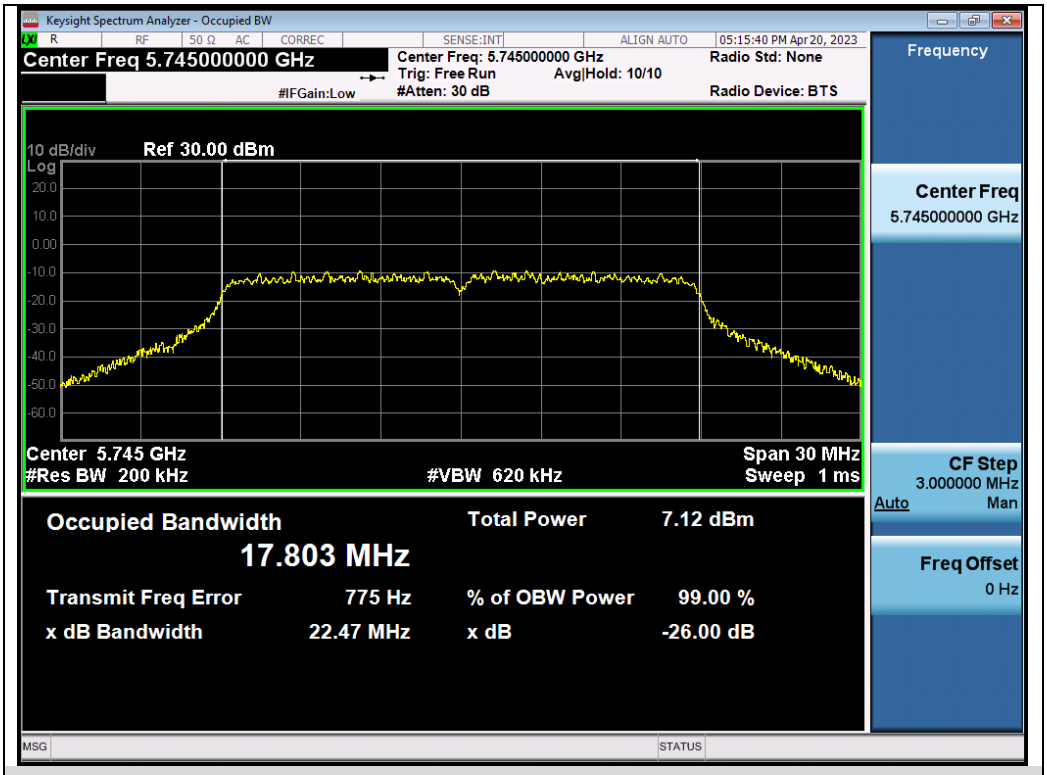
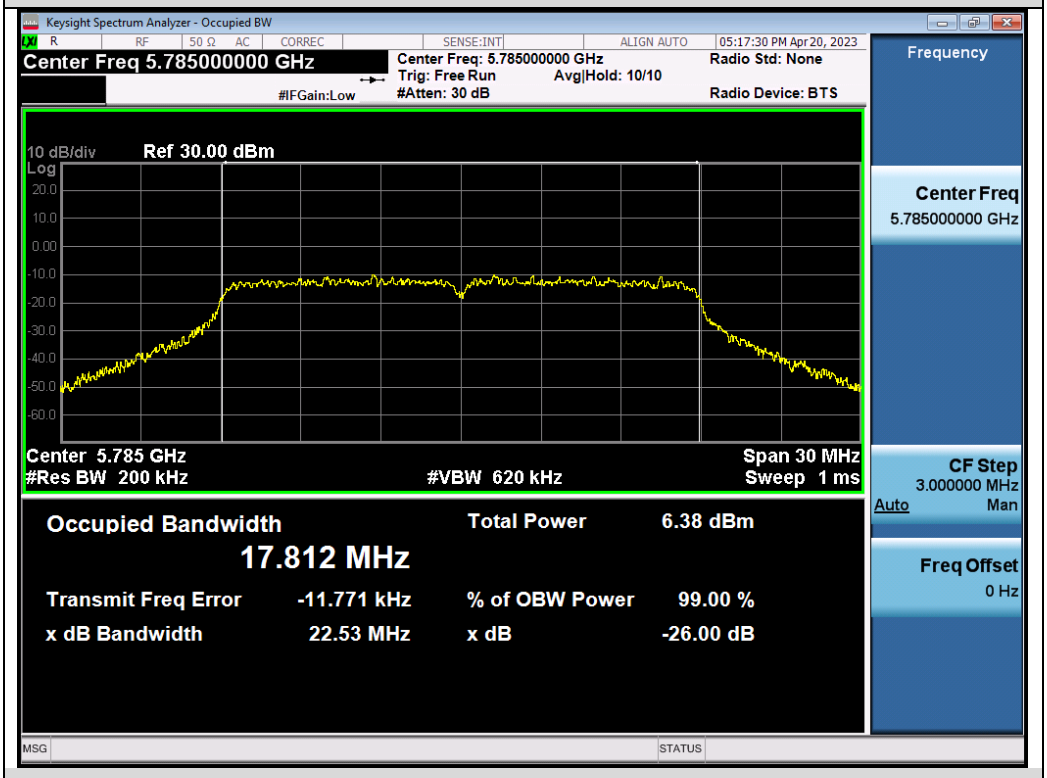
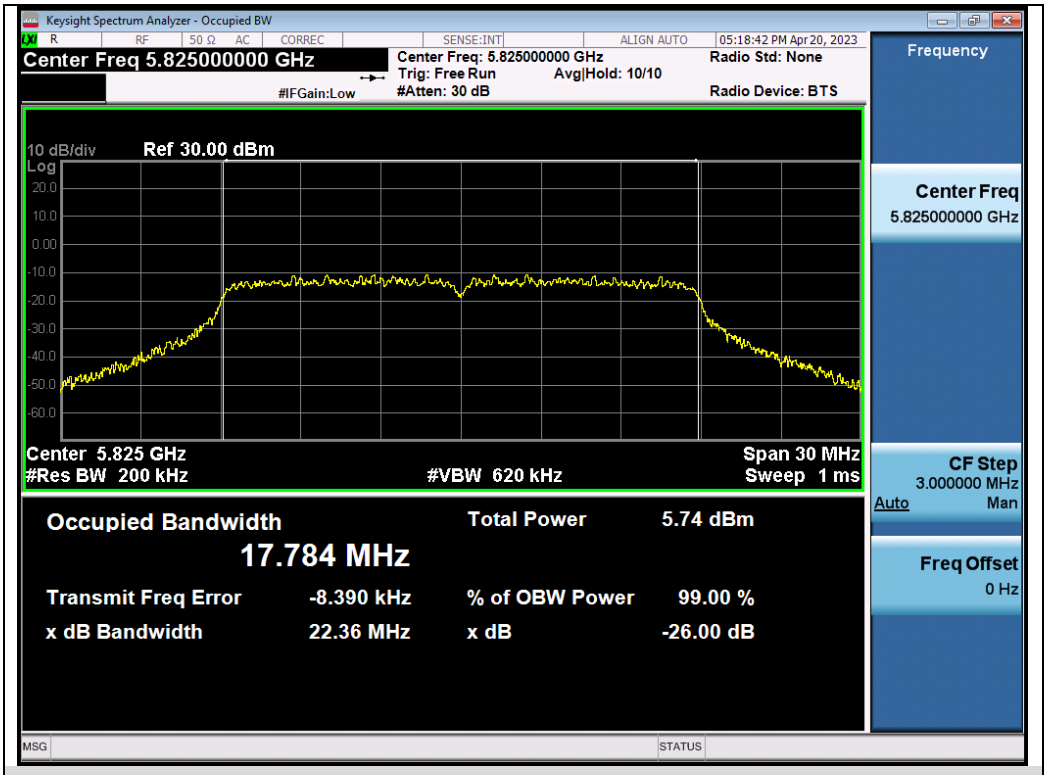


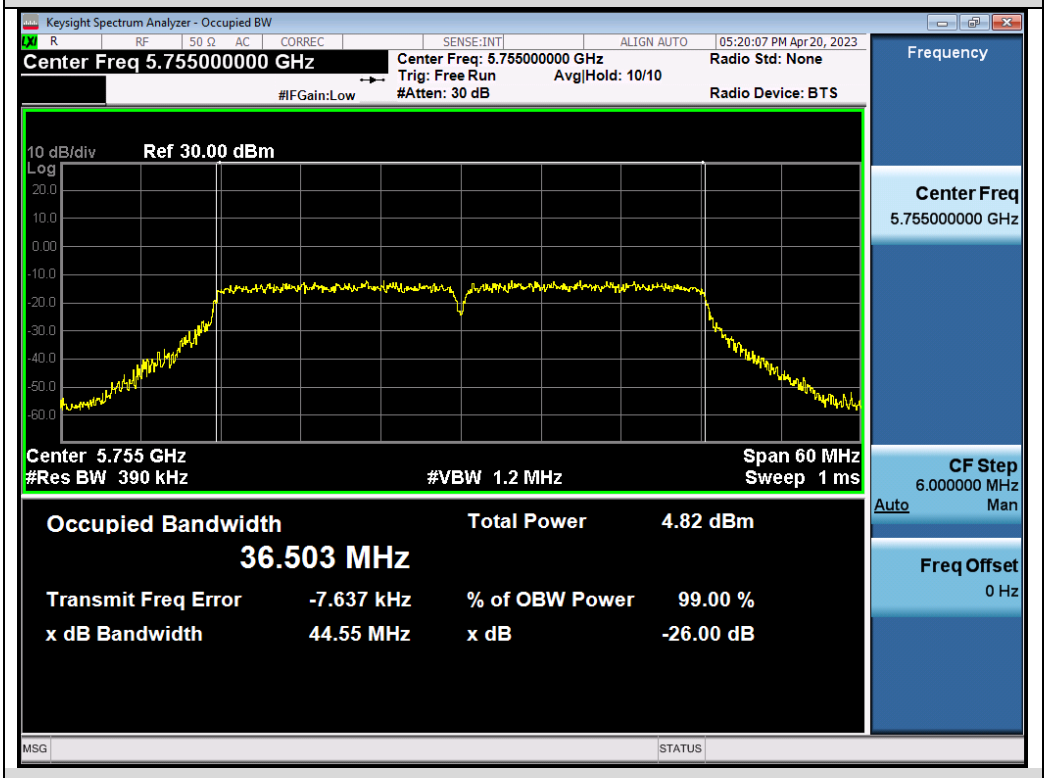
Test_Graph_802.11ac20_ANT2_5745_MCS0_OBW



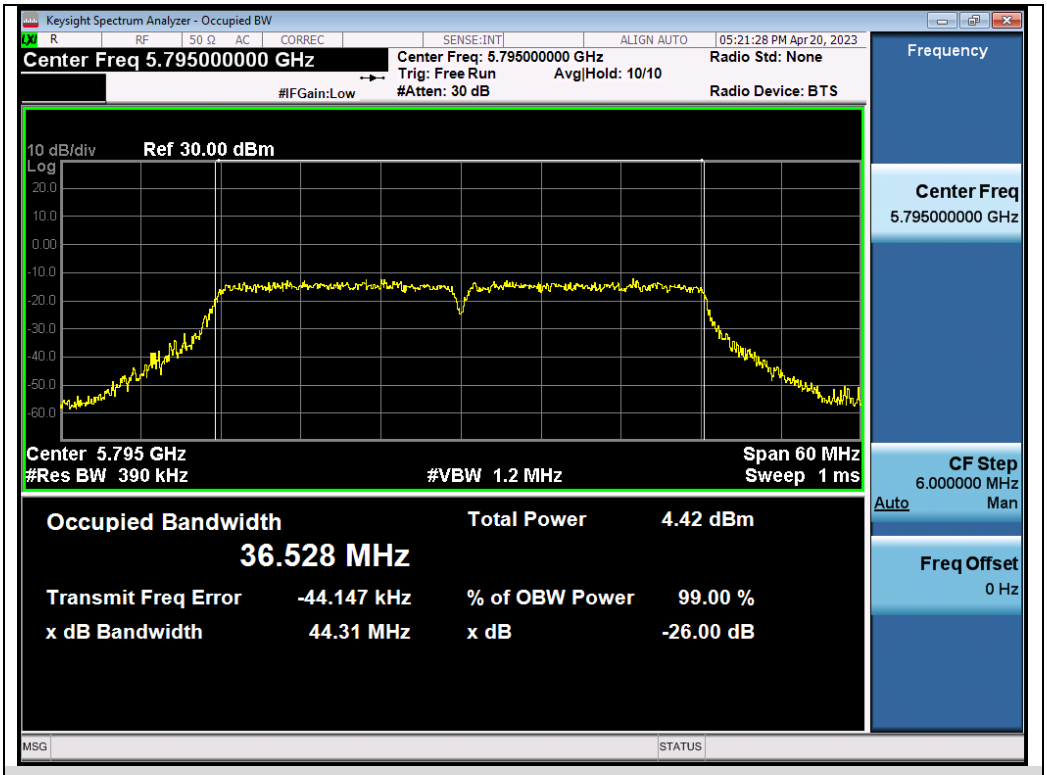
Test_Graph_802.11ac20_ANT2_5785_MCS0_OBW



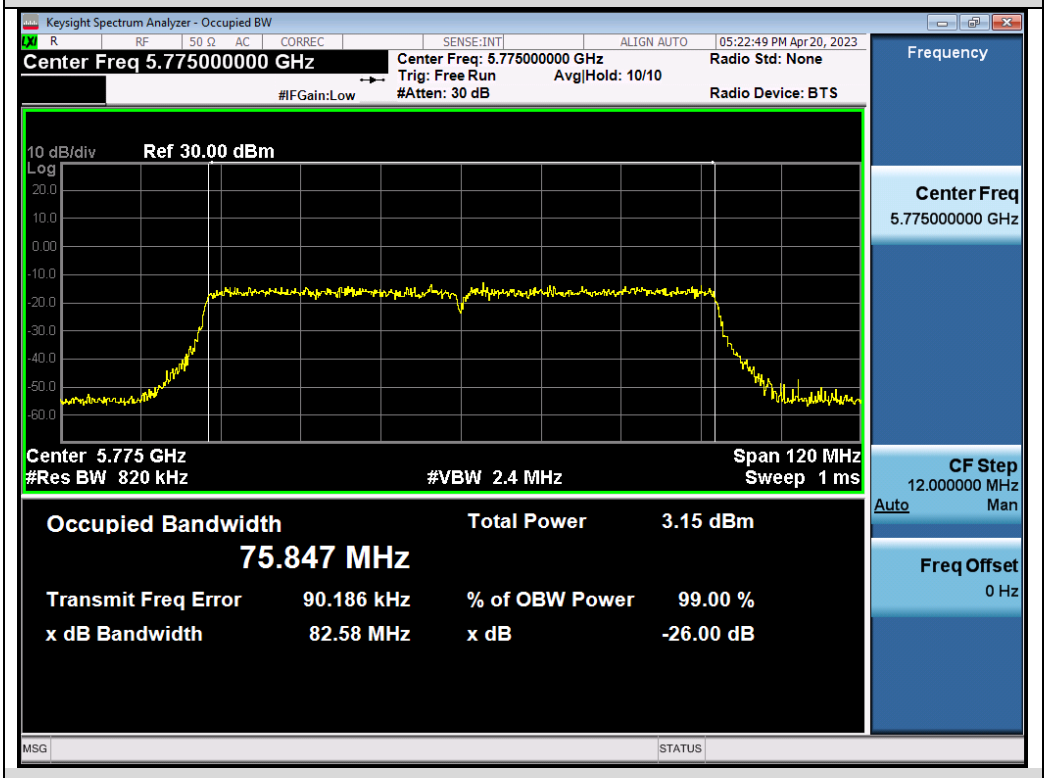
Test_Graph_802.11ac20_ANT2_5825_MCS9_OBW



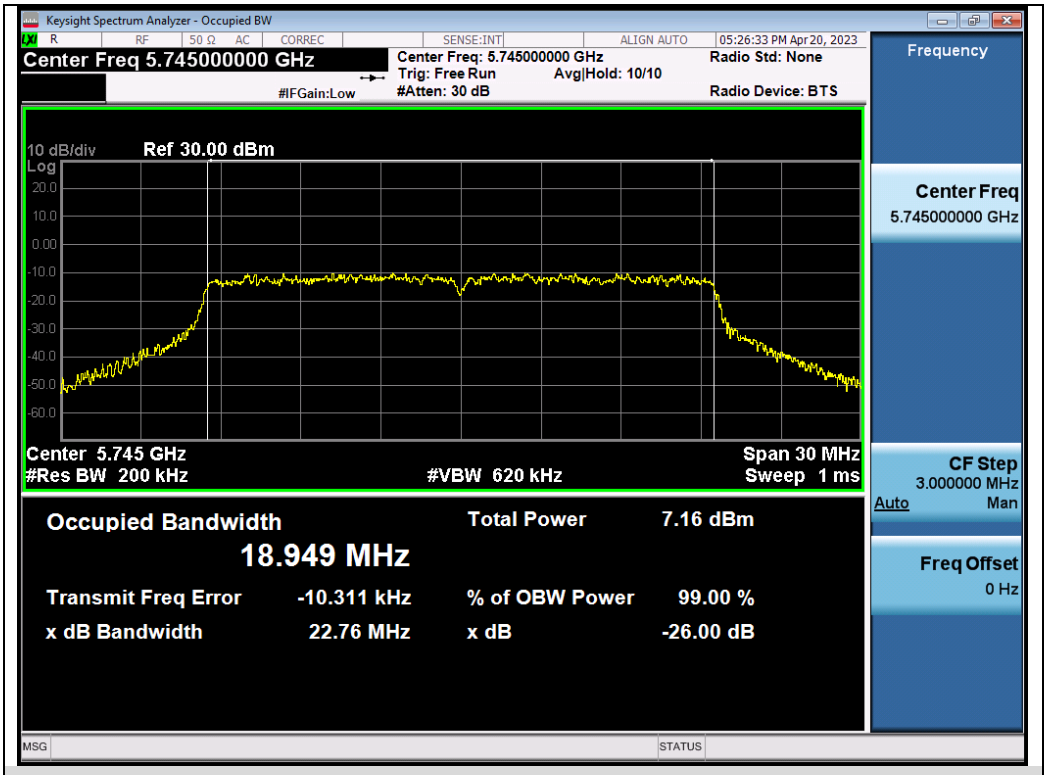
Test_Graph_802.11ac40_ANT2_5755_MCS9_OBW



Test_Graph_802.11ac40_ANT2_5795_MCS9_OBW



Test_Graph_802.11ac80_ANT2_5775_MCS9_OBW



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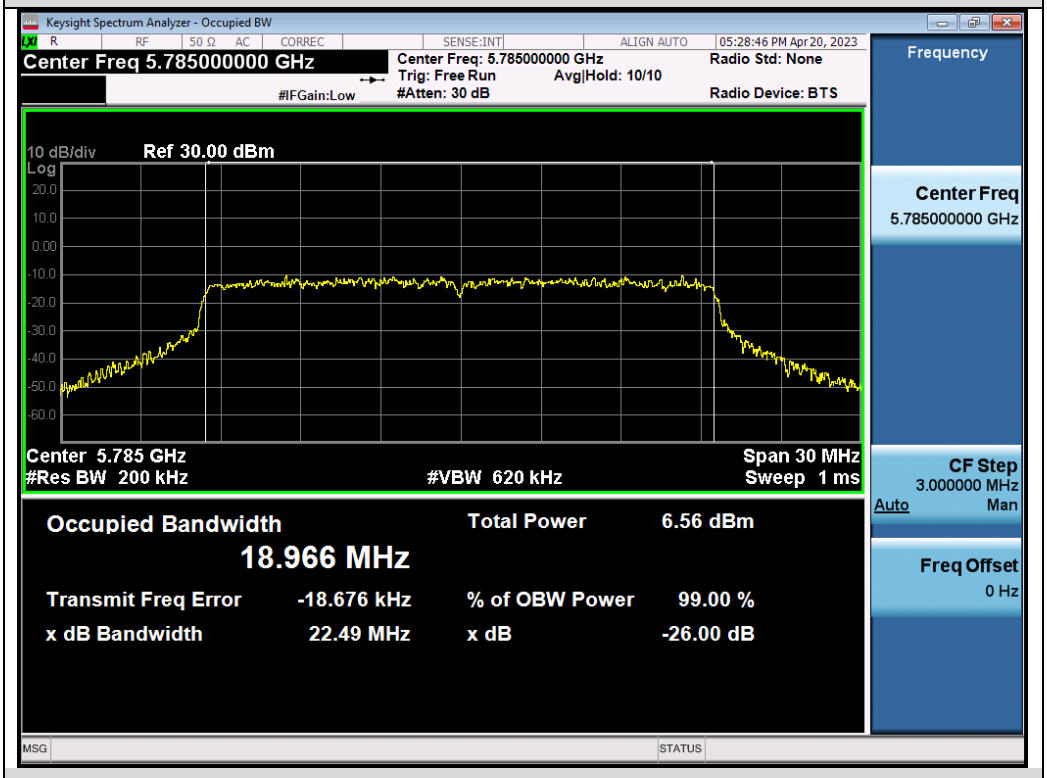

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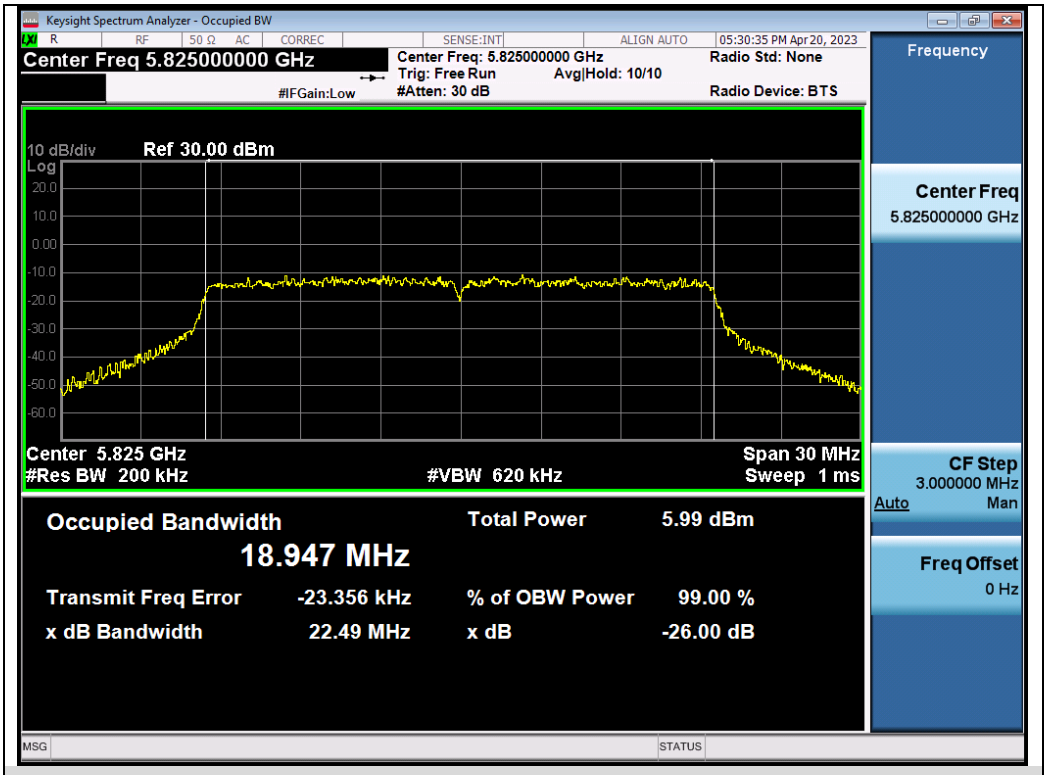
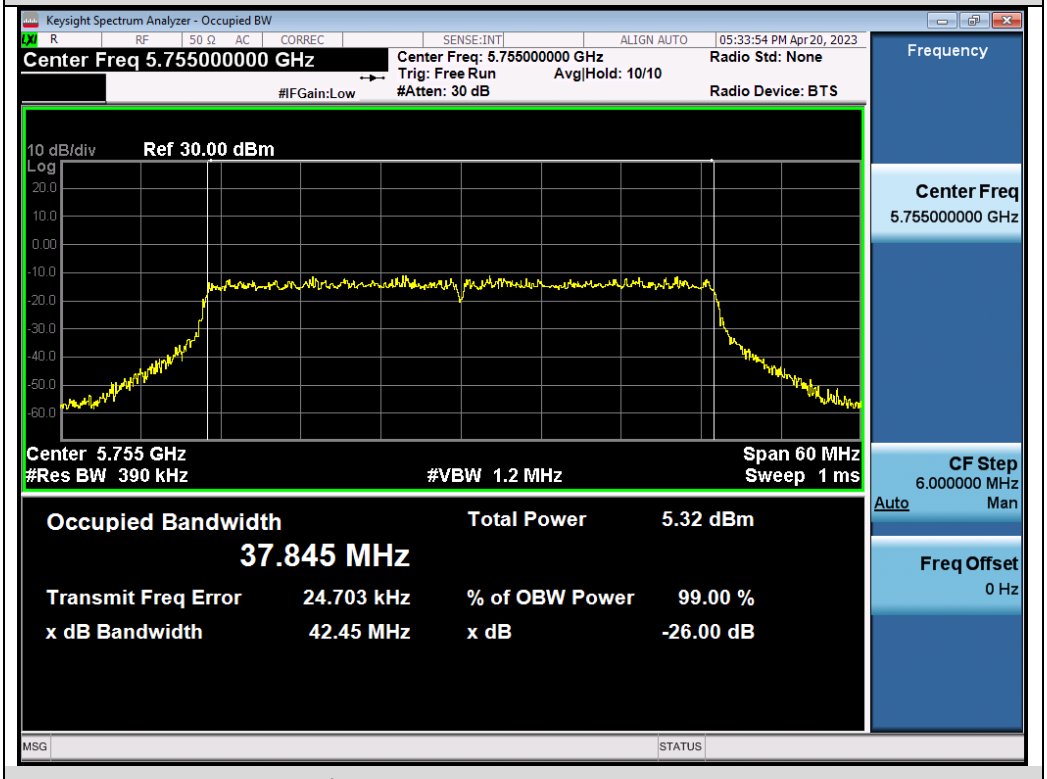
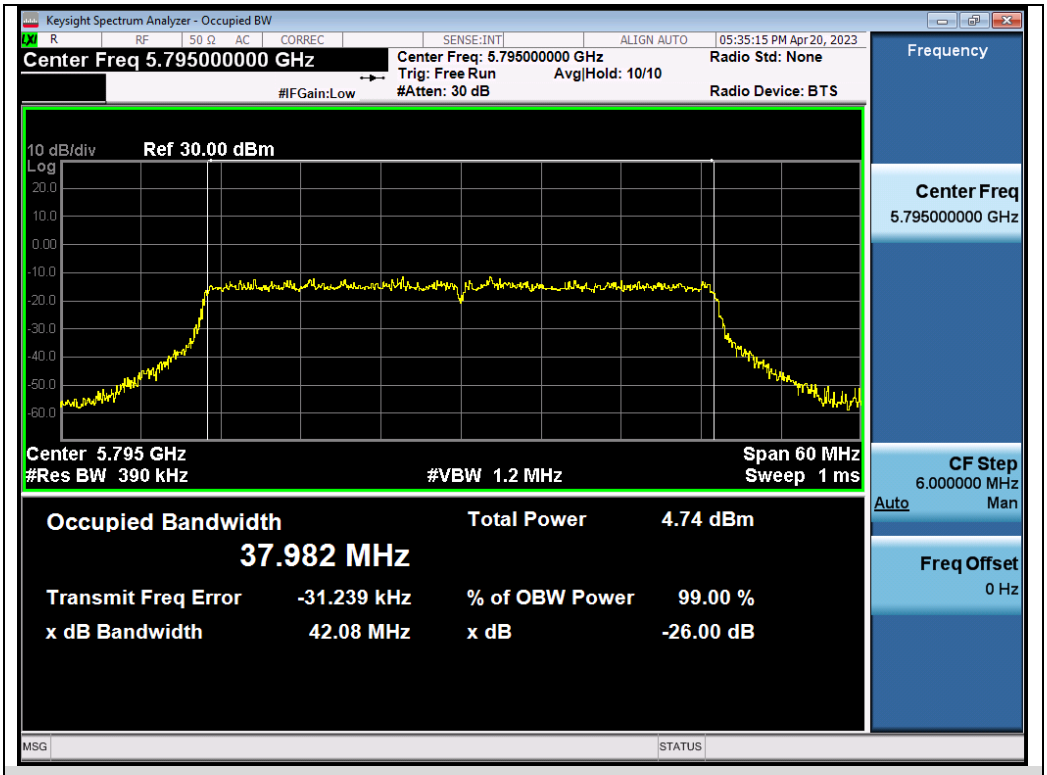


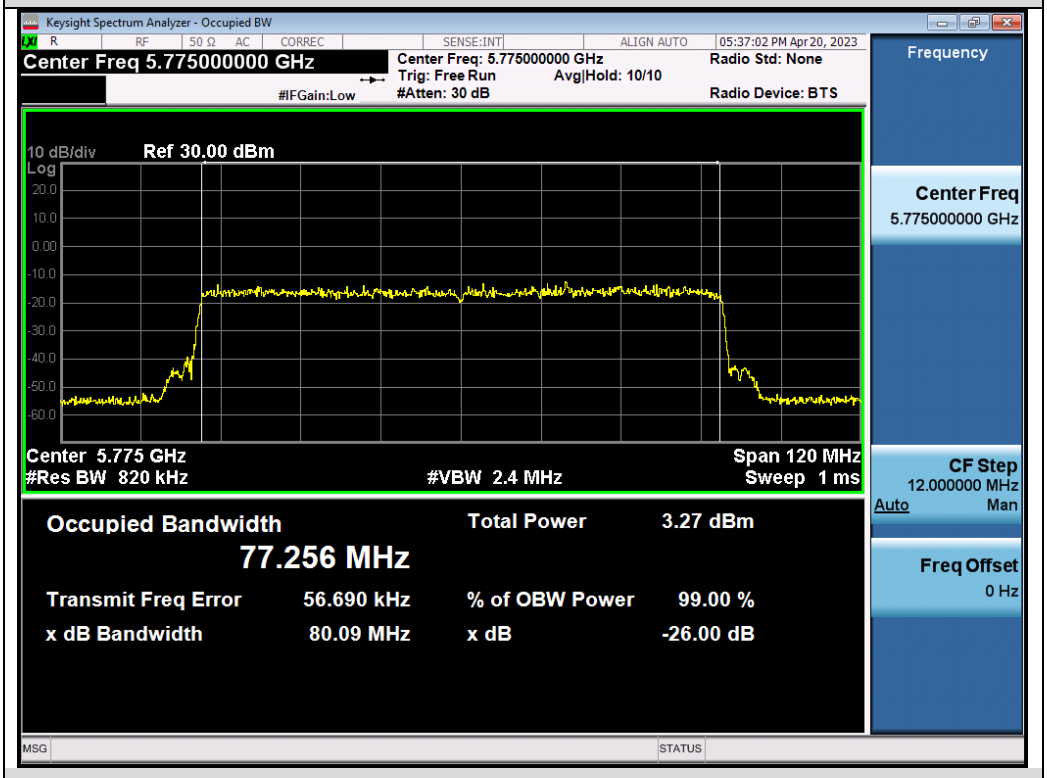
Test_Graph_802.11ax20_ANT2_5825_MCS0_OBW



