

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	14.11	0.026	≤ 24.00
5200.0		14.14	0.026	≤ 24.00
5220.0		14.23	0.026	≤ 24.00
5240.0		14.21	0.026	≤ 24.00
5260.0		14.22	0.026	≤ 24.00
5280.0		14.32	0.027	≤ 24.00
5300.0		14.25	0.027	≤ 24.00
5320.0		14.48	0.028	≤ 24.00
5500.0		12.93	0.020	≤ 24.00
5520.0		12.32	0.017	≤ 24.00
5540.0		12.31	0.017	≤ 24.00
5560.0		12.42	0.017	≤ 24.00
5580.0		12.81	0.019	≤ 24.00
5660.0		12.80	0.019	≤ 24.00
5680.0		12.70	0.019	≤ 24.00
5700.0		12.63	0.018	≤ 24.00
5745.0		14.35	0.027	≤ 30.00
5765.0		14.38	0.027	≤ 30.00
5785.0		14.36	0.027	≤ 30.00
5805.0		14.37	0.027	≤ 30.00
5825.0		14.28	0.027	≤ 30.00

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

Test Mode		Mode 3: IEEE 802.11ac 20 MHz Continuous TX mode		
Frequency (MHz)	Data Rate	ANT-0		Limit (dBm)
		(dBm)	(W)	
5180.0	6.5 M	13.62	0.023	≤ 24.00
5200.0		13.44	0.022	≤ 24.00
5220.0		13.48	0.022	≤ 24.00
5240.0		13.43	0.022	≤ 24.00
5260.0		13.57	0.023	≤ 24.00
5280.0		13.48	0.022	≤ 24.00
5300.0		13.44	0.022	≤ 24.00
5320.0		13.43	0.022	≤ 24.00
5500.0		12.91	0.020	≤ 24.00
5520.0		12.70	0.019	≤ 24.00
5540.0		12.88	0.019	≤ 24.00
5560.0		12.77	0.019	≤ 24.00
5580.0		12.93	0.020	≤ 24.00
5660.0		12.89	0.019	≤ 24.00
5680.0		12.87	0.019	≤ 24.00
5700.0		12.83	0.019	≤ 24.00
5745.0		13.46	0.022	≤ 30.00
5765.0		13.51	0.022	≤ 30.00
5785.0		13.41	0.022	≤ 30.00
5805.0		13.45	0.022	≤ 30.00
5825.0		13.41	0.022	≤ 30.00

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

Test Mode		Mode 4: IEEE 802.11ac 40 MHz Continuous TX mode		
Frequency (MHz)	Data Rate	ANT-0		Limit (dBm)
		(dBm)	(W)	
5190.0	13.5 M	12.61	0.018	≤ 24.00
5230.0		12.69	0.019	≤ 24.00
5270.0		12.74	0.019	≤ 24.00
5310.0		12.62	0.018	≤ 24.00
5510.0		12.75	0.019	≤ 24.00
5550.0		12.91	0.020	≤ 24.00
5670.0		12.92	0.020	≤ 24.00
5755.0		12.52	0.018	≤ 30.00
5795.0		12.53	0.018	≤ 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	8.74	0.007	≤ 24.00
5290.0		9.26	0.008	≤ 24.00
5530.0		12.75	0.019	≤ 30.00
5775.0		12.55	0.018	≤ 30.00

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

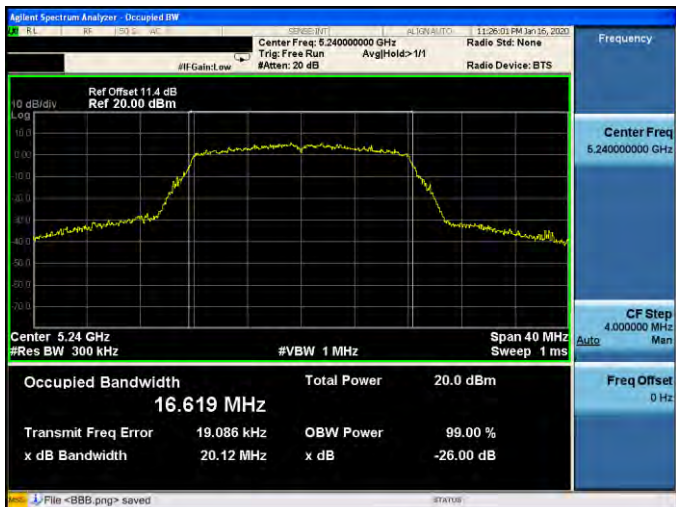


26 dB RF Bandwidth Measurement

Test Mode	Mode 2: IEEE 802.11a Continuous TX mode
Frequency (MHz)	ANT-0
5180.0	20.150
5200.0	20.320
5240.0	20.120
5260.0	20.190
5280.0	20.050
5320.0	20.250
5500.0	20.220
5560.0	20.080
5700.0	20.100
Test Mode	Mode 3: IEEE 802.11ac 20 MHz Continuous TX mode
Frequency (MHz)	ANT-0
5180.0	20.470
5200.0	20.490
5240.0	20.380
5260.0	20.470
5280.0	20.420
5320.0	20.360
5500.0	20.360
5560.0	20.300
5700.0	20.380
Test Mode	Mode 4: IEEE 802.11ac 40 MHz Continuous TX mode
Frequency (MHz)	ANT-0
5190.0	41.300
5230.0	41.640
5270.0	41.400
5310.0	41.410
5510.0	41.600
5550.0	41.590
5670.0	41.460
Test Mode	Mode 5: IEEE 802.11ac 80 MHz Continuous TX mode
Frequency (MHz)	ANT-0
5210.0	81.930
5290.0	82.030
5530.0	81.860

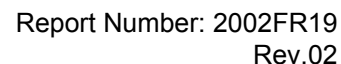


■ Test Graphs

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	
5280 MHz	
5320 MHz	

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Mode 3: IEEE 802.11ac 20 MHz Continuous TX mode_ ANT-0

