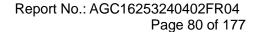


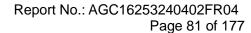


Test Data of Conducted Output Power Density for band 5.15-5.25 GHz-ANT 2				
Test Mode	Test Channel (MHz)	Average Power Density (dBm/MHz)	Limits (dBm/MHz)	Pass or Fail
	5180	7.674	11	Pass
802.11a	5200	7.425	11	Pass
	5240	9.258	11	Pass
	5180	6.517	11	Pass
802.11n20	5200	7.674	11	Pass
	5240	7.957	11	Pass
902 11 - 10	5190	4.900	11	Pass
802.11n40	5230	5.577	11	Pass
	5180	6.881	11	Pass
802.11ac20	5200	7.370	11	Pass
	5240	7.831	11	Pass
802.11ac40	5190	4.665	11	Pass
	5230	5.340	11	Pass
802.11ac80	5210	3.306	11	Pass



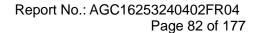


Test Data of Conducted Output Power Density for band 5.725-5.85 GHz-ANT 1					
Test Mode	Test Channel (MHz)	Average Power Density (dBm/100kHz)	Average Power Density (dBm/500kHz)	Limits (dBm/500kHz)	Pass or Fail
	5745	1.008	7.998	30	Pass
802.11a	5785	1.760	8.750	30	Pass
	5825	2.672	9.662	30	Pass
	5745	0.279	7.269	30	Pass
802.11n20	5785	2.224	9.214	30	Pass
	5825	2.823	9.813	30	Pass
802.11n40	5755	-1.308	5.682	30	Pass
802.111140	5795	-0.728	6.262	30	Pass
	5745	0.417	7.407	30	Pass
802.11ac20	5785	2.123	9.113	30	Pass
	5825	3.405	10.395	30	Pass
802.11ac40	5755	1.820	8.810	30	Pass
	5795	0.058	7.048	30	Pass
802.11ac80	5775	-2.732	4.258	30	Pass



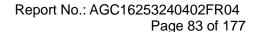


Test Data of Conducted Output Power Density for band 5.725-5.85 GHz-ANT 2					
Test Mode	Test Channel (MHz)	Average Power Density (dBm/100kHz)	Average Power Density (dBm/500kHz)	Limits (dBm/500kHz)	Pass or Fail
	5745	-0.405	6.585	30	Pass
802.11a	5785	-2.024	4.966	30	Pass
	5825	-2.517	4.473	30	Pass
	5745	-0.925	6.065	30	Pass
802.11n20	5785	-3.489	3.501	30	Pass
	5825	-1.905	5.085	30	Pass
000 44 = 40	5755	-2.637	4.353	30	Pass
802.11n40	5795	-5.395	1.595	30	Pass
	5745	-0.224	6.766	30	Pass
802.11ac20	5785	-1.628	5.362	30	Pass
	5825	-1.307	5.683	30	Pass
802.11ac40	5755	-2.385	4.605	30	Pass
002.118040	5795	-4.007	2.983	30	Pass
802.11ac80	5775	0.862	7.852	30	Pass





Test Data of Conducted Output Power Density for band 5.15-5.25 GHz-MIMO					
Test Mode	Test Channel (MHz)	Average Power Density (dBm/MHz)	Limits (dBm/MHz)	Pass or Fail	
	5180	9.12	11	Pass	
802.11n20	5200	8.93	11	Pass	
	5240	10.63	11	Pass	
802.11n40	5190	7.96	11	Pass	
002.111140	5230	8.99	11	Pass	
	5180	9.43	11	Pass	
802.11ac20	5200	6.17	11	Pass	
	5240	6.87	11	Pass	
902 110040	5190	8.50	11	Pass	
802.11ac40	5230	8.78	11	Pass	
802.11ac80	5210	9.32	11	Pass	

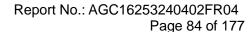




Test Data of Conducted Output Power Density for band 5.725-5.85 GHz-MIMO					
Test Mode	Test Channel (MHz)	Average Power Density (dBm/100kHz)	Average Power Density (dBm/500kHz)	Limits (dBm/500kHz)	Pass or Fail
	5745	2.73	9.72	30	Pass
802.11n20	5785	3.26	10.25	30	Pass
	5825	4.08	11.07	30	Pass
802.11n40	5755	1.09	8.08	30	Pass
002.111140	5795	0.55	7.54	30	Pass
	5745	3.12	10.11	30	Pass
802.11ac20	5785	3.65	10.64	30	Pass
	5825	4.67	11.66	30	Pass
802.11ac40	5755	3.22	10.21	30	Pass
	5795	1.49	8.48	30	Pass
802.11ac80	5775	2.44	9.43	30	Pass

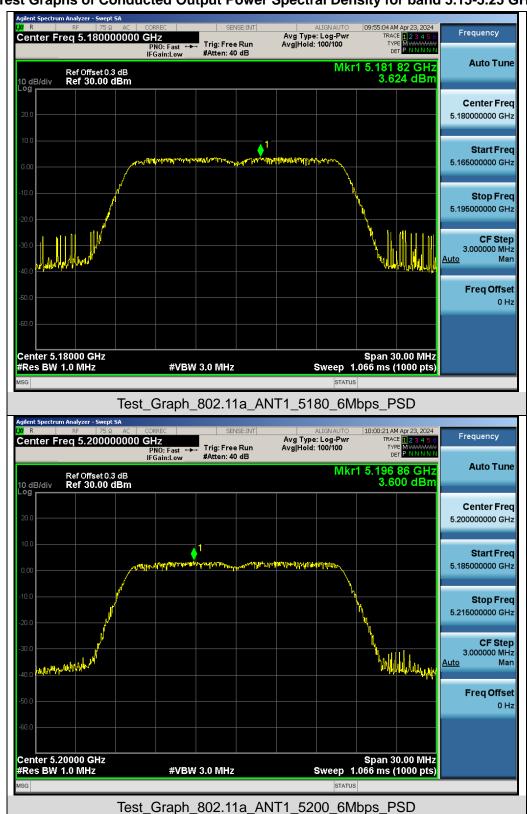
Note:1.Power density(dBm/500kHz) = Power density(dBm/100kHz)+10*log(500/100).

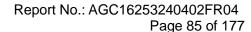
- 2. The Total PSD(dBm/500kHz) = $10*\log \{10^{(Ant \ 1 \ PSD/10)} + 10^{(Ant \ 2 \ PSD/10)}\}(dBm/500kHz)$.
- 3. The factor had been edited in the "Input" of the Spectrum Analyzer.



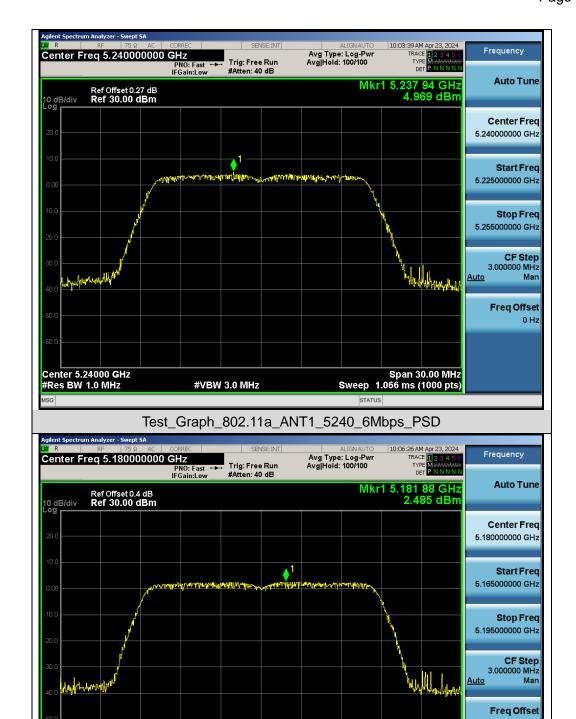


Test Graphs of Conducted Output Power Spectral Density for band 5.15-5.25 GHz









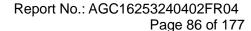
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Test Graph 802.11n20 ANT1 5180 MCS0 PSD

#VBW 3.0 MHz

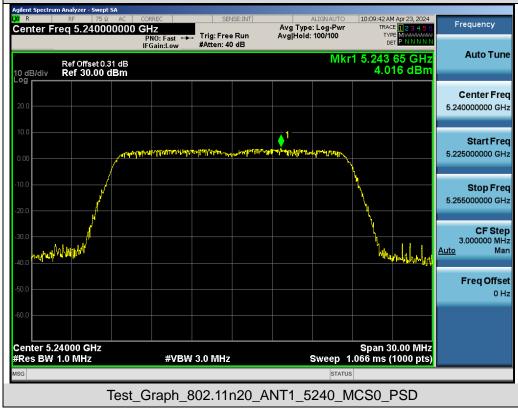
Span 30.00 MHz Sweep 1.066 ms (1000 pts)

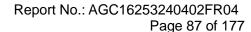
Center 5.18000 GHz #Res BW 1.0 MHz













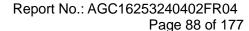


Test Graph 802.11n40 ANT1 5230 MCS0 PSD

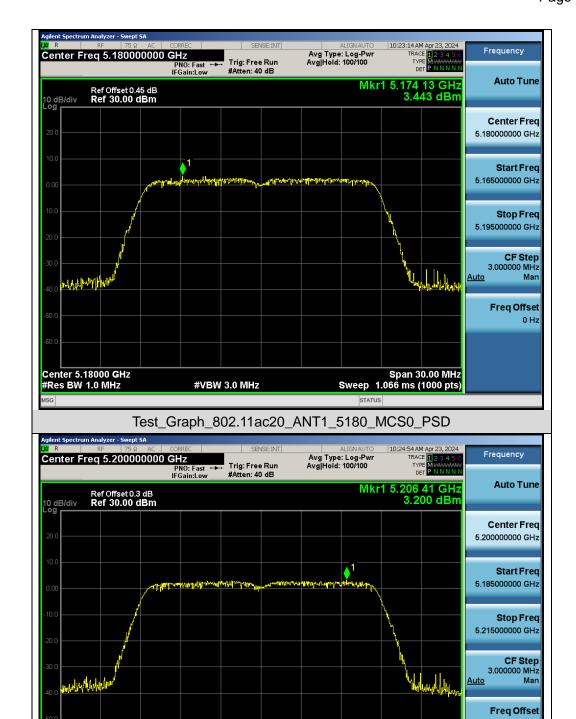
#VBW 3.0 MHz

Span 60.00 MHz Sweep 1.066 ms (1000 pts)

Center 5.23000 GHz #Res BW 1.0 MHz







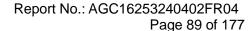
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Test Graph 802.11ac20 ANT1 5200 MCS0 PSD

#VBW 3.0 MHz

Span 30.00 MHz Sweep 1.066 ms (1000 pts)

