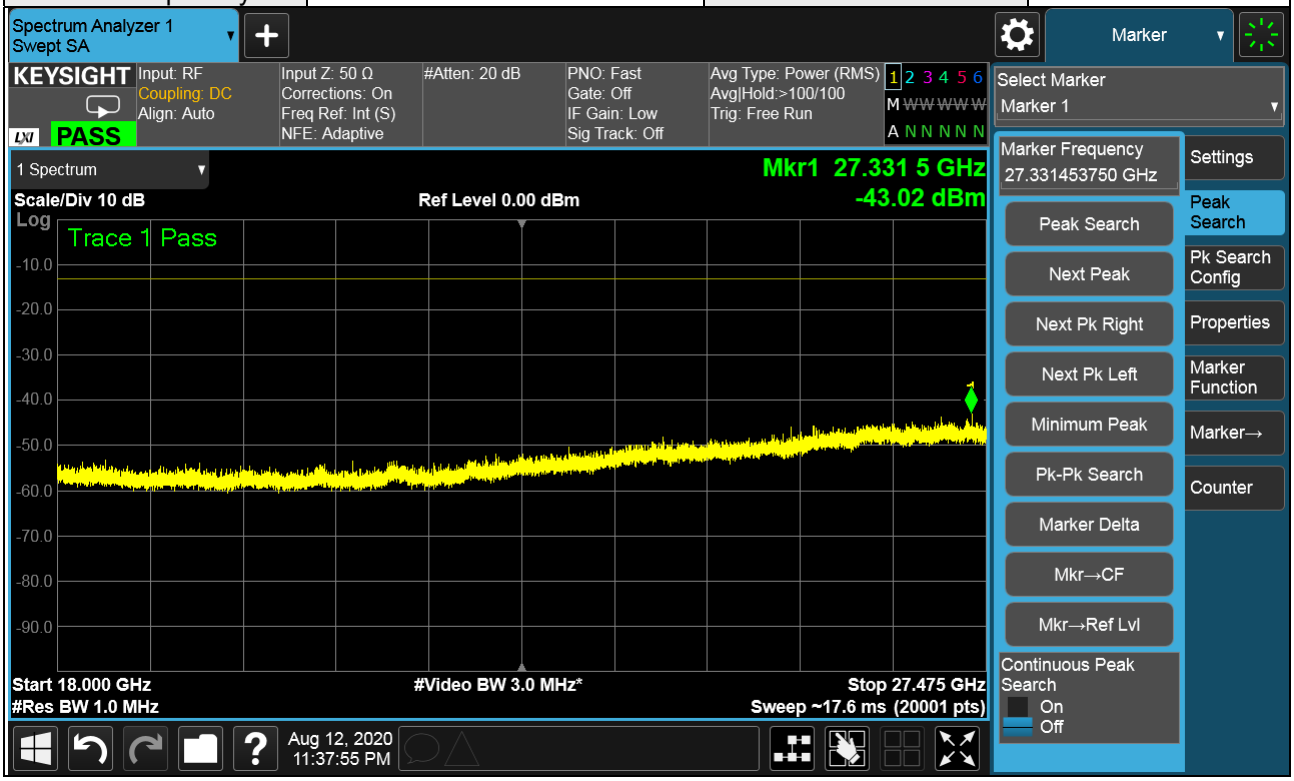
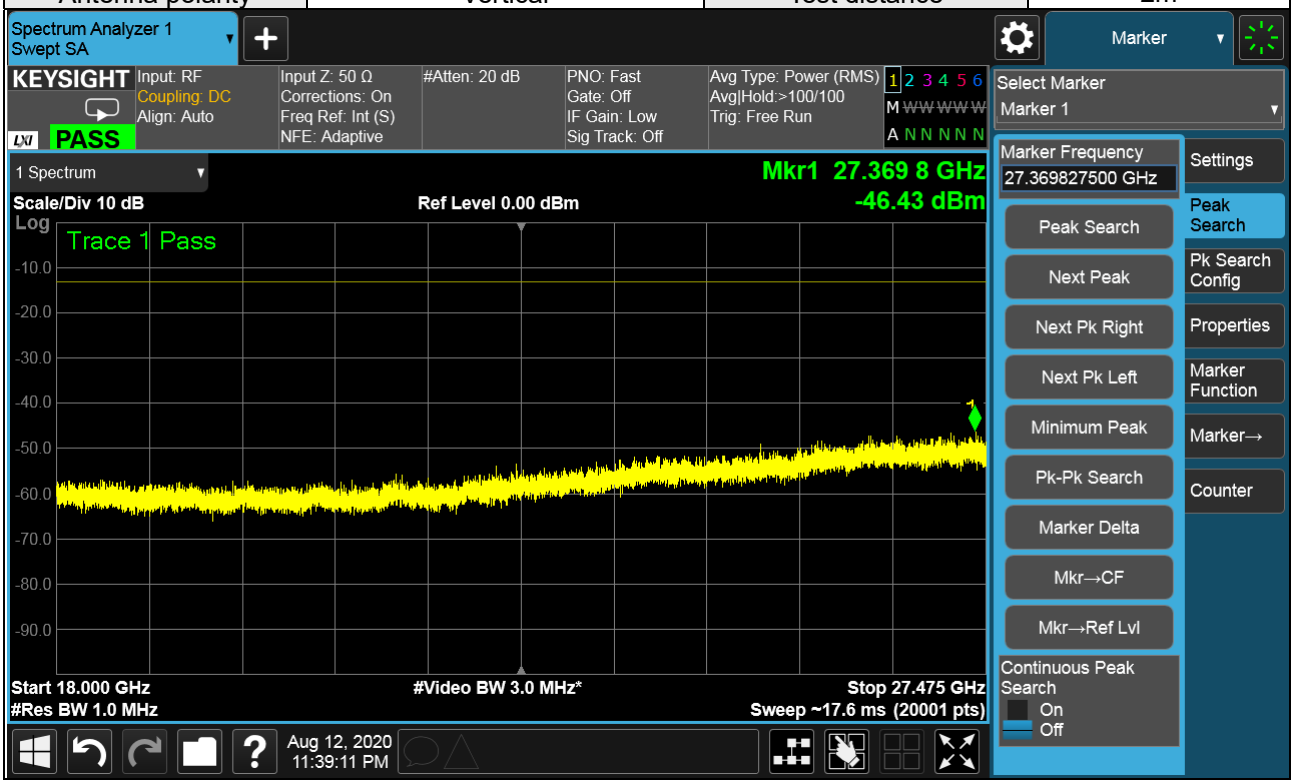
Band	n261	Beam ID	11 + 139
Frequency Range	18GHz-27.475GHz	Channel	Middle
Antenna polarity	Horizontal	Test distance	2m



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

Band	n261	Beam ID	11 + 139
Frequency Range	18GHz-27.475GHz	Channel	Middle
Antenna polarity	Vertical	Test distance	2m

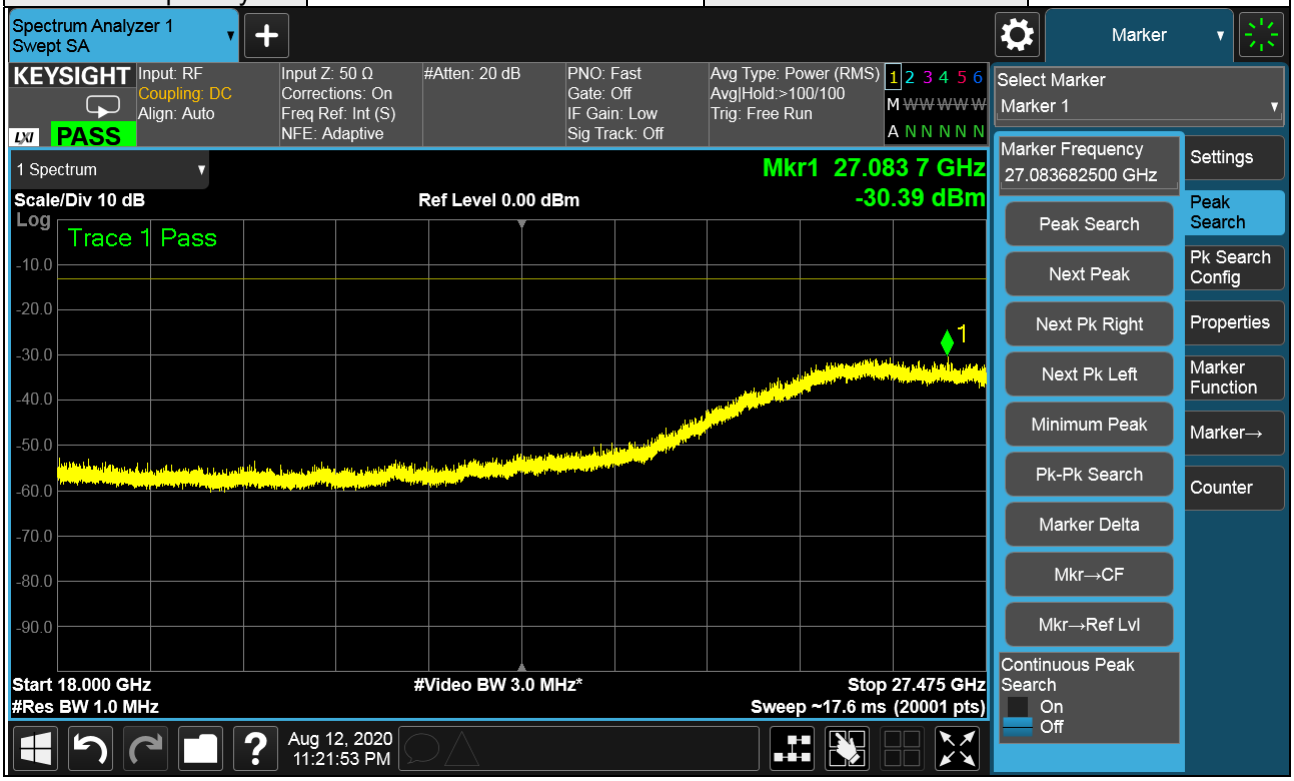


Note: The test results already include the correction factor (corrections: On).

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

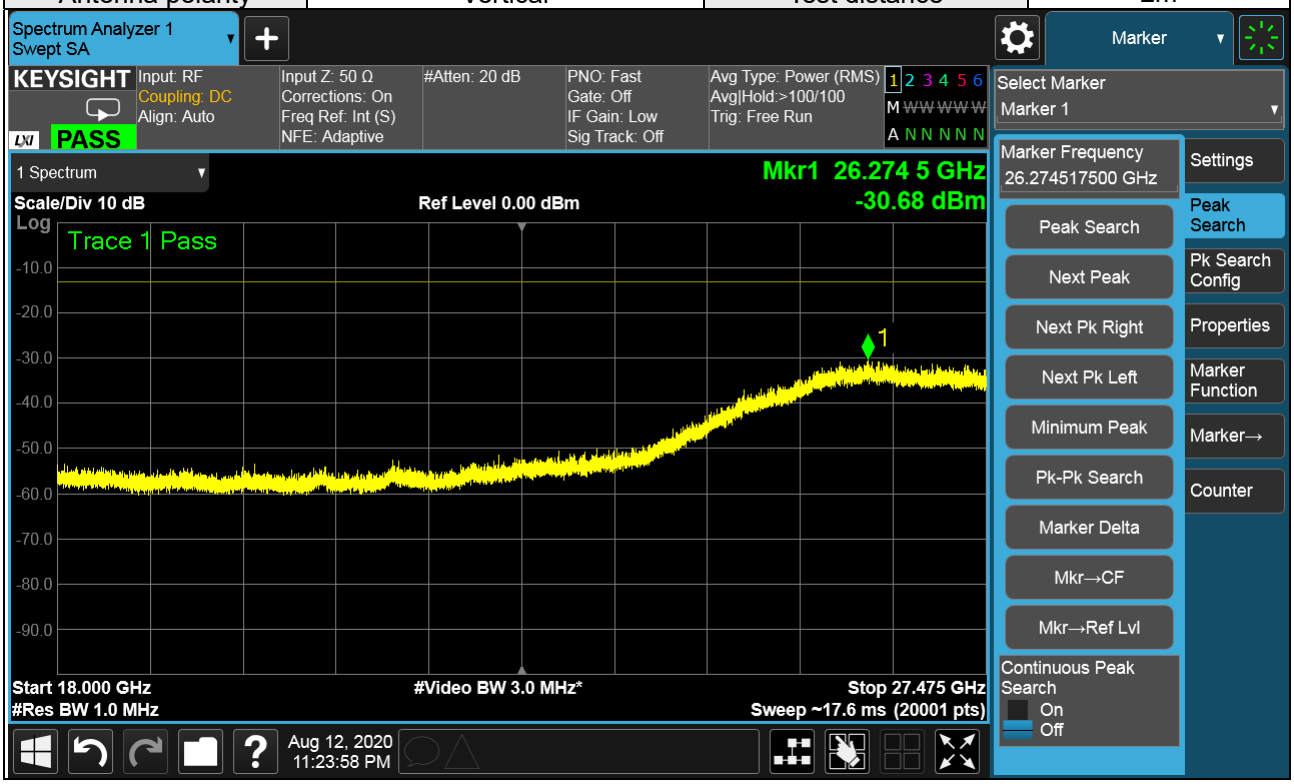
Beam ID	EIRP for V Beam (dBm)	EIRP for H Beam (dBm)	EIRP for V+H Beam (dBm)	Limit(dBm)	Margin(dB)	Result
11 + 139	-46.43	-43.02	-41.39	-13	-28.39	Pass

Band	n261	Beam ID	11 + 139
Frequency Range	18GHz-27.475GHz	Channel	High
Antenna polarity	Horizontal	Test distance	2m



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

Band	n261	Beam ID	11 + 139
Frequency Range	18GHz-27.475GHz	Channel	High
Antenna polarity	Vertical	Test distance	2m



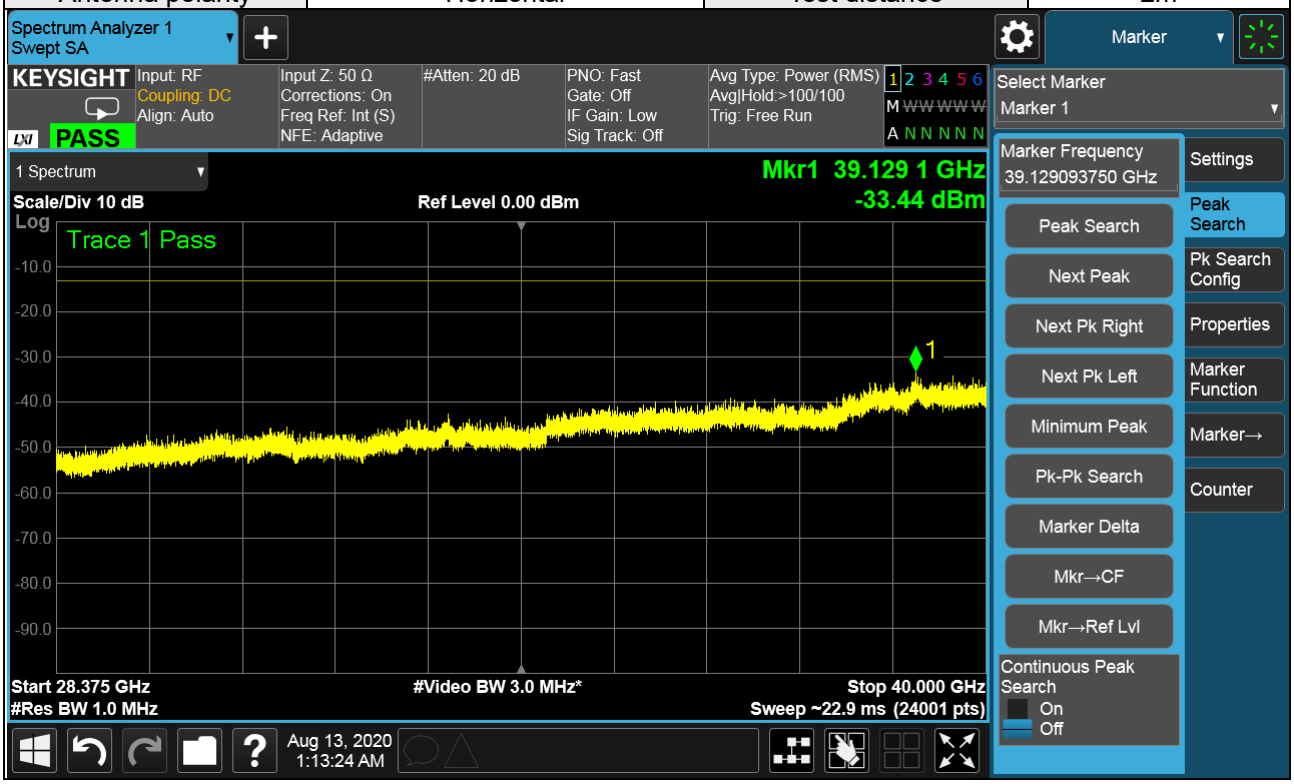
Note: The test results already include the correction factor (corrections: On).

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

Beam ID	EIRP for V Beam (dBm)	EIRP for H Beam (dBm)	EIRP for V+H Beam (dBm)	Limit(dBm)	Margin(dB)	Result
11 + 139	-30.68	-30.39	-27.52	-13	-14.52	Pass

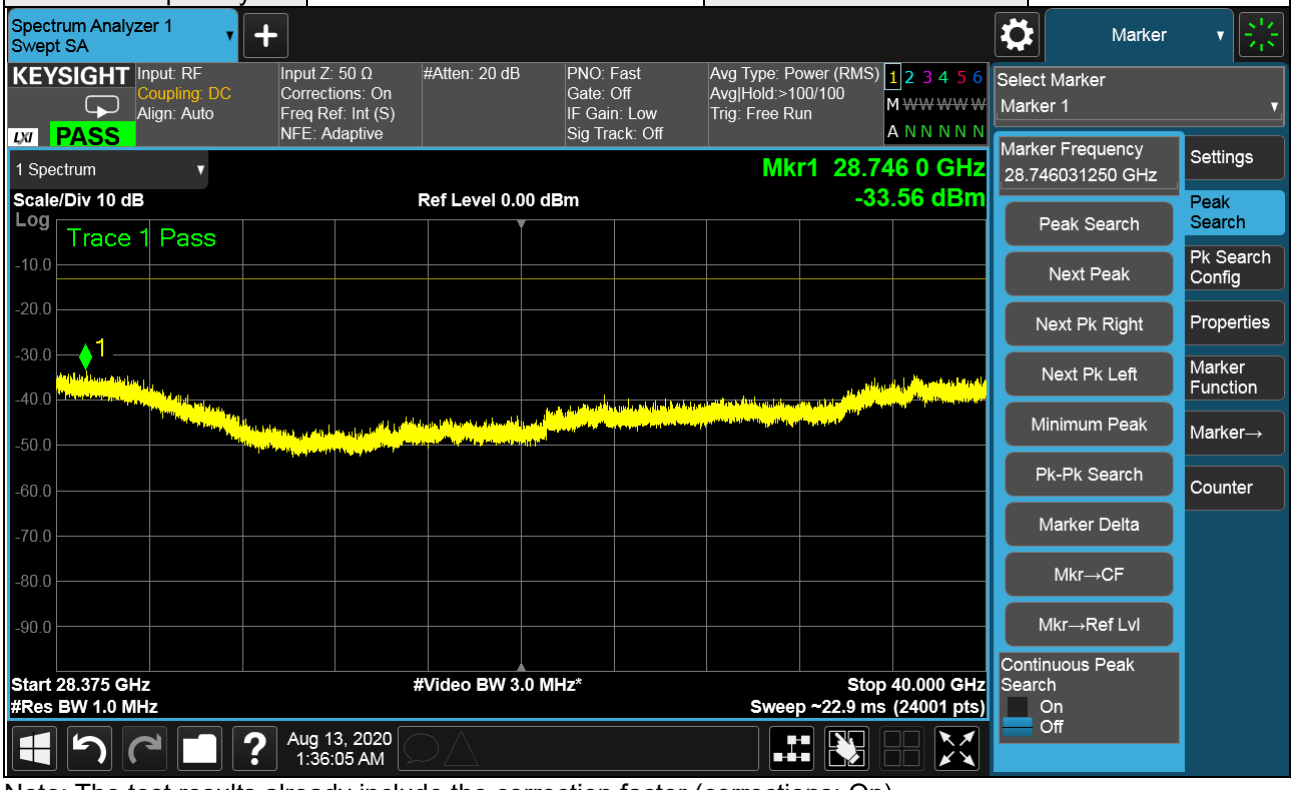
28.375GHz-40GHz (n261):

Band	n261	Beam ID	11
Frequency Range	28.375GHz-40GHz	Channel	Low
Antenna polarity	Horizontal	Test distance	2m



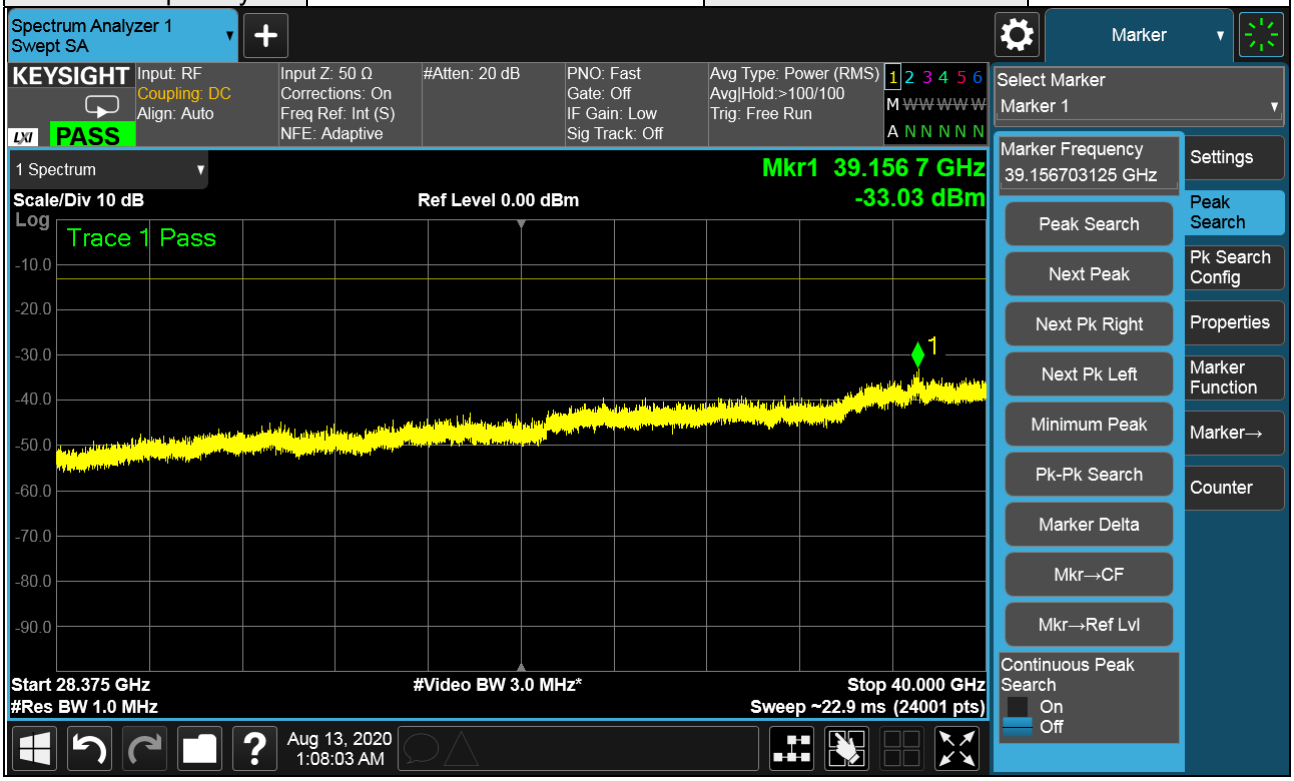
Note: The test results already include the correction factor (corrections: On).

Band	n261	Beam ID	11
Frequency Range	28.375GHz-40GHz	Channel	Low
Antenna polarity	Vertical	Test distance	2m



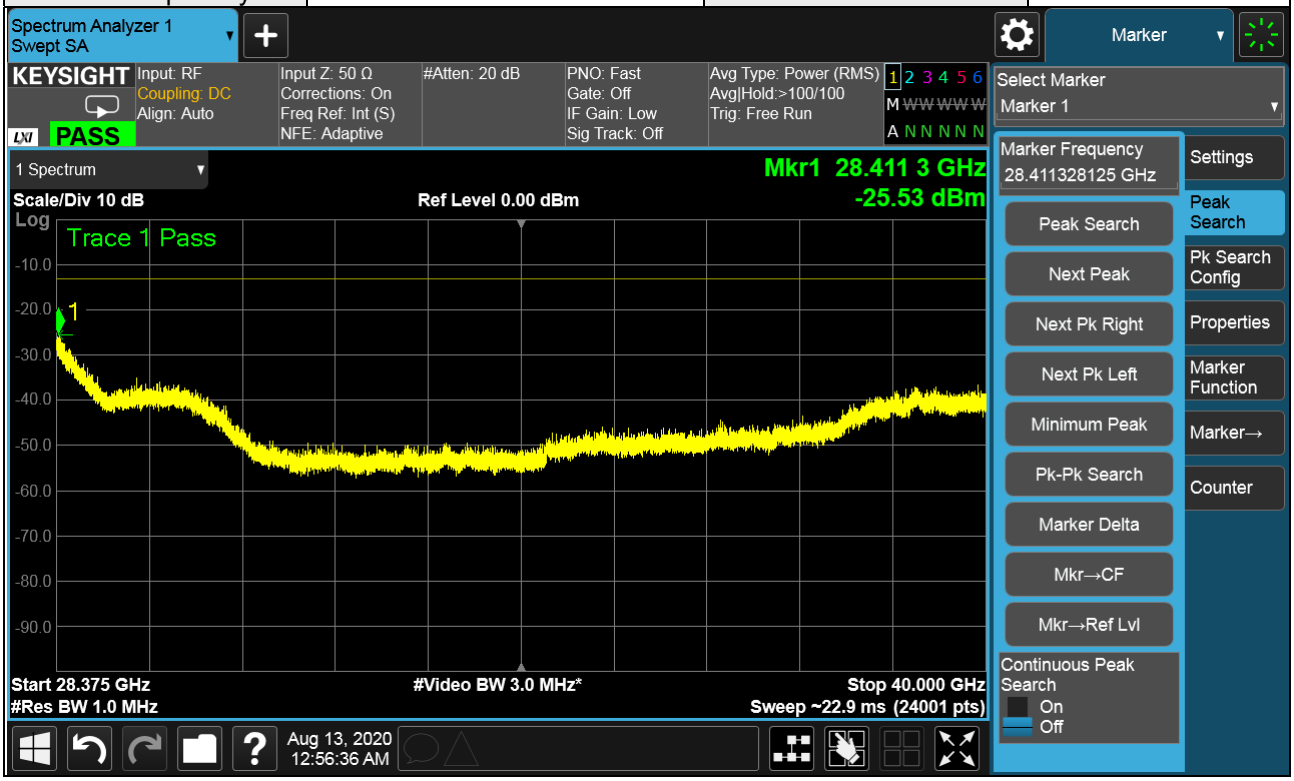
Note: The test results already include the correction factor (corrections: On).

Band	n261	Beam ID	11
Frequency Range	28.375GHz-40GHz	Channel	Middle
Antenna polarity	Horizontal	Test distance	2m



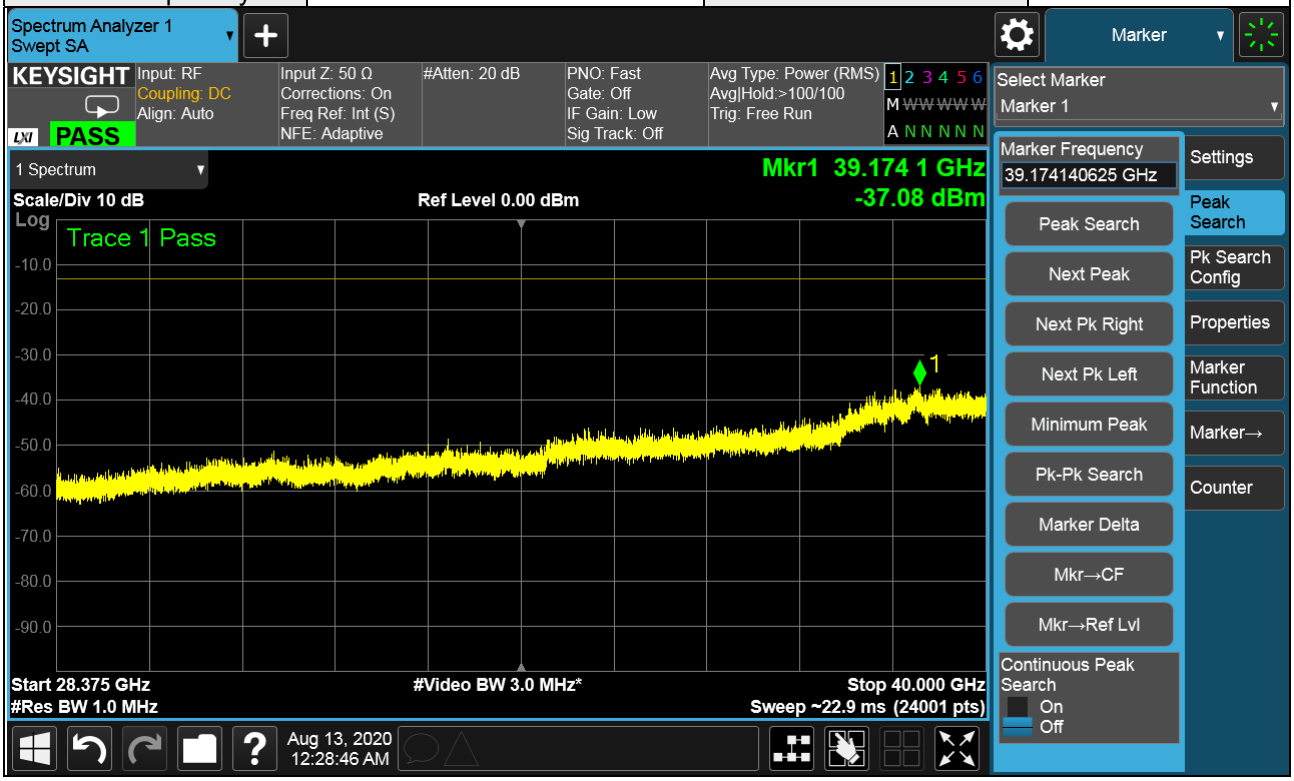
Note: The test results already include the correction factor (corrections: On).

