



Appendix C-2

RF Test Data for 2.4GWIFI(Conducted Measurement)

Product Name: Smart Electronic Blackboard

Trade Mark: INDOTA

Test Model: IN-TVH4K

Environmental Conditions

Temperature:	25.3° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Simba Huang
Supervised by:	Seal Chen



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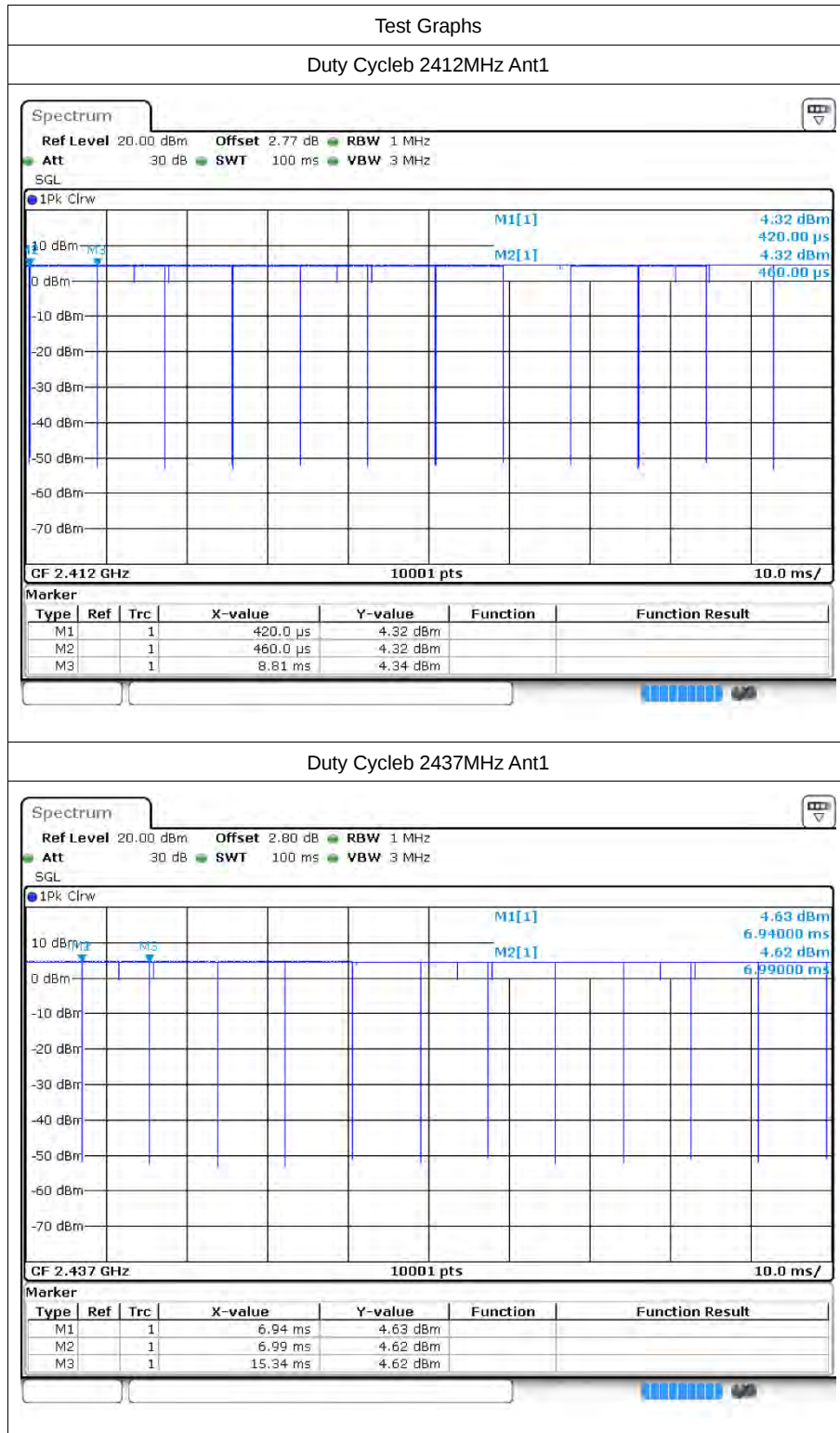


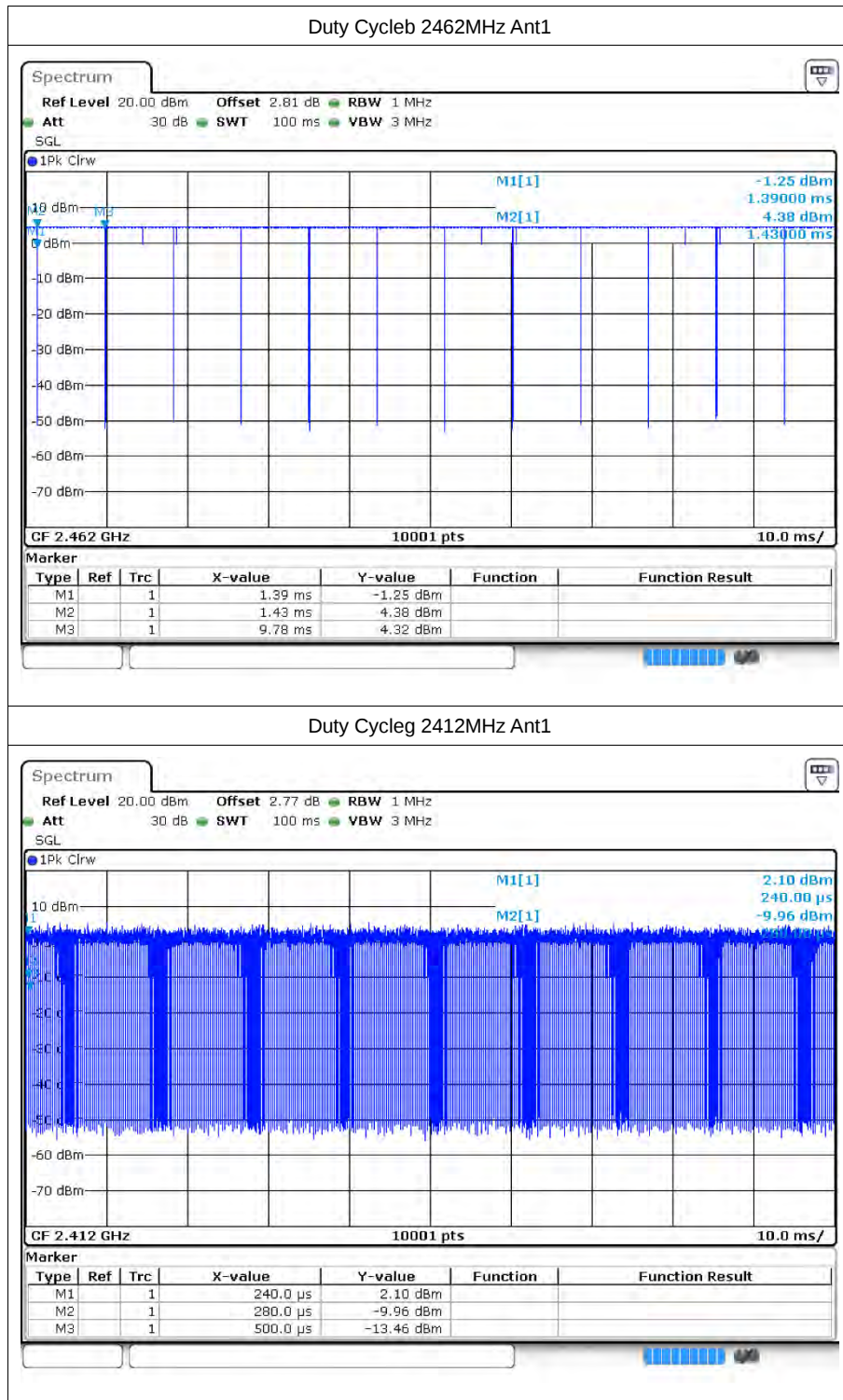
1 Duty Cycle

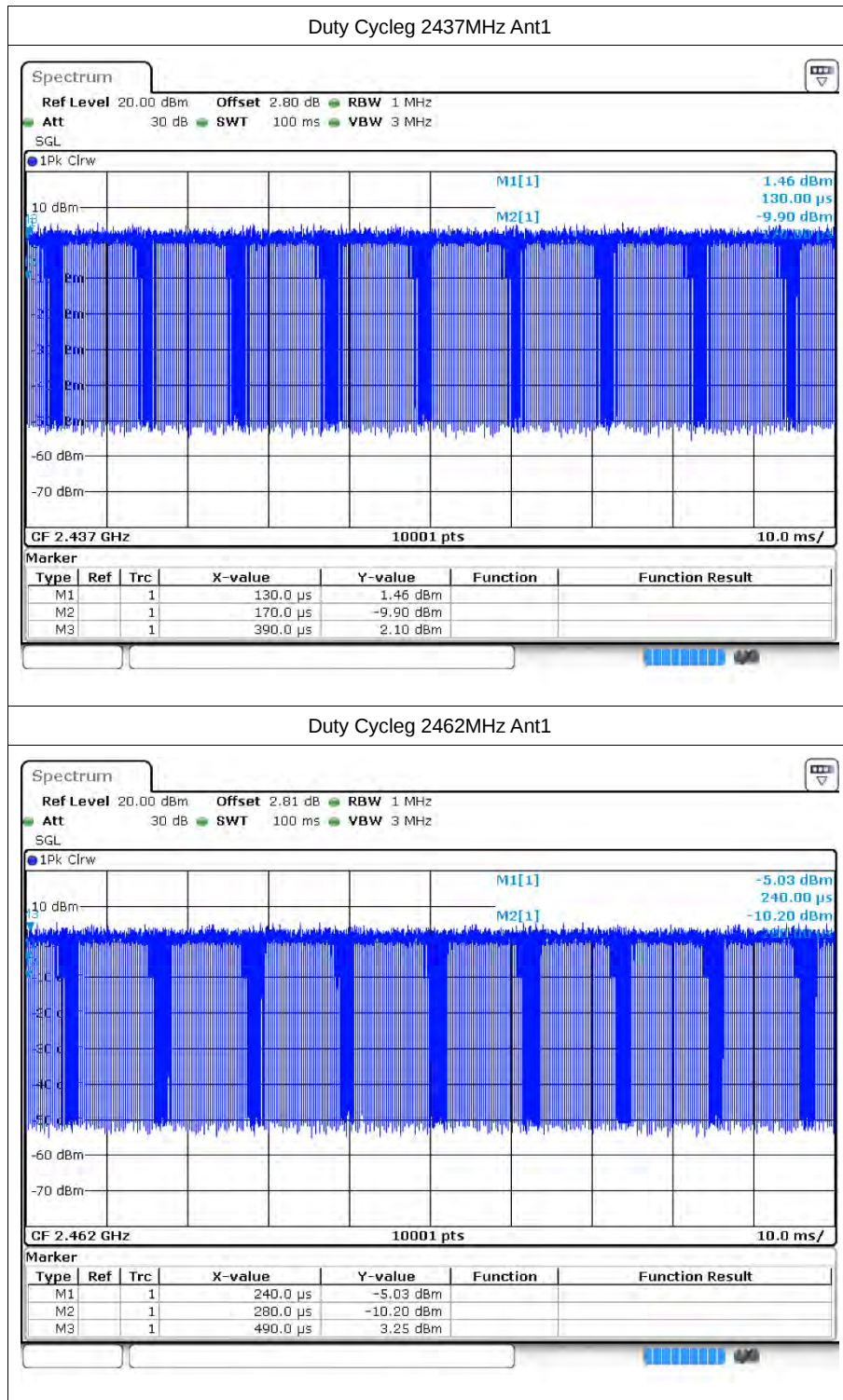
1.1 Test Result

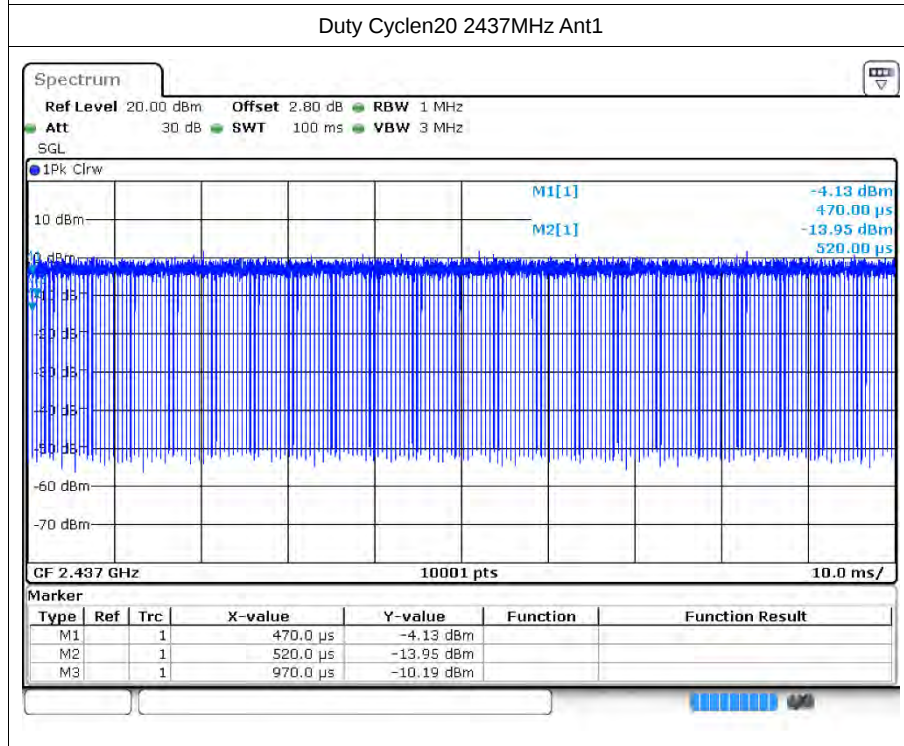
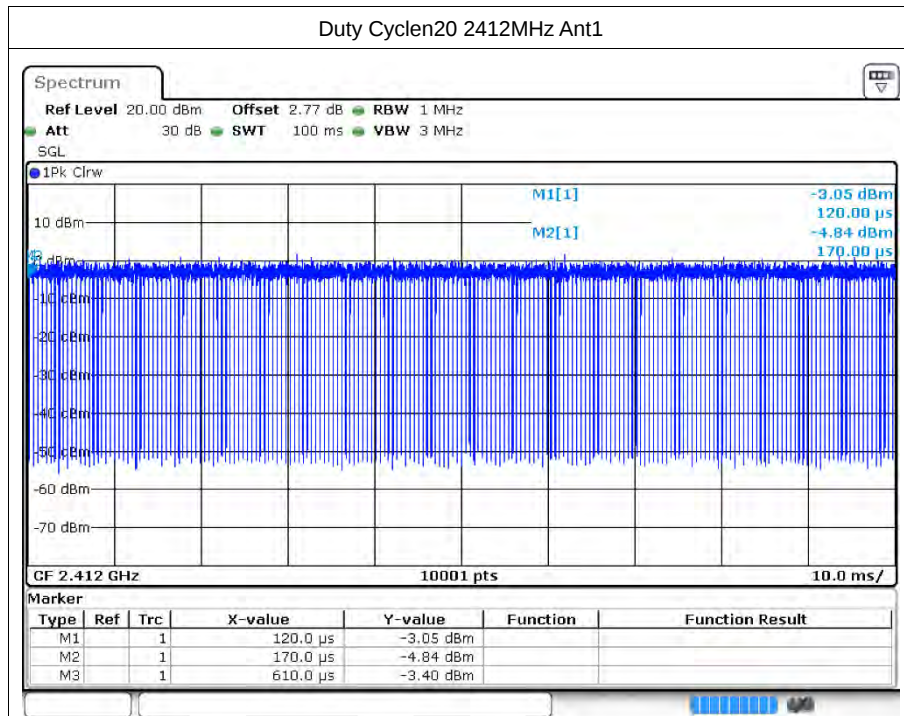
Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	1/T (kHz)
b	2412	Ant1	99.6	0.12
b	2437	Ant1	99.59	0.12
b	2462	Ant1	99.59	0.12
g	2412	Ant1	99.6	0.12
g	2437	Ant1	99.59	0.12
g	2462	Ant1	99.59	0.12
n20	2412	Ant1	92.94	2.27
n20	2437	Ant1	93.03	2.22
n20	2462	Ant1	92.87	2.22
n40	2422	Ant1	92.92	2.27
n40	2437	Ant1	92.9	2.22
n40	2452	Ant1	92.89	2.27
b	2412	Ant2	99.6	0.12
b	2437	Ant2	99.61	0.12
b	2462	Ant2	99.61	0.12
g	2412	Ant2	99.6	0.12
g	2437	Ant2	99.61	0.12
g	2462	Ant2	99.61	0.12
n20	2412	Ant2	92.88	2.27
n20	2437	Ant2	93.03	2.22
n20	2462	Ant2	92.99	2.22
n40	2422	Ant2	92.94	2.27
n40	2437	Ant2	92.93	2.27
n40	2452	Ant2	92.94	2.27

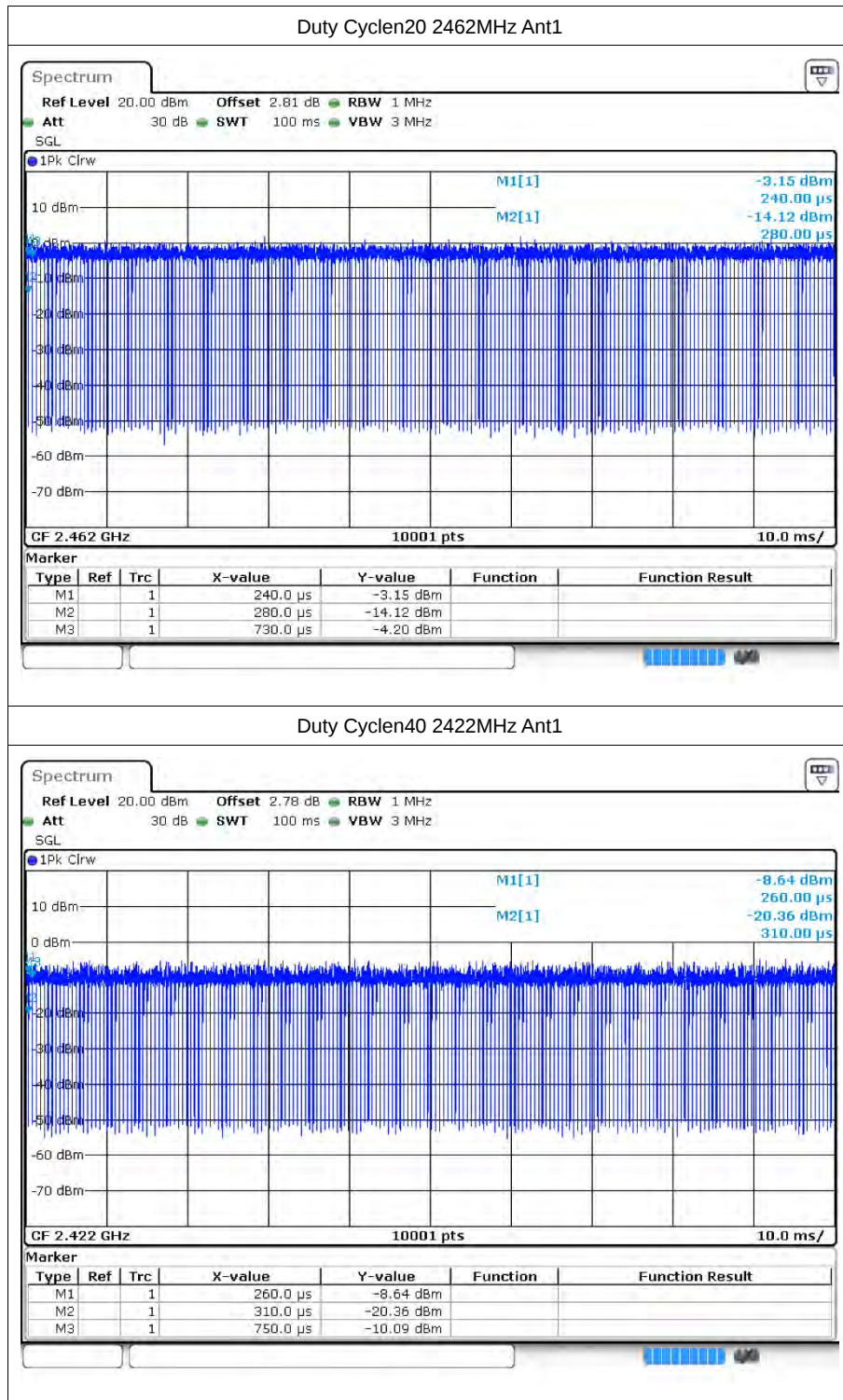
1.2 Test Graphs

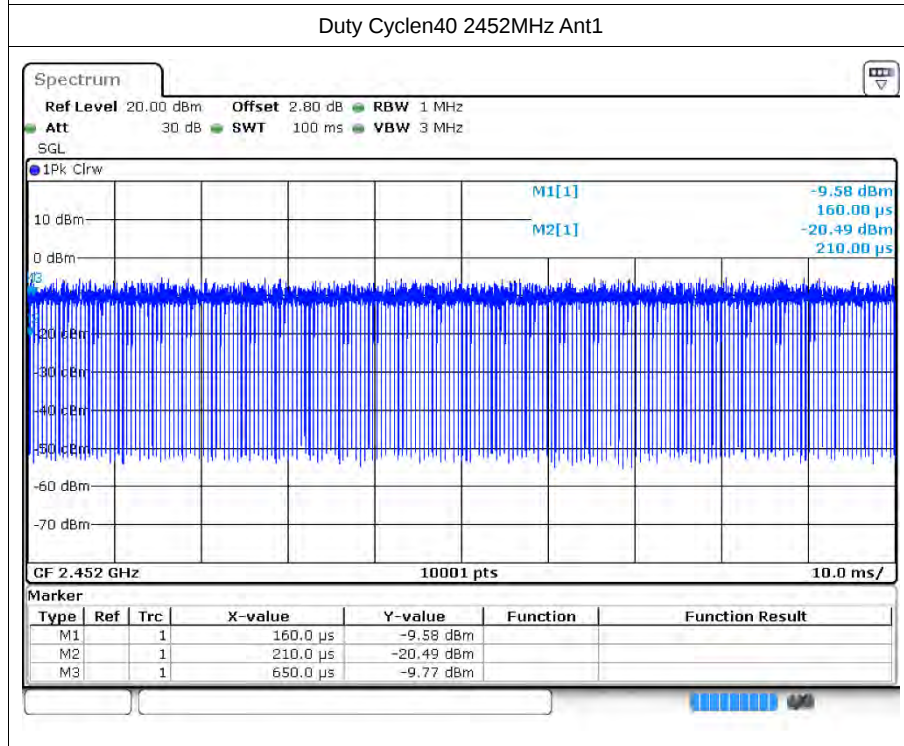
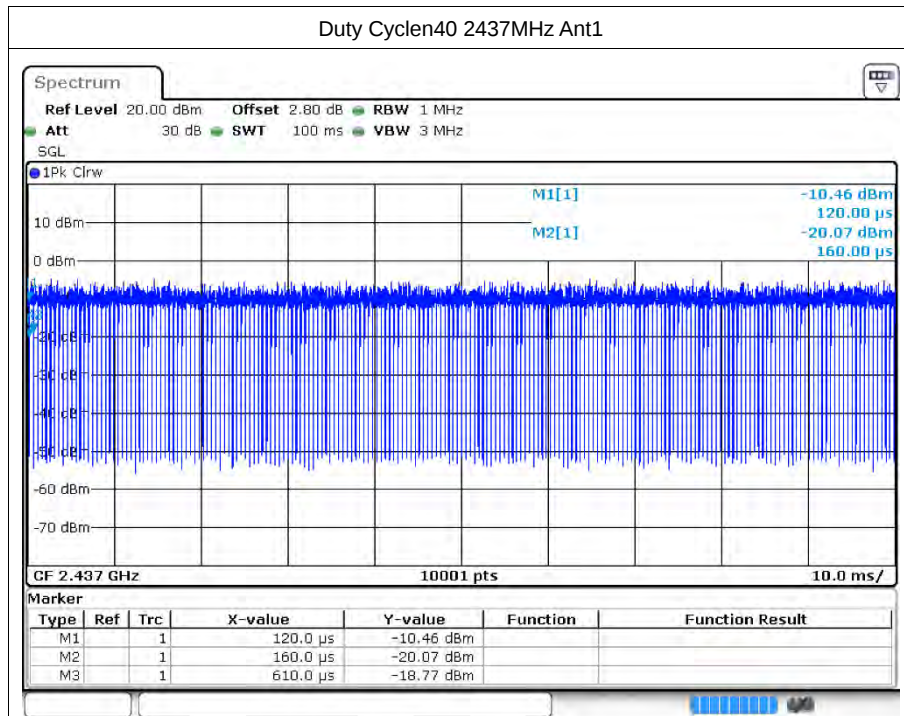






