FCC Test Report (Part 30)

Report No.:	RFBBQZ-WTW-P20120372
FCC ID:	PY319400469
Test Model:	MR5100
Received Date:	Dec. 11, 2020
Test Date:	Dec. 30, 2020 ~ Jan. 08, 2021
Issued Date:	Jan. 11, 2021
Applicant:	Netgear, Inc.
Address:	350 E. Plumeria Drive, San Jose CA 95134, USA
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Lin Kou Laboratories
Lab Address:	No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan
Test Location:	No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, Taiwan
FCC Registration / Designation Number:	788550 / TW0003

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Release Control Record

Issue No.	Description	Date Issued
RFBBQZ-WTW-P20120372	Original release.	Jan. 11, 2021

1 Certificate of Conformity

Product:	5G MHS Travel Router
Brand:	NETGEAR
Test Model:	MR5100
Sample Status:	ENGINEERING SAMPLE
Applicant:	Netgear, Inc.
Test Date:	Dec. 30, 2020 ~ Jan. 08, 2021
Standards:	47 CFR FCC Part 30

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

Prepared by : Pettie Chen , **Date:** Jan. 11, 2021

Pettie Chen / Senior Specialist

Approved by : , **Date:** Jan. 11, 2021

Dylan Chiou / Senior Project Engineer

2 Summary of Test Results

47 CFR FCC Part 30				
FCC Clause	Test Item	Test Result	Test Condition	Remarks
2.1047	Modulation characteristics	Pass	-	Meet the requirement
2.1049	Emission Bandwidth	Pass	Radiated	Meet the requirement of limit.
30.202	EIRP	Pass		Meet the requirement of limit.
2.1051 30.203	Out-of-Band Spurious Emission	Pass		Meet the requirement of limit. Minimum passing margin is -6.8dB at 17999.15GHz.
2.1053 30.203	Out-of-Band Emission at the Band Edge	Pass		Meet the requirement of limit.
2.1055	Frequency Stability	Pass		Meet the requirement of limit.

Note:
Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

2.1 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Measurement	Frequency	Uncertainty
Radiated emissions	9kHz ~ 30MHz	3.04 dB
	30MHz ~ 200MHz	3.63 dB
	200MHz ~ 1000MHz	3.64 dB
	1GHz ~ 18GHz	2.29 dB
	18GHz ~ 40GHz	2.29 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	5G MHS Travel Router
Brand	NETGEAR
Test Model	MR5100
Status of EUT	ENGINEERING SAMPLE
Power Supply Rating	5 or 9Vdc (adapter) 5Vdc (host equipment) 3.85Vdc (battery)
Modulation Type	QPSK, 16QAM, 64QAM
Operating Frequency	37.649 ~ 39.950 GHz
Supported Channel Bandwidth	100MHz, 200MHz
Supported Carrier Component	1CC, 2CC
Max. E.I.R.P. Power (RMS)	1CC: 24.25dBm 2CC: 23.83dBm
Antenna Type	Refer to Note
Antenna Connector	NA
Accessory Device	Adapter x1 , Battery x1
Cable Supplied	1m shielded USB cable without core (Brand: NIENYI, model: NYS2371-1)
Antenna Information	There are three operational 5GNR modules (QTM525-5) in MR5100. Only one module is active at a given time. One antenna array is integrated on the backside of each 5GNR module. It consists of 4-element patch antenna array which is dual polarized (V & H). The purpose of the three spatially spaced 5GNR modules are for spatial diversity. The device searches for the best wide beam width (single patch element beam) on the appropriate module to improve the link and then switches to best narrow beam width (4-element patch beam) once it finds the optimal beam location. Each antenna array can change its gain pattern by changing the amplitudes and phases for the signals that are fed into the different antennas or elements in the array. This is controlled by the Qualcomm software, particularly the codebook. The codebook can turn on one, two or 4 elements in the patch array to create a gain pattern called a “beam”. All the three 5GNR modules support a total 135 beams or configurations, out of which 90 are single beams (SISO) and 45 are dual beams (MIMO). The maximum gain in V occurs when all the 4 vertically polarized patch feeds are turned on together and maximum gain in H occurs when all the 4 horizontally polarized patch feeds are turned on together, via the codebook amplitude & phase weights. Both H & V can also be excited simultaneously forming a beam-pair for MIMO operation.

Note:

1. This report is a supplementary report to the original BV CPS report no.: RF191031C08-2. The difference compared with the original design is adding 2CC. Therefore, all tests had been re-tested in this report.
2. Simultaneously transmission condition.

Condition	Technology		
1	WLAN 2.4GHz 2Tx	WLAN 5GHz 2Tx	WWAN or 5G NR
Note: The emission of the simultaneous operation has been evaluated and no non-compliance was found.			

3. The EUT contains three radio modules for millimeter wave.

Millimeter wave radio module	
Radio Module	Status
Module 0 (Middle Side)	Active
Module 1 (Left Side)	Active
Module 2 (Right Side)	Active

4. The worst beam ID:

Beam ID		
Single Beam		MIMO Beam
39	166	39 + 166
20	148	20 + 148
30	158	30 + 158

The worst-case beams are defined from the EIRP simulation report that have been verified and remains unchanged from what was originally reported. The same worst-case beams have been used in new tests conducted for this C2PC application.

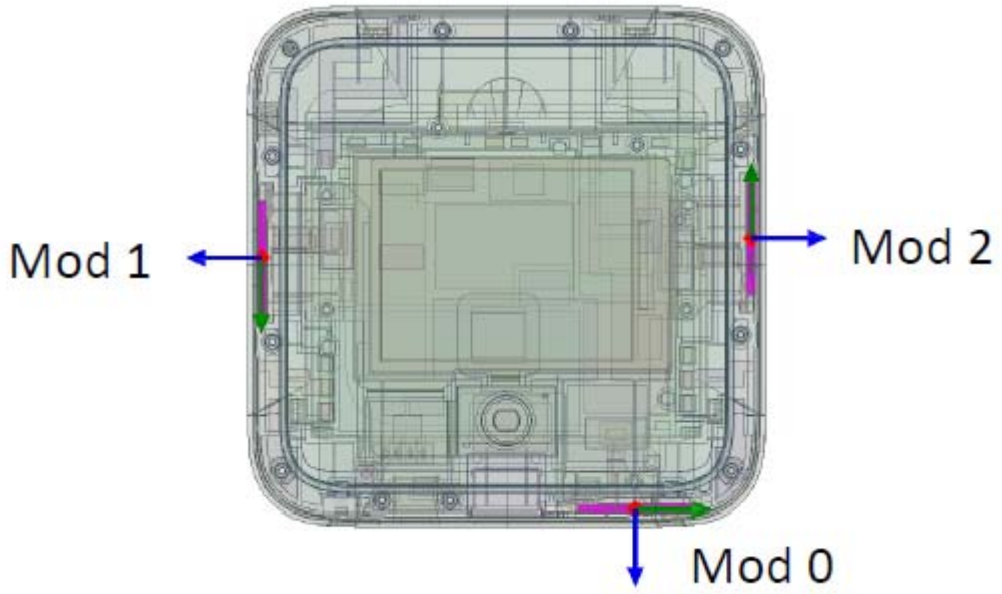
These modes were investigated and the worst case scenario was identified. The worst case data were presented in test report.

5. The EUT must be supplied with a power adapter or battery as following table:

Items	Brand	Model No.	Spec.
Adapter	NETGEAR	AD2122F20	Input: 100-240Vac~50/60Hz, 0.5A Output: 5Vdc / 2.0A or 9Vdc /1.8A
Battery	NETGEAR	W-20	3.85Vdc, 19.40Wh

6. The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.

7. <Antenna Location>



3.2 Description of Test Modes

Channel Bandwidth (MHz)	Channel	Beam ID
100	2239997	Single Beam: 39, 166, 20, 148, 30, 158 MIMO Beam: 39 + 166, 20 + 148, 30 + 158
	2259997	
	2278331	
200	2240001+2241671	Single Beam: 39, 166, 20, 148, 30, 158 MIMO Beam: 39 + 166, 20 + 148, 30 + 158
	2259163+2260831	
	2276663+2278331	

3.2.1 Test Mode Applicability and Tested Channel Detail

EUT CONFIGURE MODE	APPLICABLE TO							DESCRIPTION
	MC	EIRP	EB	RE<1G	RE≥1G	OOB	FS	
-	√	√	√	√	√	√	√	-

Where **MC:** Modulation characteristics
EB: Emission Bandwidth
EIRP: Effective Isotropically Radiated Power
RE≥1G: Radiated Emission above 1GHz
RE<1G: Radiated Emission below 1GHz
OOB: Out-of-Band Emission at the Band Edge
FS: Frequency Stability

Modulation characteristics Measurement

☒ This item includes all test value of each mode, but only includes spectrum plot of worst value of each mode.
☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
☒ Following channel(s) was (were) selected for the final test as listed below.

TESTED CHANNEL	MODULATION	MODE	BEAM ID
M	QPSK / 16QAM / 64QAM	Full RB	20, 20+148

EIRP Power Measurement:

☒ This item includes all test value of each mode, but only includes spectrum plot of worst value of each mode.
☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
☒ Following channel(s) was (were) selected for the final test as listed below.

TESTED CHANNEL	MODULATION	MODE	BEAM ID
L, M, H	QPSK / 16QAM / 64QAM	1RB / 0RB offset 1RB / 32RB offset 1RB / 65RB offset Full RB	39, 166, 20, 148, 30, 158 39 + 166, 20 + 148, 30 + 158

Emission Bandwidth Measurement:

☒ This item includes all test value of each mode, but only includes spectrum plot of worst value of each mode.
☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
☒ Following channel(s) was (were) selected for the final test as listed below.

TESTED CHANNEL	MODULATION	MODE	BEAM ID
L, M, H	QPSK / 16QAM / 64QAM	1RB / 32RB offset Full RB	20

Radiated Emission Test (Below 1GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

TESTED CHANNEL	MODULATION	MODE	BEAM ID
L, M, H	QPSK	1RB / 32RB offset	20, 20+148

Radiated Emission Test (Above 1GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

TESTED CHANNEL	MODULATION	MODE	BEAM ID
L, M, H	QPSK	1RB / 32RB offset	20, 20+148

Out-of-Band Emission at the Band Edge:

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

TESTED CHANNEL	MODULATION	MODE	BEAM ID
L	QPSK	1RB / 0RB offset Full RB	20, 30, 39, 20+148
H	QPSK	1RB / 65RB offset Full RB	20, 30, 39, 20+148

Frequency Stability Measurement:

☒ This item includes all test value of each mode, but only includes spectrum plot of worst value of each mode.

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

TESTED CHANNEL	MODULATION	MODE	BEAM ID
M	QPSK	-	20

Note: All test result have been consider correction factor for more detail values please refer to “Annex A”

Test Condition:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
MC	25deg. C, 65%RH	120Vac, 60Hz	Leo Tsai
EIRP	25deg. C, 65%RH	120Vac, 60Hz	Leo Tsai
EB	25deg. C, 65%RH	120Vac, 60Hz	Leo Tsai
RE<1G	24deg. C, 68%RH	120Vac, 60Hz	Leo Tsai
RE≥1G	24deg. C, 68%RH	120Vac, 60Hz	Leo Tsai
OOB	26deg. C, 69%RH	120Vac, 60Hz	Leo Tsai
FS	25deg. C, 65%RH	120Vac, 60Hz	Leo Tsai

3.3 Duty Cycle of Test Signal

Duty cycle of test signal is 100 %.

QPSK	16QAM
	
64QAM	
	

3.4 Description of 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.

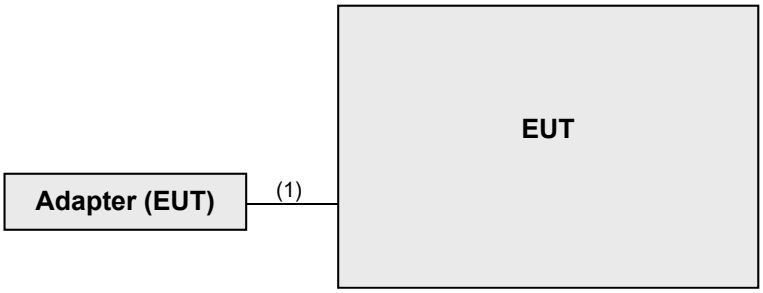
ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Notebook	Lenovo	81A4	YD02TWF5	FCC DoC Approved	-

Note:

1. All power cords of the above support units are non-shielded (1.8m).
2. Item A acted as a communication partner to transfer data.

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	USB cable	1	1	Y	0	Accessory of EUT

3.4.1 Configuration of System under Test



3.5 General Description of Applied Standards and References

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC 47 CFR Part 2

FCC 47 CFR Part 30

ANSI 63.26-2015

All test items have been performed and recorded as per the above standards.

References Test Guidance:

KDB 842590 D01 Upper Microwave Flexible Use Service v01

All test items have been performed as a reference to the above KDB test guidance.

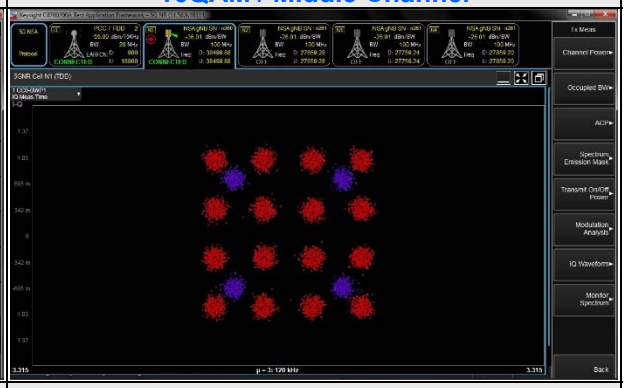
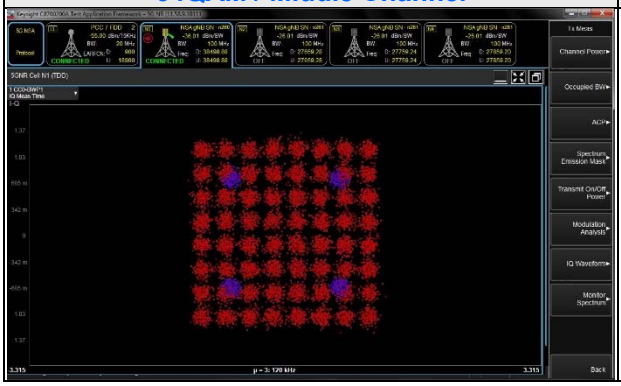
4 Test Types and Results

4.1 Modulation characteristics

4.1.1 Limits of Modulation characteristics

N/A

4.1.2 Test Result

QPSK / Middle Channel	16QAM / Middle Channel
	
64QAM / Middle Channel	
	

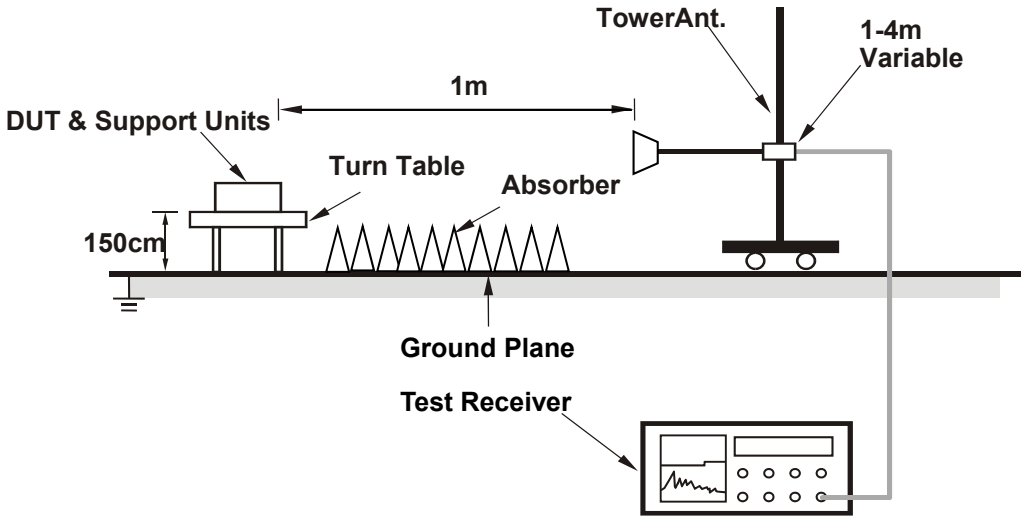
4.2 Equivalent Isotropic Radiated Power (EIRP) Measurement

4.2.1 Limits of EIRP Measurement

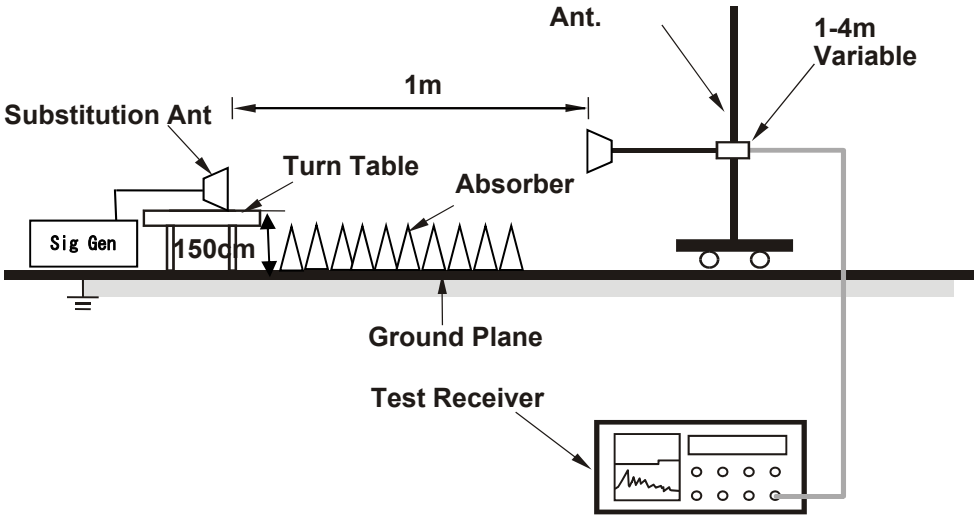
Device		Maximum Limit of EIRP
☐	Fixed and Base Stations	EIRP 75dBm/100MHz (sum of all antenna elements)
☒	Mobile Stations	EIRP 43dBm (sum of all antenna elements)
☐	Transportable Stations	EIRP 55dBm (sum of all antenna elements)

4.2.2 Test Setup

Test site-up for radiated ERP and/or EIRP measurements



Substitution method set-up for radiated emission



4.2.3 Test Instruments

For Below 40GHz and Frequency Stabillity

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver ROHDE & SCHWARZ	ESIB7	100187	May 25, 2020	May 24, 2021
Spectrum Analyzer KEYSIGHT	N9030A	MY54490561	Jul. 30, 2020	Jul. 29, 2021
Spectrum Analyzer KEYSIGHT	N9030B	MY57140953	Jul. 02, 2020	Jul. 01, 2021
*Biconical antenna SCHWARZBECK	VHBB9124	9124-546	Jan. 14, 2019	Jan. 13, 2022
*LOG Antenna SCHWARZBECK	VUSLP 9111	9111-363	Jan. 14, 2019	Jan. 13, 2022
BILOG Antenna SCHWARZBECK	VULB9168	9168-155	Nov. 03, 2020	Nov. 02, 2021
HORN Antenna SCHWARZBECK	BBHA 9120D	9120D-1170	Nov. 22, 2020	Nov. 21, 2021
HORN Antenna ETS	3117	00034126	Nov. 22, 2020	Nov. 21, 2021
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Nov. 22, 2020	Nov. 21, 2021
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170243	Nov. 22, 2020	Nov. 21, 2021
Signal Generator	N5173B	MY53270724	Apr. 01, 2020	Mar. 31, 2021
Preamplifier (Below 1GHz) Agilent	8447D	2944A10631	Jun. 08, 2020	Jun. 07, 2021
Preamplifier (1GHz-18GHz) KEYSIGHT	83017A	MY53270295	Jun. 08, 2020	Jun. 07, 2021
Pre-amplifier (18GHz-40GHz) EMC	EMC184045B	980116	Oct. 07, 2020	Oct. 06, 2021
RF signal cable HUBER+SUHNER	SUCOFLEX 104	MY 13380+295012/04	Jun. 08, 2020	Jun. 07, 2021
RF signal cable HUBER+SUHNER	SUCOFLEX 104	Cable-CH4-03 (250724)	Jun. 08, 2020	Jun. 07, 2021
RF signal cable HUBER+SUHNER	EMC102-KM-KM-600	150928	Aug. 16, 2020	Aug. 15, 2021
RF signal cable HUBER+SUHNER	EMC102-KM-KM-3000	150929	Aug. 16, 2020	Aug. 15, 2021
RF signal cable Rosnal	K1K50-UP0279-K1K50-3000	181129-1	Sep. 04, 2020	Sep. 03, 2021
Software BV ADT	ADT_Radiated_V7.6.15.9.5	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	010303	NA	NA
Antenna Tower Controller BV ADT	AT100	AT93021703	NA	NA
Turn Table BV ADT	TT100	TT93021703	NA	NA
Turn Table Controller BV ADT	SC100	SC93021703	NA	NA
Boresight Antenna Fixture	FBA-01	FBA-SIP01	NA	NA
WIT Standard Temperature And Humidity Chamber	TH-4S-C	W981030	Jun. 01, 2020	May 31, 2021
JFW 20dB attenuation	50HF-020-SMA	NA	NA	NA
True RMS Clamp Meter Fluke	325	31130711WS	Jun. 06, 2020	Jun. 05, 2021

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. *The calibration interval of the above test instruments is 36 months and the calibrations are traceable to NML/ROC and NIST/USA.
3. The test was performed in HwaYa Chamber 4.

For Above 40GHz:

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Spectrum Analyzer Keysight	N9030A	MY55330160	Feb. 07, 2020	Feb. 06, 2021
*OXE89 Horn Antenna (33~55GHz) QuinStar	QWH-UCRR00	924200002	Jan. 20, 2020	Jan. 19, 2022
*Conical Horn Antenna (50~75GHz) Keysight	WR15CH-Conical	WR15CH_001	Jan. 20, 2020	Jan. 19, 2022
*Conical Horn Antenna (75~110GHz) Keysight	WR10CH-Conical	WR10CH_001	Jan. 20, 2020	Jan. 19, 2022
*Conical Horn Antenna (110~170GHz) Keysight	WR6.5CH-Conical	WR6.5CH_001	Jan. 20, 2020	Jan. 19, 2022
*Conical Horn Antenna (140~220GHz) Keysight	WR5.1CH-Conical	WR5.1CH_001	Dec. 09, 2019	Dec. 08, 2021
*Conical Horn Antenna (220~330GHz) Keysight	WR3.4DH-Diagonal	WR3.4DH_001	Dec. 09, 2019	Dec. 08, 2021
N9029AV15-DC9 - 50-75 GHz VDI Standard Downconverter with 9VDC supply Keysight	SA Extension WR15	SAX 381	CoC	CoC
N9029AV10-DC9 - 75-110 GHz VDI Standard Downconverter with 9VDC supply Keysight	SA Extension WR10	SAX 378	CoC	CoC
N9029AV06-DC9 - 110-170 GHz VDI Standard Downconverter with 9VDC supply Keysight	SA Extension WR6.5	SAX 377	CoC	CoC
*N9029AV05-DC9 - 140-220 GHz VDI Standard Downconverter with 9VDC supply Keysight	SA Extension WR5.1	SAX 375	Dec. 09, 2019	Dec. 08, 2021
*N9029AV03-DC9 - 220-330 GHz VDI Standard Downconverter with 9VDC supply Keysight	SA Extension	SAX 376	Dec. 09, 2019	Dec. 08, 2021
Millimeter-Wave Signal Generator Frequency Extension Module (50~75 GHz) Keysight	E8257DV15	SGX 050	CoC	CoC
Millimeter-Wave Signal Generator Frequency Extension Module (75~110 GHz) Keysight	E8257DV10	SGX 069	CoC	CoC
Millimeter-Wave Signal Generator Frequency Extension Module (110~170 GHz) Keysight	E8257DV06-DC9	SGX 223	CoC	CoC
Millimeter-Wave Signal Generator Frequency Extension Module (140~220 GHz)	VDIWR5.1SGX	PSGX 007	CoC	CoC
PSG analog signal generator Keysight	E8257D	MY53401987	Jun. 17, 2020	Jun. 16, 2021

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Antenna Tower & Turn Table CT	NA	NA	NA	NA
*Power Meter VDI	PM5	431V	Dec. 09, 2019	Dec. 08, 2021

Note:
1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. *The calibration interval of the above test instruments is 24 months and the calibrations are traceable to NML/ROC and NIST/USA.
3. The test was performed in HwaYa Chamber 4
4. C.O.C: Certificate of conformance

4.2.4 Test Procedures

a. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8m(below or equal 1GHz) and/or 1.5m(above 1GHz) height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum polar radiated power. The “Read Value” is the spectrum reading the maximum power value.

b. The substitution antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a TX cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to “Read Value” of step a. Record the power level of S.G

STEP 1: DUT emission amplitude level = SPEC ANALYZER READING (X dBm)
STEP 2: Adjust SG so that SG + TX Cable loss + TX Ant gain + Free Space Path Loss + RX Ant Factor + RX Cable Loss = Spec Analyzer Reading (X dBm)

c. EIRP = Output power level of S.G – TX cable loss + Antenna gain of substitution horn.

Note: Measurements were taken in the far field of the mm-Wave test signal based on the formula:
R ≥ (2D^2) / wavelength.

Measurement Distance

EUT antenna of far field distance		
Measurement Frequency range	Far Field calculation distance	Measurement Distance (Far field)
Below 18GHz	0.05m	3m
18GHz to 40GHz	0.3m	1m
40GHz to 200GHz	0.12m to 0.59m	1m
Note: EUT Antenna Dimension is 21mm length, 2.2mm thick and 6.7mm high.		
Measurement antenna of far field distance		
Measurement Frequency range	Far Field calculation distance	Measurement Distance (Far field)
40GHz-50GHz	30mm	1m
50GHz-75GHz	25mm	1m
75GHz-110GHz	18mm	1m
110GHz-170GHz	12mm	1m
170GHz-200GHz	8mm	1m

4.2.5 Test Settings

a. Radiated power measurements were performed using the spectrum analyzer's channel power measurement function.

b. Set the RBW =1~5% of the anticipated RBW=1MHz, and the VBW ≥ 3 x RBW.

c. Set spectrum analyzer detection mode to RMS

d. Span = 2x to 3x the OBW

e. No. of sweep points ≥ 2 x span / RBW

f. Trigger is set to "free run" for test signals with continuous operation with the sweep times set to "auto". Trigger is set to enable triggering only on full power bursts with the sweep time set less that or equal to the transmission burst duration.

g. The integration bandwidth was roughly set equal to the measured OBW of the signal for signals with continuous operation. For signal with burst transmission, the "gating" function was enabled to ensure that measurements were performed during times in which the transmitter is operating at its maximum power.

h. Trace mode = trace averaging (RMS) over 100 sweeps.

i. The trace was allowed to stabilize.

4.2.6 Deviation from Test Standard

No deviation.

4.2.7 EUT Operating Conditions

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.2.8 Test Result

Beam ID	39	EUT position	Y-plane
Receive Antenna polarization		Horizontal	

QPSK

Channel No.	Freq. (MHz)	RB Condition	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
2240001+ 2241671	37700.04	1RB0	-37.05	7.66	10.47	18.13	43.00	-24.87
		1RB32	-35.63	9.09	10.47	19.56	43.00	-23.44
		1RB65	-36.82	7.90	10.47	18.37	43.00	-24.63
		Full RB	-37.17	7.55	10.47	18.02	43.00	-24.98
2259163+ 2260831	38850.0	1RB0	-35.59	9.44	9.43	18.87	43.00	-24.13
		1RB32	-34.32	10.52	9.43	19.95	43.00	-23.05
		1RB65	-35.26	9.58	9.43	19.01	43.00	-23.99
		Full RB	-35.73	9.11	9.43	18.54	43.00	-24.46
2276663+ 2278331	39900.0	1RB0	-38.15	8.69	9.51	18.20	43.00	-24.80
		1RB32	-37.15	9.61	9.51	19.12	43.00	-23.88
		1RB65	-37.66	9.10	9.51	18.61	43.00	-24.39
		Full RB	-38.13	8.63	9.51	18.14	43.00	-24.86

Remarks:
1. The EIRP was evaluated on vertical and horizontal polarization, the worst case is Horizontal polarization.
2. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
3. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
4. Spectrum reading (dBm) = DUT emission amplitude level.

16QAM

Channel No.	Freq. (MHz)	RB Condition	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
2240001+ 2241671	37700.04	1RB0	-37.96	6.76	10.47	17.23	43.00	-25.77
		1RB32	-37.07	7.65	10.47	18.12	43.00	-24.88
		1RB65	-37.76	6.96	10.47	17.43	43.00	-25.57
		Full RB	-38.04	6.68	10.47	17.15	43.00	-25.85
2259163+ 2260831	38850	1RB0	-36.35	8.49	9.43	17.92	43.00	-25.08
		1RB32	-35.63	9.21	9.43	18.64	43.00	-24.36
		1RB65	-37.02	7.82	9.43	17.25	43.00	-25.75
		Full RB	-36.99	7.85	9.43	17.28	43.00	-25.72
2276663+ 2278331	39900	1RB0	-38.92	7.84	9.51	17.35	43.00	-25.65
		1RB32	-38.16	8.60	9.51	18.11	43.00	-24.89
		1RB65	-38.81	7.95	9.51	17.46	43.00	-25.54
		Full RB	-39.16	7.60	9.51	17.11	43.00	-25.89

Remarks:
1. The EIRP was evaluated on vertical and horizontal polarization, the worst case is Horizontal polarization.
2. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
3. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
4. Spectrum reading (dBm) = DUT emission amplitude level.

64QAM

Channel No.	Freq. (MHz)	RB Condition	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
2240001+ 2241671	37700.04	1RB0	-39.18	5.54	10.47	16.01	43.00	-26.99
		1RB32	-38.25	6.47	10.47	16.94	43.00	-26.06
		1RB65	-39.09	5.63	10.47	16.10	43.00	-26.90
		Full RB	-39.18	5.54	10.47	16.01	43.00	-26.99
2259163+ 2260831	38850	1RB0	-38.14	6.70	9.43	16.13	43.00	-26.87
		1RB32	-37.05	7.79	9.43	17.22	43.00	-25.78
		1RB65	-37.86	6.98	9.43	16.41	43.00	-26.59
		Full RB	-38.69	6.15	9.43	15.58	43.00	-27.42
2276663+ 2278331	39900	1RB0	-40.12	6.64	9.51	16.15	43.00	-26.85
		1RB32	-38.98	7.78	9.51	17.29	43.00	-25.71
		1RB65	-39.84	6.92	9.51	16.43	43.00	-26.57
		Full RB	-40.15	6.61	9.51	16.12	43.00	-26.88

Remarks:
1. The EIRP was evaluated on vertical and horizontal polarization, the worst case is Horizontal polarization.
2. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
3. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
4. Spectrum reading (dBm) = DUT emission amplitude level.

Beam ID	166	EUT position	Y-plane
Receive Antenna polarization		Horizontal	

QPSK

Channel No.	Freq. (MHz)	RB Condition	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
2240001+ 2241671	37700.04	1RB0	-36.44	8.27	10.47	18.74	43.00	-24.26
		1RB32	-35.53	9.19	10.47	19.66	43.00	-23.34
		1RB65	-36.28	8.44	10.47	18.91	43.00	-24.09
		Full RB	-36.41	8.31	10.47	18.78	43.00	-24.22
2259163+ 2260831	38850	1RB0	-35.58	9.45	9.43	18.88	43.00	-24.12
		1RB32	-34.33	10.51	9.43	19.94	43.00	-23.06
		1RB65	-35.22	9.62	9.43	19.05	43.00	-23.95
		Full RB	-35.48	9.36	9.43	18.79	43.00	-24.21
2276663+ 2278331	39900	1RB0	-37.49	9.35	9.51	18.86	43.00	-24.14
		1RB32	-36.62	10.14	9.51	19.65	43.00	-23.35
		1RB65	-37.23	9.53	9.51	19.04	43.00	-23.96
		Full RB	-37.47	9.29	9.51	18.80	43.00	-24.20

Remarks:
1. The EIRP was evaluated on vertical and horizontal polarization, the worst case is Horizontal polarization.
2. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
3. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
4. Spectrum reading (dBm) = DUT emission amplitude level.

16QAM

Channel No.	Freq. (MHz)	RB Condition	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
2240001+ 2241671	37700.04	1RB0	-37.37	7.35	10.47	17.82	43.00	-25.18
		1RB32	-36.35	8.37	10.47	18.84	43.00	-24.16
		1RB65	-37.13	7.59	10.47	18.06	43.00	-24.94
		Full RB	-37.27	7.45	10.47	17.92	43.00	-25.08
2259163+ 2260831	38850	1RB0	-36.26	8.58	9.43	18.01	43.00	-24.99
		1RB32	-35.36	9.48	9.43	18.91	43.00	-24.09
		1RB65	-36.21	8.63	9.43	18.06	43.00	-24.94
		Full RB	-36.28	8.56	9.43	17.99	43.00	-25.01
2276663+ 2278331	39900	1RB0	-38.38	8.38	9.51	17.89	43.00	-25.11
		1RB32	-37.42	9.34	9.51	18.85	43.00	-24.15
		1RB65	-38.26	8.50	9.51	18.01	43.00	-24.99
		Full RB	-38.34	8.42	9.51	17.93	43.00	-25.07

Remarks:
1. The EIRP was evaluated on vertical and horizontal polarization, the worst case is Horizontal polarization.
2. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
3. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
4. Spectrum reading (dBm) = DUT emission amplitude level.

64QAM

Channel No.	Freq. (MHz)	RB Condition	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
2240001+ 2241671	37700.04	1RB0	-38.54	6.18	10.47	16.65	43.00	-26.35
		1RB32	-37.98	6.74	10.47	17.21	43.00	-25.79
		1RB65	-38.48	6.24	10.47	16.71	43.00	-26.29
		Full RB	-38.50	6.22	10.47	16.69	43.00	-26.31
2259163+ 2260831	38850	1RB0	-37.74	7.10	9.43	16.53	43.00	-26.47
		1RB32	-36.98	7.86	9.43	17.29	43.00	-25.71
		1RB65	-37.69	7.15	9.43	16.58	43.00	-26.42
		Full RB	-38.11	6.73	9.43	16.16	43.00	-26.84
2276663+ 2278331	39900	1RB0	-40.21	6.55	9.51	16.06	43.00	-26.94
		1RB32	-39.29	7.47	9.51	16.98	43.00	-26.02
		1RB65	-40.03	6.73	9.51	16.24	43.00	-26.76
		Full RB	-40.27	6.49	9.51	16.00	43.00	-27.00

Remarks:

1. The EIRP was evaluated on vertical and horizontal polarization, the worst case is Horizontal polarization.
2. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
3. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
4. Spectrum reading (dBm) = DUT emission amplitude level.

Beam ID	20	EUT position	X-plane
Receive Antenna polarization		Vertical	

QPSK

Channel No.	Freq. (MHz)	RB Condition	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
2240001+ 2241671	37700.04	1RB0	-34.79	9.93	10.47	20.40	43.00	-22.60
		1RB32	-34.40	10.32	10.47	20.79	43.00	-22.21
		1RB65	-34.68	10.04	10.47	20.51	43.00	-22.49
		Full RB	-34.88	9.84	10.47	20.31	43.00	-22.69
2259163+ 2260831	38850	1RB0	-33.69	11.15	9.43	20.58	43.00	-22.42
		1RB32	-33.29	11.55	9.43	20.98	43.00	-22.02
		1RB65	-33.58	11.26	9.43	20.69	43.00	-22.31
		Full RB	-34.26	10.58	9.43	20.01	43.00	-22.99
2276663+ 2278331	39900	1RB0	-35.87	10.89	9.51	20.40	43.00	-22.60
		1RB32	-35.37	11.39	9.51	20.90	43.00	-22.10
		1RB65	-35.64	11.12	9.51	20.63	43.00	-22.37
		Full RB	-36.22	10.54	9.51	20.05	43.00	-22.95

Remarks:
1. The EIRP was evaluated on vertical and horizontal polarization, the worst case is Vertical polarization.
2. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
3. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
4. Spectrum reading (dBm) = DUT emission amplitude level.

16QAM

Channel No.	Freq. (MHz)	RB Condition	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
2240001+ 2241671	37700.04	1RB0	-35.78	8.94	10.47	19.41	43.00	-23.59
		1RB32	-35.42	9.30	10.47	19.77	43.00	-23.23
		1RB65	-35.67	9.05	10.47	19.52	43.00	-23.48
		Full RB	-35.89	8.83	10.47	19.30	43.00	-23.70
2259163+ 2260831	38850	1RB0	-34.76	10.08	9.43	19.51	43.00	-23.49
		1RB32	-34.34	10.50	9.43	19.93	43.00	-23.07
		1RB65	-34.58	10.26	9.43	19.69	43.00	-23.31
		Full RB	-35.17	9.67	9.43	19.10	43.00	-23.90
2276663+ 2278331	39900	1RB0	-36.85	9.91	9.51	19.42	43.00	-23.58
		1RB32	-36.38	10.38	9.51	19.89	43.00	-23.11
		1RB65	-36.63	10.13	9.51	19.64	43.00	-23.36
		Full RB	-36.86	9.90	9.51	19.41	43.00	-23.59

Remarks:
1. The EIRP was evaluated on vertical and horizontal polarization, the worst case is Vertical polarization.
2. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
3. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
4. Spectrum reading (dBm) = DUT emission amplitude level.

64QAM

Channel No.	Freq. (MHz)	RB Condition	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
2240001+ 2241671	37700.04	1RB0	-37.48	7.24	10.47	17.71	43.00	-25.29
		1RB32	-37.12	7.60	10.47	18.07	43.00	-24.93
		1RB65	-37.37	7.35	10.47	17.82	43.00	-25.18
		Full RB	-37.57	7.15	10.47	17.62	43.00	-25.38
2259163+ 2260831	38850	1RB0	-36.46	8.38	9.43	17.81	43.00	-25.19
		1RB32	-36.05	8.79	9.43	18.22	43.00	-24.78
		1RB65	-36.12	8.72	9.43	18.15	43.00	-24.85
		Full RB	-36.42	8.42	9.43	17.85	43.00	-25.15
2276663+ 2278331	39900	1RB0	-38.58	8.18	9.51	17.69	43.00	-25.31
		1RB32	-38.12	8.64	9.51	18.15	43.00	-24.85
		1RB65	-38.33	8.43	9.51	17.94	43.00	-25.06
		Full RB	-38.58	8.18	9.51	17.69	43.00	-25.31

Remarks:
1. The EIRP was evaluated on vertical and horizontal polarization, the worst case is Vertical polarization.
2. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
3. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
4. Spectrum reading (dBm) = DUT emission amplitude level.

Beam ID	148	EUT position	X-plane
Receive Antenna polarization		Vertical	

QPSK

Channel No.	Freq. (MHz)	RB Condition	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
2240001+ 2241671	37700.04	1RB0	-36.38	8.34	10.47	18.81	43.00	-24.19
		1RB32	-35.03	9.69	10.47	20.16	43.00	-22.84
		1RB65	-36.16	8.56	10.47	19.03	43.00	-23.97
		Full RB	-35.47	9.25	10.47	19.72	43.00	-23.28
2259163+ 2260831	38850	1RB0	-35.16	9.68	9.43	19.11	43.00	-23.89
		1RB32	-33.61	11.23	9.43	20.66	43.00	-22.34
		1RB65	-34.92	9.92	9.43	19.35	43.00	-23.65
		Full RB	-35.14	9.70	9.43	19.13	43.00	-23.87
2276663+ 2278331	39900	1RB0	-37.55	9.21	9.51	18.72	43.00	-24.28
		1RB32	-36.04	10.72	9.51	20.23	43.00	-22.77
		1RB65	-36.42	10.34	9.51	19.85	43.00	-23.15
		Full RB	-37.00	9.76	9.51	19.27	43.00	-23.73

Remarks:
1. The EIRP was evaluated on vertical and horizontal polarization, the worst case is Vertical polarization.
2. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
3. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
4. Spectrum reading (dBm) = DUT emission amplitude level.

16QAM

Channel No.	Freq. (MHz)	RB Condition	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
2240001+ 2241671	37700.04	1RB0	-37.37	7.35	10.47	17.82	43.00	-25.18
		1RB32	-36.00	8.72	10.47	19.19	43.00	-23.81
		1RB65	-37.14	7.58	10.47	18.05	43.00	-24.95
		Full RB	-37.48	7.24	10.47	17.71	43.00	-25.29
2259163+ 2260831	38850	1RB0	-36.14	8.70	9.43	18.13	43.00	-24.87
		1RB32	-34.72	10.12	9.43	19.55	43.00	-23.45
		1RB65	-35.94	8.90	9.43	18.33	43.00	-24.67
		Full RB	-36.11	8.73	9.43	18.16	43.00	-24.84
2276663+ 2278331	39900	1RB0	-38.58	8.18	9.51	17.69	43.00	-25.31
		1RB32	-37.01	9.75	9.51	19.26	43.00	-23.74
		1RB65	-38.38	8.38	9.51	17.89	43.00	-25.11
		Full RB	-38.55	8.21	9.51	17.72	43.00	-25.28

Remarks:
1. The EIRP was evaluated on vertical and horizontal polarization, the worst case is Vertical polarization.
2. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
3. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
4. Spectrum reading (dBm) = DUT emission amplitude level.

