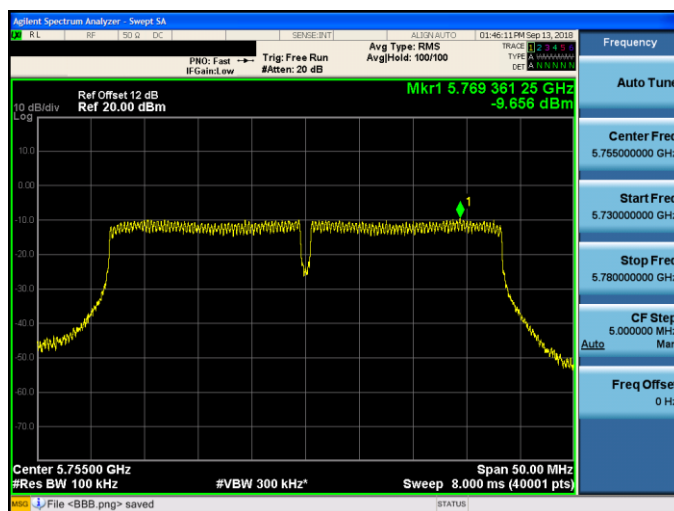


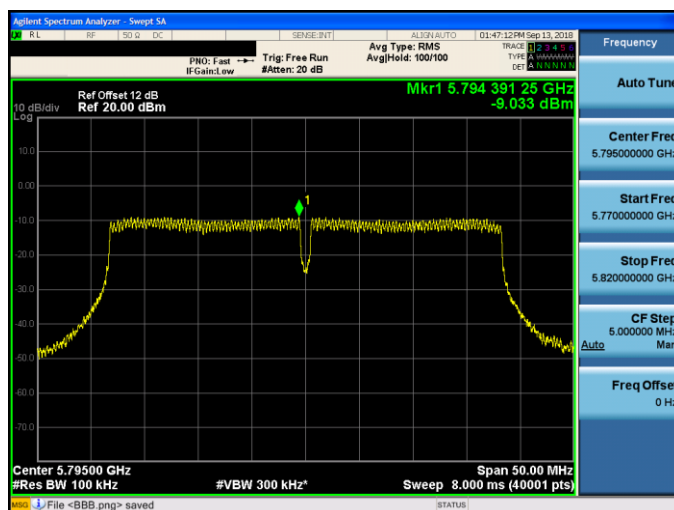


Mode 4: IEEE 802.11ac 40 MHz Continuous TX mode_ANT-0

5755 MHz



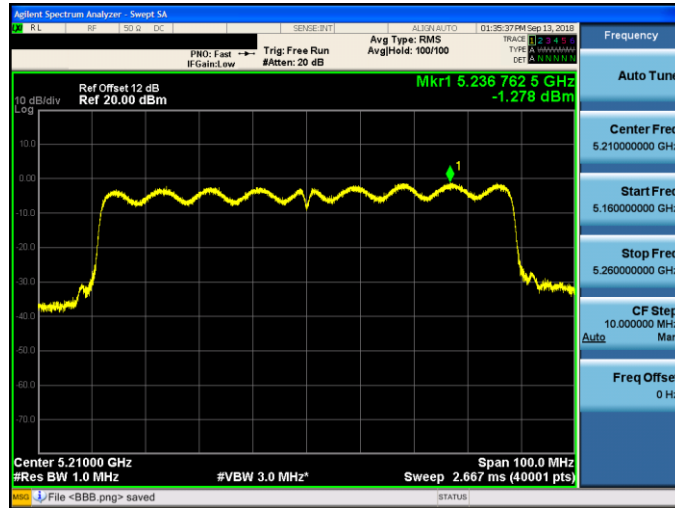
5795 MHz





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



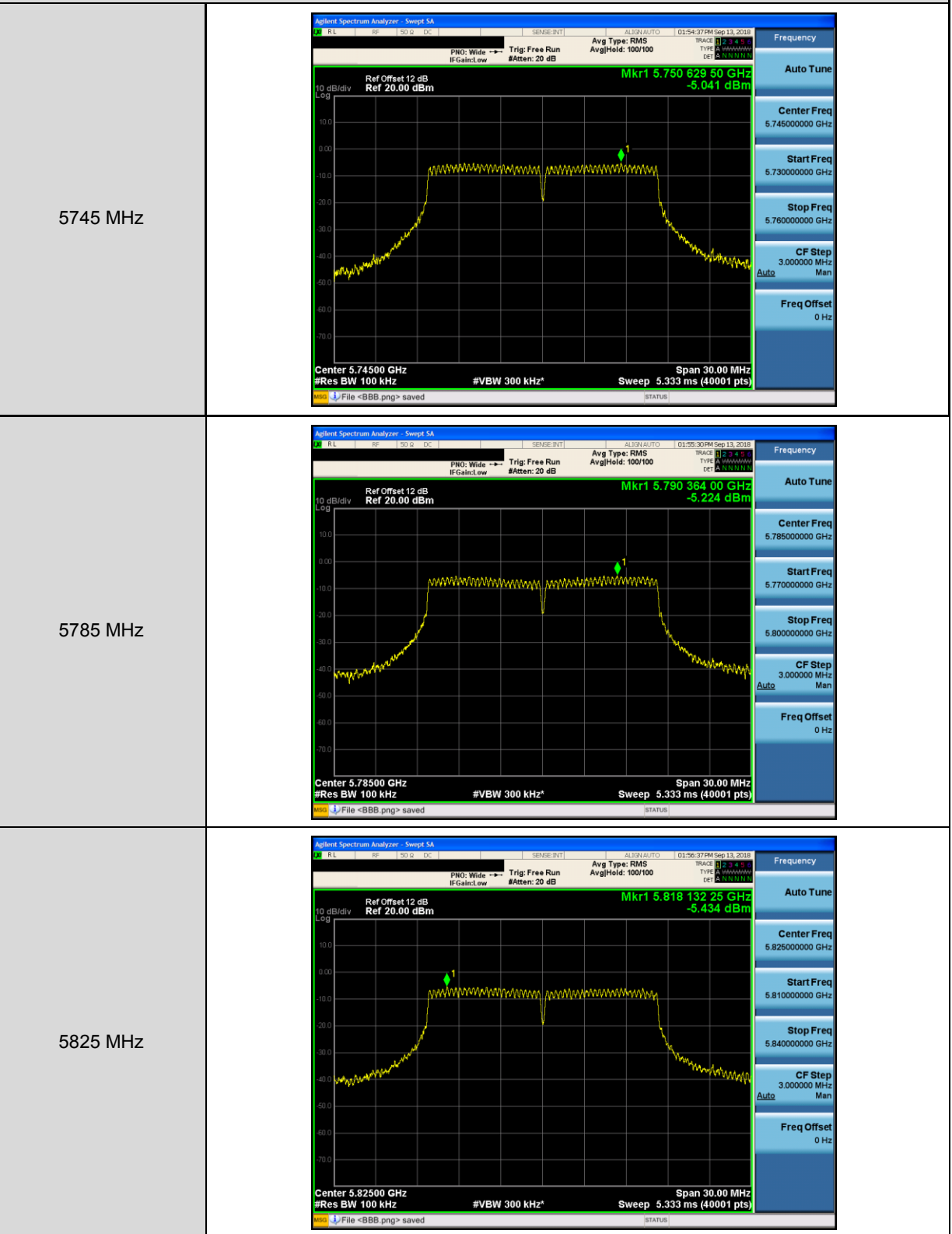


Mode 2: IEEE 802.11a Continuous TX mode_ ANT-1

5180 MHz	
5200 MHz	
5240 MHz	



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



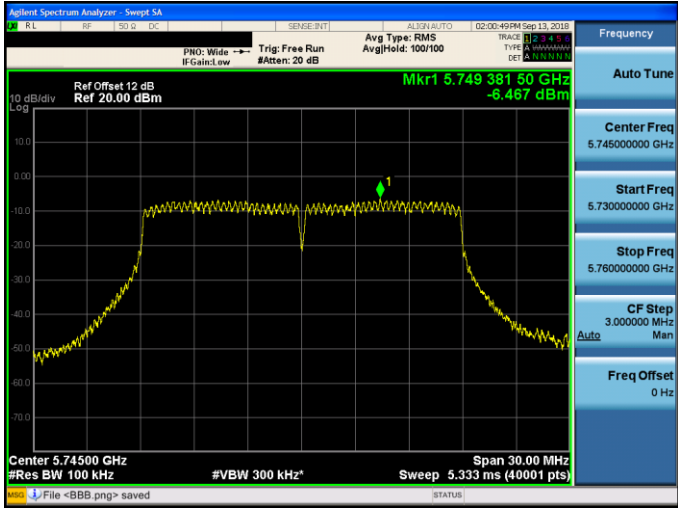
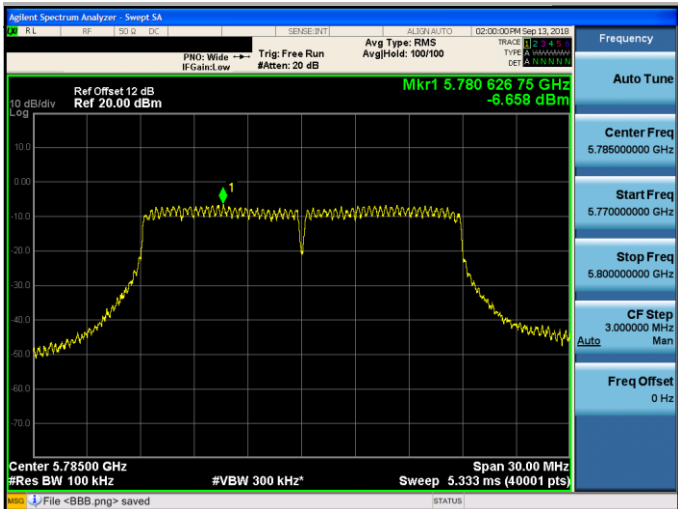
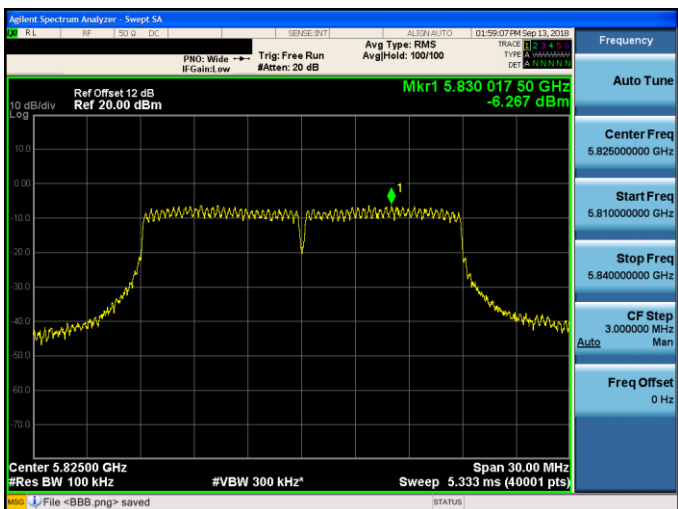


