



Appendix E

RF Test Data for 5GWIFI B4(Conducted Measurement)

Product Name: Wifi module

Trade Mark: ACER

Test Model: WXT28M2511

Environmental Conditions

Temperature:	24.2° C
Relative Humidity:	51.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Simba Huang
Supervised by:	Seal Chen



Contents

	Page
COVER PAGE	
1 Duty Cycle.....	3
1.1 Test Result.....	3
1.2 Test Graphs.....	5
2 Maximum Conducted Output Power.....	25
2.1 Test Result.....	25
3 -6dB Bandwidth.....	27
3.1 Test Result.....	27
3.2 Test Graphs.....	29
4 Occupied Channel Bandwidth.....	49
4.1 Test Result.....	49
4.2 Test Graphs.....	51
5 Maximum Power Spectral Density Level.....	71
5.1 Test Result.....	71
6 Frequency Stability.....	73
6.1 Test Result.....	73
7 Band Edge.....	83
7.1 Test Result.....	83
8 Conducted RF Spurious Emission.....	102
8.1 Test Result.....	102
8.2 Test Graphs.....	104
9 Restrict Band.....	124
9.1 Test Result.....	124



1 Duty Cycle

1.1 Test Result

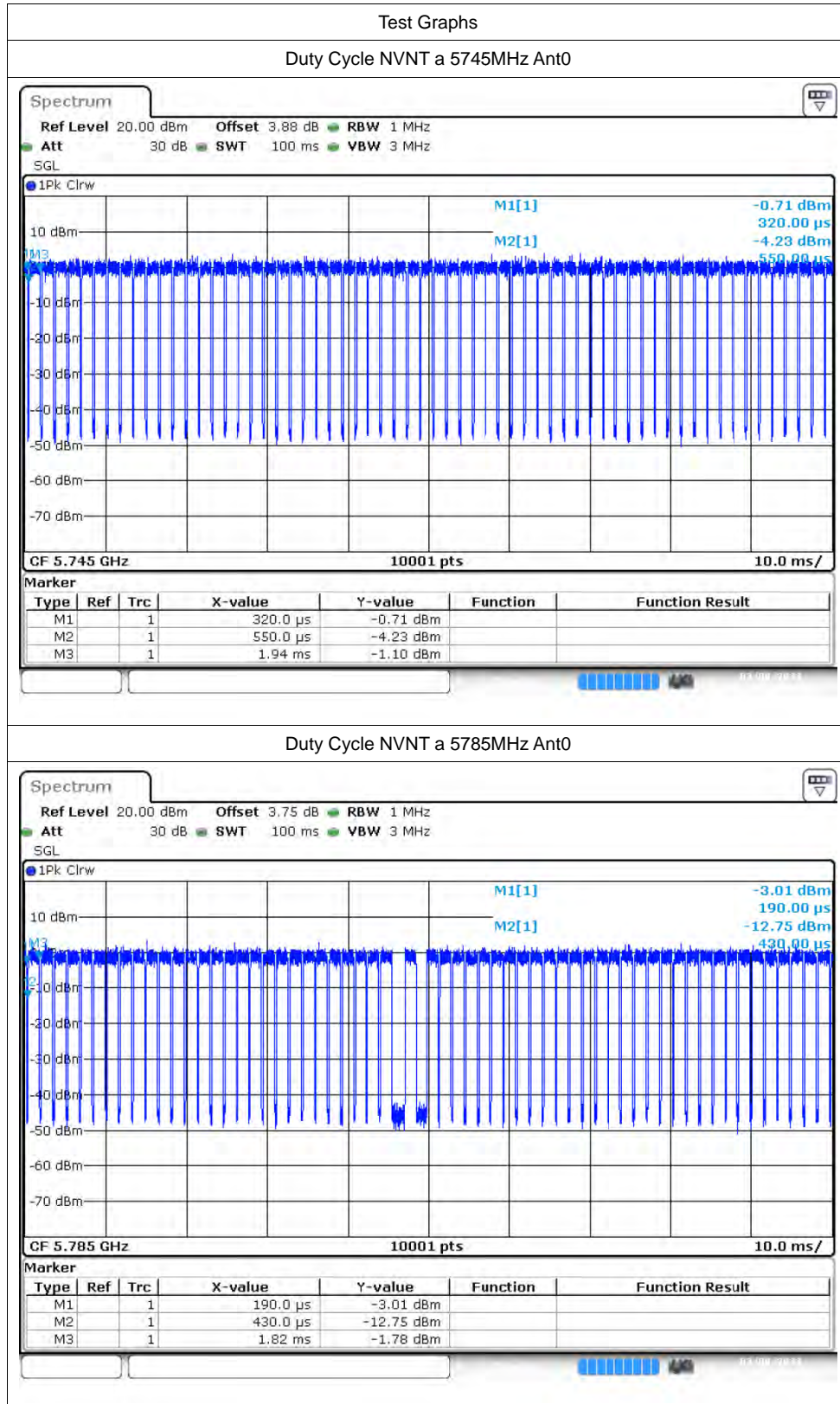
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	a	5745	Ant0	86.73	0.62	0.72
NVNT	a	5785	Ant0	84.52	0.73	0.72
NVNT	a	5825	Ant0	86.76	0.62	0.71
NVNT	a	5745	Ant1	86.83	0.61	0.72
NVNT	a	5785	Ant1	86.81	0.61	0.72
NVNT	a	5825	Ant1	86.81	0.61	0.72
NVNT	n20	5745	Ant0	43.65	3.6	6.25
NVNT	n20	5785	Ant0	45.03	3.47	5.88
NVNT	n20	5825	Ant0	44.92	3.48	5.88
NVNT	n20	5745	Ant1	44.98	3.47	5.88
NVNT	n20	5785	Ant1	44.89	3.48	5.88
NVNT	n20	5825	Ant1	44.99	3.47	5.88
NVNT	n40	5755	Ant0	35.94	4.44	10
NVNT	n40	5795	Ant0	33.46	4.76	10
NVNT	n40	5755	Ant1	32	4.95	11.11
NVNT	n40	5795	Ant1	32.06	4.94	10
NVNT	ac20	5745	Ant0	36.68	4.36	9.09
NVNT	ac20	5785	Ant0	38.17	4.18	9.09
NVNT	ac20	5825	Ant0	37.84	4.22	9.09
NVNT	ac20	5745	Ant1	38.31	4.17	9.09
NVNT	ac20	5785	Ant1	37.92	4.21	9.09
NVNT	ac20	5825	Ant1	38.23	4.18	9.09
NVNT	ac40	5755	Ant0	28.35	5.47	12.5
NVNT	ac40	5795	Ant0	29.98	5.23	12.5
NVNT	ac40	5755	Ant1	26.69	5.74	14.29
NVNT	ac40	5795	Ant1	26.71	5.73	14.29
NVNT	ac80	5775	Ant0	13	8.86	33.33
NVNT	ac80	5775	Ant1	15.31	8.15	33.33
NVNT	ax20	5745	Ant0	50.87	2.93	7.14
NVNT	ax20	5785	Ant0	41.18	3.85	7.14
NVNT	ax20	5825	Ant0	41.25	3.85	7.14
NVNT	ax20	5745	Ant1	39.78	4	7.14
NVNT	ax20	5785	Ant1	39.6	4.02	7.14
NVNT	ax20	5825	Ant1	41.09	3.86	7.14
NVNT	ax40	5755	Ant0	43.16	3.65	7.69

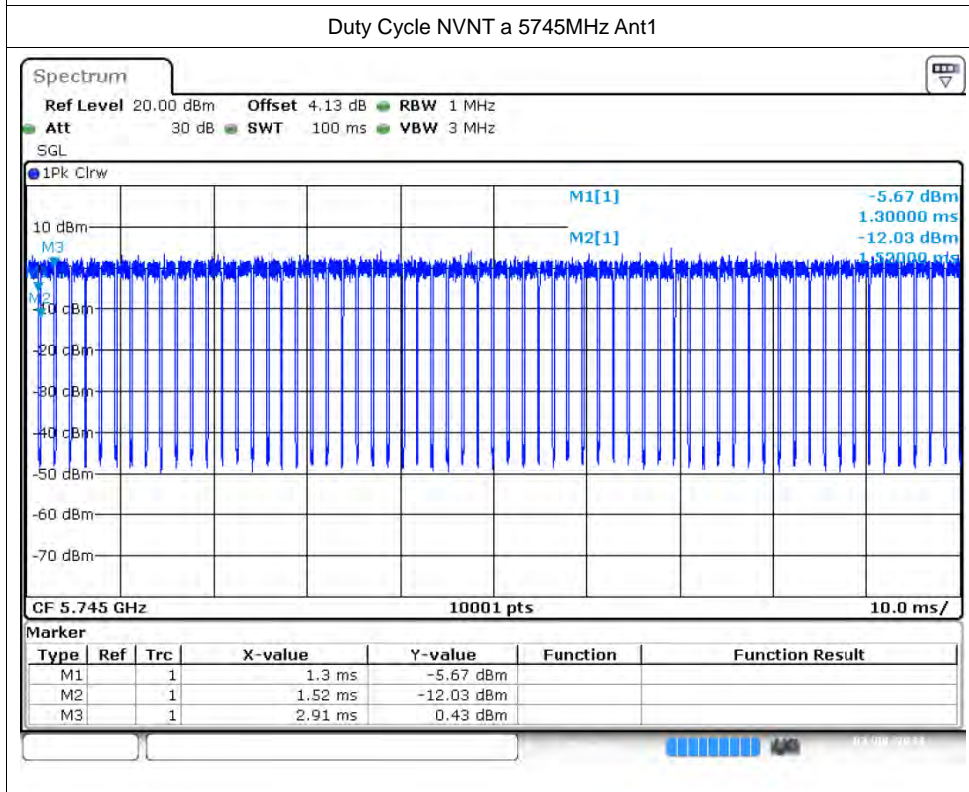
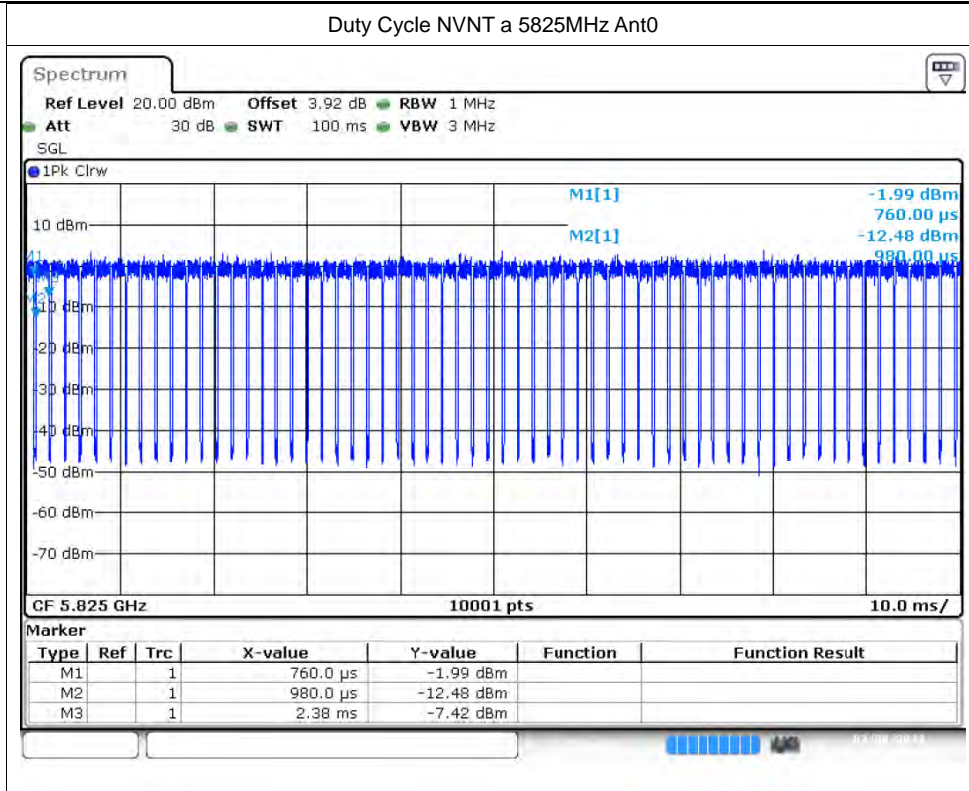


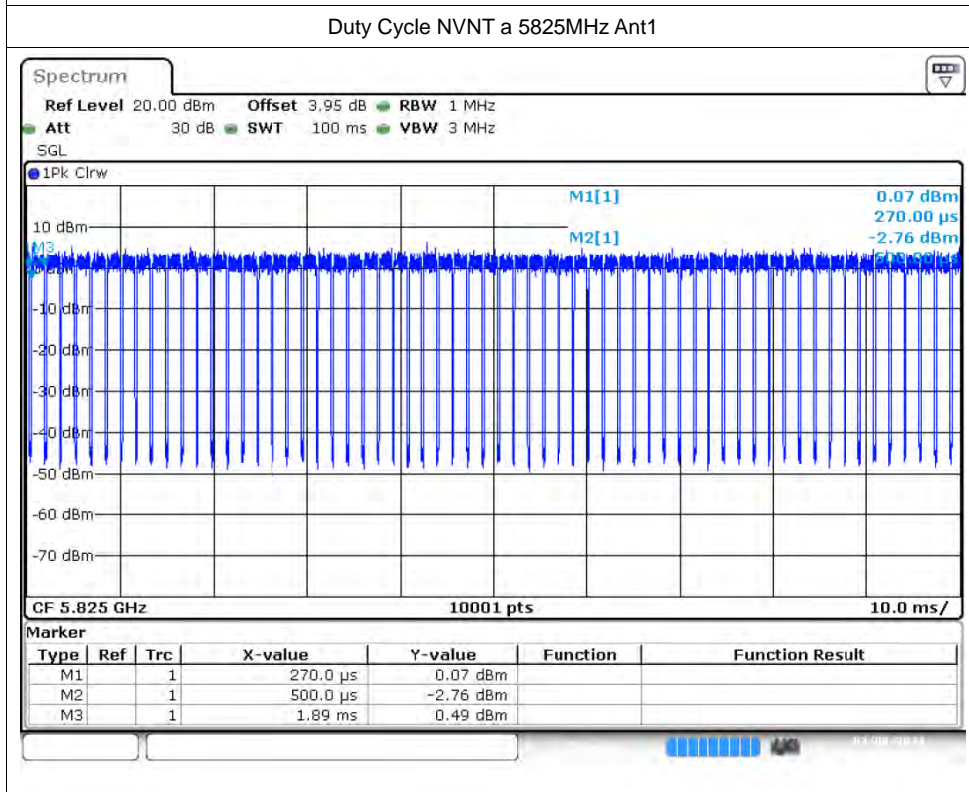
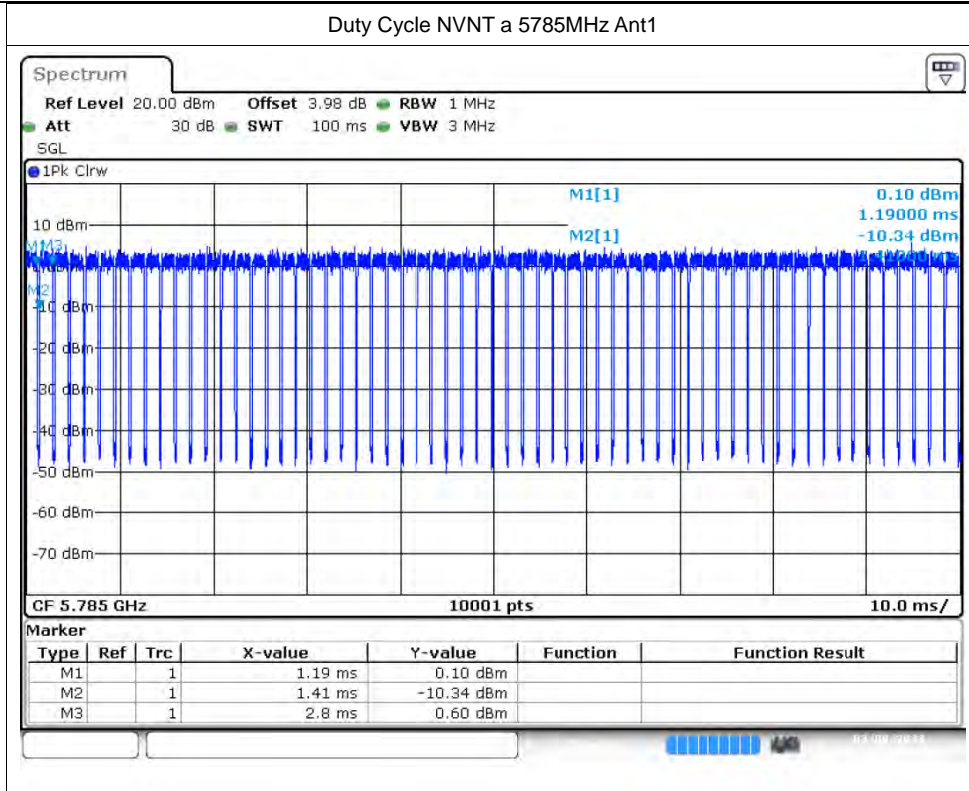
NVNT	ax40	5795	Ant0	43.13	3.65	7.69
NVNT	ax40	5755	Ant1	40.74	3.9	8.33
NVNT	ax40	5795	Ant1	43.16	3.65	7.69
NVNT	ax80	5775	Ant0	32.25	4.92	8.33
NVNT	ax80	5775	Ant1	31.7	4.99	8.33

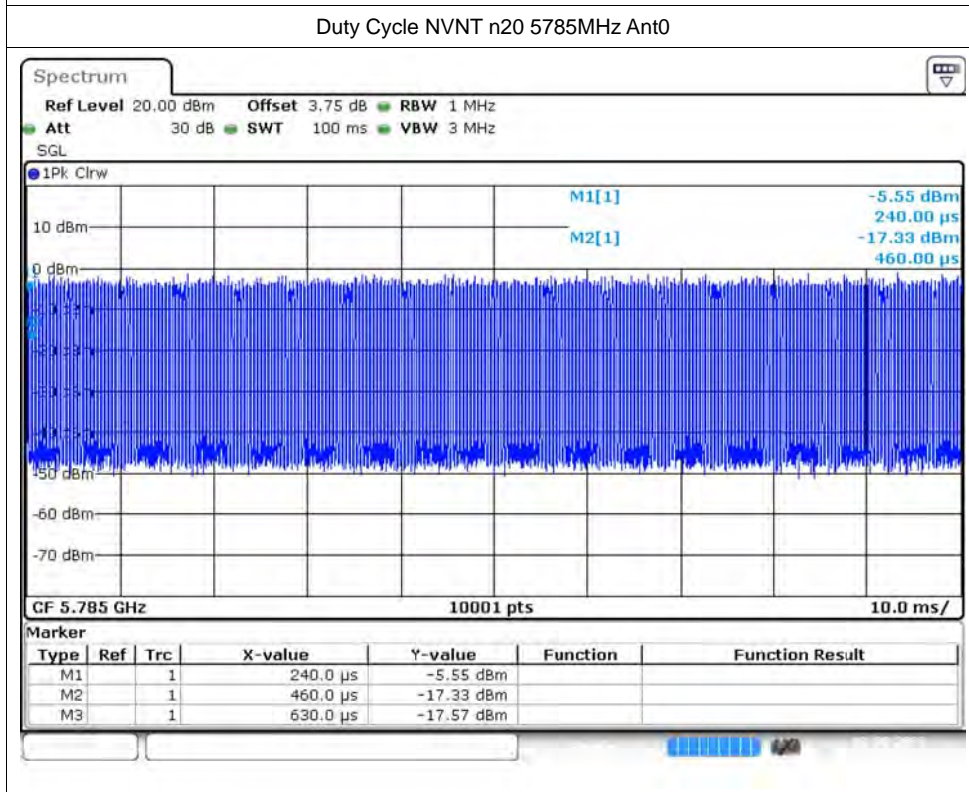
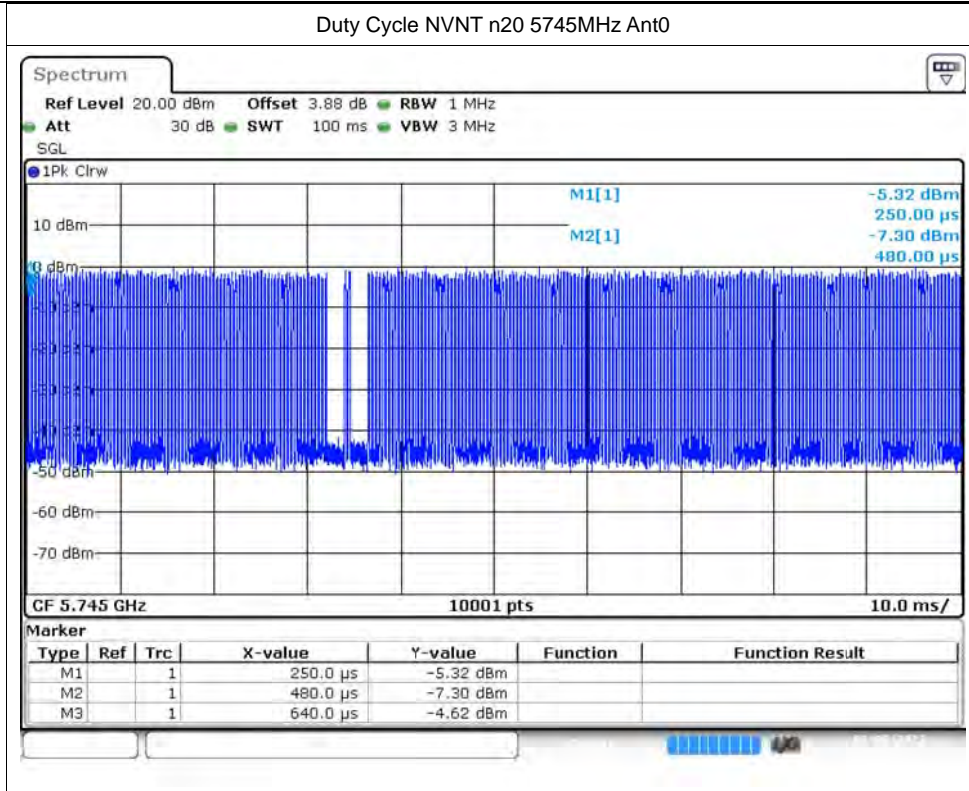


