



■ Test Graphs

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

5180 MHz	Agilent Spectrum Analyzer - Occupied BW Center Freq: 5.18000000 GHz Trig: Free Run #Atten: 10 dB Radio Std: None Radio Device: BTS Ref Offset 12 dB Ref 20.00 dBm Center 5.18 GHz #Res BW 300 kHz #VBW 1 MHz Span 30 MHz Sweep 1 ms Occupied Bandwidth 16.711 MHz Total Power 20.1 dBm Transmit Freq Error -110.70 kHz OBW Power 99.00 % x dB Bandwidth 23.62 MHz x dB -26.00 dB File <BBB.png> saved
5200 MHz	Agilent Spectrum Analyzer - Occupied BW Center Freq: 5.20000000 GHz Trig: Free Run #Atten: 10 dB Radio Std: None Radio Device: BTS Ref Offset 12 dB Ref 20.00 dBm Center 5.2 GHz #Res BW 300 kHz #VBW 1 MHz Span 30 MHz Sweep 1 ms Occupied Bandwidth 16.782 MHz Total Power 20.1 dBm Transmit Freq Error -98.829 kHz OBW Power 99.00 % x dB Bandwidth 25.16 MHz x dB -26.00 dB File <BBB.png> saved
5240 MHz	Agilent Spectrum Analyzer - Occupied BW Center Freq: 5.24000000 GHz Trig: Free Run #Atten: 10 dB Radio Std: None Radio Device: BTS Ref Offset 12 dB Ref 20.00 dBm Center 5.24 GHz #Res BW 300 kHz #VBW 1 MHz Span 30 MHz Sweep 1 ms Occupied Bandwidth 16.781 MHz Total Power 20.5 dBm Transmit Freq Error -99.830 kHz OBW Power 99.00 % x dB Bandwidth 25.24 MHz x dB -26.00 dB File <BBB.png> saved

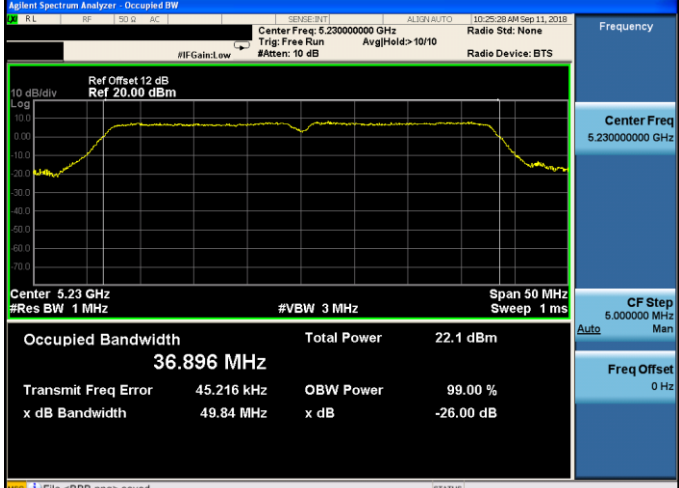


Mode 3: IEEE 802.11ac 20 MHz Continuous TX mode_ANT-0

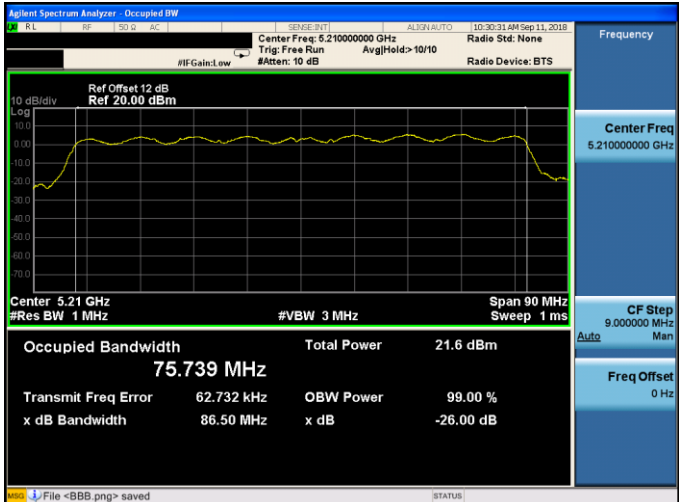
5180 MHz	Agilent Spectrum Analyzer - Occupied BW Center Freq: 5.18000000 GHz Trig: Free Run #Atten: 10 dB Radio Std: None Radio Device: BTS Ref Offset 12 dB Ref 20.00 dBm Center 5.18 GHz #Res BW 300 kHz #VBW 1 MHz Span 30 MHz Sweep 1 ms Occupied Bandwidth 17.776 MHz Total Power 20.8 dBm Transmit Freq Error -52.595 kHz OBW Power 99.00 % x dB Bandwidth 21.87 MHz x dB -26.00 dB File <BBB.png> saved
5200 MHz	Agilent Spectrum Analyzer - Occupied BW Center Freq: 5.20000000 GHz Trig: Free Run #Atten: 10 dB Radio Std: None Radio Device: BTS Ref Offset 12 dB Ref 20.00 dBm Center 5.2 GHz #Res BW 300 kHz #VBW 1 MHz Span 30 MHz Sweep 1 ms Occupied Bandwidth 17.788 MHz Total Power 21.0 dBm Transmit Freq Error -40.881 kHz OBW Power 99.00 % x dB Bandwidth 22.36 MHz x dB -26.00 dB File <BBB.png> saved
5240 MHz	Agilent Spectrum Analyzer - Occupied BW Center Freq: 5.24000000 GHz Trig: Free Run #Atten: 10 dB Radio Std: None Radio Device: BTS Ref Offset 12 dB Ref 20.00 dBm Center 5.24 GHz #Res BW 300 kHz #VBW 1 MHz Span 30 MHz Sweep 1 ms Occupied Bandwidth 17.814 MHz Total Power 21.5 dBm Transmit Freq Error -34.921 kHz OBW Power 99.00 % x dB Bandwidth 23.26 MHz x dB -26.00 dB File <BBB.png> saved



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

5190 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq: 5.190000000 GHz Trig: Free Run #Atten: 10 dB Radio Std: None Radio Device: BTS Ref Offset 12 dB Ref 20.00 dBm Center 5.19 GHz #Res BW 1 MHz #VBW 3 MHz Span 50 MHz Sweep 1 ms Occupied Bandwidth 37.024 MHz Total Power 21.7 dBm Transmit Freq Error -8.188 kHz OBW Power 99.00 % x dB Bandwidth 49.33 MHz x dB -26.00 dB File <BBB.png> saved
5230 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq: 5.230000000 GHz Trig: Free Run #Atten: 10 dB Radio Std: None Radio Device: BTS Ref Offset 12 dB Ref 20.00 dBm Center 5.23 GHz #Res BW 1 MHz #VBW 3 MHz Span 50 MHz Sweep 1 ms Occupied Bandwidth 36.896 MHz Total Power 22.1 dBm Transmit Freq Error 45.216 kHz OBW Power 99.00 % x dB Bandwidth 49.84 MHz x dB -26.00 dB File <BBB.png> saved

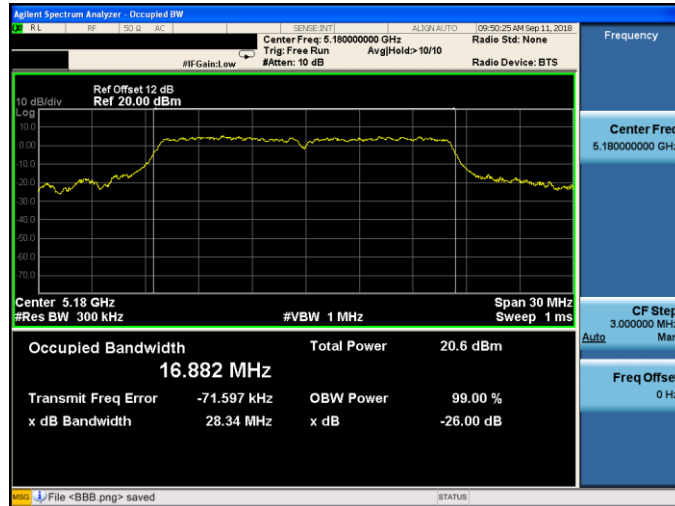
Mode 5: IEEE 802.11ac 80 MHz Continuous TX mode_ANT-0

