



Appendix D-1

RF Test Data for B1-B3WIFI(Conducted Measurement)

Product Name: RF Wireless module

Trade Mark: INNOCN

Test Model: AW.S905D3.03

Environmental Conditions

Temperature:	24.6° C
Relative Humidity:	52.4%
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.....	34
2.1 Test Result	34
3 -26dB Bandwidth.....	36
3.1 Test Result	36
3.2 Test Graphs.....	38
4 Occupied Channel Bandwidth	67
4.1 Test Result	67
4.2 Test Graphs.....	69
5 Maximum Power Spectral Density Level	98
5.1 Test Result	98
5.2 Test Graphs.....	100
6 Frequency Stability.....	129
6.1 Test Result	129
7 Conducted RF Spurious Emission.....	142
7.1 Test Result	142
7.2 Test Graphs.....	144
8 Restrict Band	173
8.1 Test Result	173
8.2 Test Graphs.....	180



1 Duty Cycle

1.1 Test Result

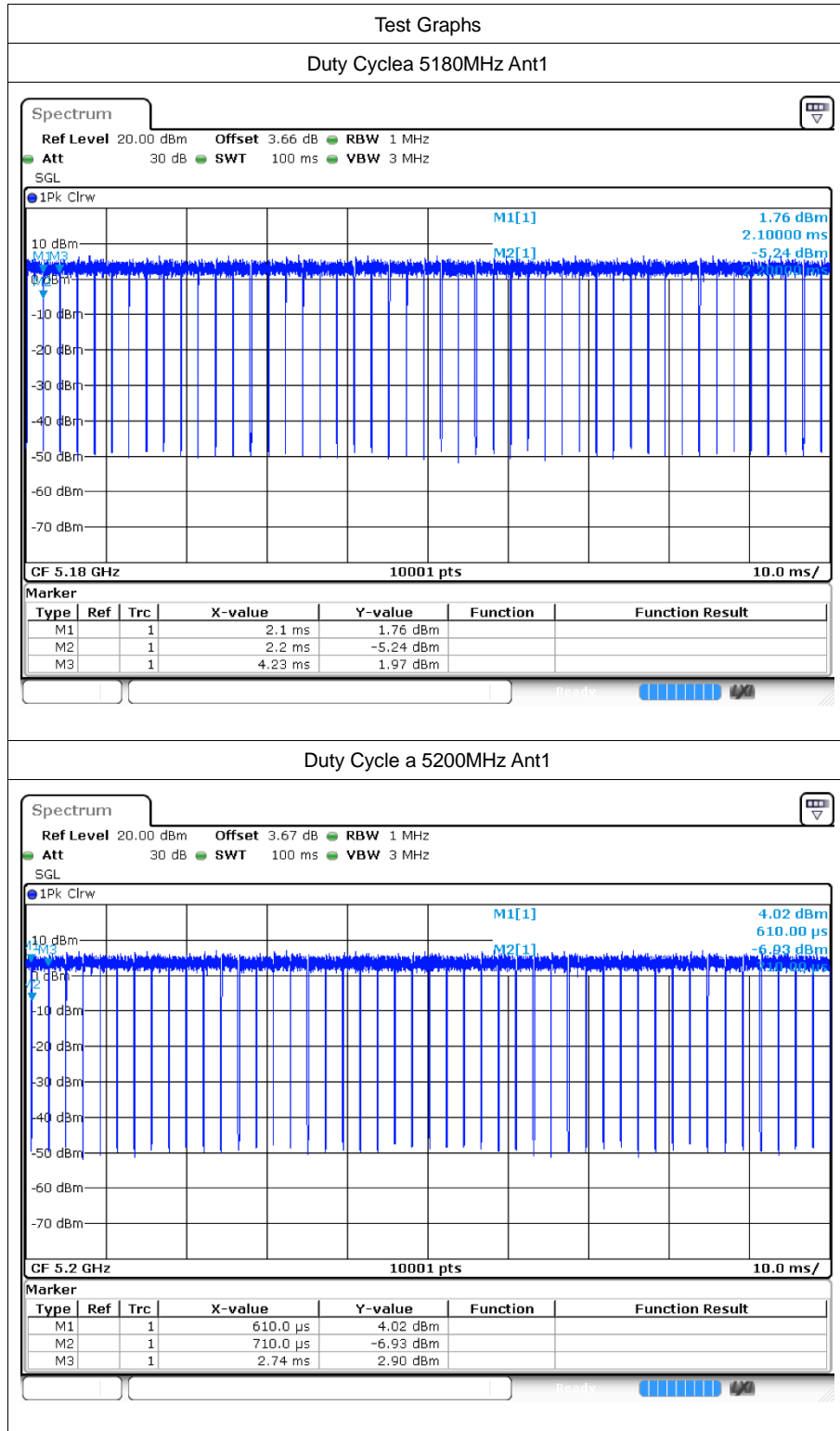
Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
a	5180	Ant1	94.99	0.22	0.49
a	5200	Ant1	94.56	0.24	0.49
a	5240	Ant1	95.01	0.22	0.49
a	5260	Ant1	92.53	0.34	0.49
a	5280	Ant1	91.27	0.4	0.49
a	5320	Ant1	94.95	0.23	0.49
a	5500	Ant1	91.35	0.33	0.49
a	5600	Ant1	92.58	0.39	0.49
a	5700	Ant1	94.66	0.24	0.49
n20	5180	Ant1	92.2	0.35	0.53
n20	5200	Ant1	93.44	0.29	0.53
n20	5240	Ant1	94.96	0.22	0.53
n20	5260	Ant1	95.3	0.21	0.53
n20	5280	Ant1	93.05	0.31	0.53
n20	5320	Ant1	94.09	0.26	0.53
n20	5500	Ant1	94.69	0.24	0.53
n20	5600	Ant1	94.38	0.25	0.53
n20	5700	Ant1	95.06	0.22	0.53
n40	5190	Ant1	89.54	0.48	1.06
n40	5230	Ant1	89.57	0.48	1.08
n40	5270	Ant1	89.35	0.49	1.06
n40	5310	Ant1	85.82	0.66	1.06
n40	5510	Ant1	89.38	0.49	1.08
n40	5670	Ant1	88.7	0.52	1.08
ac20	5180	Ant1	94.44	0.25	0.53
ac20	5200	Ant1	94.58	0.24	0.53
ac20	5240	Ant1	95.27	0.21	0.53
ac20	5260	Ant1	93.67	0.28	0.53
ac20	5280	Ant1	94.95	0.23	0.53
ac20	5320	Ant1	92.35	0.35	0.53
ac20	5500	Ant1	94.69	0.24	0.52
ac20	5600	Ant1	94.39	0.25	0.53
ac20	5700	Ant1	92.03	0.36	0.53
ac40	5190	Ant1	85.7	0.67	1.06
ac40	5230	Ant1	89.55	0.48	1.06
ac40	5310	Ant1	89.89	0.46	1.08
ac40	5270	Ant1	89.29	0.49	1.08

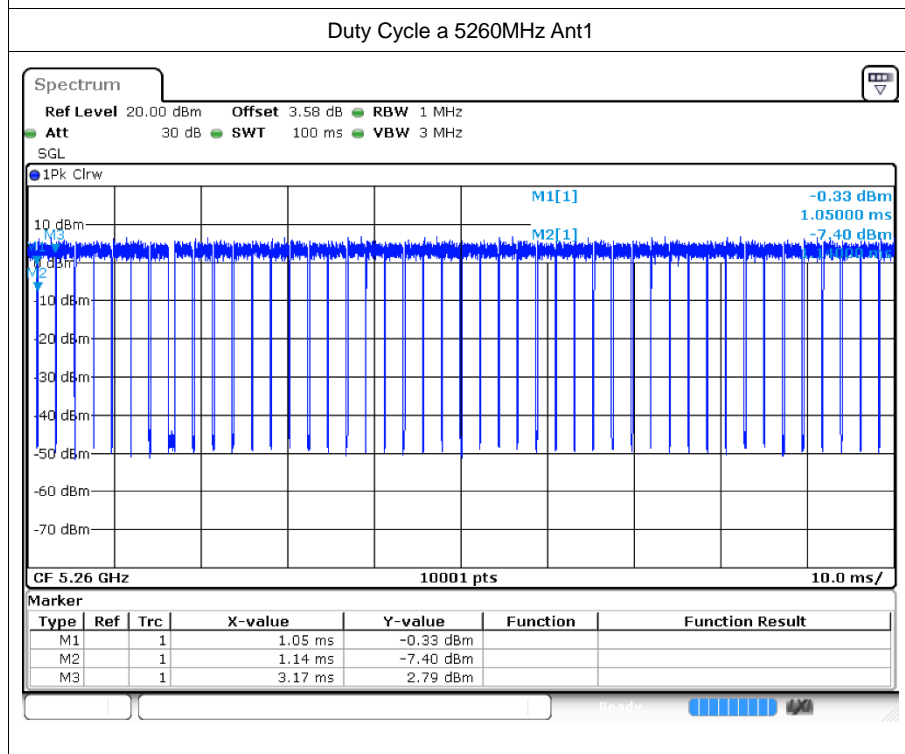
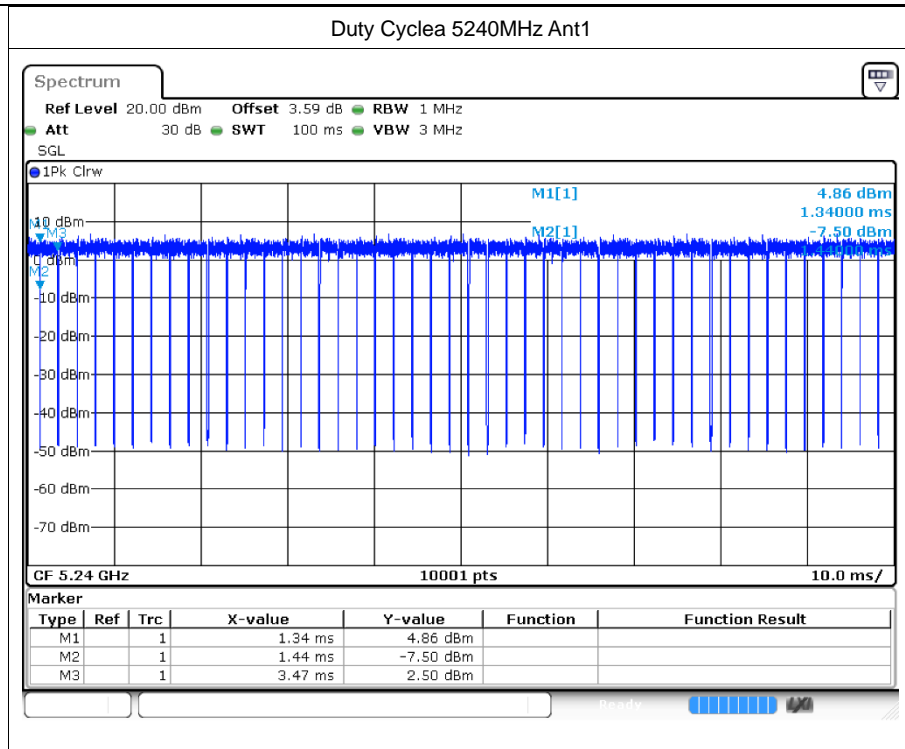


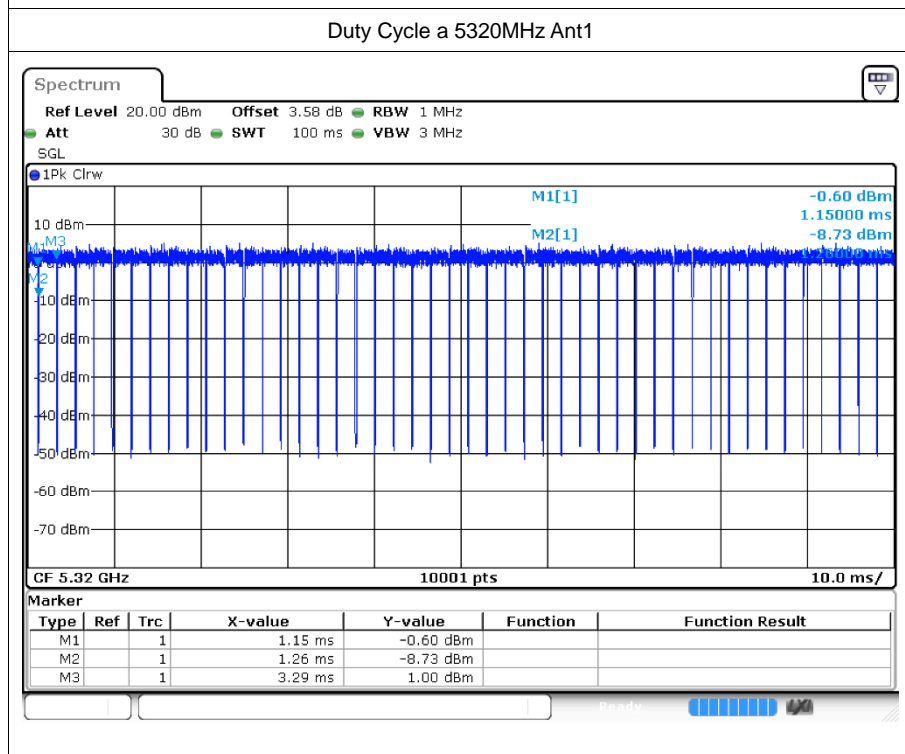
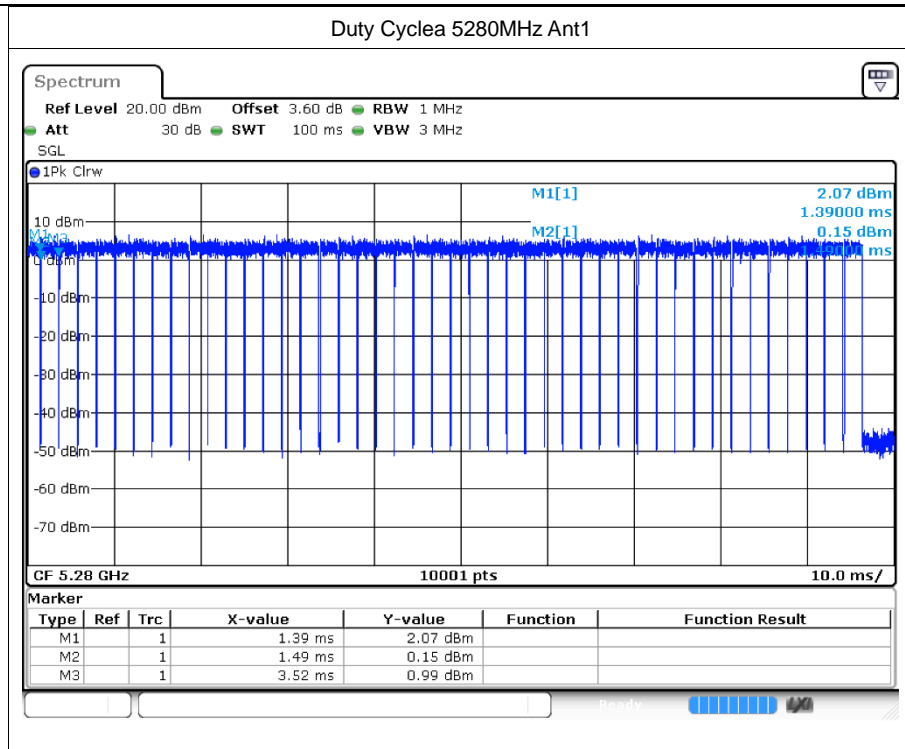
ac40	5510	Ant1	89.72	0.47	1.06
ac40	5670	Ant1	88.9	0.51	1.08
ax20	5180	Ant1	93.73	0.28	0.69
ax20	5200	Ant1	93.37	0.3	0.68
ax20	5240	Ant1	93.72	0.28	0.68
ax20	5260	Ant1	92.79	0.32	0.68
ax20	5280	Ant1	92.88	0.32	0.68
ax20	5320	Ant1	92.76	0.33	0.69
ax20	5500	Ant1	92.81	0.32	0.69
ax20	5600	Ant1	91.43	0.39	0.69
ax20	5700	Ant1	92.55	0.34	0.68
ax40	5190	Ant1	86.87	0.61	1.35
ax40	5230	Ant1	87.56	0.58	1.33
ax40	5310	Ant1	87.12	0.6	1.33
ax40	5270	Ant1	82.63	0.83	1.33
ax40	5510	Ant1	86.86	0.61	1.33
ax40	5670	Ant1	87.43	0.58	1.35

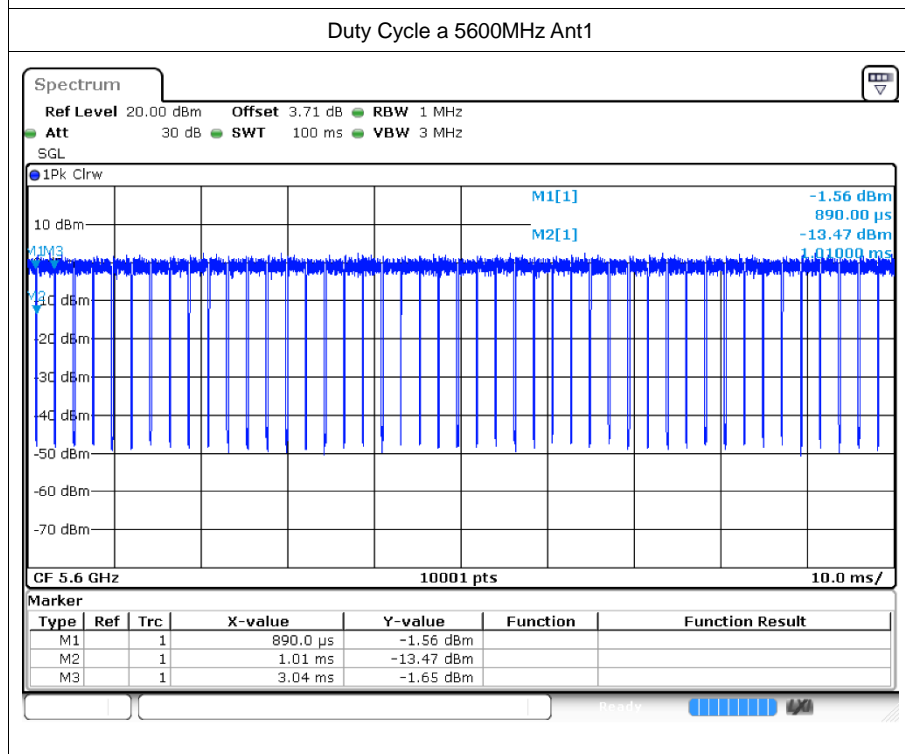
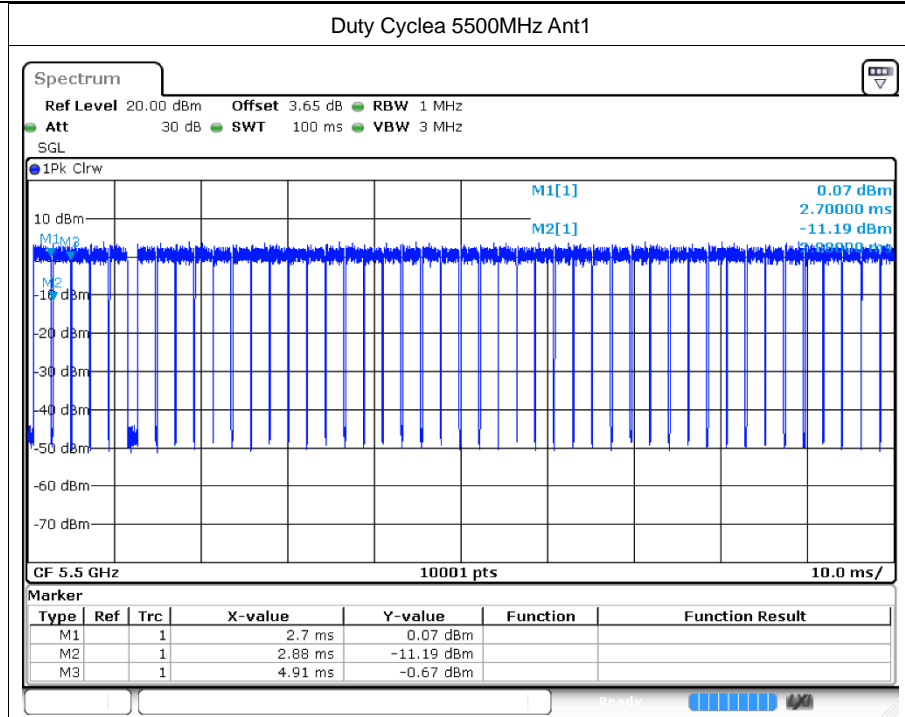


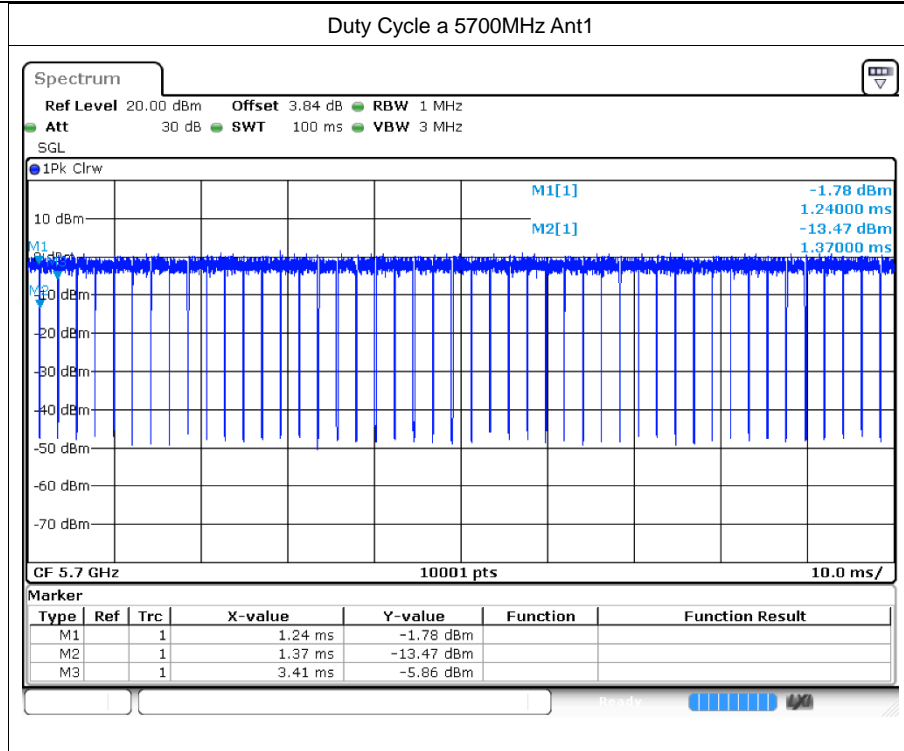
1.2 Test Graphs

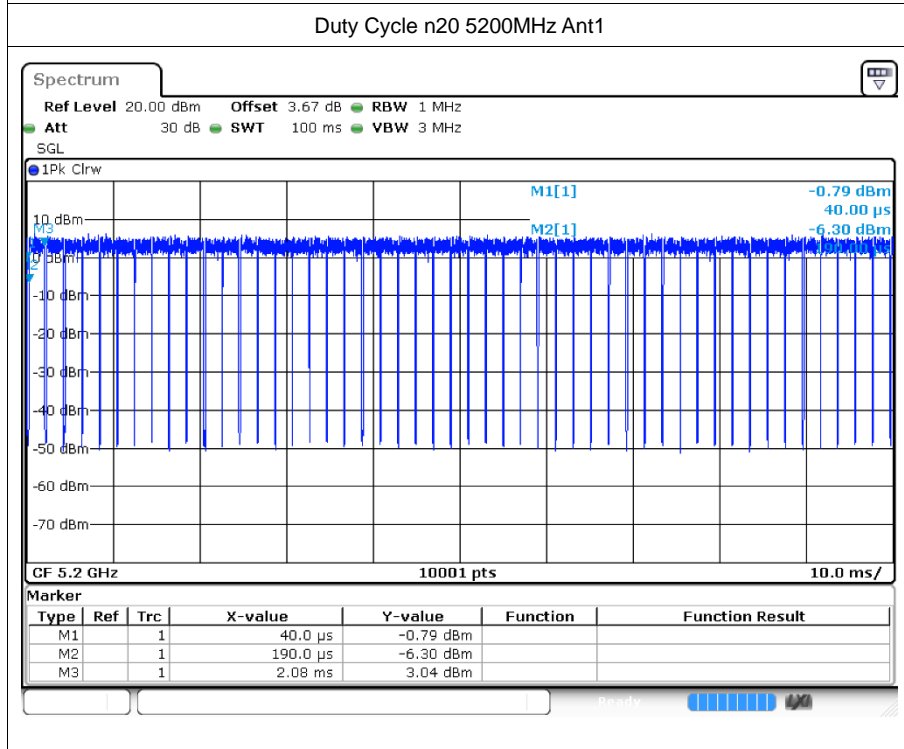
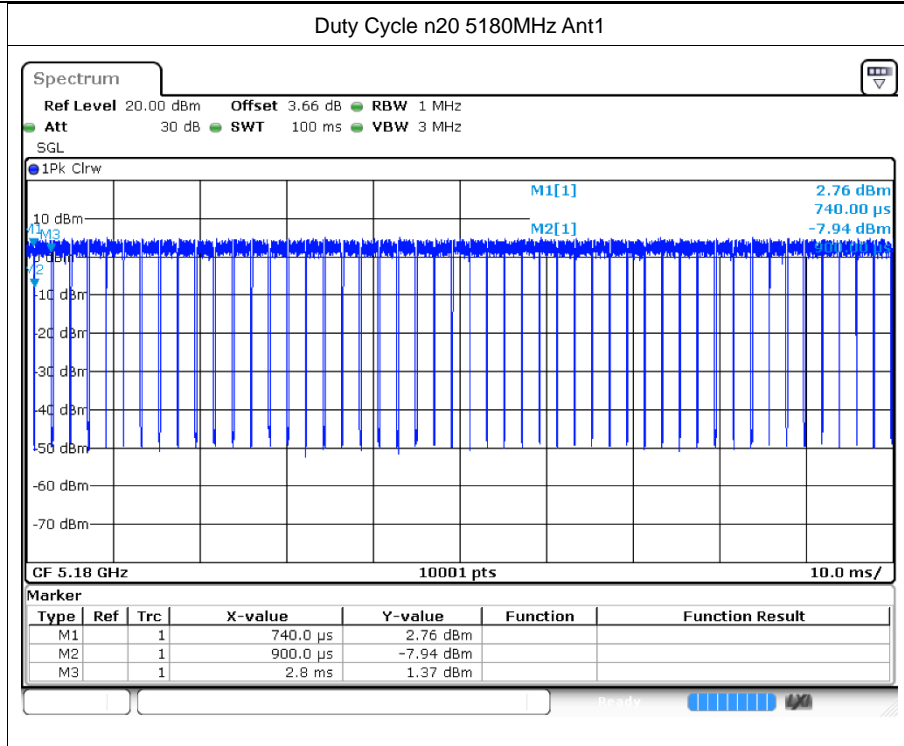


