



Appendix E-2

RF Test Data for 5.8GWIFI(Conducted Measurement)

Product Name: RF Wireless module

Trade Mark: INNOCN

Test Model: AW.S905D3.03

Environmental Conditions

Temperature:	25.4° C
Relative Humidity:	51.6%
ATM Pressure:	100.0 kPa
Test Engineer:	Simba Huang
Supervised by:	Seal Chen



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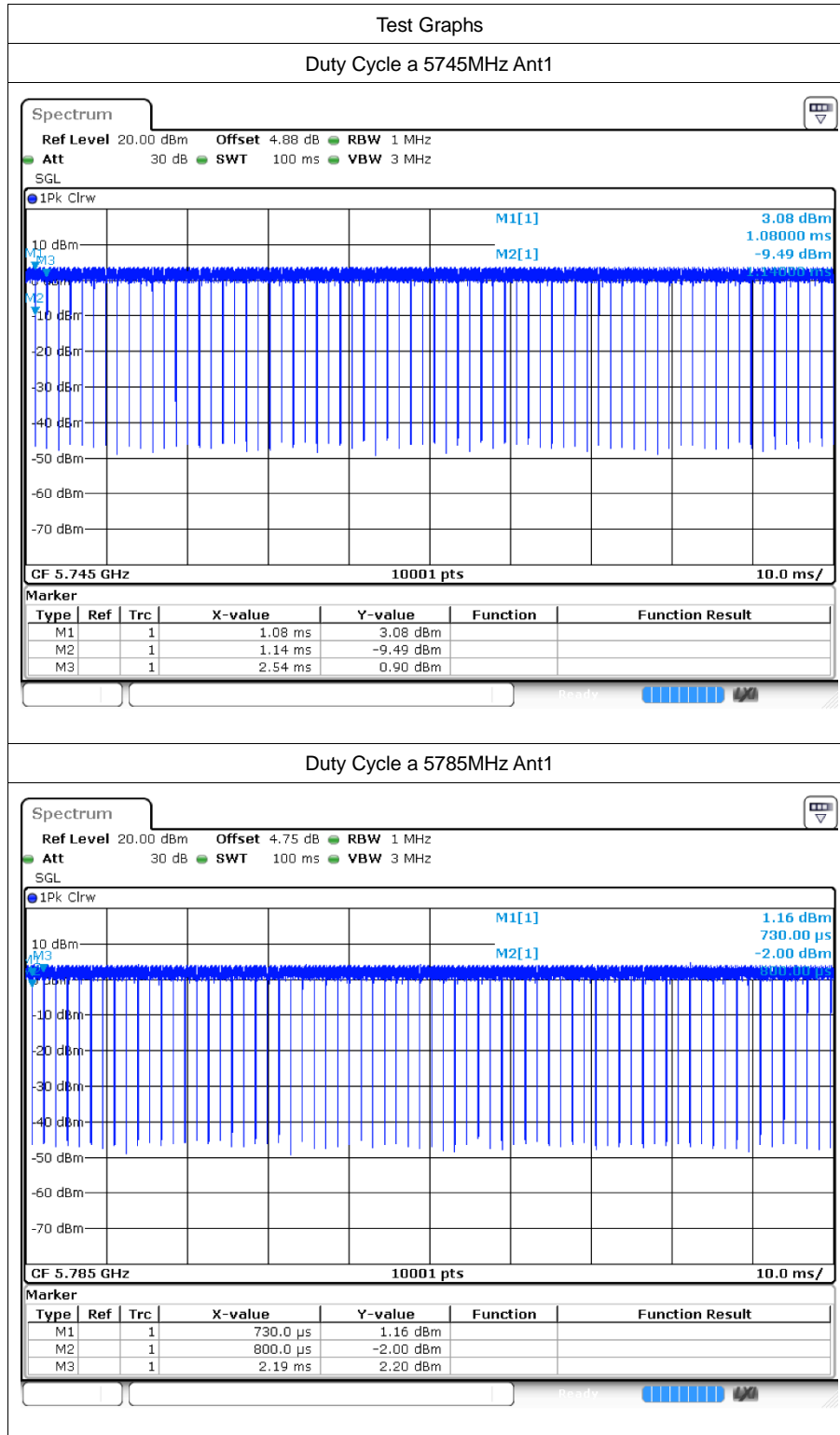
1 Duty Cycle

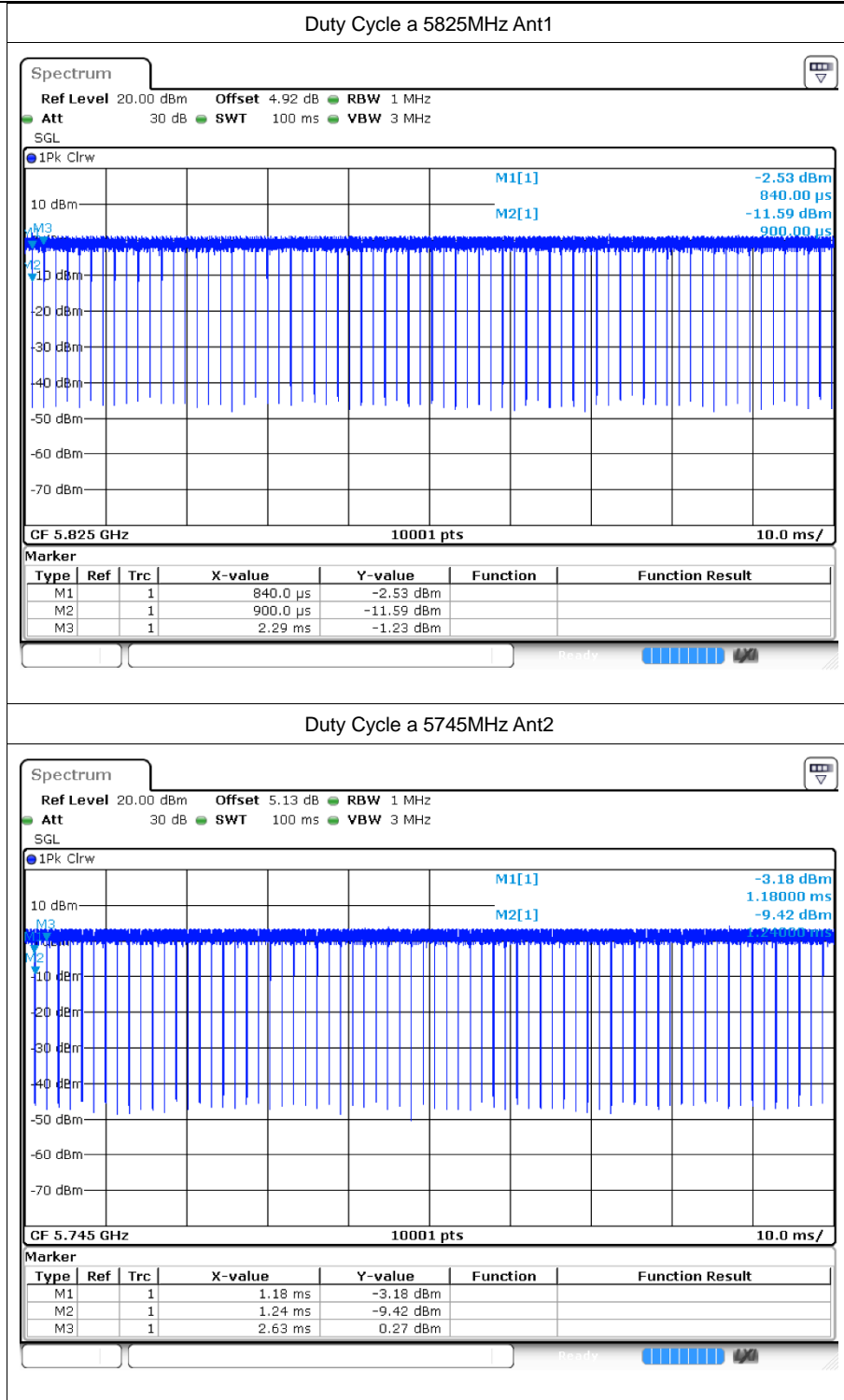
1.1 Test Result

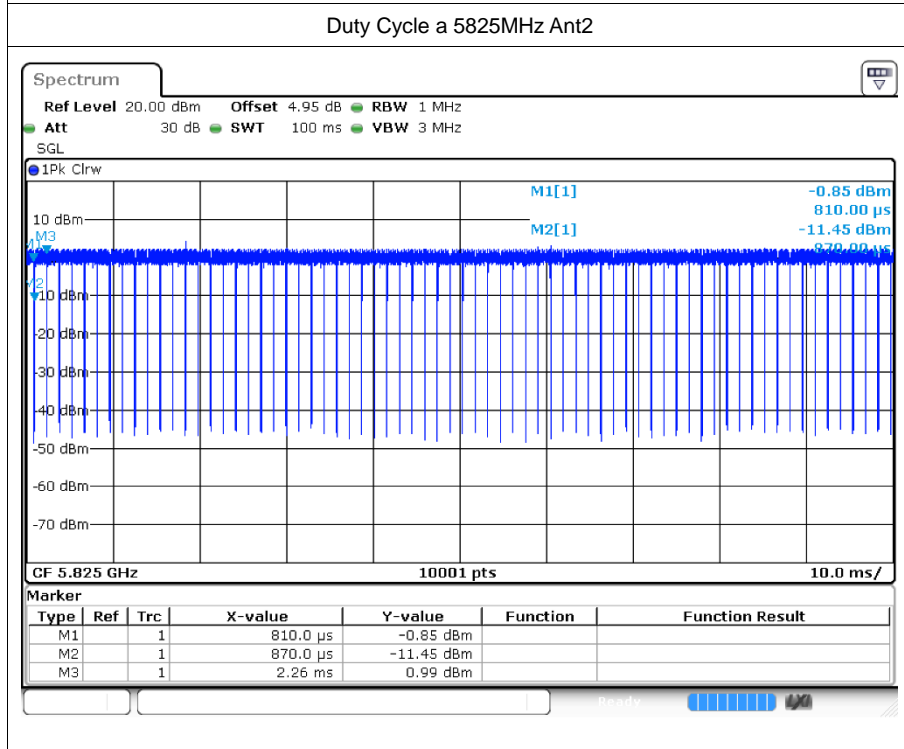
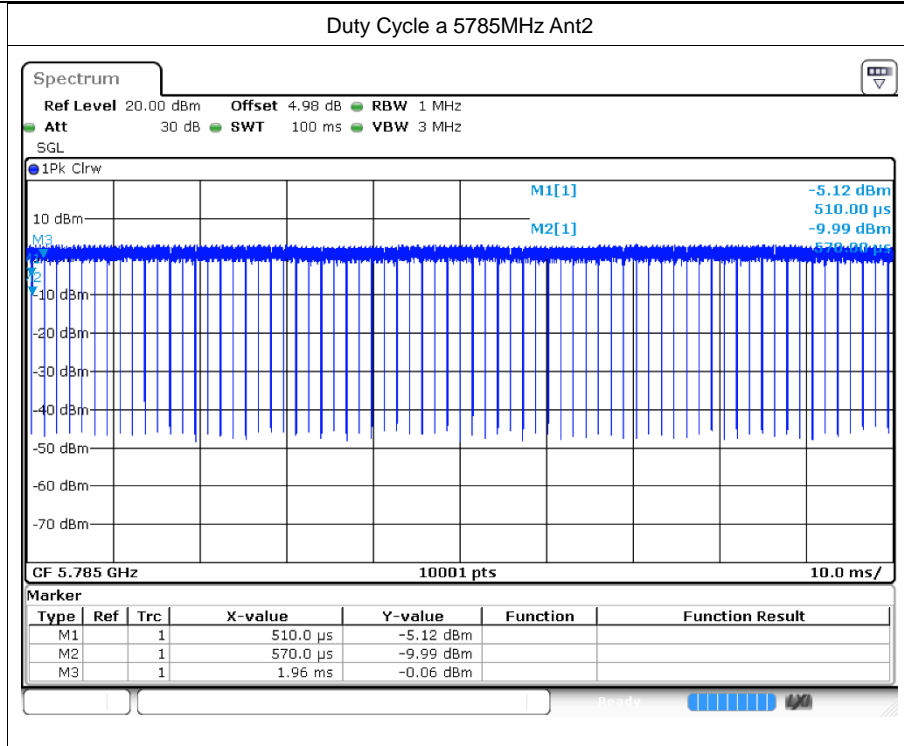
Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
a	5745	Ant1	96.47	0.16	0.71
a	5785	Ant1	96.42	0.16	0.72
a	5825	Ant1	96.42	0.16	0.72
a	5745	Ant2	96.49	0.16	0.72
a	5785	Ant2	96.44	0.16	0.72
a	5825	Ant2	96.44	0.16	0.72
n20	5745	Ant1	96.18	0.17	0.77
n20	5785	Ant1	96.23	0.17	0.77
n20	5825	Ant1	96.21	0.17	0.77
n20	5745	Ant2	96.23	0.17	0.77
n20	5785	Ant2	96.21	0.17	0.77
n20	5825	Ant2	96.18	0.17	0.77
n40	5755	Ant1	90.72	0.42	1.56
n40	5795	Ant1	92.95	0.32	1.54
n40	5755	Ant2	92.94	0.32	1.54
n40	5795	Ant2	91.96	0.36	1.54
ac20	5745	Ant1	96.21	0.17	0.76
ac20	5785	Ant1	96.25	0.17	0.76
ac20	5825	Ant1	96.21	0.17	0.76
ac20	5745	Ant2	96.22	0.17	0.76
ac20	5785	Ant2	96.29	0.16	0.76
ac20	5825	Ant2	96.22	0.17	0.76
ac40	5755	Ant1	92.75	0.33	1.54
ac40	5795	Ant1	92.76	0.33	1.54
ac40	5755	Ant2	92.53	0.34	1.54
ac40	5795	Ant2	92.49	0.34	1.54
ac80	5775	Ant1	66.35	1.78	3.33
ac80	5775	Ant2	64.53	1.9	3.45

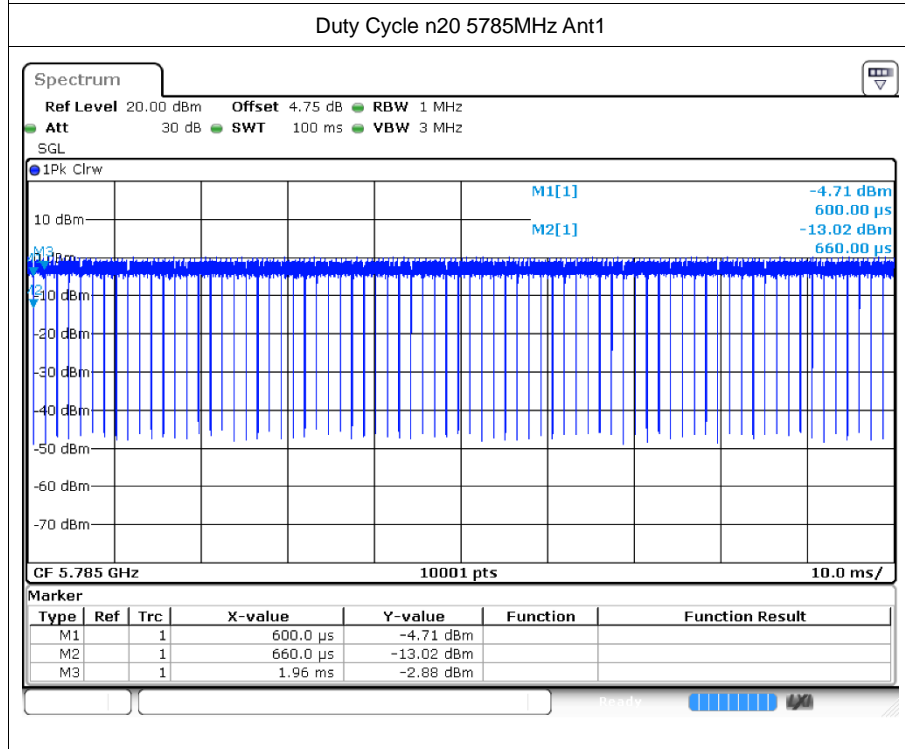
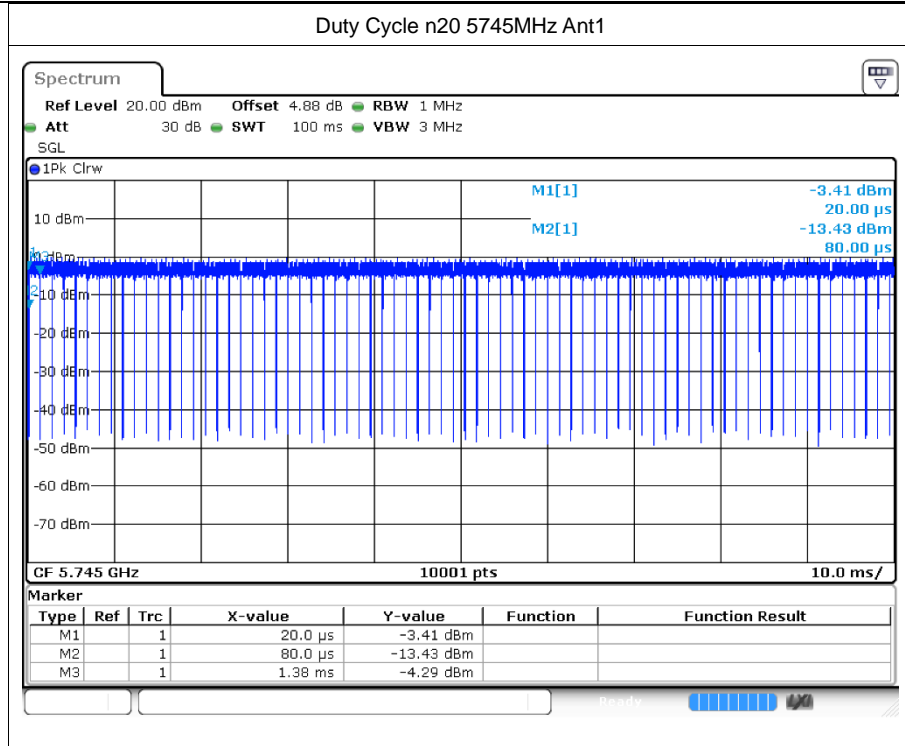