5210 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq: 5.210000000 GHz Trig: Free Run #Atten: 10 dB Radio Std: None Radio Device: BTS Ref Offset 12 dB Ref 20.00 dBm Center 5.21 GHz #Res BW 1 MHz #VBW 3 MHz Span 90 MHz Sweep 1 ms Occupied Bandwidth 75.739 MHz Total Power 21.6 dBm Transmit Freq Error 62.732 kHz OBW Power 99.00 % x dB Bandwidth 86.50 MHz x dB -26.00 dB File <BBB.png> saved
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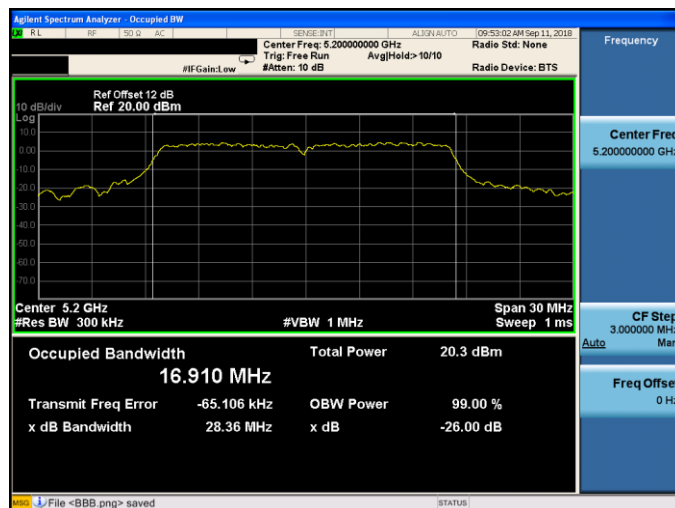


Mode 2: IEEE 802.11a Continuous TX mode_ ANT-1

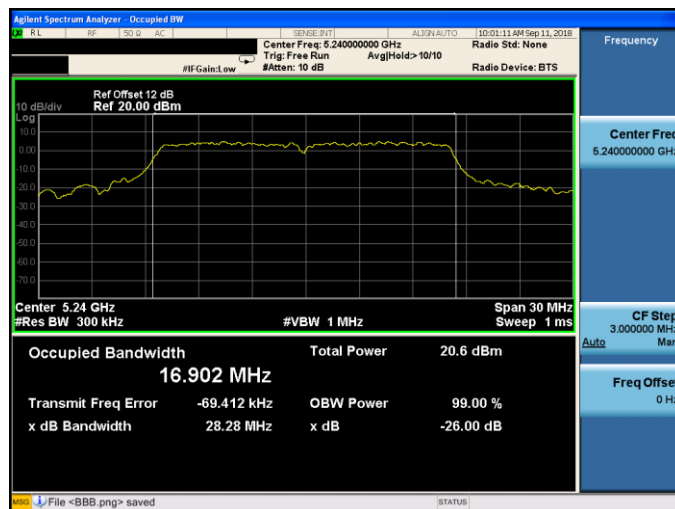
5180 MHz



5200 MHz



5240 MHz





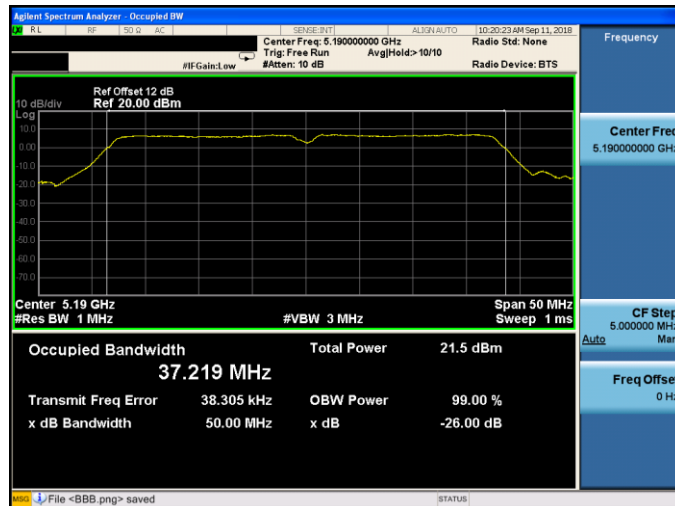
Mode 3: IEEE 802.11ac 20 MHz Continuous TX mode_ANT-1

5180 MHz	Agilent Spectrum Analyzer - Occupied BW Center Freq: 5.18000000 GHz Trig: Free Run Avg/Hold: 10/10 Radio Std: None Radio Device: BTS Ref Offset 12 dB Ref 20.00 dBm Center 5.18 GHz #Res BW 300 kHz #VBW 1 MHz Span 30 MHz Sweep 1 ms Occupied Bandwidth 17.892 MHz Total Power 20.5 dBm Transmit Freq Error -37.735 kHz OBW Power 99.00 % x dB Bandwidth 24.83 MHz x dB -26.00 dB CF Step 3.000000 MHz Freq Offset 0 Hz File <BBB.png> saved
5200 MHz	Agilent Spectrum Analyzer - Occupied BW Center Freq: 5.20000000 GHz Trig: Free Run Avg/Hold: 10/10 Radio Std: None Radio Device: BTS Ref Offset 12 dB Ref 20.00 dBm Center 5.2 GHz #Res BW 300 kHz #VBW 1 MHz Span 30 MHz Sweep 1 ms Occupied Bandwidth 17.924 MHz Total Power 20.6 dBm Transmit Freq Error -20.705 kHz OBW Power 99.00 % x dB Bandwidth 26.18 MHz x dB -26.00 dB CF Step 3.000000 MHz Freq Offset 0 Hz File <BBB.png> saved
5240 MHz	Agilent Spectrum Analyzer - Occupied BW Center Freq: 5.24000000 GHz Trig: Free Run Avg/Hold: 10/10 Radio Std: None Radio Device: BTS Ref Offset 12 dB Ref 20.00 dBm Center 5.24 GHz #Res BW 300 kHz #VBW 1 MHz Span 30 MHz Sweep 1 ms Occupied Bandwidth 18.198 MHz Total Power 22.1 dBm Transmit Freq Error 34.652 kHz OBW Power 99.00 % x dB Bandwidth 30.00 MHz x dB -26.00 dB CF Step 3.000000 MHz Freq Offset 0 Hz File <BBB.png> saved