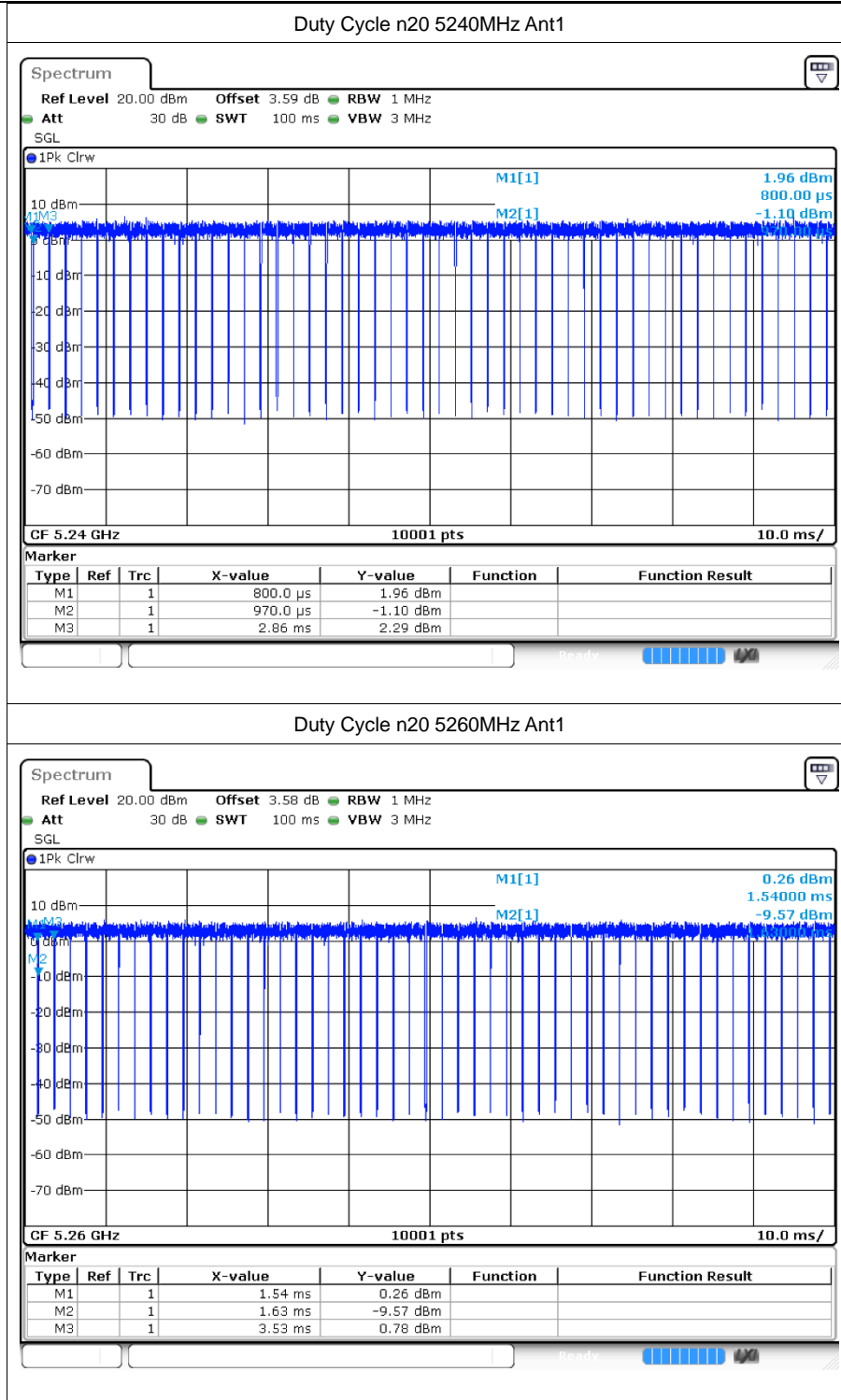


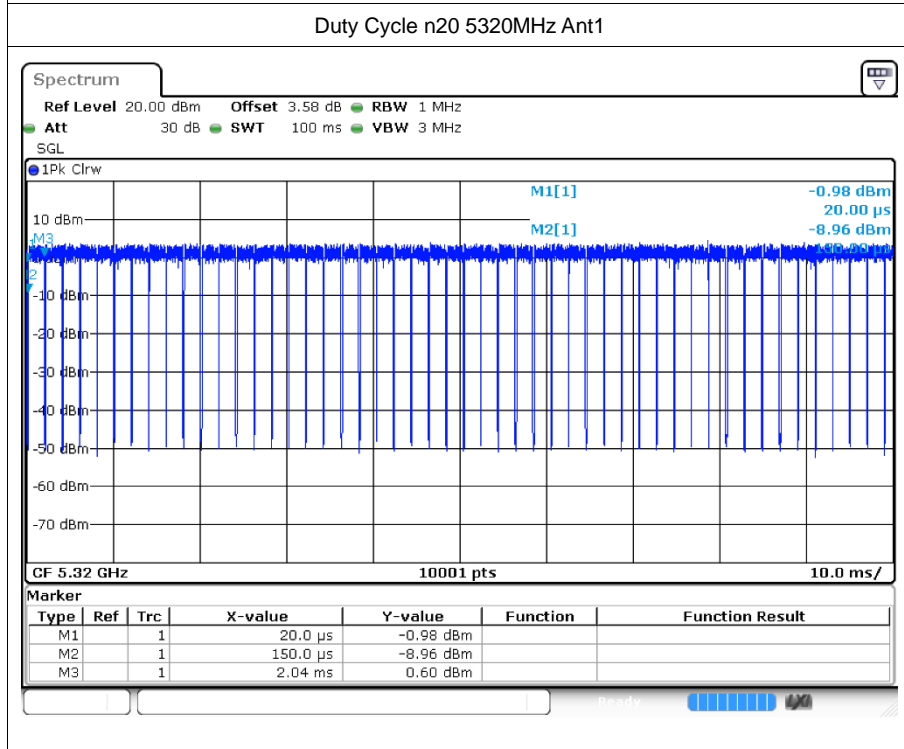
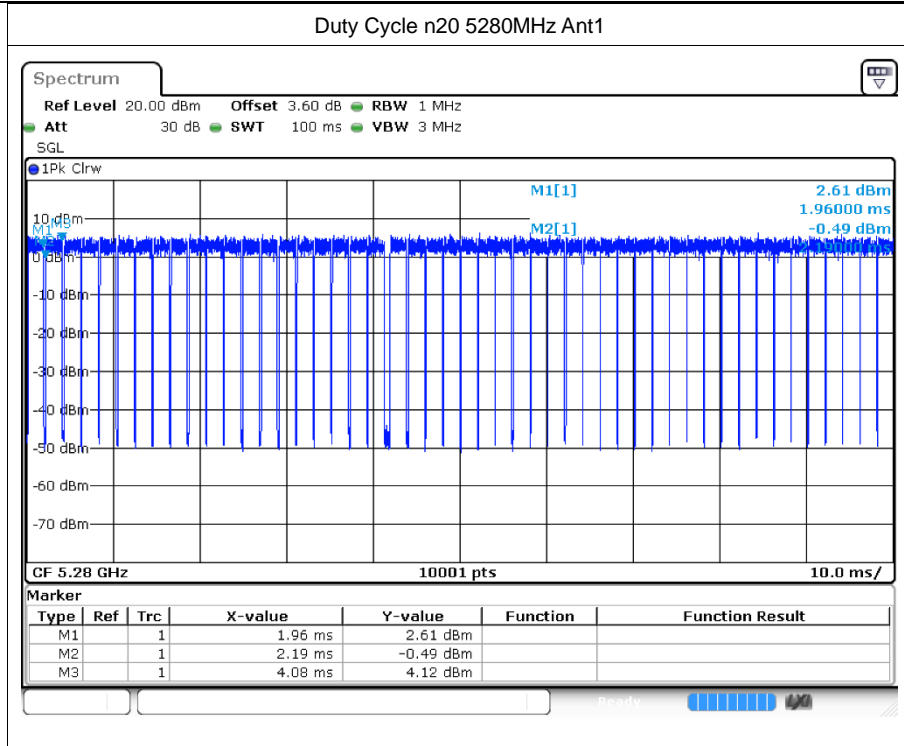


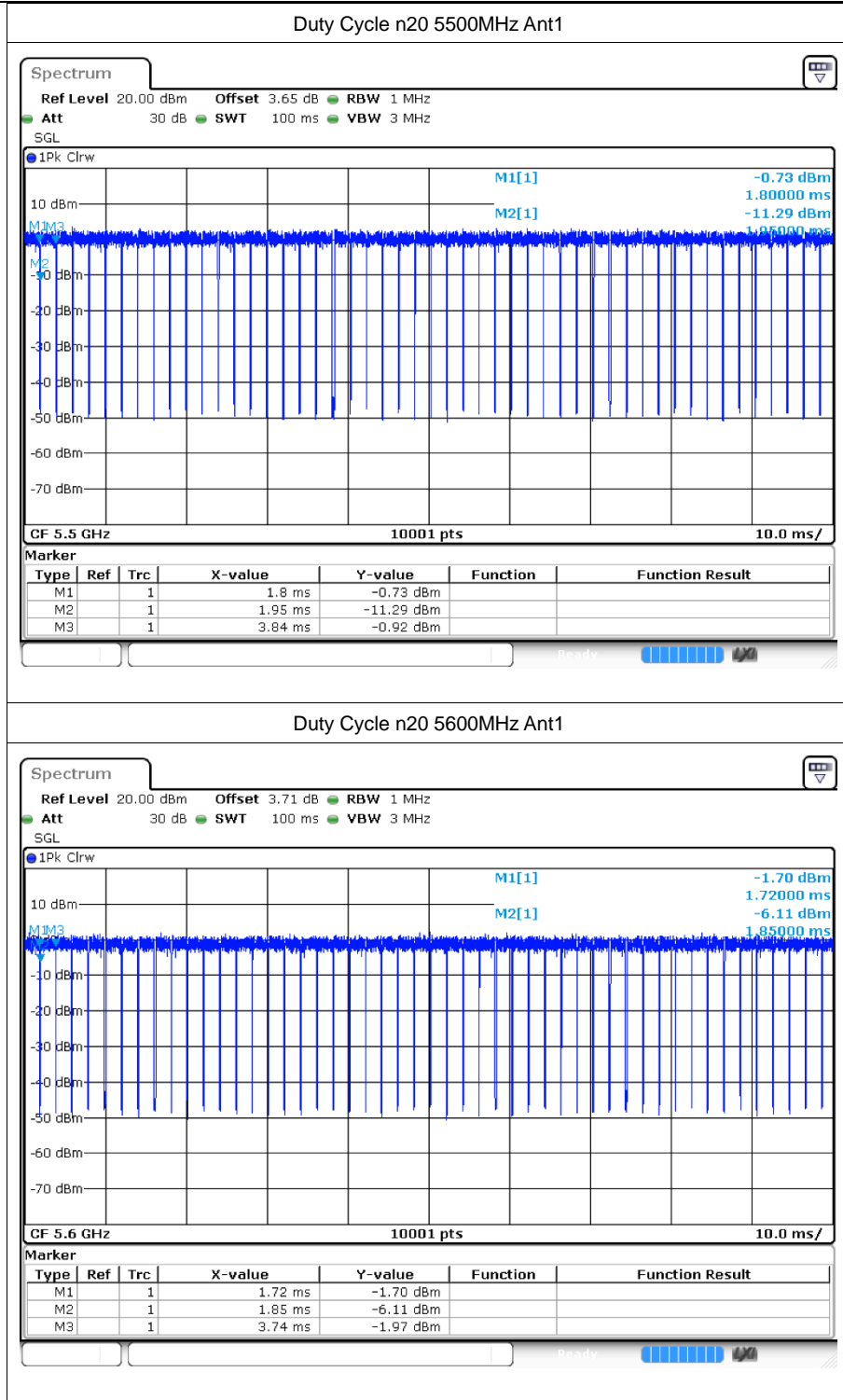


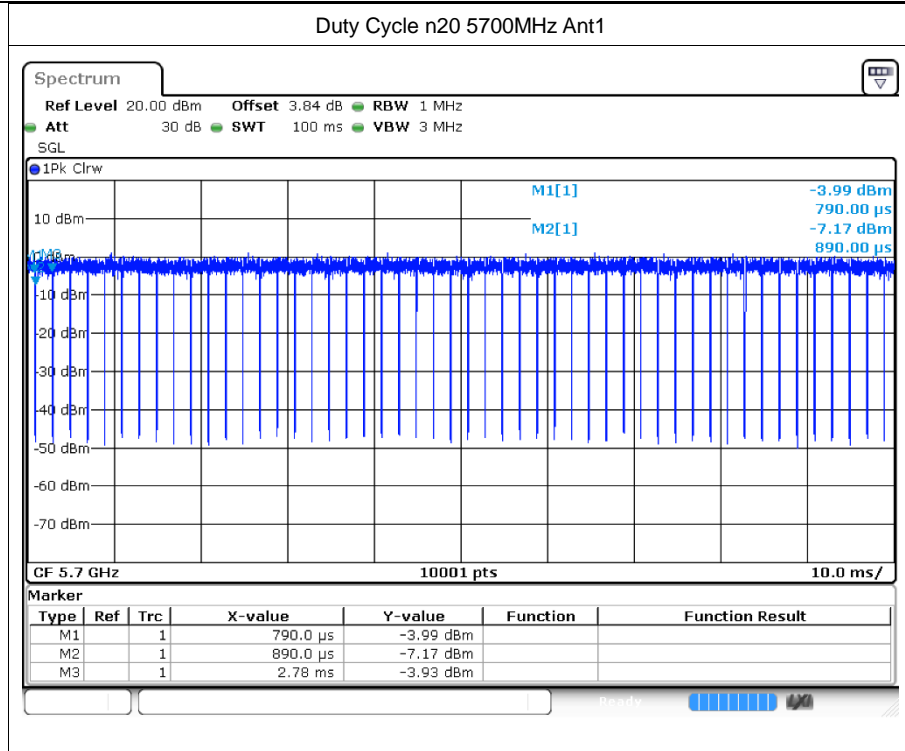


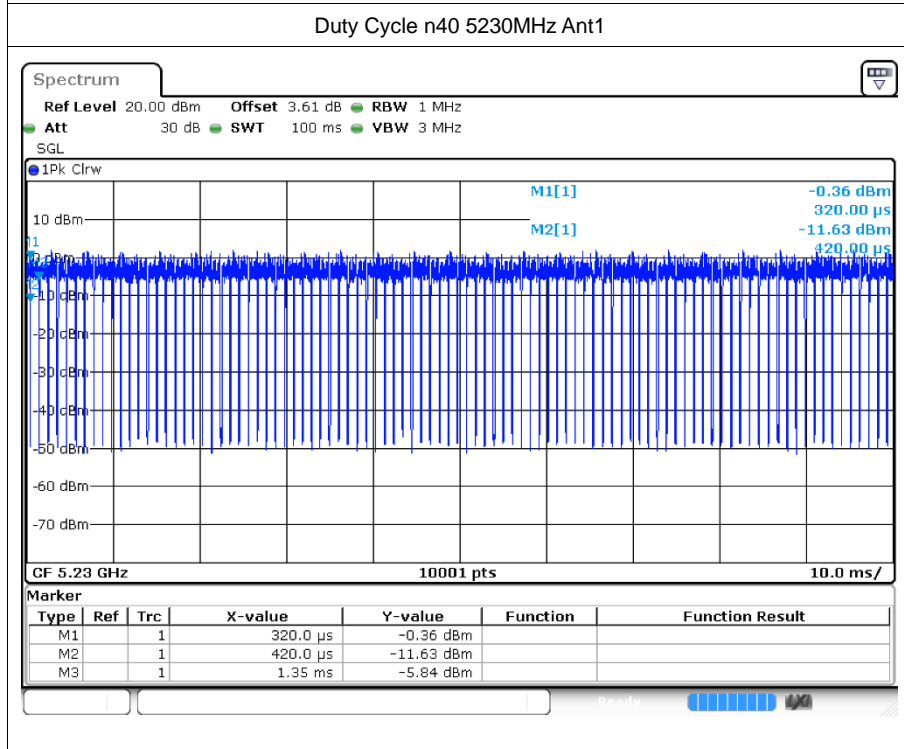
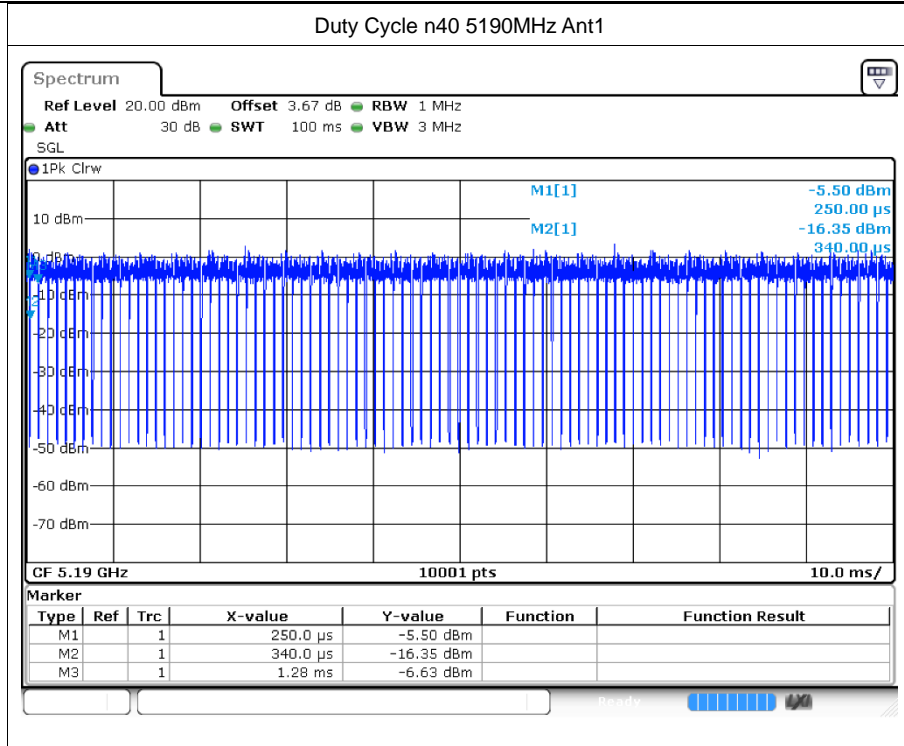






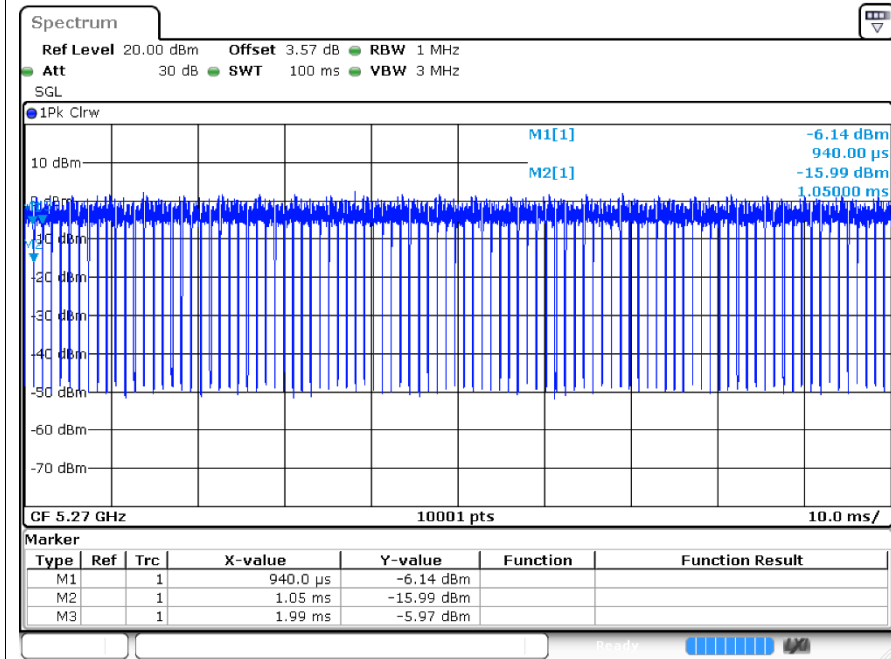




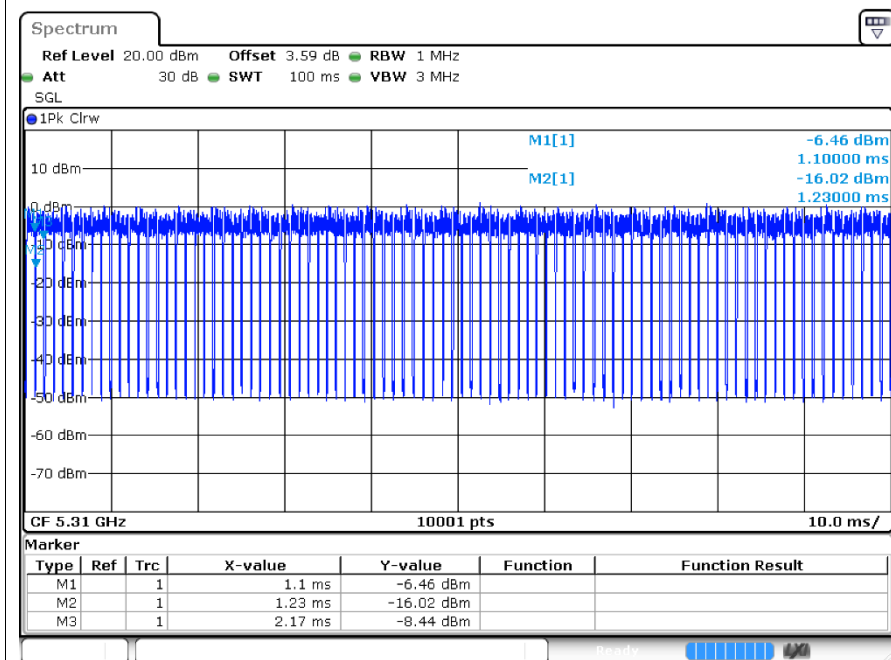


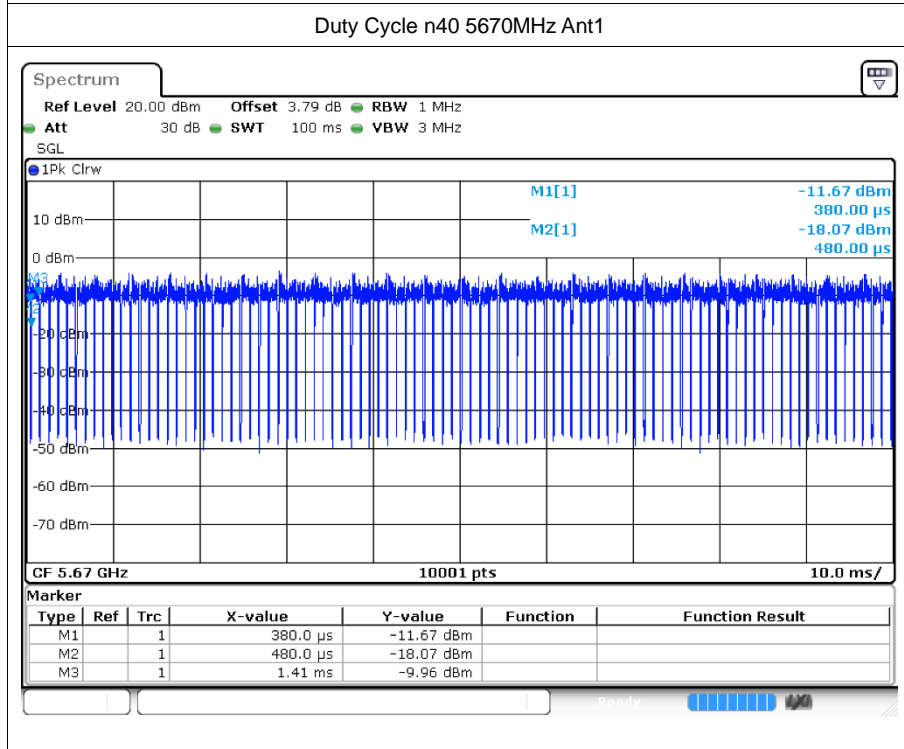
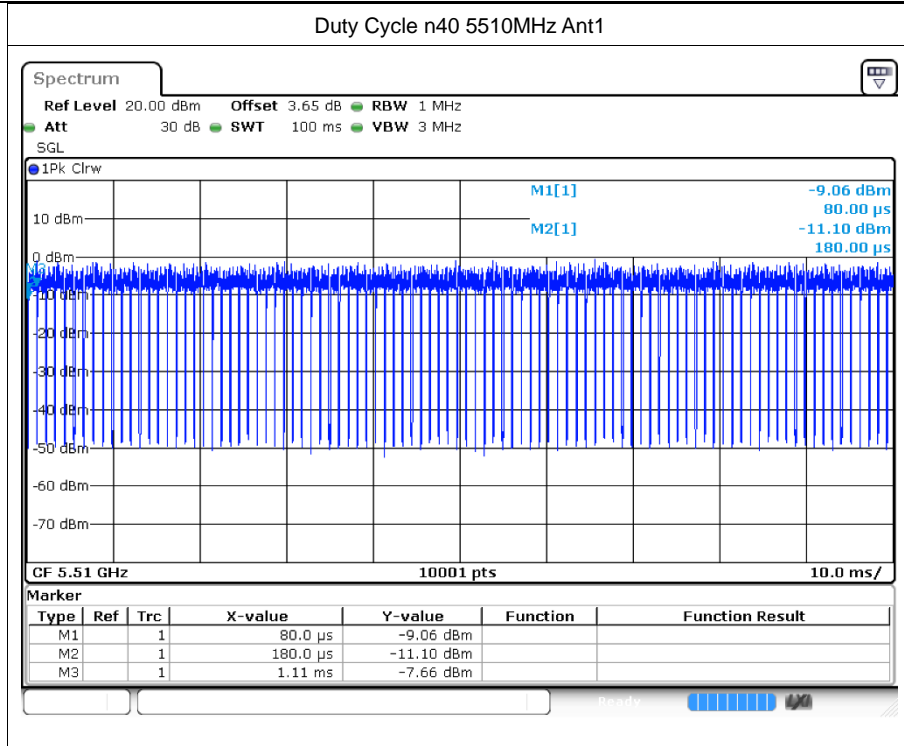


