



Appendix C

RF Test Data for 2.4GWIFI(Conducted Measurement)

Product Name: Video Encoder

Trade Mark: UNISHEEN

Test Model: BM3380G-H

Environmental Conditions

Temperature:	19.2° C
Relative Humidity:	52.1%
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.....	4
2	Maximum Conducted Output Power	16
2.1	Test Result	16
3	-6dB Bandwidth.....	17
3.1	Test Result	17
3.2	Test Graphs.....	18
4	Maximum Power Spectral Density Level	30
4.1	Test Result	30
4.2	Test Graphs.....	31
5	Band Edge	37
5.1	Test Result	37
5.2	Test Graphs.....	38
6	Conducted RF Spurious Emission.....	54
6.1	Test Result	54
6.2	Test Graphs.....	55
7	Restrict Band	79
7.1	Test Result	79
7.2	Test Graphs.....	82

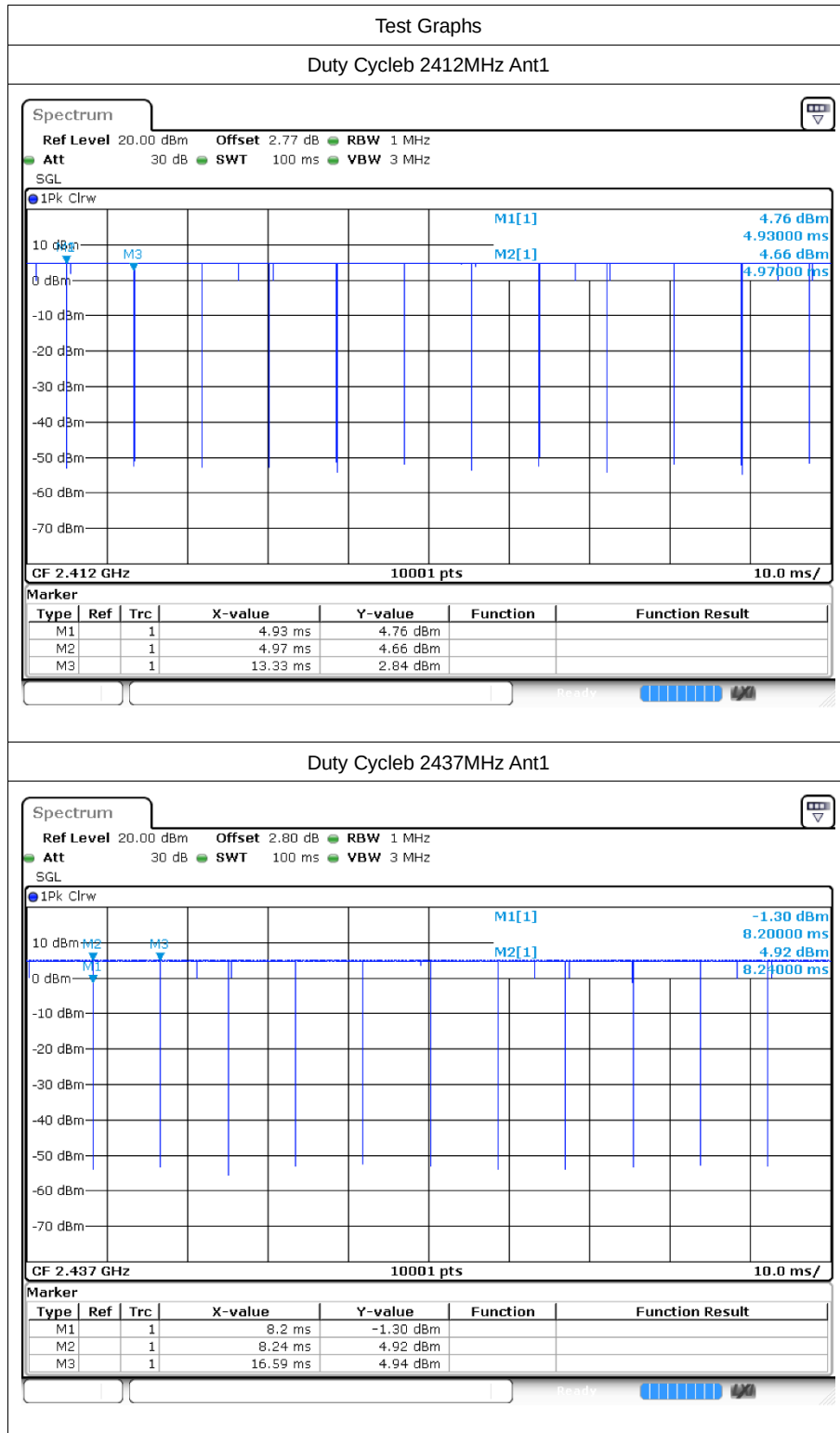


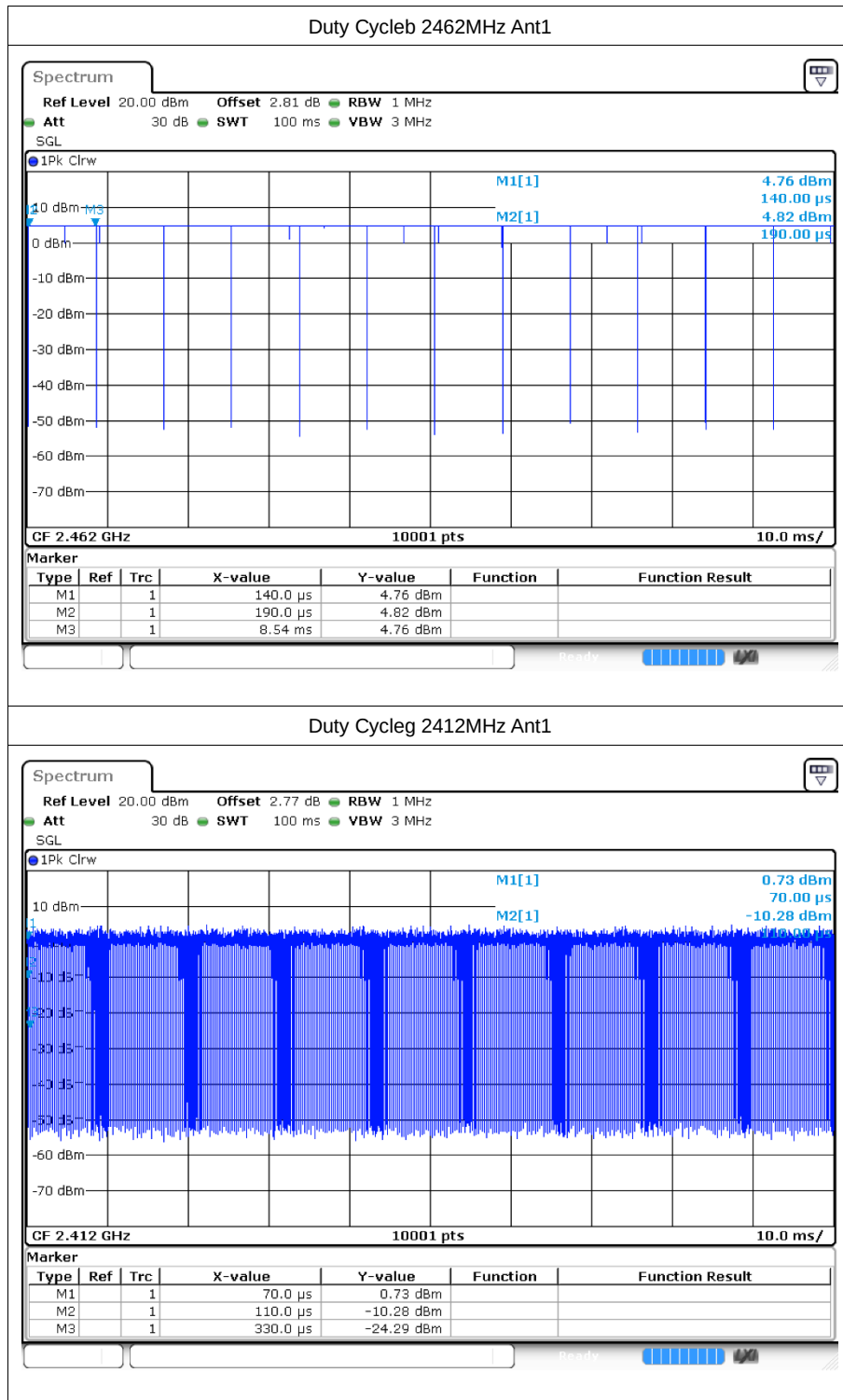
1 Duty Cycle

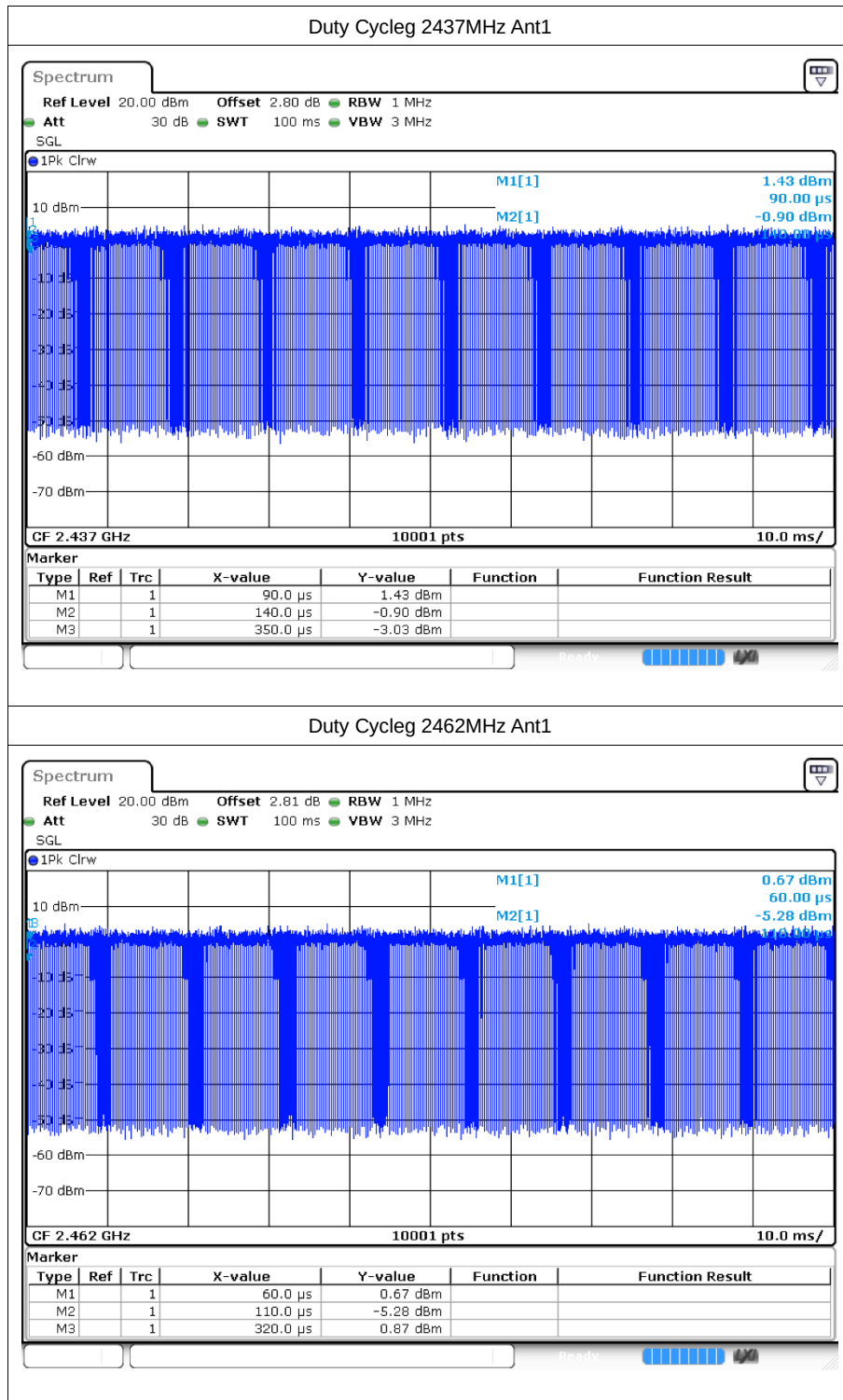
1.1 Test Result

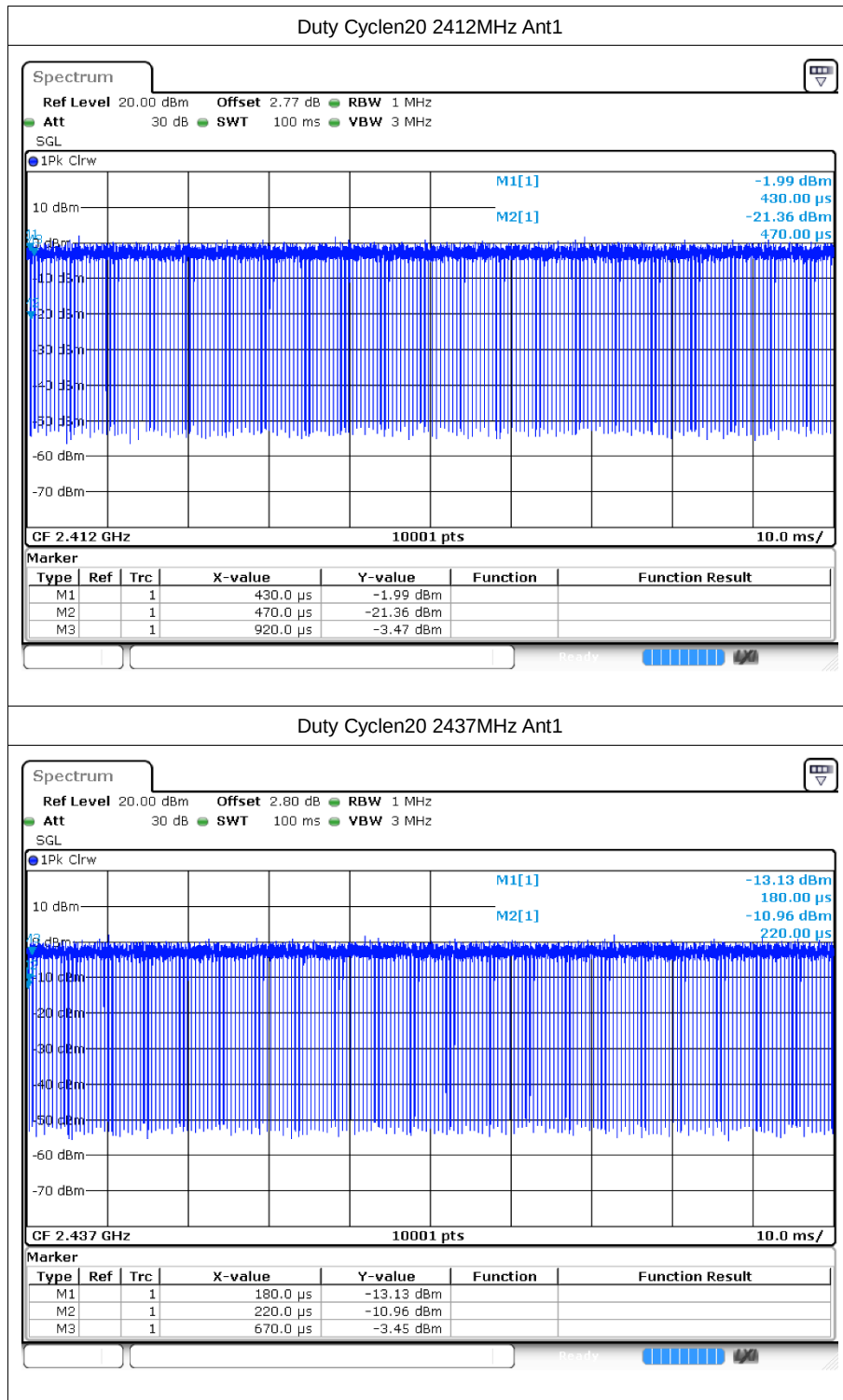
Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	1/T (kHz)
b	2412	Ant1	99.6	0.12
b	2437	Ant1	99.63	0.12
b	2462	Ant1	99.59	0.12
g	2412	Ant1	99.6	0.12
g	2437	Ant1	99.63	0.12
g	2462	Ant1	99.59	0.12
n20	2412	Ant1	93.07	2.22
n20	2437	Ant1	92.97	2.22
n20	2462	Ant1	92.87	2.22
n40	2422	Ant1	92.95	2.27
n40	2437	Ant1	92.98	2.22
n40	2452	Ant1	92.95	2.27
b	2412	Ant2	99.59	0.12
b	2437	Ant2	99.6	0.12
b	2462	Ant2	99.6	0.12
g	2412	Ant2	99.59	0.12
g	2437	Ant2	99.6	0.12
g	2462	Ant2	99.6	0.12
n20	2412	Ant2	93.04	2.22
n20	2437	Ant2	92.98	2.22
n20	2462	Ant2	93.04	2.22
n40	2422	Ant2	92.91	2.27
n40	2437	Ant2	92.89	2.22
n40	2452	Ant2	92.9	2.27

