

FCC Test Report (Part 30)

Report No.: RF191031C08-2

FCC ID: PY319400469

Test Model: MR5100

Received Date: Nov. 04, 2019

Test Date: Dec. 11, 2019 ~ May 12, 2020

Issued Date: May 13, 2020

Applicant: Netgear, Inc.

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Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
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FCC Registration / 788550 / TW0003

Designation Number:



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Release Control Record

Issue No.	Description	Date Issued
RF191031C08-2	Original release.	May 13, 2020

1 Certificate of Conformity

Product: 5G MHS Travel Router

Brand: NETGEAR

Test Model: MR5100

Sample Status: ENGINEERING SAMPLE

Applicant: Netgear, Inc.

Test Date: Dec. 11, 2019 ~ May 12, 2020

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:** May 13, 2020
Pettie Chen / Senior Specialist

Approved by : Dylan Chiou , **Date:** May 13, 2020
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 -13.0dB at 17847.00GHz.
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
Supported Carrier Component	1CC
Max. E.I.R.P. Power (RMS)	24.25dBm
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	<p>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.</p> <p>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.</p>

Note:

1. 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.

2. 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

3. The worst beam ID:

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

The worst beams are defined from the EIRP simulation report.

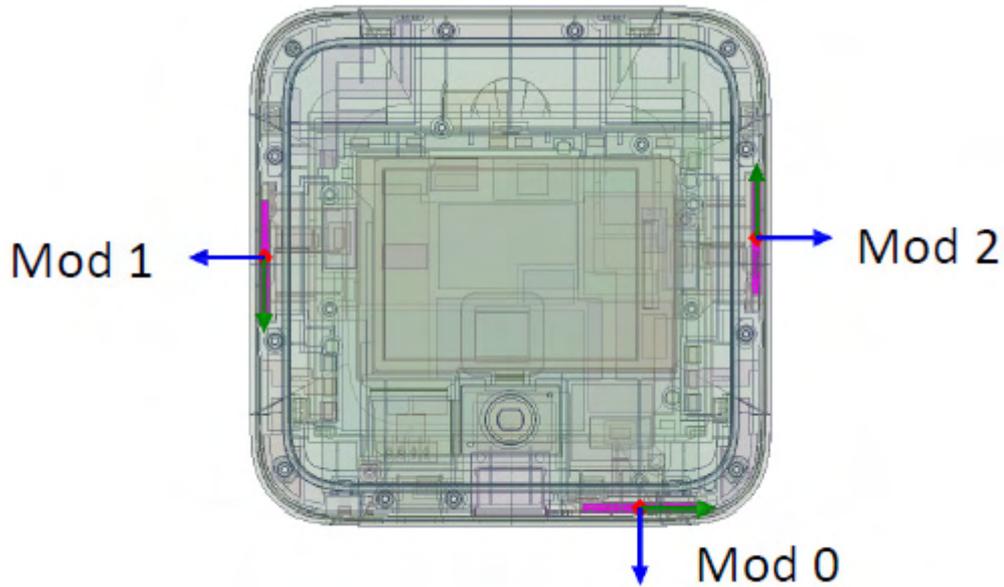
These modes were investigated and the worst case scenario was identified. The worst case data were presented in test report.

4. 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

5. 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.

6. <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	

3.2.1 Test Mode Applicability and Tested Channel Detail

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

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

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
M	QPSK / 16QAM / 64QAM	Full RB

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
L, M, H	QPSK	1RB / 32RB offset

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
L, M, H	QPSK	1RB / 32RB offset

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
L	QPSK	1RB / 0RB offset Full RB
H	QPSK	1RB / 65RB offset Full RB

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
L, M, H	QPSK / 16QAM / 64QAM	1RB / 0RB offset 1RB / 32RB offset 1RB / 65RB offset Full RB

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
M	QPSK	-

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
L, M, H	QPSK / 16QAM / 64QAM	1RB / 32RB offset Full RB

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
FS	25deg. C, 65%RH	120Vac, 60Hz	Leo Tsai
EB	25deg. C, 65%RH	120Vac, 60Hz	Leo Tsai
RE \geq 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

3.3 Duty Cycle of Test Signal

Duty cycle of test signal is 100 %.



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.

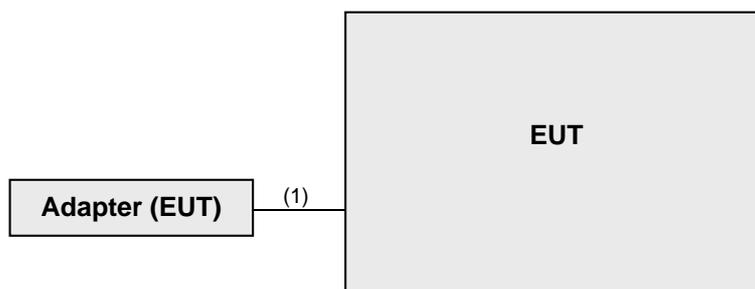
ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Notebook	Lenovo	81A4	YD02TWF5	FCC DoC Approved	-

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.

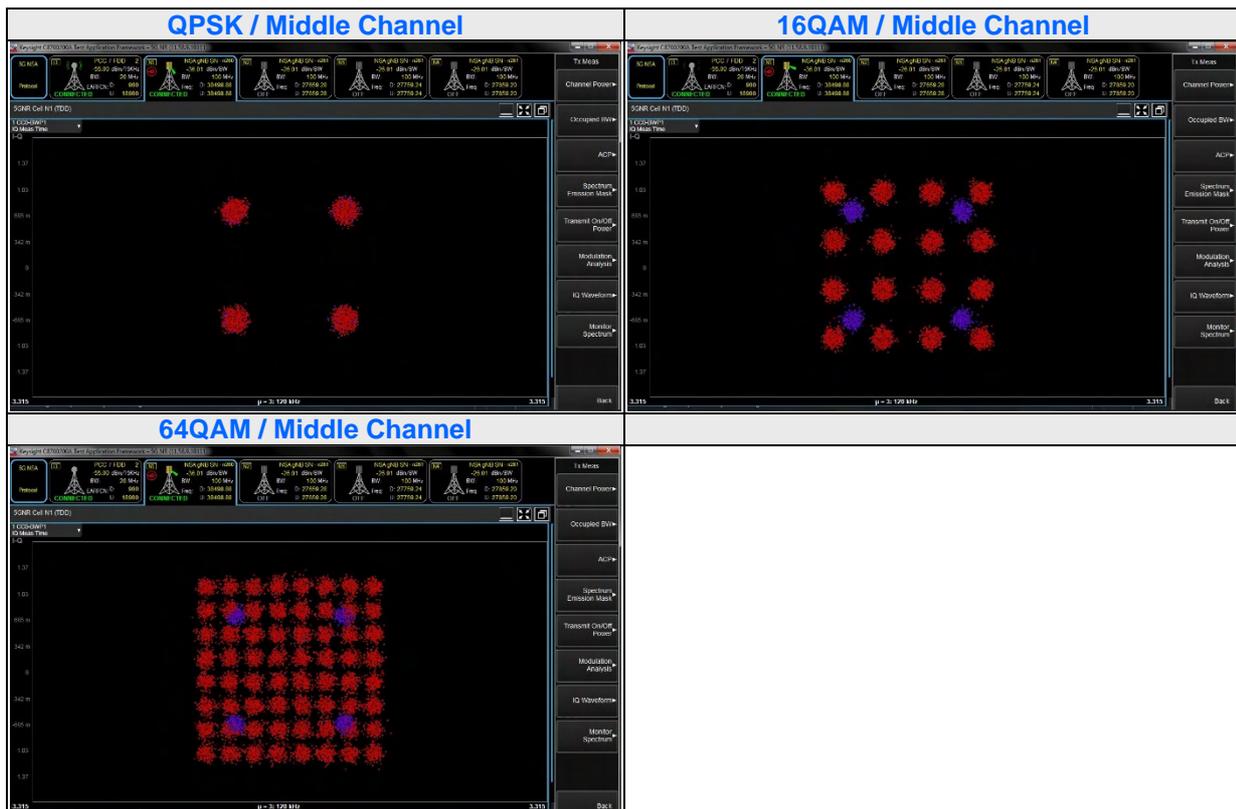
4 Test Types and Results

4.1 Modulation characteristics

4.1.1 Limits of Modulation characteristics

N/A

4.1.2 Test Result



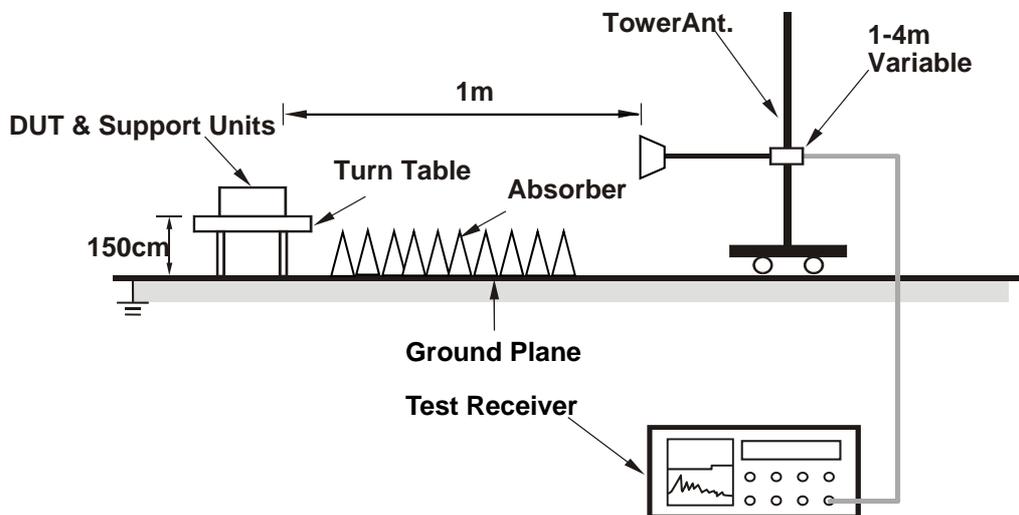
4.2 Equivalent Isotropic Radiated Power (EIRP) Measurement

4.2.1 Limits of EIRP Measurement

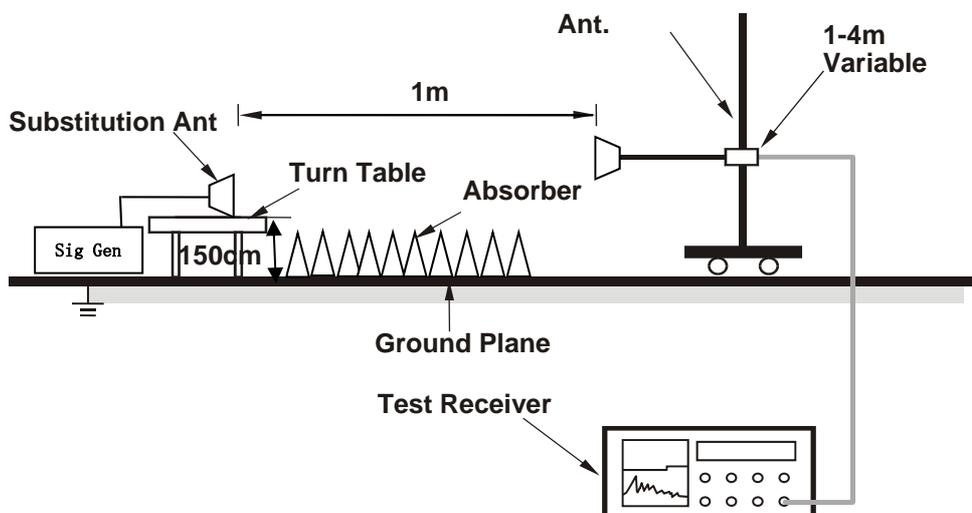
Device		Maximum Limit of EIRP
<input type="checkbox"/>	Fixed and Base Stations	EIRP 75dBm/100MHz (sum of all antenna elements)
<input checked="" type="checkbox"/>	Mobile Stations	EIRP 43dBm (sum of all antenna elements)
<input type="checkbox"/>	Transportable Stations	EIRP 55dBm (sum of all antenna elements)

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 Stability

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver ROHDE & SCHWARZ	ESIB7	100187	May 30, 2019	May 29, 2020
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100040	Sep. 23, 2019	Sep. 22, 2020
Spectrum Analyzer KEYSIGHT	N9030A	MY54490561	Jul. 31, 2019	Jul. 30, 2020
Spectrum Analyzer KEYSIGHT	N9030B	MY57140953	Jun. 28, 2019	Jun. 27, 2020
*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. 11, 2019	Nov. 10, 2020
HORN Antenna SCHWARZBECK	BBHA 9120D	9120D-1170	Nov. 24, 2019	Nov. 23, 2020
HORN Antenna ETS	3117	00034126	Nov. 24, 2019	Nov. 23, 2020
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Nov. 24, 2019	Nov. 23, 2020
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170243	Nov. 24, 2019	Nov. 23, 2020
Signal Generator	N5173B	MY53270724	Apr. 07, 2019 Apr. 01, 2020	Apr. 06, 2020 Mar. 31, 2021
Preamplifier (Below 1GHz) Agilent	8447D	2944A10631	Jul. 11, 2019	Jul. 10, 2020
Preamplifier (1GHz-18GHz) KEYSIGHT	83017A	MY53270295	Jun. 11, 2019	Jun. 10, 2020
Pre-amplifier (18GHz-40GHz) EMC	EMC184045B	980116	Oct. 08, 2019	Oct. 07, 2020
RF signal cable HUBER+SUHNER	SUCOFLEX 104	MY 13380+295012/04	Jul. 11, 2019	Jul. 10, 2020
RF signal cable HUBER+SUHNER	SUCOFLEX 104	Cable-CH4-03 (250724)	Jul. 11, 2019	Jul. 10, 2020
RF signal cable HUBER+SUHNER	EMC102-KM-KM-600	150928	Aug. 20, 2019	Aug. 19, 2020
RF signal cable HUBER+SUHNER	EMC102-KM-KM-3000	150929	Aug. 20, 2019	Aug. 19, 2020
RF signal cable Rosnal	K1K50-UP0279-K1K50-3000	181129-1	Oct. 08, 2019	Oct. 07, 2020
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. 03, 2019	Jun. 02, 2020

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
JFW 20dB attenuation	50HF-020-SMA	NA	NA	NA
True RMS Clamp Meter Fluke	325	31130711WS	May 21, 2019	May 20, 2020

- 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	MY54490561	Jul. 31, 2019	Jul. 30, 2020
*Horn Antenna (33~55GHz) OML	M22RH	110215-1	Oct. 17, 2017	Oct. 16, 2020
*Horn Antenna (50~75GHz) OML	M15HWD	110215-1	Oct. 17, 2017	Oct. 16, 2020
*Horn Antenna (75~110GHz) OML	M10RH	110215-1	Oct. 17, 2017	Oct. 16, 2020
*Horn Antenna (110~170GHz) OML	M06RH	110215-1	Oct. 17, 2017	Oct. 16, 2020
*Horn Antenna (140~220GHz) OML	M05RH	110215-1	Oct. 17, 2017	Oct. 16, 2020
*Harmonic Mixer (110~170GHz) OML	M06HWD	110215-1	Oct. 17, 2017	Oct. 16, 2020
*Harmonic Mixer (140~220GHz) OML	M05HWD	110215-1	Oct. 17, 2017	Oct. 16, 2020
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	CoC	CoC
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 051	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	June 21, 2019	June 20, 2020
Antenna Tower & Turn Table CT	NA	NA	NA	NA

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
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:

$$R \geq (2D^2) / \text{wavelength.}$$

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 $\geq 3 \times$ RBW.
- c. Set spectrum analyzer detection mode to RMS
- d. Span = 2x to 3x the OBW
- e. No. of sweep points $\geq 2 \times$ 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)
2239997	37649.88	1RB0	-36.29	8.42	10.47	18.89	43.00	-24.11
		1RB32	-35.21	9.51	10.47	19.98	43.00	-23.02
		1RB65	-36.27	8.45	10.47	18.92	43.00	-24.08
		Full RB	-36.24	8.48	10.47	18.95	43.00	-24.05
2259997	38849.88	1RB0	-35.45	9.58	9.43	19.01	43.00	-23.99
		1RB32	-34.23	10.61	9.43	20.04	43.00	-22.96
		1RB65	-35.17	9.67	9.43	19.10	43.00	-23.90
		Full RB	-35.28	9.56	9.43	18.99	43.00	-24.01
2278331	39949.92	1RB0	-37.43	9.41	9.51	18.92	43.00	-24.08
		1RB32	-36.26	10.50	9.51	20.01	43.00	-22.99
		1RB65	-37.02	9.74	9.51	19.25	43.00	-23.75
		Full RB	-37.45	9.31	9.51	18.82	43.00	-24.18

Remarks:

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

16QAM

Channel No.	Freq. (MHz)	RB Condition	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
2239997	37649.88	1RB0	-37.27	7.45	10.47	17.92	43.00	-25.08
		1RB32	-36.27	8.45	10.47	18.92	43.00	-24.08
		1RB65	-37.30	7.42	10.47	17.89	43.00	-25.11
		Full RB	-37.32	7.40	10.47	17.87	43.00	-25.13
2259997	38849.88	1RB0	-36.26	8.58	9.43	18.01	43.00	-24.99
		1RB32	-35.23	9.61	9.43	19.04	43.00	-23.96
		1RB65	-36.16	8.68	9.43	18.11	43.00	-24.89
		Full RB	-36.38	8.46	9.43	17.89	43.00	-25.11
2278331	39949.92	1RB0	-38.35	8.41	9.51	17.92	43.00	-25.08
		1RB32	-37.27	9.49	9.51	19.00	43.00	-24.00
		1RB65	-38.12	8.64	9.51	18.15	43.00	-24.85
		Full RB	-38.38	8.38	9.51	17.89	43.00	-25.11

Remarks:

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

64QAM

Channel No.	Freq. (MHz)	RB Condition	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
2239997	37649.88	1RB0	-39.07	5.65	10.47	16.12	43.00	-26.88
		1RB32	-37.64	7.08	10.47	17.55	43.00	-25.45
		1RB65	-38.90	5.82	10.47	16.29	43.00	-26.71
		Full RB	-39.09	5.63	10.47	16.10	43.00	-26.90
2259997	38849.88	1RB0	-37.96	6.88	9.43	16.31	43.00	-26.69
		1RB32	-36.93	7.91	9.43	17.34	43.00	-25.66
		1RB65	-37.84	7.00	9.43	16.43	43.00	-26.57
		Full RB	-38.08	6.76	9.43	16.19	43.00	-26.81
2278331	39949.92	1RB0	-39.95	6.81	9.51	16.32	43.00	-26.68
		1RB32	-38.86	7.90	9.51	17.41	43.00	-25.59
		1RB65	-39.78	6.98	9.51	16.49	43.00	-26.51
		Full RB	-39.98	6.78	9.51	16.29	43.00	-26.71

Remarks:

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

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)
2239997	37649.88	1RB0	-36.28	8.43	10.47	18.90	43.00	-24.10
		1RB32	-35.28	9.44	10.47	19.91	43.00	-23.09
		1RB65	-36.14	8.58	10.47	19.05	43.00	-23.95
		Full RB	-36.18	8.54	10.47	19.01	43.00	-23.99
2259997	38849.88	1RB0	-35.45	9.58	9.43	19.01	43.00	-23.99
		1RB32	-34.25	10.59	9.43	20.02	43.00	-22.98
		1RB65	-35.11	9.73	9.43	19.16	43.00	-23.84
		Full RB	-35.15	9.69	9.43	19.12	43.00	-23.88
2278331	39949.92	1RB0	-37.38	9.46	9.51	18.97	43.00	-24.03
		1RB32	-36.29	10.47	9.51	19.98	43.00	-23.02
		1RB65	-37.17	9.59	9.51	19.10	43.00	-23.90
		Full RB	-37.19	9.57	9.51	19.08	43.00	-23.92

Remarks:

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

16QAM

Channel No.	Freq. (MHz)	RB Condition	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
2239997	37649.88	1RB0	-36.99	7.73	10.47	18.20	43.00	-24.80
		1RB32	-36.28	8.44	10.47	18.91	43.00	-24.09
		1RB65	-37.07	7.65	10.47	18.12	43.00	-24.88
		Full RB	-37.08	7.64	10.47	18.11	43.00	-24.89
2259997	38849.88	1RB0	-36.26	8.58	9.43	18.01	43.00	-24.99
		1RB32	-35.25	9.59	9.43	19.02	43.00	-23.98
		1RB65	-36.11	8.73	9.43	18.16	43.00	-24.84
		Full RB	-36.22	8.62	9.43	18.05	43.00	-24.95
2278331	39949.92	1RB0	-38.28	8.48	9.51	17.99	43.00	-25.01
		1RB32	-37.28	9.48	9.51	18.99	43.00	-24.01
		1RB65	-38.15	8.61	9.51	18.12	43.00	-24.88
		Full RB	-38.19	8.57	9.51	18.08	43.00	-24.92

Remarks:

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

64QAM

Channel No.	Freq. (MHz)	RB Condition	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
2239997	37649.88	1RB0	-38.38	6.34	10.47	16.81	43.00	-26.19
		1RB32	-37.78	6.94	10.47	17.41	43.00	-25.59
		1RB65	-38.29	6.43	10.47	16.90	43.00	-26.10
		Full RB	-38.41	6.31	10.47	16.78	43.00	-26.22
2259997	38849.88	1RB0	-37.42	7.42	9.43	16.85	43.00	-26.15
		1RB32	-36.95	7.89	9.43	17.32	43.00	-25.68
		1RB65	-37.42	7.42	9.43	16.85	43.00	-26.15
		Full RB	-37.48	7.36	9.43	16.79	43.00	-26.21
2278331	39949.92	1RB0	-40.02	6.74	9.51	16.25	43.00	-26.75
		1RB32	-39.05	7.71	9.51	17.22	43.00	-25.78
		1RB65	-39.58	7.18	9.51	16.69	43.00	-26.31
		Full RB	-39.66	7.10	9.51	16.61	43.00	-26.39

Remarks:

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

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)
2239997	37649.88	1RB0	-34.52	10.20	10.47	20.67	43.00	-22.33
		1RB32	-33.68	11.04	10.47	21.51	43.00	-21.49
		1RB65	-34.31	10.41	10.47	20.88	43.00	-22.12
		Full RB	-34.75	9.97	10.47	20.44	43.00	-22.56
2259997	38849.88	1RB0	-33.46	11.38	9.43	20.81	43.00	-22.19
		1RB32	-32.55	12.29	9.43	21.72	43.00	-21.28
		1RB65	-33.25	11.59	9.43	21.02	43.00	-21.98
		Full RB	-33.79	11.05	9.43	20.48	43.00	-22.52
2278331	39949.92	1RB0	-35.56	11.20	9.51	20.71	43.00	-22.29
		1RB32	-34.59	12.17	9.51	21.68	43.00	-21.32
		1RB65	-35.35	11.41	9.51	20.92	43.00	-22.08
		Full RB	-35.87	10.89	9.51	20.40	43.00	-22.6

Remarks:

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

16QAM

Channel No.	Freq. (MHz)	RB Condition	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
2239997	37649.88	1RB0	-35.49	9.23	10.47	19.70	43.00	-23.30
		1RB32	-34.58	10.14	10.47	20.61	43.00	-22.39
		1RB65	-35.3	9.42	10.47	19.89	43.00	-23.11
		Full RB	-35.69	9.03	10.47	19.50	43.00	-23.50
2259997	38849.88	1RB0	-34.45	10.39	9.43	19.82	43.00	-23.18
		1RB32	-33.58	11.26	9.43	20.69	43.00	-22.31
		1RB65	-34.26	10.58	9.43	20.01	43.00	-22.99
		Full RB	-34.75	10.09	9.43	19.52	43.00	-23.48
2278331	39949.92	1RB0	-36.56	10.20	9.51	19.71	43.00	-23.29
		1RB32	-35.67	11.09	9.51	20.60	43.00	-22.40
		1RB65	-36.37	10.39	9.51	19.90	43.00	-23.10
		Full RB	-36.82	9.94	9.51	19.45	43.00	-23.55

Remarks:

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

64QAM

Channel No.	Freq. (MHz)	RB Condition	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
2239997	37649.88	1RB0	-37.18	7.54	10.47	18.01	43.00	-24.99
		1RB32	-36.24	8.48	10.47	18.95	43.00	-24.05
		1RB65	-37.00	7.72	10.47	18.19	43.00	-24.81
		Full RB	-37.30	7.42	10.47	17.89	43.00	-25.11
2259997	38849.88	1RB0	-36.16	8.68	9.43	18.11	43.00	-24.89
		1RB32	-35.16	9.68	9.43	19.11	43.00	-23.89
		1RB65	-36.04	8.80	9.43	18.23	43.00	-24.77
		Full RB	-36.12	8.72	9.43	18.15	43.00	-24.85
2278331	39949.92	1RB0	-38.26	8.50	9.51	18.01	43.00	-24.99
		1RB32	-37.36	9.40	9.51	18.91	43.00	-24.09
		1RB65	-38.06	8.70	9.51	18.21	43.00	-24.79
		Full RB	-38.28	8.48	9.51	17.99	43.00	-25.01

Remarks:

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

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)
2239997	37649.88	1RB0	-35.80	8.92	10.47	19.39	43.00	-23.61
		1RB32	-34.53	10.19	10.47	20.66	43.00	-22.34
		1RB65	-35.26	9.46	10.47	19.93	43.00	-23.07
		Full RB	-35.44	9.28	10.47	19.75	43.00	-23.25
2259997	38849.88	1RB0	-34.85	9.99	9.43	19.42	43.00	-23.58
		1RB32	-33.57	11.27	9.43	20.70	43.00	-22.30
		1RB65	-34.26	10.58	9.43	20.01	43.00	-22.99
		Full RB	-34.39	10.45	9.43	19.88	43.00	-23.12
2278331	39949.92	1RB0	-36.87	9.89	9.51	19.40	43.00	-23.60
		1RB32	-35.66	11.10	9.51	20.61	43.00	-22.39
		1RB65	-36.29	10.47	9.51	19.98	43.00	-23.02
		Full RB	-36.56	10.20	9.51	19.71	43.00	-23.29

Remarks:

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

16QAM

Channel No.	Freq. (MHz)	RB Condition	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
2239997	37649.88	1RB0	-36.80	7.92	10.47	18.39	43.00	-24.61
		1RB32	-35.58	9.14	10.47	19.61	43.00	-23.39
		1RB65	-36.25	8.47	10.47	18.94	43.00	-24.06
		Full RB	-36.48	8.24	10.47	18.71	43.00	-24.29
2259997	38849.88	1RB0	-35.82	9.02	9.43	18.45	43.00	-24.55
		1RB32	-34.52	10.32	9.43	19.75	43.00	-23.25
		1RB65	-35.29	9.55	9.43	18.98	43.00	-24.02
		Full RB	-35.57	9.27	9.43	18.70	43.00	-24.30
2278331	39949.92	1RB0	-37.96	8.80	9.51	18.31	43.00	-24.69
		1RB32	-36.67	10.09	9.51	19.60	43.00	-23.40
		1RB65	-37.38	9.38	9.51	18.89	43.00	-24.11
		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 Horizontal polarization.
2. $EIRP (dBm) = S.G \text{ Value (dBm)} + \text{Correction Factor (dB)}$.
3. $\text{Correction Factor (dB)} = \text{Substitution Antenna Gain (dB)} + \text{Cable Loss (dB)}$.
4. $\text{Spectrum reading (dBm)} = \text{DUT emission amplitude level}$.

64QAM

Channel No.	Freq. (MHz)	RB Condition	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
2239997	37649.88	1RB0	-38.18	6.54	10.47	17.01	43.00	-25.99
		1RB32	-36.97	7.75	10.47	18.22	43.00	-24.78
		1RB65	-37.67	7.05	10.47	17.52	43.00	-25.48
		Full RB	-37.87	6.85	10.47	17.32	43.00	-25.68
2259997	38849.88	1RB0	-37.26	7.58	9.43	17.01	43.00	-25.99
		1RB32	-35.94	8.90	9.43	18.33	43.00	-24.67
		1RB65	-36.39	8.45	9.43	17.88	43.00	-25.12
		Full RB	-36.91	7.93	9.43	17.36	43.00	-25.64
2278331	39949.92	1RB0	-39.37	7.39	9.51	16.90	43.00	-26.10
		1RB32	-38.98	7.78	9.51	17.29	43.00	-25.71
		1RB65	-38.87	7.89	9.51	17.40	43.00	-25.60
		Full RB	-38.98	7.78	9.51	17.29	43.00	-25.71

Remarks:

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

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)
2239997	37649.88	1RB0	-35.21	9.51	10.47	19.98	43.00	-23.02
		1RB32	-34.28	10.44	10.47	20.91	43.00	-22.09
		1RB65	-35.09	9.63	10.47	20.10	43.00	-22.90
		Full RB	-35.07	9.65	10.47	20.12	43.00	-22.88
2259997	38849.88	1RB0	-34.15	10.69	9.43	20.12	43.00	-22.88
		1RB32	-33.17	11.67	9.43	21.10	43.00	-21.90
		1RB65	-34.02	10.82	9.43	20.25	43.00	-22.75
		Full RB	-34.01	10.83	9.43	20.26	43.00	-22.74
2278331	39949.92	1RB0	-36.25	10.51	9.51	20.02	43.00	-22.98
		1RB32	-35.26	11.50	9.51	21.01	43.00	-21.99
		1RB65	-36.10	10.66	9.51	20.17	43.00	-22.83
		Full RB	-36.12	10.64	9.51	20.15	43.00	-22.85

Remarks:

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

16QAM

Channel No.	Freq. (MHz)	RB Condition	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
2239997	37649.88	1RB0	-36.20	8.52	10.47	18.99	43.00	-24.01
		1RB32	-35.27	9.45	10.47	19.92	43.00	-23.08
		1RB65	-36.14	8.58	10.47	19.05	43.00	-23.95
		Full RB	-36.07	8.65	10.47	19.12	43.00	-23.88
2259997	38849.88	1RB0	-35.17	9.67	9.43	19.10	43.00	-23.90
		1RB32	-34.15	10.69	9.43	20.12	43.00	-22.88
		1RB65	-35.06	9.78	9.43	19.21	43.00	-23.79
		Full RB	-35.07	9.77	9.43	19.20	43.00	-23.80
2278331	39949.92	1RB0	-37.26	9.50	9.51	19.01	43.00	-23.99
		1RB32	-36.27	10.49	9.51	20.00	43.00	-23.00
		1RB65	-37.17	9.59	9.51	19.10	43.00	-23.90
		Full RB	-37.14	9.62	9.51	19.13	43.00	-23.87

Remarks:

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

64QAM

Channel No.	Freq. (MHz)	RB Condition	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
2239997	37649.88	1RB0	-37.90	6.82	10.47	17.29	43.00	-25.71
		1RB32	-36.94	7.78	10.47	18.25	43.00	-24.75
		1RB65	-37.80	6.92	10.47	17.39	43.00	-25.61
		Full RB	-37.88	6.84	10.47	17.31	43.00	-25.69
2259997	38849.88	1RB0	-36.77	8.07	9.43	17.50	43.00	-25.50
		1RB32	-35.87	8.97	9.43	18.40	43.00	-24.60
		1RB65	-36.84	8.00	9.43	17.43	43.00	-25.57
		Full RB	-36.86	7.98	9.43	17.41	43.00	-25.59
2278331	39949.92	1RB0	-38.96	7.80	9.51	17.31	43.00	-25.69
		1RB32	-37.91	8.85	9.51	18.36	43.00	-24.64
		1RB65	-38.87	7.89	9.51	17.40	43.00	-25.60
		Full RB	-38.84	7.92	9.51	17.43	43.00	-25.57

Remarks:

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

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)
2239997	37649.88	1RB0	-35.67	9.05	10.47	19.52	43.00	-23.48
		1RB32	-34.47	10.25	10.47	20.72	43.00	-22.28
		1RB65	-35.27	9.45	10.47	19.92	43.00	-23.08
		Full RB	-35.17	9.55	10.47	20.02	43.00	-22.98
2259997	38849.88	1RB0	-34.36	10.48	9.43	19.91	43.00	-23.09
		1RB32	-33.36	11.48	9.43	20.91	43.00	-22.09
		1RB65	-34.10	10.74	9.43	20.17	43.00	-22.83
		Full RB	-34.12	10.72	9.43	20.15	43.00	-22.85
2278331	39949.92	1RB0	-36.66	10.10	9.51	19.61	43.00	-23.39
		1RB32	-35.42	11.34	9.51	20.85	43.00	-22.15
		1RB65	-36.15	10.61	9.51	20.12	43.00	-22.88
		Full RB	-36.18	10.58	9.51	20.09	43.00	-22.91