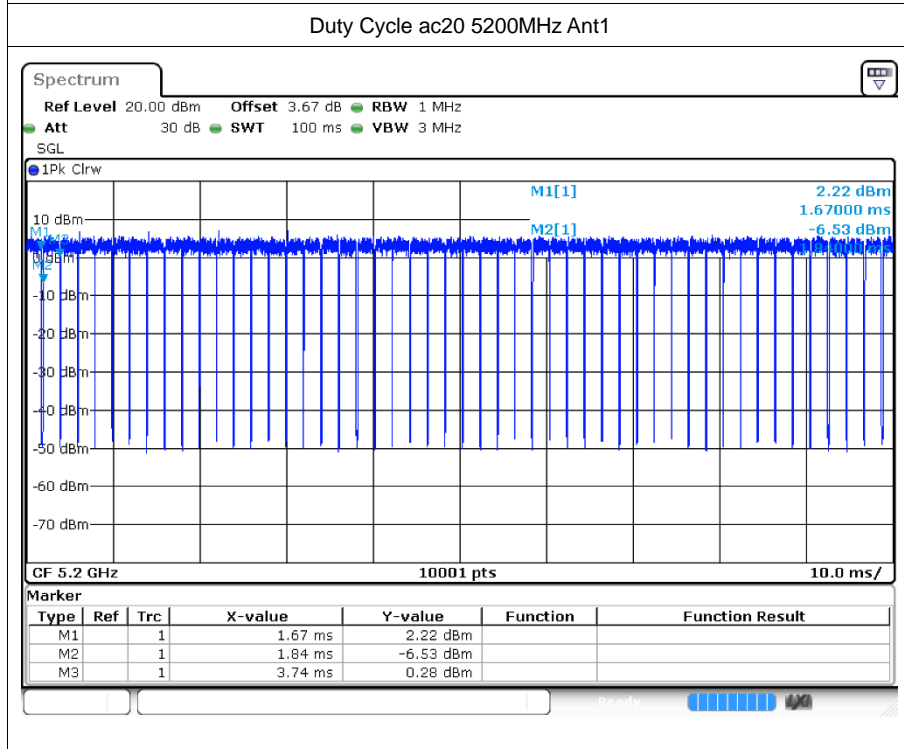
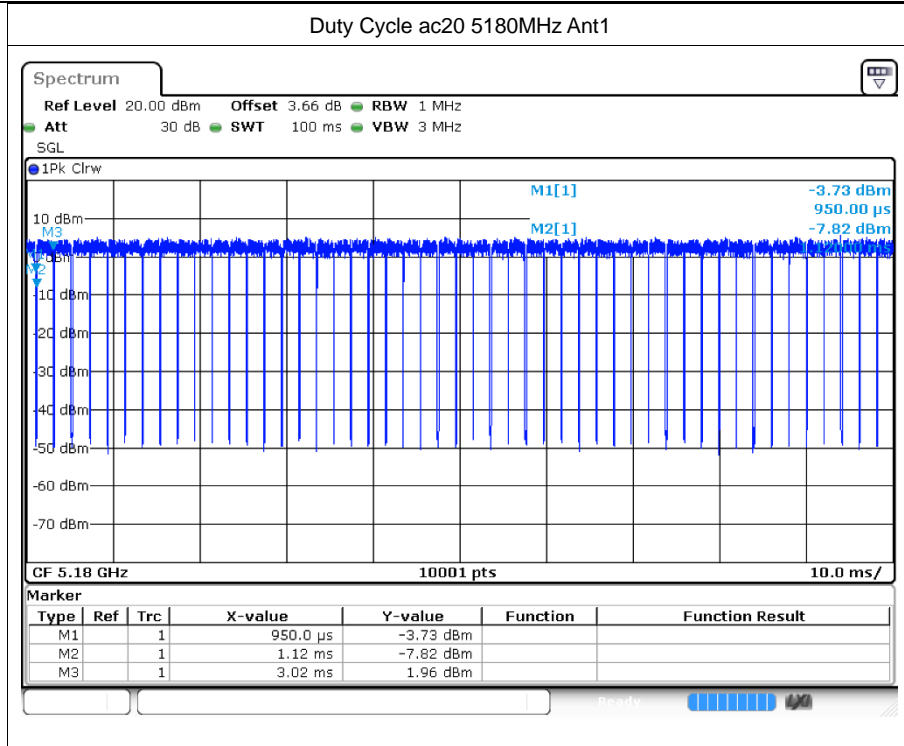
Duty Cycle n40 5270MHz Ant1

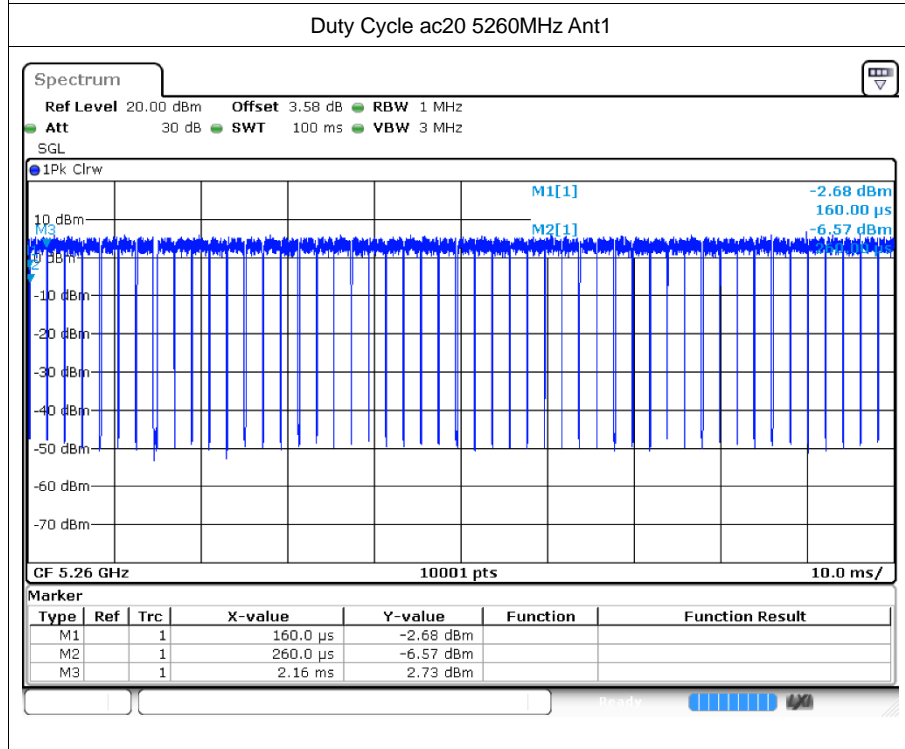
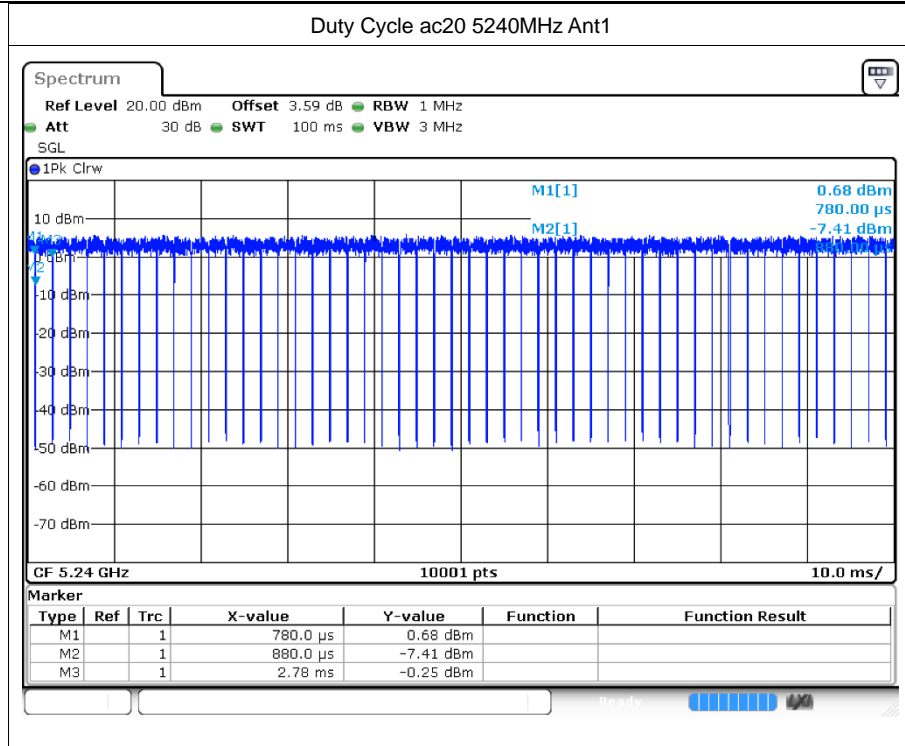


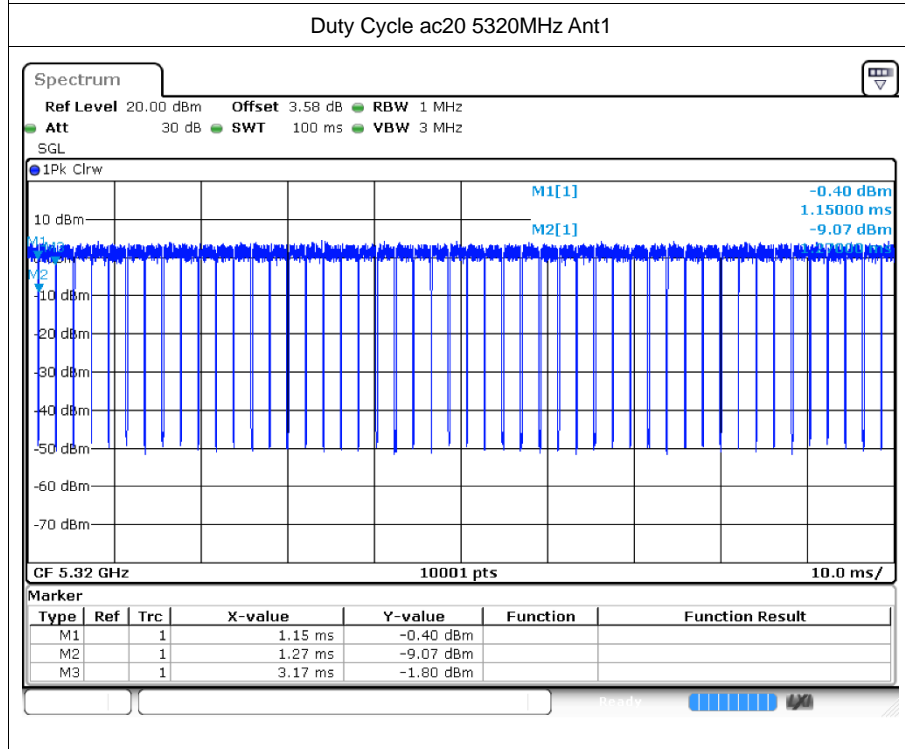
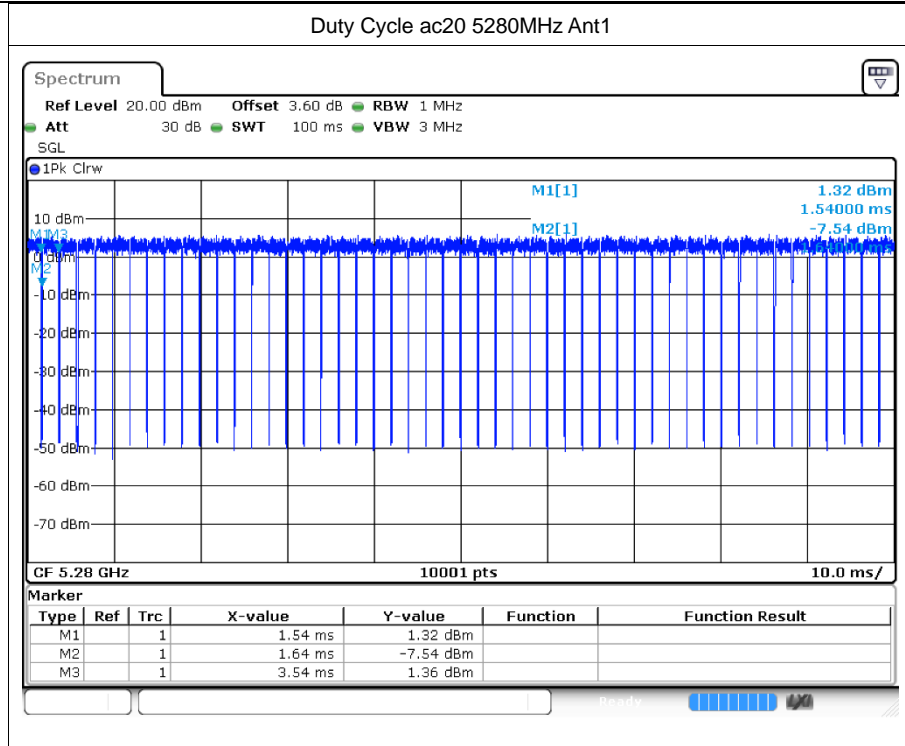
Duty Cycle n40 5310MHz Ant1

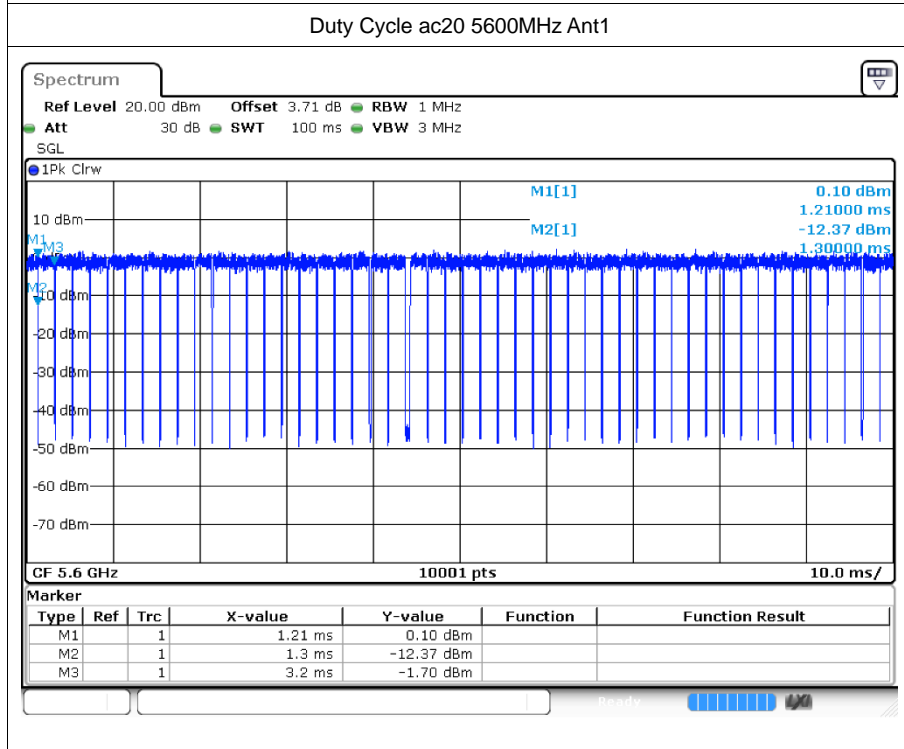
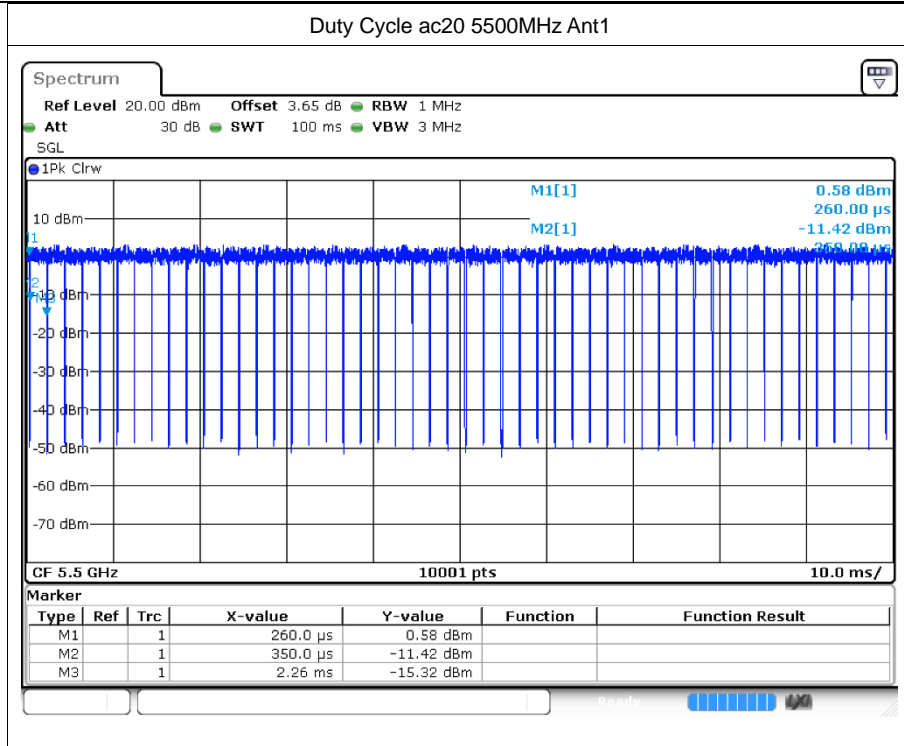


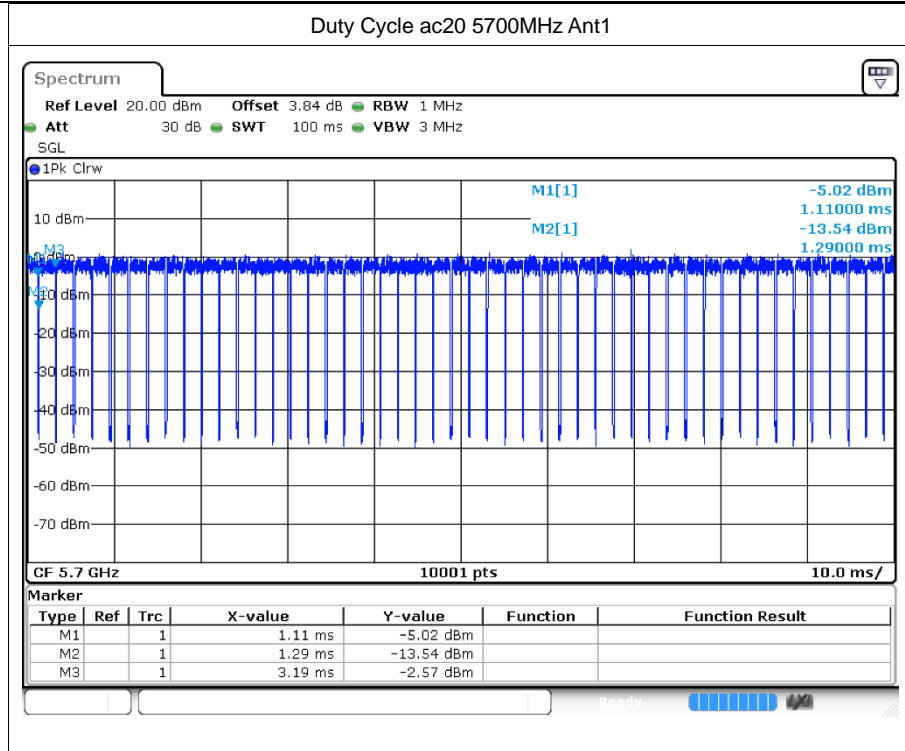


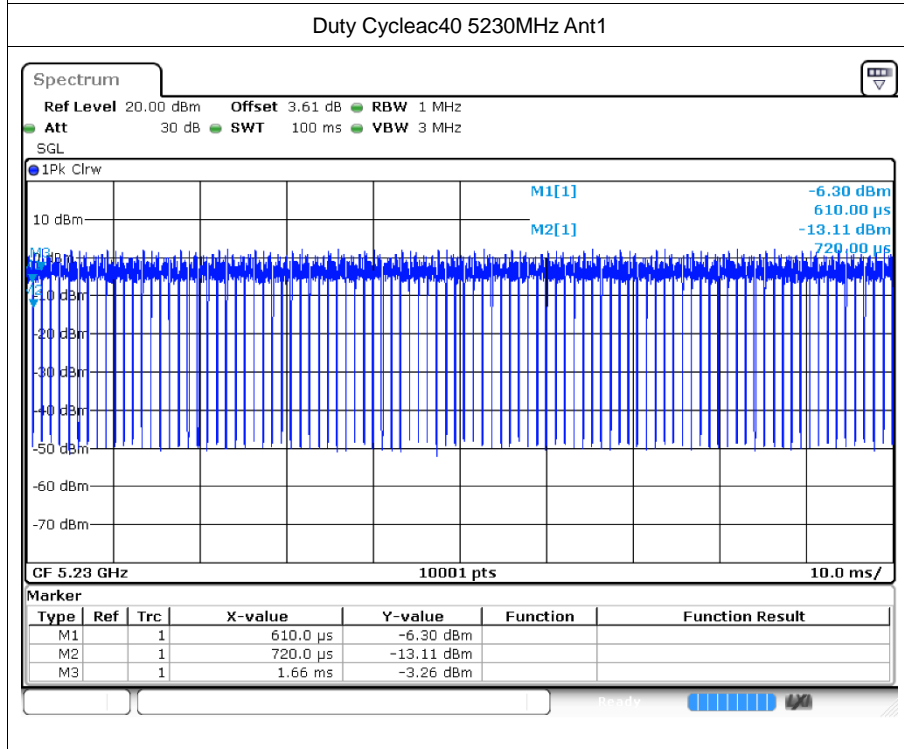
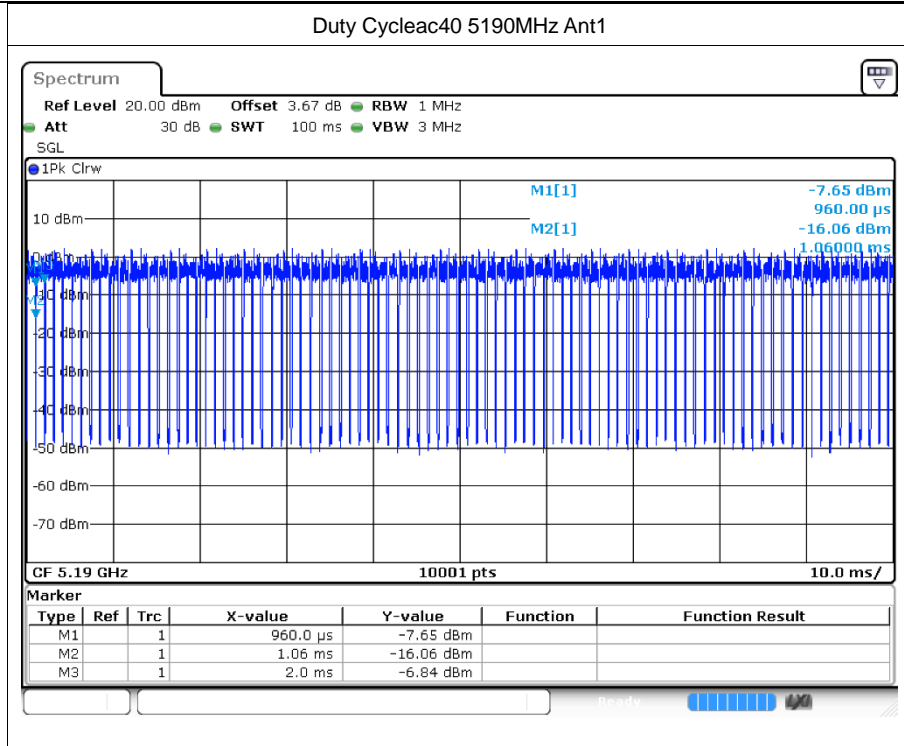