Band	n261	Beam ID	11
Frequency Range	28.375GHz-40GHz	Channel	Middle
Antenna polarity	Vertical	Test distance	2m



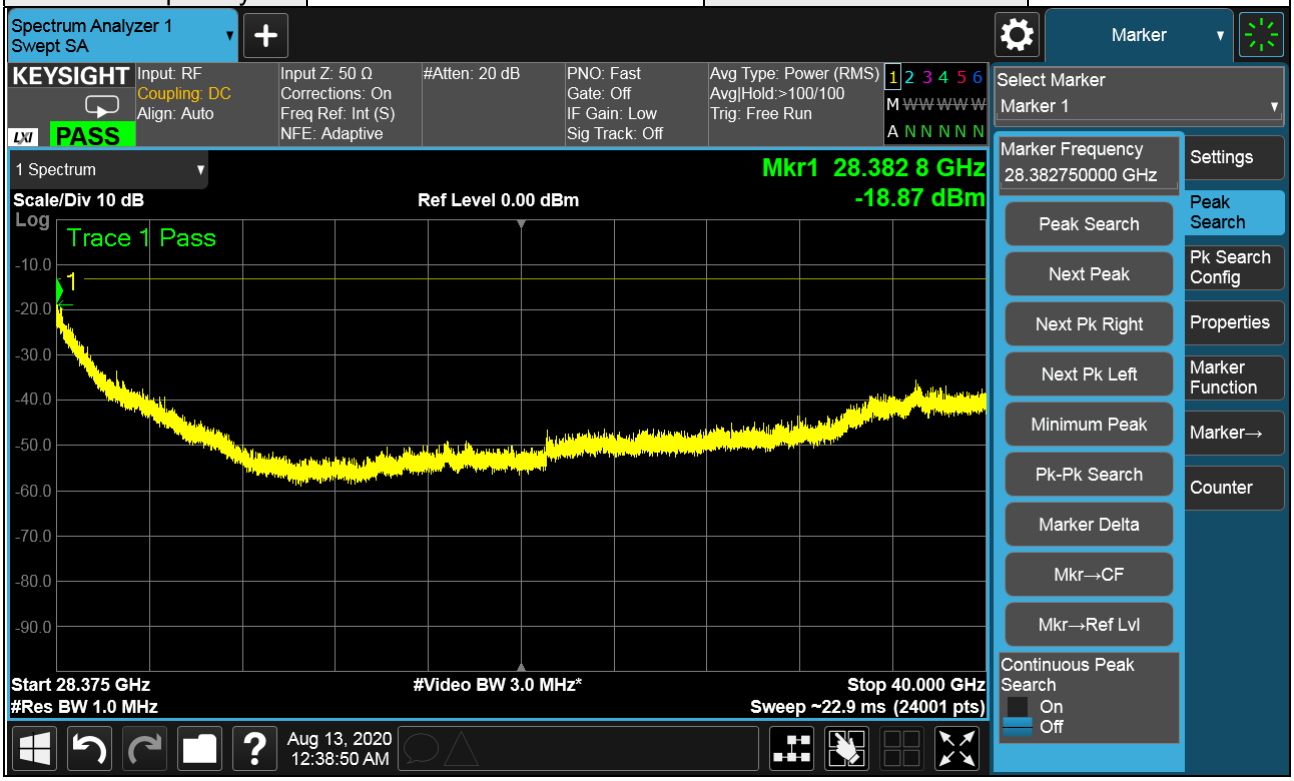
Note: The test results already include the correction factor (corrections: On).

Band	n261	Beam ID	11
Frequency Range	28.375GHz-40GHz	Channel	High
Antenna polarity	Horizontal	Test distance	2m



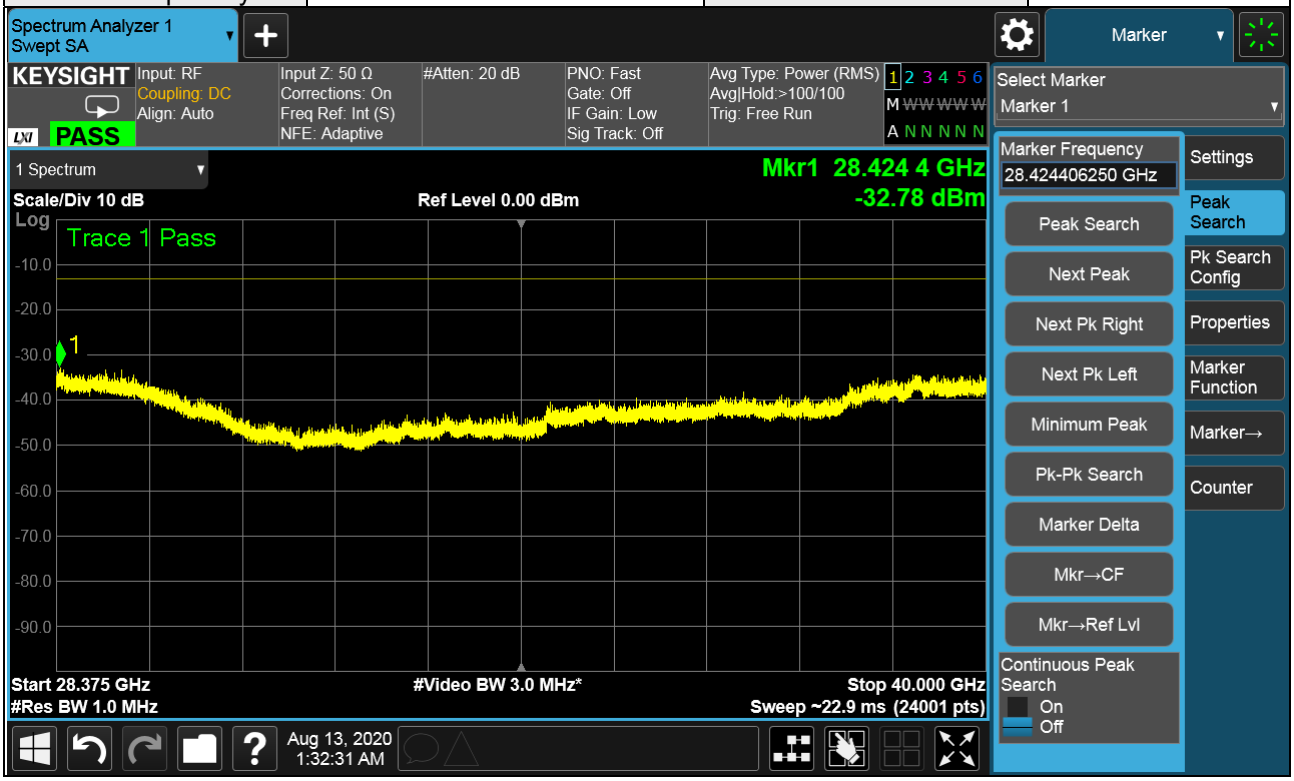
Note: The test results already include the correction factor (corrections: On).

Band	n261	Beam ID	11
Frequency Range	28.375GHz-40GHz	Channel	High
Antenna polarity	Vertical	Test distance	2m



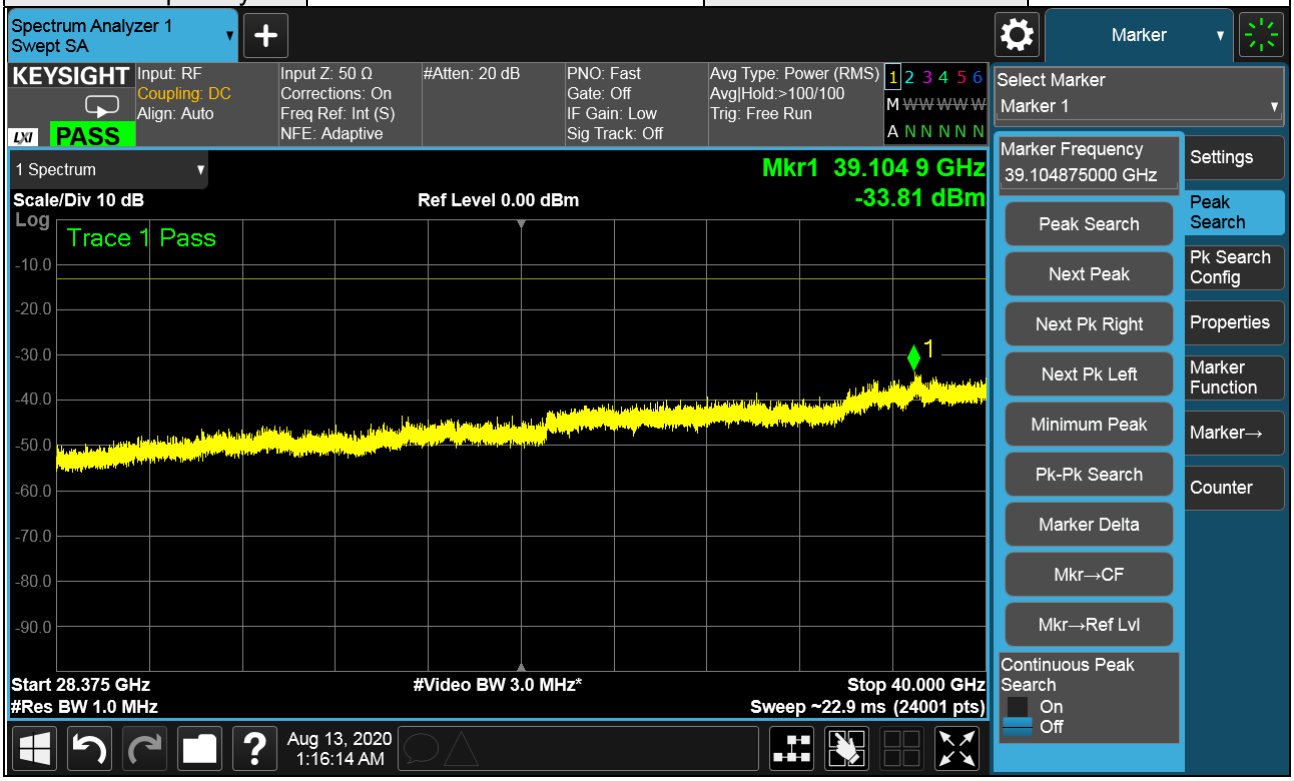
Note: The test results already include the correction factor (corrections: On).

Band	n261	Beam ID	139
Frequency Range	28.375GHz-40GHz	Channel	Low
Antenna polarity	Horizontal	Test distance	2m



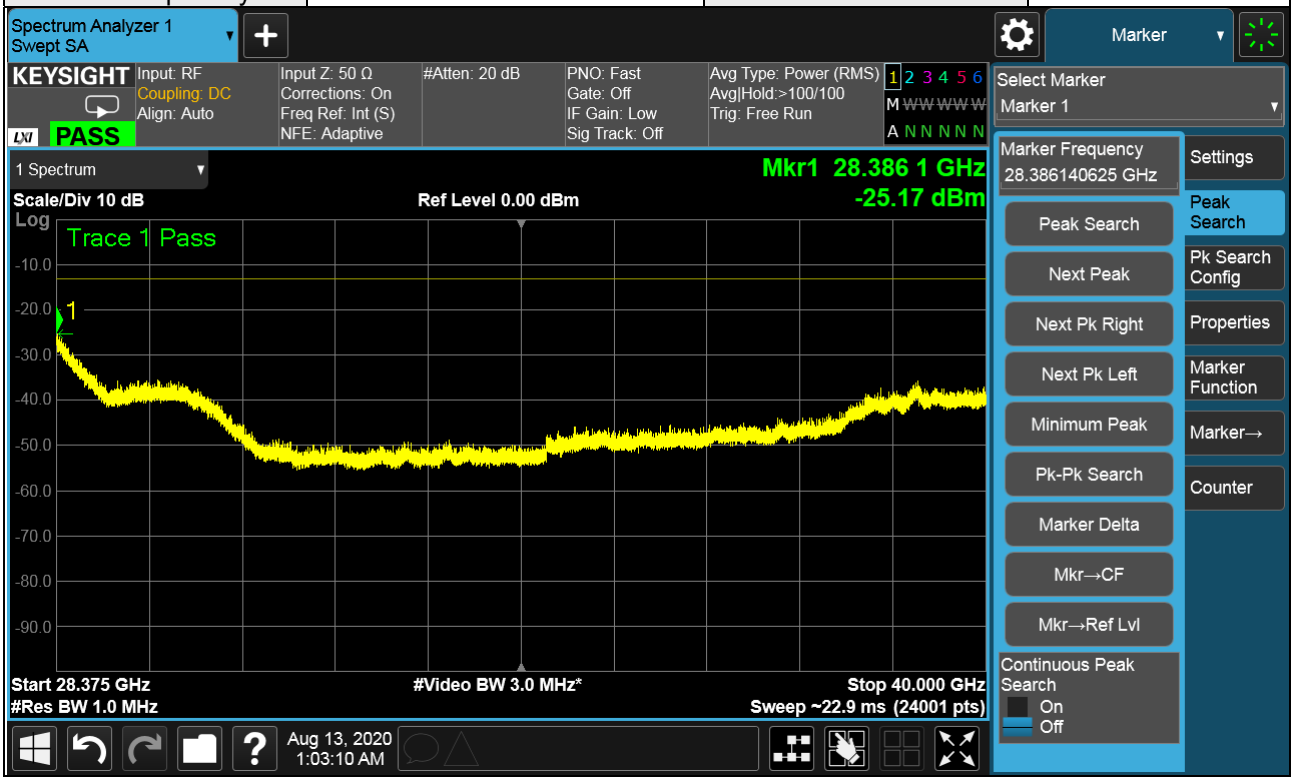
Note: The test results already include the correction factor (corrections: On).

Band	n261	Beam ID	139
Frequency Range	28.375GHz-40GHz	Channel	Low
Antenna polarity	Vertical	Test distance	2m



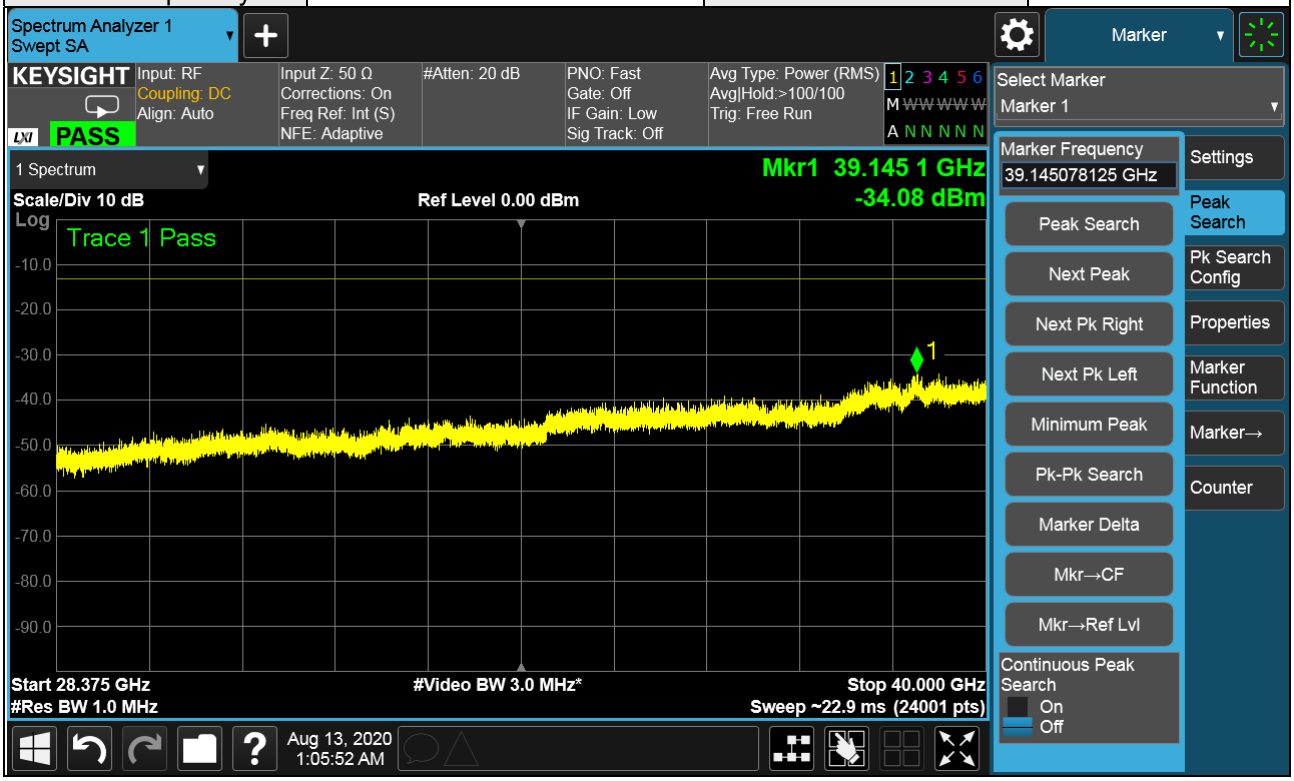
Note: The test results already include the correction factor (corrections: On).

Band	n261	Beam ID	139
Frequency Range	28.375GHz-40GHz	Channel	Middle
Antenna polarity	Horizontal	Test distance	2m



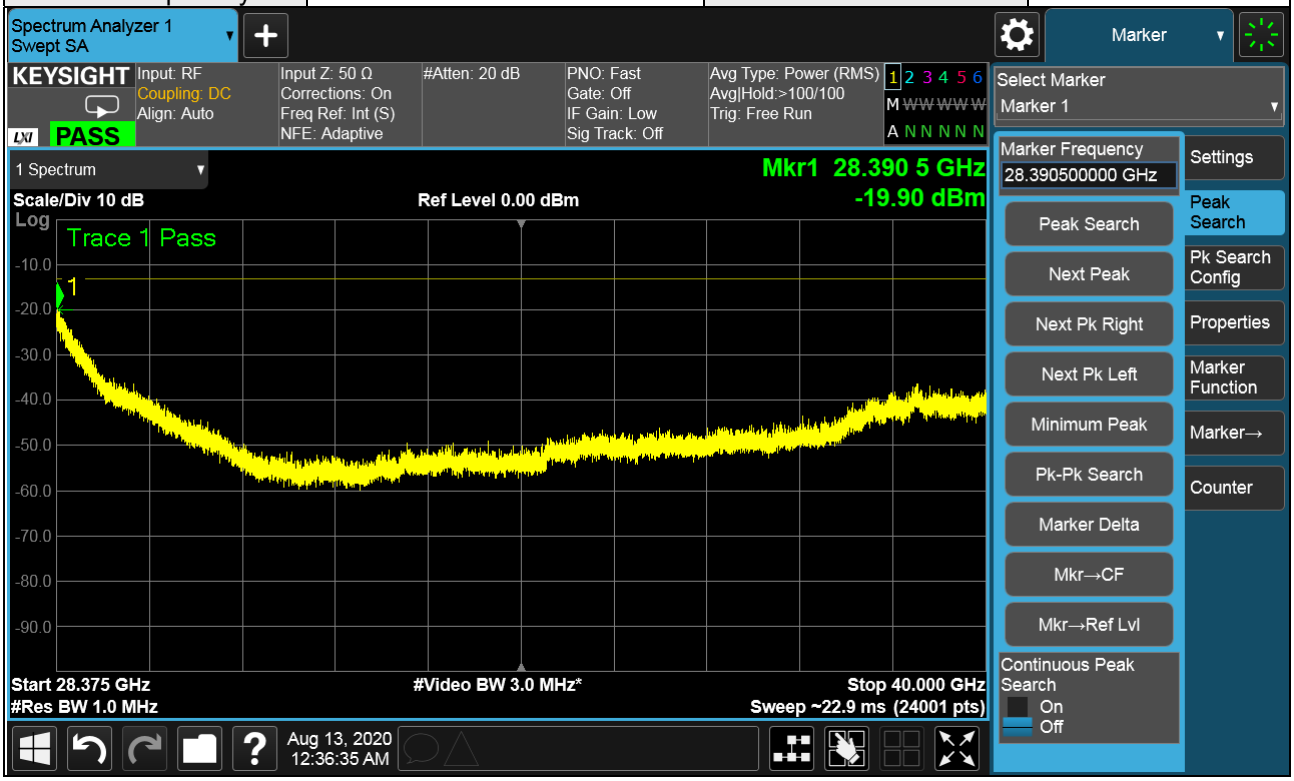
Note: The test results already include the correction factor (corrections: On).

Band	n261	Beam ID	139
Frequency Range	28.375GHz-40GHz	Channel	Middle
Antenna polarity	Vertical	Test distance	2m



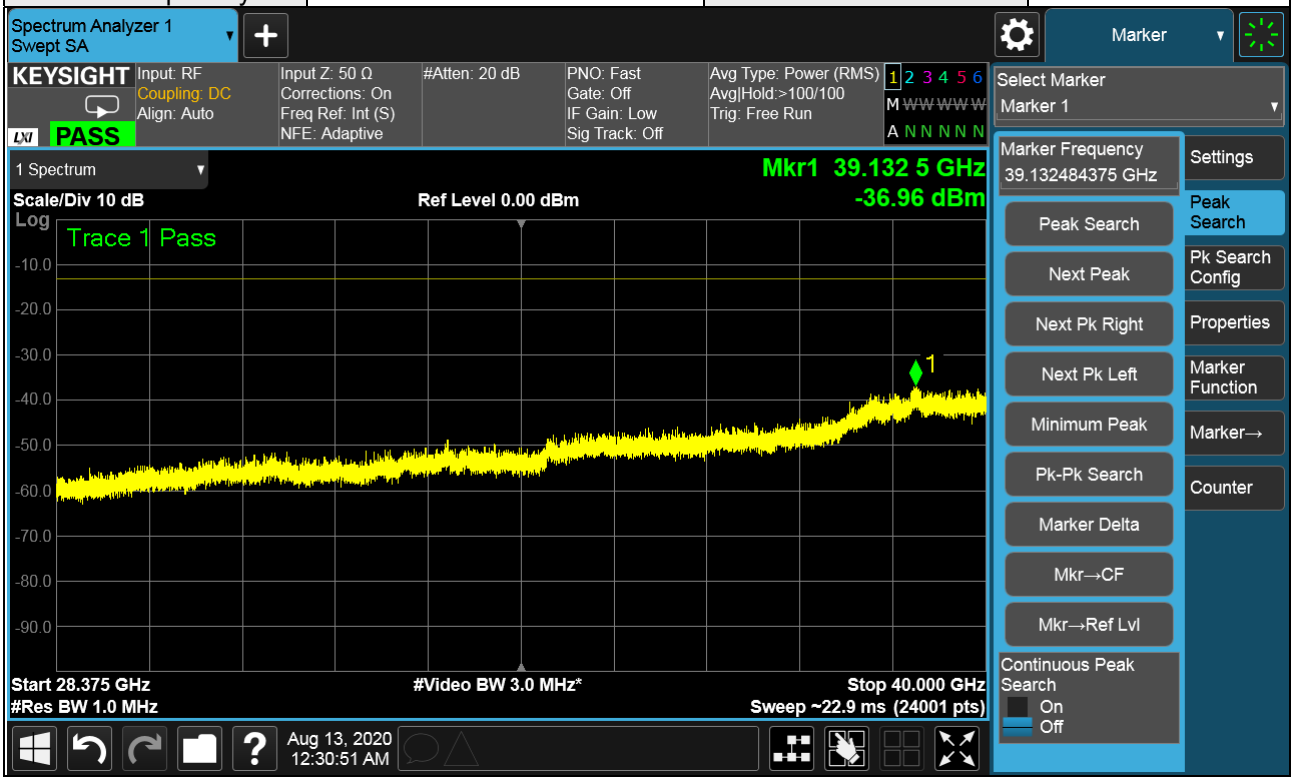
Note: The test results already include the correction factor (corrections: On).

Band	n261	Beam ID	139
Frequency Range	28.375GHz-40GHz	Channel	High
Antenna polarity	Horizontal	Test distance	2m



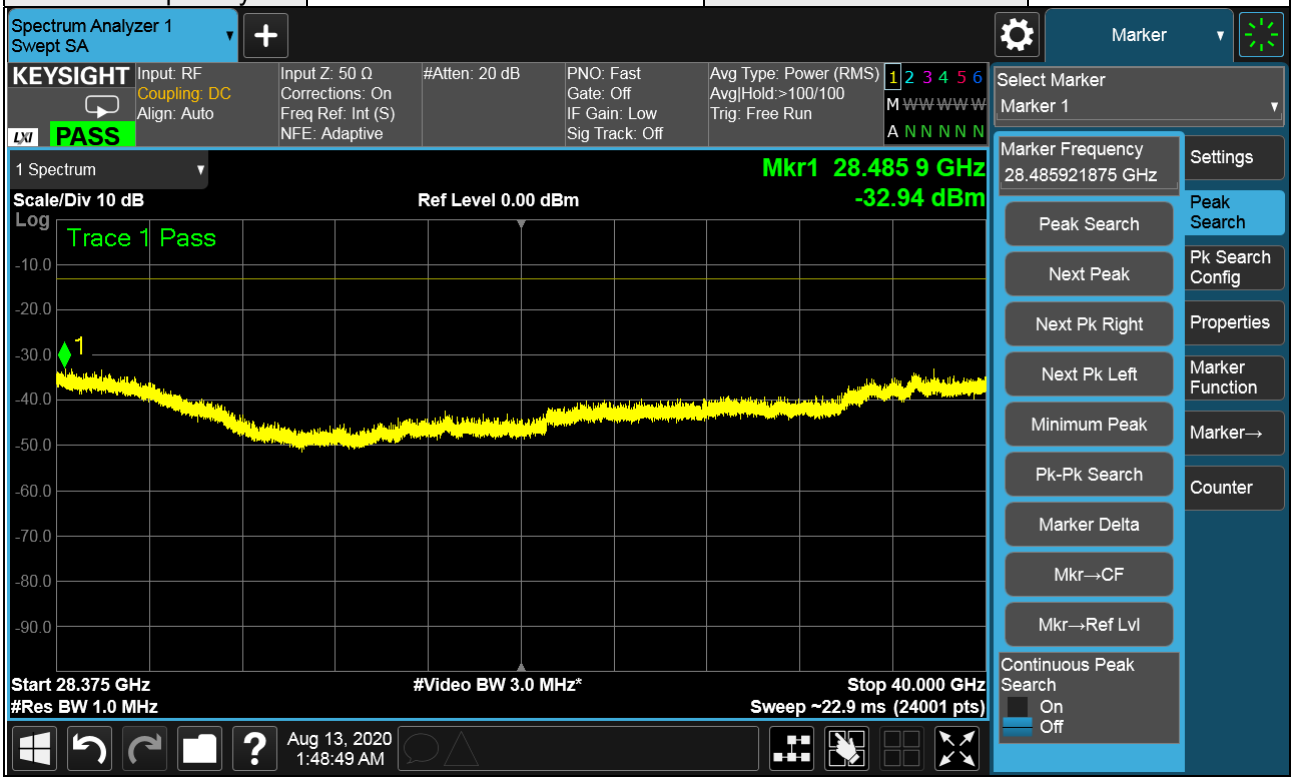
Note: The test results already include the correction factor (corrections: On).

Band	n261	Beam ID	139
Frequency Range	28.375GHz-40GHz	Channel	High
Antenna polarity	Vertical	Test distance	2m



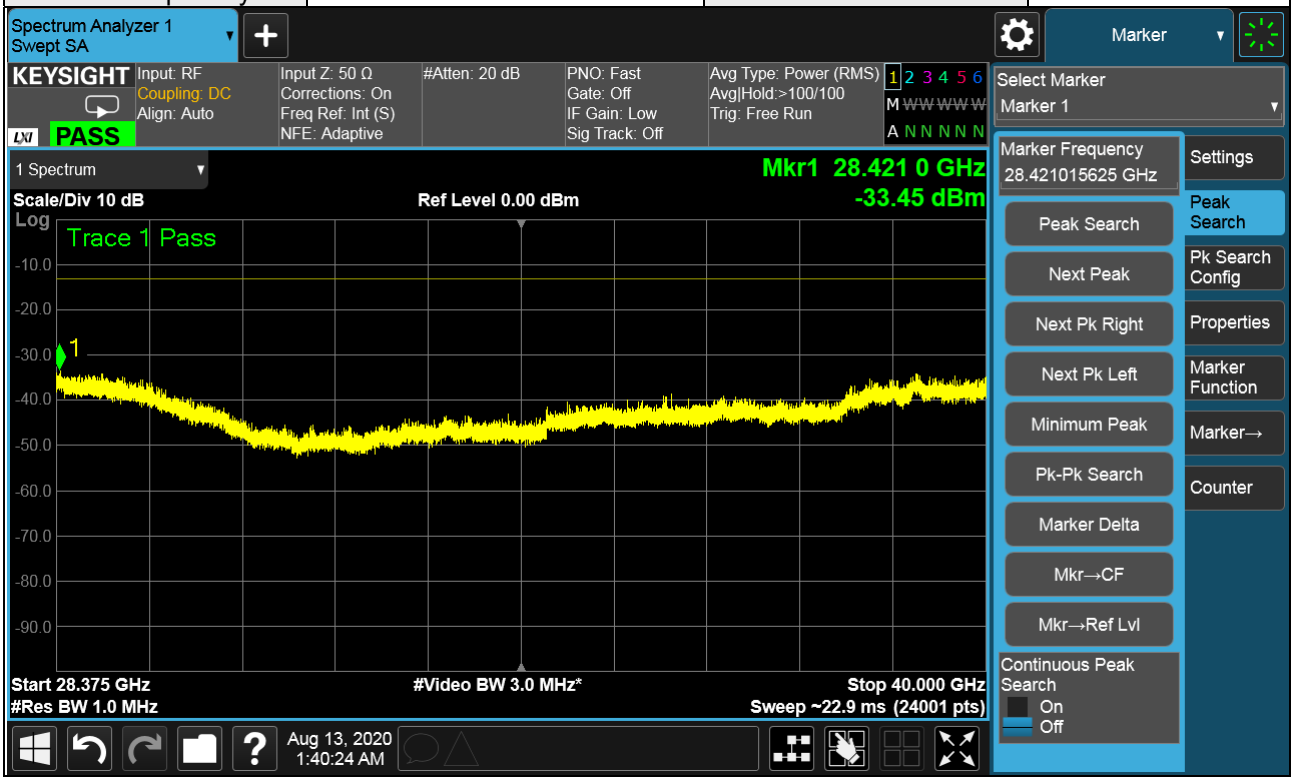
Note: The test results already include the correction factor (corrections: On).