Remarks:

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

16QAM

Channel No.	Freq. (MHz)	RB Condition	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
2239997	37649.88	1RB0	-36.68	8.04	10.47	18.51	43.00	-24.49
		1RB32	-35.49	9.23	10.47	19.70	43.00	-23.30
		1RB65	-36.29	8.43	10.47	18.90	43.00	-24.10
		Full RB	-36.18	8.54	10.47	19.01	43.00	-23.99
2259997	38849.88	1RB0	-35.57	9.27	9.43	18.70	43.00	-24.30
		1RB32	-34.35	10.49	9.43	19.92	43.00	-23.08
		1RB65	-35.17	9.67	9.43	19.10	43.00	-23.90
		Full RB	-35.19	9.65	9.43	19.08	43.00	-23.92
2278331	39949.92	1RB0	-37.58	9.18	9.51	18.69	43.00	-24.31
		1RB32	-36.46	10.30	9.51	19.81	43.00	-23.19
		1RB65	-37.18	9.58	9.51	19.09	43.00	-23.91
		Full RB	-37.26	9.50	9.51	19.01	43.00	-23.99

Remarks:

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

64QAM

Channel No.	Freq. (MHz)	RB Condition	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
2239997	37649.88	1RB0	-38.38	6.34	10.47	16.81	43.00	-26.19
		1RB32	-37.18	7.54	10.47	18.01	43.00	-24.99
		1RB65	-37.99	6.73	10.47	17.20	43.00	-25.80
		Full RB	-37.98	6.74	10.47	17.21	43.00	-25.79
2259997	38849.88	1RB0	-37.16	7.68	9.43	17.11	43.00	-25.89
		1RB32	-35.94	8.90	9.43	18.33	43.00	-24.67
		1RB65	-36.74	8.10	9.43	17.53	43.00	-25.47
		Full RB	-36.78	8.06	9.43	17.49	43.00	-25.51
2278331	39949.92	1RB0	-39.18	7.58	9.51	17.09	43.00	-25.91
		1RB32	-38.05	8.71	9.51	18.22	43.00	-24.78
		1RB65	-38.85	7.91	9.51	17.42	43.00	-25.58
		Full RB	-38.86	7.90	9.51	17.41	43.00	-25.59

Remarks:

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

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	2239997	37649.88	1RB0	18.89	18.90	21.91
			1RB32	19.98	19.91	22.96
			1RB65	18.92	19.05	22.00
			Full RB	18.95	19.01	21.99
	2259997	38849.88	1RB0	19.01	19.01	22.02
			1RB32	20.04	20.02	23.04
			1RB65	19.10	19.16	22.14
			Full RB	18.99	19.12	22.07
	2278331	39949.92	1RB0	18.92	18.97	21.96
			1RB32	20.01	19.98	23.01
			1RB65	19.25	19.10	22.19
			Full RB	18.82	19.08	21.96
16QAM	2239997	37649.88	1RB0	17.92	18.20	21.07
			1RB32	18.92	18.91	21.93
			1RB65	17.89	18.12	21.02
			Full RB	17.87	18.11	21.00
	2259997	38849.88	1RB0	18.01	18.01	21.02
			1RB32	19.04	19.02	22.04
			1RB65	18.11	18.16	21.15
			Full RB	17.89	18.05	20.98
	2278331	39949.92	1RB0	17.92	17.99	20.97
			1RB32	19.00	18.99	22.01
			1RB65	18.15	18.12	21.15
			Full RB	17.89	18.08	21.00
64QAM	2239997	37649.88	1RB0	16.12	16.81	19.49
			1RB32	17.55	17.41	20.49
			1RB65	16.29	16.90	19.62
			Full RB	16.10	16.78	19.46
	2259997	38849.88	1RB0	16.31	16.85	19.60
			1RB32	17.34	17.32	20.34
			1RB65	16.43	16.85	19.66
			Full RB	16.19	16.79	19.51
	2278331	39949.92	1RB0	16.32	16.25	19.30
			1RB32	17.41	17.22	20.33
			1RB65	16.49	16.69	19.60
			Full RB	16.29	16.61	19.46

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

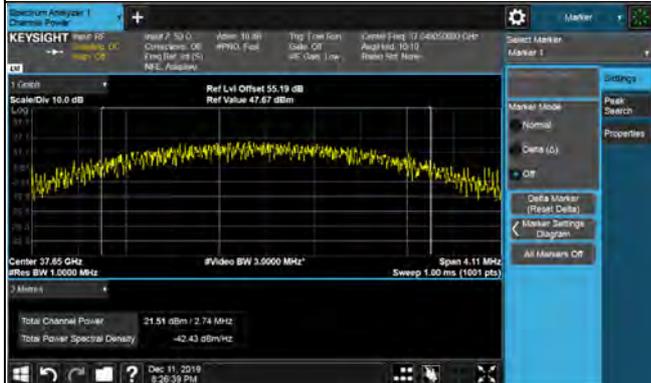
Modulation	Channel No.	Freq. (MHz)	RB Condition	EIRP (dBm)		
				Worst Beam ID		MIMO Beam
				20	148	20+148
QPSK	2239997	37649.88	1RB0	20.67	19.39	23.09
			1RB32	21.51	20.66	24.12
			1RB65	20.88	19.93	23.44
			Full RB	20.44	19.75	23.12
	2259997	38849.88	1RB0	20.81	19.42	23.18
			1RB32	21.72	20.70	24.25
			1RB65	21.02	20.01	23.55
			Full RB	20.48	19.88	23.20
	2278331	39949.92	1RB0	20.71	19.40	23.11
			1RB32	21.68	20.61	24.19
			1RB65	20.92	19.98	23.49
			Full RB	20.40	19.71	23.08
16QAM	2239997	37649.88	1RB0	19.70	18.39	22.10
			1RB32	20.61	19.61	23.15
			1RB65	19.89	18.94	22.45
			Full RB	19.50	18.71	22.13
	2259997	38849.88	1RB0	19.82	18.45	22.20
			1RB32	20.69	19.75	23.26
			1RB65	20.01	18.98	22.54
			Full RB	19.52	18.70	22.14
	2278331	39949.92	1RB0	19.71	18.31	22.08
			1RB32	20.60	19.60	23.14
			1RB65	19.90	18.89	22.43
			Full RB	19.45	18.68	22.09
64QAM	2239997	37649.88	1RB0	18.01	17.01	20.55
			1RB32	18.95	18.22	21.61
			1RB65	18.19	17.52	20.88
			Full RB	17.89	17.32	20.62
	2259997	38849.88	1RB0	18.11	17.01	20.61
			1RB32	19.11	18.33	21.75
			1RB65	18.23	17.88	21.07
			Full RB	18.15	17.36	20.78
	2278331	39949.92	1RB0	18.01	16.90	20.50
			1RB32	18.91	17.29	21.19
			1RB65	18.21	17.40	20.83
			Full RB	17.99	17.29	20.66

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	2239997	37649.88	1RB0	19.98	19.52	22.77
			1RB32	20.91	20.72	23.83
			1RB65	20.10	19.92	23.02
			Full RB	20.12	20.02	23.08
	2259997	38849.88	1RB0	20.12	19.91	23.03
			1RB32	21.10	20.91	24.02
			1RB65	20.25	20.17	23.22
			Full RB	20.26	20.15	23.22
	2278331	39949.92	1RB0	20.02	19.61	22.83
			1RB32	21.01	20.85	23.94
			1RB65	20.17	20.12	23.16
			Full RB	20.15	20.09	23.13
16QAM	2239997	37649.88	1RB0	18.99	18.51	21.77
			1RB32	19.92	19.70	22.82
			1RB65	19.05	18.90	21.99
			Full RB	19.12	19.01	22.08
	2259997	38849.88	1RB0	19.10	18.70	21.91
			1RB32	20.12	19.92	23.03
			1RB65	19.21	19.10	22.17
			Full RB	19.20	19.08	22.15
	2278331	39949.92	1RB0	19.01	18.69	21.86
			1RB32	20.00	19.81	22.92
			1RB65	19.10	19.09	22.11
			Full RB	19.13	19.01	22.08
64QAM	2239997	37649.88	1RB0	17.29	16.81	20.07
			1RB32	18.25	18.01	21.14
			1RB65	17.39	17.20	20.31
			Full RB	17.31	17.21	20.27
	2259997	38849.88	1RB0	17.50	17.11	20.32
			1RB32	18.40	18.33	21.38
			1RB65	17.43	17.53	20.49
			Full RB	17.41	17.49	20.46
	2278331	39949.92	1RB0	17.31	17.09	20.21
			1RB32	18.36	18.22	21.30
			1RB65	17.40	17.42	20.42
			Full RB	17.43	17.41	20.43

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 $\geq 3 \times$ 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

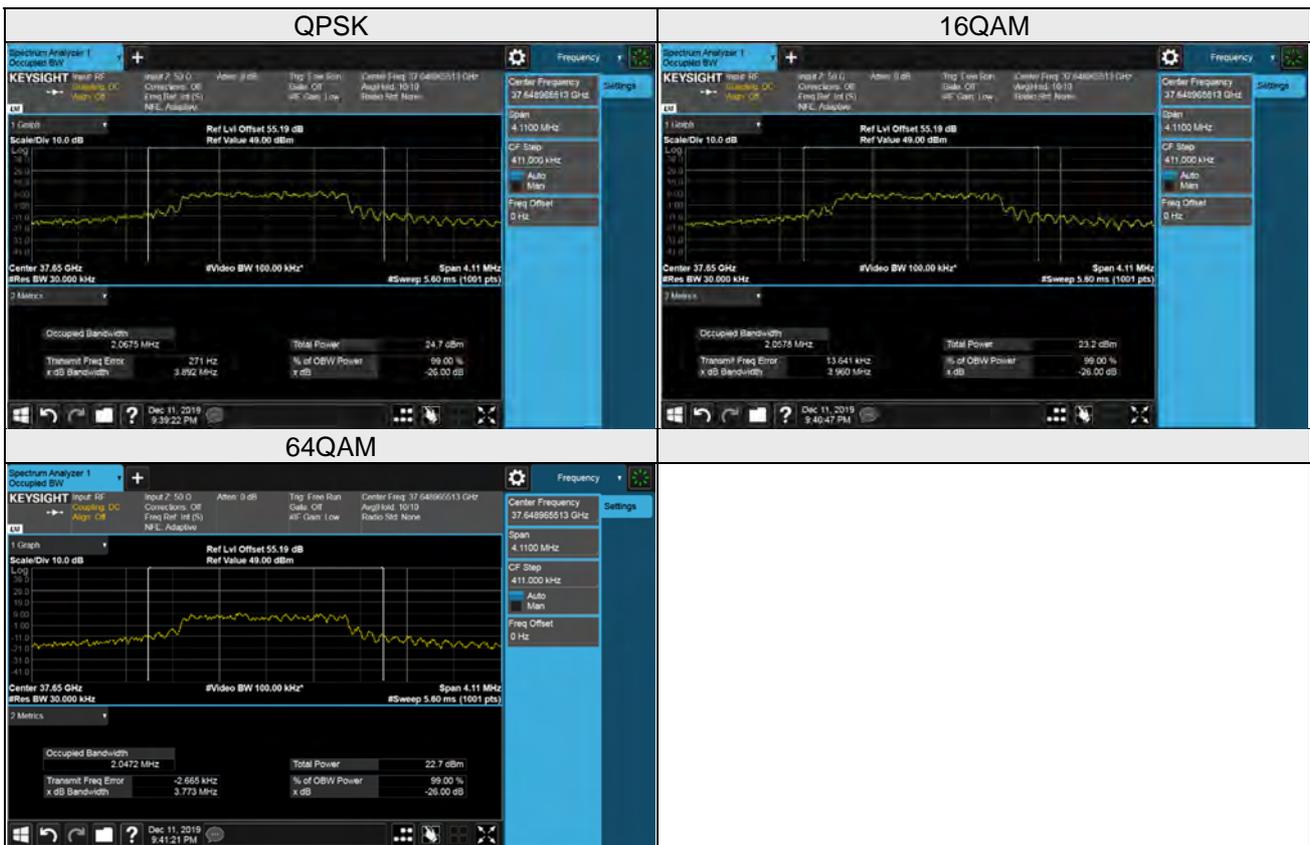
The software provided by client to enable the EUT under transmission condition continuously at lowest channel frequencies individually.

4.3.7 Test Result

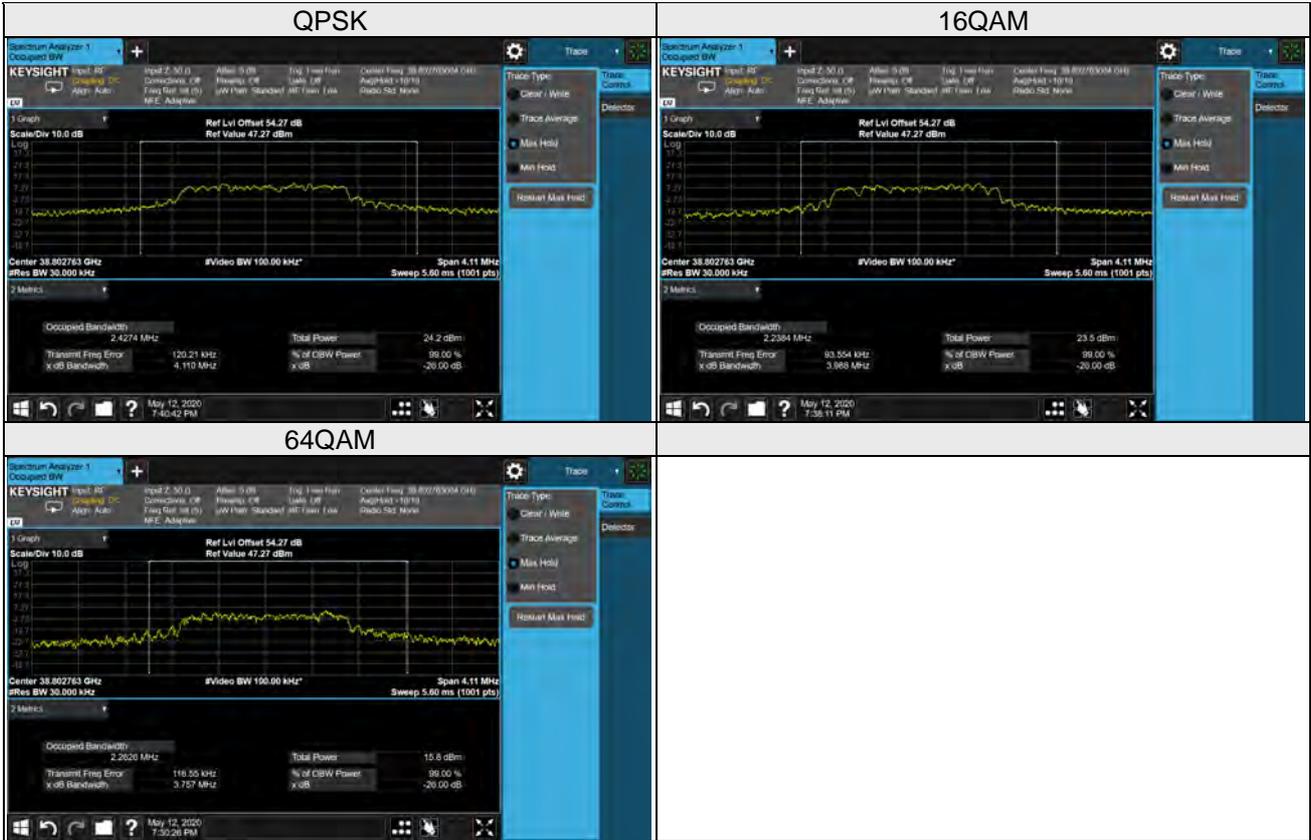
1RB / 32RB offset

Channel	Freq. (MHz)	Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM
2239997	37649.88	2.0675	2.0578	2.0472
2259997	38849.88	2.4274	2.2384	2.2626
2278331	39949.92	2.3698	2.2917	2.5251

Low Channel



Middle Channel



High Channel



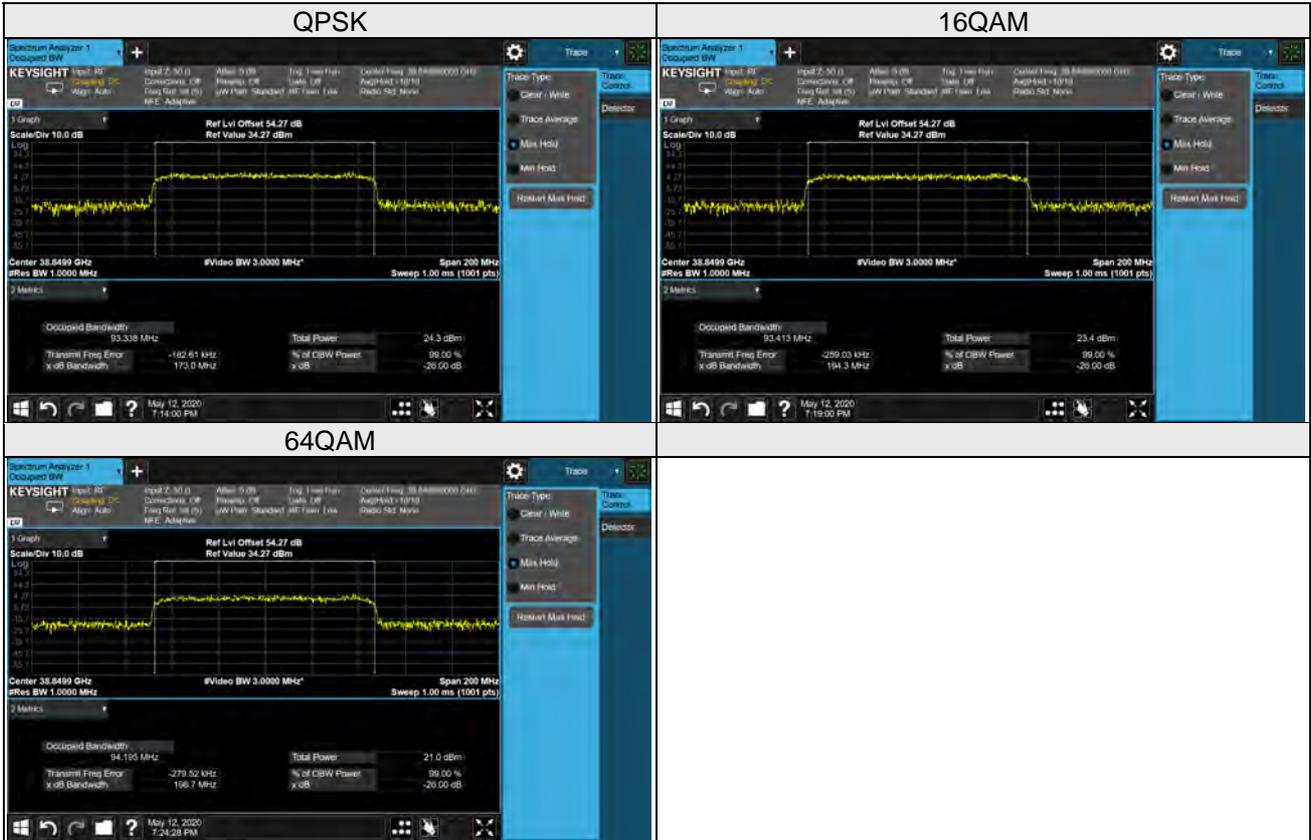
Full RB

Channel	Freq. (MHz)	Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM
2239997	37649.88	92.901	94.042	94.251
2259997	38849.88	93.338	93.413	94.195
2278331	39949.92	93.437	93.656	94.603

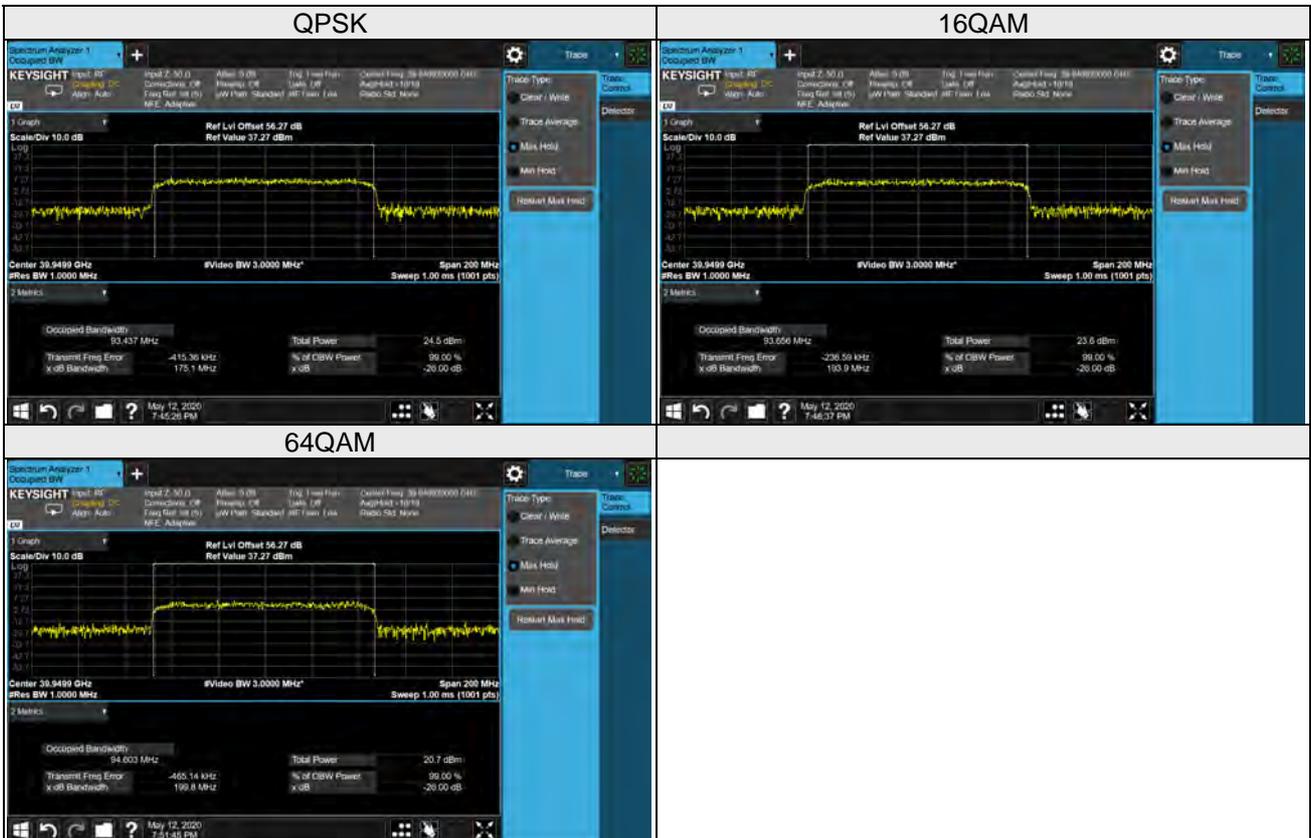
Low Channel



Middle Channel



High Channel



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

- 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.

Note:

1. The resolution bandwidth of spectrum analyzer is 100 kHz and the video bandwidth is 300 kHz for below 1GHz.
2. The resolution bandwidth of spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for above 1GHz.
3. When test frequency below 1GHz the test-receiver detector function was use peak mode during the testing.
4. When test frequency above 1GHz the detector function was use RMS (average) mode during the testing.
5. Measurements were taken in the far field of the mm-Wave test signal based on the formula:
 $R \geq (2D^2) / \text{wavelength}$.

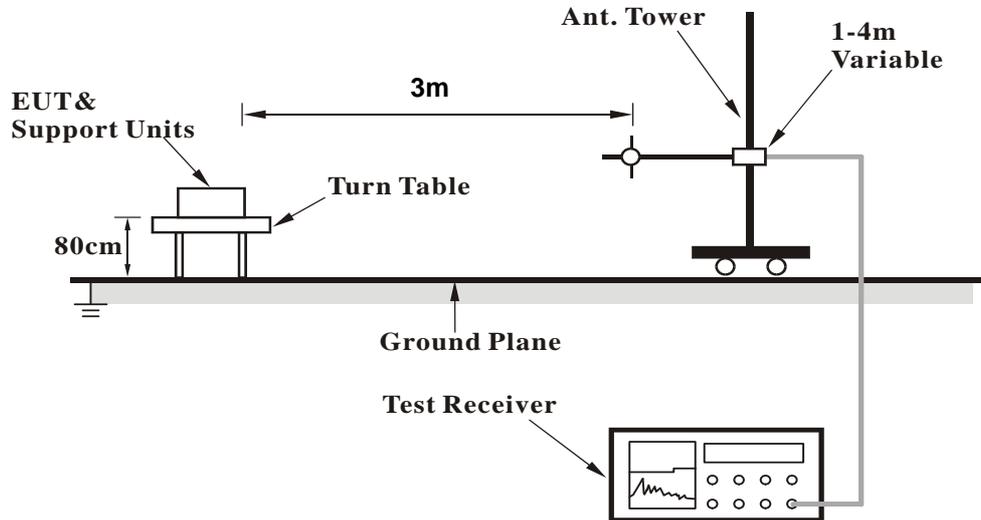
EUT antenna of far field distance		
Measurement Frequency range	Far Field calculation distance	Measurement Distance (Far field)
Below 18GHz	0.05m	3m
18GHz to 40GHz	0.3m	1m
40GHz to 200GHz	0.12m to 0.59m	1m
Note: EUT Antenna Dimension is 21mm length, 2.2mm thick and 6.7mm high.		
Measurement antenna of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

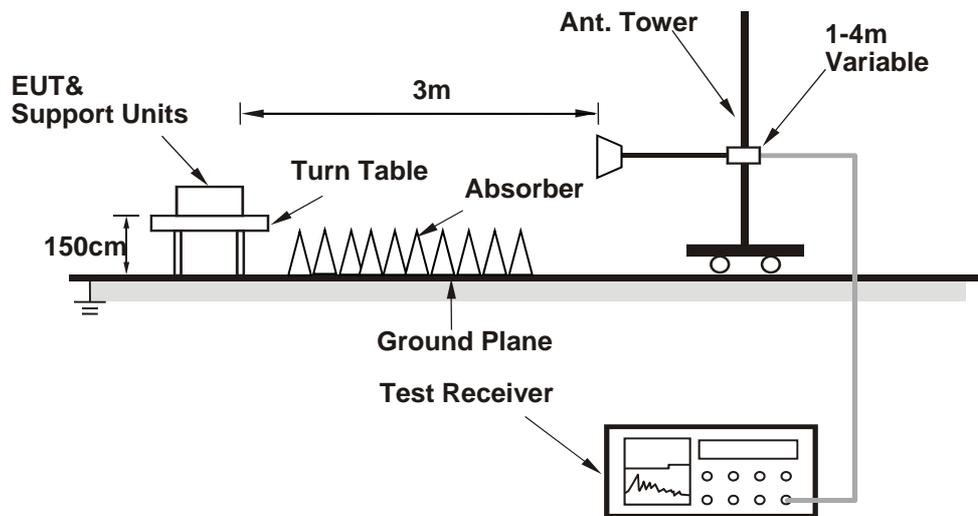
No deviation.

4.4.5 Test Set Up

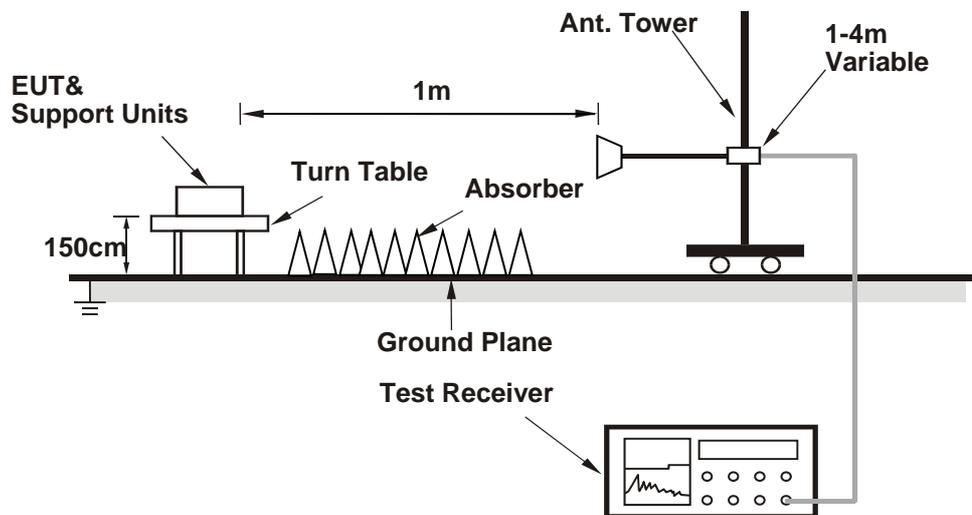
<Frequency Range below 1GHz>



<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

- Connected the Adapter to EUT.
- Prepared notebook to act as communication partner and placed it outside of testing area.
- 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.
- The communication partner sent data to EUT by command "PING".

4.4.7 Test Result

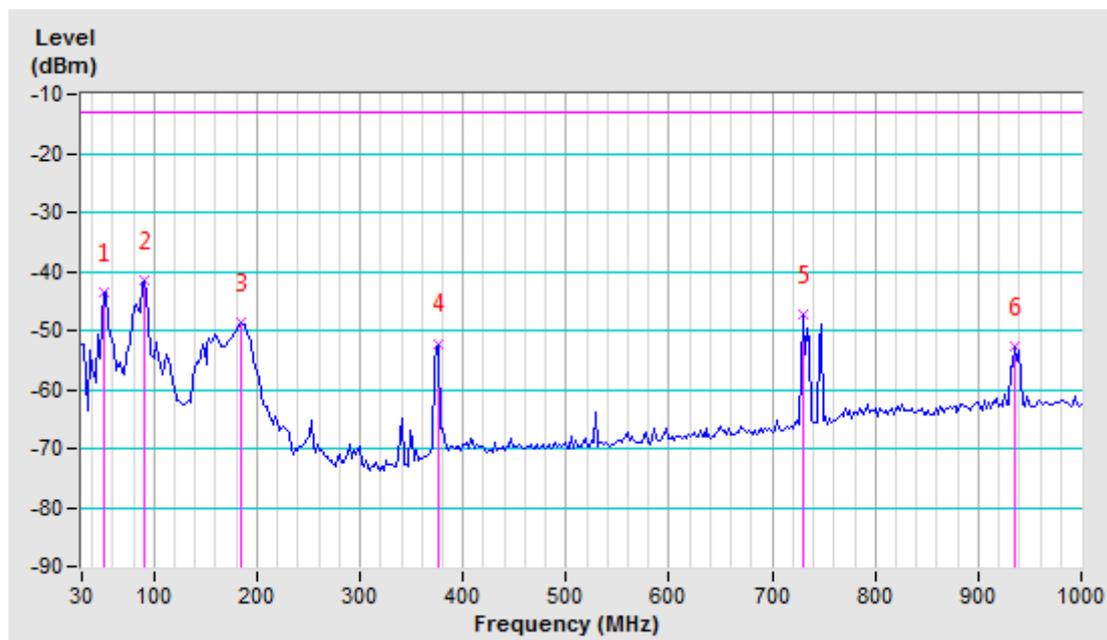
Below 1GHz Data:

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

Test Distance: 3 M							
No.	Freq. (MHz)	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	51.34	-42.3	-43.0	-0.5	-43.5	-13.0	-30.5
2	90.14	-34.1	-40.4	-1.2	-41.6	-13.0	-28.6
3	185.20	-40.2	-47.3	-1.5	-48.8	-13.0	-35.8
4	375.32	-50.5	-50.3	-1.9	-52.2	-13.0	-39.2
5	730.34	-50.5	-44.7	-2.5	-47.2	-13.0	-34.2
6	935.98	-59.6	-51.4	-1.2	-52.6	-13.0	-39.6

Remarks:

1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Spectrum reading (dBm) = Spectrum reading value without factor,
Factor = free space loss + antenna factor (dB/m) and cable loss.