5180 MHz



5200 MHz

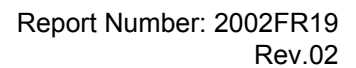


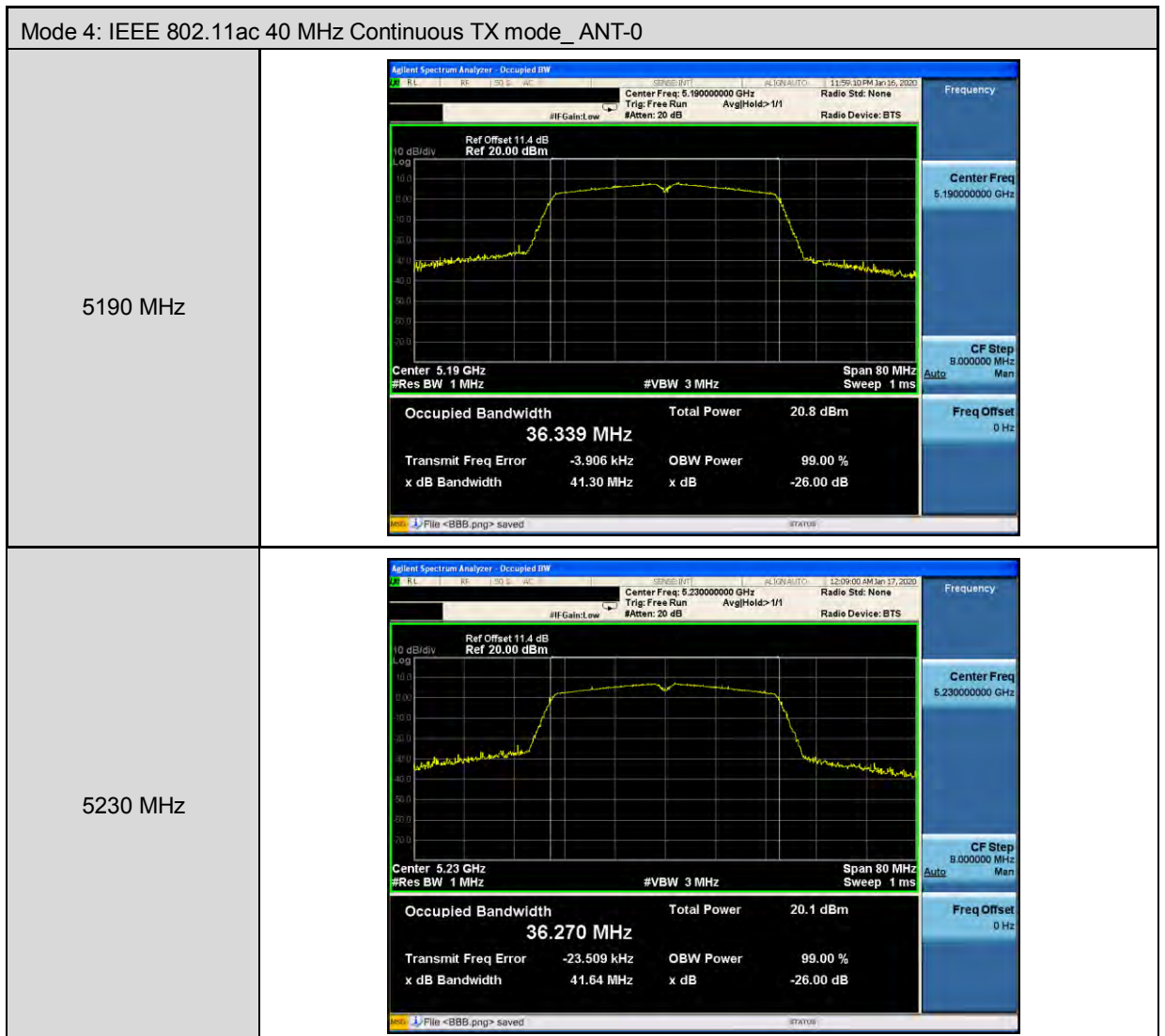
5240 MHz





Mode 3: IEEE 802.11ac 20 MHz Continuous TX mode_ ANT-0	
5260 MHz	
5280 MHz	
5320 MHz	

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Mode 4: IEEE 802.11ac 40 MHz Continuous TX mode_ ANT-0	
5270 MHz	 Center Freq: 5.27000000 GHz Trig: Free Run #Atten: 20 dB Radio Std: None Radio Device: BTS Ref Offset 11.4 dB Ref 20.00 dBm Center 5.27 GHz #Res BW 1 MHz #VBW 3 MHz Span 80 MHz Sweep 1 ms Occupied Bandwidth 36.248 MHz Total Power 20.9 dBm Transmit Freq Error -776 Hz OBW Power 99.00 % x dB Bandwidth 41.40 MHz x dB -26.00 dB File <BBB.png> saved
5310 MHz	 Center Freq: 5.31000000 GHz Trig: Free Run #Atten: 20 dB Radio Std: None Radio Device: BTS Ref Offset 11.4 dB Ref 20.00 dBm Center 5.31 GHz #Res BW 1 MHz #VBW 3 MHz Span 80 MHz Sweep 1 ms Occupied Bandwidth 36.215 MHz Total Power 20.8 dBm Transmit Freq Error 17.157 kHz OBW Power 99.00 % x dB Bandwidth 41.41 MHz x dB -26.00 dB File <BBB.png> saved