Band	n261	Beam ID	11 + 139
Frequency Range	28.375GHz-40GHz	Channel	Low
Antenna polarity	Horizontal	Test distance	2m



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

Band	n261	Beam ID	11 + 139
Frequency Range	28.375GHz-40GHz	Channel	Low
Antenna polarity	Vertical	Test distance	2m

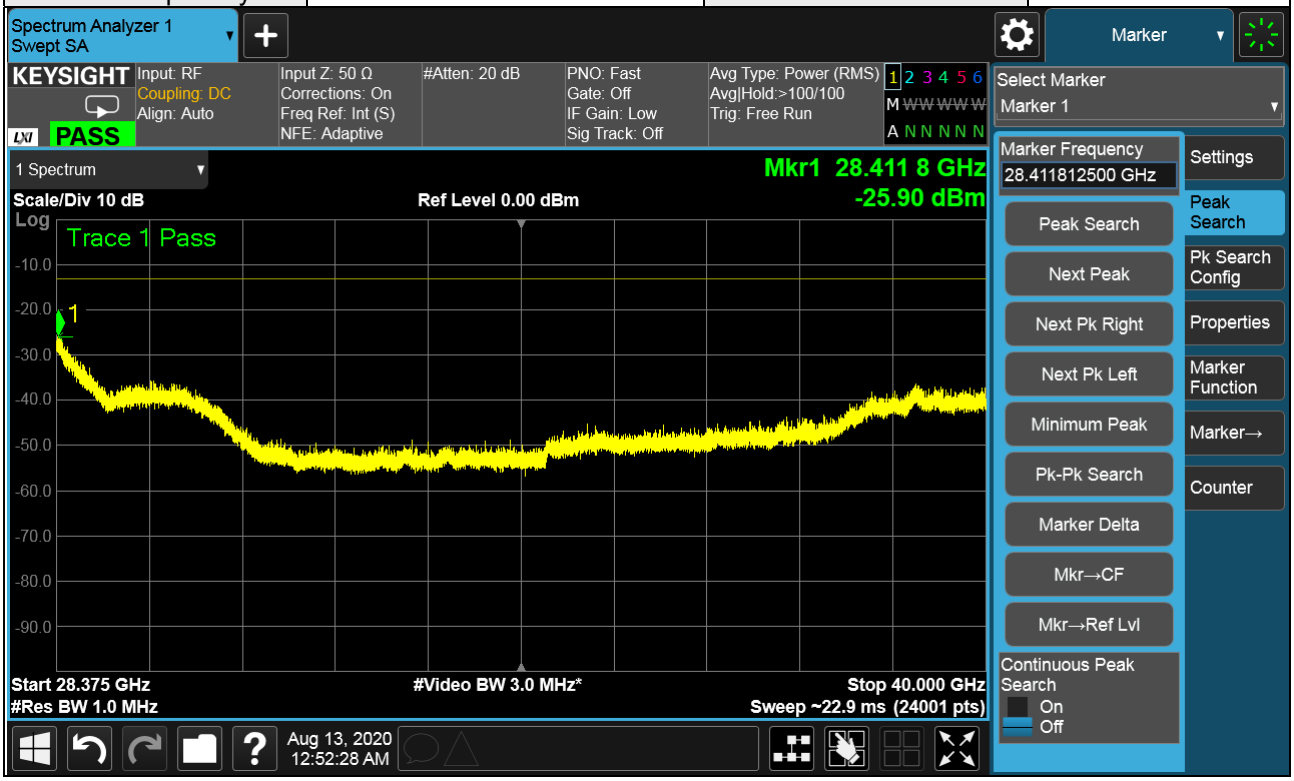


Note: The test results already include the correction factor (corrections: On).

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

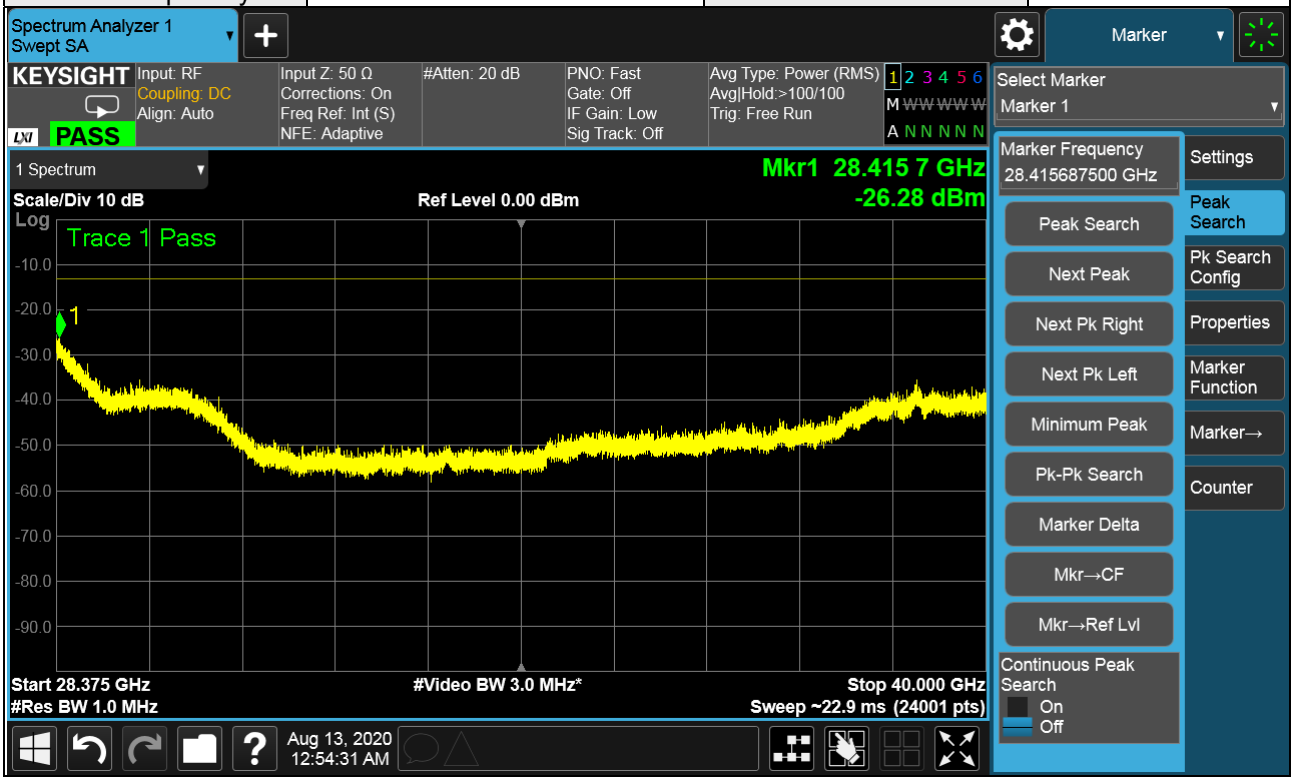
Beam ID	EIRP for V Beam (dBm)	EIRP for H Beam (dBm)	EIRP for V+H Beam (dBm)	Limit(dBm)	Margin(dB)	Result
11 + 139	-33.45	-32.94	-30.18	-13	-17.18	Pass

Band	n261	Beam ID	11 + 139
Frequency Range	28.375GHz-40GHz	Channel	Middle
Antenna polarity	Horizontal	Test distance	2m



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

Band	n261	Beam ID	11 + 139
Frequency Range	28.375GHz-40GHz	Channel	Middle
Antenna polarity	Vertical	Test distance	2m

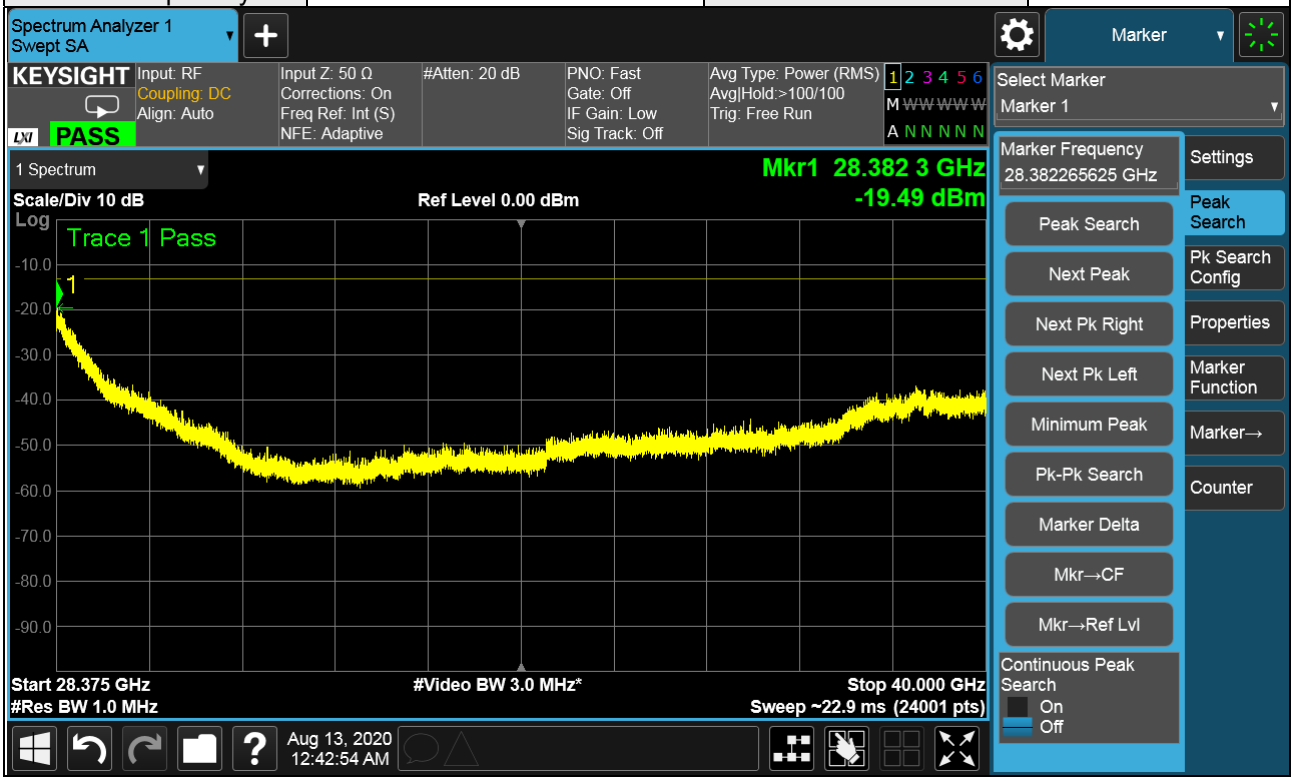


Note: The test results already include the correction factor (corrections: On).

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

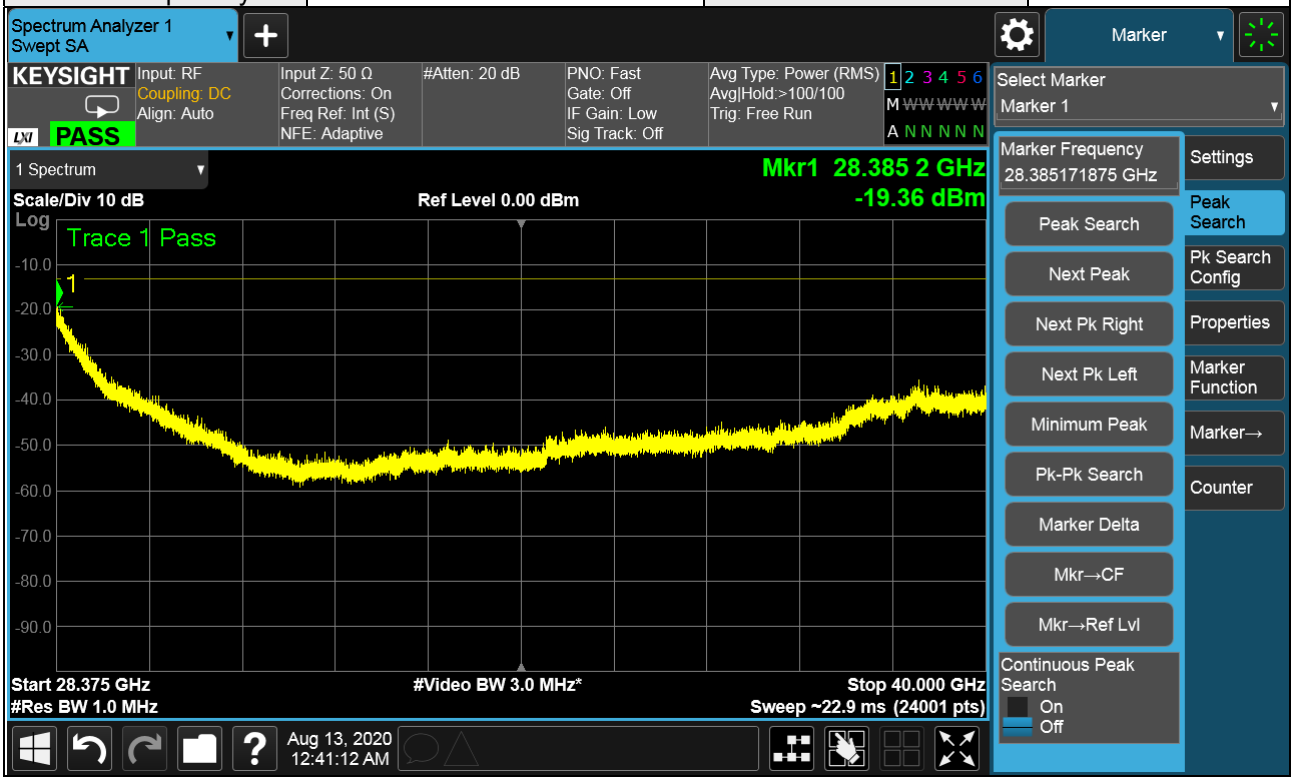
Beam ID	EIRP for V Beam (dBm)	EIRP for H Beam (dBm)	EIRP for V+H Beam (dBm)	Limit(dBm)	Margin(dB)	Result
11 + 139	-26.28	-25.90	-23.08	-13	-10.08	Pass

Band	n261	Beam ID	11 + 139
Frequency Range	28.375GHz-40GHz	Channel	High
Antenna polarity	Horizontal	Test distance	2m



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

Band	n261	Beam ID	11 + 139
Frequency Range	28.375GHz-40GHz	Channel	High
Antenna polarity	Vertical	Test distance	2m



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

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

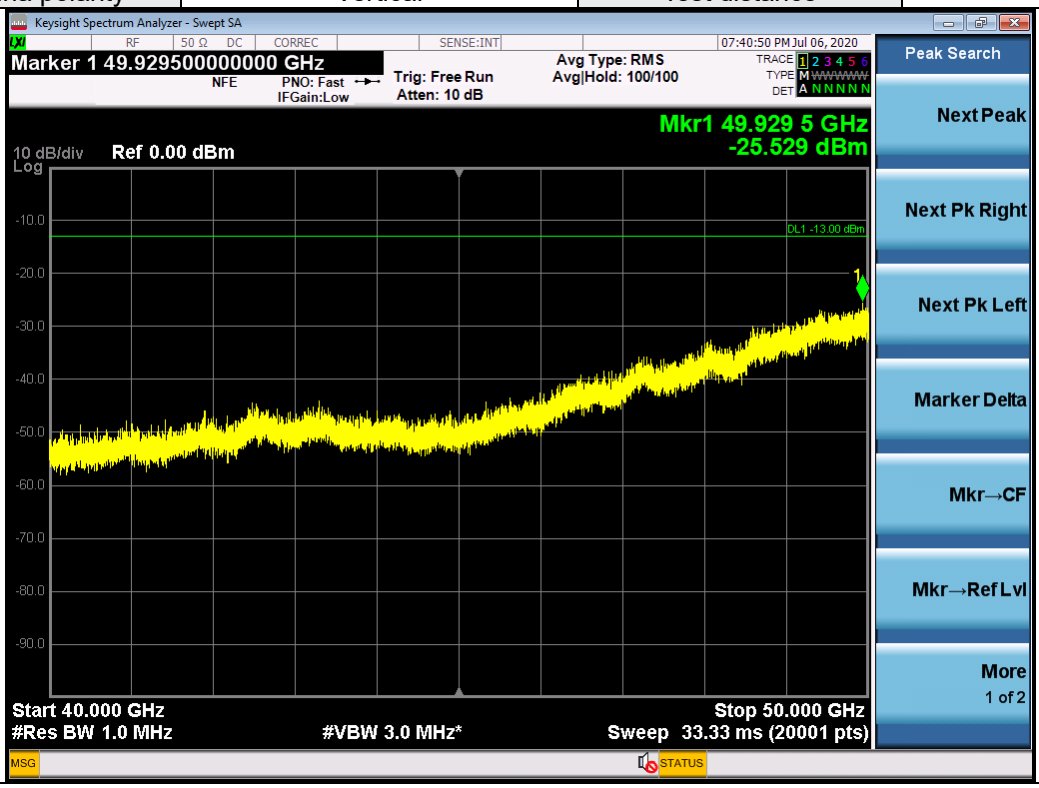
Beam ID	EIRP for V Beam (dBm)	EIRP for H Beam (dBm)	EIRP for V+H Beam (dBm)	Limit(dBm)	Margin(dB)	Result
11 + 139	-19.36	-19.49	-16.41	-13	-3.41	Pass

40GHz-50GHz (n261):

Band	n261	Beam ID	11
Frequency Range	40GHz-50GHz	Channel	Low
Antenna polarity	Horizontal	Test distance	2m

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

Band	n261	Beam ID	11
Frequency Range	40GHz-50GHz	Channel	Low
Antenna polarity	Vertical	Test distance	2m



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

Band	n261	Beam ID	11
Frequency Range	40GHz-50GHz	Channel	Middle
Antenna polarity	Horizontal	Test distance	2m

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

Band	n261	Beam ID	11
Frequency Range	40GHz-50GHz	Channel	Middle
Antenna polarity	Vertical	Test distance	2m

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

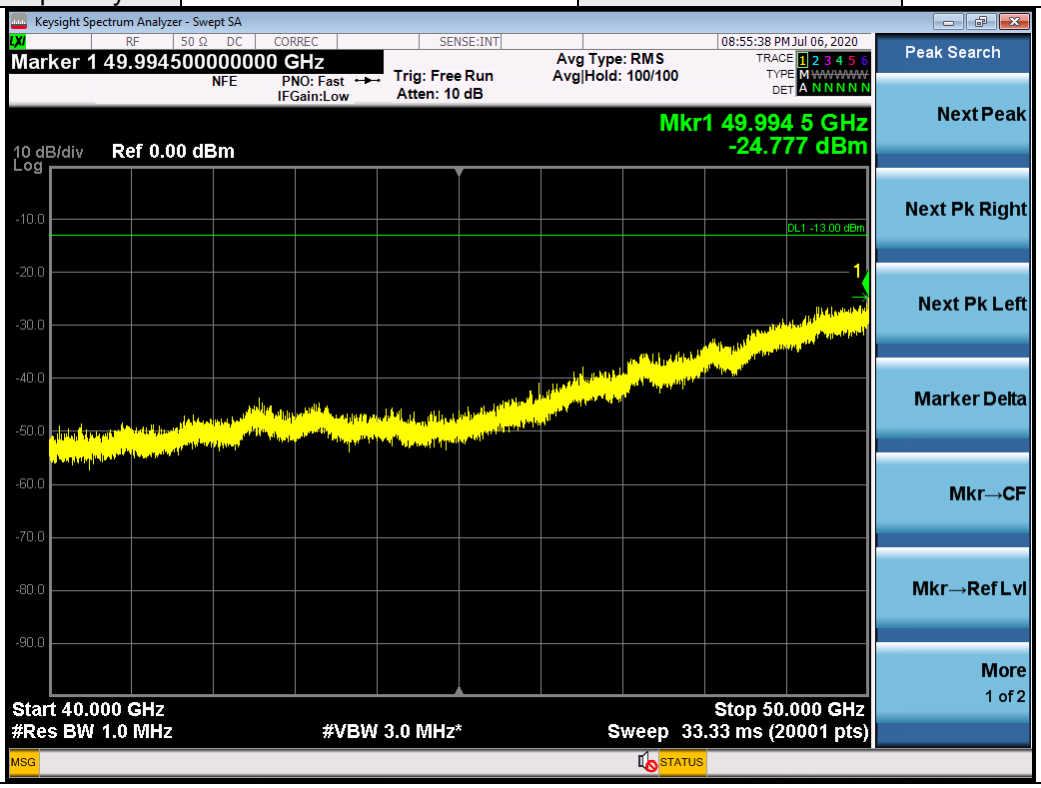
Band	n261	Beam ID	11
Frequency Range	40GHz-50GHz	Channel	High
Antenna polarity	Horizontal	Test distance	2m

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

Band	n261	Beam ID	11
Frequency Range	40GHz-50GHz	Channel	High
Antenna polarity	Vertical	Test distance	2m

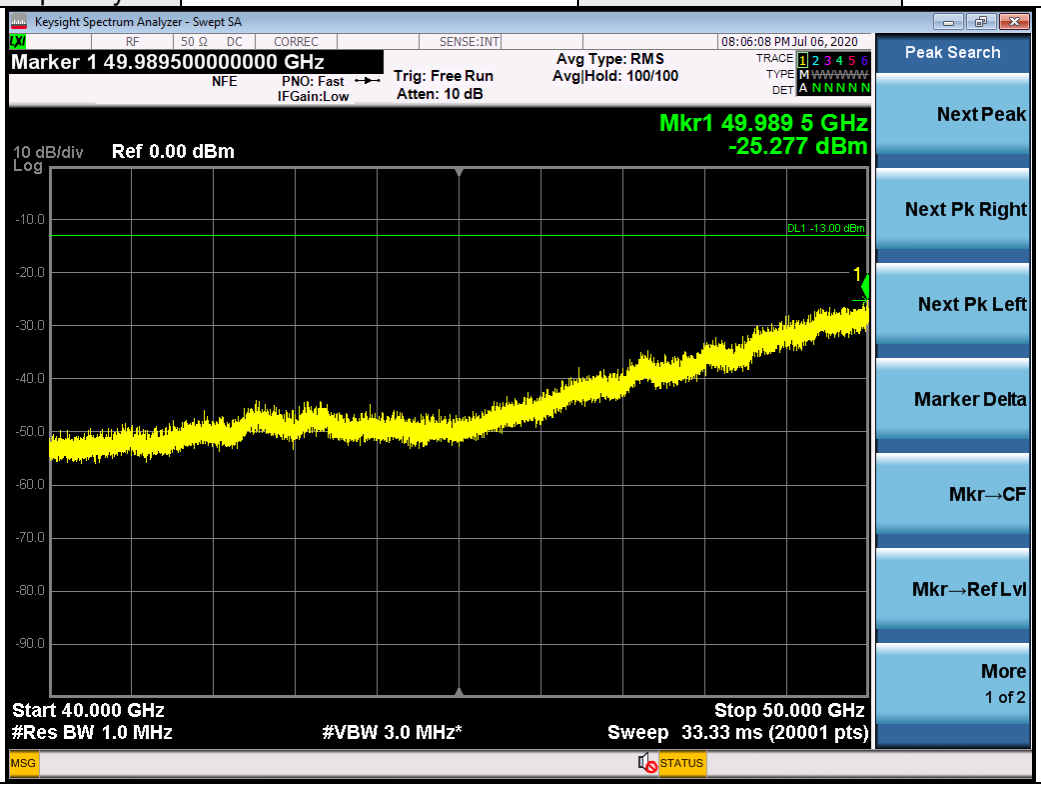
Note: The test results already include the correction factor (corrections: On).

Band	n261	Beam ID	139
Frequency Range	40GHz-50GHz	Channel	Low
Antenna polarity	Horizontal	Test distance	2m



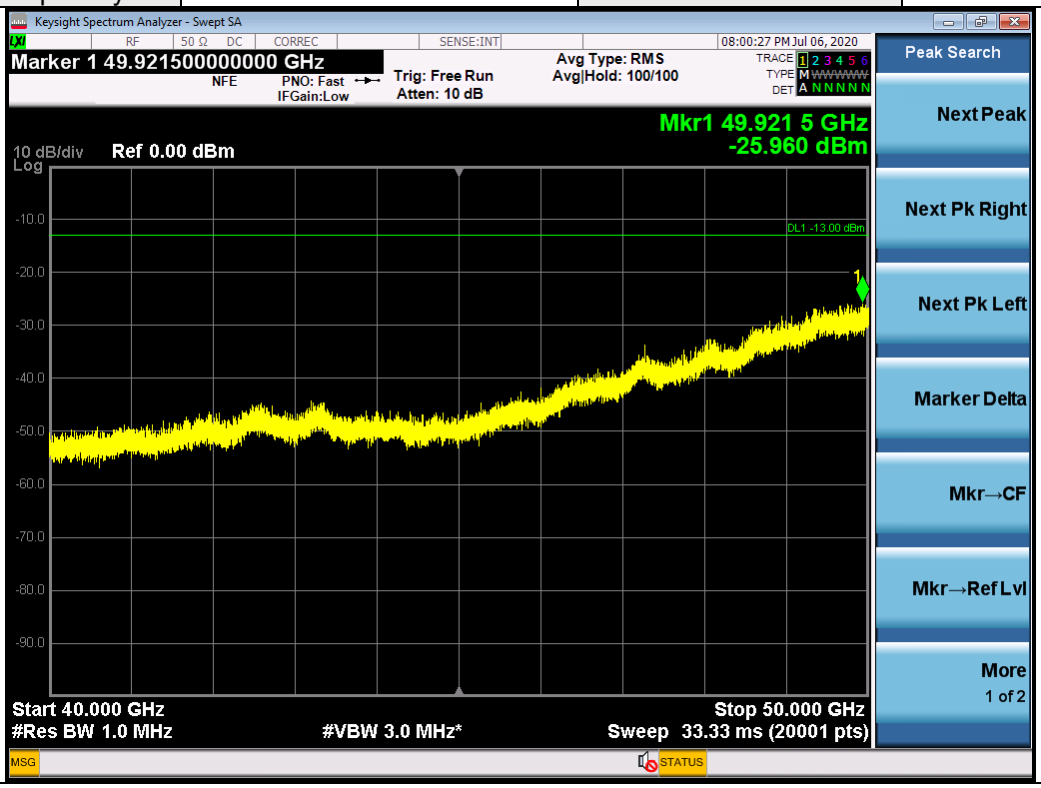
Note: The test results already include the correction factor (corrections: On).

Band	n261	Beam ID	139
Frequency Range	40GHz-50GHz	Channel	Low
Antenna polarity	Vertical	Test distance	2m



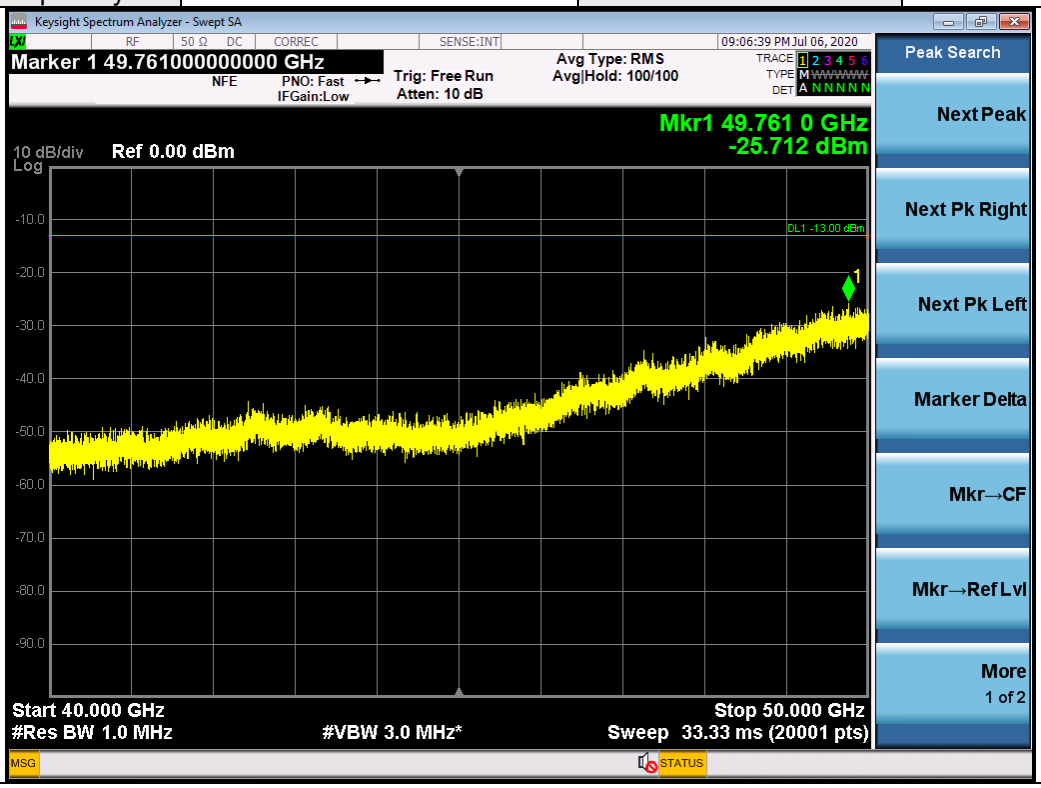
Note: The test results already include the correction factor (corrections: On).