Mode 3: IEEE 802.11ac 20 MHz Continuous TX mode _ ANT-1

5180 MHz	
5200 MHz	
5240 MHz	

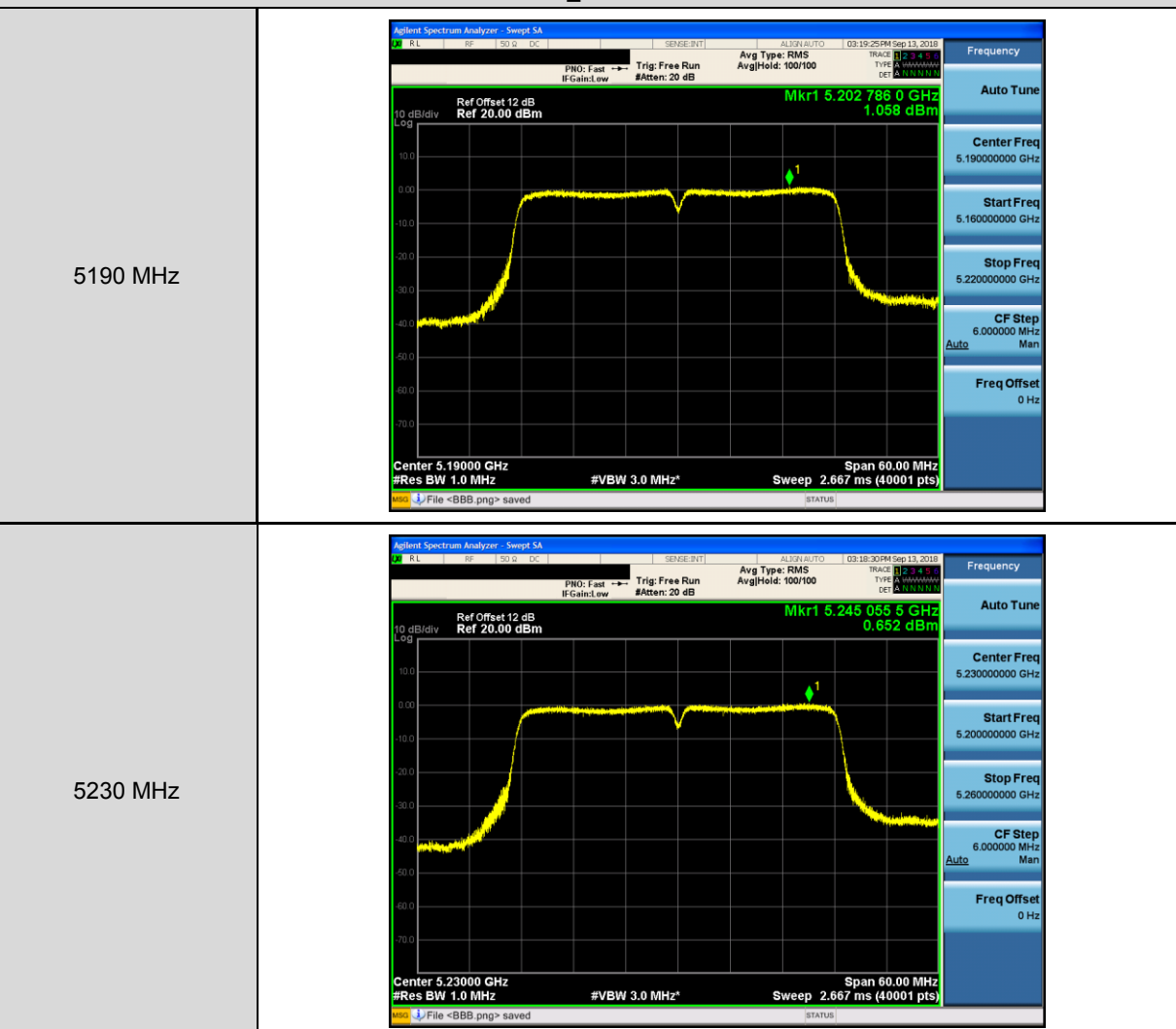


Mode 3: IEEE 802.11ac 20 MHz Continuous TX mode _ ANT-1

5745 MHz	 Agilent Spectrum Analyzer - Sweep SA SENSE: INT ALGN: AUTO 02:00:49PM Sep 13, 2018 Ref Offset 12 dB Ref 20.00 dBm Mkr1 5.749 381 50 GHz -6.467 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 SENSE: INT ALGN: AUTO 02:00:00PM Sep 13, 2018 Ref Offset 12 dB Ref 20.00 dBm Mkr1 5.780 626 75 GHz -6.658 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 SENSE: INT ALGN: AUTO 01:59:07PM Sep 13, 2018 Ref Offset 12 dB Ref 20.00 dBm Mkr1 5.830 017 50 GHz -6.267 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

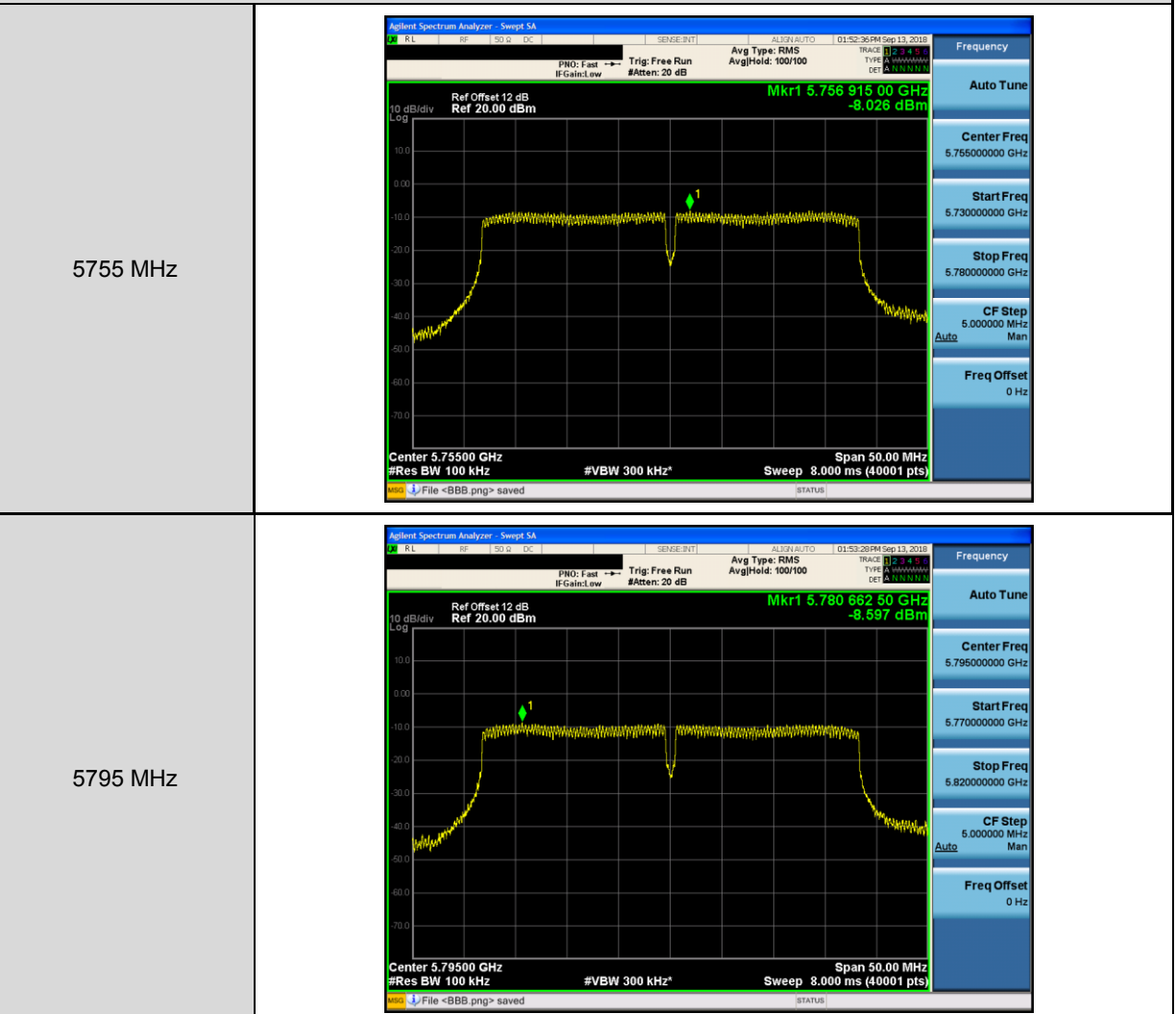


Mode 4: IEEE 802.11ac 40 MHz Continuous TX mode_ANT-1





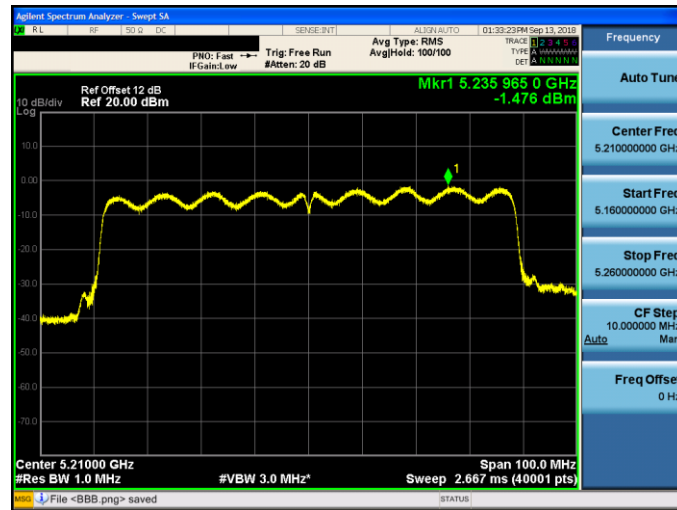
Mode 4: IEEE 802.11ac 40 MHz Continuous TX mode_ANT-1





