

Annex C. Conducted Test Results

Maximum Conducted Output Power Measurement

Test Mode		Mode 2: IEEE 802.11a Continuous TX mode		
Frequency (MHz)	Data Rate	ANT-0		Limit (dBm)
		(dBm)	(W)	
5180.0	6 M	13.40	0.022	≤ 24.00
5200.0		13.52	0.022	≤ 24.00
5220.0		13.38	0.022	≤ 24.00
5240.0		13.56	0.023	≤ 24.00
5260.0		13.54	0.023	≤ 24.00
5280.0		13.56	0.023	≤ 24.00
5300.0		13.35	0.022	≤ 24.00
5320.0		13.38	0.022	≤ 24.00
5500.0		13.53	0.023	≤ 24.00
5520.0		13.57	0.023	≤ 24.00
5540.0		13.54	0.023	≤ 24.00
5560.0		13.62	0.023	≤ 24.00
5580.0		13.55	0.023	≤ 24.00
5660.0		13.60	0.023	≤ 24.00
5680.0		13.38	0.022	≤ 24.00
5700.0		13.56	0.023	≤ 24.00
5745.0		13.55	0.023	≤ 30.00
5765.0		13.38	0.022	≤ 30.00
5785.0		13.60	0.023	≤ 30.00
5805.0		13.40	0.022	≤ 30.00
5825.0		13.51	0.022	≤ 30.00

Note: The relevant measured result has the offset with cable loss already.

Test Mode		Mode 3: IEEE 802.11n 5 GHz 20 MHz Continuous TX mode		
Frequency (MHz)	Data Rate	ANT-0		Limit (dBm)
		(dBm)	(W)	
5180.0	6.5 M	13.34	0.022	≤ 24.00
5200.0		13.32	0.021	≤ 24.00
5220.0		13.58	0.023	≤ 24.00
5240.0		13.55	0.023	≤ 24.00
5260.0		13.53	0.023	≤ 24.00
5280.0		13.39	0.022	≤ 24.00
5300.0		13.55	0.023	≤ 24.00
5320.0		13.54	0.023	≤ 24.00
5500.0		13.41	0.022	≤ 24.00
5520.0		13.31	0.021	≤ 24.00
5540.0		13.44	0.022	≤ 24.00
5560.0		13.55	0.023	≤ 24.00
5580.0		13.51	0.022	≤ 24.00
5660.0		13.51	0.022	≤ 24.00
5680.0		13.31	0.021	≤ 24.00
5700.0		13.32	0.021	≤ 24.00
5745.0		13.35	0.022	≤ 30.00
5765.0		13.57	0.023	≤ 30.00
5785.0		13.58	0.023	≤ 30.00
5805.0		13.53	0.023	≤ 30.00
5825.0		13.39	0.022	≤ 30.00

Note: The relevant measured result has the offset with cable loss already.

Test Mode		Mode 4: IEEE 802.11n 5 GHz 40 MHz Continuous TX mode		
Frequency (MHz)	Data Rate	ANT-0		Limit (dBm)
		(dBm)	(W)	
5190.0	13.5 M	13.56	0.023	≤ 24.00
5230.0		13.55	0.023	≤ 24.00
5270.0		13.34	0.022	≤ 24.00
5310.0		13.44	0.022	≤ 24.00
5510.0		13.35	0.022	≤ 24.00
5550.0		13.43	0.022	≤ 24.00
5670.0		13.53	0.023	≤ 24.00
5755.0		13.36	0.022	≤ 30.00
5795.0		13.59	0.023	≤ 30.00

Test Mode		Mode 5: IEEE 802.11ac 80 MHz Continuous TX mode		
Frequency (MHz)	Data Rate	ANT-0		Limit (dBm)
		(dBm)	(W)	
5210.0	29.3 M	12.53	0.018	≤ 24.00
5290.0		12.35	0.017	≤ 24.00
5530.0		12.38	0.017	≤ 24.00
5775.0		12.44	0.018	≤ 30.00

Note: The relevant measured result has the offset with cable loss already.



26 dB RF Bandwidth Measurement

Test Mode	Mode 2: IEEE 802.11a Continuous TX mode
Frequency (MHz)	ANT-0
5180.0	22.860
5200.0	22.820
5240.0	22.690
5260.0	22.500
5280.0	23.090
5320.0	22.380
5500.0	22.870
5560.0	22.530
5700.0	22.690
Test Mode	Mode 3: IEEE 802.11n 5 GHz 20 MHz Continuous TX mode
5180.0	24.300
5200.0	23.550
5240.0	23.390
5260.0	23.540
5280.0	23.210
5320.0	24.570
5500.0	23.930
5560.0	23.980
5700.0	23.570
Test Mode	Mode 4: IEEE 802.11n 5 GHz 40 MHz Continuous TX mode
5190.0	42.010
5230.0	41.990
5270.0	41.910
5310.0	42.120
5510.0	41.850
5550.0	41.860
5670.0	41.960
Test Mode	Mode 5: IEEE 802.11ac 80 MHz Continuous TX mode
5210.0	83.670
5290.0	83.700
5530.0	83.130



■ Test Graphs

Mode 2: IEEE 802.11a Continuous TX mode_ANT-0	
5180 MHz	
5200 MHz	
5240 MHz	



Mode 2: IEEE 802.11a Continuous TX mode_ANT-0	
5260 MHz	 Center Freq: 5.26 GHz #Res BW: 300 kHz #VBW: 1 MHz Span: 40 MHz Sweep: 1 ms Occupied Bandwidth: 16.654 MHz Total Power: 19.2 dBm Transmit Freq Error: -25.788 kHz OBW Power: 99.00 % x dB Bandwidth: 22.50 MHz x dB: -26.00 dB
5280 MHz	 Center Freq: 5.28 GHz #Res BW: 300 kHz #VBW: 1 MHz Span: 40 MHz Sweep: 1 ms Occupied Bandwidth: 16.727 MHz Total Power: 19.2 dBm Transmit Freq Error: -222 Hz OBW Power: 99.00 % x dB Bandwidth: 23.09 MHz x dB: -26.00 dB
5320 MHz	 Center Freq: 5.32 GHz #Res BW: 300 kHz #VBW: 1 MHz Span: 40 MHz Sweep: 1 ms Occupied Bandwidth: 16.704 MHz Total Power: 19.0 dBm Transmit Freq Error: 12.258 kHz OBW Power: 99.00 % x dB Bandwidth: 22.38 MHz x dB: -26.00 dB

Mode 2: IEEE 802.11a Continuous TX mode_ANT-0

5500 MHz



5560 MHz



5700 MHz





Mode 3: IEEE 802.11n 5 GHz 20 MHz Continuous TX mode_ANT-0

5180 MHz



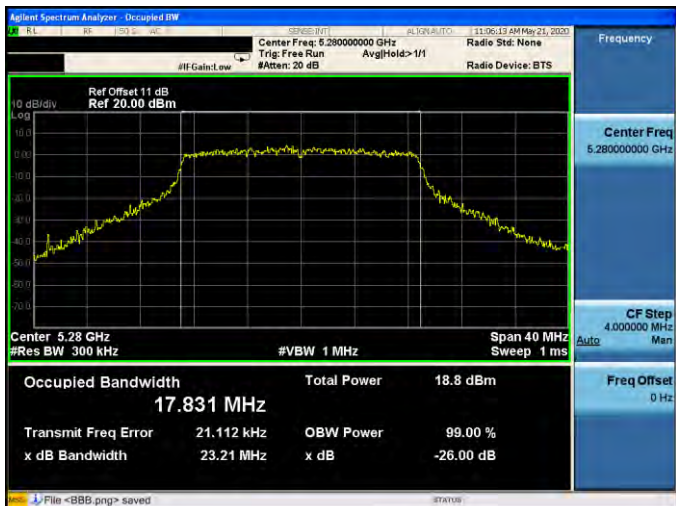
5200 MHz



5240 MHz





Mode 3: IEEE 802.11n 5 GHz 20 MHz Continuous TX mode_ANT-0	
5260 MHz	 Center Freq: 5.26000000 GHz Trig: Free Run #Atten: 20 dB Radio Std: None Radio Device: BTS Ref Offset 11 dB Ref 20.00 dBm Center 5.26 GHz #Res BW 300 kHz #VBW 1 MHz Span 40 MHz Sweep 1 ms Occupied Bandwidth 17.835 MHz Total Power 19.2 dBm Transmit Freq Error -6.517 kHz OBW Power 99.00 % x dB Bandwidth 23.54 MHz x dB -26.00 dB File <BBB.png> saved
5280 MHz	 Center Freq: 5.28000000 GHz Trig: Free Run #Atten: 20 dB Radio Std: None Radio Device: BTS Ref Offset 11 dB Ref 20.00 dBm Center 5.28 GHz #Res BW 300 kHz #VBW 1 MHz Span 40 MHz Sweep 1 ms Occupied Bandwidth 17.831 MHz Total Power 18.8 dBm Transmit Freq Error 21.112 kHz OBW Power 99.00 % x dB Bandwidth 23.21 MHz x dB -26.00 dB File <BBB.png> saved
5320 MHz	 Center Freq: 5.32000000 GHz Trig: Free Run #Atten: 20 dB Radio Std: None Radio Device: BTS Ref Offset 11 dB Ref 20.00 dBm Center 5.32 GHz #Res BW 300 kHz #VBW 1 MHz Span 40 MHz Sweep 1 ms Occupied Bandwidth 17.845 MHz Total Power 19.4 dBm Transmit Freq Error -1.763 kHz OBW Power 99.00 % x dB Bandwidth 24.57 MHz x dB -26.00 dB File <BBB.png> saved