64QAM

Channel No.	Freq. (MHz)	RB Condition	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
2240001+ 2241671	37700.04	1RB0	-39.06	5.66	10.47	16.13	43.00	-26.87
		1RB32	-37.70	7.02	10.47	17.49	43.00	-25.51
		1RB65	-37.96	6.76	10.47	17.23	43.00	-25.77
		Full RB	-38.14	6.58	10.47	17.05	43.00	-25.95
2259163+ 2260831	38850	1RB0	-37.84	7.00	9.43	16.43	43.00	-26.57
		1RB32	-36.42	8.42	9.43	17.85	43.00	-25.15
		1RB65	-36.64	8.20	9.43	17.63	43.00	-25.37
		Full RB	-37.13	7.71	9.43	17.14	43.00	-25.86
2276663+ 2278331	39900	1RB0	-40.18	6.58	9.51	16.09	43.00	-26.91
		1RB32	-39.72	7.04	9.51	16.55	43.00	-26.45
		1RB65	-39.22	7.54	9.51	17.05	43.00	-25.95
		Full RB	-39.25	7.51	9.51	17.02	43.00	-25.98

Remarks:
1. The EIRP was evaluated on vertical and horizontal polarization, the worst case is Vertical polarization.
2. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
3. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
4. Spectrum reading (dBm) = DUT emission amplitude level.

Beam ID	30	EUT position	X-plane
Receive Antenna polarization		Vertical	

QPSK

Channel No.	Freq. (MHz)	RB Condition	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
2240001+ 2241671	37700.04	1RB0	-35.94	8.78	10.47	19.25	43.00	-23.75
		1RB32	-34.58	10.14	10.47	20.61	43.00	-22.39
		1RB65	-35.83	8.89	10.47	19.36	43.00	-23.64
		Full RB	-35.07	9.65	10.47	20.12	43.00	-22.88
2259163+ 2260831	38850	1RB0	-34.62	10.22	9.43	19.65	43.00	-23.35
		1RB32	-33.39	11.45	9.43	20.88	43.00	-22.12
		1RB65	-34.56	10.28	9.43	19.71	43.00	-23.29
		Full RB	-34.72	10.12	9.43	19.55	43.00	-23.45
2276663+ 2278331	39900	1RB0	-37.14	9.62	9.51	19.13	43.00	-23.87
		1RB32	-35.57	11.19	9.51	20.70	43.00	-22.30
		1RB65	-36.56	10.20	9.51	19.71	43.00	-23.29
		Full RB	-36.25	10.51	9.51	20.02	43.00	-22.98

Remarks:
1. The EIRP was evaluated on vertical and horizontal polarization, the worst case is Vertical polarization.
2. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
3. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
4. Spectrum reading (dBm) = DUT emission amplitude level.

16QAM

Channel No.	Freq. (MHz)	RB Condition	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
2240001+ 2241671	37700.04	1RB0	-36.98	7.74	10.47	18.21	43.00	-24.79
		1RB32	-35.54	9.18	10.47	19.65	43.00	-23.35
		1RB65	-36.83	7.89	10.47	18.36	43.00	-24.64
		Full RB	-36.33	8.39	10.47	18.86	43.00	-24.14
2259163+ 2260831	38850	1RB0	-35.64	9.20	9.43	18.63	43.00	-24.37
		1RB32	-34.38	10.46	9.43	19.89	43.00	-23.11
		1RB65	-35.48	9.36	9.43	18.79	43.00	-24.21
		Full RB	-35.76	9.08	9.43	18.51	43.00	-24.49
2276663+ 2278331	39900	1RB0	-38.14	8.62	9.51	18.13	43.00	-24.87
		1RB32	-36.72	10.04	9.51	19.55	43.00	-23.45
		1RB65	-38.01	8.75	9.51	18.26	43.00	-24.74
		Full RB	-37.59	9.17	9.51	18.68	43.00	-24.32

Remarks:
1. The EIRP was evaluated on vertical and horizontal polarization, the worst case is Vertical polarization.
2. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
3. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
4. Spectrum reading (dBm) = DUT emission amplitude level.

64QAM

Channel No.	Freq. (MHz)	RB Condition	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
2240001+ 2241671	37700.04	1RB0	-38.67	6.05	10.47	16.52	43.00	-26.48
		1RB32	-37.24	7.48	10.47	17.95	43.00	-25.05
		1RB65	-38.53	6.19	10.47	16.66	43.00	-26.34
		Full RB	-38.74	5.98	10.47	16.45	43.00	-26.55
2259163+ 2260831	38850	1RB0	-37.32	7.52	9.43	16.95	43.00	-26.05
		1RB32	-36.23	8.61	9.43	18.04	43.00	-24.96
		1RB65	-37.18	7.66	9.43	17.09	43.00	-25.91
		Full RB	-37.38	7.46	9.43	16.89	43.00	-26.11
2276663+ 2278331	39900	1RB0	-39.83	6.93	9.51	16.44	43.00	-26.56
		1RB32	-38.33	8.43	9.51	17.94	43.00	-25.06
		1RB65	-39.76	7.00	9.51	16.51	43.00	-26.49
		Full RB	-39.12	7.64	9.51	17.15	43.00	-25.85

Remarks:
1. The EIRP was evaluated on vertical and horizontal polarization, the worst case is Vertical polarization.
2. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
3. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
4. Spectrum reading (dBm) = DUT emission amplitude level.

Beam ID	158	EUT position	X-plane
Receive Antenna polarization		Vertical	

QPSK

Channel No.	Freq. (MHz)	RB Condition	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
2240001+ 2241671	37700.04	1RB0	-36.30	8.42	10.47	18.89	43.00	-24.11
		1RB32	-34.68	10.04	10.47	20.51	43.00	-22.49
		1RB65	-36.10	8.62	10.47	19.09	43.00	-23.91
		Full RB	-35.36	9.36	10.47	19.83	43.00	-23.17
2259163+ 2260831	38850	1RB0	-35.12	9.72	9.43	19.15	43.00	-23.85
		1RB32	-33.57	11.27	9.43	20.70	43.00	-22.30
		1RB65	-34.96	9.88	9.43	19.31	43.00	-23.69
		Full RB	-35.06	9.78	9.43	19.21	43.00	-23.79
2276663+ 2278331	39900	1RB0	-37.22	9.54	9.51	19.05	43.00	-23.95
		1RB32	-35.68	11.08	9.51	20.59	43.00	-22.41
		1RB65	-36.70	10.06	9.51	19.57	43.00	-23.43
		Full RB	-36.48	10.28	9.51	19.79	43.00	-23.21

Remarks:
1. The EIRP was evaluated on vertical and horizontal polarization, the worst case is Vertical polarization.
2. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
3. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
4. Spectrum reading (dBm) = DUT emission amplitude level.

16QAM

Channel No.	Freq. (MHz)	RB Condition	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
2240001+ 2241671	37700.04	1RB0	-37.30	7.42	10.47	17.89	43.00	-25.11
		1RB32	-35.76	8.96	10.47	19.43	43.00	-23.57
		1RB65	-37.18	7.54	10.47	18.01	43.00	-24.99
		Full RB	-37.13	7.59	10.47	18.06	43.00	-24.94
2259163+ 2260831	38850	1RB0	-36.14	8.70	9.43	18.13	43.00	-24.87
		1RB32	-34.69	10.15	9.43	19.58	43.00	-23.42
		1RB65	-35.96	8.88	9.43	18.31	43.00	-24.69
		Full RB	-36.06	8.78	9.43	18.21	43.00	-24.79
2276663+ 2278331	39900	1RB0	-38.25	8.51	9.51	18.02	43.00	-24.98
		1RB32	-36.78	9.98	9.51	19.49	43.00	-23.51
		1RB65	-37.55	9.21	9.51	18.72	43.00	-24.28
		Full RB	-37.64	9.12	9.51	18.63	43.00	-24.37

Remarks:
1. The EIRP was evaluated on vertical and horizontal polarization, the worst case is Vertical polarization.
2. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
3. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
4. Spectrum reading (dBm) = DUT emission amplitude level.

64QAM

Channel No.	Freq. (MHz)	RB Condition	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
2240001+ 2241671	37700.04	1RB0	-39.00	5.72	10.47	16.19	43.00	-26.81
		1RB32	-37.79	6.93	10.47	17.40	43.00	-25.60
		1RB65	-38.88	5.84	10.47	16.31	43.00	-26.69
		Full RB	-38.88	5.84	10.47	16.31	43.00	-26.69
2259163+ 2260831	38850	1RB0	-37.84	7.00	9.43	16.43	43.00	-26.57
		1RB32	-36.38	8.46	9.43	17.89	43.00	-25.11
		1RB65	-37.56	7.28	9.43	16.71	43.00	-26.29
		Full RB	-37.76	7.08	9.43	16.51	43.00	-26.49
2276663+ 2278331	39900	1RB0	-39.95	6.81	9.51	16.32	43.00	-26.68
		1RB32	-38.58	8.18	9.51	17.69	43.00	-25.31
		1RB65	-39.16	7.60	9.51	17.11	43.00	-25.89
		Full RB	-39.31	7.45	9.51	16.96	43.00	-26.04

Remarks:
1. The EIRP was evaluated on vertical and horizontal polarization, the worst case is Vertical polarization.
2. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
3. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
4. Spectrum reading (dBm) = DUT emission amplitude level.

Beam ID	39+166	EUT position	Y-plane
Receive Antenna polarization		Horizontal+Vertical	

Modulation	Channel No.	Freq. (MHz)	RB Condition	EIRP (dBm)		
				Worst Beam ID		MIMO Beam
				39	166	39+166
QPSK	2240001+ 2241671	37700.04	1RB0	18.13	18.74	21.46
			1RB32	18.66	19.66	22.20
			1RB65	18.37	18.91	21.66
			Full RB	18.02	18.78	21.43
	2259163+ 2260831	38850	1RB0	18.87	18.88	21.89
			1RB32	19.95	19.94	**22.96**
			1RB65	19.01	19.05	22.04
			Full RB	18.54	18.79	21.68
	2276663+ 2278331	39900	1RB0	18.20	18.86	21.55
			1RB32	19.12	19.65	22.40
			1RB65	18.61	19.04	21.84
			Full RB	18.14	18.80	21.49
16QAM	2240001+ 2241671	37700.04	1RB0	17.23	17.82	20.55
			1RB32	18.12	18.84	21.51
			1RB65	17.43	18.06	20.77
			Full RB	17.15	17.92	20.56
	2259163+ 2260831	38850	1RB0	17.92	18.01	20.98
			1RB32	18.64	18.91	21.79
			1RB65	17.25	18.06	20.68
			Full RB	17.28	17.99	20.66
	2276663+ 2278331	39900	1RB0	17.35	17.89	20.64
			1RB32	18.11	18.85	21.51
			1RB65	17.46	18.01	20.75
			Full RB	17.11	17.93	20.55
64QAM	2240001+ 2241671	37700.04	1RB0	16.01	16.65	19.35
			1RB32	16.94	17.21	20.09
			1RB65	16.10	16.71	19.43
			Full RB	16.01	16.69	19.37
	2259163+ 2260831	38850	1RB0	16.13	16.53	19.34
			1RB32	17.22	17.29	20.27
			1RB65	16.41	16.58	19.51
			Full RB	15.58	16.16	18.89
	2276663+ 2278331	39900	1RB0	16.15	16.06	19.12
			1RB32	17.29	16.98	20.15
			1RB65	16.43	16.24	19.35
			Full RB	16.12	16.00	19.07

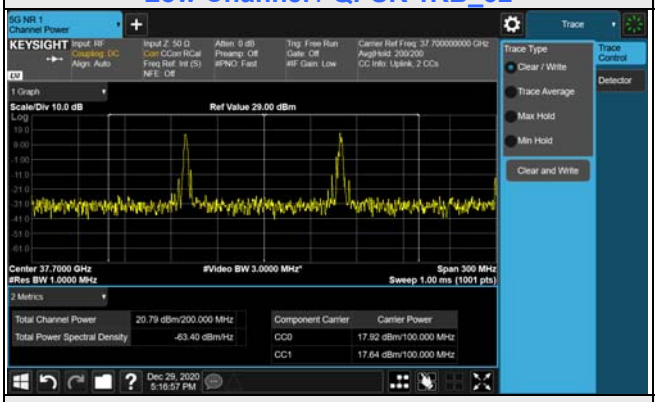
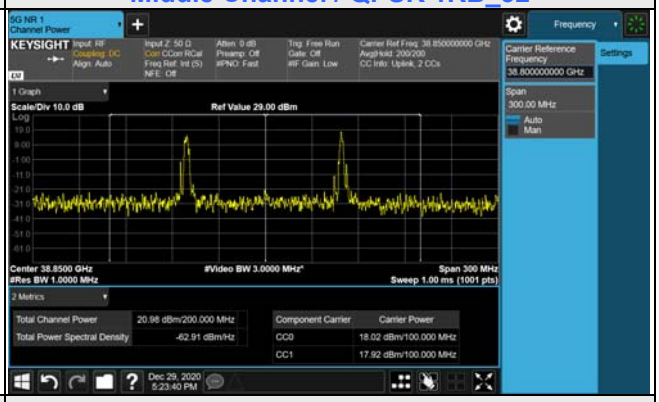
Beam ID	20+148	EUT position	X-plane
Receive Antenna polarization		Horizontal+Vertical	

Modulation	Channel No.	Freq. (MHz)	RB Condition	EIRP (dBm)		
				Worst Beam ID		MIMO Beam
				20	148	20+148
QPSK	2240001+ 2241671	37700.04	1RB0	20.40	18.81	22.69
			1RB32	20.79	20.16	23.50
			1RB65	20.51	19.03	22.84
			Full RB	20.31	19.72	23.04
	2259163+ 2260831	38850	1RB0	20.58	19.11	22.92
			1RB32	20.98	20.66	**23.83**
			1RB65	20.69	19.35	23.08
			Full RB	20.01	19.13	22.60
	2276663+ 2278331	39900	1RB0	20.40	18.72	22.65
			1RB32	20.90	20.23	23.59
			1RB65	20.63	19.85	23.27
			Full RB	20.05	19.27	22.69
16QAM	2240001+ 2241671	37700.04	1RB0	19.41	17.82	21.70
			1RB32	19.77	19.19	22.50
			1RB65	19.52	18.05	21.86
			Full RB	19.30	17.71	21.59
	2259163+ 2260831	38850	1RB0	19.51	18.13	21.88
			1RB32	19.93	19.55	22.75
			1RB65	19.69	18.33	22.07
			Full RB	19.10	18.16	21.67
	2276663+ 2278331	39900	1RB0	19.42	17.69	21.65
			1RB32	19.89	19.26	22.60
			1RB65	19.64	17.89	21.86
			Full RB	19.41	17.72	21.66
64QAM	2240001+ 2241671	37700.04	1RB0	17.71	16.13	20.00
			1RB32	18.07	17.49	20.80
			1RB65	17.82	17.23	20.55
			Full RB	17.62	17.05	20.35
	2259163+ 2260831	38850	1RB0	17.81	16.43	20.18
			1RB32	18.22	17.85	21.05
			1RB65	18.15	17.63	20.91
			Full RB	17.85	17.14	20.52
	2276663+ 2278331	39900	1RB0	17.69	16.09	19.97
			1RB32	18.15	16.55	20.43
			1RB65	17.94	17.05	20.53
			Full RB	17.69	17.02	20.38

Beam ID	30+158	EUT position	X-plane
Receive Antenna polarization		Horizontal+Vertical	

Modulation	Channel No.	Freq. (MHz)	RB Condition	EIRP (dBm)		
				Worst Beam ID		MIMO Beam
				30	158	30+158
QPSK	2240001+ 2241671	37700.04	1RB0	19.25	18.89	22.08
			1RB32	20.61	20.51	23.57
			1RB65	19.36	19.09	22.24
			Full RB	20.12	19.83	22.99
	2259163+ 2260831	38850	1RB0	19.65	19.15	22.42
			1RB32	20.88	20.70	**23.80**
			1RB65	19.71	19.31	22.52
			Full RB	19.55	19.21	22.39
	2276663+ 2278331	39900	1RB0	19.13	19.05	22.10
			1RB32	20.70	20.59	23.66
			1RB65	19.71	19.57	22.65
			Full RB	20.02	19.79	22.92
16QAM	2240001+ 2241671	37700.04	1RB0	18.21	17.89	21.06
			1RB32	19.65	19.43	22.55
			1RB65	18.36	18.01	21.20
			Full RB	18.86	18.06	21.49
	2259163+ 2260831	38850	1RB0	18.63	18.13	21.40
			1RB32	19.89	19.58	22.75
			1RB65	18.79	18.31	21.57
			Full RB	18.51	18.21	21.37
	2276663+ 2278331	39900	1RB0	18.13	18.02	21.09
			1RB32	19.55	19.49	22.53
			1RB65	18.26	18.72	21.51
			Full RB	18.68	18.63	21.67
64QAM	2240001+ 2241671	37700.04	1RB0	16.52	16.19	19.37
			1RB32	17.95	17.40	20.69
			1RB65	16.66	16.31	19.50
			Full RB	16.45	16.31	19.39
	2259163+ 2260831	38850	1RB0	16.95	16.43	19.71
			1RB32	18.04	17.89	20.98
			1RB65	17.09	16.71	19.91
			Full RB	16.89	16.51	19.71
	2276663+ 2278331	39900	1RB0	16.44	16.32	19.39
			1RB32	17.94	17.69	20.83
			1RB65	16.51	17.11	19.83
			Full RB	17.15	16.96	20.07

Single Beam

Low Channel / QPSK 1RB_32	Middle Channel / QPSK 1RB_32
	
High Channel / QPSK 1RB_32	
	

4.3 Emission Bandwidth Measurement

4.3.1 Limit of Emission Bandwidth Measurement

The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

4.3.2 Test Setup

Refer to section 4.1.2

4.3.3 Test Instruments

Refer to section 4.2.3 to get information of above instrument.

4.3.4 Test Procedure

1. The spectrum analyzer's automatic bandwidth measurement function was used to perform the 99% occupied bandwidth and the 26 dB bandwidth measurement.
2. Set the RBW =1~5% of the anticipated OBW, and the VBW≥3 x RBW.
3. Set spectrum analyzer detection mode to peak, and the trace mode to max hold
4. Sweep = auto couple
5. Record the test plots and test results.

4.3.5 Deviation from Test Standard

No deviation.

4.3.6 EUT Operating Conditions

The software provided by client to enable the EUT under transmission condition continuously at lowest channel frequencies individually.

4.3.7 Test Result

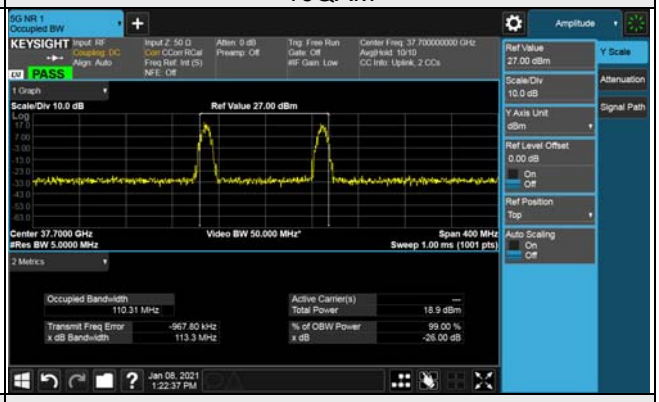
1RB / 32RB offset

Channel	Freq. (MHz)	Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM
2240001+2241671	37700.04	110.60	110.31	109.50
2259163+2260831	38850	110.12	110.58	110.64
2276663+2278331	39900	110.27	110.28	109.71

Low Channel

QPSK

16QAM



64QAM

Middle Channel

QPSK	16QAM
	
64QAM	
	

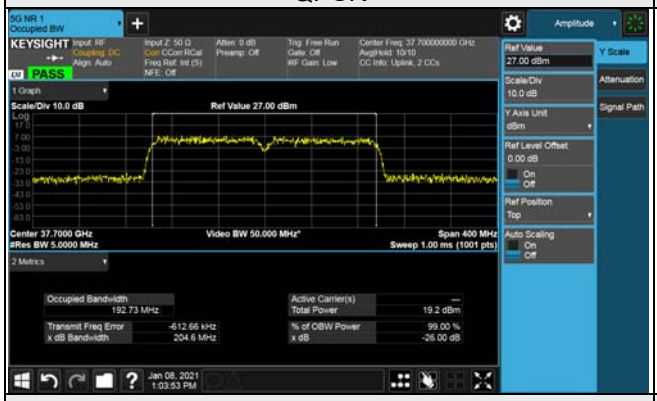
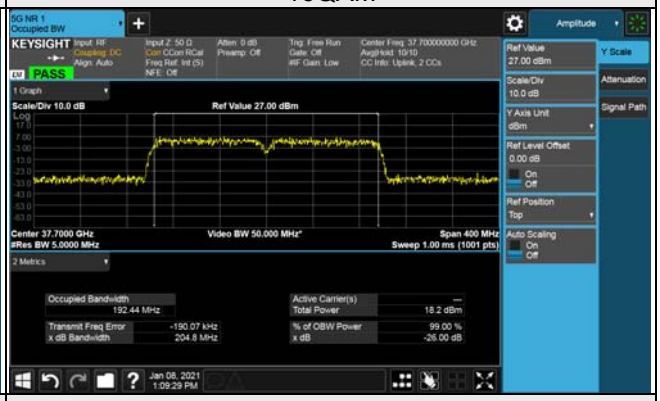
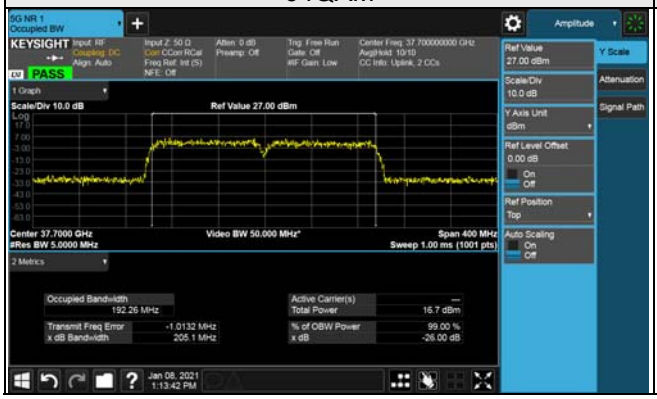
High Channel

QPSK	16QAM
	
64QAM	
	

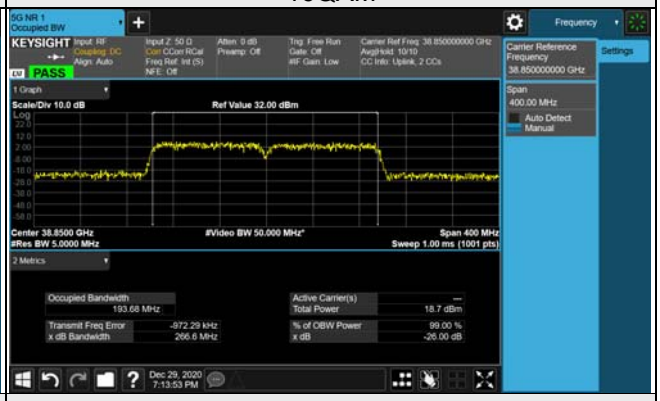
Full RB

Channel	Freq. (MHz)	Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM
2240001+2241671	37700.04	192.73	192.44	192.26
2259163+2260831	38850	193.38	193.68	194.17
2276663+2278331	39900	192.47	192.45	192.37

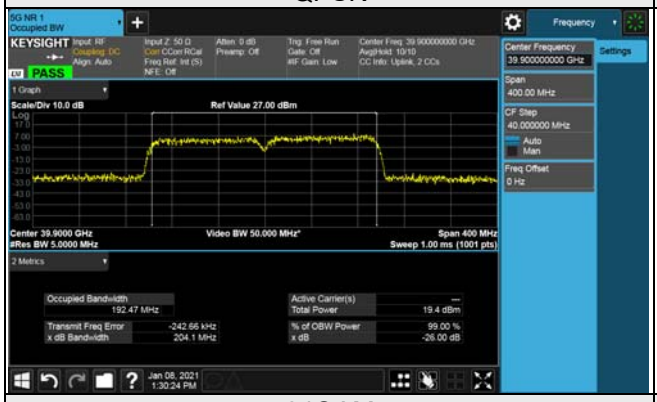
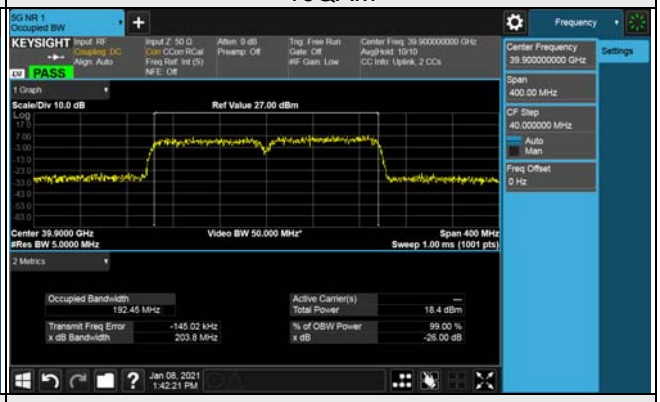
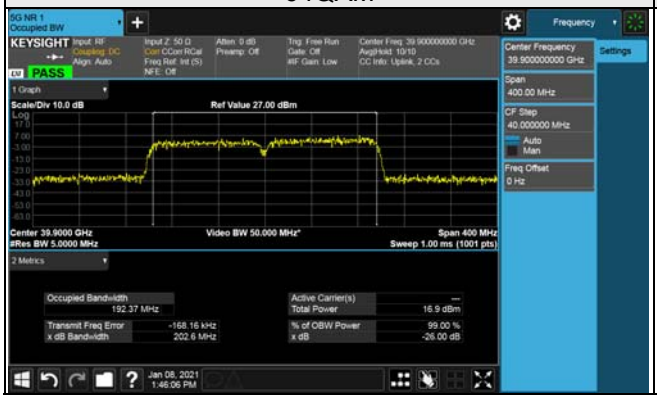
Low Channel

QPSK	16QAM
	
64QAM	
	

Middle Channel

QPSK	16QAM
	
64QAM	
	

High Channel

QPSK	16QAM
	
64QAM	
	

4.4 Out-of-Band Spurious Emission Measurement

4.4.1 Limits of Out-of-Band Spurious Emission Measurement

The conductive power or the total radiated power of any emission outside a licensee's frequency block shall be −13 dBm/MHz or lower. However, in the bands immediately outside and adjacent to the licensee's frequency block, having a bandwidth equal to 10 percent of the channel bandwidth, the conductive power or the total radiated power of any emission shall be −5 dBm/MHz or lower.

4.4.2 Test Instruments

Refer to section 4.2.3 to get information of above instrument.

4.4.3 Test Procedures

The spectrum is scanned from 30MHz to 200GHz for n260. All out of band emission are measured in a radiated test setup while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All modulations were invertigated to determine the worse case configuration. All modes of operation were investigated and the worse case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

The conducted power or total radiated power of any emissions outside a licensee's frequency block shall be -13dBm/1MHz.

Test Procedures Used

ANSI C63.26-2015 Section 5.7.4
KDB 842590 D01 v01 Section 4.4.2 and Sectiom 4.4.3

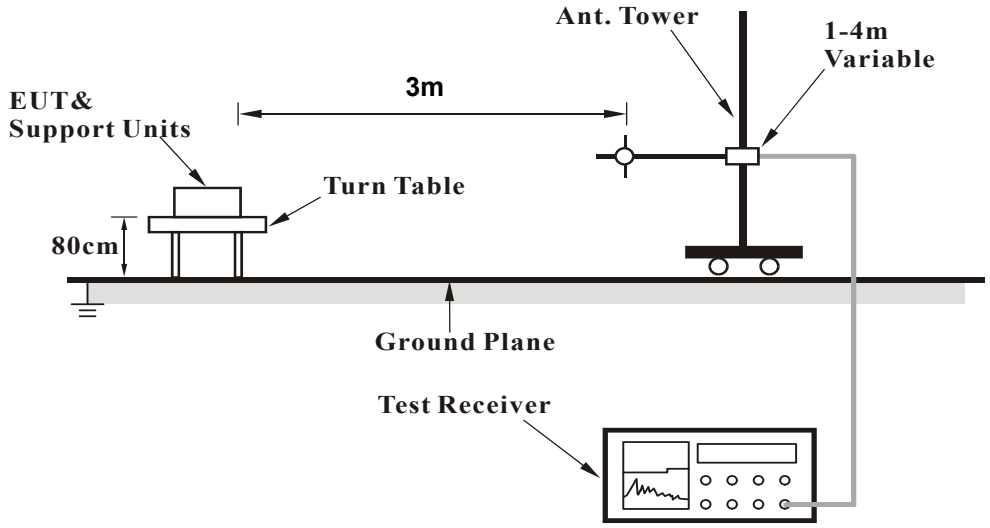
EUT antenna of far field distance		
Measurement Frequency range	Far Field calculation distance	Measurement Distance (Far field)
Below 18GHz	0.05m	3m
18GHz to 40GHz	0.3m	1m
40GHz to 200GHz	0.12m to 0.59m	1m
Note: EUT Antenna Dimension is 21mm length, 2.2mm thick and 6.7mm high.		
Measurement antenna of far field distance		
Measurement Frequency range	Far Field calculation distance	Measurement Distance (Far field)
40GHz-50GHz	30mm	1m
50GHz-75GHz	25mm	1m
75GHz-110GHz	18mm	1m
110GHz-170GHz	12mm	1m
170GHz-200GHz	8mm	1m

4.4.4 Deviation from Test Standard

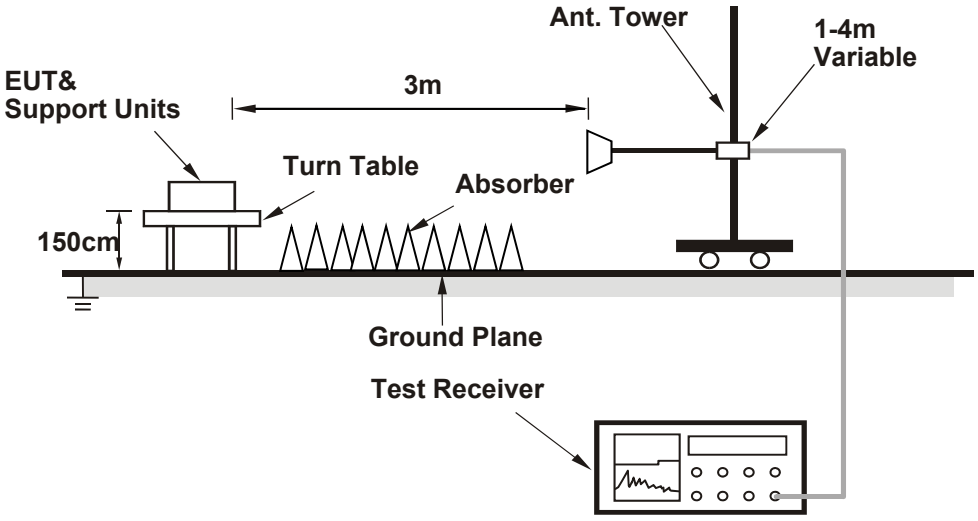
No deviation.

4.4.5 Test Set Up

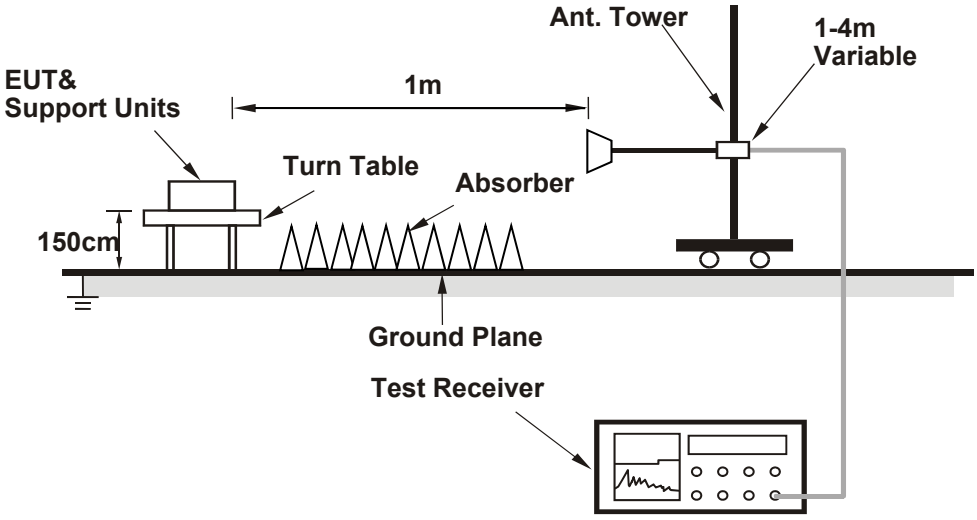
<Frequency Range below 1GHz>



<Frequency Range 1GHz ~ 18GHz>



<Frequency Range above 18GHz>



For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.4.6 EUT Operating Conditions

a. Connected the Adapter to EUT.
b. Prepared notebook to act as communication partner and placed it outside of testing area.
c. The communication partner connected with EUT via a RJ45 cable and ran a test program (provided by manufacturer) to enable EUT under transmission condition continuously at specific channel frequency.
d. The communication partner sent data to EUT by command "PING".

4.4.7 Test Result

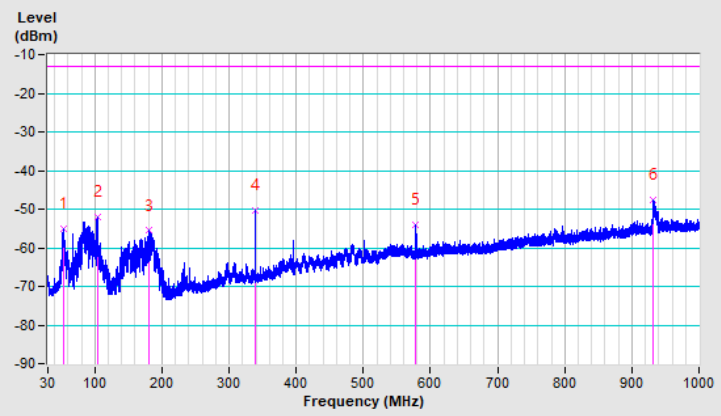
Below 1GHz Data:

Beam ID	20	Frequency Range	Below 1000 MHz
Channel	Low	Polarity	Horizontal

Test Distance: 3 M								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	52.65	-55.2	-13.0	-42.2	1.50 H	138	49.0	-104.2
2	103.38	-52.1	-13.0	-39.1	1.00 H	336	56.0	-108.1
3	180.81	-55.6	-13.0	-42.6	1.50 H	153	50.1	-105.7
4	339.07	-50.4	-13.0	-37.4	1.50 H	54	51.8	-102.2
5	578.46	-53.9	-13.0	-40.9	1.50 H	54	43.4	-97.3
6	932.49	-47.7	-13.0	-34.7	1.00 H	17	40.7	-88.4

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8.
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

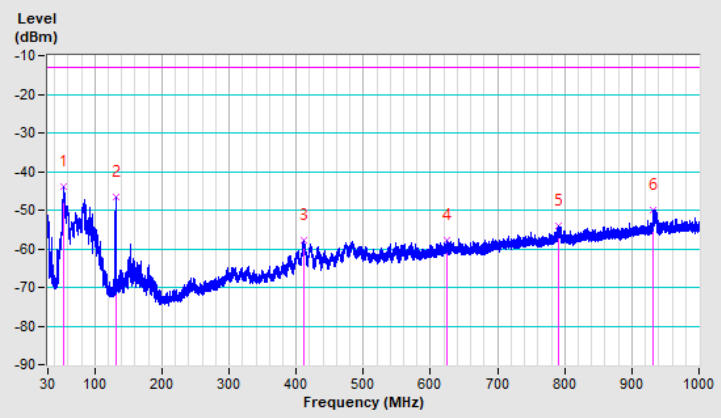


Beam ID	20	Frequency Range	Below 1000 MHz
Channel	Low	Polarity	Vertical

Test Distance: 3 M								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	53.86	-44.0	-13.0	-31.0	1.00 V	12	60.4	-104.4
2	130.86	-46.5	-13.0	-33.5	1.00 V	319	58.9	-105.4
3	411.02	-57.8	-13.0	-44.8	1.00 V	222	43.1	-100.9
4	623.64	-57.9	-13.0	-44.9	1.00 V	292	37.9	-95.8
5	790.53	-54.0	-13.0	-41.0	1.00 V	208	37.7	-91.7
6	931.81	-50.0	-13.0	-37.0	1.50 V	4	38.4	-88.4

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8.
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

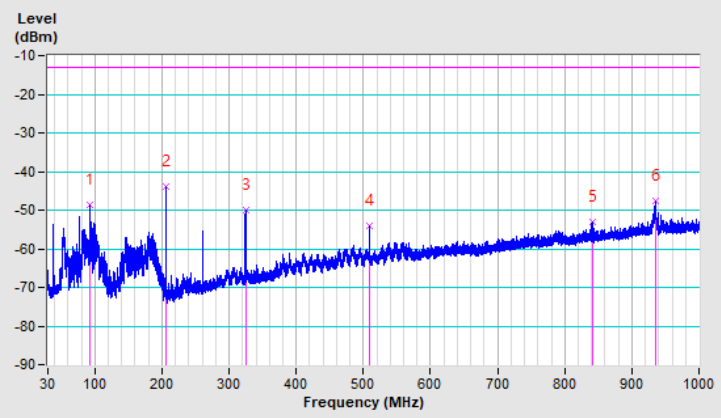


Beam ID	20	Frequency Range	Below 1000 MHz
Channel	Mid	Polarity	Horizontal

Test Distance: 3 M								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	93.37	-48.5	-13.0	-35.5	2.00 H	96	61.0	-109.5
2	206.47	-44.0	-13.0	-31.0	1.00 H	68	63.1	-107.1
3	324.39	-50.1	-13.0	-37.1	1.00 H	96	52.3	-102.4
4	509.33	-53.9	-13.0	-40.9	1.00 H	96	45.0	-98.9
5	840.65	-53.0	-13.0	-40.0	1.00 H	68	37.6	-90.6
6	934.57	-47.6	-13.0	-34.6	1.00 H	54	40.8	-88.4

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8.
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

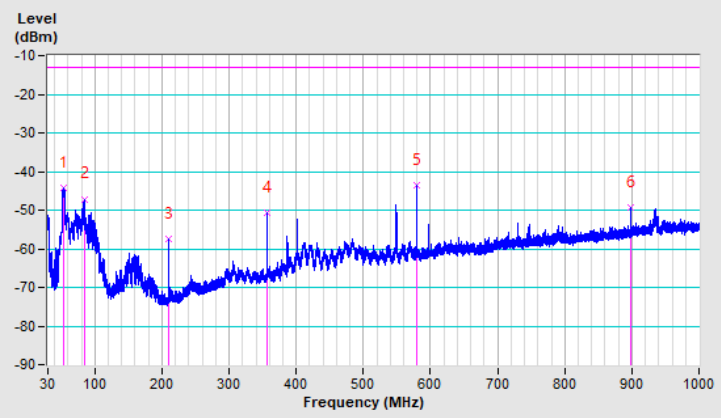


Beam ID	20	Frequency Range	Below 1000 MHz
Channel	Mid	Polarity	Vertical

Test Distance: 3 M								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	53.01	-44.1	-13.0	-31.1	1.00 V	352	60.0	-104.1
2	85.46	-47.1	-13.0	-34.1	1.50 V	4	62.5	-109.6
3	209.62	-57.4	-13.0	-44.4	1.50 V	99	49.6	-107.0
4	356.31	-50.7	-13.0	-37.7	1.50 V	57	51.2	-101.9
5	578.87	-43.6	-13.0	-30.6	1.50 V	57	53.7	-97.3
6	899.00	-49.2	-13.0	-36.2	1.50 V	99	40.0	-89.2

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8.
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

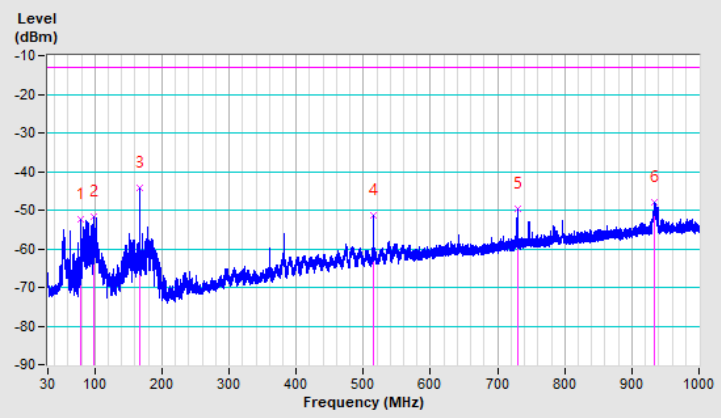


Beam ID	20	Frequency Range	Below 1000 MHz
Channel	High	Polarity	Horizontal

Test Distance: 3 M								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	79.08	-52.5	-13.0	-39.5	2.00 H	336	55.8	-108.3
2	97.56	-51.8	-13.0	-38.8	1.00 H	17	57.2	-109.0
3	166.33	-44.2	-13.0	-31.2	1.50 H	83	60.1	-104.3
4	514.85	-51.4	-13.0	-38.4	1.50 H	96	47.5	-98.9
5	729.90	-49.7	-13.0	-36.7	1.50 H	2	43.6	-93.3
6	934.19	-47.9	-13.0	-34.9	1.00 H	30	40.5	-88.4

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8.
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

