

4.5 Emission Bandwidth (26dBm Bandwidth)

Limit

N/A

Test Procedure

1. Set resolution bandwidth (RBW) = approximately 1% of the EBW.
2. Set the video bandwidth (VBW) > RBW.
3. Detector = Peak.
4. Trace mode = Max hold.
5. Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW / EBW ratio is approximately 1 %.

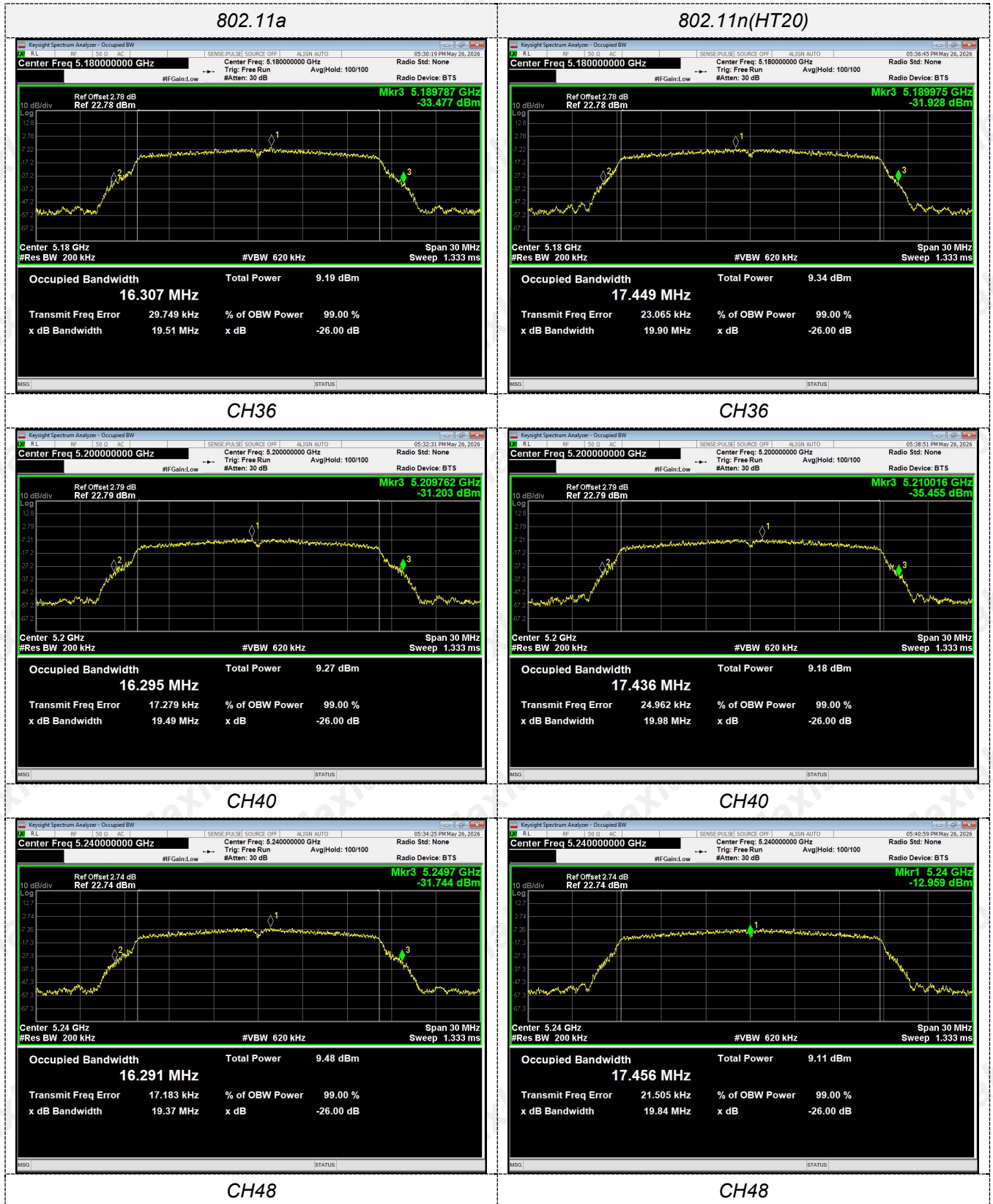
Test Configuration



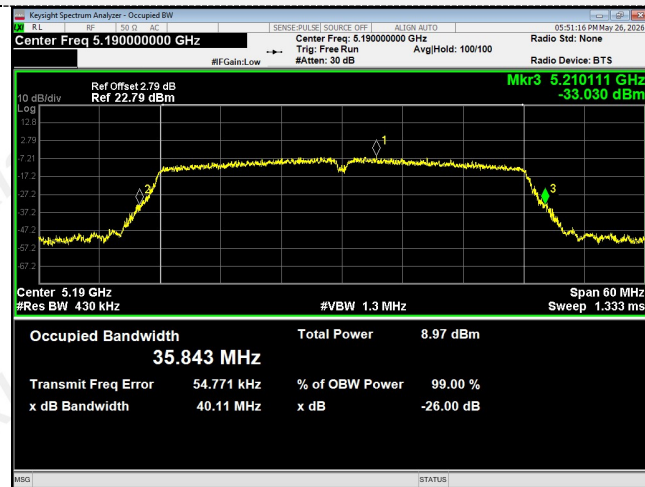
Test Results