1.2 Test Graphs



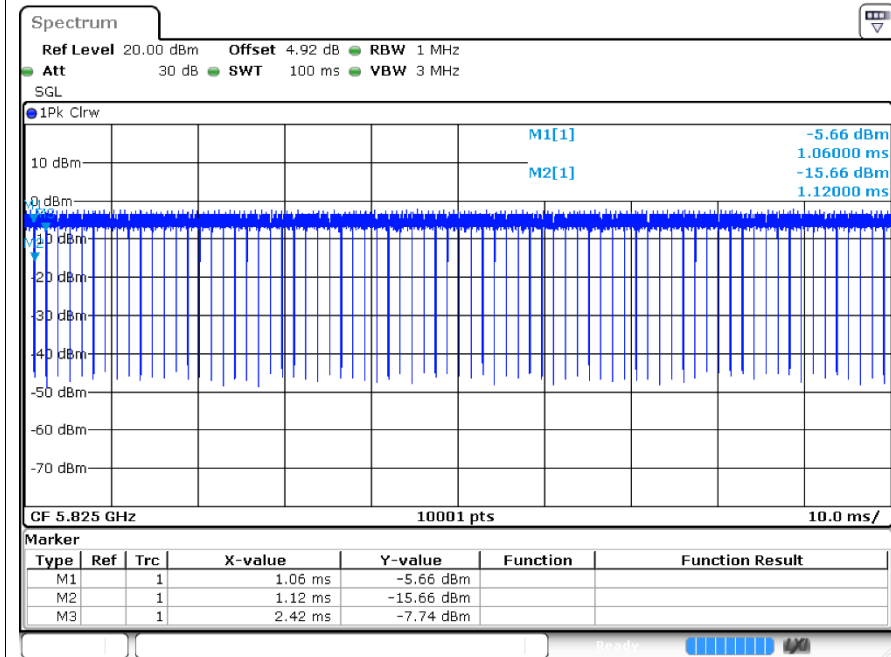




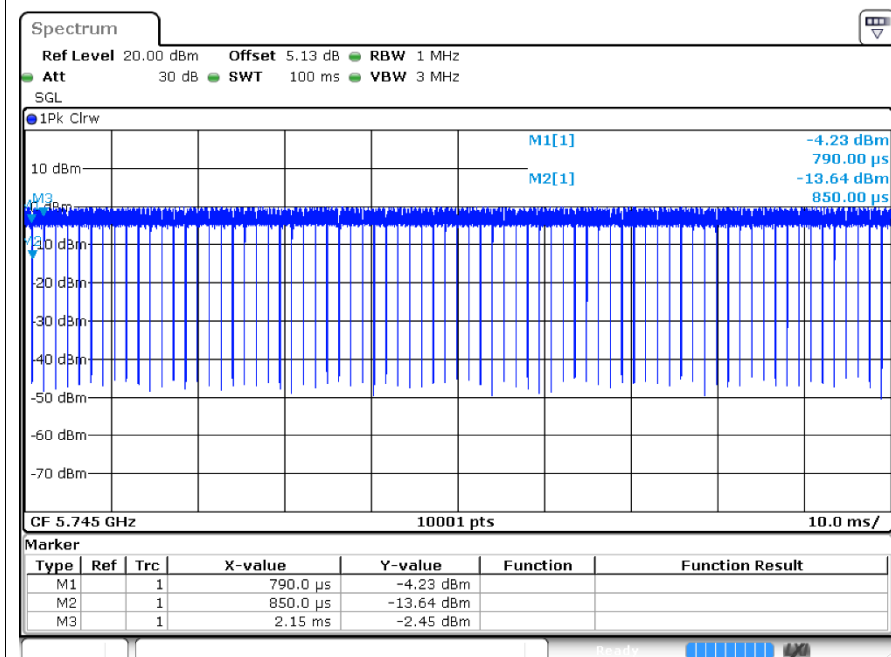




Duty Cycle n20 5825MHz Ant1

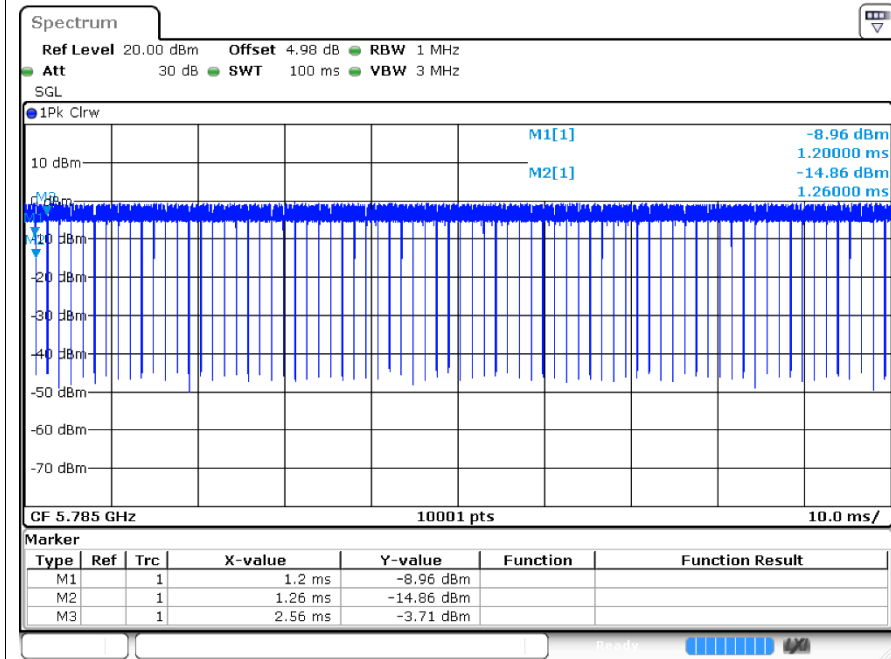


Duty Cycle n20 5745MHz Ant2

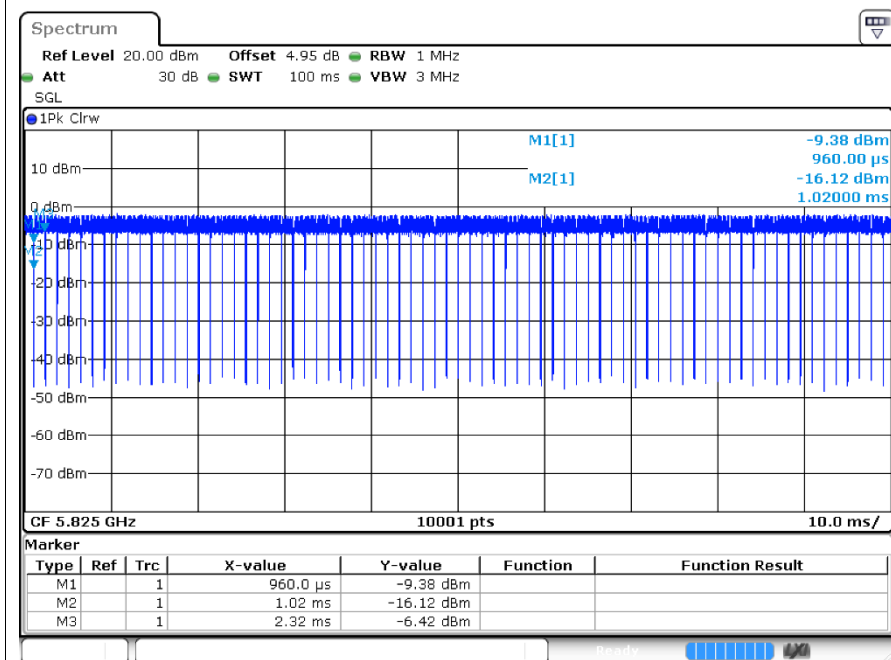


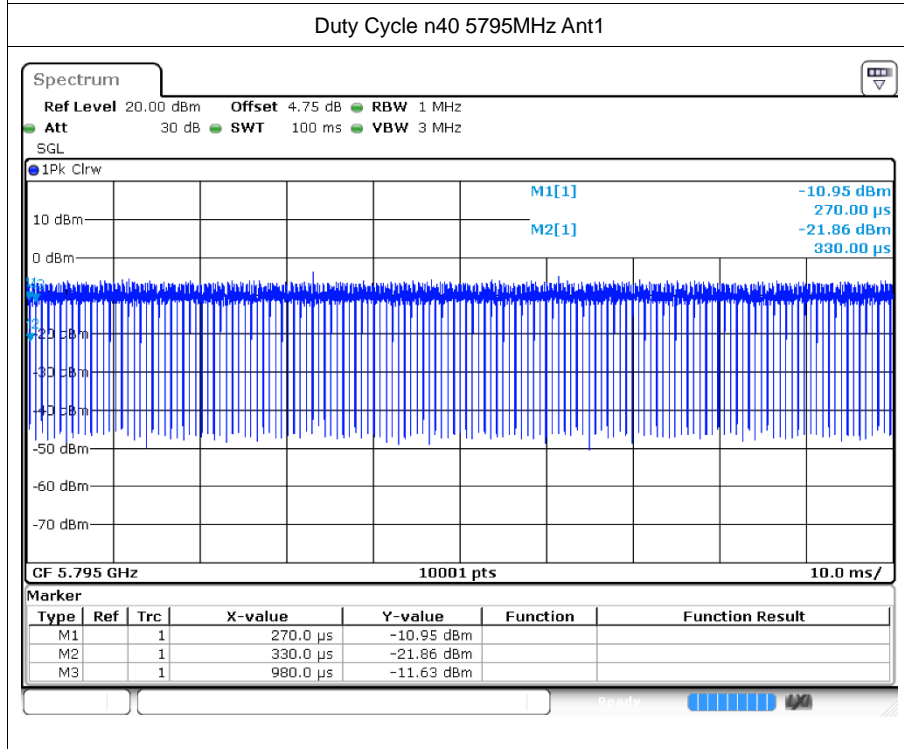
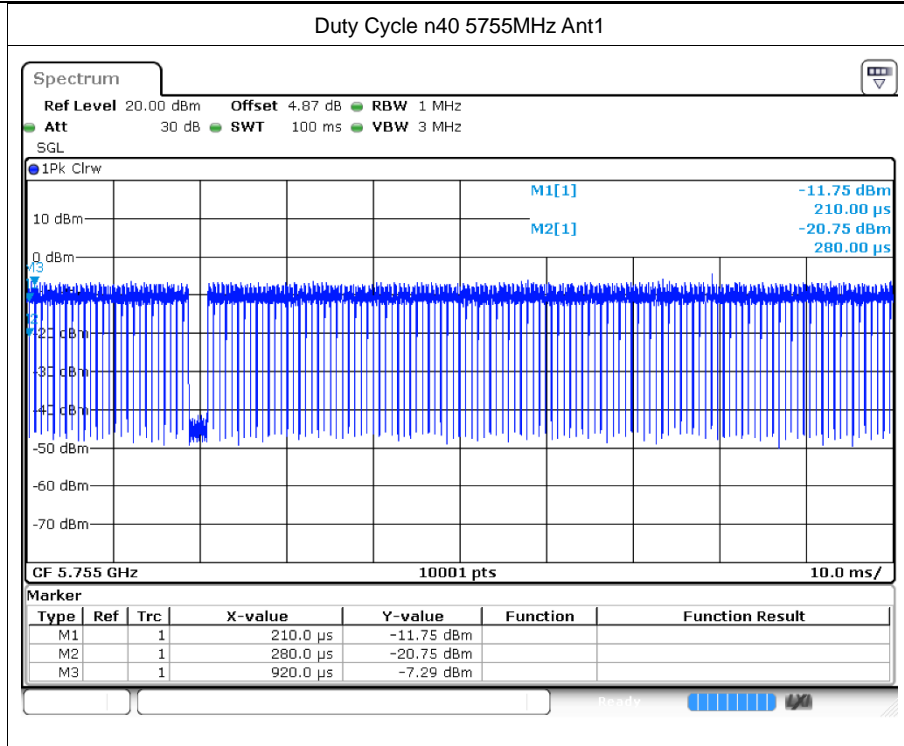


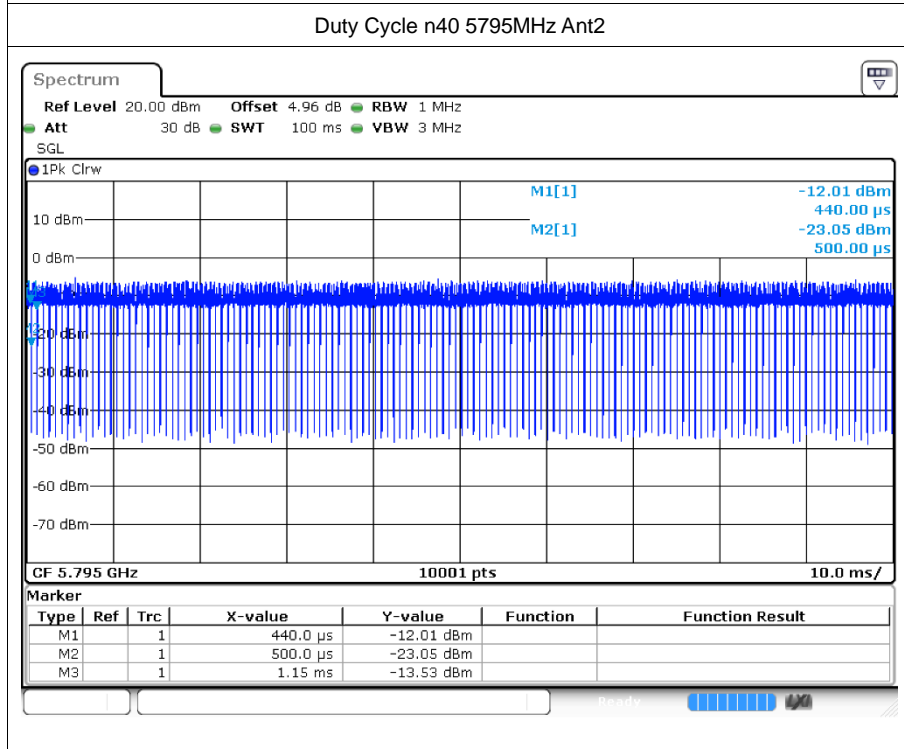
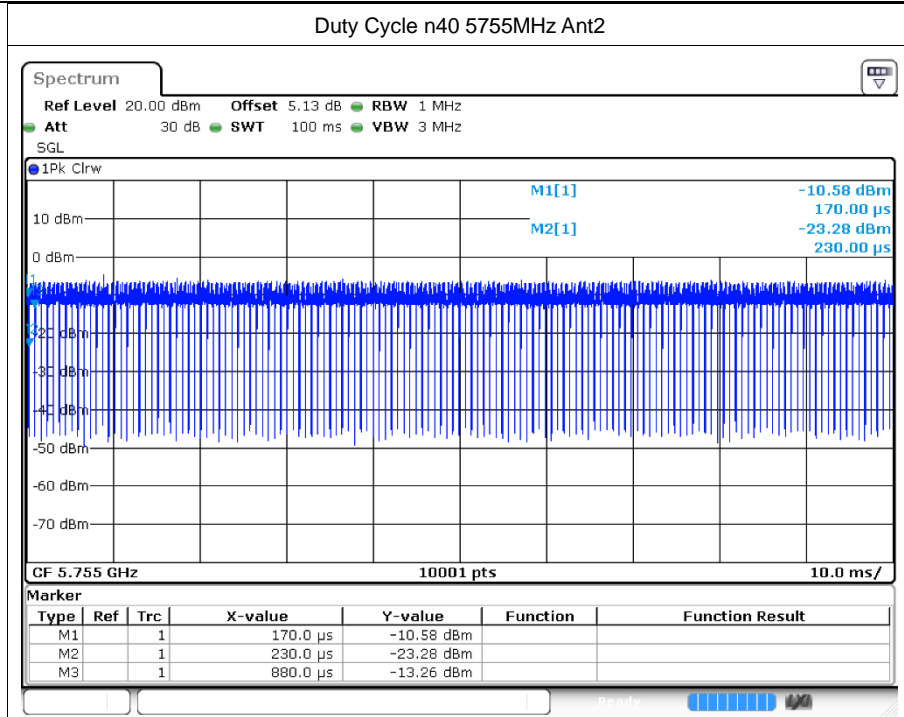
Duty Cycle n20 5785MHz Ant2

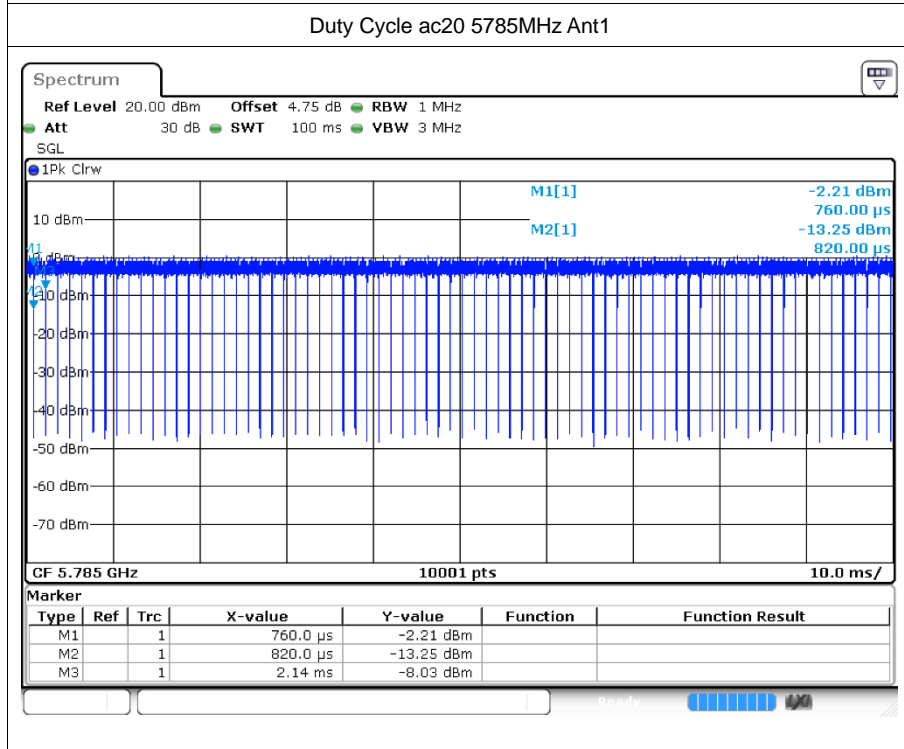
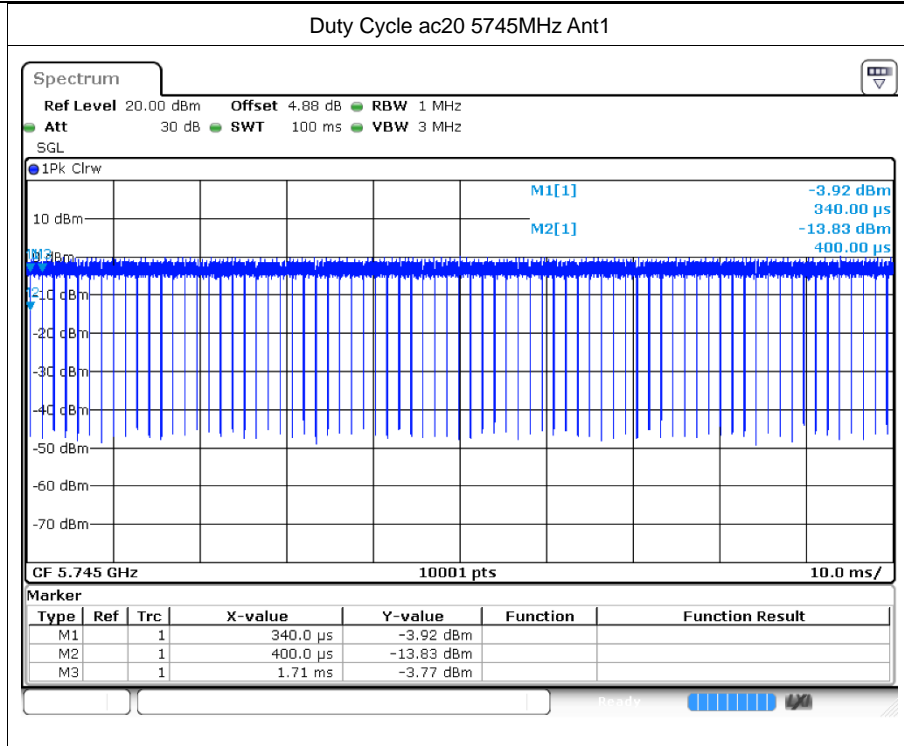


Duty Cycle n20 5825MHz Ant2



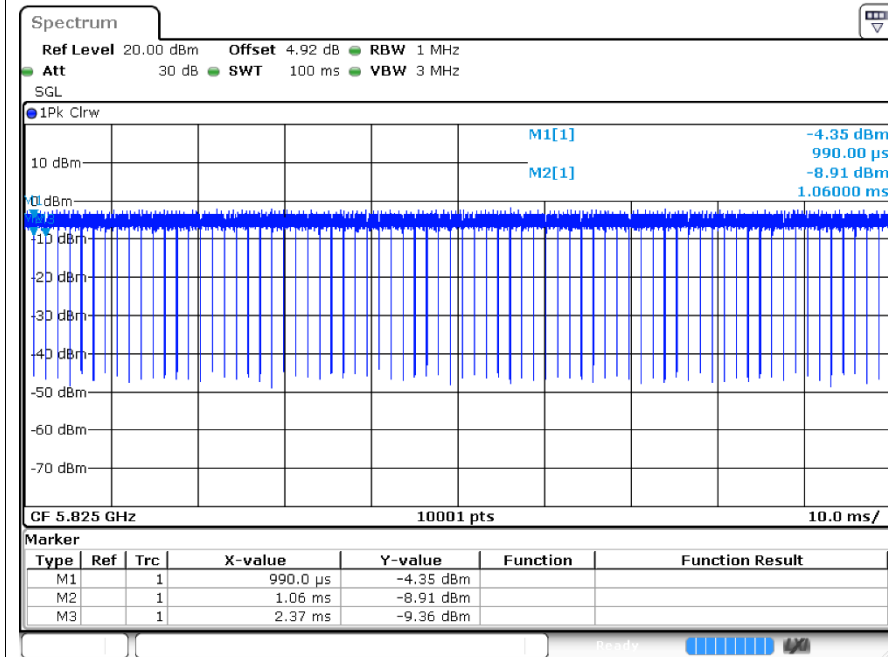




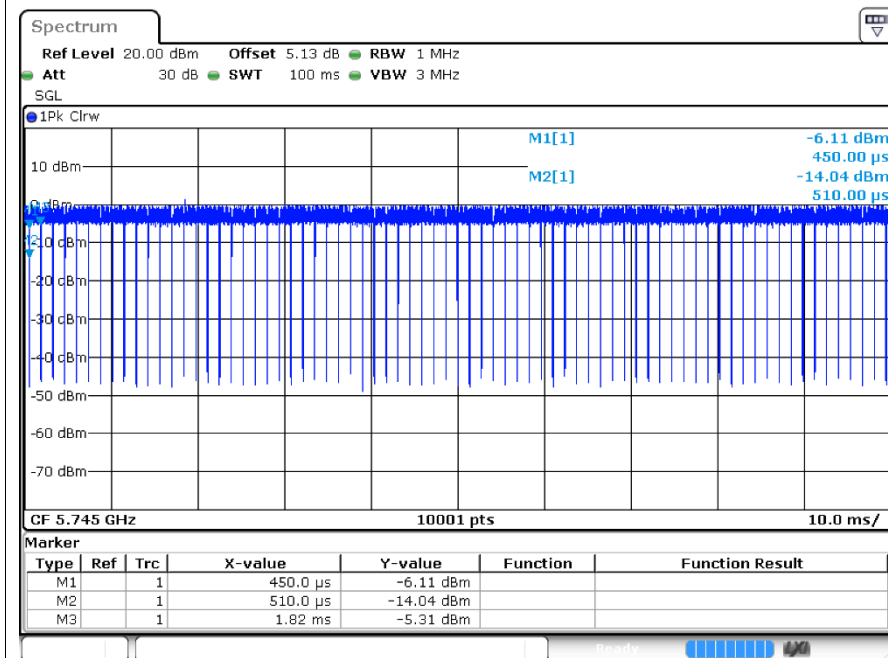


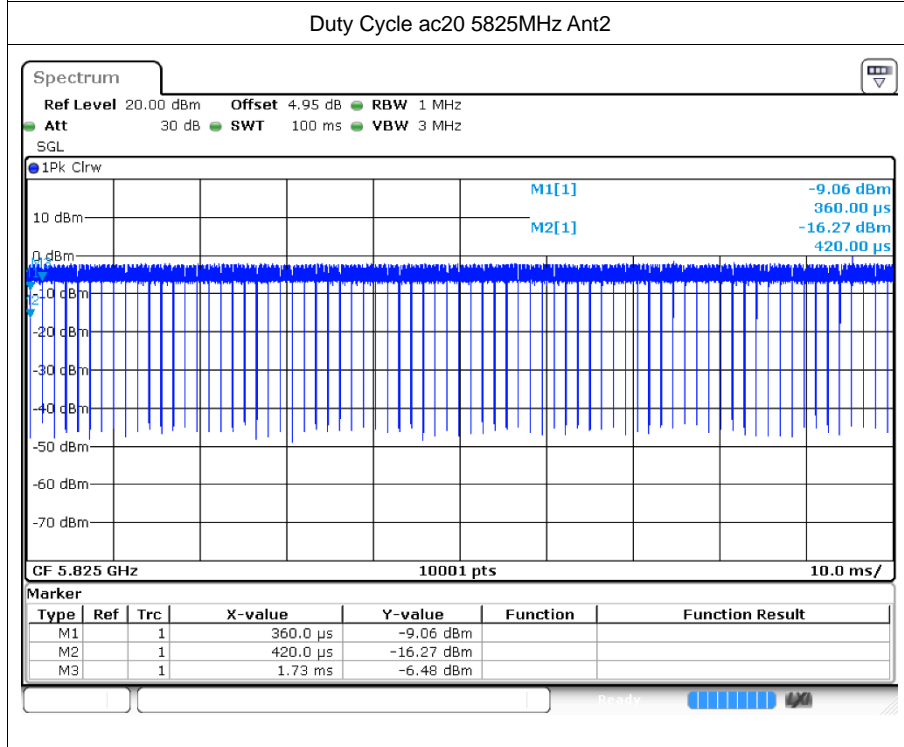
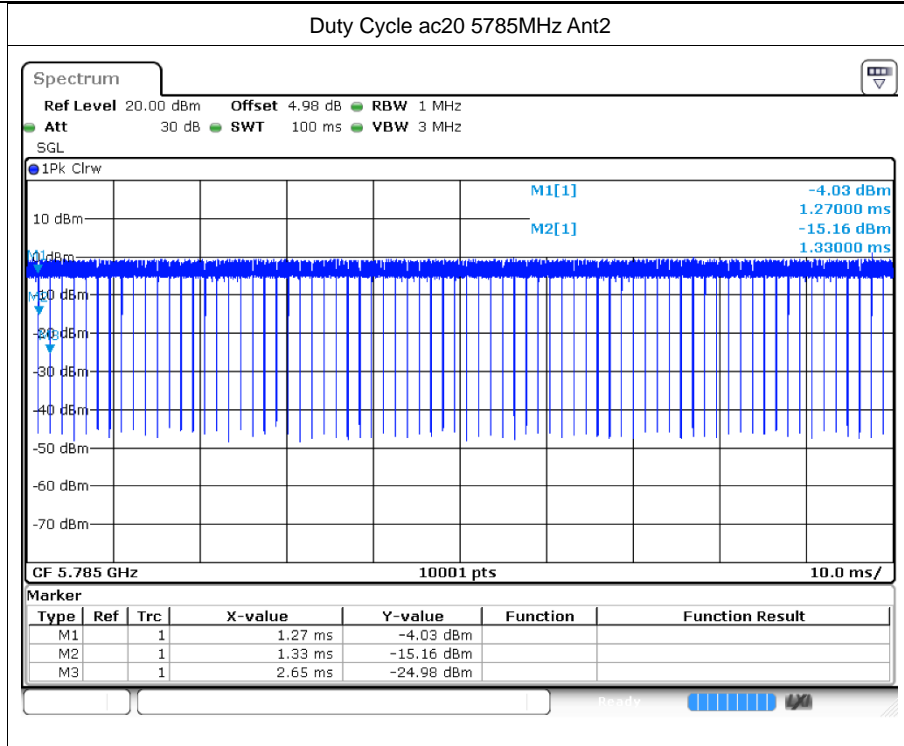


