



Report No.: AGC00210210705FE06

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9. MAXIMUM CONDUCTED OUTPUT AVERAGE POWER SPECTRAL DENSITY

9.1. MEASUREMENT PROCEDURE

Refer to KDB 789033 section F

9.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)

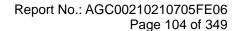
Refer to Section 8.2.

9.3. MEASUREMENT EQUIPMENT USED

Refer to Section 6.

9.4. LIMITS AND MEASUREMENT RESULT

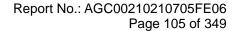
Test Data of Conducted Output Power Density for band 5.15-5.25 GHz-antenna 1					
Test Mode	Test Channel (MHz)	Average Power Density (dBm/MHz)	Limits (dBm/MHz)	Pass or Fail	
	5180	3.557	11	Pass	
802.11a	5200	3.597	11	Pass	
	5240	3.618	11	Pass	
	5180	2.264	11	Pass	
802.11n20	5200	2.468	11	Pass	
	5240	2.709	11	Pass	
000 11510	5190	-1.041	11	Pass	
802.11n40	5230	-0.935	11	Pass	
	5180	2.304	11	Pass	
802.11ac20	5200	2.434	11	Pass	
	5240	2.643	11	Pass	
902 110010	5190	-1.136	11	Pass	
802.11ac40	5230	-1.272	11	Pass	
802.11ac80	5210	-4.492	11	Pass	





Test Data of Conducted Output Power Density for band 5.15-5.25 GHz-antenna 2					
Test Mode	Test Channel (MHz)	Average Power Density (dBm/MHz)	Limits (dBm/MHz)	Pass or Fail	
	5180	3.529	11	Pass	
802.11a	5200	3.421	11	Pass	
	5240	3.589	11	Pass	
	5180	1.717	11	Pass	
802.11n20	5200	1.885	11	Pass	
	5240	2.241	11	Pass	
000 44 = 40	5190	-1.594	11	Pass	
802.11n40	5230	-1.783	11	Pass	
	5180	1.855	11	Pass	
802.11ac20	5200	2.017	11	Pass	
	5240	2.357	11	Pass	
802.11ac40	5190	-1.635	11	Pass	
	5230	-1.546	11	Pass	
802.11ac80	5210	-5.566	11	Pass	

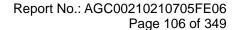
Test Data of Conducted Output Power Density for band 5.15-5.25 GHz-antenna 1+2					
Test Mode	Test Channel (MHz)	Average Power Density (dBm/MHz)	Limits (dBm/MHz)	Pass or Fail	
	5180	5.009	10.66	Pass	
802.11n20	5200	5.197	10.66	Pass	
	5240	5.492	10.66	Pass	
802.11n40	5190	1.702	10.66	Pass	
002.111140	5230	1.672	10.66	Pass	
	5180	5.096	10.66	Pass	
802.11ac20	5200	5.241	10.66	Pass	
	5240	5.513	10.66	Pass	
802.11ac40	5190	1.632	10.66	Pass	
002.11ac40	5230	1.603	10.66	Pass	
802.11ac80	5210	-1.986	10.66	Pass	





Test Data of Conducted Output Power Density for band 5.25-5.35 GHz-antenna 1					
Test Mode	Test Channel (MHz)	Average Power Density (dBm/MHz)	Limits (dBm/MHz)	Pass or Fail	
	5260	3.073	11	Pass	
802.11a	5300	2.311	11	Pass	
	5320	1.993	11	Pass	
	5260	2.656	11	Pass	
802.11n20	5300	2.150	11	Pass	
	5320	1.652	11	Pass	
000 44 = 40	5270	0.209	11	Pass	
802.11n40	5310	-1.284	11	Pass	
	5260	3.490	11	Pass	
802.11ac20	5300	2.553	11	Pass	
	5320	1.641	11	Pass	
002 44 5 40	5270	-0.131	11	Pass	
802.11ac40	5310	-1.374	11	Pass	
802.11ac80	5290	-3.029	11	Pass	