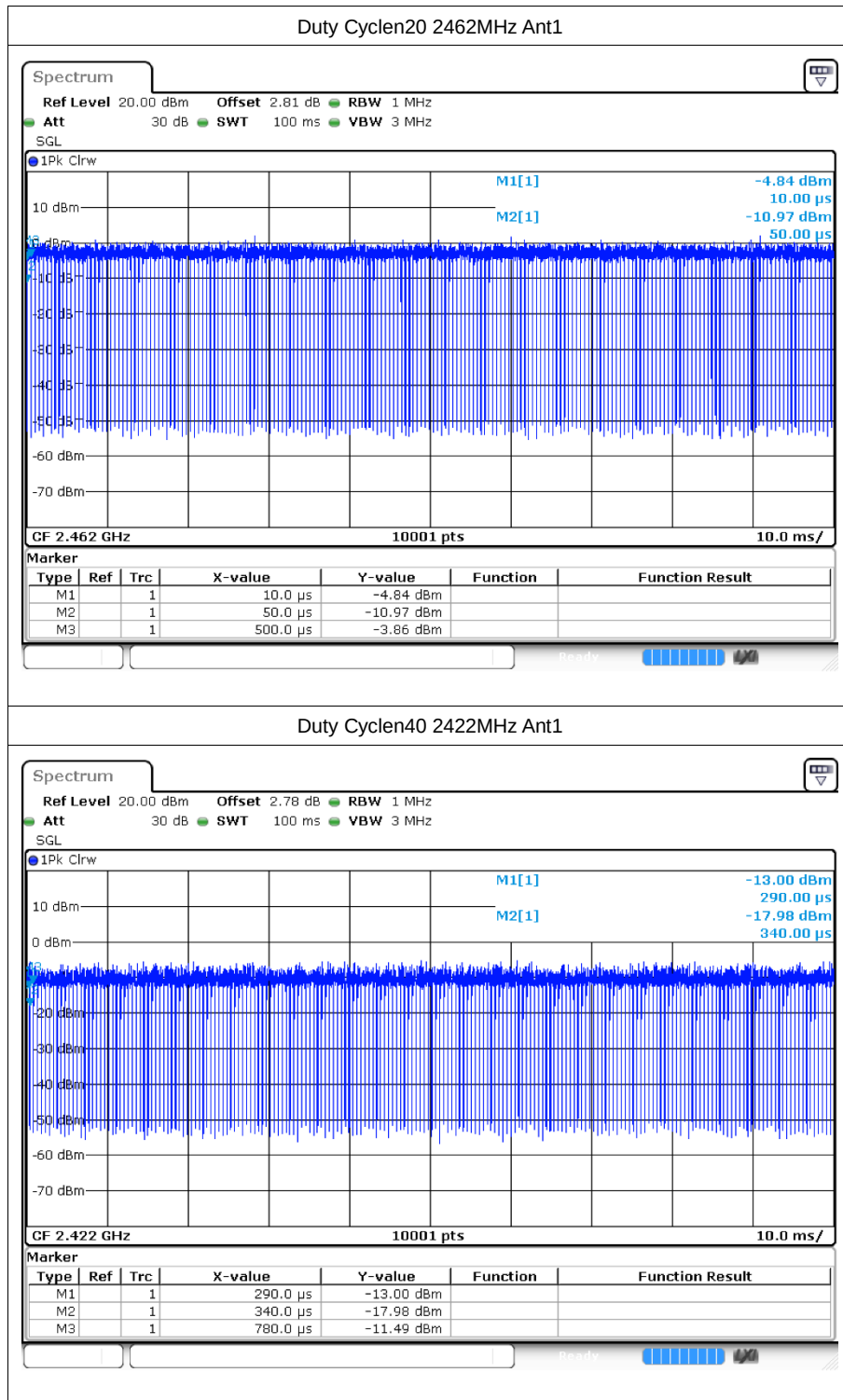
1.2 Test Graphs

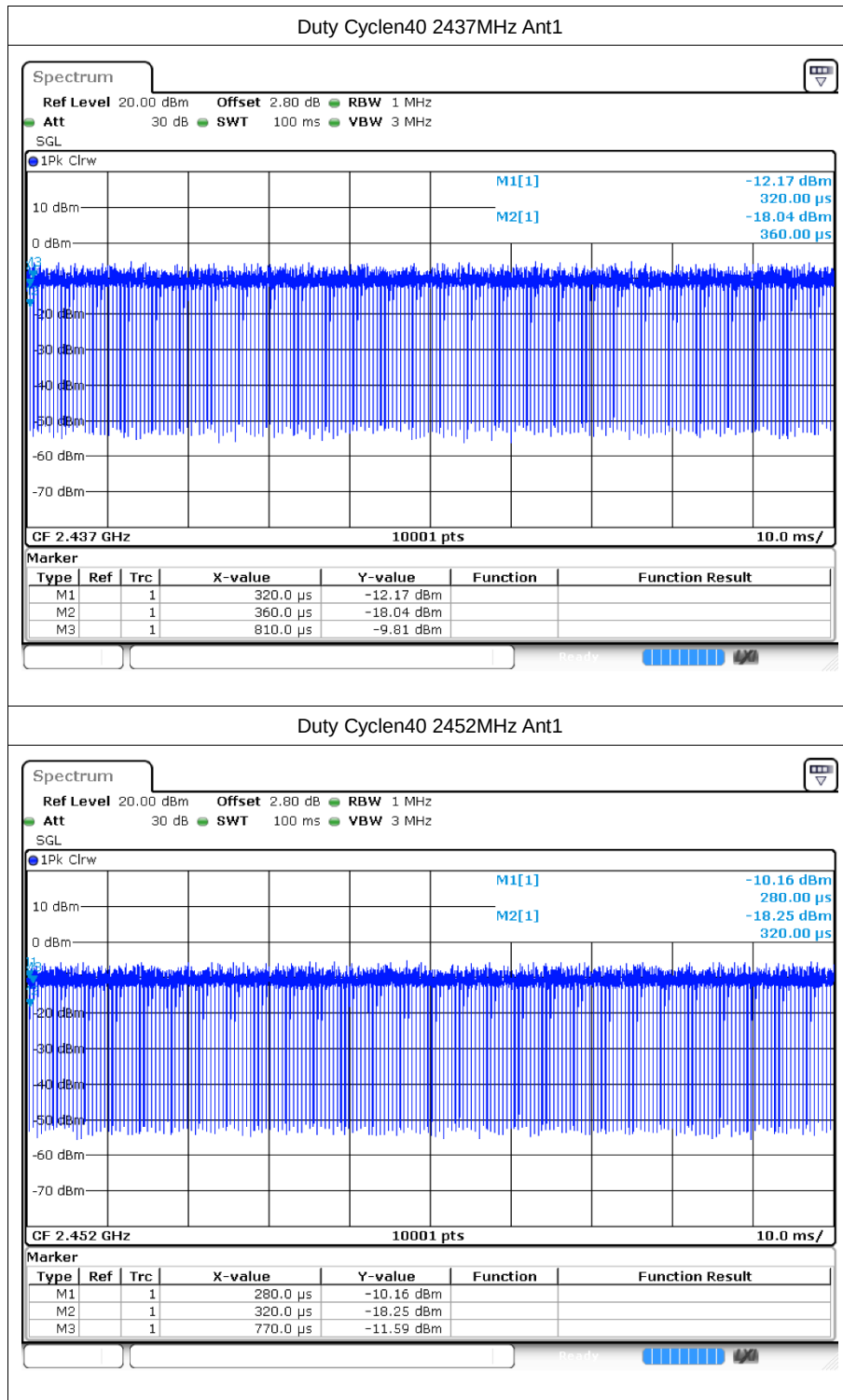


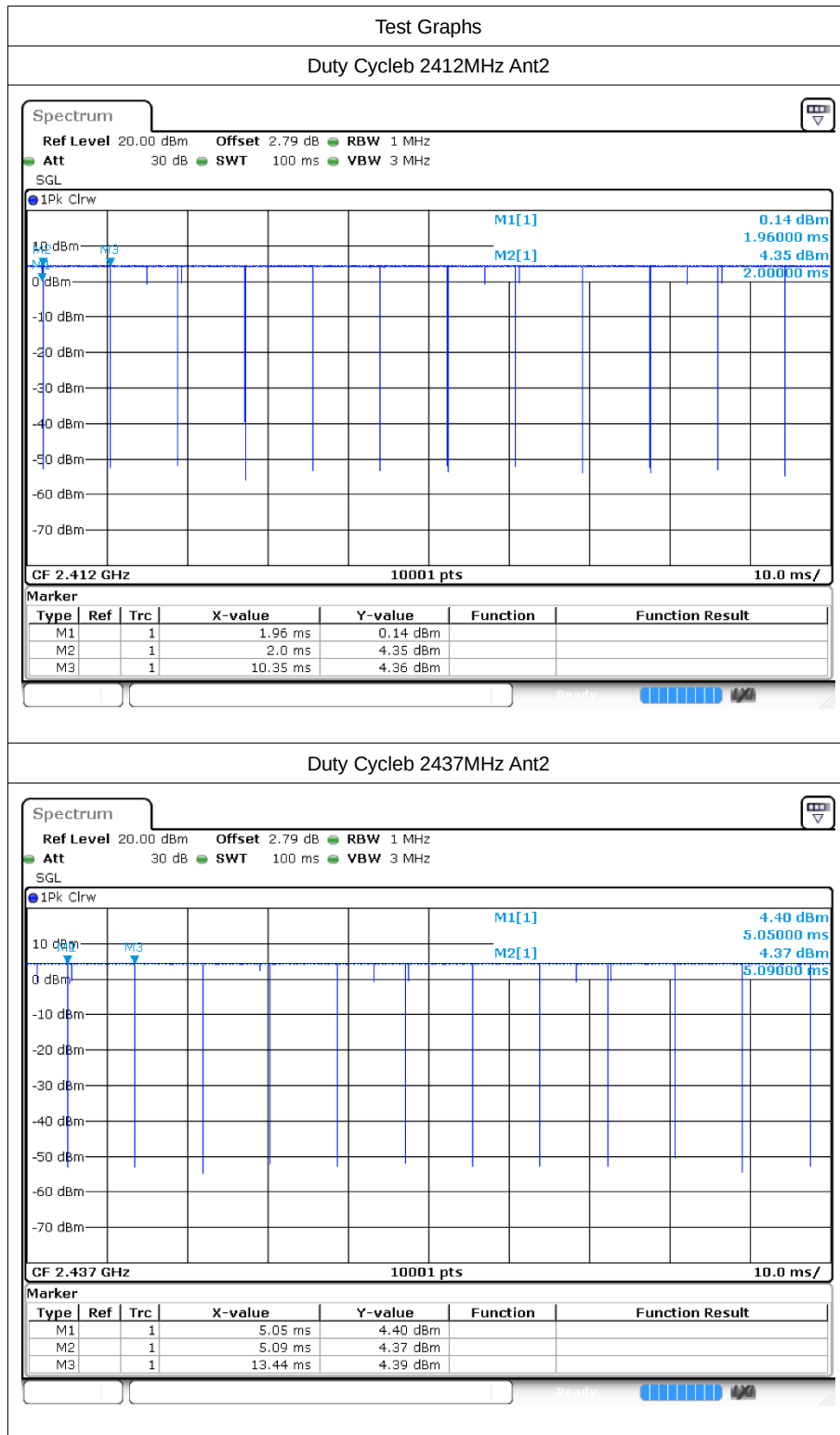


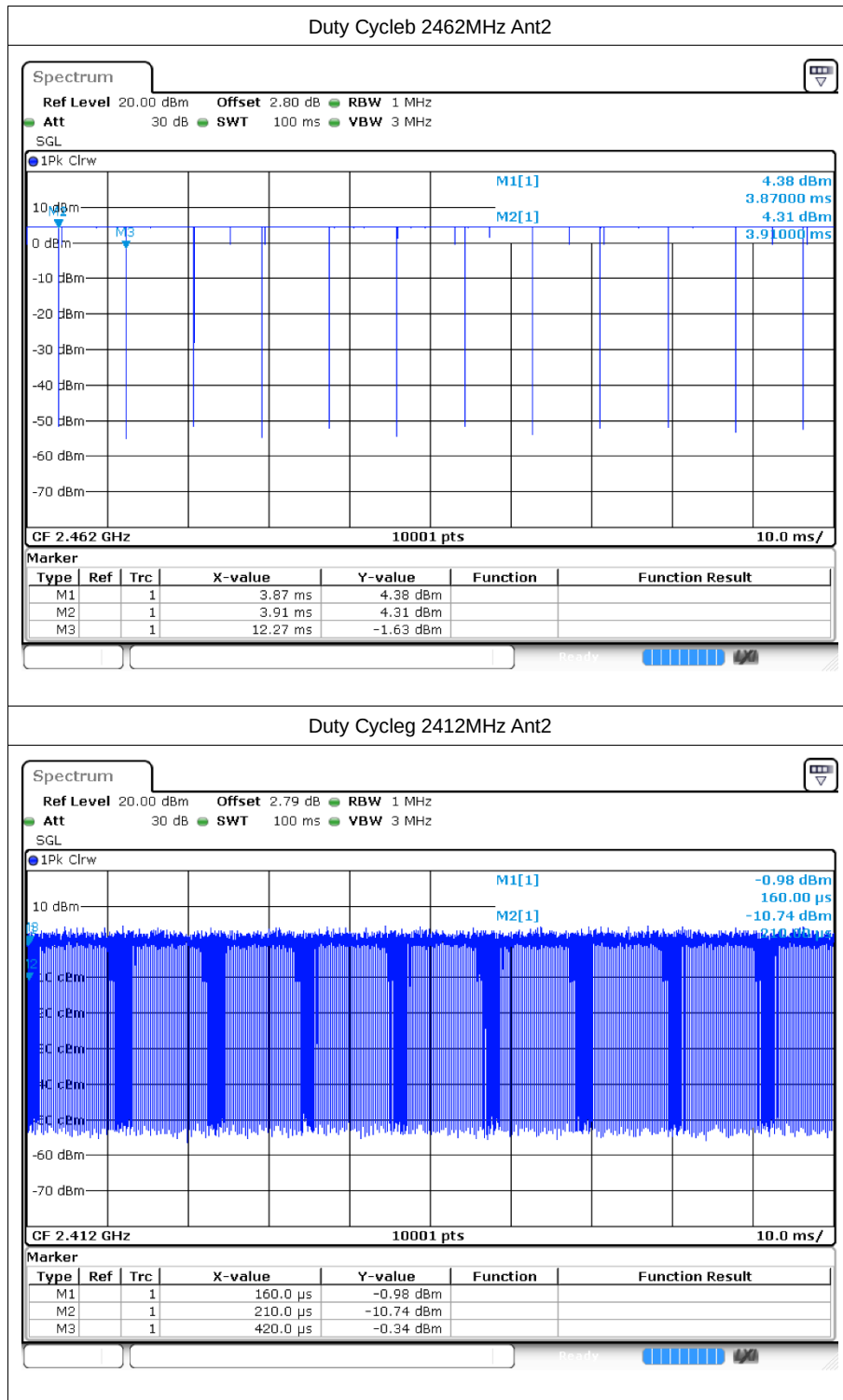


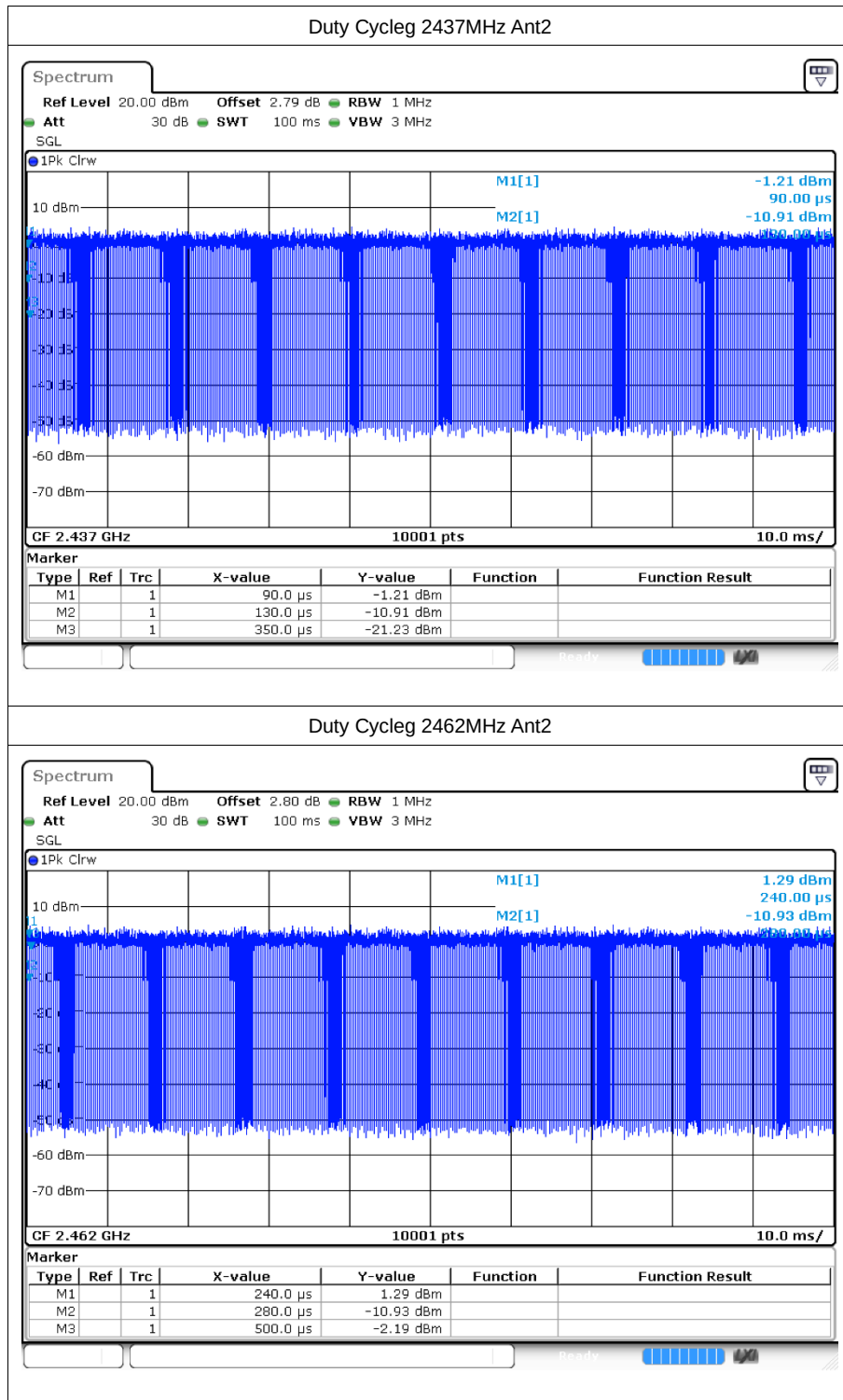


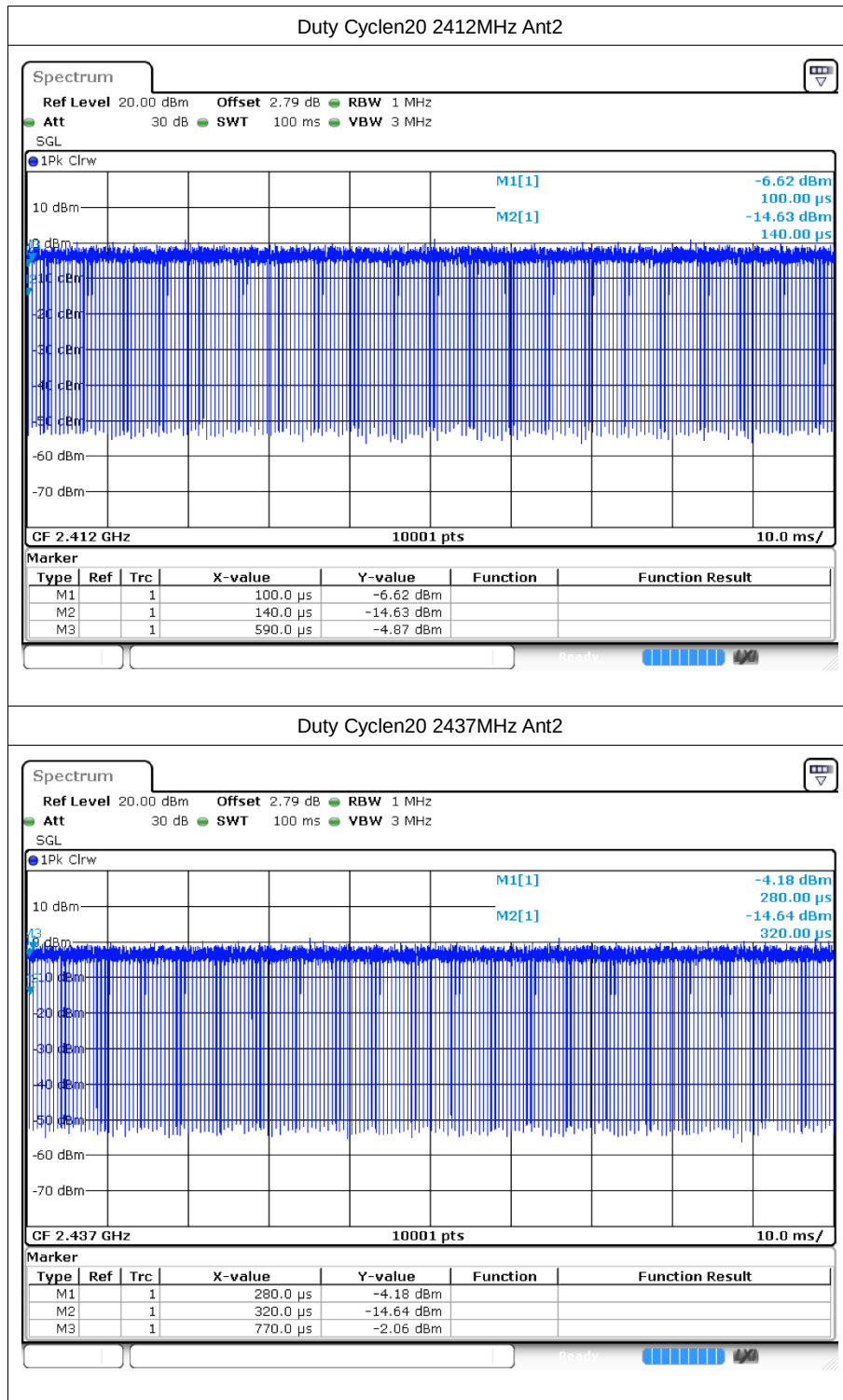


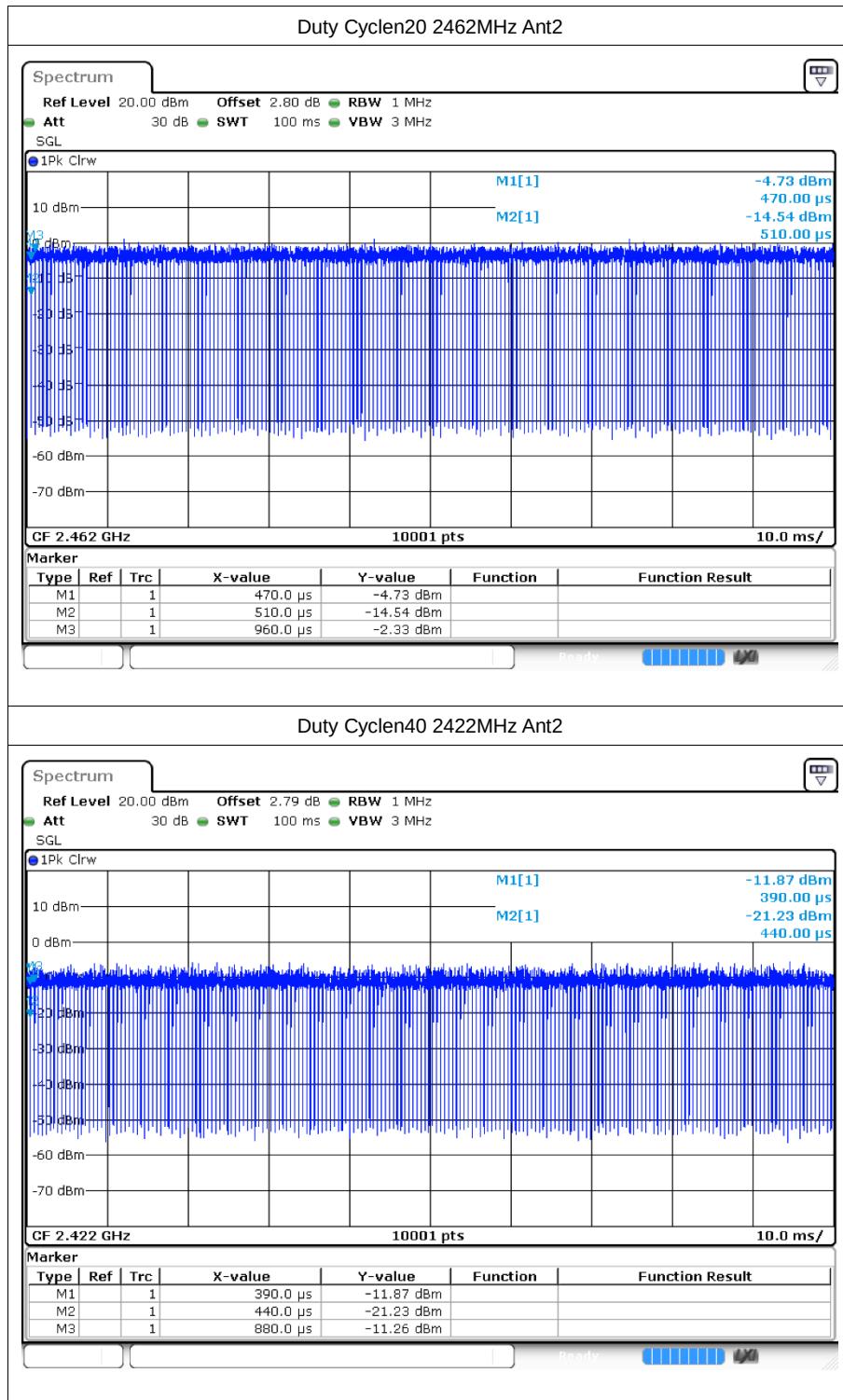


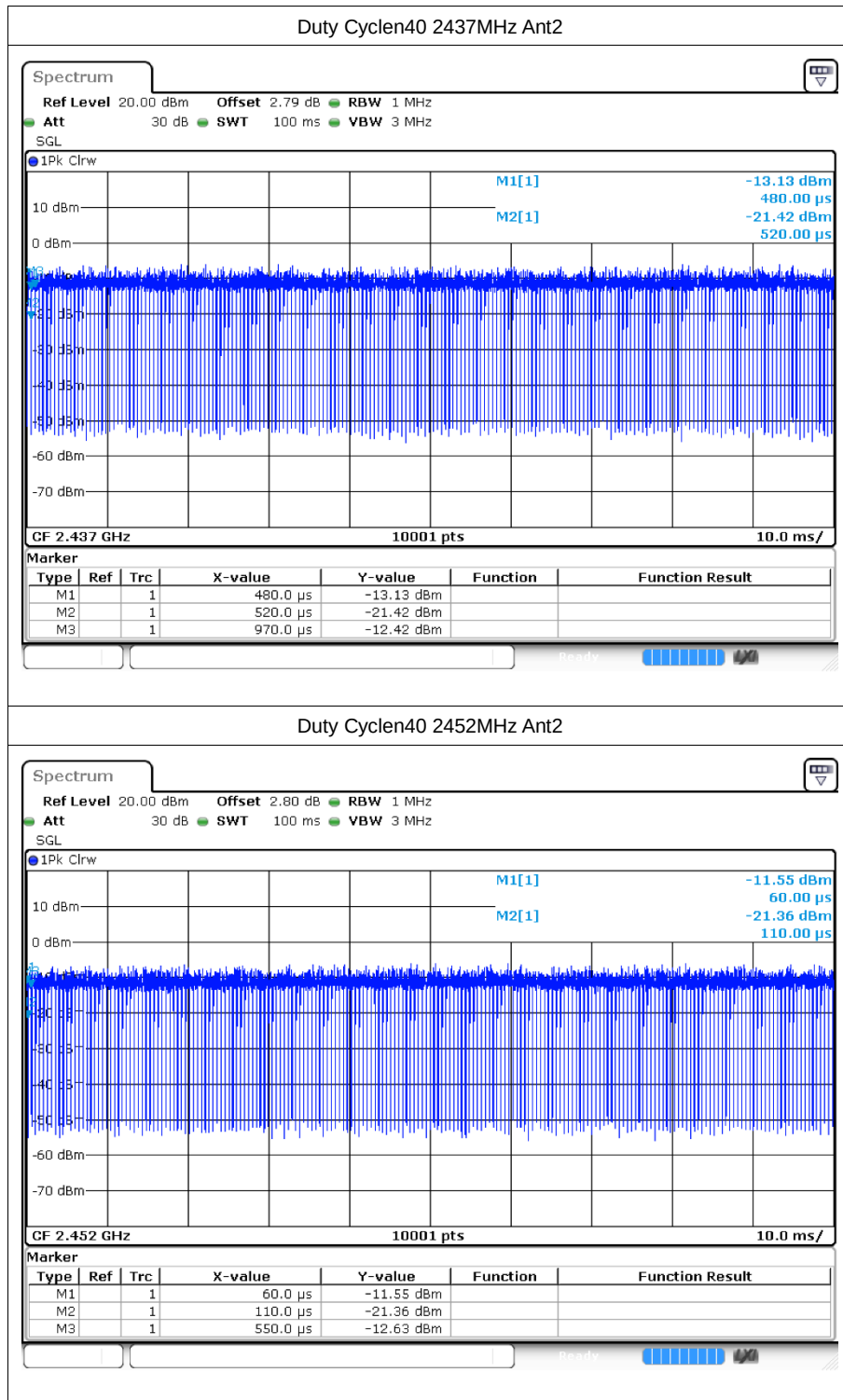












2 Maximum Conducted Output Power

2.1 Test Result

Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
b	2412	Ant1	15.27	30	Pass
b	2437	Ant1	15.46	30	Pass
b	2462	Ant1	15.29	30	Pass
b	2412	Ant2	14.86	30	Pass
b	2437	Ant2	14.9	30	Pass
b	2462	Ant2	14.09	30	Pass
g	2412	Ant1	14.33	30	Pass
g	2437	Ant1	14.29	30	Pass
g	2462	Ant1	14.18	30	Pass
g	2412	Ant2	13.84	30	Pass
g	2437	Ant2	13.81	30	Pass
g	2462	Ant2	13.75	30	Pass
n20	2412	Ant1	11.97	30	Pass
n20	2437	Ant1	12	30	Pass
n20	2462	Ant1	11.83	30	Pass
n20	2412	Ant2	11.35	30	Pass
n20	2437	Ant2	11.04	30	Pass
n20	2462	Ant2	11.22	30	Pass
n20	2412	Sum	14.68	30	Pass
n20	2437	Sum	14.56	30	Pass
n20	2462	Sum	14.55	30	Pass
n40	2422	Ant1	11.13	30	Pass
n40	2437	Ant1	10.95	30	Pass
n40	2452	Ant1	10.99	30	Pass
n40	2422	Ant2	10.55	30	Pass
n40	2437	Ant2	10.33	30	Pass
n40	2452	Ant2	10.48	30	Pass
n40	2422	Sum	13.86	30	Pass
n40	2437	Sum	13.66	30	Pass
n40	2452	Sum	13.75	30	Pass

