TEST REPORT

Reference No.	:	WTX21X10111402W-1
FCC ID	:	A4X-WPC15-1LXNA
Applicant	:	CE LINK LIMITED
Address	:	Building M,LiCheng Technology Industrial Zone,GongHe Village,ShaJing Town,ShenZhen City,China
Product Name	:	Magsafe Wireless Charger
Test Model	:	WPC15-1LXNA
Standards	:	FCC Part 18
Date of Receipt sample	:	Oct. 19, 2021
Date of Test	:	Oct. 19, 2021 to Nov. 30, 2021
Date of Issue	:	Nov. 30, 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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Report version

Version No.	Date of issue	Description
Rev.00	Nov. 30, 2021	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:	ANFU CE LINK LIMITED
Address of manufacturer:	Anfu County Industrial Zone, Ji'an city, Jiangxi Province, P.R. China
Factory#1:	SuiChuan CE LINK LIMITED
Address of factory	SuiChuan county industrial park east zone, Ji'an city Jiangxi province,China.
Factory#2:	CE LINK VIET NAM COMPANY LIMITED.
Address of factory	Lot CNSG04&CNSG06 Van Trung Industrial Zone, Viet Yen district, Bac Giang Province, Vietnam

General Description of EUT	
Product Name:	Magsafe Wireless Charger
Trade Name:	CE-LINK, powerlot
Model No.:	WPC15-1LXNA
Adding Model(s):	/
Note: The test data is gathered from a production sample, provided by the manufacturer.	

Technical Characteristics of EUT	
Frequency Range:	127.7kHz±6Hz
Power adapter	/
Antenna Type:	Coil Antenna
Modulation Type:	ASK
Rated Voltage:	Input: DC5V/DC9V
Rated Current:	Input: 2A/2.2A
Rated Power:	Output: 5W/7.5W/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 DC5V2A; Output 5W
TM2	Wireless Charging	/	Input DC9V2.2A; Output 15W

EUT Cable List and Details

Cable Description	Length (M)	Shielded/Unshielded	With Core/Without Core
USB-C Cable	1.56	Shielded	Without Ferrite

Auxiliary Equipment List and Details

Description	Manufacturer	Model	Serial Number
Adapter	4DKanKan	PN453C	/
wireless charging load	YBZ	YBZ wireless charging tester	/

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	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

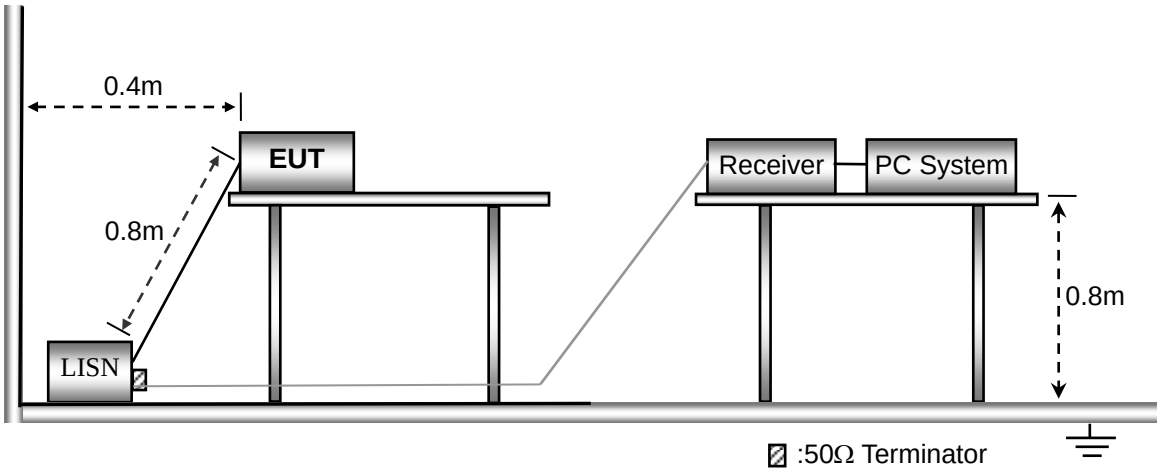
According to FCC 18.307(b), the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies shall not exceed the limits in the following tables:

Frequency (MHz)	Conducted limit (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:	23.5° C
Relative Humidity:	54%
ATM Pressure:	1016 mbar

