



Appendix D_Test Data

for 5GWIFI B1

Conducted Measurement

Product Name: Tablet

Test Model: Tab 11 WIFI

Environmental Conditions

Temperature:	24.6° C
Relative Humidity:	52.4%
ATM Pressure:	100.0 kPa
Test Engineer:	Simba Huang
Supervised by:	Seal Chen



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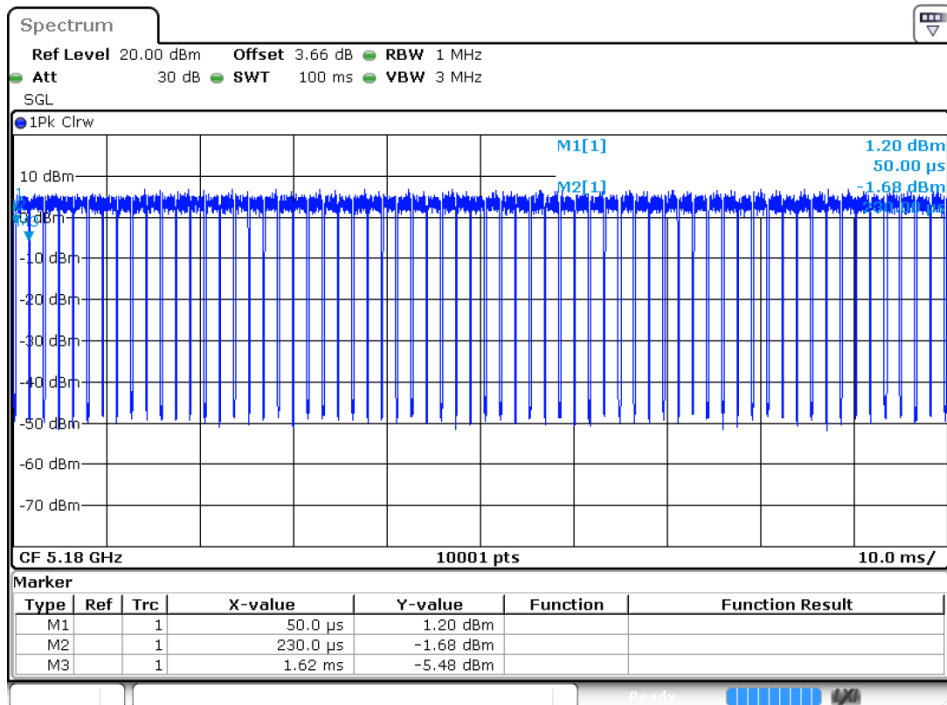
1 Duty Cycle

Test Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
802.11a	5180	Ant1	88.36	0.54	0.72
802.11a	5200	Ant1	88.35	0.54	0.72
802.11a	5240	Ant1	88.2	0.55	0.72
802.11n20	5180	Ant1	86.86	0.61	0.85
802.11n20	5200	Ant1	87.21	0.59	0.85
802.11n20	5240	Ant1	87.05	0.6	0.85
802.11n40	5190	Ant1	76.75	1.15	1.69
802.11n40	5230	Ant1	77.42	1.11	1.72
802.11ac20	5180	Ant1	87.02	0.6	0.85
802.11ac20	5200	Ant1	87.05	0.6	0.85
802.11ac20	5240	Ant1	87.21	0.59	0.85
802.11ac40	5190	Ant1	77.3	1.12	1.69
802.11ac40	5230	Ant1	76.88	1.14	1.69
802.11ac80	5210	Ant1	63.62	1.96	3.33