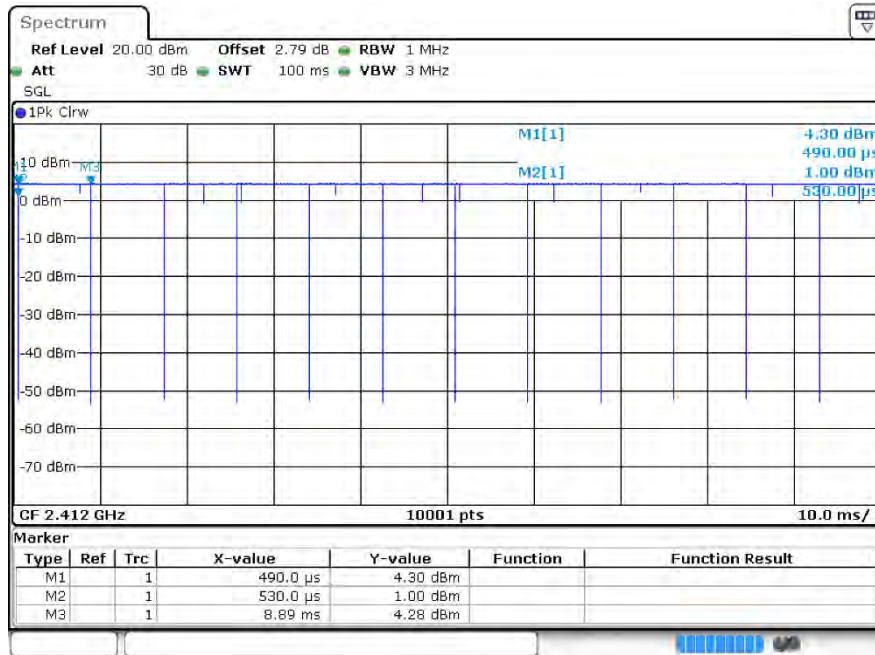




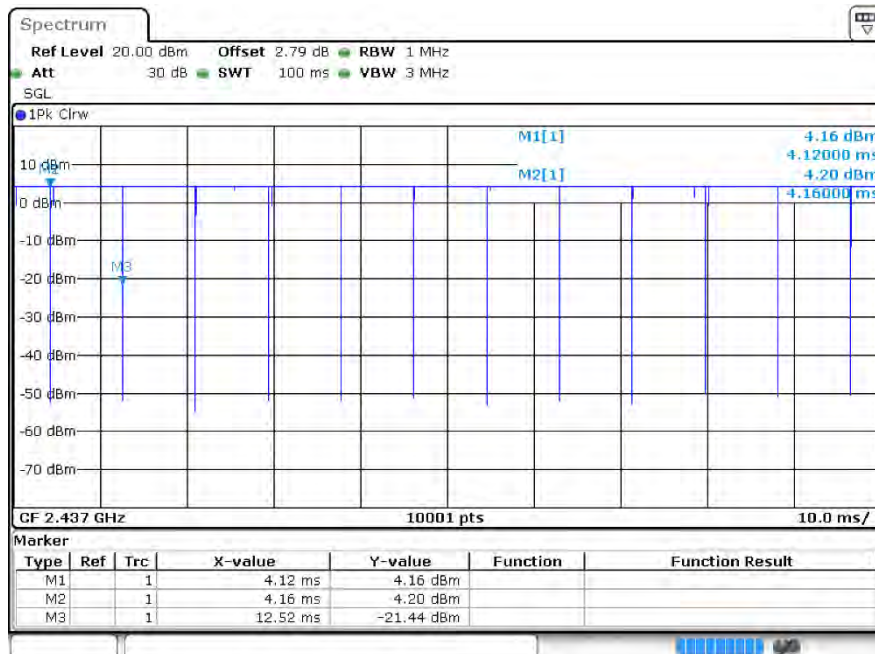


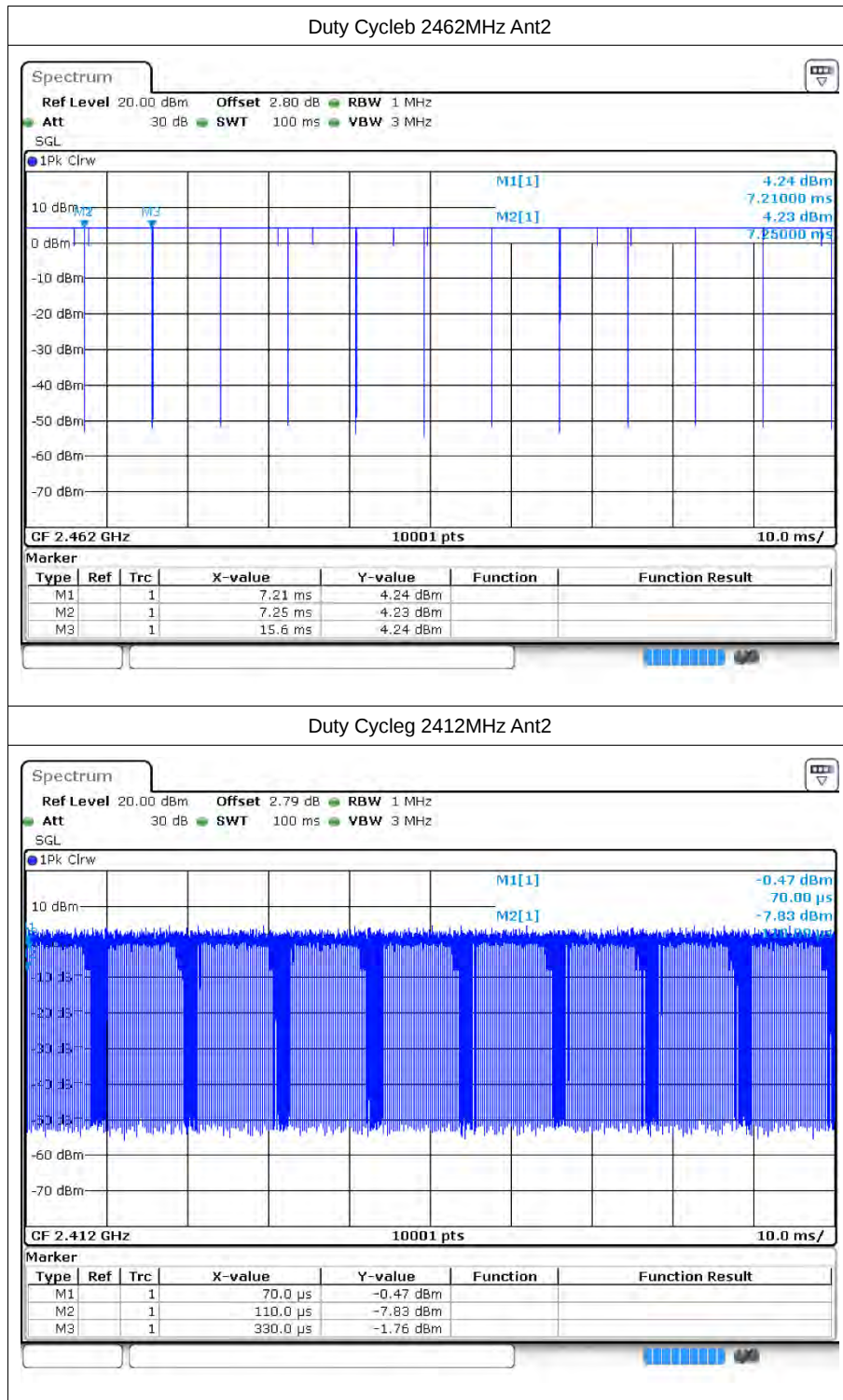
Test Graphs

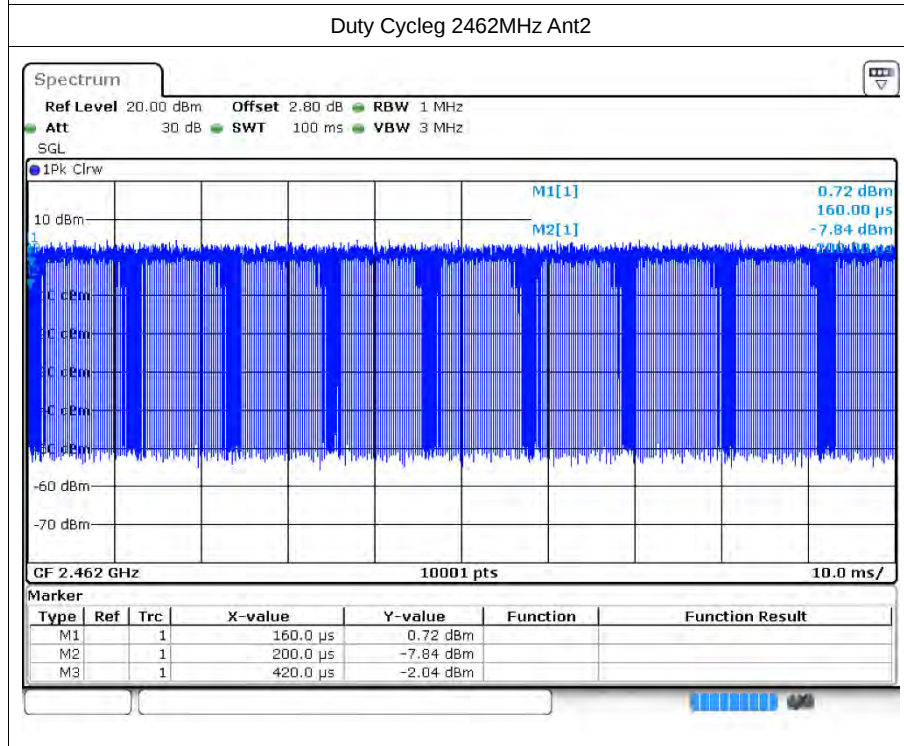
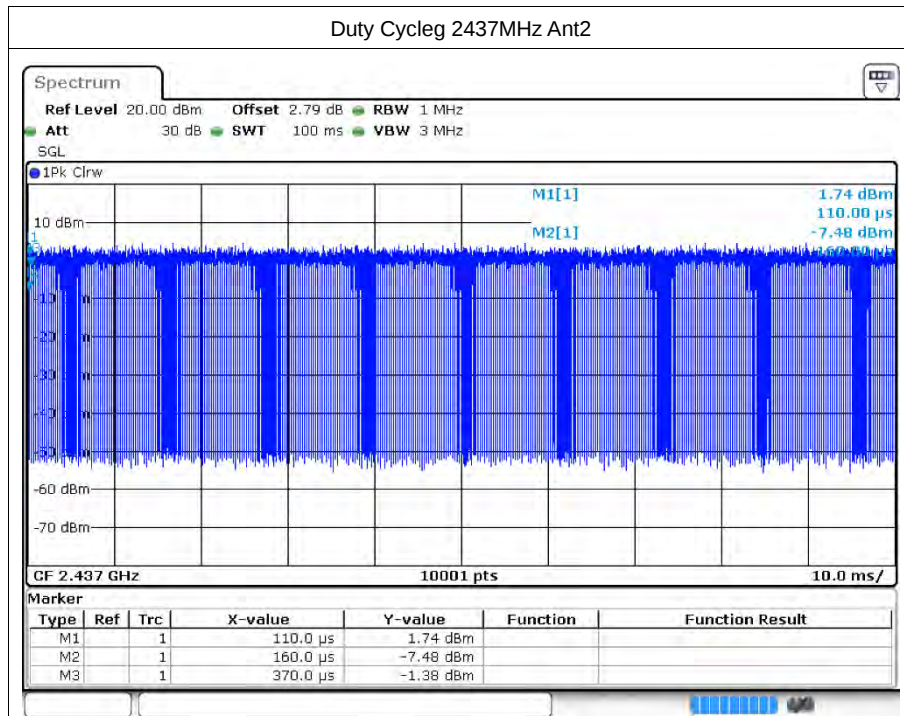
Duty Cycleb 2412MHz Ant2

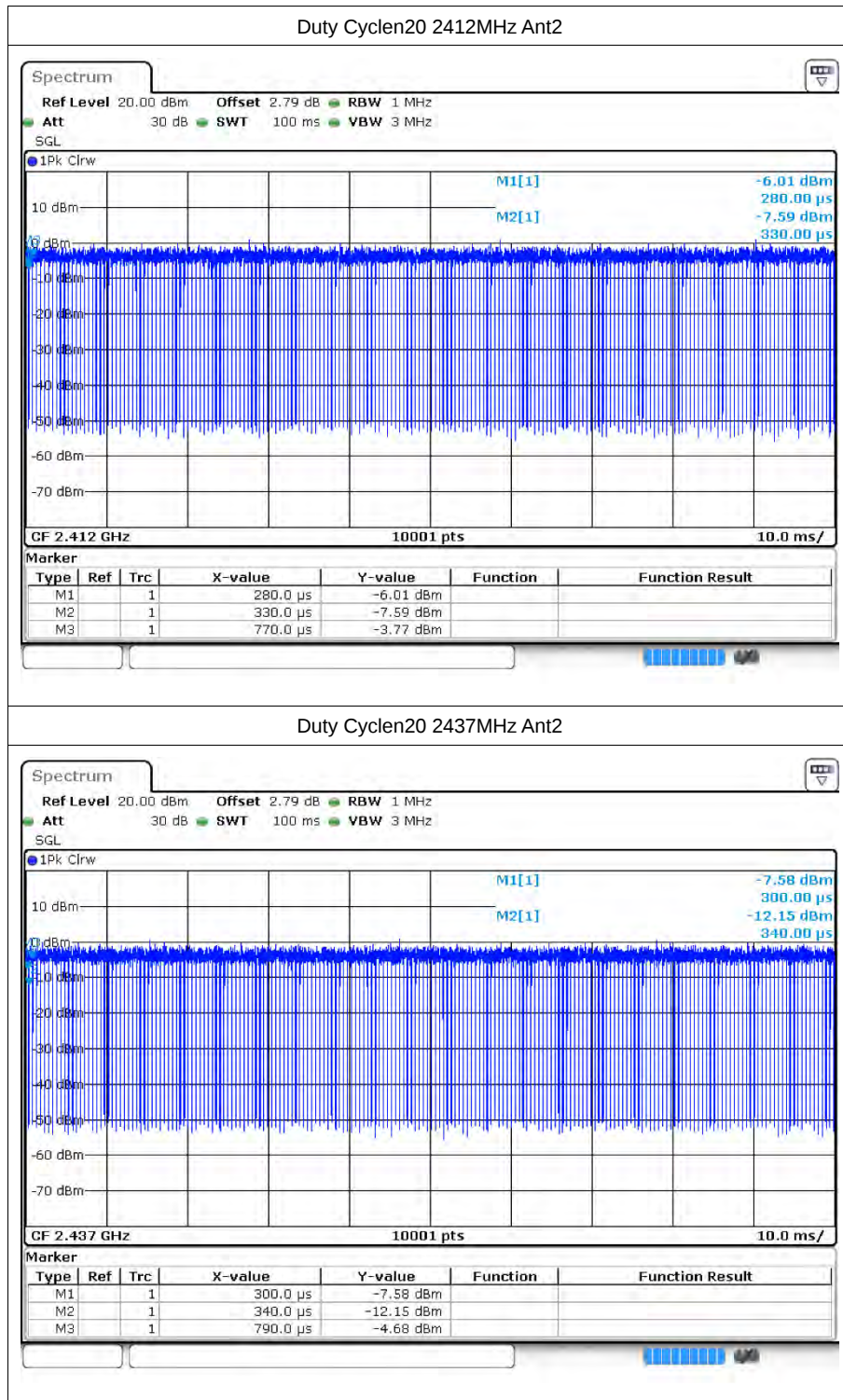


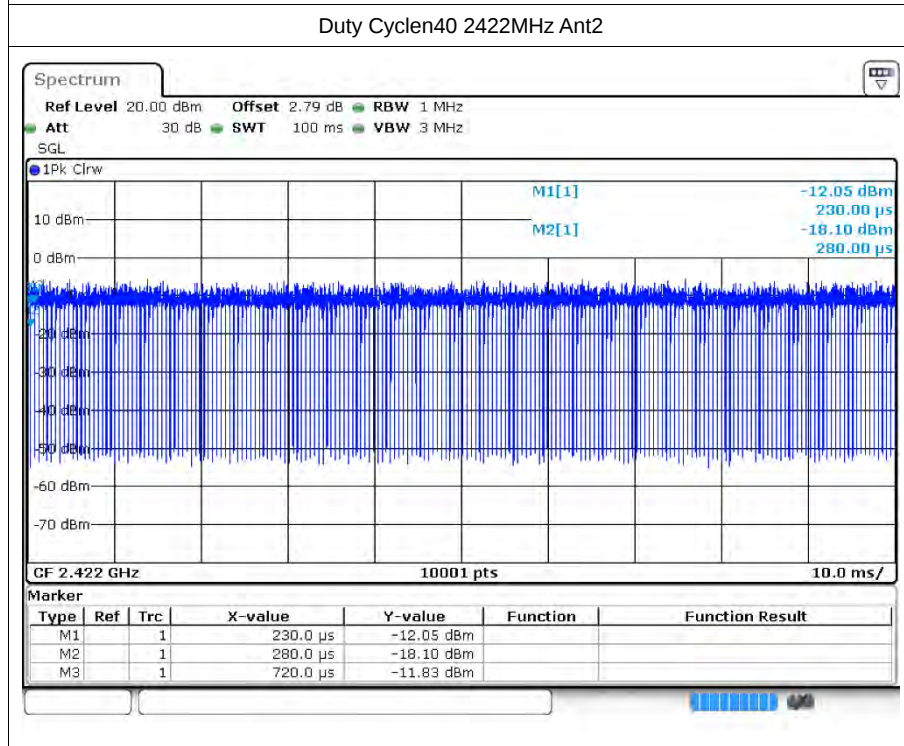
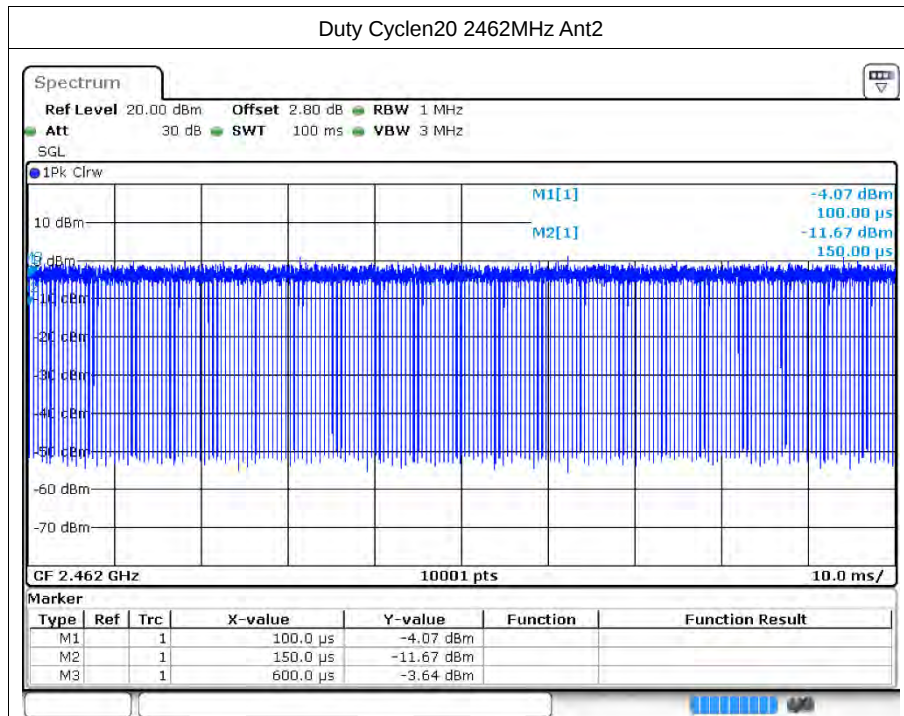
Duty Cycleb 2437MHz Ant2