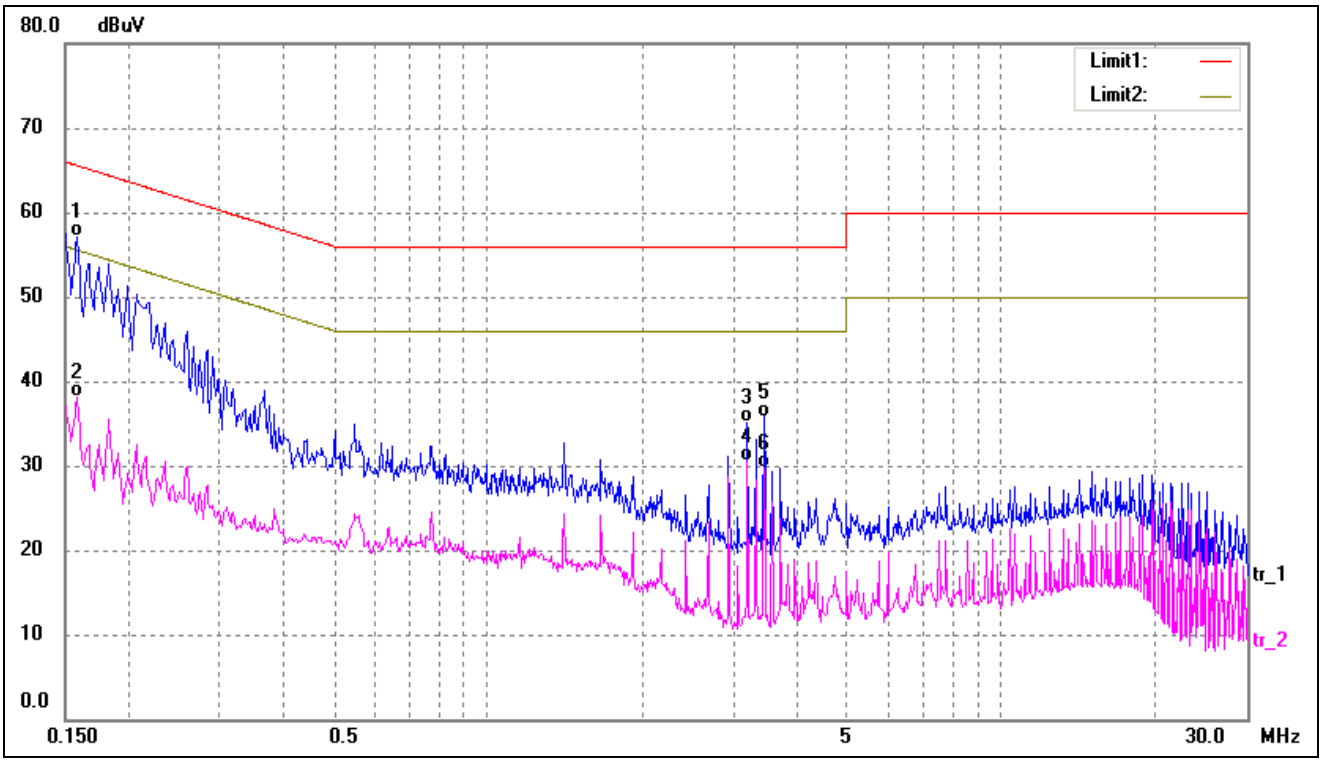
3.5 Test Receiver Setup

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

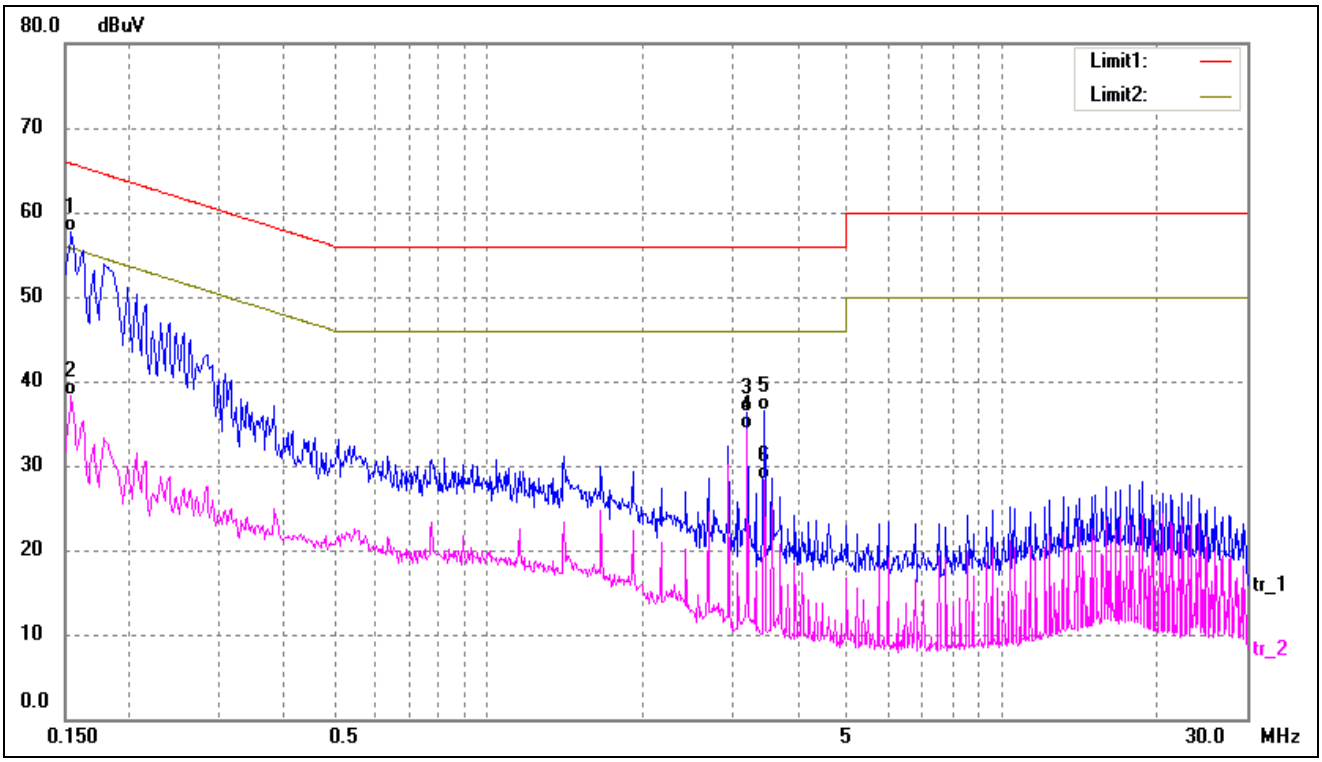
3.6 Summary of Test Results/Plots

Test mode:	TM1	Polarity:	Line



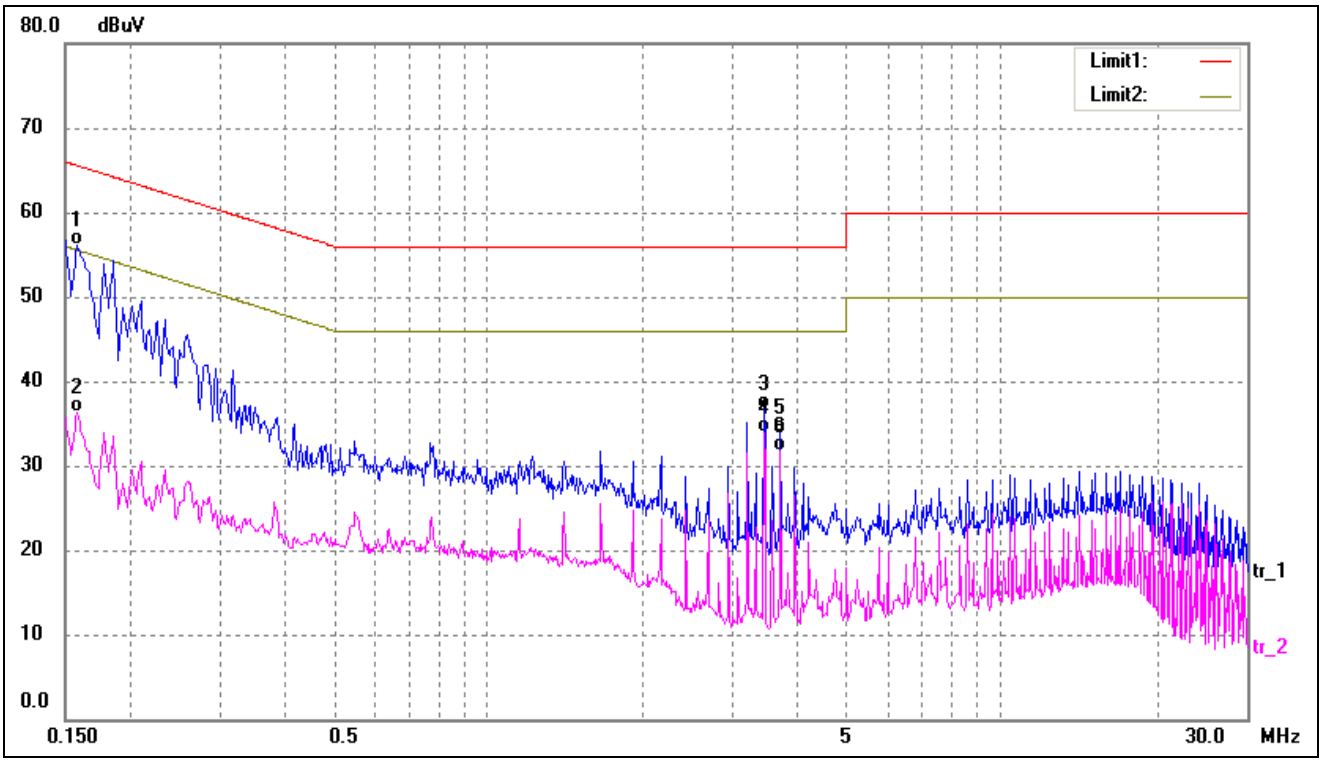
No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	
1*	0.1580	46.82	10.37	57.19	65.57	-8.38	QP
2	0.1580	27.71	10.37	38.08	55.57	-17.49	AVG
3	3.1940	24.95	10.08	35.03	56.00	-20.97	QP
4	3.1940	20.36	10.08	30.44	46.00	-15.56	AVG
5	3.4500	25.73	10.07	35.80	56.00	-20.20	QP
6	3.4500	19.61	10.07	29.68	46.00	-16.32	AVG

Test mode:	TM1	Polarity:	Neutral



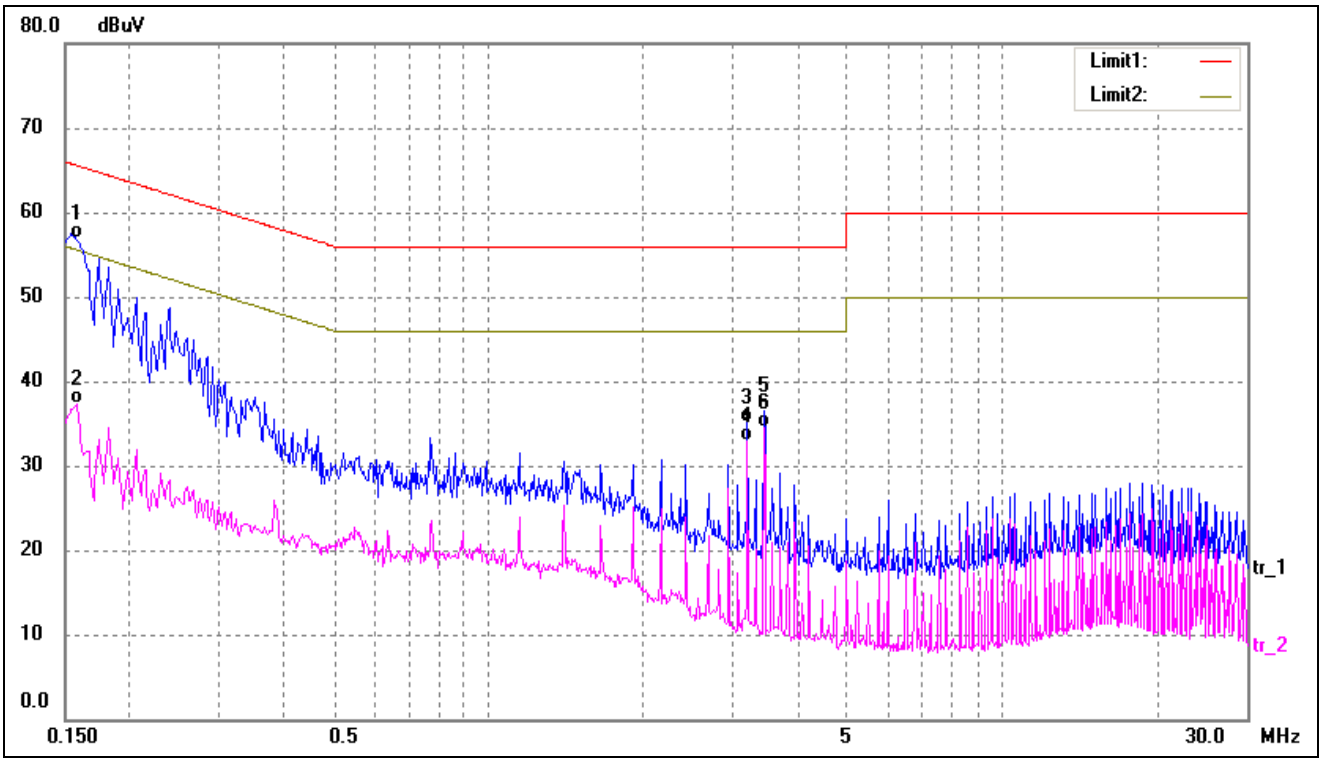
No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	
1*	0.1540	47.43	10.37	57.80	65.78	-7.98	QP
2	0.1540	27.95	10.37	38.32	55.78	-17.46	AVG
3	3.1940	26.29	10.08	36.37	56.00	-19.63	QP
4	3.1940	24.30	10.08	34.38	46.00	-11.62	AVG
5	3.4460	26.45	10.07	36.52	56.00	-19.48	QP
6	3.4460	18.18	10.07	28.25	46.00	-17.75	AVG

Test mode:	TM2	Polarity:	Line



No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	
1*	0.1580	45.71	10.37	56.08	65.57	-9.49	QP
2	0.1580	25.99	10.37	36.36	55.57	-19.21	AVG
3	3.4500	26.59	10.07	36.66	56.00	-19.34	QP
4	3.4500	23.86	10.07	33.93	46.00	-12.07	AVG
5	3.7060	23.92	10.06	33.98	56.00	-22.02	QP
6	3.7060	21.57	10.06	31.63	46.00	-14.37	AVG