Test_Graph_802.11ax40_ANT2_5755_MCS0_OBW

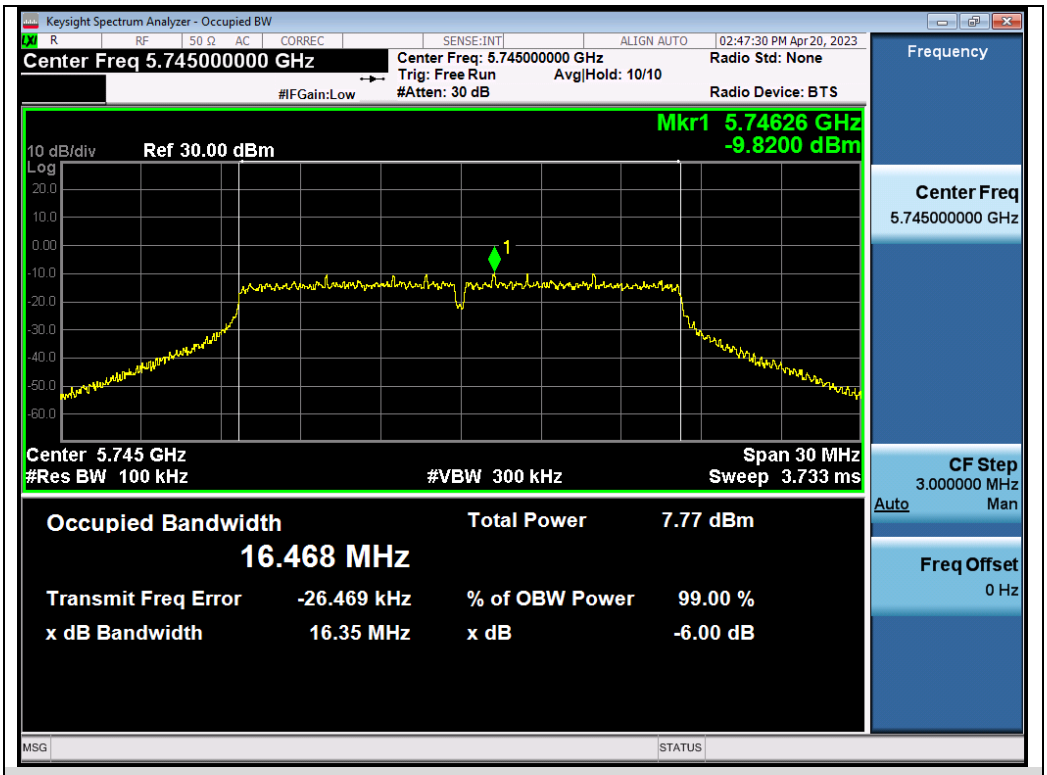


Test_Graph_802.11ax40_ANT2_5795_MCS0_OBW

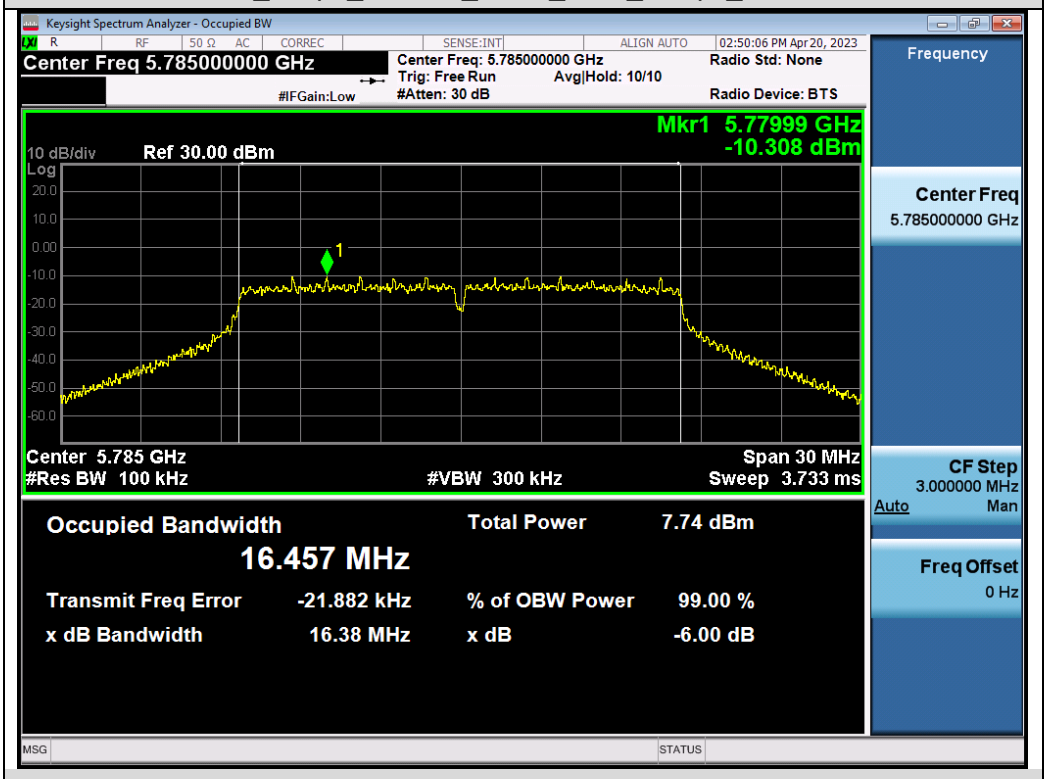


Test_Graph_802.11ax80_ANT2_5775_MCS0_OBW

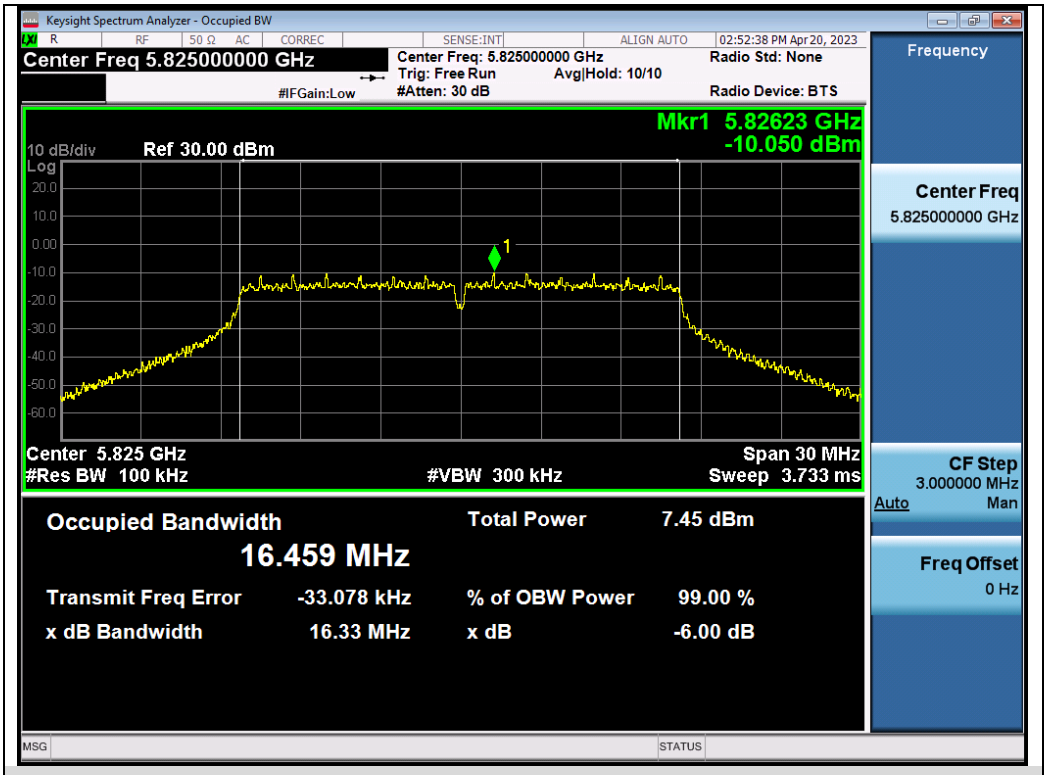
Test Graphs of DTS Bandwidth for band 5.725-5.85 GHz



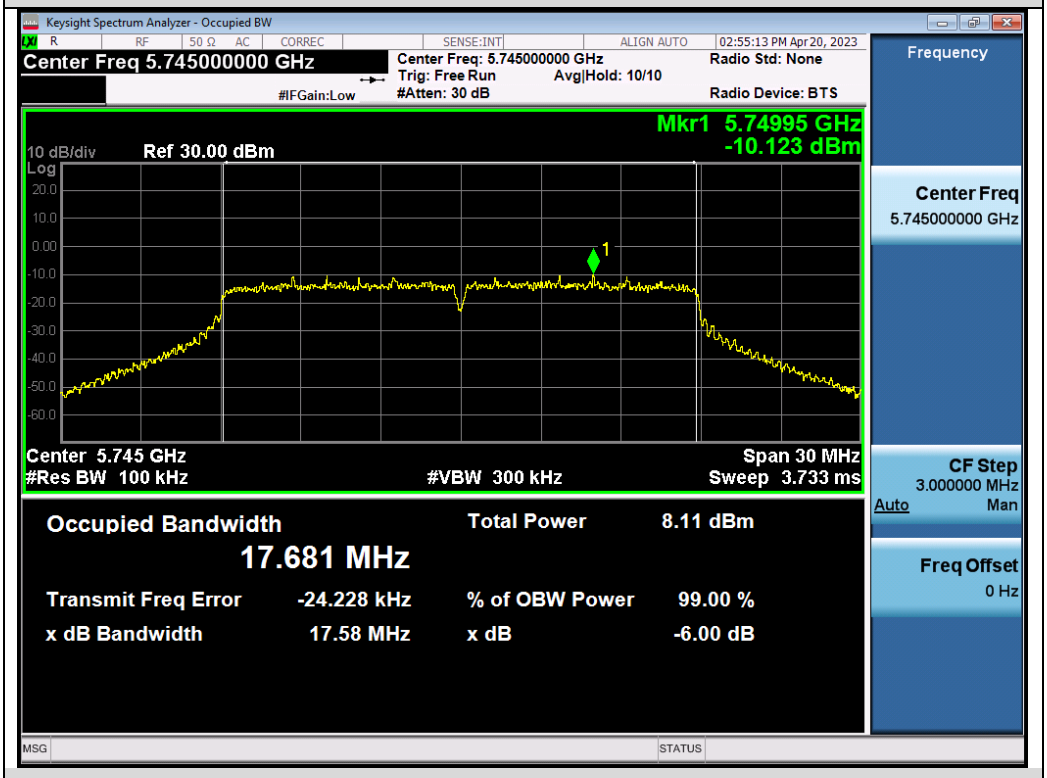
Test_Graph_802.11a_ANT1_5745_6Mbps_DTSBW



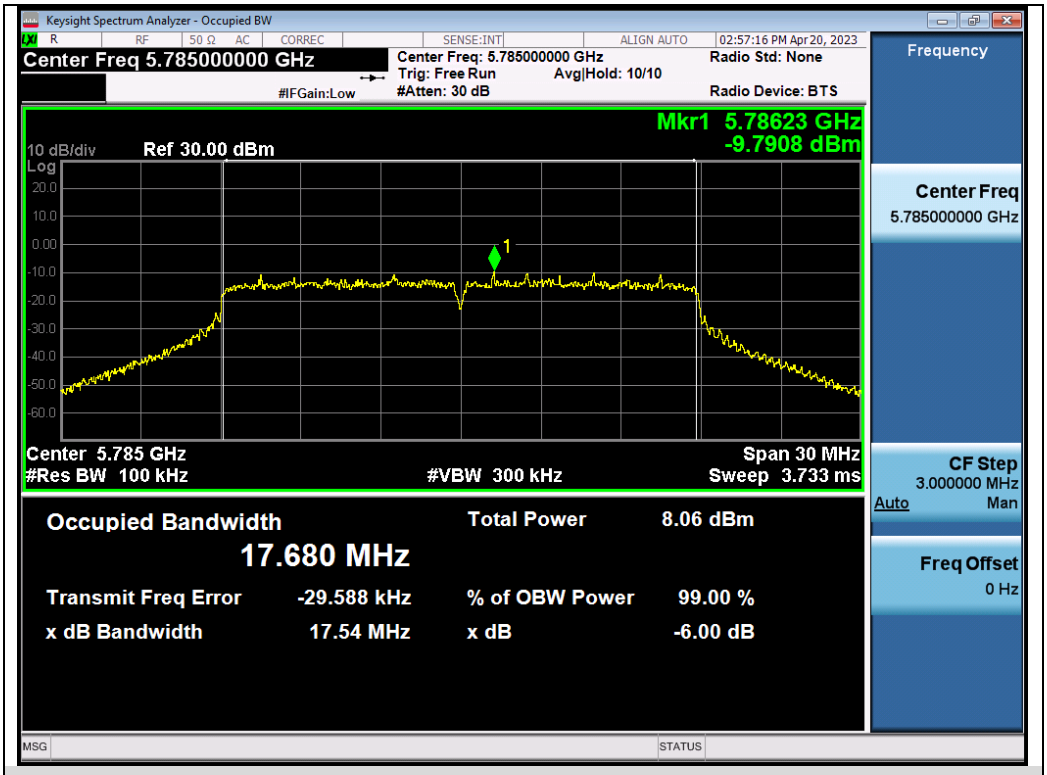
Test_Graph_802.11a_ANT1_5785_6Mbps_DTSBW



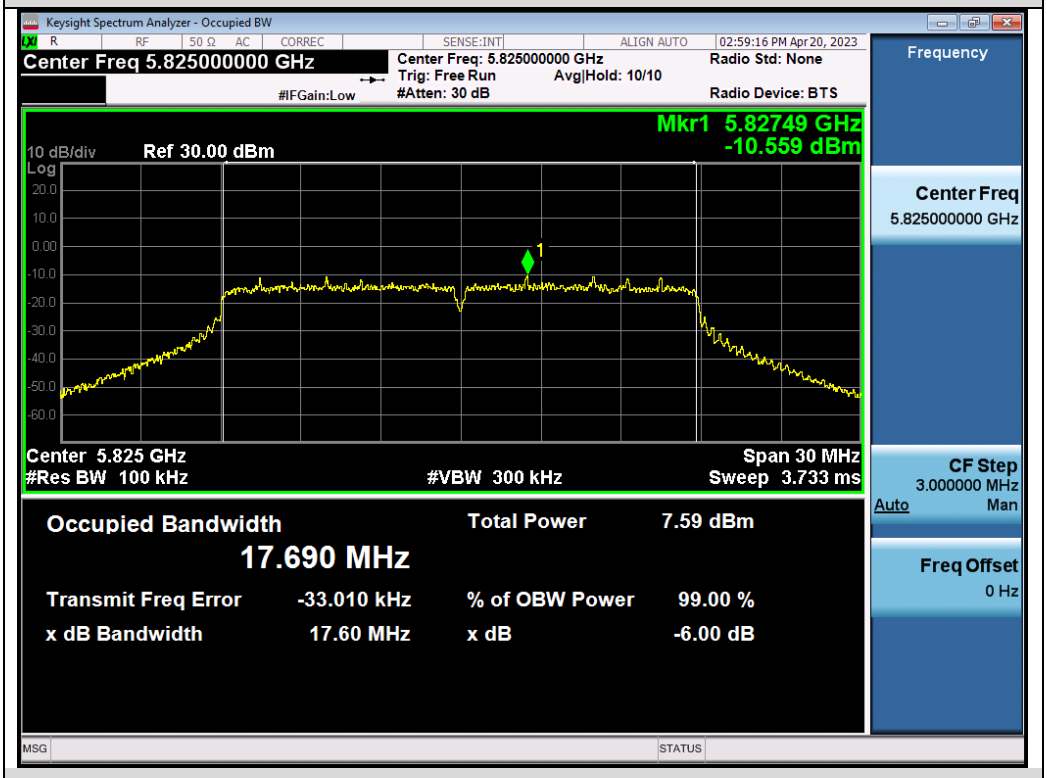
Test_Graph_802.11a_ANT1_5825_6Mbps_DTSBW



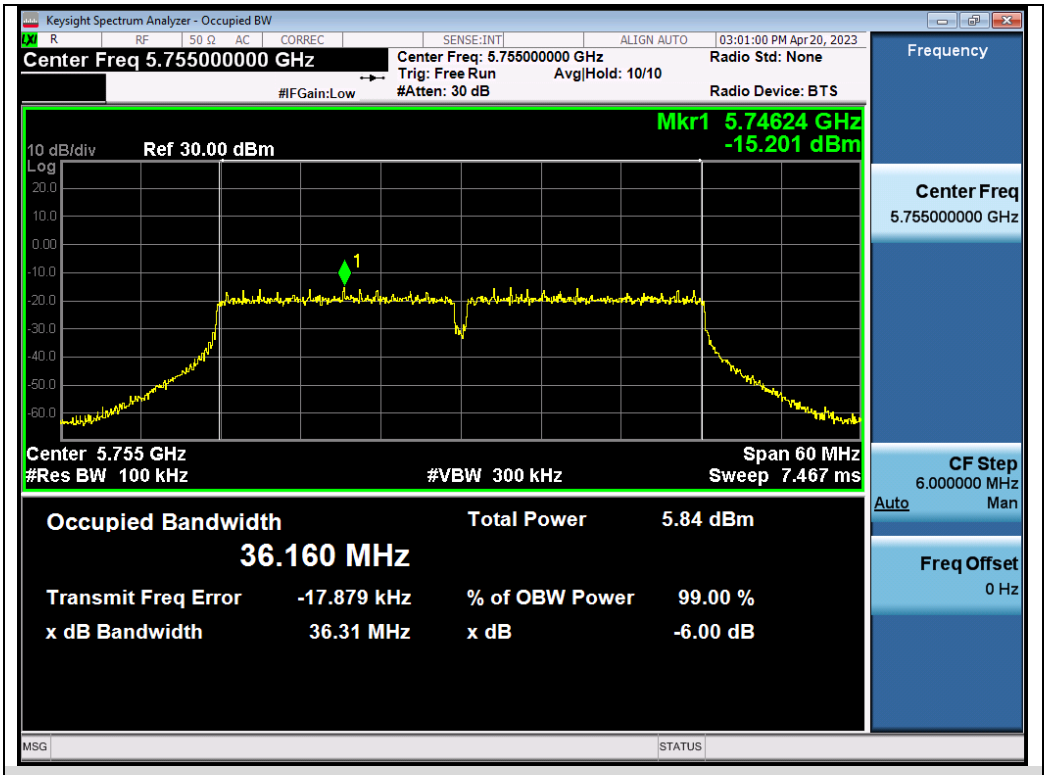
Test_Graph_802.11n20_ANT1_5745_MCS0_DTSBW



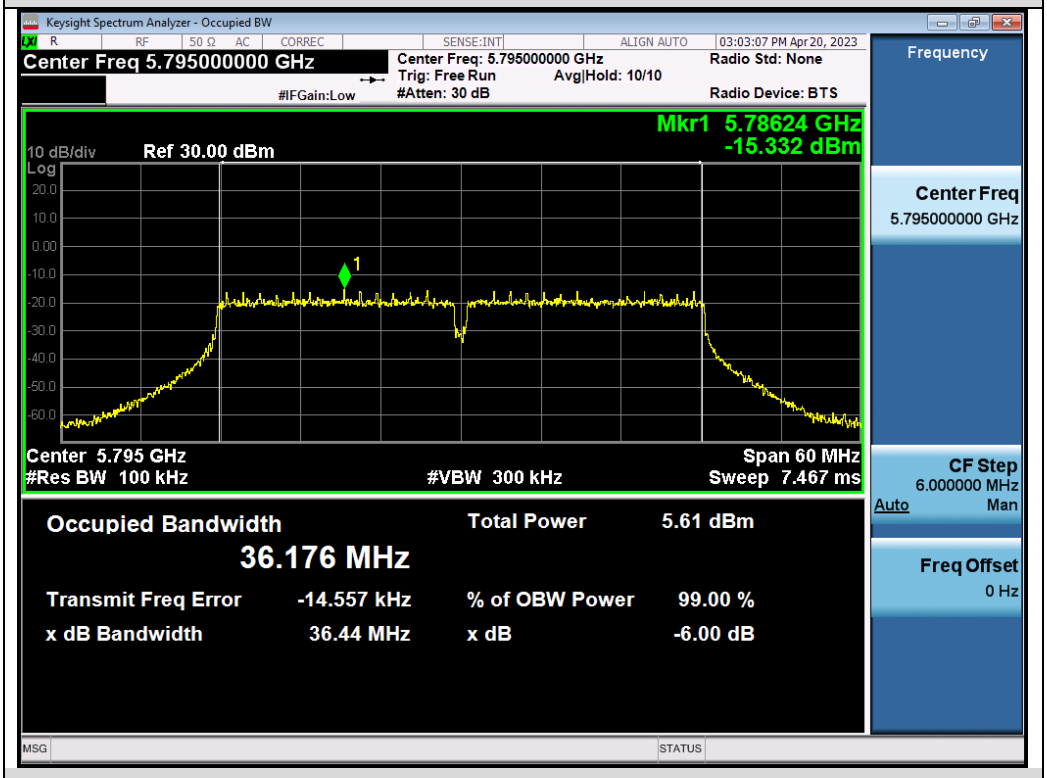
Test_Graph_802.11n20_ANT1_5785_MCS0_DTSBW



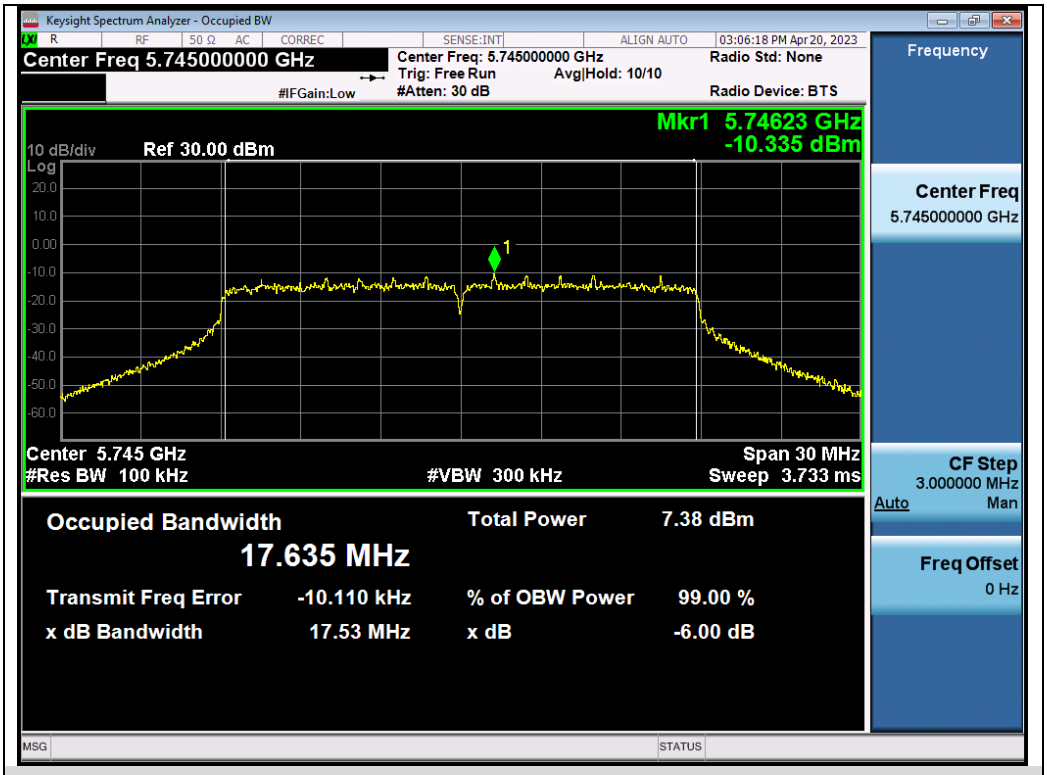
Test_Graph_802.11n20_ANT1_5825_MCS0_DTSBW



Test_Graph_802.11n40_ANT1_5755_MCS0_DTSBW



Test_Graph_802.11n40_ANT1_5795_MCS0_DTSBW



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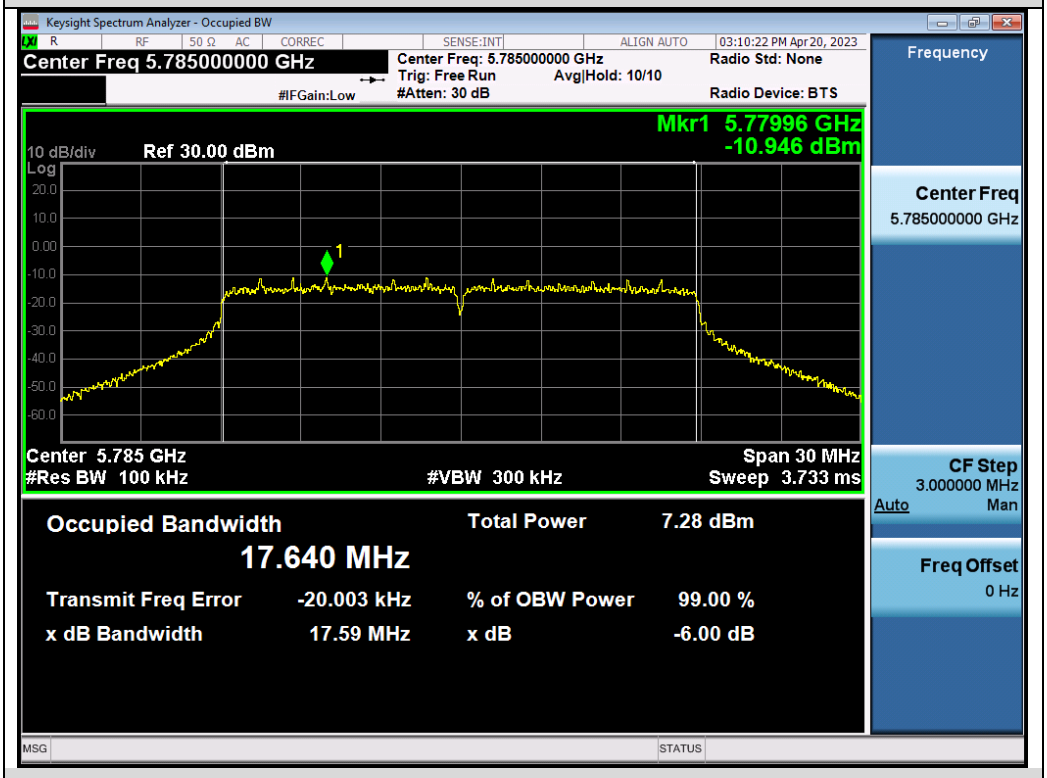

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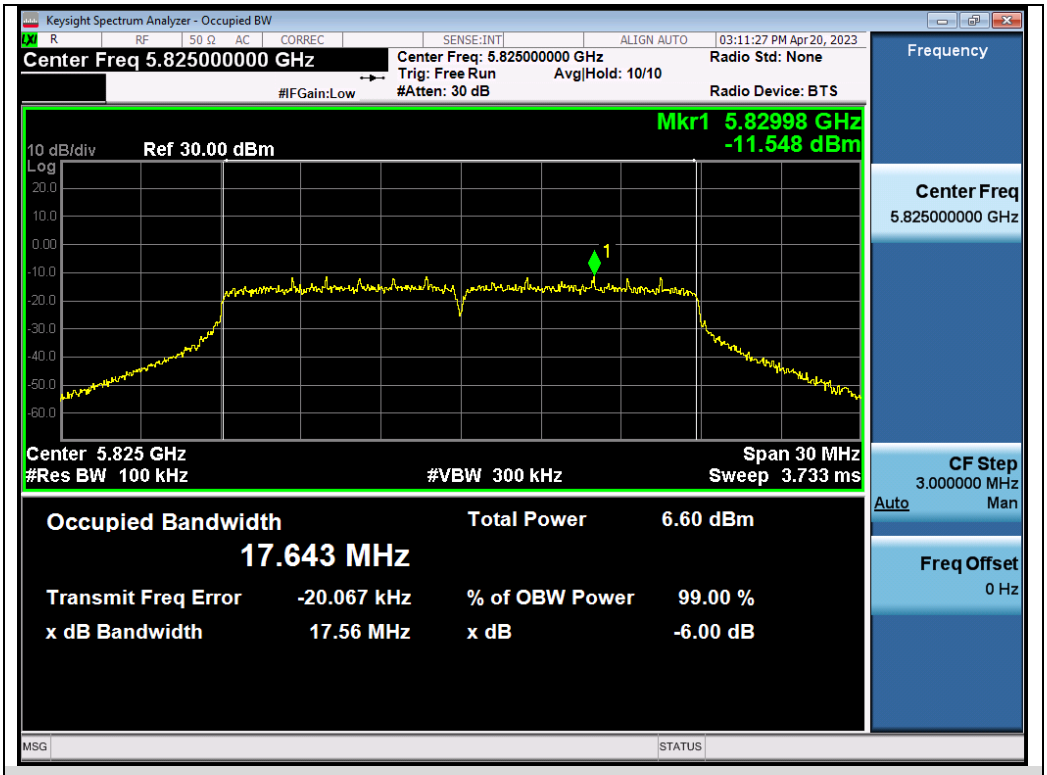
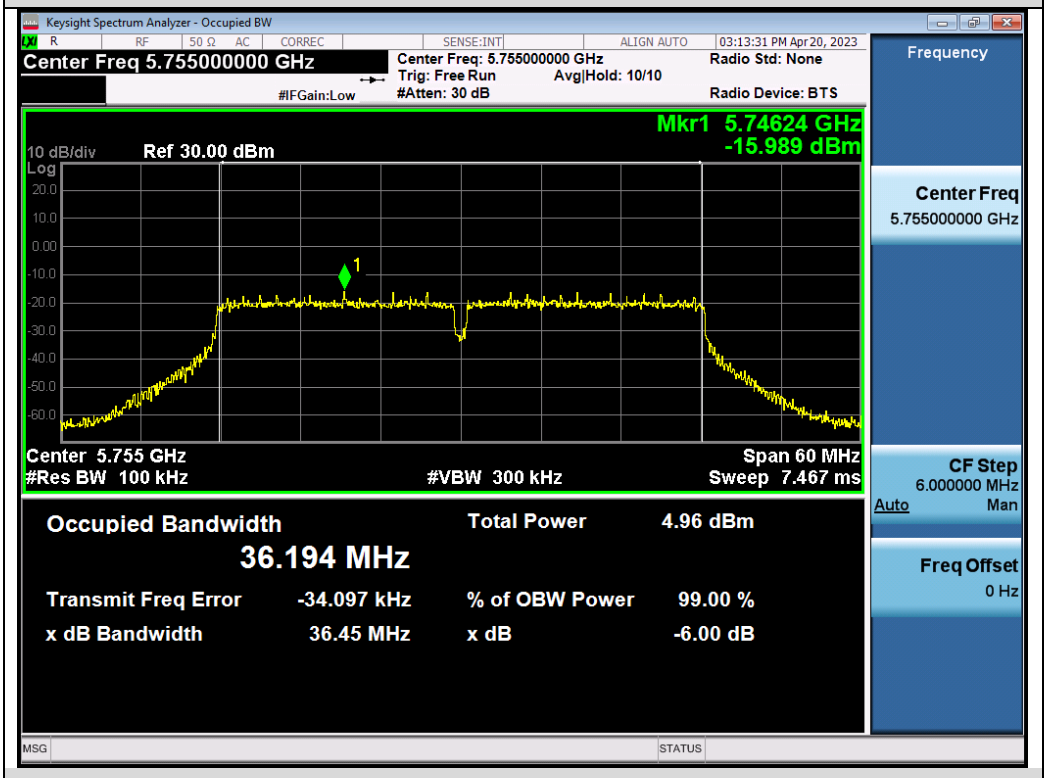
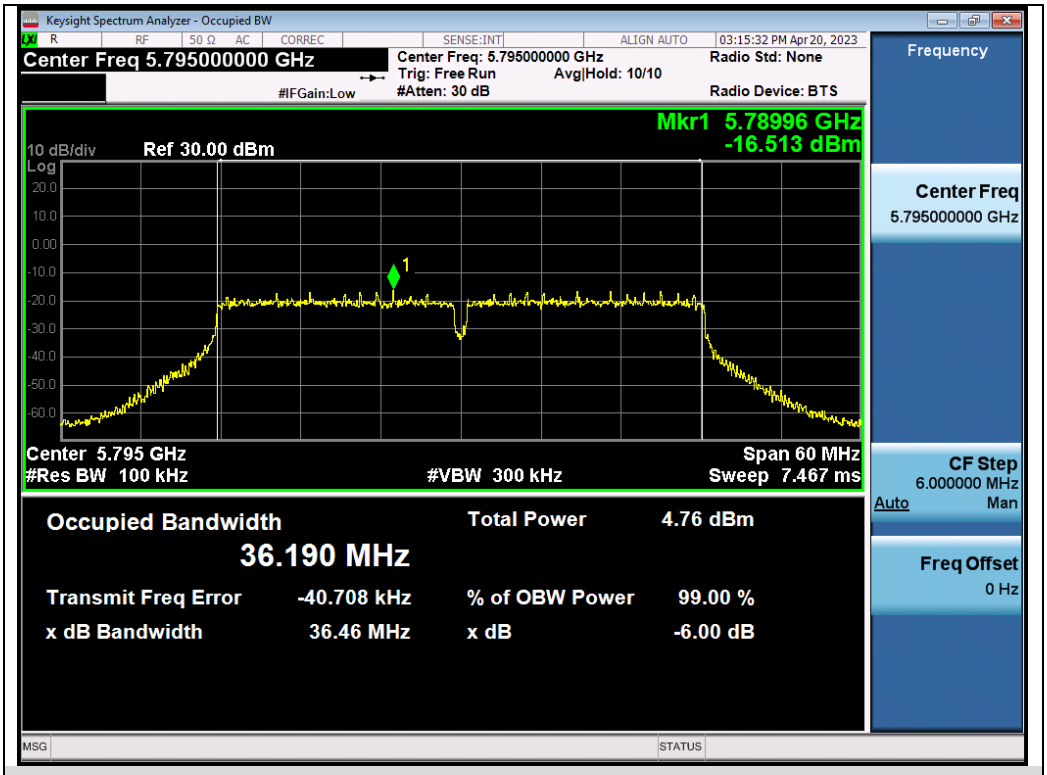


