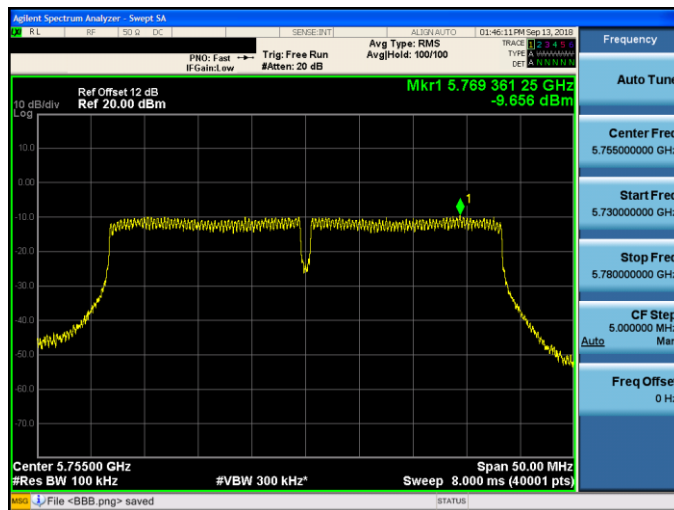


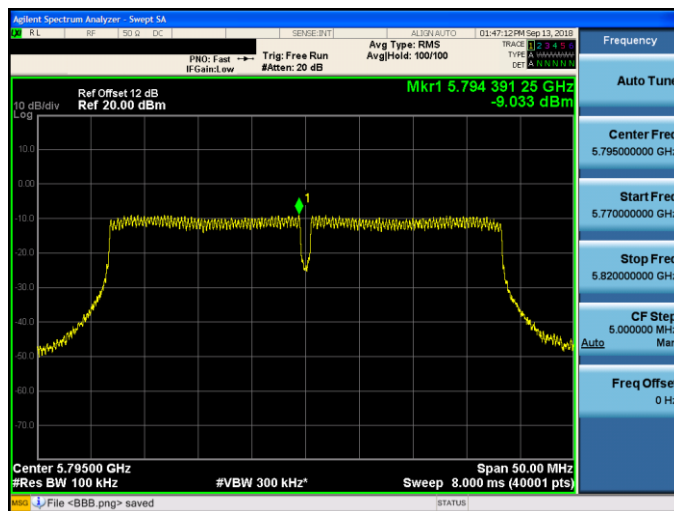


Mode 4: IEEE 802.11ac 40 MHz Continuous TX mode_ ANT-0

5755 MHz



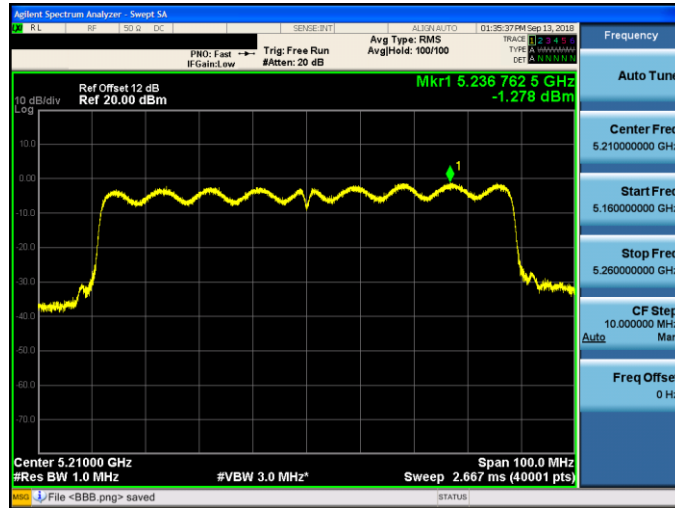
5795 MHz





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

5210 MHz



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

5775 MHz



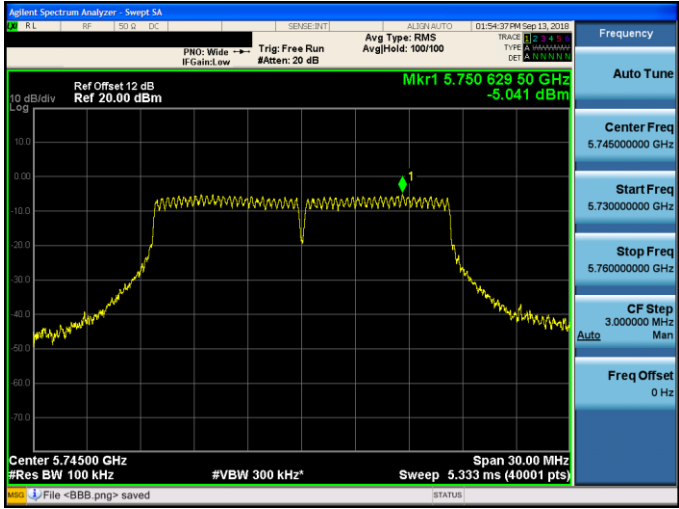
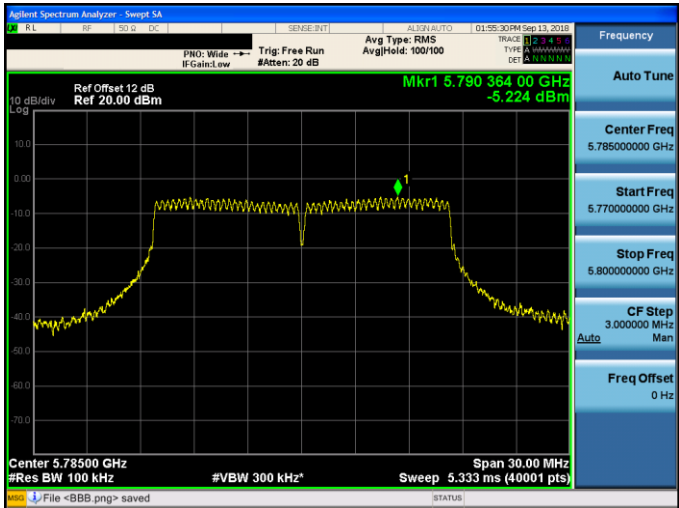
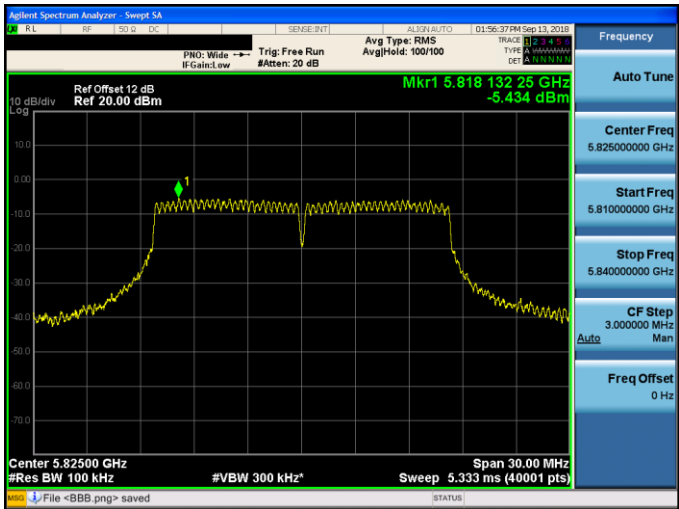