Type	Bands	Channel	26dB Bandwidth (MHz)	Result
802.11a	U-NII 1	36	19.515	Pass
		40	19.490	
		48	19.366	
802.11n(HT20)	U-NII 1	36	19.904	
		40	19.982	
		48	19.843	
802.11n(HT40)	U-NII 1	38	40.112	
		46	40.000	
802.11ac(HT20)	U-NII 1	36	20.029	
		40	19.844	
		48	19.923	
802.11ac(HT40)	U-NII 1	38	40.141	
		46	39.903	
802.11ac(HT80)	U-NII 1	42	79.702	

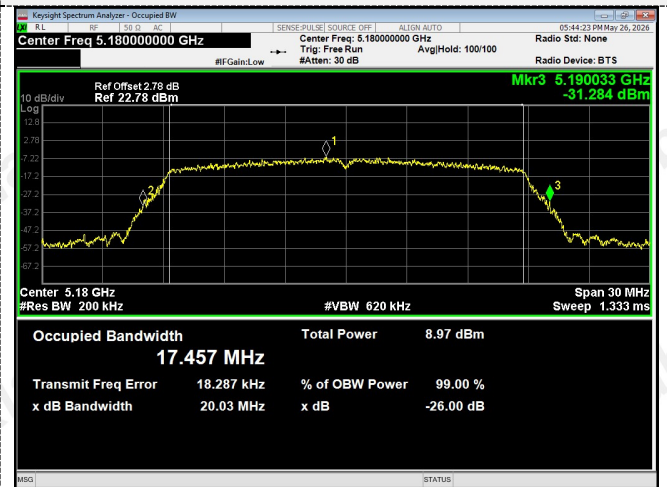
Test plot as follows:



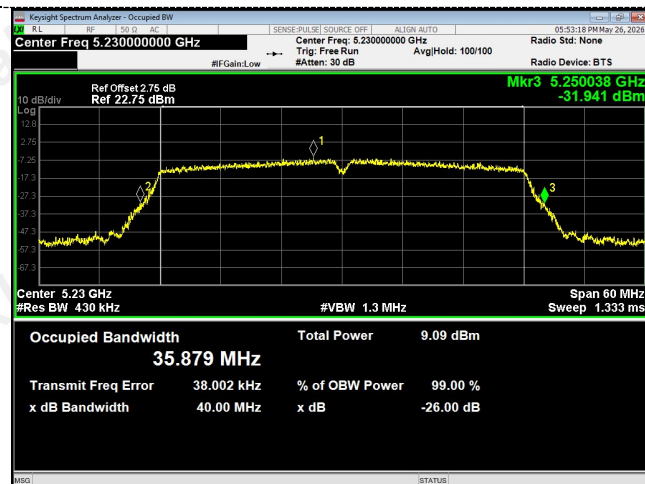
802.11n(HT40)