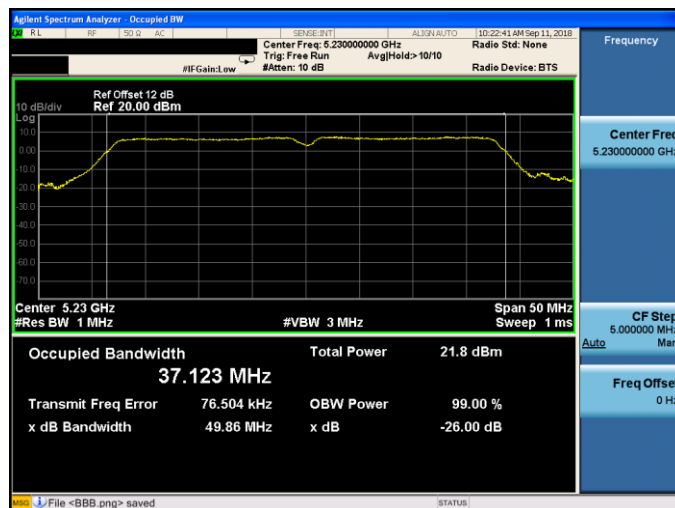


Mode 4: IEEE 802.11ac 40 MHz Continuous TX mode_ANT-1

5190 MHz

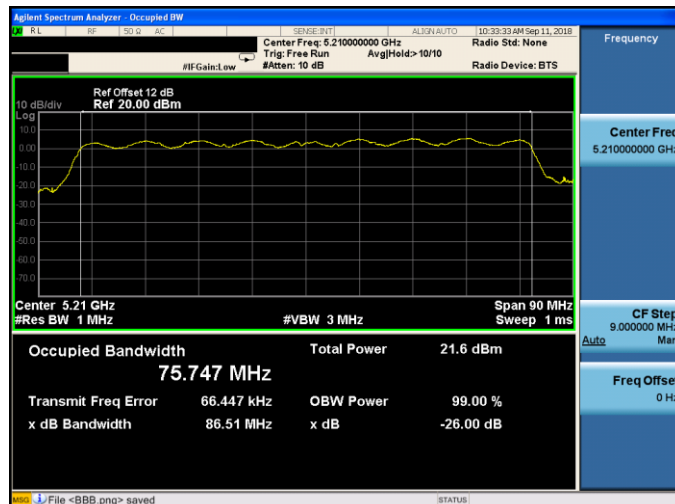


5230 MHz



Mode 5: IEEE 802.11ac 80 MHz Continuous TX mode_ANT-1

5210 MHz

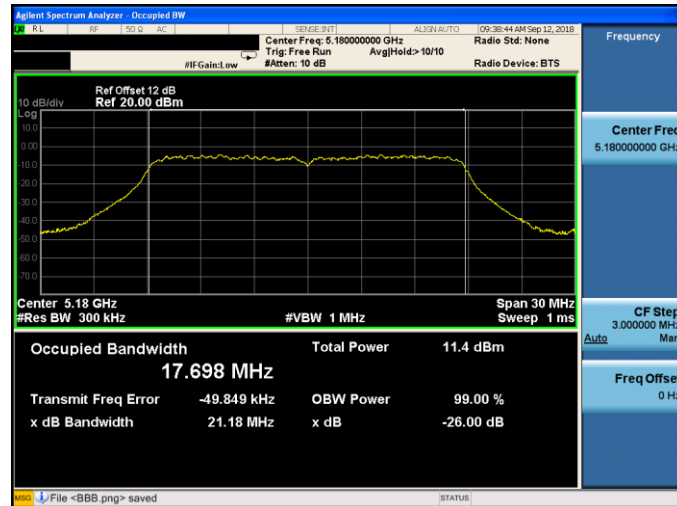




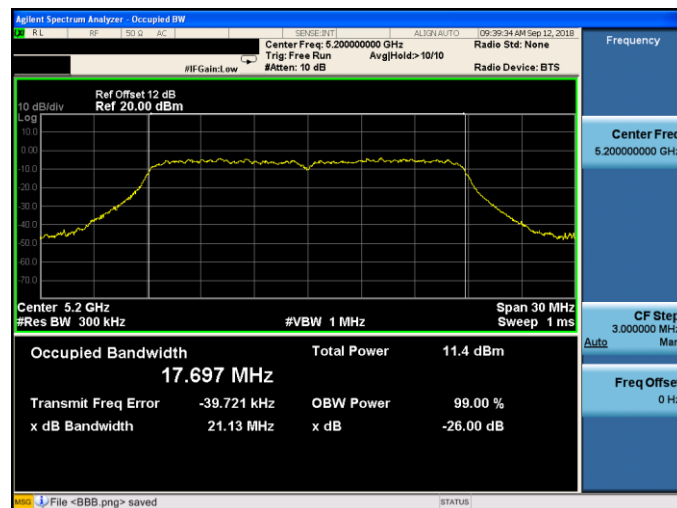
Beamforming on

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

5180 MHz



5200 MHz

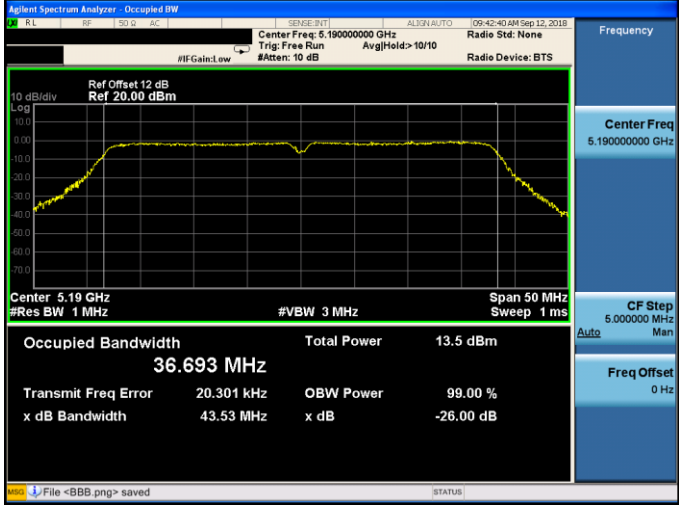
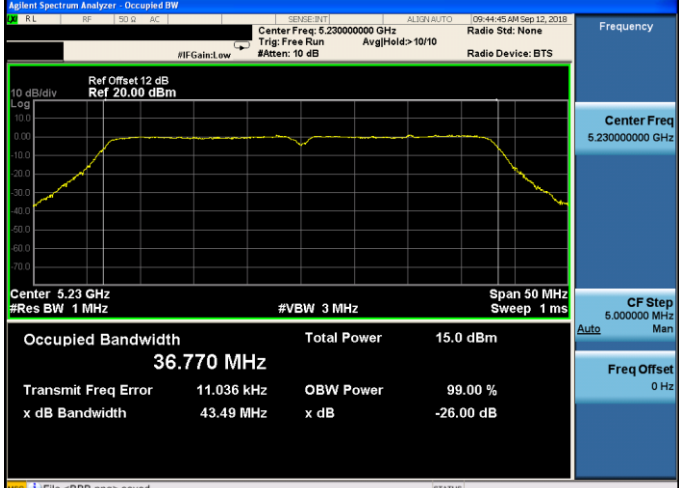


