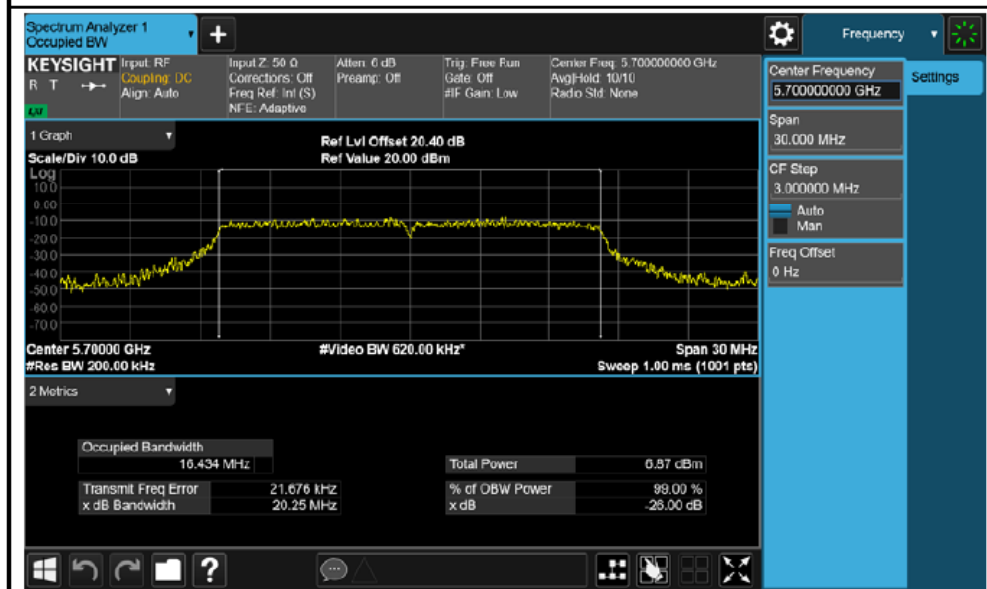
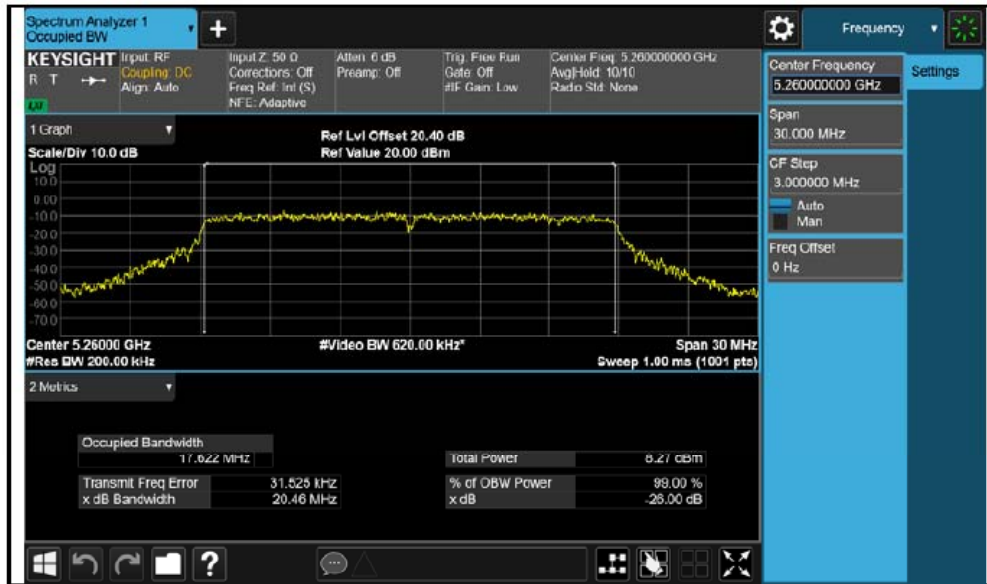




