



Appendix C

RF Test Data for 2.4GWIFI (Conducted Measurement)

Product Name: LED Bulb String Lights

Trade Mark: ASAHOM

Test Model: S1021

Environmental Conditions

Temperature:	26.2° C
Relative Humidity:	51.6%
ATM Pressure:	100.0 kPa
Test Engineer:	Simba Huang
Supervised by:	Seal Chen



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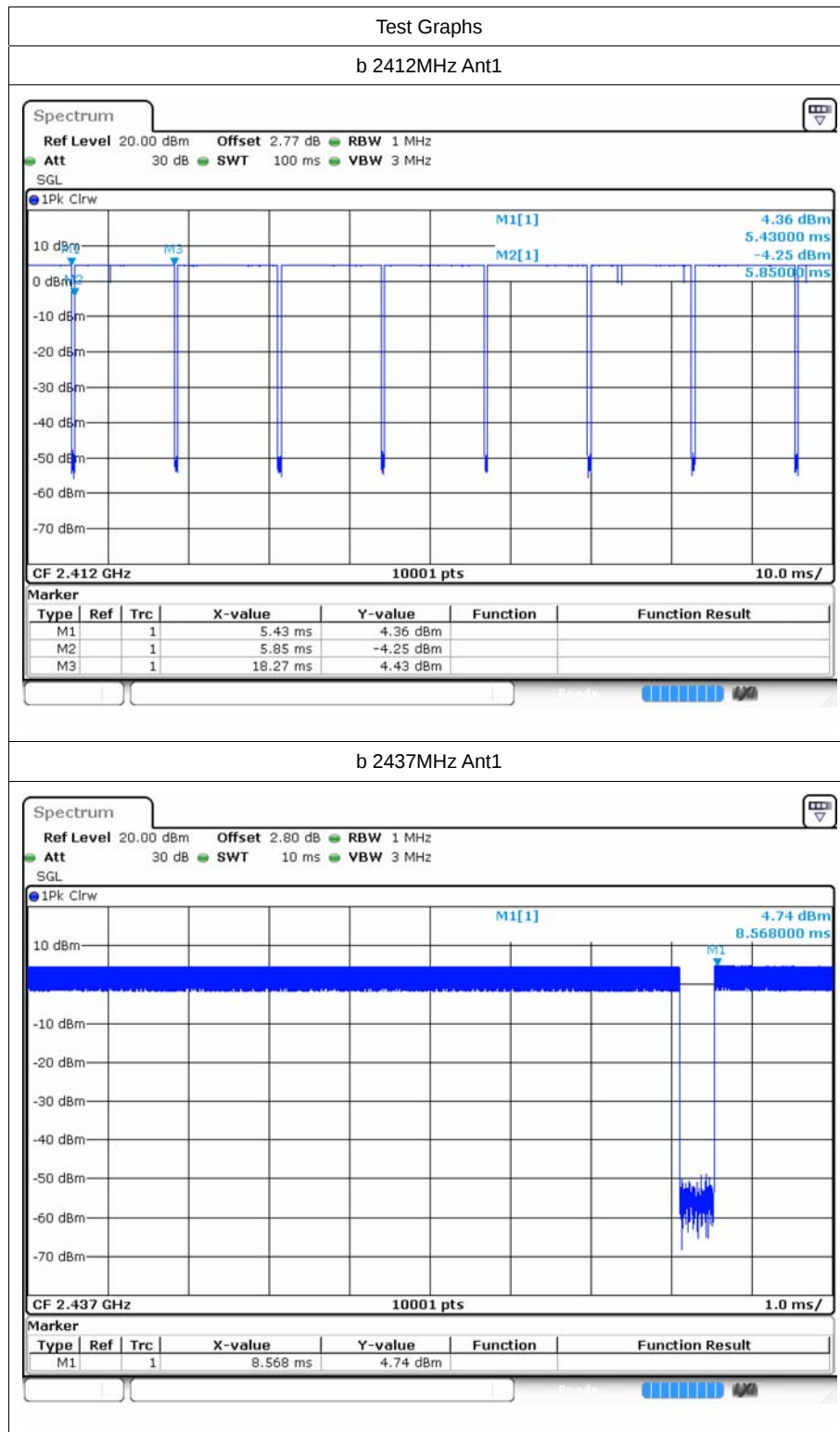


1 Duty Cycle

1.1 Test Result

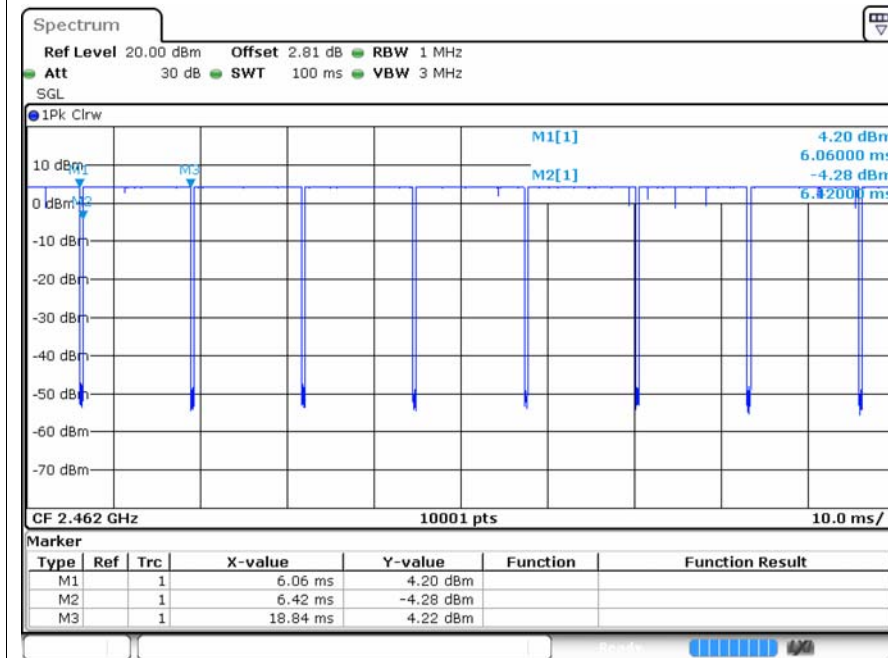
Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	1/T (kHz)
b	2412	Ant1	96.77	0.08
b	2437	Ant1	95.73	0
b	2462	Ant1	96.86	0.08
g	2412	Ant1	92.37	0.48
g	2437	Ant1	91.51	0.49
g	2462	Ant1	93.11	0.49
n20	2412	Ant1	92.81	0.52
n20	2437	Ant1	90.2	0.52
n20	2462	Ant1	93.15	0.52
n40	2422	Ant1	74.93	1.05
n40	2437	Ant1	86.19	1.05
n40	2452	Ant1	82.84	1.05

1.2 Test Graphs

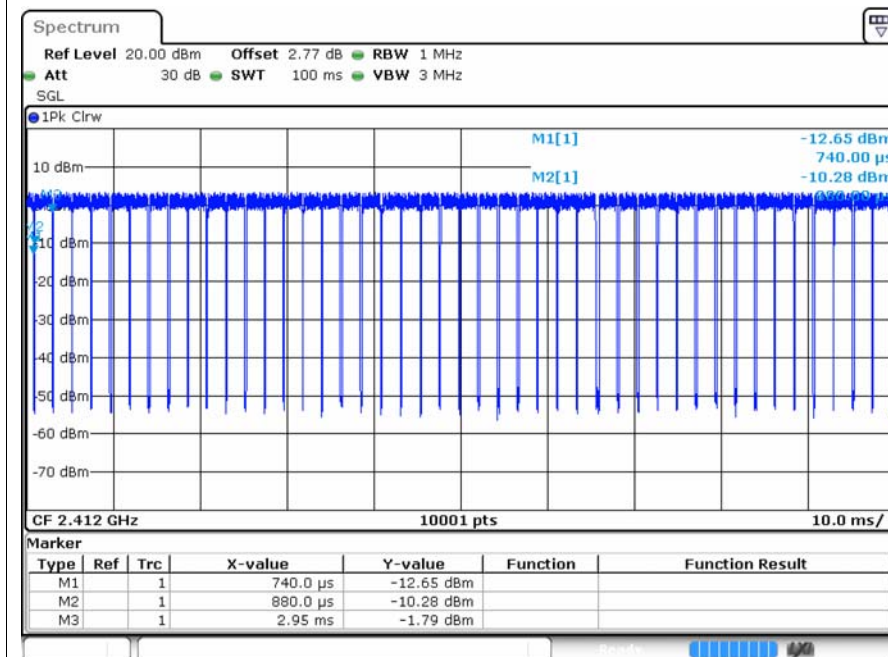


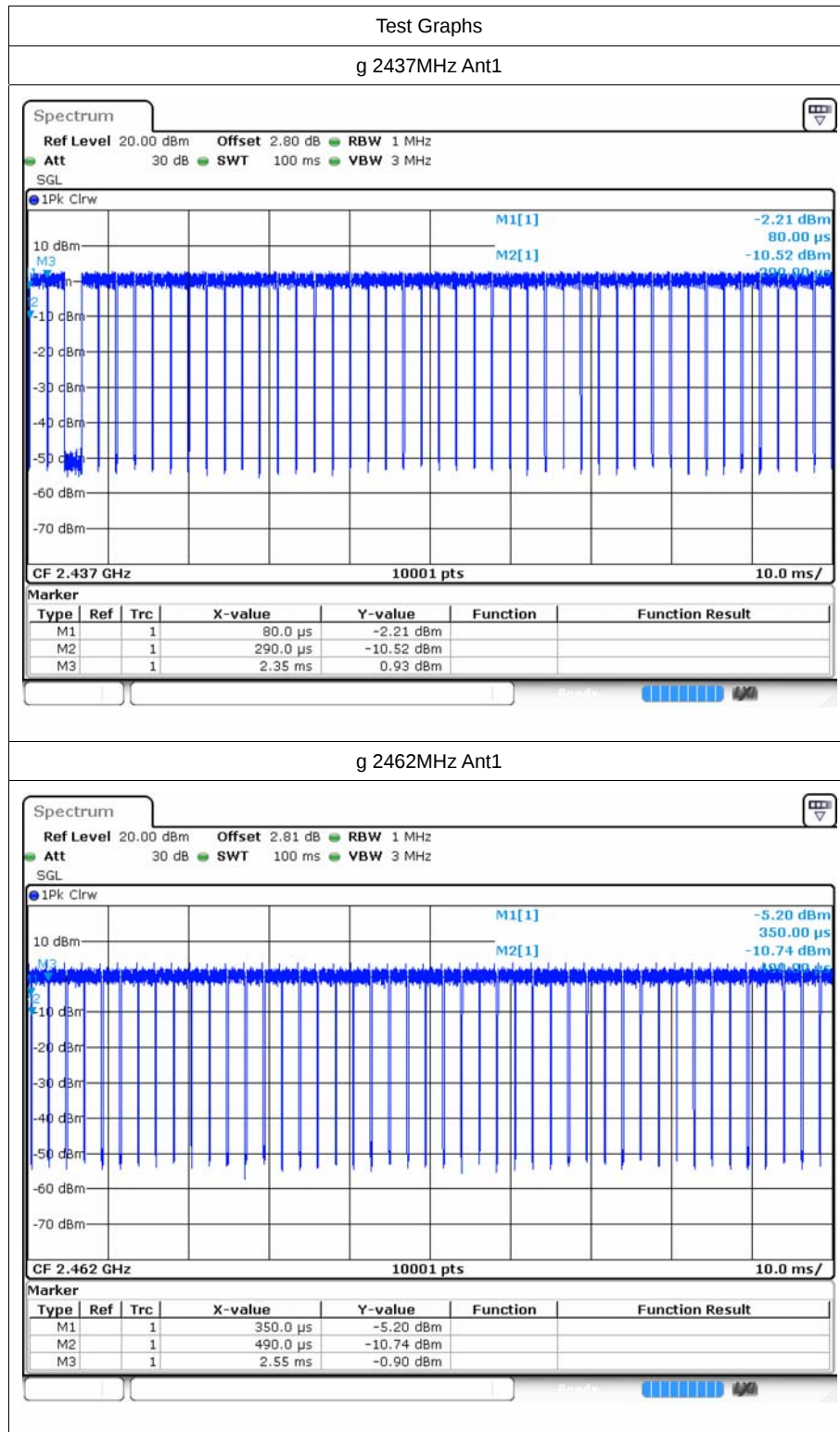
Test Graphs

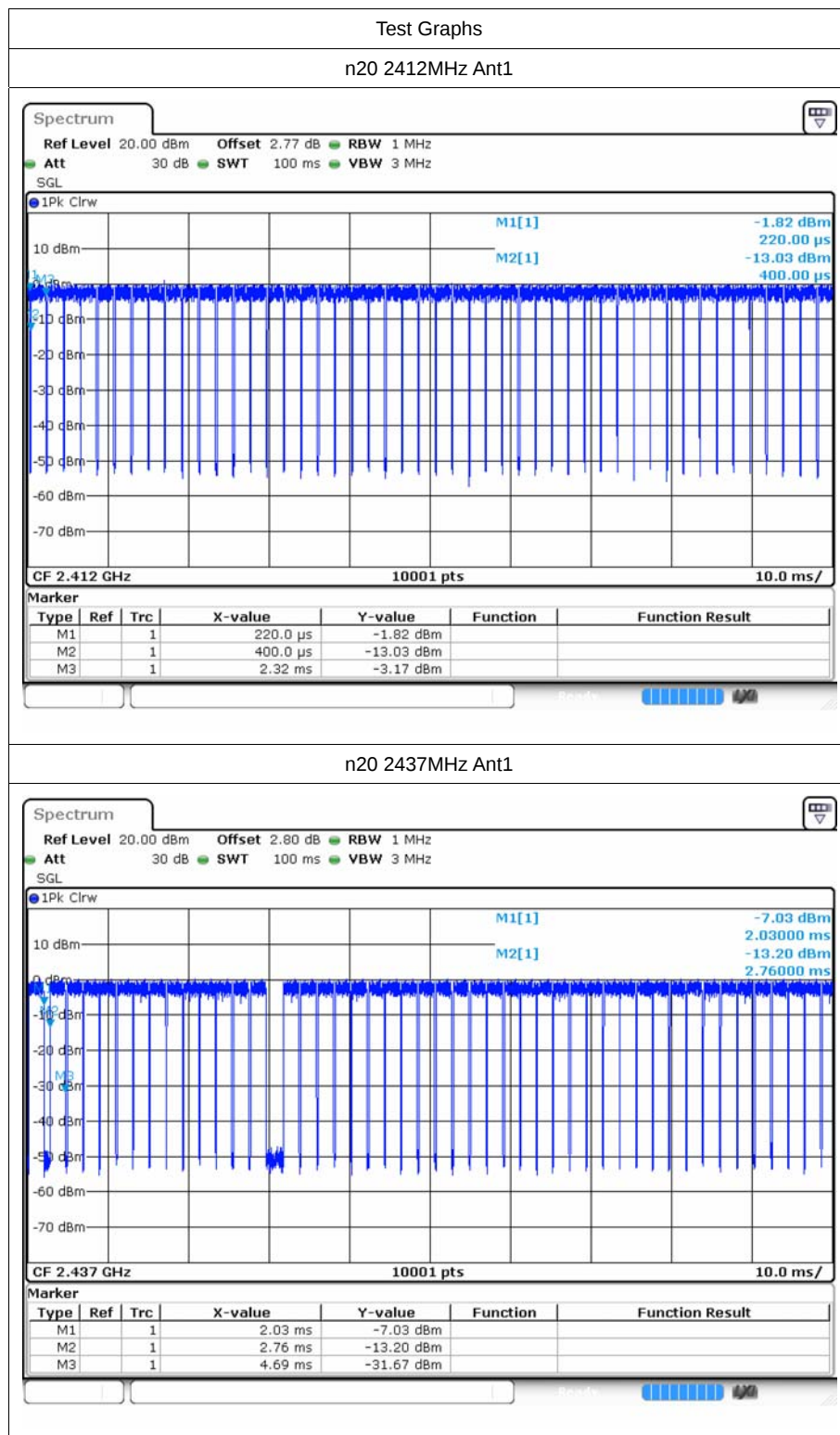
b 2462MHz Ant1

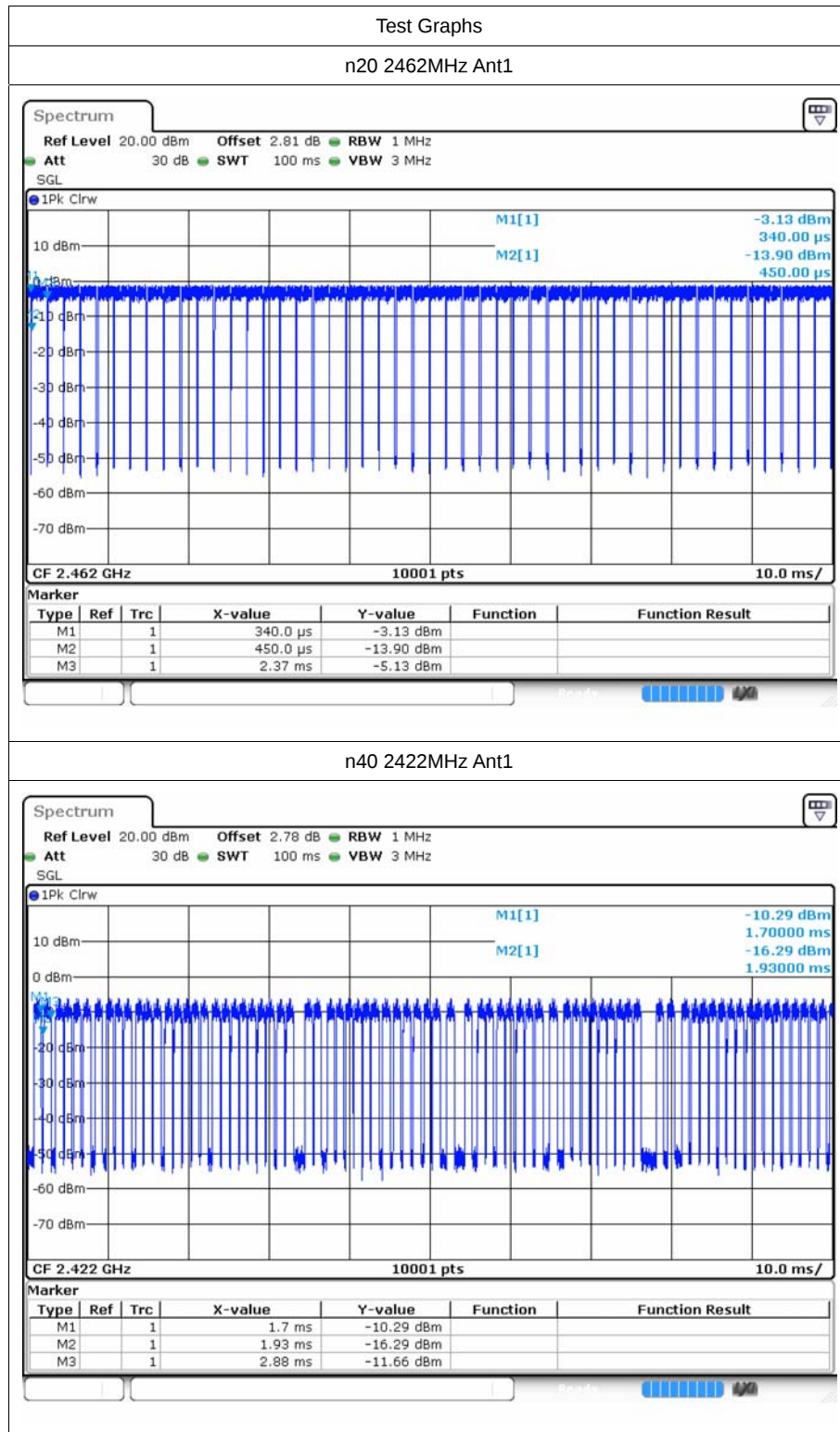


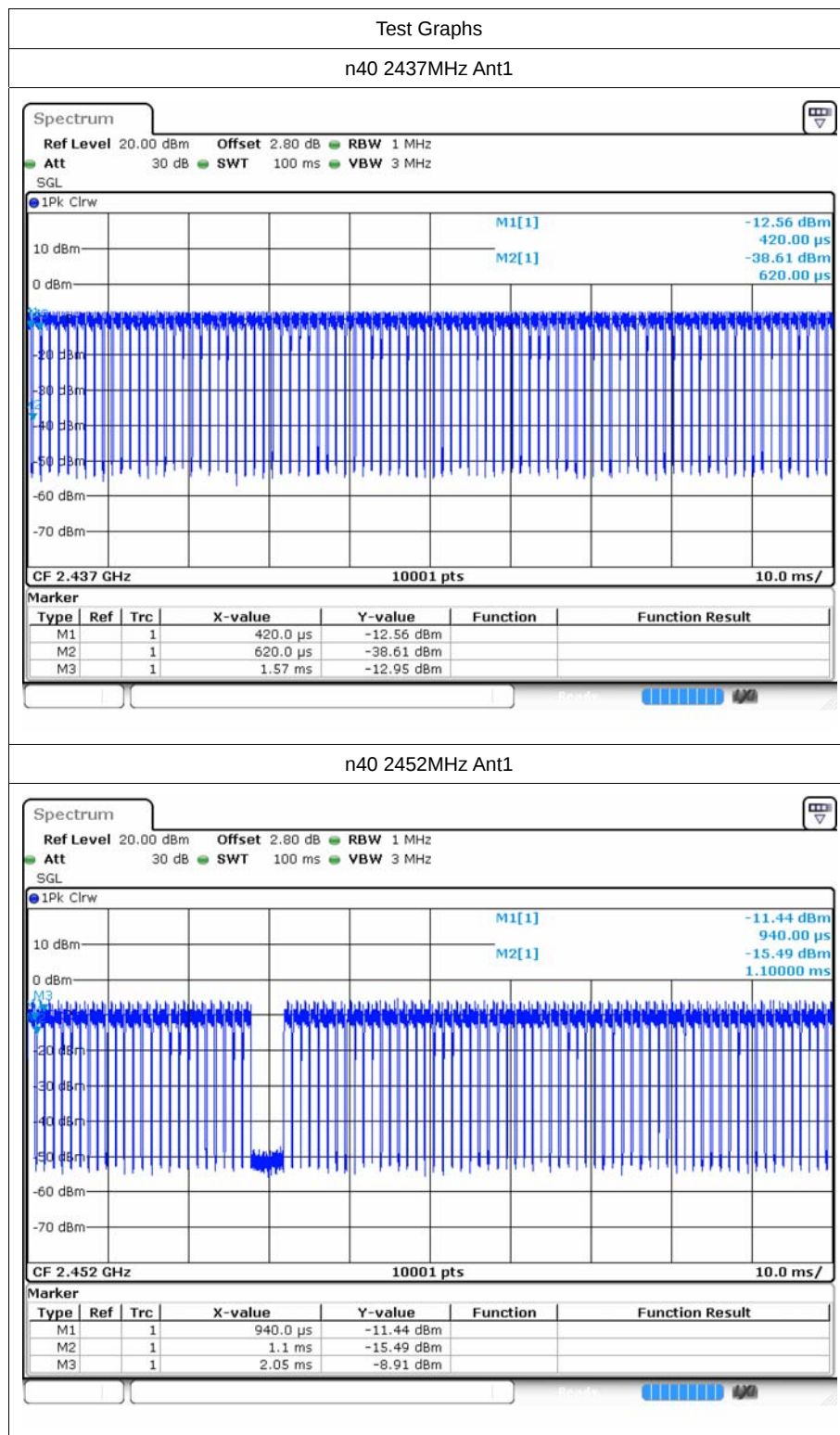
g 2412MHz Ant1













2 Maximum Conducted Output Power

2.1 Test Result

Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
b	2412	Ant1	15.02	30	Pass
b	2437	Ant1	15.19	30	Pass
b	2462	Ant1	14.76	30	Pass
g	2412	Ant1	14.28	30	Pass
g	2437	Ant1	13.45	30	Pass
g	2462	Ant1	13.21	30	Pass
n20	2412	Ant1	10.85	30	Pass
n20	2437	Ant1	10.67	30	Pass
n20	2462	Ant1	9.91	30	Pass
n40	2422	Ant1	11.63	30	Pass
n40	2437	Ant1	11.28	30	Pass
n40	2452	Ant1	11.16	30	Pass