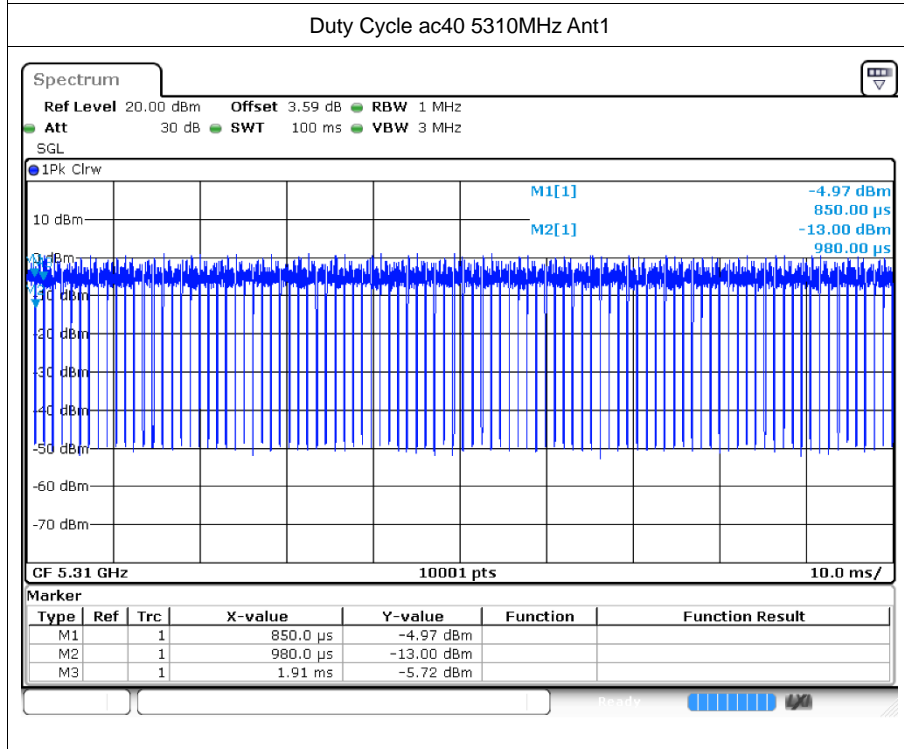
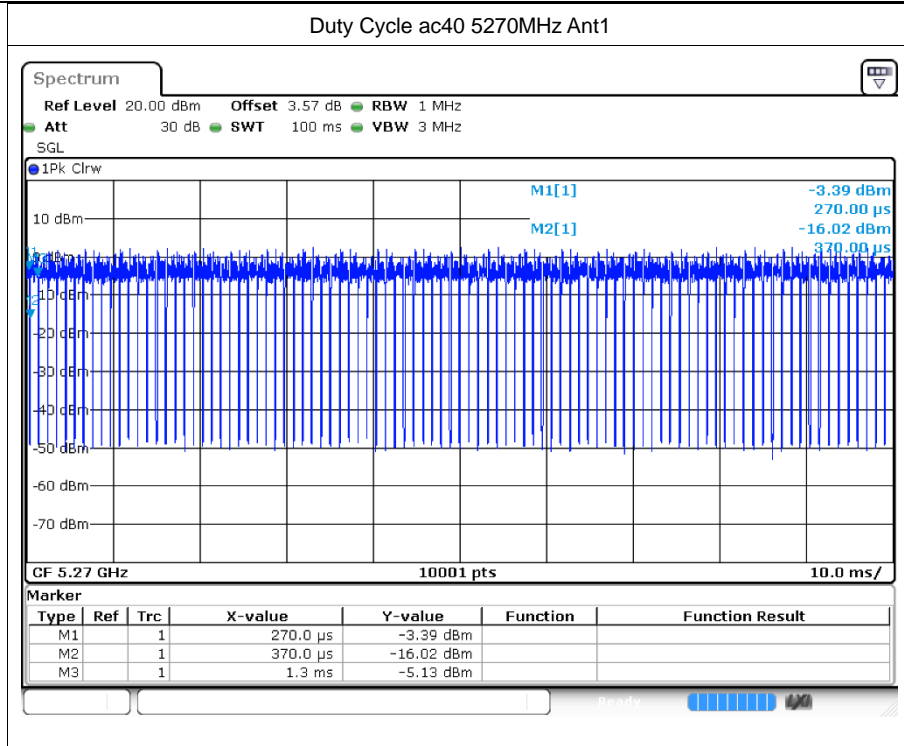


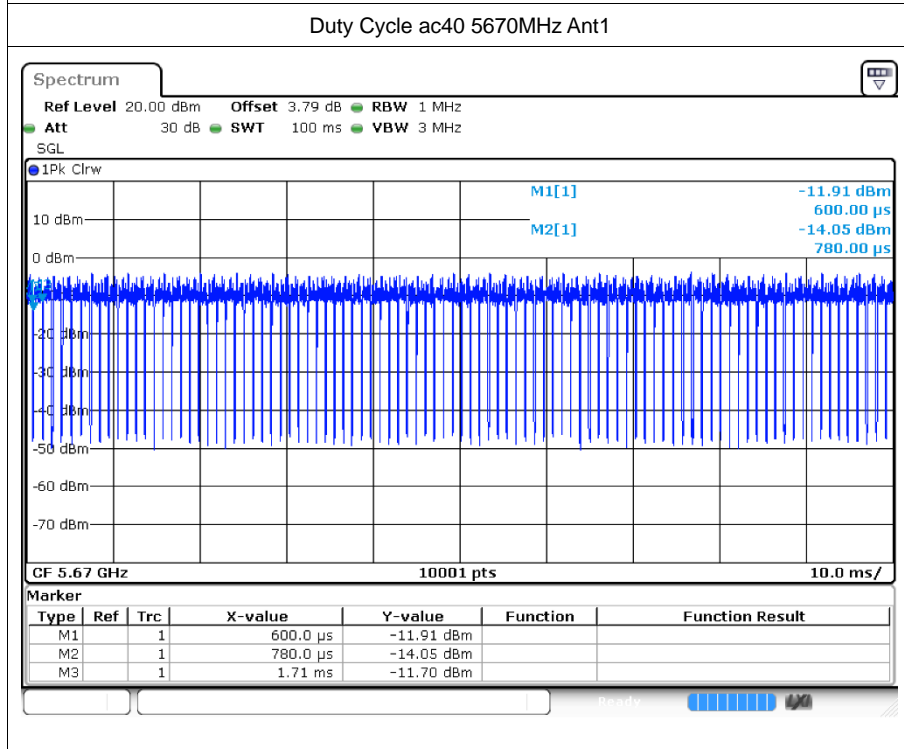
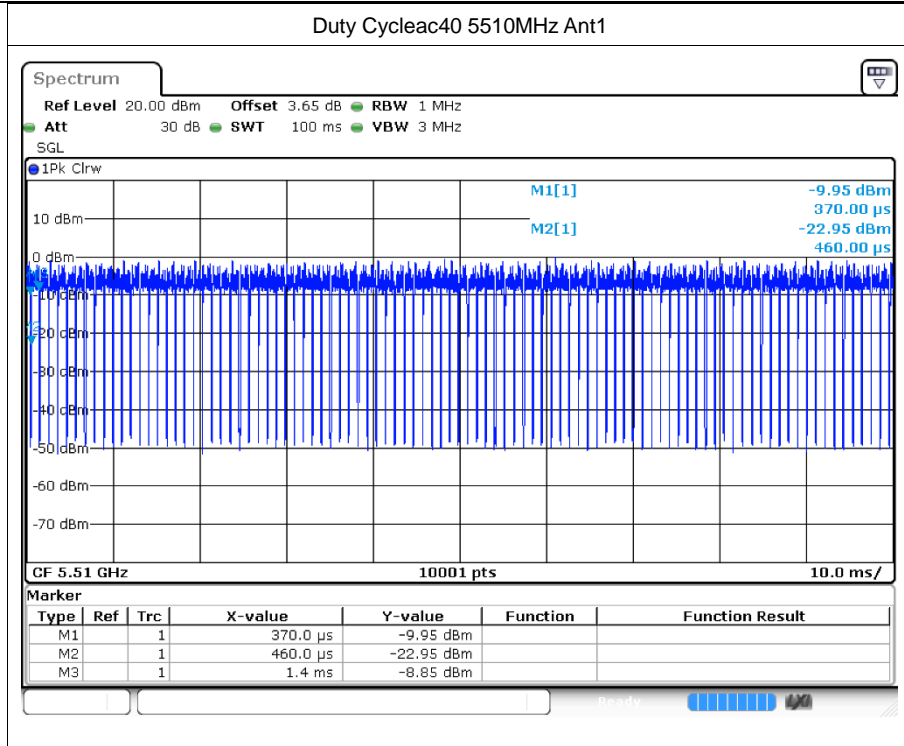


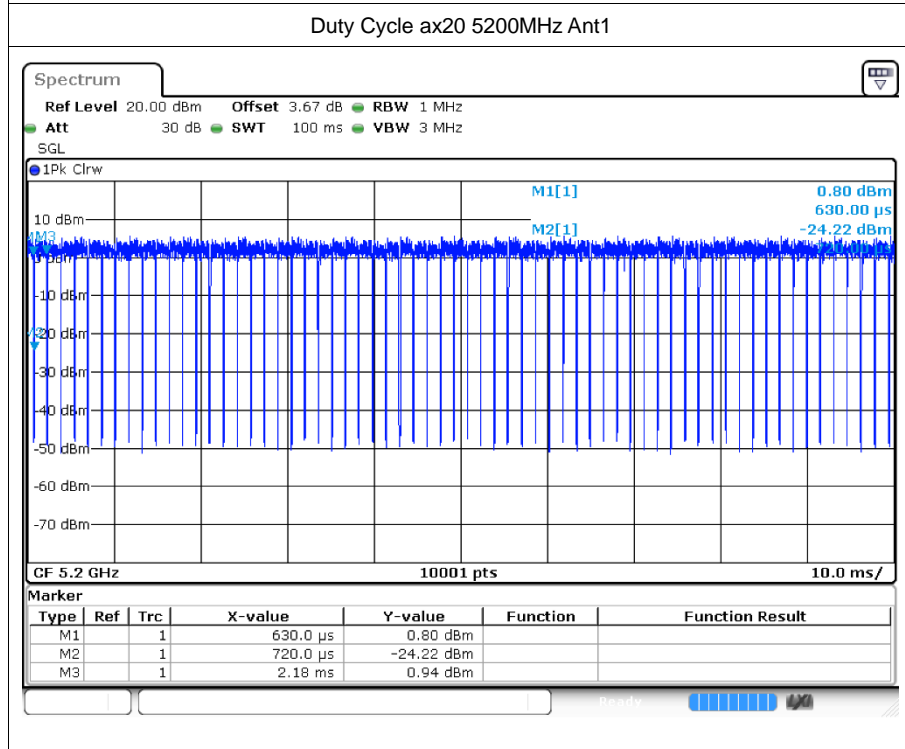
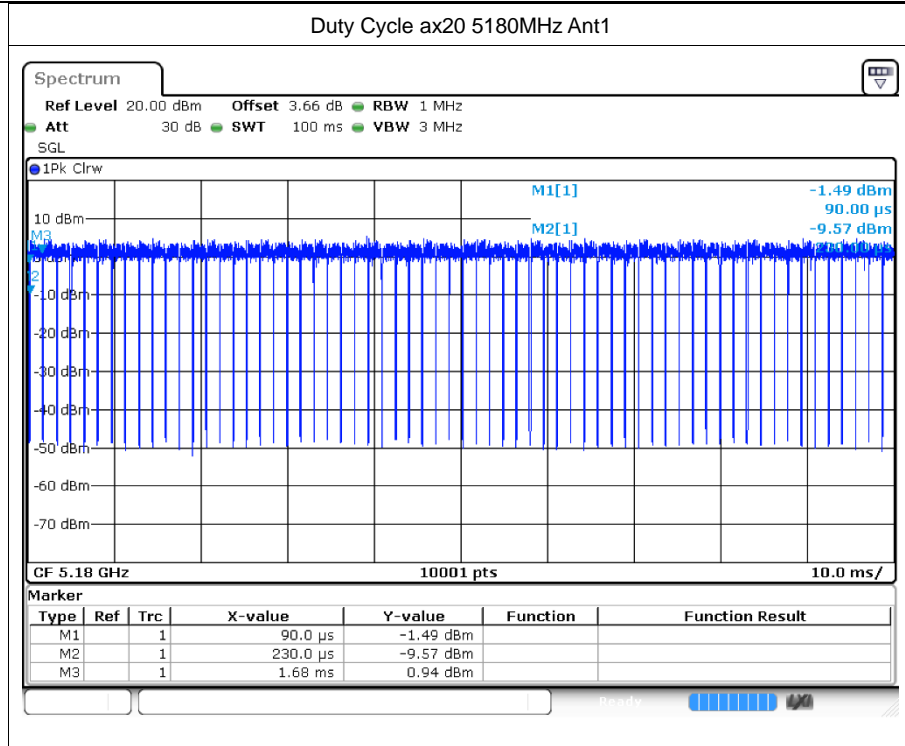


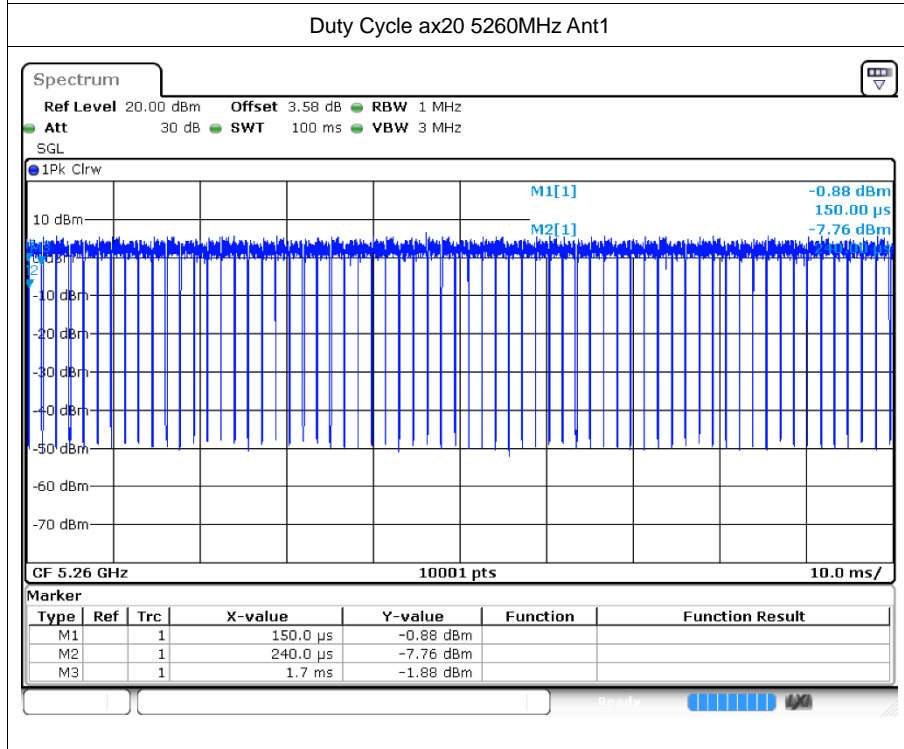
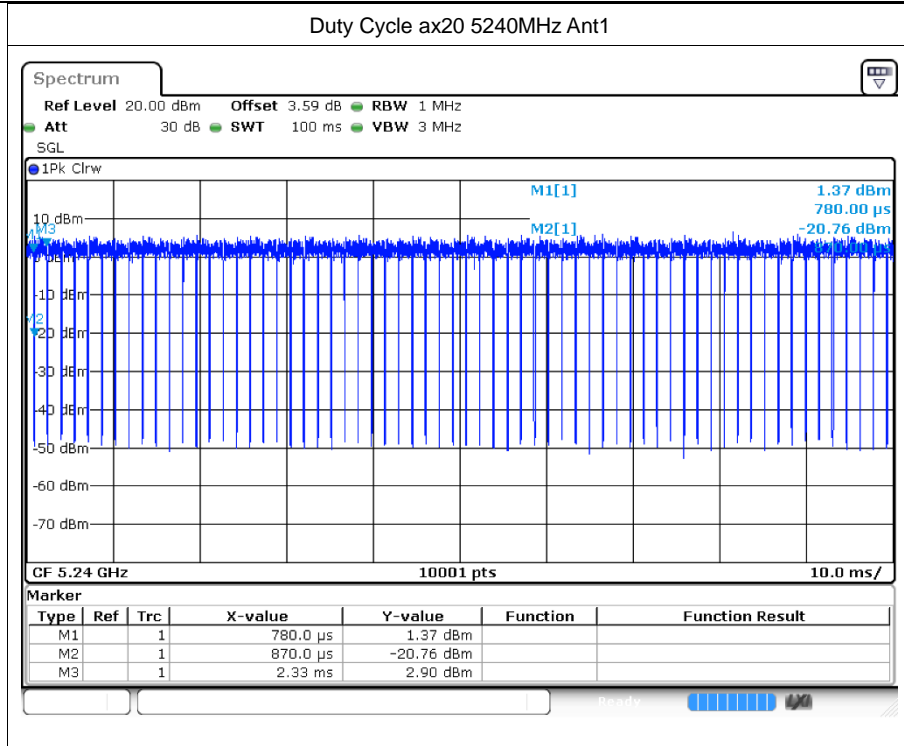


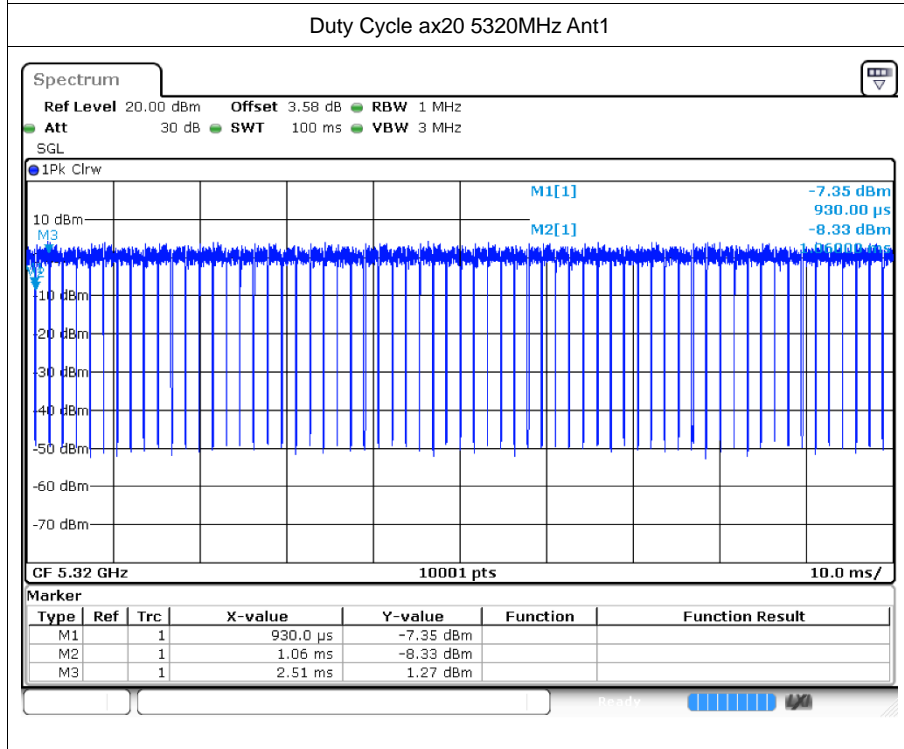
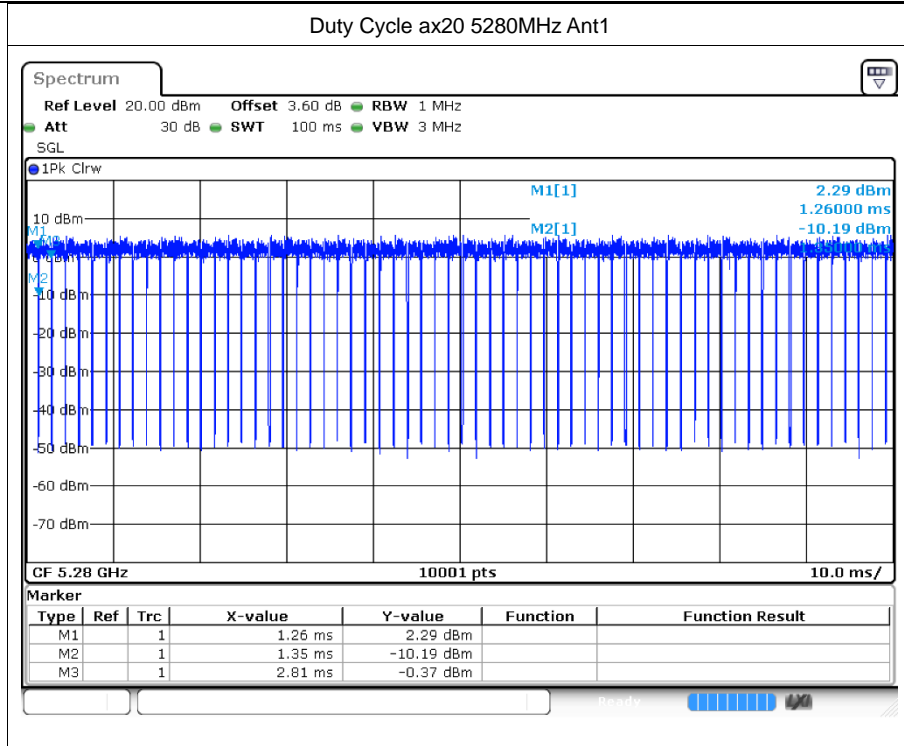