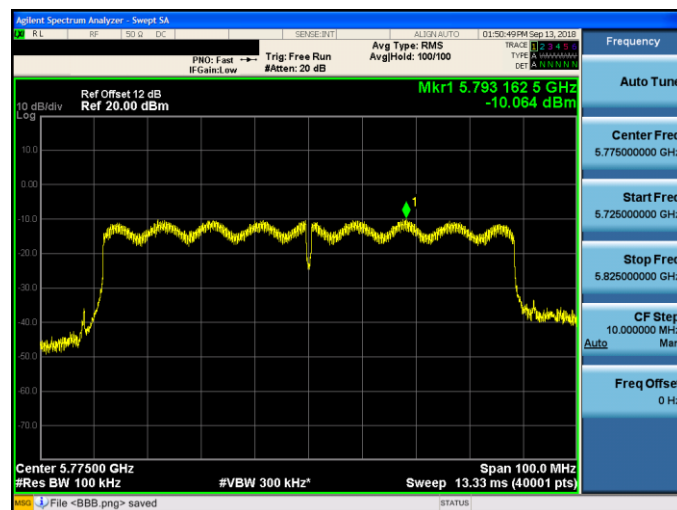
Mode 5: IEEE 802.11ac 80 MHz Continuous TX mode _ANT-1

5210 MHz



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

5775 MHz

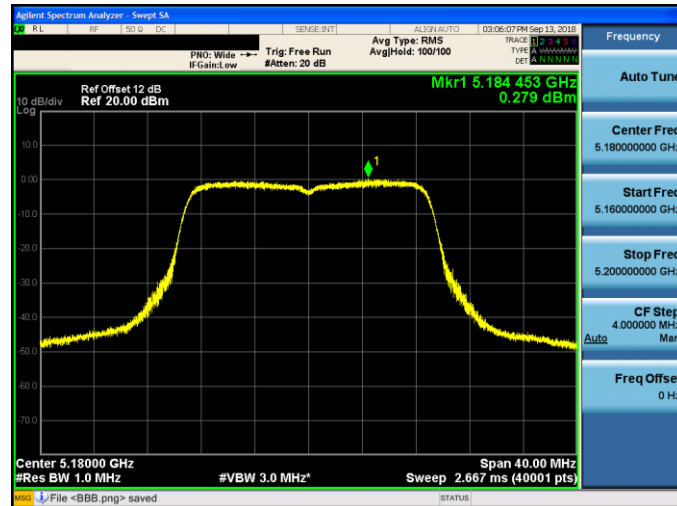




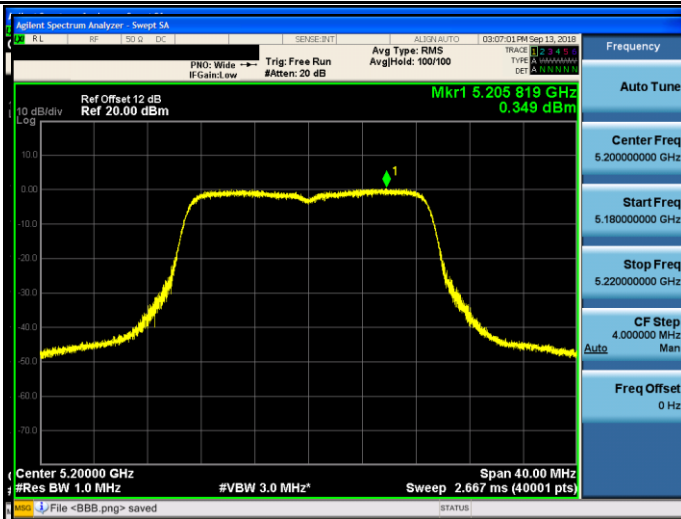
Beamforming on

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

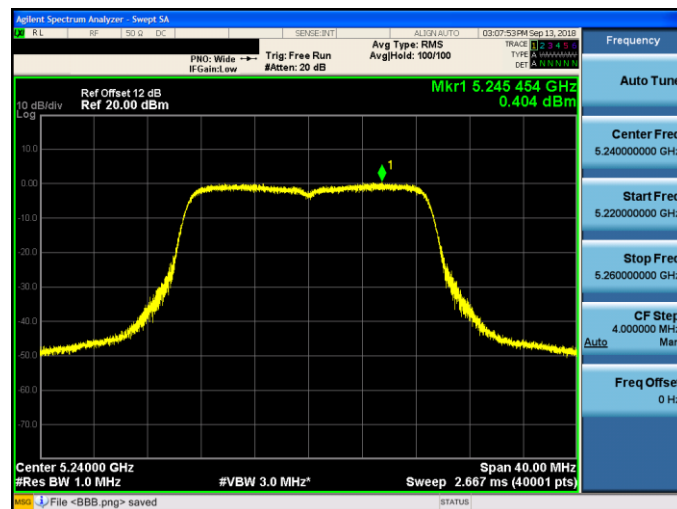
5180 MHz



5200 MHz

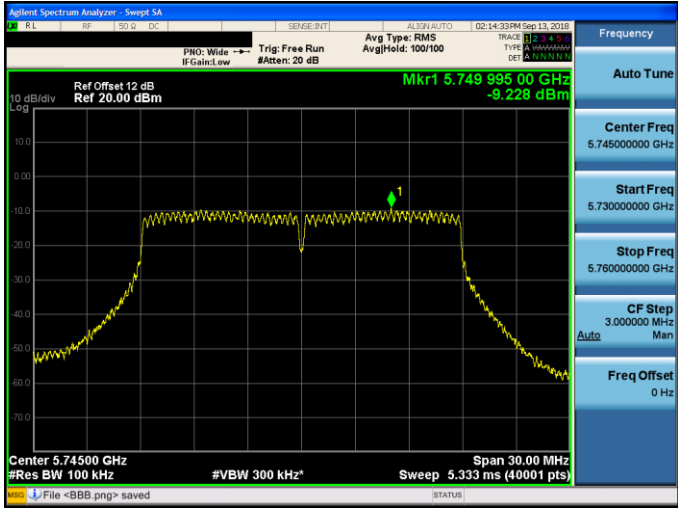
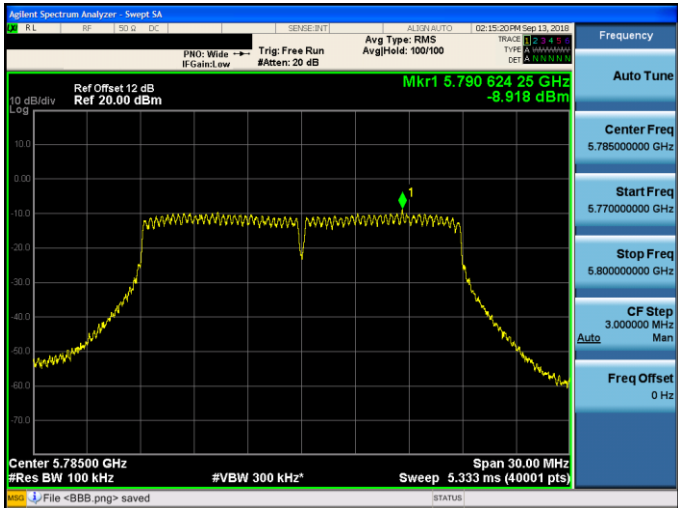
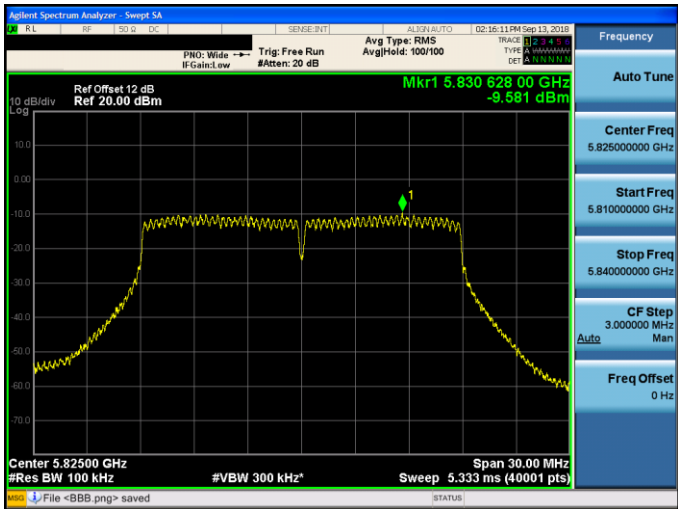