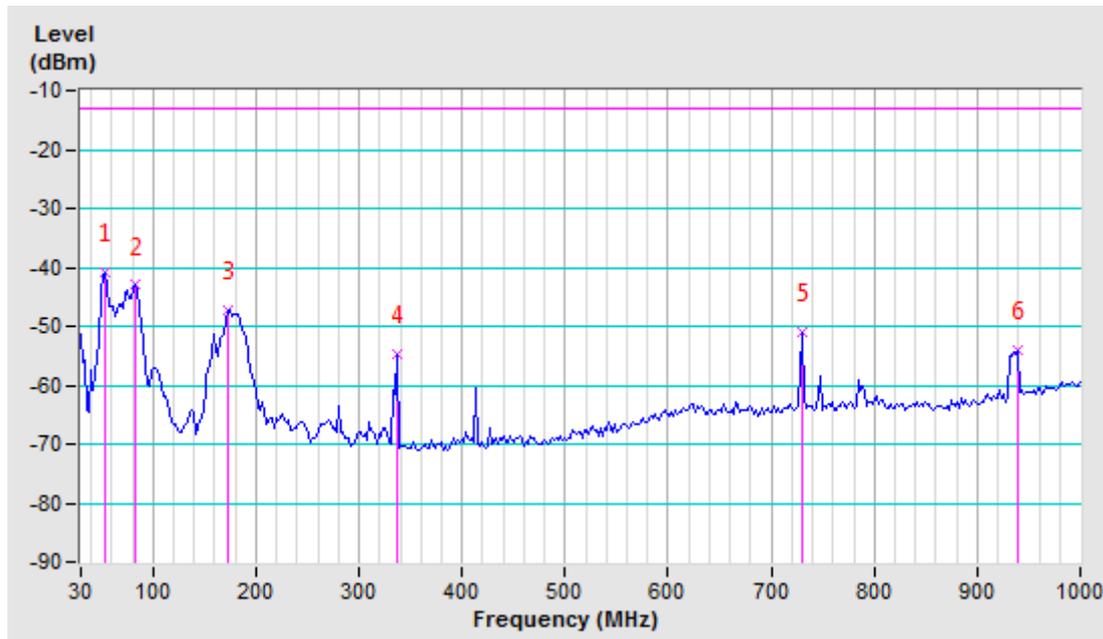


Beam ID	20	Frequency Range	Below 1000 MHz
Channel	Low	Polarity	Vertical

Test Distance: 3 M							
No.	Freq. (MHz)	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	53.28	-34.4	-40.4	-0.5	-40.9	-13.0	-27.9
2	82.38	-39.1	-41.9	-1.2	-43.1	-13.0	-30.1
3	173.56	-47.1	-45.7	-1.5	-47.2	-13.0	-34.2
4	336.52	-53.8	-52.9	-1.8	-54.7	-13.0	-41.7
5	730.34	-56.7	-48.5	-2.5	-51.0	-13.0	-38.0
6	939.86	-62.9	-52.9	-1.2	-54.1	-13.0	-41.1

Remarks:

1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Spectrum reading (dBm) = Spectrum reading value without factor,
Factor = free space loss + antenna factor (dB/m) and cable loss.

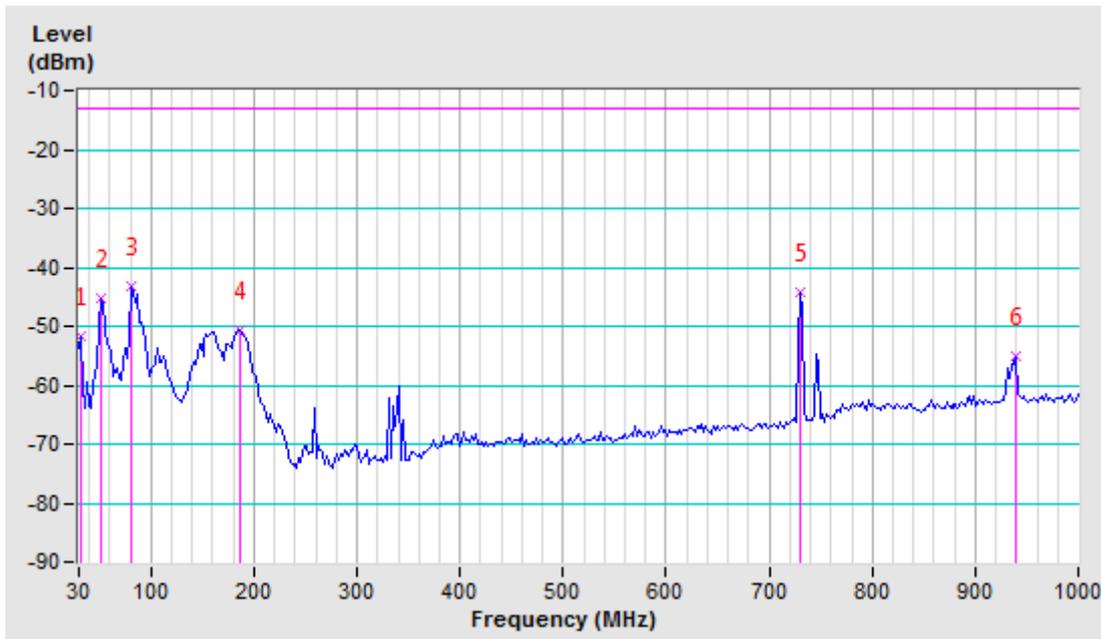


Beam ID	20	Frequency Range	Below 1000 MHz
Channel	Mid	Polarity	Horizontal

Test Distance: 3 M							
No.	Freq. (MHz)	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	31.94	-55.3	-51.2	-0.5	-51.7	-13.0	-38.7
2	51.34	-44.2	-44.9	-0.5	-45.4	-13.0	-32.4
3	80.44	-37.3	-42.0	-1.2	-43.2	-13.0	-30.2
4	187.14	-42.0	-49.1	-1.5	-50.6	-13.0	-37.6
5	730.34	-47.6	-41.8	-2.5	-44.3	-13.0	-31.3
6	939.86	-62.2	-53.9	-1.2	-55.1	-13.0	-42.1

Remarks:

1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Spectrum reading (dBm) = Spectrum reading value without factor,
Factor = free space loss + antenna factor (dB/m) and cable loss.

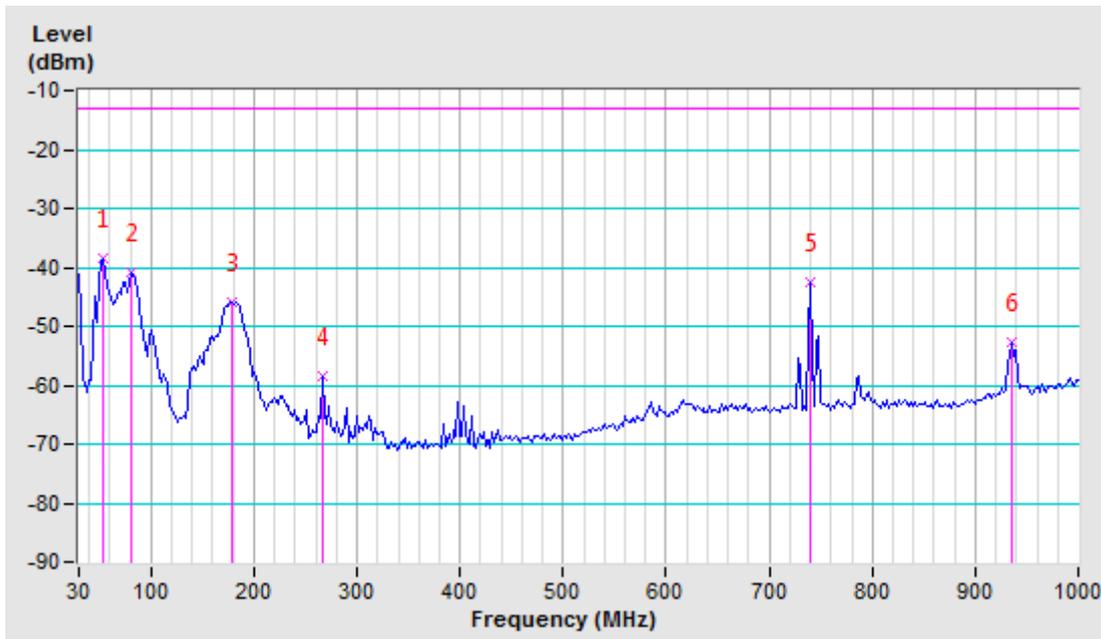


Beam ID	20	Frequency Range	Below 1000 MHz
Channel	Mid	Polarity	Vertical

Test Distance: 3 M							
No.	Freq. (MHz)	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	53.28	-31.9	-37.9	-0.5	-38.4	-13.0	-25.4
2	80.44	-37.2	-39.6	-1.2	-40.8	-13.0	-27.8
3	179.38	-44.6	-44.3	-1.5	-45.8	-13.0	-32.8
4	266.68	-61.4	-56.7	-1.7	-58.4	-13.0	-45.4
5	740.04	-48.3	-40.2	-2.5	-42.7	-13.0	-29.7
6	935.98	-61.3	-51.4	-1.2	-52.6	-13.0	-39.6

Remarks:

1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Spectrum reading (dBm) = Spectrum reading value without factor,
Factor = free space loss + antenna factor (dB/m) and cable loss.

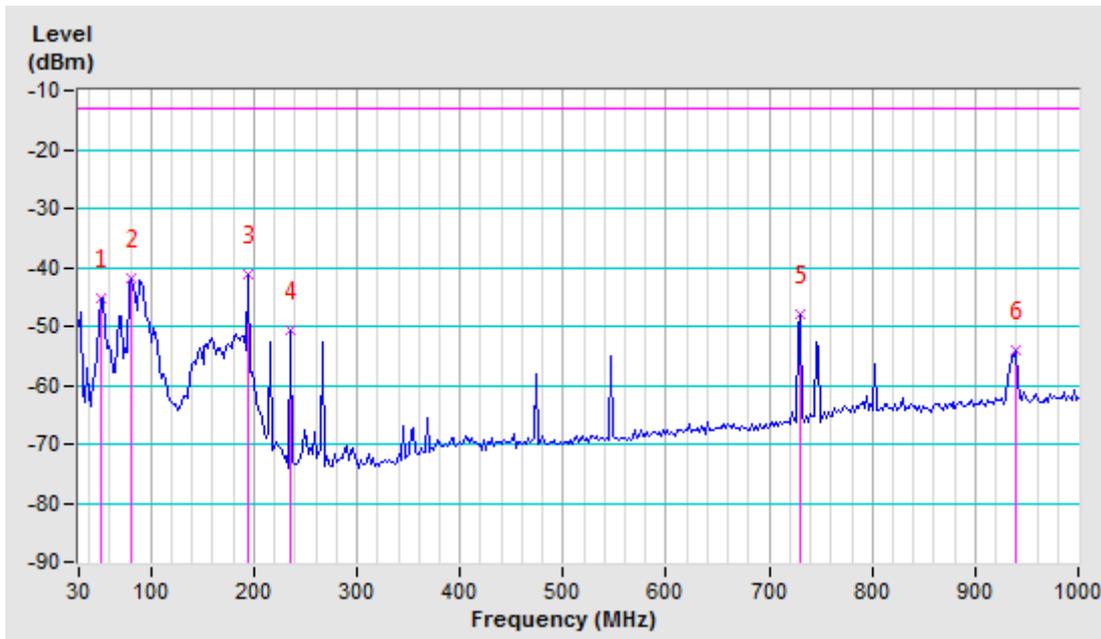


Beam ID	20	Frequency Range	Below 1000 MHz
Channel	High	Polarity	Horizontal

Test Distance: 3 M							
No.	Freq. (MHz)	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	51.34	-43.9	-44.6	-0.5	-45.1	-13.0	-32.1
2	80.44	-35.9	-40.6	-1.2	-41.8	-13.0	-28.8
3	194.90	-32.2	-39.7	-1.5	-41.2	-13.0	-28.2
4	235.64	-42.4	-49.2	-1.6	-50.8	-13.0	-37.8
5	730.34	-51.1	-45.3	-2.5	-47.8	-13.0	-34.8
6	939.86	-61.3	-53.0	-1.2	-54.2	-13.0	-41.2

Remarks:

1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Spectrum reading (dBm) = Spectrum reading value without factor,
Factor = free space loss + antenna factor (dB/m) and cable loss.

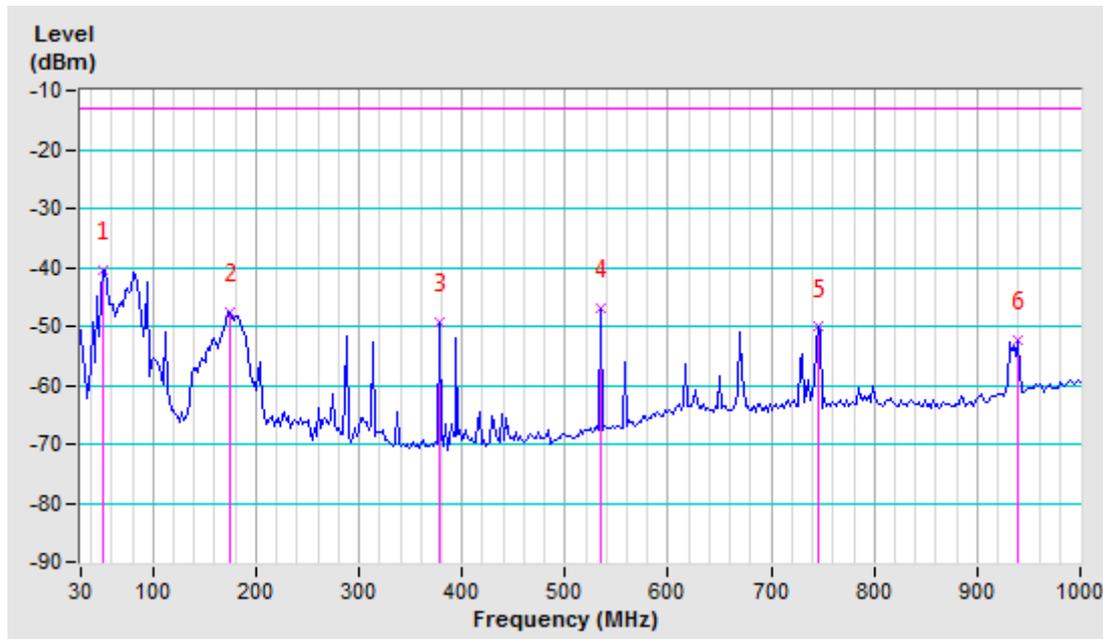


Beam ID	20	Frequency Range	Below 1000 MHz
Channel	High	Polarity	Vertical

Test Distance: 3 M							
No.	Freq. (MHz)	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	51.34	-33.7	-39.9	-0.5	-40.4	-13.0	-27.4
2	175.50	-47.2	-46.2	-1.5	-47.7	-13.0	-34.7
3	377.26	-48.0	-47.4	-1.9	-49.3	-13.0	-36.3
4	534.40	-47.4	-44.7	-2.2	-46.9	-13.0	-33.9
5	745.86	-55.8	-47.7	-2.5	-50.2	-13.0	-37.2
6	939.86	-61.1	-51.1	-1.2	-52.3	-13.0	-39.3

Remarks:

1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Spectrum reading (dBm) = Spectrum reading value without factor,
Factor = free space loss + antenna factor (dB/m) and cable loss.

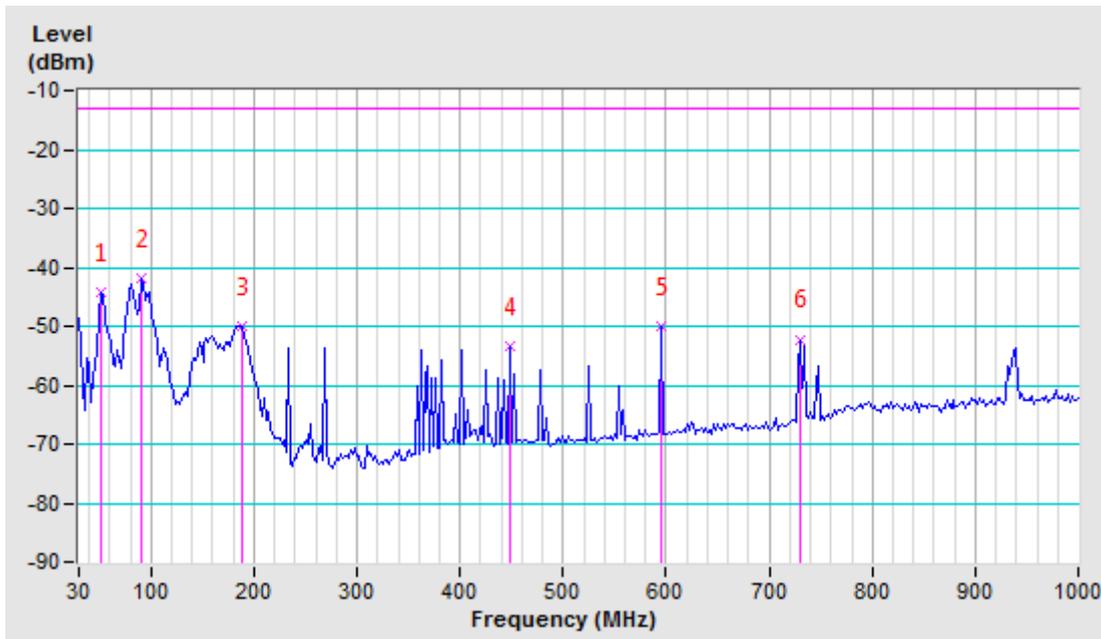


Beam ID	20+148	Frequency Range	Below 1000 MHz
Channel	Low	Polarity	Horizontal

Test Distance: 3 M							
No.	Freq. (MHz)	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	51.34	-42.9	-43.6	-0.5	-44.1	-13.0	-31.1
2	90.14	-34.4	-40.7	-1.2	-41.9	-13.0	-28.9
3	189.08	-41.2	-48.4	-1.5	-49.9	-13.0	-36.9
4	449.04	-52.4	-51.4	-2.1	-53.5	-13.0	-40.5
5	594.54	-50.3	-47.7	-2.3	-50.0	-13.0	-37.0
6	730.34	-55.5	-49.7	-2.5	-52.2	-13.0	-39.2

Remarks:

1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Spectrum reading (dBm) = Spectrum reading value without factor,
Factor = free space loss + antenna factor (dB/m) and cable loss.

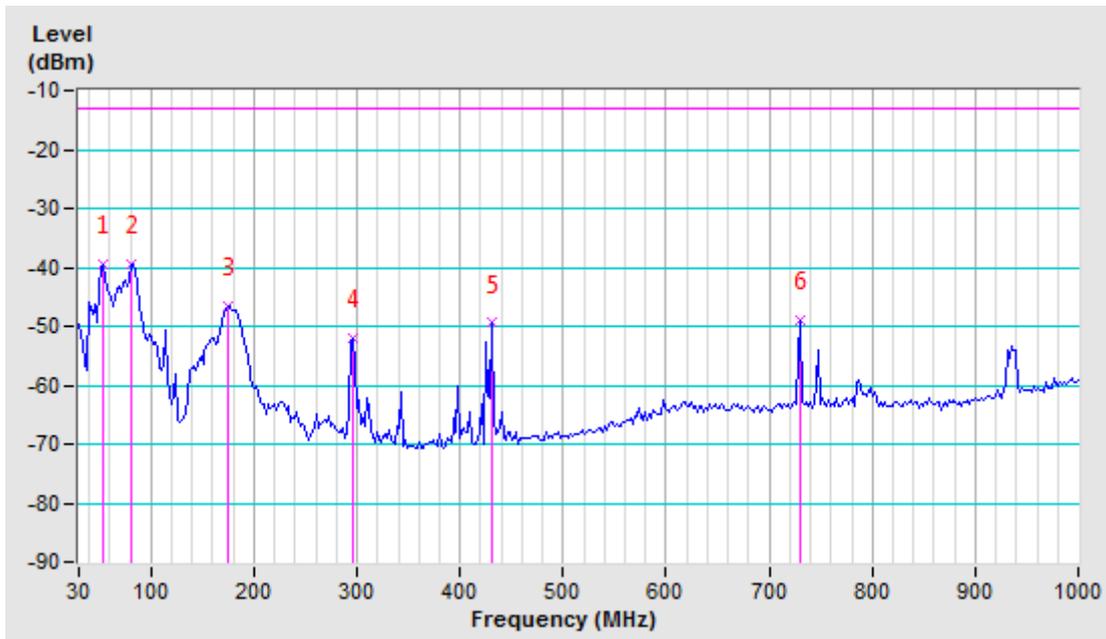


Beam ID	20+148	Frequency Range	Below 1000 MHz
Channel	Low	Polarity	Vertical

Test Distance: 3 M							
No.	Freq. (MHz)	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	53.28	-33.0	-39.0	-0.5	-39.5	-13.0	-26.5
2	80.44	-35.8	-38.2	-1.2	-39.4	-13.0	-26.4
3	175.50	-46.2	-45.2	-1.5	-46.7	-13.0	-33.7
4	295.78	-51.3	-50.3	-1.8	-52.1	-13.0	-39.1
5	431.58	-48.1	-47.5	-2.0	-49.5	-13.0	-36.5
6	730.34	-54.6	-46.4	-2.5	-48.9	-13.0	-35.9

Remarks:

1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Spectrum reading (dBm) = Spectrum reading value without factor,
Factor = free space loss + antenna factor (dB/m) and cable loss.

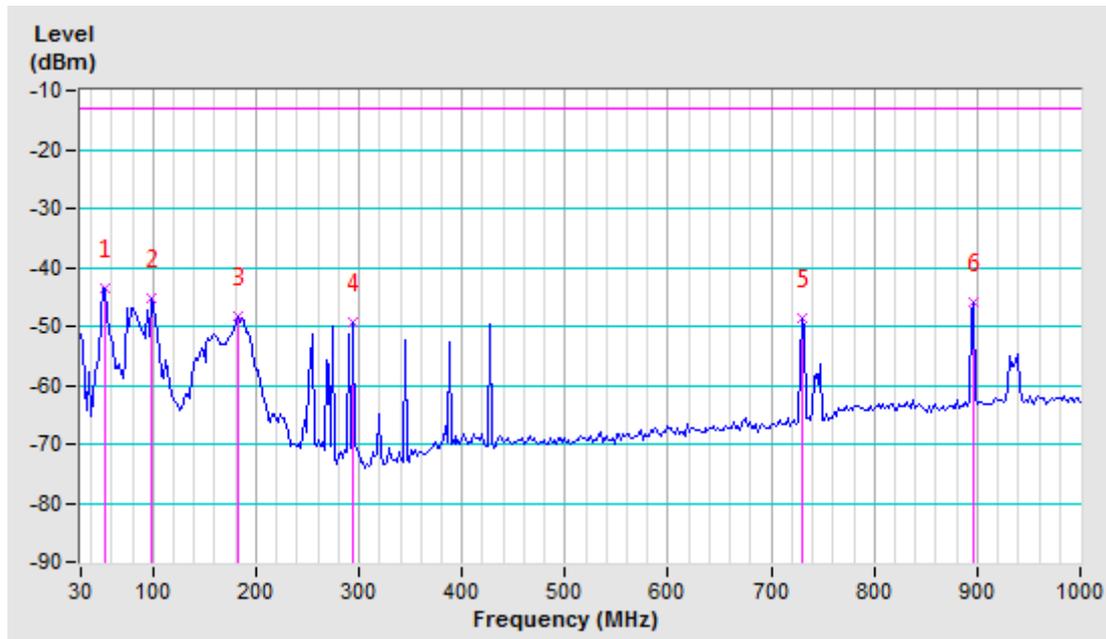


Beam ID	20+148	Frequency Range	Below 1000 MHz
Channel	Mid	Polarity	Horizontal

Test Distance: 3 M							
No.	Freq. (MHz)	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	53.28	-41.9	-43.0	-0.5	-43.5	-13.0	-30.5
2	97.90	-37.7	-44.0	-1.2	-45.2	-13.0	-32.2
3	183.26	-39.9	-46.9	-1.5	-48.4	-13.0	-35.4
4	293.84	-45.6	-47.4	-1.8	-49.2	-13.0	-36.2
5	730.34	-52.1	-46.3	-2.5	-48.8	-13.0	-35.8
6	897.18	-52.6	-44.9	-1.1	-46.0	-13.0	-33.0

Remarks:

1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Spectrum reading (dBm) = Spectrum reading value without factor,
Factor = free space loss + antenna factor (dB/m) and cable loss.

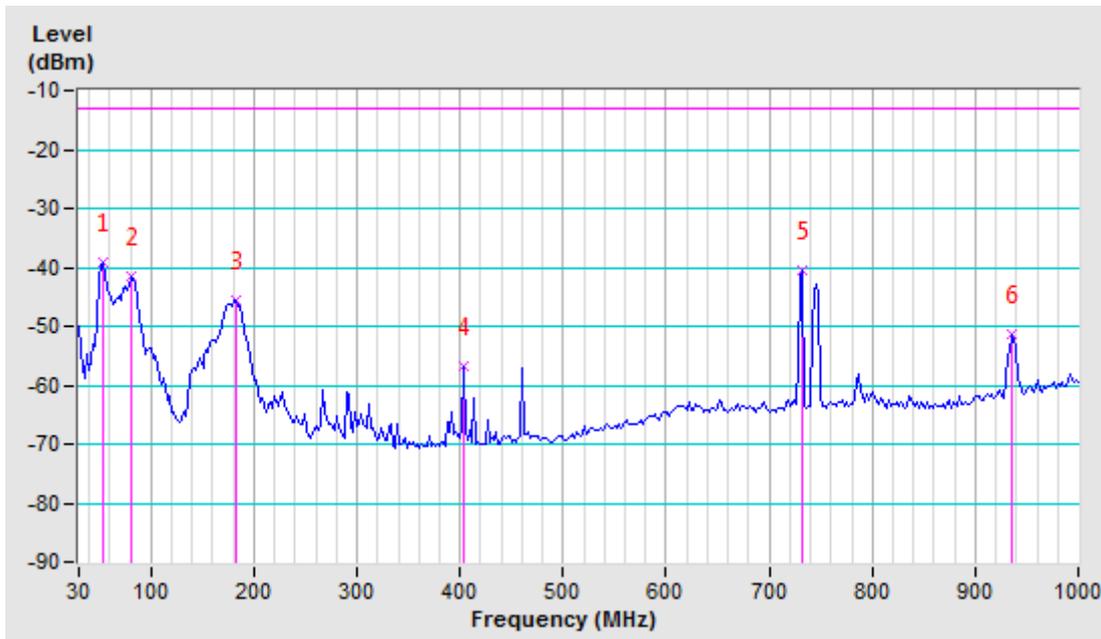


Beam ID	20+148	Frequency Range	Below 1000 MHz
Channel	Mid	Polarity	Vertical

Test Distance: 3 M							
No.	Freq. (MHz)	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	53.28	-32.7	-38.7	-0.5	-39.2	-13.0	-26.2
2	80.44	-37.9	-40.3	-1.2	-41.5	-13.0	-28.5
3	183.26	-43.8	-44.1	-1.5	-45.6	-13.0	-32.6
4	404.42	-55.7	-54.7	-2.0	-56.7	-13.0	-43.7
5	732.28	-46.1	-38.0	-2.5	-40.5	-13.0	-27.5
6	935.98	-60.0	-50.1	-1.2	-51.3	-13.0	-38.3

Remarks:

1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Spectrum reading (dBm) = Spectrum reading value without factor,
Factor = free space loss + antenna factor (dB/m) and cable loss.

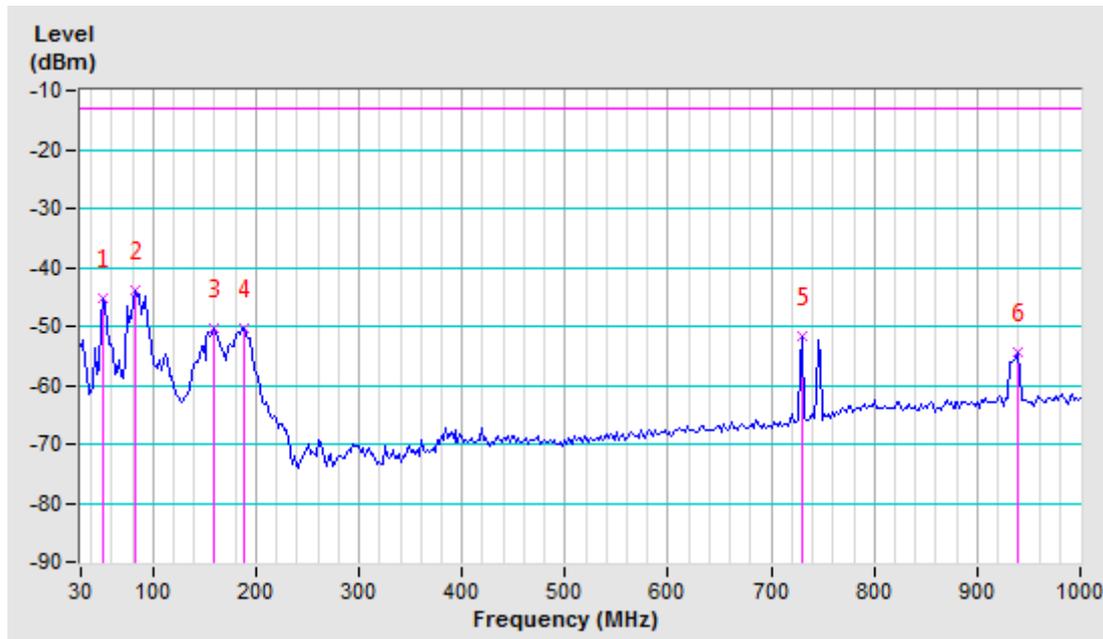


Beam ID	20+148	Frequency Range	Below 1000 MHz
Channel	High	Polarity	Horizontal

Test Distance: 3 M							
No.	Freq. (MHz)	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	51.34	-44.2	-44.9	-0.5	-45.4	-13.0	-32.4
2	82.38	-37.3	-42.6	-1.2	-43.8	-13.0	-30.8
3	159.98	-45.2	-49.1	-1.4	-50.5	-13.0	-37.5
4	189.08	-41.6	-48.8	-1.5	-50.3	-13.0	-37.3
5	730.34	-55.1	-49.3	-2.5	-51.8	-13.0	-38.8
6	939.86	-61.6	-53.3	-1.2	-54.5	-13.0	-41.5

Remarks:

1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Spectrum reading (dBm) = Spectrum reading value without factor,
Factor = free space loss + antenna factor (dB/m) and cable loss.

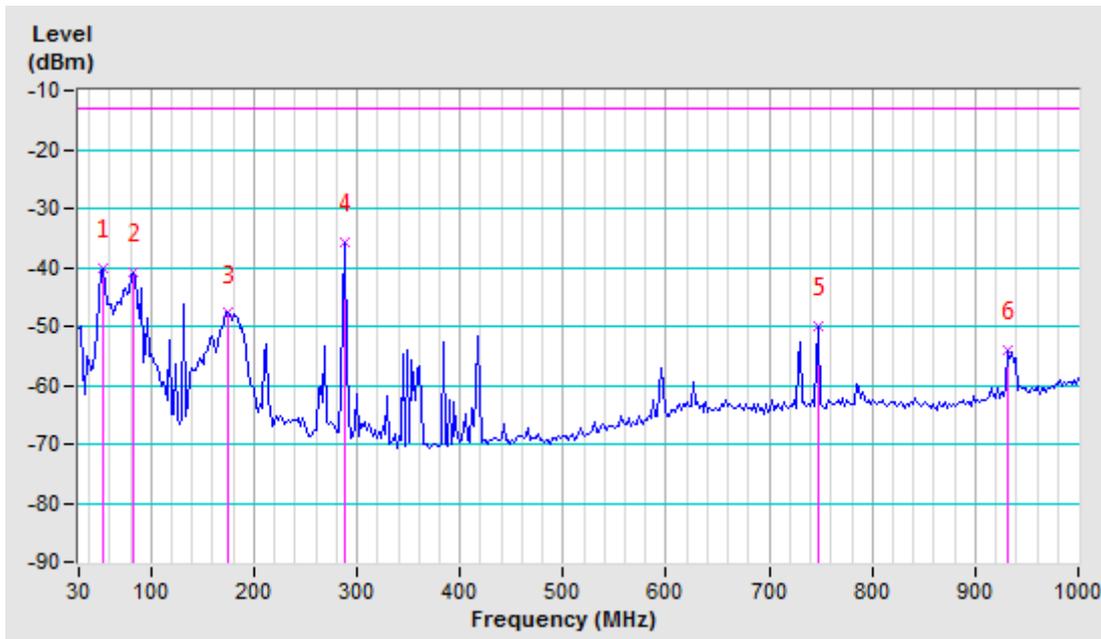


Beam ID	20+148	Frequency Range	Below 1000 MHz
Channel	High	Polarity	Vertical

Test Distance: 3 M							
No.	Freq. (MHz)	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	53.28	-33.7	-39.7	-0.5	-40.2	-13.0	-27.2
2	82.38	-37.0	-39.8	-1.2	-41.0	-13.0	-28.0
3	175.50	-47.3	-46.3	-1.5	-47.8	-13.0	-34.8
4	288.02	-36.3	-34.2	-1.7	-35.9	-13.0	-22.9
5	747.80	-55.5	-47.4	-2.5	-49.9	-13.0	-36.9
6	932.10	-62.5	-52.8	-1.2	-54.0	-13.0	-41.0

Remarks:

1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Spectrum reading (dBm) = Spectrum reading value without factor,
Factor = free space loss + antenna factor (dB/m) and cable loss.



