characteristics of EUT	
Frequency Range:	110~205kHz
Antenna Type:	Coil Antenna
Rated Voltage:	Input: DC15V 3A Wireless output :DC5V 1A/ DC9V 1.1A/DC12V 1.25A
Rated Power:	5W / 10W / 15W

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 maintain ed 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	/	Input DC15V/3A; Output:DC5V/1A
TM2	Wireless Charging	/	Input DC15V/3A; Output:DC9V/1.1A
TM3	Wireless Charging	/	Input DC15V/3A; Output:DC12V/1.25A

EUT Cable List and Details

Cable Description	Length (M)	Shielded/Unshielded	With Core/Without Core
DC Cable	1.12	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 ±3.74dB
		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

Description	Manufacturer	Model	Serial No.	Cal Date	Due Date
Spectrum Analyzer	Agilent	E4407B	MY41440400	2020-04-28	2021-04-27
Spectrum Analyzer	Rohde & Schwarz	FSP30	836079/035	2020-04-28	2021-04-27
EMI Test Receiver	Rohde & Schwarz	ESVB	825471/005	2020-04-28	2021-04-27
Amplifier	Agilent	8447F	3113A06717	2020-04-28	2021-04-27
Amplifier	C&D	PAP-1G18	2002	2020-04-28	2021-04-27
Broadband Antenna	Schwarz beck	VULB9163	9163-333	2019-05-05	2021-05-04
Horn Antenna	ETS	3117	00086197	2019-05-05	2021-05-04
Loop Antenna	Schwarz beck	FMZB 1516	9773	2019-05-05	2021-05-04
EMI Test Receiver	Rohde & Schwarz	ESPI	101611	2020-04-28	2021-04-27
L.I.S.N	Schwarz beck	NSLK8126	8126-224	2020-04-28	2021-04-27
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100911	2020-04-28	2021-04-27

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

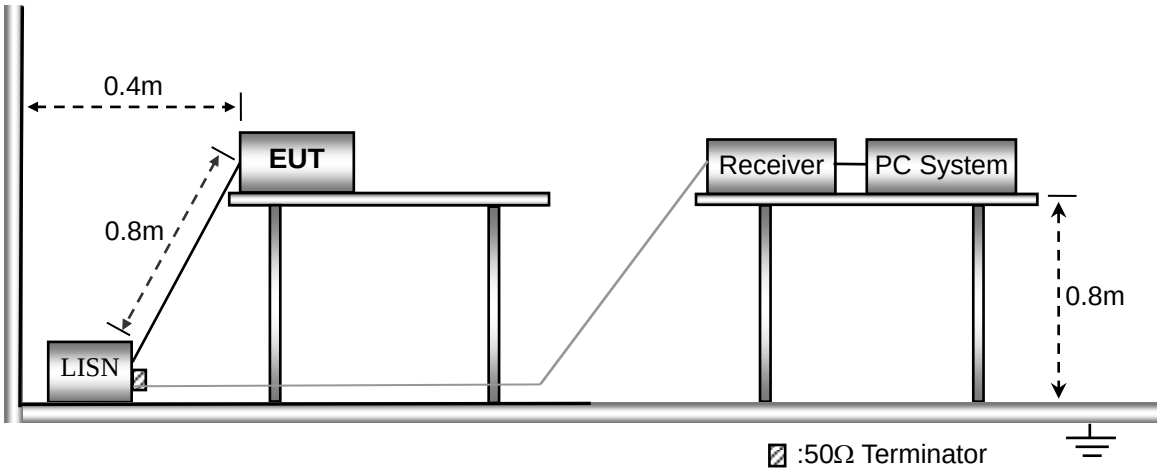
According to FCC 18.307(b), the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies shall not exceed the limits in the following tables:

Frequency (MHz)	Conducted limit (dBμV)	
	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:	26° C
Relative Humidity:	60%
ATM Pressure:	1016 mbar

