



Radio Test Report

Report No.: STS2512276W01

Issued for

Beacon Technology Solutions, Inc.

111 N Wabash Ave Ste 100 #3361, Chicago, Illinois 60602
United States

Product Name: Far-UVC Continuous Disinfection Device

Brand Name: Beacon

Model Name: BCN2

Series Model(s): BCN2-XXXX

FCC ID: 2BTVF-BCN2

Test Standards: FCC Part15.249

The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Shenzhen STS Test Services Co., Ltd.

**TEST REPORT**

Applicant's Name: Beacon Technology Solutions, Inc.
Address.....: 111 N Wabash Ave Ste 100 #3361, Chicago, Illinois 60602 United States
Manufacturer's Name: Aviton Care Limited
Address.....: Flat H, 12/F., World Tech Centre, 95 How Ming Street, Kwun Tong, Kowloon, Hong Kong

Product Description

Product Name: Far-UVC Continuous Disinfection Device
Brand Name: Beacon
Model Name.....: BCN2
Series Model(s).....: BCN2-XXXX
Standards.....: FCC Part 15.249
Test Procedure.....: ANSI C63.10-2020

This device described above has been tested by STS, the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Shenzhen STS Test Services Co., Ltd.

Date of Test.....:
Date of receipt of test item.....: 26 Dec. 2025
Date of performance of tests ...: 26Dec. 2025 ~ 11 Feb. 2026
Date of Issue.....: 12 Feb. 2026
Test Result: **Pass**

Testing Engineer :

(Aaron Bu)

Technical Manager :

(Skylar Li)

Authorized Signatory :

(Bovey Yang)





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**Revision History**

Rev.	Issue Date	Report No.	Effect Page	Contents
00	12 Feb. 2026	STS2512276W01	ALL	Initial Issue



1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

FCC Part 15.249 , Subpart C			
Standard Section	Test Item	Judgment	Remark
15.207	Conducted Emission	Pass	--
15.203	Antenna Requirement	Pass	--
15.249	Radiated Spurious Emission	Pass	--
15.249	Radiated Band Edge Emission	Pass	--
15.249	Field Strength of fundamental	Pass	--
15.215(c)	20dB&99% Bandwidth	Pass	--

NOTE:

- (1) 'N/A' denotes test is not applicable in this Test Report.
- (2) All tests are according to ANSI C63.10-2020.



1.1 TEST FACTORY

SHENZHEN STS TEST SERVICES CO., LTD

Add. :101, Building B, Zhuoke Science Park, No.190 Chongqing Road, ZhanChengShequ, Fuhai Sub-District, Bao'an District, Shenzhen, Guang Dong, China

FCC test Firm Registration Number: 625569

IC test Firm Registration Number: 12108A

A2LA Certificate No.: 4338.01

1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $y \pm U$, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately **95** %.

No.	Item	Uncertainty
1	RF output power, conducted	$\pm 0.751\text{dB}$
2	Unwanted Emissions, conducted	$\pm 2.888\text{dB}$
3	All emissions, radiated 9K-30MHz	$\pm 2.48\text{dB}$
4	All emissions, radiated 30M-1GHz	$\pm 2.52\text{dB}$
5	All emissions, radiated 1G-18GHz	$\pm 3.48\text{dB}$
6	All emissions, radiated >18GHz	$\pm 4.18\text{dB}$
7	Conducted Emission (9KHz-150KHz)	$\pm 2.48\text{dB}$
8	Conducted Emission (150KHz-30MHz)	$\pm 2.52\text{dB}$
9	Occupied Channel Bandwidth	$\pm 3.6\%$
10	Power Spectral Density, conducted	$\pm 1.214\text{dB}$
11	Duty Cycle	$\pm 3.2\%$



2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF THE EUT

Product Name	Far-UVC Continuous Disinfection Device	
Brand Name	Beacon	
Model Name	BCN2	
Series Model(s)	BCN2-XXXX	
Model Difference	Actual future market models: BCN2, BCN2-XXXX, etc. BCN2-XXXX(XXXX only use numbers, for example: 0-9), the RF functions of each model are the same, with only a few differences in appearance. The nameplates will directly use the models of each market	
Product Description	Operation Frequency:	24-24.25GHz
	Modulation Type:	FMCW
	Antenna Designation:	PCB
	Antenna Gain(dBi):	6
Power Rating	Input: 120V AC, 24V DC	
Adapter	Model: BCN2-1000 Brand: beacon Input: 100-240VAC 0.75-0.5A 50/60Hz Output: 24VDC 20W	
Battery	N/A	
Hardware version number	N/A	
Software version number	N/A	
Connecting I/O Port(s)	Please refer to the Note 1.	

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User Manual.
2. The antenna information refer the manufacturer provide report, applicable only to the tested sample identified in the report. Due to the incorrect antenna information, a series of problems such as the accuracy of the test results will be borne by the customer.

3.	Channel	Frequency (GHz)
	00	24-24.25



2.2 DESCRIPTION OF THE TEST MODES

For conducted test items and radiated spurious emissions

Each of these EUT operation mode(s) or test configuration mode(s) mentioned below was evaluated respectively.

Pretest Mode	Description	Data/Modulation
Mode 1	TX	FMCW
Mode 2	Charging	FMCW

Note:

(1) All above mode have been measurement, only worst data was reported.

2.3 TEST SOFTWARE AND POWER LEVEL

During testing channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level.

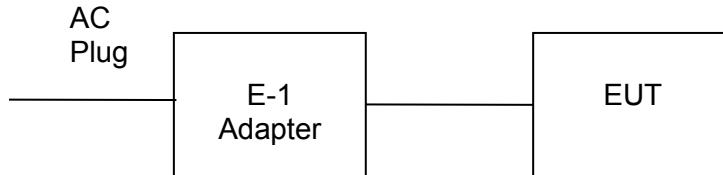
RF Function	Mode Or Modulation type	ANT Gain(dBi)	Power Class	Software For Testing
Other SRD	FMCW	6	Default	The EUT has signal transmission when it is powered on



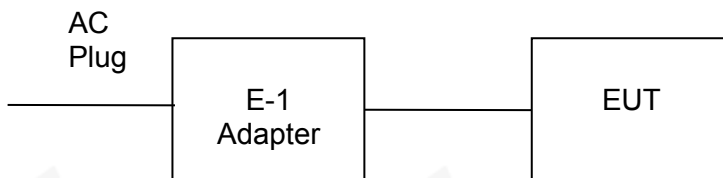
2.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

During testing channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product power parameters.

Radiated Spurious Emission Test



AC Conducted Emission Test





2.5 DESCRIPTION OF NECESSARY ACCESSORIES AND SUPPORT UNITS

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.	Note
E-1	Adapter	N/A	N/A	N/A

Item	Equipment	Mfr/Brand	Length	Note
N/A	N/A	N/A	N/A	N/A

Note:

- (1) For detachable type I/O cable should be specified the length in cm in 『Length』 column.



2.6 EQUIPMENTS LIST FOR ALL TEST ITEMS

RF Radiation Test Equipment					
Kind of Equipment	Manufacturer	Type No.	Serial No.	Last Calibration	Calibrated Until
Temperature & Humidity	SW-108	SuWei	N/A	2025.02.24	2026.02.23
Pre-Amplifier (0.1M-3GHz)	EM	EM330	60665	2025.02.22	2026.02.21
Pre-Amplifier (1G-18GHz)	SKET	LNPA-01018G-45	SK2018080901	2025.09.25	2026.09.24
Pre-Amplifier (18G-40GHz)	SKET	LNPA_1840-50	SK2018101801	2025.02.22	2026.02.21
Active loop Antenna (9KHz-30MHz)	ZHINAN	ZN30900C	16035	2025.02.25	2027.02.24
Bilog Antenna (30-1000MHz)	TESEQ	CBL6111D	34678	2025.09.27	2027.09.26
Horn Antenna (1G-18GHz)	SCHWARZBECK	BBHA 9120D	2014	2025.09.27	2027.09.26
HornAntenna (18G-40GHz)	A-INFOMW	LB-180400-KF	J211020657	2025.09.27	2027.09.26
Horn Antenna (40G-60GHz)	A-INFO	LB-19-25-A	2020039000053	2024.12.25	2027.12.24
Horn Antenna (50G-75GHz)	A-INFO	LB-15-25-A	2020028000183	2024.12.25	2027.12.24
Horn Antenna (75G-110GHz)	A-INFO	LB-10-25-A	2020017000101	2024.12.25	2027.12.24
Horn Antenna (110G-170GHz)	A-INFO	LB-6-25-A	2020009000108	2024.12.25	2027.12.24
Horn Antenna (170G-260GHz)	A-INFO	LB-4-25-A	20202706000029	2024.12.25	2027.12.24
Mixer(40-60GHz)	AT-Microwave	AT-SAX8-4060	N/A	2024.12.25	2027.12.24
Mixer(50-75GHz)	AT-Microwave	AT-SAXB-5075	N/A	2024.12.25	2027.12.24
Mixer(75-110GHz)	AT-Microwave	AT-SAX8-75110	N/A	2024.12.25	2027.12.24
Mixer(110-170GHz)	AT-Microwave	AT-SAX24-110170	N/A	2024.12.25	2027.12.24
Mixer(170-260GHz)	AT-Microwave	AT-SAX32-170260	N/A	2024.12.25	2027.12.24
Mixer(40-60GHz)	TLHM	TLHM-4060-04-19	N/A	2024.12.25	2027.12.24
Signal Analyzer	Keysight	N9020A	MY52440124	2025.02.22	2026.02.21
Positioning Controller	MF	MF-7802	MF-780208587	N/A	N/A
signal generator	Keysight	E8257D	MY58040082	2025.02.22	2026.02.21
Signal Analyzer	R&S	FSV 40-N	101823	2025.09.26	2026.09.25
Filter Box	BALUN Technology	SU319E	BL-SZ1530051	N/A	N/A
Switch Control Box	N/A	N/A	N/A	N/A	N/A
Antenna Mast	MF	MFA-440H	N/A	N/A	N/A
Turn Table	MF	SC100_1	60531	N/A	N/A
AC Power Source	APC	KDF-11010G	F214050035	N/A	N/A
DC power supply	HONGSHENG FENG	DPS-305AF	17064939	2025.09.22	2026.09.21
Test SW	EZ-MMW	Ver.STSLAB-MMW1.0			
Conduction Test Equipment					
Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
Test Receiver	R&S	ESCI	101427	2025.09.25	2026.09.24
Limiter	CYBERTEK	EM5010	N/A	2025.09.25	2026.09.24
LISN	R&S	ENV216	101242	2025.09.25	2026.09.24
LISN	EMCO	3810/2NM	23625	2025.09.25	2026.09.24
Temperature & Humidity	SW-108	SuWei	N/A	2025.02.24	2026.02.23
Test SW	EZ-EMC	Ver.STSLAB-03A1 CE			



3. EMC EMISSION TEST

3.1 CONDUCTED EMISSION MEASUREMENT

3.1.1 POWER LINE CONDUCTED EMISSION LIMITS

The radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table.

FREQUENCY (MHz)	Quasi-peak	Average
0.15 -0.5	66 - 56 *	56 - 46 *
0.50 -5.0	56.00	46.00
5.0 -30.0	60.00	50.00

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.

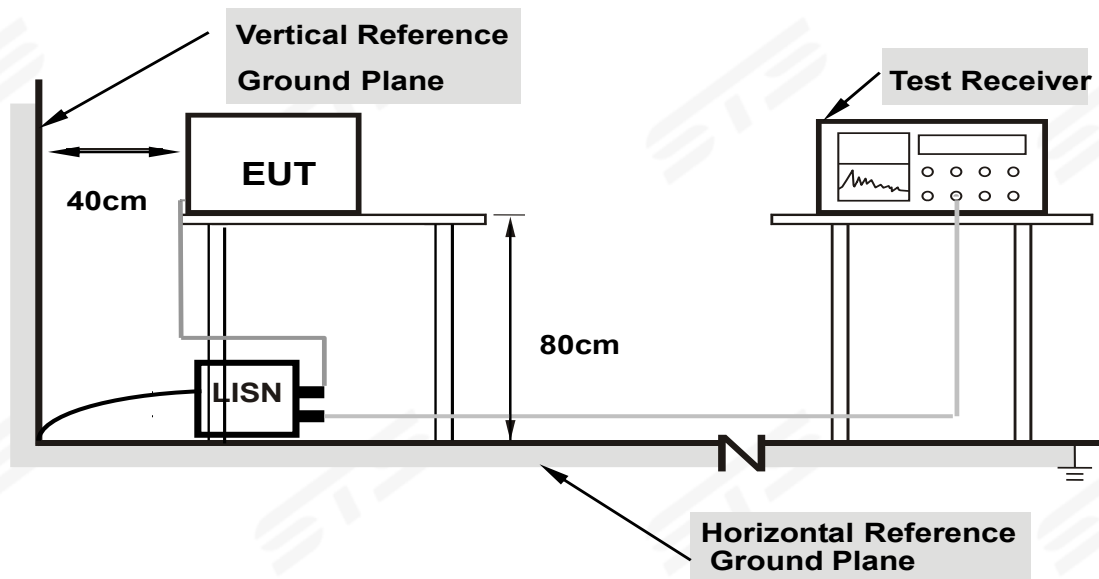
The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

3.1.2 TEST PROCEDURE

- The EUT is 0.8 m from the horizontal ground plane and 0.4 m from the vertical ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments are powered from additional LISN(s). The LISN provides 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- 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.
- I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- LISN is at least 80 cm from the nearest part of EUT chassis.
- For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.1.3 TEST SETUP



Note: 1. Support units were connected to second LISN.

2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes support units.

3.1.4 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.



