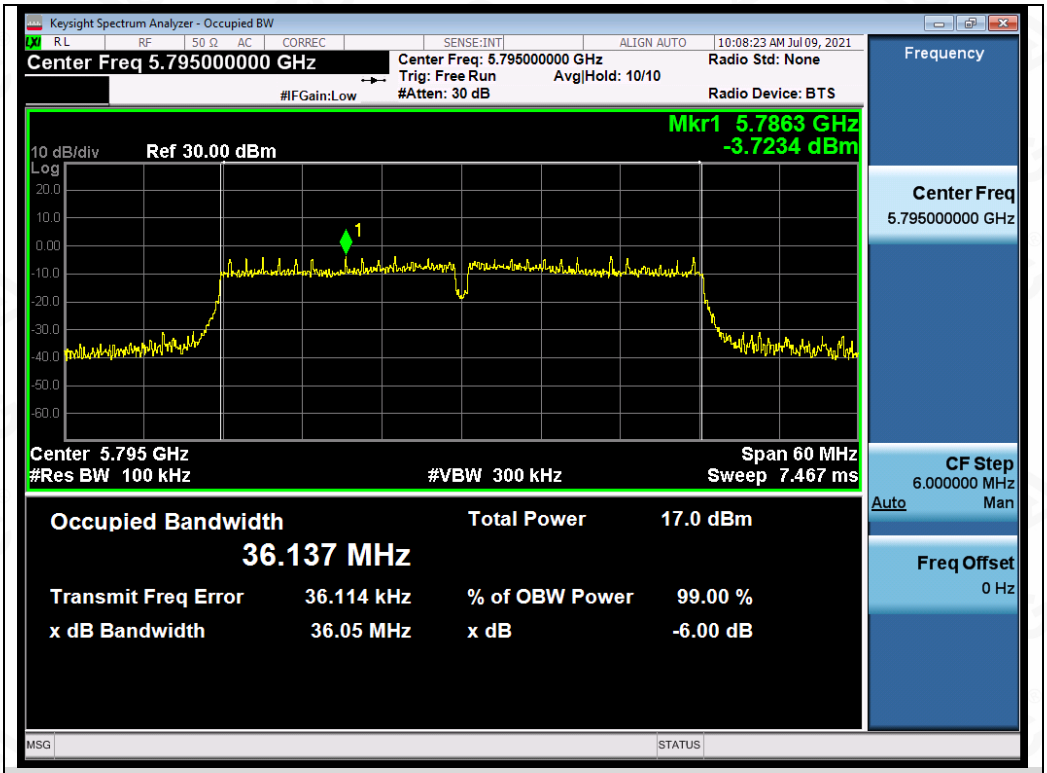
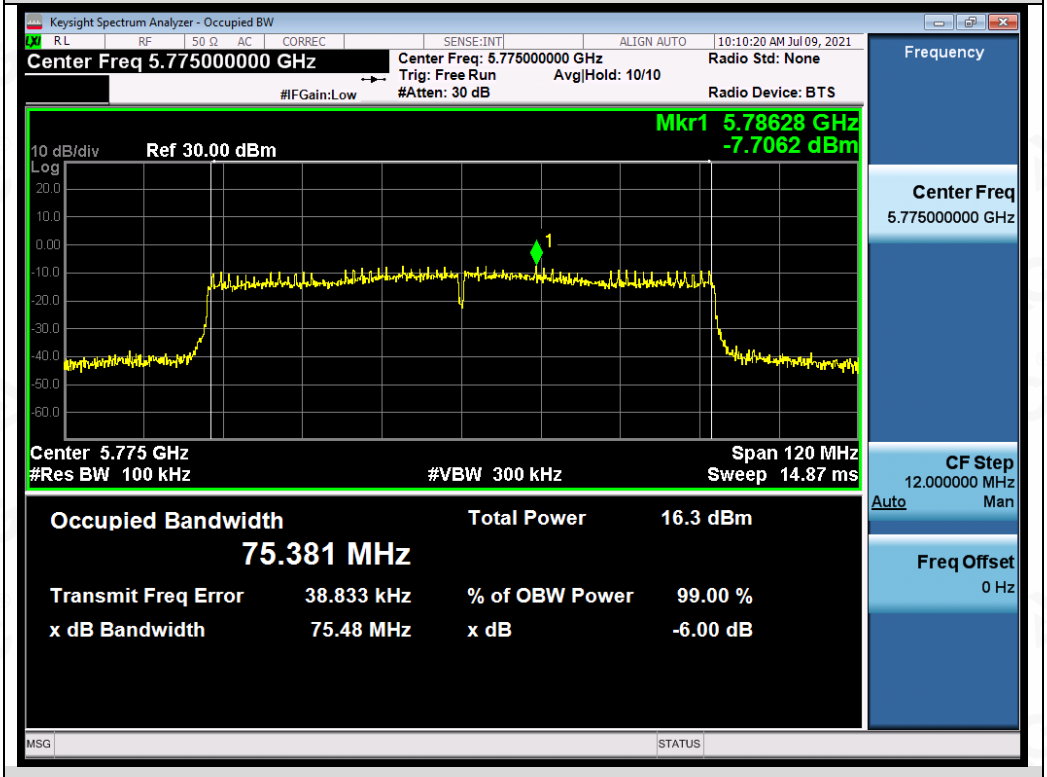


Test_Graph_802.11ac40_ANT1_5795_MCS9_DTSBW



Test_Graph_802.11ac80_ANT1_5775_MCS9_DTSBW

9. MAXIMUM CONDUCTED OUTPUT AVERAGE POWER SPECTRAL DENSITY

9.1. MEASUREMENT PROCEDURE

Refer to KDB 789033 section F

9.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)

Refer to Section 8.2.

9.3. MEASUREMENT EQUIPMENT USED

Refer to Section 6.

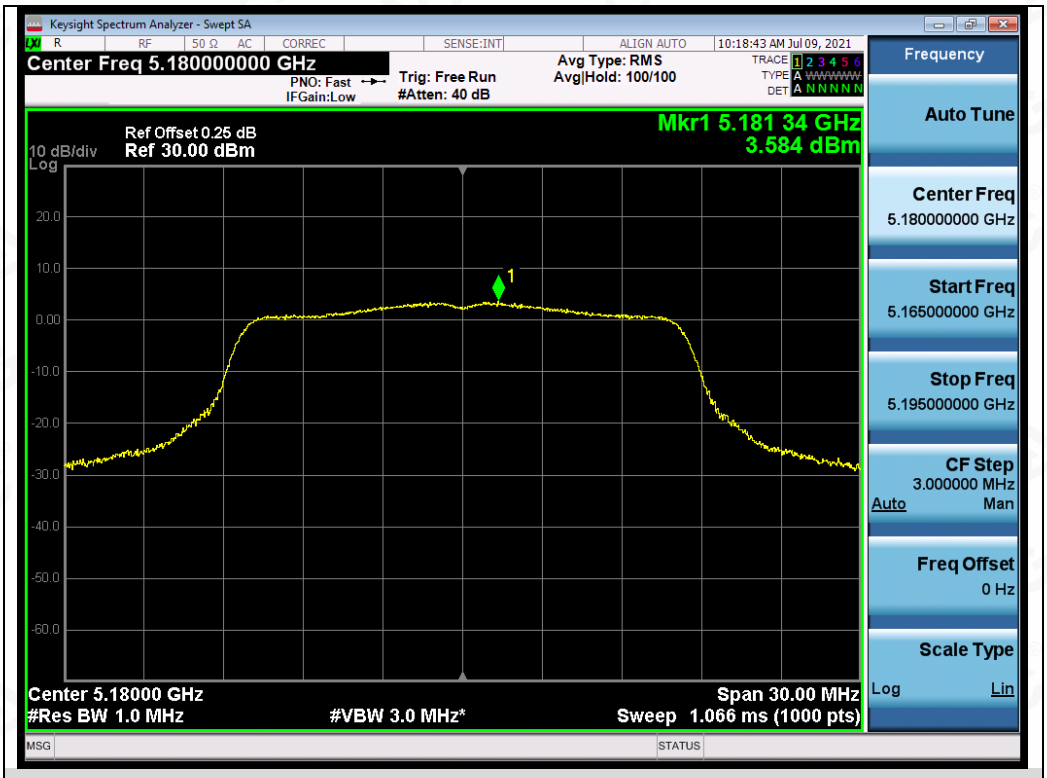
9.4. LIMITS AND MEASUREMENT RESULT

Test Data of Conducted Output Power Density for band 5.15-5.25 GHz				
Test Mode	Test Channel (MHz)	Average Power Density (dBm/MHz)	Limits (dBm/MHz)	Pass or Fail
802.11a	5180	3.584	17	Pass
	5200	3.290	17	Pass
	5240	3.642	17	Pass
802.11n20	5180	3.083	17	Pass
	5200	2.754	17	Pass
	5240	2.762	17	Pass
802.11n40	5190	-1.581	17	Pass
	5230	-1.798	17	Pass
802.11ac20	5180	1.670	17	Pass
	5200	1.255	17	Pass
	5240	1.426	17	Pass
802.11ac40	5190	-1.192	17	Pass
	5230	-2.050	17	Pass
802.11ac80	5210	-4.526	17	Pass

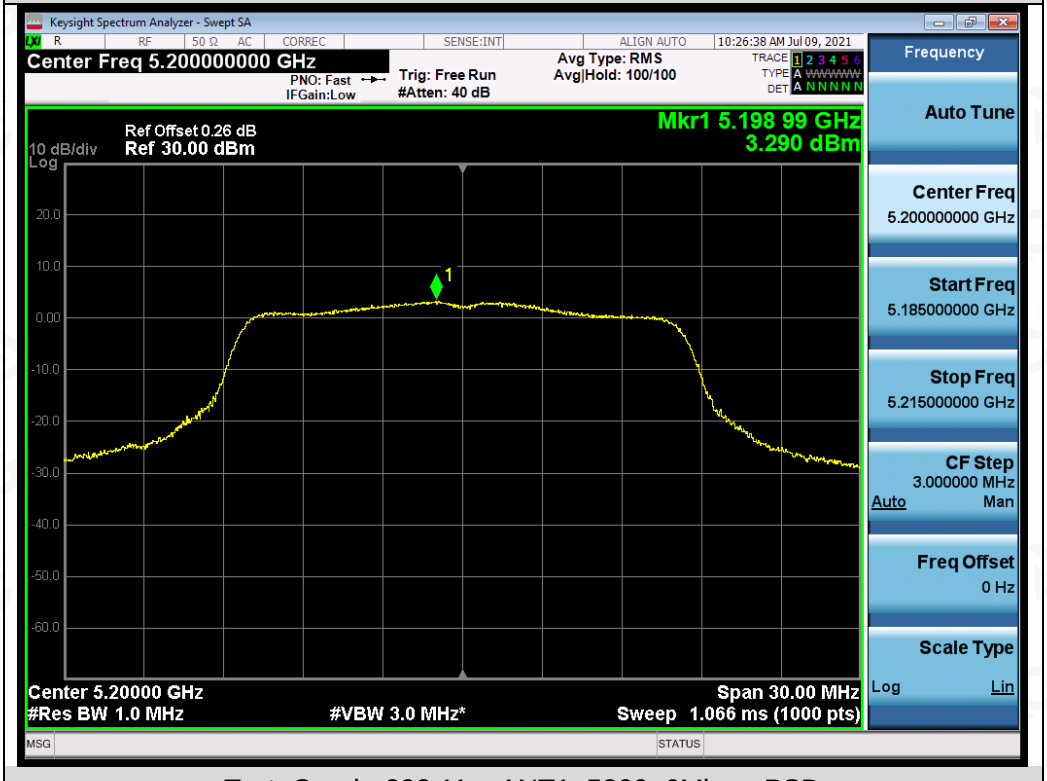
Test Data of Conducted Output Power Density for band 5.725-5.85 GHz					
Test Mode	Test Channel (MHz)	Average Power Density (dBm/100kHz)	Average Power Density (dBm/500kHz)	Limits (dBm/500kHz)	Pass or Fail
802.11a	5745	-4.427	2.563	30	Pass
	5785	-4.688	2.302	30	Pass
	5825	-5.120	1.870	30	Pass
802.11n20	5745	-4.858	0.394	30	Pass
	5785	-5.279	-0.041	30	Pass
	5825	-5.802	1.186	30	Pass
802.11n40	5755	-9.786	-2.731	30	Pass
	5795	-10.408	-3.539	30	Pass
802.11ac20	5745	-6.596	-5.833	30	Pass
	5785	-7.031	2.132	30	Pass
	5825	-5.804	1.711	30	Pass
802.11ac40	5755	-9.721	1.188	30	Pass
	5795	-10.529	-2.796	30	Pass
802.11ac80	5775	-12.823	-3.418	30	Pass

Note: Power density(dBm/500kHz) = Power density(dBm/100kHz) +10*log(500/100).