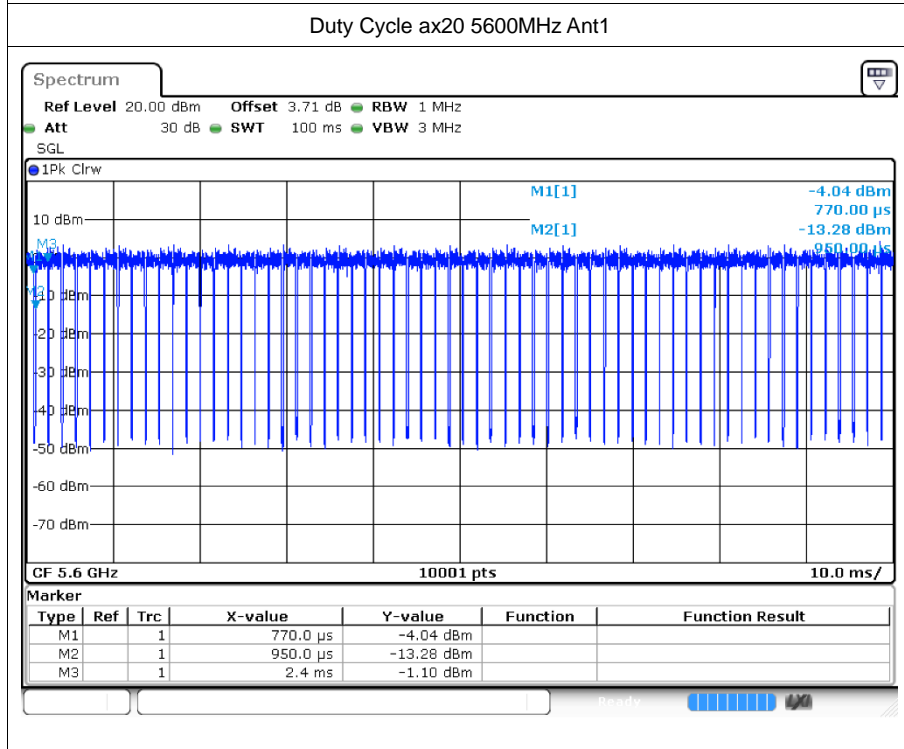
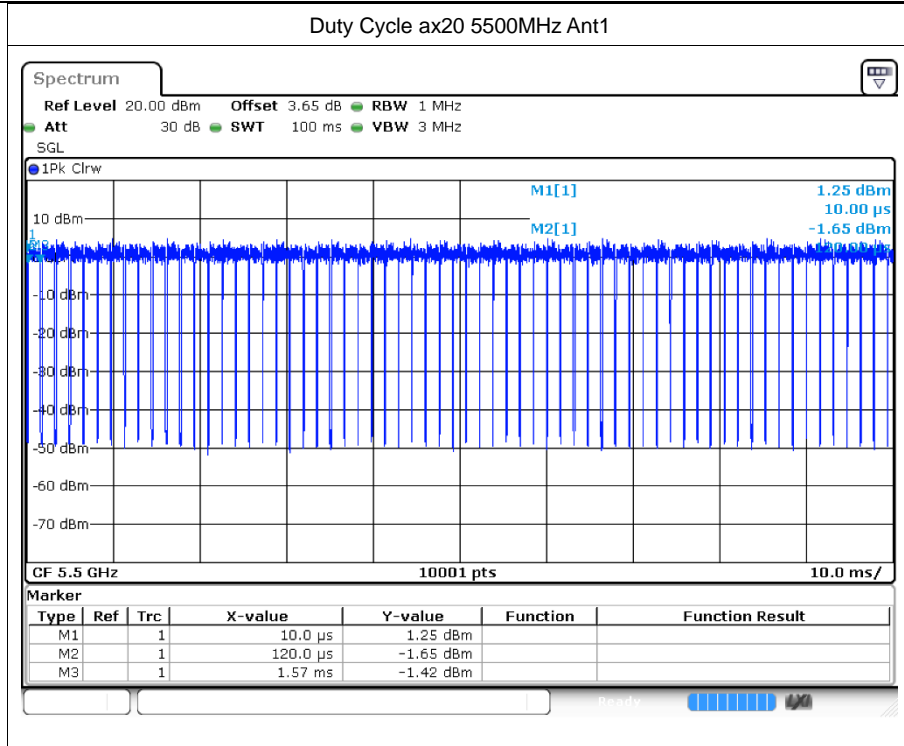


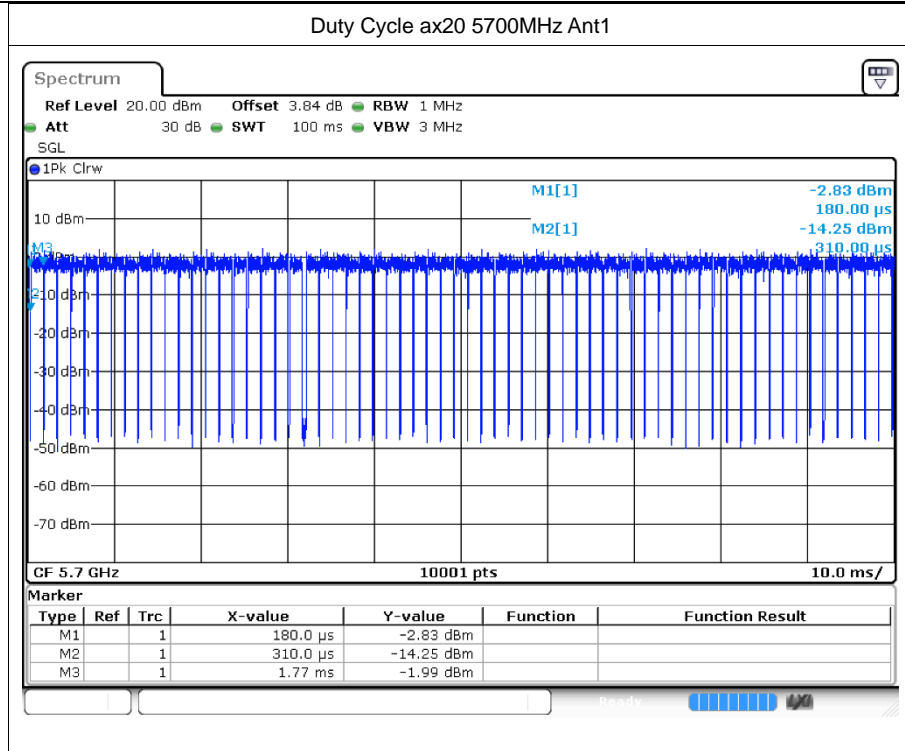


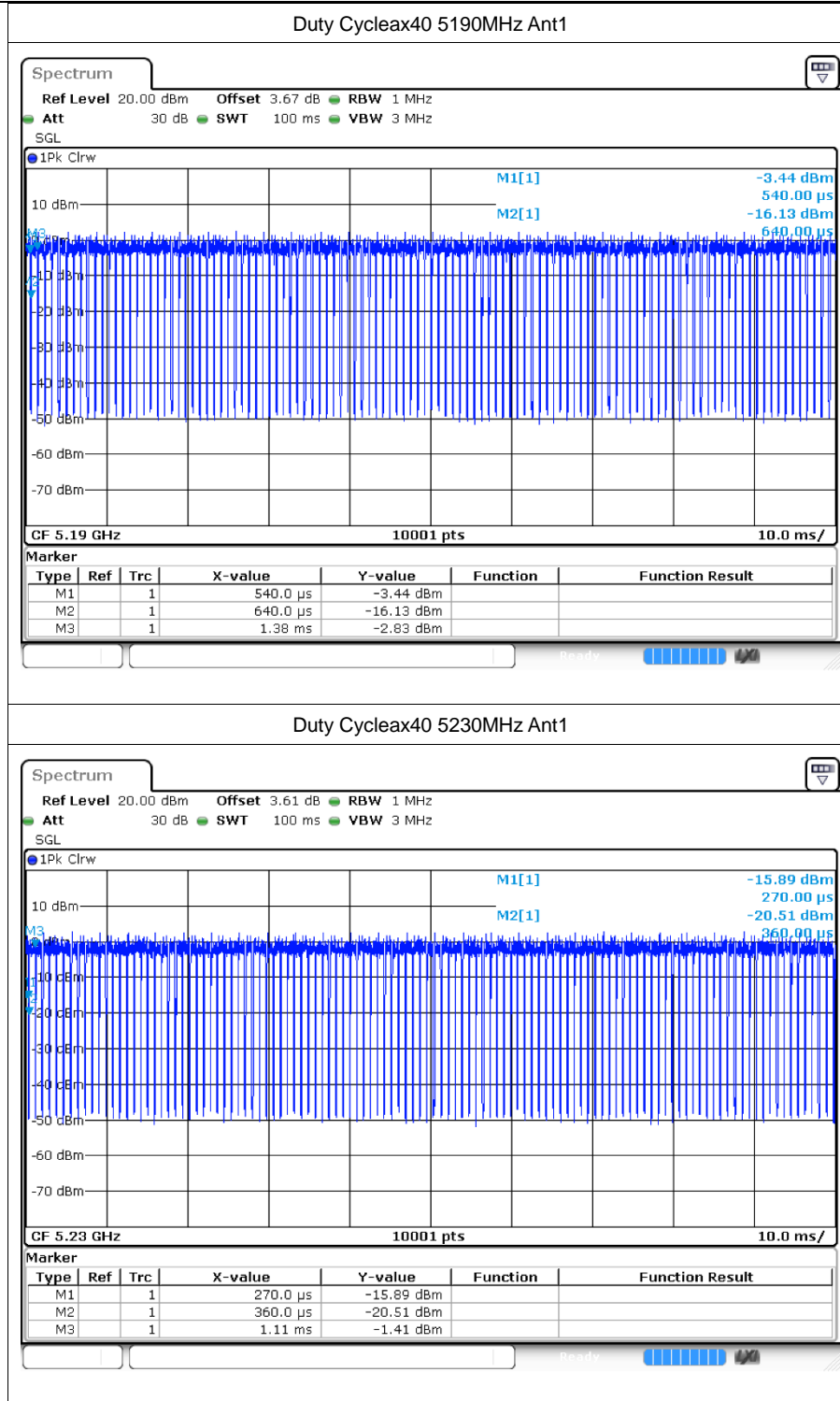






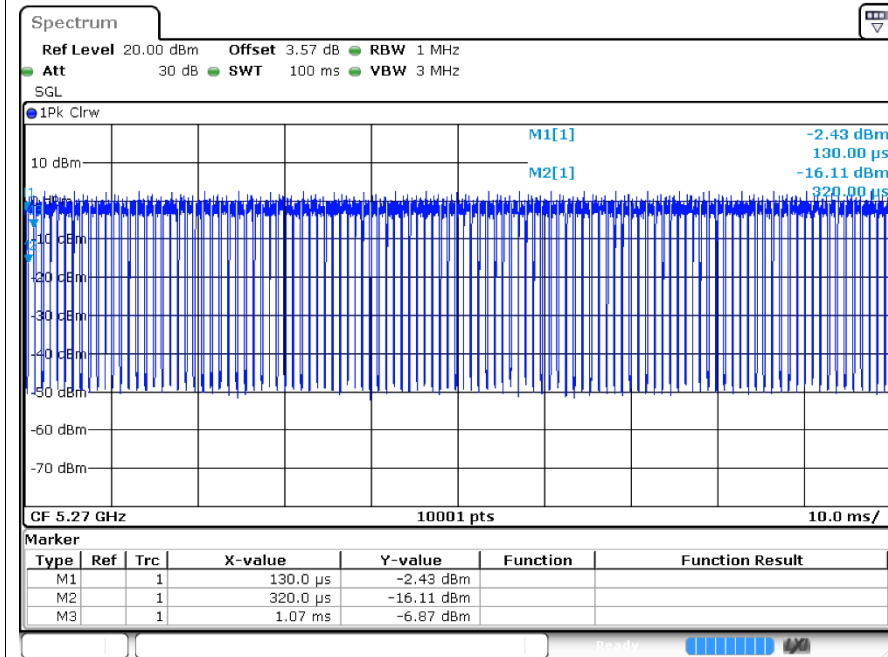




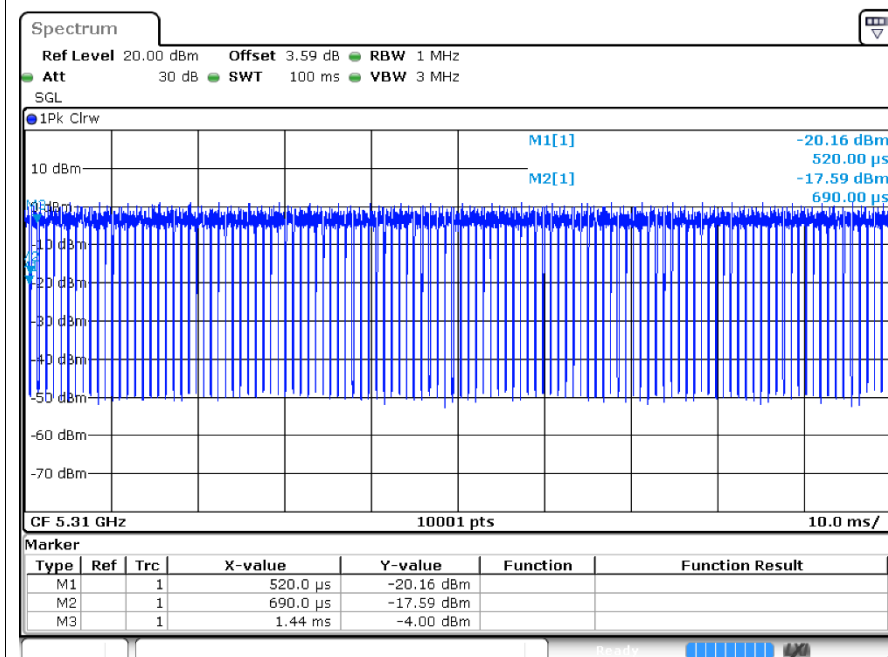


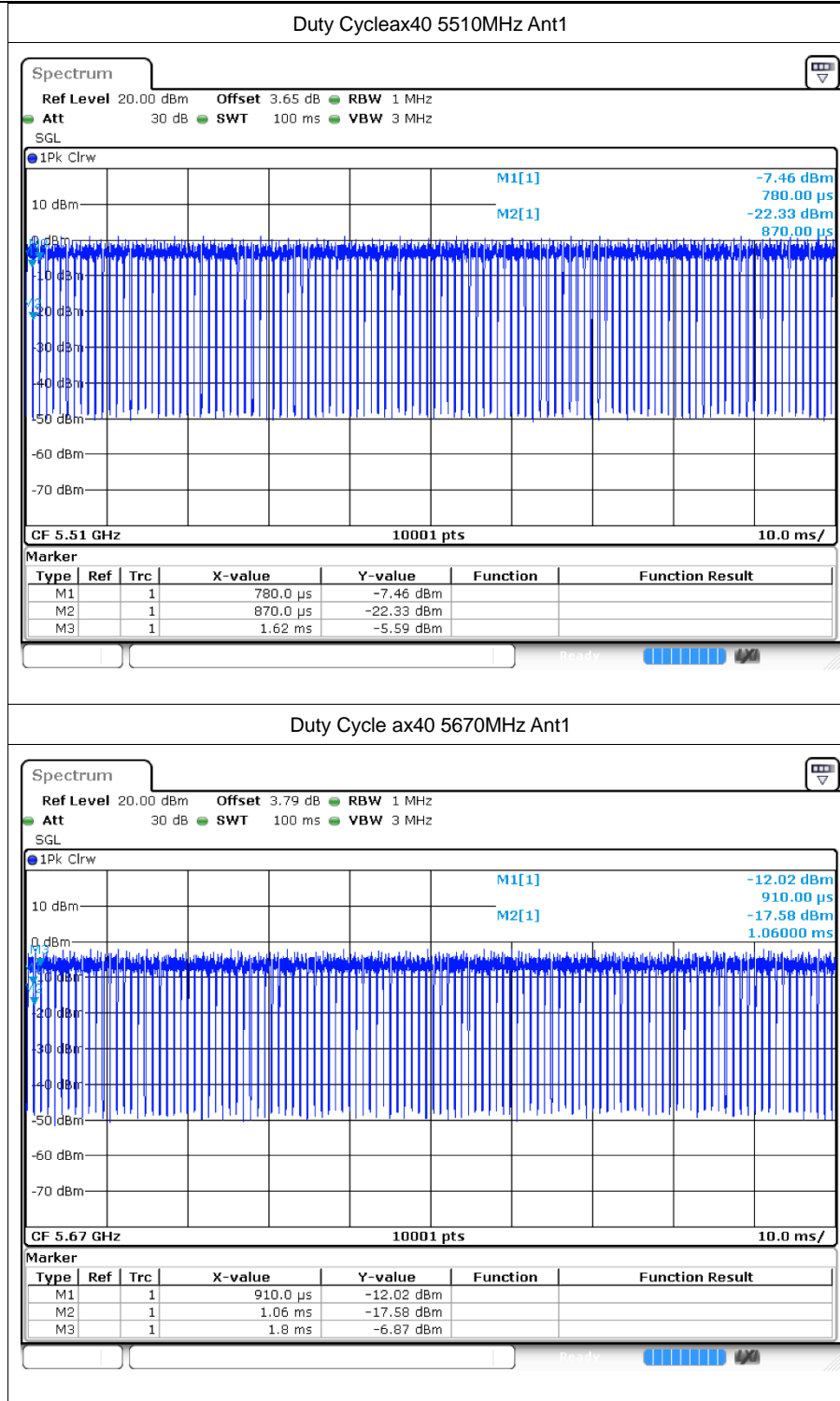


Duty Cycle ax40 5270MHz Ant1



Duty Cycle ax40 5310MHz Ant1







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	5180	Ant1	13.18	0.22	13.4	24	Pass
a	5200	Ant1	13.86	0.24	14.1	24	Pass
a	5240	Ant1	13.78	0.22	14	24	Pass
a	5260	Ant1	13.74	0.34	14.08	24	Pass
a	5280	Ant1	13.63	0.4	14.03	24	Pass
a	5320	Ant1	12.07	0.23	12.3	24	Pass
a	5500	Ant1	11.22	0.33	11.55	24	Pass
a	5600	Ant1	9.76	0.39	10.15	24	Pass
a	5700	Ant1	8.44	0.24	8.68	24	Pass
n20	5180	Ant1	13.27	0.35	13.62	24	Pass
n20	5200	Ant1	13.84	0.29	14.13	24	Pass
n20	5240	Ant1	13.8	0.22	14.02	24	Pass
n20	5260	Ant1	13.7	0.21	13.91	24	Pass
n20	5280	Ant1	13.62	0.31	13.93	24	Pass
n20	5320	Ant1	12.1	0.26	12.36	24	Pass
n20	5500	Ant1	11.18	0.24	11.42	24	Pass
n20	5600	Ant1	9.74	0.25	9.99	24	Pass
n20	5700	Ant1	8.42	0.22	8.64	24	Pass
n40	5190	Ant1	13.76	0.48	14.24	24	Pass
n40	5230	Ant1	14.12	0.48	14.6	24	Pass
n40	5270	Ant1	13.91	0.49	14.4	24	Pass
n40	5310	Ant1	12.83	0.66	13.49	24	Pass
n40	5510	Ant1	11.17	0.49	11.66	24	Pass
n40	5670	Ant1	7.97	0.52	8.49	24	Pass
ac20	5180	Ant1	13.33	0.25	13.58	24	Pass
ac20	5200	Ant1	13.78	0.24	14.02	24	Pass
ac20	5240	Ant1	13.83	0.21	14.04	24	Pass
ac20	5260	Ant1	13.7	0.28	13.98	24	Pass
ac20	5280	Ant1	13.73	0.23	13.96	24	Pass
ac20	5320	Ant1	12.14	0.35	12.49	24	Pass
ac20	5500	Ant1	11.18	0.24	11.42	24	Pass
ac20	5600	Ant1	9.74	0.25	9.99	24	Pass
ac20	5700	Ant1	8.53	0.36	8.89	24	Pass
ac40	5190	Ant1	13.93	0.67	14.6	24	Pass
ac40	5230	Ant1	14.12	0.48	14.6	24	Pass
ac40	5270	Ant1	14.03	0.46	14.49	24	Pass



ac40	5310	Ant1	12.68	0.49	13.17	24	Pass
ac40	5510	Ant1	11.12	0.47	11.59	24	Pass
ac40	5670	Ant1	8	0.51	8.51	24	Pass
ax20	5180	Ant1	12.97	0.28	13.25	24	Pass
ax20	5200	Ant1	13.59	0.3	13.89	24	Pass
ax20	5240	Ant1	13.6	0.28	13.88	24	Pass
ax20	5260	Ant1	13.55	0.32	13.87	24	Pass
ax20	5280	Ant1	13.5	0.32	13.82	24	Pass
ax20	5320	Ant1	12.05	0.33	12.38	24	Pass
ax20	5500	Ant1	12.41	0.32	12.73	24	Pass
ax20	5600	Ant1	10.9	0.39	11.29	24	Pass
ax20	5700	Ant1	9.63	0.34	9.97	24	Pass
ax40	5190	Ant1	13.29	0.61	13.9	24	Pass
ax40	5230	Ant1	13.28	0.58	13.86	24	Pass
ax40	5270	Ant1	13.68	0.6	14.28	24	Pass
ax40	5310	Ant1	12.39	0.83	13.22	24	Pass
ax40	5510	Ant1	12.26	0.61	12.87	24	Pass
ax40	5670	Ant1	9.03	0.58	9.61	24	Pass



3 -26dB Bandwidth

3.1 Test Result

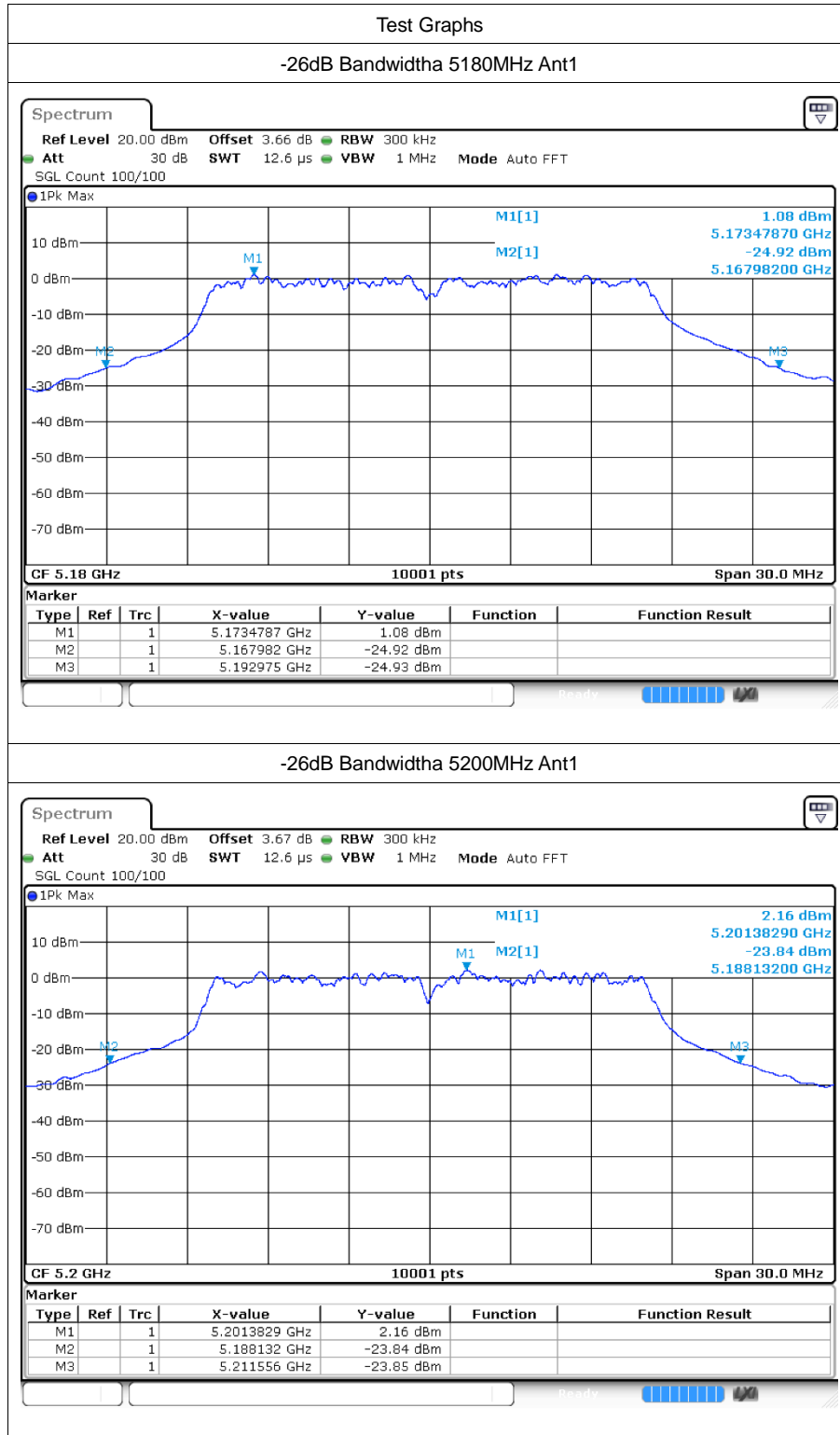
Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)	Limit -26 dB Bandwidth (MHz)	Verdict
a	5180	Ant1	24.993	0.5	Pass
a	5200	Ant1	23.424	0.5	Pass
a	5240	Ant1	24.204	0.5	Pass
a	5260	Ant1	21.951	0.5	Pass
a	5280	Ant1	24.795	0.5	Pass
a	5320	Ant1	24.72	0.5	Pass
a	5500	Ant1	23.274	0.5	Pass
a	5600	Ant1	23.928	0.5	Pass
a	5700	Ant1	23.643	0.5	Pass
n20	5180	Ant1	24.264	0.5	Pass
n20	5200	Ant1	24.582	0.5	Pass
n20	5240	Ant1	24.798	0.5	Pass
n20	5280	Ant1	24.474	0.5	Pass
n20	5320	Ant1	25.233	0.5	Pass
n20	5500	Ant1	24.135	0.5	Pass
n20	5600	Ant1	25.497	0.5	Pass
n20	5700	Ant1	24.198	0.5	Pass
n40	5190	Ant1	42.66	0.5	Pass
n40	5230	Ant1	44.028	0.5	Pass
n40	5270	Ant1	43.314	0.5	Pass
n40	5310	Ant1	44.154	0.5	Pass
n40	5510	Ant1	43.206	0.5	Pass
n40	5670	Ant1	42.672	0.5	Pass
ac20	5180	Ant1	25.209	0.5	Pass
ac20	5200	Ant1	24.954	0.5	Pass
ac20	5240	Ant1	25.29	0.5	Pass
ac20	5260	Ant1	24.501	0.5	Pass
ac20	5280	Ant1	25.791	0.5	Pass
ac20	5320	Ant1	23.727	0.5	Pass
ac20	5500	Ant1	25.05	0.5	Pass
ac20	5600	Ant1	24.555	0.5	Pass
ac20	5700	Ant1	24.603	0.5	Pass
ac40	5190	Ant1	43.728	0.5	Pass
ac40	5230	Ant1	40.938	0.5	Pass
ac40	5270	Ant1	41.934	0.5	Pass
ac40	5310	Ant1	44.478	0.5	Pass
ac40	5510	Ant1	43.722	0.5	Pass



ac40	5670	Ant1	42.378	0.5	Pass
ax20	5180	Ant1	25.359	0.5	Pass
ax20	5200	Ant1	24.222	0.5	Pass
ax20	5240	Ant1	24.273	0.5	Pass
ax20	5260	Ant1	23.82	0.5	Pass
ax20	5280	Ant1	24.828	0.5	Pass
ax20	5320	Ant1	24.033	0.5	Pass
ax20	5500	Ant1	22.476	0.5	Pass
ax20	5600	Ant1	25.653	0.5	Pass
ax20	5700	Ant1	24.627	0.5	Pass
ax40	5190	Ant1	42.384	0.5	Pass
ax40	5230	Ant1	41.958	0.5	Pass
ax40	5270	Ant1	40.734	0.5	Pass
ax40	5310	Ant1	42.618	0.5	Pass
ax40	5510	Ant1	42.162	0.5	Pass
ax40	5670	Ant1	44.334	0.5	Pass