3.5 TEST RESULTS

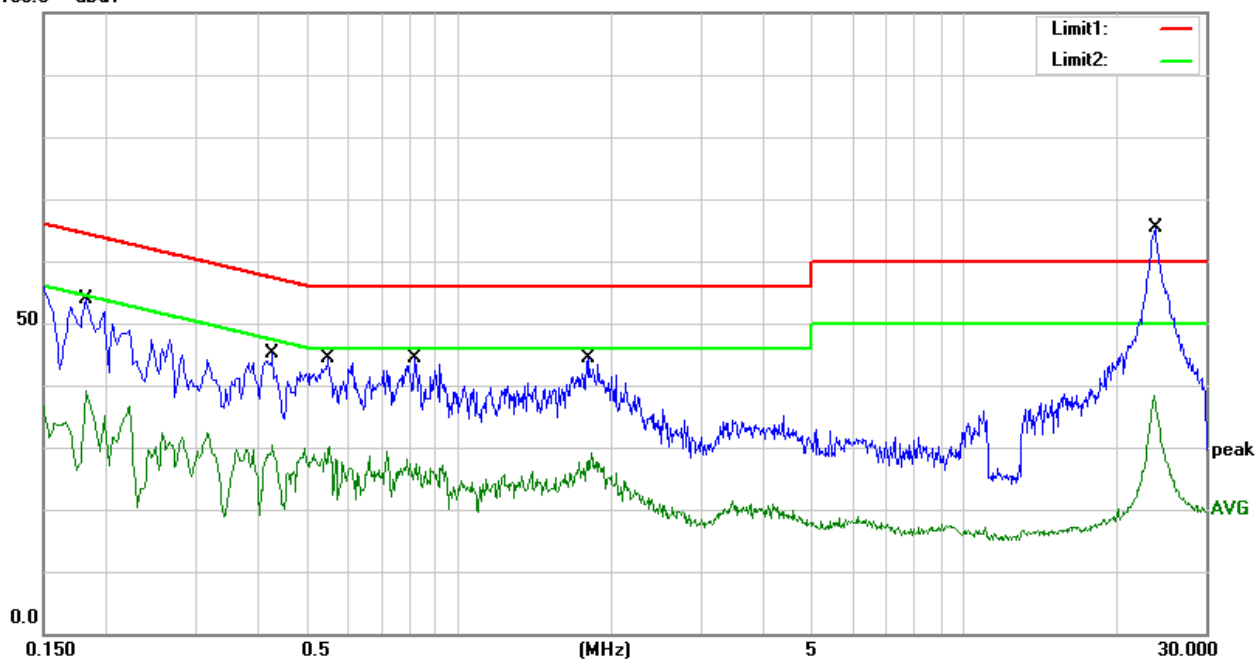
Temperature:	25.1°C	Relative Humidity:	59%
Test Voltage:	AC 120V/60Hz	Phase:	L
Test Mode:	Mode 2		

No.	Frequen cy	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(d B)	(dBuV)	(dBuV)	(dB)	
1	0.1820	34.53	19.38	53.91	64.39	-10.48	QP
2	0.1820	19.73	19.38	39.11	54.39	-15.28	AVG
3	0.4260	25.71	19.39	45.10	57.33	-12.23	QP
4	0.4260	11.02	19.39	30.41	47.33	-16.92	AVG
5	0.5500	25.00	19.39	44.39	56.00	-11.61	QP
6	0.5500	10.83	19.39	30.22	46.00	-15.78	AVG
7	0.8140	25.08	19.36	44.44	56.00	-11.56	QP
8	0.8140	9.96	19.36	29.32	46.00	-16.68	AVG
9	1.8060	25.03	19.35	44.38	56.00	-11.62	QP
10	1.8060	9.89	19.35	29.24	46.00	-16.76	AVG
11	23.7900	31.64	19.70	51.34	60.00	-8.66	QP
12	23.7900	18.77	19.70	38.47	50.00	-11.53	AVG

Remark:

1. All readings are Quasi-Peak and Average values
2. Margin = Result (Result = Reading + Factor)–Limit
3. Factor=LISN factor+Cable loss+Limiter (10dB)

100.0 dBuV





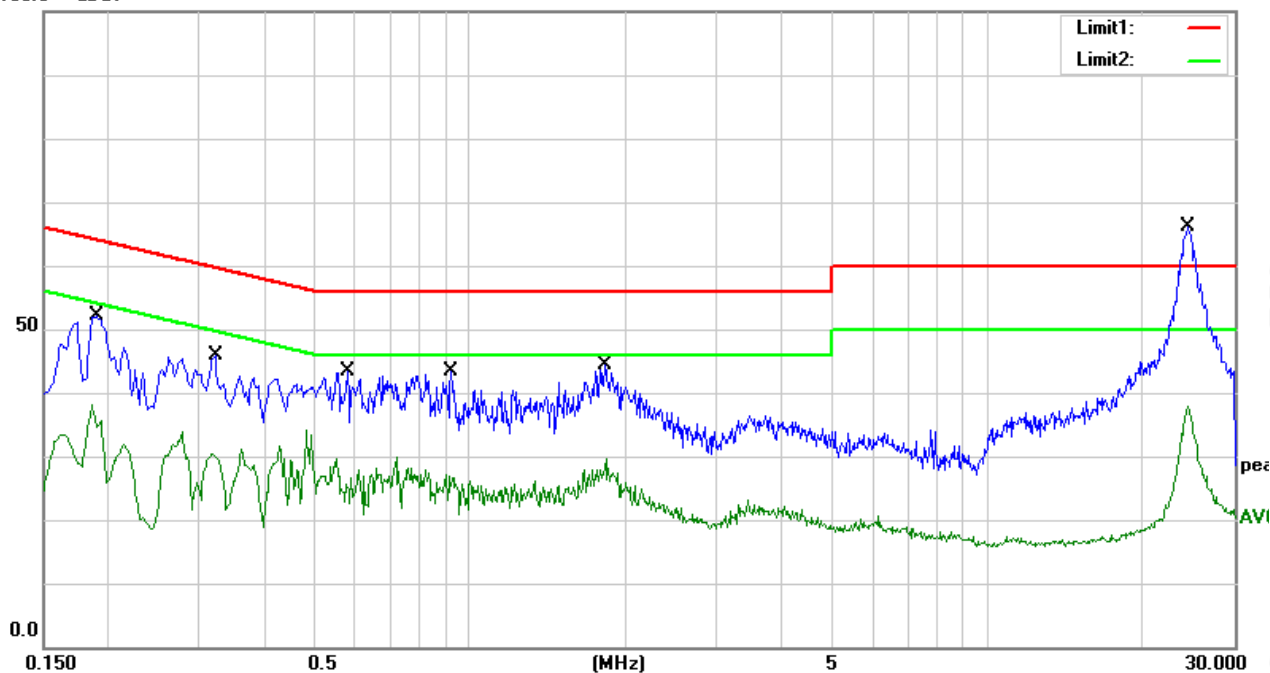
Temperature:	25.1°C	Relative Humidity:	59%
Test Voltage:	AC 120V/60Hz	Phase:	N
Test Mode:	Mode 2		

No.	Frequen cy	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(d B)	(dBuV)	(dBuV)	(dB)	
1	0.1900	32.63	19.38	52.01	64.04	-12.03	QP
2	0.1900	18.76	19.38	38.14	54.04	-15.90	AVG
3	0.3220	26.40	19.37	45.77	59.66	-13.89	QP
4	0.3220	14.39	19.37	33.76	49.66	-15.90	AVG
5	0.5820	23.98	19.36	43.34	56.00	-12.66	QP
6	0.5820	14.78	19.36	34.14	46.00	-11.86	AVG
7	0.9220	23.95	19.40	43.35	56.00	-12.65	QP
8	0.9220	10.45	19.40	29.85	46.00	-16.15	AVG
9	1.8220	24.98	19.38	44.36	56.00	-11.64	QP
10	1.8220	10.30	19.38	29.68	46.00	-16.32	AVG
11	24.4900	32.13	19.75	51.88	60.00	-8.12	QP
12	24.4900	18.17	19.75	37.92	50.00	-12.08	AVG

Remark:

1. All readings are Quasi-Peak and Average values
2. Margin = Result (Result =Reading + Factor)–Limit
3. Factor=LISN factor+Cable loss+Limiter (10dB)

100.0 dBuV





3.2 RADIATED EMISSION MEASUREMENT

3.2.1 RADIATED EMISSION LIMITS

In any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on Part 15.249 and the Part 15.209(a) limit in the table below has to be followed.

Standard FCC 15.209

Frequencies (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
960~1000	500	3
Above 1000	Other:74.0 dB(μV)/m (Peak) 54.0 dB(μV)/m (Average)	3

Standard FCC 15.249

Frequency of Emission (MHz)	Field Strength of fundamental (millivolts /meter)	Field Strength of Harmonics (microvolts/meter)
900~928	50	500
2400~2483.5	50	500
5725~5875	50	500
24000~242500	250	2500

Notes:

- (1) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation.
- (2) Emission level (dBuV/m) =20log Emission level (uV/m).

LIMITS OF RESTRICTED FREQUENCY BANDS

FREQUENCY (MHz)	FREQUENCY (MHz)	FREQUENCY (MHz)	FREQUENCY (GHz)
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7



6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	Above 38.6
13.36-13.41			

Spectrum Parameter	Setting
Detector	Peak/AV
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RB (emission in restricted band)	>20BW
VB (emission in restricted band)	=3xRB

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~90kHz / RB 200Hz for PK & AV
	90kHz~110kHz / RB 200Hz for QP
	110kHz~490kHz / RB 200Hz for PK & AV
	490kHz~30MHz / RB 9kHz for QP
	30MHz~1000MHz / RB 120kHz for QP



3.2.2 TEST PROCEDURE

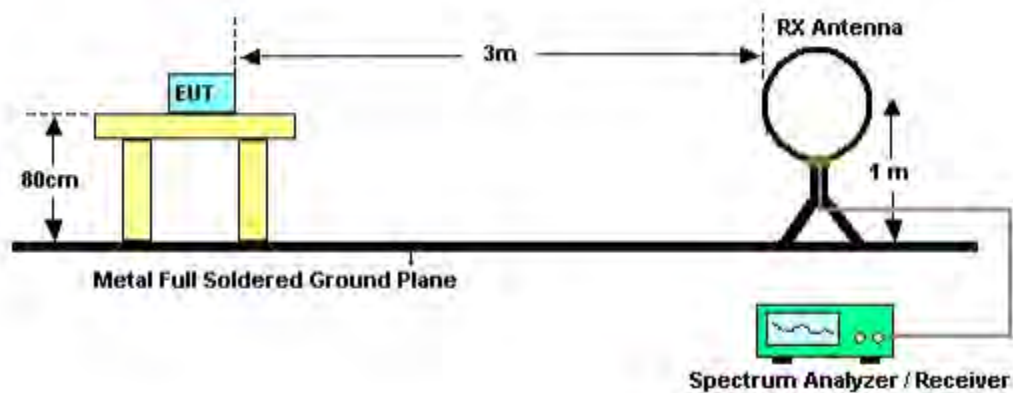
- a. The measuring distance of 3m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation (Below 1GHz)
- b. The measuring distance of 3m shall be used for measurements. The EUT was placed on the top of a rotating table 1.5 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation (Above 1GHz)
- c. The height of the test antenna shall vary between 1m to 4m. Both horizontal and vertical polarization of the antenna are set to make the measurement.
- d. The initial step in collecting radiated emission data is a receive peak detector mode. Pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- e. All readings are peak unless otherwise stated QP in column of Note. Peak denoted that the Peak reading compliance with the QP limits and then QP Mode measurement didn't perform (Below 1GHz)
- f. All readings are Peak mode value unless otherwise stated AVG in column of Note. If the Peak mode measured value compliance with the Peak limits and lower than AVG Limits, the EUT shall be deemed to meet Peak & AVG limits and then only Peak mode was measured, but AVG mode didn't perform. (Above 1GHz)
9. For the actual test configuration, please refer to the related Item –EUT Test Photos.
Note: Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported.

3.2.3 DEVIATION FROM TEST STANDARD

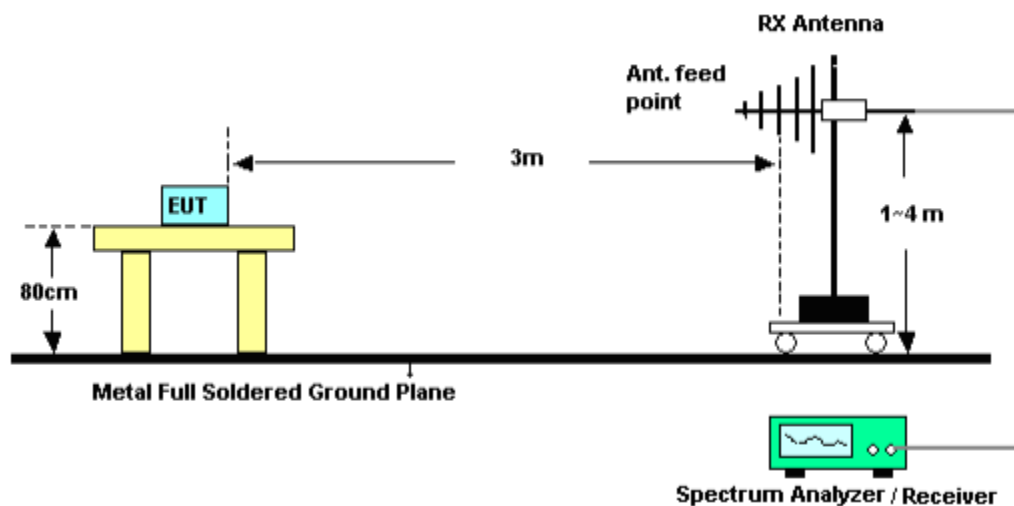
No deviation

3.2.4 TEST SETUP

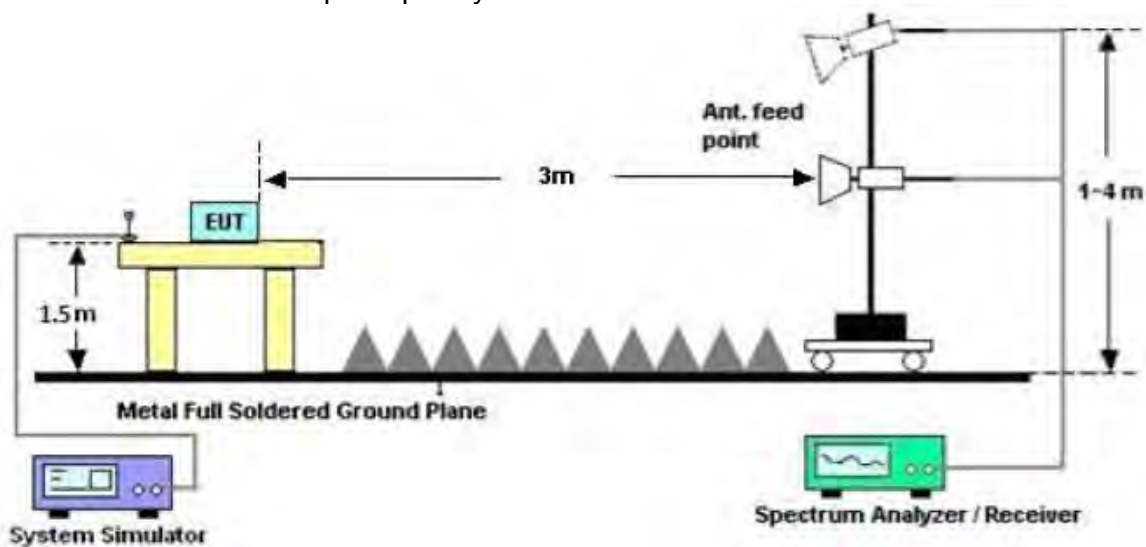
(A) Radiated Emission Test-Up Frequency Below 30MHz