5240 MHz



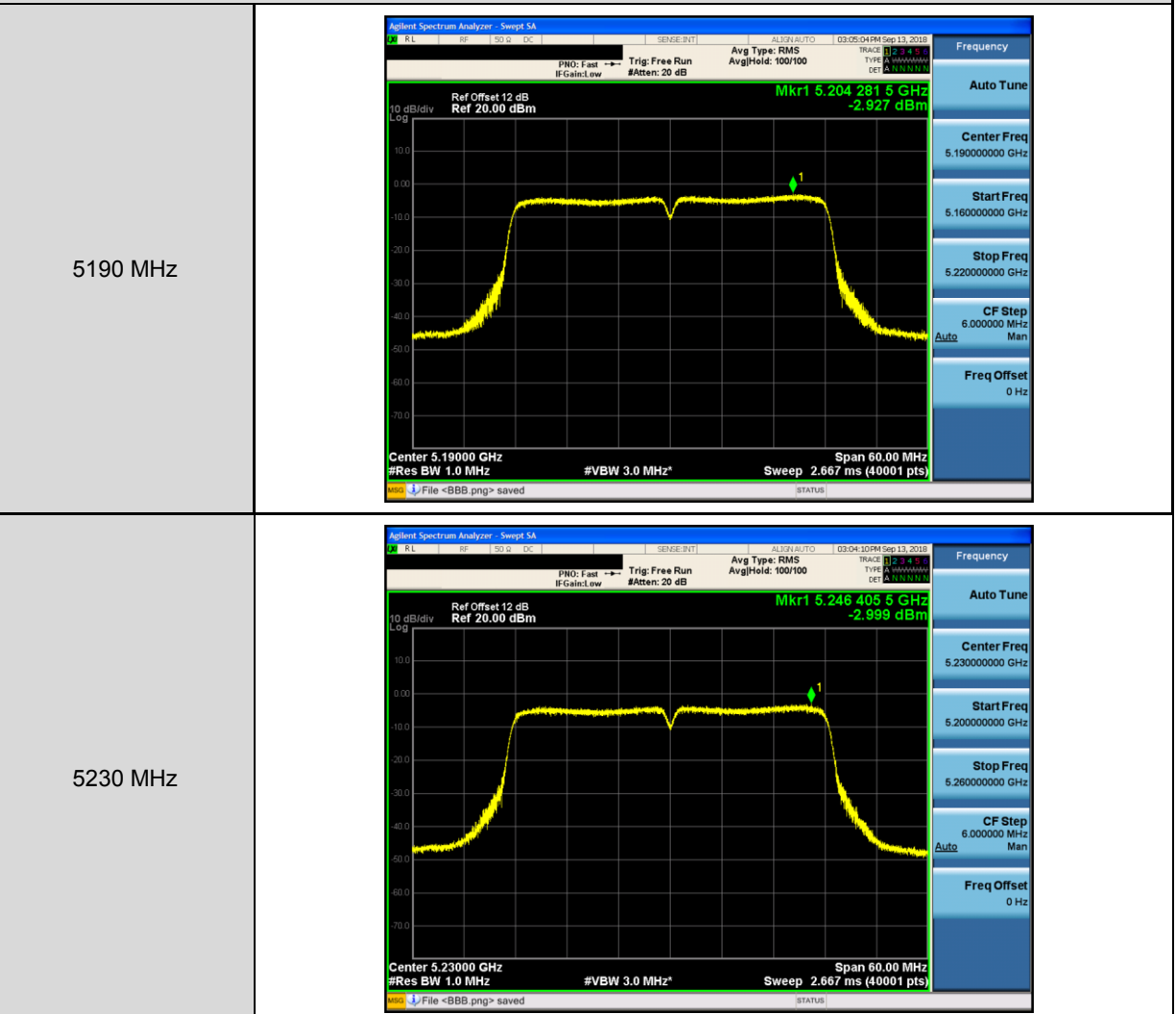


Mode 3: IEEE 802.11ac 20 MHz Continuous TX mode _ ANT-0

5745 MHz	
5785 MHz	
5825 MHz	

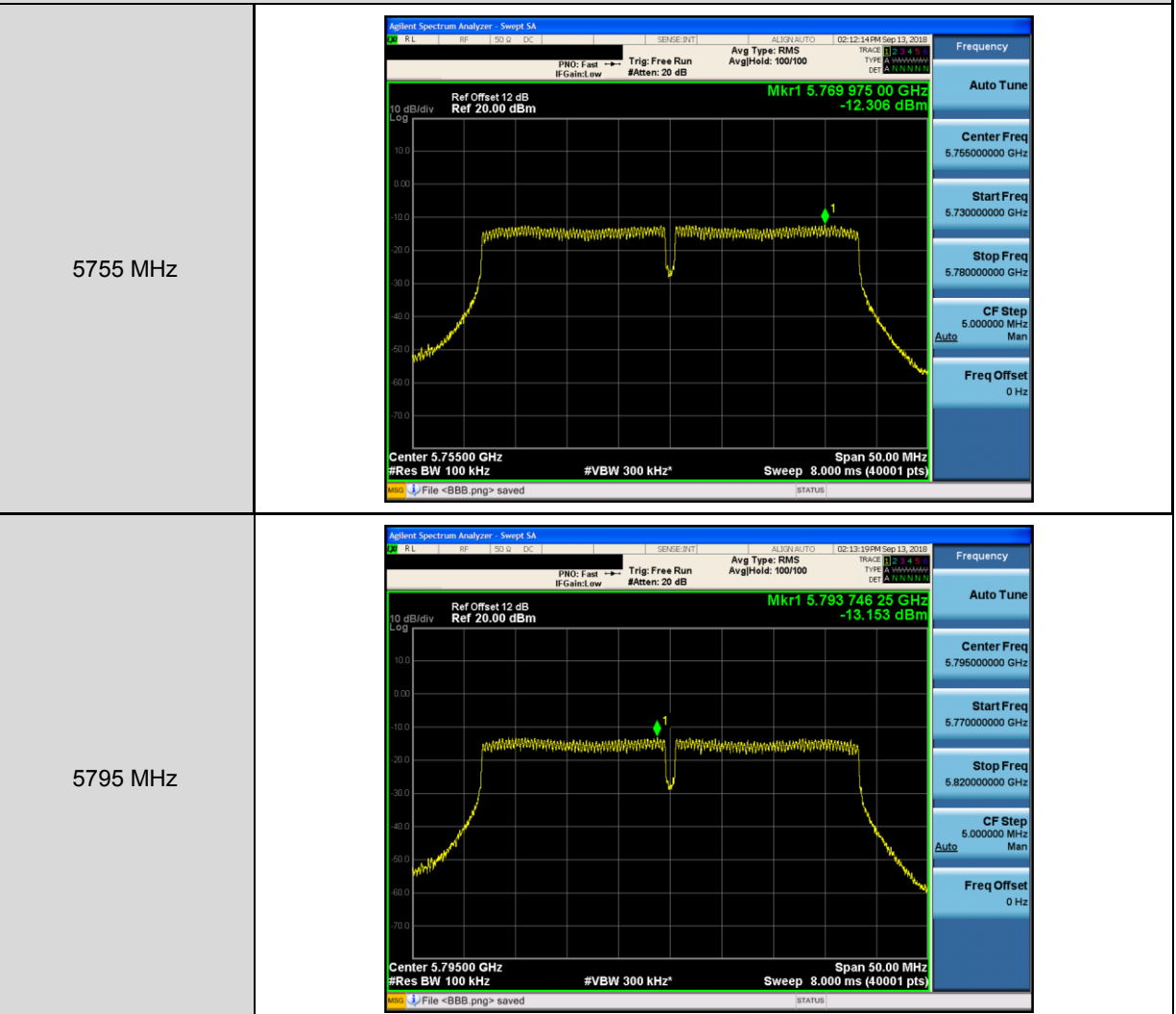


Mode 4: IEEE 802.11ac 40 MHz Continuous TX mode_ANT-0





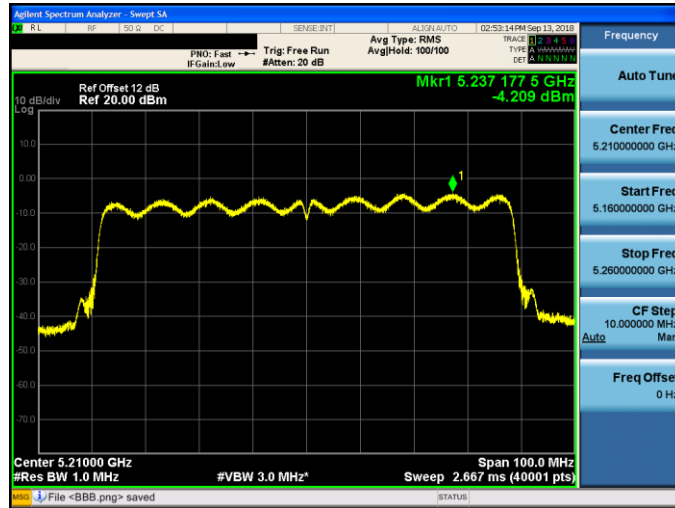
Mode 4: IEEE 802.11ac 40 MHz Continuous TX mode_ANT-0