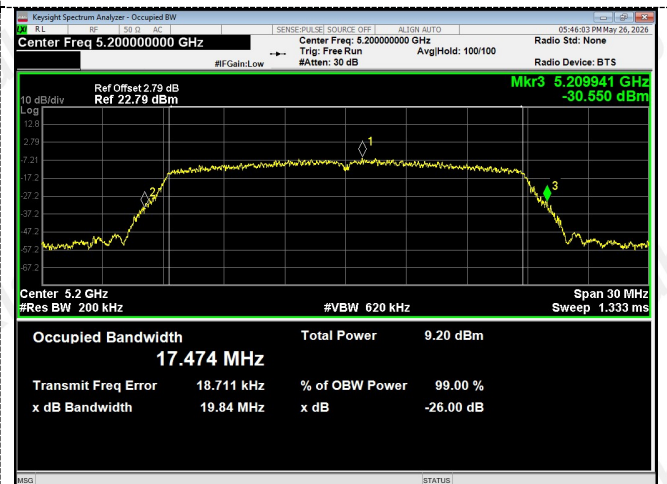
802.11ac(HT20)



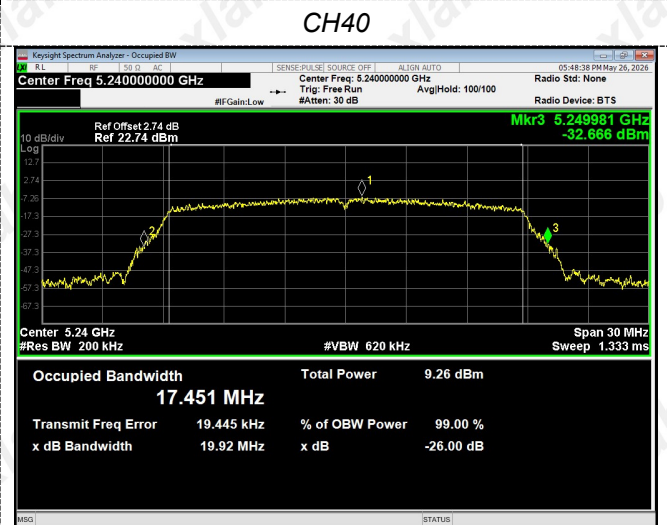
CH38



CH36



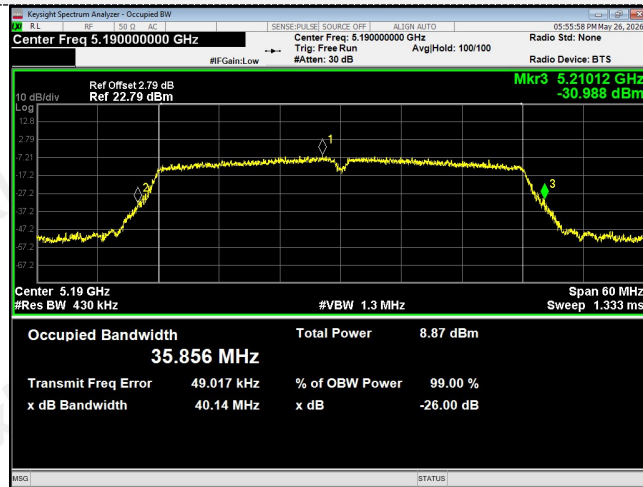
CH46



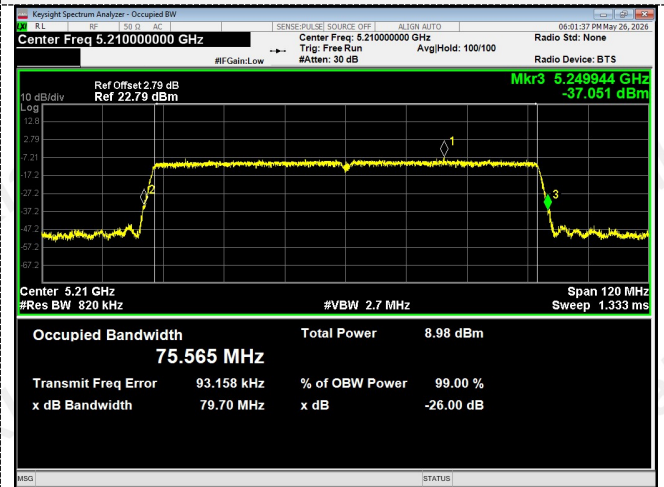
CH40

CH48

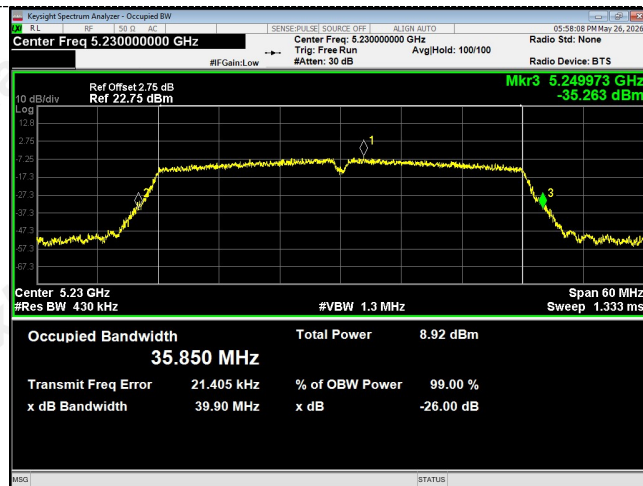
802.11ac(HT40)



802.11ac(HT80)



CH38



CH42

CH46

4.6 Minimum Emission Bandwidth (6dBm Bandwidth)

Limit

Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

Test Procedure

1. Set resolution bandwidth (RBW) = 100 kHz
2. Set the video bandwidth 3 x RBW.
3. Detector = Peak.
4. Trace mode = Max hold.
5. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

Test Configuration



Test Results

N/A

4.7 Conducted Out Of Band Emission

4.7.1 Applicable Standard

According to FCC §15.407(b)

Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(2) For transmitters operating in the 5.725-5.850 GHz band: All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

4.7.2 Test Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
3. Set RBW of spectrum analyzer to 1 MHz with a convenient frequency span.
4. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
5. Repeat above procedures until all measured frequencies were complete.

4.7.3 DEVIATION FROM STANDARD

No deviation.

4.7.4 TEST SETUP



4.7.5 EUT OPERATION CONDITIONS

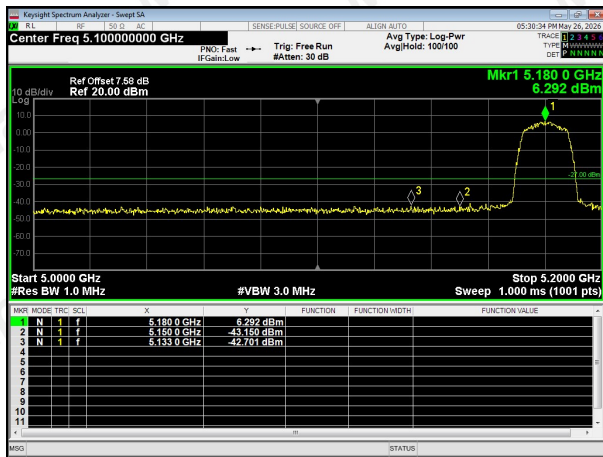
The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

4.7.6 TEST RESULTS

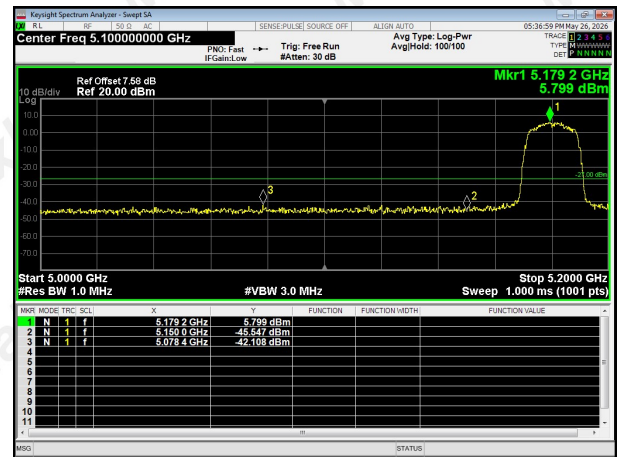
Temperature:	26 °C	Relative Humidity:	54%
Pressure:	1012 hPa	Test Voltage :	AC 120V/60Hz