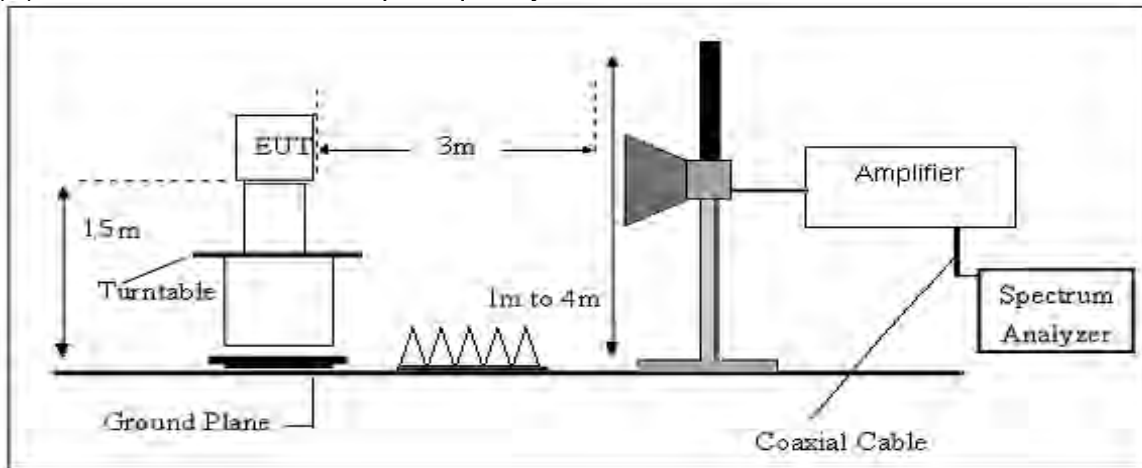
(B) Radiated Emission Test-Up Frequency 30MHz~1GHz



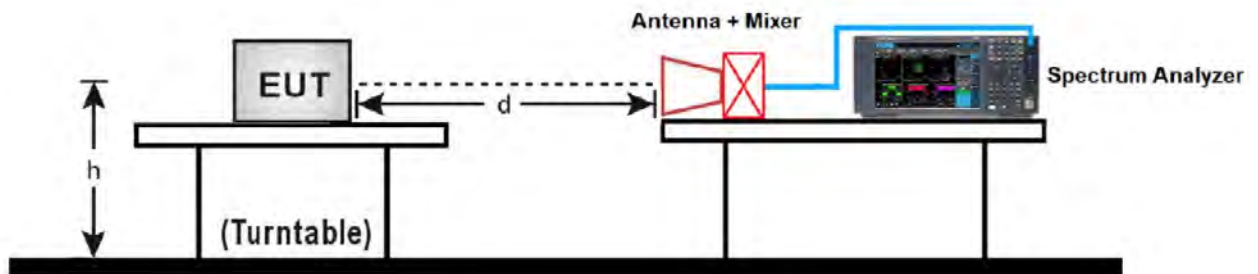
(C) Radiated Emission Test-Up Frequency 1-18GHz



(D) Radiated Emission Test-Up Frequency 18~40GHz



(E) Radiated Emission Test-Up Frequency above 40GHz





3.2.5 FIELD STRENGTH CALCULATION

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor (if any) from the measured reading. The basic equation with a sample calculation is as follows:

Margin=PL-PK L or AL- AV L; Margin only shown the worst case.

Where

PR = Peak Reading

AR = Average Reading

PL = Peak Level

AL = Average Level

AF = Antenna Factor

PK L = Peak Limit

AV L = AV Limit

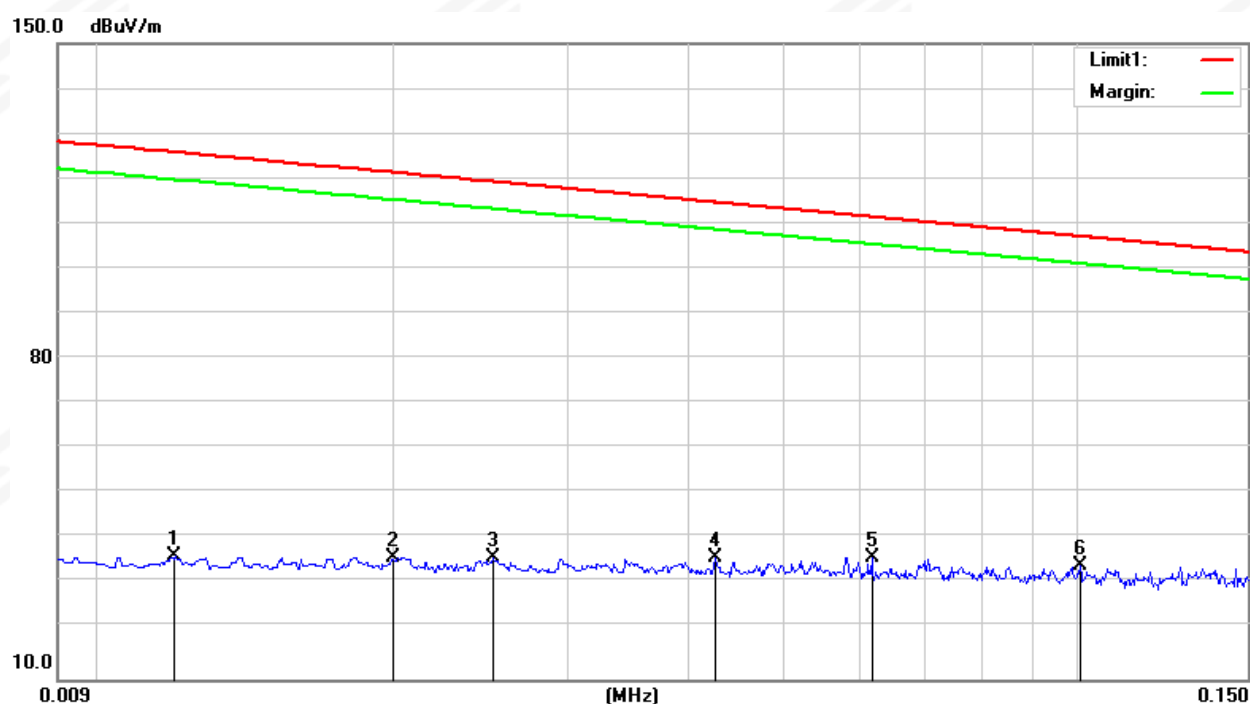
For example

Frequency	PR	AR	AF	PL	AL	PK L	AV L	Margin
(MHz)	(dBμV/m)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV/m)	(dBμV/m)	(dBμV/m)	(dB)
2178	40.23	30.31	9.83	50.06	40.14	74.00	54.00	-13.86



6.4 TEST RESULT

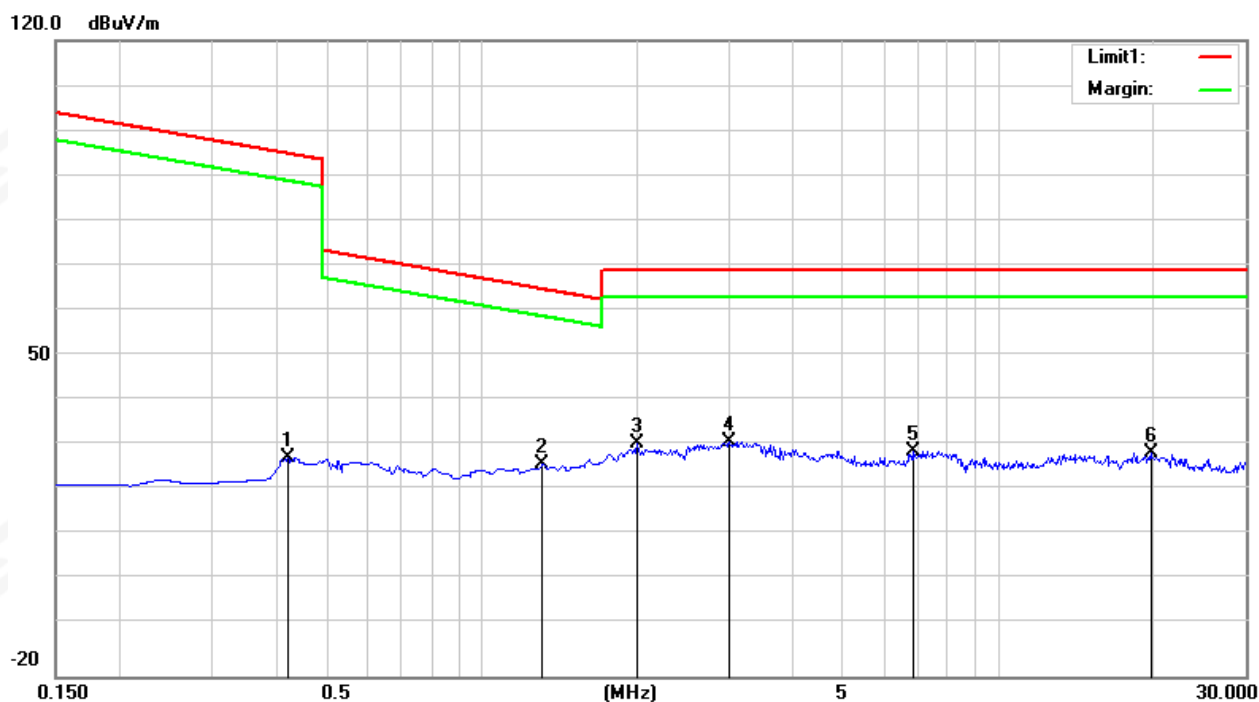
RSE-9KHz-150KHz



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.0120	17.45	19.52	36.97	126.02	-89.05	peak
2	0.0200	16.75	20.10	36.85	121.58	-84.73	peak
3	0.0252	16.83	20.00	36.83	119.58	-82.75	peak
4	0.0425	17.01	19.65	36.66	115.04	-78.38	peak
5	0.0616	17.65	19.18	36.83	111.81	-74.98	peak
6	0.1010	17.38	17.60	34.98	107.52	-72.54	peak



RSE-150KHz-30MHz

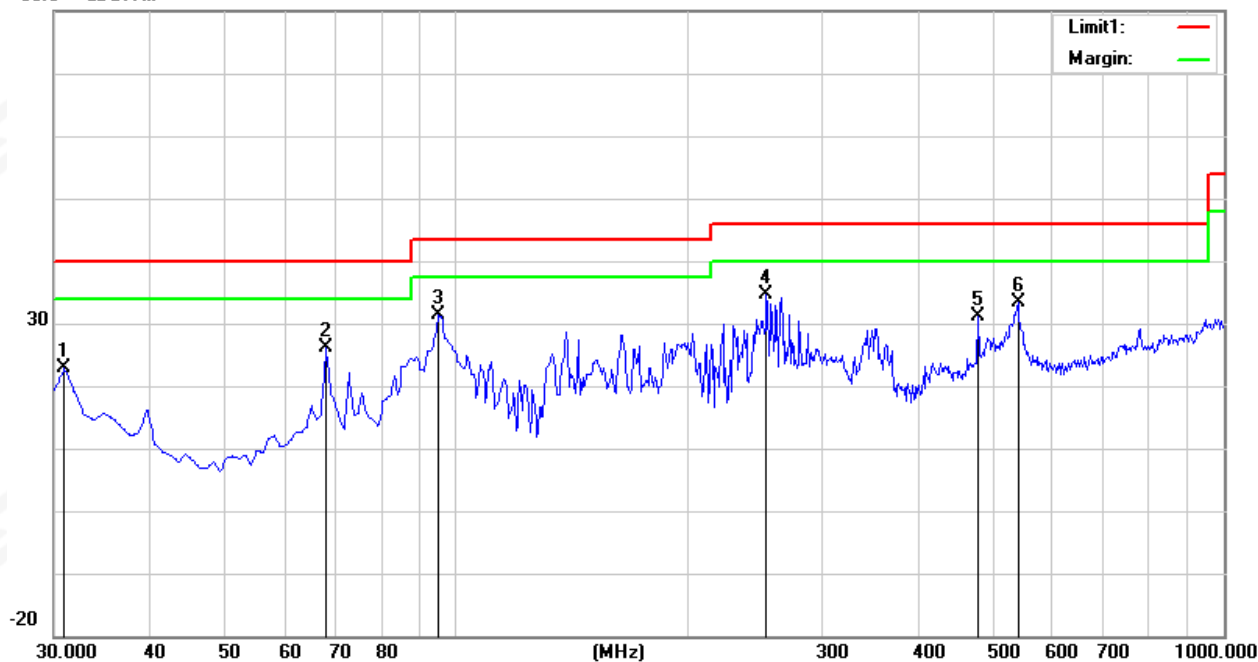


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.4213	7.91	20.17	28.08	95.11	-67.03	peak
2	1.3141	6.38	20.26	26.64	65.23	-38.59	peak
3	2.0007	10.97	20.40	31.37	69.50	-38.13	peak
4	3.0156	11.43	20.10	31.53	69.50	-37.97	peak
5	6.8364	9.23	20.39	29.62	69.50	-39.88	peak
6	19.6420	6.74	22.41	29.15	69.50	-40.35	peak