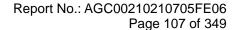
Test Data of Conducted Output Power Density for band 5.25-5.35 GHz-antenna 2					
Test Mode	Test Channel (MHz)	Average Power Density (dBm/MHz)	Limits (dBm/MHz)	Pass or Fail	
	5260	3.394	11	Pass	
802.11a	5300	2.340	11	Pass	
	5320	2.449	11	Pass	
	5260	3.026	11	Pass	
802.11n20	5300	2.274	11	Pass	
	5320	1.966	11	Pass	
000 11 = 10	5270	-0.321	11	Pass	
802.11n40	5310	-1.524	11	Pass	
	5260	3.874	11	Pass	
802.11ac20	5300	2.750	11	Pass	
	5320	2.096	11	Pass	
902 110010	5270	-0.298	11	Pass	
802.11ac40	5310	-1.718	11	Pass	
802.11ac80	5290	-2.821	11	Pass	





Test Data of Conducted Output Power Density for band 5.25-5.35 GHz-antenna 1+2					
Test Mode	Test Channel (MHz)	Average Power Density (dBm/MHz)	Limits (dBm/MHz)	Pass or Fail	
	5260	5.855	10.66	Pass	
802.11n20	5300	5.223	10.66	Pass	
	5320	4.822	10.66	Pass	
802.11n40	5270	2.962	10.66	Pass	
	5310	1.608	10.66	Pass	
	5260	6.697	10.66	Pass	
802.11ac20	5300	5.663	10.66	Pass	
	5320	4.885	10.66	Pass	
802.11ac40	5270	2.797	10.66	Pass	
	5310	1.468	10.66	Pass	
802.11ac80	5290	0.087	10.66	Pass	

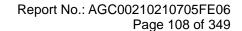
Test Data of Conducted Output Power Density for band 5.47-5.725 GHz-antenna 1					
Test Mode	Test Channel (MHz)	Average Power Density (dBm/MHz)	Limits (dBm/MHz)	Pass or Fail	
	5500	2.304	11	Pass	
802.11a	5600	1.921	11	Pass	
	5700	2.834	11	Pass	
	5500	2.975	11	Pass	
802.11n20	5600	2.833	11	Pass	
	5700	2.761	11	Pass	
	5510	-0.875	11	Pass	
802.11n40	5590	-1.444	11	Pass	
	5670	-0.507	11	Pass	
	5500	3.103	11	Pass	
802.11ac20	5600	1.988	11	Pass	
	5700	3.174	11	Pass	
	5510	-0.192	11	Pass	
802.11ac40	5590	0.356	11	Pass	
	5670	-0.184	11	Pass	
802.11ac80	5530	-3.263	11	Pass	
602.11ac60	5610	-4.236	11	Pass	





Test Data of Conducted Output Power Density for band 5.47-5.725 GHz-antenna 2					
Test Mode	Test Channel (MHz)	Average Power Density (dBm/MHz)	Limits (dBm/MHz)	Pass or Fail	
	5500	2.872	11	Pass	
802.11a	5600	2.704	11	Pass	
	5700	2.978	11	Pass	
	5500	3.057	11	Pass	
802.11n20	5600	2.518	11	Pass	
	5700	2.757	11	Pass	
	5510	-0.722	11	Pass	
802.11n40	5590	-0.313	11	Pass	
	5670	-0.726	11	Pass	
	5500	3.051	11	Pass	
802.11ac20	5600	2.428	11	Pass	
	5700	2.745	11	Pass	
	5510	-0.719	11	Pass	
802.11ac40	5590	-0.328	11	Pass	
	5670	-0.589	11	Pass	
902 110090	5530	-3.728	11	Pass	
802.11ac80	5610	-3.587	11	Pass	