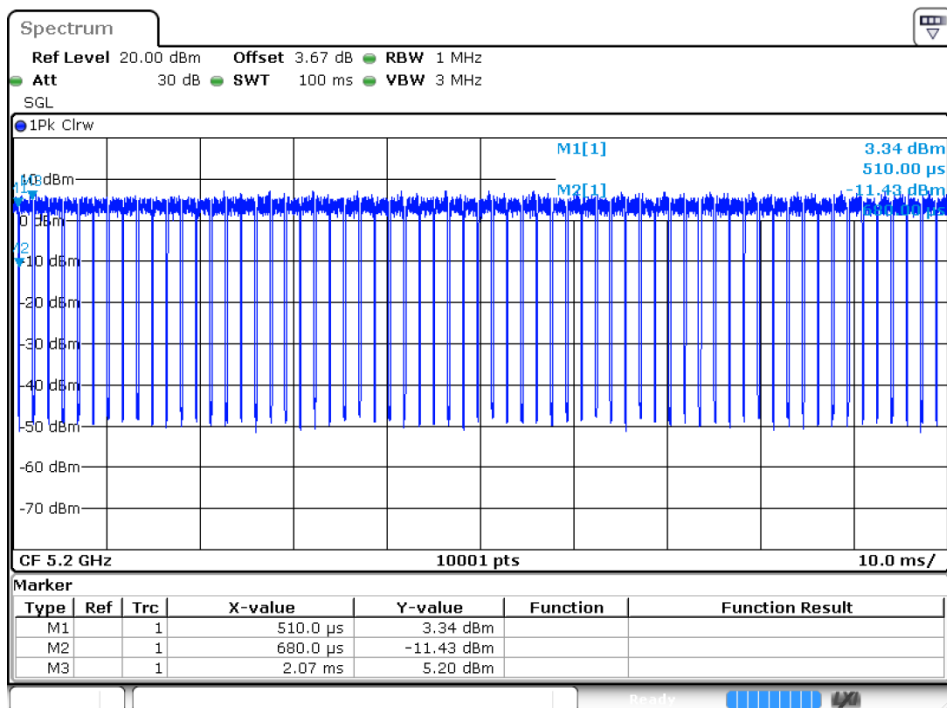


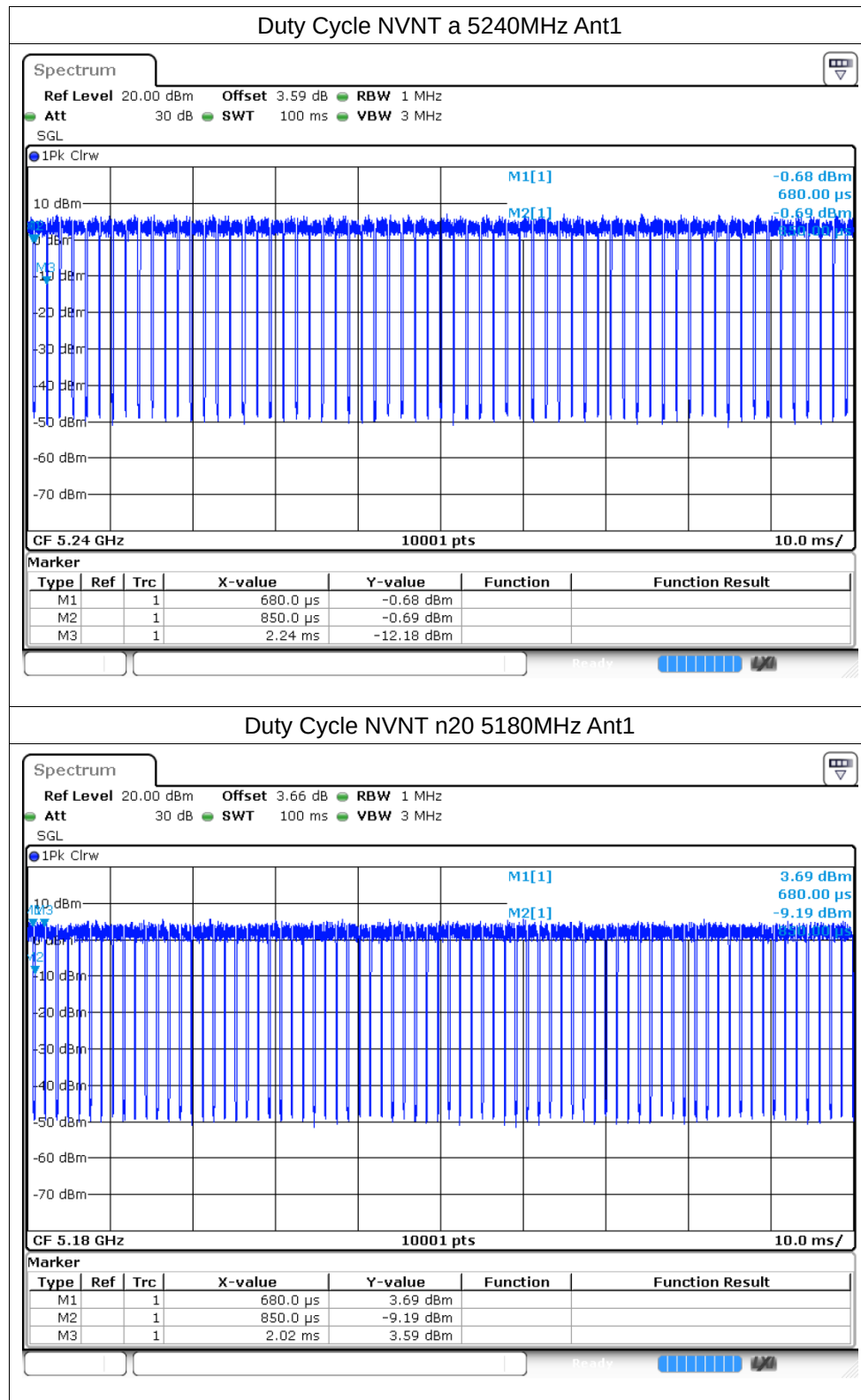
Test Graphs

Duty Cycle NVNT a 5180MHz Ant1



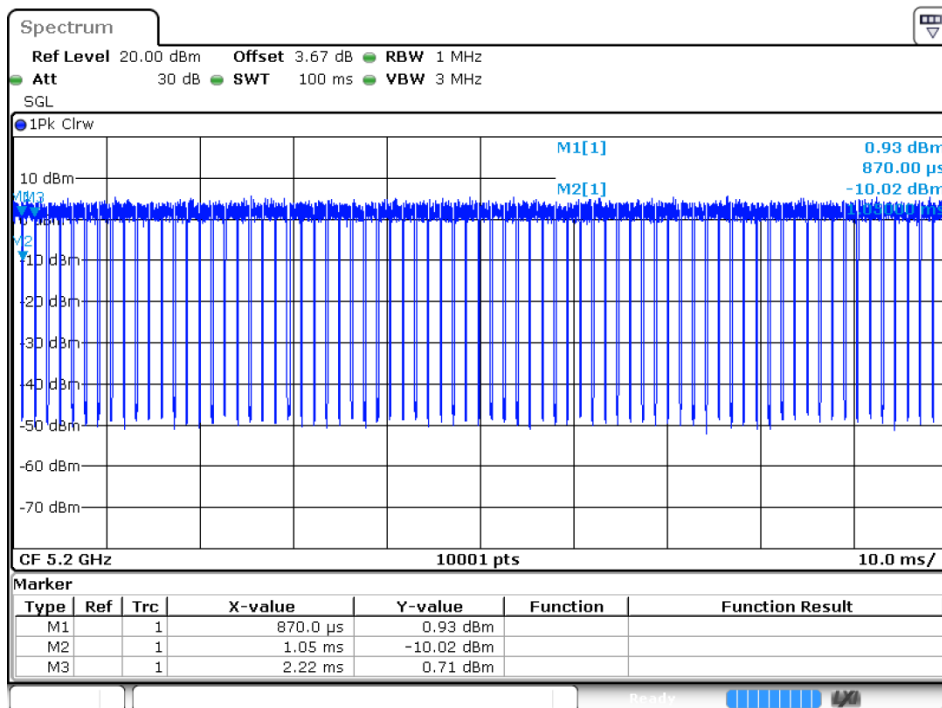
Duty Cycle NVNT a 5200MHz Ant1



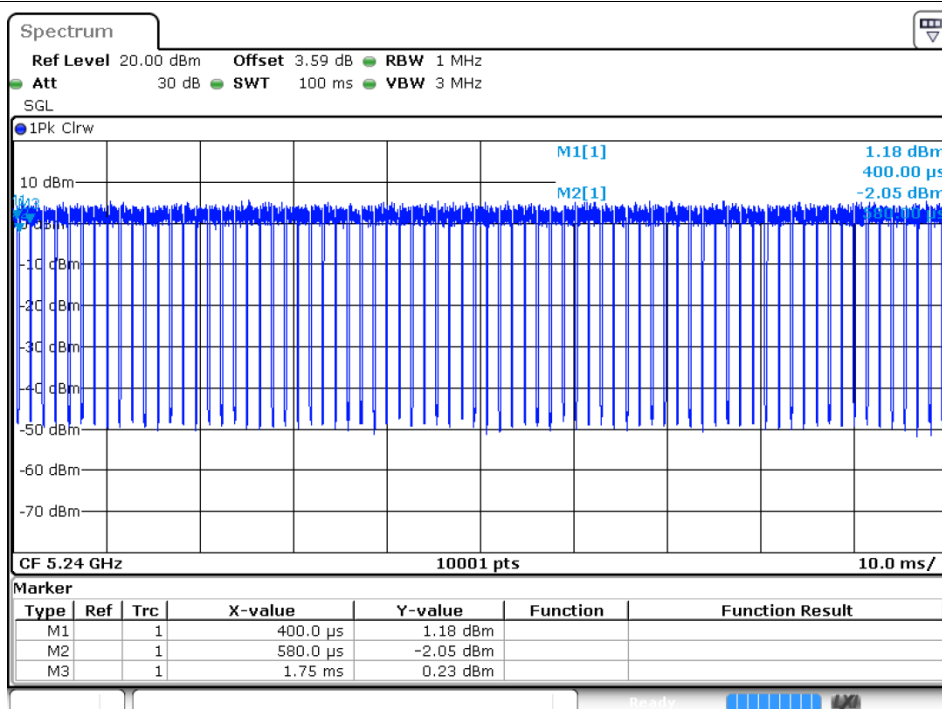




Duty Cycle NVNT n20 5200MHz Ant1

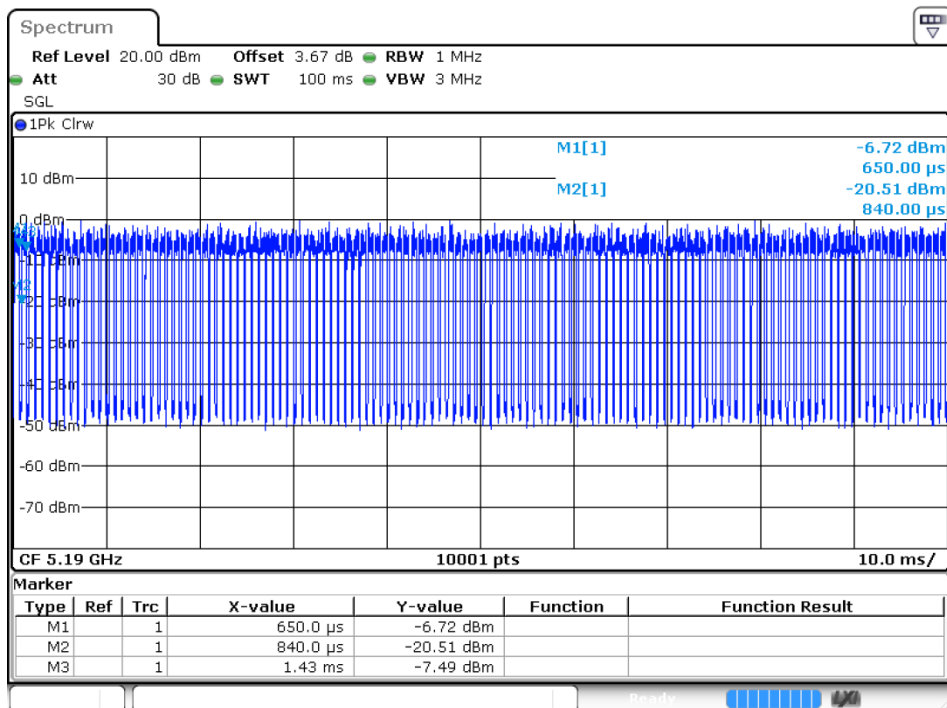


Duty Cycle NVNT n20 5240MHz Ant1

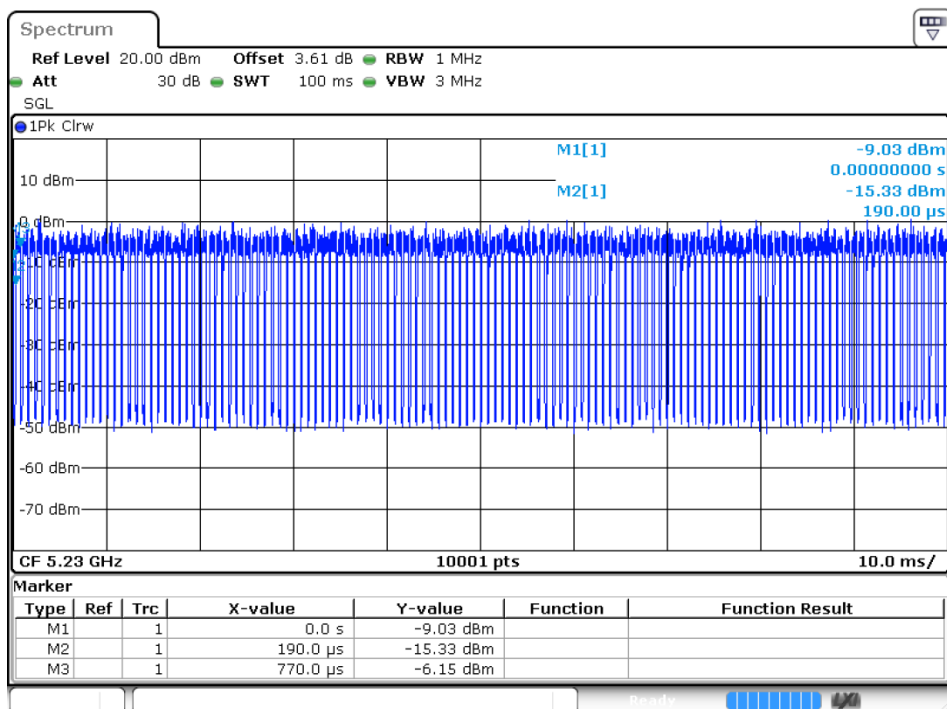


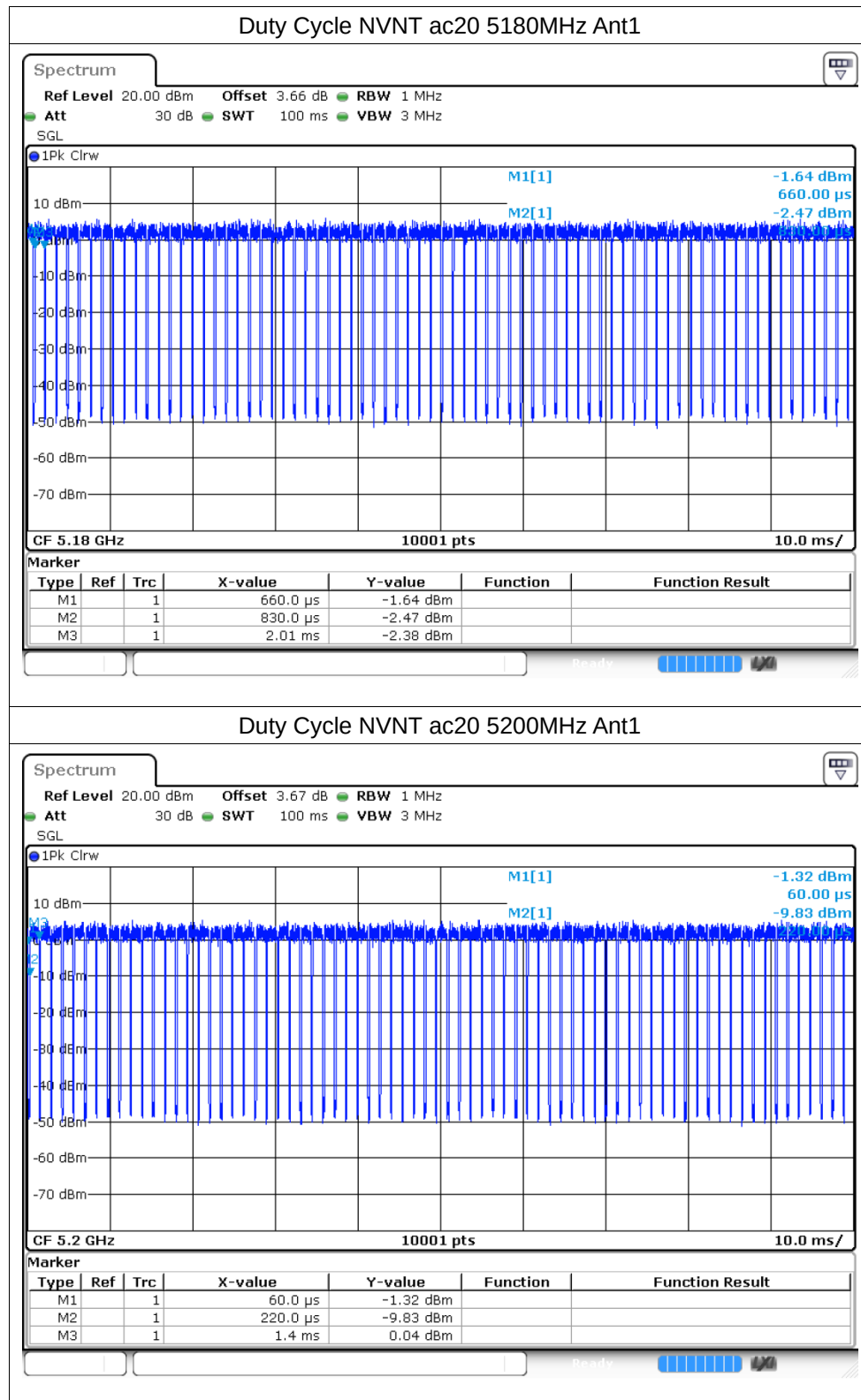


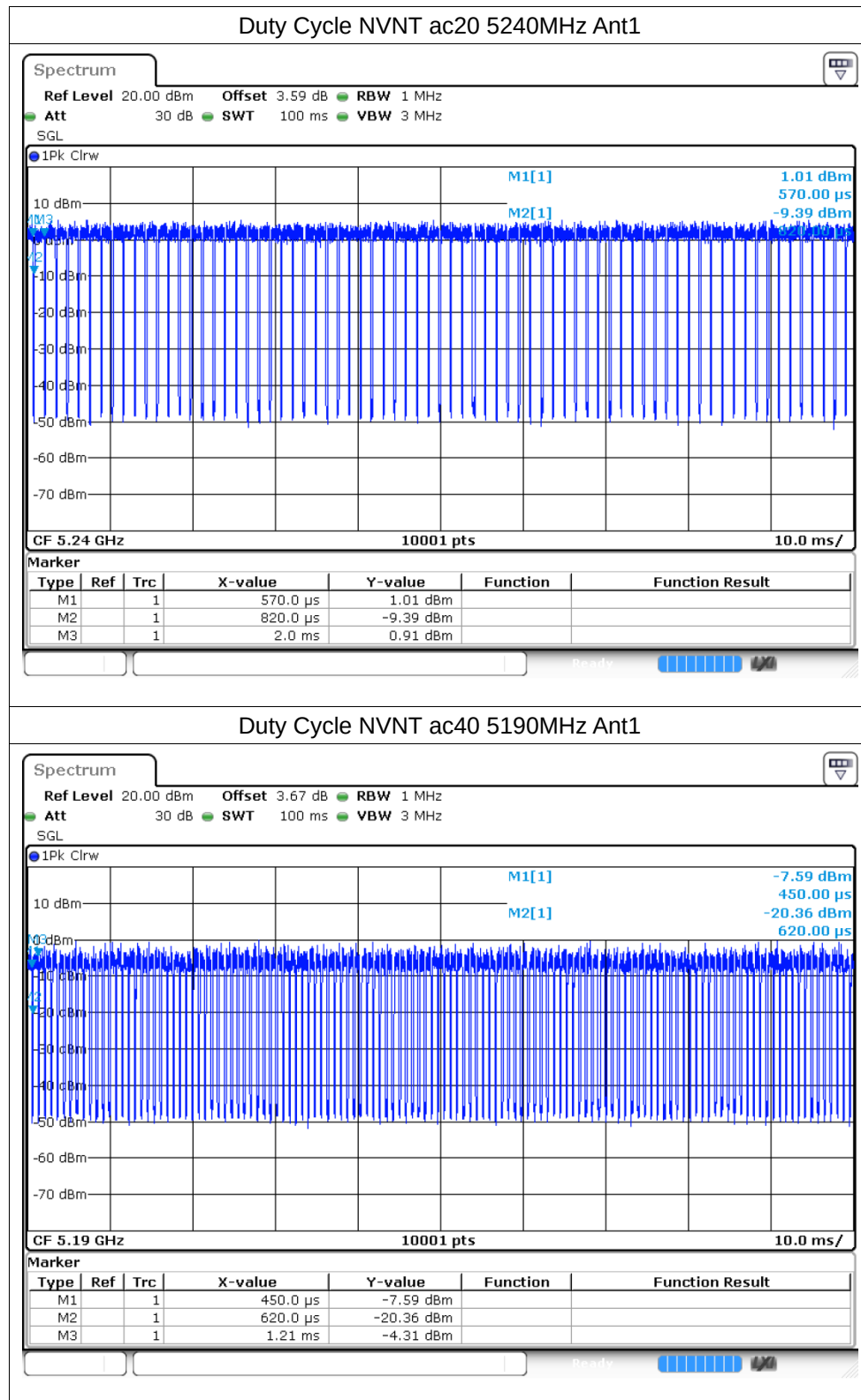
Duty Cycle NVNT n40 5190MHz Ant1

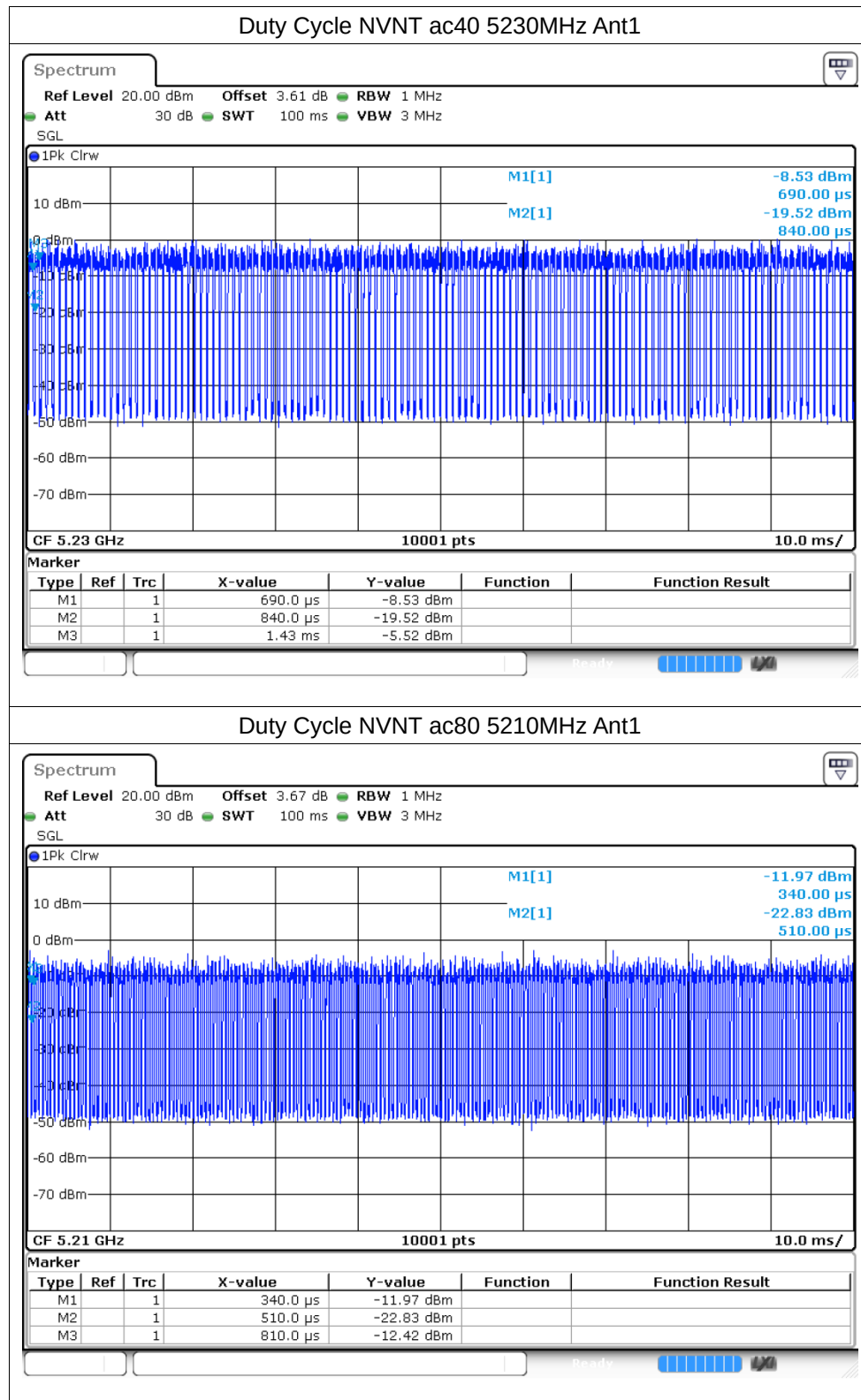


Duty Cycle NVNT n40 5230MHz Ant1





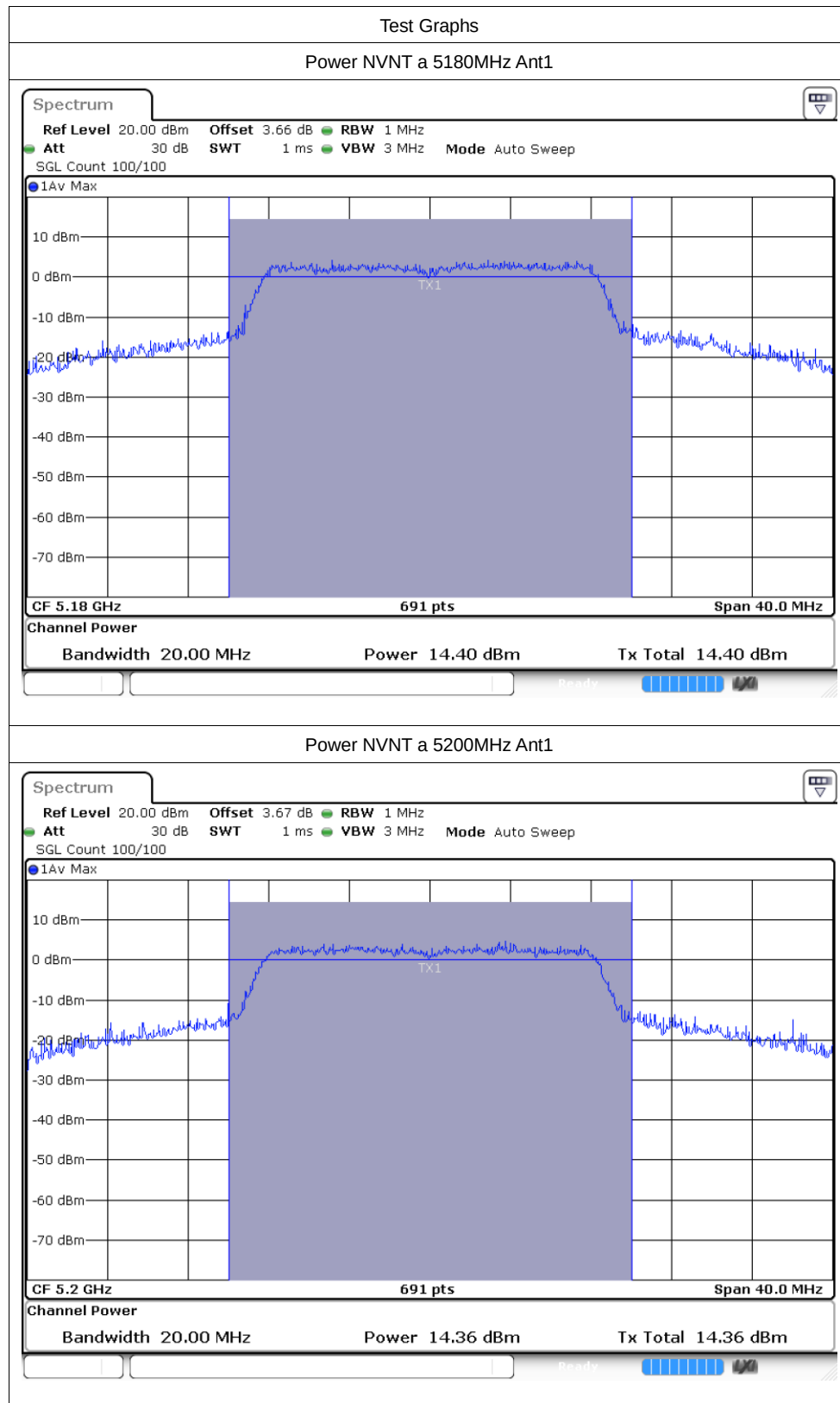


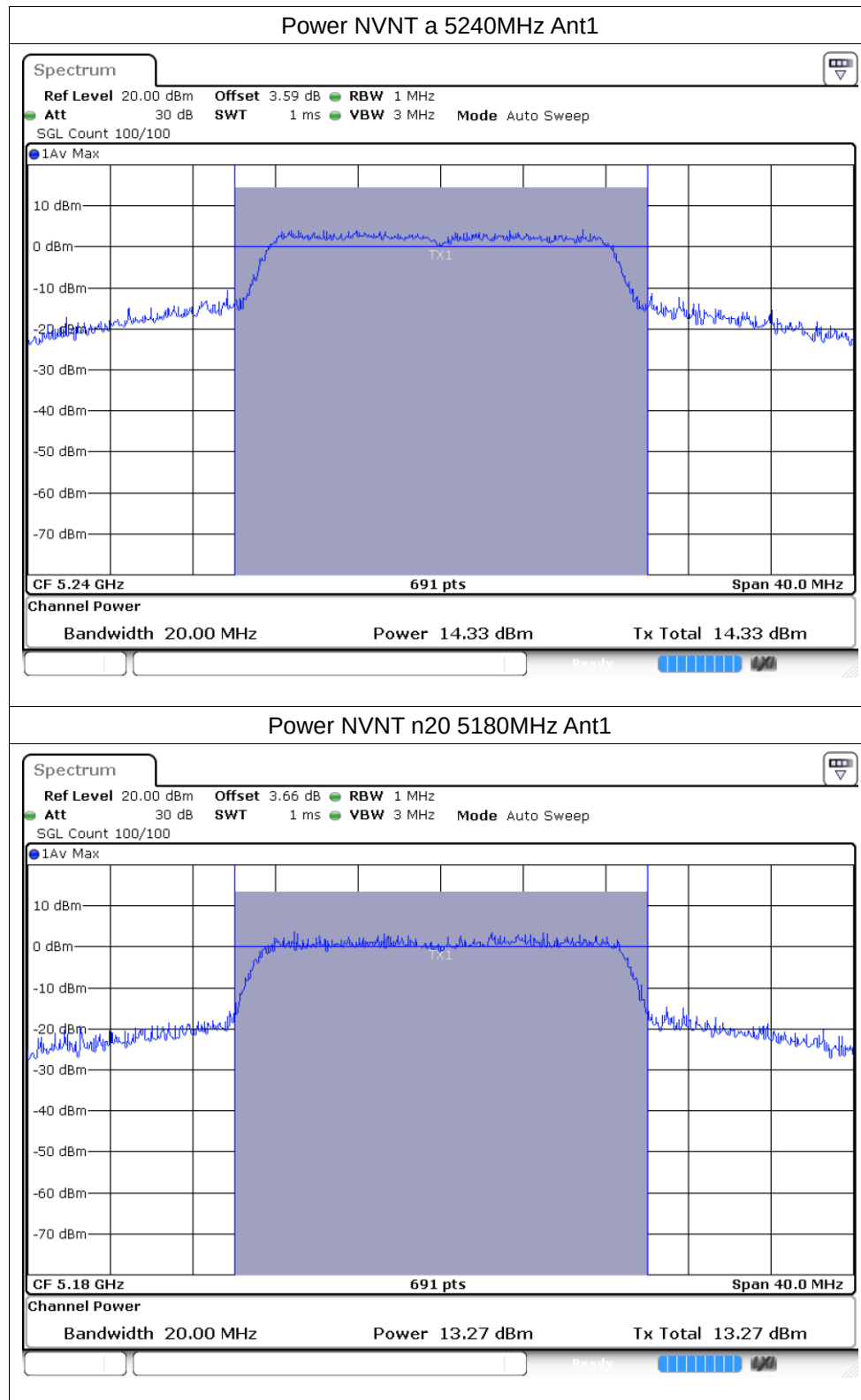


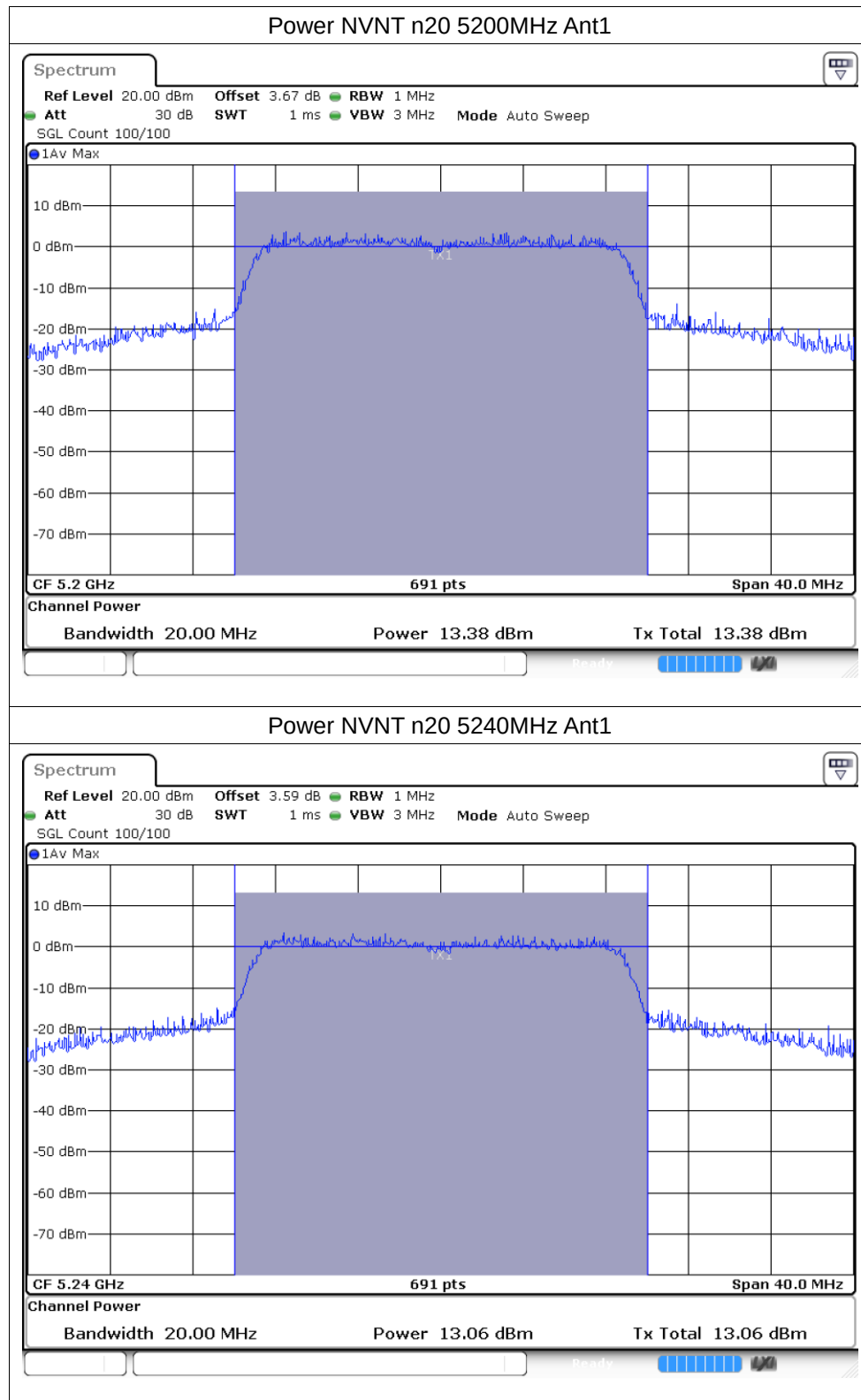


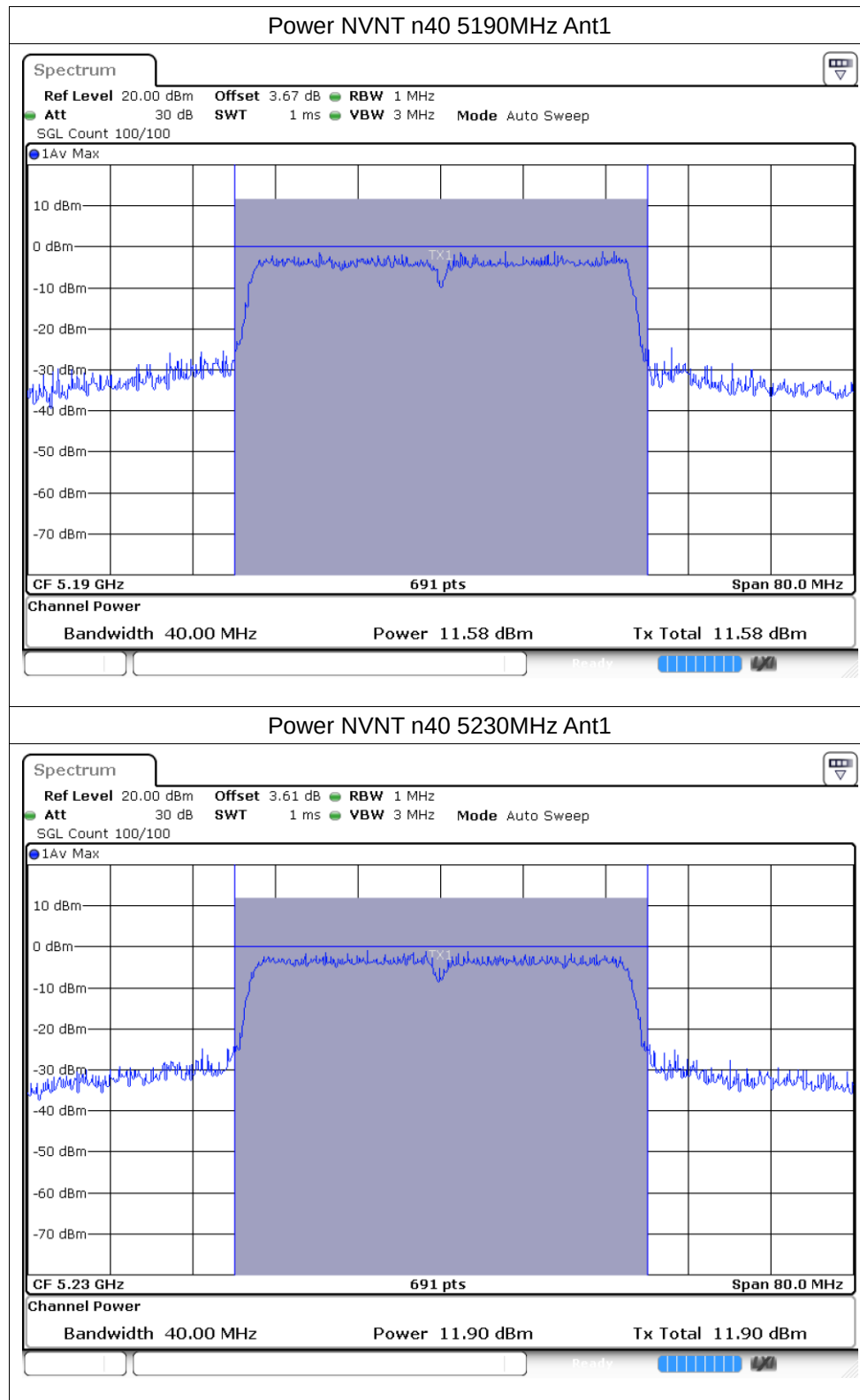
2 Maximum Conducted Output Power

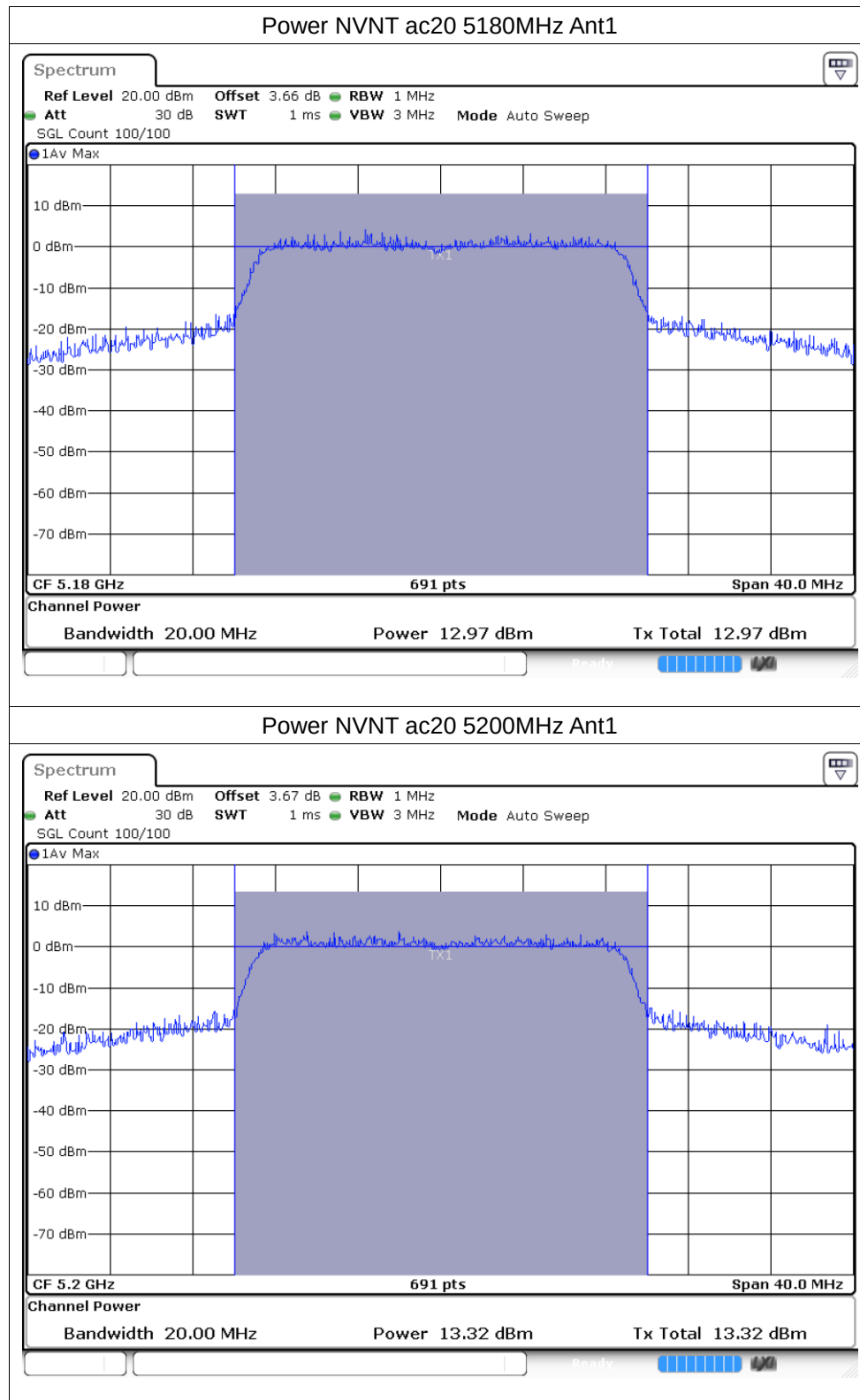
Test Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
802.11a	5180	Ant1	14.4	0.54	14.94	24	Pass
802.11a	5200	Ant1	14.36	0.54	14.9	24	Pass
802.11a	5240	Ant1	14.33	0.55	14.88	24	Pass
802.11n20	5180	Ant1	13.27	0.61	13.88	24	Pass
802.11n20	5200	Ant1	13.38	0.59	13.97	24	Pass