Test mode:	TM2	Polarity:	Neutral



No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	
1*	0.1573	46.51	10.37	56.88	65.61	-8.73	QP
2	0.1580	26.93	10.37	37.30	55.57	-18.27	AVG
3	3.1940	24.97	10.08	35.05	56.00	-20.95	QP
4	3.1940	22.82	10.08	32.90	46.00	-13.10	AVG
5	3.4500	26.42	10.07	36.49	56.00	-19.51	QP
6	3.4500	24.36	10.07	34.43	46.00	-11.57	AVG

4. Radiated Emissions

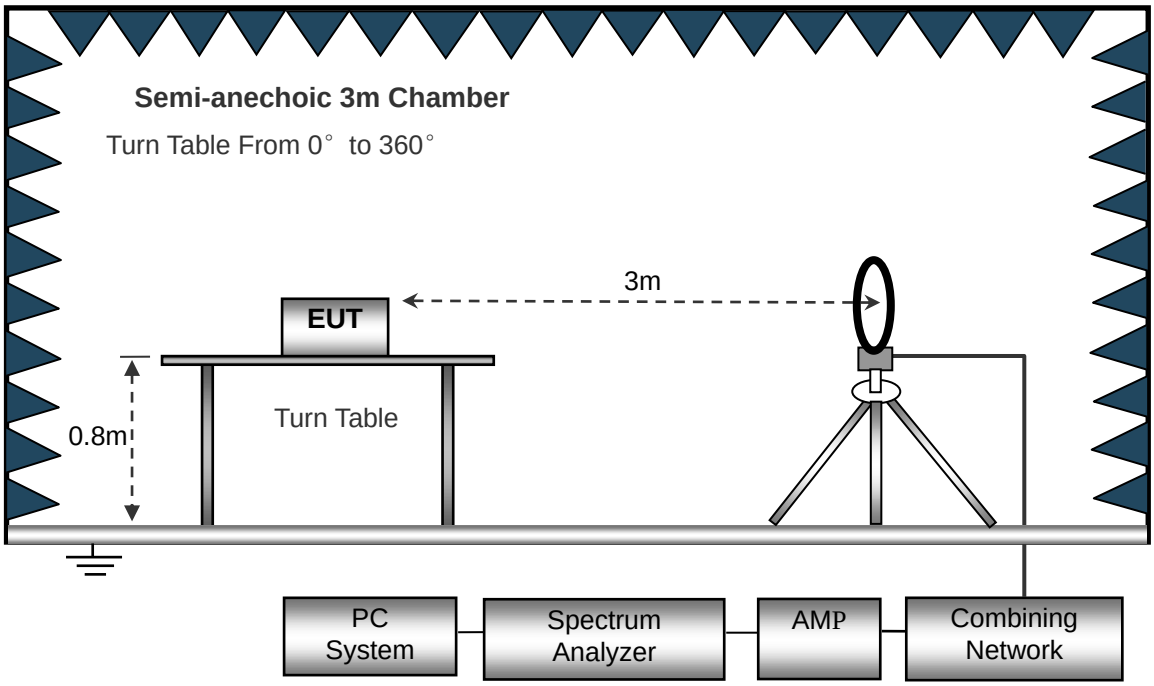
4.1 Test Procedure

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.

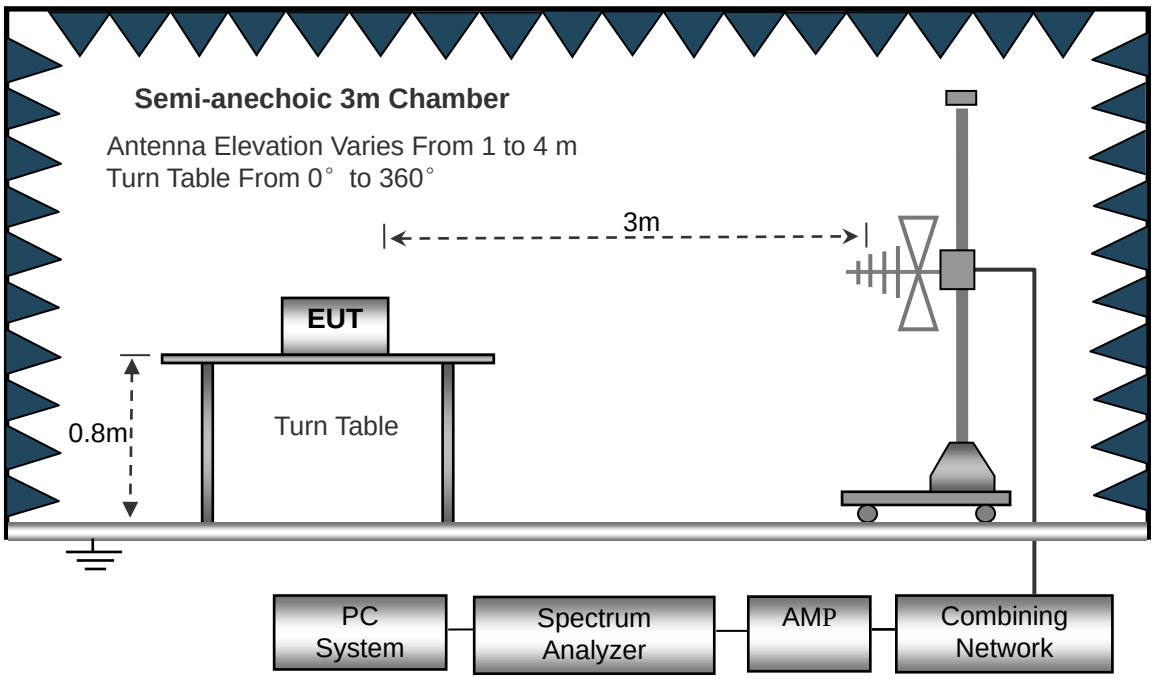
The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.