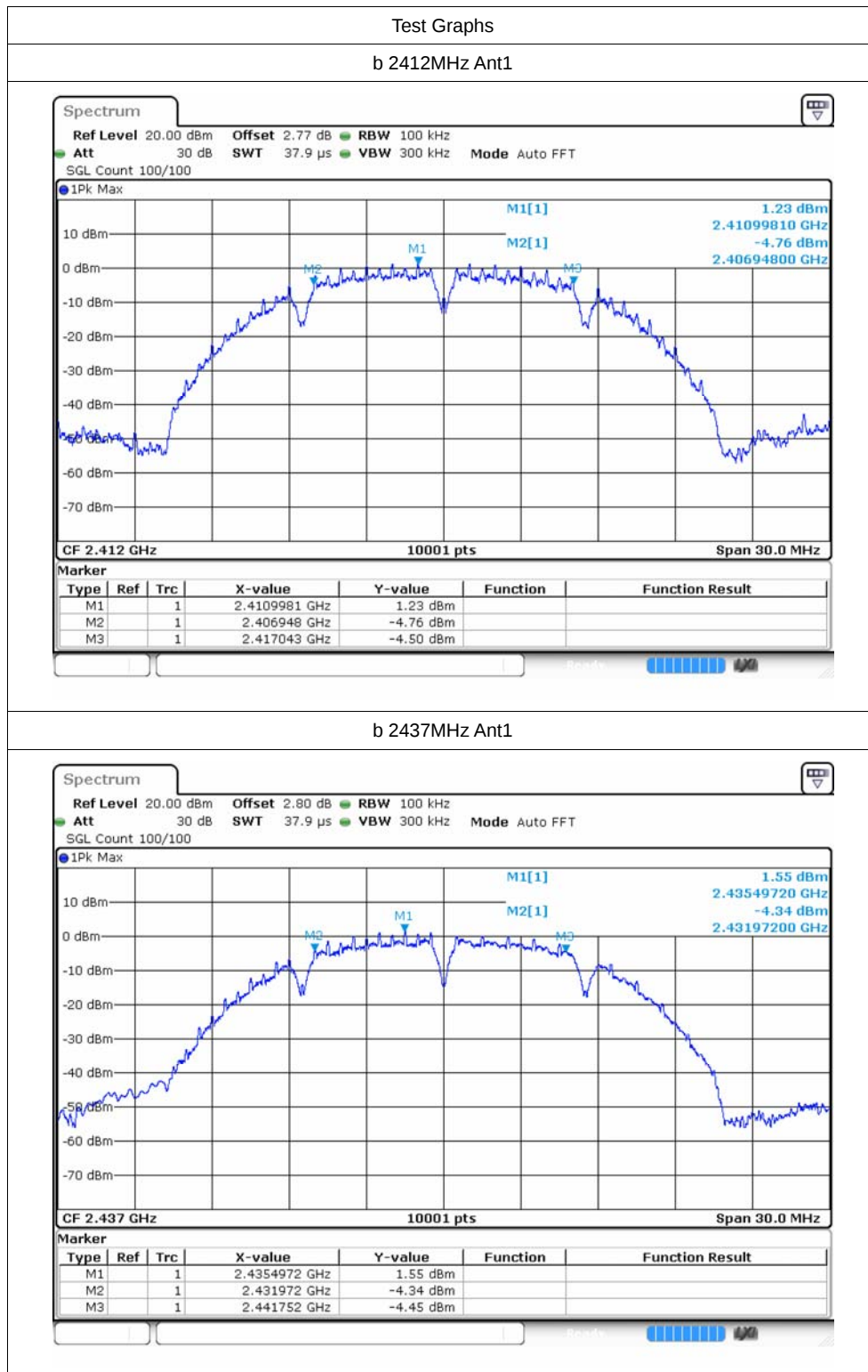


3 -6dB Bandwidth

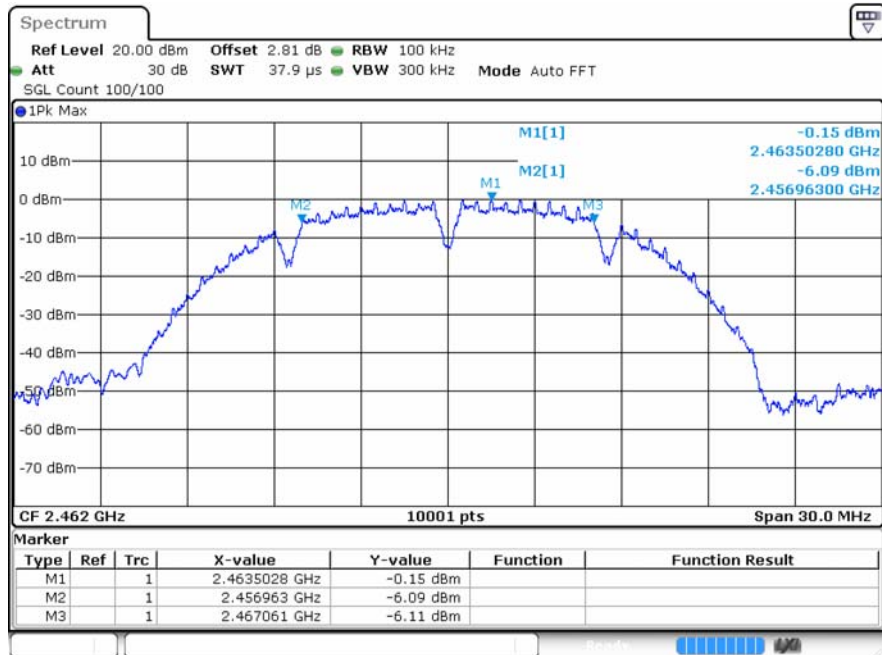
3.1 Test Result

Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
b	2412	Ant1	10.095	0.5	Pass
b	2437	Ant1	9.78	0.5	Pass
b	2462	Ant1	10.098	0.5	Pass
g	2412	Ant1	16.44	0.5	Pass
g	2437	Ant1	16.341	0.5	Pass
g	2462	Ant1	16.365	0.5	Pass
n20	2412	Ant1	17.547	0.5	Pass
n20	2437	Ant1	17.568	0.5	Pass
n20	2462	Ant1	17.556	0.5	Pass
n40	2422	Ant1	35.094	0.5	Pass
n40	2437	Ant1	30.66	0.5	Pass
n40	2452	Ant1	35.076	0.5	Pass