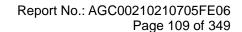
Test Data of Conducted Output Power Density for band 5.47-5.725 GHz-antenna 1+2					
Test Mode	Test Channel (MHz)	Average Power Density (dBm/MHz)	Limits (dBm/MHz)	Pass or Fail	
	5500	6.026	10.66	Pass	
802.11n20	5600	5.689	10.66	Pass	
	5700	5.769	10.66	Pass	
	5510	2.212	10.66	Pass	
802.11n40	5590	2.169	10.66	Pass	
	5670	2.395	10.66	Pass	
	5500	6.087	10.66	Pass	
802.11ac20	5600	5.224	10.66	Pass	
	5700	5.975	10.66	Pass	
	5510	2.563	10.66	Pass	
802.11ac40	5590	3.038	10.66	Pass	
	5670	2.629	10.66	Pass	
000 44 000	5530	-0.479	10.66	Pass	
802.11ac80	5610	-0.889	10.66	Pass	





Test Data of Conducted Output Power Density for band 5.725-5.85 GHz-antenna 1					
Test Mode	Test Channel (MHz)	Average Power Density (dBm/100kHz)	Average Power Density (dBm/500kHz)	Limits (dBm/500kHz)	Pass or Fail
	5745	-6.991	-0.001	30	Pass
802.11a	5785	-6.101	0.889	30	Pass
	5825	-5.586	1.404	30	Pass
	5745	-7.232	-0.242	30	Pass
802.11n20	5785	-7.136	-0.146	30	Pass
	5825	-6.542	0.448	30	Pass
802.11n40	5755	-9.964	-2.974	30	Pass
602.111140	5795	-10.575	-3.585	30	Pass
	5745	-6.523	0.467	30	Pass
802.11ac20	5785	-7.055	-0.065	30	Pass
	5825	-6.523	0.467	30	Pass
802.11ac40	5755	-10.412	-3.422	30	Pass
002.11a040	5795	-10.531	-3.541	30	Pass
802.11ac80	5775	-13.270	-6.280	30	Pass

Test Data of Conducted Output Power Density for band 5.725-5.85 GHz-antenna 2					
Test Mode	Test Channel (MHz)	Average Power Density (dBm/100kHz)	Average Power Density (dBm/500kHz)	Limits (dBm/500kHz)	Pass or Fail
	5745	-5.762	1.228	30	Pass
802.11a	5785	-6.733	0.257	30	Pass
	5825	-5.944	1.046	30	Pass
	5745	-6.882	0.108	30	Pass
802.11n20	5785	-7.480	-0.49	30	Pass
	5825	-7.001	-0.011	30	Pass
802.11n40	5755	-10.704	-3.714	30	Pass
602.111140	5795	-11.061	-4.071	30	Pass
	5745	-7.006	-0.016	30	Pass
802.11ac20	5785	-7.606	-0.616	30	Pass
	5825	-6.975	0.015	30	Pass
802.11ac40	5755	-10.799	-3.809	30	Pass
002.11a040	5795	-11.026	-4.036	30	Pass
802.11ac80	5775	-13.800	-6.810	30	Pass





