



# Radio Test Report

Report No.: STS2506098W02

Issued for

Litum bilgi teknolojileri san. Ve dis tic. A.S

Sevket Ozcelik sok. No29 Alsancak izmir Turkey

Product Name: Microwave Radar

Brand Name: Litum

Model Name: M303

Series Model(s): M303-0005(without gyro-single radar),  
M303-0017(without gyro-double radar),  
M303-0053(full product-single radar),  
M303-0054(full product-double radar)

FCC ID: 2AW7W-M303

Test Standards: FCC Part 2, FCC Part 95, Subpart M

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## TEST REPORT

**Applicant's Name** ..... Litum bilgi teknolojileri san. Ve dis tic. A.S  
Address ..... Sevket Ozcelik sok. No29 Alsancak izmir Turkey

**Manufacturer's Name** ..... Litum bilgi teknolojileri san. Ve dis tic. A.S  
Address ..... Sevket Ozcelik sok. No29 Alsancak izmir Turkey

### Product Description

Product Name ..... Microwave Radar  
Brand Name ..... Litum  
Model Name ..... M303  
Series Model(s) ..... M303-0005(without gyro-single radar),  
M303-0017(without gyro-double radar),  
M303-0053(full product-single radar),  
M303-0054(full product-double radar)  
FCC Part 2, FCC Part 95,Subpart M

**Test Standards** ..... ANSI C63.26-2015  
ANSI C63.10-2020

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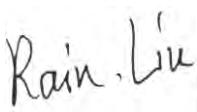
**Date of Test** ..... :

Date of receipt of test item ..... 14 June 2025

Date (s) of performance of tests ..... 14 June 2025~15 Aug.2025

Date of Issue ..... 15 Aug.2025

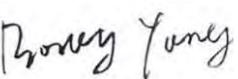
Test Result ..... **Pass**

Testing Engineer : 

(Rain Liu)

Technical Manager : 

(Skylar Li)

Authorized Signatory : 

(Bovey Yang)





Table of Contents	Page
<b>1. SUMMARY OF TEST RESULTS</b>	<b>5</b>
1.1 TEST FACTORY	6
1.2 MEASUREMENT UNCERTAINTY	6
<b>2. GENERAL INFORMATION</b>	<b>7</b>
2.1 GENERAL DESCRIPTION OF THE EUT	7
2.2 ENVIRONMENTAL CONDITIONS FOR TESTING	8
2.3 TEST MODE	8
2.4 DESCRIPTION OF NECESSARY ACCESSORIES AND SUPPORT UNITS	9
2.5 EQUIPMENTS LIST	10
<b>3. OCCUPIED BANDWIDTH</b>	<b>11</b>
3.1 LIMIT	11
3.2 TEST PROCEDURES	11
3.3 TEST SETUP	11
3.4 TEST RESULT	12
<b>4. RADIATED POWER (E.I.R.P.)</b>	<b>13</b>
4.1 LIMIT	13
4.2 TEST PROCEDURE	13
4.3 TEST SETUP	14
4.4 TEST RESULT	14
<b>5. FREQUENCY STABILITY</b>	<b>16</b>
5.1 LIMIT	16
5.2 TEST PROCEDURES	16
5.3 TEST SETUP	16
5.4 TEST RESULT	17
<b>6. UNWANTED EMISSIONS</b>	<b>18</b>
6.2 TEST PROCEDURES	20
6.3 TEST SETUP	21
6.4 TEST RESULT	23
<b>APPENDIX 1-MEASUREMENT PHOTOS</b>	<b>38</b>



### Revision History

Rev.	Issue Date	Report No.	Effect Page	Contents
00	15 Aug. 2025	STS2506098W02	ALL	Initial Issue



## 1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

FCC Part 95			
Test Item	Limit	Frequency Range (GHz)	Applicable (Yes/No)
<b>TRANSMITTER PARAMETERS</b>			
Radiated Power	Part 2.1046 Part 2.1051 Part 95.3367	76 - 81	Y
Occupied Bandwidth	Part 2.1049		Y
Modulation characteristics	Part 2.1047		Y
Unwanted Radiated Emissions	Part 95.3379 Part 2.1053		Y
Frequency stability	Part 95.3379 Part 2.1055		Y



## 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	$\pm 0.755\text{dB}$
2	Occupied bandwidth	$\pm 3.5\%$
3	All emissions, radiated below 1GHz	$\pm 2.59\text{dB}$
4	All emissions, radiated 1GHz-18GHz	$\pm 3.32\text{dB}$
5	All emissions, radiated>18G	$\pm 3.89\text{dB}$
6	Duty Cycle	$\pm 3.2\%$



## 2. GENERAL INFORMATION

### 2.1 GENERAL DESCRIPTION OF THE EUT

Product Name	Microwave Radar												
Brand	Litum												
Model Number	M303												
Series Model(s)	M303-0005(without gyro-single radar), M303-0017(without gyro-double radar), M303-0053(full product-single radar), M303-0054(full product-double radar)												
Model Difference	M303-0005 is only a single reverse rear radar; M303-0017 is a dual radar consisting of two M303-0005s, one front and one rear; M303-0053 consists of a single rear radar and 4300000078; M303-0054 consists of a complete set of front and rear dual radars and 4300000078.												
Product Description	<p>The EUT is Microwave Radar</p> <table border="1"><tr><td>Operation Frequency</td><td>77-81GHz</td></tr><tr><td>Modulation Type</td><td>FMCW</td></tr><tr><td>Chirp Time</td><td>87.28 <math>\mu</math>s</td></tr><tr><td>Number Of Channel</td><td>1 CH</td></tr><tr><td>Antenna Designation</td><td>PCB</td></tr><tr><td>Antenna Gain(Peak)</td><td>12dBi</td></tr></table> <p>Based on the application, features, or specification exhibited in User Manual, the EUT is considered as an ITE/Computing Device. More details of EUT technical specification, please refer to the User Manual.</p>	Operation Frequency	77-81GHz	Modulation Type	FMCW	Chirp Time	87.28 $\mu$ s	Number Of Channel	1 CH	Antenna Designation	PCB	Antenna Gain(Peak)	12dBi
Operation Frequency	77-81GHz												
Modulation Type	FMCW												
Chirp Time	87.28 $\mu$ s												
Number Of Channel	1 CH												
Antenna Designation	PCB												
Antenna Gain(Peak)	12dBi												
Channel List	Refer to Note 3.												
Power Rating	Input: DC 24V												
Adapter	N/A												
Battery	N/A												
Hardware Version Number	V1.4												
Software Version Number	V1.4												
Connecting I/O Port(s)	Refer to 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	77-81

## 2.2 ENVIRONMENTAL CONDITIONS FOR TESTING

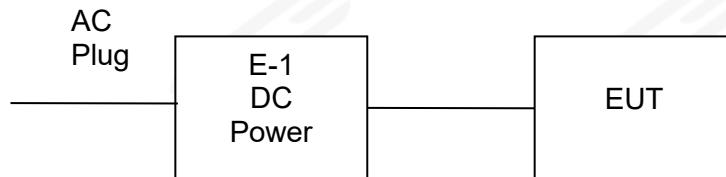
Test Condition	Temperature(°C)	Voltage(V)	Relative Humidity (%)
NT/NV	25	DC 12V	53
LT/NV	-20	10.8	/
HT/NV	60	13.2	/

### Note:

- (1) The EUT can only work from LT -20°C to HT 60°C which is declared by the manufacturer, and the EUT can't operate normally at higher or lower temperature than the declared range.
- (2) NV: Normal Voltage; NT: Normal Temperature.
- (3) LT: Low Extreme Test Temperature; HT: High Extreme Test Temperature.

## 2.3 TEST MODE

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.



The EUT was programmed to be in continuously transmitting mode.



## 2.4 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.

### Necessary accessories

Item	Equipment	Mfr/Brand	Model/Type No.	Length	Note
E-1	DC Power	HONGSHENGFENG	DPS-305AF	N/A	E-1

### Support units

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



## 2.5 EQUIPMENTS LIST

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	2024.09.23	2025.09.22
Pre-Amplifier (18G-40GHz)	SKET	LNPA_1840-50	SK2018101801	2025.02.22	2026.02.21
Pre-Amplifier Unit (40G-260GHz)	Dechen	QQ-LNA-40260	N/A	2024.08.31	2025.08.30
Active loop Antenna (9KHz-30MHz)	ZHINAN	ZN30900C	16035	2025.02.25	2026.02.24
Bilog Antenna (30-1000MHz)	TESEQ	CBL6111D	34678	2024.09.30	2025.09.29
Horn Antenna (1G-18GHz)	SCHWARZBECK	BBHA 9120D	2014	2023.09.24	2025.09.23
HornAntenna (18G-40GHz)	A-INFOMW	LB-180400-KF	J211020657	2024.09.25	2025.09.24
Horn Antenna (40G-60GHz)	A-INFO	LB-19-25-A	2020039000053	2024.12.25	2025.12.24
Horn Antenna (50G-75GHz)	A-INFO	LB-15-25-A	2020028000183	2024.12.25	2025.12.24
Horn Antenna (75G-110GHz)	A-INFO	LB-10-25-A	2020017000101	2024.12.25	2025.12.24
Horn Antenna (110G-170GHz)	A-INFO	LB-6-25-A	2020009000108	2024.12.25	2025.12.24
Horn Antenna (170G-260GHz)	A-INFO	LB-4-25-A	20202706000029	2024.12.25	2025.12.24
Mixer(40-60GHz)	AT-Microwave	AT-SAX8-4060	N/A	2024.12.25	2025.12.24
Mixer(50-75GHz)	AT-Microwave	AT-SAXB-5075	N/A	2024.12.25	2025.12.24
Mixer(75-110GHz)	AT-Microwave	AT-SAX8-75110	N/A	2024.12.25	2025.12.24
Mixer(110-170GHz)	AT-Microwave	AT-SAX24-110170	N/A	2024.12.25	2025.12.24
Mixer(170-260GHz)	AT-Microwave	AT-SAX32-170260	N/A	2024.12.25	2025.12.24
Mixer(40-60GHz)	TLHM	TLHM-4060-04-19	N/A	2024.12.25	2025.12.24
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	2024.09.23	2025.09.22
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	HONGSHENGFENG	DPS-305AF	17064939	2024.09.23	2025.09.22
Test SW	EZ-MMW		Ver.STSLAB-MMW1.0		

### 3. OCCUPIED BANDWIDTH

#### 3.1 LIMIT

The radar device's occupied bandwidth shall be contained in the 76-81 GHz frequency band.

According to §2.1049, The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured.

#### 3.2 TEST PROCEDURES

ANSI C63.26(2015)Section 5.4 and ANSI C63.10-2020 Section 9.4

a) Use the following spectrum analyzer settings:

- 1) Span equal to approximately two times to three times the OBW, centered on the carrier frequency.
- 2) RBW:1MHz
- 3) VBW: 3 X RBW
- 4) Sweep = auto.
- 5) Detector function = peak.
- 6) Trace = max hold.