Test Graphs of Conducted Output Power Spectral Density for band 5.15-5.25 GHz

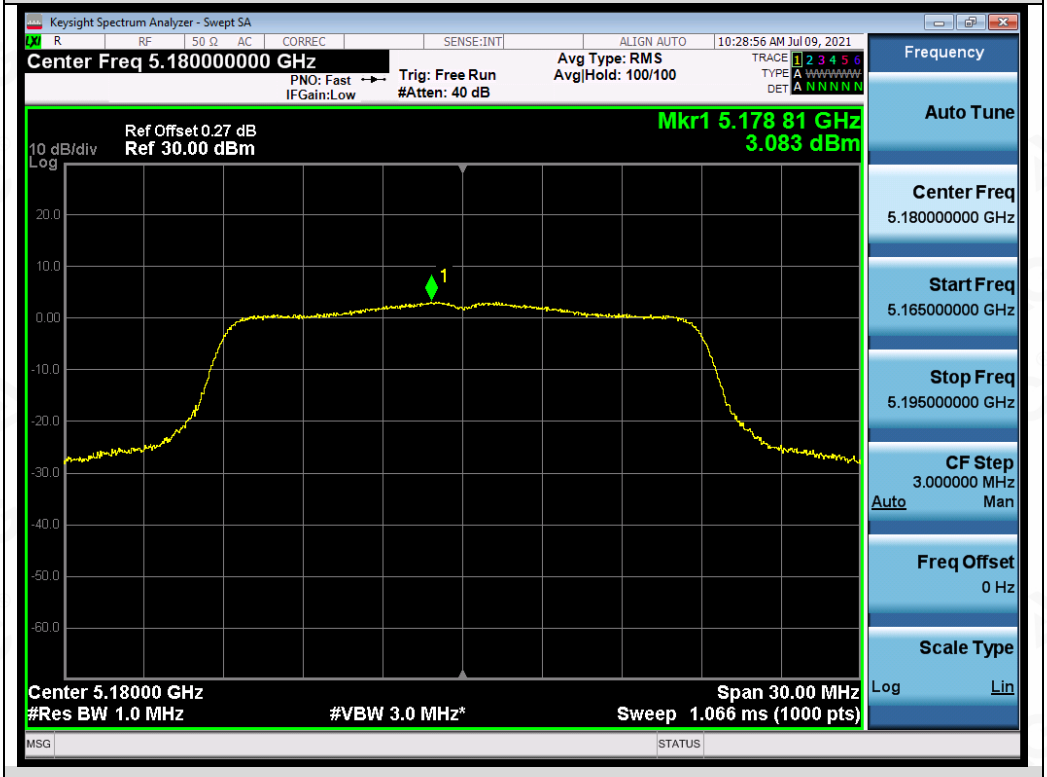


Test_Graph_802.11a_ANT1_5180_6Mbps_PSD



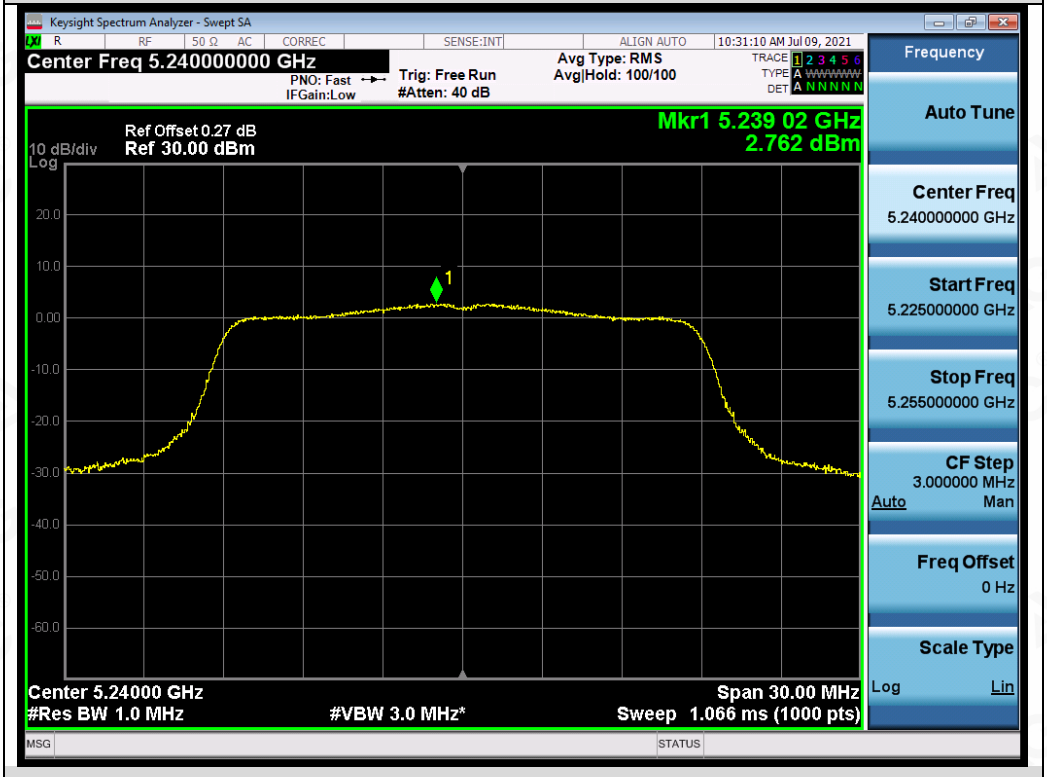
Test_Graph_802.11a_ANT1_5200_6Mbps_PSD

Test_Graph_802.11a_ANT1_5240_6Mbps_PSD



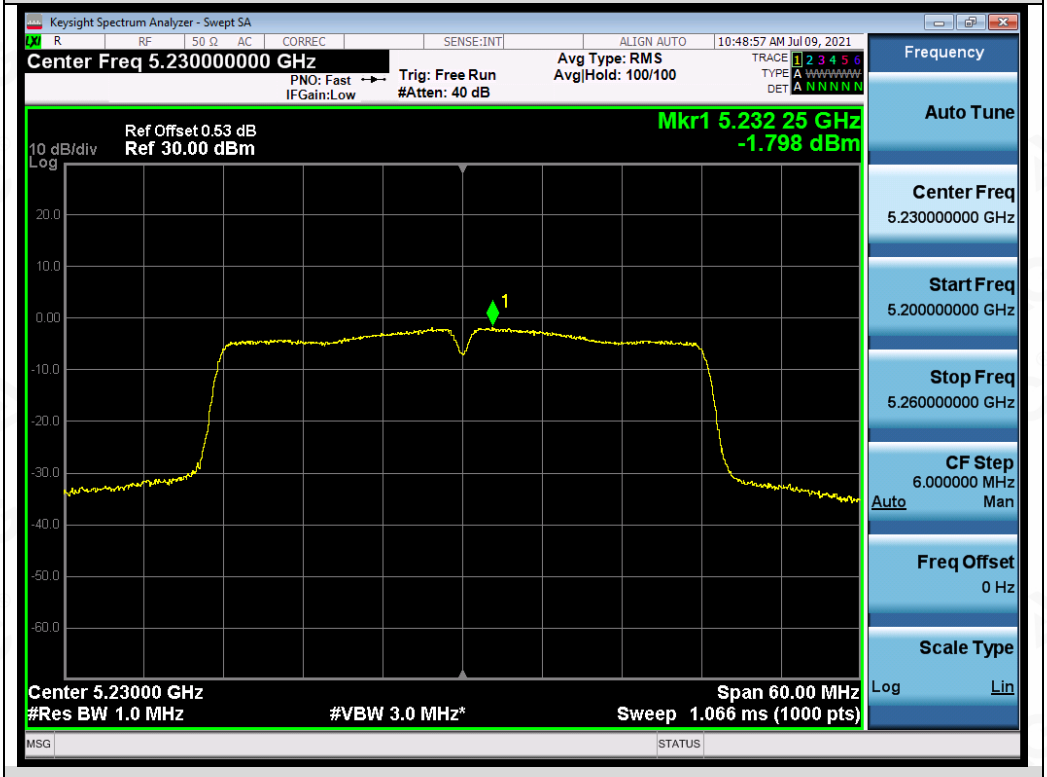
Test_Graph_802.11n20_ANT1_5180_MCS0_PSD

Test_Graph_802.11n20_ANT1_5200_MCS0_PSD



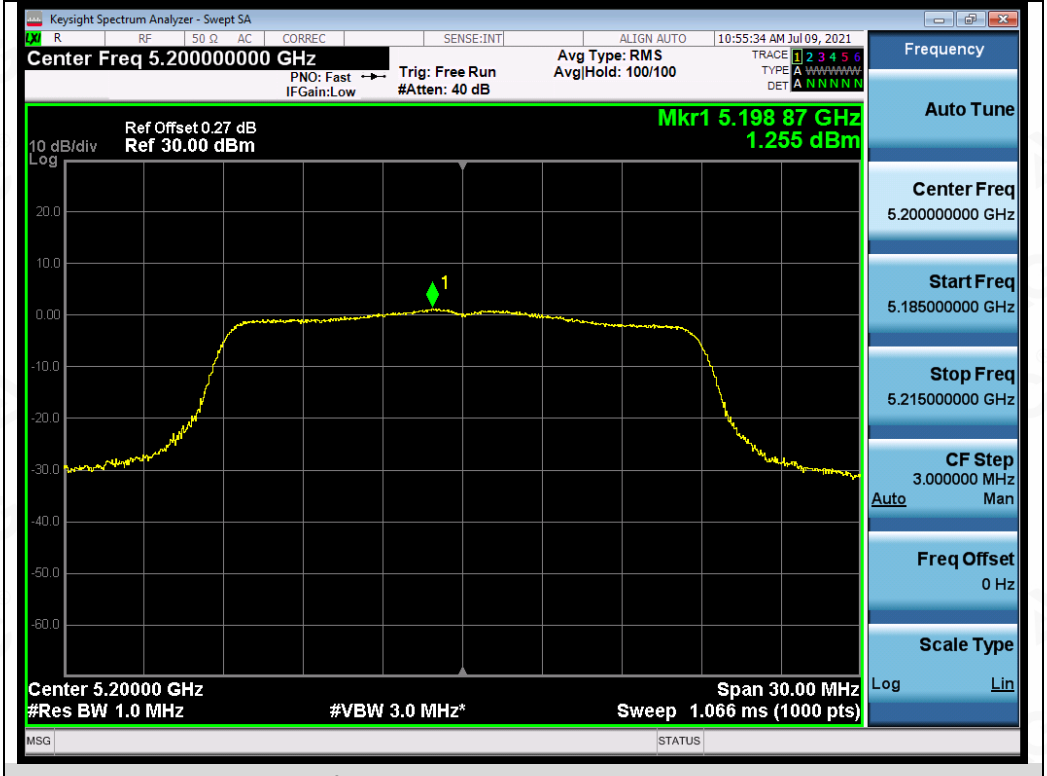
Test_Graph_802.11n20_ANT1_5240_MCS0_PSD

Test_Graph_802.11n40_ANT1_5190_MCS0_PSD



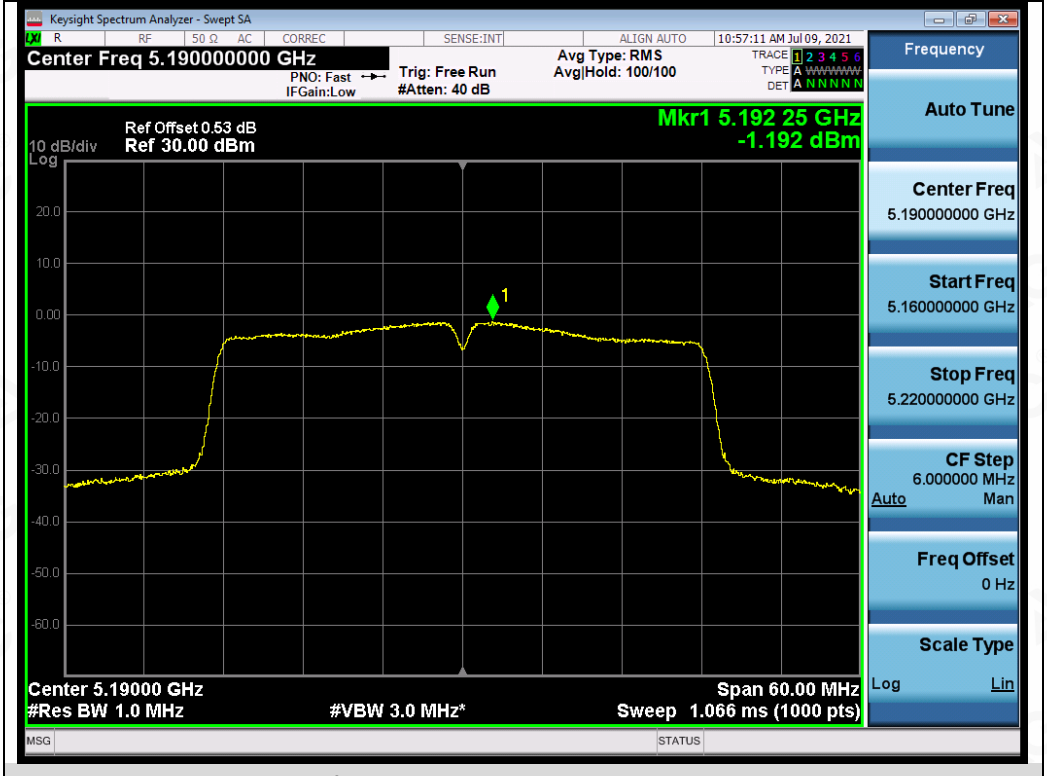