802.11n20	5240	Ant1	13.06	0.6	13.66	24	Pass
802.11n40	5190	Ant1	11.58	1.15	12.73	24	Pass
802.11n40	5230	Ant1	11.9	1.11	13.01	24	Pass
802.11ac20	5180	Ant1	12.97	0.6	13.57	24	Pass
802.11ac20	5200	Ant1	13.32	0.6	13.92	24	Pass
802.11ac20	5240	Ant1	13.03	0.59	13.62	24	Pass
802.11ac40	5190	Ant1	11.69	1.12	12.81	24	Pass
802.11ac40	5230	Ant1	11.84	1.14	12.98	24	Pass
802.11ac80	5210	Ant1	11.51	1.96	13.47	24	Pass

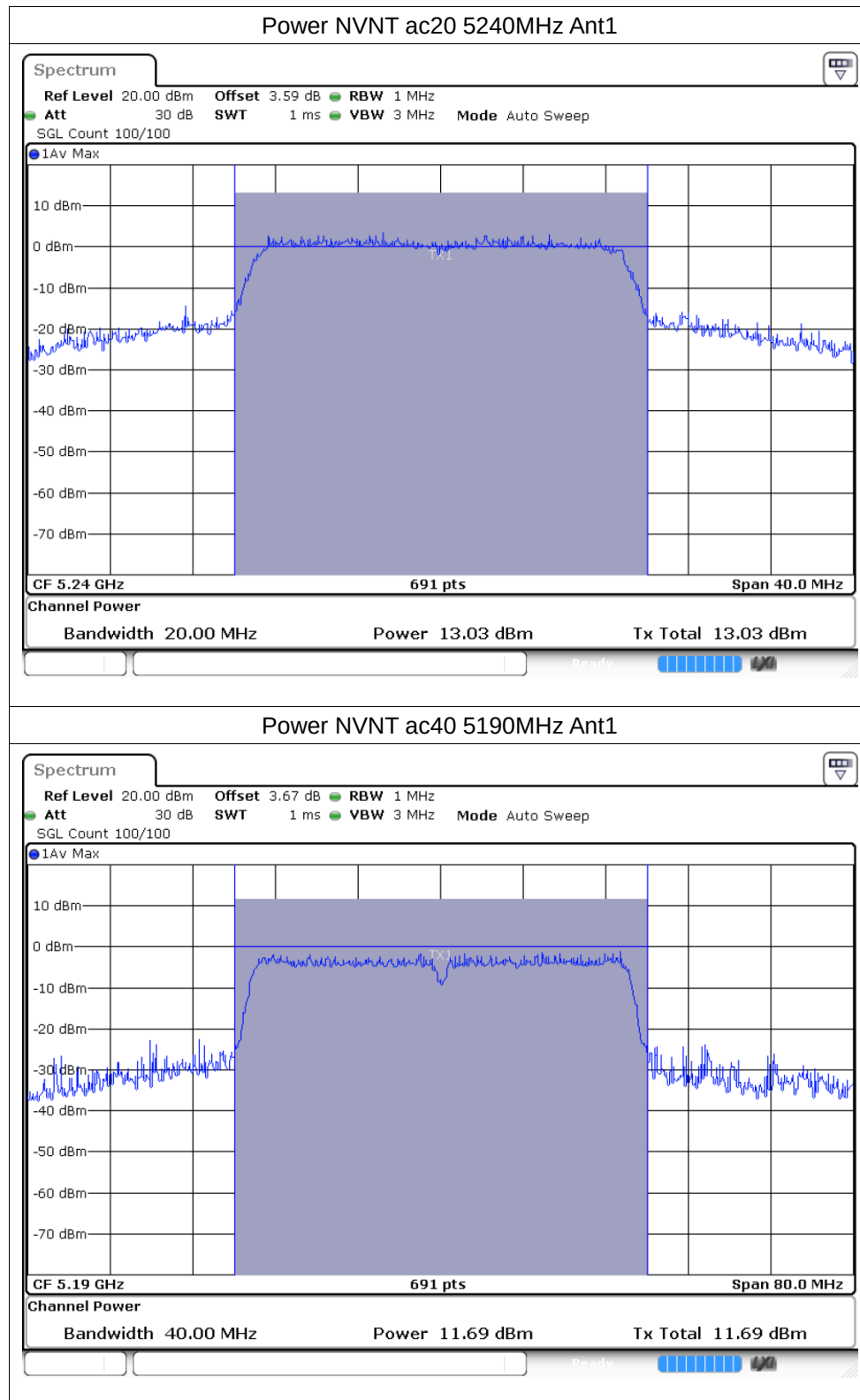


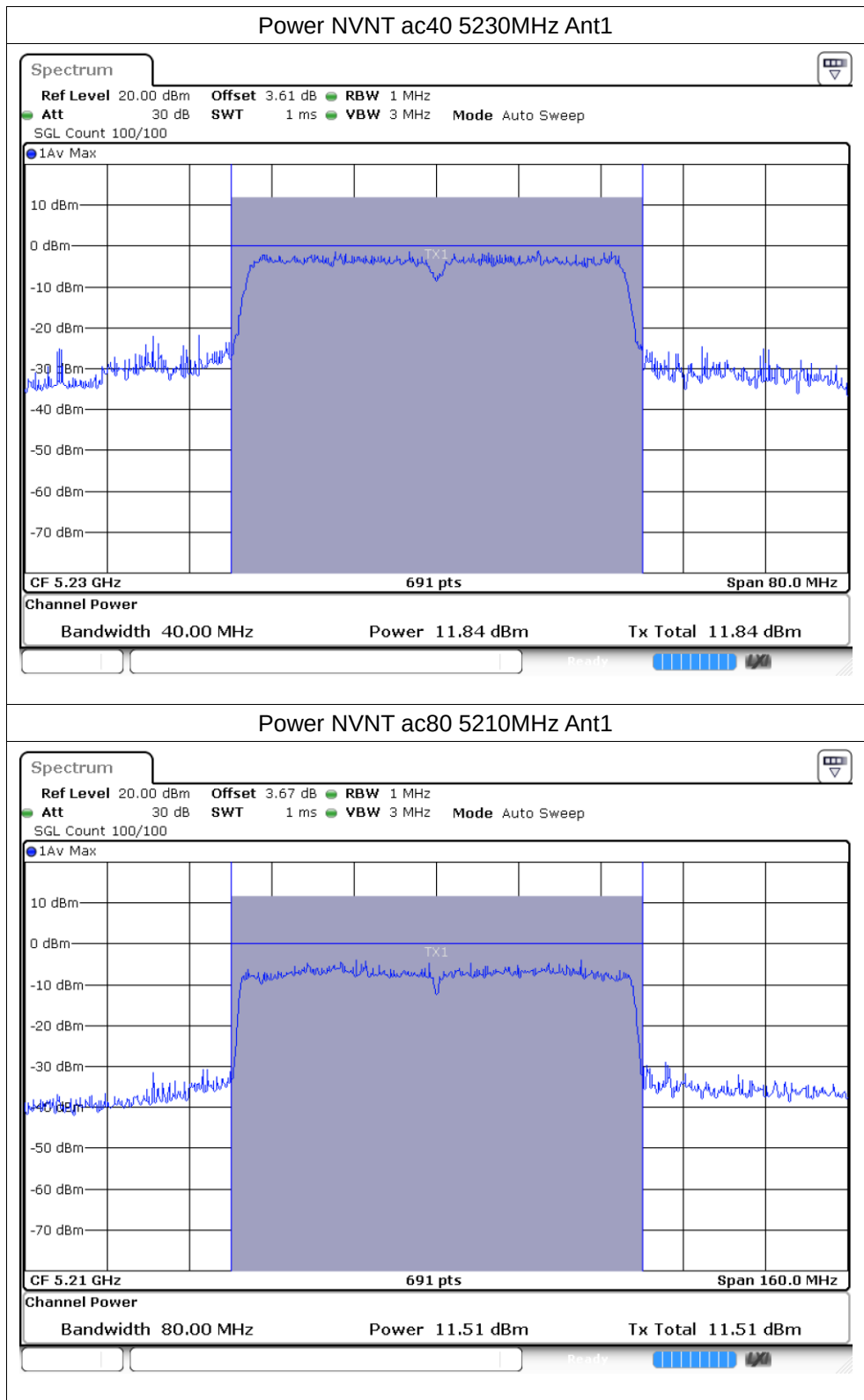














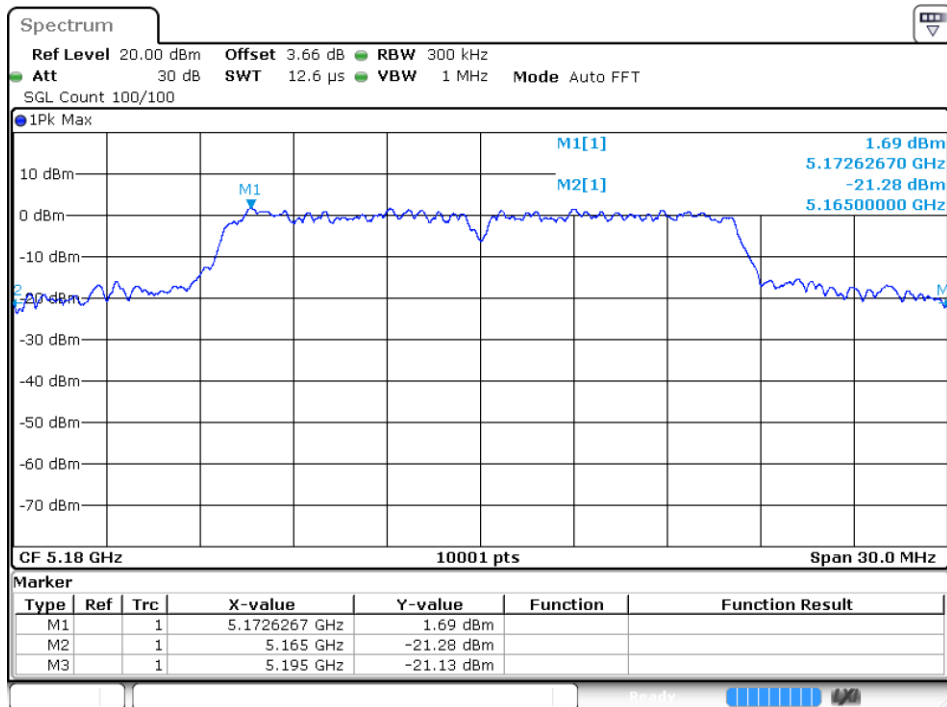
3 -26dB Bandwidth

Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)	Limit -26 dB Bandwidth (MHz)	Verdict
802.11a	5180	Ant1	30	N/A	Pass
802.11a	5200	Ant1	30	N/A	Pass
802.11a	5240	Ant1	30	N/A	Pass
802.11n20	5180	Ant1	30	N/A	Pass
802.11n20	5200	Ant1	29.874	N/A	Pass
802.11n20	5240	Ant1	30	N/A	Pass
802.11n40	5190	Ant1	39.708	N/A	Pass
802.11n40	5230	Ant1	40.104	N/A	Pass
802.11ac20	5180	Ant1	29.898	N/A	Pass
802.11ac20	5200	Ant1	30	N/A	Pass
802.11ac20	5240	Ant1	29.991	N/A	Pass
802.11ac40	5190	Ant1	50.382	N/A	Pass
802.11ac40	5230	Ant1	39.258	N/A	Pass
802.11ac80	5210	Ant1	80.196	N/A	Pass