Band	n261	Beam ID	139
Frequency Range	40GHz-50GHz	Channel	Middle
Antenna polarity	Horizontal	Test distance	2m



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

Band	n261	Beam ID	139
Frequency Range	40GHz-50GHz	Channel	Middle
Antenna polarity	Vertical	Test distance	2m



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

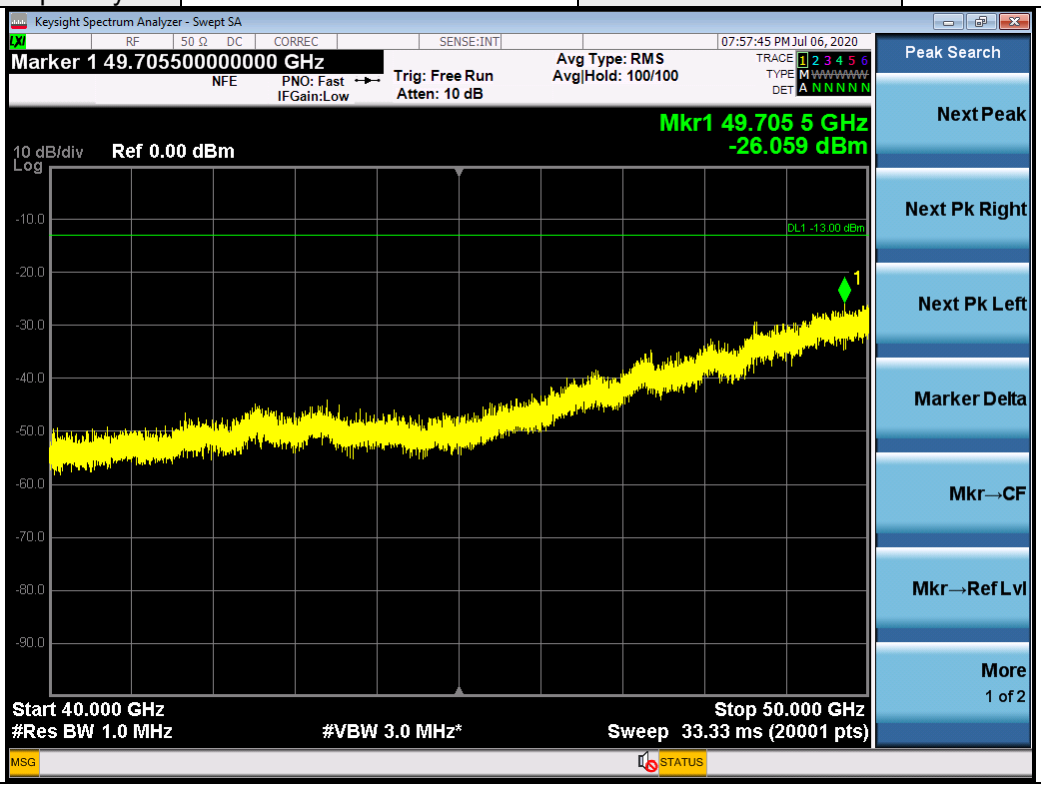
Band	n261	Beam ID	139
Frequency Range	40GHz-50GHz	Channel	High
Antenna polarity	Horizontal	Test distance	2m

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

Band	n261	Beam ID	139
Frequency Range	40GHz-50GHz	Channel	High
Antenna polarity	Vertical	Test distance	2m

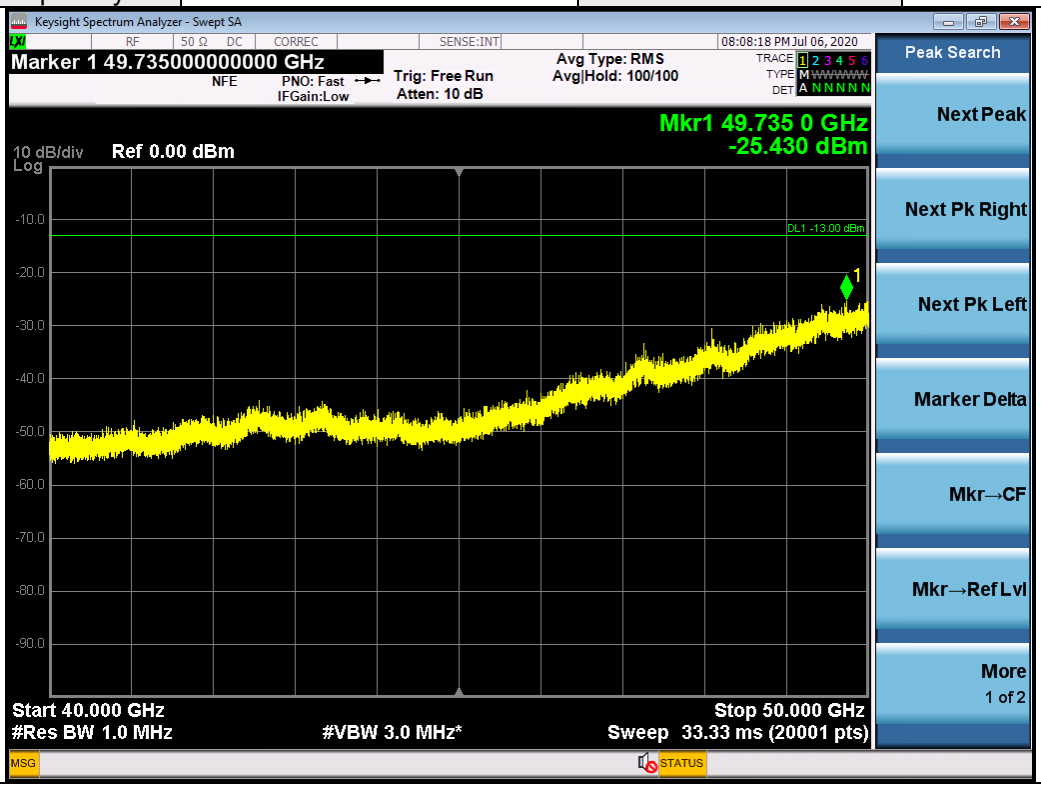
Note: The test results already include the correction factor (corrections: On).

Band	n261	Beam ID	11 + 139
Frequency Range	40GHz-50GHz	Channel	Low
Antenna polarity	Horizontal	Test distance	2m



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

Band	n261	Beam ID	11 + 139
Frequency Range	40GHz-50GHz	Channel	Low
Antenna polarity	Vertical	Test distance	2m

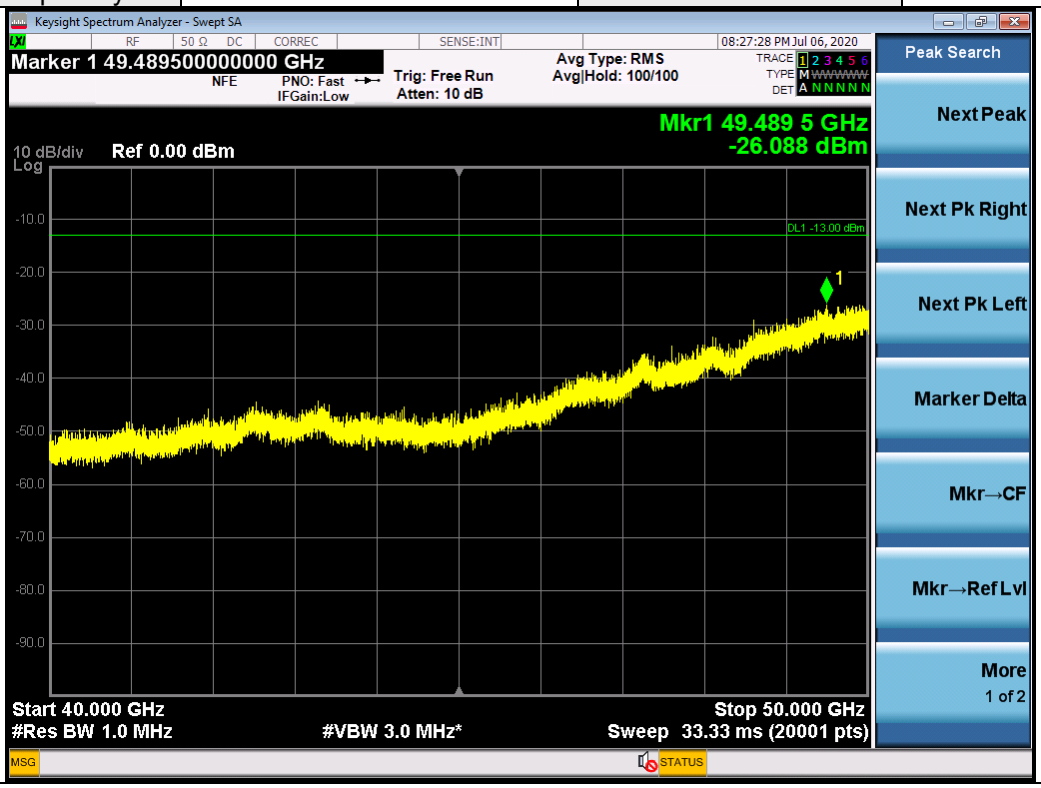


Note: The test results already include the correction factor (corrections: On).

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

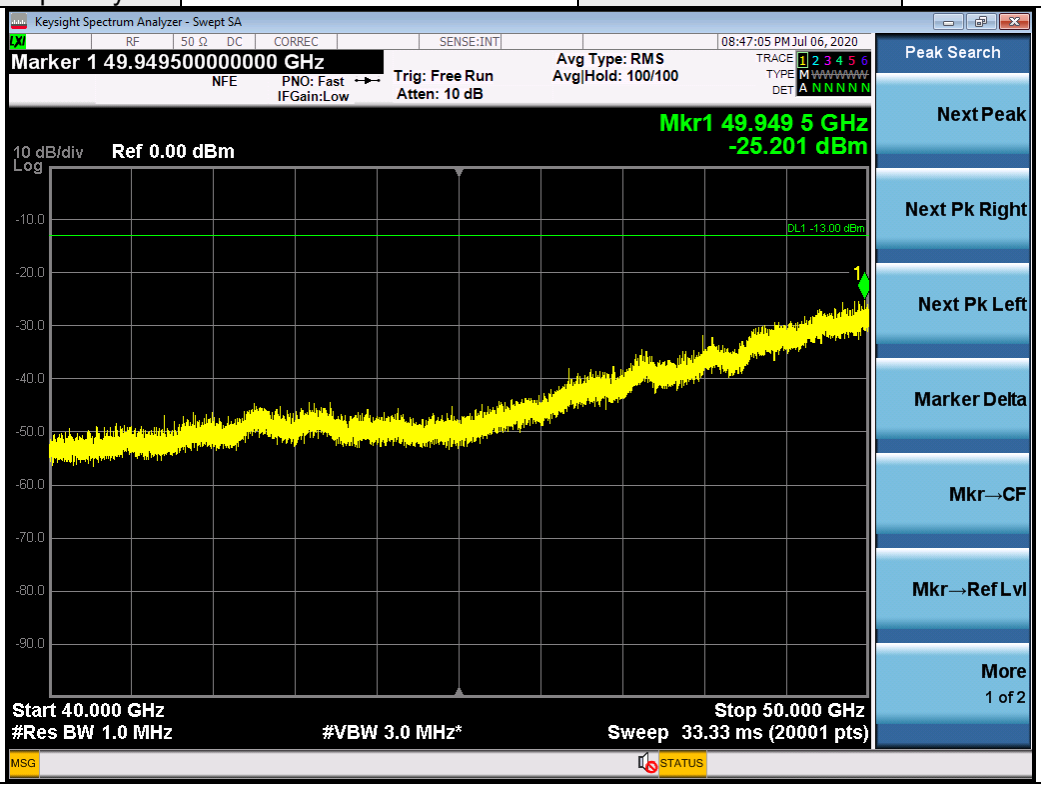
Beam ID	EIRP for V Beam (dBm)	EIRP for H Beam (dBm)	EIRP for V+H Beam (dBm)	Limit(dBm)	Margin(dB)	Result
11 + 139	-25.430	-26.059	-22.72	-13	-9.72	Pass

Band	n261	Beam ID	11 + 139
Frequency Range	40GHz-50GHz	Channel	Middle
Antenna polarity	Horizontal	Test distance	2m



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

Band	n261	Beam ID	11 + 139
Frequency Range	40GHz-50GHz	Channel	Middle
Antenna polarity	Vertical	Test distance	2m

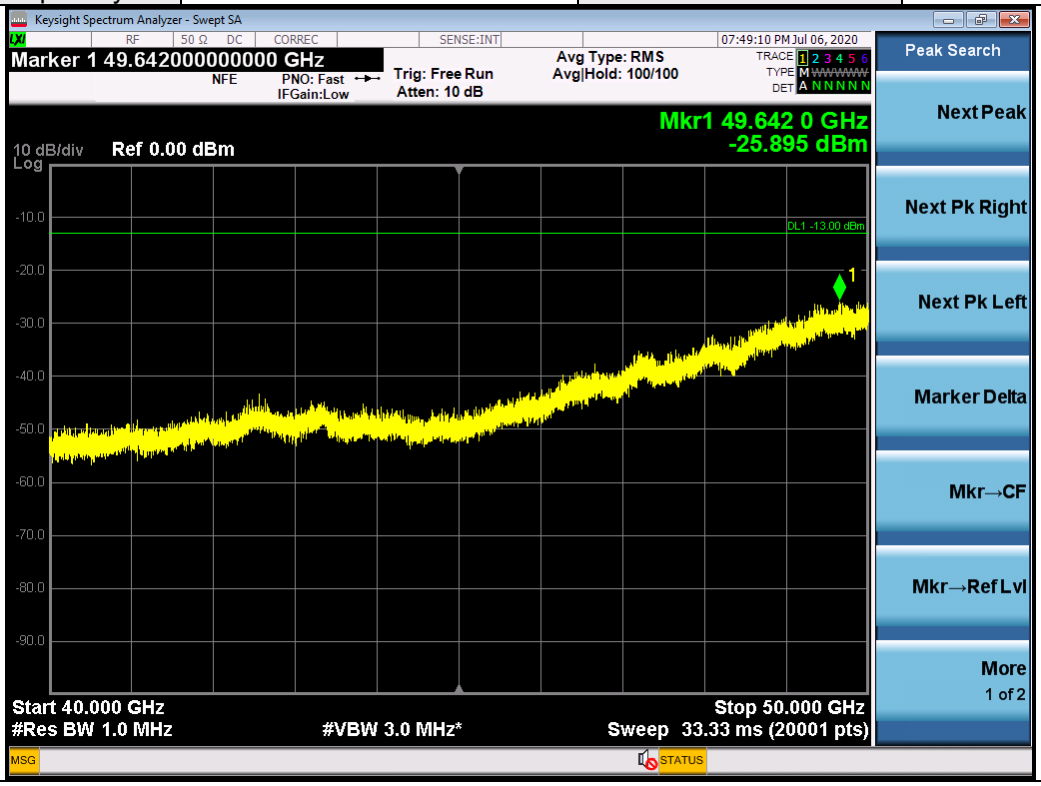


Note: The test results already include the correction factor (corrections: On).

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

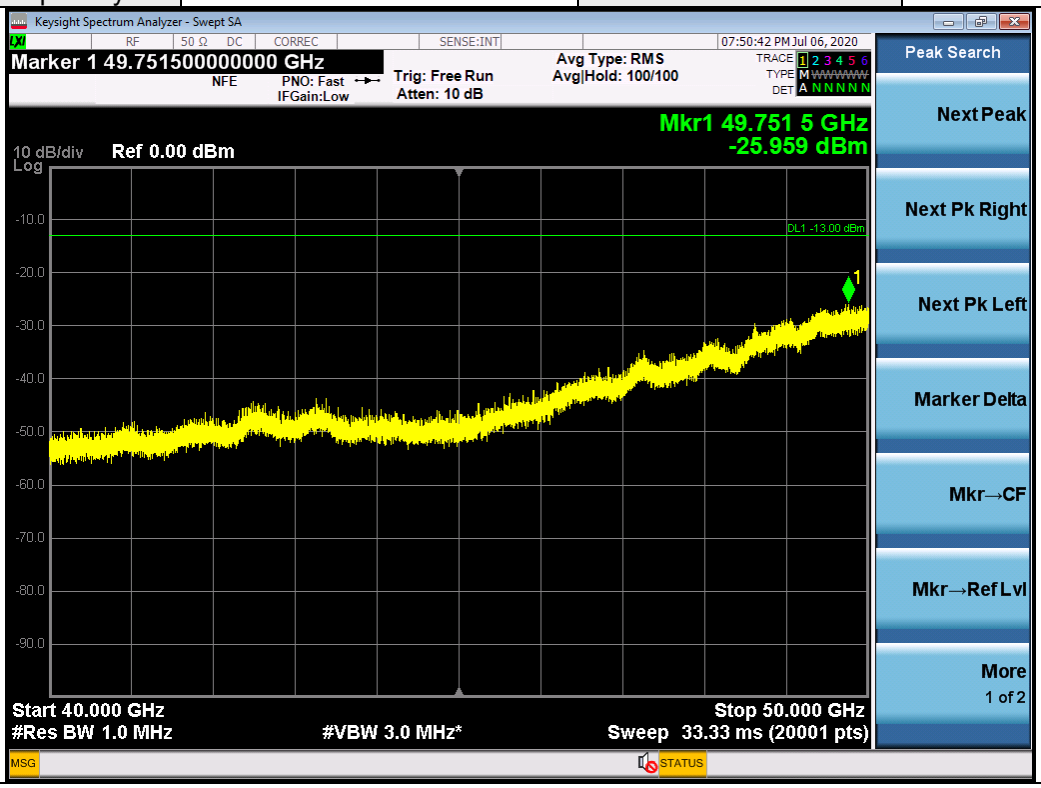
Beam ID	EIRP for V Beam (dBm)	EIRP for H Beam (dBm)	EIRP for V+H Beam (dBm)	Limit(dBm)	Margin(dB)	Result
11 + 139	-25.201	-26.088	-22.61	-13	-9.61	Pass

Band	n261	Beam ID	11 + 139
Frequency Range	40GHz-50GHz	Channel	High
Antenna polarity	Horizontal	Test distance	2m



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

Band	n261	Beam ID	11 + 139
Frequency Range	40GHz-50GHz	Channel	High
Antenna polarity	Vertical	Test distance	2m



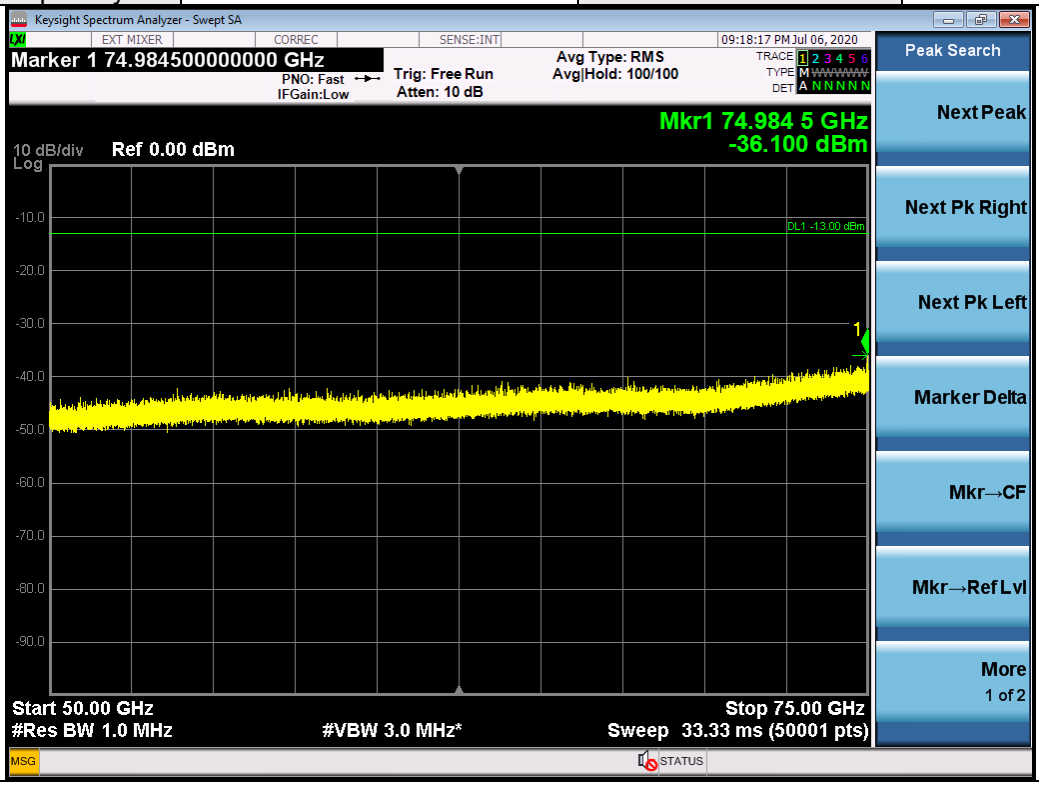
Note: The test results already include the correction factor (corrections: On).

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

Beam ID	EIRP for V Beam (dBm)	EIRP for H Beam (dBm)	EIRP for V+H Beam (dBm)	Limit(dBm)	Margin(dB)	Result
11 + 139	-25.959	-25.895	-22.92	-13	-9.92	Pass

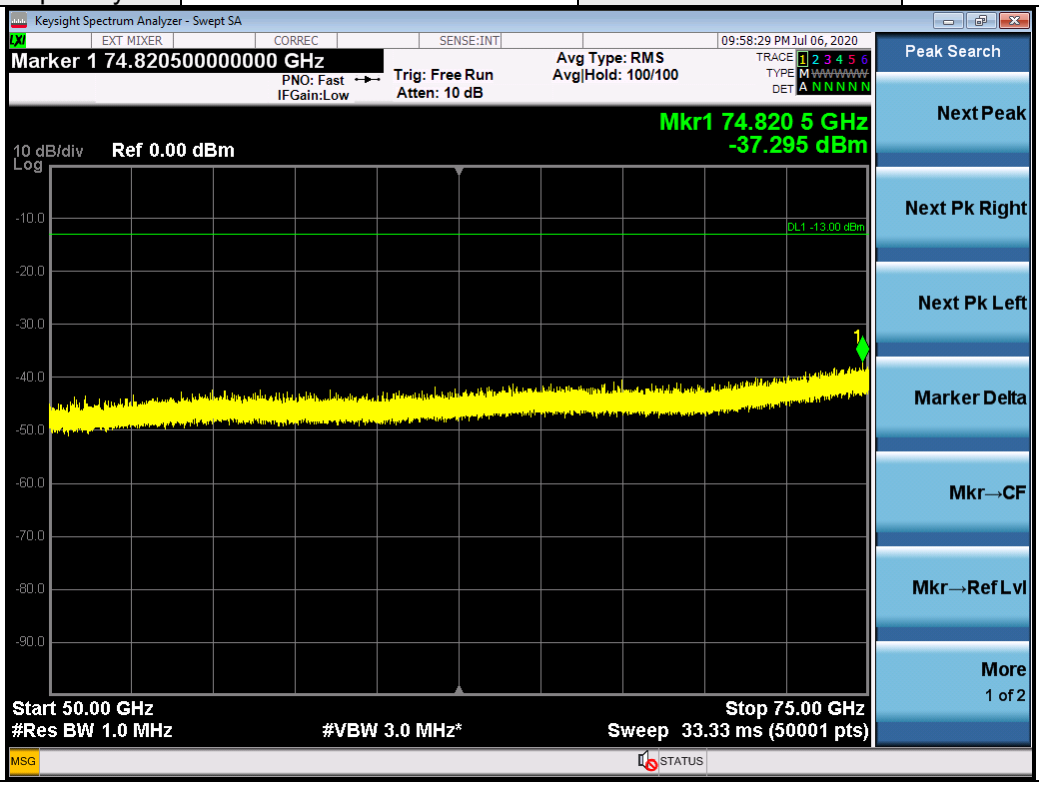
50GHz-75GHz (n261):

Band	n261	Beam ID	11
Frequency Range	50GHz-75GHz	Channel	Low
Antenna polarity	Horizontal	Test distance	3m



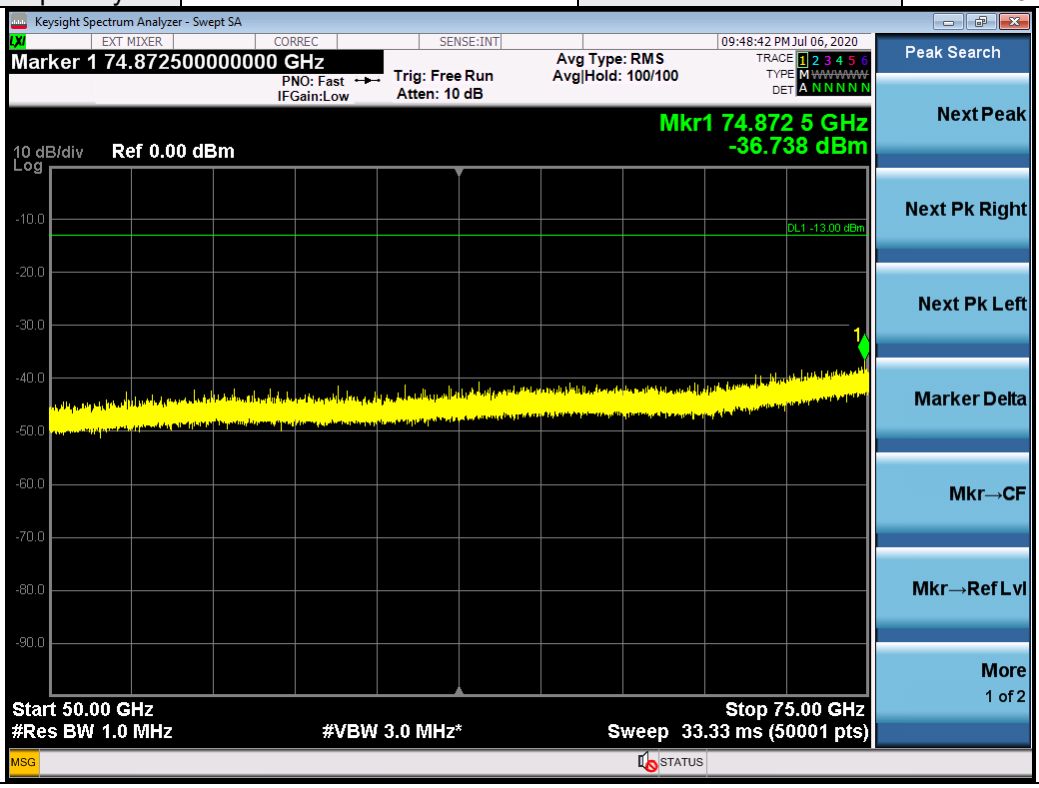
Note: The test results already include the correction factor (corrections: On).

Band	n261	Beam ID	11
Frequency Range	50GHz-75GHz	Channel	Low
Antenna polarity	Vertical	Test distance	3m



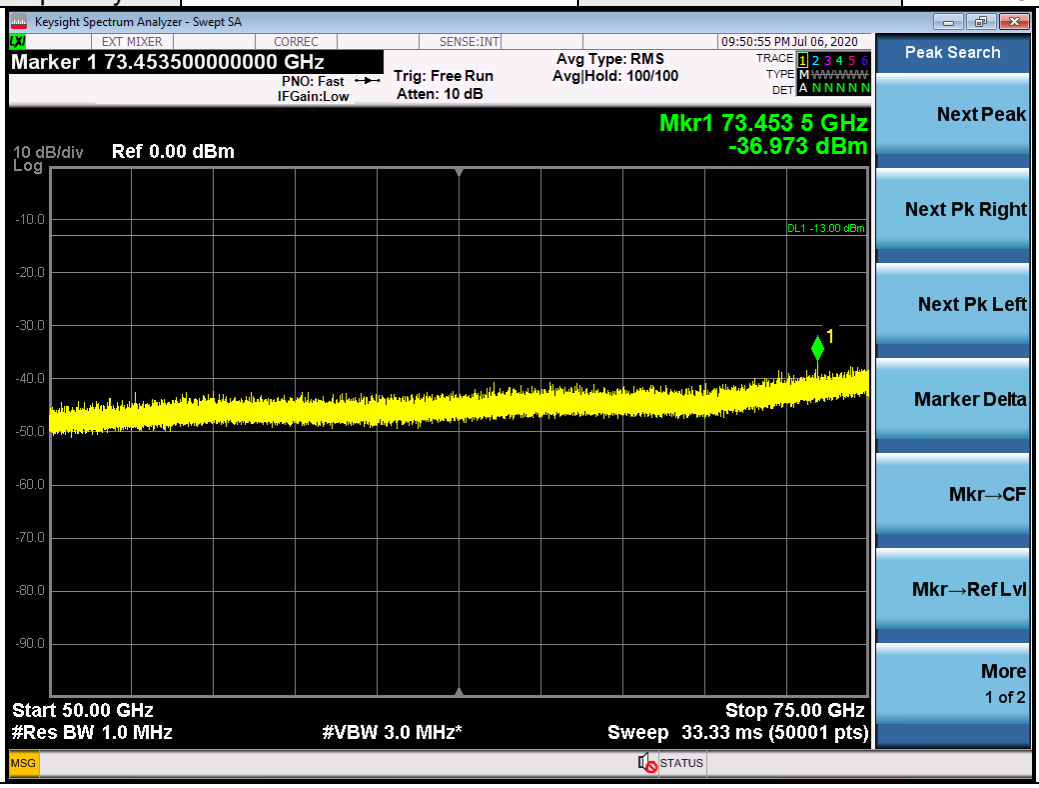
Note: The test results already include the correction factor (corrections: On).

Band	n261	Beam ID	11
Frequency Range	50GHz-75GHz	Channel	Middle
Antenna polarity	Horizontal	Test distance	3m



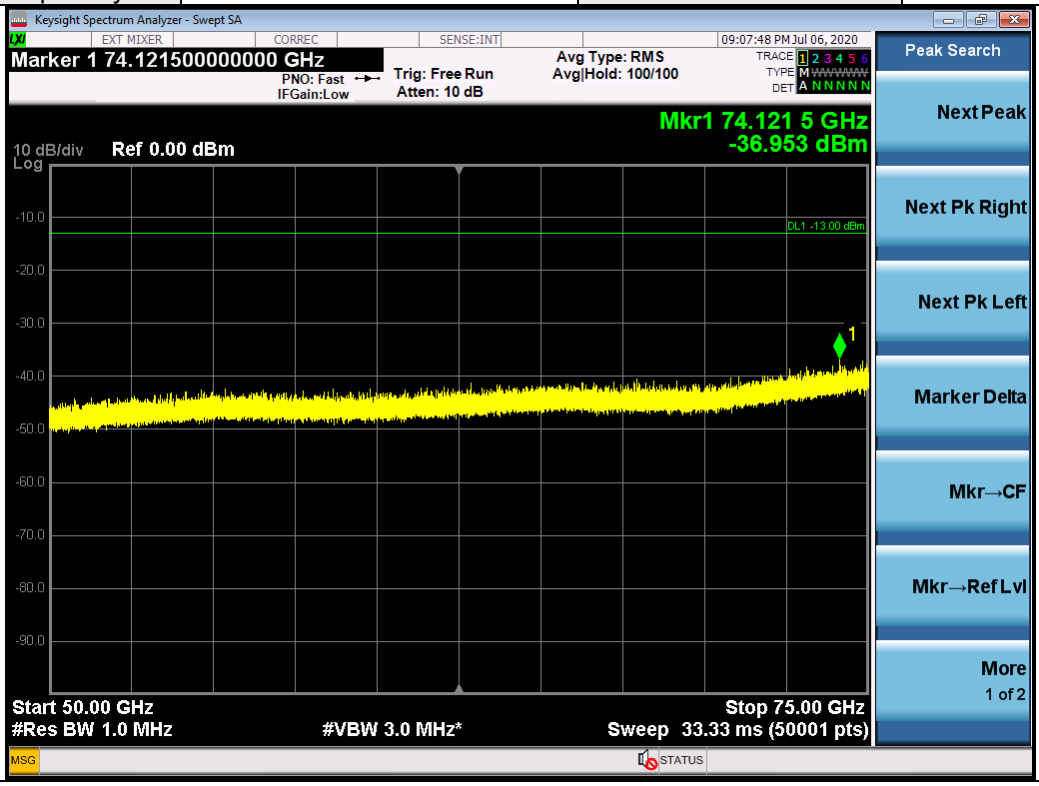
Note: The test results already include the correction factor (corrections: On).