Mode 2: IEEE 802.11a Continuous TX mode_ ANT-1

5180 MHz	
5200 MHz	
5240 MHz	



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

5745 MHz	
5785 MHz	
5825 MHz	

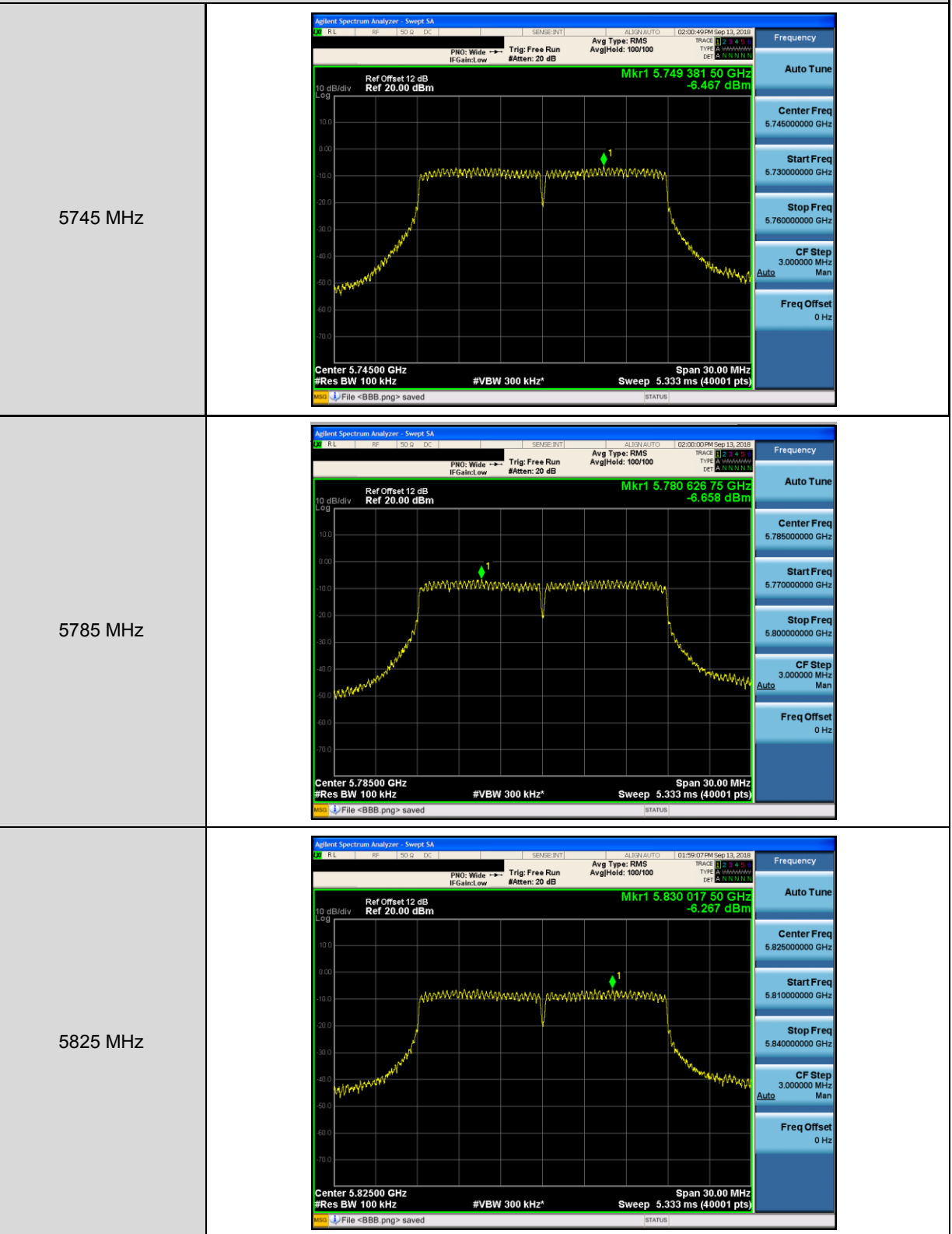


Mode 3: IEEE 802.11ac 20 MHz Continuous TX mode _ ANT-1

5180 MHz	
5200 MHz	
5240 MHz	