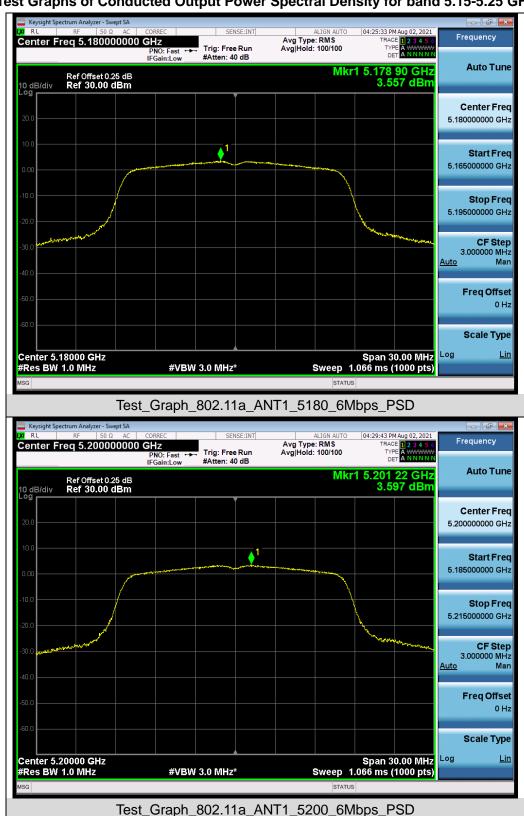
Test Da	Test Data of Conducted Output Power Density for band 5.725-5.85 GHz-antenna 1+2					
Test Mode	Test Channel (MHz)	Average Power Density (dBm/100kHz)	Average Power Density (dBm/500kHz)	Limits (dBm/500kHz)	Pass or Fail	
	5745	-4.043	2.947	29.66	Pass	
802.11n20	5785	-4.294	2.696	29.66	Pass	
	5825	-3.755	3.235	29.66	Pass	
802.11n40	5755	-7.308	-0.318	29.66	Pass	
002.111140	5795	-7.801	-0.811	29.66	Pass	
	5745	-3.747	3.243	29.66	Pass	
802.11ac20	5785	-4.311	2.679	29.66	Pass	
	5825	-3.733	3.257	29.66	Pass	
902 110010	5755	-7.591	-0.601	29.66	Pass	
802.11ac40	5795	-7.761	-0.771	29.66	Pass	
802.11ac80	5775	-10.517	-3.527	29.66	Pass	

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

^{2.}The Total PSD (dBm/500kHz) = $10*\log \{10^{(Ant \ 1 \ PSD/10)} + 10^{(Ant \ 2 \ PSD/10)}\}(dBm/500kHz)$



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



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5 195000000 GHz

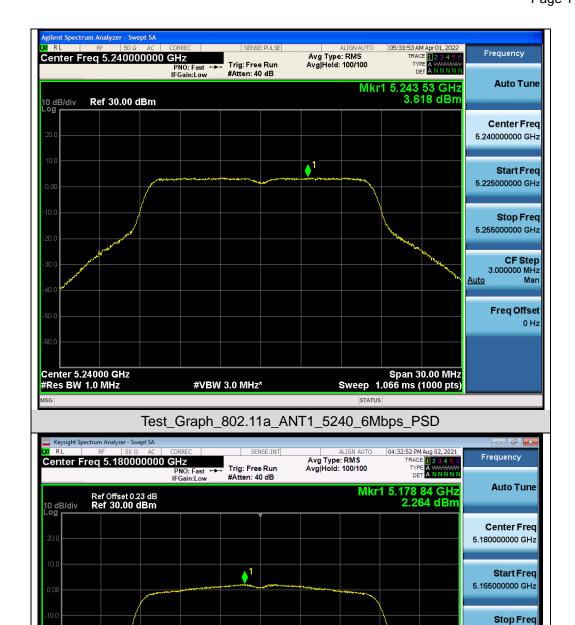
CF Step 3.000000 MHz Man

Freq Offset 0 Hz

Scale Type

Span 30.00 MHz Sweep 1.066 ms (1000 pts)





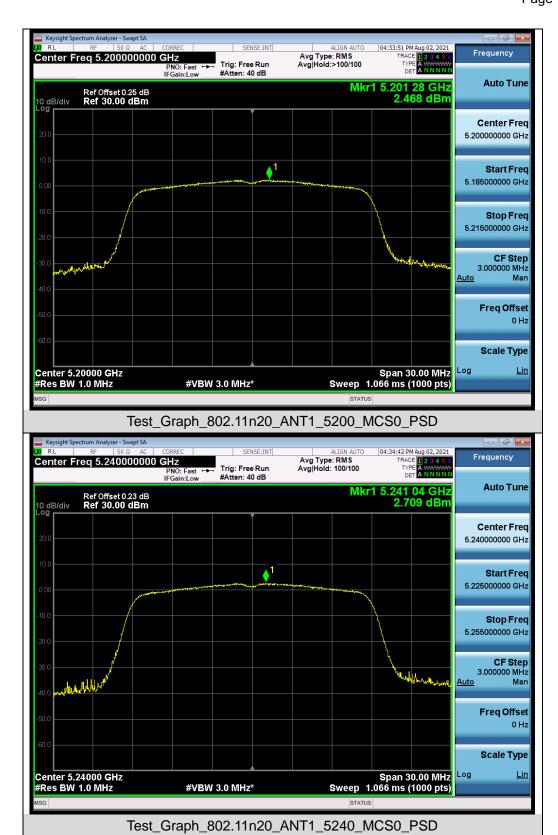
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Test_Graph_802.11n20_ANT1_5180_MCS0_PSD