Band	n261	Beam ID	11
Frequency Range	50GHz-75GHz	Channel	Middle
Antenna polarity	Vertical	Test distance	3m



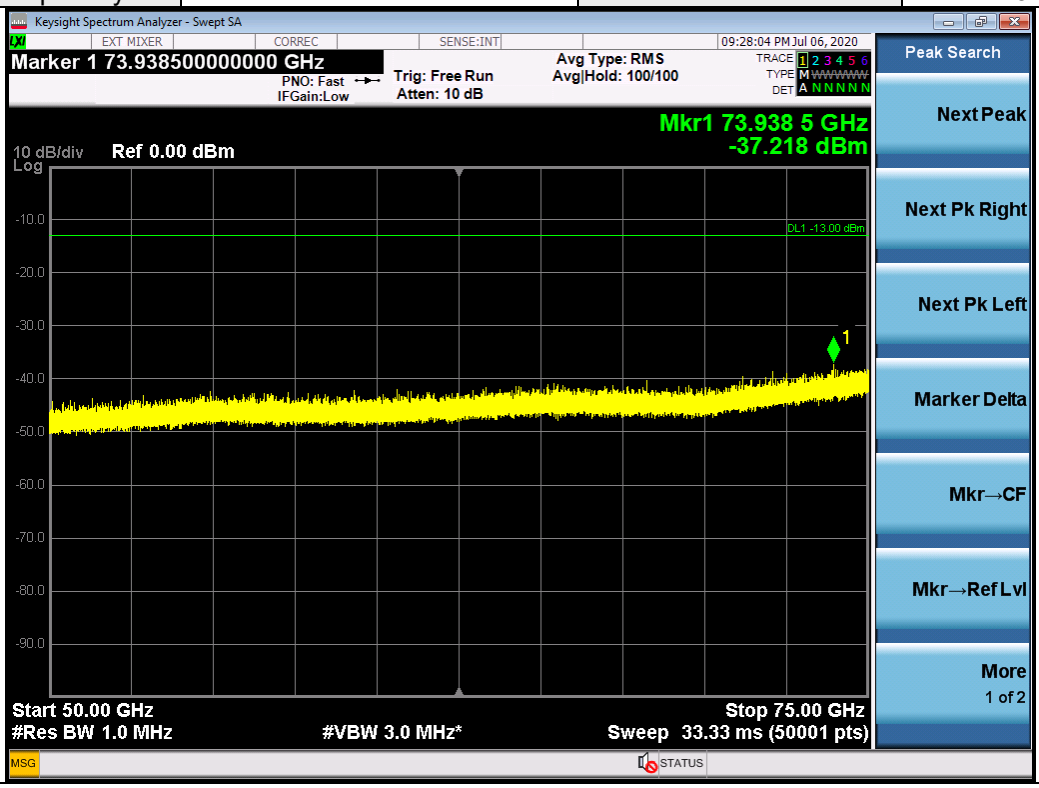
Note: The test results already include the correction factor (corrections: On).

Band	n261	Beam ID	11
Frequency Range	50GHz-75GHz	Channel	High
Antenna polarity	Horizontal	Test distance	3m



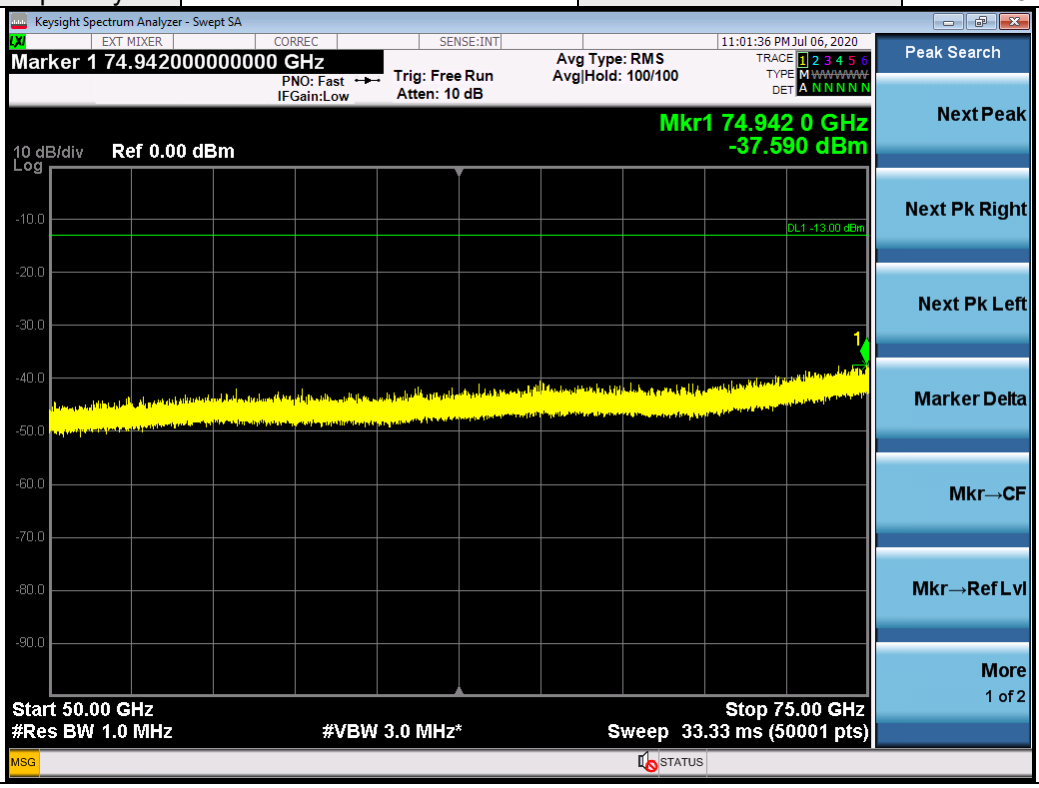
Note: The test results already include the correction factor (corrections: On).

Band	n261	Beam ID	11
Frequency Range	50GHz-75GHz	Channel	High
Antenna polarity	Vertical	Test distance	3m



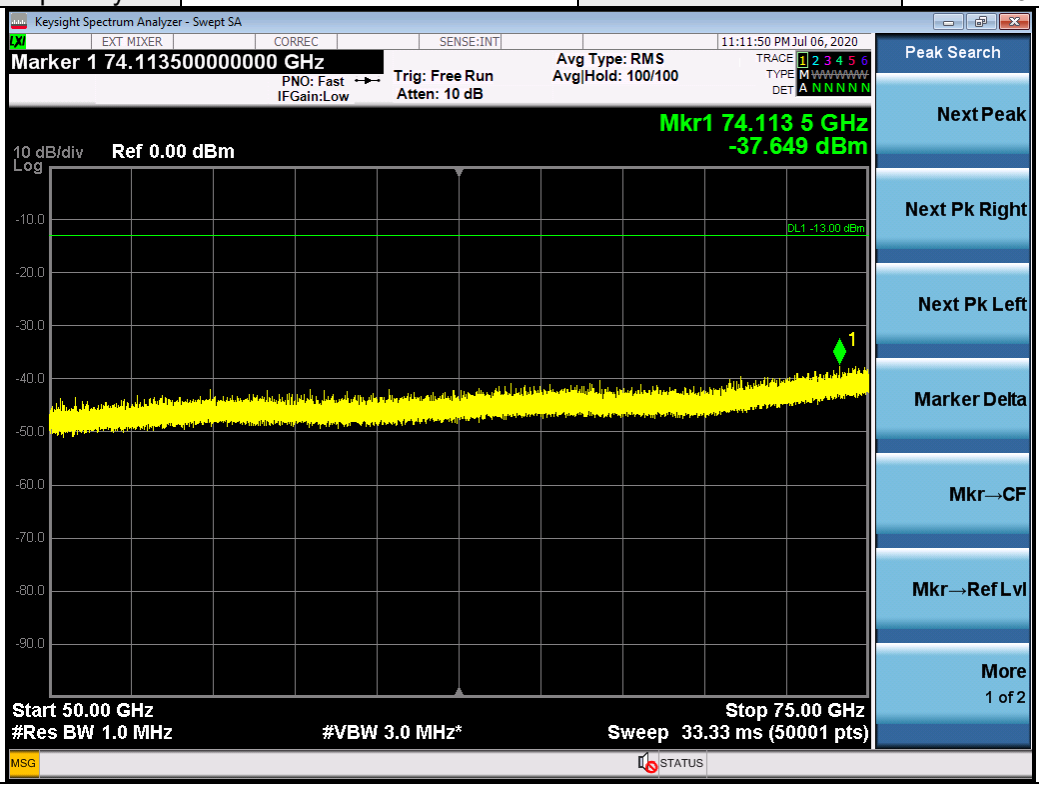
Note: The test results already include the correction factor (corrections: On).

Band	n261	Beam ID	139
Frequency Range	50GHz-75GHz	Channel	Low
Antenna polarity	Horizontal	Test distance	3m



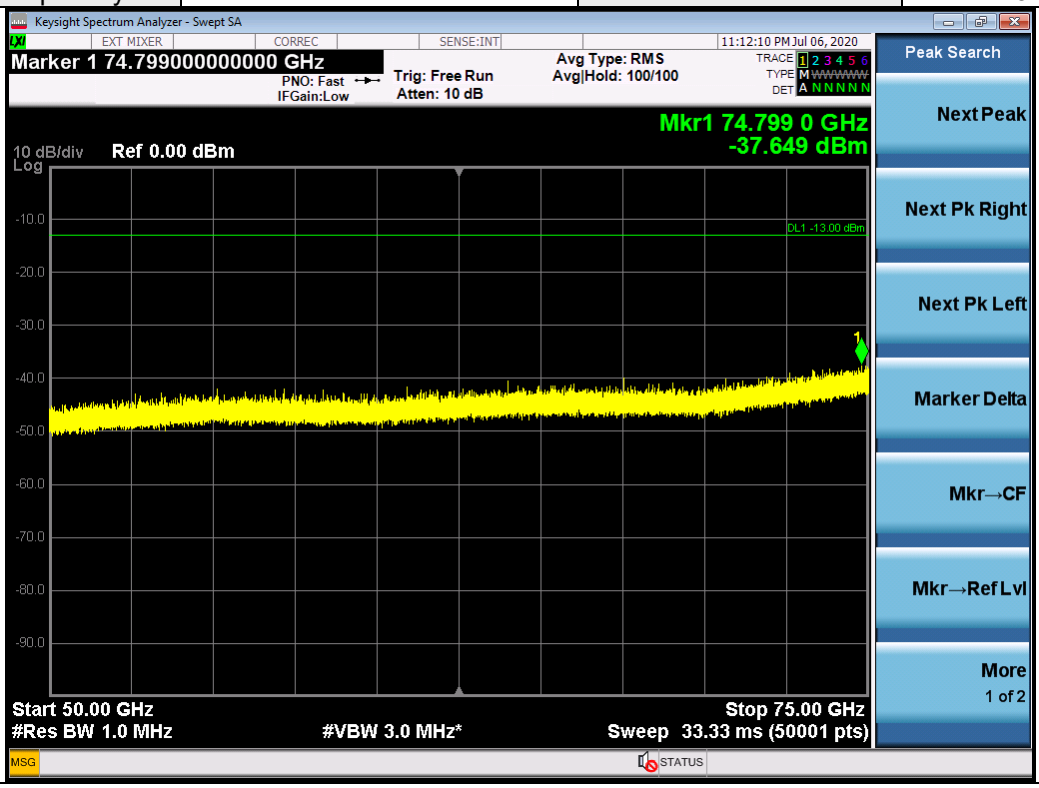
Note: The test results already include the correction factor (corrections: On).

Band	n261	Beam ID	139
Frequency Range	50GHz-75GHz	Channel	Low
Antenna polarity	Vertical	Test distance	3m



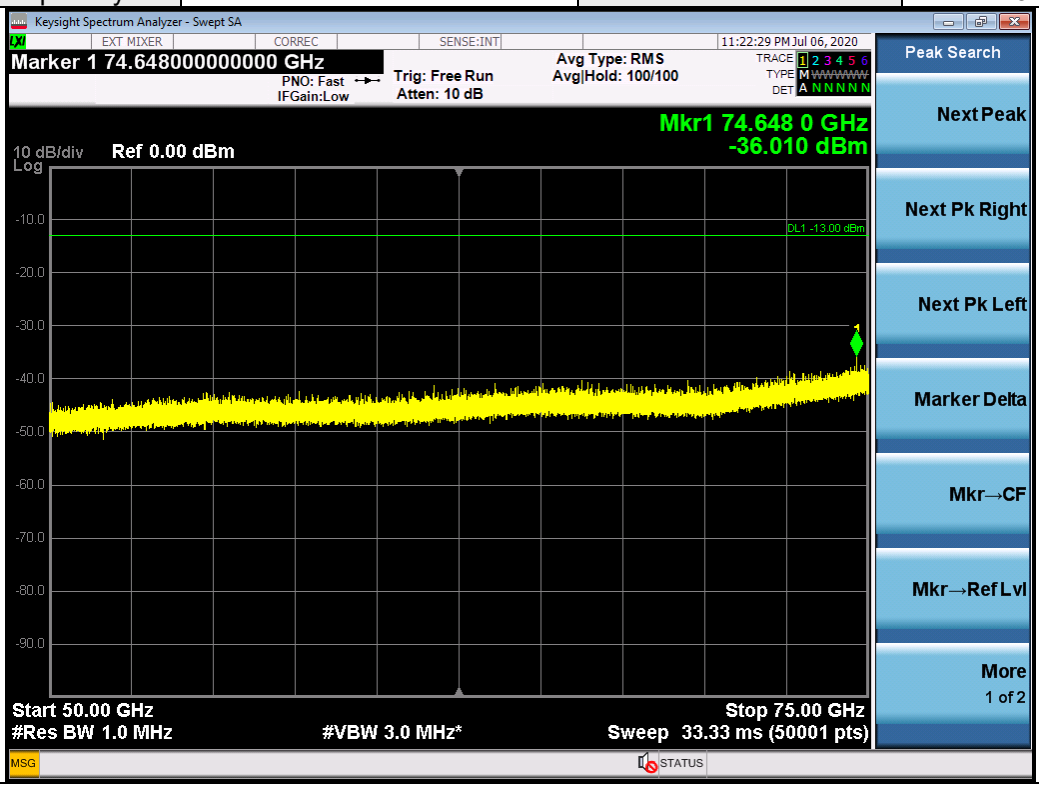
Note: The test results already include the correction factor (corrections: On).

Band	n261	Beam ID	139
Frequency Range	50GHz-75GHz	Channel	Middle
Antenna polarity	Horizontal	Test distance	3m



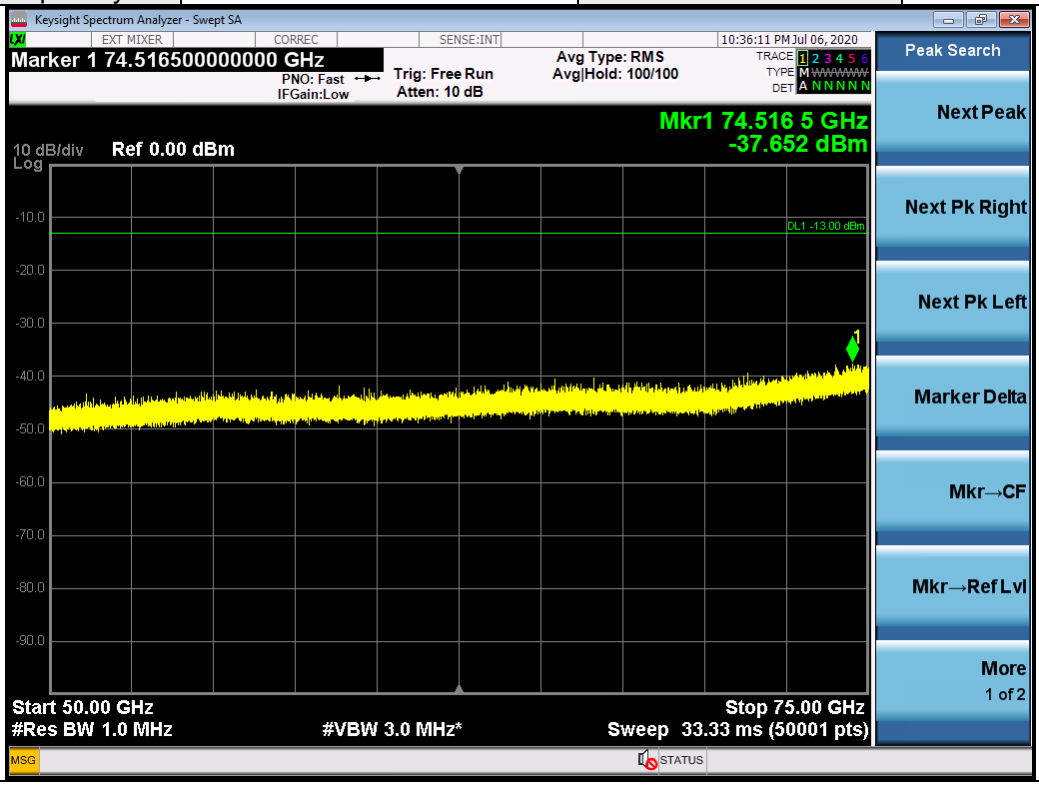
Note: The test results already include the correction factor (corrections: On).

Band	n261	Beam ID	139
Frequency Range	50GHz-75GHz	Channel	Middle
Antenna polarity	Vertical	Test distance	3m



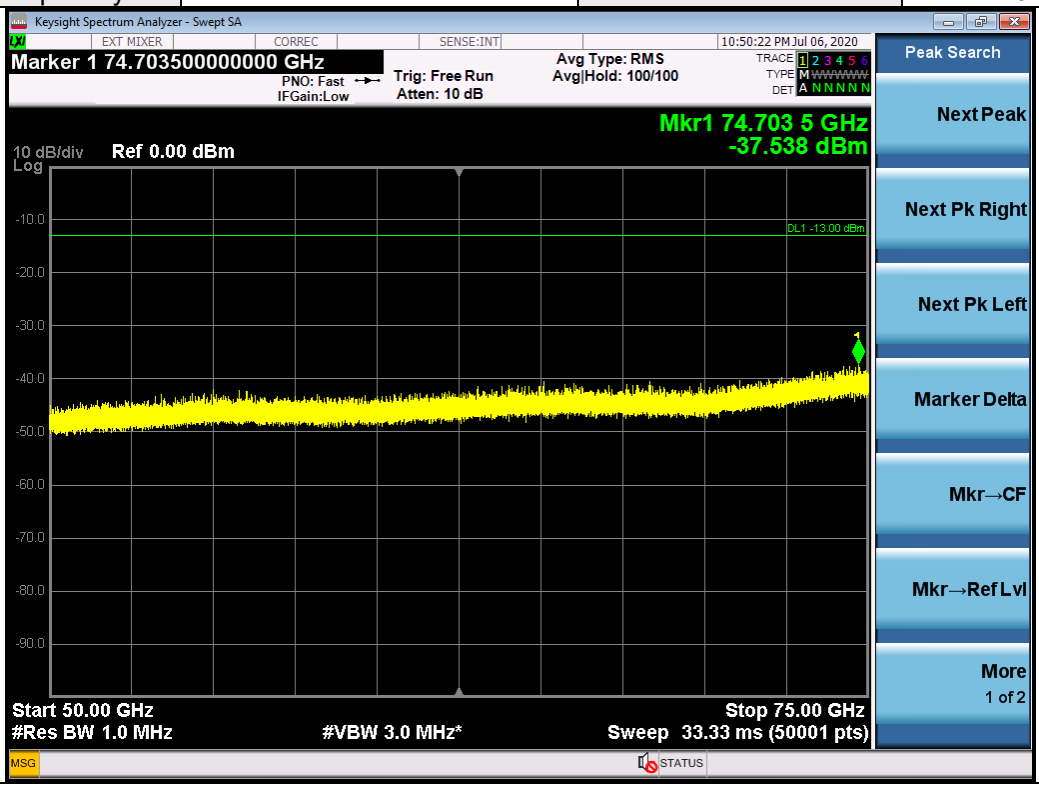
Note: The test results already include the correction factor (corrections: On).

Band	n261	Beam ID	139
Frequency Range	50GHz-75GHz	Channel	High
Antenna polarity	Horizontal	Test distance	3m



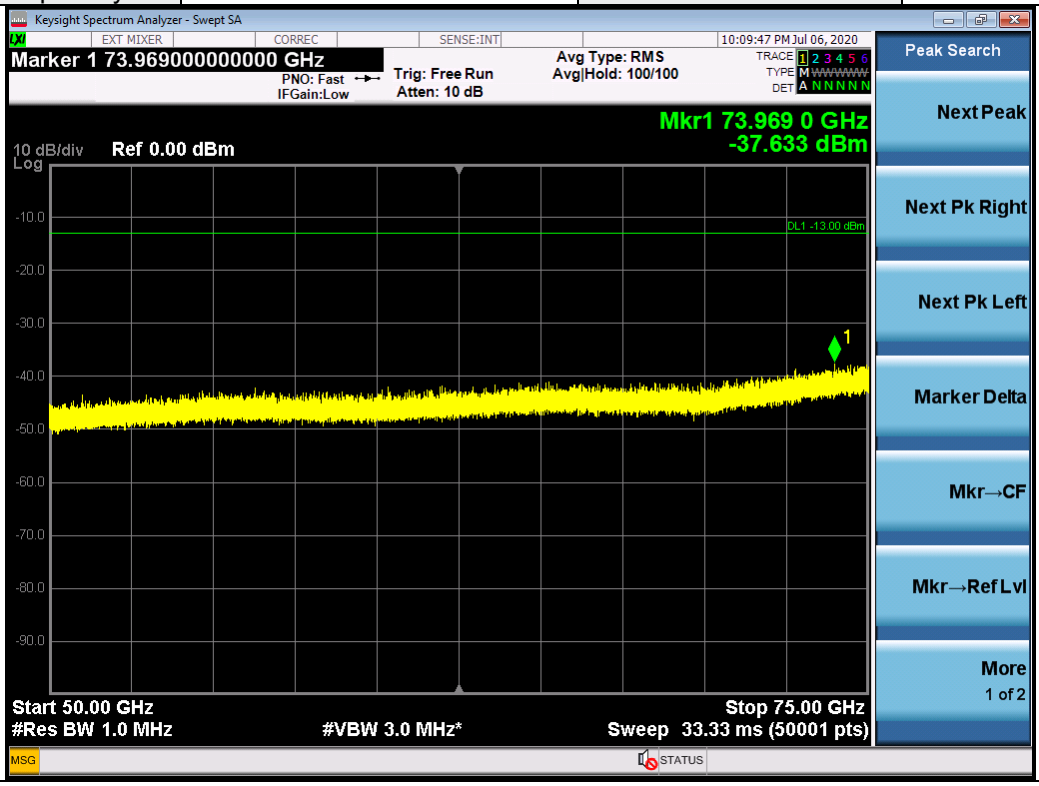
Note: The test results already include the correction factor (corrections: On).

Band	n261	Beam ID	139
Frequency Range	50GHz-75GHz	Channel	High
Antenna polarity	Vertical	Test distance	3m



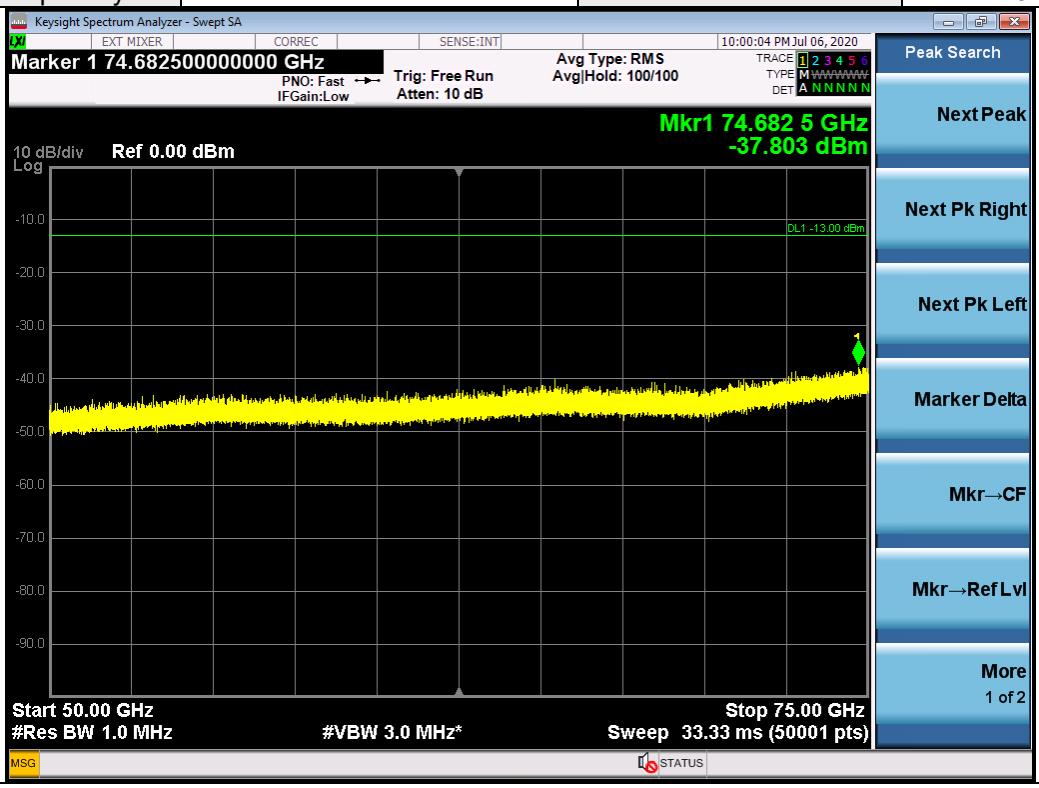
Note: The test results already include the correction factor (corrections: On).

Band	n261	Beam ID	11 + 139
Frequency Range	50GHz-75GHz	Channel	Low
Antenna polarity	Horizontal	Test distance	3m



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

Band	n261	Beam ID	11 + 139
Frequency Range	50GHz-75GHz	Channel	Low
Antenna polarity	Vertical	Test distance	3m



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

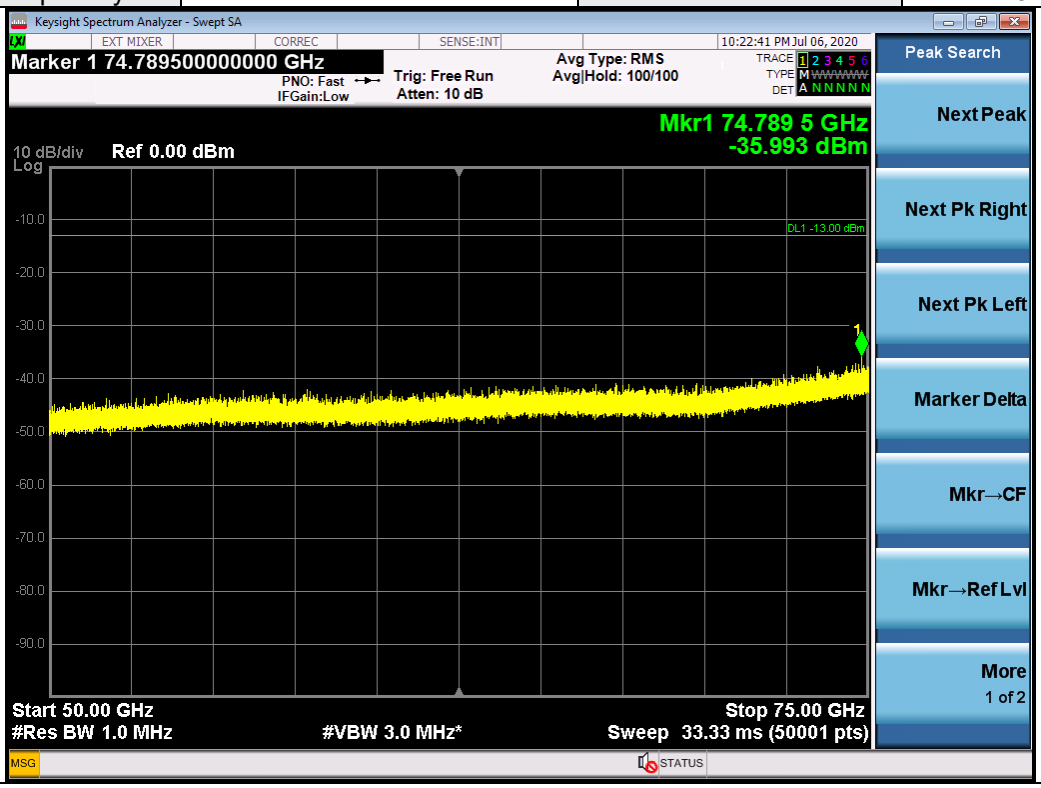
Summary of MIMO Beam Out-of Band Emission:
To address compliance of MIMO Out-of Band emission per KDB 662911 D01, the MIMO Out-of Band emission EIRP is calculated by summing the worst case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm.

Beam ID	EIRP for V Beam (dBm)	EIRP for H Beam (dBm)	EIRP for V+H Beam (dBm)	Limit(dBm)	Margin(dB)	Result
11 + 139	-37.803	-37.633	-34.70	-13	-21.70	Pass

Band	n261	Beam ID	11 + 139
Frequency Range	50GHz-75GHz	Channel	Middle
Antenna polarity	Horizontal	Test distance	3m

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

Band	n261	Beam ID	11 + 139
Frequency Range	50GHz-75GHz	Channel	Middle
Antenna polarity	Vertical	Test distance	3m

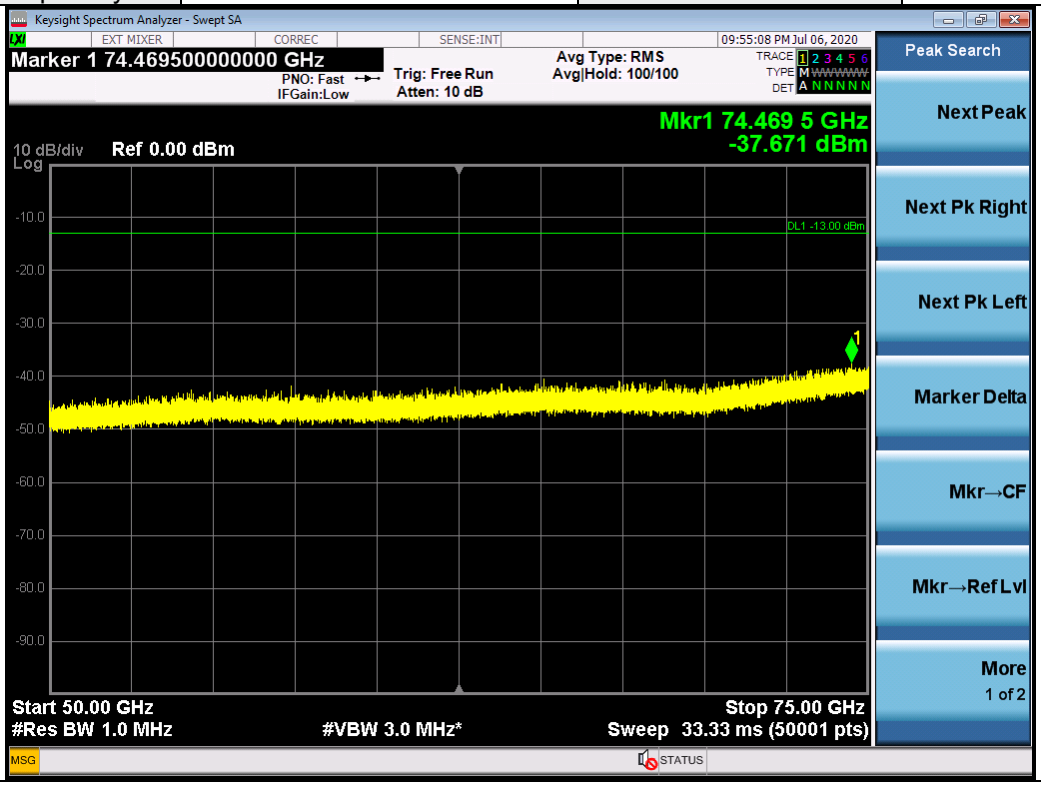


Note: The test results already include the correction factor (corrections: On).