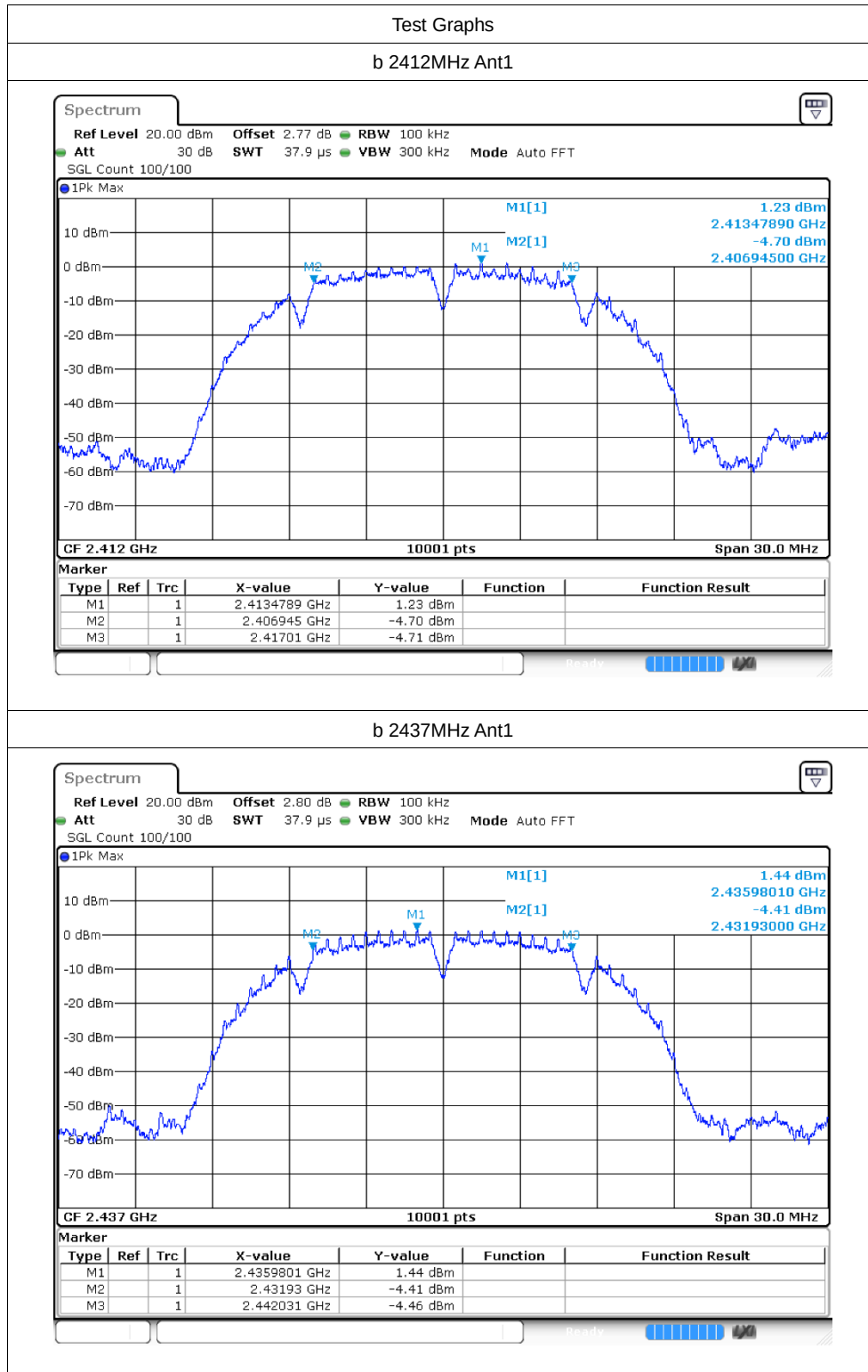


3 -6dB Bandwidth

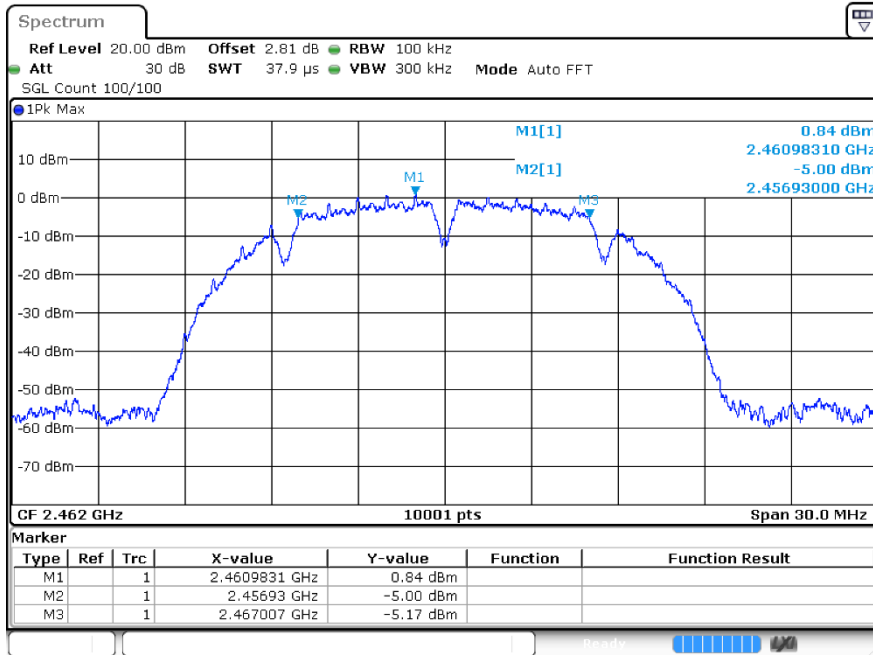
3.1 Test Result

Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
b	2412	Ant1	10.065	0.5	Pass
b	2437	Ant1	10.101	0.5	Pass
b	2462	Ant1	10.077	0.5	Pass
g	2412	Ant1	15.117	0.5	Pass
g	2437	Ant1	15.06	0.5	Pass
g	2462	Ant1	15.084	0.5	Pass
n20	2412	Ant1	15.069	0.5	Pass
n20	2437	Ant1	15.108	0.5	Pass
n20	2462	Ant1	15.087	0.5	Pass
n40	2422	Ant1	31.284	0.5	Pass
n40	2437	Ant1	35.01	0.5	Pass
n40	2452	Ant1	27.672	0.5	Pass
b	2412	Ant2	10.11	0.5	Pass
b	2437	Ant2	10.077	0.5	Pass
b	2462	Ant2	10.095	0.5	Pass
g	2412	Ant2	15.063	0.5	Pass
g	2437	Ant2	15.099	0.5	Pass
g	2462	Ant2	15.117	0.5	Pass
n20	2412	Ant2	15.672	0.5	Pass
n20	2437	Ant2	16.875	0.5	Pass
n20	2462	Ant2	15.111	0.5	Pass
n40	2422	Ant2	35.046	0.5	Pass
n40	2437	Ant2	31.914	0.5	Pass
n40	2452	Ant2	35.082	0.5	Pass