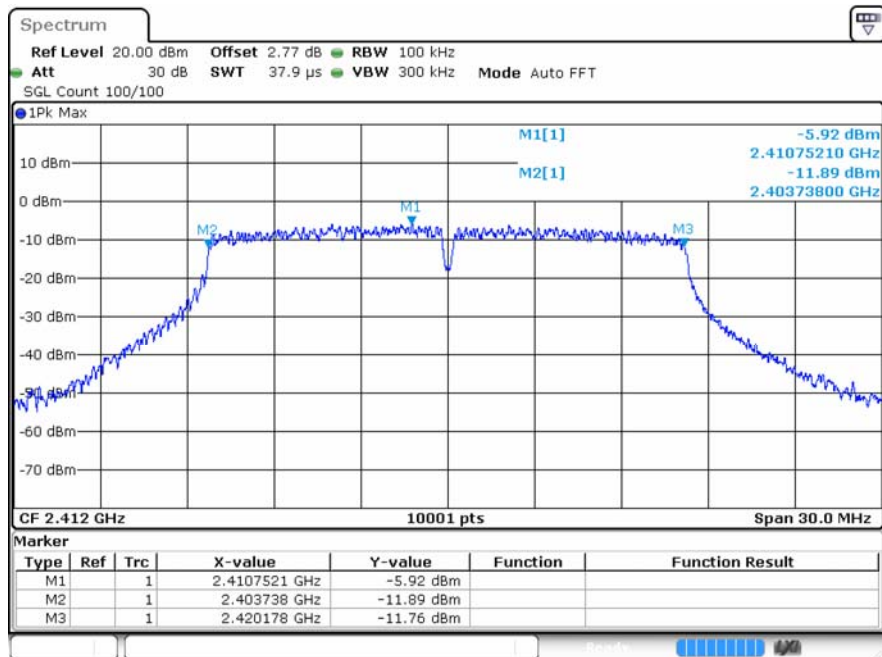
3.2 Test Graphs



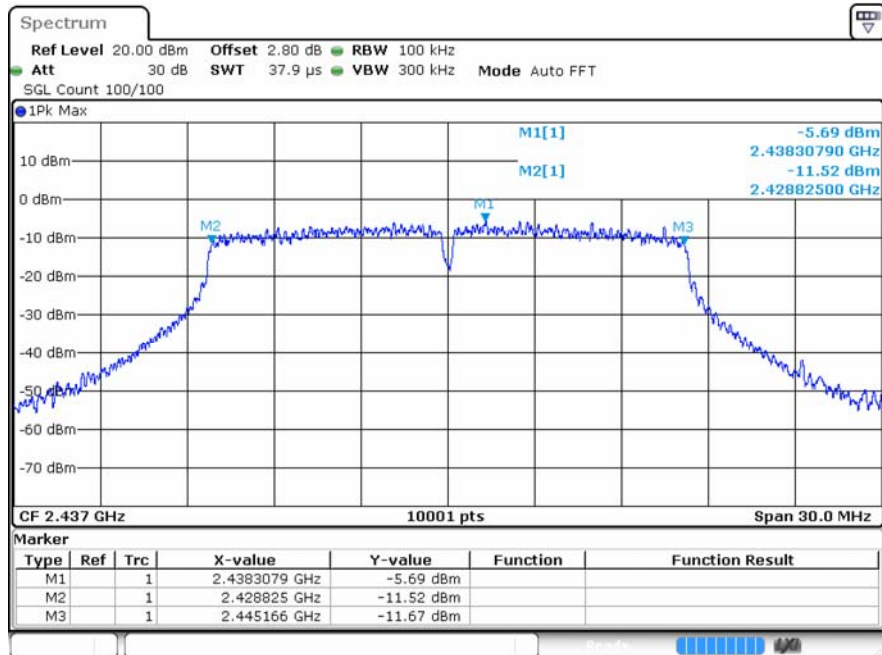
b 2462MHz Ant1



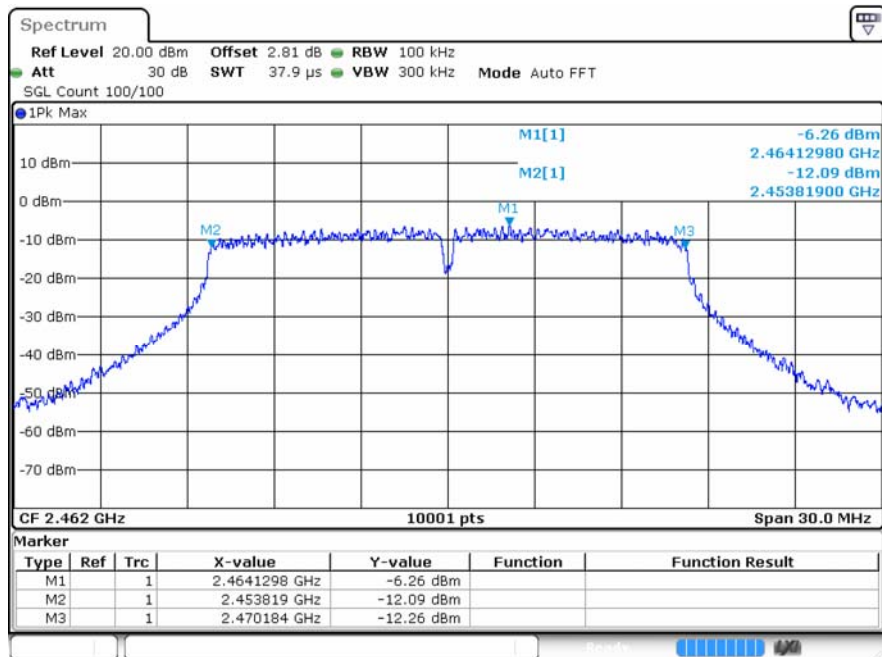
g 2412MHz Ant1

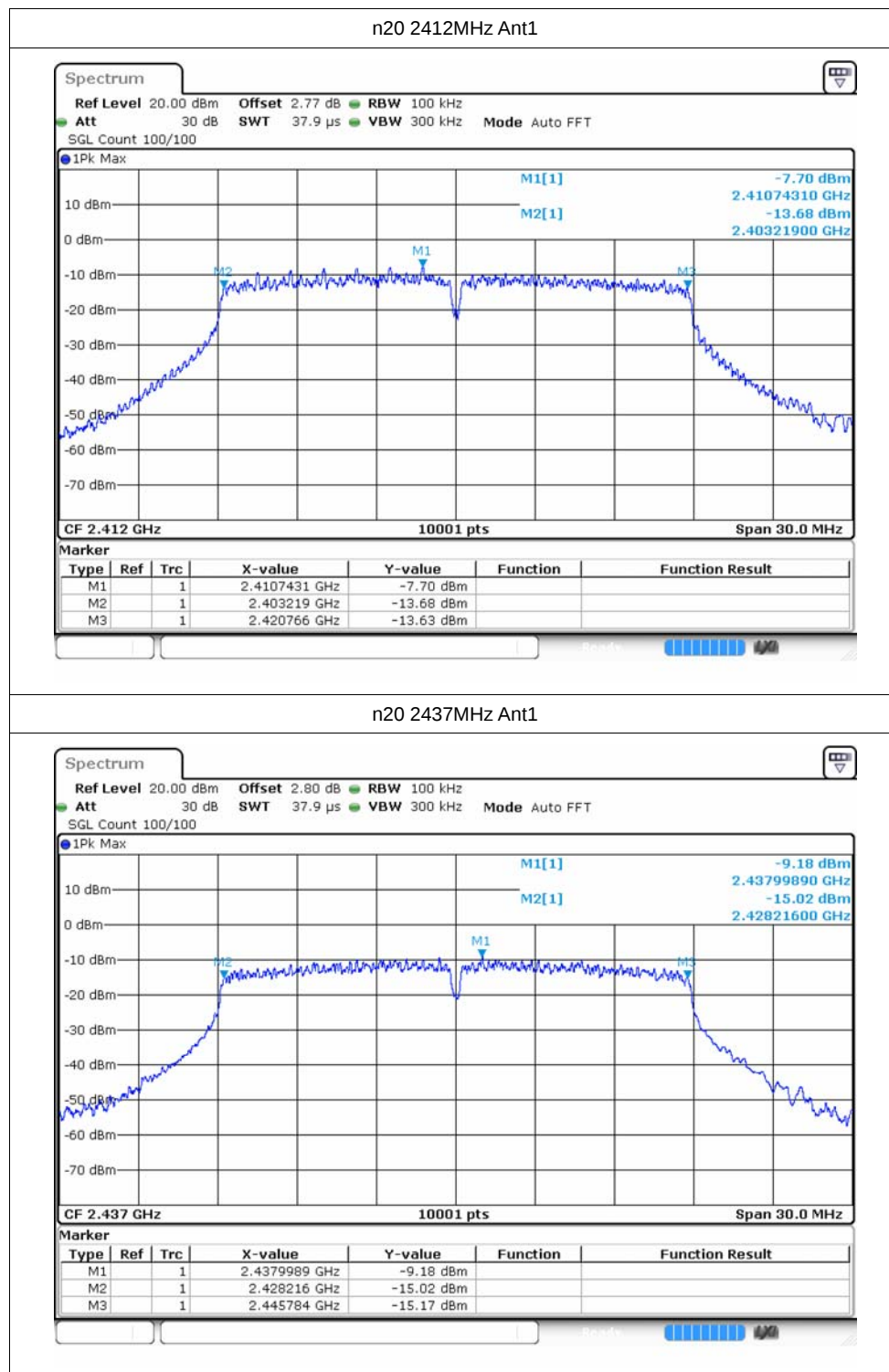


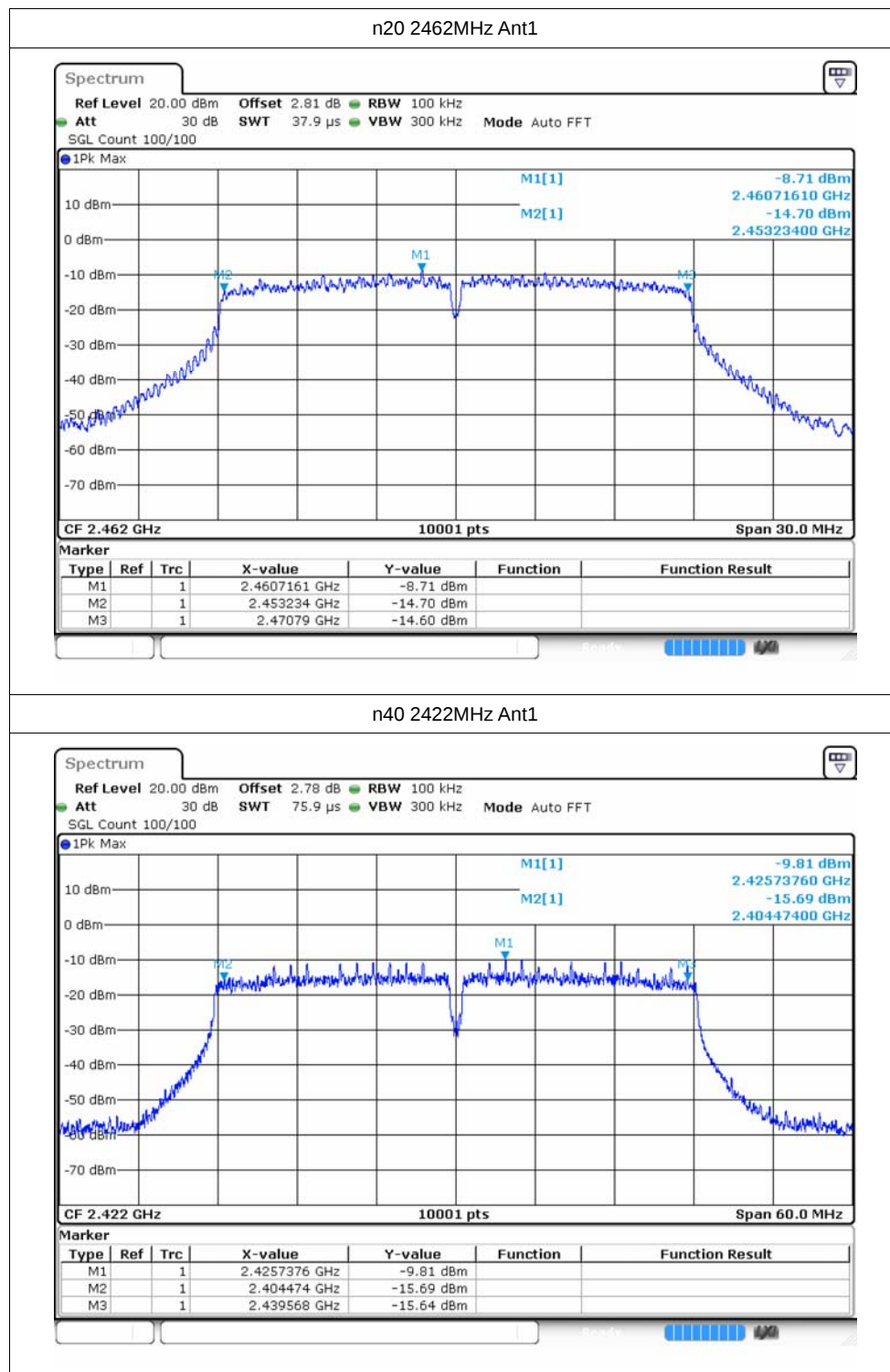
g 2437MHz Ant1



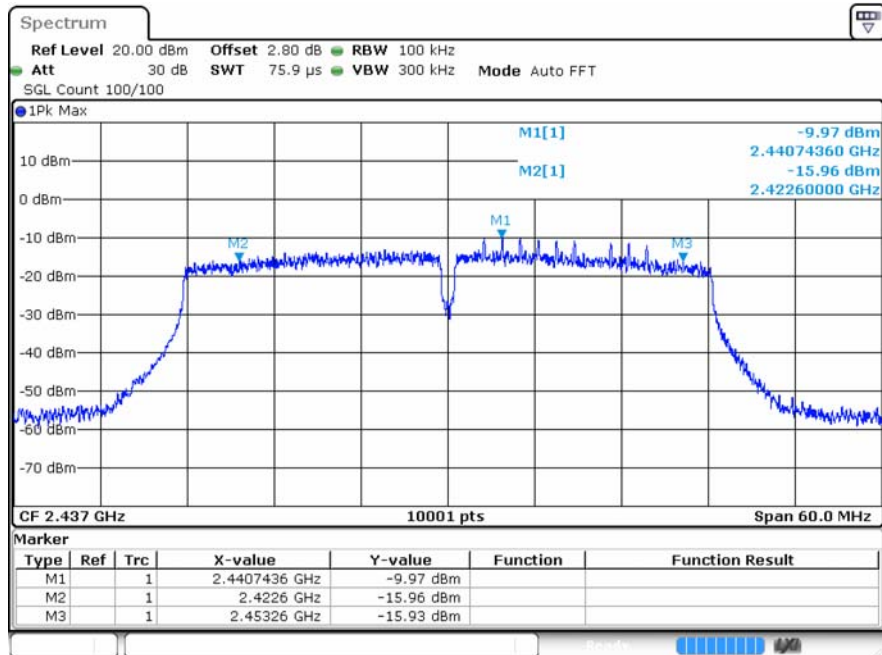
g 2462MHz Ant1



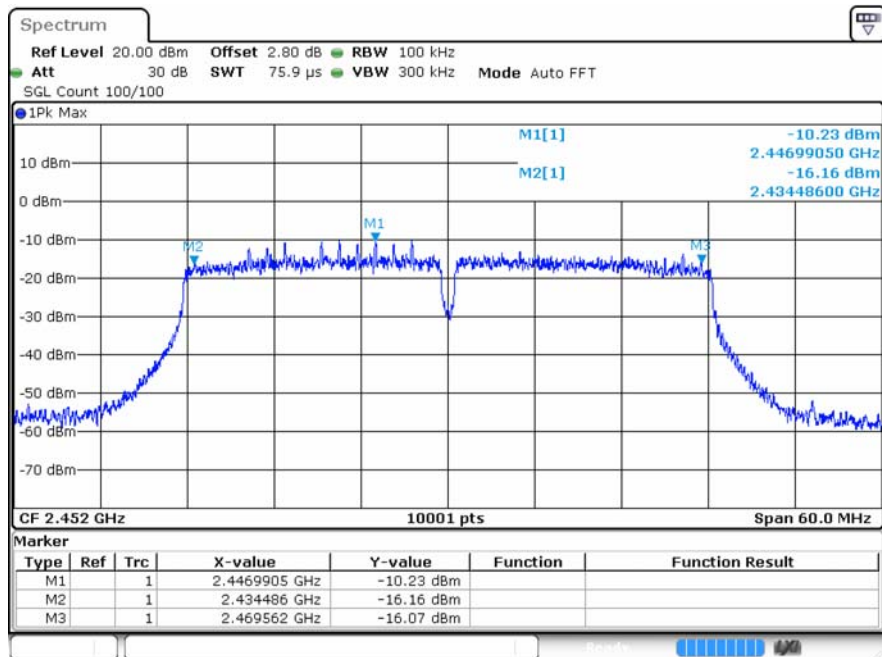




n40 2437MHz Ant1



n40 2452MHz Ant1

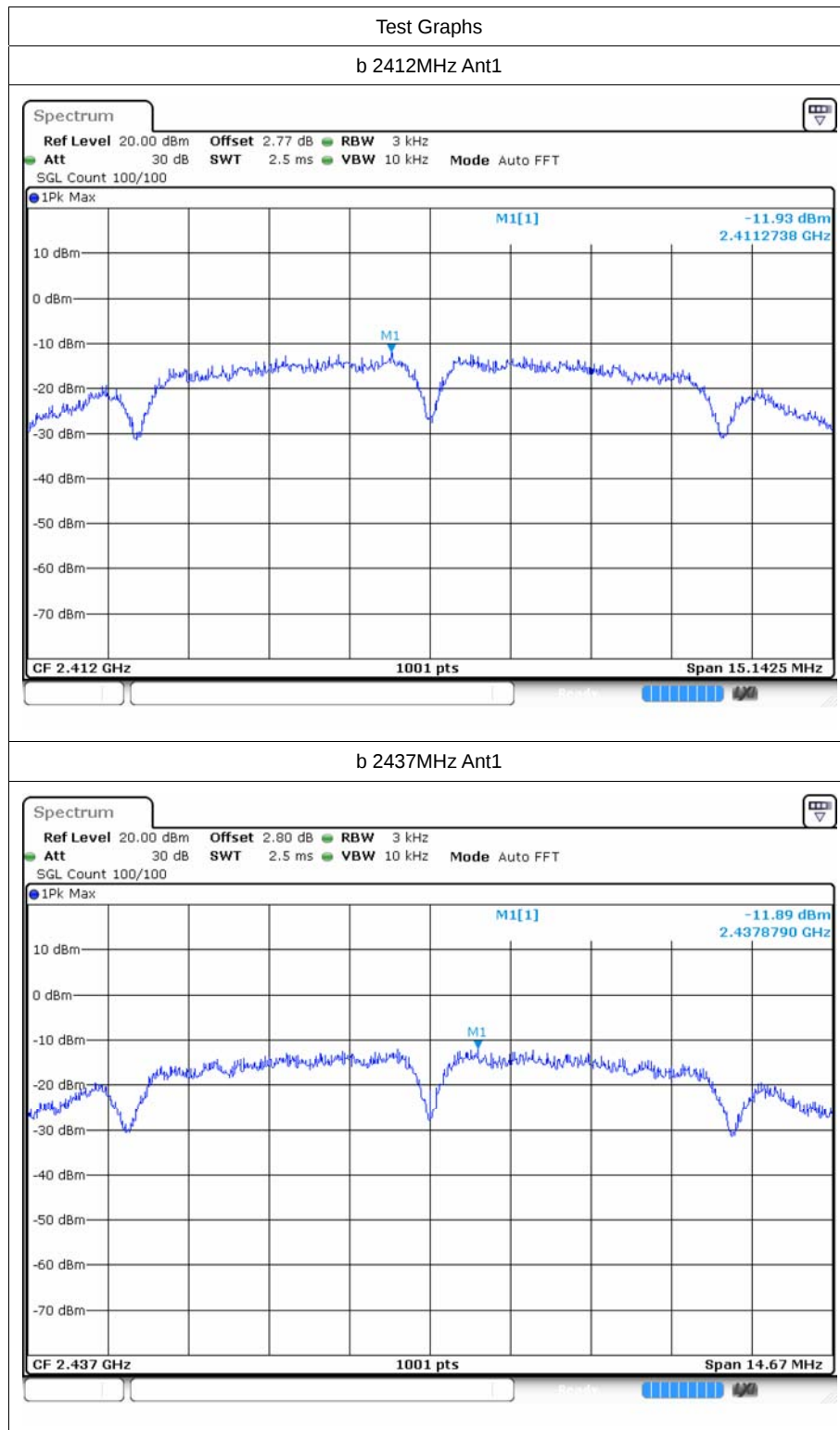


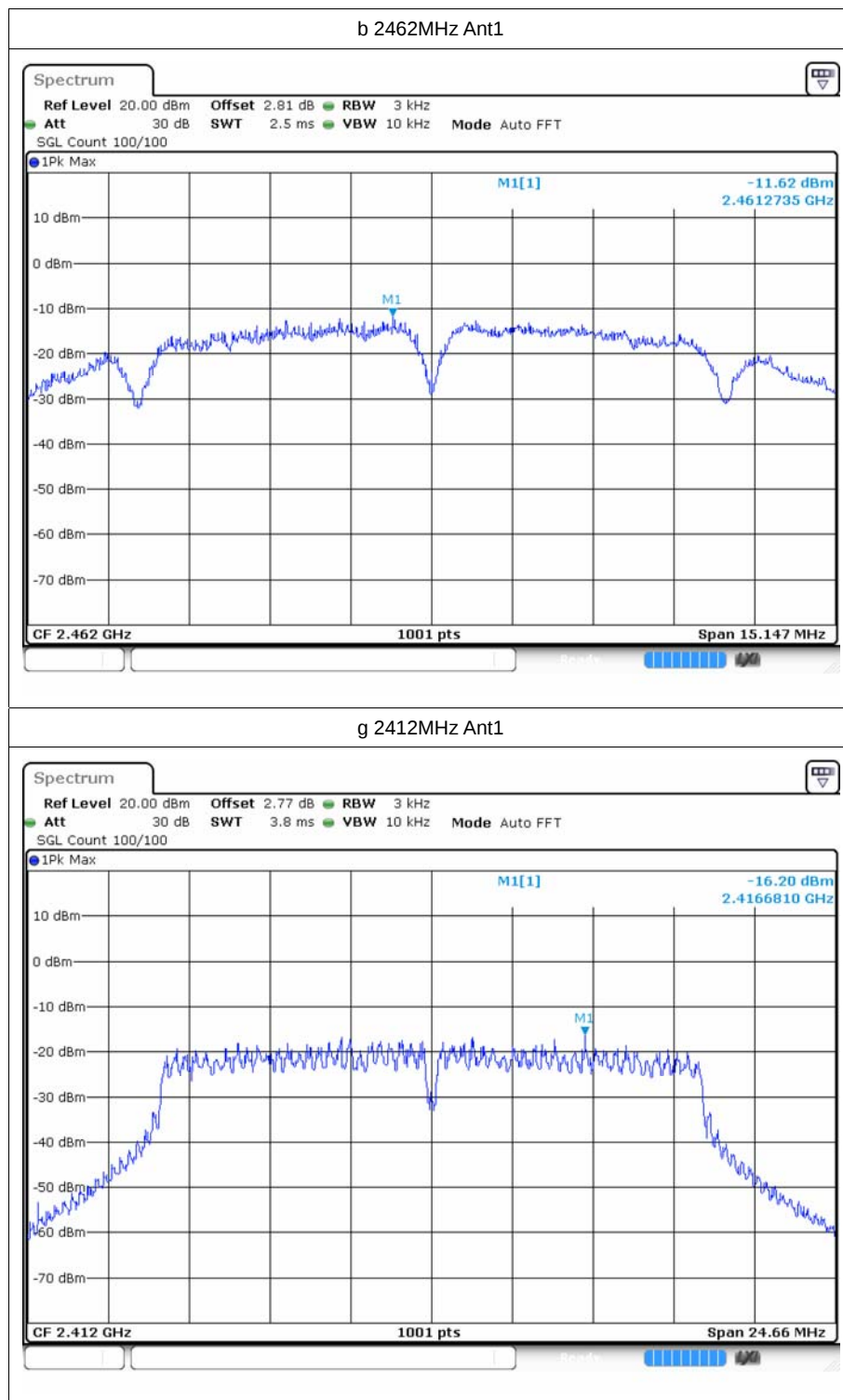
4 Maximum Power Spectral Density Level

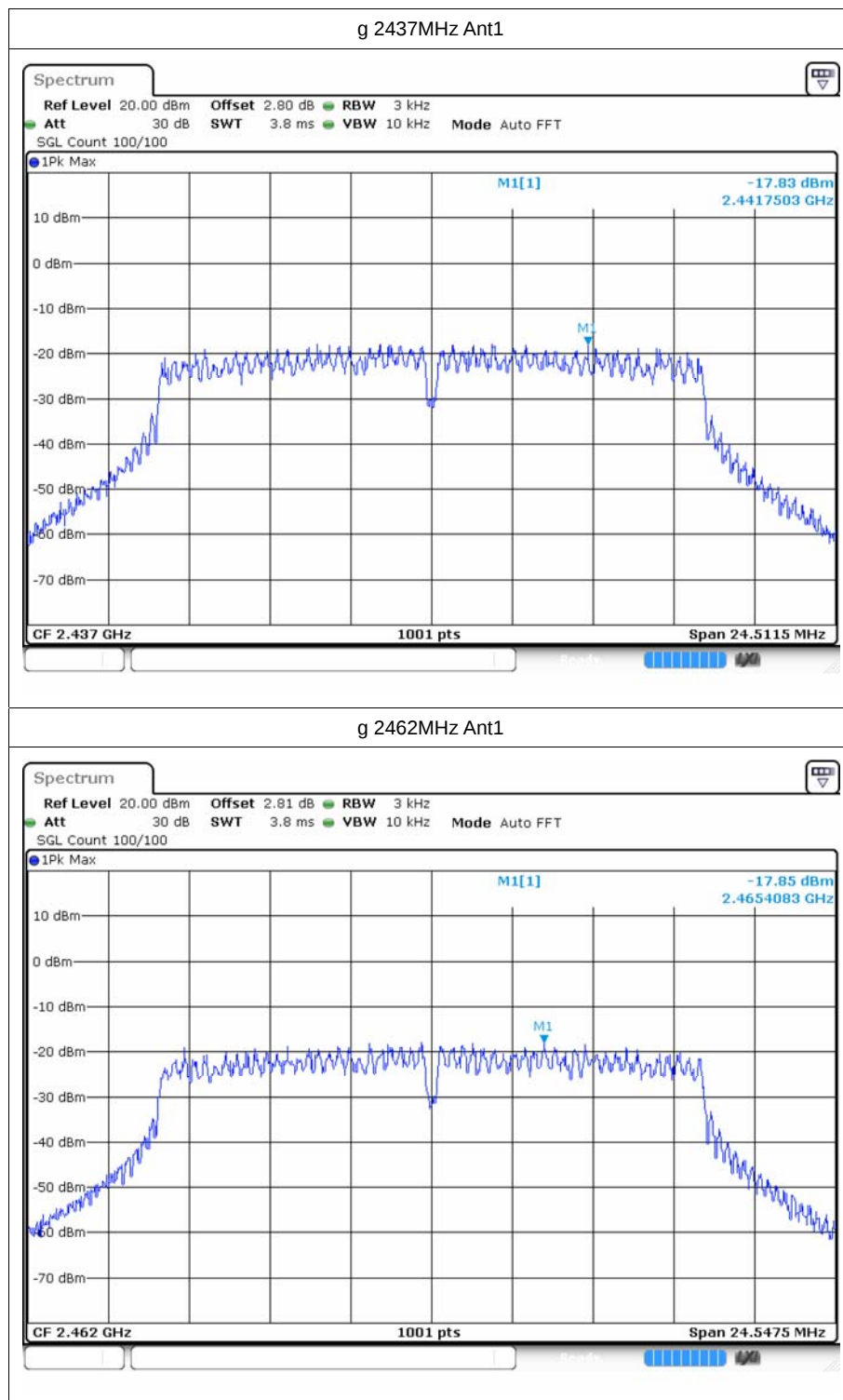
4.1 Test Result

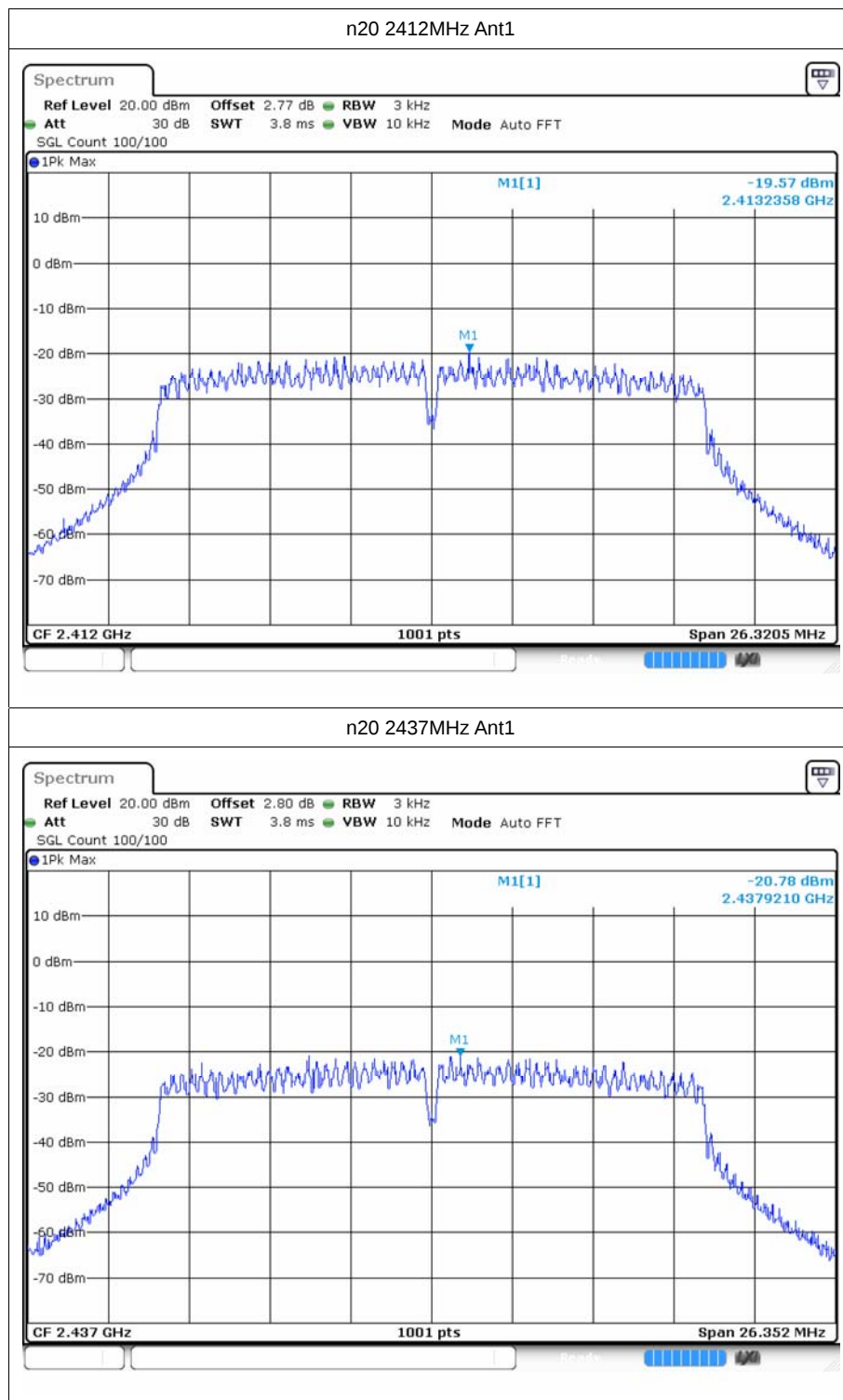
Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3-100kHz)	Limit (dBm/3kHz)	Verdict
b	2412	Ant1	-11.93	≤ 8	Pass
b	2437	Ant1	-11.89	≤ 8	Pass
b	2462	Ant1	-11.62	≤ 8	Pass
g	2412	Ant1	-16.2	≤ 8	Pass
g	2437	Ant1	-17.83	≤ 8	Pass
g	2462	Ant1	-17.85	≤ 8	Pass
n20	2412	Ant1	-19.57	≤ 8	Pass
n20	2437	Ant1	-20.78	≤ 8	Pass
n20	2462	Ant1	-20.45	≤ 8	Pass
n40	2422	Ant1	-24.3	≤ 8	Pass
n40	2437	Ant1	-23.64	≤ 8	Pass
n40	2452	Ant1	-23.32	≤ 8	Pass