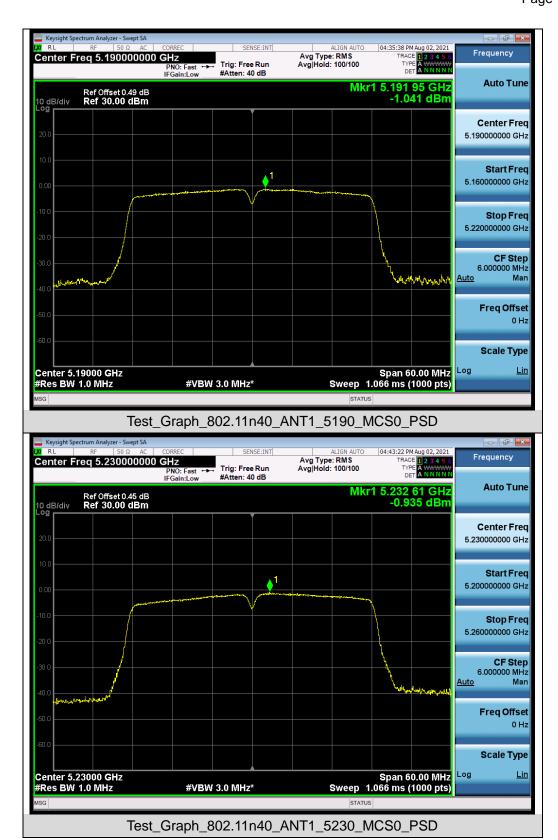
#VBW 3.0 MHz*

Center 5.18000 GHz #Res BW 1.0 MHz

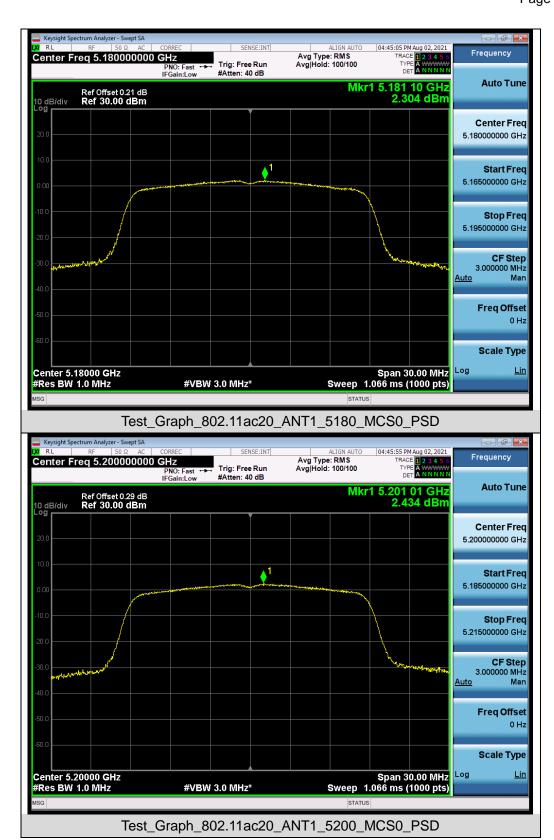












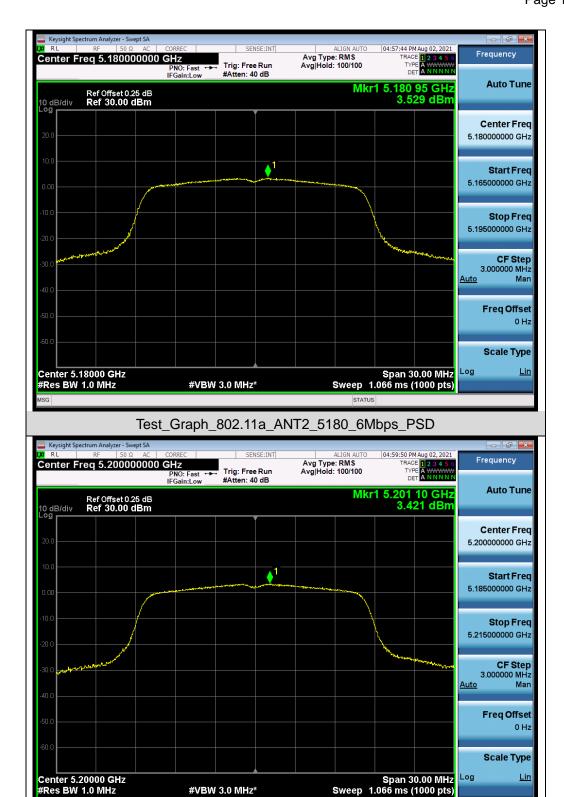