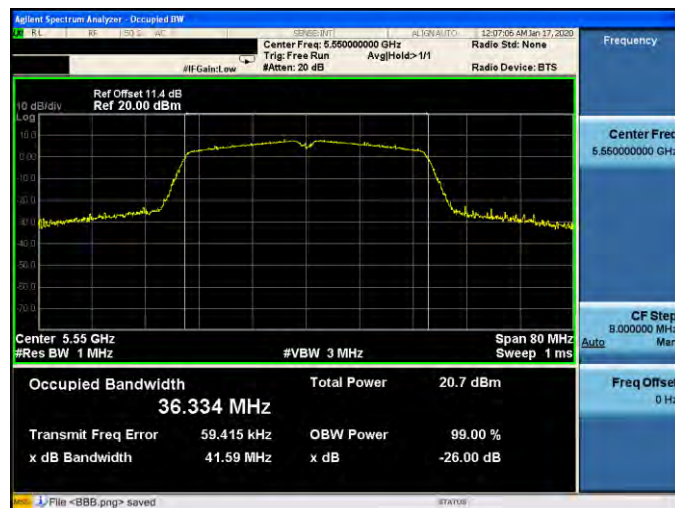


Mode 4: IEEE 802.11ac 40 MHz Continuous TX mode_ ANT-0

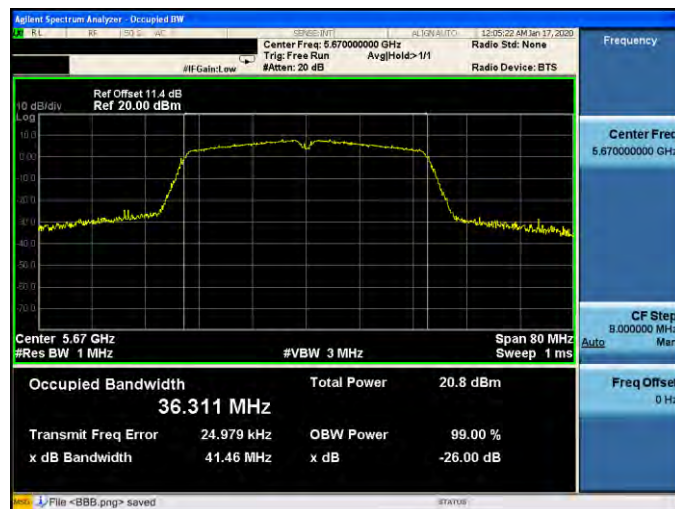
5510 MHz



5550 MHz

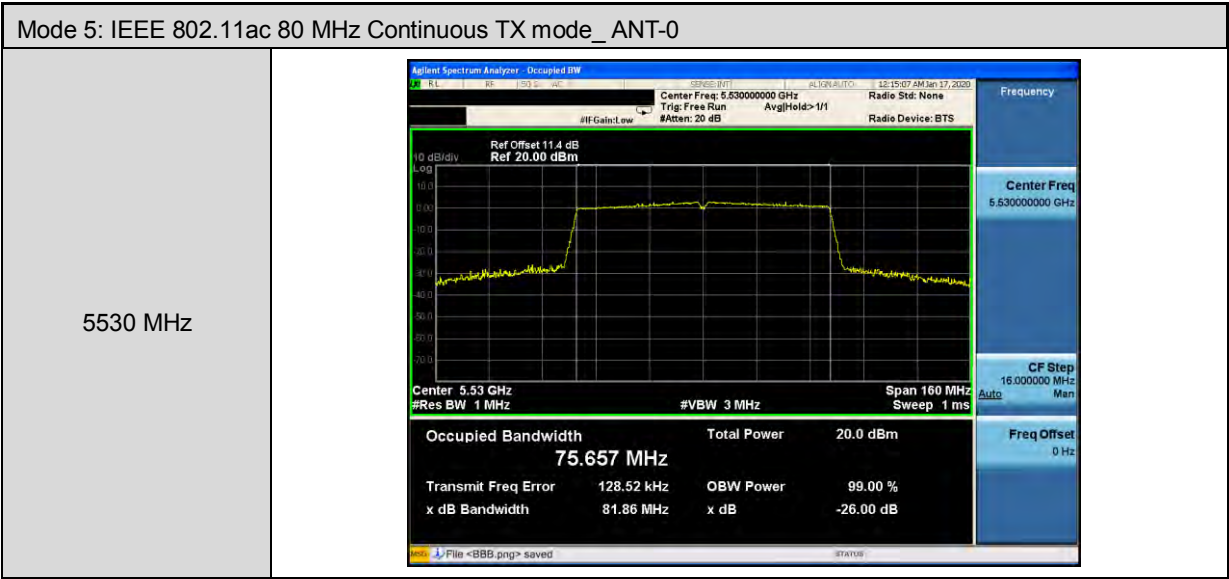


5670 MHz





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

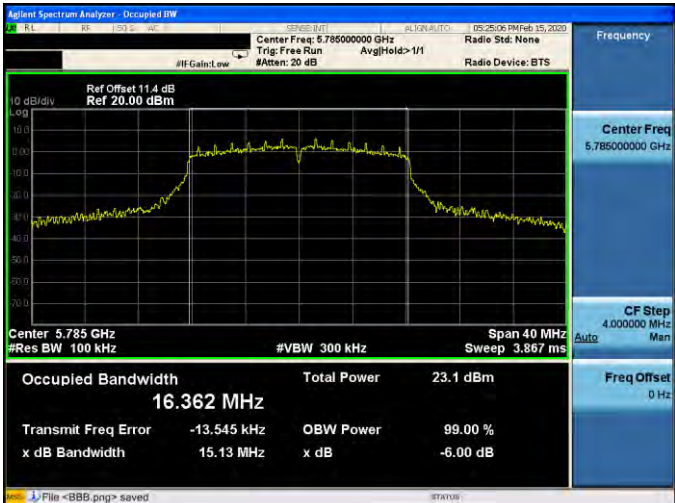


6 dB RF Bandwidth Measurement

Test Mode	Mode 2: IEEE 802.11a Continuous TX mode	
Frequency (MHz)	ANT-0	Limit (kHz)
5745.0	15170	≥ 500
5785.0	15130	≥ 500
5825.0	15120	≥ 500
Test Mode	Mode 3: IEEE 802.11ac 20 MHz Continuous TX mode	
Frequency (MHz)	ANT-0	Limit (kHz)
5745.0	15070	≥ 500
5785.0	15130	≥ 500
5825.0	15060	≥ 500
Test Mode	Mode 4: IEEE 802.11ac 40 MHz Continuous TX mode	
Frequency (MHz)	ANT-0	Limit (kHz)
5755.0	35870	≥ 500
5795.0	35750	≥ 500
Test Mode	Mode 5: IEEE 802.11ac 80 MHz Continuous TX mode	
Frequency (MHz)	ANT-0	Limit (kHz)
5775.0	76620	≥ 500

Test Graphs

Mode 2: IEEE 802.11a Link Mode_ ANT-0

5745 MHz	 Ref Offset 11.4 dB Ref 20.00 dBm Center Freq: 5.745 GHz Res BW: 100 kHz Span: 40 MHz Sweep: 3.867 ms Occupied Bandwidth: 16.383 MHz Total Power: 23.0 dBm Transmit Freq Error: -12.714 kHz OBW Power: 99.00 % x dB Bandwidth: 15.17 MHz x dB: -6.00 dB File <BBB.png> saved
5785 MHz	 Ref Offset 11.4 dB Ref 20.00 dBm Center Freq: 5.785 GHz Res BW: 100 kHz Span: 40 MHz Sweep: 3.867 ms Occupied Bandwidth: 16.362 MHz Total Power: 23.1 dBm Transmit Freq Error: -13.545 kHz OBW Power: 99.00 % x dB Bandwidth: 15.13 MHz x dB: -6.00 dB File <BBB.png> saved
5825 MHz	 Ref Offset 11.4 dB Ref 20.00 dBm Center Freq: 5.825 GHz Res BW: 100 kHz Span: 40 MHz Sweep: 3.867 ms Occupied Bandwidth: 16.359 MHz Total Power: 22.4 dBm Transmit Freq Error: -5.573 kHz OBW Power: 99.00 % x dB Bandwidth: 15.12 MHz x dB: -6.00 dB File <BBB.png> saved



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

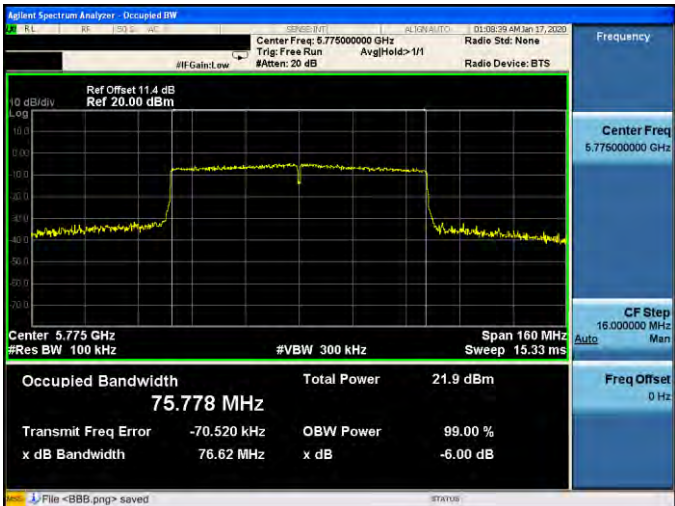
5745 MHz	 Ref Offset 11.4 dB Ref 20.00 dBm Center Freq: 5.745 GHz #Res BW 100 kHz Span 40 MHz Sweep 3.867 ms Occupied Bandwidth 17.538 MHz Total Power 22.9 dBm Transmit Freq Error 6.619 kHz OBW Power 99.00 % x dB Bandwidth 15.07 MHz x dB -6.00 dB Frequency Center Freq 5.745000000 GHz CF Step 4.000000 MHz Auto Man Freq Offset 0 Hz File <BBB.png> saved
5785 MHz	 Ref Offset 11.4 dB Ref 20.00 dBm Center Freq: 5.785 GHz #Res BW 100 kHz Span 40 MHz Sweep 3.867 ms Occupied Bandwidth 17.534 MHz Total Power 22.6 dBm Transmit Freq Error 2.807 kHz OBW Power 99.00 % x dB Bandwidth 15.13 MHz x dB -6.00 dB Frequency Center Freq 5.785000000 GHz CF Step 4.000000 MHz Auto Man Freq Offset 0 Hz File <BBB.png> saved
5825 MHz	 Ref Offset 11.4 dB Ref 20.00 dBm Center Freq: 5.825 GHz #Res BW 100 kHz Span 40 MHz Sweep 3.867 ms Occupied Bandwidth 17.541 MHz Total Power 22.0 dBm Transmit Freq Error 5.608 kHz OBW Power 99.00 % x dB Bandwidth 15.06 MHz x dB -6.00 dB Frequency Center Freq 5.825000000 GHz CF Step 4.000000 MHz Auto Man Freq Offset 0 Hz File <BBB.png> saved



Mode 4: IEEE 802.11ac 40 MHz Link Mode_ANT-0

5755 MHz	 Center Freq: 5.755 GHz #Res BW 100 kHz #VBW 300 kHz Span 80 MHz Sweep 7.667 ms Occupied Bandwidth: 35.913 MHz Total Power: 20.6 dBm Transmit Freq Error: -16.248 kHz OBW Power: 99.00 % x dB Bandwidth: 35.87 MHz x dB: -6.00 dB
5795 MHz	 Center Freq: 5.795 GHz #Res BW 100 kHz #VBW 300 kHz Span 80 MHz Sweep 7.667 ms Occupied Bandwidth: 35.917 MHz Total Power: 21.7 dBm Transmit Freq Error: -20.951 kHz OBW Power: 99.00 % x dB Bandwidth: 35.75 MHz x dB: -6.00 dB

Mode 5: IEEE 802.11ac 80 MHz Link Mode_ANT-0

5775 MHz	 Center Freq: 5.775 GHz #Res BW 100 kHz #VBW 300 kHz Span 160 MHz Sweep 15.33 ms Occupied Bandwidth: 75.778 MHz Total Power: 21.9 dBm Transmit Freq Error: -70.520 kHz OBW Power: 99.00 % x dB Bandwidth: 76.62 MHz x dB: -6.00 dB
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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	3.481	0.000	3.481	≤ 11.00
5200.0	3.310	0.000	3.310	
5240.0	3.172	0.000	3.172	
5260.0	3.941	0.000	3.941	
5280.0	3.743	0.000	3.743	
5320.0	3.913	0.000	3.913	
5500.0	3.593	0.000	3.593	
5560.0	3.669	0.000	3.669	
5700.0	4.086	0.000	4.086	