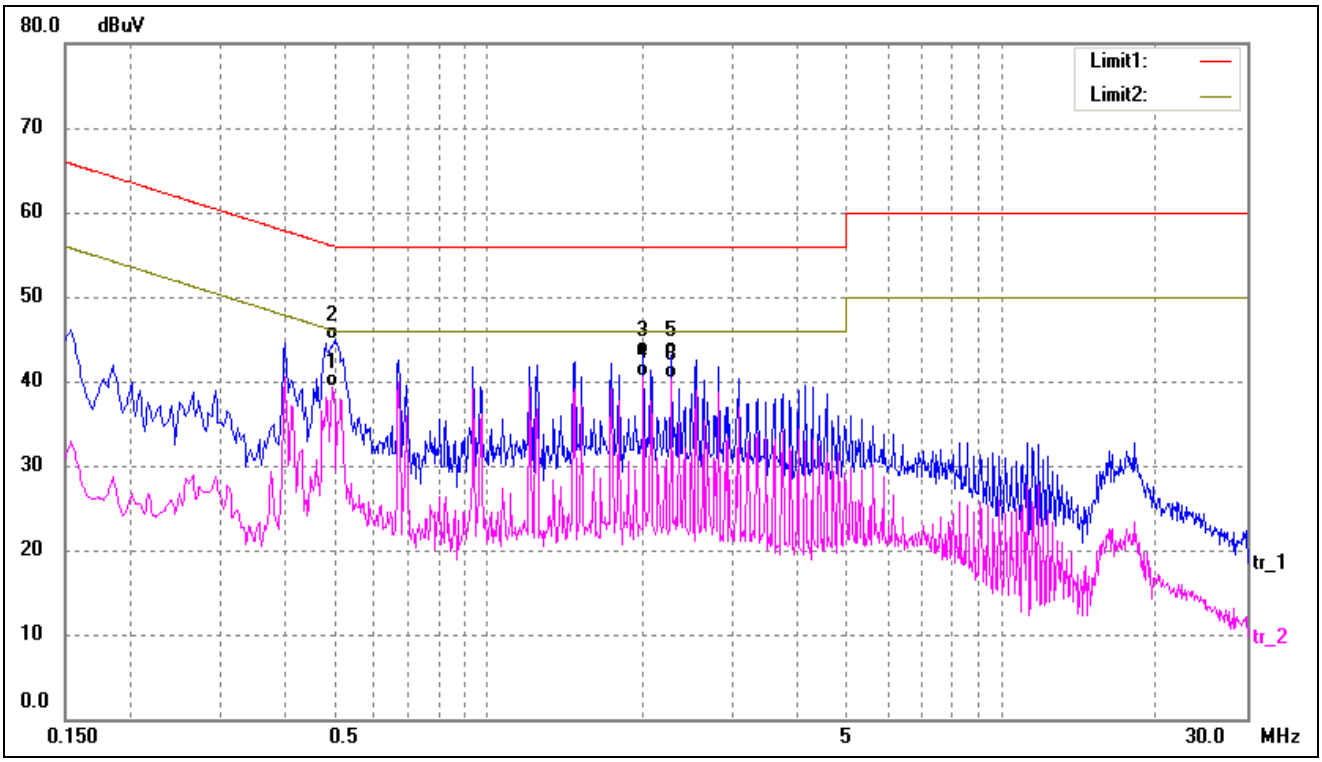
3.5 Test Receiver Setup

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

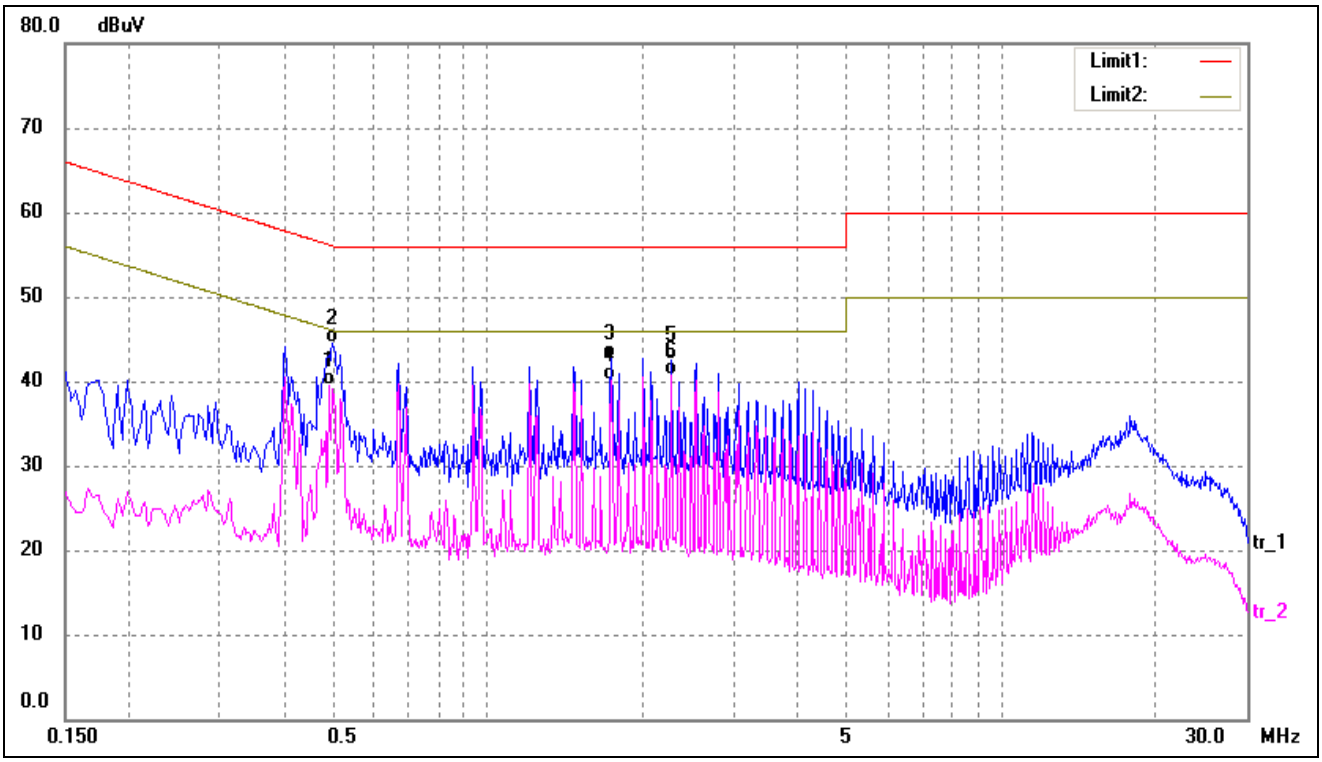
3.6 Summary of Test Results/Plots

Test mode:	TM1	Polarity:	Line



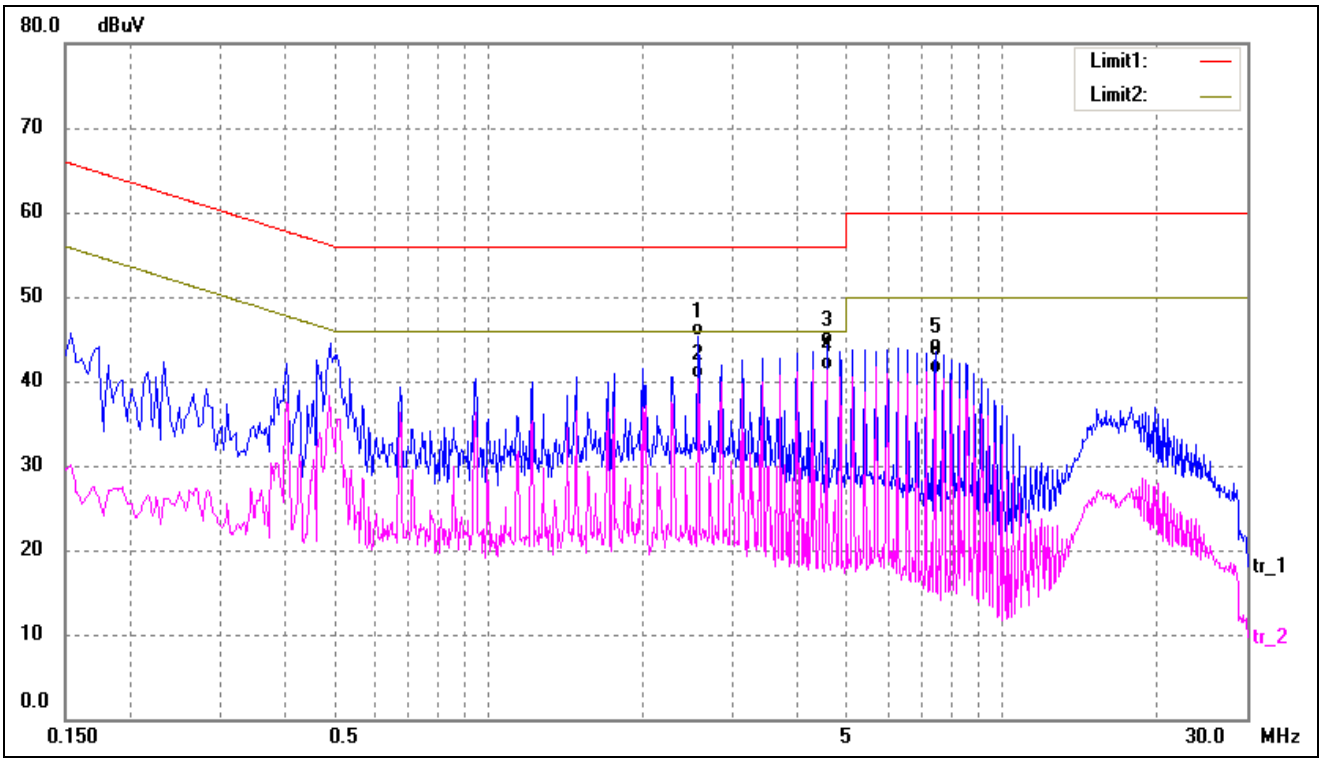
No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV)	(dBuV)	(dB)	
1	0.4980	29.06	10.22	39.28	46.03	-6.75	AVG
2	0.5020	34.64	10.22	44.86	56.00	-11.14	QP
3	2.0060	32.77	10.29	43.06	56.00	-12.94	QP
4*	2.0060	30.19	10.29	40.48	46.00	-5.52	AVG
5	2.2740	32.89	10.30	43.19	56.00	-12.81	QP
6	2.2740	30.06	10.30	40.36	46.00	-5.64	AVG

Test mode:	TM1	Polarity:	Neutral



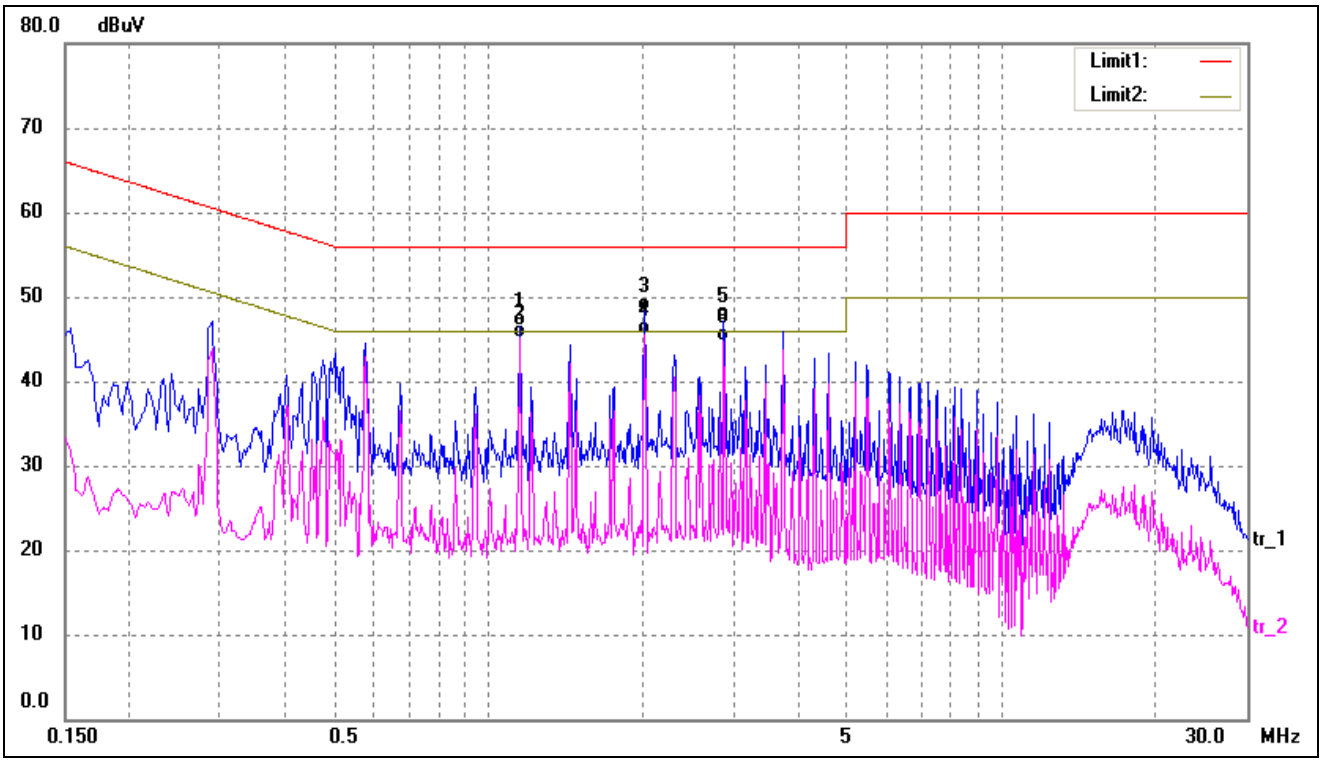
No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV)	(dBuV)	(dB)	
1	0.4900	29.29	10.22	39.51	46.17	-6.66	AVG
2	0.4980	34.29	10.22	44.51	56.03	-11.52	QP
3	1.7380	32.37	10.26	42.63	56.00	-13.37	QP
4	1.7380	29.80	10.26	40.06	46.00	-5.94	AVG
5	2.2740	32.21	10.30	42.51	56.00	-13.49	QP
6*	2.2740	30.34	10.30	40.64	46.00	-5.36	AVG

