



Appendix C

RF Test Data for 2.4GWIFI (Conducted Measurement)

Product Name: Four axis aircraft

Trade Mark: N/A

Test Model: H818

Environmental Conditions

Temperature:	25.2° C
Relative Humidity:	54.4%
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	4
2 Maximum Peak Conducted Output Power	10
2.1 Test Result.....	10
3 -6dB Bandwidth	11
3.1 Test Result.....	11
3.2 Test Graphs	12
4 Maximum Power Spectral Density Level	18
4.1 Test Result.....	18
4.2 Test Graphs	19
5 Band Edge.....	25
5.1 Test Result.....	25
5.2 Test Graphs	26
6 Conducted RF Spurious Emission.....	34
6.1 Test Result.....	34
6.2 Test Graphs	35
7 Restrict Band	47
7.1 Test Result.....	47
7.2 Test Graphs	49

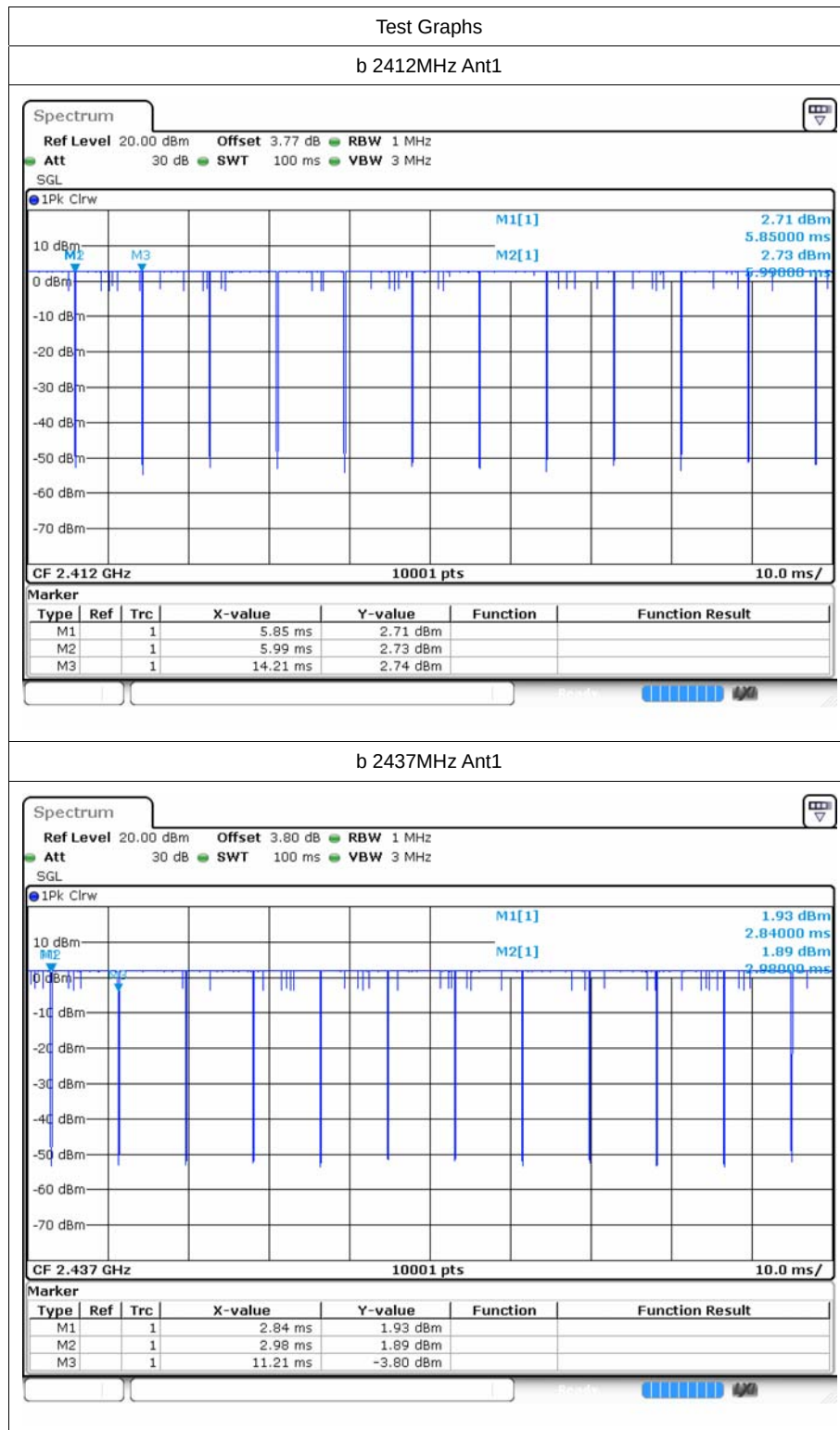


1 Duty Cycle

1.1 Test Result

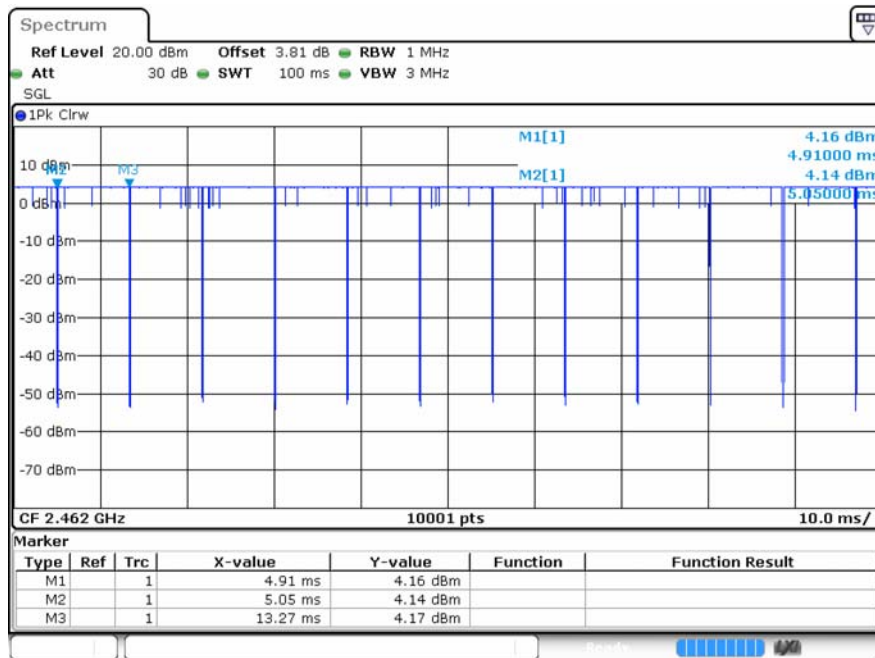
Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	1/T (kHz)
b	2412	Ant1	98.46	0.12
b	2437	Ant1	98.45	0.12
b	2462	Ant1	98.47	0.12
g	2412	Ant1	91.13	0.73
g	2437	Ant1	90.31	0.74
g	2462	Ant1	91.29	0.73
n20	2412	Ant1	89.72	0.86
n20	2437	Ant1	89.69	0.86
n20	2462	Ant1	89.68	0.87
n40	2422	Ant1	80.09	1.75
n40	2437	Ant1	81.4	1.72
n40	2452	Ant1	82	1.72