Test_Graph_802.11n40_ANT1_5230_MCS0_PSD

Test_Graph_802.11ac20_ANT1_5180_MCS0_PSD

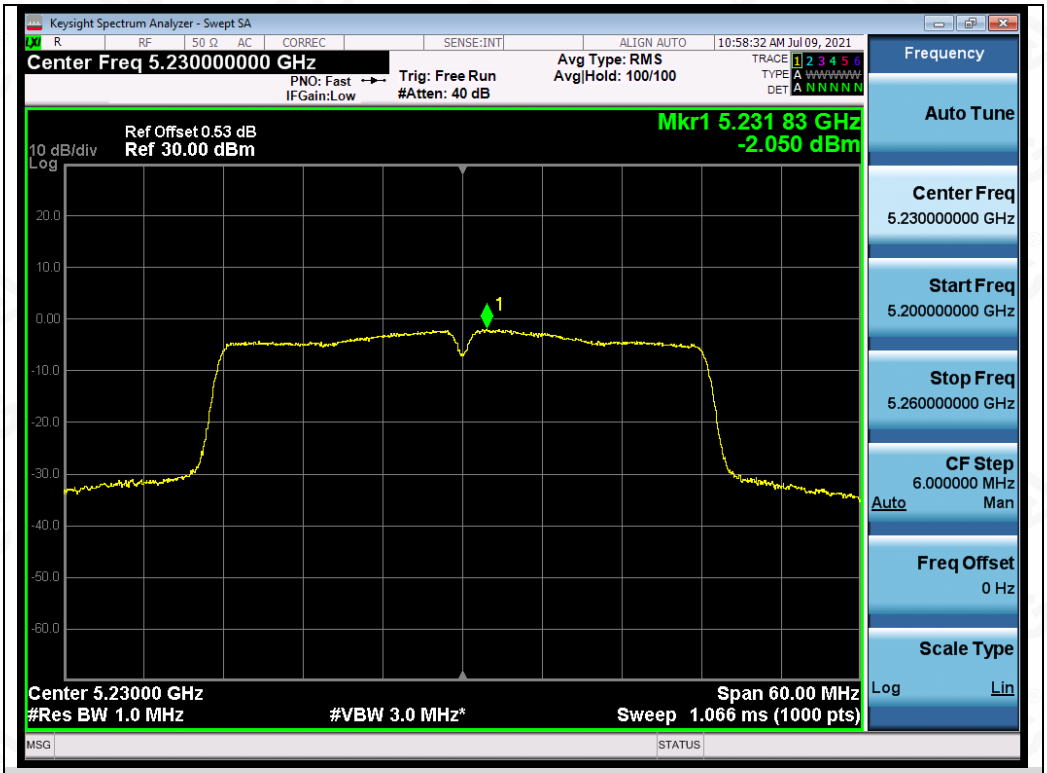


Test_Graph_802.11ac20_ANT1_5200_MCS0_PSD

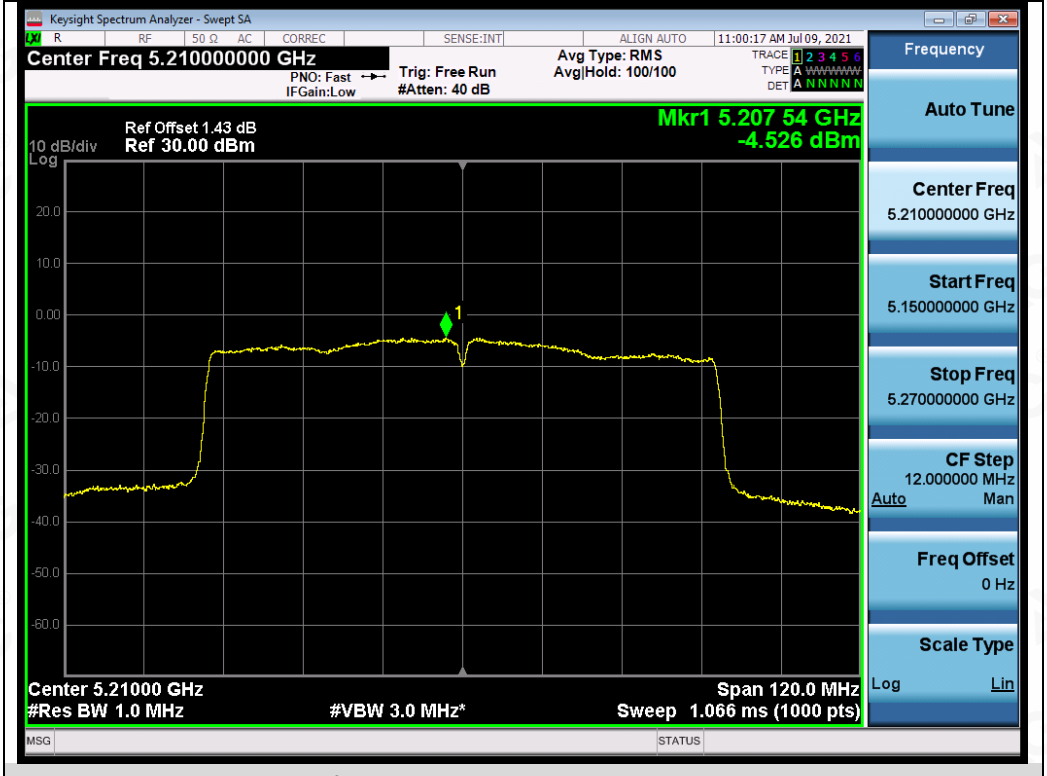
Test_Graph_802.11ac20_ANT1_5240_MCS9_PSD



Test_Graph_802.11ac40_ANT1_5190_MCS9_PSD

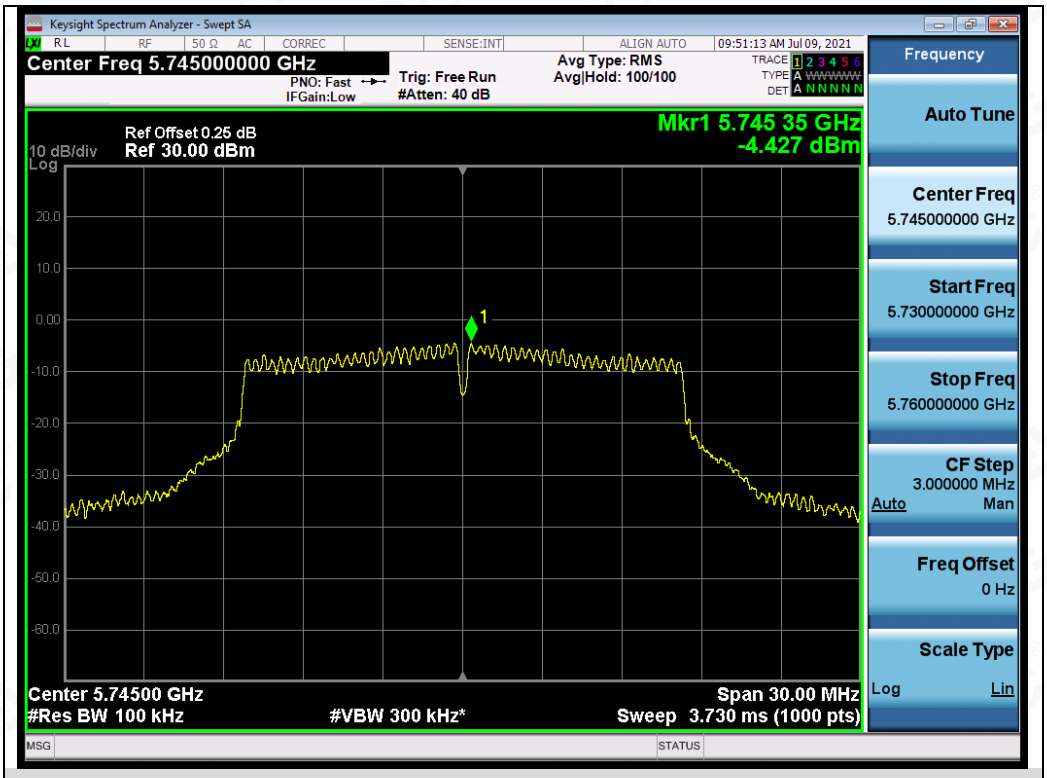


Test_Graph_802.11ac40_ANT1_5230_MCS9_PSD

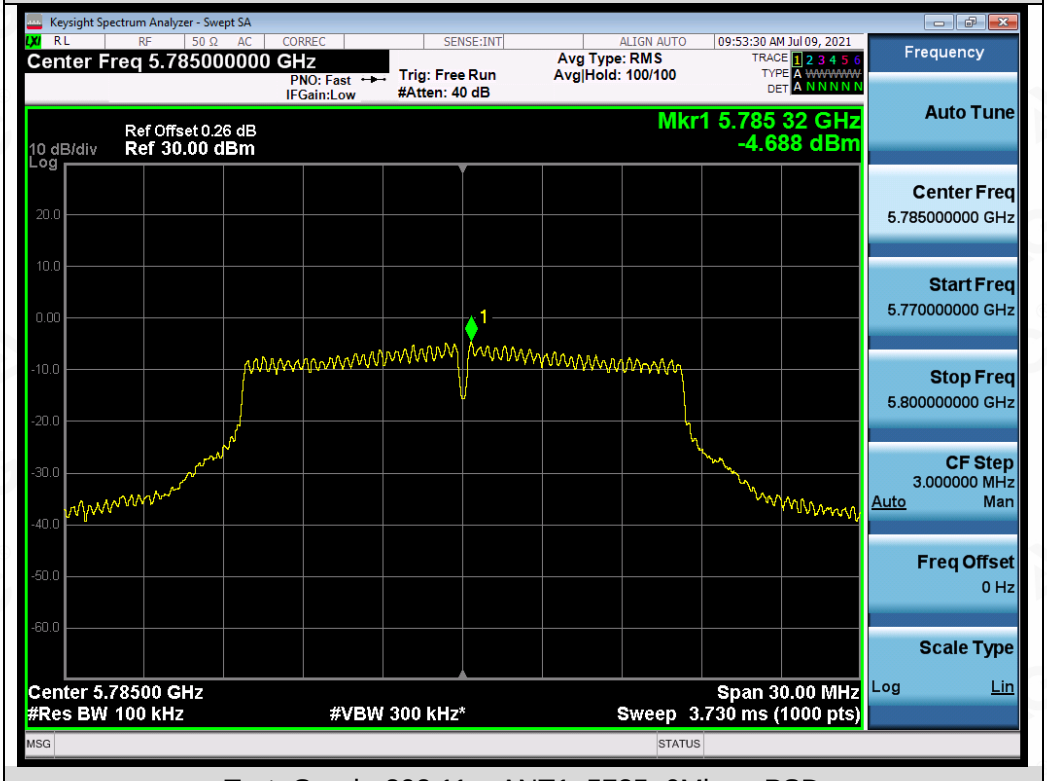


Test_Graph_802.11ac80_ANT1_5210_MCS9_PSD

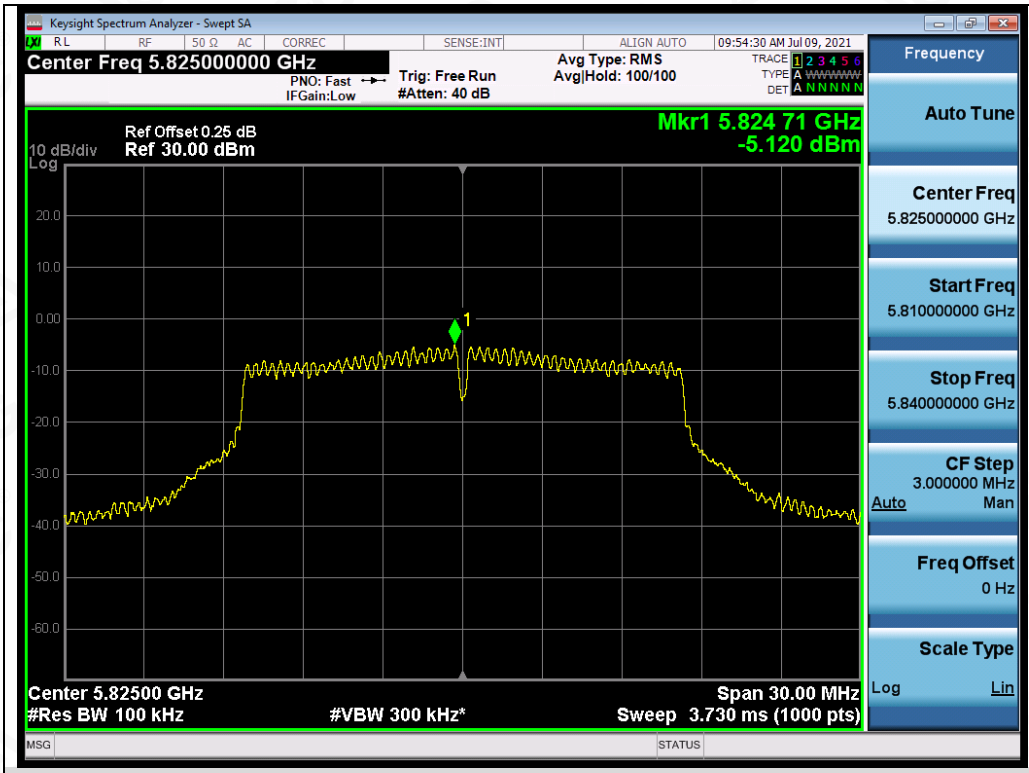
Test Graphs of Conducted Output Power Spectral Density for band 5.725-5.85 GHz