Center 5.20000 GHz #Res BW 1.0 MHz

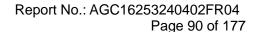




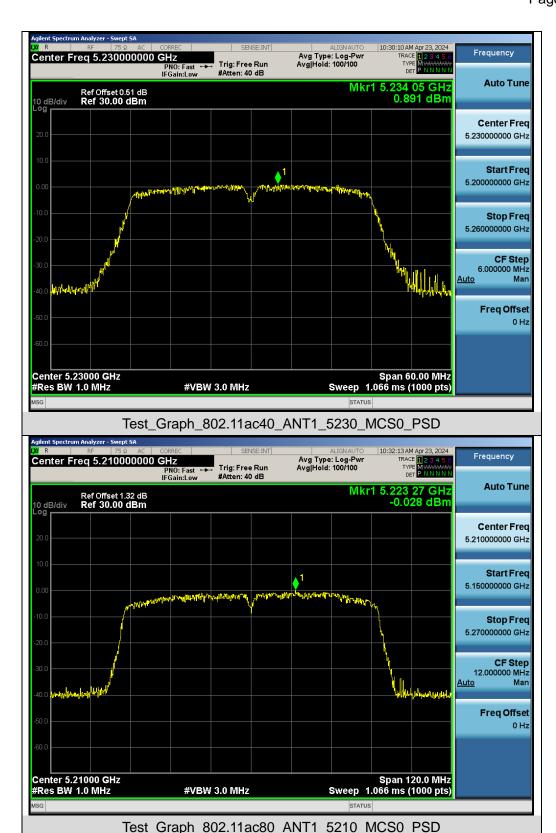


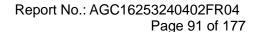
Test Graph 802.11ac40 ANT1 5190 MCS0 PSD

#VBW 3.0 MHz

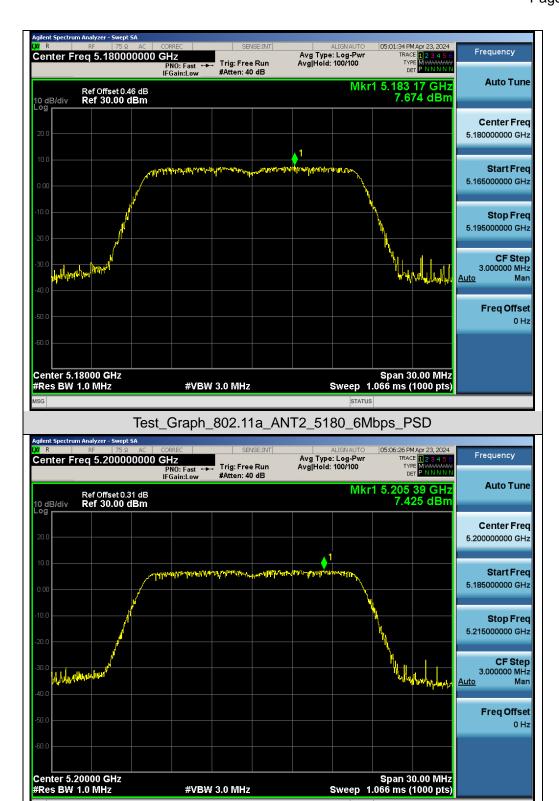




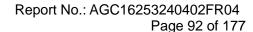




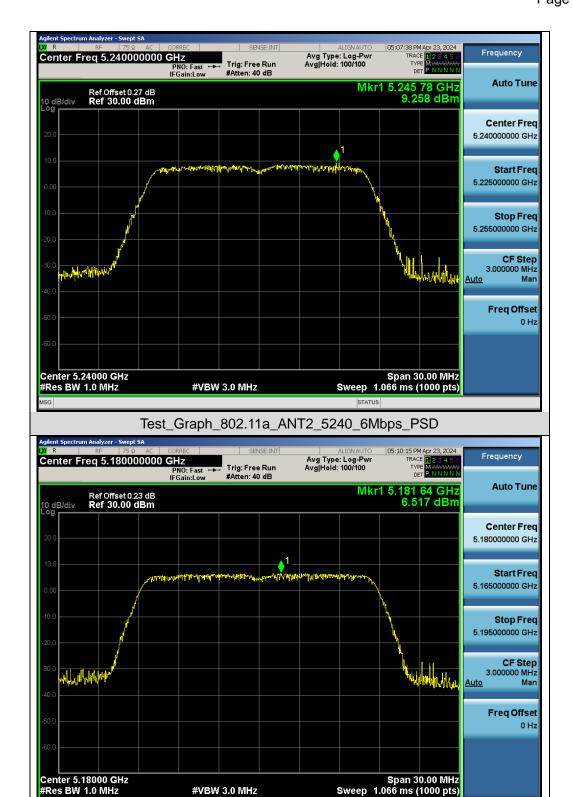




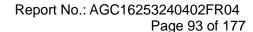
Test Graph 802.11a ANT2 5200 6Mbps PSD







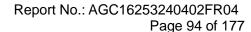
Test Graph 802.11n20 ANT2 5180 MCS0 PSD







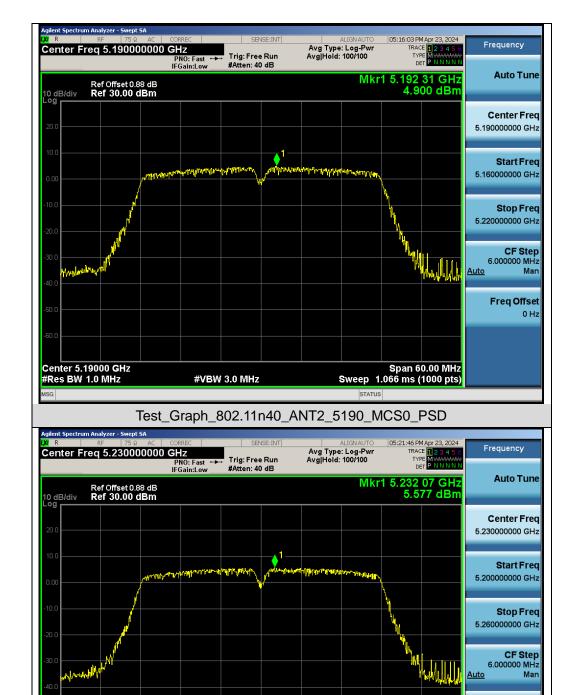




Freq Offset

Span 60.00 MHz Sweep 1.066 ms (1000 pts)



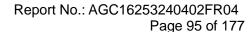


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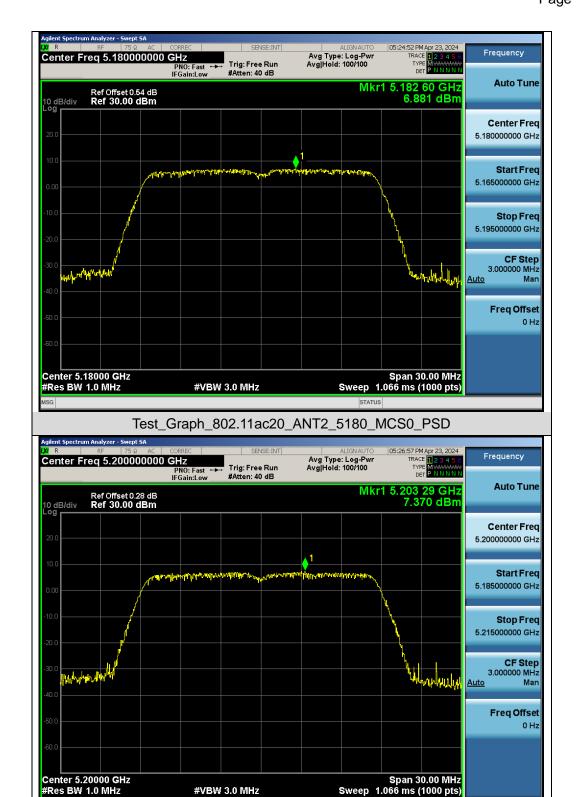
Test Graph 802.11n40 ANT2 5230 MCS0 PSD

#VBW 3.0 MHz

Center 5.23000 GHz #Res BW 1.0 MHz

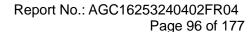




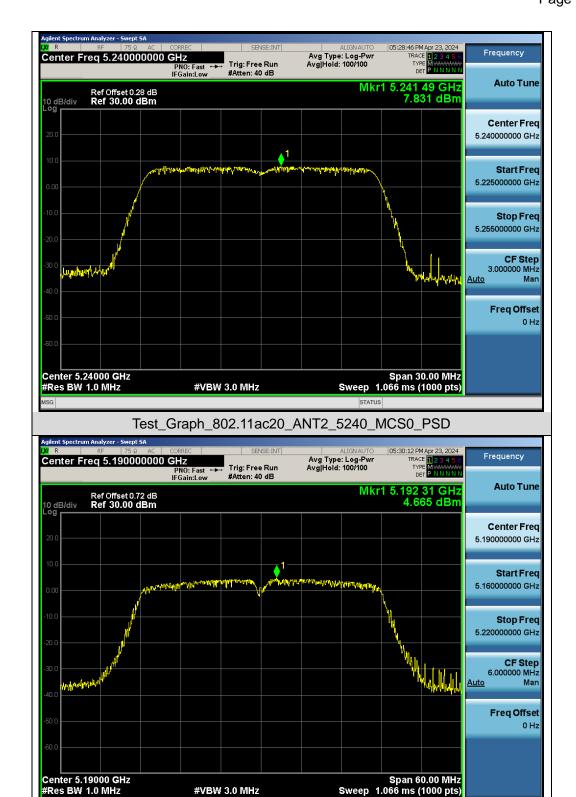


Test Graph 802.11ac20 ANT2 5200 MCS0 PSD

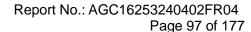
#VBW 3.0 MHz



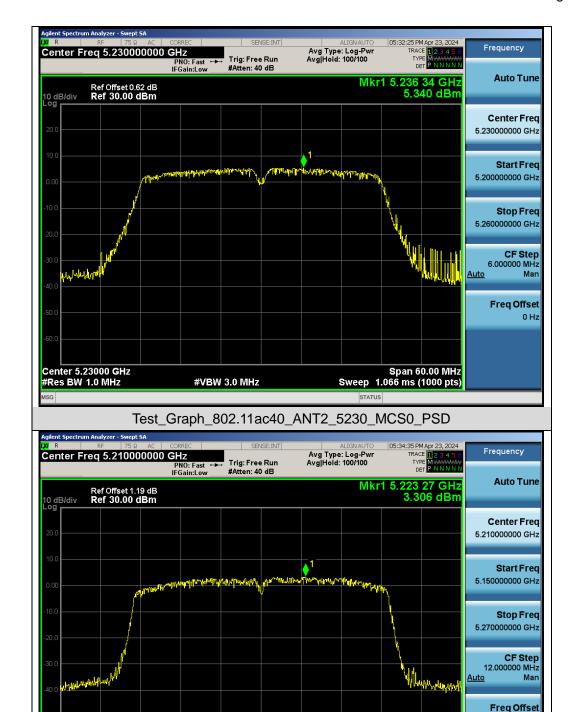




Test Graph 802.11ac40 ANT2 5190 MCS0 PSD







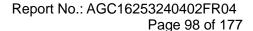
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Test Graph 802.11ac80 ANT2 5210 MCS0 PSD

#VBW 3.0 MHz

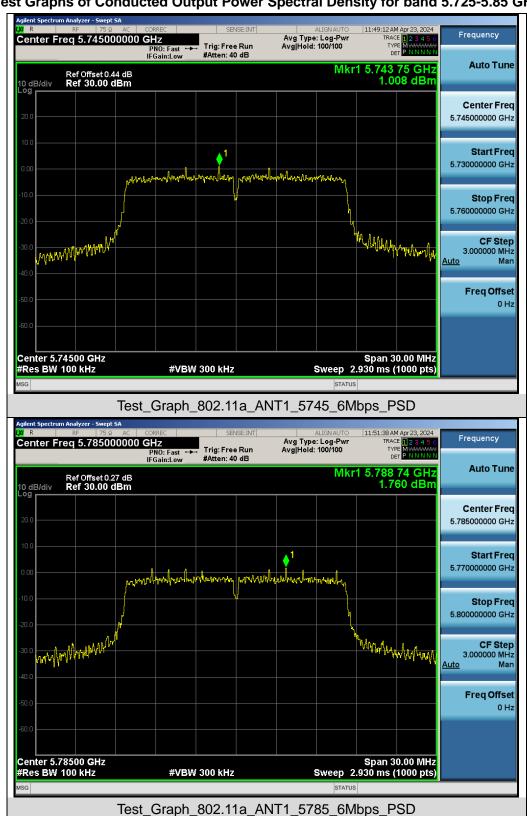
Span 120.0 MHz Sweep 1.066 ms (1000 pts)