1.2 Test Graphs

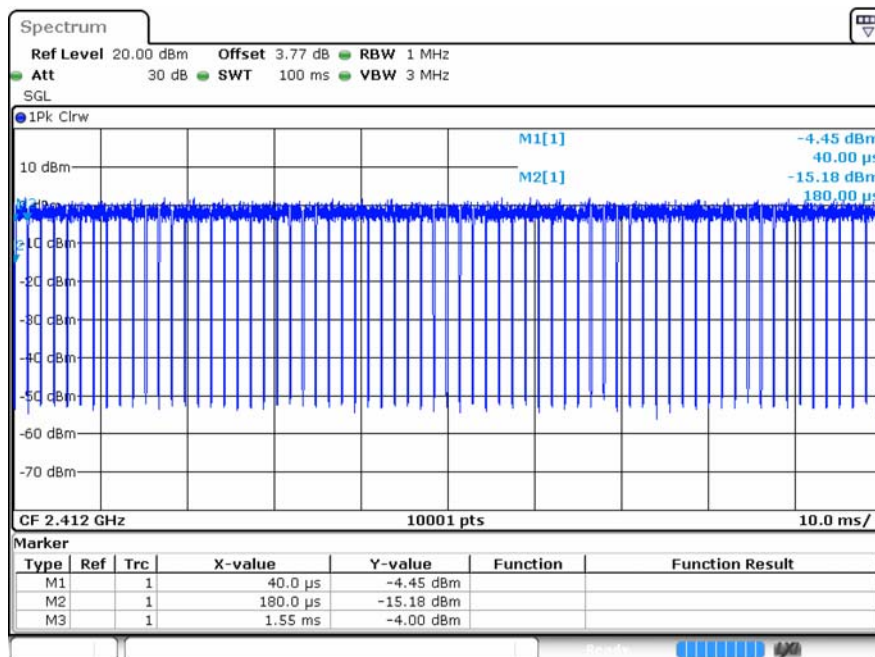


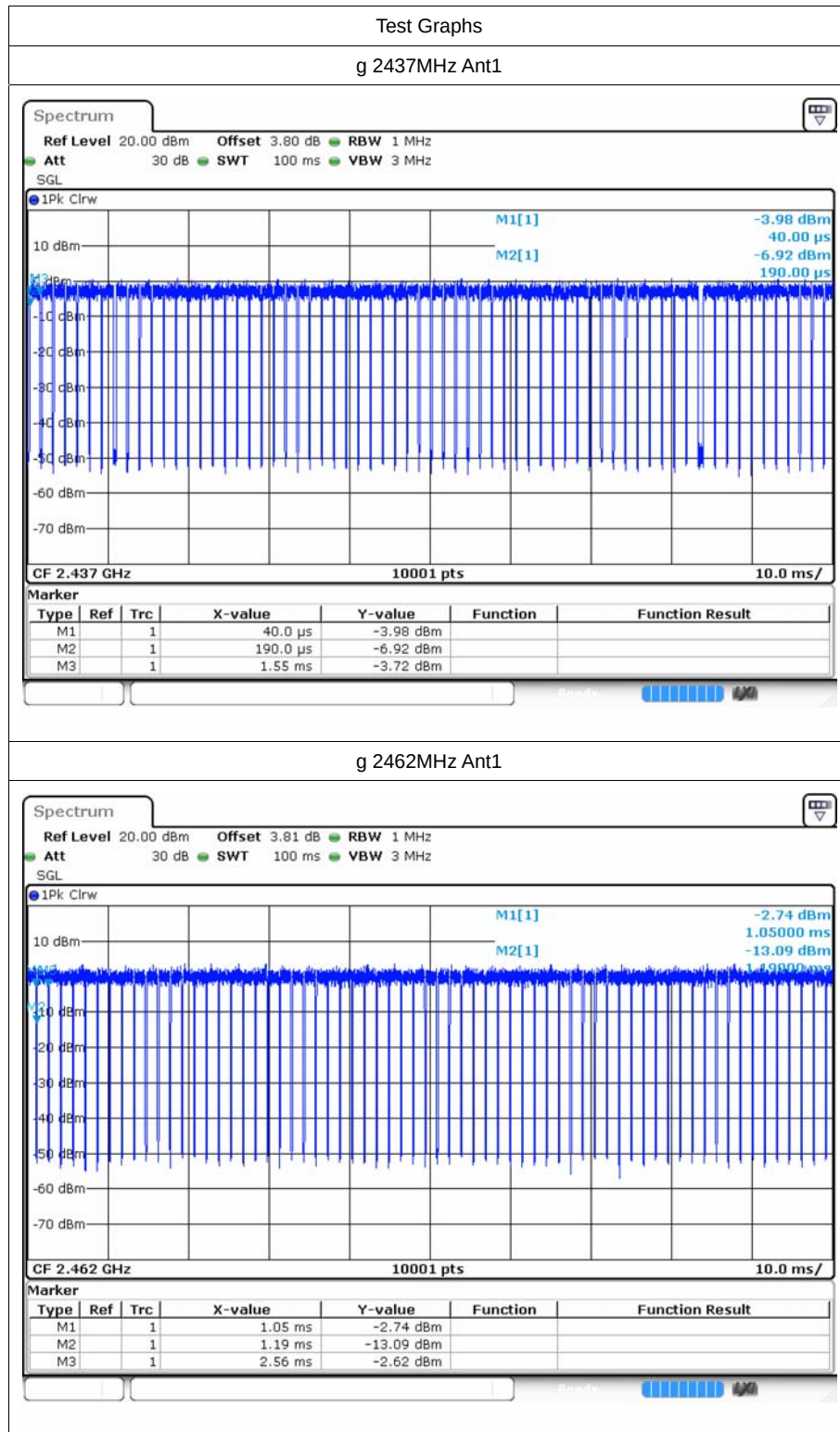
Test Graphs

b 2462MHz Ant1



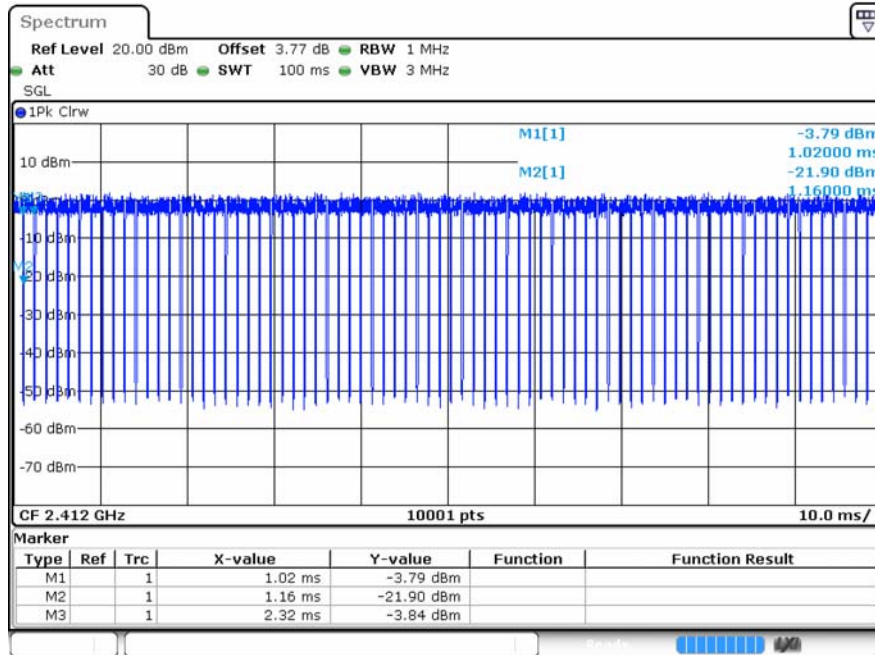
g 2412MHz Ant1



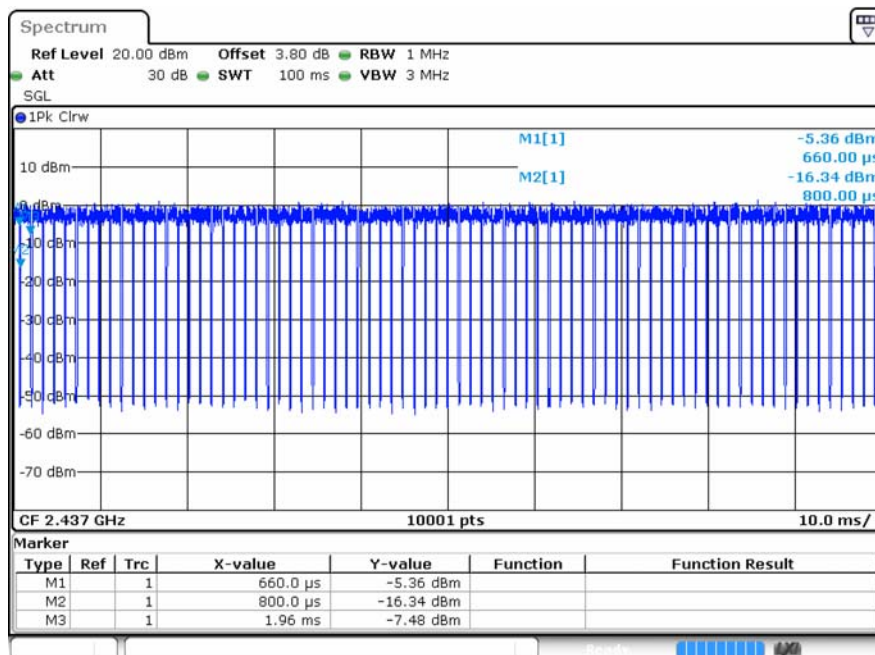


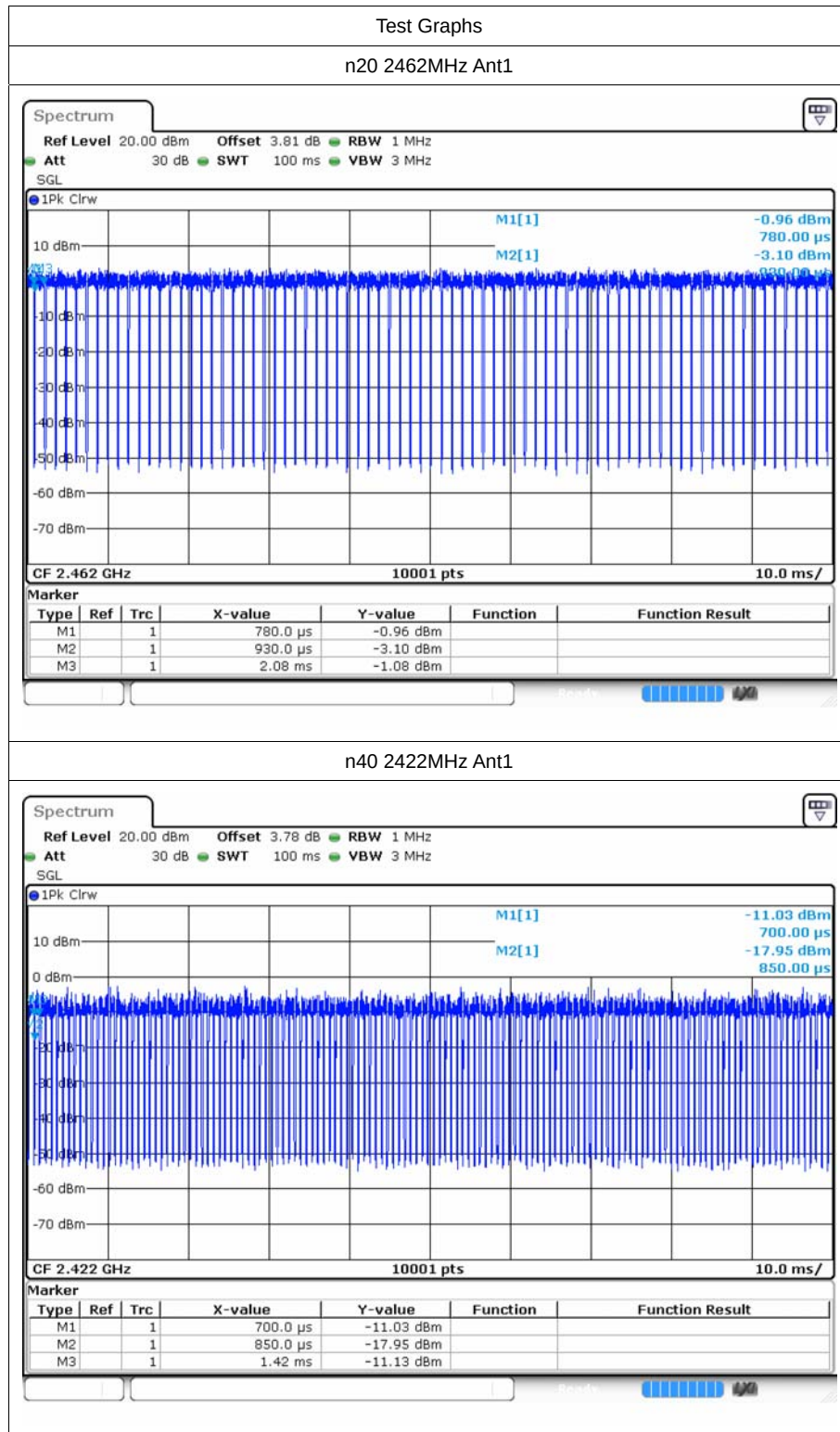
Test Graphs

n20 2412MHz Ant1



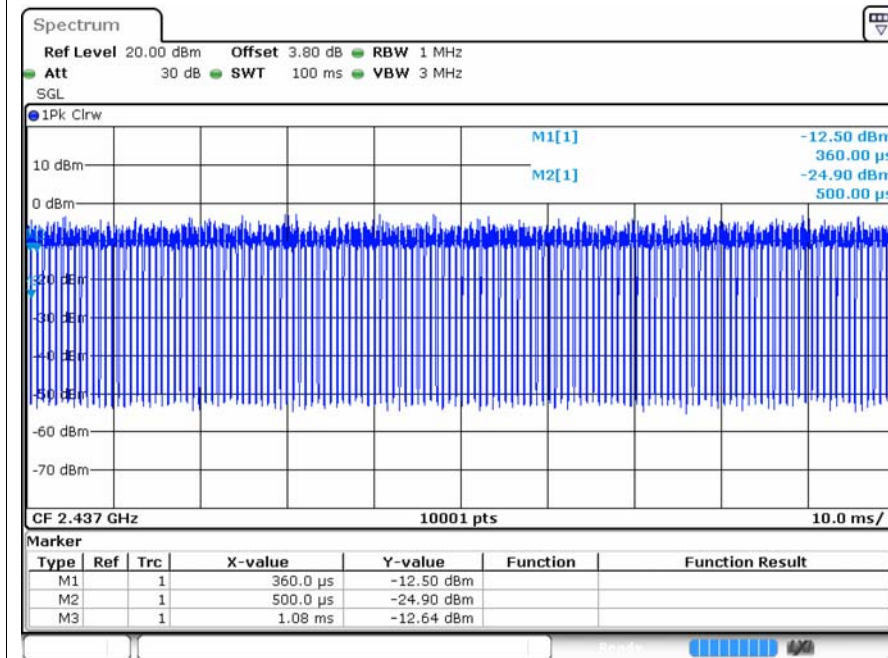
n20 2437MHz Ant1



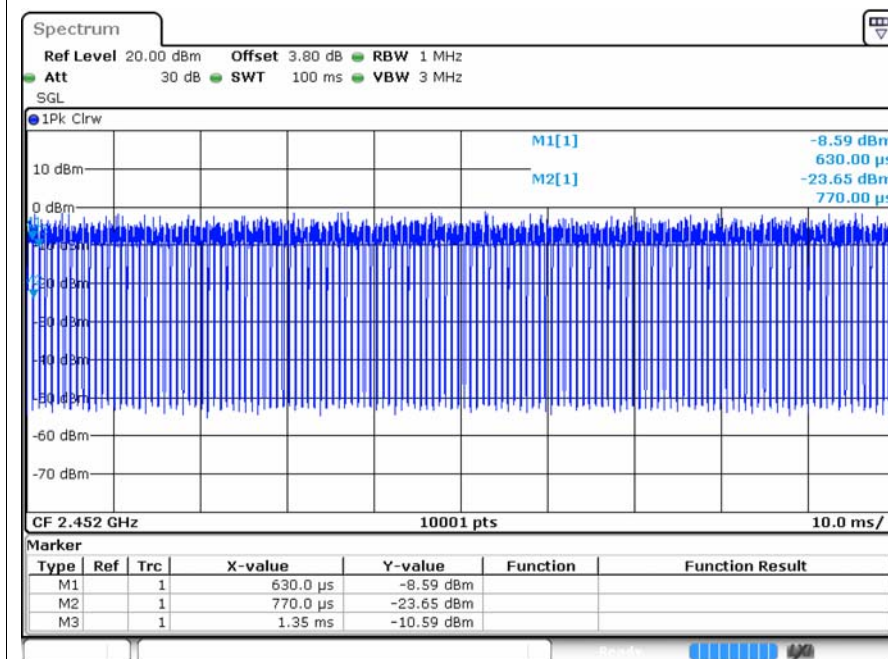


Test Graphs

n40 2437MHz Ant1



n40 2452MHz Ant1





2 Maximum Peak Conducted Output Power

2.1 Test Result

Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
b	2412	Ant1	12.29	30	Pass
b	2437	Ant1	12.12	30	Pass
b	2462	Ant1	13.76	30	Pass
g	2412	Ant1	11.33	30	Pass
g	2437	Ant1	10.72	30	Pass
g	2462	Ant1	13.51	30	Pass
n20	2412	Ant1	11.55	30	Pass
n20	2437	Ant1	11.07	30	Pass
n20	2462	Ant1	13.84	30	Pass
n40	2422	Ant1	12.94	30	Pass
n40	2437	Ant1	12.73	30	Pass
n40	2452	Ant1	12.92	30	Pass

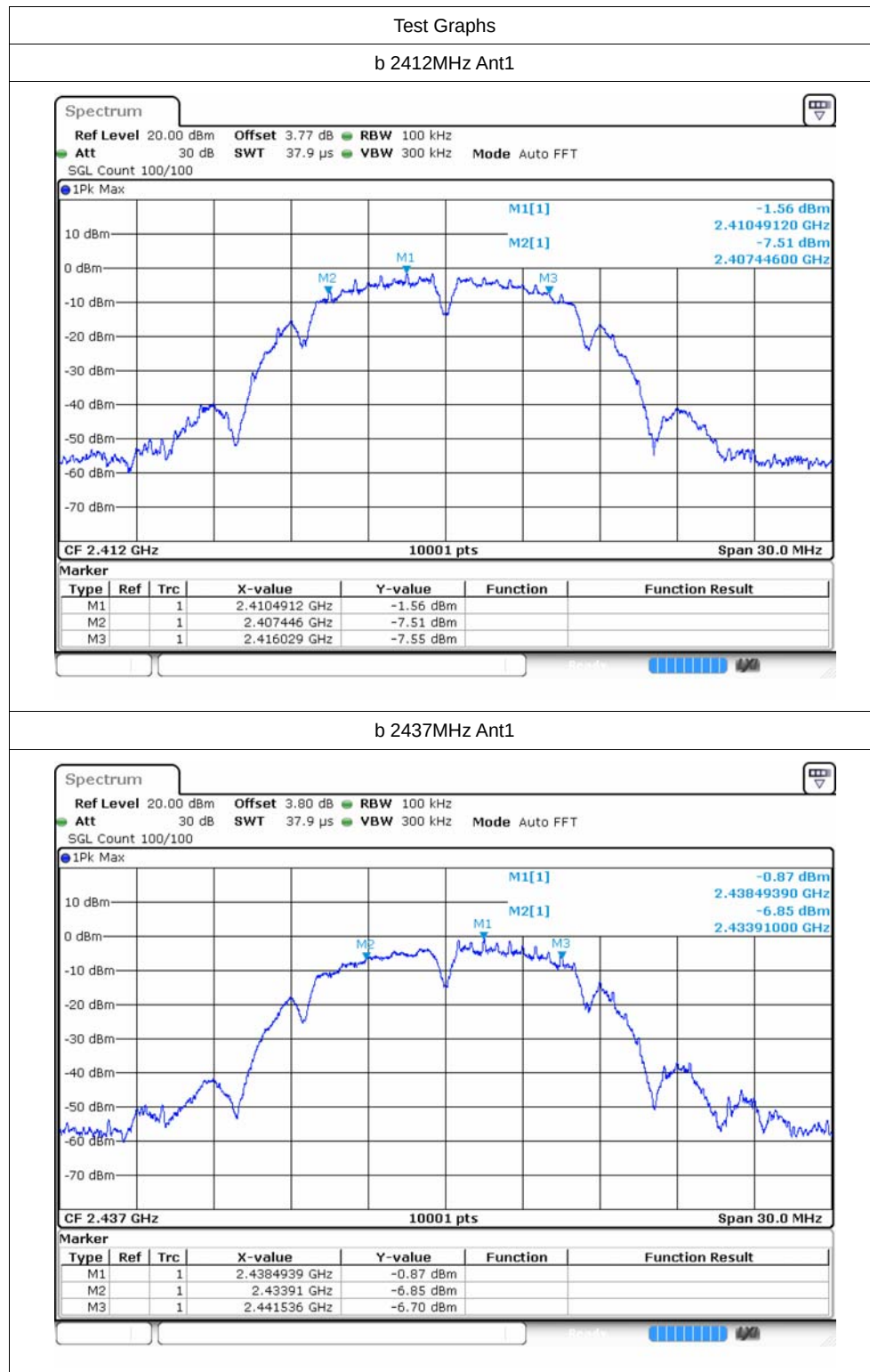


3 -6dB Bandwidth

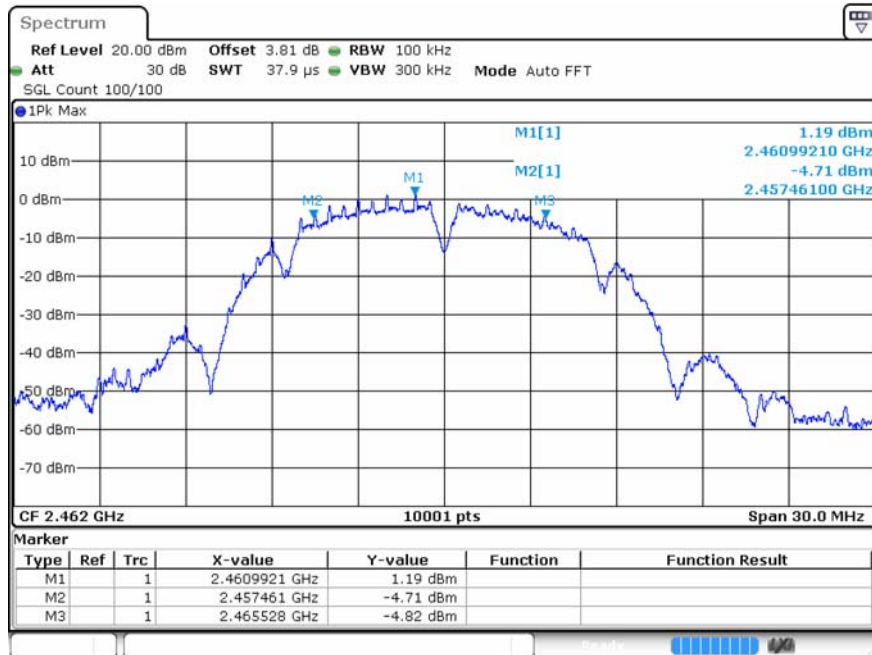
3.1 Test Result

Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
b	2412	Ant1	8.583	0.5	Pass
b	2437	Ant1	7.626	0.5	Pass
b	2462	Ant1	8.067	0.5	Pass
g	2412	Ant1	16.365	0.5	Pass
g	2437	Ant1	16.446	0.5	Pass
g	2462	Ant1	16.425	0.5	Pass
n20	2412	Ant1	17.415	0.5	Pass
n20	2437	Ant1	17.154	0.5	Pass
n20	2462	Ant1	16.59	0.5	Pass
n40	2422	Ant1	36.132	0.5	Pass
n40	2437	Ant1	35.358	0.5	Pass
n40	2452	Ant1	35.058	0.5	Pass