RSE-30MHz-1000MHz -H

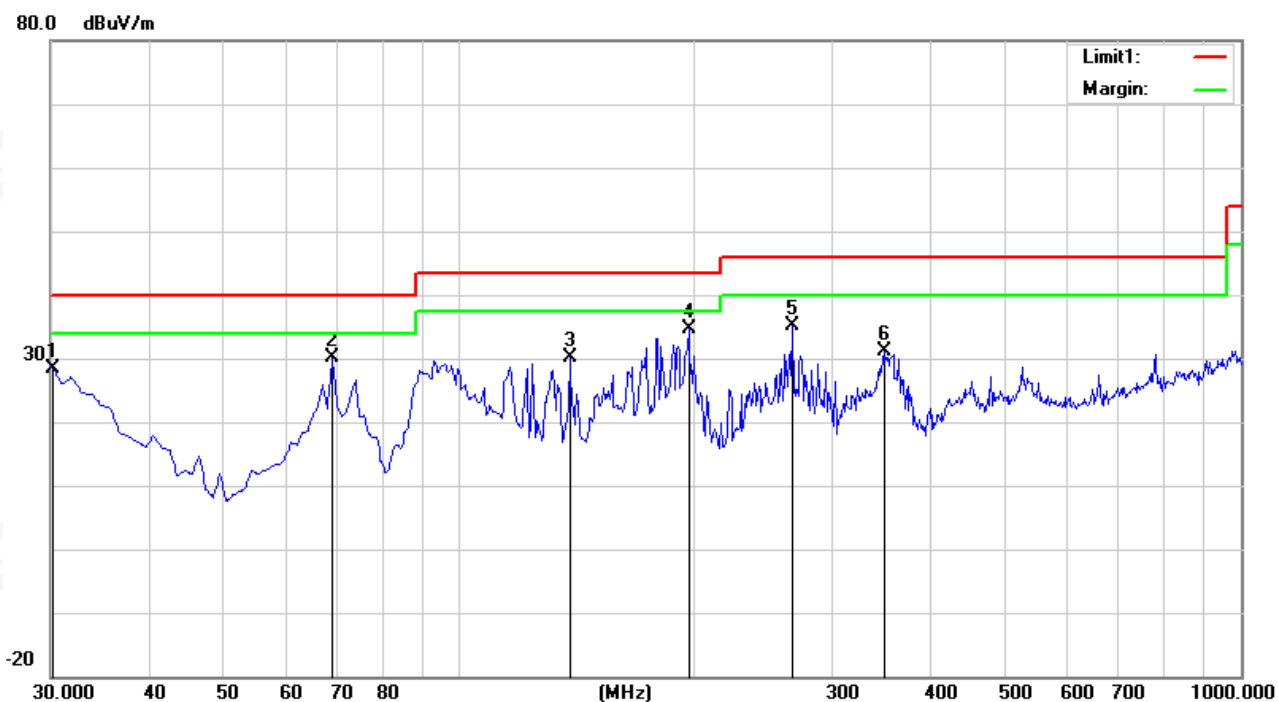
80.0 dBuV/m



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	30.9700	36.21	-13.35	22.86	40.00	-17.14	peak
2	67.8300	51.39	-25.28	26.11	40.00	-13.89	peak
3	94.9900	52.08	-20.78	31.30	43.50	-12.20	peak
4	254.0700	50.08	-15.50	34.58	46.00	-11.42	peak
5	480.0800	39.89	-8.65	31.24	46.00	-14.76	peak
6	540.2200	40.12	-6.84	33.28	46.00	-12.72	peak



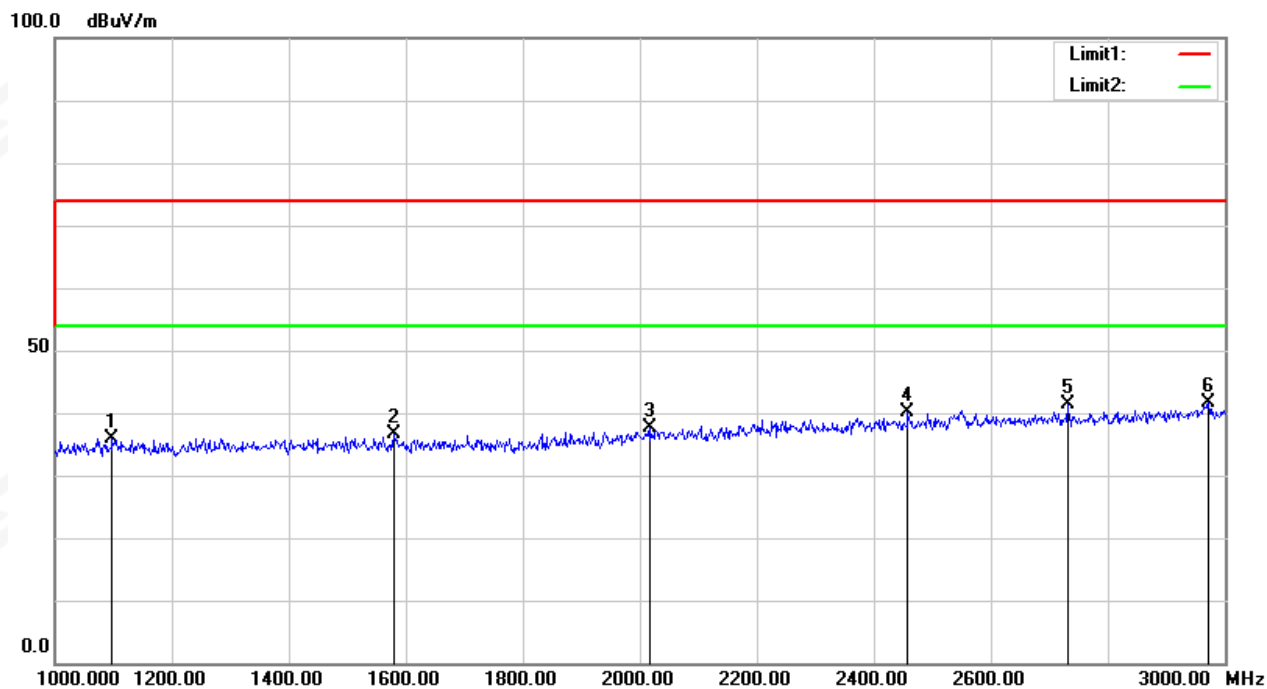
RSE-30MHz-1000MHz -V



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	30.2111	41.43	-12.95	28.48	40.00	-11.52	peak
2	68.8000	55.24	-25.09	30.15	40.00	-9.85	peak
3	138.6400	48.23	-18.05	30.18	43.50	-13.32	peak
4	196.8400	55.66	-21.13	34.53	43.50	-8.97	peak
5	266.6800	50.18	-14.94	35.24	46.00	-10.76	peak
6	350.1000	44.18	-13.06	31.12	46.00	-14.88	peak



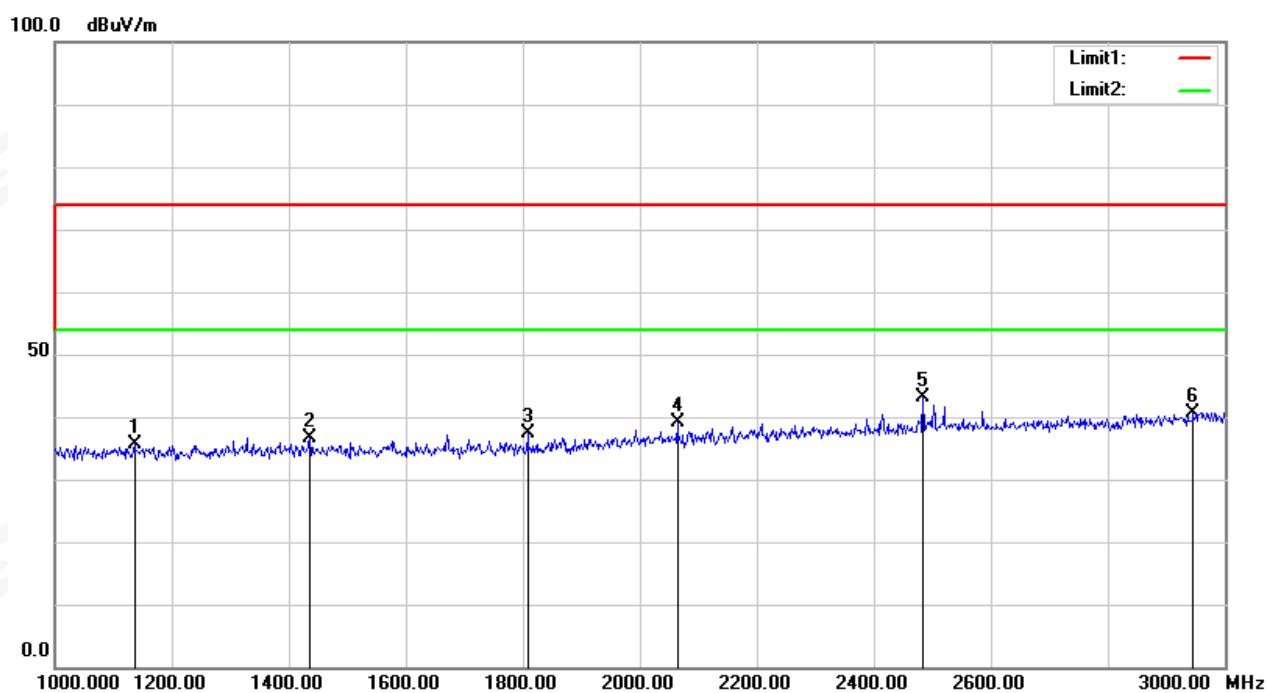
RSE-1GHz - 3GHz -H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1098.000	39.19	-3.24	35.95	54.00	-18.05	peak
2	1580.000	39.26	-2.66	36.60	54.00	-17.40	peak
3	2018.000	38.98	-1.43	37.55	54.00	-16.45	peak
4	2458.000	39.09	0.98	40.07	54.00	-13.93	peak
5	2732.000	39.46	1.95	41.41	54.00	-12.59	peak
6	2972.000	38.75	2.99	41.74	54.00	-12.26	peak



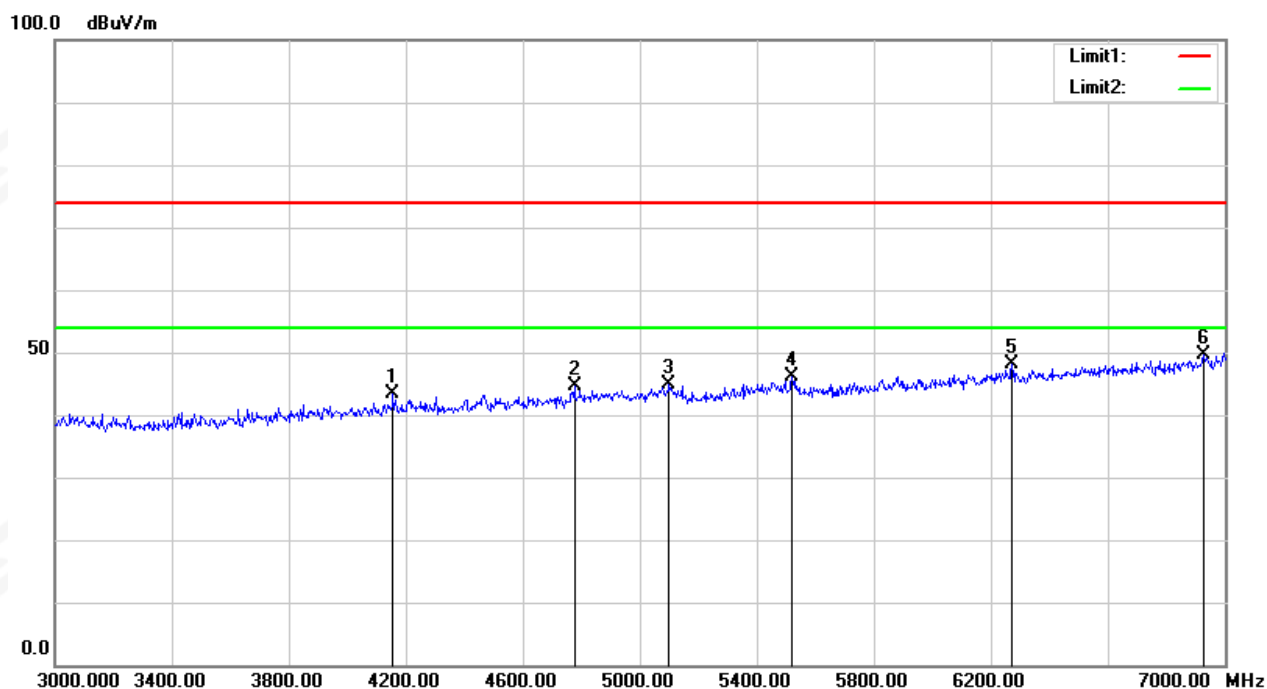
RSE-1GHz -3GHz -V



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1136.000	38.65	-3.14	35.51	54	-18.49	peak
2	1436.000	39.36	-2.72	36.64	54	-17.36	peak
3	1808.000	39.92	-2.51	37.41	54	-16.59	peak
4	2064.000	40.22	-1.20	39.02	54	-14.98	peak
5	2484.000	42.03	1.03	43.06	54	-10.94	peak
6	2946.000	37.79	2.87	40.66	54	-13.34	peak