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	-3.053	0.000	3.937	≤ 30
5785.0	-3.560	0.000	3.430	
5825.0	-3.981	0.000	3.009	

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

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

Test Mode	Mode 3: IEEE 802.11ac 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	3.523	0.000	3.523	≤ 11.00
5200.0	3.415	0.000	3.415	
5240.0	3.020	0.000	3.020	
5260.0	3.486	0.000	3.486	
5280.0	3.184	0.000	3.184	
5320.0	2.682	0.000	2.682	
5500.0	3.348	0.000	3.348	
5560.0	3.632	0.000	3.632	
5700.0	3.716	0.000	3.716	

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

Test Mode	Mode 3: IEEE 802.11ac 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	-4.616	0.000	2.374	≤ 30
5785.0	-4.634	0.000	2.356	
5825.0	-4.931	0.000	2.059	

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

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

Test Mode	Mode 4: IEEE 802.11ac 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	-0.211	0.000	-0.211	≤ 11.00
5230.0	-0.355	0.000	-0.355	
5270.0	0.106	0.000	0.106	
5310.0	-0.168	0.000	-0.168	
5510.0	-0.070	0.000	-0.070	
5550.0	-0.056	0.000	-0.056	
5670.0	0.352	0.000	0.352	

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

Test Mode	Mode 4: IEEE 802.11ac 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	-6.799	0.000	0.191	≤ 30
5795.0	-6.894	0.000	0.096	

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

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

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	-8.212	0.000	-8.212	≤ 11.00
5290.0	-7.644	0.000	-7.644	
5530.0	-4.369	0.000	-4.369	

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

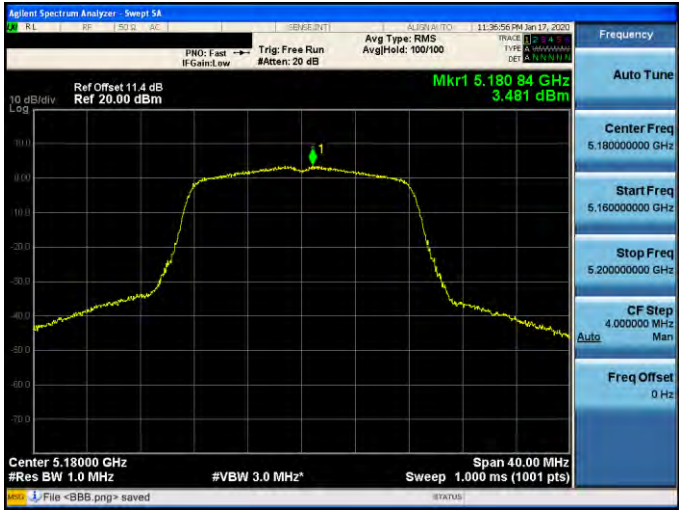
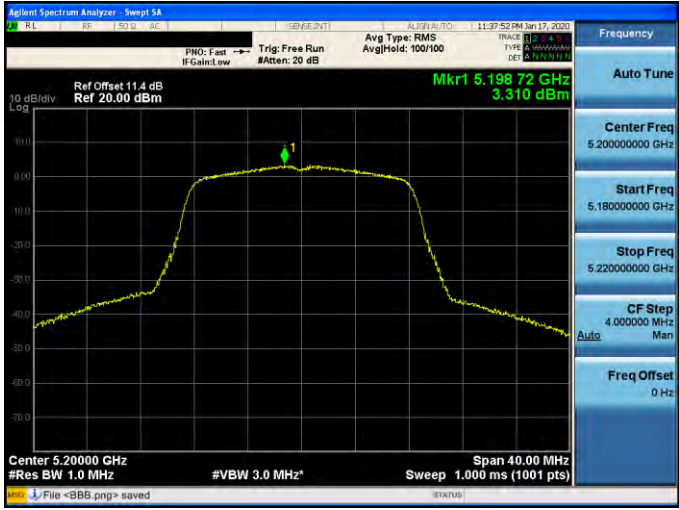
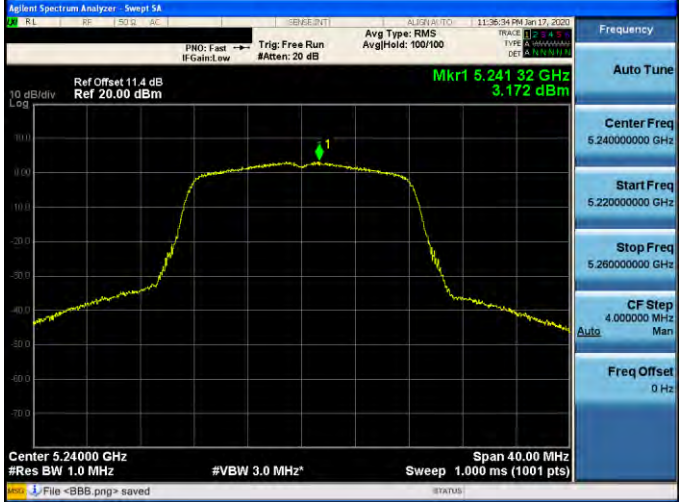
Test Mode	Mode 5: IEEE 802.11ac 80 MHz Continuous TX mode			
Conducted power spectral density				
Frequency (MHz)	ANT-0			
	Measurement (dBm/100 kHz)	Duty Factor (dB)	Calculated (dBm/500 kHz)	Limit (dBm/500 kHz)
5775.0	-13.159	0.000	-6.169	≤ 30

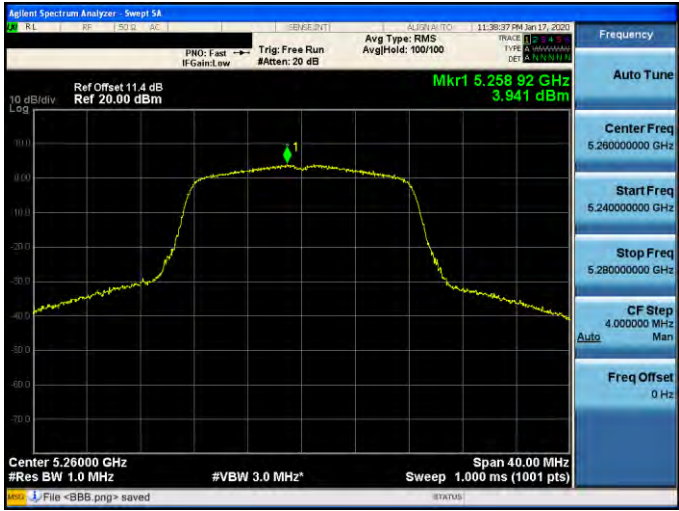
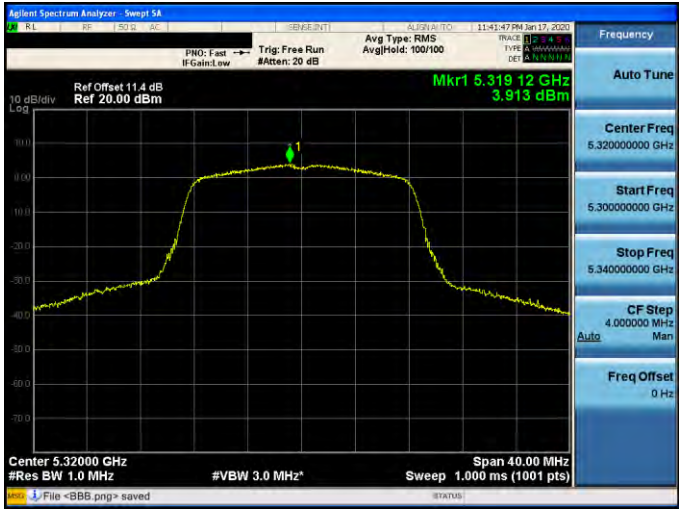
Note: Method SA-2, Power density = measured result + 10 log(1/duty cycle) + Conversion ratio = measured result + duty factor.