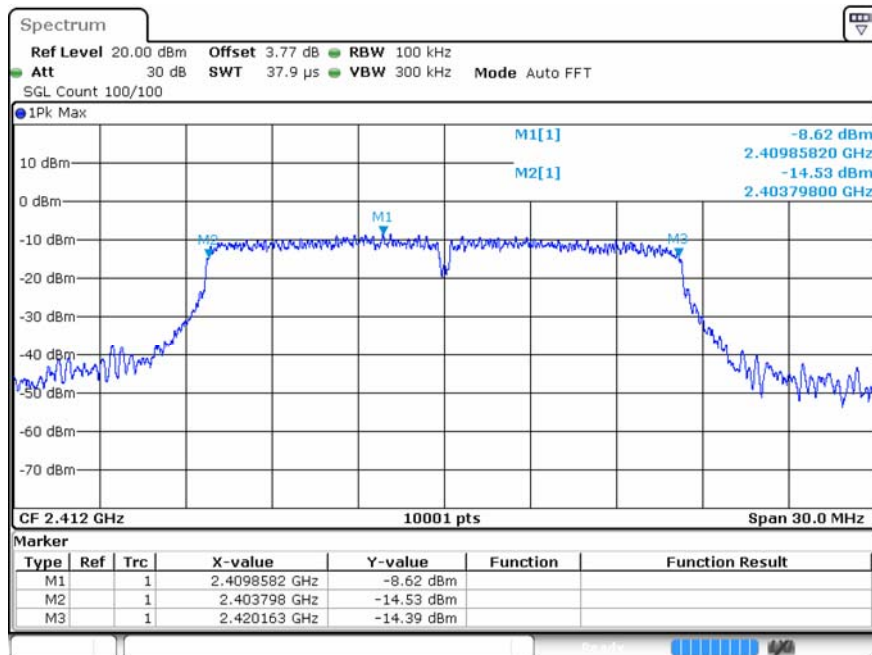
3.2 Test Graphs



b 2462MHz Ant1

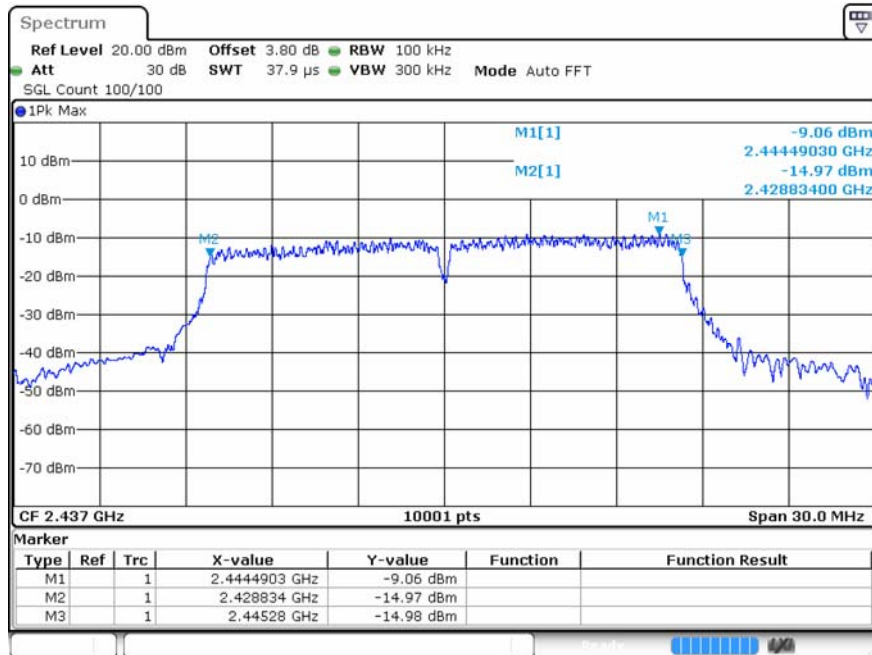


g 2412MHz Ant1

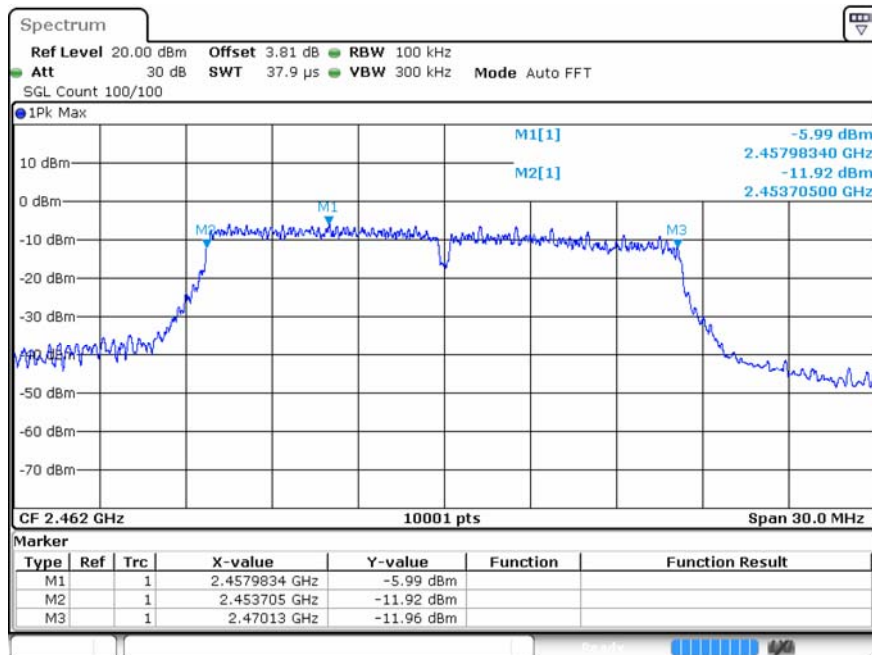




g 2437MHz Ant1

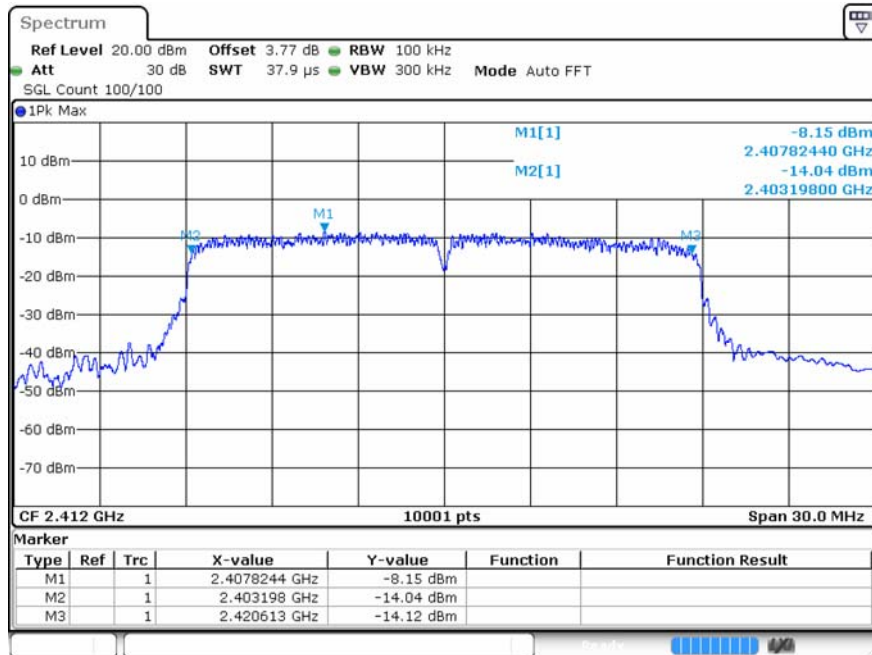


g 2462MHz Ant1

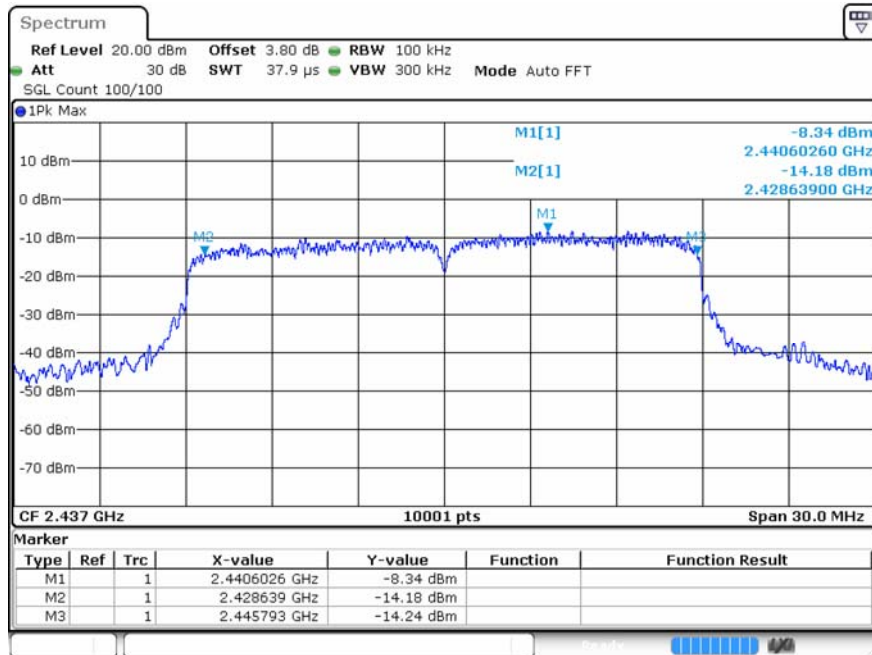




n20 2412MHz Ant1

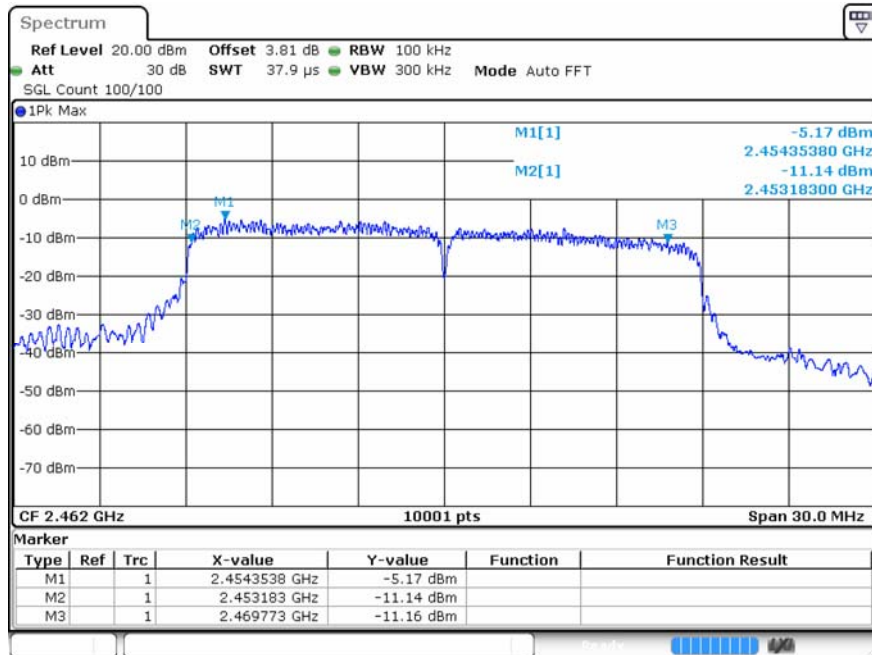


n20 2437MHz Ant1

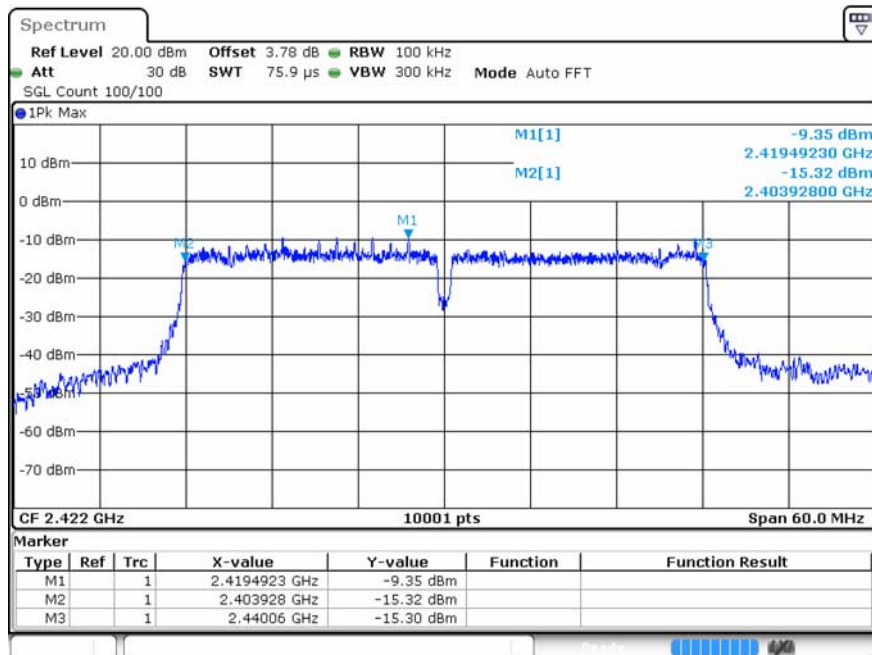




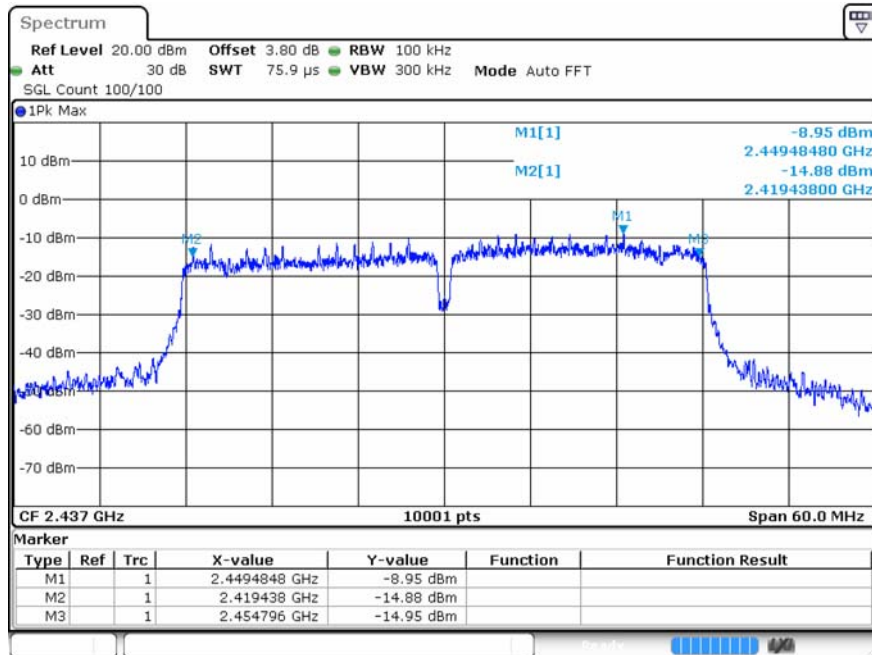
n20 2462MHz Ant1



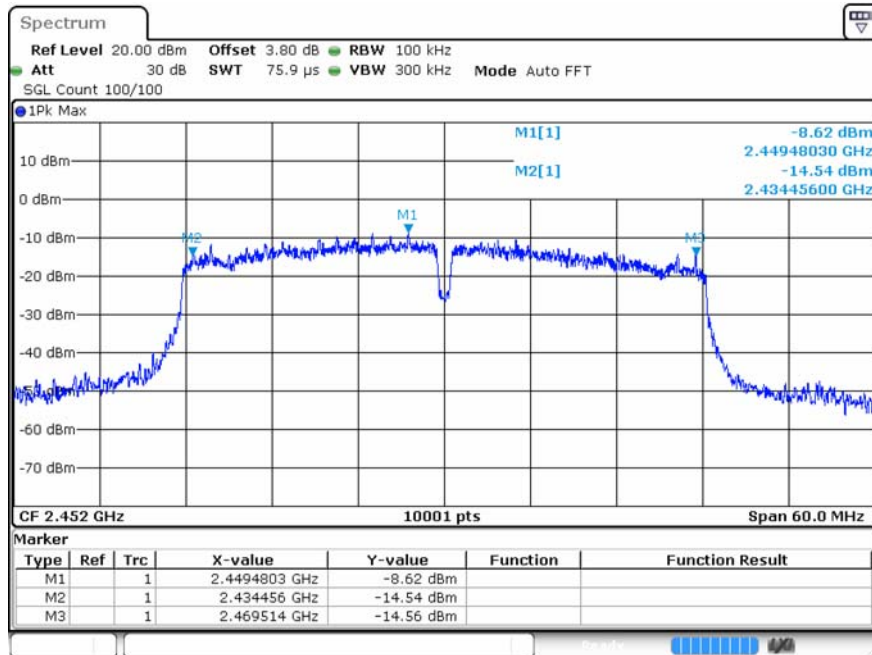
n40 2422MHz Ant1



n40 2437MHz Ant1



n40 2452MHz Ant1

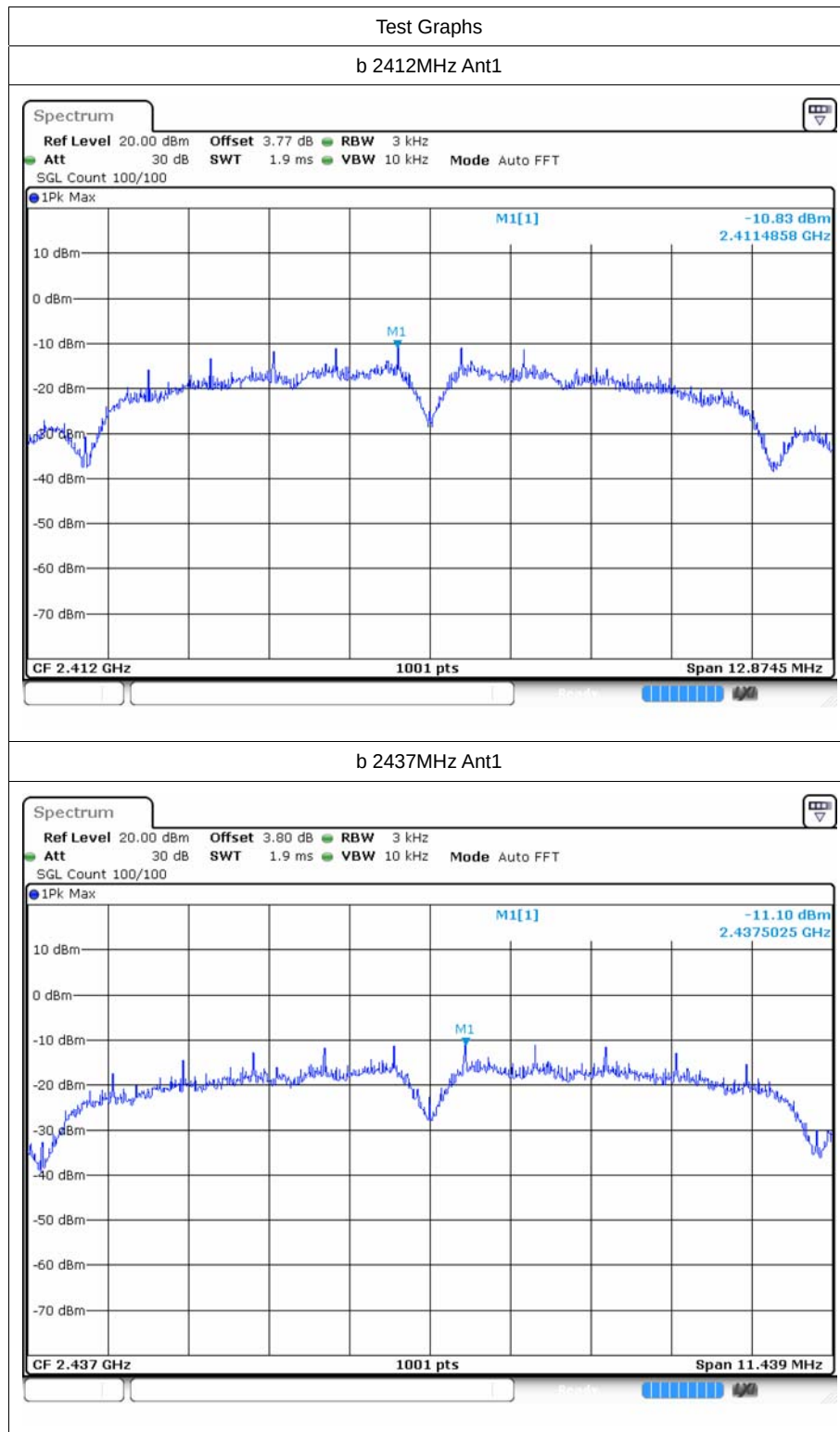


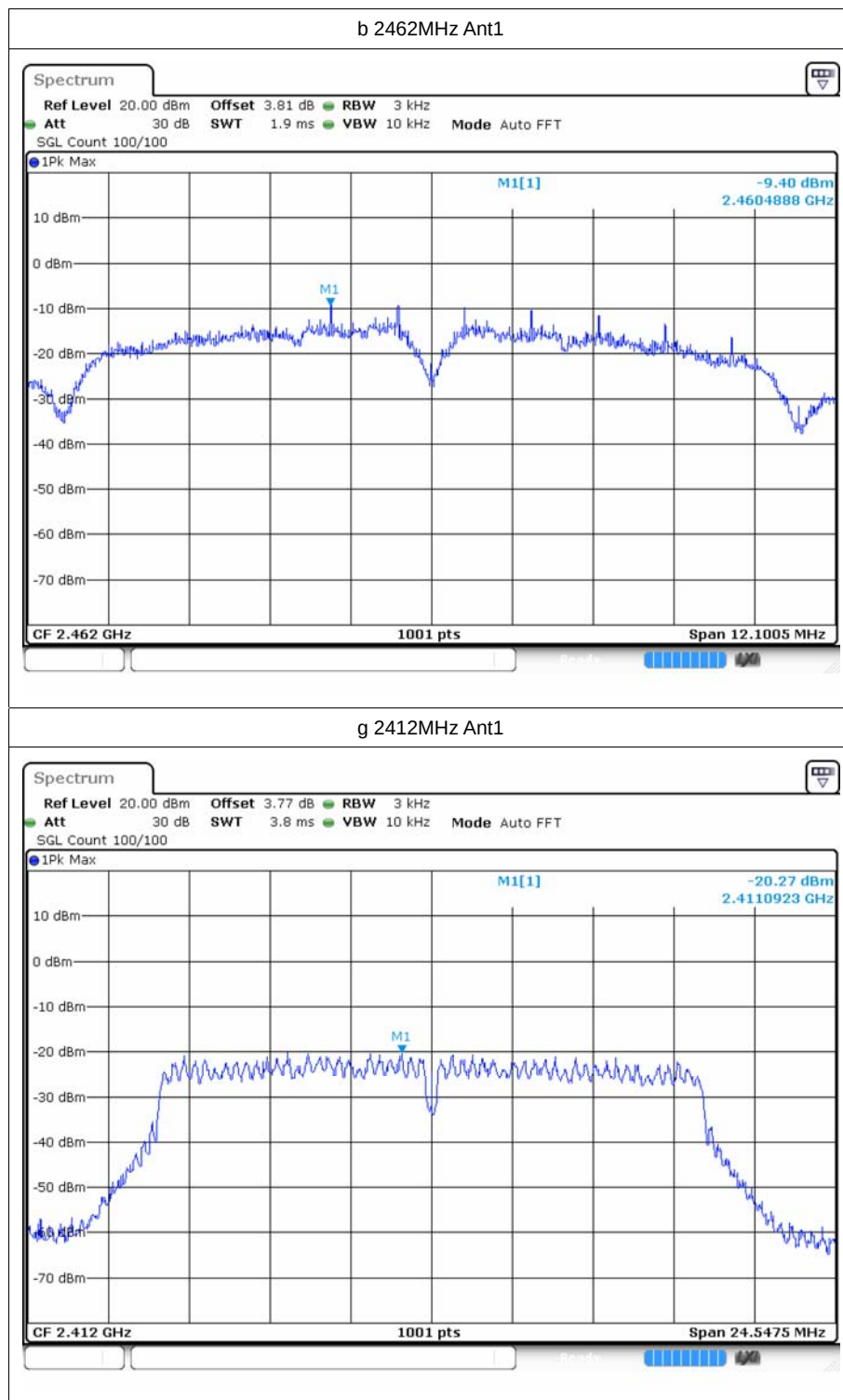
4 Maximum Power Spectral Density Level

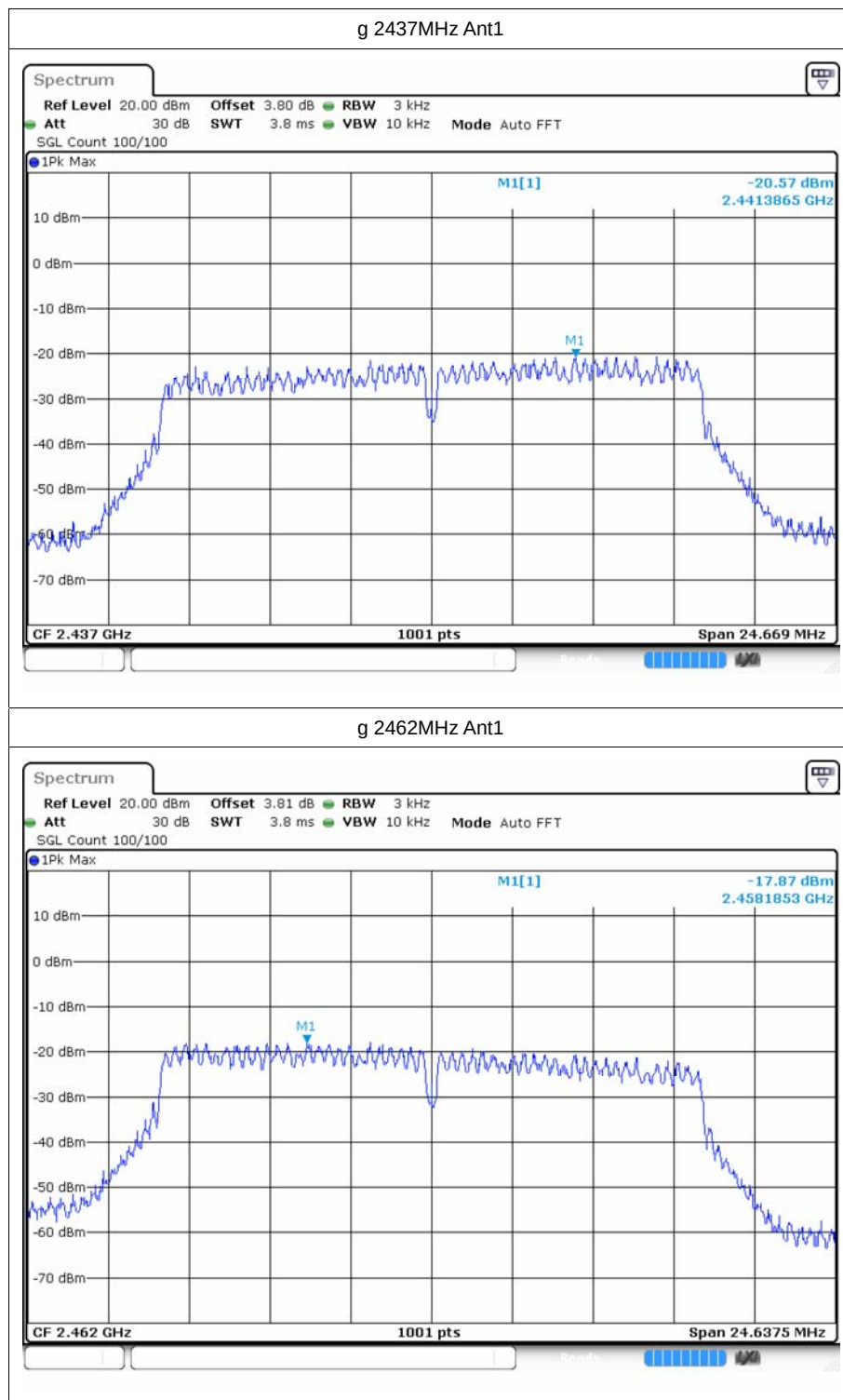
4.1 Test Result

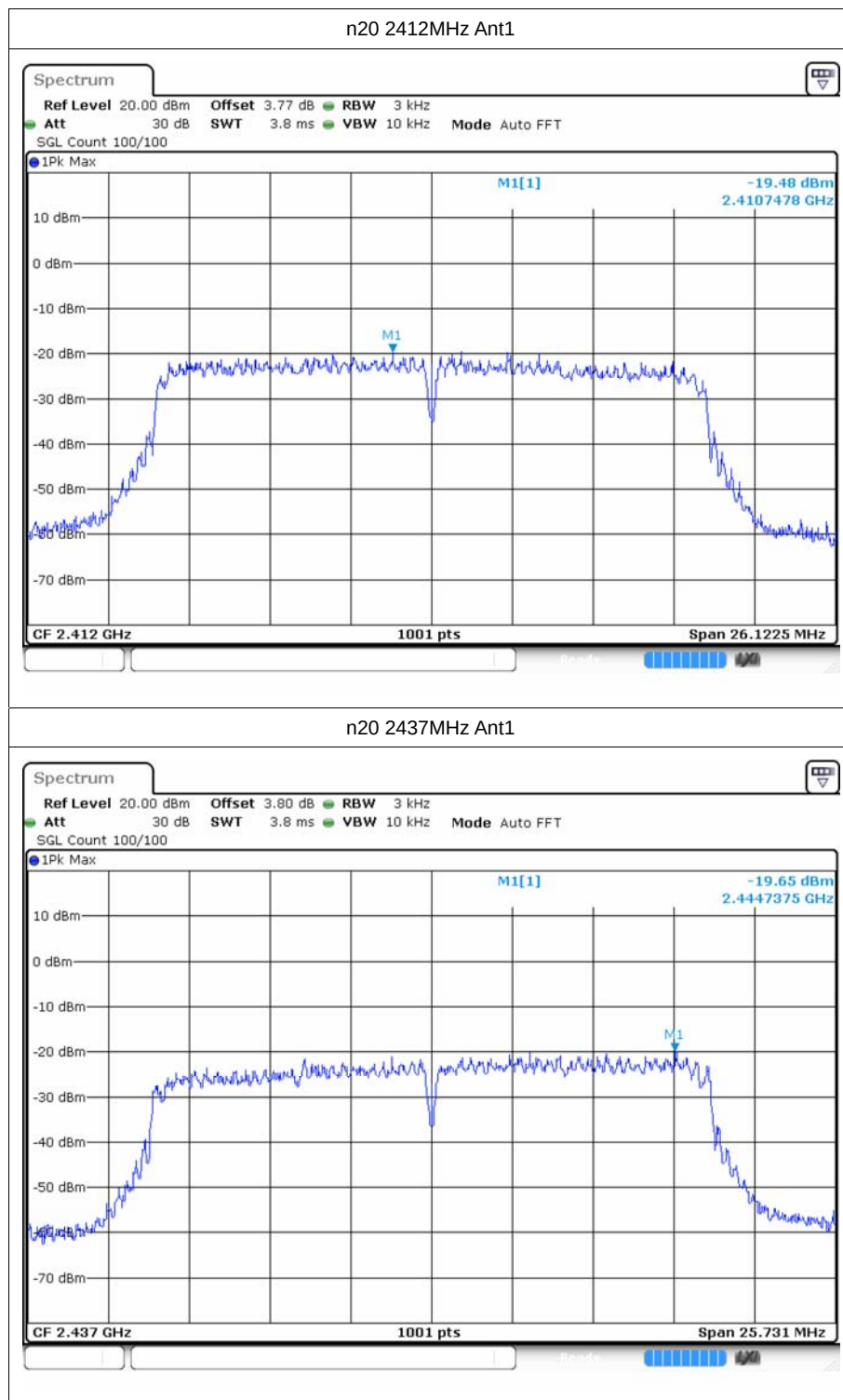
Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm)	Limit (dBm)	Verdict
b	2412	Ant1	-10.83	8	Pass
b	2437	Ant1	-11.1	8	Pass
b	2462	Ant1	-9.4	8	Pass
g	2412	Ant1	-20.27	8	Pass
g	2437	Ant1	-20.57	8	Pass
g	2462	Ant1	-17.87	8	Pass
n20	2412	Ant1	-19.48	8	Pass
n20	2437	Ant1	-19.65	8	Pass
n20	2462	Ant1	-16.69	8	Pass
n40	2422	Ant1	-22.83	8	Pass
n40	2437	Ant1	-22.51	8	Pass
n40	2452	Ant1	-20.52	8	Pass