Test mode:	TM2	Polarity:	Line



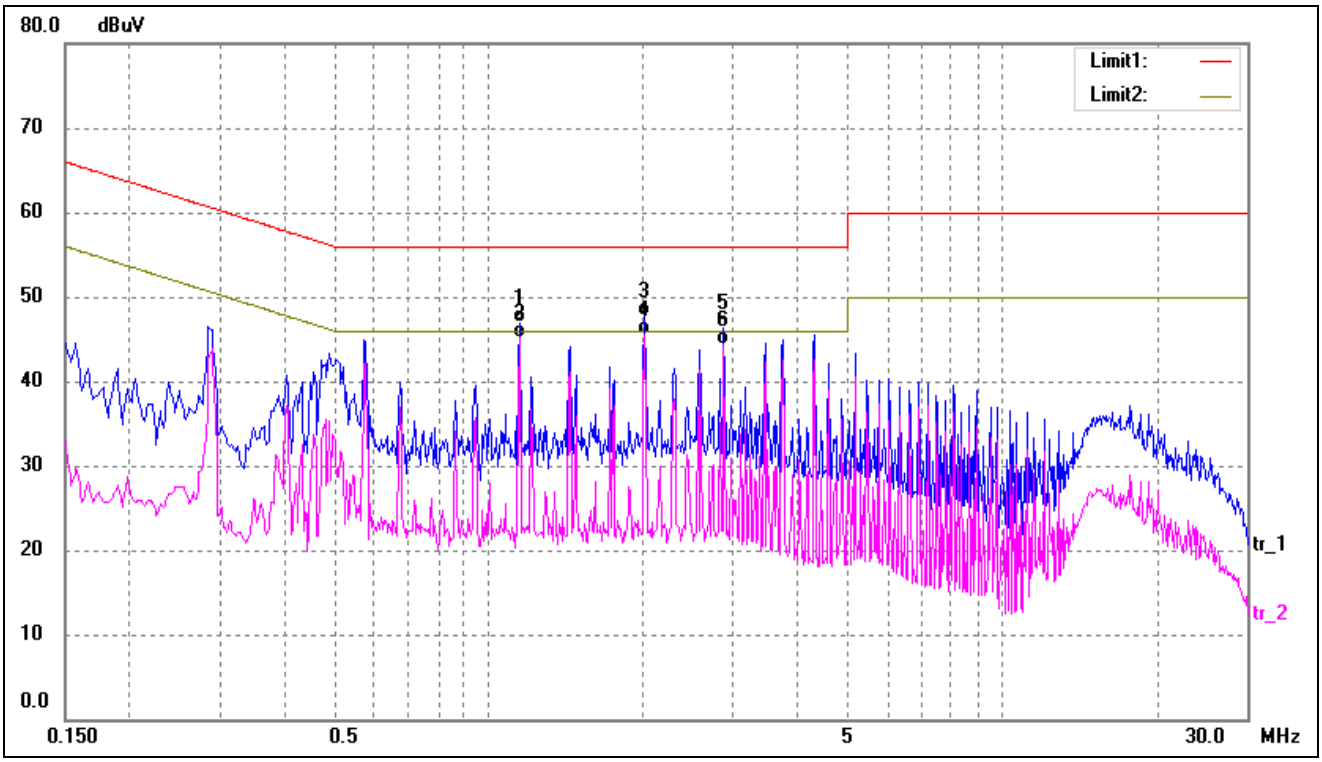
No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV)	(dBuV)	(dB)	
1	2.5660	35.06	10.29	45.35	56.00	-10.65	QP
2	2.5660	30.00	10.29	40.29	46.00	-5.71	AVG
3	4.5620	33.99	10.23	44.22	56.00	-11.78	QP
4*	4.5620	31.10	10.23	41.33	46.00	-4.67	AVG
5	7.4100	33.30	10.25	43.55	60.00	-16.45	QP
6	7.4100	30.74	10.25	40.99	50.00	-9.01	AVG

Test mode:	TM2	Polarity:	Neutral



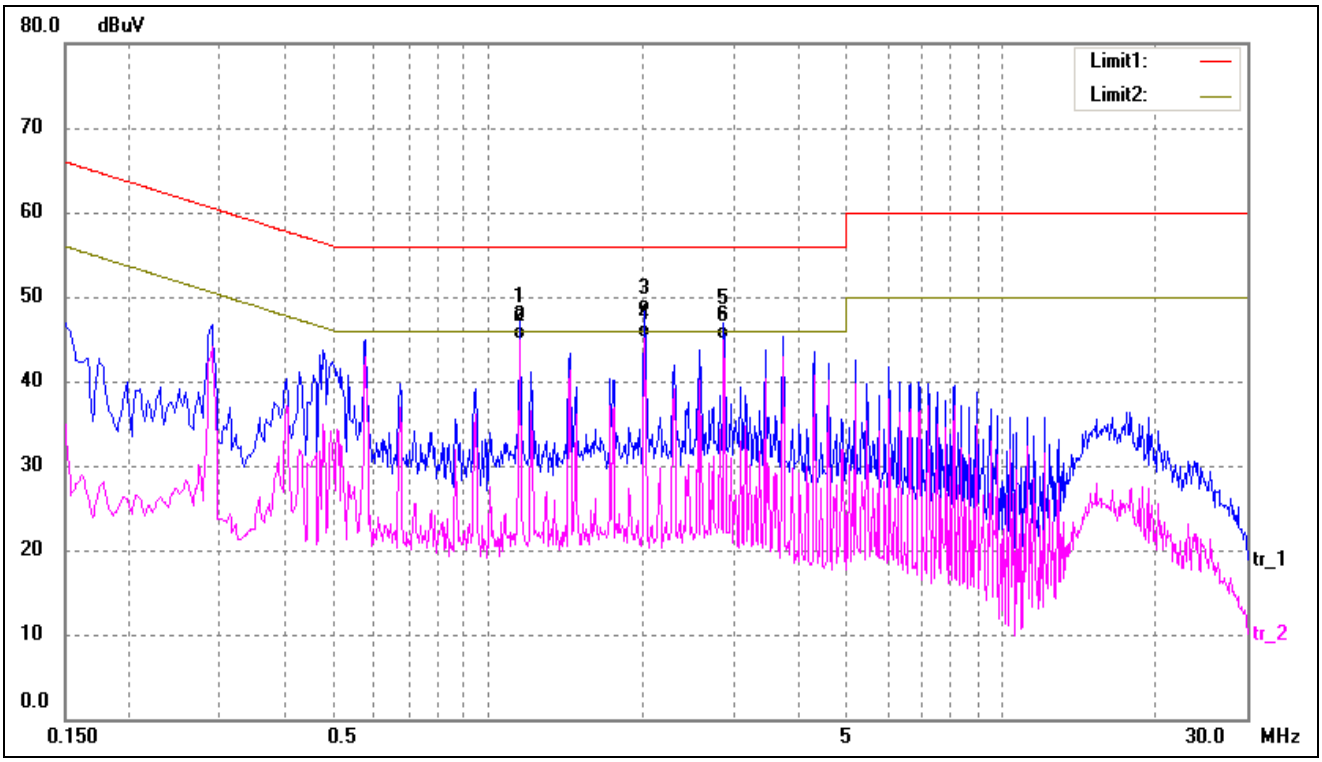
No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV)	(dBuV)	(dB)	
1	1.1540	36.30	10.22	46.52	56.00	-9.48	QP
2	1.1540	34.76	10.22	44.98	46.00	-1.02	AVG
3	2.0180	37.99	10.29	48.28	56.00	-7.72	QP
4*	2.0180	34.66	10.29	44.95	46.00	-1.05	AVG
5	2.8820	36.78	10.27	47.05	56.00	-8.95	QP
6	2.8820	34.38	10.27	44.65	46.00	-1.35	AVG

Test mode:	TM3	Polarity:	Line



No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV)	(dBuV)	(dB)	
1	1.1500	36.62	10.21	46.83	56.00	-9.17	QP
2	1.1500	34.78	10.21	44.99	46.00	-1.01	AVG
3	2.0140	37.42	10.29	47.71	56.00	-8.29	QP
4*	2.0140	34.69	10.29	44.98	46.00	-1.02	AVG
5	2.8780	35.96	10.27	46.23	56.00	-9.77	QP
6	2.8780	34.11	10.27	44.38	46.00	-1.62	AVG