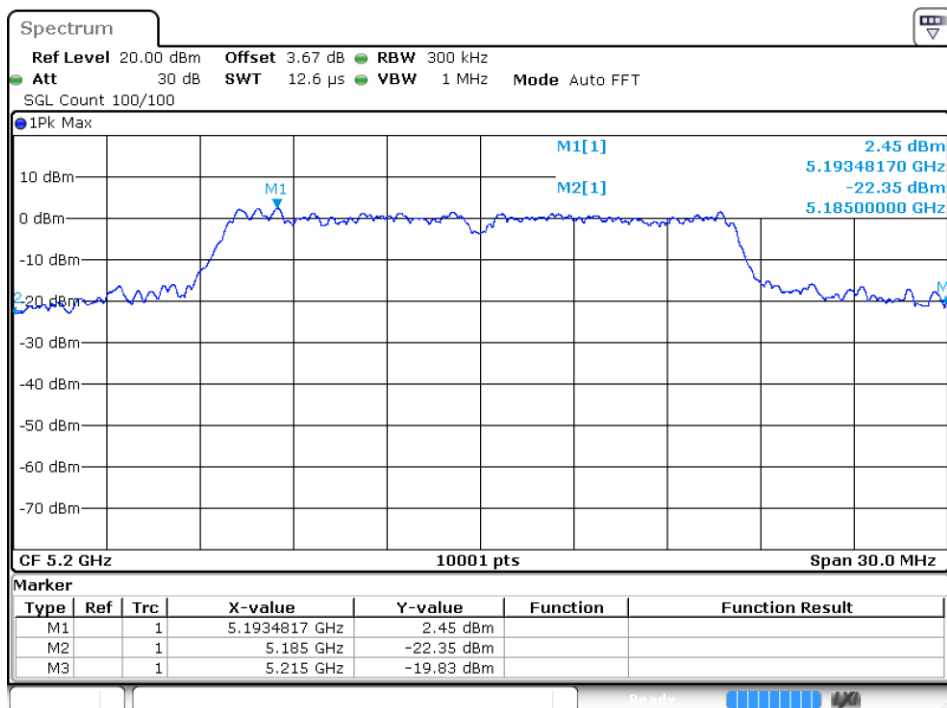


Test Graphs

-26dB Bandwidth NVNT a 5180MHz Ant1

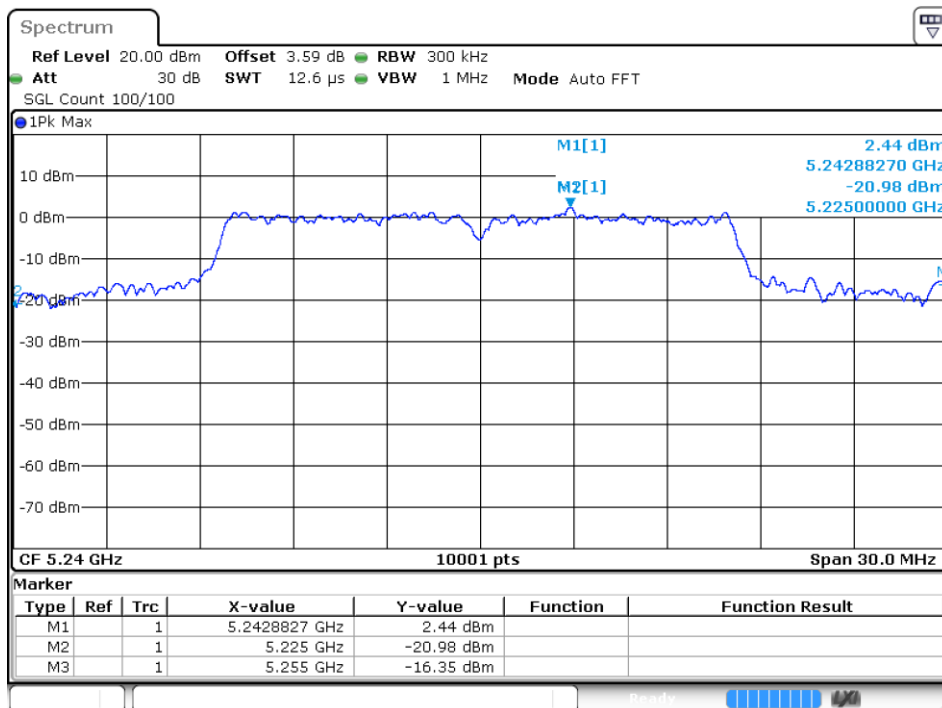


-26dB Bandwidth NVNT a 5200MHz Ant1

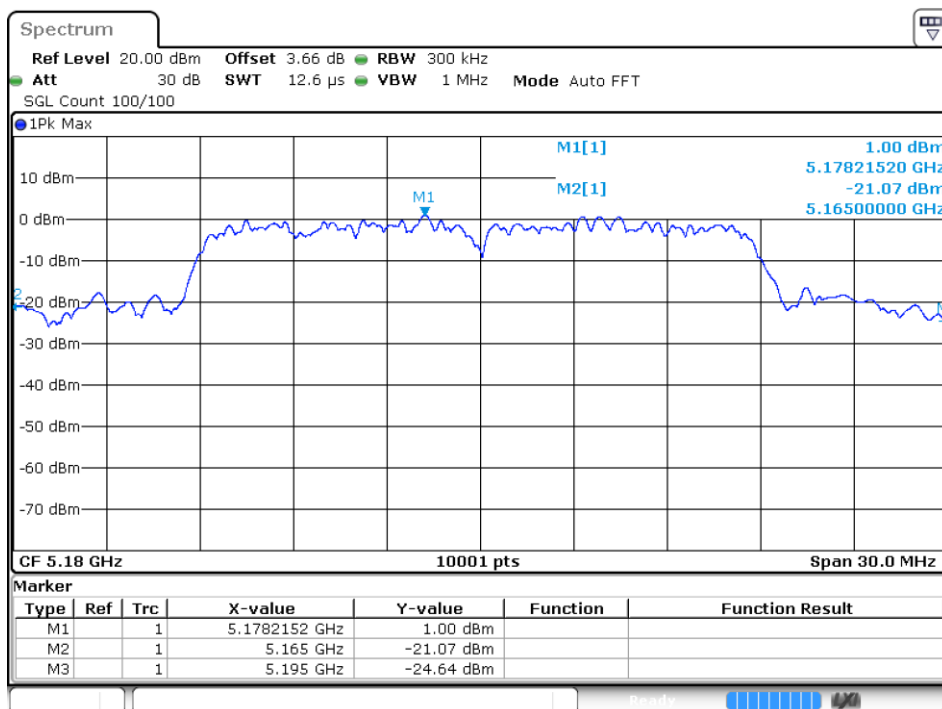




-26dB Bandwidth NVNT a 5240MHz Ant1

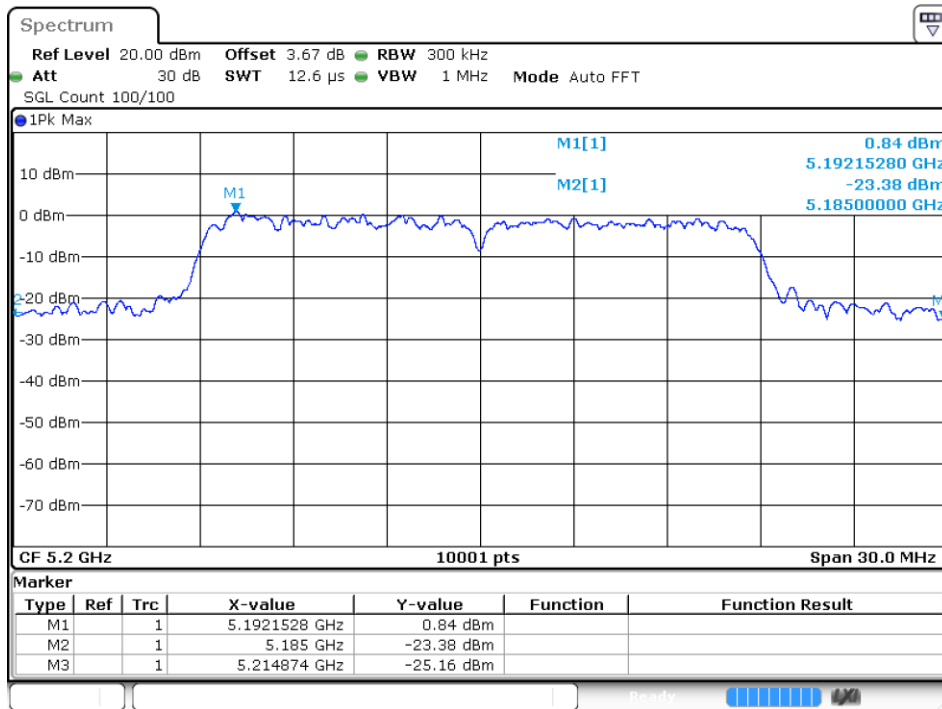


-26dB Bandwidth NVNT n20 5180MHz Ant1

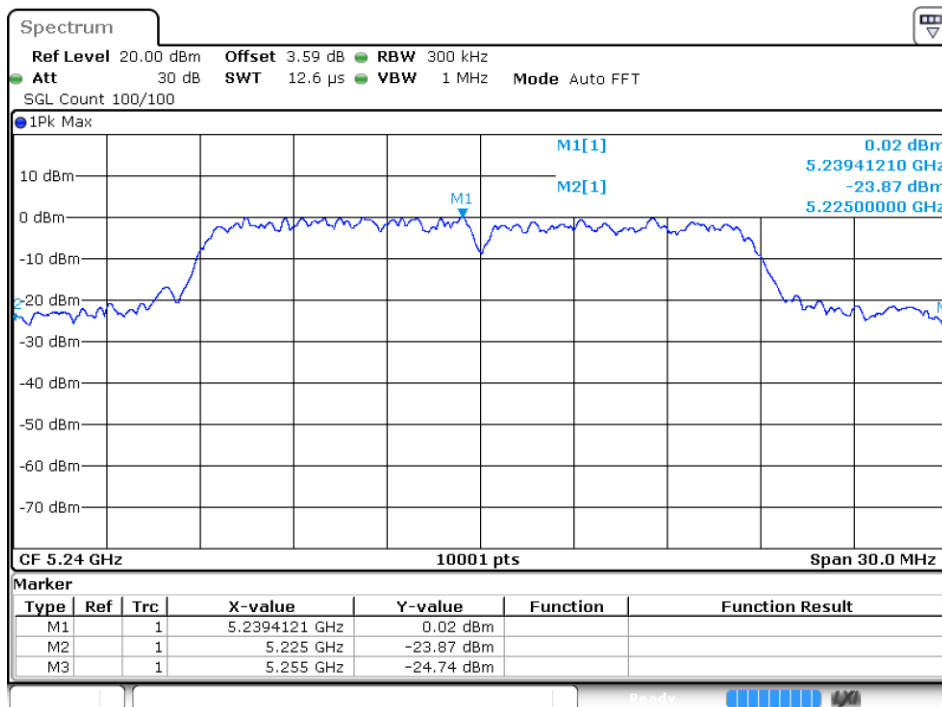




-26dB Bandwidth NVNT n20 5200MHz Ant1

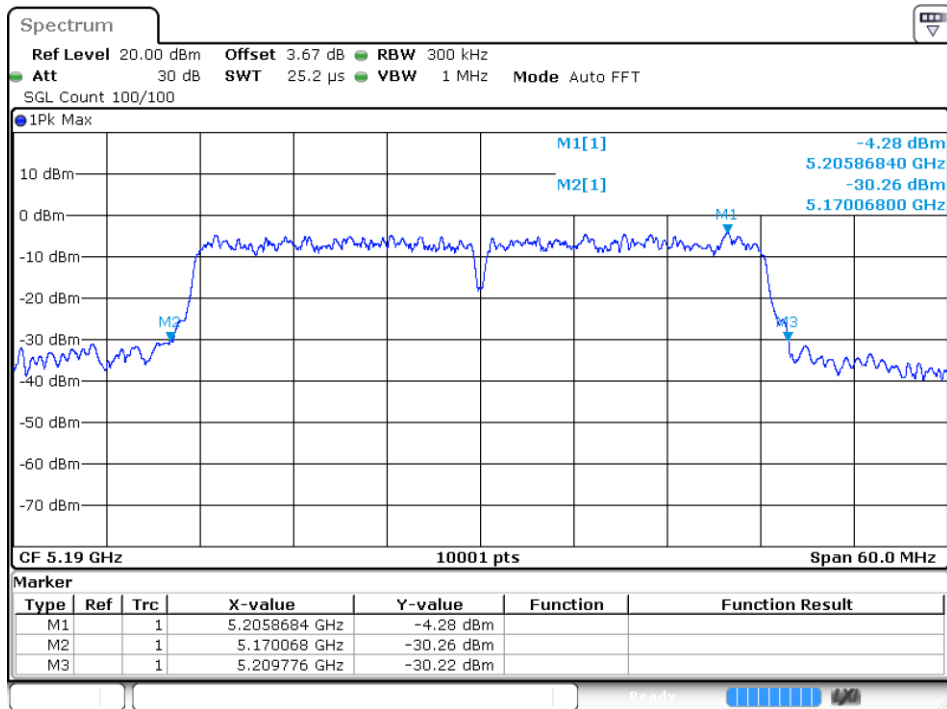


-26dB Bandwidth NVNT n20 5240MHz Ant1

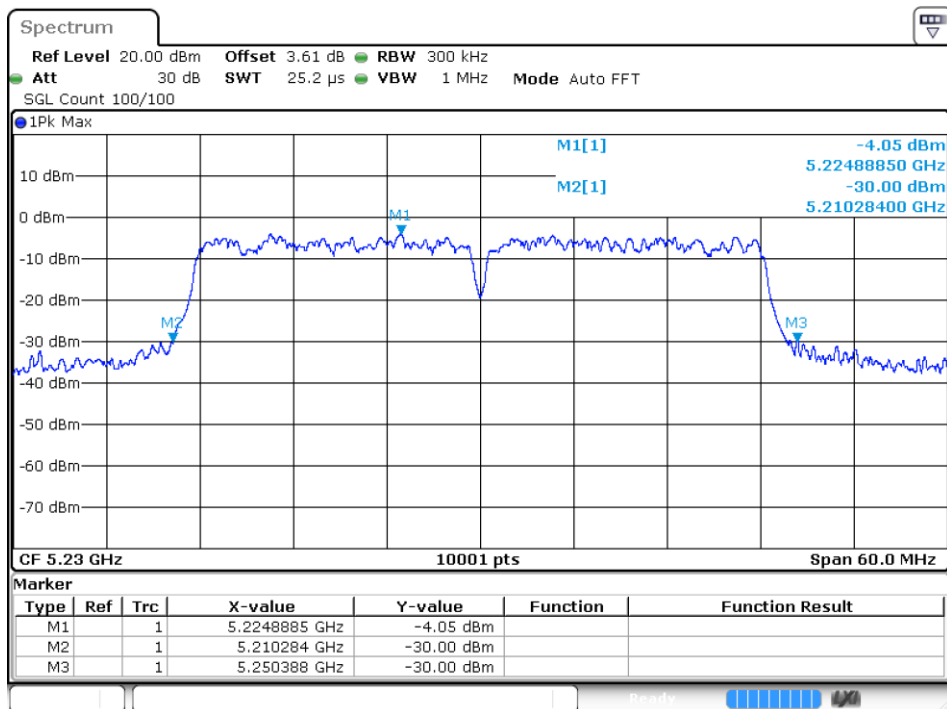




-26dB Bandwidth NVNT n40 5190MHz Ant1

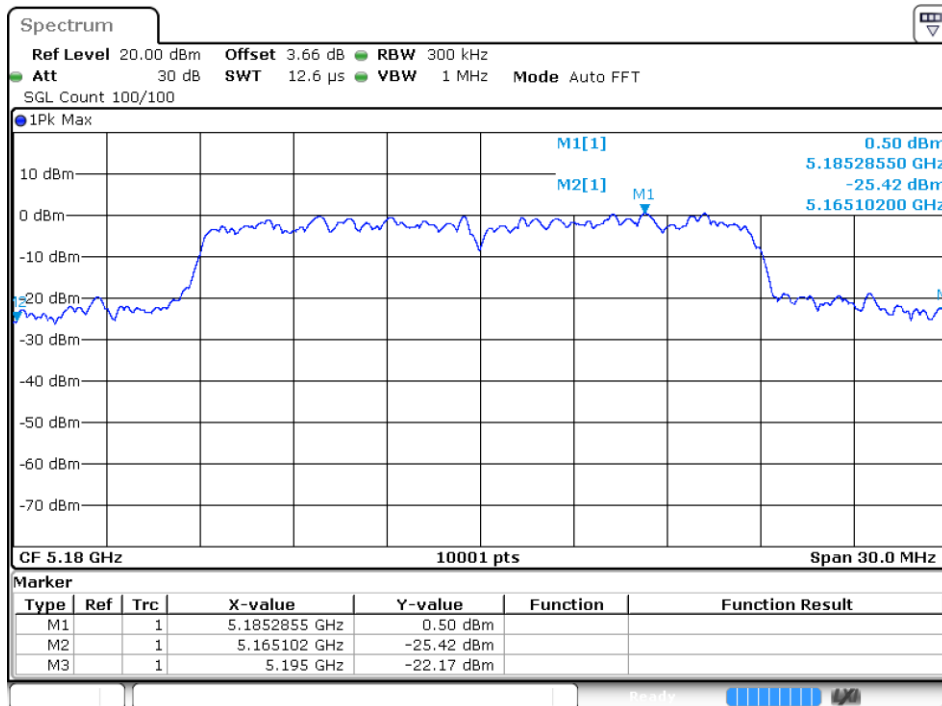


-26dB Bandwidth NVNT n40 5230MHz Ant1

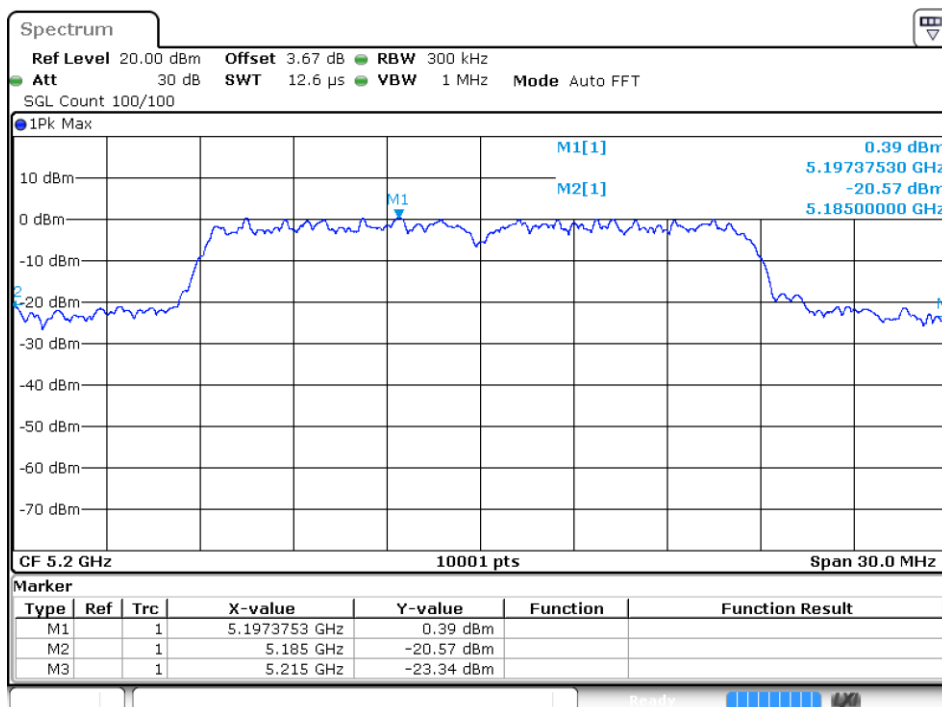




-26dB Bandwidth NVNT ac20 5180MHz Ant1

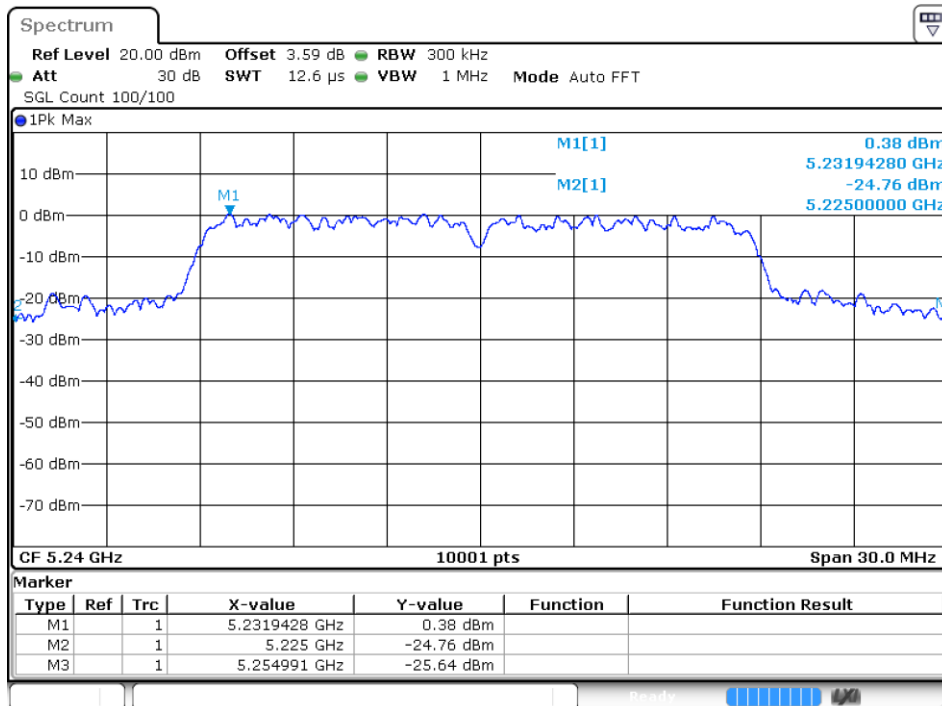


-26dB Bandwidth NVNT ac20 5200MHz Ant1

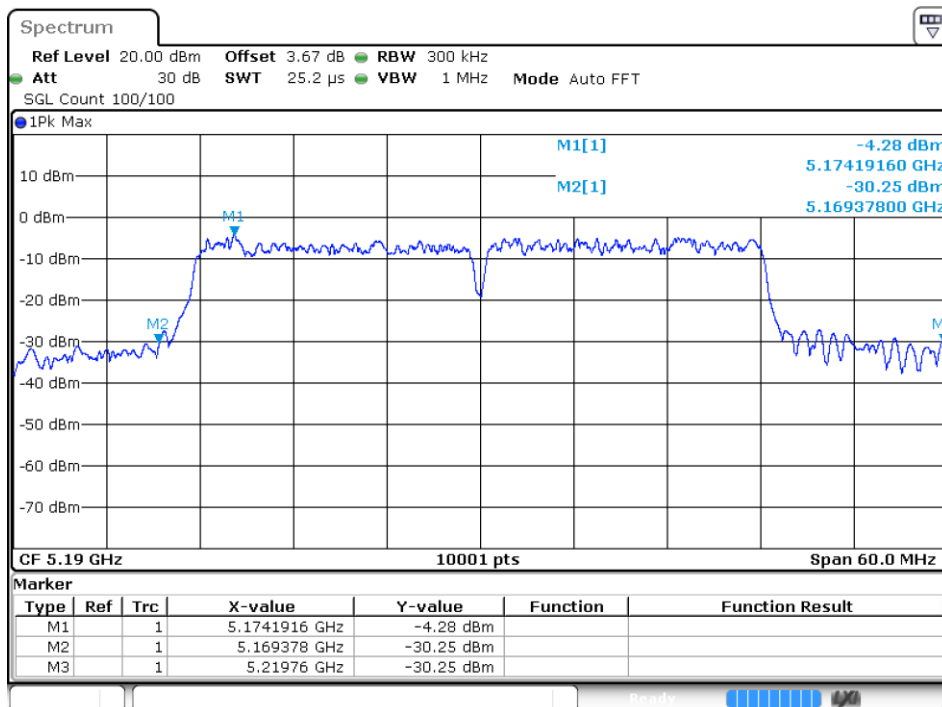




-26dB Bandwidth NVNT ac20 5240MHz Ant1

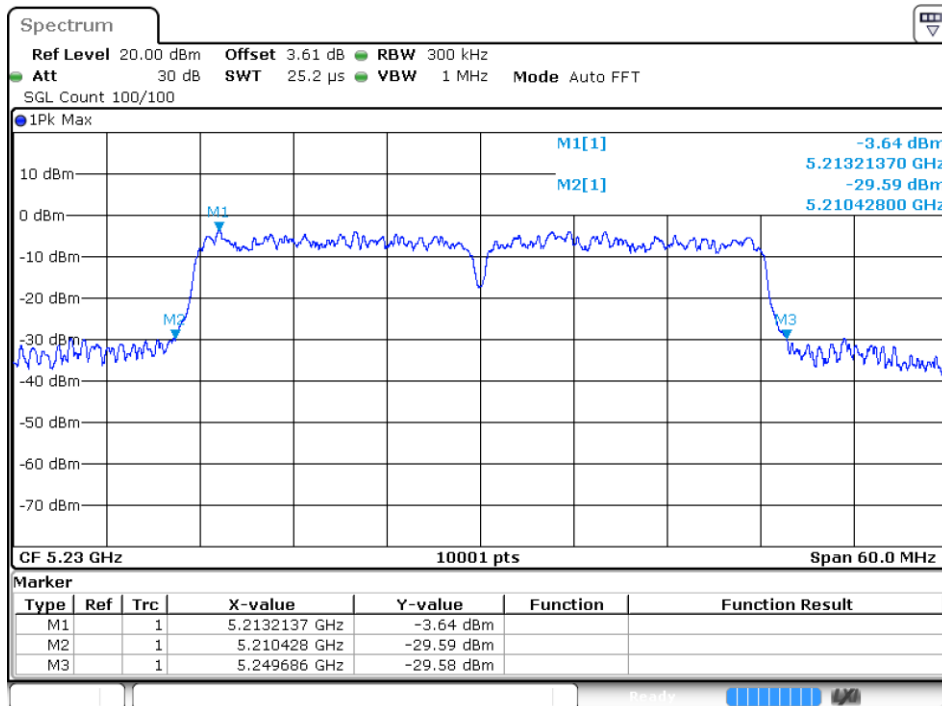


-26dB Bandwidth NVNT ac40 5190MHz Ant1

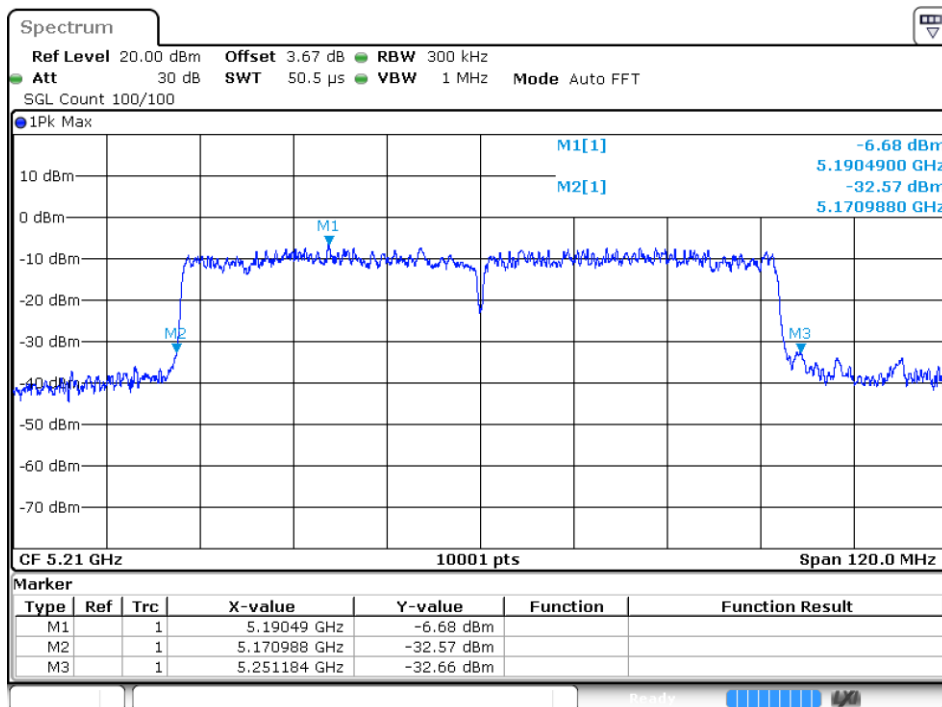




-26dB Bandwidth NVNT ac40 5230MHz Ant1



-26dB Bandwidth NVNT ac80 5210MHz Ant1





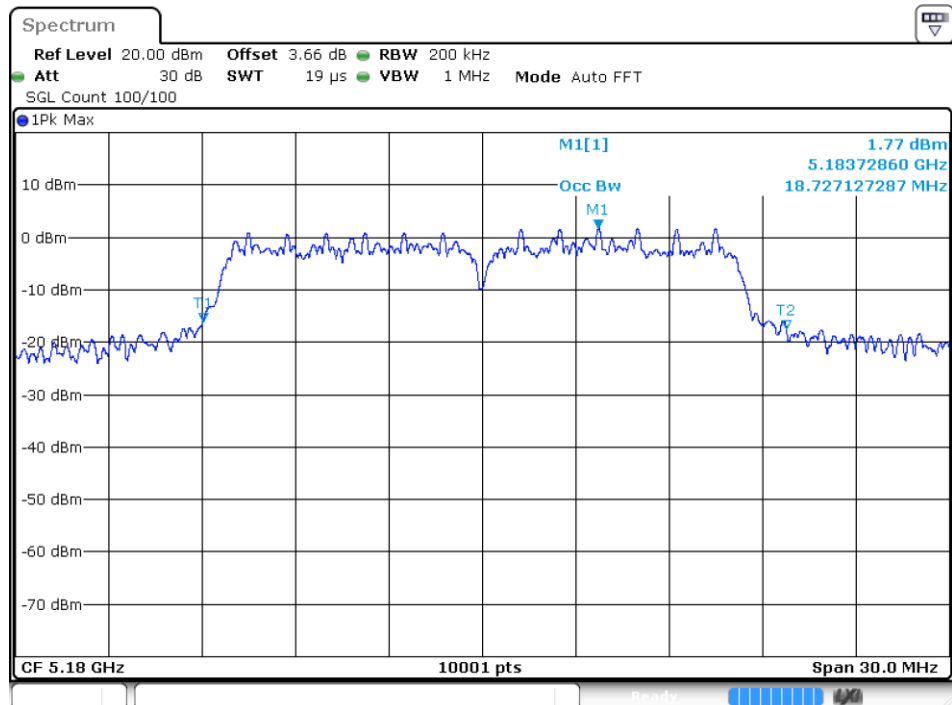
4 Occupied Channel Bandwidth

Test Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
802.11a	5180	Ant1	18.727
802.11a	5200	Ant1	18.952
802.11a	5240	Ant1	19.324
802.11n20	5180	Ant1	17.842
802.11n20	5200	Ant1	17.956
802.11n20	5240	Ant1	17.887
802.11n40	5190	Ant1	36.428
802.11n40	5230	Ant1	36.14
802.11ac20	5180	Ant1	17.875
802.11ac20	5200	Ant1	17.881
802.11ac20	5240	Ant1	17.995
802.11ac40	5190	Ant1	36.338
802.11ac40	5230	Ant1	36.332
802.11ac80	5210	Ant1	75.652