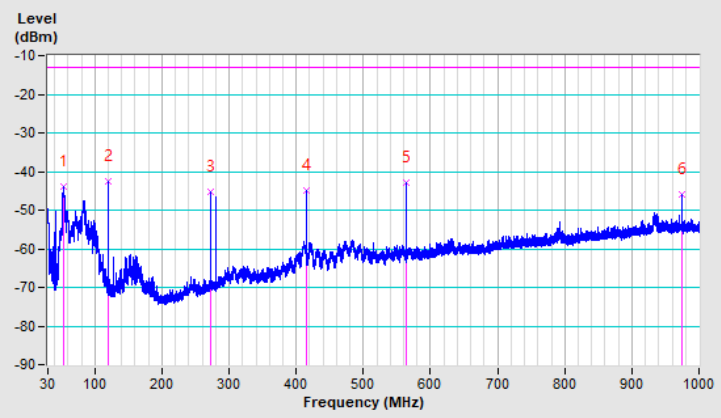


Beam ID	20	Frequency Range	Below 1000 MHz
Channel	High	Polarity	Vertical

Test Distance: 3 M								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	53.47	-43.9	-13.0	-30.9	2.00 V	13	60.4	-104.3
2	119.99	-42.5	-13.0	-29.5	1.00 V	98	63.9	-106.4
3	272.01	-45.1	-13.0	-32.1	1.00 V	56	58.7	-103.8
4	415.09	-44.8	-13.0	-31.8	1.00 V	56	56.1	-100.9
5	563.57	-42.9	-13.0	-29.9	1.00 V	56	55.0	-97.9
6	974.44	-45.8	-13.0	-32.8	1.00 V	98	42.1	-87.9

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8.
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

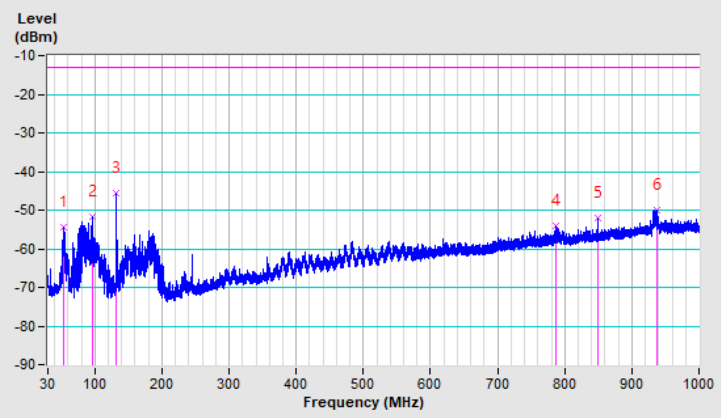


Beam ID	20+148	Frequency Range	Below 1000 MHz
Channel	Low	Polarity	Horizontal

Test Distance: 3 M								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	53.50	-54.4	-13.0	-41.4	1.50 H	85	49.9	-104.3
2	96.93	-51.8	-13.0	-38.8	1.00 H	13	57.3	-109.1
3	132.41	-45.7	-13.0	-32.7	1.00 H	55	59.6	-105.3
4	787.35	-54.2	-13.0	-41.2	1.00 H	13	37.5	-91.7
5	849.12	-52.0	-13.0	-39.0	1.00 H	55	38.5	-90.5
6	938.28	-50.1	-13.0	-37.1	1.50 H	225	38.4	-88.5

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8.
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

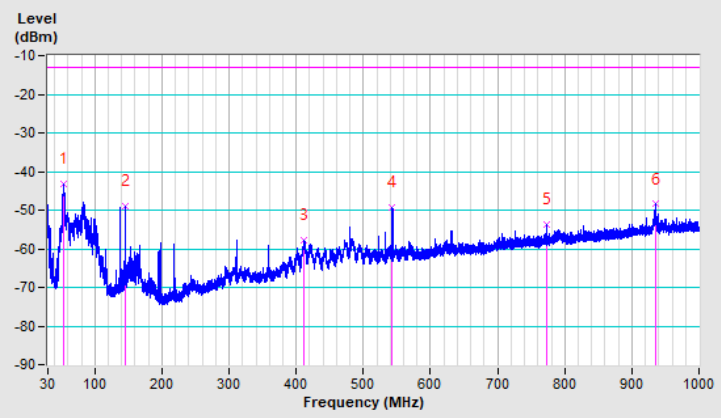


Beam ID	20+148	Frequency Range	Below 1000 MHz
Channel	Low	Polarity	Vertical

Test Distance: 3 M								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	52.94	-43.3	-13.0	-30.3	2.00 V	350	60.8	-104.1
2	144.63	-49.0	-13.0	-36.0	1.00 V	111	55.3	-104.3
3	411.89	-57.9	-13.0	-44.9	1.00 V	181	43.0	-100.9
4	543.32	-49.2	-13.0	-36.2	1.49 V	110	49.1	-98.3
5	773.58	-53.8	-13.0	-40.8	1.00 V	111	38.1	-91.9
6	935.03	-48.5	-13.0	-35.5	1.00 V	13	39.9	-88.4

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8.
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

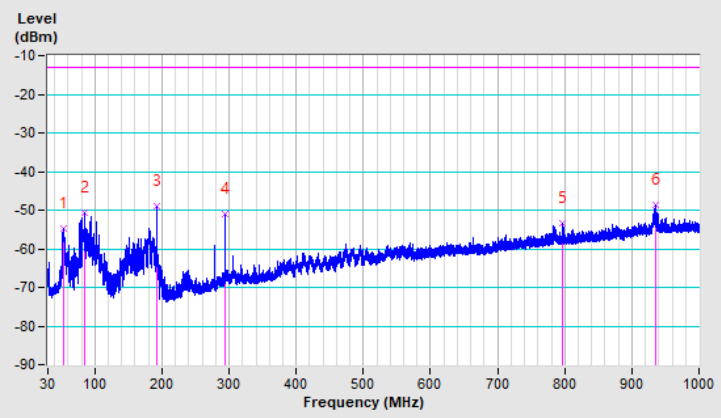


Beam ID	20+148	Frequency Range	Below 1000 MHz
Channel	Mid	Polarity	Horizontal

Test Distance: 3 M								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	52.75	-54.7	-13.0	-41.7	1.50 H	152	49.5	-104.2
2	85.61	-50.8	-13.0	-37.8	1.00 H	17	58.8	-109.6
3	191.67	-48.9	-13.0	-35.9	1.50 H	54	57.9	-106.8
4	294.62	-50.9	-13.0	-37.9	1.50 H	110	52.2	-103.1
5	796.64	-53.3	-13.0	-40.3	2.00 H	306	38.4	-91.7
6	934.62	-48.5	-13.0	-35.5	1.00 H	295	39.9	-88.4

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8.
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

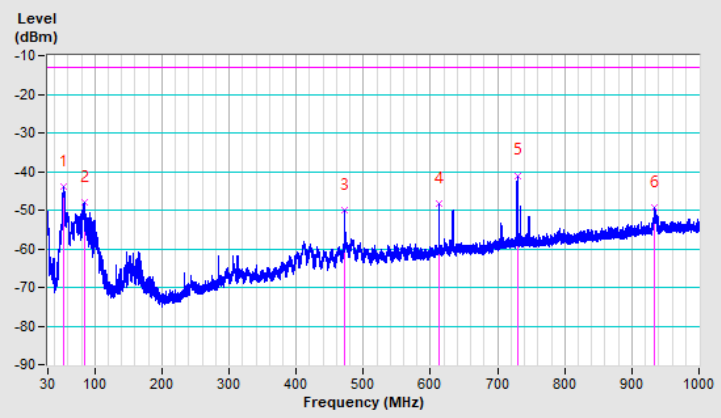


Beam ID	20+148	Frequency Range	Below 1000 MHz
Channel	Mid	Polarity	Vertical

Test Distance: 3 M								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	53.47	-43.8	-13.0	-30.8	1.00 V	41	60.5	-104.3
2	85.63	-48.0	-13.0	-35.0	1.00 V	278	61.6	-109.6
3	471.69	-49.9	-13.0	-36.9	1.00 V	54	49.8	-99.7
4	613.36	-48.4	-13.0	-35.4	1.00 V	97	47.6	-96.0
5	729.52	-41.0	-13.0	-28.0	1.49 V	72	52.3	-93.3
6	933.14	-49.2	-13.0	-36.2	1.00 V	348	39.2	-88.4

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8.
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

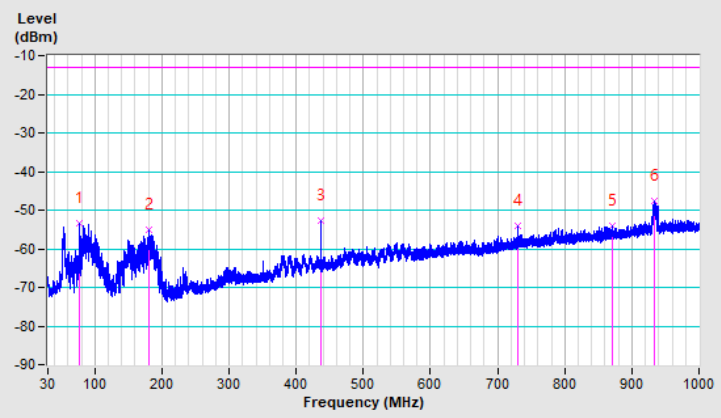


Beam ID	20+148	Frequency Range	Below 1000 MHz
Channel	High	Polarity	Horizontal

Test Distance: 3 M								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	76.20	-53.5	-13.0	-40.5	2.00 H	55	54.0	-107.5
2	180.35	-55.1	-13.0	-42.1	1.50 H	266	50.5	-105.6
3	437.42	-52.6	-13.0	-39.6	1.00 H	55	47.7	-100.3
4	729.42	-54.0	-13.0	-41.0	1.50 H	17	39.4	-93.4
5	870.53	-54.2	-13.0	-41.2	1.00 H	27	35.7	-89.9
6	932.90	-47.5	-13.0	-34.5	1.50 H	17	40.9	-88.4

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8.
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

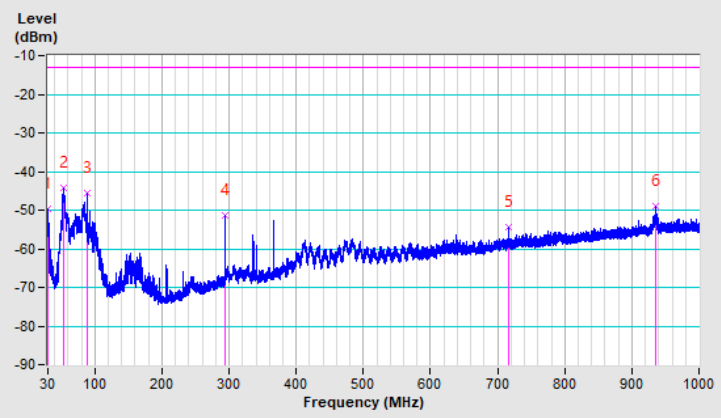


Beam ID	20+148	Frequency Range	Below 1000 MHz
Channel	High	Polarity	Vertical

Test Distance: 3 M								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	30.02	-49.6	-13.0	-36.6	1.00 V	29	56.0	-105.6
2	53.84	-44.1	-13.0	-31.1	1.00 V	4	60.3	-104.4
3	89.29	-45.7	-13.0	-32.7	1.00 V	112	64.1	-109.8
4	293.62	-51.3	-13.0	-38.3	1.00 V	112	51.9	-103.2
5	717.12	-54.5	-13.0	-41.5	1.00 V	112	39.4	-93.9
6	936.32	-49.1	-13.0	-36.1	1.49 V	12	39.4	-88.5

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8.
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.



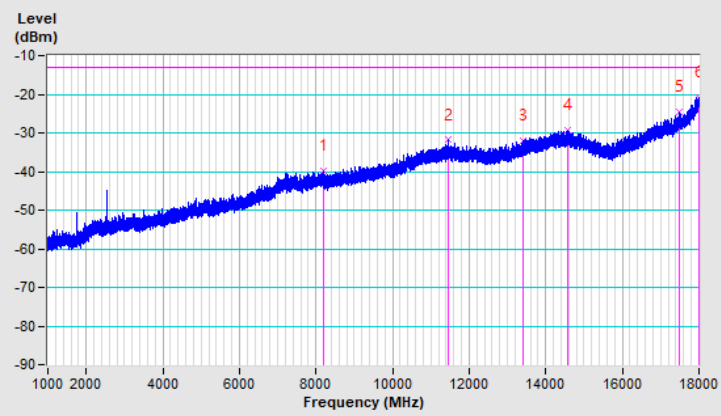
Above 1GHz Data:

Beam ID	20	Frequency Range	1GHz ~ 18GHz
Channel	Low	Polarity	Horizontal

Test Distance: 3 M								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	8182.93	-39.8	-13.0	-26.8	1.50 H	307	40.2	-80.0
2	11444.37	-31.9	-13.0	-18.9	1.00 H	297	41.5	-73.4
3	13397.25	-32.1	-13.0	-19.1	1.00 H	119	40.2	-72.3
4	14581.73	-29.2	-13.0	-16.2	1.50 H	21	40.3	-69.5
5	17482.35	-24.5	-13.0	-11.5	1.50 H	21	41.3	-65.8
6	17991.92	-20.7	-13.0	-7.7	1.50 H	21	39.7	-60.4

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8.
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

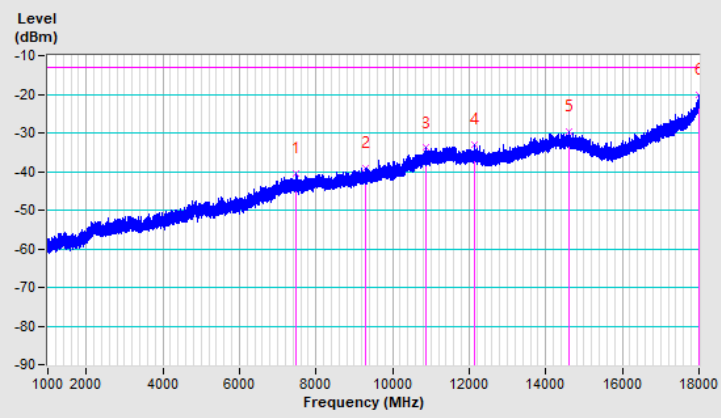


Beam ID	20	Frequency Range	1GHz ~ 18GHz
Channel	Low	Polarity	Vertical

Test Distance: 3 M								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7478.27	-40.4	-13.0	-27.4	2.00 V	12	40.1	-80.5
2	9287.08	-39.0	-13.0	-26.0	1.00 V	242	39.1	-78.1
3	10867.65	-33.9	-13.0	-20.9	1.00 V	228	40.2	-74.1
4	12155.40	-33.0	-13.0	-20.0	1.00 V	242	40.8	-73.8
5	14591.08	-29.8	-13.0	-16.8	1.50 V	314	39.7	-69.5
6	17999.15	-20.3	-13.0	-7.3	1.50 V	12	39.9	-60.2

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8.
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

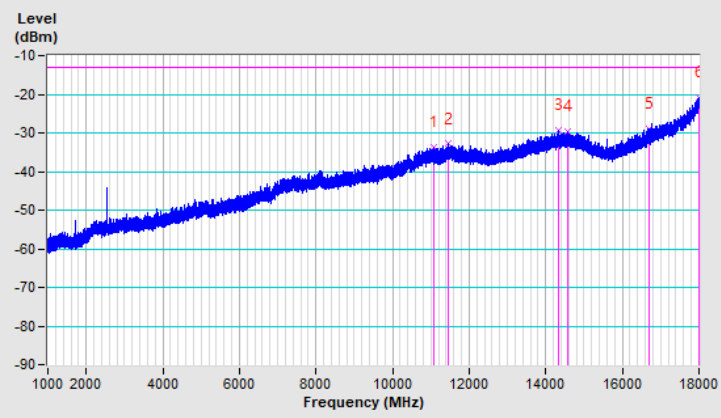


Beam ID	20	Frequency Range	1GHz ~ 18GHz
Channel	Mid	Polarity	Horizontal

Test Distance: 3 M								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	11068.67	-33.7	-13.0	-20.7	1.00 H	163	40.0	-73.7
2	11463.92	-32.9	-13.0	-19.9	1.00 H	9	40.5	-73.4
3	14348.83	-29.4	-13.0	-16.4	1.50 H	165	40.1	-69.5
4	14563.87	-29.7	-13.0	-16.7	1.50 H	41	39.8	-69.5
5	16702.90	-28.9	-13.0	-15.9	1.00 H	12	40.4	-69.3
6	18000.00	-20.7	-13.0	-7.7	1.00 H	177	39.5	-60.2

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8.
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

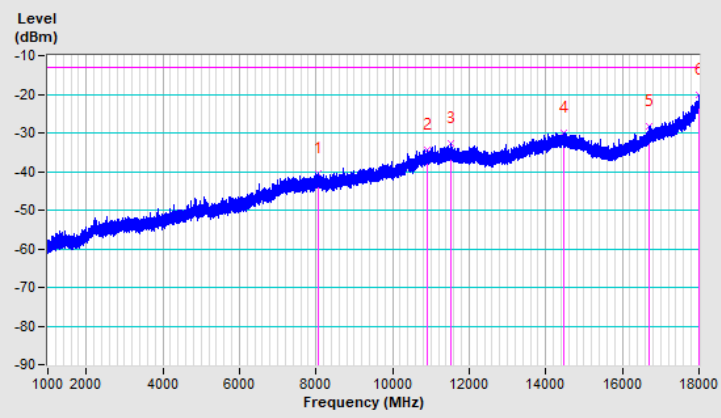


Beam ID	20	Frequency Range	1GHz ~ 18GHz
Channel	Mid	Polarity	Vertical

Test Distance: 3 M								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	8050.75	-40.6	-13.0	-27.6	1.00 V	258	39.4	-80.0
2	10911.42	-34.3	-13.0	-21.3	1.50 V	17	39.6	-73.9
3	11517.48	-32.6	-13.0	-19.6	1.00 V	21	40.8	-73.4
4	14455.08	-29.9	-13.0	-16.9	1.00 V	149	39.7	-69.6
5	16707.15	-28.2	-13.0	-15.2	1.00 V	326	41.1	-69.3
6	18000.00	-20.3	-13.0	-7.3	1.50 V	310	39.9	-60.2

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8.
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

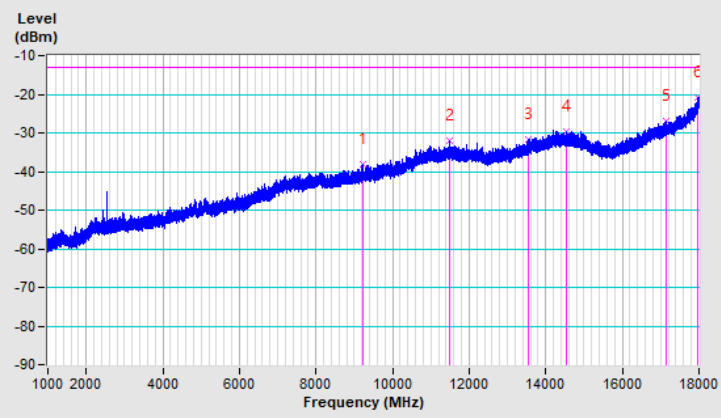


Beam ID	20	Frequency Range	1GHz ~ 18GHz
Channel	High	Polarity	Horizontal

Test Distance: 3 M								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	9242.02	-38.2	-13.0	-25.2	1.00 H	234	39.9	-78.1
2	11472.42	-32.2	-13.0	-19.2	1.50 H	15	41.2	-73.4
3	13558.75	-31.7	-13.0	-18.7	2.00 H	184	40.0	-71.7
4	14538.37	-29.5	-13.0	-16.5	1.50 H	302	40.0	-69.5
5	17142.78	-27.0	-13.0	-14.0	1.00 H	151	40.6	-67.6
6	17982.58	-20.9	-13.0	-7.9	2.00 H	130	39.7	-60.6

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8.
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

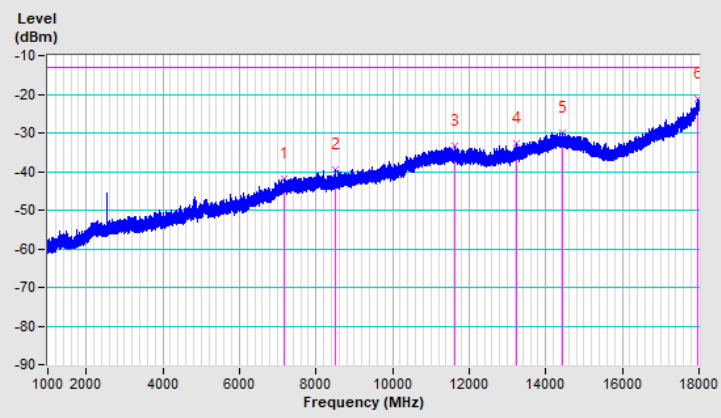


Beam ID	20	Frequency Range	1GHz ~ 18GHz
Channel	High	Polarity	Vertical

Test Distance: 3 M								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7173.98	-42.0	-13.0	-29.0	1.00 V	271	38.4	-80.4
2	8511.02	-39.4	-13.0	-26.4	1.00 V	244	40.6	-80.0
3	11638.60	-33.5	-13.0	-20.5	1.50 V	150	40.0	-73.5
4	13243.83	-32.7	-13.0	-19.7	1.50 V	67	40.4	-73.1
5	14439.35	-30.1	-13.0	-17.1	1.00 V	326	39.5	-69.6
6	17982.58	-21.2	-13.0	-8.2	1.50 V	150	39.4	-60.6

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8.
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

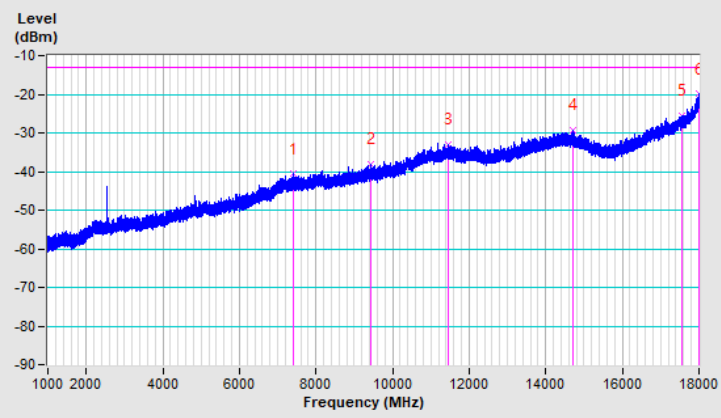


Beam ID	20+148	Frequency Range	1GHz ~ 18GHz
Channel	Low	Polarity	Horizontal

Test Distance: 3 M								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7411.12	-40.7	-13.0	-27.7	1.00 H	285	39.6	-80.3
2	9443.48	-38.2	-13.0	-25.2	1.00 H	12	39.8	-78.0
3	11469.45	-33.1	-13.0	-20.1	1.50 H	53	40.3	-73.4
4	14719.00	-29.4	-13.0	-16.4	1.50 H	120	40.3	-69.7
5	17556.30	-25.6	-13.0	-12.6	1.50 H	188	40.1	-65.7
6	17992.78	-20.0	-13.0	-7.0	1.50 H	17	40.4	-60.4

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8.
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

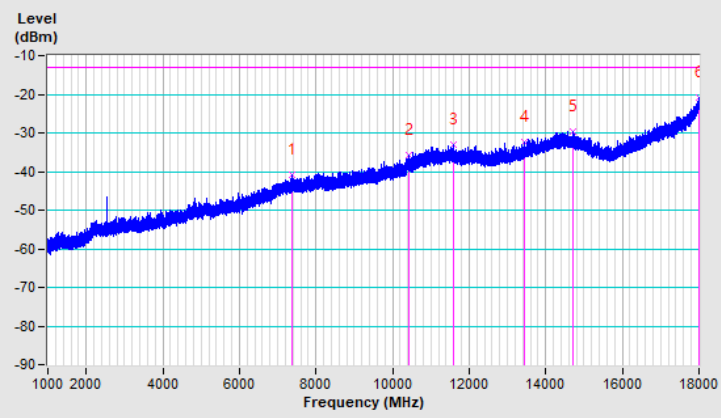


Beam ID	20+148	Frequency Range	1GHz ~ 18GHz
Channel	Low	Polarity	Vertical

Test Distance: 3 M								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7381.37	-41.0	-13.0	-28.0	1.50 V	107	39.4	-80.4
2	10424.37	-35.7	-13.0	-22.7	1.50 V	272	39.7	-75.4
3	11580.80	-33.2	-13.0	-20.2	1.50 V	189	40.3	-73.5
4	13431.25	-32.3	-13.0	-19.3	1.50 V	6	39.8	-72.1
5	14704.55	-29.5	-13.0	-16.5	1.50 V	6	40.2	-69.7
6	17988.10	-21.0	-13.0	-8.0	1.50 V	312	39.5	-60.5

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8.
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

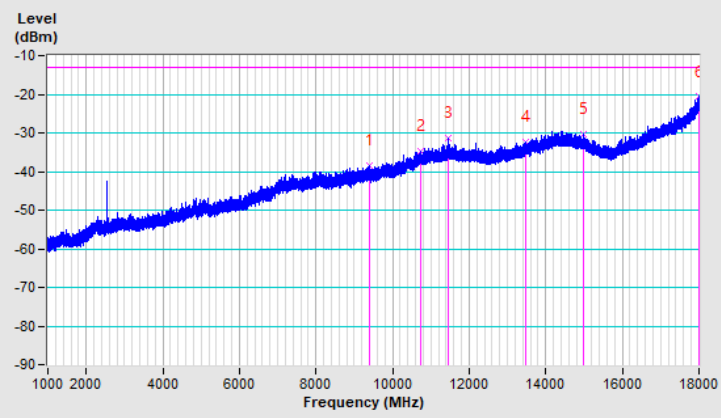


Beam ID	20+148	Frequency Range	1GHz ~ 18GHz
Channel	Mid	Polarity	Horizontal

Test Distance: 3 M								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	9403.10	-38.5	-13.0	-25.5	1.50 H	12	39.4	-77.9
2	10738.45	-34.7	-13.0	-21.7	1.50 H	53	39.8	-74.5
3	11445.23	-31.4	-13.0	-18.4	1.50 H	149	42.0	-73.4
4	13469.92	-32.5	-13.0	-19.5	1.50 H	176	39.5	-72.0
5	14996.52	-30.3	-13.0	-17.3	1.50 H	190	40.4	-70.7
6	17997.03	-20.7	-13.0	-7.7	2.00 H	118	39.6	-60.3

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8.
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

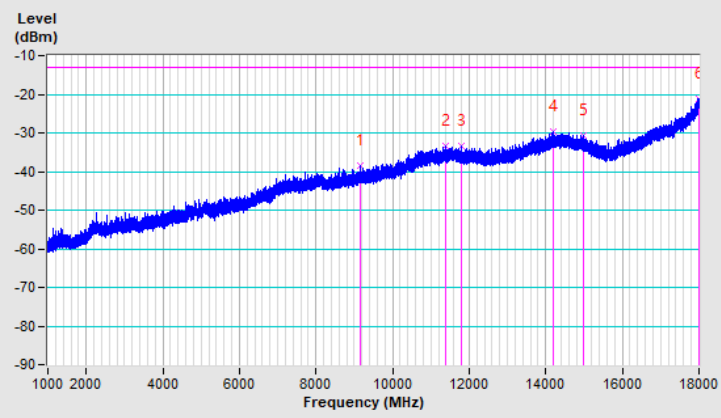


Beam ID	20+148	Frequency Range	1GHz ~ 18GHz
Channel	Mid	Polarity	Vertical

Test Distance: 3 M								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	9168.92	-38.4	-13.0	-25.4	1.00 V	21	40.0	-78.4
2	11377.23	-33.5	-13.0	-20.5	1.00 V	17	40.1	-73.6
3	11811.58	-33.3	-13.0	-20.3	1.50 V	138	40.6	-73.9
4	14210.27	-29.8	-13.0	-16.8	1.00 V	48	39.9	-69.7
5	14974.00	-30.6	-13.0	-17.6	1.00 V	296	40.0	-70.6
6	17990.22	-21.2	-13.0	-8.2	1.50 V	124	39.3	-60.5

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8.
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

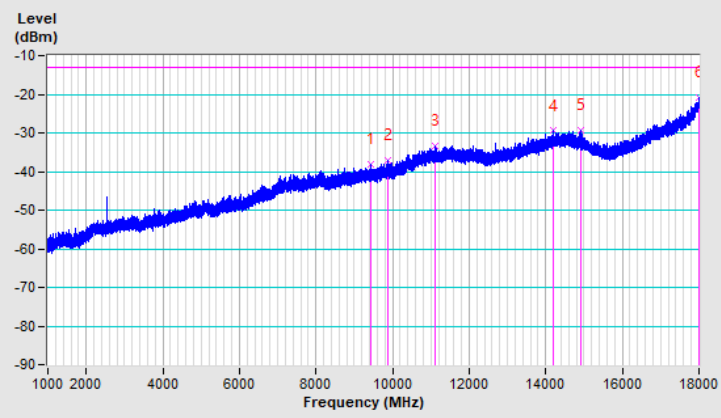


Beam ID	20+148	Frequency Range	1GHz ~ 18GHz
Channel	High	Polarity	Horizontal

Test Distance: 3 M								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	9443.48	-38.2	-13.0	-25.2	2.00 H	175	39.8	-78.0
2	9870.60	-37.0	-13.0	-24.0	1.00 H	56	40.1	-77.1
3	11127.75	-33.4	-13.0	-20.4	1.00 H	317	40.4	-73.8
4	14207.30	-29.5	-13.0	-16.5	1.00 H	56	40.2	-69.7
5	14920.02	-29.2	-13.0	-16.2	1.00 H	28	41.2	-70.4
6	17996.60	-20.8	-13.0	-7.8	1.00 H	221	39.5	-60.3

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8.
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

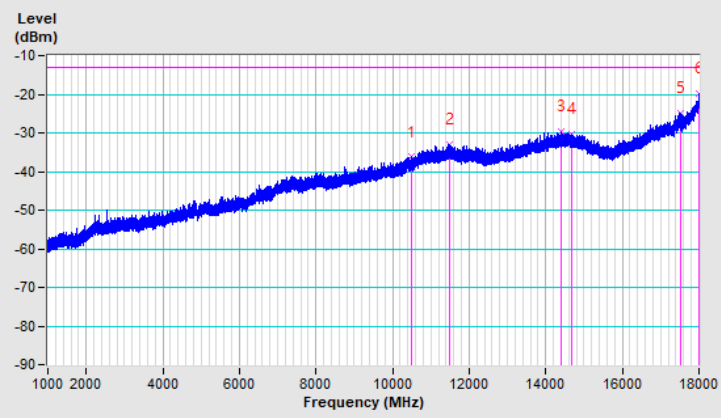


Beam ID	20+148	Frequency Range	1GHz ~ 18GHz
Channel	High	Polarity	Vertical

Test Distance: 3 M								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	10511.08	-36.3	-13.0	-23.3	1.00 V	288	39.6	-75.9
2	11484.33	-33.0	-13.0	-20.0	1.00 V	343	40.4	-73.4
3	14395.15	-29.5	-13.0	-16.5	1.50 V	54	40.0	-69.5
4	14673.52	-30.2	-13.0	-17.2	1.00 V	315	39.5	-69.7
5	17518.47	-24.9	-13.0	-11.9	1.50 V	190	40.8	-65.7
6	**17999.15**	**-19.8**	**-13.0**	**-6.8**	**2.00 V**	**48**	**40.4**	**-60.2**

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8.
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

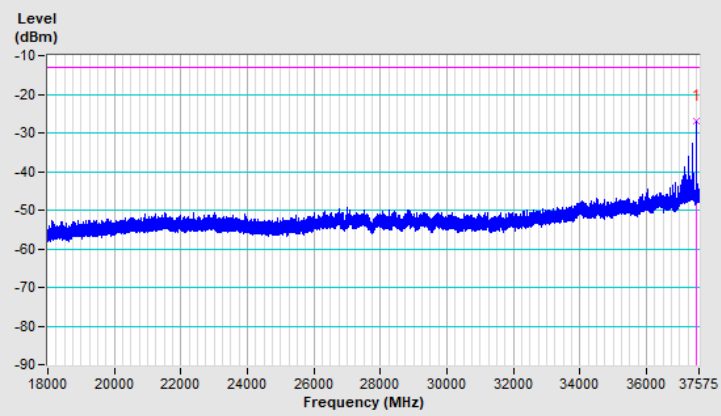


Beam ID	20	Frequency Range	18GHz ~ 37.575GHz
Channel	Low	Polarity	Horizontal

Test Distance: 3 M								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	37496.21	-26.9	-13.0	-13.9	1.68 H	346	74.9	-101.8

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8.
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

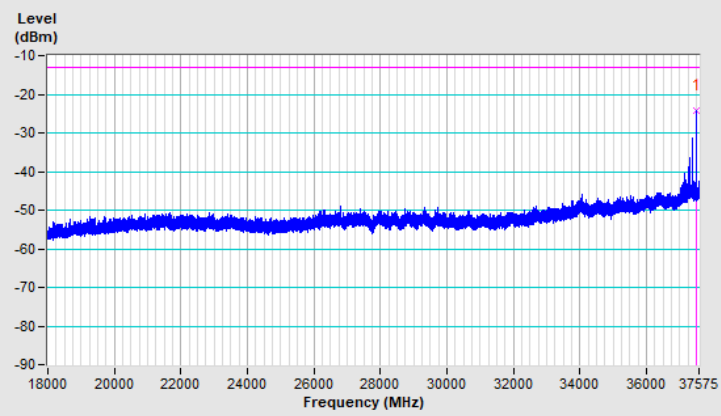


Beam ID	20	Frequency Range	18GHz ~ 37.575GHz
Channel	Low	Polarity	Vertical

Test Distance: 3 M								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	37496.21	-24.1	-13.0	-11.1	1.70 V	342	77.7	-101.8

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8.
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

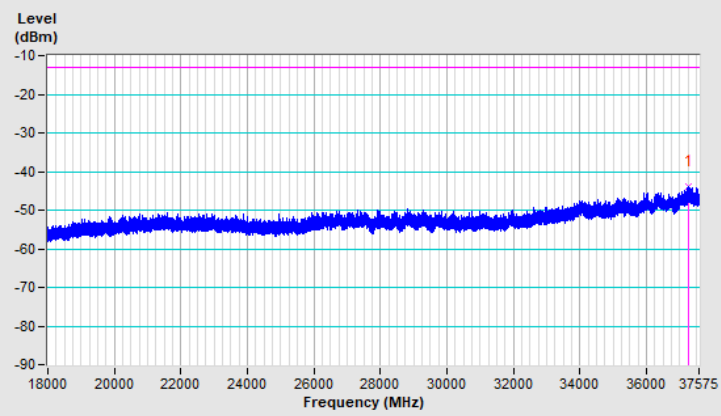


Beam ID	20	Frequency Range	18GHz ~ 37.575GHz
Channel	Mid	Polarity	Horizontal

Test Distance: 3 M								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	37276.97	-44.0	-13.0	-31.0	1.82 H	346	57.6	-101.6

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8.
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

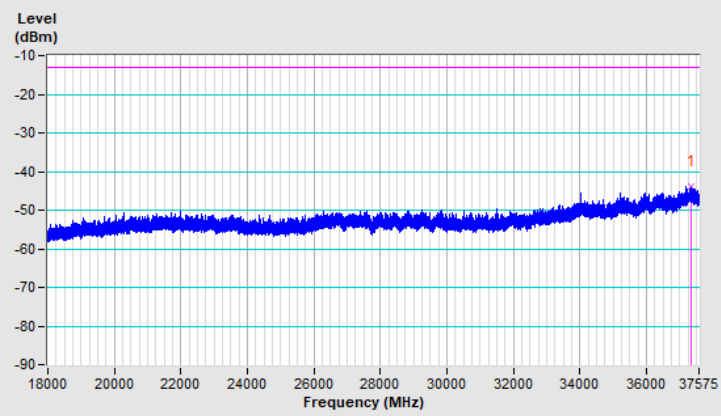


Beam ID	20	Frequency Range	18GHz ~ 37.575GHz
Channel	Mid	Polarity	Vertical

Test Distance: 3 M								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	37328.36	-43.8	-13.0	-30.8	1.68 V	339	57.7	-101.5

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8.
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

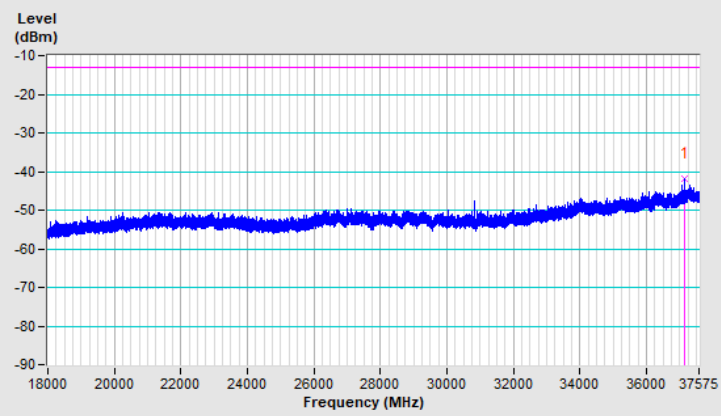


Beam ID	20	Frequency Range	18GHz ~ 37.575GHz
Channel	High	Polarity	Horizontal

Test Distance: 3 M								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	37159.03	-42.0	-13.0	-29.0	1.73 H	340	59.8	-101.8

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8.
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

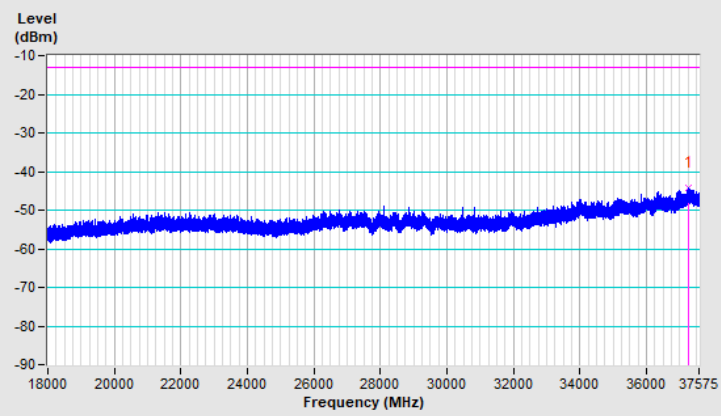


Beam ID	20	Frequency Range	18GHz ~ 37.575GHz
Channel	High	Polarity	Vertical

Test Distance: 3 M								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	37255.93	-44.1	-13.0	-31.1	1.67 V	348	57.5	-101.6

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8.
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

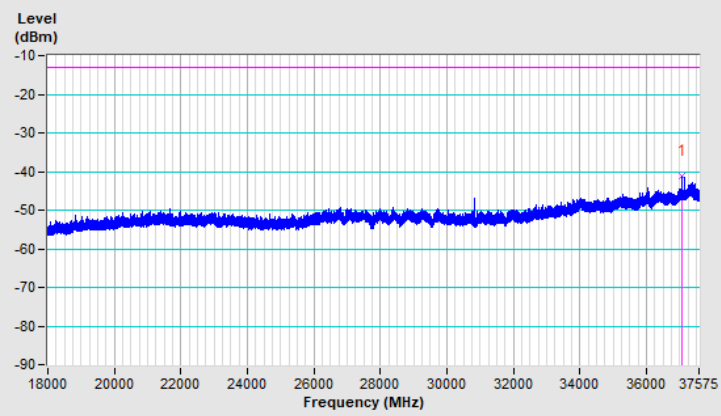


Beam ID	20+148	Frequency Range	18GHz ~ 37.575GHz
Channel	Low	Polarity	Horizontal

Test Distance: 3 M								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	37059.20	-41.3	-13.0	-28.3	1.78 H	340	60.6	-101.9

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8.
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

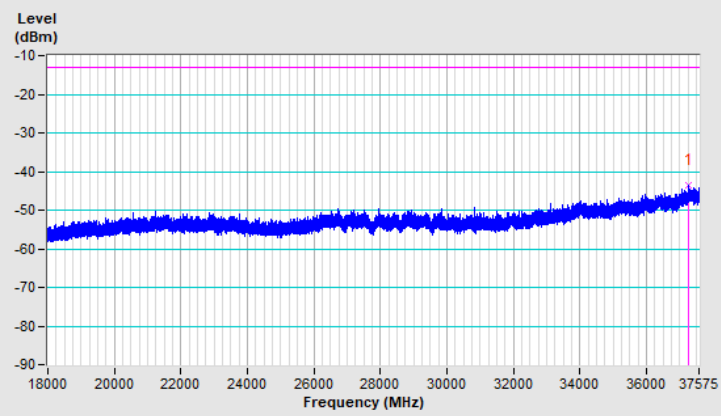


Beam ID	20+148	Frequency Range	18GHz ~ 37.575GHz
Channel	Low	Polarity	Vertical

Test Distance: 3 M								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	37273.06	-43.4	-13.0	-30.4	1.76 V	344	58.2	-101.6

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8.
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

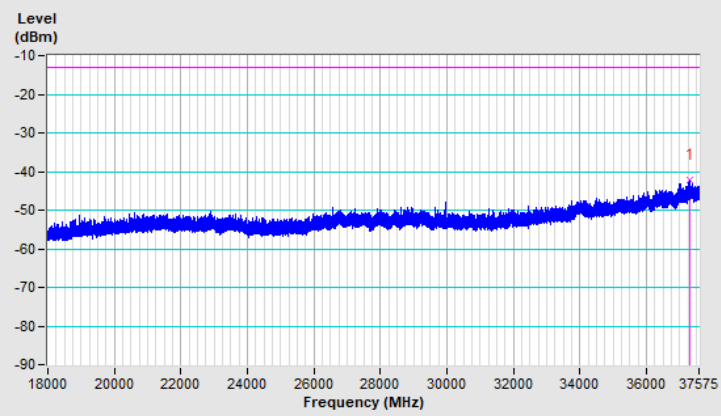


Beam ID	20+148	Frequency Range	18GHz ~ 37.575GHz
Channel	Mid	Polarity	Horizontal

Test Distance: 3 M								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	37289.69	-42.2	-13.0	-29.2	1.68 H	343	59.3	-101.5

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8.
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