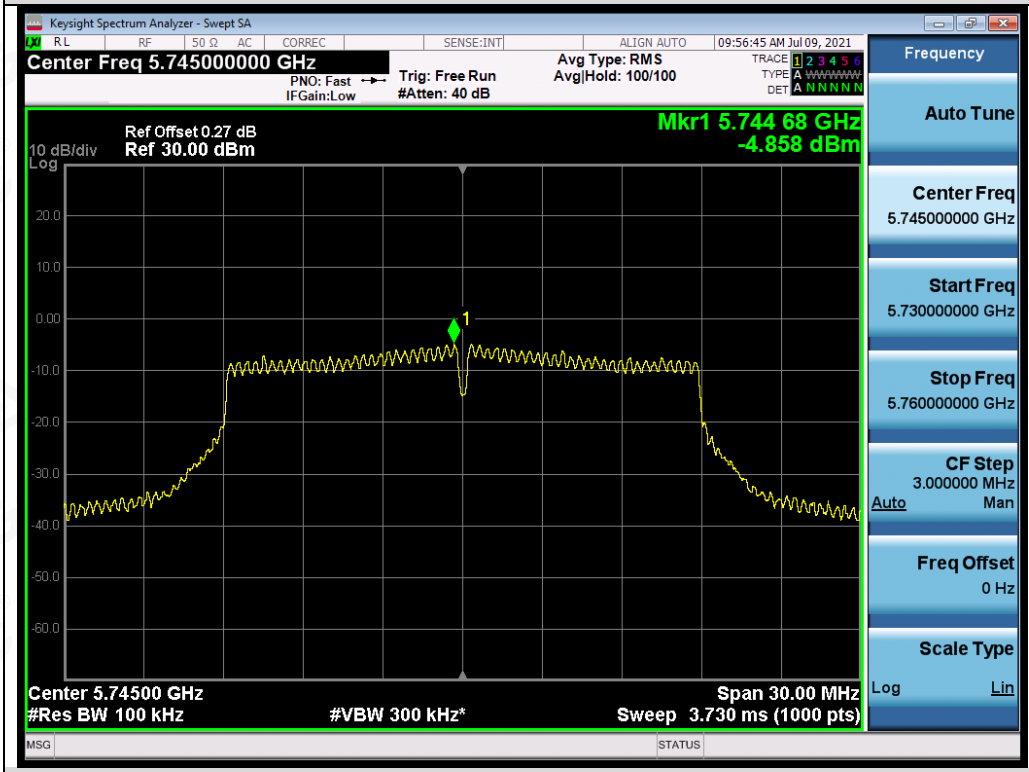
Test_Graph_802.11a_ANT1_5745_6Mbps_PSD



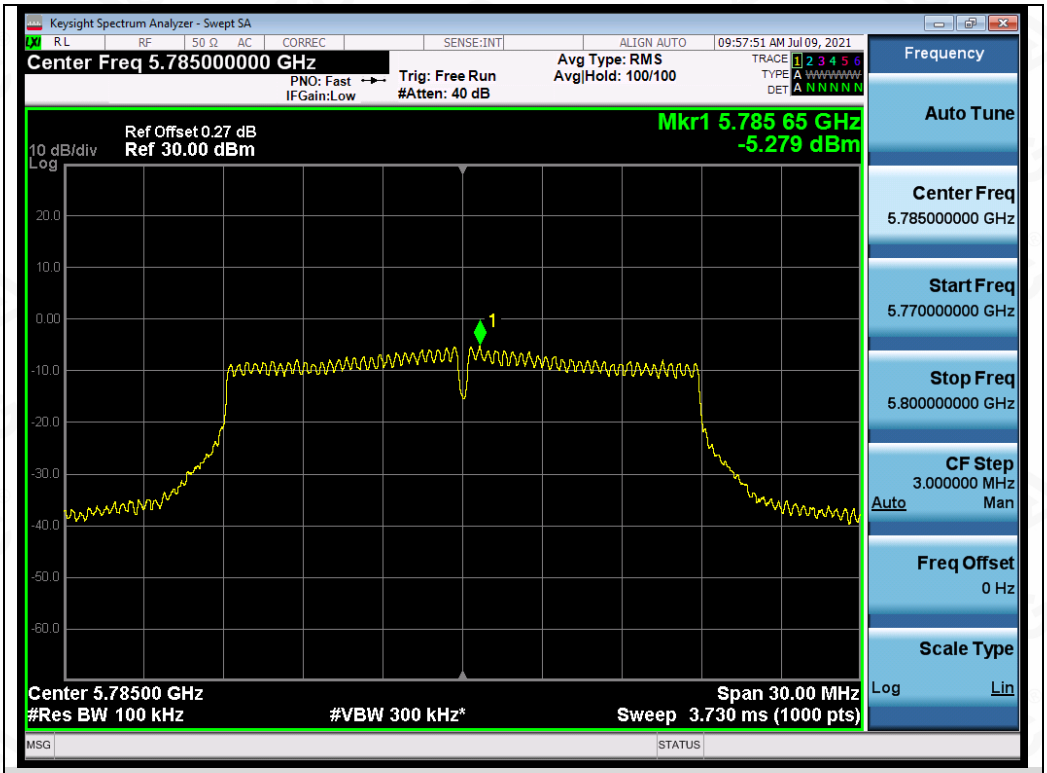
Test_Graph_802.11a_ANT1_5785_6Mbps_PSD



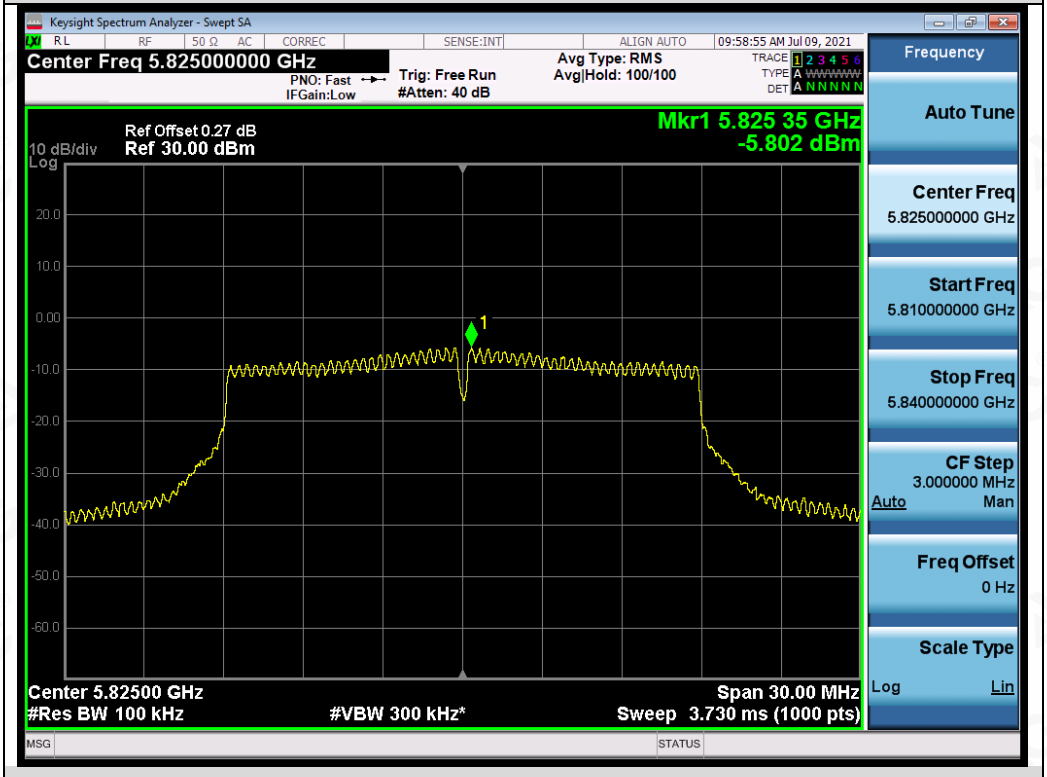
Test_Graph_802.11a_ANT1_5825_6Mbps_PSD



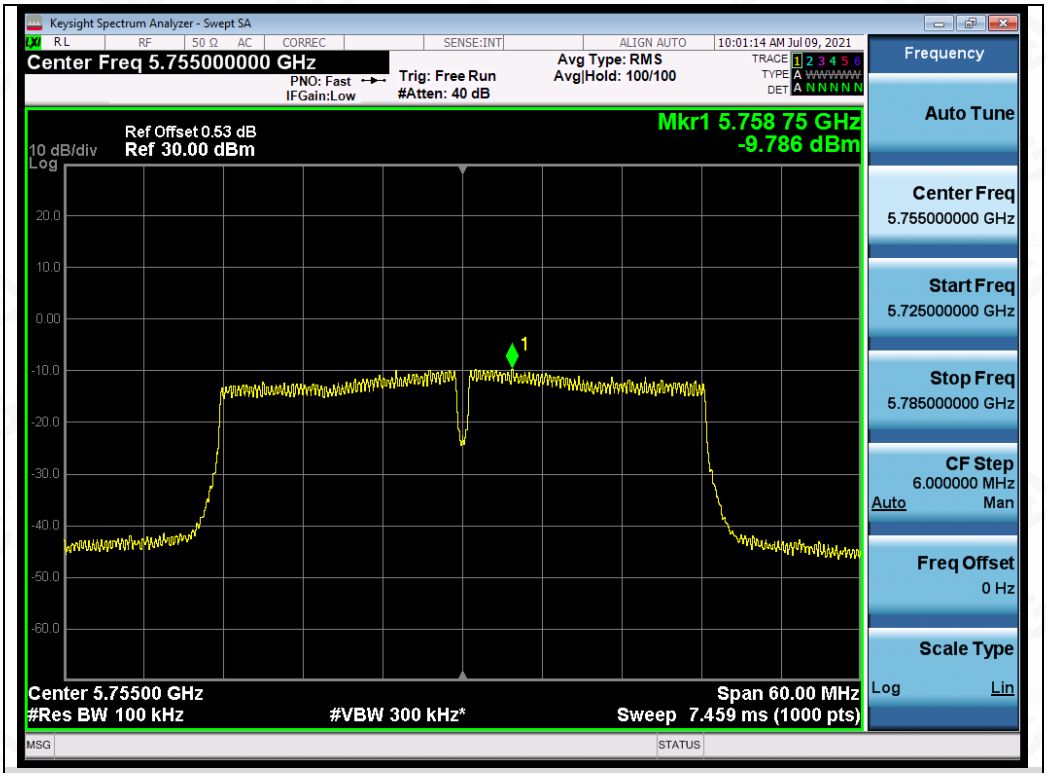
Test_Graph_802.11n20_ANT1_5745_MCS0_PSD



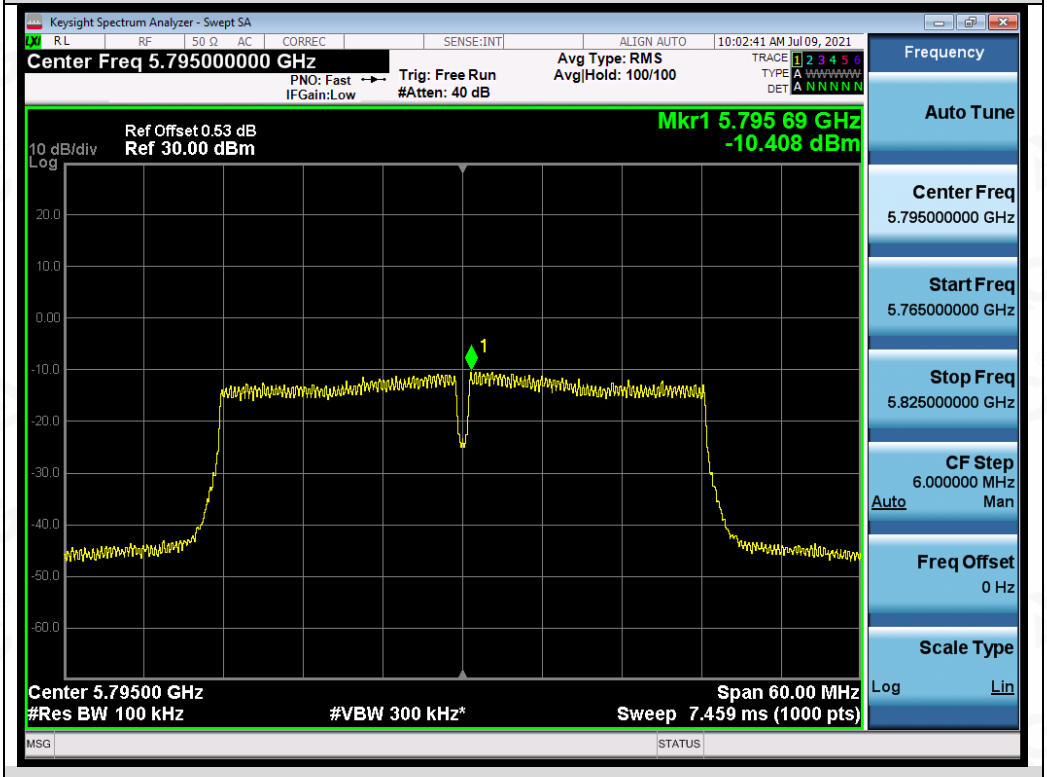
Test_Graph_802.11n20_ANT1_5785_MCS0_PSD



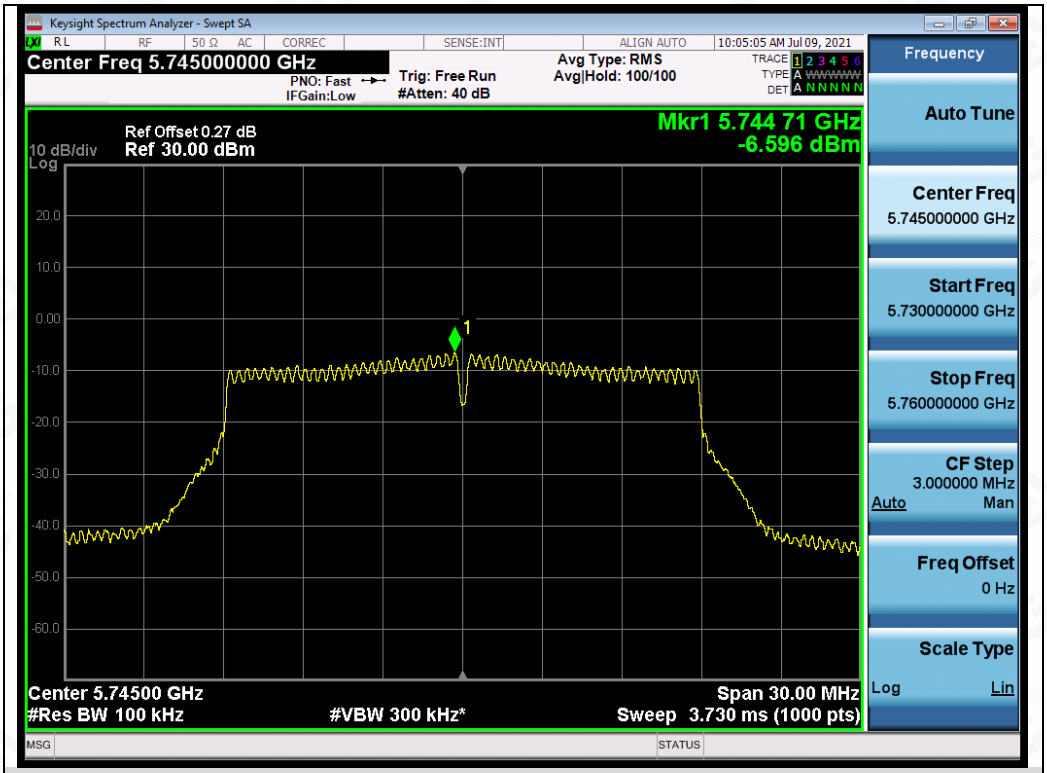
Test_Graph_802.11n20_ANT1_5825_MCS0_PSD



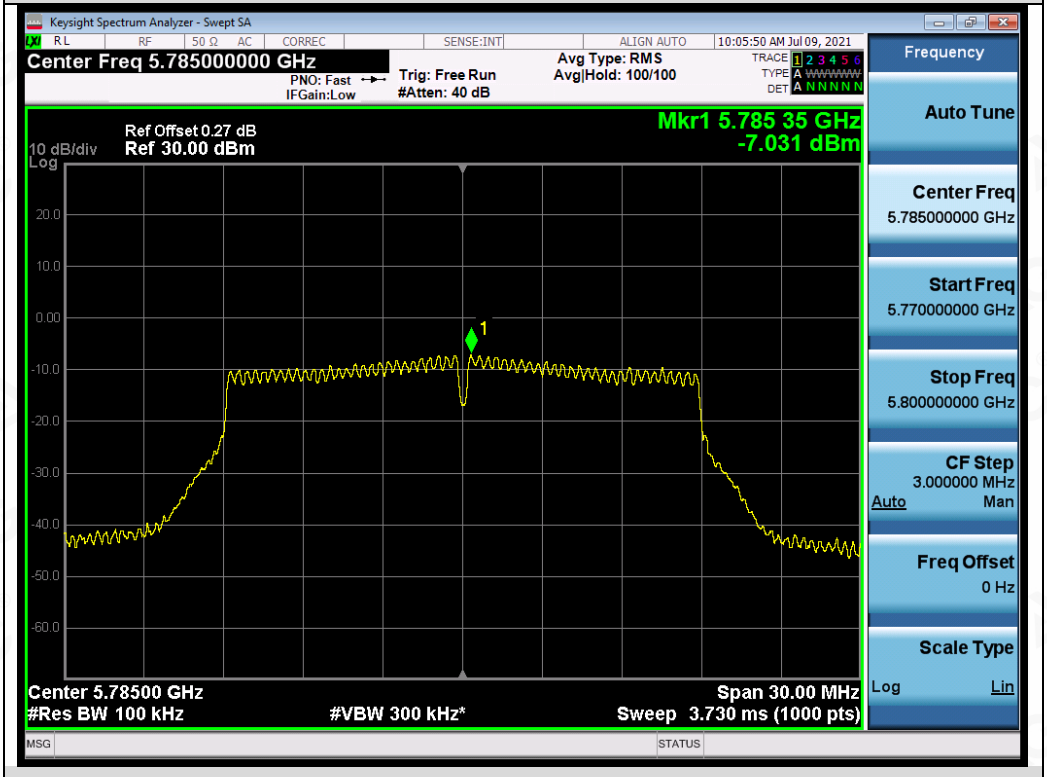
Test_Graph_802.11n40_ANT1_5755_MCS0_PSD



Test_Graph_802.11n40_ANT1_5795_MCS0_PSD

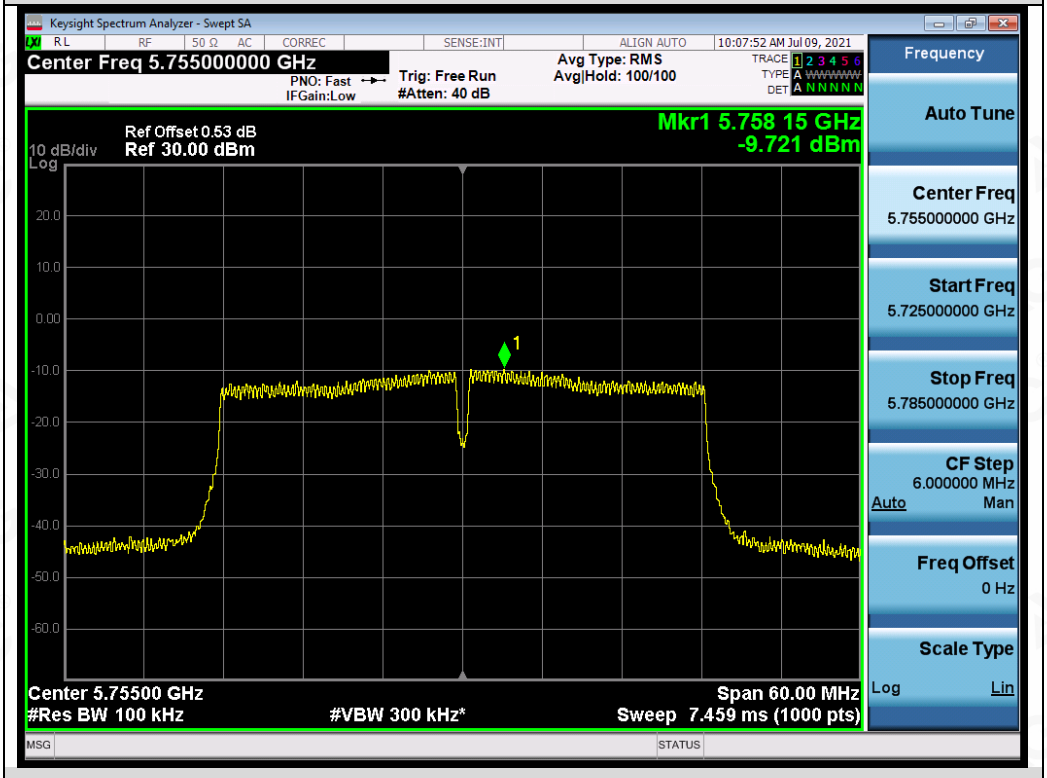


Test_Graph_802.11ac20_ANT1_5745_MCS0_PSD

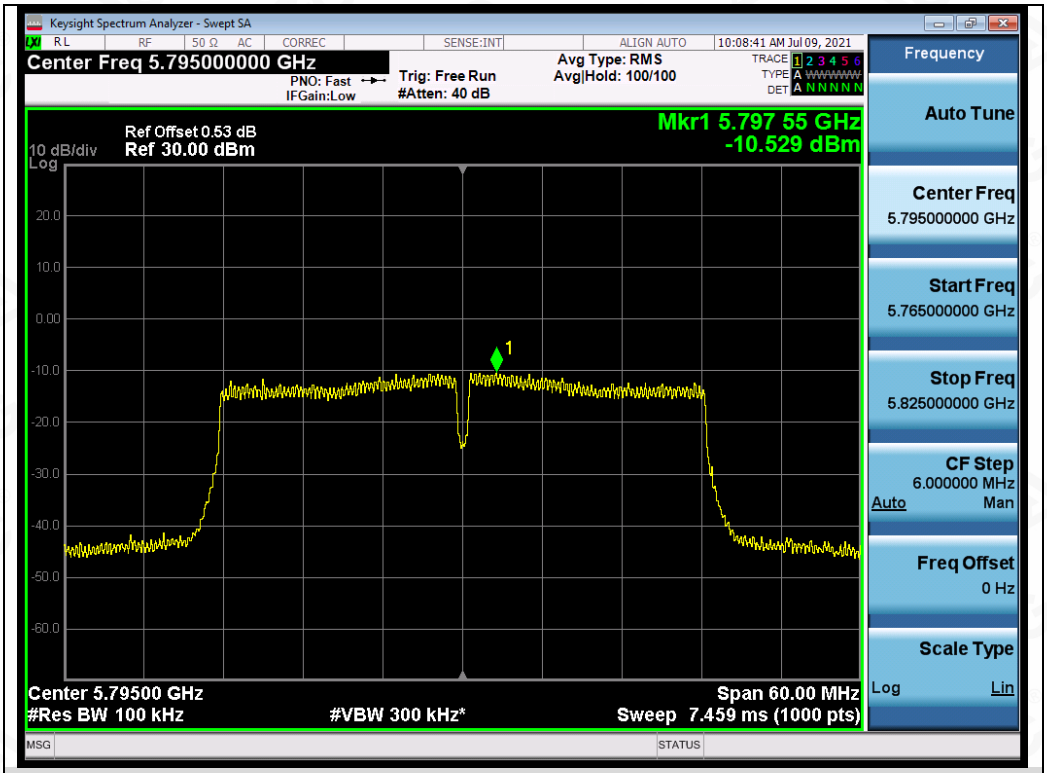


Test_Graph_802.11ac20_ANT1_5785_MCS0_PSD