Mode 3: IEEE 802.11n 5 GHz 20 MHz Continuous TX mode_ANT-0

5500 MHz



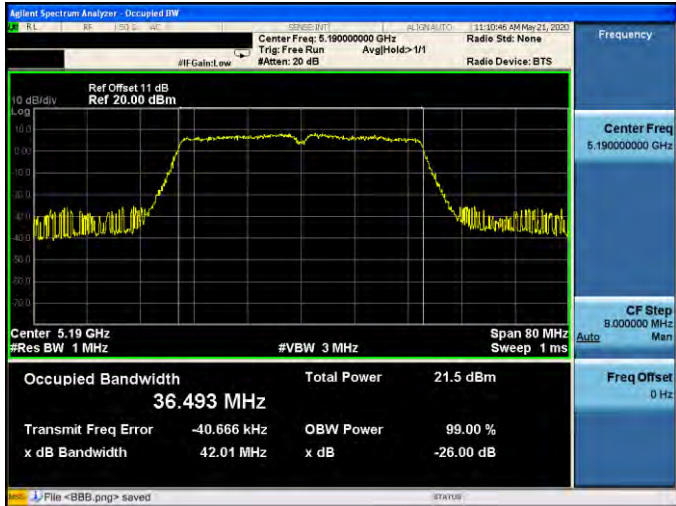
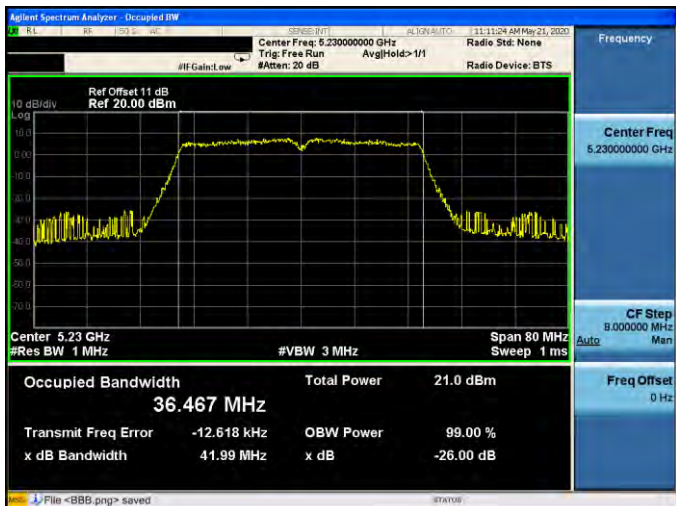
5560 MHz



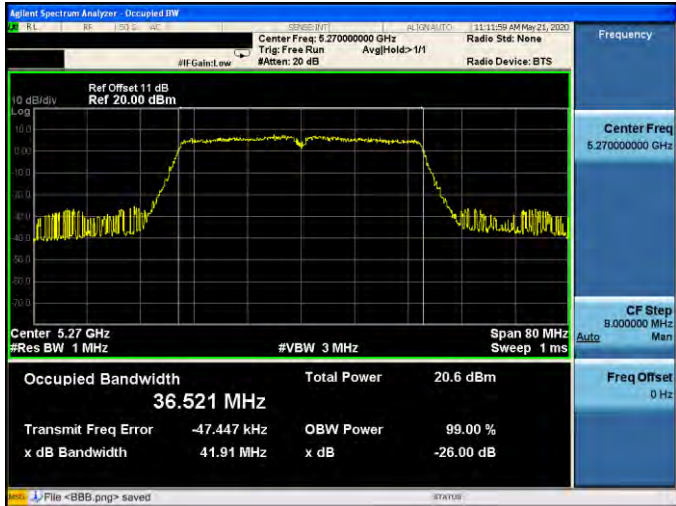
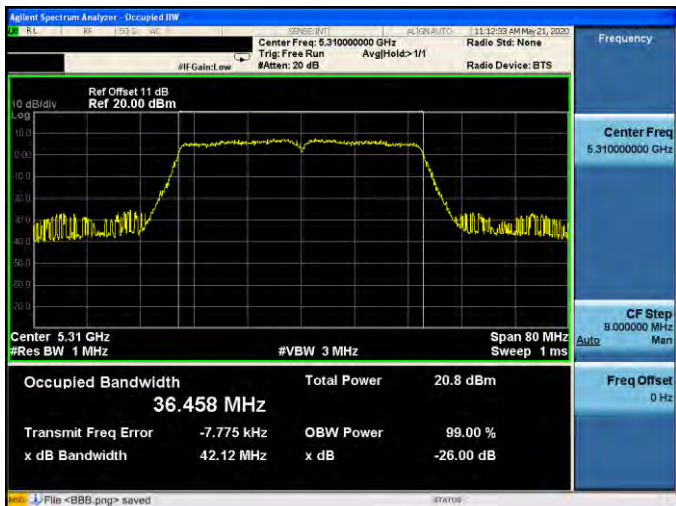
5700 MHz