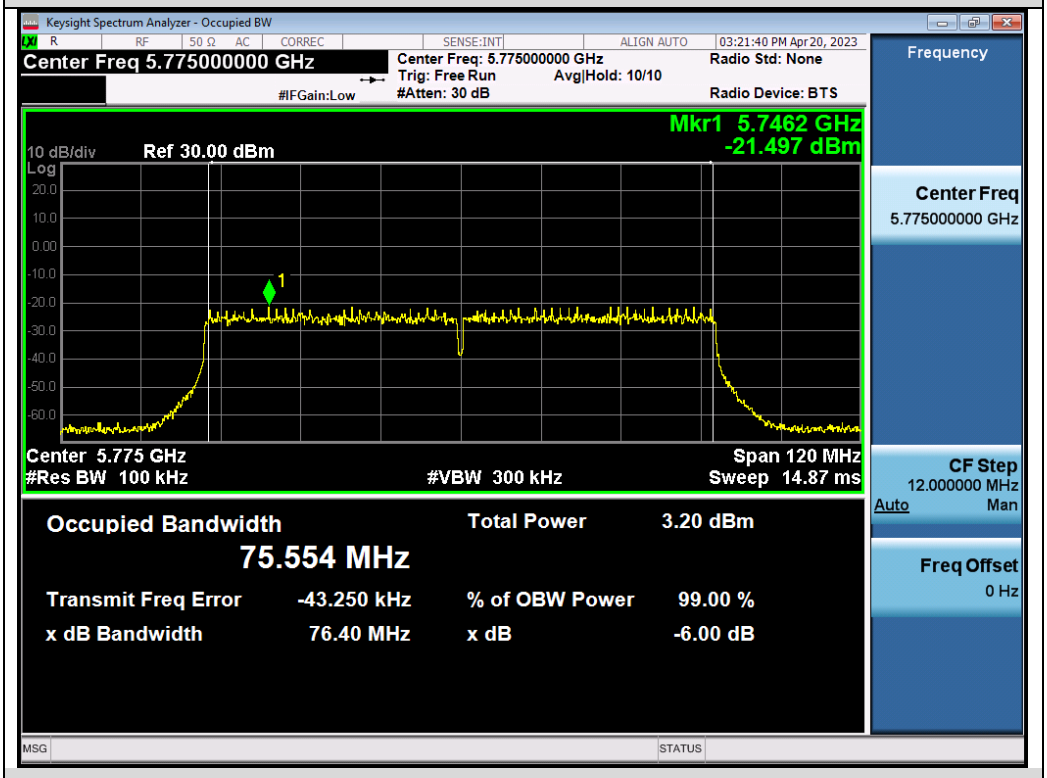
Test_Graph_802.11ac20_ANT1_5825_MCS9_DTSBW



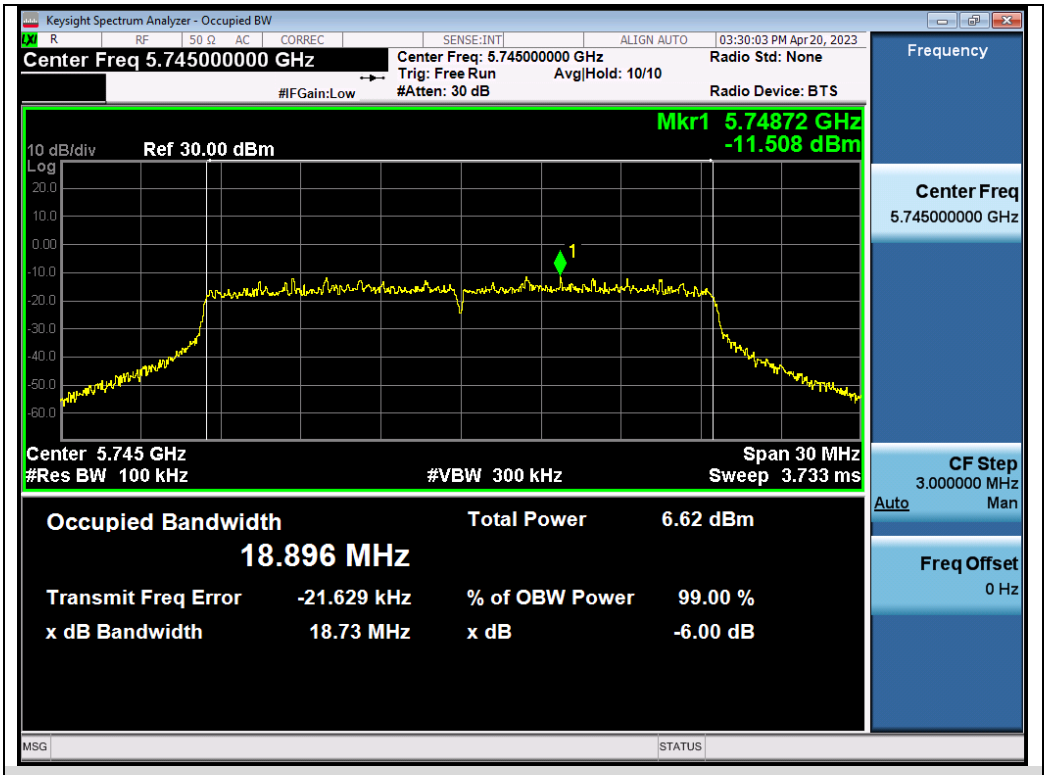
Test_Graph_802.11ac40_ANT1_5755_MCS9_DTSBW



Test_Graph_802.11ac40_ANT1_5795_MCS9_DTSBW



Test_Graph_802.11ac80_ANT1_5775_MCS9_DTSBW



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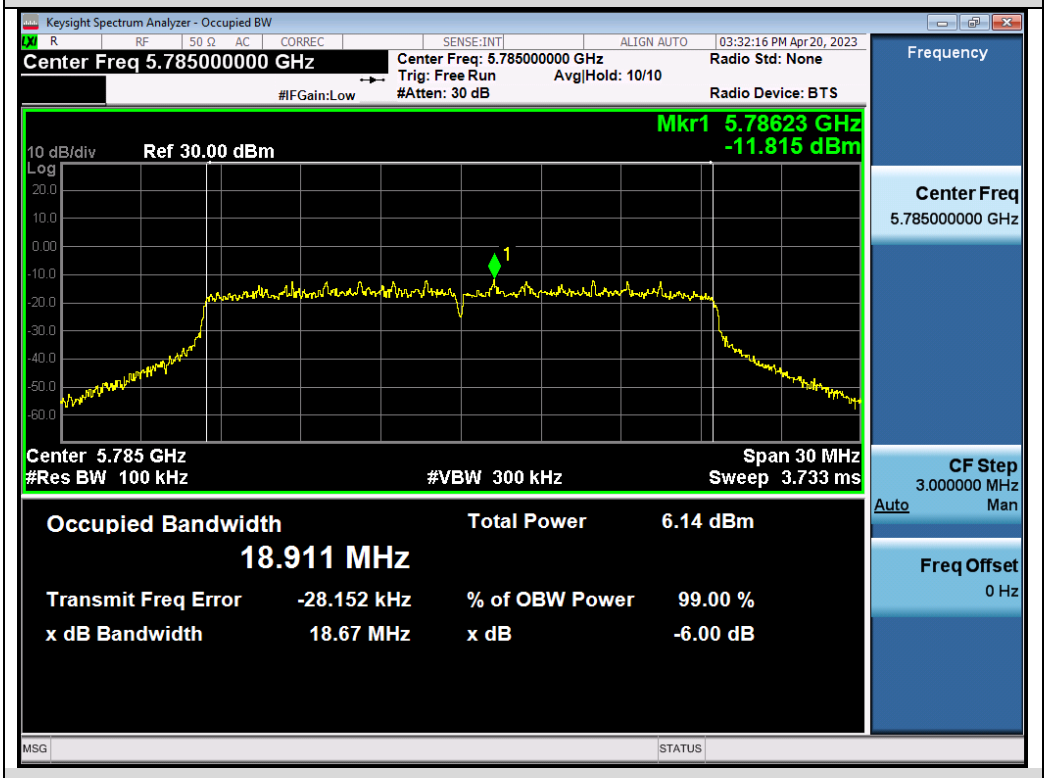
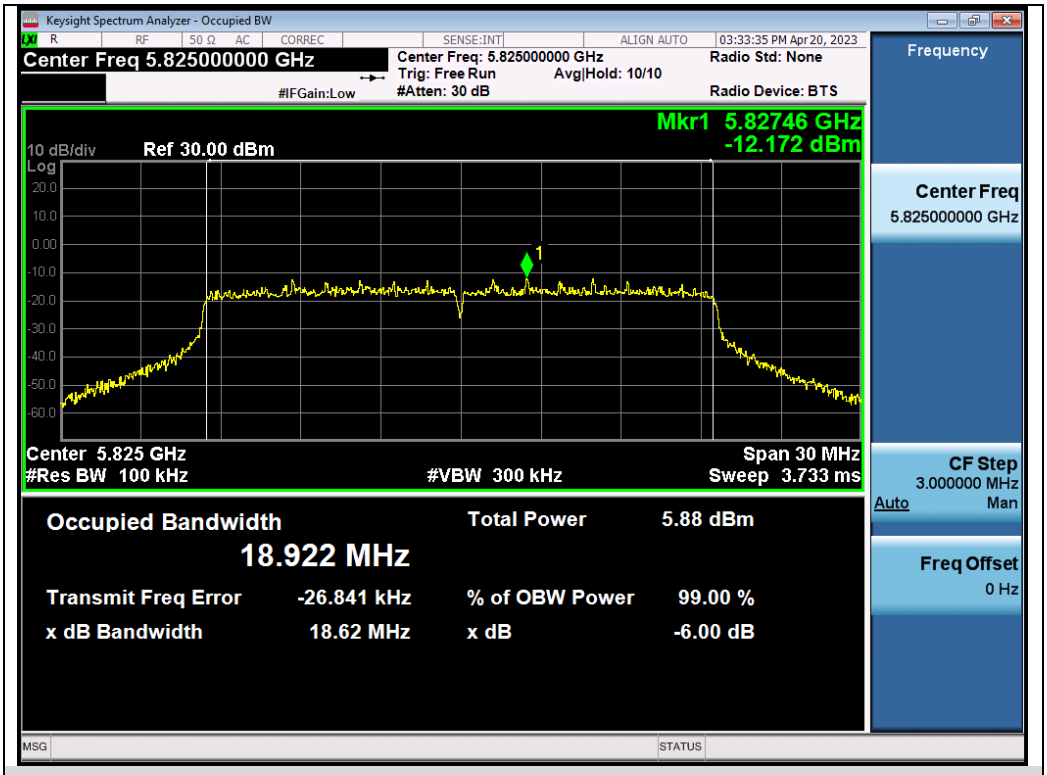
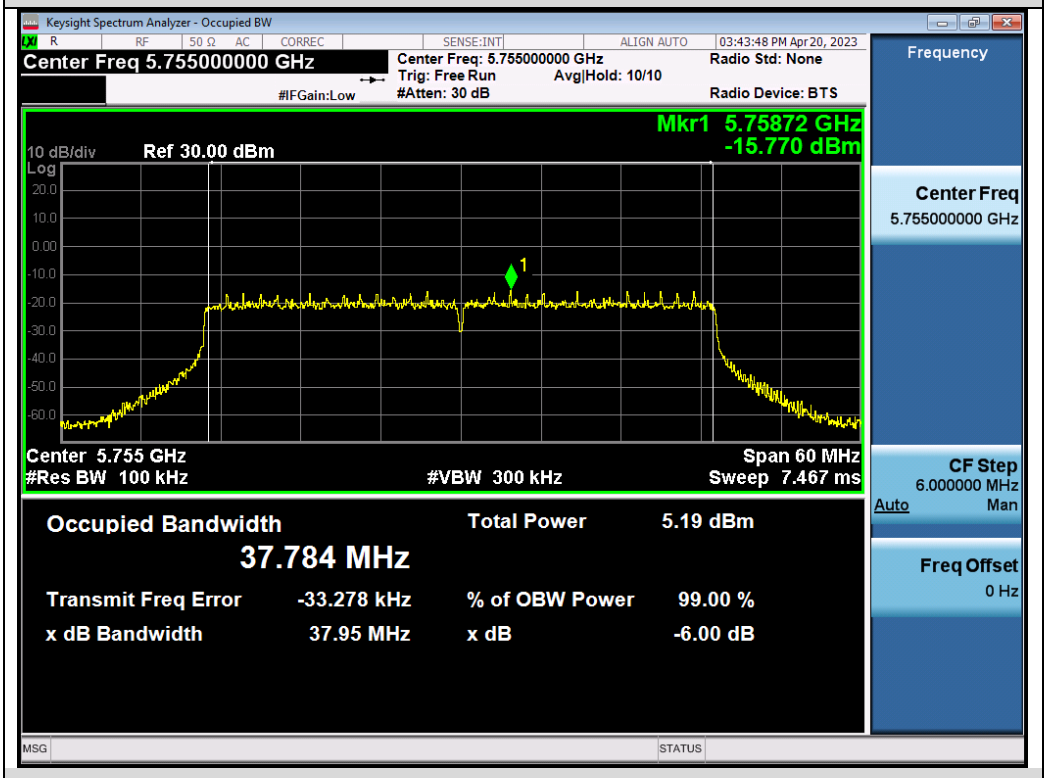


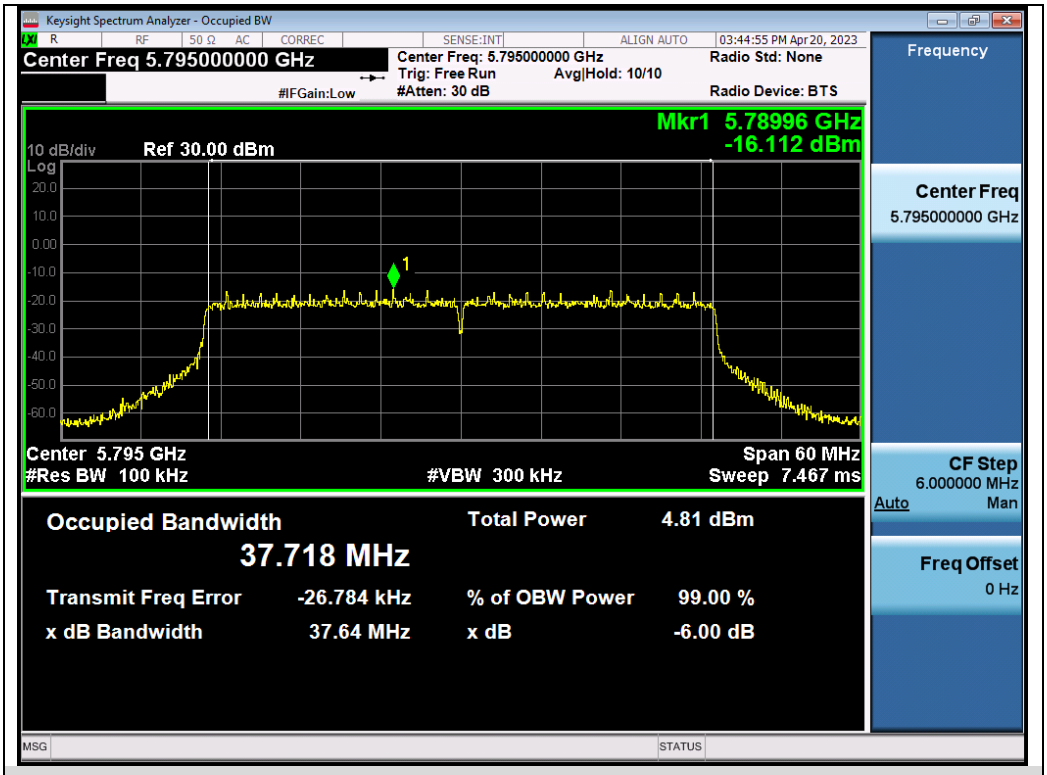
Test_Graph_802.11ax20_ANT1_5785_MCS0_DTSBW



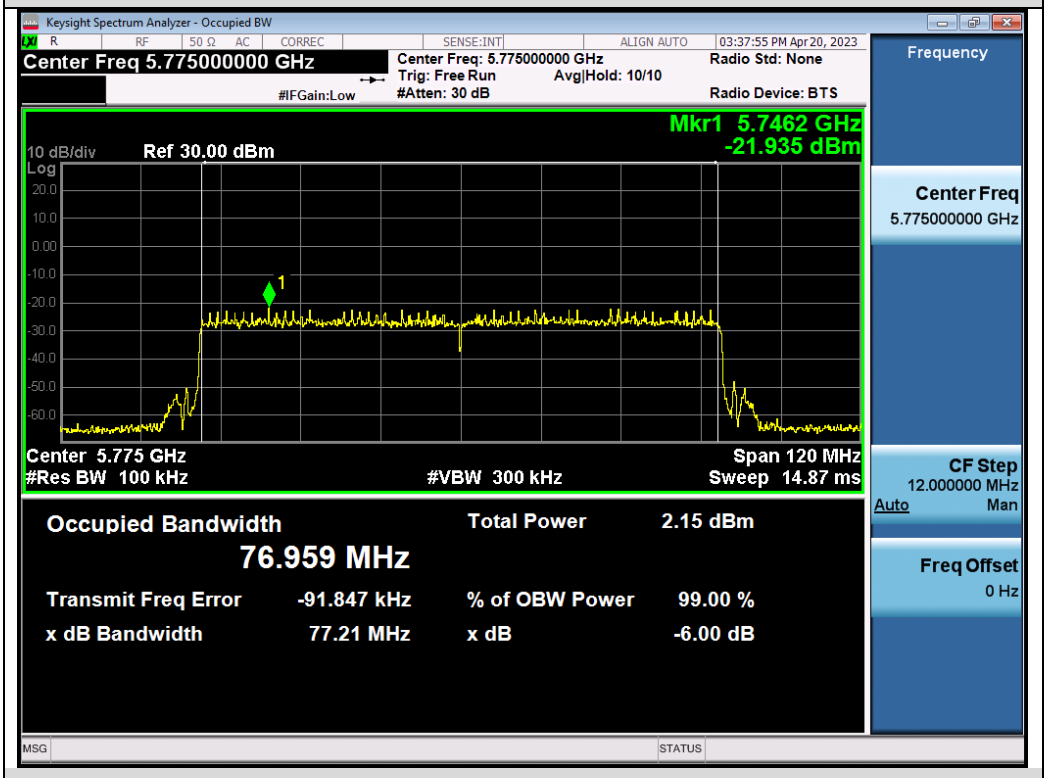
Test_Graph_802.11ax20_ANT1_5825_MCS0_DTSBW



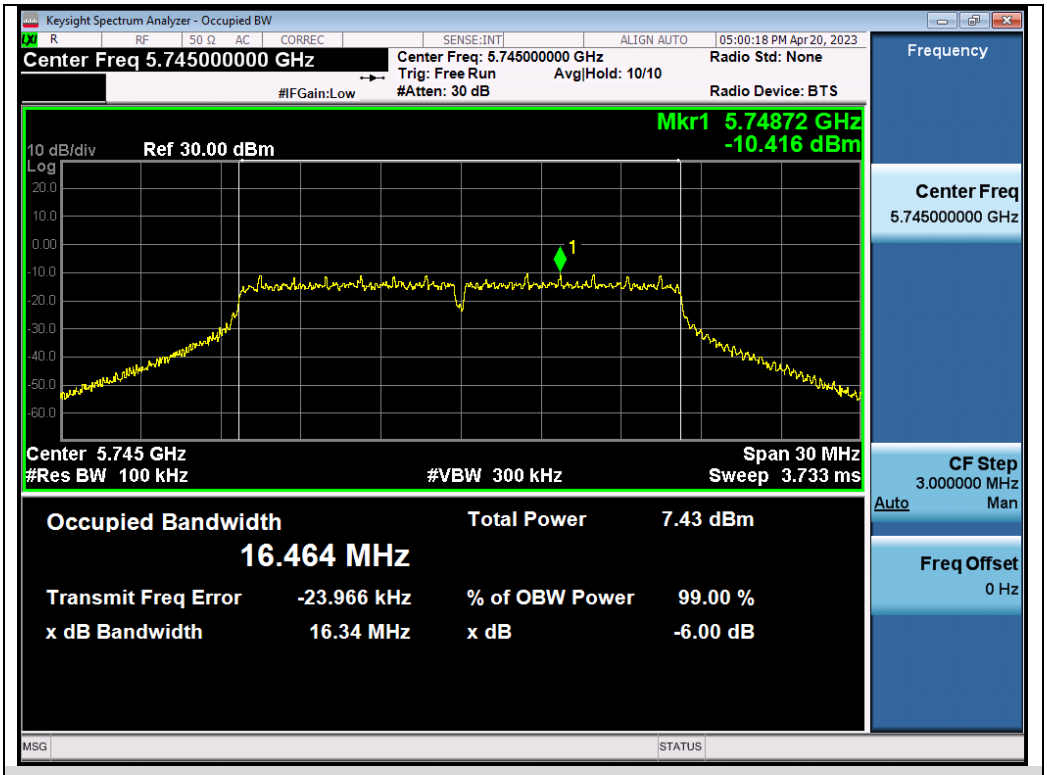
Test_Graph_802.11ax40_ANT1_5755_MCS0_DTSBW



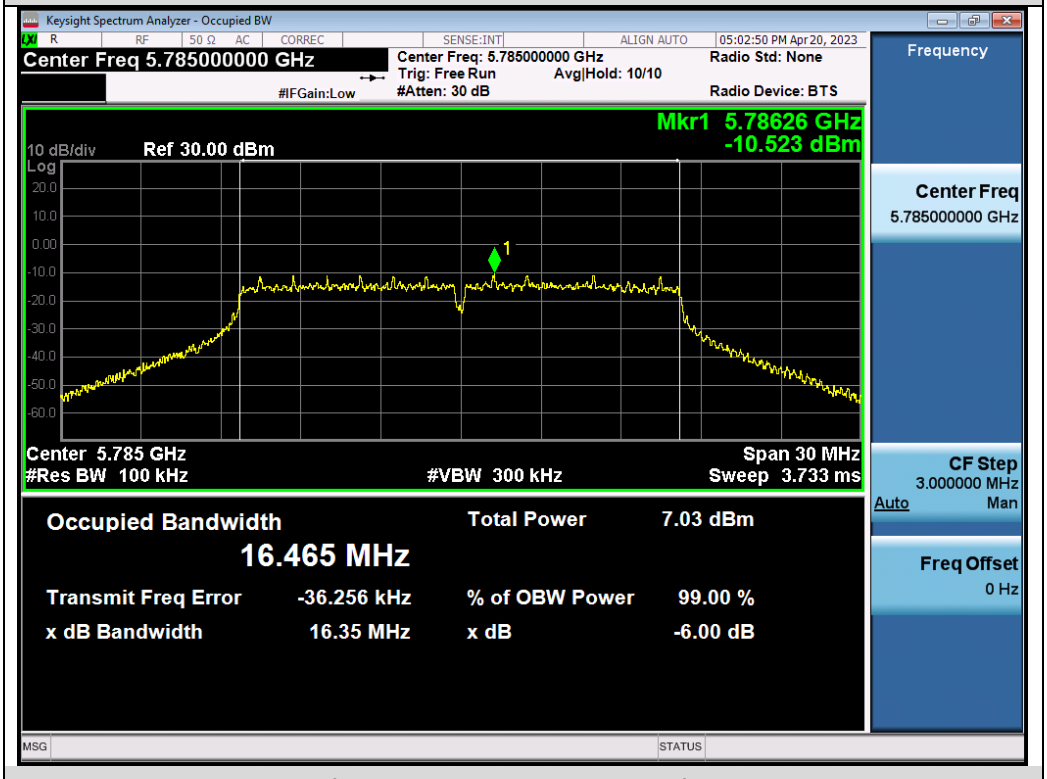
Test_Graph_802.11ax40_ANT1_5795_MCS0_DTSBW



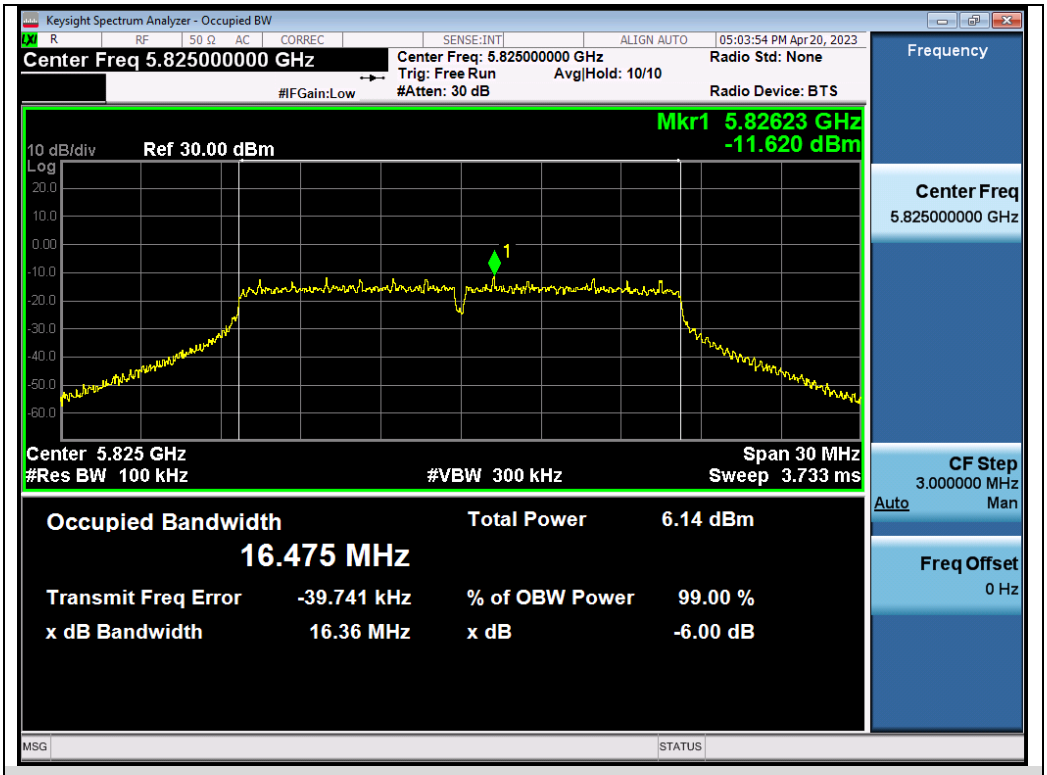
Test_Graph_802.11ax80_ANT1_5775_MCS0_DTSBW



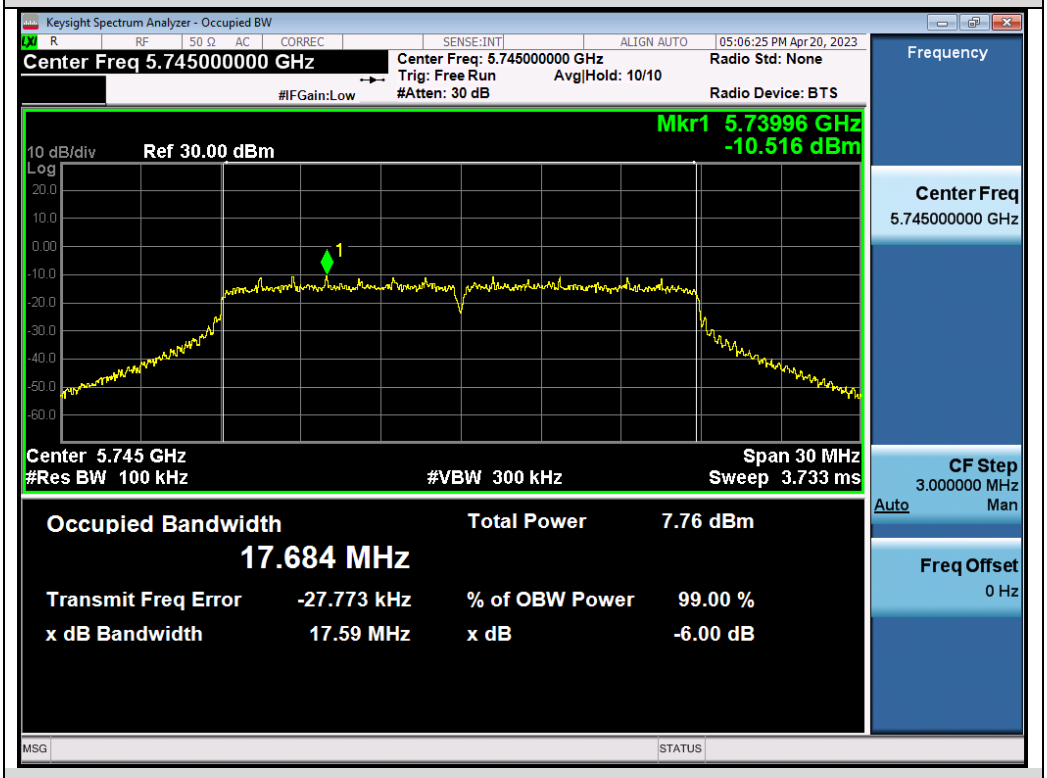
Test_Graph_802.11a_ANT2_5745_6Mbps_DTSBW



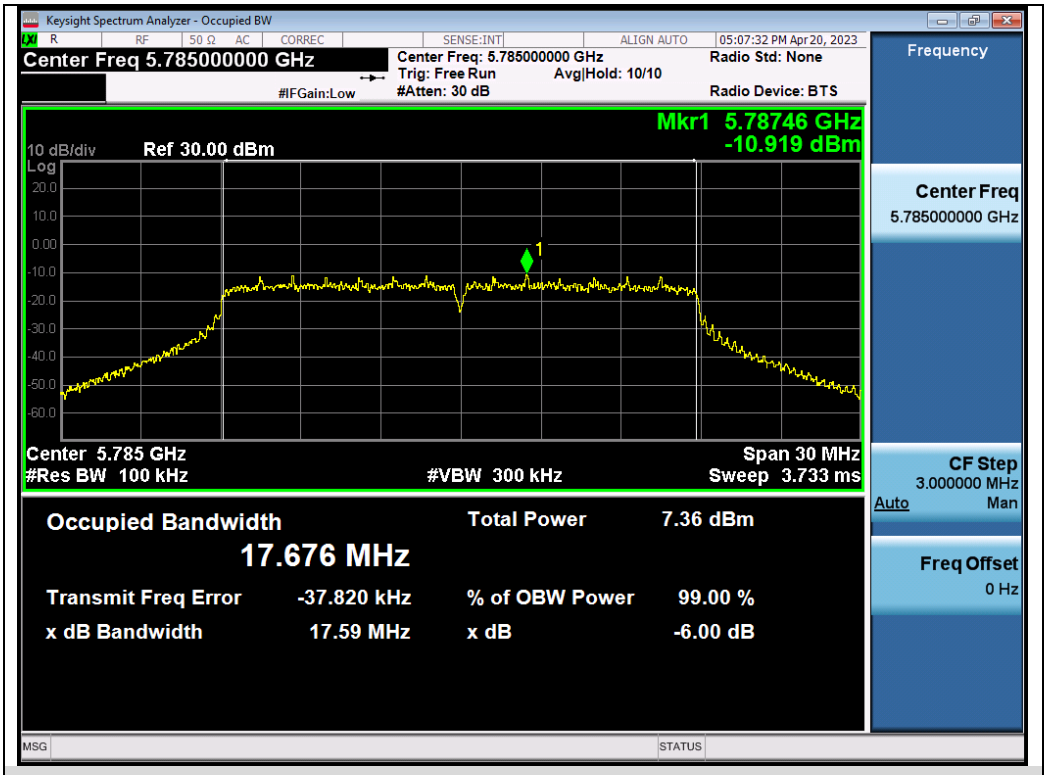
Test_Graph_802.11a_ANT2_5785_6Mbps_DTSBW



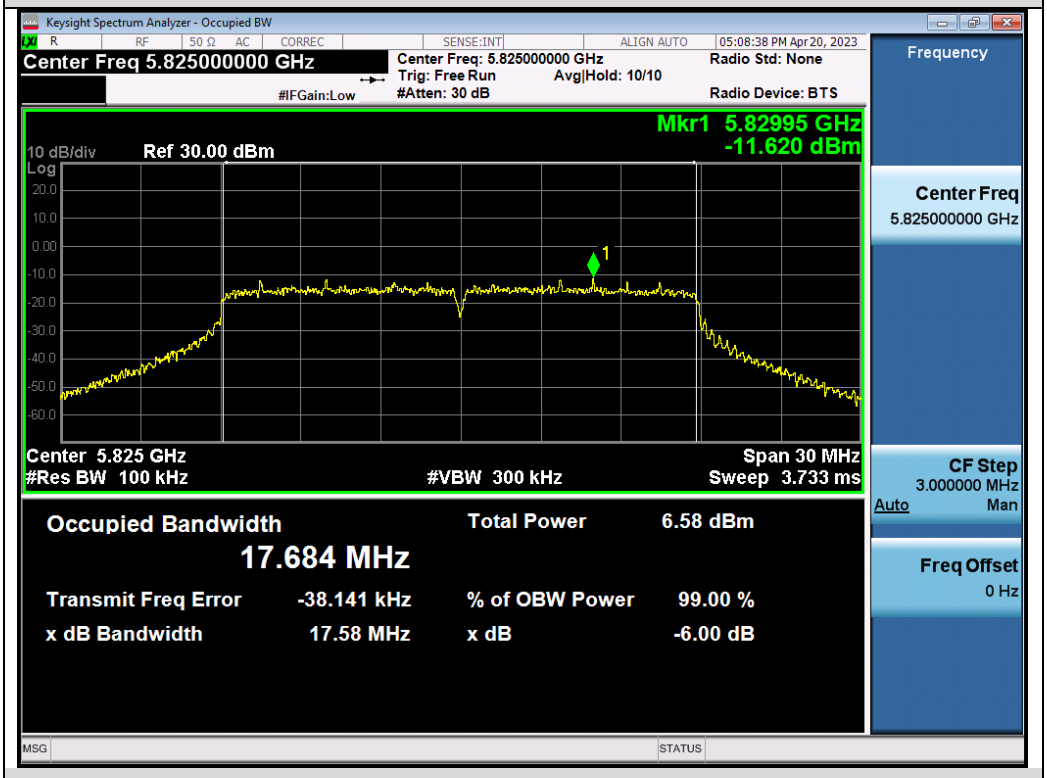
Test_Graph_802.11a_ANT2_5825_6Mbps_DTSBW