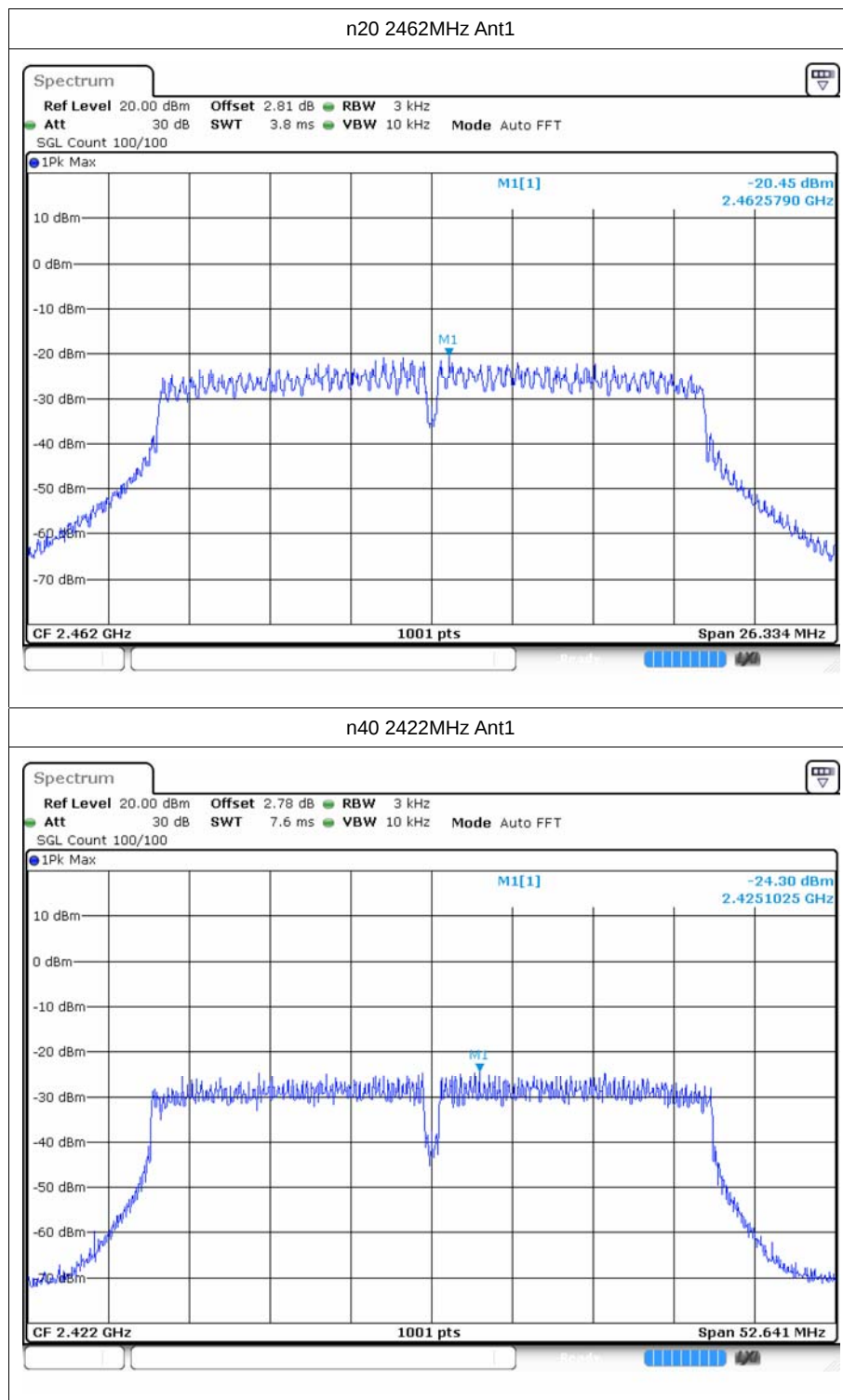
4.2 Test Graphs

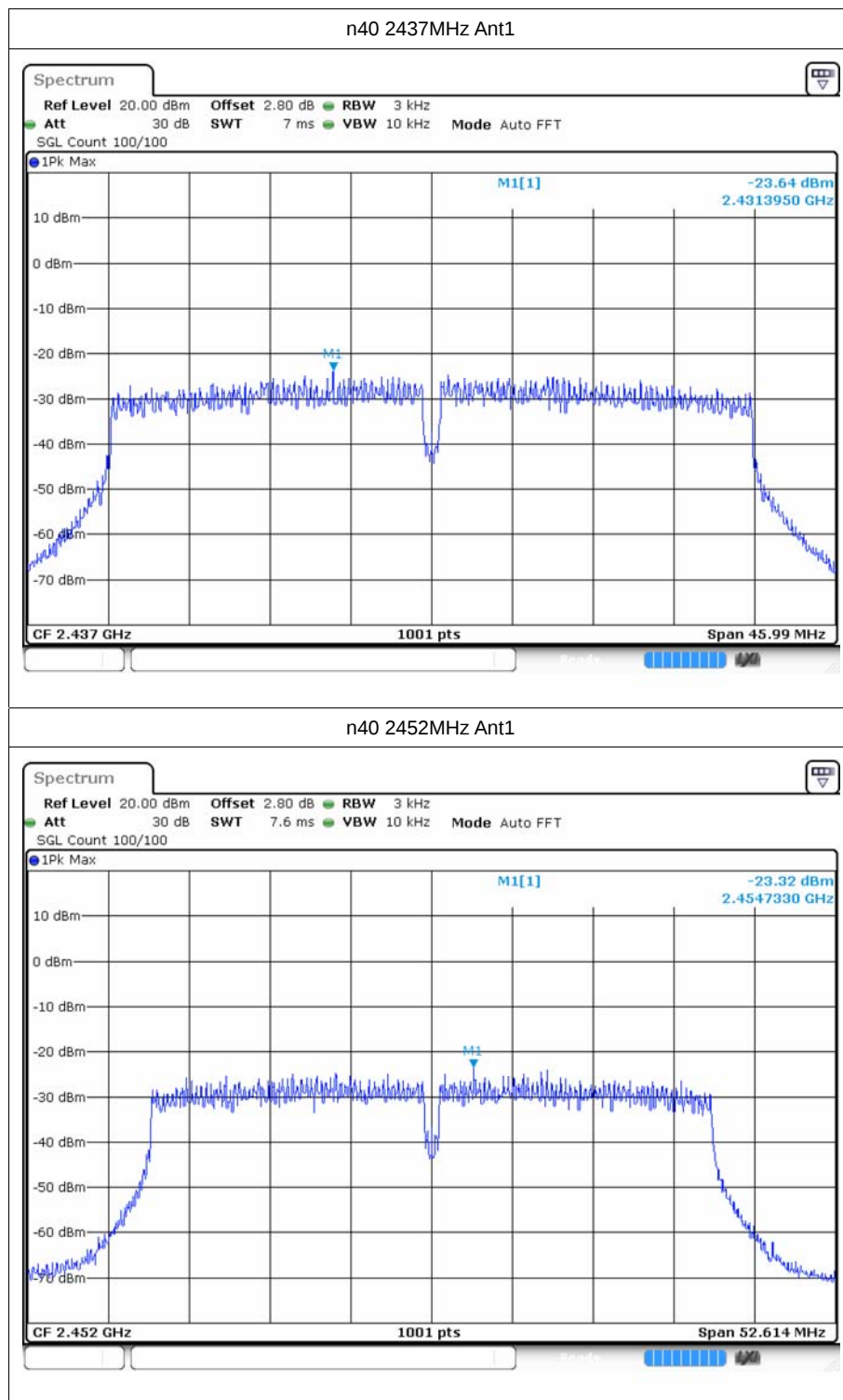












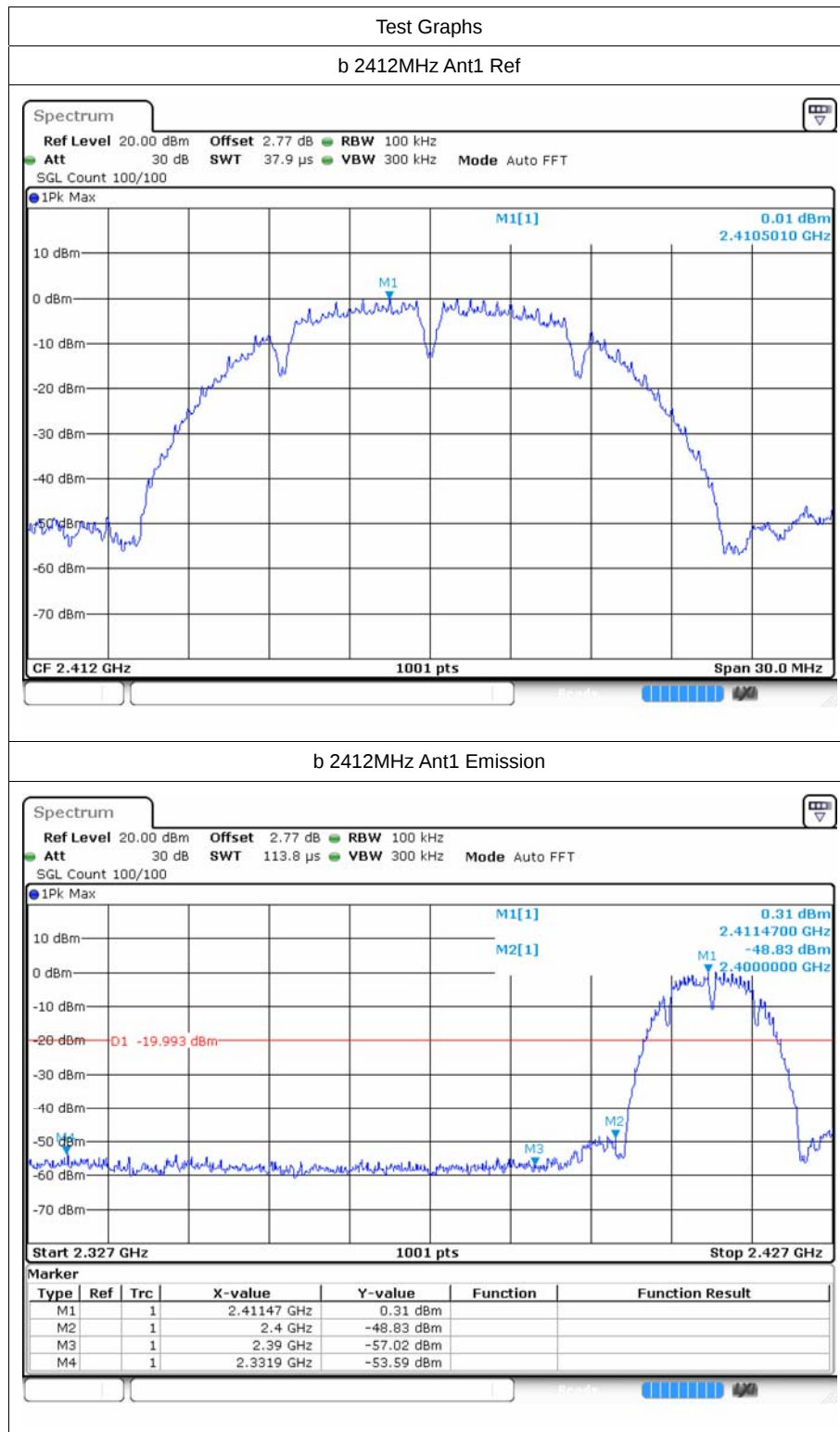


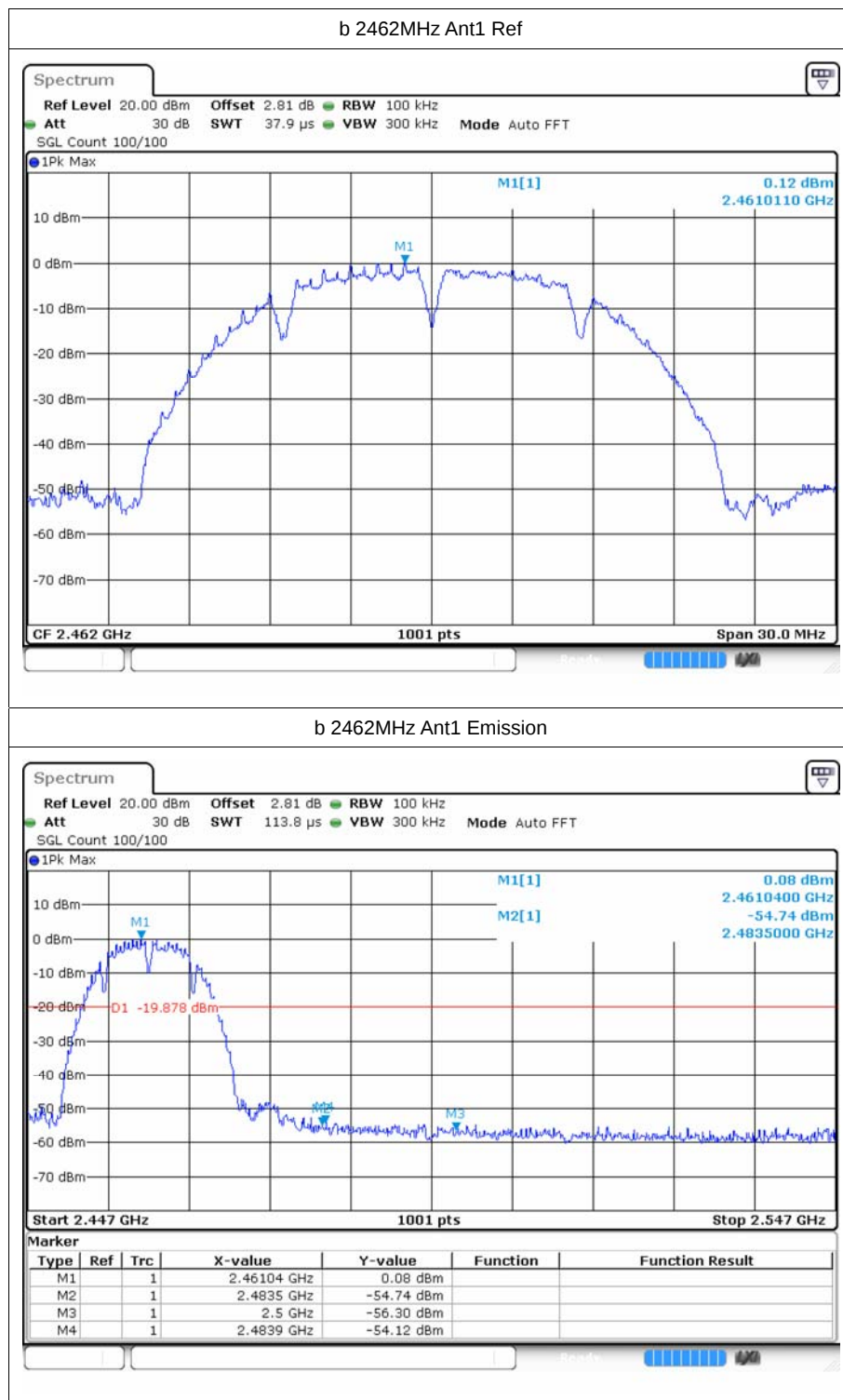
5 Band Edge

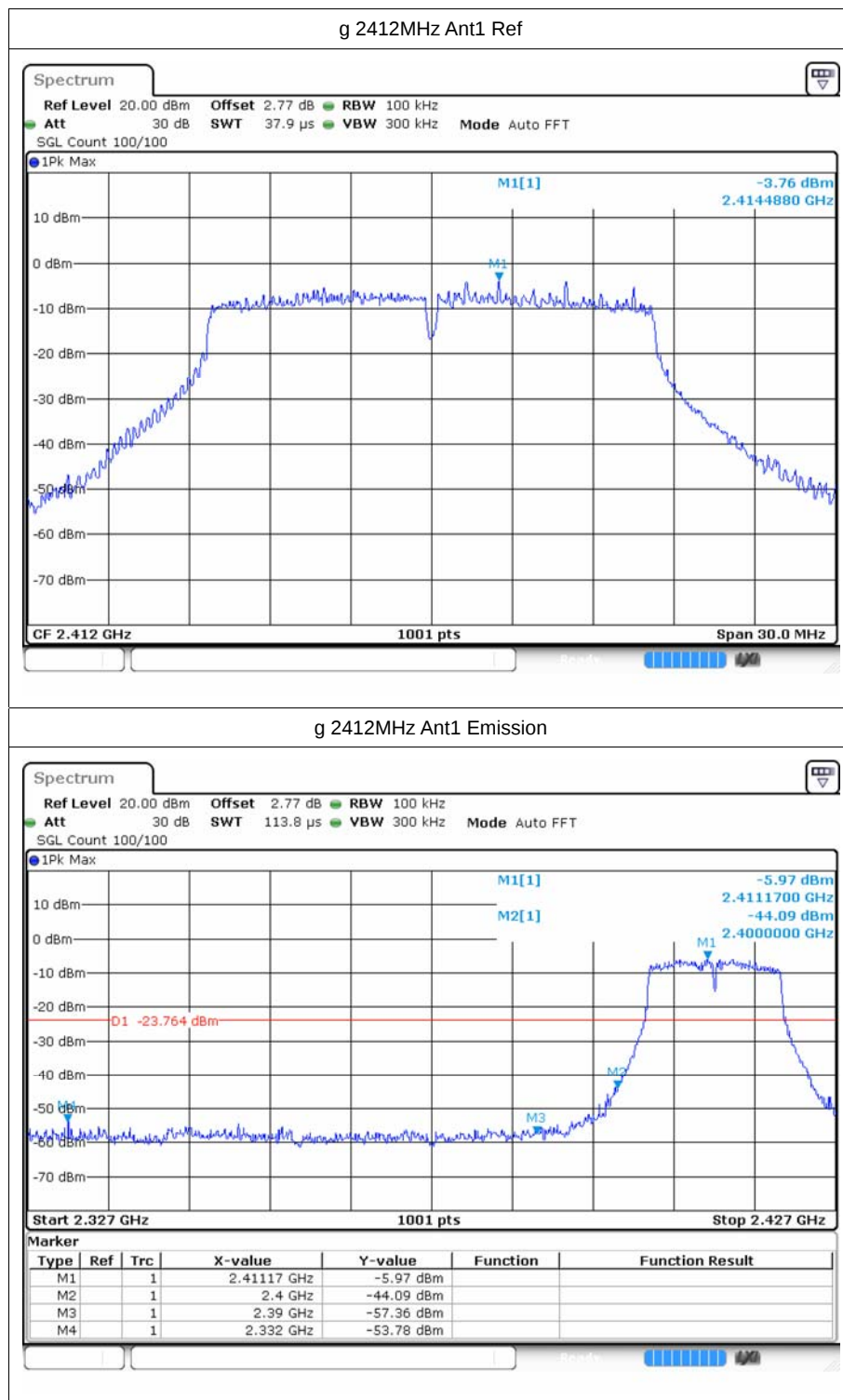
5.1 Test Result

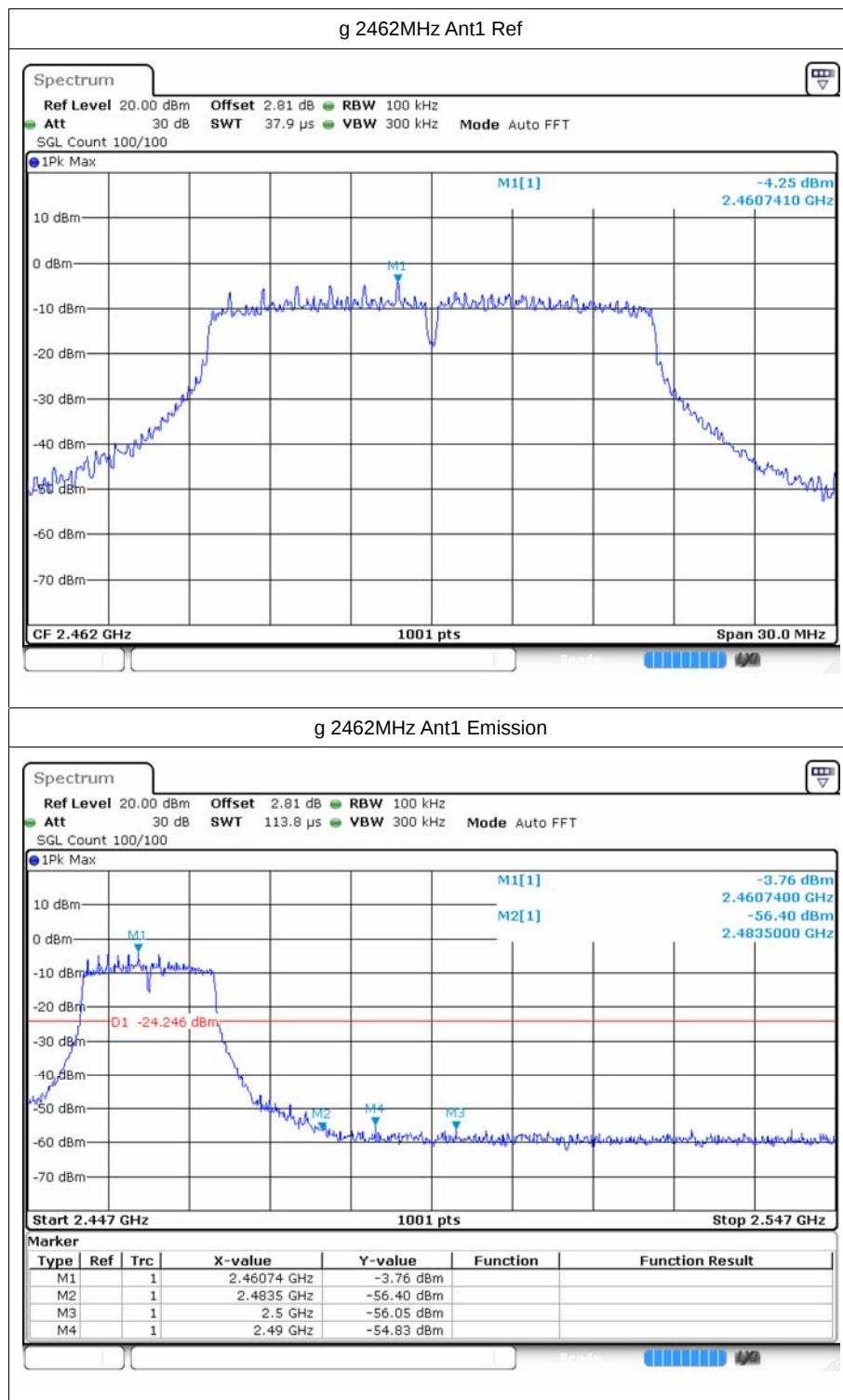
Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
b	2412	Ant1	-53.59	-20	-53.59
b	2462	Ant1	-54.24	-20	Pass
g	2412	Ant1	-50.02	-20	Pass
g	2462	Ant1	-50.58	-20	Pass
n20	2412	Ant1	-45.21	-20	Pass
n20	2462	Ant1	-47.87	-20	Pass
n40	2422	Ant1	-45.33	-20	Pass
n40	2452	Ant1	-43.23	-20	Pass