Mode 4: IEEE 802.11n 5 GHz 40 MHz Continuous TX mode_ANT-0	
5190 MHz	
5230 MHz	

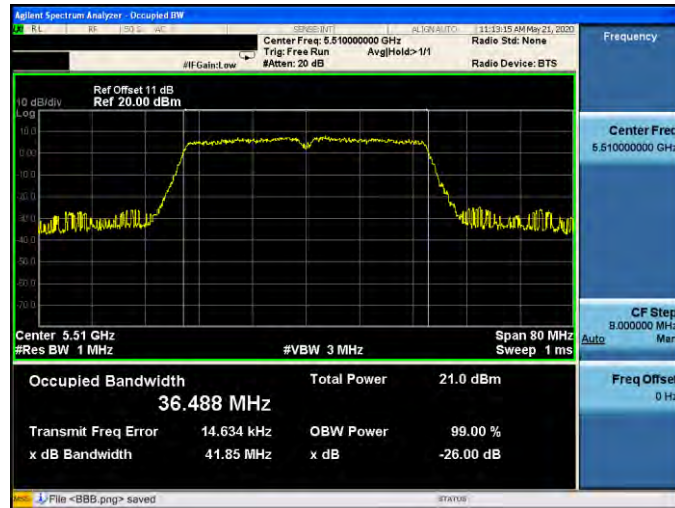


Mode 4: IEEE 802.11n 5 GHz 40 MHz Continuous TX mode_ANT-0	
5270 MHz	
5310 MHz	

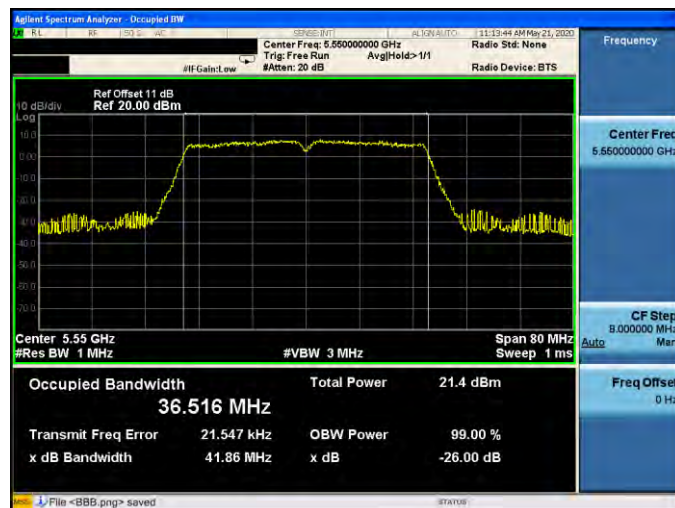


Mode 4: IEEE 802.11n 5 GHz 40 MHz Continuous TX mode_ANT-0

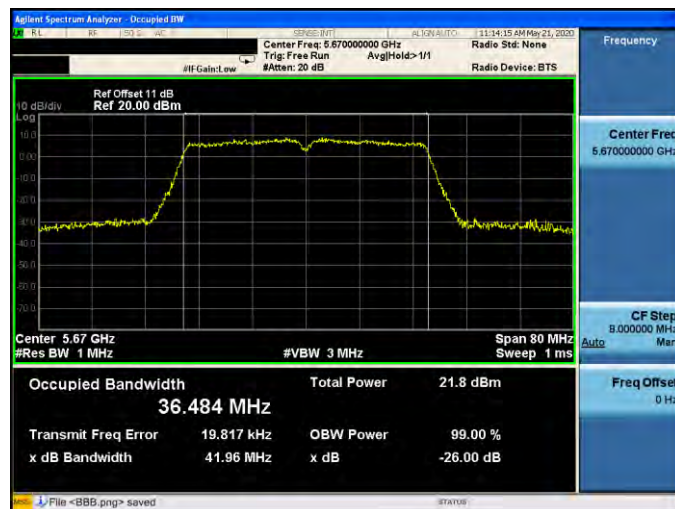
5510 MHz



5550 MHz

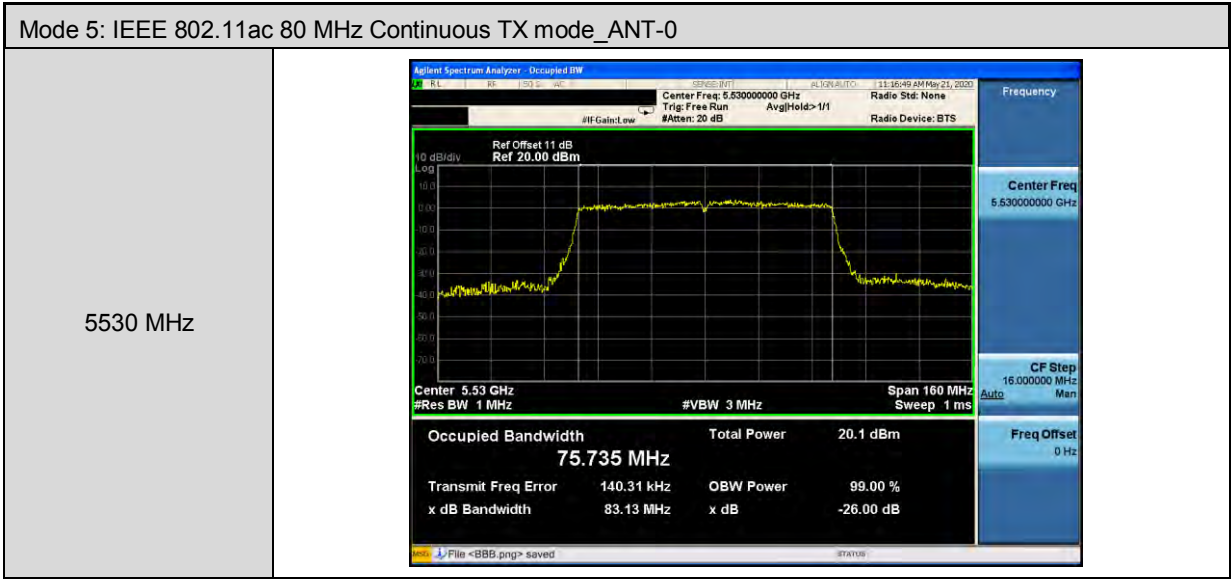


5670 MHz





Mode 5: IEEE 802.11ac 80 MHz Continuous TX mode_ANT-0	
5210 MHz	
5290 MHz	

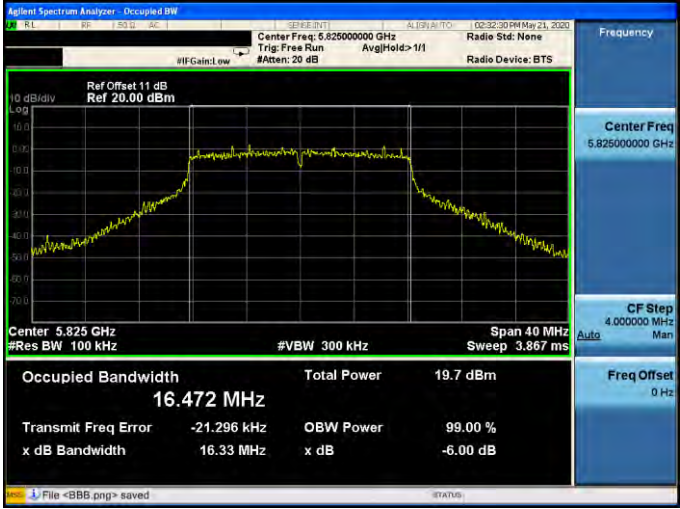


6 dB RF Bandwidth Measurement

Test Mode	Mode 2: IEEE 802.11a Continuous TX mode	
Frequency (MHz)	ANT-0	Limit (kHz)
5745.0	16330	≥ 500
5785.0	13900	≥ 500
5825.0	16330	≥ 500
Test Mode	Mode 3: IEEE 802.11n 5 GHz 20 MHz Continuous TX mode	
Frequency (MHz)	ANT-0	Limit (kHz)
5745.0	14960	≥ 500
5785.0	15090	≥ 500
5825.0	15170	≥ 500
Test Mode	Mode 4: IEEE 802.11n 5 GHz 40 MHz Continuous TX mode	
Frequency (MHz)	ANT-0	Limit (kHz)
5755.0	35930	≥ 500
5795.0	35200	≥ 500
Test Mode	Mode 5: IEEE 802.11ac 80 MHz Continuous TX mode	
Frequency (MHz)	ANT-0	Limit (kHz)
5775.0	75420	≥ 500



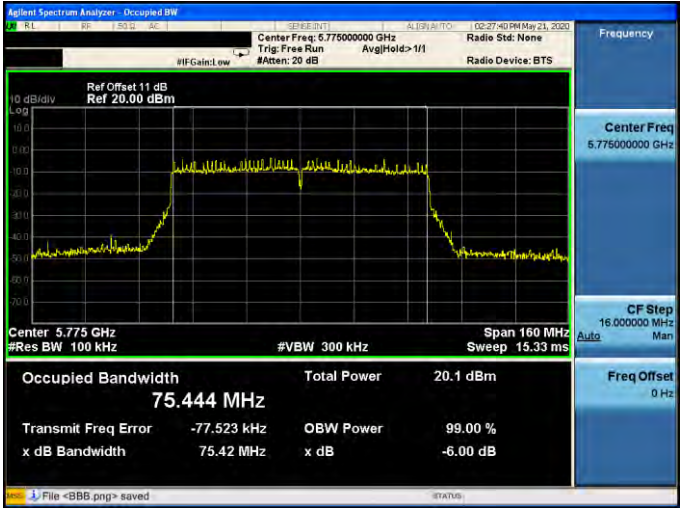
■ Test Graphs

Mode 2: IEEE 802.11a Link Mode_ ANT-0	
5745 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq: 5.74500000 GHz Trig: Free Run #IF Gain: Low #Atten: 20 dB Radio Std: None Radio Device: BTS Ref Offset 11 dB Ref 20.00 dBm Center 5.745 GHz #Res BW 100 kHz #VBW 300 kHz Span 40 MHz Sweep 3.867 ms Occupied Bandwidth 16.485 MHz Total Power 20.1 dBm Transmit Freq Error -31.200 kHz OBW Power 99.00 % x dB Bandwidth 16.33 MHz x dB -6.00 dB File <BBB.png> saved
5785 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq: 5.78500000 GHz Trig: Free Run #IF Gain: Low #Atten: 20 dB Radio Std: None Radio Device: BTS Ref Offset 11 dB Ref 20.00 dBm Center 5.785 GHz #Res BW 100 kHz #VBW 300 kHz Span 40 MHz Sweep 3.867 ms Occupied Bandwidth 16.453 MHz Total Power 19.9 dBm Transmit Freq Error -20.109 kHz OBW Power 99.00 % x dB Bandwidth 13.90 MHz x dB -6.00 dB File <BBB.png> saved
5825 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq: 5.82500000 GHz Trig: Free Run #IF Gain: Low #Atten: 20 dB Radio Std: None Radio Device: BTS Ref Offset 11 dB Ref 20.00 dBm Center 5.825 GHz #Res BW 100 kHz #VBW 300 kHz Span 40 MHz Sweep 3.867 ms Occupied Bandwidth 16.472 MHz Total Power 19.7 dBm Transmit Freq Error -21.296 kHz OBW Power 99.00 % x dB Bandwidth 16.33 MHz x dB -6.00 dB File <BBB.png> saved



Mode 3: IEEE 802.11ac 20 MHz Link Mode_ANT-0	
5745 MHz	
5785 MHz	
5825 MHz	



Mode 4: IEEE 802.11ac 40 MHz Link Mode_ANT-0	
5755 MHz	
5795 MHz	
Mode 5: IEEE 802.11ac 80 MHz Link Mode_ANT-0	
5775 MHz	

Maximum Power Spectral Density Measurement

Test Mode	Mode 2: IEEE 802.11a Continuous TX mode			
Conducted power spectral density				
Frequency (MHz)	ANT-0			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5180.0	2.778	0.183	2.961	≤ 11.00
5200.0	2.390	0.183	2.573	
5240.0	2.502	0.183	2.685	
5260.0	2.451	0.183	2.634	
5280.0	2.006	0.183	2.189	
5320.0	1.997	0.183	2.180	
5500.0	2.607	0.183	2.790	
5560.0	3.111	0.183	3.294	
5700.0	3.415	0.183	3.598	

Note: Method SA-2, Power density = measured result + 10 log(1/duty cycle) + Conversion ratio = measured result + duty factor.

