11G-2462MHz

11N HT20-2412MHz

11N HT20-2437MHz

11N HT20-2462MHz

Conducted Output Power Measurement

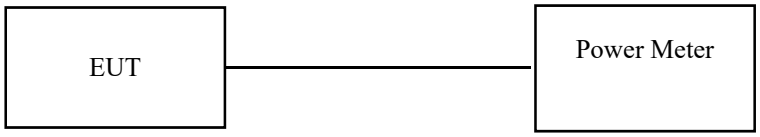
Limits of Output Power Measurement :

For systems using digital modulation in the 2400–2483.5 MHz bands: 1 Watt (30dBm)

Test Procedure

A power meter sensor was used on the output port of the EUT. A power meter was used to read the response of the power sensor. Record the power level.

Test Setup



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

Test Equipment

Calibrated test equipment utilized during testing was maintained in a current state of calibration per the requirements of ISO/IEC 17025:2017.

Note: Functionally tested equipment is verified using calibrated instrumentation at the time of testing.

Test Name: Conducted Output Power Measurement			**Test Date(s):** 07/16/2022		
Asset #	**Equipment**	**Manufacturer**	**Model**	**Last Cal Date**	**Cal Due Date**
N/A	Power Meter	ROHDE & SCHWARZ	NRQ6	06/22/2022	06/22/2023

Test Result:

1T1R:

802.11b

Channel	Frequency (MHz)	Conducted Power (dBm)		Limit (dBm)	Pass/Fail
		Chain 0	Chain 1		
1	2412	5.29	5.33	30	Pass
6	2437	5.18	5.32	30	Pass
11	2462	5.33	5.18	30	Pass

802.11g

Channel	Frequency (MHz)	Conducted Power (dBm)		Limit (dBm)	Pass/Fail
		Chain 0	Chain 1		
1	2412	5.92	5.85	30	Pass
6	2437	5.88	5.83	30	Pass
11	2462	5.48	5.18	30	Pass

802.11n-HT20

Channel	Frequency (MHz)	Conducted Power (dBm)		Limit (dBm)	Pass/Fail
		Chain 0	Chain 1		
1	2412	6.12	6.01	30	Pass
6	2437	6.01	5.83	30	Pass
11	2462	5.91	5.78	30	Pass

Power Spectral Density Measurement

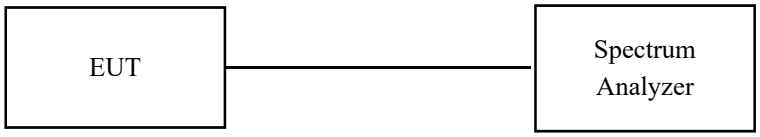
Limits of Power Spectral Measurement :

The Maximum of Power Spectral Density Measurement is 8dBm in any 3 kHz.

Test Procedure

A power meter sensor was used on the output port of the EUT. A power meter was used to read the response of the power sensor. Record the power level.

Test Setup



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

Test Equipment

Calibrated test equipment utilized during testing was maintained in a current state of calibration per the requirements of ISO/IEC 17025:2017.

Note: Functionally tested equipment is verified using calibrated instrumentation at the time of testing.

Test Name: Power Spectral Density Measurement			**Test Date(s):** 04/26/2022		
MET Asset #	**Equipment**	**Manufacturer**	**Model**	**Last Cal Date**	**Cal Due Date**
1S2003	EMI Test Receiver	Keysight	N9030B	10/08/2021	10/08/2022
Note: Functionally tested equipment is verified using calibrated instrumentation at the time of testing.					

Test Result:

1T1R:

802.11B:

Channel	Frequency (MHz)	PSD (dBm/3kHz)		Limit (dBm/3kHz)	Pass/Fail
		Chain 0	Chain 1		
1	2412	-24.800	-25.029	8	Pass
6	2437	-24.800	-25.111	8	Pass
11	2462	-25.056	-25.273	8	Pass

802.11G:

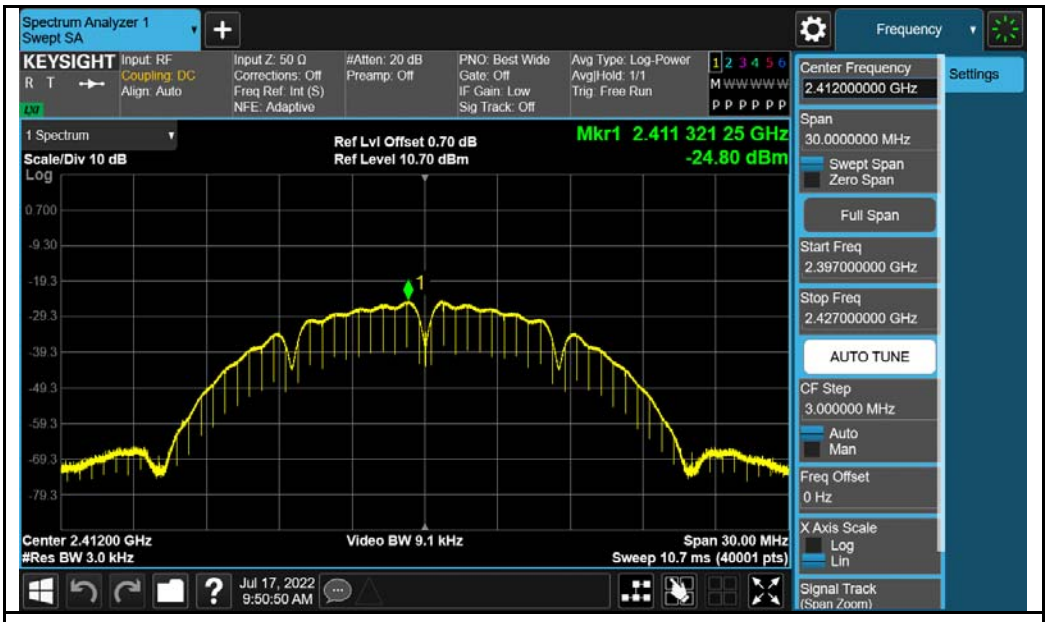
Channel	Frequency (MHz)	PSD (dBm/3kHz)		Limit (dBm/3kHz)	Pass/Fail
		Chain 0	Chain 1		
1	2412	-22.750	-22.846	8	Pass
6	2437	-23.120	-23.547	8	Pass
11	2462	-23.737	-23.632	8	Pass

802.11N(HT20):

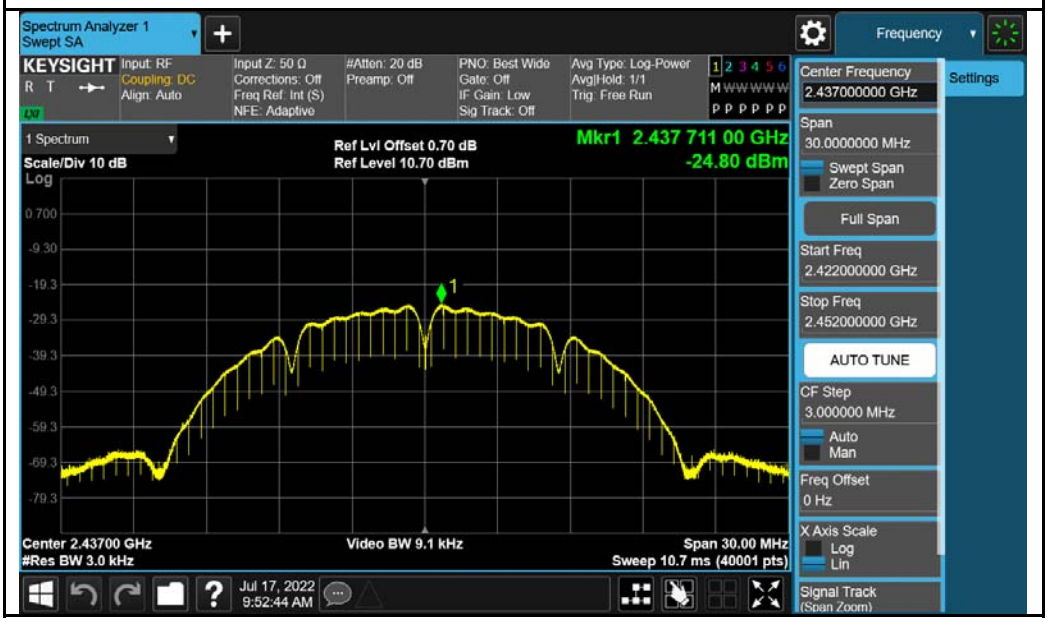
Channel	Frequency (MHz)	PSD (dBm/3kHz)		Limit (dBm/3kHz)	Pass/Fail
		Chain 0	Chain 1		
1	2412	-22.301	-22.348	8	Pass
6	2437	-22.745	-23.173	8	Pass
11	2462	-23.196	-23.442	8	Pass