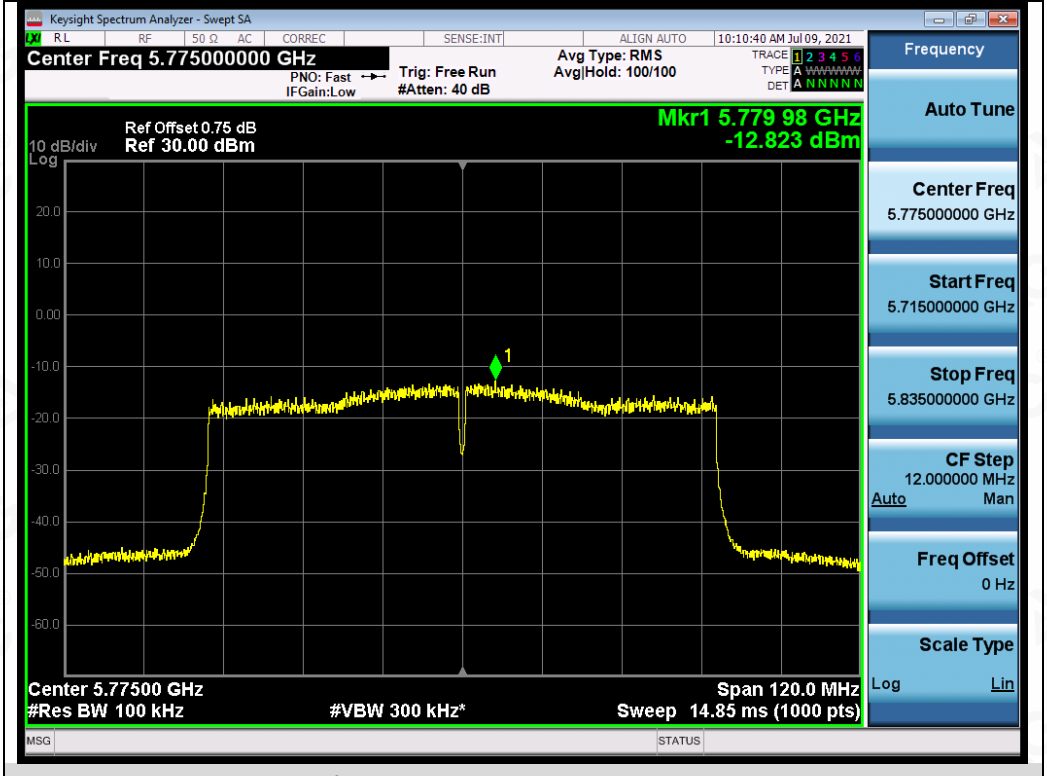
Test_Graph_802.11ac20_ANT1_5825_MCS9_PSD



Test_Graph_802.11ac40_ANT1_5755_MCS9_PSD



Test_Graph_802.11ac40_ANT1_5795_MCS9_PSD



Test_Graph_802.11ac80_ANT1_5775_MCS9_PSD

10. CONDUCTED SPURIOUS EMISSION

10.1. MEASUREMENT PROCEDURE

1. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
2, Set the EUT Work on the top, the middle and the bottom operation frequency individually.
3. Set SPA Trace 1 Max hold, then View.

Note: The EUT was tested according to KDB 789033 for compliance to FCC 47CFR 15.407 requirements.

10.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)

The same as described in section 8.2.

10.3. MEASUREMENT EQUIPMENT USED

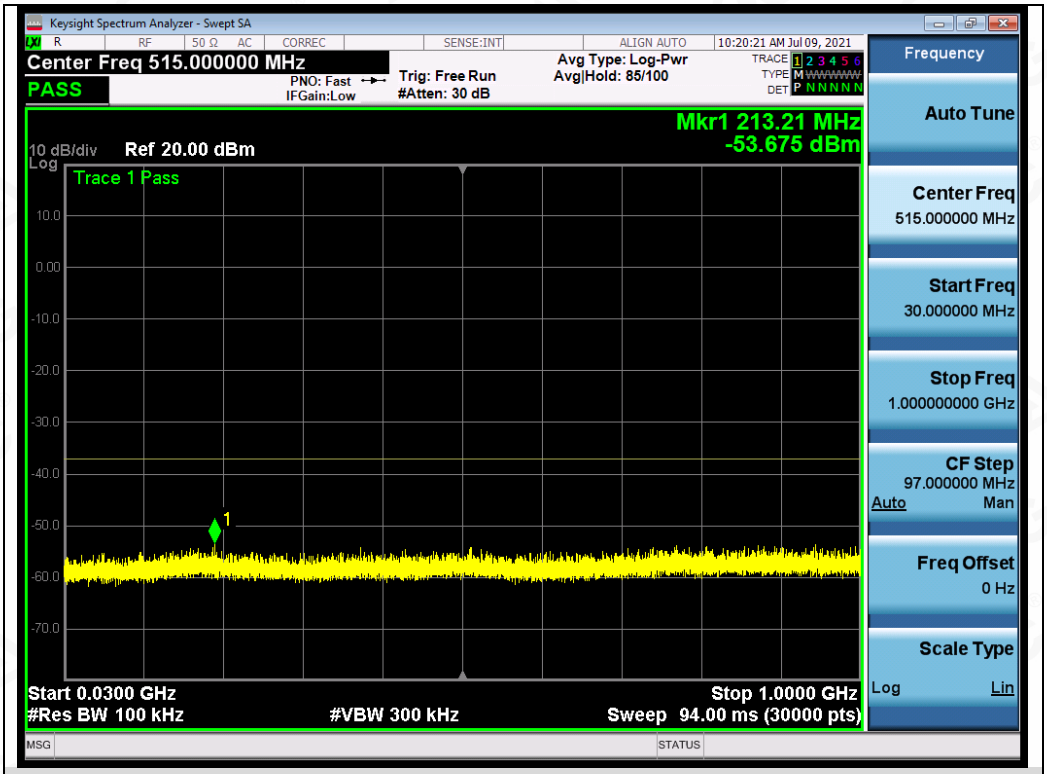
The same as described in section 6.