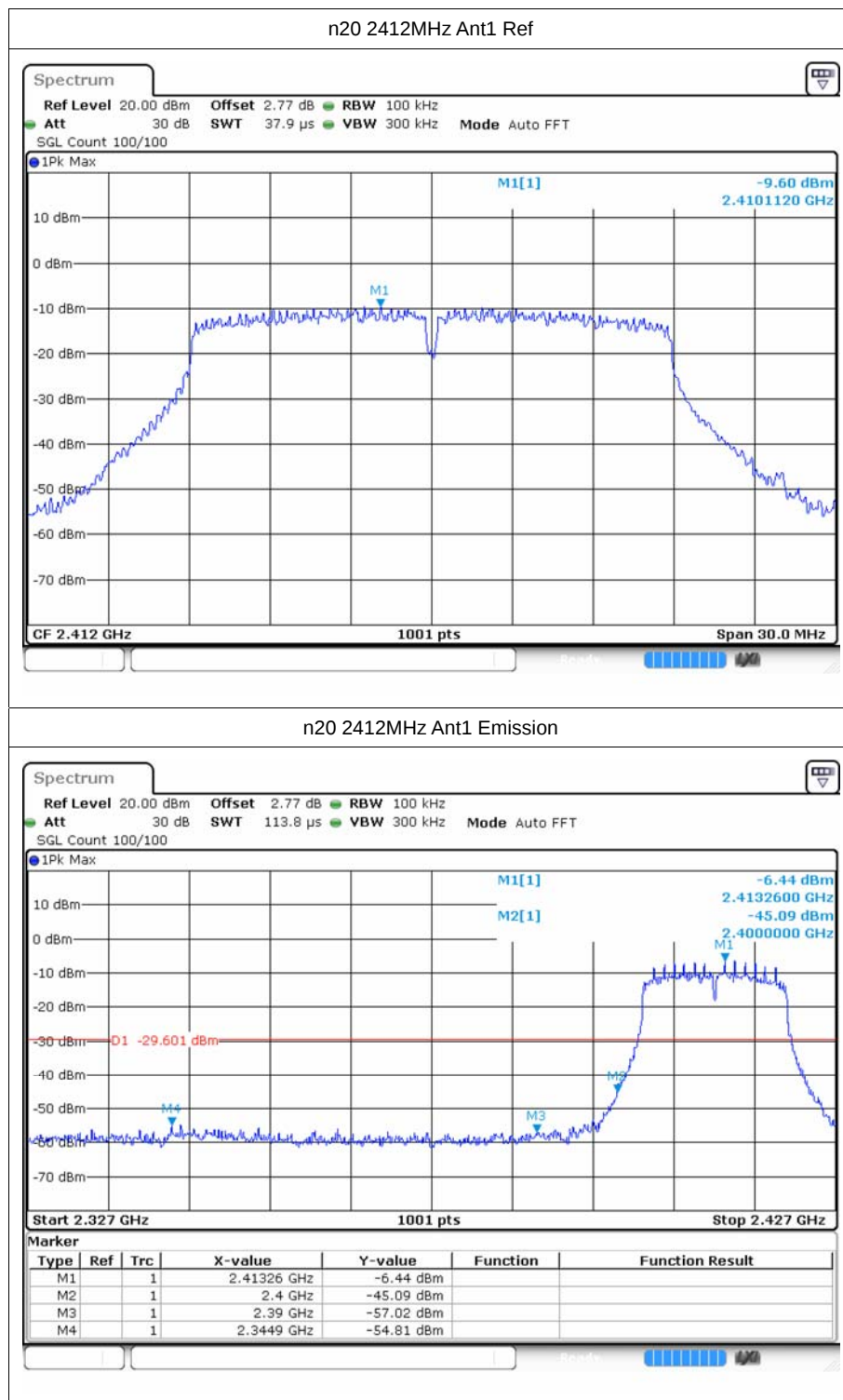
5.2 Test Graphs

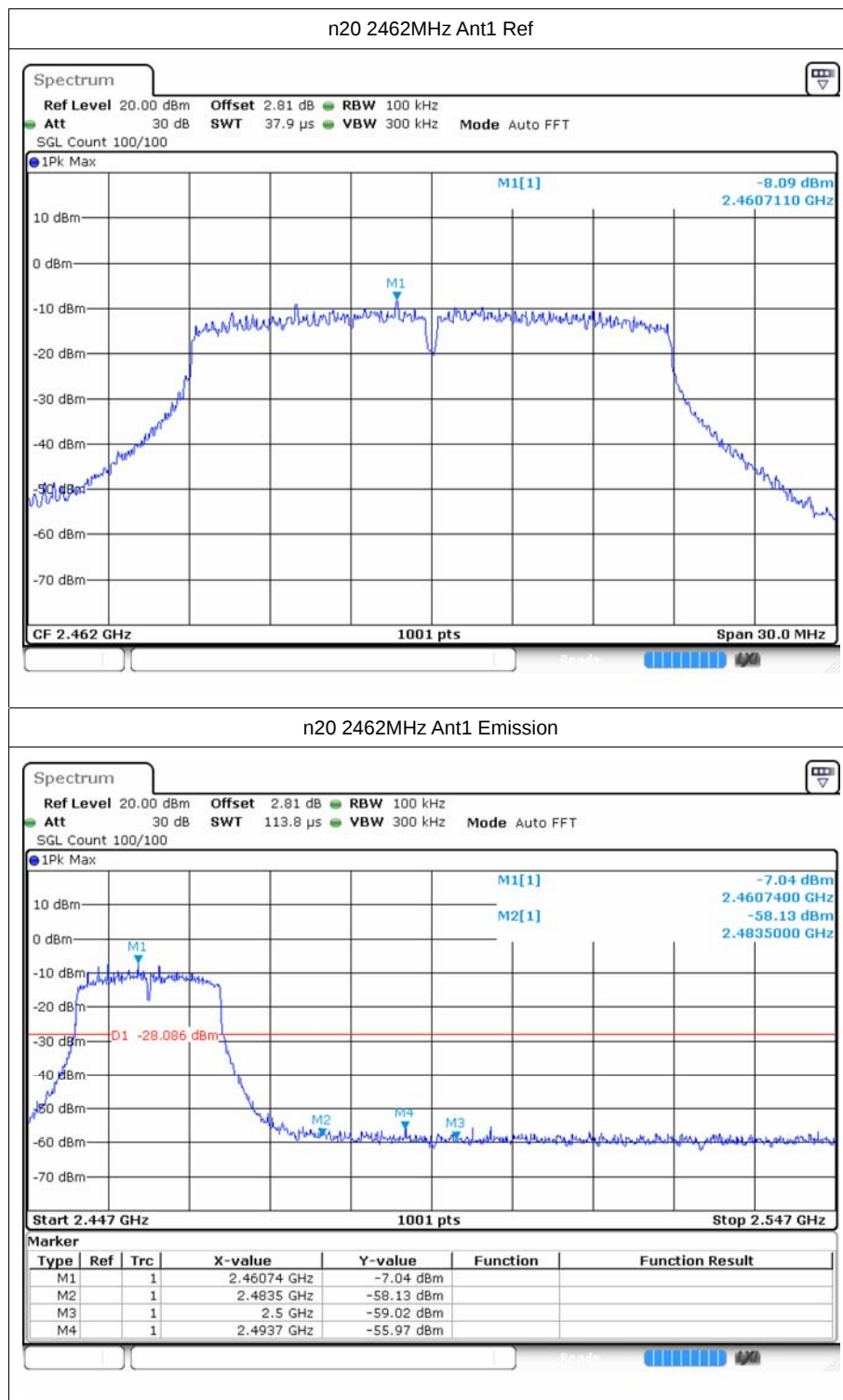


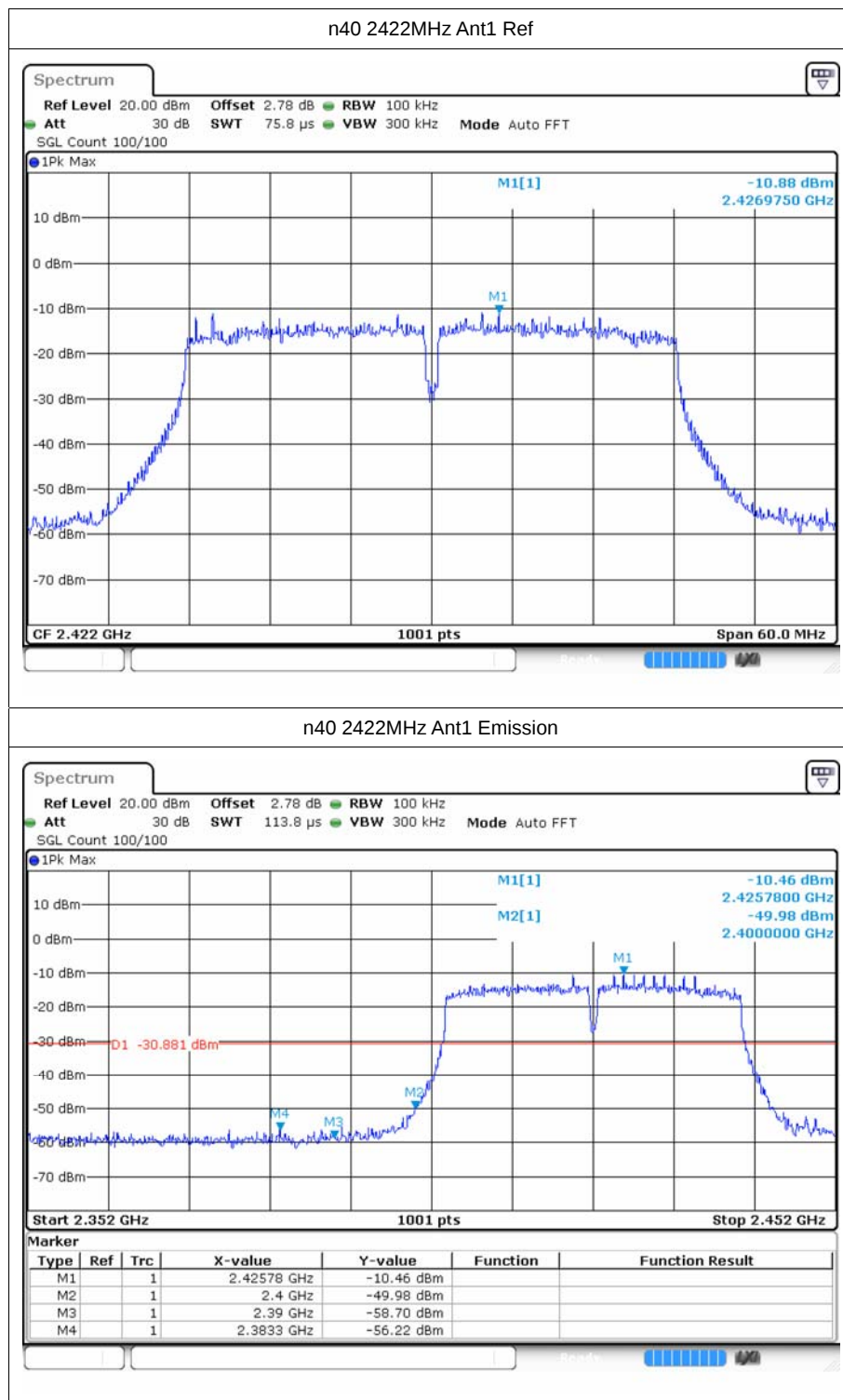


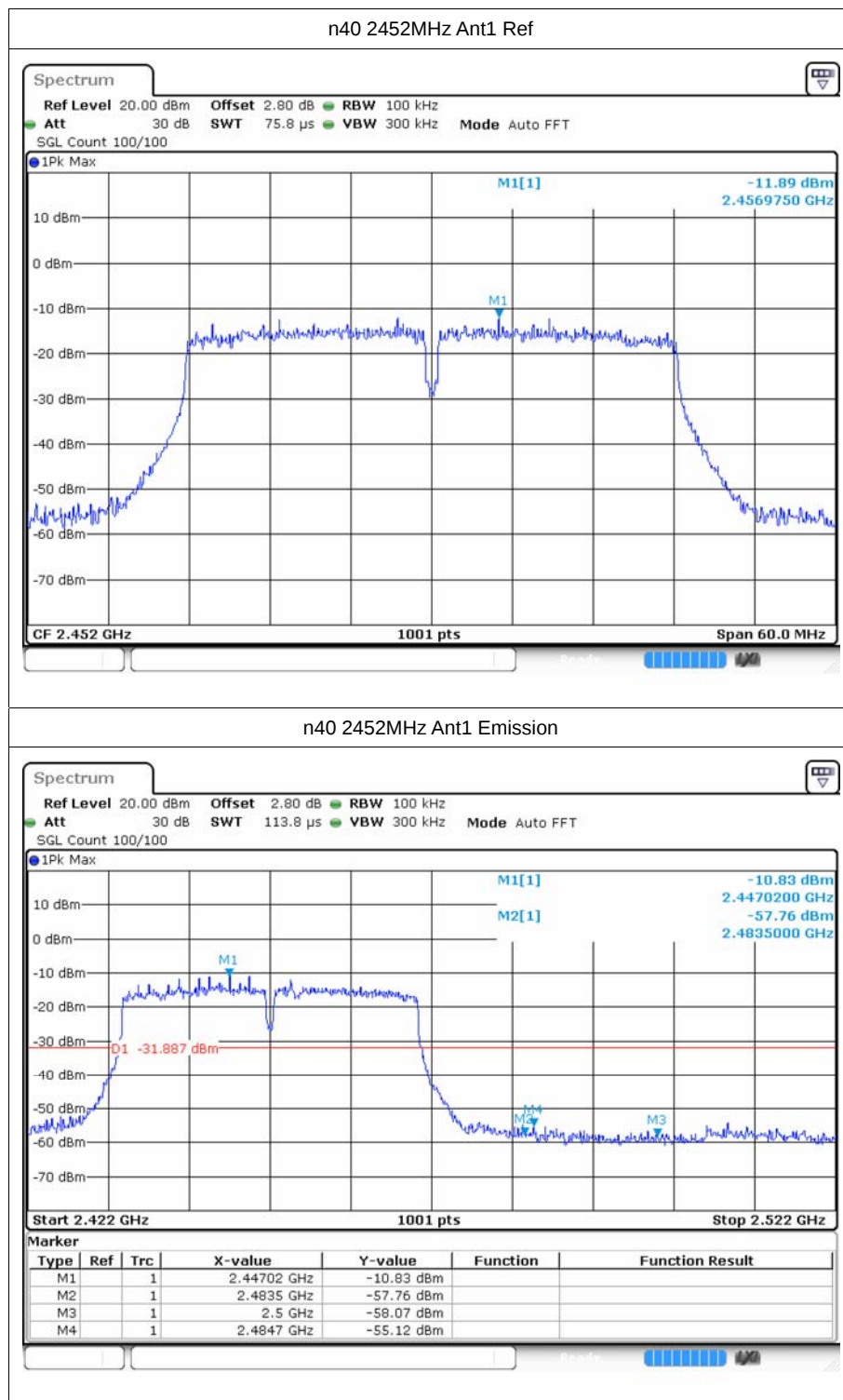












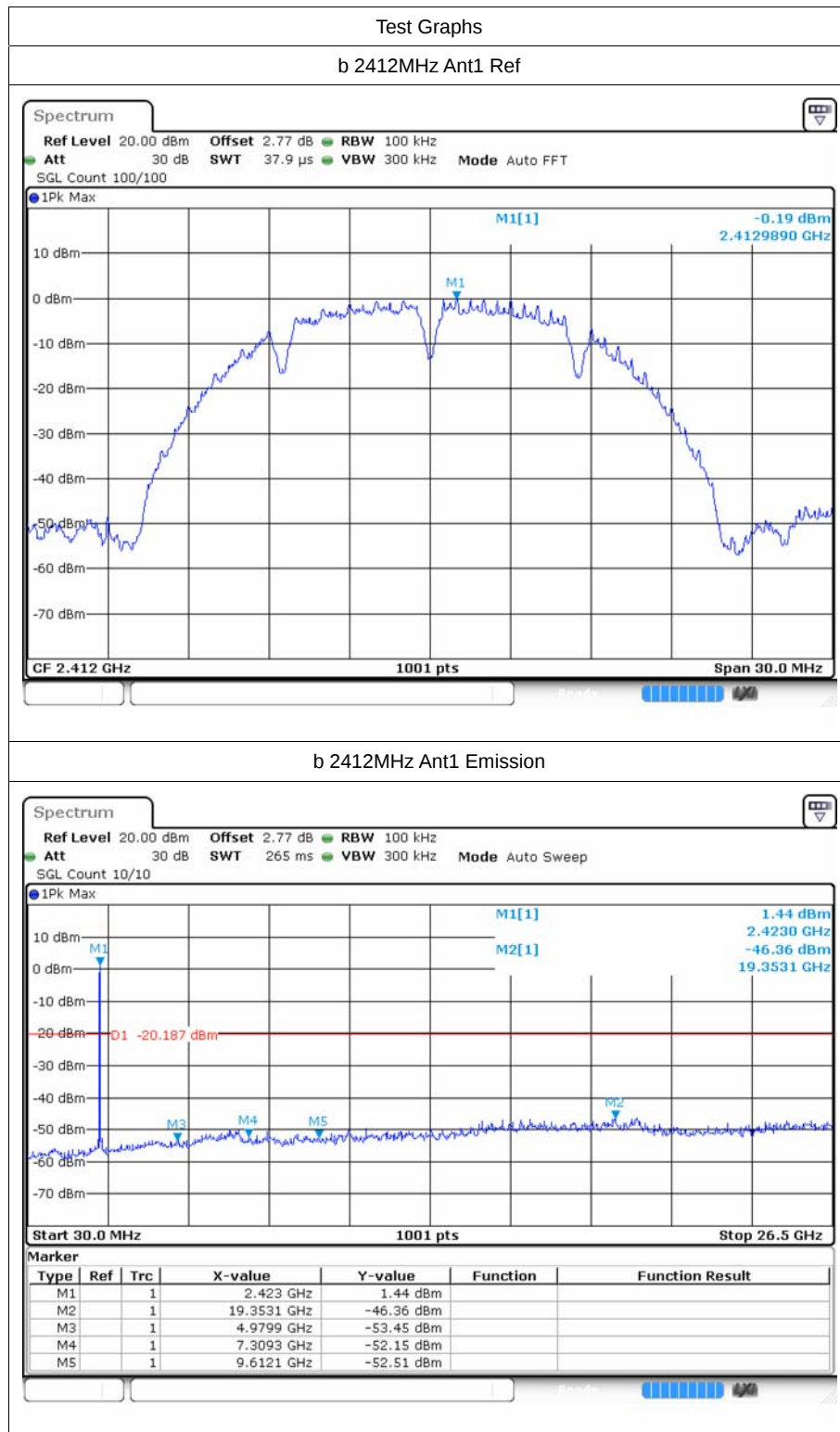


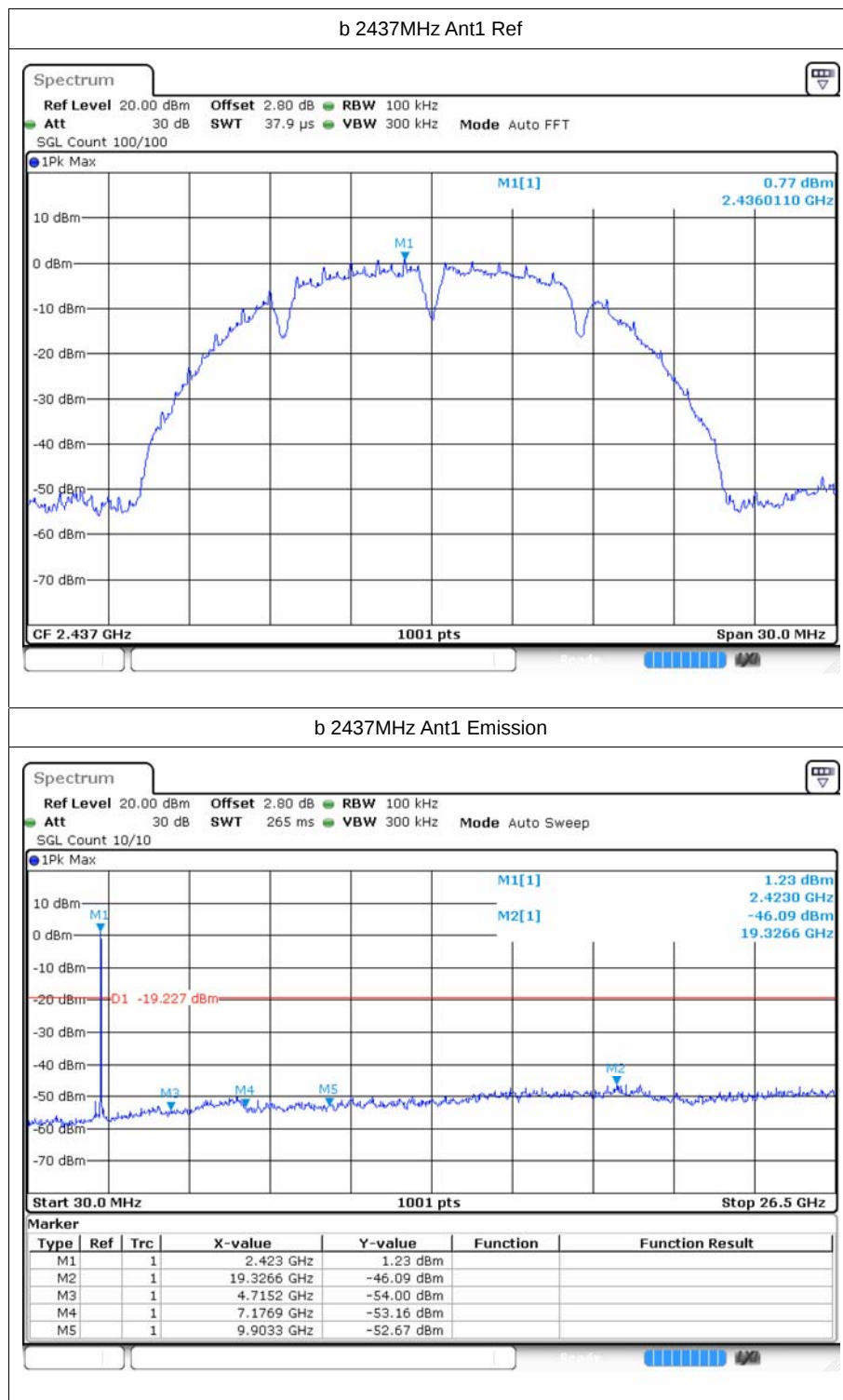
6 Conducted RF Spurious Emission

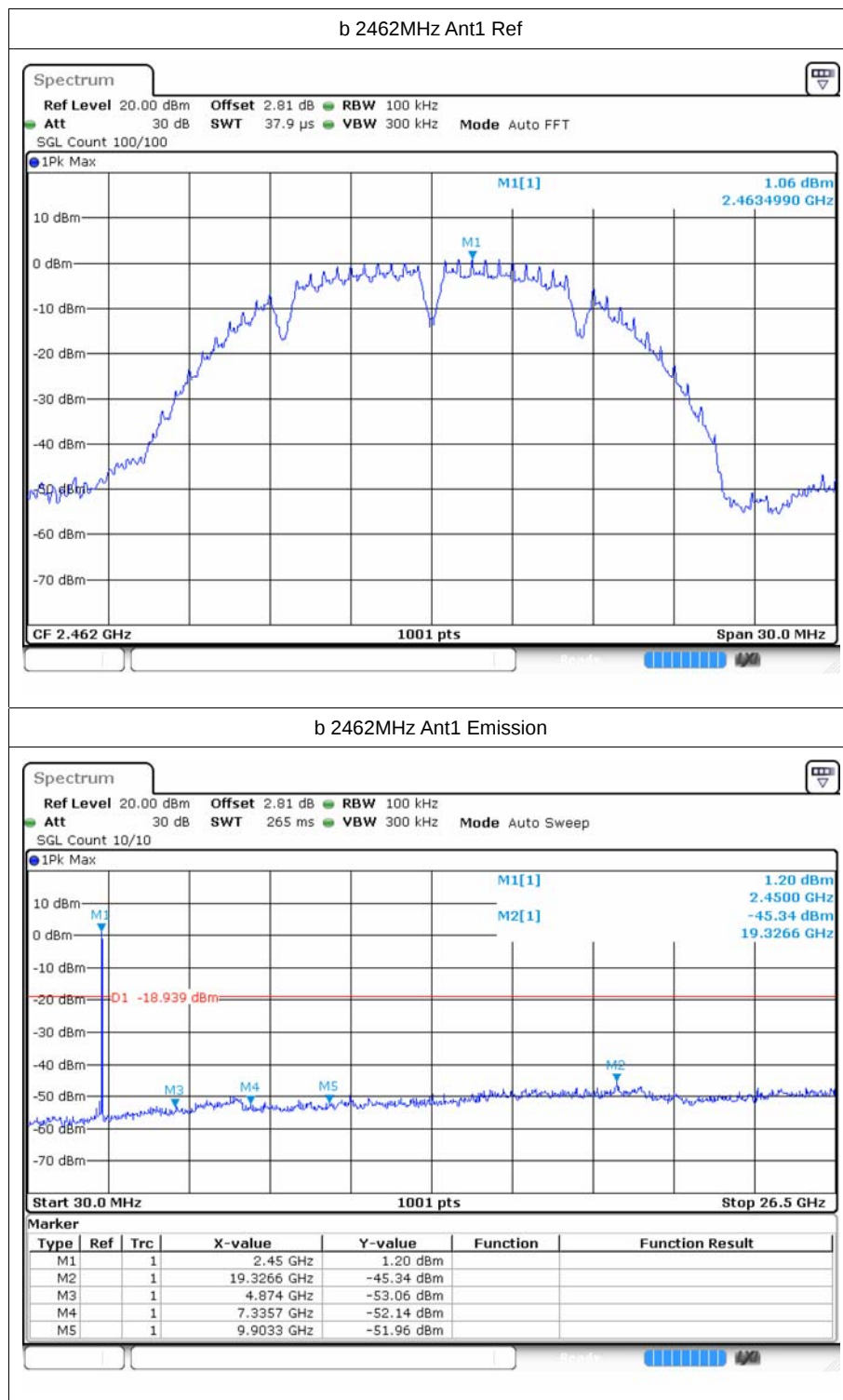
6.1 Test Result

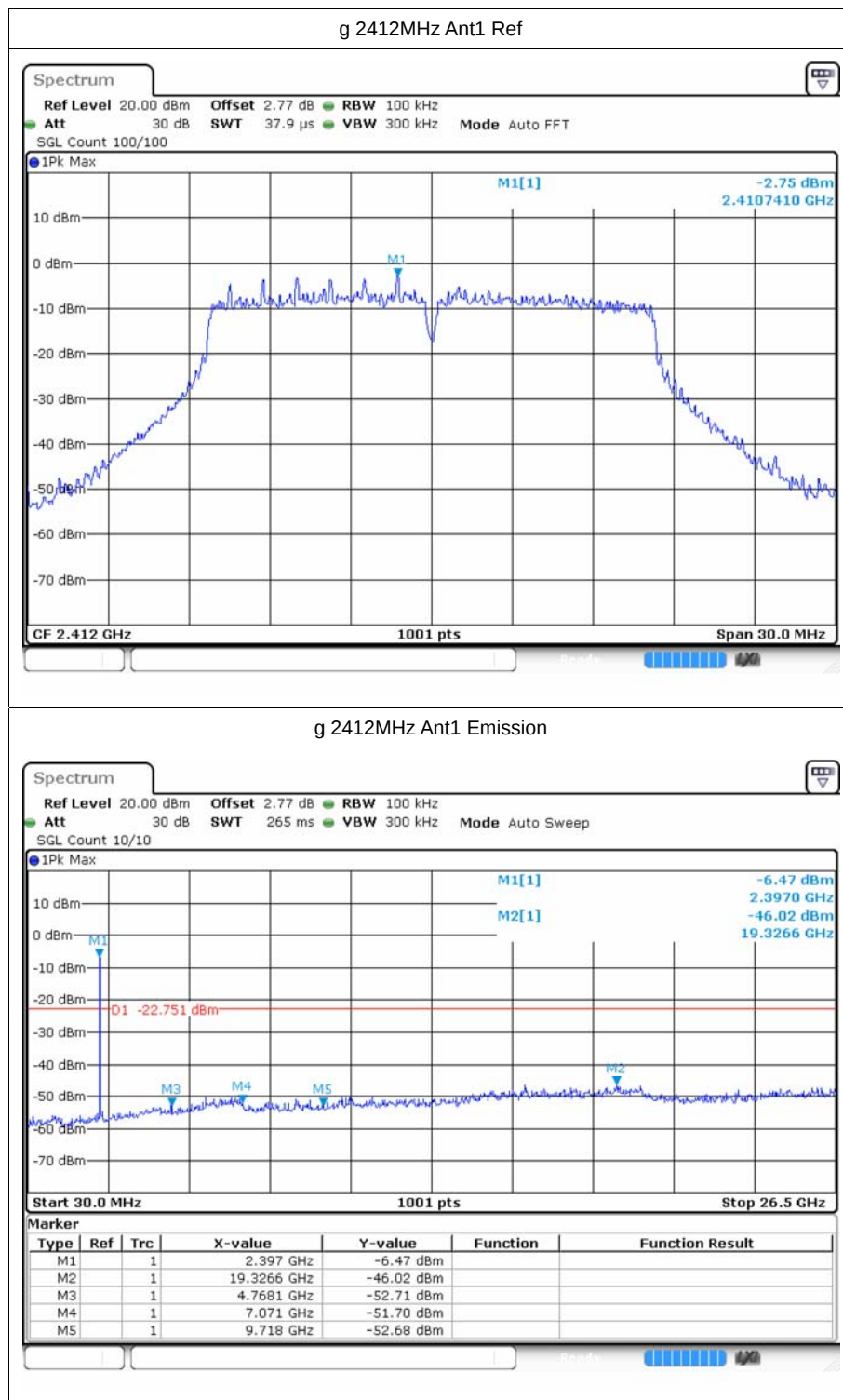
Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
b	2412	Ant1	-46.17	-20	Pass
b	2437	Ant1	-46.85	-20	Pass
b	2462	Ant1	-46.4	-20	Pass
g	2412	Ant1	-43.26	-20	Pass
g	2437	Ant1	-39.71	-20	Pass
g	2462	Ant1	-42.11	-20	Pass
n20	2412	Ant1	-39.3	-20	Pass
n20	2437	Ant1	-39.58	-20	Pass
n20	2462	Ant1	-39	-20	Pass
n40	2422	Ant1	-35.59	-20	Pass
n40	2437	Ant1	-36.76	-20	Pass
n40	2452	Ant1	-35.32	-20	Pass