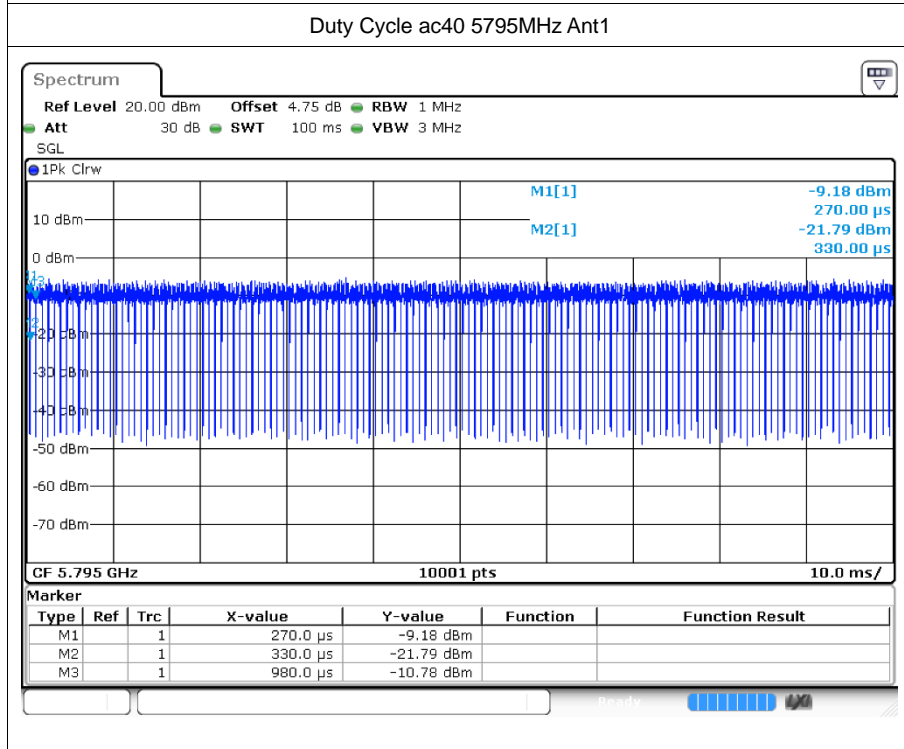
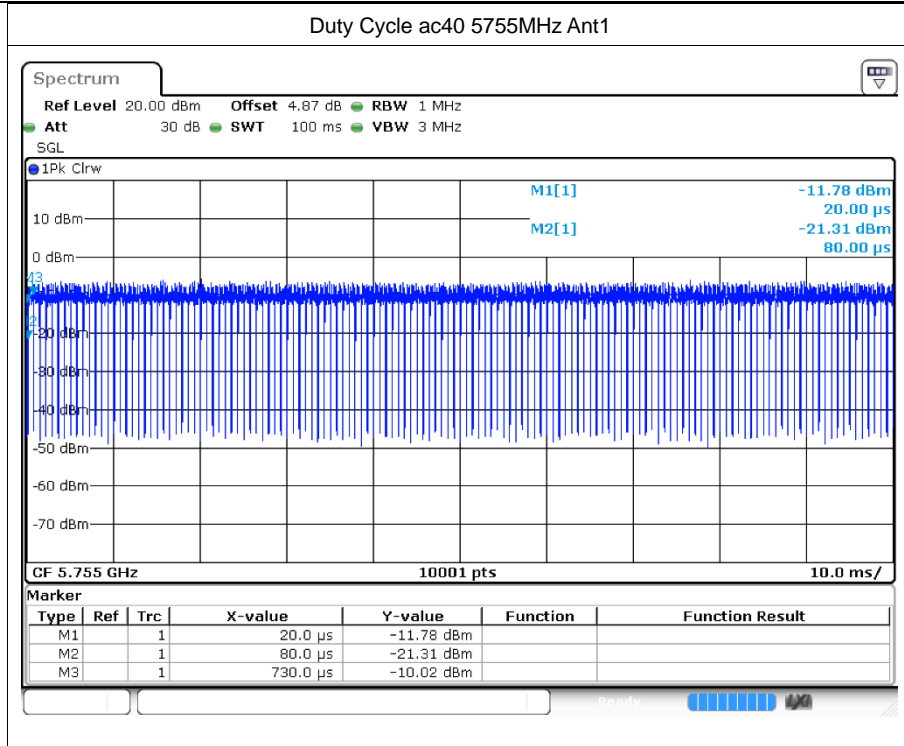
Duty Cycle ac20 5825MHz Ant1

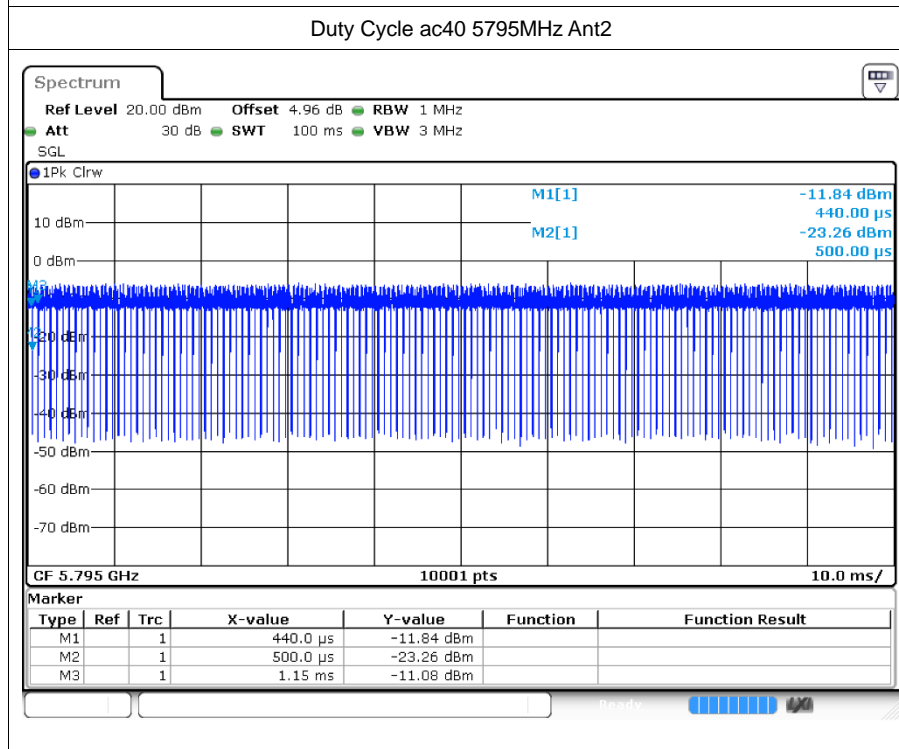
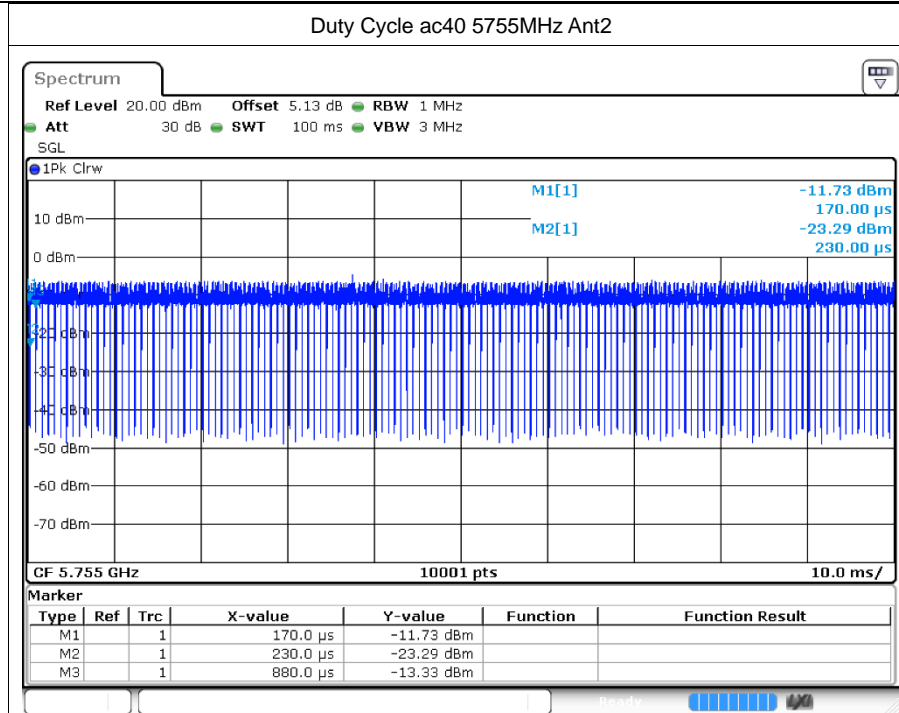


Duty Cycle ac20 5745MHz Ant2



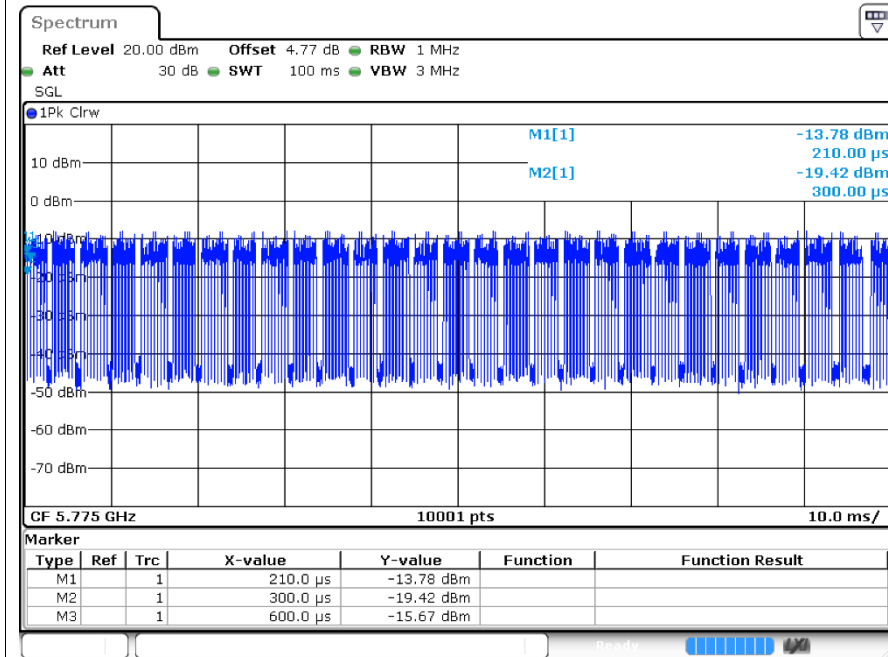




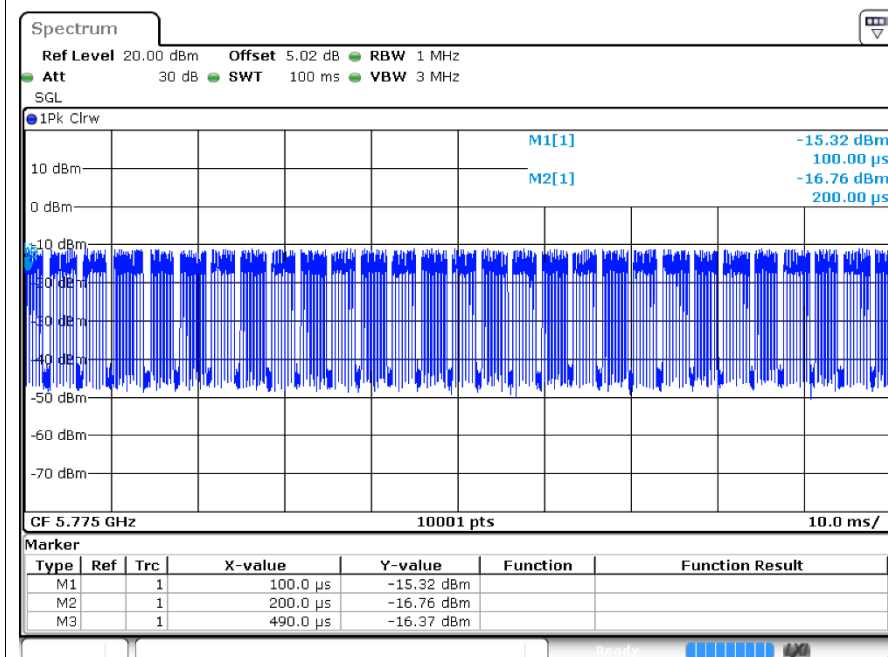




Duty Cycle ac80 5775MHz Ant1



Duty Cycle ac80 5775MHz Ant2





2 Maximum Conducted Output Power

2.1 Test Result

Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
a	5745	Ant1	10.91	0.16	11.07	30	Pass
a	5785	Ant1	11.41	0.16	11.57	30	Pass
a	5825	Ant1	8.57	0.16	8.73	30	Pass
a	5745	Ant2	10.8	0.16	10.96	30	Pass
a	5785	Ant2	10.33	0.16	10.49	30	Pass
a	5825	Ant2	9.55	0.16	9.71	30	Pass
n20	5745	Ant1	6.38	0.17	6.55	30	Pass
n20	5745	Ant2	7.69	0.17	7.86	30	Pass
n20	5745	Sum	10.09	0.17	10.26	30	Pass
n20	5785	Ant1	6.86	0.17	7.03	30	Pass
n20	5785	Ant2	7.19	0.17	7.36	30	Pass
n20	5785	Sum	10.04	0.17	10.21	30	Pass
n20	5825	Ant1	4.47	0.17	4.64	30	Pass
n20	5825	Ant2	5.54	0.17	5.71	30	Pass
n20	5825	Sum	8.05	0.17	8.22	30	Pass
n40	5755	Ant1	6.54	0.42	6.96	30	Pass
n40	5755	Ant2	6.93	0.32	7.25	30	Pass
n40	5755	Sum	9.75	0.42	10.17	30	Pass
n40	5795	Ant1	6.86	0.32	7.18	30	Pass
n40	5795	Ant2	7	0.36	7.36	30	Pass
n40	5795	Sum	9.94	0.36	10.3	30	Pass
ac20	5745	Ant1	6.45	0.17	6.62	30	Pass
ac20	5745	Ant2	7.71	0.17	7.88	30	Pass
ac20	5745	Sum	10.14	0.17	10.31	30	Pass
ac20	5785	Ant1	6.98	0.17	7.15	30	Pass
ac20	5785	Ant2	7.4	0.16	7.56	30	Pass
ac20	5785	Sum	10.21	0.17	10.38	30	Pass
ac20	5825	Ant1	4.41	0.17	4.58	30	Pass
ac20	5825	Ant2	5.77	0.17	5.94	30	Pass
ac20	5825	Sum	8.15	0.17	8.32	30	Pass
ac40	5755	Ant1	6.56	0.33	6.89	30	Pass
ac40	5755	Ant2	7	0.34	7.34	30	Pass
ac40	5755	Sum	9.8	0.33	10.13	30	Pass
ac40	5795	Ant1	6.93	0.33	7.26	30	Pass
ac40	5795	Ant2	6.91	0.34	7.25	30	Pass
ac40	5795	Sum	9.93	0.34	10.27	30	Pass



ac80	5775	Ant1	5.55	1.78	7.33	30	Pass
ac80	5775	Ant2	5.33	1.9	7.23	30	Pass
ac80	5775	Sum	8.45	1.9	10.35	30	Pass



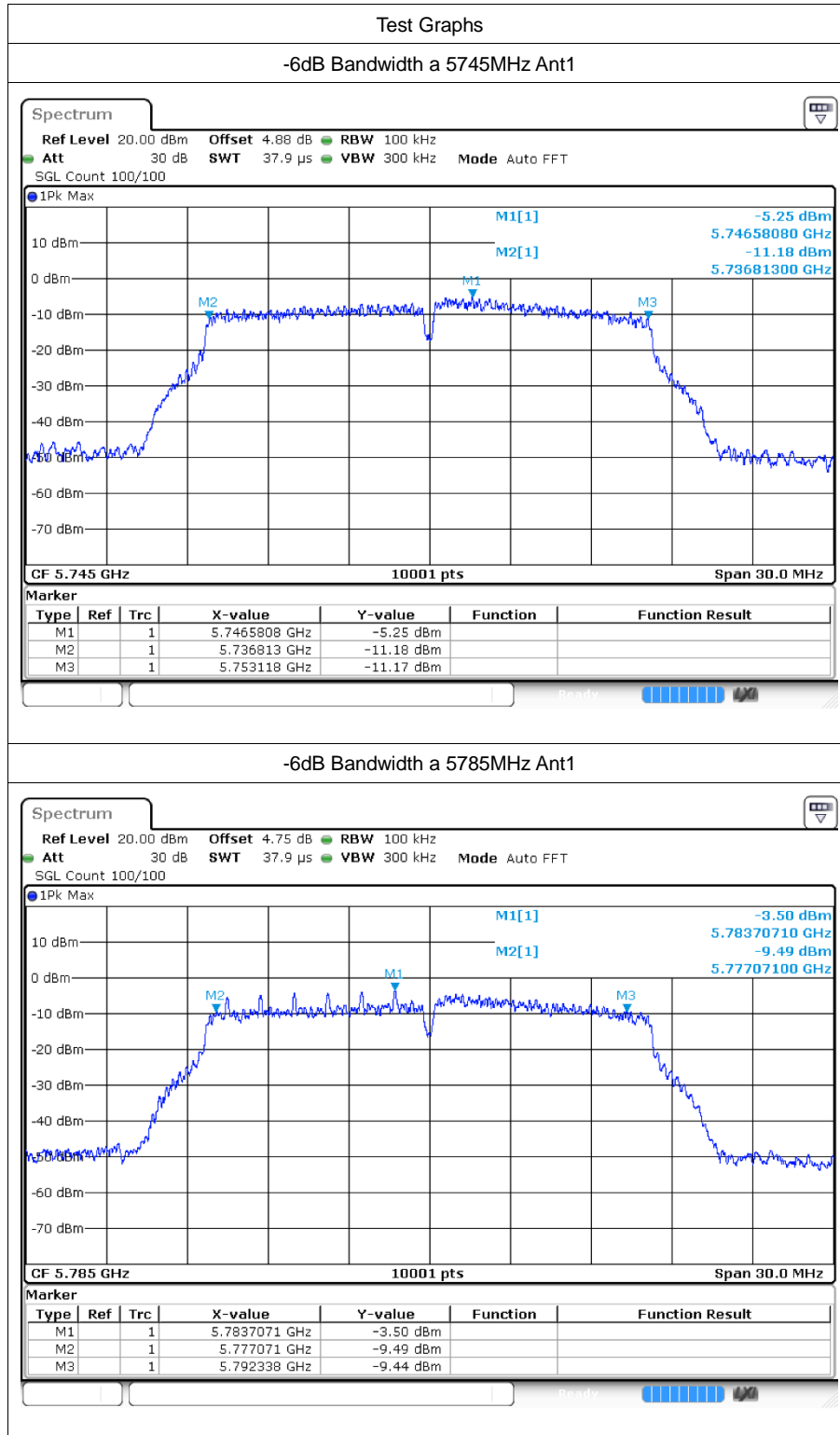
3 -6dB Bandwidth

3.1 Test Result

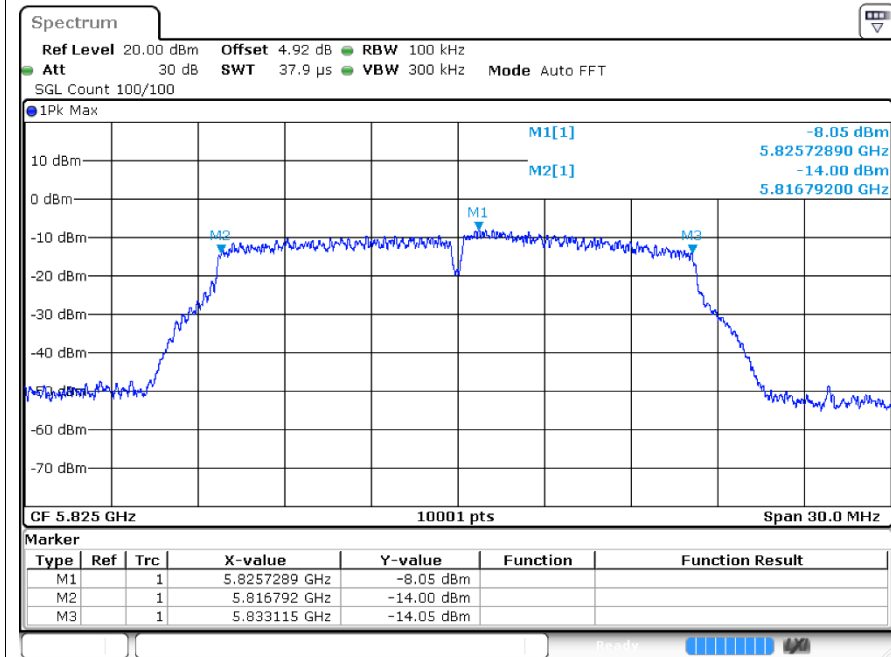
Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
a	5745	Ant1	16.305	0.5	Pass
a	5785	Ant1	15.267	0.5	Pass
a	5825	Ant1	16.323	0.5	Pass
n20	5745	Ant1	9.444	0.5	Pass
n20	5785	Ant1	15.105	0.5	Pass
n20	5825	Ant1	15.903	0.5	Pass
n40	5755	Ant1	32.592	0.5	Pass
n40	5795	Ant1	35.1	0.5	Pass
ac20	5745	Ant1	16.908	0.5	Pass
ac20	5785	Ant1	11.952	0.5	Pass
ac20	5825	Ant1	11.304	0.5	Pass
ac40	5755	Ant1	33.852	0.5	Pass
ac40	5795	Ant1	35.184	0.5	Pass
ac80	5775	Ant1	75.708	0.5	Pass
a	5745	Ant2	15.942	0.5	Pass
a	5785	Ant2	15.921	0.5	Pass
a	5825	Ant2	15.699	0.5	Pass
n20	5745	Ant2	15.921	0.5	Pass
n20	5785	Ant2	14.433	0.5	Pass
n20	5825	Ant2	16.143	0.5	Pass
n40	5755	Ant2	36.318	0.5	Pass
n40	5795	Ant2	36.294	0.5	Pass
ac20	5745	Ant2	15.906	0.5	Pass
ac20	5785	Ant2	16.671	0.5	Pass
ac20	5825	Ant2	12.579	0.5	Pass
ac40	5755	Ant2	35.664	0.5	Pass
ac40	5795	Ant2	35.718	0.5	Pass
ac80	5775	Ant2	75.732	0.5	Pass