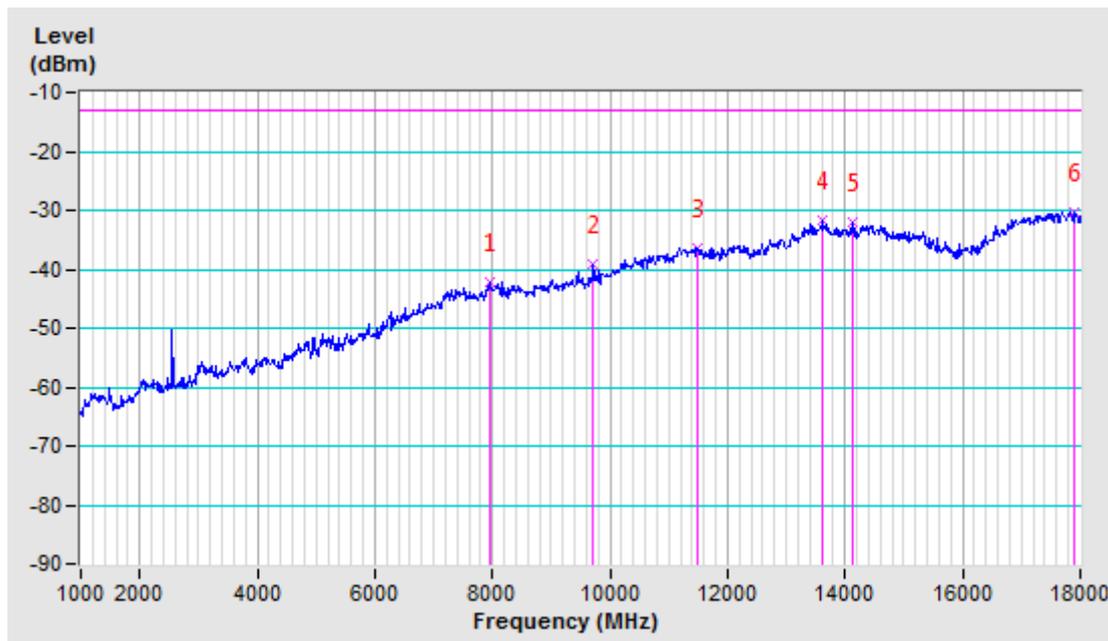
Above 1GHz Data:

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

Test Distance: 3 M							
No.	Freq. (MHz)	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	7953.00	-67.3	-37.0	-5.1	-42.1	-13.0	-29.1
2	9721.00	-66.4	-33.1	-5.9	-39.0	-13.0	-26.0
3	11472.00	-67.8	-29.9	-6.6	-36.5	-13.0	-23.5
4	13614.00	-67.1	-24.2	-7.5	-31.7	-13.0	-18.7
5	14124.00	-66.9	-24.6	-7.6	-32.2	-13.0	-19.2
6	17898.00	-67.7	-20.7	-9.7	-30.4	-13.0	-17.4

Remarks:

1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Spectrum reading (dBm) = Spectrum reading value without factor,
Factor = free space loss + antenna factor (dB/m) and cable loss.

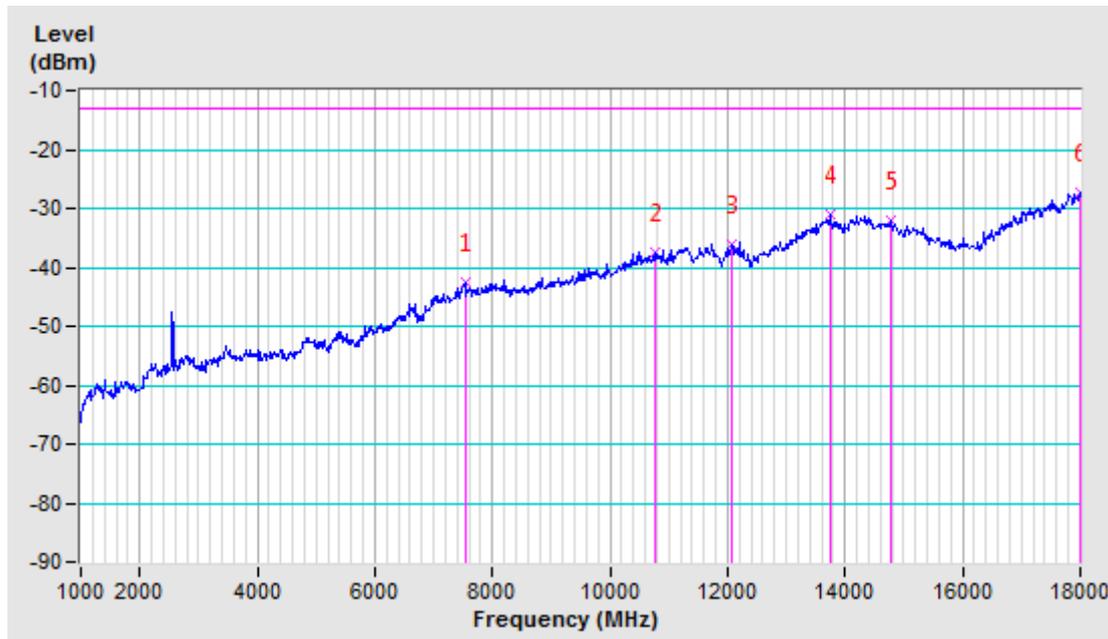


Beam ID	20	Frequency Range	1GHz ~ 18GHz
Channel	Low	Polarity	Vertical

Test Distance: 3 M							
No.	Freq. (MHz)	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	7545.00	-66.9	-37.6	-4.9	-42.5	-13.0	-29.5
2	10775.00	-66.9	-31.1	-6.4	-37.5	-13.0	-24.5
3	12084.00	-66.6	-29.2	-6.8	-36.0	-13.0	-23.0
4	13733.00	-66.4	-23.5	-7.4	-30.9	-13.0	-17.9
5	14787.00	-66.7	-24.0	-7.9	-31.9	-13.0	-18.9
6	18000.00	-67.6	-17.7	-9.7	-27.4	-13.0	-14.4

Remarks:

1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Spectrum reading (dBm) = Spectrum reading value without factor,
Factor = free space loss + antenna factor (dB/m) and cable loss.

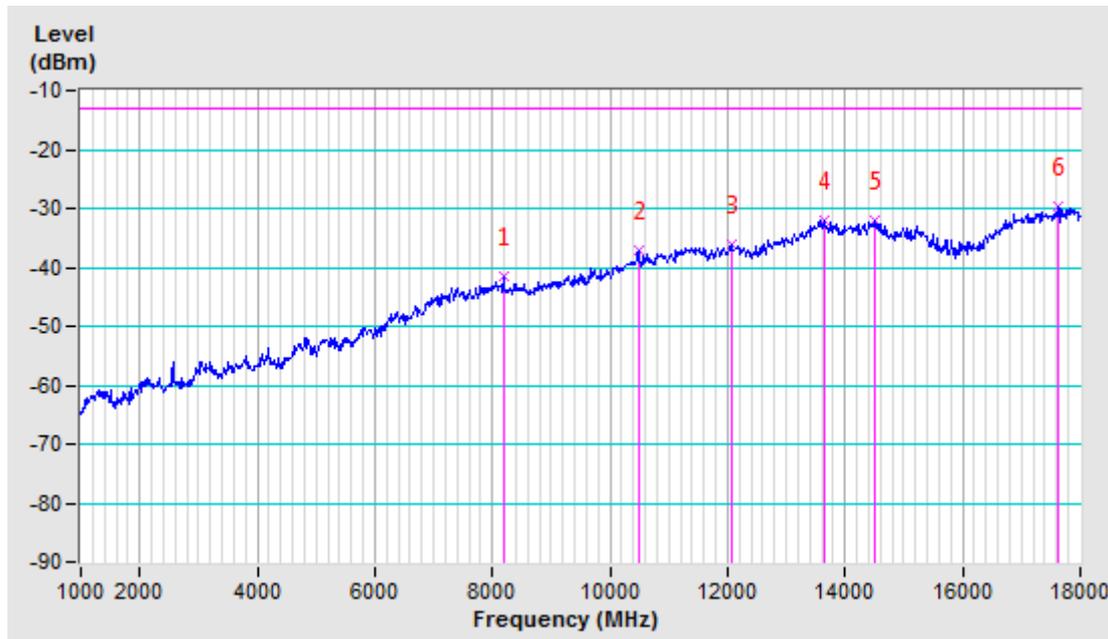


Beam ID	20	Frequency Range	1GHz ~ 18GHz
Channel	Mid	Polarity	Horizontal

Test Distance: 3 M							
No.	Freq. (MHz)	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	8191.00	-66.4	-36.5	-5.1	-41.6	-13.0	-28.6
2	10486.00	-66.8	-30.8	-6.3	-37.1	-13.0	-24.1
3	12067.00	-67.5	-29.3	-6.8	-36.1	-13.0	-23.1
4	13631.00	-67.4	-24.6	-7.5	-32.1	-13.0	-19.1
5	14498.00	-67.4	-24.3	-7.8	-32.1	-13.0	-19.1
6	17609.00	-66.8	-20.2	-9.6	-29.8	-13.0	-16.8

Remarks:

1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Spectrum reading (dBm) = Spectrum reading value without factor,
Factor = free space loss + antenna factor (dB/m) and cable loss.

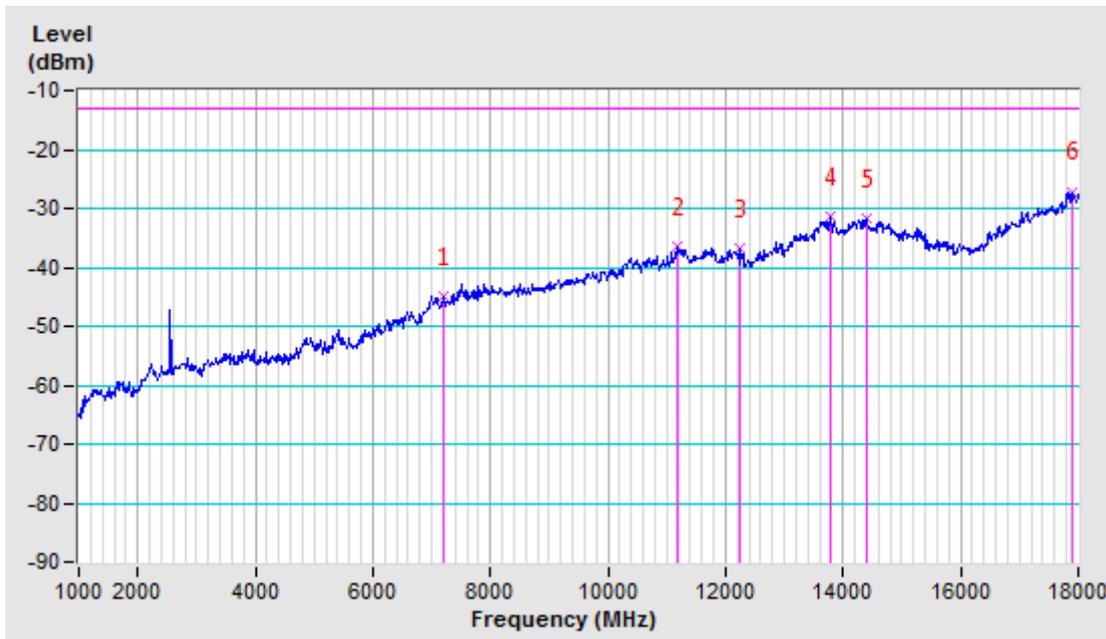


Beam ID	20	Frequency Range	1GHz ~ 18GHz
Channel	Mid	Polarity	Vertical

Test Distance: 3 M							
No.	Freq. (MHz)	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	7205.00	-68.1	-40.1	-4.7	-44.8	-13.0	-31.8
2	11166.00	-67.0	-30.0	-6.5	-36.5	-13.0	-23.5
3	12237.00	-66.8	-29.9	-6.9	-36.8	-13.0	-23.8
4	13801.00	-66.6	-23.8	-7.5	-31.3	-13.0	-18.3
5	14396.00	-67.6	-24.0	-7.7	-31.7	-13.0	-18.7
6	17898.00	-66.5	-17.4	-9.7	-27.1	-13.0	-14.1

Remarks:

1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Spectrum reading (dBm) = Spectrum reading value without factor,
Factor = free space loss + antenna factor (dB/m) and cable loss.

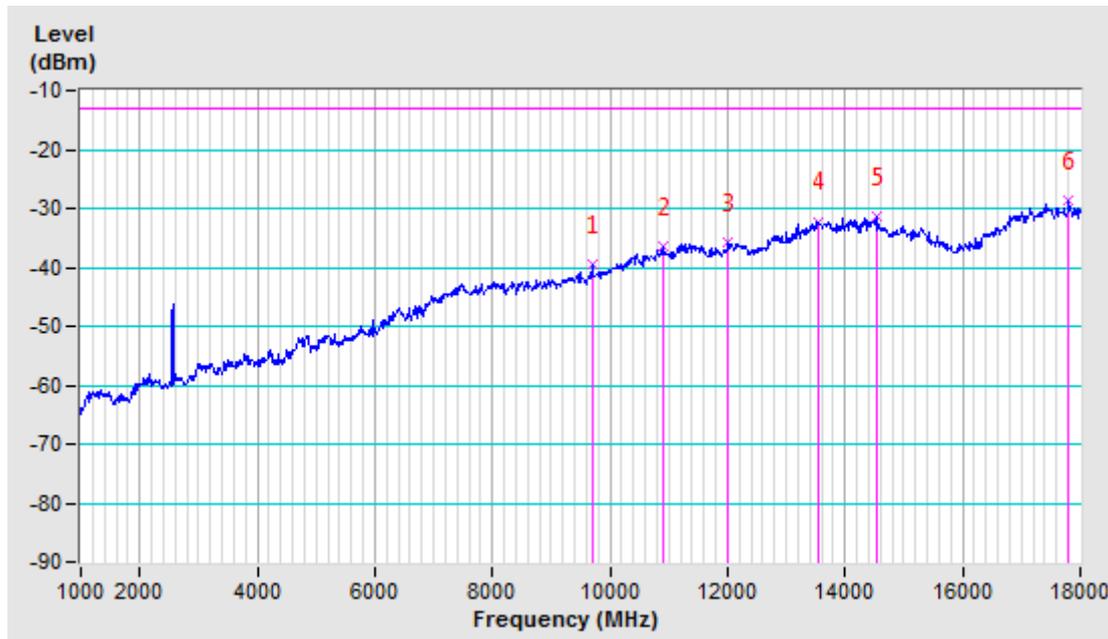


Beam ID	20	Frequency Range	1GHz ~ 18GHz
Channel	High	Polarity	Horizontal

Test Distance: 3 M							
No.	Freq. (MHz)	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	9704.00	-66.7	-33.6	-5.8	-39.4	-13.0	-26.4
2	10894.00	-66.9	-30.0	-6.3	-36.3	-13.0	-23.3
3	12016.00	-67.1	-29.1	-6.8	-35.9	-13.0	-22.9
4	13529.00	-67.3	-24.8	-7.4	-32.2	-13.0	-19.2
5	14549.00	-66.3	-23.5	-7.9	-31.4	-13.0	-18.4
6	17796.00	-66.5	-18.8	-9.8	-28.6	-13.0	-15.6

Remarks:

1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Spectrum reading (dBm) = Spectrum reading value without factor,
Factor = free space loss + antenna factor (dB/m) and cable loss.

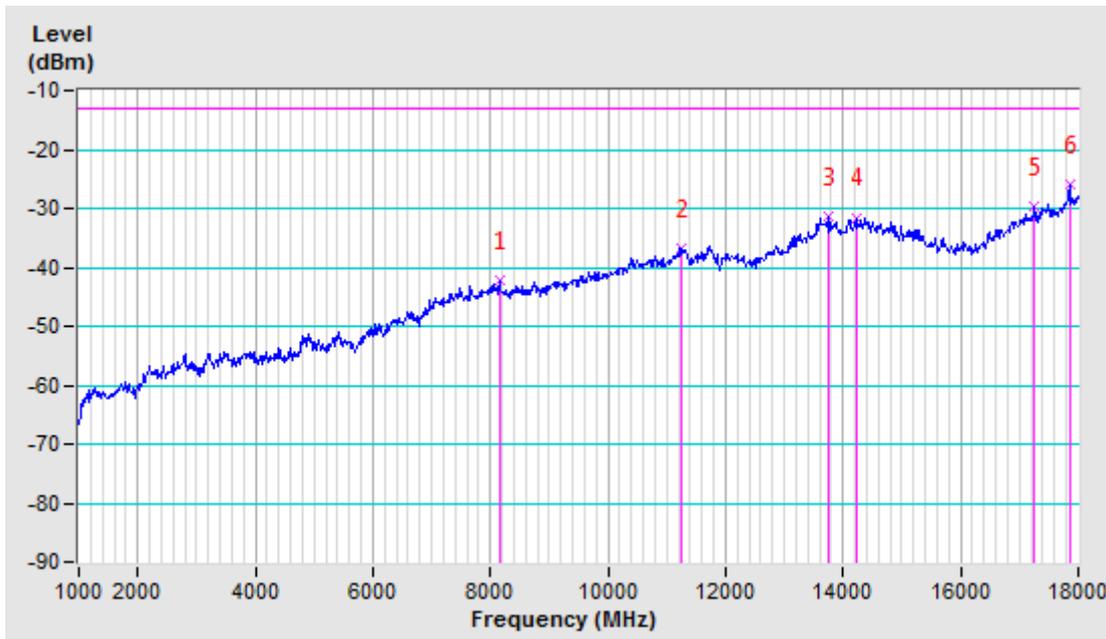


Beam ID	20	Frequency Range	1GHz ~ 18GHz
Channel	High	Polarity	Vertical

Test Distance: 3 M							
No.	Freq. (MHz)	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	8157.00	-66.8	-37.0	-5.1	-42.1	-13.0	-29.1
2	11234.00	-67.7	-30.2	-6.5	-36.7	-13.0	-23.7
3	13767.00	-66.8	-23.9	-7.5	-31.4	-13.0	-18.4
4	14243.00	-67.4	-23.8	-7.7	-31.5	-13.0	-18.5
5	17252.00	-66.2	-20.0	-9.5	-29.5	-13.0	-16.5
6	17847.00	-65.5	-16.3	-9.7	-26.0	-13.0	-13.0

Remarks:

1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Spectrum reading (dBm) = Spectrum reading value without factor,
Factor = free space loss + antenna factor (dB/m) and cable loss.

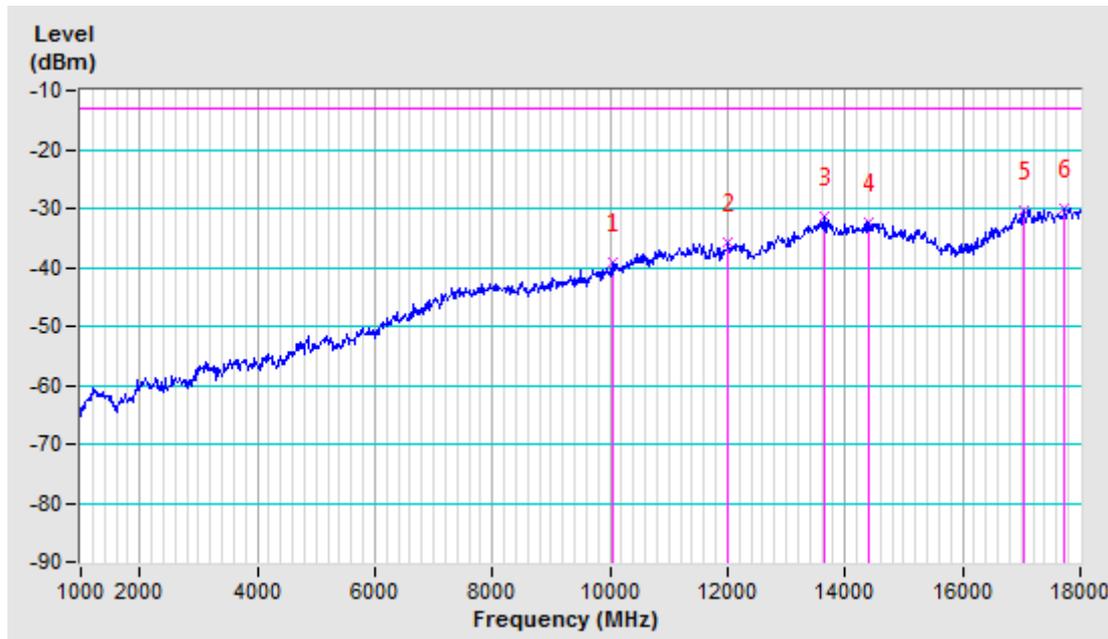


Beam ID	20+148	Frequency Range	1GHz ~ 18GHz
Channel	Low	Polarity	Horizontal

Test Distance: 3 M							
No.	Freq. (MHz)	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	10044.00	-67.2	-33.1	-6.1	-39.2	-13.0	-26.2
2	12016.00	-67.0	-29.0	-6.8	-35.8	-13.0	-22.8
3	13648.00	-66.7	-24.0	-7.5	-31.5	-13.0	-18.5
4	14413.00	-67.3	-24.6	-7.7	-32.3	-13.0	-19.3
5	17031.00	-66.1	-20.7	-9.5	-30.2	-13.0	-17.2
6	17728.00	-67.0	-20.2	-9.7	-29.9	-13.0	-16.9

Remarks:

1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Spectrum reading (dBm) = Spectrum reading value without factor,
Factor = free space loss + antenna factor (dB/m) and cable loss.

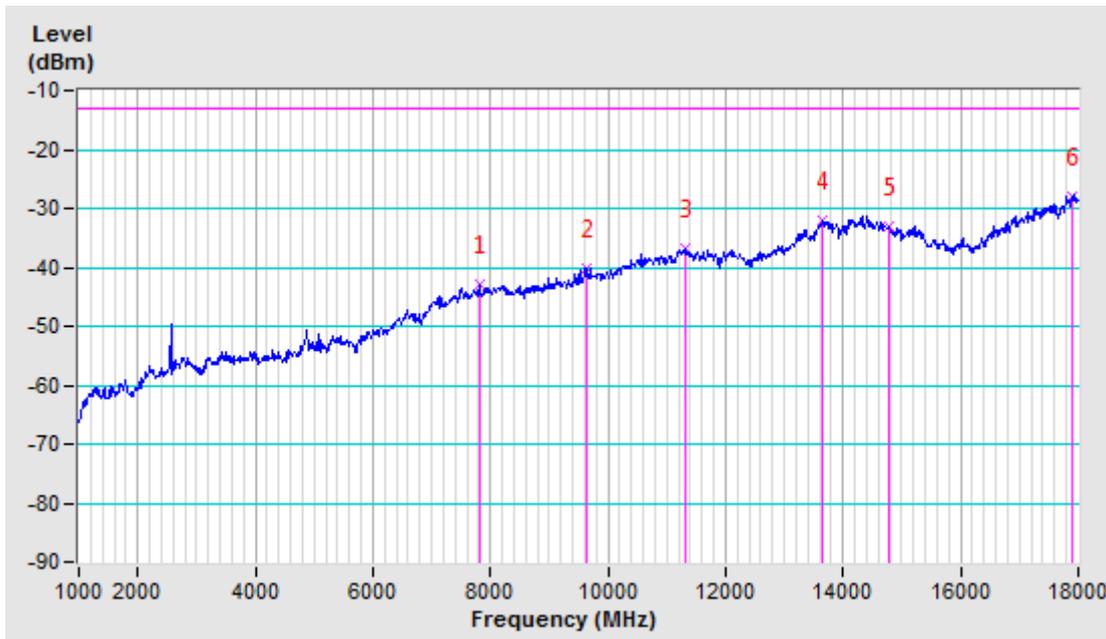


Beam ID	20+148	Frequency Range	1GHz ~ 18GHz
Channel	Low	Polarity	Vertical

Test Distance: 3 M							
No.	Freq. (MHz)	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	7817.00	-67.1	-37.8	-5.0	-42.8	-13.0	-29.8
2	9636.00	-67.3	-34.3	-5.8	-40.1	-13.0	-27.1
3	11319.00	-67.5	-30.1	-6.6	-36.7	-13.0	-23.7
4	13648.00	-67.5	-24.5	-7.5	-32.0	-13.0	-19.0
5	14787.00	-67.8	-25.1	-7.9	-33.0	-13.0	-20.0
6	17898.00	-67.3	-18.2	-9.7	-27.9	-13.0	-14.9

Remarks:

1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Spectrum reading (dBm) = Spectrum reading value without factor,
Factor = free space loss + antenna factor (dB/m) and cable loss.

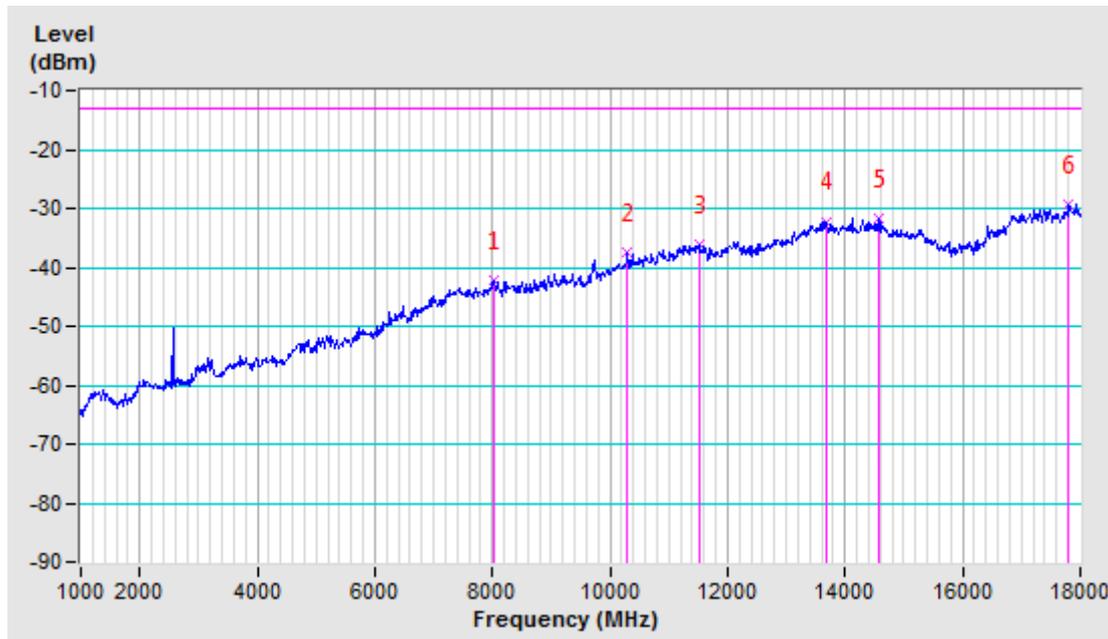


Beam ID	20+148	Frequency Range	1GHz ~ 18GHz
Channel	Mid	Polarity	Horizontal

Test Distance: 3 M							
No.	Freq. (MHz)	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	8021.00	-67.7	-37.2	-5.1	-42.3	-13.0	-29.3
2	10299.00	-66.8	-31.2	-6.2	-37.4	-13.0	-24.4
3	11506.00	-67.3	-29.4	-6.6	-36.0	-13.0	-23.0
4	13665.00	-67.3	-24.8	-7.4	-32.2	-13.0	-19.2
5	14566.00	-66.6	-23.9	-7.9	-31.8	-13.0	-18.8
6	17796.00	-67.2	-19.5	-9.8	-29.3	-13.0	-16.3

Remarks:

1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Spectrum reading (dBm) = Spectrum reading value without factor,
Factor = free space loss + antenna factor (dB/m) and cable loss.

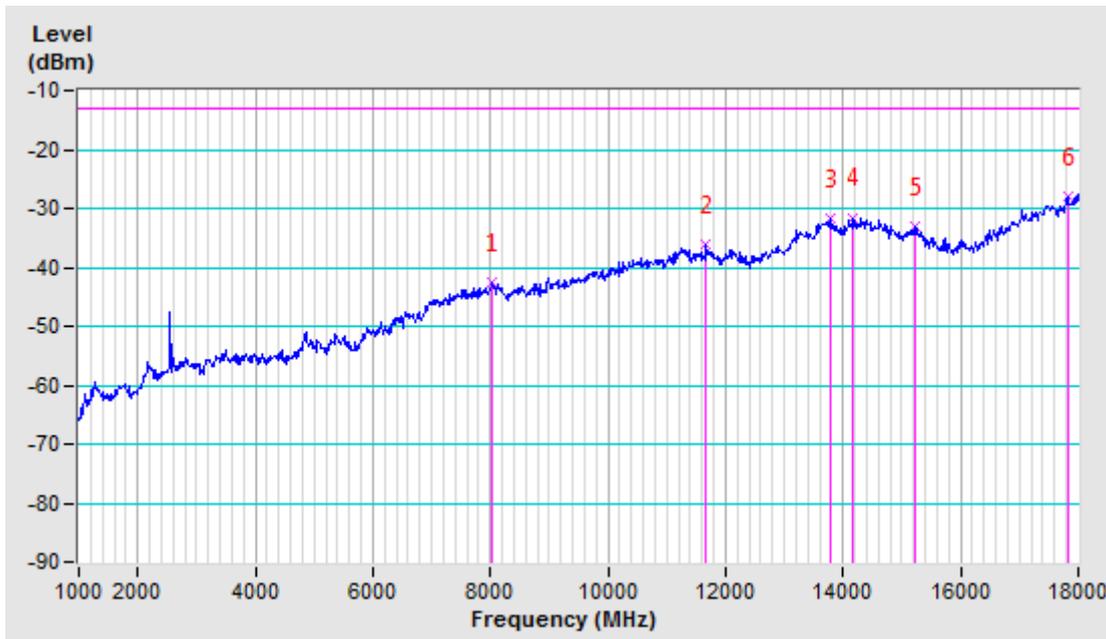


Beam ID	20+148	Frequency Range	1GHz ~ 18GHz
Channel	Mid	Polarity	Vertical

Test Distance: 3 M							
No.	Freq. (MHz)	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	8038.00	-67.3	-37.5	-5.1	-42.6	-13.0	-29.6
2	11676.00	-66.8	-29.4	-6.7	-36.1	-13.0	-23.1
3	13784.00	-67.0	-24.2	-7.5	-31.7	-13.0	-18.7
4	14175.00	-67.2	-23.9	-7.6	-31.5	-13.0	-18.5
5	15212.00	-67.2	-25.1	-8.0	-33.1	-13.0	-20.1
6	17813.00	-67.6	-18.3	-9.7	-28.0	-13.0	-15.0

Remarks:

1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Spectrum reading (dBm) = Spectrum reading value without factor,
Factor = free space loss + antenna factor (dB/m) and cable loss.