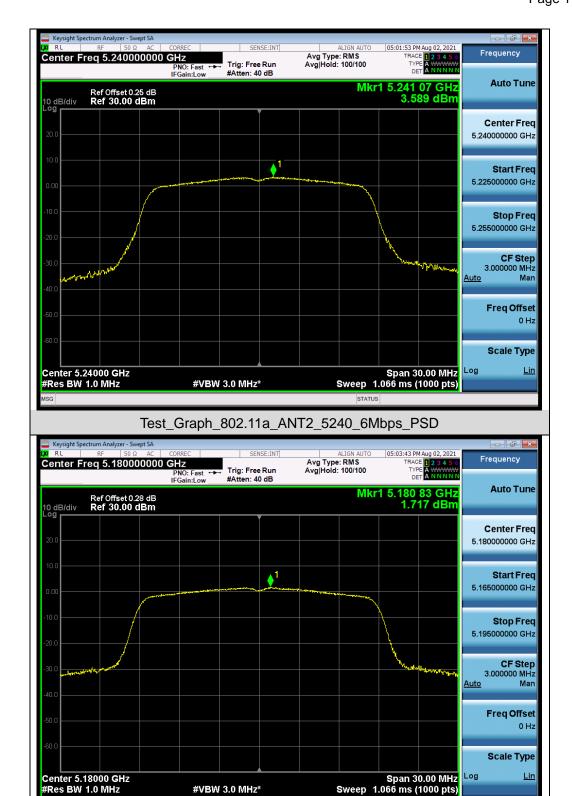






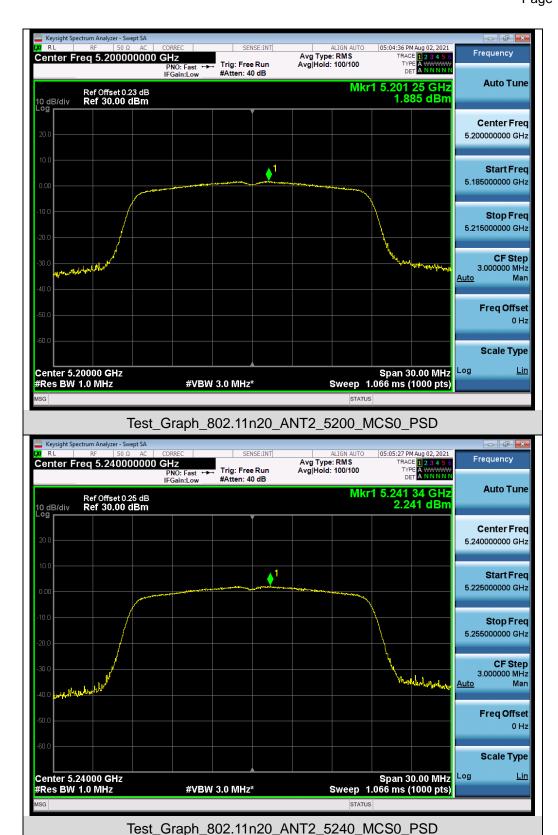
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Test_Graph_802.11n20_ANT2_5180_MCS0_PSD