Test Mode	Mode 2: IEEE 802.11a Continuous TX mode			
Conducted power spectral density				
Frequency (MHz)	ANT-0			
	Measurement (dBm/100 kHz)	Duty Factor (dB)	Calculated (dBm/500 kHz)	Limit (dBm/500 kHz)
5745.0	-6.223	0.183	0.949	≤ 30
5785.0	-6.359	0.183	0.813	
5825.0	-6.701	0.183	0.471	

Note: Method SA-2, Power density = measured result + 10 log(1/duty cycle) + Conversion ratio = measured result + duty factor.

Conversion ratio = 10*Log(500 kHz/100 kHz)

Test Mode	Mode 3: IEEE 802.11n 5 GHz 20 MHz Continuous TX mode			
Conducted power spectral density				
Frequency (MHz)	ANT-0			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5180.0	2.352	0.161	2.513	≤ 11.00
5200.0	2.077	0.161	2.238	
5240.0	2.078	0.161	2.239	
5260.0	1.882	0.161	2.043	
5280.0	1.664	0.161	1.825	
5320.0	1.887	0.161	2.048	
5500.0	1.937	0.161	2.098	
5560.0	2.744	0.161	2.905	
5700.0	2.778	0.161	2.939	

Note: Method SA-2, Power density = measured result + 10 log(1/duty cycle) + Conversion ratio = measured result + duty factor.

Test Mode	Mode 3: IEEE 802.11n 5 GHz 20 MHz Continuous TX mode			
Conducted power spectral density				
Frequency (MHz)	ANT-0			
	Measurement (dBm/100 kHz)	Duty Factor (dB)	Calculated (dBm/500 kHz)	Limit (dBm/500 kHz)
5745.0	-6.084	0.161	1.066	≤ 30
5785.0	-6.404	0.161	0.746	
5825.0	-7.016	0.161	0.134	

Note: Method SA-2, Power density = measured result + 10 log(1/duty cycle) + Conversion ratio = measured result + duty factor.

Conversion ratio = 10*Log(500 kHz/100 kHz)

Test Mode	Mode 4: IEEE 802.11n 5 GHz 40 MHz Continuous TX mode			
Conducted power spectral density				
Frequency (MHz)	ANT-0			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5190.0	-0.379	0.372	-0.007	≤ 11.00
5230.0	-0.984	0.372	-0.612	
5270.0	-1.477	0.372	-1.105	
5310.0	-1.213	0.372	-0.841	
5510.0	-0.761	0.372	-0.389	
5550.0	-0.651	0.372	-0.279	
5670.0	0.196	0.372	0.568	

Note: Method SA-2, Power density = measured result + 10 log(1/duty cycle) + Conversion ratio = measured result + duty factor.

Test Mode	Mode 4: IEEE 802.11n 5 GHz 40 MHz Continuous TX mode			
Conducted power spectral density				
Frequency (MHz)	ANT-0			
	Measurement (dBm/100 kHz)	Duty Factor (dB)	Calculated (dBm/500 kHz)	Limit (dBm/500 kHz)
5755.0	-9.578	0.372	-2.217	≤ 30
5795.0	-9.849	0.372	-2.488	

Note: Method SA-2, Power density = measured result + 10 log(1/duty cycle) + Conversion ratio = measured result + duty factor.

Conversion ratio = 10*Log(500 kHz/100 kHz)

Test Mode	Mode 5: IEEE 802.11ac 80 MHz Continuous TX mode			
Conducted power spectral density				
Frequency (MHz)	ANT-0			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5210.0	-4.900	0.823	-4.077	≤ 11.00
5290.0	-5.786	0.823	-4.963	
5530.0	-5.134	0.823	-4.311	

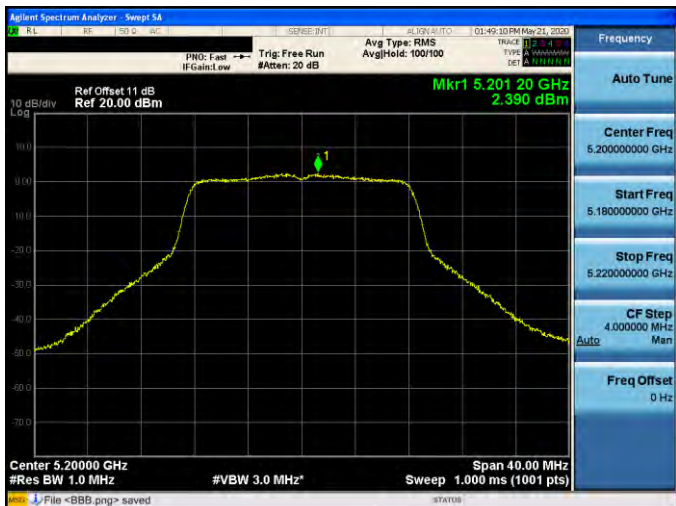
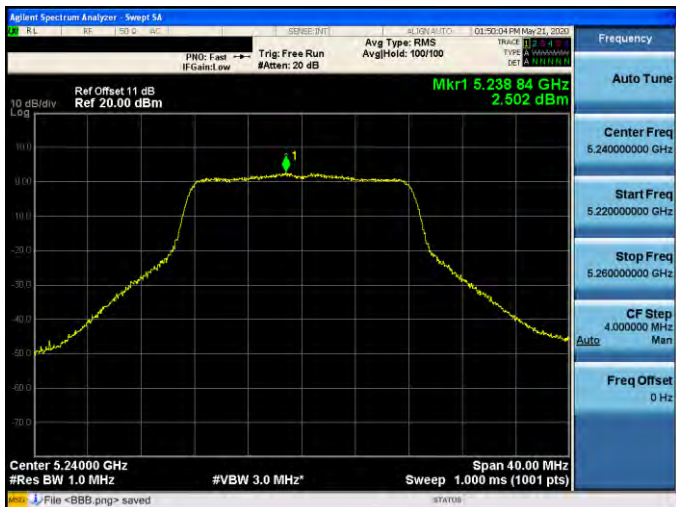
Note: Method SA-2, Power density = measured result + 10 log(1/duty cycle) + Conversion ratio = measured result + duty factor.

Test Mode	Mode 5: IEEE 802.11ac 80 MHz Continuous TX mode			
Conducted power spectral density				
Frequency (MHz)	ANT-0			
	Measurement (dBm/100 kHz)	Duty Factor (dB)	Calculated (dBm/500 kHz)	Limit (dBm/500 kHz)
5775.0	-14.305	0.823	-6.492	≤ 30