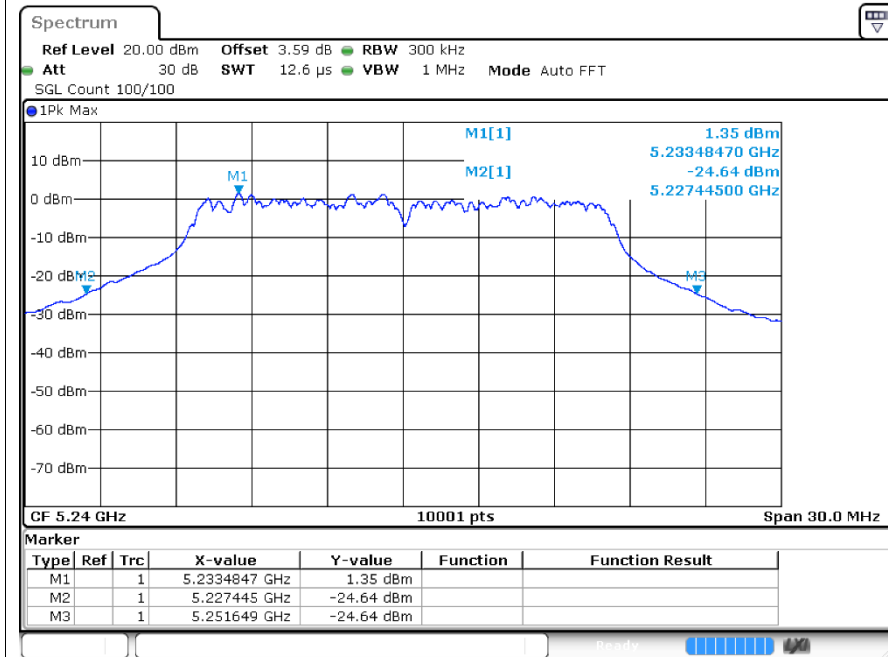


3.2 Test Graphs

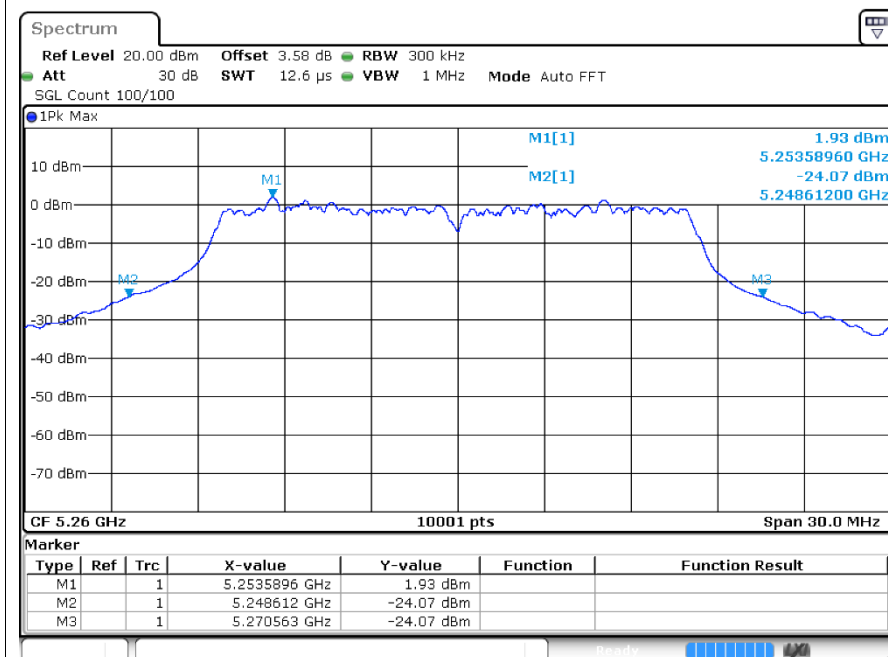


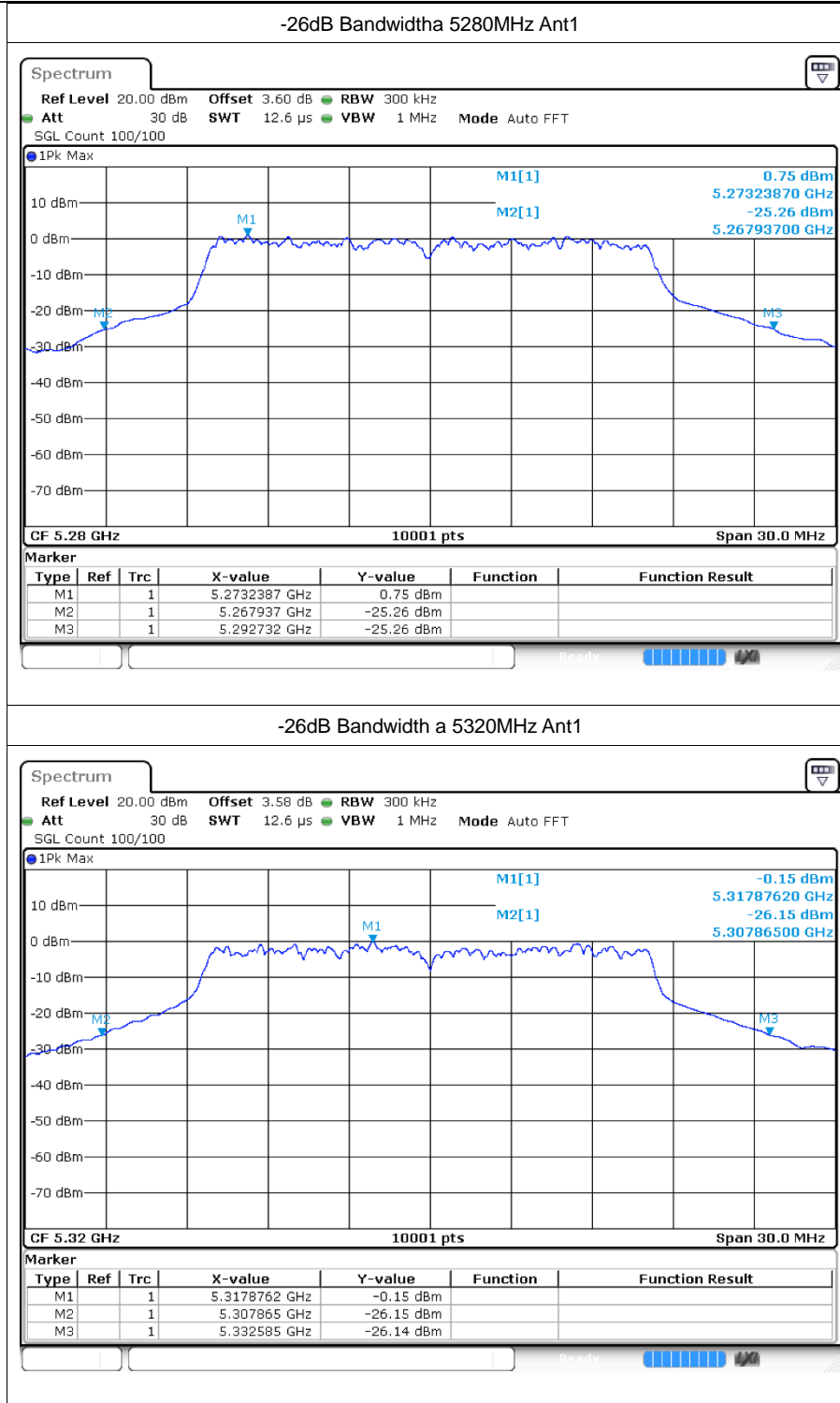


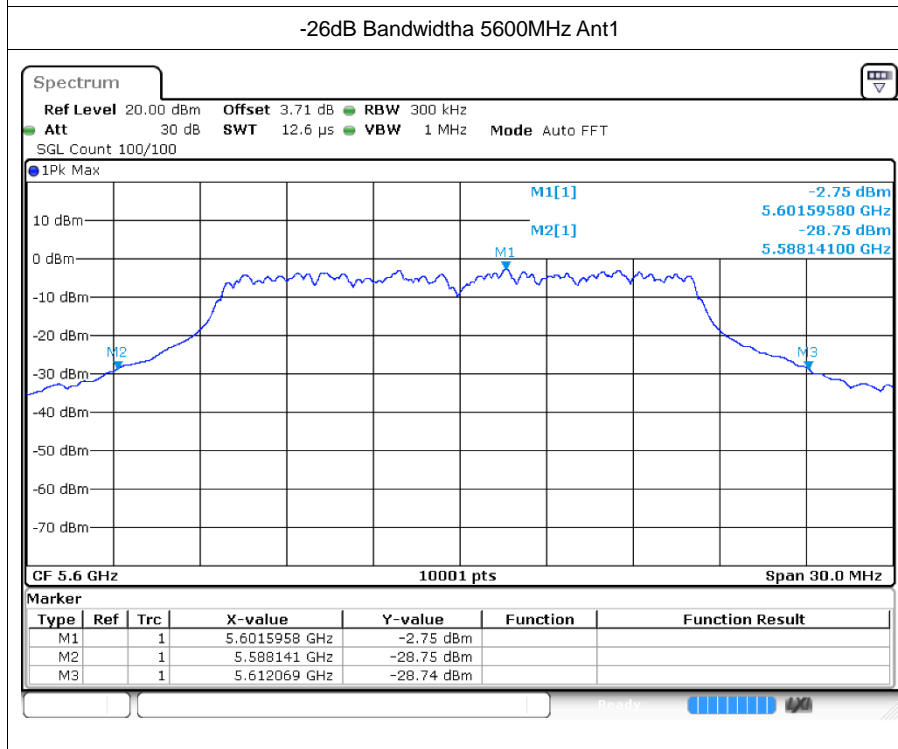
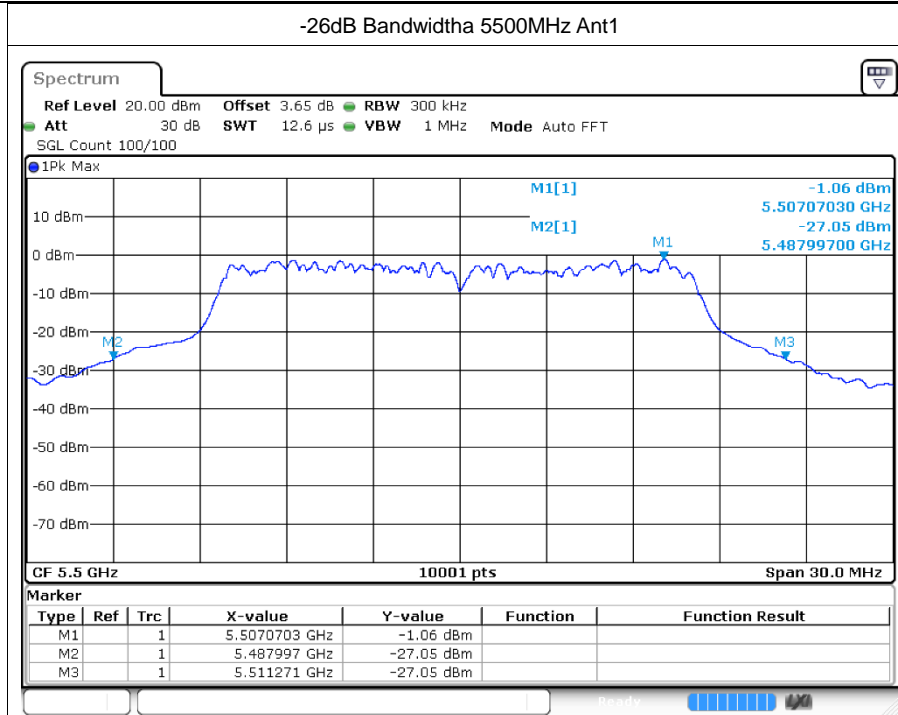
-26dB Bandwidtha 5240MHz Ant1

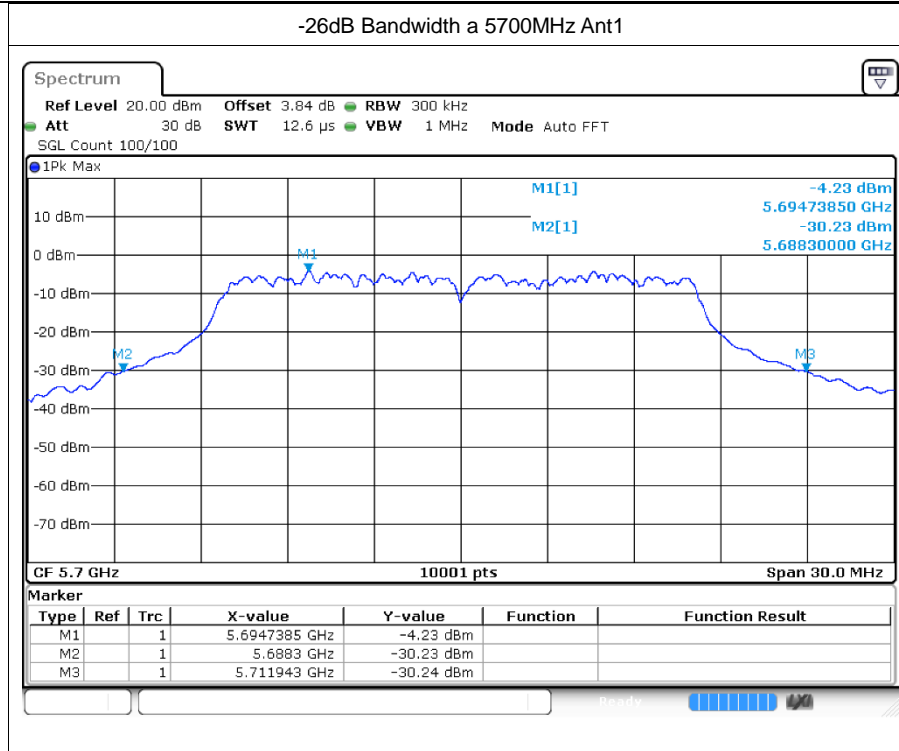


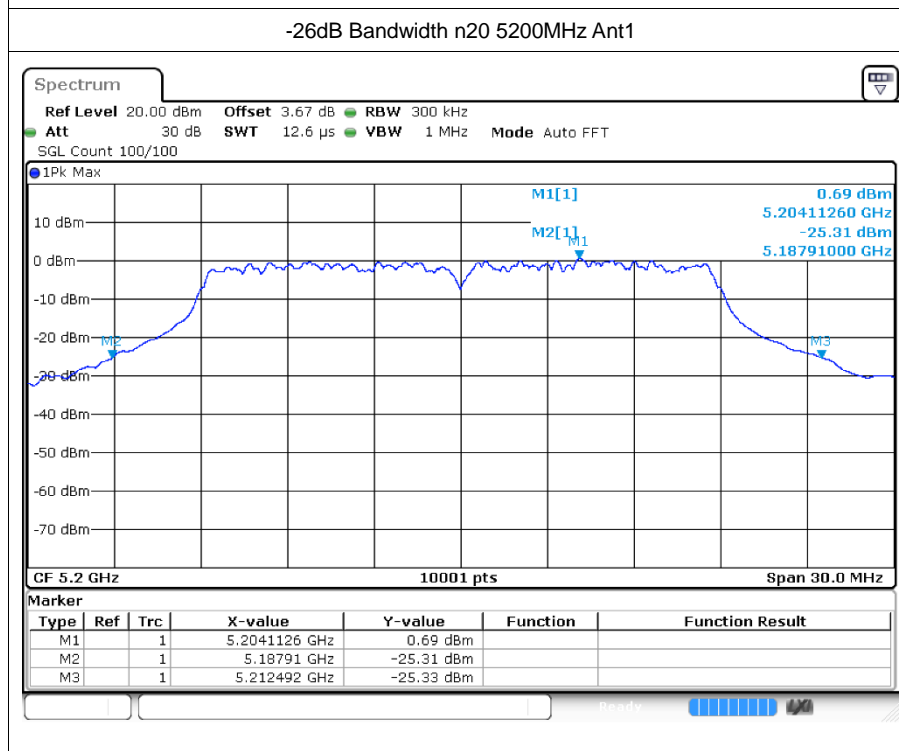
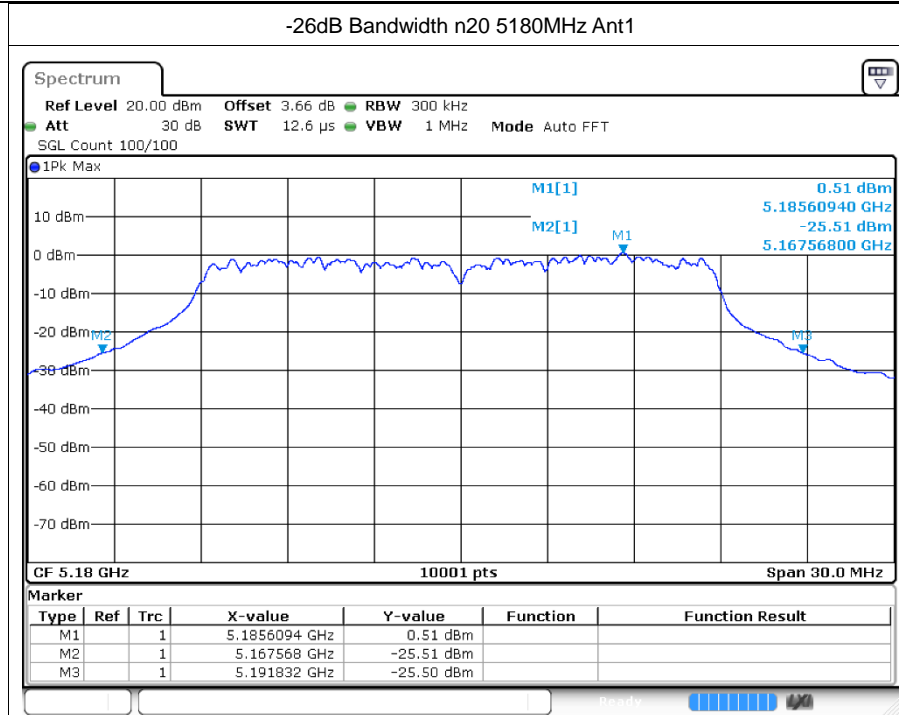
-26dB Bandwidtha 5260MHz Ant1

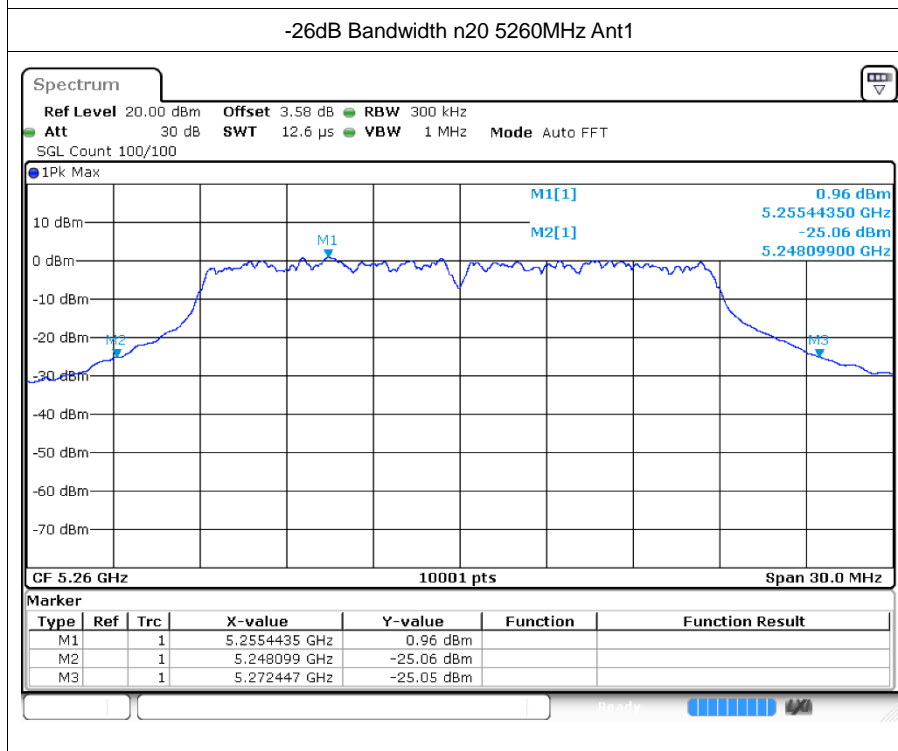
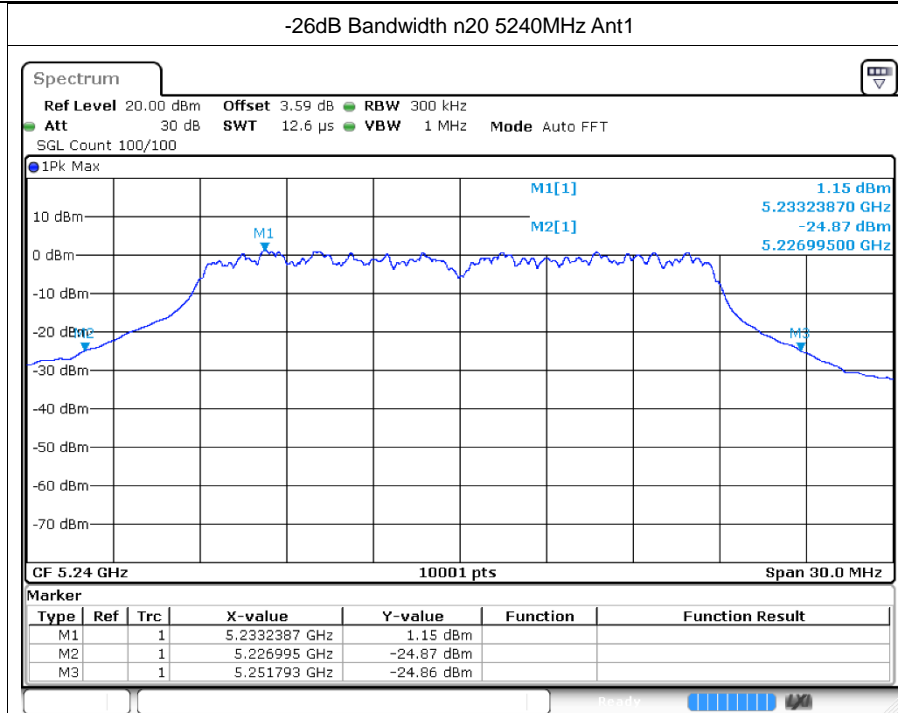