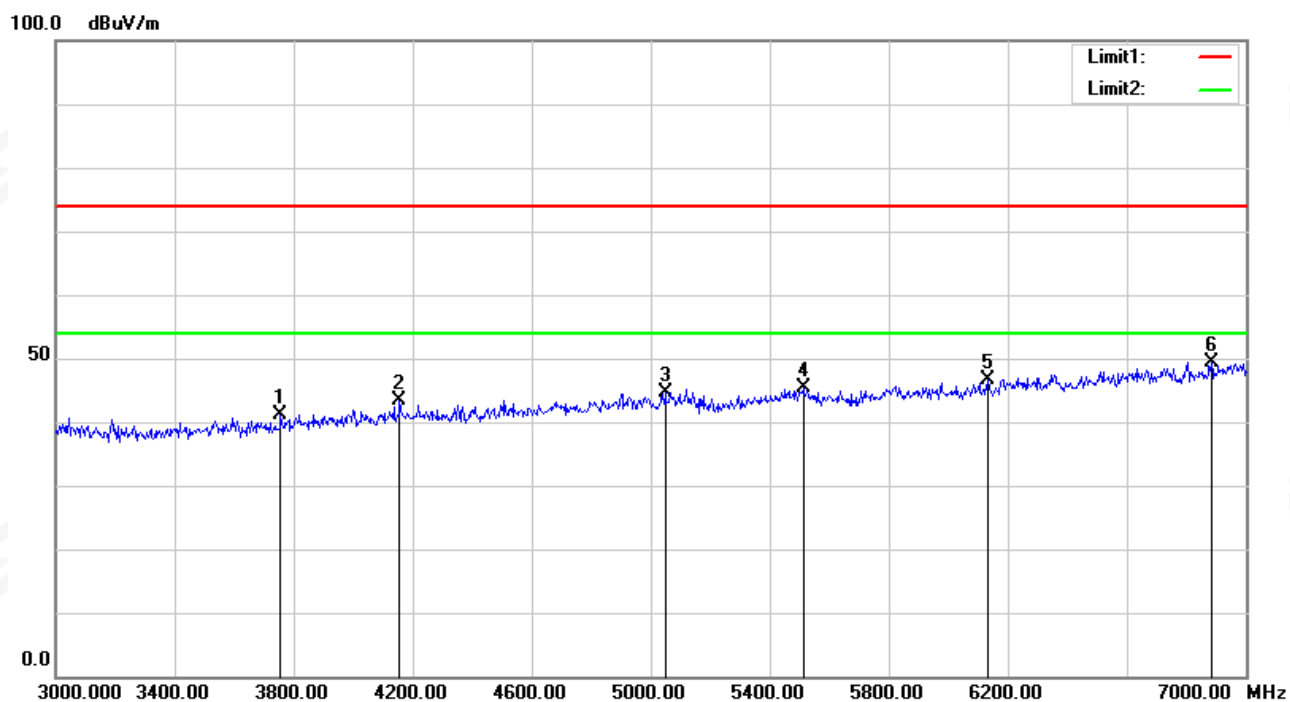
RSE-3GHz -7GHz -H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4156.000	52.13	-8.64	43.49	54	-10.51	peak
2	4776.000	51.88	-7.20	44.68	54	-9.32	peak
3	5100.000	50.28	-5.45	44.83	54	-9.17	peak
4	5520.000	50.77	-4.69	46.08	54	-7.92	peak
5	6272.000	50.26	-2.07	48.19	54	-5.81	peak
6	6928.000	48.78	0.74	49.52	54	-4.48	peak



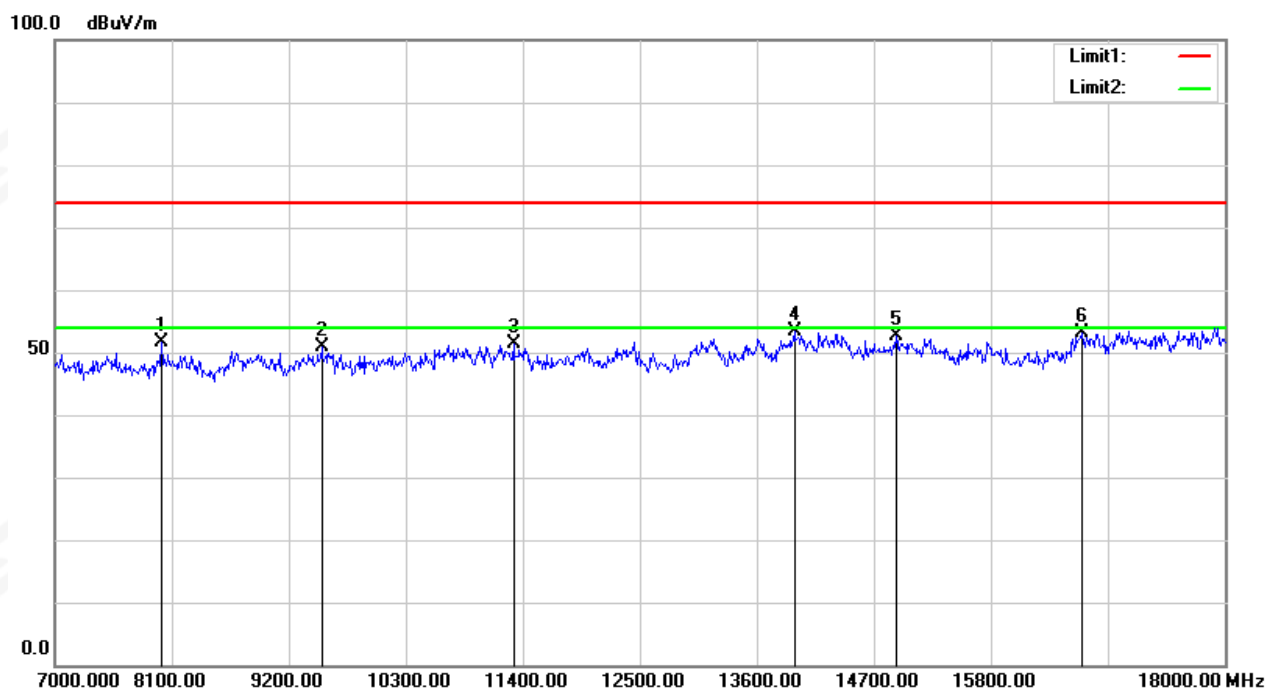
RSE-3GHz -7GHz -V



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3756.000	51.66	-10.64	41.02	54	-12.98	peak
2	4156.000	51.95	-8.64	43.31	54	-10.69	peak
3	5048.000	50.24	-5.70	44.54	54	-9.46	peak
4	5512.000	49.96	-4.67	45.29	54	-8.71	peak
5	6132.000	49.18	-2.64	46.54	54	-7.46	peak
6	6884.000	49.03	0.43	49.46	54	-4.54	peak



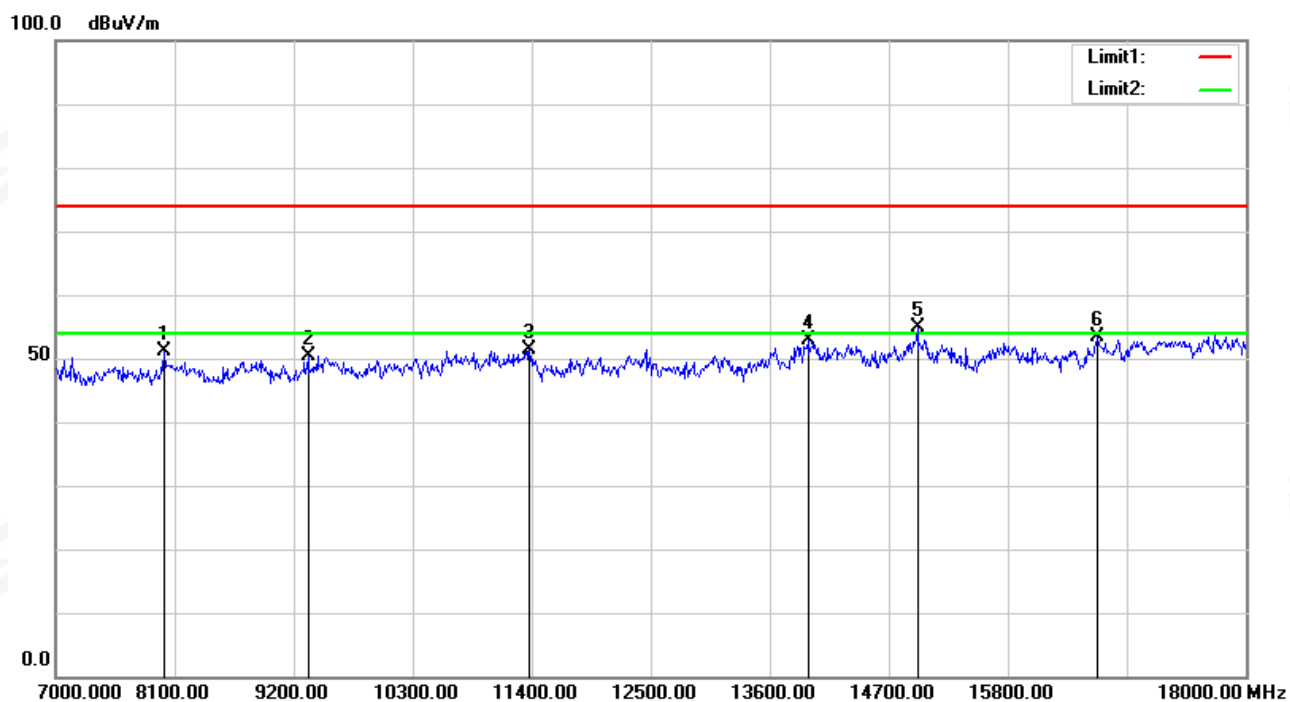
RSE-7GHz -18GHz -H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	8001.000	52.29	-0.66	51.63	54	-2.37	peak
2	9508.000	49.42	1.48	50.90	54	-3.1	peak
3	11312.000	49.03	2.24	51.27	54	-2.73	peak
4	13952.000	45.41	7.85	53.26	54	-0.74	peak
5	14909.000	47.27	5.36	52.63	54	-1.37	peak
6	16658.000	48.43	4.66	53.09	54	-0.91	peak



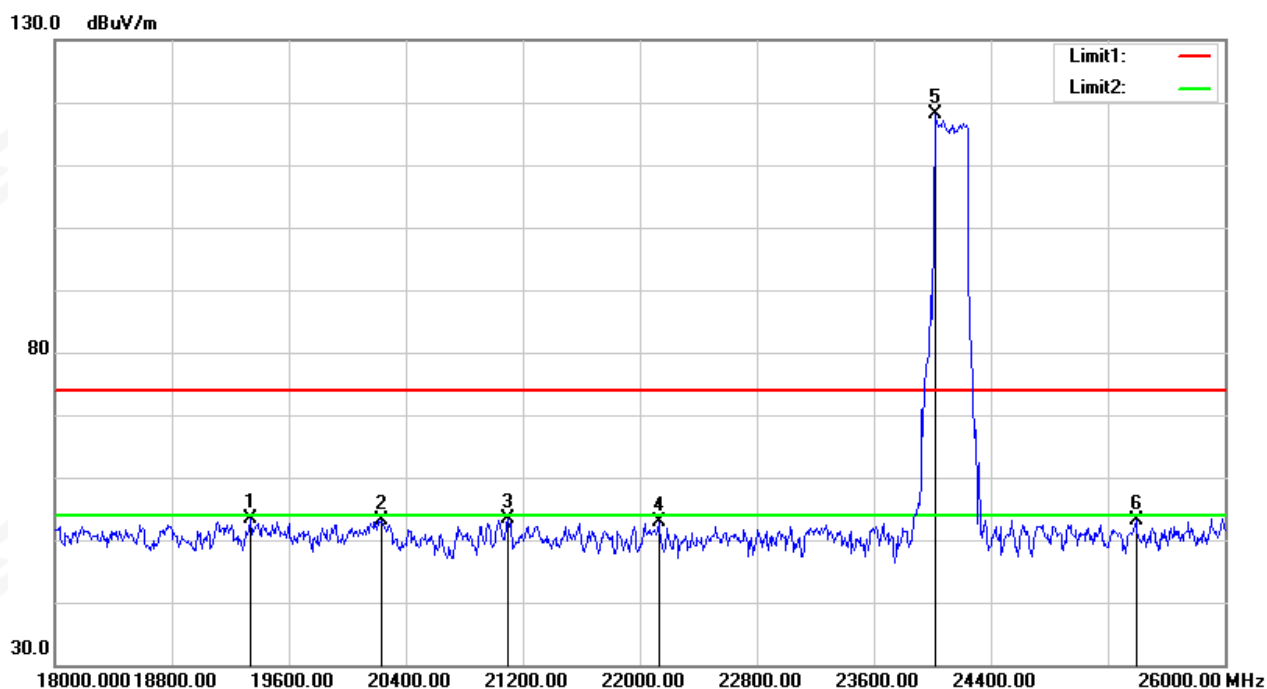
RSE-7GHz -18GHz -V



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	8001.000	51.76	-0.66	51.10	54	-2.9	peak
2	9332.000	49.52	0.90	50.42	54	-3.58	peak
3	11378.000	49.30	2.02	51.32	54	-2.68	peak
4	13952.000	45.11	7.85	52.96	54	-1.04	peak
5	14964.000	49.48	5.44	53.92	54	-0.08	peak
6	16625.000	48.53	4.95	53.48	54	-0.52	peak