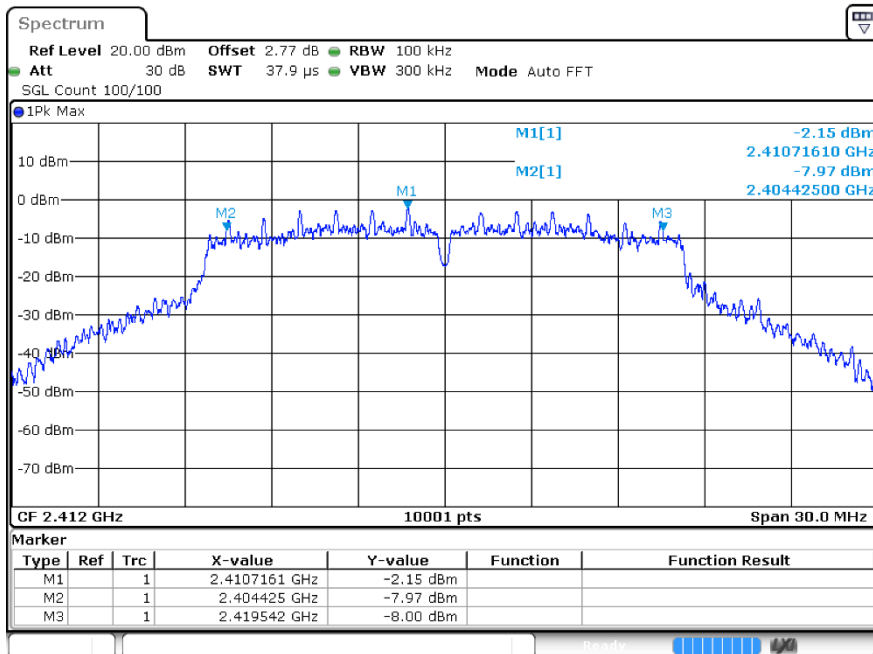
3.2 Test Graphs



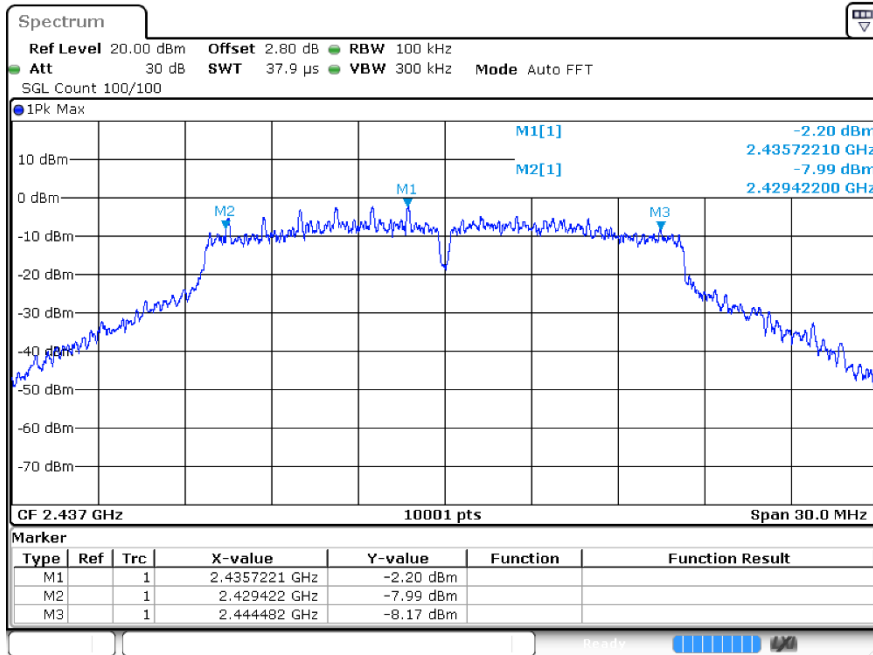
b 2462MHz Ant1



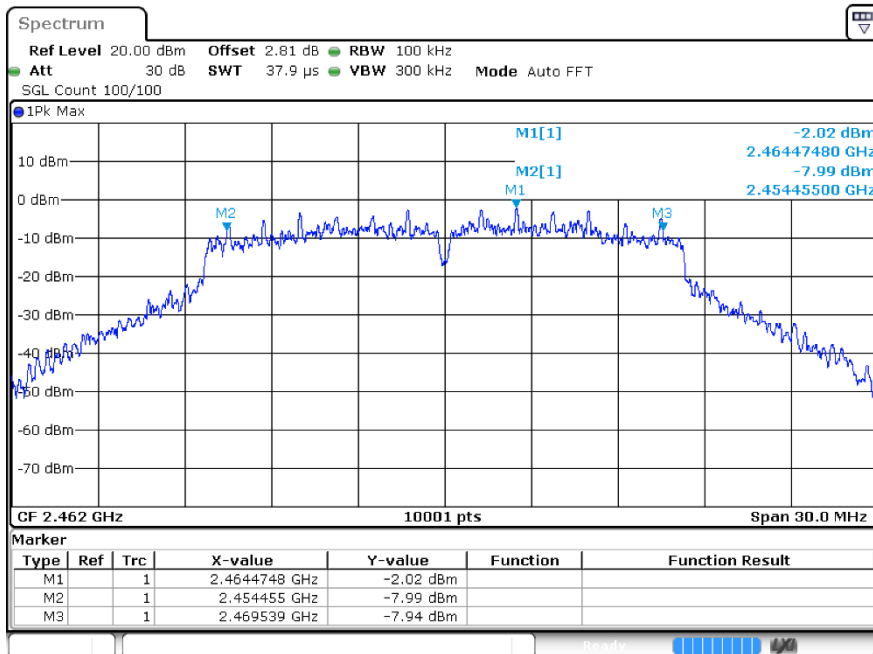
g 2412MHz Ant1

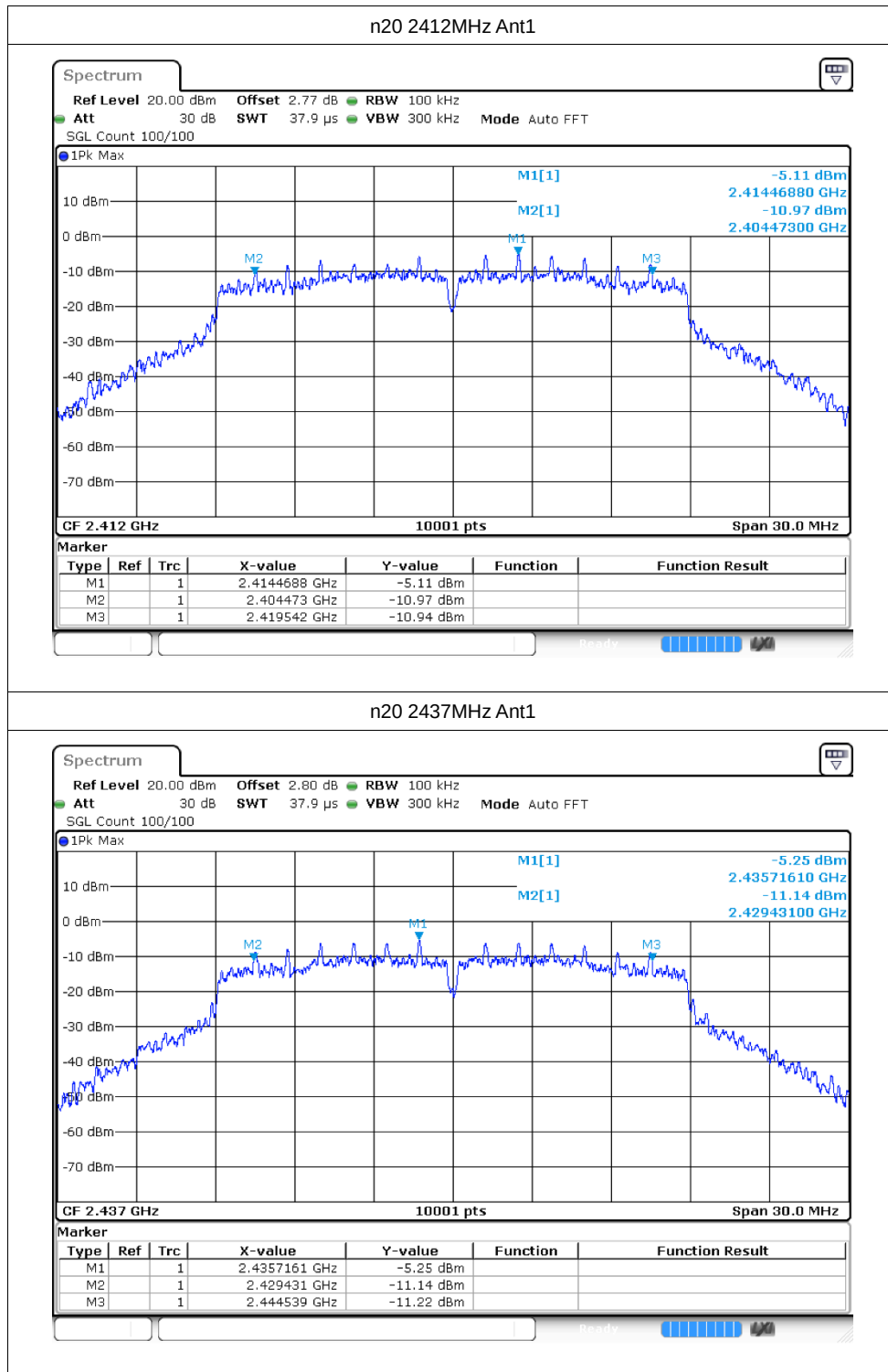


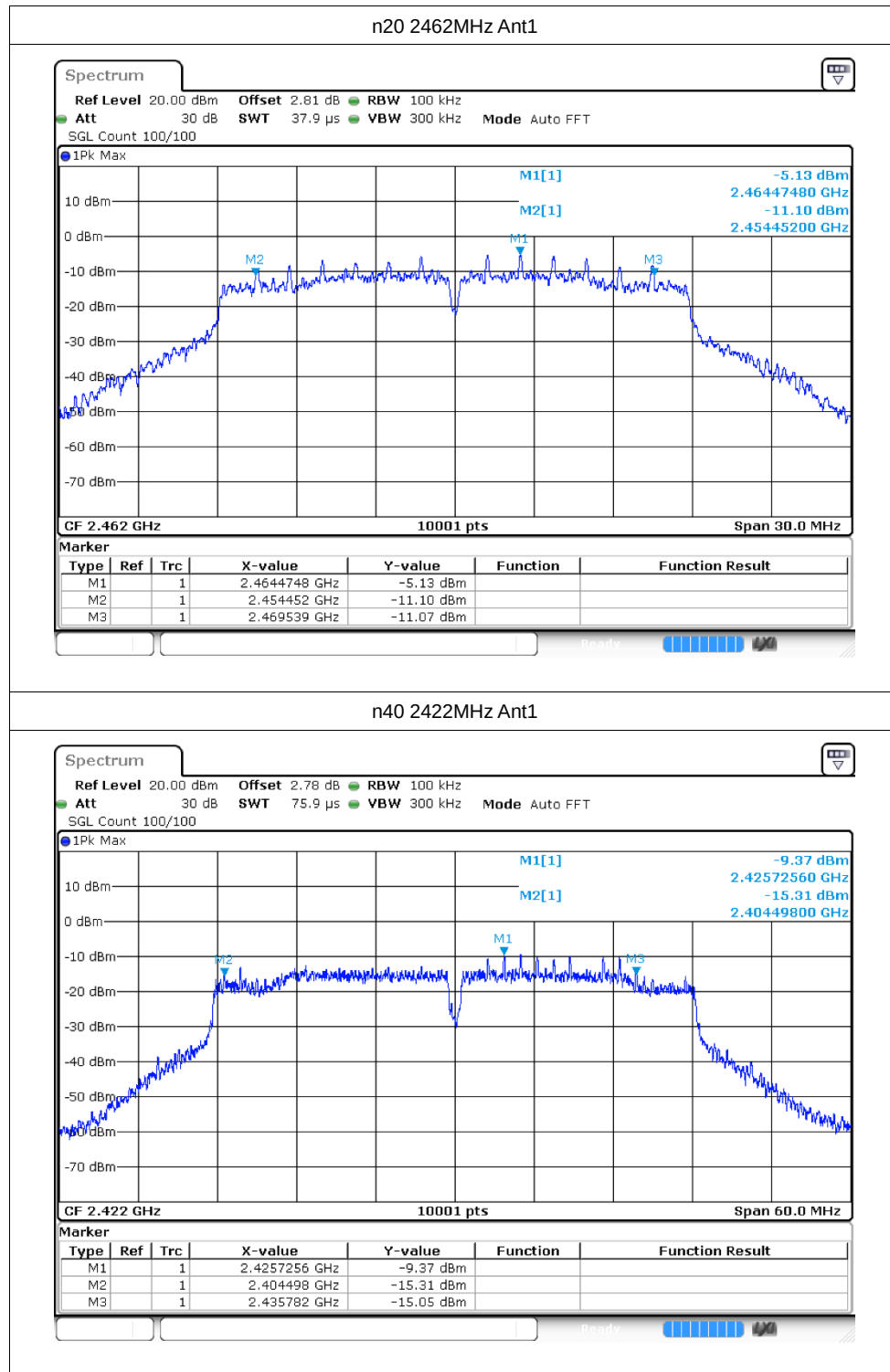
g 2437MHz Ant1

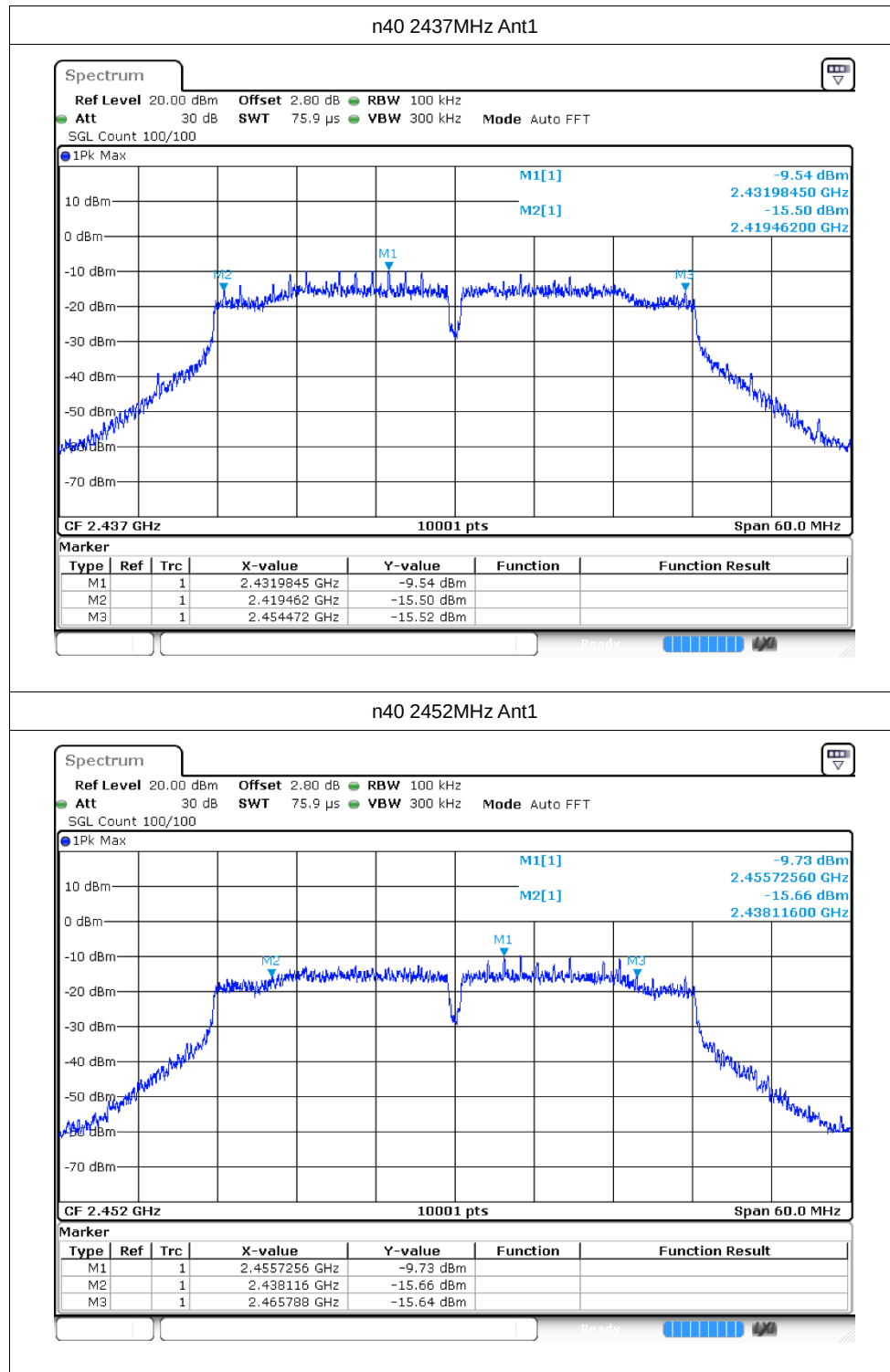


g 2462MHz Ant1

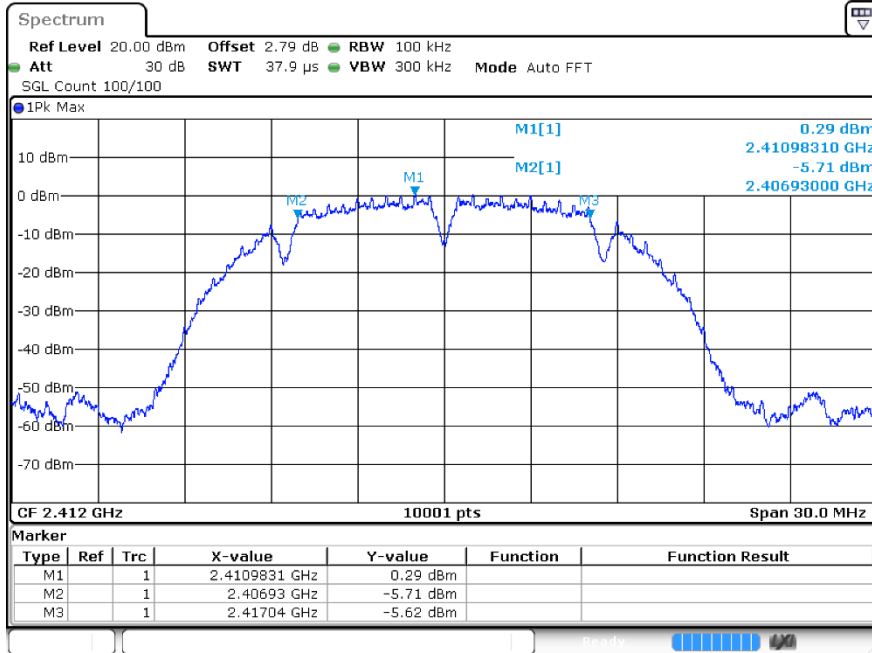




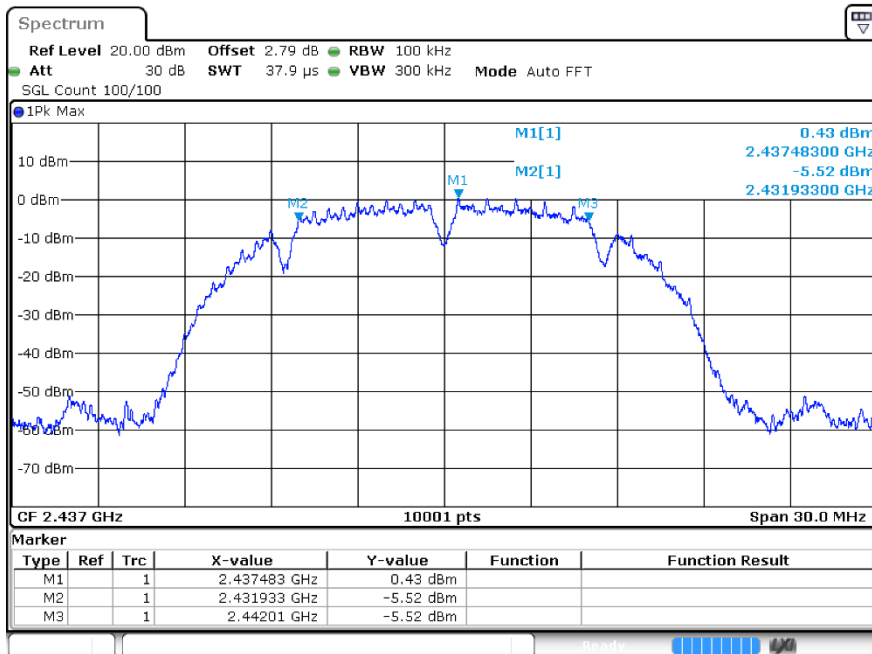




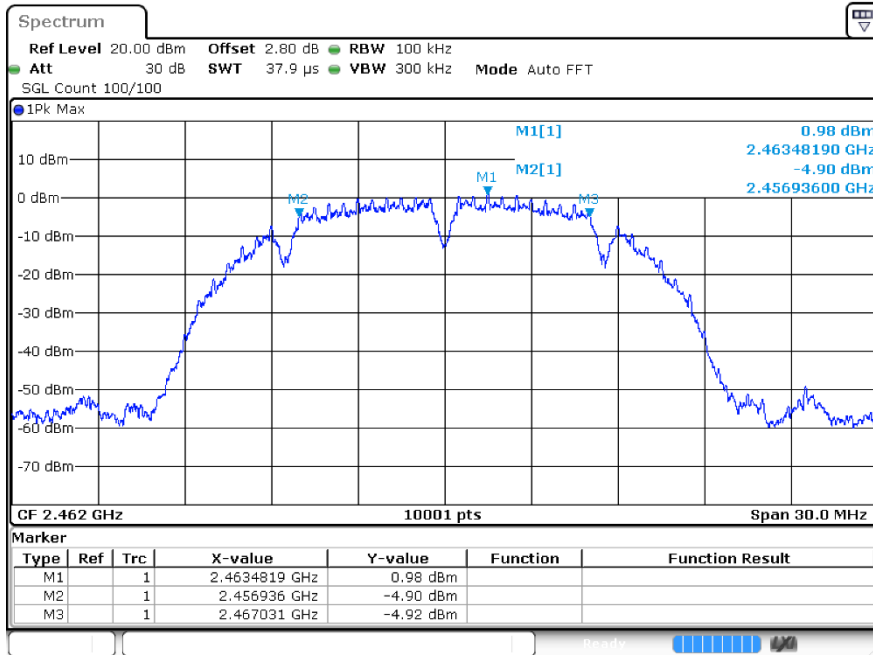
b 2412MHz Ant2



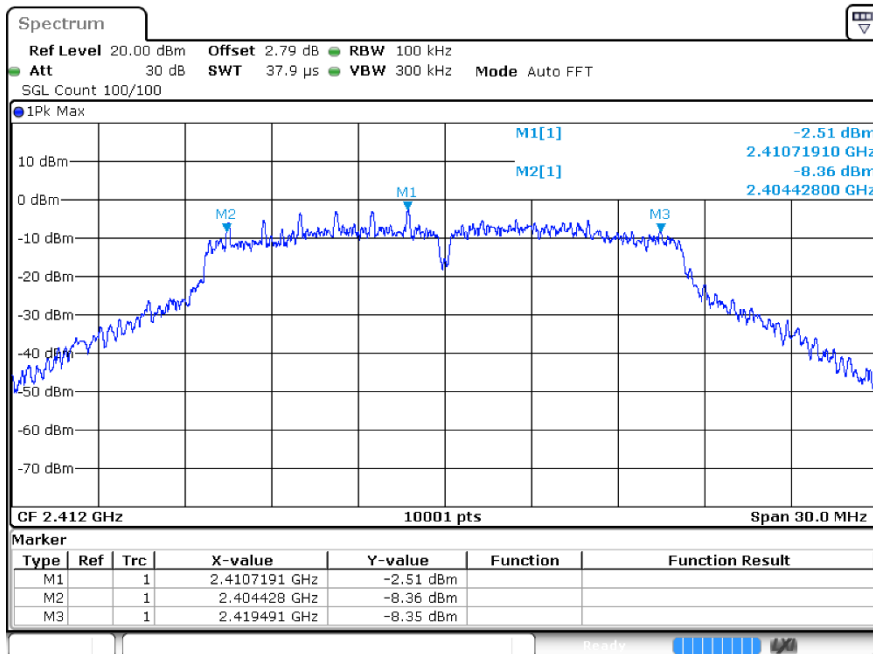
b 2437MHz Ant2



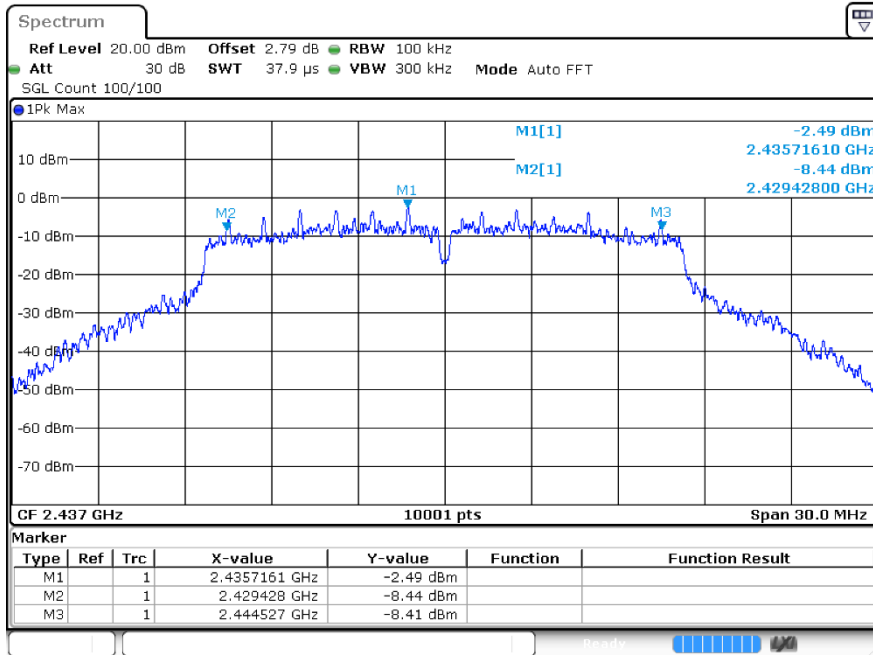
b 2462MHz Ant2



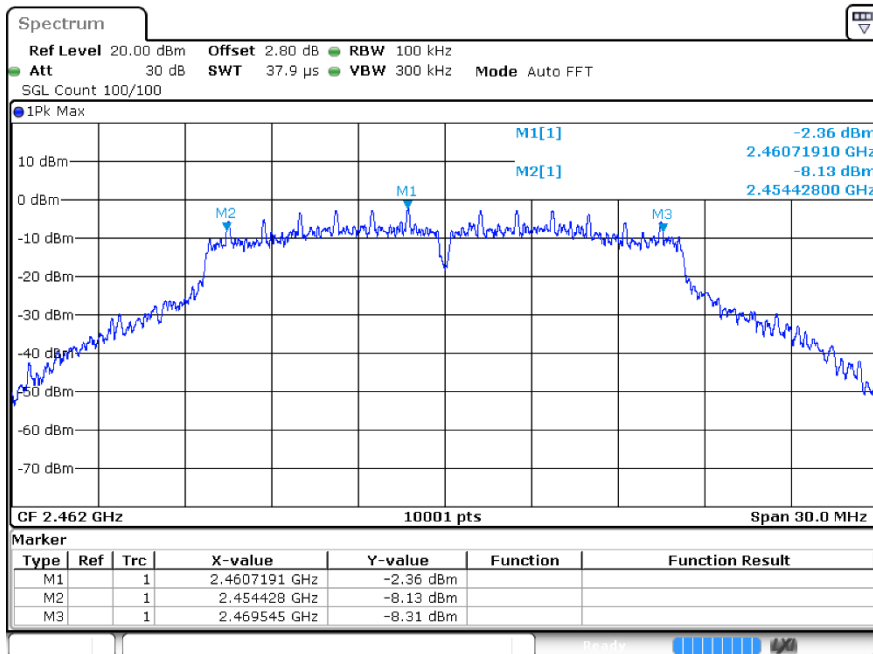
g 2412MHz Ant2



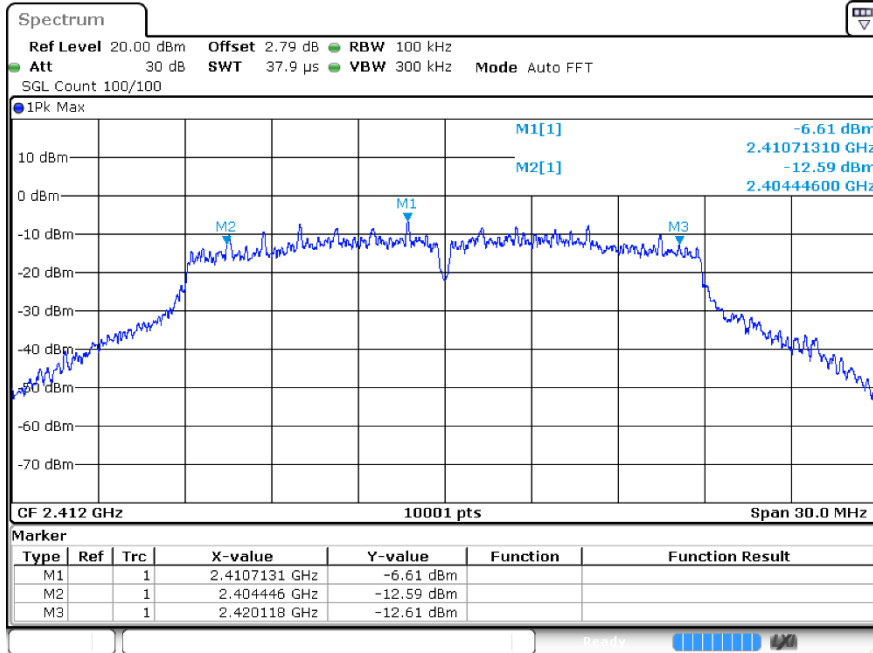
g 2437MHz Ant2



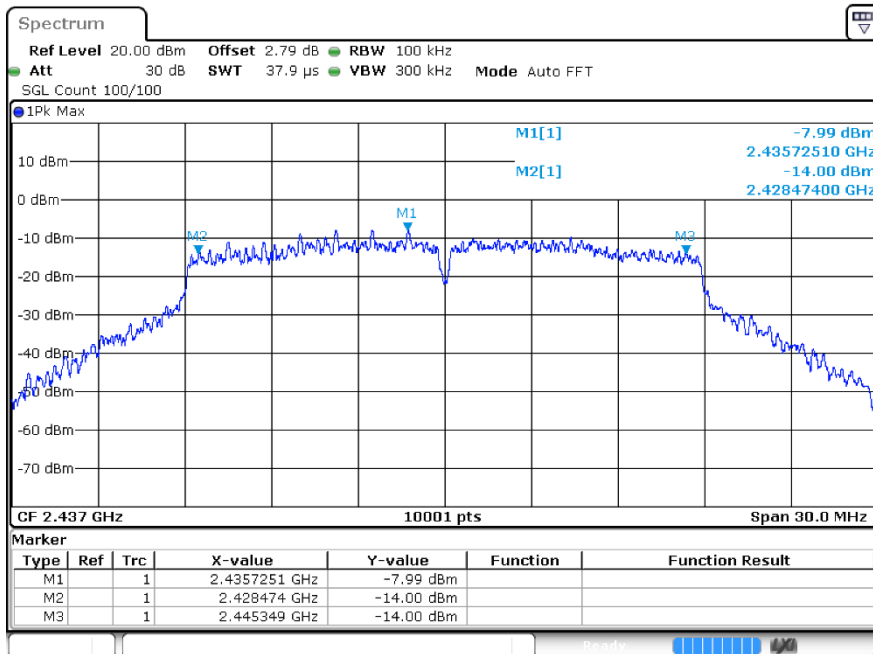
g 2462MHz Ant2

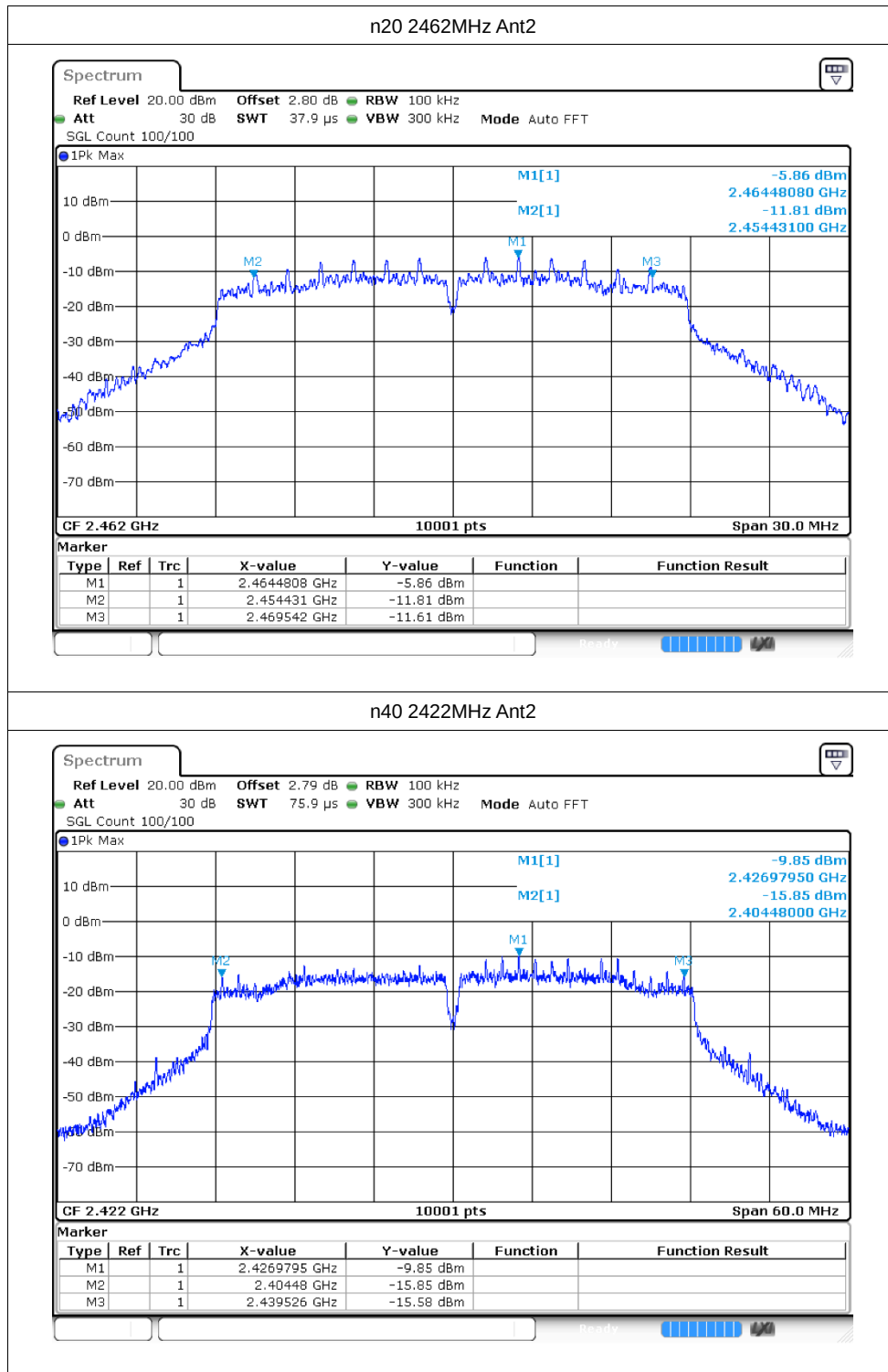


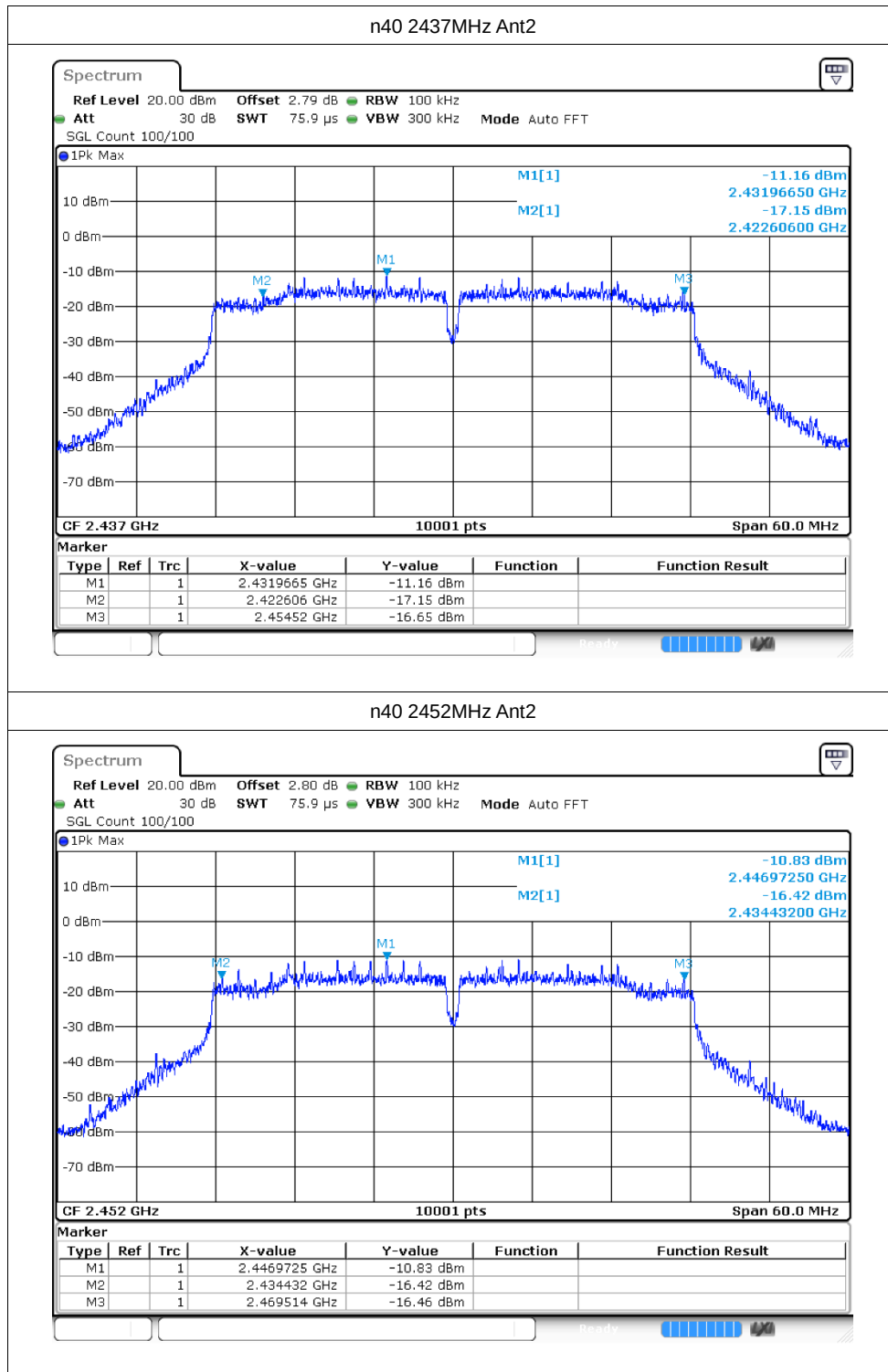
n20 2412MHz Ant2



n20 2437MHz Ant2





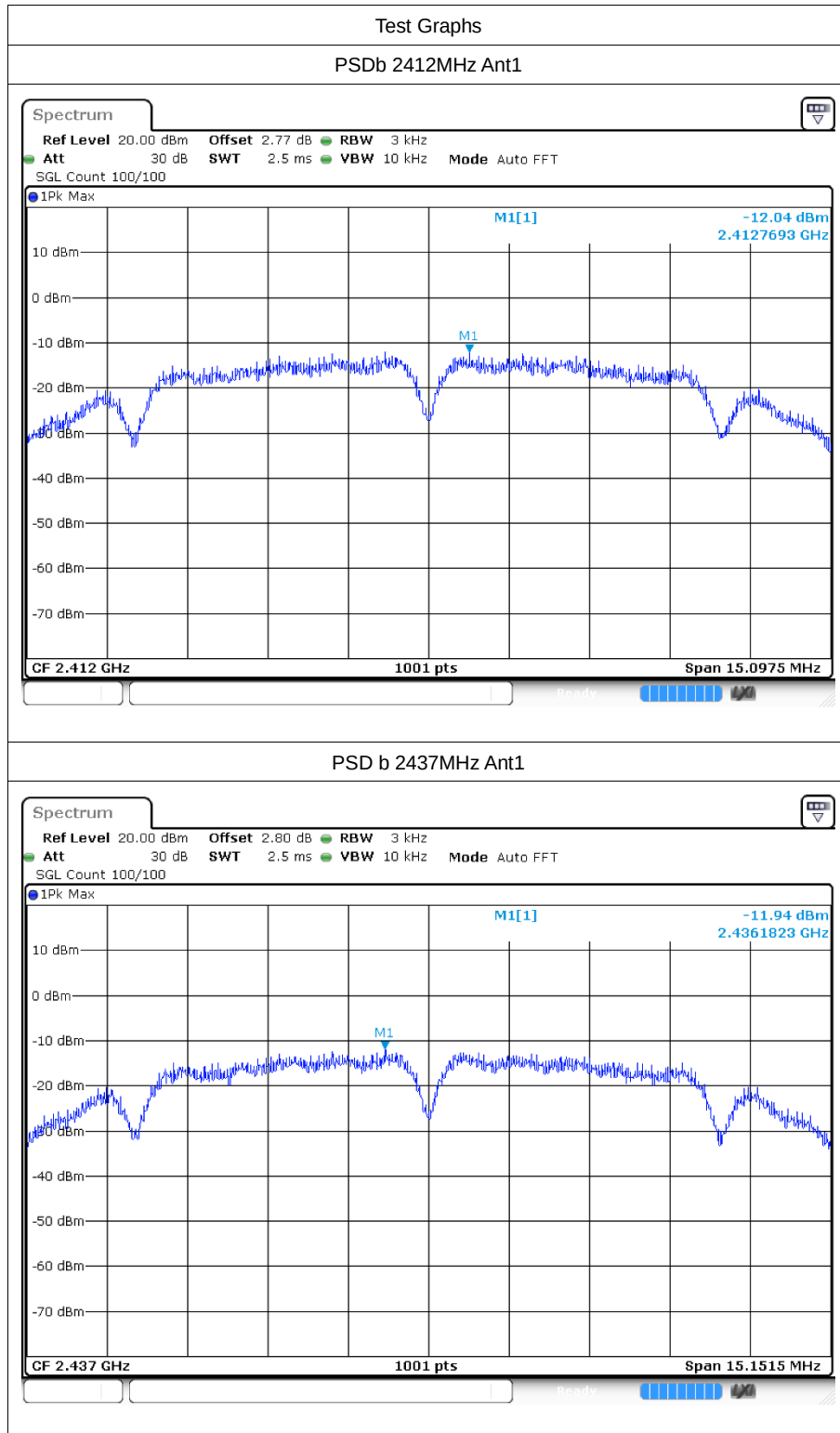