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



■ 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	
5280 MHz	
5320 MHz	

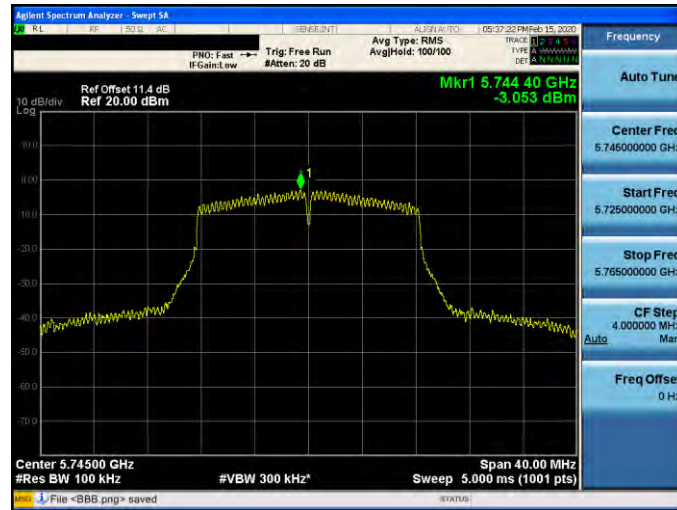


Mode 2: IEEE 802.11a Continuous TX mode_ ANT-0	
5500 MHz	
5560 MHz	
5700 MHz	

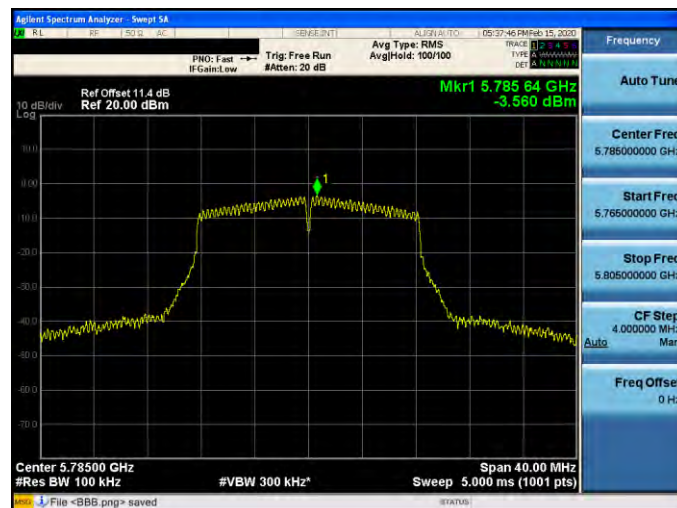


Mode 2: IEEE 802.11a Continuous TX mode_ ANT-0

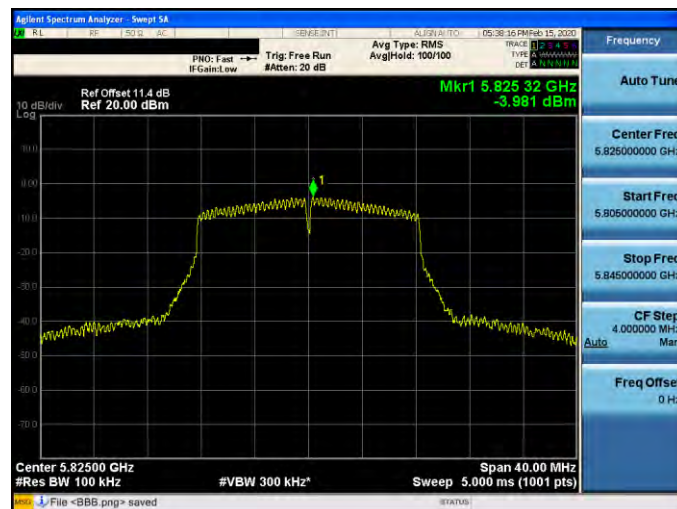
5745 MHz



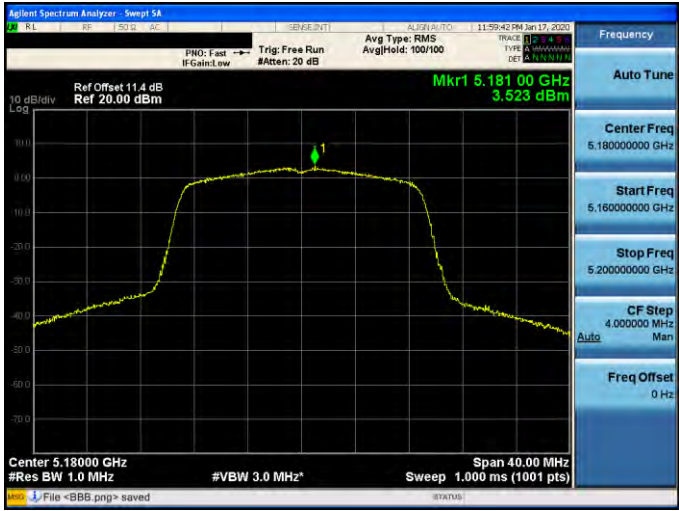
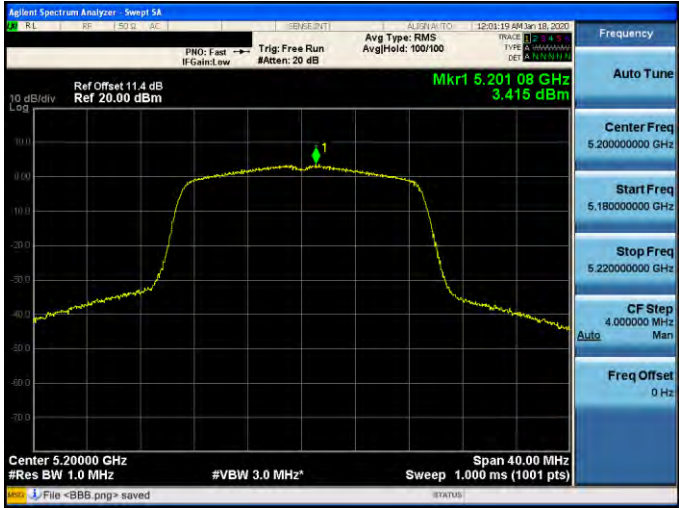
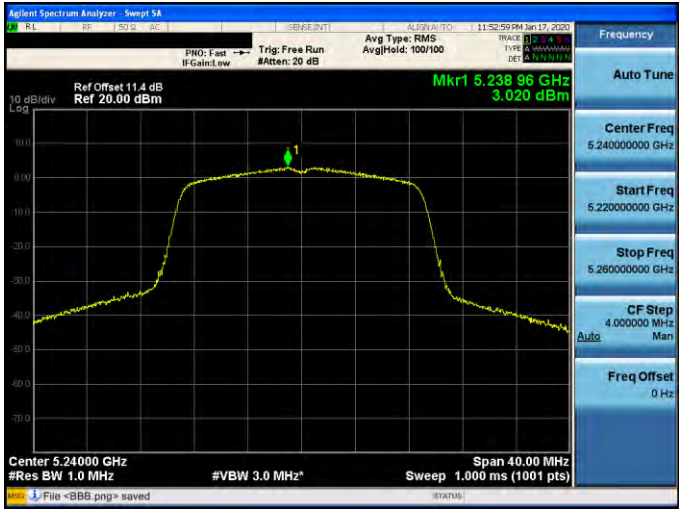
5785 MHz