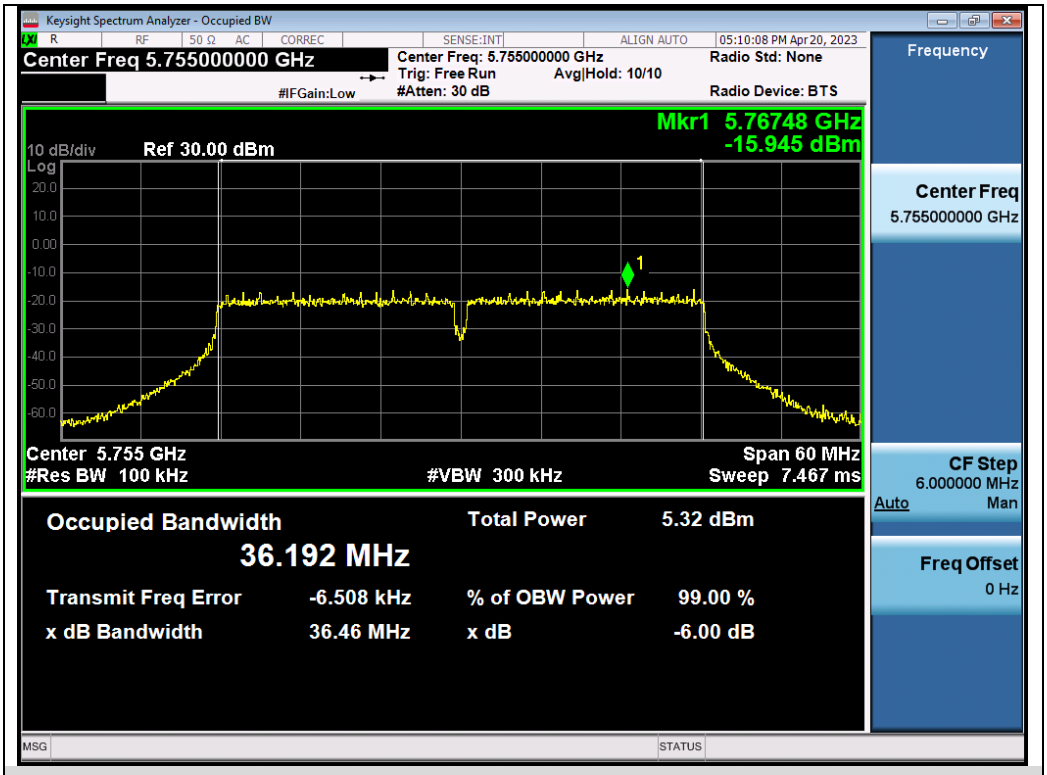
Test_Graph_802.11n20_ANT2_5745_MCS0_DTSBW



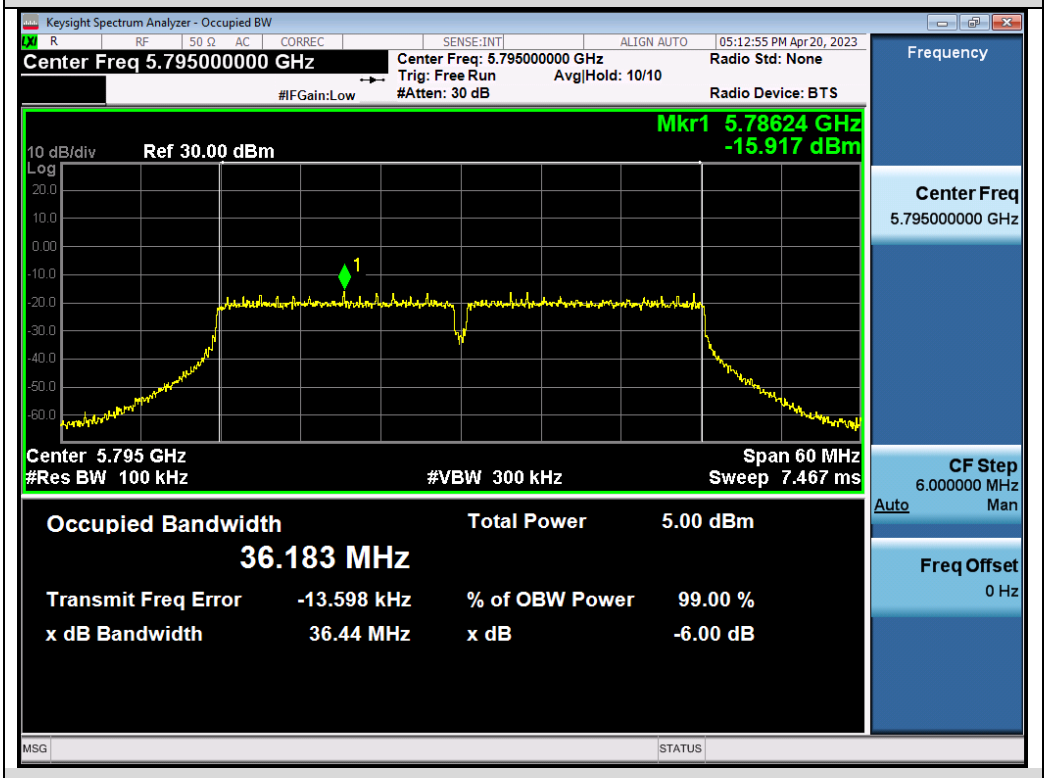
Test_Graph_802.11n20_ANT2_5785_MCS0_DTSBW



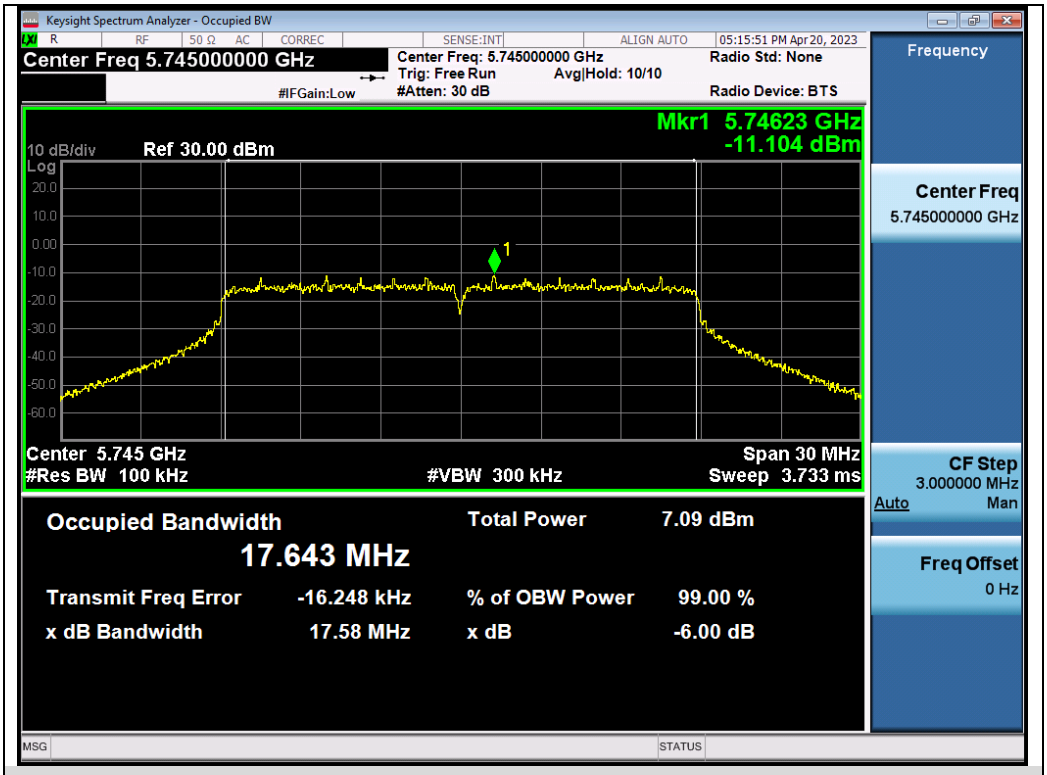
Test_Graph_802.11n20_ANT2_5825_MCS0_DTSBW



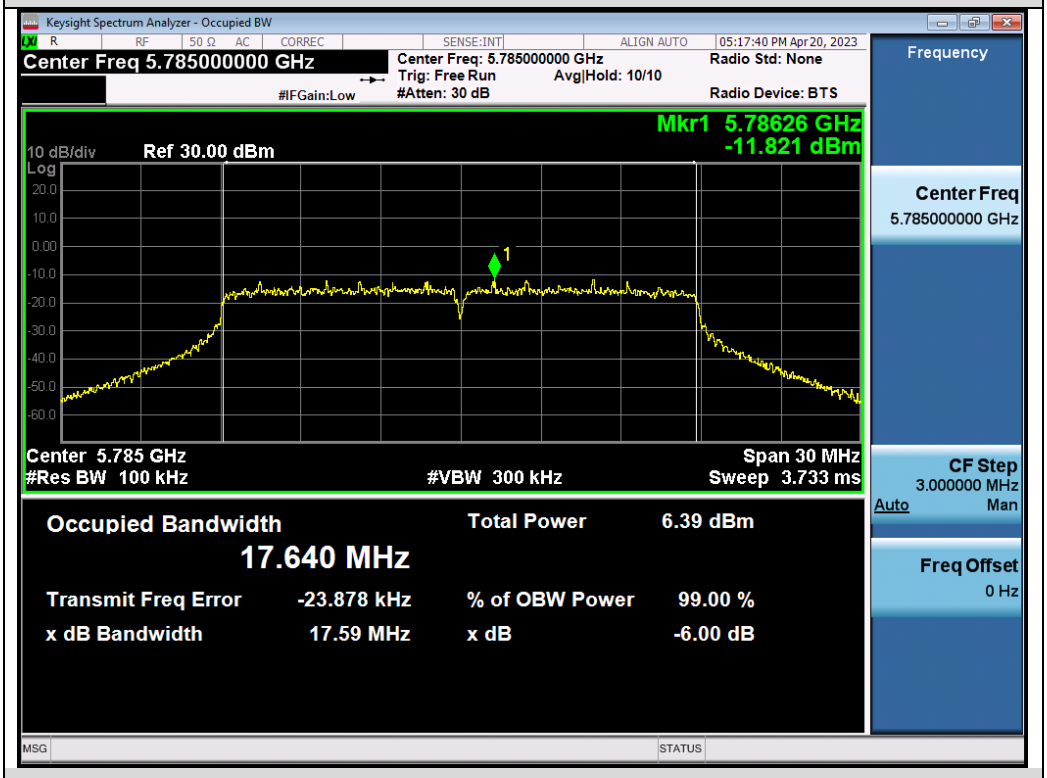
Test_Graph_802.11n40_ANT2_5755_MCS0_DTSBW



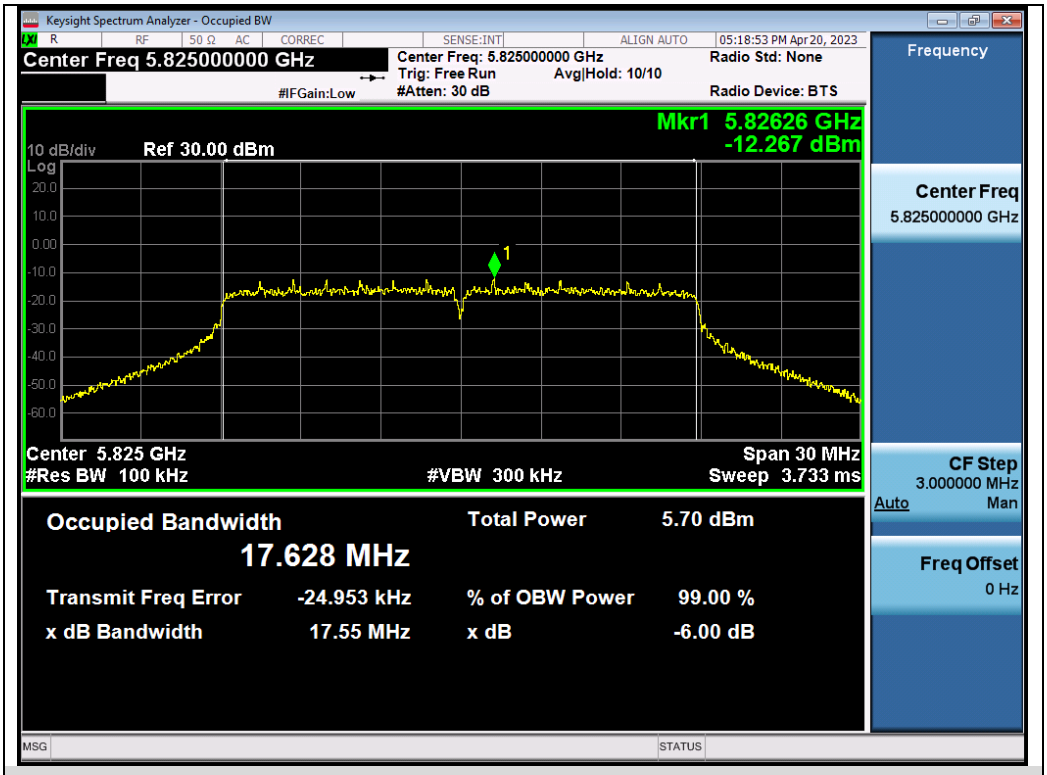
Test_Graph_802.11n40_ANT2_5795_MCS0_DTSBW



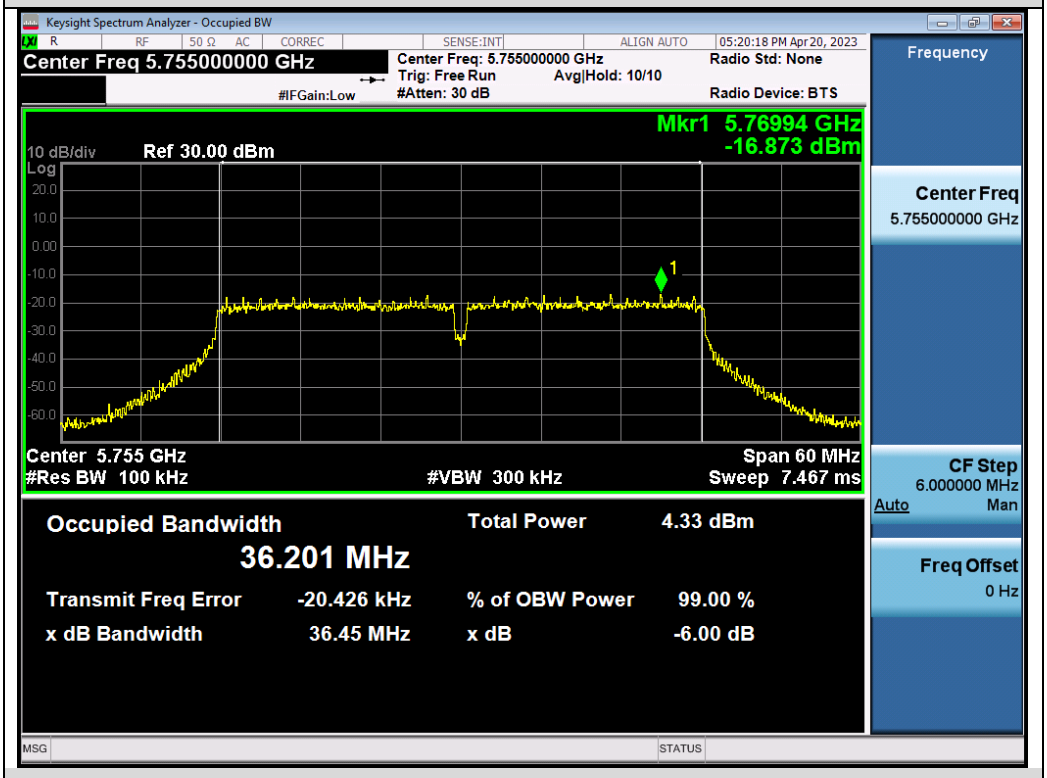
Test_Graph_802.11ac20_ANT2_5745_MCS0_DTSBW



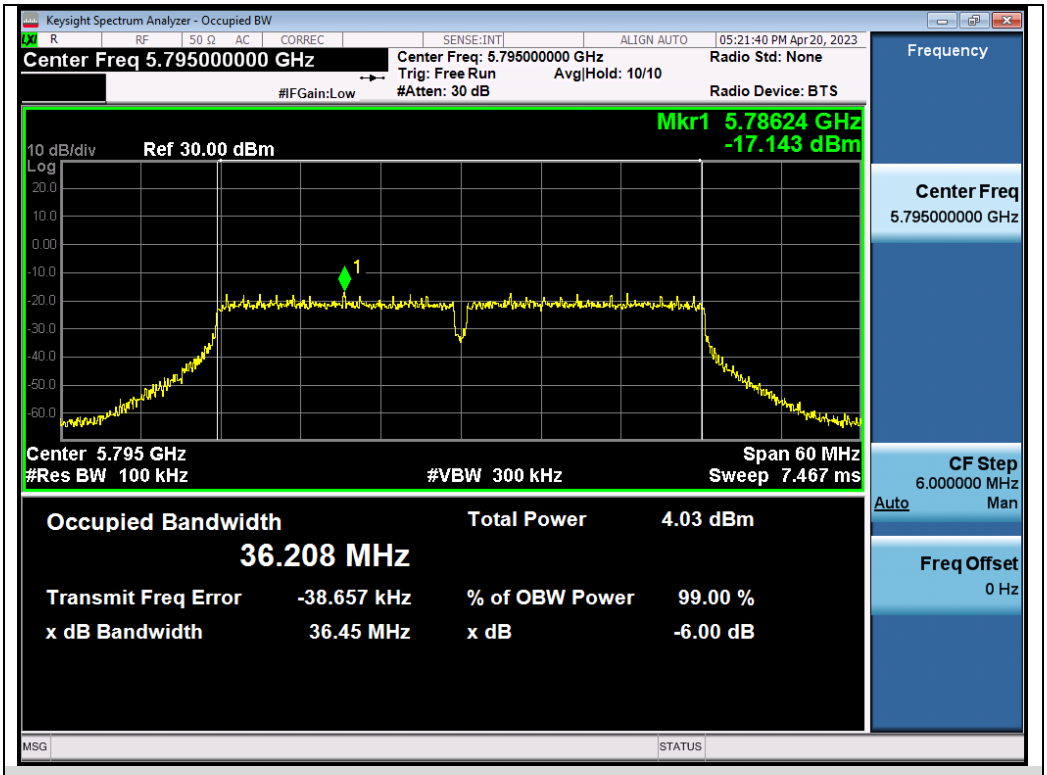
Test_Graph_802.11ac20_ANT2_5785_MCS0_DTSBW



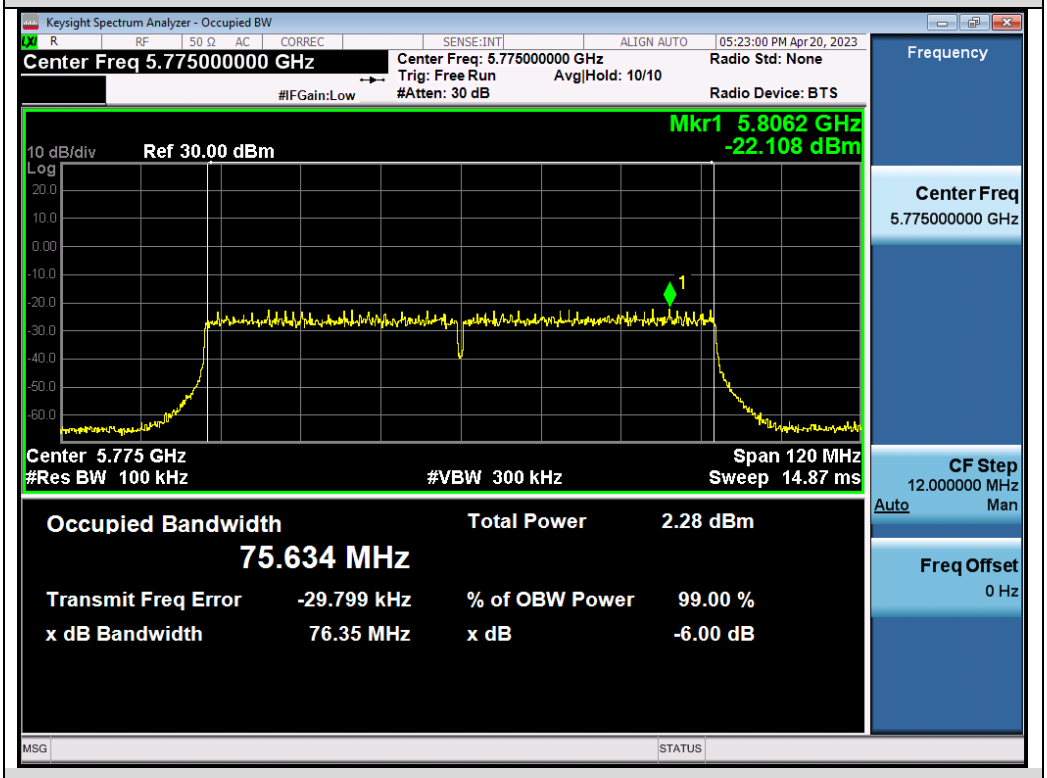
Test_Graph_802.11ac20_ANT2_5825_MCS9_DTSBW



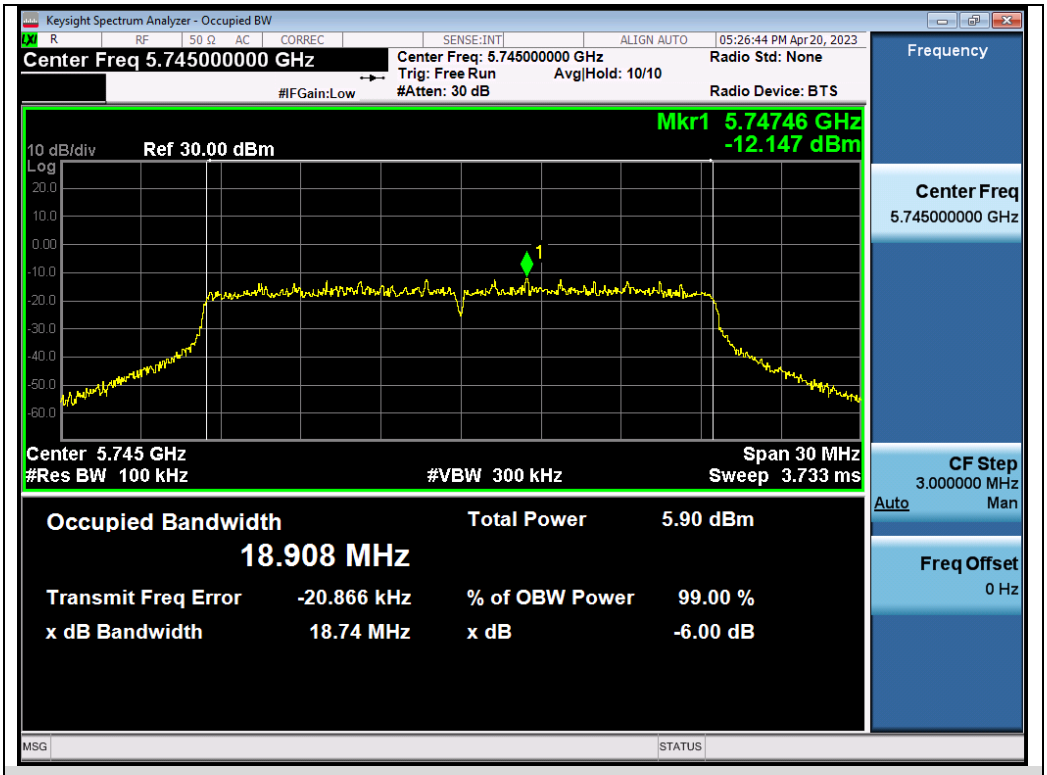
Test_Graph_802.11ac40_ANT2_5755_MCS9_DTSBW



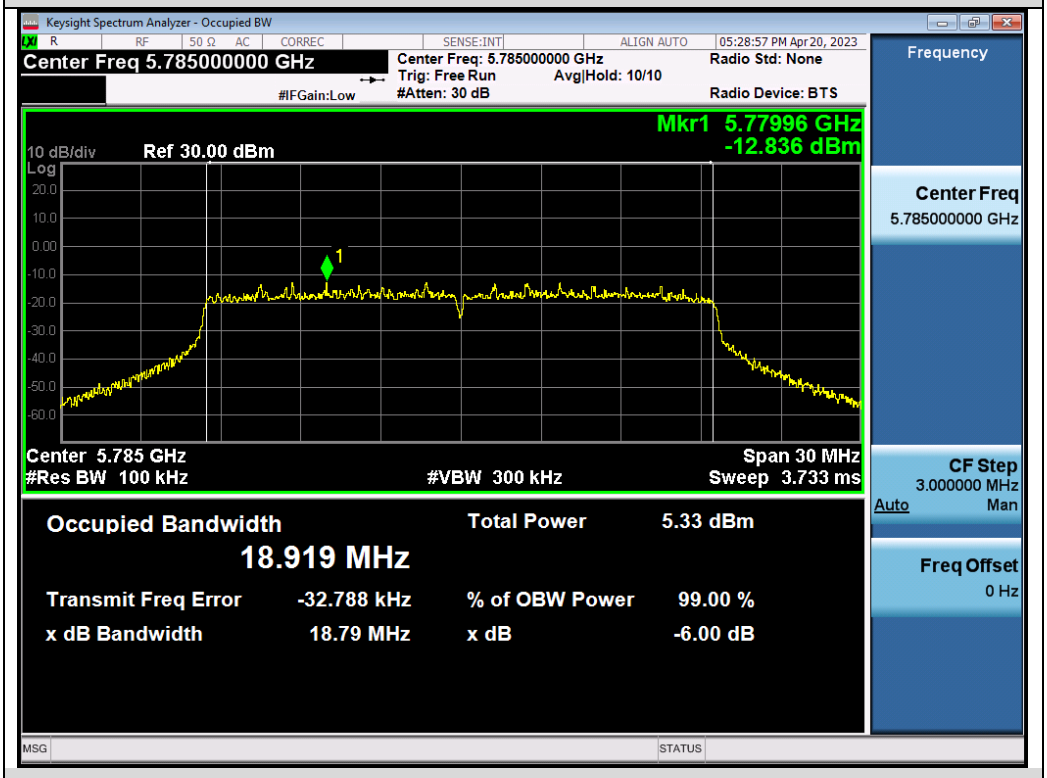
Test_Graph_802.11ac40_ANT2_5795_MCS9_DTSBW



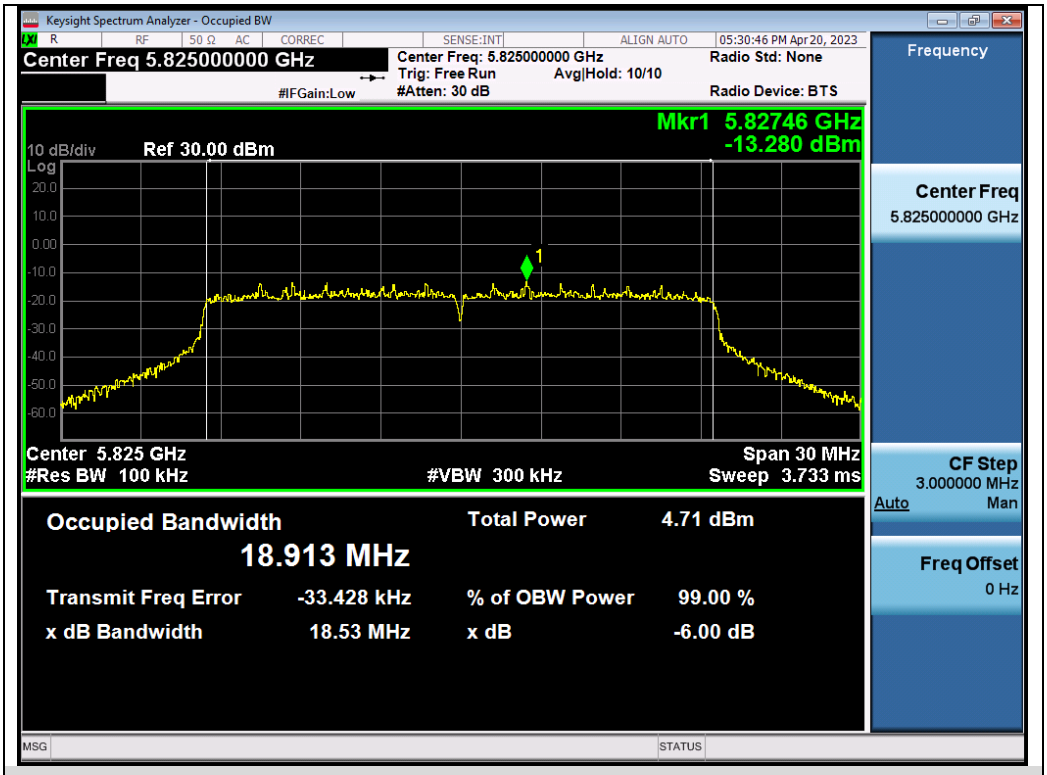
Test_Graph_802.11ac80_ANT2_5775_MCS9_DTSBW



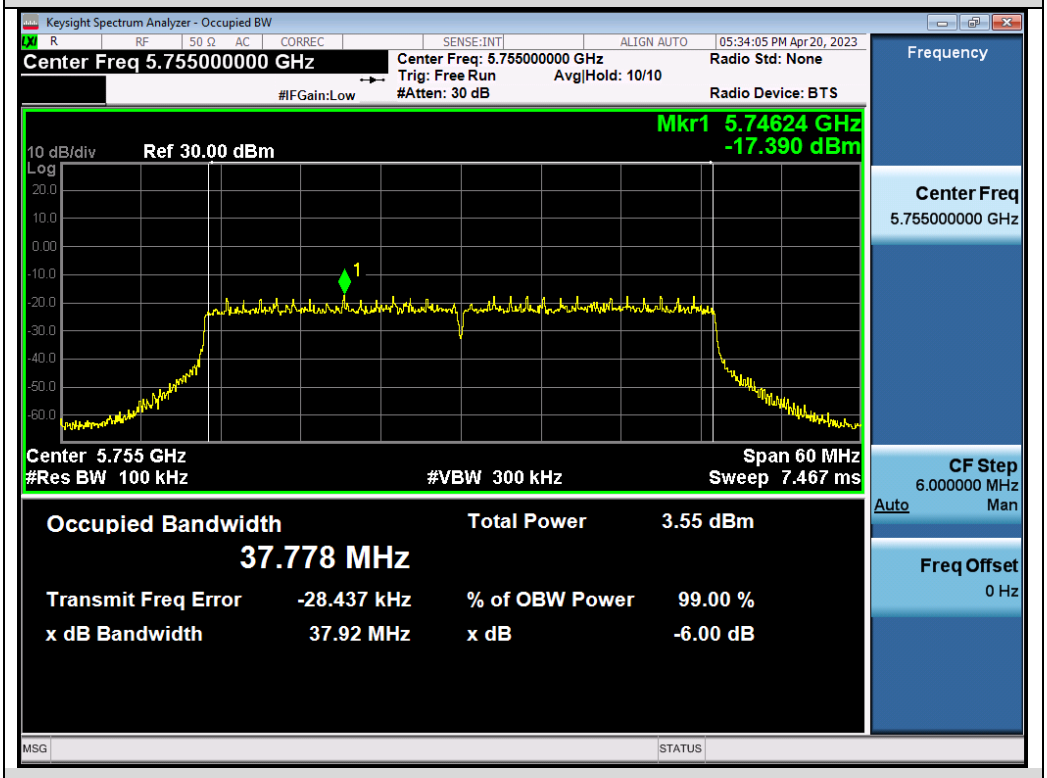
Test_Graph_802.11ax20_ANT2_5745_MCS0_DTSBW



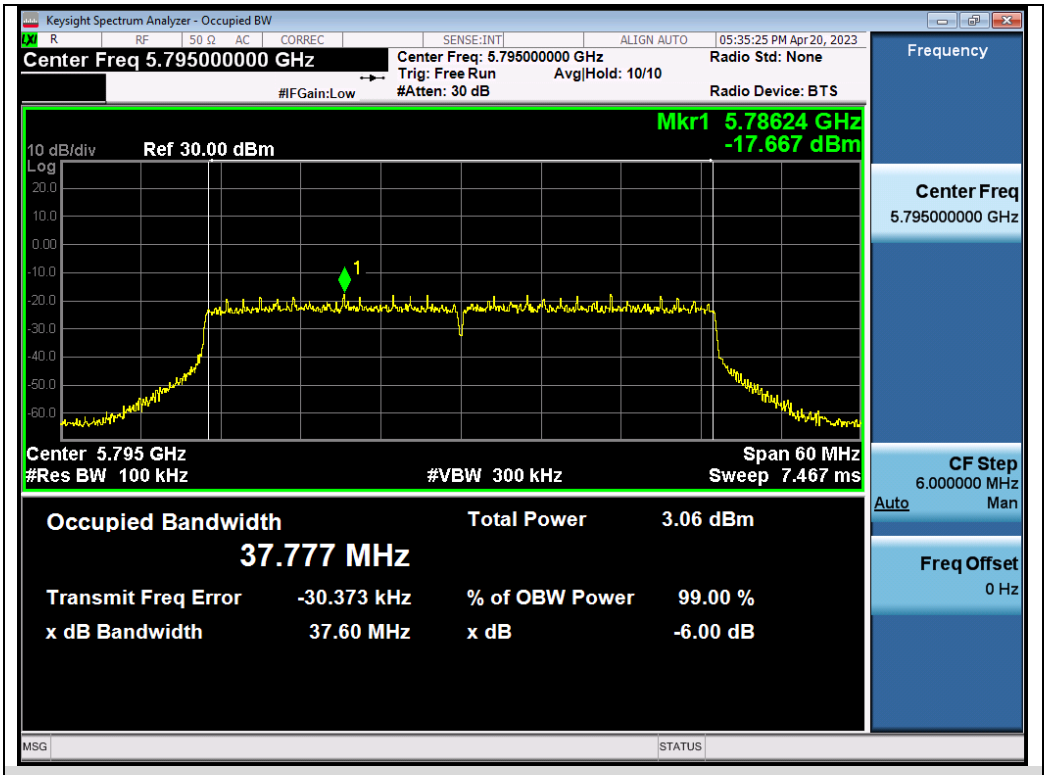
Test_Graph_802.11ax20_ANT2_5785_MCS0_DTSBW