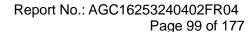
Center 5.21000 GHz #Res BW 1.0 MHz



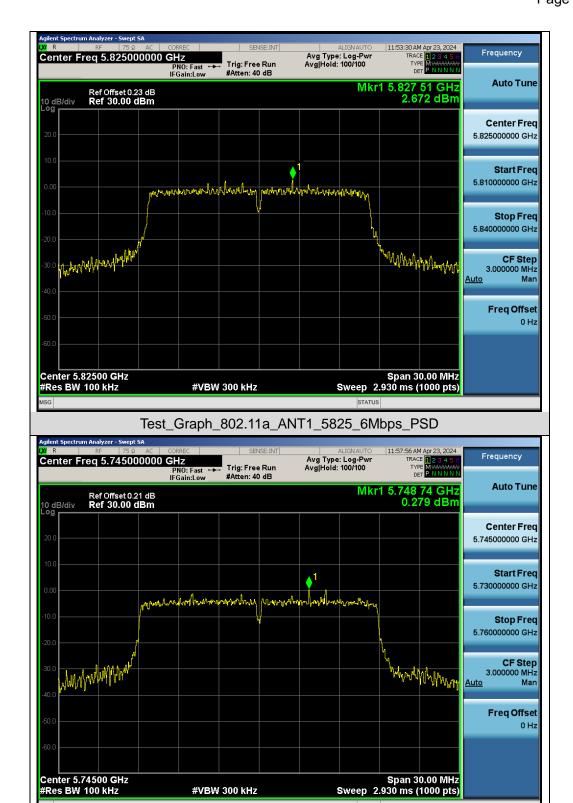


Test Graphs of Conducted Output Power Spectral Density for band 5.725-5.85 GHz

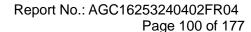




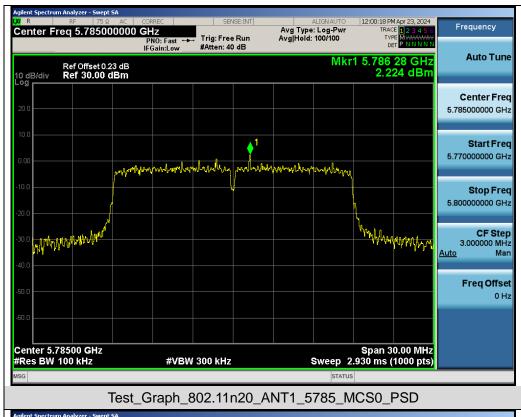


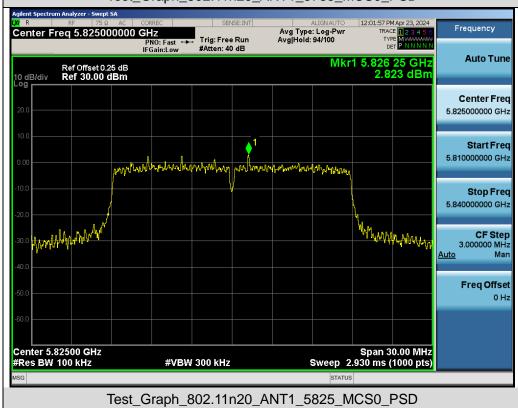


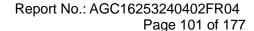
Test Graph 802.11n20 ANT1 5745 MCS0 PSD



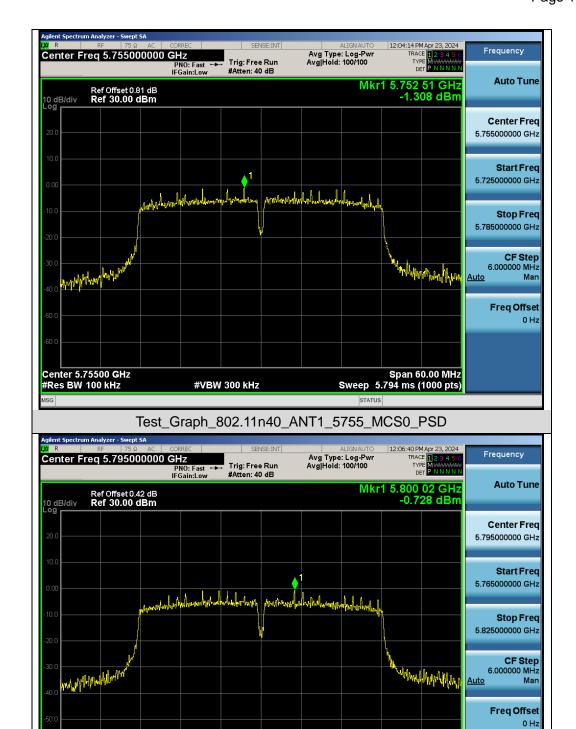












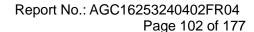
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Test Graph 802.11n40 ANT1 5795 MCS0 PSD

#VBW 300 kHz

Span 60.00 MHz Sweep 5.794 ms (1000 pts)

Center 5.79500 GHz #Res BW 100 kHz







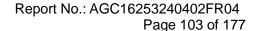
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Test Graph 802.11ac20 ANT1 5785 MCS0 PSD

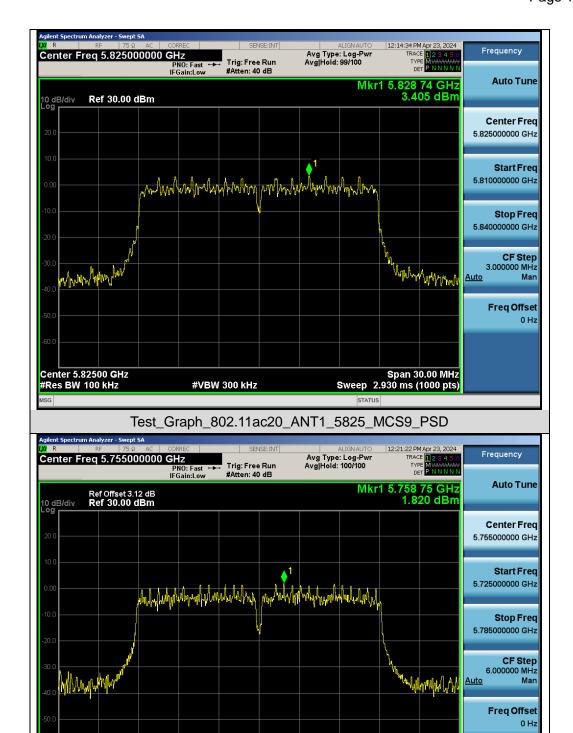
#VBW 300 kHz

Span 30.00 MHz Sweep 2.930 ms (1000 pts)

Center 5.78500 GHz #Res BW 100 kHz





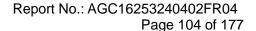


Test Graph 802.11ac40 ANT1 5755 MCS9 PSD

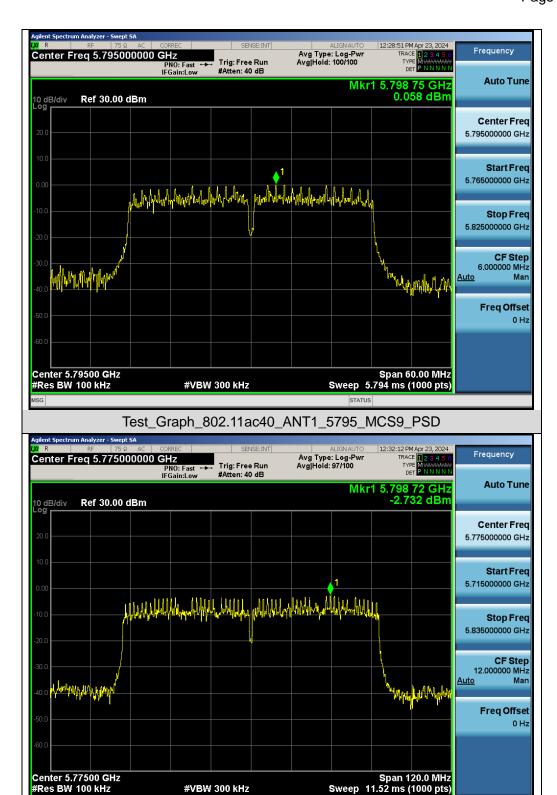
#VBW 300 kHz

Span 60.00 MHz Sweep 5.794 ms (1000 pts)

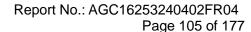
Center 5.75500 GHz #Res BW 100 kHz



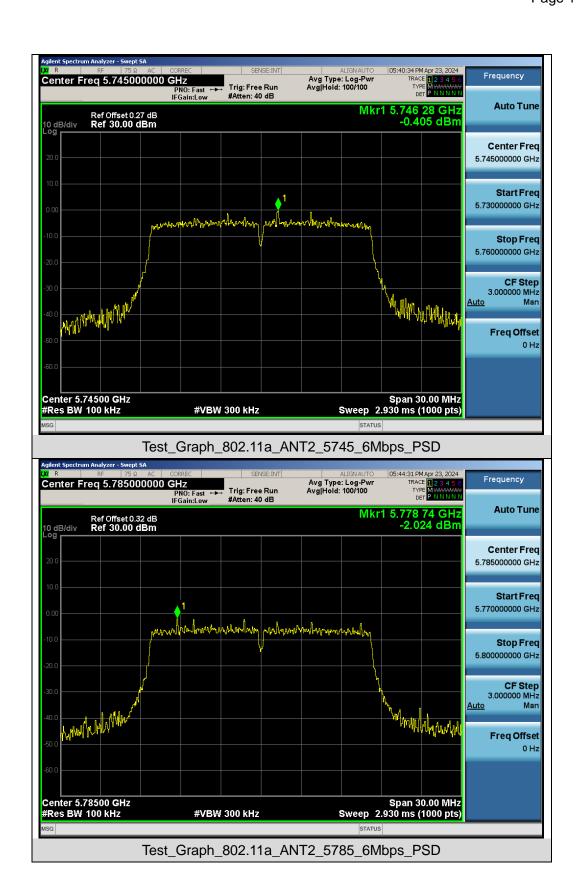


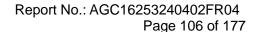


Test Graph 802.11ac80 ANT1 5775 MCS9 PSD









Freq Offset

Span 30.00 MHz Sweep 2.930 ms (1000 pts)