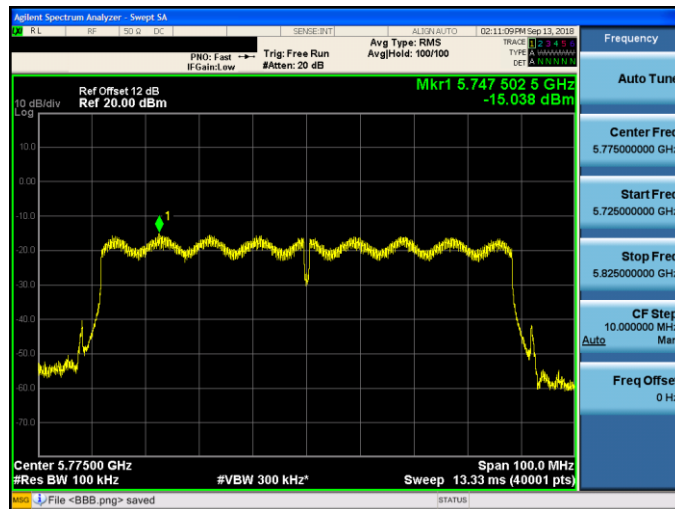
Mode 5: IEEE 802.11ac 80 MHz Continuous TX mode _ ANT-0

5210 MHz



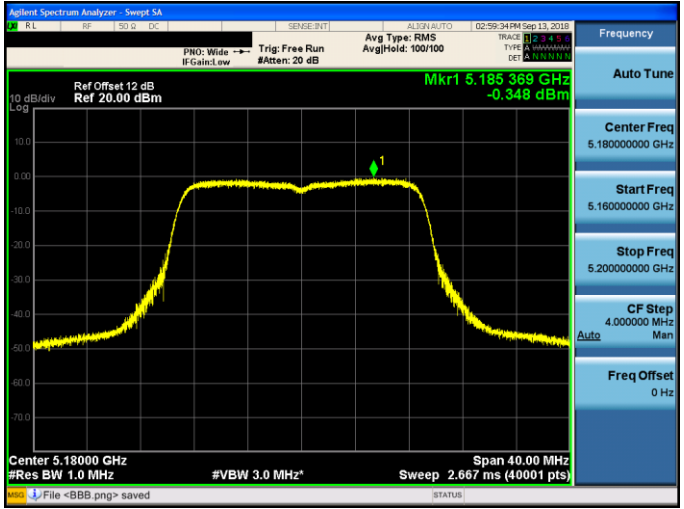
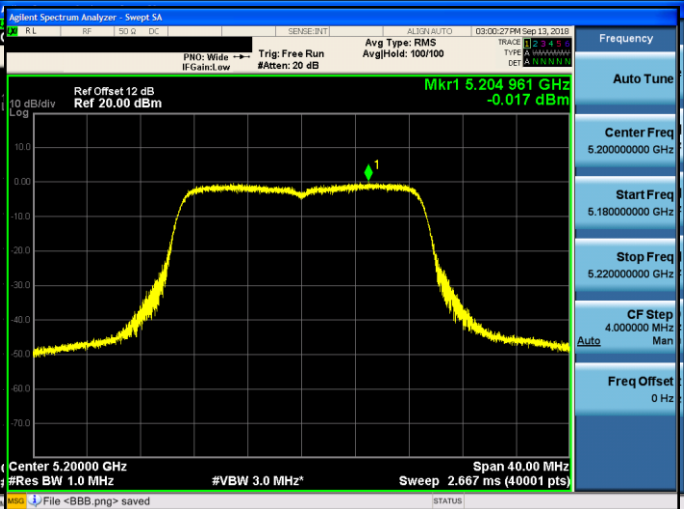
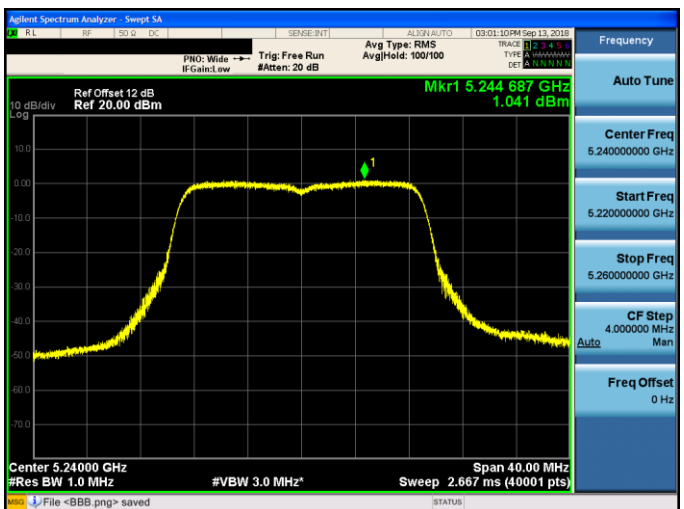
Mode 5: IEEE 802.11ac 80 MHz Continuous TX mode _ ANT-0