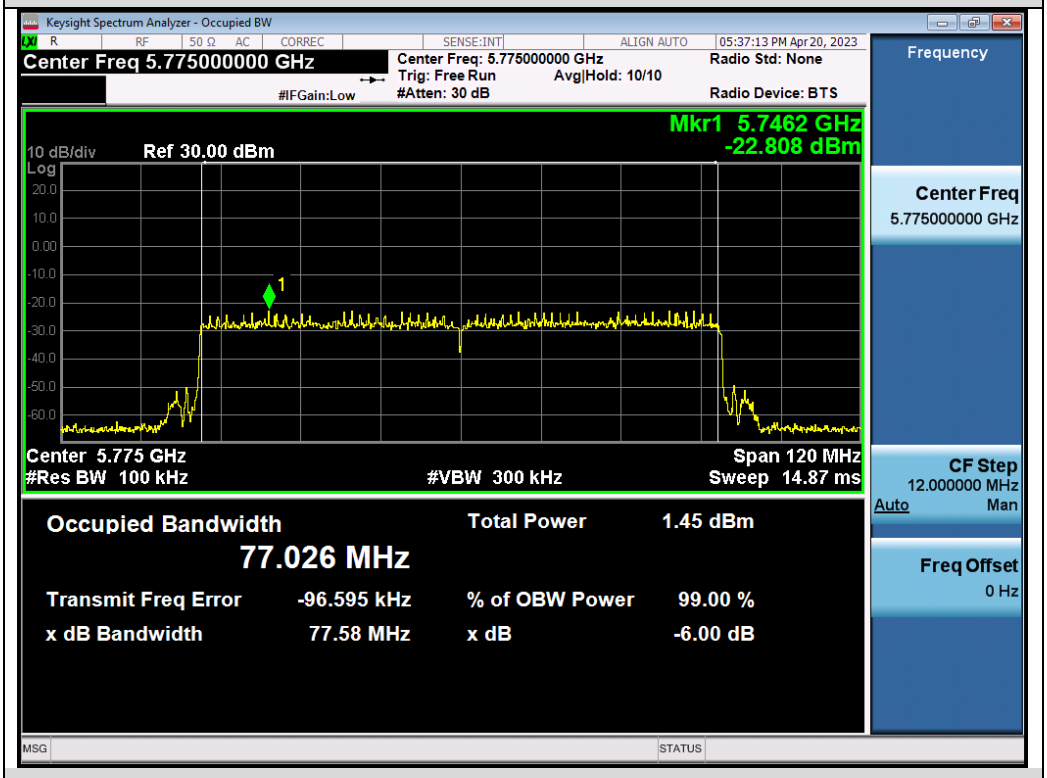
Test_Graph_802.11ax20_ANT2_5825_MCS0_DTSBW



Test_Graph_802.11ax40_ANT2_5755_MCS0_DTSBW



Test_Graph_802.11ax40_ANT2_5795_MCS0_DTSBW



Test_Graph_802.11ax80_ANT2_5775_MCS0_DTSBW

8. POWER SPECTRAL DENSITY MEASUREMENT

8.1 MEASUREMENT LIMITS

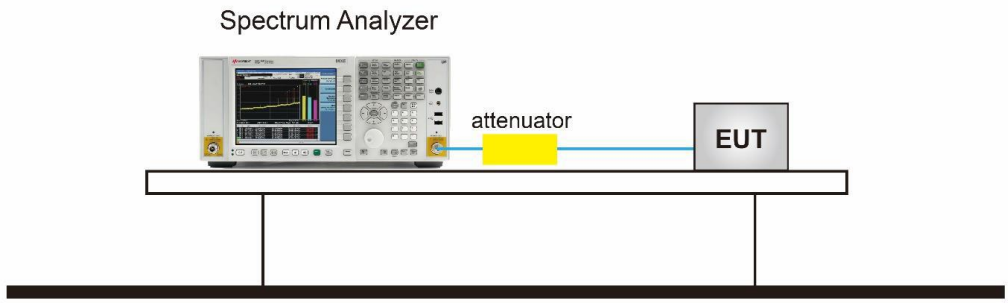
Operation Band	EUT Category		LIMIT
U-NII-1	☐	Outdoor Access Point	17dBm/ MHz
	☐	Fixed point-to-point Access Point	17dBm/ MHz
	☐	Indoor Access Point	17dBm/ MHz
	☒	Client devices	11dBm/ MHz
U-NII-2A	/		11dBm/ MHz
U-NII-2C	/		11dBm/ MHz
U-NII-3	/		30 dBm/500kHz

8.2 MEASUREMENT PROCEDURE

☒For Average power spectral density test:

1. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator.
2. Span was set to encompass the entire 26dB EBW of the signal.
3. RBW = 1MHz.
4. If measurement bandwidth of Maximum PSD is specified in 500 kHz, RBW = 100KHz
5. Set VBW≥[3×RBW].
6. Sweep Time=Auto couple.
7. Detector function=RMS (i.e., power averaging).
8. Trace average at least 100 traces in power averaging (rms) mode.
9. When the measurement bandwidth of Maximum PSD is specified in 100 kHz, add a constant factor 10*log(500kHz/100kHz) = 6.99 dB to the measured result.
10. Determine according to the duty cycle of the equipment: when it is less than 98%, follow the steps below.
11. Add [10 log (1/D)], where D is the duty cycle, to the measured power to compute the average power during the actual transmission times (because the measurement represents an average over both the ON and OFF times of the transmission). For example, add [10 log (1/0.25)] = 6 dB if the duty cycle is 25%.
12. Record the test results in the report.

8.3 MEASUREMENT SETUP (BLOCK DIAGRAM OF CONFIGURATION)



8.4 MEASUREMENT RESULT

Test Data of Conducted Output Power Density for band 5.15-5.25 GHz-ANT 1				
Test Mode	Test Channel (MHz)	Average Power Density (dBm/MHz)	Limits (dBm/MHz)	Pass or Fail
802.11a	5180	-5.651	11	Pass
	5200	-5.299	11	Pass
	5240	-6.209	11	Pass
802.11n20	5180	-5.057	11	Pass
	5200	-6.077	11	Pass
	5240	-6.188	11	Pass
802.11n40	5190	-8.301	11	Pass
	5230	-8.279	11	Pass
802.11ac20	5180	-7.049	11	Pass
	5200	-6.623	11	Pass
	5240	-6.362	11	Pass
802.11ac40	5190	-9.387	11	Pass
	5230	-9.147	11	Pass
802.11ac80	5210	-25.066	11	Pass
802.11ax20	5180	-7.165	11	Pass
	5200	-7.022	11	Pass
	5240	-7.320	11	Pass
802.11ax40	5190	-9.472	11	Pass
	5230	-9.740	11	Pass
802.11ax80	5210	-25.300	11	Pass

Test Data of Conducted Output Power Density for band 5.15-5.25 GHz-ANT 2				
Test Mode	Test Channel (MHz)	Average Power Density (dBm/MHz)	Limits (dBm/MHz)	Pass or Fail
802.11a	5180	-6.965	11	Pass
	5200	-6.794	11	Pass
	5240	-7.088	11	Pass
802.11n20	5180	-6.945	11	Pass
	5200	-6.573	11	Pass
	5240	-6.871	11	Pass
802.11n40	5190	-9.061	11	Pass
	5230	-8.943	11	Pass
802.11ac20	5180	-7.202	11	Pass
	5200	-7.103	11	Pass
	5240	-7.538	11	Pass
802.11ac40	5190	-9.559	11	Pass
	5230	-10.166	11	Pass
802.11ac80	5210	-25.438	11	Pass
802.11ax20	5180	-7.346	11	Pass
	5200	-7.586	11	Pass
	5240	-7.867	11	Pass
802.11ax40	5190	-9.742	11	Pass
	5230	-10.282	11	Pass
802.11ax80	5210	-25.352	11	Pass

Test Data of Conducted Output Power Density for band 5.725-5.85 GHz-ANT 1					
Test Mode	Test Channel (MHz)	Average Power Density (dBm/100kHz)	Average Power Density (dBm/500kHz)	Limits (dBm/500kHz)	Pass or Fail
802.11a	5745	-14.490	-7.500	30	Pass
	5785	-14.704	-7.714	30	Pass
	5825	-15.261	-8.271	30	Pass
802.11n20	5745	-14.827	-7.837	30	Pass
	5785	-14.914	-7.924	30	Pass
	5825	-15.398	-8.408	30	Pass
802.11n40	5755	-16.955	-9.965	30	Pass
	5795	-16.789	-9.799	30	Pass
802.11ac20	5745	-15.312	-8.322	30	Pass
	5785	-15.75	-8.76	30	Pass
	5825	-16.253	-9.263	30	Pass
802.11ac40	5755	-18.152	-11.162	30	Pass
	5795	-17.207	-10.217	30	Pass
802.11ac80	5775	-33.738	-26.748	30	Pass
802.11ax20	5745	-15.743	-8.753	30	Pass
	5785	-16.794	-9.804	30	Pass
	5825	-16.039	-9.049	30	Pass
802.11ax40	5755	-17.862	-10.872	30	Pass
	5795	-17.807	-10.817	30	Pass
802.11ax80	5775	-34.428	-27.438	30	Pass

Test Data of Conducted Output Power Density for band 5.725-5.85 GHz-ANT 2					
Test Mode	Test Channel (MHz)	Average Power Density (dBm/100kHz)	Average Power Density (dBm/500kHz)	Limits (dBm/500kHz)	Pass or Fail
802.11a	5745	-14.864	-7.874	30	Pass
	5785	-15.326	-8.336	30	Pass
	5825	-16.319	-9.329	30	Pass
802.11n20	5745	-15.096	-8.106	30	Pass
	5785	-15.526	-8.536	30	Pass
	5825	-16.551	-9.561	30	Pass
802.11n40	5755	-17.137	-10.147	30	Pass
	5795	-17.235	-10.245	30	Pass
802.11ac20	5745	-15.513	-8.523	30	Pass
	5785	-16.152	-9.162	30	Pass
	5825	-16.732	-9.742	30	Pass
802.11ac40	5755	-18.672	-11.682	30	Pass
	5795	-18.925	-11.935	30	Pass
802.11ac80	5775	-22.108	-15.118	30	Pass
802.11ax20	5745	-16.741	-9.751	30	Pass
	5785	-16.829	-9.839	30	Pass
	5825	-17.949	-10.959	30	Pass
802.11ax40	5755	-19.347	-12.357	30	Pass
	5795	-19.823	-12.833	30	Pass
802.11ax80	5775	-35.487	-28.497	30	Pass

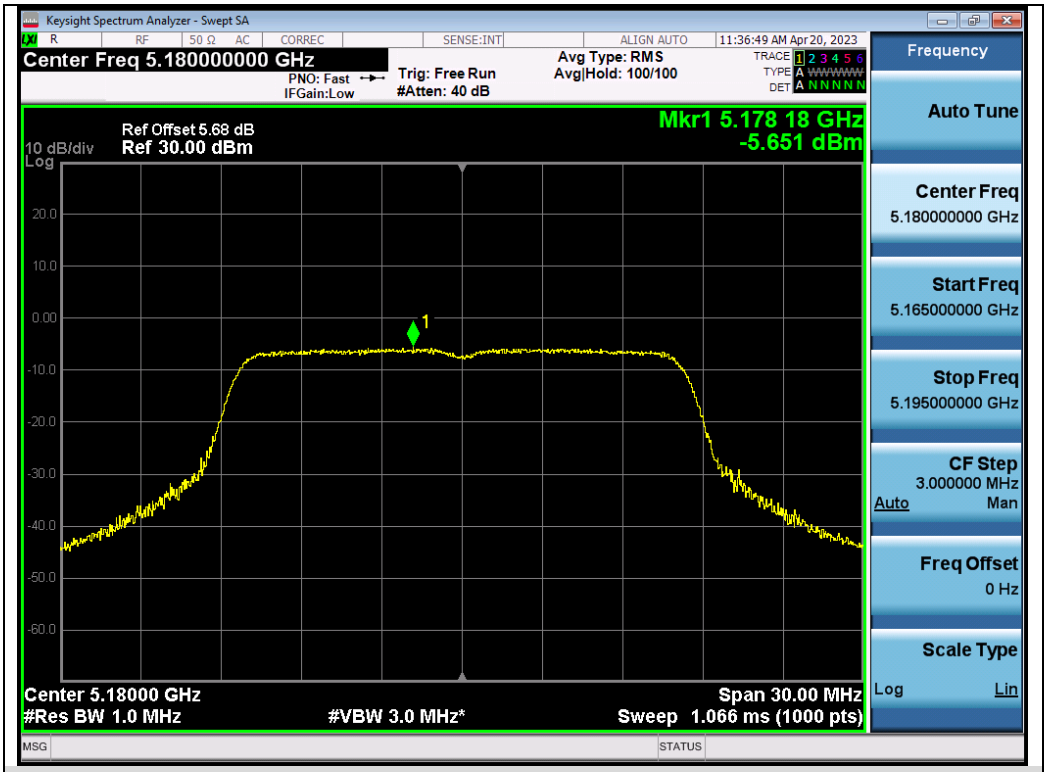
Test Data of Conducted Output Power Density for band 5.15-5.25 GHz-MIMO				
Test Mode	Test Channel (MHz)	Average Power Density (dBm/MHz)	Limits (dBm/MHz)	Pass or Fail
802.11n20	5180	-2.89	8.53	Pass
	5200	-3.31	8.53	Pass
	5240	-3.51	8.53	Pass
802.11n40	5190	-5.65	8.53	Pass
	5230	-5.59	8.53	Pass
802.11ac20	5180	-4.11	8.53	Pass
	5200	-3.85	8.53	Pass
	5240	-3.90	8.53	Pass
802.11ac40	5190	-6.46	8.53	Pass
	5230	-6.62	8.53	Pass
802.11ac80	5210	-22.24	8.53	Pass
802.11ax20	5180	-4.24	8.53	Pass
	5200	-4.28	8.53	Pass
	5240	-4.57	8.53	Pass
802.11ax40	5190	-6.59	8.53	Pass
	5230	-6.99	8.53	Pass
802.11ax80	5210	-22.32	8.53	Pass

Test Data of Conducted Output Power Density for band 5.725-5.85 GHz-MIMO					
Test Mode	Test Channel (MHz)	Average Power Density (dBm/100kHz)	Average Power Density (dBm/500kHz)	Limits (dBm/500kHz)	Pass or Fail
802.11n20	5745	-11.95	-4.96	27.53	Pass
	5785	-12.20	-5.21	27.53	Pass
	5825	-12.93	-5.94	27.53	Pass
802.11n40	5755	-14.03	-7.04	27.53	Pass
	5795	-14.00	-7.01	27.53	Pass
802.11ac20	5745	-12.40	-5.41	27.53	Pass
	5785	-12.94	-5.95	27.53	Pass
	5825	-13.48	-6.49	27.53	Pass
802.11ac40	5755	-15.39	-8.40	27.53	Pass
	5795	-14.97	-7.98	27.53	Pass
802.11ac80	5775	-21.82	-14.83	27.53	Pass
802.11ax20	5745	-13.20	-6.21	27.53	Pass
	5785	-13.80	-6.811	27.53	Pass
	5825	-13.88	-6.890	27.53	Pass
802.11ax40	5755	-15.531	-8.541	27.53	Pass
	5795	-15.689	-8.699	27.53	Pass
802.11ax80	5775	-31.915	-24.925	27.53	Pass

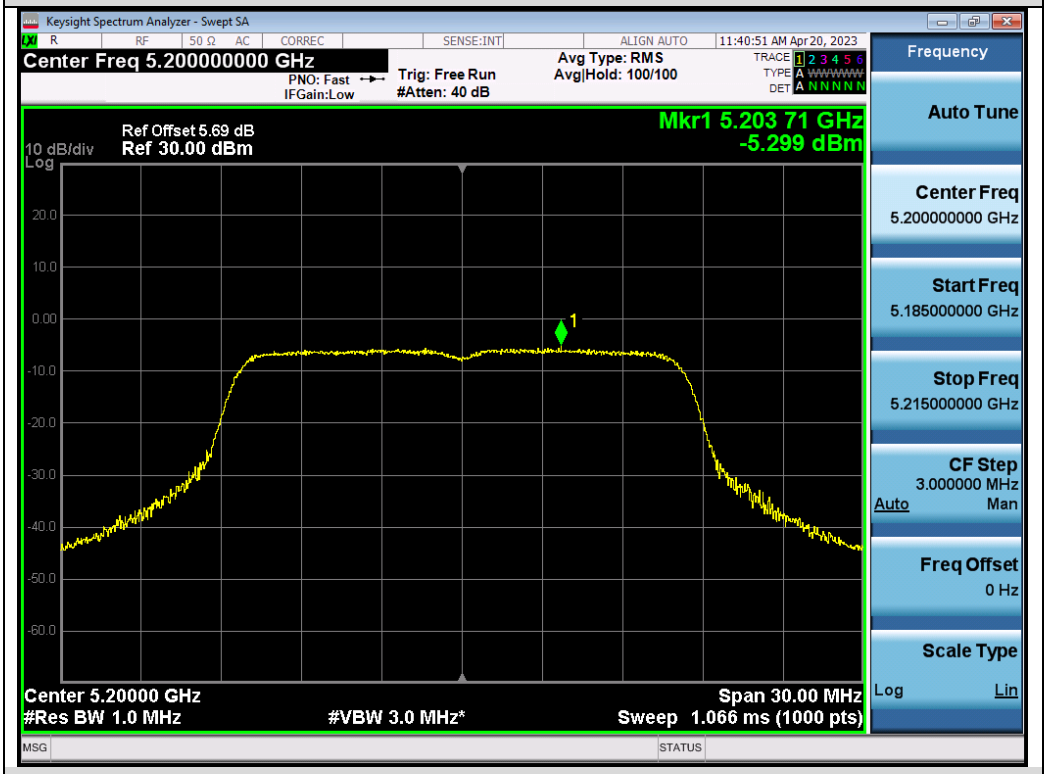
Note:1.Power density(dBm/500kHz) = Power density(dBm/100kHz)+10*log(500/100).

2.The Total PSD(dBm/500kHz) = 10*log $\{10^{(\text{Ant 1 PSD}/10)} + 10^{(\text{Ant 2 PSD}/10)}\}$(dBm/500kHz).