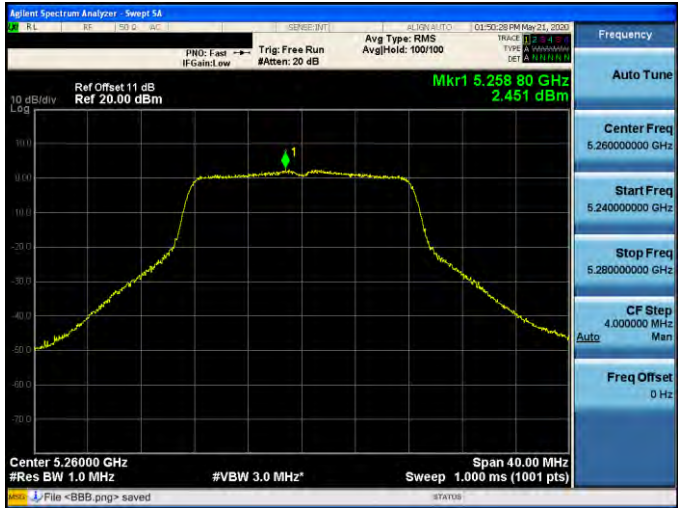
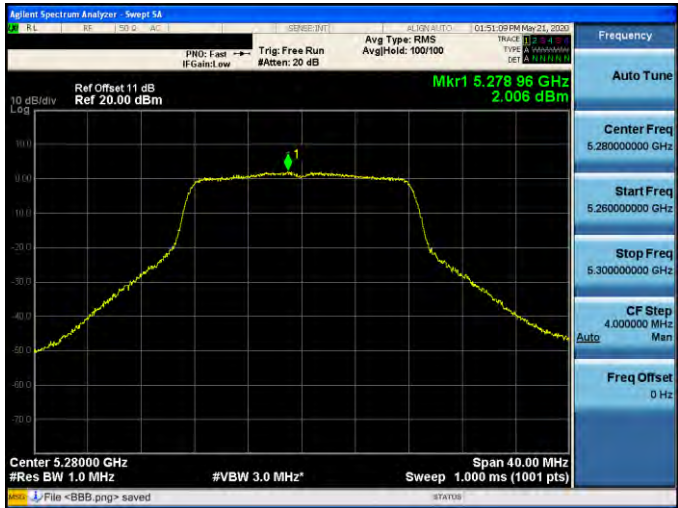
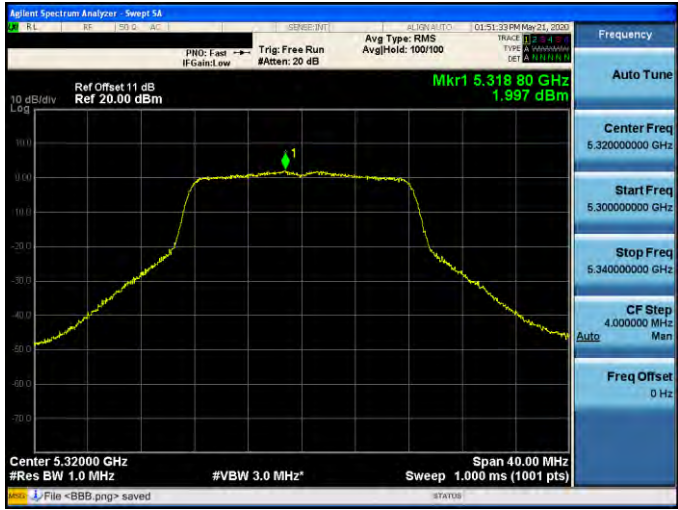
Note: Method SA-2, Power density = measured result + 10 log(1/duty cycle) + Conversion ratio = measured result + duty factor.

Conversion ratio = 10*Log(500 kHz/100 kHz)

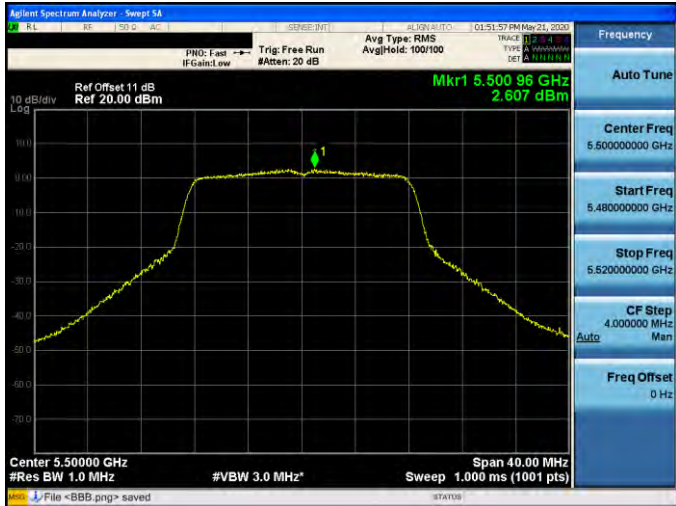
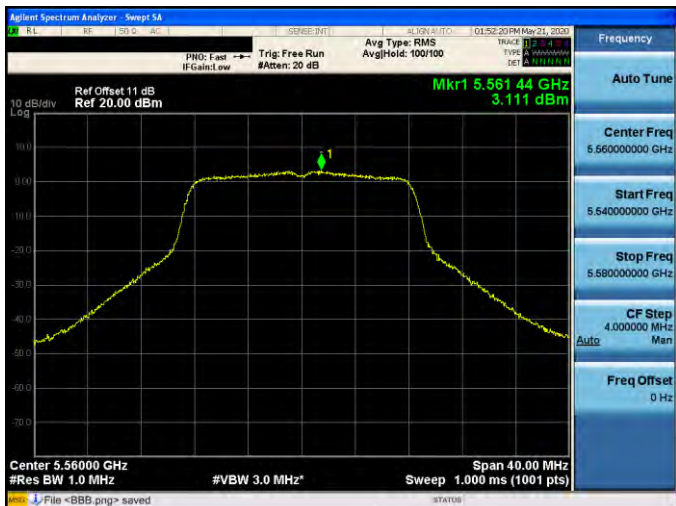
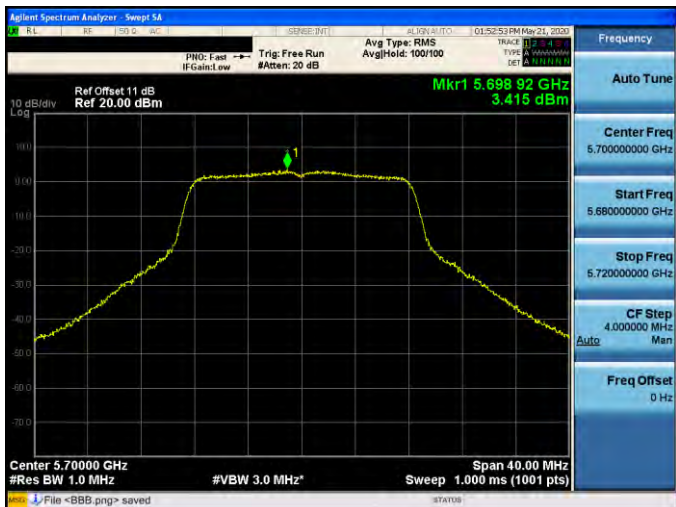
■ Test Graphs

Mode 2: IEEE 802.11a Continuous TX mode_ANT-0	
5180 MHz	 Ref Offset 11 dB Ref 20.00 dBm Mkr1 5.178 84 GHz 2.778 dBm Center 5.180000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz* Sweep 1.000 ms (1001 pts) Span 40.00 MHz File <BBB.png> saved Frequency Auto Tune Center Freq 5.180000000 GHz Start Freq 5.160000000 GHz Stop Freq 5.200000000 GHz CF Step 4.000000 MHz Auto Freq Offset 0 Hz
5200 MHz	 Ref Offset 11 dB Ref 20.00 dBm Mkr1 5.201 20 GHz 2.390 dBm Center 5.200000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz* Sweep 1.000 ms (1001 pts) Span 40.00 MHz File <BBB.png> saved Frequency Auto Tune Center Freq 5.200000000 GHz Start Freq 5.180000000 GHz Stop Freq 5.220000000 GHz CF Step 4.000000 MHz Auto Freq Offset 0 Hz
5240 MHz	 Ref Offset 11 dB Ref 20.00 dBm Mkr1 5.238 84 GHz 2.502 dBm Center 5.240000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz* Sweep 1.000 ms (1001 pts) Span 40.00 MHz File <BBB.png> saved Frequency Auto Tune Center Freq 5.240000000 GHz Start Freq 5.220000000 GHz Stop Freq 5.260000000 GHz CF Step 4.000000 MHz Auto Freq Offset 0 Hz