Test mode:	TM3	Polarity:	Neutral



No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV)	(dBuV)	(dB)	
1	1.1540	36.83	10.22	47.05	56.00	-8.95	QP
2	1.1540	34.74	10.22	44.96	46.00	-1.04	AVG
3	2.0180	37.91	10.29	48.20	56.00	-7.80	QP
4*	2.0180	34.65	10.29	44.94	46.00	-1.06	AVG
5	2.8820	36.65	10.27	46.92	56.00	-9.08	QP
6	2.8820	34.60	10.27	44.87	46.00	-1.13	AVG

4. Radiated Emissions

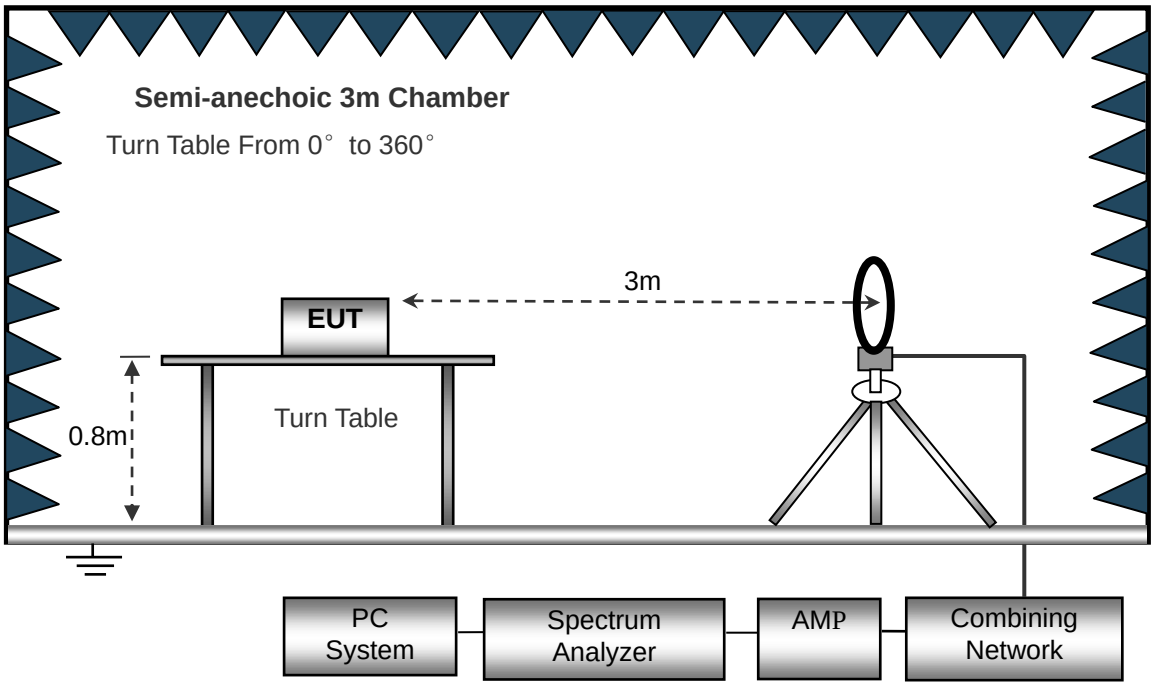
4.1 Test Procedure

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.

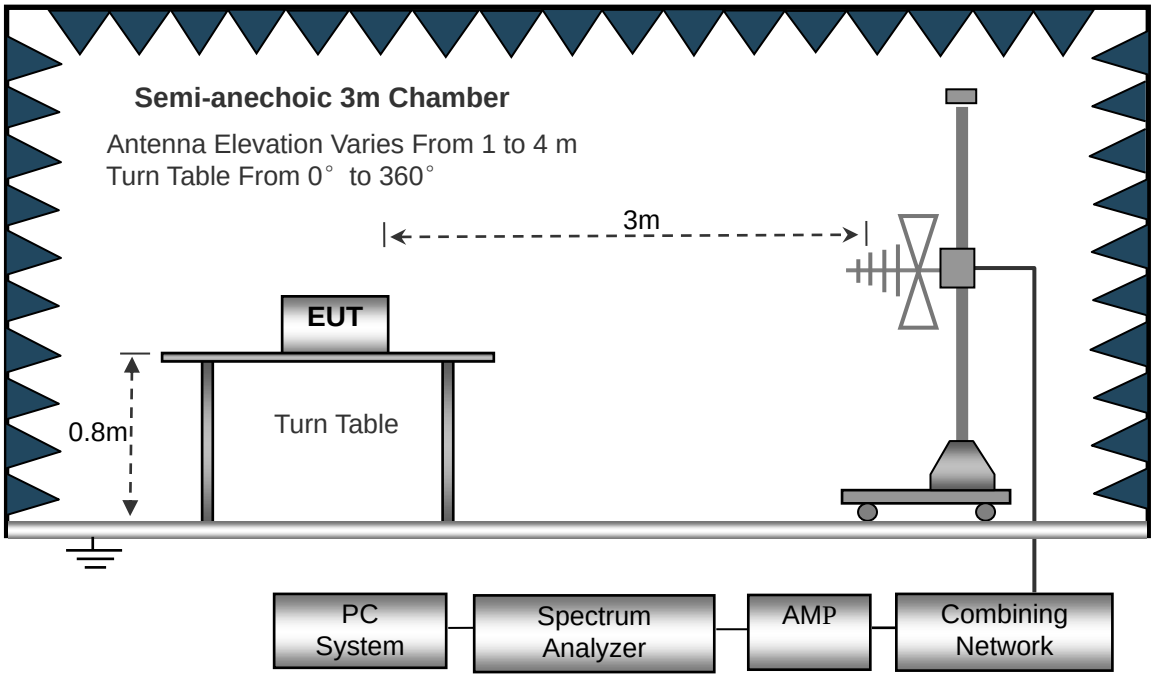
The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.

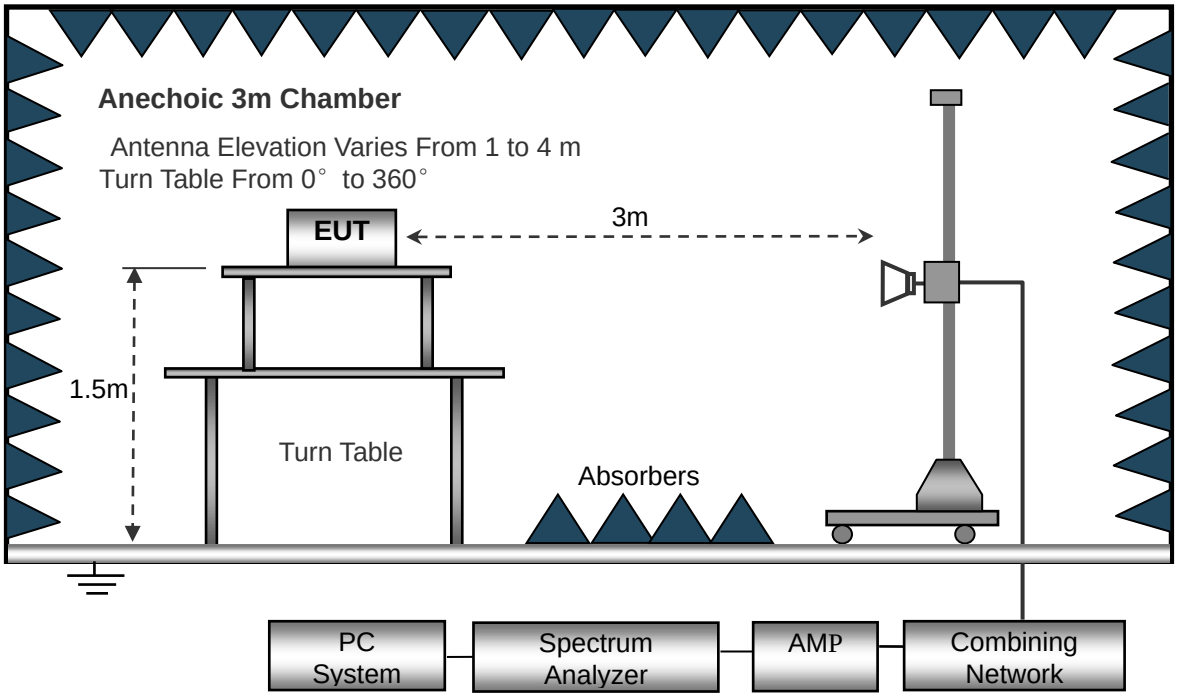
The test setup for emission measurement below 30MHz..