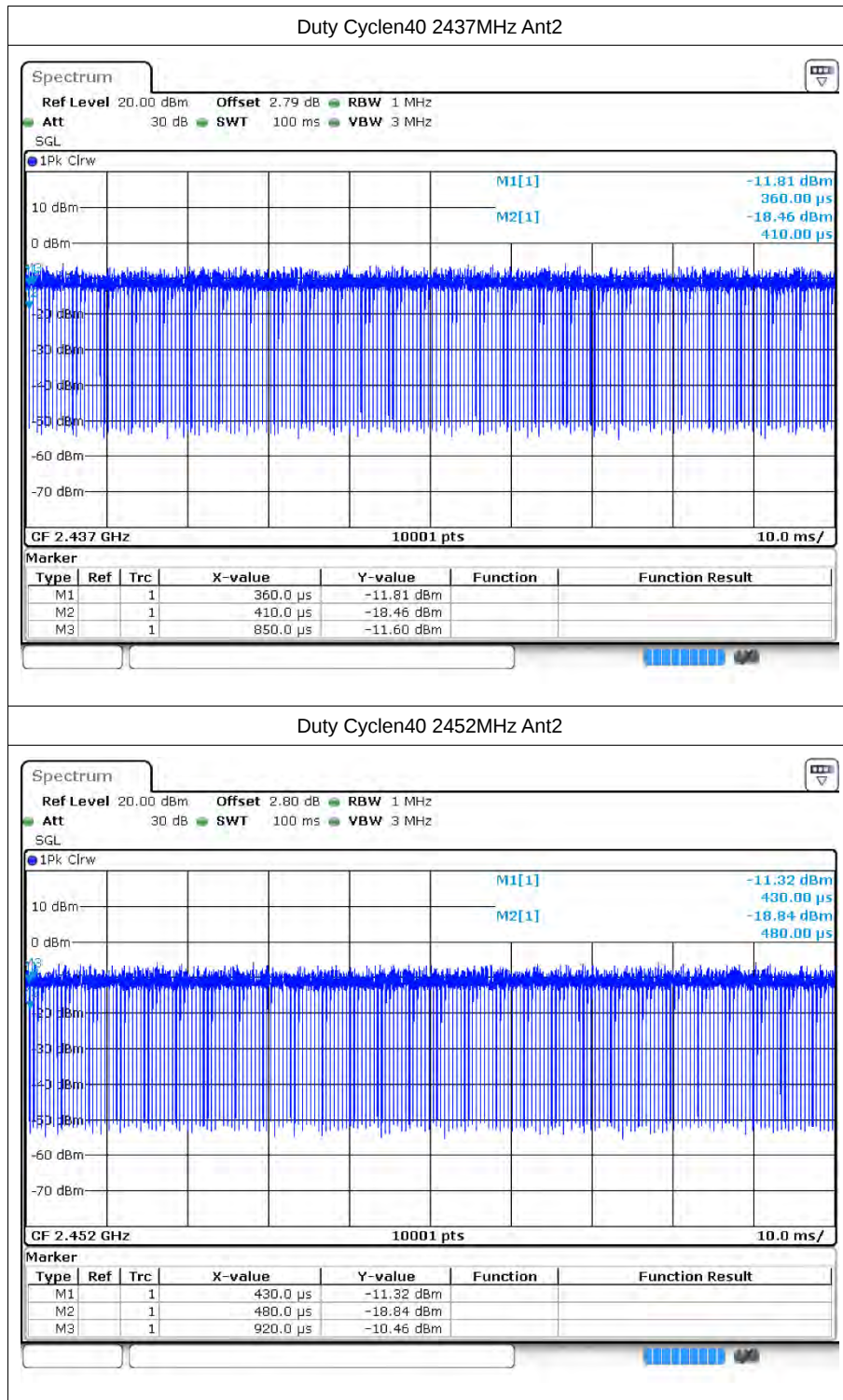












2 Maximum Conducted Output Power

2.1 Test Result

Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
b	2412	Ant1	14.97	30	Pass
b	2437	Ant1	15	30	Pass
b	2462	Ant1	14.89	30	Pass
b	2412	Ant2	14.8	30	Pass
b	2437	Ant2	14.75	30	Pass
b	2462	Ant2	13.81	30	Pass
g	2412	Ant1	14.64	30	Pass
g	2437	Ant1	14.65	30	Pass
g	2462	Ant1	14.64	30	Pass
g	2412	Ant2	14.12	30	Pass
g	2437	Ant2	14.06	30	Pass
g	2462	Ant2	14.02	30	Pass
n20	2412	Ant1	11.86	30	Pass
n20	2437	Ant1	11.66	30	Pass
n20	2462	Ant1	11.61	30	Pass
n20	2412	Ant2	10.94	30	Pass
n20	2437	Ant2	10.96	30	Pass
n20	2462	Ant2	10.9	30	Pass
n20	2412	Sum	14.43	28.49	Pass
n20	2437	Sum	14.33	28.49	Pass
n20	2462	Sum	14.28	28.49	Pass
n40	2422	Ant1	11.57	30	Pass
n40	2437	Ant1	11.41	30	Pass
n40	2452	Ant1	11.36	30	Pass
n40	2422	Ant2	10.62	30	Pass
n40	2437	Ant2	10.56	30	Pass
n40	2452	Ant2	10.43	30	Pass
n40	2422	Sum	14.13	28.49	Pass
n40	2437	Sum	14.02	28.49	Pass
n40	2452	Sum	13.93	28.49	Pass

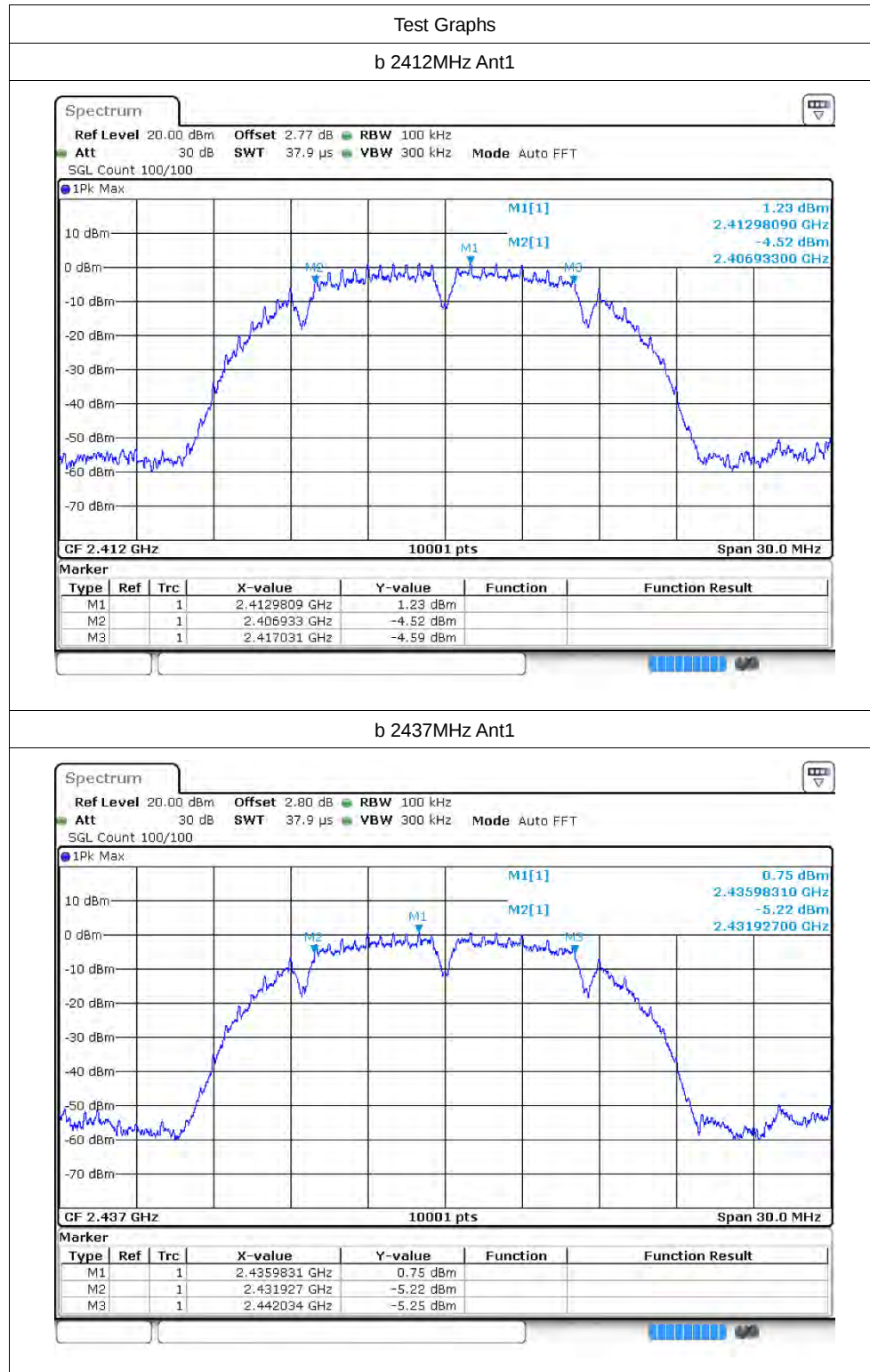


3 -6dB Bandwidth

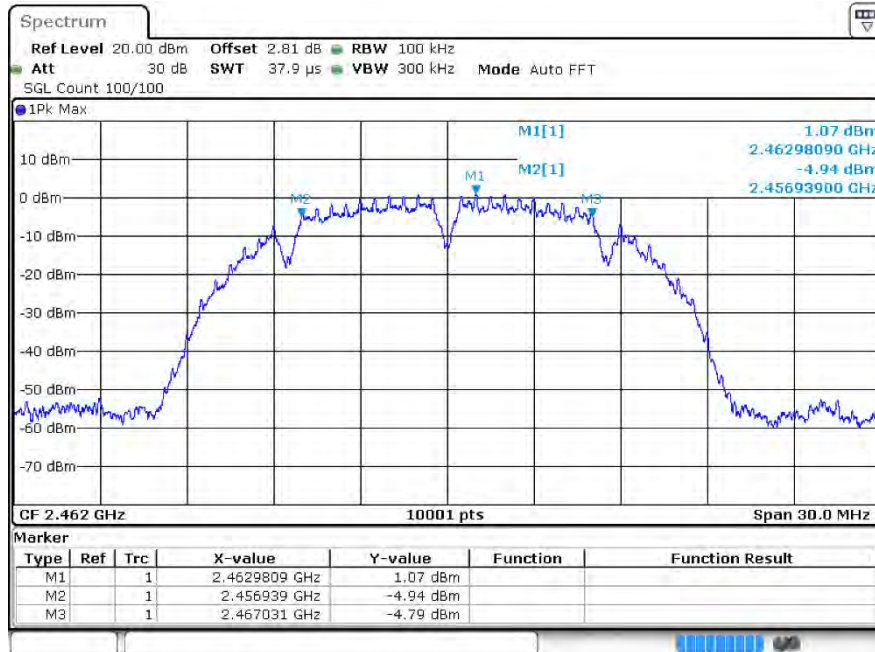
3.1 Test Result

Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
b	2412	Ant1	10.098	0.5	Pass
b	2437	Ant1	10.107	0.5	Pass
b	2462	Ant1	10.092	0.5	Pass
g	2412	Ant1	14.442	0.5	Pass
g	2437	Ant1	15.336	0.5	Pass
g	2462	Ant1	15.114	0.5	Pass
n20	2412	Ant1	16.293	0.5	Pass
n20	2437	Ant1	15.063	0.5	Pass
n20	2462	Ant1	15.063	0.5	Pass
n40	2422	Ant1	35.088	0.5	Pass
n40	2437	Ant1	35.076	0.5	Pass
n40	2452	Ant1	35.058	0.5	Pass
b	2412	Ant2	10.071	0.5	Pass
b	2437	Ant2	10.098	0.5	Pass
b	2462	Ant2	10.086	0.5	Pass
g	2412	Ant2	15.105	0.5	Pass
g	2437	Ant2	15.108	0.5	Pass
g	2462	Ant2	15.099	0.5	Pass
n20	2412	Ant2	15.405	0.5	Pass
n20	2437	Ant2	15.027	0.5	Pass
n20	2462	Ant2	15.126	0.5	Pass
n40	2422	Ant2	34.98	0.5	Pass
n40	2437	Ant2	35.07	0.5	Pass
n40	2452	Ant2	35.064	0.5	Pass