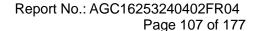


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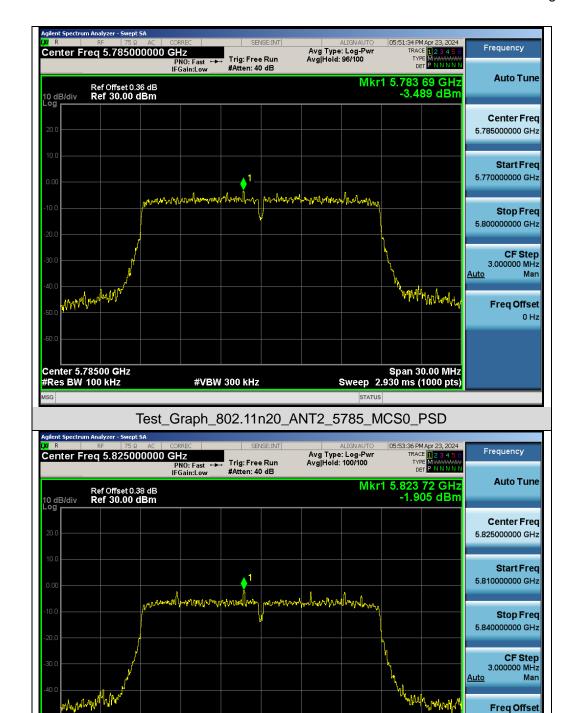
Test Graph 802.11n20 ANT2 5745 MCS0 PSD

#VBW 300 kHz

Center 5.74500 GHz #Res BW 100 kHz







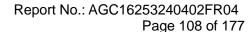
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Test Graph 802.11n20 ANT2 5825 MCS0 PSD

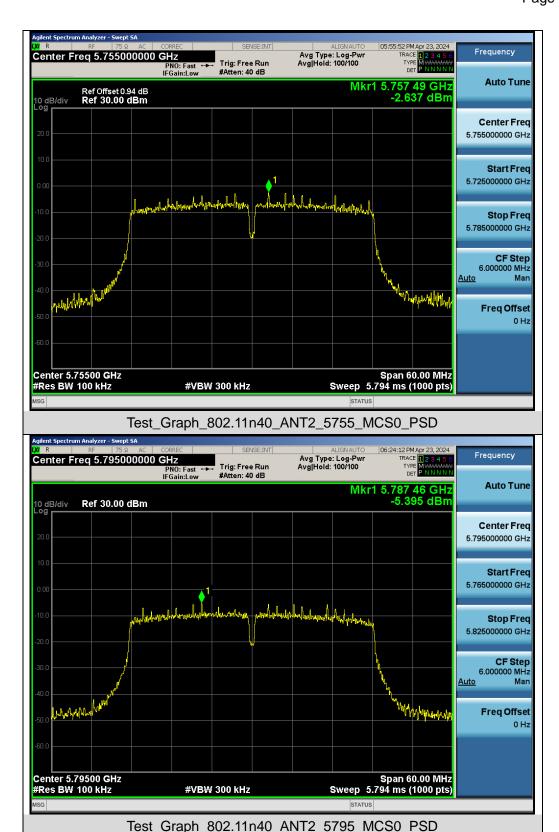
#VBW 300 kHz

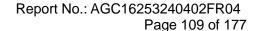
Span 30.00 MHz Sweep 2.930 ms (1000 pts)

Center 5.82500 GHz #Res BW 100 kHz



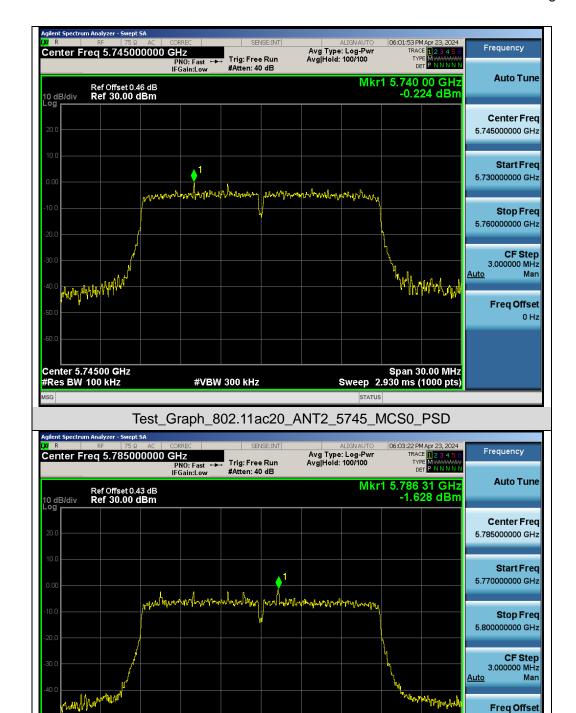






0 Hz





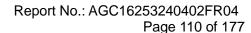
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Test Graph 802.11ac20 ANT2 5785 MCS0 PSD

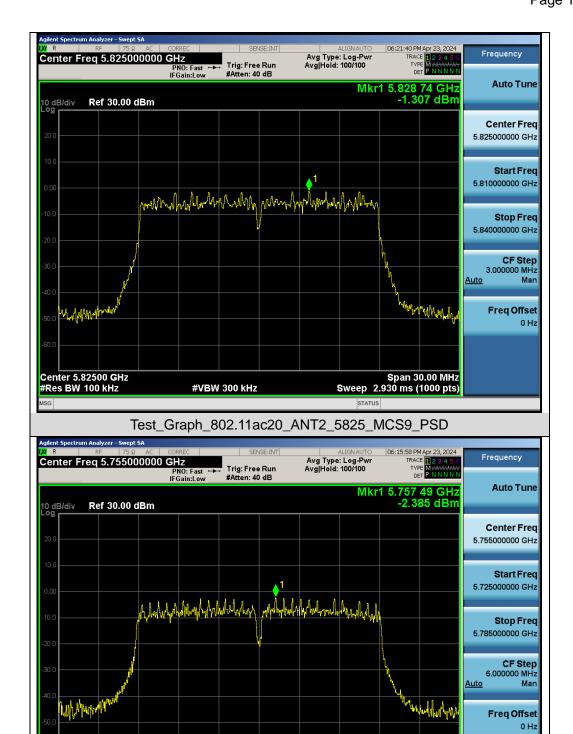
#VBW 300 kHz

Span 30.00 MHz Sweep 2.930 ms (1000 pts)

Center 5.78500 GHz #Res BW 100 kHz







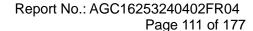
Any report having not been signed by authorized approver, or having been altered without authorization, or having not been stamped by the "Dedicated Testing/Inspection Stamp" is deemed to be invalid. Copying or excerpting portion of, or altering the content of the report is not permitted without the written authorization of AGC. The test results presented in the report apply only to the tested sample. Any objections to report issued by AGC should be submitted to AGC within 15days after the issuance of the test report. Further enquiry of validity or verification of the test report should be addressed to AGC by agc01@agccert.com.

Test Graph 802.11ac40 ANT2 5755 MCS9 PSD

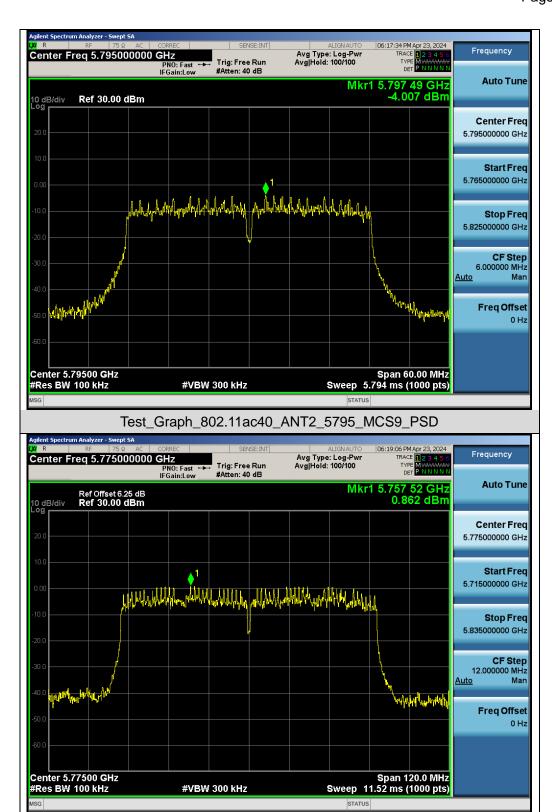
#VBW 300 kHz

Span 60.00 MHz Sweep 5.794 ms (1000 pts)

Center 5.75500 GHz #Res BW 100 kHz







Test Graph 802.11ac80 ANT2 5775 MCS9 PSD



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10. Conducted Band Edge and Out-of-Band Emissions

10.1 Provisions Applicable

	Applicable to	Limit		
Restricted	789033 D02 General UNII Test	Field strength at 3m (dBuV/m)		
bands	Procedures New Rules v02r01	PK: 74	AV: 54	
	Applicable to	EIRP Limit (dBm/MHz)	Equivalent field Strength at 3m (dBuV/m)	
Out of the	FCC 15.407(b)(1)	PK: -27	PK: 68.2	
restricted bands	15.407(b)(2)			
	15.407(b)(3)			
	15.407(b)(4)	See Note 2		

Note 1: The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

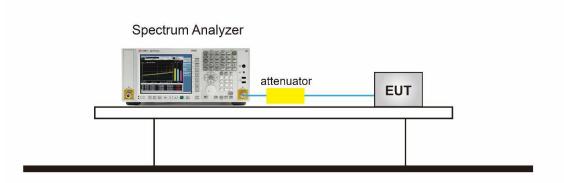
E =
$$\frac{1000000 \sqrt{30 P}}{2}$$
 µV/m, where P is the eirp (Watts).

Note 2: All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

10.2 Measurement Procedure

- 1. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
- 2. Set the EUT Work on the top, the Middle and the bottom operation frequency individually.
- 3. Set the Span = wide enough to capture the peak level of the in-band emission and all spurious emissions from the lowest frequency generated in the EUT up through the 10th harmonic.
- 4. RBW = 100 kHz; VBW= 300 kHz; Sweep = auto; Detector function = peak.(Test frequency below 1GHz)
- 5. RBW = 1 MHz; VBW= 3 MHz; Sweep = auto; Detector function = peak.(Test frequency Above 1GHz)
- 6. Set SPA Trace 1 Max hold, then View.
- 7. Mark the maximum useless stray point and compare it with the limit value to record the result.

10.3 Measurement Setup (Block Diagram of Configuration)



Any report havi g/Inspection

Stamp" is deemed to be invalid. Copying or excerpting portion of, or altering the content of the report is not permitted without the written authorization of AGC. The test results presented in the report apply only to the tested sample. Any objections to report issued by AGC should be submitted to AGC within 15days after the issuance of the test report. Further enquiry of validity or verification of the test report should be addressed to AGC by agc01@agccert.com.

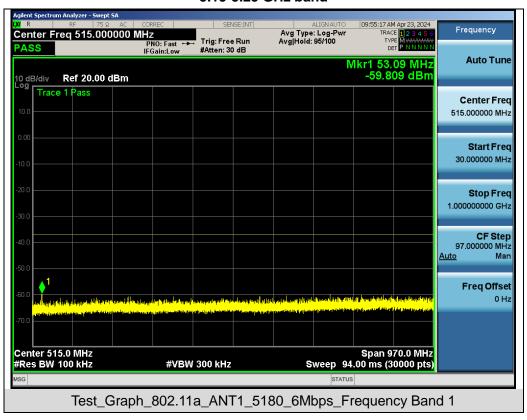


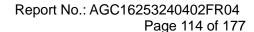


10.4 Measurement Results

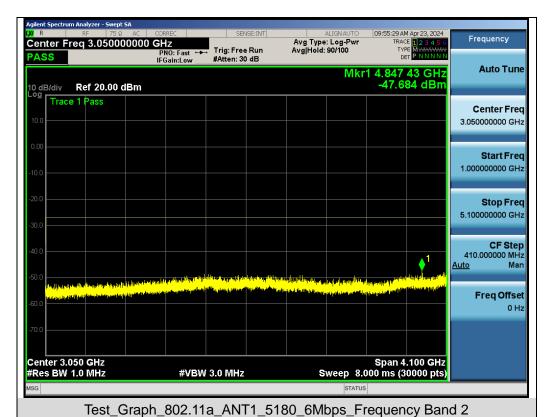
Note: The test data already includes the cable loss and antenna gain.