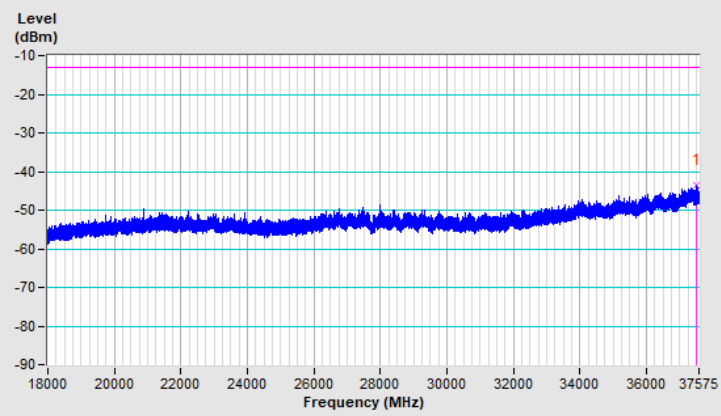


Beam ID	20+148	Frequency Range	18GHz ~ 37.575GHz
Channel	Mid	Polarity	Vertical

Test Distance: 3 M								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	37511.87	-43.7	-13.0	-30.7	1.67 V	332	58.0	-101.7

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8.
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

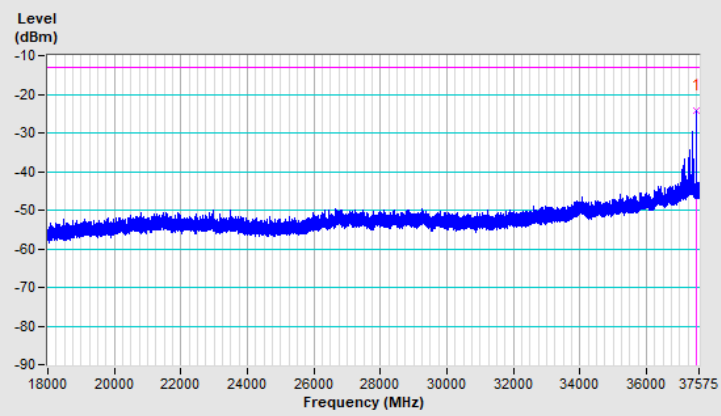


Beam ID	20+148	Frequency Range	18GHz ~ 37.575GHz
Channel	High	Polarity	Horizontal

Test Distance: 3 M								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	37496.21	-24.1	-13.0	-11.1	1.70 H	328	77.7	-101.8

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8.
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

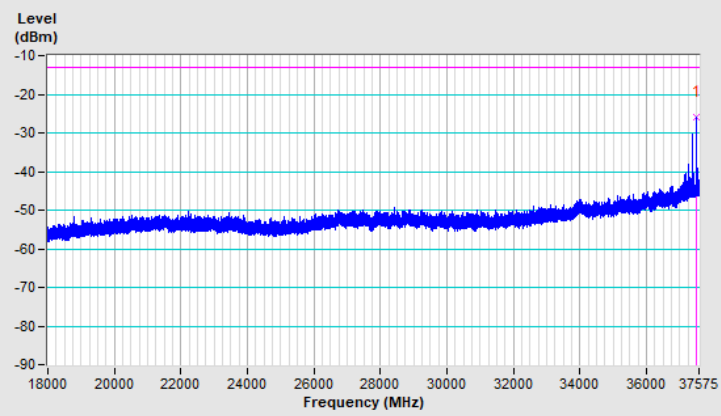


Beam ID	20+148	Frequency Range	18GHz ~ 37.575GHz
Channel	High	Polarity	Vertical

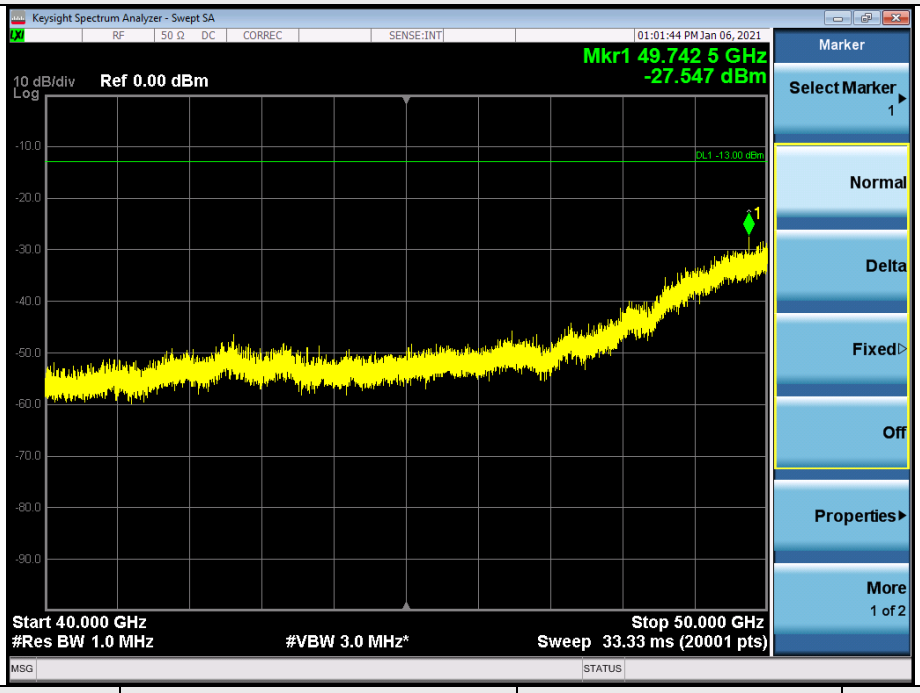
Test Distance: 3 M								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	37496.21	-26.0	-13.0	-13.0	1.65 V	342	75.8	-101.8

Remarks:

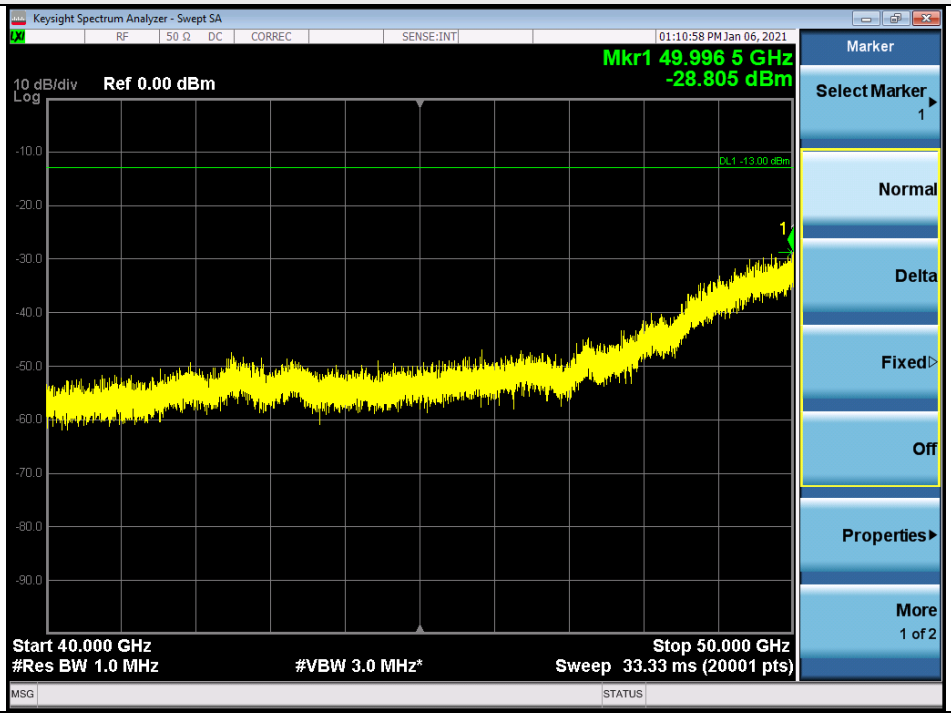
1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8.
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.



Beam ID	20	Frequency Range	40GHz-50GHz
Channel	Low	Antenna polarity	Horizontal
Test distance at 1m			



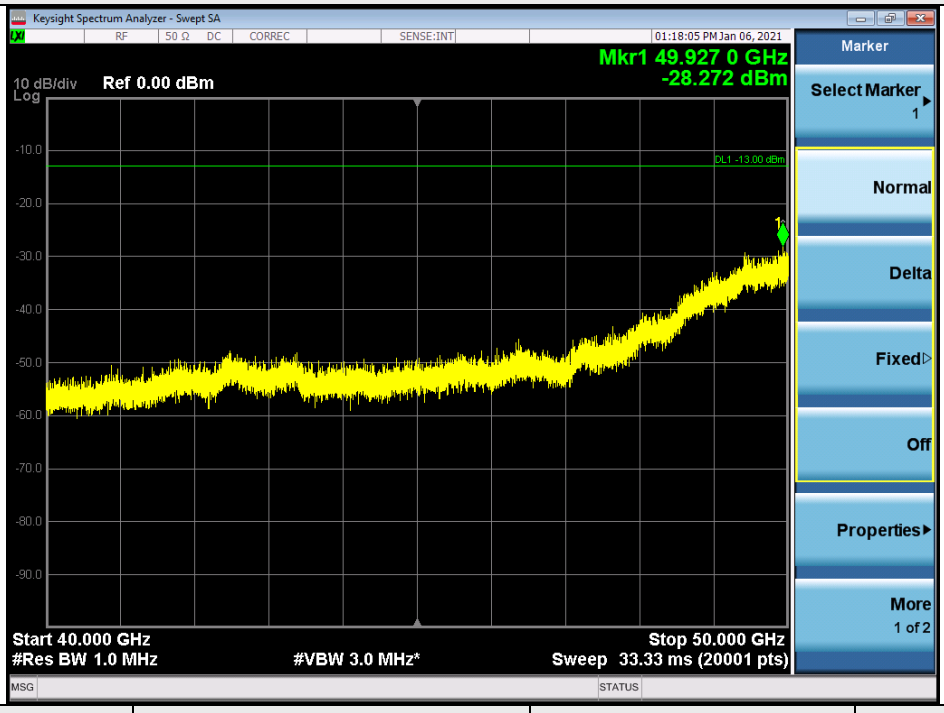
Beam ID	20	Frequency Range	40GHz-50GHz
Channel	Low	Antenna polarity	Vertical
Test distance at 1m			



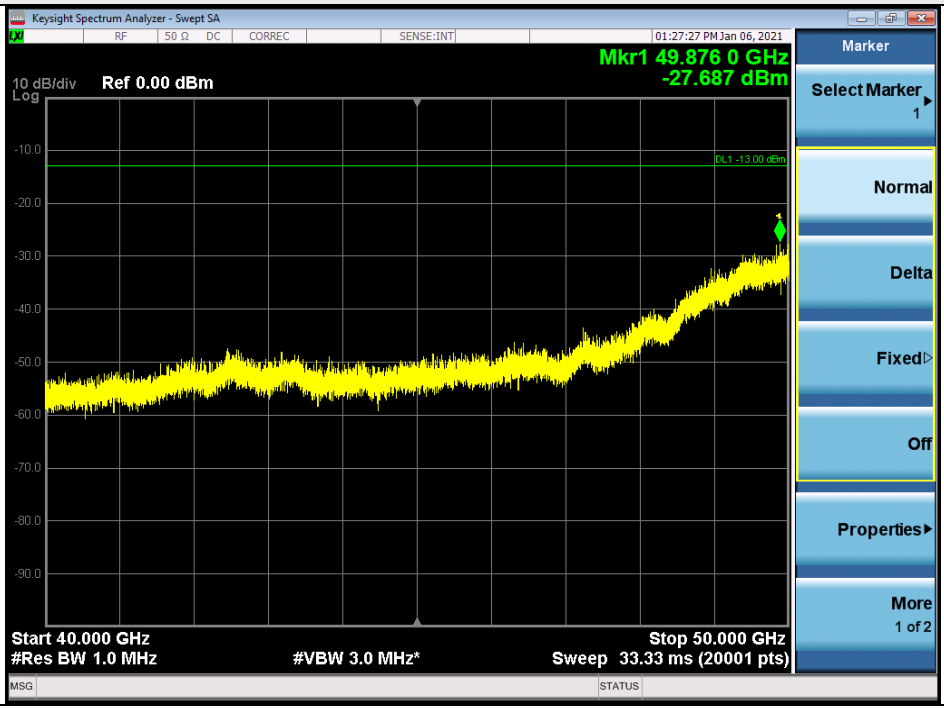
Note:

1. The test results already include the correction factor (corrections: On).
2. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
3. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)+ 20log(D) – 104.8.

Beam ID	20	Frequency Range	40GHz-50GHz
Channel	Mid	Antenna polarity	Horizontal
Test distance at 1m			

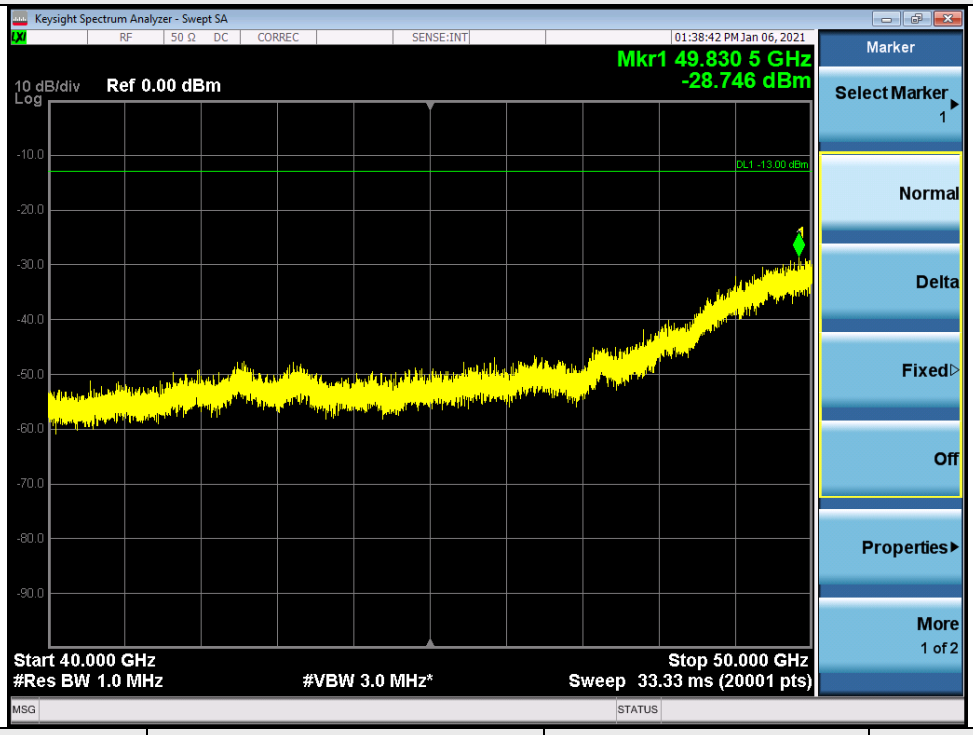


Beam ID	20	Frequency Range	40GHz-50GHz
Channel	Mid	Antenna polarity	Vertical
Test distance at 1m			

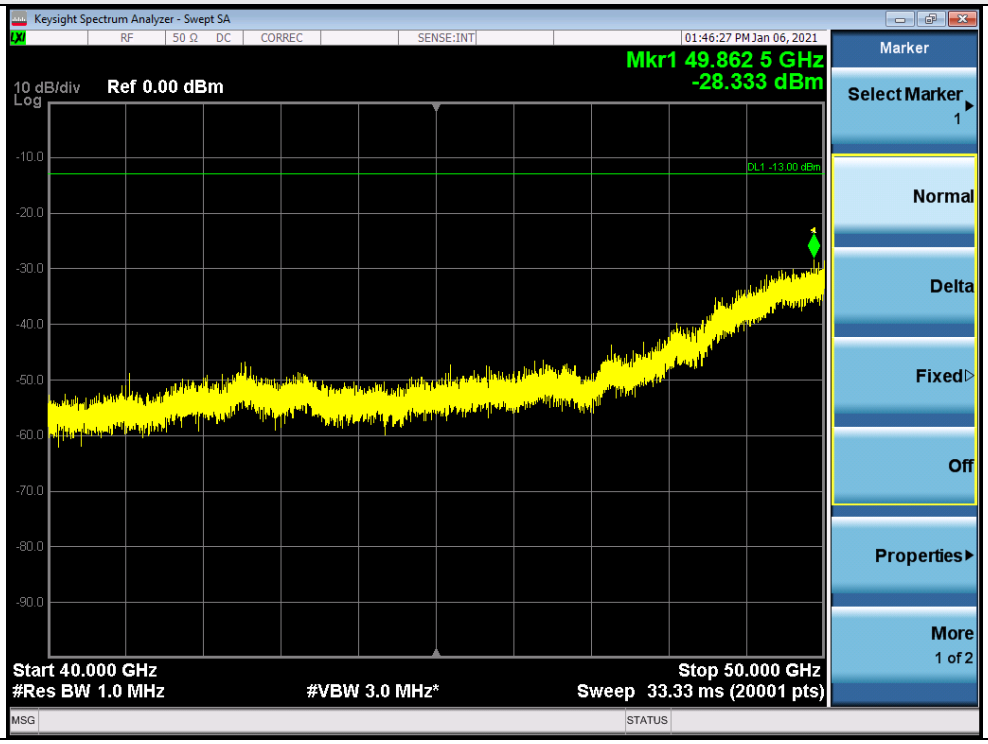


Note:
1. The test results already include the correction factor (corrections: On).
2. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
3. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)+ 20log(D) – 104.8.

Beam ID	20	Frequency Range	40GHz-50GHz
Channel	High	Antenna polarity	Horizontal
Test distance at 1m			



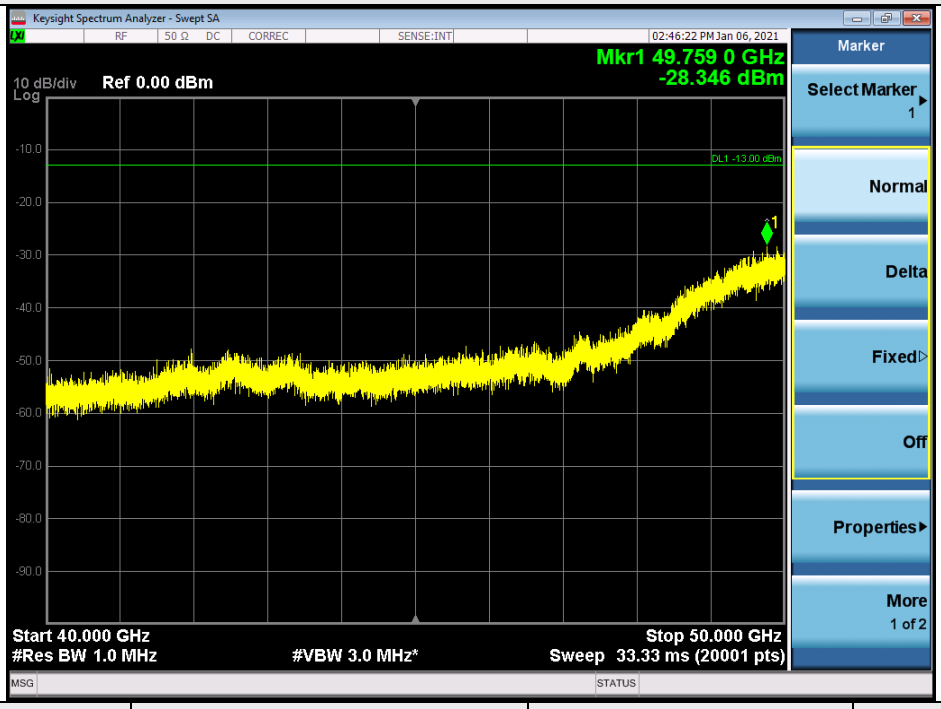
Beam ID	20	Frequency Range	40GHz-50GHz
Channel	High	Antenna polarity	Vertical
Test distance at 1m			



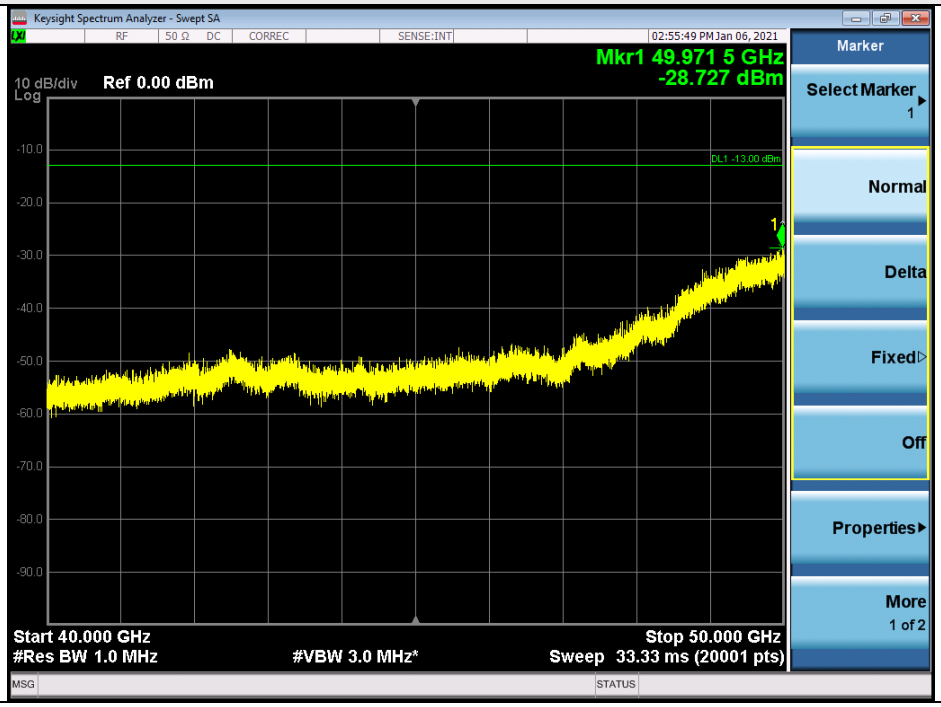
Note:

1. The test results already include the correction factor (corrections: On).
2. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
3. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)+ 20log(D) – 104.8.

Beam ID	20+148	Frequency Range	40GHz-50GHz
Channel	Low	Antenna polarity	Horizontal
Test distance at 1m			



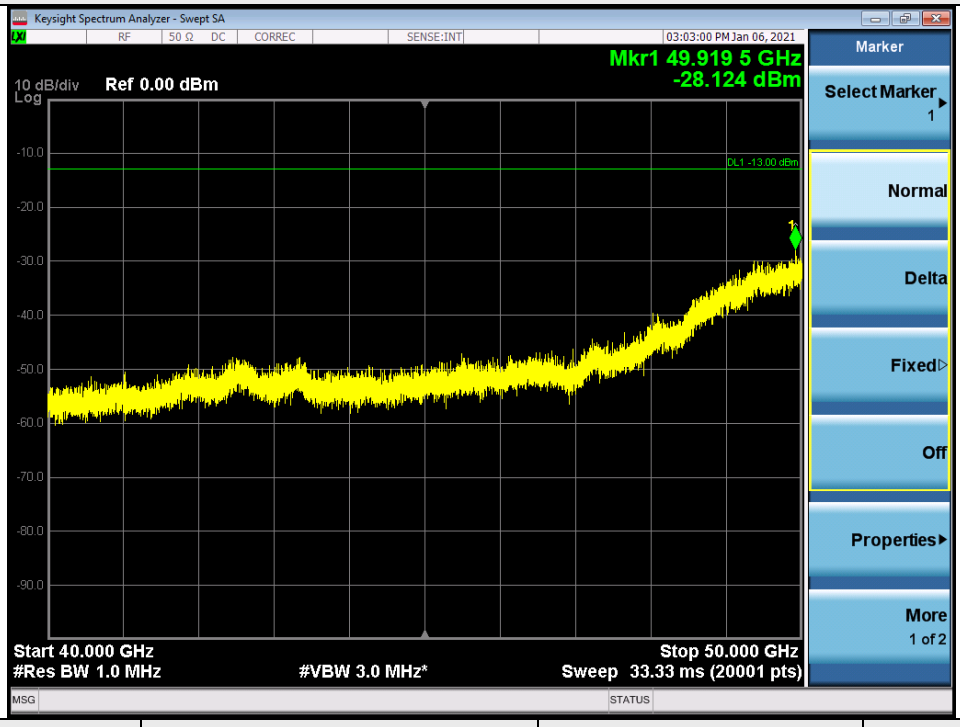
Beam ID	20+148	Frequency Range	40GHz-50GHz
Channel	Low	Antenna polarity	Vertical
Test distance at 1m			



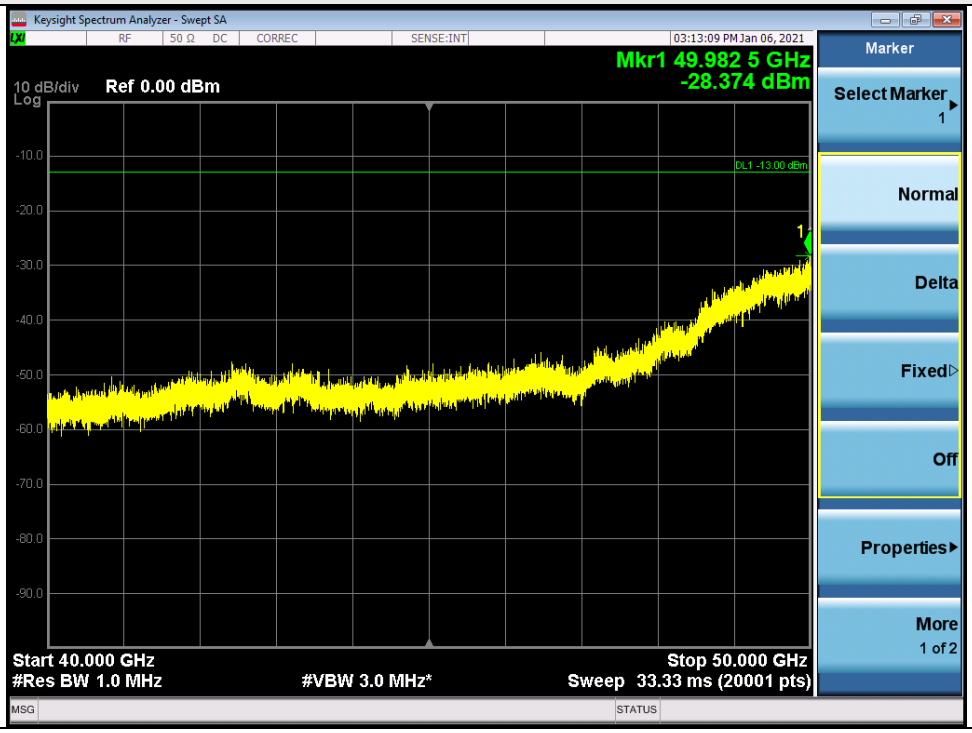
Note:

1. The test results already include the correction factor (corrections: On).
2. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
3. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)+ 20log(D) – 104.8.

Beam ID	20+148	Frequency Range	40GHz-50GHz
Channel	Mid	Antenna polarity	Horizontal
Test distance at 1m			



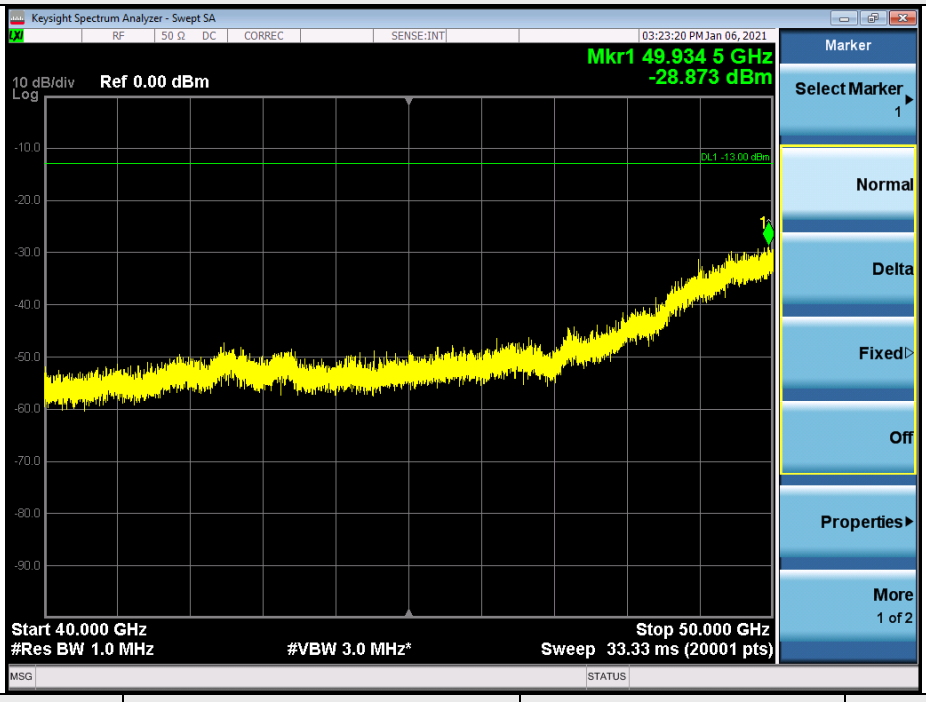
Beam ID	20+148	Frequency Range	40GHz-50GHz
Channel	Mid	Antenna polarity	Vertical
Test distance at 1m			



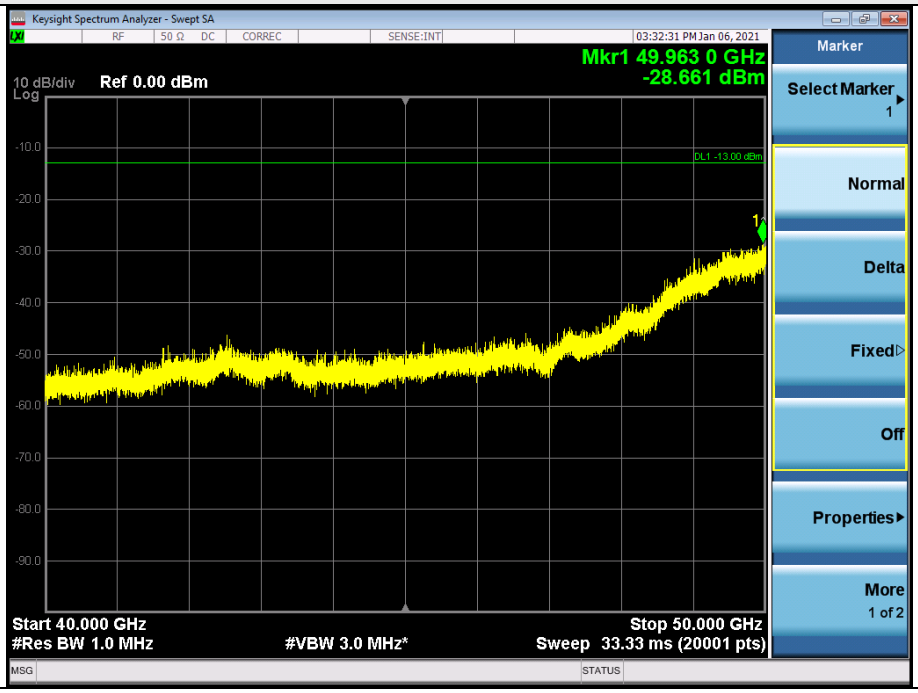
Note:

1. The test results already include the correction factor (corrections: On).
2. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
3. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)+ 20log(D) – 104.8.

Beam ID	20+148	Frequency Range	40GHz-50GHz
Channel	High	Antenna polarity	Horizontal
Test distance at 1m			



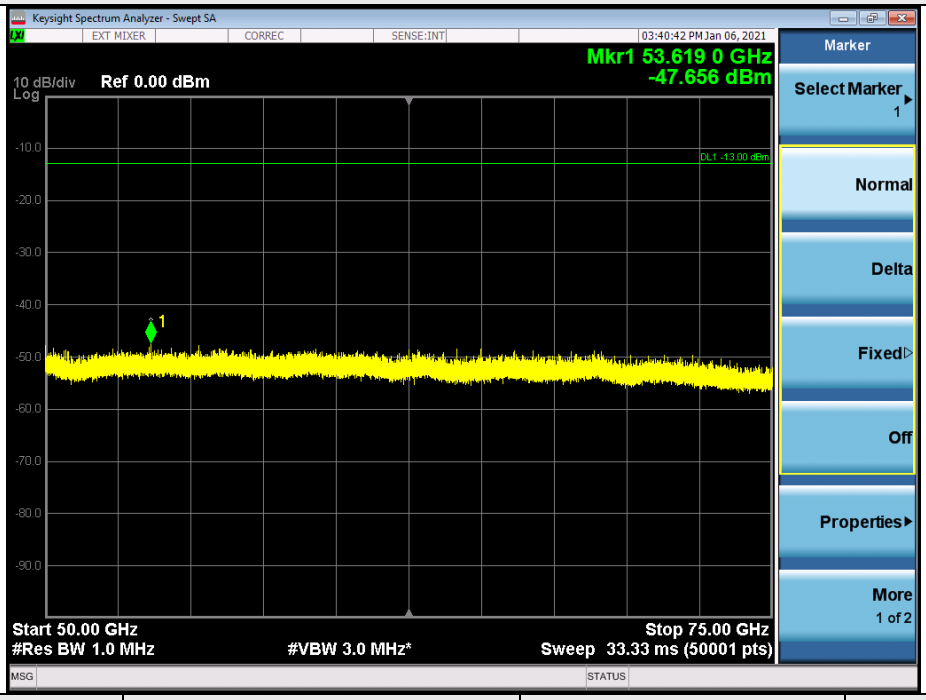
Beam ID	20+148	Frequency Range	40GHz-50GHz
Channel	High	Antenna polarity	Vertical
Test distance at 1m			



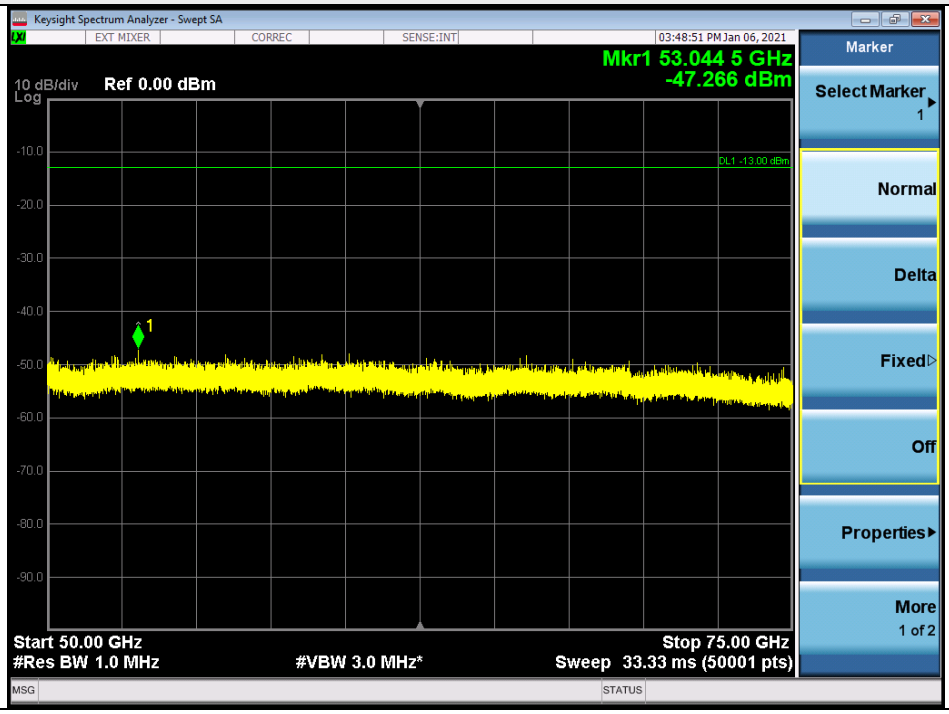
Note:

1. The test results already include the correction factor (corrections: On).
2. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
3. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)+ 20log(D) – 104.8.

Beam ID	20	Frequency Range	50GHz-75GHz
Channel	Low	Antenna polarity	Horizontal
Test distance at 1m			



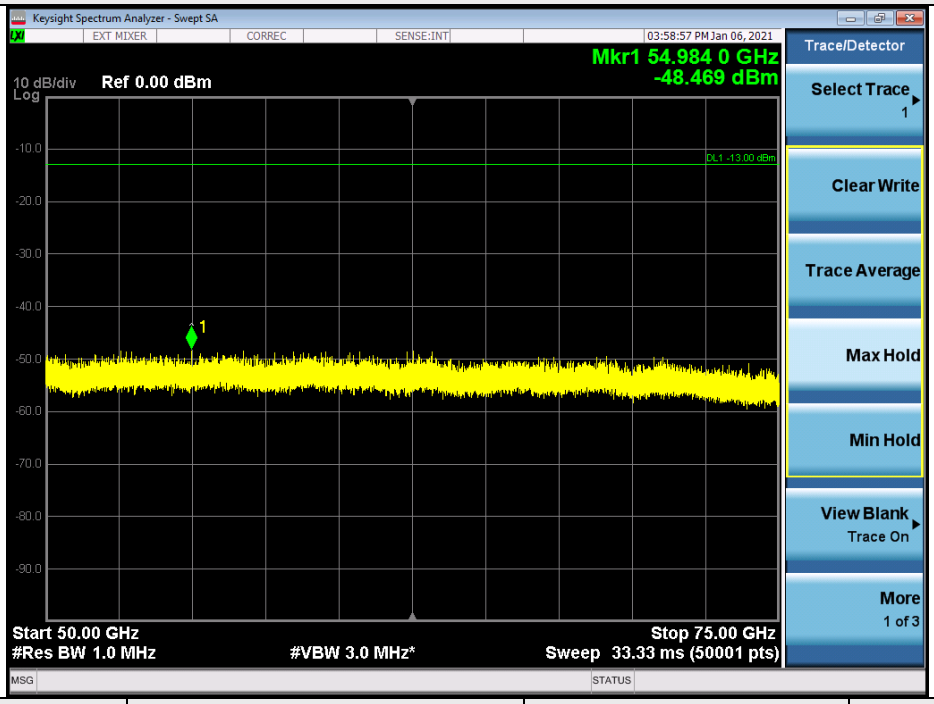
Beam ID	20	Frequency Range	50GHz-75GHz
Channel	Low	Antenna polarity	Vertical
Test distance at 1m			



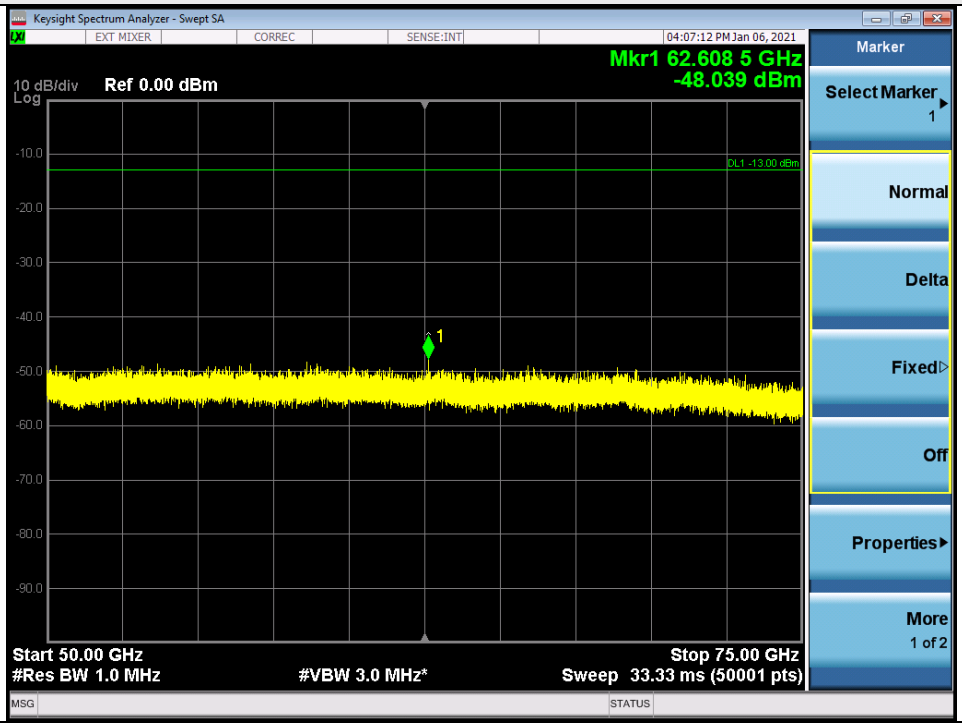
Note:

1. The test results already include the correction factor (corrections: On).
2. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
3. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)+ 20log(D) – 104.8.