5775 MHz





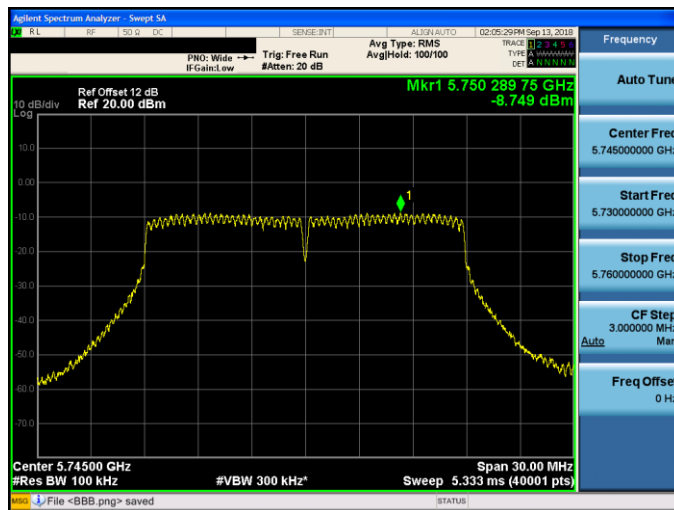
Mode 3: IEEE 802.11ac 20 MHz Continuous TX mode _ ANT-1