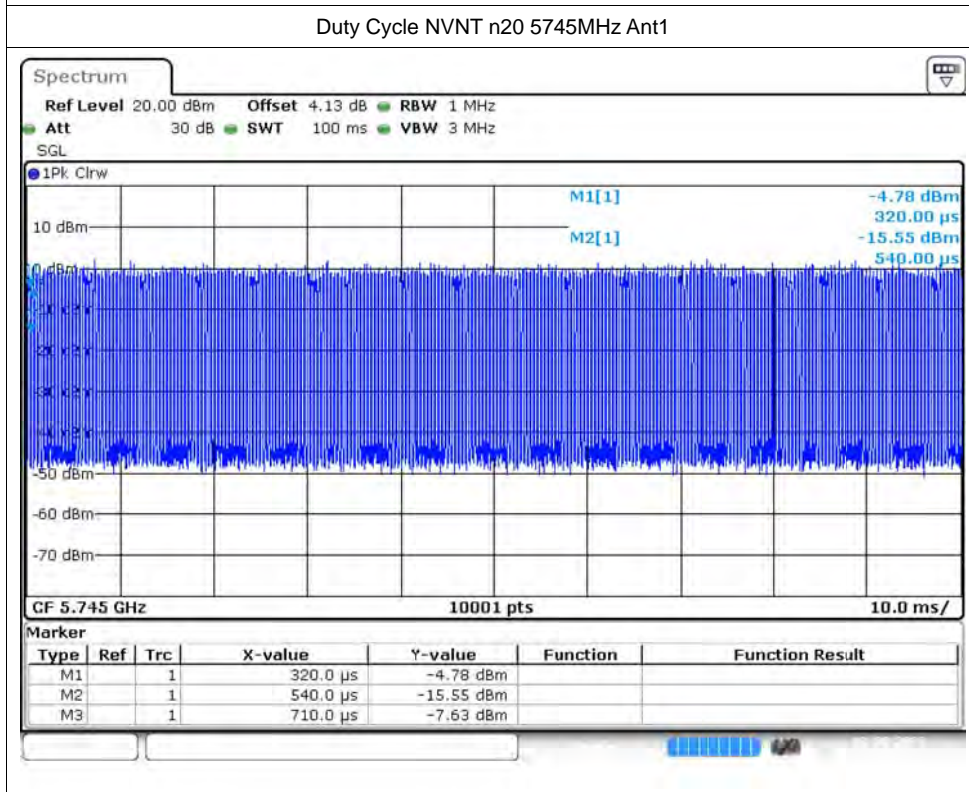
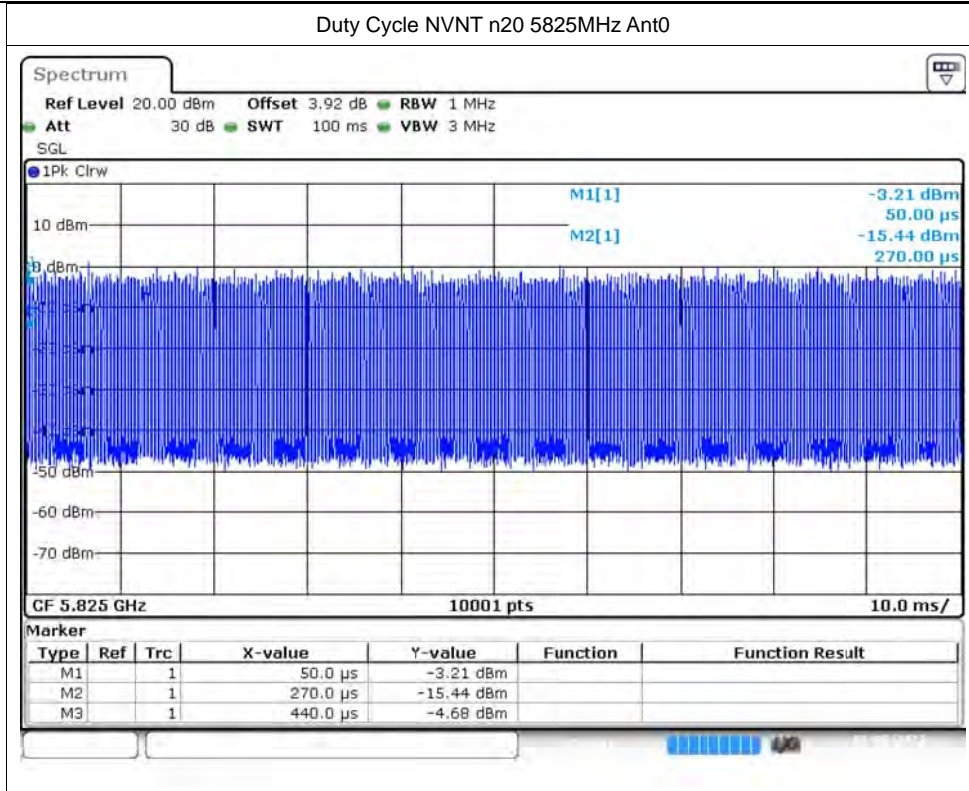
1.2 Test Graphs

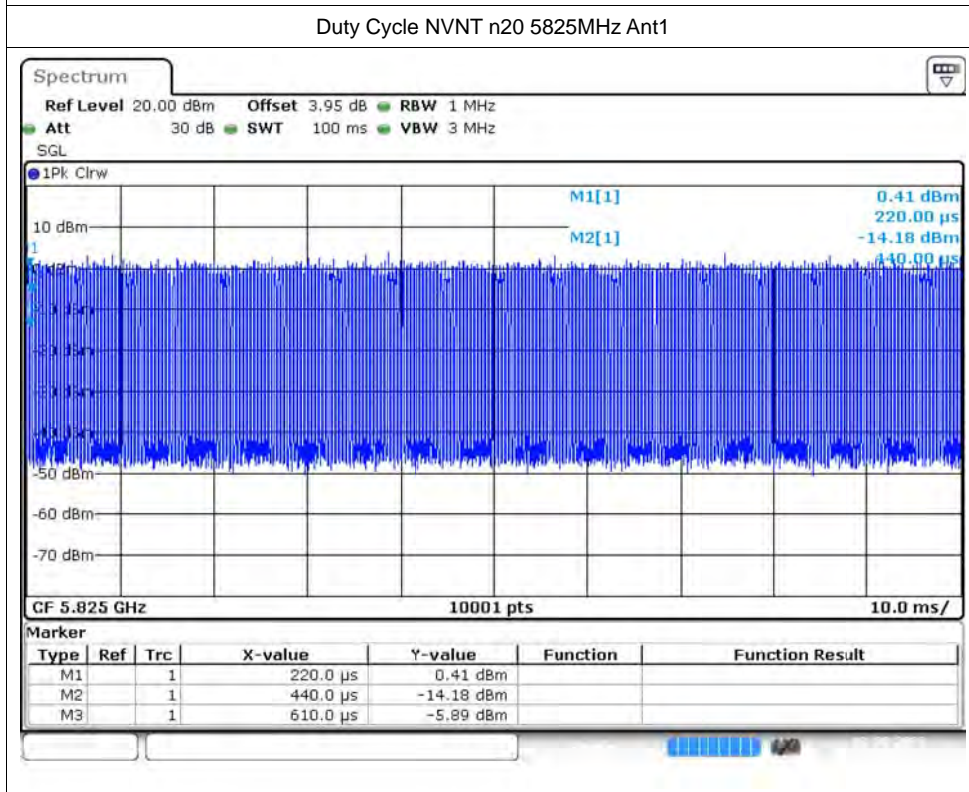
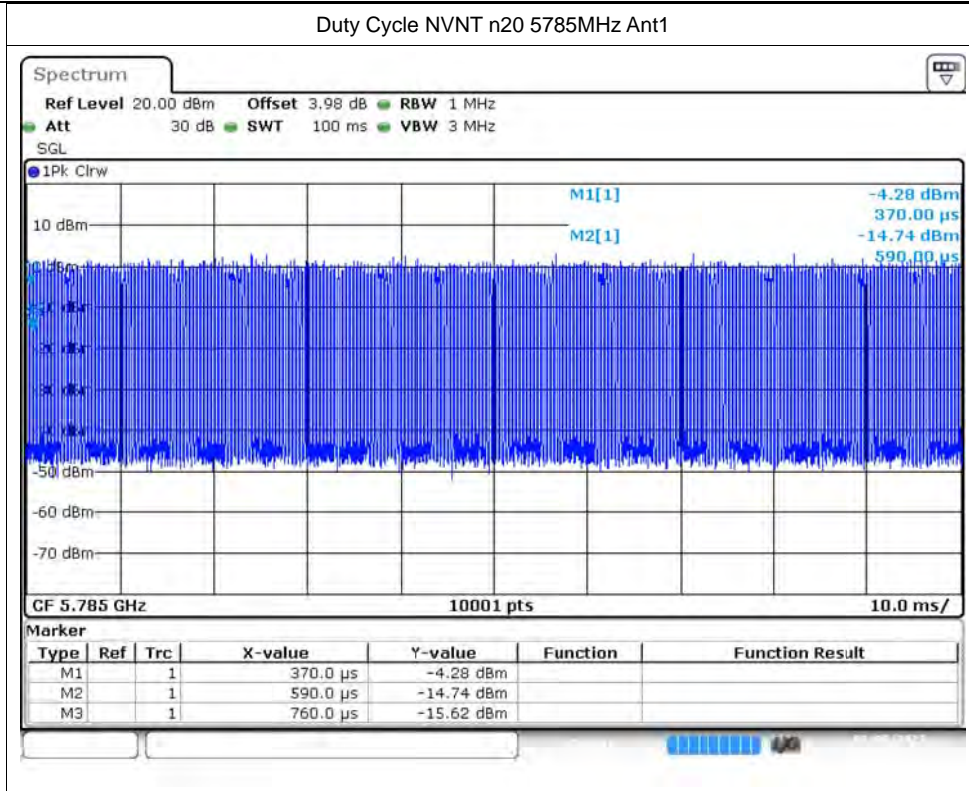


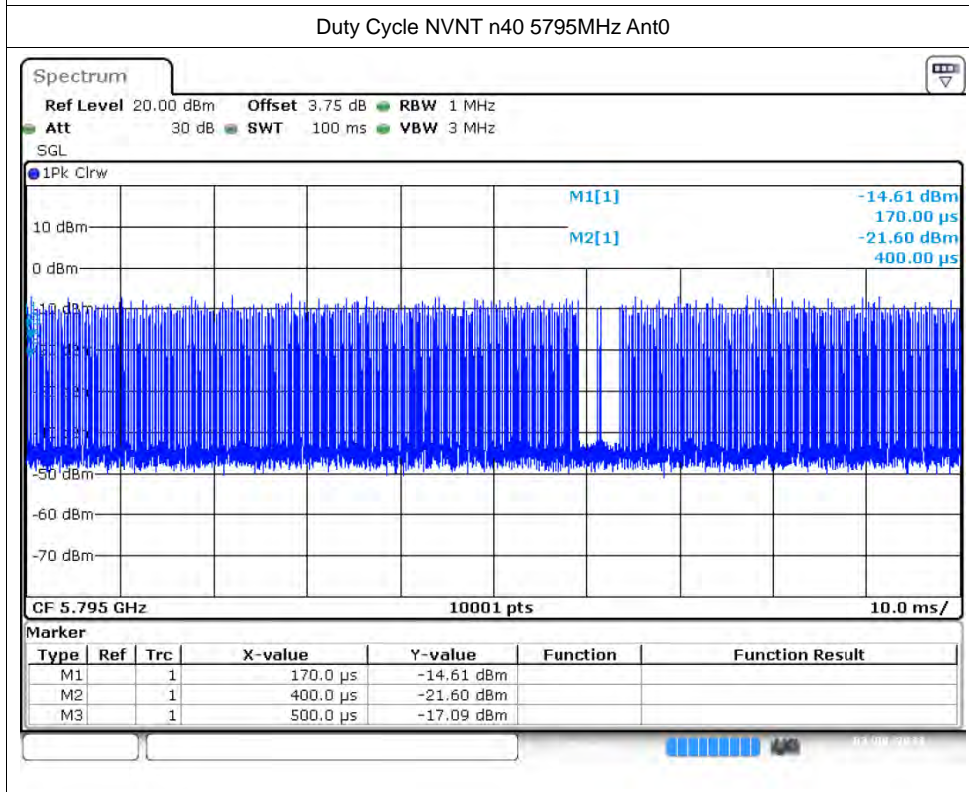
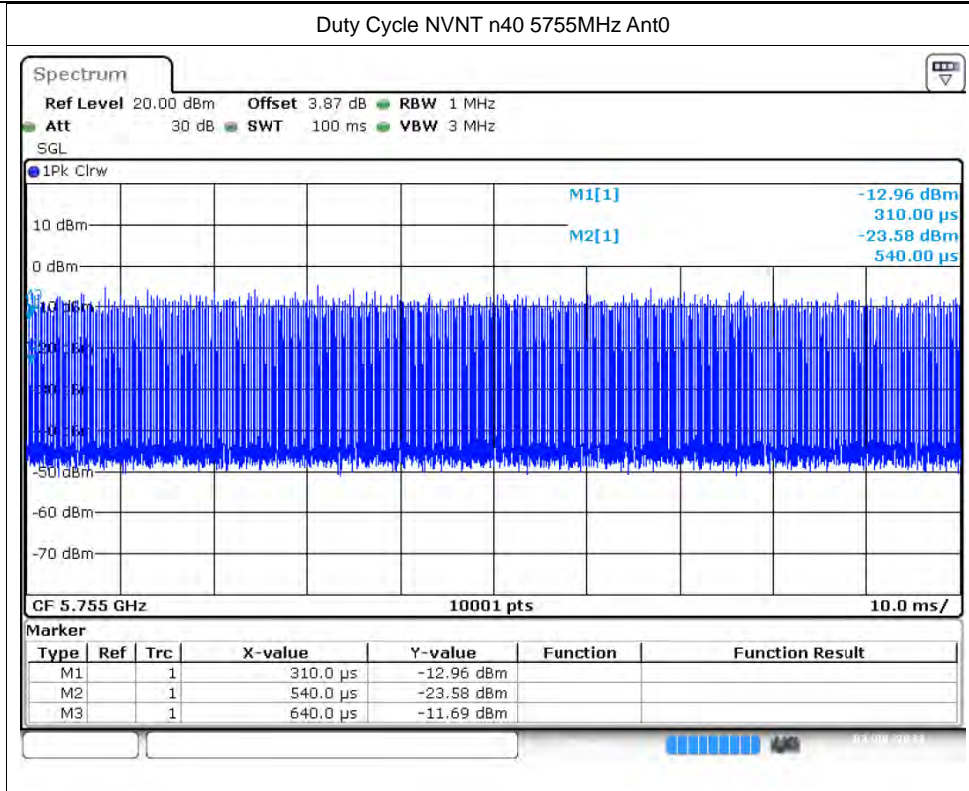






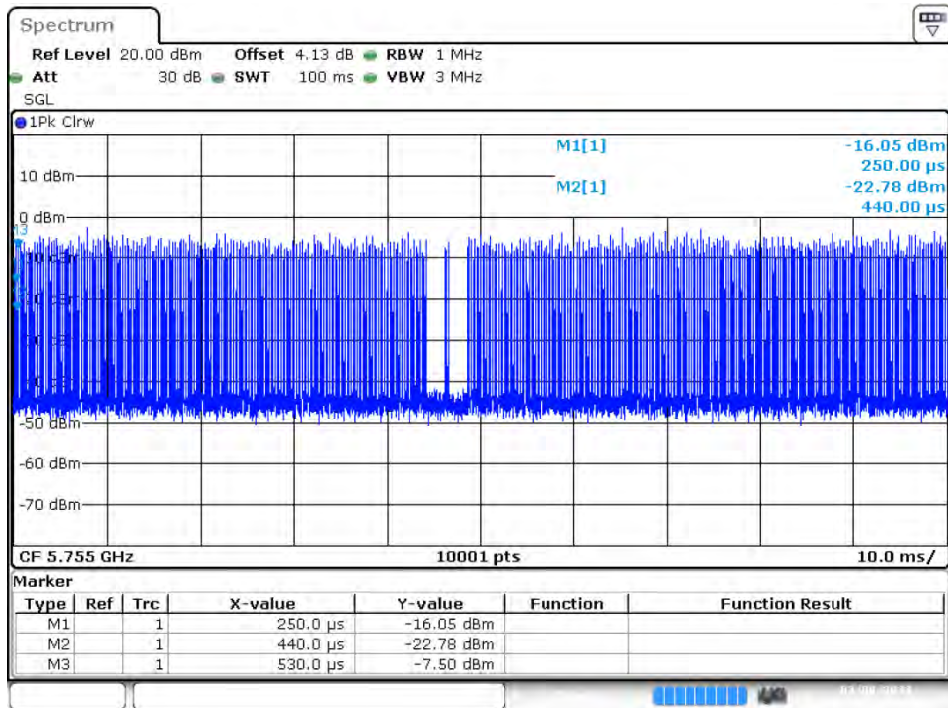




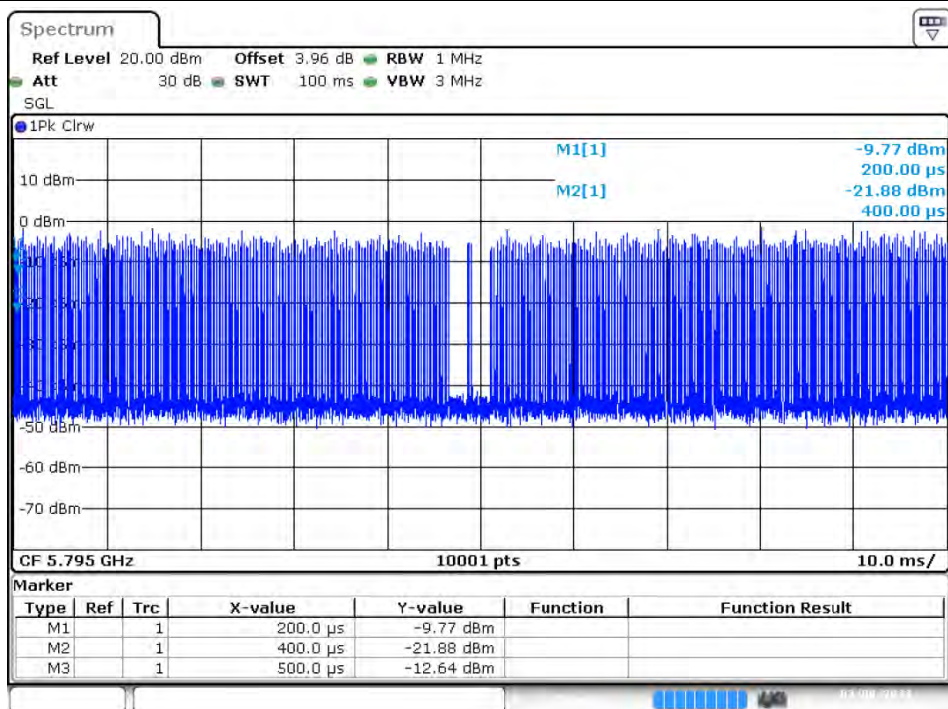


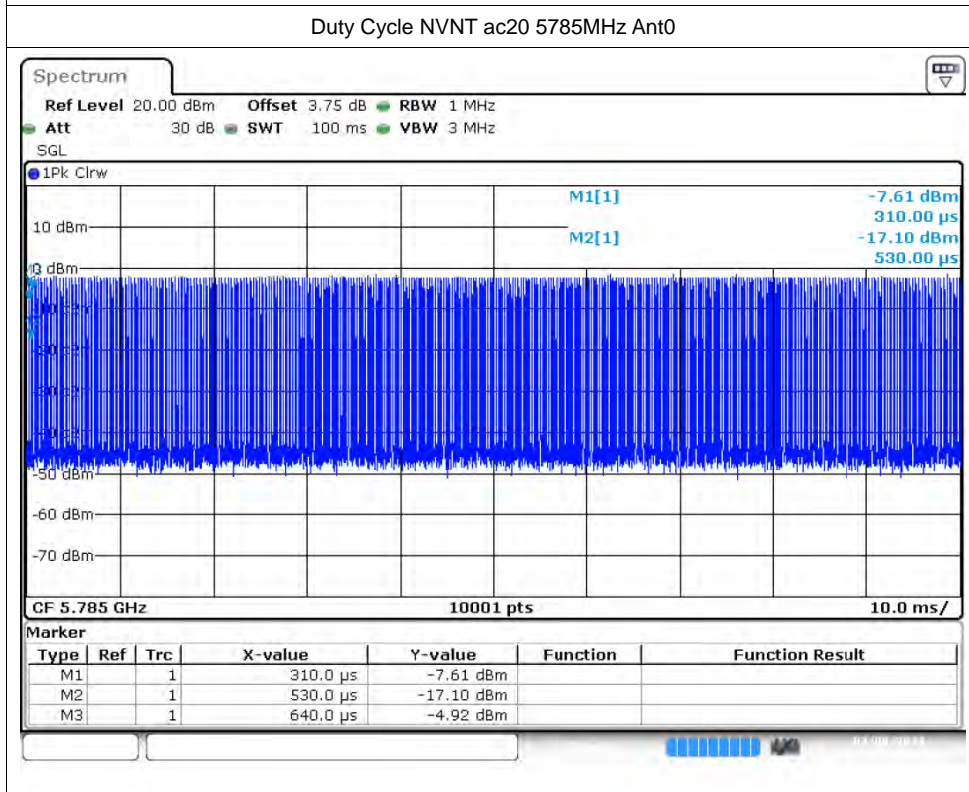
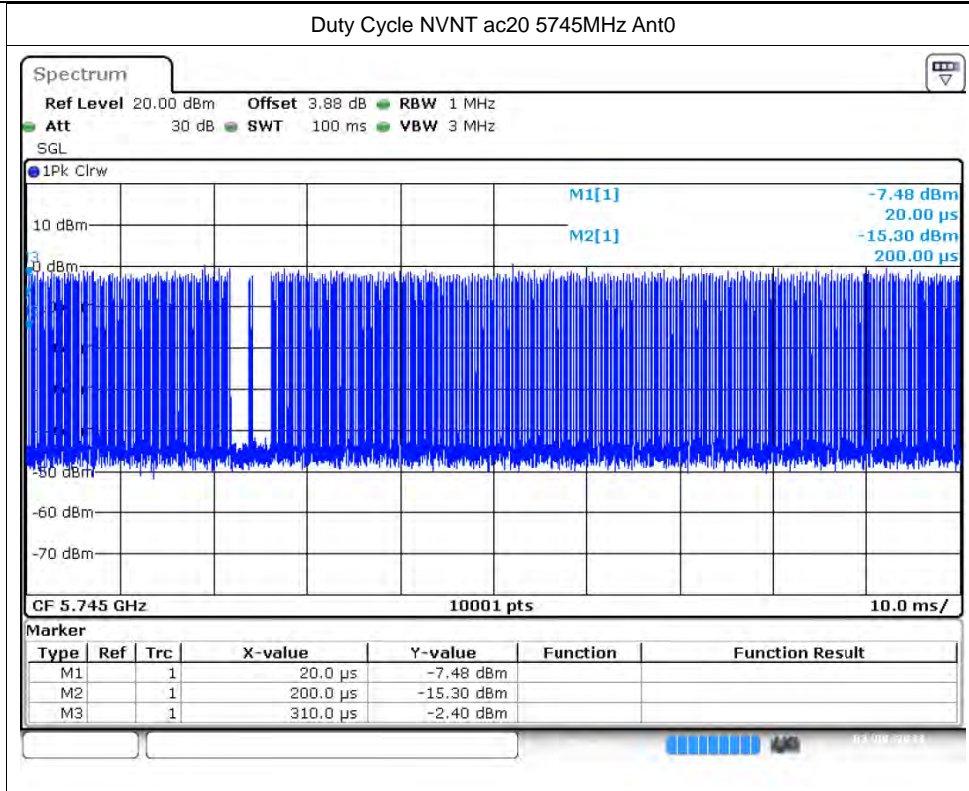