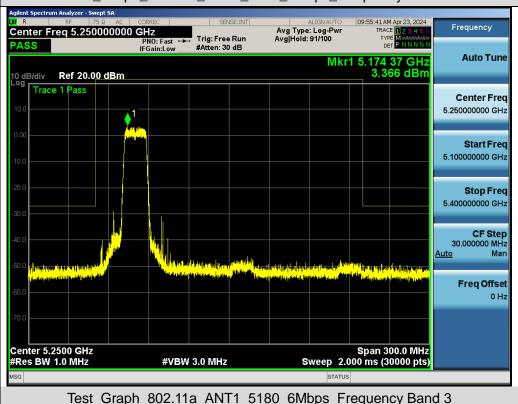
Test Graphs of Spurious Emissions outside of the 5.15-5.25 GHz band for transmitters operating in the 5.15-5.25 GHz band

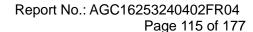






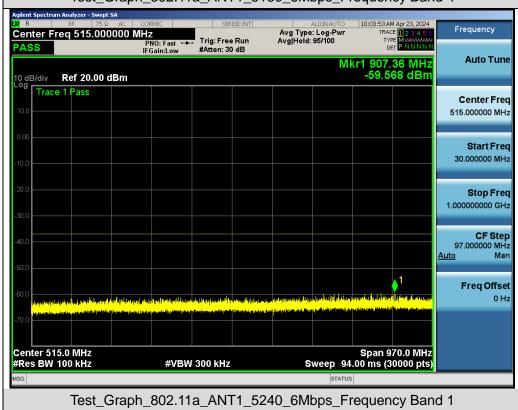


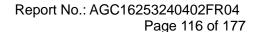






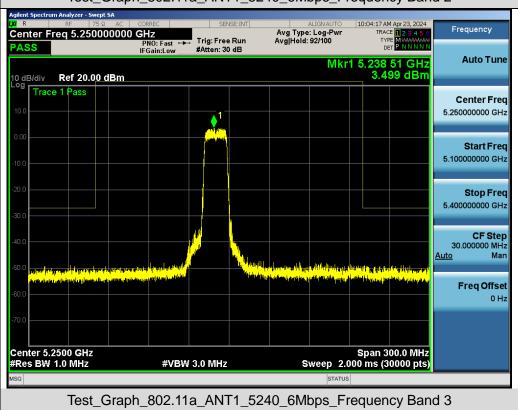


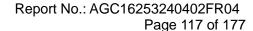




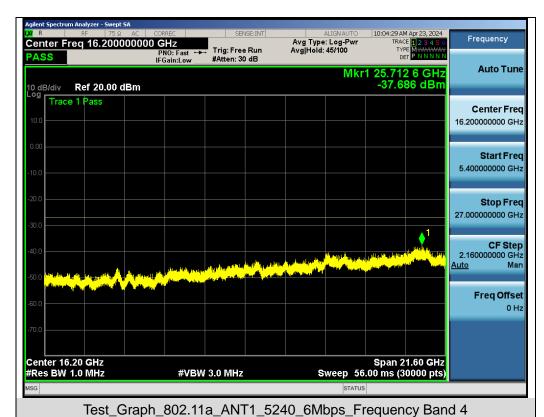


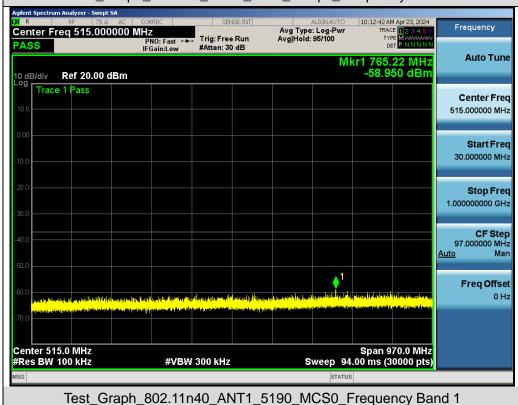


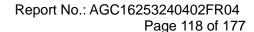




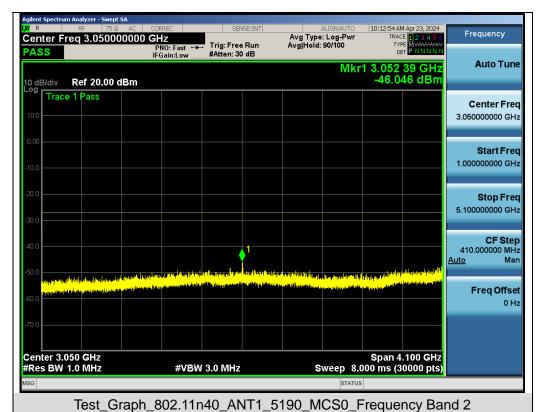


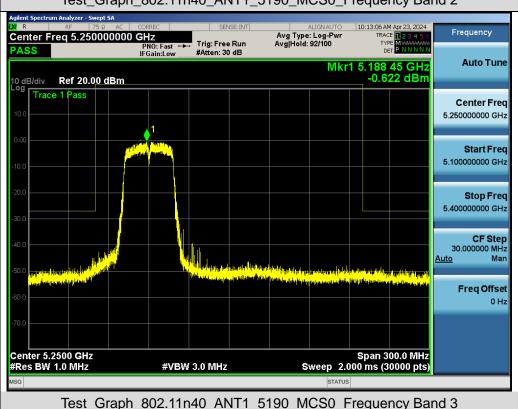


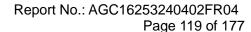




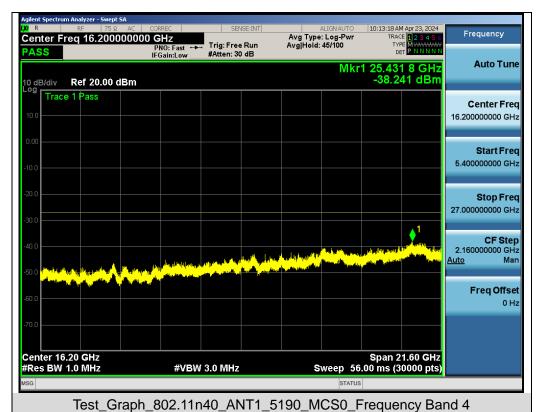


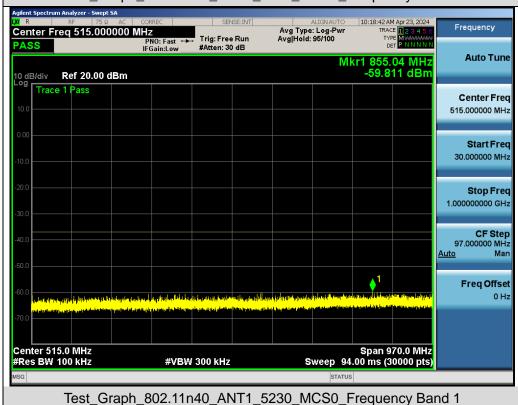


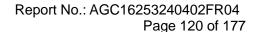






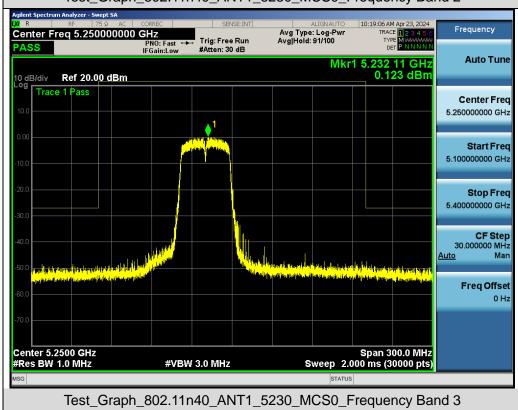


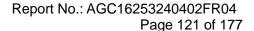




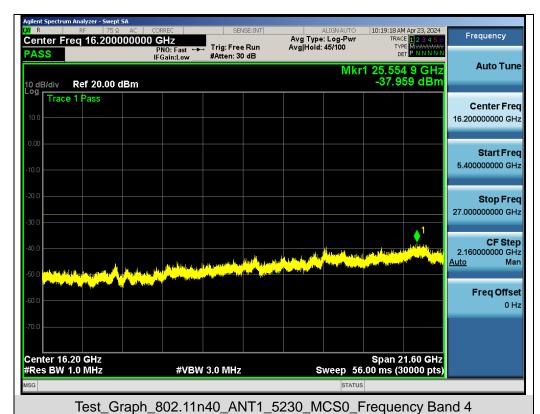


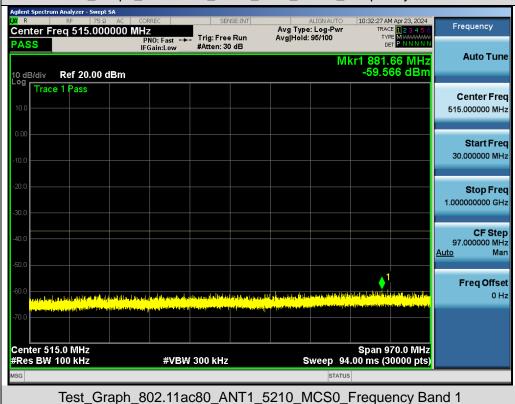


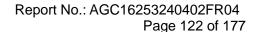




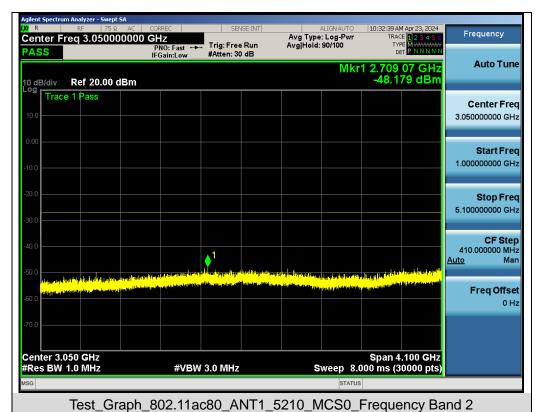


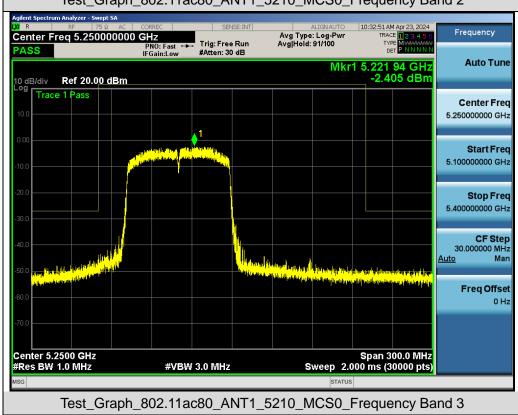


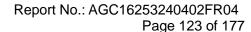




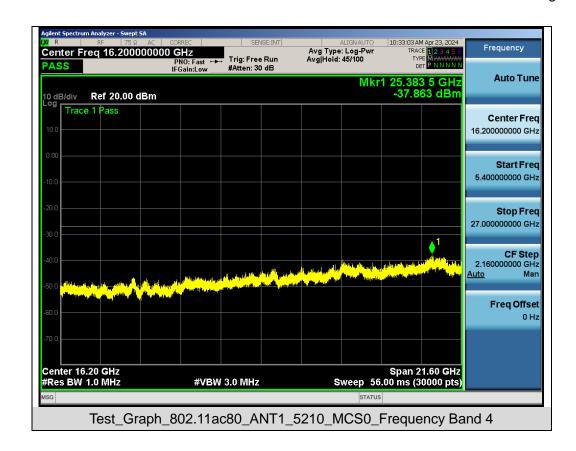


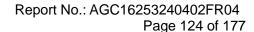




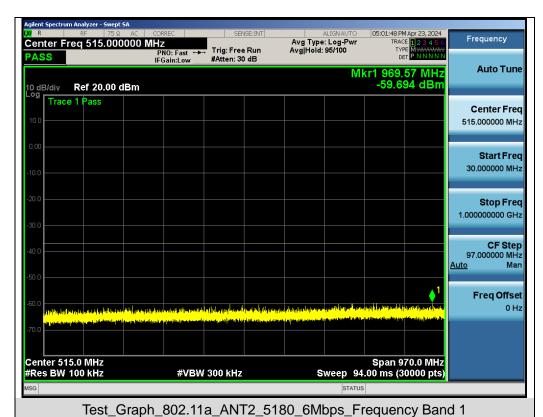




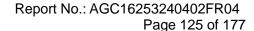




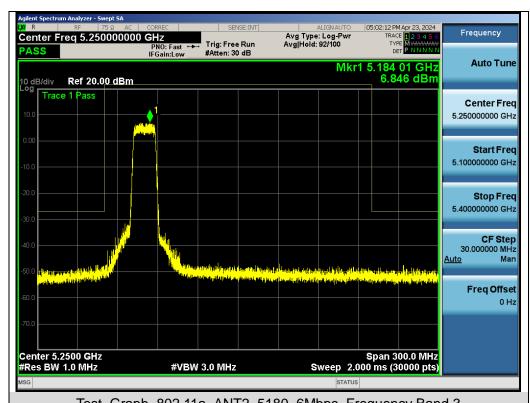


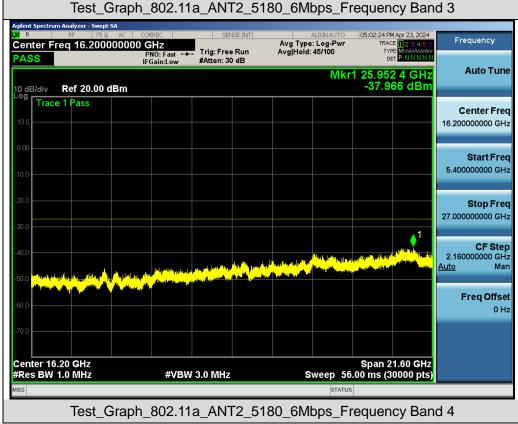


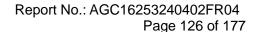