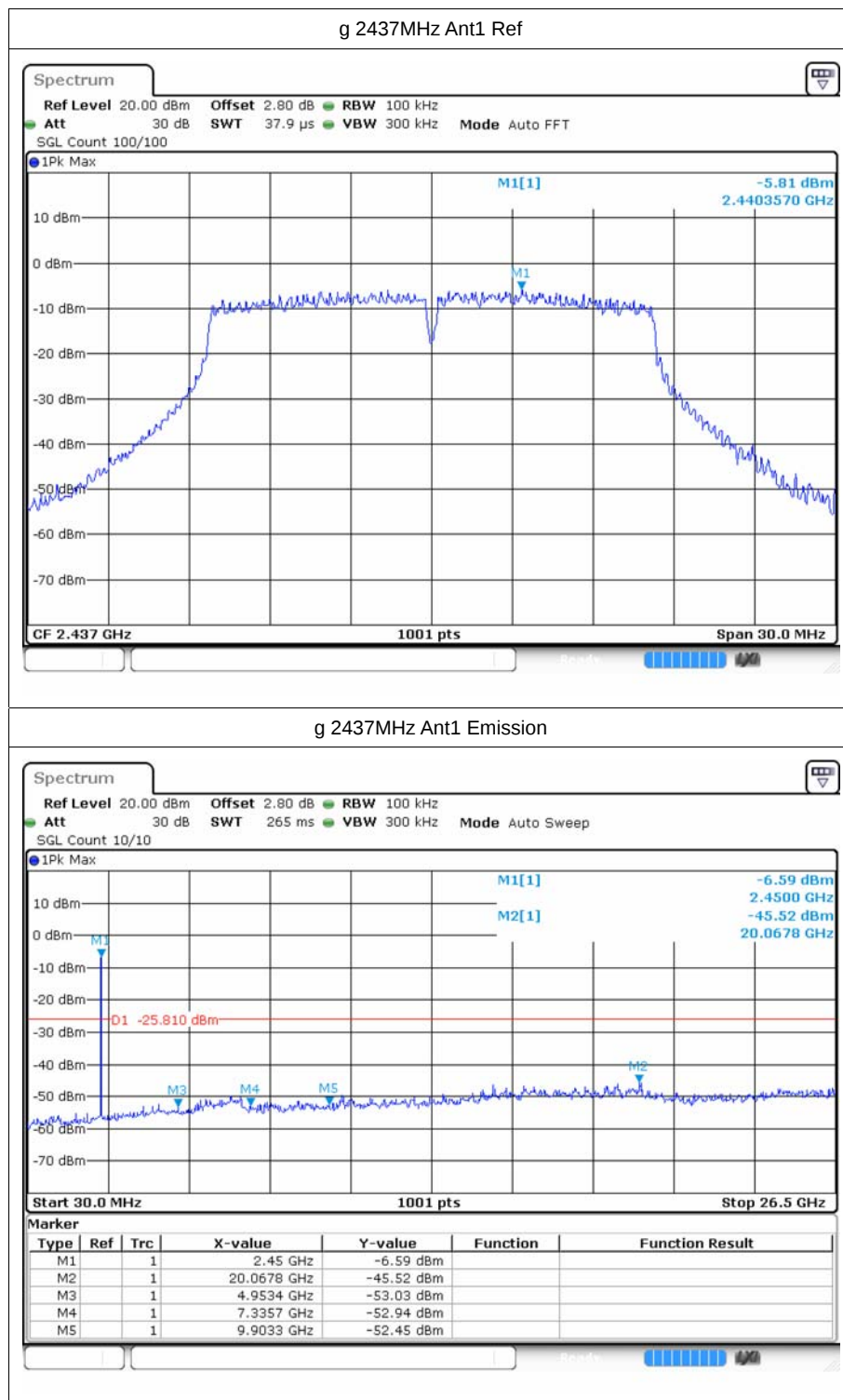
6.2 Test Graphs

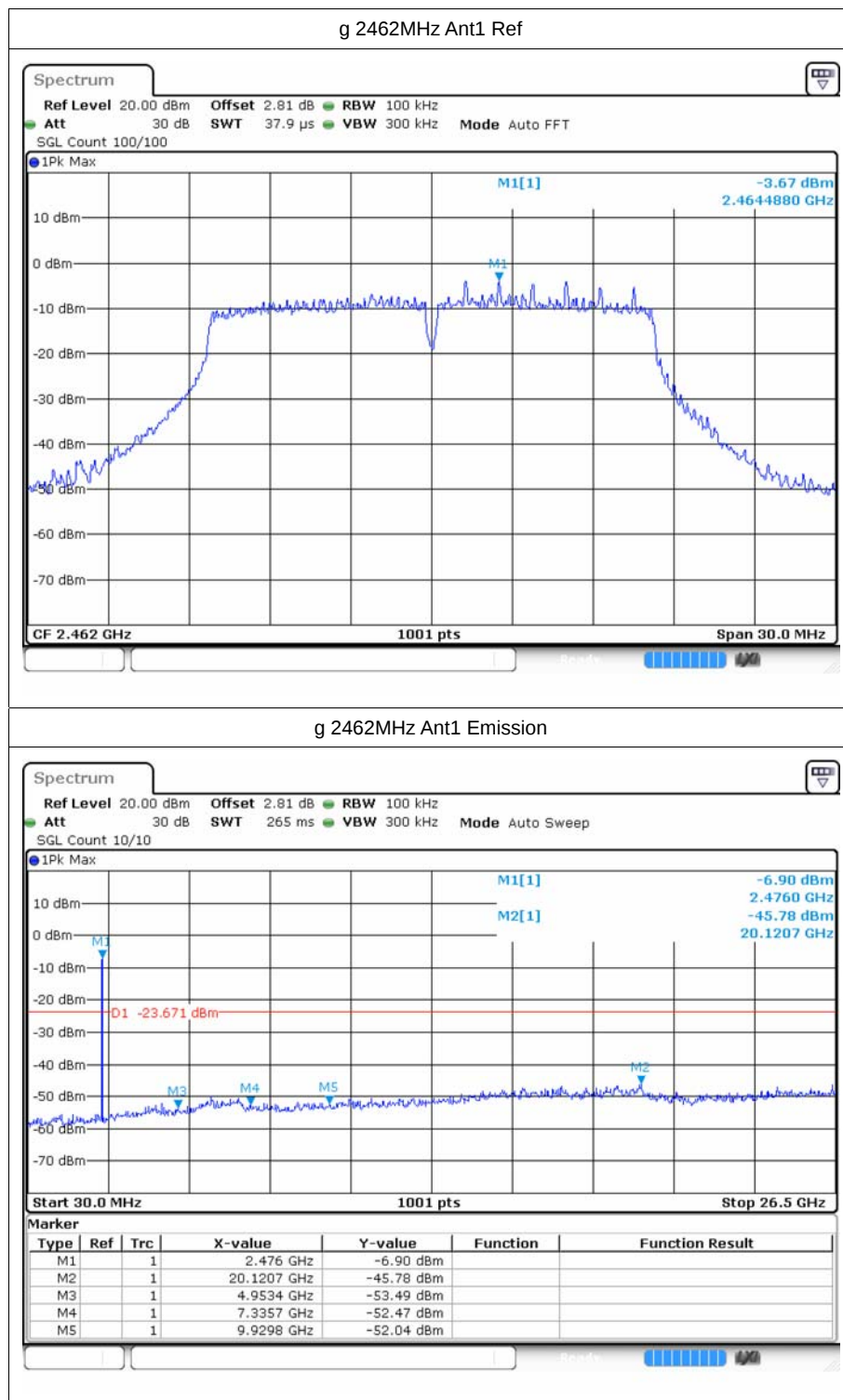


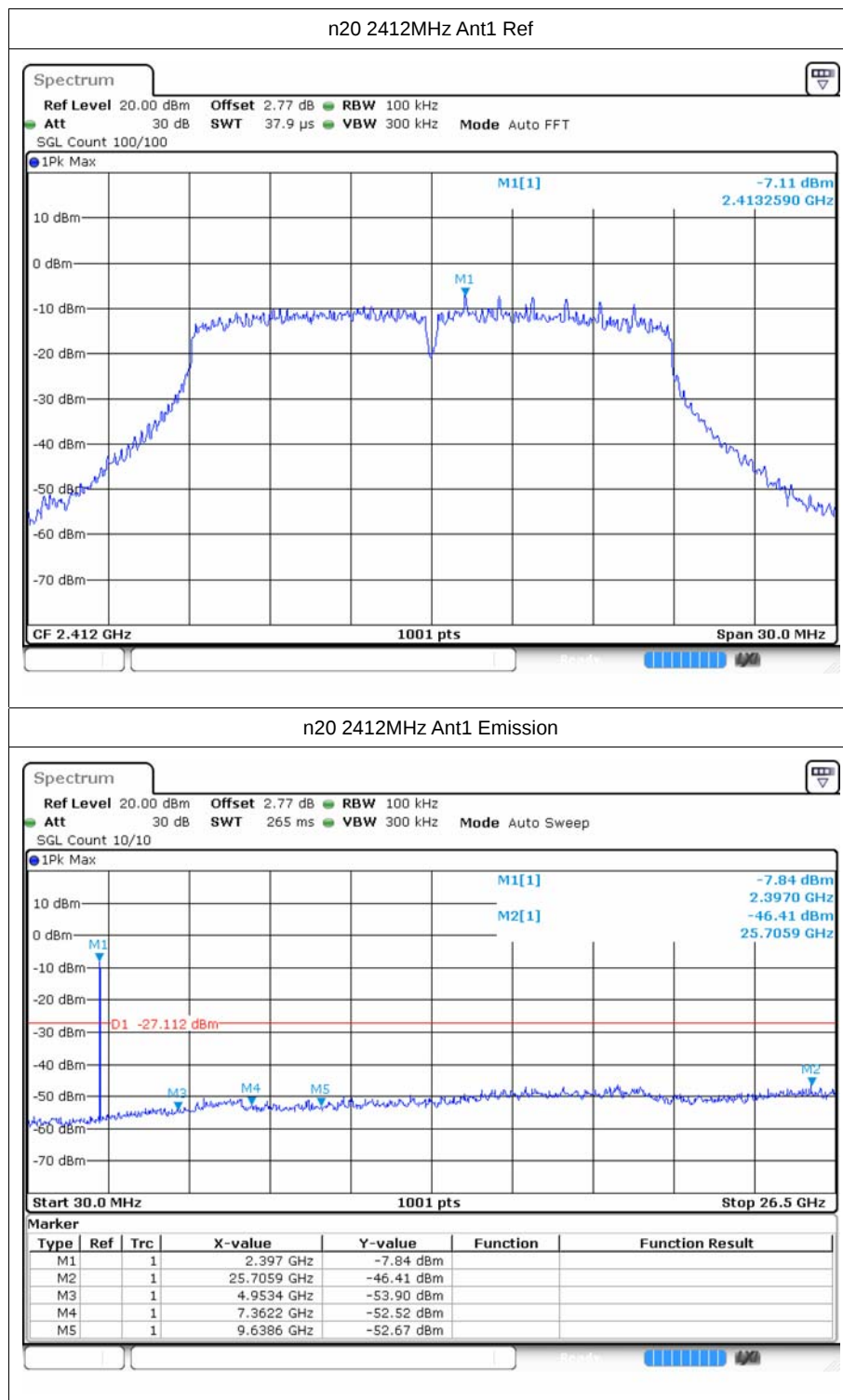


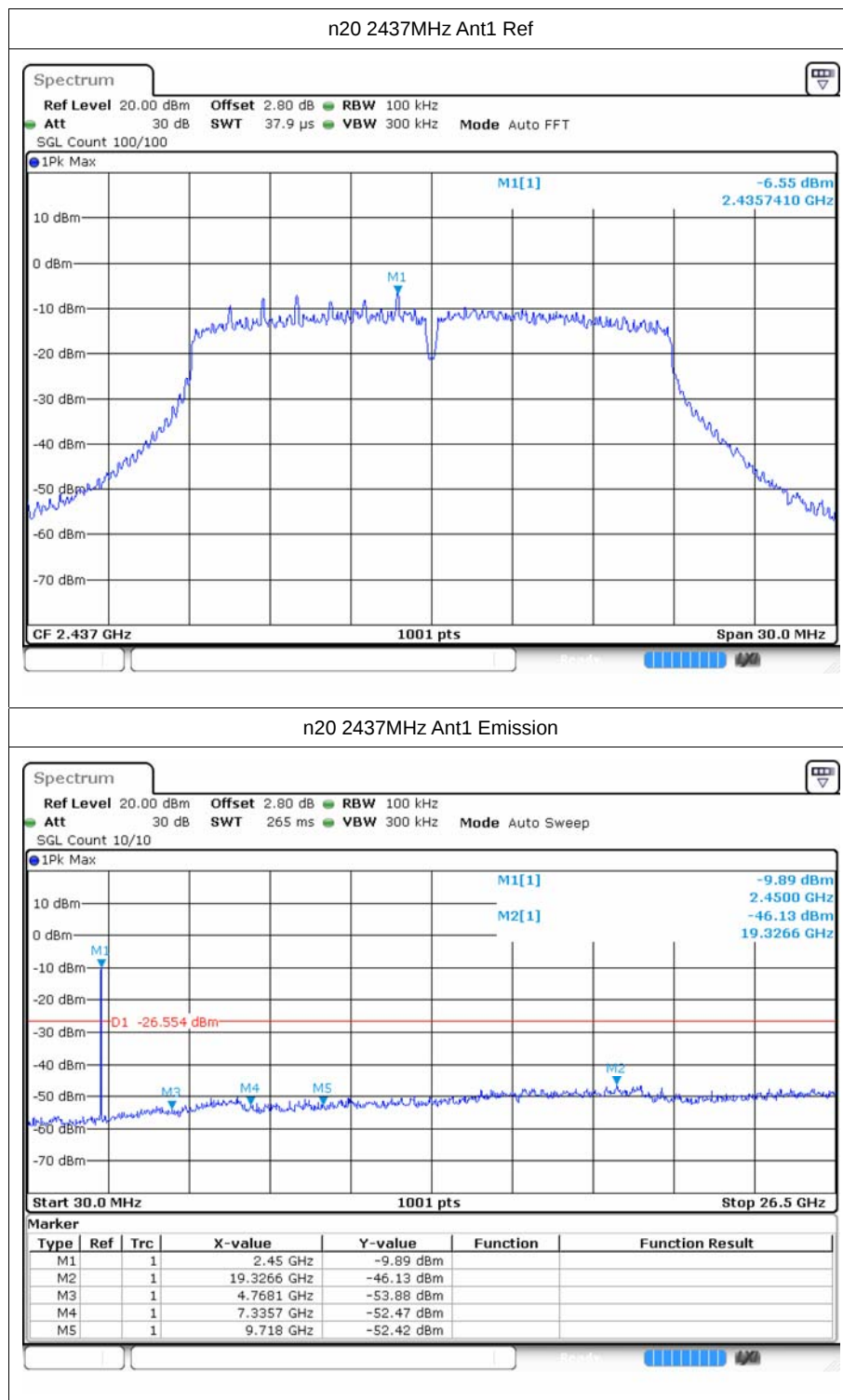


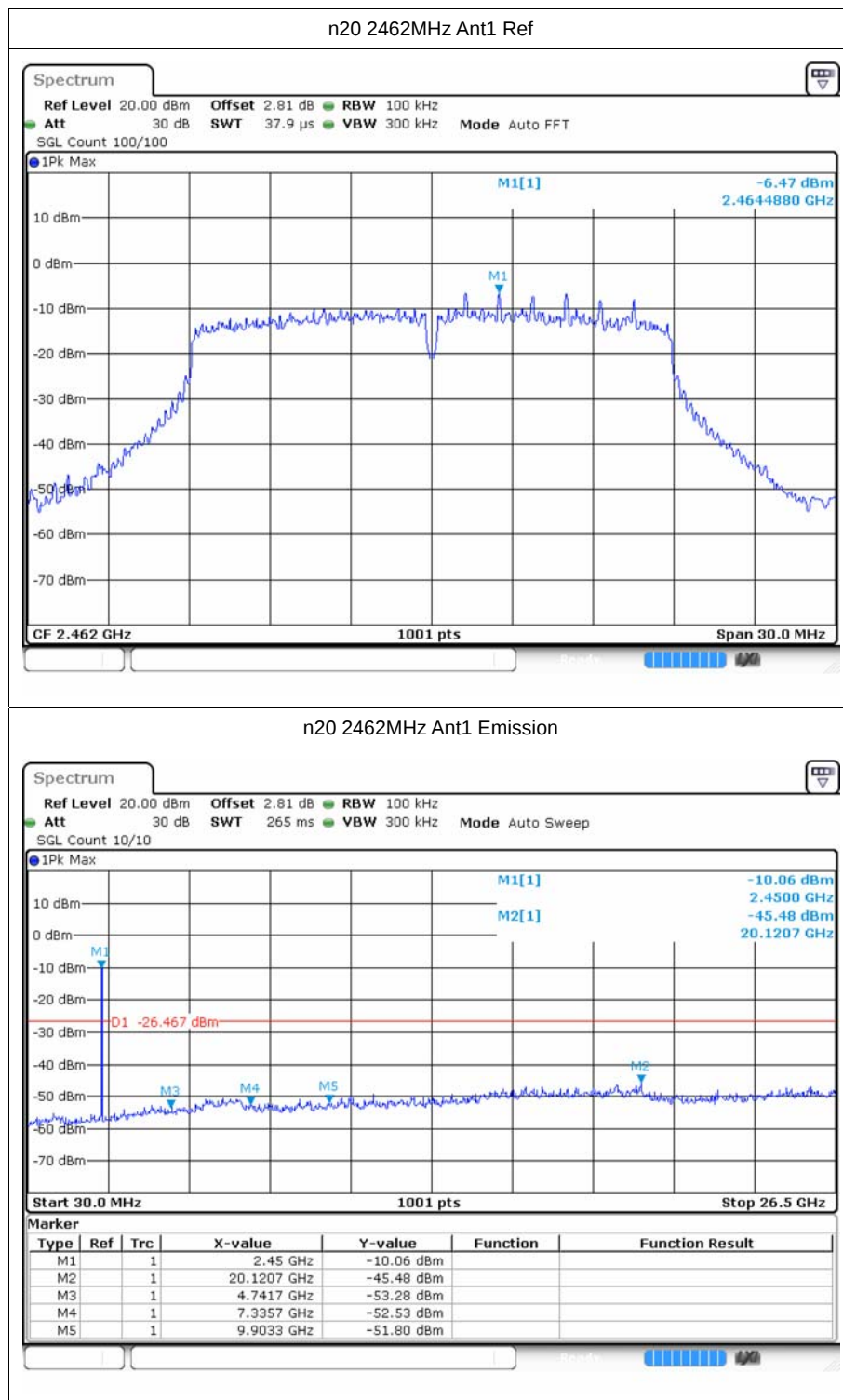


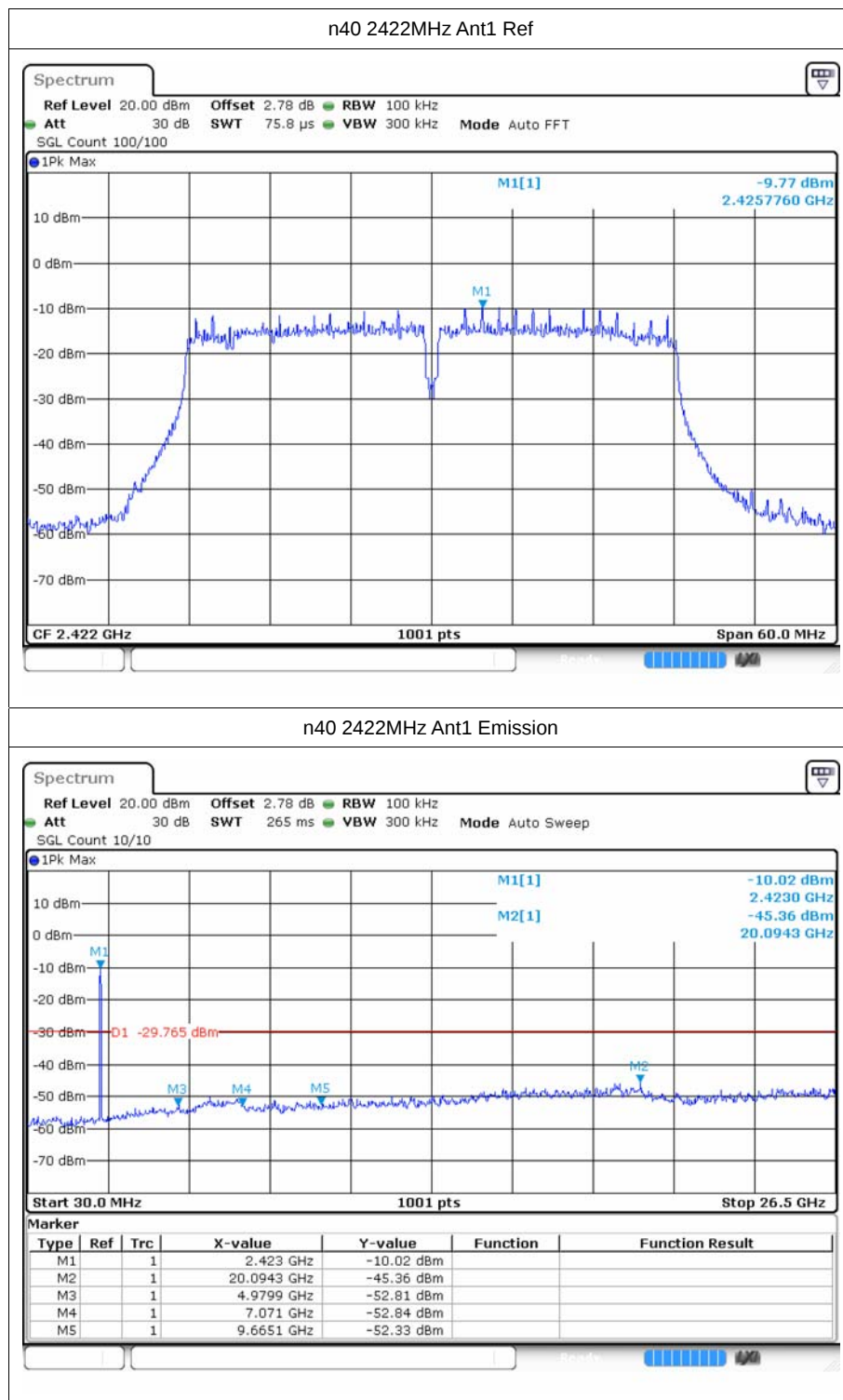


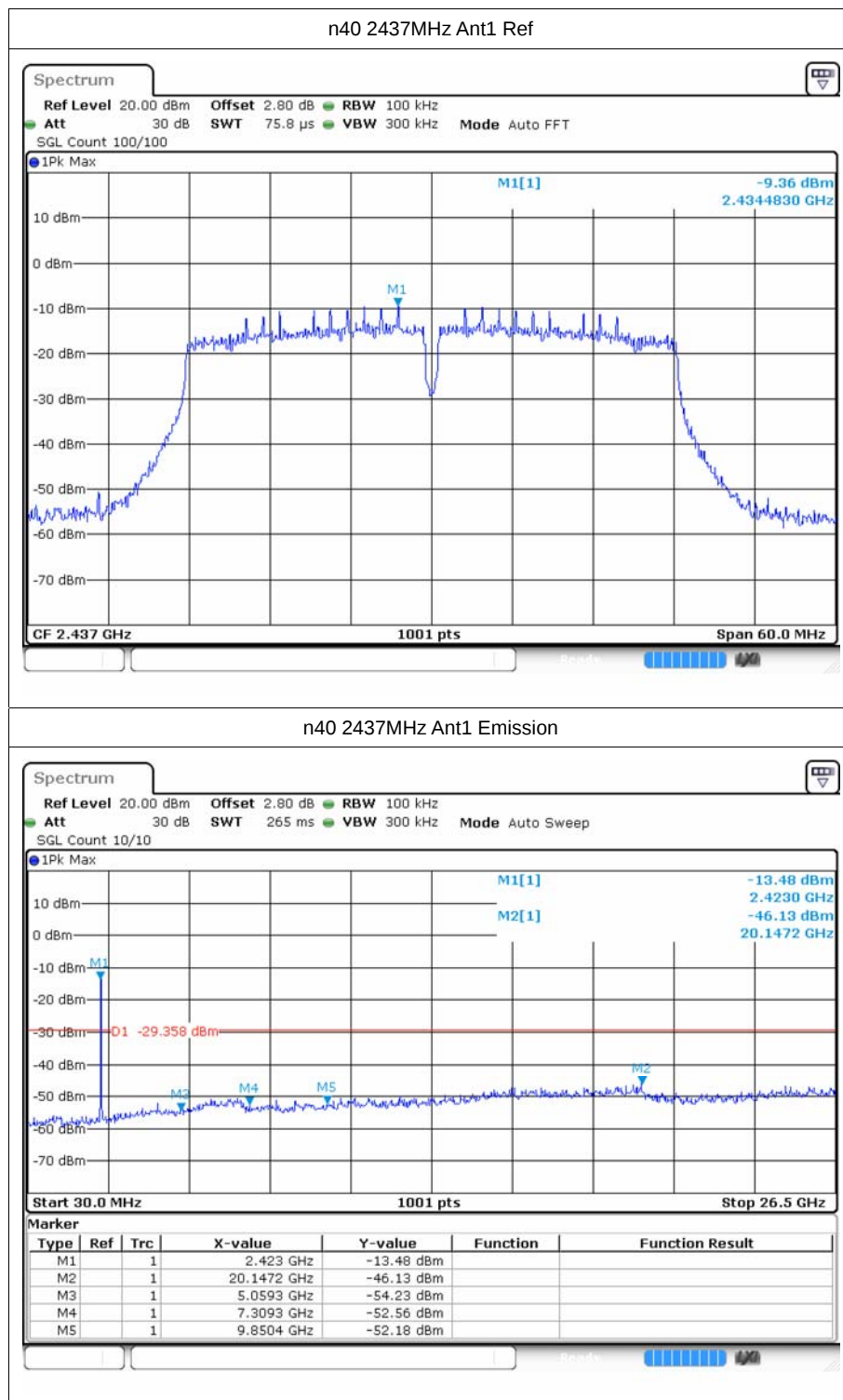


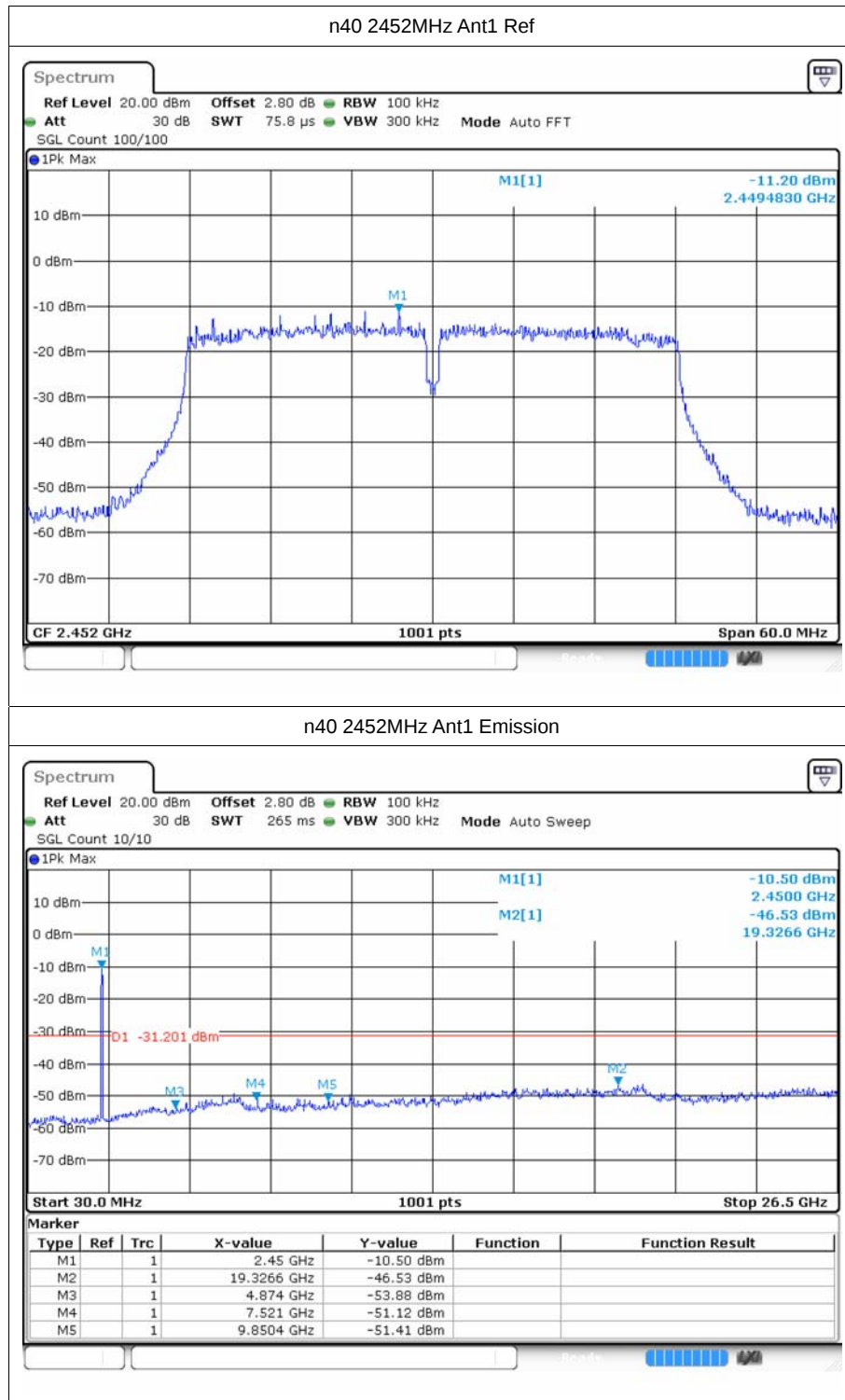














7 Restrict Band

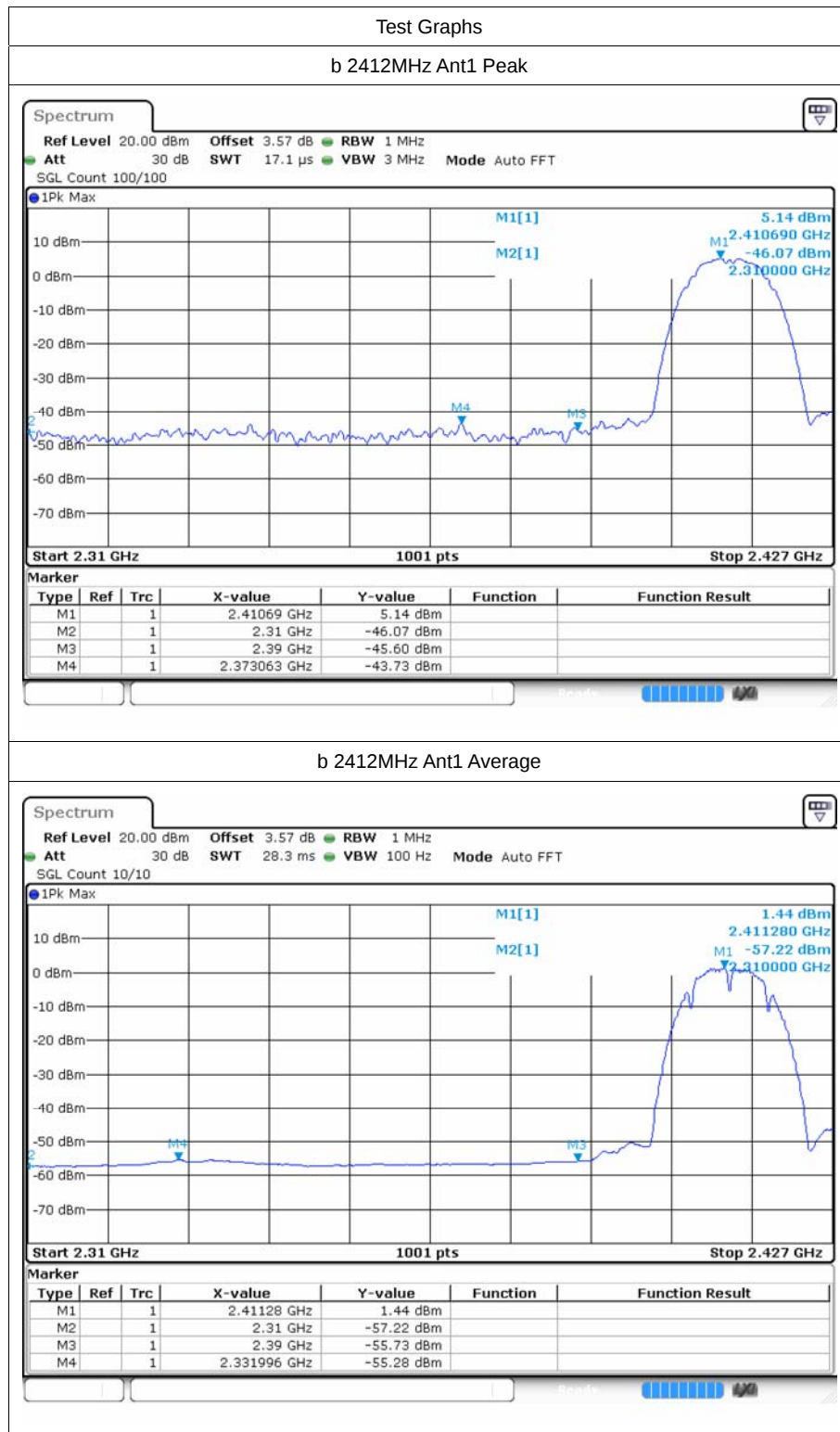
7.1 Test Result

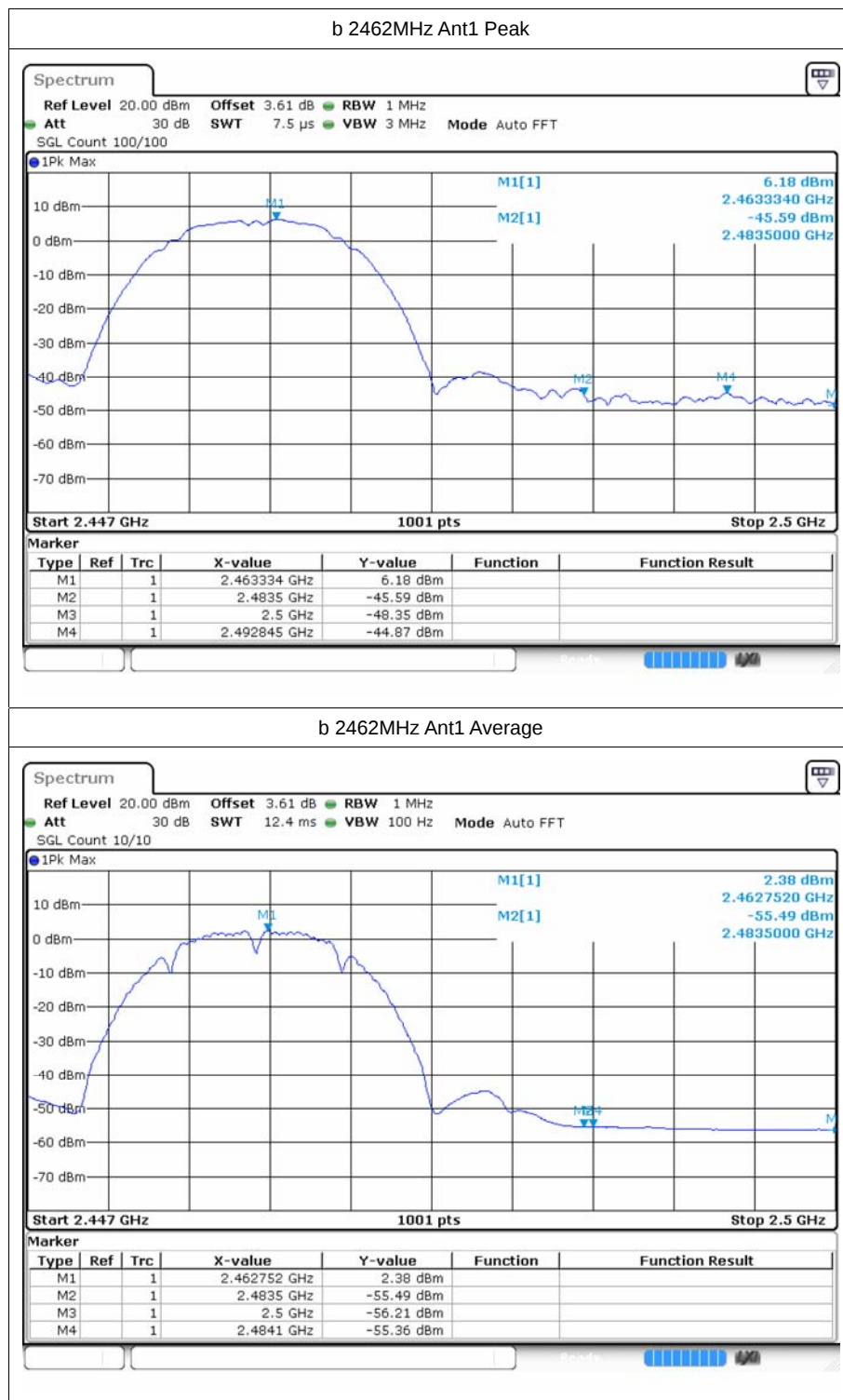
Mod e	Frequency (MHz)	Antenn a	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detecto r	Limit (dBuV/m)	Verdic t
b	2412	Ant1	2310	-46.07	2	51.19	Peak	74	Pass
b	2412	Ant1	2310	-57.21	2	40.05	Average	54	Pass
b	2412	Ant1	2373.063	-43.72	2	53.54	Peak	74	Pass
b	2412	Ant1	2331.996	-55.27	2	41.99	Average	54	Pass
b	2412	Ant1	2390	-45.6	2	51.66	Peak	74	Pass
b	2412	Ant1	2390	-55.72	2	41.54	Average	54	Pass
b	2462	Ant1	2483.5	-45.58	2	51.68	Peak	74	51.68
b	2462	Ant1	2483.5	-55.48	2	41.78	Average	54	Pass
b	2462	Ant1	2492.845	-44.87	2	52.39	Peak	74	Pass
b	2462	Ant1	2484.1	-55.35	2	41.91	Average	54	Pass
b	2462	Ant1	2500	-48.34	2	48.92	Peak	74	Pass