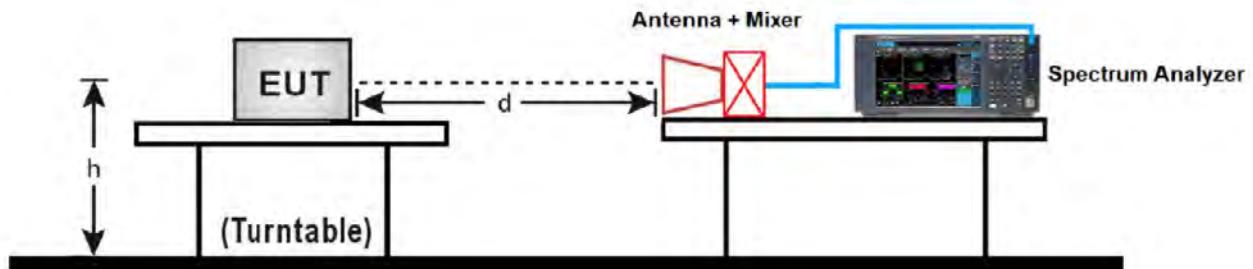
b) The EUT shall be transmitting at its maximum data rate. Allow the trace to stabilize.

c) Use the marker-to-peak function to set the marker to the peak of the emission. Use the marker-delta function to measure the specified dB down one side of the emission.

d) Reset the marker-delta function and move the marker to the other side of the emission until the delta marker amplitude is at the same level as the reference marker amplitude. The marker-delta frequency reading at this point is the specified emission bandwidth.

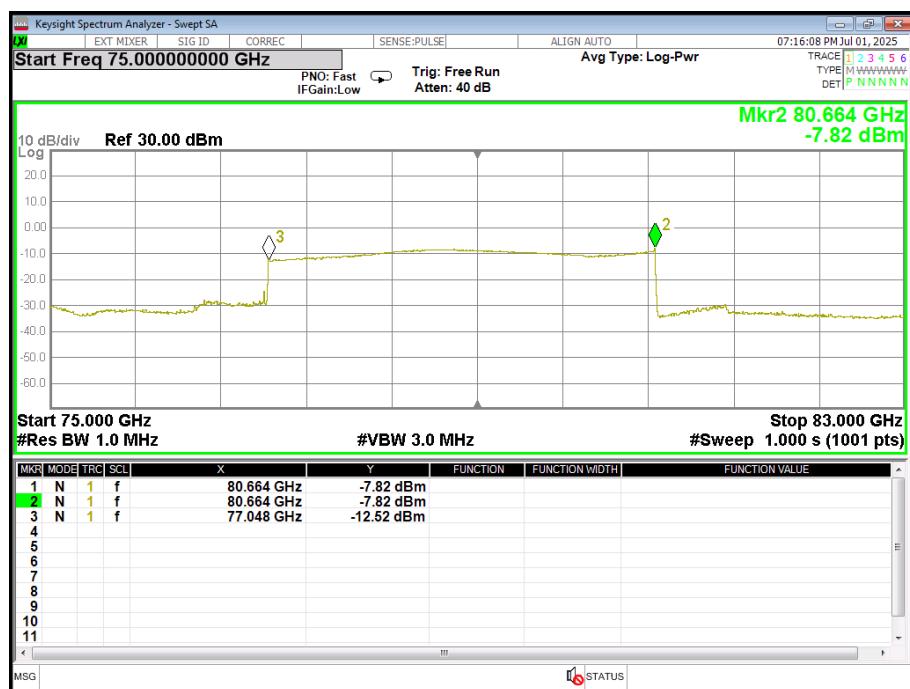
e) If this value varies with different modes of operation (data rate, modulation format, etc.), then repeat this test for each variation.

#### 3.3 TEST SETUP



## 3.4 TEST RESULT

Lowest Frequency(GHz )	Highest Frequency(GHz )	Bandwidth (GHz )	Limit (GHz )	Result
77.048	80.664	3.616	76-81	Pass





## 4. RADIATED POWER (E.I.R.P.)

### 4.1 LIMIT

According to §95.3367, The fundamental radiated emission limits within the 76-81 GHz band are expressed in terms of Equivalent Isotropically Radiated Power (EIRP) and are as follows: (a) The maximum power(EIRP) within the 76-81 GHz band shall not exceed 50 dB m based on measurements employing a power averaging detector with a 1 MHz Resolution Bandwidth(RBW). (b) The maximum peak power(EIRP) within the 76-81 GHz band shall not exceed 55 dB m based on measurements employing a peak detector with a 1 MHz RBW.

### 4.2 TEST PROCEDURE

Please refer to Part 95.3367 and ANSI C63.26 Section 5.2/ ANSI C63.10 Section 9

The average e.i.r.p. measurement shall be performed using a power averaging detector with a 1 MHz resolution bandwidth (RBW). The power shall be integrated over the occupied bandwidth.

1. Set the EUT power to the maximum
2. Set RBW = 1 MHz
3. Set VBW  $\geq$  3 X RBW
4. span to 2 x to 3 x the OBW
5. Detector = power averaging (rms)
6. Set number of points in sweep  $\geq$  2 x span / RBW
7. Sweep time = auto

Maximum peak power(EIRP) – Peak detector

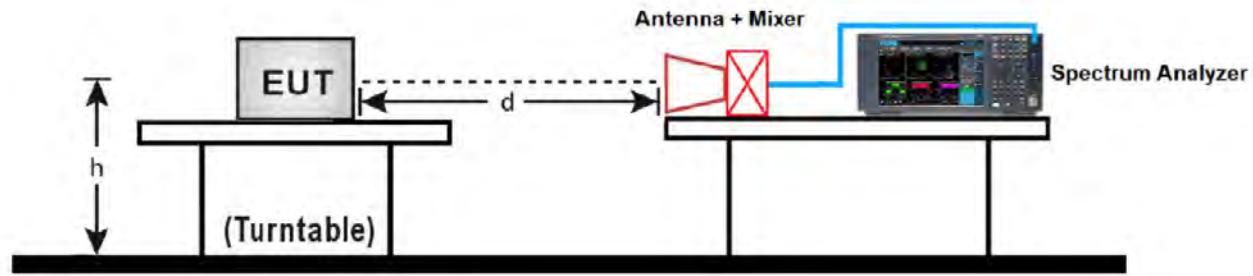
1. Set RBW = 1 MHz
2. Set VBW  $\geq$  3 X RBW
3. span to 2 x to 3 x the OBW
4. Detector = Peak
5. Set number of points in sweep  $\geq$  2 x span / RBW
6. Sweep time = auto-couple
7. Trace = max-hold

Note1. Sample Calculation  $E(\text{dB}\mu\text{V}/\text{m}) = \text{Measured level}(\text{dB}\mu\text{V}) + 107 + \text{AFCL}(\text{dB}/\text{m})$  Where, E=field strength / AFCL= Antenna Factor(dB/m) + Cable Loss(dB/m) The mixer loss was applied to the measured level by SA correction factor.  $\text{EIRP}(\text{dB m}) = E(\text{dB}\mu\text{V}/\text{m}) + 20\log(D) - 104.8$ ; where, D is measurement distance(in the far field region) in m.

Note2. P.C.F Calculation (P.C.F=Peak amplitude correction factor of the FMCW signal)  
 $F.C.F = 20 \cdot \log_{10}(1/\alpha)$

$$\alpha = \frac{1}{\sqrt[4]{1 + \left(\frac{2 \ln(2)}{\pi}\right)^2 \left(\frac{F_S}{T_S B^2}\right)^2}}$$

### 4.3 TEST SETUP



### 4.4 TEST RESULT

Remark	Frequency (GHz)	Distance (m)	dBuV/m	EIRP Power (dBm)	Desensitization Factor(dB)	Final EIRP Power (dBm)	EIRP Power Limit (dBm)	Result
Average Power	77-81	1.5	78.328	-22.95	12.63	-10.32	50	PASS
Peak Power	77-81	1.5	99.17	-2.11	12.63	10.52	55	PASS

The FMCW Desensitization Factor

FMCW Width(MHz)	$T_{\text{chirp}}(\mu\text{s})$	RBW(MHz)	Desensitization Factor(lin)	Desensitization Factor(dB)
3616	87.28	1	0.0546	12.63

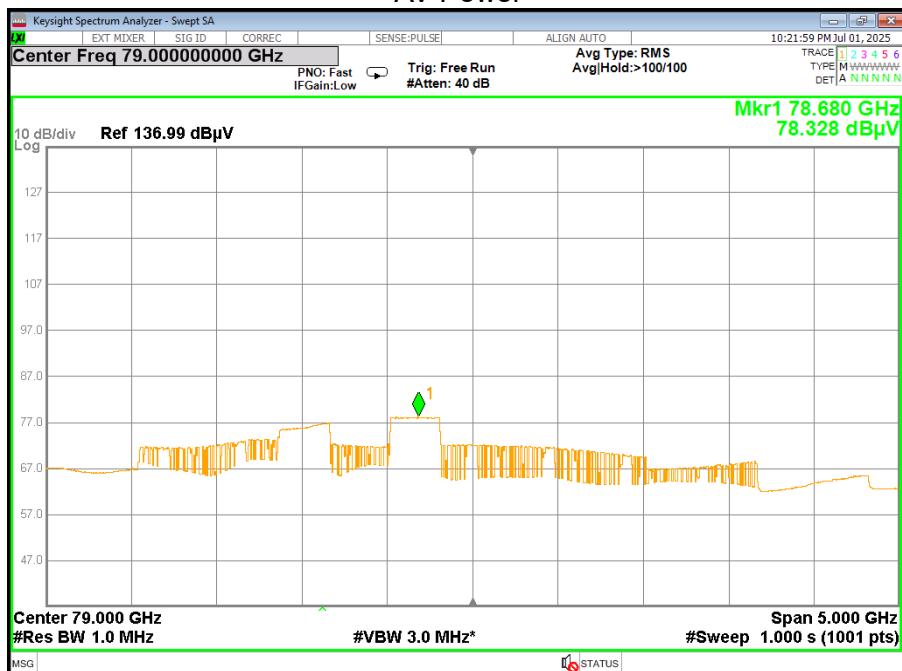
$$\alpha = \frac{1}{\sqrt{1 + \left(\frac{2 \ln(2)}{\pi}\right)^2 \left(\frac{BW_{\text{Chirp}}}{T_{\text{Chirp}} B^2}\right)^2}}$$

where

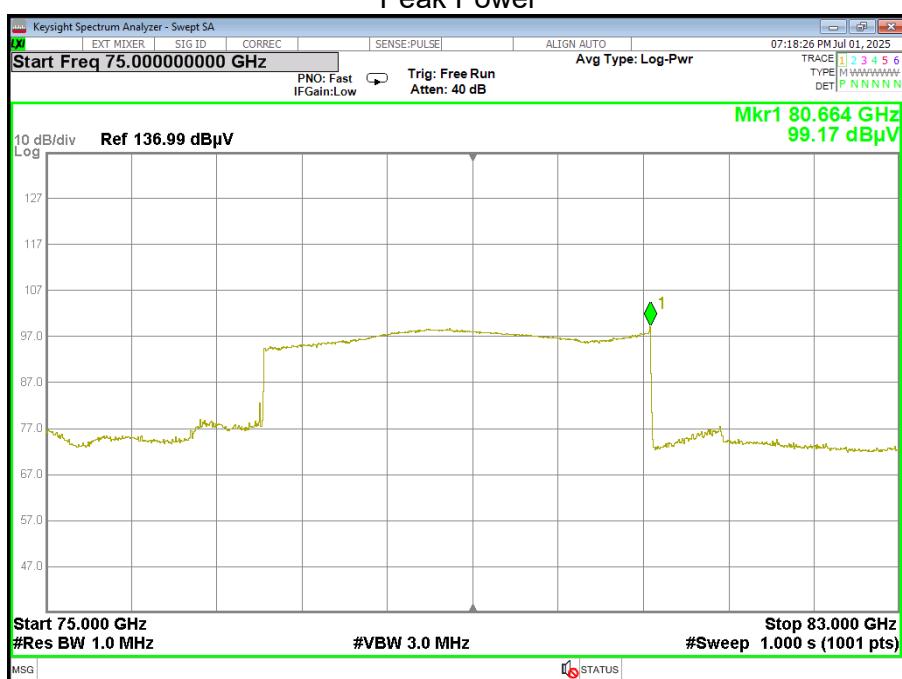
- $\alpha$  is the reduction in amplitude
- $BW_{\text{Chirp}}$  is the FMCW Chirp Bandwidth
- $T_{\text{Chirp}}$  is the FMCW Chirp Time
- $B$  is the 3 dB IF Bandwidth = RBW