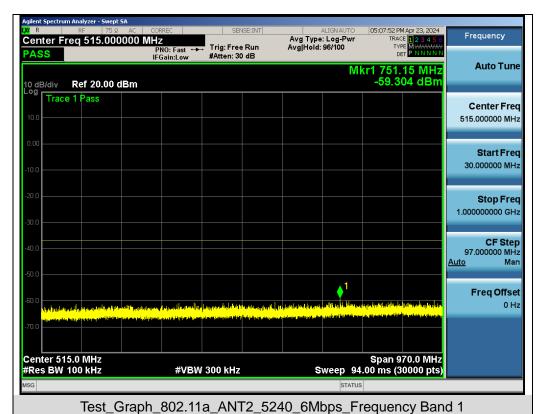


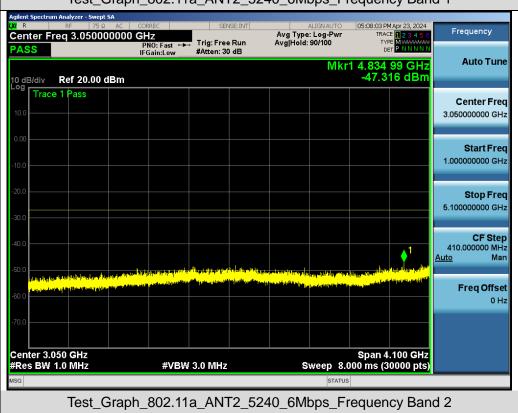


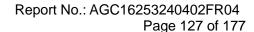




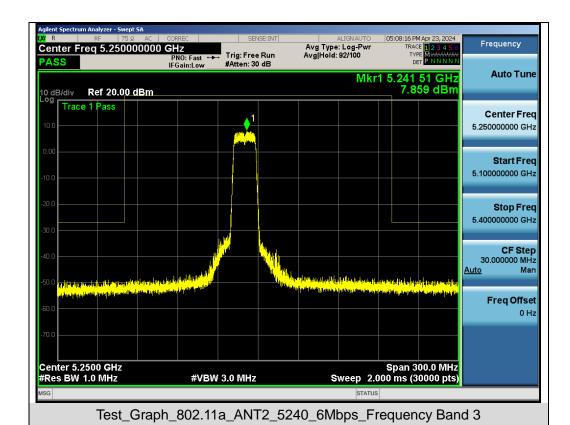








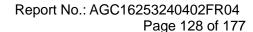




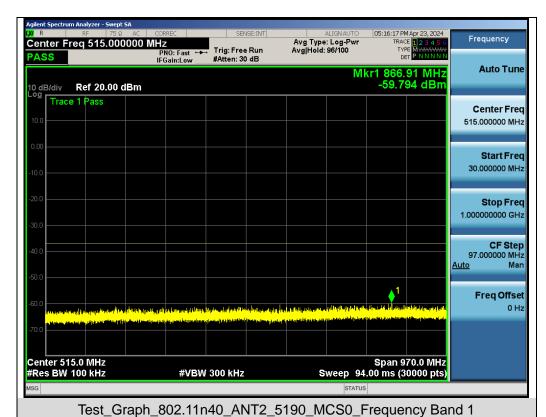


Test Graph 802.11a ANT2 5240 6Mbps Frequency Band 4

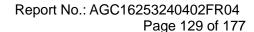
#VBW 3.0 MHz



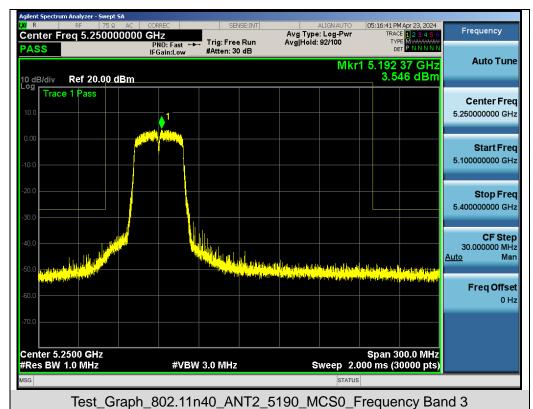


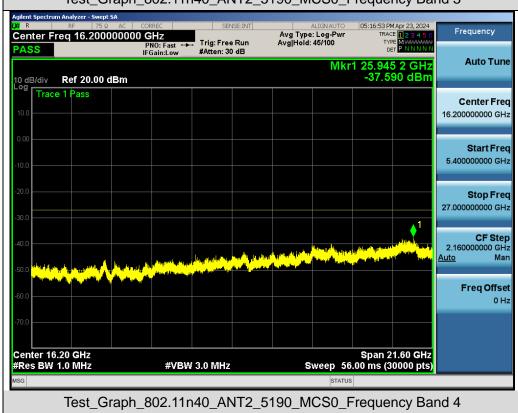


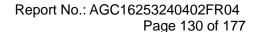




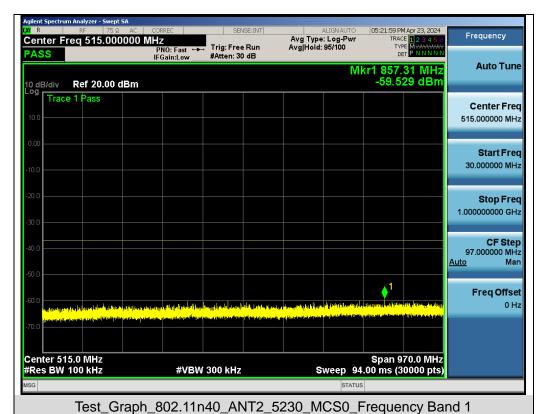




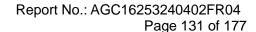




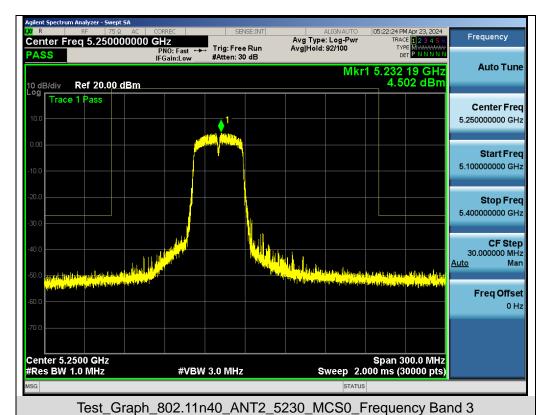




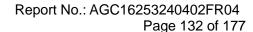




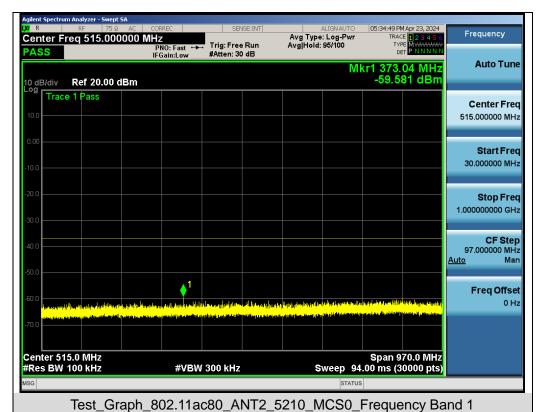




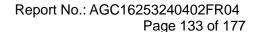




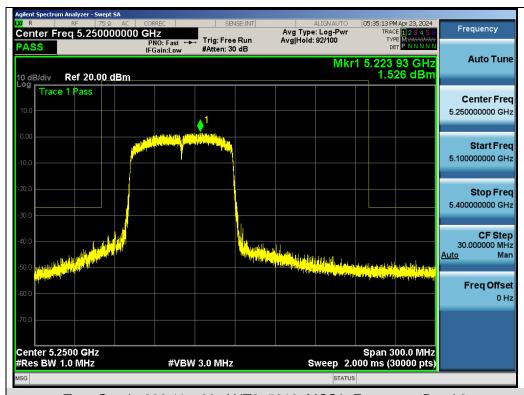


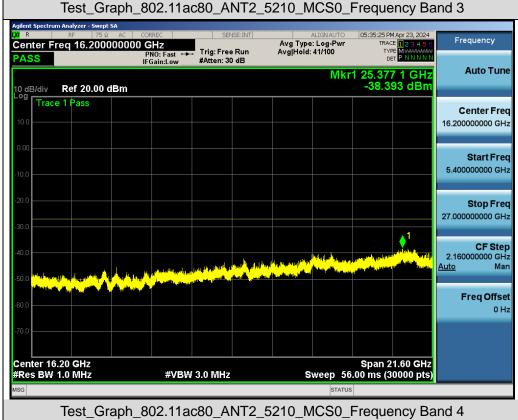


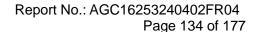






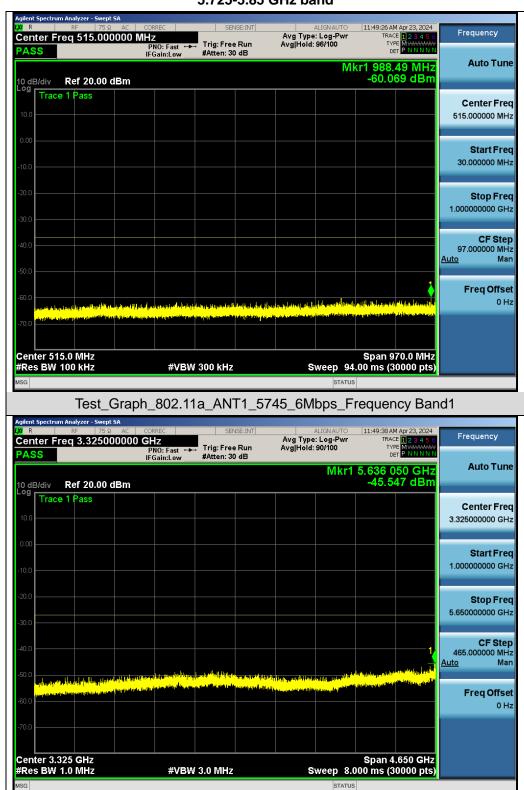


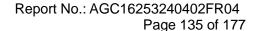




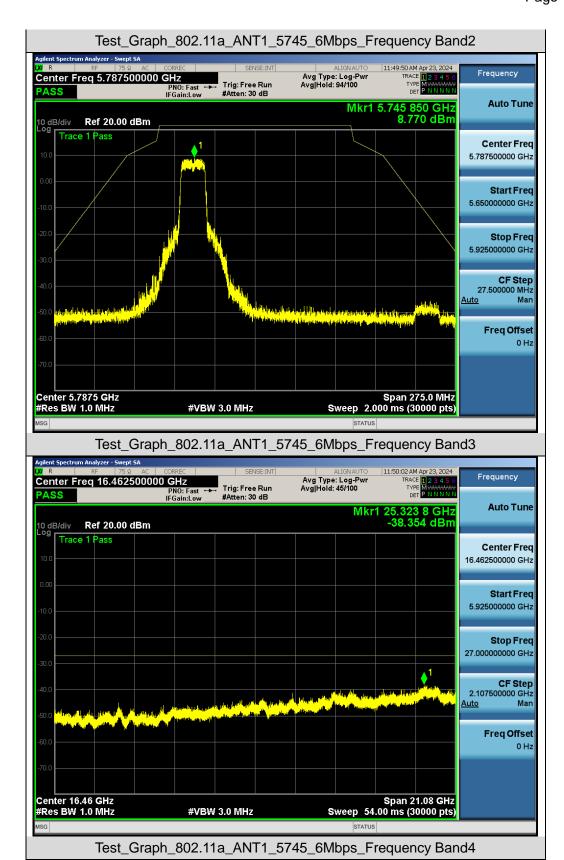


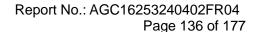
Test Graphs of Spurious Emissions outside of the 5.725-5.85 GHz band for transmitters operating in the 5.725-5.85 GHz band



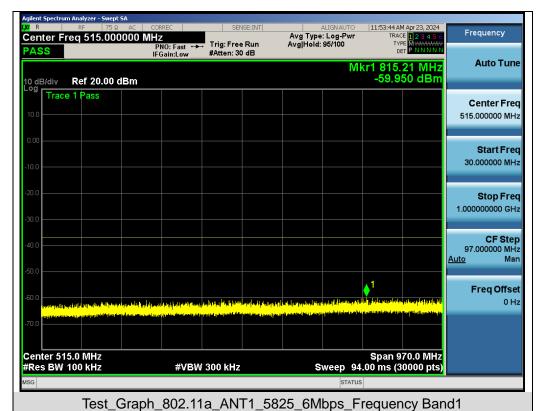






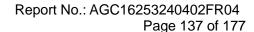




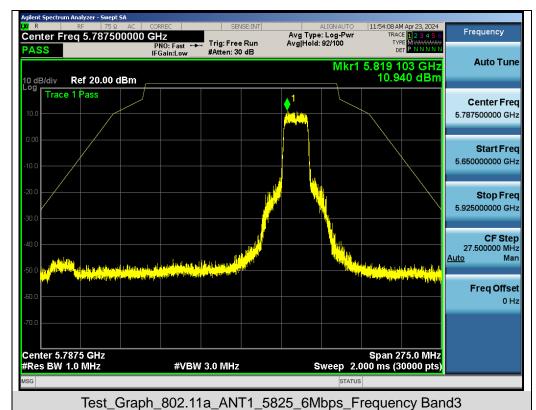




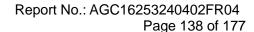
Tel: +86-755 2523 4088 E-mail: agc@agccert.com Web: http://www.agccert.com/