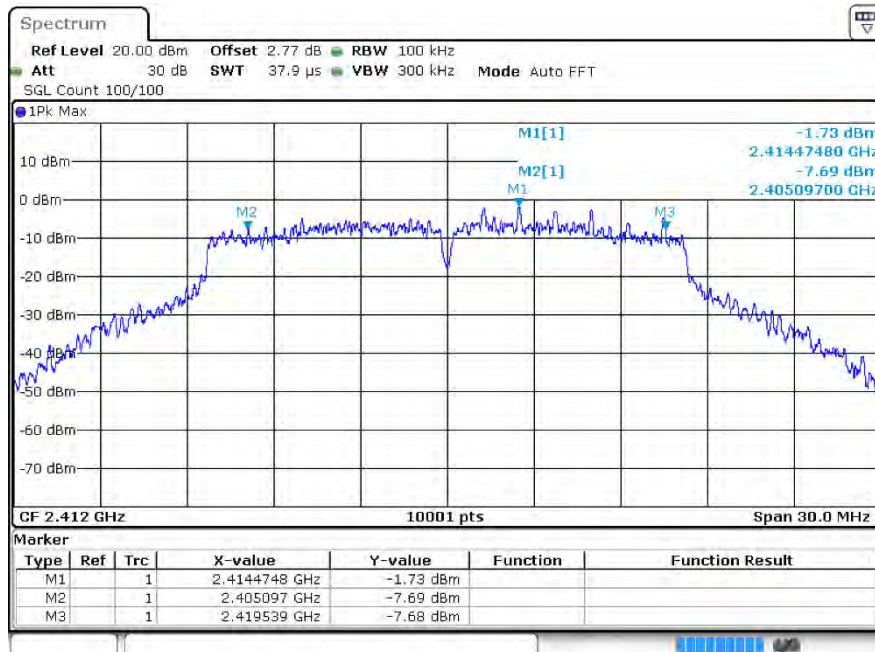
3.2 Test Graphs



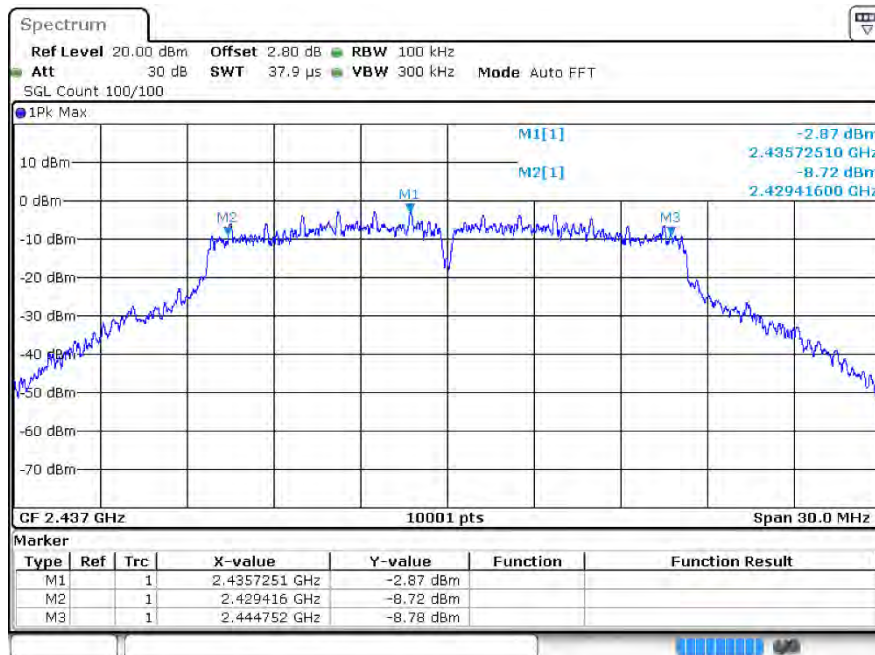
b 2462MHz Ant1



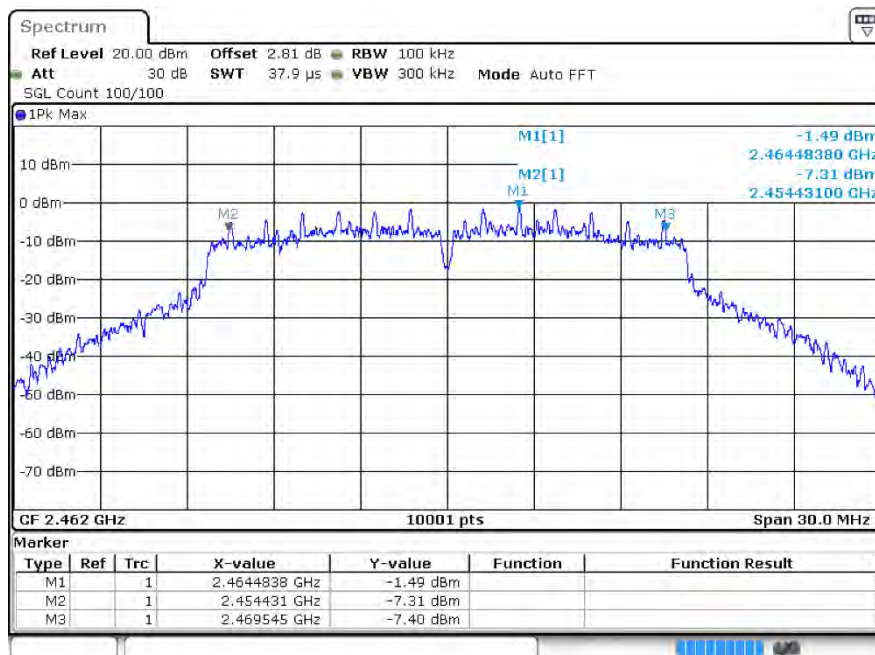
g 2412MHz Ant1



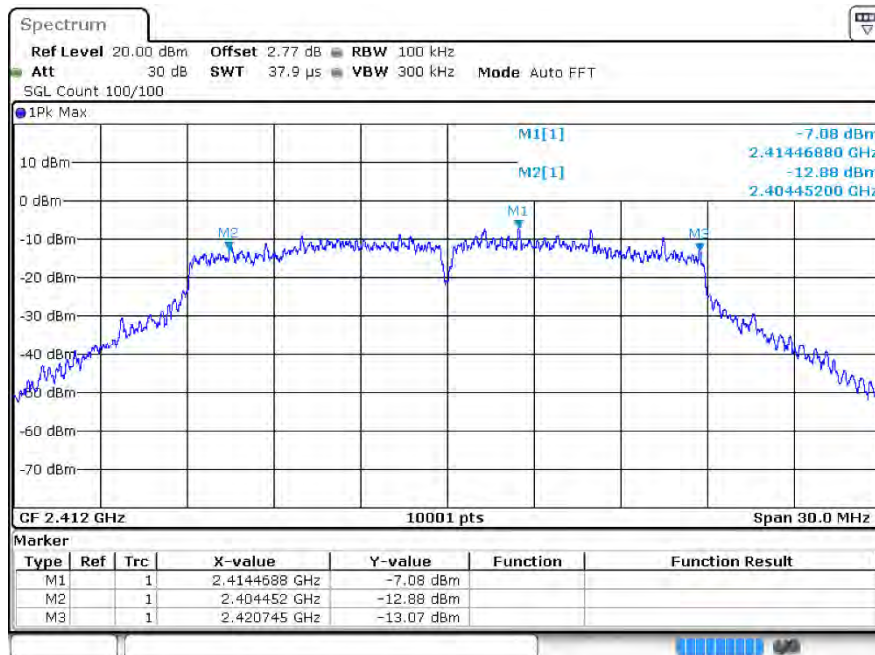
g 2437MHz Ant1



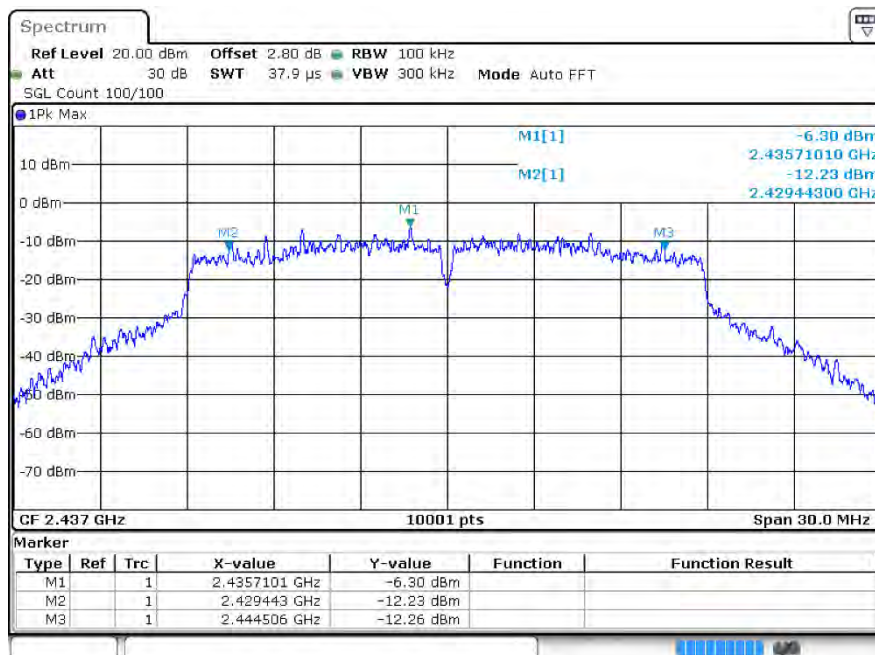
g 2462MHz Ant1



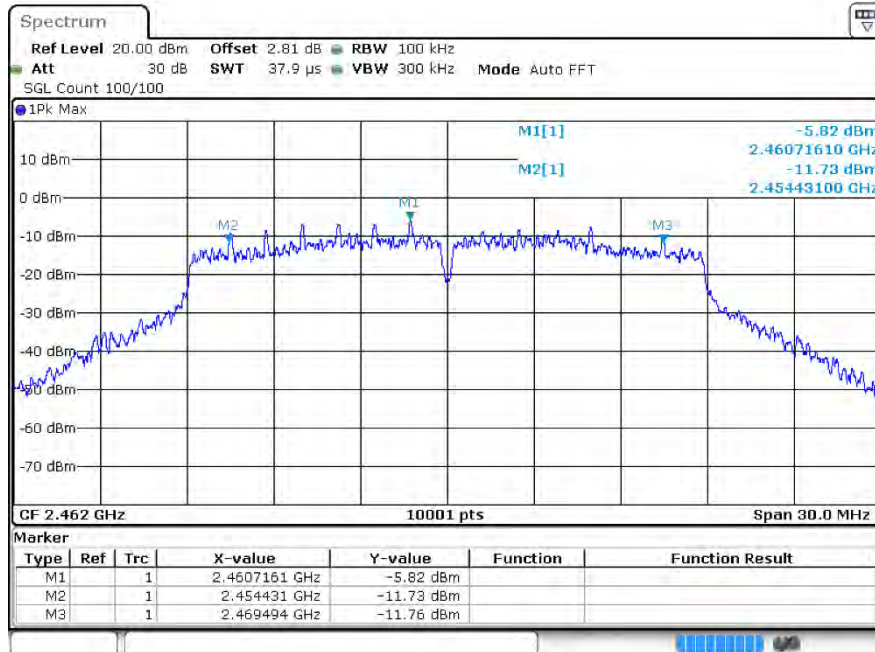
n20 2412MHz Ant1



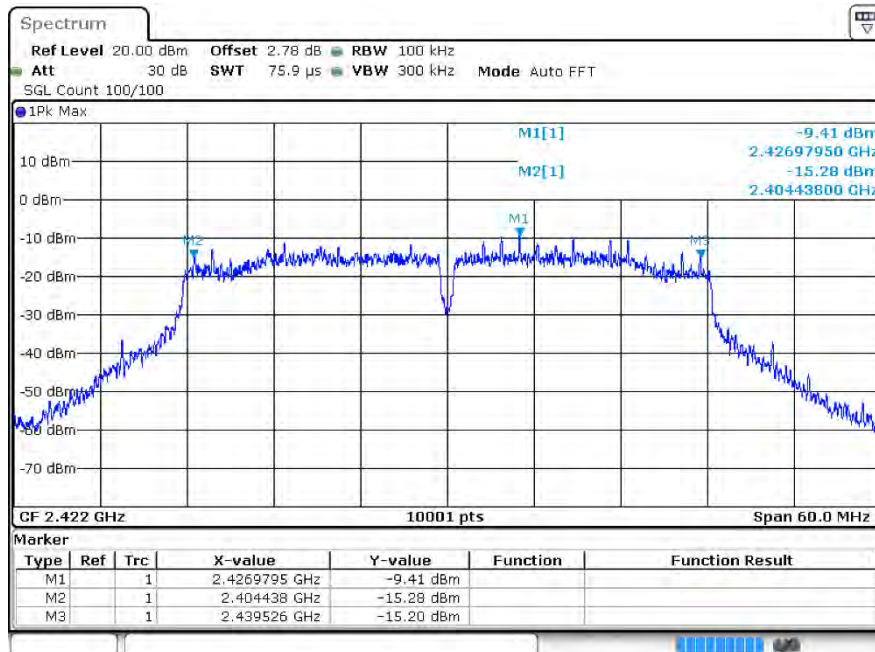
n20 2437MHz Ant1



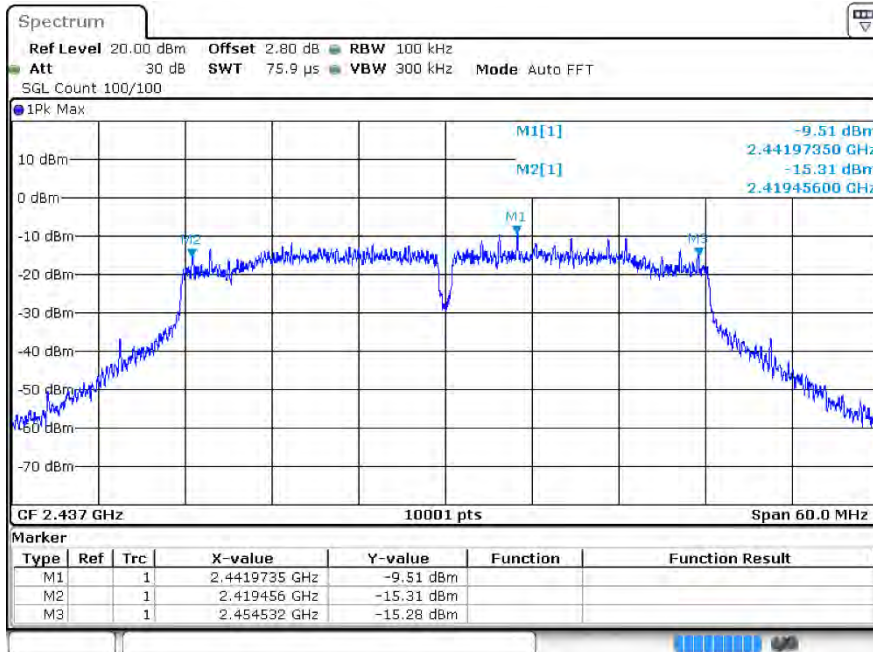
n20 2462MHz Ant1



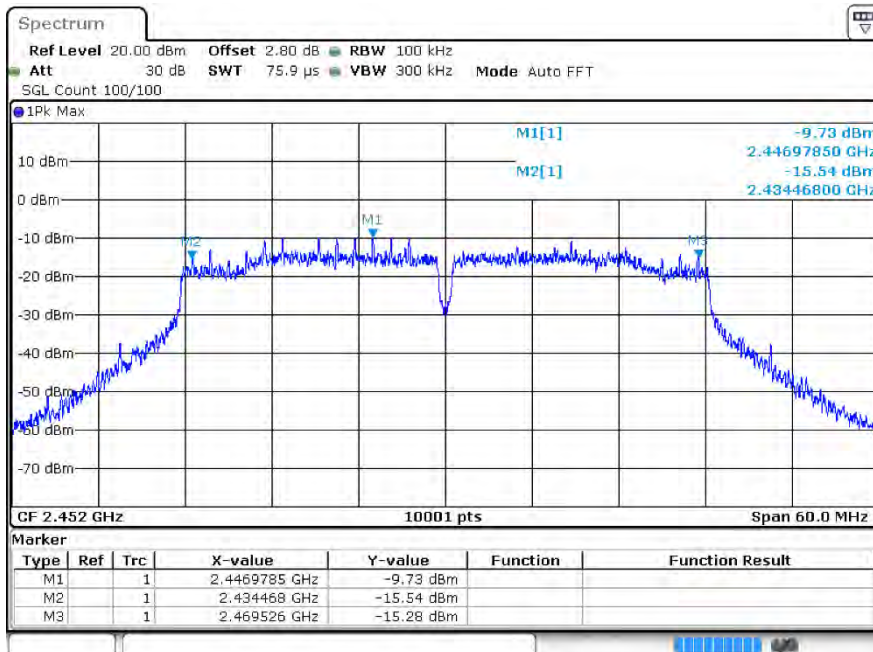
n40 2422MHz Ant1



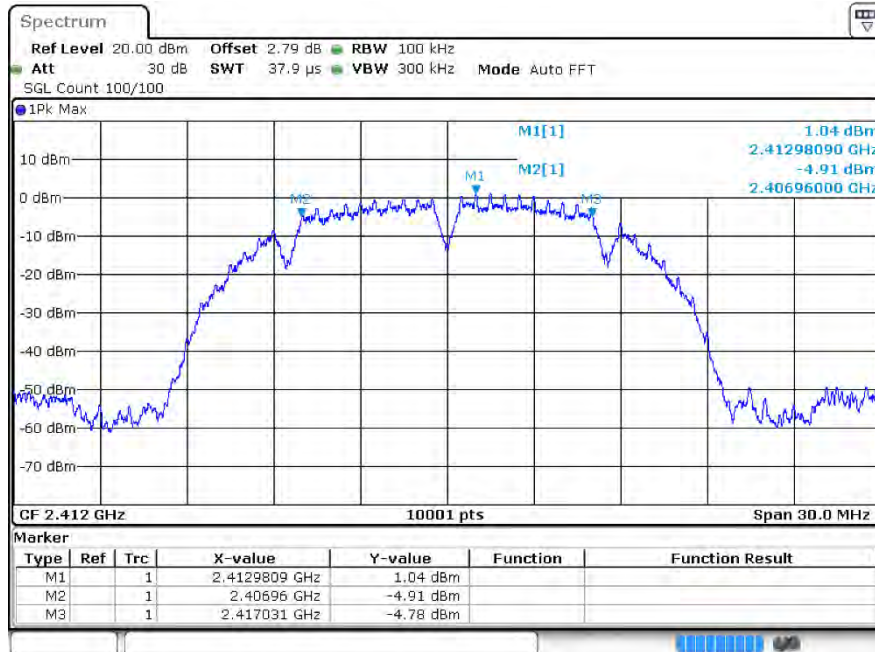
n40 2437MHz Ant1



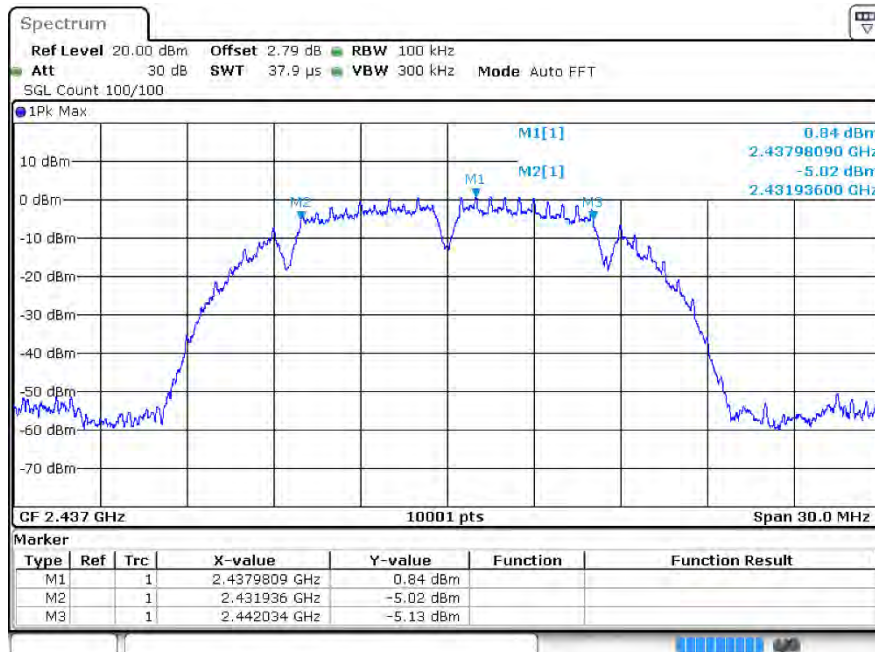
n40 2452MHz Ant1



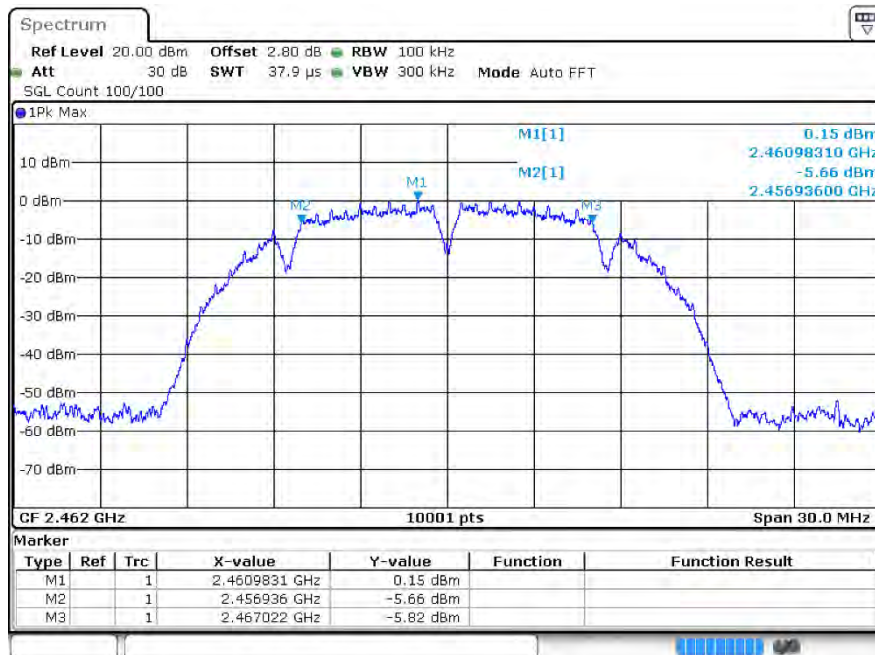
b 2412MHz Ant2



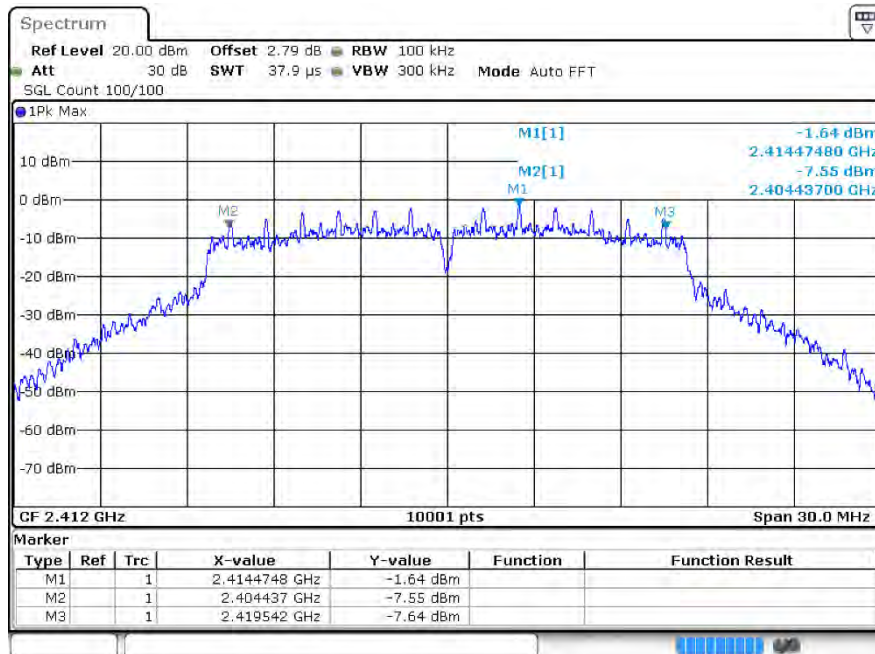
b 2437MHz Ant2



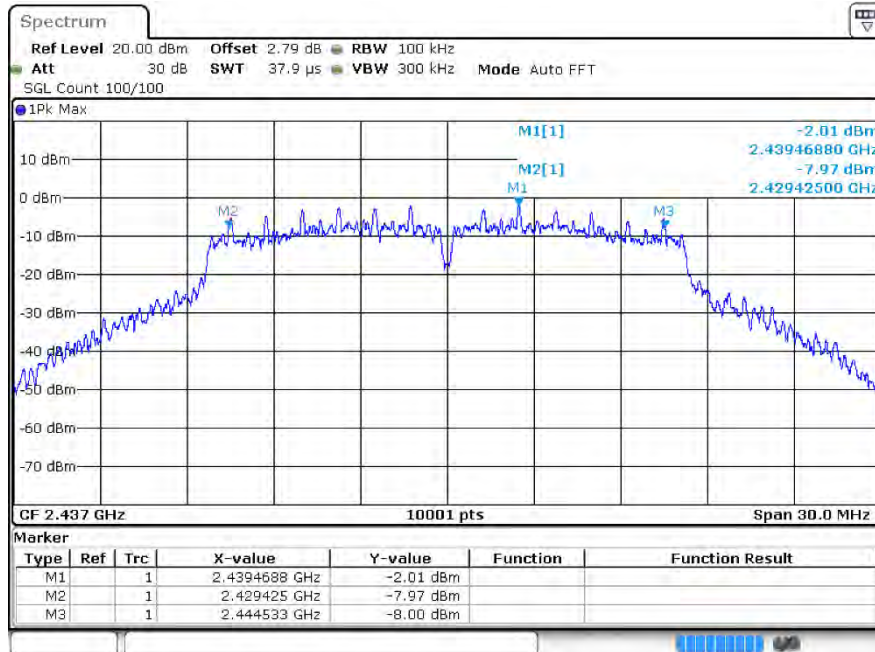
b 2462MHz Ant2



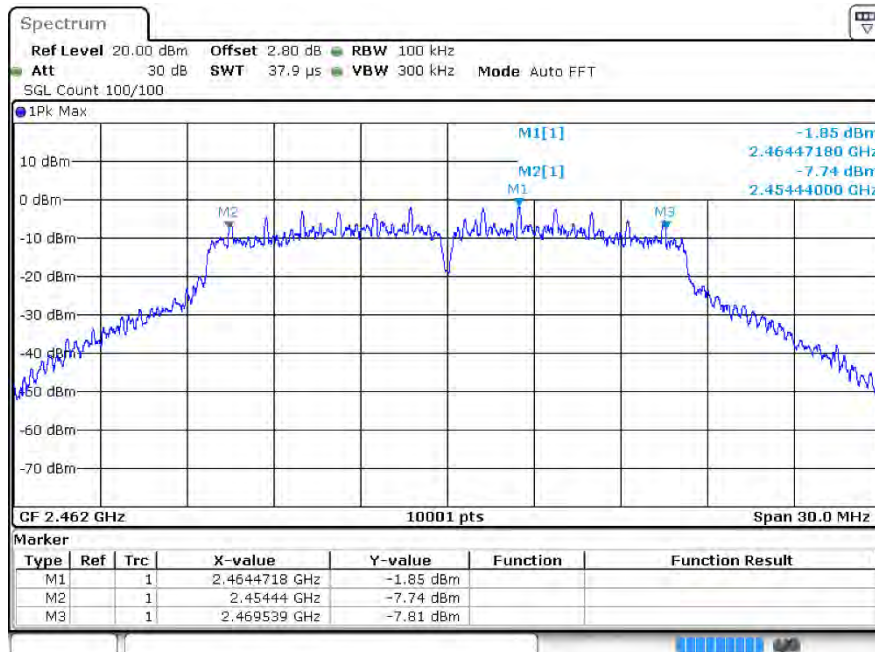
g 2412MHz Ant2



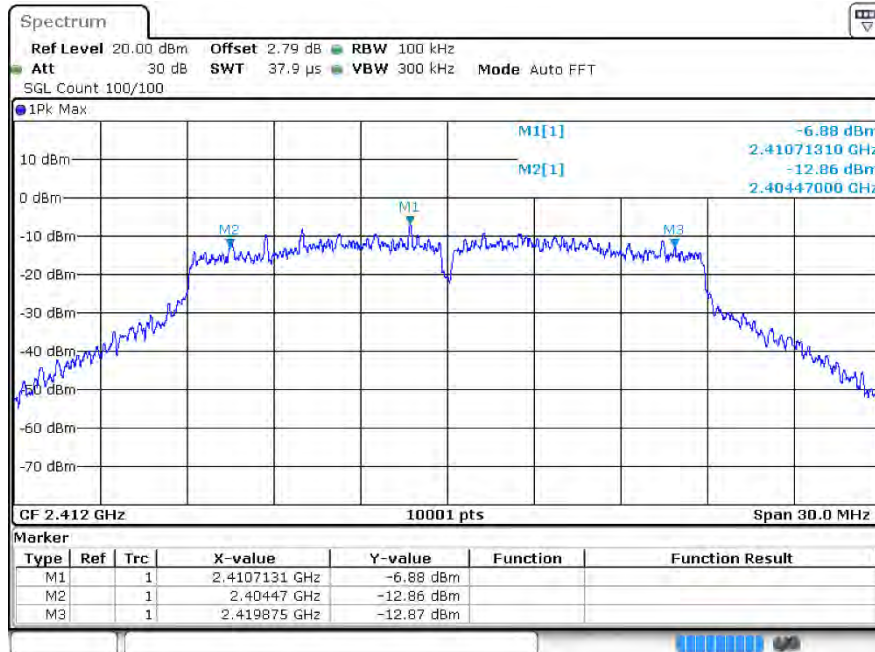
g 2437MHz Ant2



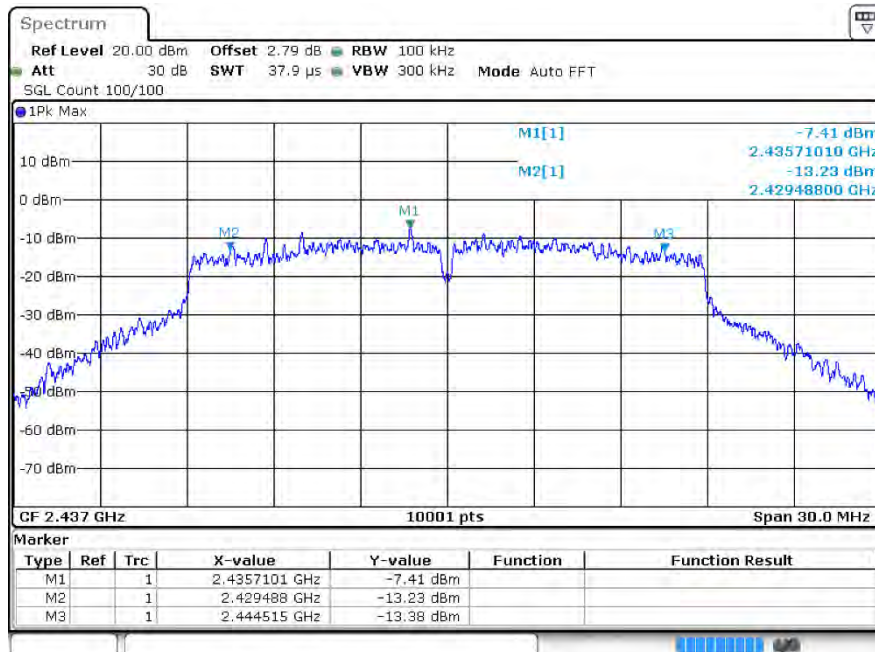
g 2462MHz Ant2



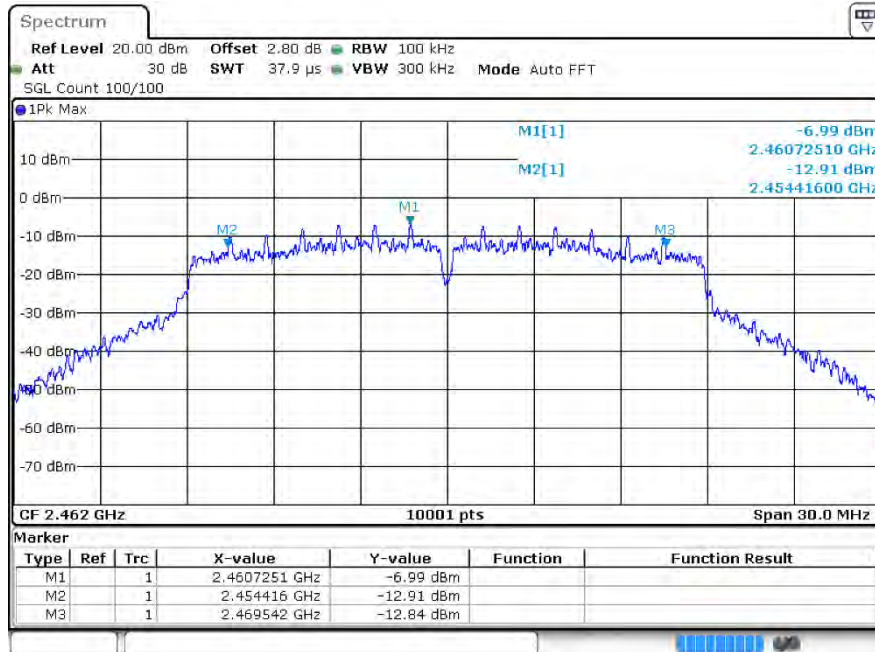
n20 2412MHz Ant2



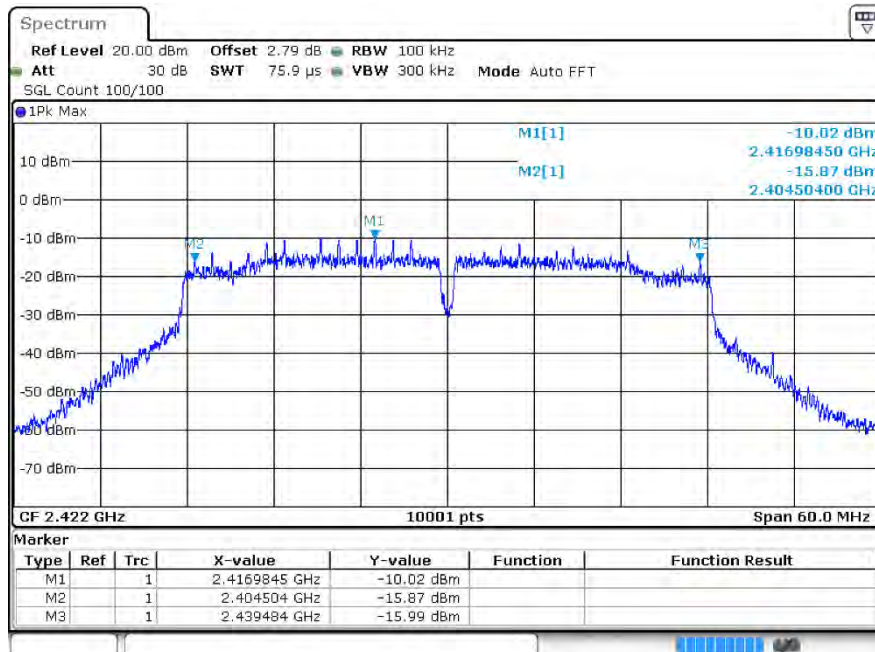
n20 2437MHz Ant2



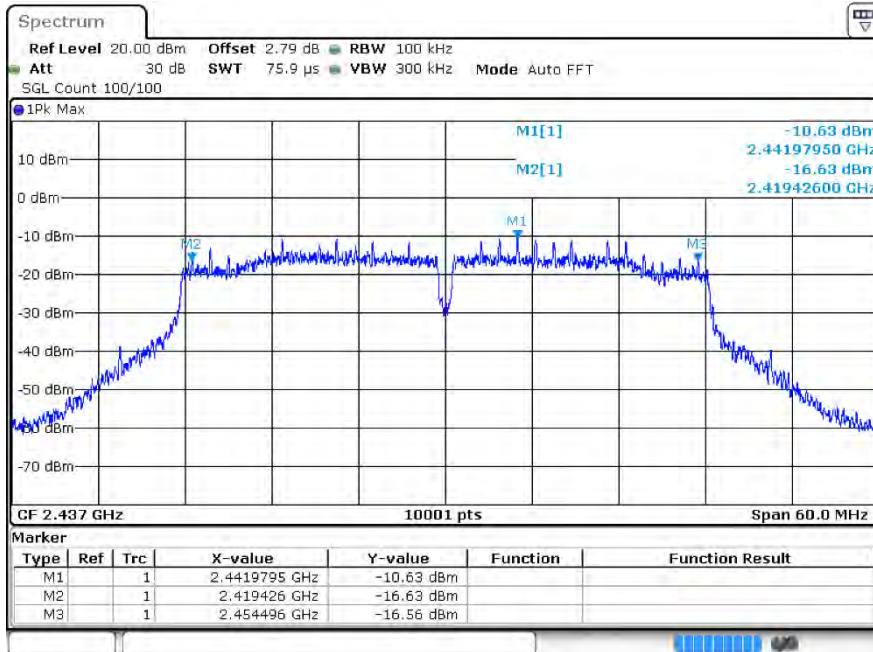
n20 2462MHz Ant2



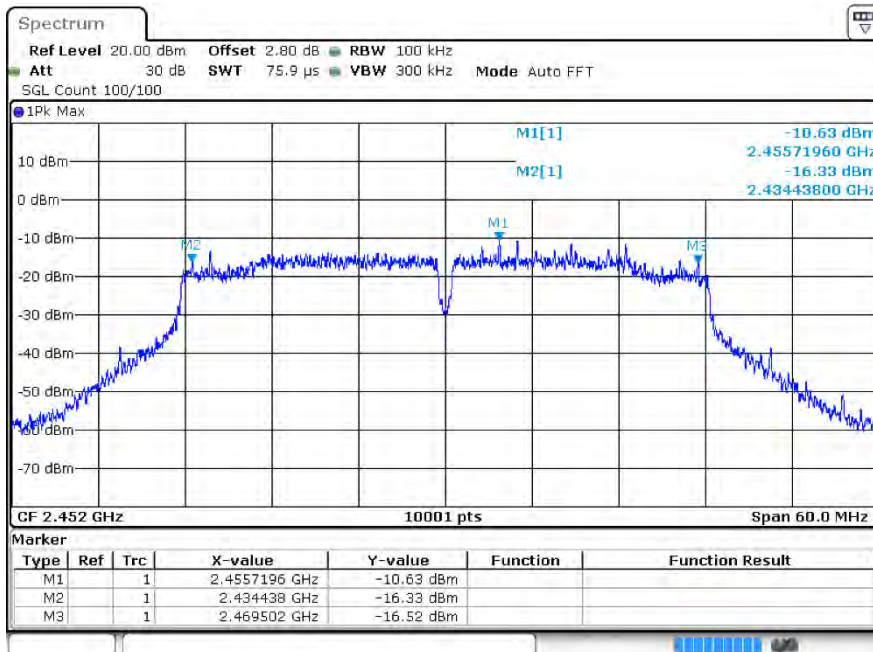
n40 2422MHz Ant2