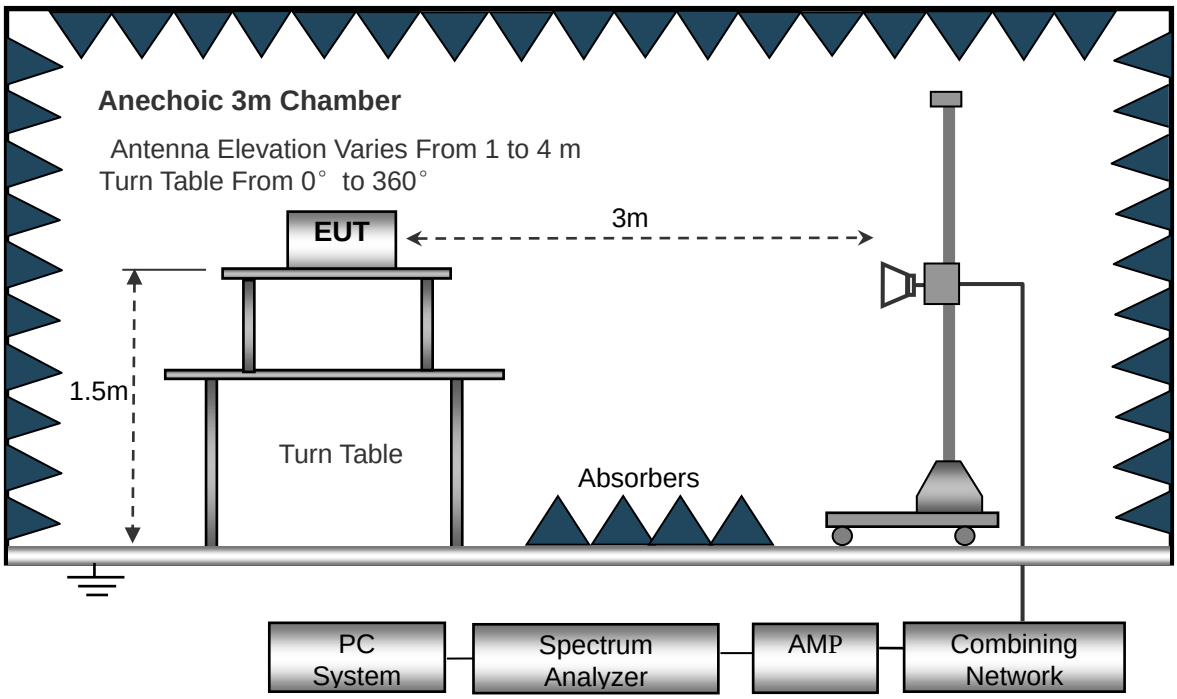
The test setup for emission measurement below 30MHz..