## AV Power



## Peak Power



## 5. FREQUENCY STABILITY

### 5.1 LIMIT

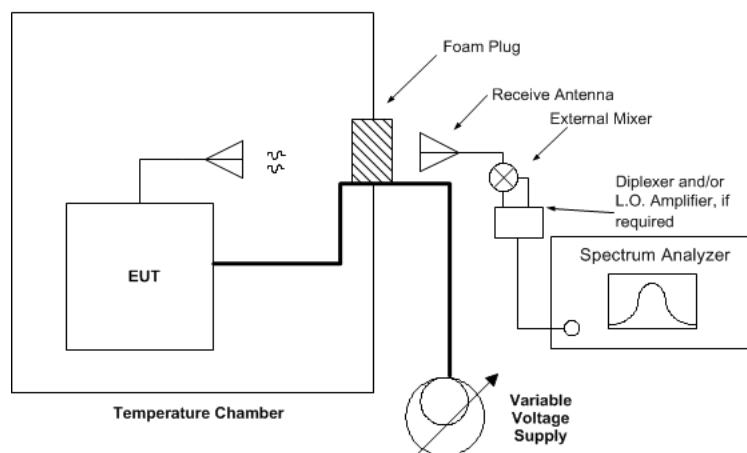
Fundamental emissions must be contained within the frequency bands specified in this section during all conditions of operation. Equipment is presumed to operate over the temperature range -20 to +50 degrees Celsius with an input voltage variation of 85% to 115% of rated input voltage, unless justification is presented to demonstrate otherwise

### 5.2 TEST PROCEDURES

1. Please refer to Part 95.3379 and ANSI C63.26(2015) - Section 5.6
  - a) Arrange EUT and test equipment as shown in Figure 21. Some temperature chambers have a window or other opening that permits locating the receive antenna outside the chamber.
  - b) With the EUT at ambient temperature (approximately 25 °C) and voltage source set to the EUT nominal operating voltage (100%), record the spectrum mask of the EUT emission on the spectrum analyzer.
  - c) Vary EUT power supply between 85% and 115% of nominal, and record the frequency excursion of the EUT emission mask.
  - d) Set the power supply to 100% nominal setting, and raise EUT operating temperature to 50 °C. Record the frequency excursion of the EUT emission mask.
  - e) Repeat step d) at each 10 °C increment down to -20 °C.

### 5.3 TEST SETUP

◦ EUT uses a horn antenna connected to a spectrum analyzer for measurement. The EUT was placed in an environmental chamber using foam plugs to maintain temperature conditions inside. The horn antenna measures the frequency of the fundamental signal.





## 5.4 TEST RESULT

Voltage (%)	Power (VDC)	Temp (°C)	FL (GHz)	FH (GHz)	Limit (GHz)	Result
100%	12V	-30	77.0480	80.6585	76-81GHz	Pass
		-20	77.0484	80.6581	76-81GHz	Pass
		-10	77.0484	80.6586	76-81GHz	Pass
		0	77.0482	80.6584	76-81GHz	Pass
		10	77.0489	80.6583	76-81GHz	Pass
		20	77.0487	80.6584	76-81GHz	Pass
		30	77.0485	80.6580	76-81GHz	Pass
		40	77.0484	80.6586	76-81GHz	Pass
		50	77.0483	80.6587	76-81GHz	Pass
		60	77.0486	80.6588	76-81GHz	Pass
115%	13.8V	20	77.0471	80.6593	76-81GHz	Pass
85%	10.2V	20	77.0477	80.6591	76-81GHz	Pass



## 6. UNWANTED EMISSIONS

### 6.1 LIMIT

#### FCC

(a) The power density of any emissions outside the 76-81 GHz band shall consist solely of spurious emissions and shall not exceed the following:

(1) Radiated emissions below 40 GHz shall not exceed the field strength as shown in the following emissions table

Frequency (MHz)	Field strength (microvolts/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
Above 960	500	3

(ii) The limits in the table are based on the frequency of the unwanted emissions and not the fundamental frequency. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency.

iii) The emissions limits shown in the table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9.0-90.0kHz, 110.0-490.0kHz, and above 1000 MHz. Radiated emissions limits in these three bands are based on measurements employing an average detector with a 1 MHz RBW.

(2) The power density of radiated emissions outside the 76-81 GHz band above 40.0 GHz shall not exceed the following, based on measurements employing an average detector with a 1 MHz

(i) For radiated emissions outside the 76-81 GHz band between 40 GHz and 200 GHz from field disturbance sensors and radar systems operating in the 76-81 GHz band: 600 pW/cm<sup>2</sup> at a distance of 3 meters from the exterior surface of the radiating structure.

(ii) For radiated emissions above 200 GHz from field disturbance sensors and radar systems operating in the 76-81 GHz band: 1000 pW/cm<sup>2</sup> at a distance of 3 meters from the exterior surface of the radiating structure.

(3) For field disturbance sensors and radar systems operating in the 76-81 GHz band, the spectrum shall be investigated up to 231.0 GHz.



According to section 15.205(a) and (b), only spurious emissions are permitted in any of the frequency bands listed below:

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			



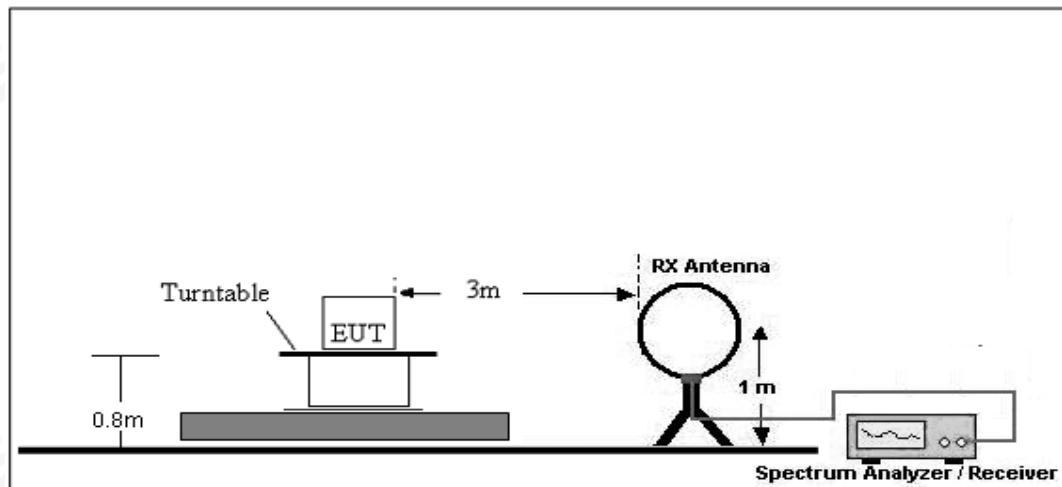
## 6.2 TEST PROCEDURES

Please refer to Part 95.3379 and ANSI C63.26(2015) - Section 5.5/ANSI C63.10-2020 - Section 9.10

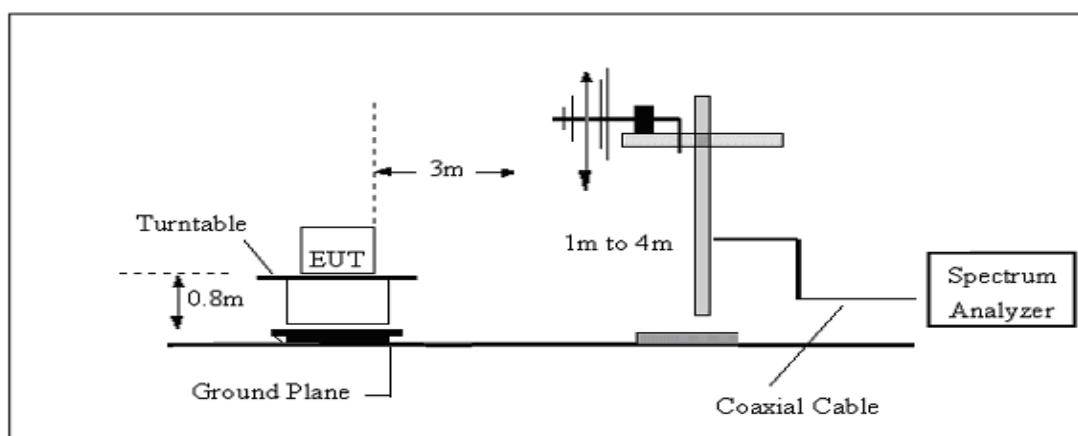
- a) Connect the test antenna covering the appropriate frequency range to a spectrum analyzer via an external mixer or directly to the spectrum analyzer if the instrument supports the required frequency range.
- b) Set spectrum analyzer RBW = 1 MHz, VBW = 1 MHz or 3 MHz (as specified in the requirements), average detector, span as required, and so on.
- c) Determine the maximum measurement distance using 9.8.
- d) Search for emissions over the mixer band and maximize all observed emissions using 9.9.
- e) Note the maximum power indicated on the spectrum analyzer. Adjust this reading, if necessary, by the conversion loss of the external mixer used at the frequency under investigation and the external mixer IF cable loss.
- f) Calculate the maximum field strength of the emission at the measurement distance using Equation (19) and the adjusted/corrected power at the output of the test antenna.
- g) Where applicable, calculate the EIRP from the measured field strength using Equation (22) and then convert to the linear form using Equation (24).
- h) If measurements were made at any distance other than the distance specified by the limit, then extrapolate the maximum measured field strength to the field strength at the distance specified by the limit using Equation (20), and then convert to the field strength in V/m using Equation (21).
- i) Where applicable, calculate the power density at the distance specified by the limit from the field strength at the distance specified by the limit using Equation (26).
- j) Repeat the preceding sequence for every emission observed in the frequency band under investigation.
- k) Repeat the preceding sequence for every external mixer band as needed to encompass the required frequency range of investigation (as specified by the regulatory requirements to which compliance is being tested).
- l) Repeat the preceding sequence in all operating configurations supported by the EUT (e.g., forward-looking, side-looking, and rear-looking configurations, with the vehicle at rest and in motion).