10.4. LIMITS AND MEASUREMENT RESULT

LIMITS AND MEASUREMENT RESULT		
Applicable Limits	Measurement Result	
	Test channel	Criteria
-27dBm/MHz	5150MHz-5250MHz	PASS
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.	5725MHz-5850MHz	PASS

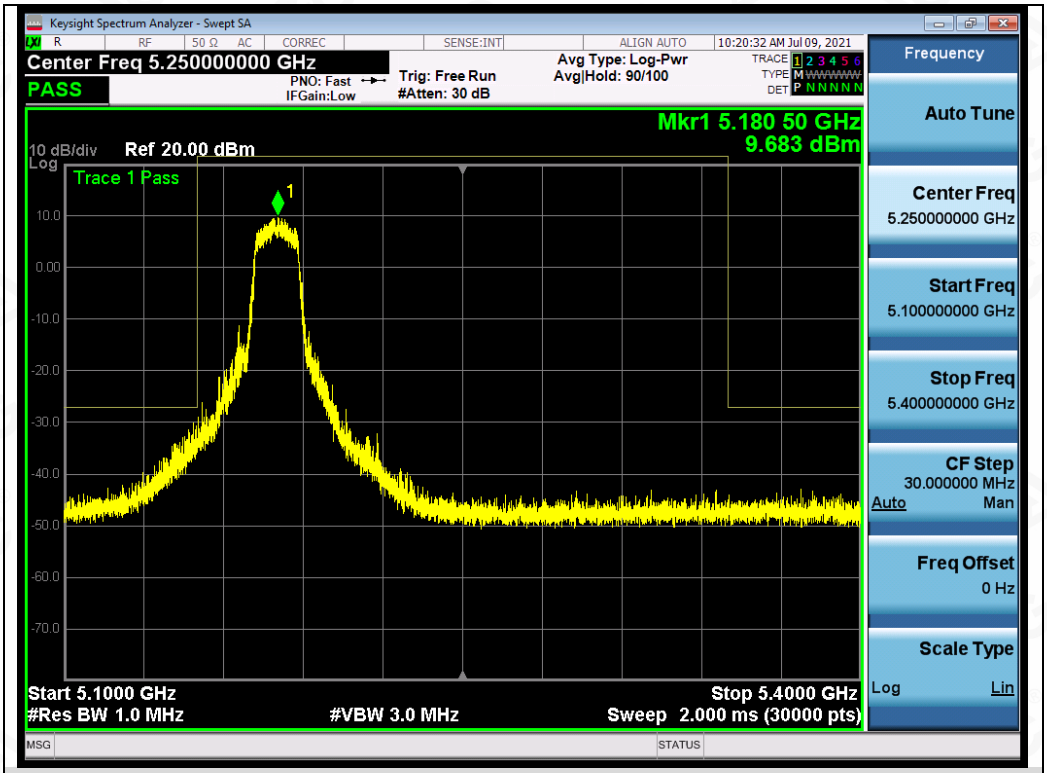
Note: All the 20MHz bandwidth modulation had been tested, the 802.11a20 was the worst case and record in his test report. All the 40MHz bandwidth modulation had been tested, the 802.11N40 was the worst case and record in his test report. All the 80MHz bandwidth modulation had been tested, the 802.11AC80 was the worst case and record in his test report.

Test Graphs of Spurious Emissions outside of the 5.15-5.35 GHz band for transmitters operating in the 5.15-5.25 GHz band



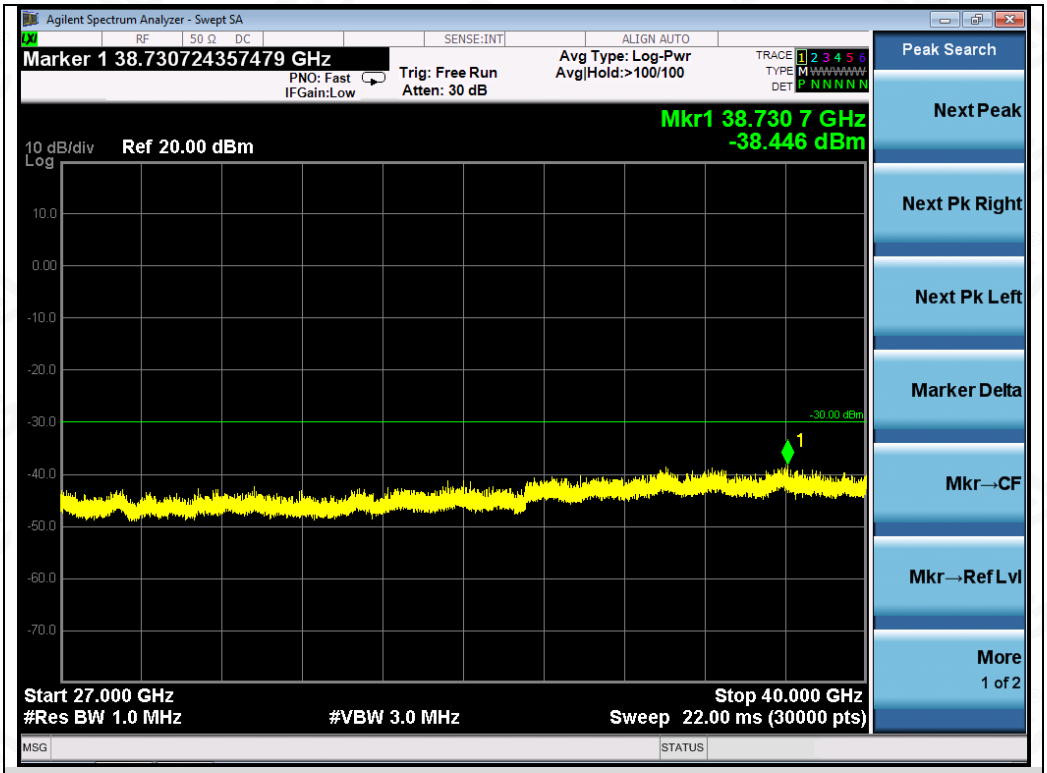
Test_Graph_802.11a_ANT1_5180_6Mbps_Frequency Band 1

Test_Graph_802.11a_ANT1_5180_6Mbps_Frequency Band 2

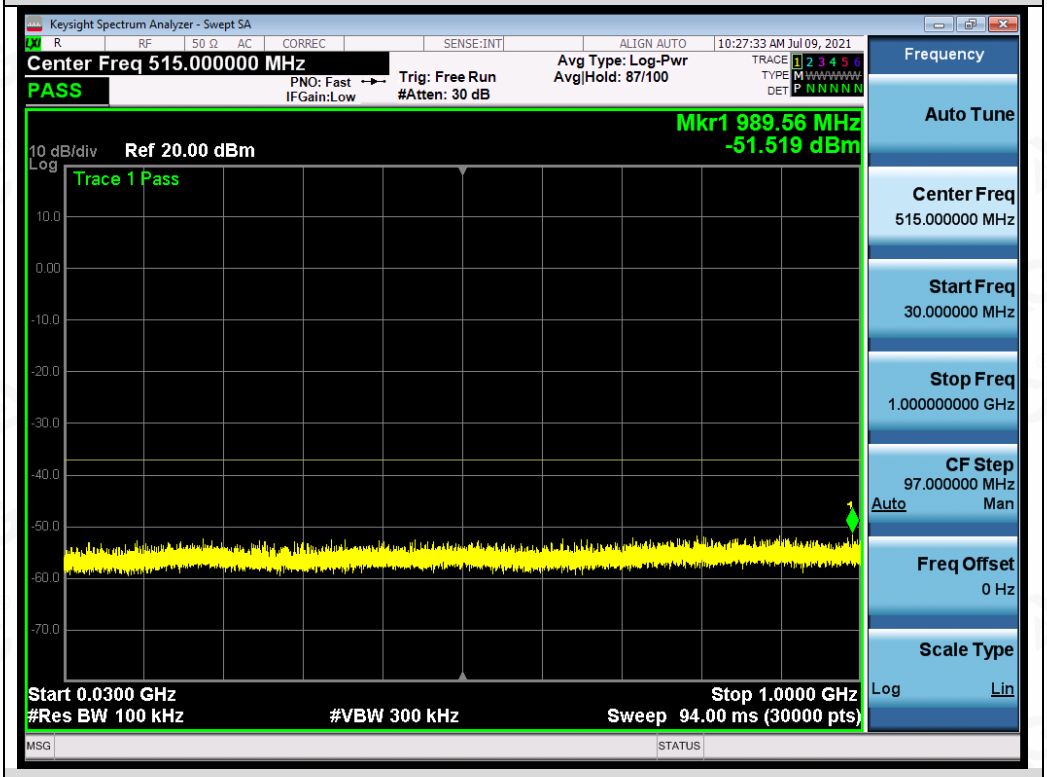


Test_Graph_802.11a_ANT1_5180_6Mbps_Frequency Band 3

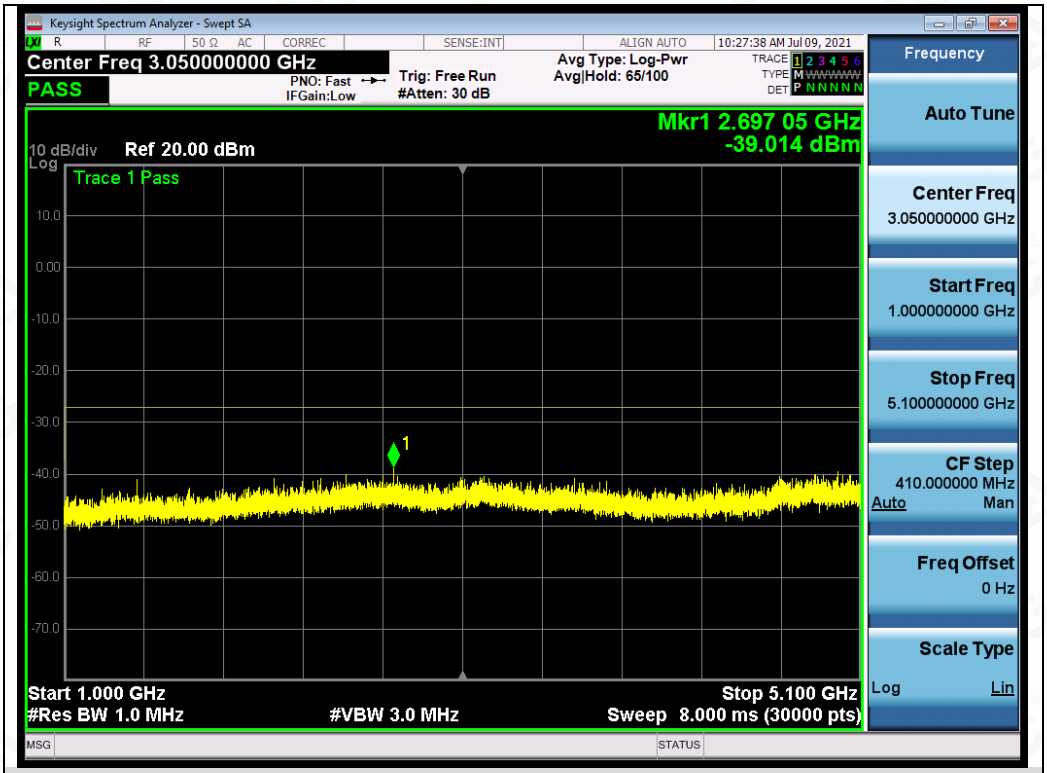
Test_Graph_802.11a_ANT1_5180_6Mbps_Frequency Band 4



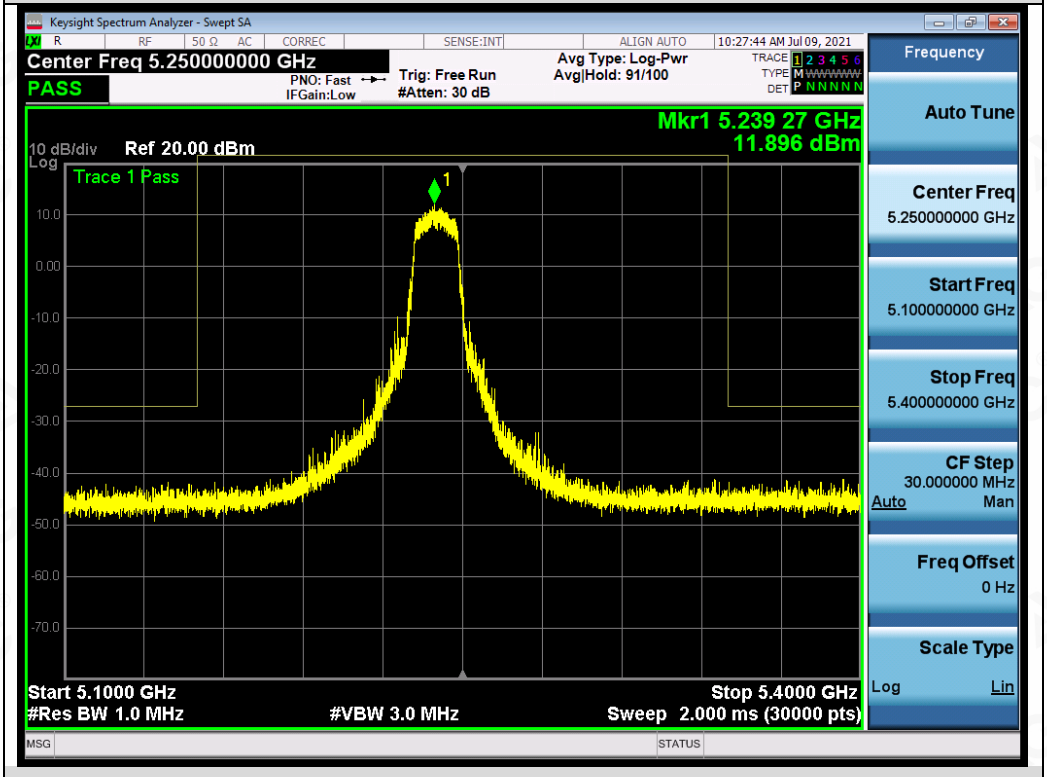
Test_Graph_802.11a_ANT1_5180_6Mbps_Frequency Band 5