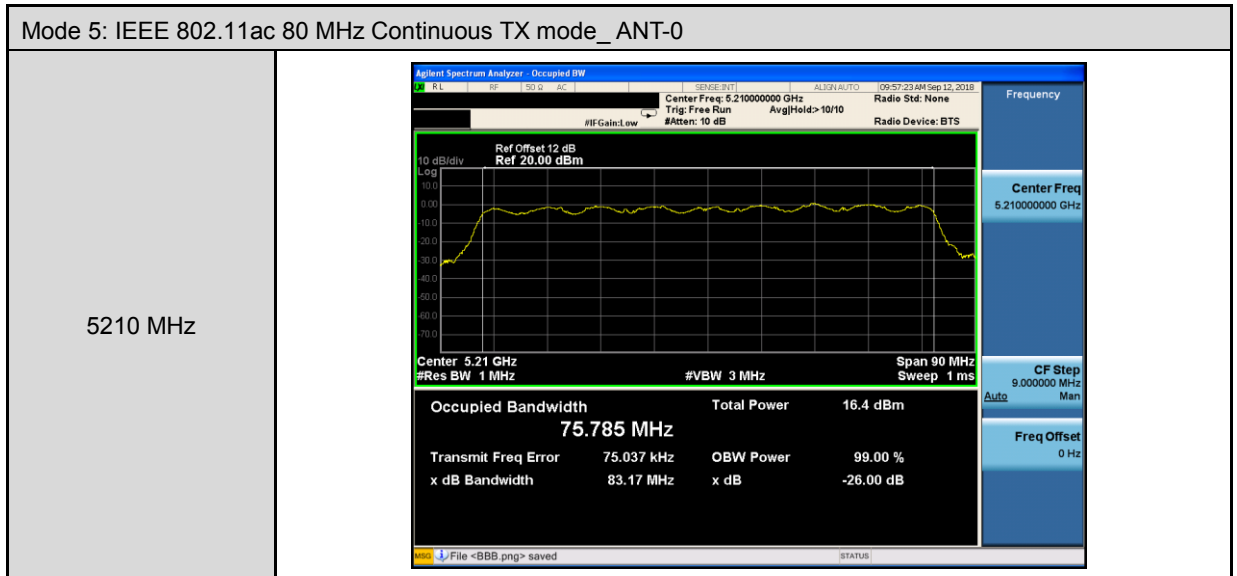
5240 MHz





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

5190 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq: 5.190000000 GHz Trig: Free Run #Atten: 10 dB Radio Std: None Radio Device: BTS Ref Offset 12 dB Ref 20.00 dBm Center 5.19 GHz #Res BW 1 MHz #VBW 3 MHz Span 50 MHz Sweep 1 ms Occupied Bandwidth 36.693 MHz Total Power 13.5 dBm Transmit Freq Error 20.301 kHz OBW Power 99.00 % x dB Bandwidth 43.53 MHz x dB -26.00 dB Center Freq 5.190000000 GHz CF Step 5.000000 MHz Freq Offset 0 Hz File <BBB.png> saved
5230 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq: 5.230000000 GHz Trig: Free Run #Atten: 10 dB Radio Std: None Radio Device: BTS Ref Offset 12 dB Ref 20.00 dBm Center 5.23 GHz #Res BW 1 MHz #VBW 3 MHz Span 50 MHz Sweep 1 ms Occupied Bandwidth 36.770 MHz Total Power 15.0 dBm Transmit Freq Error 11.036 kHz OBW Power 99.00 % x dB Bandwidth 43.49 MHz x dB -26.00 dB Center Freq 5.230000000 GHz CF Step 5.000000 MHz Freq Offset 0 Hz File <BBB.png> saved



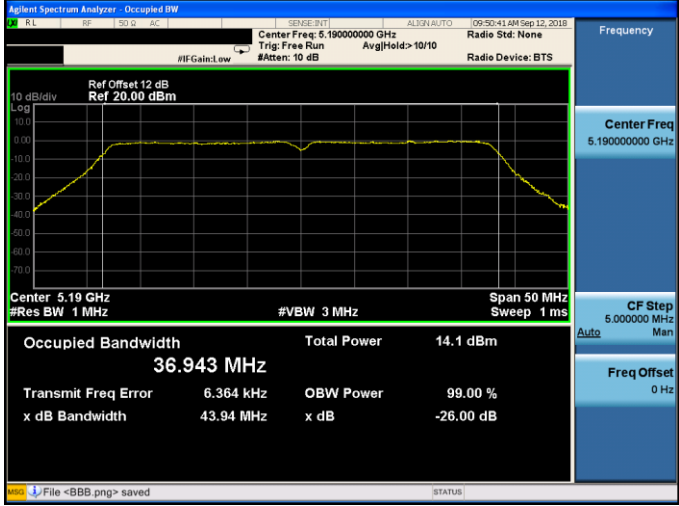
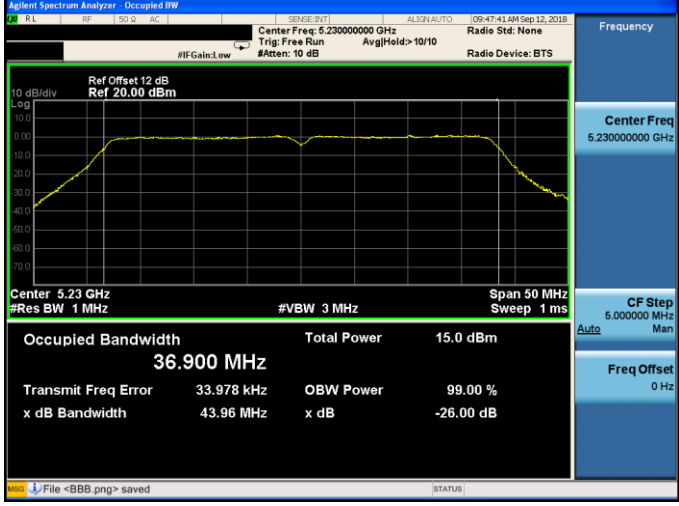


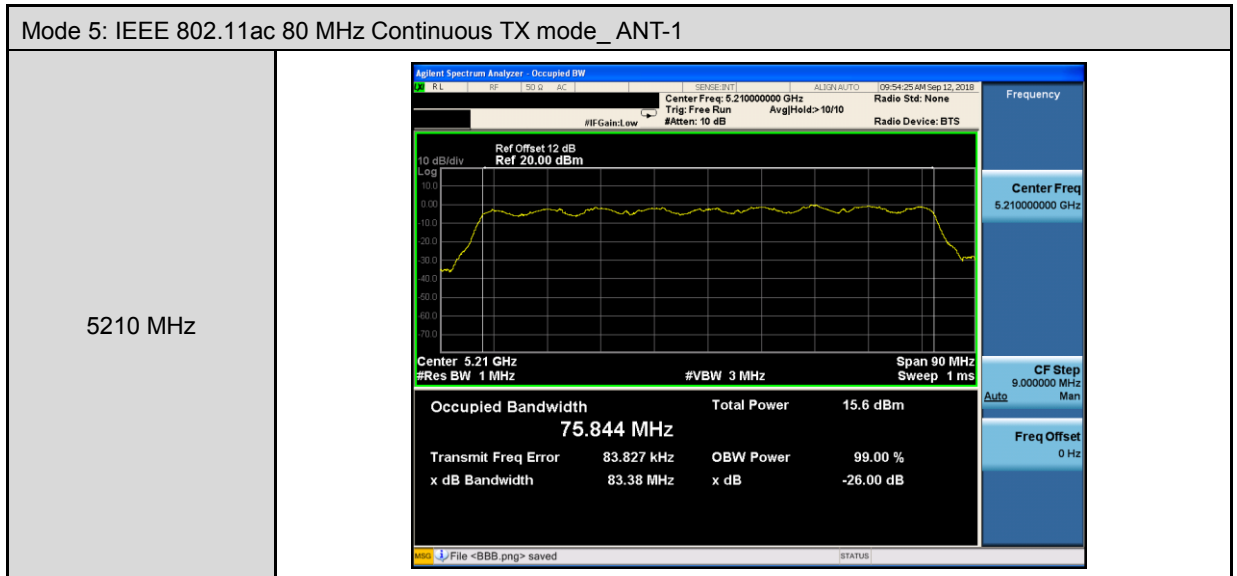
Mode 3: IEEE 802.11ac 20 MHz Continuous TX mode_ANT-1