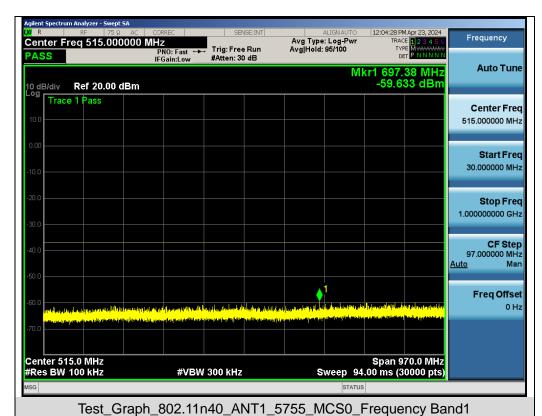




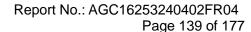




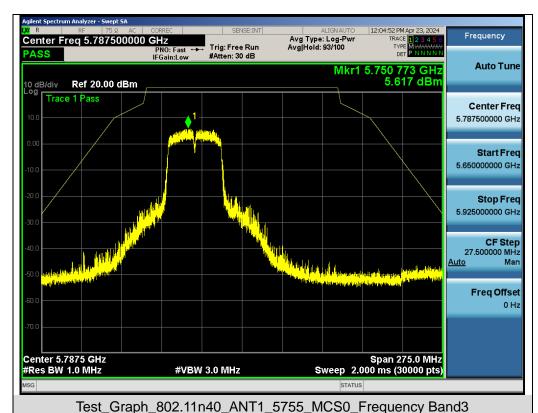


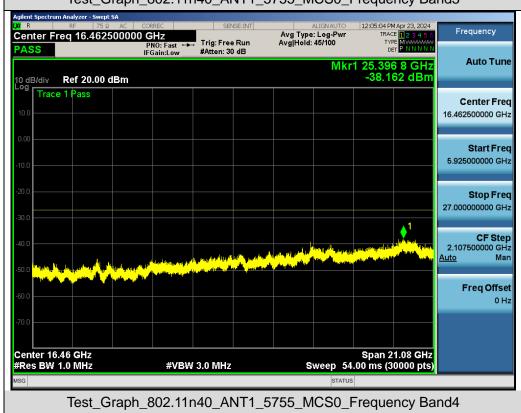


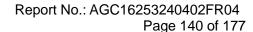




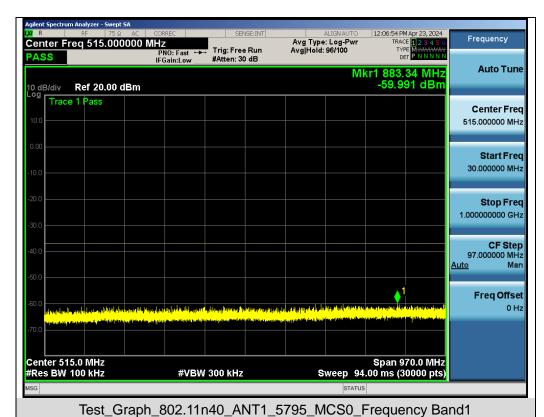




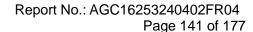




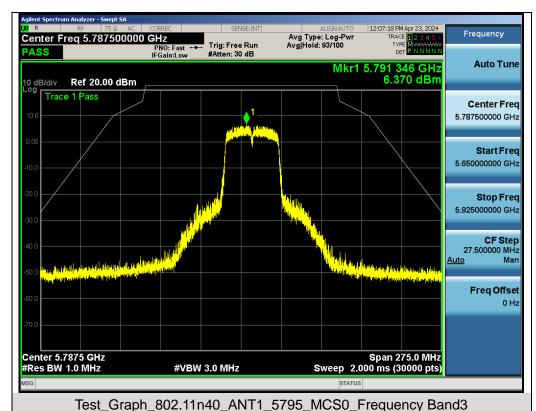


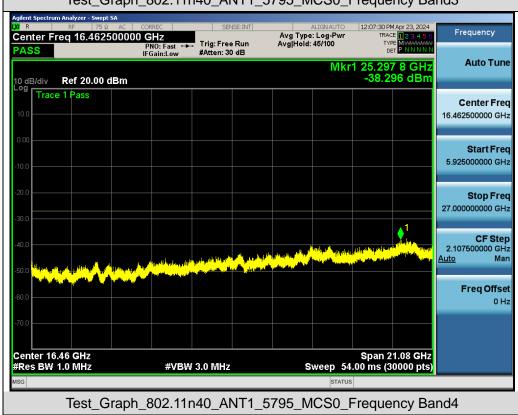


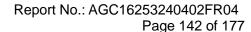




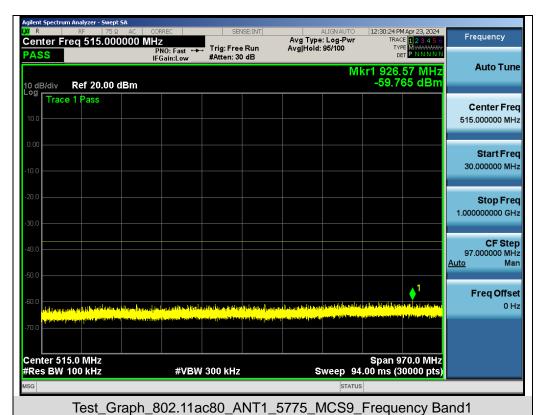




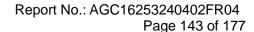




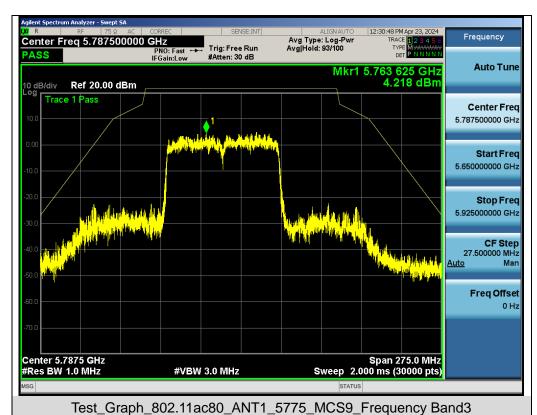




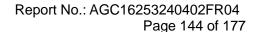




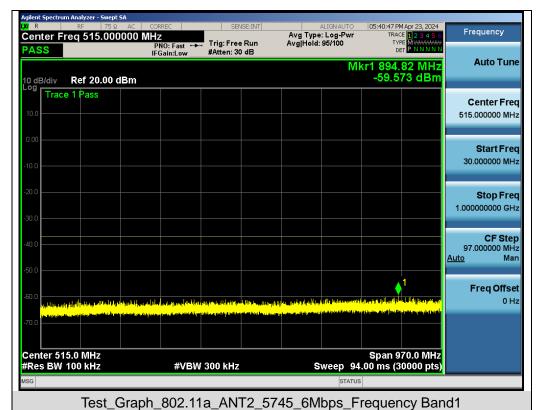




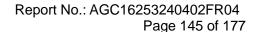




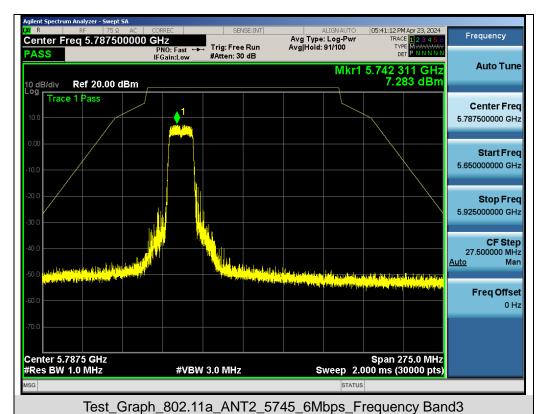




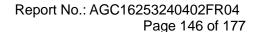




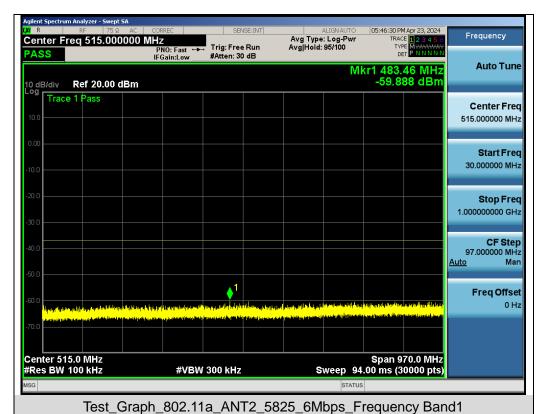




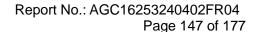




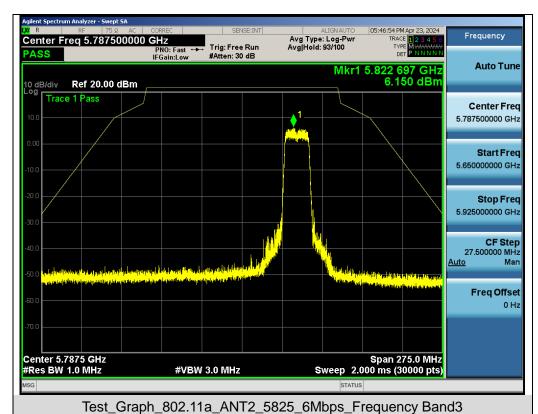


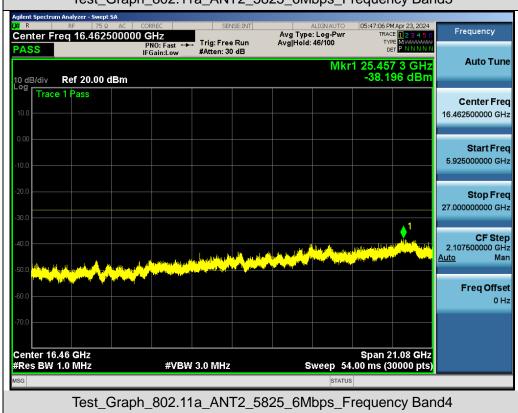


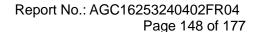




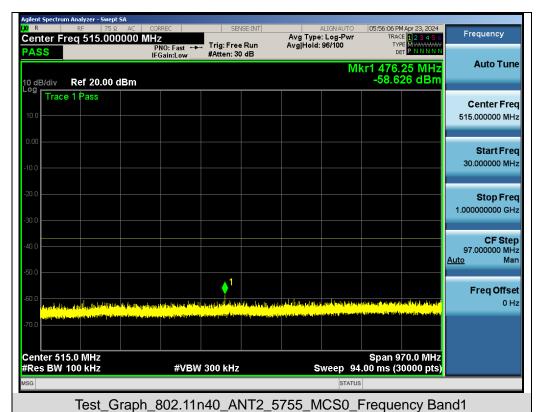




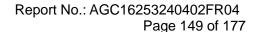




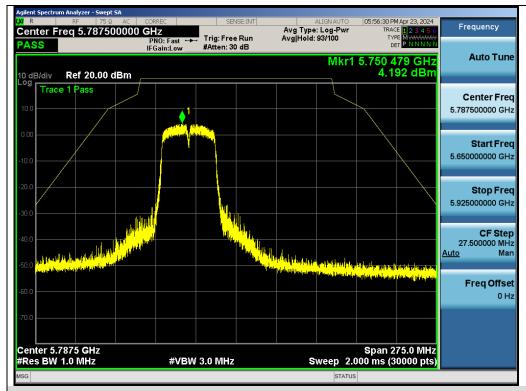


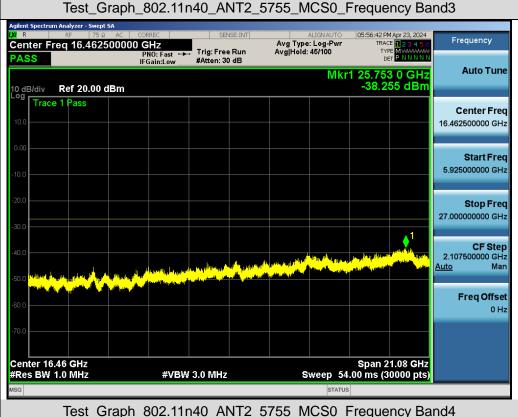


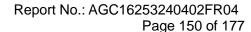




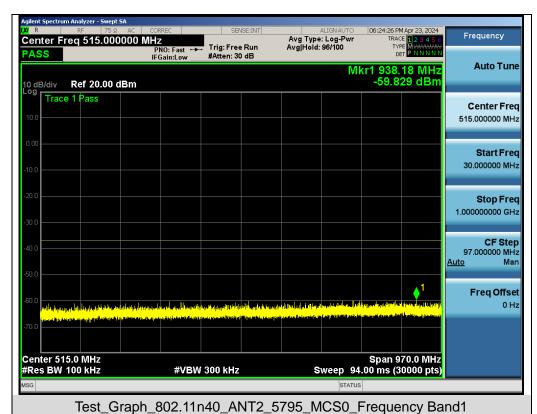




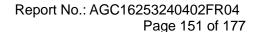




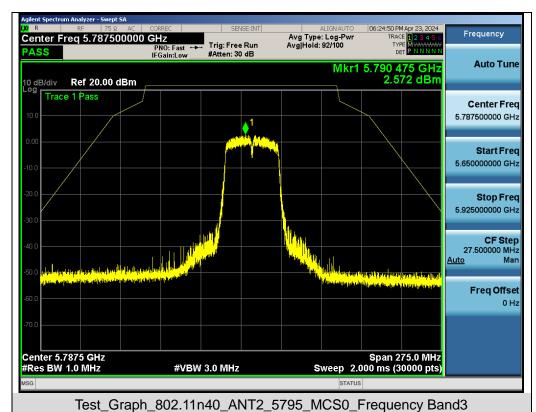


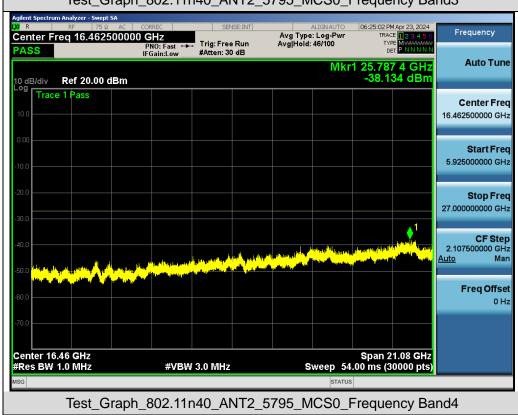