Beam ID	20	Frequency Range	50GHz-75GHz
Channel	Mid	Antenna polarity	Horizontal
Test distance at 1m			



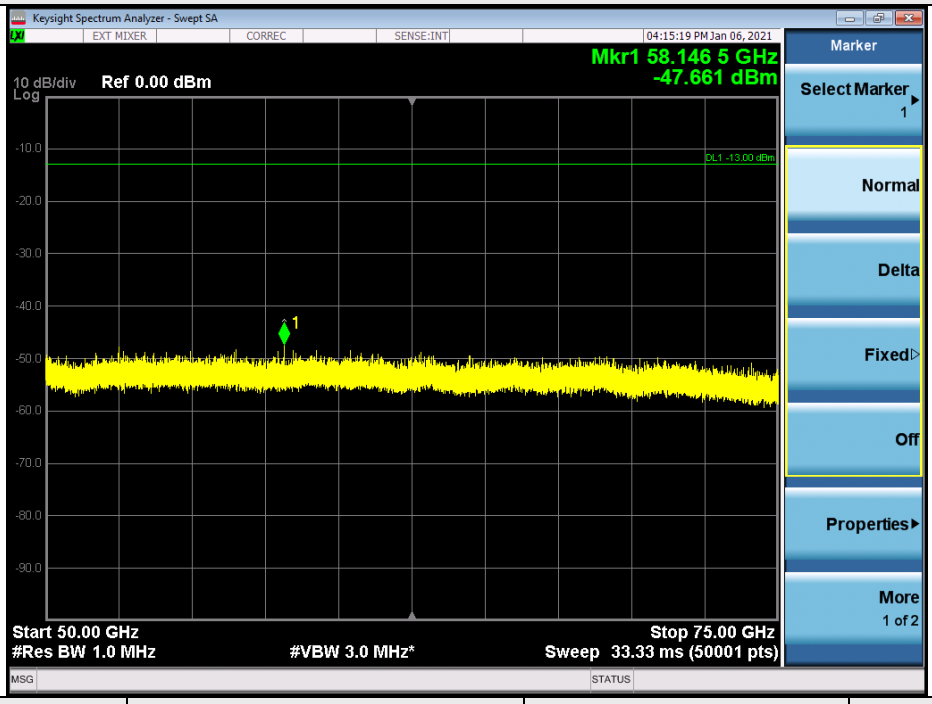
Beam ID	20	Frequency Range	50GHz-75GHz
Channel	Mid	Antenna polarity	Vertical
Test distance at 1m			



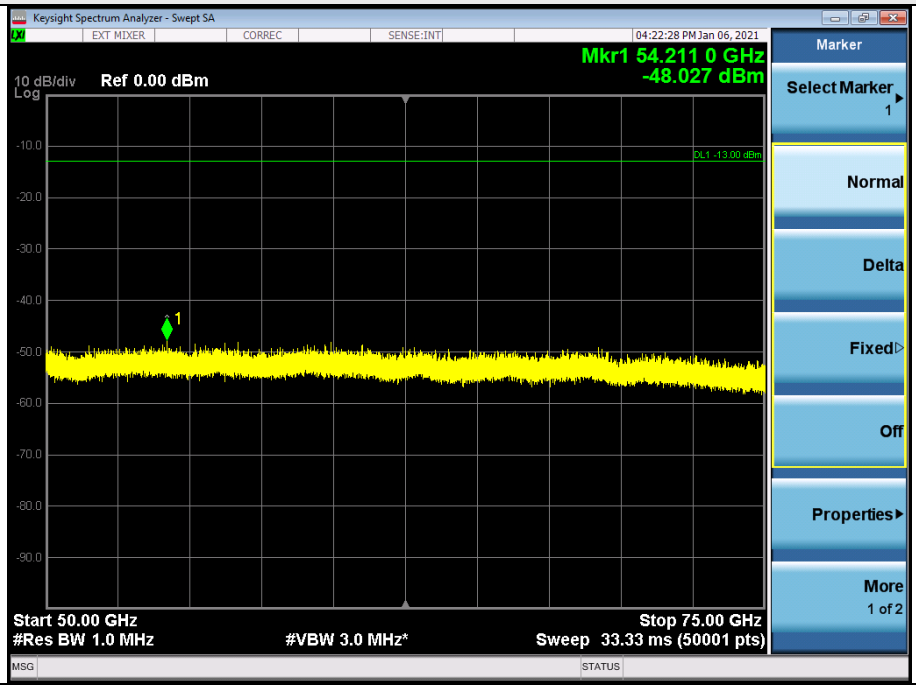
Note:

1. The test results already include the correction factor (corrections: On).
2. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
3. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)+ 20log(D) – 104.8.

Beam ID	20	Frequency Range	50GHz-75GHz
Channel	High	Antenna polarity	Horizontal
Test distance at 1m			



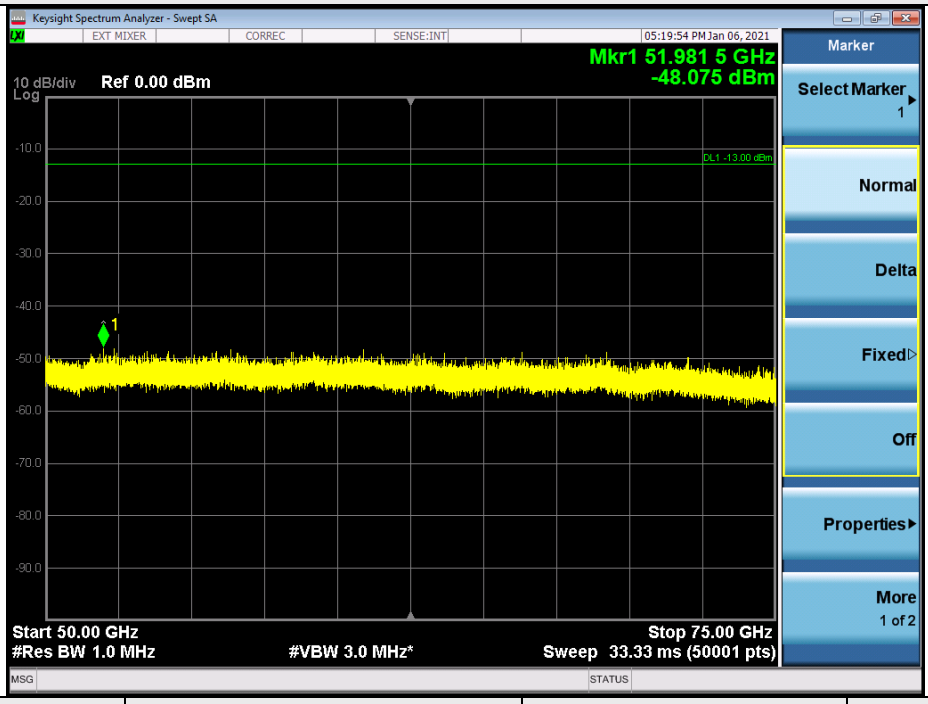
Beam ID	20	Frequency Range	50GHz-75GHz
Channel	High	Antenna polarity	Vertical
Test distance at 1m			



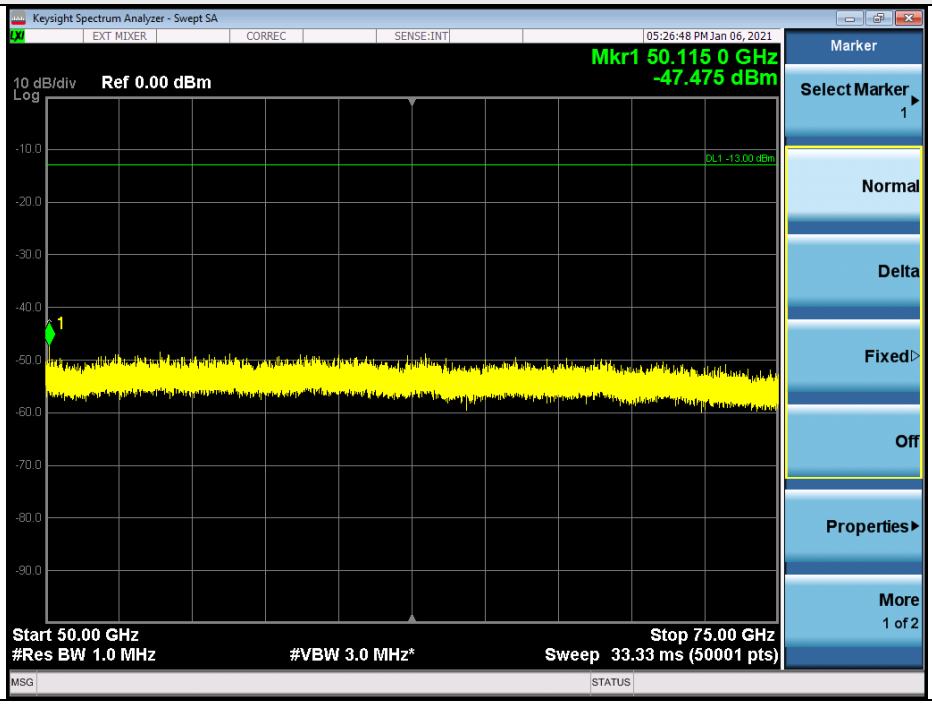
Note:

1. The test results already include the correction factor (corrections: On).
2. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
3. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)+ 20log(D) – 104.8.

Beam ID	20+148	Frequency Range	50GHz-75GHz
Channel	Low	Antenna polarity	Horizontal
Test distance at 1m			



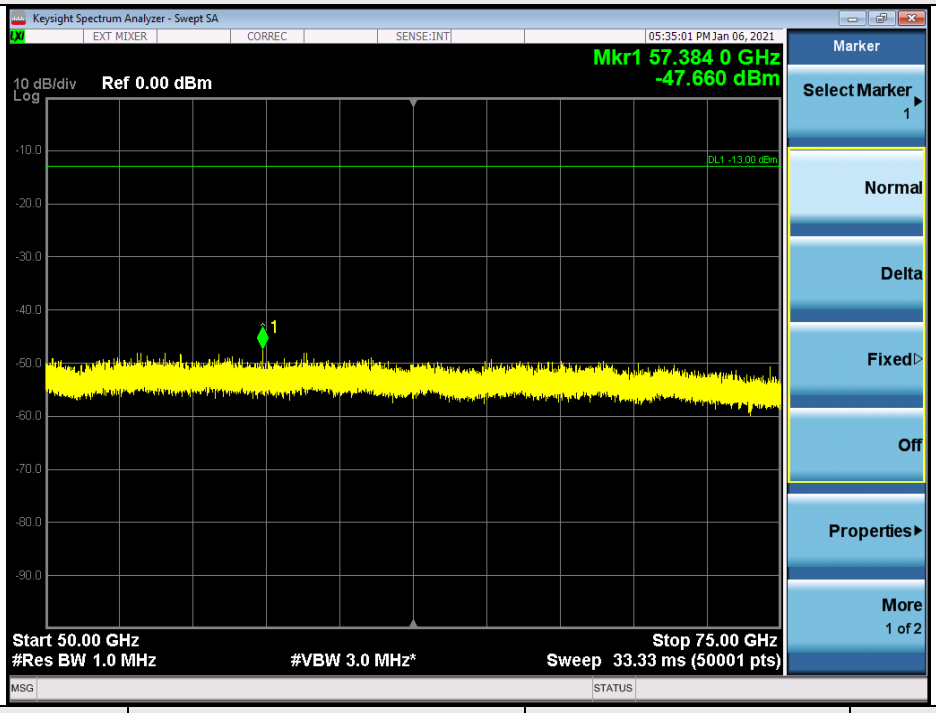
Beam ID	20+148	Frequency Range	50GHz-75GHz
Channel	Low	Antenna polarity	Vertical
Test distance at 1m			



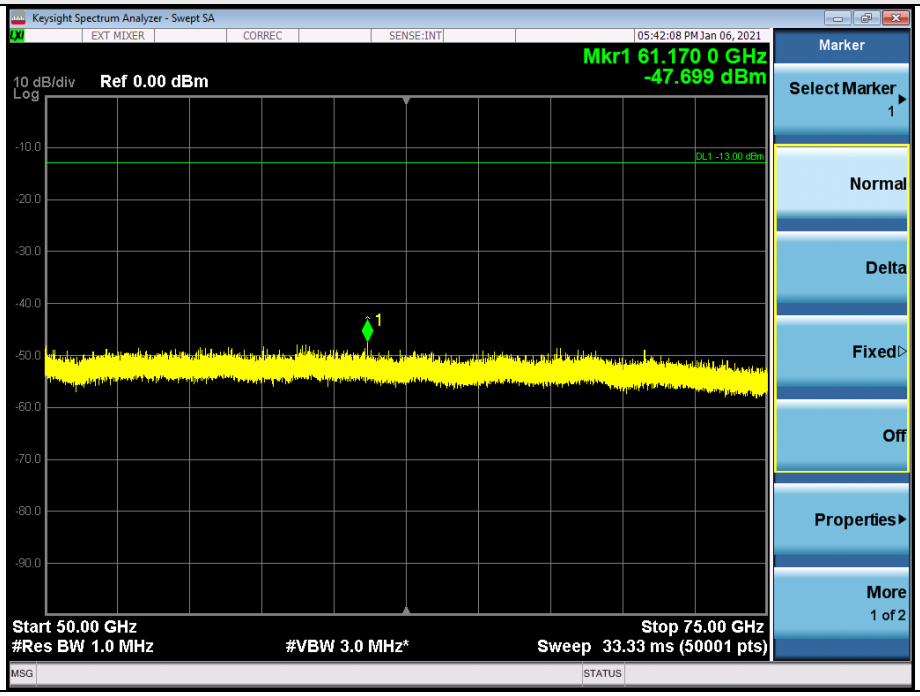
Note:

1. The test results already include the correction factor (corrections: On).
2. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
3. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)+ 20log(D) – 104.8.

Beam ID	20+148	Frequency Range	50GHz-75GHz
Channel	Mid	Antenna polarity	Horizontal
Test distance at 1m			



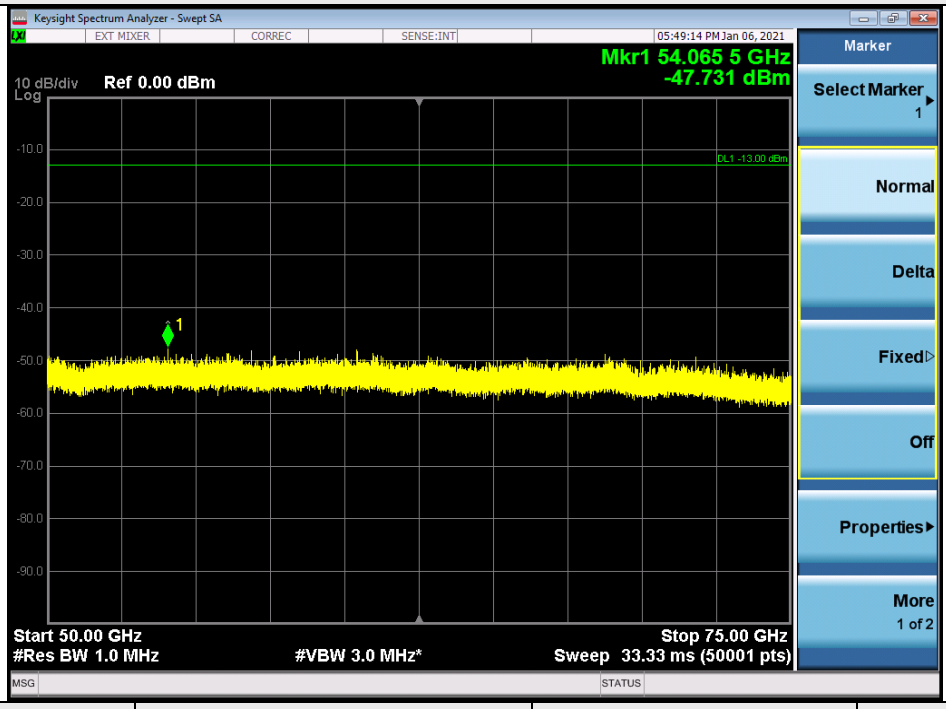
Beam ID	20+148	Frequency Range	50GHz-75GHz
Channel	Mid	Antenna polarity	Vertical
Test distance at 1m			



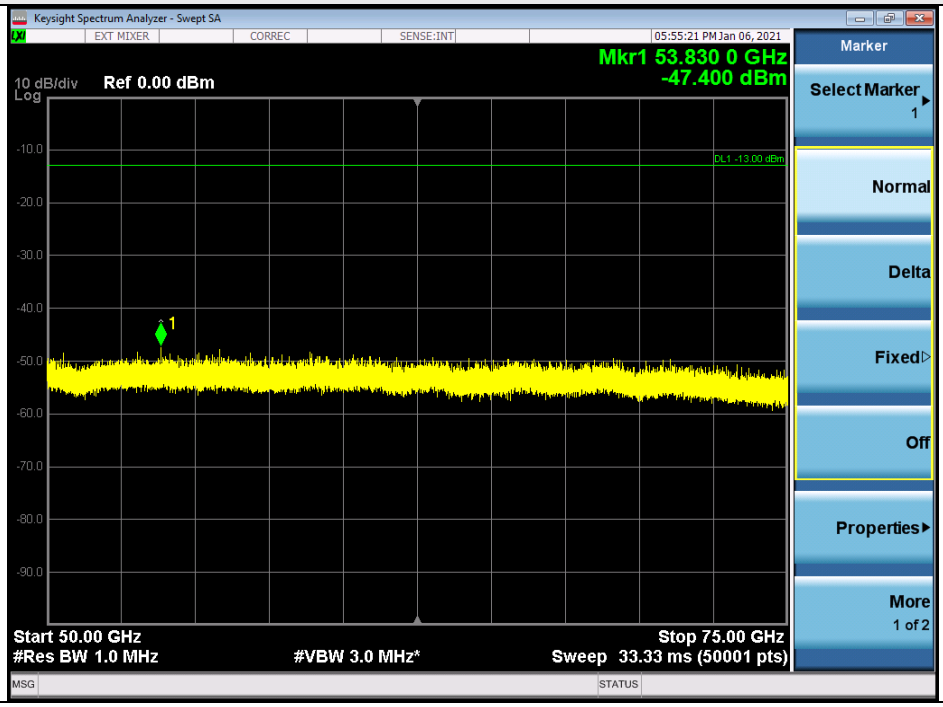
Note:

1. The test results already include the correction factor (corrections: On).
2. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
3. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)+ 20log(D) – 104.8.

Beam ID	20+148	Frequency Range	50GHz-75GHz
Channel	High	Antenna polarity	Horizontal
Test distance at 1m			



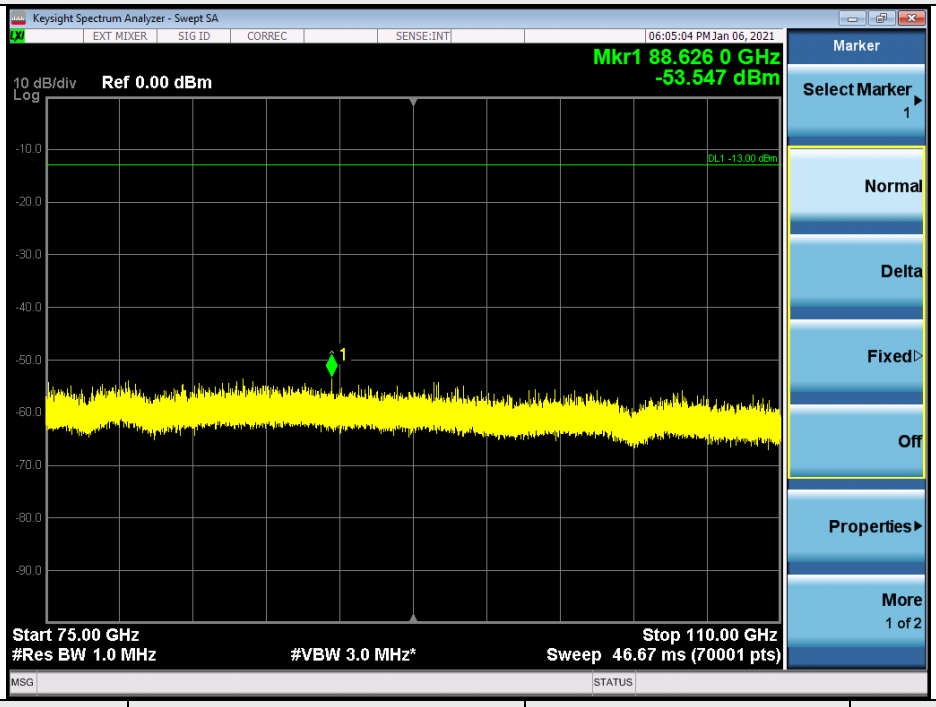
Beam ID	20+148	Frequency Range	50GHz-75GHz
Channel	High	Antenna polarity	Vertical
Test distance at 1m			



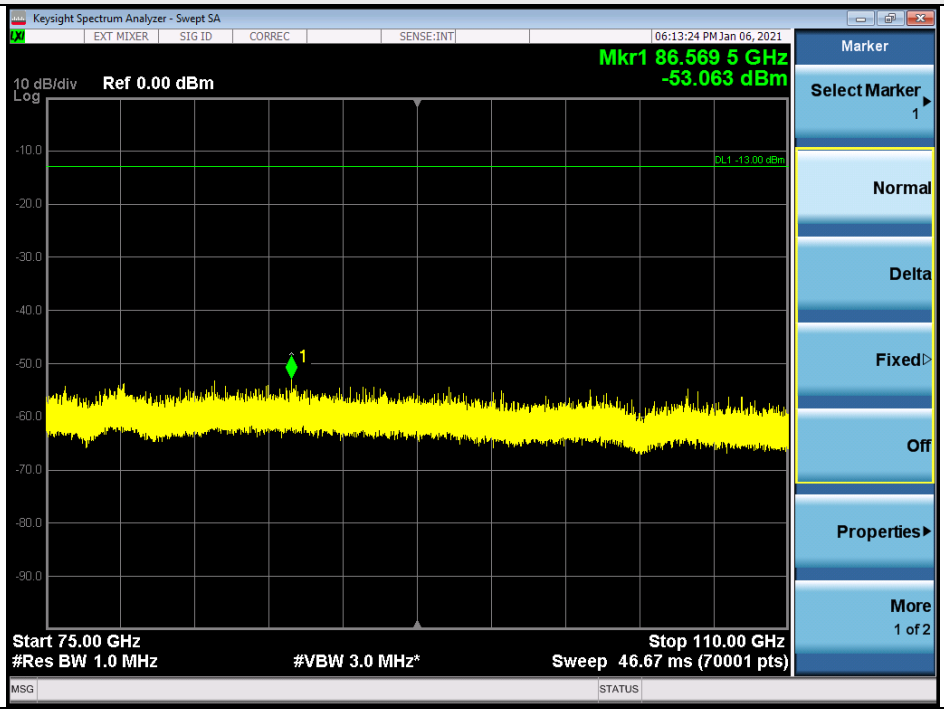
Note:

1. The test results already include the correction factor (corrections: On).
2. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
3. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)+ 20log(D) – 104.8.

Beam ID	20	Frequency Range	75GHz-110GHz
Channel	Low	Antenna polarity	Horizontal
Test distance at 1m			



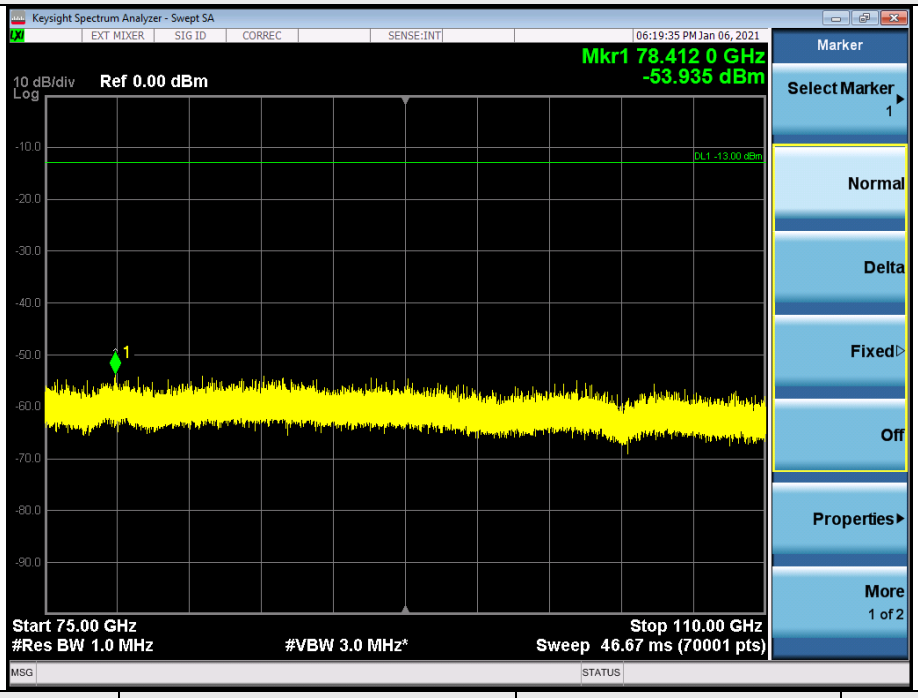
Beam ID	20	Frequency Range	75GHz-110GHz
Channel	Low	Antenna polarity	Vertical
Test distance at 1m			



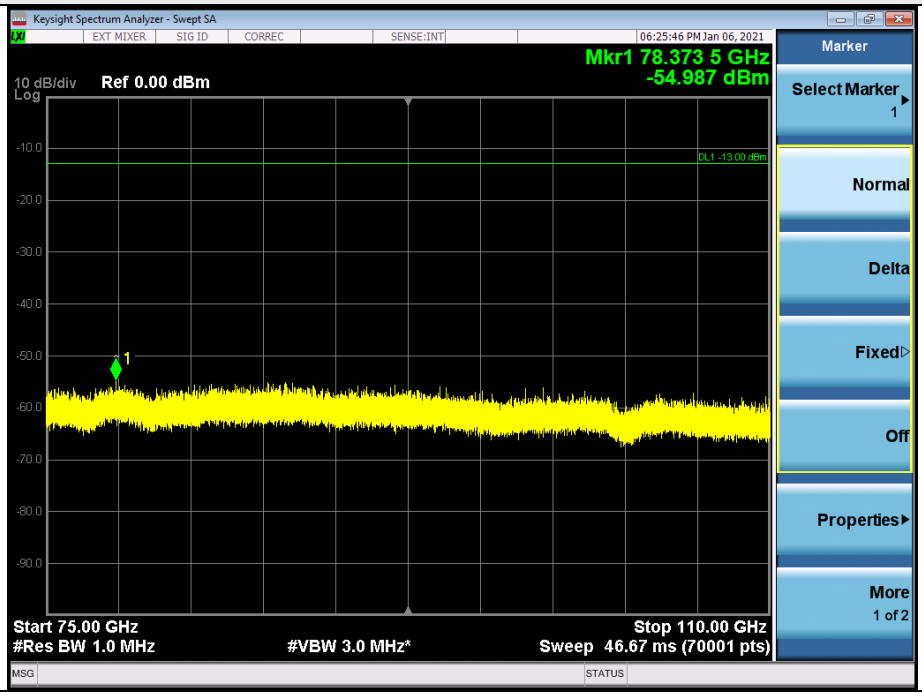
Note:

1. The test results already include the correction factor (corrections: On).
2. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
3. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)+ 20log(D) – 104.8.

Beam ID	20	Frequency Range	75GHz-110GHz
Channel	Mid	Antenna polarity	Horizontal
Test distance at 1m			



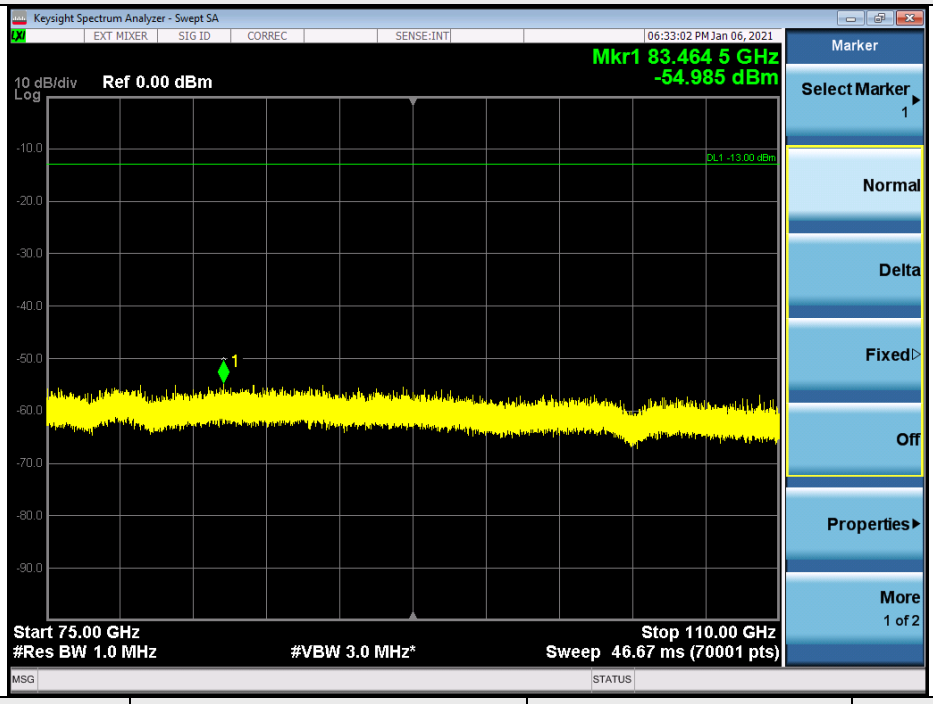
Beam ID	20	Frequency Range	75GHz-110GHz
Channel	Mid	Antenna polarity	Vertical
Test distance at 1m			



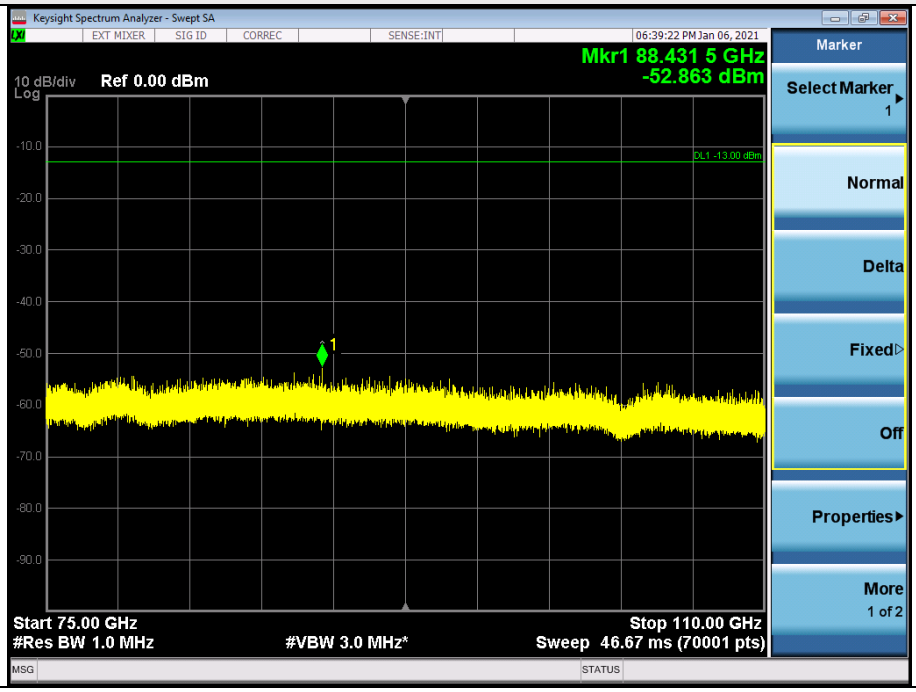
Note:

1. The test results already include the correction factor (corrections: On).
2. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
3. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)+ 20log(D) – 104.8.

Beam ID	20	Frequency Range	75GHz-110GHz
Channel	High	Antenna polarity	Horizontal
Test distance at 1m			



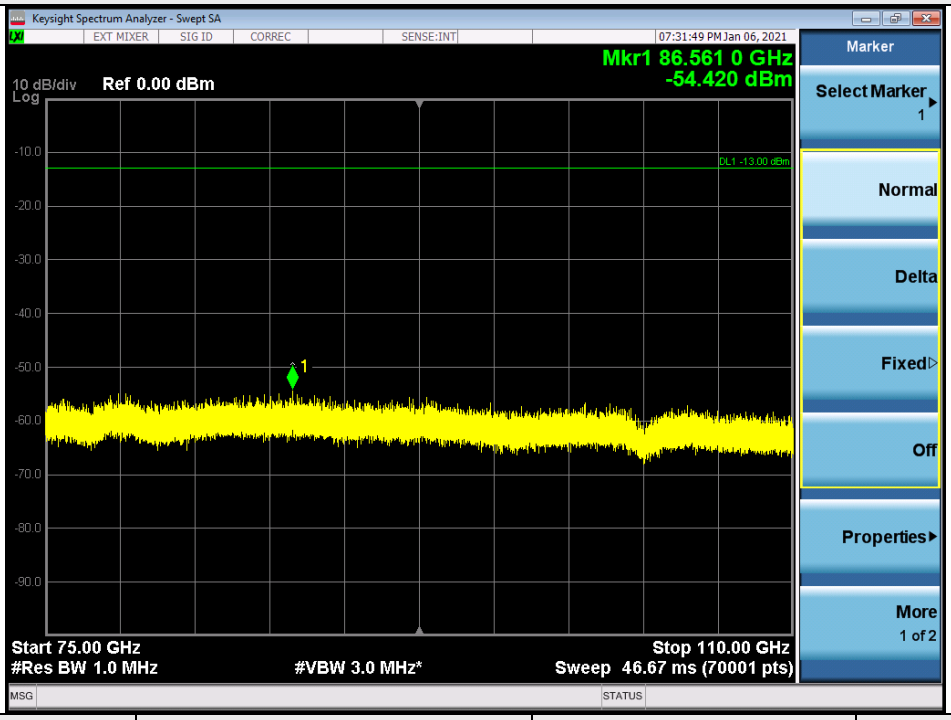
Beam ID	20	Frequency Range	75GHz-110GHz
Channel	High	Antenna polarity	Vertical
Test distance at 1m			



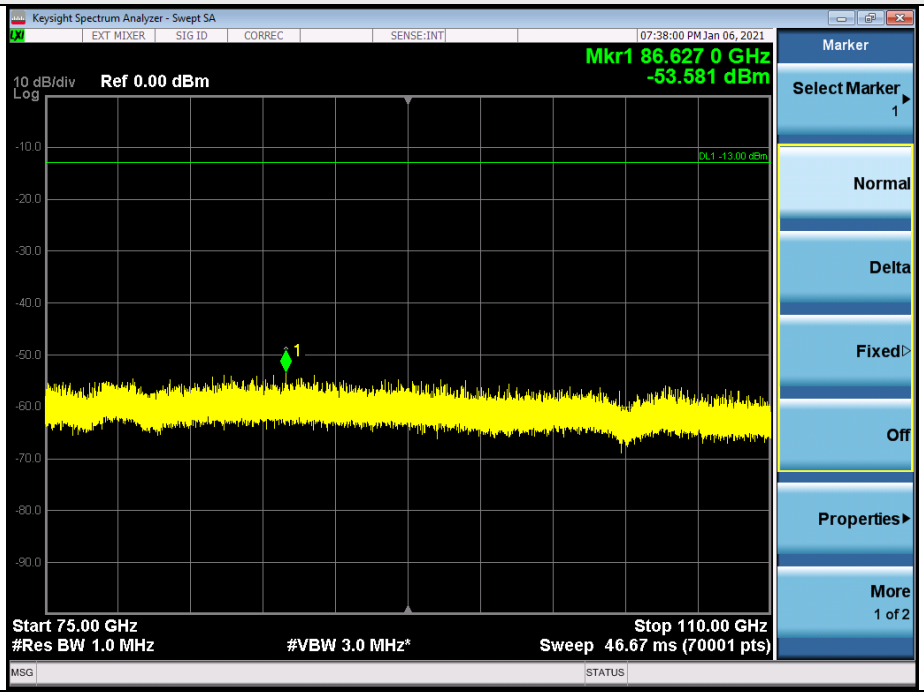
Note:

1. The test results already include the correction factor (corrections: On).
2. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
3. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)+ 20log(D) – 104.8.

Beam ID	20+148	Frequency Range	75GHz-110GHz
Channel	Low	Antenna polarity	Horizontal
Test distance at 1m			



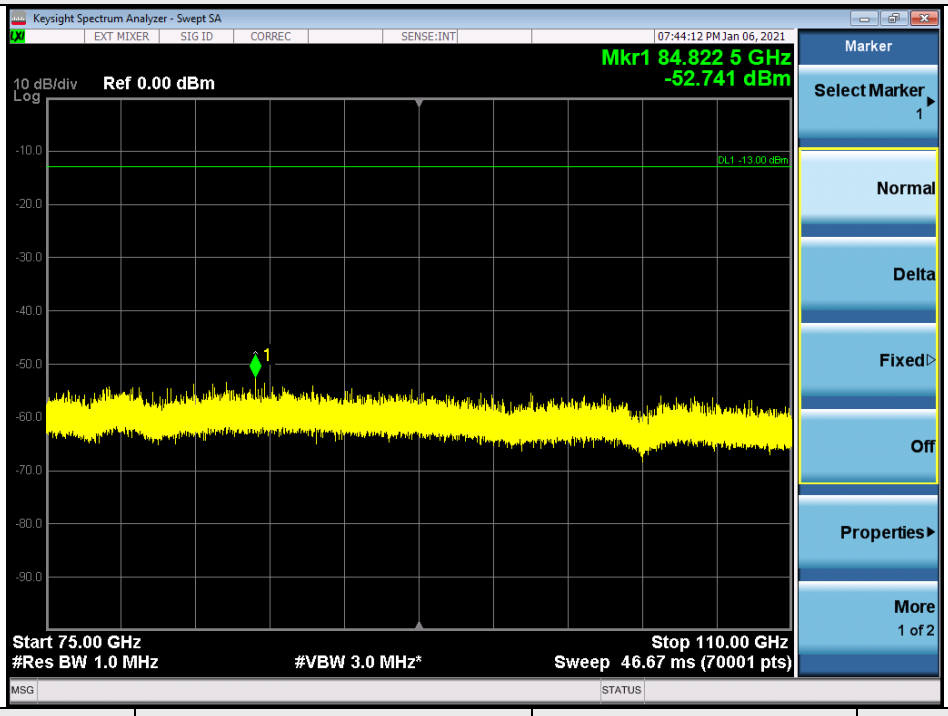
Beam ID	20+148	Frequency Range	75GHz-110GHz
Channel	Low	Antenna polarity	Vertical
Test distance at 1m			



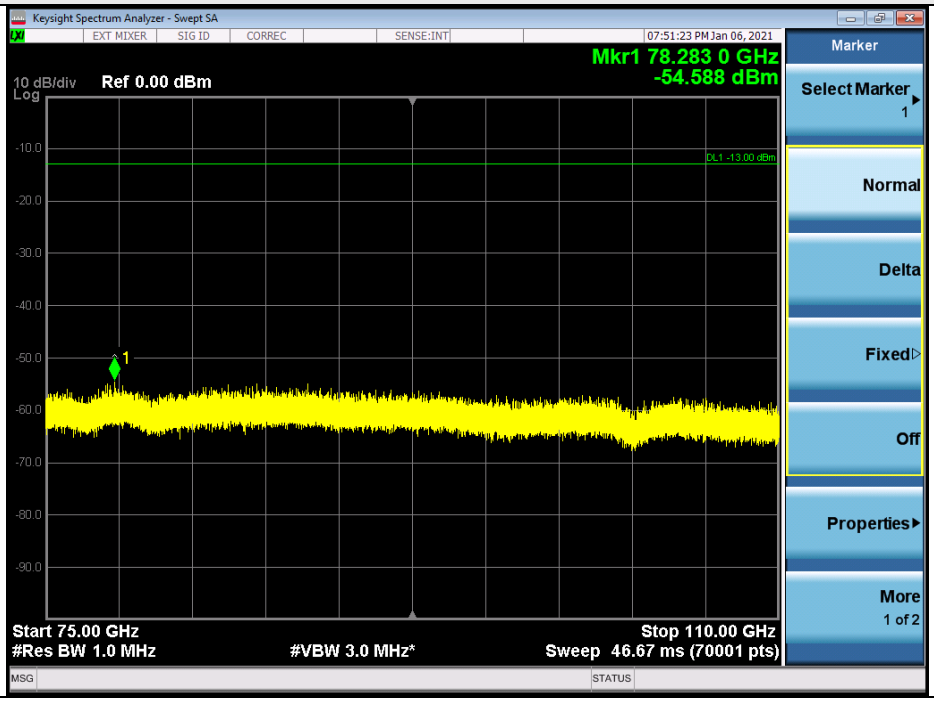
Note:

1. The test results already include the correction factor (corrections: On).
2. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
3. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)+ 20log(D) – 104.8.

Beam ID	20+148	Frequency Range	75GHz-110GHz
Channel	Mid	Antenna polarity	Horizontal
Test distance at 1m			



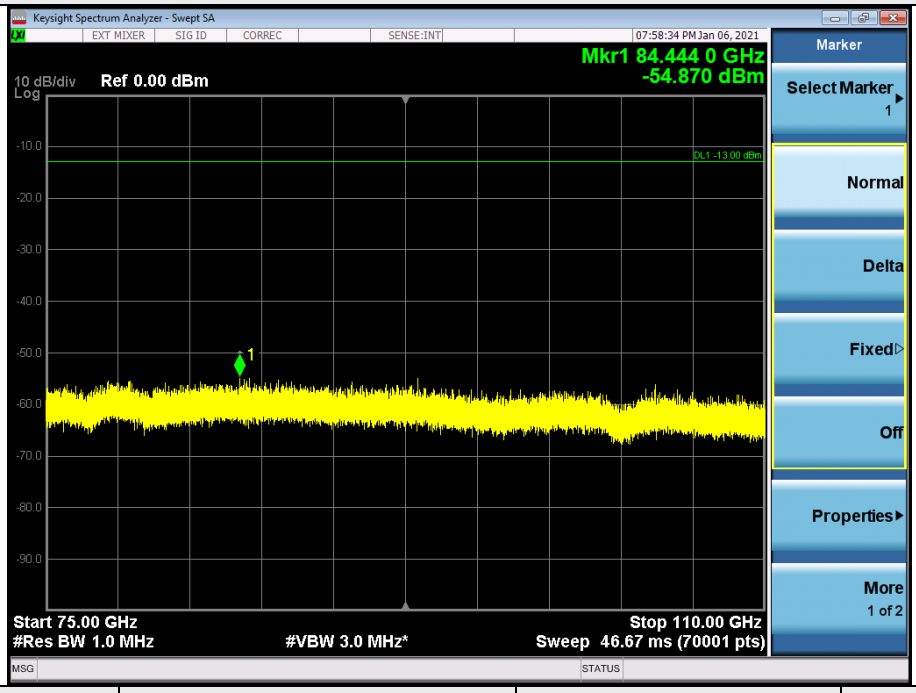
Beam ID	20+148	Frequency Range	75GHz-110GHz
Channel	Mid	Antenna polarity	Vertical
Test distance at 1m			



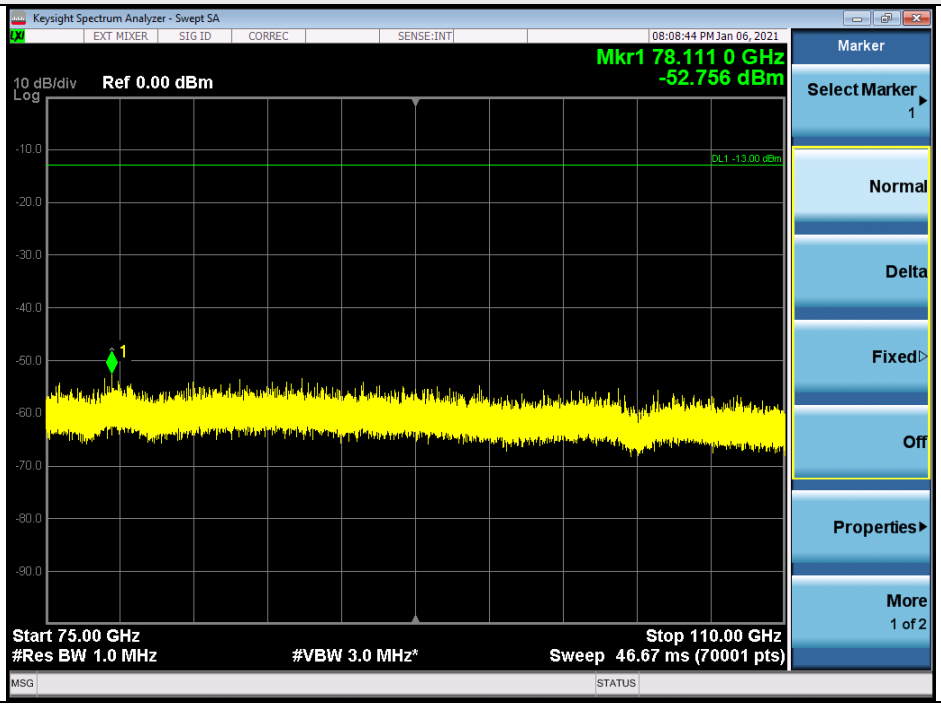
Note:

1. The test results already include the correction factor (corrections: On).
2. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
3. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)+ 20log(D) – 104.8.