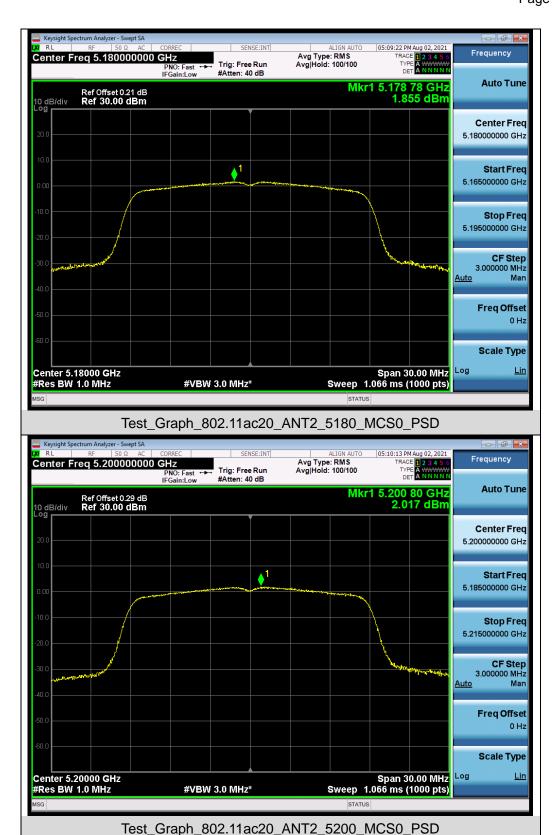








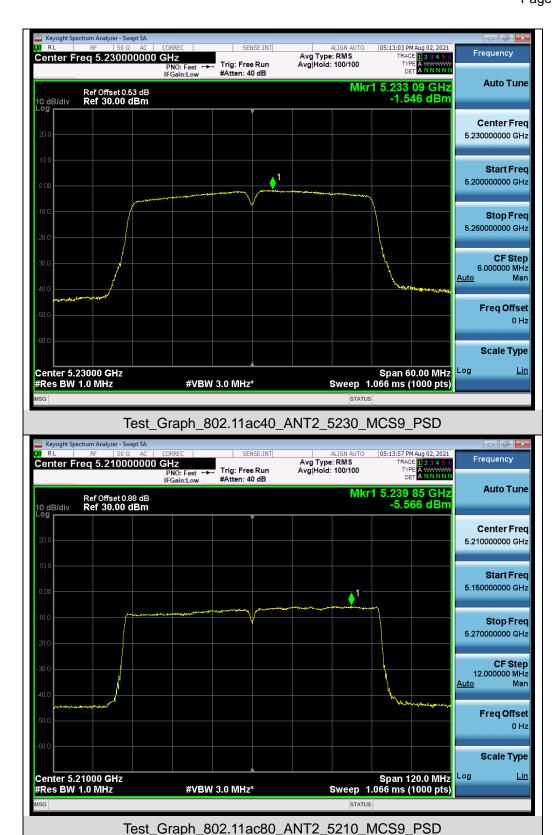






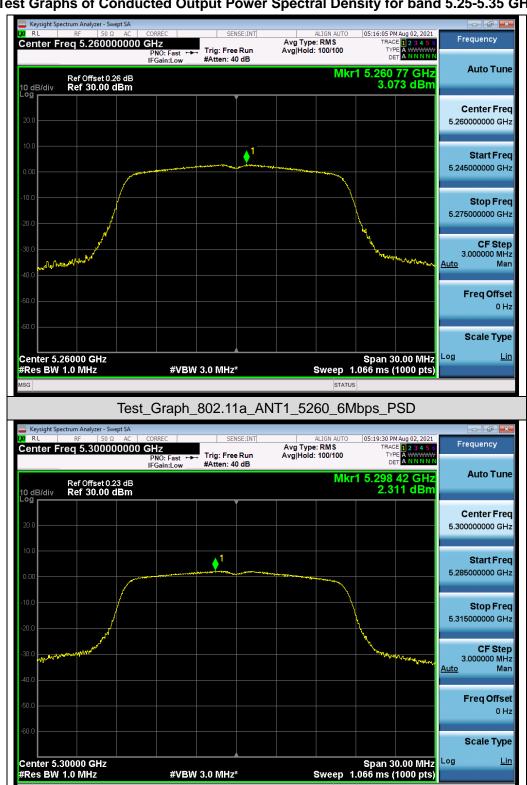








Test Graphs of Conducted Output Power Spectral Density for band 5.25-5.35 GHz



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Test_Graph_802.11a_ANT1_5300_6Mbps_PSD

Web: http://www.agccert.com/

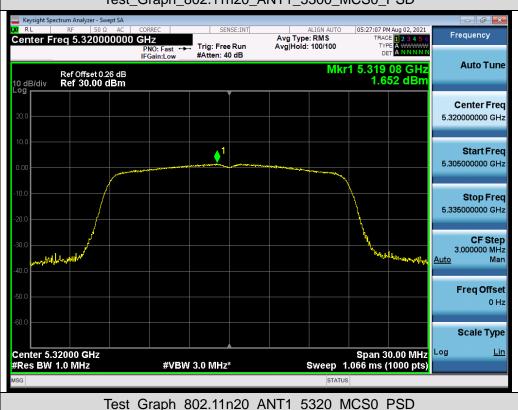






















Freq Offset 0 Hz

Scale Type

Span 60.00 MHz Sweep 1.066 ms (1000 pts)





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Test Graph 802.11ac40 ANT1 5270 MCS9 PSD