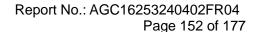




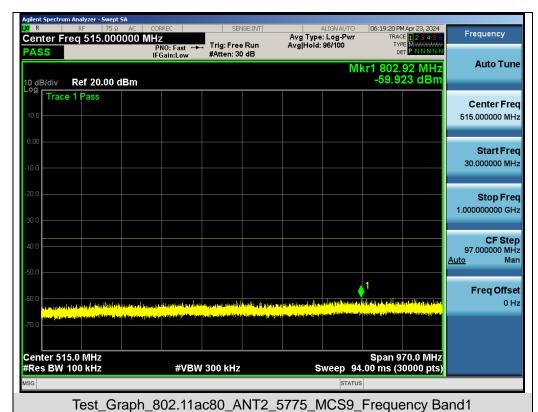




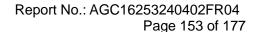




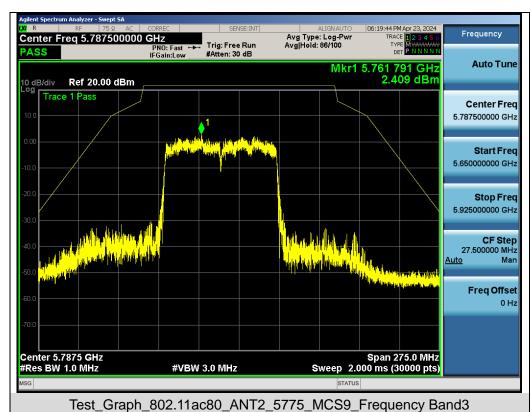


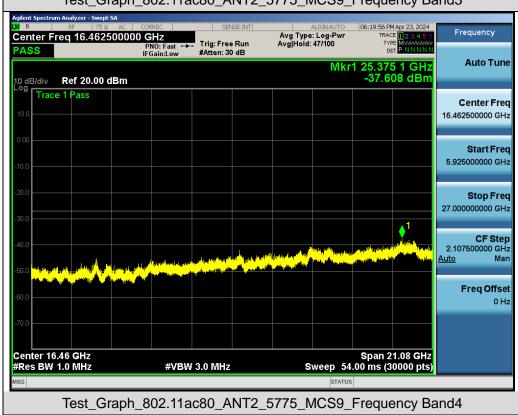














11. Radiated Spurious Emission

11.1 Measurement Limit

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table:

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 - 30.0	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

NOTE:

- 1. The lower limit shall apply at the transition frequencies.
- 2. Emission level $(dBuV/m) = 20 \log Emission level (uV/m)$.
- For frequencies above 1000MHz, the field strength limits are based on average detector, however, the
 peak field strength of any emission shall not exceed the maximum permitted average limits, specified
 above by more than 20dB under any condition of modulation.

	Applicable to	Limit		
1 1.	789033 D02 General UNII Test Procedures New Rules v02r01	Field strength at 3m (dBuV/m)		
		PK: 74	AV: 54	
Out of the restricted bands	Applicable to	EIRP Limit (dBm/MHz)	Equivalent field Strength at 3m (dBuV/m)	
	FCC 15.407(b)(1)		PK: 68.2	
	15.407(b)(2)	PK: -27		
	15.407(b)(3)			
	15.407(b)(4)	See Note 2		

Note 1: The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

E =
$$\frac{1000000 \sqrt{30 P}}{3}$$
 µV/m, where P is the eirp (Watts).

Note 2: All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.