Mode 2: IEEE 802.11a Continuous TX mode_ANT-0	
5260 MHz	
5280 MHz	
5320 MHz	

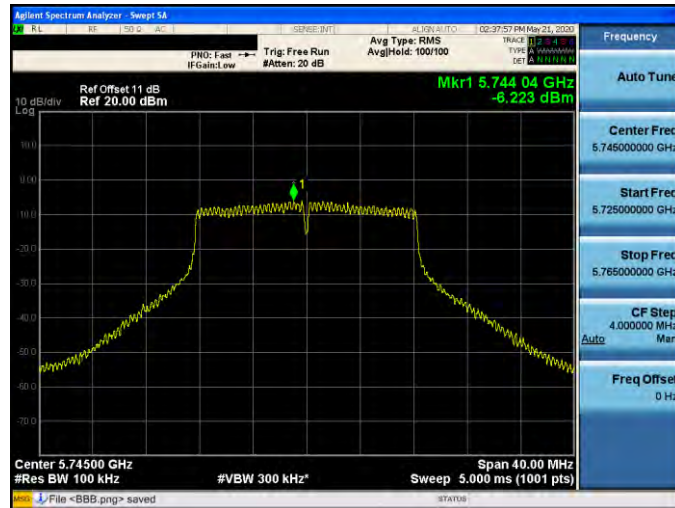


Mode 2: IEEE 802.11a Continuous TX mode_ANT-0	
5500 MHz	
5560 MHz	
5700 MHz	

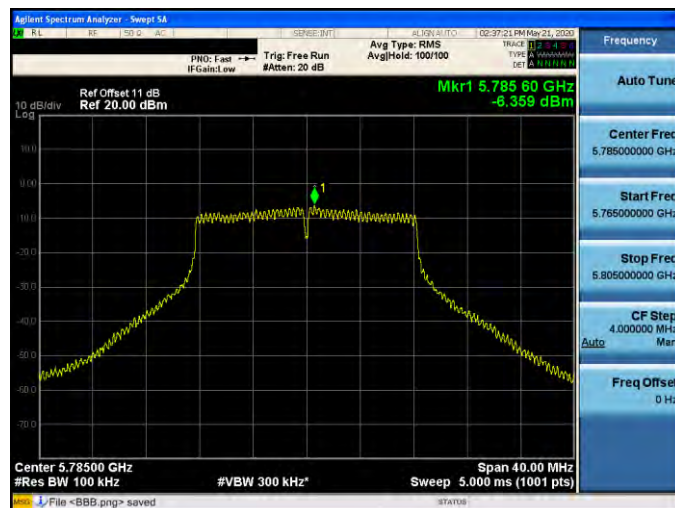


Mode 2: IEEE 802.11a Continuous TX mode_ANT-0

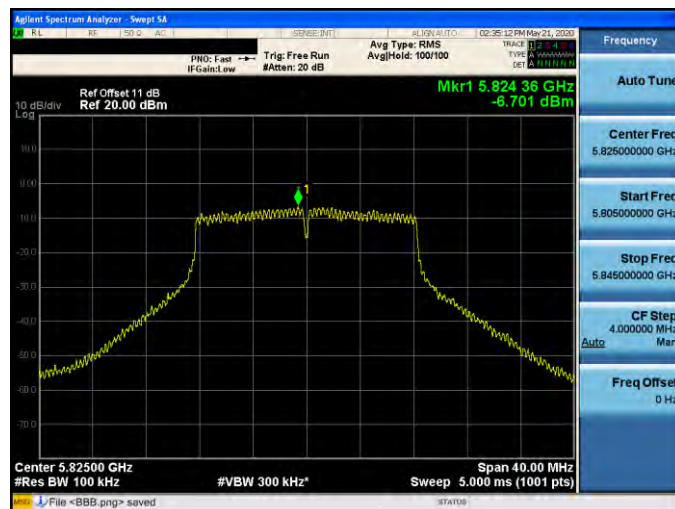
5745 MHz



5785 MHz

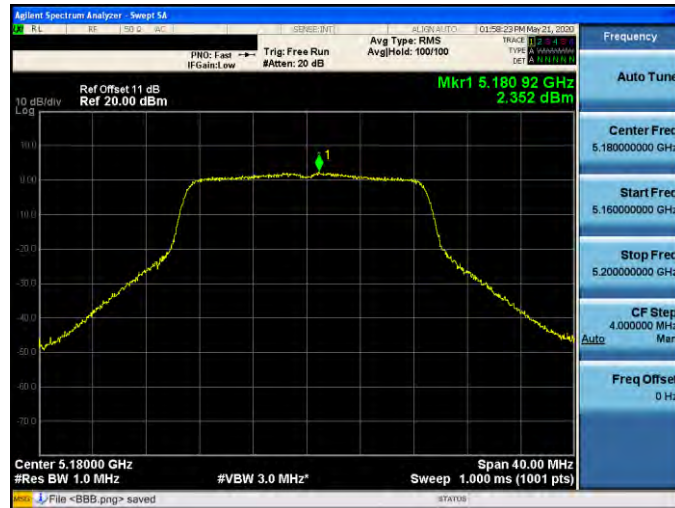


5825 MHz

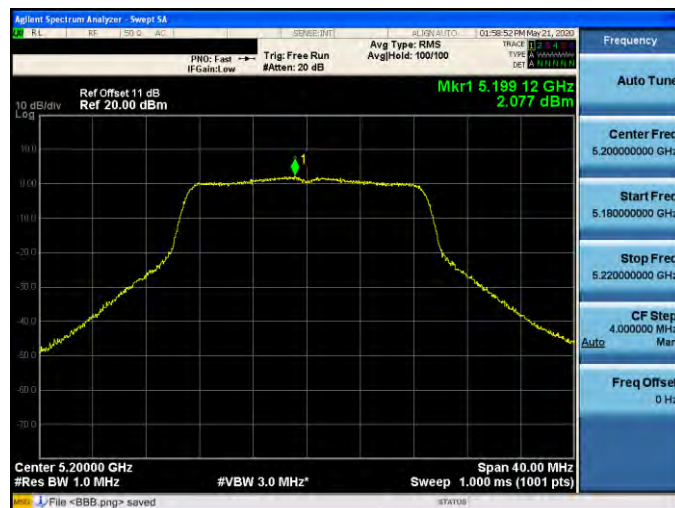


Mode 3: IEEE 802.11n 5 GHz 20 MHz Continuous TX mode_ANT-0

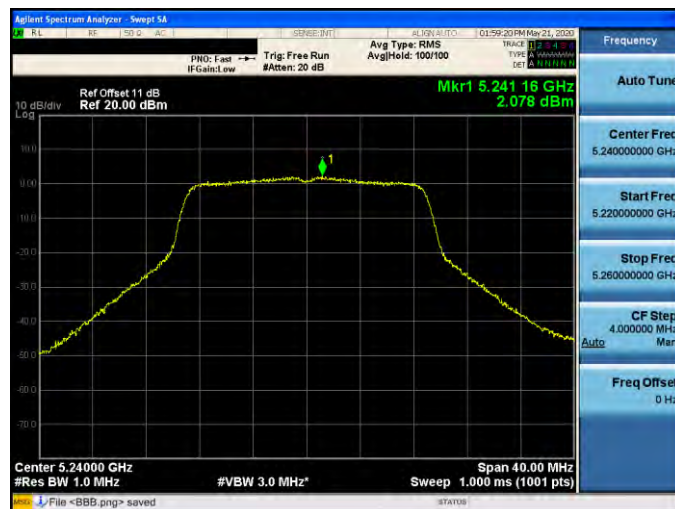
5180 MHz



5200 MHz



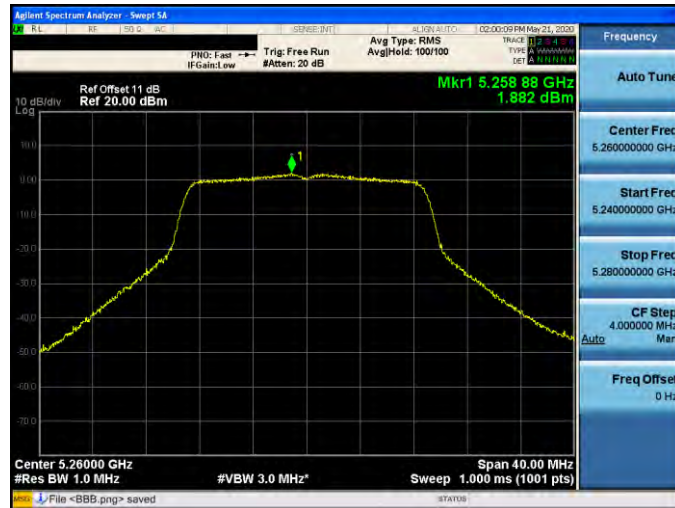