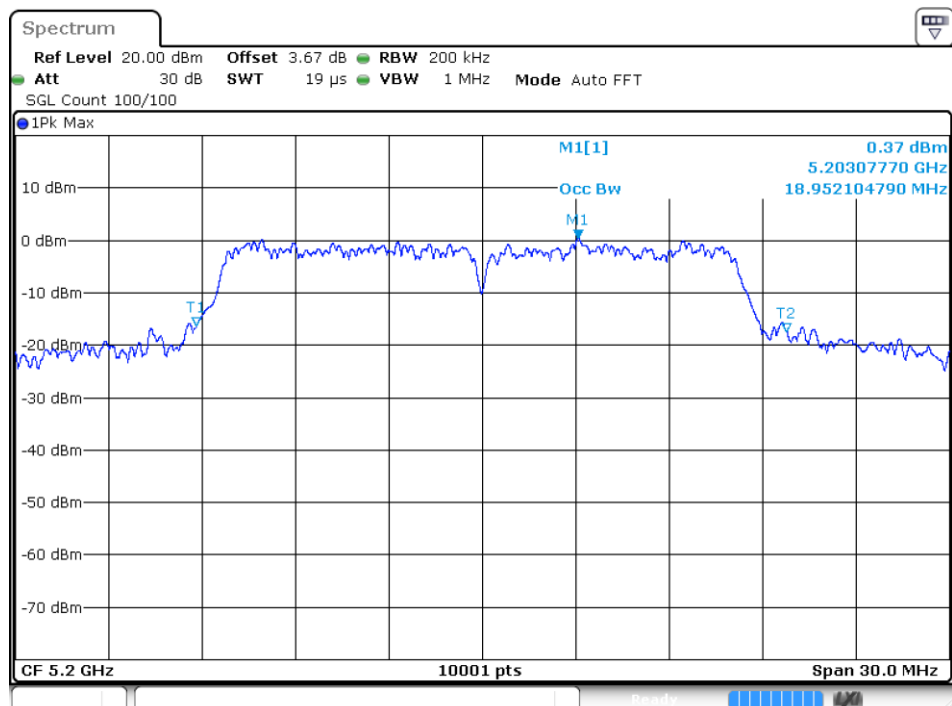


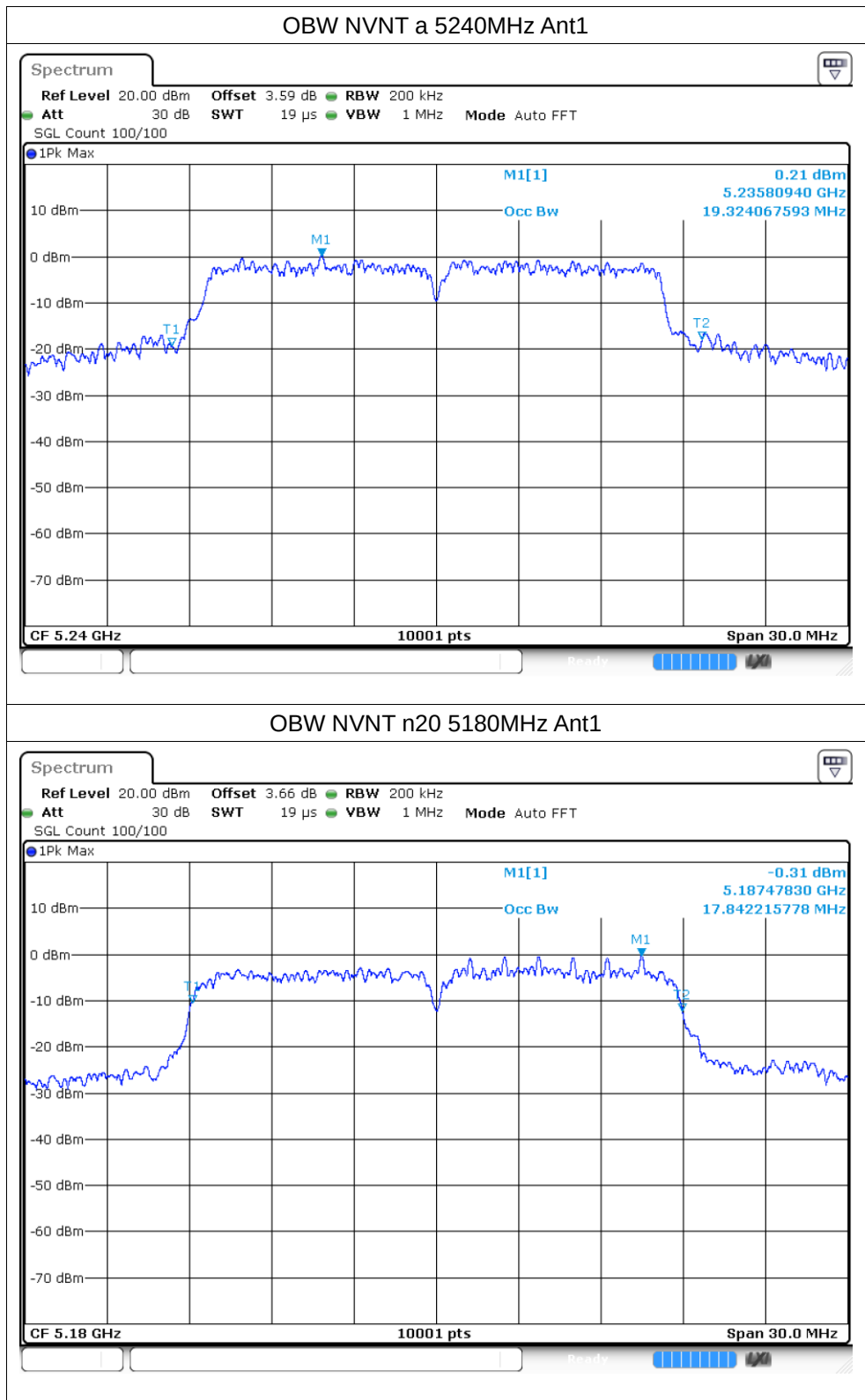
Test Graphs

OBW NVNT a 5180MHz Ant1



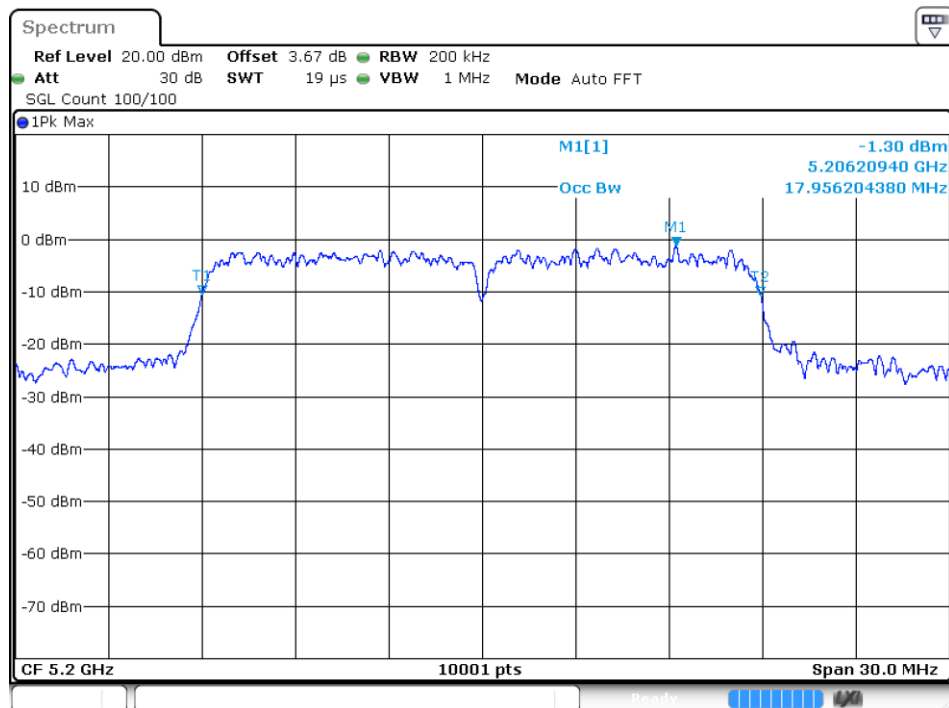
OBW NVNT a 5200MHz Ant1



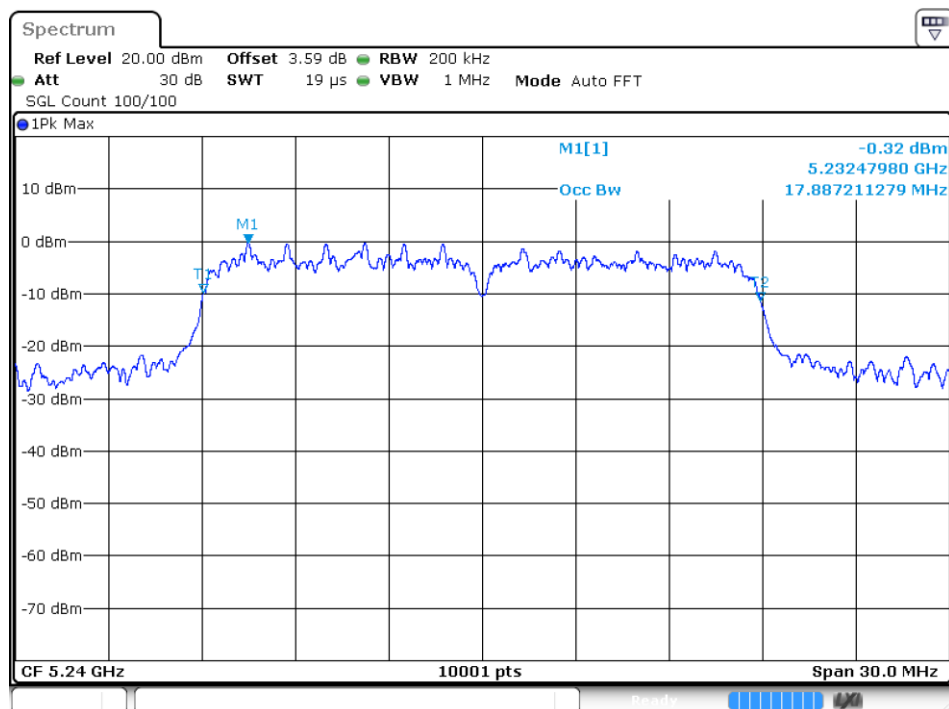




OBW NVNT n20 5200MHz Ant1

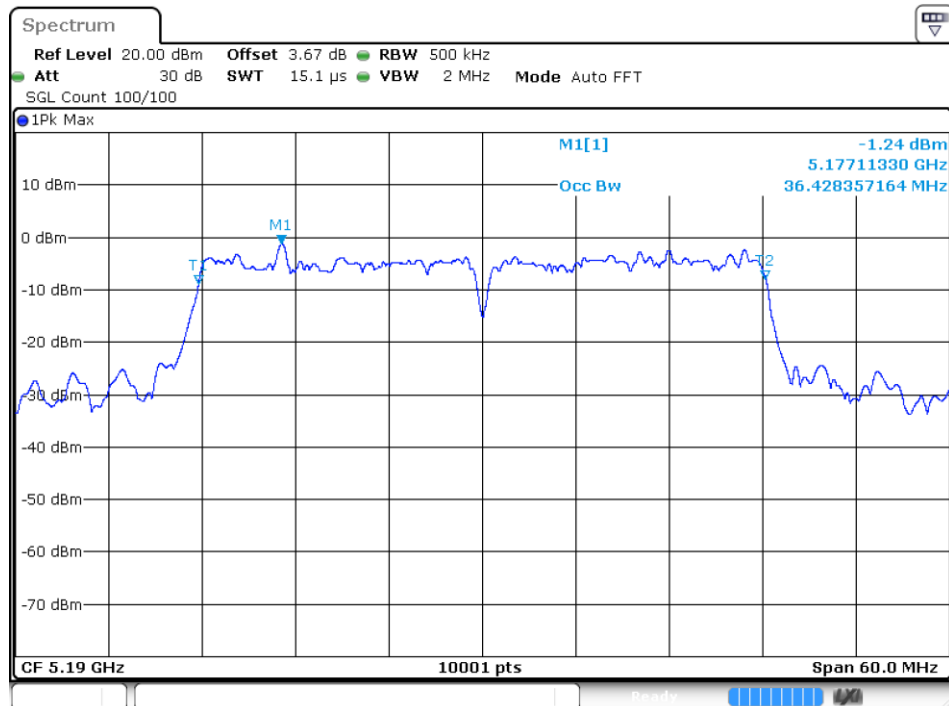


OBW NVNT n20 5240MHz Ant1

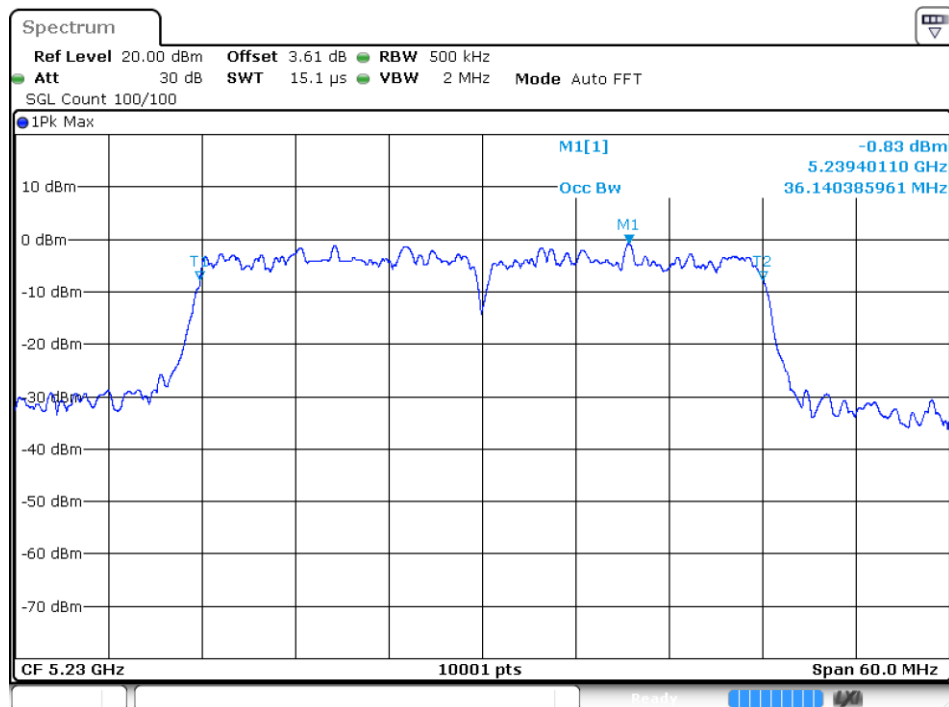




OBW NVNT n40 5190MHz Ant1

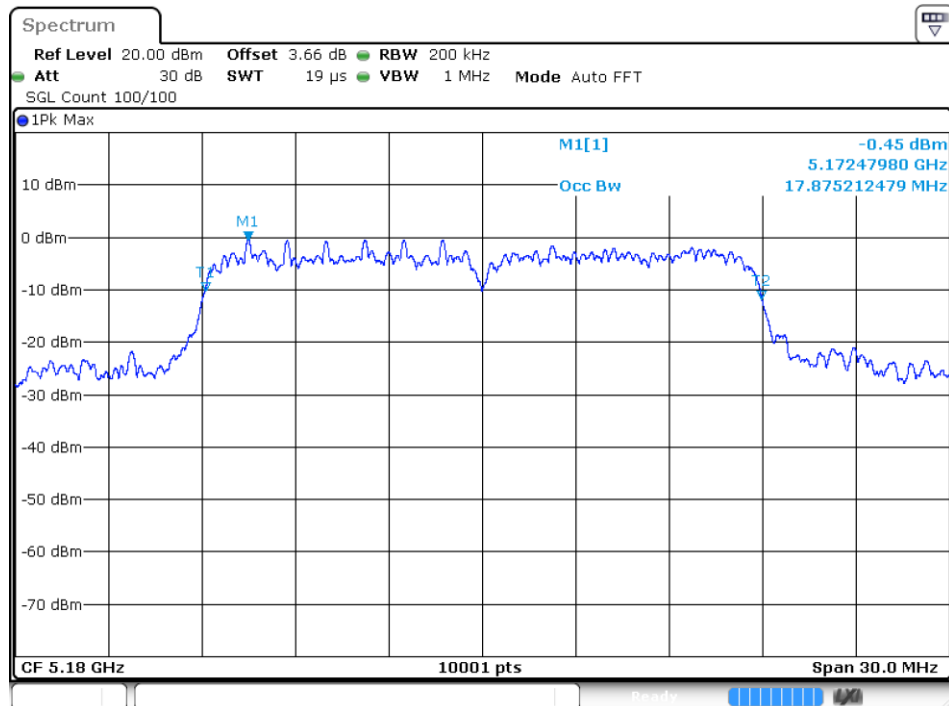


OBW NVNT n40 5230MHz Ant1

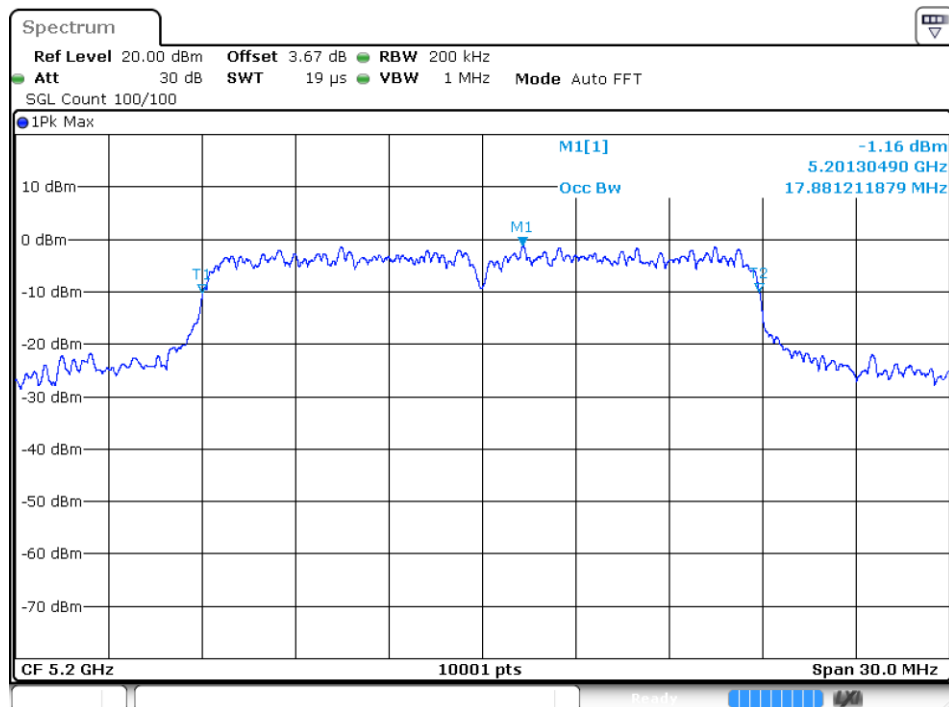




OBW NVNT ac20 5180MHz Ant1

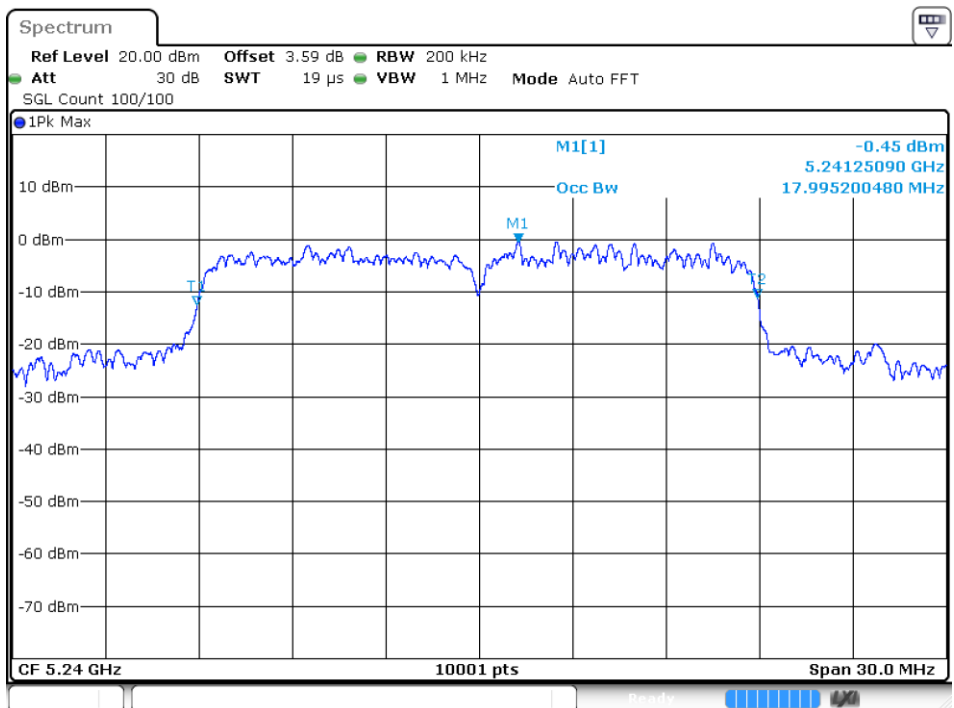


OBW NVNT ac20 5200MHz Ant1

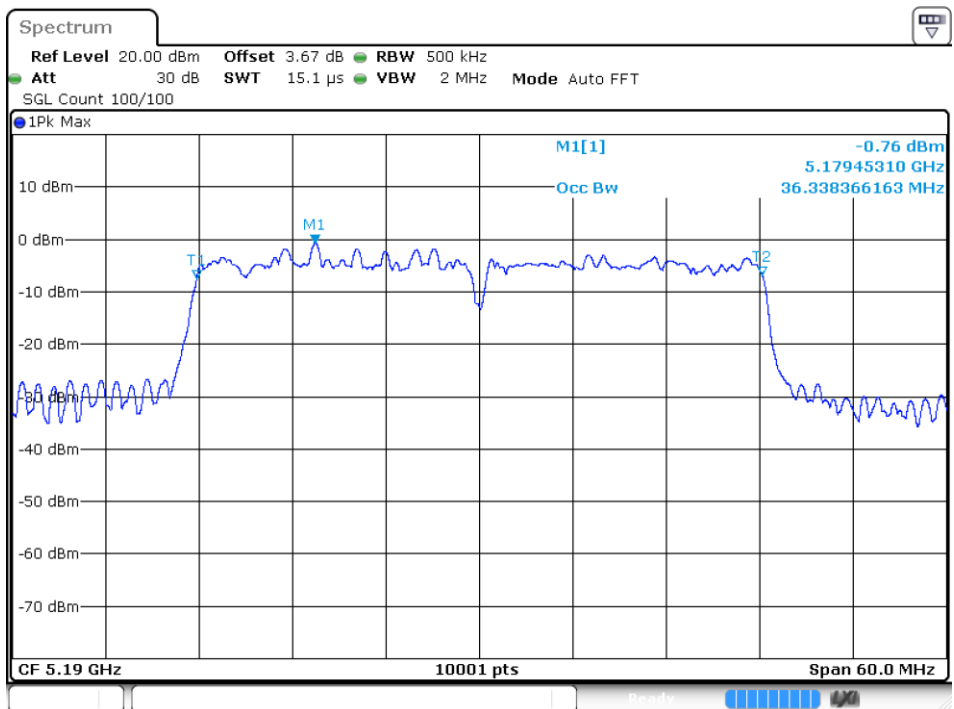




OBW NVNT ac20 5240MHz Ant1

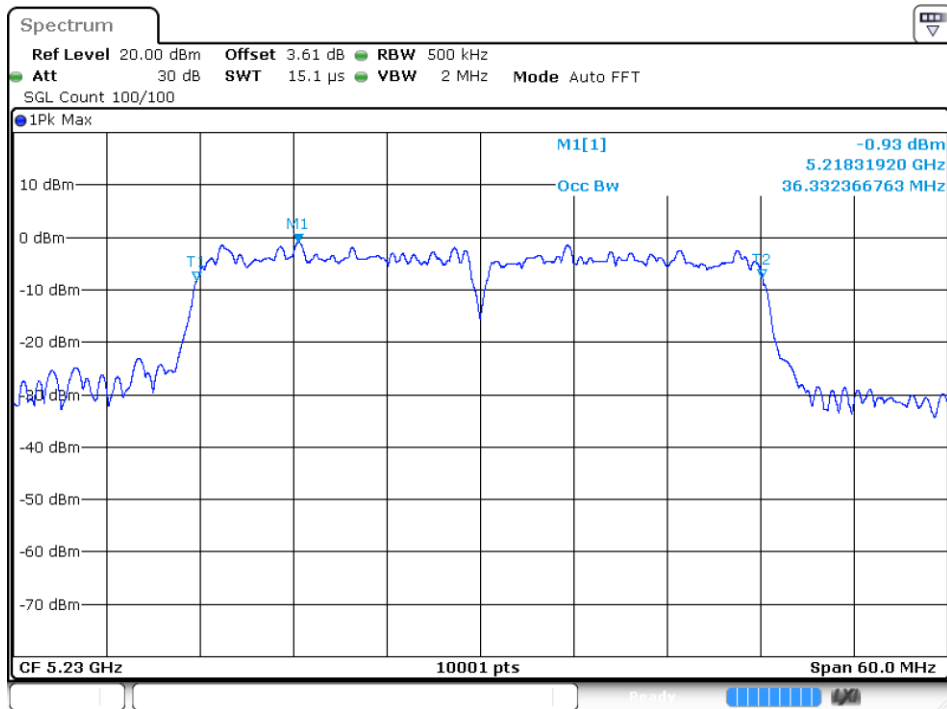


OBW NVNT ac40 5190MHz Ant1