## 6.3 TEST SETUP

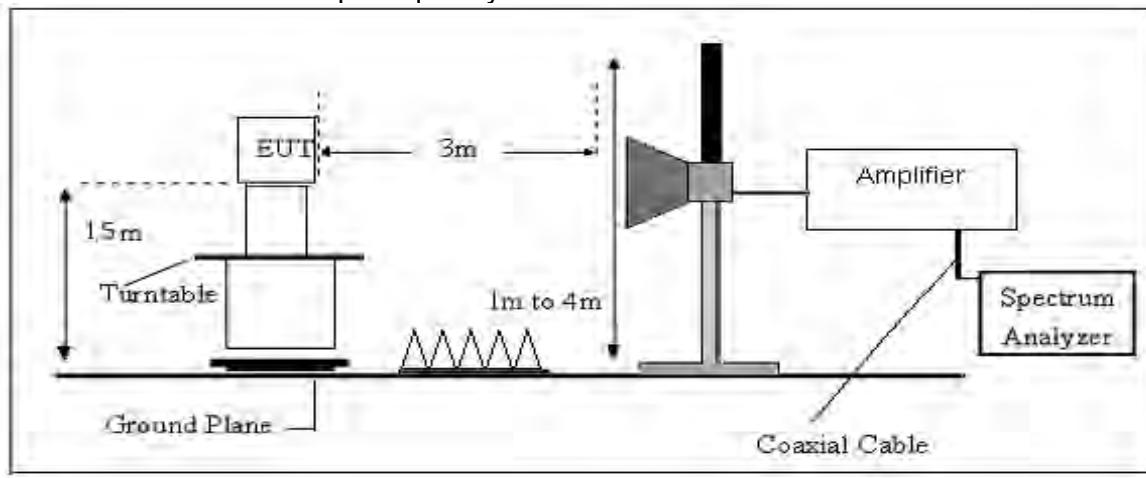
## (A) Radiated Emission Test-Up Frequency Below 30MHz



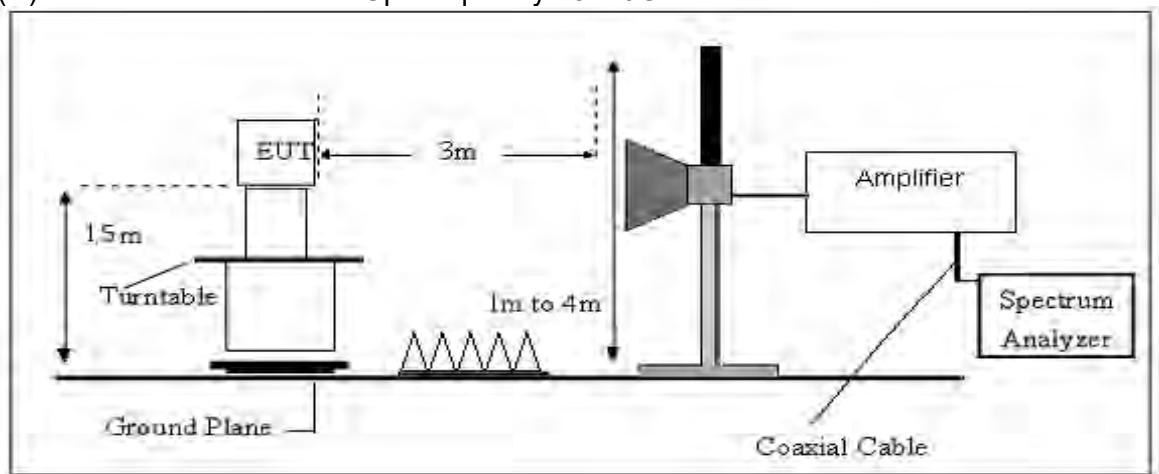
## (B) Radiated Emission Test-Up Frequency 30MHz~1GHz



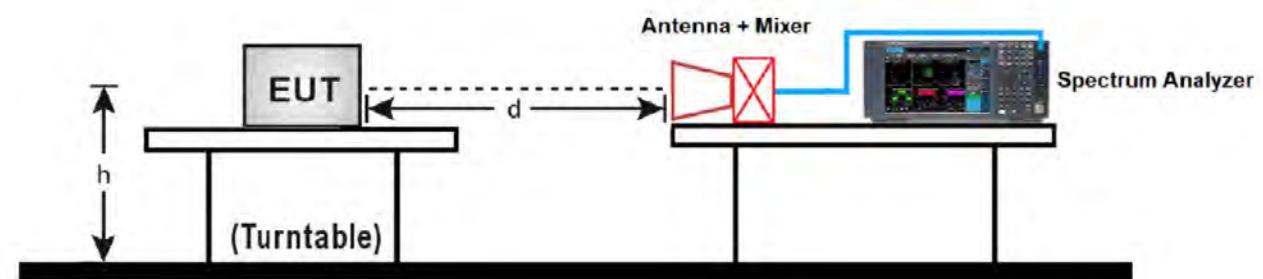
## (C) Radiated Emission Test-Up Frequency 1~18GHz



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

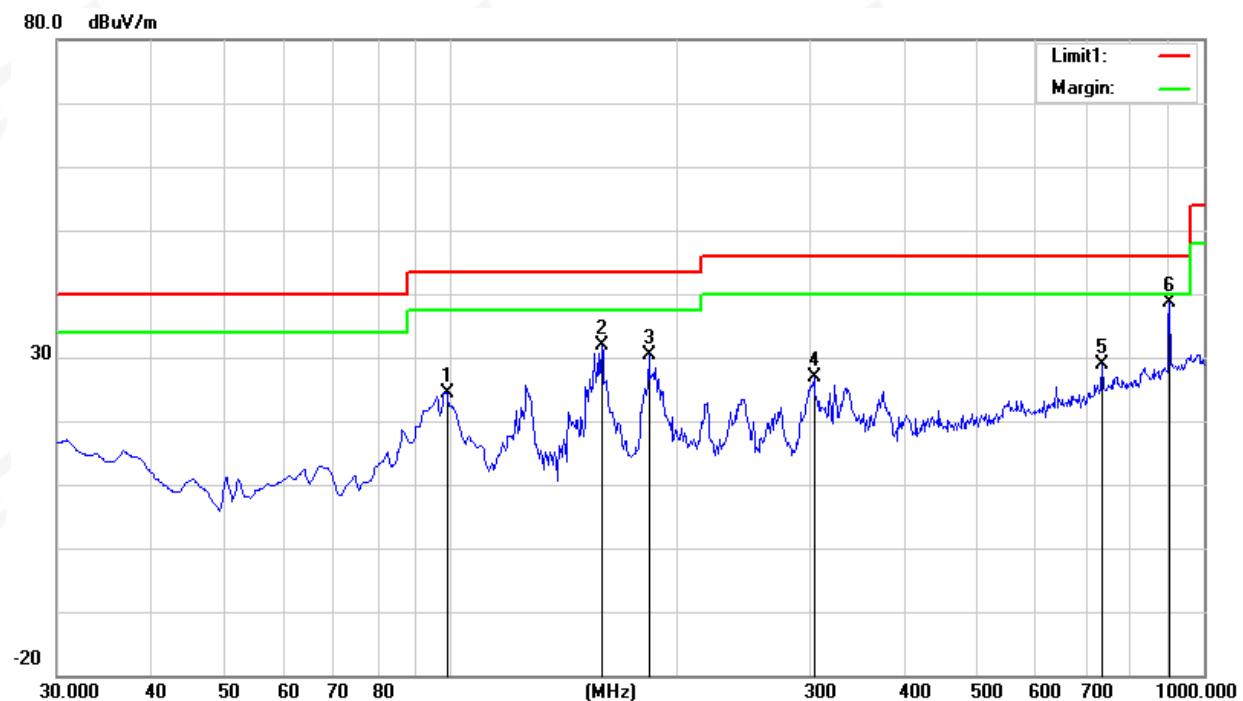


(E) Radiated Emission Test-Up Frequency above 40GHz



## 6.4 TEST RESULT

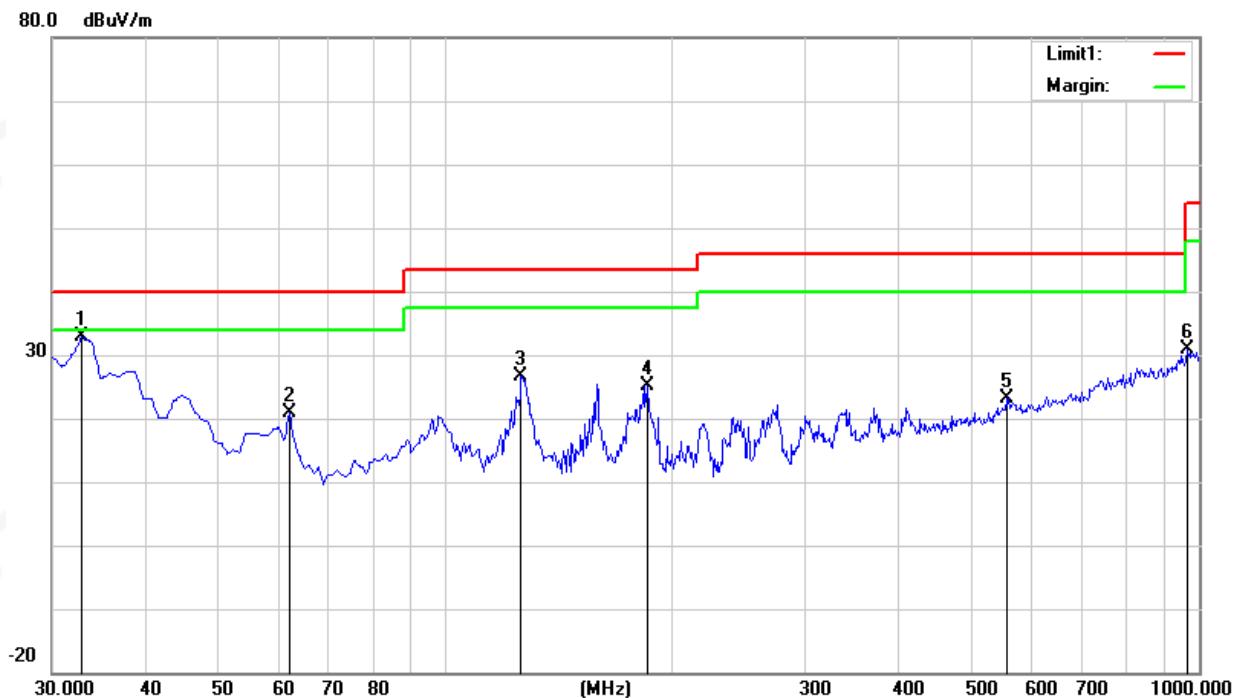
RSE-30M-1G-H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	98.8700	44.77	-20.31	24.46	43.50	-19.04	peak
2	159.0100	50.63	-18.77	31.86	43.50	-11.64	peak
3	183.2600	50.65	-20.26	30.39	43.50	-13.11	peak
4	304.5100	41.44	-14.65	26.79	46.00	-19.21	peak
5	733.2500	31.28	-2.35	28.93	46.00	-17.07	peak
6	901.0600	39.16	-0.43	38.73	46.00	-7.27	peak



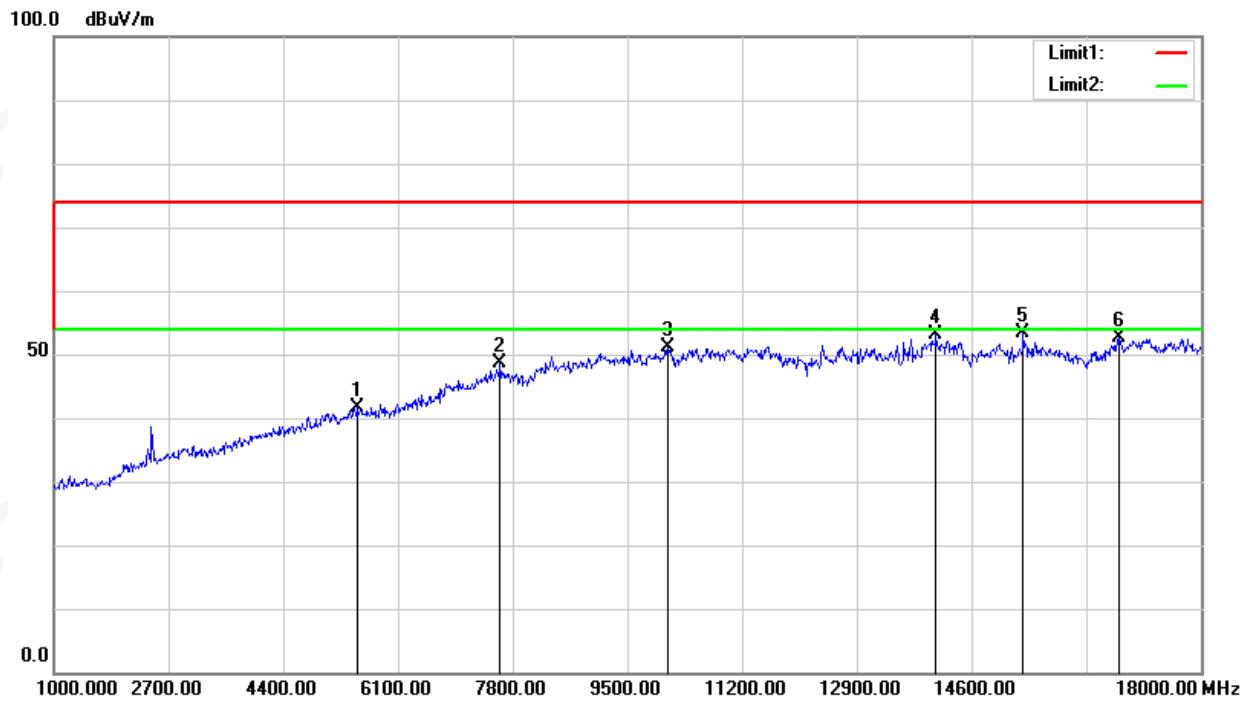
## RSE-30M-1G-V



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	32.9100	47.13	-14.33	32.80	40.00	-7.20	peak
2	62.0100	46.70	-25.76	20.94	40.00	-19.06	peak
3	126.0300	44.95	-18.22	26.73	43.50	-16.77	peak
4	185.2000	45.56	-20.42	25.14	43.50	-18.36	peak
5	555.7400	28.71	-5.60	23.11	46.00	-22.89	peak
6	967.0200	28.95	1.93	30.88	54.00	-23.12	peak