5.180~5.240 GHz

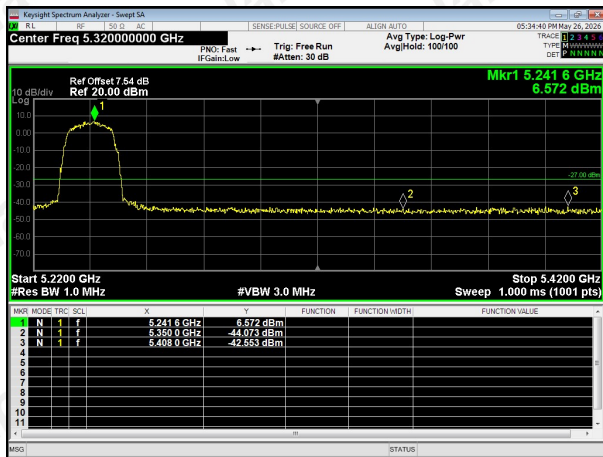
(802.11a) Band Edge, Left Side



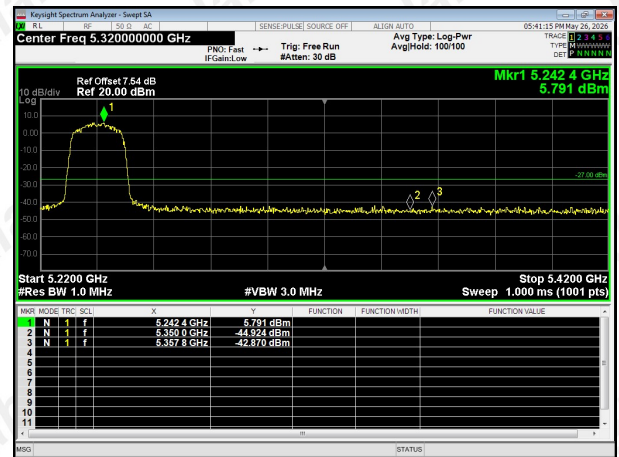
(802.11n20) Band Edge, Left Side



(802.11a) Band Edge, Right Side



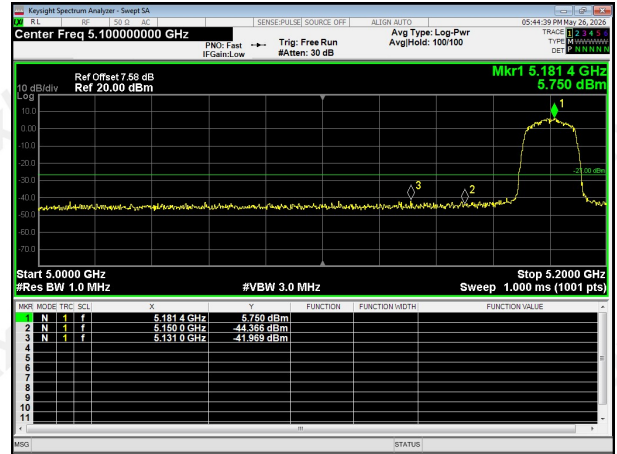
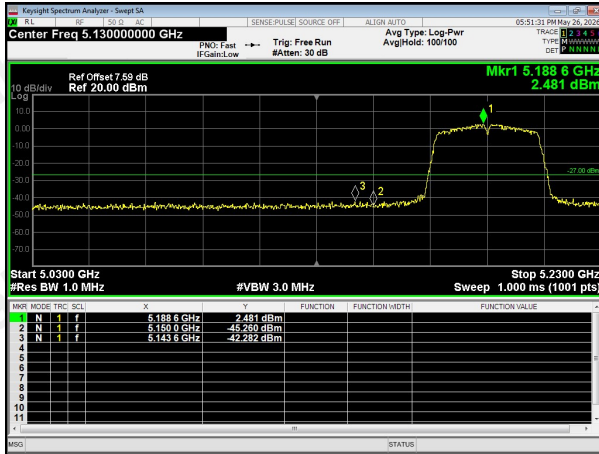
(802.11n20) Band Edge, Right Side