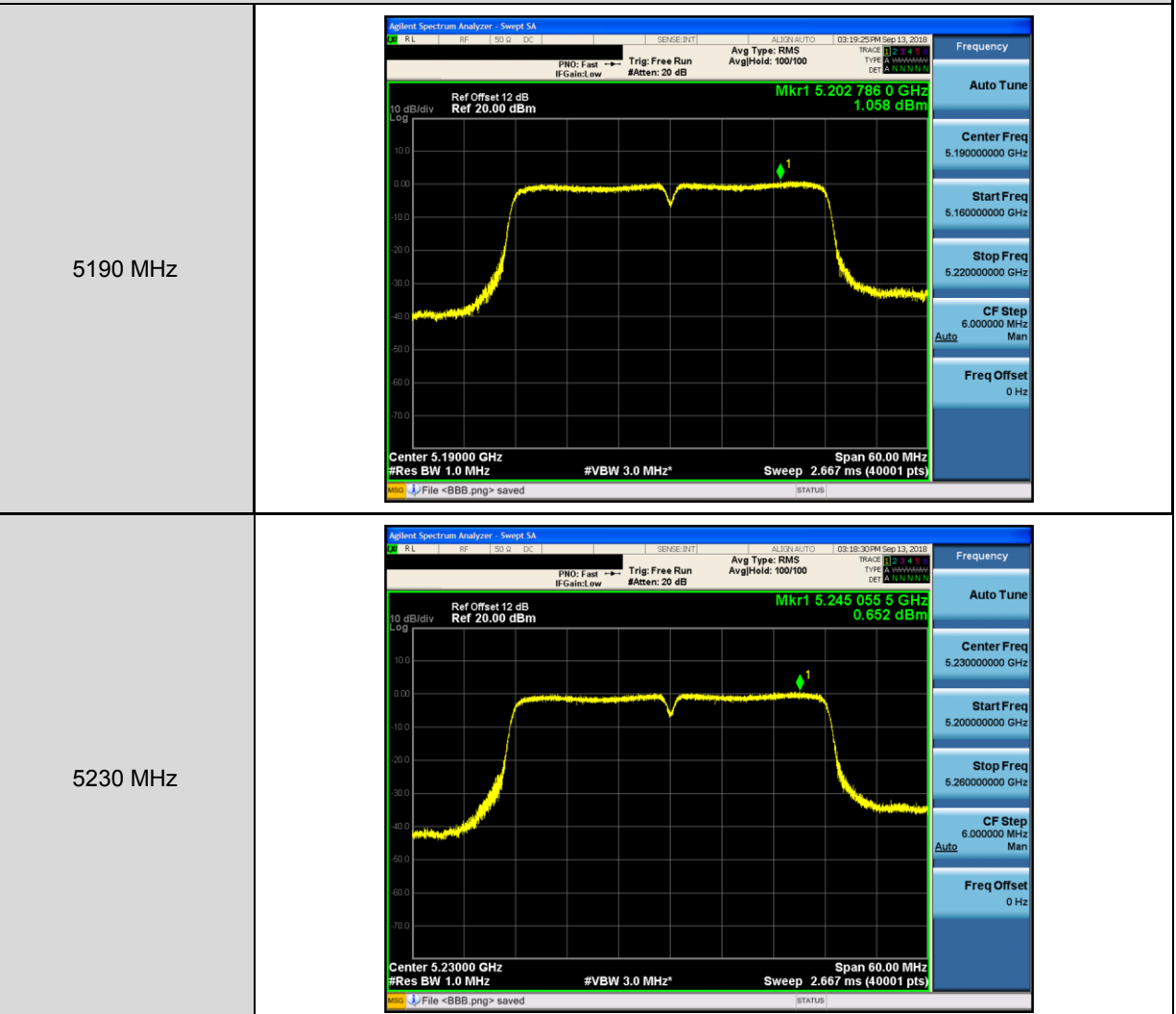


Mode 3: IEEE 802.11ac 20 MHz Continuous TX mode _ ANT-1



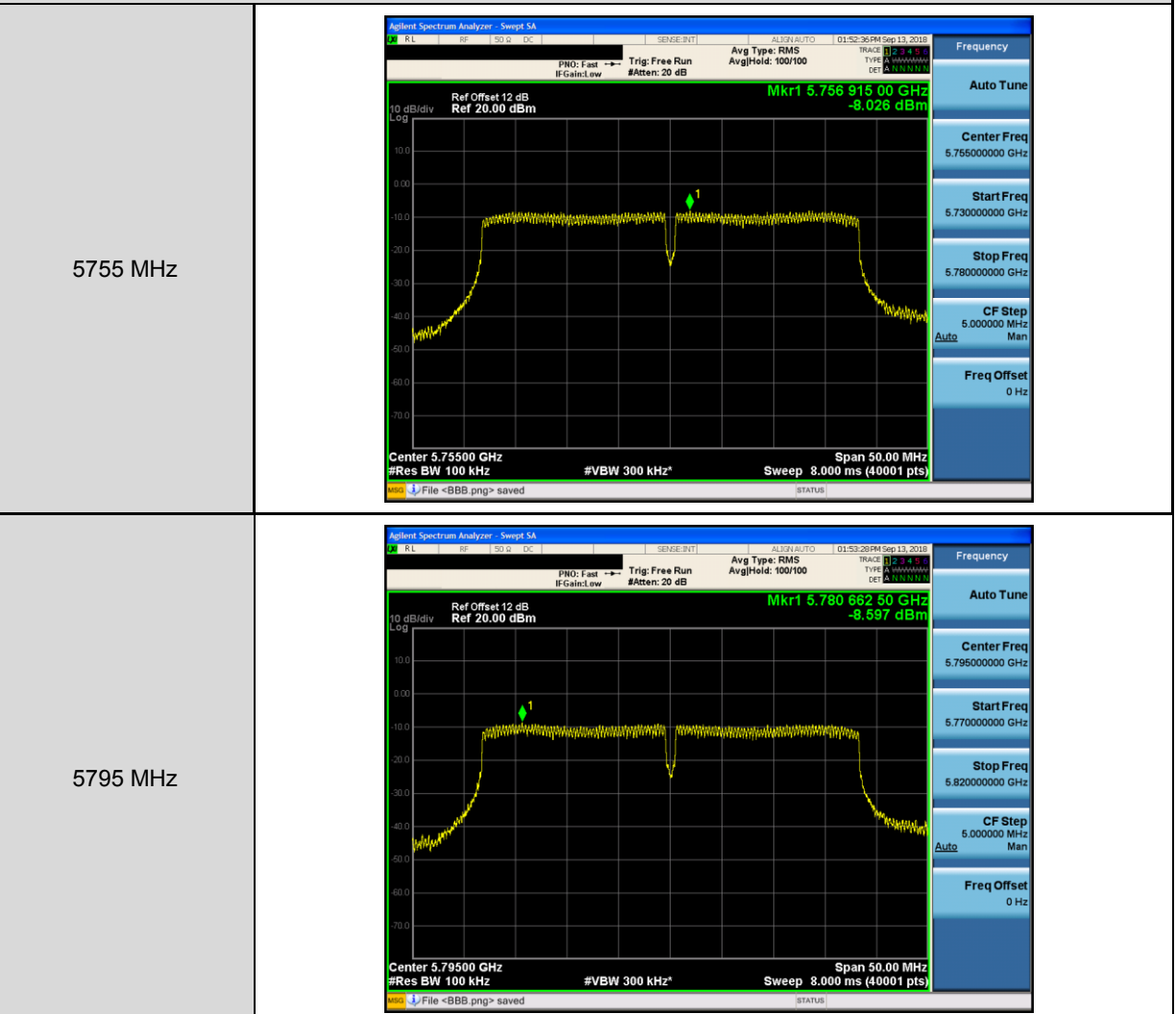


Mode 4: IEEE 802.11ac 40 MHz Continuous TX mode_ANT-1





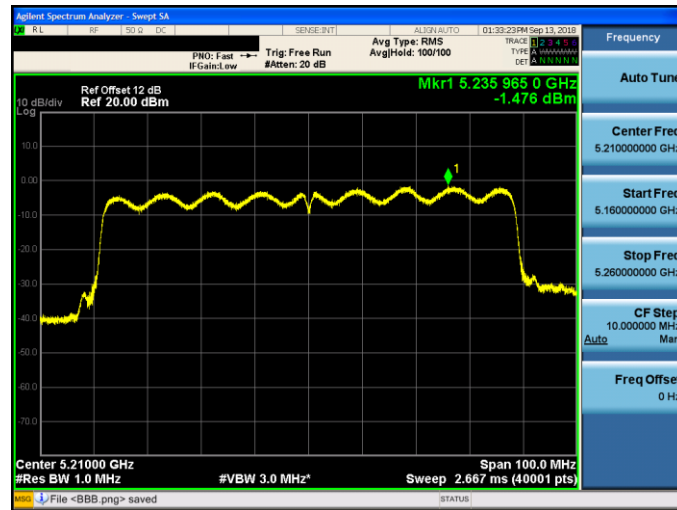
Mode 4: IEEE 802.11ac 40 MHz Continuous TX mode_ANT-1