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

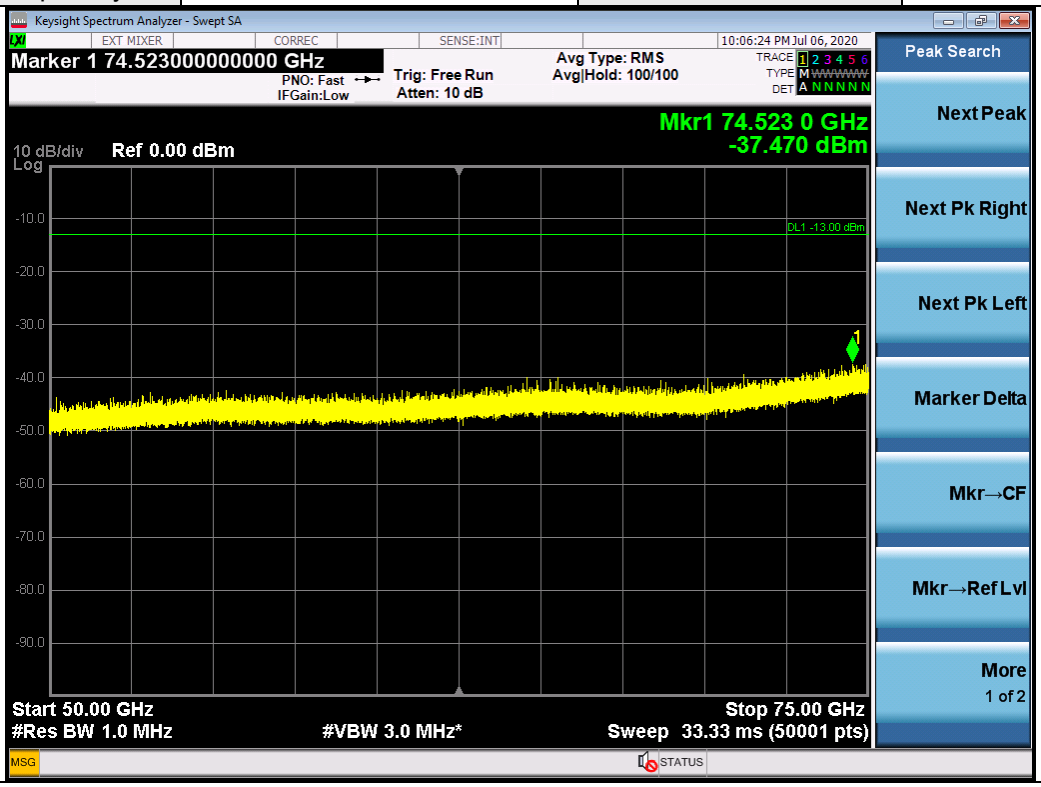
Beam ID	EIRP for V Beam (dBm)	EIRP for H Beam (dBm)	EIRP for V+H Beam (dBm)	Limit(dBm)	Margin(dB)	Result
11 + 139	-35.993	-37.484	-33.66	-13	-20.66	Pass

Band	n261	Beam ID	11 + 139
Frequency Range	50GHz-75GHz	Channel	High
Antenna polarity	Horizontal	Test distance	3m



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

Band	n261	Beam ID	11 + 139
Frequency Range	50GHz-75GHz	Channel	High
Antenna polarity	Vertical	Test distance	3m



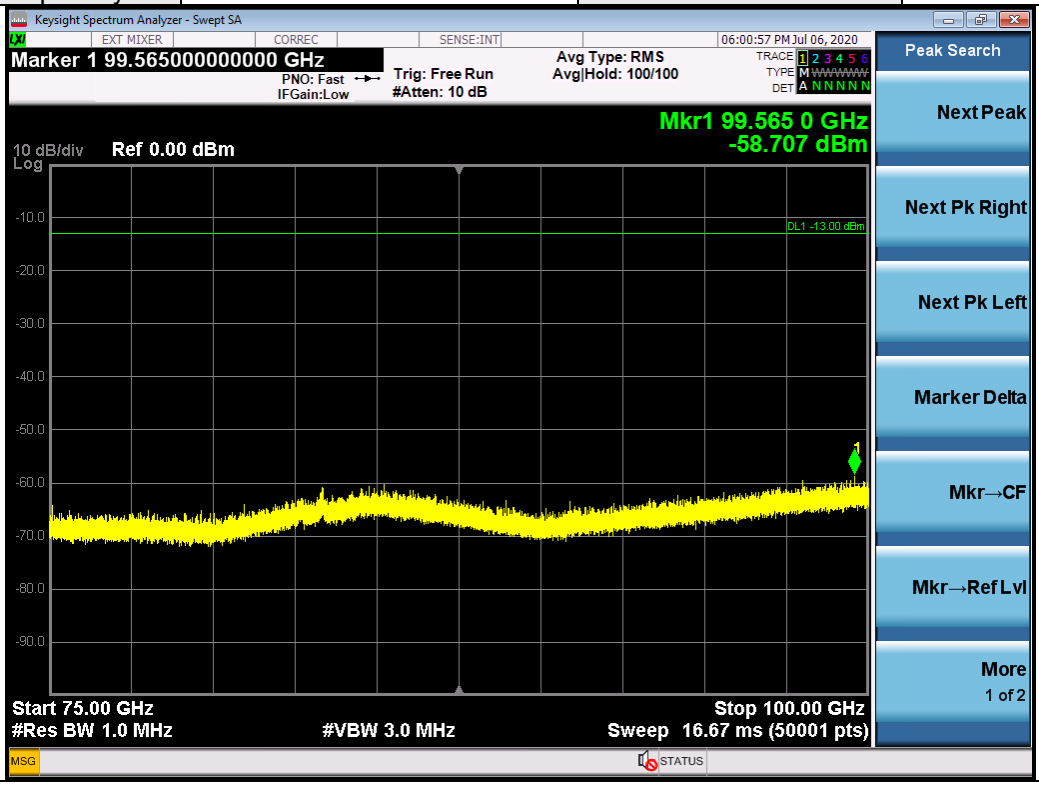
Note: The test results already include the correction factor (corrections: On).

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

Beam ID	EIRP for V Beam (dBm)	EIRP for H Beam (dBm)	EIRP for V+H Beam (dBm)	Limit(dBm)	Margin(dB)	Result
11 + 139	-37.470	-37.671	-34.56	-13	-21.56	Pass

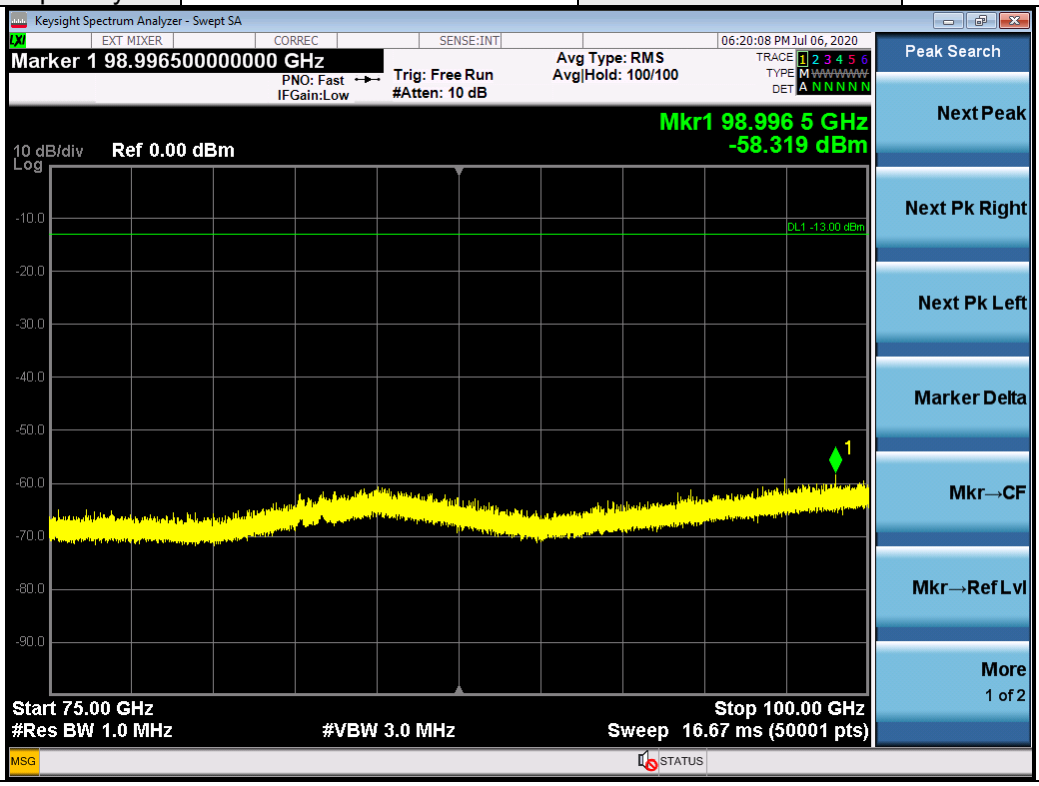
75GHz-100GHz (n261):

Band	n261	Beam ID	11
Frequency Range	75GHz-100GHz	Channel	Low
Antenna polarity	Horizontal	Test distance	3m



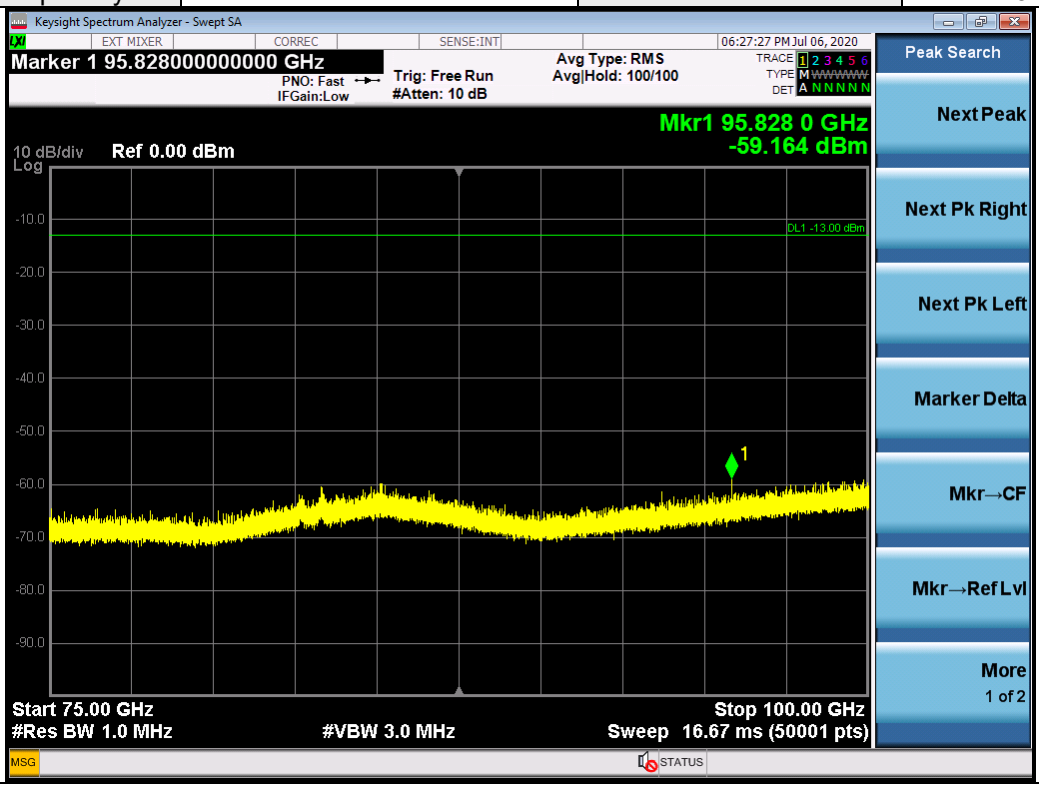
Note: The test results already include the correction factor (corrections: On).

Band	n261	Beam ID	11
Frequency Range	75GHz-100GHz	Channel	Low
Antenna polarity	Vertical	Test distance	3m



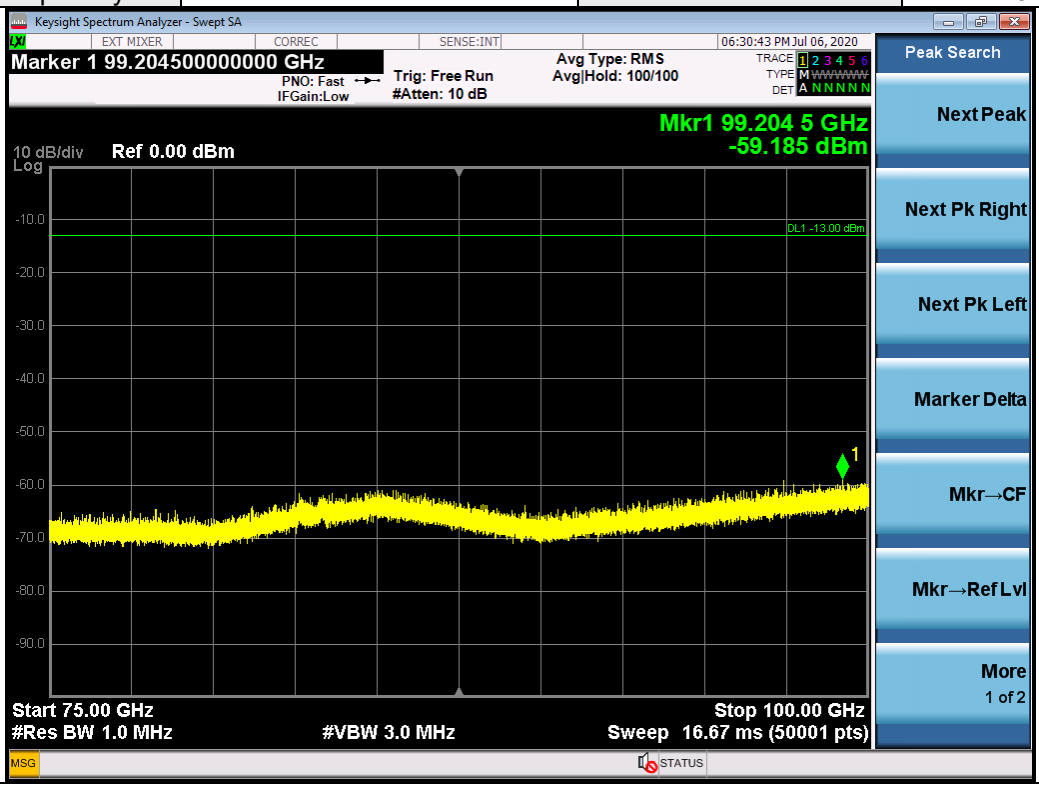
Note: The test results already include the correction factor (corrections: On).

Band	n261	Beam ID	11
Frequency Range	75GHz-100GHz	Channel	Middle
Antenna polarity	Horizontal	Test distance	3m



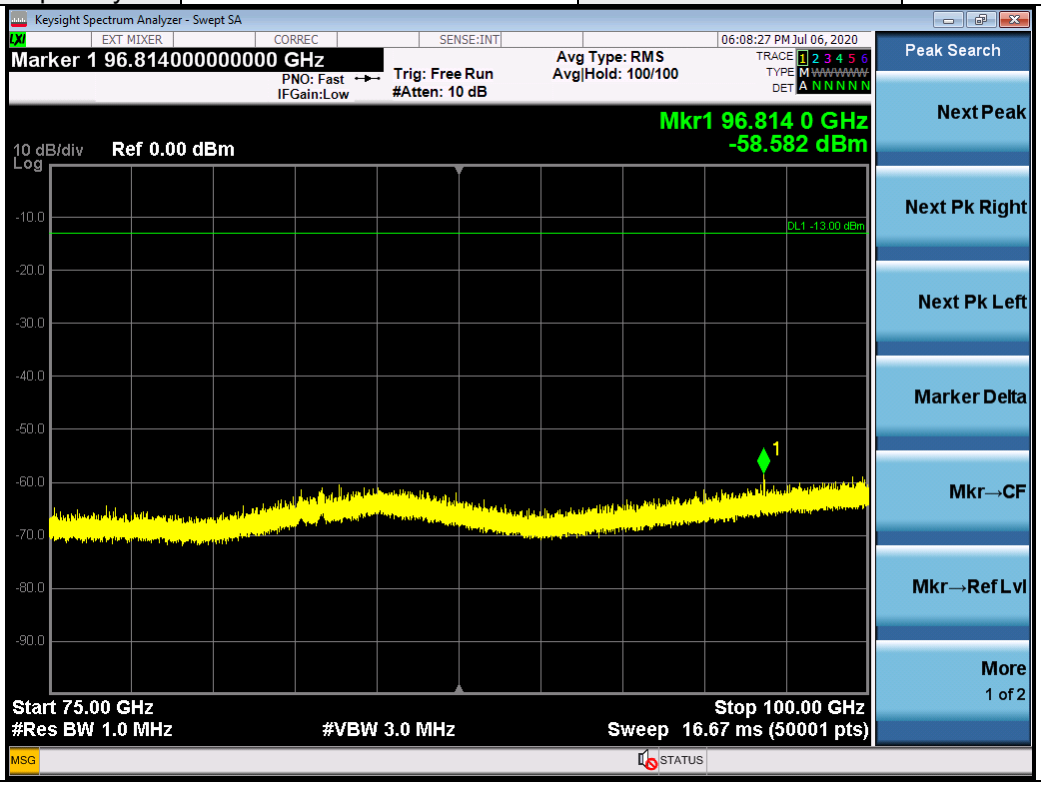
Note: The test results already include the correction factor (corrections: On).

Band	n261	Beam ID	11
Frequency Range	75GHz-100GHz	Channel	Middle
Antenna polarity	Vertical	Test distance	3m



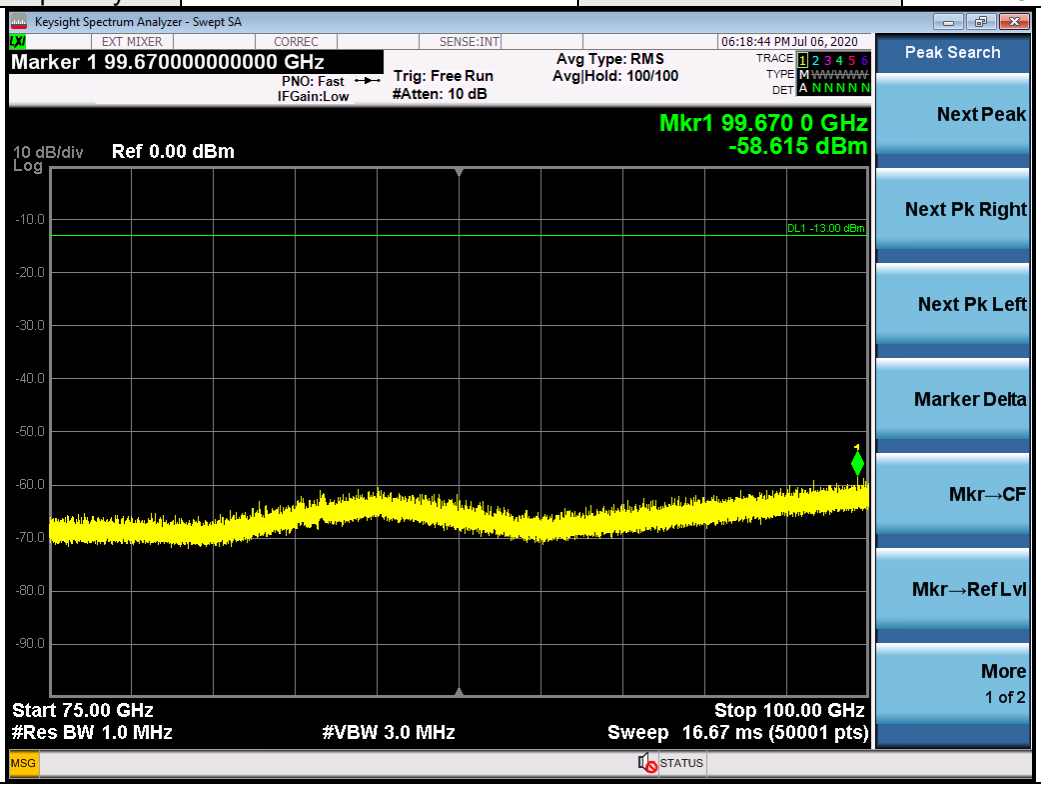
Note: The test results already include the correction factor (corrections: On).

Band	n261	Beam ID	11
Frequency Range	75GHz-100GHz	Channel	High
Antenna polarity	Horizontal	Test distance	3m



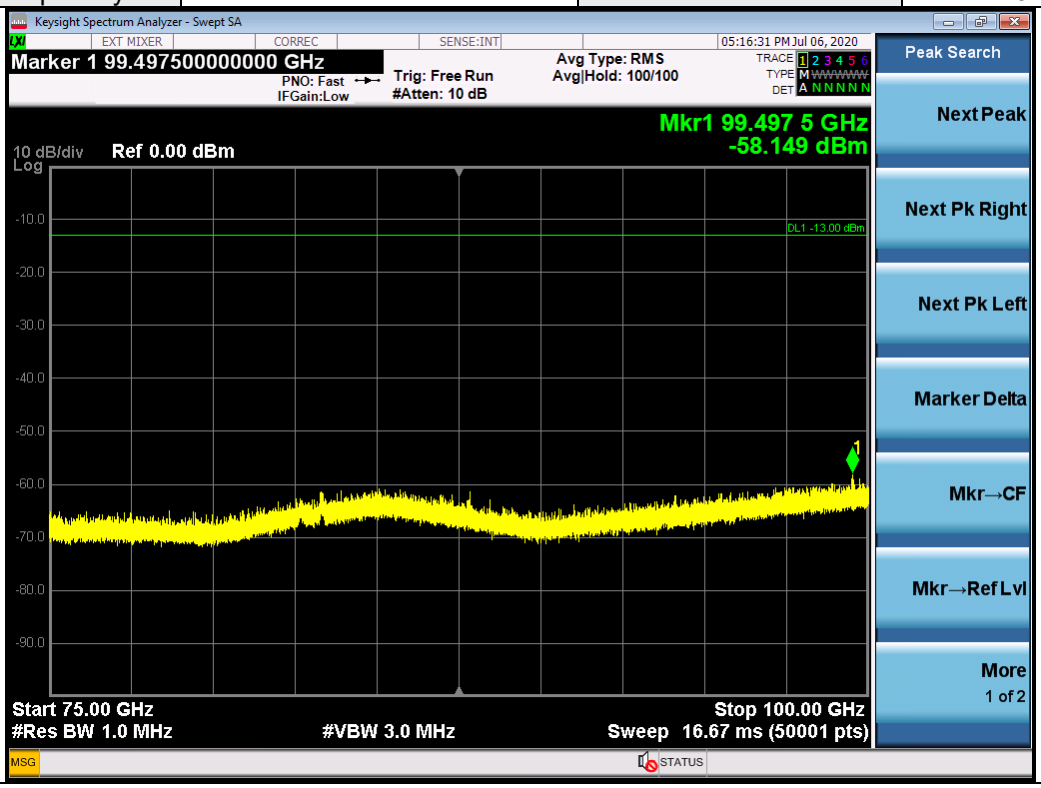
Note: The test results already include the correction factor (corrections: On).

Band	n261	Beam ID	11
Frequency Range	75GHz-100GHz	Channel	High
Antenna polarity	Vertical	Test distance	3m



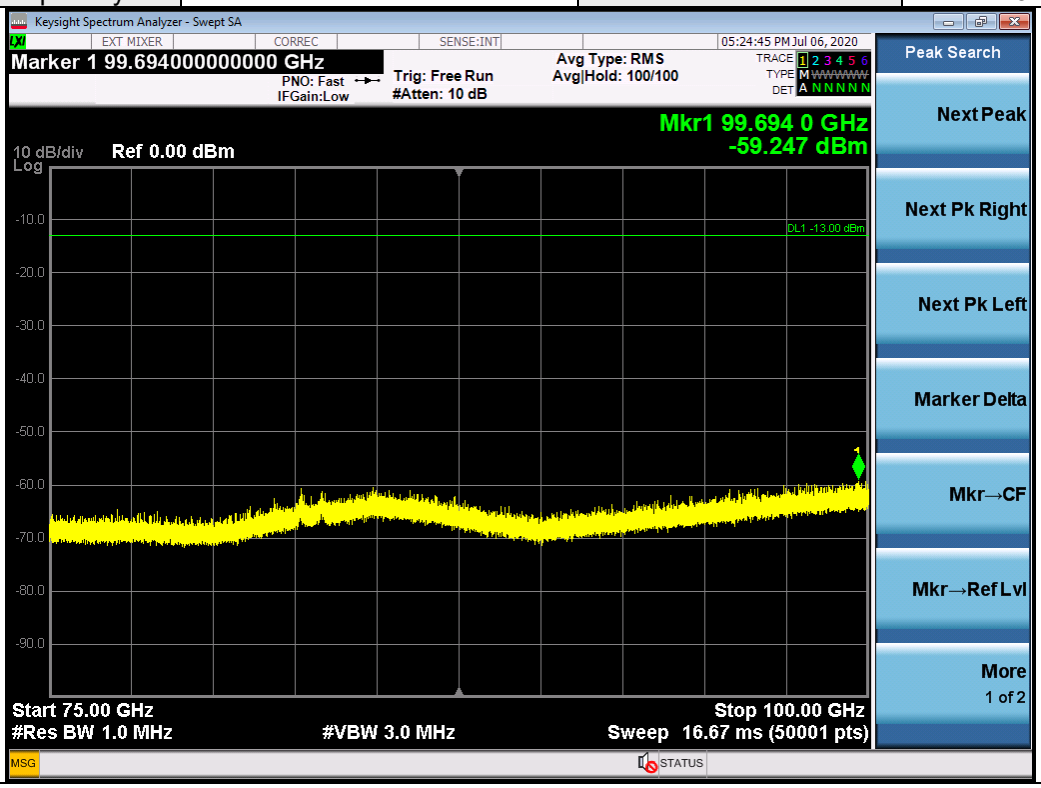
Note: The test results already include the correction factor (corrections: On).

Band	n261	Beam ID	139
Frequency Range	75GHz-100GHz	Channel	Low
Antenna polarity	Horizontal	Test distance	3m



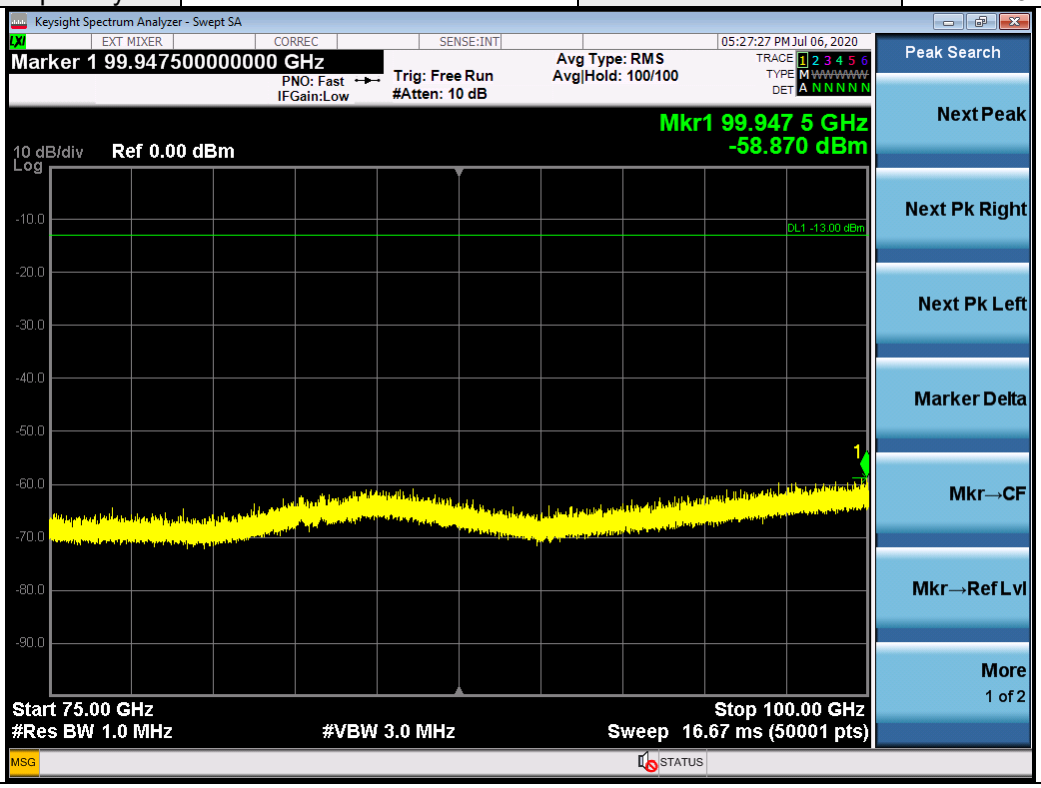
Note: The test results already include the correction factor (corrections: On).

Band	n261	Beam ID	139
Frequency Range	75GHz-100GHz	Channel	Low
Antenna polarity	Vertical	Test distance	3m



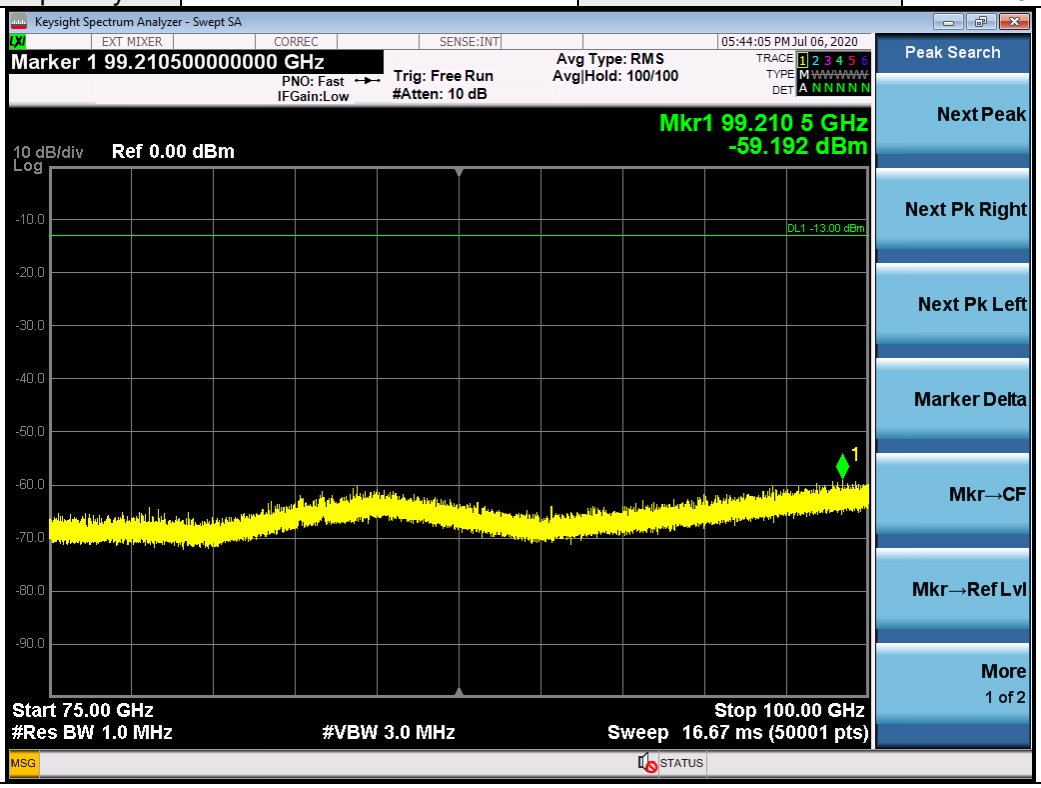
Note: The test results already include the correction factor (corrections: On).