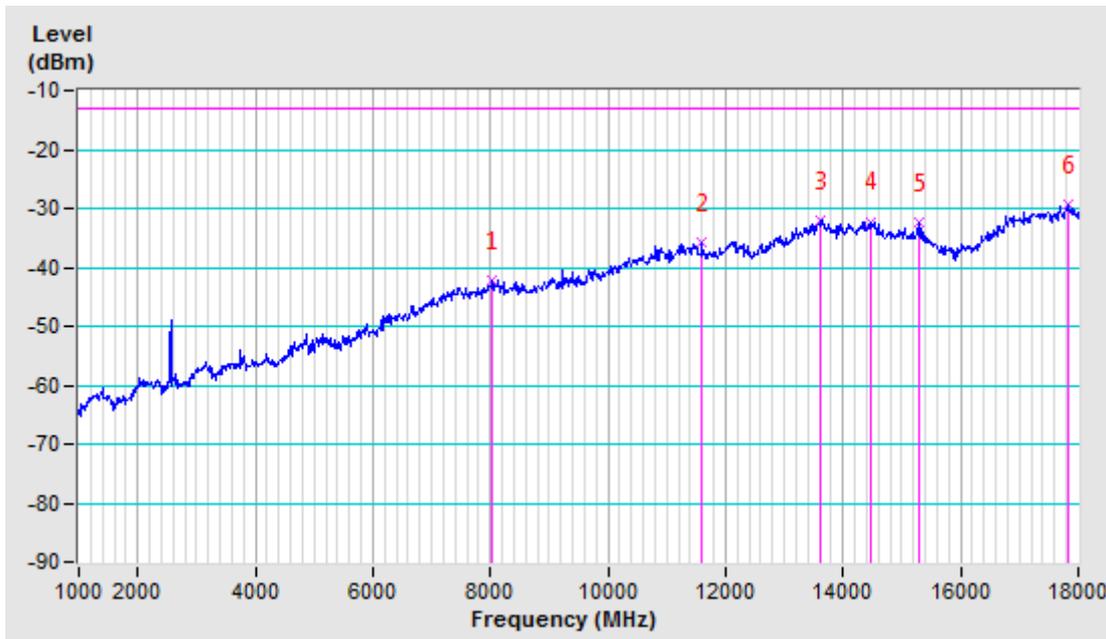


Beam ID	20+148	Frequency Range	1GHz ~ 18GHz
Channel	High	Polarity	Horizontal

Test Distance: 3 M							
No.	Freq. (MHz)	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	8038.00	-67.6	-37.2	-5.1	-42.3	-13.0	-29.3
2	11591.00	-66.5	-29.2	-6.7	-35.9	-13.0	-22.9
3	13614.00	-67.5	-24.6	-7.5	-32.1	-13.0	-19.1
4	14464.00	-67.4	-24.4	-7.8	-32.2	-13.0	-19.2
5	15297.00	-66.0	-24.4	-8.1	-32.5	-13.0	-19.5
6	17830.00	-67.1	-19.6	-9.7	-29.3	-13.0	-16.3

Remarks:

1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Spectrum reading (dBm) = Spectrum reading value without factor,
Factor = free space loss + antenna factor (dB/m) and cable loss.

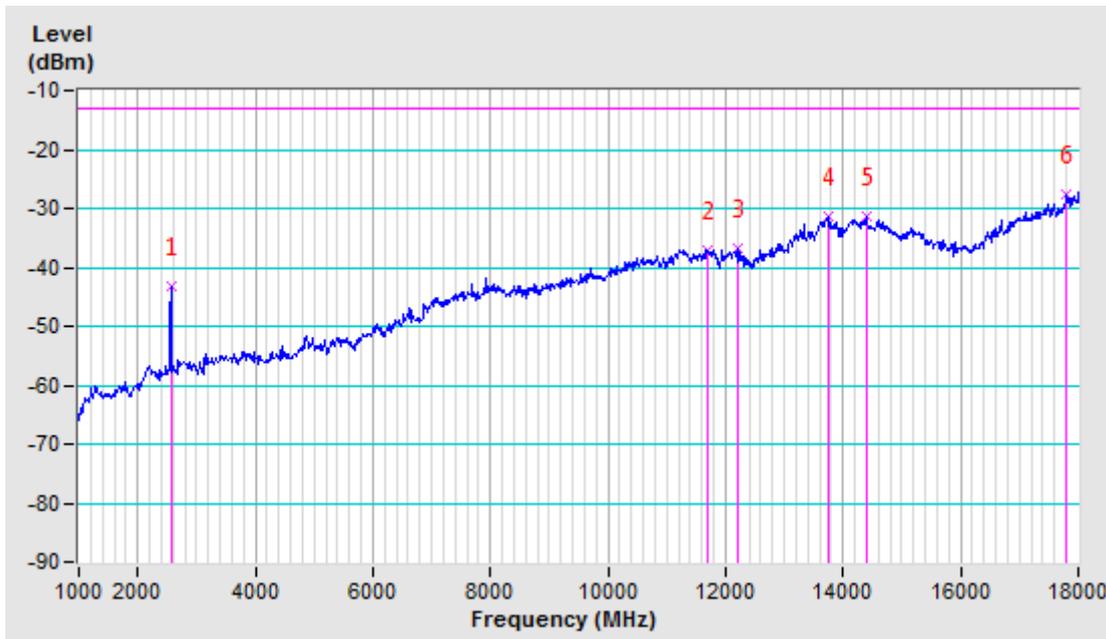


Beam ID	20+148	Frequency Range	1GHz ~ 18GHz
Channel	High	Polarity	Vertical

Test Distance: 3 M							
No.	Freq. (MHz)	Spectrum Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	2564.00	-54.6	-41.3	-2.0	-43.3	-13.0	-30.3
2	11710.00	-67.9	-30.3	-6.7	-37.0	-13.0	-24.0
3	12203.00	-67.1	-30.0	-6.9	-36.9	-13.0	-23.9
4	13733.00	-66.7	-23.8	-7.4	-31.2	-13.0	-18.2
5	14396.00	-67.1	-23.5	-7.7	-31.2	-13.0	-18.2
6	17796.00	-67.2	-17.8	-9.8	-27.6	-13.0	-14.6

Remarks:

1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).
3. Spectrum reading (dBm) = Spectrum reading value without factor,
Factor = free space loss + antenna factor (dB/m) and cable loss.



Beam ID	20	Frequency Range	18GHz-37.575GHz
Channel	Low	Antenna polarity	Horizontal

Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	20	Frequency Range	18GHz-37.575GHz
Channel	Low	Antenna polarity	Vertical

Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	20	Frequency Range	18GHz-37.575GHz
Channel	Mid	Antenna polarity	Horizontal

Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	20	Frequency Range	18GHz-37.575GHz
Channel	Mid	Antenna polarity	Vertical

Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	20	Frequency Range	18GHz-37.575GHz
Channel	High	Antenna polarity	Horizontal

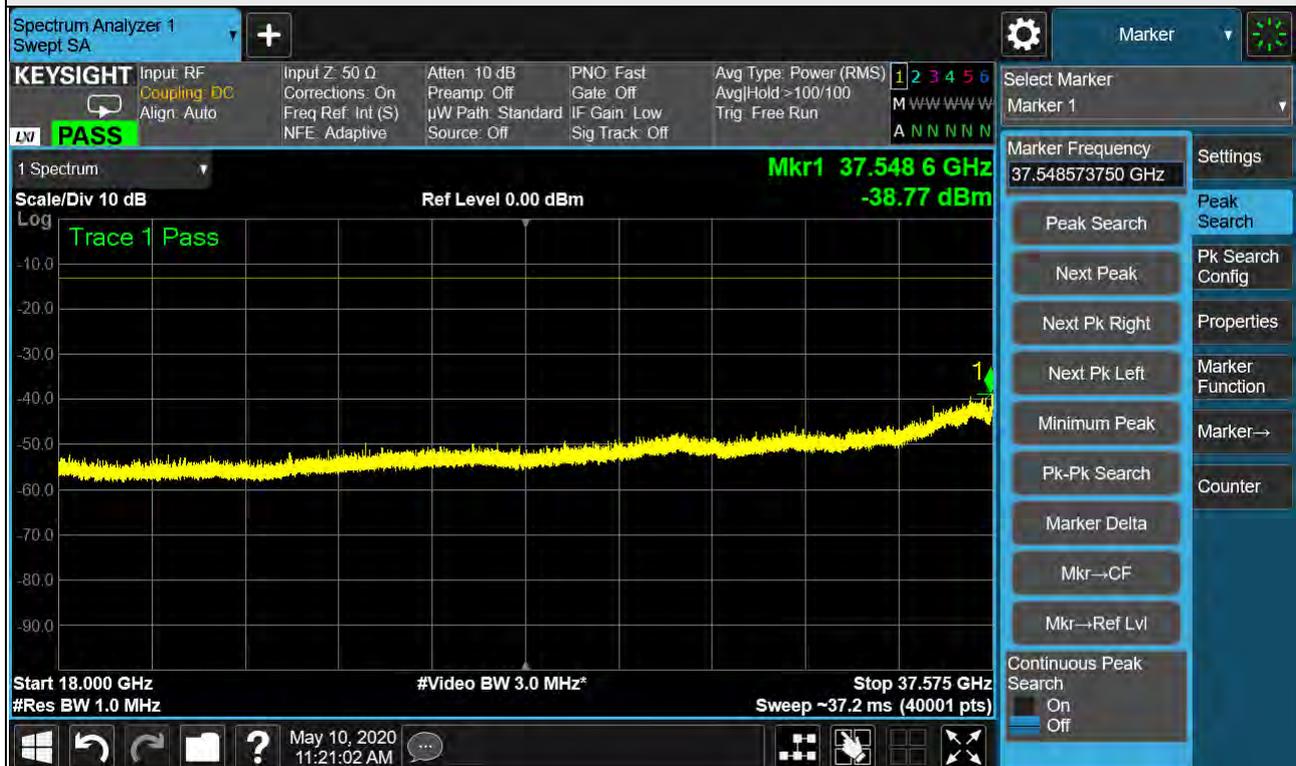
Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	20	Frequency Range	18GHz-37.575GHz
Channel	High	Antenna polarity	Vertical

Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	20+148	Frequency Range	18GHz-37.575GHz
Channel	Low	Antenna polarity	Horizontal

Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	20+148	Frequency Range	18GHz-37.575GHz
Channel	Low	Antenna polarity	Vertical

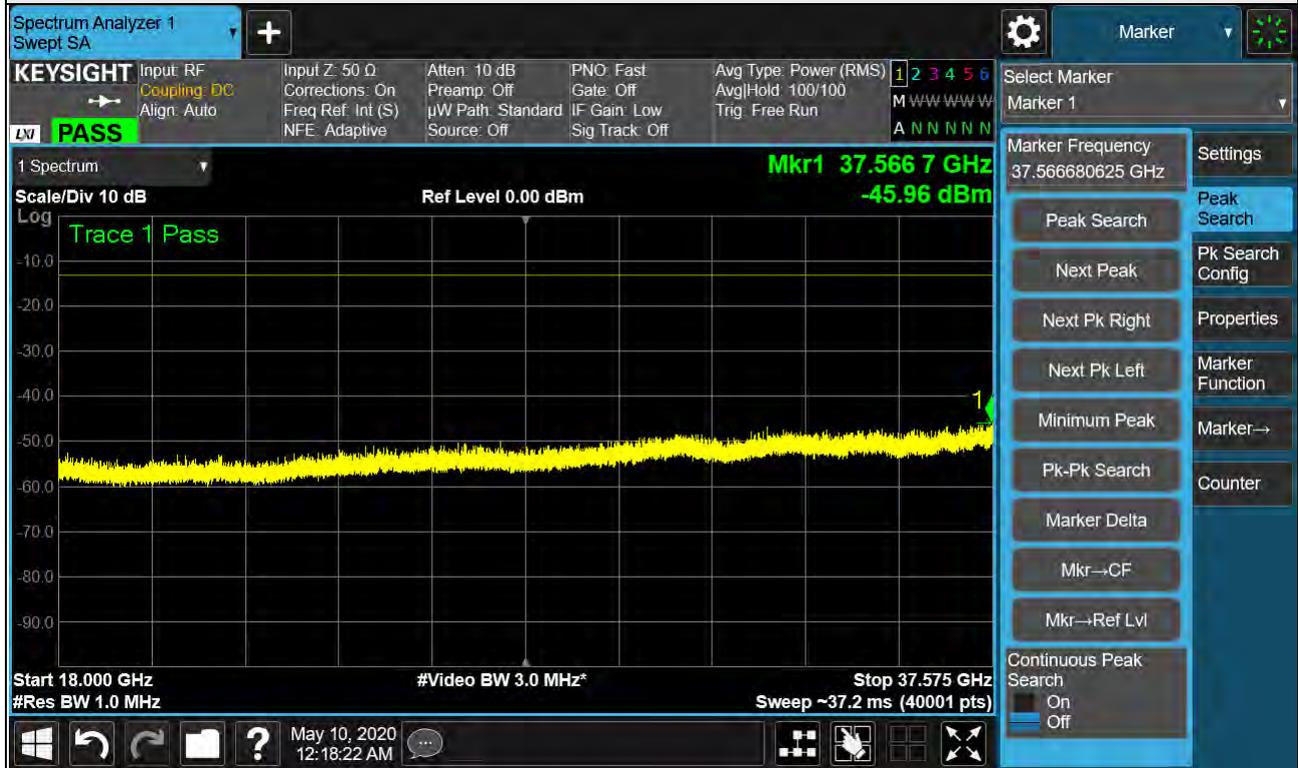
Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	20+148	Frequency Range	18GHz-37.575GHz
Channel	Mid	Antenna polarity	Horizontal

Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	20+148	Frequency Range	18GHz-37.575GHz
Channel	Mid	Antenna polarity	Vertical

Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	20+148	Frequency Range	18GHz-37.575GHz
Channel	High	Antenna polarity	Horizontal

Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	20+148	Frequency Range	18GHz-37.575GHz
Channel	High	Antenna polarity	Vertical

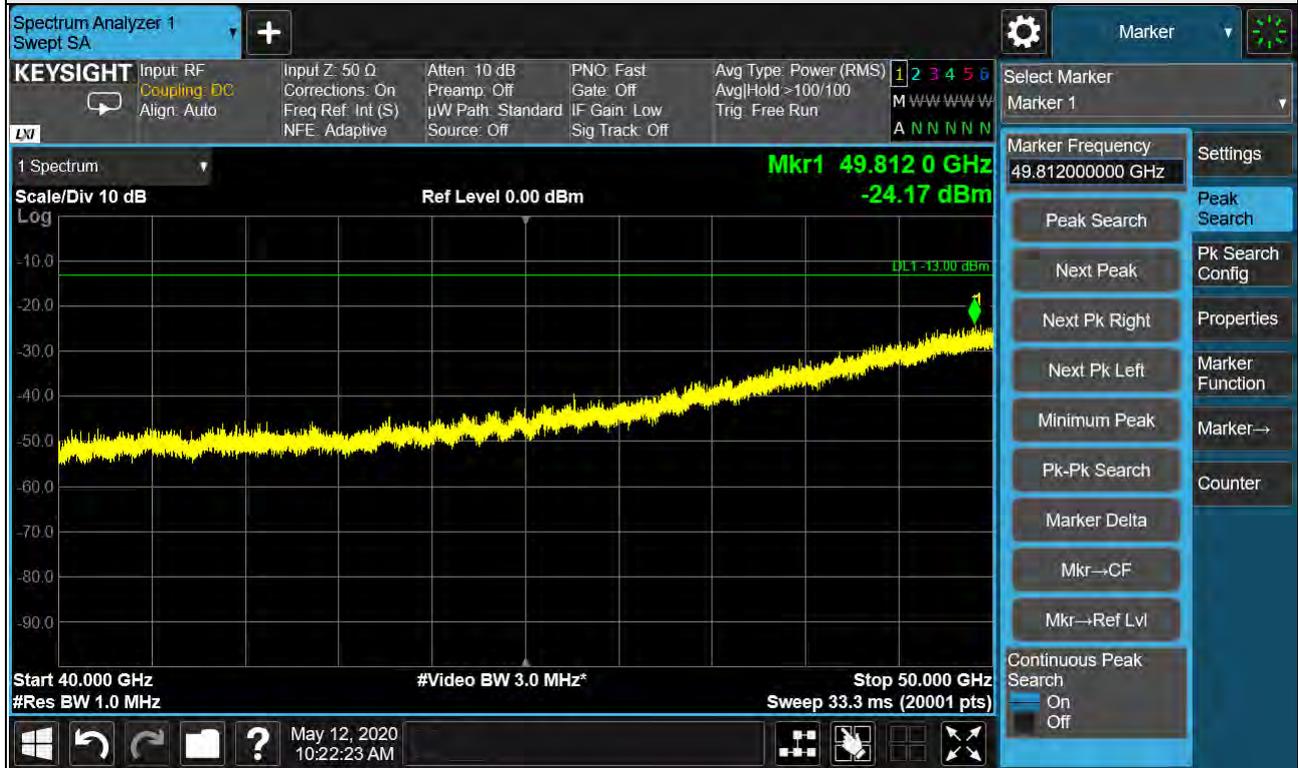
Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	20	Frequency Range	40.025GHz-50GHz
Channel	Low	Antenna polarity	Horizontal

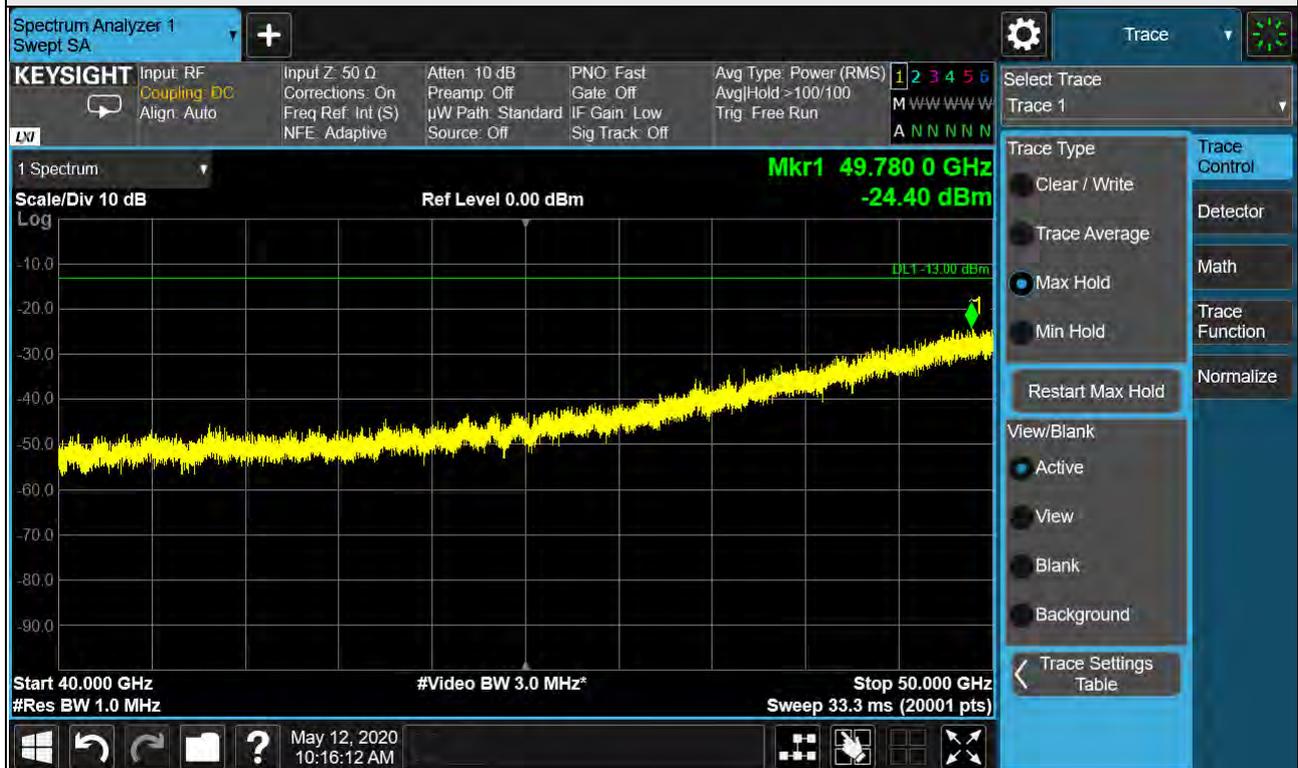
Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	20	Frequency Range	40.025GHz-50GHz
Channel	Low	Antenna polarity	Vertical

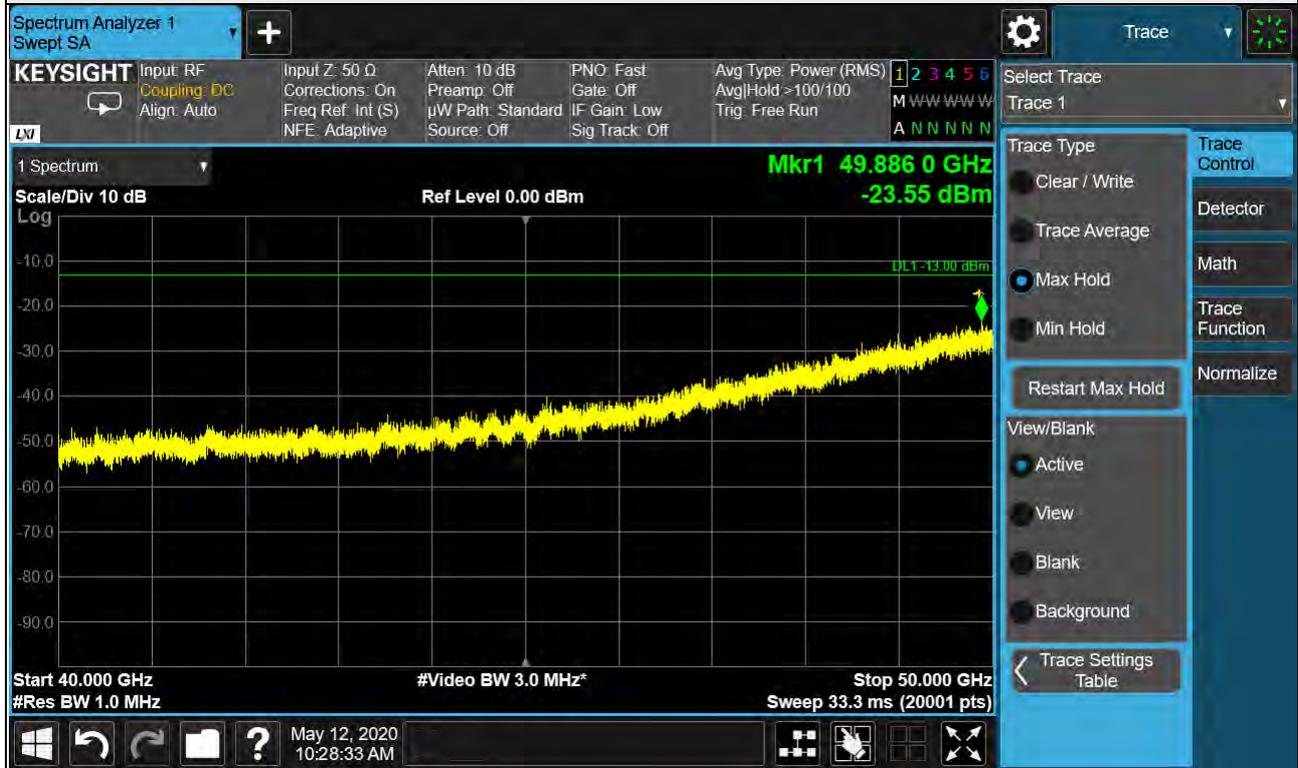
Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	20	Frequency Range	40.025GHz-50GHz
Channel	Mid	Antenna polarity	Horizontal

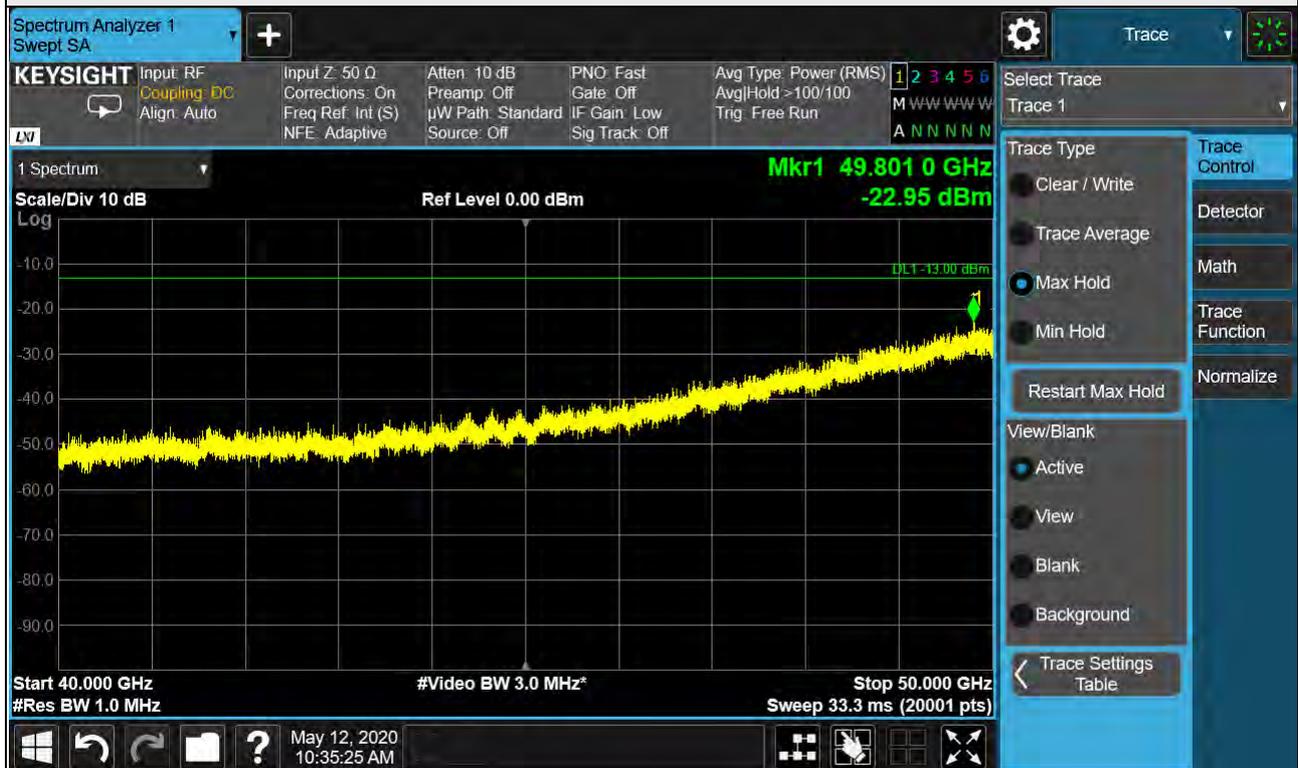
Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	20	Frequency Range	40.025GHz-50GHz
Channel	Mid	Antenna polarity	Vertical

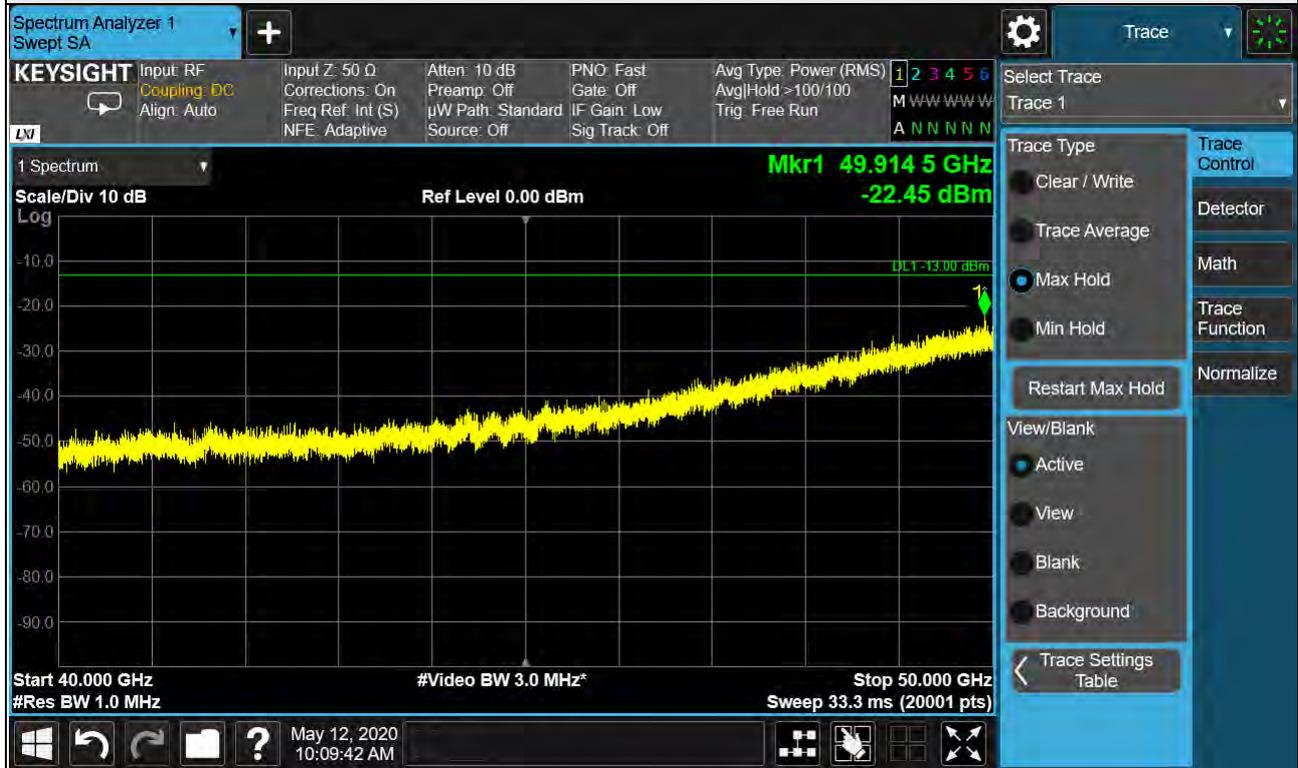
Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	20	Frequency Range	40.025GHz-50GHz
Channel	High	Antenna polarity	Horizontal

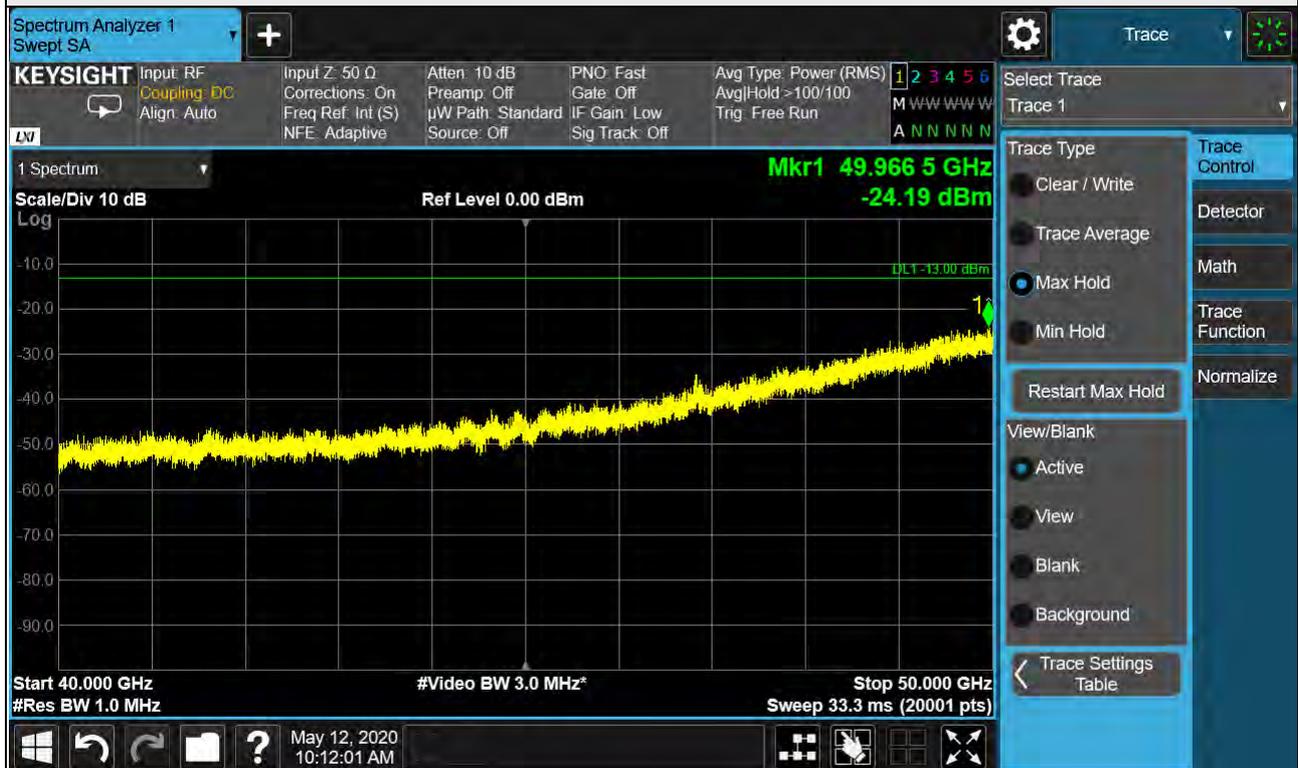
Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	20	Frequency Range	40.025GHz-50GHz
Channel	High	Antenna polarity	Vertical