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

5210 MHz



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

5775 MHz

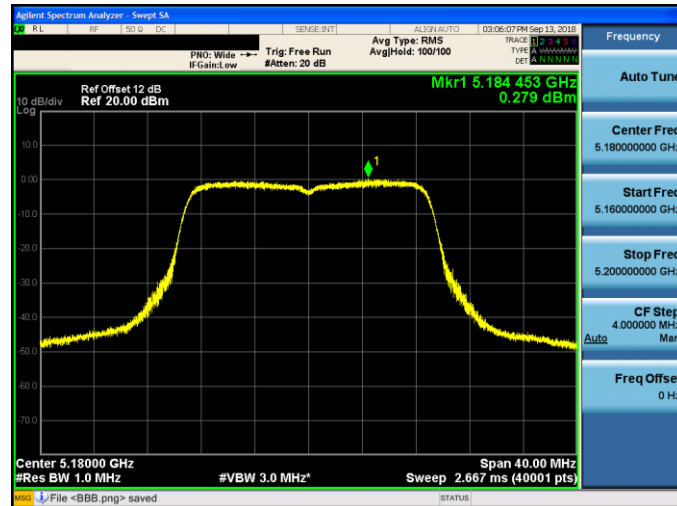




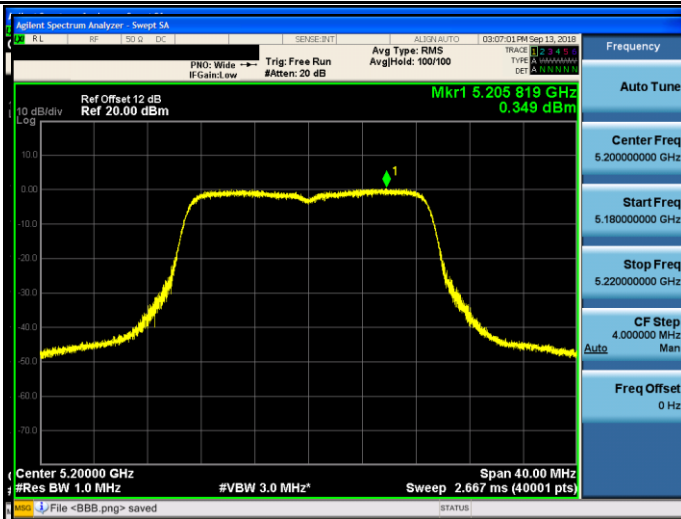
Beamforming on

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

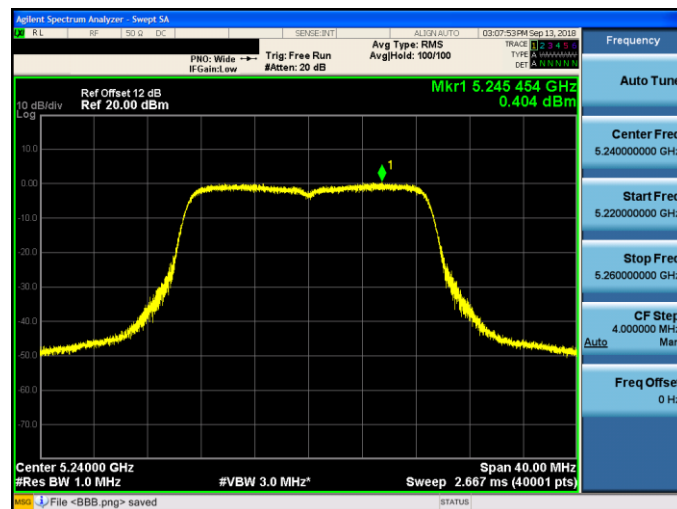
5180 MHz



5200 MHz

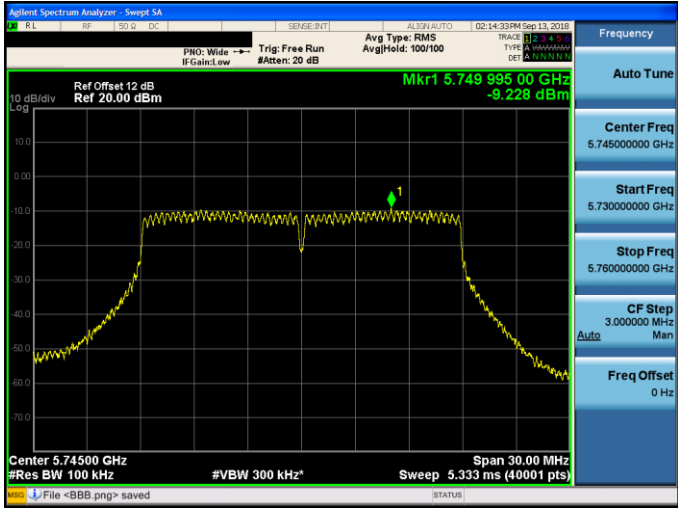
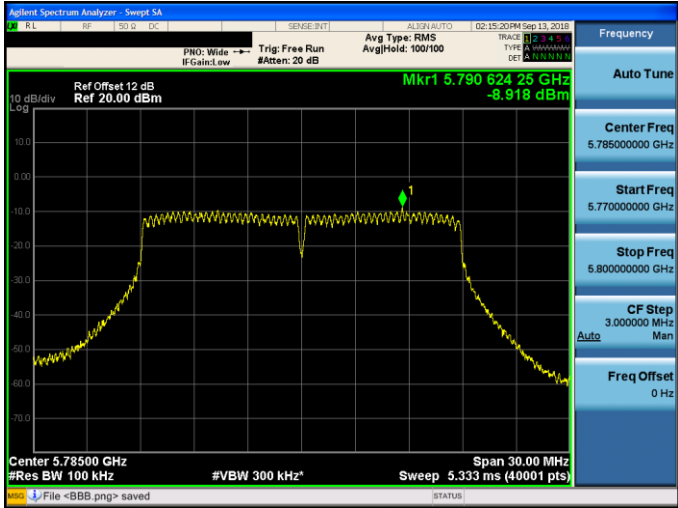
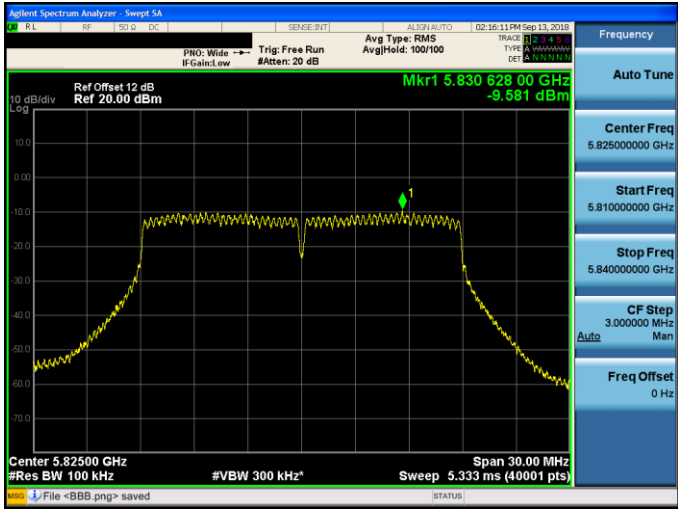