n40 2437MHz Ant2



n40 2452MHz Ant2

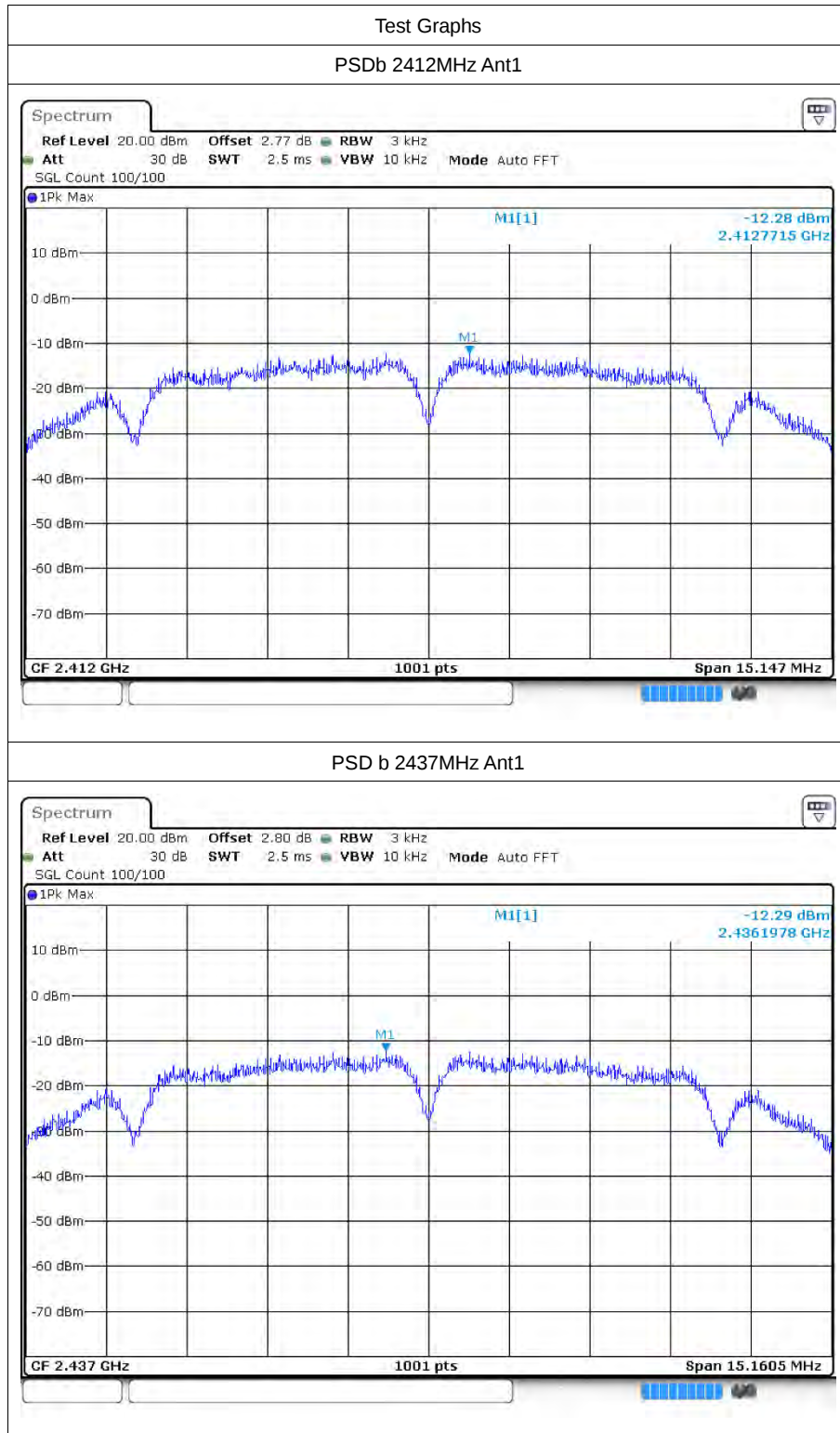


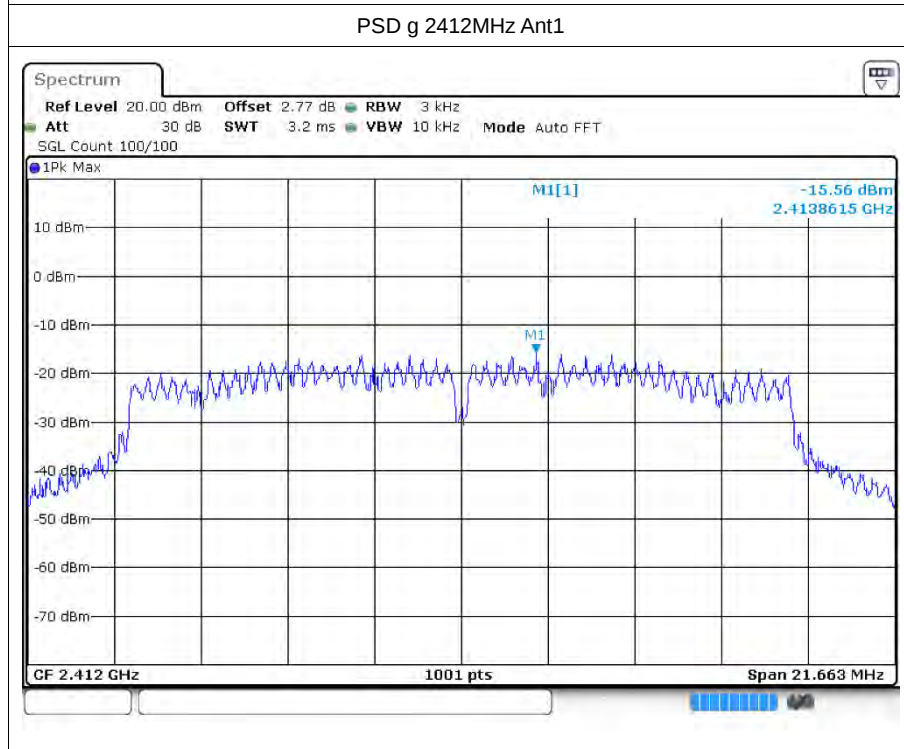
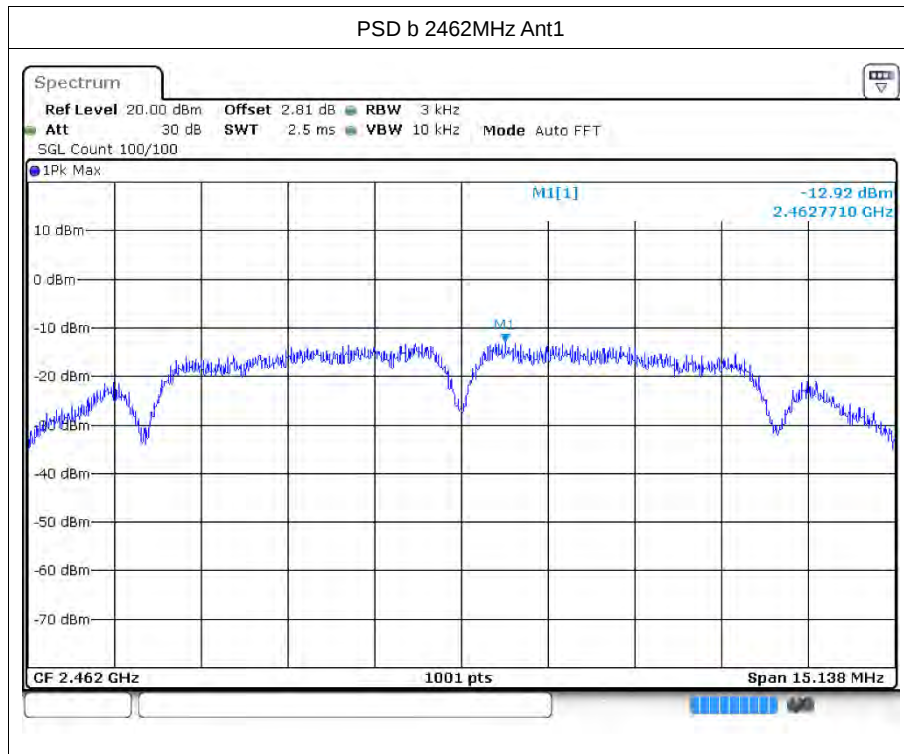
4 Maximum Power Spectral Density Level

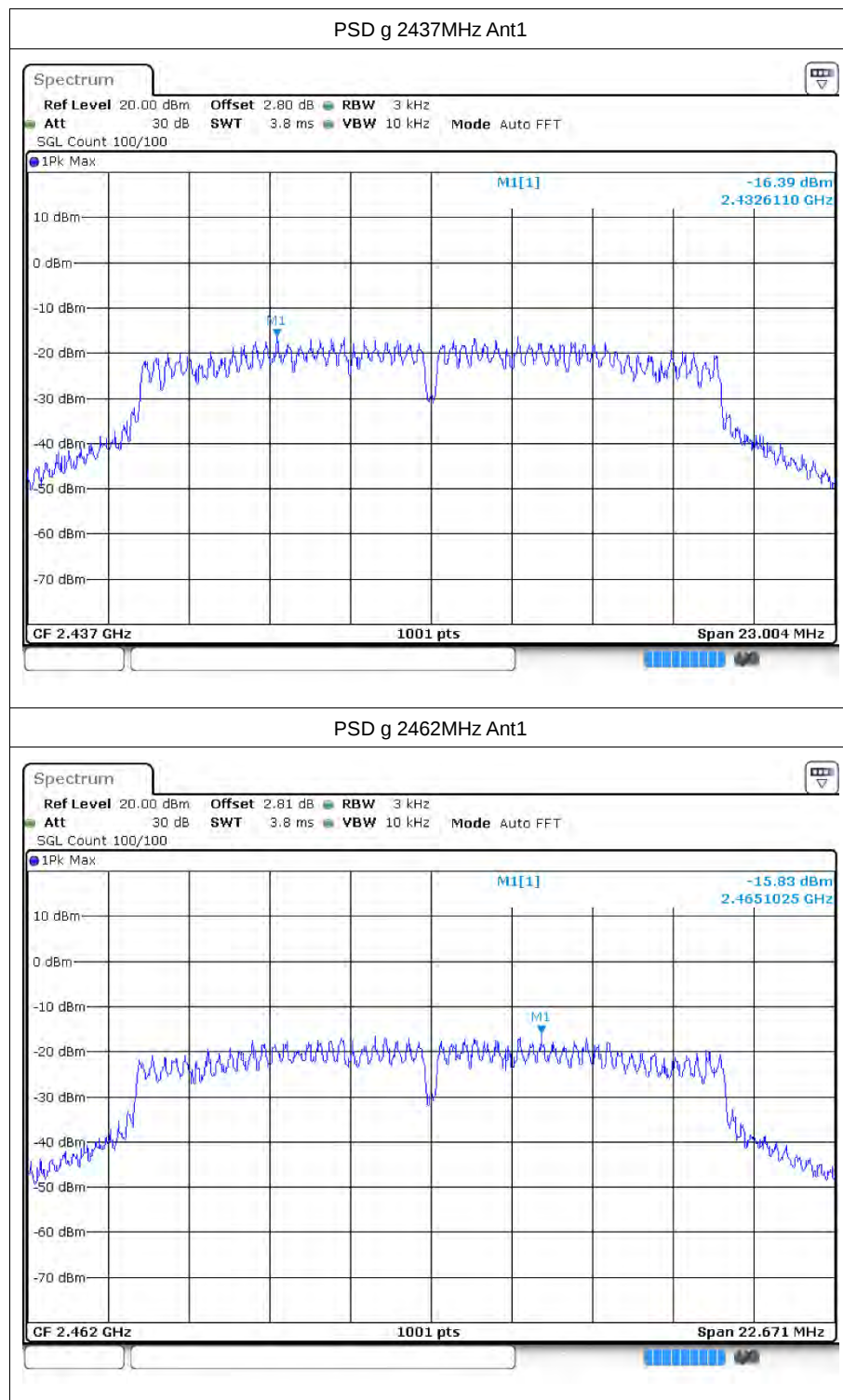
4.1 Test Result

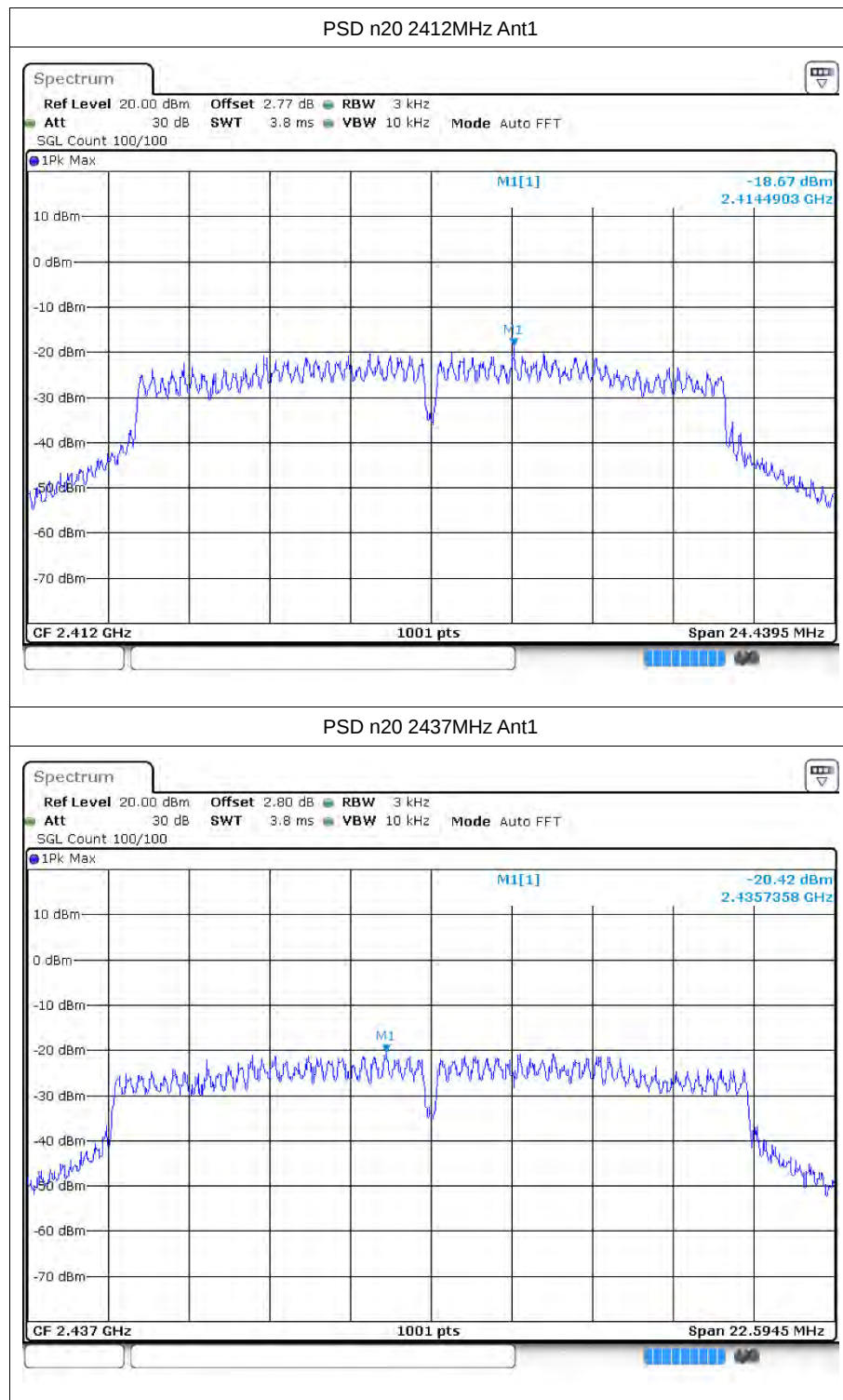
Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3-100kHz)	Limit (dBm/3kHz)	Verdict
b	2412	Ant1	-12.28	≤8	Pass
b	2437	Ant1	-12.29	≤8	Pass
b	2462	Ant1	-12.92	≤8	Pass
g	2412	Ant1	-15.56	≤8	Pass
g	2437	Ant1	-16.39	≤8	Pass
g	2462	Ant1	-15.83	≤8	Pass
n20	2412	Ant1	-18.67	≤8	Pass
n20	2437	Ant1	-20.42	≤8	Pass
n20	2462	Ant1	-19.42	≤8	Pass
n40	2422	Ant1	-21.95	≤8	Pass
n40	2437	Ant1	-23.67	≤8	Pass
n40	2452	Ant1	-23.05	≤8	Pass
b	2412	Ant2	-12.54	≤8	Pass
b	2437	Ant2	-12.61	≤8	Pass
b	2462	Ant2	-12.54	≤8	Pass
g	2412	Ant2	-15.99	≤8	Pass
g	2437	Ant2	-16.93	≤8	Pass
g	2462	Ant2	-16.85	≤8	Pass
n20	2412	Ant2	-20.58	≤8	Pass
n20	2437	Ant2	-20.92	≤8	Pass
n20	2462	Ant2	-20.78	≤8	Pass
n40	2422	Ant2	-23.74	≤8	Pass
n40	2437	Ant2	-22.78	≤8	Pass
n40	2452	Ant2	-24.28	≤8	Pass
n20	2412	Sum	-16.51	≤6.49	Pass
n20	2437	Sum	-17.65	≤6.49	Pass
n20	2462	Sum	-17.04	≤6.49	Pass
n40	2422	Sum	-19.74	≤6.49	Pass
n40	2437	Sum	-20.19	≤6.49	Pass
n40	2452	Sum	-20.61	≤6.49	Pass