Duty Cycle NVNT n40 5755MHz Ant1



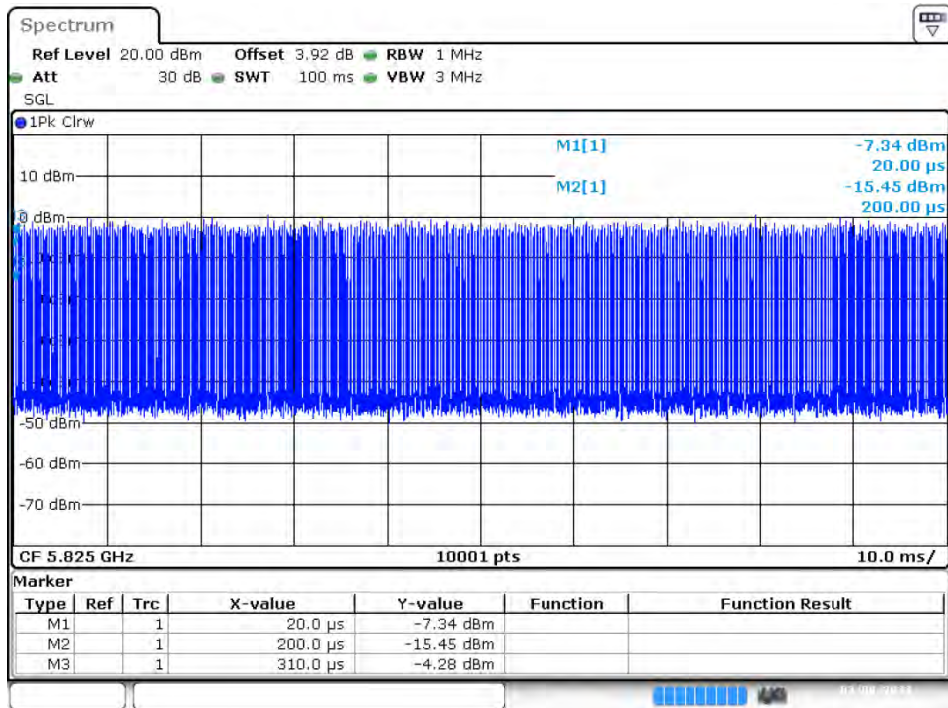
Duty Cycle NVNT n40 5795MHz Ant1



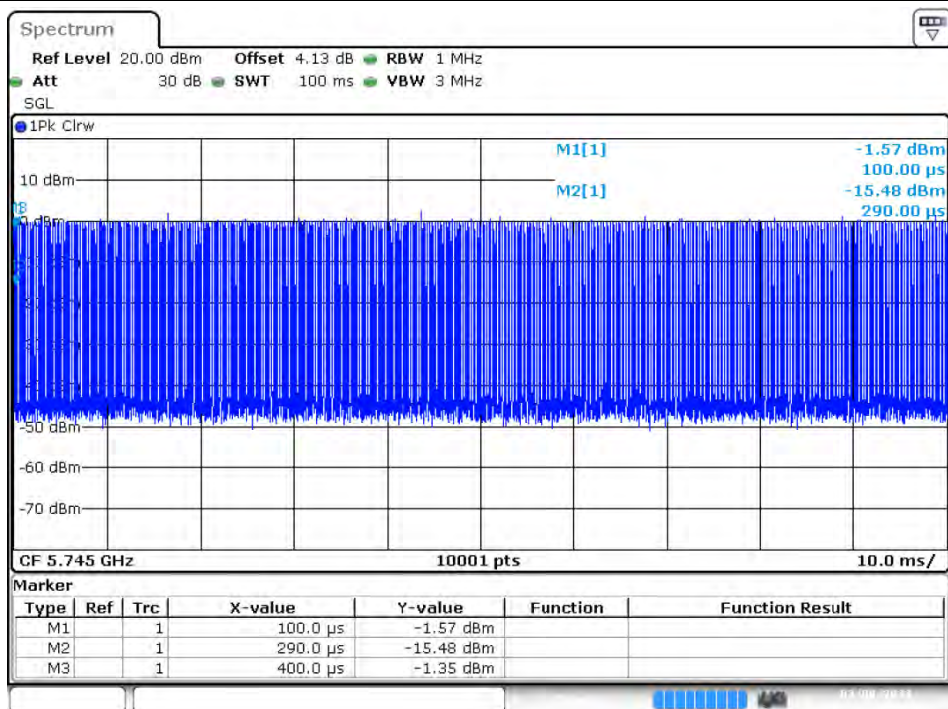




Duty Cycle NVNT ac20 5825MHz Ant0

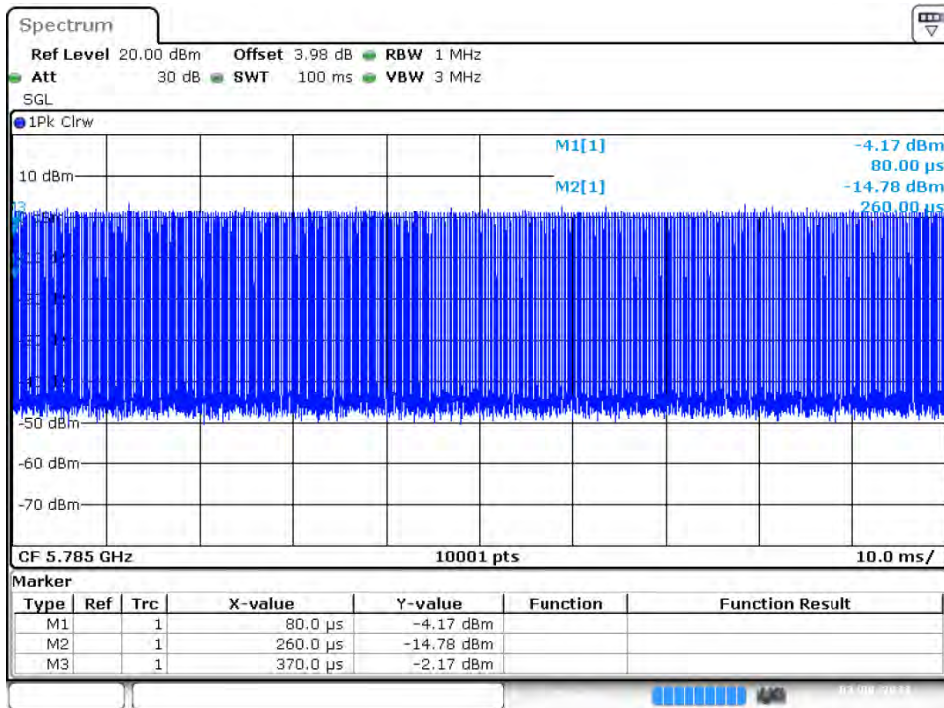


Duty Cycle NVNT ac20 5745MHz Ant1

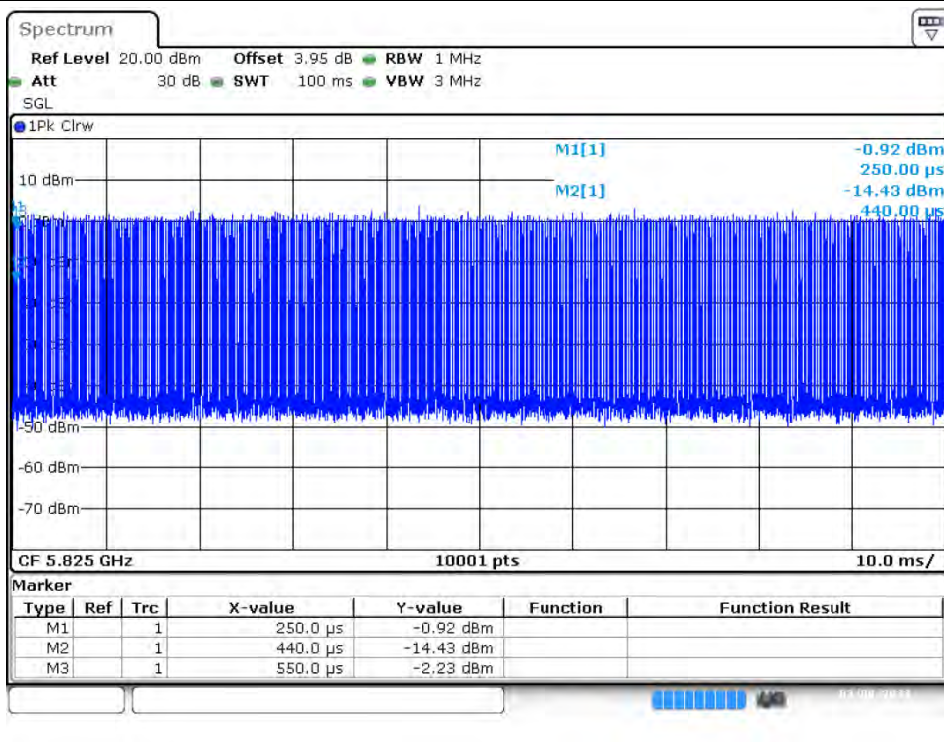




Duty Cycle NVNT ac20 5785MHz Ant1

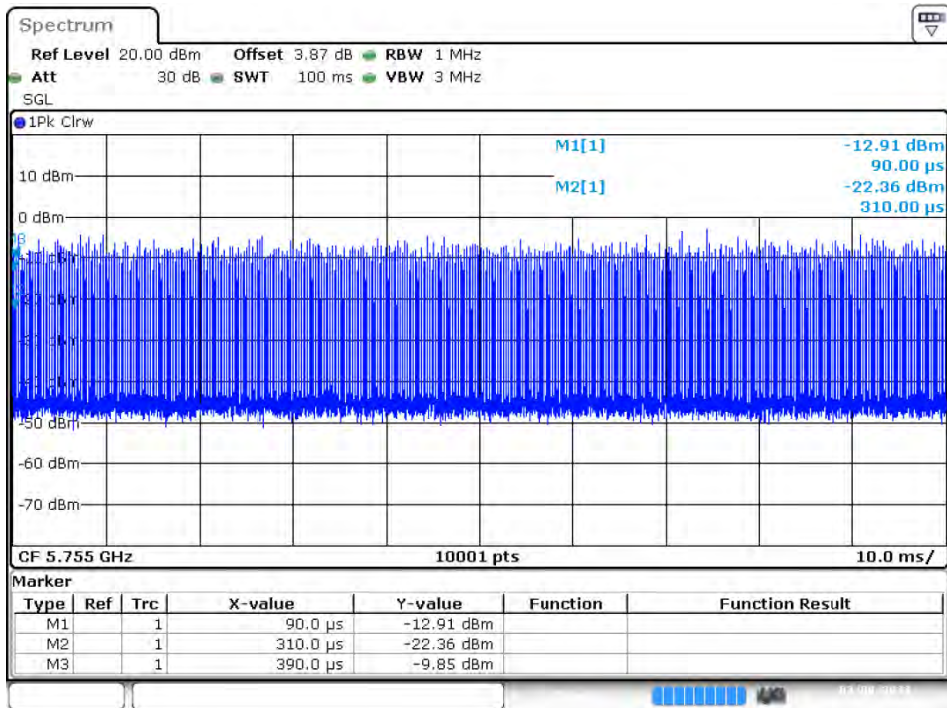


Duty Cycle NVNT ac20 5825MHz Ant1

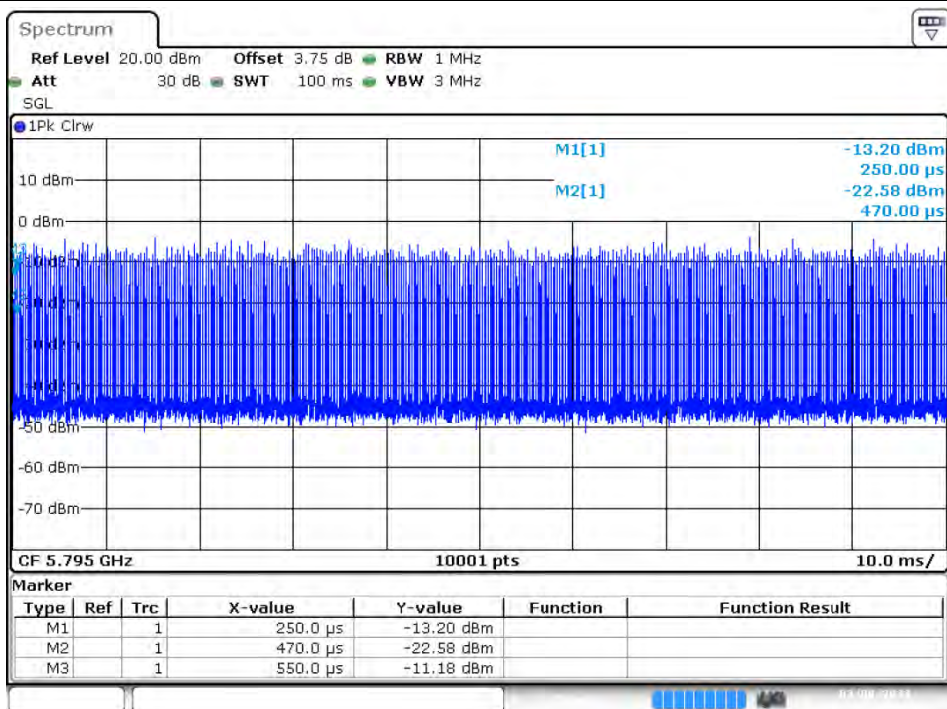




Duty Cycle NVNT ac40 5755MHz Ant0

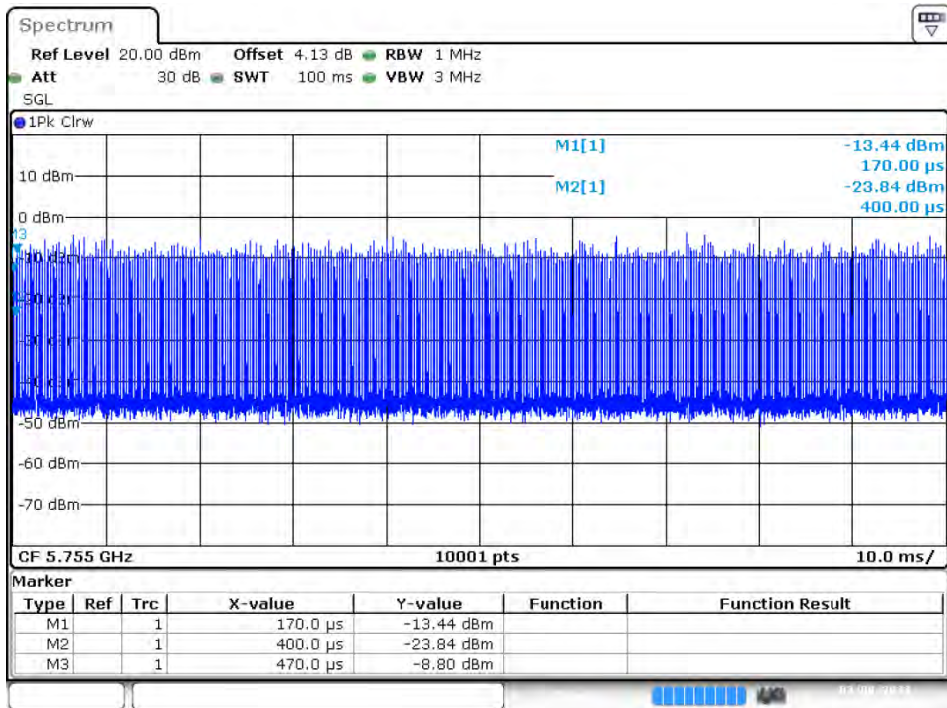


Duty Cycle NVNT ac40 5795MHz Ant0

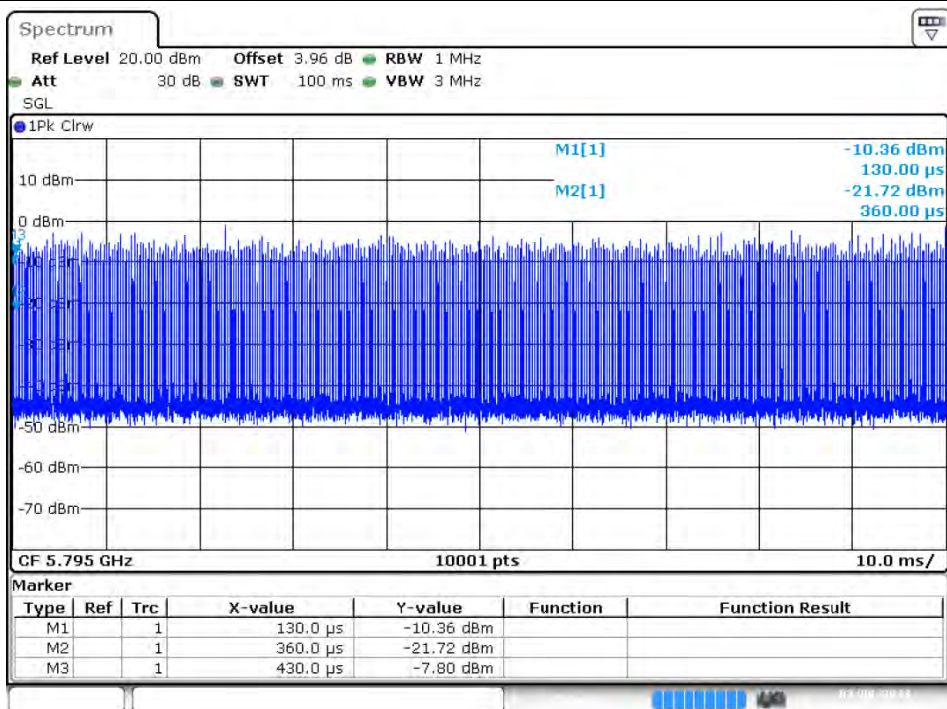


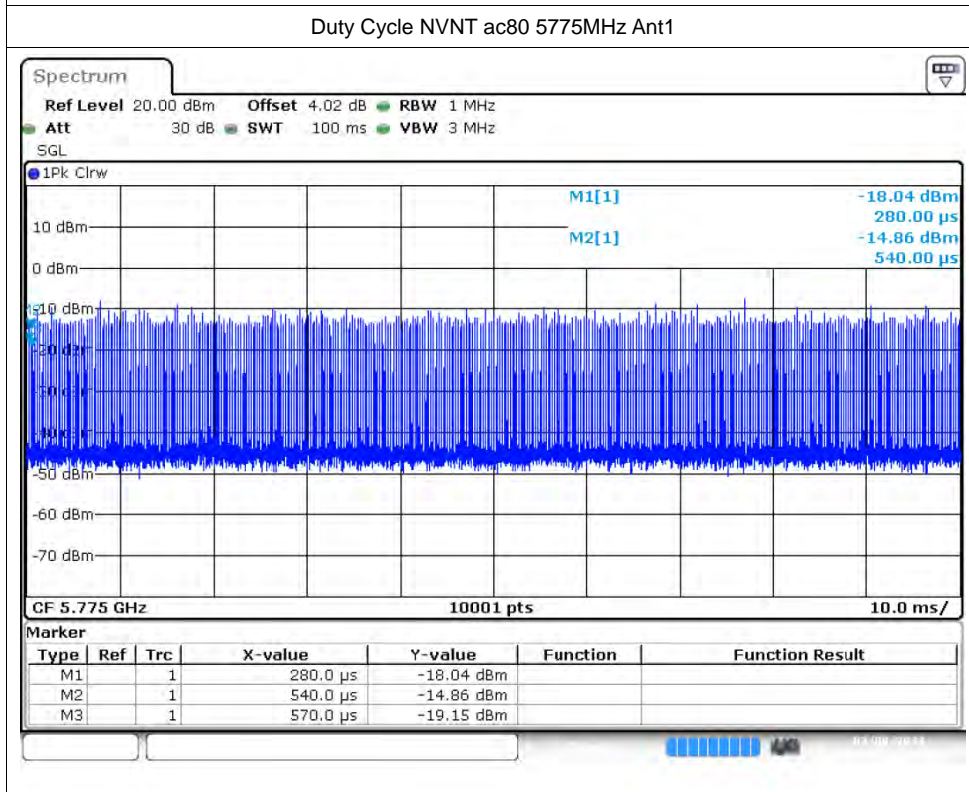
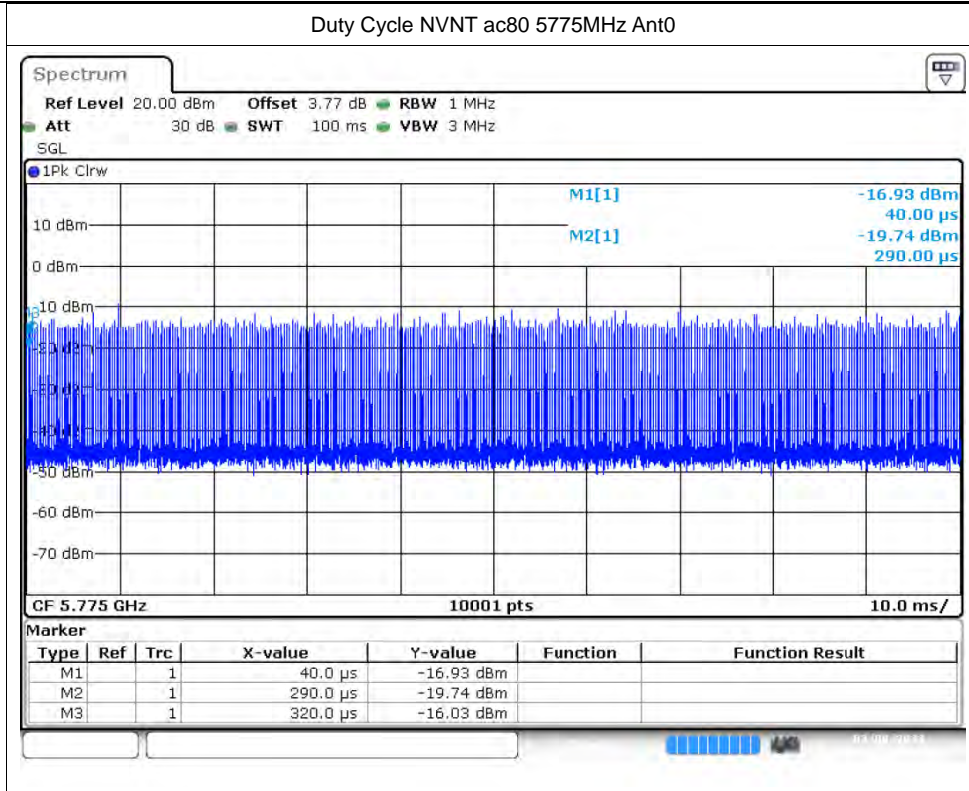