5240 MHz



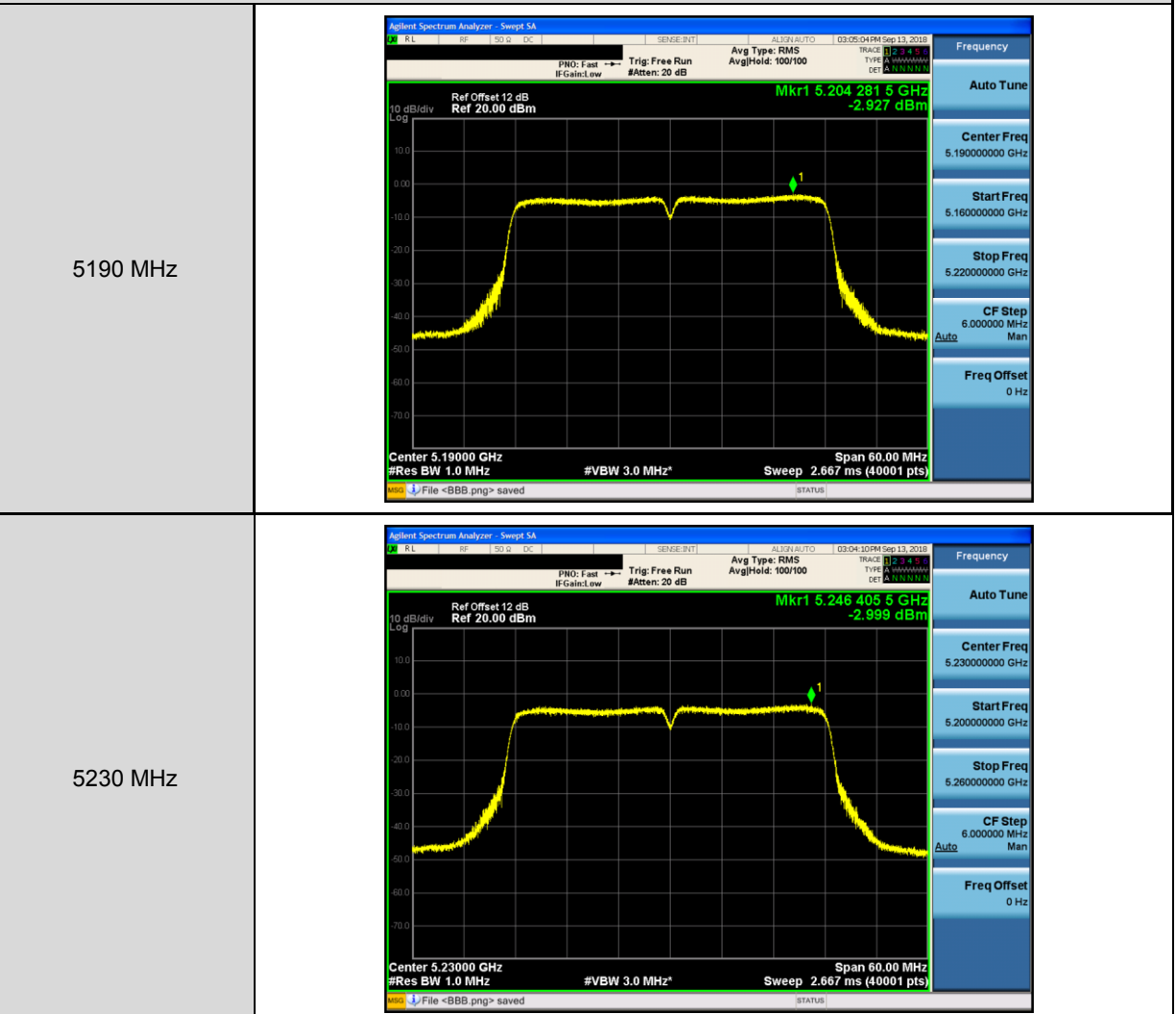


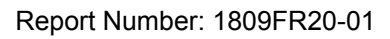
Mode 3: IEEE 802.11ac 20 MHz Continuous TX mode _ ANT-0

5745 MHz	 Agilent Spectrum Analyzer - Sweep SA Ref Offset 12 dB Ref 20.00 dBm Mkr1 5.749 995 00 GHz -9.228 dBm Center 5.74500 GHz #Res BW 100 kHz #VBW 300 kHz* Sweep 5.333 ms (40001 pts) Span 30.00 MHz File <BBB.png> saved Frequency Auto Tune Center Freq 5.745000000 GHz Start Freq 5.730000000 GHz Stop Freq 5.760000000 GHz CF Step 3.000000 MHz Auto Freq Offset 0 Hz
5785 MHz	 Agilent Spectrum Analyzer - Sweep SA Ref Offset 12 dB Ref 20.00 dBm Mkr1 5.790 624 25 GHz -8.918 dBm Center 5.78500 GHz #Res BW 100 kHz #VBW 300 kHz* Sweep 5.333 ms (40001 pts) Span 30.00 MHz File <BBB.png> saved Frequency Auto Tune Center Freq 5.785000000 GHz Start Freq 5.770000000 GHz Stop Freq 5.800000000 GHz CF Step 3.000000 MHz Auto Freq Offset 0 Hz
5825 MHz	 Agilent Spectrum Analyzer - Sweep SA Ref Offset 12 dB Ref 20.00 dBm Mkr1 5.830 628 00 GHz -9.581 dBm Center 5.82500 GHz #Res BW 100 kHz #VBW 300 kHz* Sweep 5.333 ms (40001 pts) Span 30.00 MHz File <BBB.png> saved Frequency Auto Tune Center Freq 5.825000000 GHz Start Freq 5.810000000 GHz Stop Freq 5.840000000 GHz CF Step 3.000000 MHz Auto Freq Offset 0 Hz



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

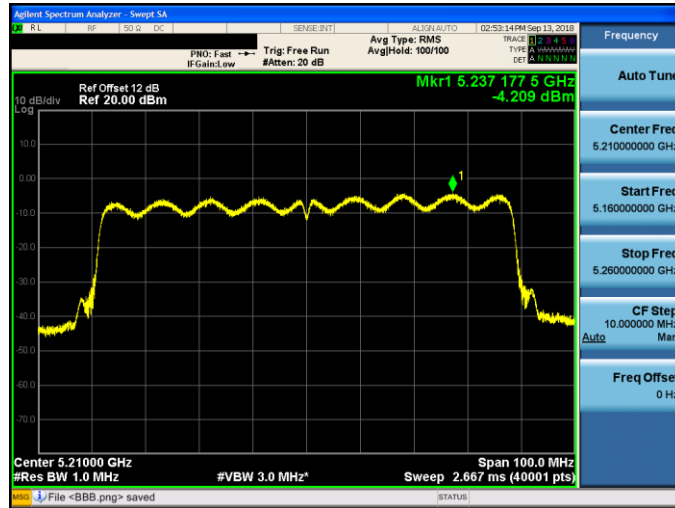






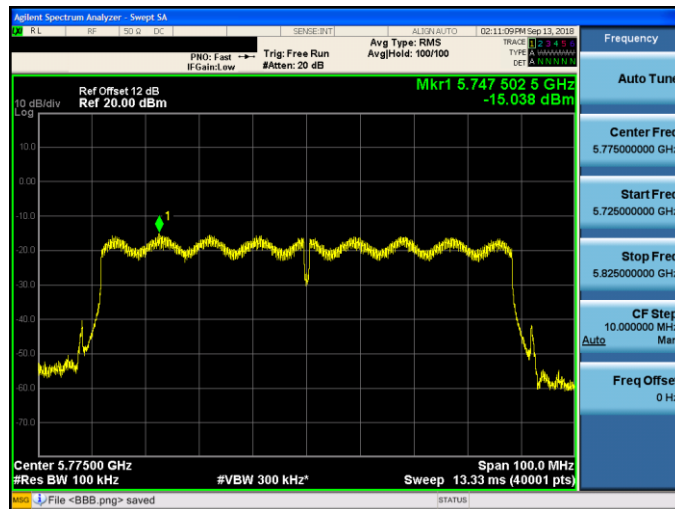
Mode 5: IEEE 802.11ac 80 MHz Continuous TX mode _ ANT-0