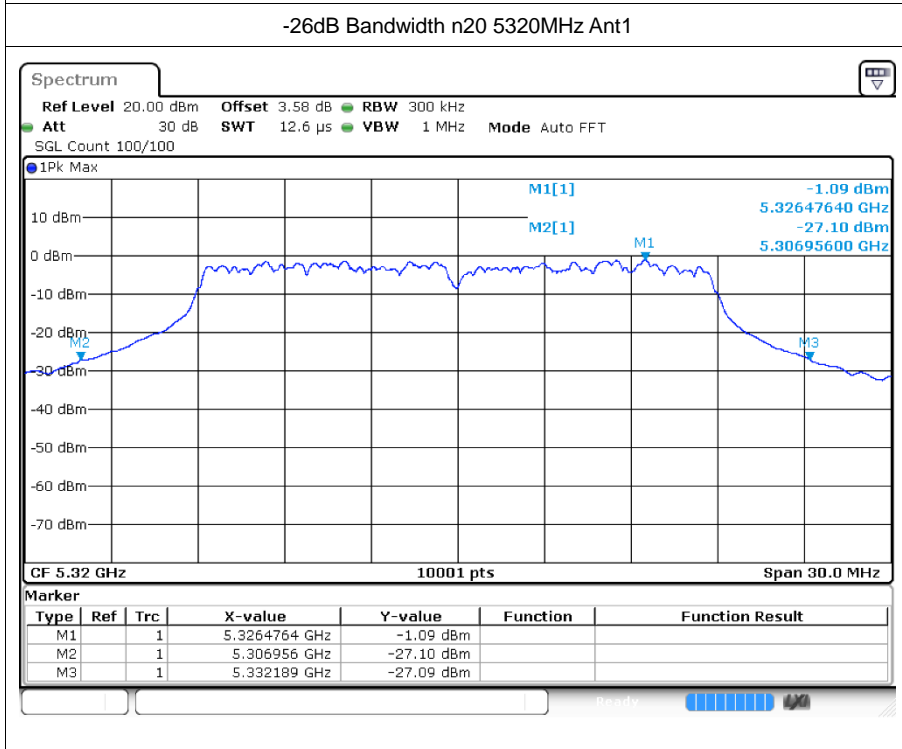
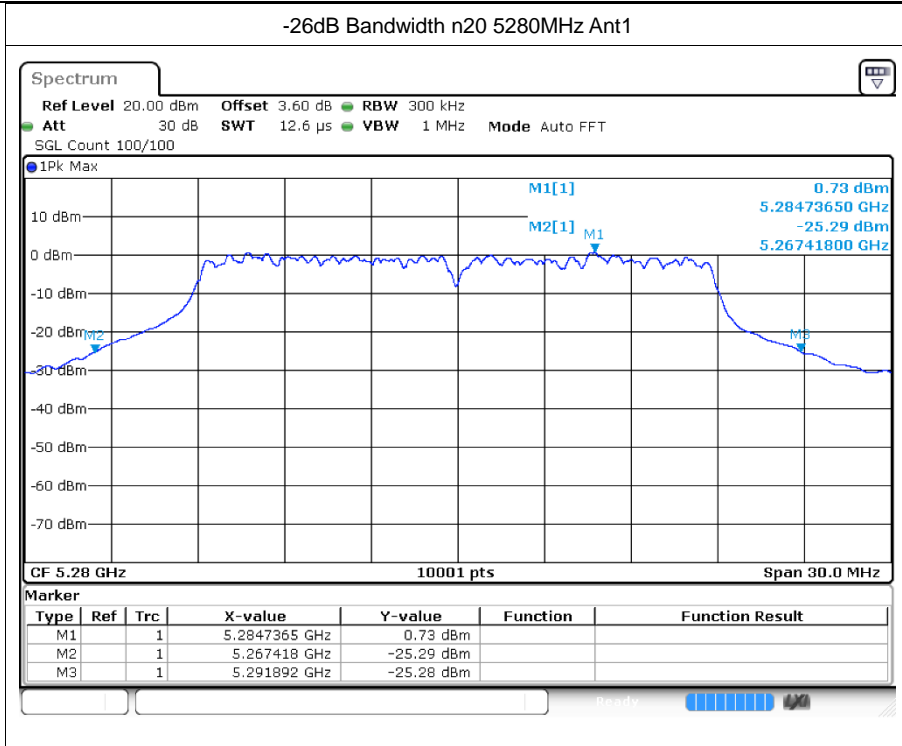


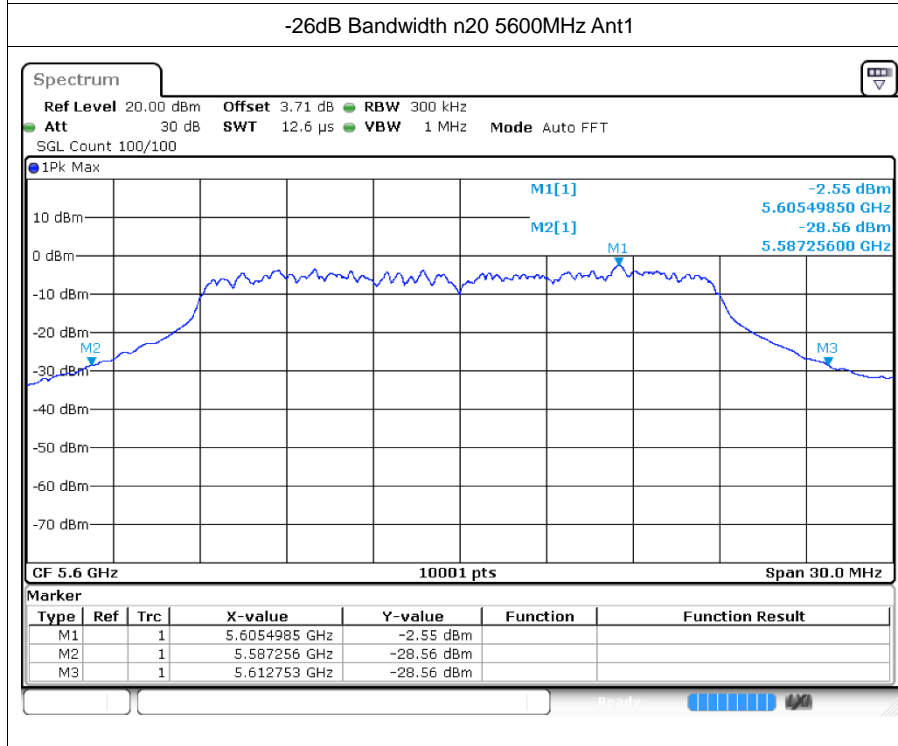
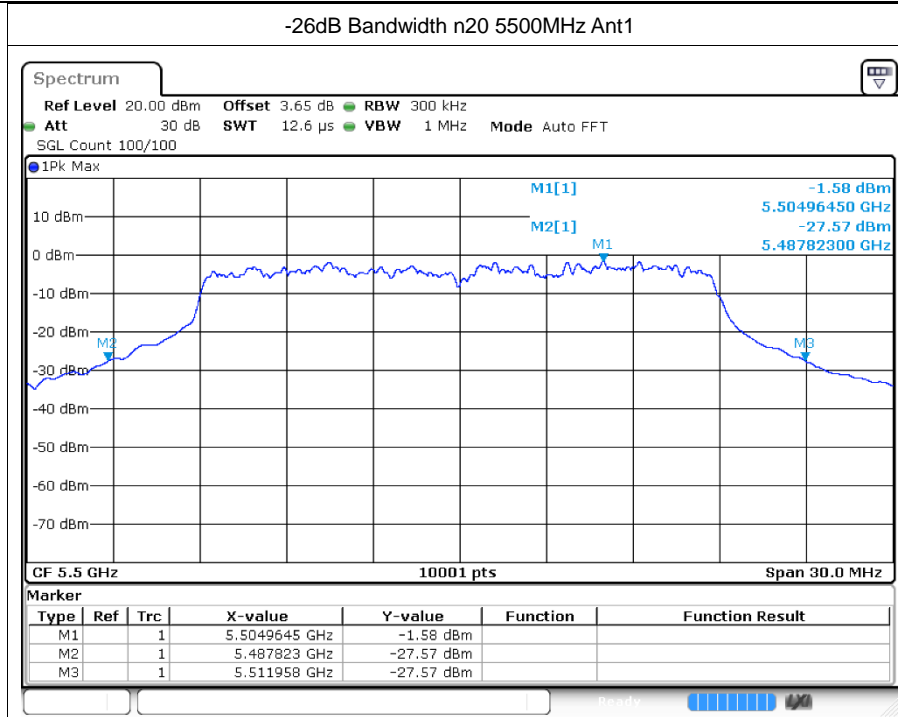


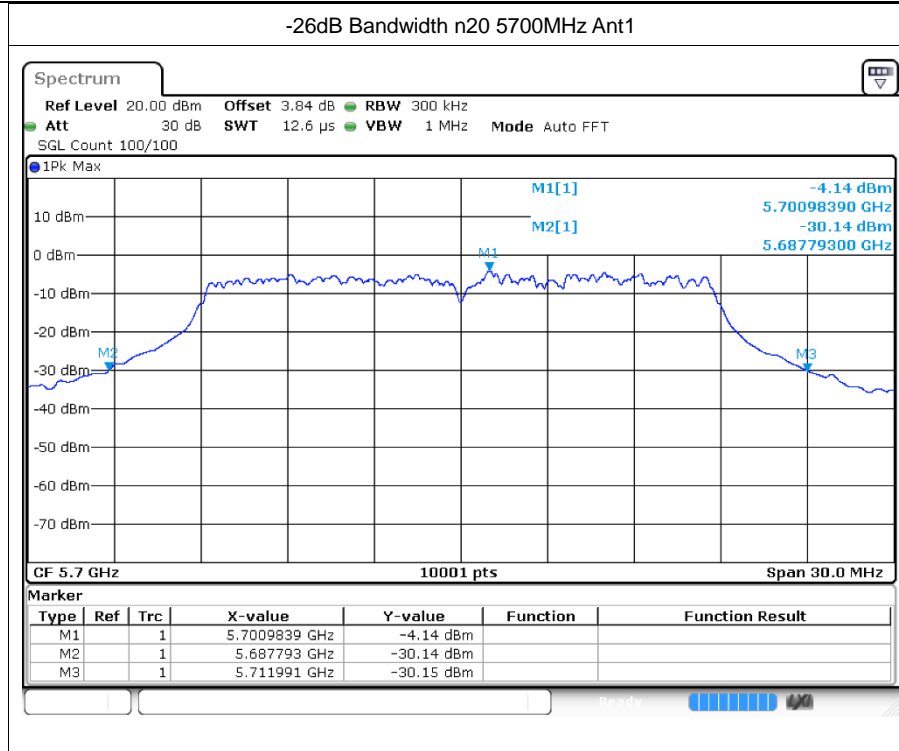


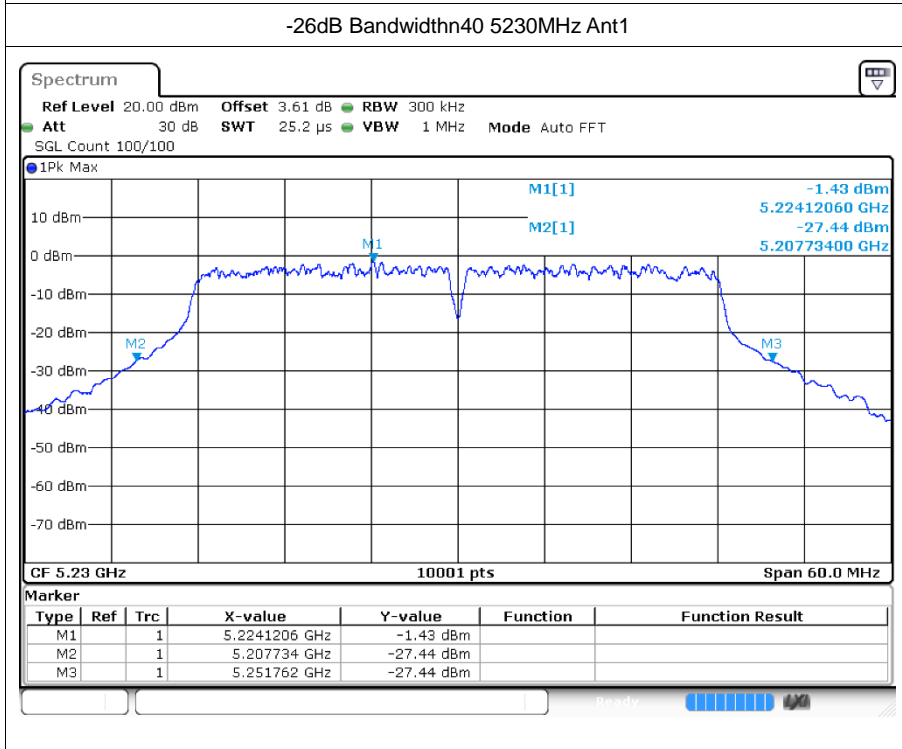
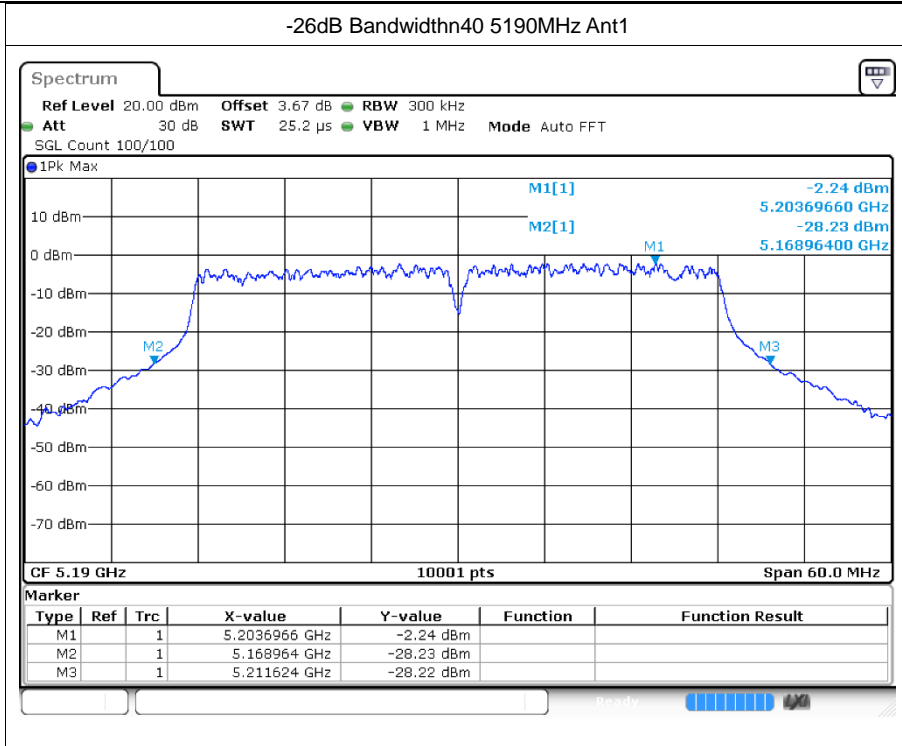


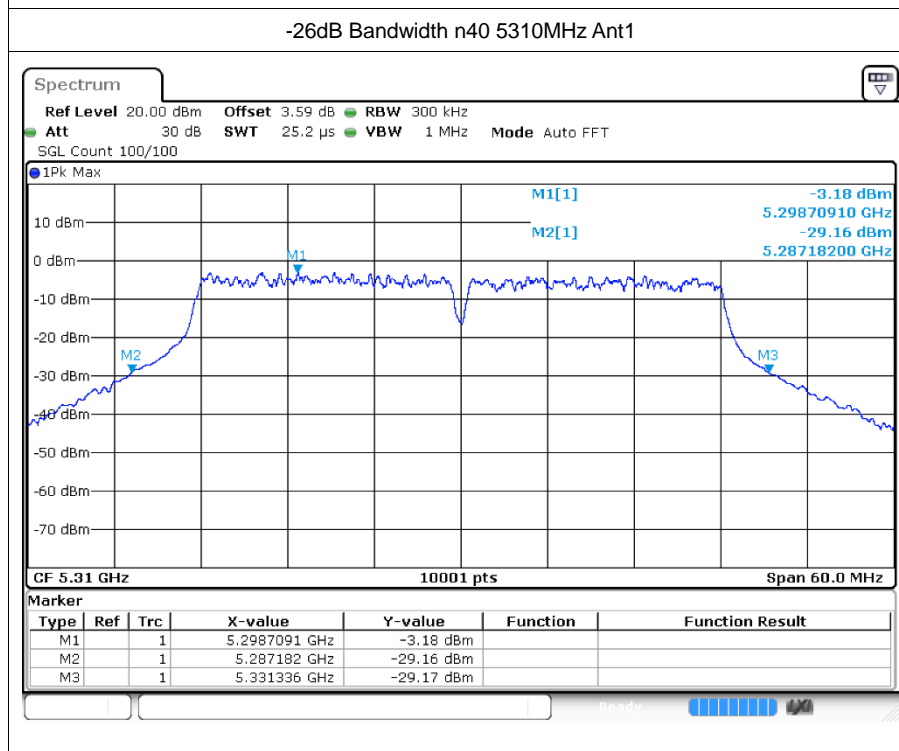
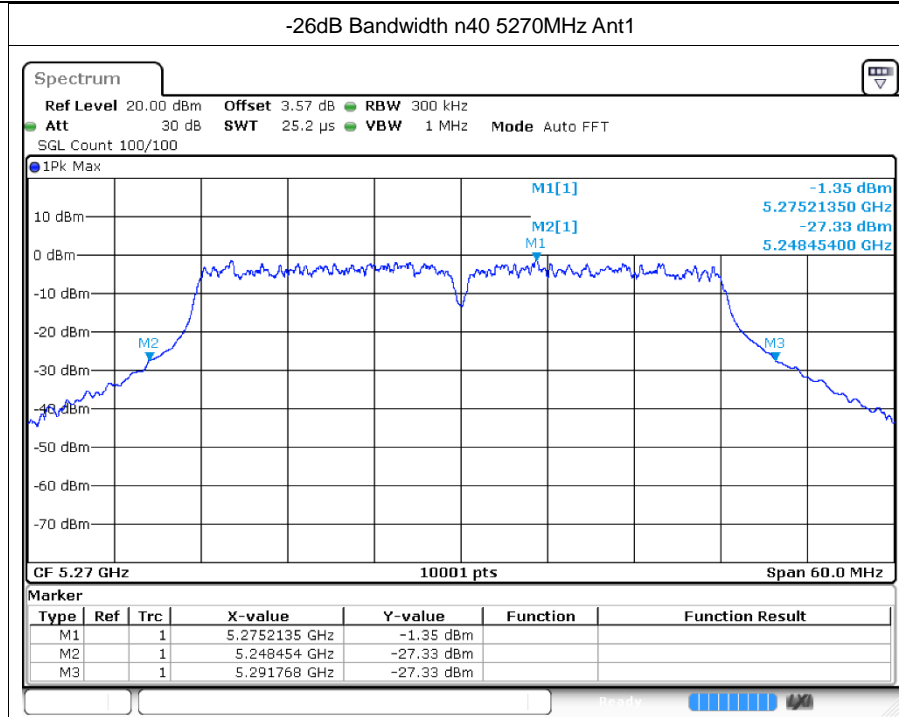


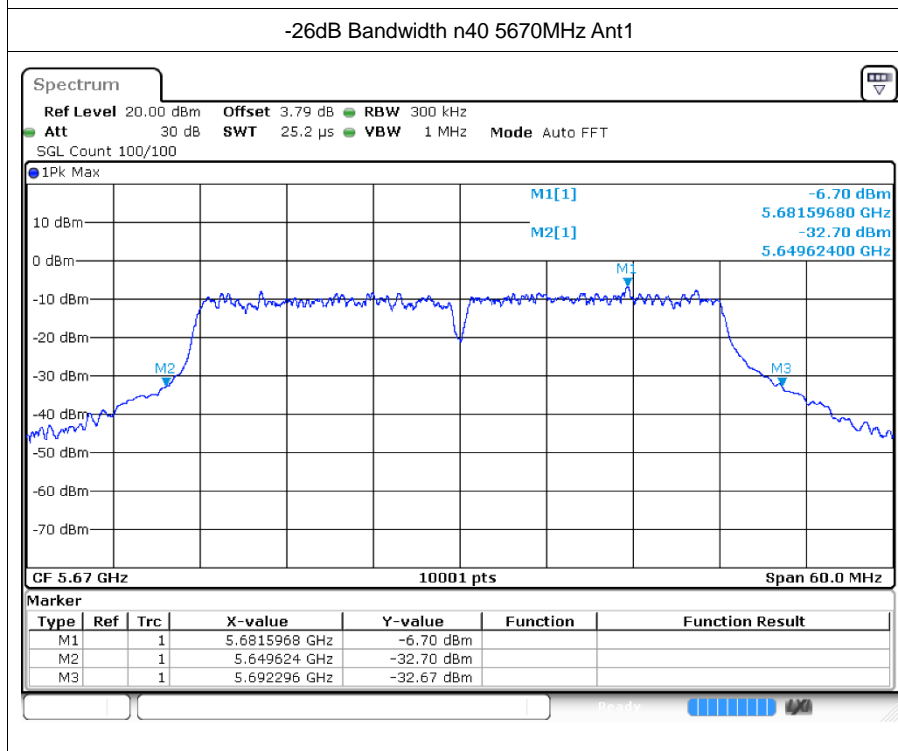
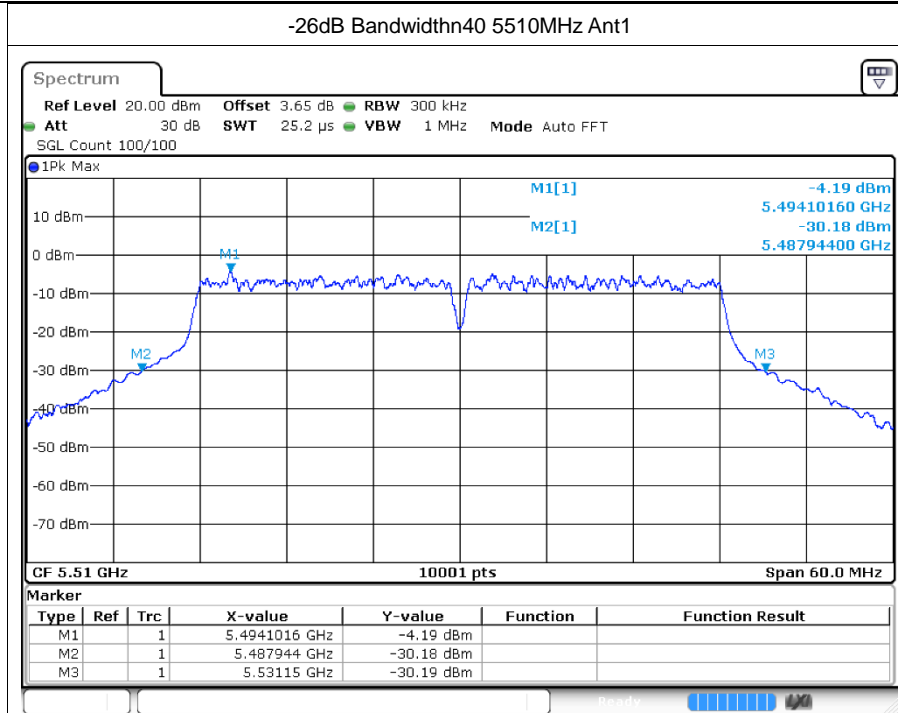