Duty Cycle NVNT ac40 5755MHz Ant1



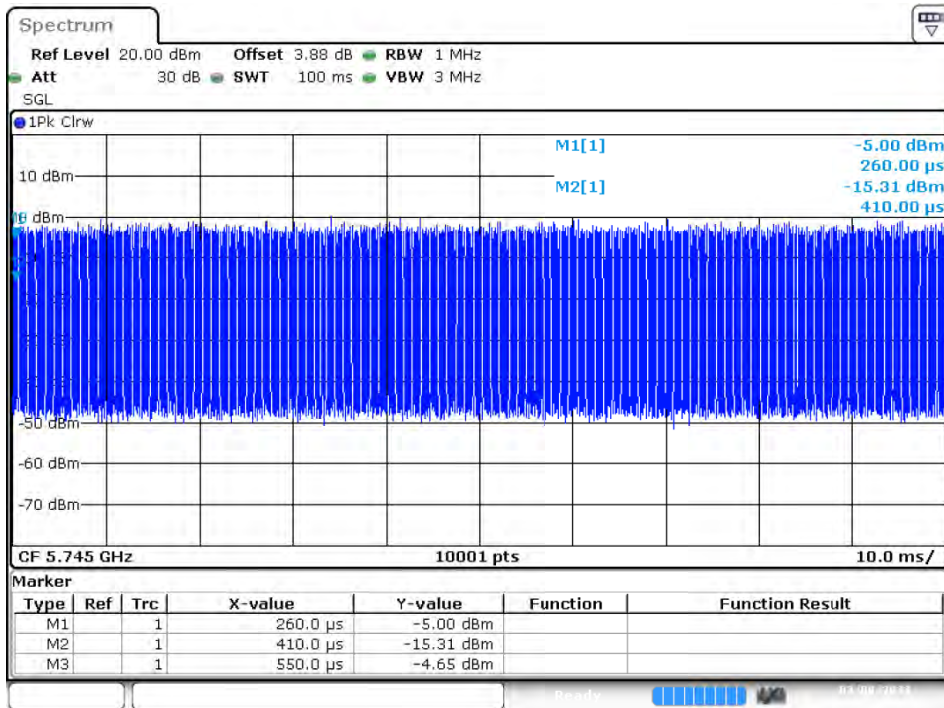
Duty Cycle NVNT ac40 5795MHz Ant1



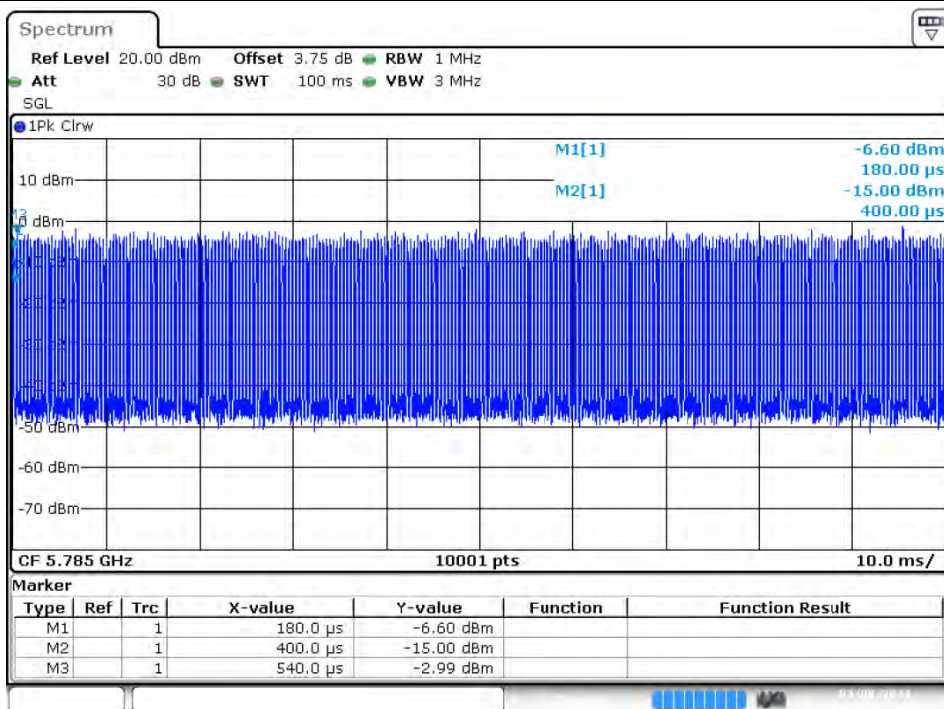




Duty Cycle NVNT ax20 5745MHz Ant0

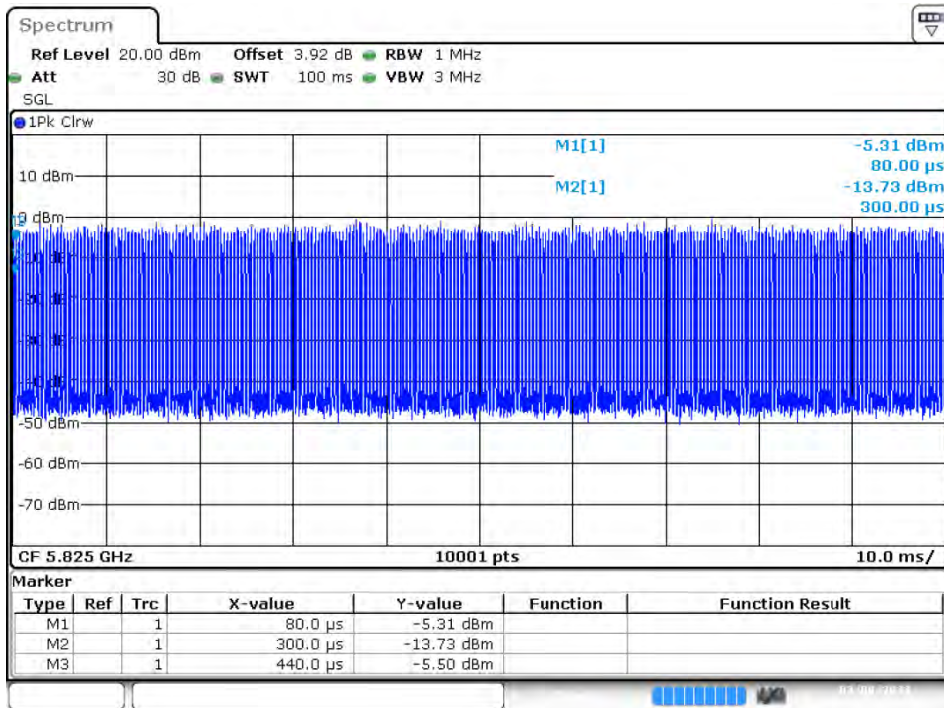


Duty Cycle NVNT ax20 5785MHz Ant0

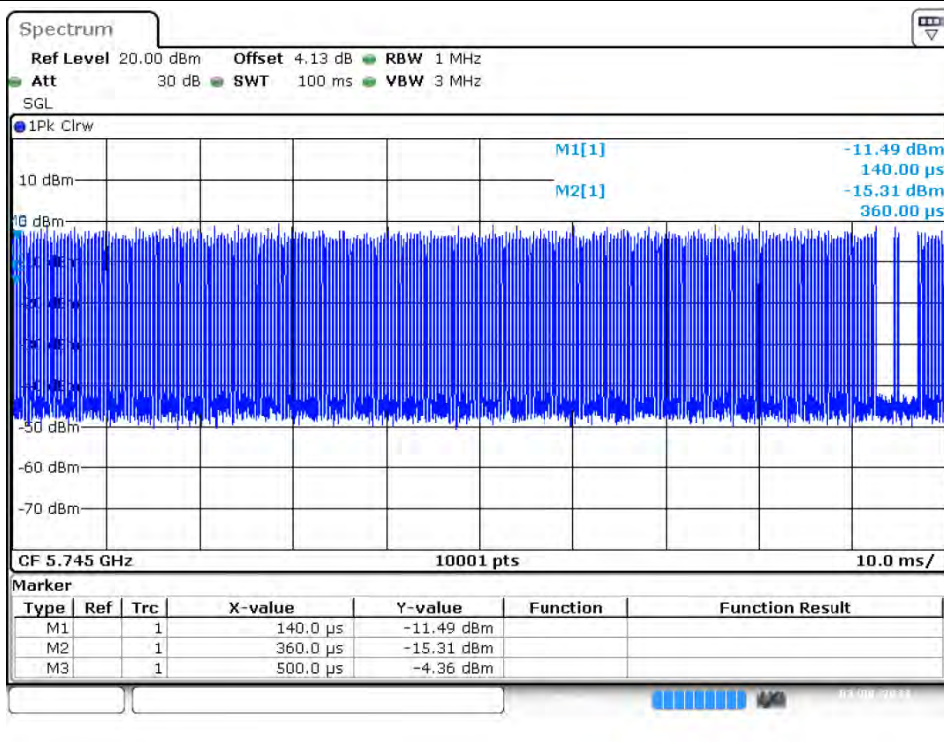




Duty Cycle NVNT ax20 5825MHz Ant0

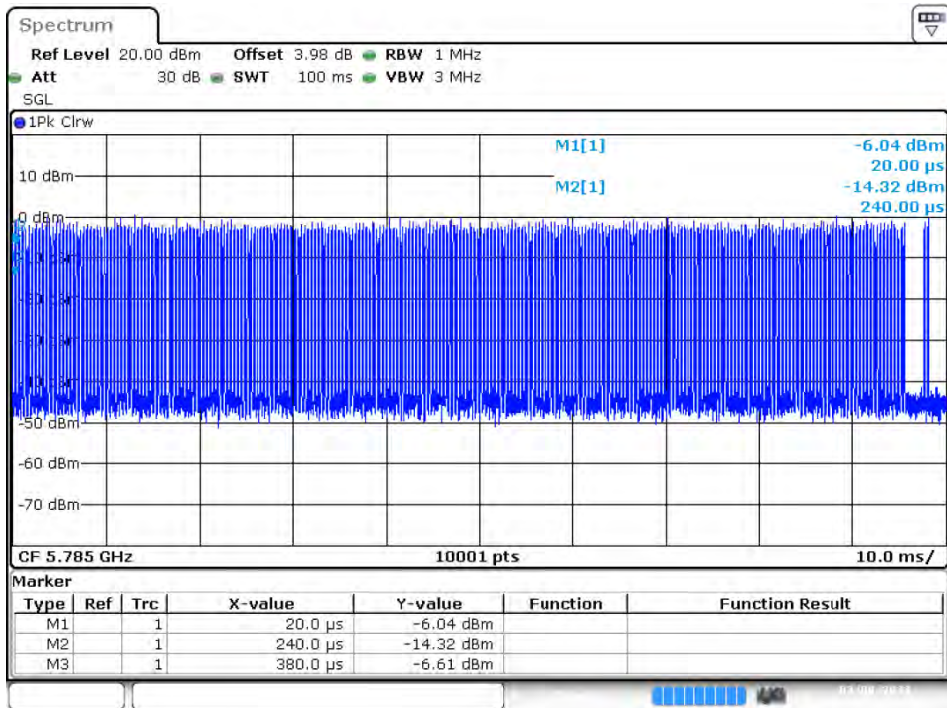


Duty Cycle NVNT ax20 5745MHz Ant1

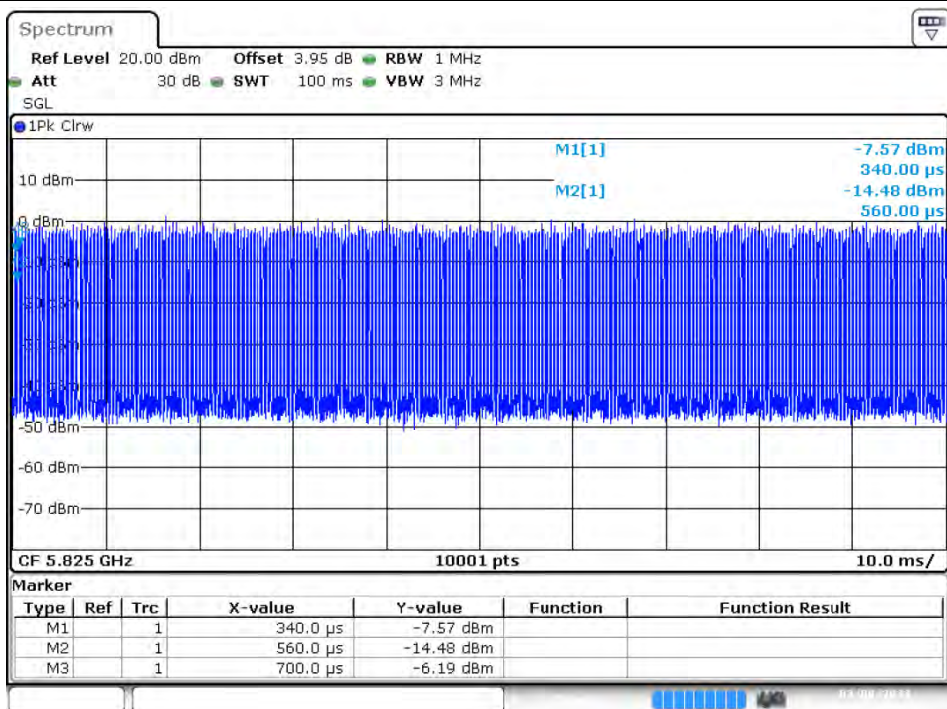


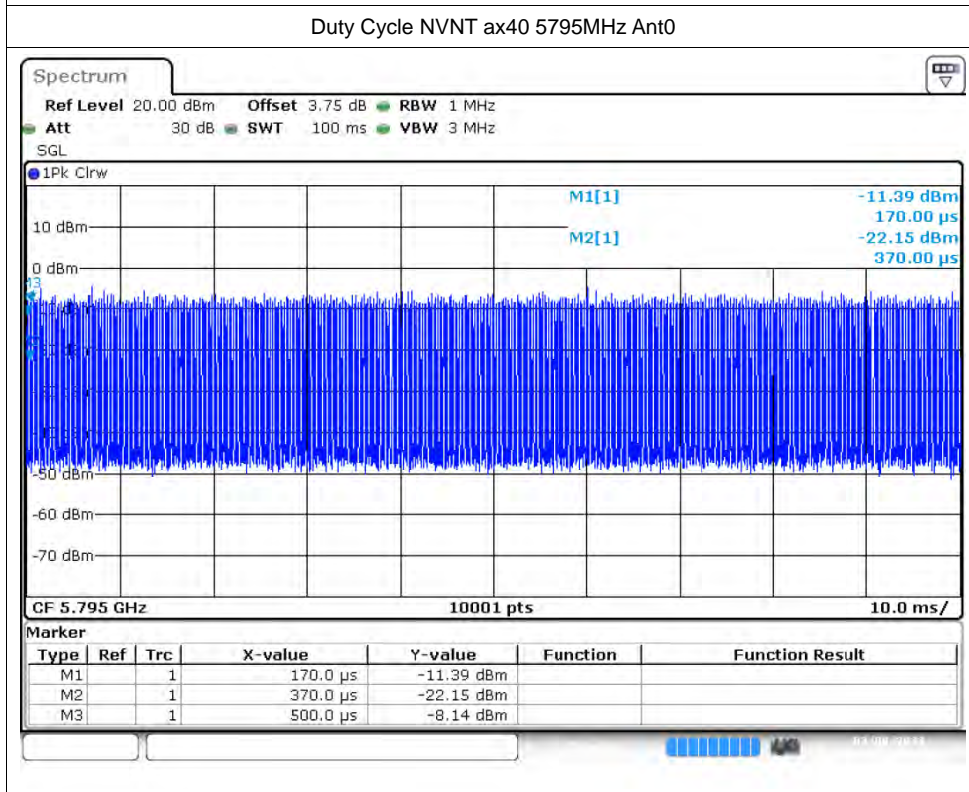
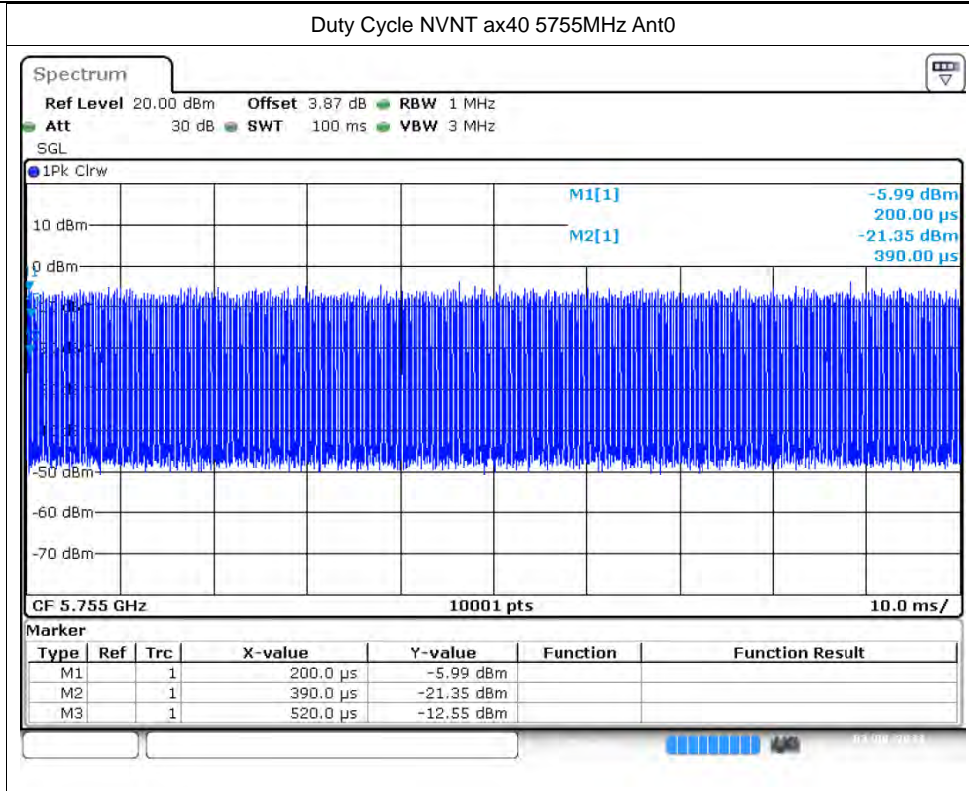


Duty Cycle NVNT ax20 5785MHz Ant1



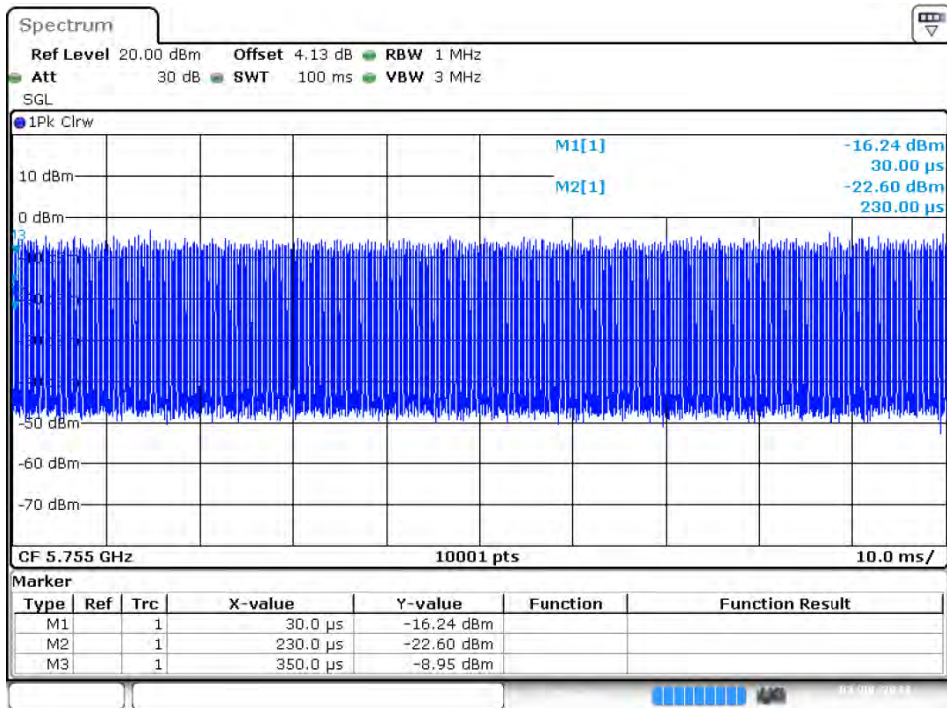
Duty Cycle NVNT ax20 5825MHz Ant1



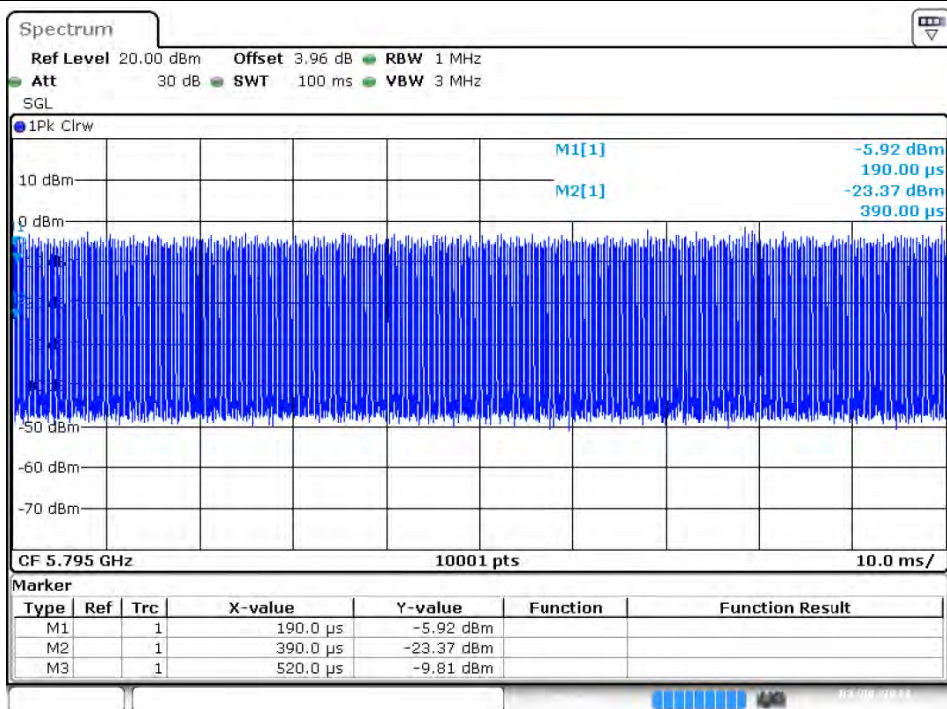




Duty Cycle NVNT ax40 5755MHz Ant1

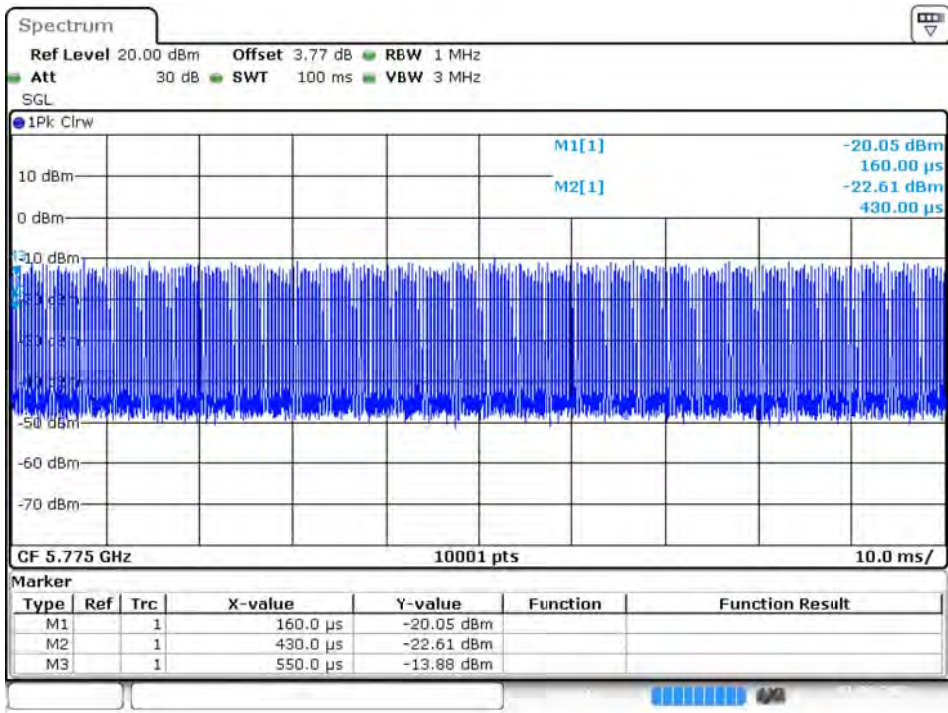


Duty Cycle NVNT ax40 5795MHz Ant1

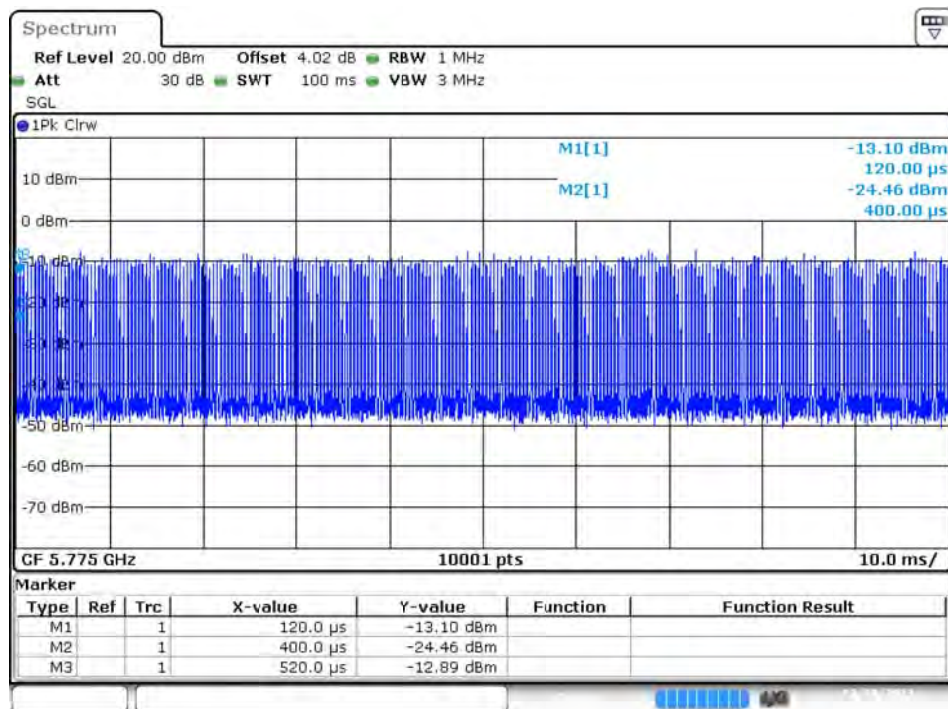




Duty Cycle NVNT ax80 5775MHz Ant0



Duty Cycle NVNT ax80 5775MHz Ant1





2 Maximum Conducted Output Power

2.1 Test Result

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5745	Ant0	9.6	30	Pass
NVNT	a	5785	Ant0	8.51	30	Pass
NVNT	a	5825	Ant0	9.11	30	Pass
NVNT	a	5745	Ant1	9.64	30	Pass
NVNT	a	5785	Ant1	11.1	30	Pass
NVNT	a	5825	Ant1	11.29	30	Pass
NVNT	a	5745	Sum	12.630	29.20	Pass
NVNT	a	5785	Sum	13.006	29.20	Pass
NVNT	a	5825	Sum	13.346	29.20	Pass
NVNT	ac20	5745	Ant0	4.89	30	Pass
NVNT	ac20	5745	Ant1	8.71	30	Pass
NVNT	ac20	5745	Sum	10.217	29.20	Pass
NVNT	ac20	5785	Ant0	4.58	30	Pass
NVNT	ac20	5785	Ant1	8.69	30	Pass
NVNT	ac20	5785	Sum	10.11	29.20	Pass
NVNT	ac20	5825	Ant0	4.01	30	Pass
NVNT	ac20	5825	Ant1	8.25	30	Pass
NVNT	ac20	5825	Sum	9.638	29.20	Pass
NVNT	ac40	5755	Ant0	6.16	30	Pass
NVNT	ac40	5755	Ant1	6.62	30	Pass
NVNT	ac40	5755	Sum	9.41	29.20	Pass
NVNT	ac40	5795	Ant0	7.28	30	Pass
NVNT	ac40	5795	Ant1	7.53	30	Pass
NVNT	ac40	5795	Sum	10.417	29.20	Pass
NVNT	ac80	5775	Ant0	4.29	30	Pass
NVNT	ac80	5775	Ant1	5.57	30	Pass
NVNT	ac80	5775	Sum	7.99	29.20	Pass
NVNT	ax20	5745	Ant0	5.72	30	Pass
NVNT	ax20	5745	Ant1	5.16	30	Pass
NVNT	ax20	5745	Sum	8.46	29.20	Pass
NVNT	ax40	5755	Ant0	4.39	30	Pass
NVNT	ax40	5755	Ant1	5.09	30	Pass
NVNT	ax40	5755	Sum	7.76	29.20	Pass
NVNT	ax40	5795	Ant0	5.22	30	Pass
NVNT	ax40	5795	Ant1	6.37	30	Pass
NVNT	ax40	5795	Sum	8.843	29.20	Pass



NVNT	ax80	5775	Ant0	2.58	30	Pass
NVNT	ax80	5775	Ant1	4.41	30	Pass
NVNT	ax80	5775	Sum	6.6	29.20	Pass
NVNT	n20	5745	Ant0	4.07	30	Pass
NVNT	n20	5745	Ant1	5.47	30	Pass
NVNT	n20	5745	Sum	7.84	29.20	Pass
NVNT	n20	5785	Ant0	4.96	30	Pass
NVNT	n20	5785	Ant1	8.96	30	Pass
NVNT	n20	5785	Sum	10.42	29.20	Pass
NVNT	n40	5755	Ant0	5.13	30	Pass
NVNT	n40	5755	Ant1	7.16	30	Pass
NVNT	n40	5755	Sum	9.27	29.20	Pass
NVNT	n40	5795	Ant0	4.81	30	Pass
NVNT	n40	5795	Ant1	6.90	30	Pass
NVNT	n40	5795	Sum	8.990	29.20	Pass

Note:

The duty factor has been compensated into the result.