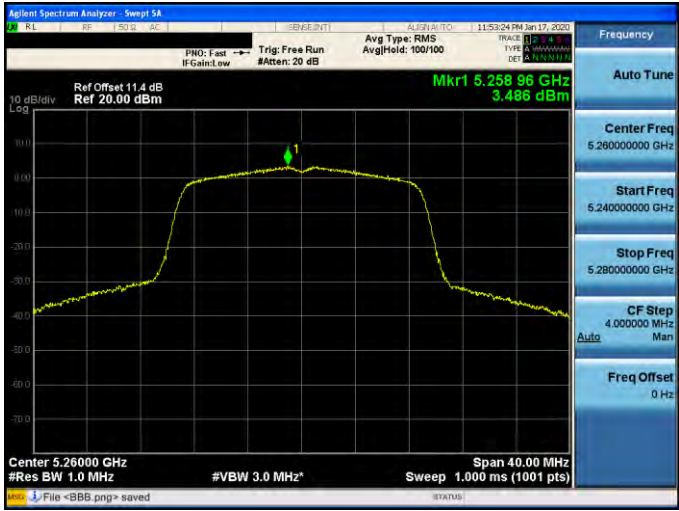
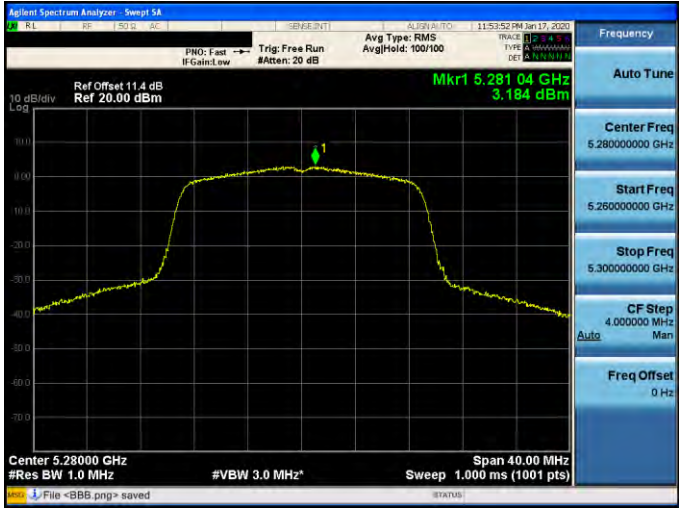
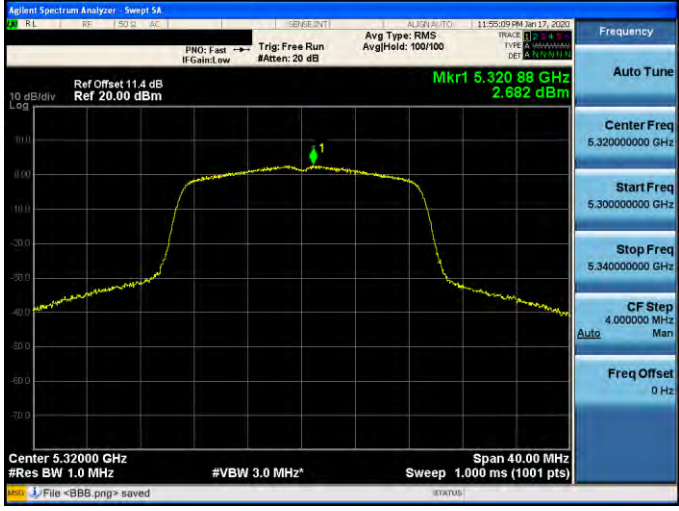


5825 MHz

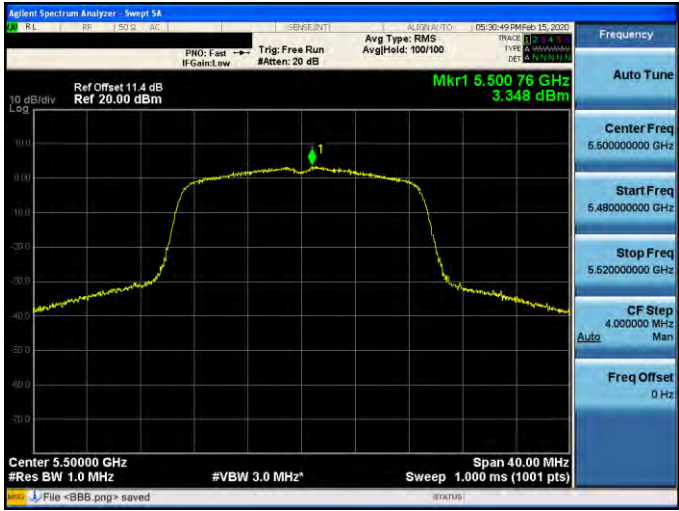
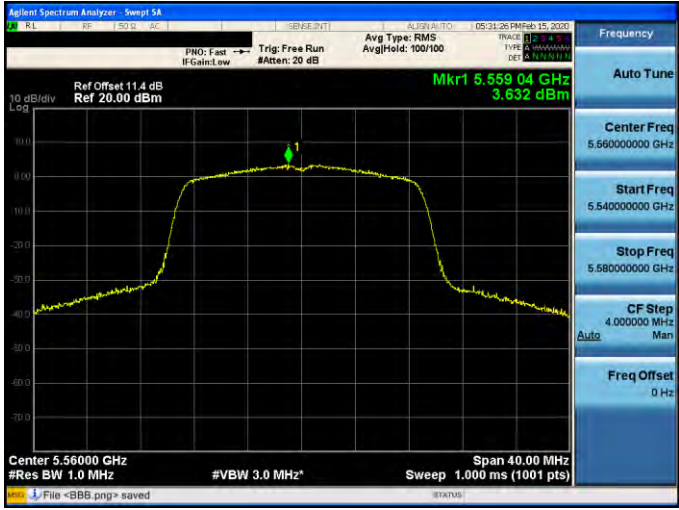
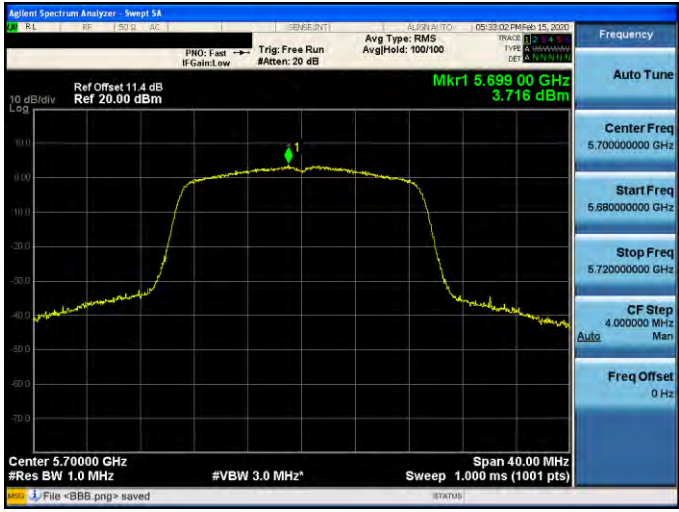