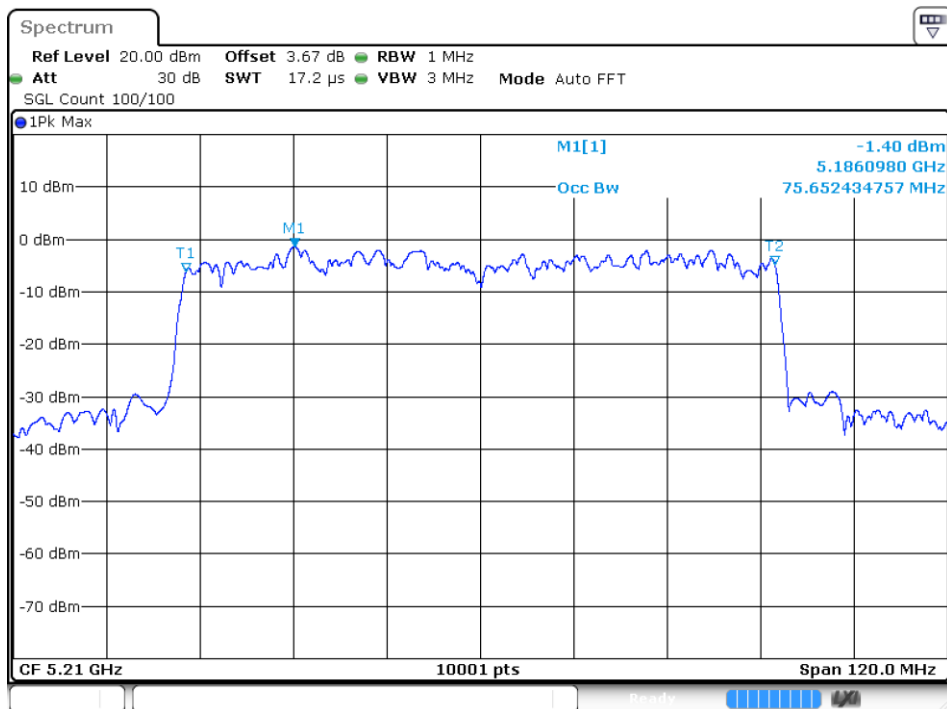




OBW NVNT ac40 5230MHz Ant1



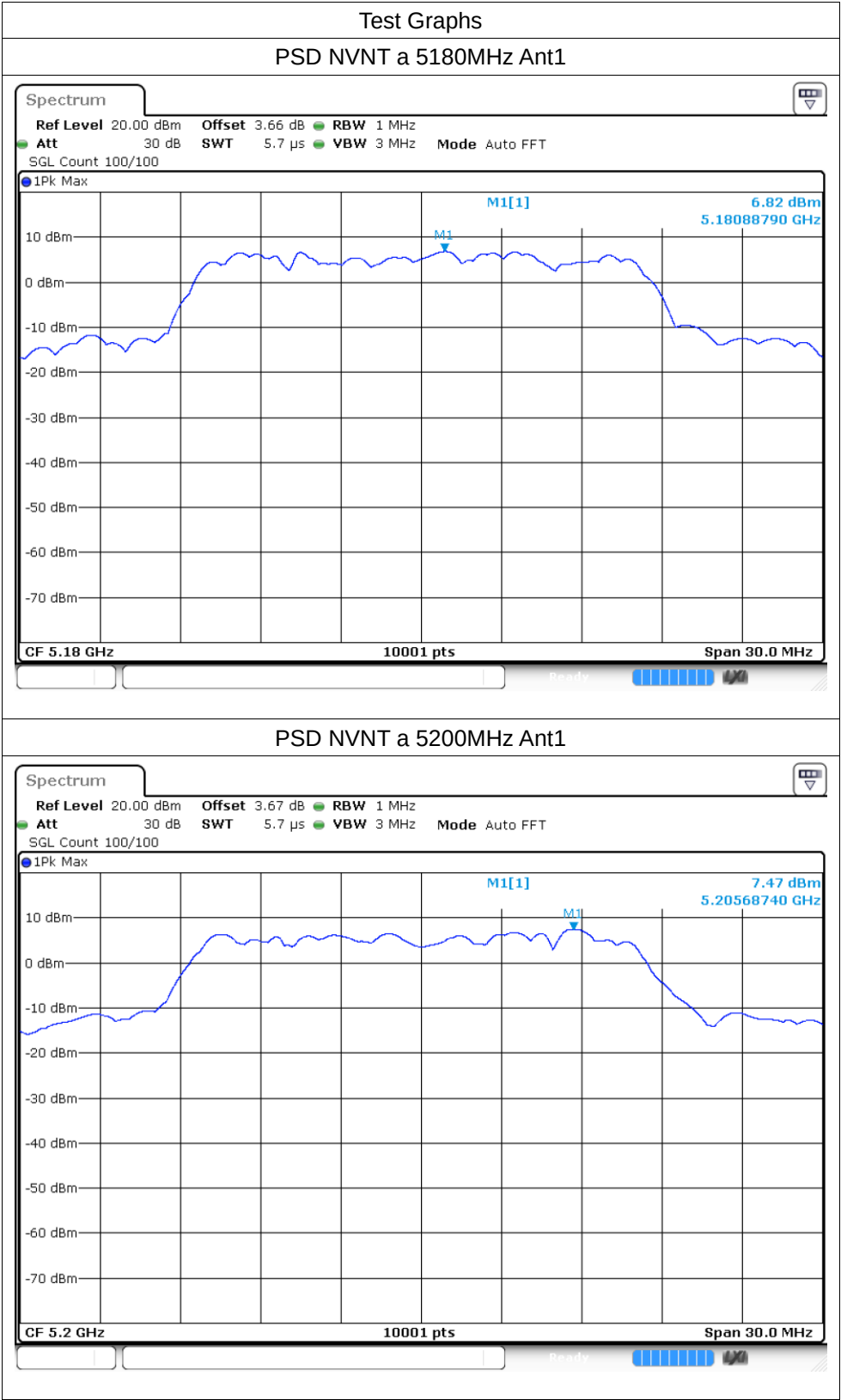
OBW NVNT ac80 5210MHz Ant1





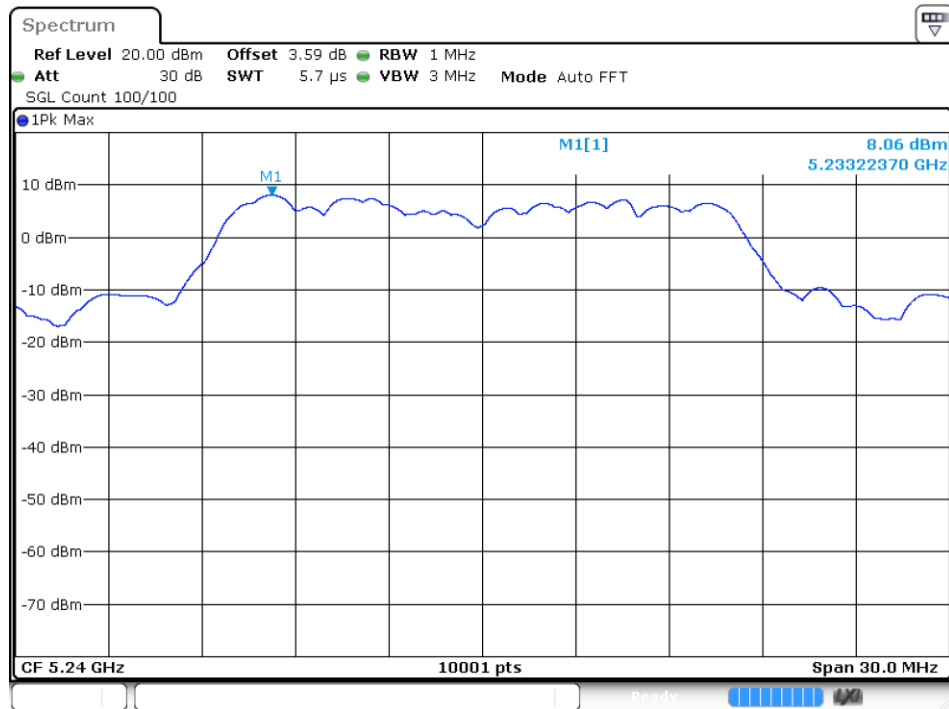
5 Maximum Power Spectral Density Level

Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm)	Limit (dBm)	Verdict
802.11a	5180	Ant1	6.82	11	Pass
802.11a	5200	Ant1	7.47	11	Pass
802.11a	5240	Ant1	8.06	11	Pass
802.11n20	5180	Ant1	5.19	11	Pass
802.11n20	5200	Ant1	6.89	11	Pass
802.11n20	5240	Ant1	5.86	11	Pass
802.11n40	5190	Ant1	1.34	11	Pass
802.11n40	5230	Ant1	1.89	11	Pass
802.11ac20	5180	Ant1	6.11	11	Pass
802.11ac20	5200	Ant1	6.16	11	Pass
802.11ac20	5240	Ant1	5.97	11	Pass
802.11ac40	5190	Ant1	1.05	11	Pass
802.11ac40	5230	Ant1	2.33	11	Pass
802.11ac80	5210	Ant1	-0.48	11	Pass