Beam ID	20+148	Frequency Range	75GHz-110GHz
Channel	High	Antenna polarity	Horizontal
Test distance at 1m			



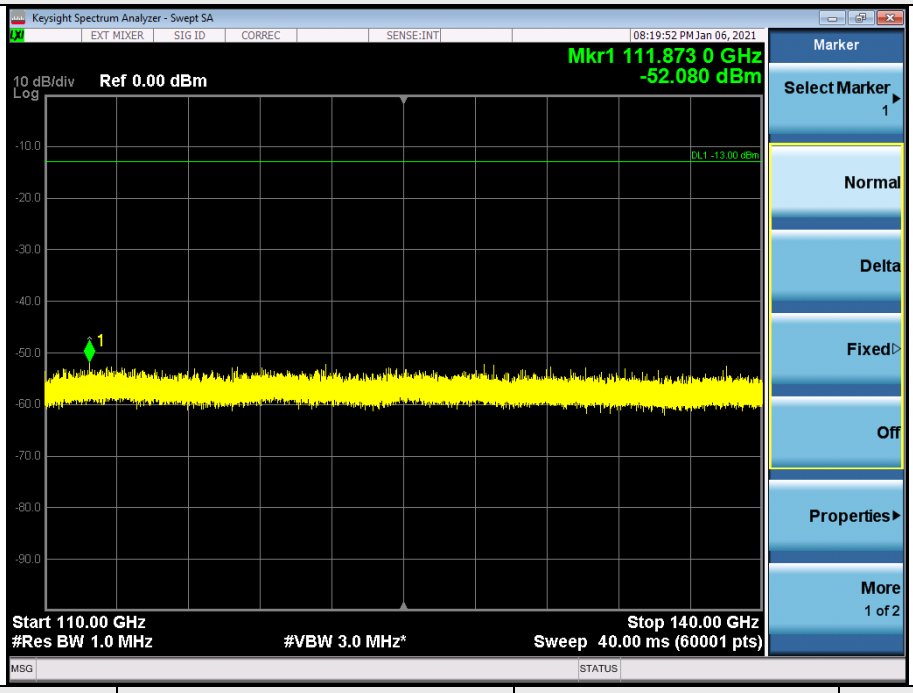
Beam ID	20+148	Frequency Range	75GHz-110GHz
Channel	High	Antenna polarity	Vertical
Test distance at 1m			



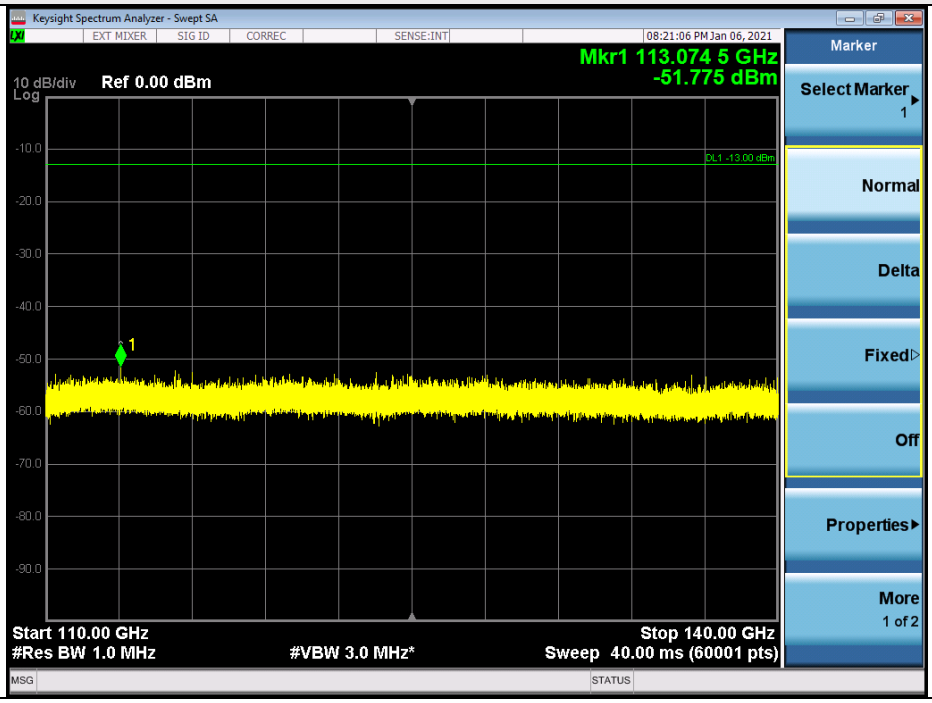
Note:

1. The test results already include the correction factor (corrections: On).
2. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
3. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)+ 20log(D) – 104.8.

Beam ID	20	Frequency Range	110GHz-140GHz
Channel	Low	Antenna polarity	Horizontal
Test distance at 1m			



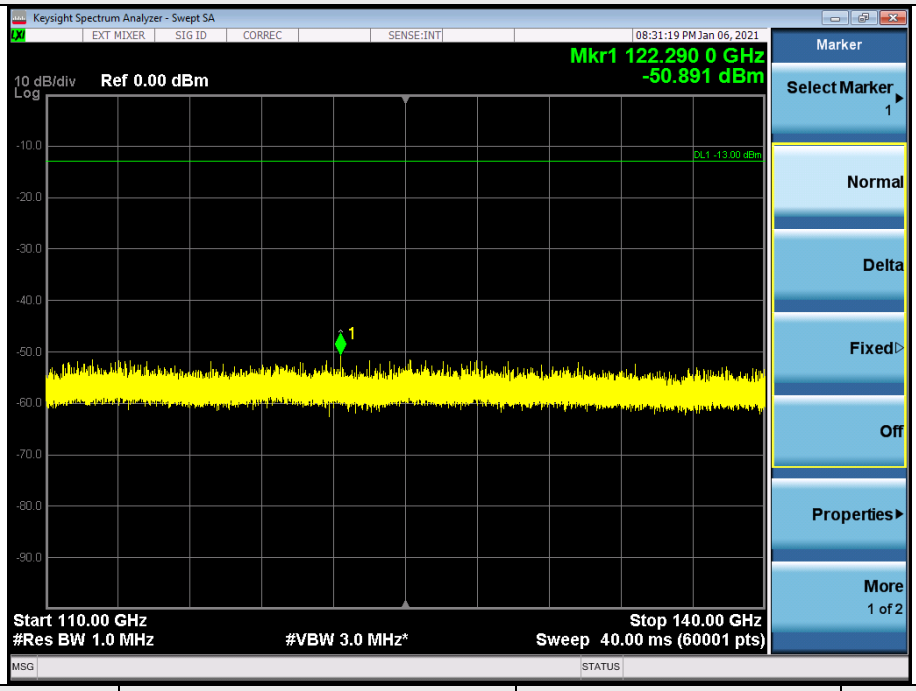
Beam ID	20	Frequency Range	110GHz-140GHz
Channel	Low	Antenna polarity	Vertical
Test distance at 1m			



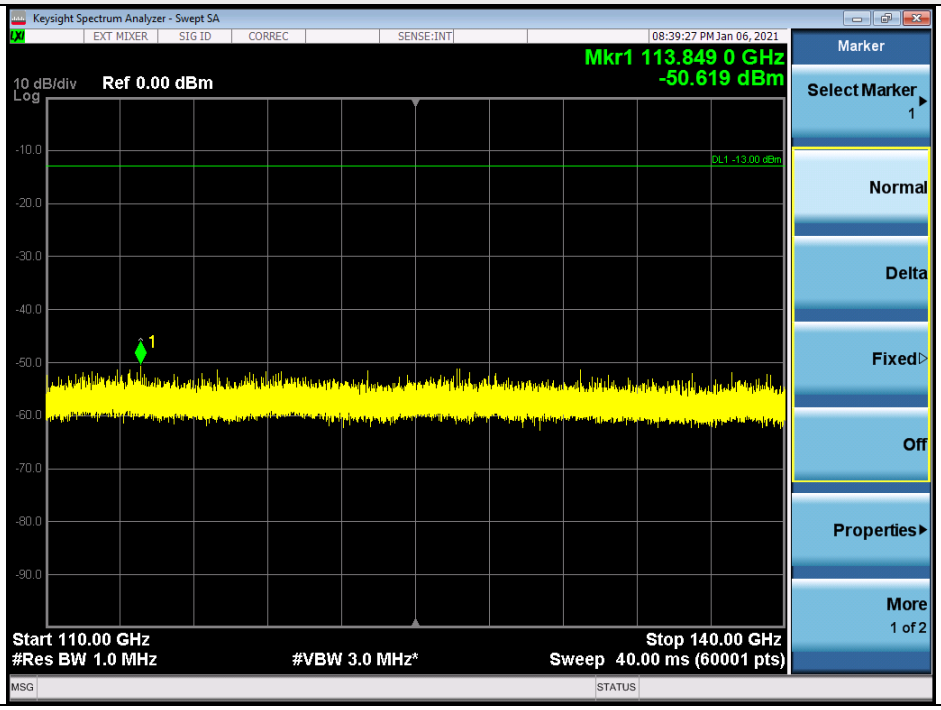
Note:

1. The test results already include the correction factor (corrections: On).
2. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
3. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)+ 20log(D) – 104.8.

Beam ID	20	Frequency Range	110GHz-140GHz
Channel	Mid	Antenna polarity	Horizontal
Test distance at 1m			



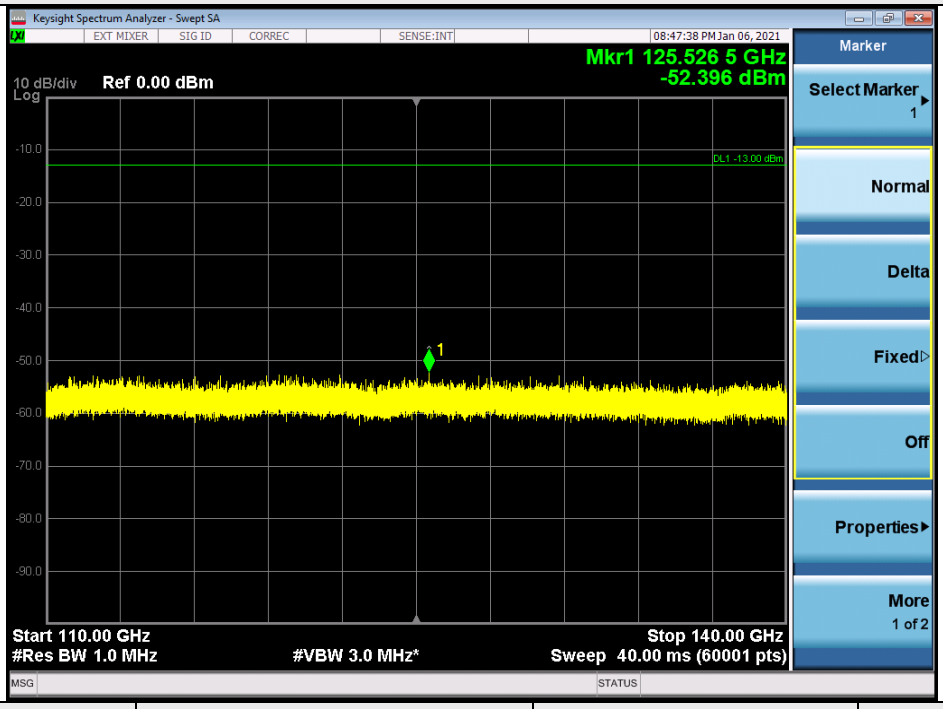
Beam ID	20	Frequency Range	110GHz-140GHz
Channel	Mid	Antenna polarity	Vertical
Test distance at 1m			



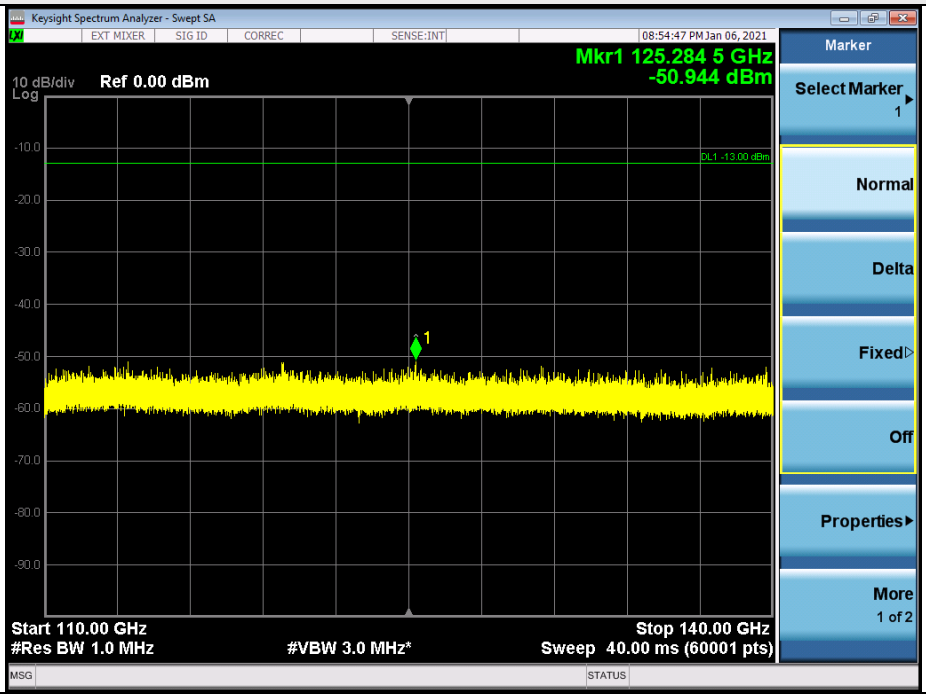
Note:

1. The test results already include the correction factor (corrections: On).
2. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
3. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)+ 20log(D) – 104.8.

Beam ID	20	Frequency Range	110GHz-140GHz
Channel	High	Antenna polarity	Horizontal
Test distance at 1m			



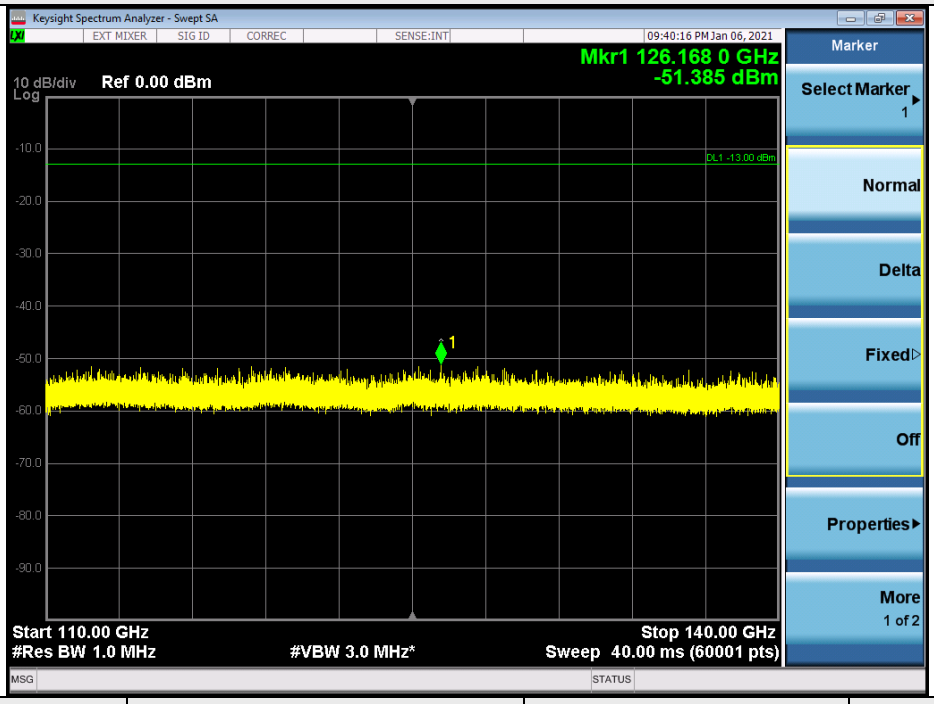
Beam ID	20	Frequency Range	110GHz-140GHz
Channel	High	Antenna polarity	Vertical
Test distance at 1m			



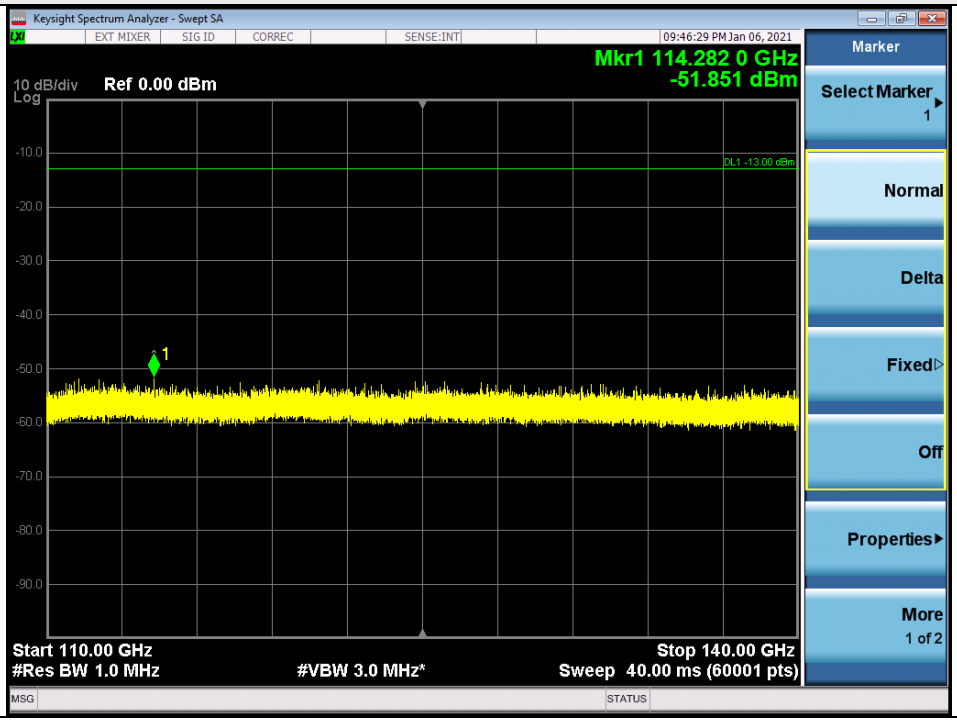
Note:

1. The test results already include the correction factor (corrections: On).
2. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
3. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)+ 20log(D) – 104.8.

Beam ID	20+148	Frequency Range	110GHz-140GHz
Channel	Low	Antenna polarity	Horizontal
Test distance at 1m			



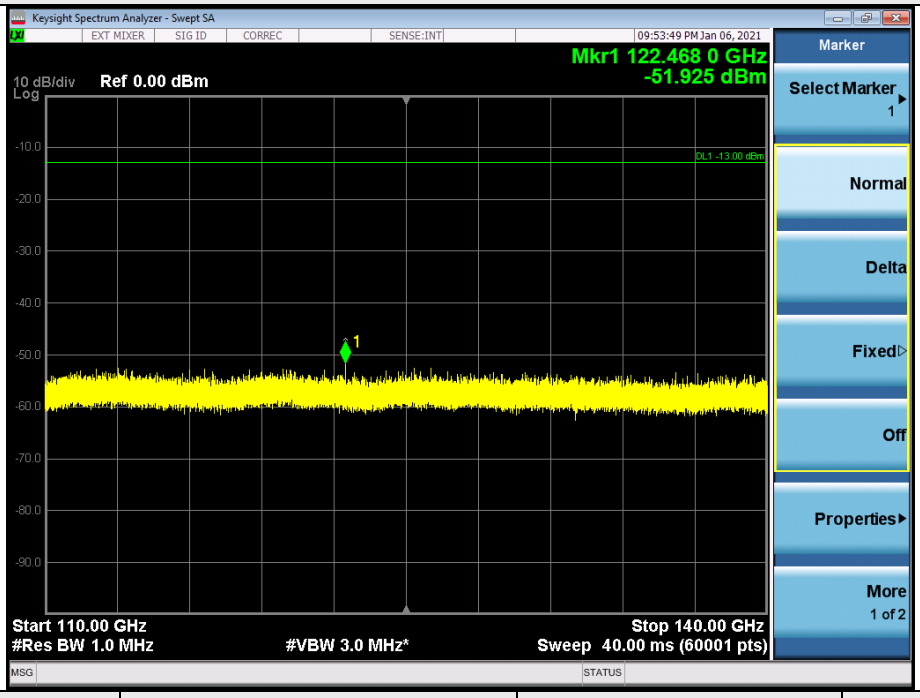
Beam ID	20+148	Frequency Range	110GHz-140GHz
Channel	Low	Antenna polarity	Vertical
Test distance at 1m			



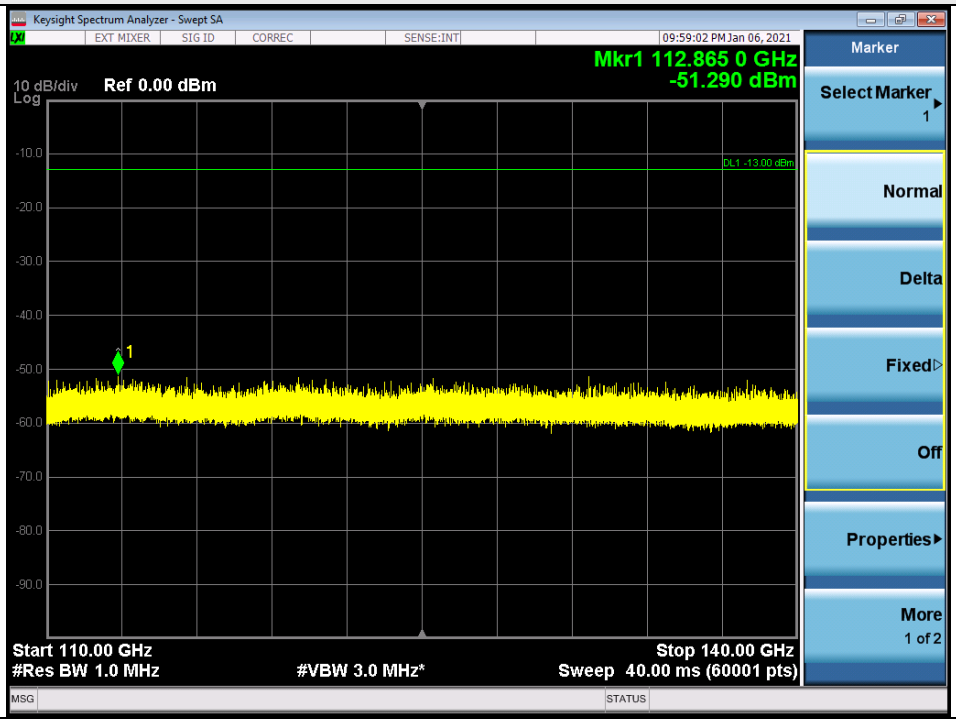
Note:

1. The test results already include the correction factor (corrections: On).
2. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
3. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)+ 20log(D) – 104.8.

Beam ID	20+148	Frequency Range	110GHz-140GHz
Channel	Mid	Antenna polarity	Horizontal
Test distance at 1m			



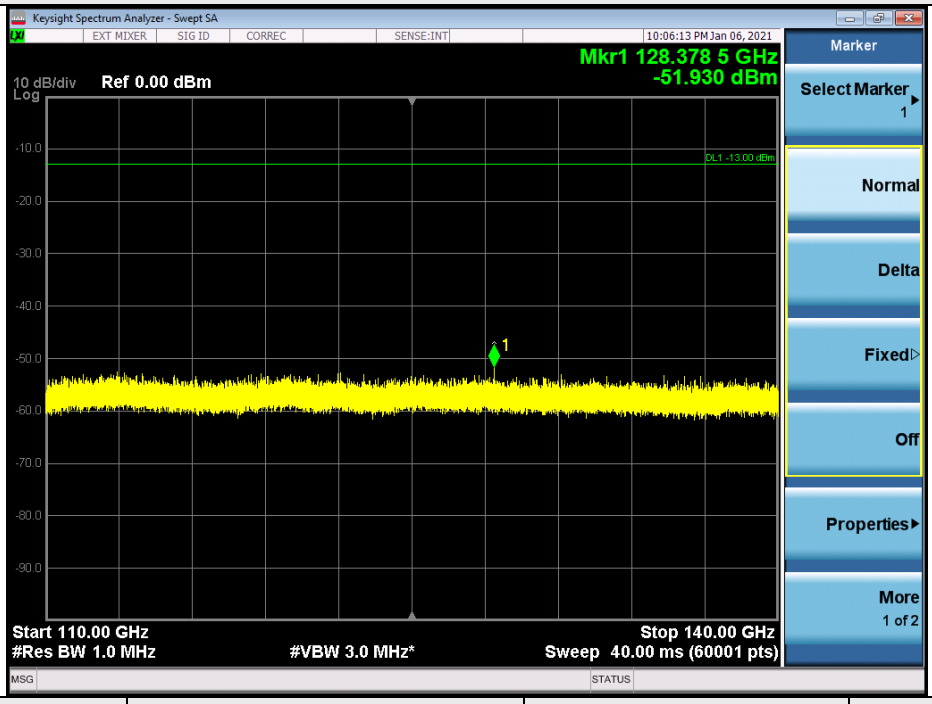
Beam ID	20+148	Frequency Range	110GHz-140GHz
Channel	Mid	Antenna polarity	Vertical
Test distance at 1m			



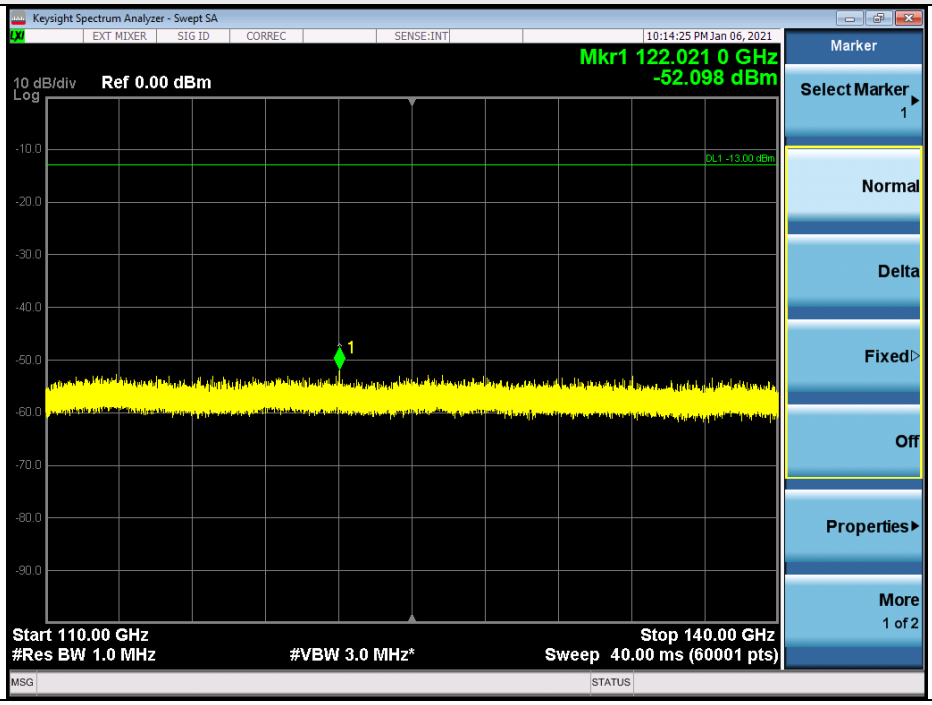
Note:

1. The test results already include the correction factor (corrections: On).
2. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
3. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)+ 20log(D) – 104.8.

Beam ID	20+148	Frequency Range	110GHz-140GHz
Channel	High	Antenna polarity	Horizontal
Test distance at 1m			



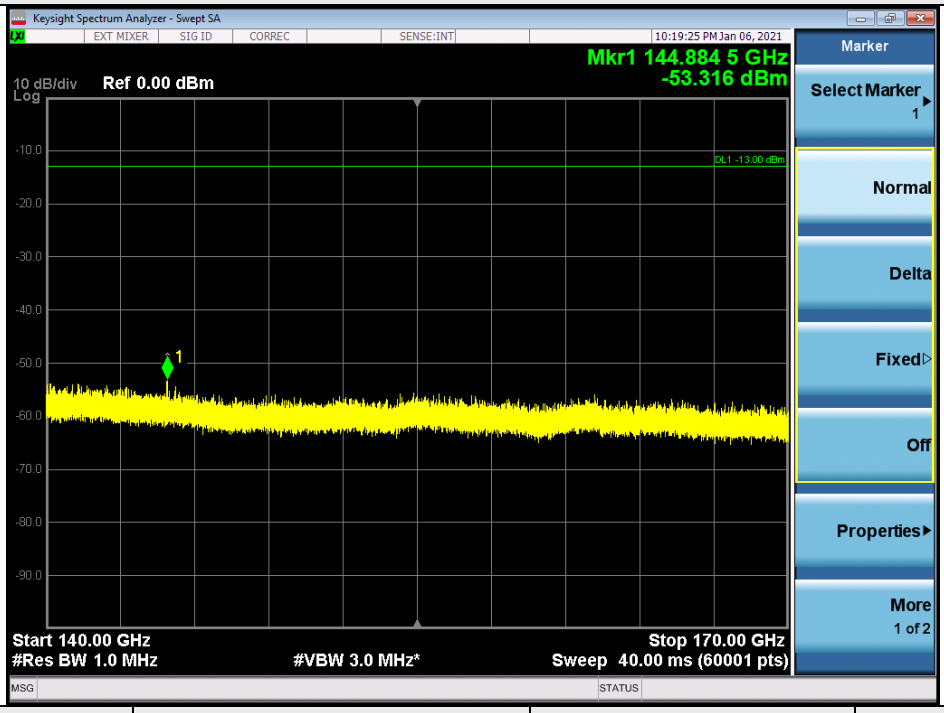
Beam ID	20+148	Frequency Range	110GHz-140GHz
Channel	High	Antenna polarity	Vertical
Test distance at 1m			



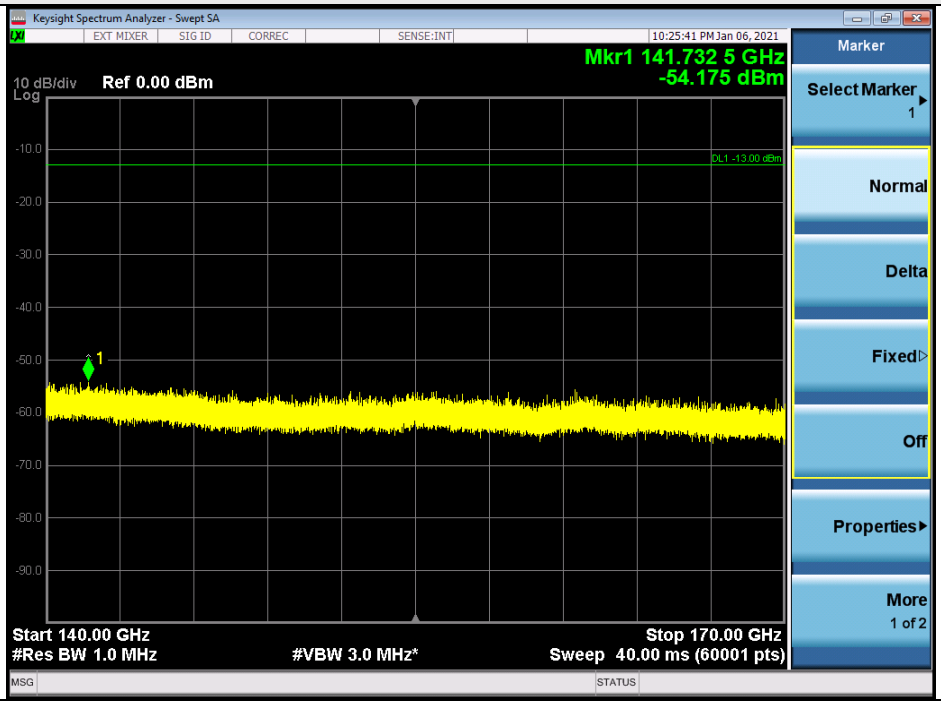
Note:

1. The test results already include the correction factor (corrections: On).
2. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
3. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)+ 20log(D) – 104.8.

Beam ID	20	Frequency Range	140GHz-170GHz
Channel	Low	Antenna polarity	Horizontal
Test distance at 1m			



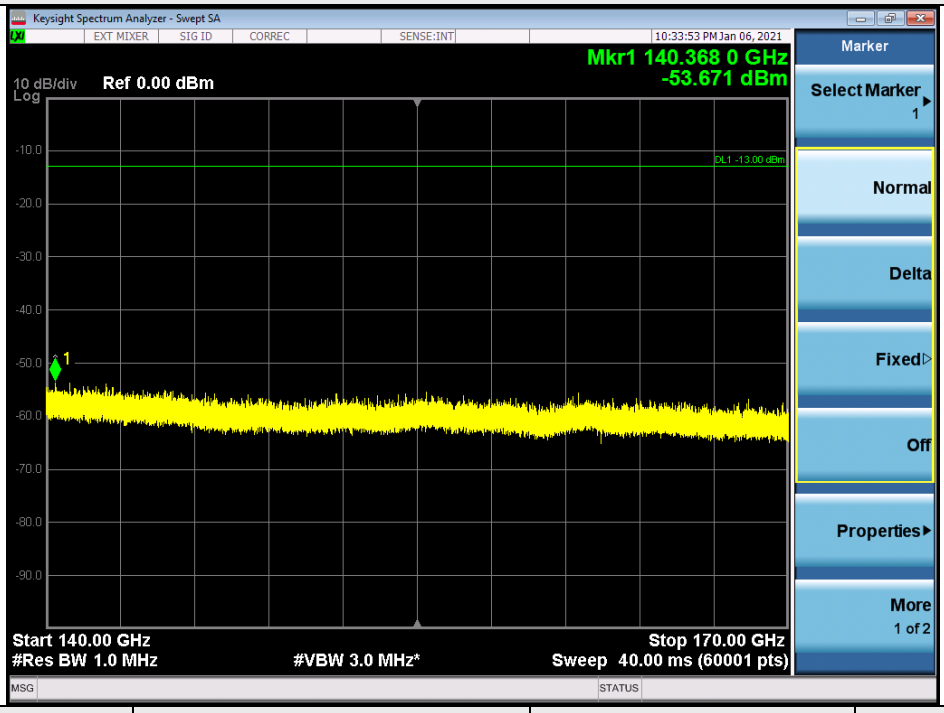
Beam ID	20	Frequency Range	140GHz-170GHz
Channel	Low	Antenna polarity	Vertical
Test distance at 1m			



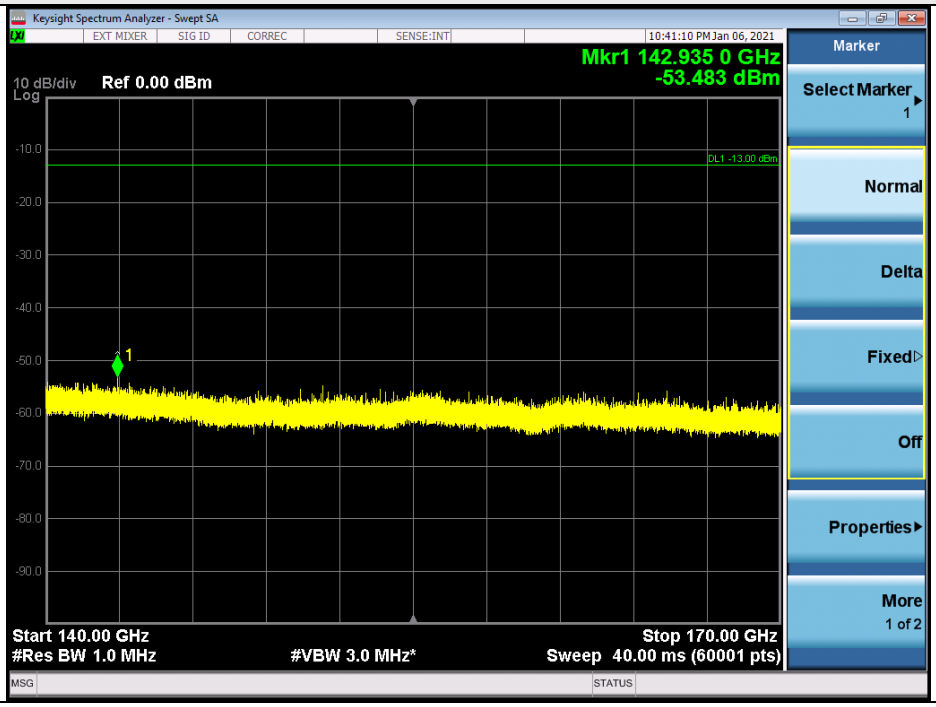
Note:

1. The test results already include the correction factor (corrections: On).
2. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
3. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)+ 20log(D) – 104.8.

Beam ID	20	Frequency Range	140GHz-170GHz
Channel	Mid	Antenna polarity	Horizontal
Test distance at 1m			



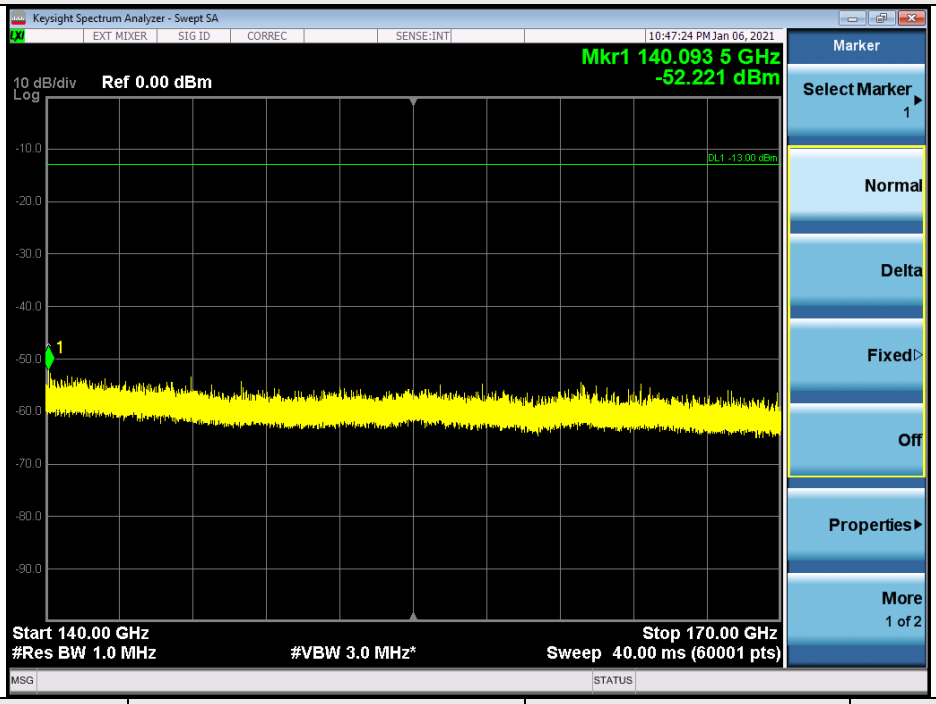
Beam ID	20	Frequency Range	140GHz-170GHz
Channel	Mid	Antenna polarity	Vertical
Test distance at 1m			



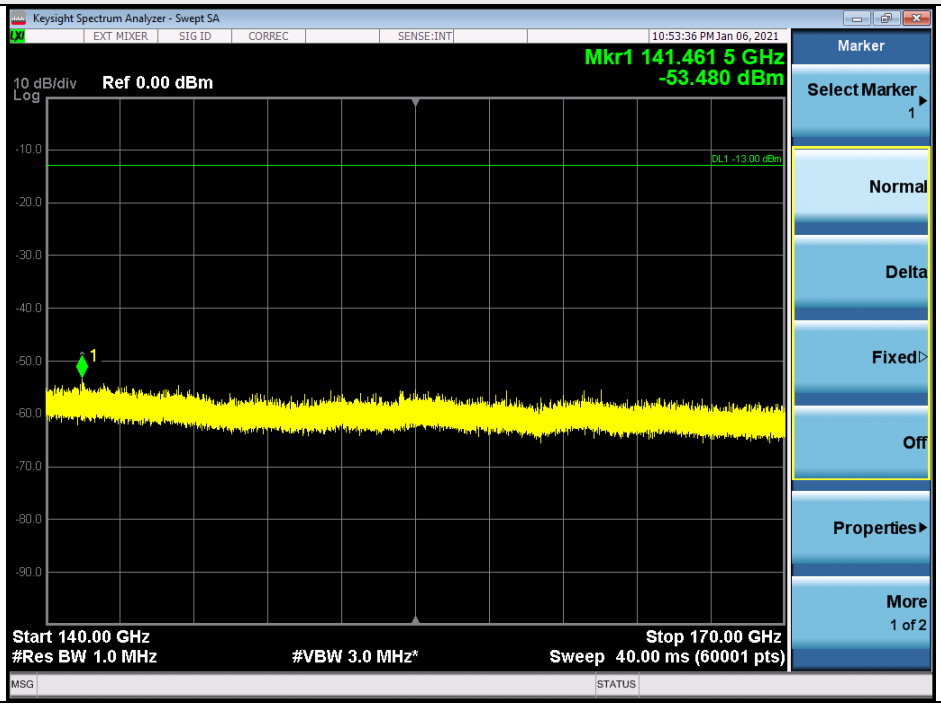
Note:

1. The test results already include the correction factor (corrections: On).
2. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
3. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)+ 20log(D) – 104.8.