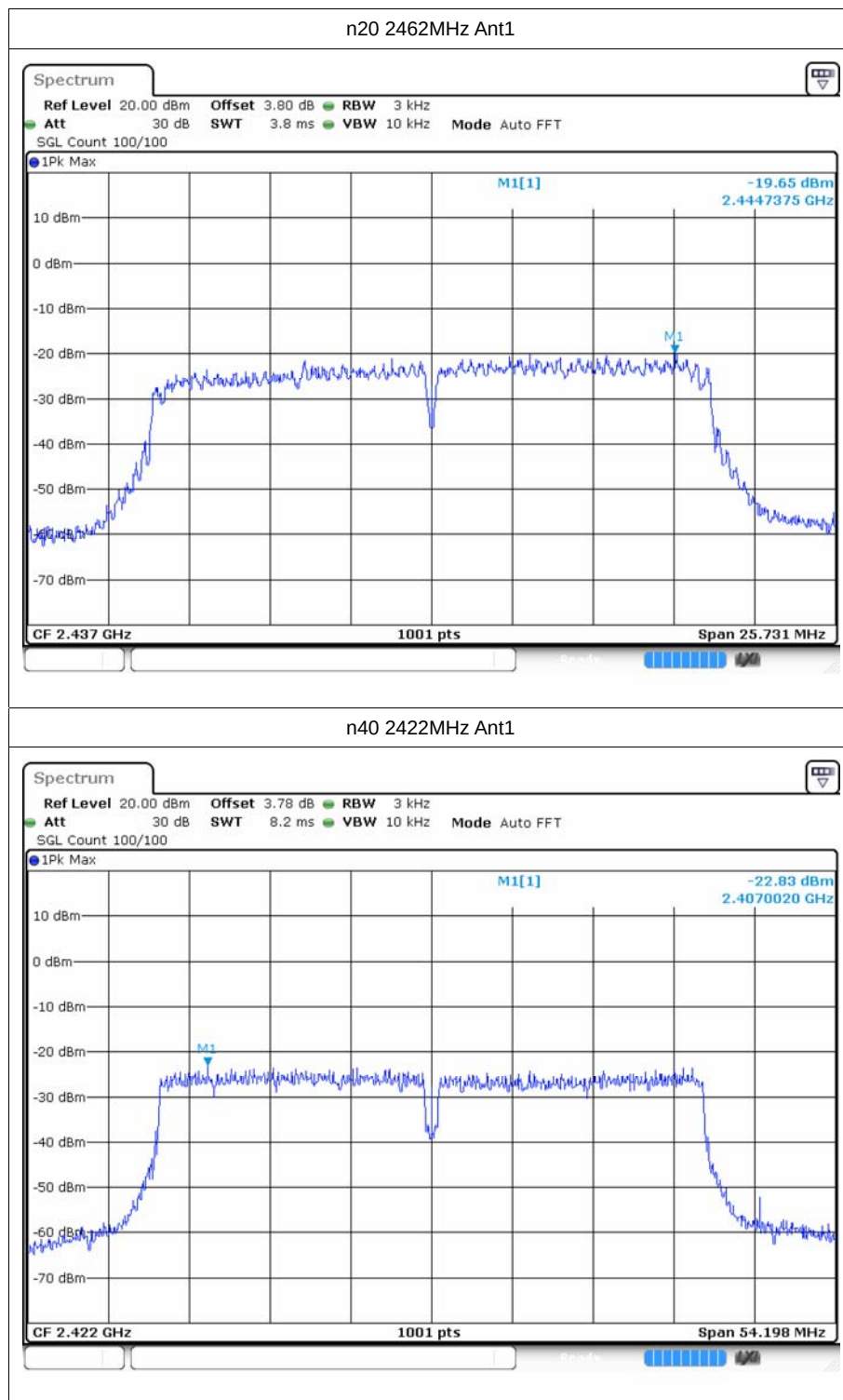
4.2 Test Graphs

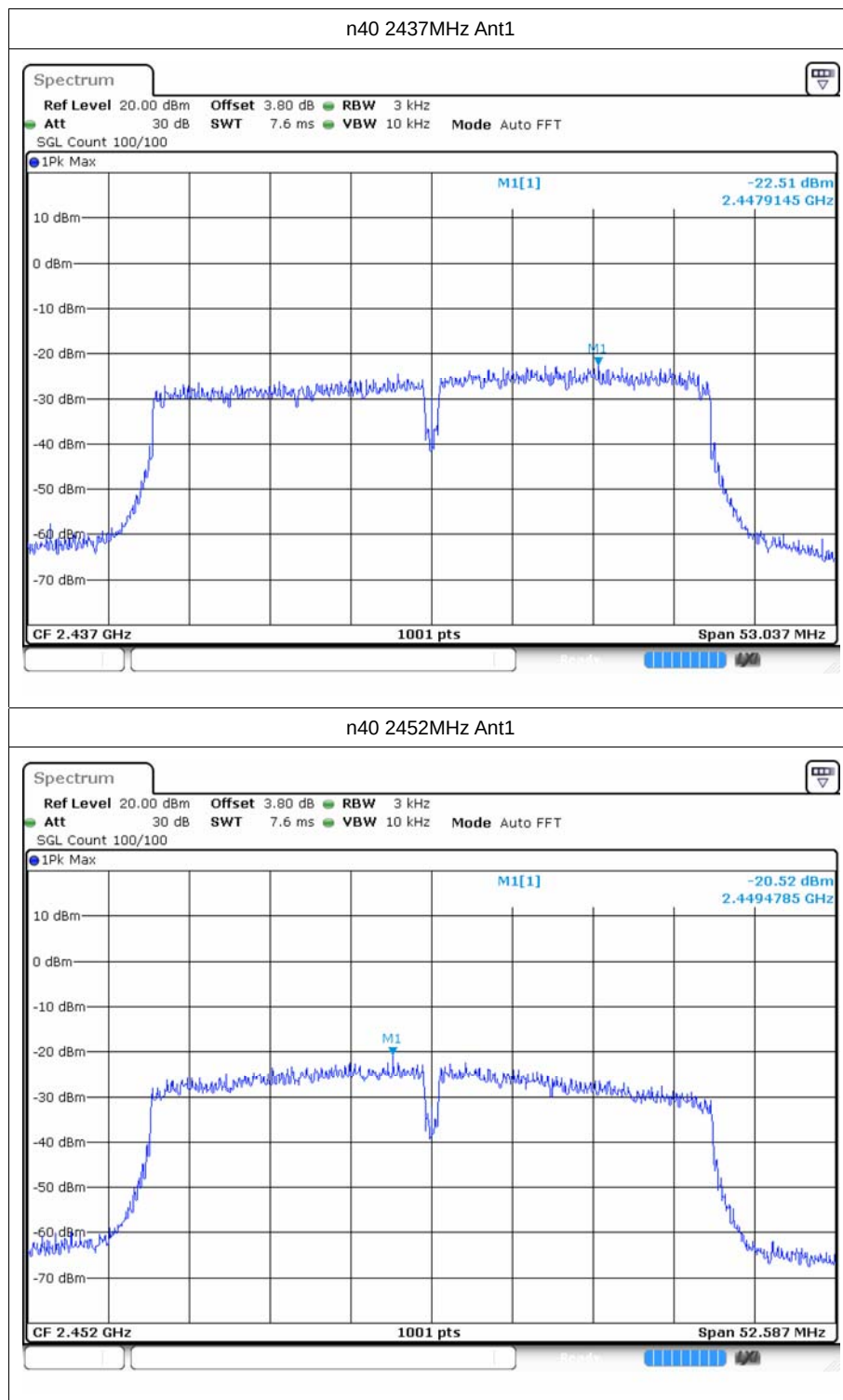












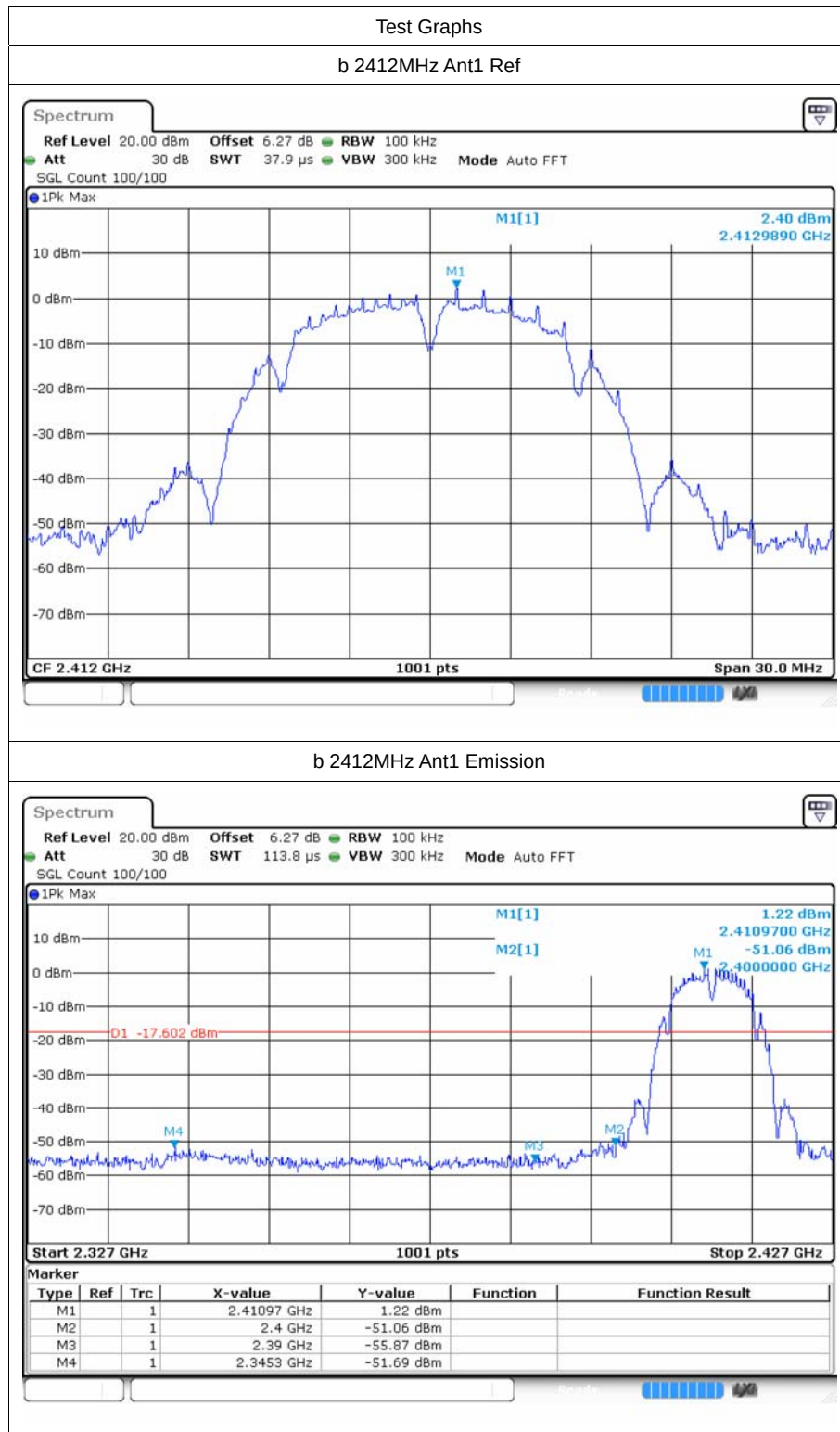


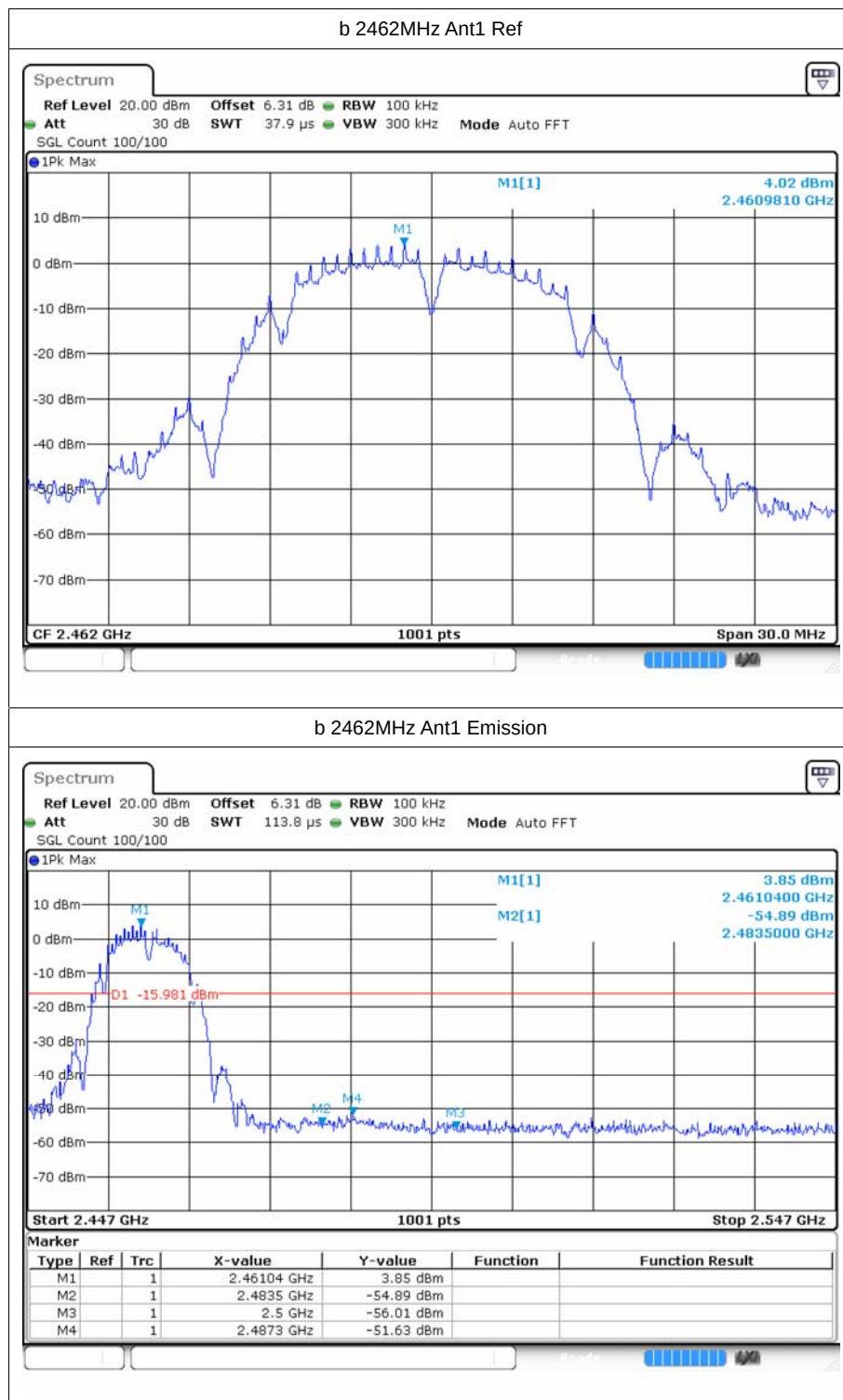
5 Band Edge

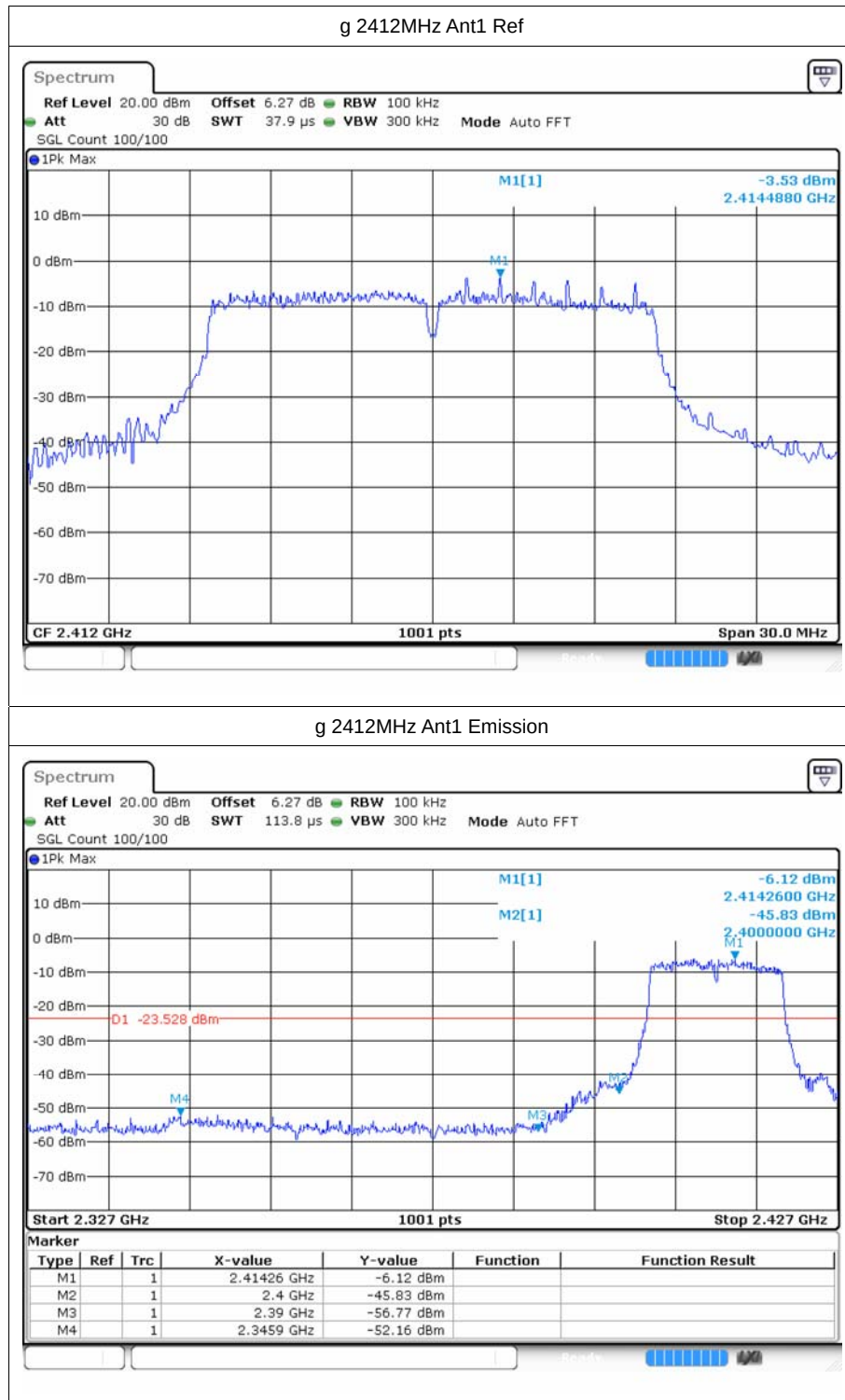
5.1 Test Result

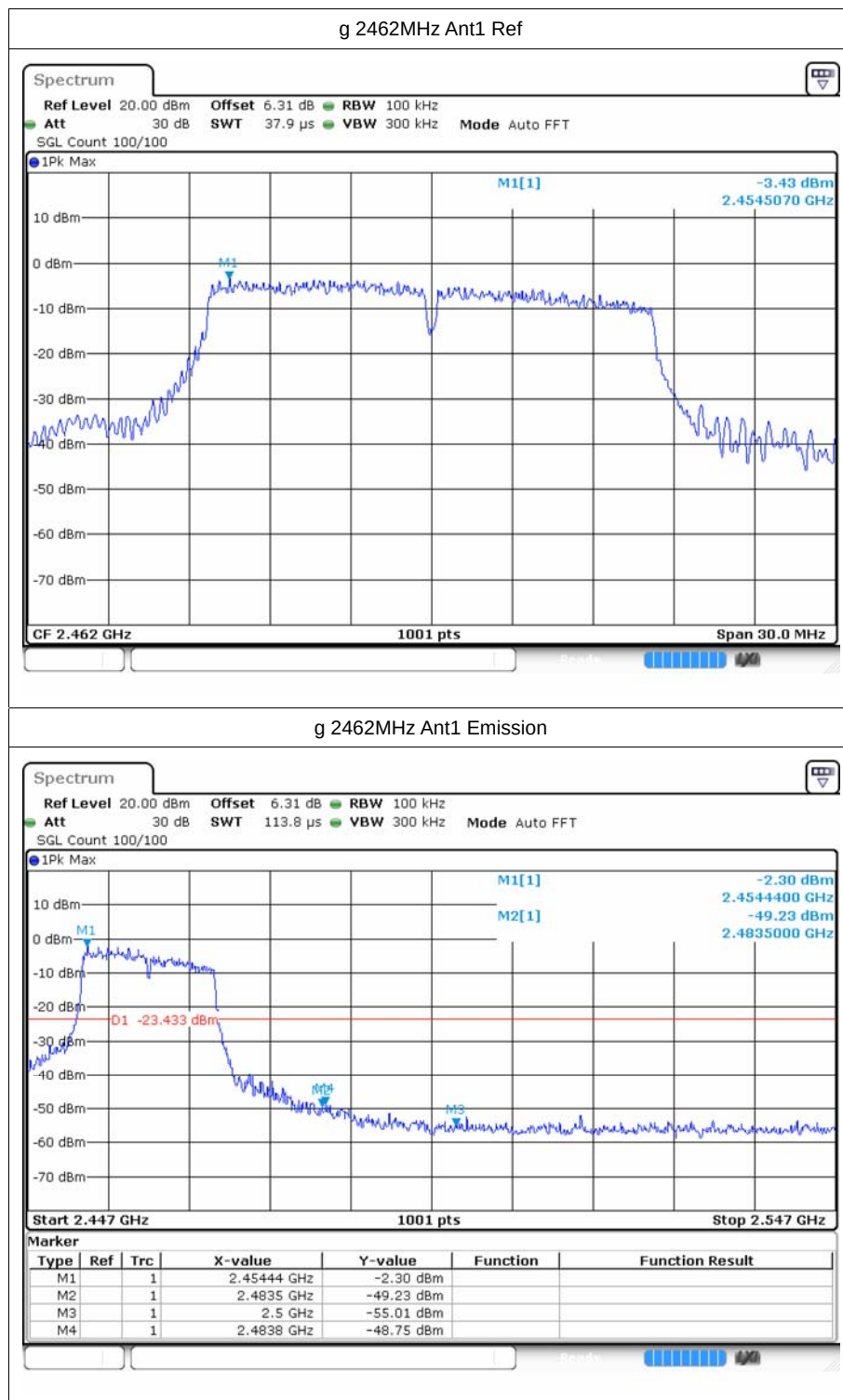
Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
b	2412	Ant1	-54.08	-20	-54.08
b	2462	Ant1	-55.65	-20	Pass
g	2412	Ant1	-48.63	-20	Pass
g	2462	Ant1	-45.31	-20	Pass
n20	2412	Ant1	-46.79	-20	Pass
n20	2462	Ant1	-44.58	-20	Pass
n40	2422	Ant1	-44.35	-20	Pass
n40	2452	Ant1	-40.09	-20	Pass