Test Plots:

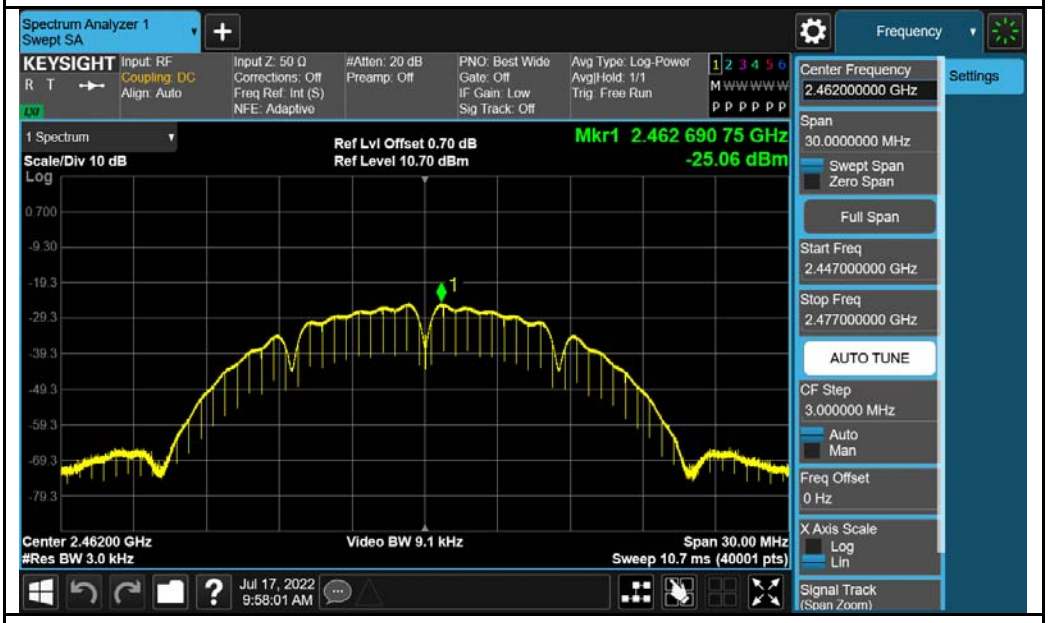
Chain 0:



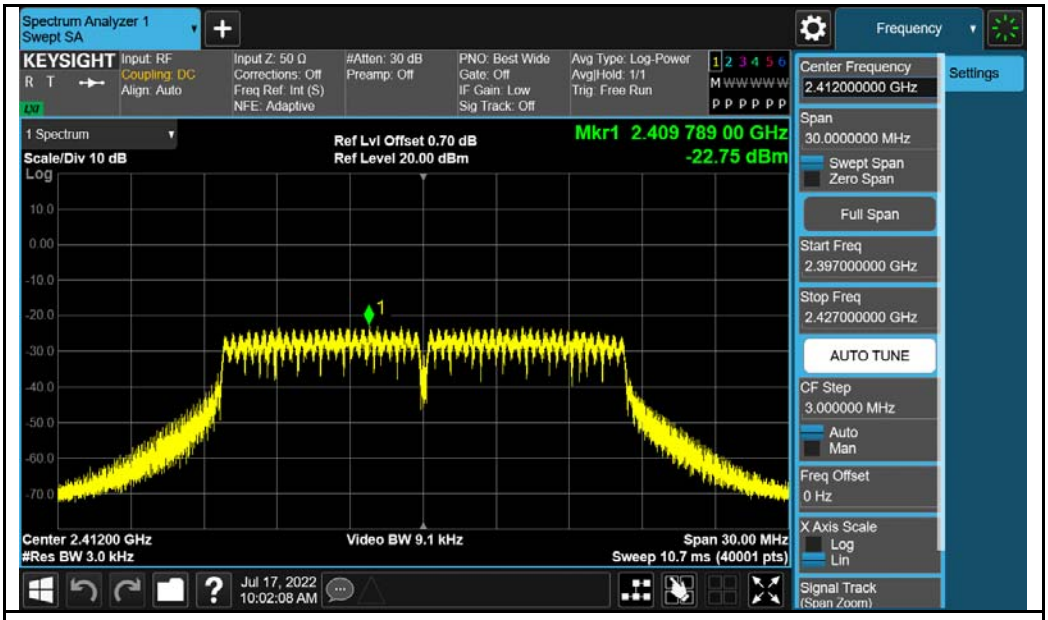
802.11 B-2412MHz



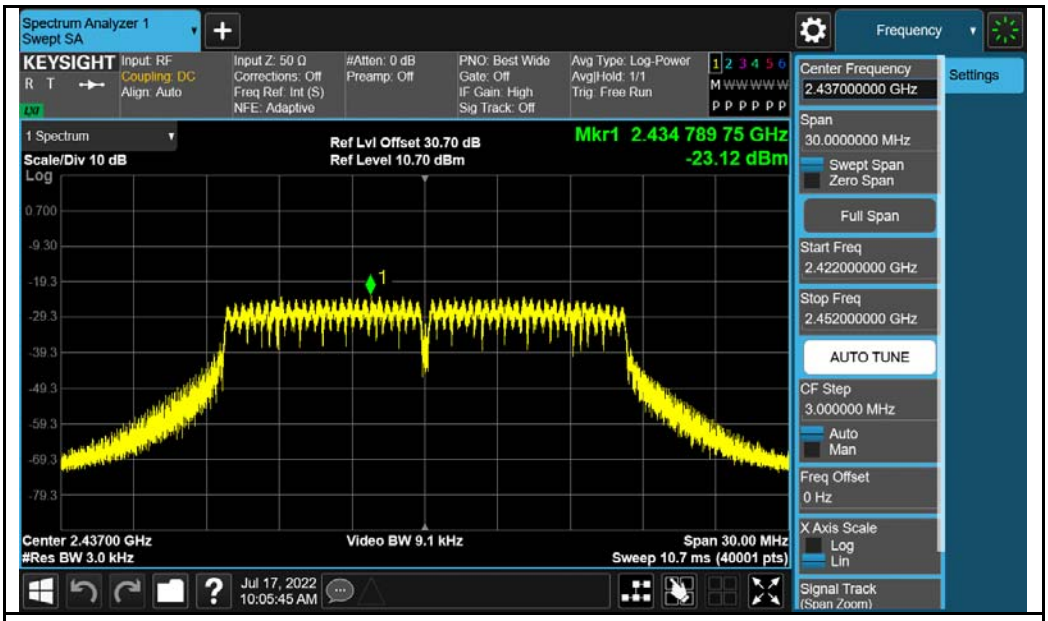
802.11 B-2437MHz



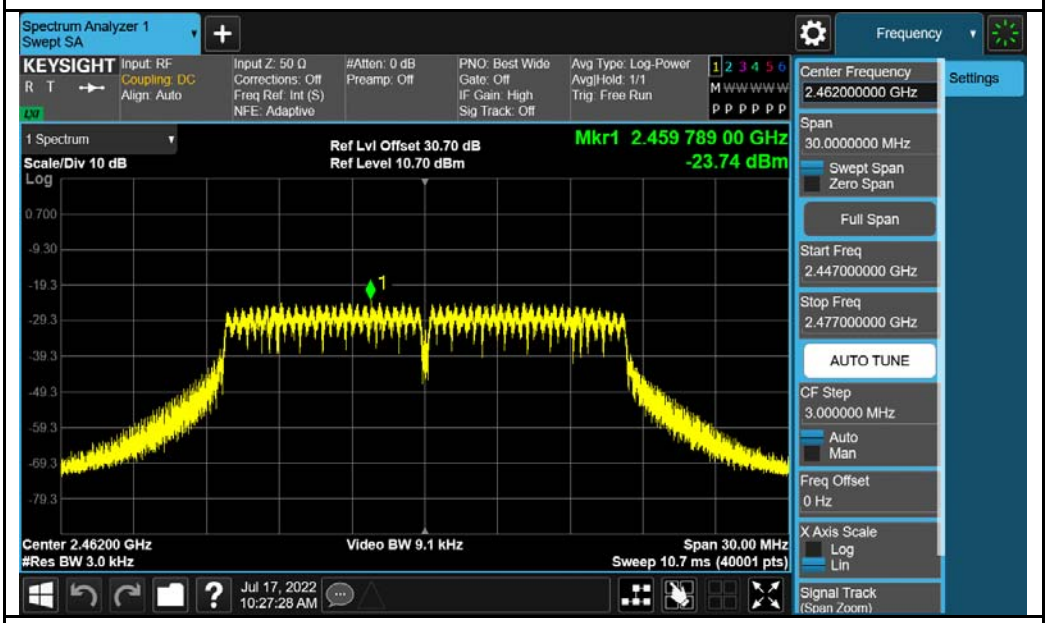
802.11 B-2462MHz



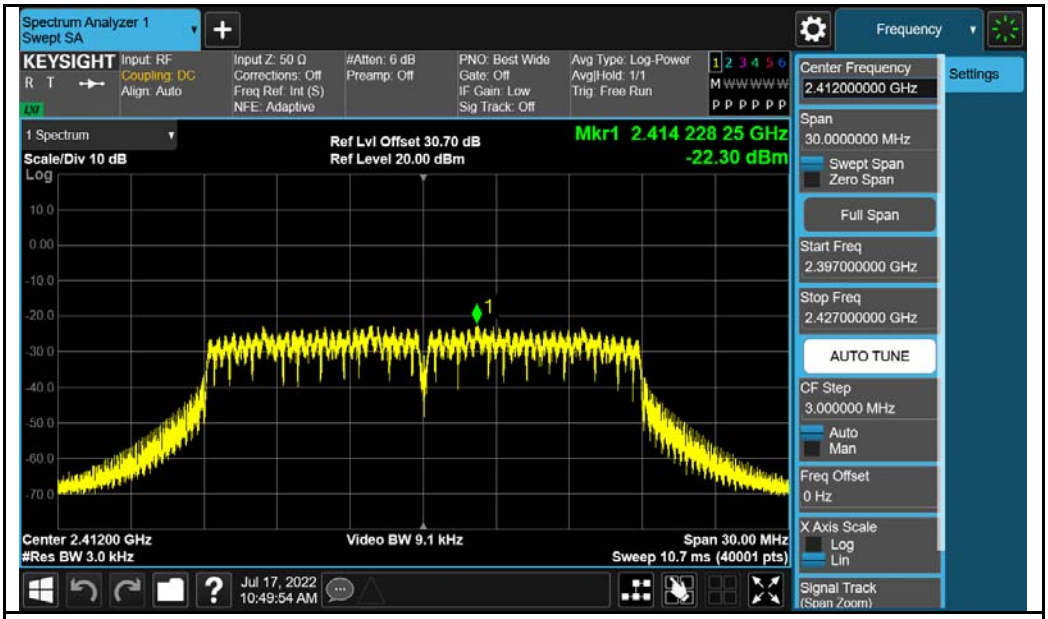
802.11 G-2412MHz



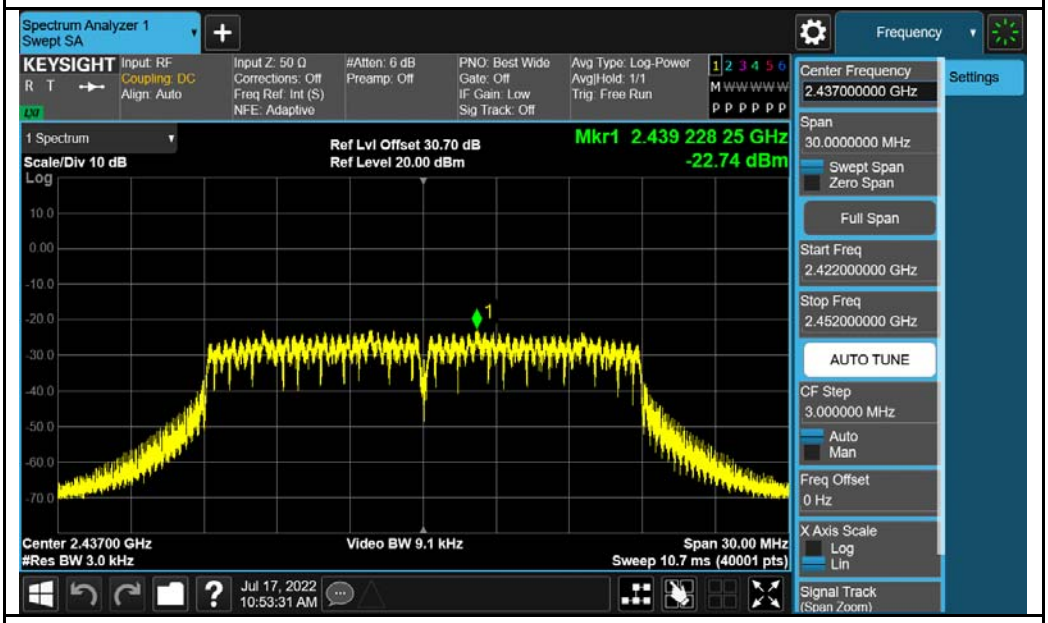
802.11 G-2437MHz



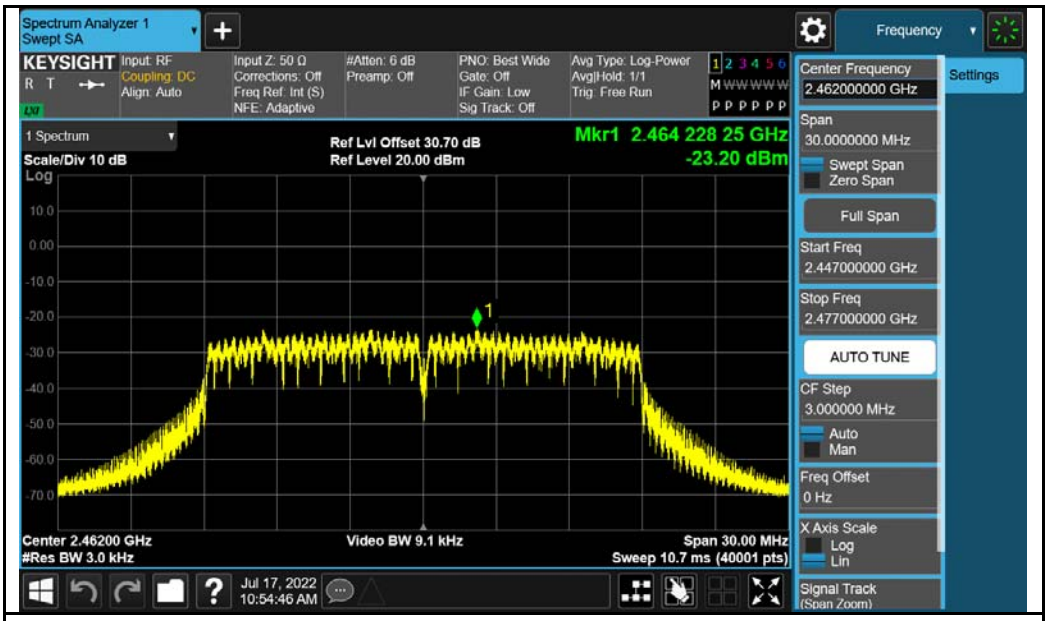
802.11 G-2462MHz



802.11 N-HT20-2412MHz



802.11 N-HT20-2437MHz



802.11 N-HT20-2462MHz

Conducted Out of Band Emission Measurement

Limits of Conducted Out of Band Emission Measurement:

Below 20dB of the highest emission level of operating band (in 100kHz Resolution Bandwidth)

Test Procedure

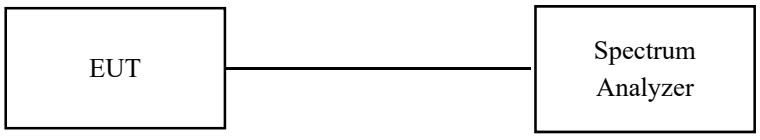
MEASUREMENT PROCEDURE REF

1. Set the RBW = 100 kHz.
2. Set the VBW ≥ 300 kHz.
3. Detector = peak.
4. Sweep time = auto couple.
5. Trace mode = max hold.
6. Allow trace to fully stabilize.
7. Use the peak marker function to determine the maximum power level in any 100 kHz band segment within the fundamental EBW.