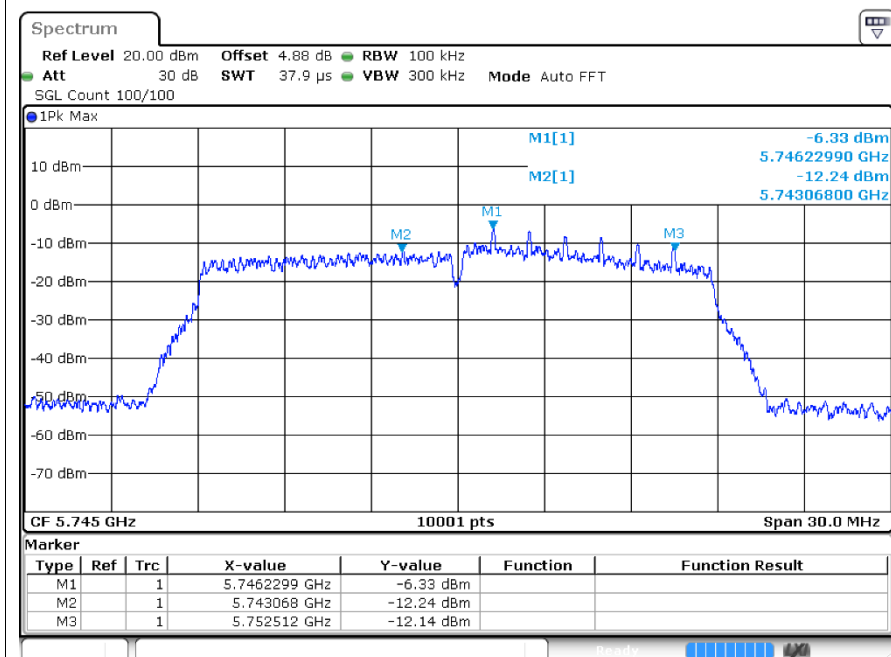
3.2 Test Graphs

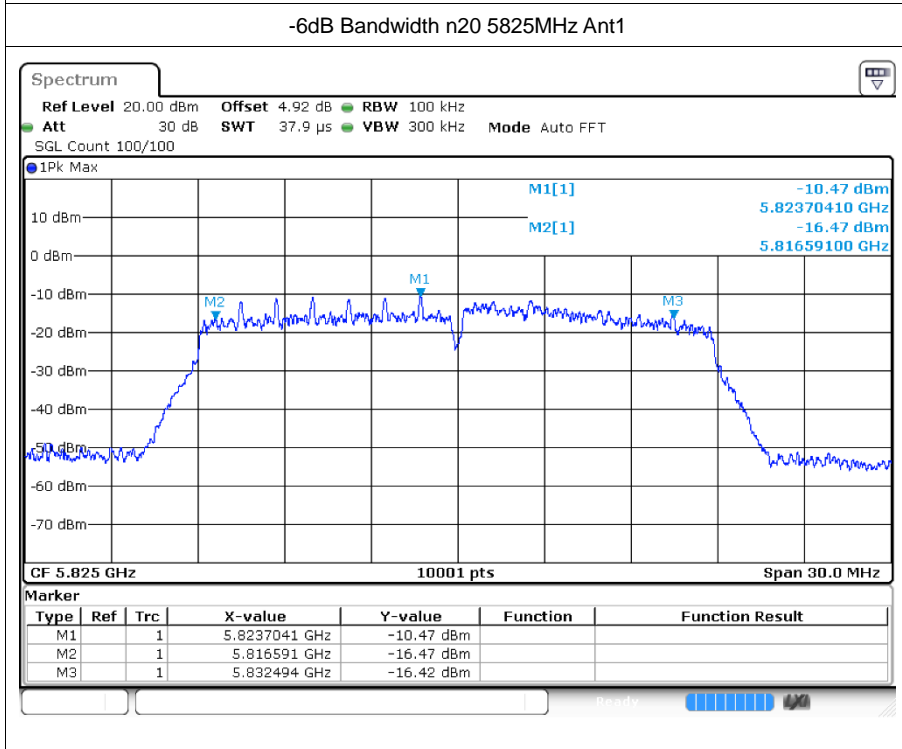
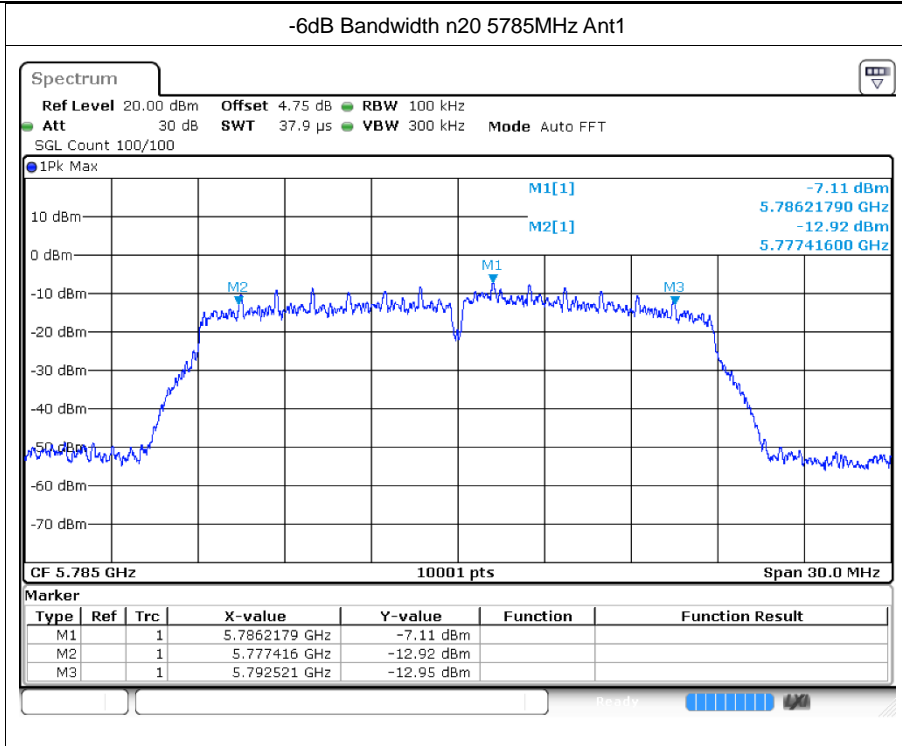


-6dB Bandwidth a 5825MHz Ant1



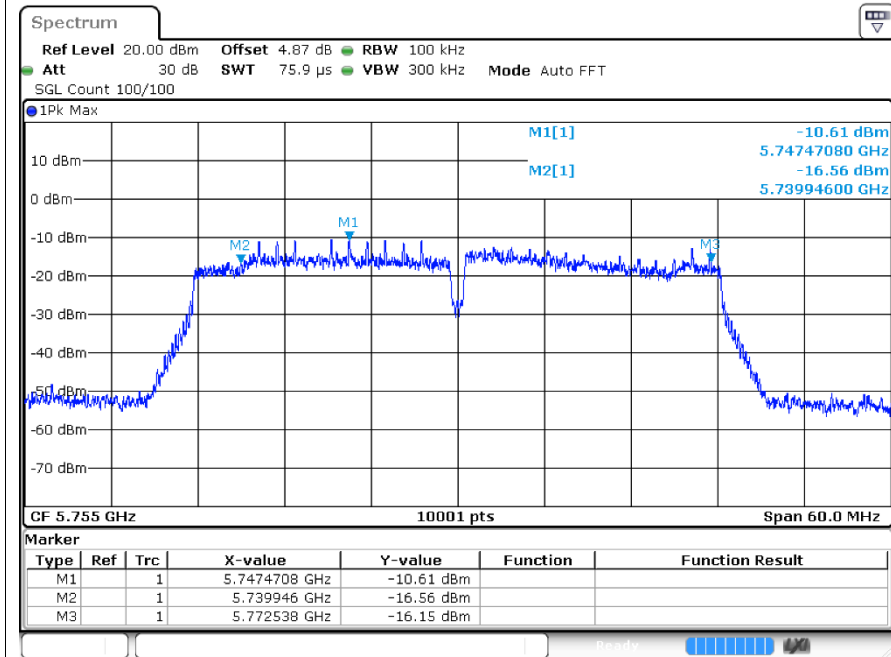
-6dB Bandwidth n20 5745MHz Ant1



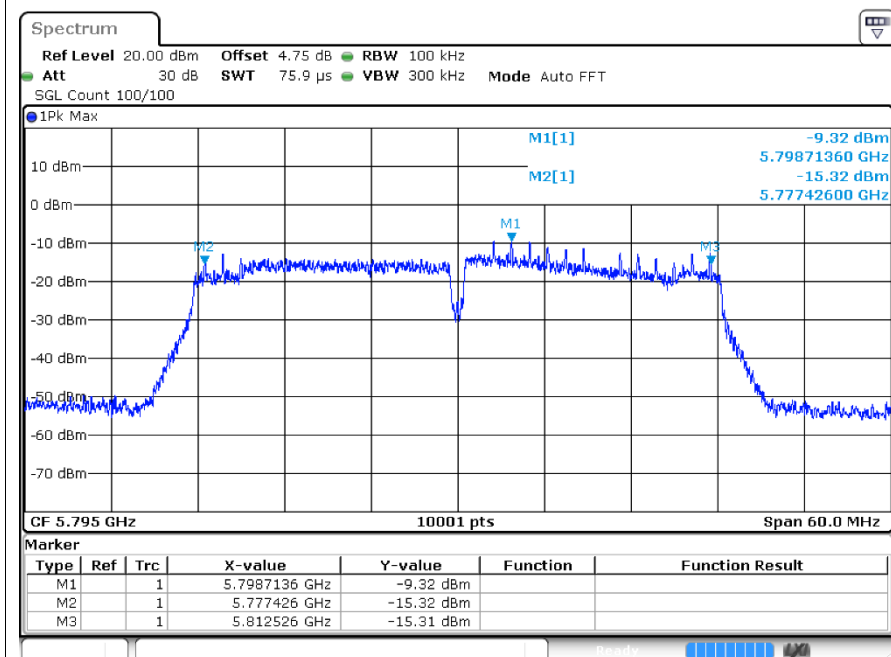


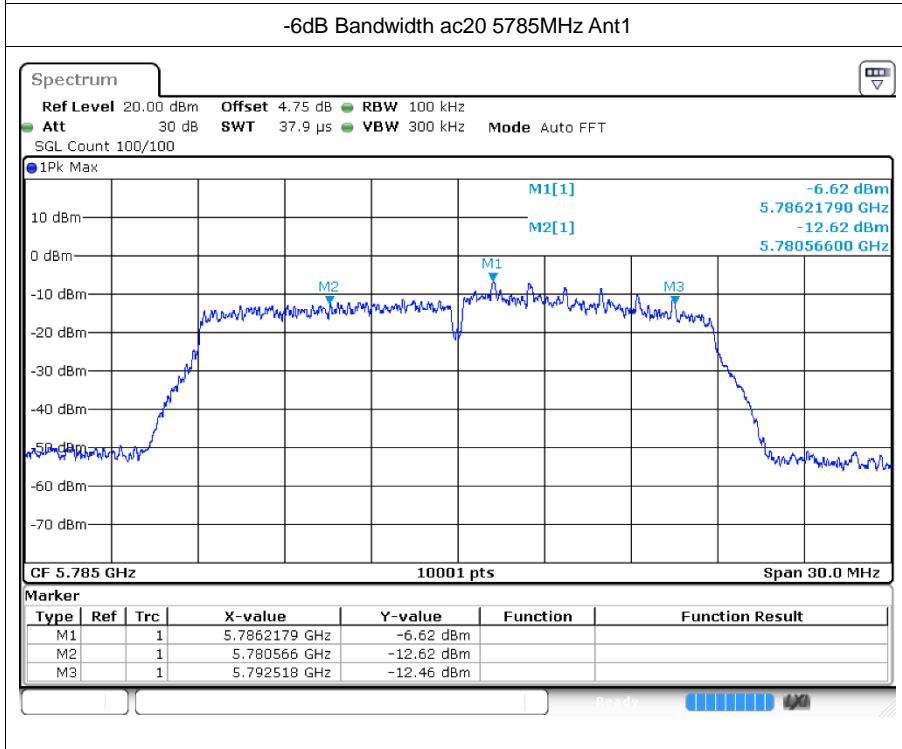
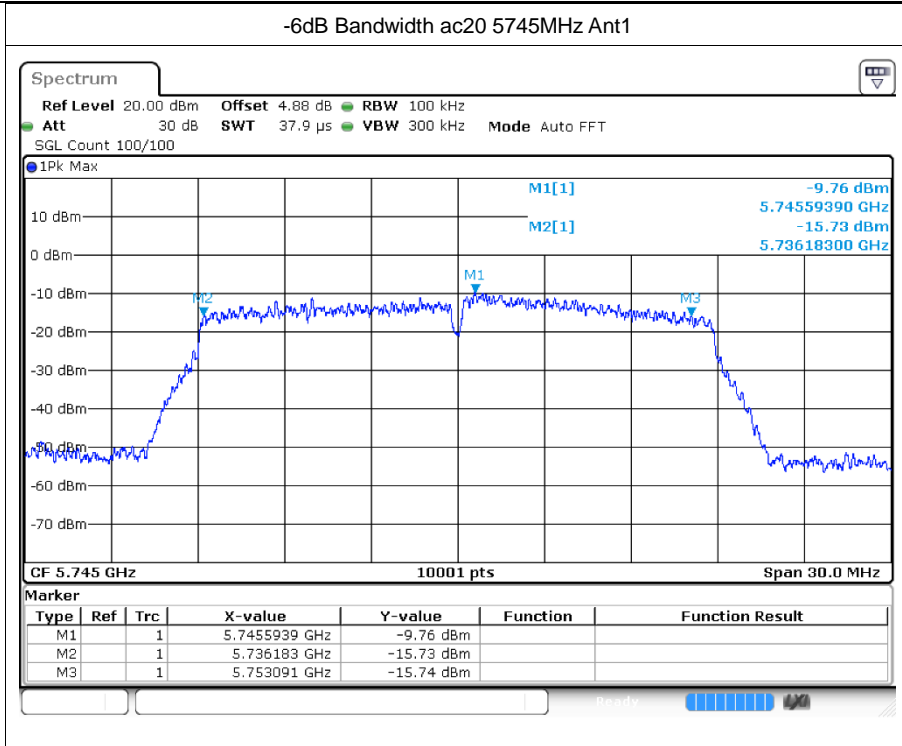


-6dB Bandwidth n40 5755MHz Ant1



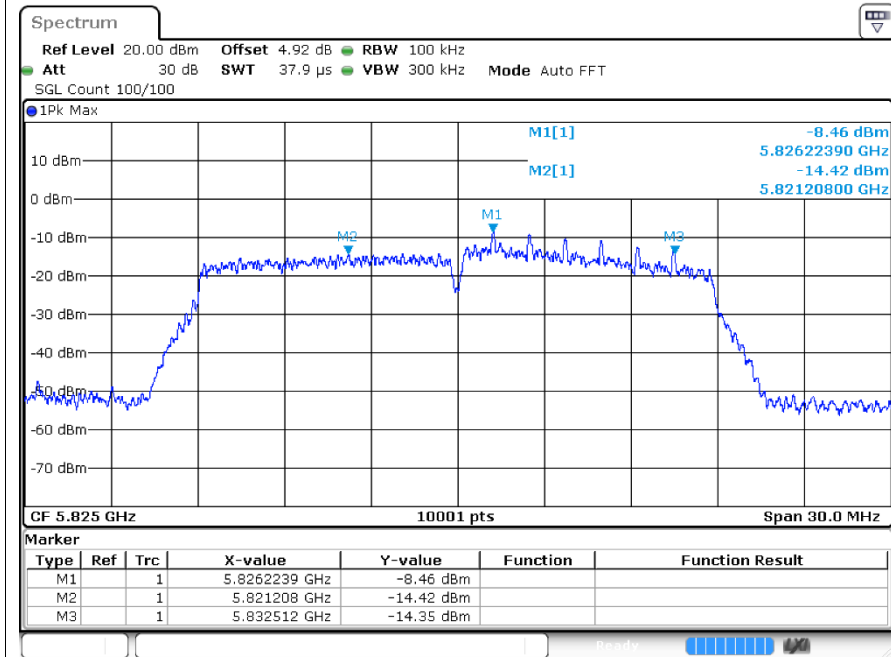
-6dB Bandwidth n40 5795MHz Ant1



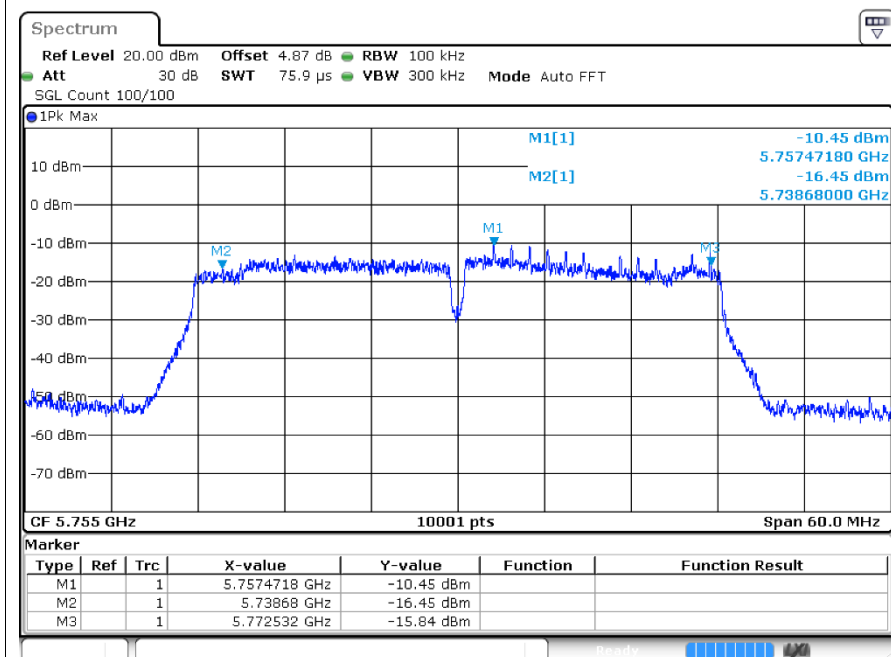


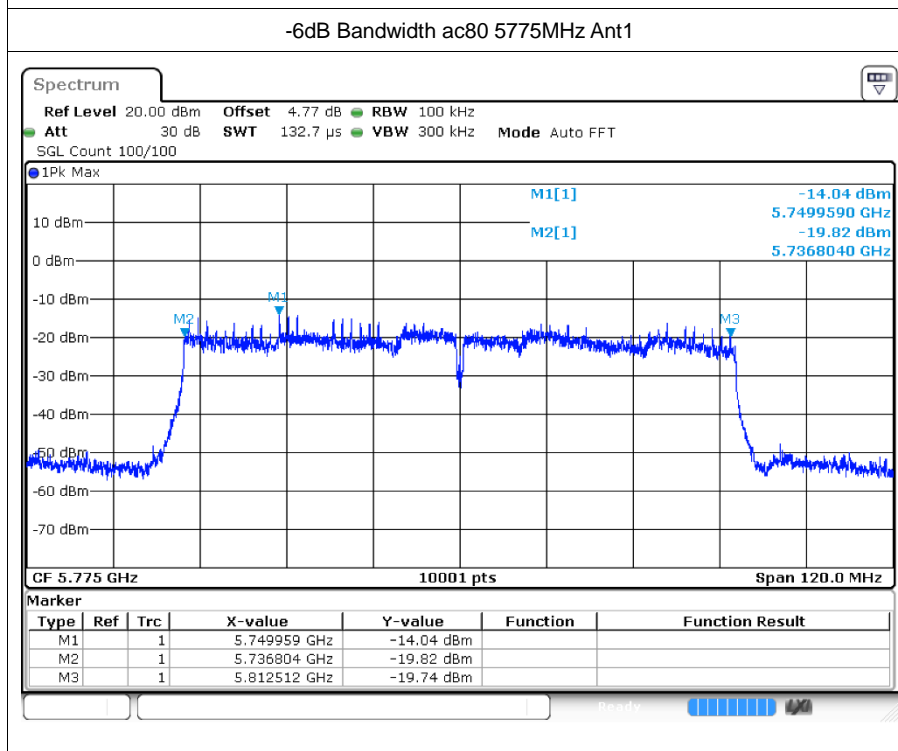
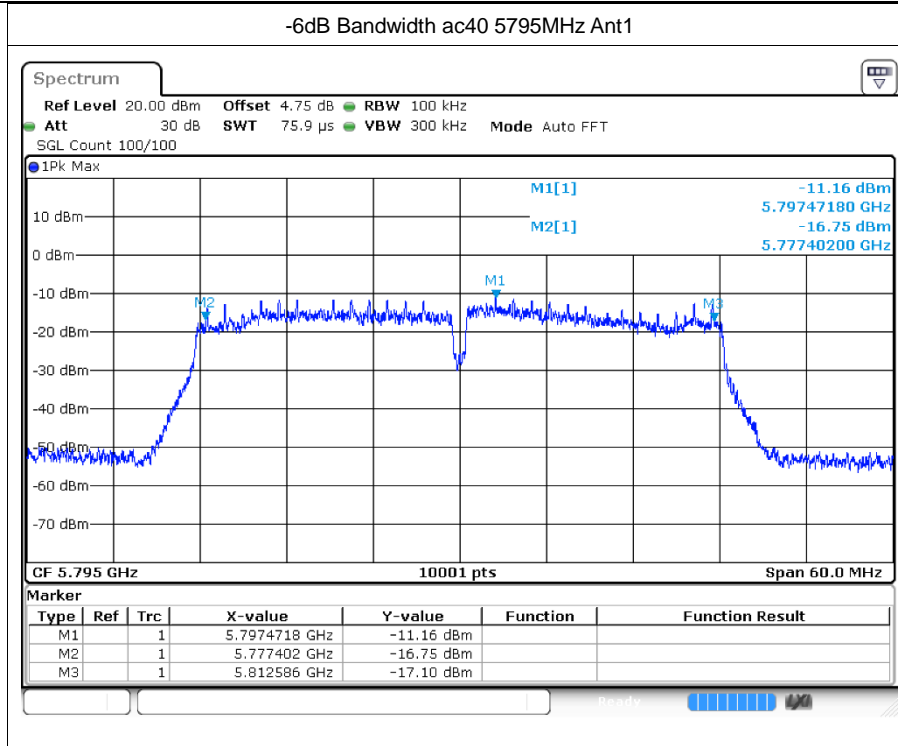