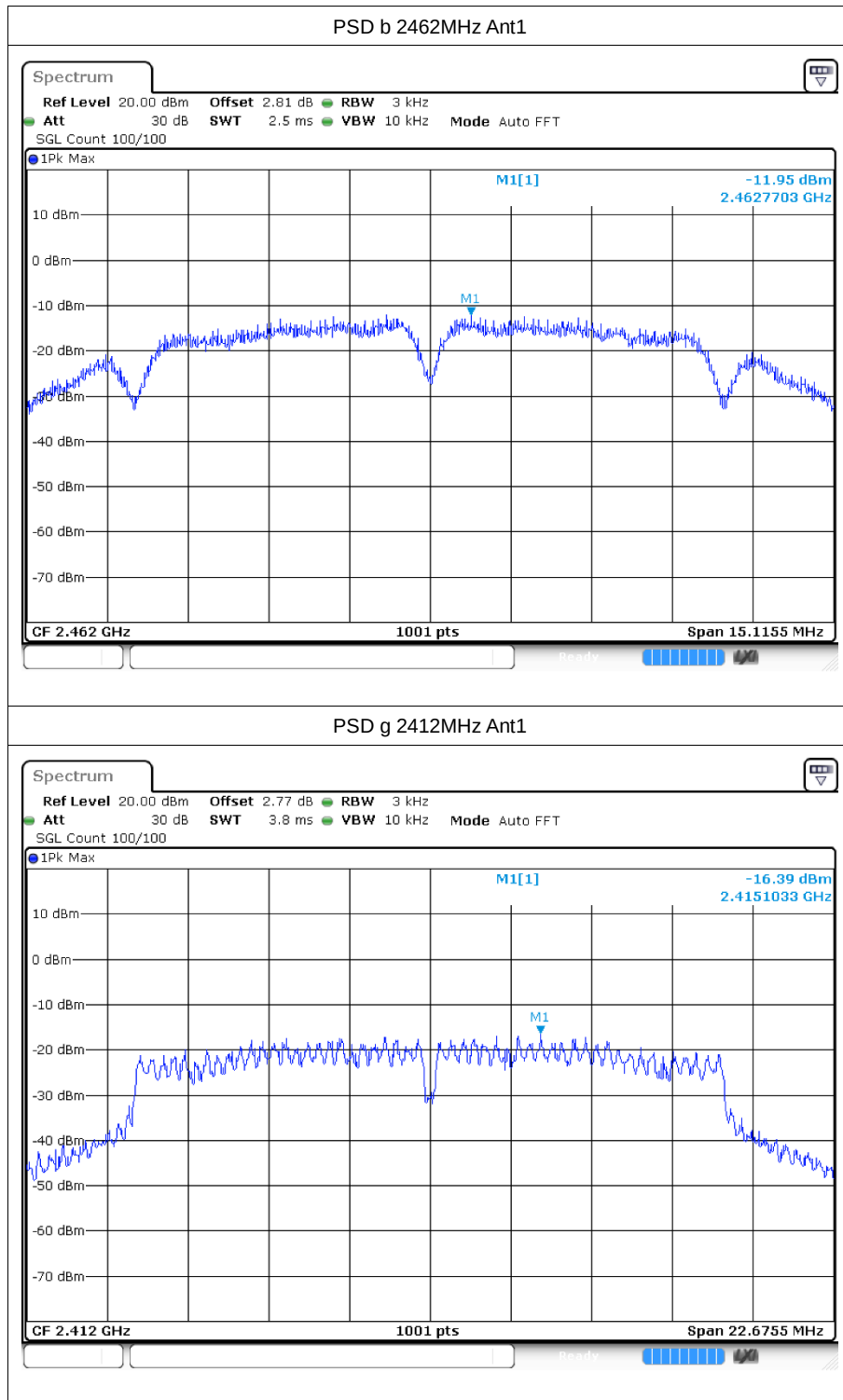
4 Maximum Power Spectral Density Level

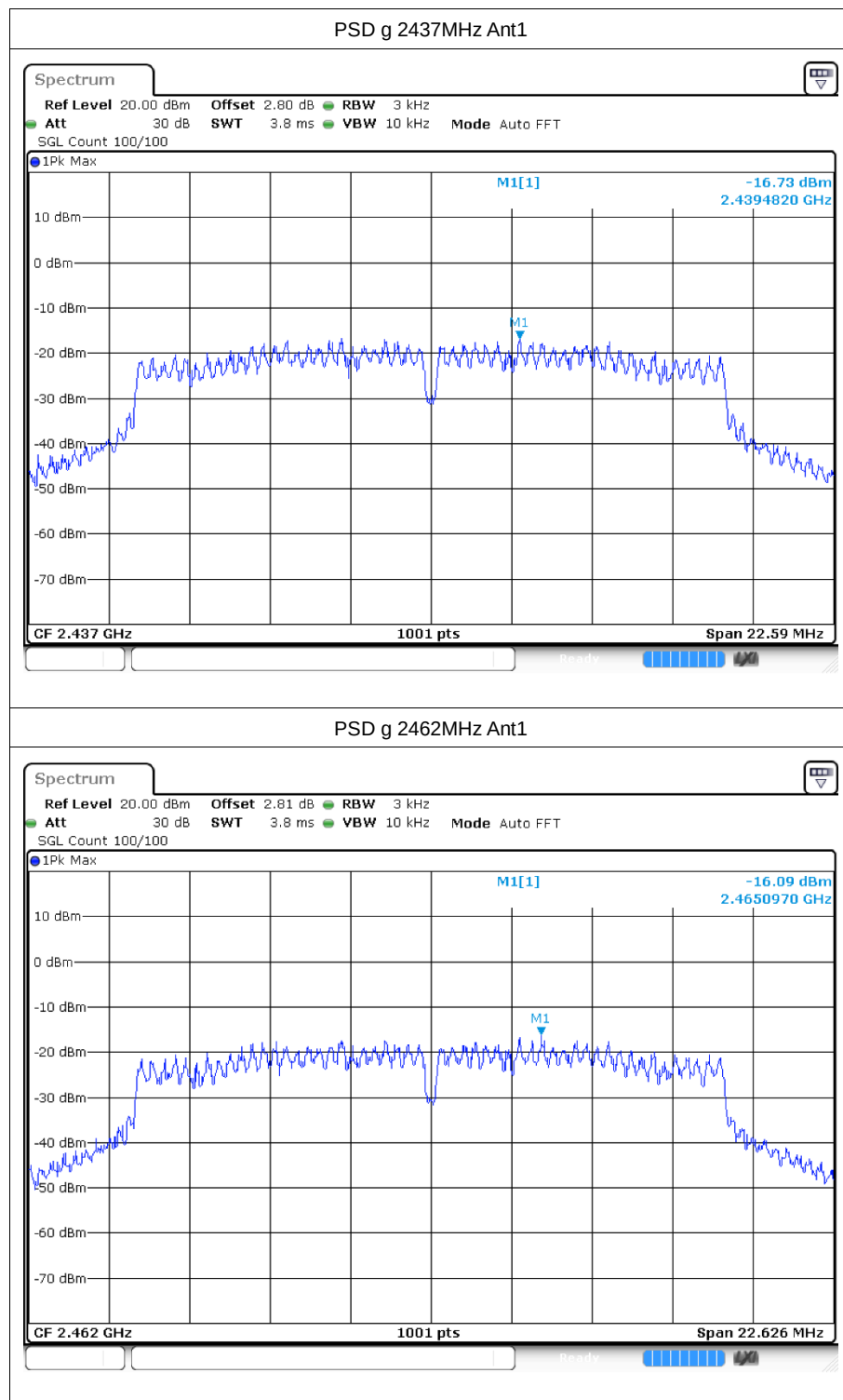
4.1 Test Result

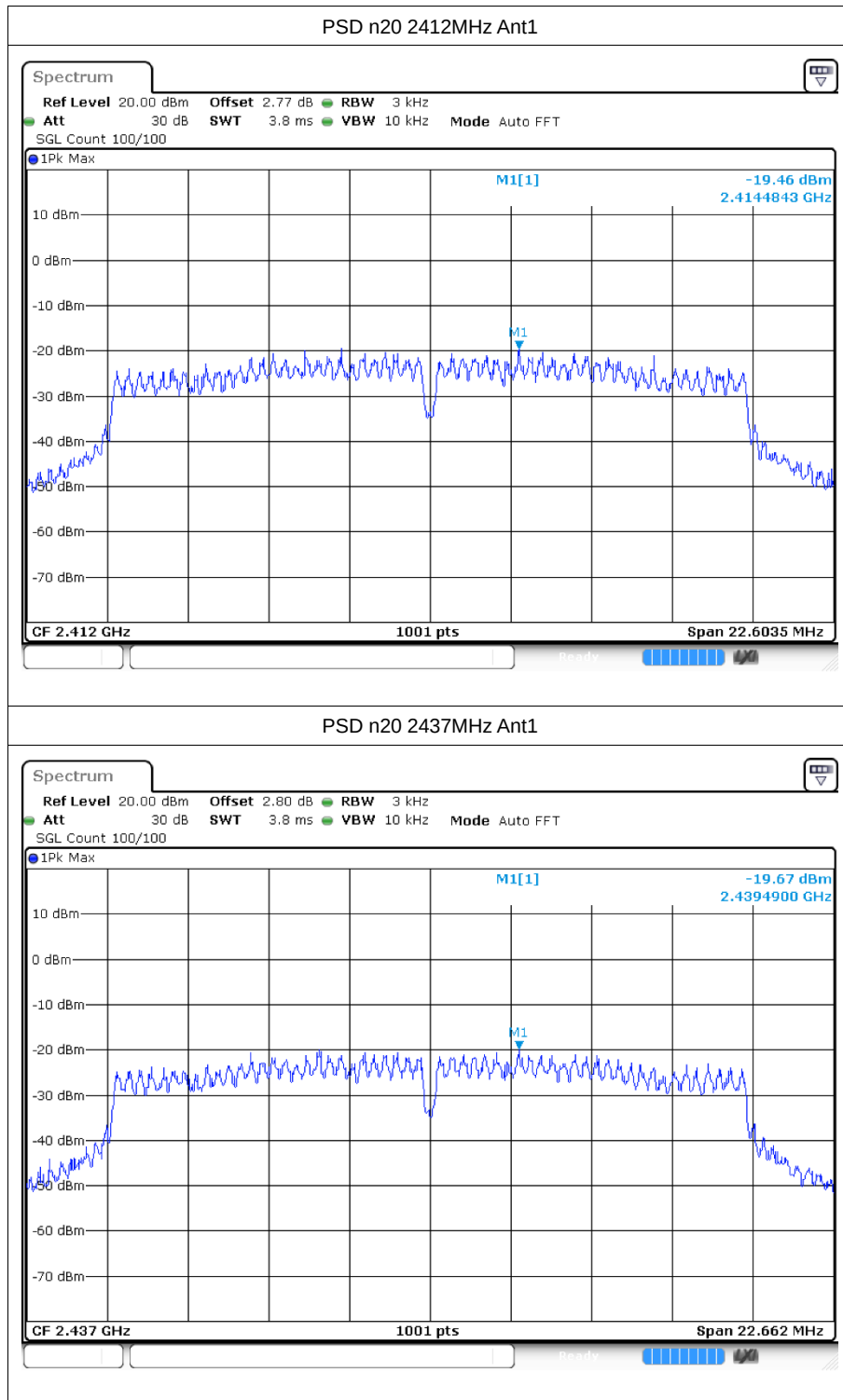
Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3-100kHz)	Limit (dBm/3kHz)	Verdict
b	2412	Ant1	-12.04	≤8	Pass
b	2437	Ant1	-11.94	≤8	Pass
b	2462	Ant1	-11.95	≤8	Pass
g	2412	Ant1	-16.39	≤8	Pass
g	2437	Ant1	-16.73	≤8	Pass
g	2462	Ant1	-16.09	≤8	Pass
n20	2412	Ant1	-19.46	≤8	Pass
n20	2437	Ant1	-19.67	≤8	Pass
n20	2462	Ant1	-19.56	≤8	Pass
n40	2422	Ant1	-22.85	≤8	Pass
n40	2437	Ant1	-24.04	≤8	Pass
n40	2452	Ant1	-23.7	≤8	Pass
b	2412	Ant2	-12.61	≤8	Pass
b	2437	Ant2	-12.57	≤8	Pass
b	2462	Ant2	-12.26	≤8	Pass
g	2412	Ant2	-17.14	≤8	Pass
g	2437	Ant2	-17.17	≤8	Pass
g	2462	Ant2	-17.26	≤8	Pass
n20	2412	Ant2	-20.95	≤8	Pass
n20	2437	Ant2	-20.49	≤8	Pass
n20	2462	Ant2	-20.51	≤8	Pass
n40	2422	Ant2	-23.6	≤8	Pass
n40	2437	Ant2	-24.13	≤8	Pass
n40	2452	Ant2	-23.92	≤8	Pass