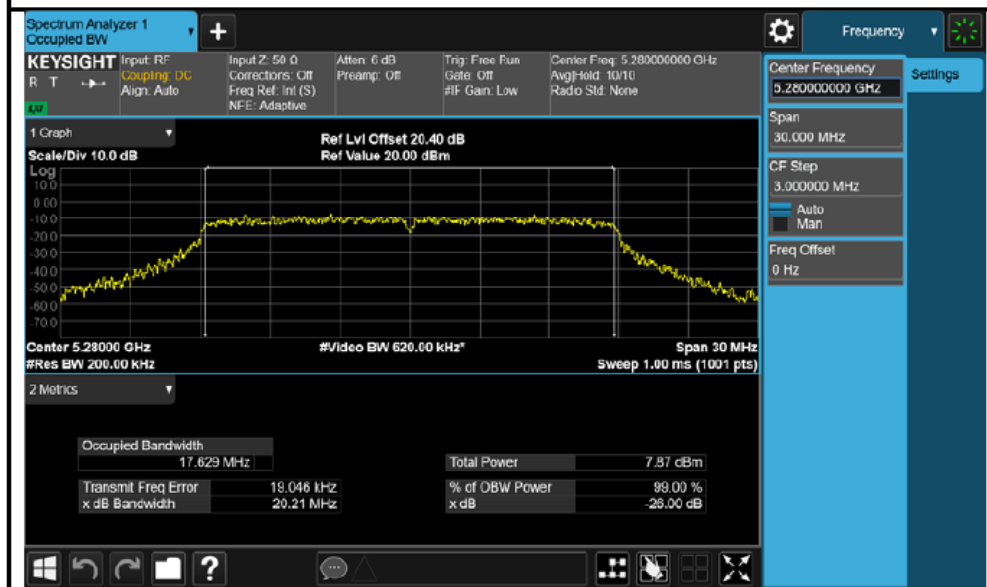
802.11a-5580MHz



802.11a-5700MHz



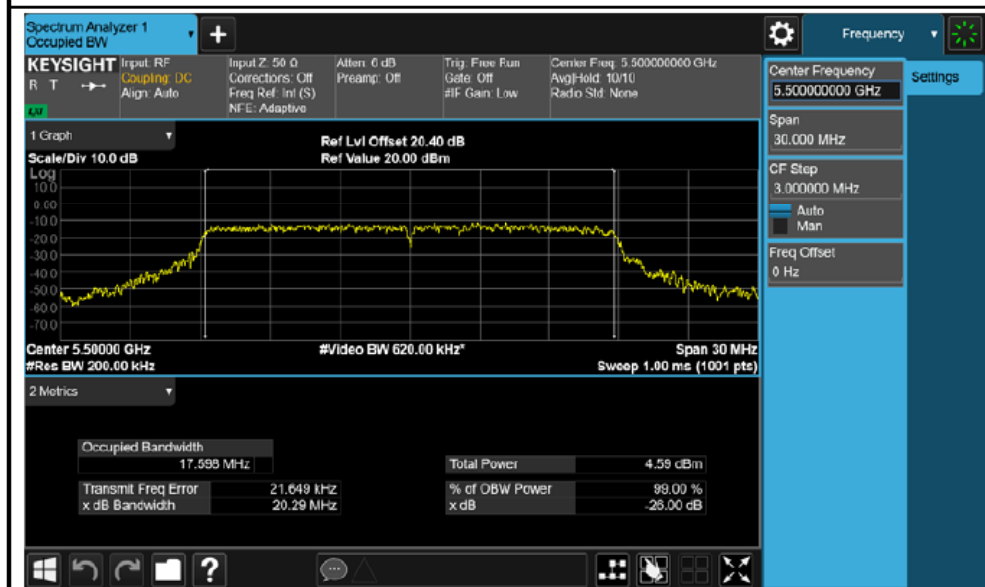
802.11n HT20-5260MHz



802.11n HT20-5280MHz



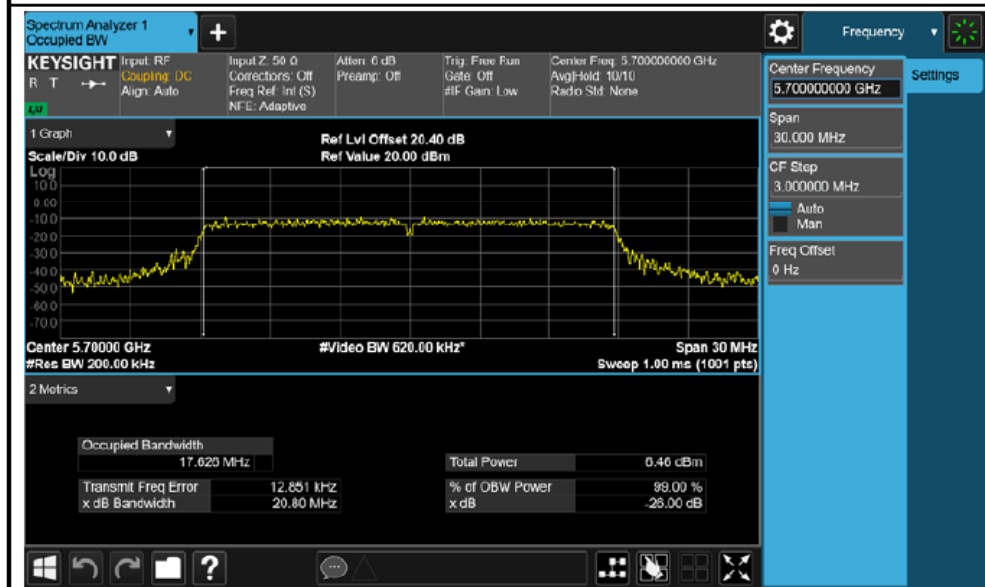
802.11n HT20-5320MHz



802.11n HT20-5500MHz



802.11n HT20-5580MHz



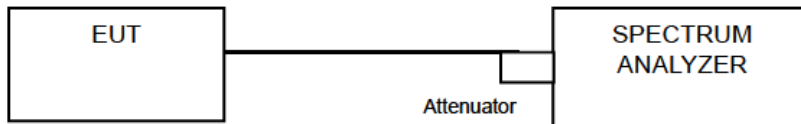
802.11n HT20-5700MHz

3.6 Peak Power Spectral Density Measurement

3.6.1 Limits of Peak Power Spectral Density Measurement

Operation Band	EUT Category		Limit
U-NII-1		Outdoor Access Point	17dBm/ MHz
		Fixed point-to-point Access Point	
		Indoor Access Point	
	√	Client device	11dBm/ MHz
U-NII-2A	√		11dBm/ MHz
U-NII-2C	√		11dBm/ MHz
U-NII-3	√		30dBm/ 500kHz

3.6.2 Test Setup



3.6.3 Test Instruments

MET Asset #	Equipment	Manufacturer	Model	Last Cal Date	Cal Due Date
1S2003	EMI Test Receiver	Keysight	N9030B	11/01/2022	11/01/2023

3.6.4 Test Procedure

For U-NII-1, U-NII-2A, U-NII-2C band:

Using method SA-1

1. Set span to encompass the entire emission bandwidth (EBW) of the signal.
2. Set RBW = 1 MHz, Set VBW ≥ 3 MHz, Detector = RMS
3. Sweep time = auto, trigger set to "free run".
4. Trace average at least 100 traces in power averaging mode.
5. Record the max value

For U-NII-3:

1. Set span to encompass the entire emission bandwidth (EBW) of the signal.
2. Set RBW = 300 kHz, Set VBW ≥ 1 MHz, Detector = RMS
3. Use the peak marker function to determine the maximum power level in any 300 kHz band segment within the fundamental EBW.
4. Scale the observed power level to an equivalent value in 500 kHz by adjusting (reducing) the measured power by a bandwidth correction factor (BWCF) where $BWCF = 10\log(500 \text{ kHz}/300\text{kHz})$
5. Sweep time = auto, trigger set to "free run".
6. Trace average at least 100 traces in power averaging mode.
7. Record the max value

3.6.5 Deviation from Test Standard

No deviation.

3.6.6 EUT Operating Condition

Same as Item 4.3.6.