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

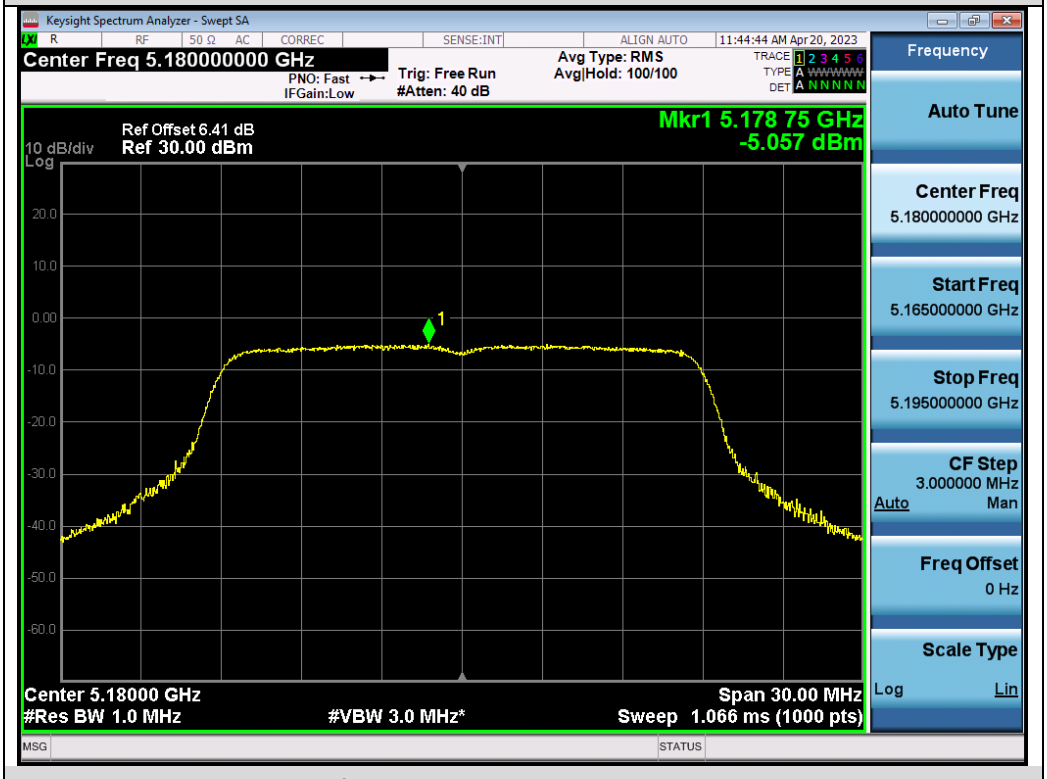


Test_Graph_802.11a_ANT1_5180_6Mbps_PSD

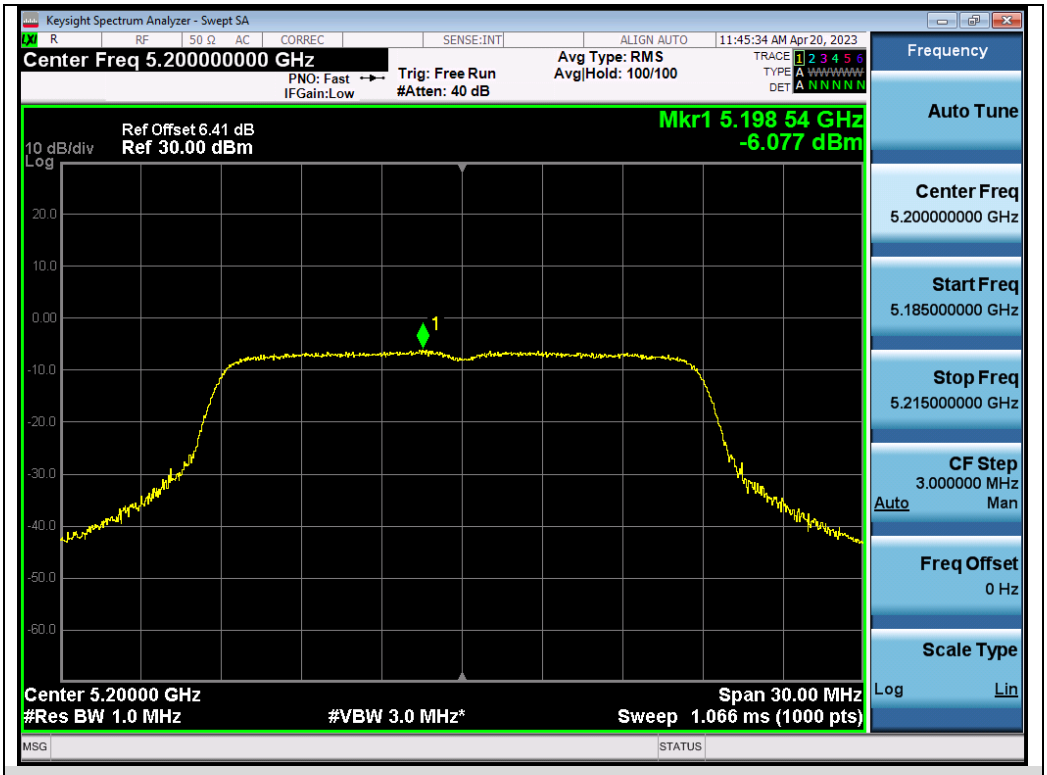


Test_Graph_802.11a_ANT1_5200_6Mbps_PSD

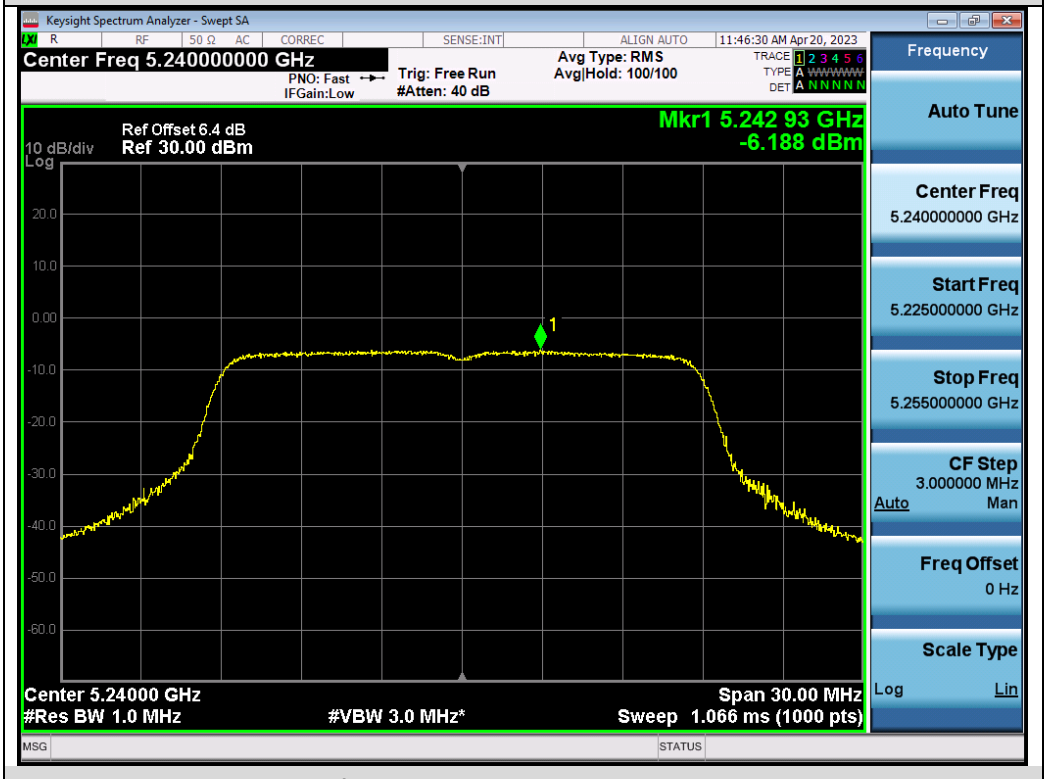
Test_Graph_802.11a_ANT1_5240_6Mbps_PSD



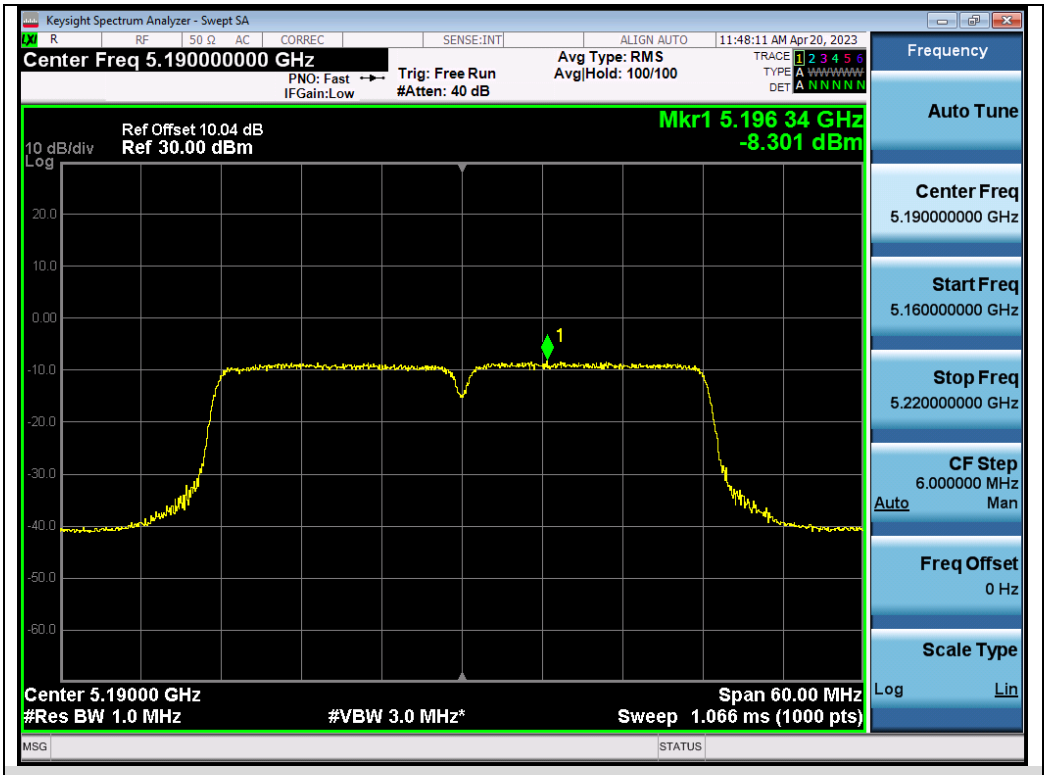
Test_Graph_802.11n20_ANT1_5180_MCS0_PSD



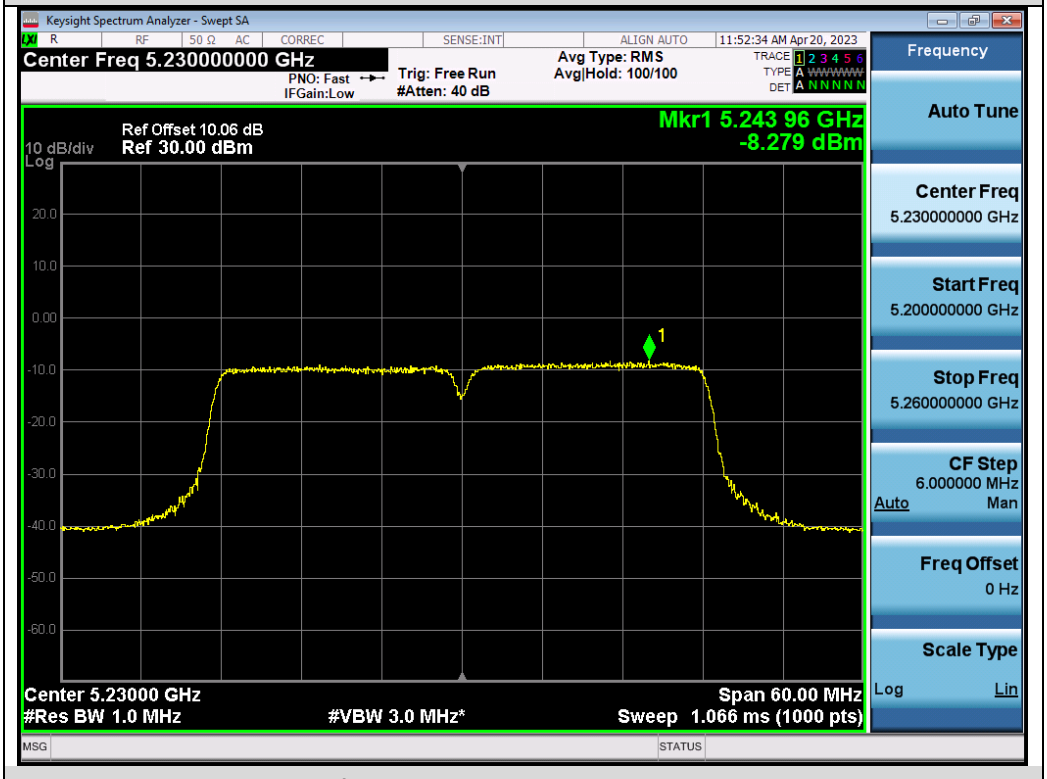
Test_Graph_802.11n20_ANT1_5200_MCS0_PSD



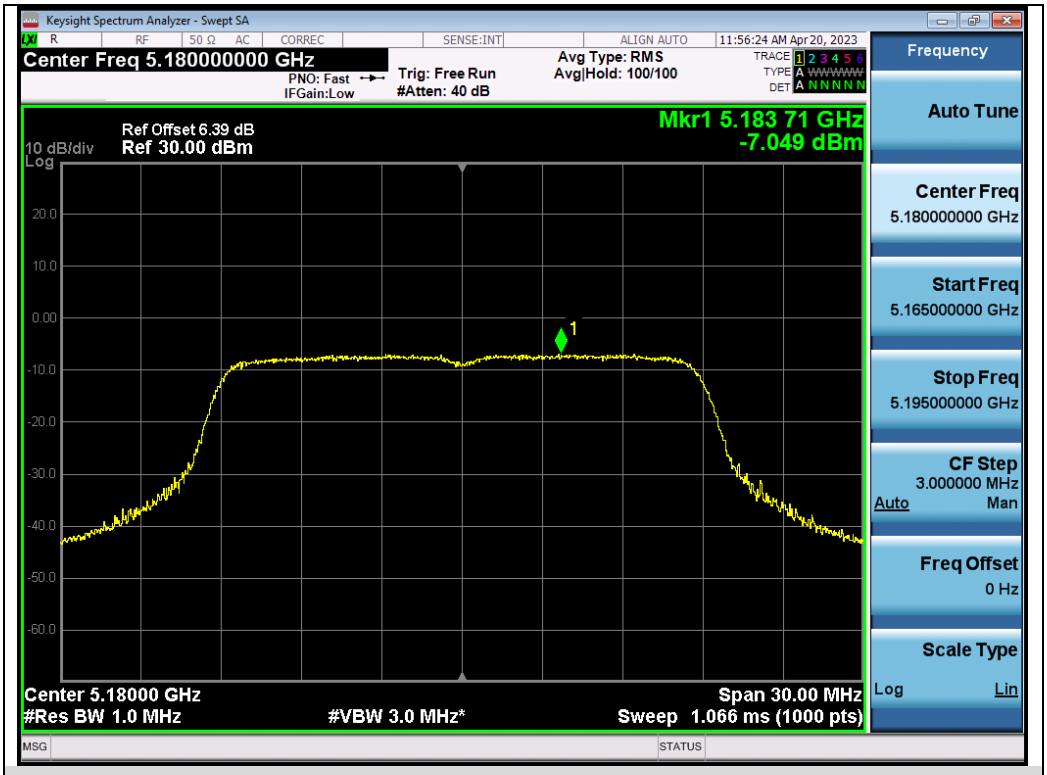
Test_Graph_802.11n20_ANT1_5240_MCS0_PSD



Test_Graph_802.11n40_ANT1_5190_MCS0_PSD

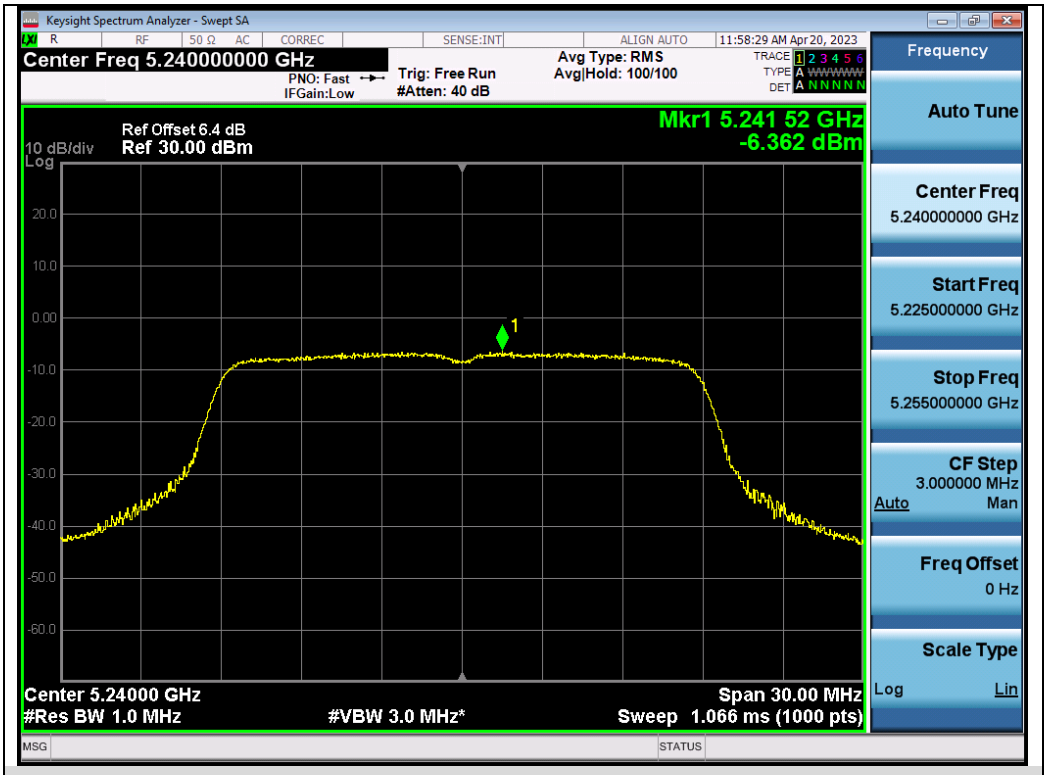


Test_Graph_802.11n40_ANT1_5230_MCS0_PSD

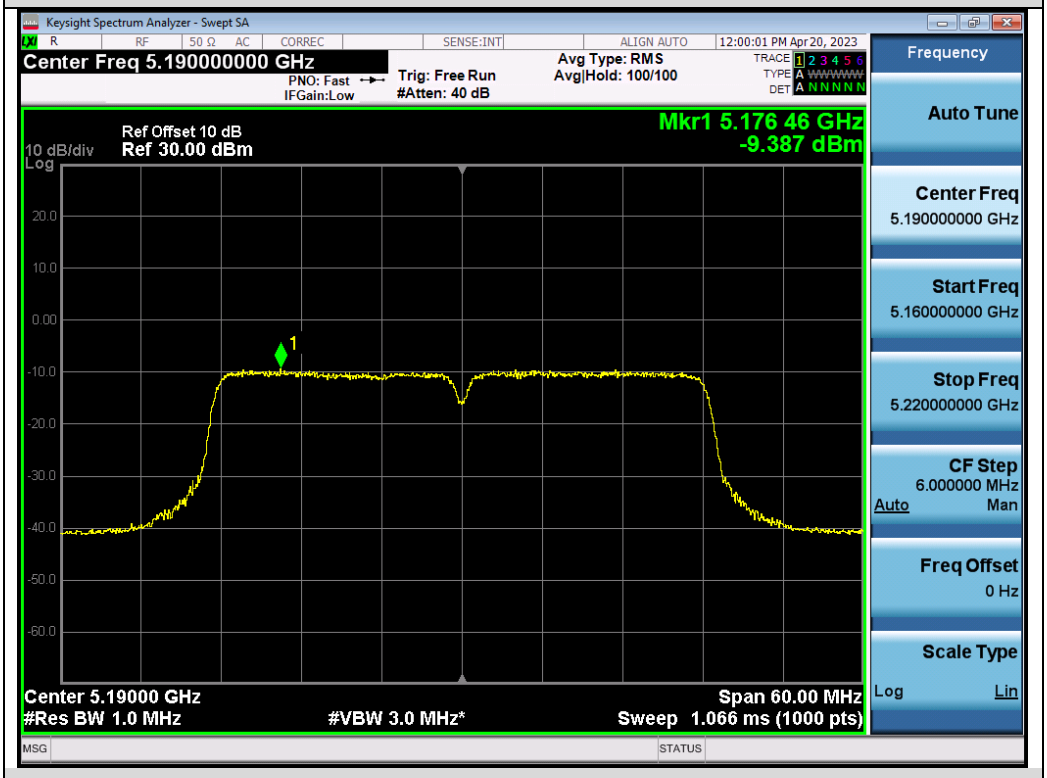


Test_Graph_802.11ac20_ANT1_5180_MCS0_PSD

Test_Graph_802.11ac20_ANT1_5200_MCS0_PSD

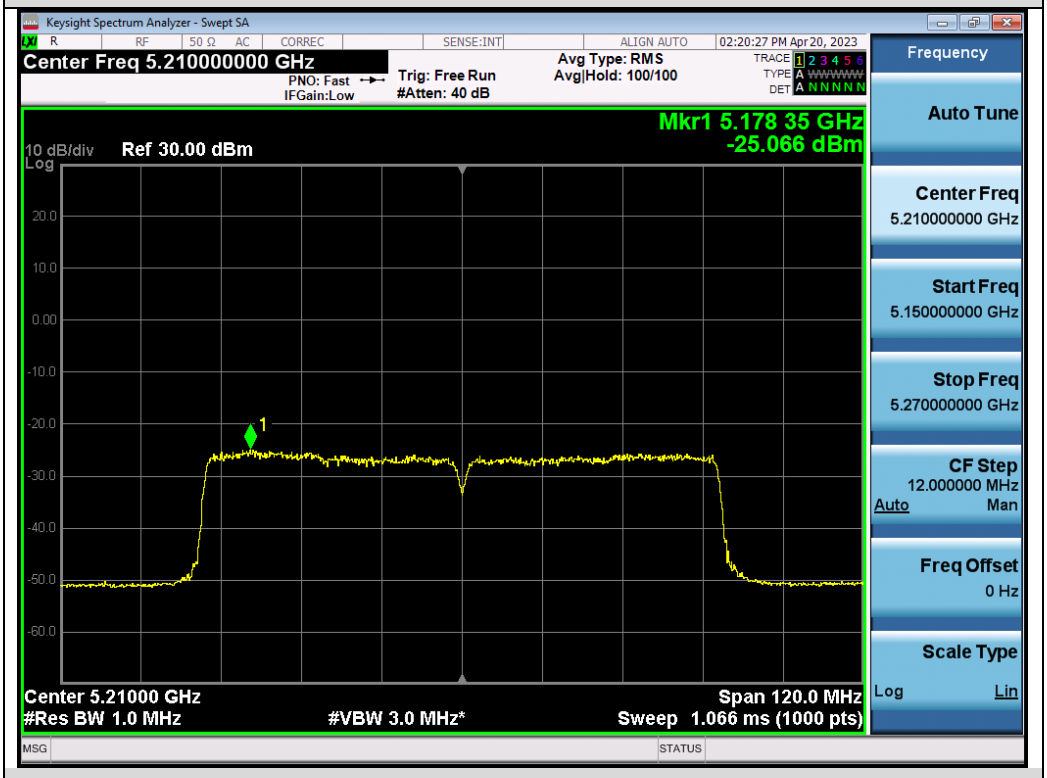


Test_Graph_802.11ac20_ANT1_5240_MCS9_PSD

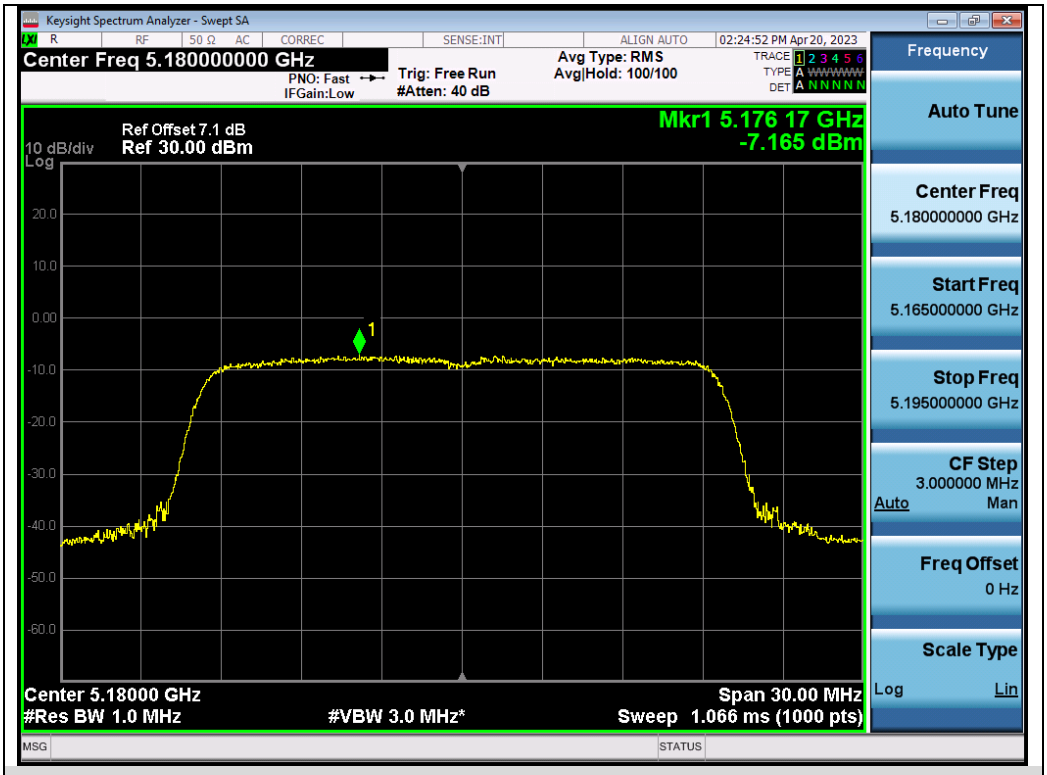


Test_Graph_802.11ac40_ANT1_5190_MCS9_PSD

Test_Graph_802.11ac40_ANT1_5230_MCS9_PSD

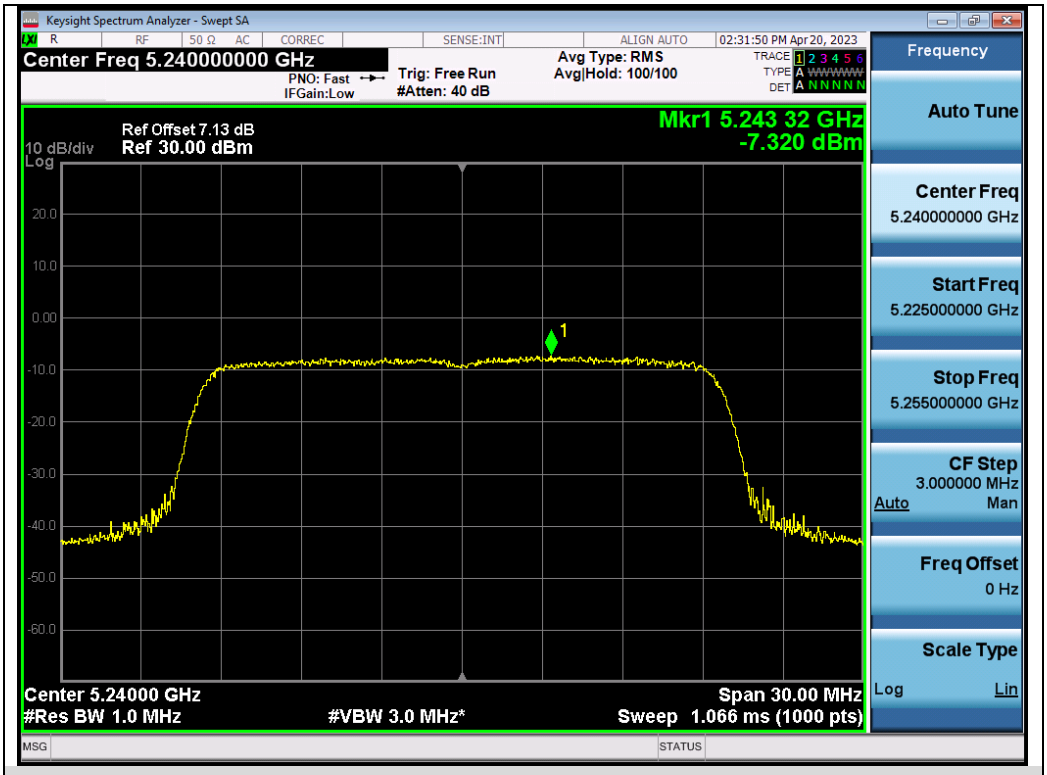


Test_Graph_802.11ac80_ANT1_5210_MCS9_PSD

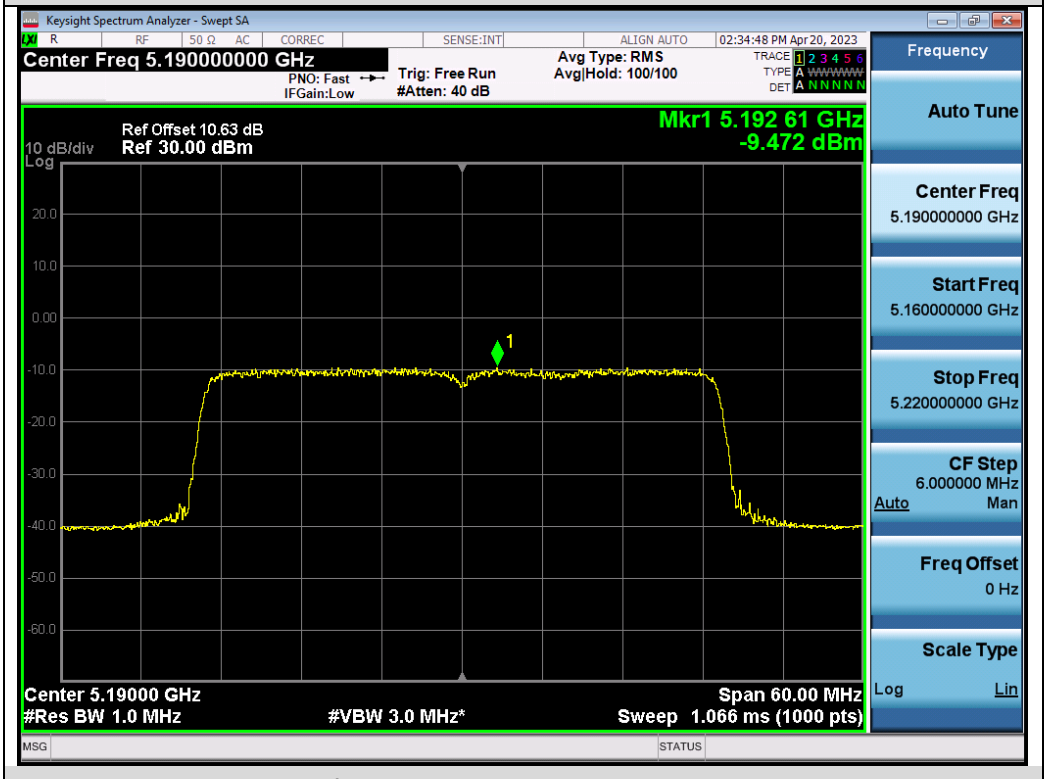


Test_Graph_802.11ax20_ANT1_5180_MCS0_PSD

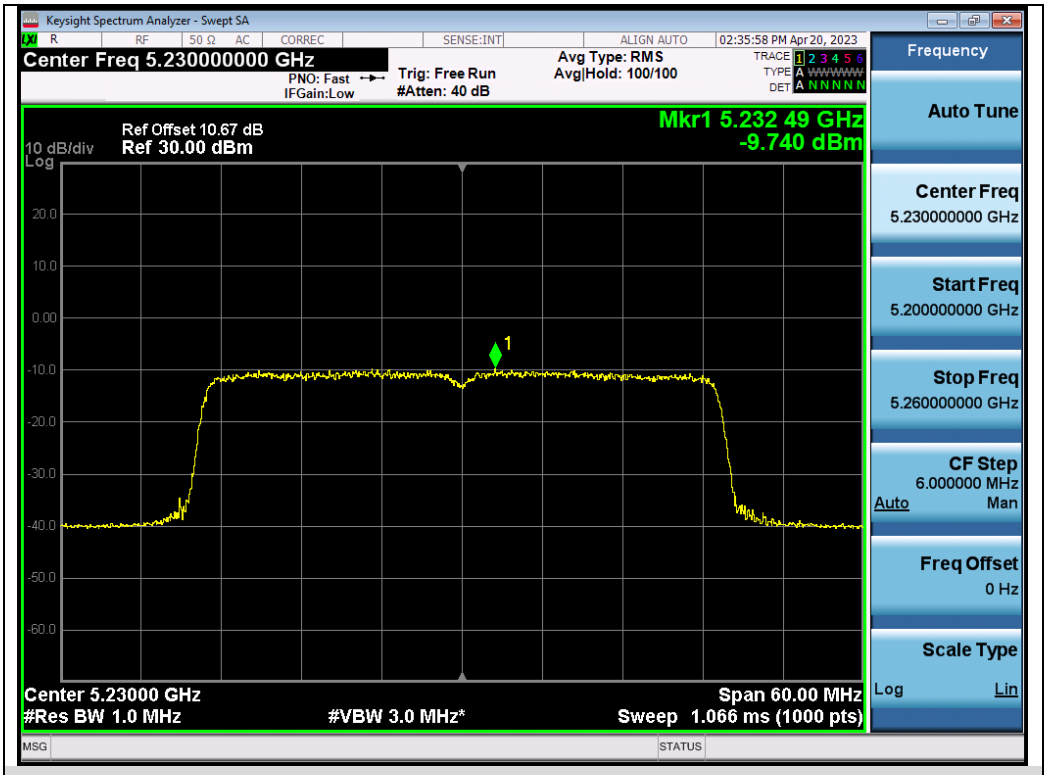
Test_Graph_802.11ax20_ANT1_5200_MCS0_PSD



Test_Graph_802.11ax20_ANT1_5240_MCS0_PSD

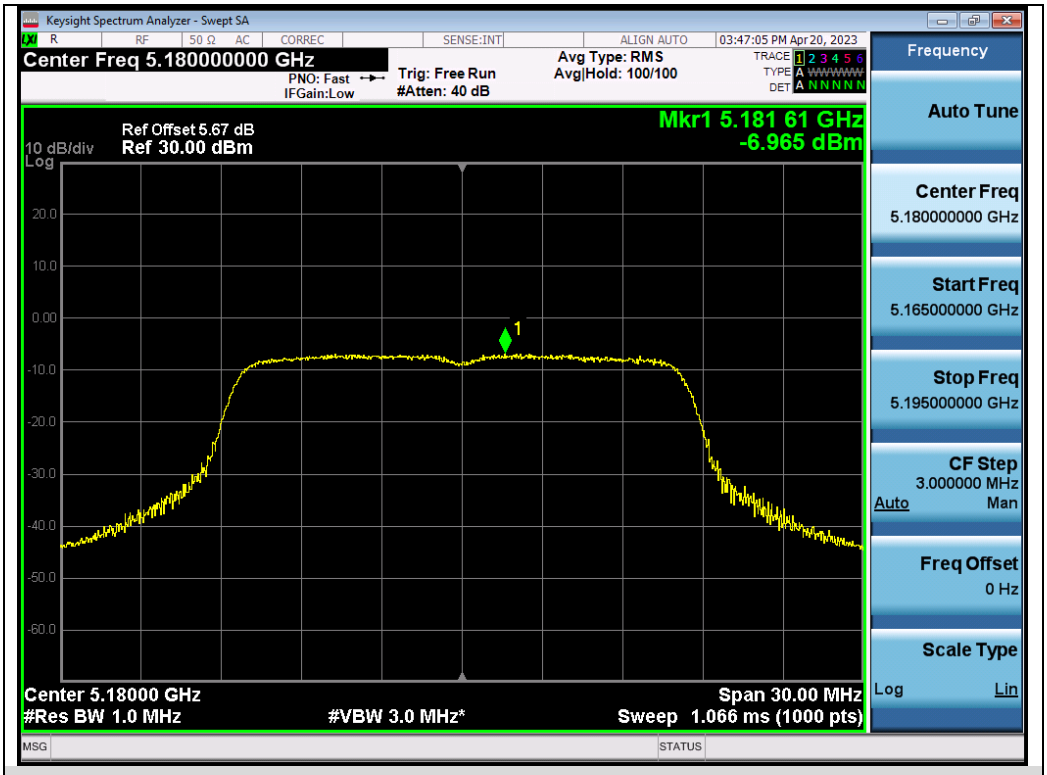


Test_Graph_802.11ax40_ANT1_5190_MCS0_PSD

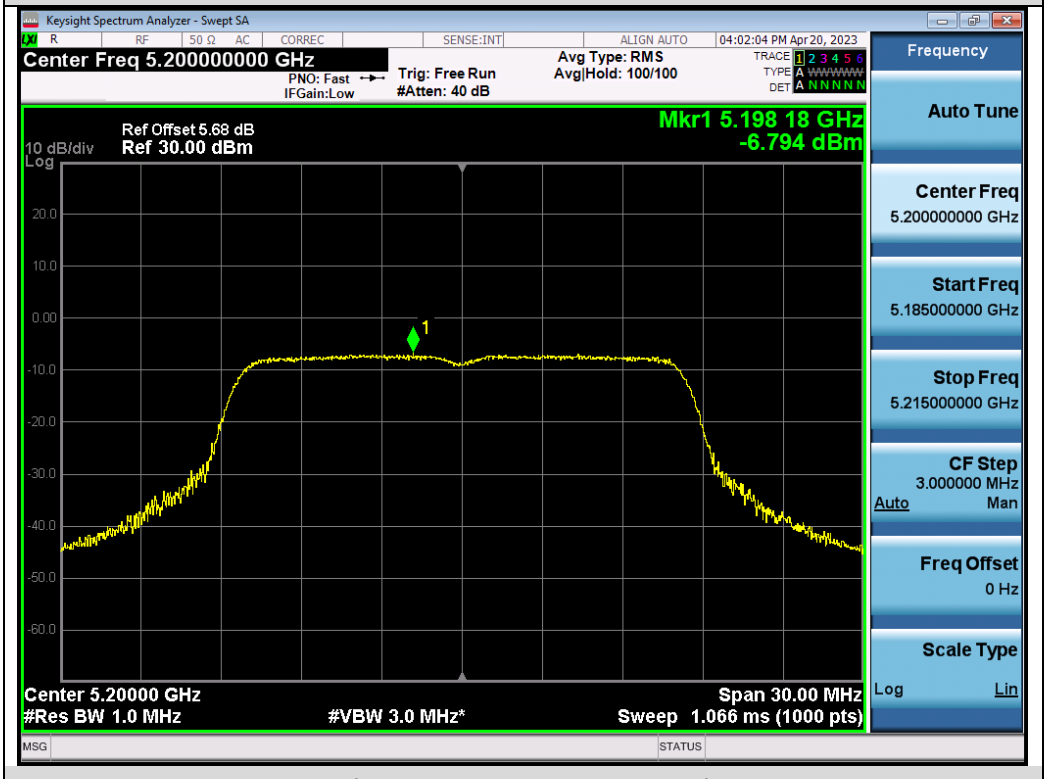


Test_Graph_802.11ax40_ANT1_5230_MCS0_PSD

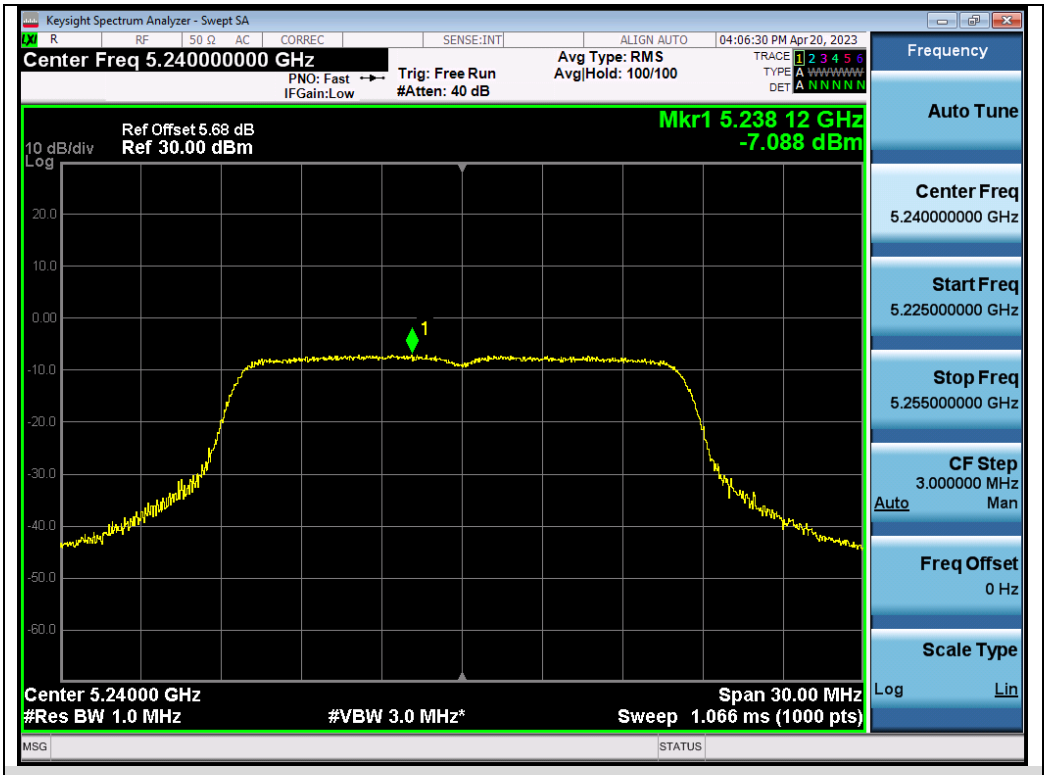
Test_Graph_802.11ax80_ANT1_5210_MCS0_PSD