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

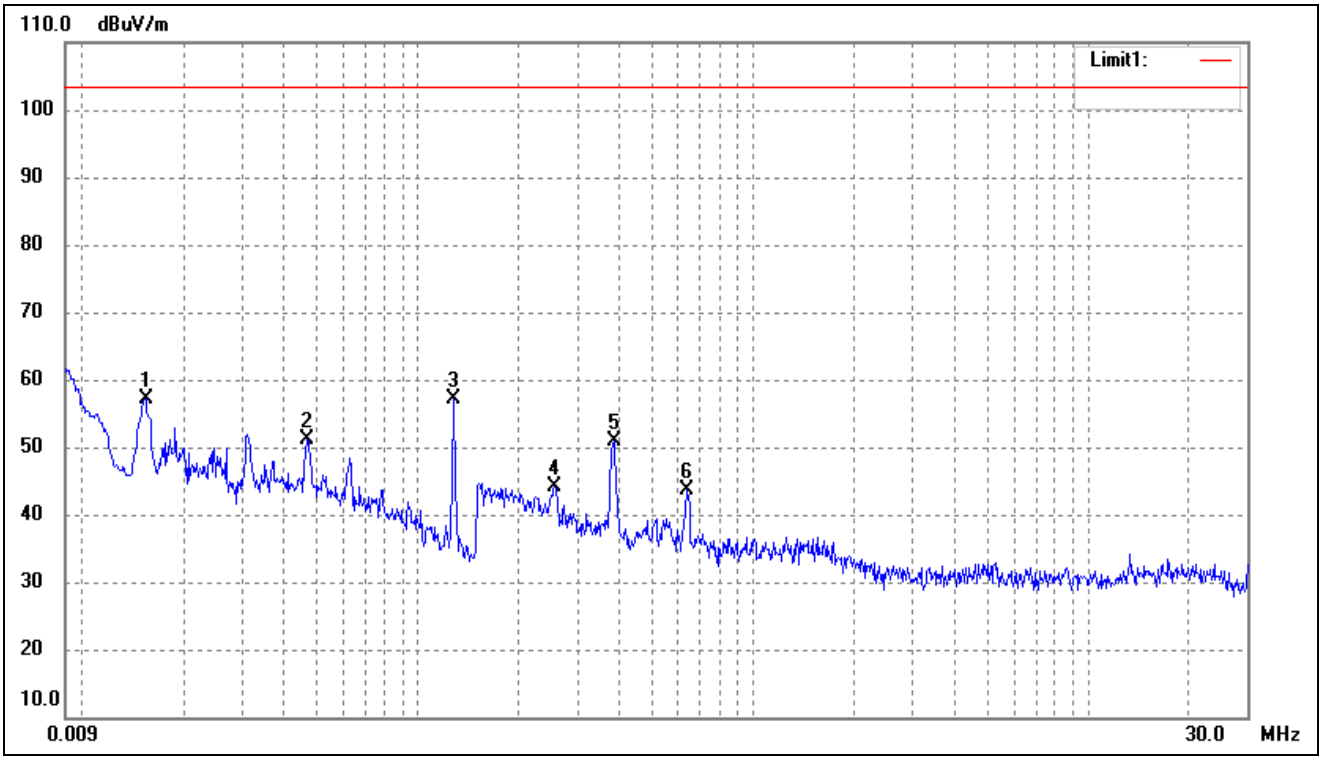
4.4 Environmental Conditions

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

4.5 Summary of Test Results/Plots

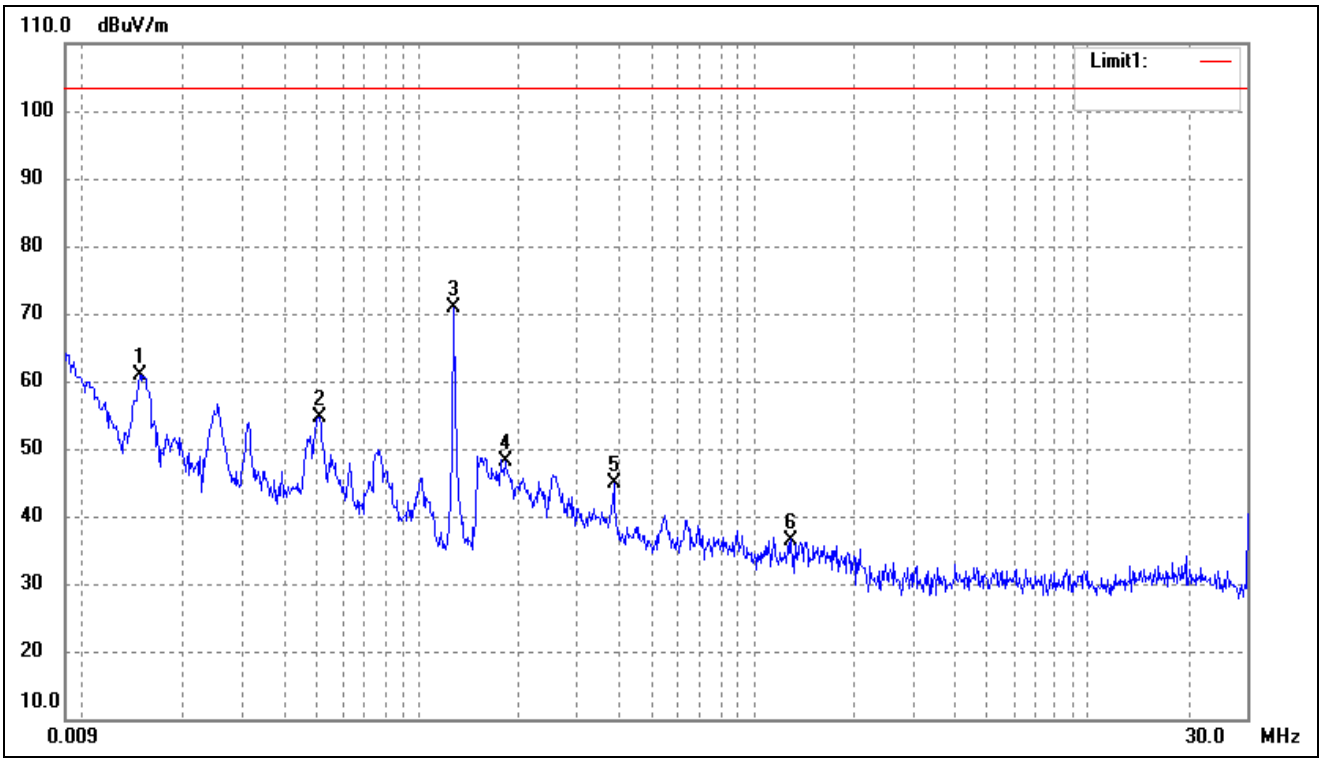
Plot of Radiated Emissions Test Data (Below 30MHz)

Test mode:	TM1	Polarity:	Horizontal



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	( )	(cm)	
1	0.0155	62.64	-5.58	57.06	103.50	-46.44	-	-	peak
2	0.0472	55.24	-3.99	51.25	103.50	-52.25	-	-	peak
3	0.1281	61.44	-4.42	57.02	103.50	-46.48	-	-	peak
4	0.2562	49.11	-4.98	44.13	103.50	-59.37	-	-	peak
5	0.3832	55.68	-4.72	50.96	103.50	-52.54	-	-	peak
6	0.6372	47.48	-3.76	43.72	103.50	-59.78	-	-	peak

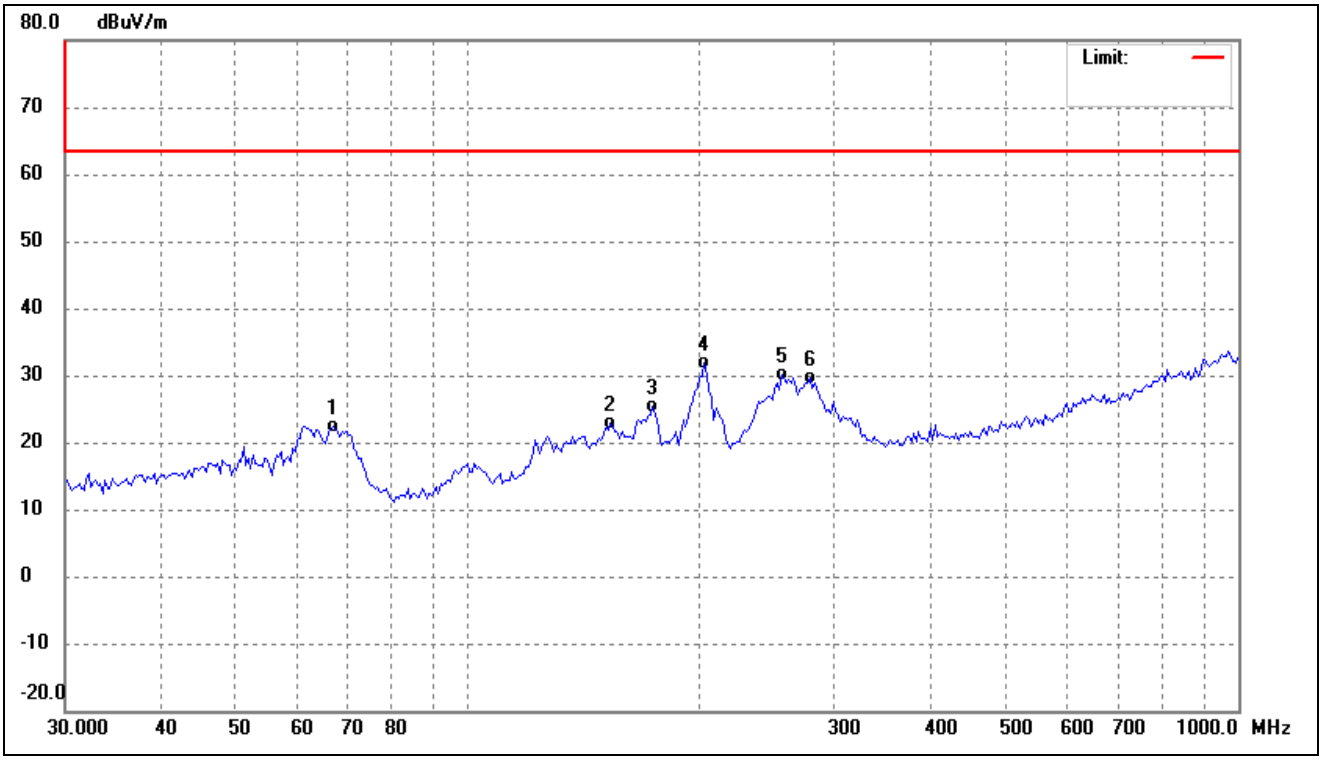
Test mode:	TM2	Polarity:	Horizontal



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	( )	(cm)	
1	0.0148	66.53	-5.59	60.94	103.50	-42.56	-	-	peak
2	0.0511	58.53	-3.86	54.67	103.50	-48.83	-	-	peak
3	0.1281	75.41	-4.42	70.99	103.50	-32.51	-	-	peak
4	0.1825	52.56	-4.45	48.11	103.50	-55.39	-	-	peak
5	0.3832	49.64	-4.72	44.92	103.50	-58.58	-	-	peak
6	1.2960	39.31	-2.81	36.50	103.50	-67.00	-	-	peak