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	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

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:

Corr. Ampl. = Indicated Reading – Corr. Factor

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

Margin = Corr. Ampl. – FCC Part 18.305 Limit

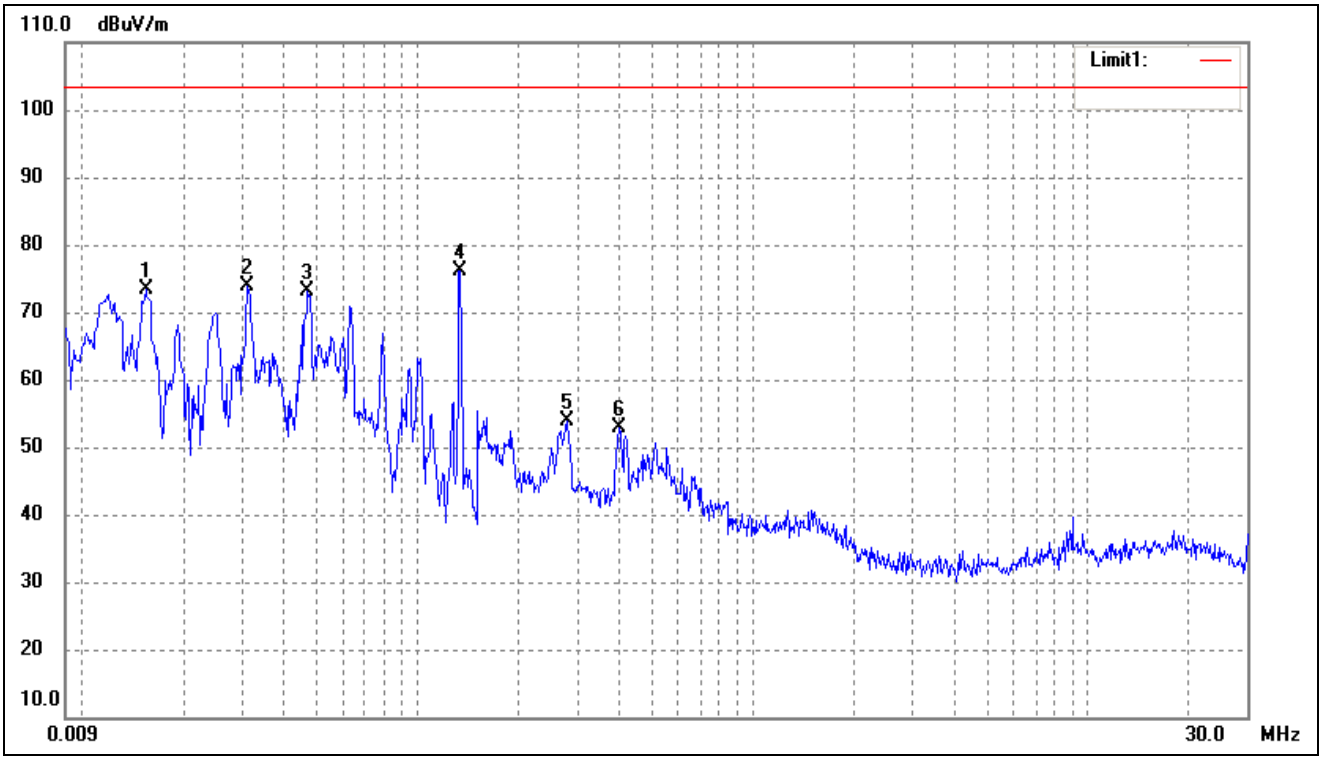
4.4 Environmental Conditions

Temperature:	22 °C
Relative Humidity:	54 %
ATM Pressure:	1011 mbar

4.5 Summary of Test Results/Plots

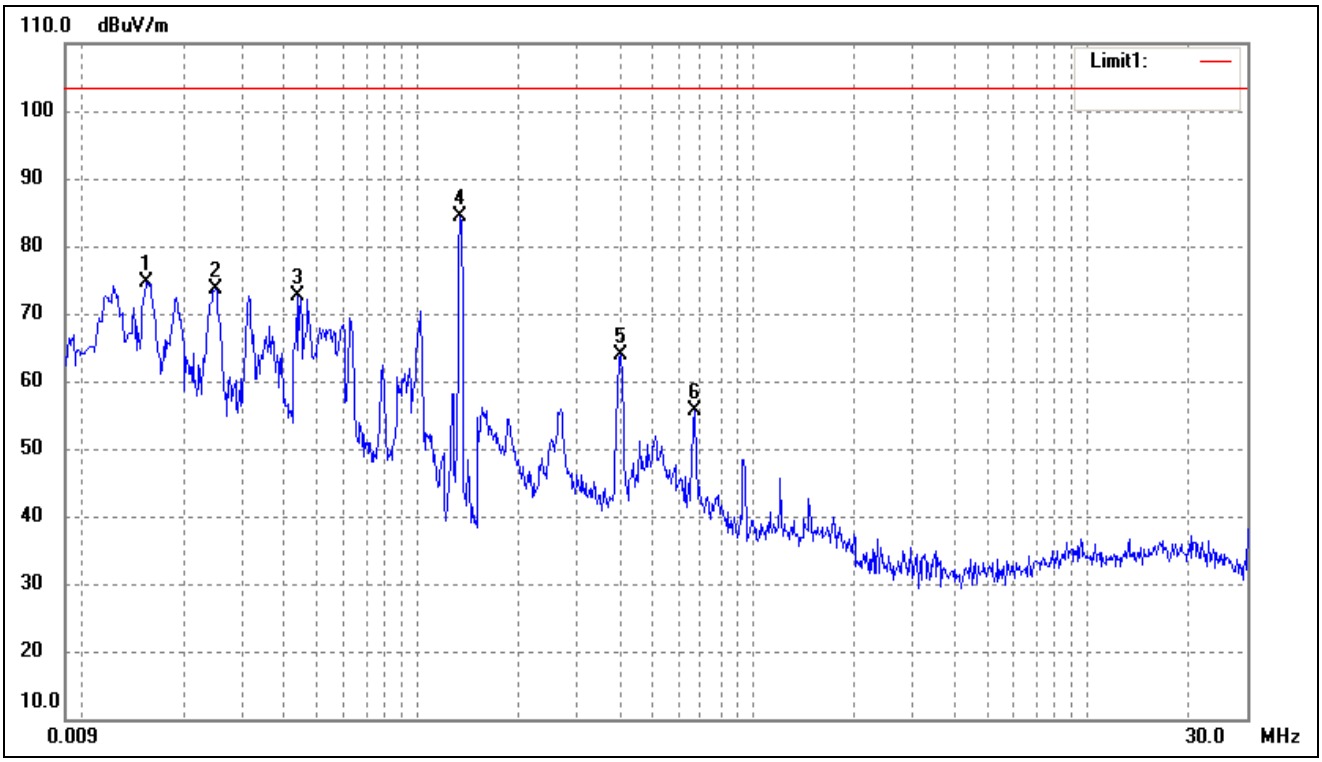
Plot of Radiated Emissions Test Data (Below 30MHz)

Test mode:	TM1	Polarity:	Vertical



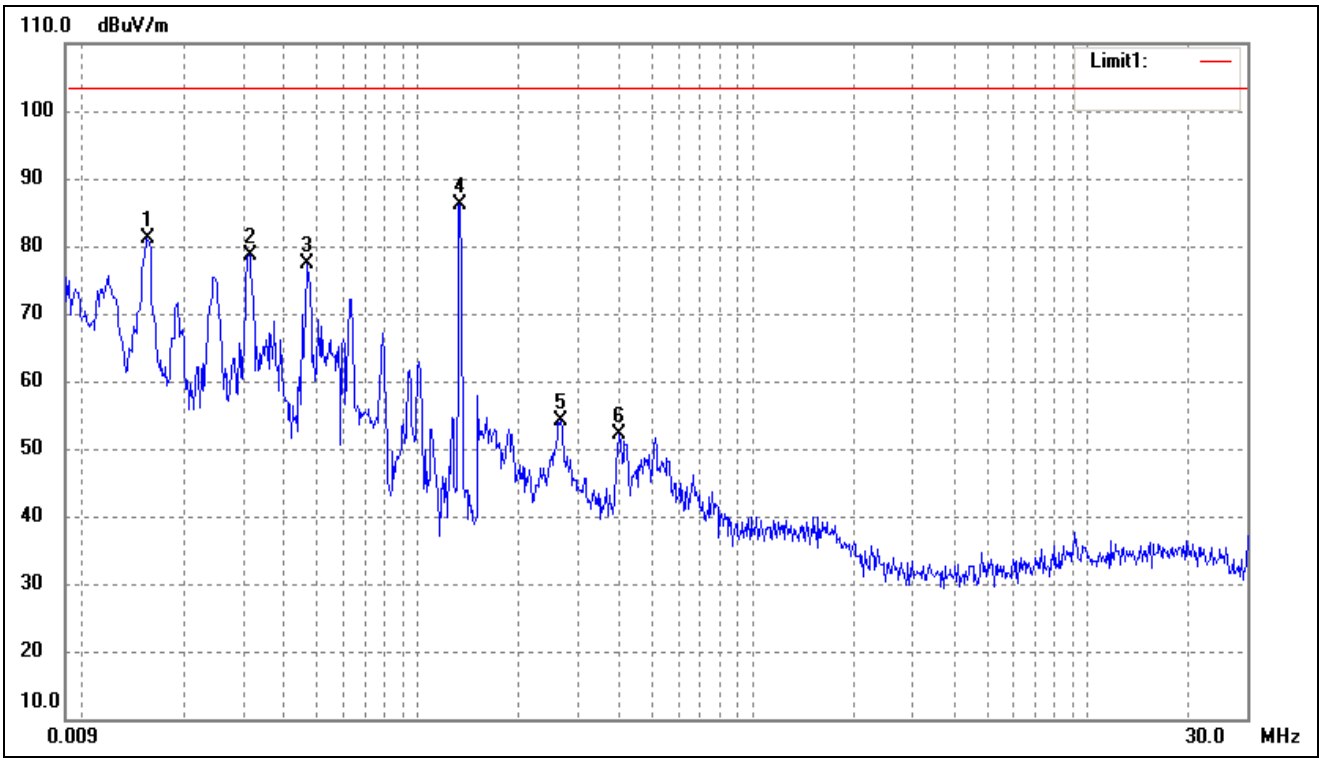
No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	( )	(cm)	
1	0.0156	79.99	-6.61	73.38	103.50	-30.12	-	-	peak
2	0.0312	79.89	-6.05	73.84	103.50	-29.66	-	-	peak
3	0.0471	78.05	-4.93	73.12	103.50	-30.38	-	-	peak
4	0.1333	81.29	-5.15	76.14	103.50	-27.36	-	-	peak
5	0.2773	61.58	-7.70	53.88	103.50	-49.62	-	-	peak
6	0.3997	60.71	-7.81	52.90	103.50	-50.60	-	-	peak