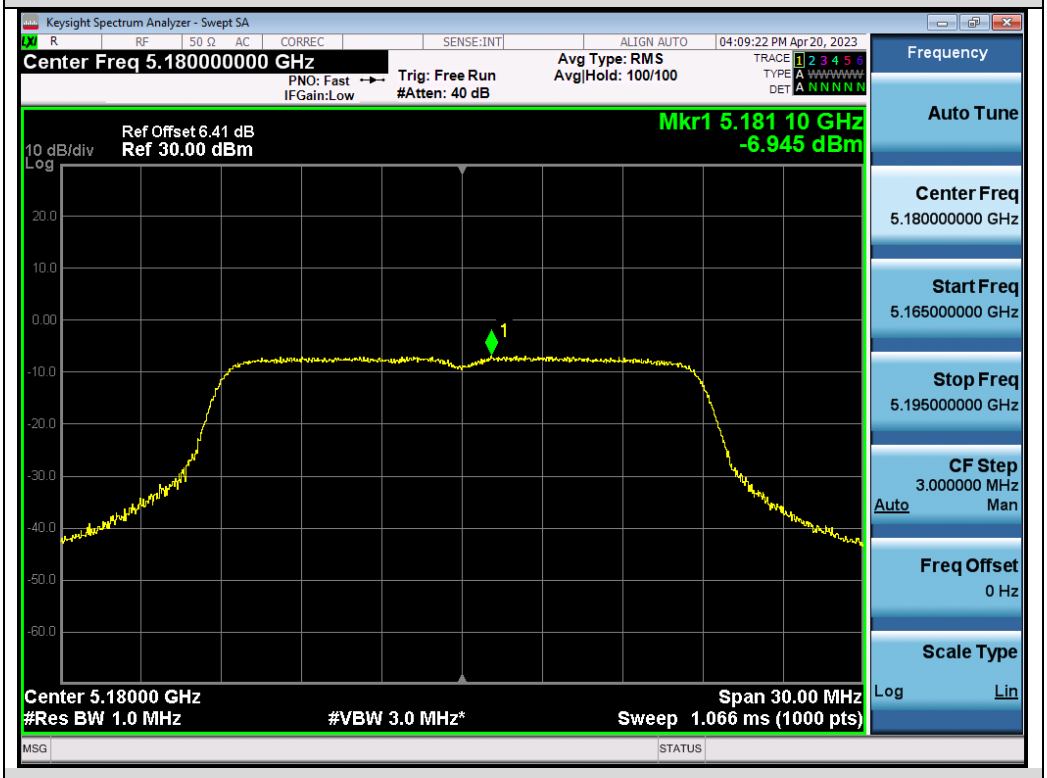
Test_Graph_802.11a_ANT2_5180_6Mbps_PSD



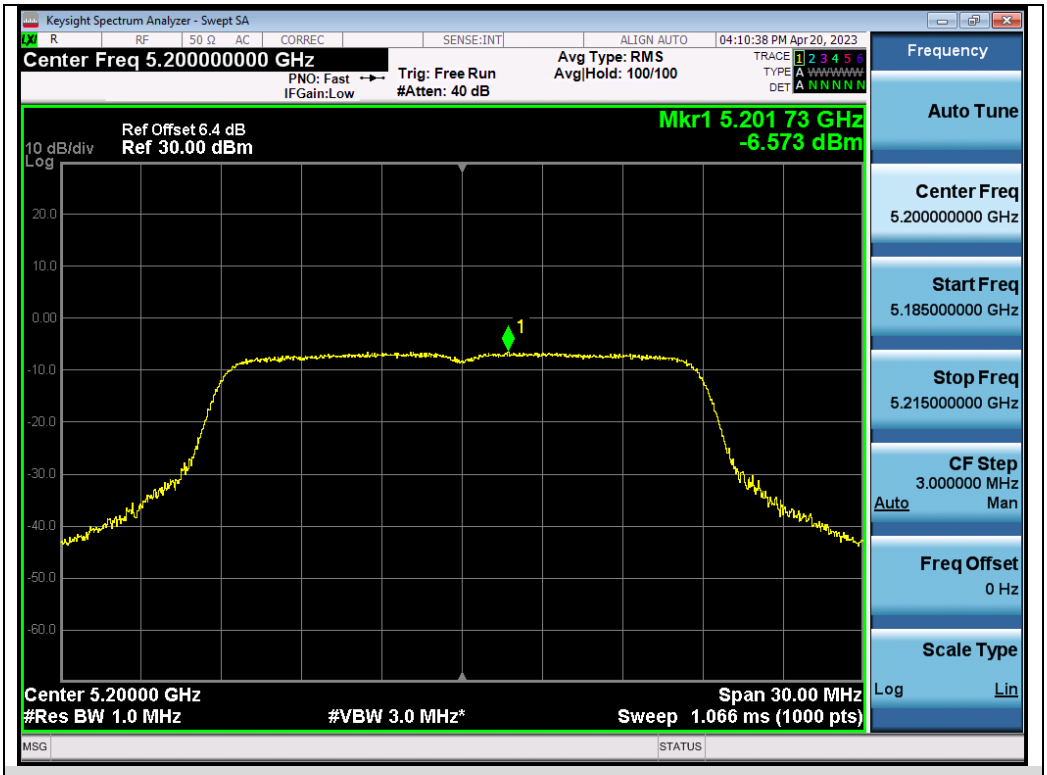
Test_Graph_802.11a_ANT2_5200_6Mbps_PSD



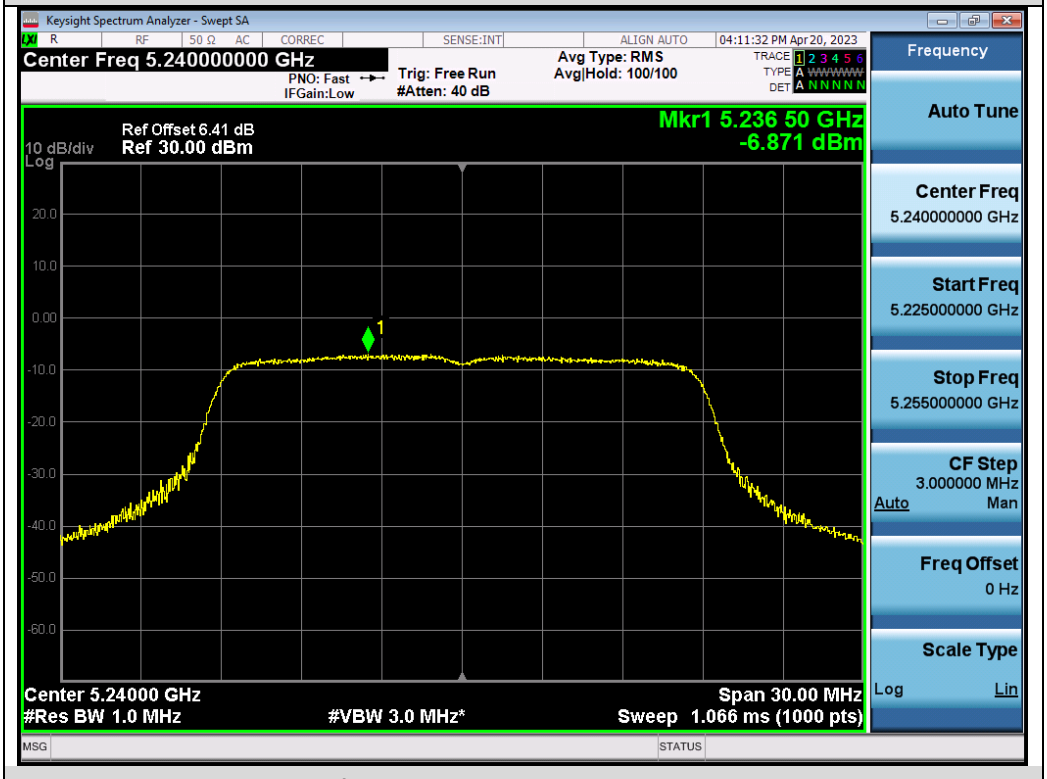
Test_Graph_802.11a_ANT2_5240_6Mbps_PSD



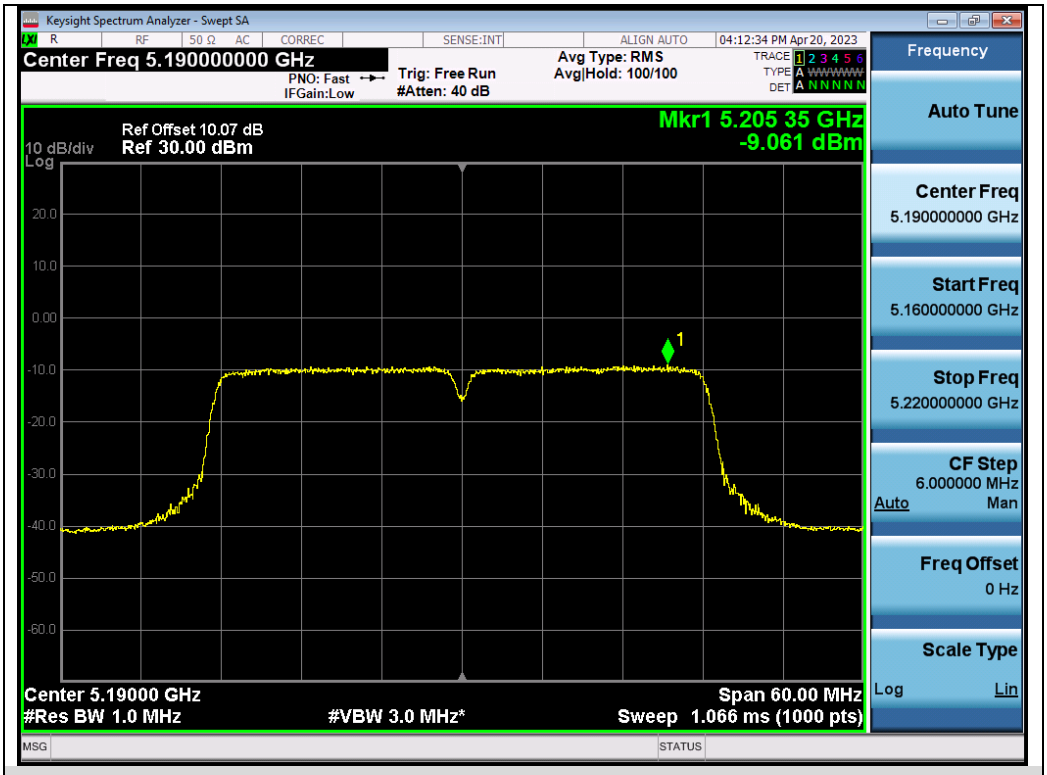
Test_Graph_802.11n20_ANT2_5180_MCS0_PSD



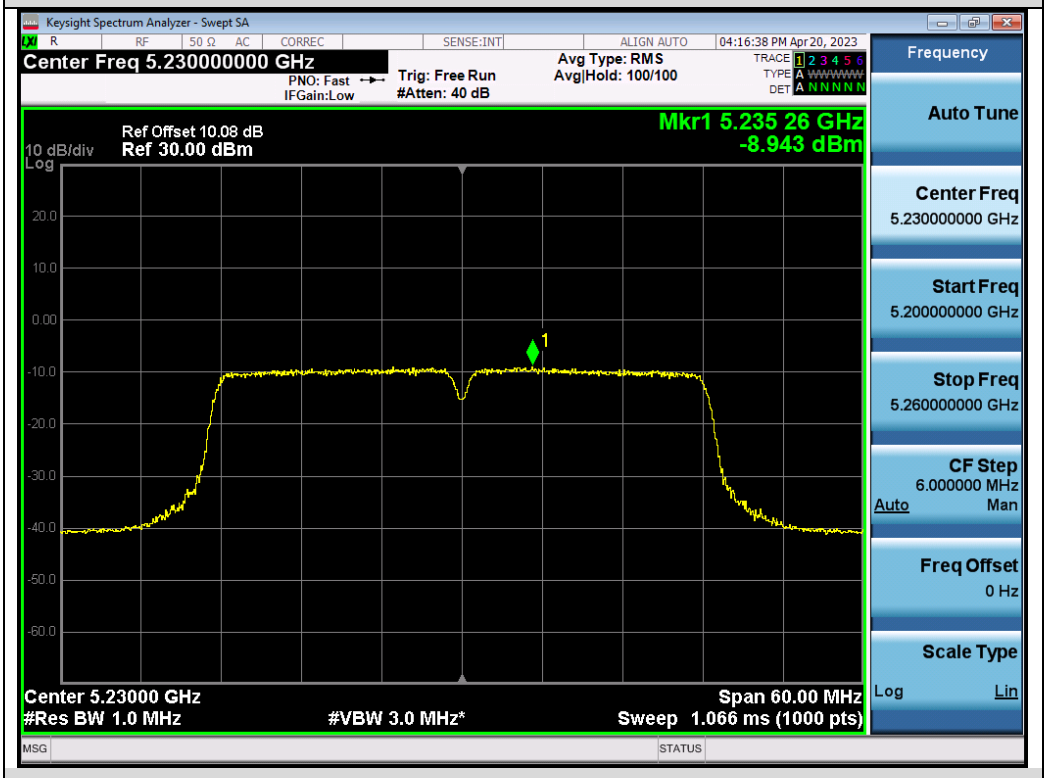
Test_Graph_802.11n20_ANT2_5200_MCS0_PSD



Test_Graph_802.11n20_ANT2_5240_MCS0_PSD



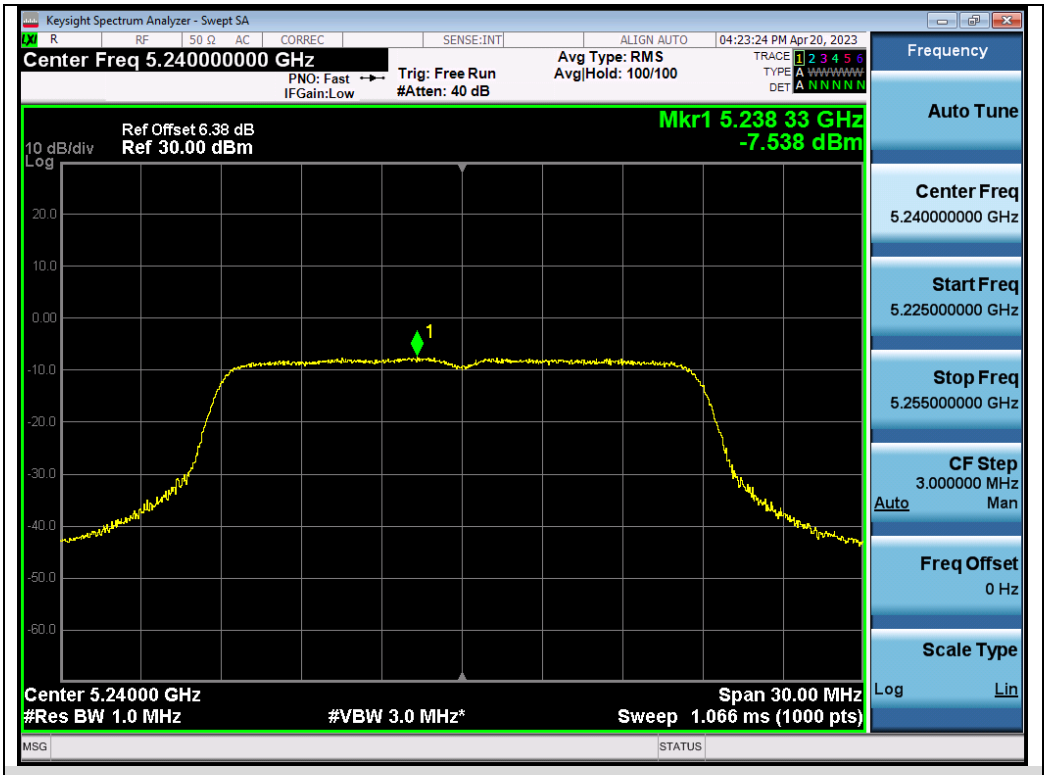
Test_Graph_802.11n40_ANT2_5190_MCS0_PSD



Test_Graph_802.11n40_ANT2_5230_MCS0_PSD

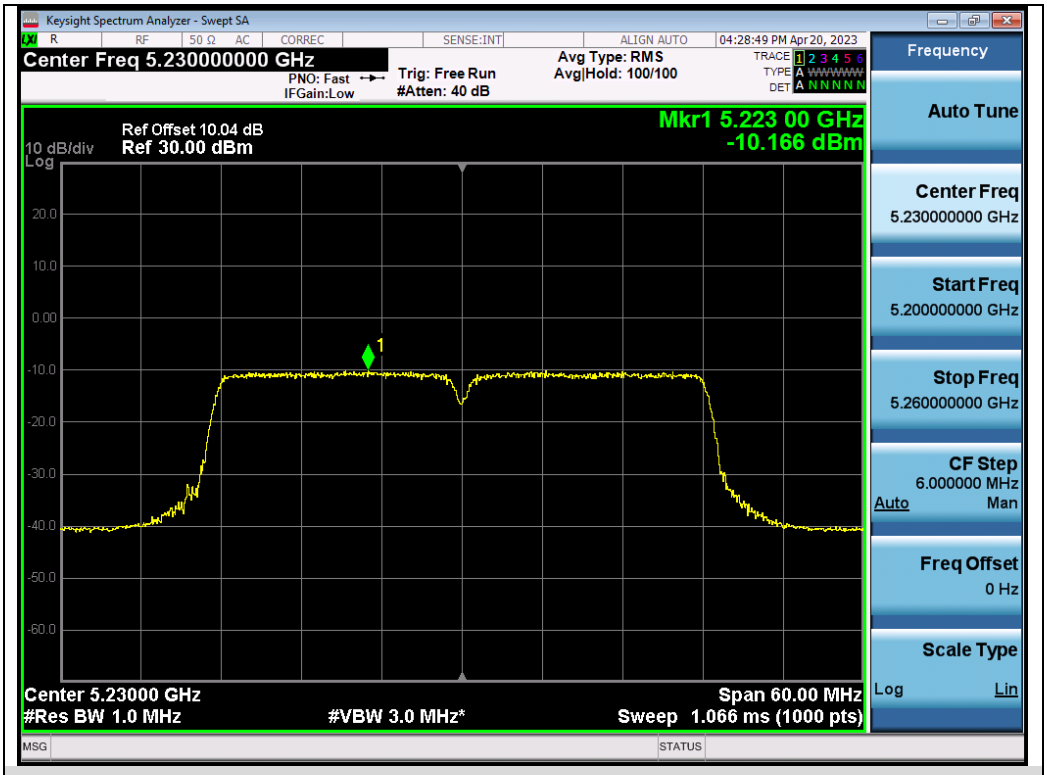
Test_Graph_802.11ac20_ANT2_5180_MCS0_PSD

Test_Graph_802.11ac20_ANT2_5200_MCS0_PSD

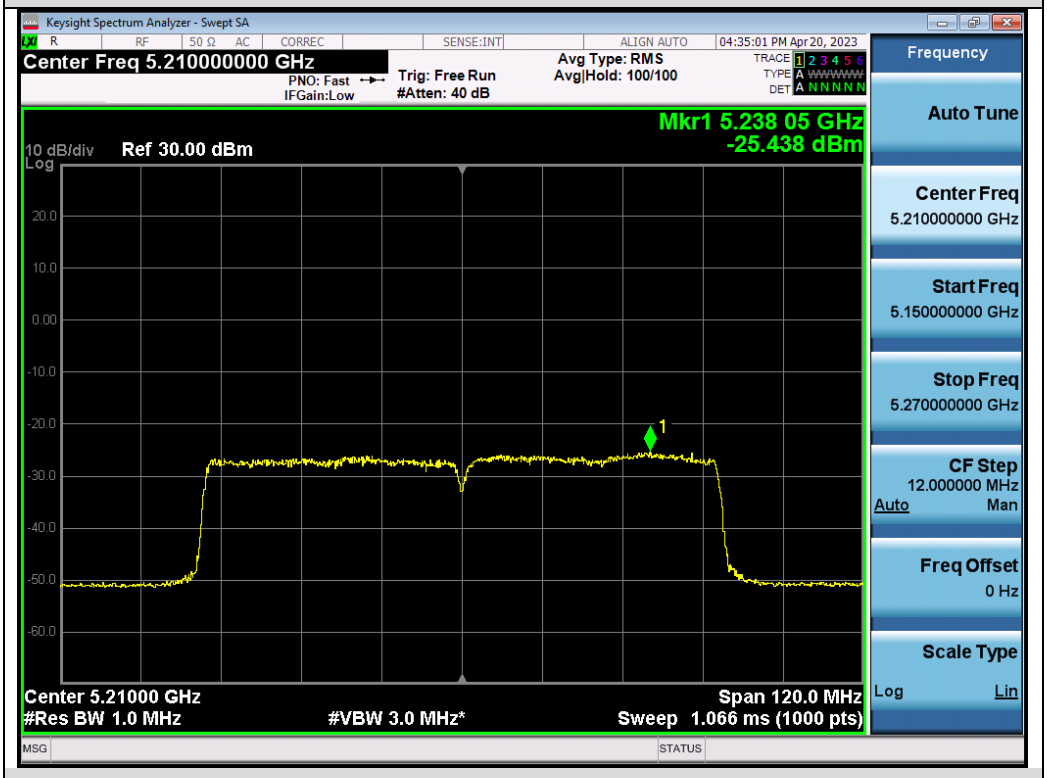


Test_Graph_802.11ac20_ANT2_5240_MCS9_PSD

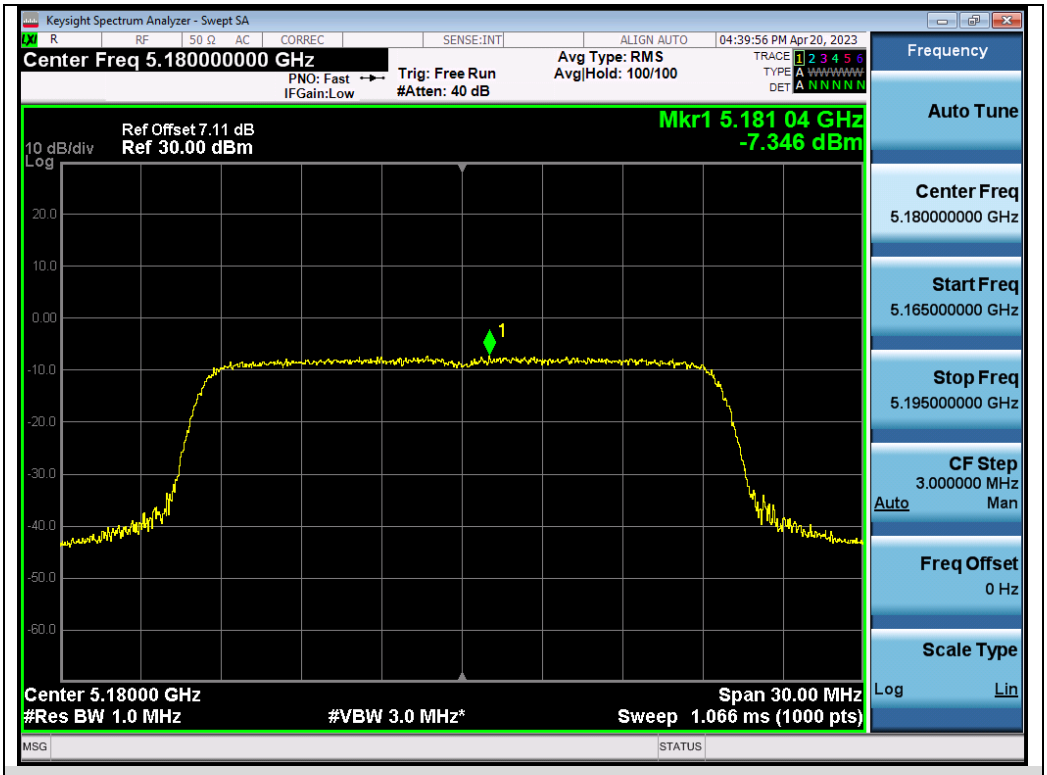
Test_Graph_802.11ac40_ANT2_5190_MCS9_PSD



Test_Graph_802.11ac40_ANT2_5230_MCS9_PSD

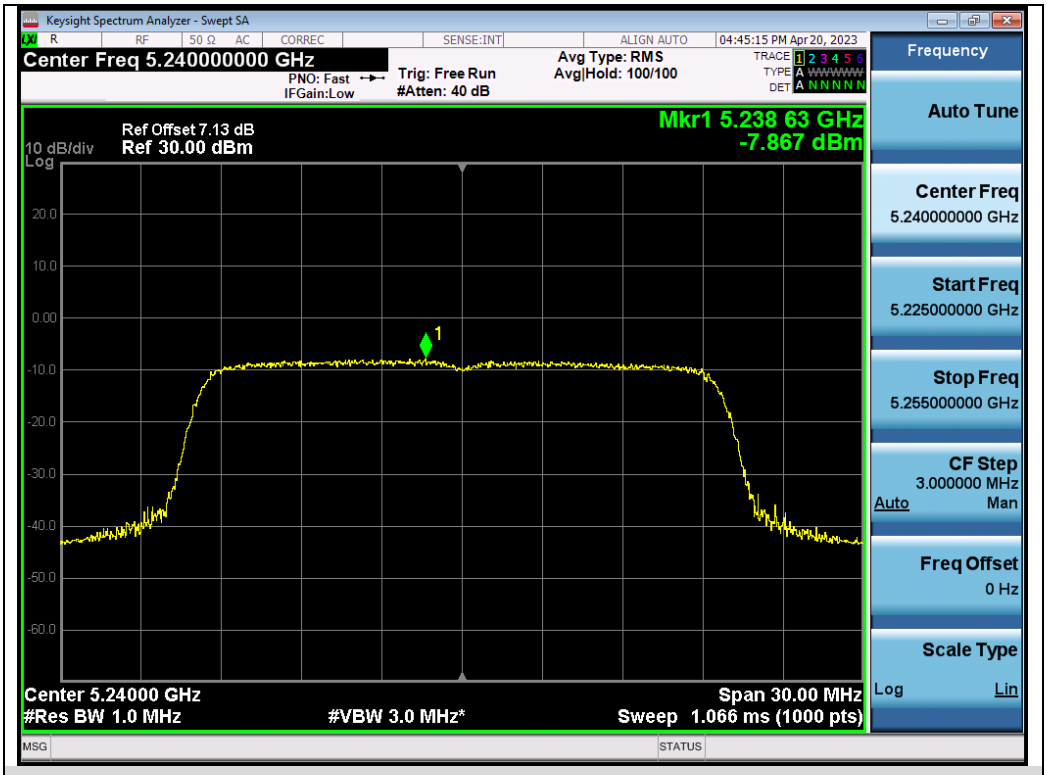


Test_Graph_802.11ac80_ANT2_5210_MCS9_PSD



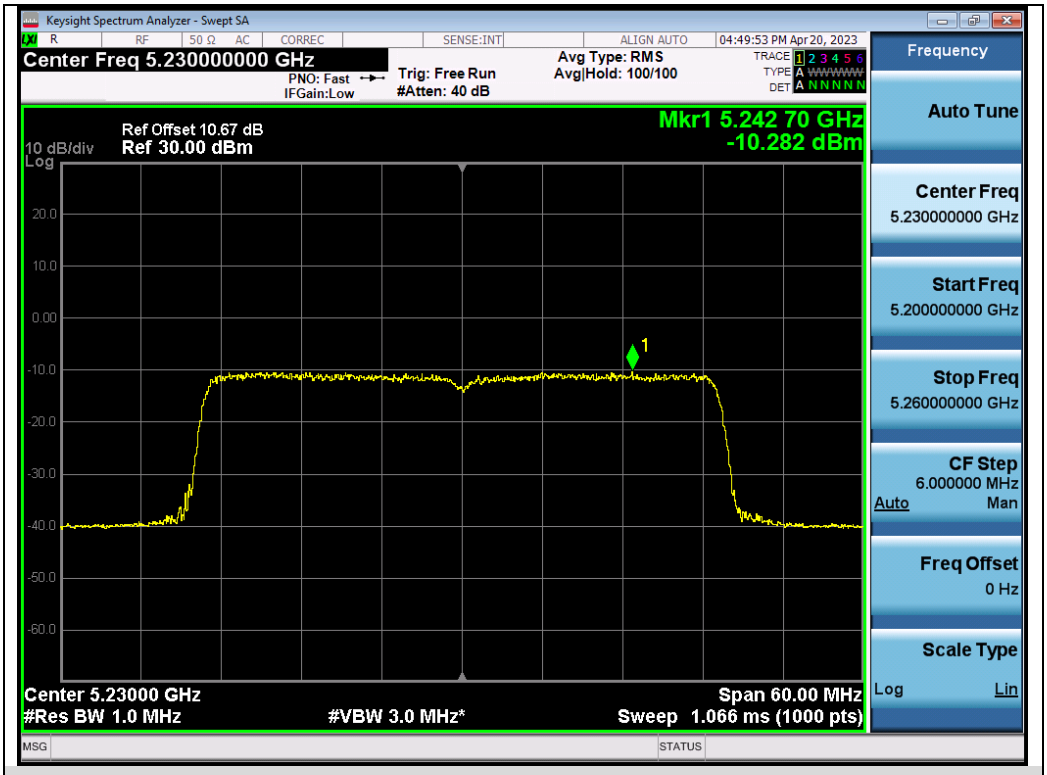
Test_Graph_802.11ax20_ANT2_5180_MCS0_PSD

Test_Graph_802.11ax20_ANT2_5200_MCS0_PSD



Test_Graph_802.11ax20_ANT2_5240_MCS0_PSD

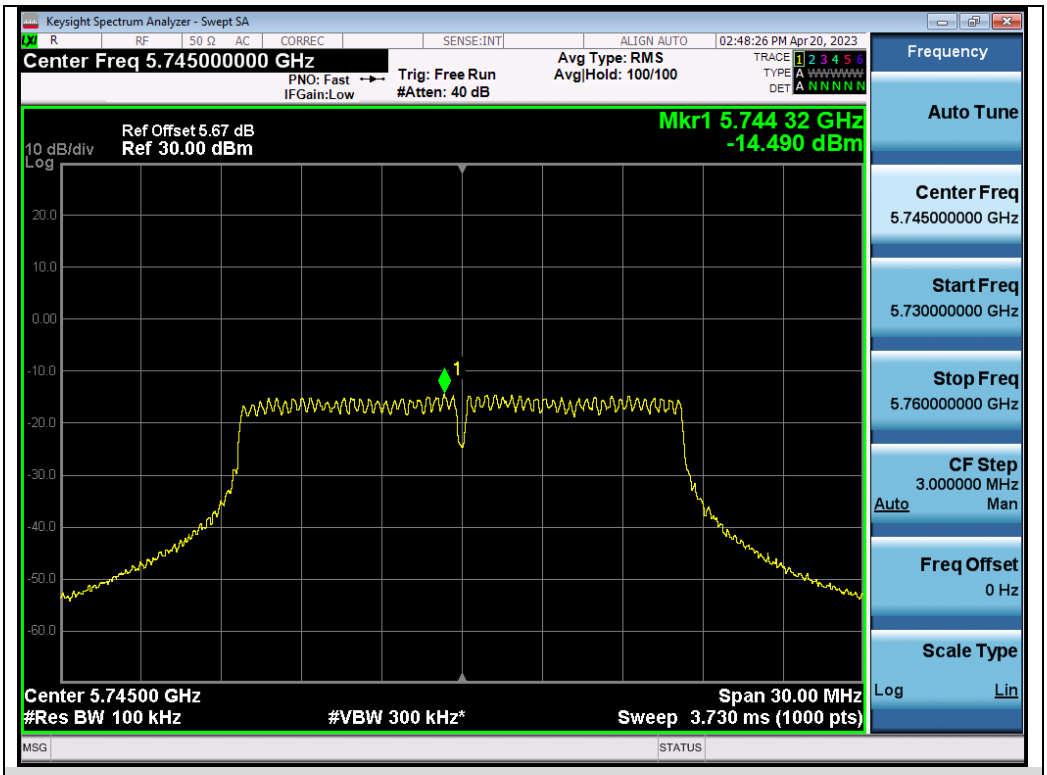
Test_Graph_802.11ax40_ANT2_5190_MCS0_PSD



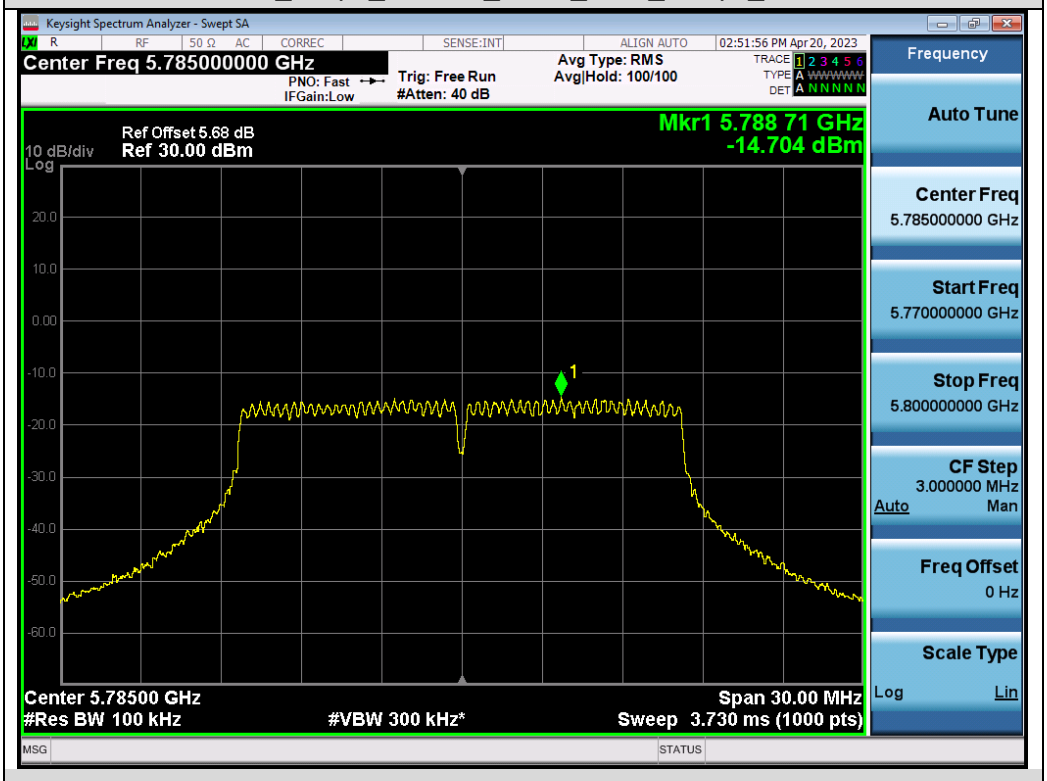
Test_Graph_802.11ax40_ANT2_5230_MCS0_PSD

Test_Graph_802.11ax80_ANT2_5210_MCS0_PSD

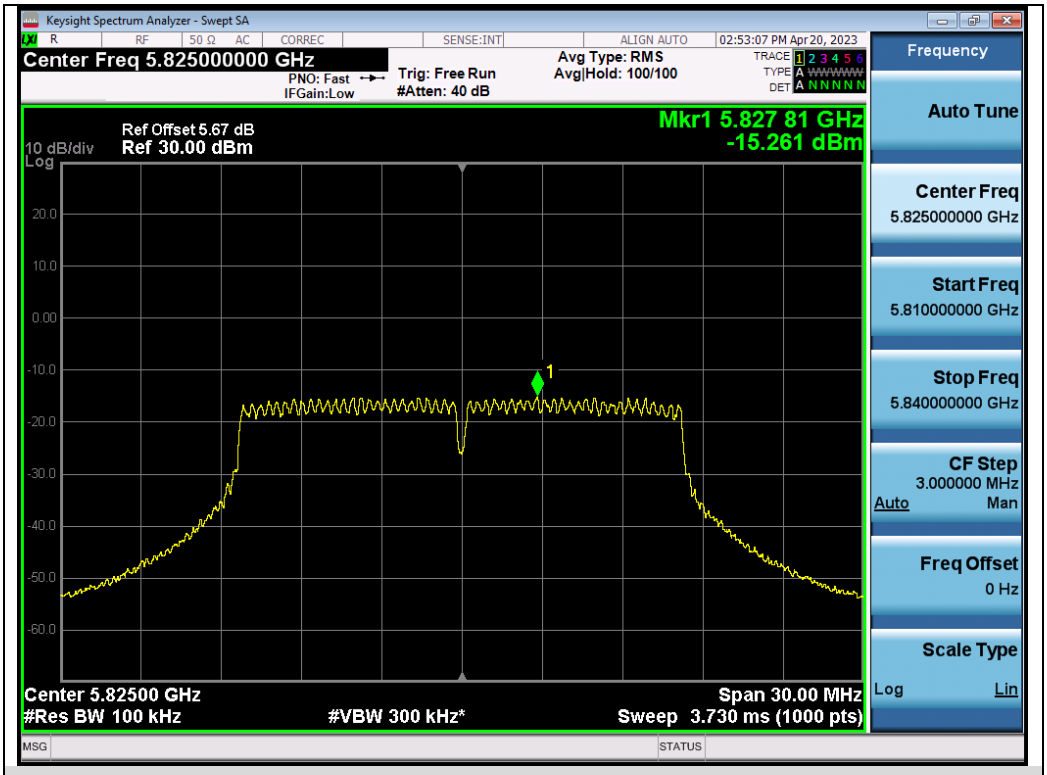
Test Graphs of Conducted Output Power Spectral Density for band 5.725-5.85 GHz