5210 MHz



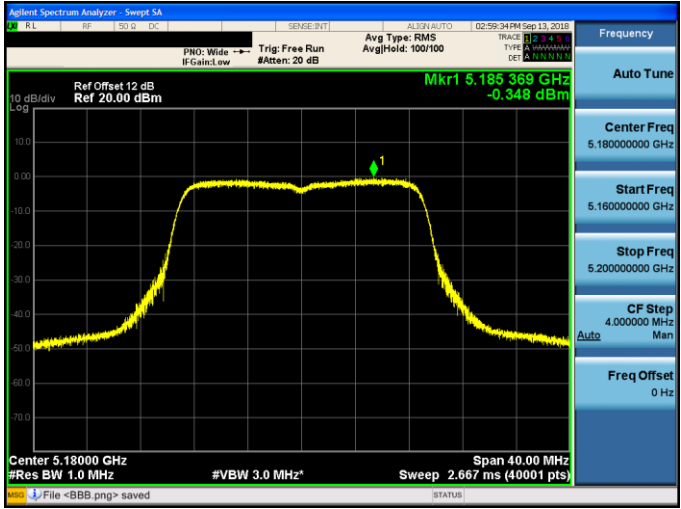
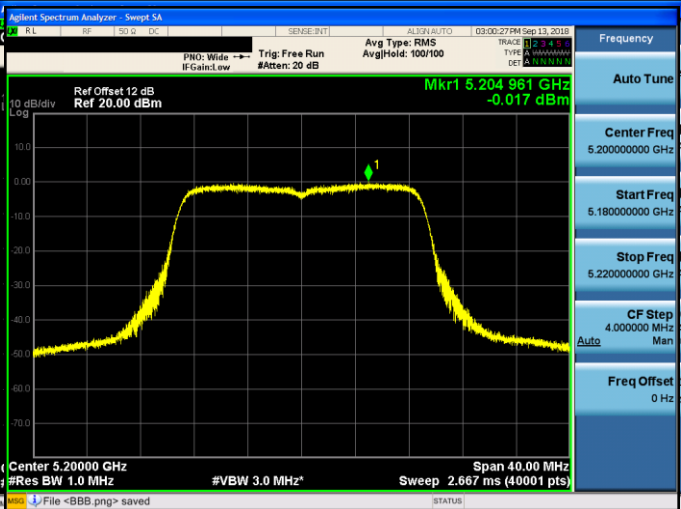
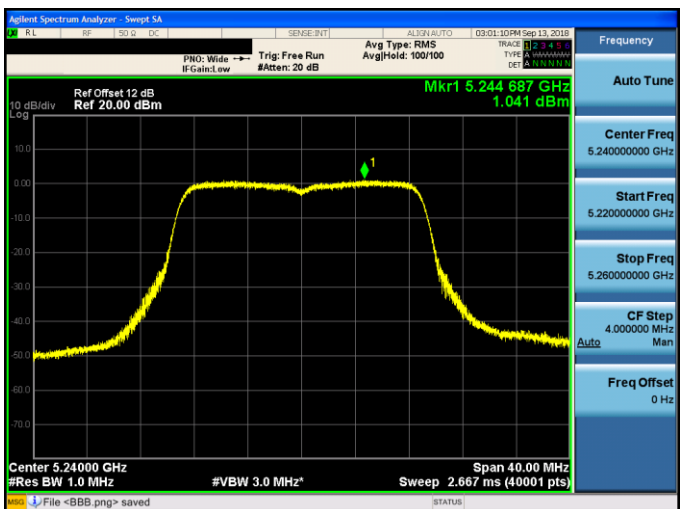
Mode 5: IEEE 802.11ac 80 MHz Continuous TX mode _ ANT-0

5775 MHz



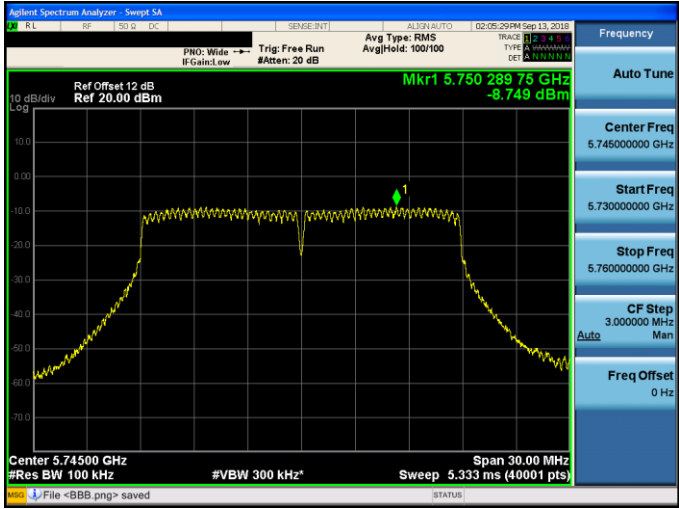
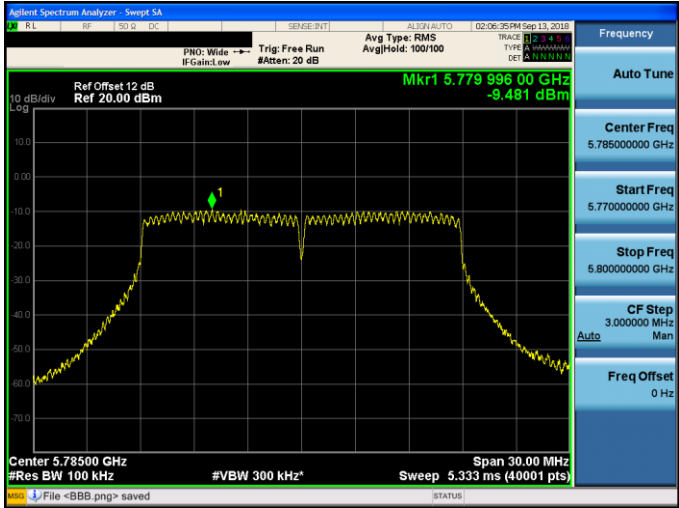
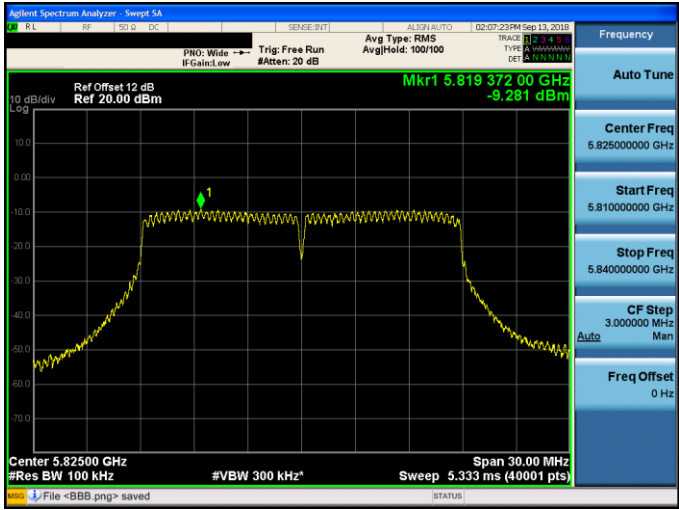


Mode 3: IEEE 802.11ac 20 MHz Continuous TX mode _ ANT-1

5180 MHz	 Ref Offset 12 dB Ref 20.00 dBm Mkr1 5.185 369 GHz -0.348 dBm Center 5.18000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz* Sweep 2.667 ms (40001 pts) Span 40.00 MHz File <BBB.png> saved Frequency Auto Tune Center Freq 5.18000000 GHz Start Freq 5.16000000 GHz Stop Freq 5.20000000 GHz CF Step 4.000000 MHz Auto Freq Offset 0 Hz
5200 MHz	 Ref Offset 12 dB Ref 20.00 dBm Mkr1 5.204 961 GHz -0.017 dBm Center 5.20000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz* Sweep 2.667 ms (40001 pts) Span 40.00 MHz File <BBB.png> saved Frequency Auto Tune Center Freq 5.20000000 GHz Start Freq 5.18000000 GHz Stop Freq 5.22000000 GHz CF Step 4.000000 MHz Auto Freq Offset 0 Hz
5240 MHz	 Ref Offset 12 dB Ref 20.00 dBm Mkr1 5.244 687 GHz 1.041 dBm Center 5.24000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz* Sweep 2.667 ms (40001 pts) Span 40.00 MHz File <BBB.png> saved Frequency Auto Tune Center Freq 5.24000000 GHz Start Freq 5.22000000 GHz Stop Freq 5.26000000 GHz CF Step 4.000000 MHz Auto Freq Offset 0 Hz