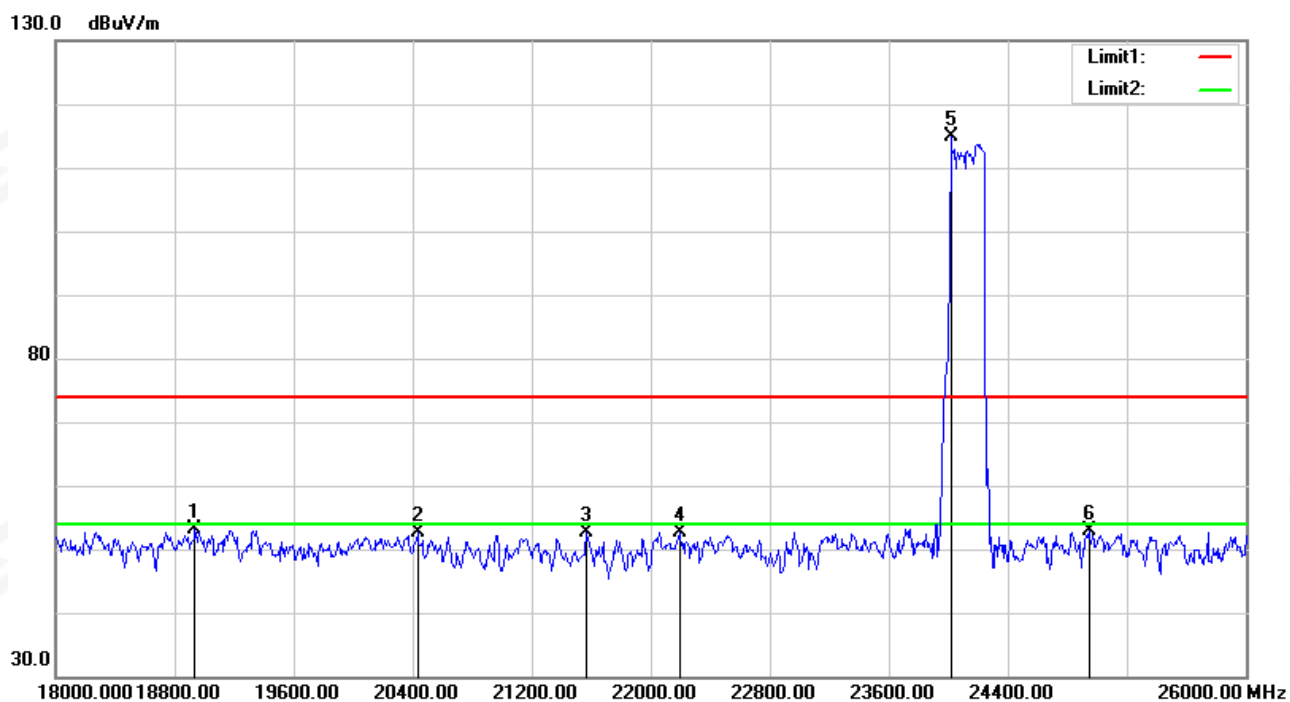
RSE-18GHz -26GHz -H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	19336.000	51.80	1.57	53.37	54	-0.63	peak
2	20232.000	51.07	2.00	53.07	54	-0.93	peak
3	21096.000	50.78	2.72	53.50	54	-0.5	peak
4	22128.000	49.43	3.54	52.97	54	-1.03	peak
5	24016.000	113.40	4.63	118.03	-	-	Fundamental
6	25392.000	47.65	5.58	53.23	54	-0.77	peak



RSE-18GHz -26GHz -V

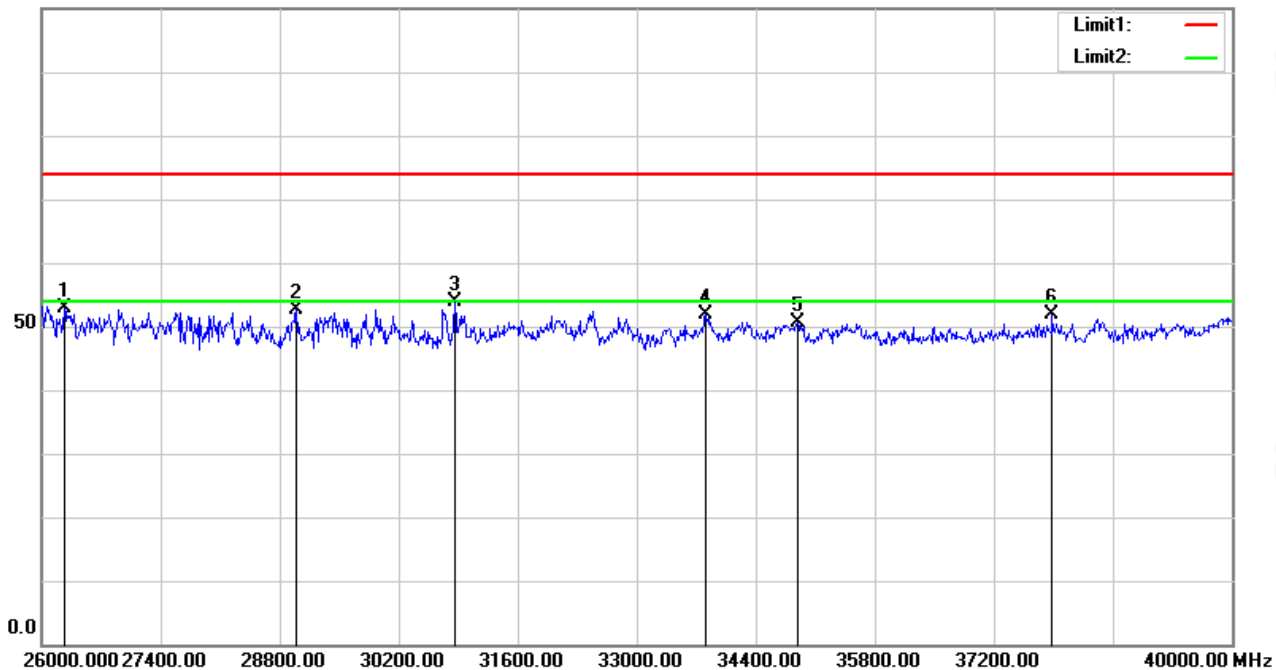


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	18936.000	51.30	1.81	53.11	54	-0.89	peak
2	20432.000	50.38	2.18	52.56	54	-1.44	peak
3	21568.000	49.72	3.00	52.72	54	-1.28	peak
4	22192.000	49.03	3.61	52.64	54	-1.36	peak
5	24016.000	110.18	4.63	114.81	-	-	Fundamental
6	24944.000	47.69	5.23	52.92	54	-1.08	peak



RSE-26GHz -40GHz -H

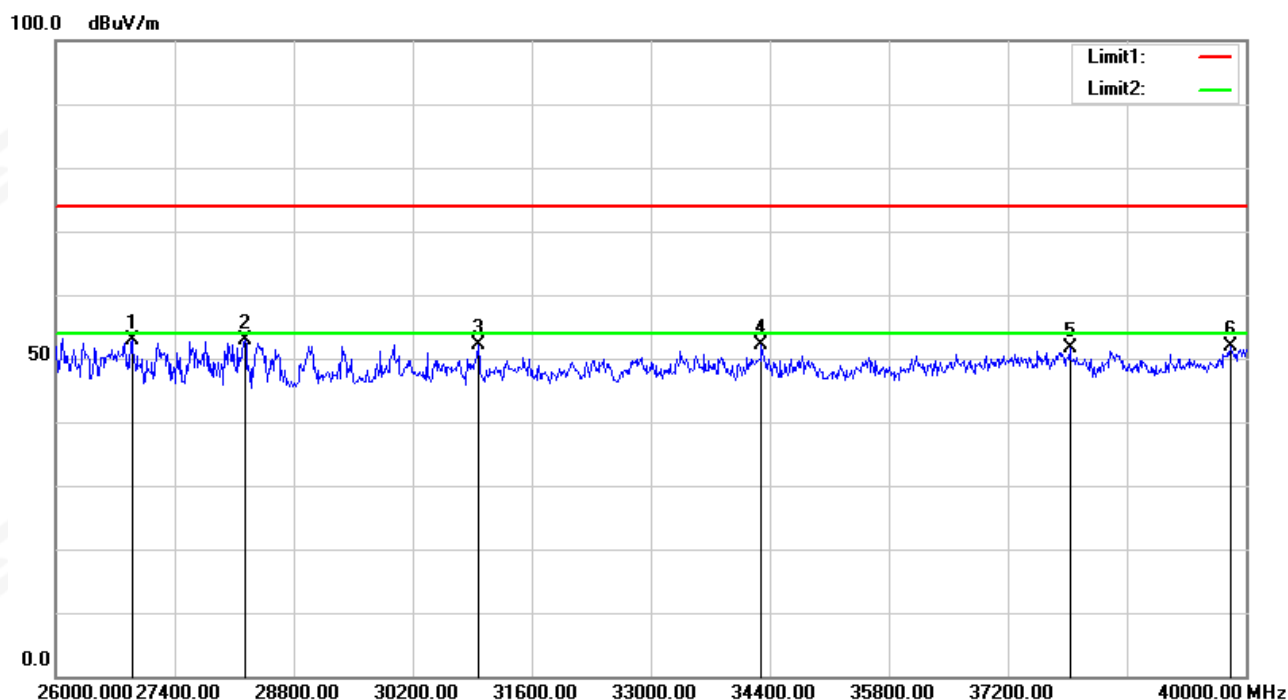
100.0 dBuV/m



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	26266.000	46.95	5.93	52.88	54	-1.12	peak
2	28996.000	43.64	8.99	52.63	54	-1.37	peak
3	30858.000	44.85	8.93	53.78	54	-0.22	peak
4	33812.000	42.54	9.31	51.85	54	-2.15	peak
5	34890.000	41.06	9.68	50.74	54	-3.26	peak
6	37886.000	45.13	6.81	51.94	54	-2.06	peak



RSE-26GHz -40GHz -V



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	26896.000	46.45	6.50	52.95	54	-1.05	peak
2	28226.000	45.06	7.73	52.79	54	-1.21	peak
3	30970.000	43.11	8.94	52.05	54	-1.95	peak
4	34302.000	42.61	9.49	52.10	54	-1.9	peak
5	37928.000	44.81	6.77	51.58	54	-2.42	peak
6	39818.000	43.07	8.72	51.79	54	-2.21	peak

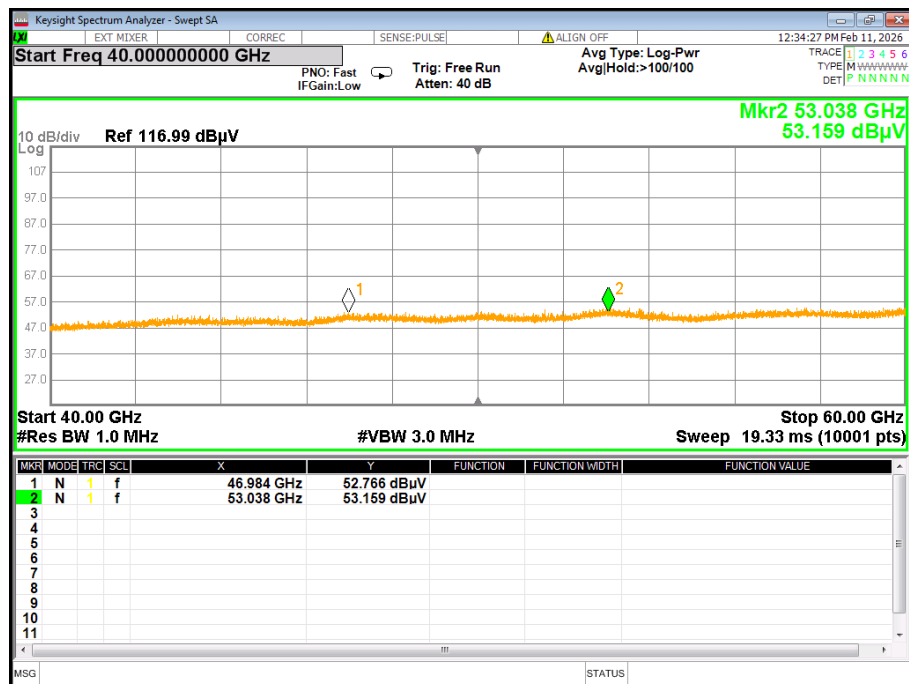


Above 40GHz

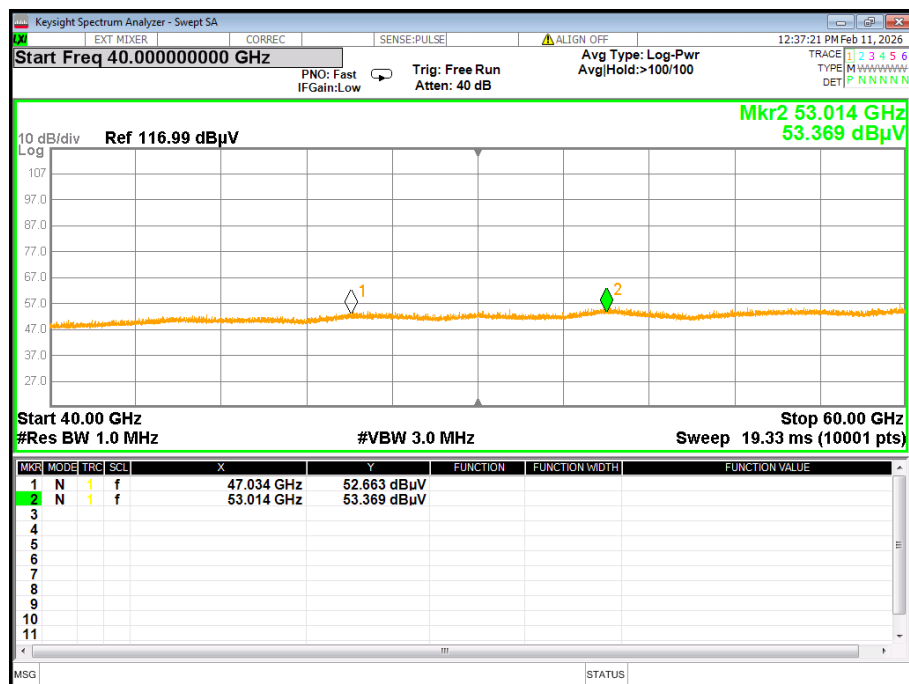
Frequency	Result	Limit	Margin	Remark	Pol.
(GHz)	(dBuV/m)	(dBuV/m)	(dB)		
46.984	52.766	54.000	-1.234	peak	H
47.034	52.663	54.000	-1.337	peak	V
53.038	53.159	54.000	-0.841	peak	H
53.014	53.369	54.000	-0.631	peak	V
62.025	51.975	54.000	-2.025	peak	H
62.121	52.655	54.000	-1.345	peak	V
73.332	53.110	54.000	-0.890	peak	H
73.163	53.136	54.000	-0.864	peak	V
76.918	53.471	54.000	-0.529	peak	H
76.974	53.286	54.000	-0.714	peak	V
88.167	52.543	54.000	-1.457	peak	H
88.255	52.831	54.000	-1.169	peak	V