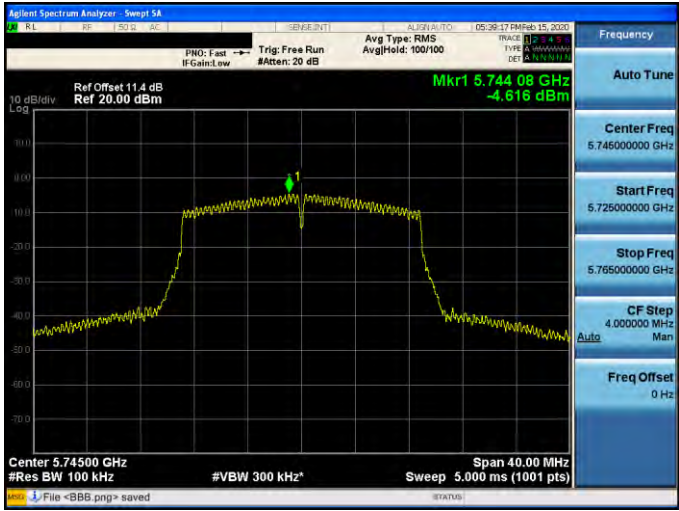
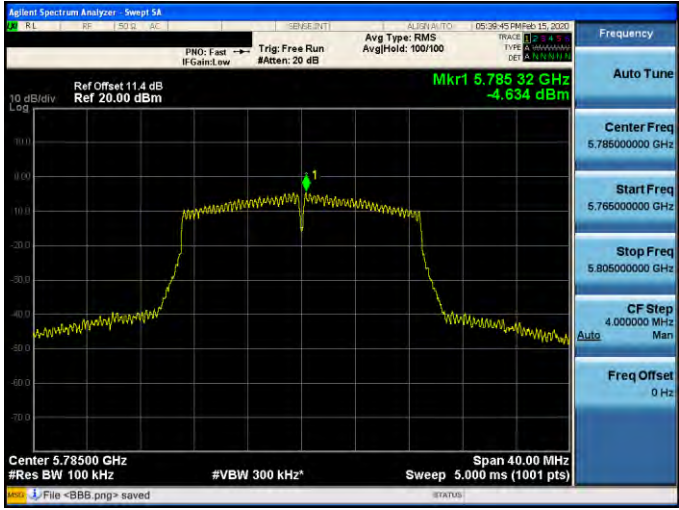
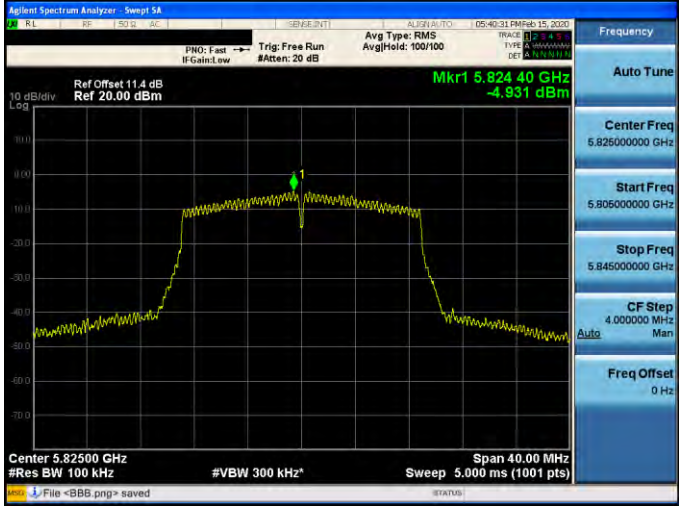


Mode 3: IEEE 802.11ac 20 MHz Continuous TX mode _ ANT-0	
5180 MHz	
5200 MHz	
5240 MHz	

Mode 3: IEEE 802.11ac 20 MHz Continuous TX mode _ ANT-0	
5260 MHz	 Agilent Spectrum Analyzer: Sweep 1A Ref Offset 11.4 dB Ref 20.00 dBm Mkr1 5.258 96 GHz 3.486 dBm Center 5.26000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz* Span 40.00 MHz Sweep 1.000 ms (1001 pts) File <886.png> saved Frequency Auto Tune Center Freq 5.260000000 GHz Start Freq 5.240000000 GHz Stop Freq 5.280000000 GHz CF Step 4.000000 MHz Auto Man Freq Offset 0 Hz
5280 MHz	 Agilent Spectrum Analyzer: Sweep 1A Ref Offset 11.4 dB Ref 20.00 dBm Mkr1 5.281 04 GHz 3.184 dBm Center 5.28000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz* Span 40.00 MHz Sweep 1.000 ms (1001 pts) File <886.png> saved Frequency Auto Tune Center Freq 5.280000000 GHz Start Freq 5.260000000 GHz Stop Freq 5.300000000 GHz CF Step 4.000000 MHz Auto Man Freq Offset 0 Hz
5320 MHz	 Agilent Spectrum Analyzer: Sweep 1A Ref Offset 11.4 dB Ref 20.00 dBm Mkr1 5.320 88 GHz 2.682 dBm Center 5.32000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz* Span 40.00 MHz Sweep 1.000 ms (1001 pts) File <886.png> saved Frequency Auto Tune Center Freq 5.320000000 GHz Start Freq 5.300000000 GHz Stop Freq 5.340000000 GHz CF Step 4.000000 MHz Auto Man Freq Offset 0 Hz



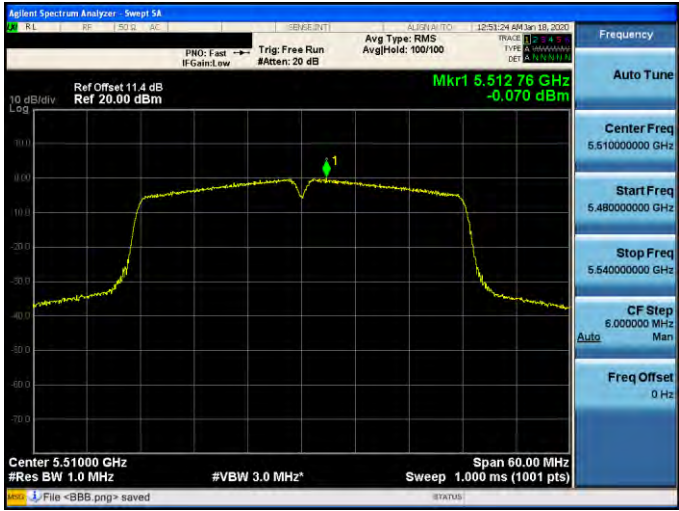
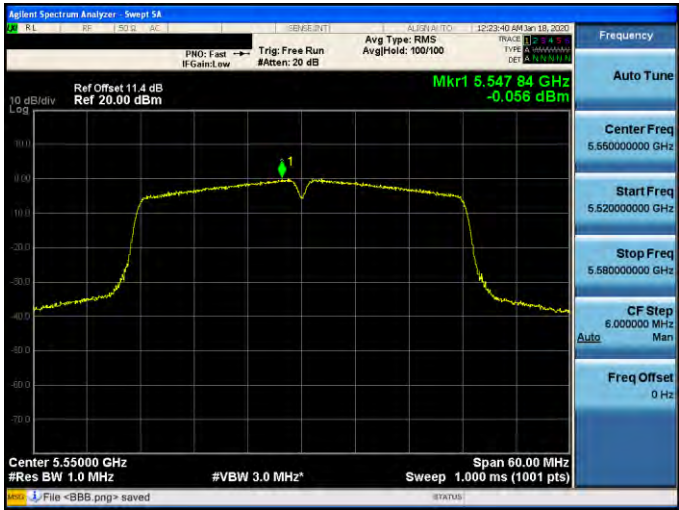
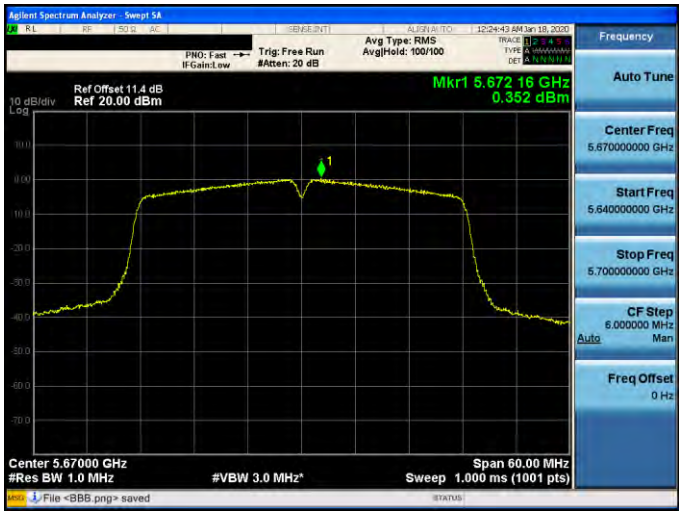
Mode 3: IEEE 802.11ac 20 MHz Continuous TX mode _ ANT-0	
5500 MHz	
5560 MHz	
5700 MHz	