Test_Graph_802.11a_ANT1_5240_6Mbps_Frequency Band 1

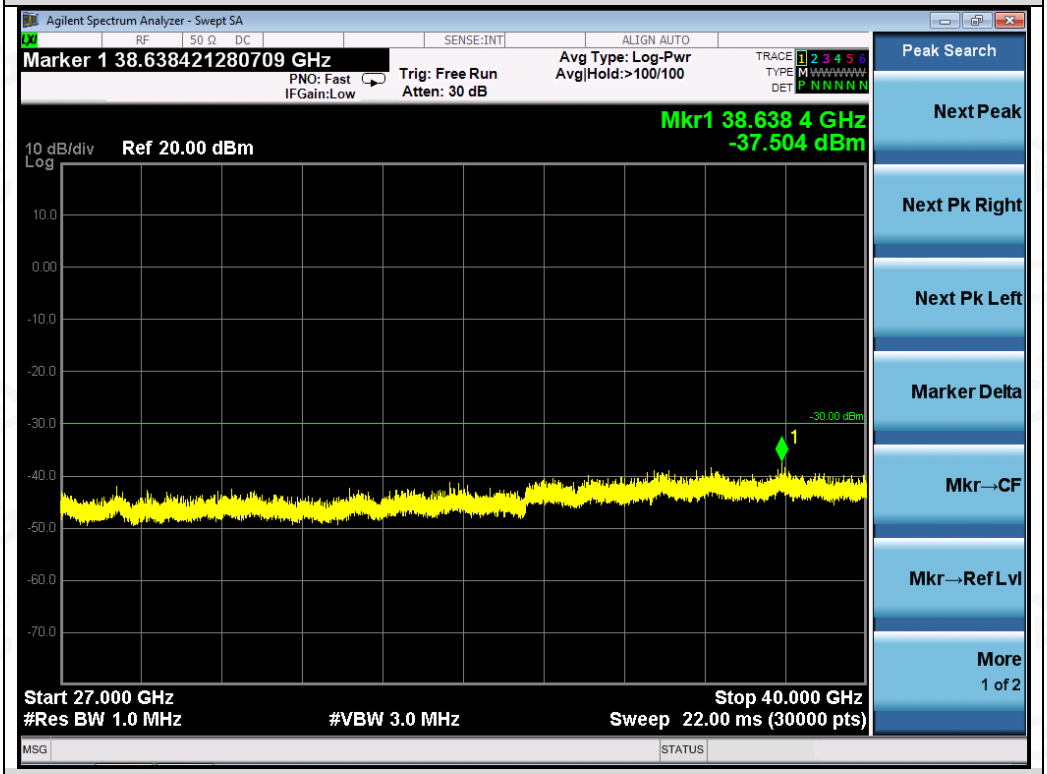


Test_Graph_802.11a_ANT1_5240_6Mbps_Frequency Band 2

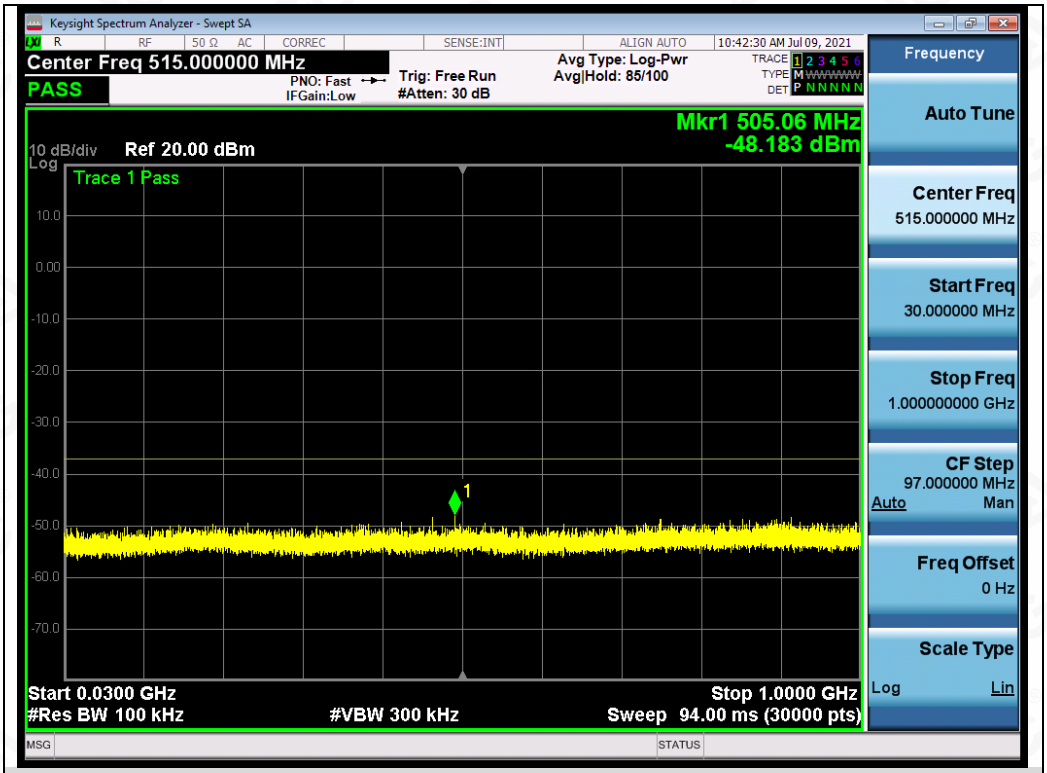


Test_Graph_802.11a_ANT1_5240_6Mbps_Frequency Band 3

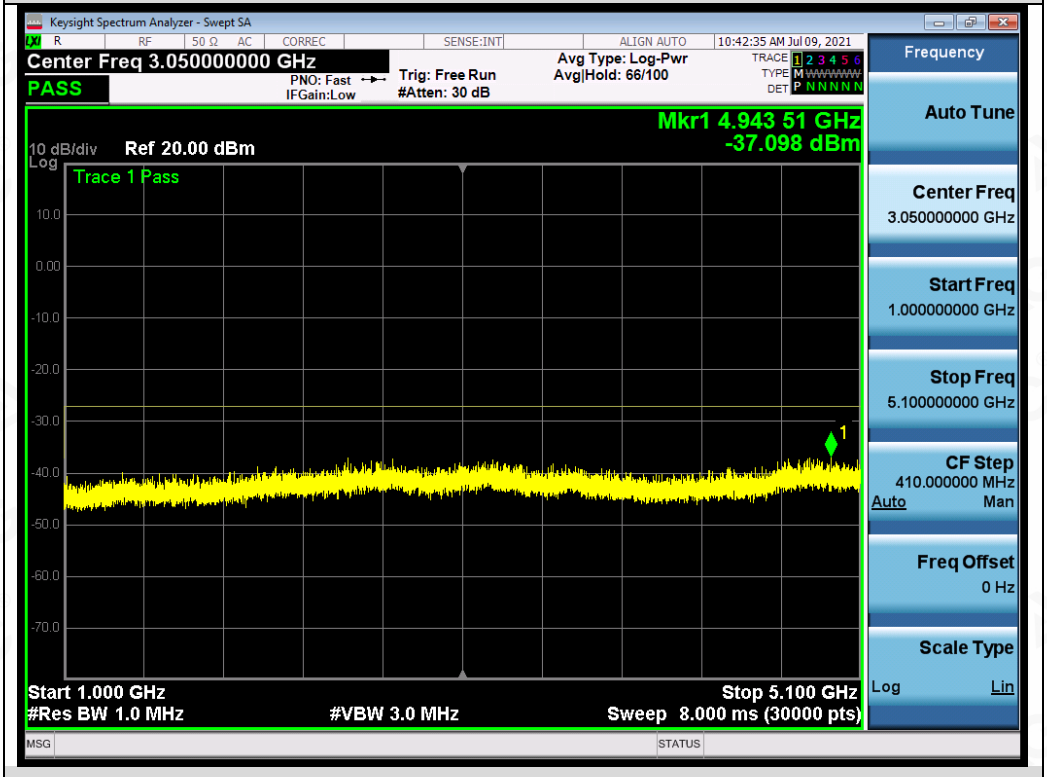
Test_Graph_802.11a_ANT1_5240_6Mbps_Frequency Band 4



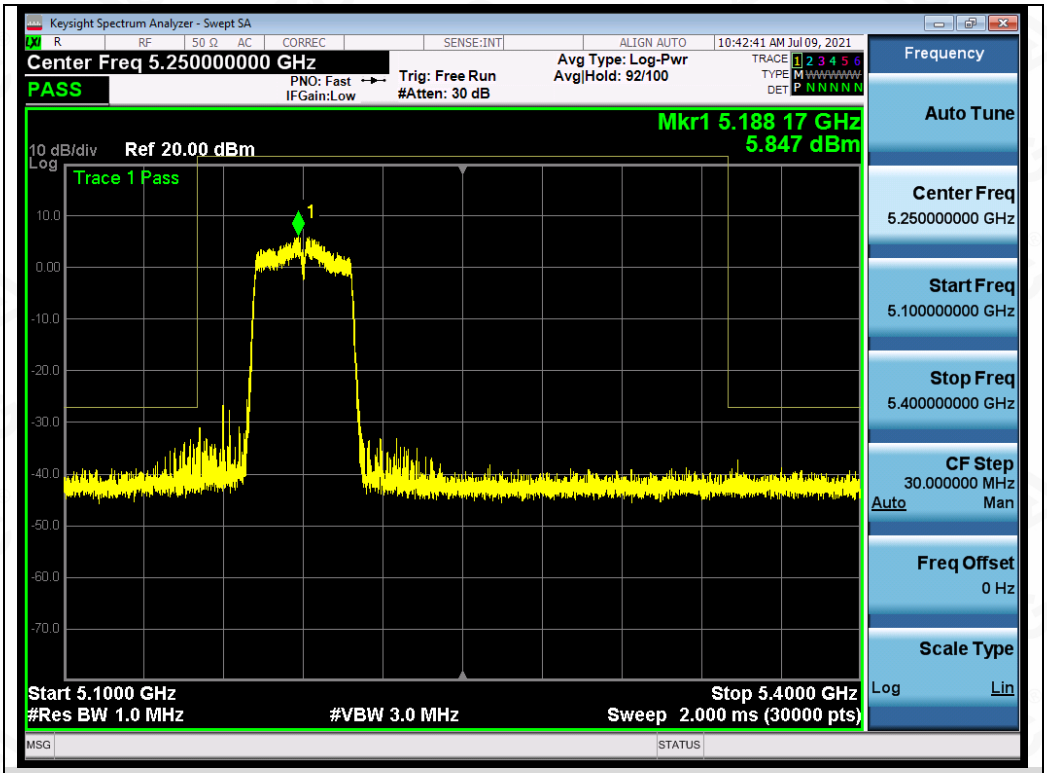
Test_Graph_802.11a_ANT1_5240_6Mbps_Frequency Band 5