Note

3 -6dB Bandwidth

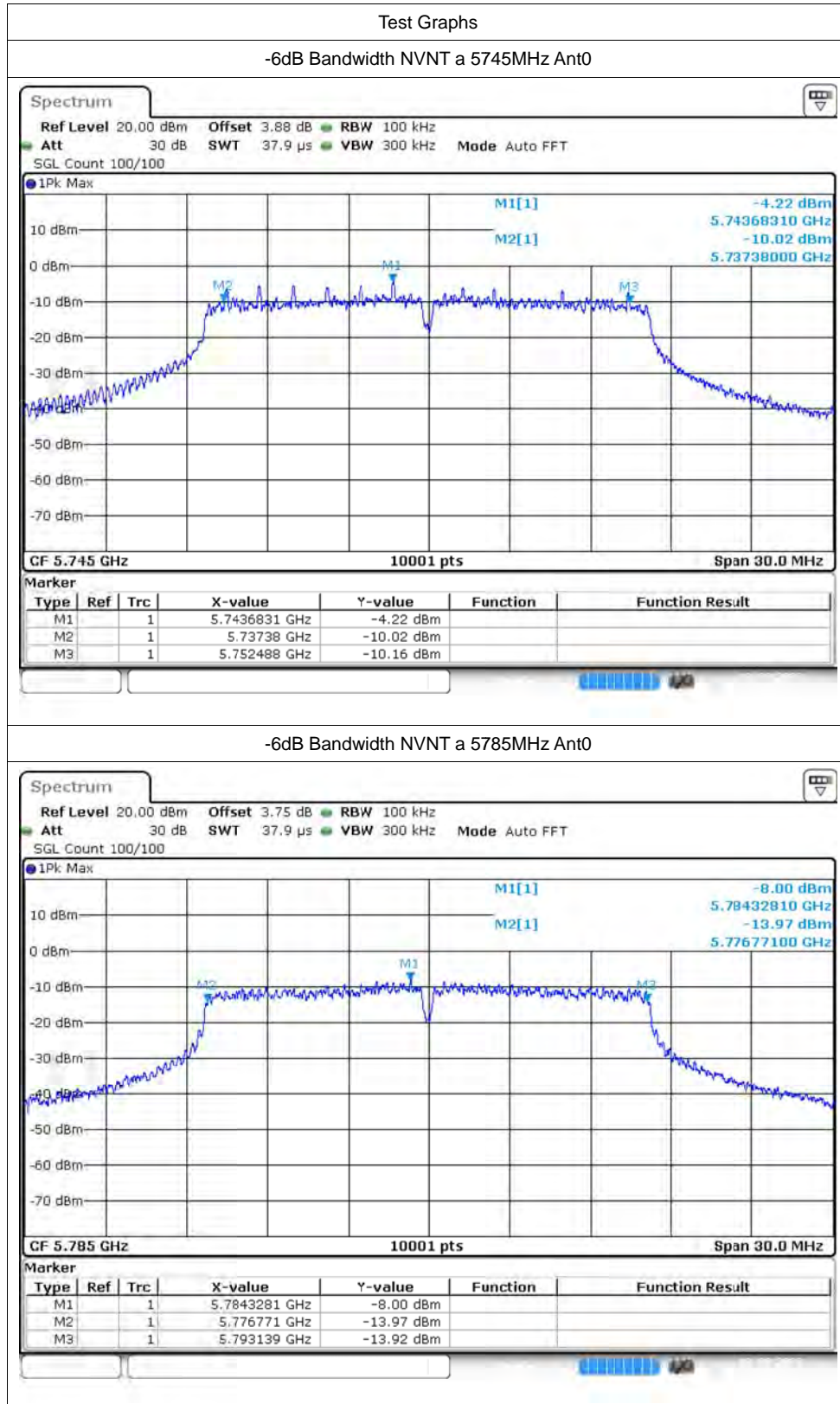
3.1 Test Result

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	a	5745	Ant0	15.108	0.5	Pass
NVNT	a	5785	Ant0	16.368	0.5	Pass
NVNT	a	5825	Ant0	16.401	0.5	Pass
NVNT	a	5745	Ant1	16.053	0.5	Pass
NVNT	a	5785	Ant1	16.53	0.5	Pass
NVNT	a	5825	Ant1	16.026	0.5	Pass
NVNT	n20	5745	Ant0	15.684	0.5	Pass
NVNT	n20	5785	Ant0	15.681	0.5	Pass
NVNT	n20	5825	Ant0	16.926	0.5	Pass
NVNT	n20	5745	Ant1	16.947	0.5	Pass
NVNT	n20	5785	Ant1	17.574	0.5	Pass
NVNT	n20	5825	Ant1	17.601	0.5	Pass
NVNT	n40	5755	Ant0	27.582	0.5	Pass
NVNT	n40	5795	Ant0	30.102	0.5	Pass
NVNT	n40	5755	Ant1	32.532	0.5	Pass
NVNT	n40	5795	Ant1	33.786	0.5	Pass
NVNT	ac20	5745	Ant0	15.141	0.5	Pass
NVNT	ac20	5785	Ant0	15.342	0.5	Pass
NVNT	ac20	5825	Ant0	16.329	0.5	Pass
NVNT	ac20	5745	Ant1	17.319	0.5	Pass
NVNT	ac20	5785	Ant1	15.24	0.5	Pass
NVNT	ac20	5825	Ant1	16.911	0.5	Pass
NVNT	ac40	5755	Ant0	35.058	0.5	Pass
NVNT	ac40	5795	Ant0	30.114	0.5	Pass
NVNT	ac40	5755	Ant1	35.028	0.5	Pass
NVNT	ac40	5795	Ant1	31.326	0.5	Pass
NVNT	ac80	5775	Ant0	75.096	0.5	Pass
NVNT	ac80	5775	Ant1	75.048	0.5	Pass
NVNT	ax20	5745	Ant0	18.03	0.5	Pass
NVNT	ax20	5785	Ant0	16.92	0.5	Pass
NVNT	ax20	5825	Ant0	18.843	0.5	Pass
NVNT	ax20	5745	Ant1	19.059	0.5	Pass
NVNT	ax20	5785	Ant1	18.489	0.5	Pass
NVNT	ax20	5825	Ant1	17.817	0.5	Pass
NVNT	ax40	5755	Ant0	35.064	0.5	Pass



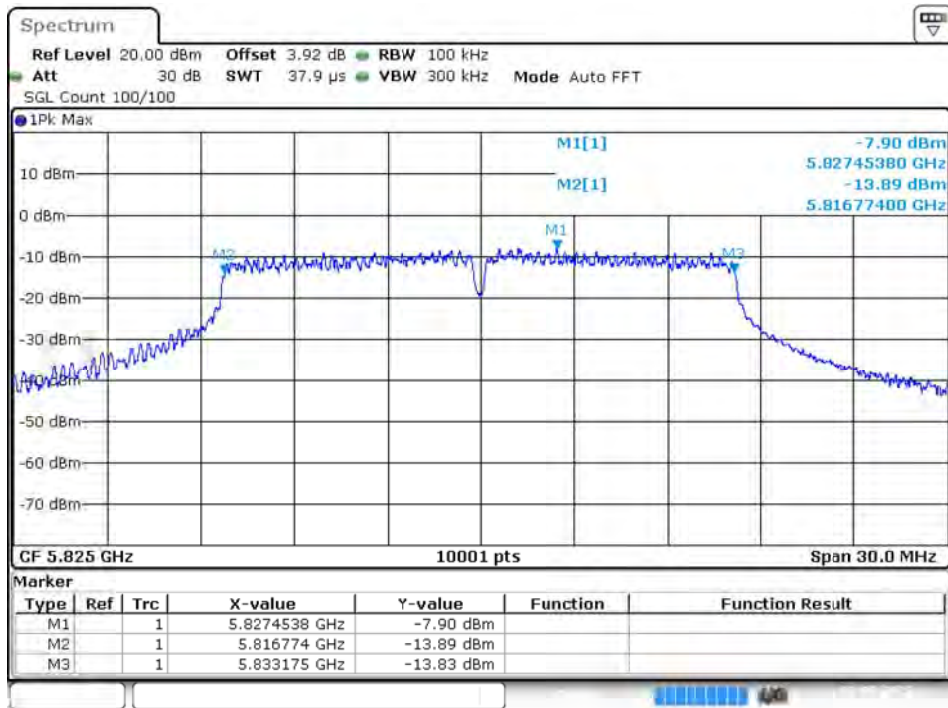
NVNT	ax40	5795	Ant0	35.07	0.5	Pass
NVNT	ax40	5755	Ant1	37.314	0.5	Pass
NVNT	ax40	5795	Ant1	32.754	0.5	Pass
NVNT	ax80	5775	Ant0	73.824	0.5	Pass
NVNT	ax80	5775	Ant1	75.084	0.5	Pass