-6dB Bandwidth ac20 5825MHz Ant1



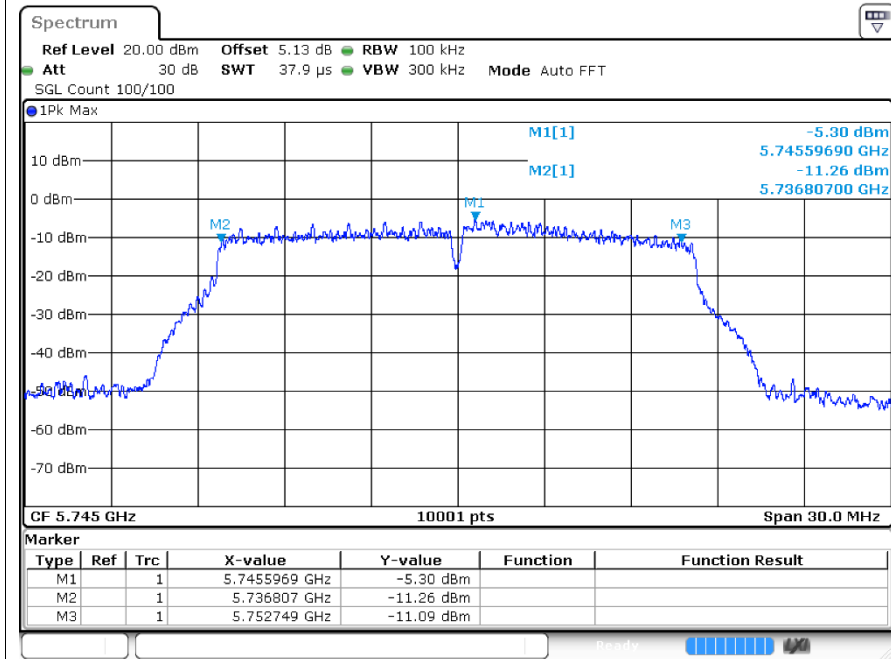
-6dB Bandwidth ac40 5755MHz Ant1



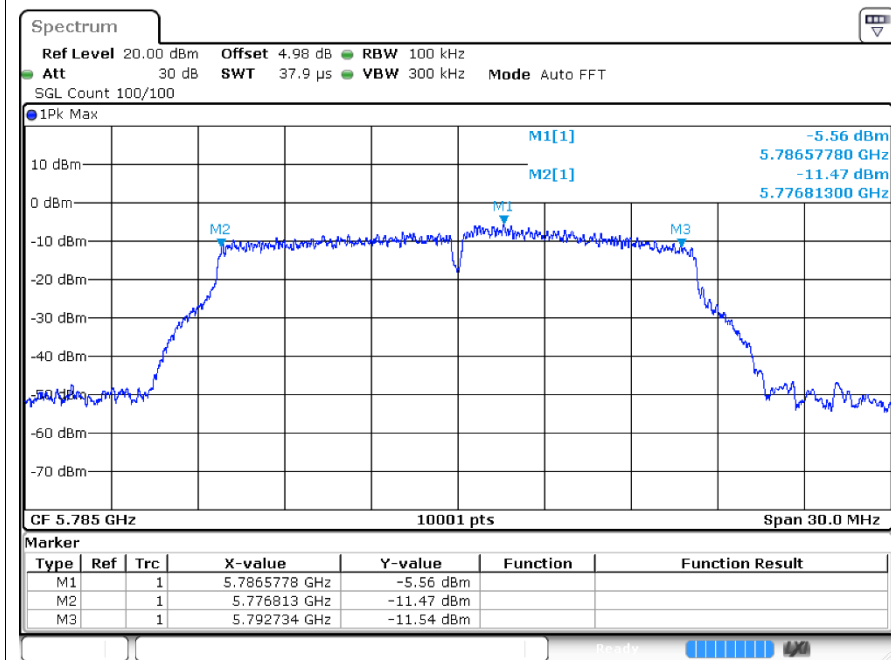




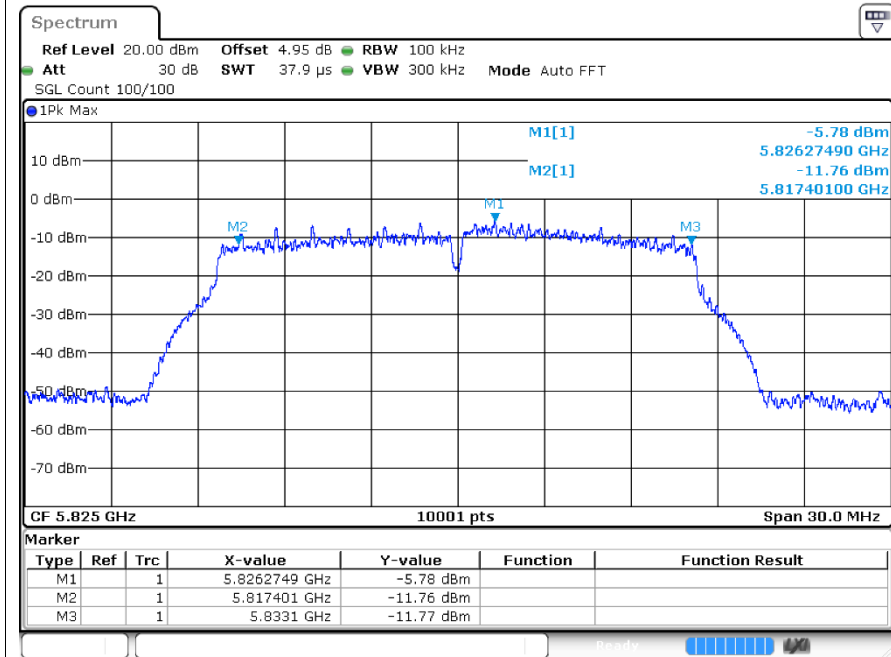
-6dB Bandwidth a 5745MHz Ant2



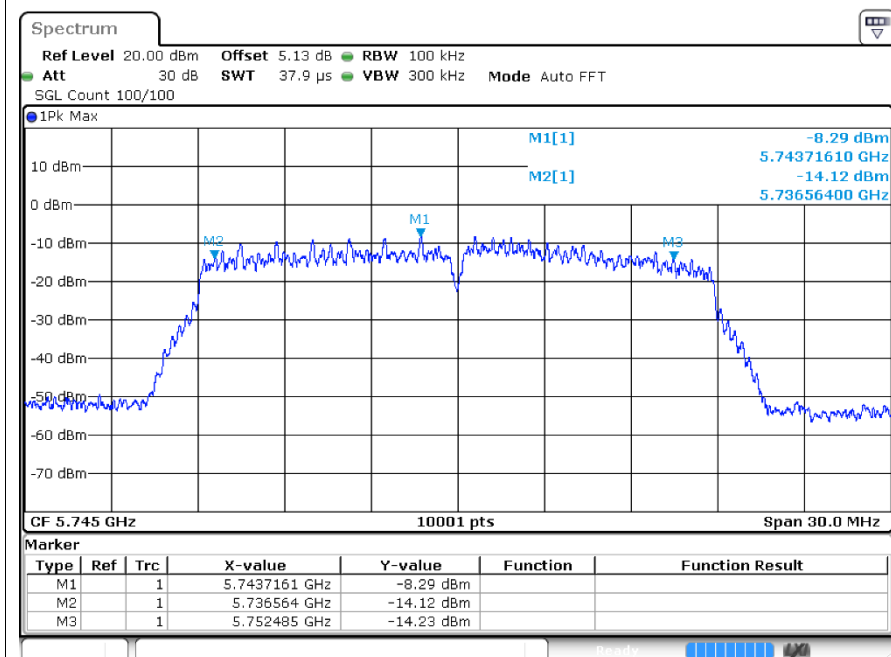
-6dB Bandwidth a 5785MHz Ant2



-6dB Bandwidth a 5825MHz Ant2

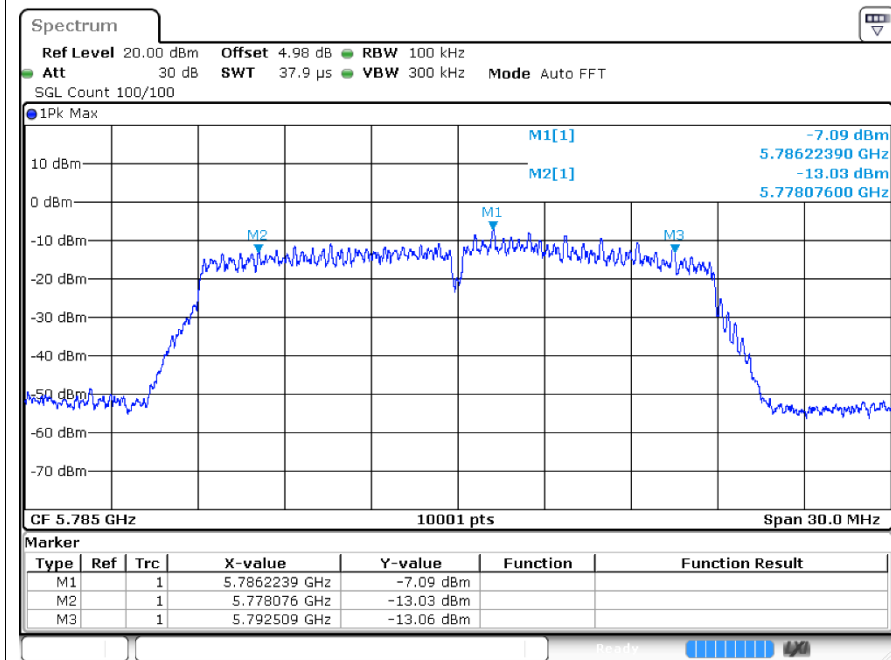


-6dB Bandwidth n20 5745MHz Ant2

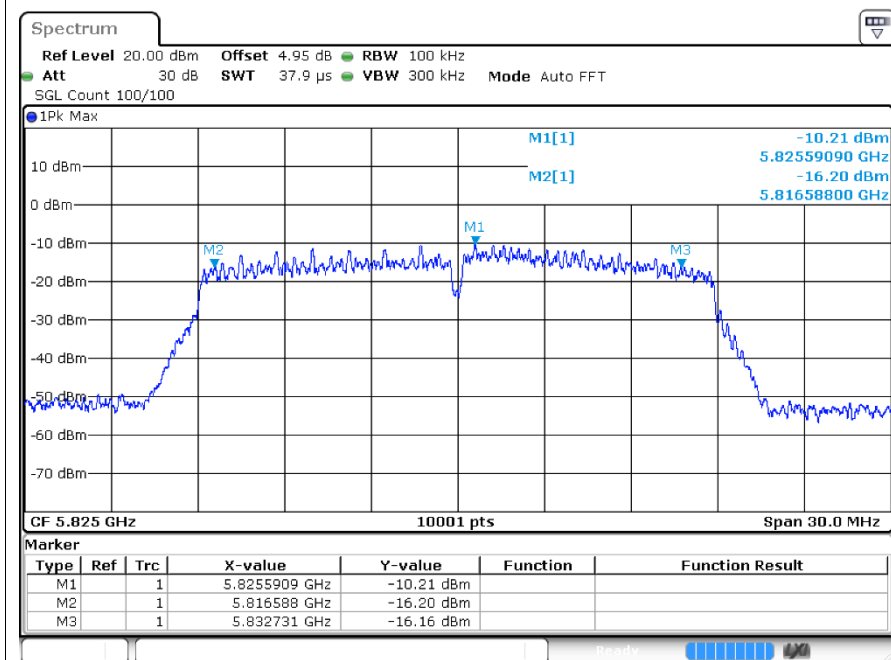


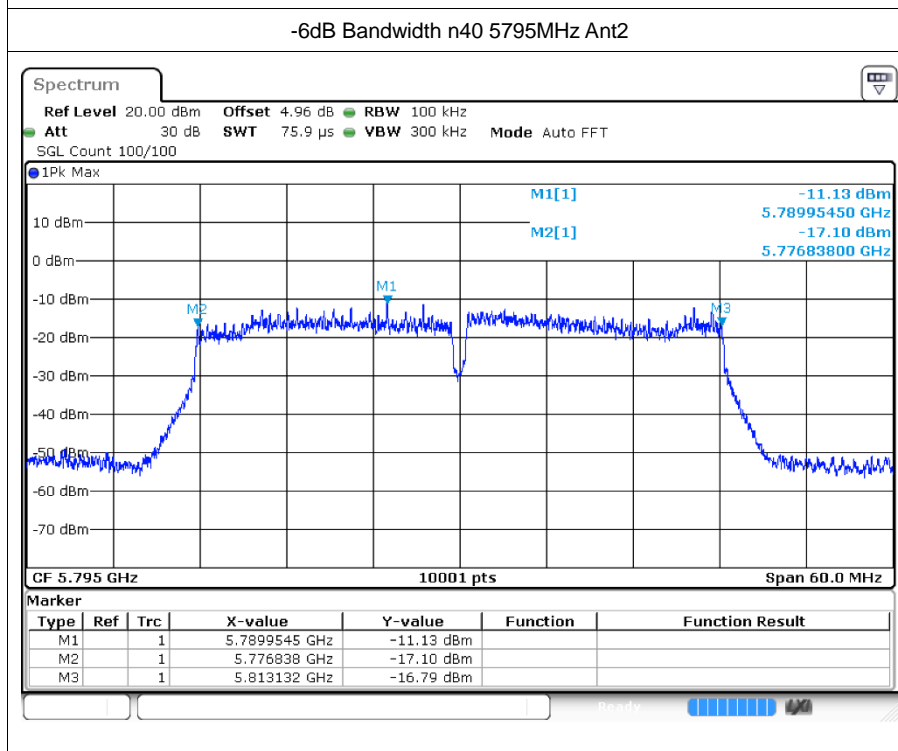
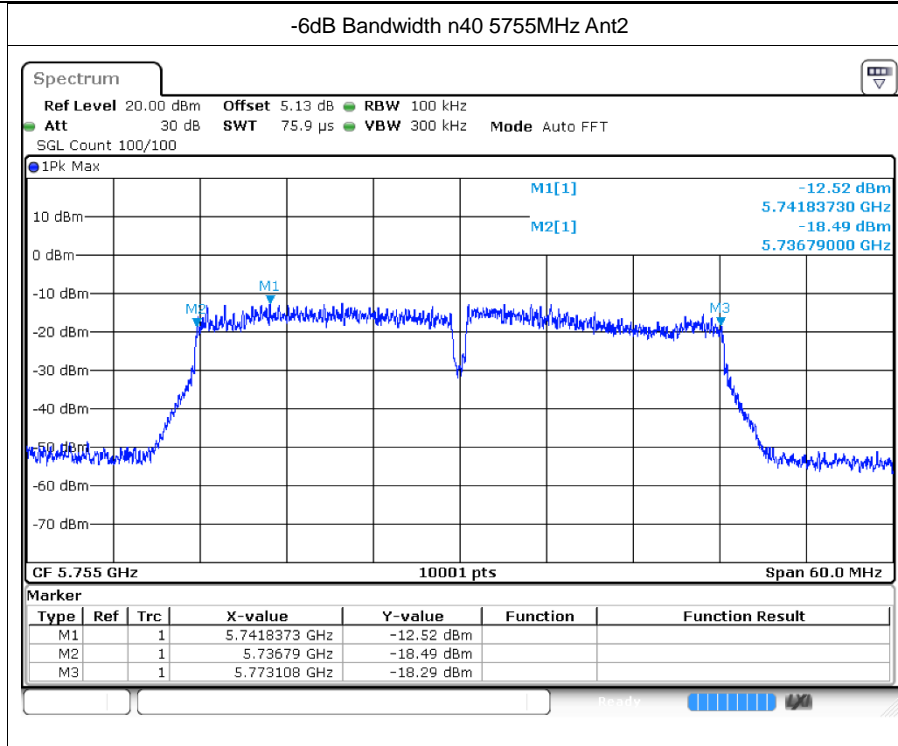


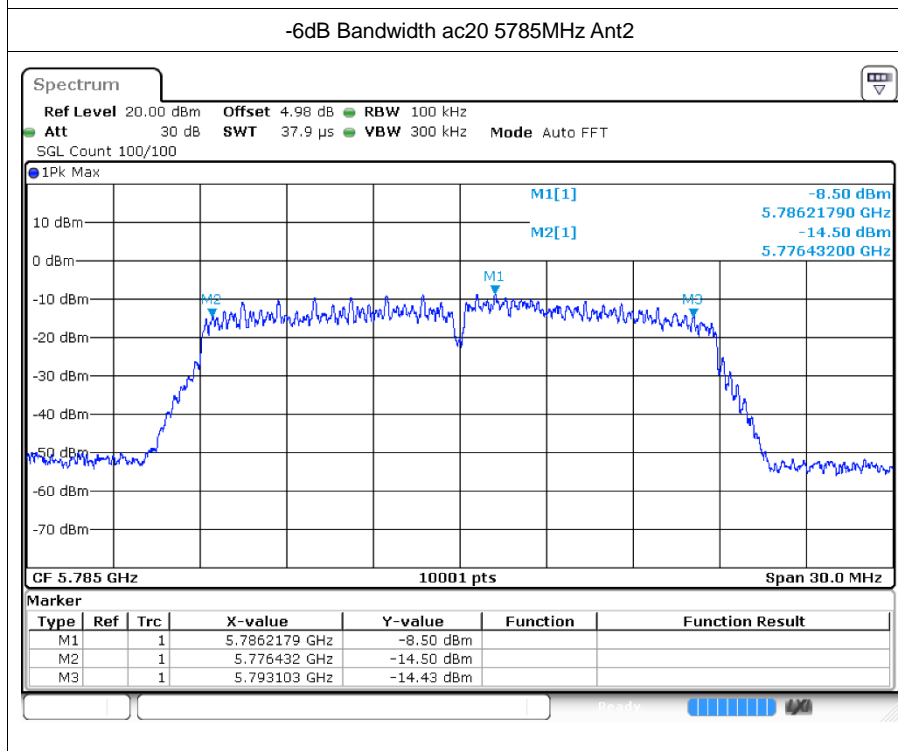
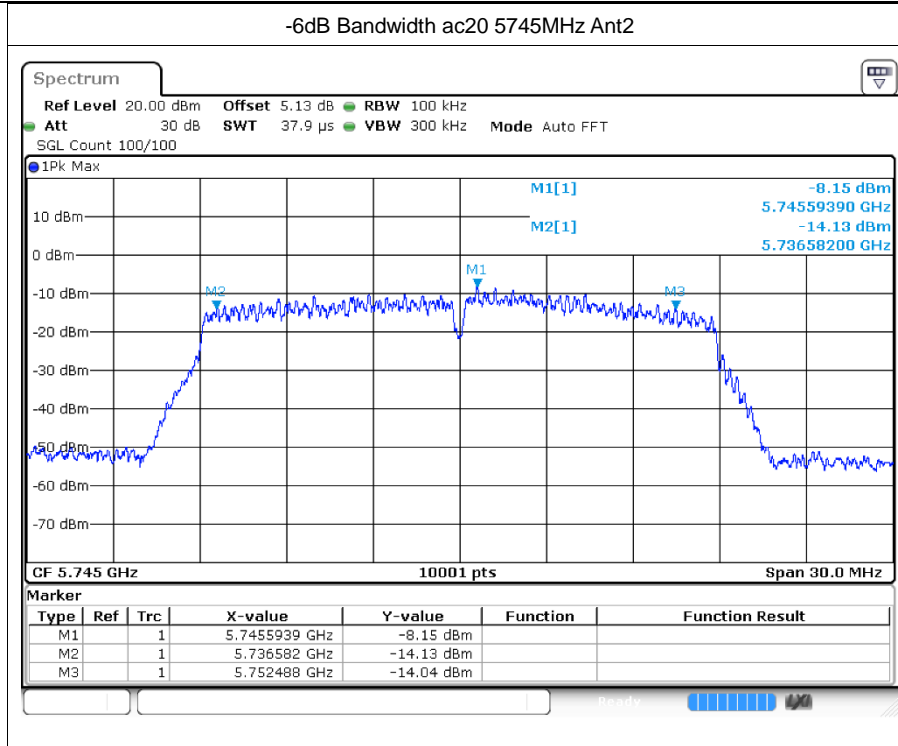
-6dB Bandwidth n20 5785MHz Ant2