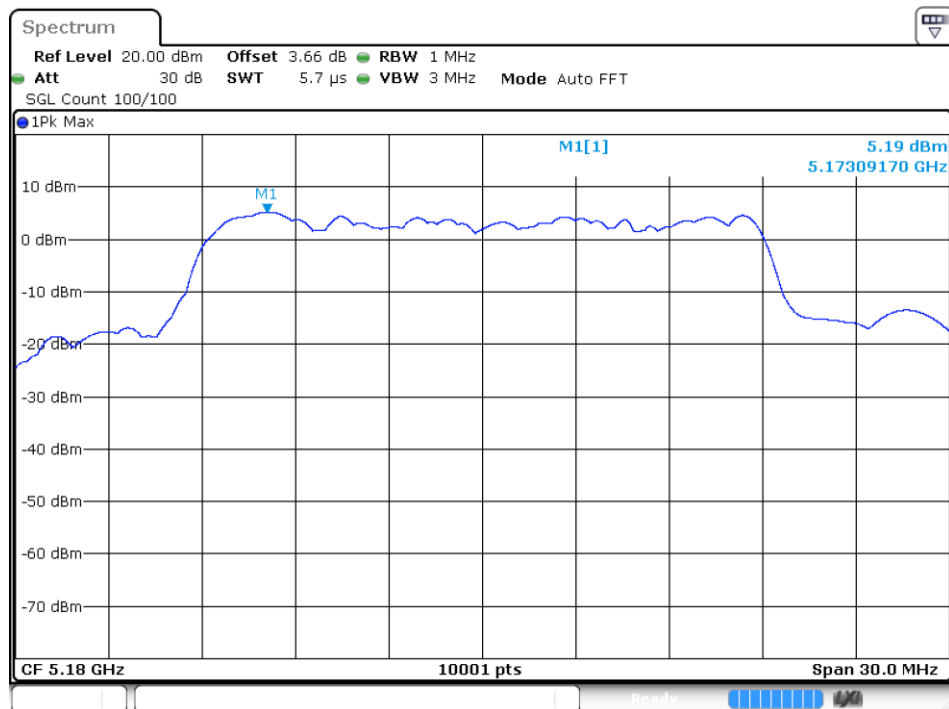


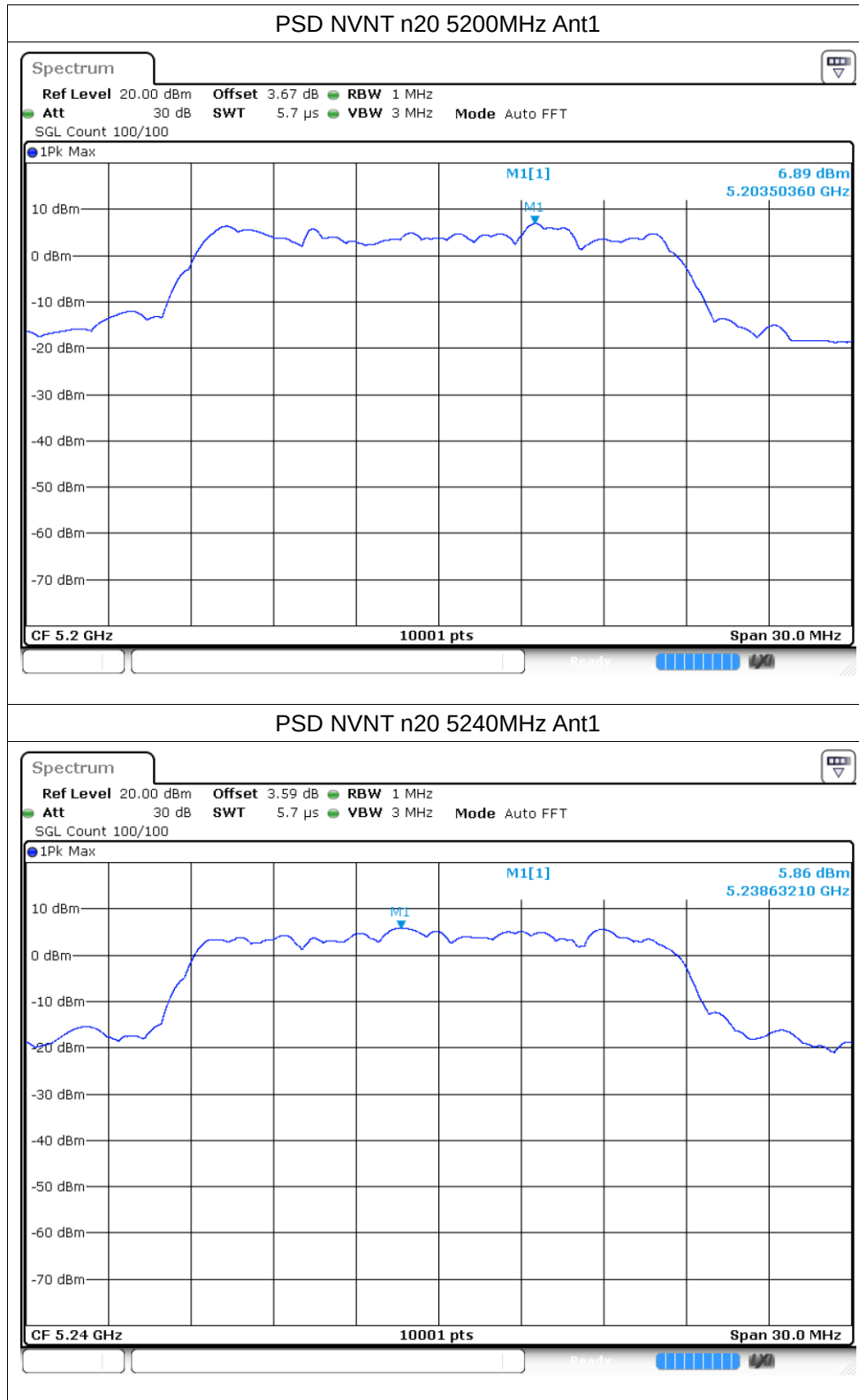


PSD NVNT a 5240MHz Ant1



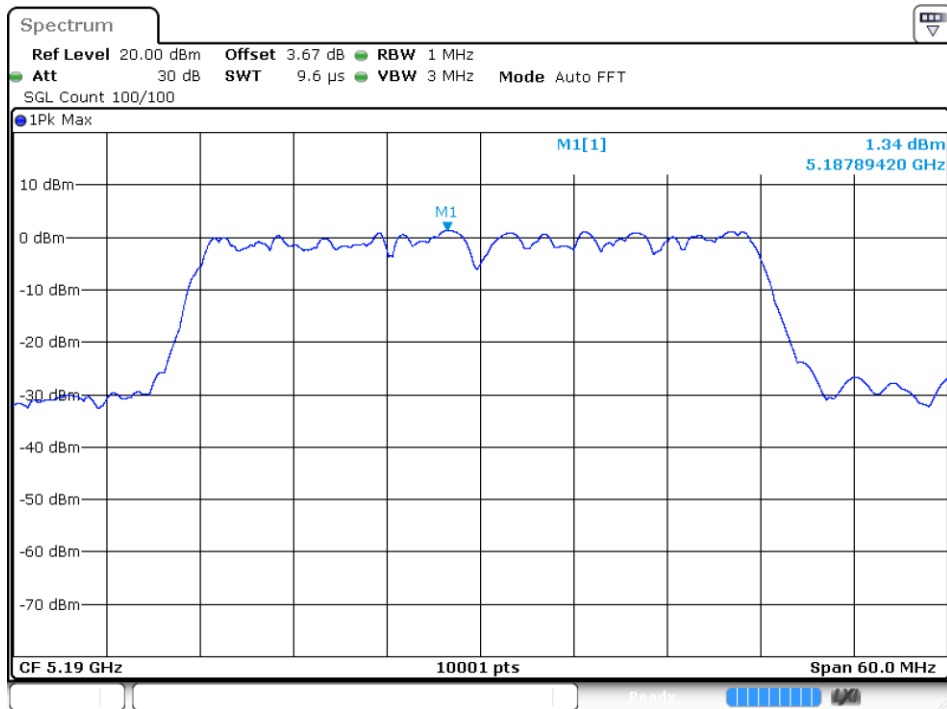
PSD NVNT n20 5180MHz Ant1



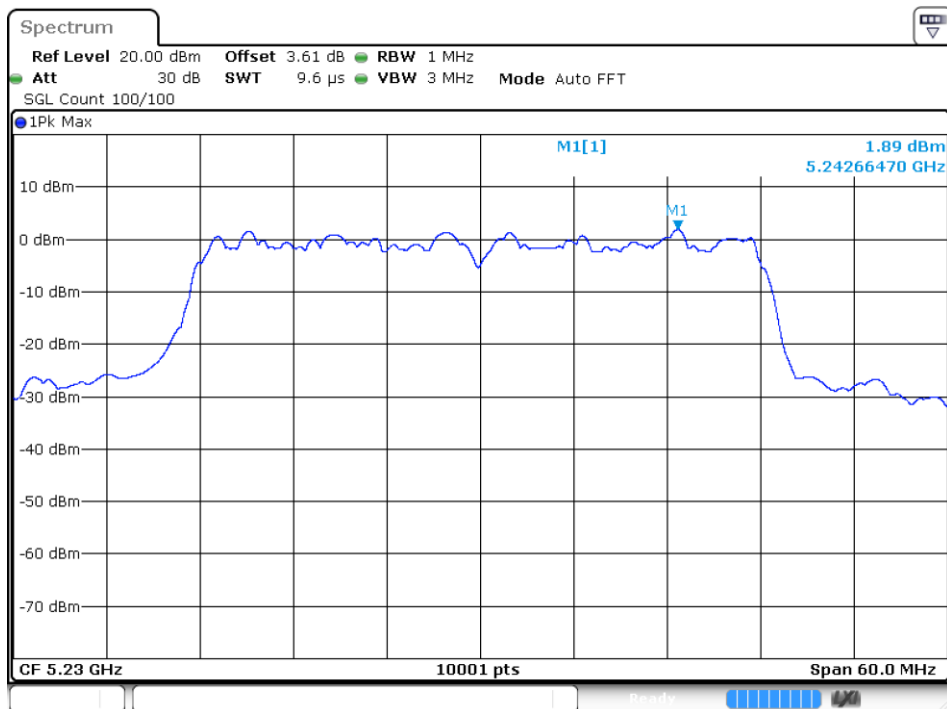




PSD NVNT n40 5190MHz Ant1

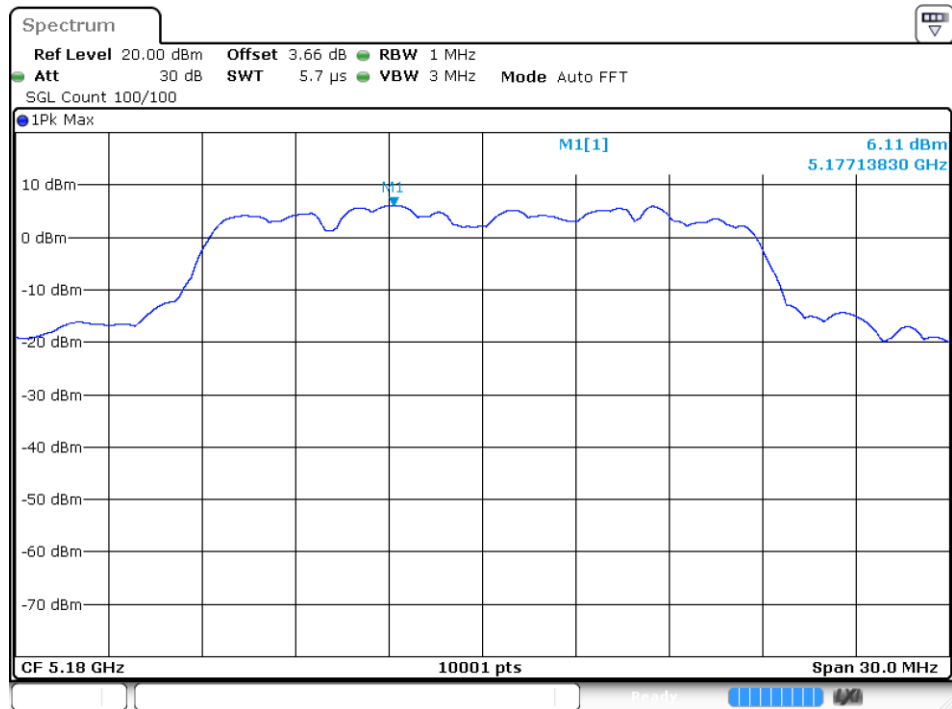


PSD NVNT n40 5230MHz Ant1

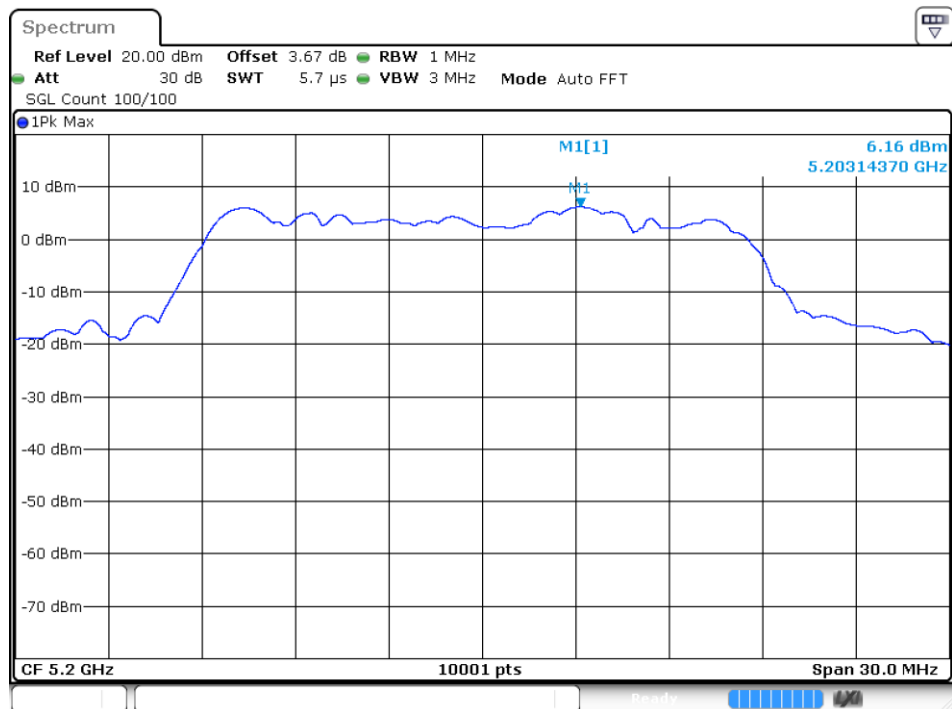




PSD NVNT ac20 5180MHz Ant1

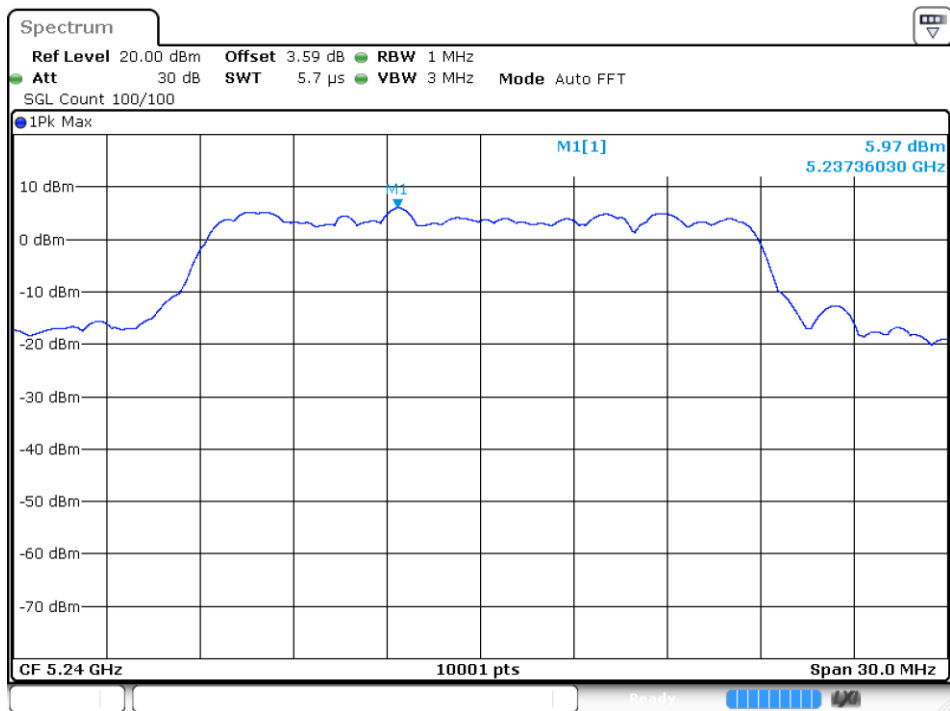


PSD NVNT ac20 5200MHz Ant1

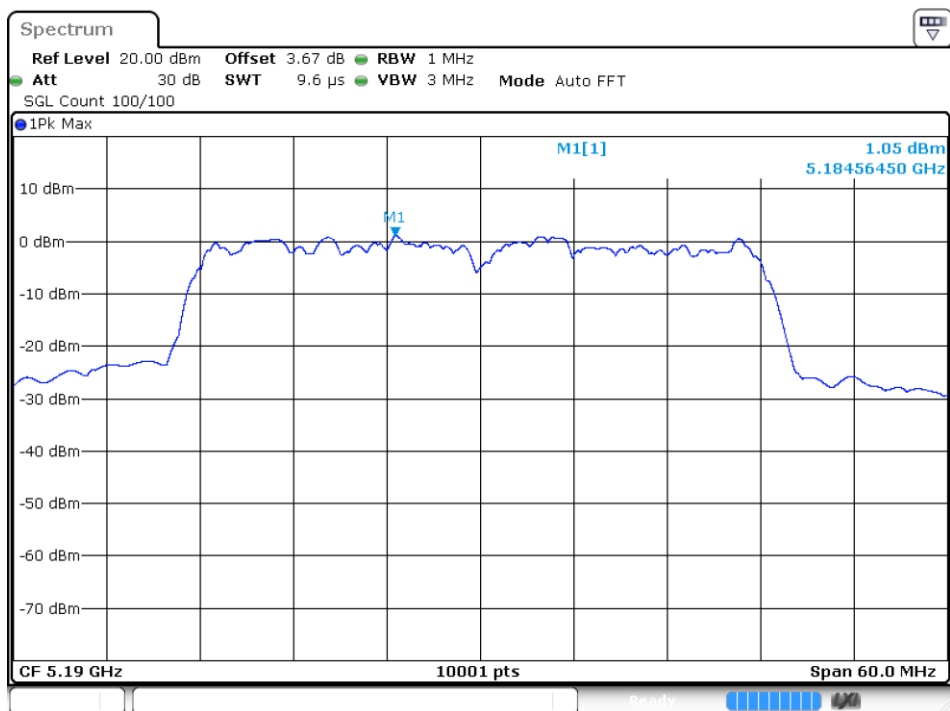




PSD NVNT ac20 5240MHz Ant1

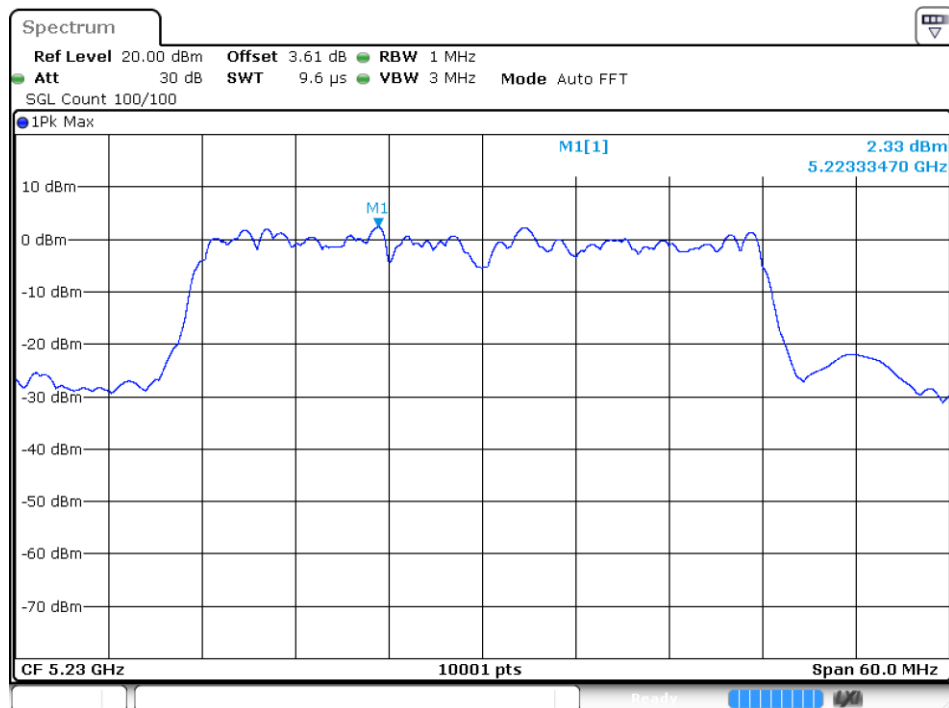


PSD NVNT ac40 5190MHz Ant1

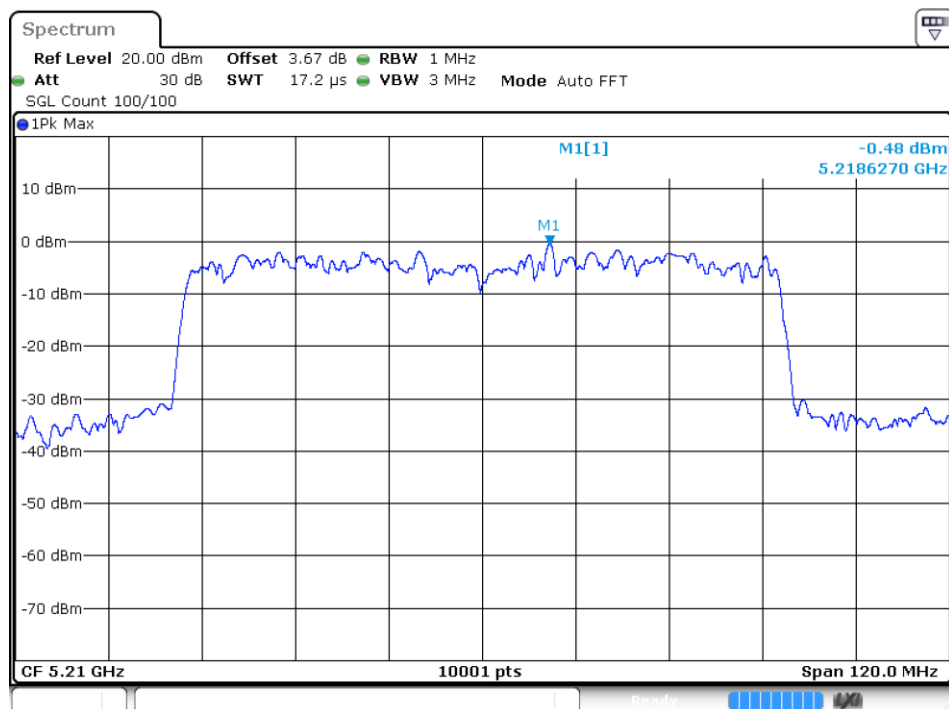




PSD NVNT ac40 5230MHz Ant1



PSD NVNT ac80 5210MHz Ant1





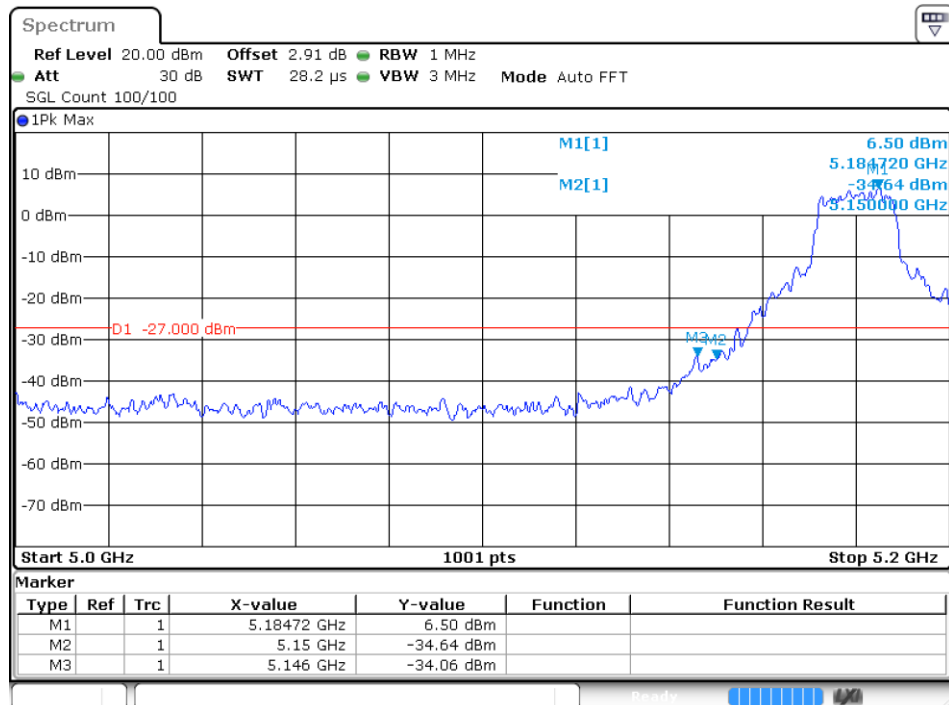
6 Band Edge

Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
802.11a	5180	Ant1	-34.06	-27	Pass
802.11a	5240	Ant1	-43.46	-27	Pass
802.11n20	5180	Ant1	-33.27	-27	Pass
802.11n20	5240	Ant1	-43.14	-27	Pass
802.11n40	5190	Ant1	-33.44	-27	Pass
802.11n40	5230	Ant1	-43.03	-27	Pass
802.11ac20	5180	Ant1	-32.4	-27	Pass
802.11ac20	5240	Ant1	-43.44	-27	Pass
802.11ac40	5190	Ant1	-35.01	-27	Pass
802.11ac40	5230	Ant1	-44.41	-27	Pass
802.11ac80	5210	Ant1	-35.48	-27	Pass