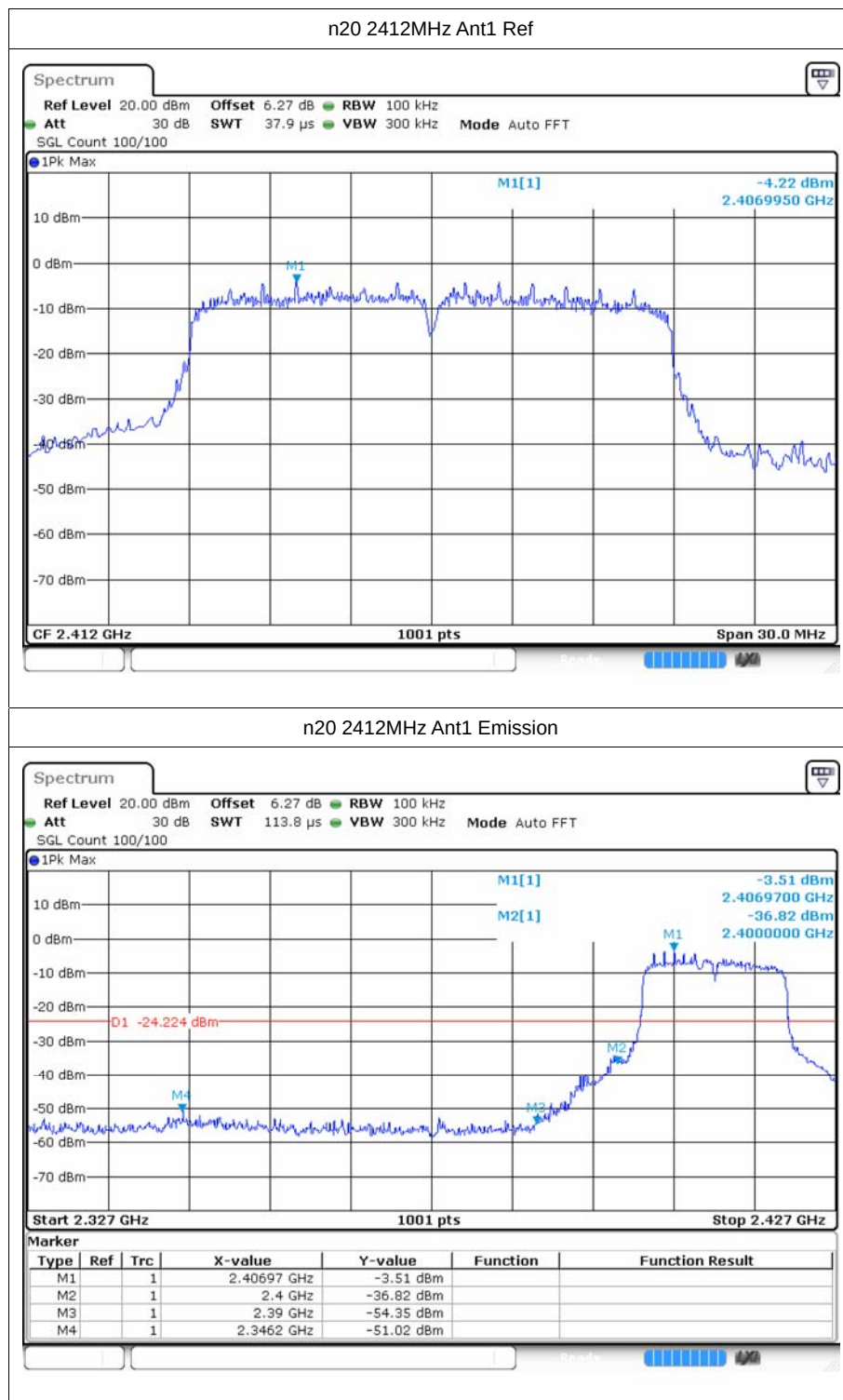
5.2 Test Graphs

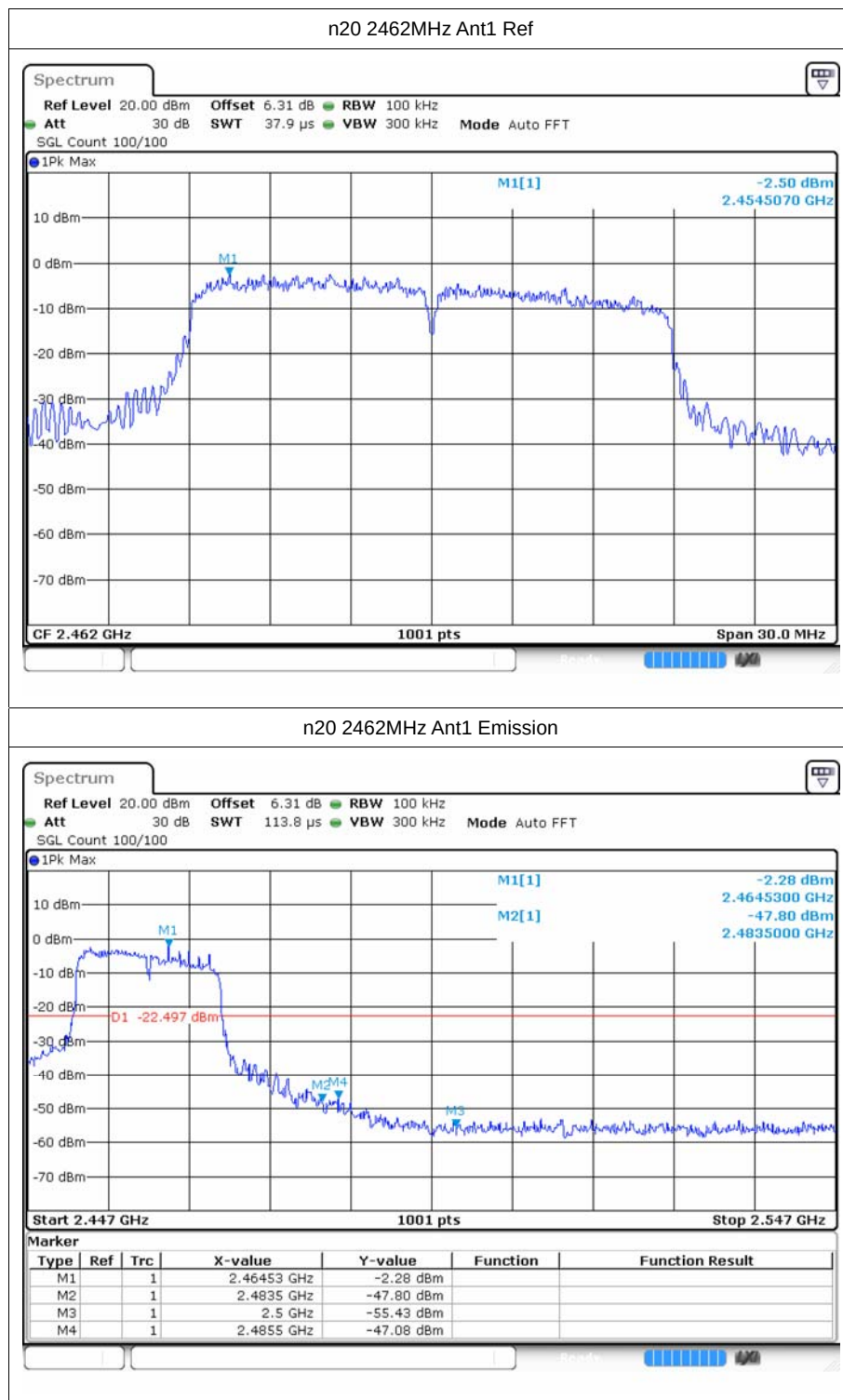


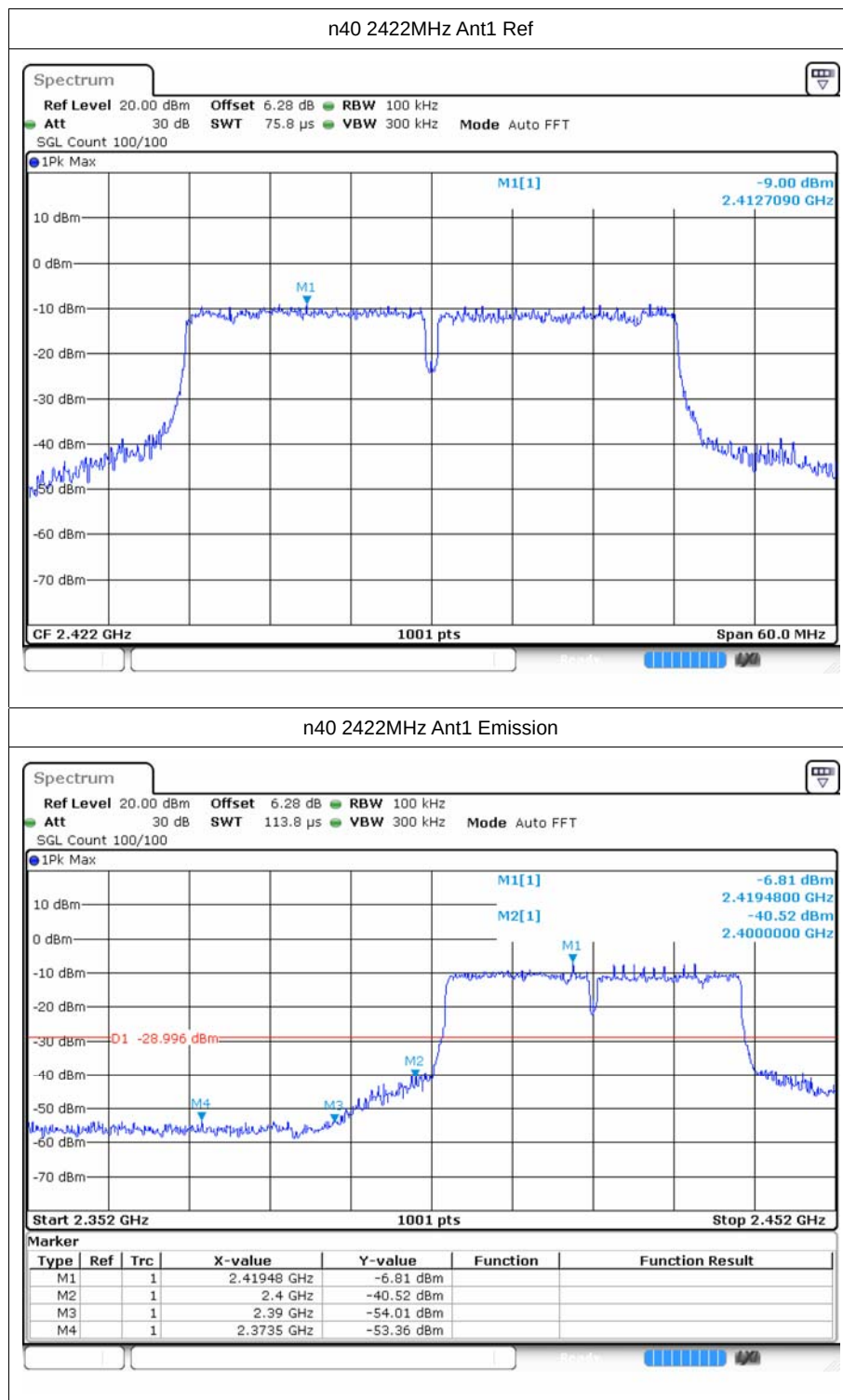


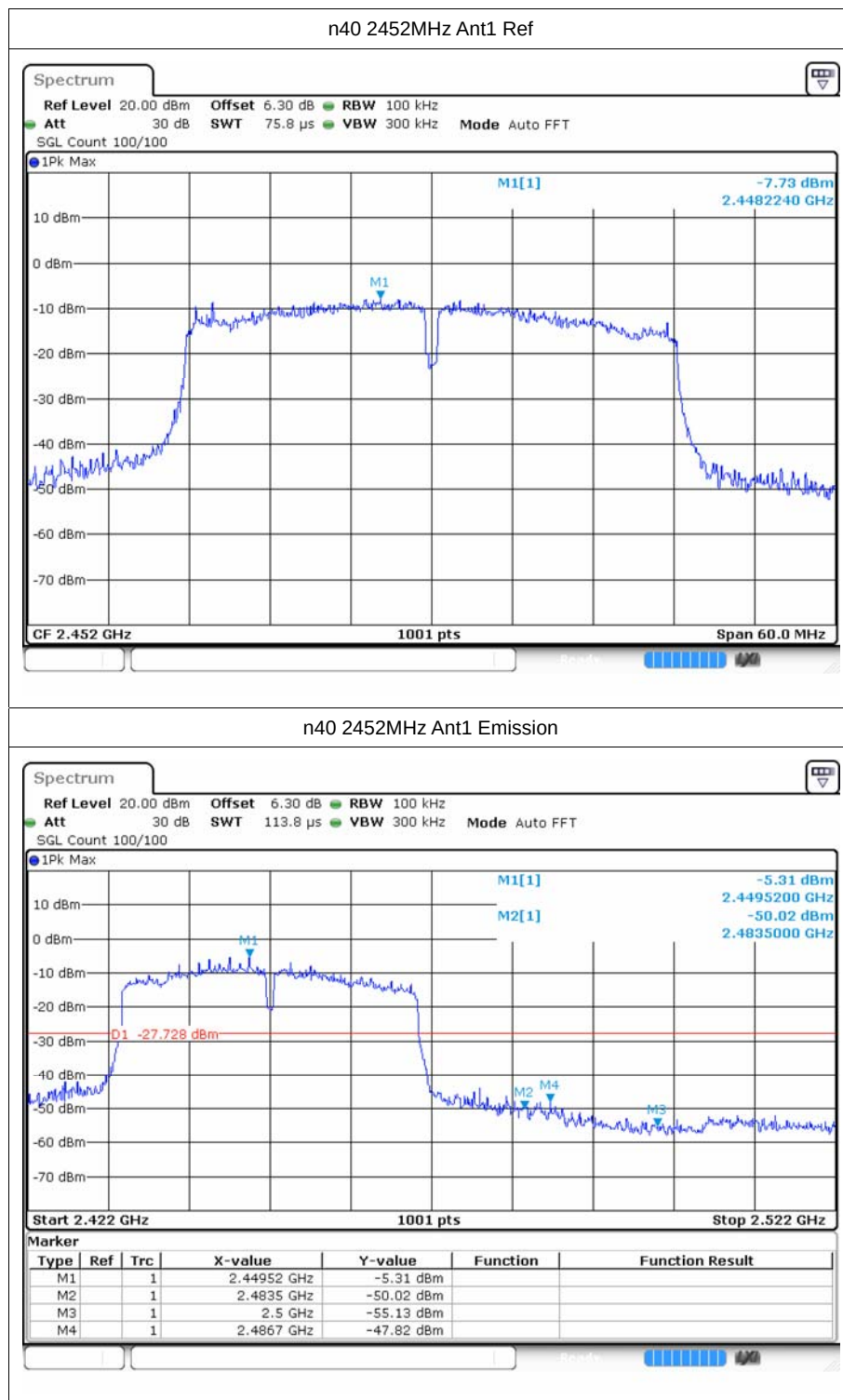












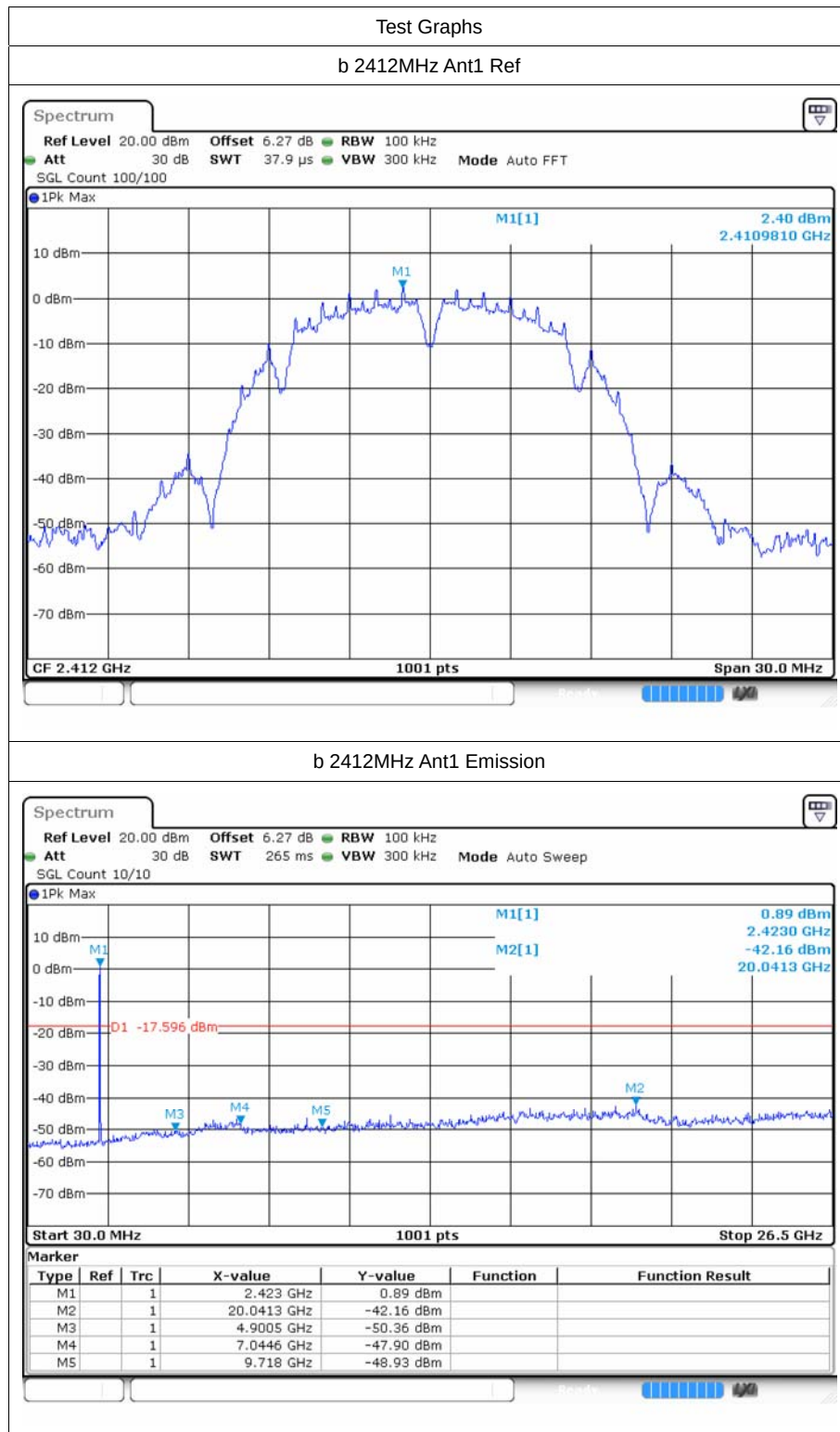


6 Conducted RF Spurious Emission

6.1 Test Result

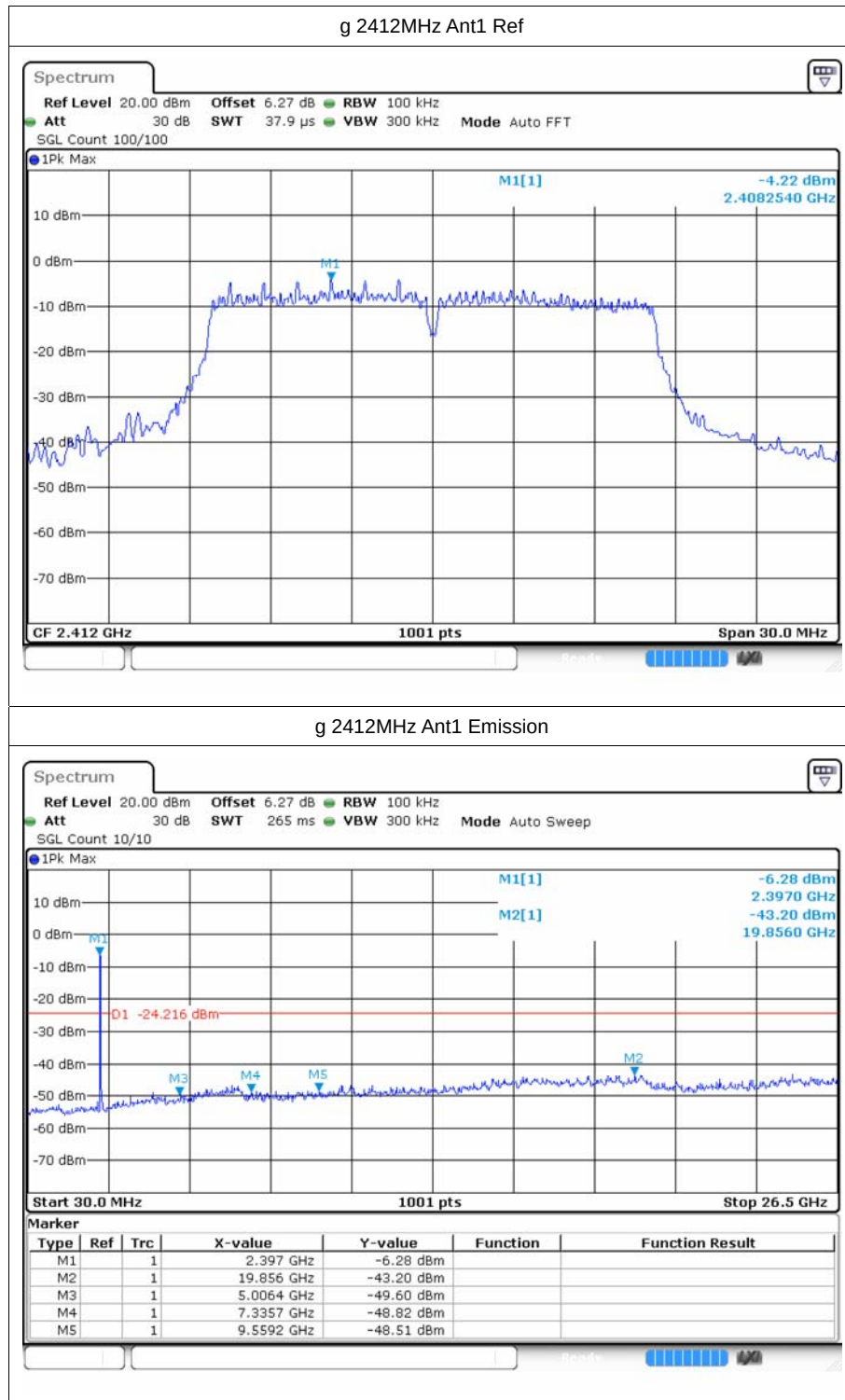
Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
b	2412	Ant1	-44.56	-20	Pass
b	2437	Ant1	-45.06	-20	Pass
b	2462	Ant1	-45.78	-20	Pass
g	2412	Ant1	-38.98	-20	Pass
g	2437	Ant1	-37.75	-20	Pass
g	2462	Ant1	-42.95	-20	Pass
n20	2412	Ant1	-37.19	-20	Pass
n20	2437	Ant1	-37.85	-20	Pass
n20	2462	Ant1	-40.17	-20	Pass
n40	2422	Ant1	-36.03	-20	Pass
n40	2437	Ant1	-34.08	-20	Pass
n40	2452	Ant1	-37.04	-20	Pass