5180 MHz	Agilent Spectrum Analyzer - Occupied BW Center Freq: 5.18000000 GHz Trig: Free Run #Atten: 10 dB Radio Std: None Radio Device: BTS Ref Offset 12 dB Ref 20.00 dBm Center 5.18 GHz #Res BW 300 kHz #VBW 1 MHz Span 30 MHz Sweep 1 ms Occupied Bandwidth 17.767 MHz Total Power 10.6 dBm Transmit Freq Error -55.029 kHz OBW Power 99.00 % x dB Bandwidth 21.44 MHz x dB -26.00 dB File <BBB.png> saved
5200 MHz	Agilent Spectrum Analyzer - Occupied BW Center Freq: 5.20000000 GHz Trig: Free Run #Atten: 10 dB Radio Std: None Radio Device: BTS Ref Offset 12 dB Ref 20.00 dBm Center 5.2 GHz #Res BW 300 kHz #VBW 1 MHz Span 30 MHz Sweep 1 ms Occupied Bandwidth 17.755 MHz Total Power 11.0 dBm Transmit Freq Error -44.312 kHz OBW Power 99.00 % x dB Bandwidth 21.50 MHz x dB -26.00 dB File <BBB.png> saved
5240 MHz	Agilent Spectrum Analyzer - Occupied BW Center Freq: 5.24000000 GHz Trig: Free Run #Atten: 10 dB Radio Std: None Radio Device: BTS Ref Offset 12 dB Ref 20.00 dBm Center 5.24 GHz #Res BW 300 kHz #VBW 1 MHz Span 30 MHz Sweep 1 ms Occupied Bandwidth 17.752 MHz Total Power 12.2 dBm Transmit Freq Error -39.631 kHz OBW Power 99.00 % x dB Bandwidth 21.47 MHz x dB -26.00 dB File <BBB.png> saved



Mode 4: IEEE 802.11ac 40 MHz Continuous TX mode_ANT-1

5190 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq: 5.190000000 GHz Ref Offset 12 dB Ref 20.00 dBm Center 5.19 GHz #Res BW 1 MHz #VBW 3 MHz Span 50 MHz Sweep 1 ms Occupied Bandwidth 36.943 MHz Total Power 14.1 dBm Transmit Freq Error 6.364 kHz OBW Power 99.00 % x dB Bandwidth 43.94 MHz x dB -26.00 dB File <BBB.png> saved
5230 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq: 5.230000000 GHz Ref Offset 12 dB Ref 20.00 dBm Center 5.23 GHz #Res BW 1 MHz #VBW 3 MHz Span 50 MHz Sweep 1 ms Occupied Bandwidth 36.900 MHz Total Power 15.0 dBm Transmit Freq Error 33.978 kHz OBW Power 99.00 % x dB Bandwidth 43.96 MHz x dB -26.00 dB File <BBB.png> saved



5.5. 6 dB RF Bandwidth Measurement

Test Mode	Mode 2: IEEE 802.11a Continuous TX mode		
Frequency (MHz)	ANT-0	ANT-1	Limit (kHz)
5745	16530	16520	≥ 500
5785	16540	16530	≥ 500
5825	16550	16520	≥ 500

Test Mode	Mode 3: IEEE 802.11ac 20 MHz Continuous TX mode		
Frequency (MHz)	ANT-0	ANT-1	Limit (kHz)
5745	17670	17690	≥ 500
5785	17670	17720	≥ 500
5825	17670	17710	≥ 500

Test Mode	Mode 4: IEEE 802.11ac 40 MHz Continuous TX mode		
Frequency (MHz)	ANT-0	ANT-1	Limit (kHz)
5755	36490	36500	≥ 500
5795	36480	36490	≥ 500

Test Mode	Mode 5: IEEE 802.11ac 80 MHz Continuous TX mode		
Frequency (MHz)	ANT-0	ANT-1	Limit (kHz)
5775	76410	76400	≥ 500

Beamforming on

Test Mode	Mode 3: IEEE 802.11ac 20 MHz Continuous TX mode		
Frequency (MHz)	ANT-0	ANT-1	Limit (kHz)
5745	17670	17700	≥ 500
5785	17680	17700	≥ 500
5825	17670	17680	≥ 500

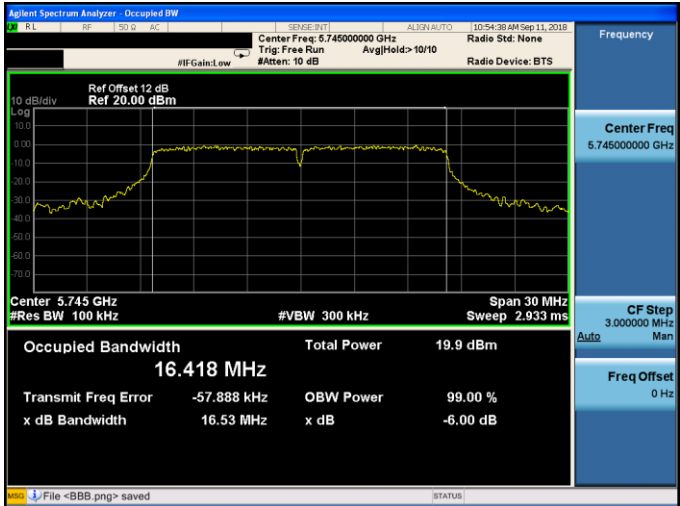
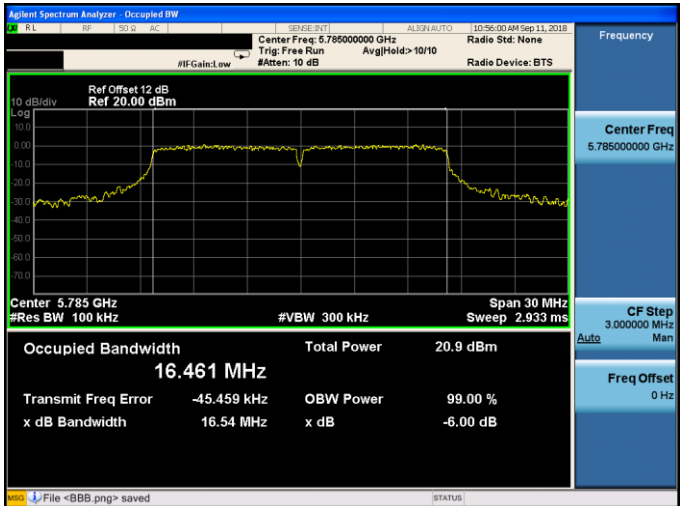
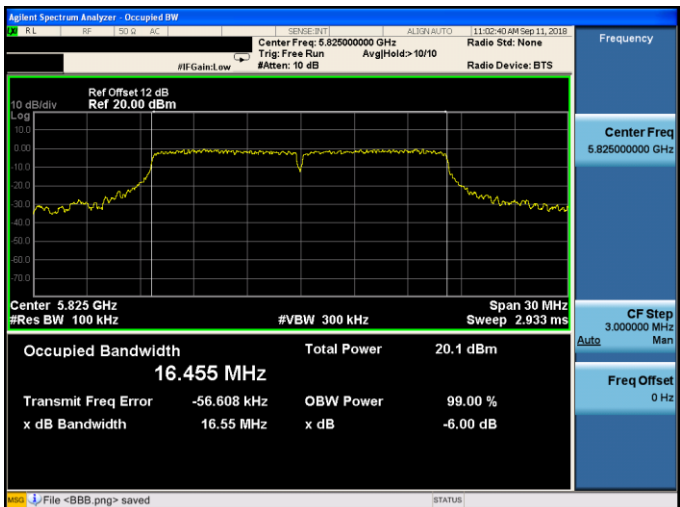
Test Mode	Mode 4: IEEE 802.11ac 40 MHz Continuous TX mode		
Frequency (MHz)	ANT-0	ANT-1	Limit (kHz)
5755	36490	36500	≥ 500
5795	36480	36500	≥ 500

Test Mode	Mode 5: IEEE 802.11ac 80 MHz Continuous TX mode		
Frequency (MHz)	ANT-0	ANT-1	Limit (kHz)
5775	76410	76390	≥ 500