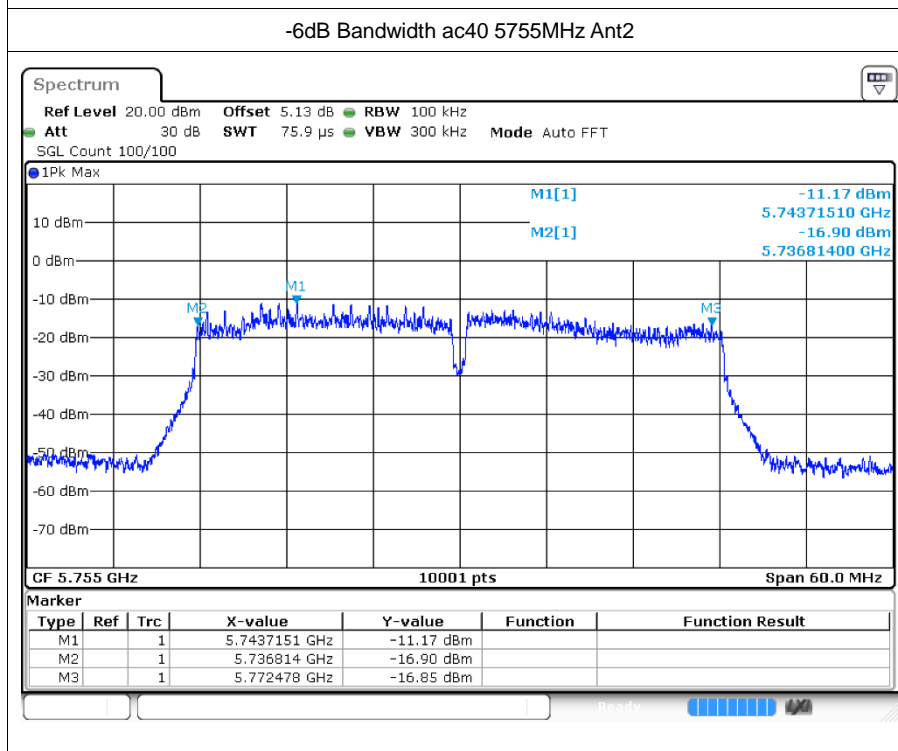
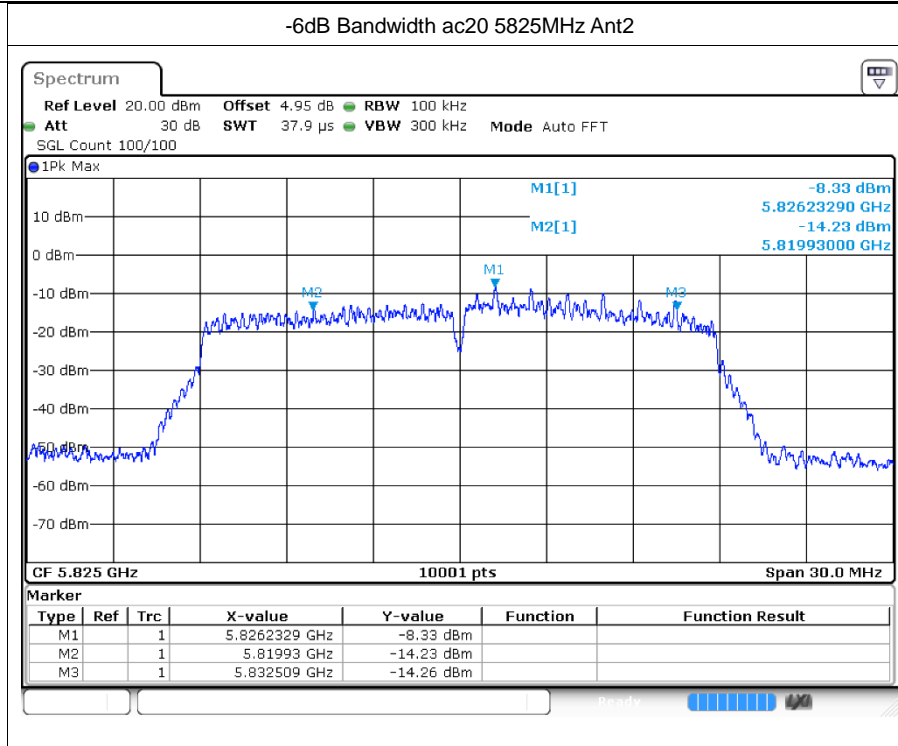


-6dB Bandwidth n20 5825MHz Ant2



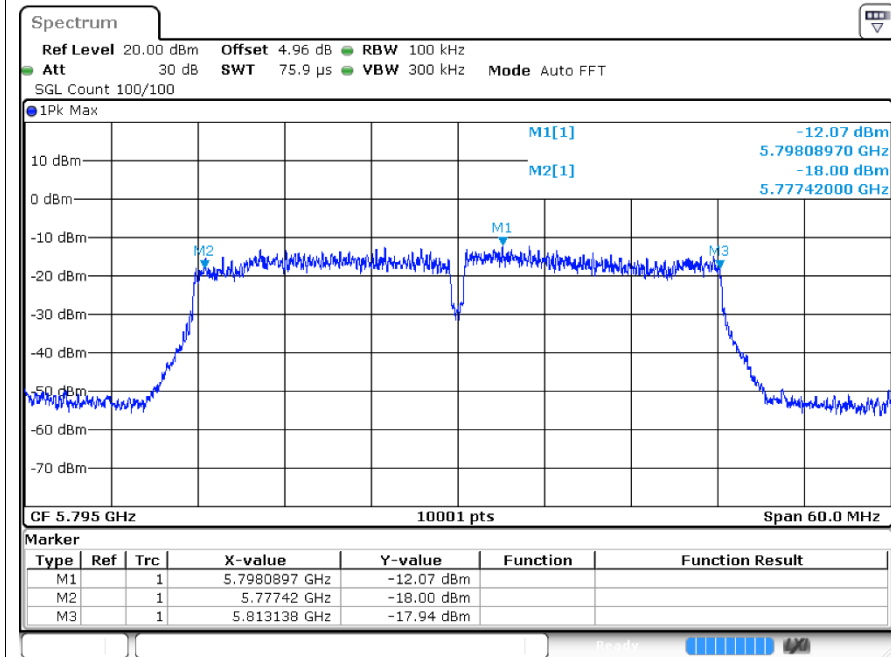




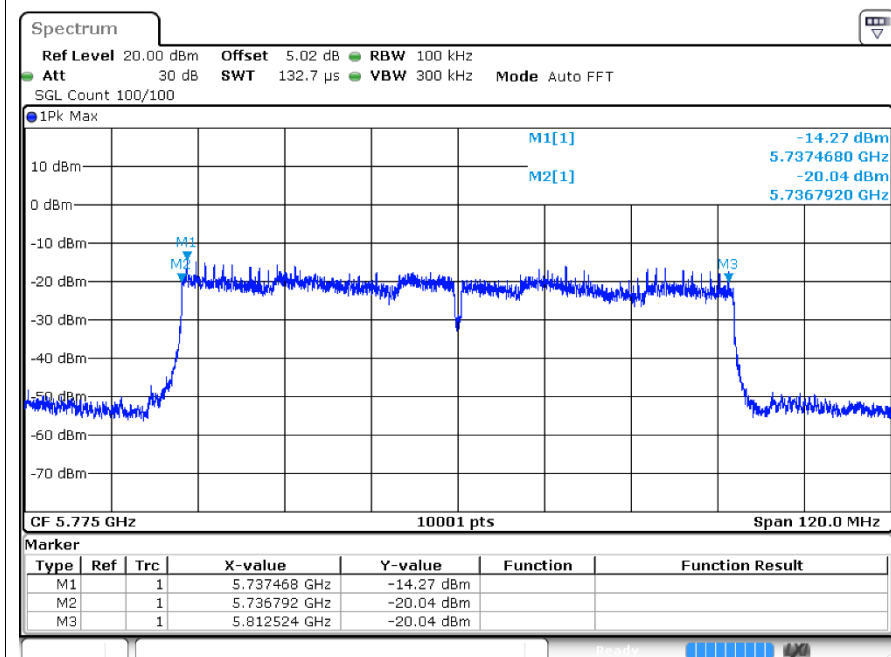




-6dB Bandwidth ac40 5795MHz Ant2



-6dB Bandwidth ac80 5775MHz Ant2





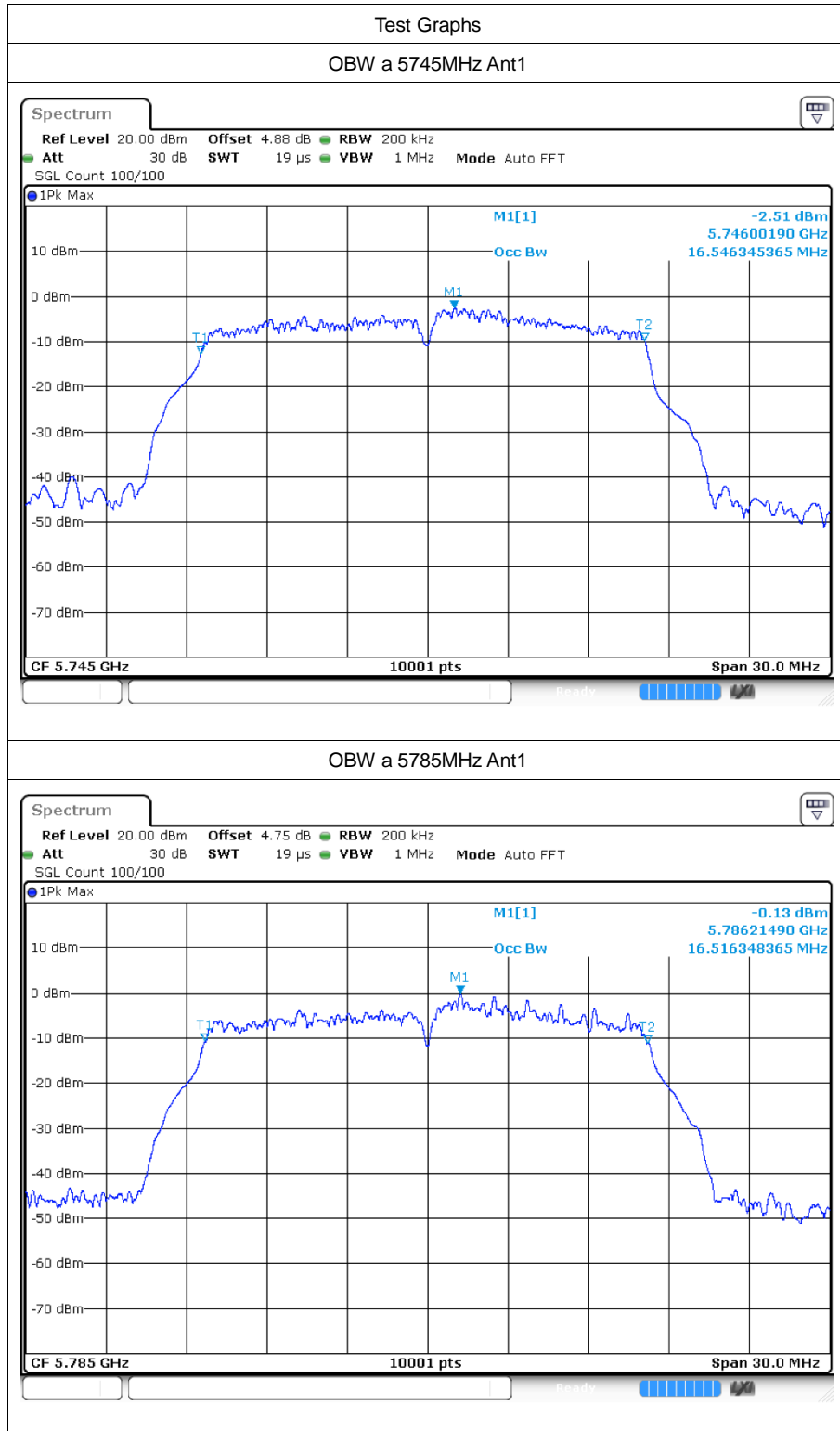
4 Occupied Channel Bandwidth

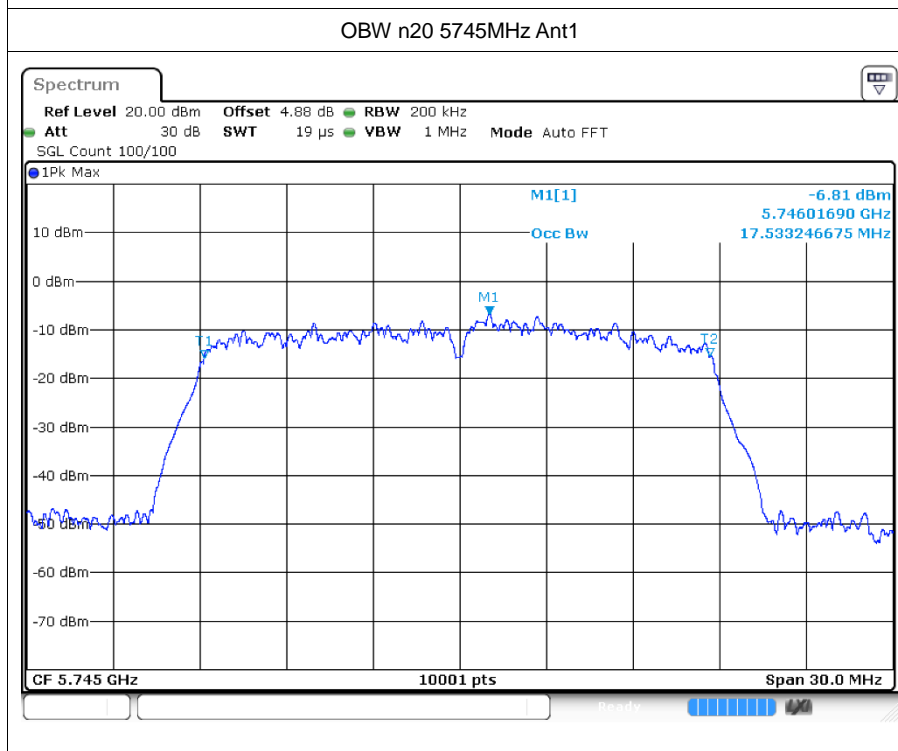
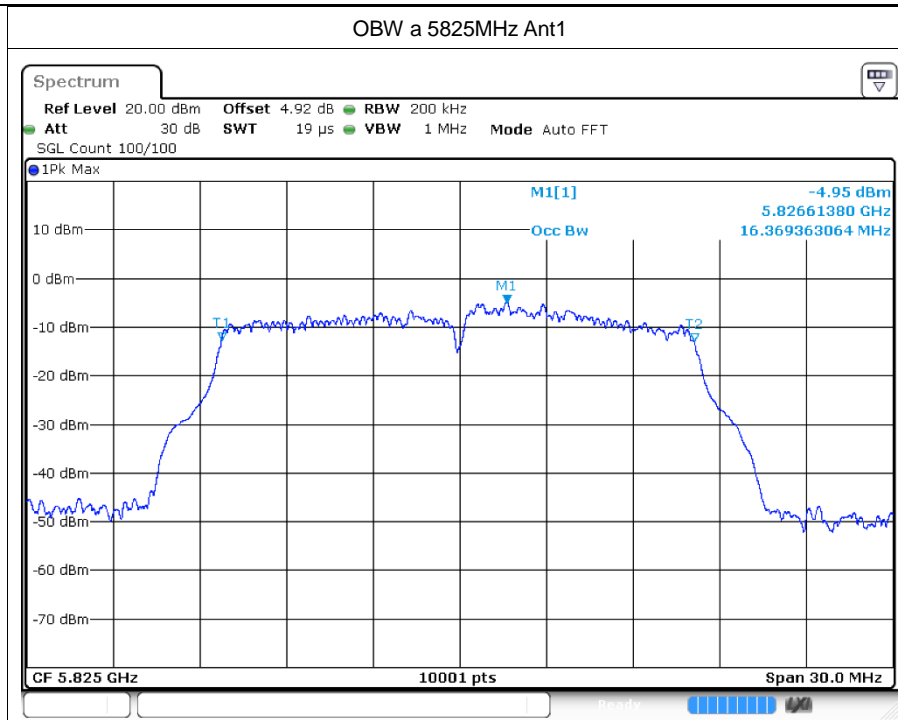
4.1 Test Result

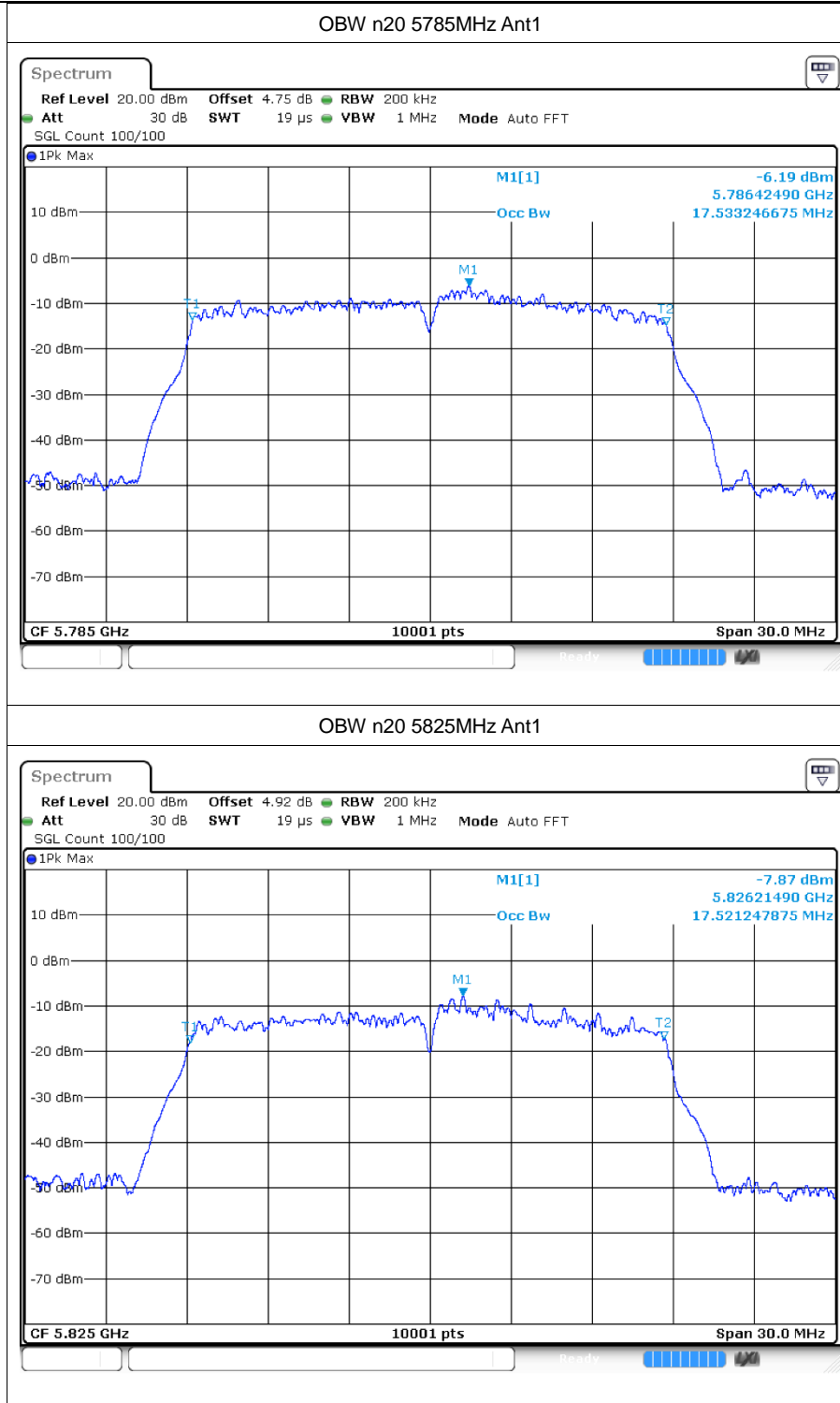
Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
a	5745	Ant1	16.546
a	5785	Ant1	16.516
a	5825	Ant1	16.369
n20	5745	Ant1	17.533
n20	5785	Ant1	17.533
n20	5825	Ant1	17.521
n40	5755	Ant1	36.062
n40	5795	Ant1	36.038
ac20	5745	Ant1	17.5
ac20	5785	Ant1	17.569
ac20	5825	Ant1	17.506
ac40	5755	Ant1	36.248
ac40	5795	Ant1	36.218
ac80	5775	Ant1	75.772
a	5745	Ant2	16.42
a	5785	Ant2	16.294
a	5825	Ant2	16.321
n20	5745	Ant2	17.467
n20	5785	Ant2	17.5
n20	5825	Ant2	17.521
n40	5755	Ant2	36.02
n40	5795	Ant2	36.032
ac20	5745	Ant2	17.461
ac20	5785	Ant2	17.494
ac20	5825	Ant2	17.494
ac40	5755	Ant2	36.194
ac40	5795	Ant2	36.236
ac80	5775	Ant2	75.832