Band	n261	Beam ID	139
Frequency Range	75GHz-100GHz	Channel	Middle
Antenna polarity	Horizontal	Test distance	3m



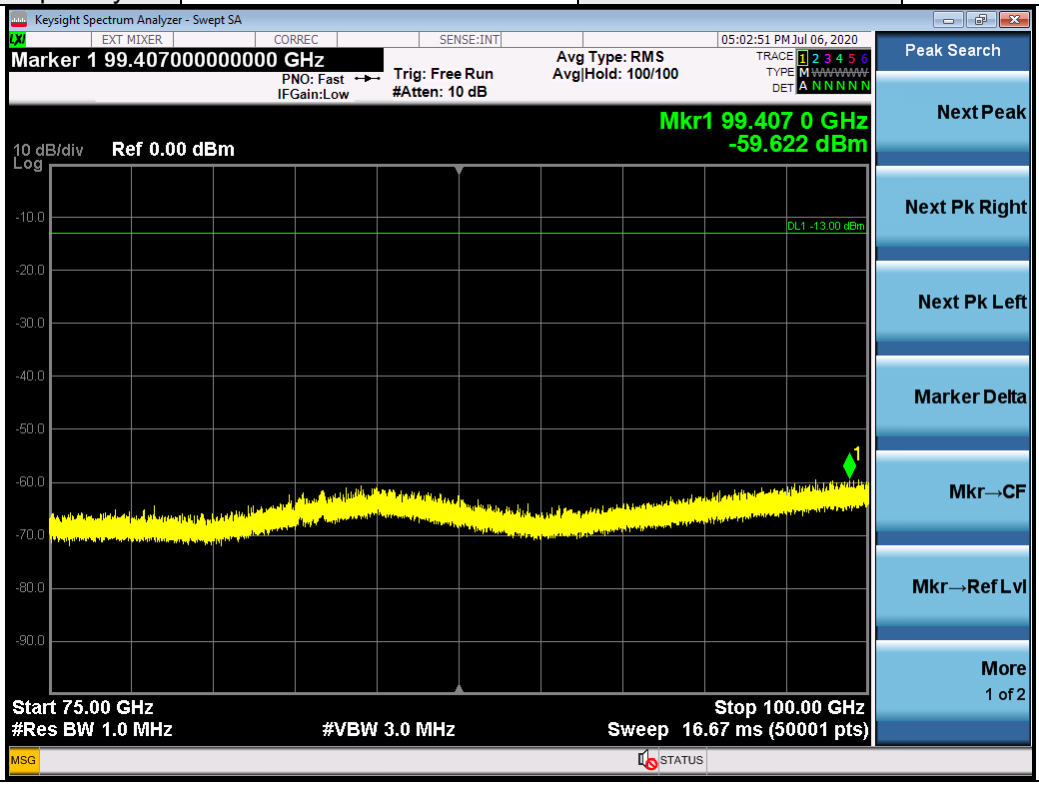
Note: The test results already include the correction factor (corrections: On).

Band	n261	Beam ID	139
Frequency Range	75GHz-100GHz	Channel	Middle
Antenna polarity	Vertical	Test distance	3m



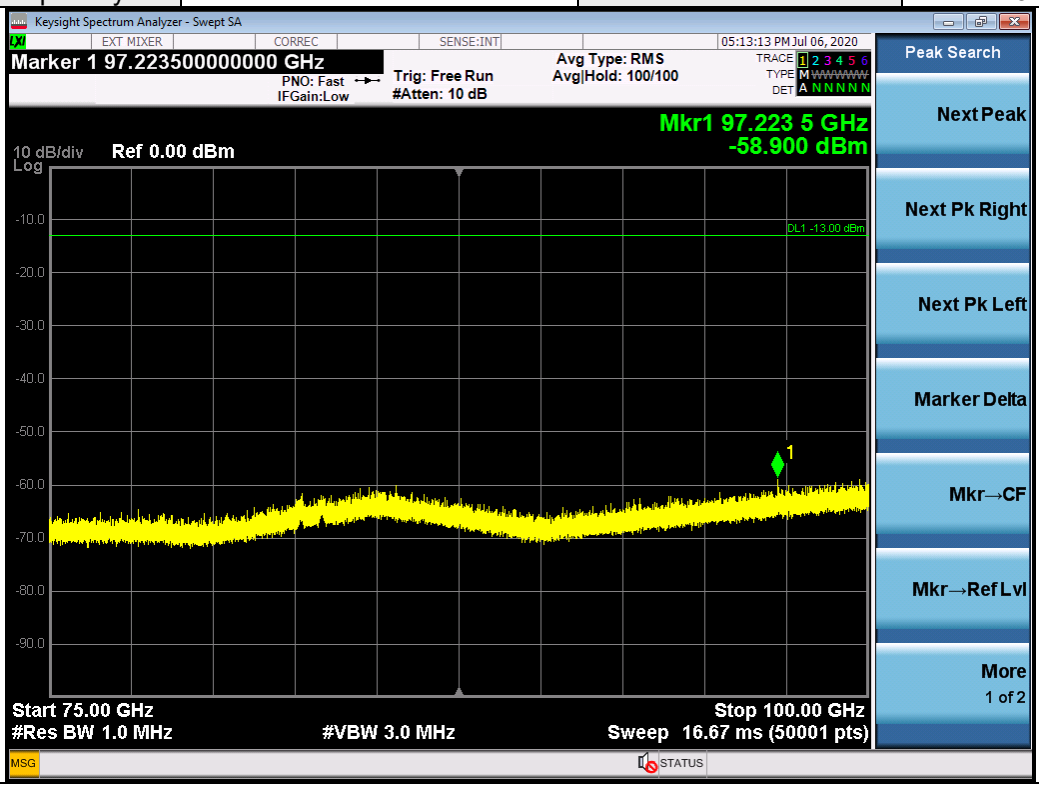
Note: The test results already include the correction factor (corrections: On).

Band	n261	Beam ID	139
Frequency Range	75GHz-100GHz	Channel	High
Antenna polarity	Horizontal	Test distance	3m



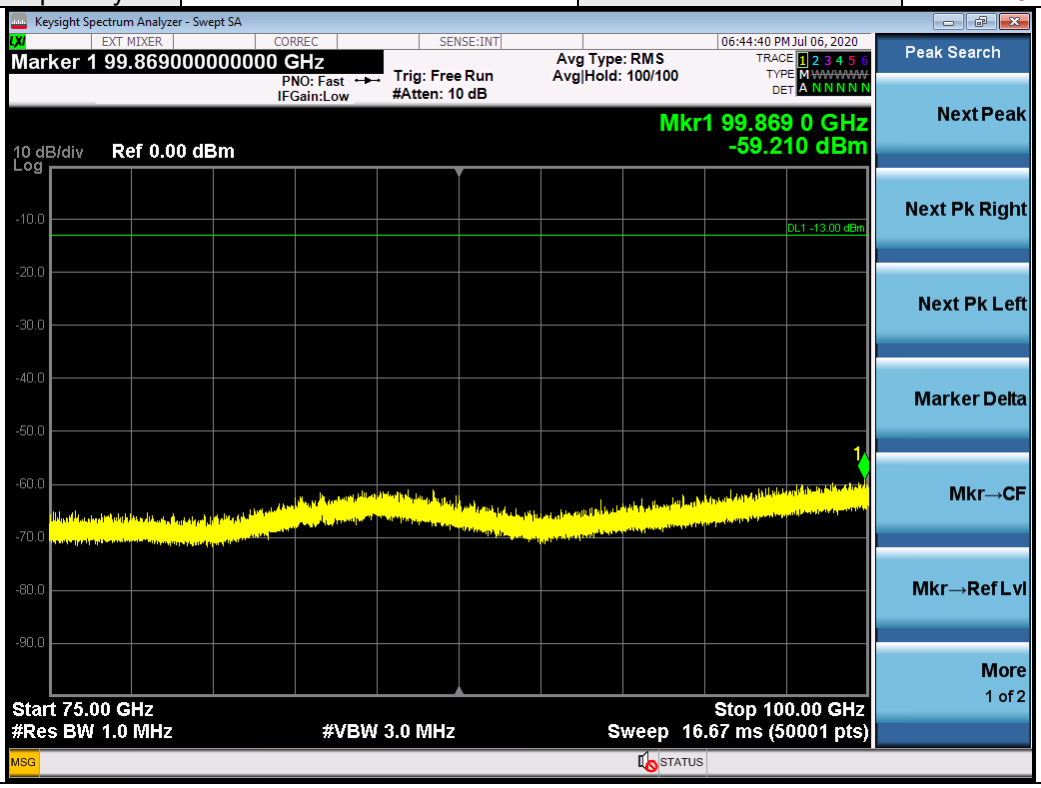
Note: The test results already include the correction factor (corrections: On).

Band	n261	Beam ID	139
Frequency Range	75GHz-100GHz	Channel	High
Antenna polarity	Vertical	Test distance	3m



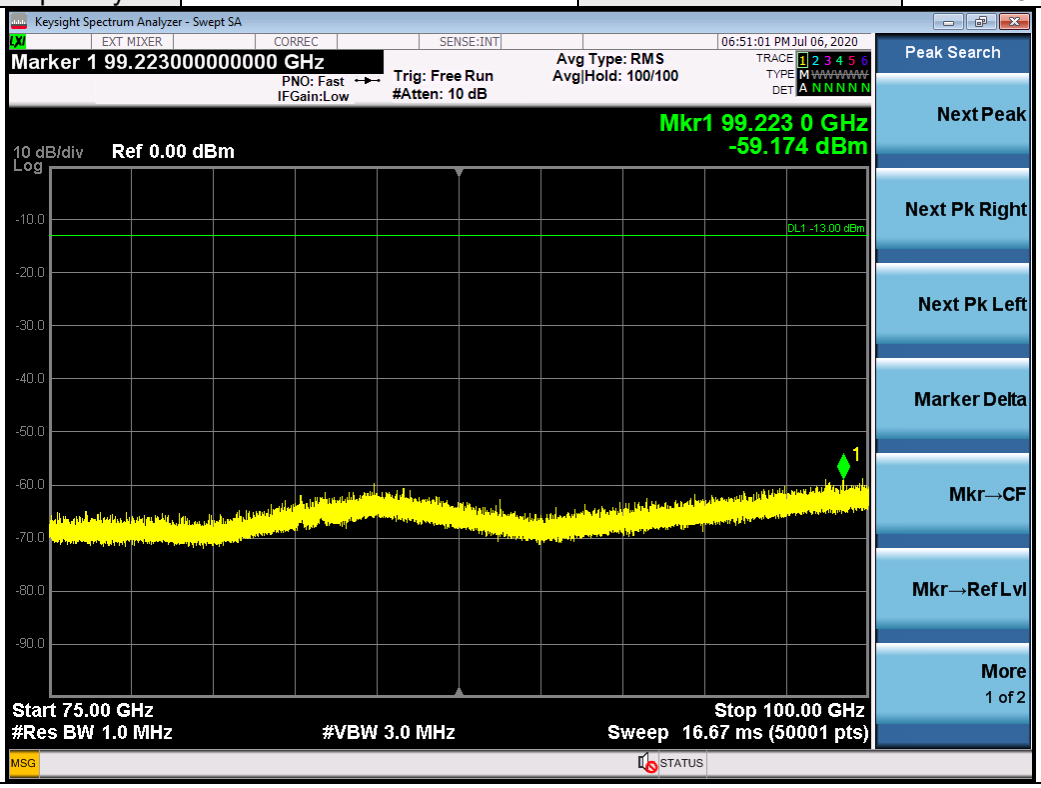
Note: The test results already include the correction factor (corrections: On).

Band	n261	Beam ID	11 + 139
Frequency Range	75GHz-100GHz	Channel	Low
Antenna polarity	Horizontal	Test distance	3m



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

Band	n261	Beam ID	11 + 139
Frequency Range	75GHz-100GHz	Channel	Low
Antenna polarity	Vertical	Test distance	3m

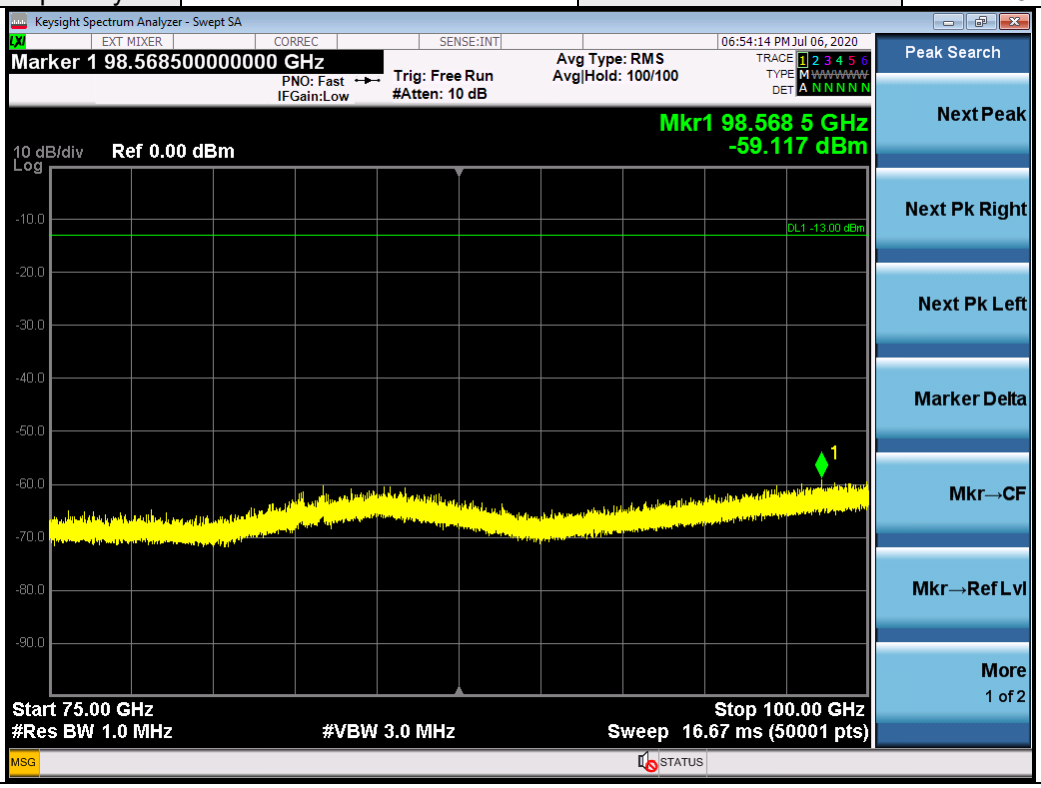


Note: The test results already include the correction factor (corrections: On).

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

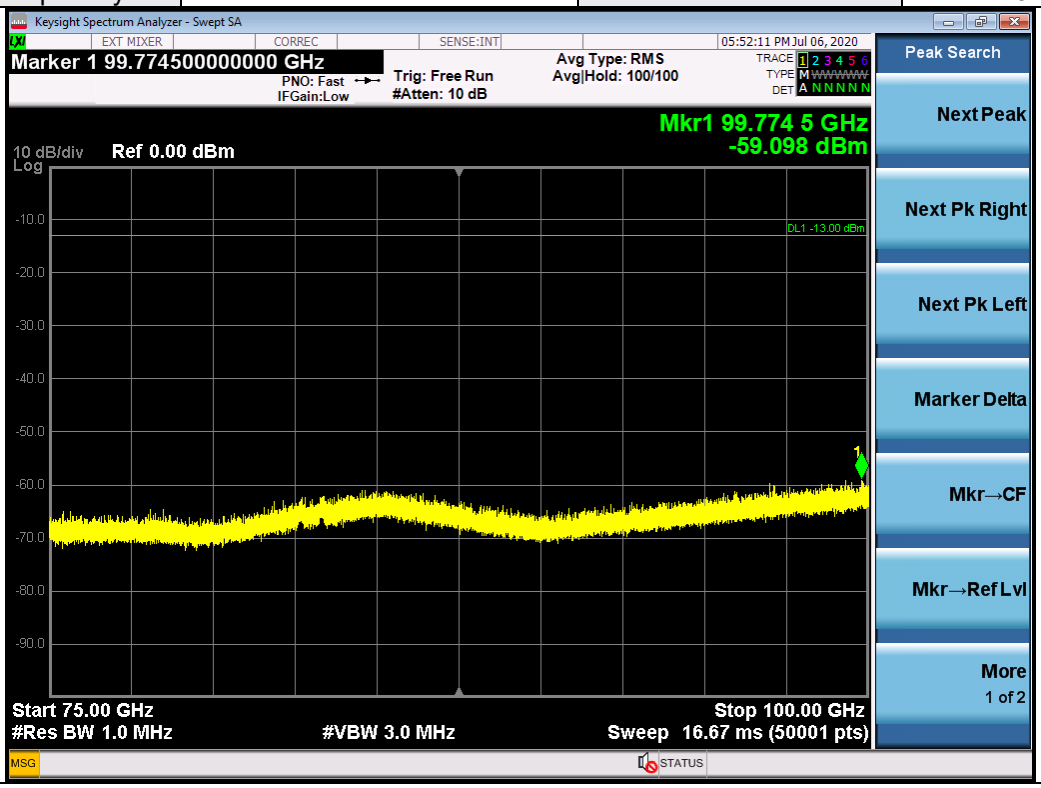
Beam ID	EIRP for V Beam (dBm)	EIRP for H Beam (dBm)	EIRP for V+H Beam (dBm)	Limit(dBm)	Margin(dB)	Result
11 + 139	-59.174	-59.210	-56.18	-13	-43.18	Pass

Band	n261	Beam ID	11 + 139
Frequency Range	75GHz-100GHz	Channel	Middle
Antenna polarity	Horizontal	Test distance	3m



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

Band	n261	Beam ID	11 + 139
Frequency Range	75GHz-100GHz	Channel	Middle
Antenna polarity	Vertical	Test distance	3m

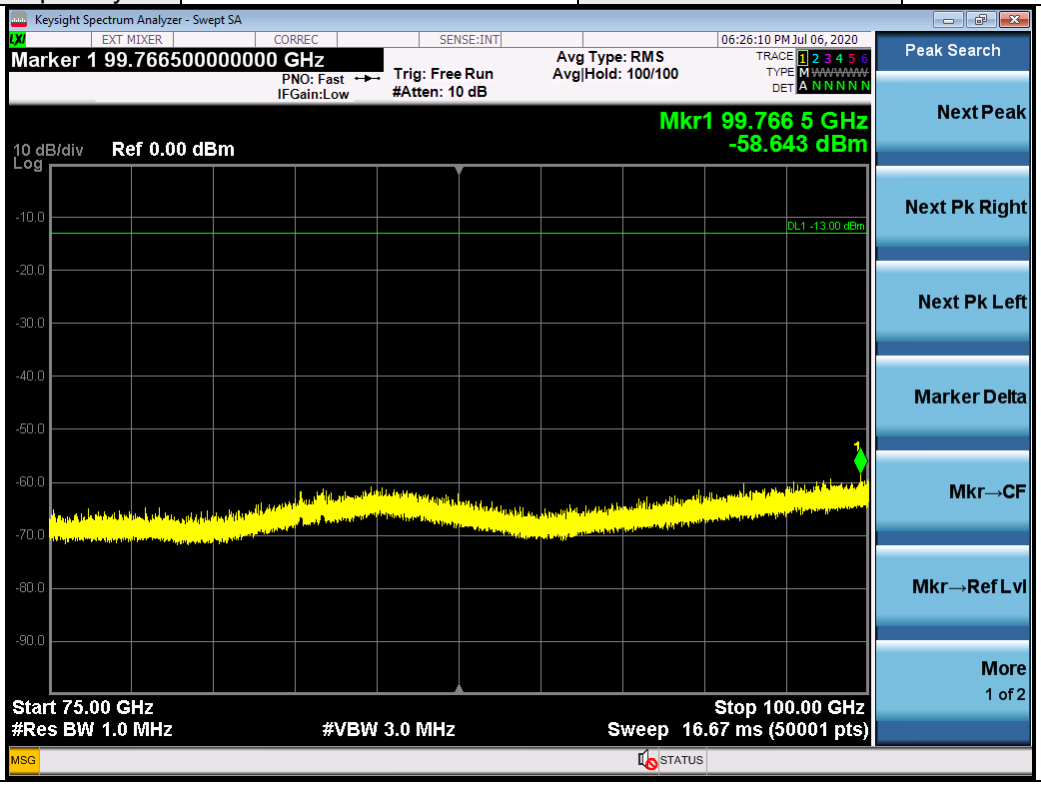


Note: The test results already include the correction factor (corrections: On).

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

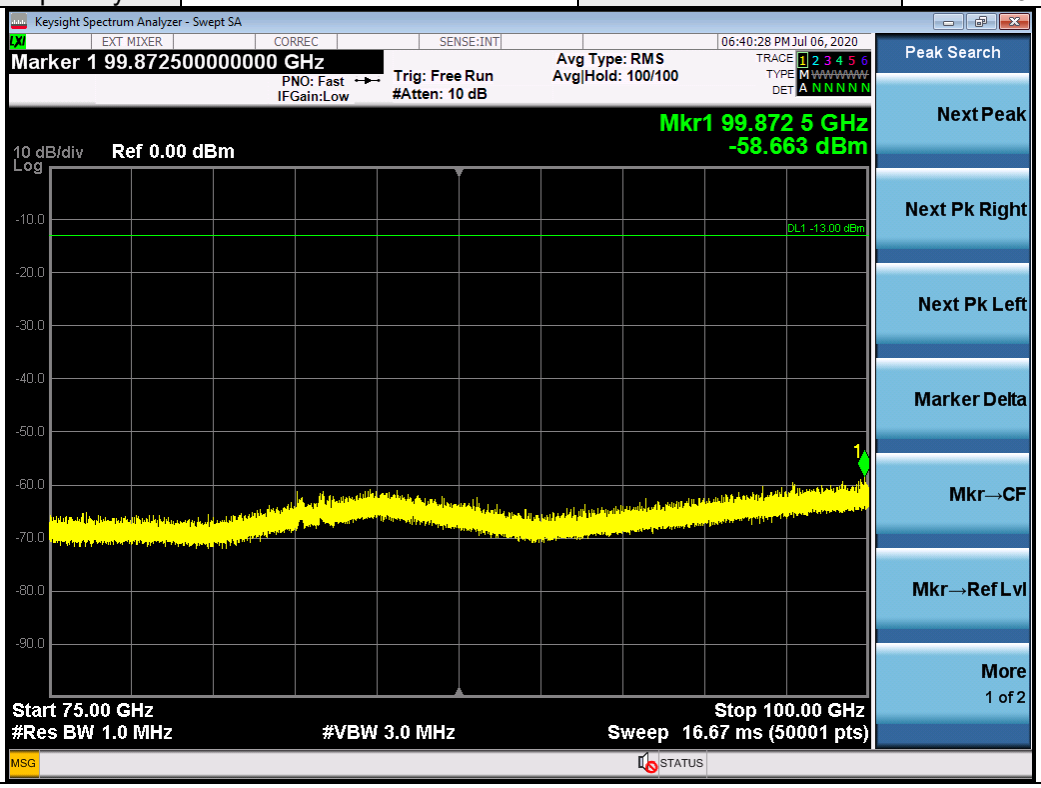
Beam ID	EIRP for V Beam (dBm)	EIRP for H Beam (dBm)	EIRP for V+H Beam (dBm)	Limit(dBm)	Margin(dB)	Result
11 + 139	-59.098	-59.117	-56.10	-13	-43.10	Pass

Band	n261	Beam ID	11 + 139
Frequency Range	75GHz-100GHz	Channel	High
Antenna polarity	Horizontal	Test distance	3m



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

Band	n261	Beam ID	11 + 139
Frequency Range	75GHz-100GHz	Channel	High
Antenna polarity	Vertical	Test distance	3m



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

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

Beam ID	EIRP for V Beam (dBm)	EIRP for H Beam (dBm)	EIRP for V+H Beam (dBm)	Limit(dBm)	Margin(dB)	Result
11 + 139	-58.663	-58.643	-55.64	-13	-42.64	Pass

4.5 Out-of-Band Spurious Emission Measurement

4.5.1 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.

4.5.2 Test Instruments

Refer to section 4.2.3 to get information of above instrument.

4.5.3 Test Procedures

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

   The following antenna gain information is provided to demonstrate the antenna performance of the 27.5~28.35 GHz band. These antenna gains were subtracted from the measured E.I.R.P levels at lower and upper band edge frequencies to determine an equivalent conductive power that was compared directly with the part 30.203 limits.

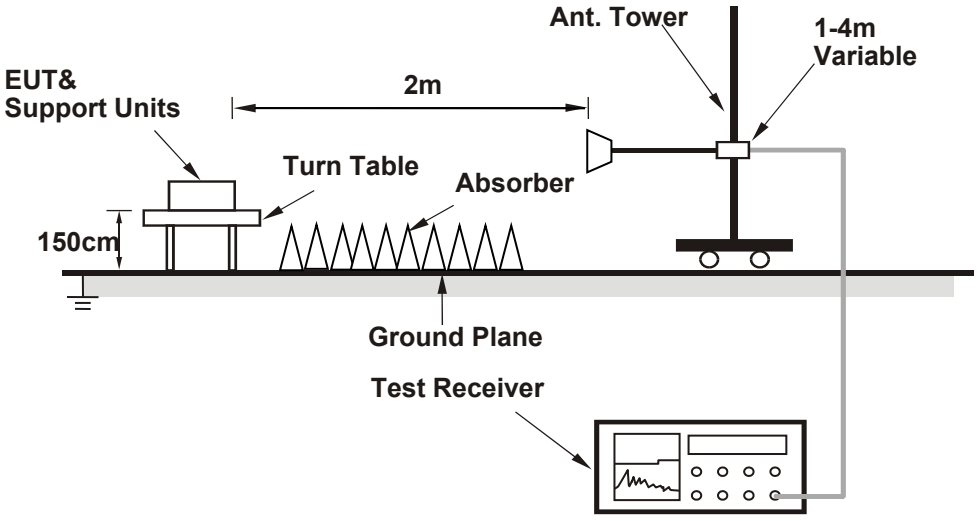
Band	n261
Frequency (GHz)	Gain (dBi)
27.5	22.30
28.35	22.30

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

4.5.4 Deviation from Test Standard

No deviation.

4.5.5 Test Set Up



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

4.5.6 EUT Operating Conditions

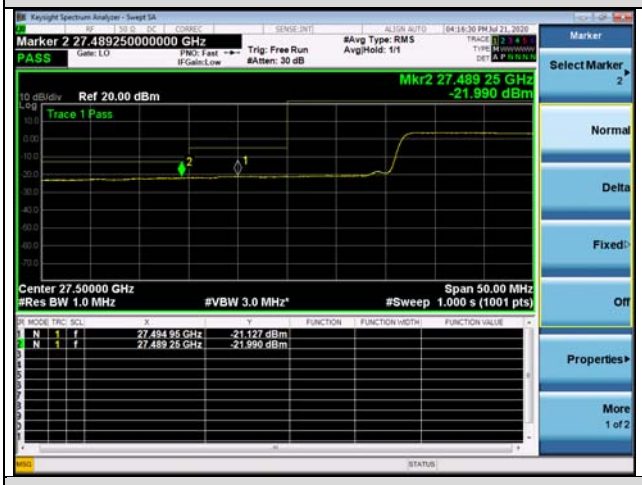
Refer to section 4.2.7 to get information of EUT operating conditions.

4.5.7 Test Results

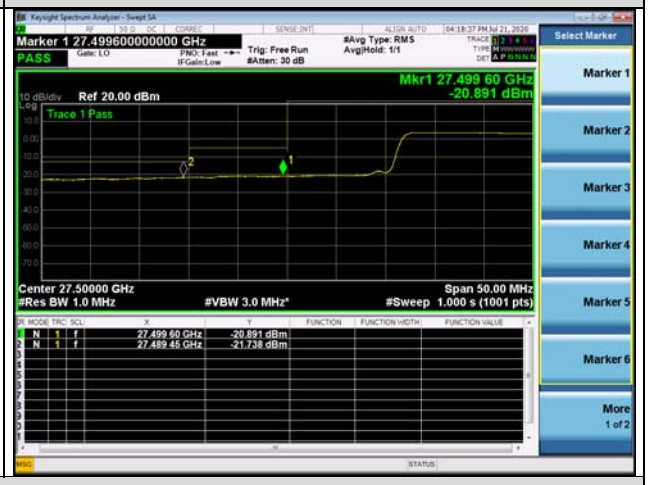
Low Channel	2071821						
QPSK-1CC	Full RB						
Beam ID	Frequency (GHz)	EIRP Value (dBm)	Array Gain (dBi)	Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
11	27.49495	1.173	22.3	-21.127	-5	-16.127	Pass
	27.48925	0.310	22.3	-21.990	-13	-8.990	Pass
139	27.49960	1.409	22.3	-20.891	-5	-15.891	Pass
	27.48945	0.562	22.3	-21.738	-13	-8.738	Pass
11+139(Ver)	27.49660	1.636	22.3	-20.664	-5	-15.664	Pass
	27.48960	0.788	22.3	-21.512	-13	-8.512	Pass
11+139(Hor)	27.49660	1.593	22.3	-20.707	-5	-15.707	Pass
	27.48945	0.678	22.3	-21.622	-13	-8.622	Pass

Note:
1. The Conducted Power = EIRP-Array Gain
2. The Conducted Power values show on the test plots had been offset the factor of antenn gain.