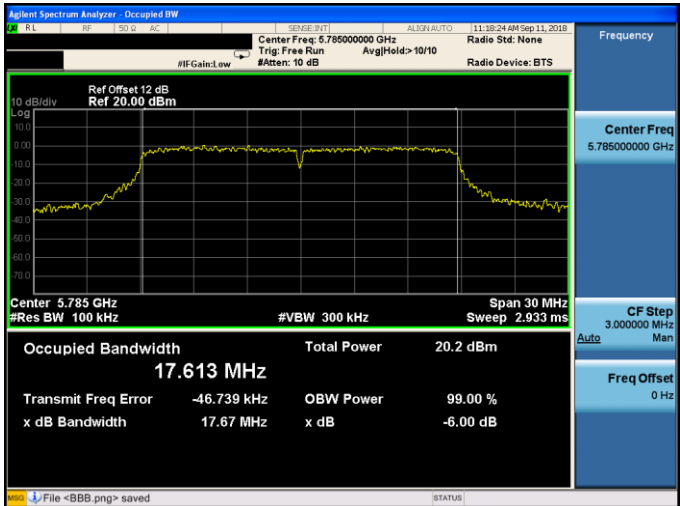
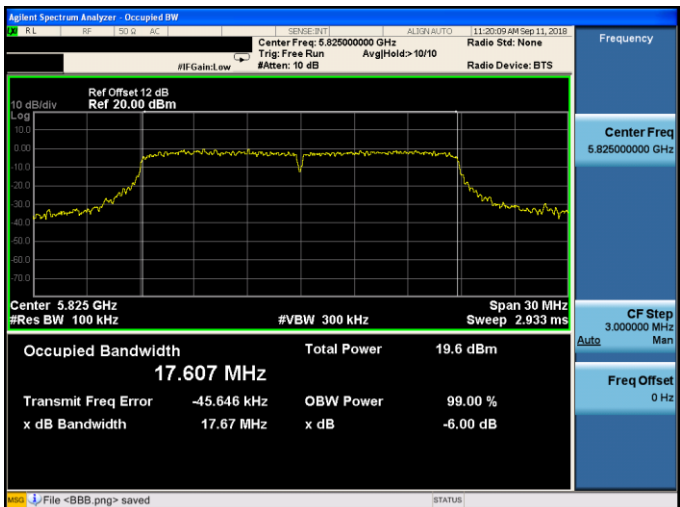
■ Test Graphs

Mode 2: IEEE 802.11a Continuous TX mode_ANT-0

5745 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq: 5.74500000 GHz Trig: Free Run Avg/Hold: 10/10 Radio Std: None Radio Device: BTS Ref Offset 12 dB Ref 20.00 dBm Center 5.745 GHz #Res BW 100 kHz #VBW 300 kHz Span 30 MHz Sweep 2.933 ms Occupied Bandwidth 16.418 MHz Total Power 19.9 dBm Transmit Freq Error -57.888 kHz OBW Power 99.00 % x dB Bandwidth 16.53 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 Avg/Hold: 10/10 Radio Std: None Radio Device: BTS Ref Offset 12 dB Ref 20.00 dBm Center 5.785 GHz #Res BW 100 kHz #VBW 300 kHz Span 30 MHz Sweep 2.933 ms Occupied Bandwidth 16.461 MHz Total Power 20.9 dBm Transmit Freq Error -45.459 kHz OBW Power 99.00 % x dB Bandwidth 16.54 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 Avg/Hold: 10/10 Radio Std: None Radio Device: BTS Ref Offset 12 dB Ref 20.00 dBm Center 5.825 GHz #Res BW 100 kHz #VBW 300 kHz Span 30 MHz Sweep 2.933 ms Occupied Bandwidth 16.455 MHz Total Power 20.1 dBm Transmit Freq Error -56.608 kHz OBW Power 99.00 % x dB Bandwidth 16.55 MHz x dB -6.00 dB File <BBB.png> saved