Test mode:	TM2	Polarity:	Vertical



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	( )	(cm)	
1	0.0156	81.13	-6.61	74.52	103.50	-28.98	-	-	peak
2	0.0250	80.08	-6.49	73.59	103.50	-29.91	-	-	peak
3	0.0436	77.89	-5.17	72.72	103.50	-30.78	-	-	peak
4	0.1340	89.50	-5.15	84.35	103.50	-19.15	-	-	peak
5	0.4019	71.64	-7.81	63.83	103.50	-39.67	-	-	peak
6	0.6683	62.42	-6.89	55.53	103.50	-47.97	-	-	peak

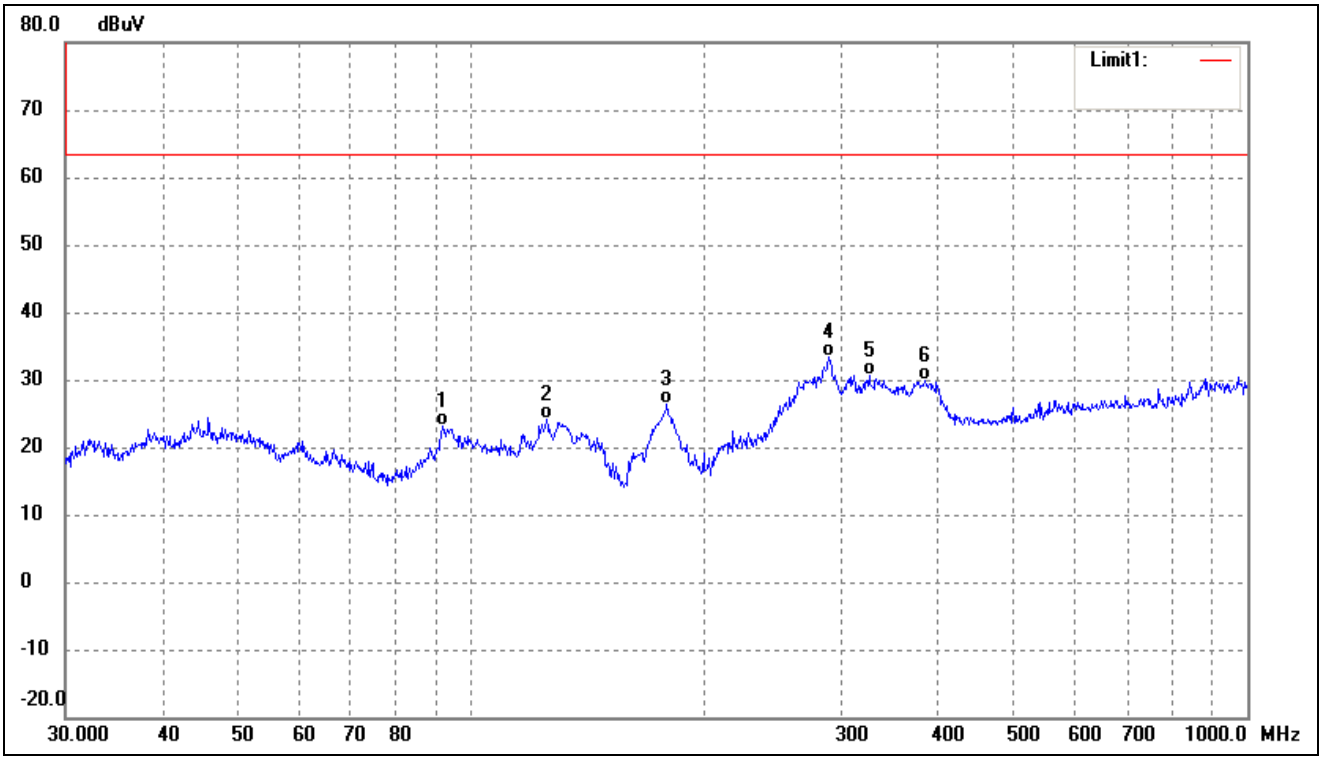
Test mode:	TM3	Polarity:	Vertical



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	( )	(cm)	
1	0.0157	87.77	-6.62	81.15	103.50	-22.35	-	-	peak
2	0.0314	84.64	-6.01	78.63	103.50	-24.87	-	-	peak
3	0.0468	82.28	-4.95	77.33	103.50	-26.17	-	-	peak
4	0.1333	91.36	-5.15	86.21	103.50	-17.29	-	-	peak
5	0.2672	61.79	-7.57	54.22	103.50	-49.28	-	-	peak
6	0.3997	59.87	-7.81	52.06	103.50	-51.44	-	-	peak

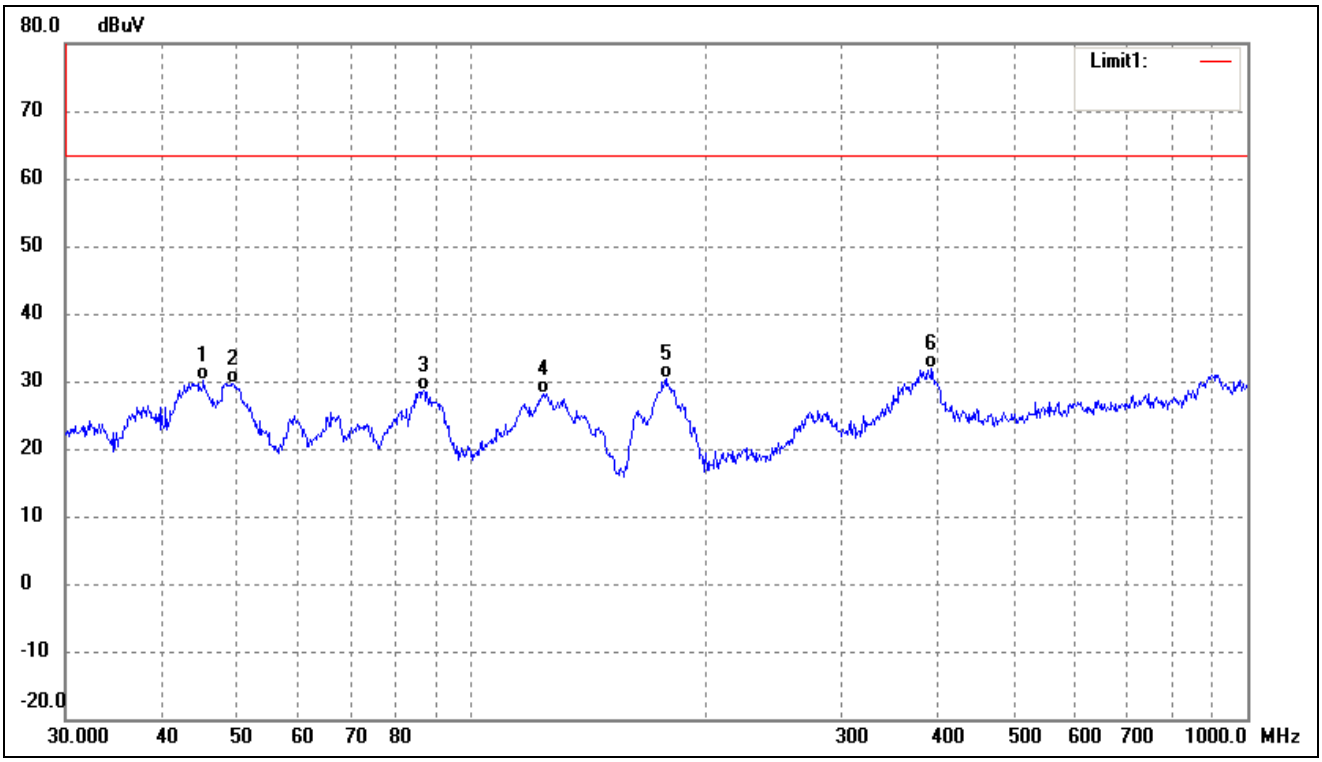
Plot of Radiated Emissions Test Data (Above 30MHz)