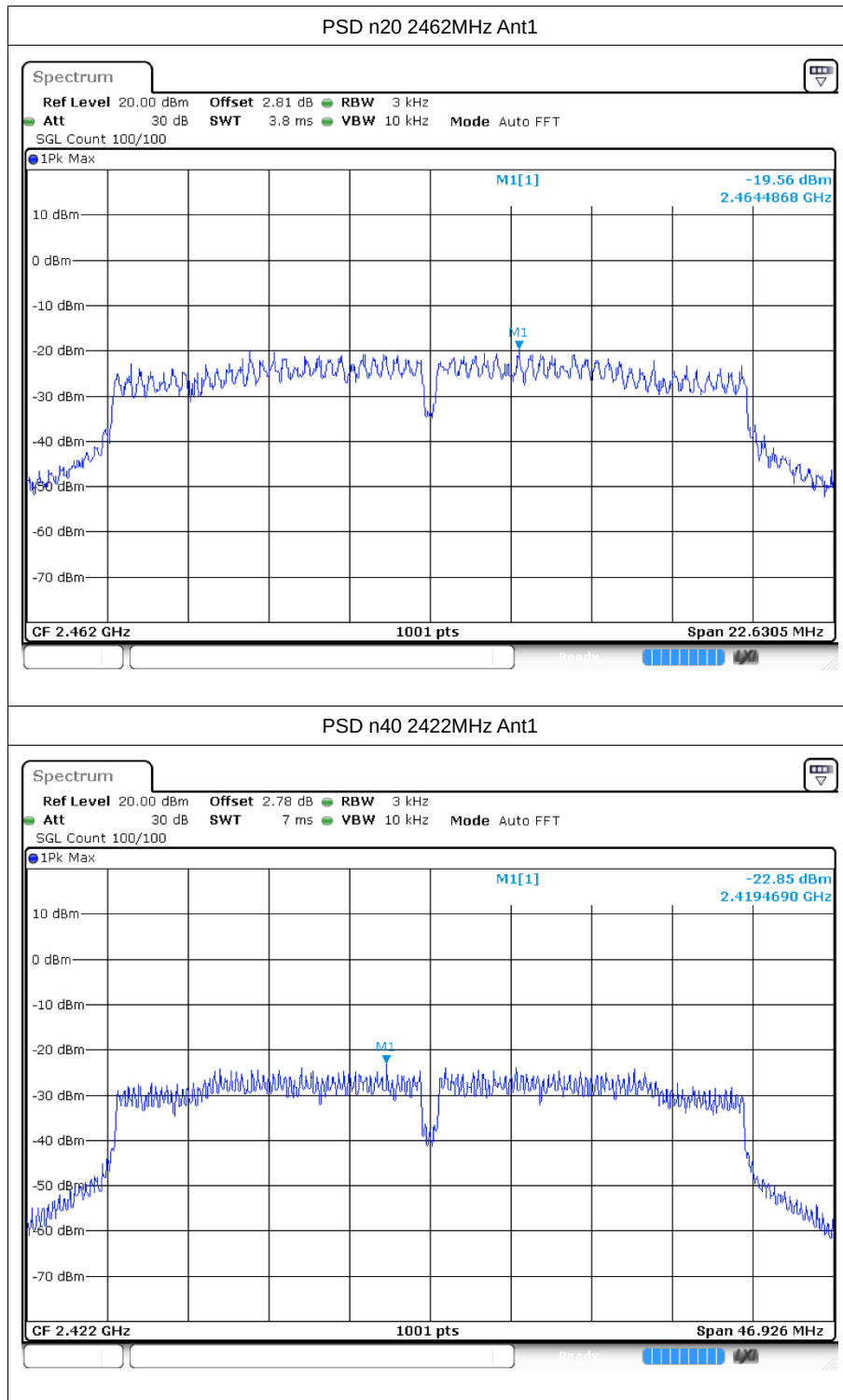
4.2 Test Graphs

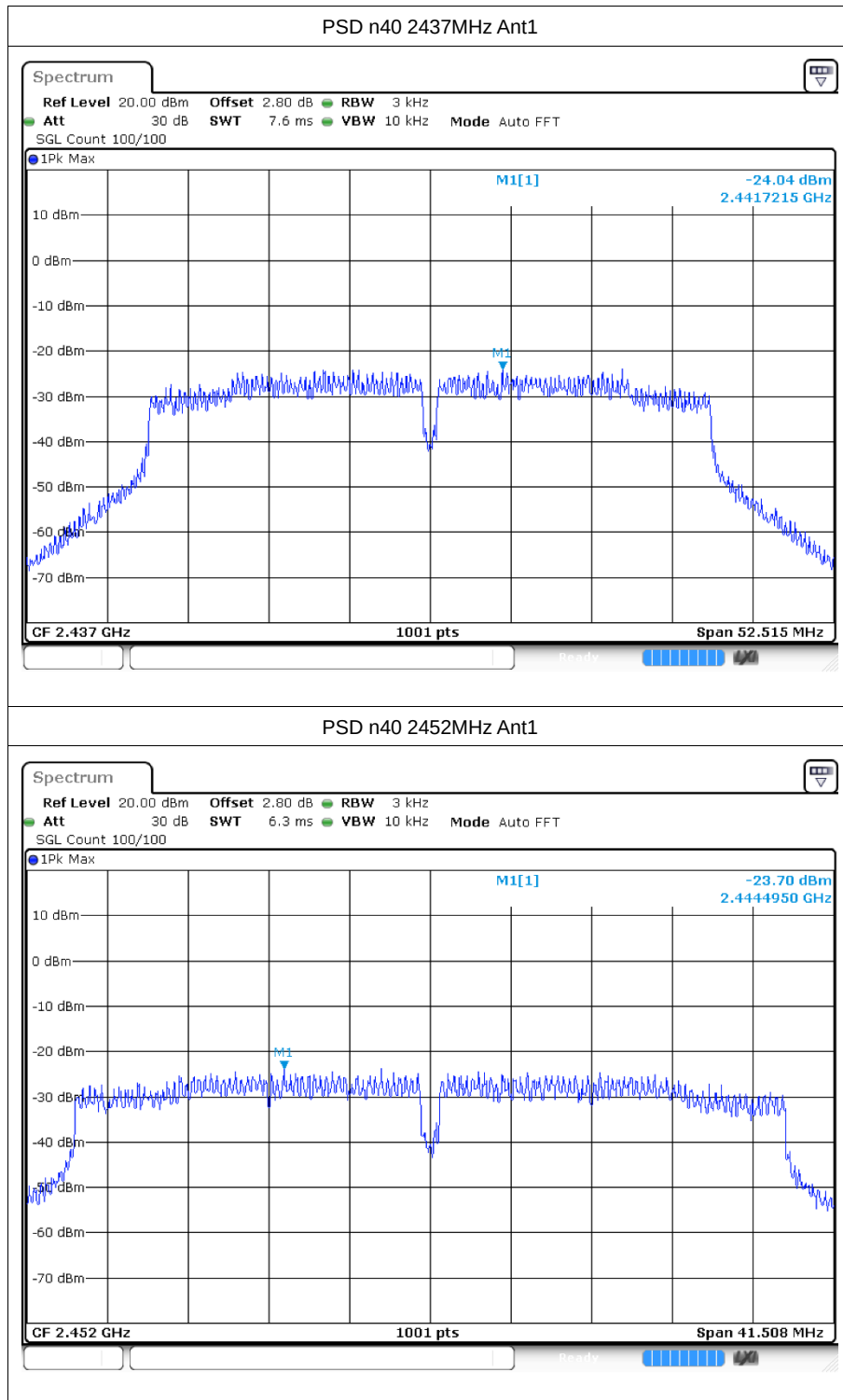










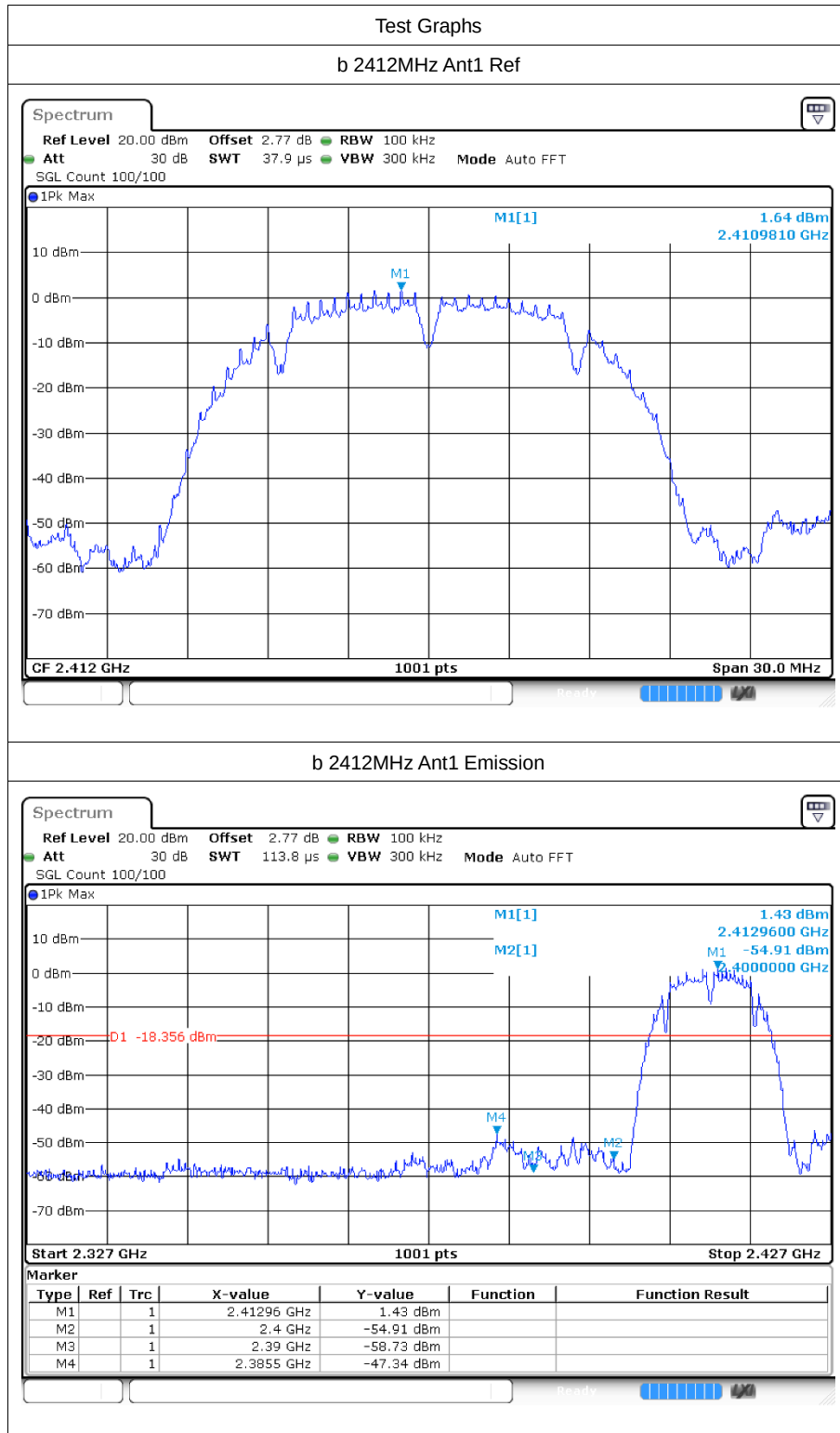


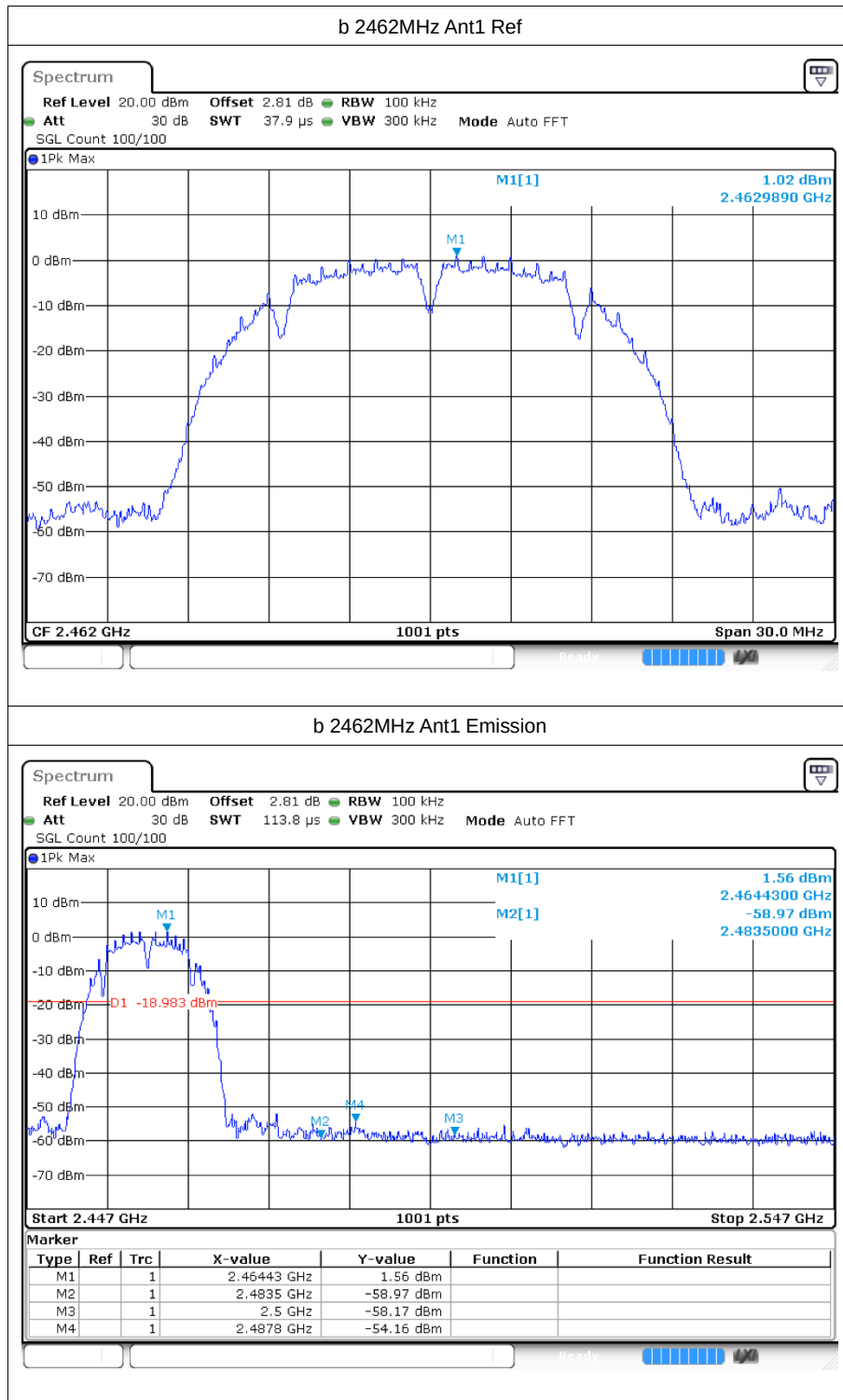
5 Band Edge

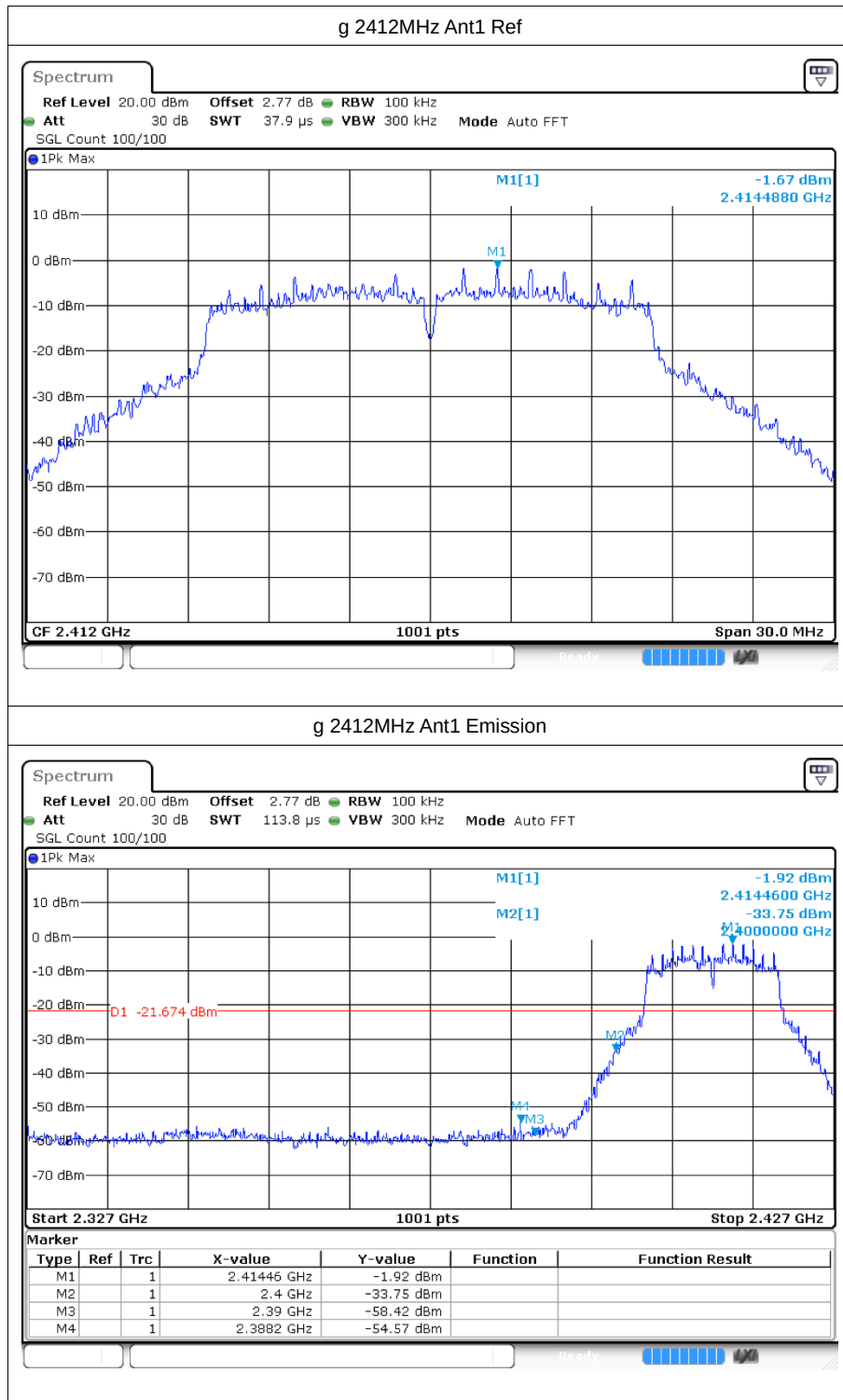
5.1 Test Result

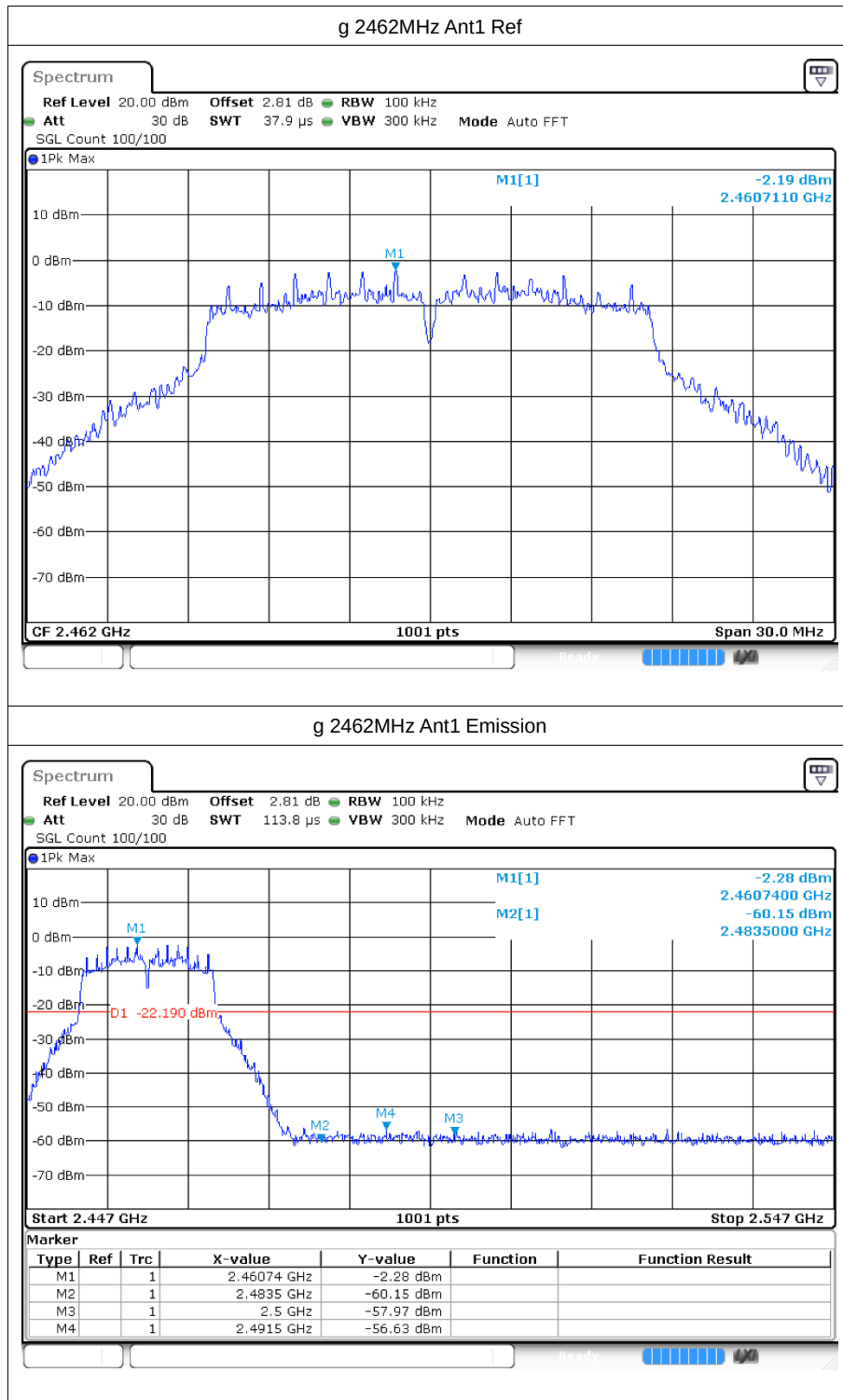
Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
b	2412	Ant1	-48.97	-20	-48.97
b	2462	Ant1	-55.17	-20	Pass
g	2412	Ant1	-52.9	-20	Pass
g	2462	Ant1	-54.44	-20	Pass
n20	2412	Ant1	-50.78	-20	Pass
n20	2462	Ant1	-51.49	-20	Pass
n40	2422	Ant1	-47.08	-20	Pass
n40	2452	Ant1	-45.84	-20	Pass
b	2412	Ant2	-53.05	-20	-53.05
b	2462	Ant2	-55.62	-20	Pass
g	2412	Ant2	-51.52	-20	Pass
g	2462	Ant2	-53.58	-20	Pass
n20	2412	Ant2	-48.93	-20	Pass
n20	2462	Ant2	-50.78	-20	Pass
n40	2422	Ant2	-45.92	-20	Pass
n40	2452	Ant2	-45.47	-20	Pass