b	2462	Ant1	2500	-56.2	2	41.06	Average	54	Pass
g	2412	Ant1	2310	-47.99	2	49.27	Peak	74	Pass
g	2412	Ant1	2310	-57.88	2	39.38	Average	54	Pass
g	2412	Ant1	2370.84	-45.44	2	51.82	Peak	74	Pass
g	2412	Ant1	2337.144	-56.04	2	41.22	Average	54	Pass
g	2412	Ant1	2390	-47.62	2	51.66	Peak	74	Pass
g	2412	Ant1	2390	-56.32	2	40.94	Average	54	Pass
g	2462	Ant1	2483.5	-45.43	2	51.83	Peak	74	Pass
g	2462	Ant1	2483.5	-55.87	2	41.39	Average	54	Pass
g	2462	Ant1	2492.845	-45.43	2	51.83	Peak	74	Pass
g	2462	Ant1	2483.517	-55.87	2	41.39	Average	54	Pass
g	2462	Ant1	2500	-46.9	2	48.92	Peak	74	Pass
g	2462	Ant1	2500	-57.32	2	39.94	Average	54	Pass
n20	2412	Ant1	2310	-47.39	2	49.87	Peak	74	Pass
n20	2412	Ant1	2310	-58.08	2	39.18	Average	54	Pass
n20	2412	Ant1	2338.197	-45.84	2	51.42	Peak	74	Pass
n20	2412	Ant1	2339.601	-55.93	2	41.33	Average	54	Pass
n20	2412	Ant1	2390	-47.86	2	49.4	Peak	74	Pass
n20	2412	Ant1	2390	-57.51	2	39.75	Average	54	Pass
n20	2462	Ant1	2483.5	-48.66	2	48.6	Peak	74	Pass
n20	2462	Ant1	2483.5	-56.97	2	40.29	Average	54	Pass
n20	2462	Ant1	2488.817	-47.26	2	50	Peak	74	Pass
n20	2462	Ant1	2484.471	-56.76	2	40.5	Average	54	Pass