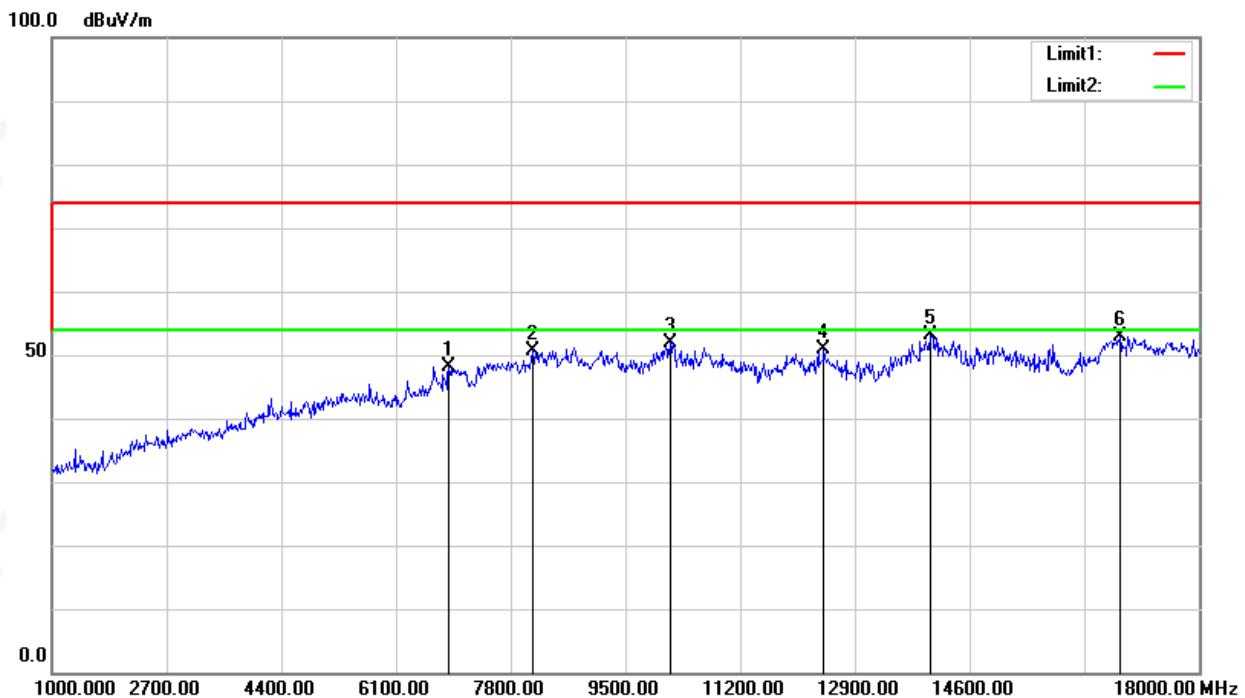
## RSE-1G-18G-H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5505.000	46.59	-5.00	41.59	74.00	-32.41	peak
2	7613.000	46.97	1.75	48.72	74.00	-25.28	peak
3	10095.000	47.52	3.66	51.18	74.00	-22.82	peak
4	14073.000	41.03	12.19	53.22	74.00	-20.78	peak
5	15365.000	43.57	9.81	53.38	74.00	-20.62	peak
6	16793.000	43.12	9.60	52.72	74.00	-21.28	peak



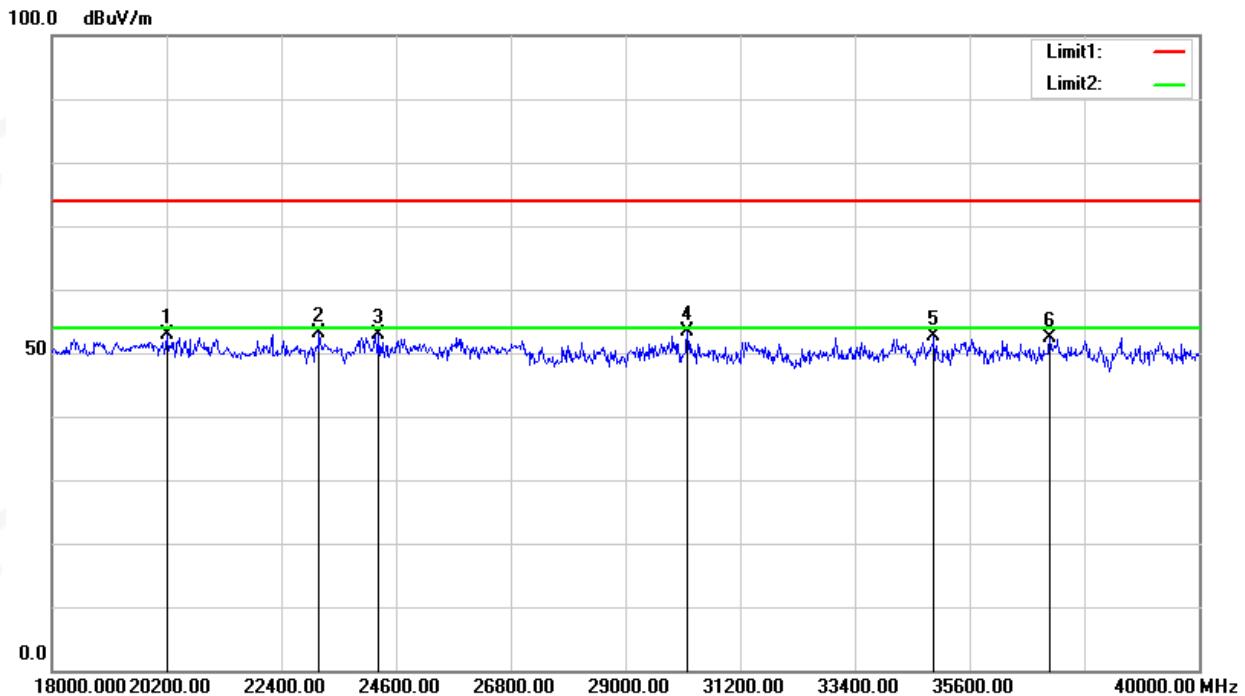
## RSE-1G-18G-V



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	6882.000	48.46	-0.31	48.15	74.00	-25.85	peak
2	8123.000	48.44	2.31	50.75	74.00	-23.25	peak
3	10163.000	47.88	3.89	51.77	74.00	-22.23	peak
4	12441.000	45.02	5.82	50.84	74.00	-23.16	peak
5	14022.000	40.77	12.28	53.05	74.00	-20.95	peak
6	16827.000	43.29	9.63	52.92	74.00	-21.08	peak



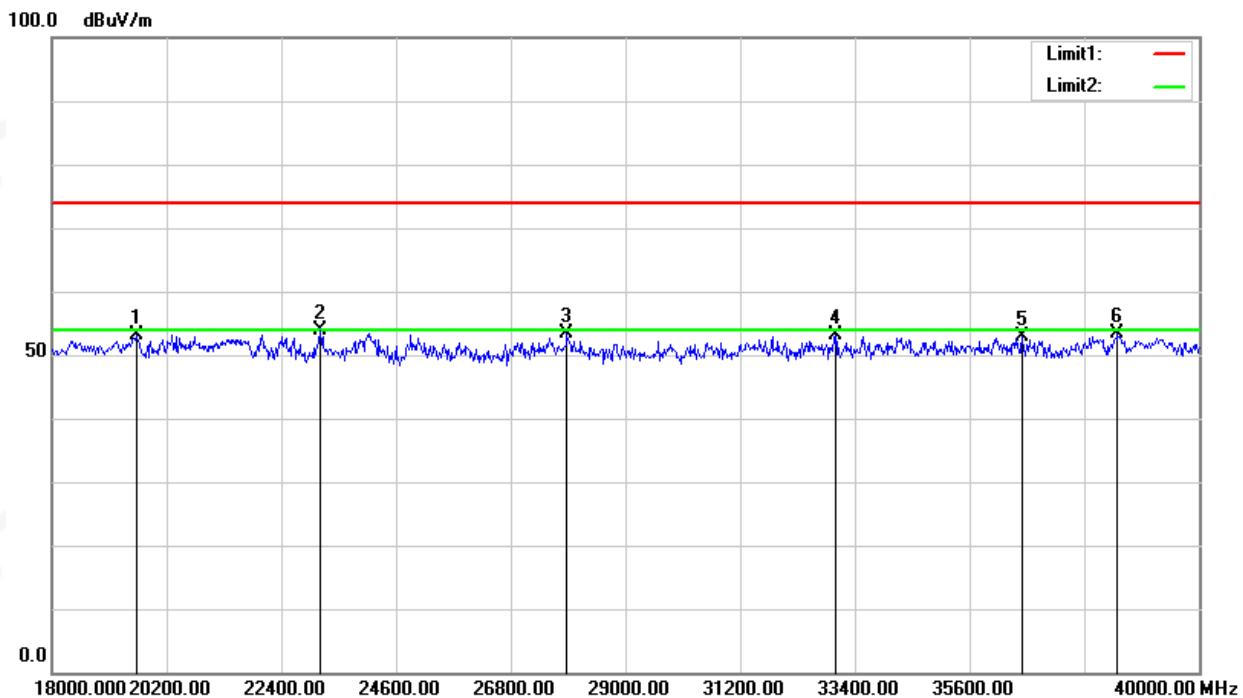
## RSE-18G-40G-H



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	20200.000	61.35	-8.47	52.88	74.00	-21.12	peak
2	23126.000	63.78	-10.69	53.09	74.00	-20.91	peak
3	24270.000	63.99	-11.18	52.81	74.00	-21.19	peak
4	30188.000	65.79	-12.42	53.37	74.00	-20.63	peak
5	34918.000	66.96	-14.29	52.67	74.00	-21.33	peak
6	37140.000	66.31	-13.86	52.45	74.00	-21.55	peak



## RSE-18G-40G-V



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	19628.000	61.37	-8.20	53.17	74.00	-20.83	peak
2	23148.000	64.57	-10.70	53.87	74.00	-20.13	peak
3	27878.000	66.18	-12.69	53.49	74.00	-20.51	peak
4	33026.000	69.46	-16.22	53.24	74.00	-20.76	peak
5	36612.000	66.63	-13.75	52.88	74.00	-21.12	peak
6	38438.000	67.29	-13.98	53.31	74.00	-20.69	peak