3.2 Test Graphs

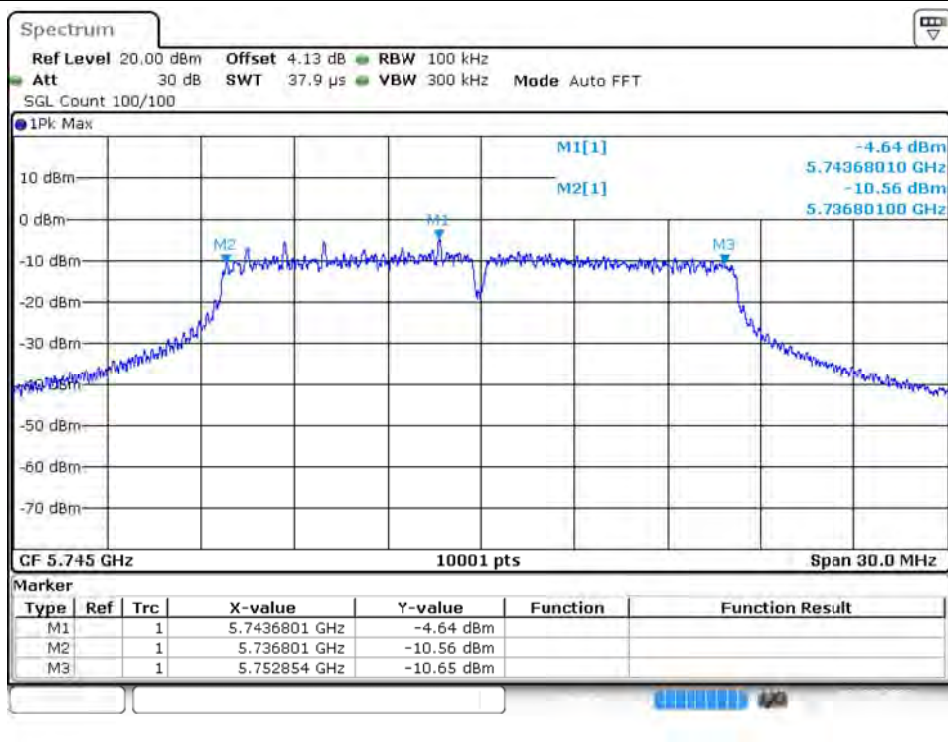




-6dB Bandwidth NVNT a 5825MHz Ant0

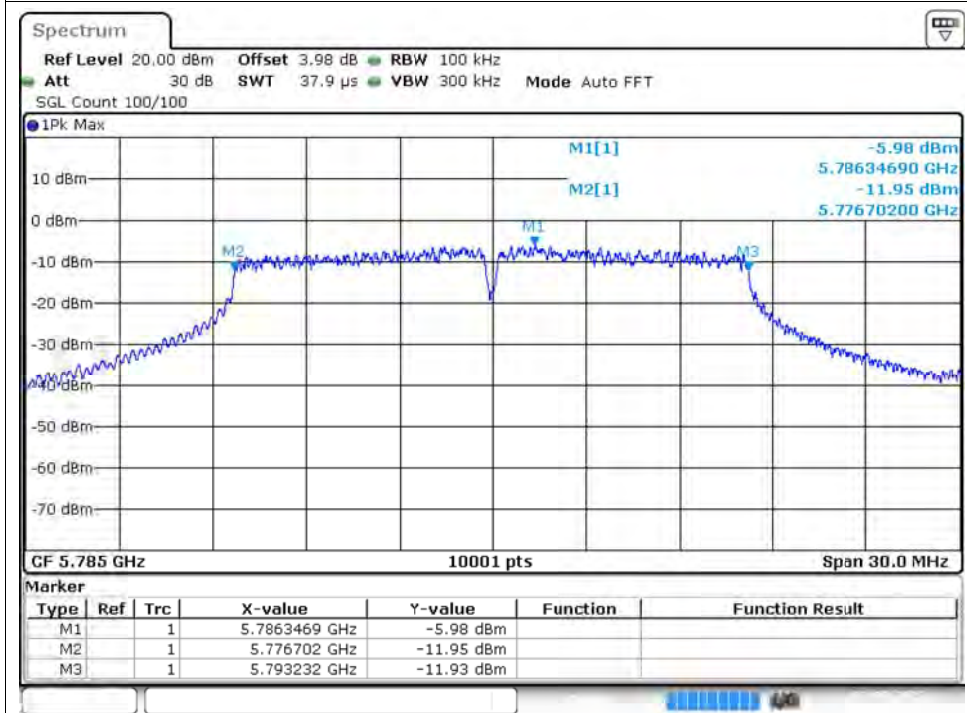


-6dB Bandwidth NVNT a 5745MHz Ant1

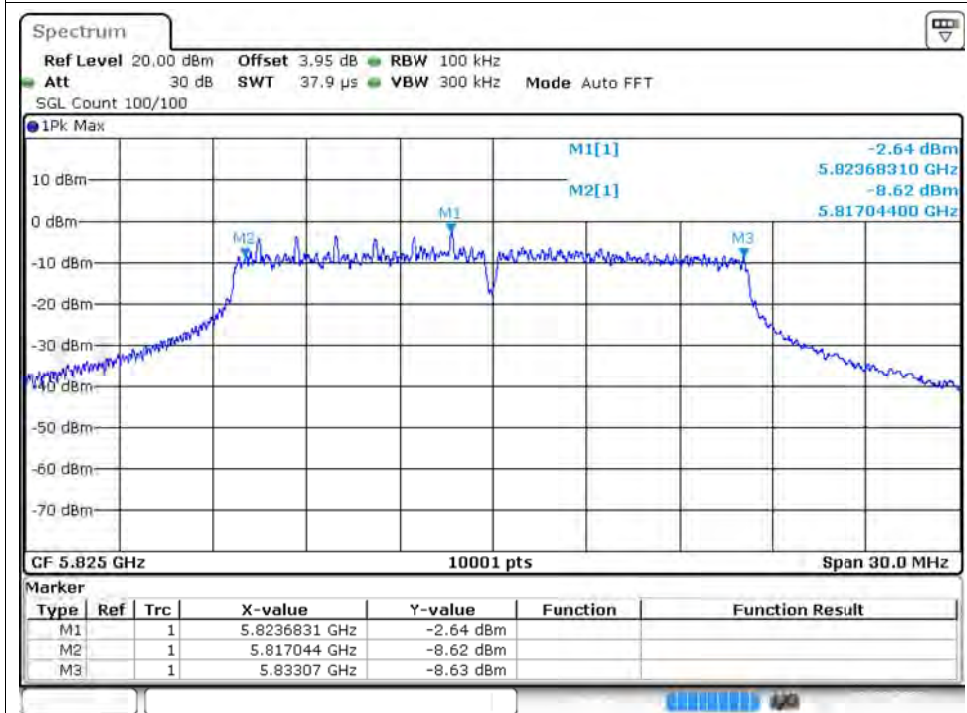




-6dB Bandwidth NVNT a 5785MHz Ant1

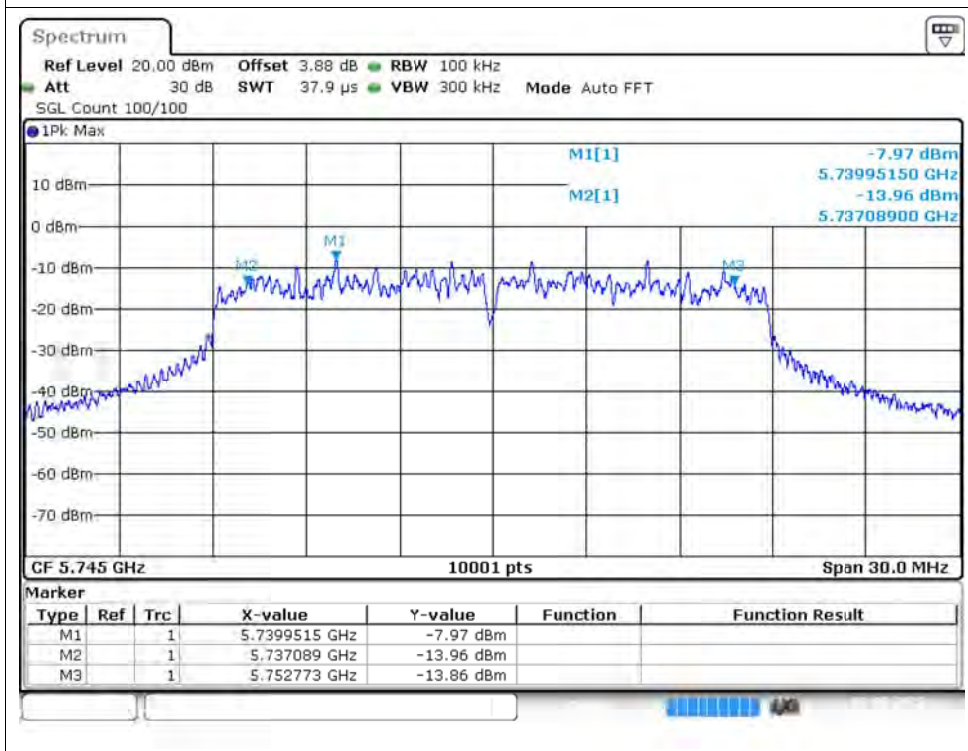


-6dB Bandwidth NVNT a 5825MHz Ant1

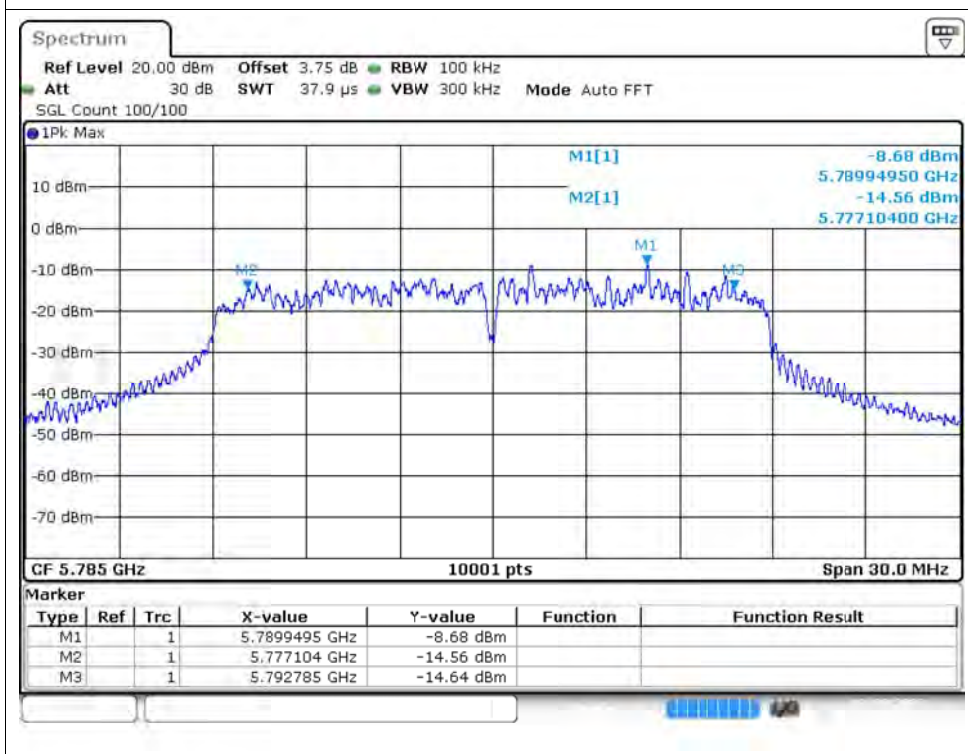




-6dB Bandwidth NVNT n20 5745MHz Ant0

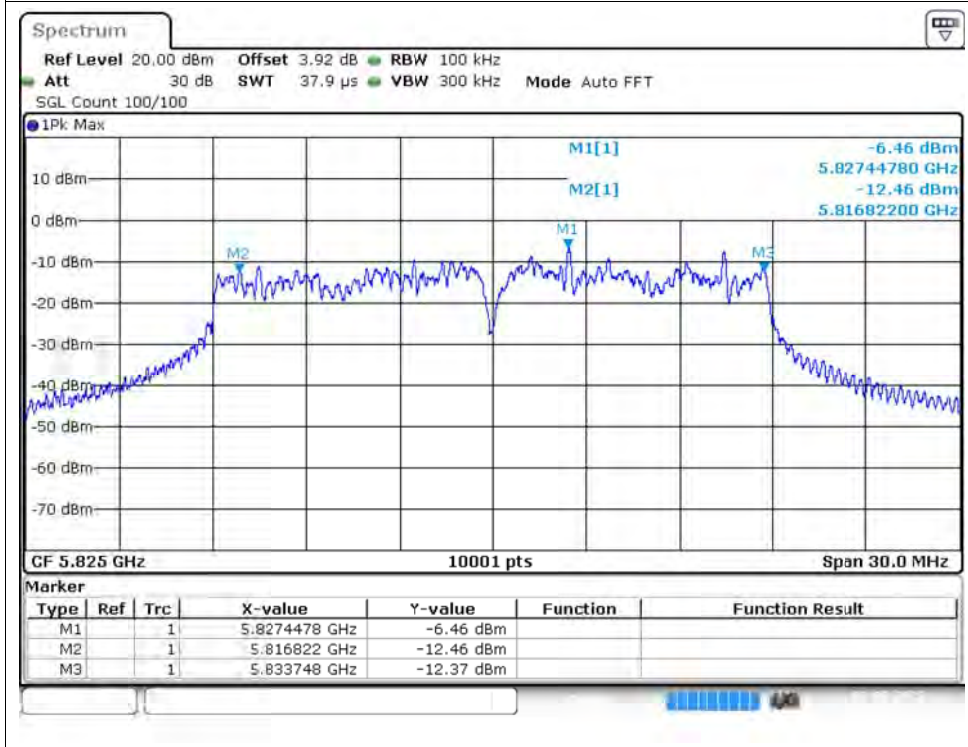


-6dB Bandwidth NVNT n20 5785MHz Ant0

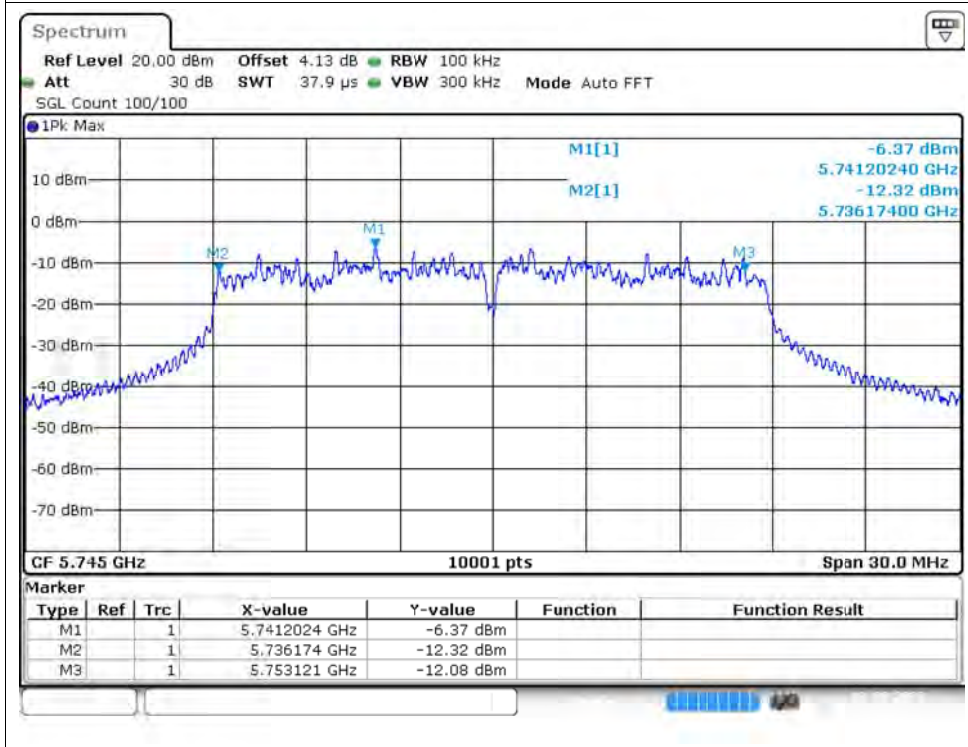


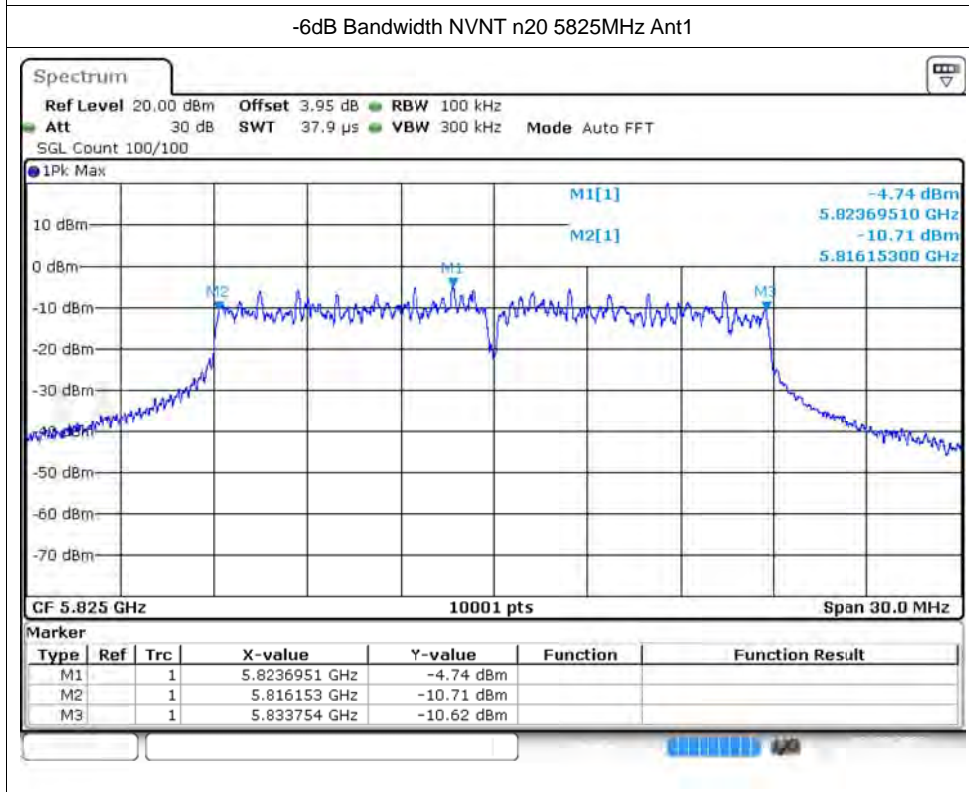
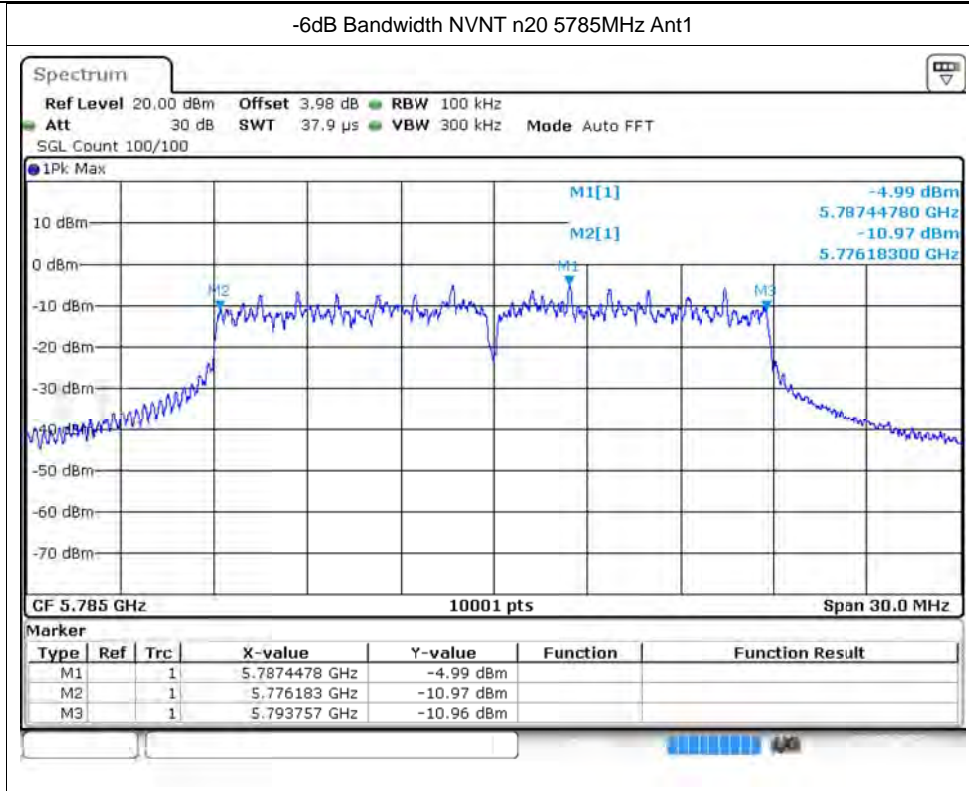


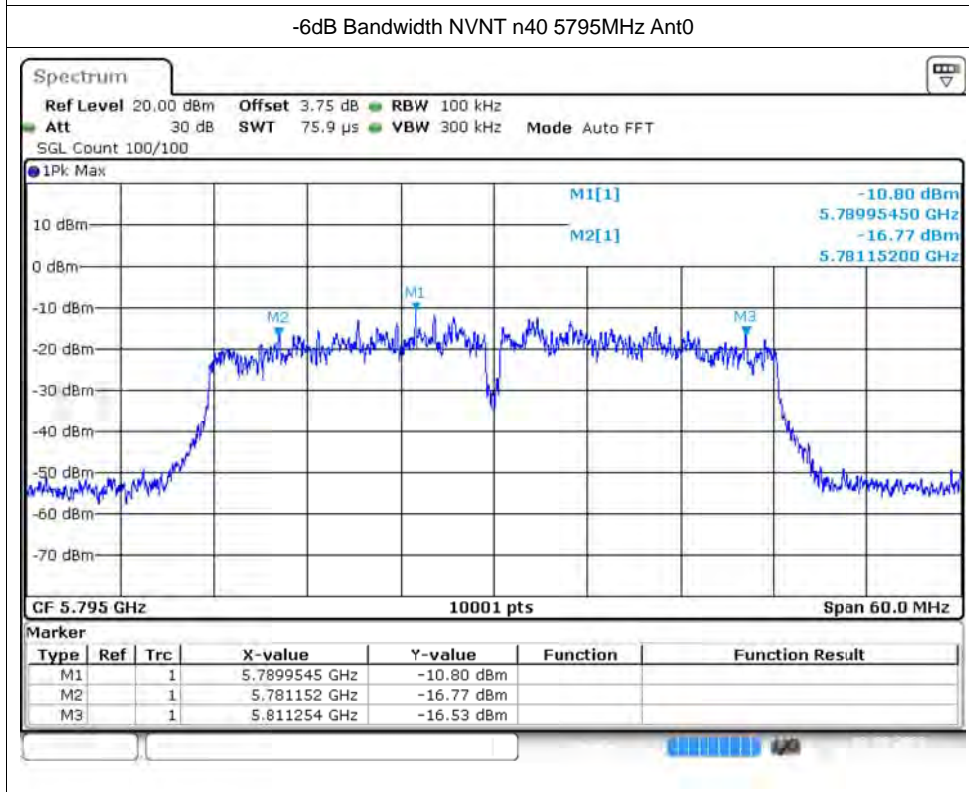
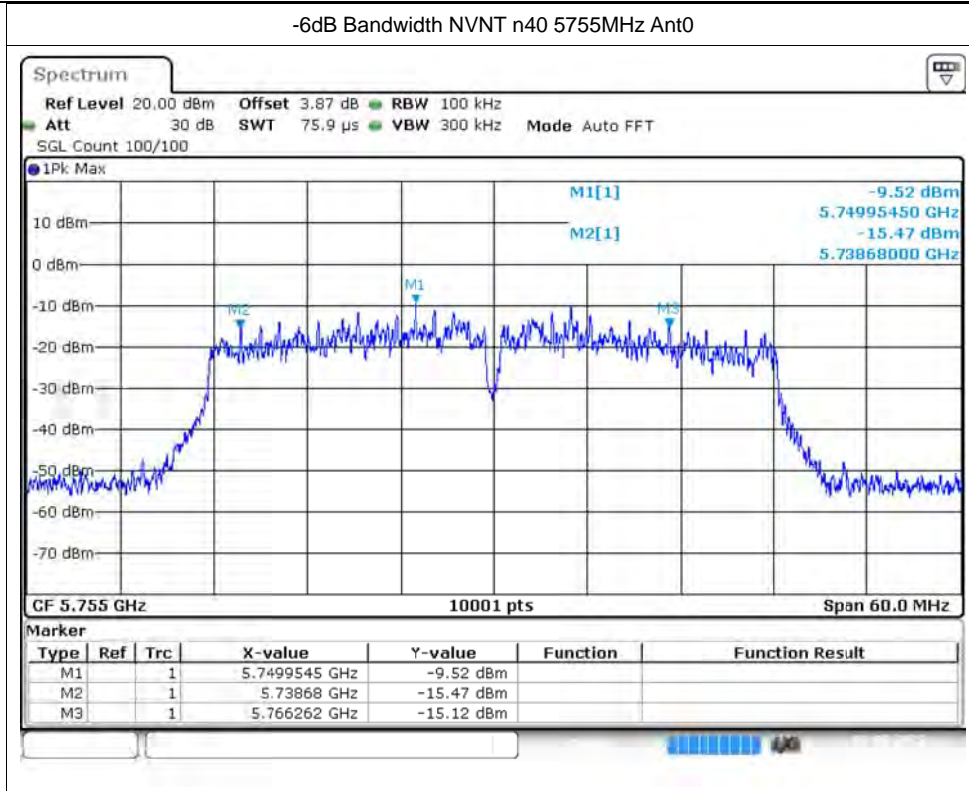
-6dB Bandwidth NVNT n20 5825MHz Ant0

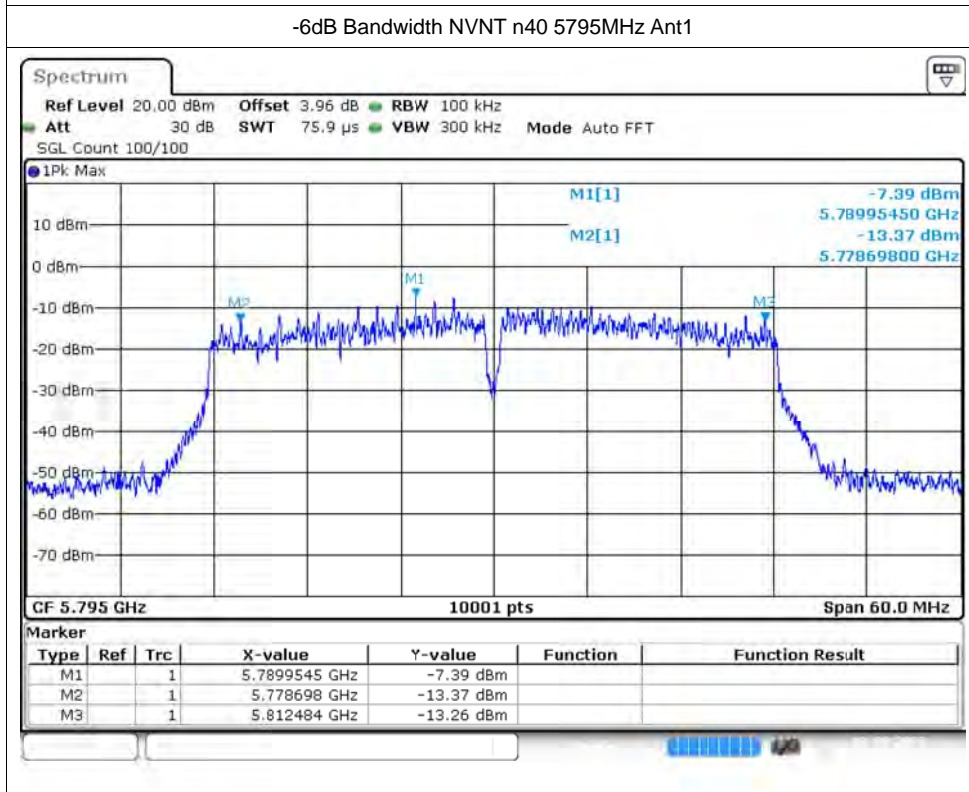
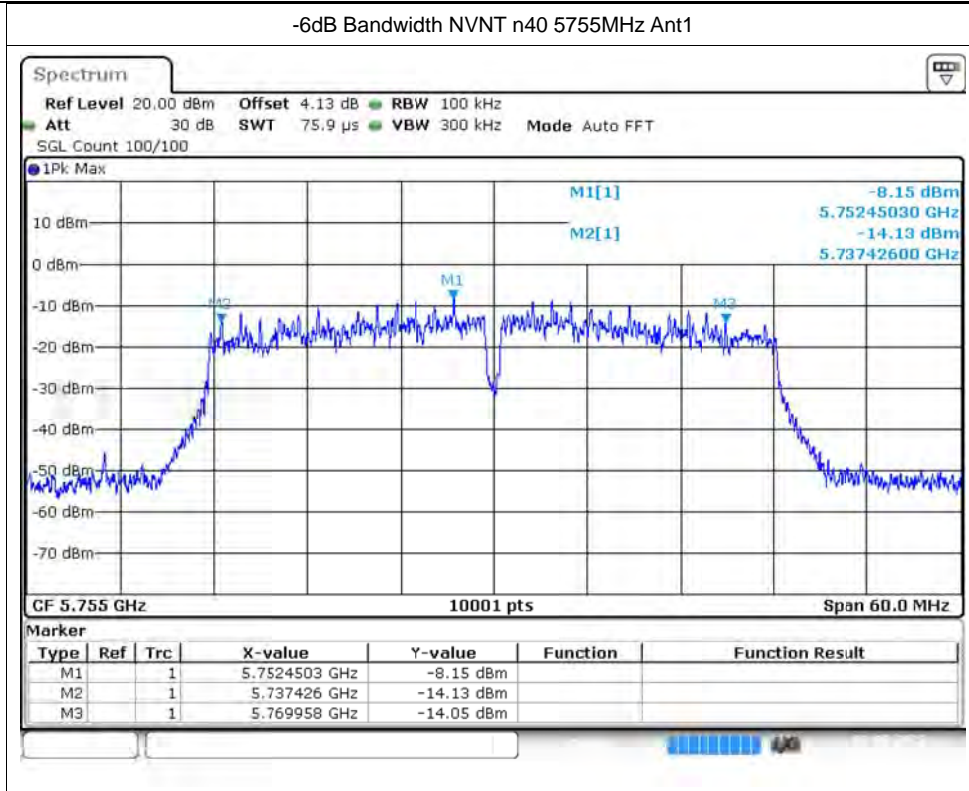