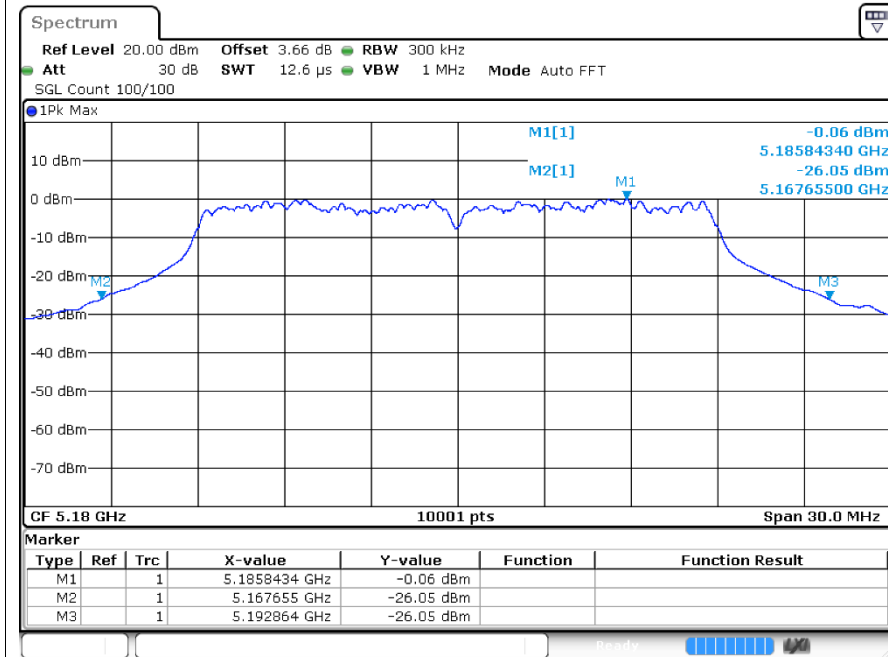




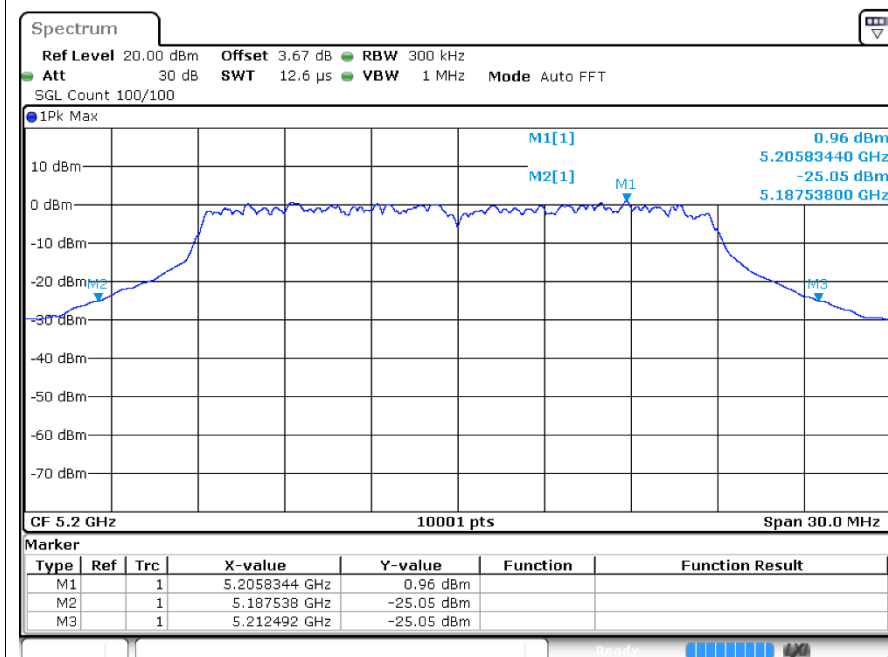




-26dB Bandwidth ac20 5180MHz Ant1

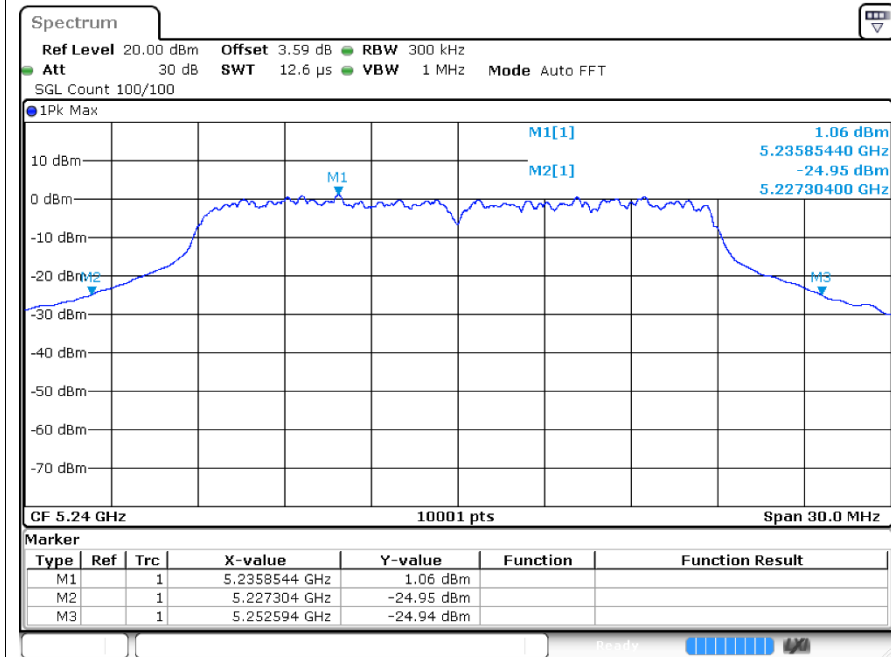


-26dB Bandwidth ac20 5200MHz Ant1

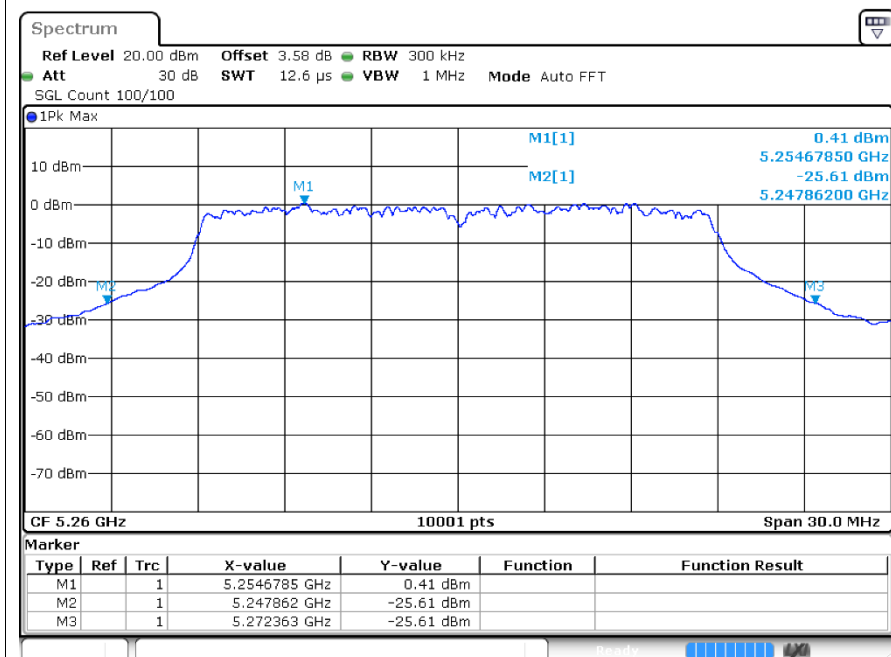


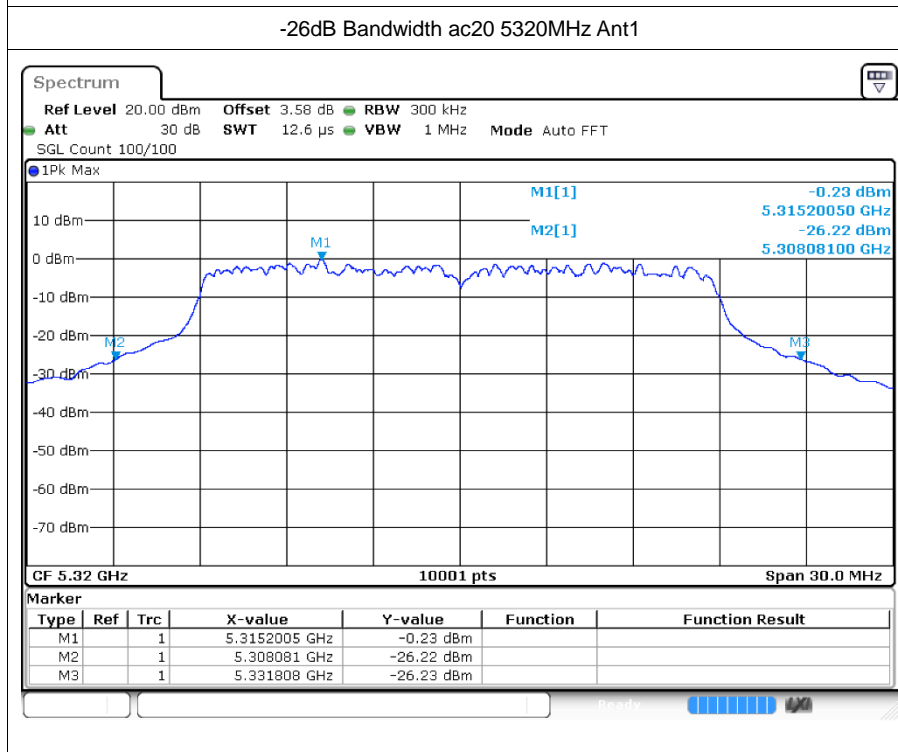
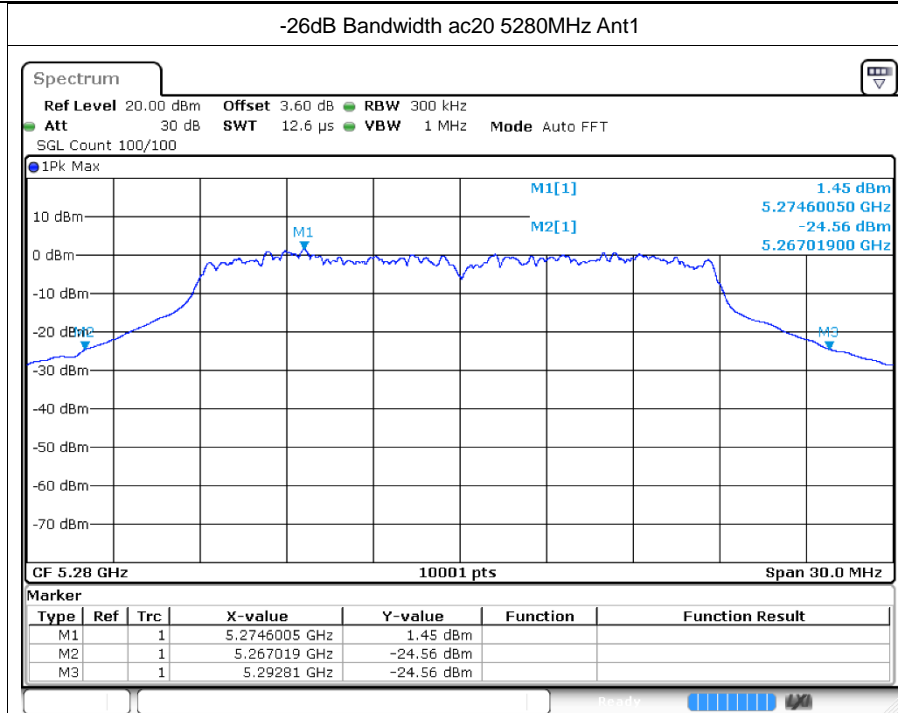


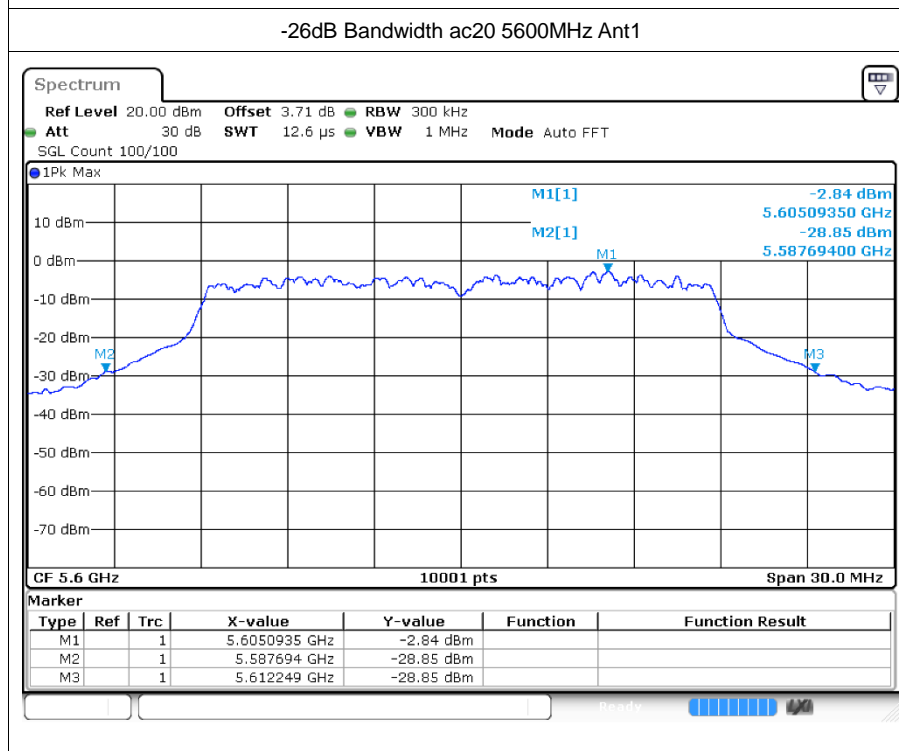
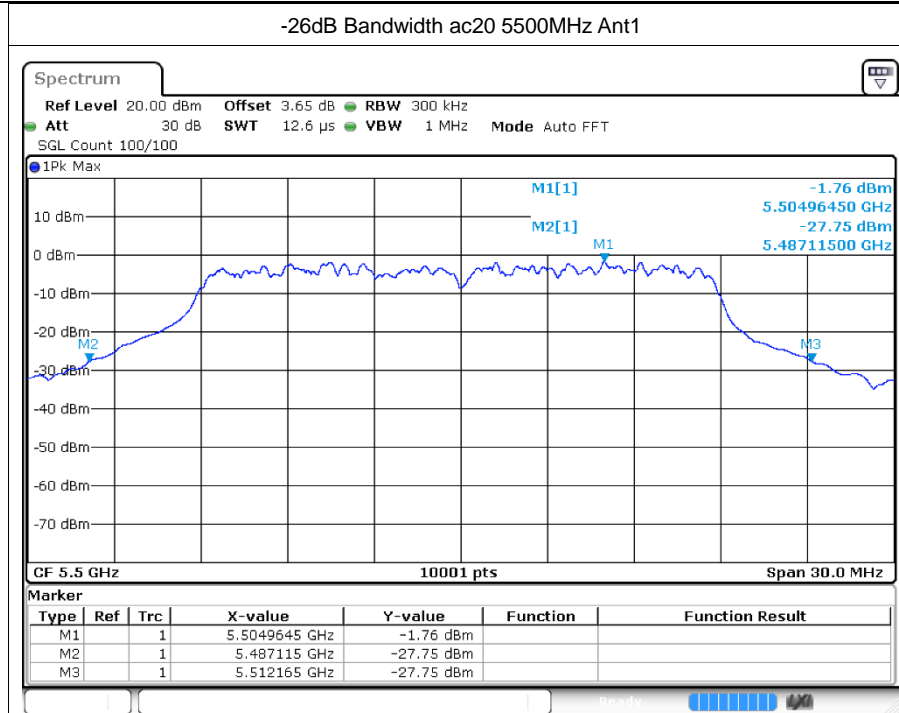
-26dB Bandwidth ac20 5240MHz Ant1

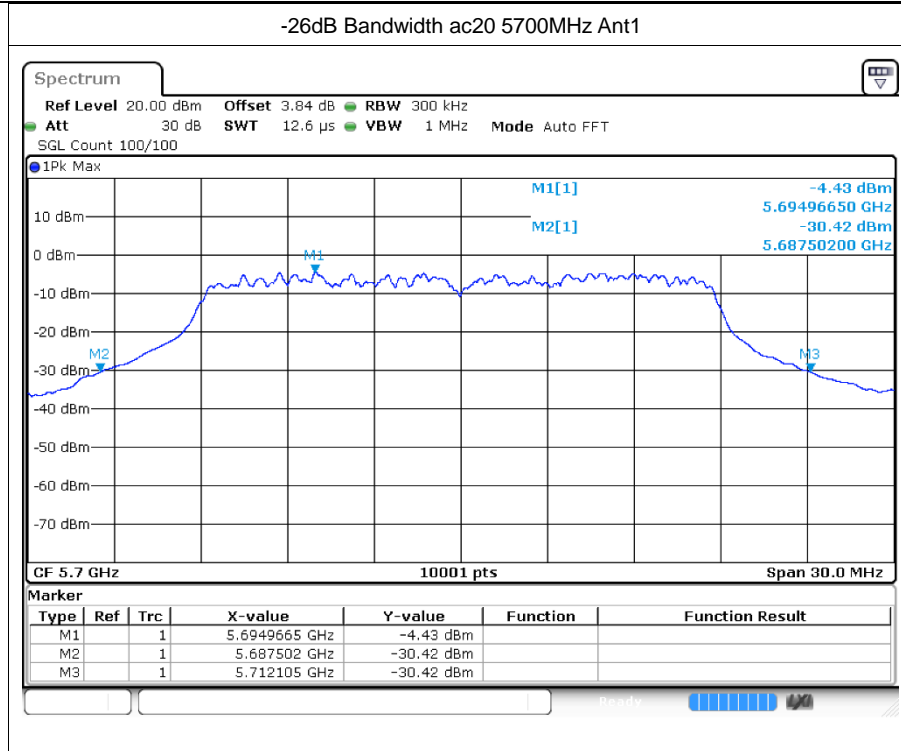


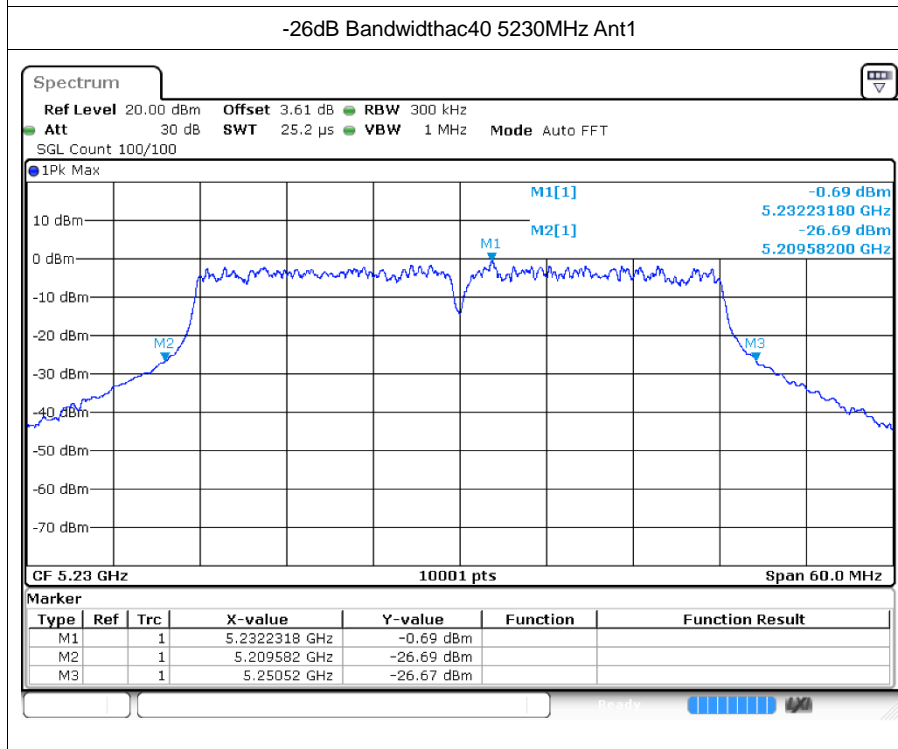
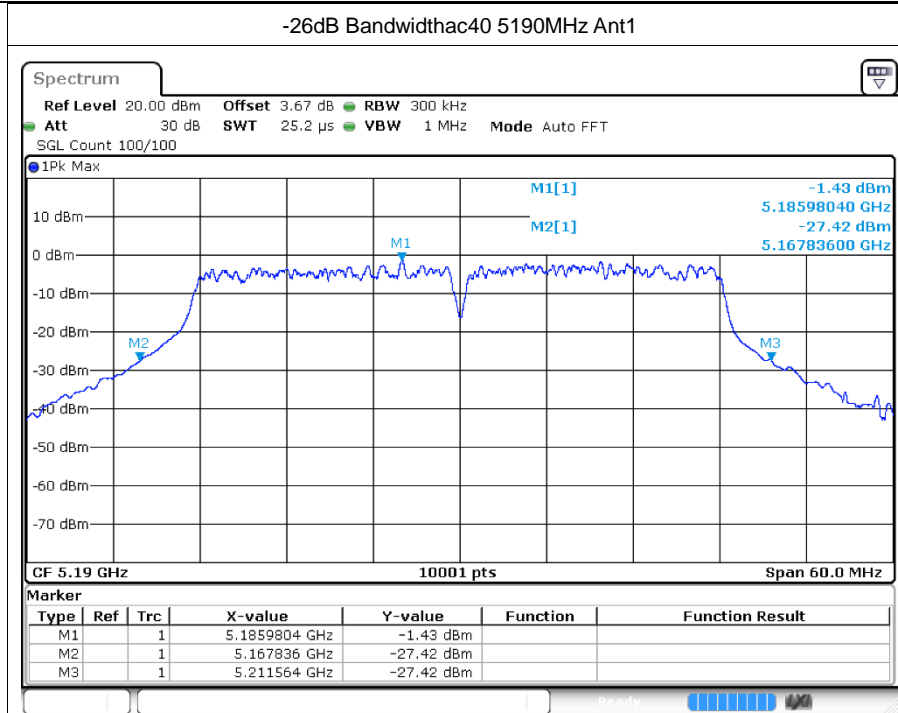
-26dB Bandwidth ac20 5260MHz Ant1

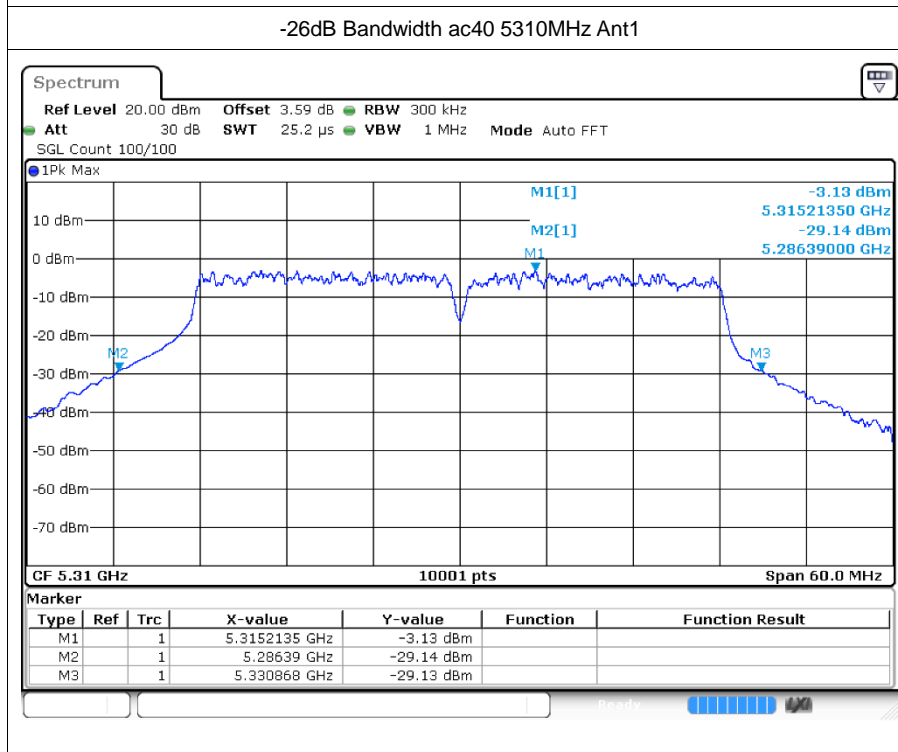
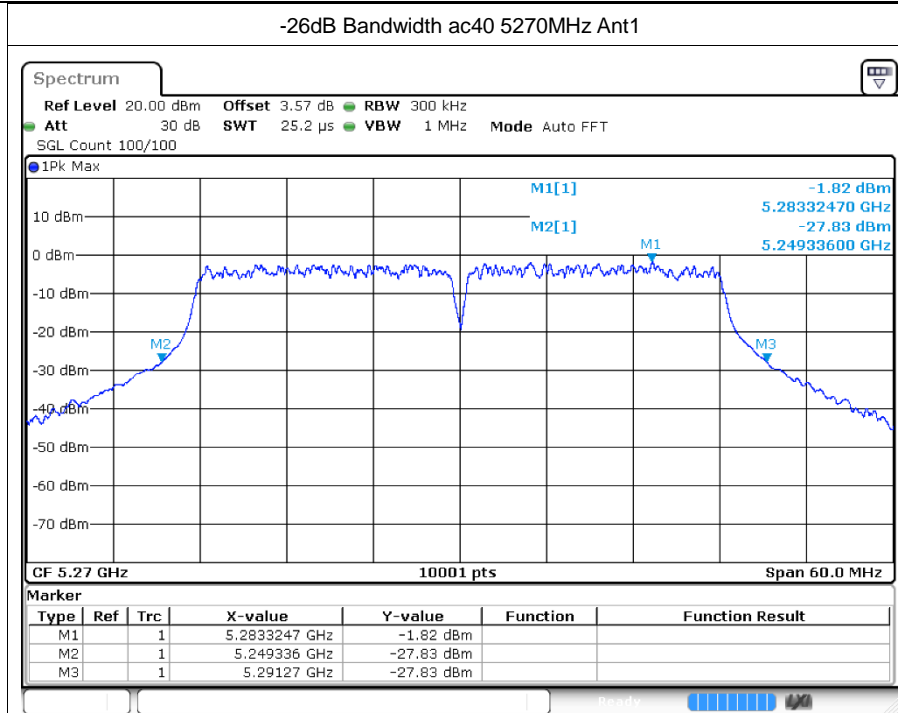




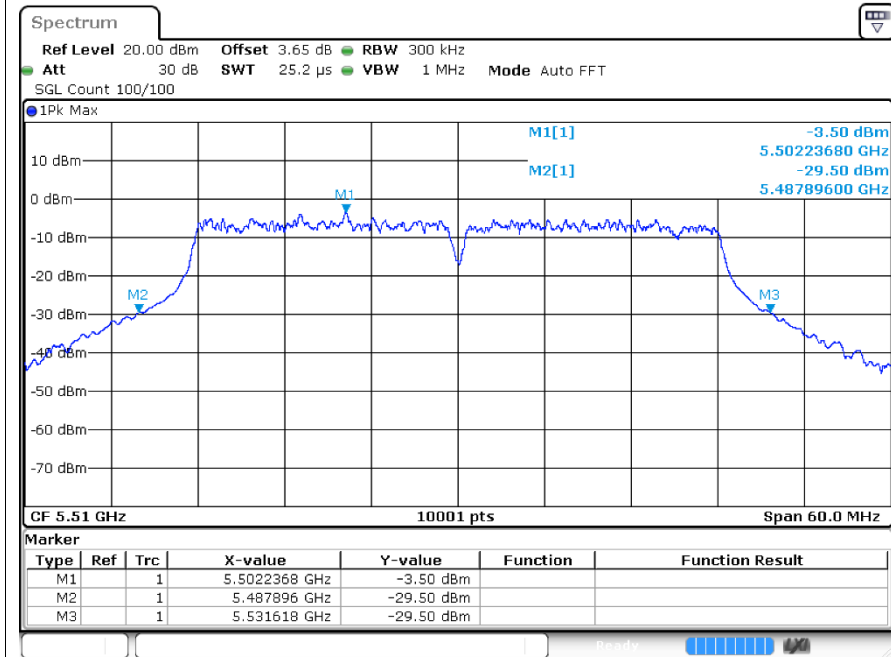








-26dB Bandwidth ac40 5510MHz Ant1



-26dB Bandwidth ac40 5670MHz Ant1