## Above 40GHz

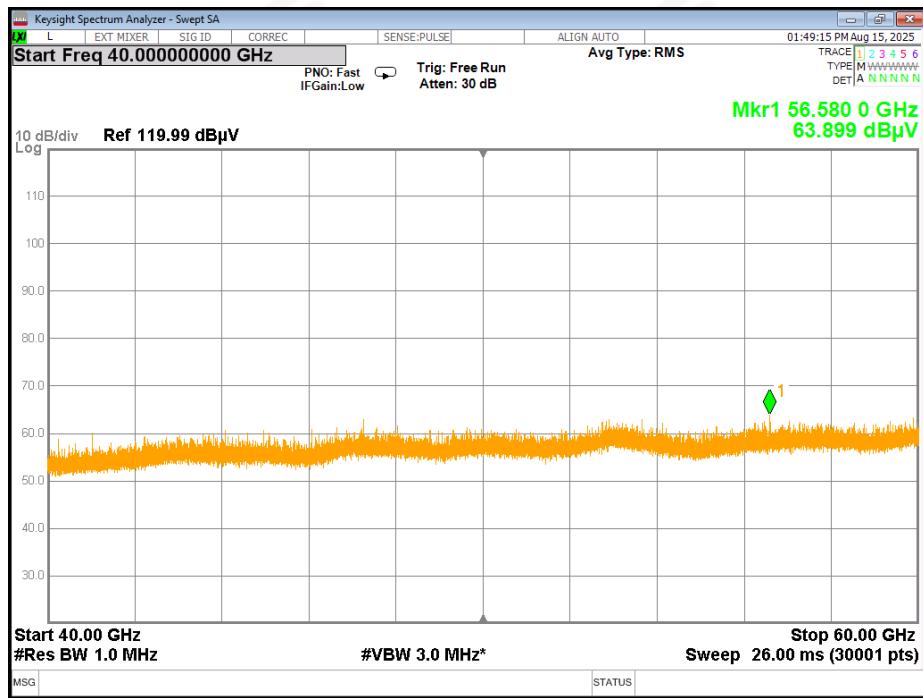
Freq.(GHz)	Mes@ 1.5m (dBuV/m)	Mes@ 3m (dBuV/m)	Power Density (pW/cm <sup>2</sup> )	Limit (pW/cm <sup>2</sup> )	Result	Pol.
56.5800	63.899	57.878	0.1627	600	PASS	H
58.0280	62.021	56.000	0.1056	600	PASS	V
73.0160	62.342	56.321	0.1137	600	PASS	H
73.0425	62.883	56.862	0.1288	600	PASS	V
75.0560	64.28	58.259	0.1777	600	PASS	H
75.1161	63.812	57.791	0.1595	600	PASS	V
88.0132	60.375	54.354	0.0723	600	PASS	H
87.9929	60.11	54.089	0.0680	600	PASS	V
137.2520	64.879	58.858	0.2039	600	PASS	H
132.4290	64.911	58.890	0.2054	600	PASS	V
148.0350	60.742	54.721	0.0787	600	PASS	H
147.0830	61.162	55.141	0.0867	600	PASS	V
189.0867	64.942	58.921	0.2069	600	PASS	H
172.8750	64.657	58.636	0.1938	600	PASS	V
222.2730	63.156	57.135	0.1372	1000	PASS	H
222.7991	64.547	58.526	0.1889	1000	PASS	V

## Note:

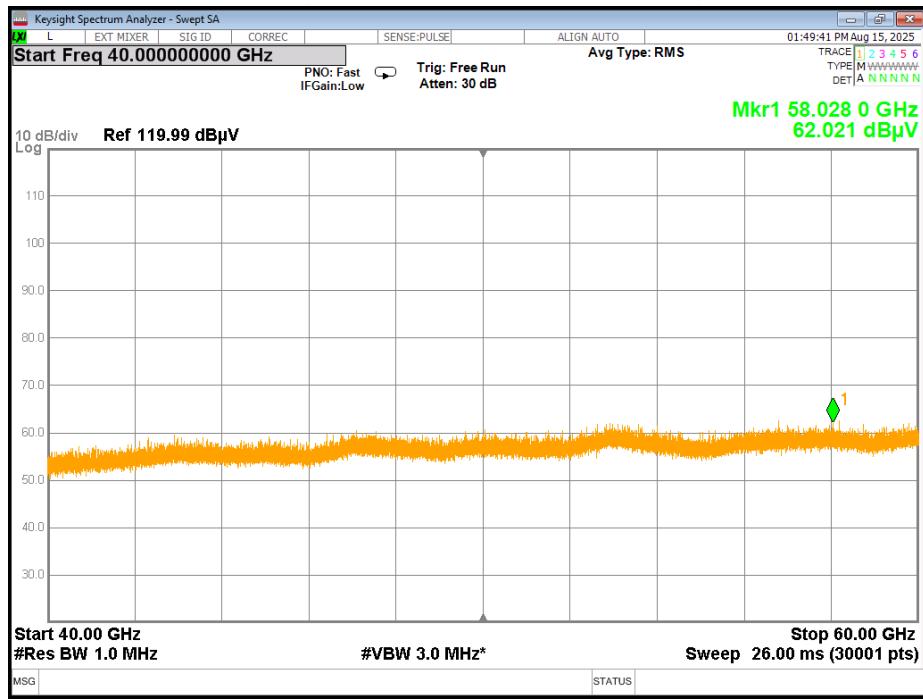
1. Mes@3m = Mes@1.5m +20\*log(1.5m/3m)
2. Power Density =(10<sup>8</sup>/377)\*{10<sup>{(Meas. @3m -120)/20}}</sup>}<sup>2</sup>