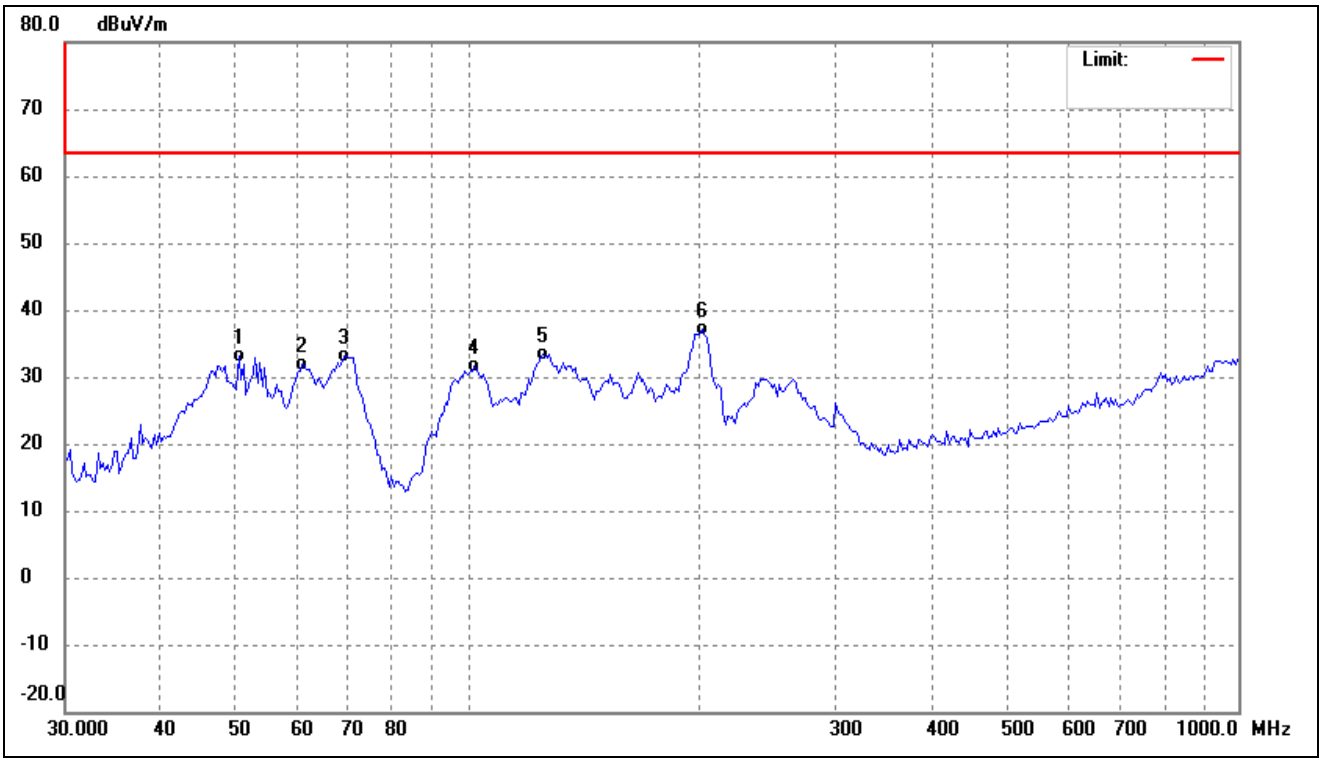
Plot of Radiated Emissions Test Data (Above 30MHz)

Test mode:	TM1	Polarity:	Horizontal



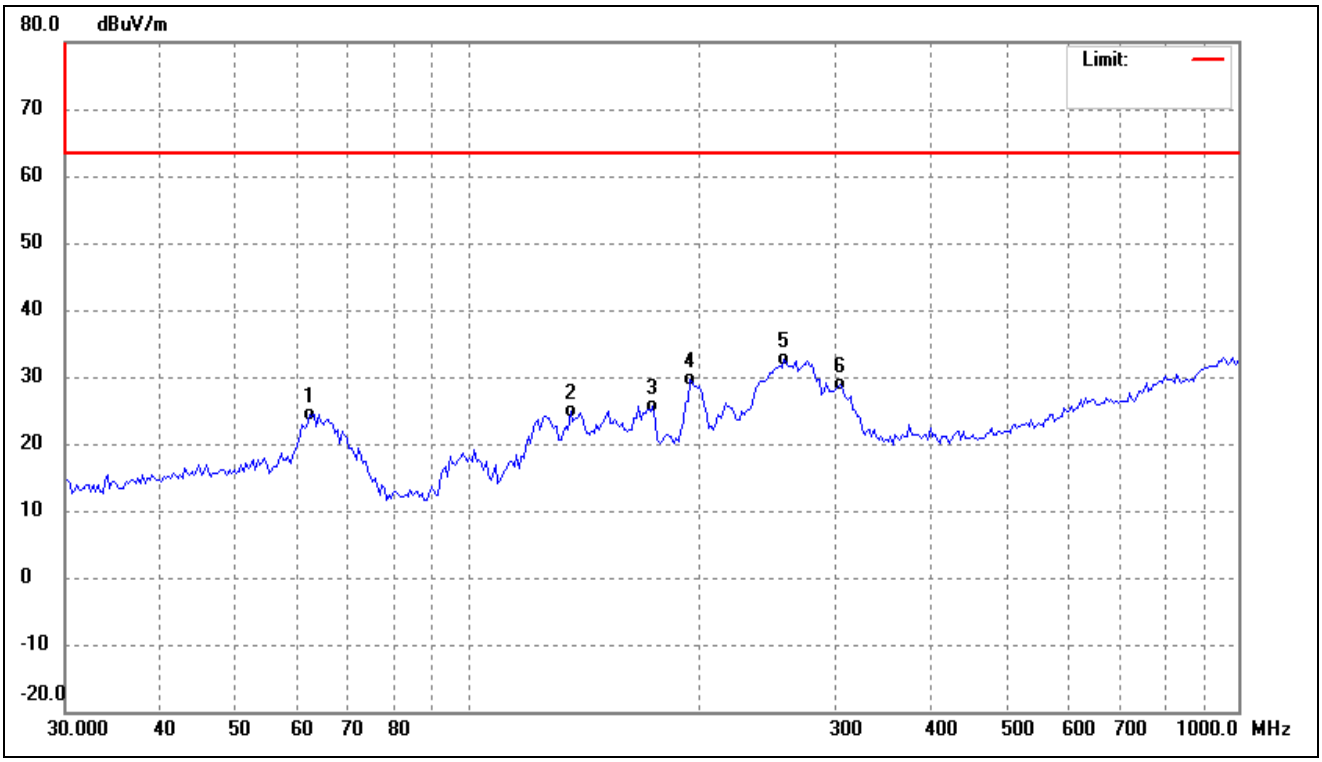
No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(deg.)	(cm)	
1	66.8395	37.92	-15.52	22.40	63.50	-41.10	-	-	QP
2	153.1627	36.77	-13.86	22.91	63.50	-40.59	-	-	QP
3	173.8147	39.87	-14.50	25.37	63.50	-38.13	-	-	QP
4	202.8745	48.77	-16.91	31.86	63.50	-31.64	-	-	QP
5	255.8226	45.23	-15.00	30.23	63.50	-33.27	-	-	QP
6	278.3308	43.63	-13.92	29.71	63.50	-33.79	-	-	QP