Beam ID	20	Frequency Range	140GHz-170GHz
Channel	High	Antenna polarity	Horizontal
Test distance at 1m			



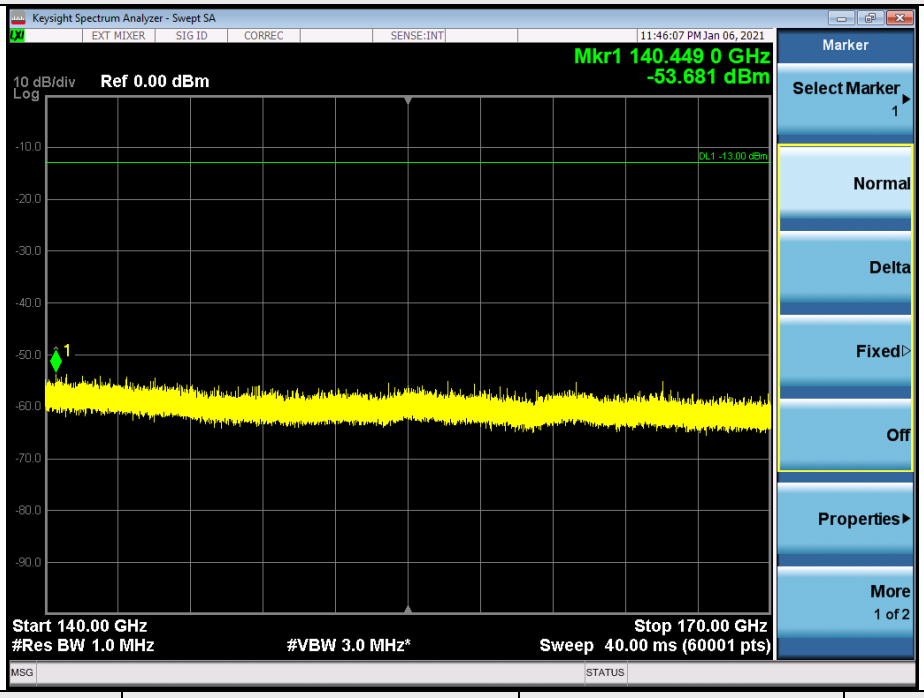
Beam ID	20	Frequency Range	140GHz-170GHz
Channel	High	Antenna polarity	Vertical
Test distance at 1m			



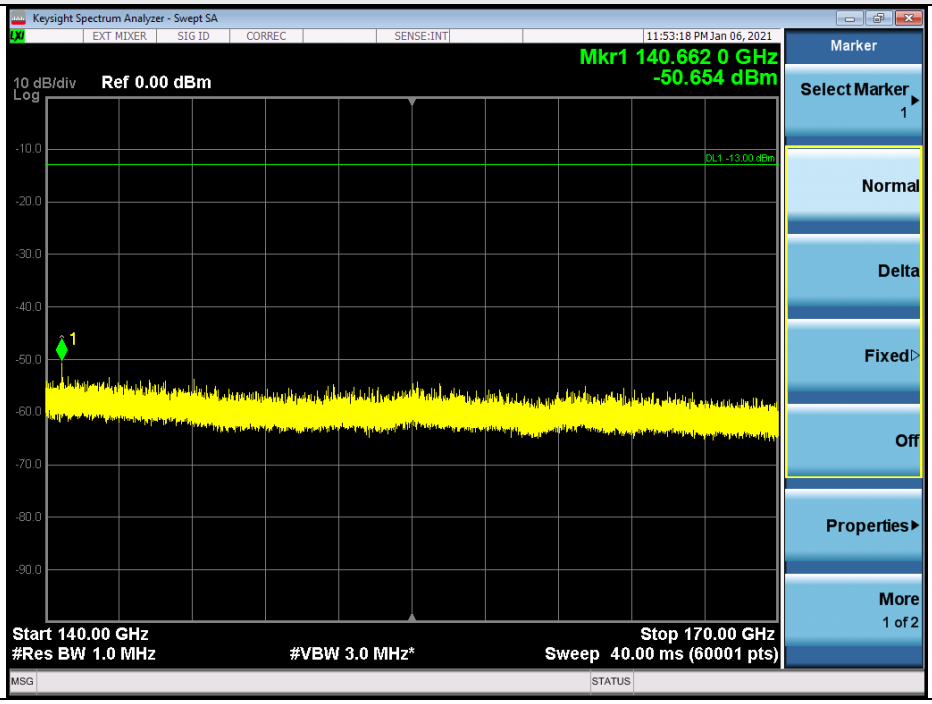
Note:

1. The test results already include the correction factor (corrections: On).
2. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
3. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)+ 20log(D) – 104.8.

Beam ID	20+148	Frequency Range	140GHz-170GHz
Channel	Low	Antenna polarity	Horizontal
Test distance at 1m			



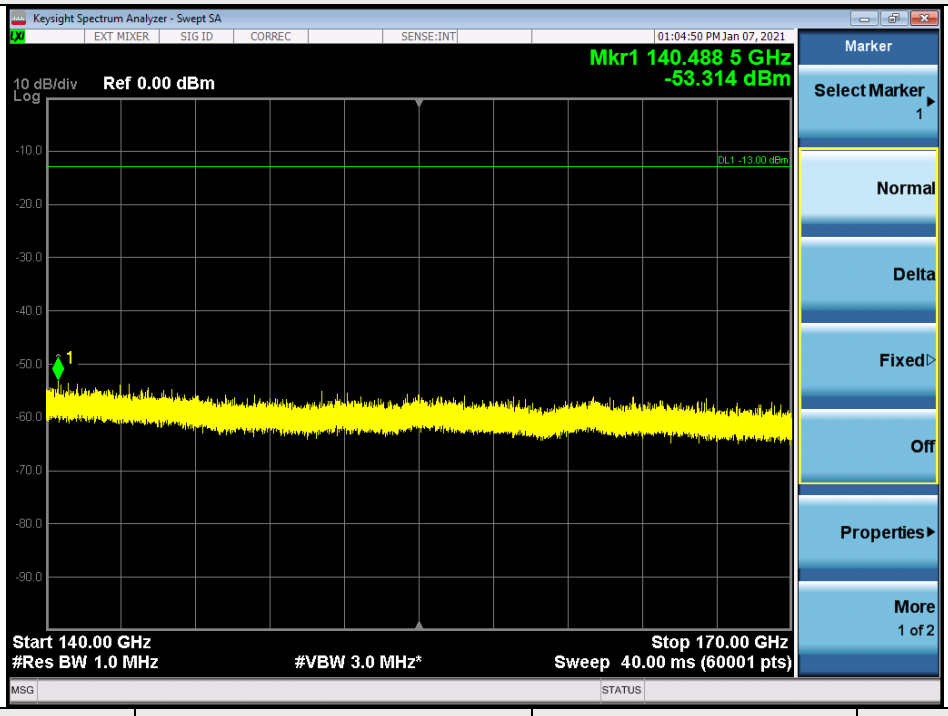
Beam ID	20+148	Frequency Range	140GHz-170GHz
Channel	Low	Antenna polarity	Vertical
Test distance at 1m			



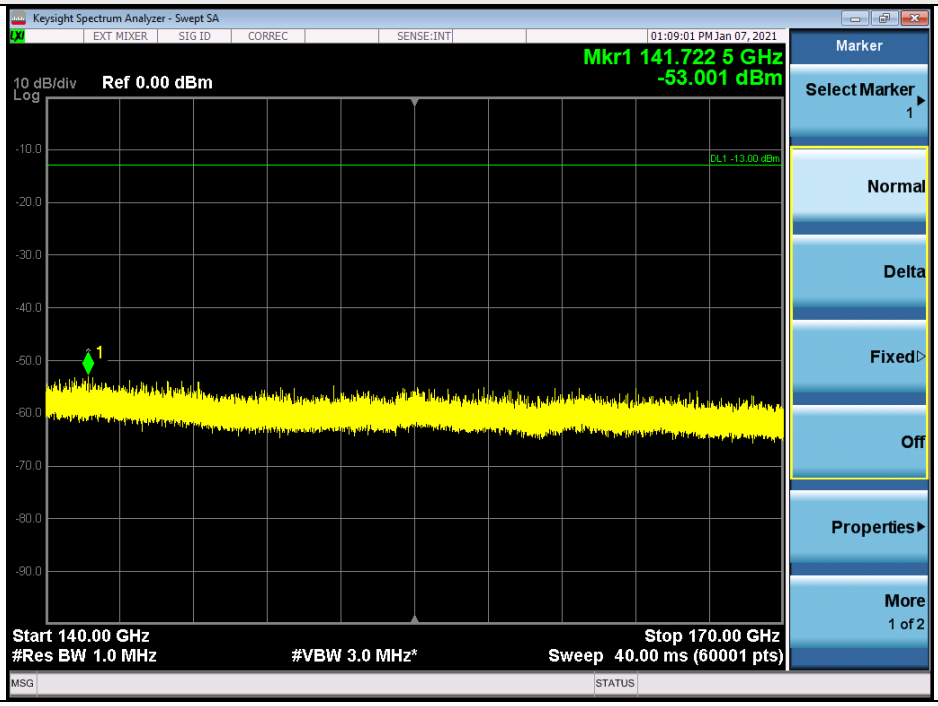
Note:

1. The test results already include the correction factor (corrections: On).
2. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
3. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)+ 20log(D) – 104.8.

Beam ID	20+148	Frequency Range	140GHz-170GHz
Channel	Mid	Antenna polarity	Horizontal
Test distance at 1m			



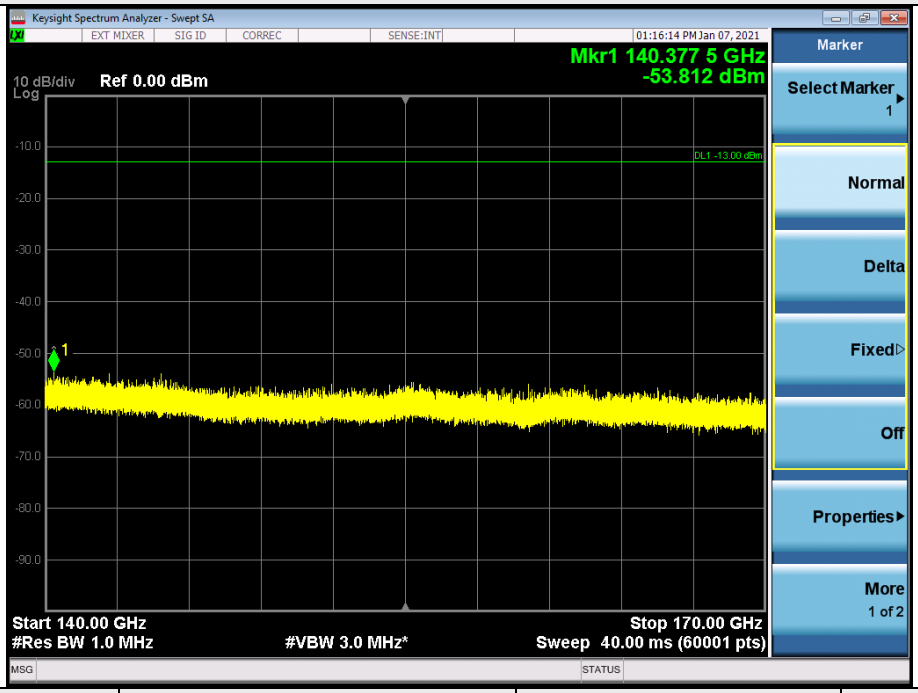
Beam ID	20+148	Frequency Range	140GHz-170GHz
Channel	Mid	Antenna polarity	Vertical
Test distance at 1m			



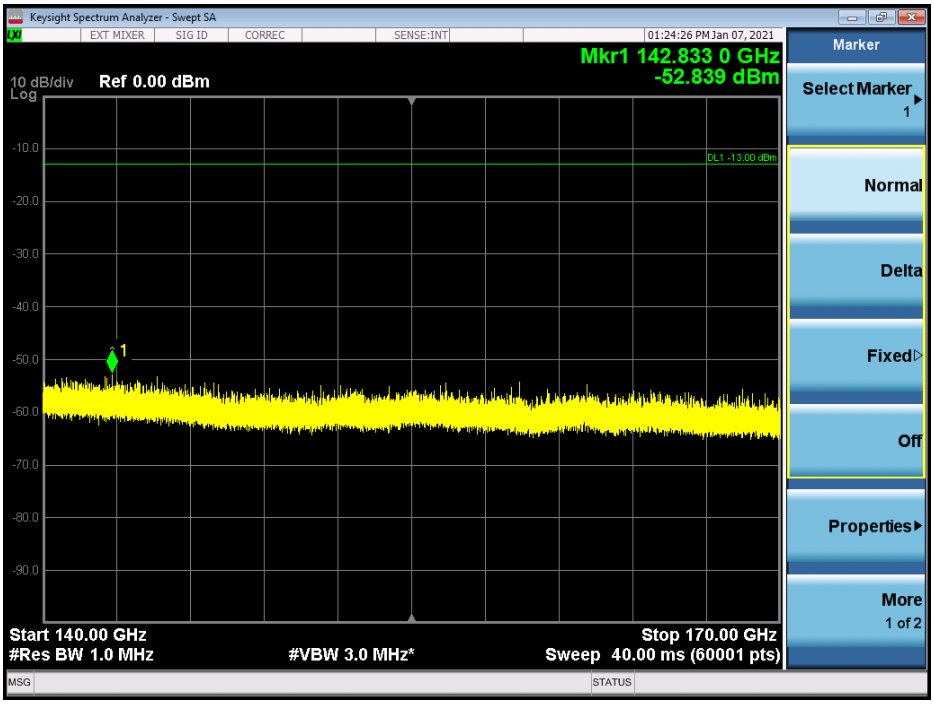
Note:

1. The test results already include the correction factor (corrections: On).
2. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
3. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)+ 20log(D) – 104.8.

Beam ID	20+148	Frequency Range	140GHz-170GHz
Channel	High	Antenna polarity	Horizontal
Test distance at 1m			



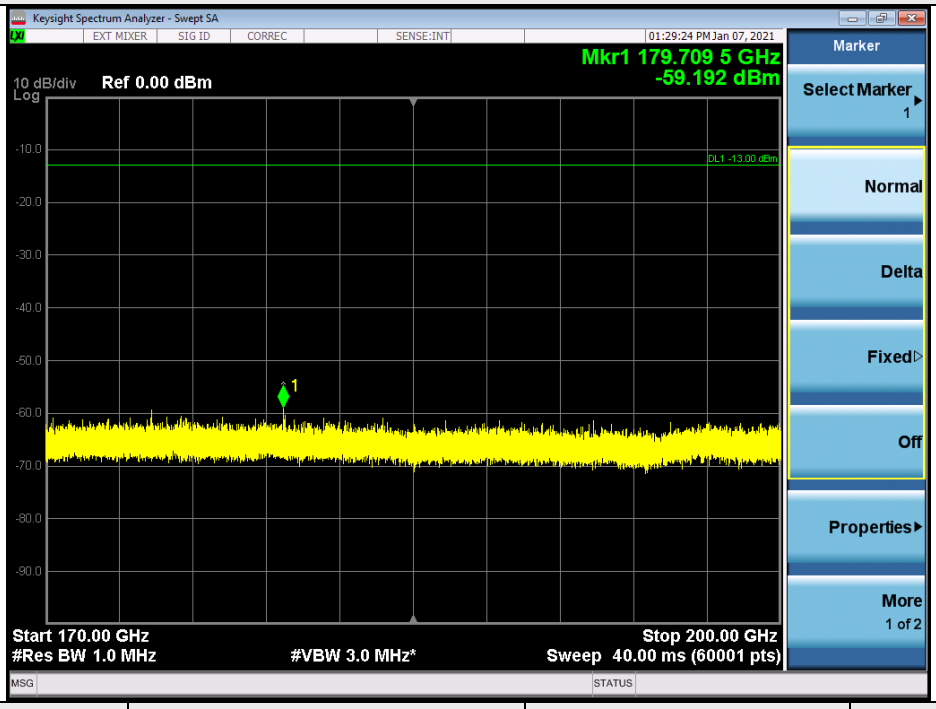
Beam ID	20+148	Frequency Range	140GHz-170GHz
Channel	High	Antenna polarity	Vertical
Test distance at 1m			



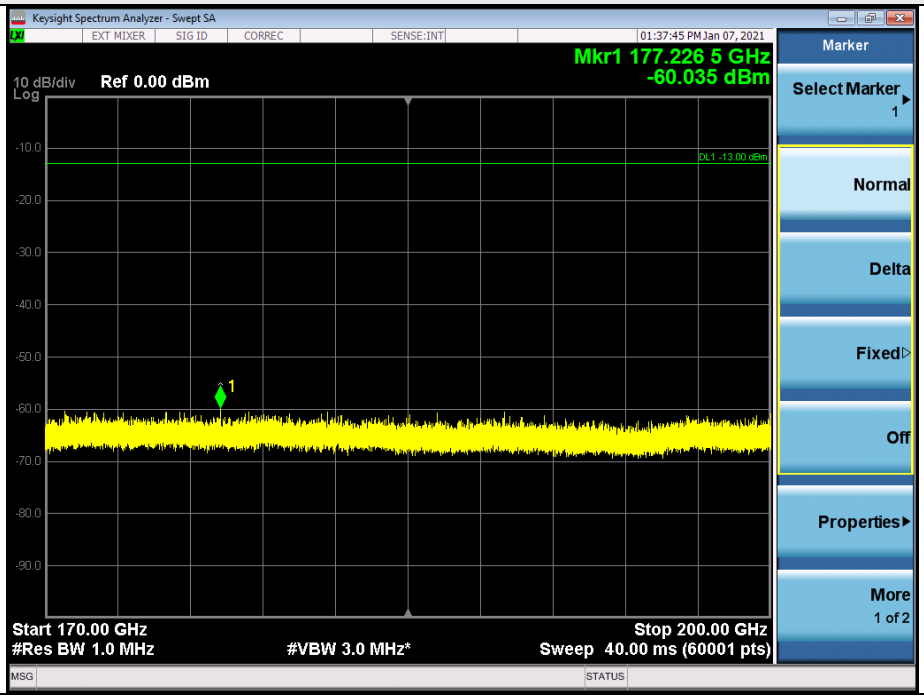
Note:

1. The test results already include the correction factor (corrections: On).
2. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
3. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)+ 20log(D) – 104.8.

Beam ID	20	Frequency Range	170GHz-200GHz
Channel	Low	Antenna polarity	Horizontal
Test distance at 1m			



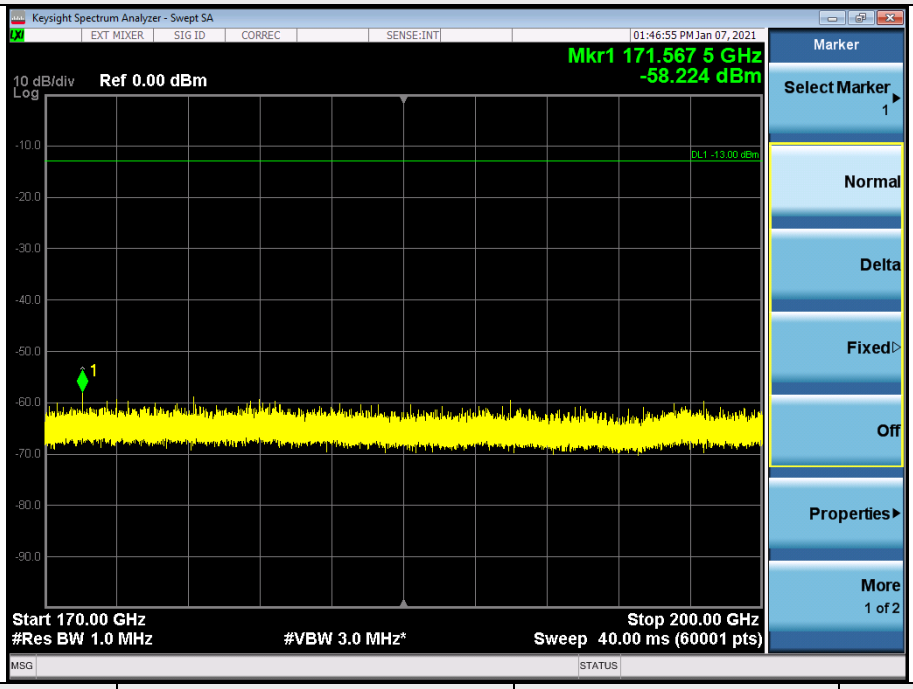
Beam ID	20	Frequency Range	170GHz-200GHz
Channel	Low	Antenna polarity	Vertical
Test distance at 1m			



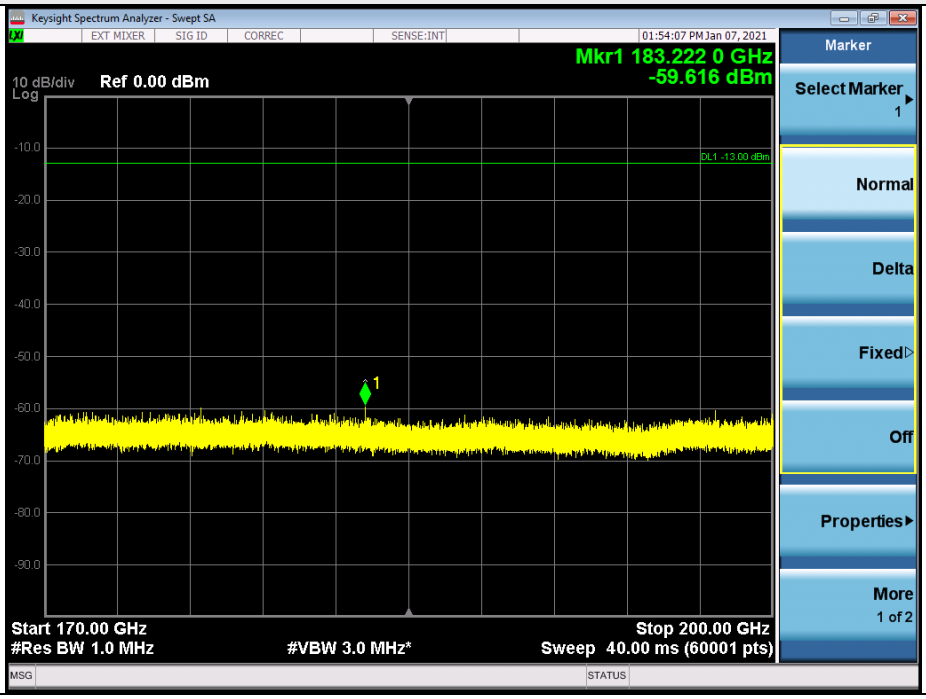
Note:

1. The test results already include the correction factor (corrections: On).
2. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
3. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)+ 20log(D) – 104.8.

Beam ID	20	Frequency Range	170GHz-200GHz
Channel	Mid	Antenna polarity	Horizontal
Test distance at 1m			



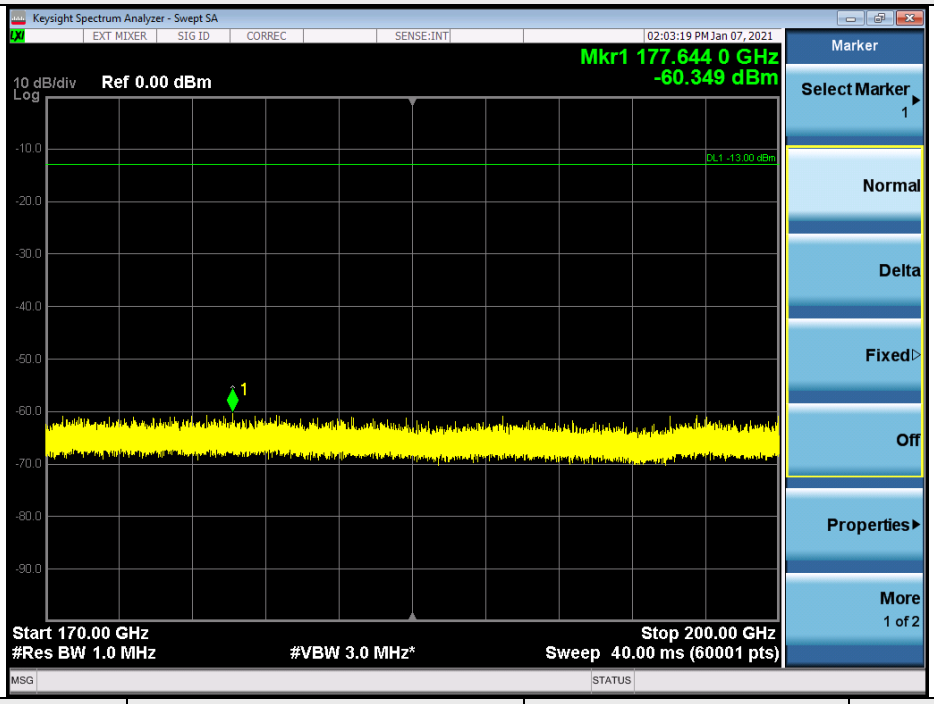
Beam ID	20	Frequency Range	170GHz-200GHz
Channel	Mid	Antenna polarity	Vertical
Test distance at 1m			



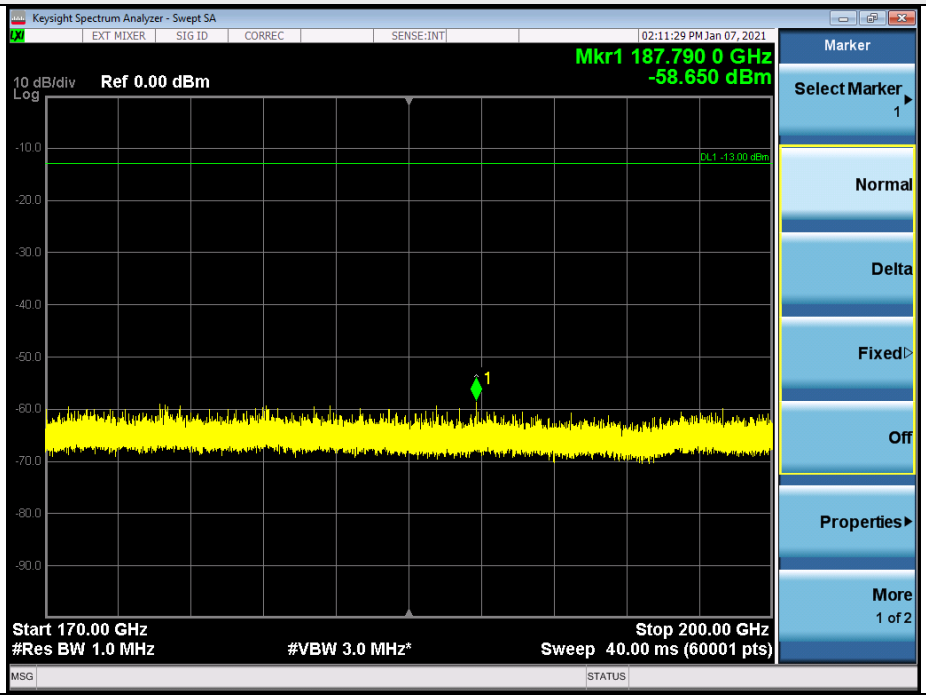
Note:

1. The test results already include the correction factor (corrections: On).
2. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
3. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)+ 20log(D) – 104.8.

Beam ID	20	Frequency Range	170GHz-200GHz
Channel	High	Antenna polarity	Horizontal
Test distance at 1m			



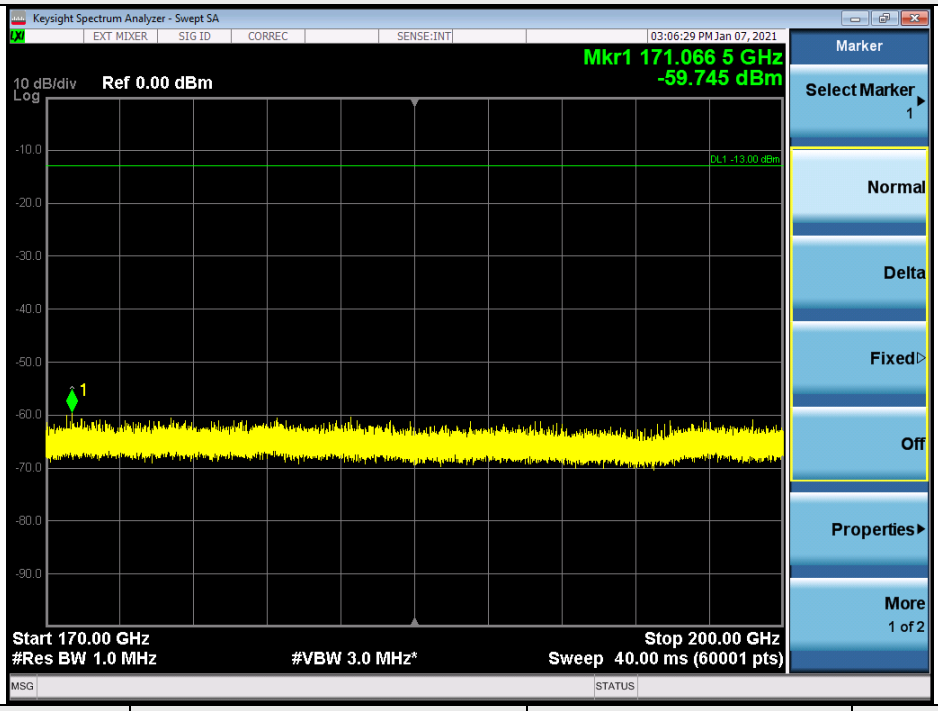
Beam ID	20	Frequency Range	170GHz-200GHz
Channel	High	Antenna polarity	Vertical
Test distance at 1m			



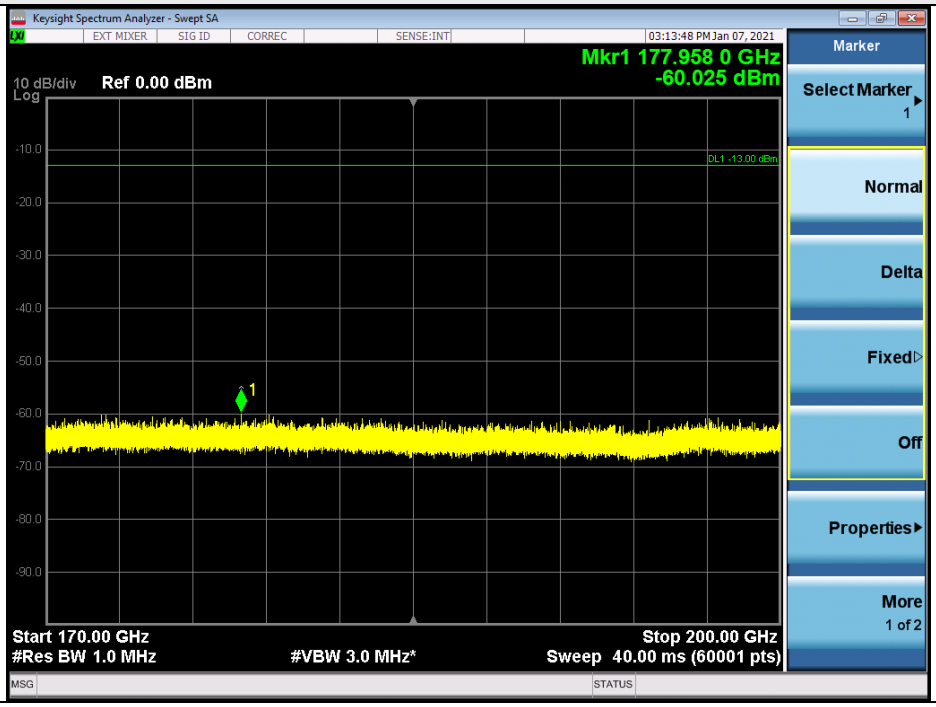
Note:

1. The test results already include the correction factor (corrections: On).
2. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
3. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)+ 20log(D) – 104.8.

Beam ID	20+148	Frequency Range	170GHz-200GHz
Channel	Low	Antenna polarity	Horizontal
Test distance at 1m			



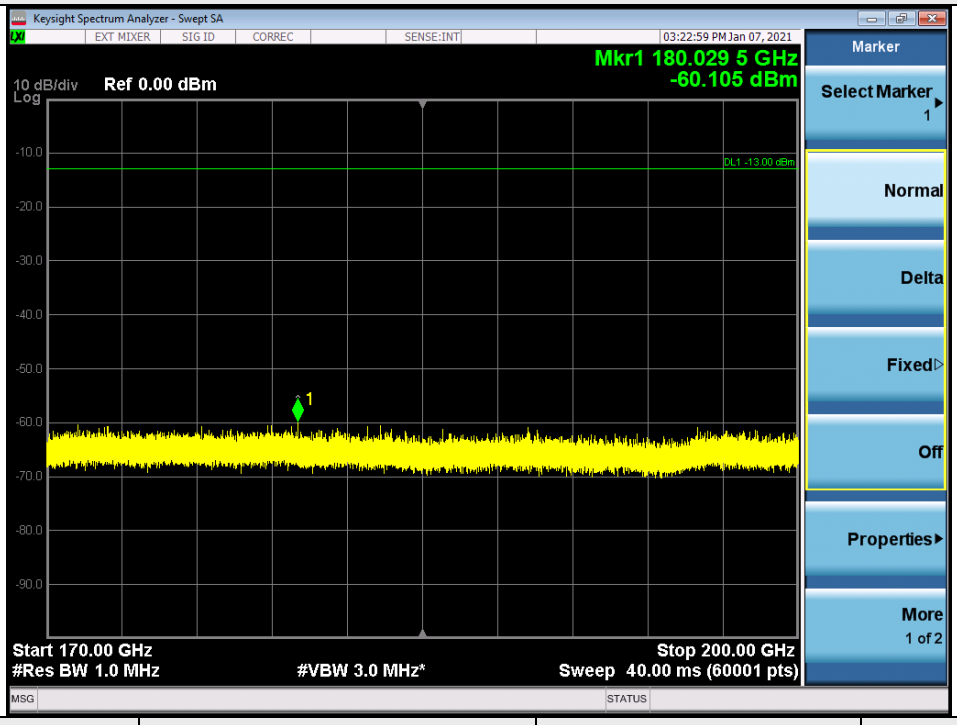
Beam ID	20+148	Frequency Range	170GHz-200GHz
Channel	Low	Antenna polarity	Vertical
Test distance at 1m			



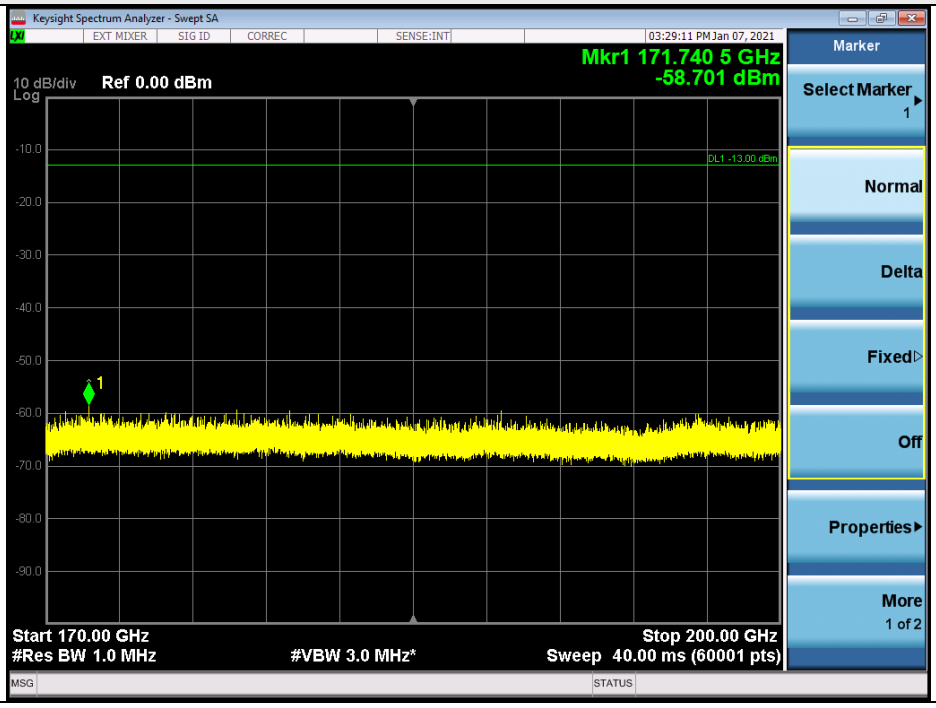
Note:

1. The test results already include the correction factor (corrections: On).
2. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
3. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)+ 20log(D) – 104.8.

Beam ID	20+148	Frequency Range	170GHz-200GHz
Channel	Mid	Antenna polarity	Horizontal
Test distance at 1m			



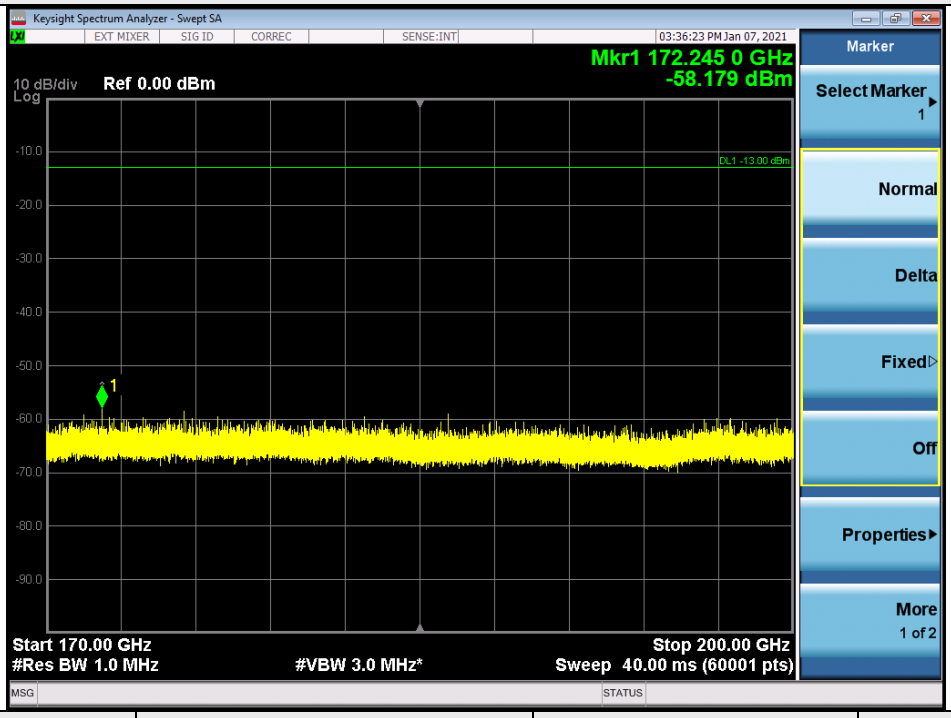
Beam ID	20+148	Frequency Range	170GHz-200GHz
Channel	Mid	Antenna polarity	Vertical
Test distance at 1m			



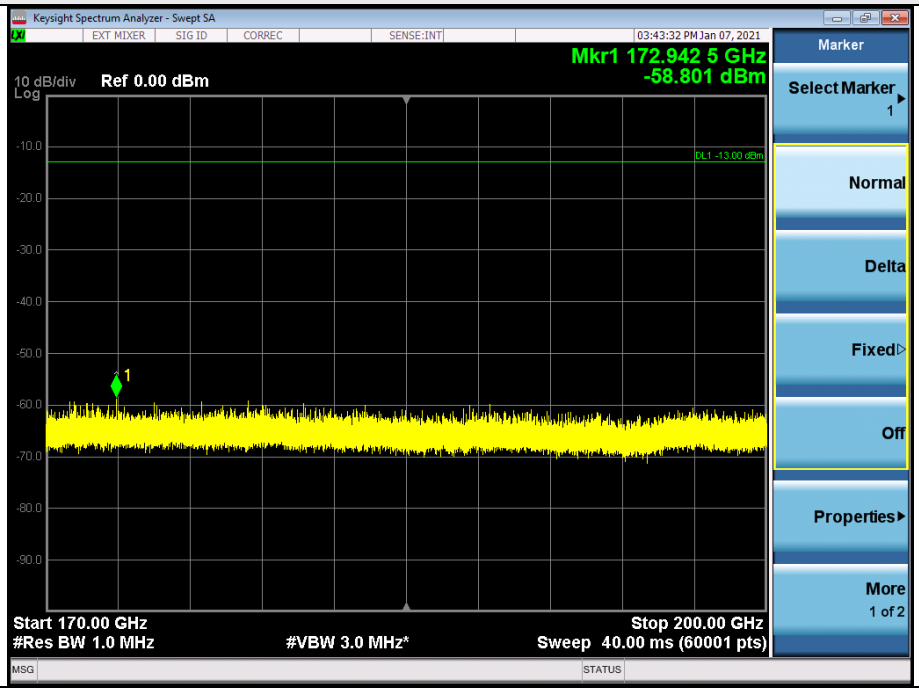
Note:

1. The test results already include the correction factor (corrections: On).
2. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
3. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)+ 20log(D) – 104.8.