Test mode:	TM1	Polarity:	Horizontal



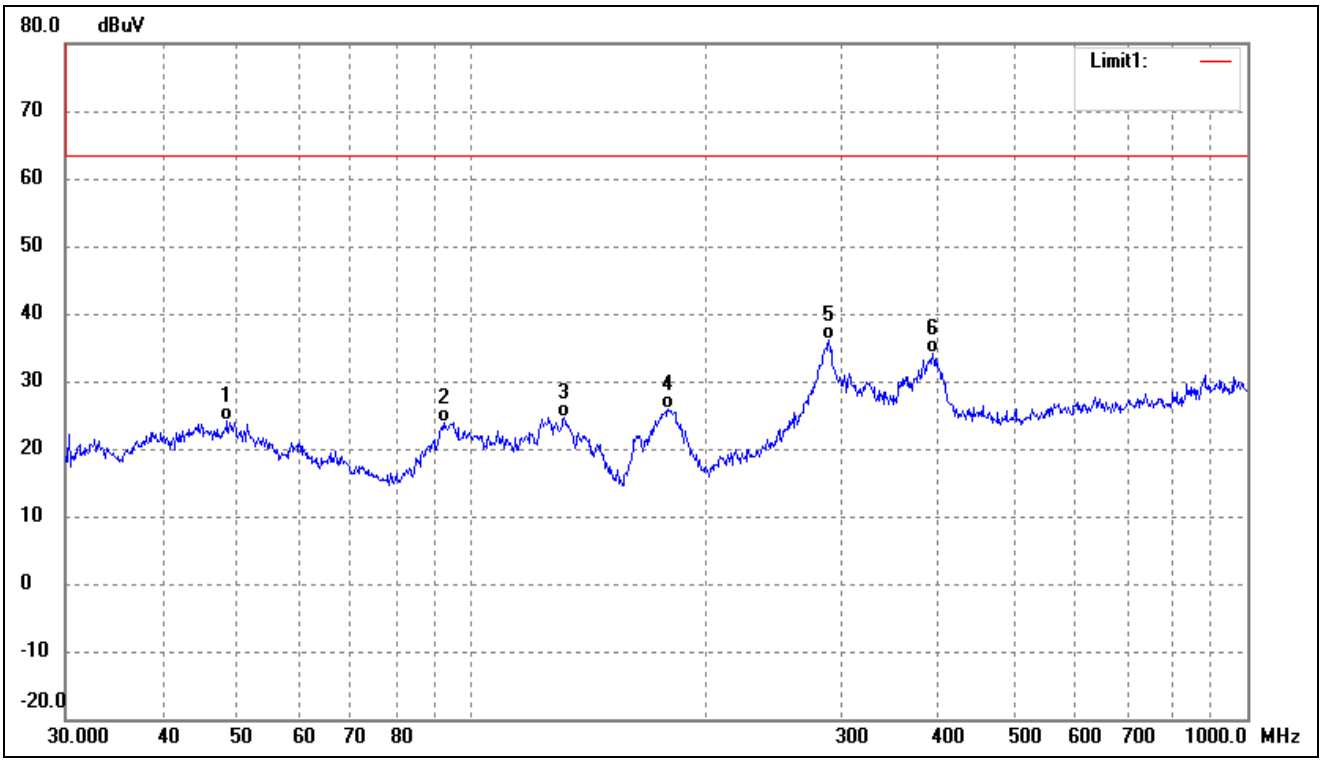
No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV)	dB	(dBuV)	(dBuV)	(dB)	( )	(cm)	
1	91.8163	37.68	-14.66	23.02	63.50	-40.48	-	-	QP
2	125.0066	39.69	-15.64	24.05	63.50	-39.45	-	-	QP
3	178.7584	40.68	-14.40	26.28	63.50	-37.22	-	-	QP
4	289.0021	43.15	-9.72	33.43	63.50	-30.07	-	-	QP
5	325.5958	39.66	-8.93	30.73	63.50	-32.77	-	-	QP
6	383.9318	36.72	-6.93	29.79	63.50	-33.71	-	-	QP

Test mode:	TM1	Polarity:	Vertical



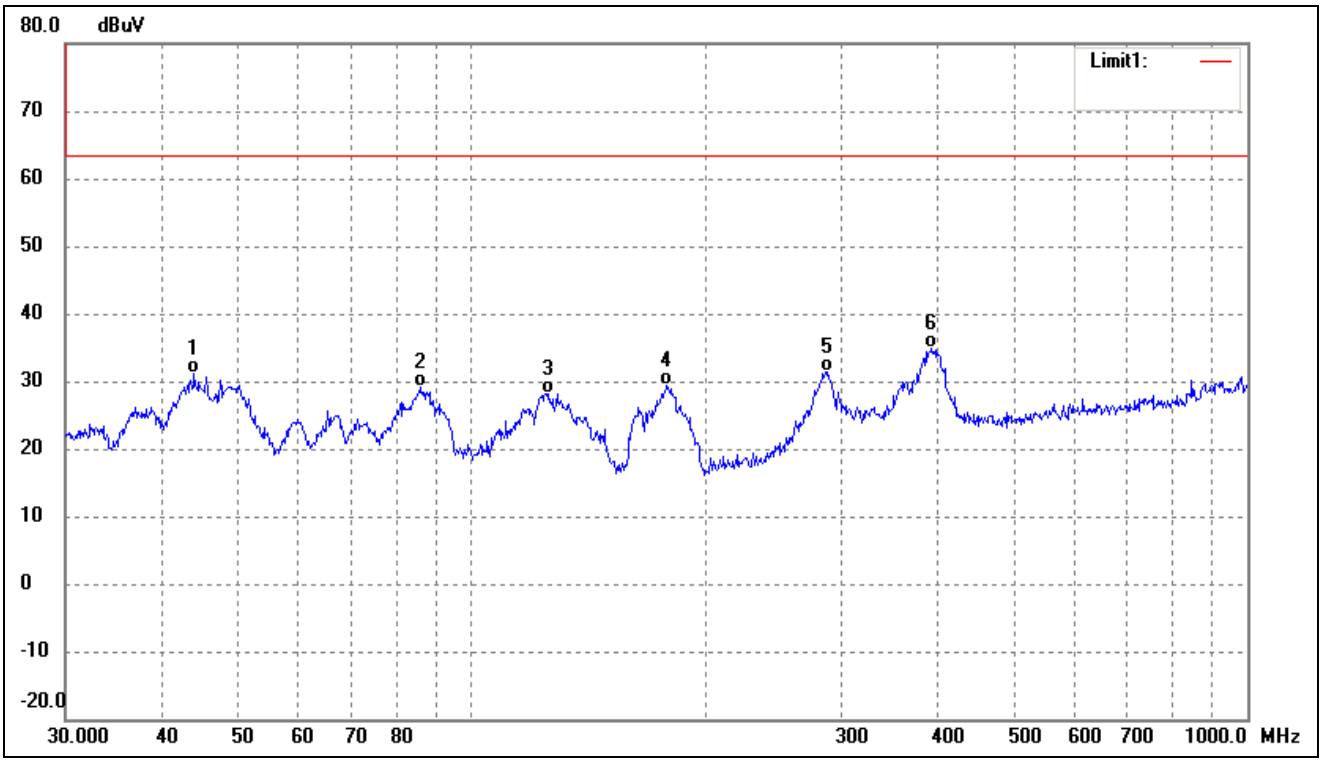
No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV)	dB	(dBuV)	(dBuV)	(dB)	( )	(cm)	
1	45.2166	41.94	-11.79	30.15	63.50	-33.35	-	-	QP
2	49.3594	41.26	-11.57	29.69	63.50	-33.81	-	-	QP
3	86.8068	44.27	-15.65	28.62	63.50	-34.88	-	-	QP
4	123.6985	43.54	-15.30	28.24	63.50	-35.26	-	-	QP
5	178.1327	44.83	-14.44	30.39	63.50	-33.11	-	-	QP
6	392.0951	38.52	-6.69	31.83	63.50	-31.67	-	-	QP