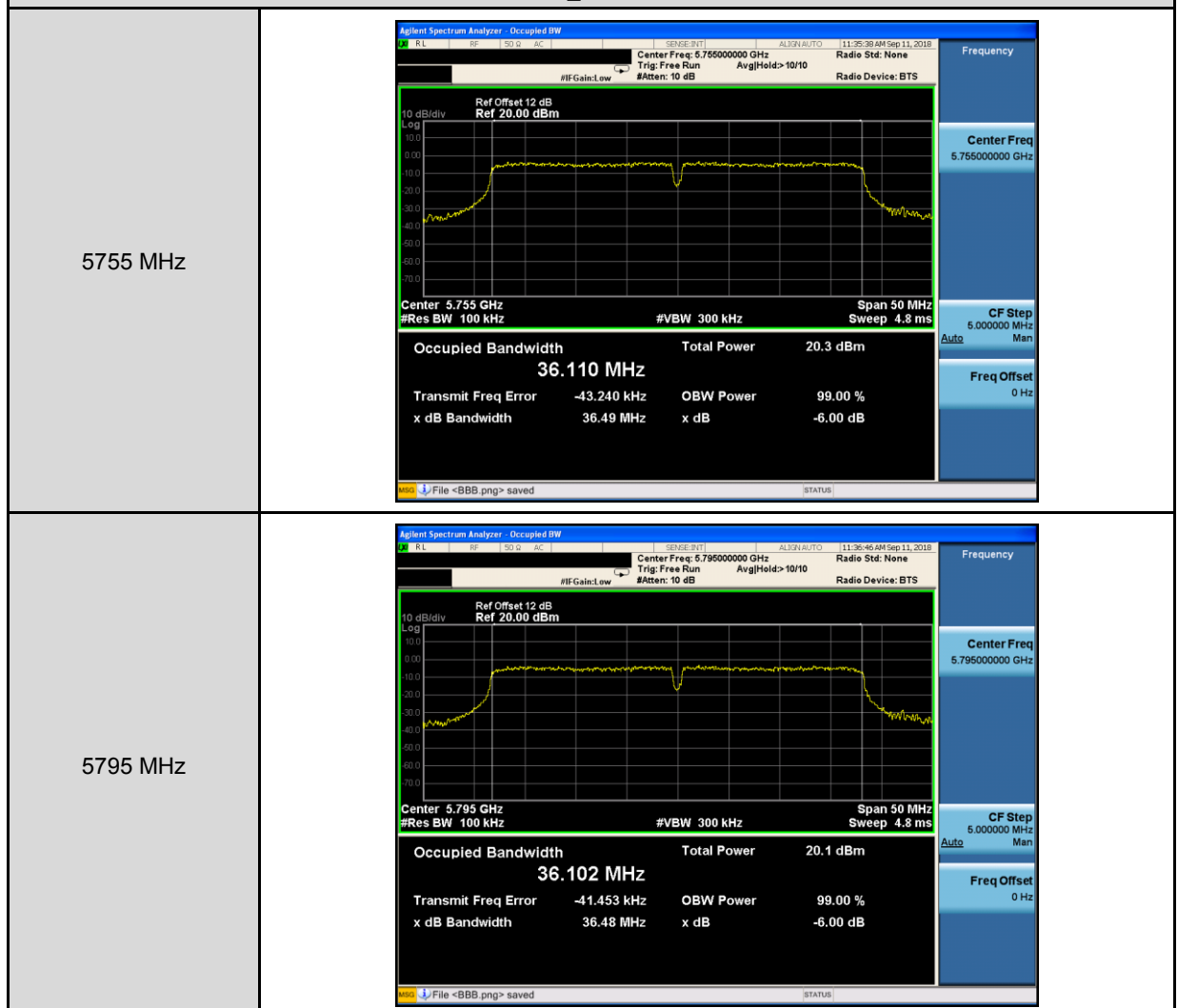


Mode 3: IEEE 802.11ac 20 MHz Continuous TX mode_ANT-0

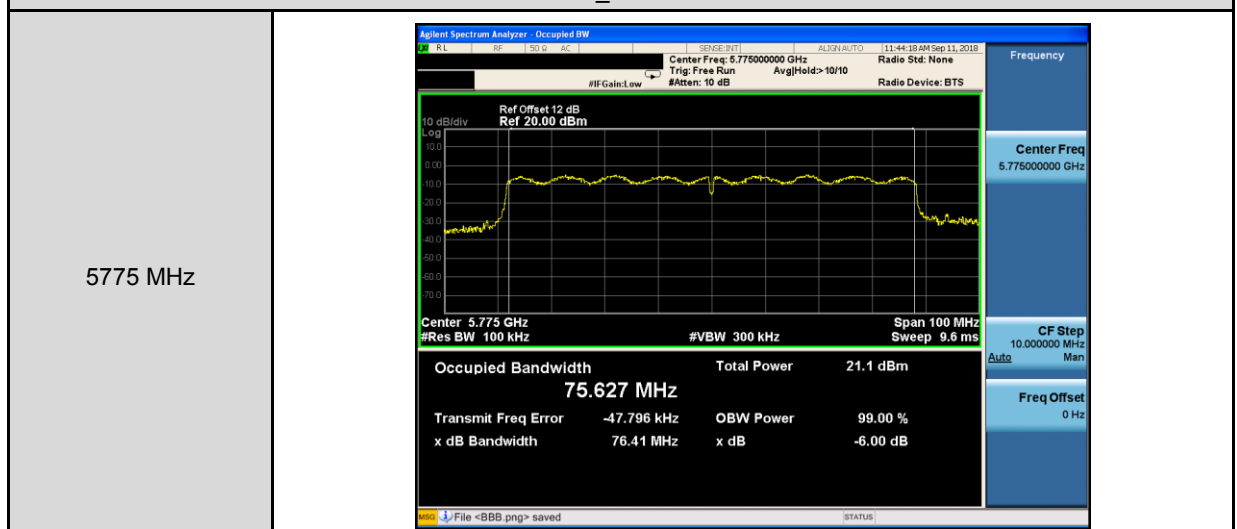
5745 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq: 5.74500000 GHz Trig: Free Run Avg/Hold: 10/10 Radio Std: None Radio Device: BTS Ref Offset 12 dB Ref 20.00 dBm Center 5.745 GHz Res BW 100 kHz #VBW 300 kHz Span 30 MHz Sweep 2.933 ms Occupied Bandwidth 17.615 MHz Total Power 20.1 dBm Transmit Freq Error -43.188 kHz OBW Power 99.00 % x dB Bandwidth 17.67 MHz x dB -6.00 dB File <BBB.png> saved STATUS
5785 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq: 5.78500000 GHz Trig: Free Run Avg/Hold: 10/10 Radio Std: None Radio Device: BTS Ref Offset 12 dB Ref 20.00 dBm Center 5.785 GHz Res BW 100 kHz #VBW 300 kHz Span 30 MHz Sweep 2.933 ms Occupied Bandwidth 17.613 MHz Total Power 20.2 dBm Transmit Freq Error -46.739 kHz OBW Power 99.00 % x dB Bandwidth 17.67 MHz x dB -6.00 dB File <BBB.png> saved STATUS
5825 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq: 5.82500000 GHz Trig: Free Run Avg/Hold: 10/10 Radio Std: None Radio Device: BTS Ref Offset 12 dB Ref 20.00 dBm Center 5.825 GHz Res BW 100 kHz #VBW 300 kHz Span 30 MHz Sweep 2.933 ms Occupied Bandwidth 17.607 MHz Total Power 19.6 dBm Transmit Freq Error -45.646 kHz OBW Power 99.00 % x dB Bandwidth 17.67 MHz x dB -6.00 dB File <BBB.png> saved STATUS



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

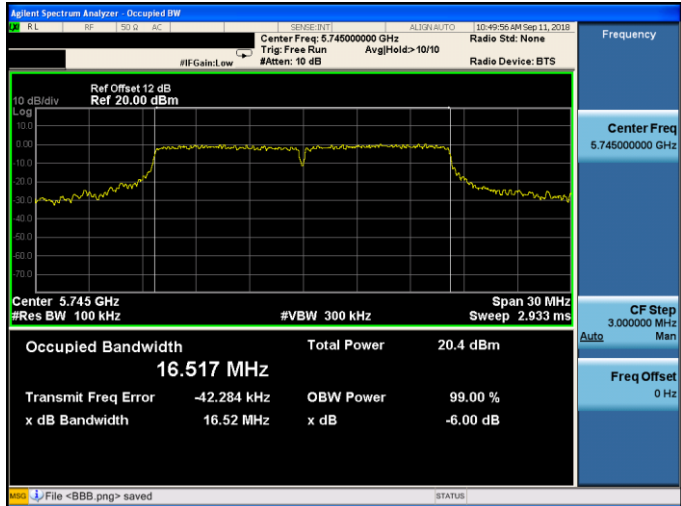
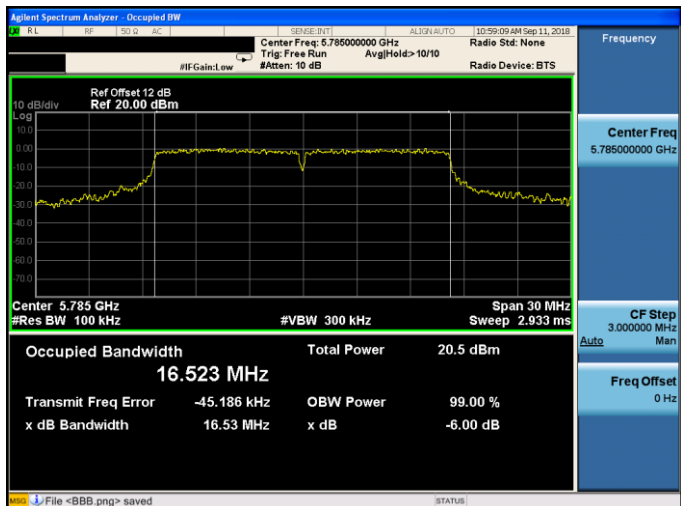
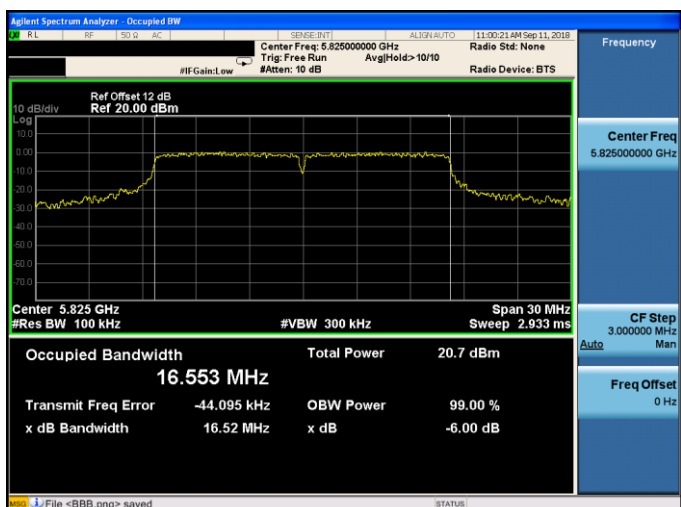