## RSE-40GHz-60GHz-H

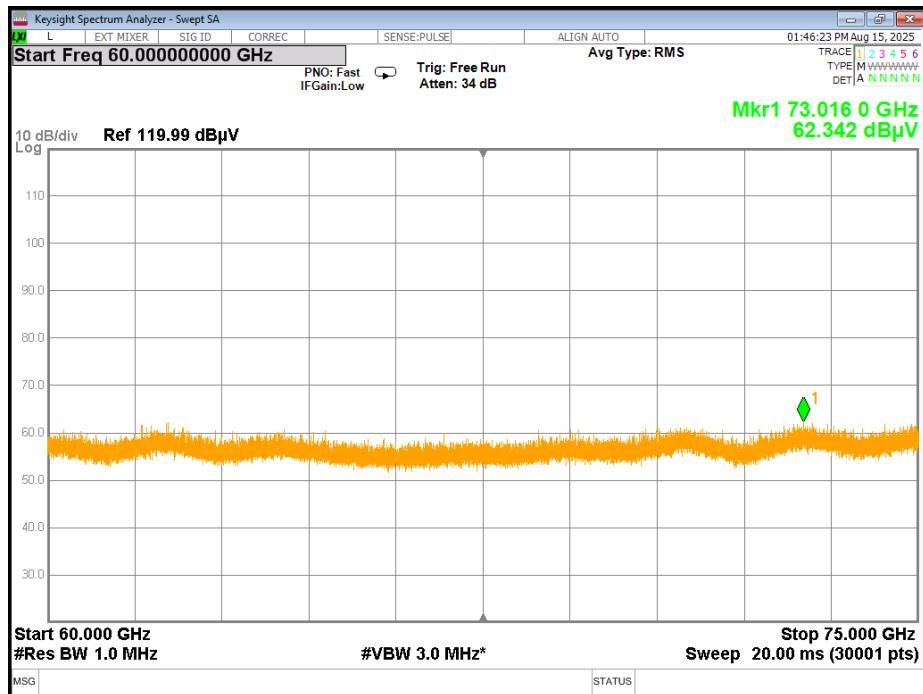


## RSE-40GHz-60GHz-V

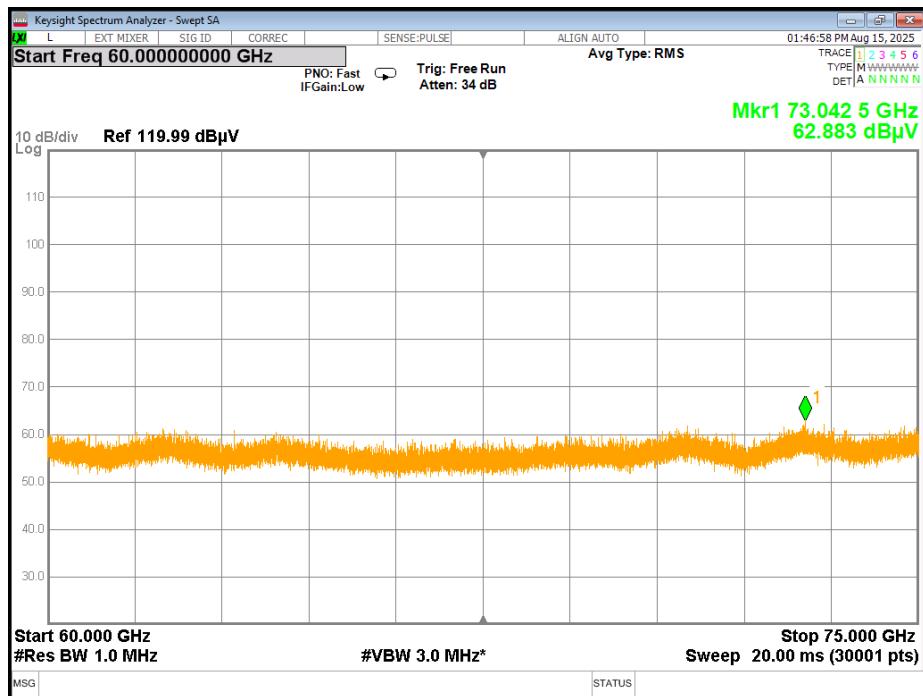




## RSE-60GHz-75GHz-H

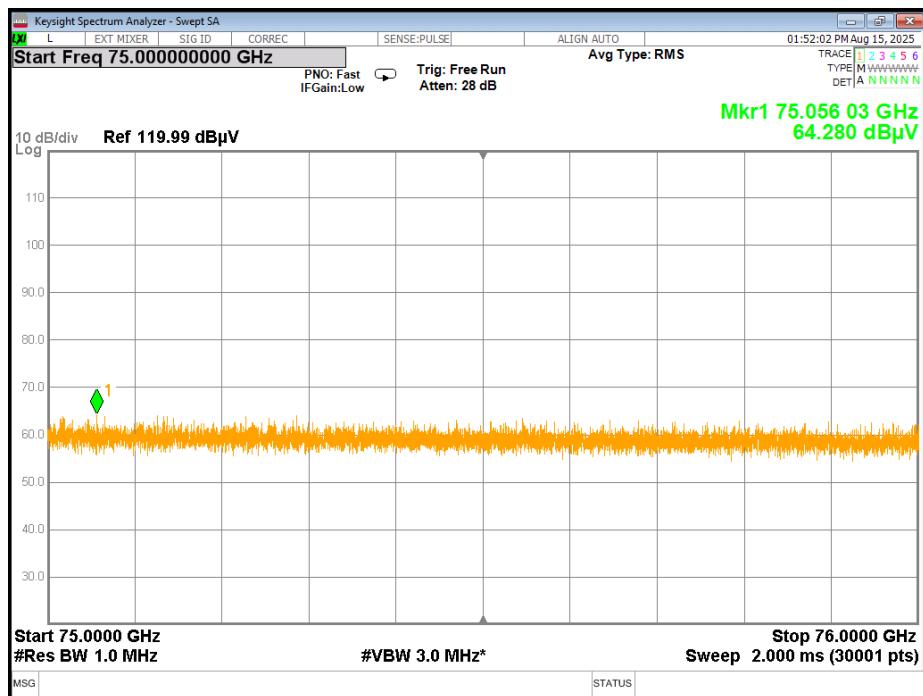


## RSE-60GHz-75GHz-V

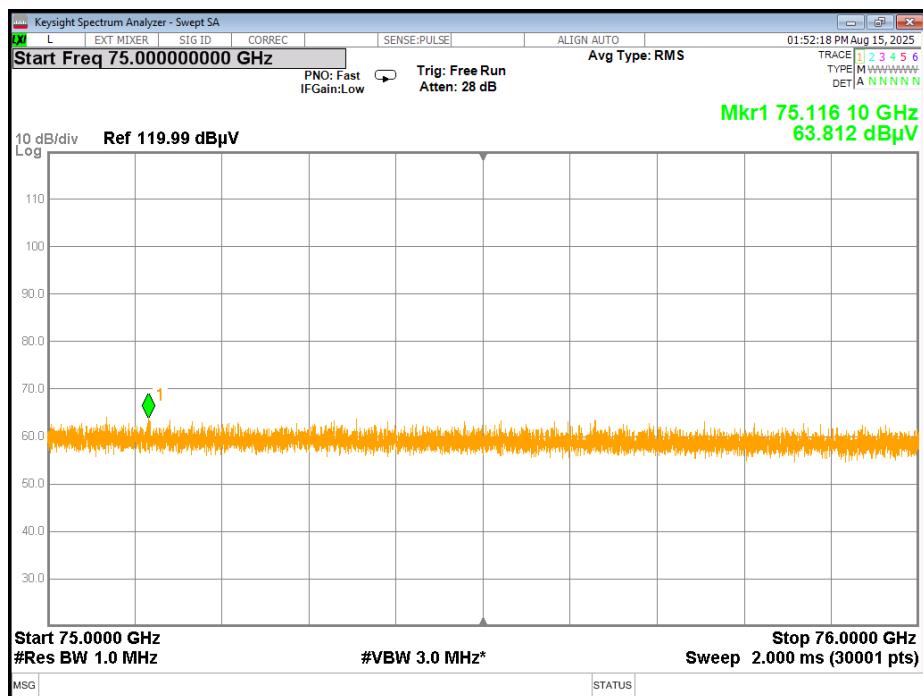




## RSE-75GHz-76GHz-H

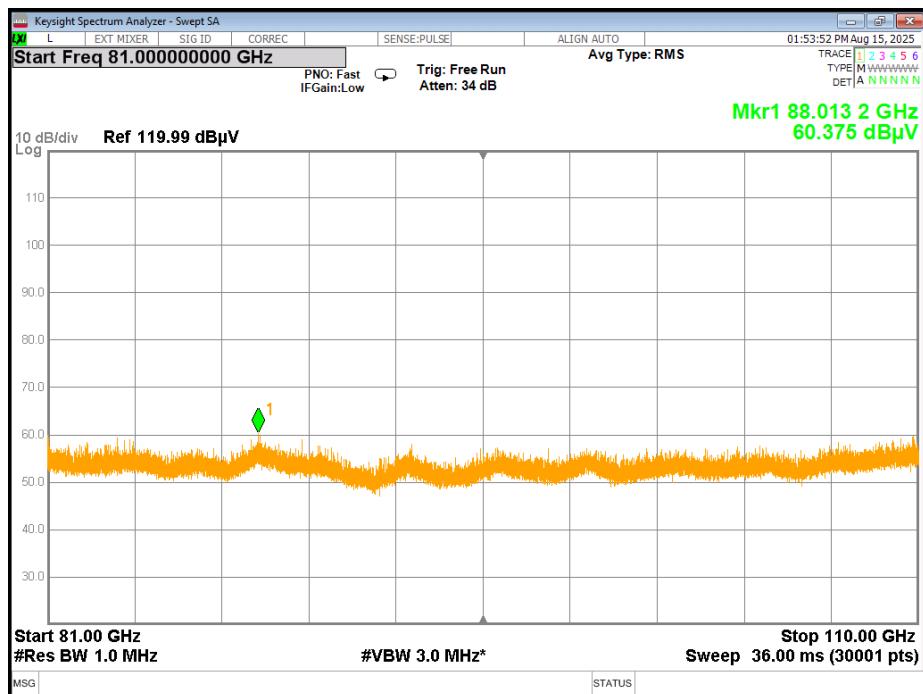


## RSE-75GHz-76GHz-V

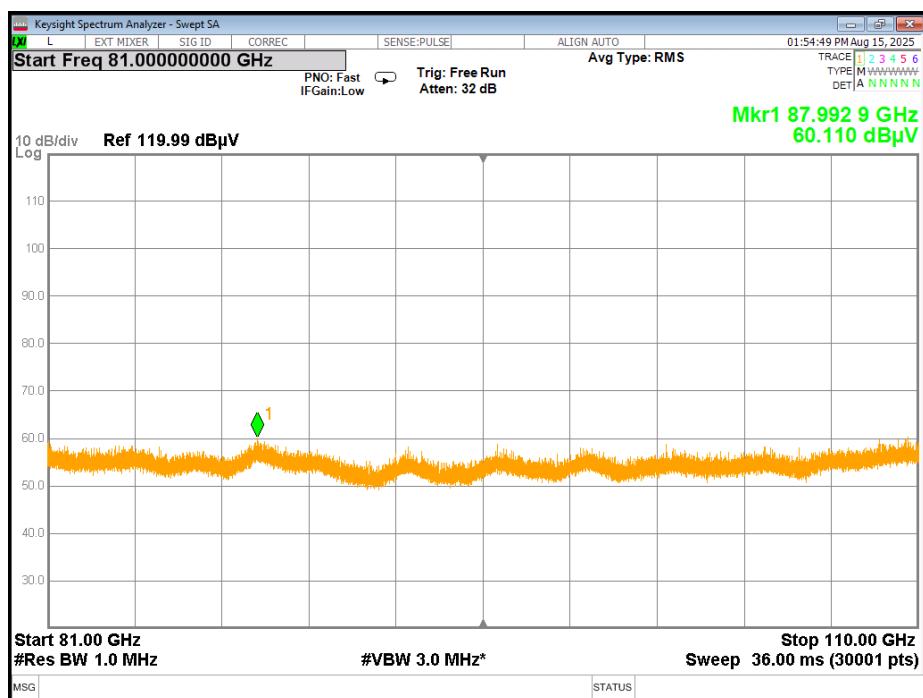




## RSE-81GHz-110GHz-H

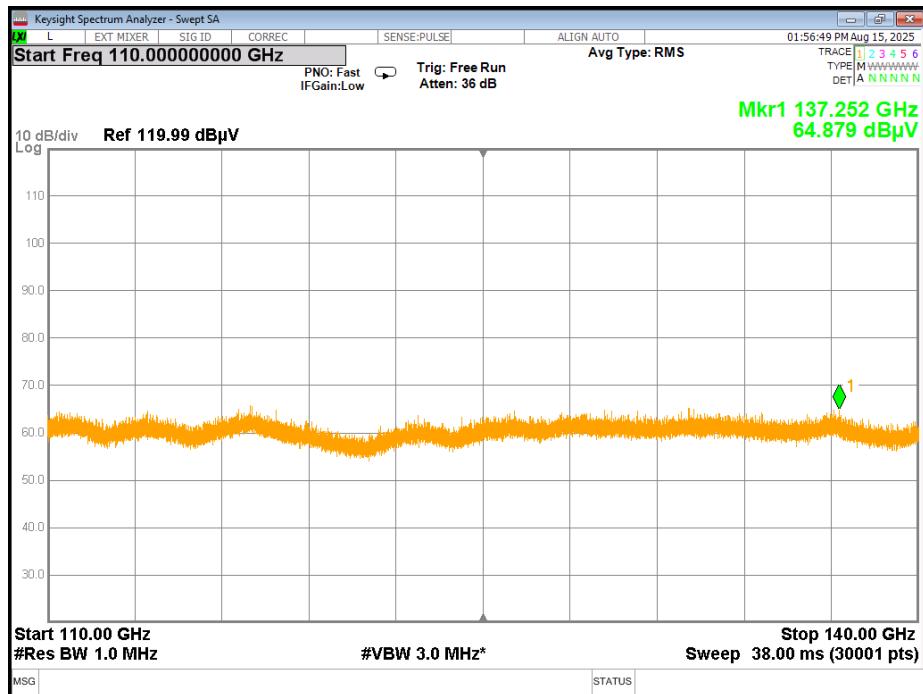


## RSE-81GHz-110GHz-V

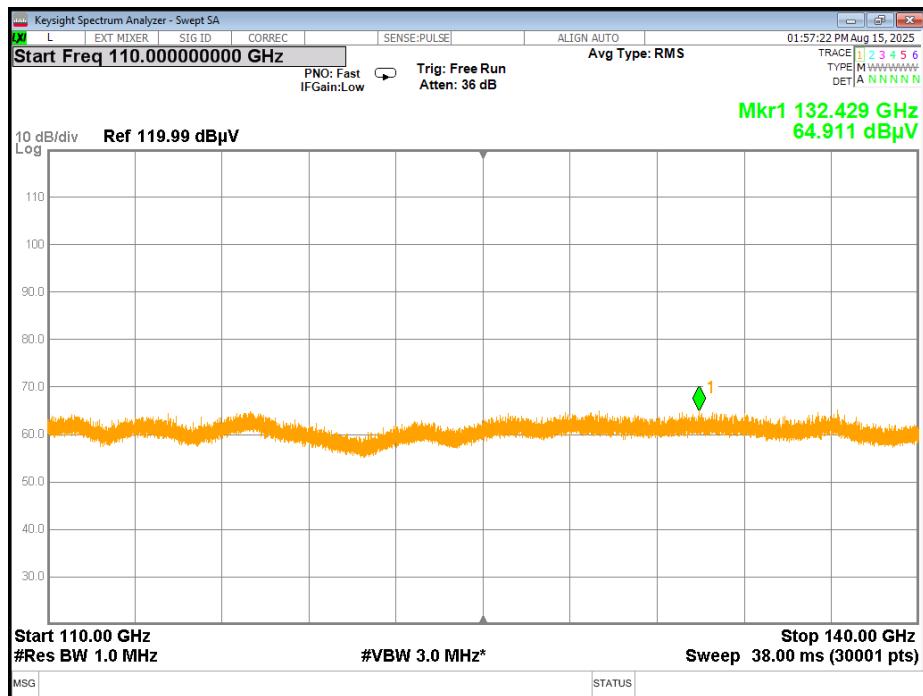