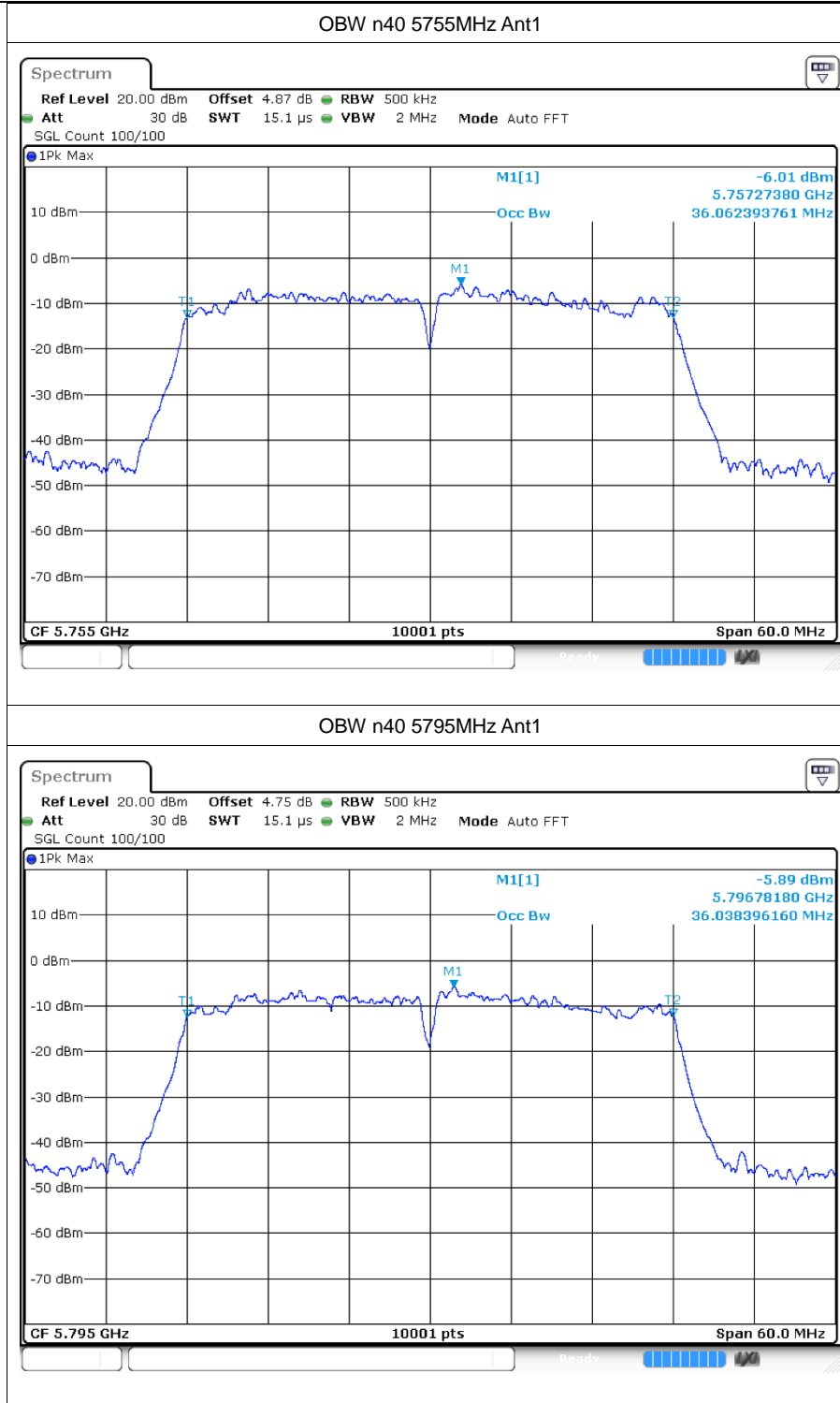


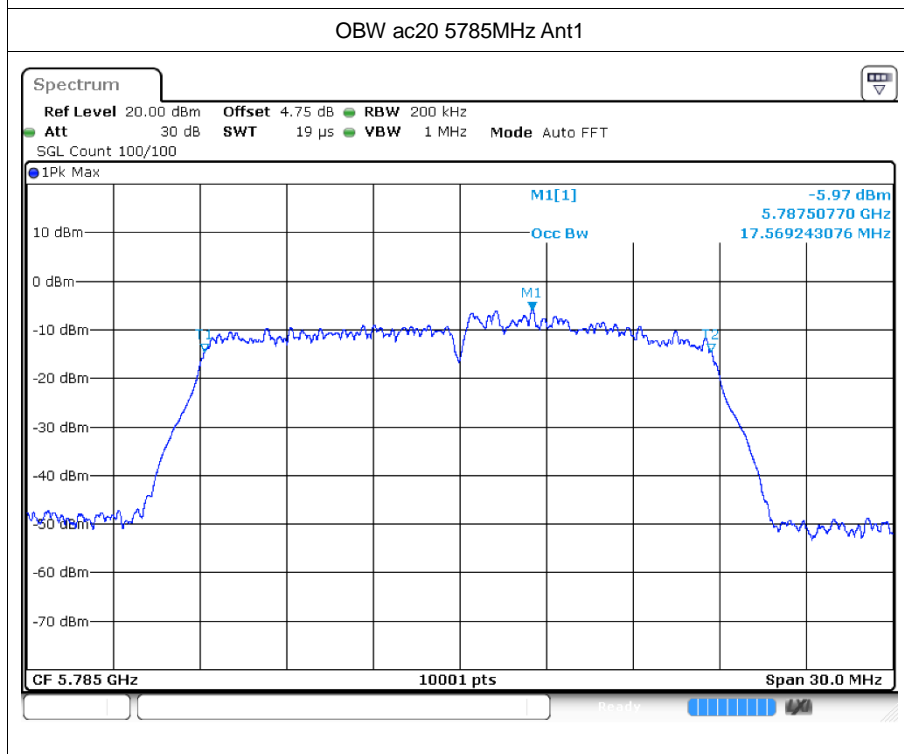
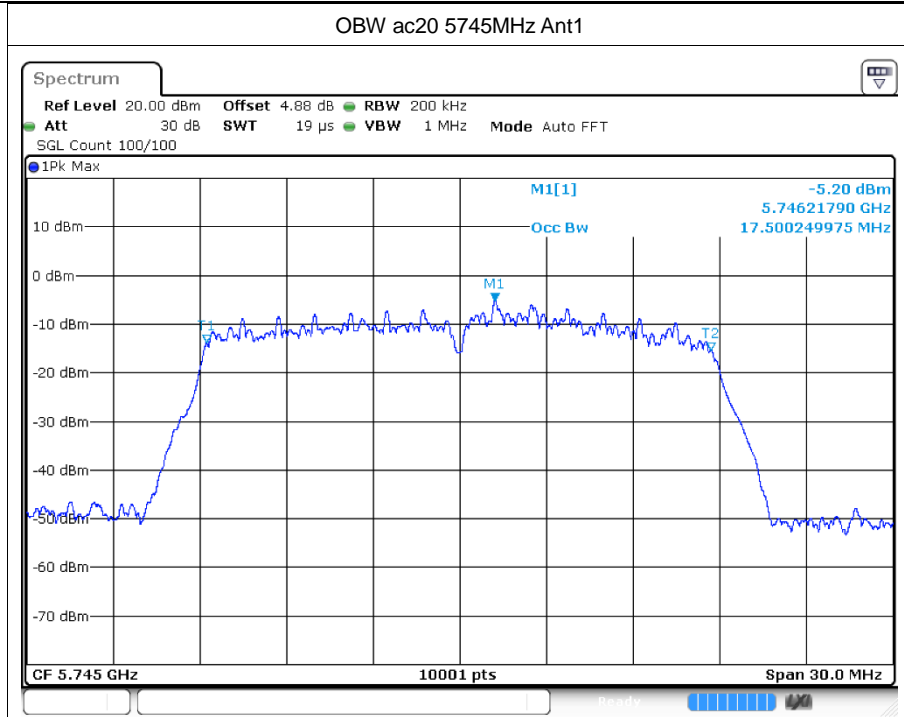
4.2 Test Graphs

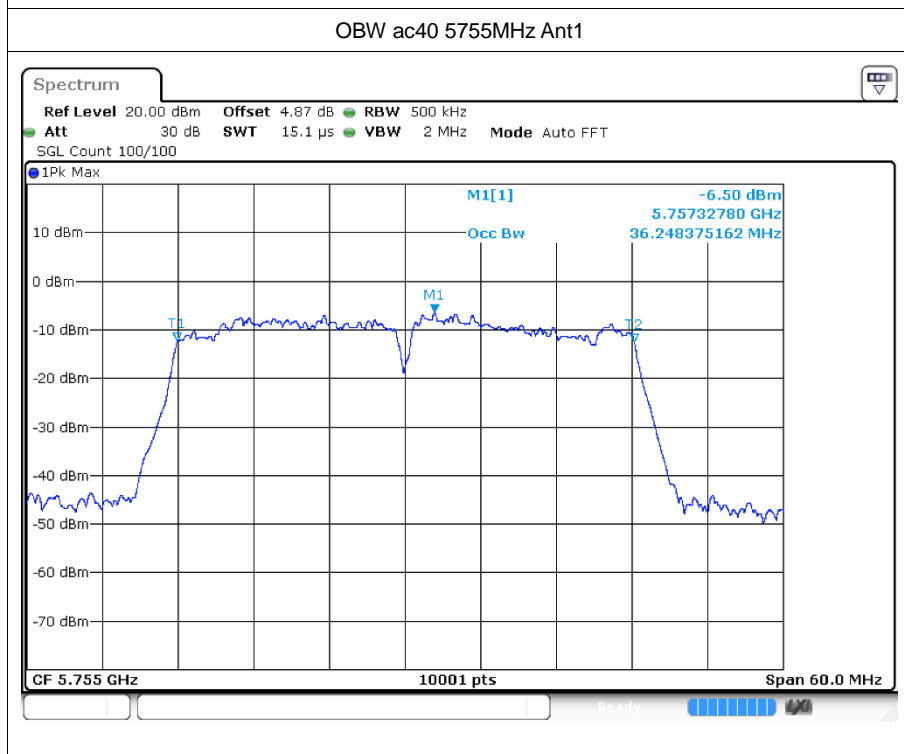
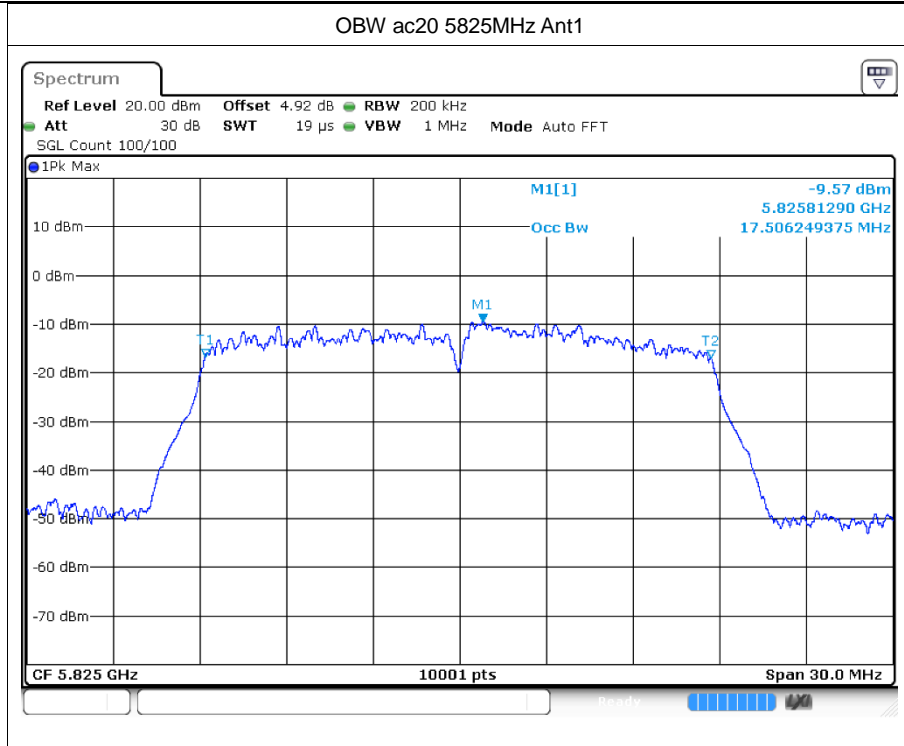


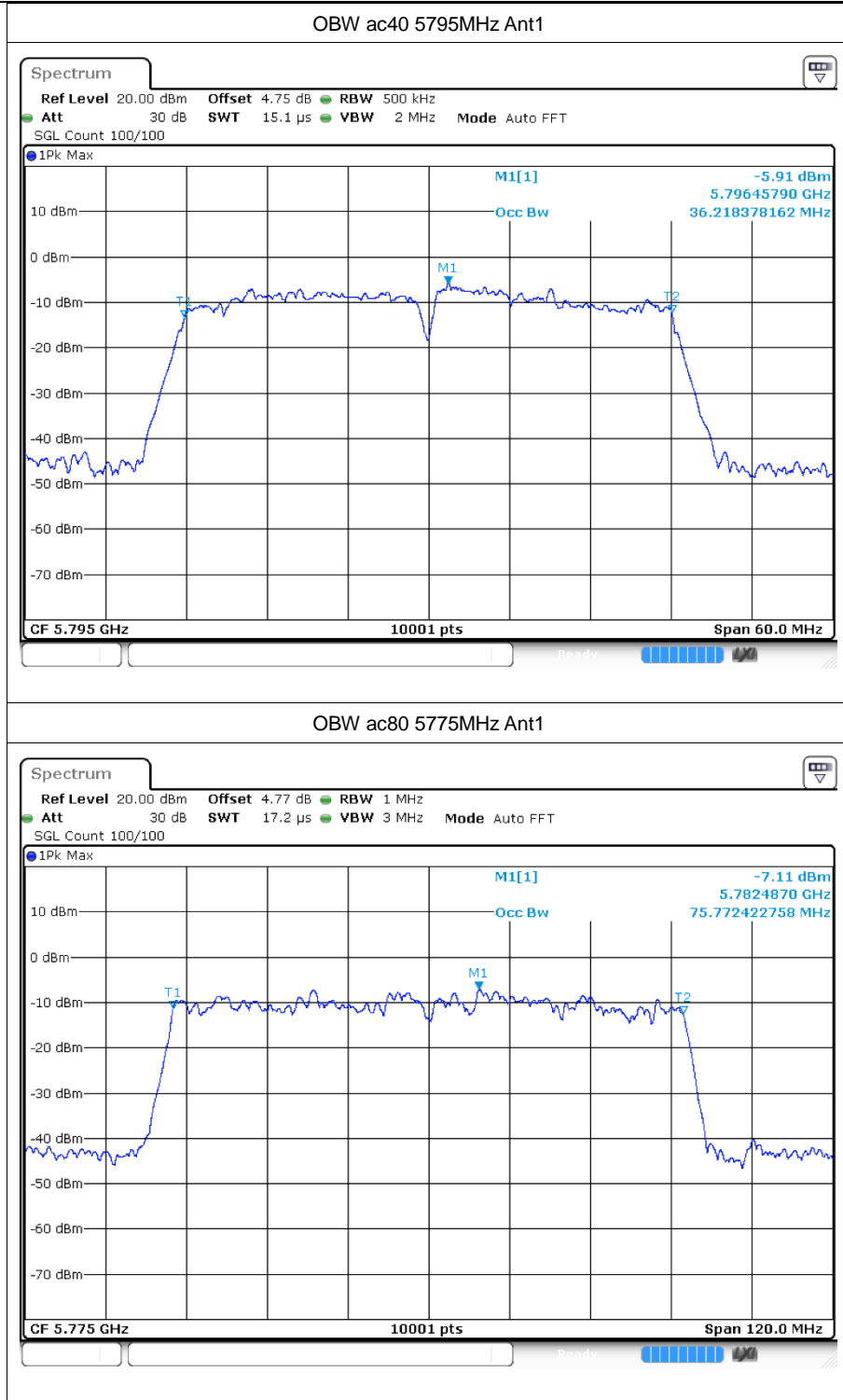


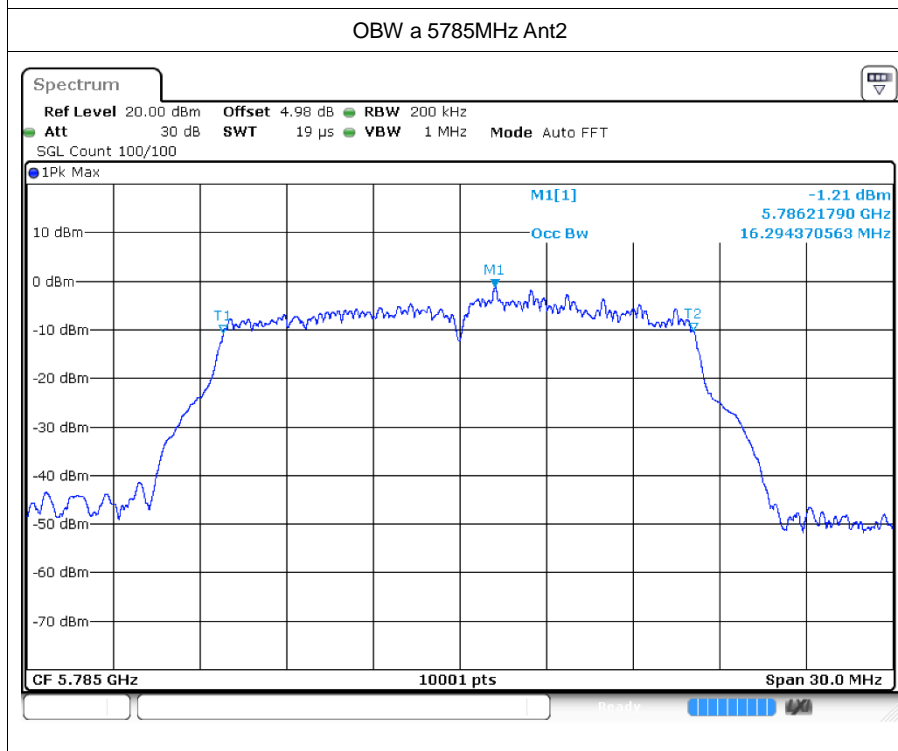
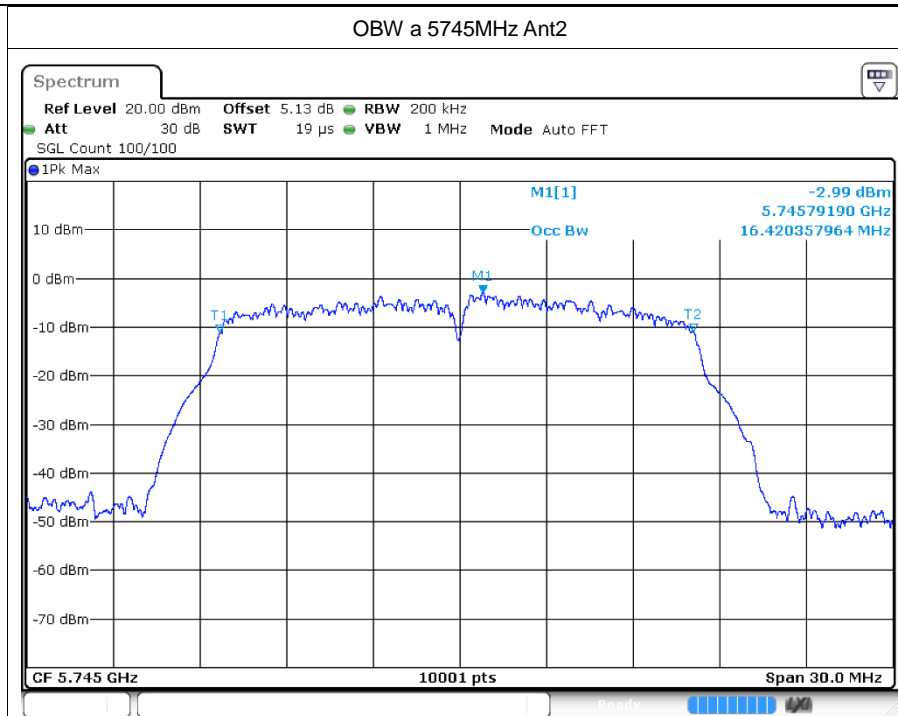


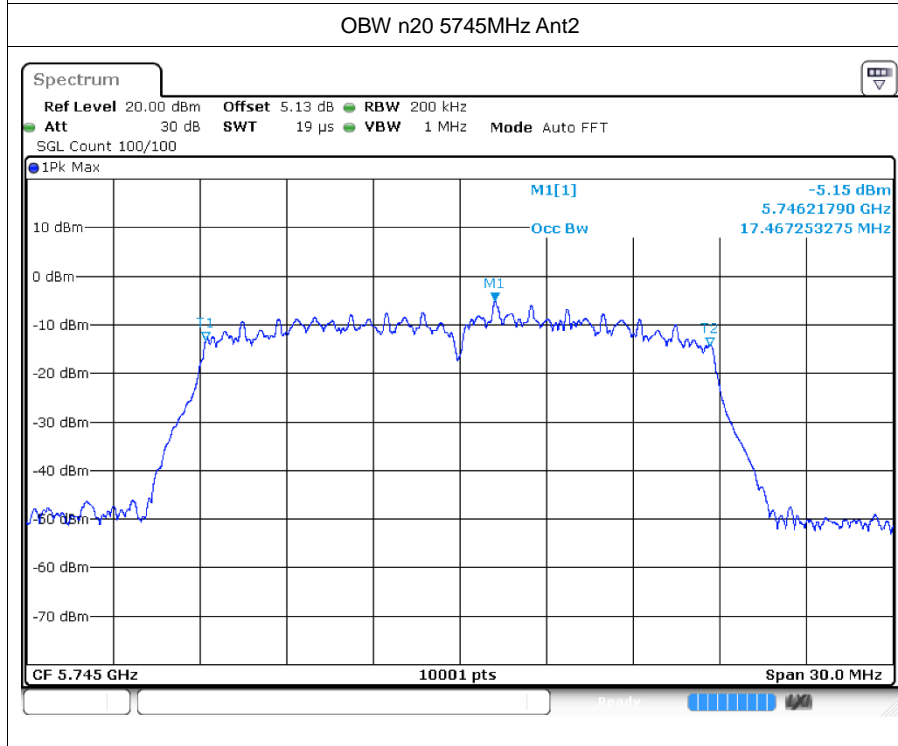
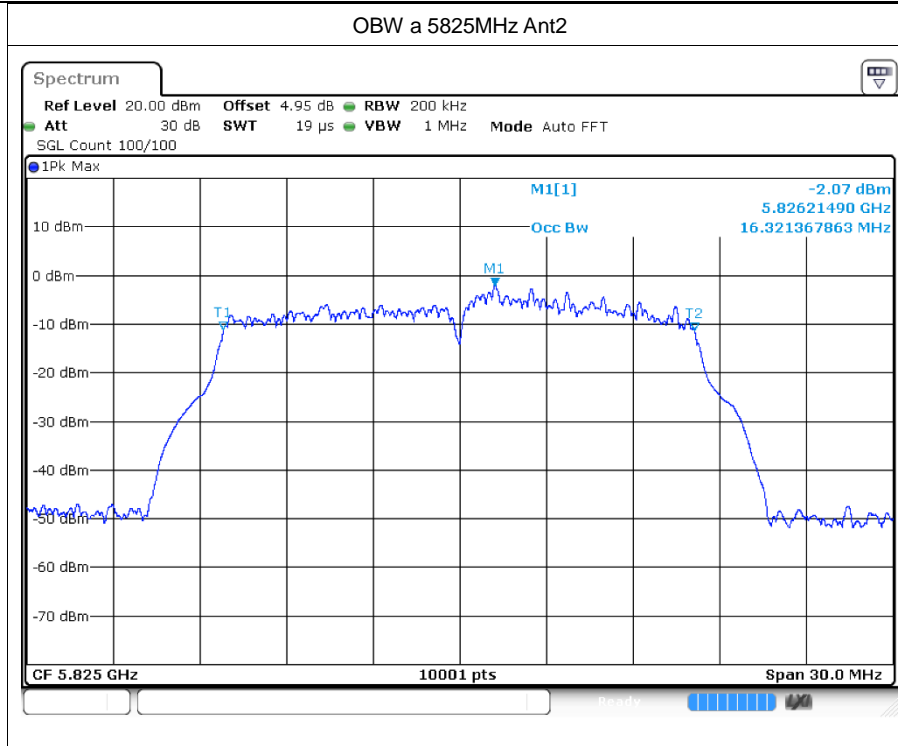