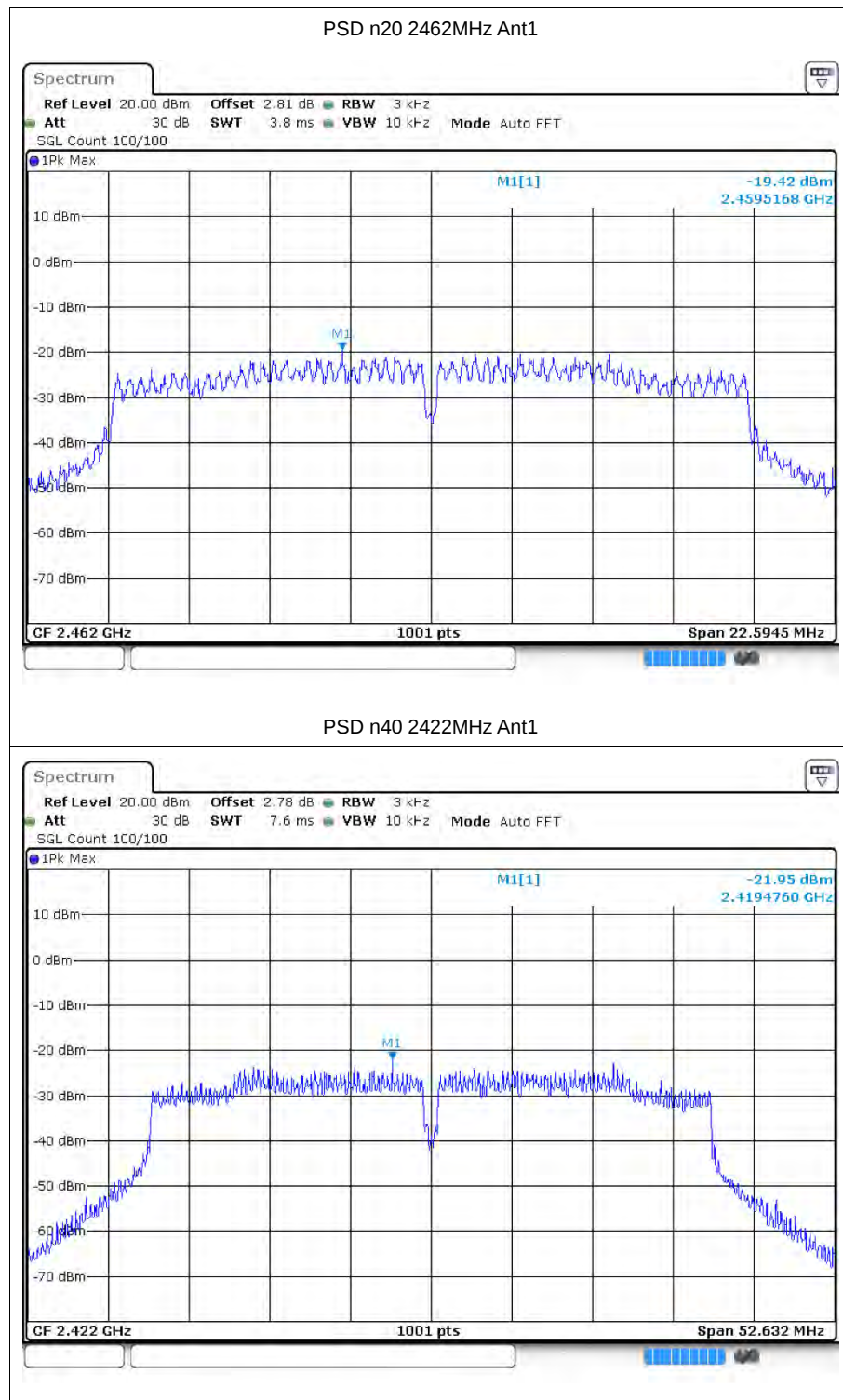
4.2 Test Graphs

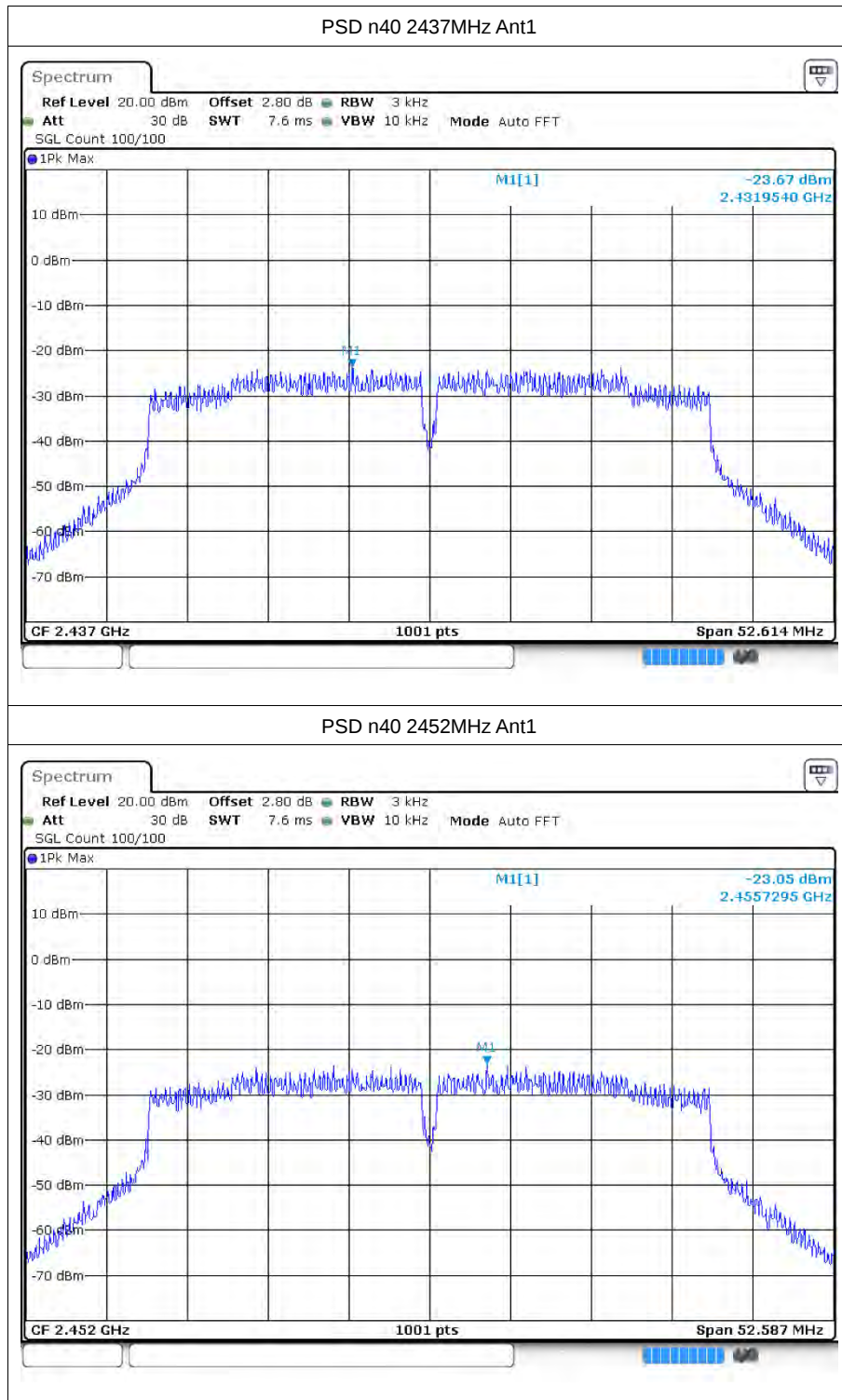












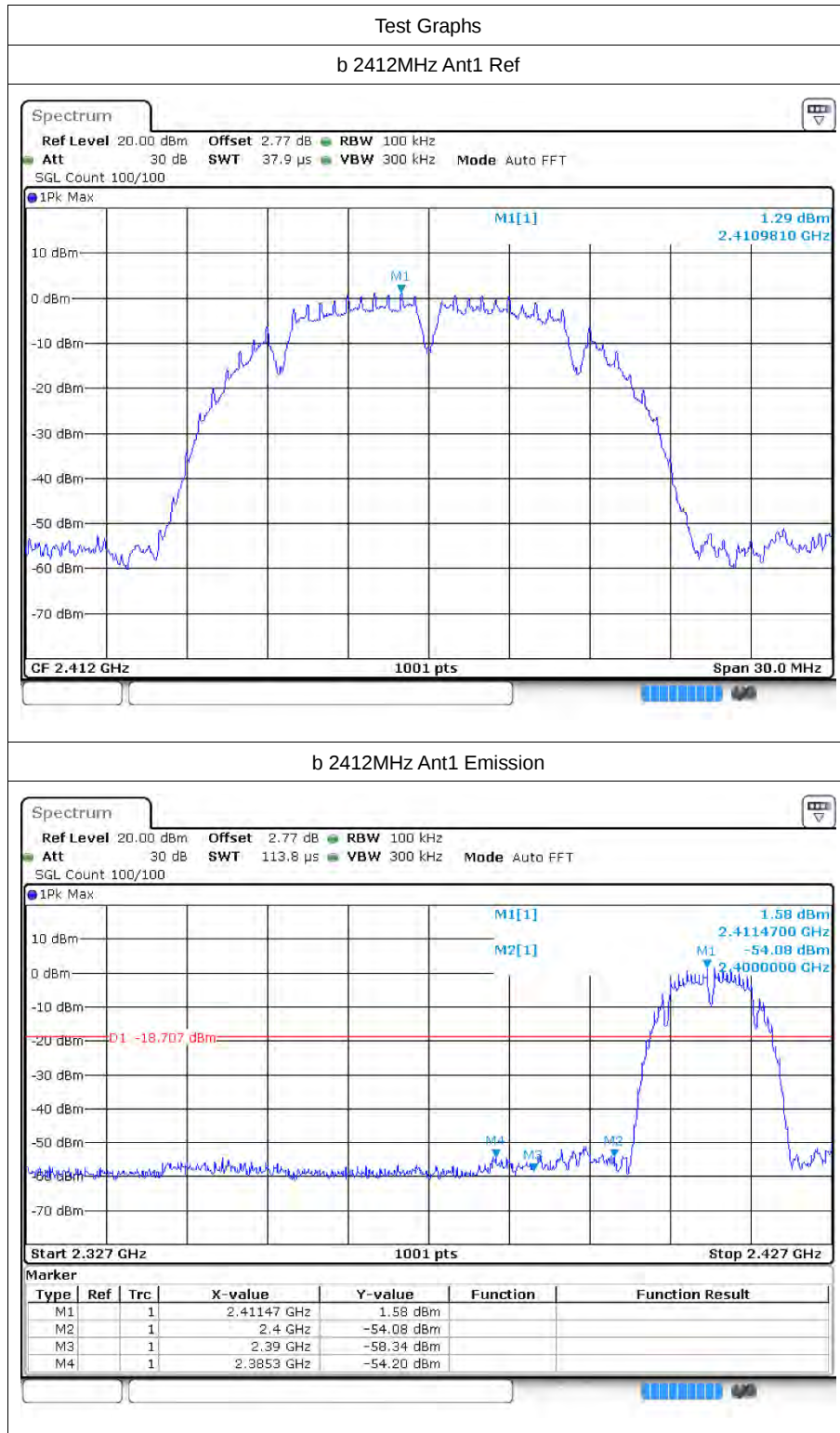


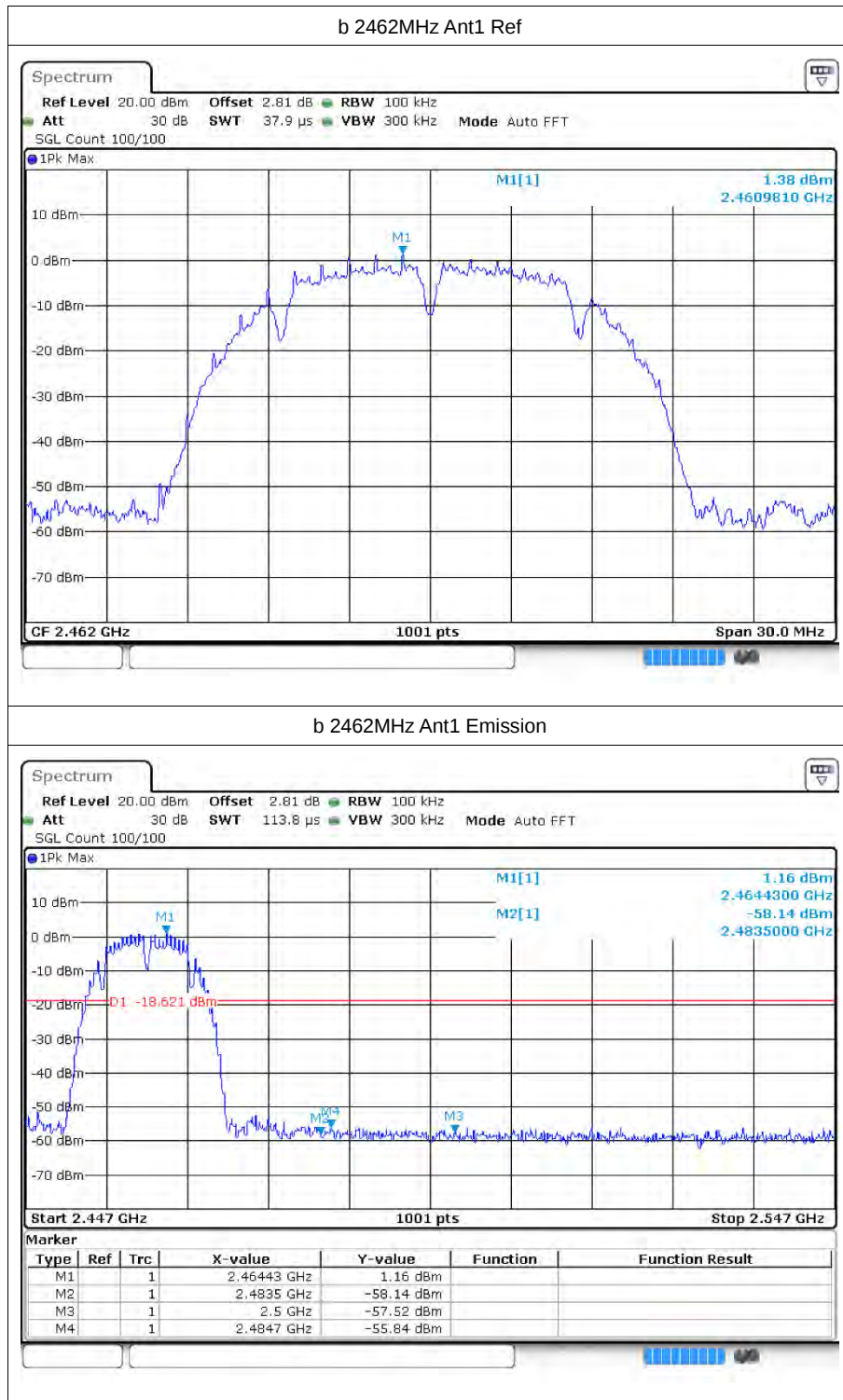
5 Band Edge

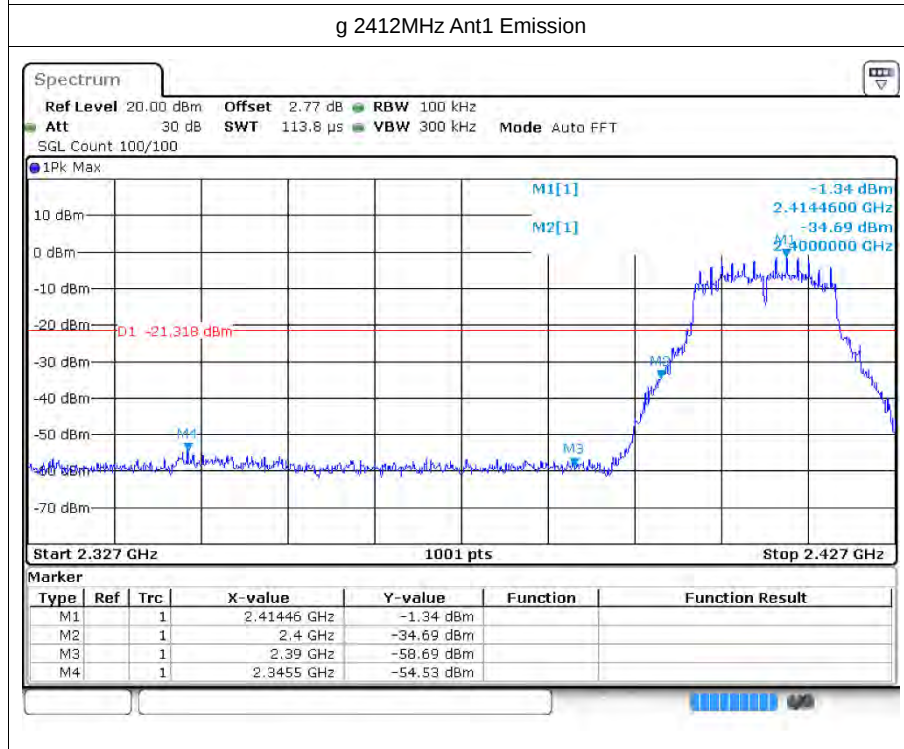
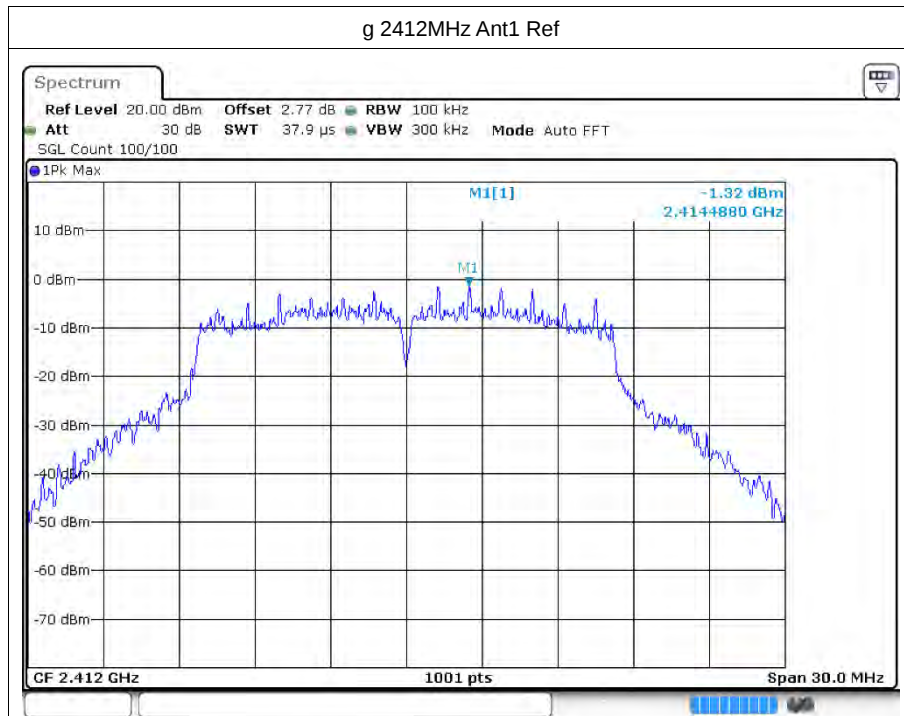
5.1 Test Result

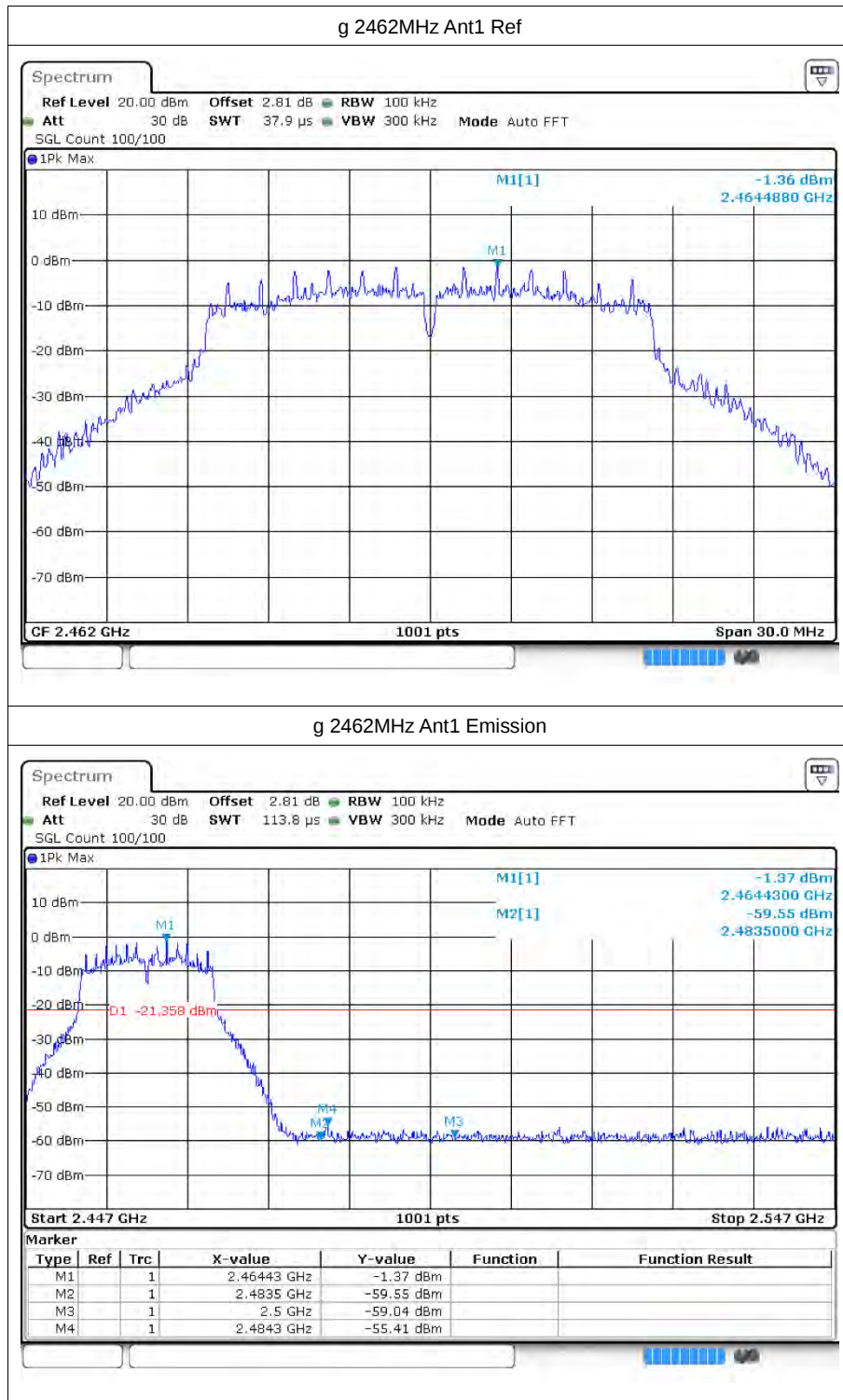
Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
b	2412	Ant1	-55.48	-20	-55.48
b	2462	Ant1	-57.22	-20	Pass
g	2412	Ant1	-53.2	-20	Pass
g	2462	Ant1	-54.04	-20	Pass
n20	2412	Ant1	-48.44	-20	Pass
n20	2462	Ant1	-50.09	-20	Pass
n40	2422	Ant1	-46.88	-20	Pass
n40	2452	Ant1	-46.18	-20	Pass
b	2412	Ant2	-55.41	-20	-55.41
b	2462	Ant2	-56.5	-20	Pass
g	2412	Ant2	-53.52	-20	Pass
g	2462	Ant2	-53.48	-20	Pass
n20	2412	Ant2	-47.63	-20	Pass
n20	2462	Ant2	-49.46	-20	Pass
n40	2422	Ant2	-45.21	-20	Pass
n40	2452	Ant2	-44.25	-20	Pass