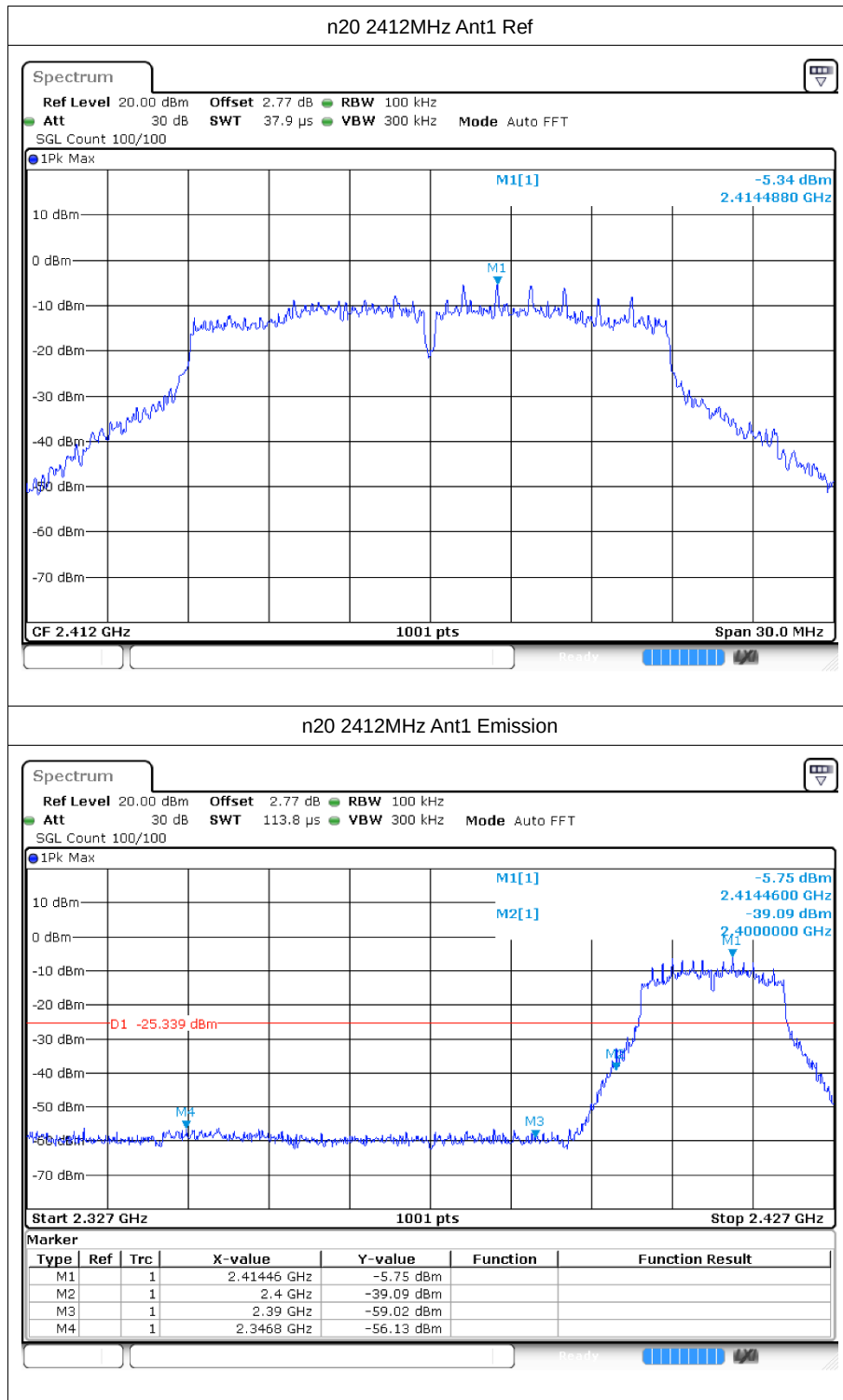
5.2 Test Graphs

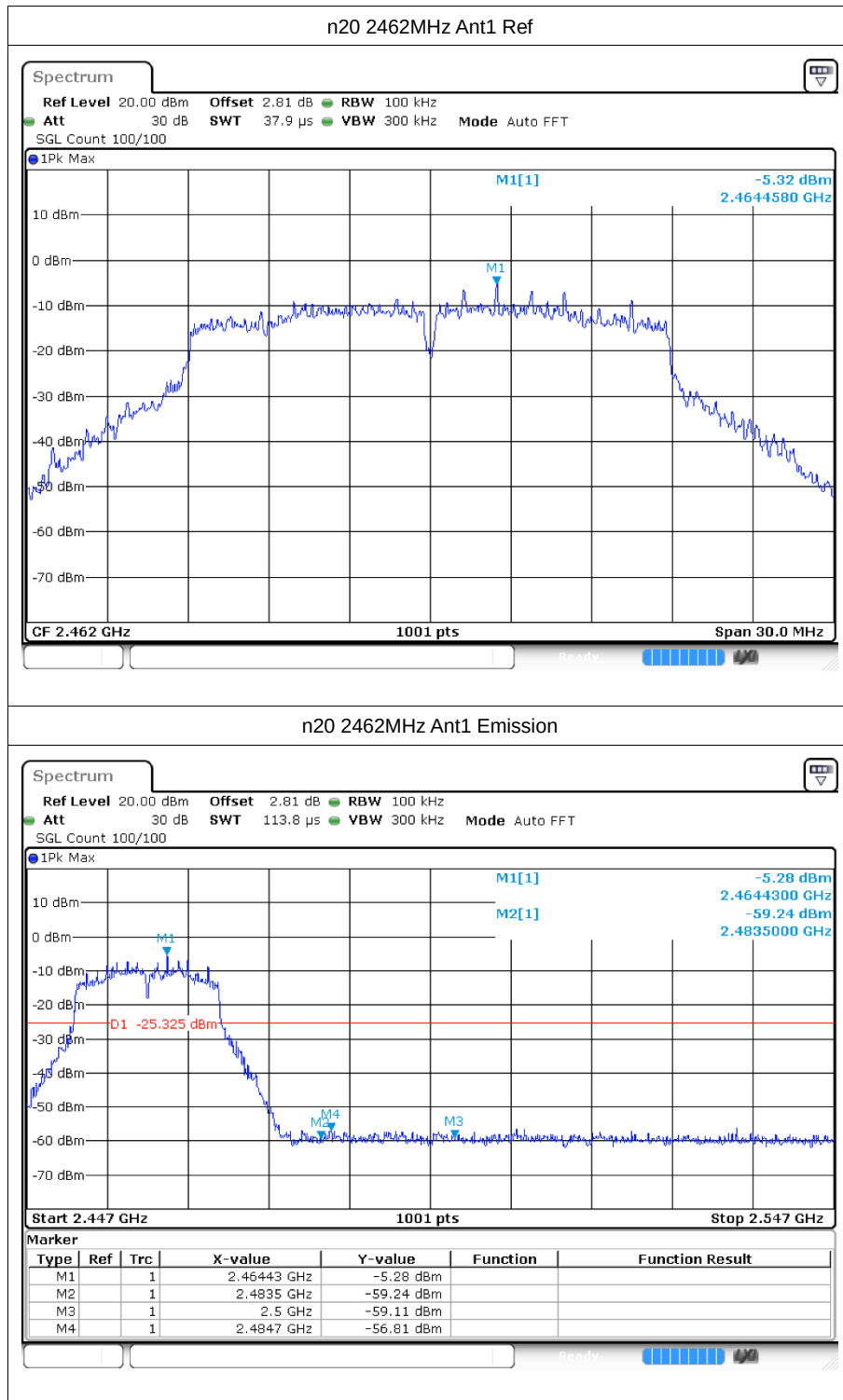


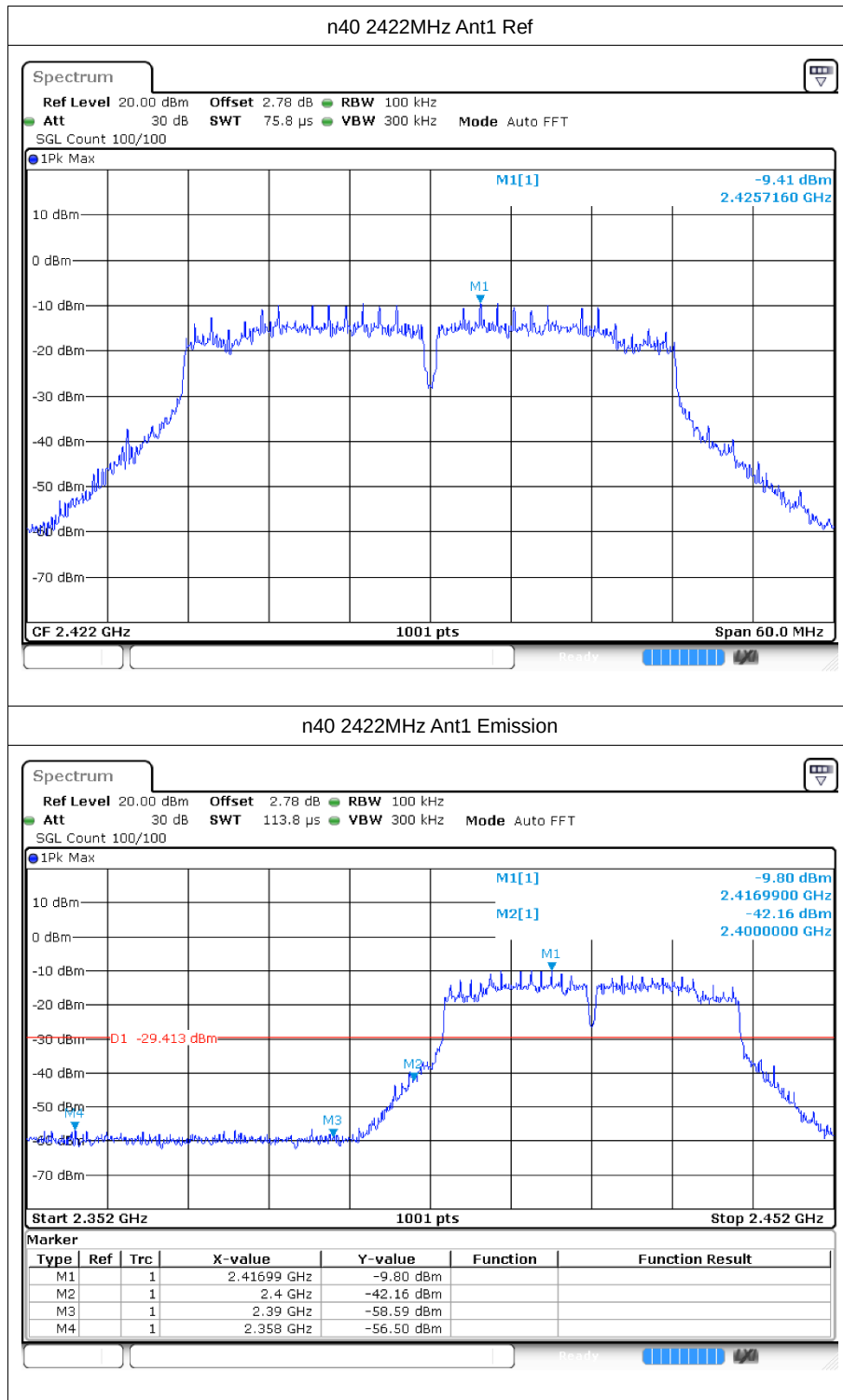


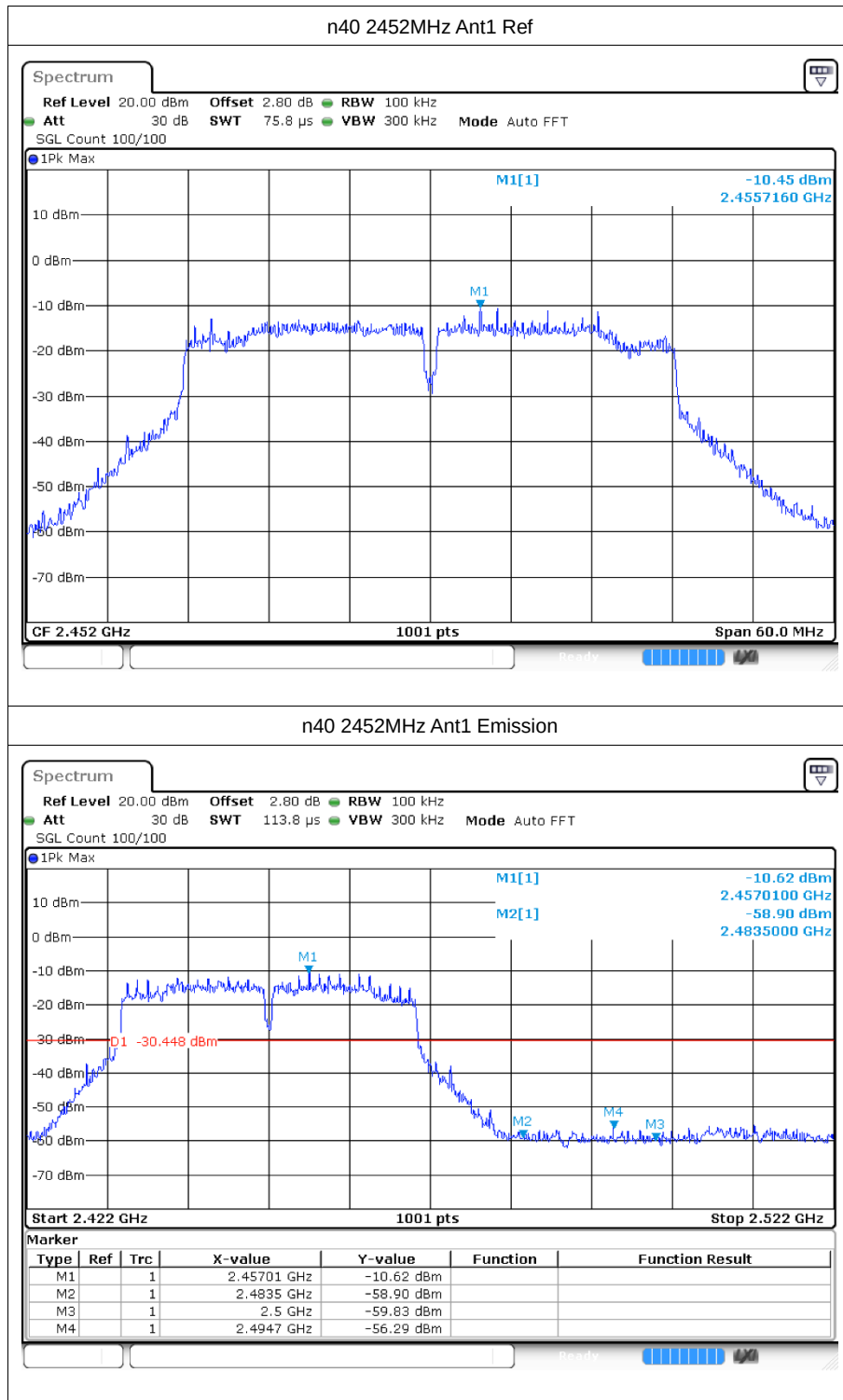


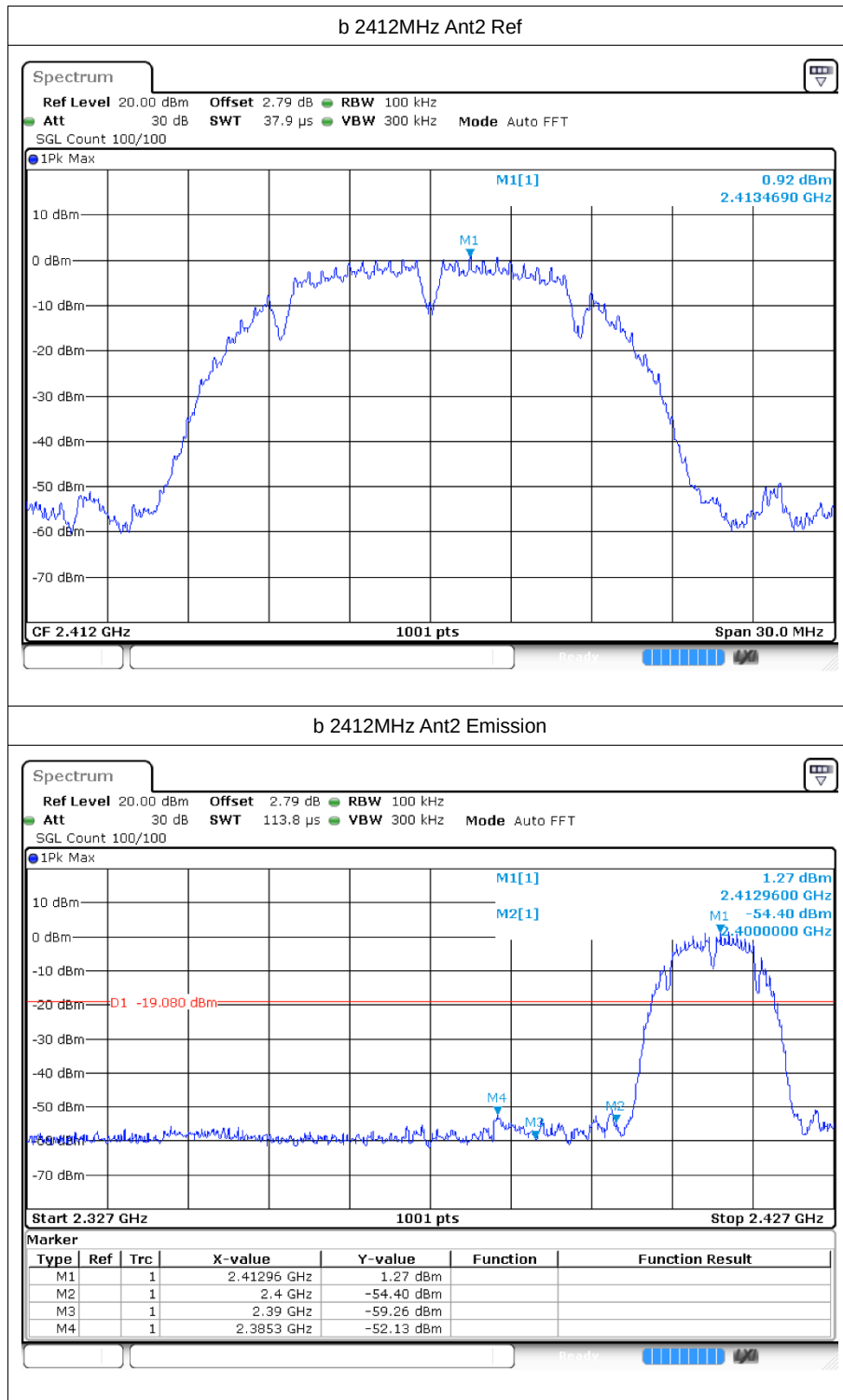


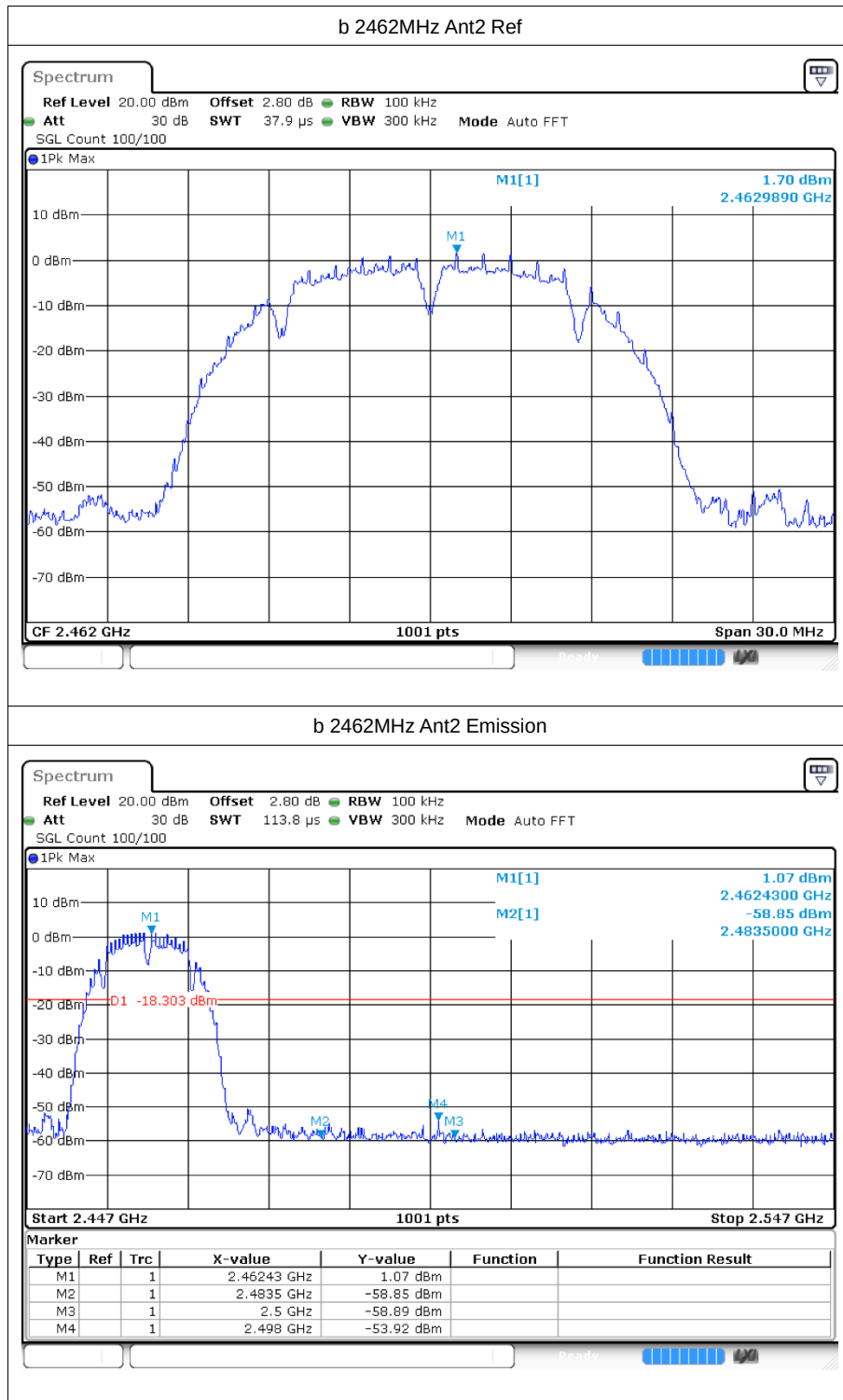


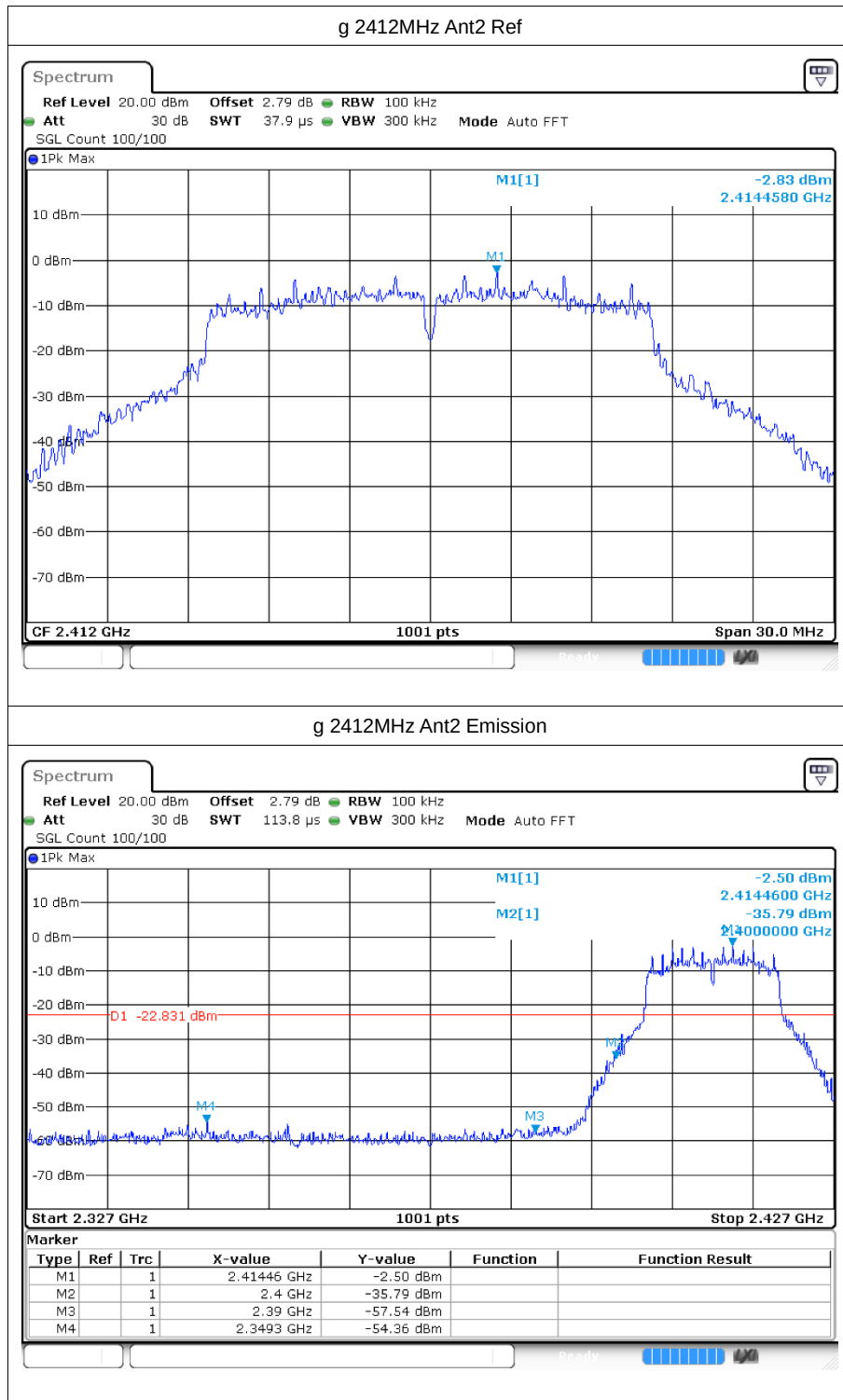


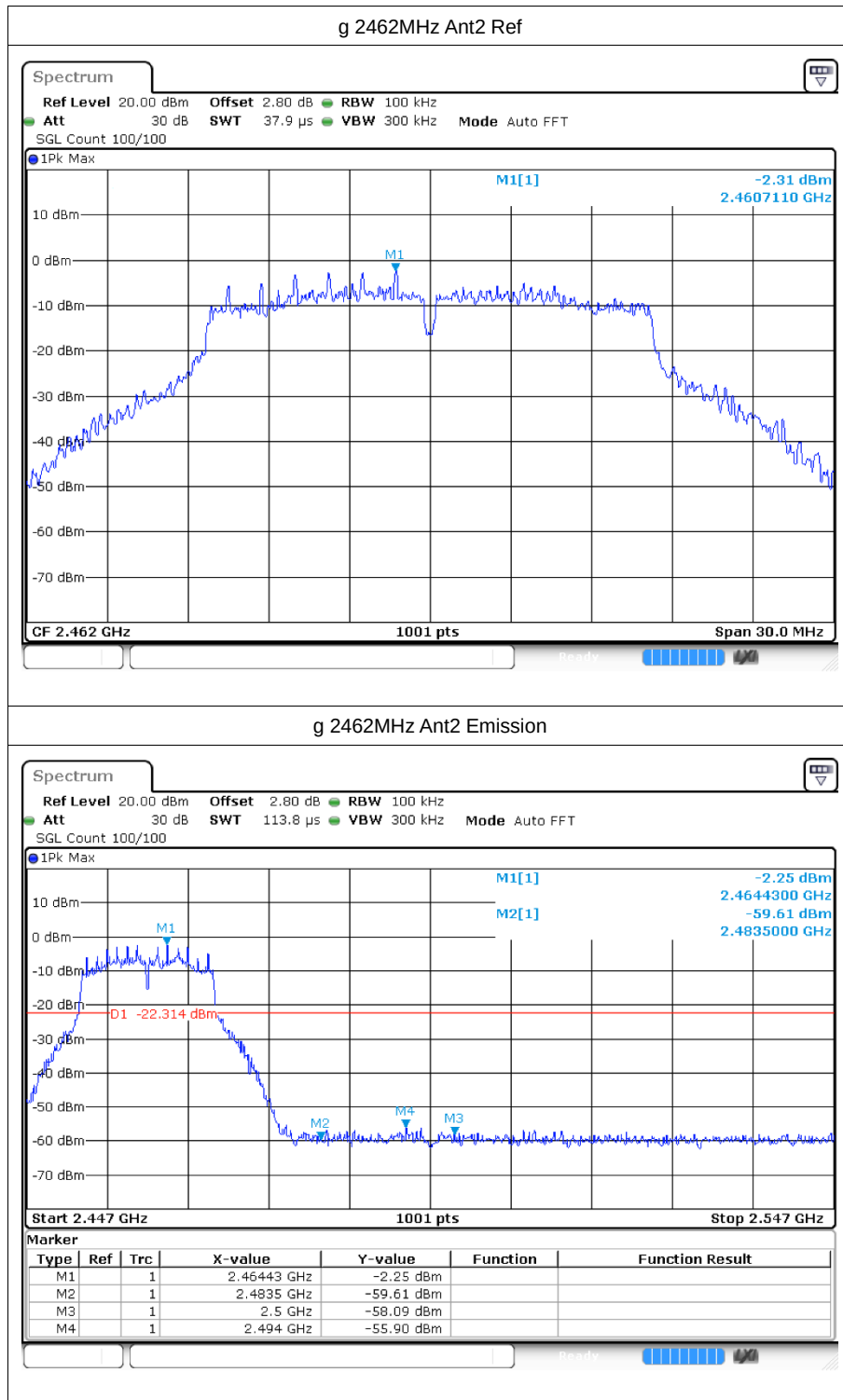


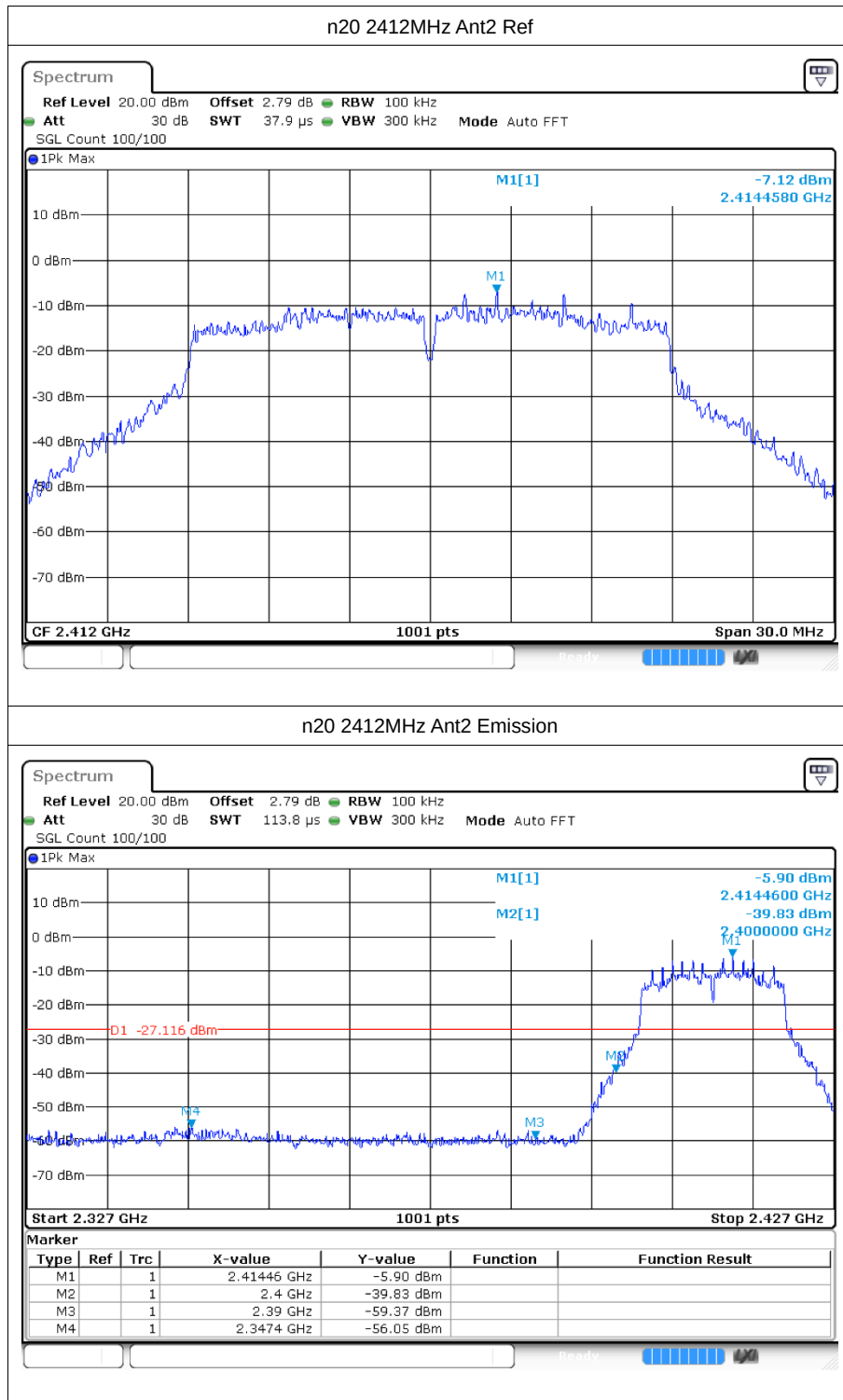


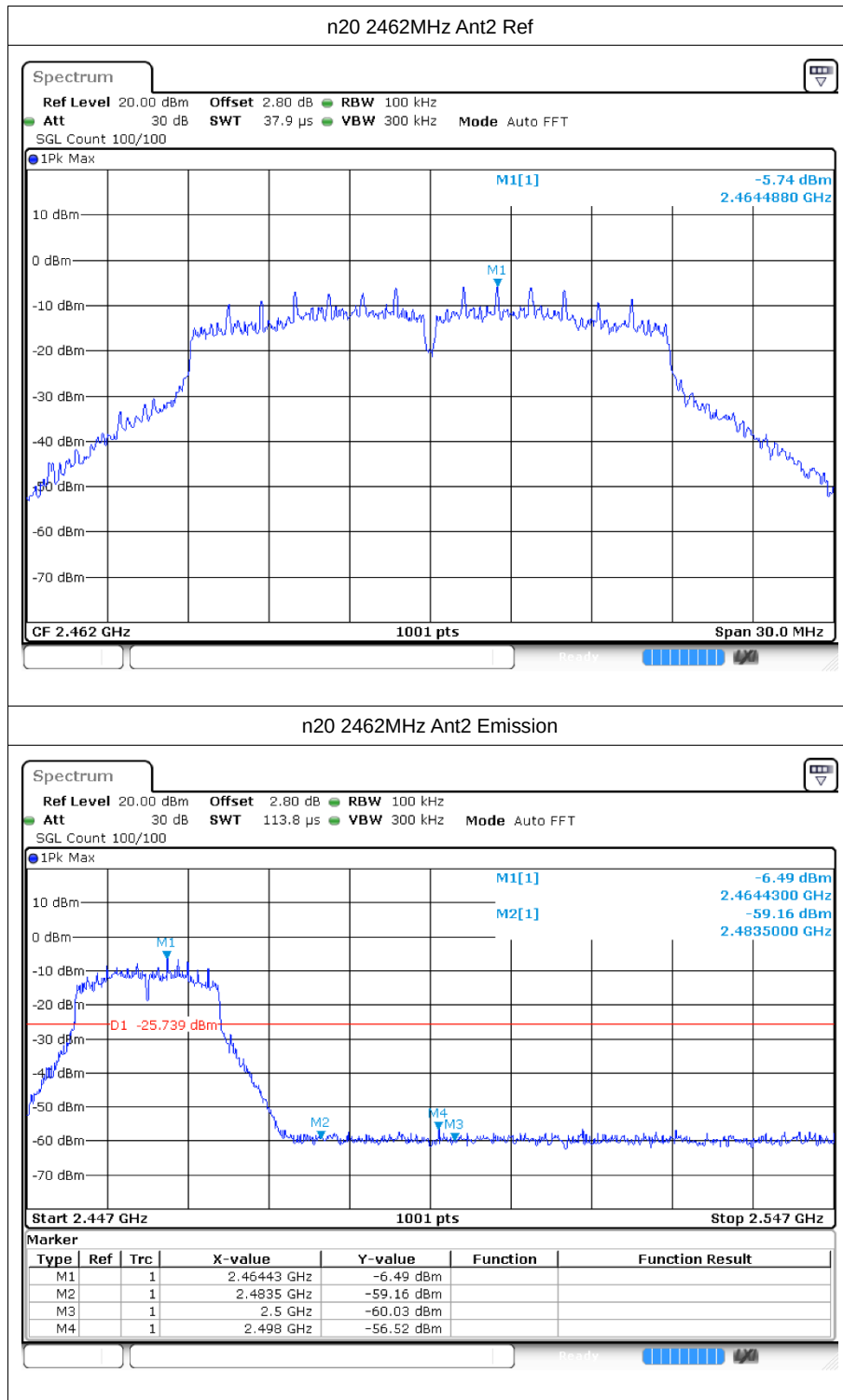


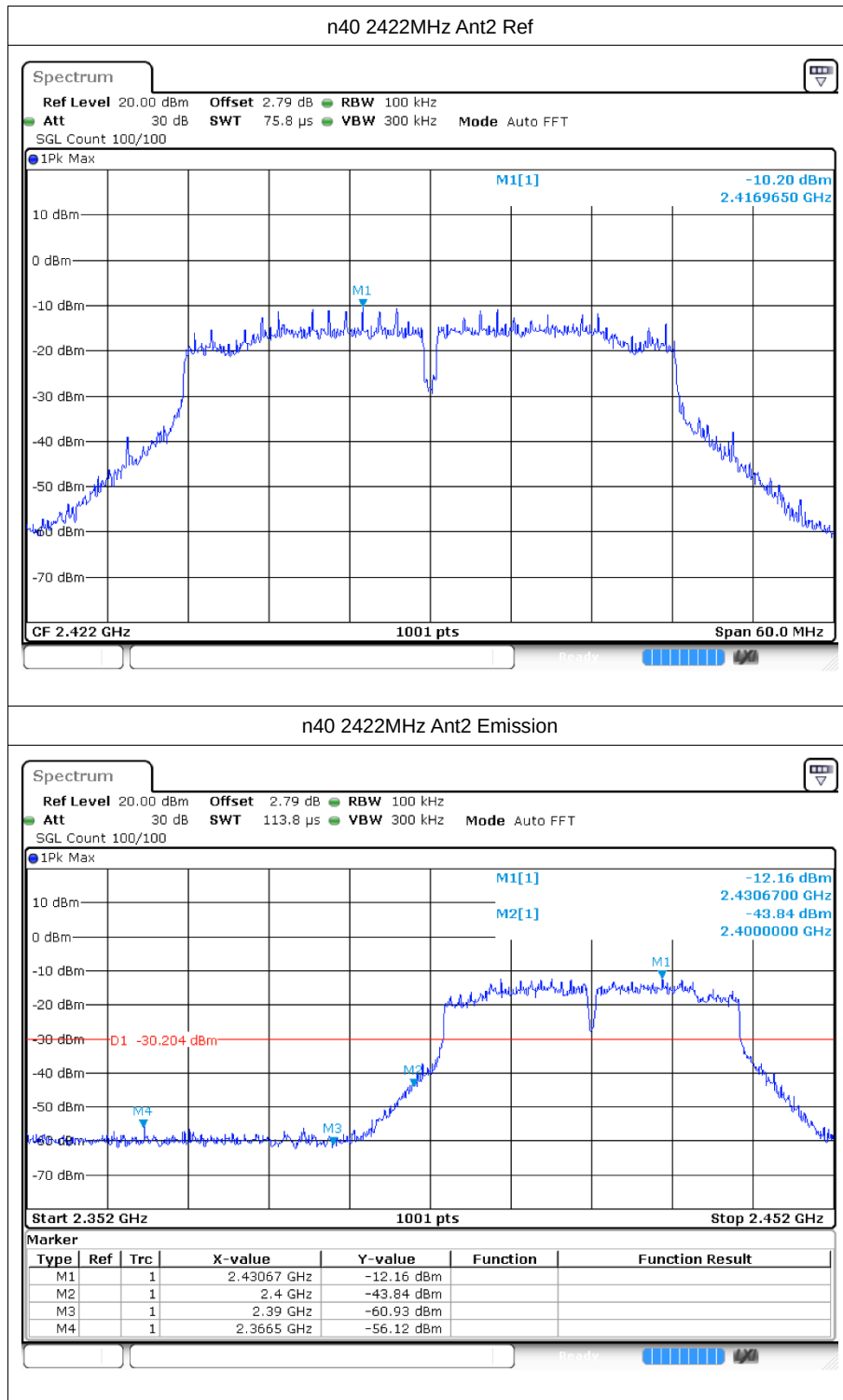


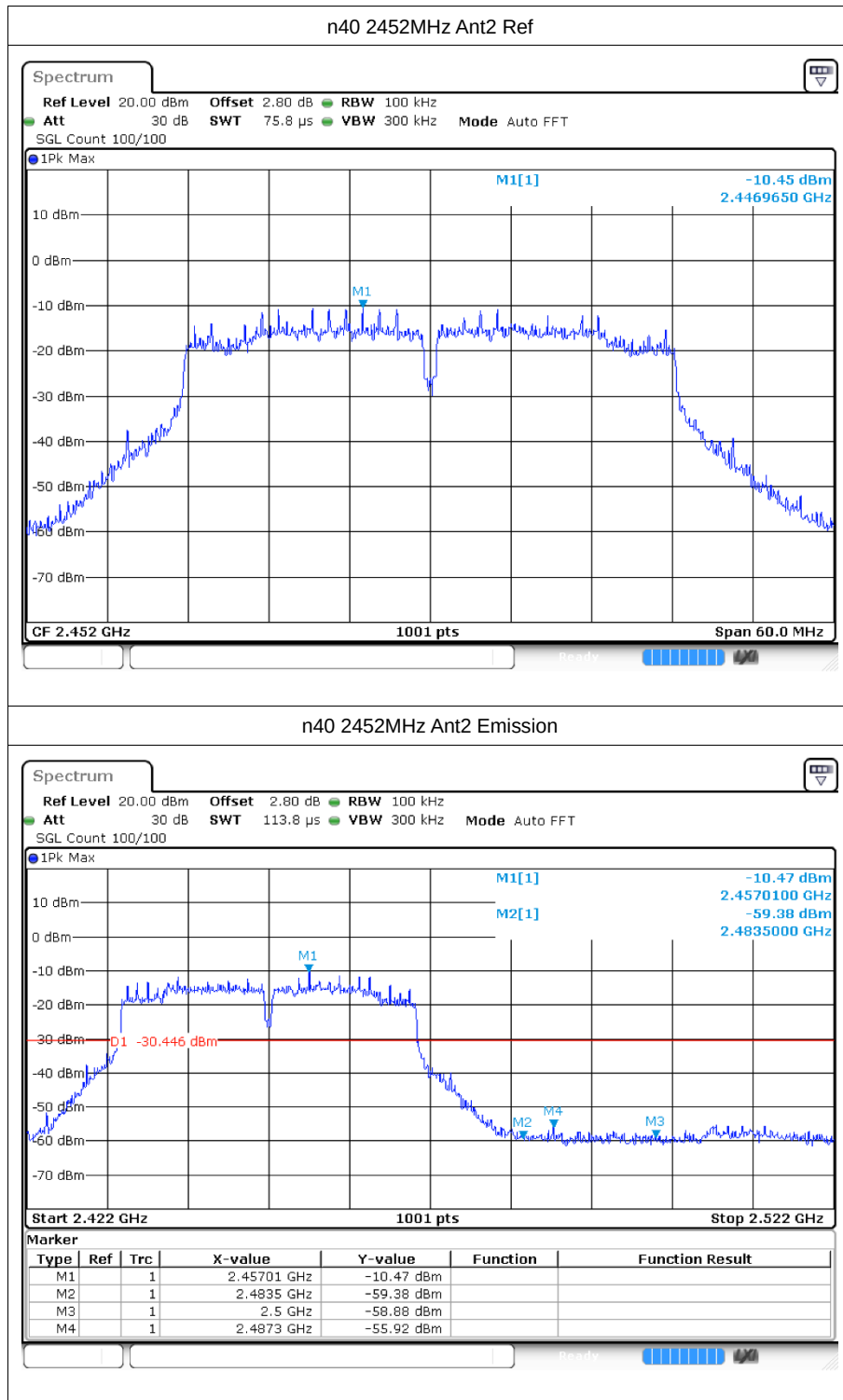














6 Conducted RF Spurious Emission

6.1 Test Result

Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
b	2412	Ant1	-48.47	-20	Pass