MEASUREMENT PROCEDURE OOBE

1. Set RBW = 100 kHz.
2. Set VBW ≥ 300 kHz.
3. Detector = peak.
4. Sweep = auto couple.
5. Trace Mode = max hold.
6. Allow trace to fully stabilize.
7. Use the peak marker function to determine the maximum amplitude level.

Test Setup



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

Test Equipment

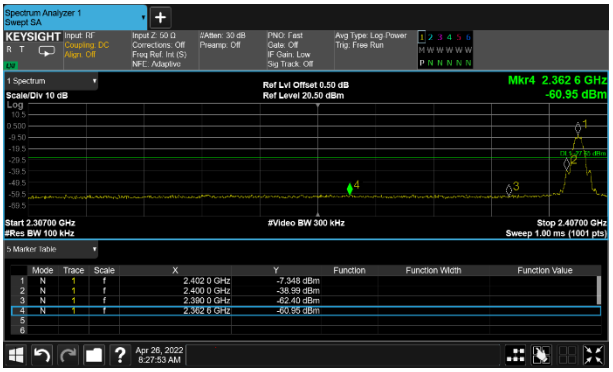
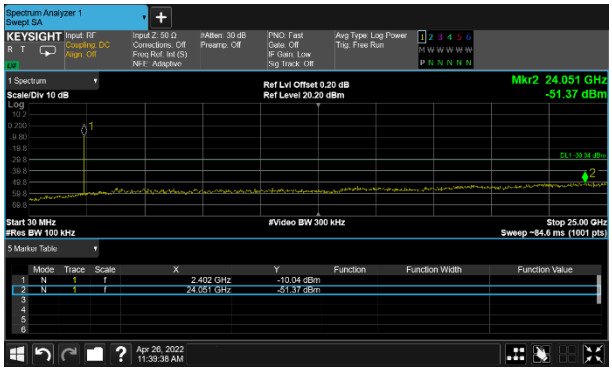
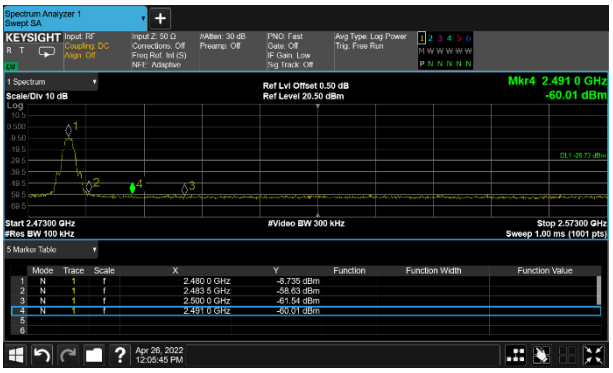
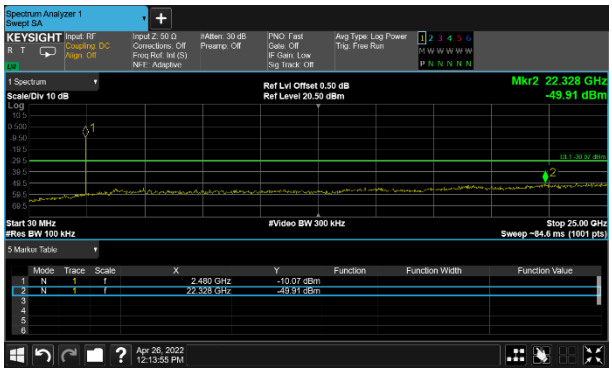
Calibrated test equipment utilized during testing was maintained in a current state of calibration per the requirements of ISO/IEC 17025:2017.

Note: Functionally tested equipment is verified using calibrated instrumentation at the time of testing.

Test Name: Conducted Out of Band Emission Measurement			**Test Date(s):** 04/26/2022		
MET Asset #	**Equipment**	**Manufacturer**	**Model**	**Last Cal Date**	**Cal Due Date**
1S2003	EMI Test Receiver	Keysight	N9030B	10/08/2021	10/08/2022
Note: Functionally tested equipment is verified using calibrated instrumentation at the time of testing.					

Test Result:

Data Rate: 2Mbps

Low Channel 2307MHz-2407MHz	Low Channel 30 MHz-25 GHz
	
High Channel 2473MHz-2573MHz	**High Channel 30 MHz-25 GHz**
	

IV. Pictures of test Arrangements

Please see setup photo file

END OF REPORT