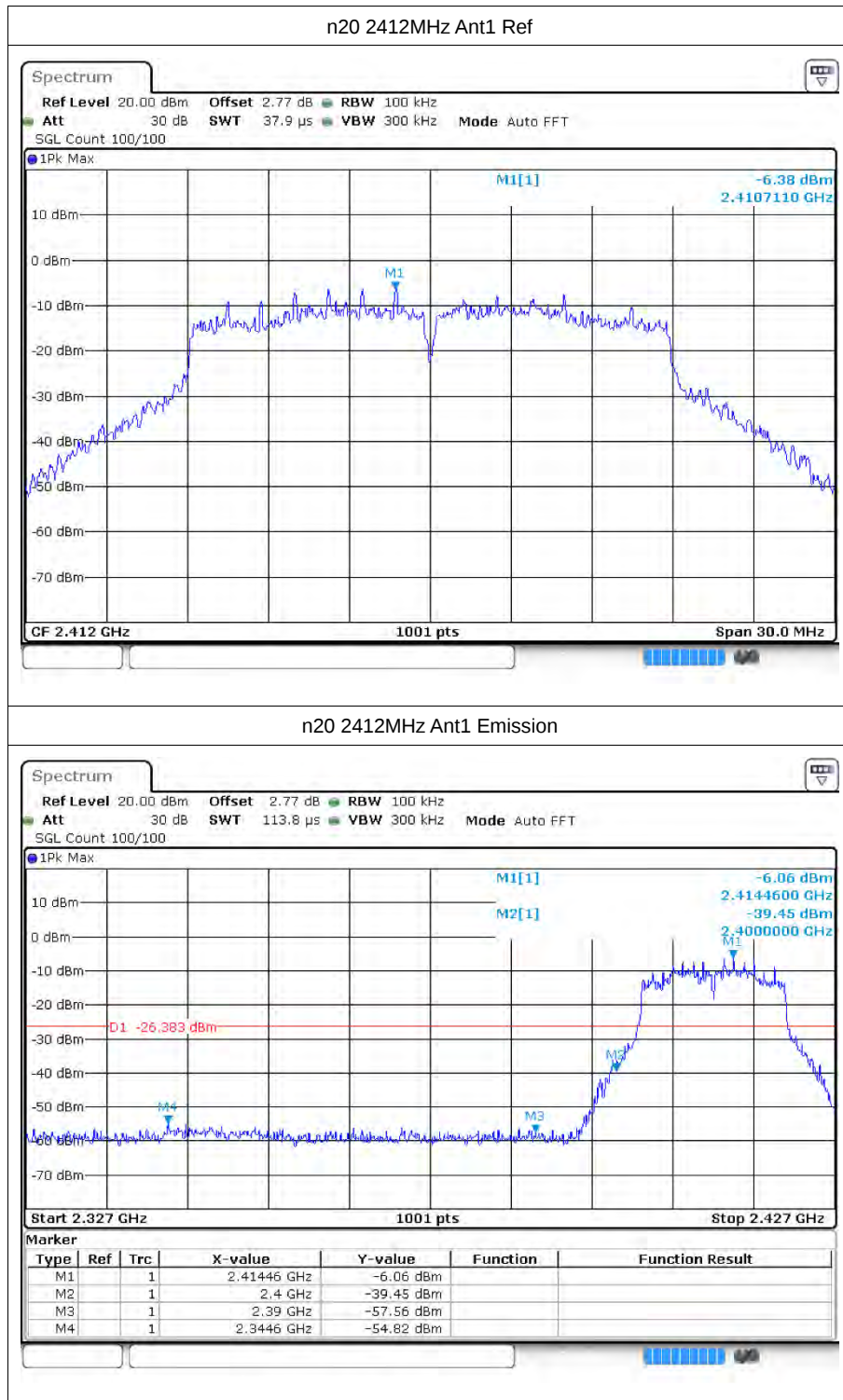
5.2 Test Graphs

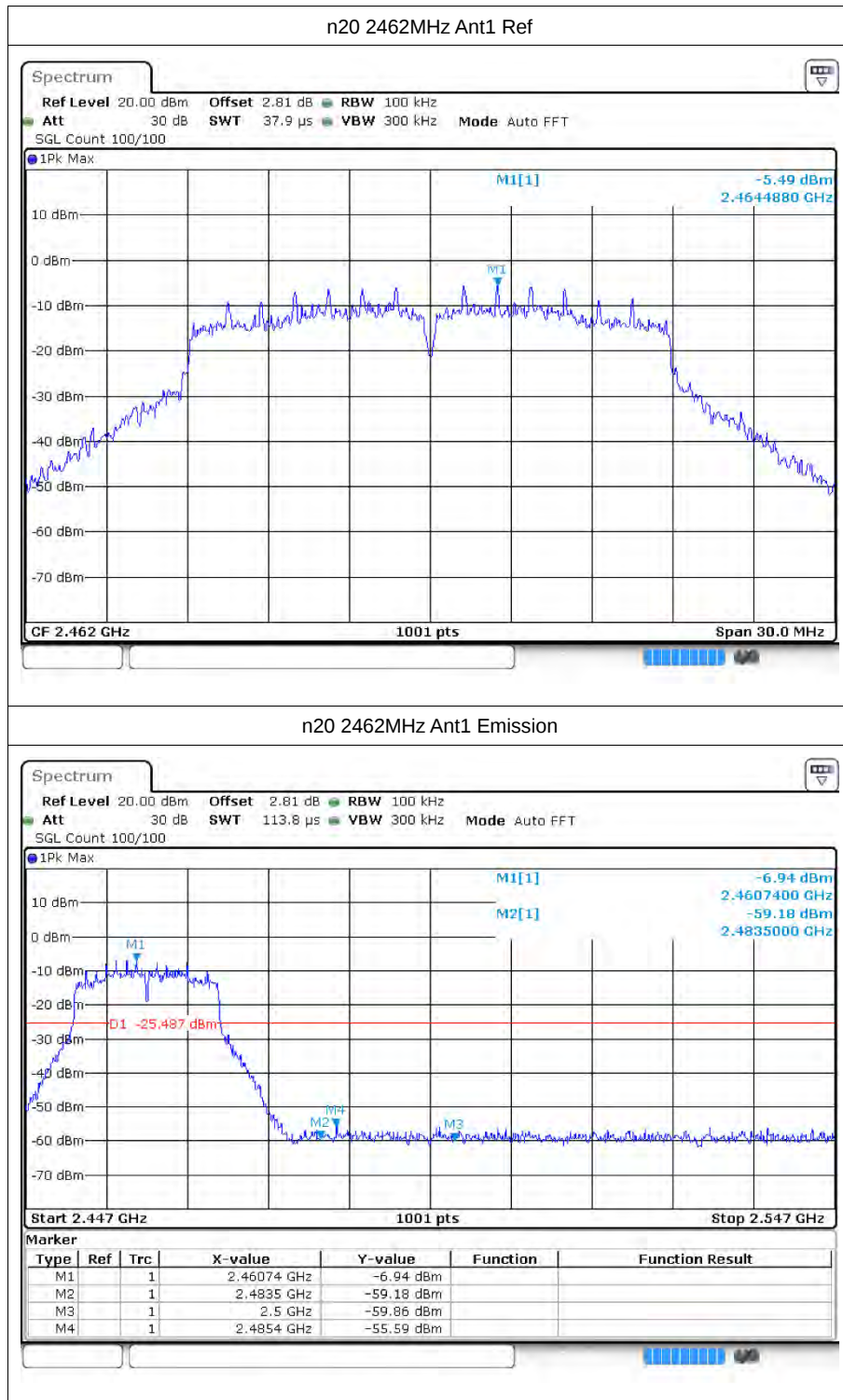


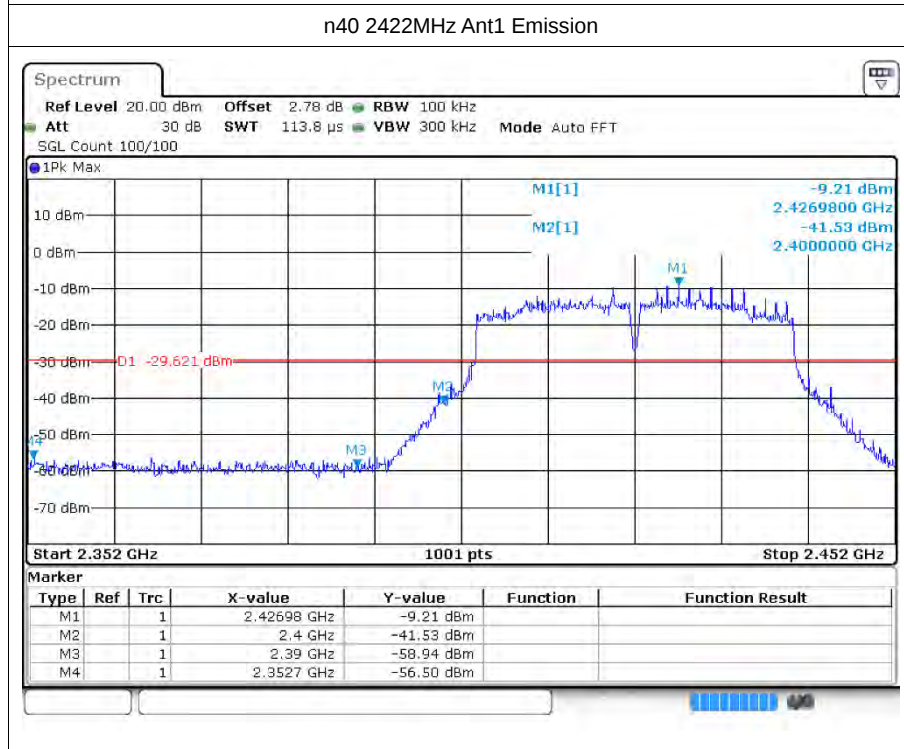
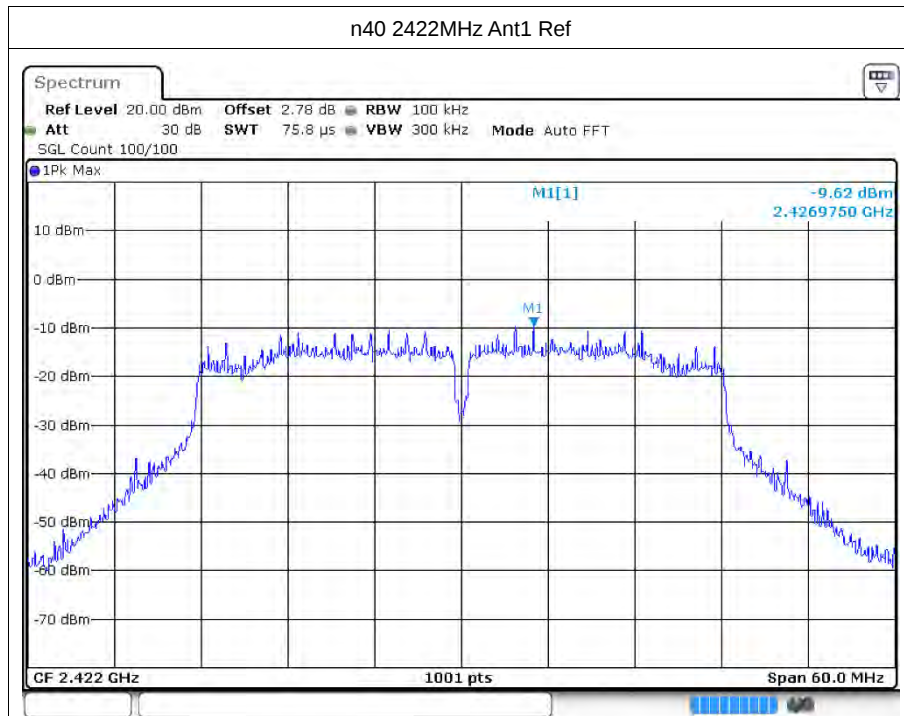


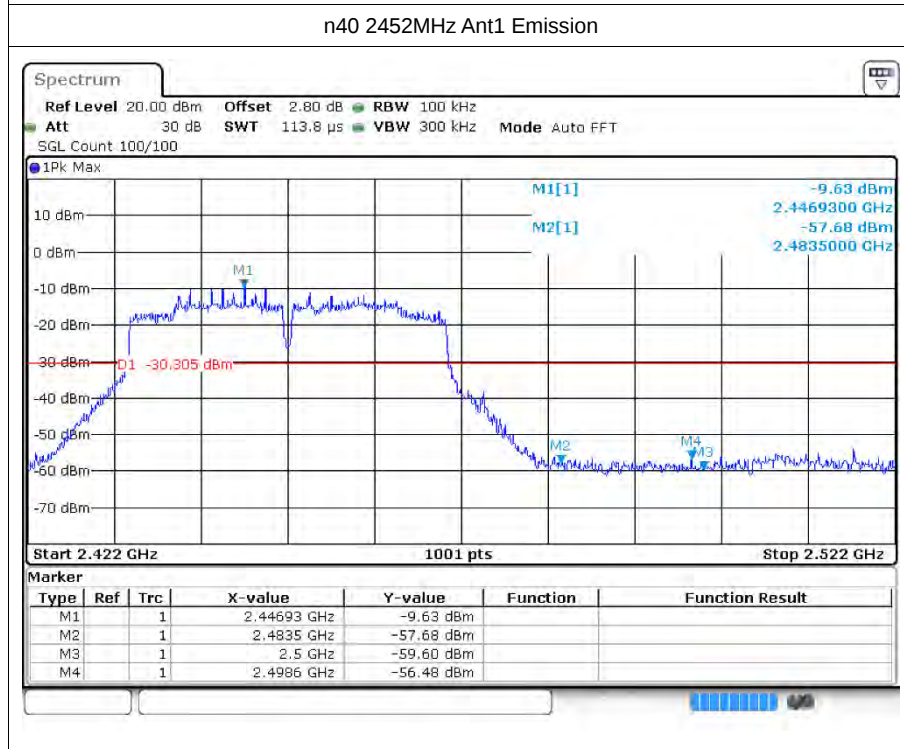
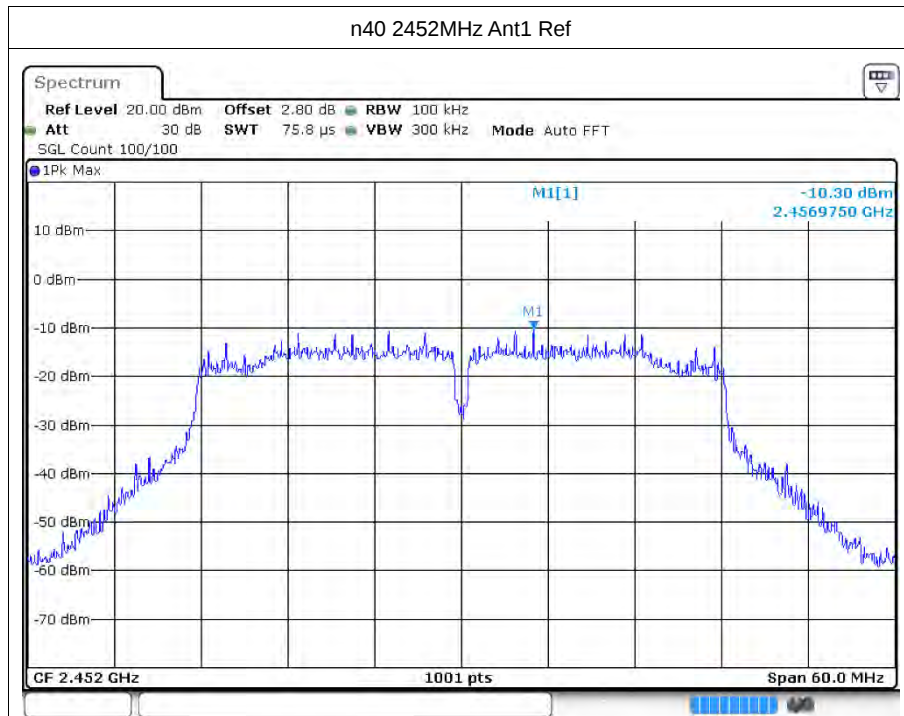


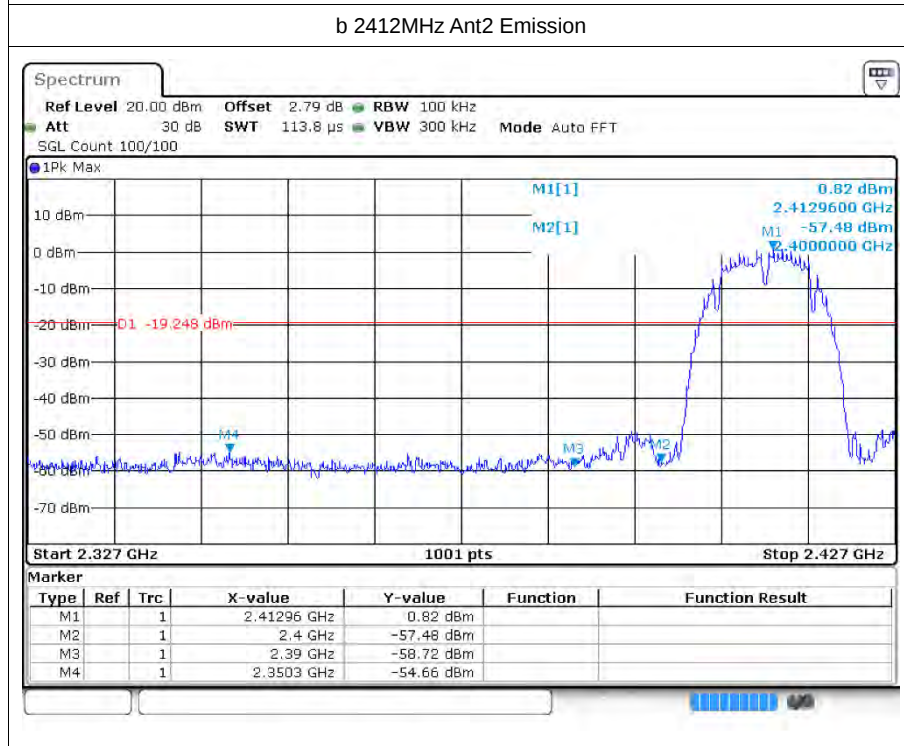
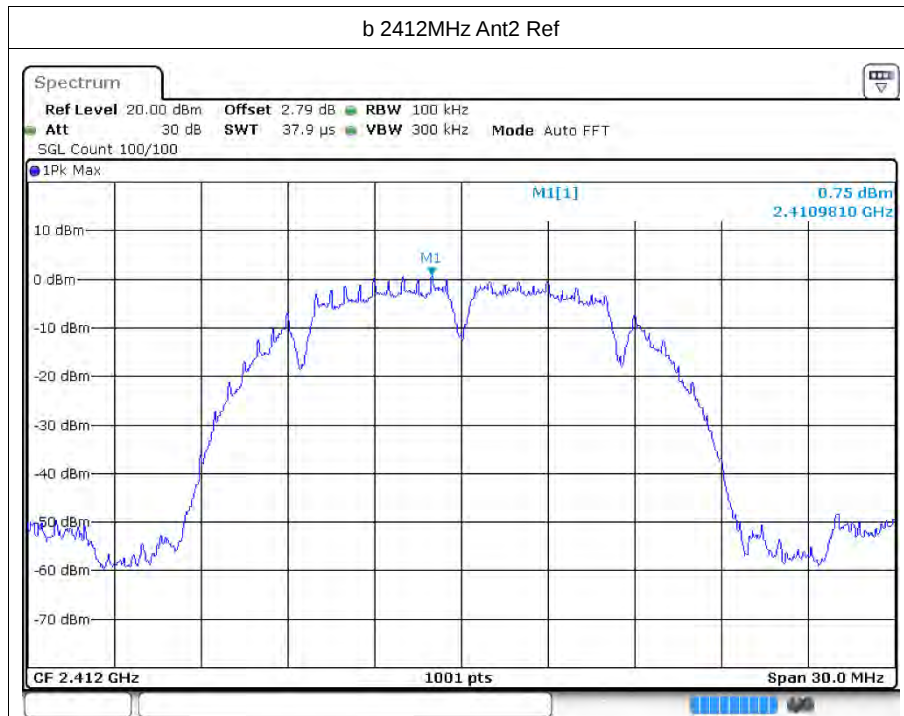