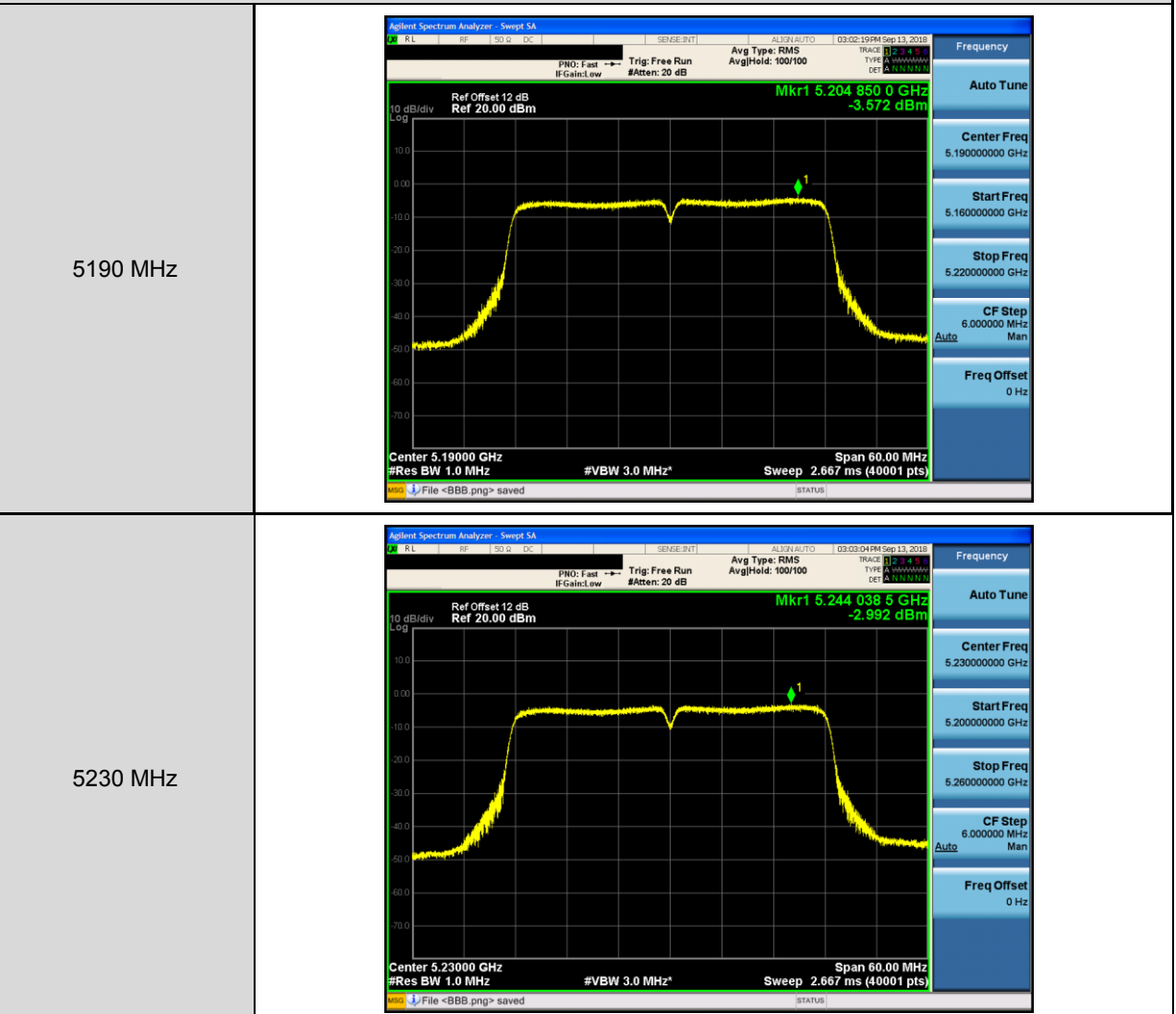


Mode 3: IEEE 802.11ac 20 MHz Continuous TX mode _ ANT-1

5745 MHz	 Agilent Spectrum Analyzer - Sweep SA Ref Offset 12 dB Ref 20.00 dBm Mkr1 5.750 299 75 GHz -8.749 dBm Center 5.74500 GHz #Res BW 100 kHz #VBW 300 kHz* Sweep 5.333 ms (40001 pts) Span 30.00 MHz File <BBB.png> saved Frequency Auto Tune Center Freq 5.745000000 GHz Start Freq 5.730000000 GHz Stop Freq 5.760000000 GHz CF Step 3.000000 MHz Auto Freq Offset 0 Hz
5785 MHz	 Agilent Spectrum Analyzer - Sweep SA Ref Offset 12 dB Ref 20.00 dBm Mkr1 5.779 996 00 GHz -9.481 dBm Center 5.78500 GHz #Res BW 100 kHz #VBW 300 kHz* Sweep 5.333 ms (40001 pts) Span 30.00 MHz File <BBB.png> saved Frequency Auto Tune Center Freq 5.785000000 GHz Start Freq 5.770000000 GHz Stop Freq 5.800000000 GHz CF Step 3.000000 MHz Auto Freq Offset 0 Hz
5825 MHz	 Agilent Spectrum Analyzer - Sweep SA Ref Offset 12 dB Ref 20.00 dBm Mkr1 5.819 372 00 GHz -9.281 dBm Center 5.82500 GHz #Res BW 100 kHz #VBW 300 kHz* Sweep 5.333 ms (40001 pts) Span 30.00 MHz File <BBB.png> saved Frequency Auto Tune Center Freq 5.825000000 GHz Start Freq 5.810000000 GHz Stop Freq 5.840000000 GHz CF Step 3.000000 MHz Auto Freq Offset 0 Hz