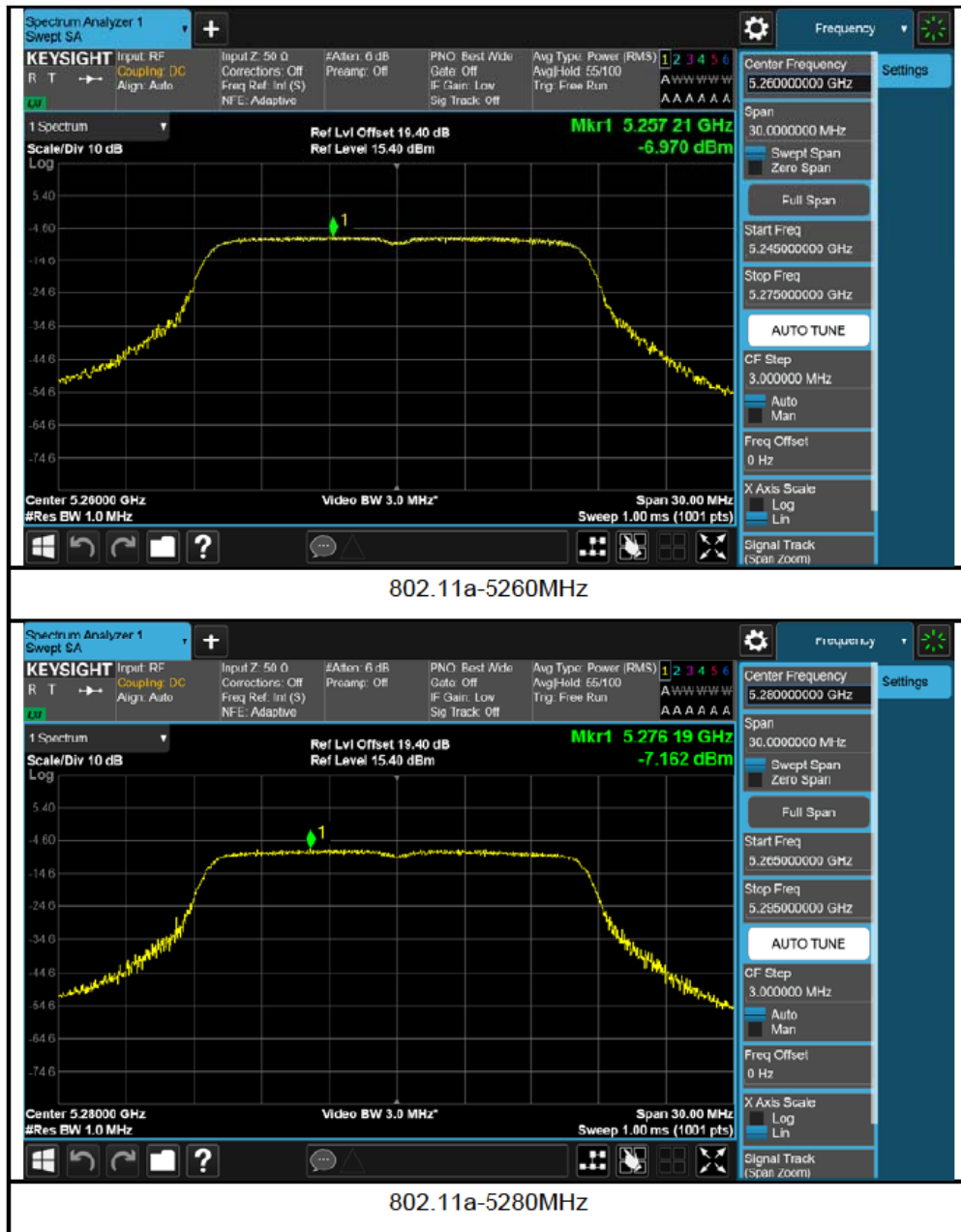
3.6.7 Test Results

PSD measurement result for UNII-2 Band

Type	Test mode	Freq (MHz)	CH	Conducted PSD (dBm/MHz)	Limit (dBm/MHz)	Result
Output Power	802.11a	5260	Low	-6.886	11	Pass
		5280	Mid	-7.166	11	Pass
		5320	High	-8.168	11	Pass
		5500	Low	-10.323	11	Pass
		5600	Mid	-9.688	11	Pass
		5700	High	-8.278	11	Pass
	802.11n-HT20	5260	Low	-7.188	11	Pass
		5280	Mid	-7.232	11	Pass
		5320	High	-8.007	11	Pass
		5500	Low	-10.684	11	Pass
		5600	Mid	-10.047	11	Pass
		5700	High	-8.888	11	Pass

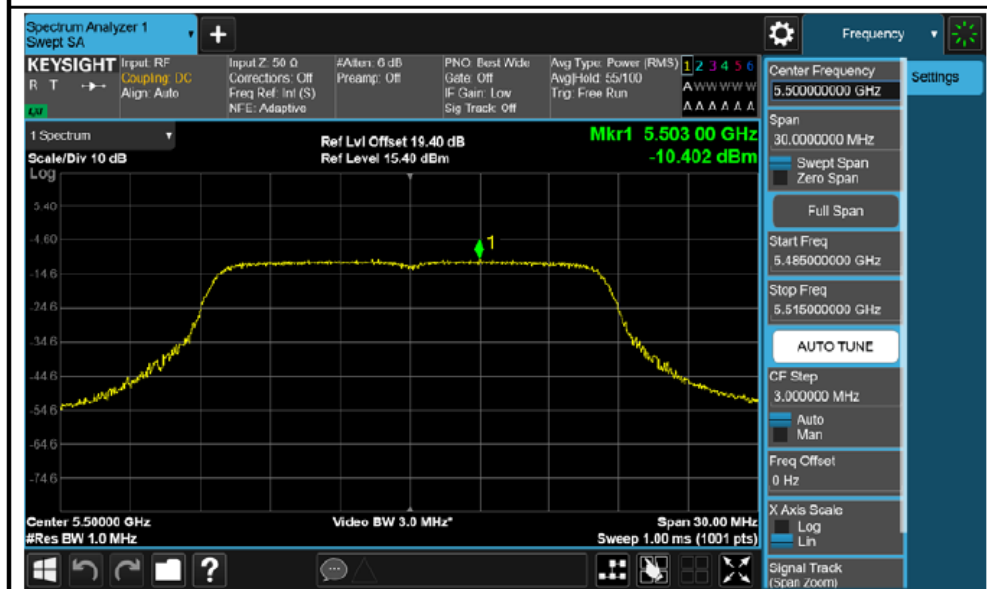
Test Plot for:

UNII-2 Band

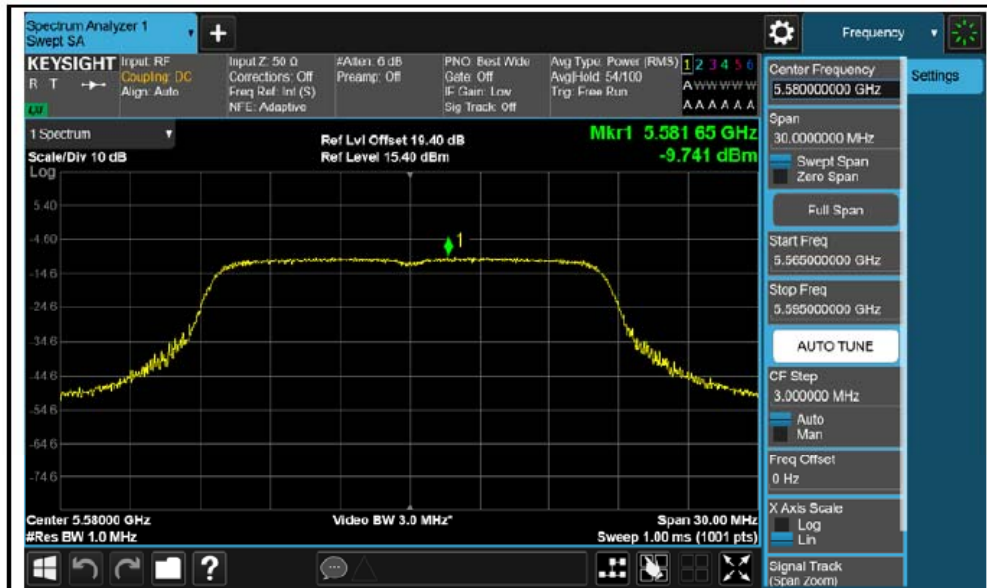




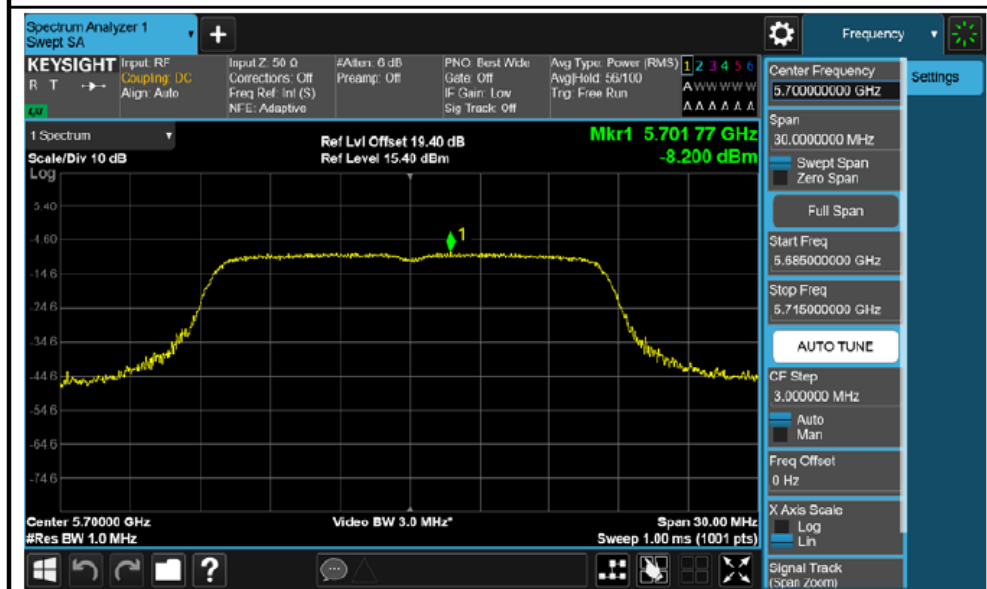
802.11a-5320MHz



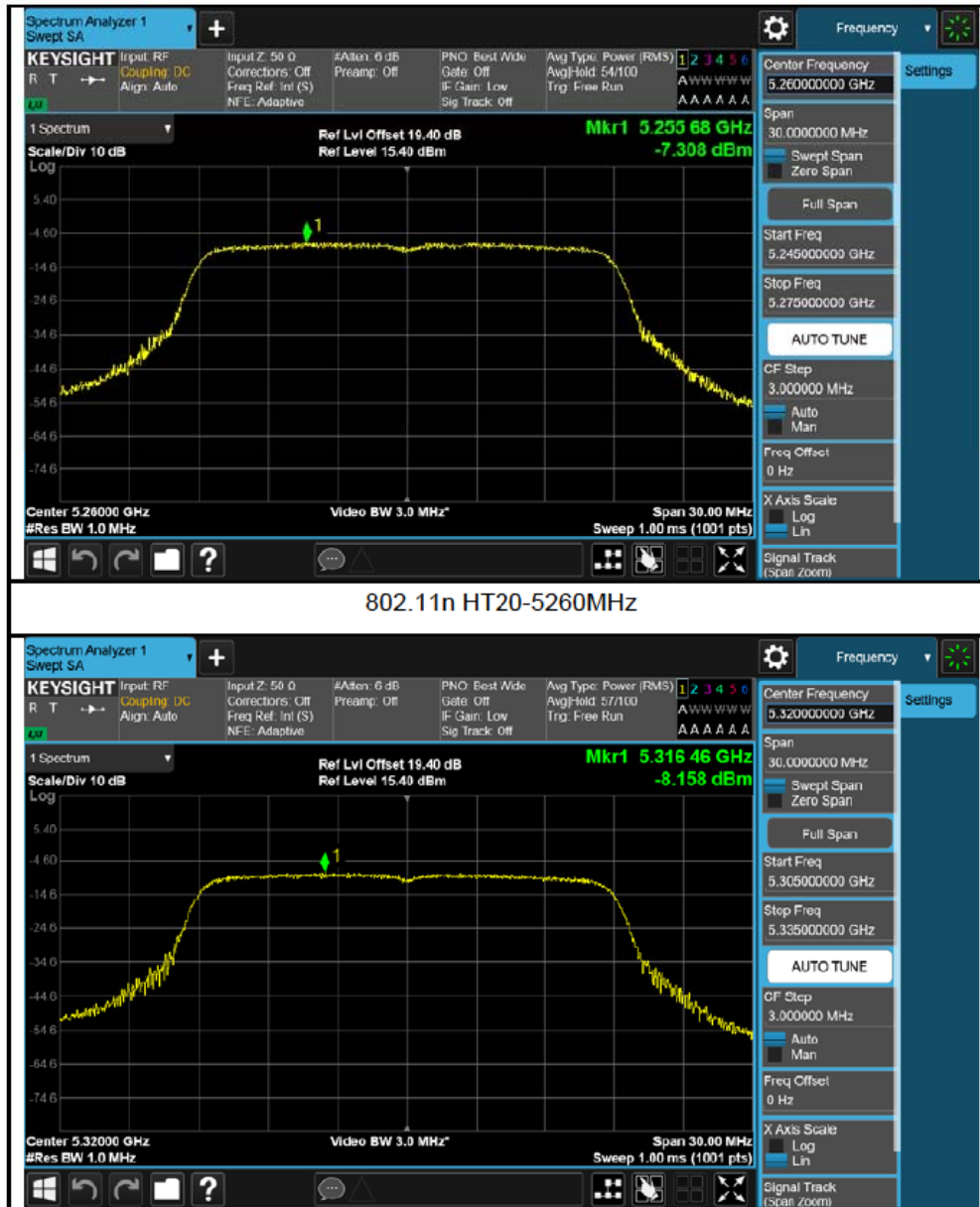
802.11a-5500MHz

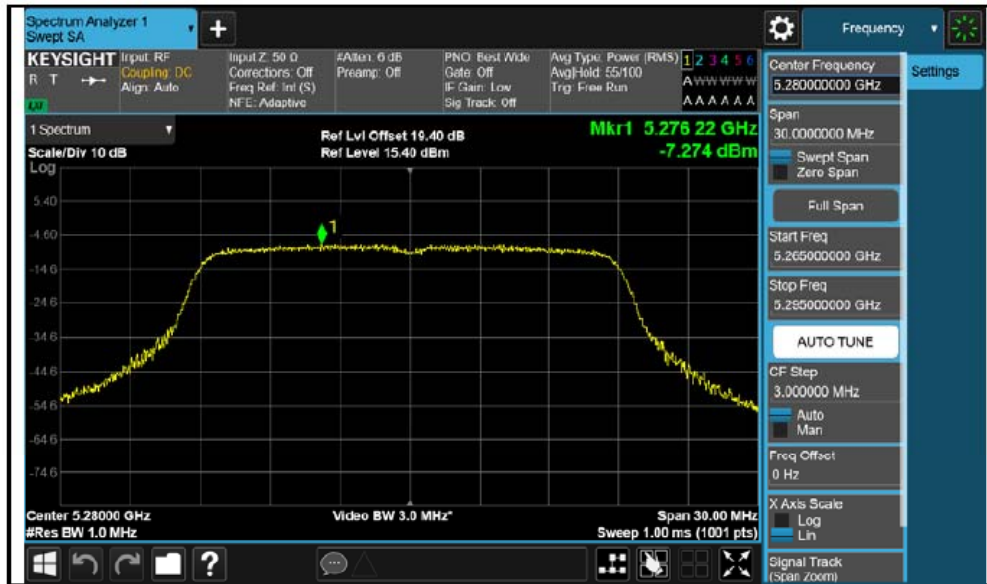


802.11a-5580MHz

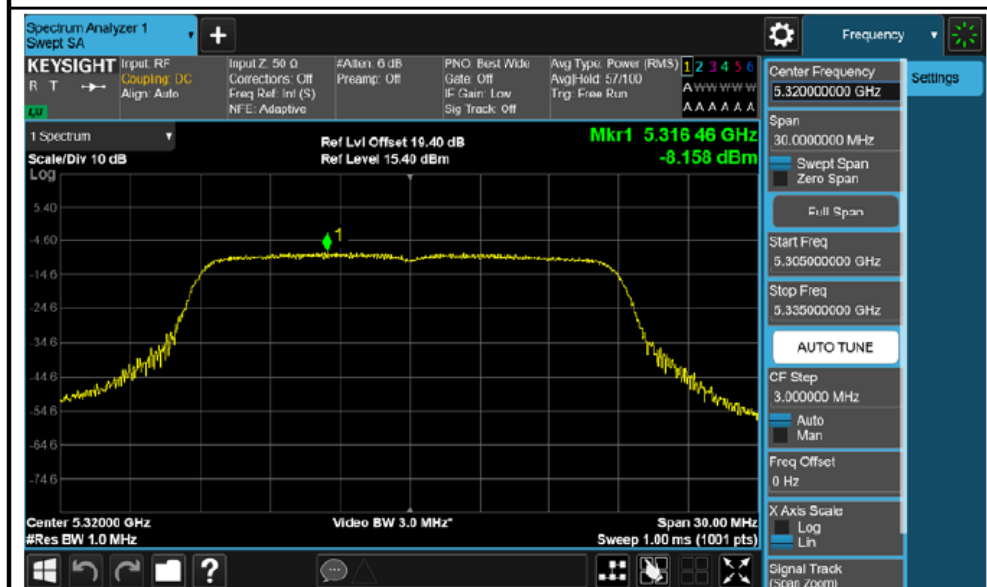


802.11a-5700MHz





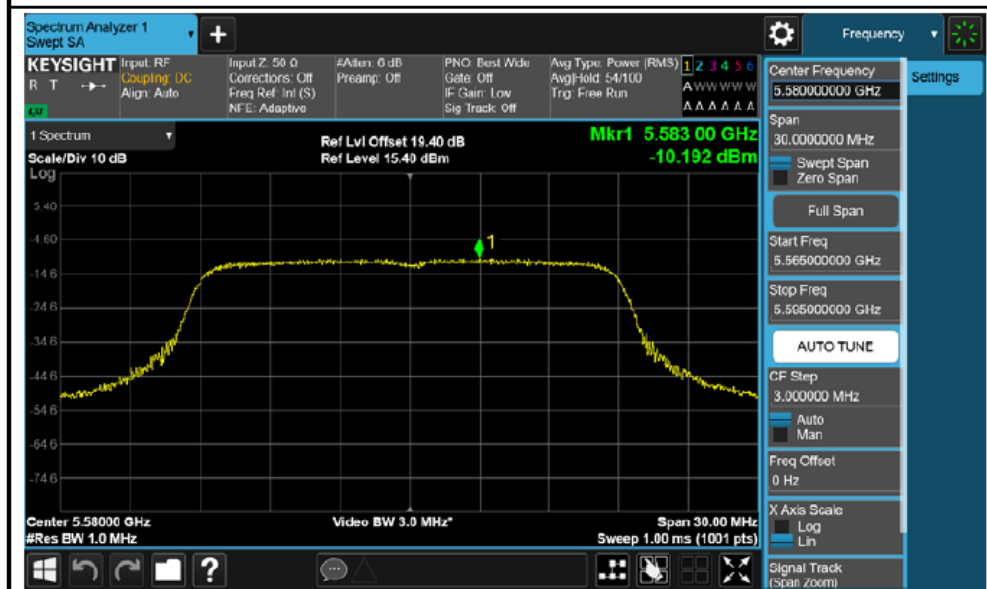
802.11n HT20-5280MHz



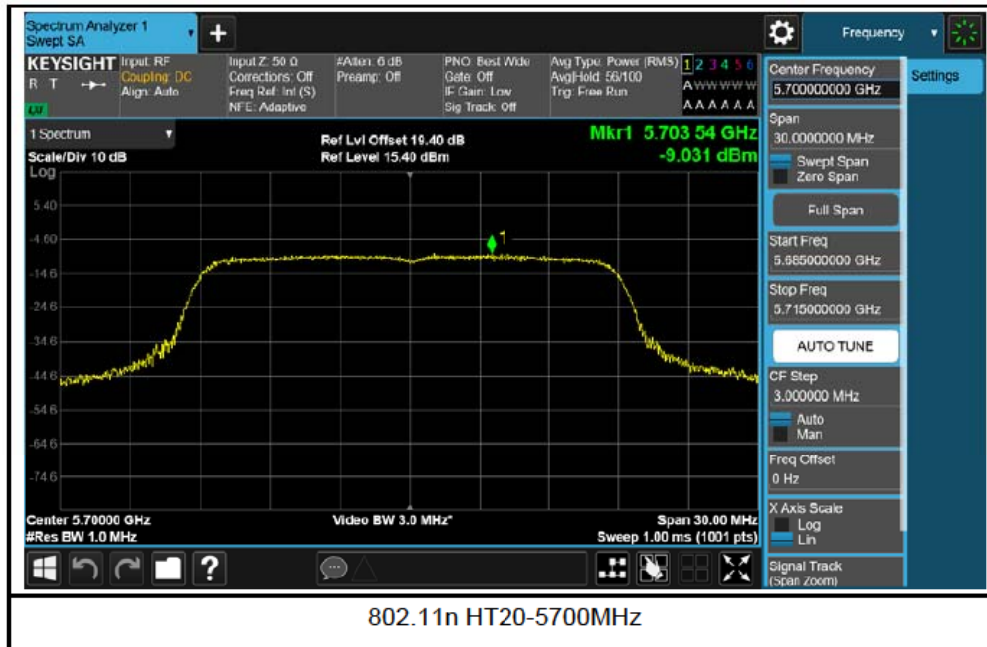
802.11n HT20-5320MHz



802.11n HT20-5500MHz



802.11n HT20-5580MHz

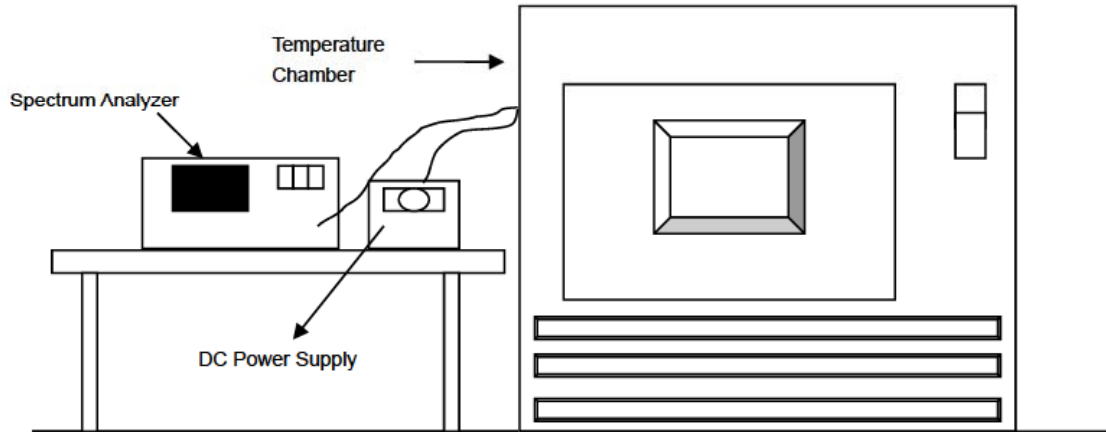


3.7 Frequency Stability Measurement

3.7.1 Limits of Frequency Stability Measurement

The frequency of the carrier signal shall be maintained within band of operation.

3.7.2 Test Setup



3.7.3 Test Instruments