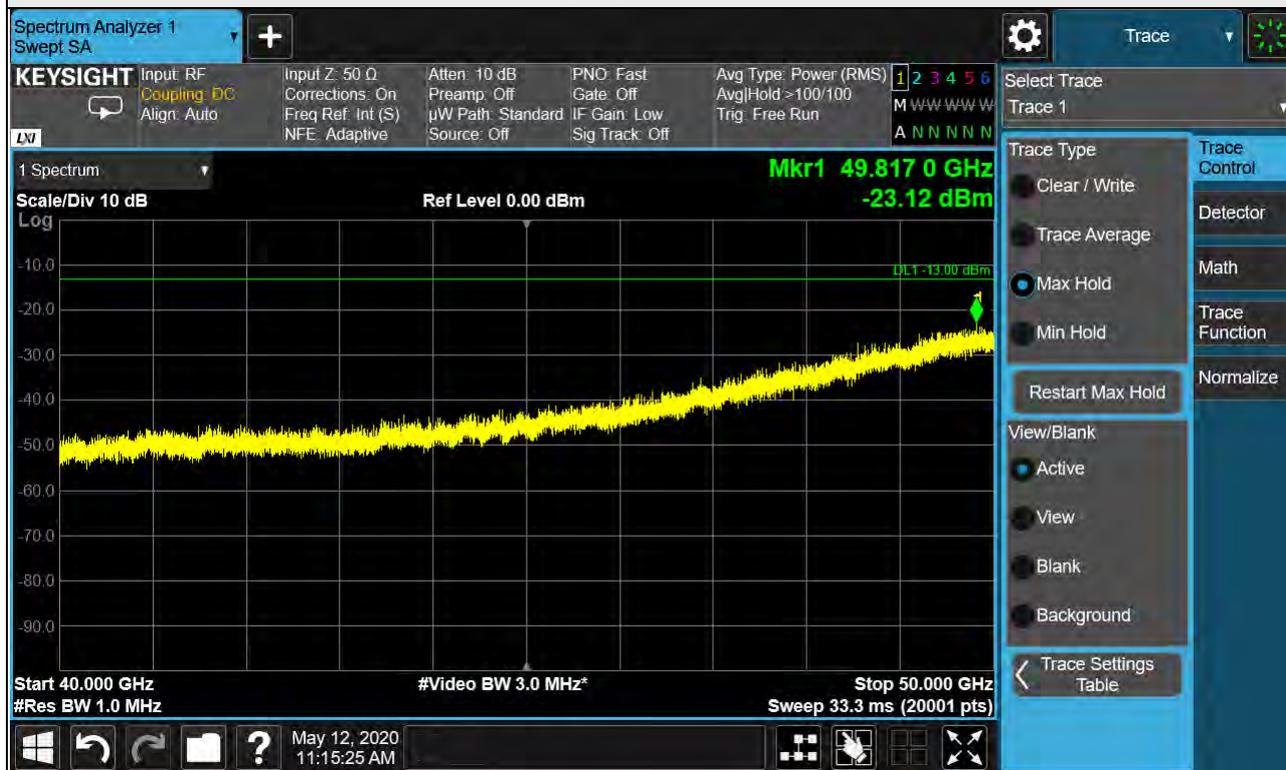
Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	30	Frequency Range	40.025GHz-50GHz
Channel	Low	Antenna polarity	Horizontal

Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	30	Frequency Range	40.025GHz-50GHz
Channel	Low	Antenna polarity	Vertical

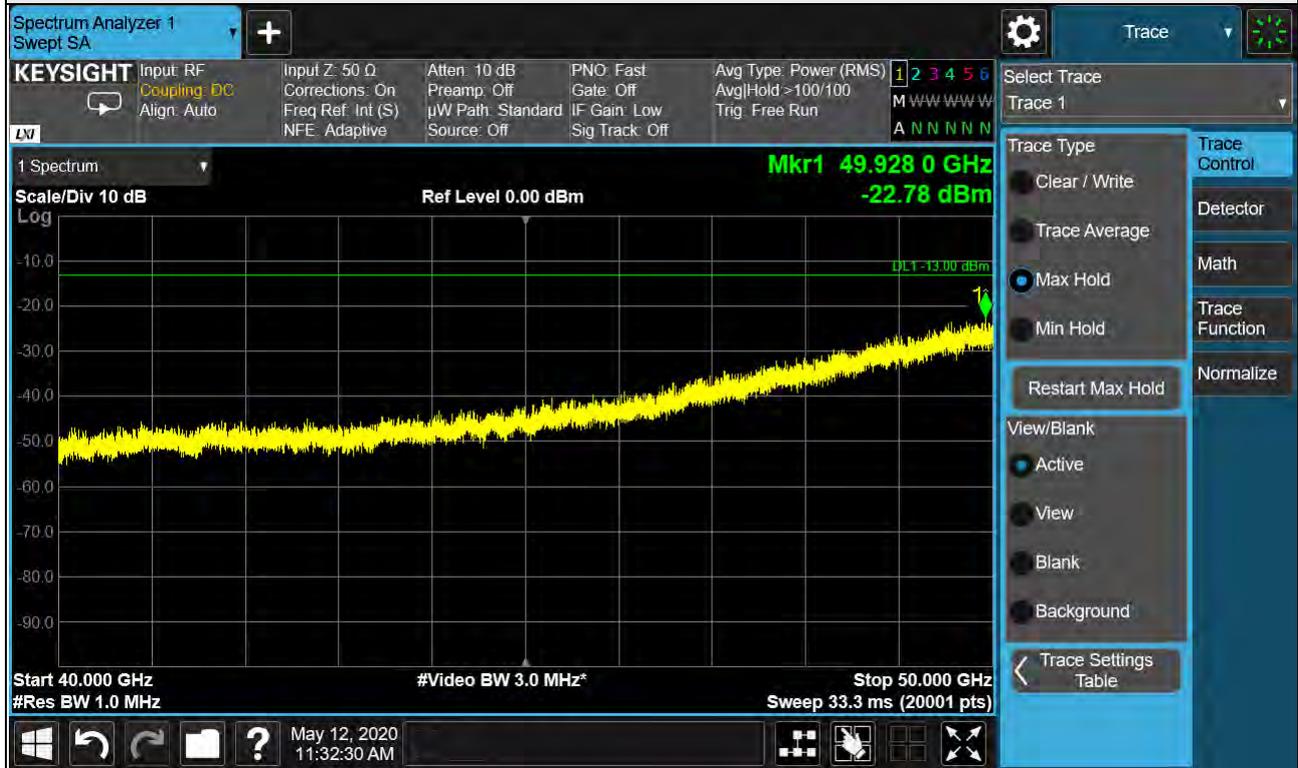
Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	30	Frequency Range	40.025GHz-50GHz
Channel	Mid	Antenna polarity	Horizontal

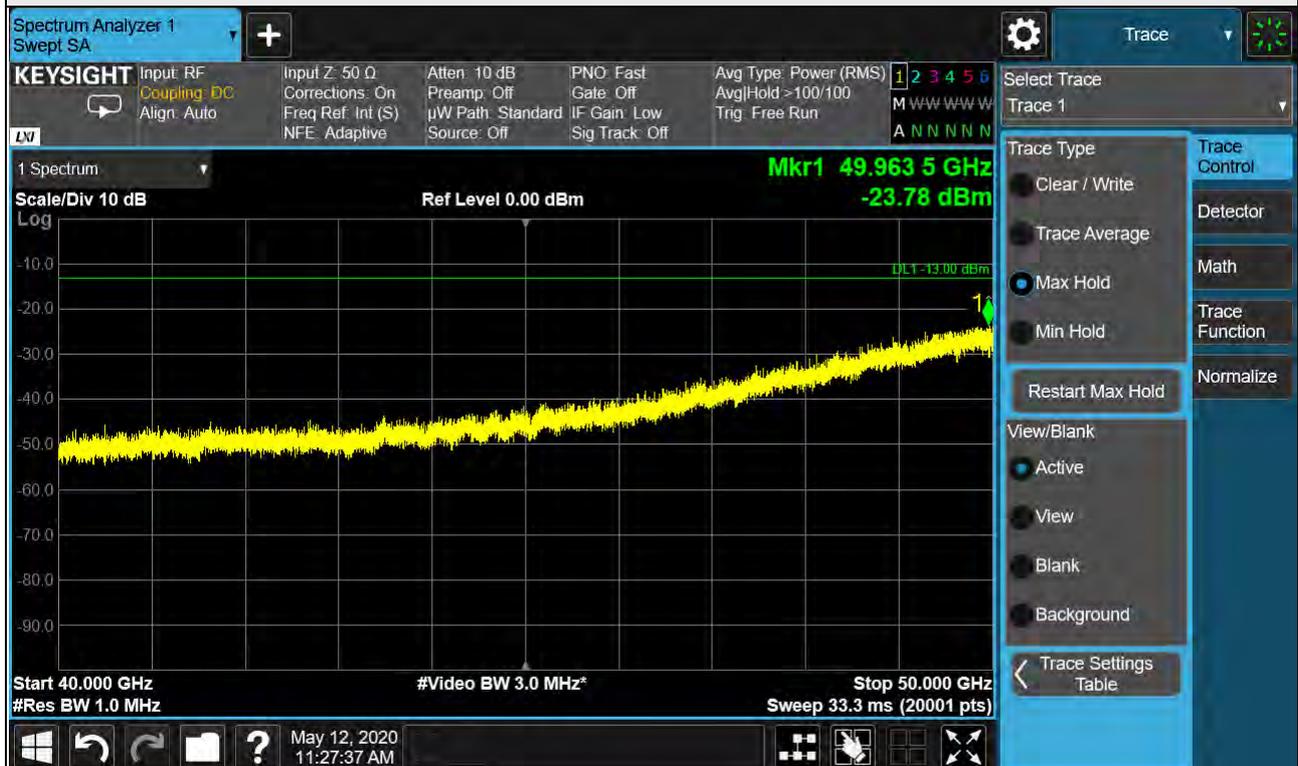
Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	30	Frequency Range	40.025GHz-50GHz
Channel	Mid	Antenna polarity	Vertical

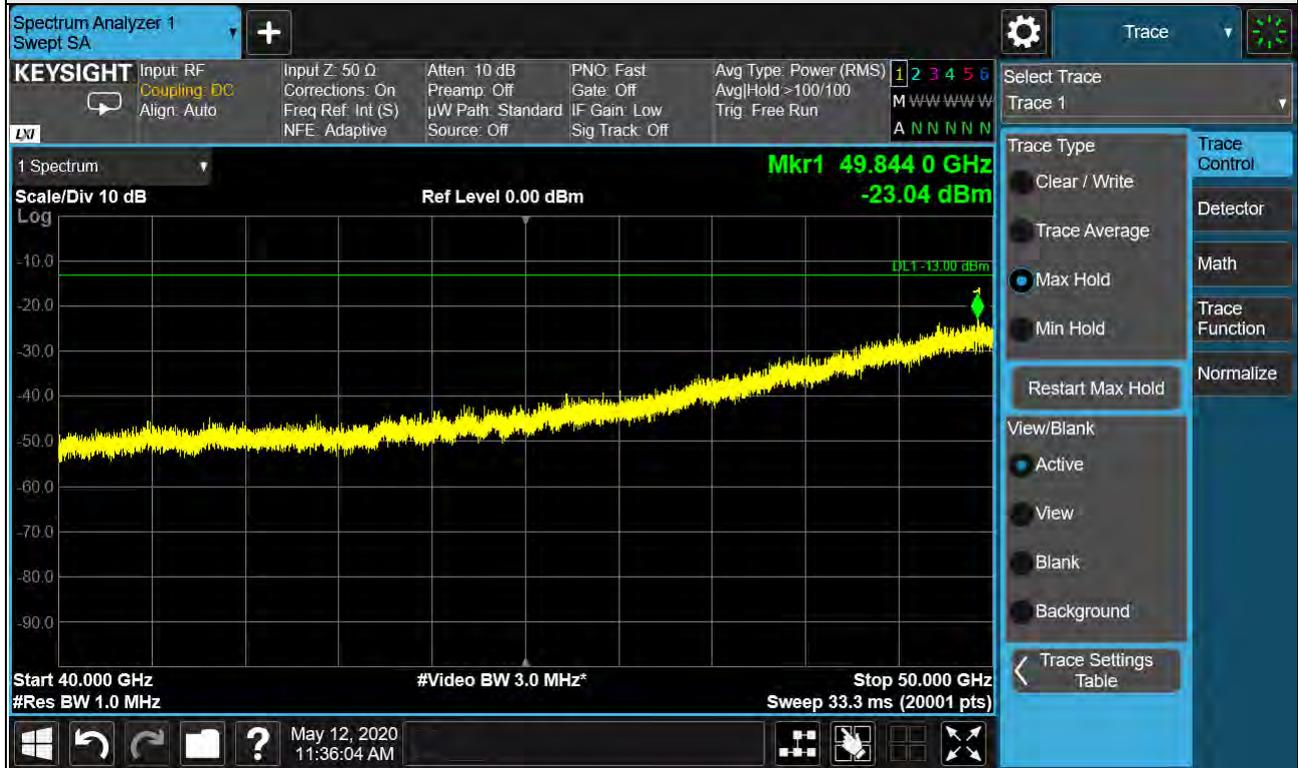
Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	30	Frequency Range	40.025GHz-50GHz
Channel	High	Antenna polarity	Horizontal

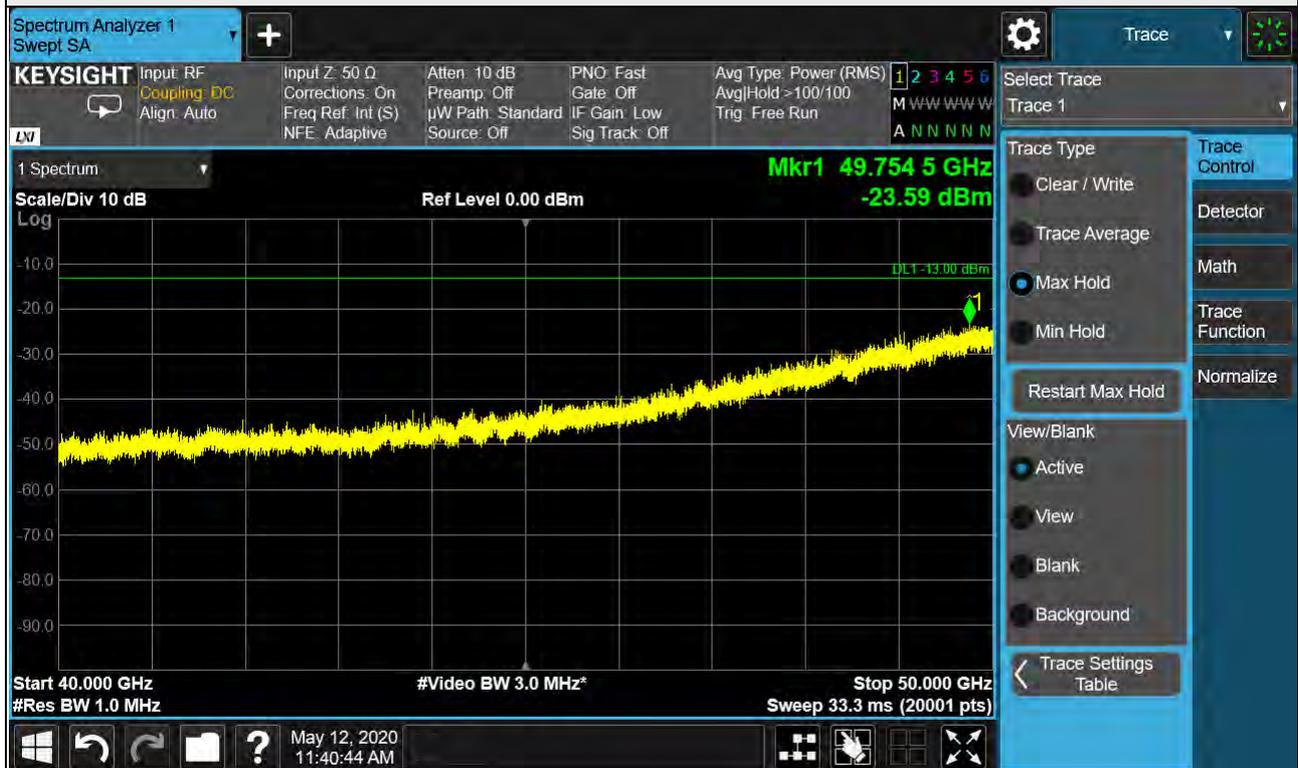
Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	30	Frequency Range	40.025GHz-50GHz
Channel	High	Antenna polarity	Vertical

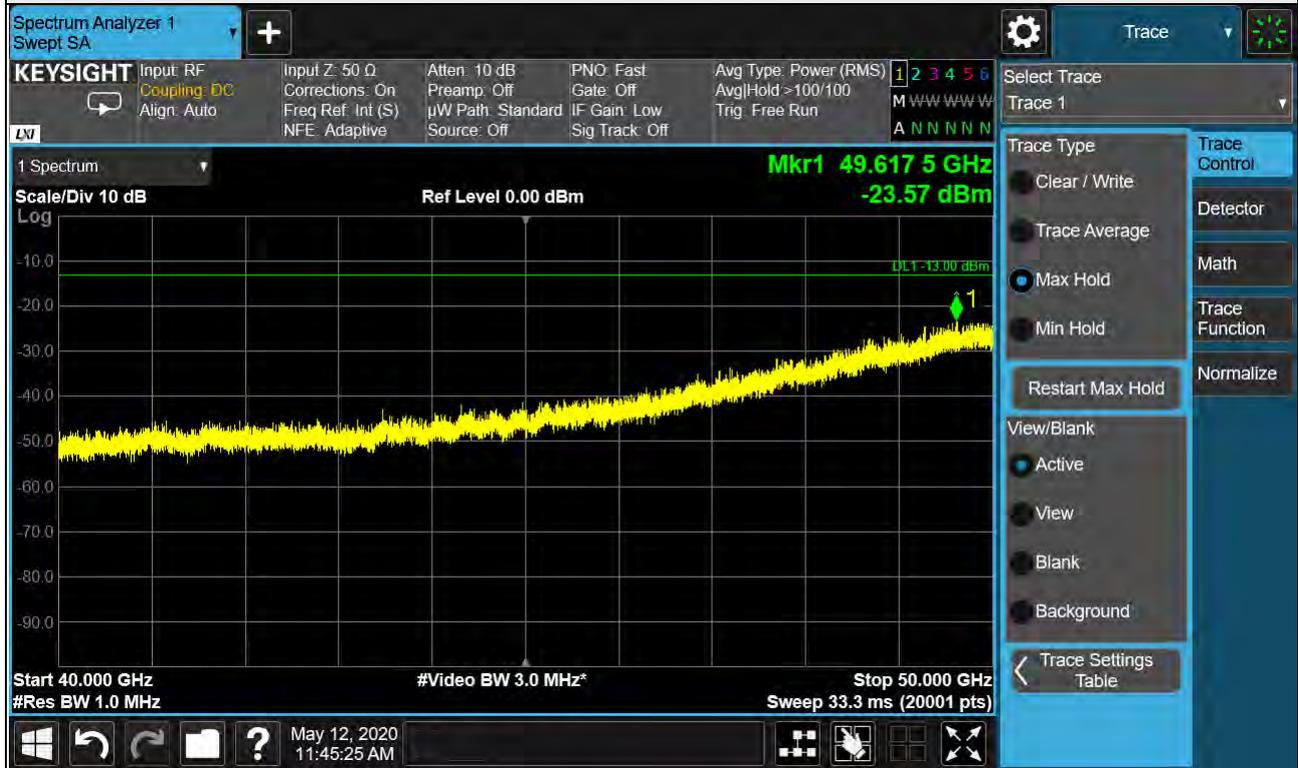
Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	39	Frequency Range	40.025GHz-50GHz
Channel	Low	Antenna polarity	Horizontal

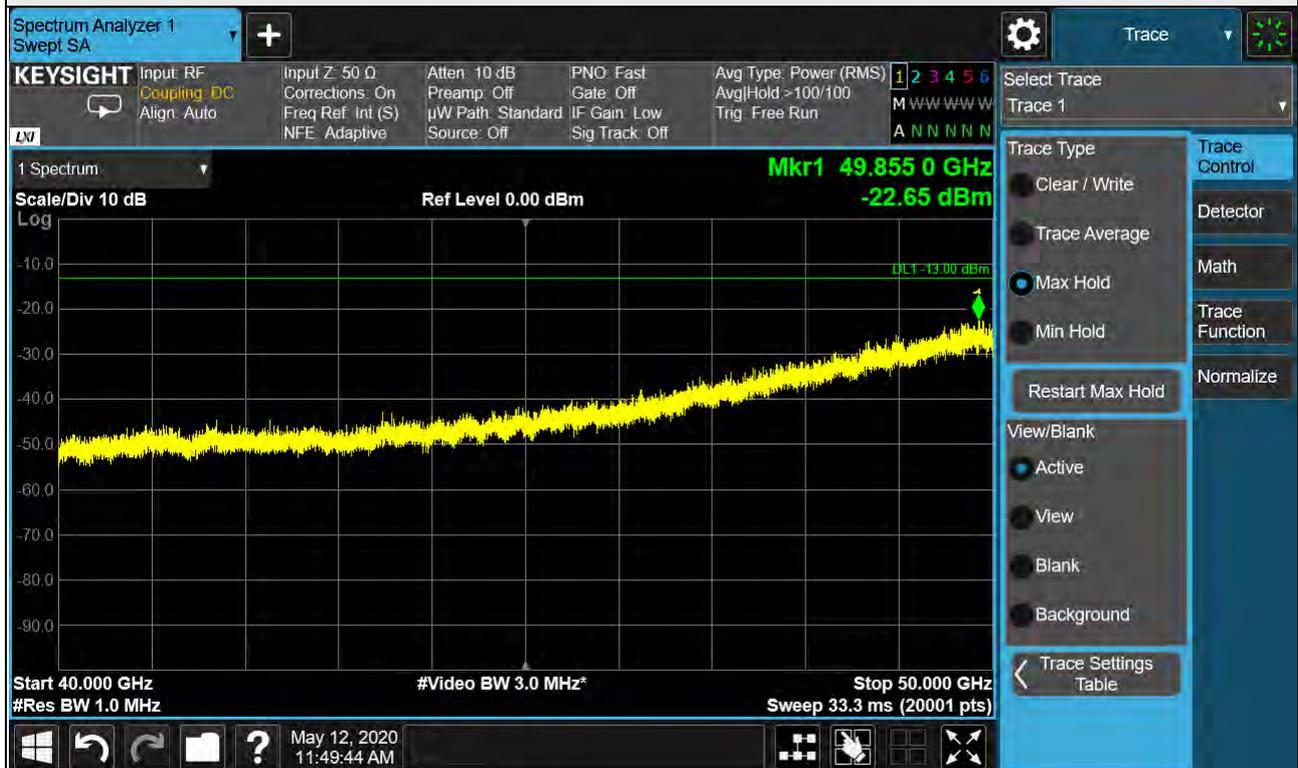
Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	39	Frequency Range	40.025GHz-50GHz
Channel	Low	Antenna polarity	Vertical

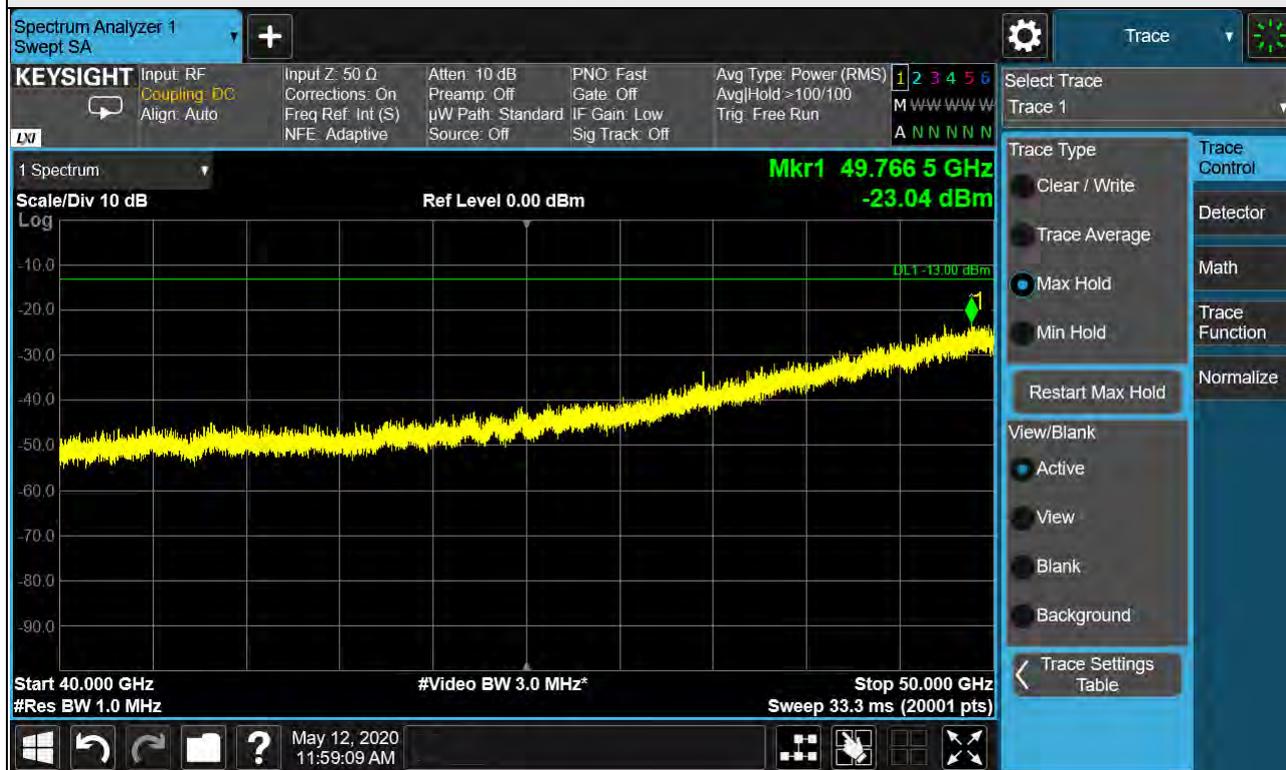
Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	39	Frequency Range	40.025GHz-50GHz
Channel	Mid	Antenna polarity	Horizontal

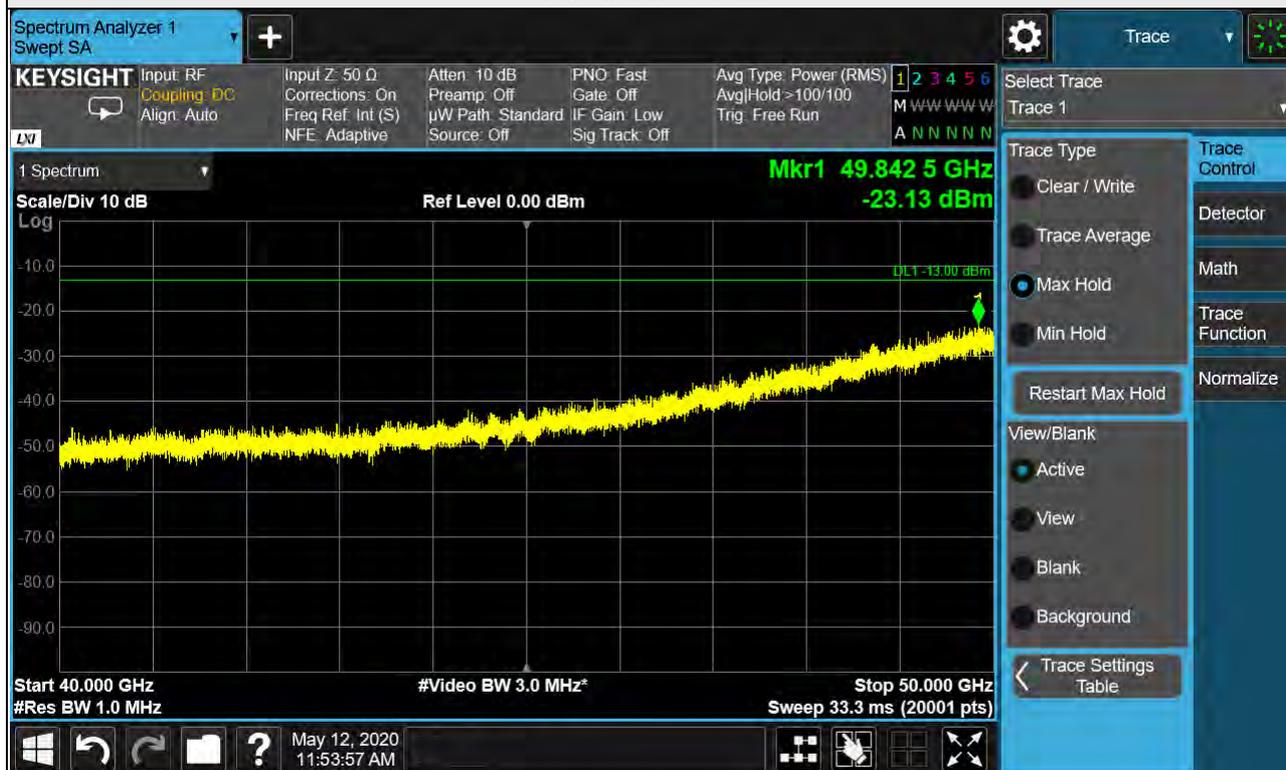
Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	39	Frequency Range	40.025GHz-50GHz
Channel	Mid	Antenna polarity	Vertical

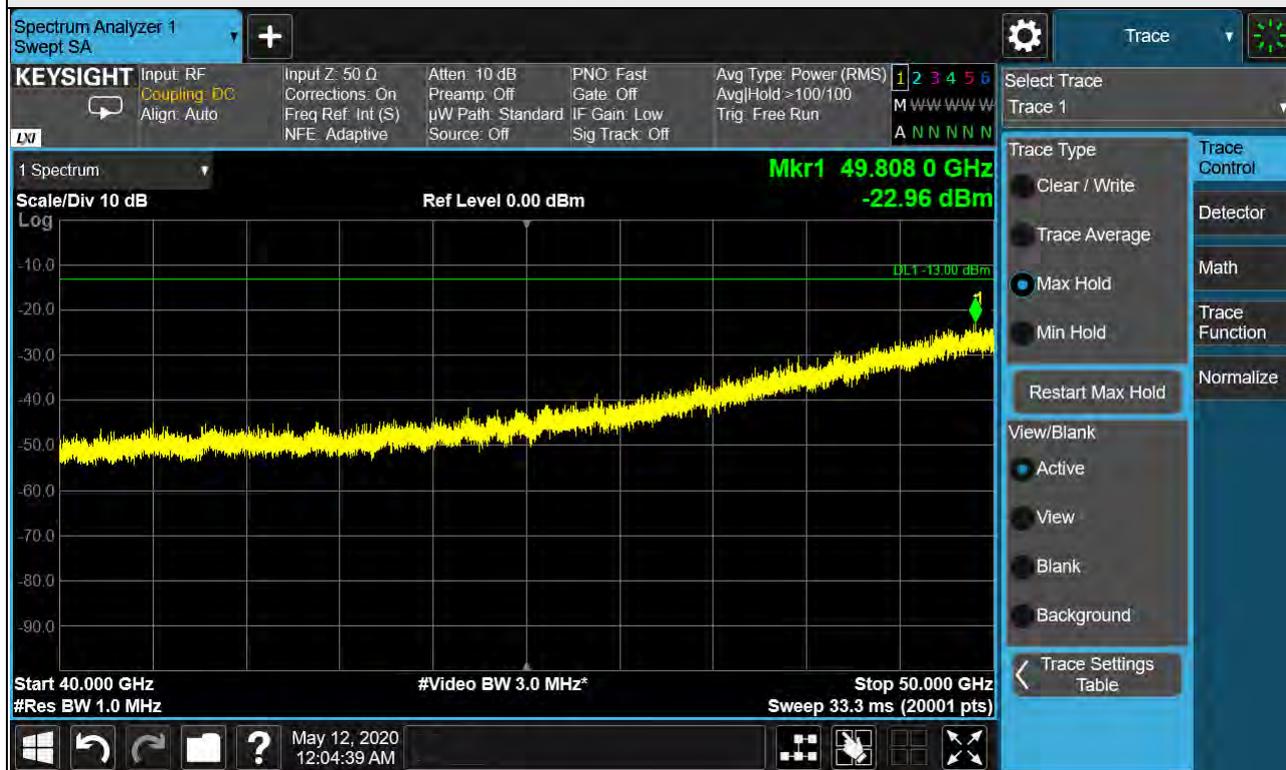
Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	39	Frequency Range	40.025GHz-50GHz
Channel	High	Antenna polarity	Horizontal