Beam ID	20+148	Frequency Range	170GHz-200GHz
Channel	High	Antenna polarity	Horizontal
Test distance at 1m			



Beam ID	20+148	Frequency Range	170GHz-200GHz
Channel	High	Antenna polarity	Vertical
Test distance at 1m			



Note:

1. The test results already include the correction factor (corrections: On).
2. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
3. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)+ 20log(D) – 104.8.

40GHz ~ 200GHz EIRP Calculation For example:

Test Frequency Range	Frequency (GHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Reading Level (dBm)	Factor(dB)
40GHz ~ 50GHz	49.742	-27.547	-13	-14.547	-54.150	26.603
50GHz ~ 75GHz	53.619	-47.656	-13	-34.656	-103.076	55.420
75GHz ~ 110GHz	88.626	-53.547	-13	-40.547	-112.132	58.585
110GHz ~ 140GHz	111.873	-52.080	-13	-39.08	-110.893	58.813
140GHz ~ 170GHz	144.884	-53.316	-13	-40.316	-113.745	60.429
170GHz ~ 200GHz	179.709	-59.192	-13	-46.192	-125.133	65.941

Summary of MIMO Out-of-Band Spurious Emission EIRP:

To address compliance of MIMO spurious emission per KDB 662911 D01, the MIMO spurious emission EIRP is calculated by summing the worst case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm.

EIRP(H Beam) + EIRP(V Beam) = EIRP(MIMO)						
Test Frequency Range	Channel	EIRP (H Beam)	EIRP (V Beam)	EIRP (MIMO)	Limit (dBm)	Margin (dB)
Below 1GHz	2240001+2241671	-45.70	-43.30	-41.33	-13	-28.33
	2259163+2260831	-48.50	-41.00	-40.29	-13	-27.29
	2276663+2278331	-47.50	-44.10	-42.47	-13	-29.47
1GHz to 18GHz	2240001+2241671	-20.00	-21.00	-17.46	-13	-4.46
	2259163+2260831	-20.70	-21.20	-17.93	-13	-4.93
	2276663+2278331	-20.80	-19.80	-17.26	-13	-4.26
18GHz to 37.575GHz	2240001+2241671	-41.30	-43.40	-39.21	-13	-26.21
	2259163+2260831	-42.20	-43.70	-39.88	-13	-26.88
	2276663+2278331	-24.10	-26.00	-21.94	-13	-8.94
40.025GHz to 50GHz	2240001+2241671	-28.35	-28.73	-25.52	-13	-12.52
	2259163+2260831	-28.12	-28.37	-25.24	-13	-12.24
	2276663+2278331	-28.87	-28.66	-25.76	-13	-12.76
50GHz to 75GHz	2240001+2241671	-48.08	-47.48	-44.75	-13	-31.75
	2259163+2260831	-47.66	-47.70	-44.67	-13	-31.67
	2276663+2278331	-47.73	-47.40	-44.55	-13	-31.55
75GHz to 110GHz	2240001+2241671	-54.42	-53.58	-50.97	-13	-37.97
	2259163+2260831	-52.74	-54.59	-50.56	-13	-37.56
	2276663+2278331	-54.87	-52.76	-50.68	-13	-37.68
110GHz to 140GHz	2240001+2241671	-51.39	-51.85	-48.60	-13	-35.60
	2259163+2260831	-51.93	-51.29	-48.59	-13	-35.59
	2276663+2278331	-51.93	-52.10	-49.00	-13	-36.00
140GHz to 170GHz	2240001+2241671	-53.68	-50.65	-48.90	-13	-35.90
	2259163+2260831	-53.31	-53.00	-50.14	-13	-37.14
	2276663+2278331	-53.81	-52.84	-50.29	-13	-37.29
170GHz to 200GHz	2240001+2241671	-59.75	-60.03	-56.87	-13	-43.87
	2259163+2260831	-60.11	-58.70	-56.34	-13	-43.34
	2276663+2278331	-58.18	-58.80	-55.47	-13	-42.47

4.5 Out-of-Band Emission at the Band Edge Measurement

4.5.1 Limits of Out-of Band Emission at the Band Edge Measurement

The conductive power or the total radiated power of any emission outside a licensee's frequency block shall be −13 dBm/MHz or lower. However, in the bands immediately outside and adjacent to the licensee's frequency block, having a bandwidth equal to 10 percent of the channel bandwidth, the conductive power or the total radiated power of any emission shall be −5 dBm/MHz or lower.

4.5.2 Test Instruments

Refer to section 4.2.3.

4.5.3 Test Procedures

a. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8m(below or equal 1GHz) and/or 1.5m(above 1GHz) height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum polar radiated power. The “Read Value” is the spectrum reading the maximum power value.
b. The substitution antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a TX cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to “Read Value” of step a. Record the power level of S.G.
c. EIRP = Output power level of S.G – TX cable loss + Antenna gain of substitution horn.
d. E.R.P power can be calculated form E.I.R.P power by subtracting the gain of dipole, E.R.P power = E.I.R.P power - 2.15dBi.
e. The requirements in 30.203 are expressed in terms of conductive power, and then conducted power will be calculated by EIRP-Array Gain.
f. Antenna Gain Information at the Band Edge :

   The following antenna gain information is provided to demonstrate the antenna performance of the 37~40 GHz band. These antenna gains were subtracted from the measured E.I.R.P levels at lower and upper band edge frequencies to determine an equivalent conductive power that was compared directly with the part 30.203 limits.

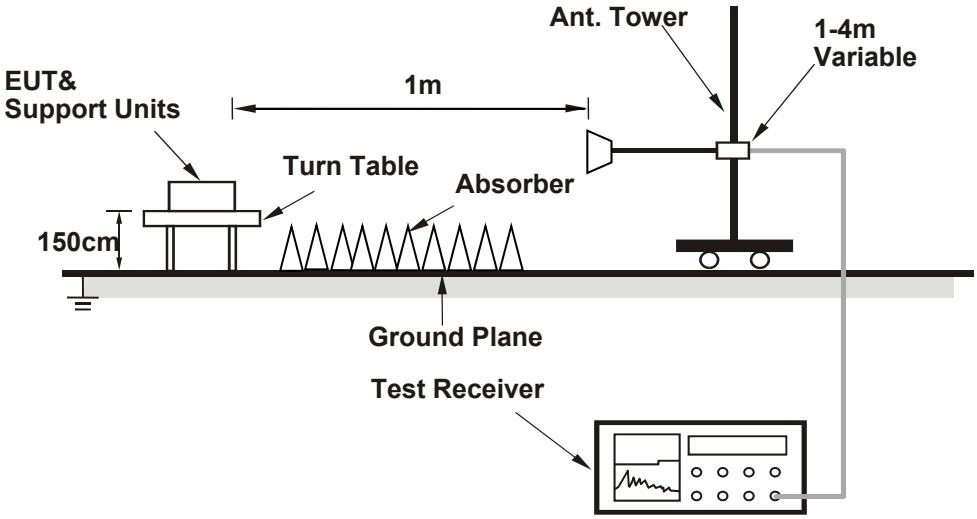
	Module 0		Module 1		Module 2	
n260	Beam 39	Beam 166	Beam 20	Beam 148	Beam 30	Beam 158
low	8.3dBi	7.4dBi	10.2dBi	9.7dBi	9.2dBi	9.9dBi
mid	9.1dBi	9.0dBi	9.3dBi	9.0dBi	10.0dBi	9.1dBi
high	8.5dBi	8.6dBi	9.0dBi	9.1dBi	8.4dBi	9.8dBi

Note: The resolution bandwidth of spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz.

4.5.4 Deviation from Test Standard

No deviation.

4.5.5 Test Set Up



For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.5.6 EUT Operating Conditions

a. Connected the Adapter to EUT.
b. Prepared notebook to act as communication partner and placed it outside of testing area.
c. The communication partner connected with EUT via a RJ45 cable and ran a test program (provided by manufacturer) to enable EUT under transmission condition continuously at specific channel frequency.
d. The communication partner sent data to EUT by command "PING".

4.5.7 Test Result

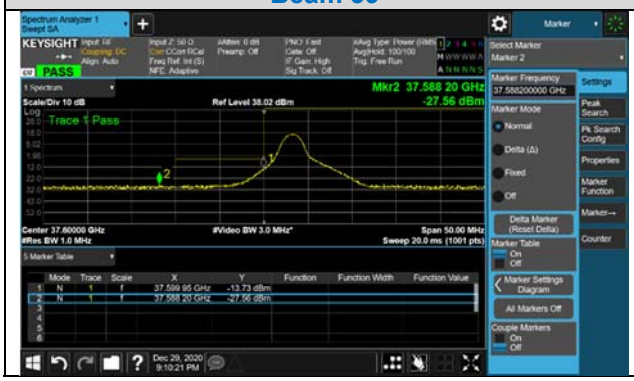
Channel 2240001+2241671							
QPSK / 1RB 0RB							
Beam ID	Frequency (GHz)	EIRP Value (dBm)	Array Gain (dBi)	Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
20	37.59995	-13.67	10.2	-23.87	-5	-18.870	Pass
	37.5853	-27.48	10.2	-37.68	-13	-24.680	Pass
30	37.5999	-13.94	9.2	-23.14	-5	-18.140	Pass
	37.58635	-27.95	9.2	-37.15	-13	-24.150	Pass
39	37.59995	-13.73	8.3	-22.03	-5	-17.030	Pass
	37.5882	-27.56	8.3	-35.86	-13	-22.860	Pass
20+148(Ver)	37.59995	-11.63	9.7	-21.33	-5	-16.330	Pass
	37.58865	-27.38	9.7	-37.08	-13	-24.080	Pass
20+148(Hor)	37.59985	-14.46	9.7	-24.16	-5	-19.160	Pass
	37.58832	-31.51	9.7	-41.21	-13	-28.210	Pass

Note: The Conducted Power = EIRP-Array Gain

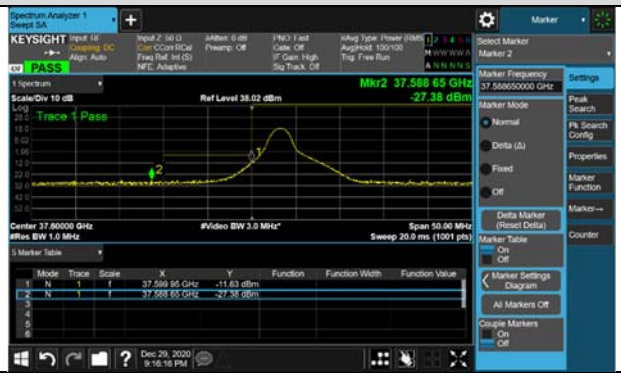
Beam 20

Beam 30

Beam 39



Beam20+148



Summary of MIMO Beam Out-of Band Emission at the Band Edge:
To address compliance of MIMO Out-of Band emission per KDB 662911 D01, the MIMO Out-of Band emission EIRP is calculated by summing the worst case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm.

Beam ID	Conducted Power for V Beam (dBm)	Conducted Power for H Beam (dBm)	Conducted Power for V+H Beam (dBm)	Limit(dBm)	Margin(dB)	Result
20+148	-21.33	-24.16	-19.51	-5	-14.508	Pass
	-37.08	-41.21	-35.66	-13	-22.661	Pass

Channel 2240001+2241671							
QPSK / Full RB							
Beam ID	Frequency (GHz)	EIRP Value (dBm)	Array Gain (dBi)	Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
20	37.5936	-27.43	10.2	-37.63	-5	-32.630	Pass
	37.58825	-27.39	10.2	-37.59	-13	-24.590	Pass
30	37.5949	-26.75	9.2	-35.95	-5	-30.950	Pass
	37.58455	-26.41	9.2	-35.61	-13	-22.610	Pass
39	37.5968	-27.45	8.3	-35.75	-5	-30.750	Pass
	37.5829	-27.31	8.3	-35.61	-13	-22.610	Pass
20+148(Ver)	37.59825	-25.78	9.7	-35.48	-5	-30.480	Pass
	37.58325	-27.11	9.7	-36.81	-13	-23.810	Pass
20+148(Hor)	37.59816	-28.2	9.7	-37.9	-5	-32.900	Pass
	37.58318	-31.56	9.7	-41.26	-13	-28.260	Pass

Note: The Conducted Power = EIRP-Array Gain

Beam 20

Beam 30

Beam 39

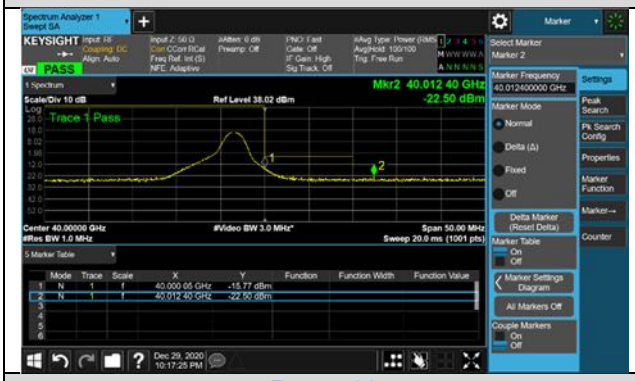
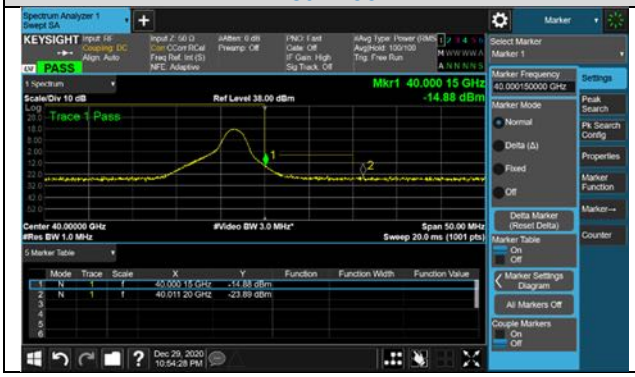
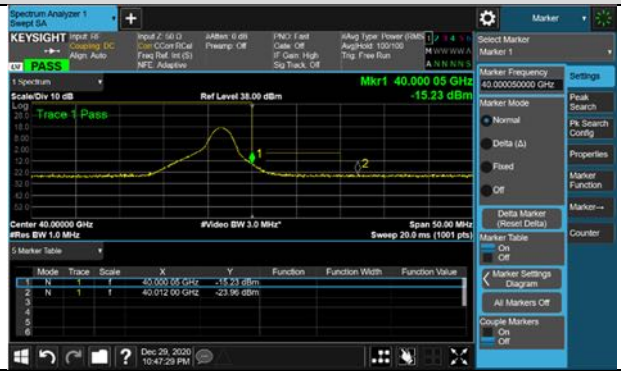
Beam20+148

Summary of MIMO Beam Out-of Band Emission at the Band Edge:
To address compliance of MIMO Out-of Band emission per KDB 662911 D01, the MIMO Out-of Band emission EIRP is calculated by summing the worst case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm.

Beam ID	Conducted Power for V Beam (dBm)	Conducted Power for H Beam (dBm)	Conducted Power for V+H Beam (dBm)	Limit(dBm)	Margin(dB)	Result
20+148	-35.48	-37.9	-33.51	-5	-28.513	Pass
	-36.81	-41.26	-35.48	-13	-22.478	Pass

Channel 2276663+2278331							
QPSK / 1RB 65RB							
Beam ID	Frequency (GHz)	EIRP Value (dBm)	Array Gain (dBi)	Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
20	40.00005	-15.77	9	-24.77	-5	-19.770	Pass
	40.0124	-22.5	9	-31.5	-13	-18.500	Pass
30	40.0001	-16.13	8.4	-24.53	-5	-19.530	Pass
	40.0113	-23.12	8.4	-31.52	-13	-18.520	Pass
39	40.00015	-14.88	8.5	-23.38	-5	-18.380	Pass
	40.0112	-23.89	8.5	-32.39	-13	-19.390	Pass
20+148(Ver)	40.00005	-15.23	9	-24.23	-5	-19.230	Pass
	40.012	-23.96	9	-32.96	-13	-19.960	Pass
20+148(Hor)	40.00023	-18.41	9	-27.41	-5	-22.410	Pass
	40.01236	-28.16	9	-37.16	-13	-24.160	Pass

Note: The Conducted Power = EIRP-Array Gain

Beam 20	Beam 30
	
Beam 39	**Beam20+148**
	

Summary of MIMO Beam Out-of Band Emission at the Band Edge:
To address compliance of MIMO Out-of Band emission per KDB 662911 D01, the MIMO Out-of Band emission EIRP is calculated by summing the worst case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm.

Beam ID	Conducted Power for V Beam (dBm)	Conducted Power for H Beam (dBm)	Conducted Power for V+H Beam (dBm)	Limit(dBm)	Margin(dB)	Result
20+148	-24.23	-27.41	-22.52	-5	-17.525	Pass
	-32.96	-37.16	-31.56	-13	-18.561	Pass

Channel 2276663+2278331							
QPSK / Full RB							
Beam ID	Frequency (GHz)	EIRP Value (dBm)	Array Gain (dBi)	Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
20	40.00135	-23.89	9	-32.89	-5	-27.890	Pass
	40.0141	-23.72	9	-32.72	-13	-19.720	Pass
30	40.00035	-23.62	8.4	-32.02	-5	-27.020	Pass
	40.0167	-22.9	8.4	-31.3	-13	-18.300	Pass
39	40.0047	-24	8.5	-32.5	-5	-27.500	Pass
	40.0112	-24.83	8.5	-33.33	-13	-20.330	Pass
20+148(Ver)	40.003	-23.54	9	-32.54	-5	-27.540	Pass
	40.0116	-23.75	9	-32.75	-13	-19.750	Pass
20+148(Hor)	40.00307	-27.29	9	-36.29	-5	-31.290	Pass
	40.011648	-28.16	9	-37.16	-13	-24.160	Pass

Note: The Conducted Power = EIRP-Array Gain

Beam 20	Beam 30
	
Beam 39	**Beam20+148**
	

Summary of MIMO Beam Out-of Band Emission at the Band Edge:
To address compliance of MIMO Out-of Band emission per KDB 662911 D01, the MIMO Out-of Band emission EIRP is calculated by summing the worst case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm.

Beam ID	Conducted Power for V Beam (dBm)	Conducted Power for H Beam (dBm)	Conducted Power for V+H Beam (dBm)	Limit(dBm)	Margin(dB)	Result
20+148	-32.54	-36.29	-31.01	-5	-26.012	Pass
	-32.75	-37.16	-31.41	-13	-18.407	Pass

4.6 Frequency Stability Measurement

4.6.1 Limits of Frequency Stability Measurement

The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency band.

4.6.2 Test Procedure

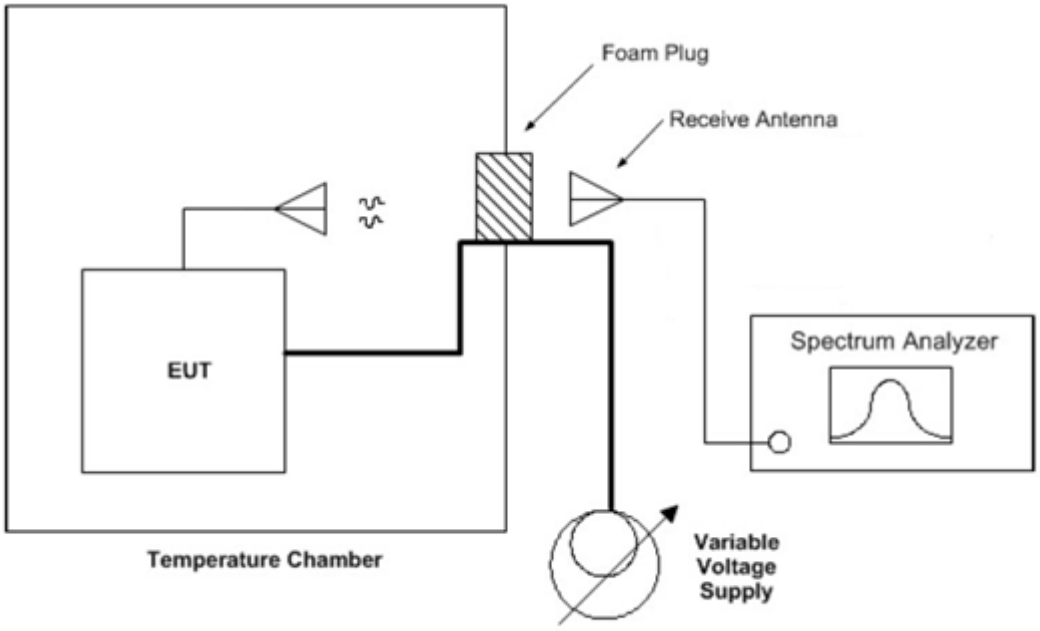
b. Device is placed at the oven room. The oven room could control the temperatures and humidity. Power warm up is at least 15 min and power applied should perform before recording frequency error.

c. EUT is connected the external power supply to control the DC input power. The test voltage range is from minimum to maximum working voltage. Each step shall be record the frequency error rate.

d. The temperature range step is 10 degrees in this test items. All temperature levels shall be hold the ±0.5 ℃ during the measurement testing. The each temperature step shall be at least 0.5 hours, consider the EUT could be test under the stability condition.

Note: The frequency error was recorded from the communication simulator.

4.6.3 Test Setup



4.6.4 Test Result

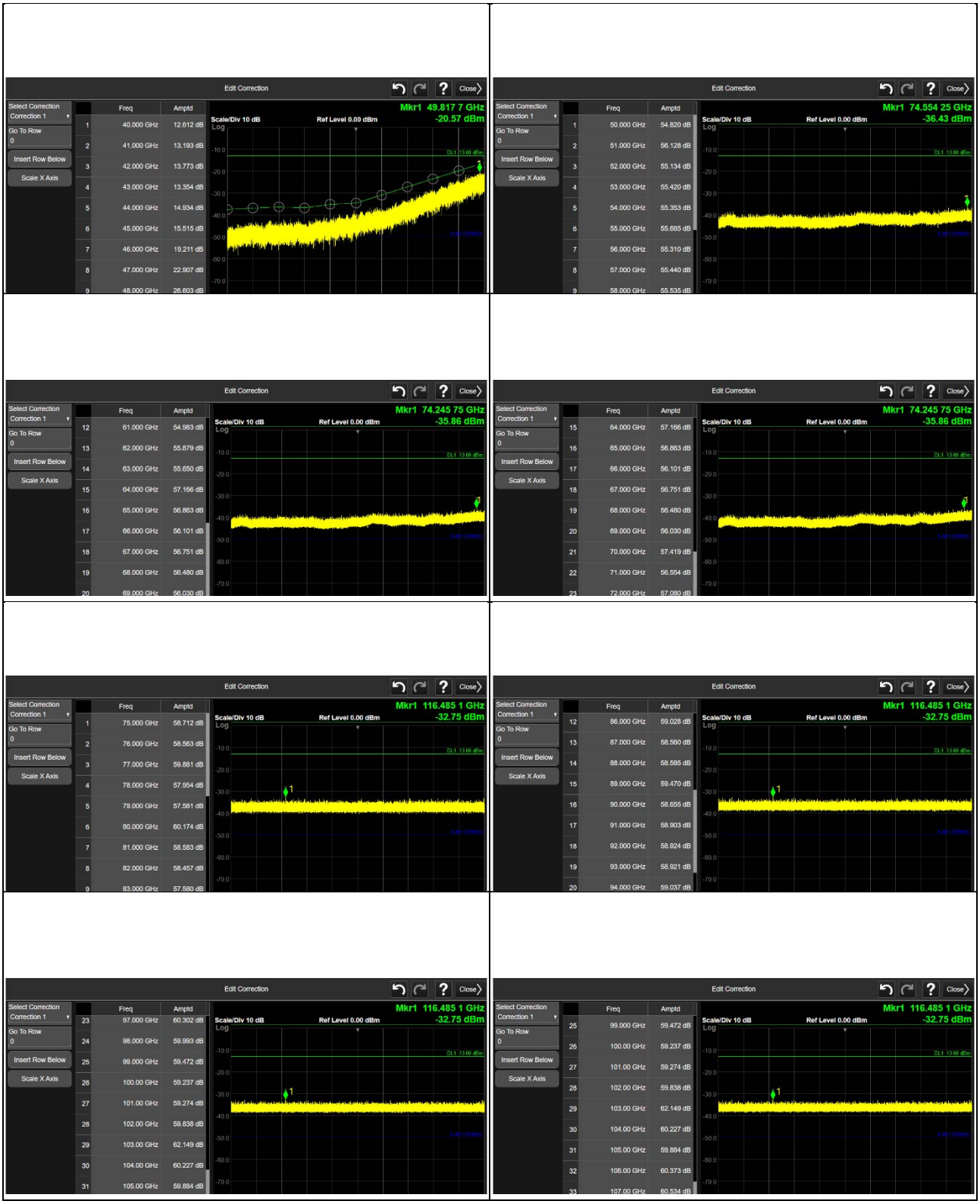
Frequency Stability Versus Temp.				
TEMP. (℃)	**Power Supply (Vdc)**	**Measured Frequency (MHz)**	**FT, ppm**	**Pass/Fail**
-30	3.85	38860.101000	0.0003	Pass
-20	3.85	38860.090140	0.0003	Pass
-10	3.85	38860.074300	0.0003	Pass
0	3.85	38860.063200	0.0003	Pass
10	3.85	38860.082300	0.0003	Pass
20	3.85	38860.080000	0.0003	Pass
30	3.85	38859.930200	0.0003	Pass
40	3.85	38859.702300	0.0003	Pass
50	3.85	38859.714860	0.0003	Pass

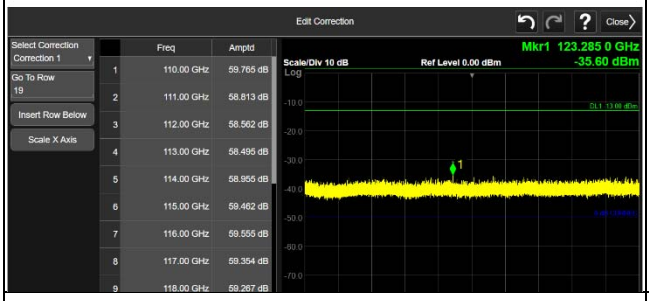
Frequency Stability Versus Voltage				
TEMP. (℃)	**Power Supply (Vdc)**	**Measured Frequency (MHz)**	**FT, ppm**	**Pass/Fail**
20	4.4	38860.340000	0.0003	Pass
	3.85	38860.080000	0.0003	Pass
	3.4	38860.083200	0.0003	Pass

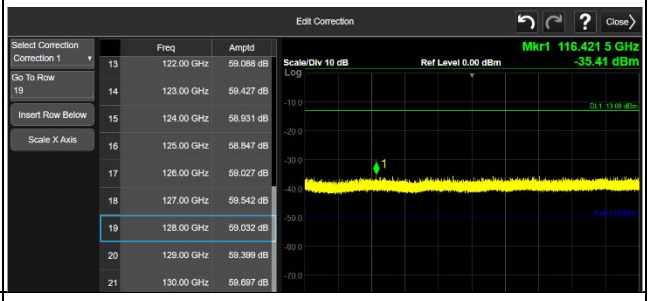
5 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo).

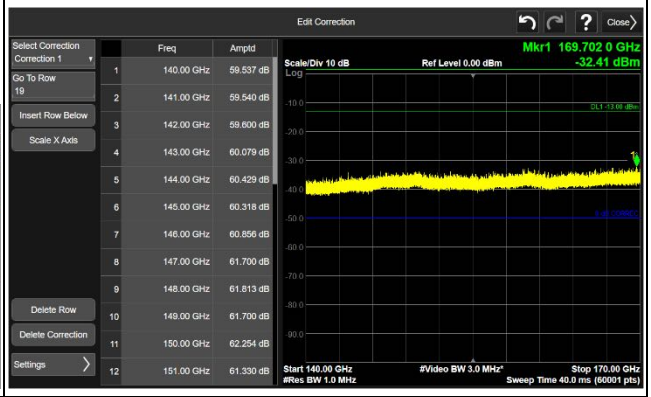
Annex A- Factor to 200GHz

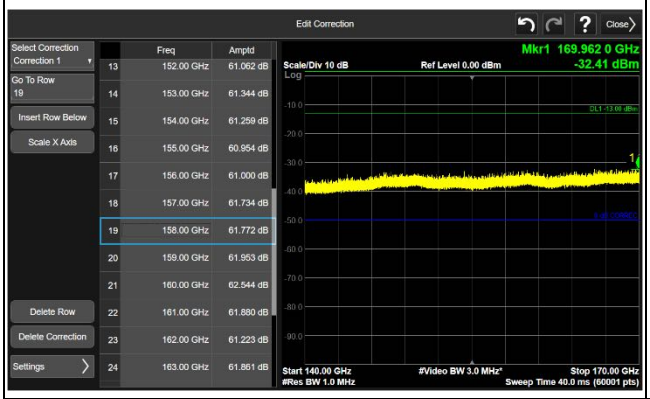


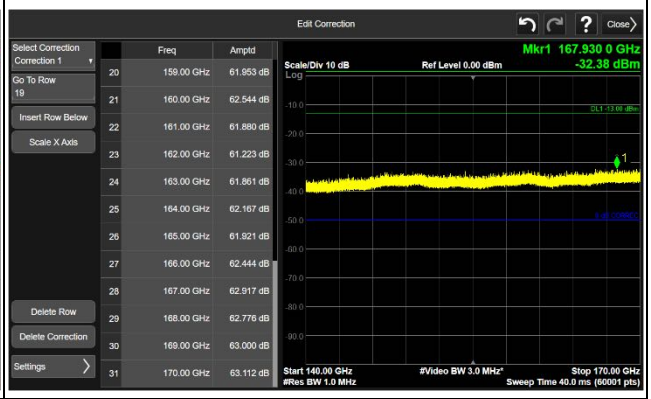

Edit Correction
Close
Select Correction
Correction 1
Go To Row
19
Insert Row Below
Scale X Axis
Freq
Amptd
1 110.00 GHz 59.765 dB
2 111.00 GHz 58.813 dB
3 112.00 GHz 58.562 dB
4 113.00 GHz 58.495 dB
5 114.00 GHz 58.955 dB
6 115.00 GHz 59.462 dB
7 116.00 GHz 59.555 dB
8 117.00 GHz 59.354 dB
9 118.00 GHz 59.267 dB
Mkr1 123.285 0 GHz
Scale/Div 10 dB
Ref Level 0.00 dBm
-35.60 dBm
Log


Edit Correction
Close
Select Correction
Correction 1
Go To Row
19
Insert Row Below
Scale X Axis
Freq
Amptd
13 122.00 GHz 59.088 dB
14 123.00 GHz 59.427 dB
15 124.00 GHz 58.931 dB
16 125.00 GHz 58.847 dB
17 126.00 GHz 59.027 dB
18 127.00 GHz 59.542 dB
19 128.00 GHz 59.032 dB
20 129.00 GHz 59.399 dB
21 130.00 GHz 59.697 dB
Mkr1 116.421 5 GHz
Scale/Div 10 dB
Ref Level 0.00 dBm
-35.41 dBm
Log

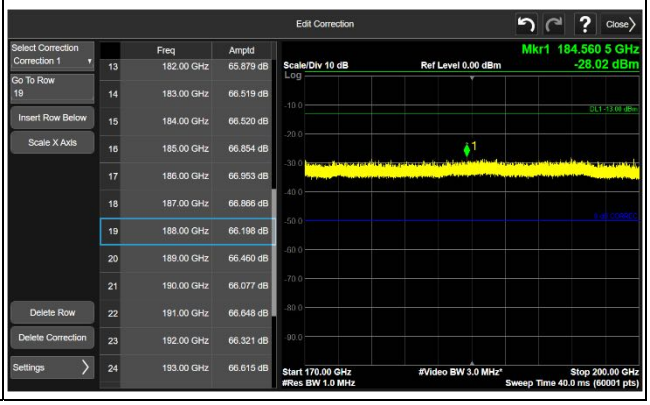

Edit Correction
Close
Select Correction
Correction 1
Go To Row
19
Insert Row Below
Scale X Axis
Freq
Amptd
20 129.00 GHz 59.399 dB
21 130.00 GHz 59.697 dB
22 131.00 GHz 59.228 dB
23 132.00 GHz 59.314 dB
24 133.00 GHz 59.315 dB
25 134.00 GHz 59.346 dB
26 135.00 GHz 59.413 dB
27 136.00 GHz 59.566 dB
28 137.00 GHz 59.820 dB
Mkr1 135.830 5 GHz
Scale/Div 10 dB
Ref Level 0.00 dBm
-35.35 dBm
Log


Edit Correction
Close
Select Correction
Correction 1
Go To Row
19
Insert Row Below
Scale X Axis
Delete Row
Delete Correction
Settings
Freq
Amptd
1 140.00 GHz 59.537 dB
2 141.00 GHz 59.540 dB
3 142.00 GHz 59.600 dB
4 143.00 GHz 60.079 dB
5 144.00 GHz 60.429 dB
6 145.00 GHz 60.318 dB
7 146.00 GHz 60.856 dB
8 147.00 GHz 61.700 dB
9 148.00 GHz 61.813 dB
10 149.00 GHz 61.700 dB
11 150.00 GHz 62.254 dB
12 151.00 GHz 61.330 dB
Mkr1 169.702 0 GHz
Scale/Div 10 dB
Ref Level 0.00 dBm
-32.41 dBm
Log
Start 140.00 GHz
#Res BW 1.0 MHz
#Video BW 3.0 MHz*
Stop 170.00 GHz
Sweep Time 40.0 ms (60001 pts)


Edit Correction
Close
Select Correction
Correction 1
Go To Row
19
Insert Row Below
Scale X Axis
Delete Row
Delete Correction
Settings
Freq
Amptd
13 152.00 GHz 61.062 dB
14 153.00 GHz 61.344 dB
15 154.00 GHz 61.259 dB
16 155.00 GHz 60.954 dB
17 156.00 GHz 61.000 dB
18 157.00 GHz 61.734 dB
19 158.00 GHz 61.772 dB
20 159.00 GHz 61.953 dB
21 160.00 GHz 62.544 dB
22 161.00 GHz 61.880 dB
23 162.00 GHz 61.223 dB
24 163.00 GHz 61.861 dB
Mkr1 169.962 0 GHz
Scale/Div 10 dB
Ref Level 0.00 dBm
-32.41 dBm
Log
Start 140.00 GHz
#Res BW 1.0 MHz
#Video BW 3.0 MHz*
Stop 170.00 GHz
Sweep Time 40.0 ms (60001 pts)


Edit Correction
Close
Select Correction
Correction 1
Go To Row
19
Insert Row Below
Scale X Axis
Delete Row
Delete Correction
Settings
Freq
Amptd
20 159.00 GHz 61.953 dB
21 160.00 GHz 62.544 dB
22 161.00 GHz 61.880 dB
23 162.00 GHz 61.223 dB
24 163.00 GHz 61.861 dB
25 164.00 GHz 62.167 dB
26 165.00 GHz 61.921 dB
27 166.00 GHz 62.444 dB
28 167.00 GHz 62.917 dB
29 168.00 GHz 62.776 dB
30 169.00 GHz 63.000 dB
31 170.00 GHz 63.112 dB
Mkr1 167.930 0 GHz
Scale/Div 10 dB
Ref Level 0.00 dBm
-32.38 dBm
Log
Start 140.00 GHz
#Res BW 1.0 MHz
#Video BW 3.0 MHz*
Stop 170.00 GHz
Sweep Time 40.0 ms (60001 pts)


Edit Correction
Close
Select Correction
Correction 1
Go To Row
1
Insert Row Below
Scale X Axis
Delete Row
Delete Correction
Settings
Freq
Amptd
1 170.00 GHz 66.640 dB
2 171.00 GHz 65.874 dB
3 172.00 GHz 65.642 dB
4 173.00 GHz 66.505 dB
5 174.00 GHz 65.999 dB
6 175.00 GHz 65.998 dB
7 176.00 GHz 66.175 dB
8 177.00 GHz 66.095 dB
9 178.00 GHz 65.829 dB
10 179.00 GHz 65.941 dB
11 180.00 GHz 66.187 dB
12 181.00 GHz 66.184 dB
Mkr1 187.077 5 GHz
Scale/Div 10 dB
Ref Level 0.00 dBm
-27.64 dBm
Log
Start 170.00 GHz
#Res BW 1.0 MHz
#Video BW 3.0 MHz*
Stop 200.00 GHz
Sweep Time 40.0 ms (60001 pts)


Edit Correction
Close
Select Correction
Correction 1
Go To Row
19
Insert Row Below
Scale X Axis
Delete Row
Delete Correction
Settings
Freq
Amptd
13 182.00 GHz 65.879 dB
14 183.00 GHz 66.519 dB
15 184.00 GHz 66.520 dB
16 185.00 GHz 66.854 dB
17 186.00 GHz 66.953 dB
18 187.00 GHz 66.866 dB
19 188.00 GHz 66.198 dB
20 189.00 GHz 66.460 dB
21 190.00 GHz 66.077 dB
22 191.00 GHz 66.648 dB
23 192.00 GHz 66.321 dB
24 193.00 GHz 66.615 dB
Mkr1 184.560 5 GHz
Scale/Div 10 dB
Ref Level 0.00 dBm
-28.02 dBm
Log
Start 170.00 GHz
#Res BW 1.0 MHz
#Video BW 3.0 MHz*
Stop 200.00 GHz
Sweep Time 40.0 ms (60001 pts)


Edit Correction
Close
Select Correction
Correction 1
Go To Row
19
Insert Row Below
Scale X Axis
Delete Row
Delete Correction
Settings
Freq
Ampld
20 189.00 GHz 66.460 dB
21 190.00 GHz 66.077 dB
22 191.00 GHz 66.648 dB
23 192.00 GHz 66.321 dB
24 193.00 GHz 66.615 dB
25 194.00 GHz 66.788 dB
26 195.00 GHz 66.839 dB
27 196.00 GHz 65.665 dB
28 197.00 GHz 65.622 dB
29 198.00 GHz 65.800 dB
30 199.00 GHz 65.745 dB
31 200.00 GHz 65.219 dB
Mkr1 184.560 5 GHz
-28.02 dBm
Scale/Div 10 dB
Ref Level 0.00 dBm
Log
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
Start 170.00 GHz
#Res BW 1.0 MHz
#Video BW 3.0 MHz*
Stop 200.00 GHz
Sweep Time 40.0 ms (60001 pts)

Appendix – Information of the Testing Laboratories

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are FCC recognized accredited test firms and accredited according to ISO/IEC 17025.

FCC accreditation scope:

Web Site:
https://apps.fcc.gov/oetcf/eas/reports/ViewTestFirmAccredScopes.cfm?calledFromFrame=N&RequestTimeout=500&regnum_specified=N&test_firm_id=7635

Scope	FCC Rule Parts	Maximum Assessed Frequency in Mhz	Status	Expiration Date	Recognition Date
Intentional Radiators	FCC Part 15 Subpart C	300000.00	Approved	08-10-2022	08-11-2020
U-NII without DFS Intentional Radiators	FCC Part 15, Subpart E	300000.00	Approved	08-10-2022	08-11-2020
U-NII with DFS Intentional Radiators	FCC Part 15, Subpart E	300000.00	Approved	08-10-2022	08-11-2020
UWB Intentional Radiators	FCC Part 15, Subpart F	300000.00	Approved	08-10-2022	08-11-2020
BPL Intentional Radiators	FCC Part 15, Subpart G	300000.00	Approved	08-10-2022	08-11-2020
White Space Device Intentional Radiators	FCC Part 15, Subpart H	300000.00	Approved	08-10-2022	08-11-2020
Commercial Mobile Services	Part 22 (cellular), Part 24, Part 25 (below 3 GHz), Part 27	300000.00	Approved	08-10-2022	08-11-2020
General Mobile Radio Services	Part 22 (non-cellular), Part 90 (below 3 GHz), Part 95 (below 3 GHz), Part 97 (below 3 GHz),Part 101 (below 3 GHz)	300000.00	Approved	08-10-2022	08-11-2020
Citizens Broadband Radio Services	Part 96	300000.00	Approved	08-10-2022	08-11-2020
Maritime and Aviation Radio Services	Part 80, Part 87	300000.00	Approved	08-10-2022	08-11-2020
Microwave and Millimeter Bands Radio Services	Part 25 (above 3 GHz), Part 30, Part 74, Part 90 (above 3 GHz), Part 95 (above 3 GHz), Part 97 (above 3 GHz) Part 101	300000.00	Approved	08-10-2022	08-11-2020
RF Exposure		6000.00	Approved	08-10-2022	08-11-2020
Hearing Aid Compatibility	Part 20	6000.00	Approved	08-10-2022	08-11-2020
Signal Boosters	Part 20, Part 90.219	300000.00	Approved	08-10-2022	08-11-2020

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Web Site: www.bureauveritas-adt.com

The address and road map of all our labs can be found in our web site also.

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