MET Asset #	Equipment	Manufacturer	Model	Last Cal Date	Cal Due Date
1S2003	EMI Test Receiver	Keysight	N9030B	11/01/2022	11/01/2023
1S2776	Temperature Chambers	Lunaire	BTC	Note 1	Note 1
Note 1: Verified by calibrated instrumentation at the time of testing					

3.7.4 Test Procedure

- The EUT was placed inside the environmental test chamber and powered by nominal DC voltage.
- Turn the EUT on and couple its output to a spectrum analyzer.
- Turn the EUT off and set the chamber to the highest temperature specified.
- Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2, 5, and 10 Minutes.
- Repeat step (d) with the temperature chamber set to the next desired temperature until measurements down to the lowest specified temperature have been completed..
- The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 Minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

3.7.5 Deviation from Test Standard

No deviation.

3.7.6 EUT Operating Condition

Set the EUT transmit at un-modulation mode to test frequency stability.

3.7.7 Test Results

Frequency Stability Versus Temp.									
Operating Frequency: 5260 MHz									
TEMP. (°C)	Power Supply (Vdc)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail
50	3.0	5259.975	Pass	5260.064	Pass	5259.984	Pass	5259.991	Pass
40	3.0	5260.052	Pass	5259.997	Pass	5260.003	Pass	5260.004	Pass
30	3.0	5259.993	Pass	5260.004	Pass	5259.994	Pass	5259.993	Pass
20	3.0	5259.996	Pass	5260.004	Pass	5259.996	Pass	5260.011	Pass
10	3.0	5259.978	Pass	5259.974	Pass	5260	Pass	5260.01	Pass
0	3.0	5260.005	Pass	5260.006	Pass	5259.973	Pass	5260.986	Pass
-10	3.0	5259.976	Pass	5259.984	Pass	5259.976	Pass	5259.998	Pass
-20	3.0	5259.907	Pass	5259.993	Pass	5260.005	Pass	5260.011	Pass
-30	3.0	5260.006	Pass	5259.99	Pass	5259.993	Pass	5259.994	Pass

Frequency Stability Versus Voltage									
Operating Frequency: 5260 MHz									
TEMP. (°C)	Power Supply (Vdc)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail
20	3.45	5260.012	Pass	5259.982	Pass	5260.011	Pass	5260.004	Pass
	3.0	5259.988	Pass	5259.918	Pass	5260.025	Pass	5260.004	Pass
	2.55	5260.122	Pass	5260.014	Pass	5259.891	Pass	5259.983	Pass

4 Pictures of Test Arrangements

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

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