5180 MHz	
5200 MHz	
5240 MHz	

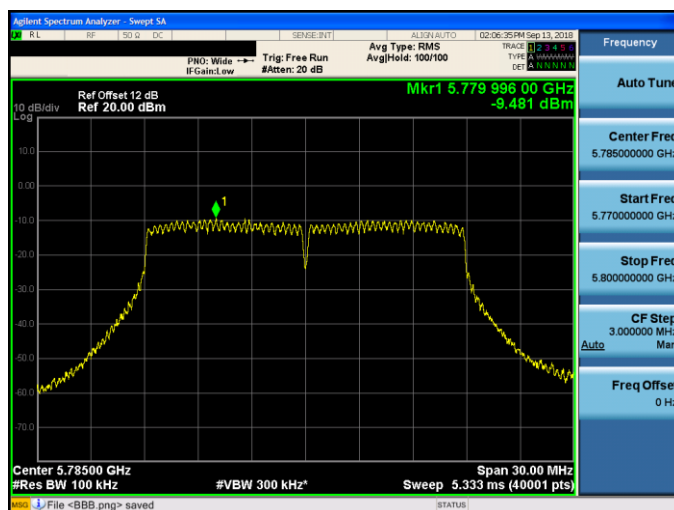


Mode 3: IEEE 802.11ac 20 MHz Continuous TX mode _ ANT-1

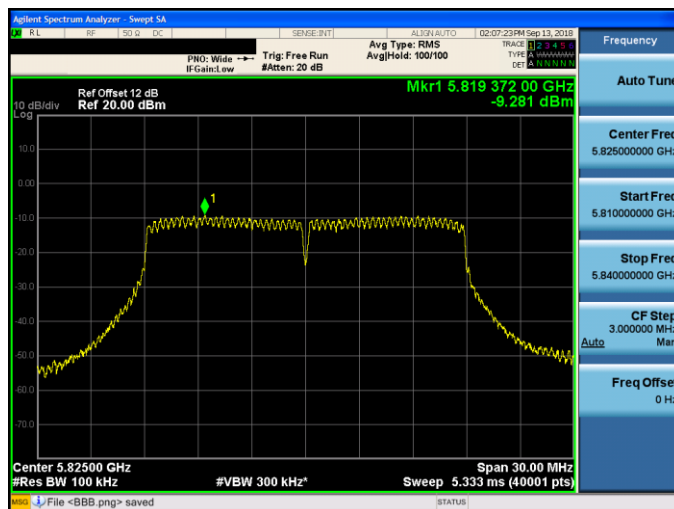
5745 MHz



5785 MHz

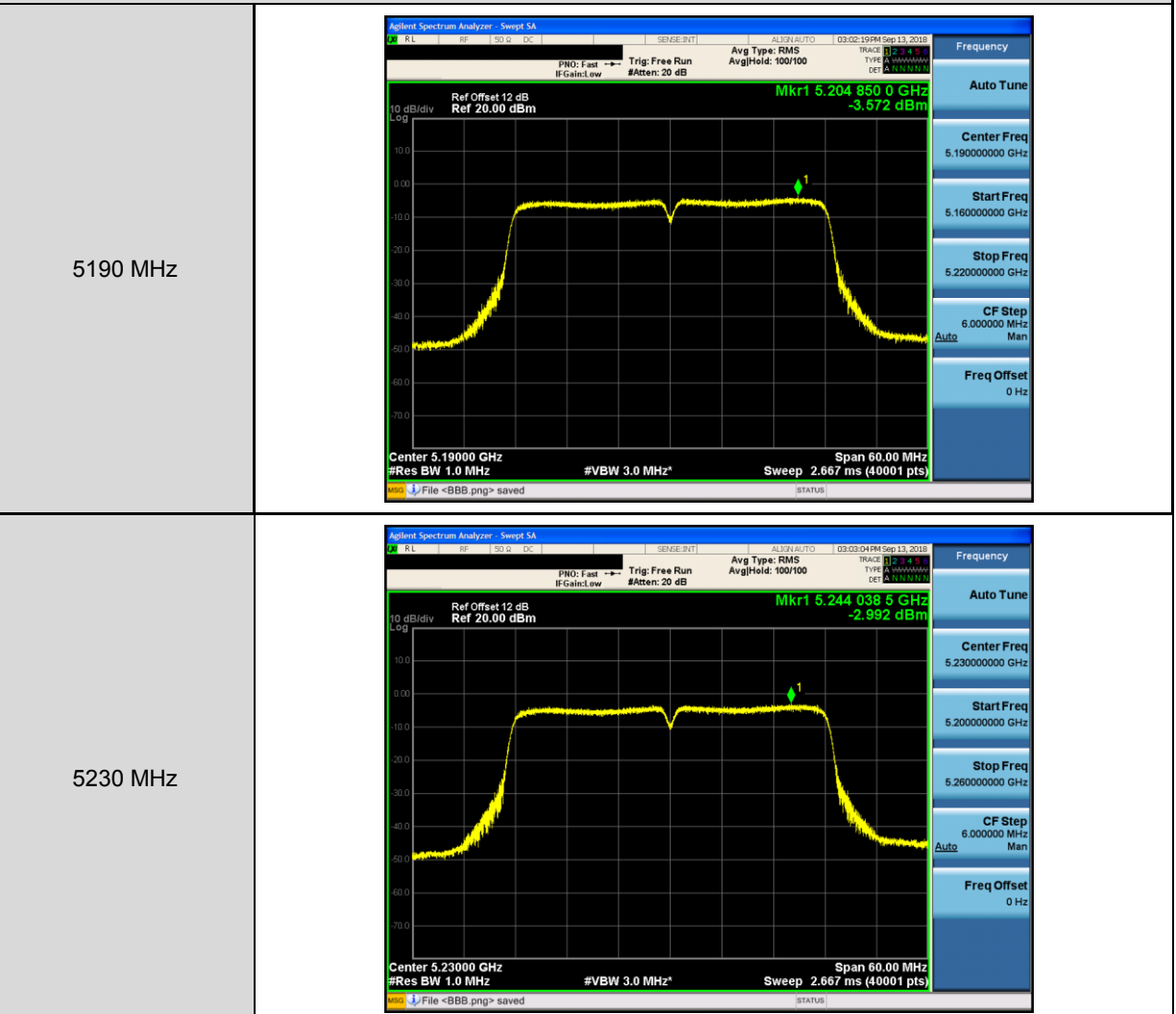


5825 MHz





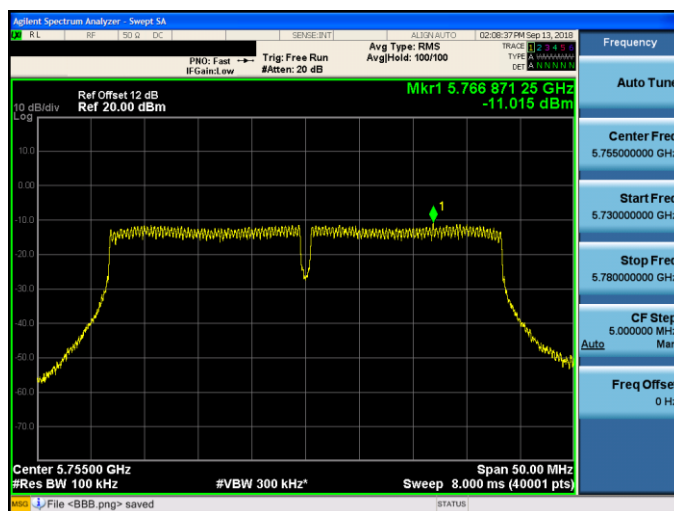
Mode 4: IEEE 802.11ac 40 MHz Continuous TX mode_ANT-1



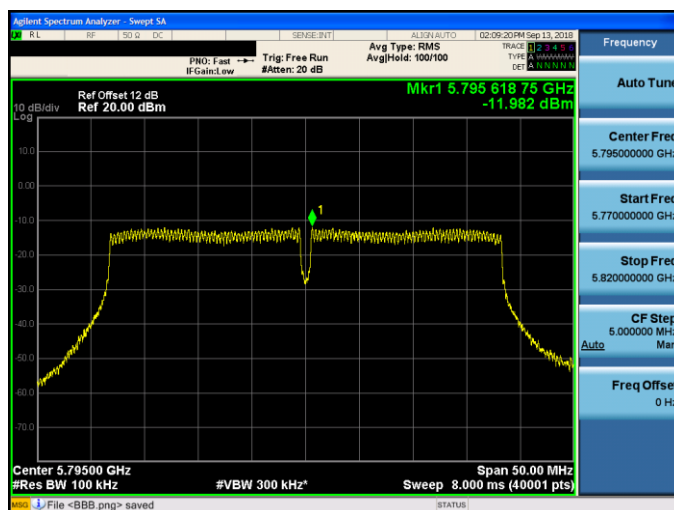


Mode 4: IEEE 802.11ac 40 MHz Continuous TX mode_ANT-1