## RSE-110GHz-140GHz-H

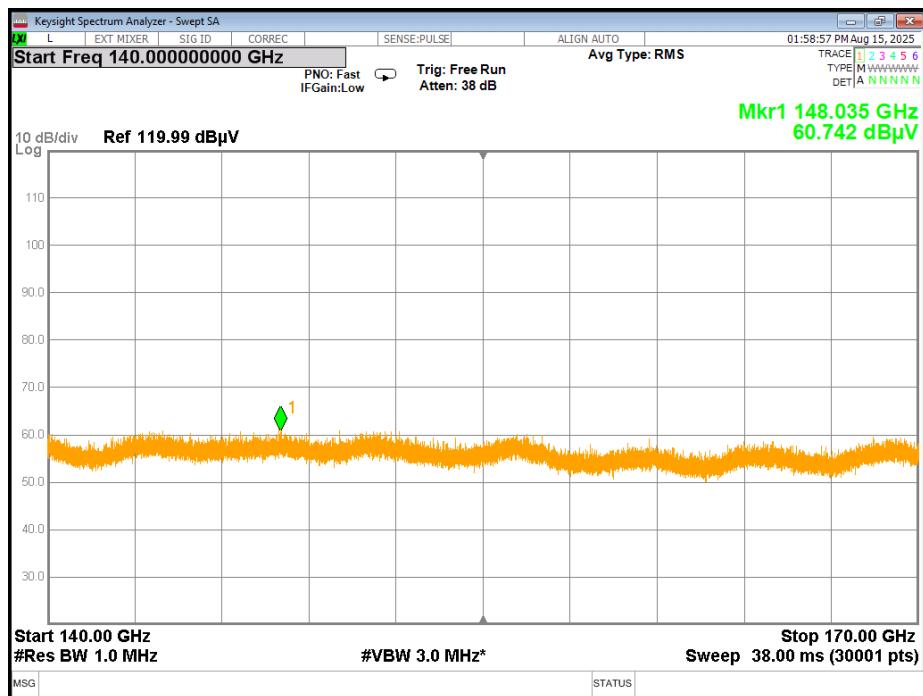


## RSE-110GHz-140GHz-V

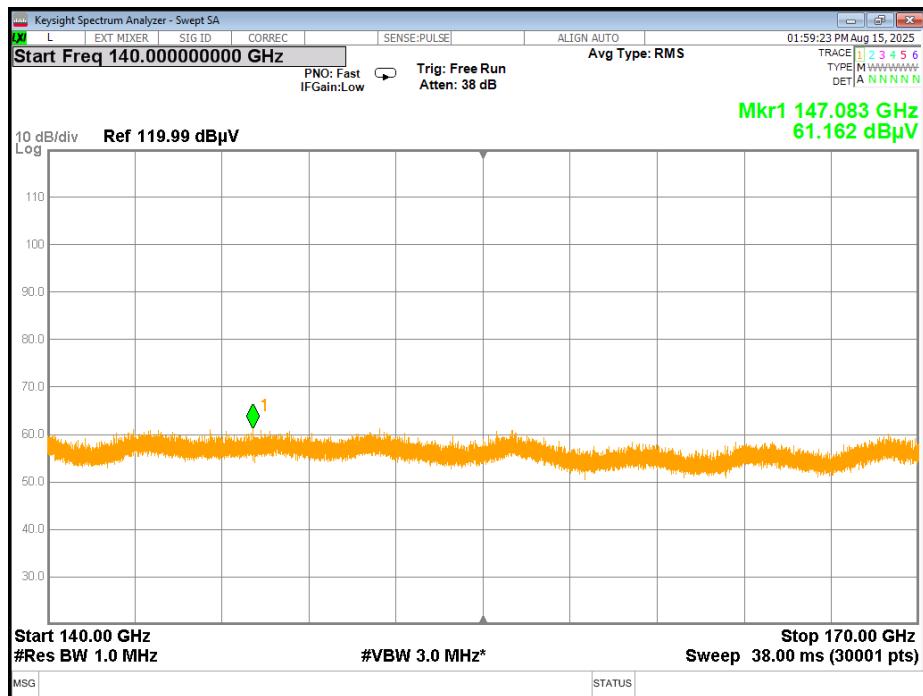




## RSE-140GHz-170GHz-H

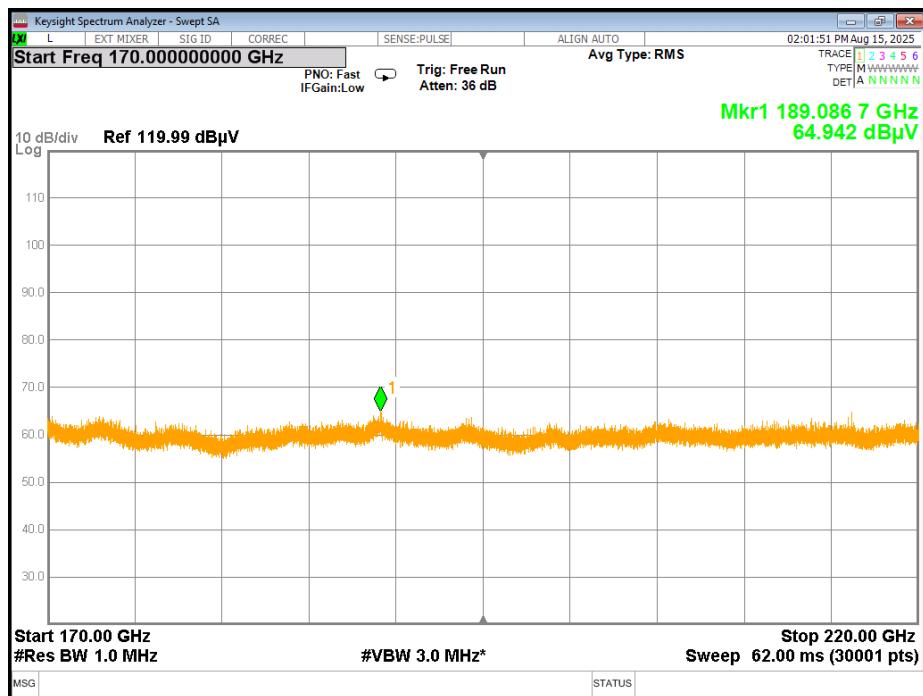


## RSE-140GHz-170GHz-V

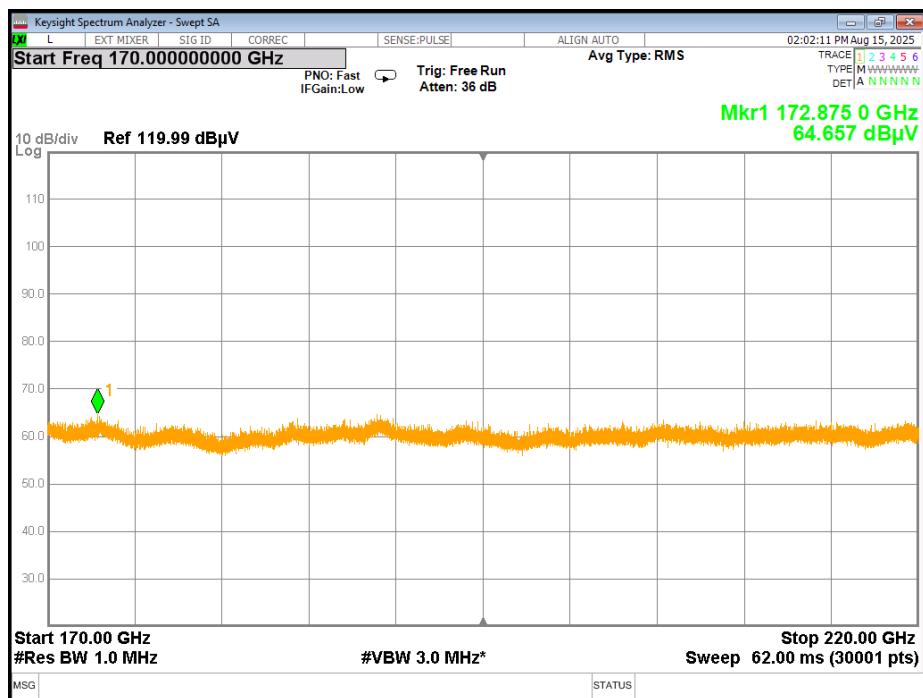




## RSE-170GHz-220GHz-H

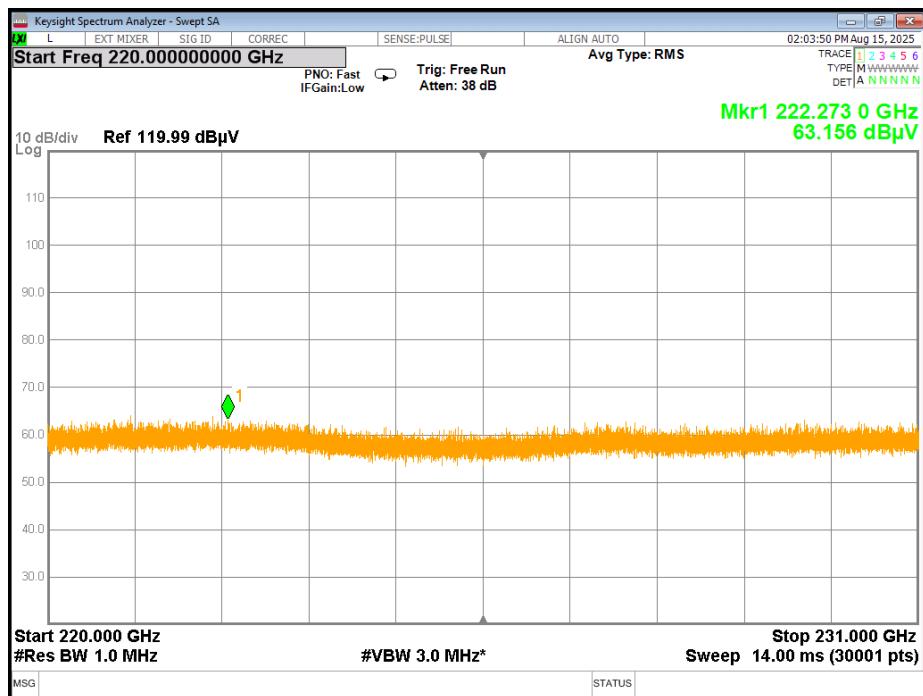


## RSE-170GHz-220GHz-V

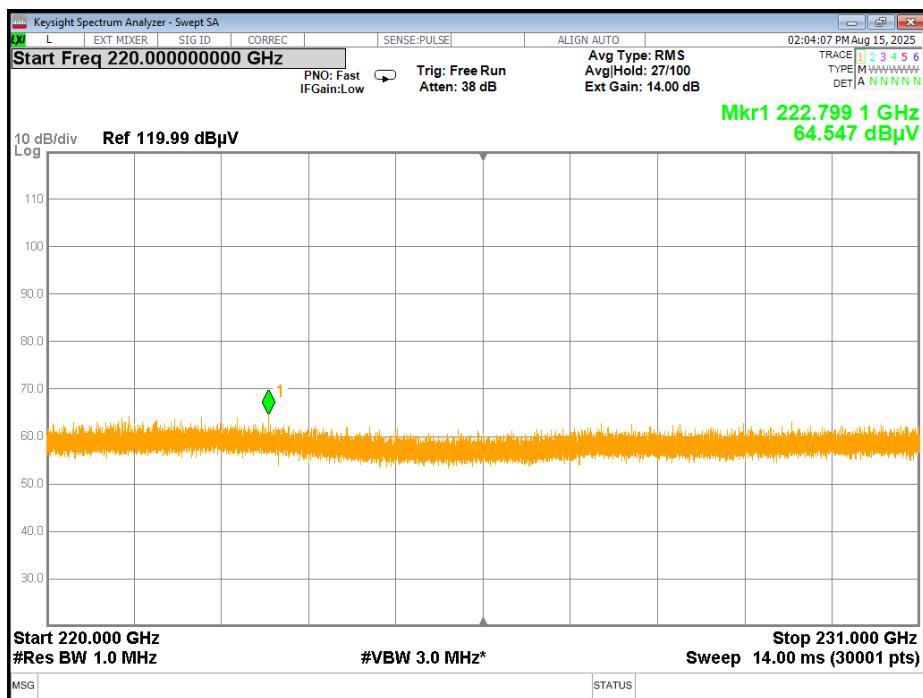




## RSE-220GHz-231GHz-H



## RSE-220GHz-231GHz-V





## APPENDIX 1-MEASUREMENT PHOTOS

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

※※※※※END OF THE REPORT※※※※※