-6dB Bandwidth NVNT n20 5745MHz Ant1



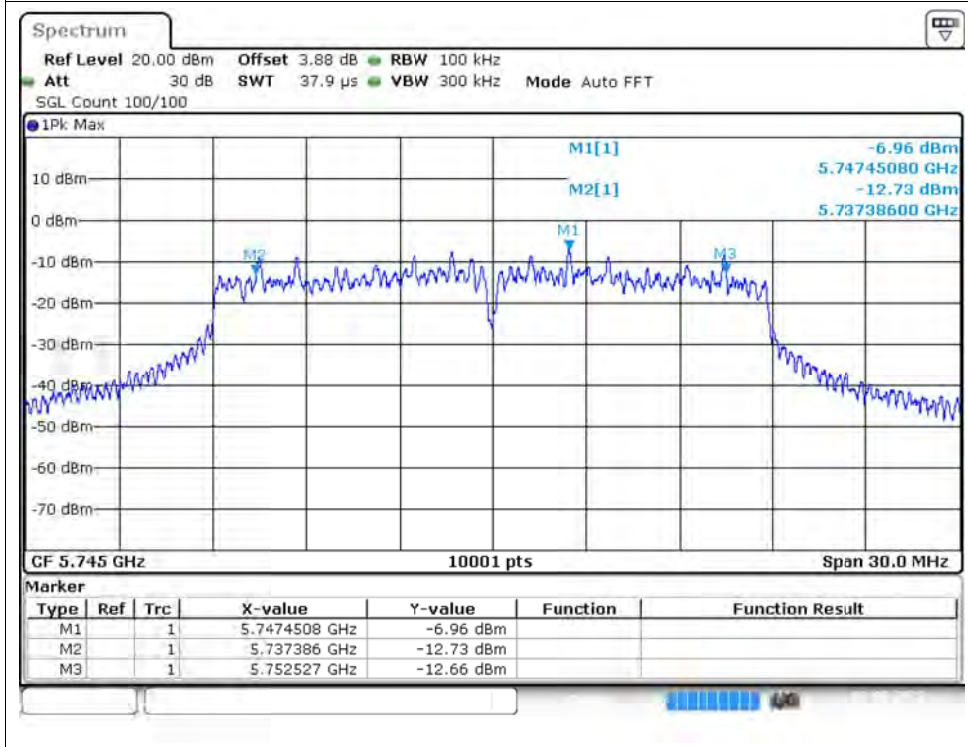




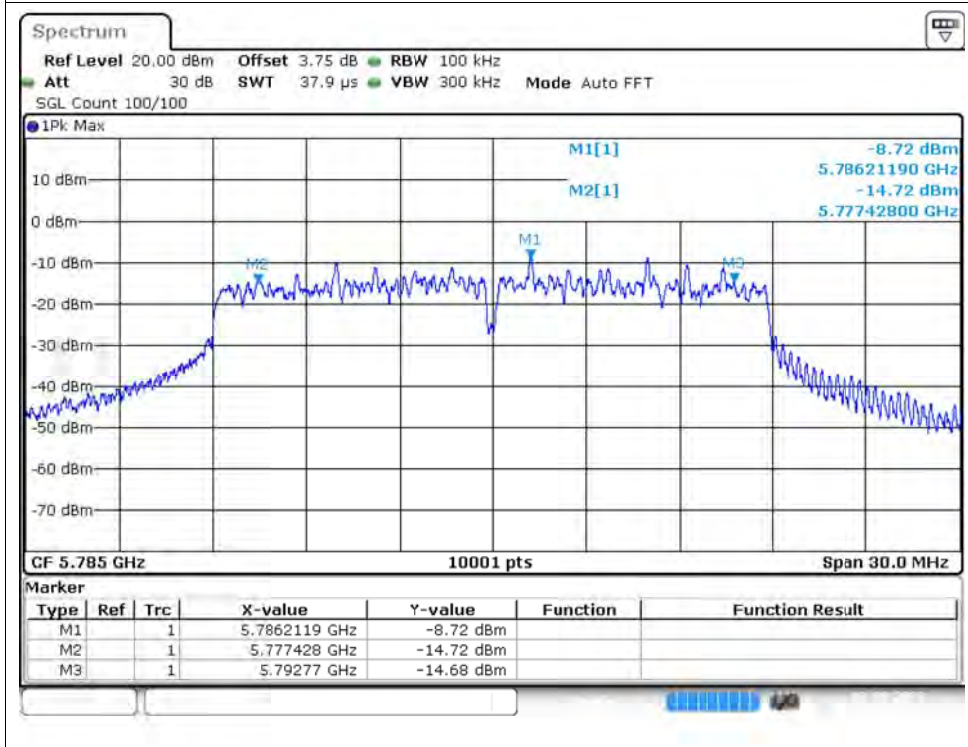




-6dB Bandwidth NVNT ac20 5745MHz Ant0

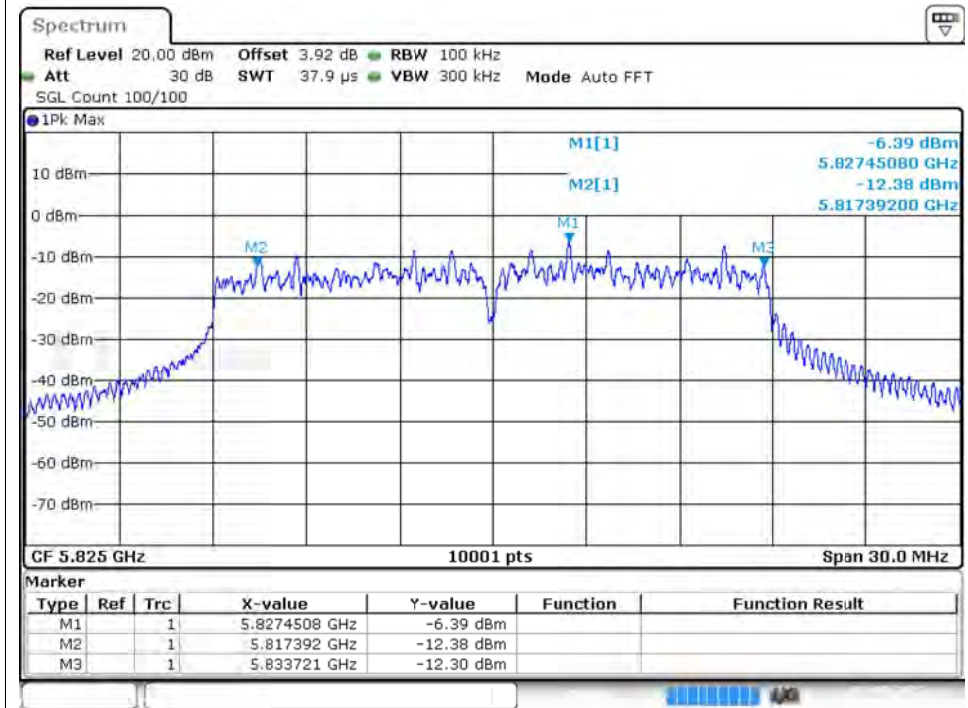


-6dB Bandwidth NVNT ac20 5785MHz Ant0

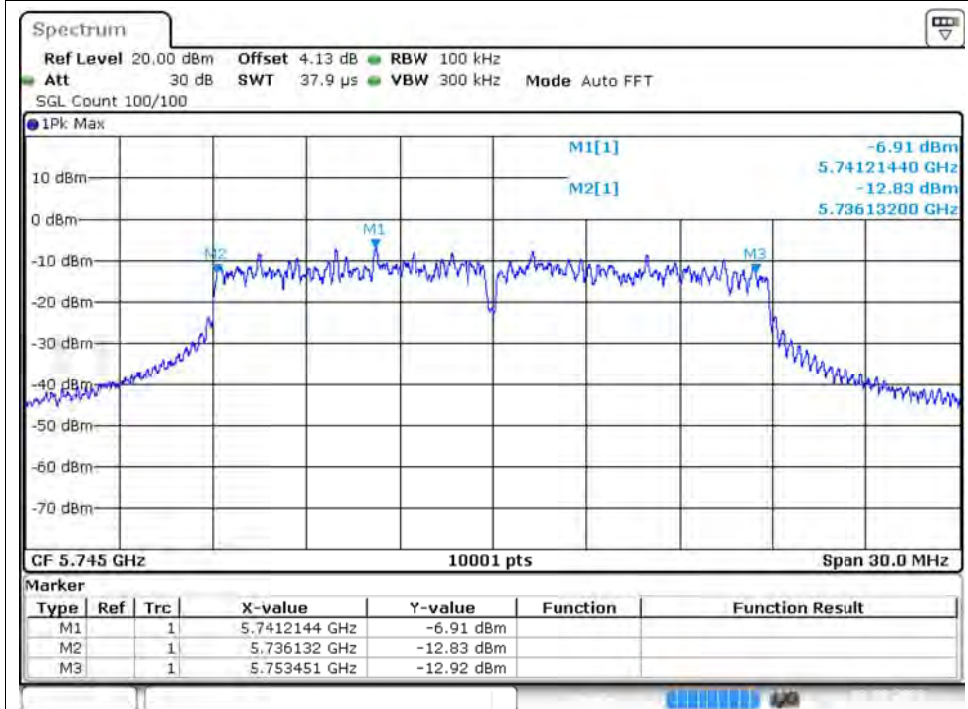




-6dB Bandwidth NVNT ac20 5825MHz Ant0

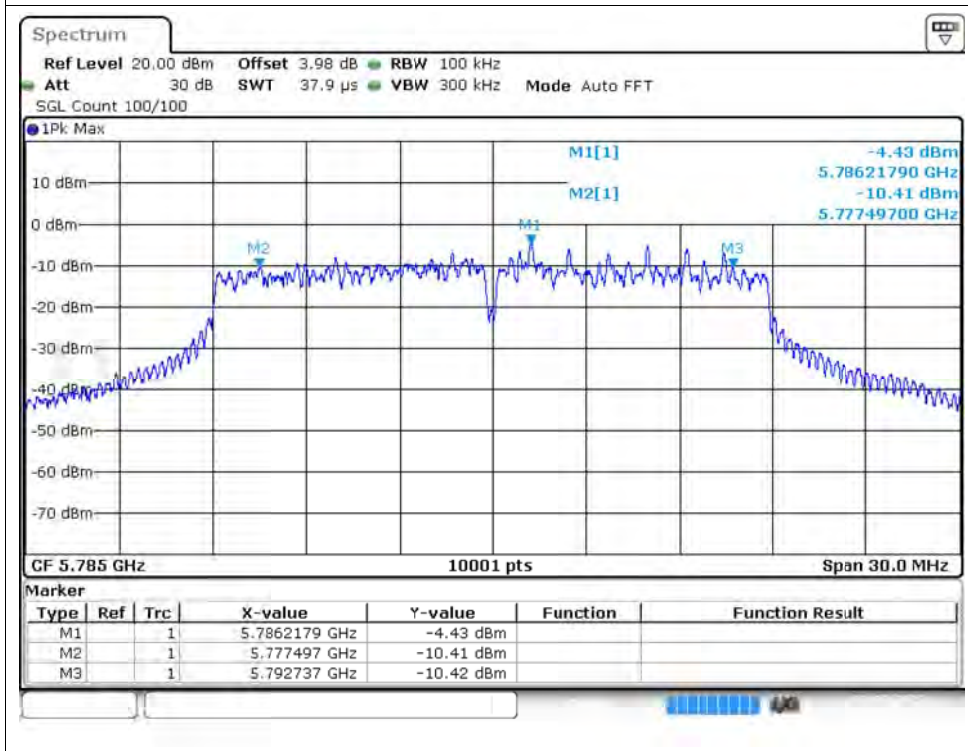


-6dB Bandwidth NVNT ac20 5745MHz Ant1

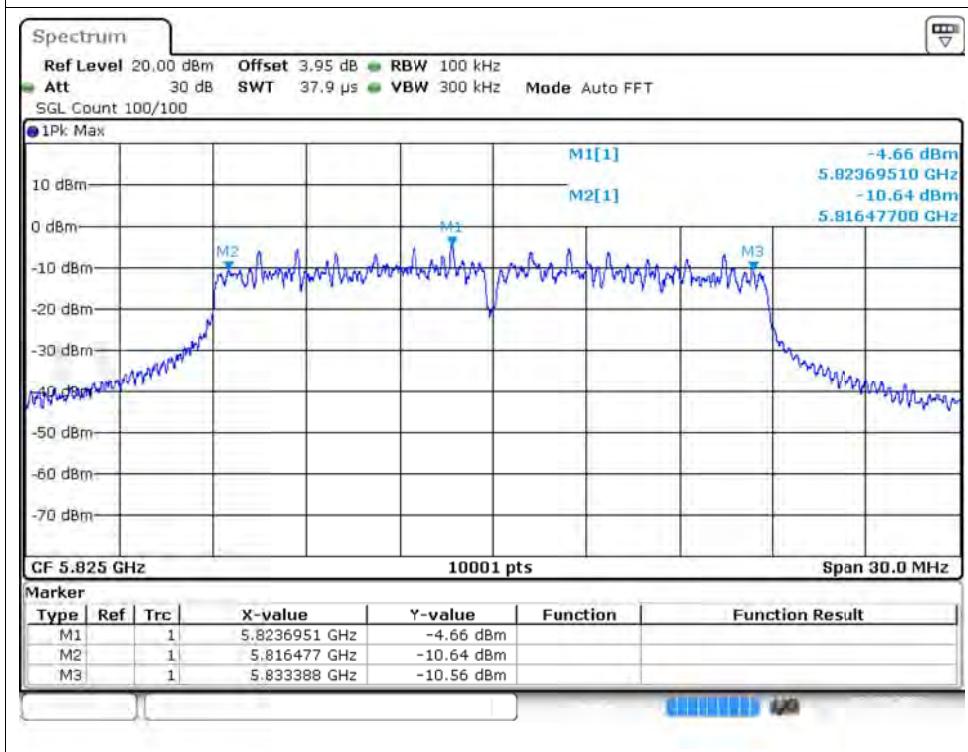




-6dB Bandwidth NVNT ac20 5785MHz Ant1

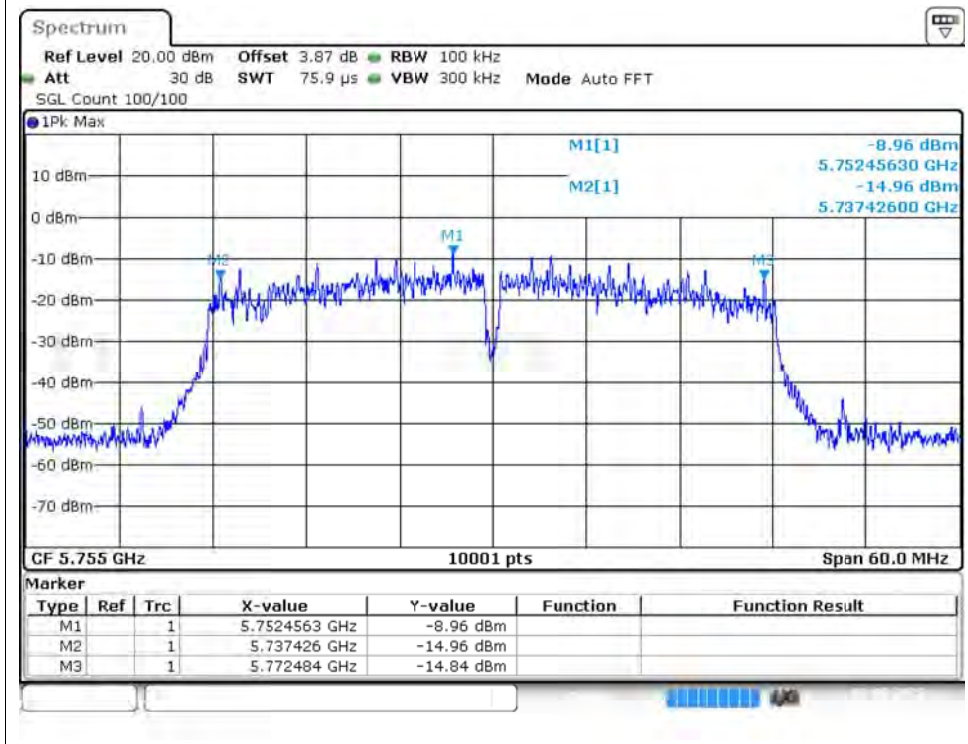


-6dB Bandwidth NVNT ac20 5825MHz Ant1

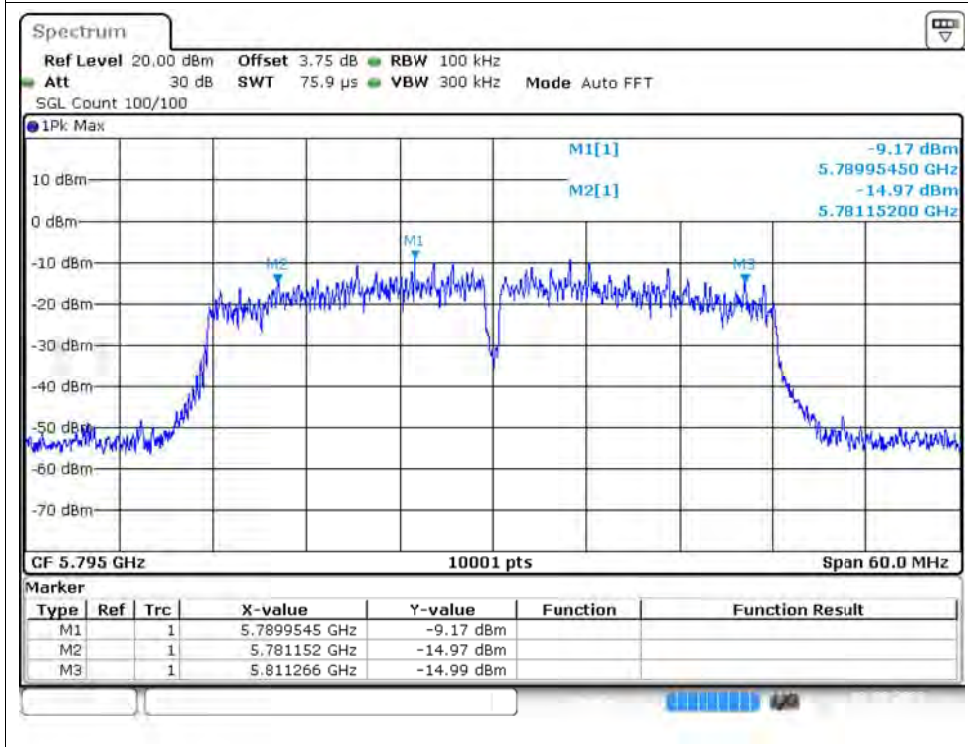


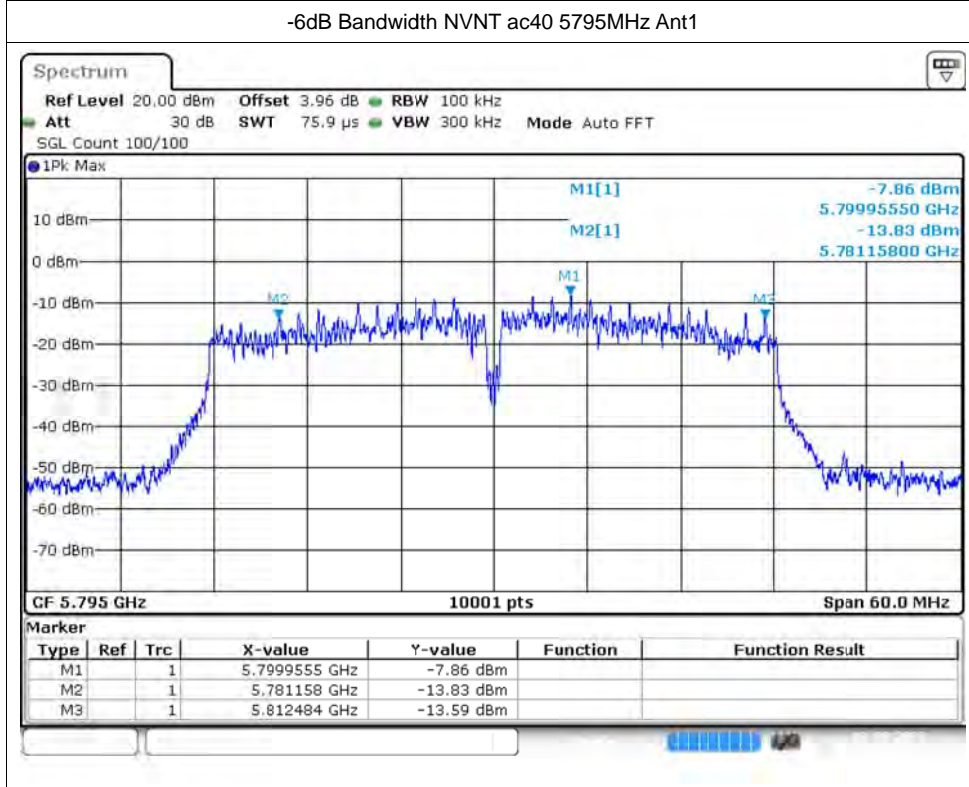
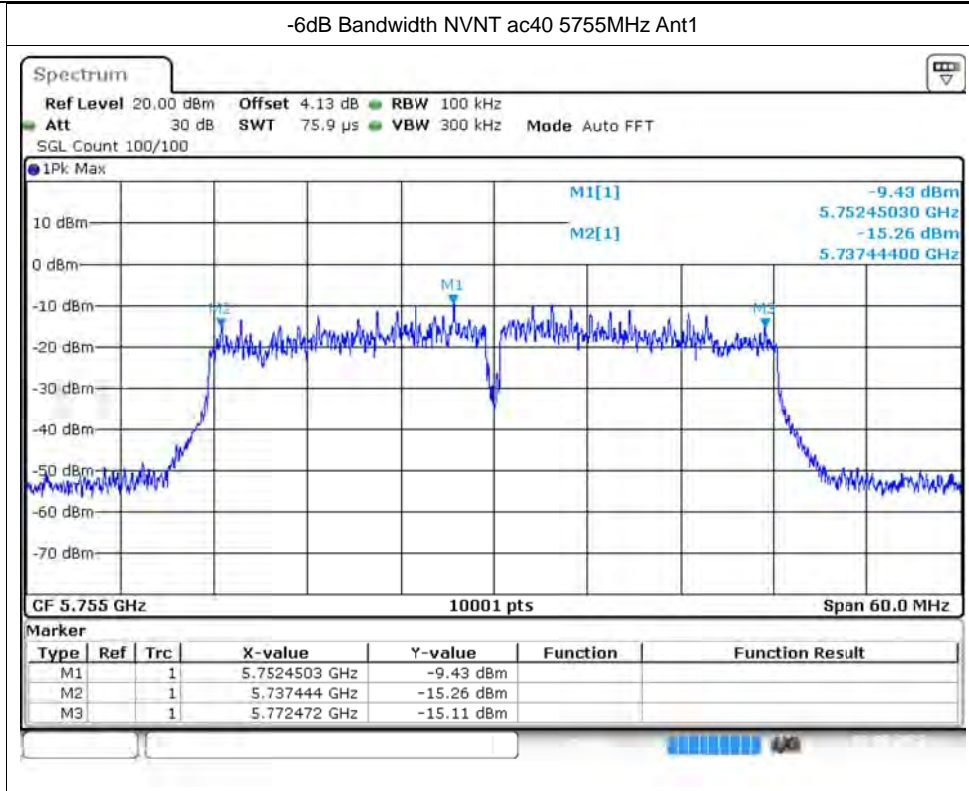