5755 MHz



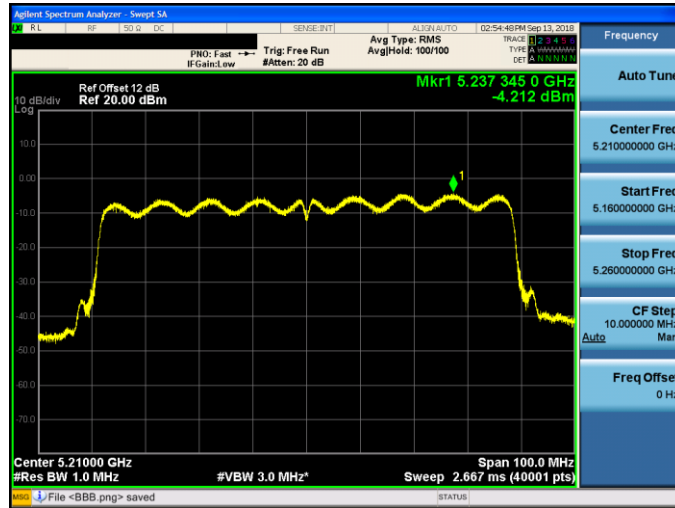
5795 MHz





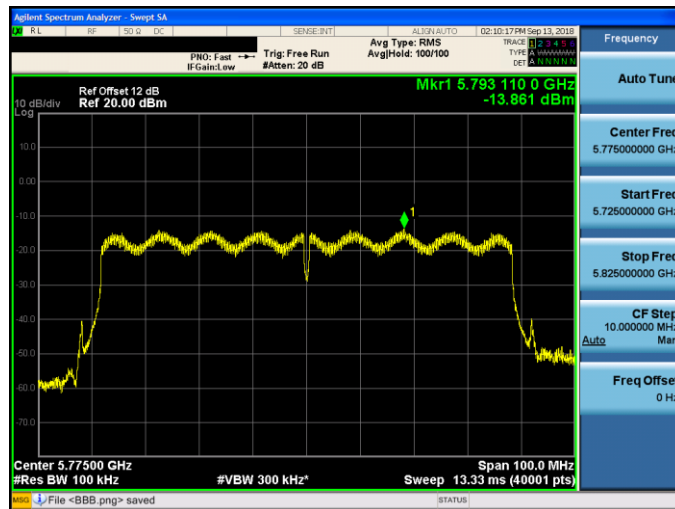
Mode 5: IEEE 802.11ac 80 MHz Continuous TX mode _ ANT-1

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)
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	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)
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		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.