RSE-40GHz-60GHz-H

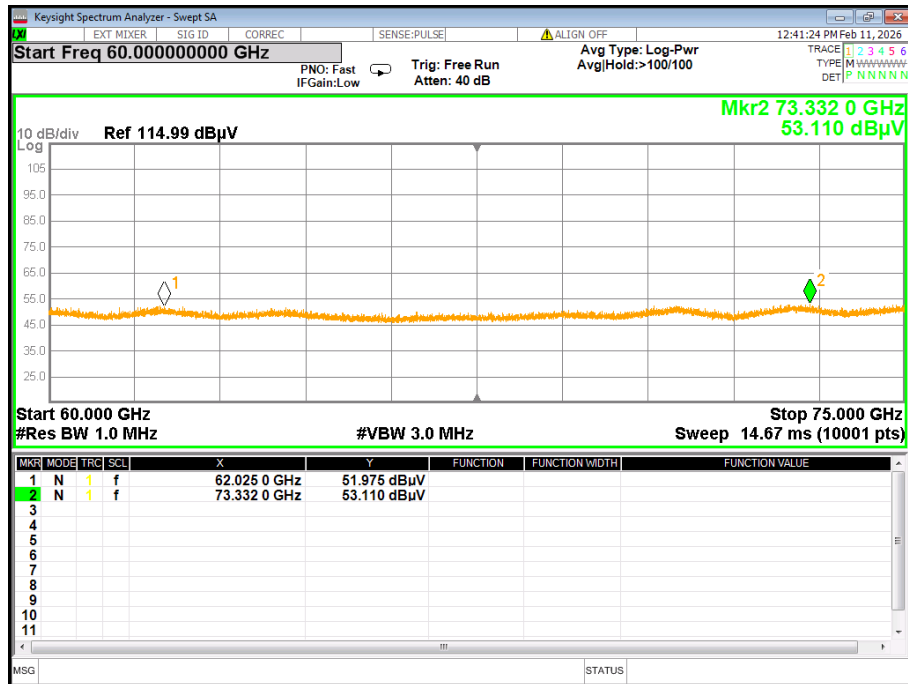


RSE-40GHz-60GHz-V

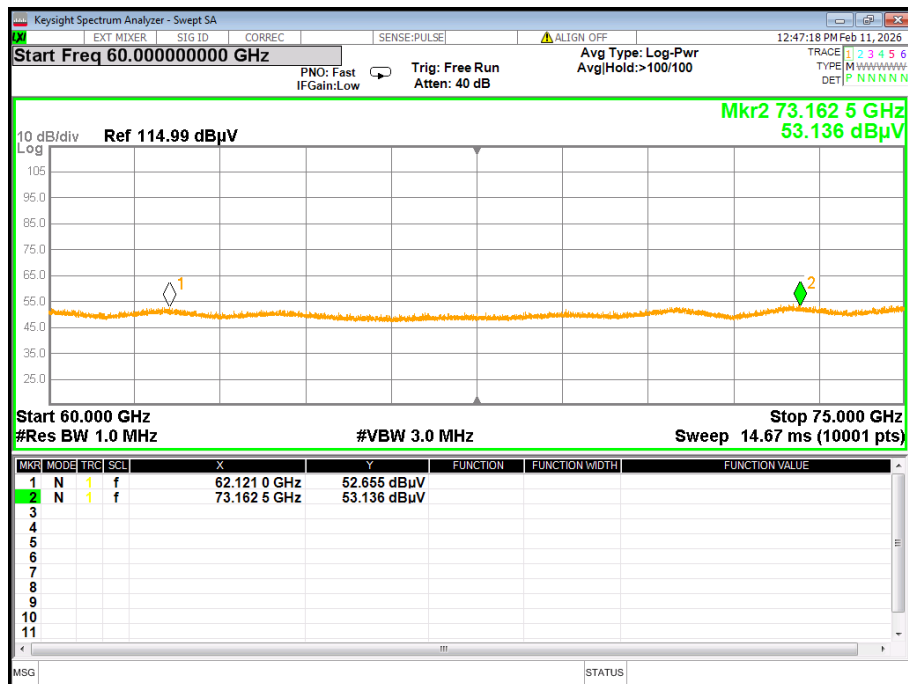




RSE-60GHz-75GHz-H

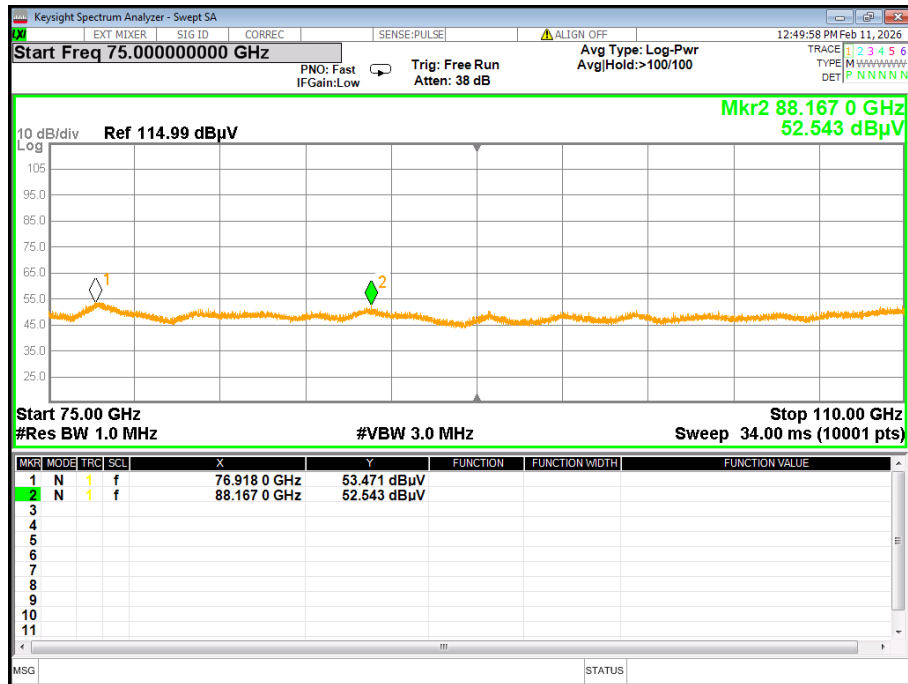


RSE-60GHz-75GHz-V

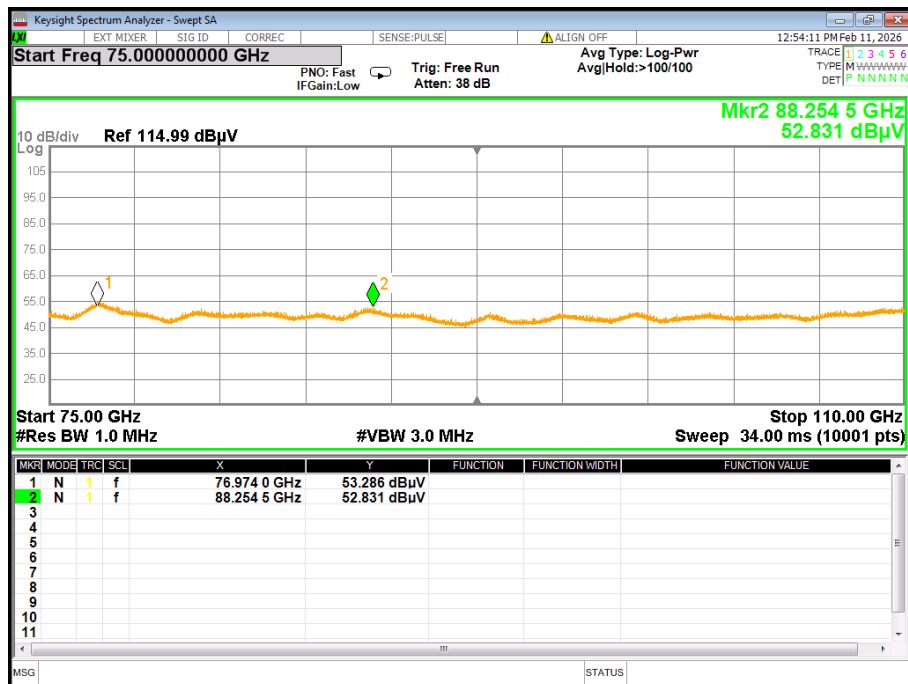




RSE-75GHz-110GHz-H



RSE-75GHz-110GHz-V

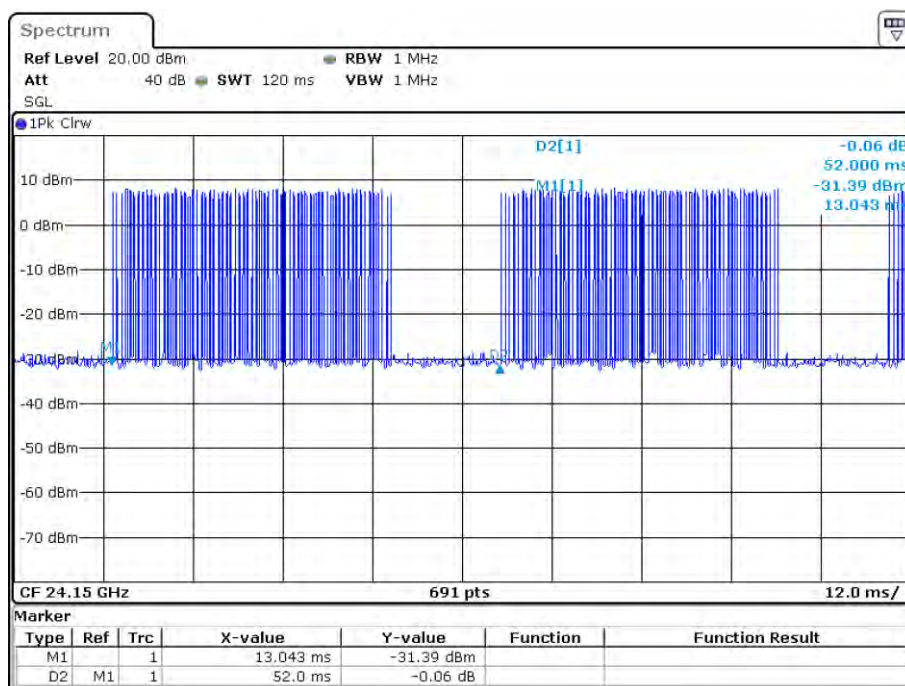




Duty cycle

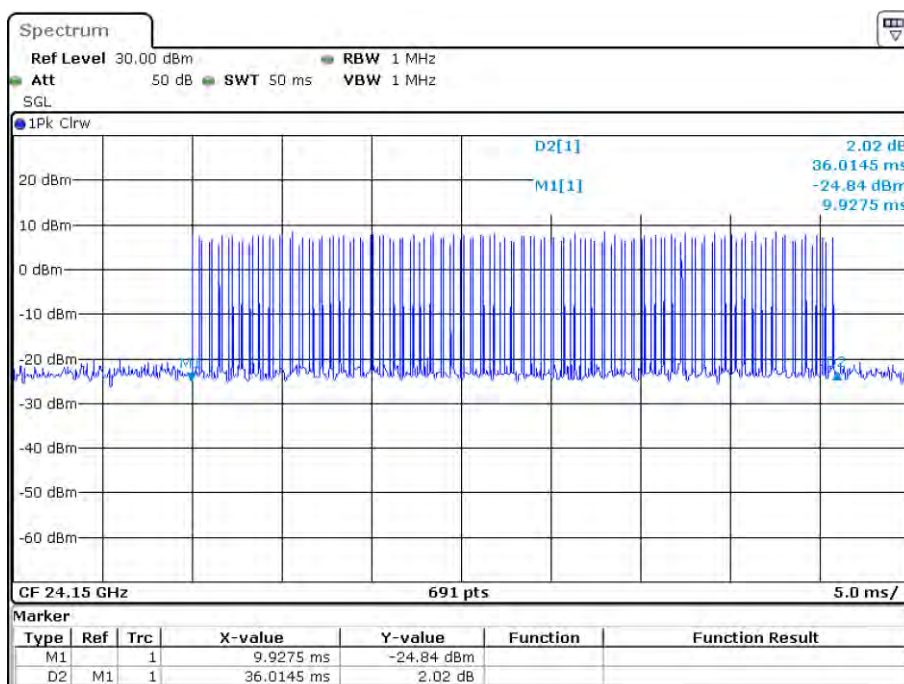
Ton (ms)	Tp (ms)	Duty cycle(%)	Duty Factor
0.503597	52	0.97%	40.28