5240 MHz





Mode 3: IEEE 802.11n 5 GHz 20 MHz Continuous TX mode_ANT-0

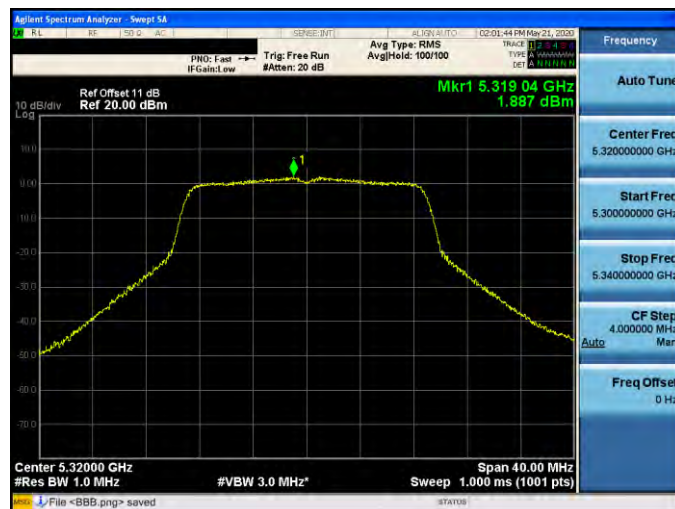
5260 MHz



5280 MHz



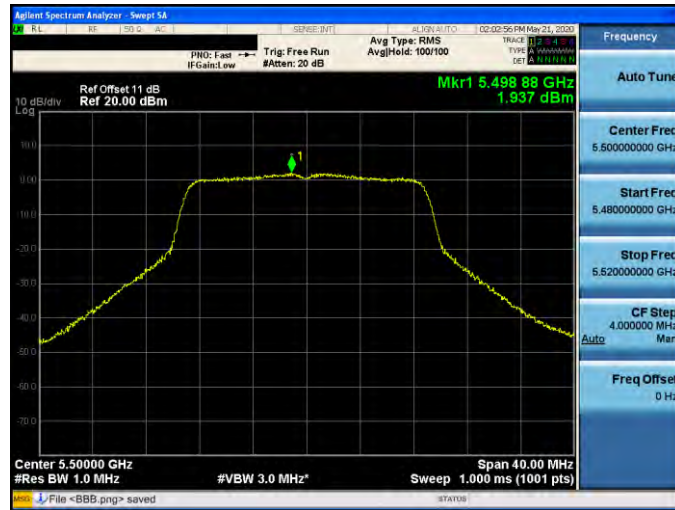
5320 MHz



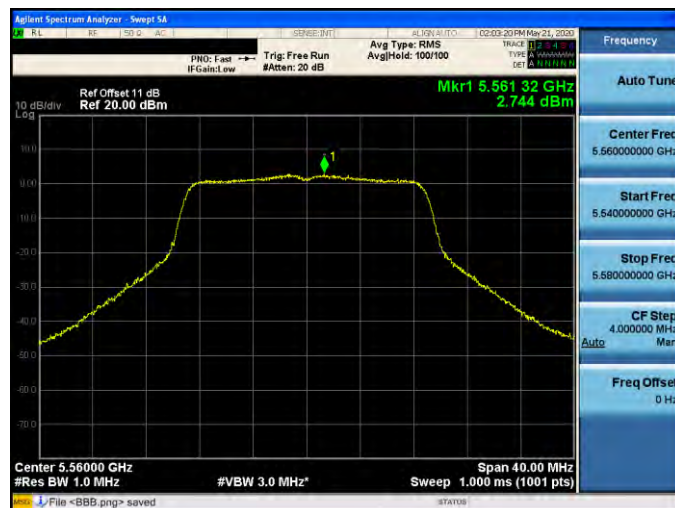


Mode 3: IEEE 802.11n 5 GHz 20 MHz Continuous TX mode_ANT-0

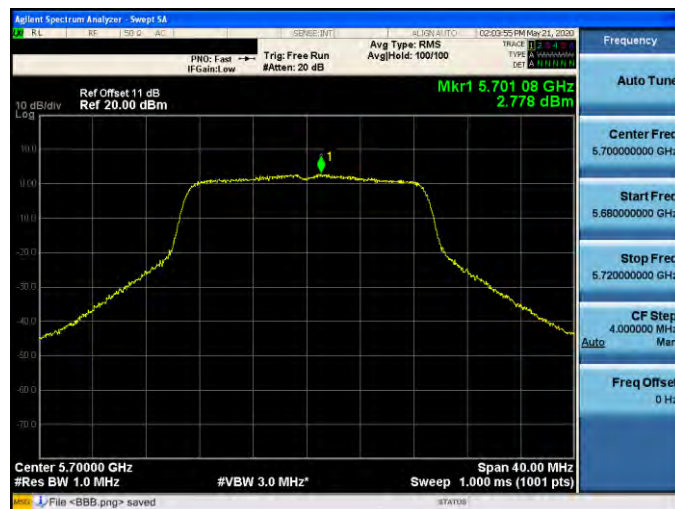
5500 MHz



5560 MHz

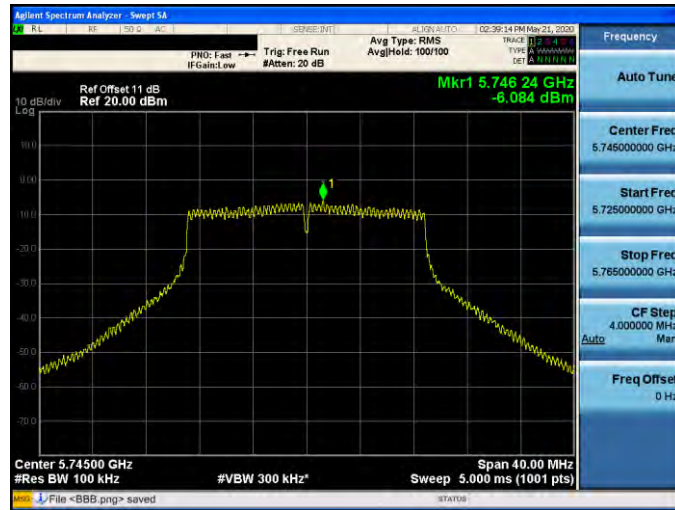


5700 MHz



Mode 3: IEEE 802.11n 5 GHz 20 MHz Continuous TX mode_ANT-0

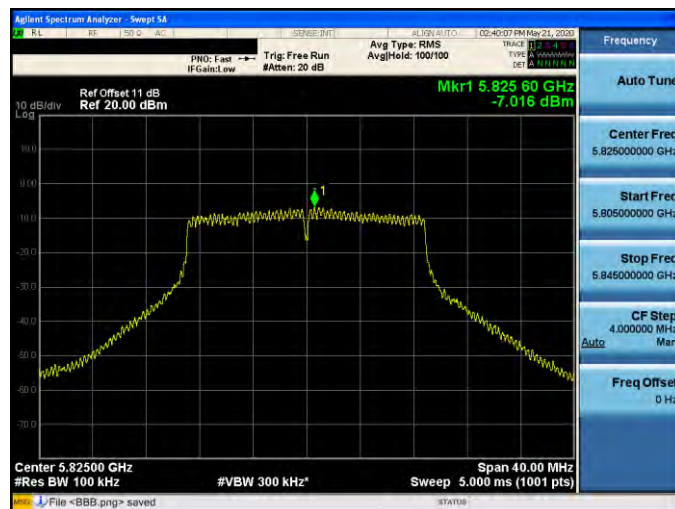
5745 MHz



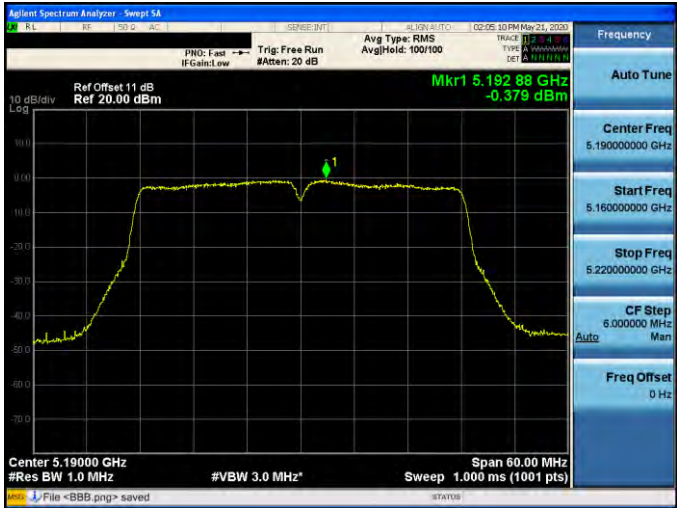
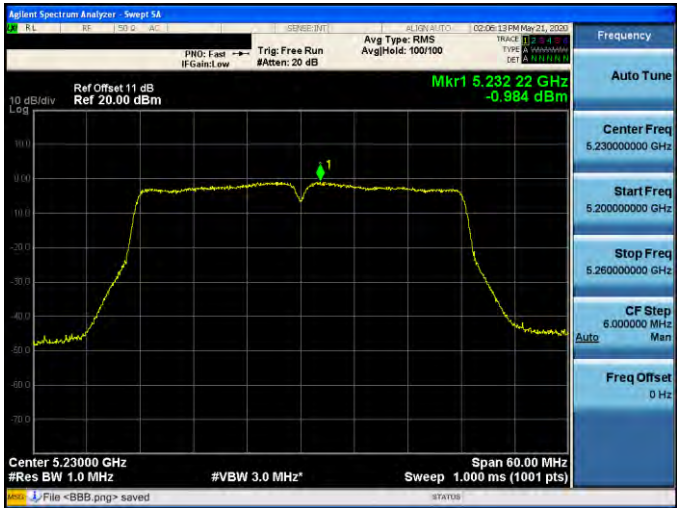
5785 MHz