Beam 11



Beam 139



Beam 11 + 139

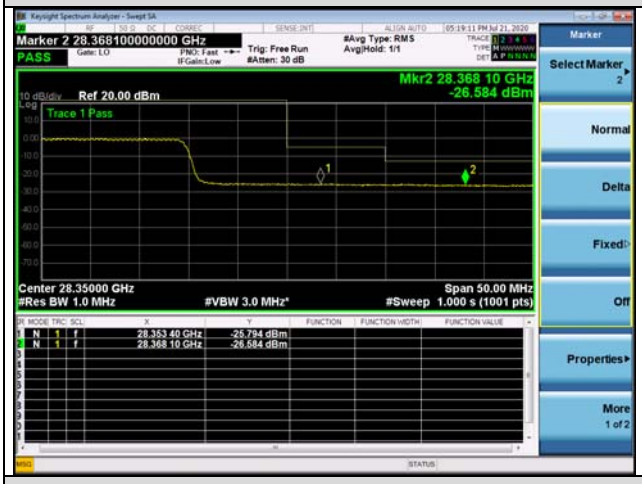
Summary of MIMO Beam Out-of Band Emission at the Band Edge:
To address compliance of MIMO Out-of Band emission per KDB 662911 D01, the MIMO Out-of Band emission EIRP is calculated by summing the worst case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm.

Beam ID	Conducted Power for V Beam (dBm)	Conducted Power for H Beam (dBm)	Conducted Power for V+H Beam (dBm)	Limit(dBm)	Margin(dB)	Result
11 + 139	-20.664	-20.707	-17.86	-5	-12.86	Pass
	-21.512	-21.622	-18.56	-13	-5.56	Pass

High Channel	2084035						
QPSK-1CC	Full RB						
Beam ID	Frequency (GHz)	EIRP Value (dBm)	Array Gain (dBi)	Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
11	28.35340	-3.494	22.3	-25.794	-5	-20.794	Pass
	28.36810	-4.284	22.3	-26.584	-13	-13.584	Pass
139	28.35540	-3.774	22.3	-26.074	-5	-21.074	Pass
	28.36225	-3.737	22.3	-26.037	-13	-13.037	Pass
11+139(Ver)	28.35190	-3.610	22.3	-25.910	-5	-20.910	Pass
	28.36455	-4.079	22.3	-26.379	-13	-13.379	Pass
11+139(Hor)	28.35390	-3.696	22.3	-25.996	-5	-20.996	Pass
	28.36170	-3.937	22.3	-26.237	-13	-13.237	Pass

Note:
1. The Conducted Power = EIRP-Array Gain
2. The Conducted Power values show on the test plots had been offset the factor of antenn gain.

Beam 11



Beam 139

Beam 11 + 139

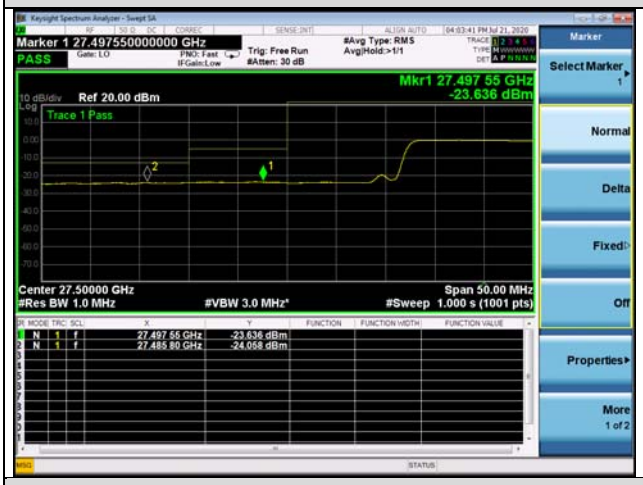
Summary of MIMO Beam Out-of Band Emission at the Band Edge:
To address compliance of MIMO Out-of Band emission per KDB 662911 D01, the MIMO Out-of Band emission EIRP is calculated by summing the worst case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm.

Beam ID	Conducted Power for V Beam (dBm)	Conducted Power for H Beam (dBm)	Conducted Power for V+H Beam (dBm)	Limit(dBm)	Margin(dB)	Result
11 + 139	-25.910	-25.996	-22.94	-5	-17.94	Pass
	-26.379	-26.237	-23.30	-13	-10.30	Pass

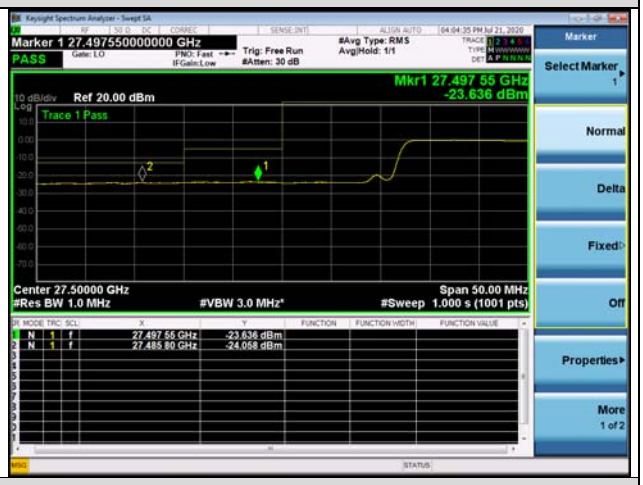
Low Channel	2072613						
QPSK-2CC	Full RB						
Beam ID	Frequency (GHz)	EIRP Value (dBm)	Array Gain (dBi)	Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
11	27.49755	-1.336	22.3	-23.636	-5	-18.636	Pass
	27.48580	-1.758	22.3	-24.058	-13	-11.058	Pass
139	27.49755	-1.336	22.3	-23.636	-5	-18.636	Pass
	27.48580	-1.758	22.3	-24.058	-13	-11.058	Pass
11+139(Ver)	27.49345	-1.498	22.3	-23.798	-5	-18.798	Pass
	27.48555	-1.837	22.3	-24.137	-13	-11.137	Pass
11+139(Hor)	27.49720	-1.446	22.3	-23.746	-5	-18.746	Pass
	27.48560	-1.694	22.3	-23.994	-13	-10.994	Pass

Note:
1. The Conducted Power = EIRP-Array Gain
2. The Conducted Power values show on the test plots had been offset the factor of antenn gain.

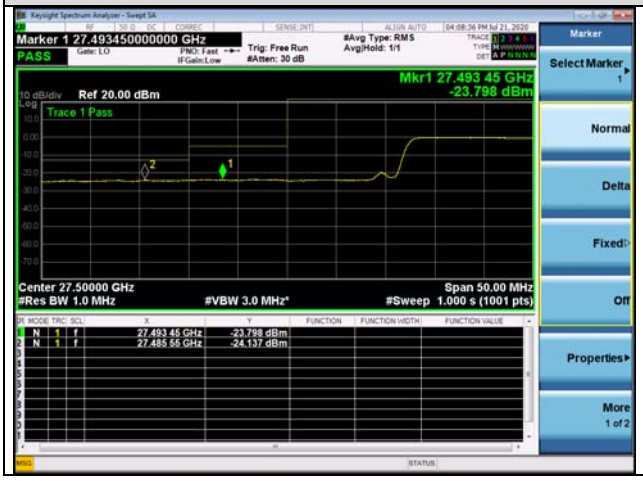
Beam 11

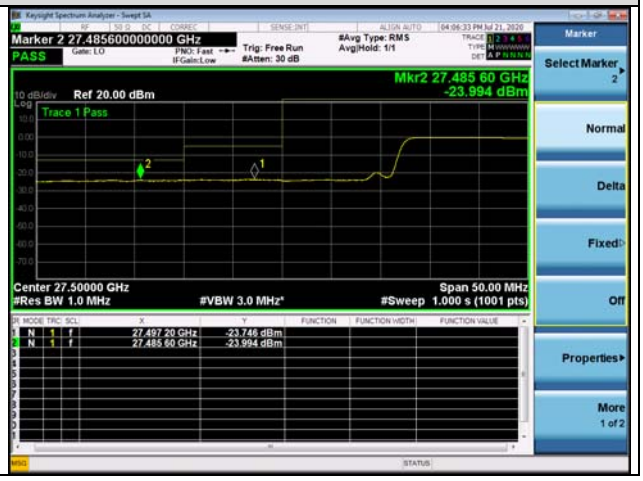


Beam 139



Beam 11 + 139





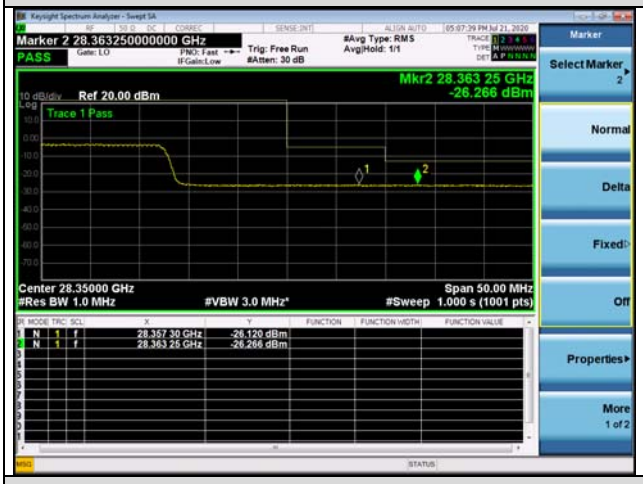
Summary of MIMO Beam Out-of Band Emission at the Band Edge:
To address compliance of MIMO Out-of Band emission per KDB 662911 D01, the MIMO Out-of Band emission EIRP is calculated by summing the worst case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm.

Beam ID	Conducted Power for V Beam (dBm)	Conducted Power for H Beam (dBm)	Conducted Power for V+H Beam (dBm)	Limit(dBm)	Margin(dB)	Result
11 + 139	-23.798	-23.746	-20.76	-5	-15.76	Pass
	-24.137	-23.994	-21.05	-13	-8.05	Pass

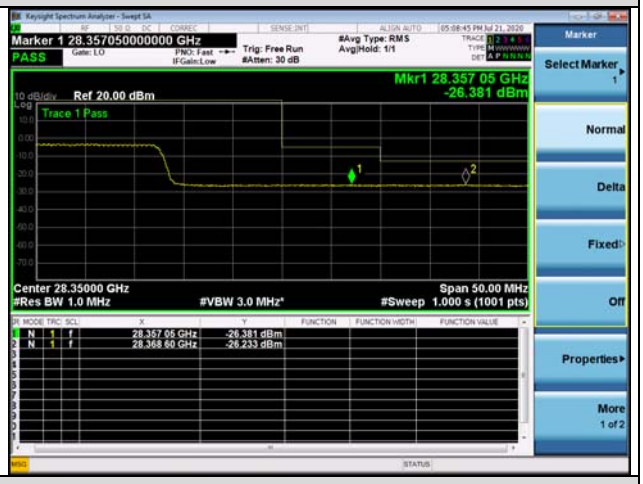
High Channel	2083291						
QPSK-2CC	Full RB						
Beam ID	Frequency (GHz)	EIRP Value (dBm)	Array Gain (dBi)	Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
11	28.35730	-3.820	22.3	-26.120	-5	-21.120	Pass
	28.36325	-3.966	22.3	-26.266	-13	-13.266	Pass
139	28.35705	-4.081	22.3	-26.381	-5	-21.381	Pass
	28.36860	-3.933	22.3	-26.233	-13	-13.233	Pass
11+139(Ver)	28.35645	-3.990	22.3	-26.290	-5	-21.290	Pass
	28.36855	-3.885	22.3	-26.185	-13	-13.185	Pass
11+139(Hor)	28.35150	-3.862	22.3	-26.162	-5	-21.162	Pass
	28.36820	-3.852	22.3	-26.152	-13	-13.152	Pass

Note:
1. The Conducted Power = EIRP-Array Gain
2. The Conducted Power values show on the test plots had been offset the factor of antenn gain.

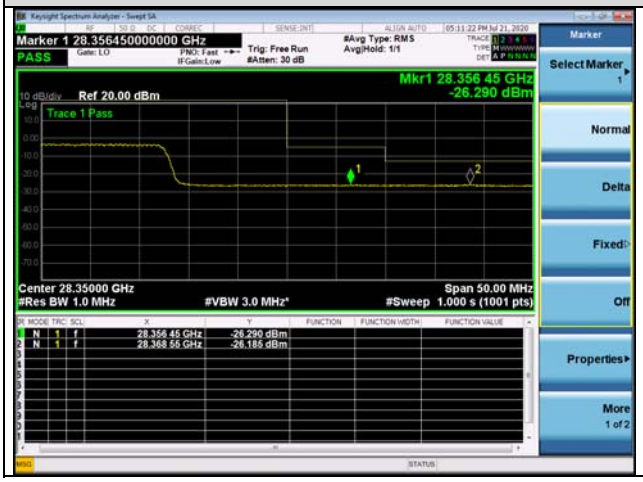
Beam 11



Beam 139



Beam 11 + 139



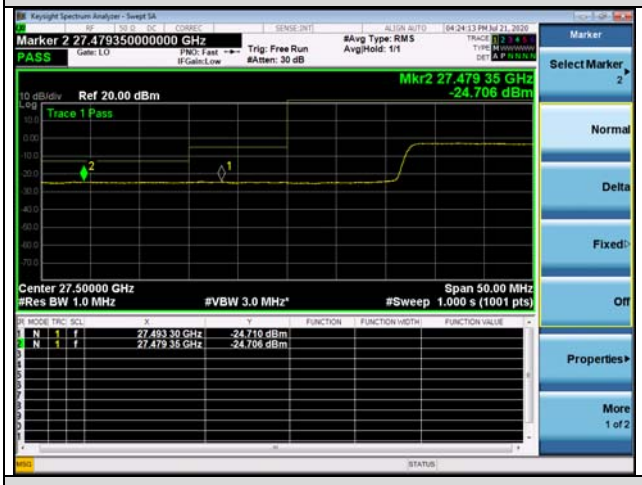
Summary of MIMO Beam Out-of Band Emission at the Band Edge:
To address compliance of MIMO Out-of Band emission per KDB 662911 D01, the MIMO Out-of Band emission EIRP is calculated by summing the worst case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm.

Beam ID	Conducted Power for V Beam (dBm)	Conducted Power for H Beam (dBm)	Conducted Power for V+H Beam (dBm)	Limit(dBm)	Margin(dB)	Result
11 + 139	-26.290	-26.162	-23.22	-5	-18.22	Pass
	-26.185	-26.152	-23.16	-13	-10.16	Pass

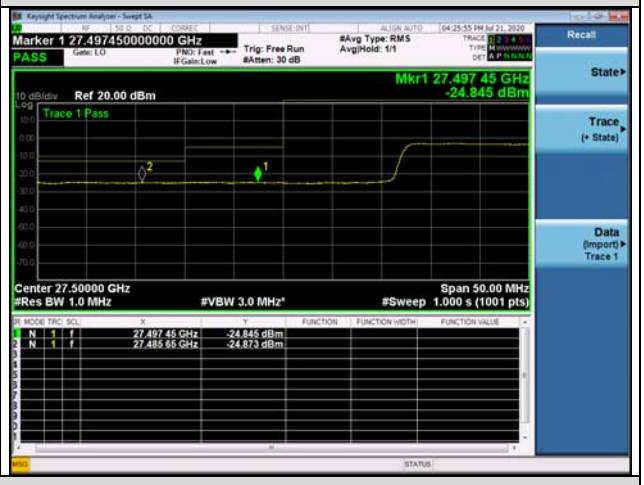
Low Channel	2074197						
QPSK-4CC	Full RB						
Beam ID	Frequency (GHz)	EIRP Value (dBm)	Array Gain (dBi)	Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
11	27.49330	-2.410	22.3	-24.710	-5	-19.710	Pass
	27.47935	-2.406	22.3	-24.706	-13	-11.706	Pass
139	27.49745	-2.545	22.3	-24.845	-5	-19.845	Pass
	27.48565	-2.573	22.3	-24.873	-13	-11.873	Pass
11+139(Ver)	27.49625	-3.448	22.3	-25.748	-5	-20.748	Pass
	27.48555	-3.575	22.3	-25.875	-13	-12.875	Pass
11+139(Hor)	27.49710	-2.481	22.3	-24.781	-5	-19.781	Pass
	27.48105	-2.573	22.3	-24.873	-13	-11.873	Pass

Note:
1. The Conducted Power = EIRP-Array Gain
2. The Conducted Power values show on the test plots had been offset the factor of antenn gain.

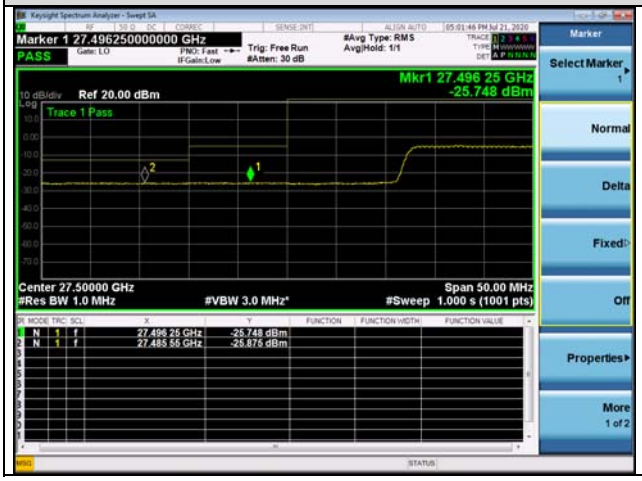
Beam 11

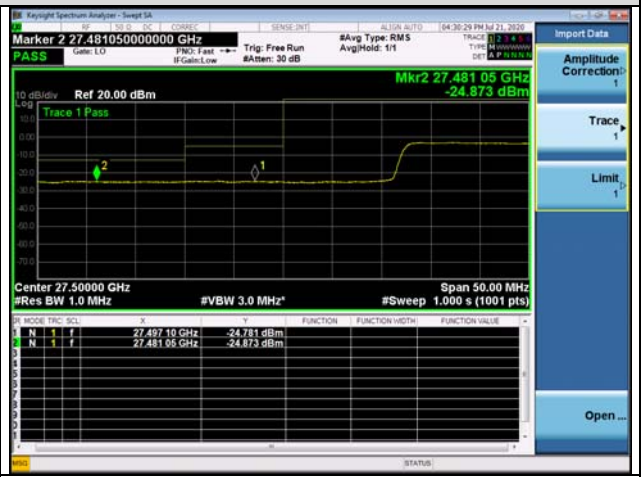


Beam 139



Beam 11 + 139





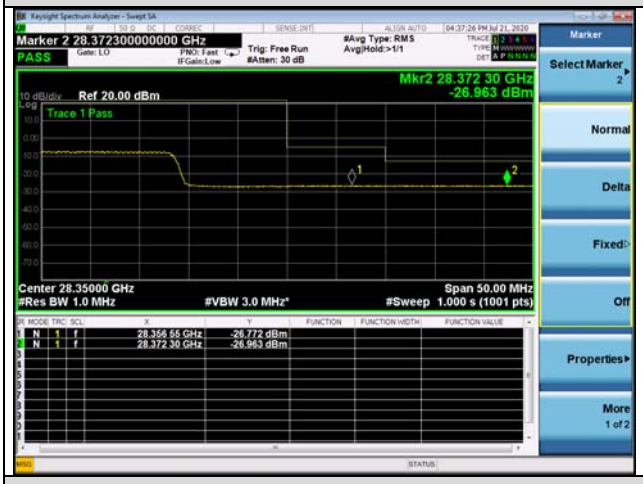
Summary of MIMO Beam Out-of Band Emission at the Band Edge:
To address compliance of MIMO Out-of Band emission per KDB 662911 D01, the MIMO Out-of Band emission EIRP is calculated by summing the worst case H Beam EIRP and V Beam EIRP in linear powers units then converted back to dBm.

Beam ID	Conducted Power for V Beam (dBm)	Conducted Power for H Beam (dBm)	Conducted Power for V+H Beam (dBm)	Limit(dBm)	Margin(dB)	Result
11 + 139	-25.748	-24.781	-22.22	-5	-17.22	Pass
	-25.875	-24.873	-22.33	-13	-9.33	Pass

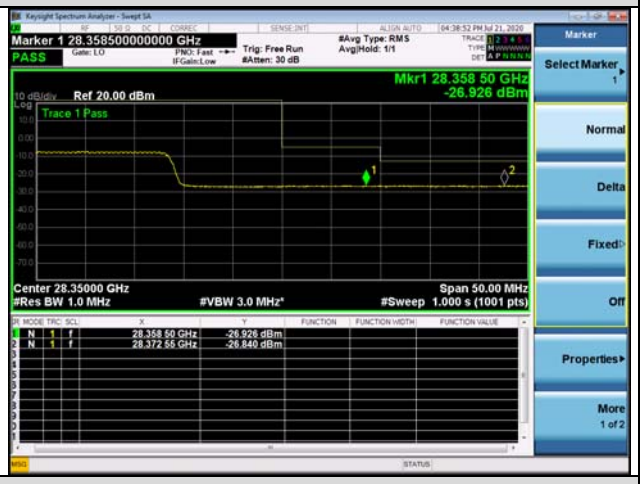
High Channel	2081515						
QPSK-4CC	Full RB						
Beam ID	Frequency (GHz)	EIRP Value (dBm)	Array Gain (dBi)	Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
11	28.35655	-4.472	22.3	-26.772	-5	-21.772	Pass
	28.37230	-4.663	22.3	-26.963	-13	-13.963	Pass
139	28.35850	-4.626	22.3	-26.926	-5	-21.926	Pass
	28.37255	-4.540	22.3	-26.840	-13	-13.840	Pass
11+139(Ver)	28.35555	-4.635	22.3	-26.935	-5	-21.935	Pass
	28.36210	-4.450	22.3	-26.750	-13	-13.750	Pass
11+139(Hor)	28.35650	-4.637	22.3	-26.937	-5	-21.937	Pass
	28.36900	-4.617	22.3	-26.917	-13	-13.917	Pass

Note:
1. The Conducted Power = EIRP-Array Gain
2. The Conducted Power values show on the test plots had been offset the factor of antenn gain.

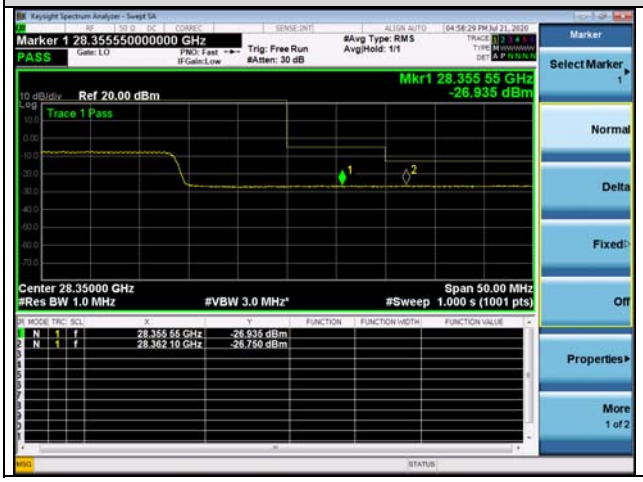
Beam 11



Beam 139



Beam 11 + 139



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

Beam ID	Conducted Power for V Beam (dBm)	Conducted Power for H Beam (dBm)	Conducted Power for V+H Beam (dBm)	Limit(dBm)	Margin(dB)	Result
11 + 139	-26.935	-26.937	-23.93	-5	-18.93	Pass
	-26.750	-26.917	-23.82	-13	-10.82	Pass

4.6 Frequency Stability Measurement

4.6.1 Limits of Frequency Stability Measurement

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

4.6.2 Test Instruments

Refer to section 4.2.3 to get information of above instrument.

4.6.3 Test Procedure

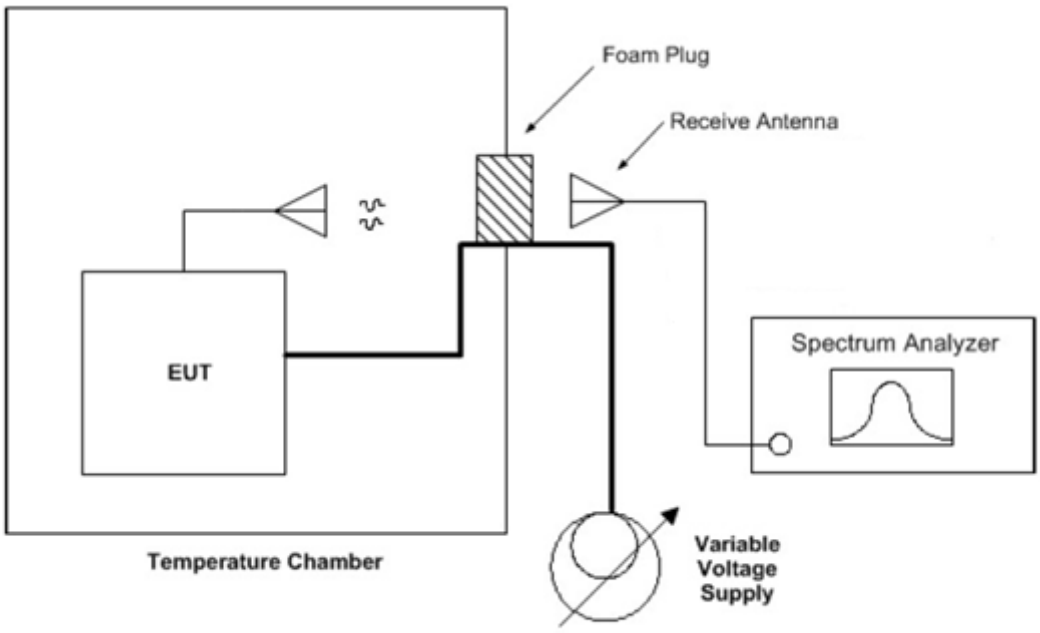
a. Device is placed at the oven room. The oven room could control the temperatures and humidity. Power warm up is at least 15 min and power applied should perform before recording frequency error.

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

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

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

4.6.4 Test Setup



4.6.5 Test Results

Frequency Error vs. Voltage

Voltage (Vac)	Band: n261		
	Modulation: QPSK-1CC / Frequency : 27923.52MHz		
	Frequency (MHz)	Frequency Error (ppm)	Pass/Fail
132	27923.530000	0.3581	Pass
120	27923.520000	0.0000	Pass
108	27923.540000	0.7162	Pass

Frequency Error vs. Temperature

Temp. (℃)	Band: n261		
	Modulation: QPSK-1CC / Frequency : 27923.52MHz		
	Frequency (MHz)	Frequency Error (ppm)	Pass/Fail
0	27923.680000	5.7299	Pass
10	27923.630000	3.9393	Pass
20	27923.590000	2.5068	Pass
30	27923.510000	-0.3581	Pass
40	27923.410000	-3.9393	Pass

Frequency Error vs. Voltage

Voltage (Vac)	Band: n261		
	Modulation: 64QAM-1CC / Frequency : 27923.52MHz		
	Frequency (MHz)	Frequency Error (ppm)	Pass/Fail
132	27923.530000	0.3581	Pass
120	27923.520000	0.0000	Pass
108	27923.540000	0.7162	Pass

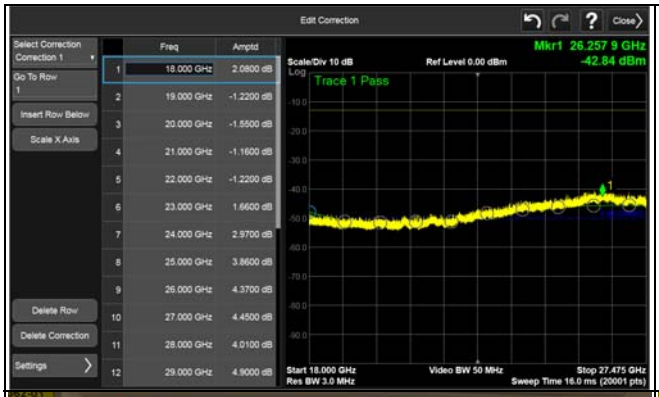
Frequency Error vs. Temperature

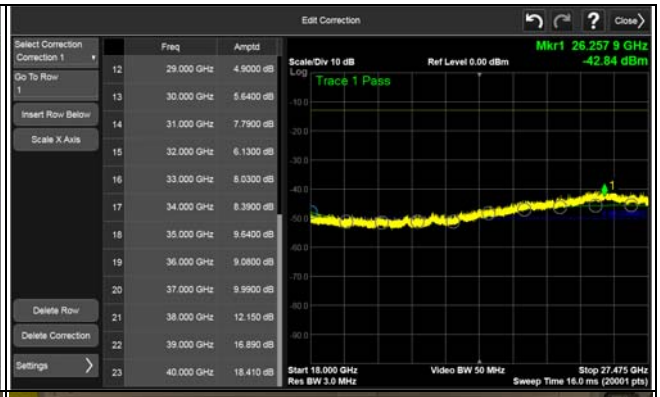
Temp. (℃)	Band: n261		
	Modulation: 64QAM-1CC / Frequency : 27923.52MHz		
	Frequency (MHz)	Frequency Error (ppm)	Pass/Fail
0	27923.680000	5.7299	Pass
10	27923.630000	3.9393	Pass
20	27923.590000	2.5068	Pass
30	27923.510000	-0.3581	Pass
40	27923.410000	-3.9393	Pass

5 Pictures of Test Arrangements

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

Annex A - Factor to 100GHz





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Appendix – Information of the Testing Laboratories

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

FCC accreditation scope:

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

Scope	FCC Rule Parts	Maximum Assessed Frequency in Mhz	Status	Expiration Date	Recognition Date
Intentional Radiators	FCC Part 15 Subpart C	300000.00	Approved	08-06-2020	07-06-2017
U-NII without DFS Intentional Radiators	FCC Part 15, Subpart E	300000.00	Approved	08-06-2020	07-06-2017
U-NII with DFS Intentional Radiators	FCC Part 15, Subpart E	300000.00	Approved	08-06-2020	07-06-2017
UWB Intentional Radiators	FCC Part 15, Subpart F	300000.00	Approved	08-06-2020	07-06-2017
BPL Intentional Radiators	FCC Part 15, Subpart G	300000.00	Approved	08-06-2020	07-06-2017
White Space Device Intentional Radiators	FCC Part 15, Subpart H	300000.00	Approved	08-06-2020	07-06-2017
Commercial Mobile Services	Part 22 (cellular), Part 24, Part 25 (below 3 GHz), Part 27	300000.00	Approved	08-06-2020	07-06-2017
General Mobile Radio Services	Part 22 (non-cellular), Part 90 (below 3 GHz), Part 95 (below 3 GHz), Part 97 (below 3 GHz),Part 101 (below 3 GHz)	300000.00	Approved	08-06-2020	07-06-2017
Citizens Broadband Radio Services	Part 96	300000.00	Approved	08-06-2020	07-06-2017
Maritime and Aviation Radio Services	Part 80, Part 87	300000.00	Approved	08-06-2020	07-06-2017
Microwave and Millimeter Bands Radio Services	Part 25 (above 3 GHz), Part 30, Part 74, Part 90 (above 3 GHz), Part 95 (above 3 GHz), Part 97 (above 3 GHz) Part 101	300000.00	Approved	08-06-2020	07-06-2017
RF Exposure		6000.00	Approved	08-06-2020	07-06-2017
Hearing Aid Compatibility	Part 20	6000.00	Approved	08-06-2020	07-06-2017
Signal Boosters	Part 20, Part 90.219	300000.00	Approved	08-06-2020	07-06-2017

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

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