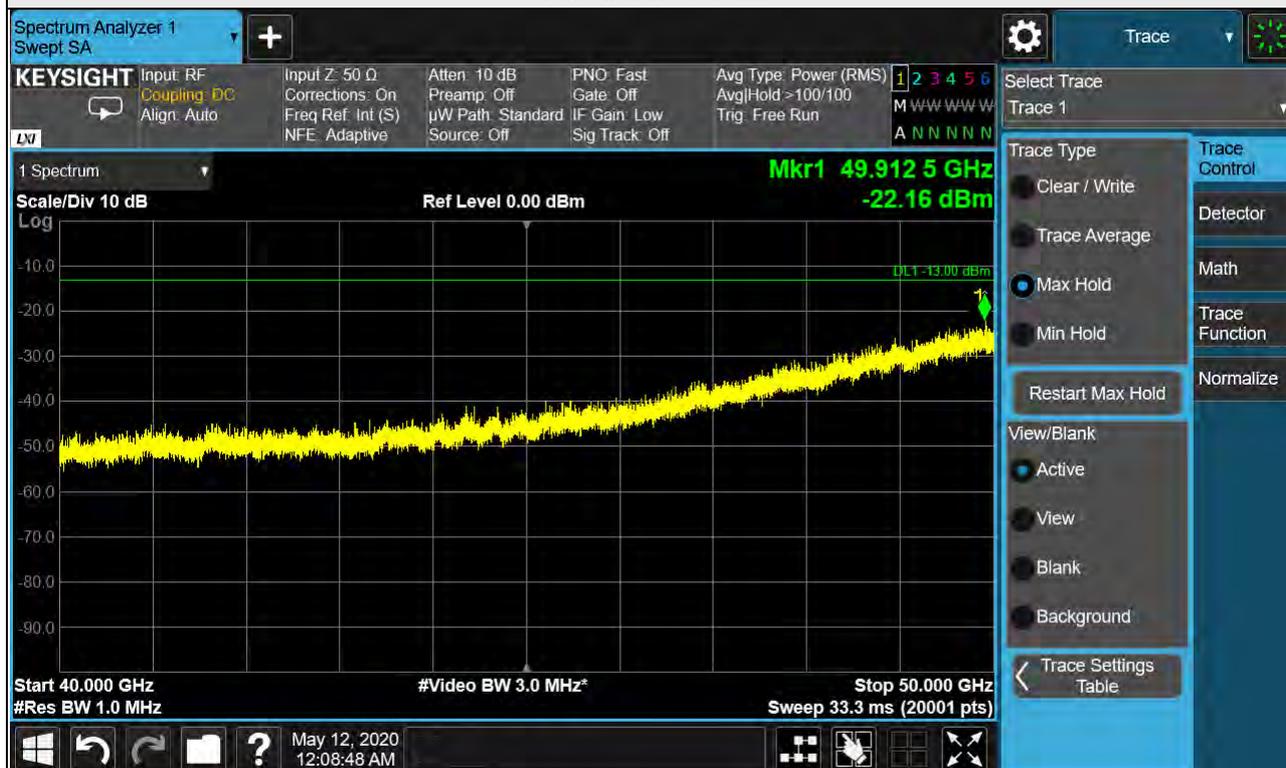
Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	39	Frequency Range	40.025GHz-50GHz
Channel	High	Antenna polarity	Vertical

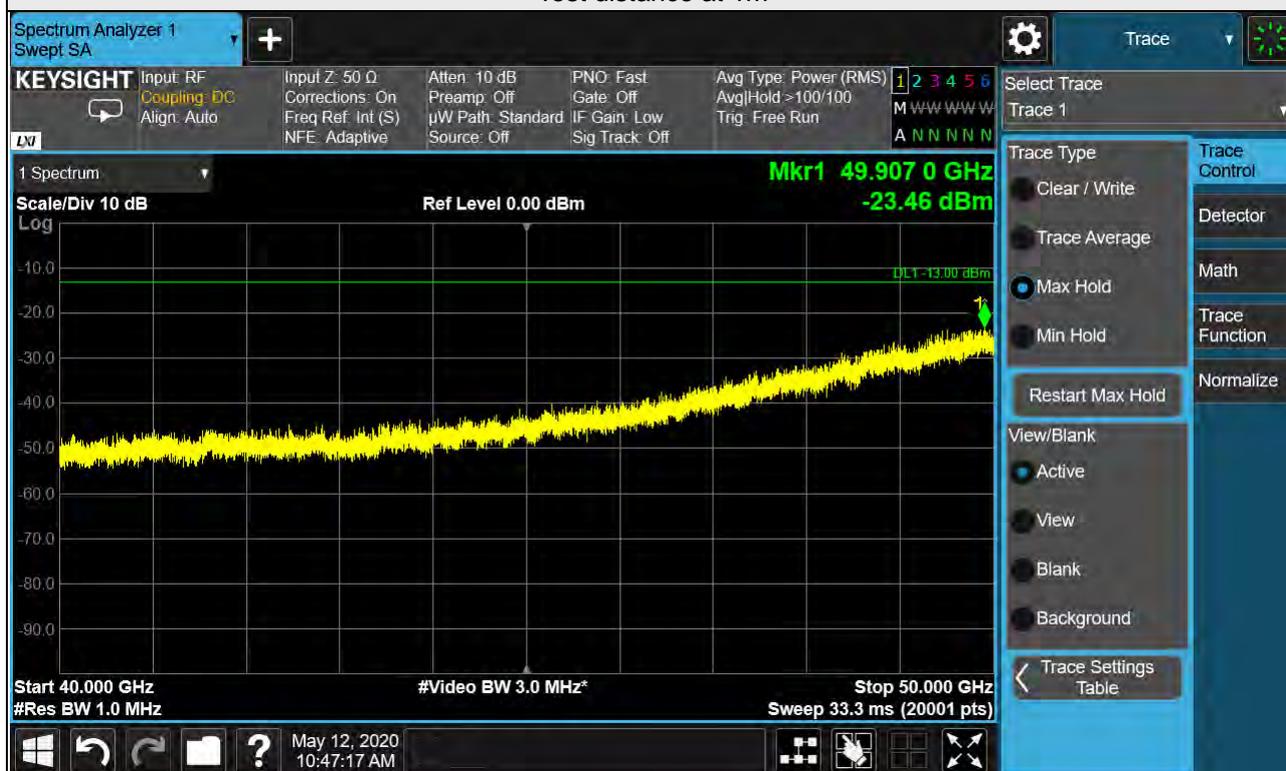
Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	20+148	Frequency Range	40.025GHz-50GHz
Channel	Low	Antenna polarity	Horizontal

Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	20+148	Frequency Range	40.025GHz-50GHz
Channel	Low	Antenna polarity	Vertical

Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	20+148	Frequency Range	40.025GHz-50GHz
Channel	Mid	Antenna polarity	Horizontal

Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	20+148	Frequency Range	40.025GHz-50GHz
Channel	Mid	Antenna polarity	Vertical

Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	20+148	Frequency Range	40.025GHz-50GHz
Channel	High	Antenna polarity	Horizontal

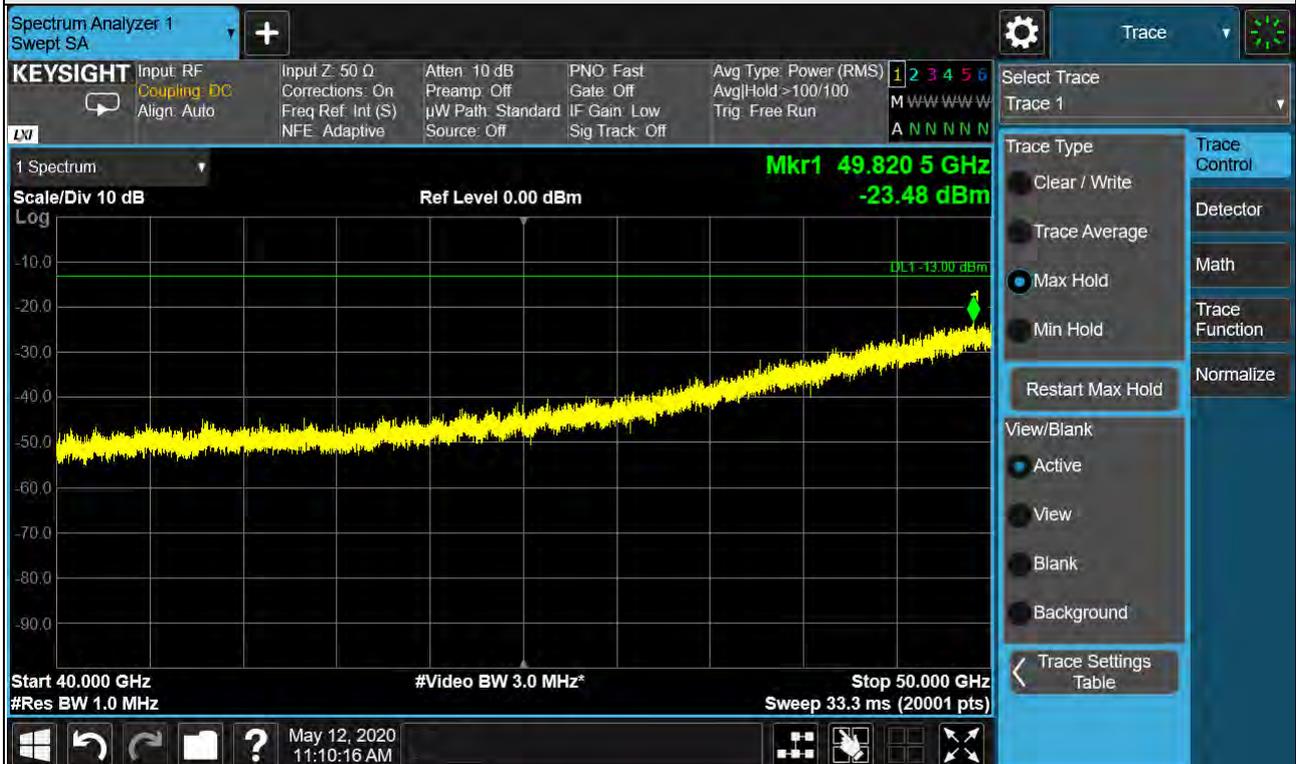
Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	20+148	Frequency Range	40.025GHz-50GHz
Channel	High	Antenna polarity	Vertical

Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	20	Frequency Range	50GHz-75GHz
Channel	Low	Antenna polarity	Horizontal

Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	20	Frequency Range	50GHz-75GHz
Channel	Low	Antenna polarity	Vertical

Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	20	Frequency Range	50GHz-75GHz
Channel	Mid	Antenna polarity	Horizontal

Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	20	Frequency Range	50GHz-75GHz
Channel	Mid	Antenna polarity	Vertical

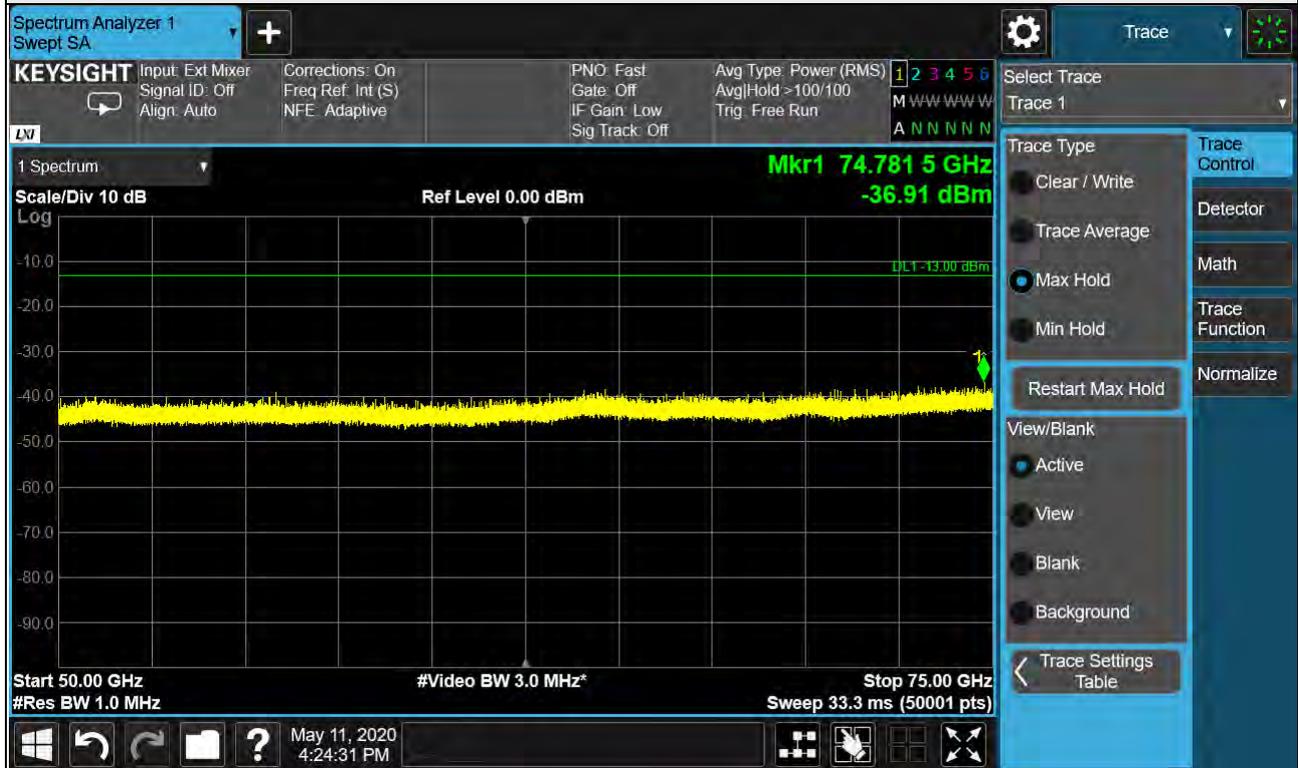
Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	20	Frequency Range	50GHz-75GHz
Channel	High	Antenna polarity	Horizontal

Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	20	Frequency Range	50GHz-75GHz
Channel	High	Antenna polarity	Vertical

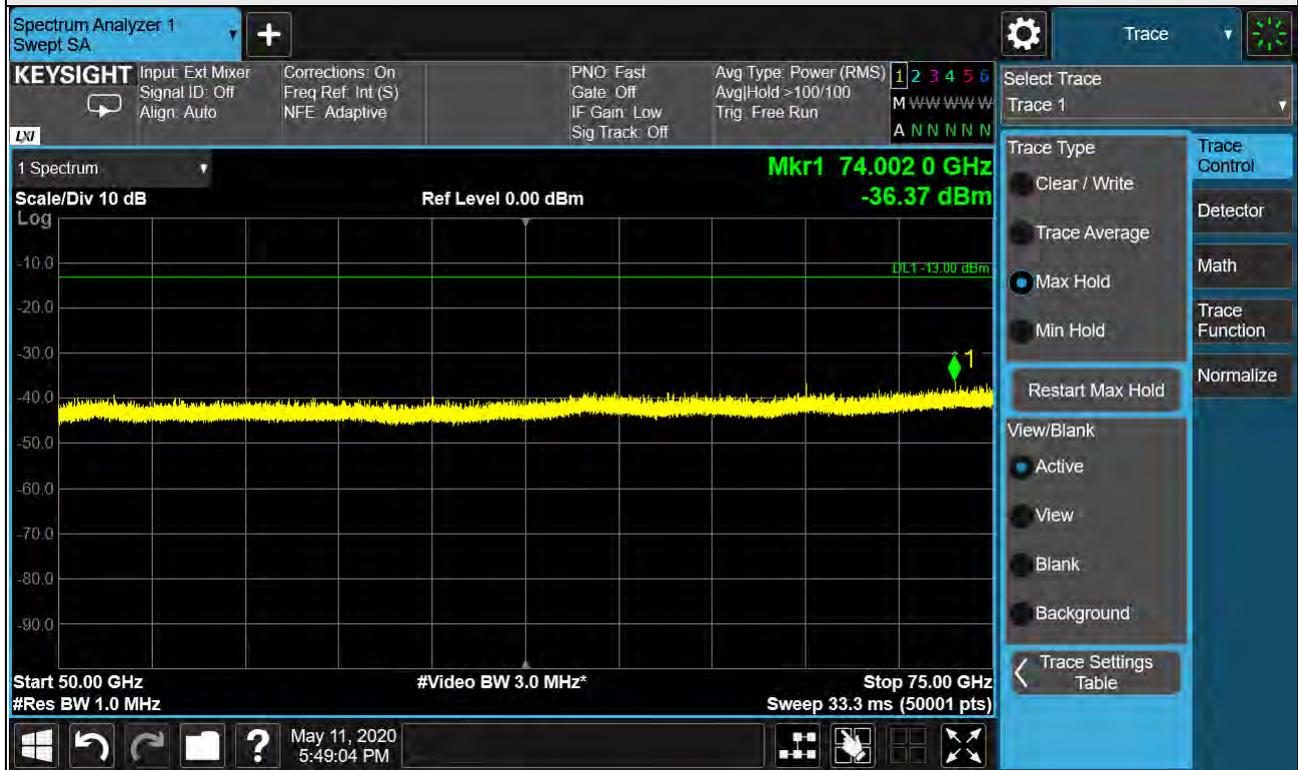
Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	30	Frequency Range	50GHz-75GHz
Channel	Low	Antenna polarity	Horizontal

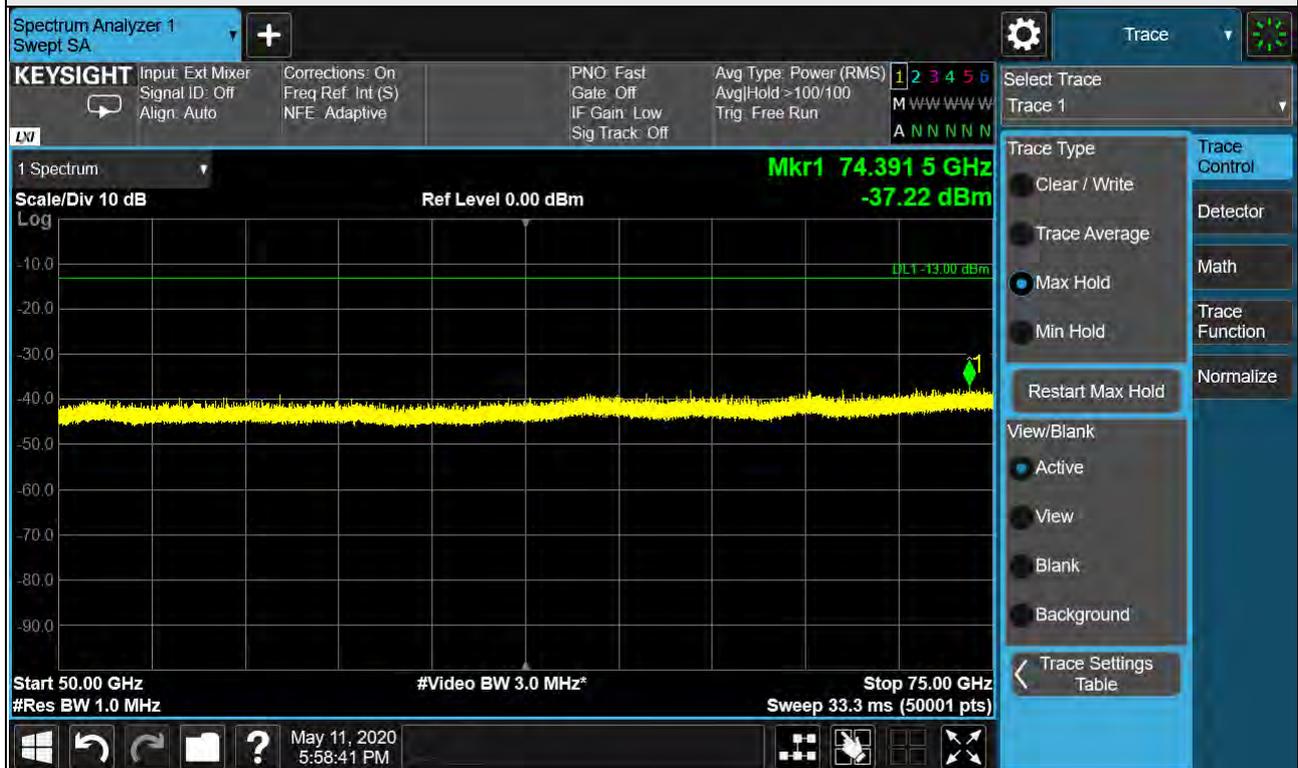
Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	30	Frequency Range	50GHz-75GHz
Channel	Low	Antenna polarity	Vertical

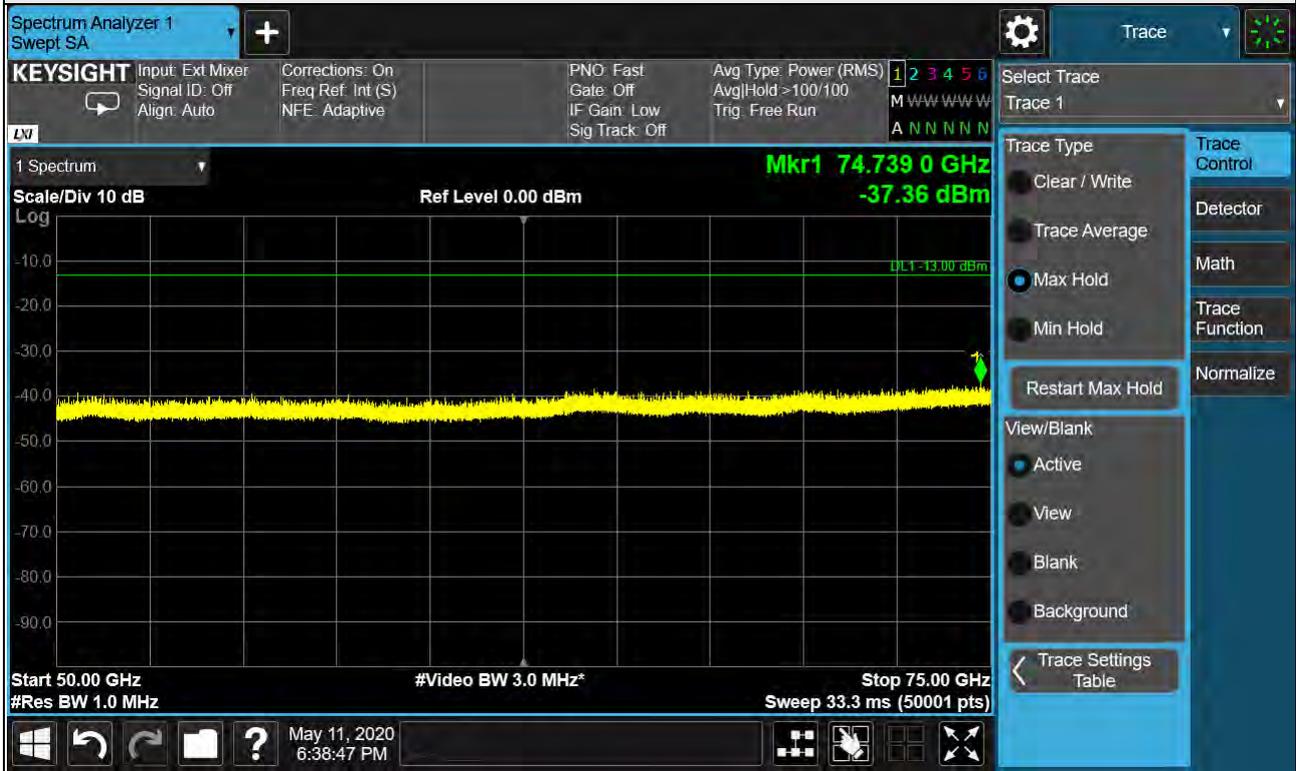
Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	30	Frequency Range	50GHz-75GHz
Channel	Mid	Antenna polarity	Horizontal

Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	30	Frequency Range	50GHz-75GHz
Channel	Mid	Antenna polarity	Vertical

Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	30	Frequency Range	50GHz-75GHz
Channel	High	Antenna polarity	Horizontal

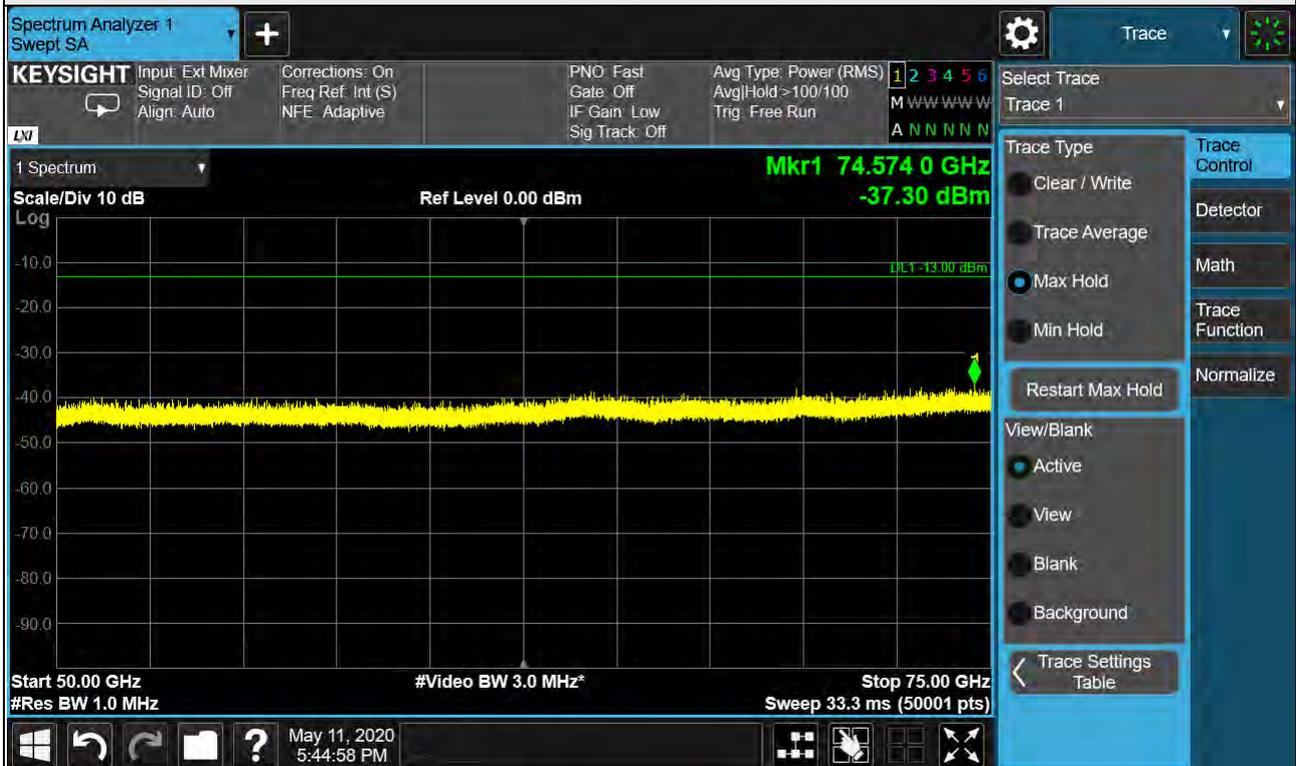
Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	30	Frequency Range	50GHz-75GHz
Channel	High	Antenna polarity	Vertical

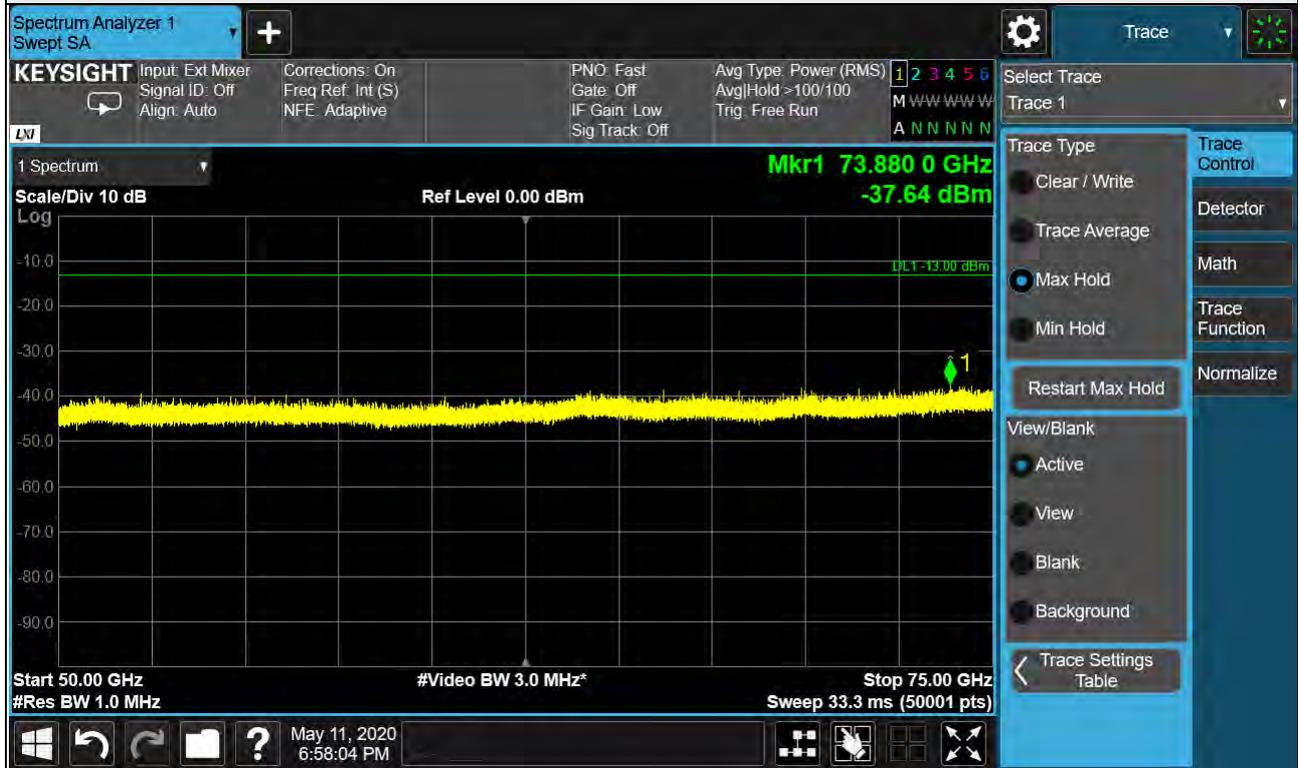
Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	39	Frequency Range	50GHz-75GHz
Channel	Low	Antenna polarity	Horizontal

Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	39	Frequency Range	50GHz-75GHz
Channel	Low	Antenna polarity	Vertical