Test mode:	TM2	Polarity:	Horizontal



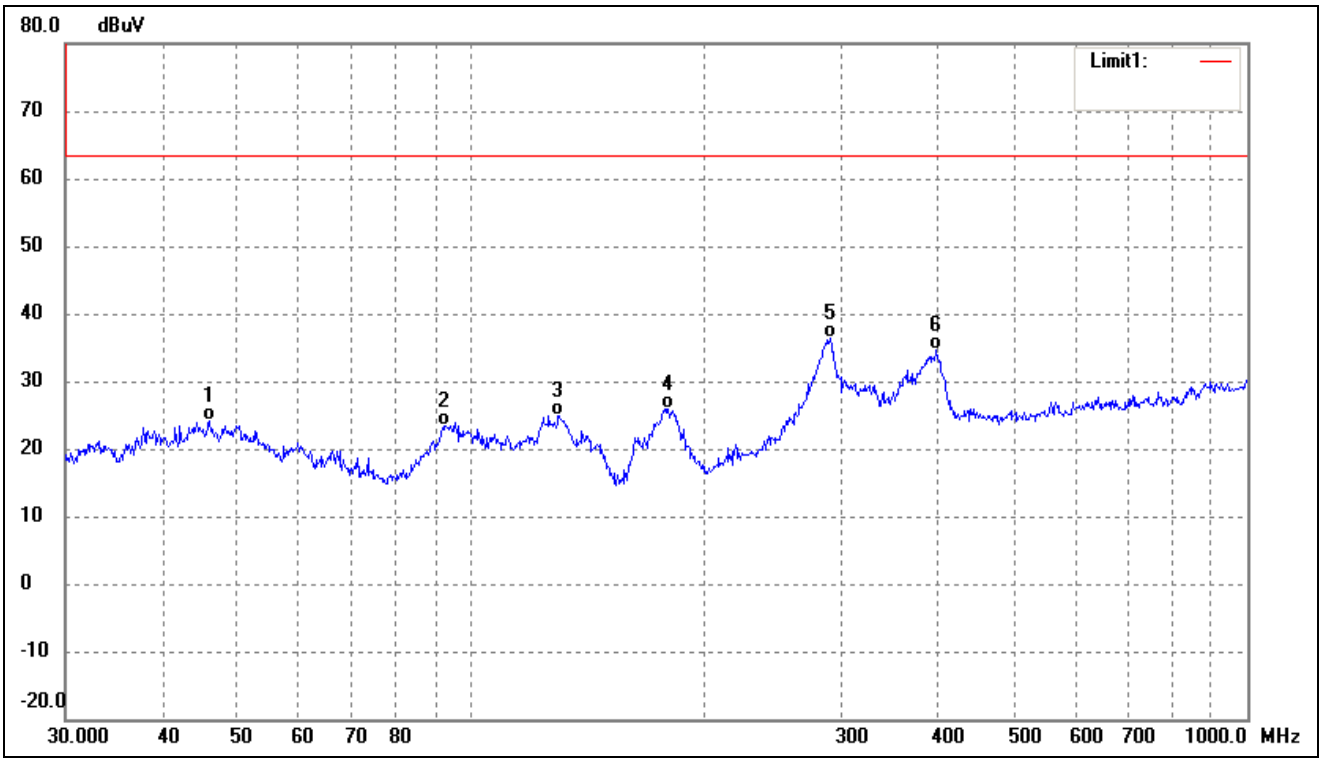
No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV)	dB	(dBuV)	(dBuV)	(dB)	( )	(cm)	
1	48.5016	35.84	-11.61	24.23	63.50	-39.27	-	-	QP
2	92.1388	38.41	-14.61	23.80	63.50	-39.70	-	-	QP
3	131.7577	41.56	-16.83	24.73	63.50	-38.77	-	-	QP
4	179.3864	40.17	-14.35	25.82	63.50	-37.68	-	-	QP
5	289.0021	45.91	-9.72	36.19	63.50	-27.31	-	-	QP
6	393.4724	40.78	-6.65	34.13	63.50	-29.37	-	-	QP

Test mode:	TM2	Polarity:	Vertical



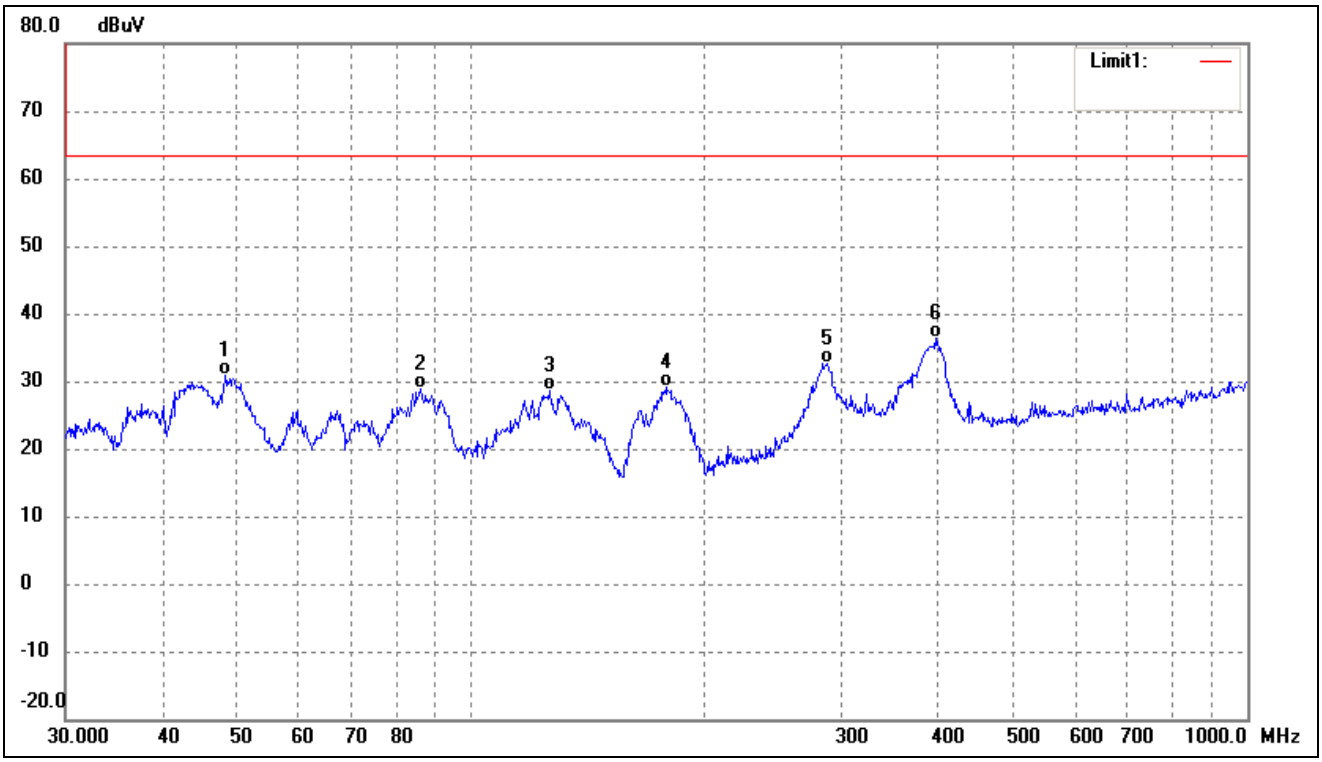
No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV)	dB	(dBuV)	(dBuV)	(dB)	( )	(cm)	
1	43.9658	42.89	-11.83	31.06	63.50	-32.44	-	-	QP
2	86.2001	44.79	-15.77	29.02	63.50	-34.48	-	-	QP
3	125.8864	44.06	-15.87	28.19	63.50	-35.31	-	-	QP
4	178.7584	43.72	-14.40	29.32	63.50	-34.18	-	-	QP
5	287.9904	41.20	-9.81	31.39	63.50	-32.11	-	-	QP
6	392.0951	41.57	-6.69	34.88	63.50	-28.62	-	-	QP

Test mode:	TM3	Polarity:	Horizontal



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV)	dB	(dBuV)	(dBuV)	(dB)	( )	(cm)	
1	46.0164	35.77	-11.74	24.03	63.50	-39.47	-	-	QP
2	92.1388	38.04	-14.61	23.43	63.50	-40.07	-	-	QP
3	129.4678	41.70	-16.83	24.87	63.50	-38.63	-	-	QP
4	179.3864	40.24	-14.35	25.89	63.50	-37.61	-	-	QP
5	290.0172	46.07	-9.65	36.42	63.50	-27.08	-	-	QP
6	397.6334	41.07	-6.53	34.54	63.50	-28.96	-	-	QP

Test mode:	TM3	Polarity:	Vertical



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV)	dB	(dBuV)	(dBuV)	(dB)	( )	(cm)	
1	48.1626	42.53	-11.63	30.90	63.50	-32.60	-	-	QP
2	86.2001	44.70	-15.77	28.93	63.50	-34.57	-	-	QP
3	126.3286	44.65	-15.99	28.66	63.50	-34.84	-	-	QP
4	178.7584	43.54	-14.40	29.14	63.50	-34.36	-	-	QP
5	286.9823	42.60	-9.87	32.73	63.50	-30.77	-	-	QP
6	396.2415	42.90	-6.57	36.33	63.50	-27.17	-	-	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.

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