b	2437	Ant1	-46.65	-20	Pass
b	2462	Ant1	-47.82	-20	Pass
g	2412	Ant1	-44.11	-20	Pass
g	2437	Ant1	-44.93	-20	Pass
g	2462	Ant1	-43.66	-20	Pass
n20	2412	Ant1	-41.36	-20	Pass
n20	2437	Ant1	-40.56	-20	Pass
n20	2462	Ant1	-41.1	-20	Pass
n40	2422	Ant1	-37.68	-20	Pass
n40	2437	Ant1	-35.55	-20	Pass
n40	2452	Ant1	-36.32	-20	Pass
b	2412	Ant2	-47.7	-20	Pass
b	2437	Ant2	-47.88	-20	Pass
b	2462	Ant2	-47.33	-20	Pass
g	2412	Ant2	-44.32	-20	Pass
g	2437	Ant2	-43.72	-20	Pass
g	2462	Ant2	-44.24	-20	Pass
n20	2412	Ant2	-40.21	-20	Pass
n20	2437	Ant2	-40.27	-20	Pass
n20	2462	Ant2	-40.61	-20	Pass
n40	2422	Ant2	-33.87	-20	Pass
n40	2437	Ant2	-35.1	-20	Pass
n40	2452	Ant2	-36.22	-20	Pass

6.2 Test Graphs