Duty Cycle-1

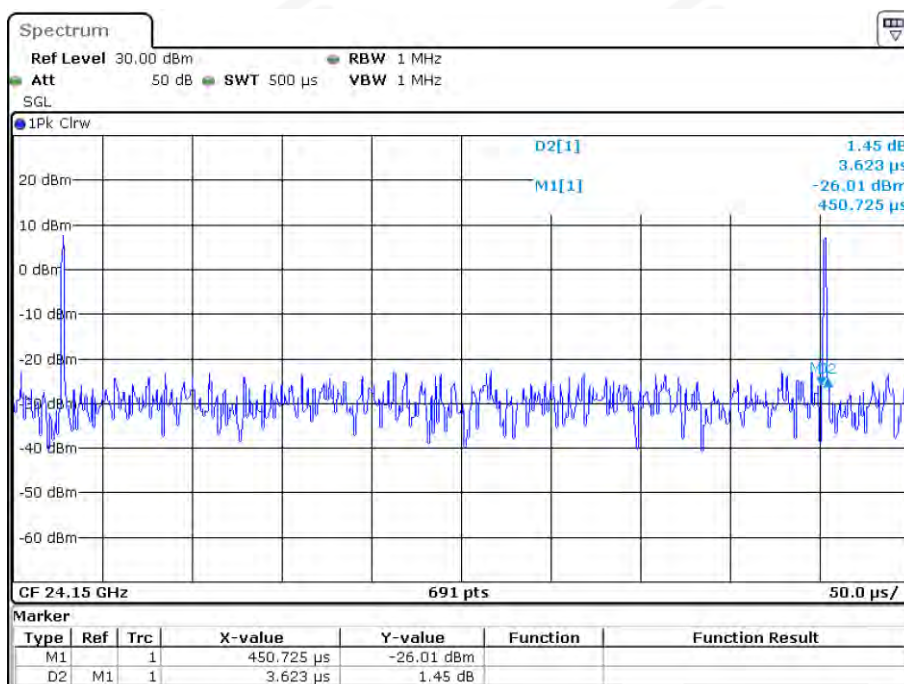




Duty Cycle-2



Duty Cycle-3



Note:

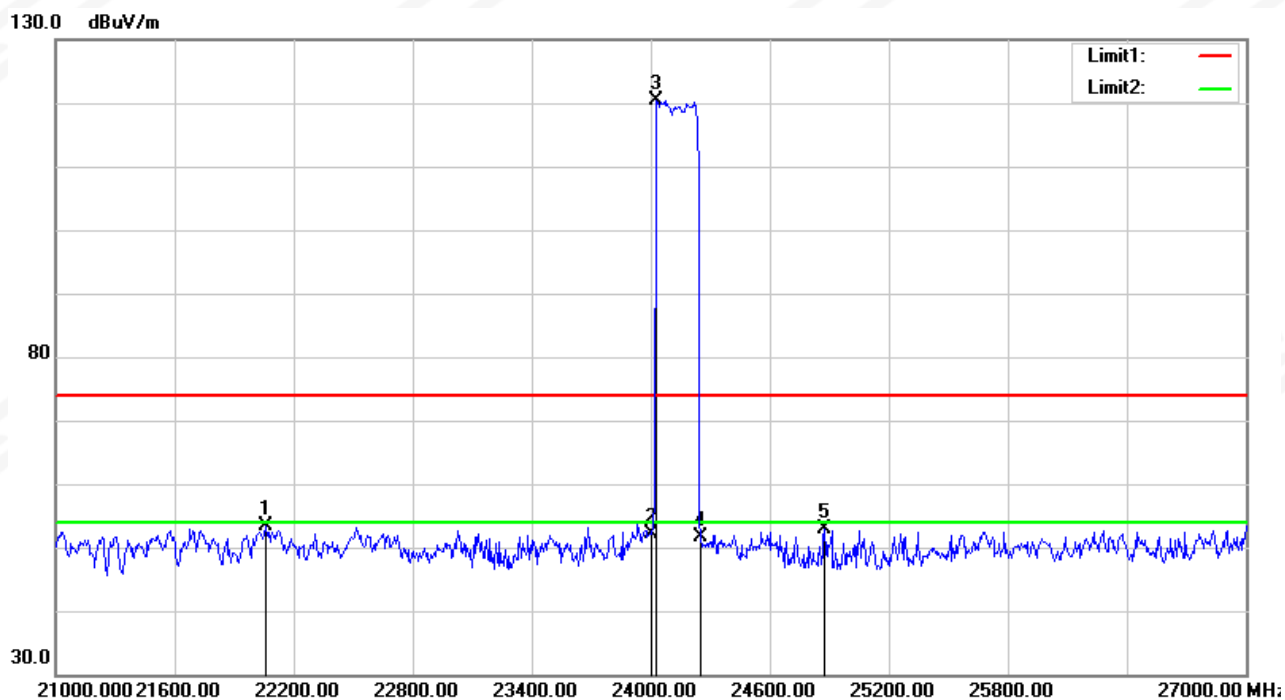
1. Number of pulse train 1 = 139, Time of single pulse train 1 = 3.623us;
Total on interval in a complete pulse train= Number of pulse train 1x Time of single pulse train=139*3.623us =0.5036ms
2. Duty Factor=20*LOG10(1/(Ton/Tp))



(Radiation Band edge)

24GHz

Horizontal



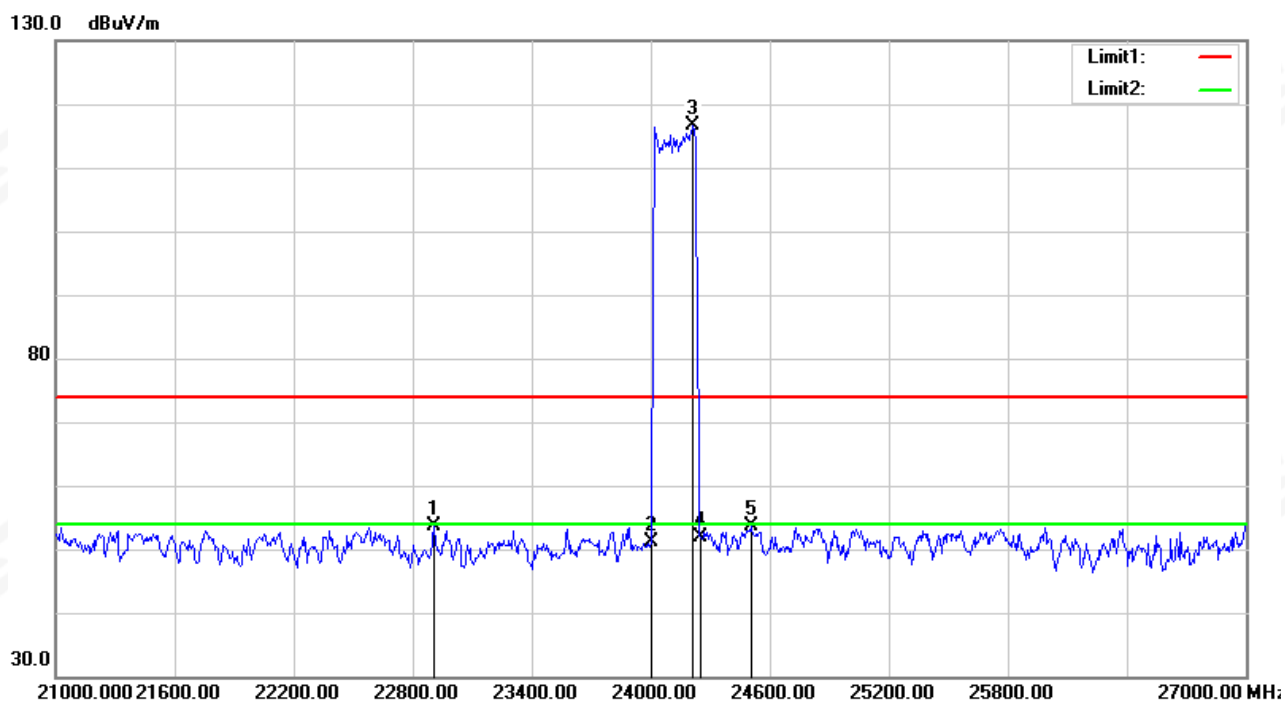
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	22056.000	49.80	3.47	53.27	54	-0.73	peak
2	24000.000	47.40	4.63	52.03	54	-1.97	peak
4	24250.000	46.97	4.67	51.64	54	-2.36	peak
5	24876.000	47.66	5.16	52.82	54	-1.18	peak

Fundamental Frequency

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Duty cycle Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
3	24030.000	118.00	4.64	-	122.64	127.96	-5.32	peak
3	24030.000	118.00	4.64	40.28	82.36	107.96	-25.6	AVG



Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	22908.000	50.05	3.69	53.74	54	-0.26	peak
2	24000.000	46.46	4.63	51.09	54	-2.91	peak
4	24250.000	47.26	4.67	51.93	54	-2.07	peak
5	24504.000	48.80	4.72	53.52	54	-0.48	peak

Fundamental Frequency

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Duty cycle Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
3	24210.000	113.59	4.67	-	118.26	127.96	-9.7	peak
3	24210.000	113.59	4.67	40.28	77.98	107.96	-29.98	AVG



4. BANDWIDTH TEST

4.1 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- b. Spectrum Setting : RBW= 1MHz VBW $\geq$ RBW, Sweep time = Auto.

4.2 TEST SETUP



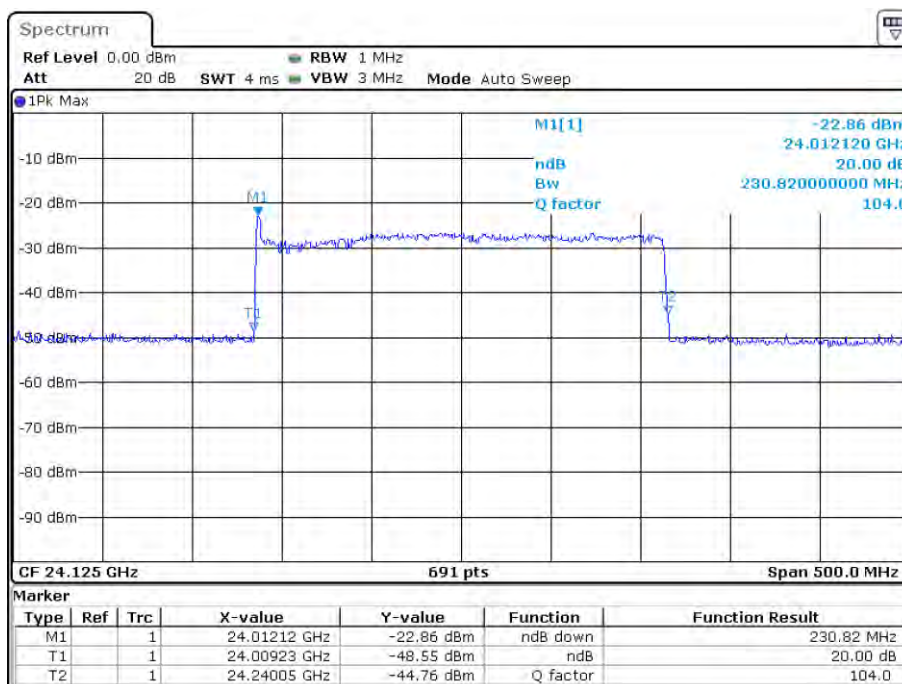
4.3 EUT OPERATION CONDITIONS TX mode.



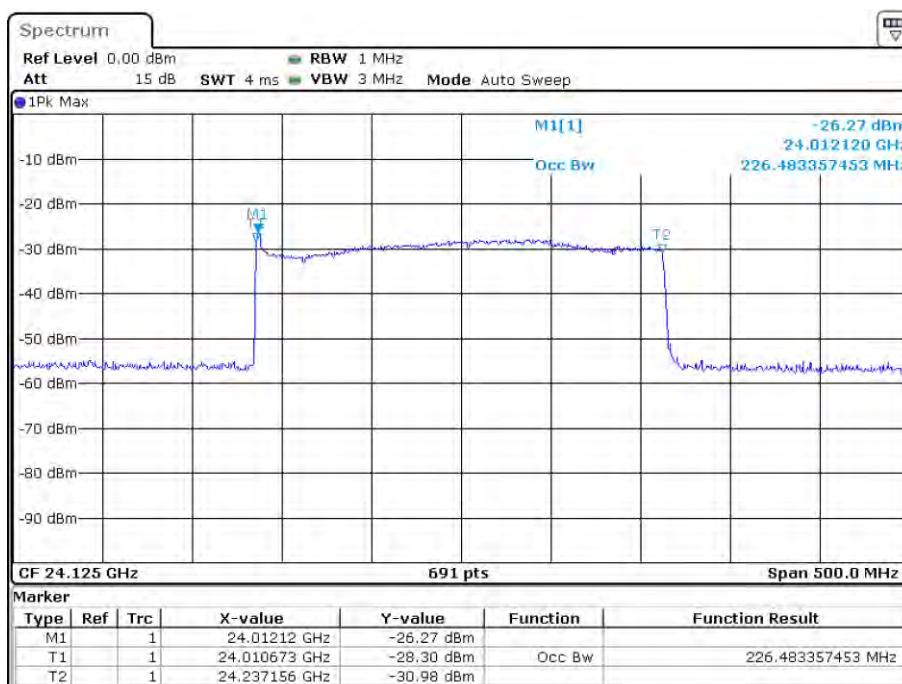
4.4 TEST RESULTS

Test Channel	Frequency(GHz)	20dB Bandwidth(KHz)	99% Bandwidth(KHz)
CH00	24.125	230.82	226.483

20dB Bandwidth



99% Bandwidth





5. ANTENNA REQUIREMENT

5.1 STANDARD REQUIREMENT

According to the FCC Part 15 Paragraph 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.

5.2 EUT ANTENNA

The EUT antenna is PCB Antenna. It conforms to the standard requirements.



APPENDIX- PHOTOS OF TEST SETUP

Note: See test photos in setup photo document for the actual connections between Product and support equipment.

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