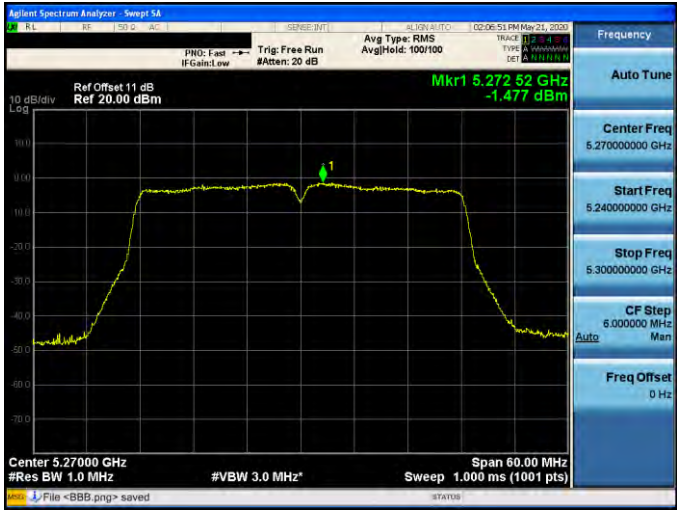
5825 MHz





Mode 4: IEEE 802.11n 5 GHz 40 MHz Continuous TX mode_ANT-0	
5190 MHz	
5230 MHz	

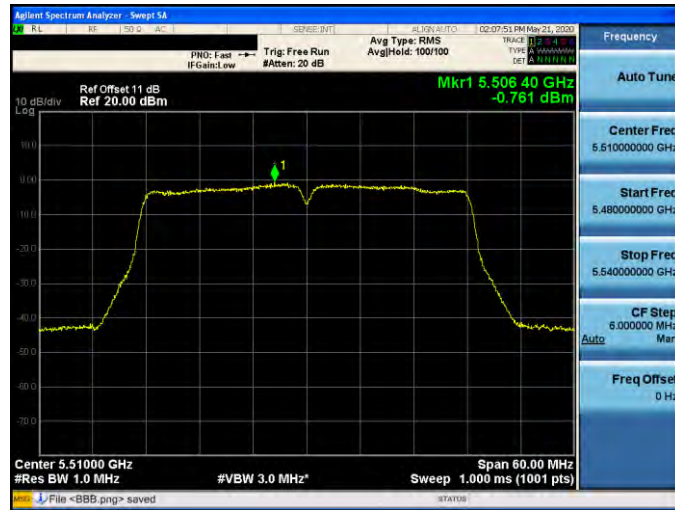


Mode 4: IEEE 802.11n 5 GHz 40 MHz Continuous TX mode_ANT-0	
5270 MHz	
5310 MHz	



Mode 4: IEEE 802.11n 5 GHz 40 MHz Continuous TX mode_ANT-0

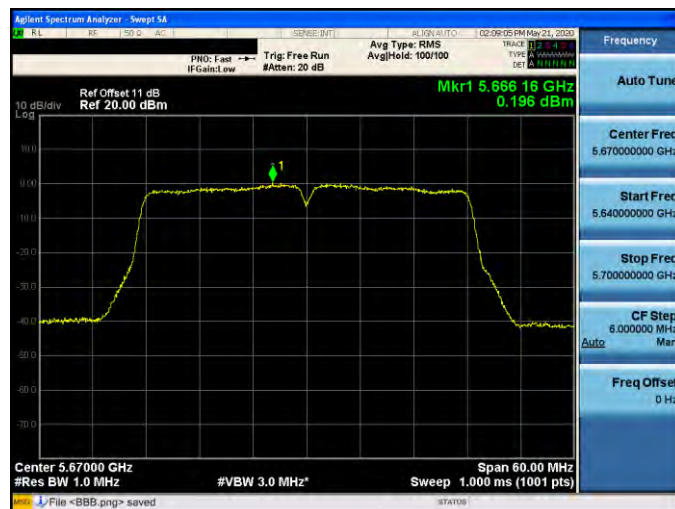
5510 MHz

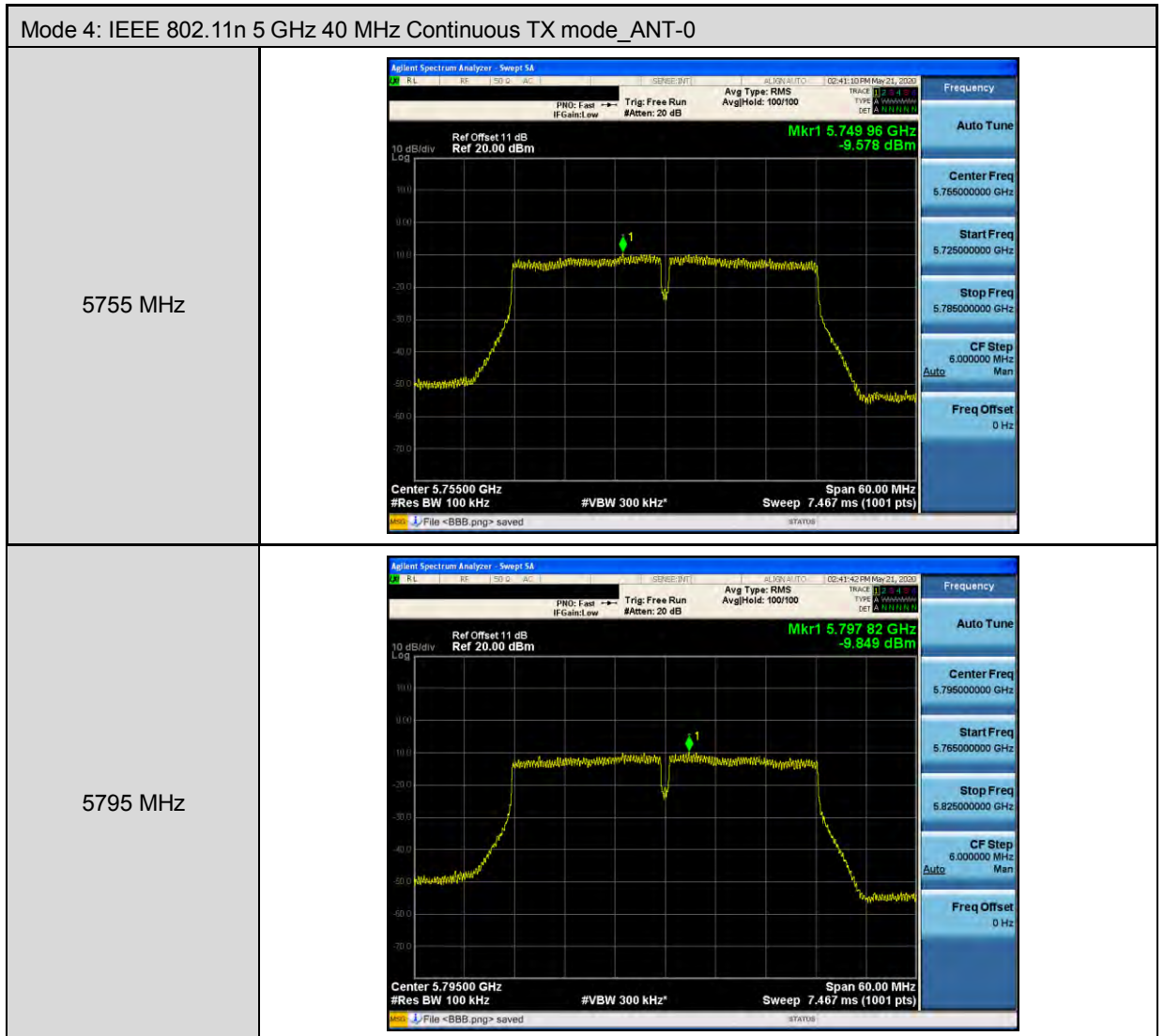


5550 MHz



5670 MHz







Mode 5: IEEE 802.11ac 80 MHz Continuous TX mode_ANT-0	
5210 MHz	
5290 MHz	



Mode 5: IEEE 802.11ac 80 MHz Continuous TX mode_ANT-0	
5530 MHz	
5775 MHz	

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