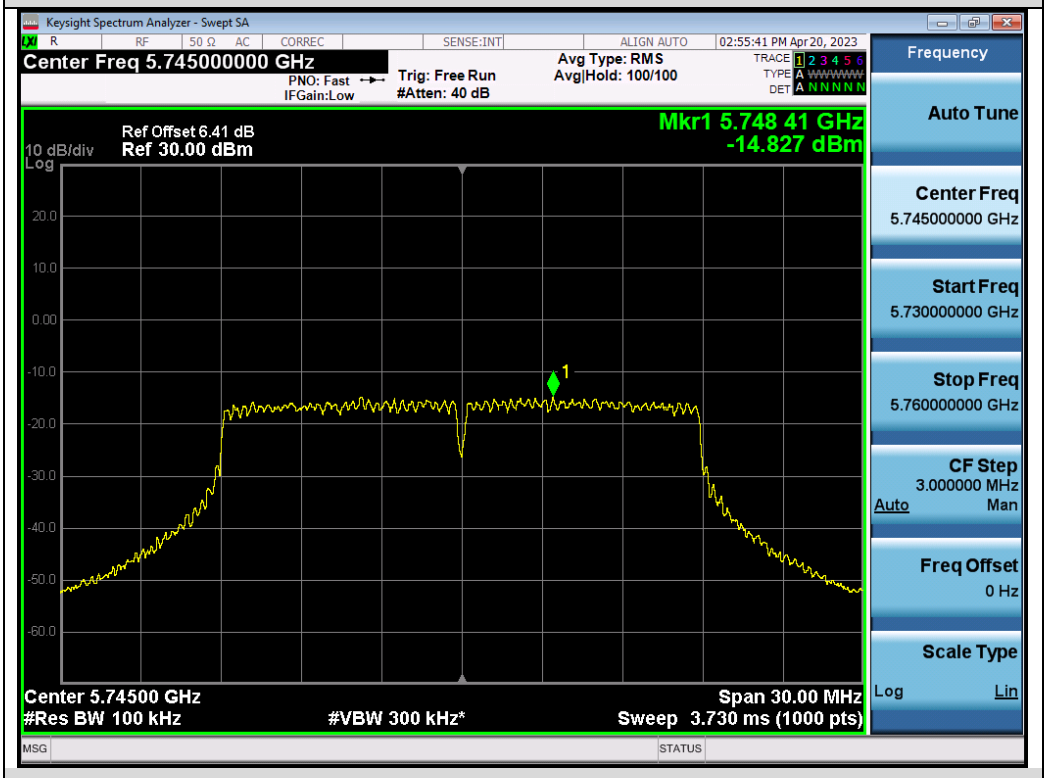
Test_Graph_802.11a_ANT1_5745_6Mbps_PSD



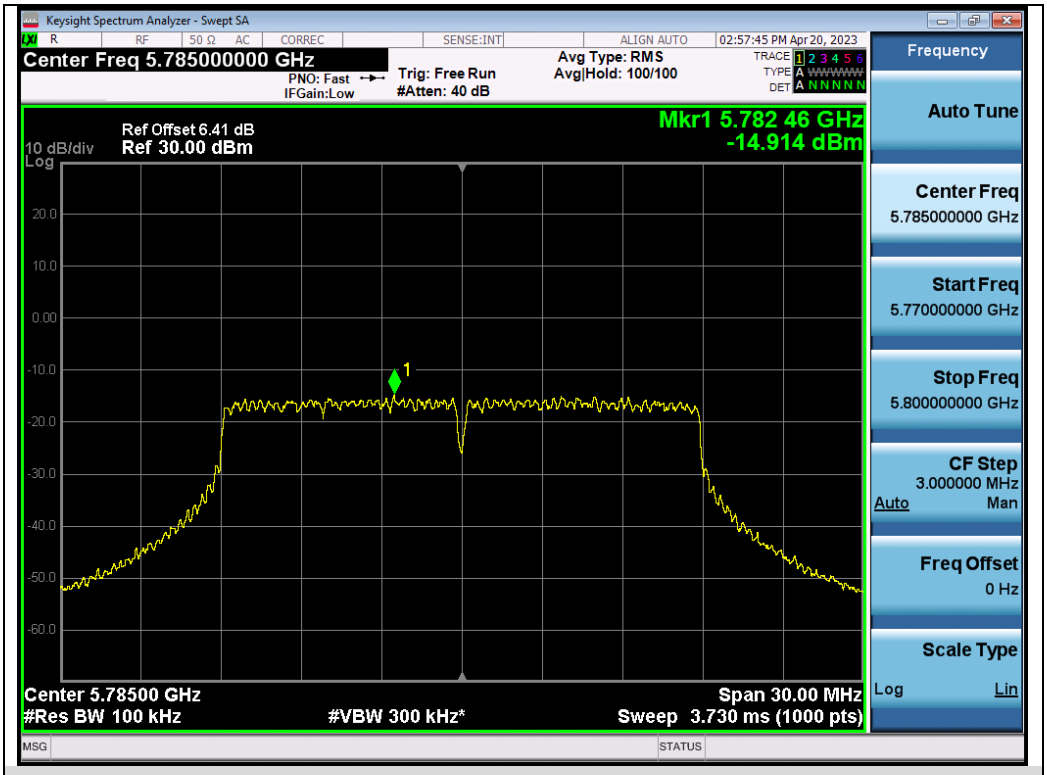
Test_Graph_802.11a_ANT1_5785_6Mbps_PSD



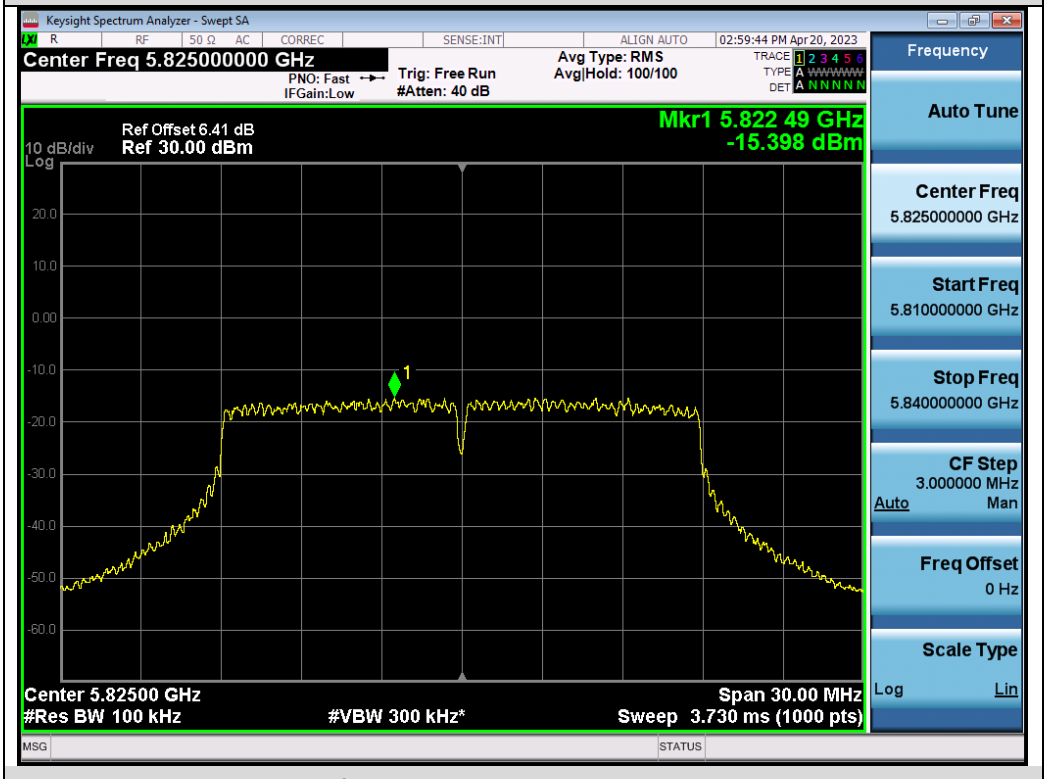
Test_Graph_802.11a_ANT1_5825_6Mbps_PSD



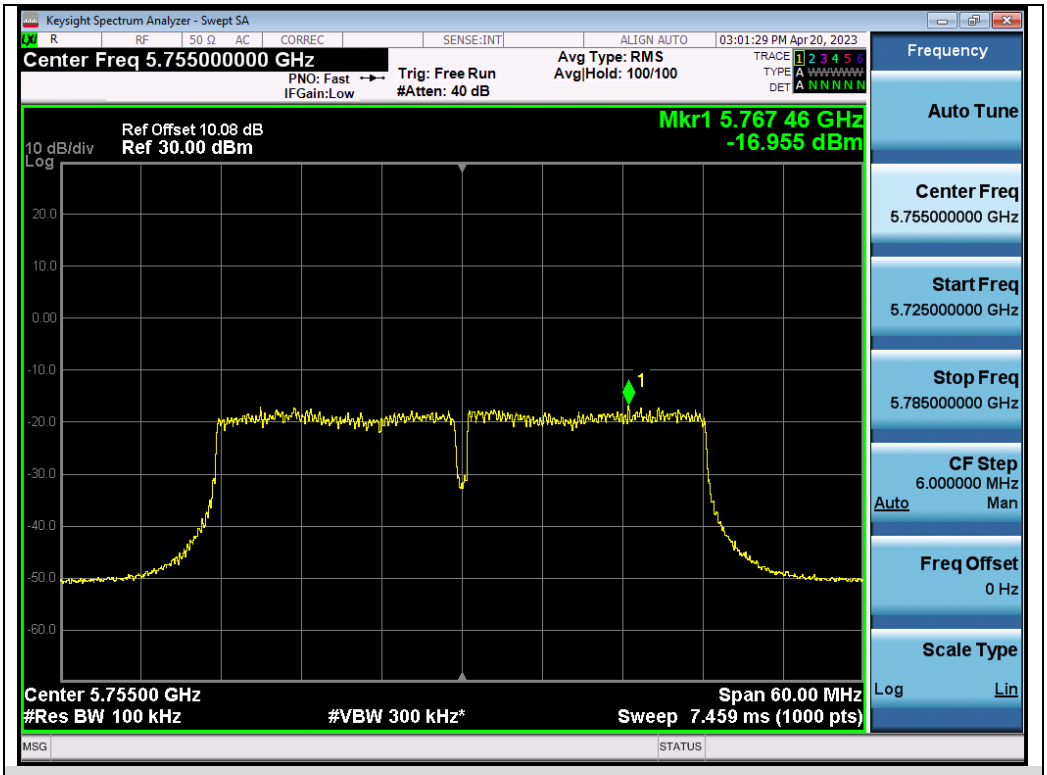
Test_Graph_802.11n20_ANT1_5745_MCS0_PSD



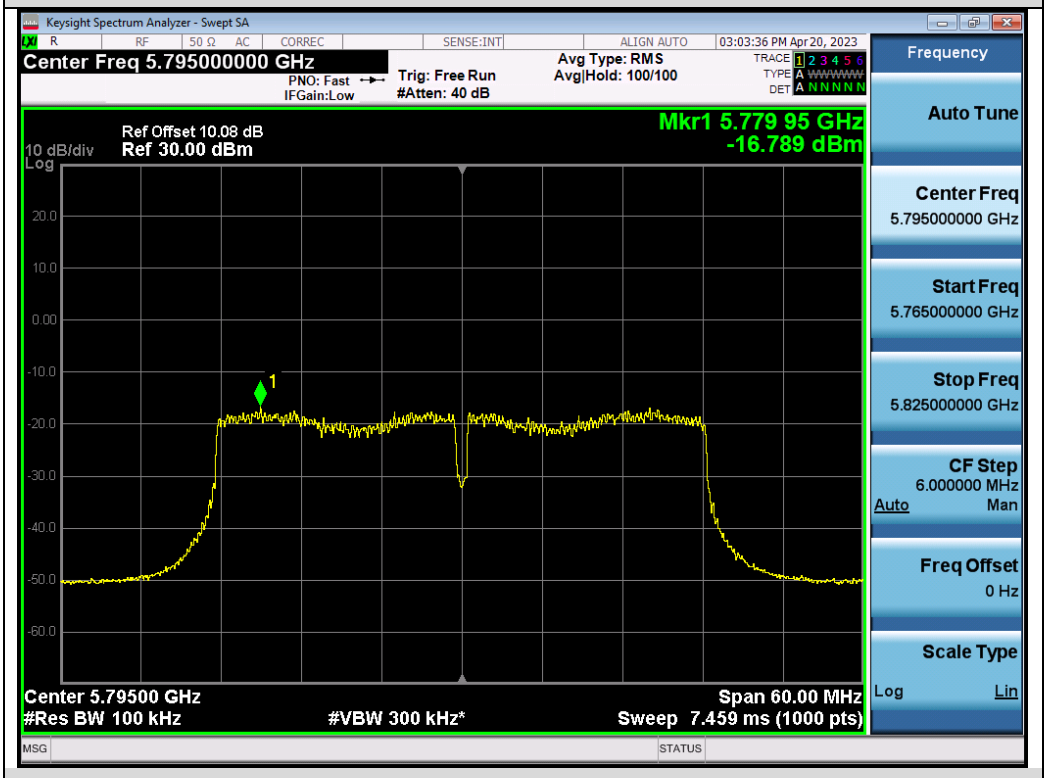
Test_Graph_802.11n20_ANT1_5785_MCS0_PSD



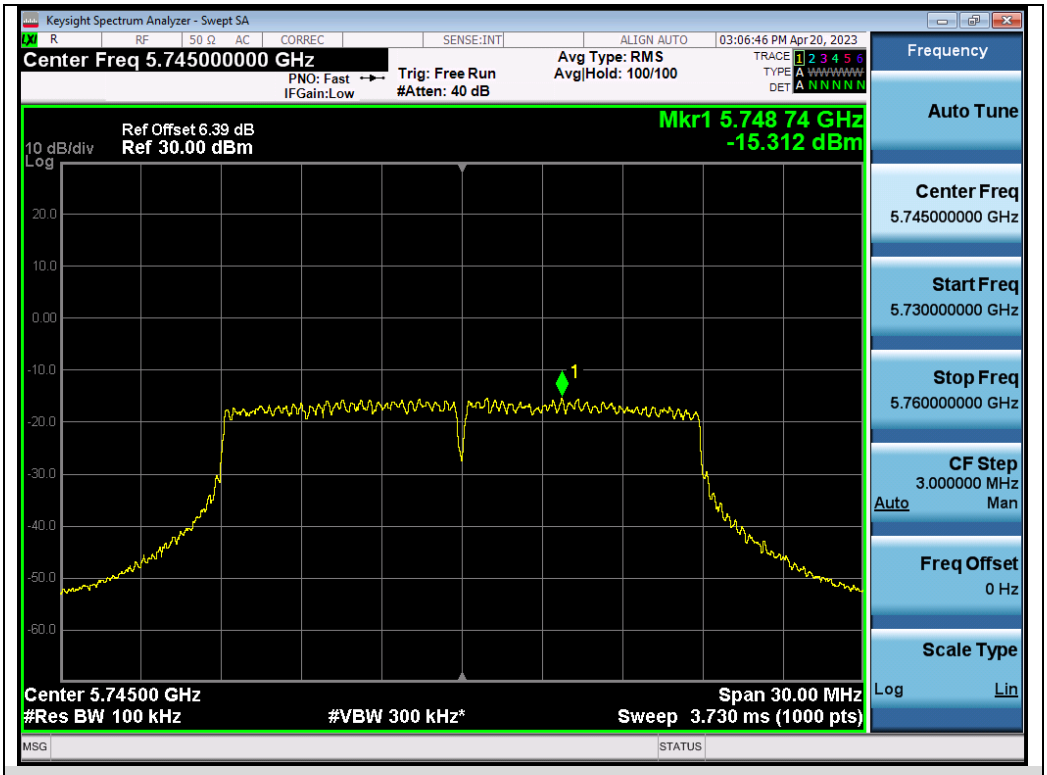
Test_Graph_802.11n20_ANT1_5825_MCS0_PSD



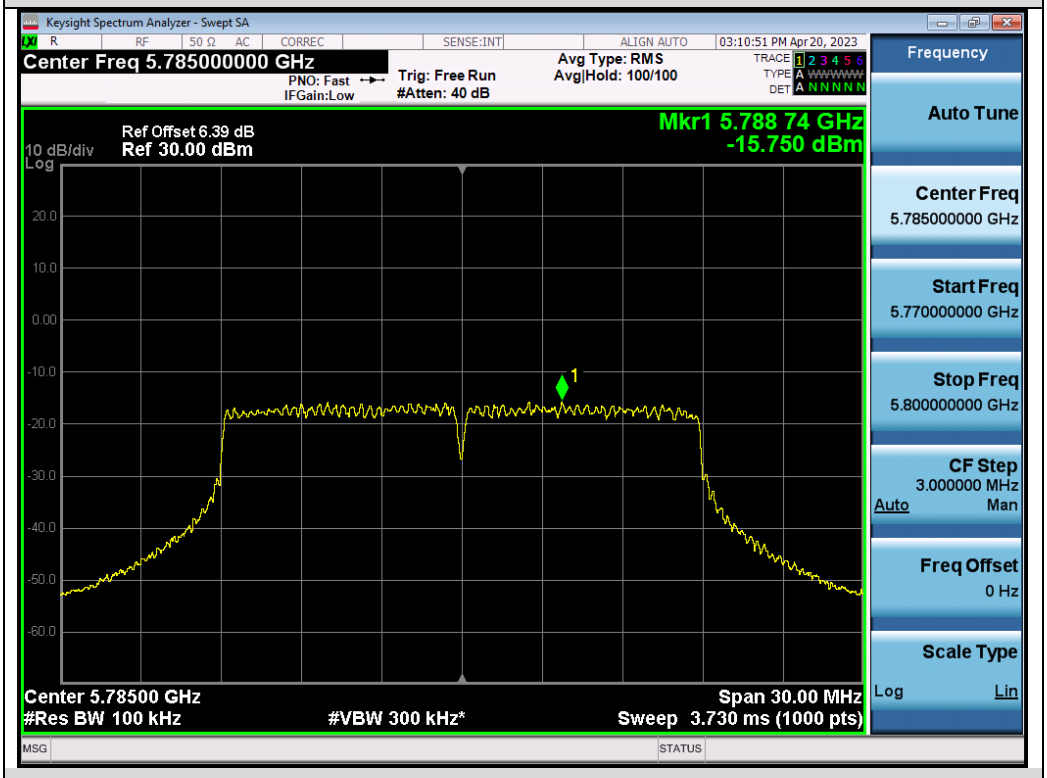
Test_Graph_802.11n40_ANT1_5755_MCS0_PSD



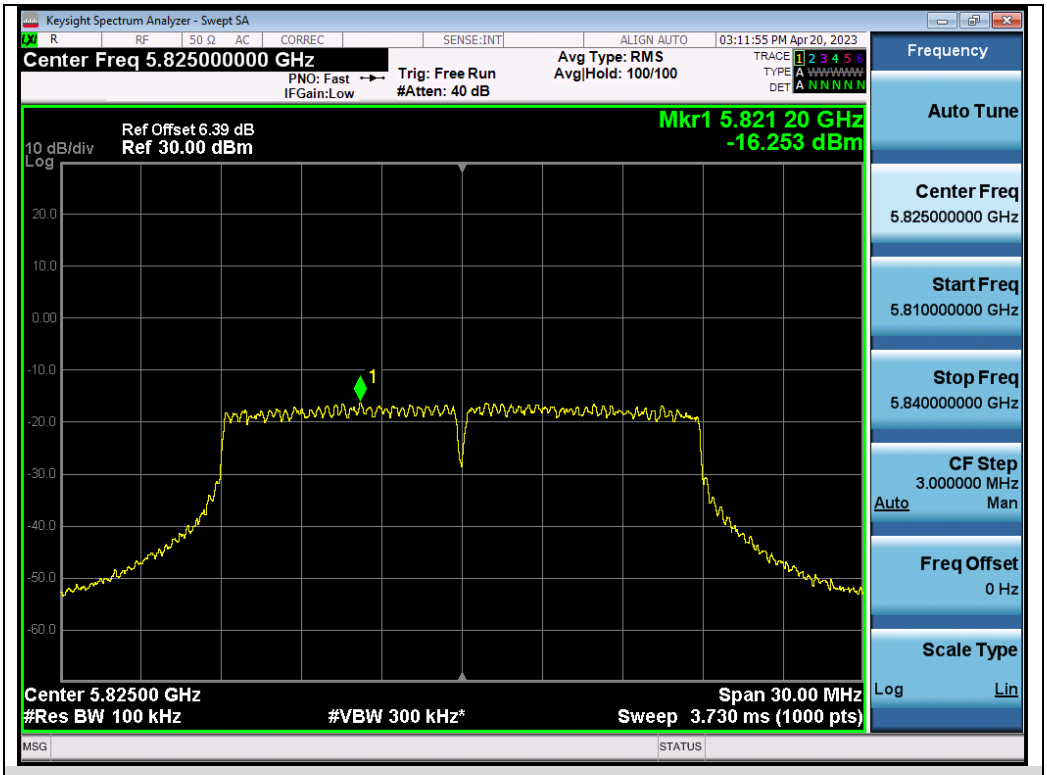
Test_Graph_802.11n40_ANT1_5795_MCS0_PSD



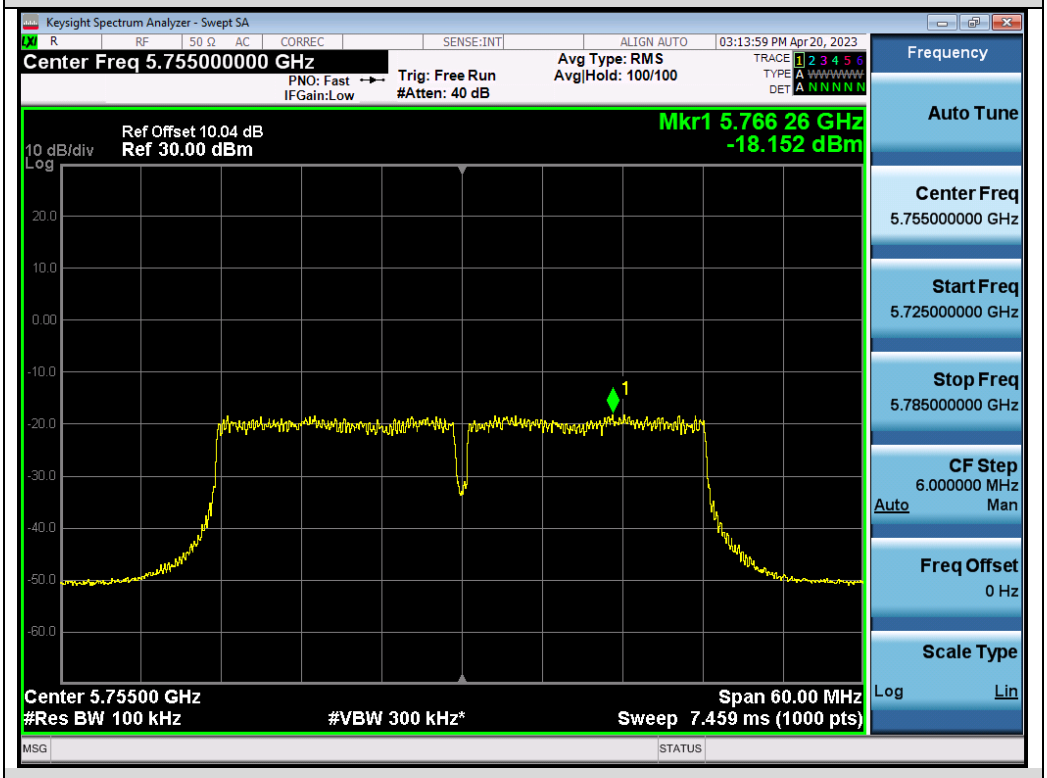
Test_Graph_802.11ac20_ANT1_5745_MCS0_PSD



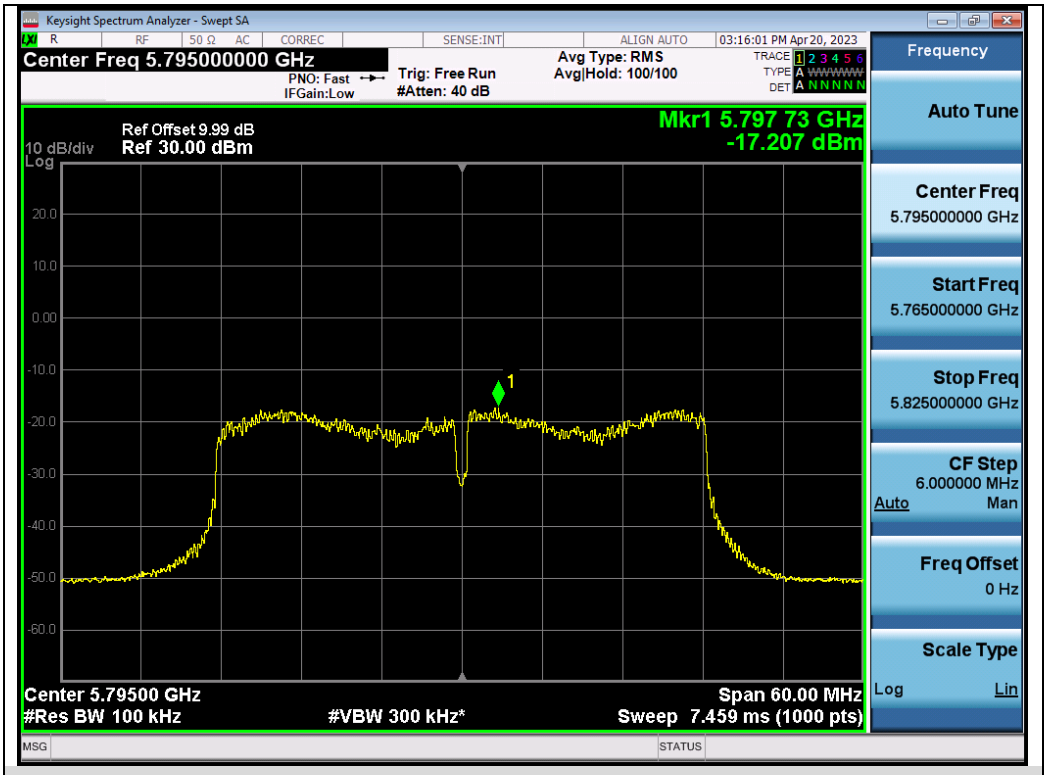
Test_Graph_802.11ac20_ANT1_5785_MCS0_PSD



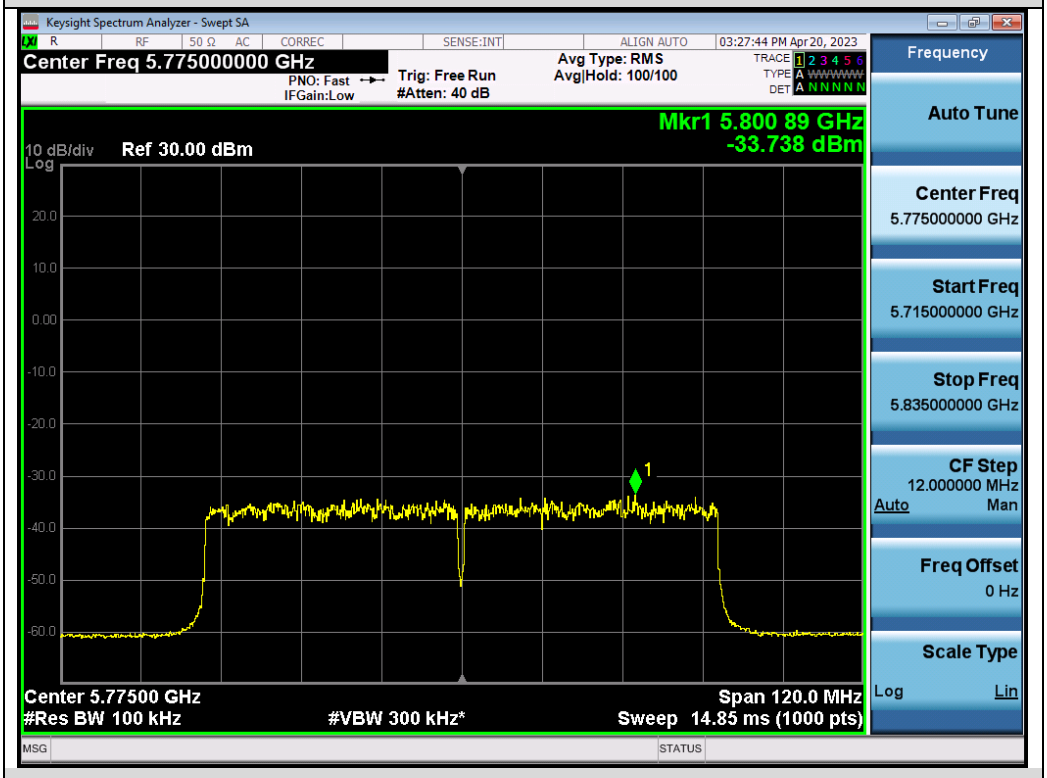
Test_Graph_802.11ac20_ANT1_5825_MCS9_PSD



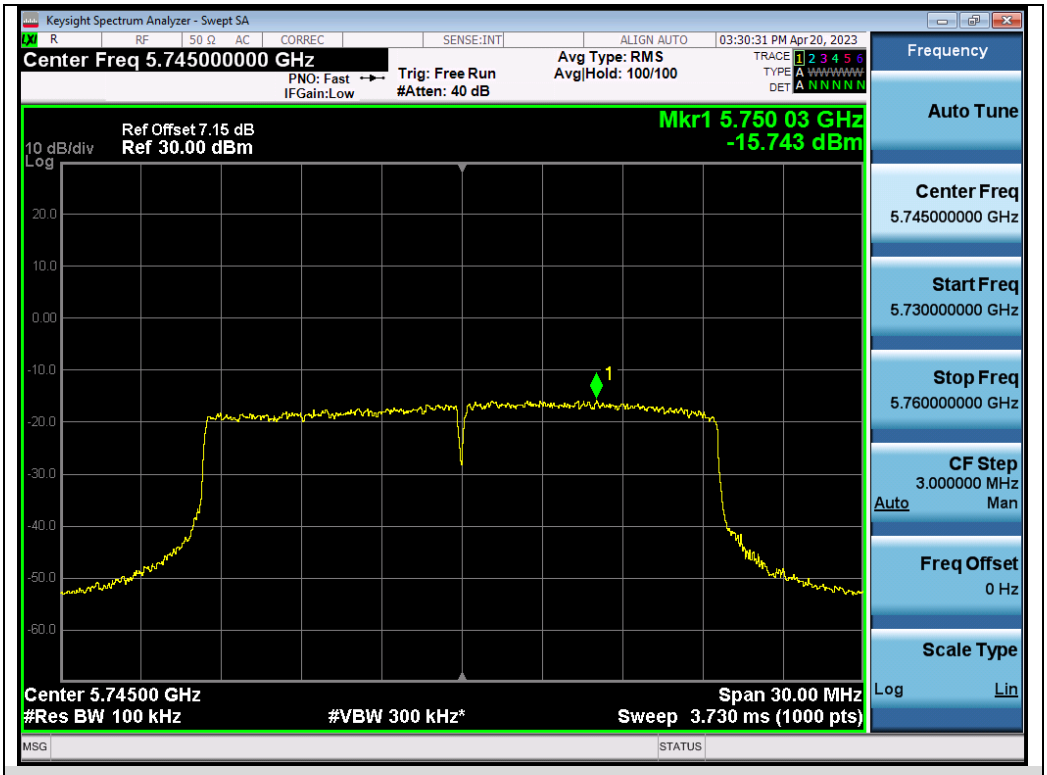
Test_Graph_802.11ac40_ANT1_5755_MCS9_PSD



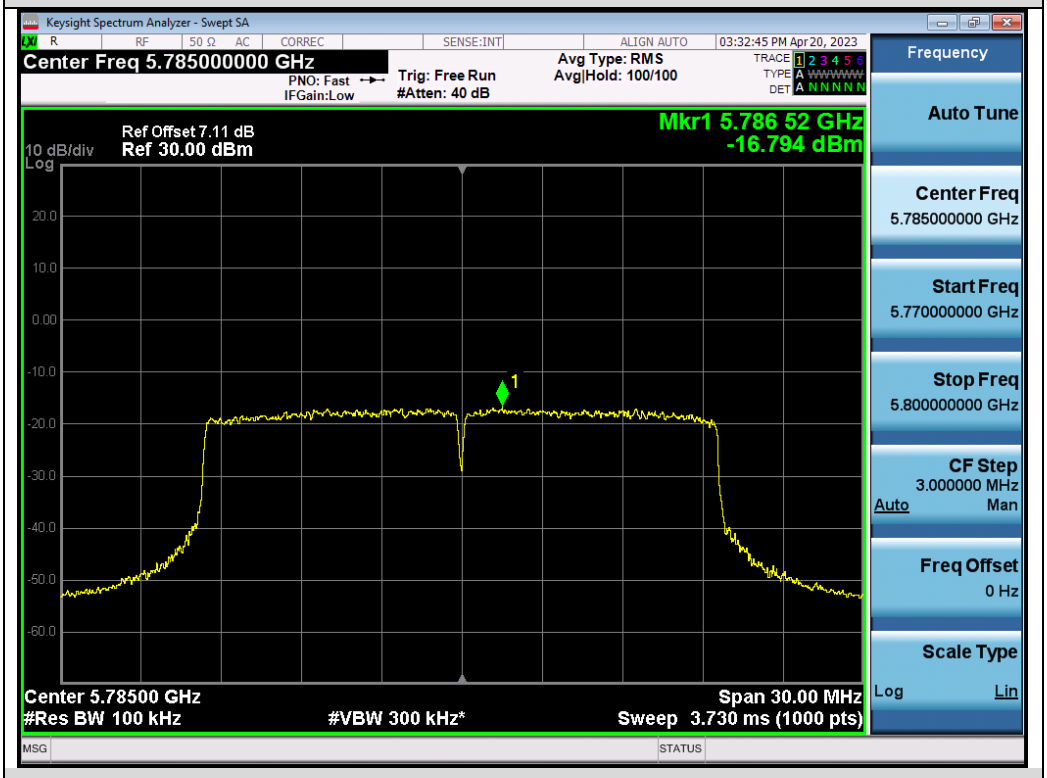
Test_Graph_802.11ac40_ANT1_5795_MCS9_PSD



Test_Graph_802.11ac80_ANT1_5775_MCS9_PSD



Test_Graph_802.11ax20_ANT1_5745_MCS0_PSD



Test_Graph_802.11ax20_ANT1_5785_MCS0_PSD