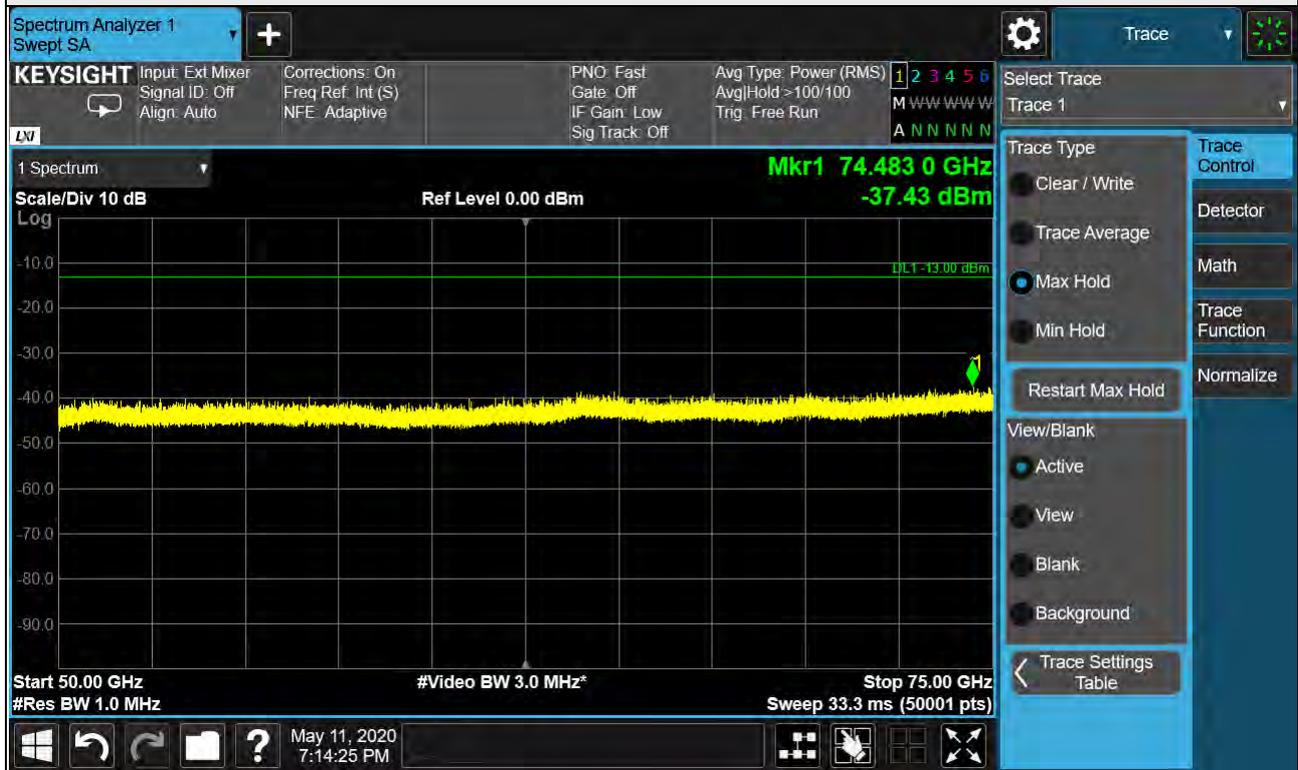
Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	39	Frequency Range	50GHz-75GHz
Channel	Mid	Antenna polarity	Horizontal

Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	39	Frequency Range	50GHz-75GHz
Channel	Mid	Antenna polarity	Vertical

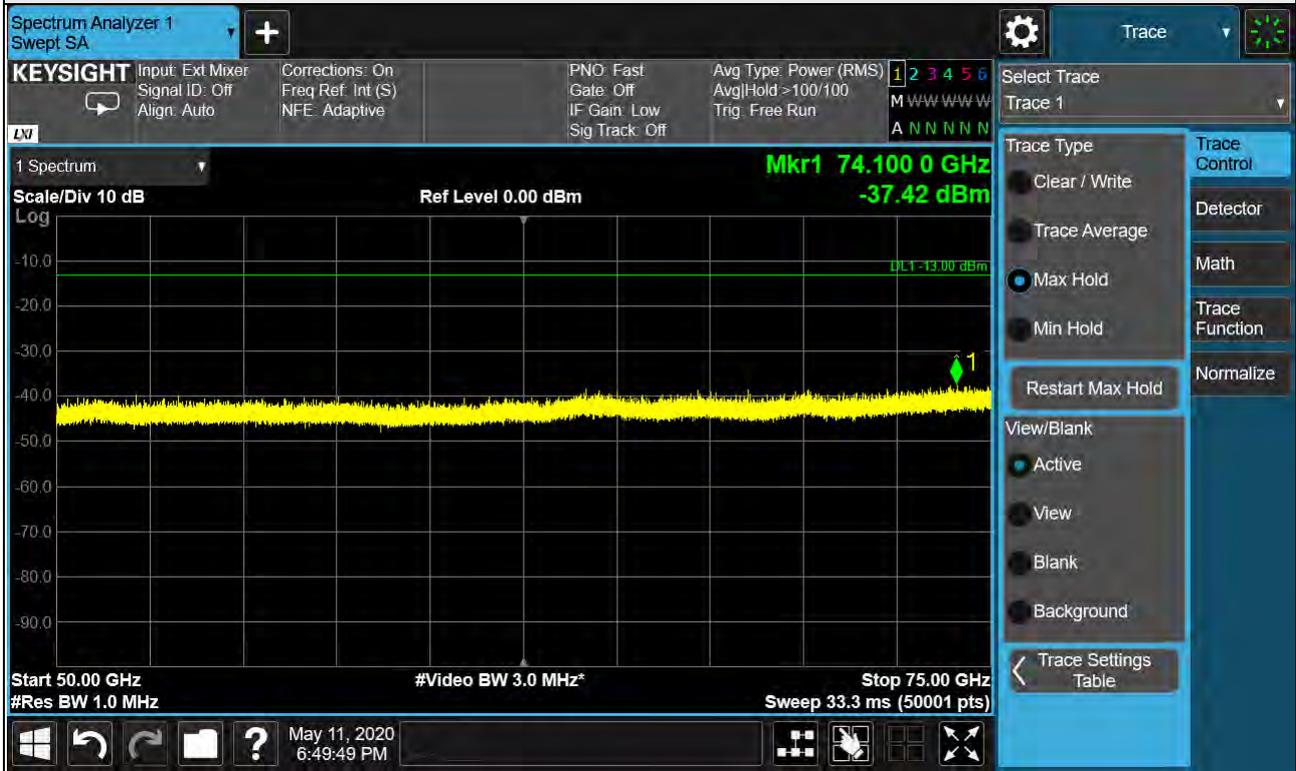
Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	39	Frequency Range	50GHz-75GHz
Channel	High	Antenna polarity	Horizontal

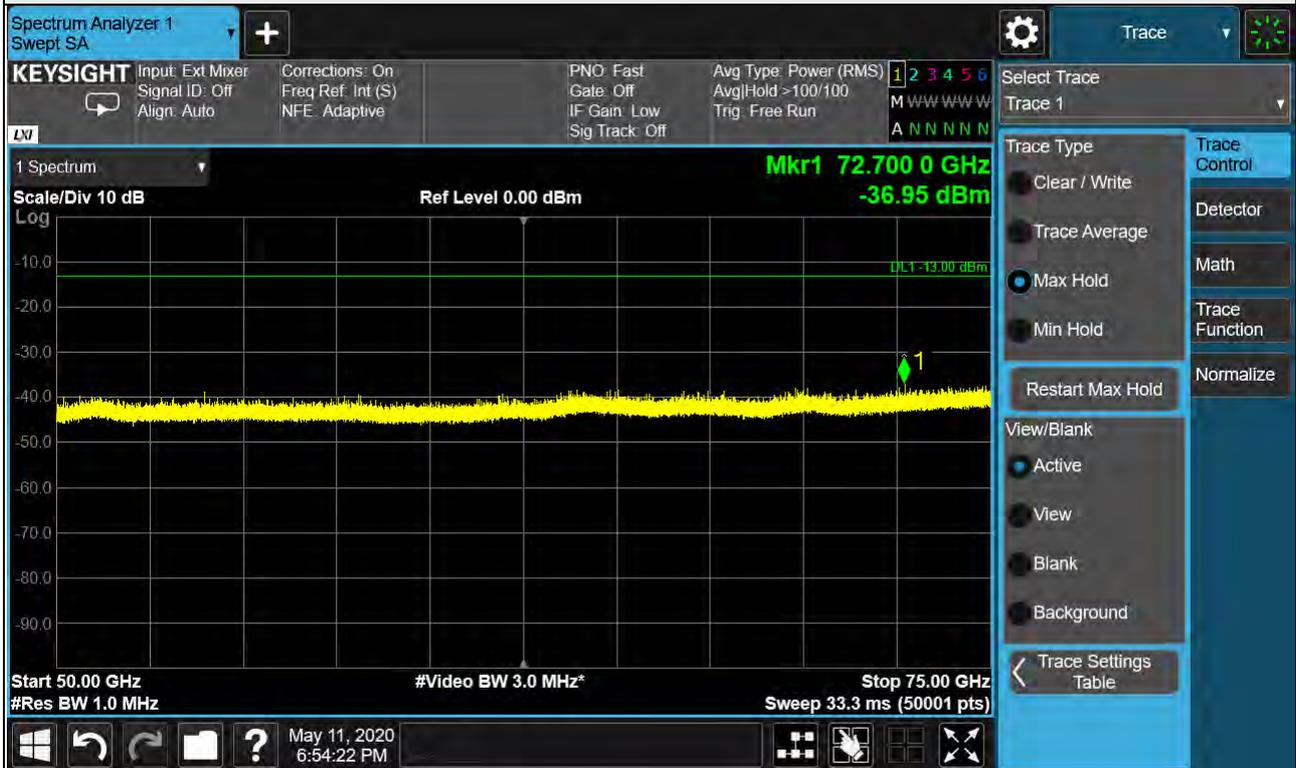
Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	39	Frequency Range	50GHz-75GHz
Channel	High	Antenna polarity	Vertical

Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	20+148	Frequency Range	50GHz-75GHz
Channel	Low	Antenna polarity	Horizontal

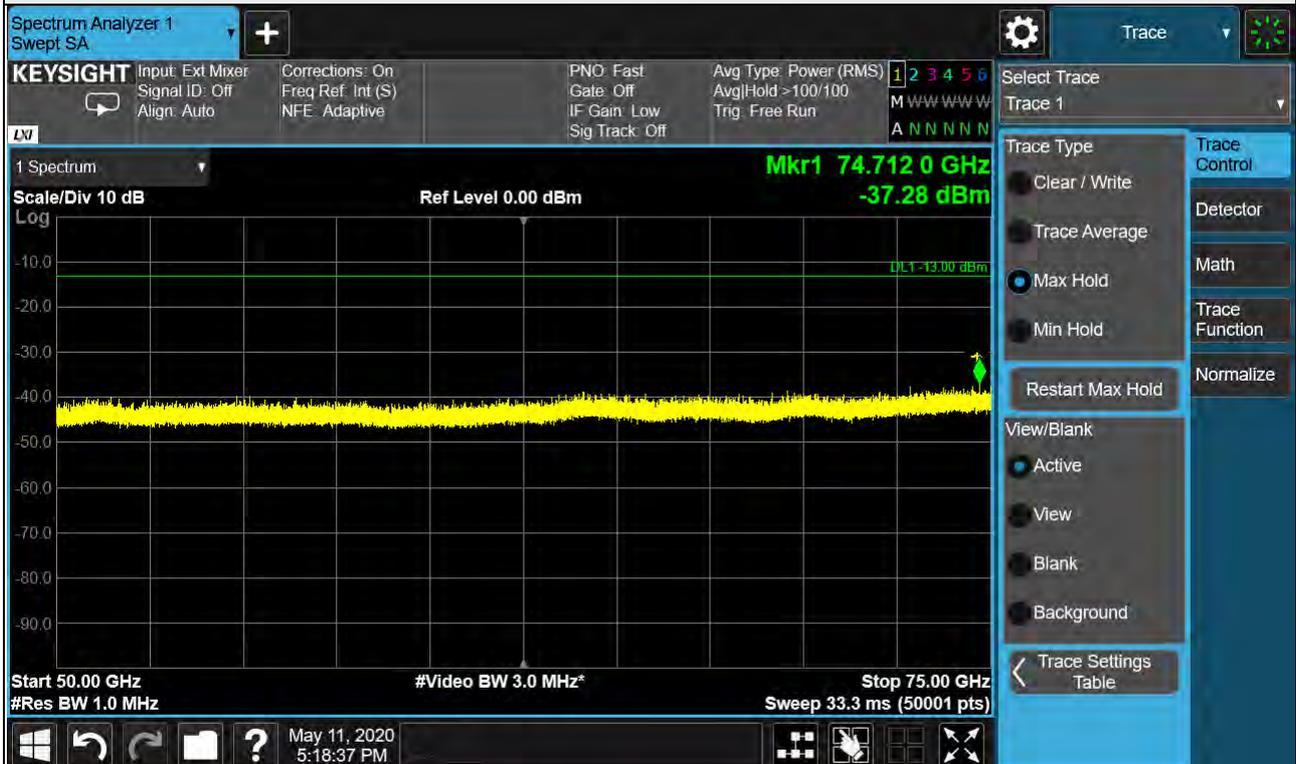
Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	20+148	Frequency Range	50GHz-75GHz
Channel	Low	Antenna polarity	Vertical

Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	20+148	Frequency Range	50GHz-75GHz
Channel	Mid	Antenna polarity	Horizontal

Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	20+148	Frequency Range	50GHz-75GHz
Channel	Mid	Antenna polarity	Vertical

Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	20+148	Frequency Range	50GHz-75GHz
Channel	High	Antenna polarity	Horizontal

Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	20+148	Frequency Range	50GHz-75GHz
Channel	High	Antenna polarity	Vertical

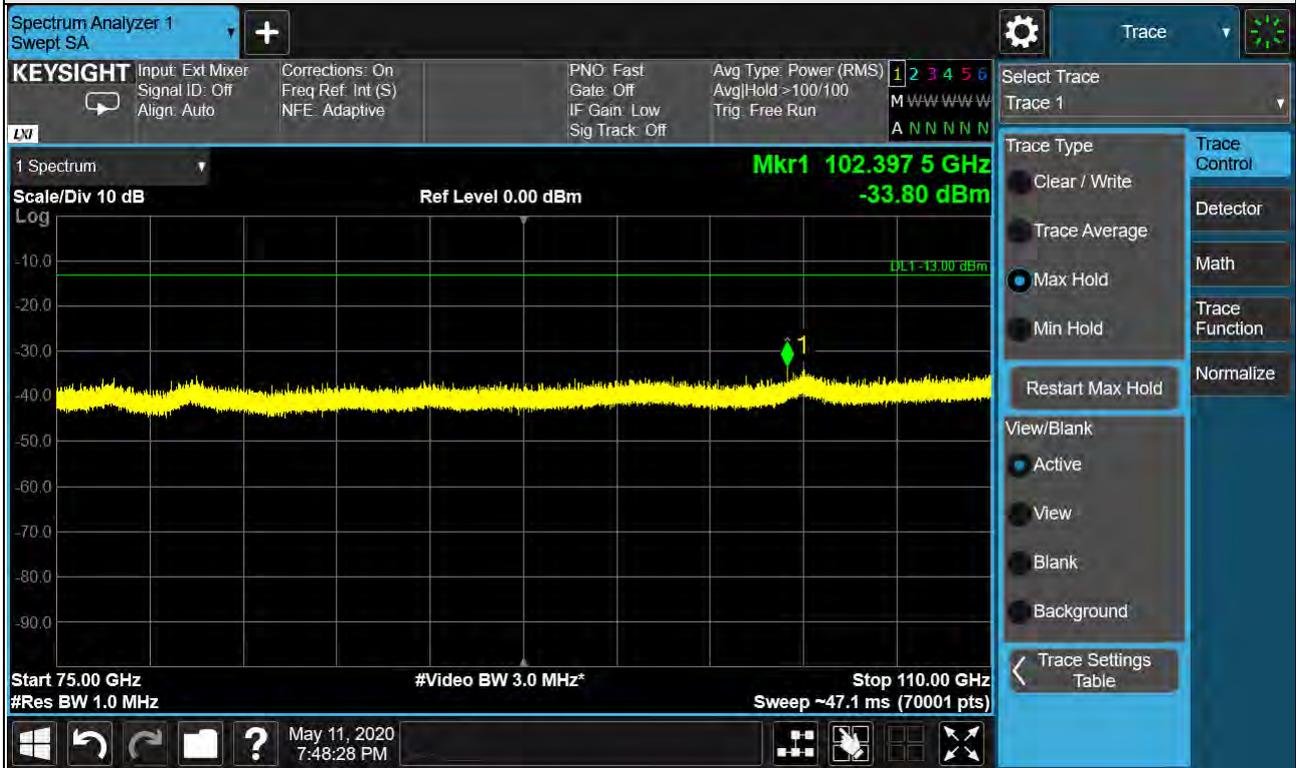
Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	20	Frequency Range	75GHz-110GHz
Channel	Low	Antenna polarity	Horizontal

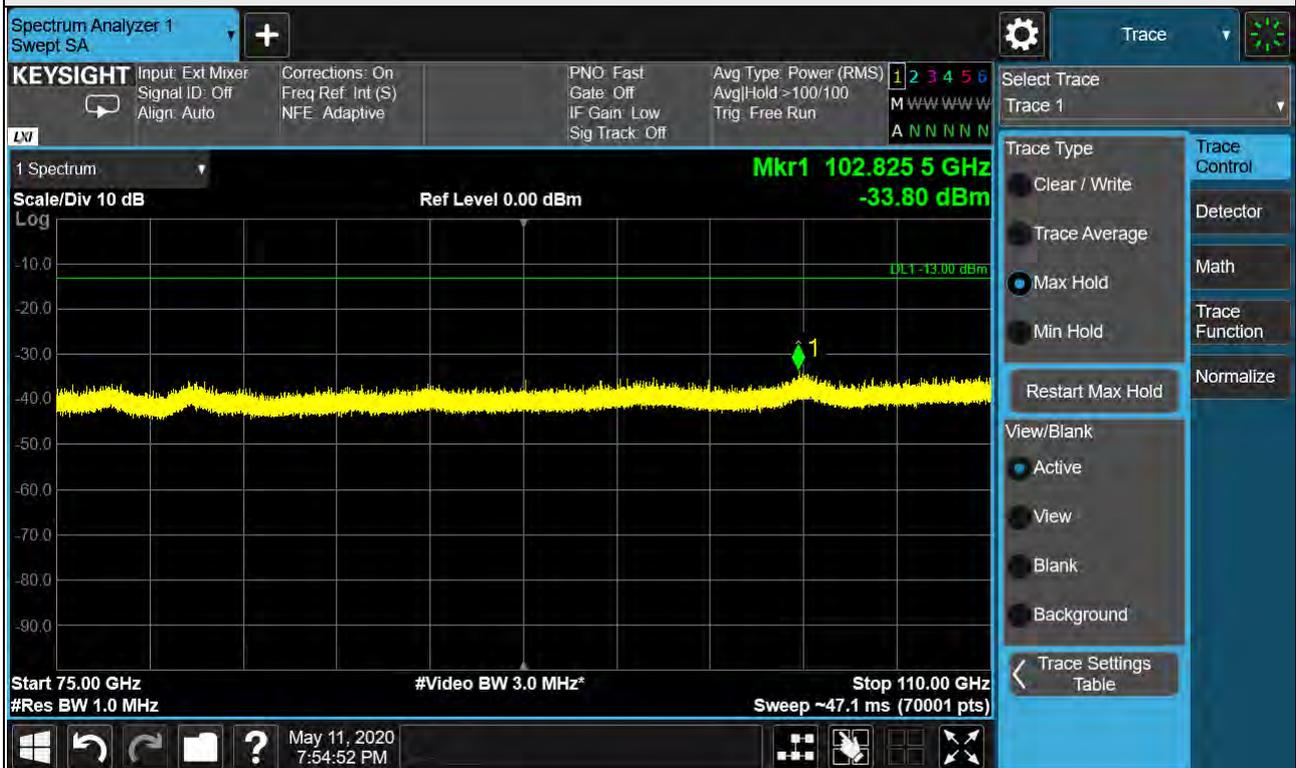
Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	20	Frequency Range	75GHz-110GHz
Channel	Low	Antenna polarity	Vertical

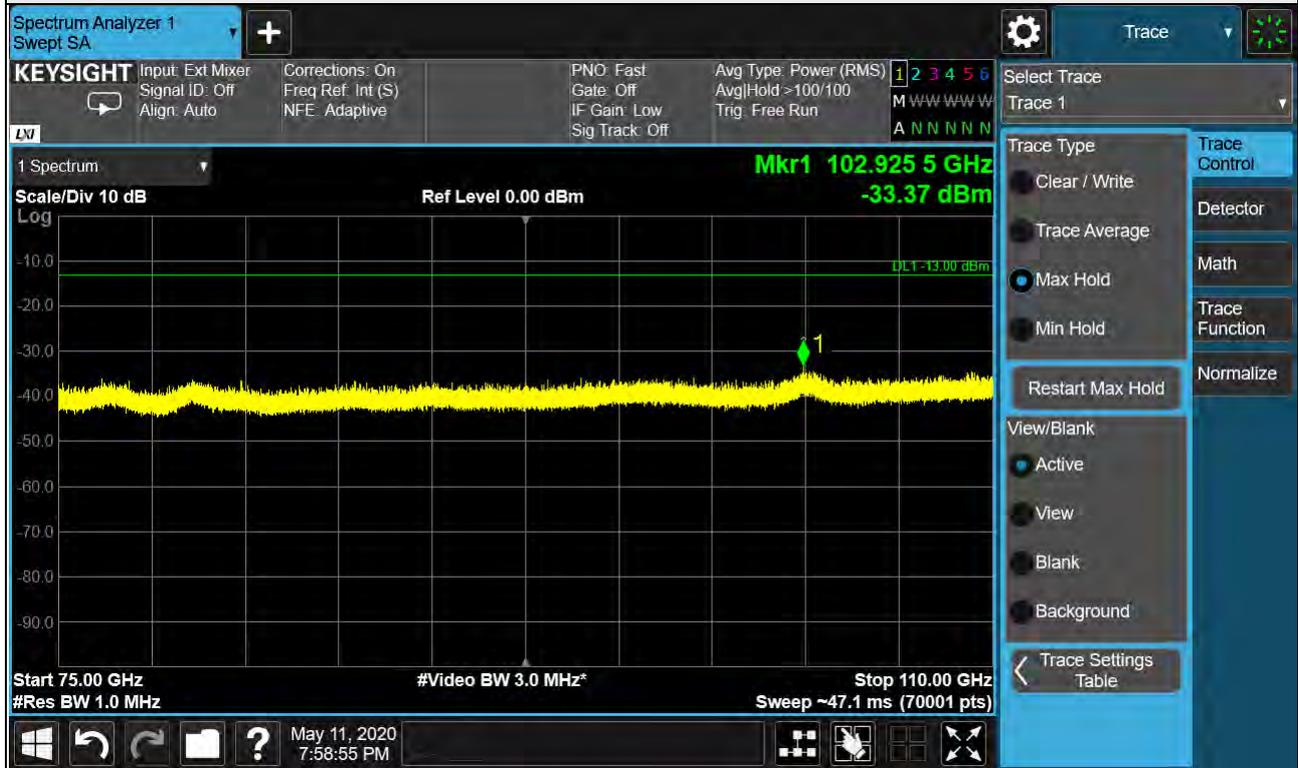
Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	20	Frequency Range	75GHz-110GHz
Channel	Mid	Antenna polarity	Horizontal

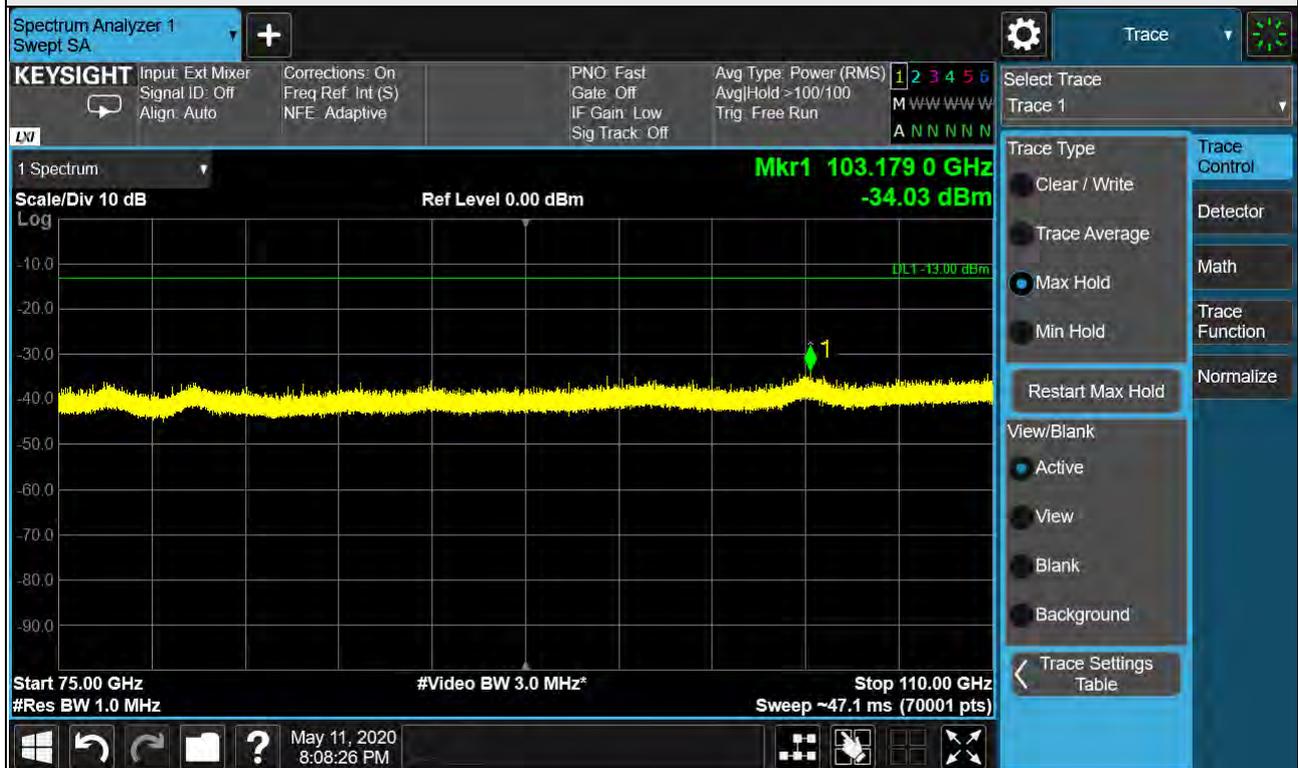
Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	20	Frequency Range	75GHz-110GHz
Channel	Mid	Antenna polarity	Vertical

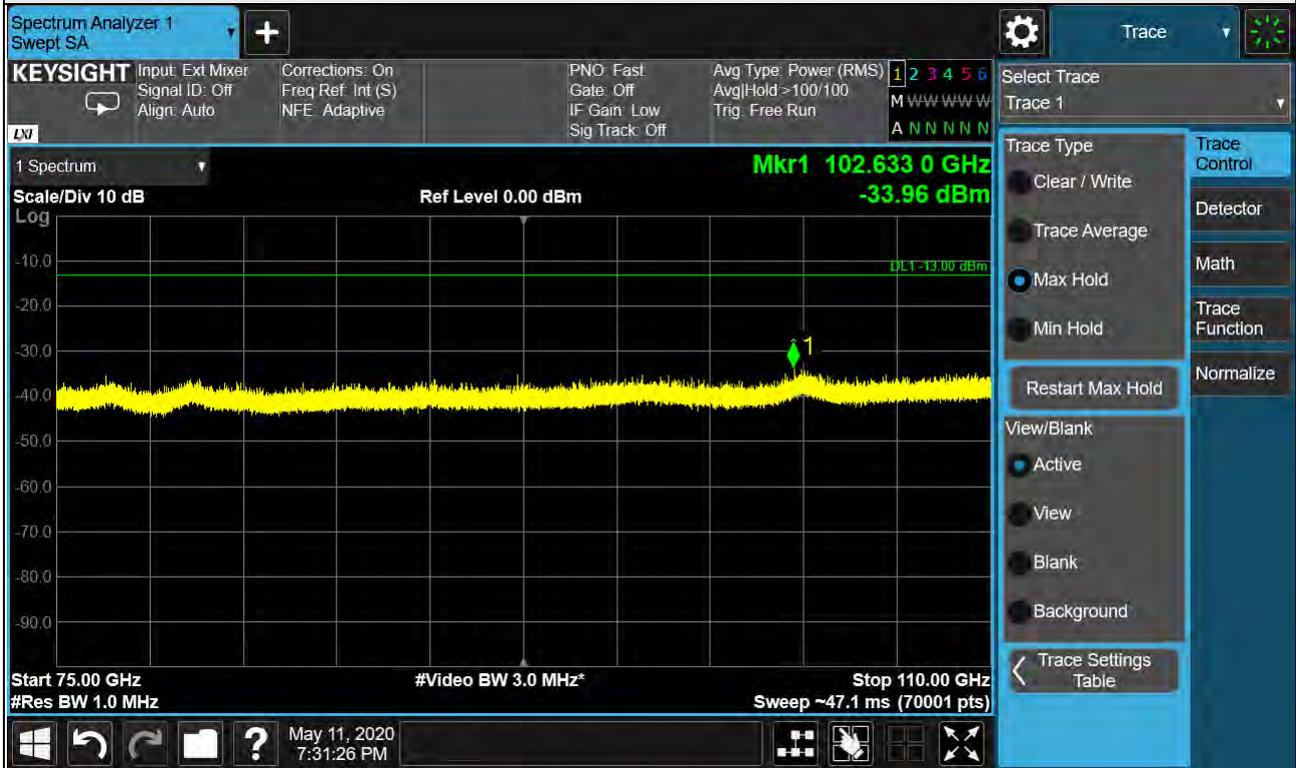
Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	20	Frequency Range	75GHz-110GHz
Channel	High	Antenna polarity	Horizontal

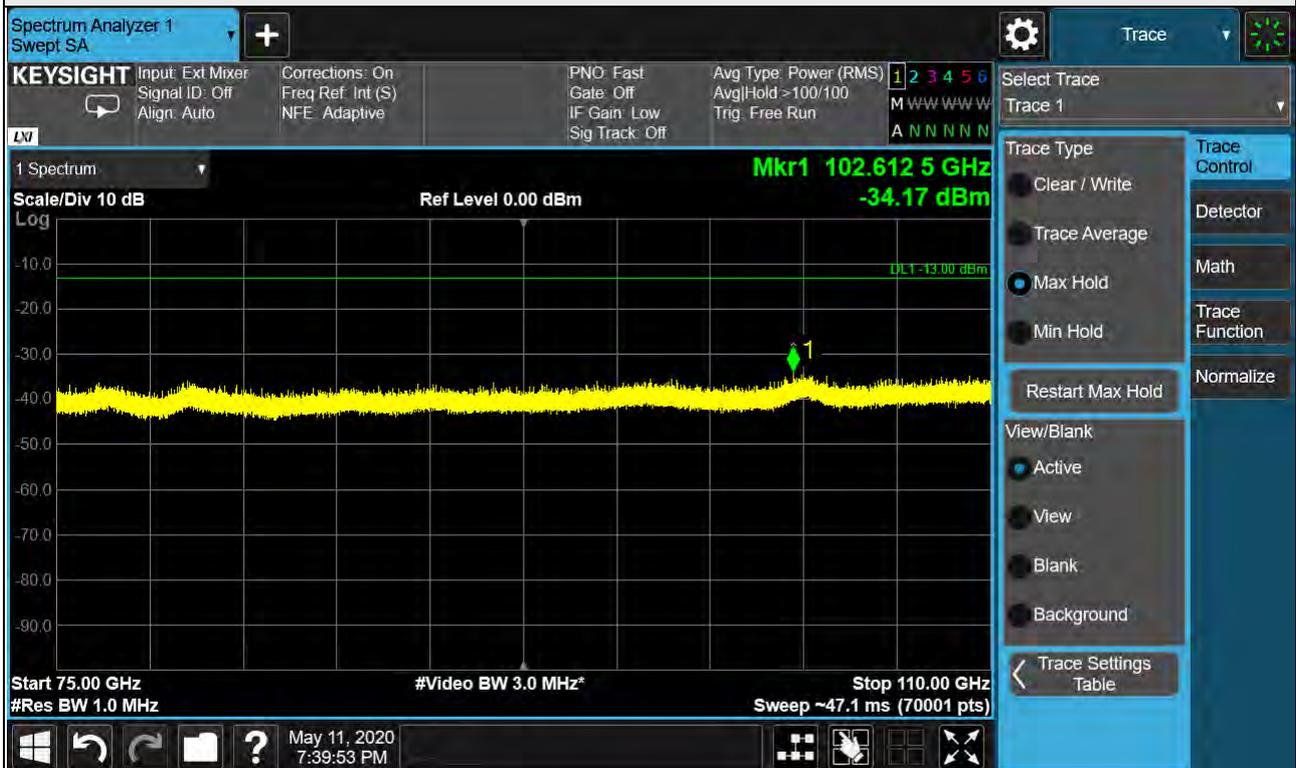
Test distance at 1m



Note: The test results already include the correction factor (corrections: On).

Beam ID	20	Frequency Range	75GHz-110GHz
Channel	High	Antenna polarity	Vertical

Test distance at 1m



Note: The test results already include the correction factor (corrections: On).