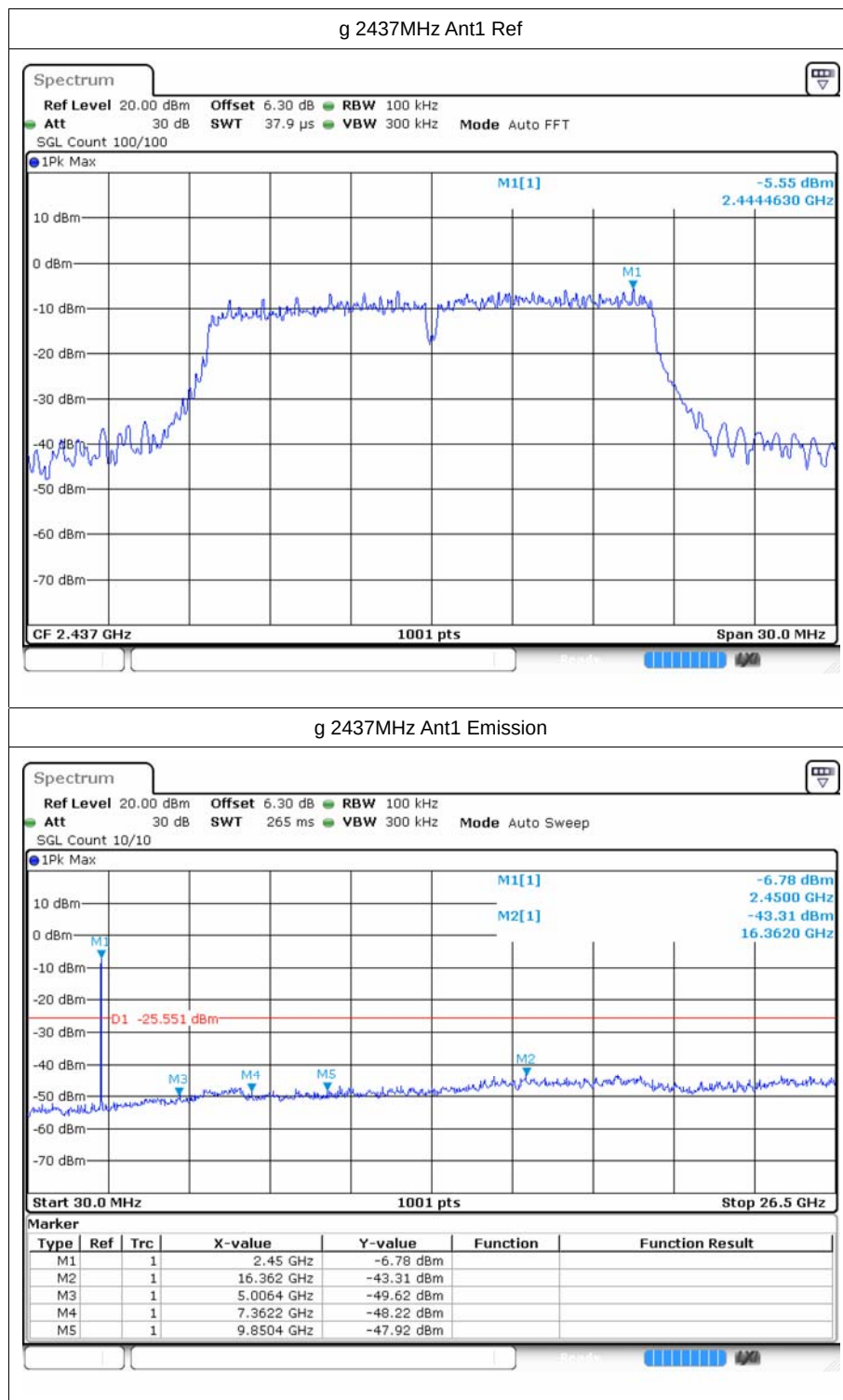
6.2 Test Graphs

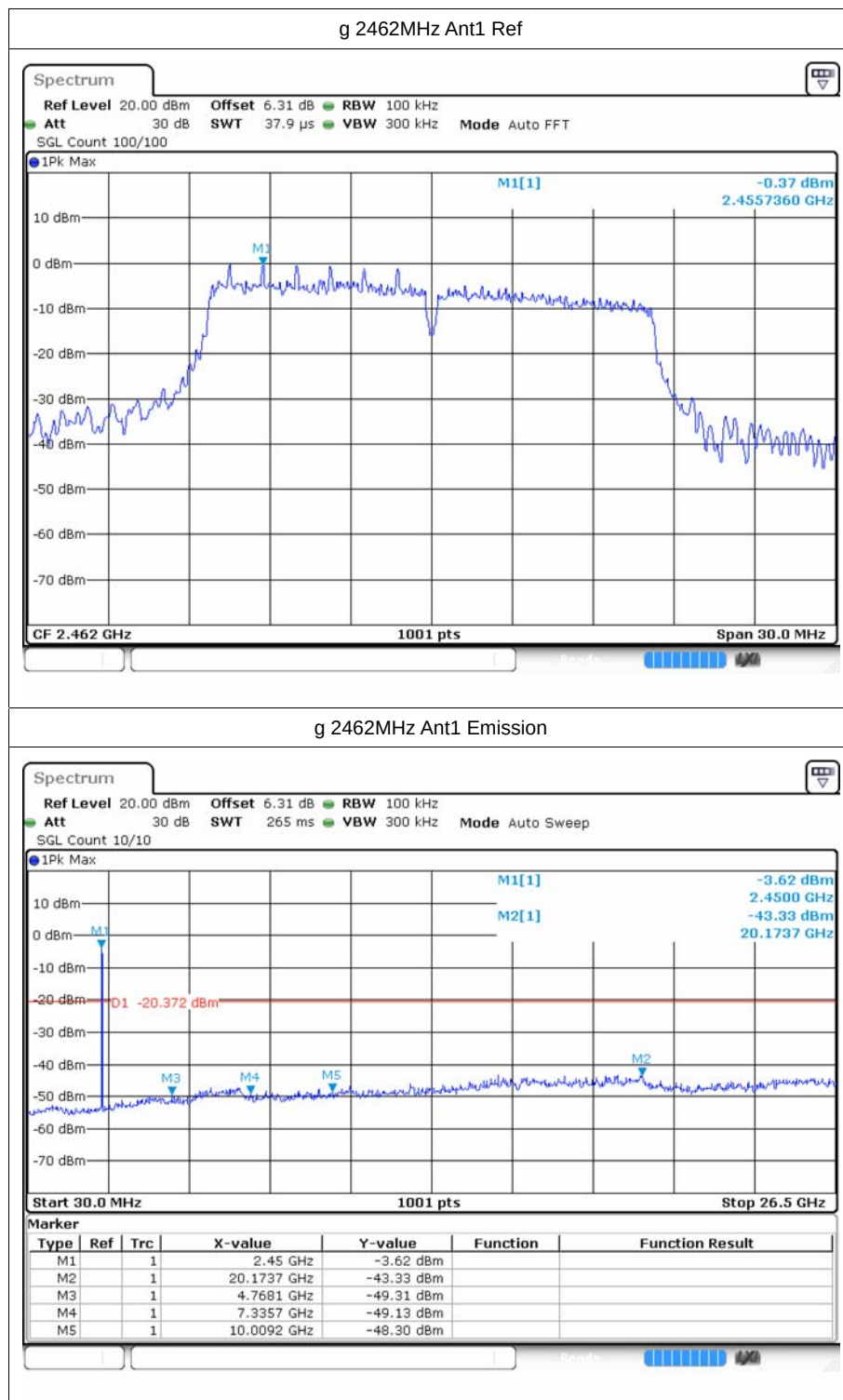


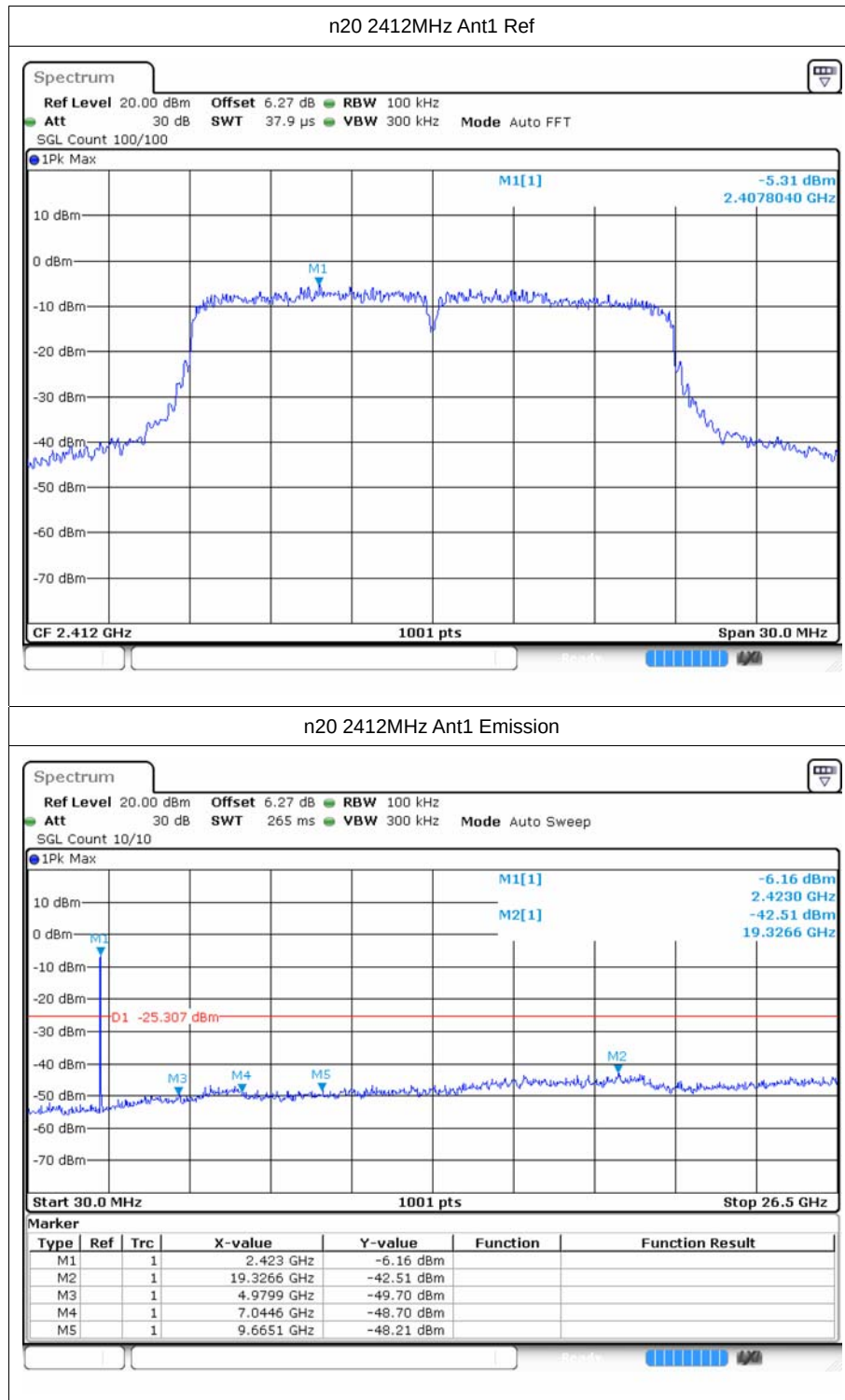


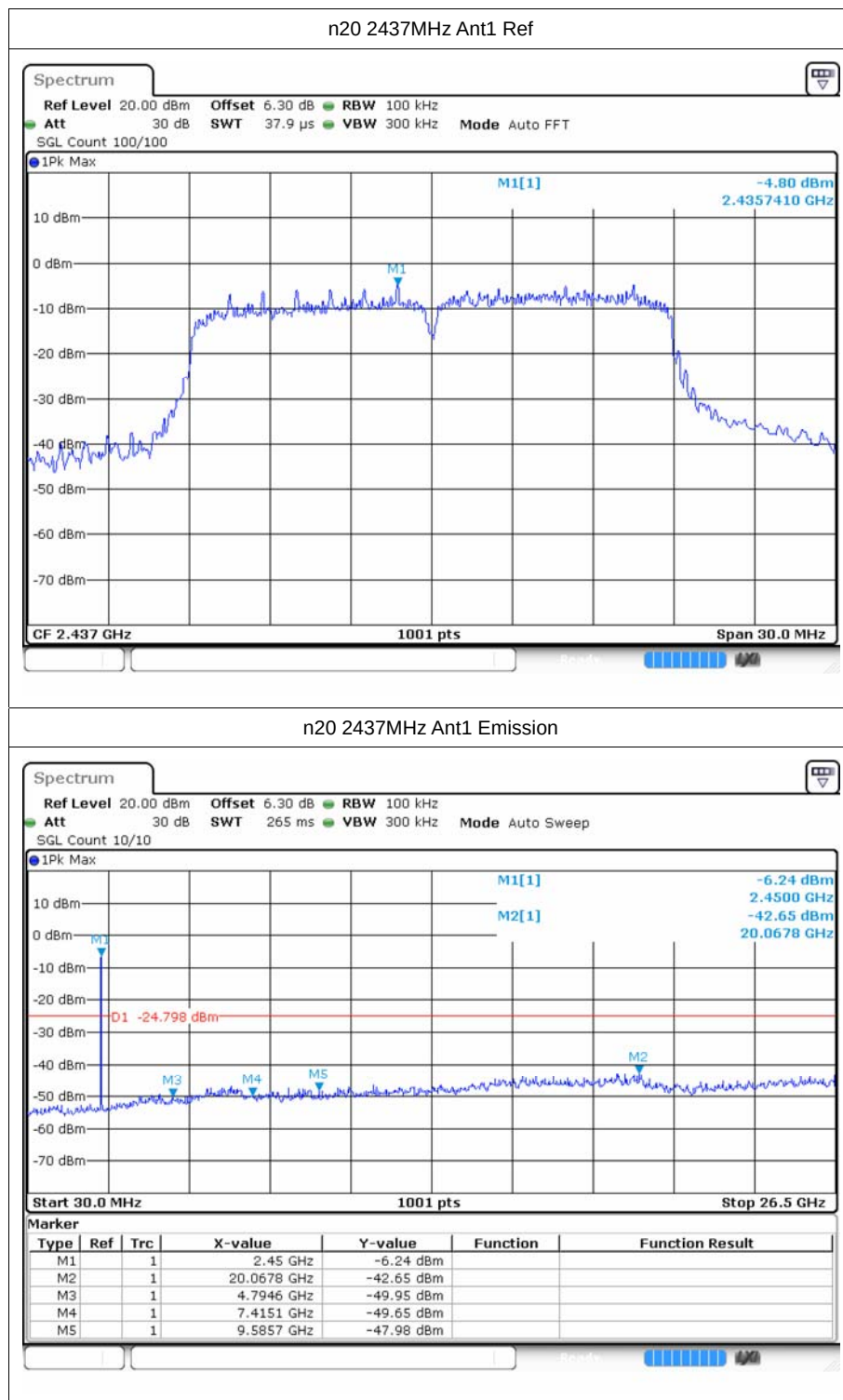


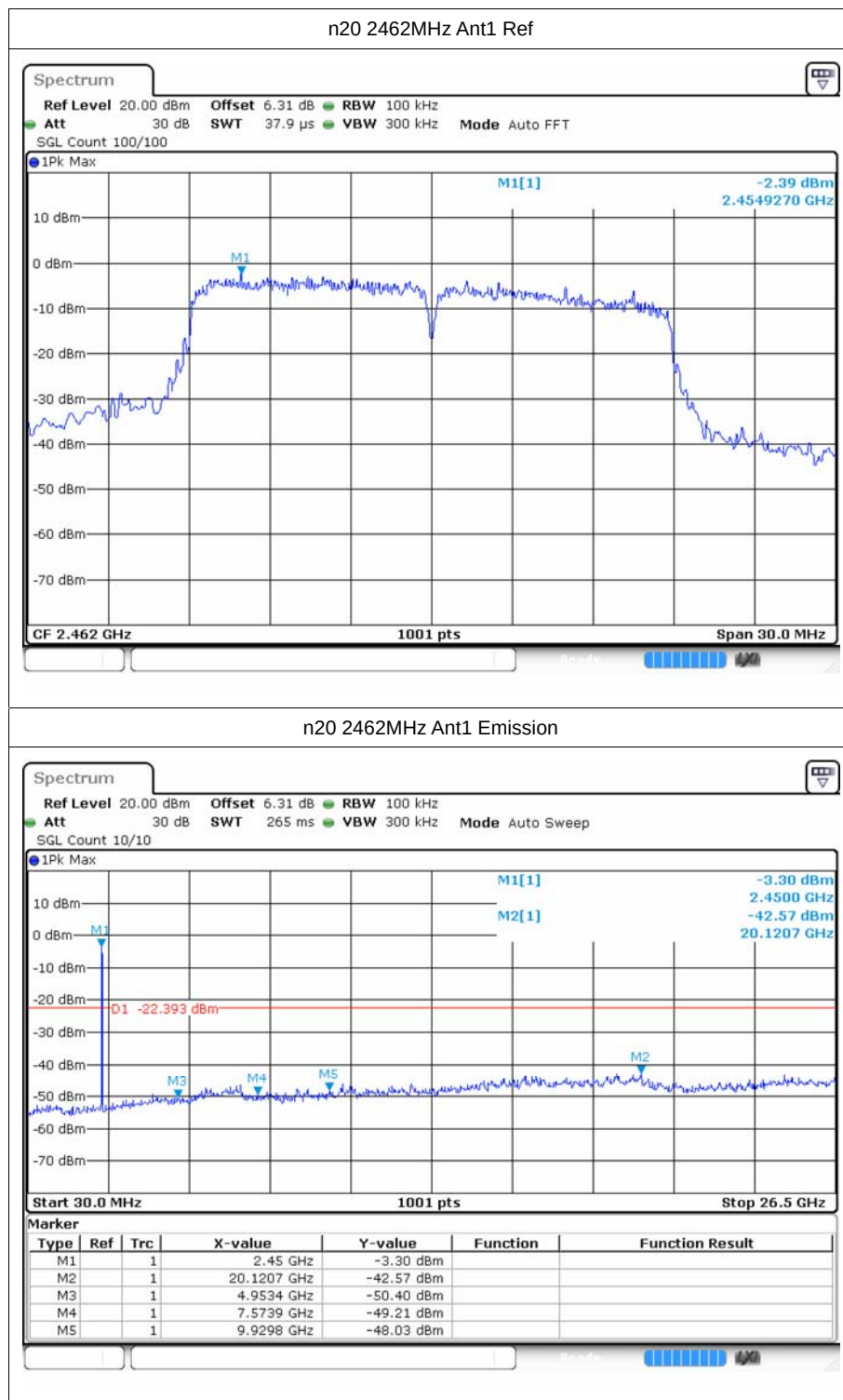


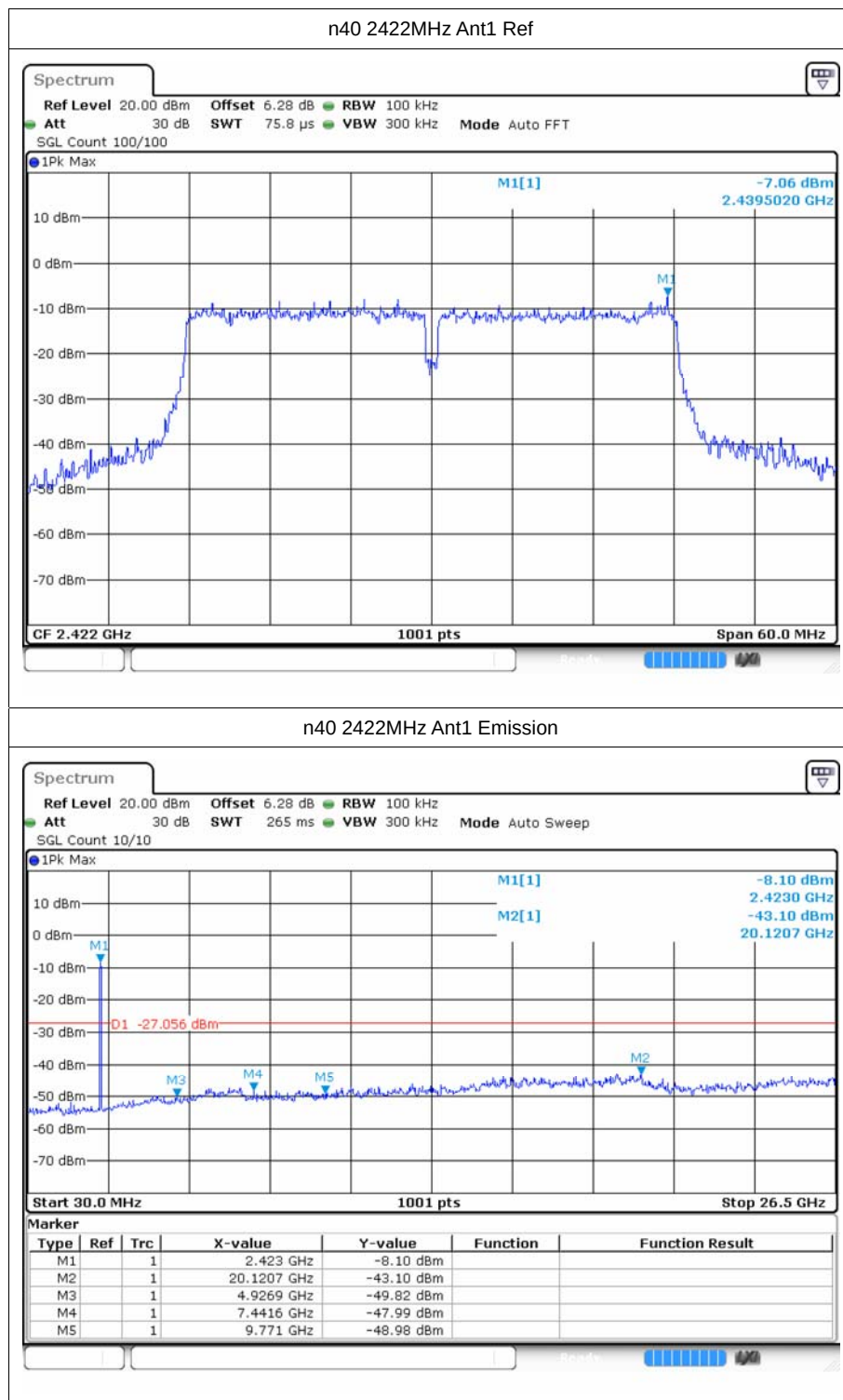


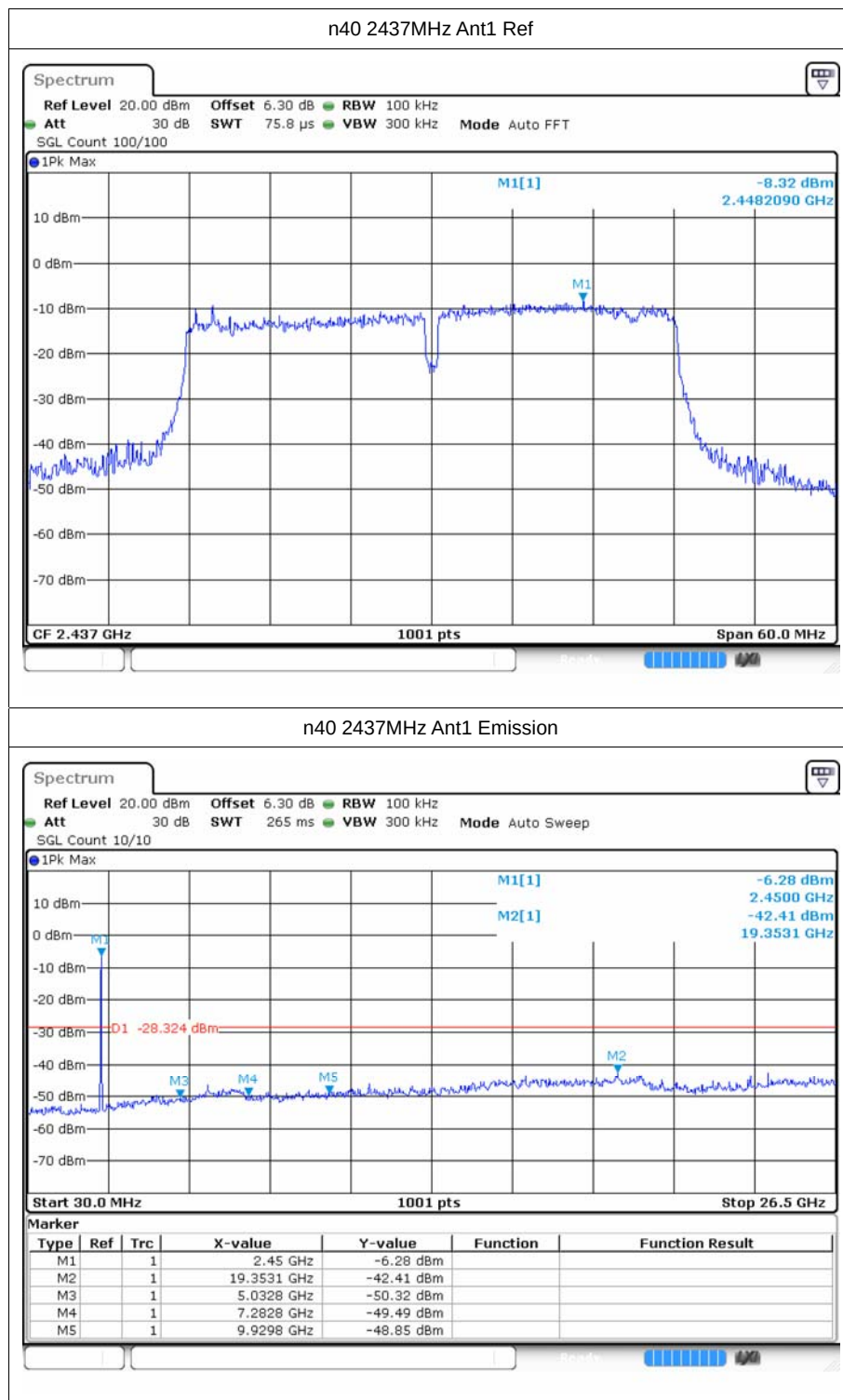


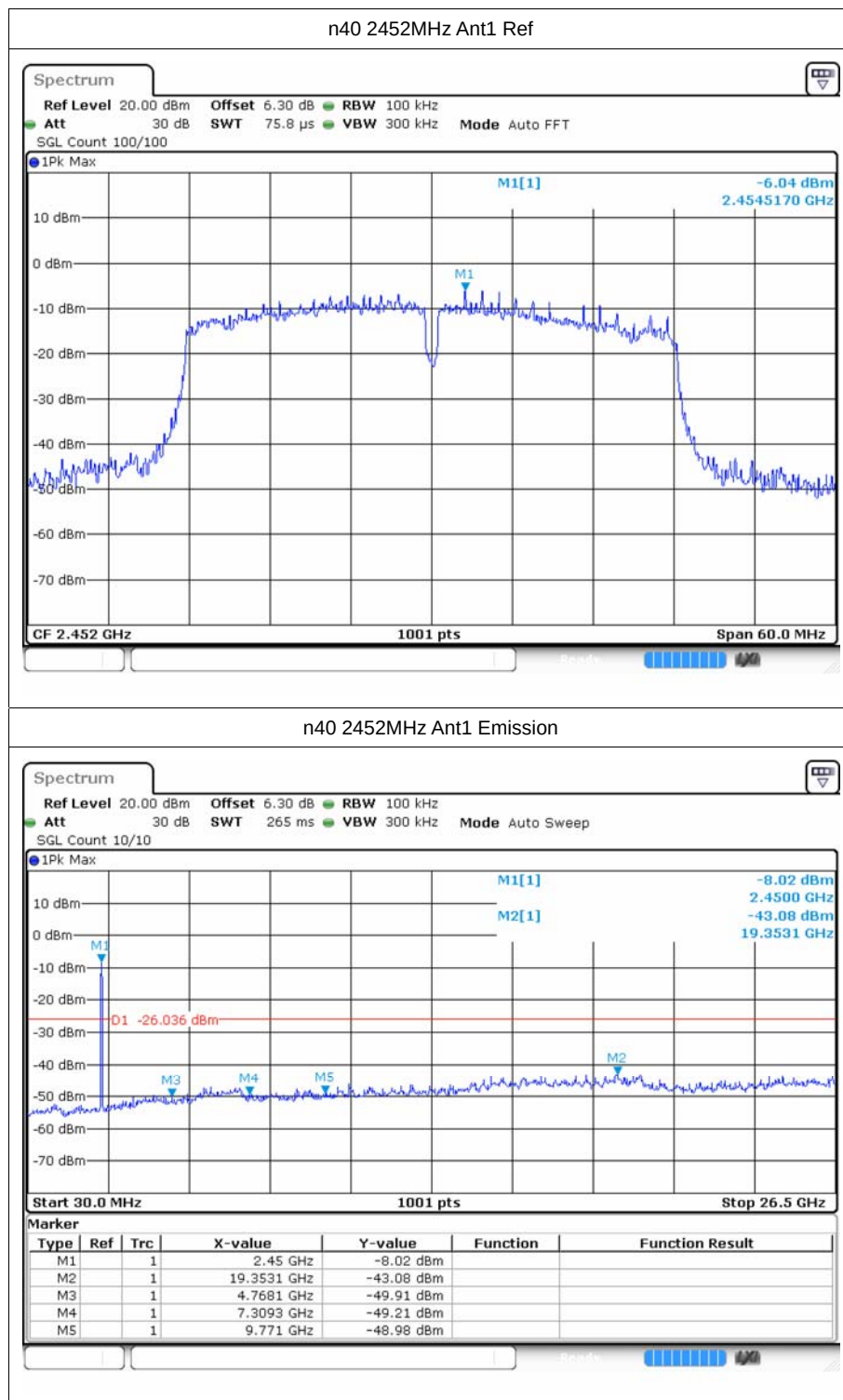














7 Restrict Band

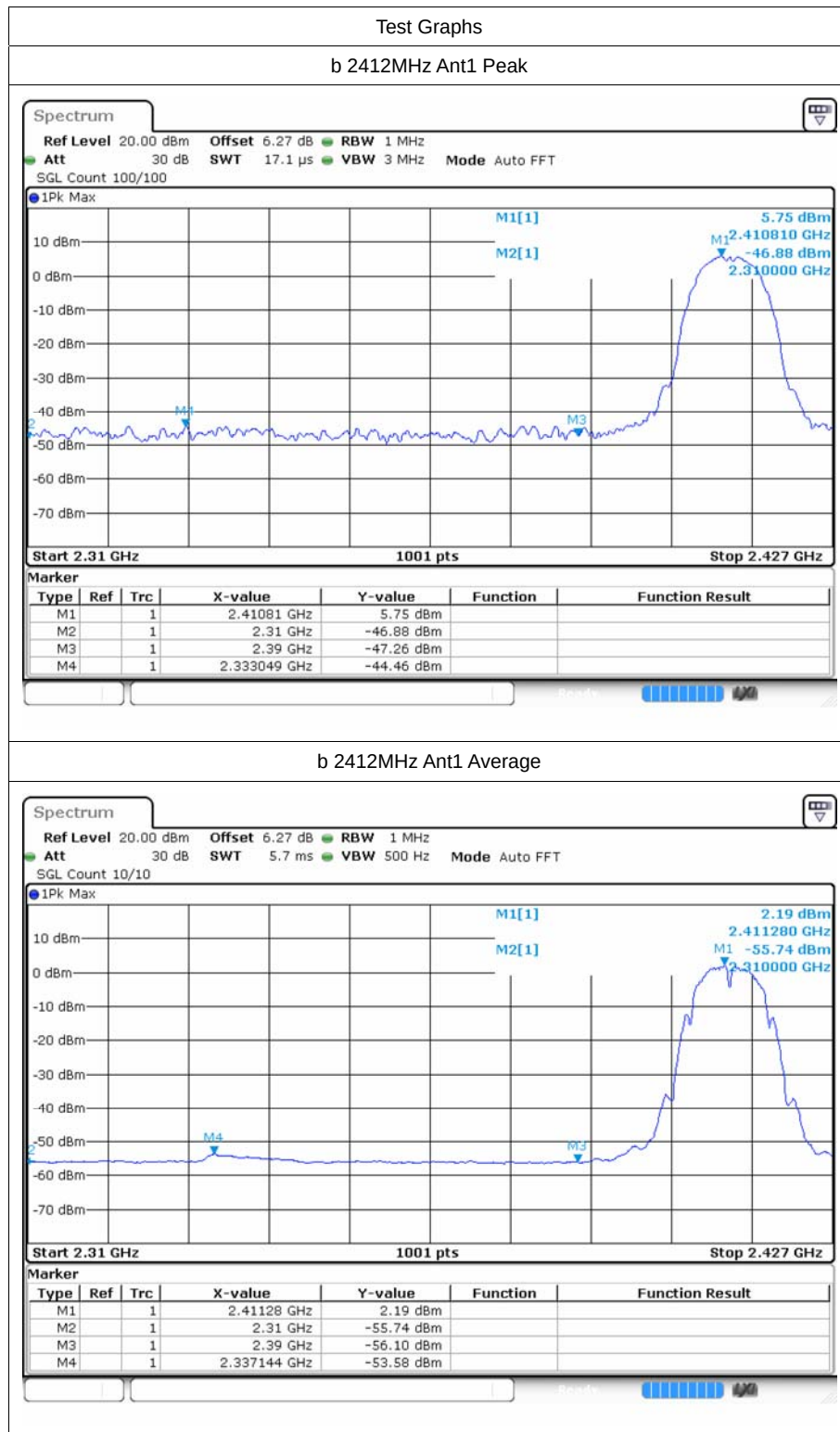
7.1 Test Result

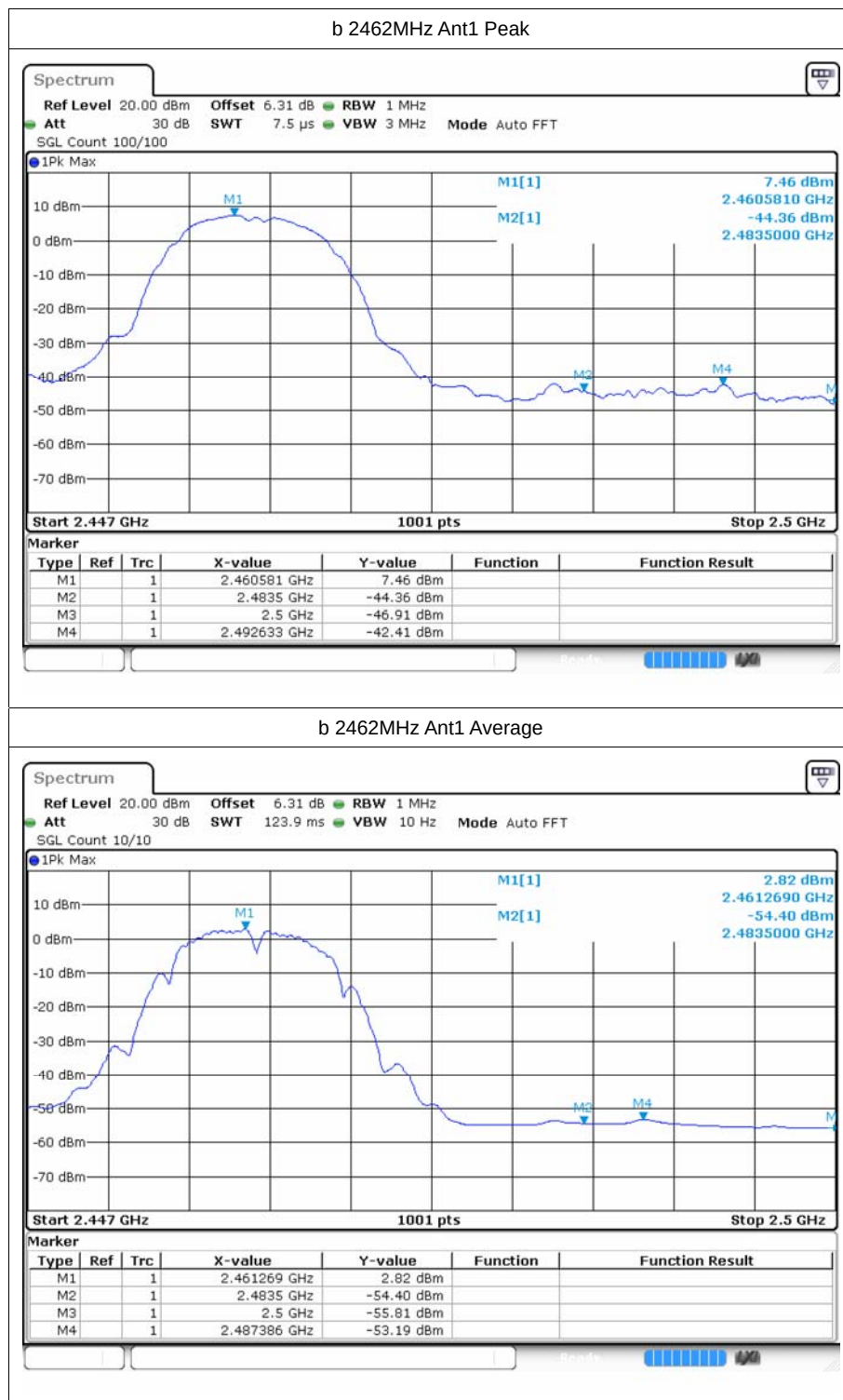
Mod e	Frequency (MHz)	Antenn a	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detecto r	Limit (dBuV/m)	Verdic t
b	2412	Ant1	2310	-46.87	2.5	50.89	Peak	74	Pass
b	2412	Ant1	2310	-55.74	2.5	42.02	Average	54	Pass
b	2412	Ant1	2333.049	-44.46	2.5	53.3	Peak	74	Pass
b	2412	Ant1	2337.144	-53.58	2.5	44.18	Average	54	Pass
b	2412	Ant1	2390	-47.26	2.5	50.5	Peak	74	Pass
b	2412	Ant1	2390	-56.09	2.5	41.67	Average	54	Pass
b	2462	Ant1	2483.5	-44.36	2.5	53.4	Peak	74	53.4
b	2462	Ant1	2483.5	-54.4	2.5	43.36	Average	54	Pass
b	2462	Ant1	2492.633	-42.4	2.5	55.36	Peak	74	Pass
b	2462	Ant1	2487.386	-53.19	2.5	44.57	Average	54	Pass