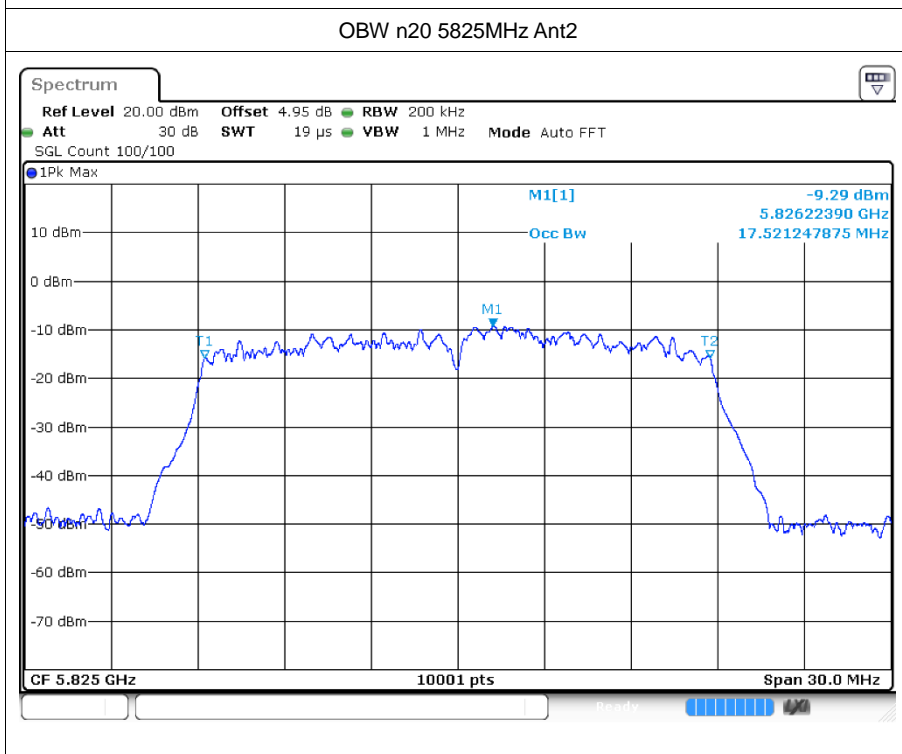
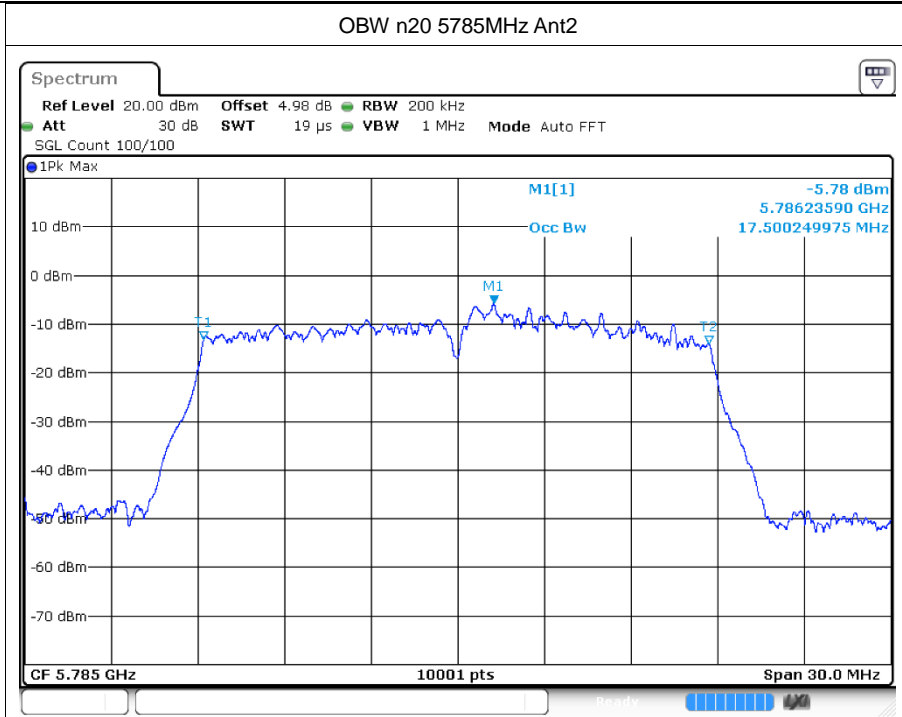


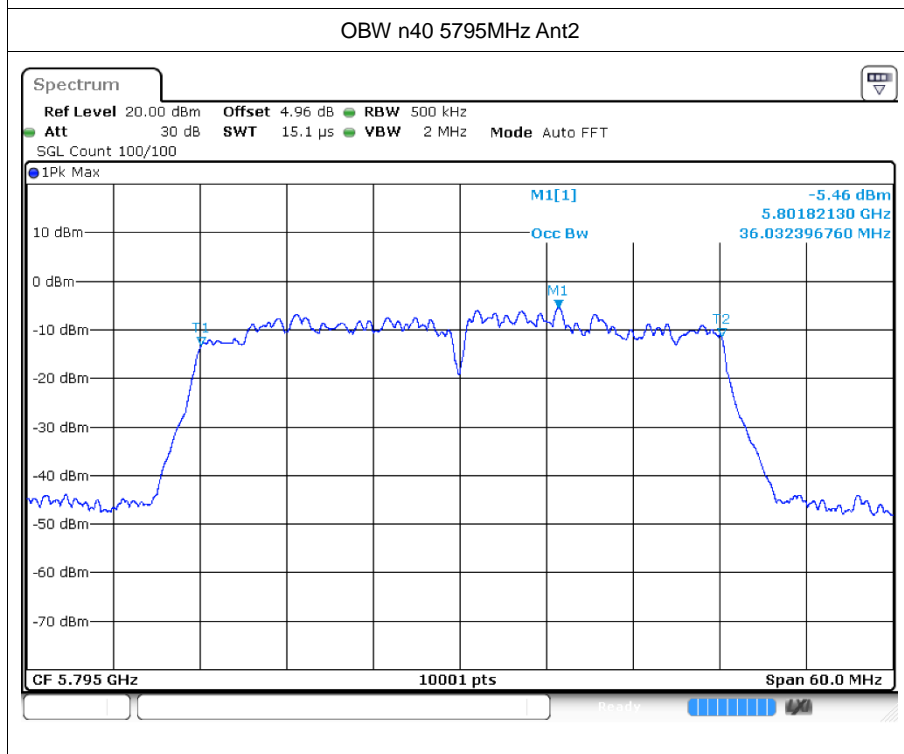
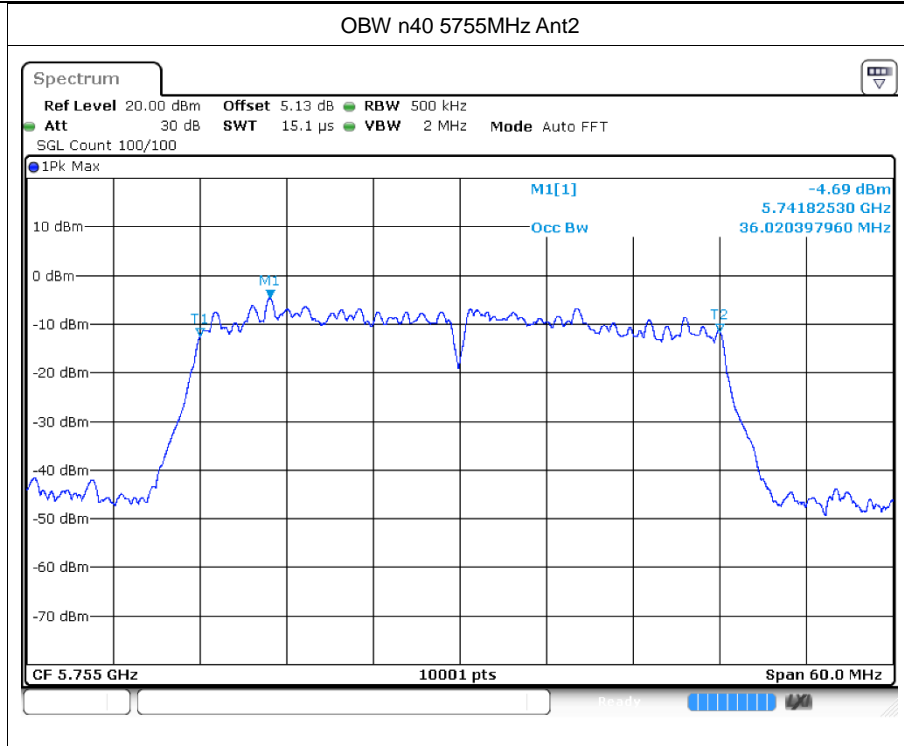






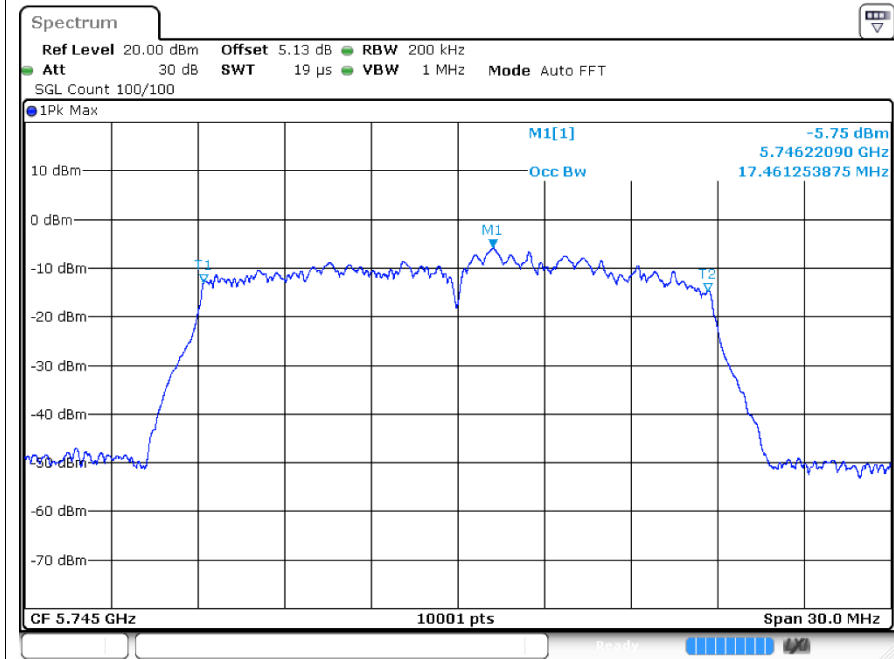




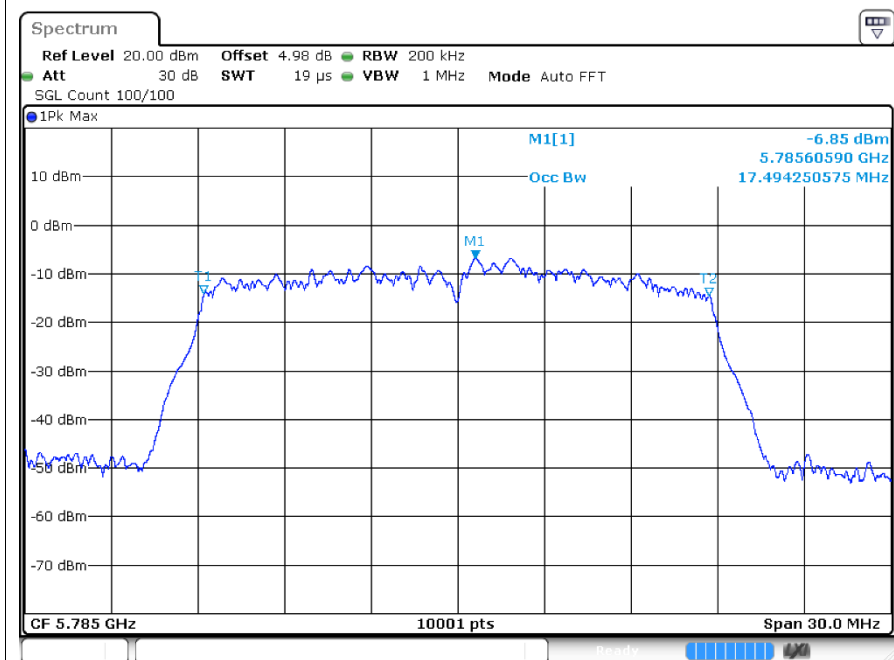


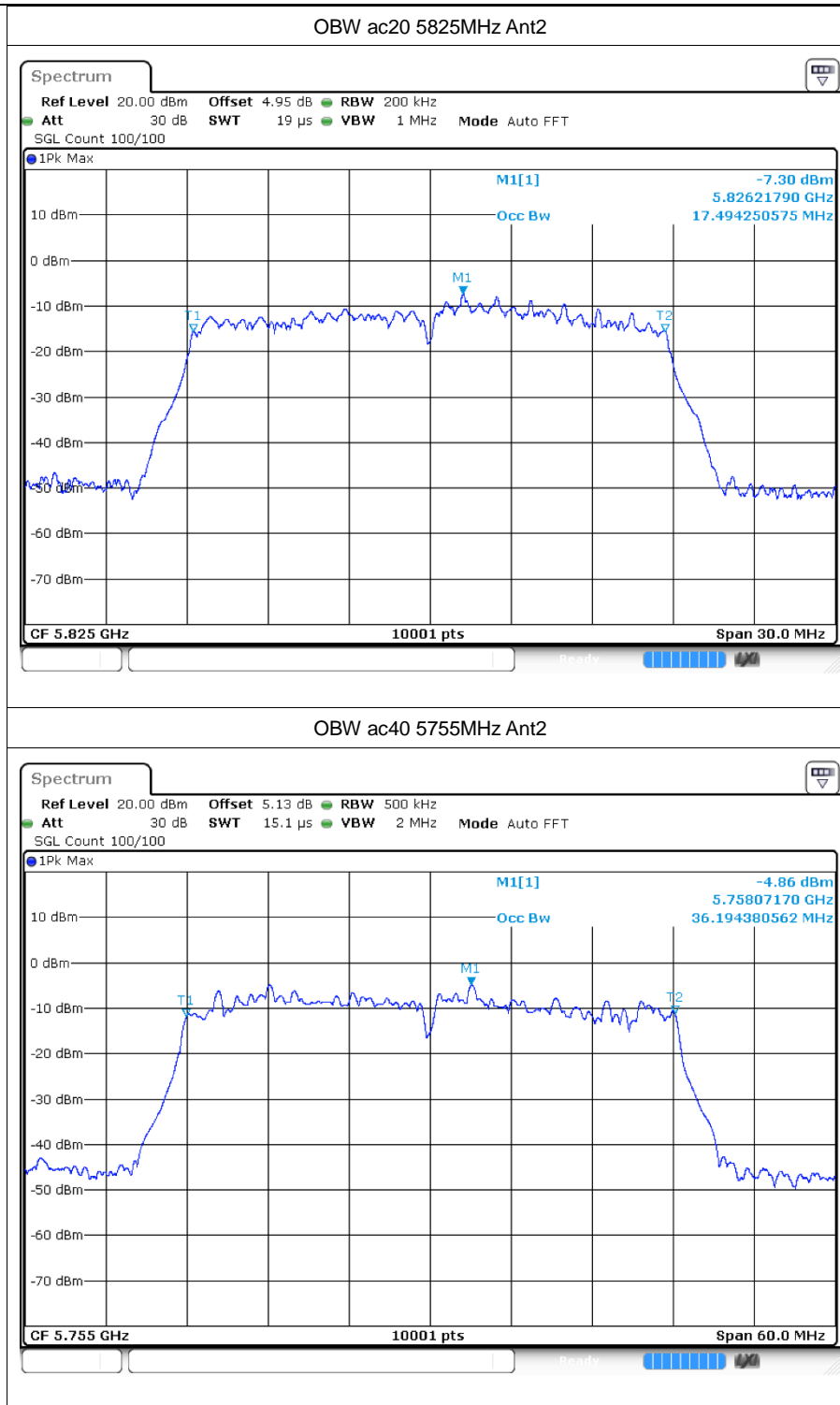


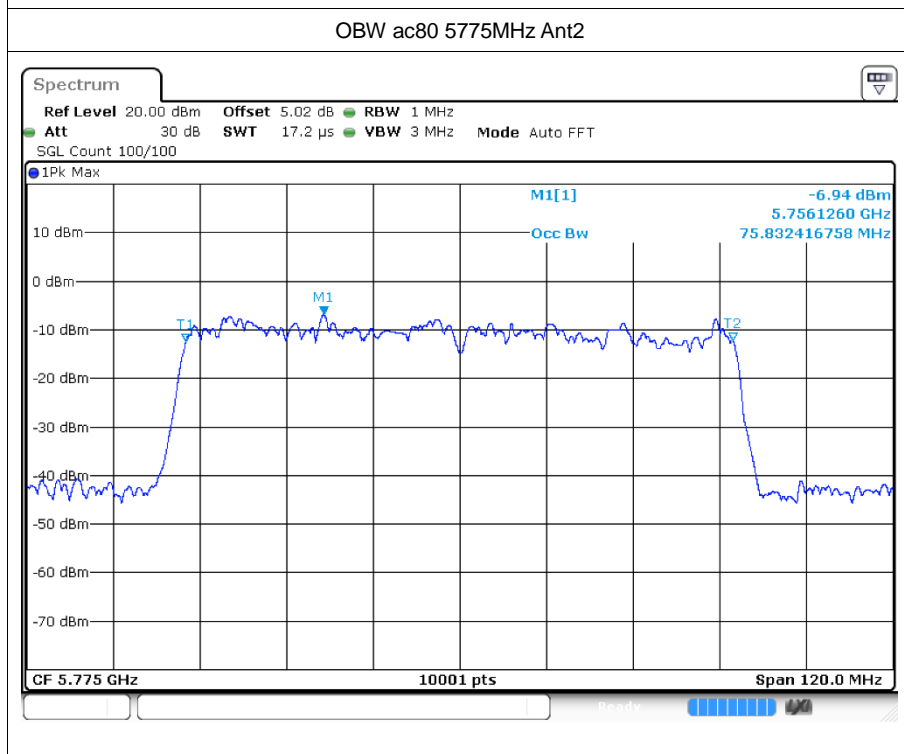
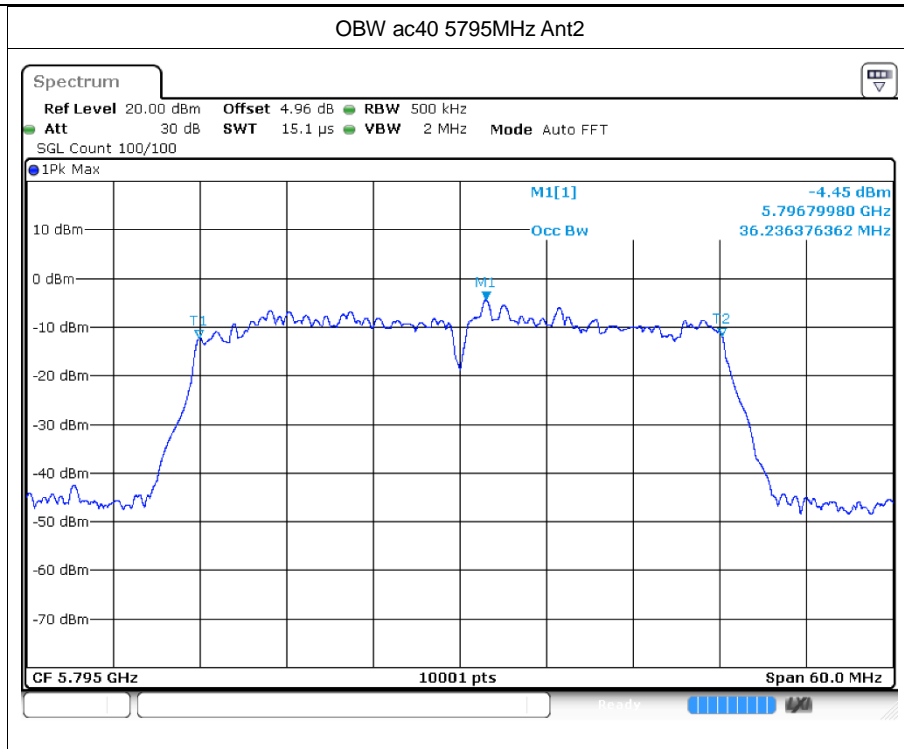
OBW ac20 5745MHz Ant2



OBW ac20 5785MHz Ant2







5 Maximum Power Spectral Density Level

5.1 Test Result

Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm)	Duty Factor (dB)	Total PSD (dBm)	Limit (dBm)	Verdict
a	5745	Ant1	1.94	0.16	2.1	30	Pass
a	5785	Ant1	1.58	0.16	1.74	30	Pass
a	5825	Ant1	-1.77	0.16	-1.61	30	Pass
a	5745	Ant2	1.41	0.16	1.57	30	Pass
a	5785	Ant2	0.73	0.16	0.89	30	Pass
a	5825	Ant2	-0.52	0.16	-0.36	30	Pass
n20	5745	Ant1	-2.69	0.17	-2.52	30	Pass
n20	5745	Ant2	-0.83	0.17	-0.66	30	Pass
n20	5745	Sum	1.35	0.17	1.52	30	Pass
n20	5785	Ant1	-3.33	0.17	-3.16	30	Pass
n20	5785	Ant2	-1.85	0.17	-1.68	30	Pass
n20	5785	Sum	0.48	0.17	0.65	30	Pass
n20	5825	Ant1	-4.3	0.17	-4.13	30	Pass
n20	5825	Ant2	-3.16	0.17	-2.99	30	Pass
n20	5825	Sum	-0.68	0.17	-0.51	30	Pass
n40	5755	Ant1	-5.49	0.42	-5.07	30	Pass
n40	5755	Ant2	-5.98	0.32	-5.66	30	Pass
n40	5755	Sum	-2.72	0.42	-2.3	30	Pass
n40	5795	Ant1	-6.39	0.32	-6.07	30	Pass
n40	5795	Ant2	-4.93	0.36	-4.57	30	Pass
n40	5795	Sum	-2.59	0.36	-2.23	30	Pass
ac20	5745	Ant1	-2.97	0.17	-2.8	30	Pass
ac20	5745	Ant2	-0.28	0.17	-0.11	30	Pass
ac20	5745	Sum	1.59	0.17	1.76	30	Pass
ac20	5785	Ant1	-2.5	0.17	-2.33	30	Pass
ac20	5785	Ant2	-2.49	0.16	-2.33	30	Pass
ac20	5785	Sum	0.52	0.17	0.69	30	Pass
ac20	5825	Ant1	-5.67	0.17	-5.5	30	Pass
ac20	5825	Ant2	-3.12	0.17	-2.95	30	Pass
ac20	5825	Sum	-1.2	0.17	-1.03	30	Pass
ac40	5755	Ant1	-5.58	0.33	-5.25	30	Pass
ac40	5755	Ant2	-5.96	0.34	-5.62	30	Pass
ac40	5755	Sum	-2.76	0.33	-2.43	30	Pass
ac40	5795	Ant1	-6.38	0.33	-6.05	30	Pass



ac40	5795	Ant2	-5.34	0.34	-5	30	Pass
ac40	5795	Sum	-2.82	0.34	-2.48	30	Pass
ac80	5775	Ant1	-11.01	1.78	-9.23	30	Pass
ac80	5775	Ant2	-9.86	1.9	-7.96	30	Pass
ac80	5775	Sum	-7.39	1.9	-5.49	30	Pass

5.2 Test Graphs