Mode 5: IEEE 802.11ac 80 MHz Continuous TX mode_ANT-0



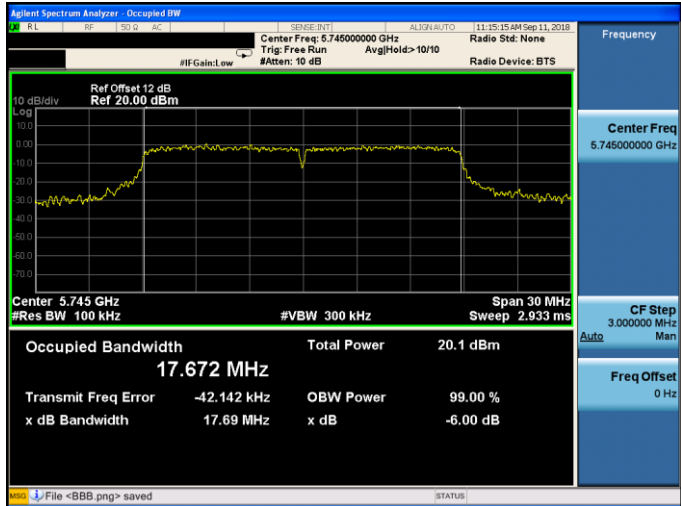
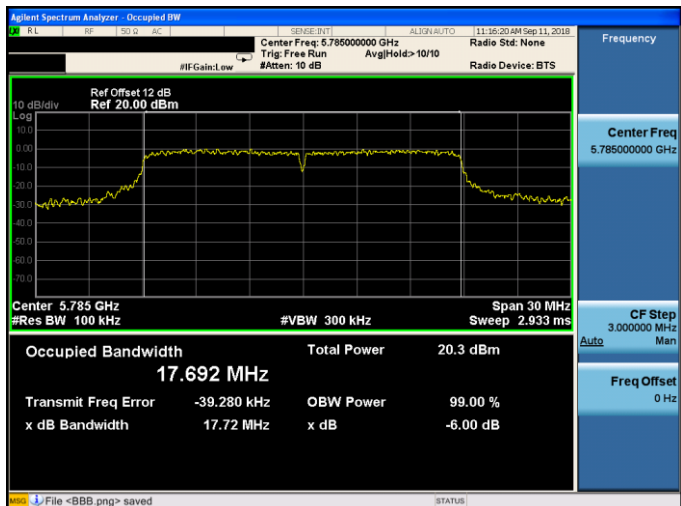
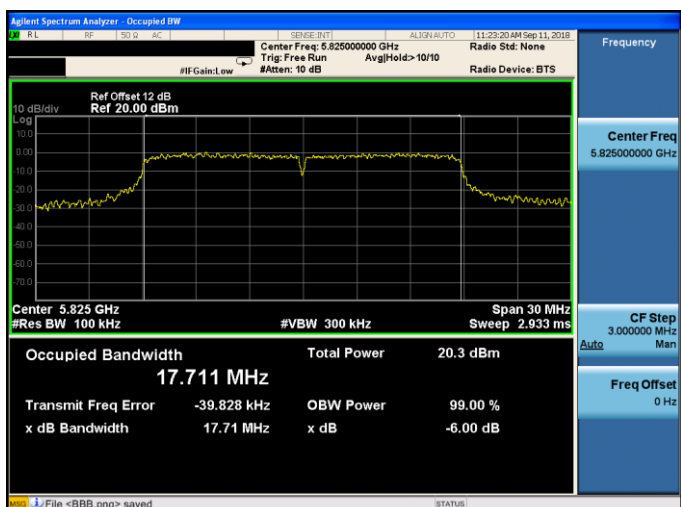


Mode 2: IEEE 802.11a Continuous TX mode _ANT-1

5745 MHz	
5785 MHz	
5825 MHz	

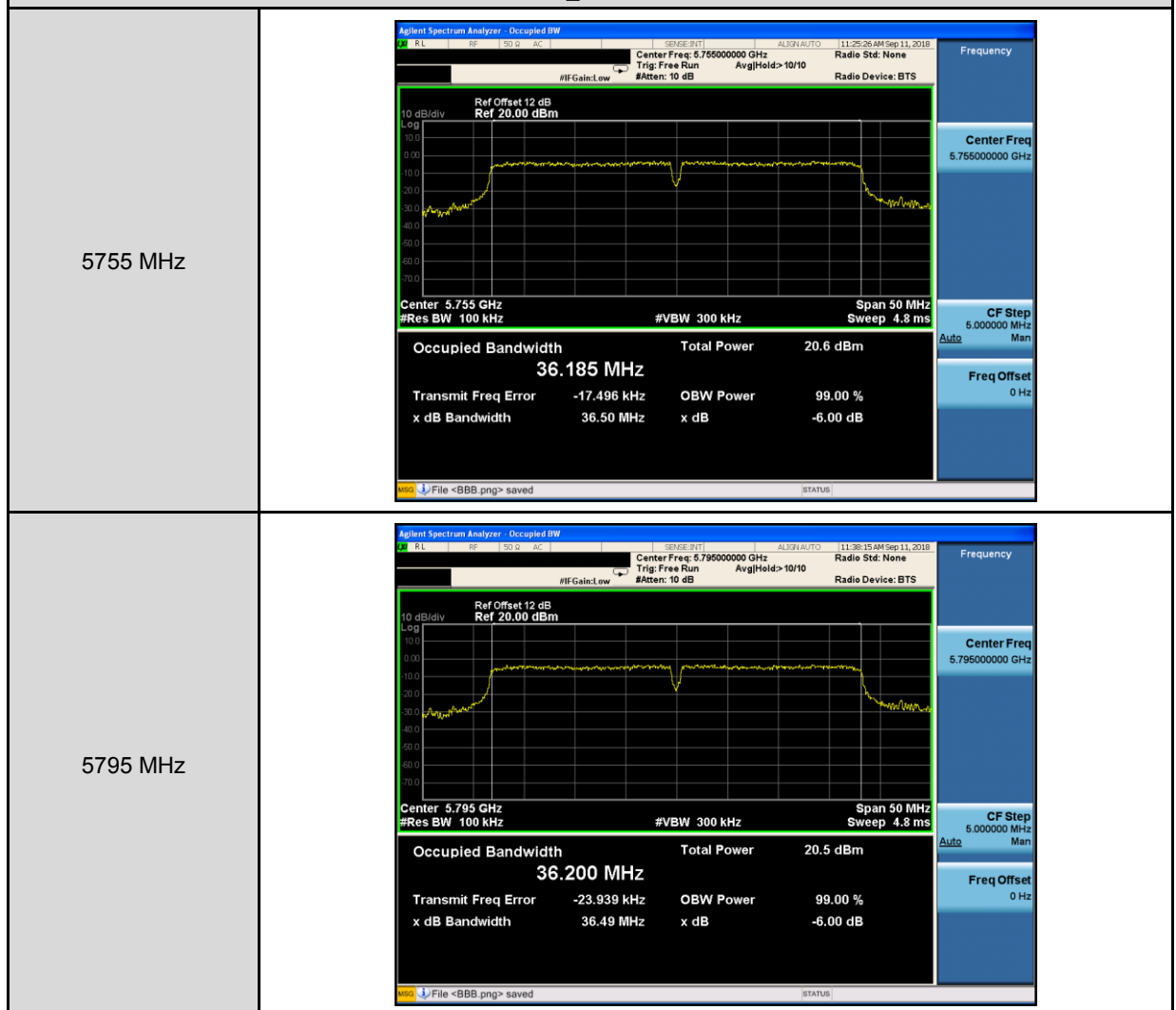


Mode 3: IEEE 802.11ac 20 MHz Continuous TX mode_ANT-1

5745 MHz	
5785 MHz	
5825 MHz	



Mode 4: IEEE 802.11ac 40 MHz Continuous TX mode_ANT-1



Mode 5: IEEE 802.11ac 80 MHz Continuous TX mode_ANT-1