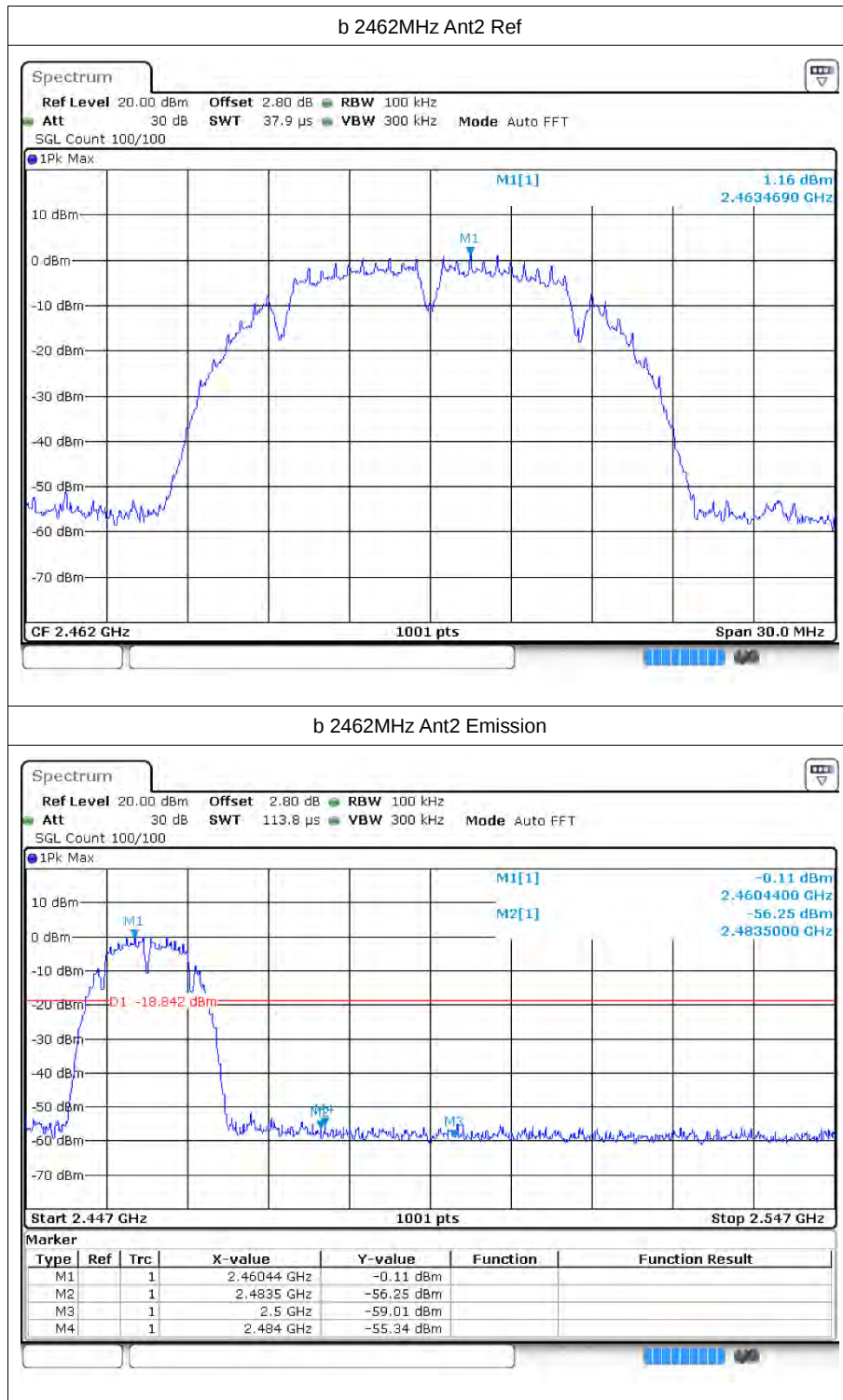


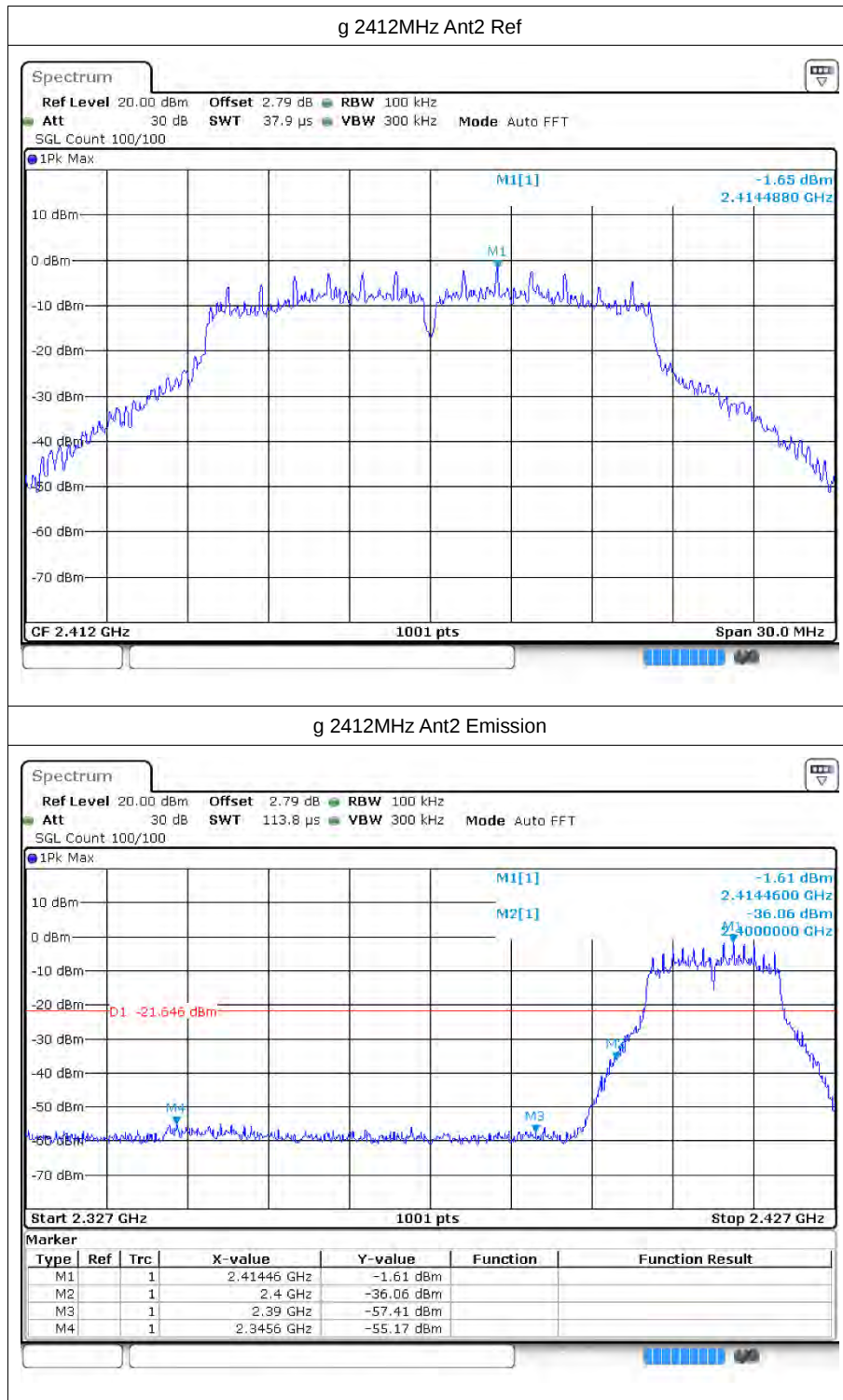


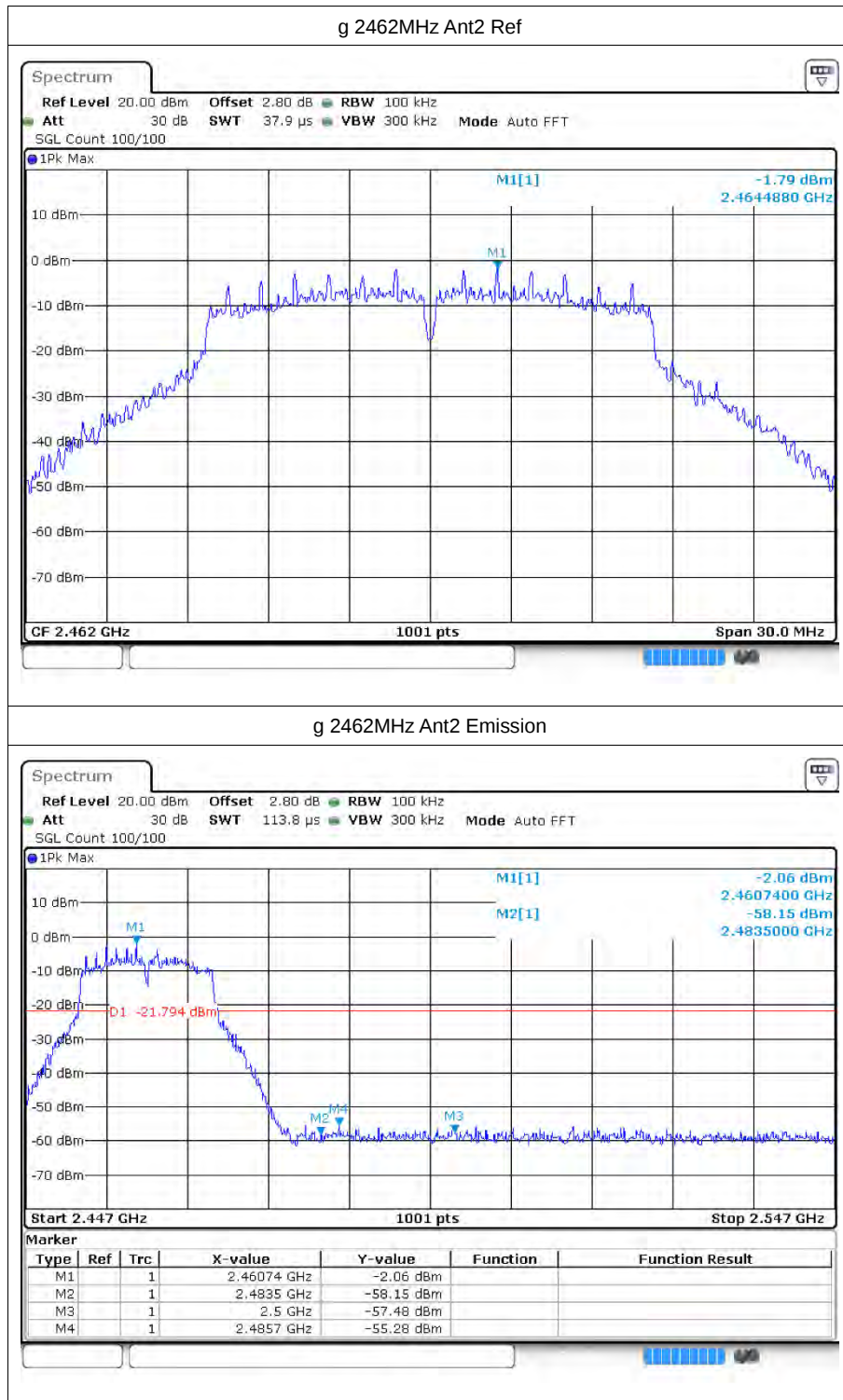


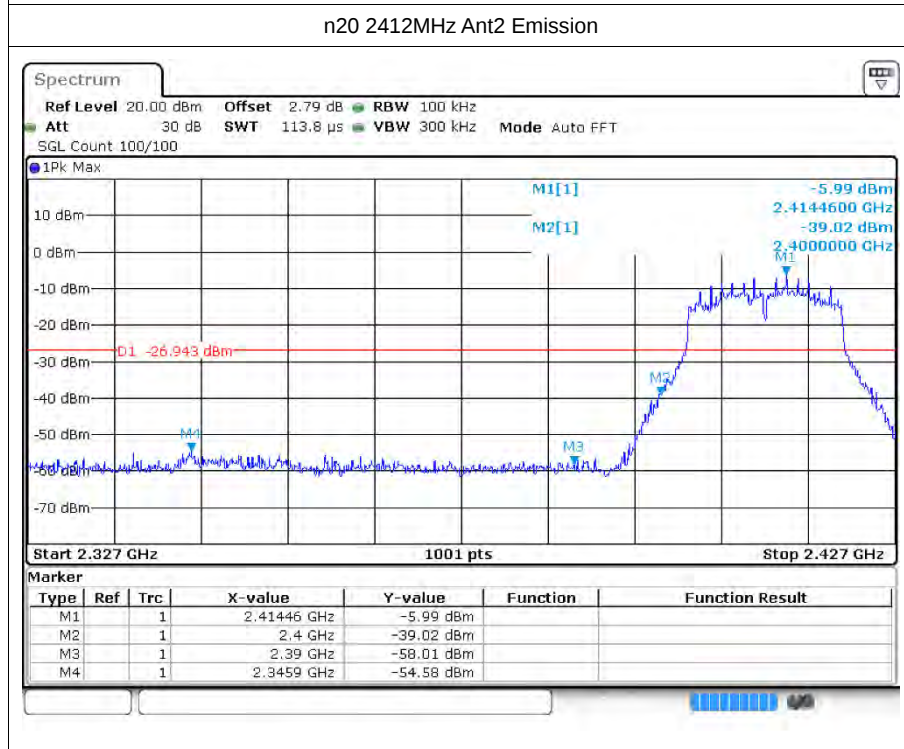
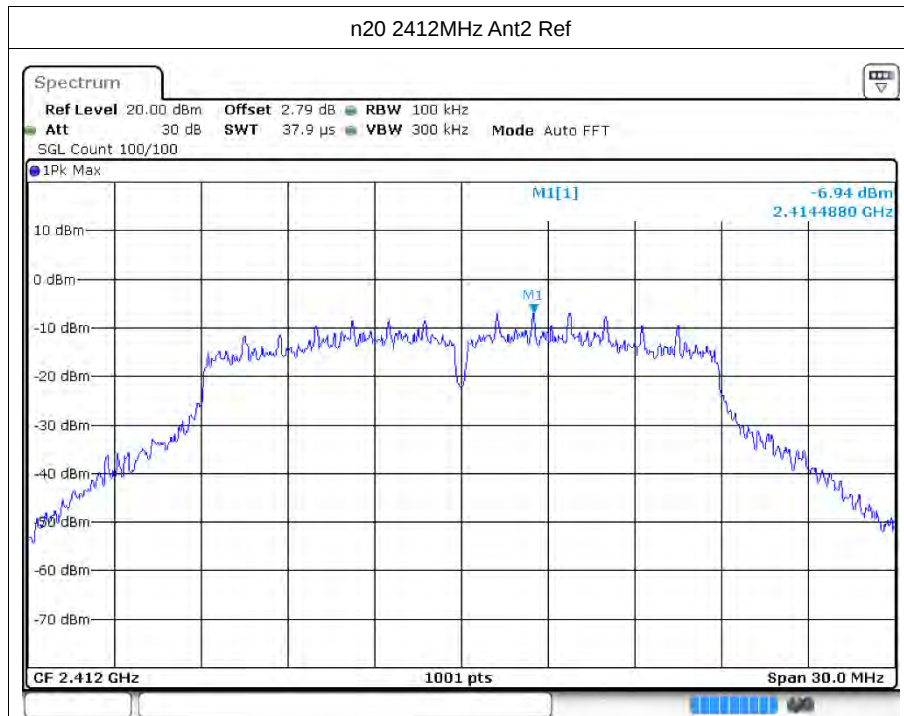


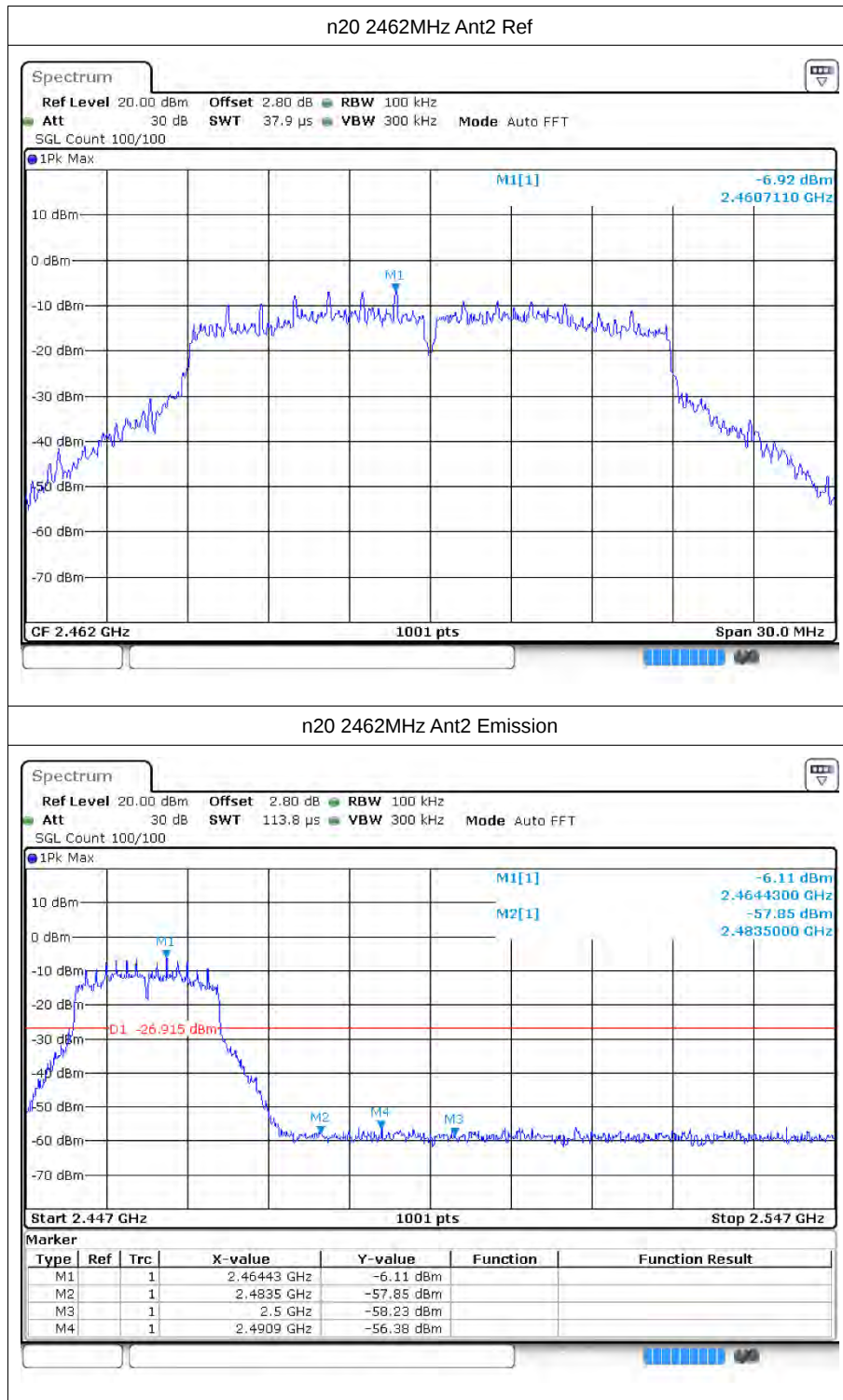


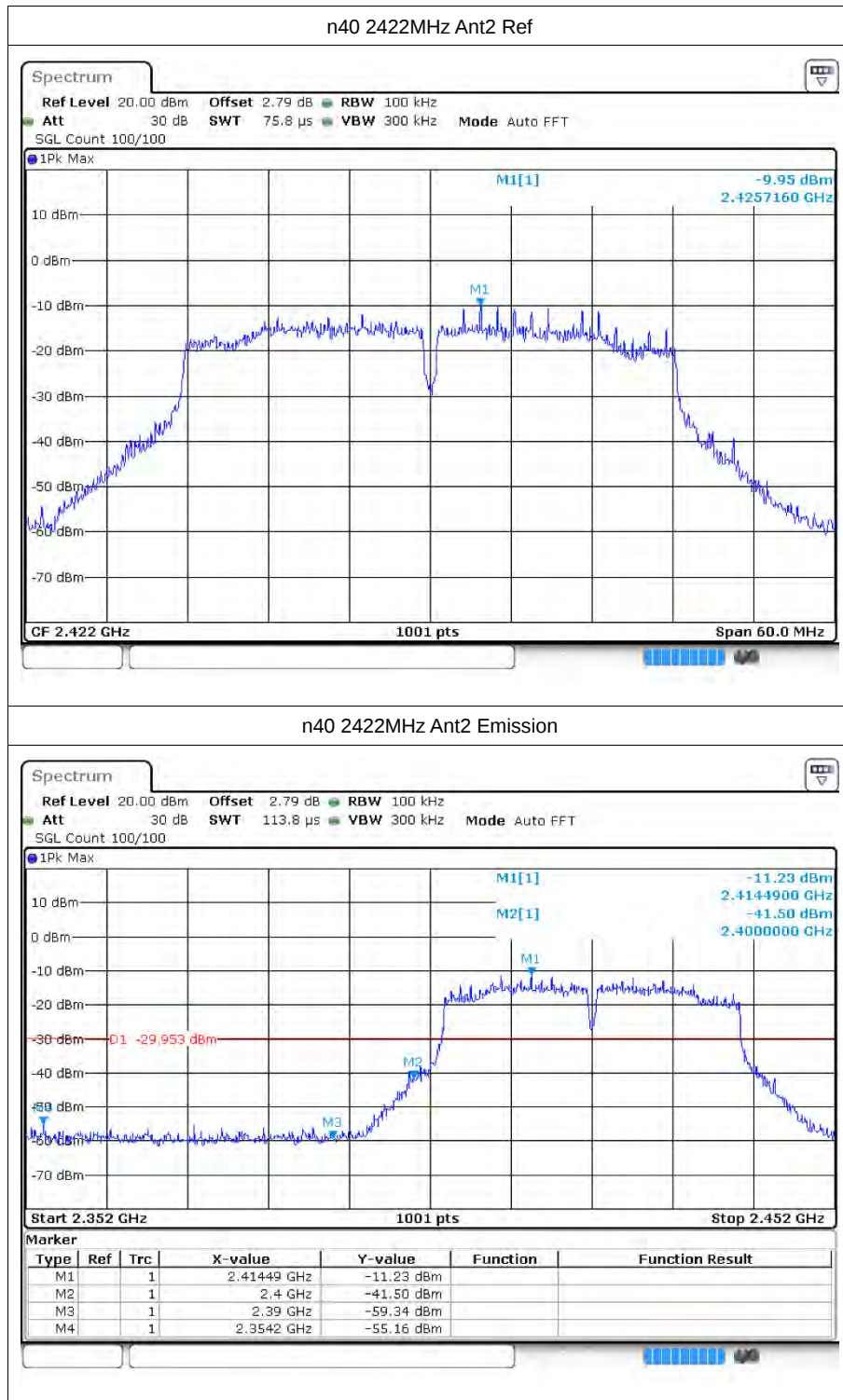


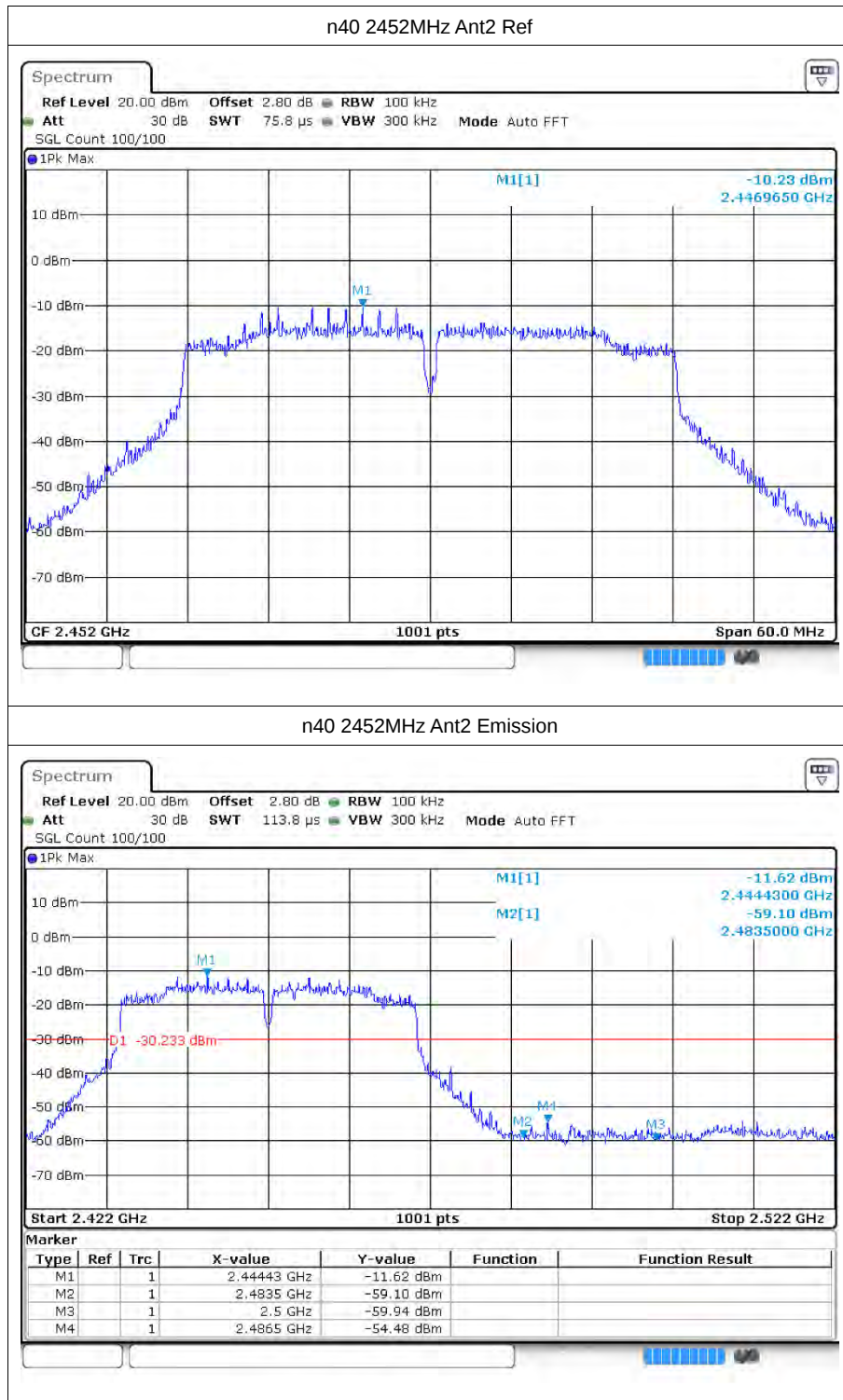














6 Conducted RF Spurious Emission

6.1 Test Result

Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
b	2412	Ant1	-47.18	-20	Pass
b	2437	Ant1	-46.92	-20	Pass
b	2462	Ant1	-46.23	-20	Pass
g	2412	Ant1	-44.42	-20	Pass
g	2437	Ant1	-44.75	-20	Pass
g	2462	Ant1	-44.3	-20	Pass
n20	2412	Ant1	-39.74	-20	Pass
n20	2437	Ant1	-39.85	-20	Pass
n20	2462	Ant1	-39.54	-20	Pass
n40	2422	Ant1	-35.12	-20	Pass
n40	2437	Ant1	-34.73	-20	Pass
n40	2452	Ant1	-35.61	-20	Pass
b	2412	Ant2	-45.41	-20	Pass
b	2437	Ant2	-46.55	-20	Pass
b	2462	Ant2	-44.91	-20	Pass
g	2412	Ant2	-42.95	-20	Pass
g	2437	Ant2	-43.81	-20	Pass
g	2462	Ant2	-43.17	-20	Pass
n20	2412	Ant2	-39.77	-20	Pass
n20	2437	Ant2	-39.84	-20	Pass
n20	2462	Ant2	-38.19	-20	Pass
n40	2422	Ant2	-34.22	-20	Pass
n40	2437	Ant2	-35.58	-20	Pass
n40	2452	Ant2	-35.22	-20	Pass

6.2 Test Graphs