Test_Graph_802.11n40_ANT1_5190_MCS0_Frequency Band 1

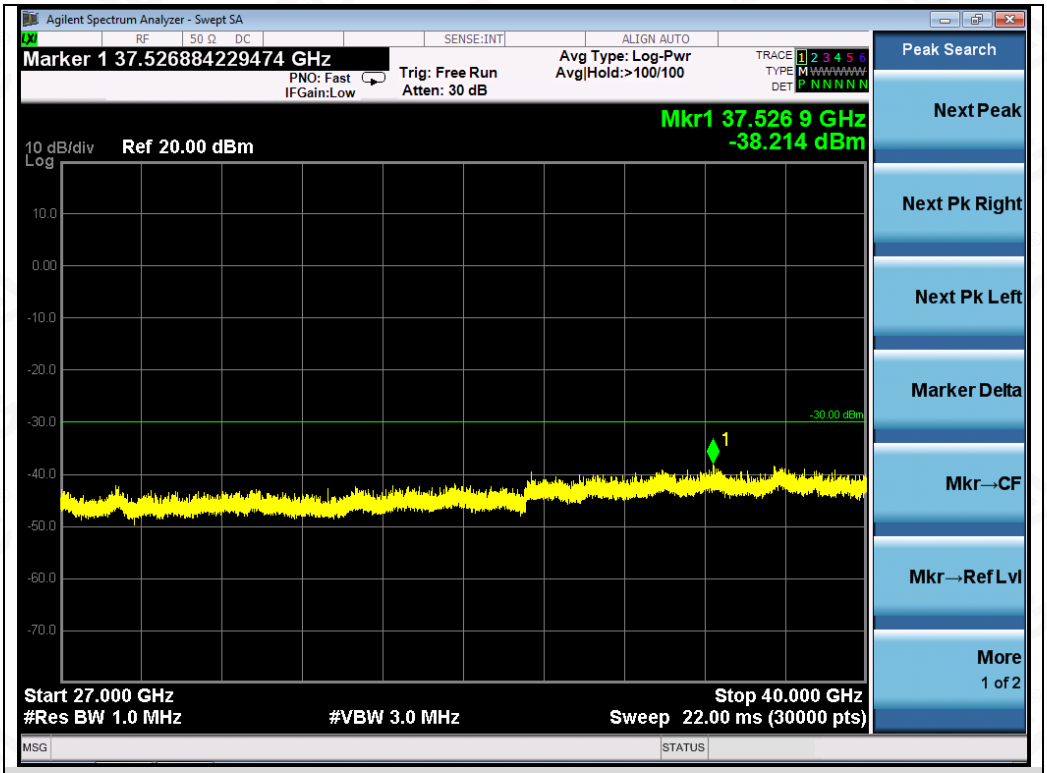


Test_Graph_802.11n40_ANT1_5190_MCS0_Frequency Band 2

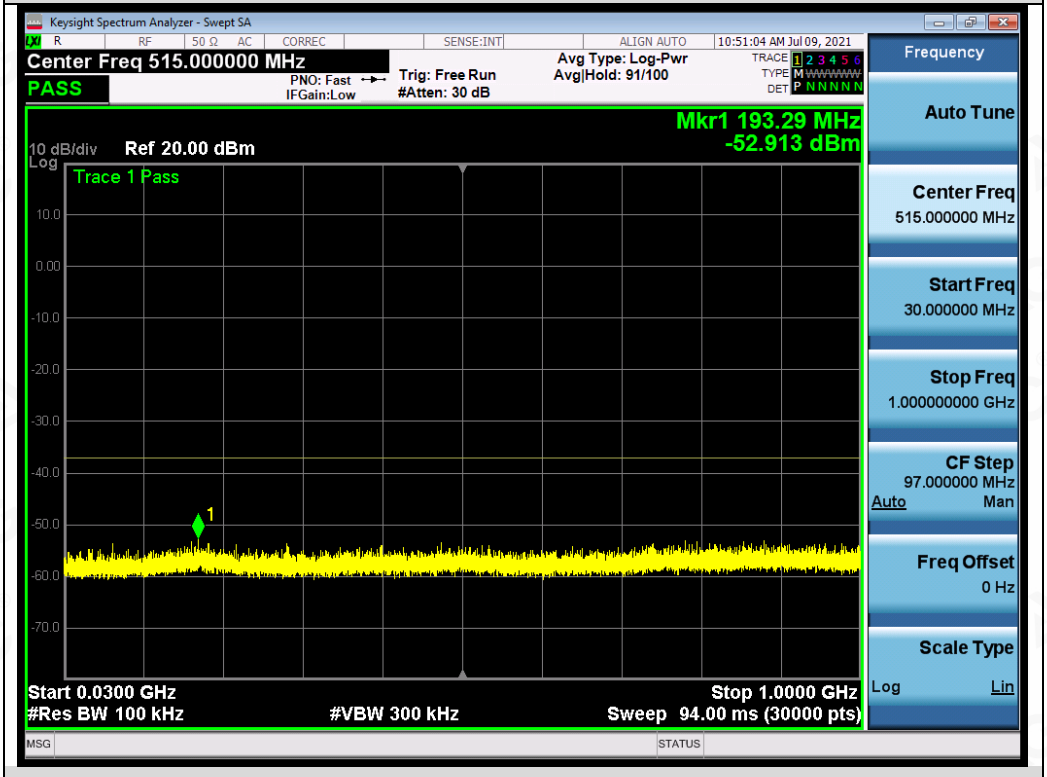


Test_Graph_802.11n40_ANT1_5190_MCS0_Frequency Band 3

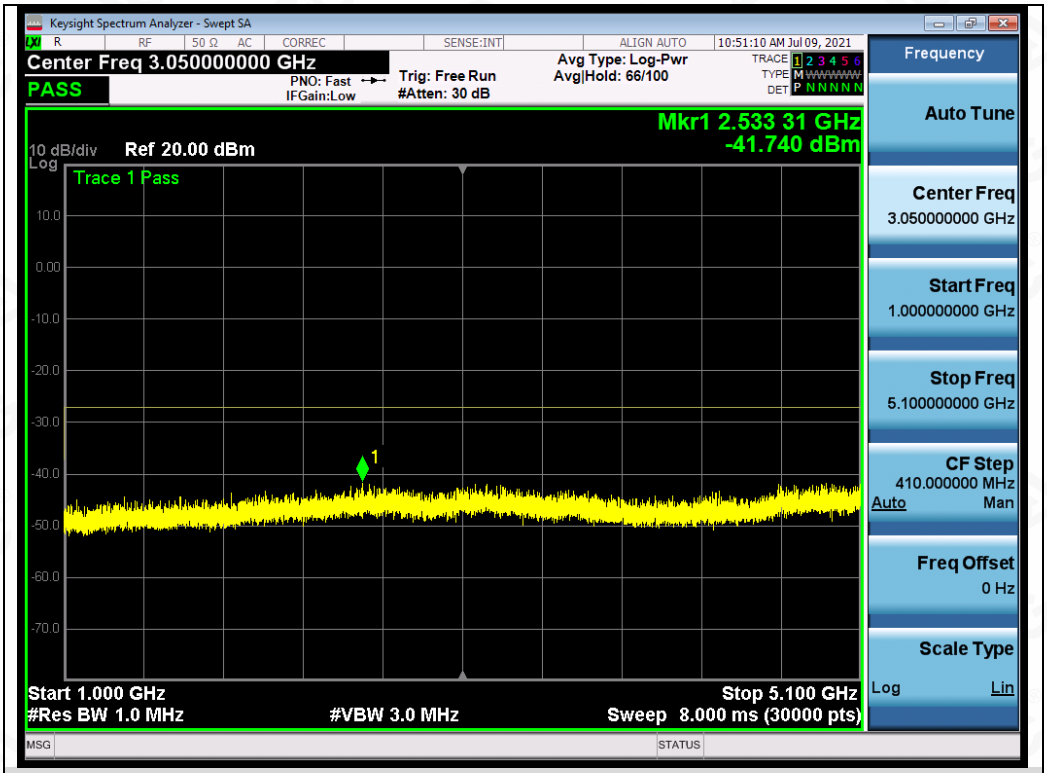
Test_Graph_802.11n40_ANT1_5190_MCS0_Frequency Band 4



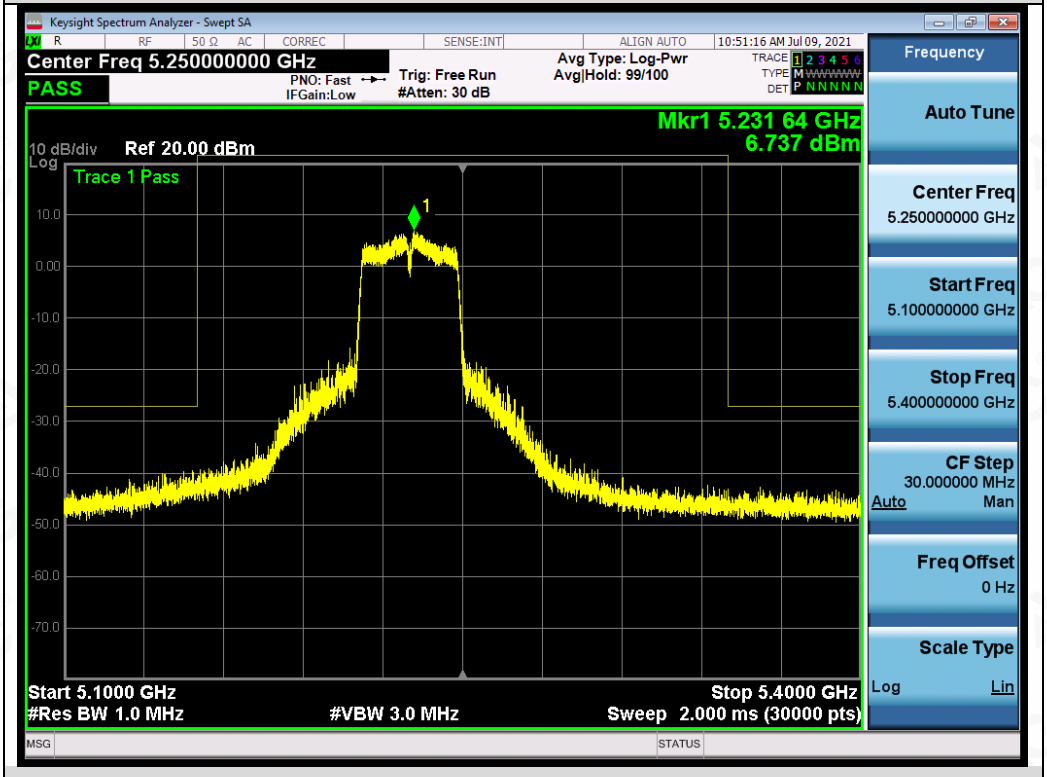
Test_Graph_802.11n40_ANT1_5190_MCS0_Frequency Band 5



Test_Graph_802.11n40_ANT1_5230_MCS0_Frequency Band 1



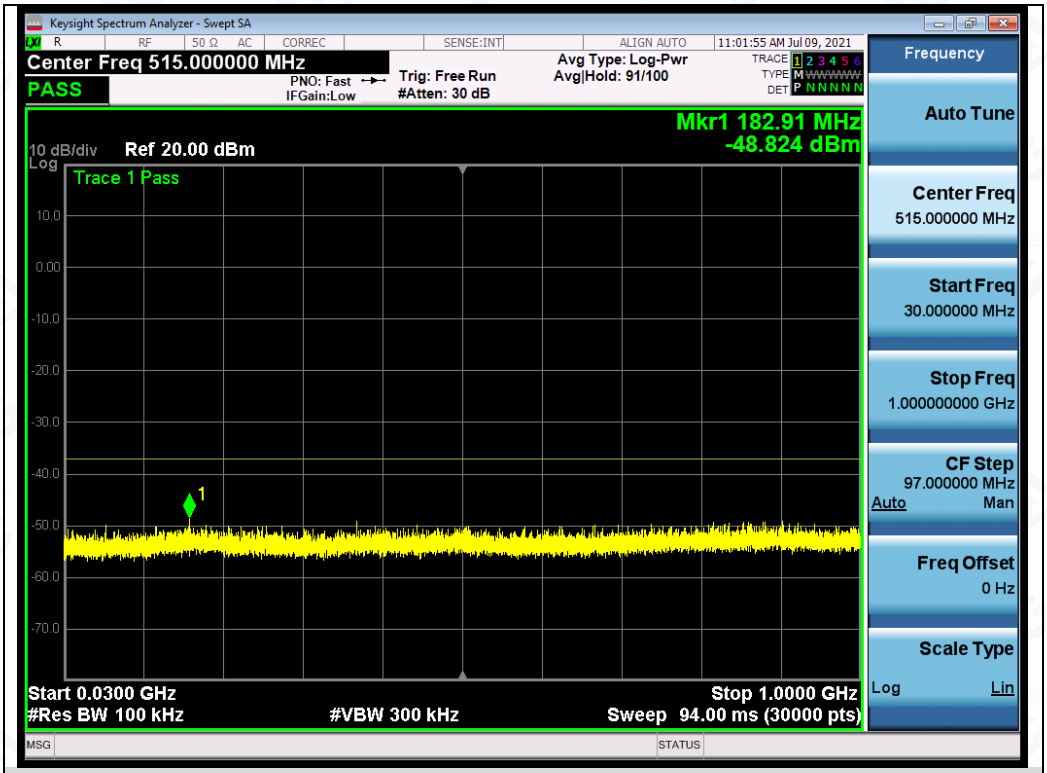
Test_Graph_802.11n40_ANT1_5230_MCS0_Frequency Band 2



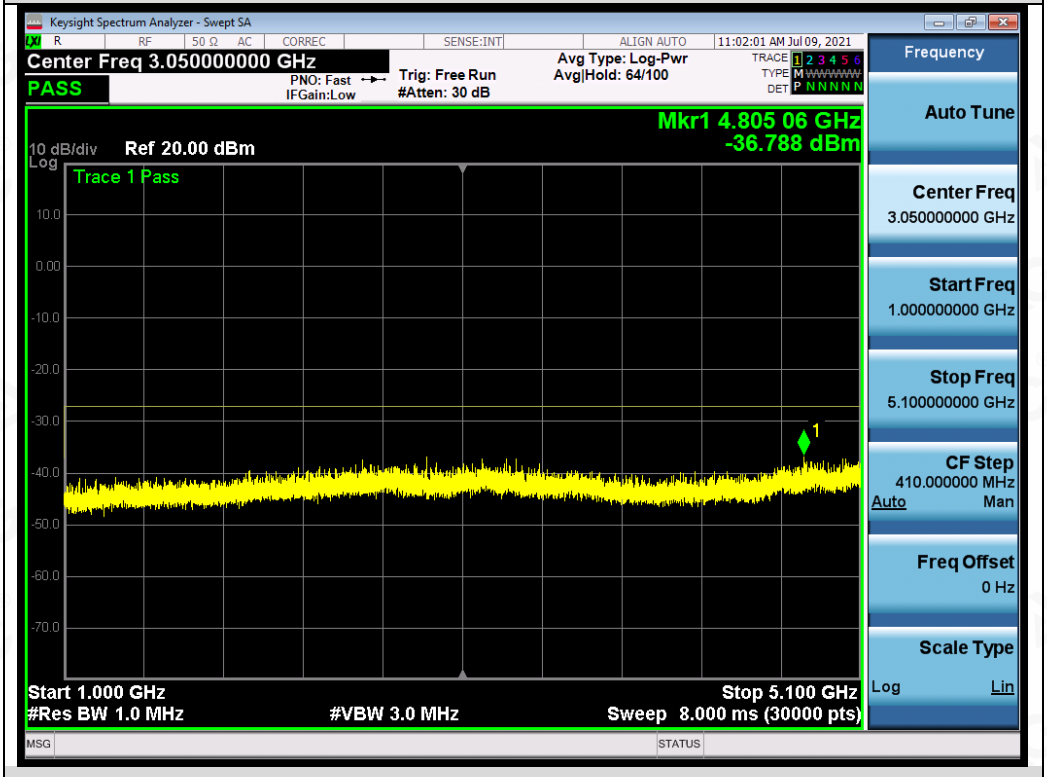
Test_Graph_802.11n40_ANT1_5230_MCS0_Frequency Band 3

Test_Graph_802.11n40_ANT1_5230_MCS0_Frequency Band 4

Test_Graph_802.11n40_ANT1_5230_MCS0_Frequency Band 5



Test_Graph_802.11ac80_ANT1_5210_MCS9_Frequency Band 1



Test_Graph_802.11ac80_ANT1_5210_MCS9_Frequency Band 2