b	2462	Ant1	2500	-46.91	2.5	50.85	Peak	74	Pass
b	2462	Ant1	2500	-55.81	2.5	41.95	Average	54	Pass
g	2412	Ant1	2310	-44.57	2.5	53.19	Peak	74	Pass
g	2412	Ant1	2310	-55.56	2.5	42.2	Average	54	Pass
g	2412	Ant1	2342.76	-43.39	2.5	54.37	Peak	74	Pass
g	2412	Ant1	2337.144	-53.41	2.5	44.35	Average	54	Pass
g	2412	Ant1	2390	-43.25	2.5	50.5	Peak	74	Pass
g	2412	Ant1	2390	-55.1	2.5	42.66	Average	54	Pass
g	2462	Ant1	2483.5	-37.32	2.5	60.44	Peak	74	Pass
g	2462	Ant1	2483.5	-52.74	2.5	45.02	Average	54	Pass
g	2462	Ant1	2492.633	-37.32	2.5	60.44	Peak	74	Pass
g	2462	Ant1	2484.365	-52.64	2.5	45.12	Average	54	Pass
g	2462	Ant1	2500	-45.65	2.5	50.85	Peak	74	Pass
g	2462	Ant1	2500	-55.03	2.5	42.73	Average	54	Pass
n20	2412	Ant1	2310	-46.24	2.5	51.52	Peak	74	Pass
n20	2412	Ant1	2310	-55.56	2.5	42.2	Average	54	Pass
n20	2412	Ant1	2320.413	-42.79	2.5	54.97	Peak	74	Pass
n20	2412	Ant1	2338.197	-53.31	2.5	44.45	Average	54	Pass
n20	2412	Ant1	2390	-46.15	2.5	51.61	Peak	74	Pass
n20	2412	Ant1	2390	-54.93	2.5	42.83	Average	54	Pass
n20	2462	Ant1	2483.5	-35.98	2.5	61.78	Peak	74	Pass