Test mode:	TM1	Polarity:	Vertical



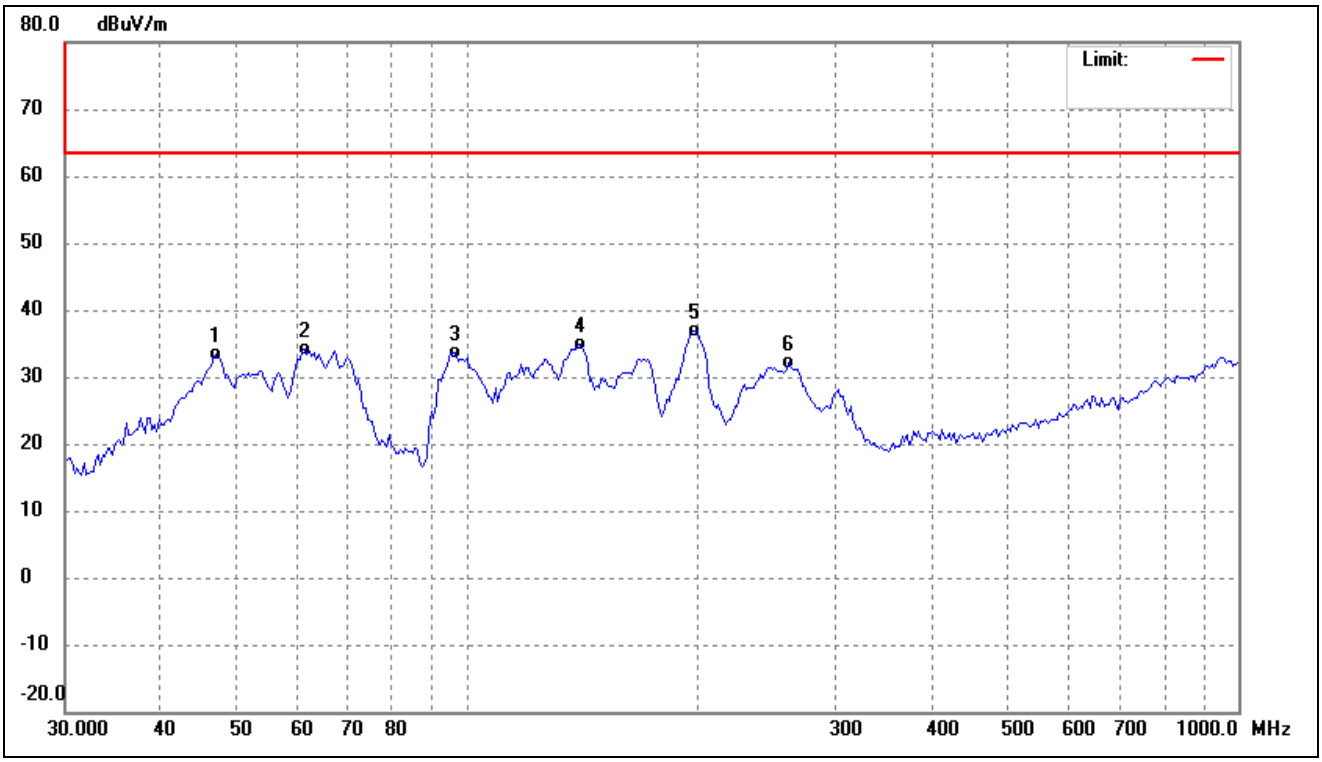
No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(deg.)	(cm)	
1	50.4614	46.75	-13.63	33.12	63.50	-30.38	-	-	QP
2	61.0041	46.32	-14.50	31.82	63.50	-31.68	-	-	QP
3	69.2297	49.16	-15.94	33.22	63.50	-30.28	-	-	QP
4	101.8932	49.05	-17.44	31.61	63.50	-31.89	-	-	QP
5	124.9249	48.85	-15.39	33.46	63.50	-30.04	-	-	QP
6	201.4539	54.04	-16.88	37.16	63.50	-26.34	-	-	QP

Test mode:	TM2	Polarity:	Horizontal



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(deg.)	(cm)	
1	62.3038	39.12	-14.73	24.39	63.50	-39.11	-	-	QP
2	135.9163	39.74	-14.85	24.89	63.50	-38.61	-	-	QP
3	173.8147	40.11	-14.50	25.61	63.50	-37.89	-	-	QP
4	194.4985	46.15	-16.58	29.57	63.50	-33.93	-	-	QP
5	257.6266	47.60	-14.90	32.70	63.50	-30.80	-	-	QP
6	304.9548	41.90	-12.98	28.92	63.50	-34.58	-	-	QP

Test mode:	TM2	Polarity:	Vertical



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(deg.)	(cm)	
1	47.0371	46.97	-13.64	33.33	63.50	-30.17	-	-	QP
2	61.4343	48.64	-14.59	34.05	63.50	-29.45	-	-	QP
3	96.3230	51.50	-17.85	33.65	63.50	-29.85	-	-	QP
4	139.7909	49.60	-14.69	34.91	63.50	-28.59	-	-	QP
5	197.2514	53.66	-16.71	36.95	63.50	-26.55	-	-	QP
6	261.2730	46.80	-14.72	32.08	63.50	-31.42	-	-	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 *******