5.180~5.240 GHz

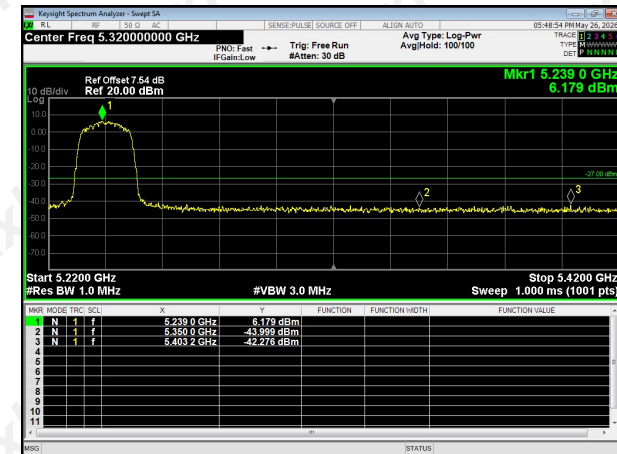
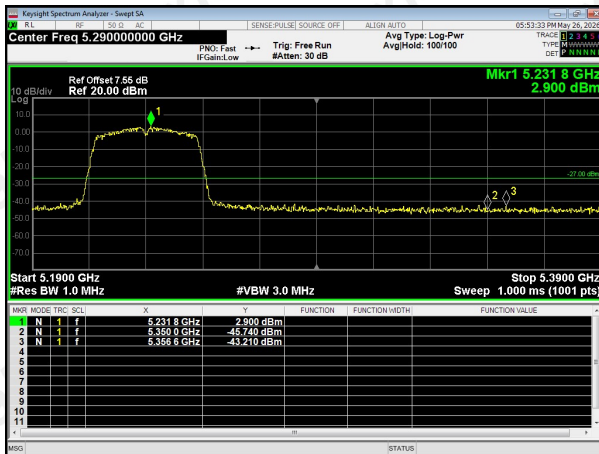
(802.11n40) Band Edge, Left Side

(802.11ac20) Band Edge, Left Side



(802.11n40) Band Edge, Right Side

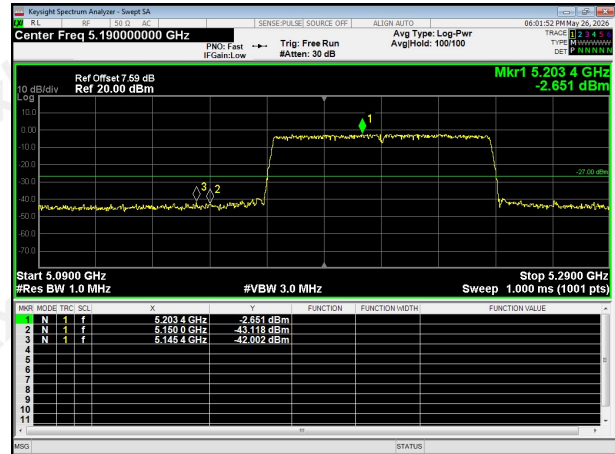
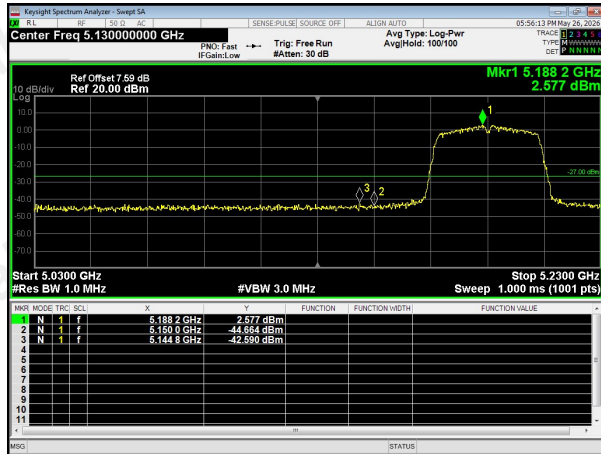
(802.11ac20) Band Edge, Right Side



5.180~5.240 GHz

(802.11ac40) Band Edge, Left Side

(802.11ac80) Band Edge



(802.11ac40) Band Edge, Right Side