n20	2462	Ant1	2483.5	-51.94	2.5	45.82	Average	54	Pass
n20	2462	Ant1	2484.577	-33.74	2.5	64.02	Peak	74	Pass
n20	2462	Ant1	2483.941	-51.62	2.5	46.14	Average	54	Pass

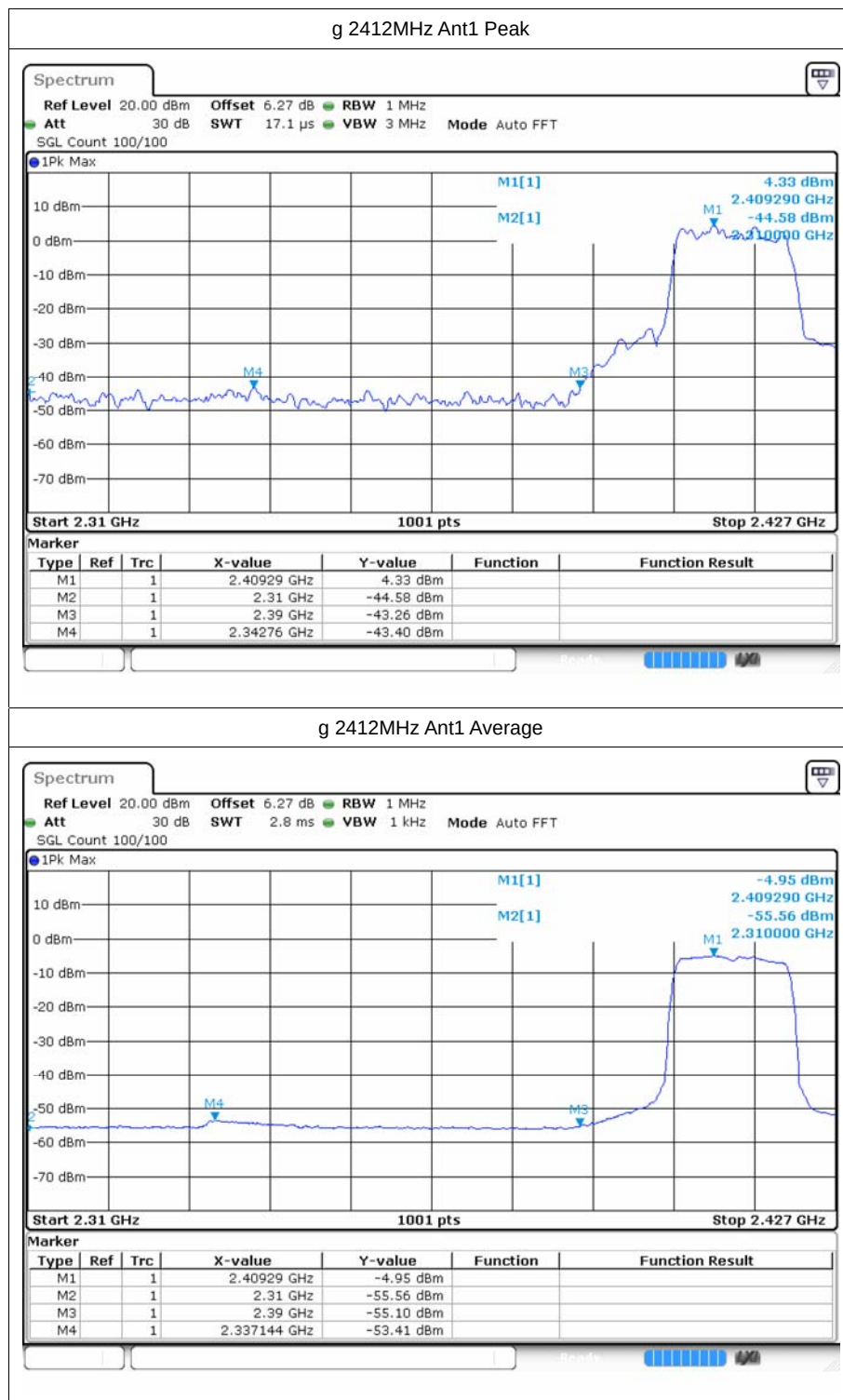


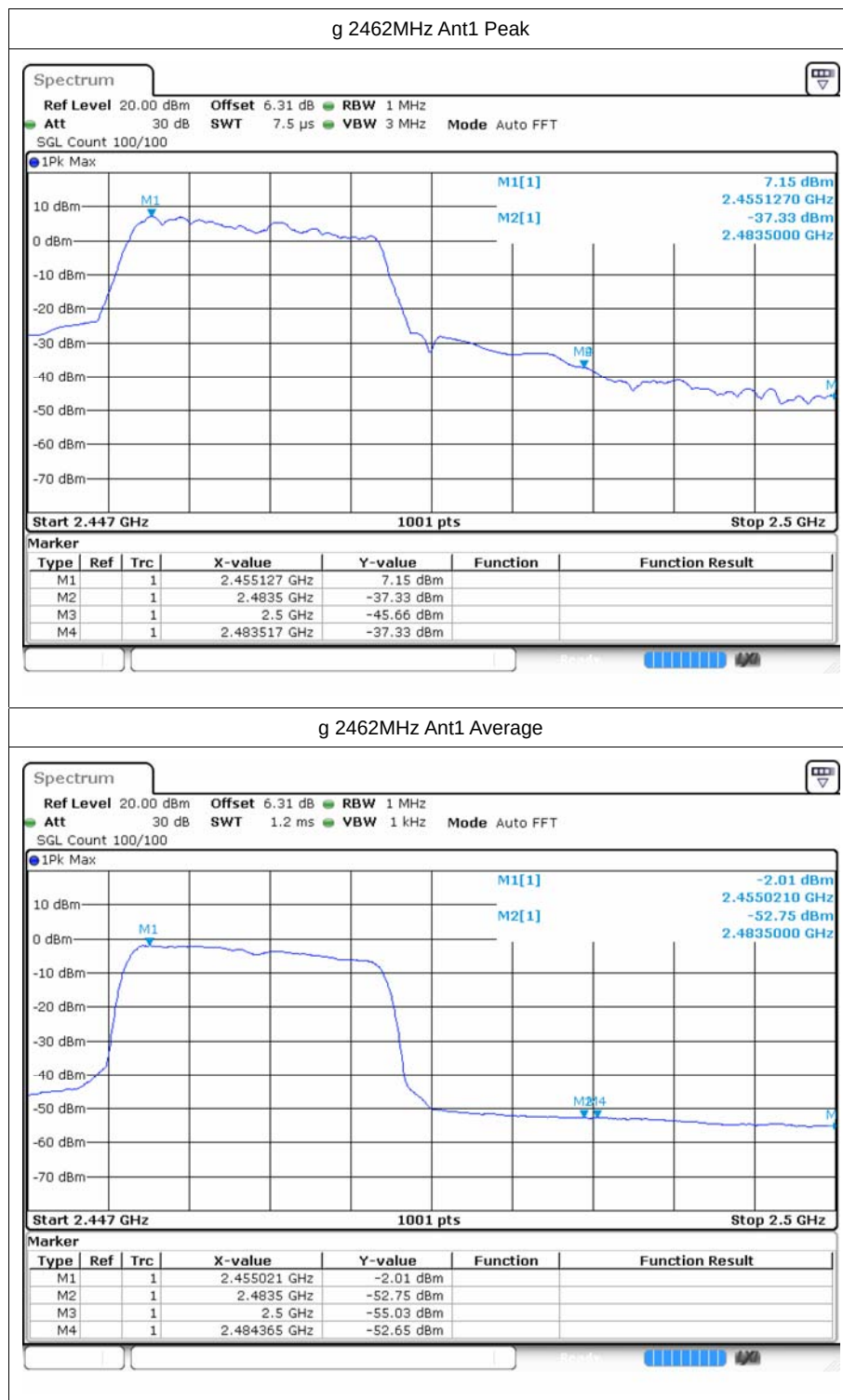
n20	2462	Ant1	2500	-46.53	2.5	51.23	Peak	74	Pass
n20	2462	Ant1	2500	-55.12	2.5	42.64	Average	54	Pass
n40	2422	Ant1	2310	-45.02	2.5	52.74	Peak	74	Pass
n40	2422	Ant1	2310	-54.91	2.5	42.85	Average	54	Pass
n40	2422	Ant1	2360.694	-43.57	2.5	54.19	Peak	74	Pass
n40	2422	Ant1	2340.388	-52.71	2.5	45.05	Average	54	Pass
n40	2422	Ant1	2390	-45.76	2.5	52	Peak	74	Pass
n40	2422	Ant1	2390	-53.49	2.5	44.27	Average	54	Pass
n40	2452	Ant1	2483.5	-37.3	2.5	60.46	Peak	74	Pass
n40	2452	Ant1	2483.5	-51.78	2.5	45.98	Average	54	Pass
n40	2452	Ant1	2487.832	-35.43	2.5	62.33	Peak	74	Pass
n40	2452	Ant1	2485.804	-51.04	2.5	46.72	Average	54	Pass
n40	2452	Ant1	2500	-45.96	2.5	51.8	Peak	74	Pass
n40	2452	Ant1	2500	-55.01	2.5	42.75	Average	54	Pass

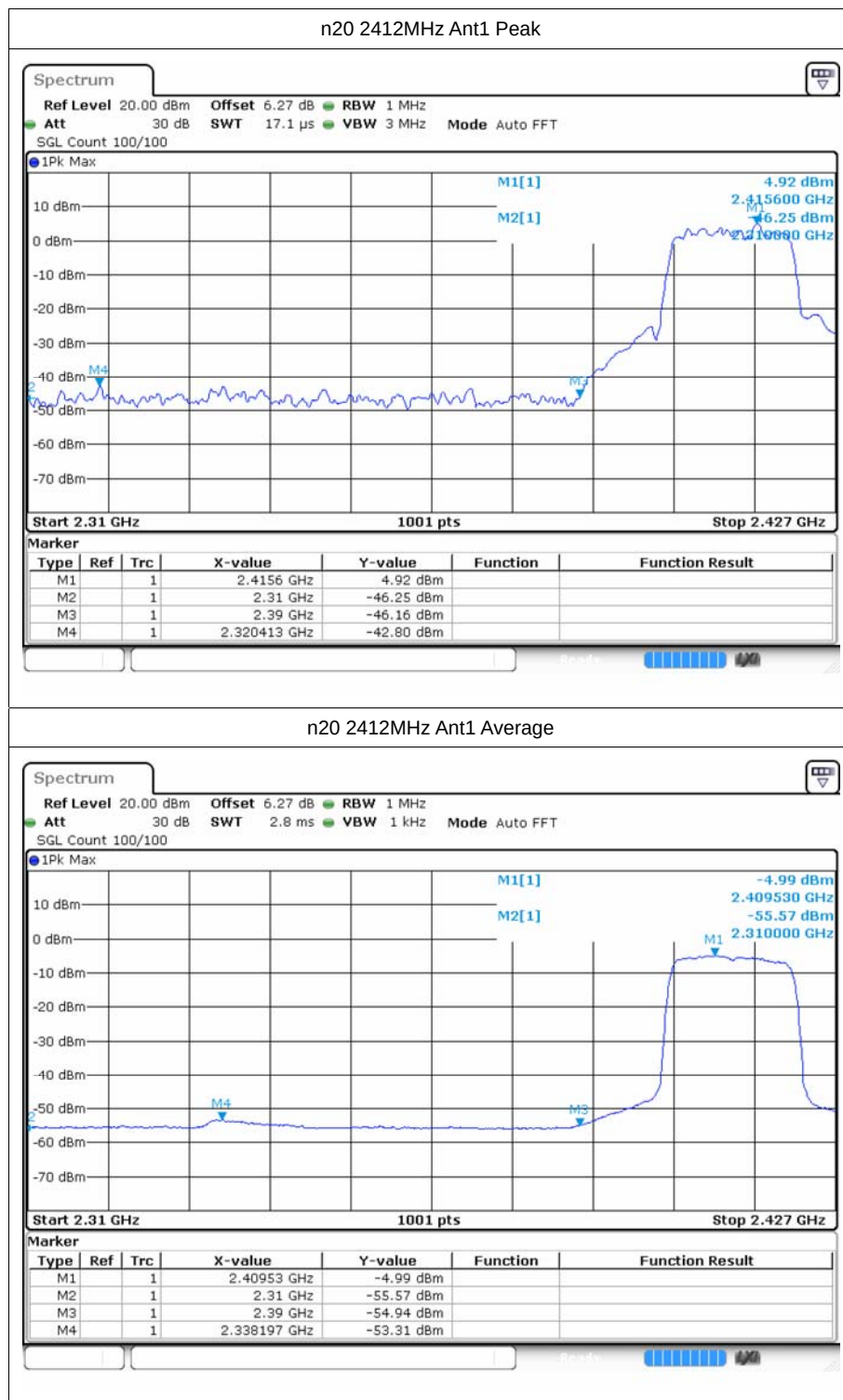
7.2 Test Graphs





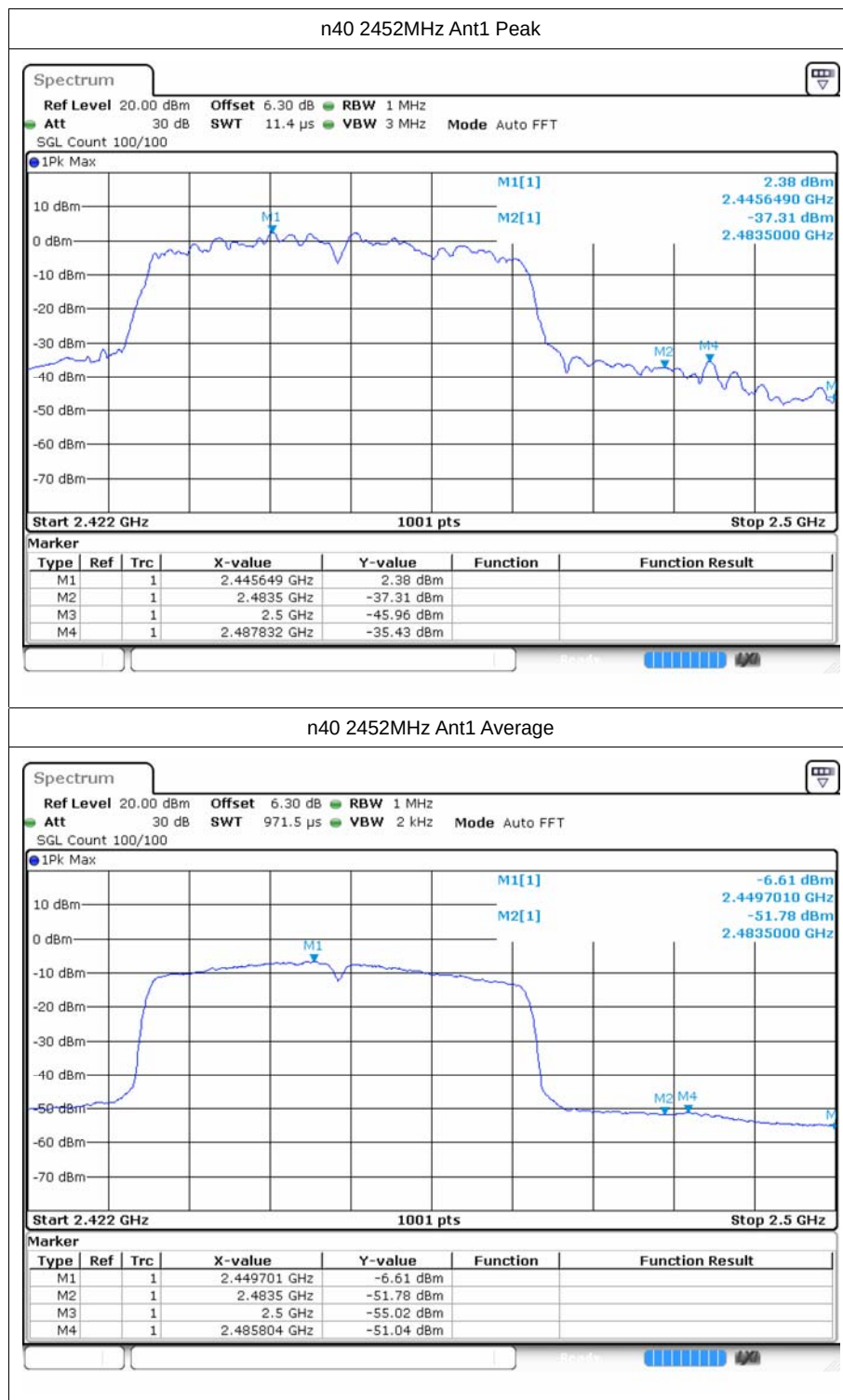












---The End---