#VBW 3.0 MHz*

Center 5.27000 GHz #Res BW 1.0 MHz

0 Hz

Scale Type

Span 120.0 MHz Sweep 1.066 ms (1000 pts)





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Test Graph 802.11ac80 ANT1 5290 MCS9 PSD

#VBW 3.0 MHz*

Center 5.29000 GHz #Res BW 1.0 MHz

CF Step 3.000000 MHz

Freq Offset

Scale Type

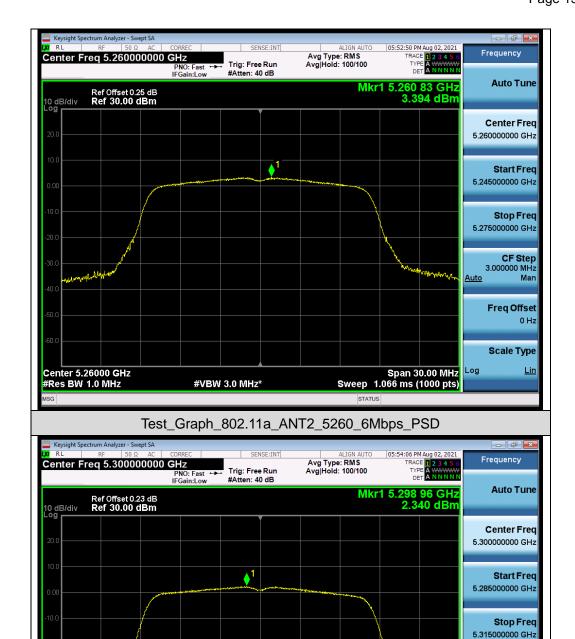
Lin

Man

<u>Auto</u>

Span 30.00 MHz Sweep 1.066 ms (1000 pts)





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Test_Graph_802.11a_ANT2_5300_6Mbps_PSD

#VBW 3.0 MHz*

Center 5.30000 GHz #Res BW 1.0 MHz