-6dB Bandwidth NVNT ac40 5755MHz Ant0



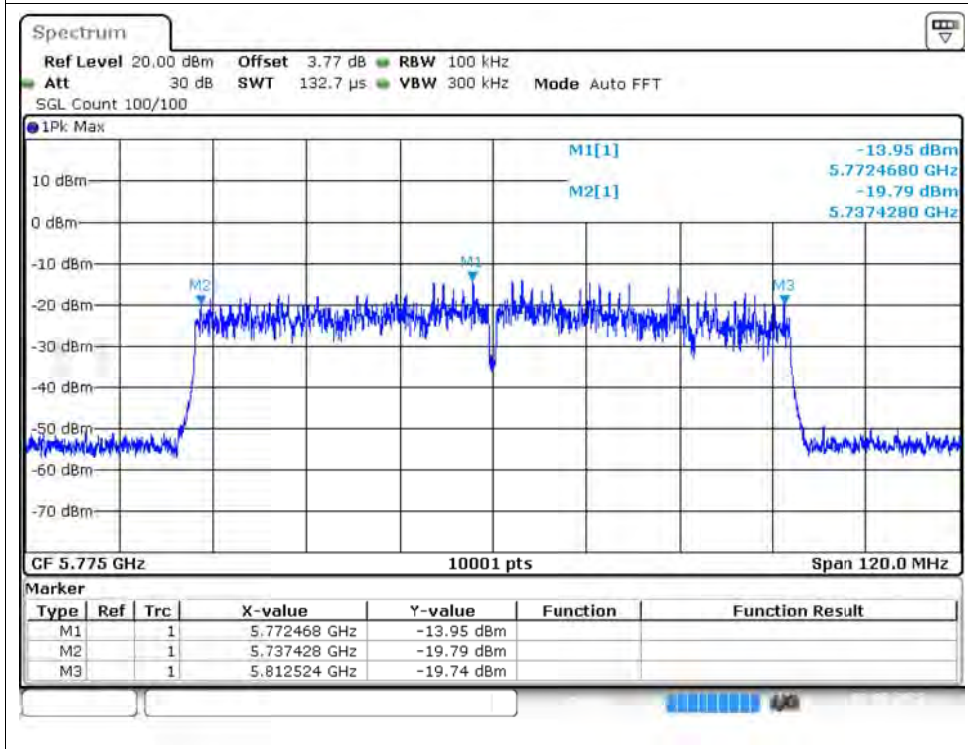
-6dB Bandwidth NVNT ac40 5795MHz Ant0



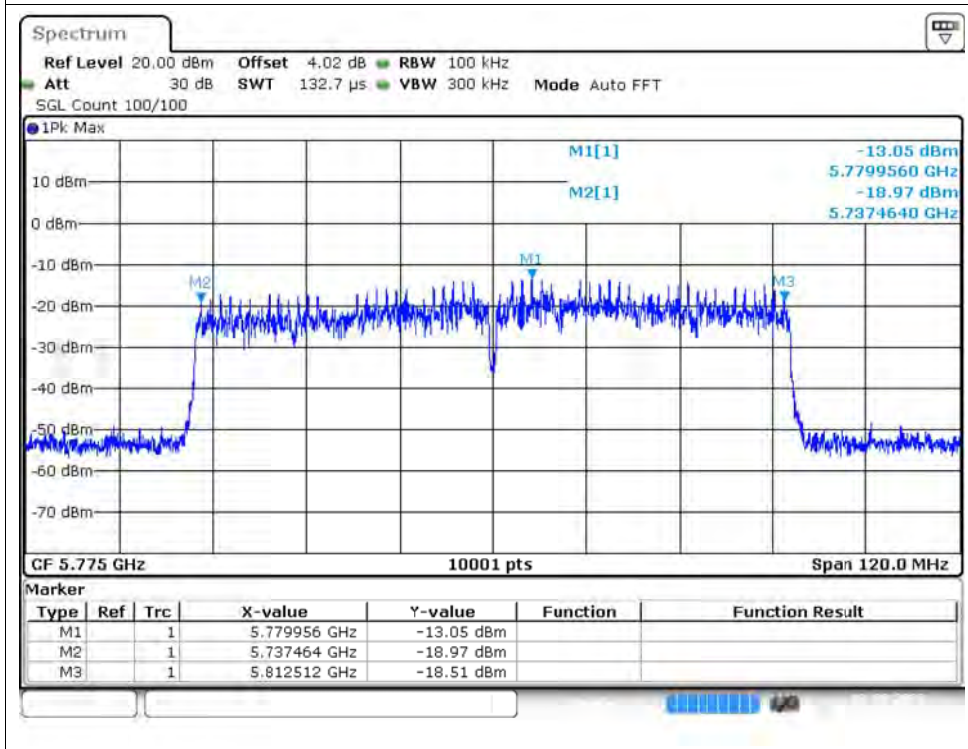




-6dB Bandwidth NVNT ac80 5775MHz Ant0

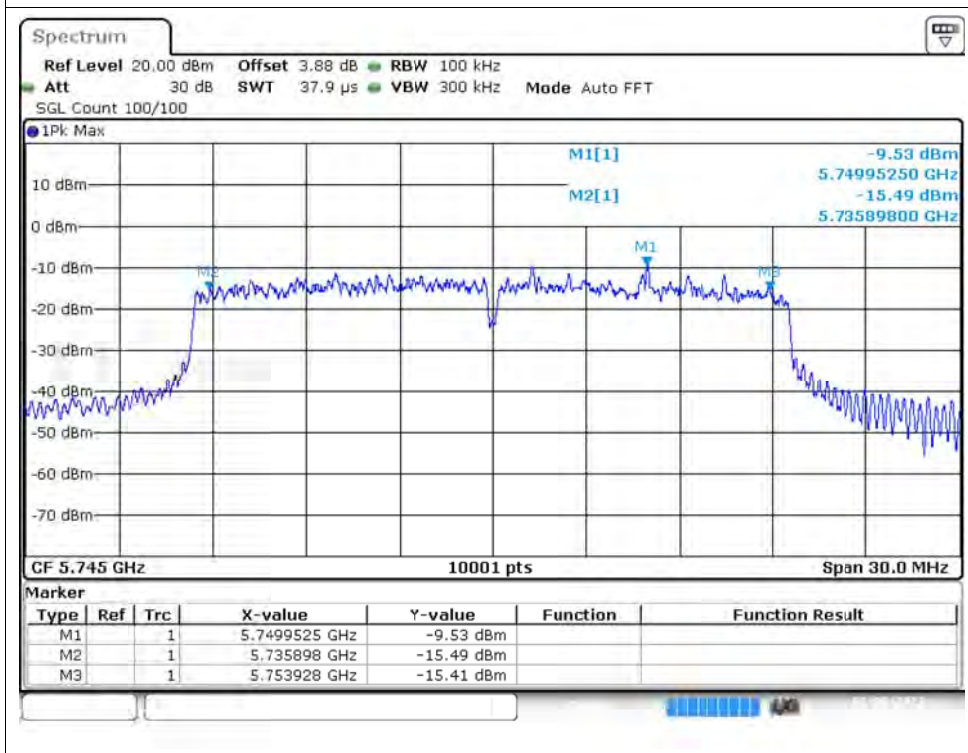


-6dB Bandwidth NVNT ac80 5775MHz Ant1

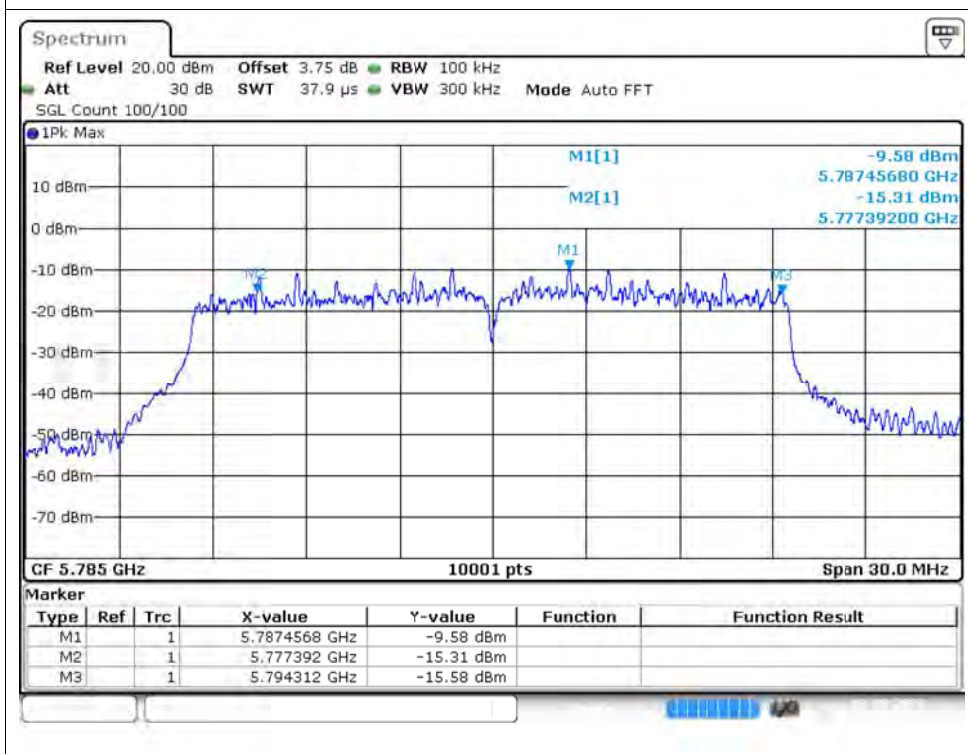




-6dB Bandwidth NVNT ax20 5745MHz Ant0

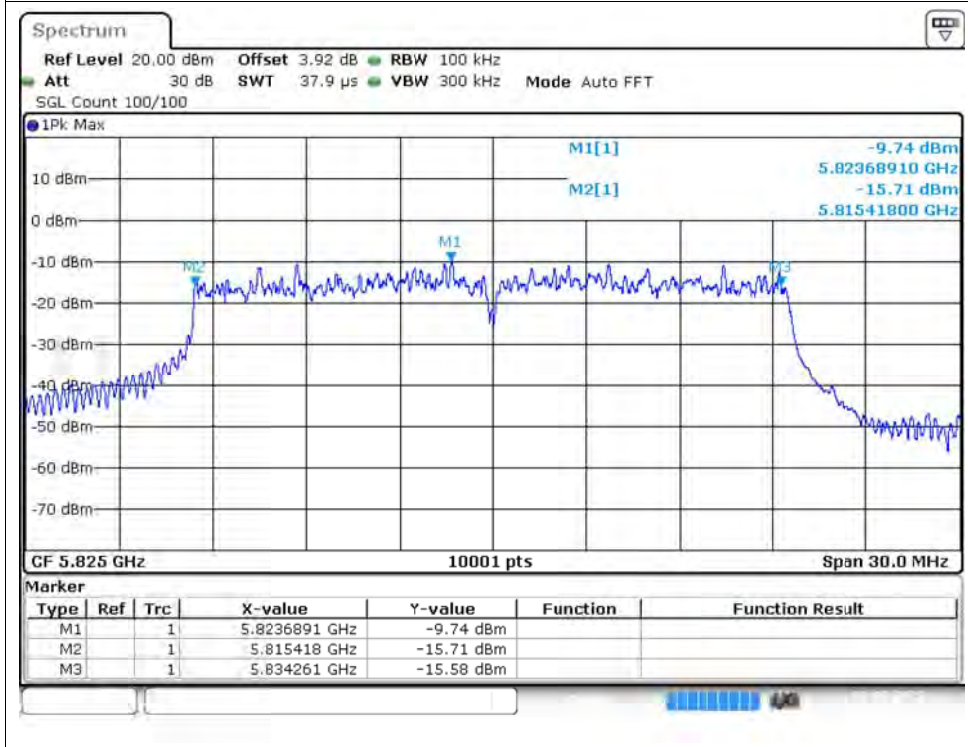


-6dB Bandwidth NVNT ax20 5785MHz Ant0

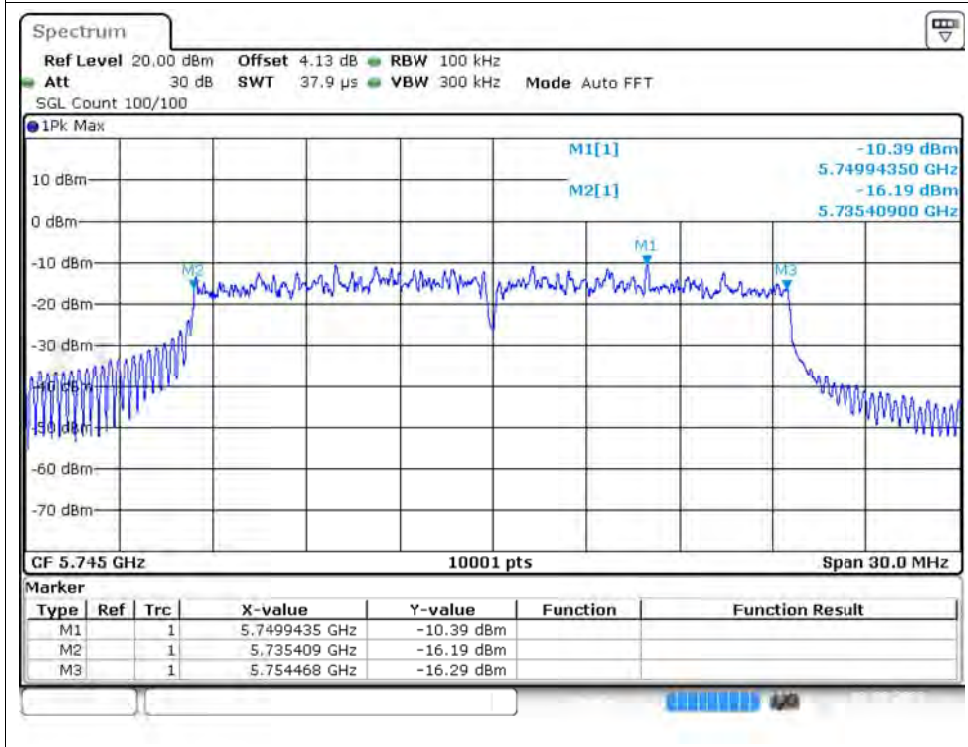




-6dB Bandwidth NVNT ax20 5825MHz Ant0

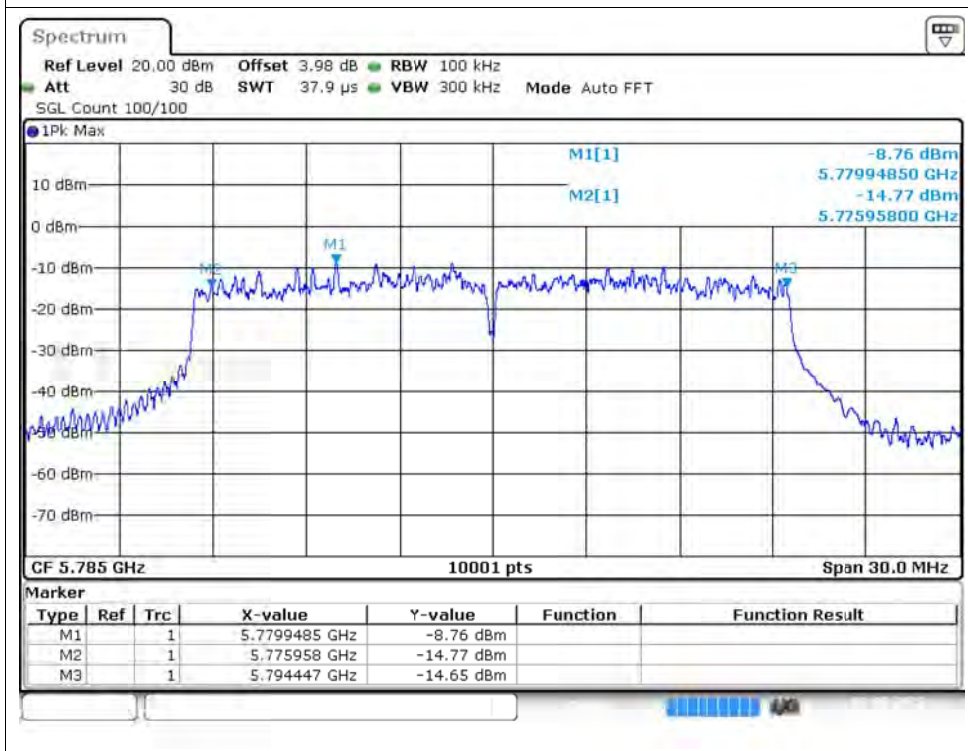


-6dB Bandwidth NVNT ax20 5745MHz Ant1

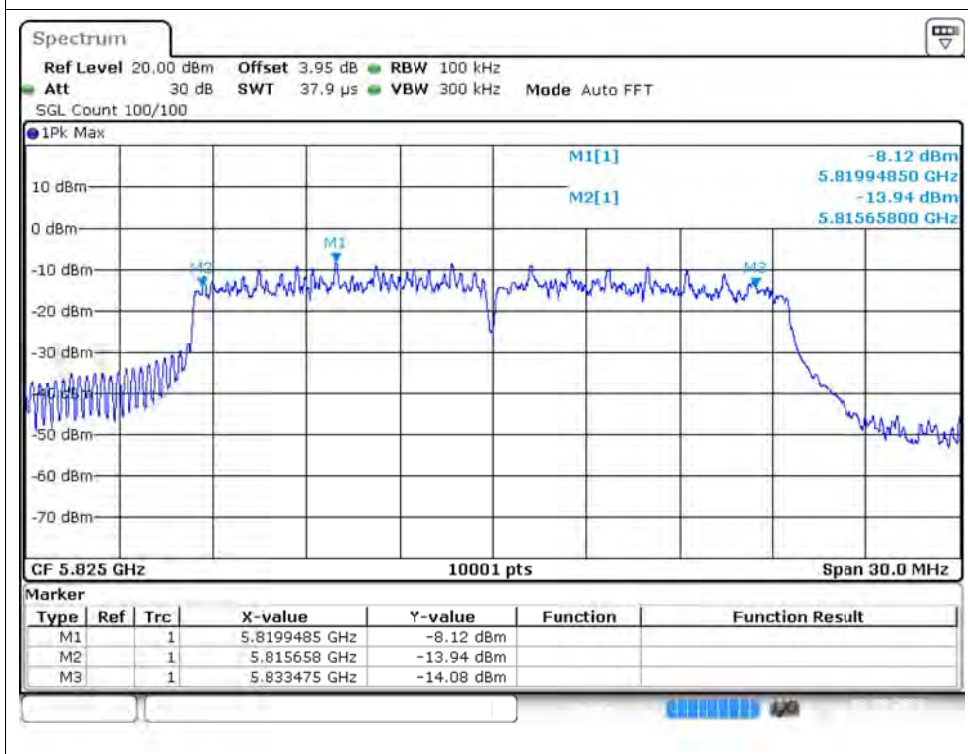




-6dB Bandwidth NVNT ax20 5785MHz Ant1

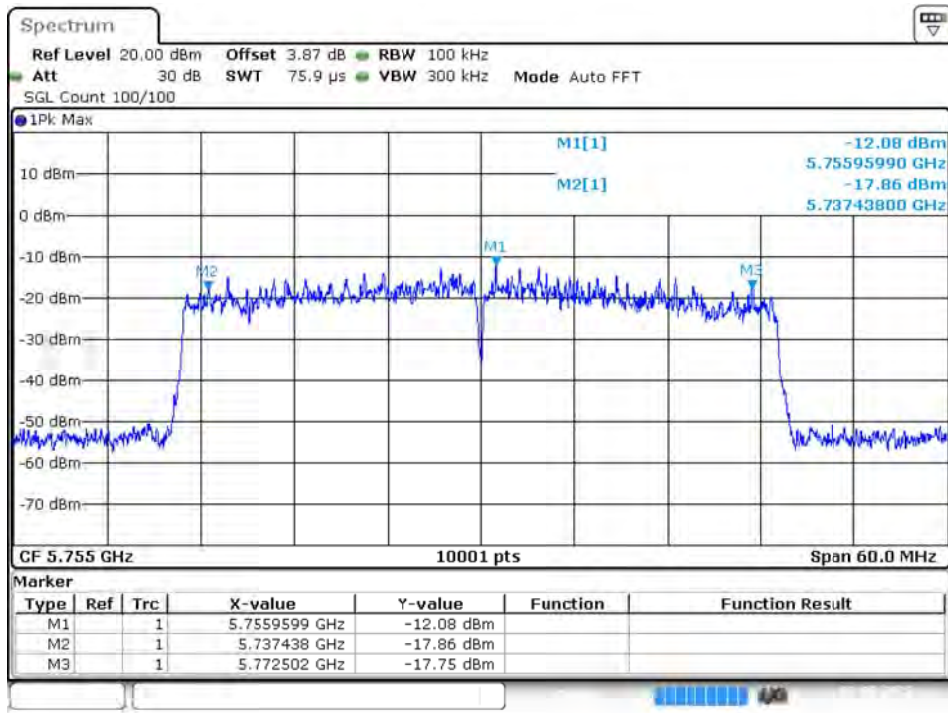


-6dB Bandwidth NVNT ax20 5825MHz Ant1

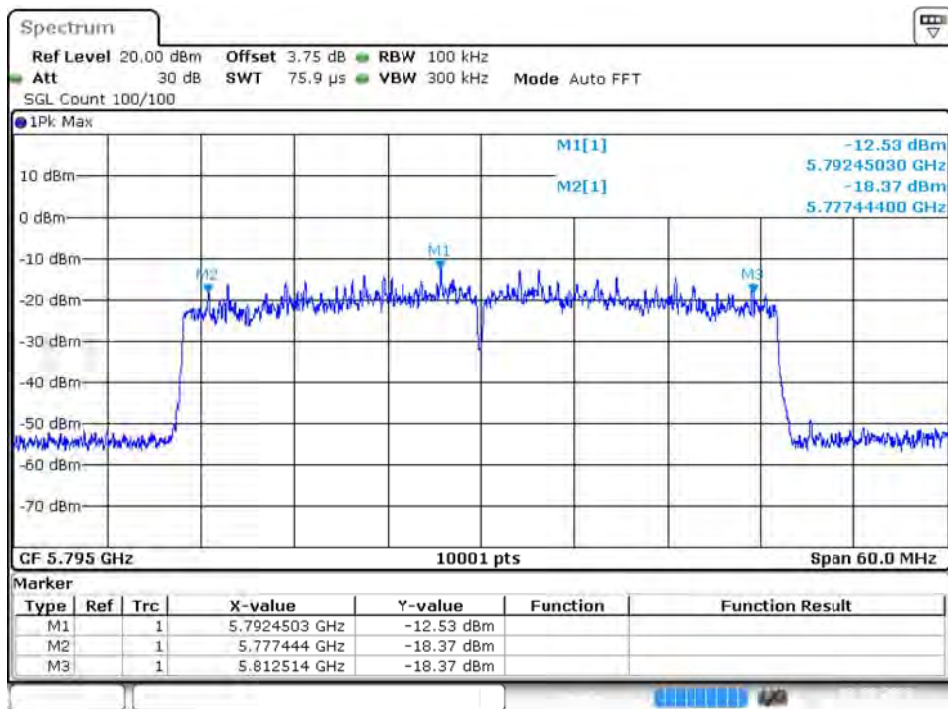


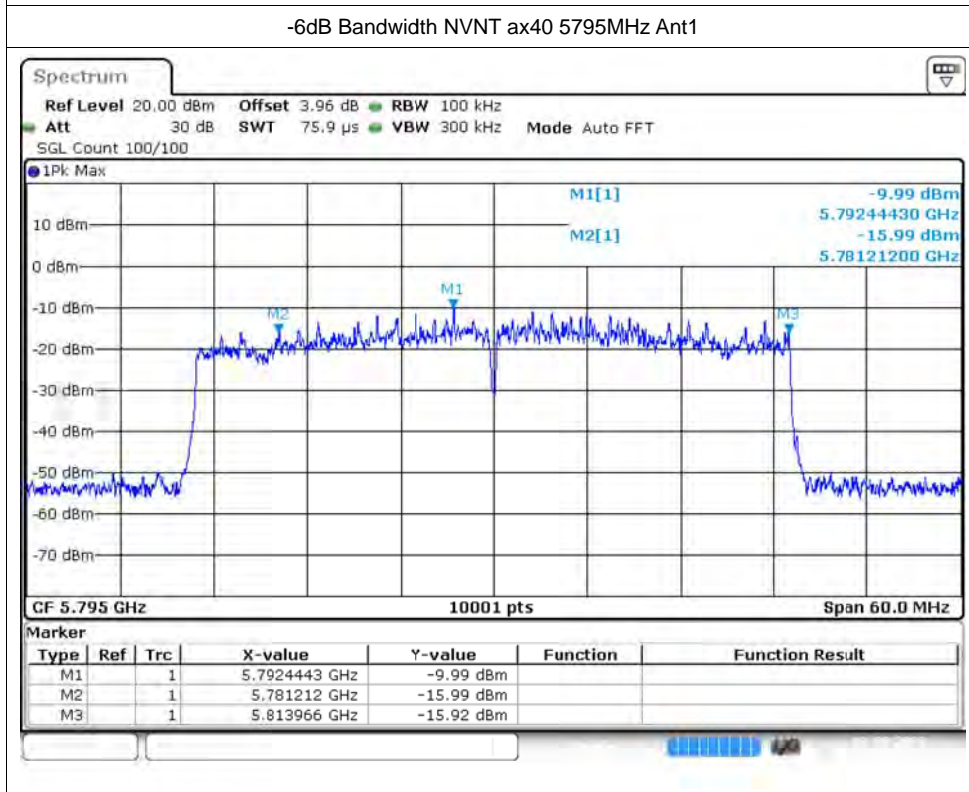
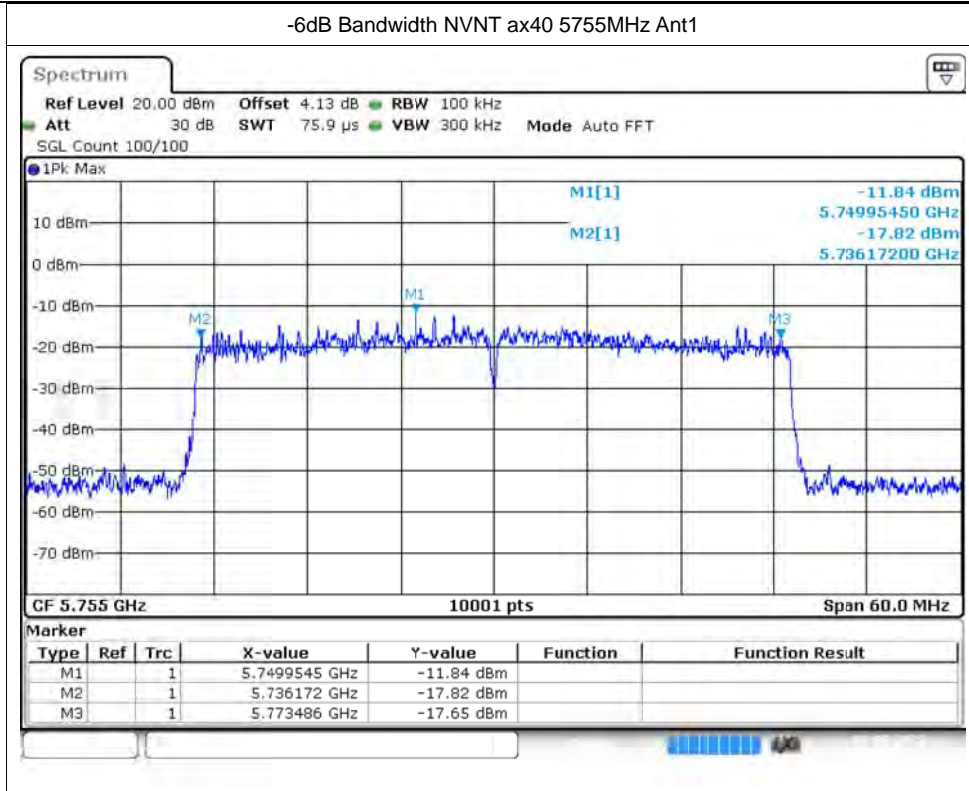


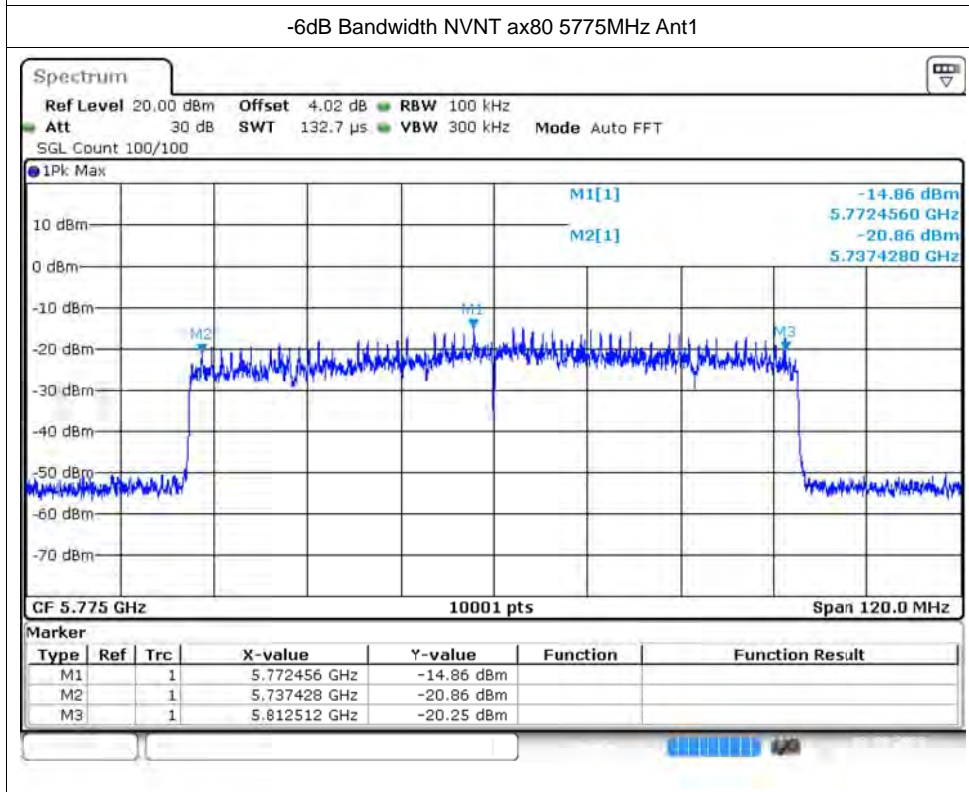
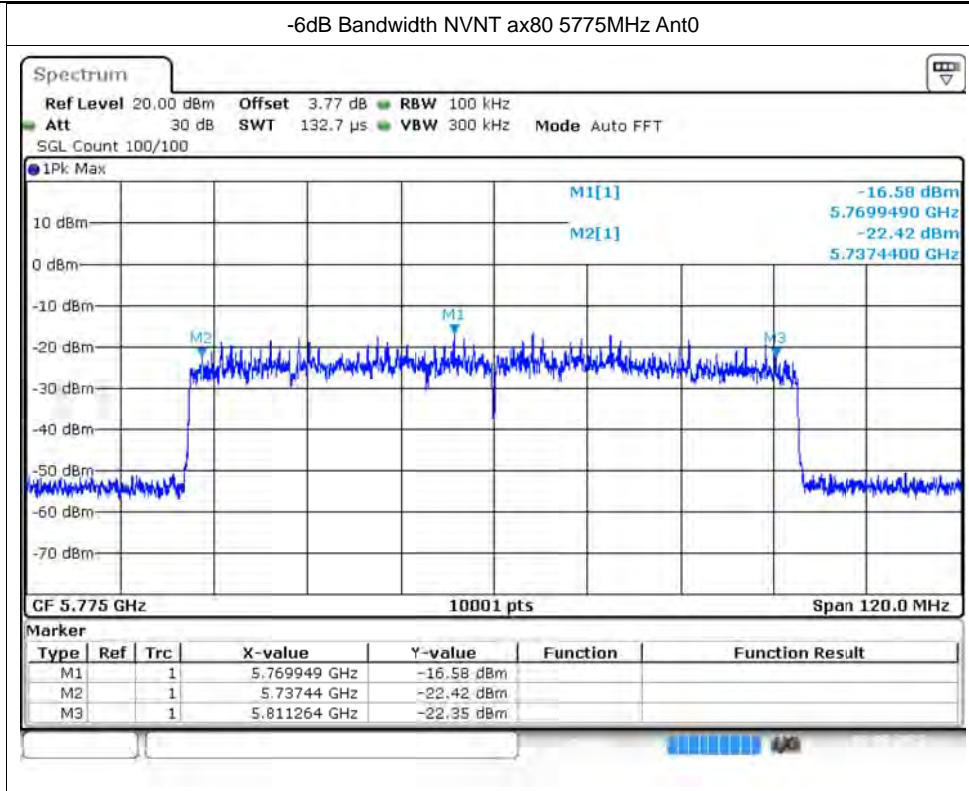
-6dB Bandwidth NVNT ax40 5755MHz Ant0



-6dB Bandwidth NVNT ax40 5795MHz Ant0









4 Occupied Channel Bandwidth

4.1 Test Result

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	a	5745	Ant0	16.873
NVNT	a	5785	Ant0	16.705
NVNT	a	5825	Ant0	16.636
NVNT	a	5745	Ant1	16.657
NVNT	a	5785	Ant1	16.963
NVNT	a	5825	Ant1	16.849
NVNT	n20	5745	Ant0	17.593
NVNT	n20	5785	Ant0	17.548
NVNT	n20	5825	Ant0	17.716
NVNT	n20	5745	Ant1	17.755
NVNT	n20	5785	Ant1	17.764
NVNT	n20	5825	Ant1	17.701
NVNT	n40	5755	Ant0	36.086
NVNT	n40	5795	Ant0	36.026
NVNT	n40	5755	Ant1	35.762
NVNT	n40	5795	Ant1	35.732
NVNT	ac20	5745	Ant0	17.659
NVNT	ac20	5785	Ant0	17.65
NVNT	ac20	5825	Ant0	17.782
NVNT	ac20	5745	Ant1	17.641
NVNT	ac20	5785	Ant1	17.728
NVNT	ac20	5825	Ant1	17.734
NVNT	ac40	5755	Ant0	35.828
NVNT	ac40	5795	Ant0	35.75
NVNT	ac40	5755	Ant1	35.966
NVNT	ac40	5795	Ant1	35.678
NVNT	ac80	5775	Ant0	75.568
NVNT	ac80	5775	Ant1	75.34
NVNT	ax20	5745	Ant0	18.886
NVNT	ax20	5785	Ant0	18.859
NVNT	ax20	5825	Ant0	18.856
NVNT	ax20	5745	Ant1	18.901
NVNT	ax20	5785	Ant1	18.883
NVNT	ax20	5825	Ant1	18.82
NVNT	ax40	5755	Ant0	37.31
NVNT	ax40	5795	Ant0	37.388
NVNT	ax40	5755	Ant1	37.4



NVNT	ax40	5795	Ant1	37.316
NVNT	ax80	5775	Ant0	76.948
NVNT	ax80	5775	Ant1	76.624



4.2 Test Graphs