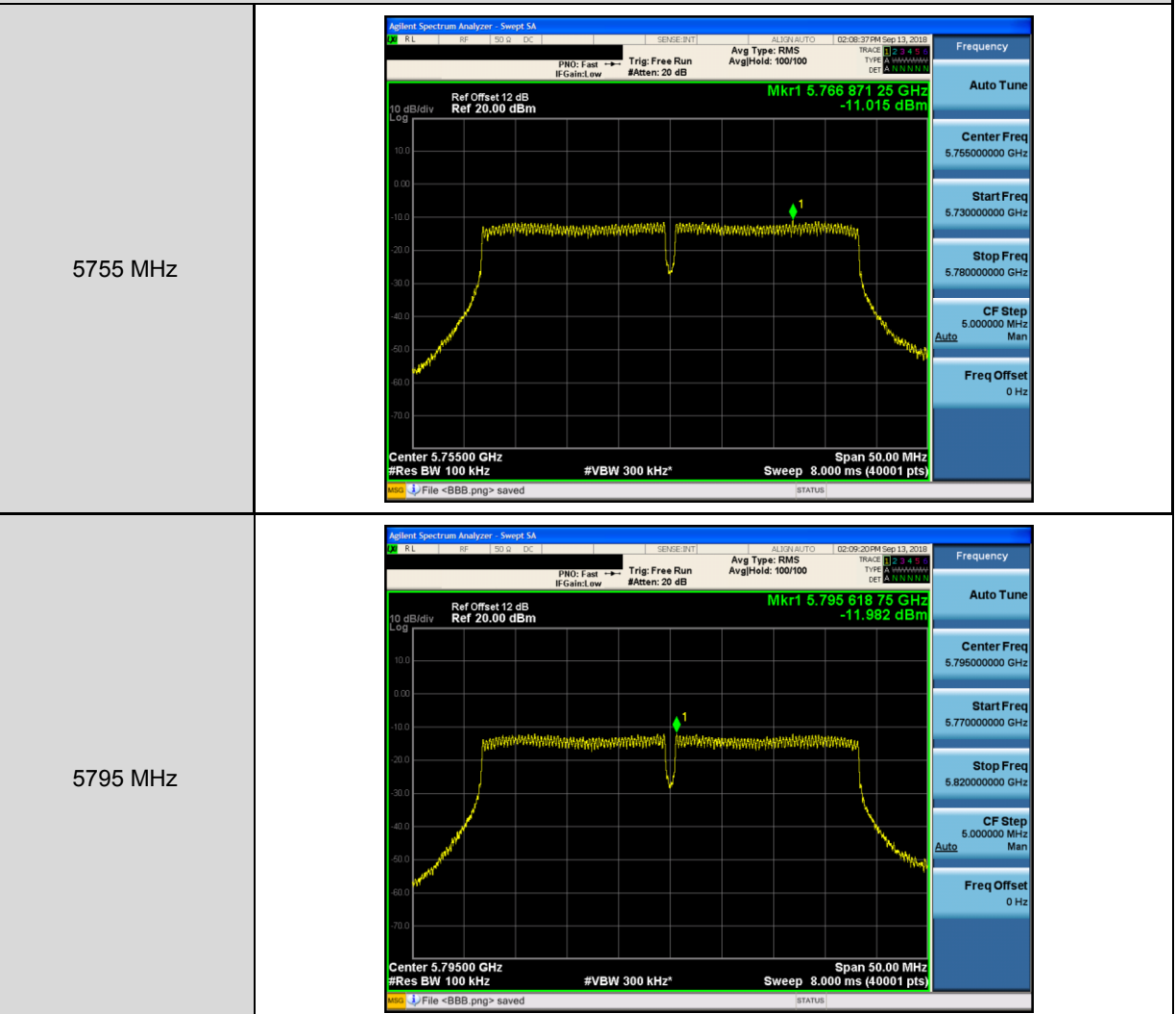


Mode 4: IEEE 802.11ac 40 MHz Continuous TX mode_ANT-1





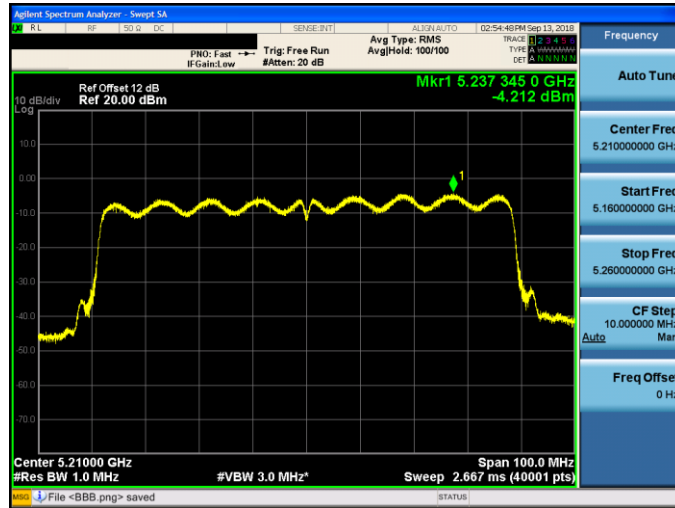
Mode 4: IEEE 802.11ac 40 MHz Continuous TX mode_ANT-1





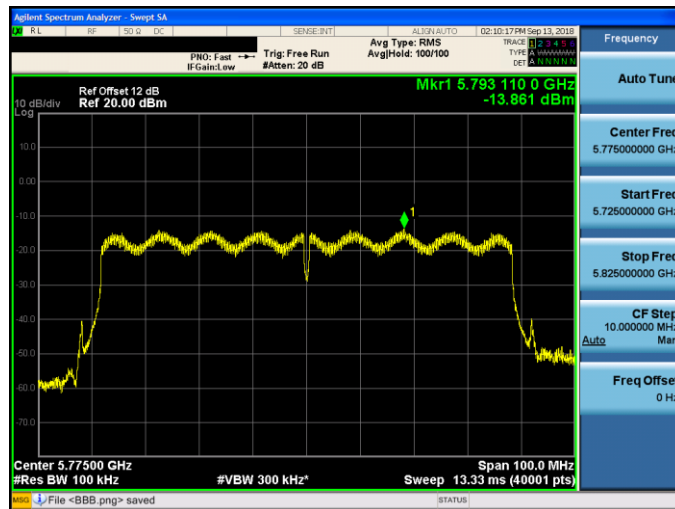
Mode 5: IEEE 802.11ac 80 MHz Continuous TX mode _ ANT-1

5210 MHz



Mode 5: IEEE 802.11ac 80 MHz Continuous TX mode _ ANT-1

5775 MHz





5.7. Frequency Stability Measurement

Temperature Variations

Frequency	Temp. (°C)	Voltage (Vdc)	Measured Freq. (MHz)	Delta Freq. (Hz)	Tolerance (ppm)	Result (Pass/Fail)
5200 MHz	0	5	5199.9488	-51200	-9.846	Pass
	10		5199.9498	-50200	-9.654	Pass
	20		5199.9505	-49500	-9.519	Pass
	30		5199.952	-48000	-9.231	Pass
	40		5199.9532	-46800	-9.000	Pass
5785 MHz	0	5	5784.9453	-54700	-9.455	Pass
	10		5784.9448	-55200	-9.542	Pass
	20		5784.9544	-45600	-7.882	Pass
	30		5784.956	-44000	-7.606	Pass
	40		5784.9562	-43800	-7.571	Pass

Voltage Variations

Frequency	Temp. (°C)	Voltage (Vac)	Measured Freq. (MHz)	Delta Freq. (Hz)	Tolerance (ppm)	Result (Pass/Fail)
5200 MHz	20	138.00	5199.9517	-48300	-9.288	Pass
		120.00	5199.9505	-49500	-9.519	Pass
		102.00	5199.9513	-48700	-9.365	Pass
5785 MHz	20	138.00	5784.9549	-45100	-7.796	Pass
		120.00	5784.9544	-45600	-7.882	Pass
		102.00	5784.9552	-44800	-7.744	Pass

Note: The manufacturer's frequency stability specification is better than 20 ppm.



Beamforming on

Temperature Variations

Frequency	Temp. (°C)	Voltage (Vac)	Measured Freq. (MHz)	Delta Freq. (Hz)	Tolerance (ppm)	Result (Pass/Fail)
5200 MHz	0	120	5199.9488	-51200	-9.846	Pass
	10		5199.9498	-50200	-9.654	Pass
	20		5199.9505	-49500	-9.519	Pass
	30		5199.952	-48000	-9.231	Pass
	40		5199.9532	-46800	-9.000	Pass
5785 MHz	0	120	5784.9453	-54700	-9.455	Pass
	10		5784.9448	-55200	-9.542	Pass
	20		5784.9544	-45600	-7.882	Pass
	30		5784.956	-44000	-7.606	Pass
	40		5784.9562	-43800	-7.571	Pass

Voltage Variations

Frequency	Temp. (°C)	Voltage (Vac)	Measured Freq. (MHz)	Delta Freq. (Hz)	Tolerance (ppm)	Result (Pass/Fail)
5200 MHz	20	138.00	5199.9517	-48300	-9.288	Pass
		120.00	5199.9505	-49500	-9.519	Pass
		102.00	5199.9513	-48700	-9.365	Pass
5785 MHz	20	138.00	5784.9549	-45100	-7.796	Pass
		120.00	5784.9544	-45600	-7.882	Pass
		102.00	5784.9552	-44800	-7.744	Pass

Note: The manufacturer's frequency stability specification is better than 20 ppm.