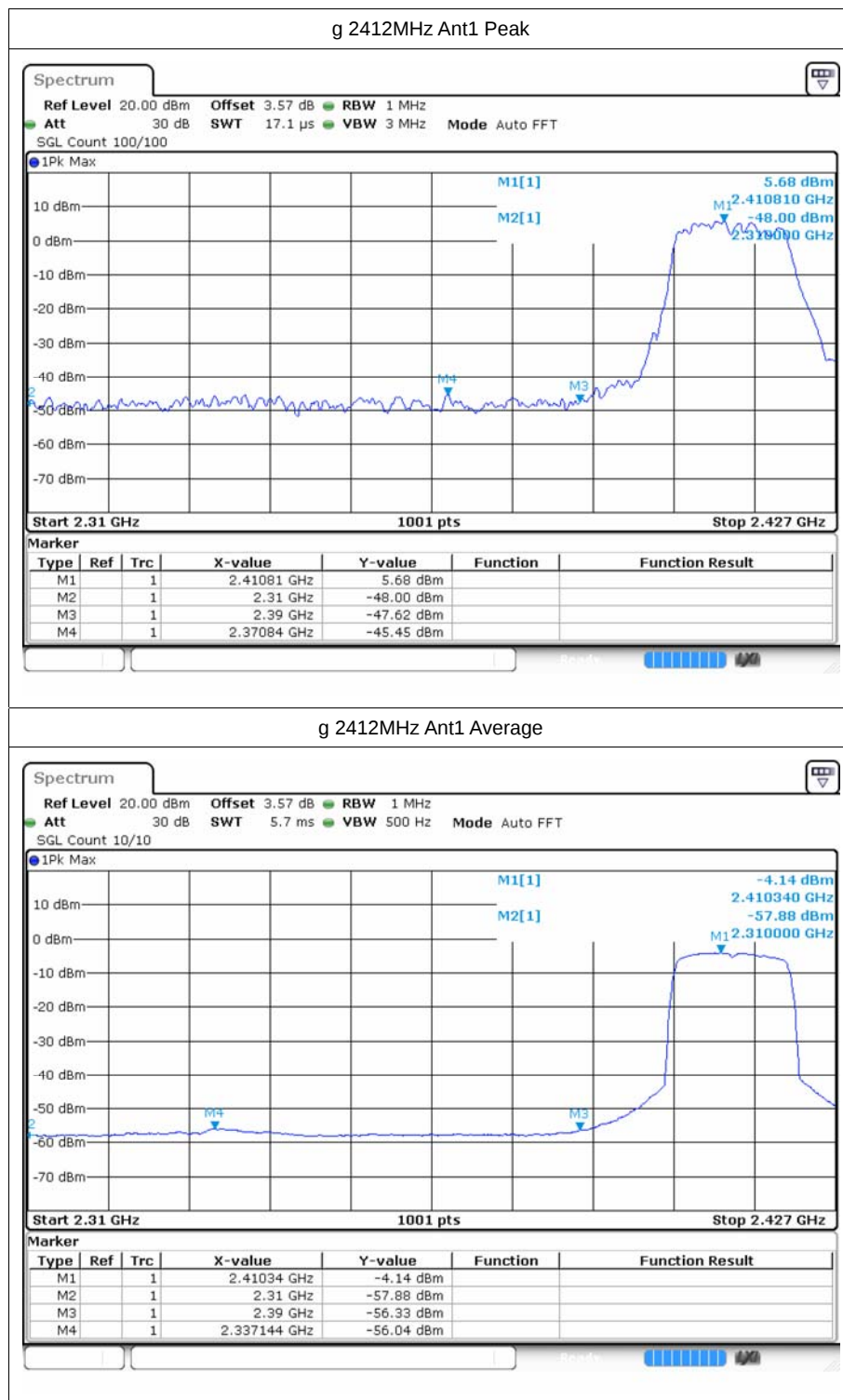


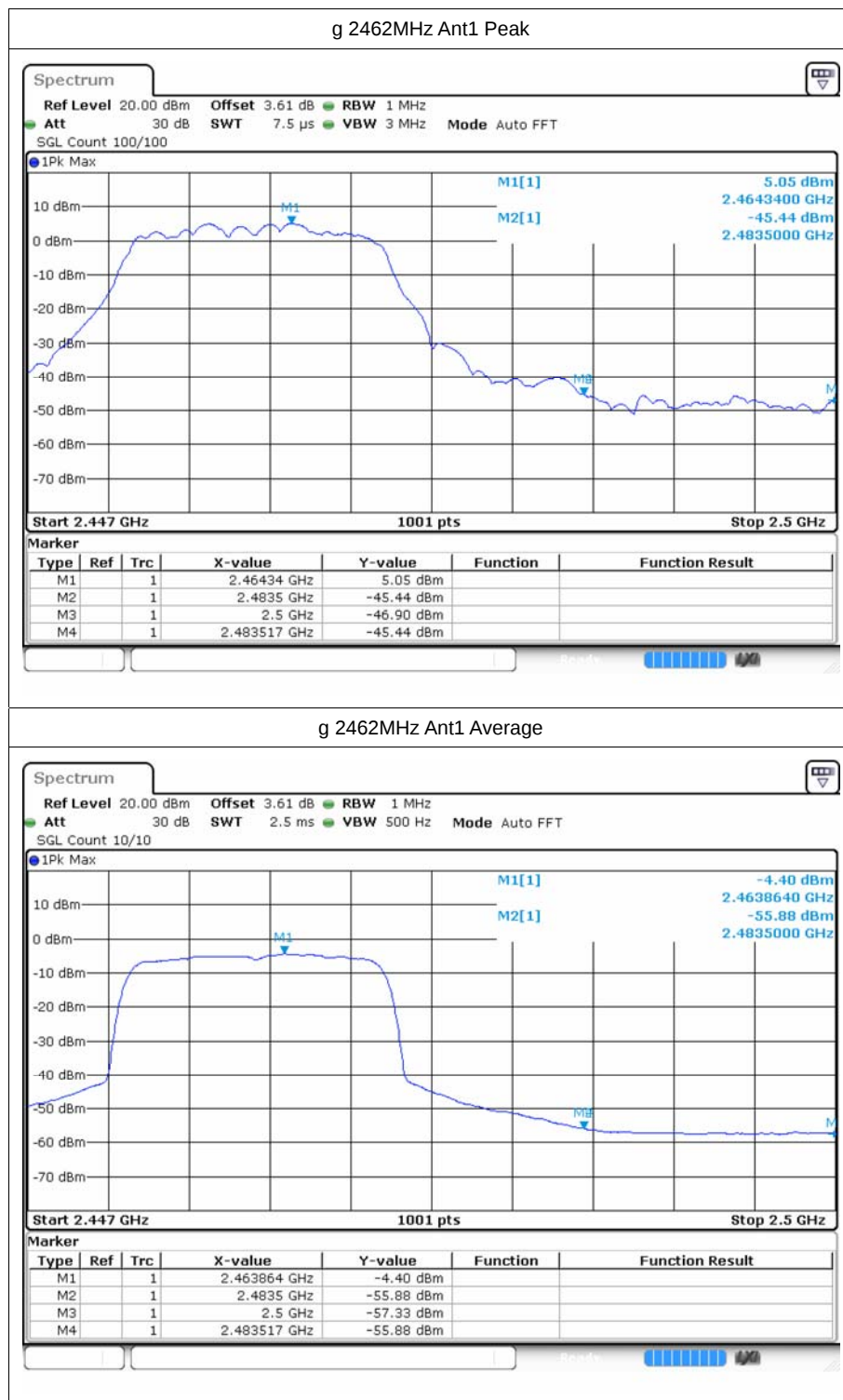
n20	2462	Ant1	2500	-48.65	2	48.61	Peak	74	Pass
n20	2462	Ant1	2500	-57.53	2	39.73	Average	54	Pass
n40	2422	Ant1	2310	-48	2	49.26	Peak	74	Pass
n40	2422	Ant1	2310	-57.68	2	39.58	Average	54	Pass
n40	2422	Ant1	2382.278	-43.79	2	53.47	Peak	74	Pass
n40	2422	Ant1	2341.666	-55.89	2	41.37	Average	54	Pass
n40	2422	Ant1	2390	-48.6	2	48.66	Peak	74	Pass
n40	2422	Ant1	2390	-57.15	2	40.11	Average	54	Pass
n40	2452	Ant1	2483.5	-47.39	2	49.87	Peak	74	Pass
n40	2452	Ant1	2483.5	-56.6	2	40.66	Average	54	Pass
n40	2452	Ant1	2493.136	-45.58	2	51.68	Peak	74	Pass
n40	2452	Ant1	2485.336	-55.92	2	41.34	Average	54	Pass
n40	2452	Ant1	2500	-49.38	2	47.88	Peak	74	Pass
n40	2452	Ant1	2500	-57.23	2	40.03	Average	54	Pass

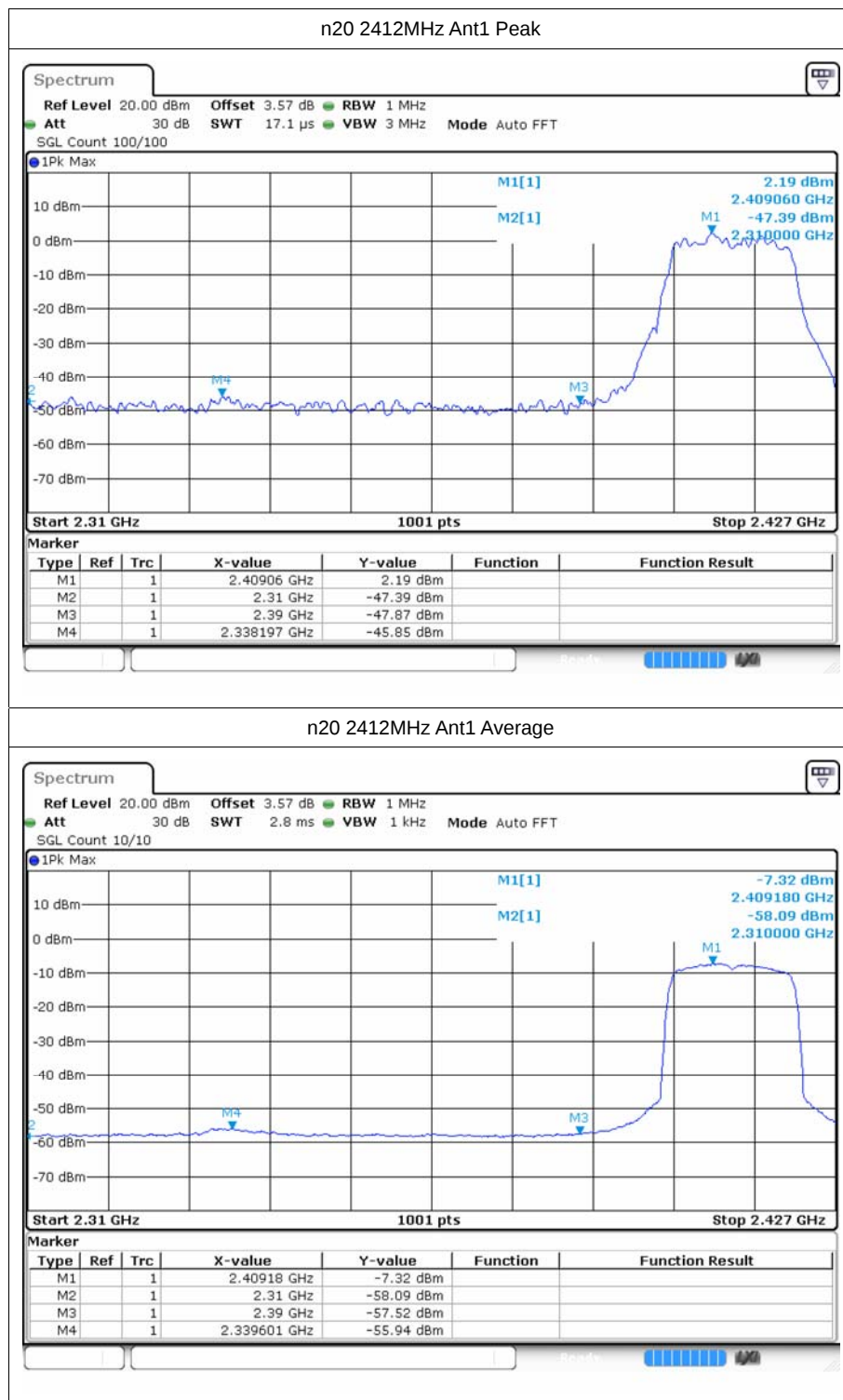
7.2 Test Graphs



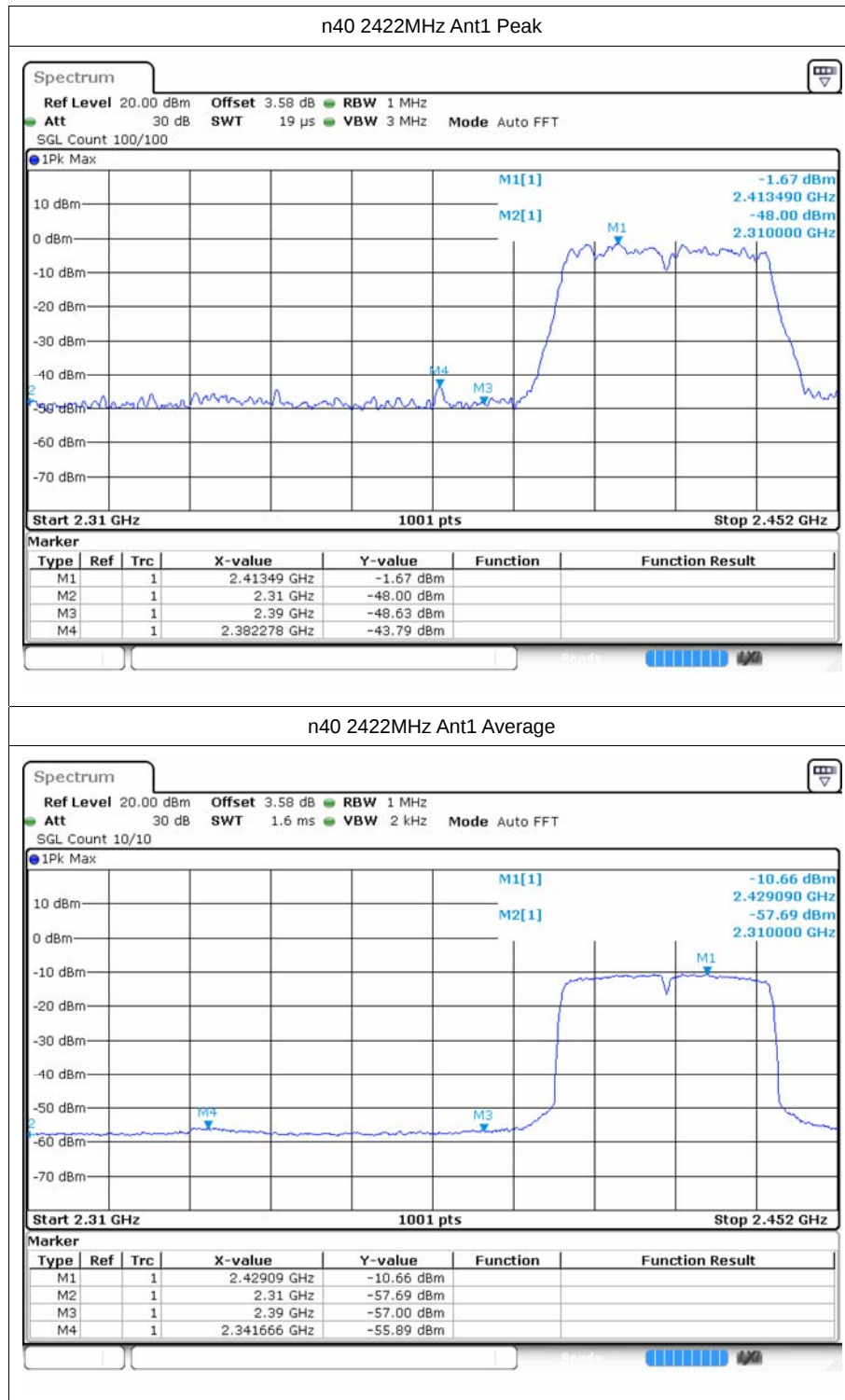


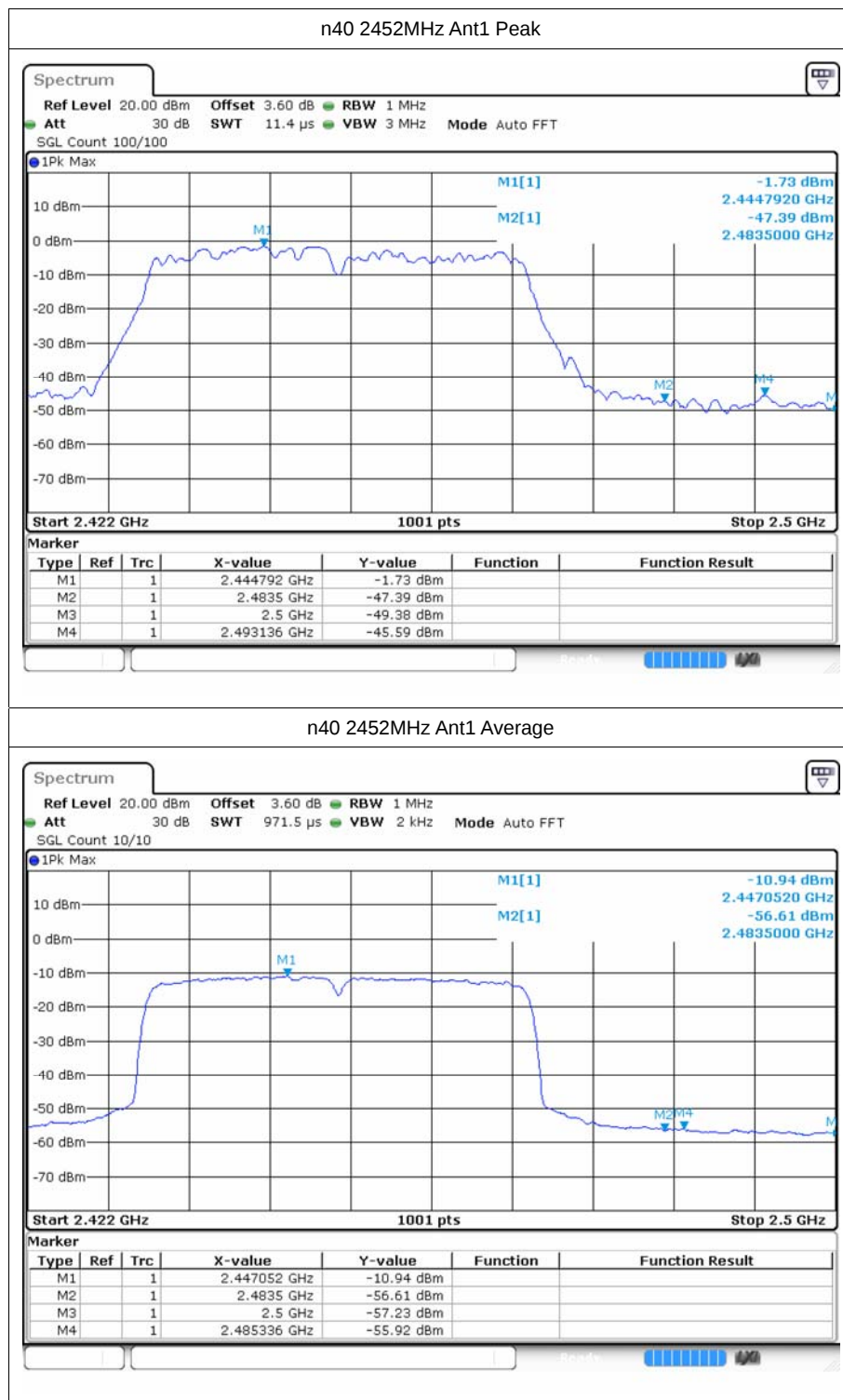












---The End---