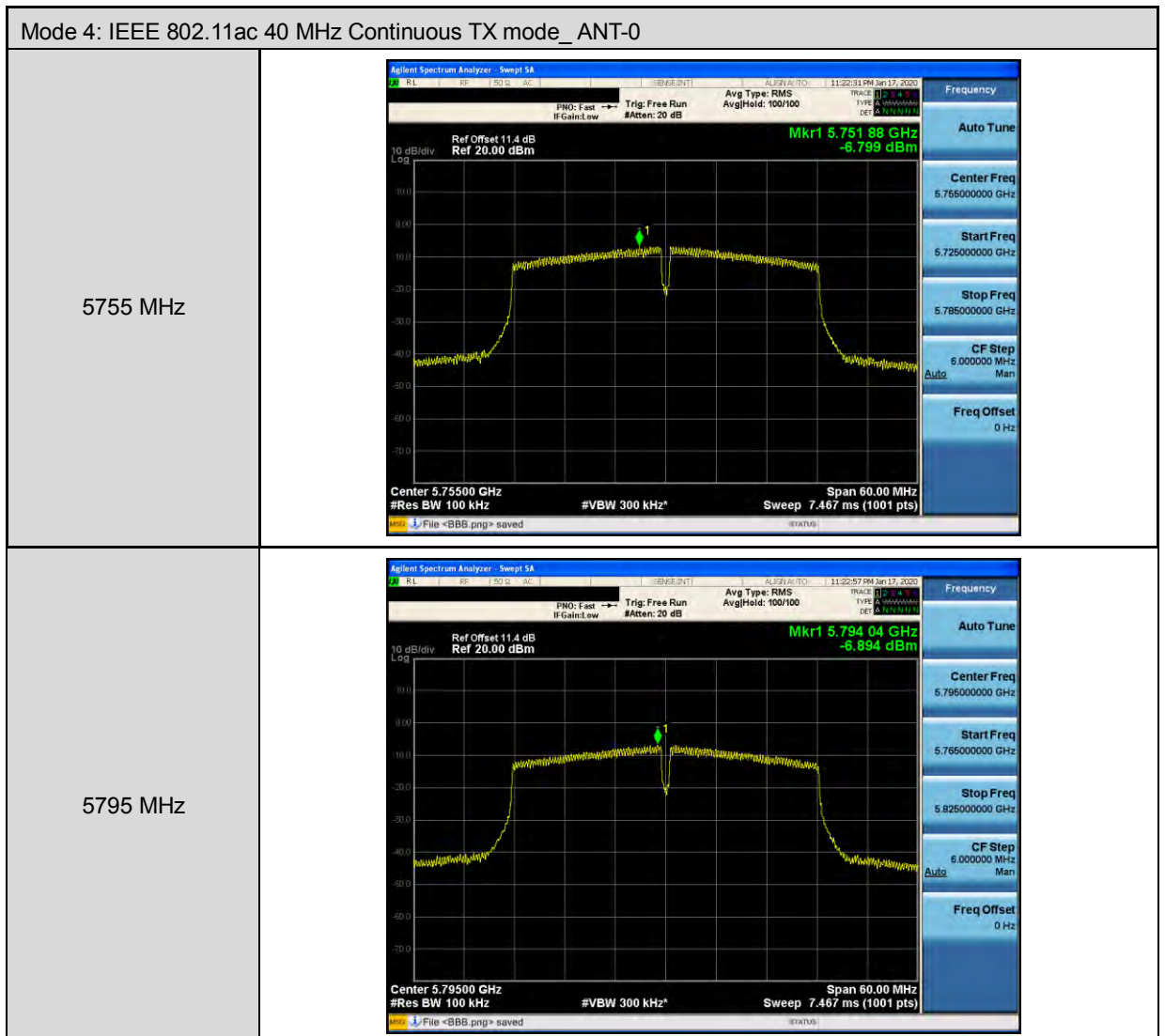
Mode 3: IEEE 802.11ac 20 MHz Continuous TX mode _ ANT-0	
5745 MHz	 Agilent Spectrum Analyzer: Sweep 1A Ref Offset 11.4 dB Ref 20.00 dBm Mkr1 5.744 08 GHz -4.616 dBm Center 5.74500 GHz #Res BW 100 kHz #VBW 300 kHz* Sweep 5.000 ms (1001 pts) Span 40.00 MHz File <BBB.png> saved Frequency Auto Tune Center Freq 5.745000000 GHz Start Freq 5.725000000 GHz Stop Freq 5.765000000 GHz CF Step 4.000000 MHz Auto Freq Offset 0 Hz
5785 MHz	 Agilent Spectrum Analyzer: Sweep 1A Ref Offset 11.4 dB Ref 20.00 dBm Mkr1 5.785 32 GHz -4.634 dBm Center 5.78500 GHz #Res BW 100 kHz #VBW 300 kHz* Sweep 5.000 ms (1001 pts) Span 40.00 MHz File <BBB.png> saved Frequency Auto Tune Center Freq 5.785000000 GHz Start Freq 5.765000000 GHz Stop Freq 5.805000000 GHz CF Step 4.000000 MHz Auto Freq Offset 0 Hz
5825 MHz	 Agilent Spectrum Analyzer: Sweep 1A Ref Offset 11.4 dB Ref 20.00 dBm Mkr1 5.824 40 GHz -4.931 dBm Center 5.82500 GHz #Res BW 100 kHz #VBW 300 kHz* Sweep 5.000 ms (1001 pts) Span 40.00 MHz File <BBB.png> saved Frequency Auto Tune Center Freq 5.825000000 GHz Start Freq 5.805000000 GHz Stop Freq 5.845000000 GHz CF Step 4.000000 MHz Auto Freq Offset 0 Hz





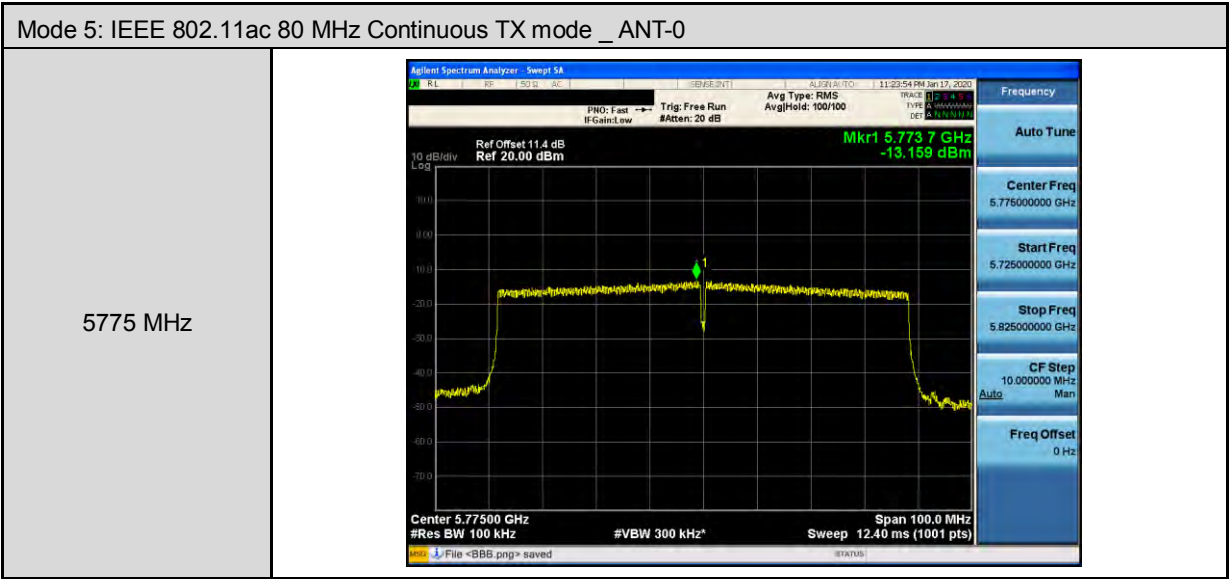


Mode 4: IEEE 802.11ac 40 MHz Continuous TX mode_ ANT-0	
5510 MHz	
5550 MHz	
5670 MHz	





Mode 5: IEEE 802.11ac 80 MHz Continuous TX mode _ ANT-0	
5210 MHz	
5290 MHz	
5530 MHz	



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