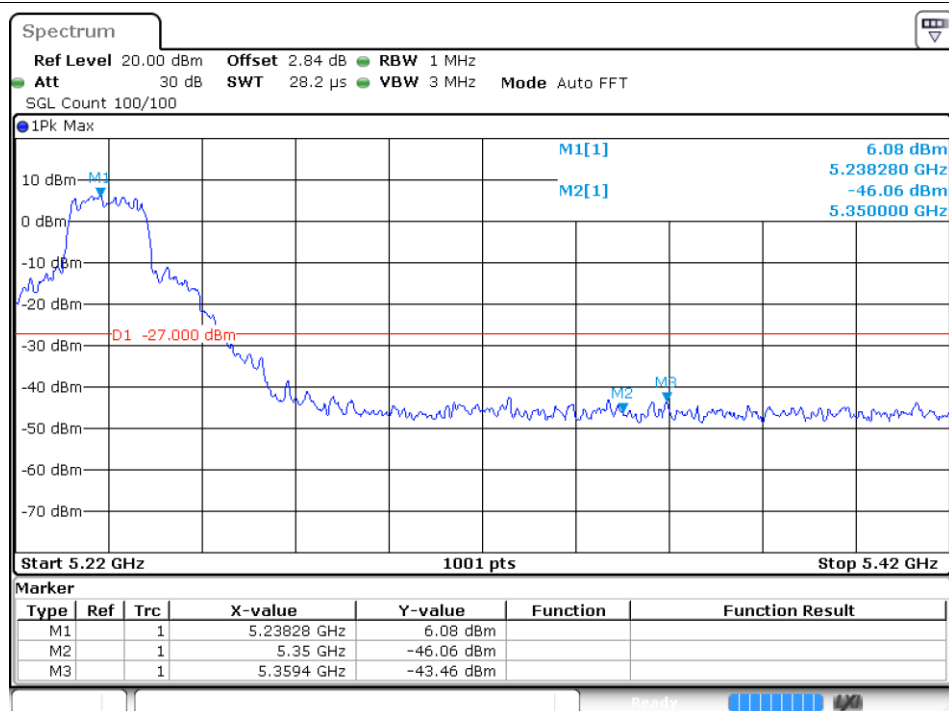


Test Graphs

Band Edge NVNT a 5180MHz Low Ant1

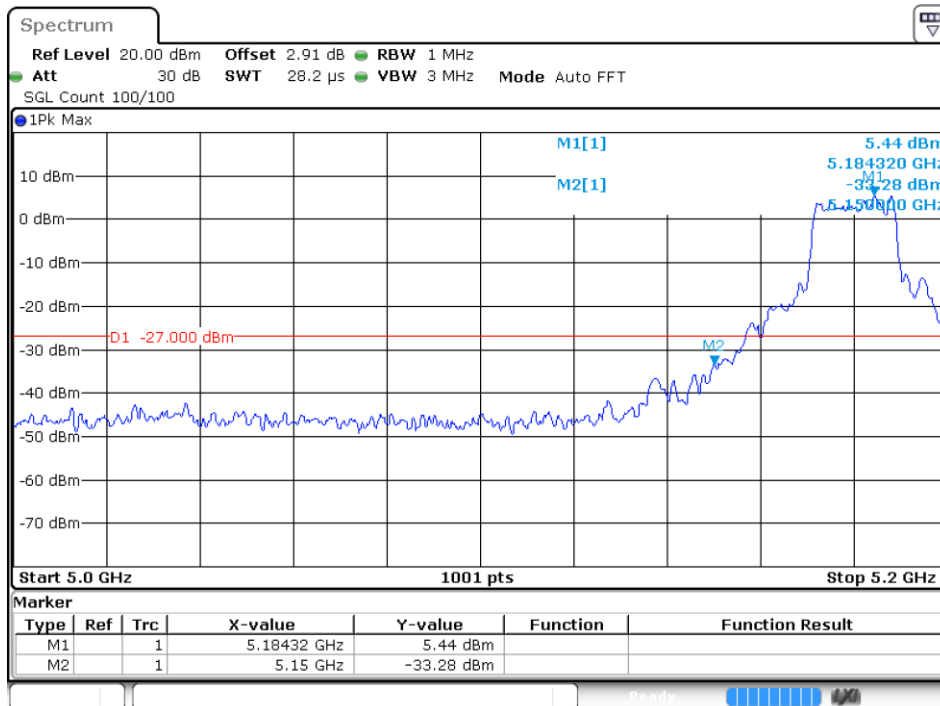


Band Edge NVNT a 5240MHz High Ant1

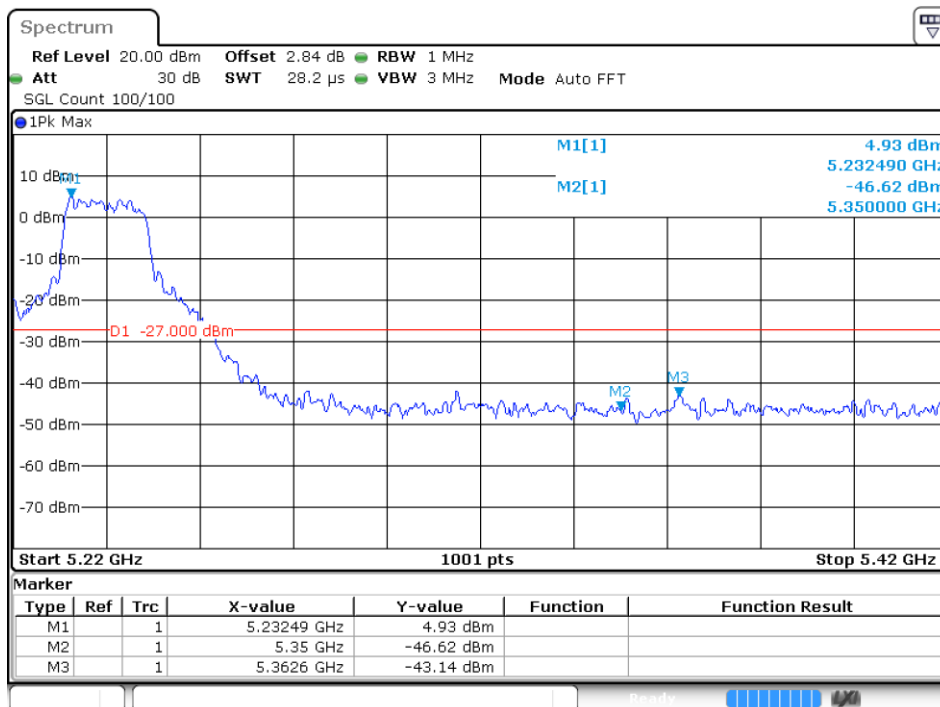




Band Edge NVNT n20 5180MHz Low Ant1

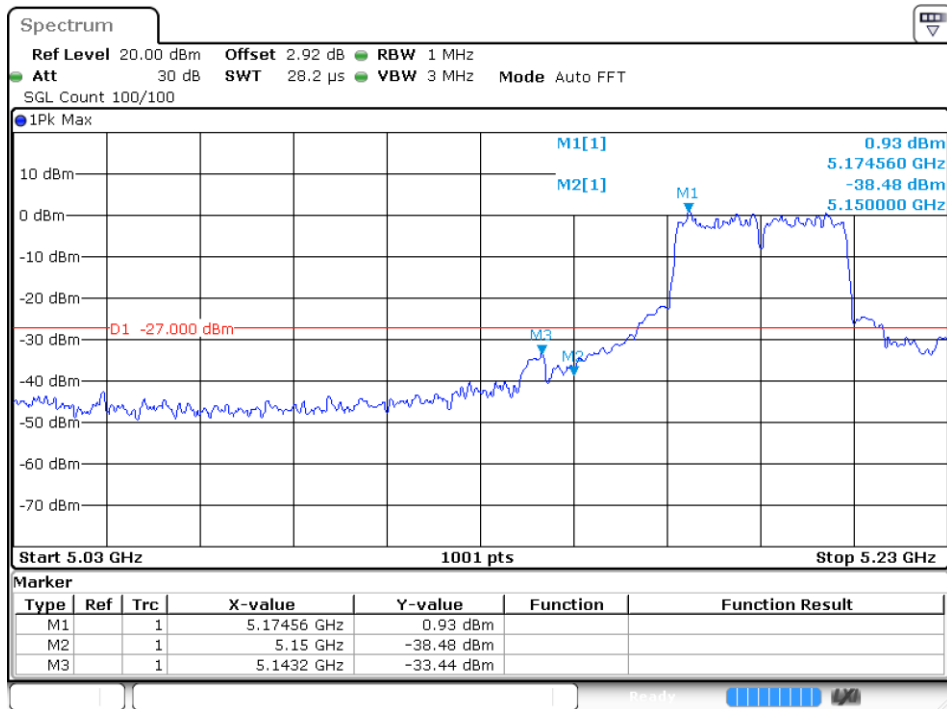


Band Edge NVNT n20 5240MHz High Ant1





Band Edge NVNT n40 5190MHz Low Ant1

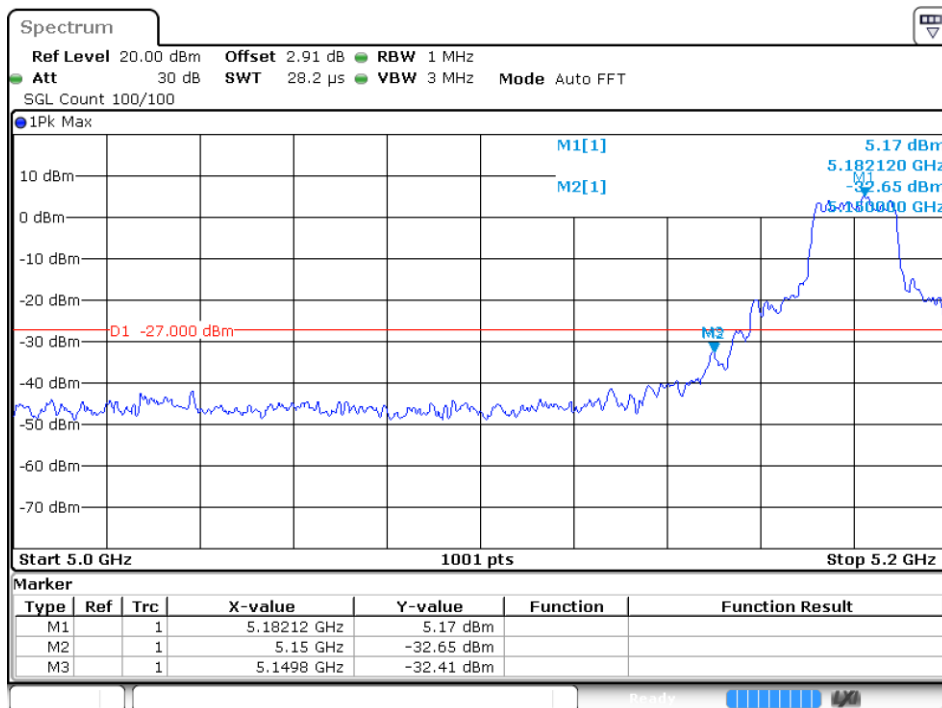


Band Edge NVNT n40 5230MHz High Ant1

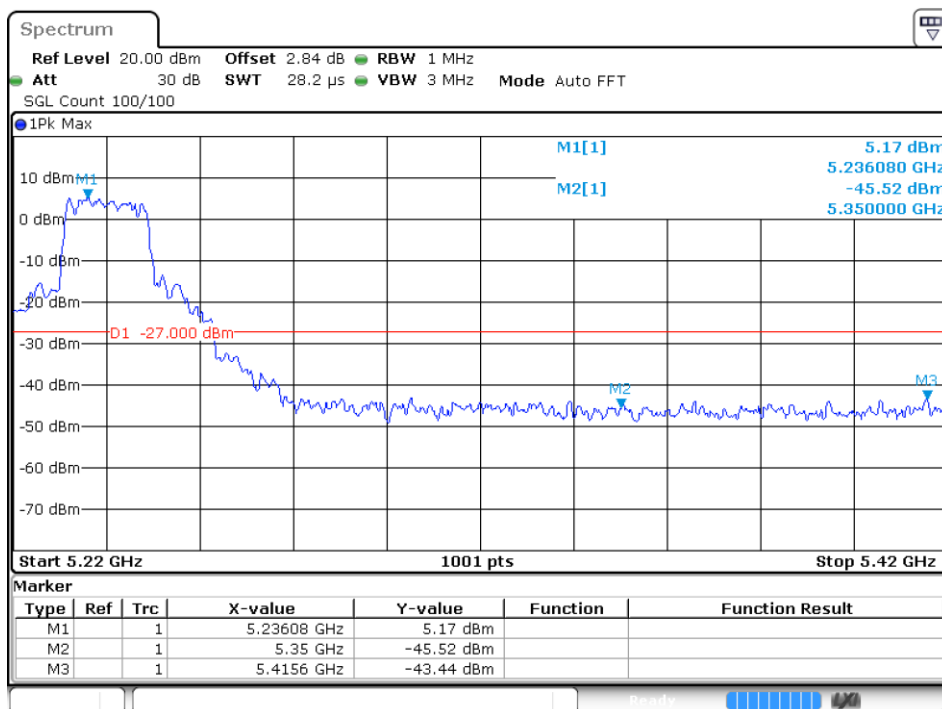




Band Edge NVNT ac20 5180MHz Low Ant1

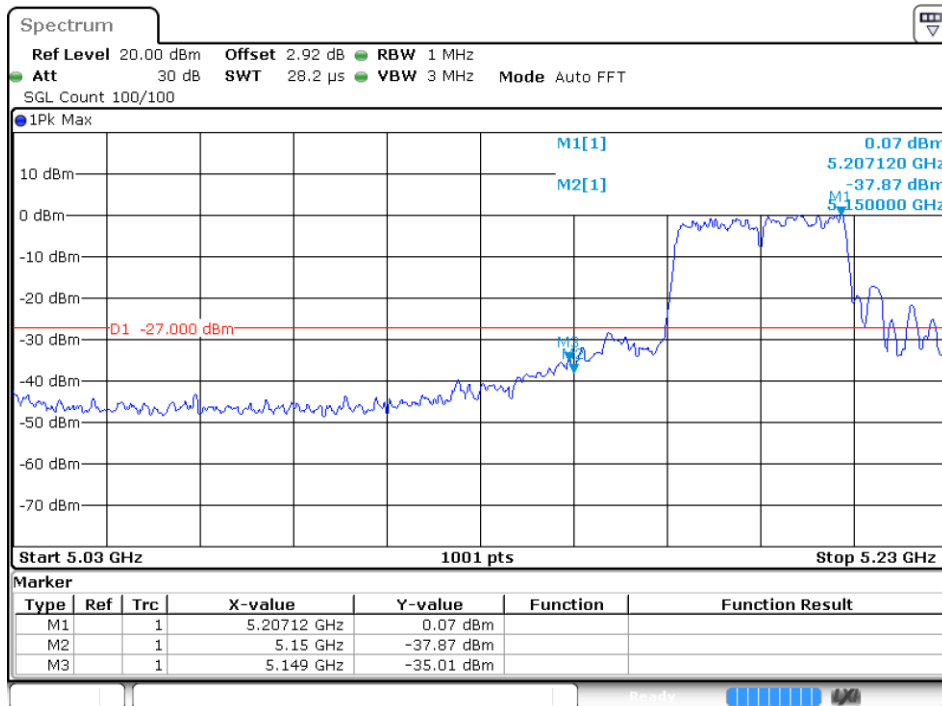


Band Edge NVNT ac20 5240MHz High Ant1

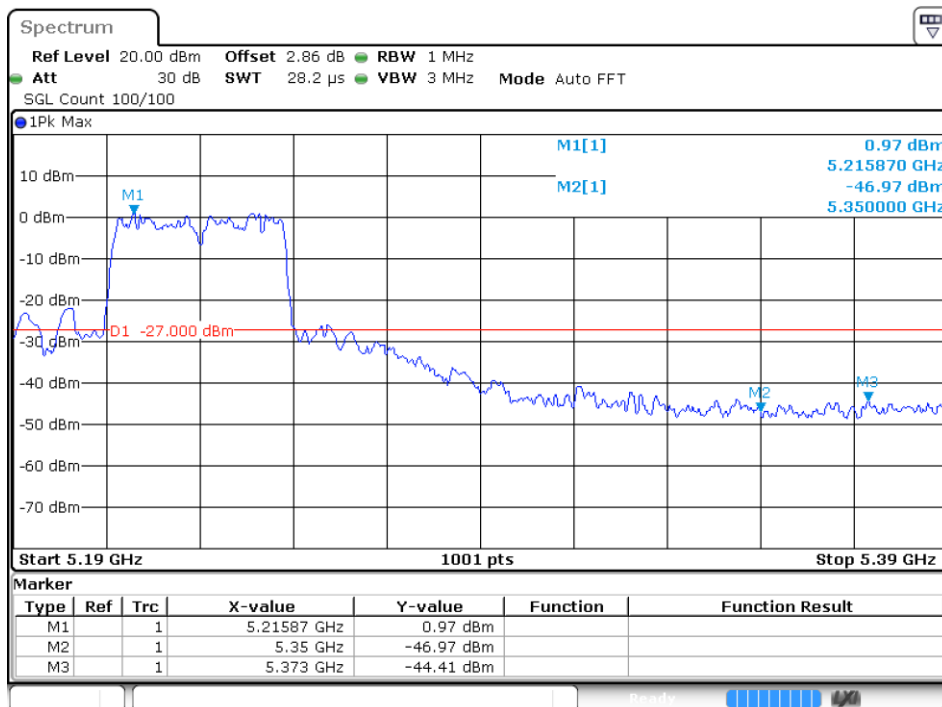


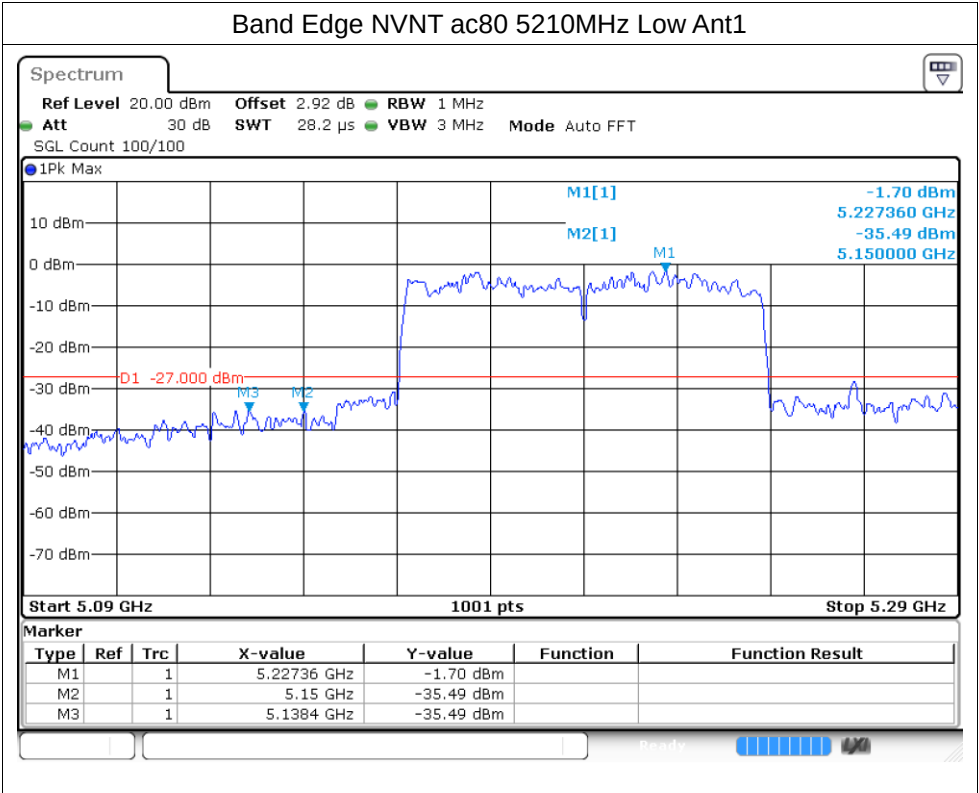


Band Edge NVNT ac40 5190MHz Low Ant1



Band Edge NVNT ac40 5230MHz High Ant1







7 Frequency Stability

Condition	Mode	Frequency (MHz)	Antenna	Measured Frequency (MHz)	Frequency Error (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
20C 102V	a	5180	Ant1	5179.98	-20000	-3.86	25	Pass
20C 120V	a	5180	Ant1	5179.98	-20000	-3.86	25	Pass
20C 138V	a	5180	Ant1	5179.98	-20000	-3.86	25	Pass
-20C 120V	a	5180	Ant1	5179.98	-20000	-3.86	25	Pass
-10C 120V	a	5180	Ant1	5180	0	0	25	Pass
0C 120V	a	5180	Ant1	5179.98	-20000	-3.86	25	Pass
10C 120V	a	5180	Ant1	5179.98	-20000	-3.86	25	Pass
30C 120V	a	5180	Ant1	5179.96	-40000	-7.72	25	Pass
40C 120V	a	5180	Ant1	5179.96	-40000	-7.72	25	Pass
50C 120V	a	5180	Ant1	5179.98	-20000	-3.86	25	Pass
20C 102V	a	5200	Ant1	5199.98	-20000	-3.85	25	Pass
20C 120V	a	5200	Ant1	5199.96	-40000	-7.69	25	Pass
20C 138V	a	5200	Ant1	5200	0	0	25	Pass
-20C 120V	a	5200	Ant1	5199.96	-40000	-7.69	25	Pass
-10C 120V	a	5200	Ant1	5199.96	-40000	-7.69	25	Pass
0C 120V	a	5200	Ant1	5199.98	-20000	-3.85	25	Pass
10C 120V	a	5200	Ant1	5199.96	-40000	-7.69	25	Pass
30C 120V	a	5200	Ant1	5199.96	-40000	-7.69	25	Pass
40C 120V	a	5200	Ant1	5199.98	-20000	-3.85	25	Pass
50C 120V	a	5200	Ant1	5199.96	-40000	-7.69	25	Pass
20C 102V	a	5240	Ant1	5239.98	-20000	-3.82	25	Pass
20C 120V	a	5240	Ant1	5239.98	-20000	-3.82	25	Pass
20C 138V	a	5240	Ant1	5239.96	-40000	-7.63	25	Pass
-20C 120V	a	5240	Ant1	5239.98	-20000	-3.82	25	Pass
-10C 120V	a	5240	Ant1	5239.96	-40000	-7.63	25	Pass
0C 120V	a	5240	Ant1	5239.96	-40000	-7.63	25	Pass
10C 120V	a	5240	Ant1	5239.96	-40000	-7.63	25	Pass
30C 120V	a	5240	Ant1	5239.98	-20000	-3.82	25	Pass
40C 120V	a	5240	Ant1	5239.96	-40000	-7.63	25	Pass
50C 120V	a	5240	Ant1	5239.96	-40000	-7.63	25	Pass
20C 102V	n20	5180	Ant1	5179.96	-40000	-7.72	25	Pass
20C 120V	n20	5180	Ant1	5179.96	-40000	-7.72	25	Pass
20C 138V	n20	5180	Ant1	5179.98	-20000	-3.86	25	Pass
-20C 120V	n20	5180	Ant1	5180	0	0	25	Pass
-10C 120V	n20	5180	Ant1	5179.98	-20000	-3.86	25	Pass
0C 120V	n20	5180	Ant1	5179.98	-20000	-3.86	25	Pass
10C 120V	n20	5180	Ant1	5179.98	-20000	-3.86	25	Pass
30C 120V	n20	5180	Ant1	5179.96	-40000	-7.72	25	Pass