



Appendix C

RF Test Data for 2.4GWIFI (Conducted Measurement)

Product Name: LED Light

Trade Mark: N/A

Test Model: HY20-AM001

Environmental Conditions

Temperature:	25.6° C
Relative Humidity:	52.5%
ATM Pressure:	100.0 kPa
Test Engineer:	Simba Huang
Supervised by:	Seal Chen



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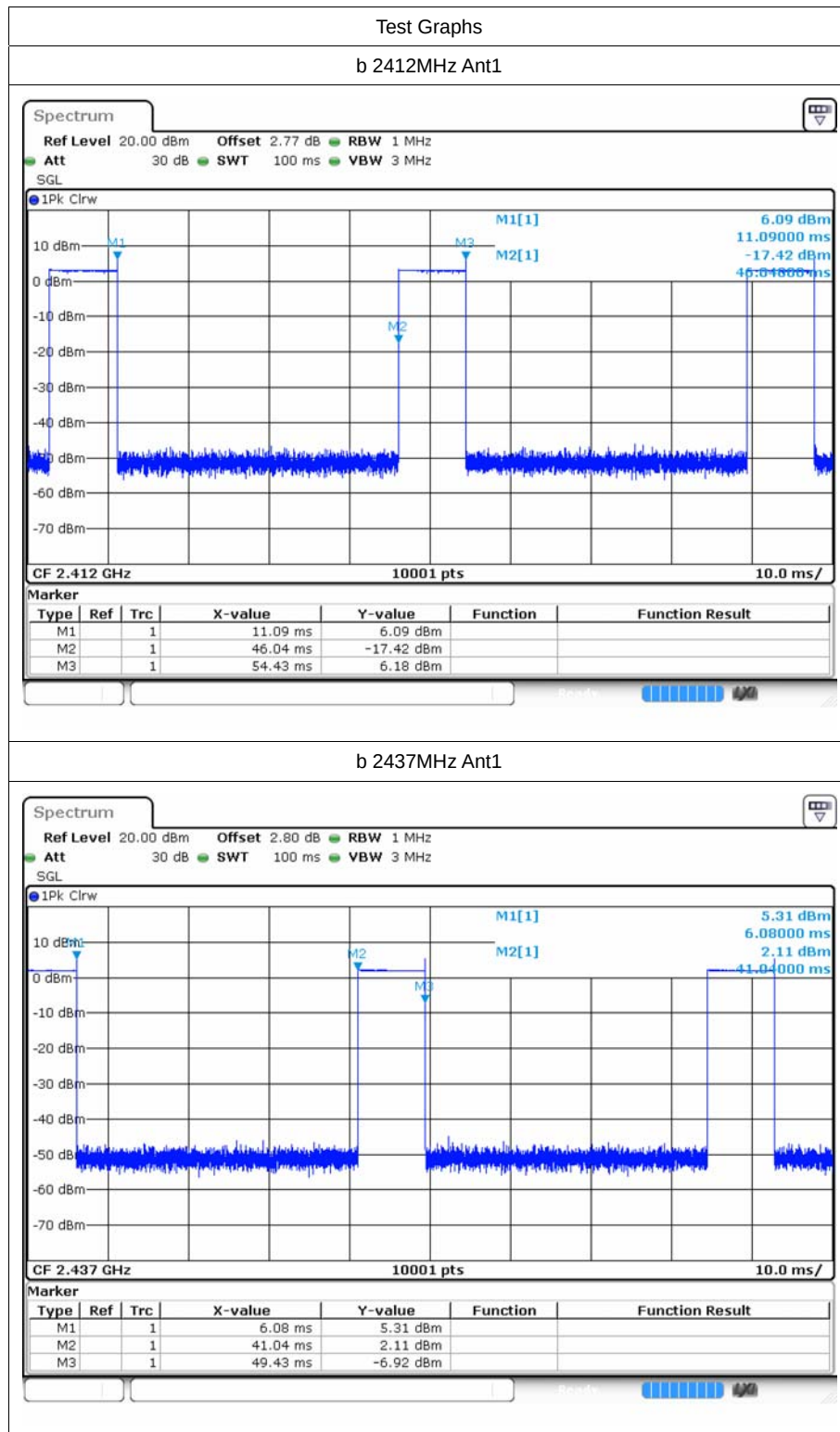


1 Duty Cycle

1.1 Test Result

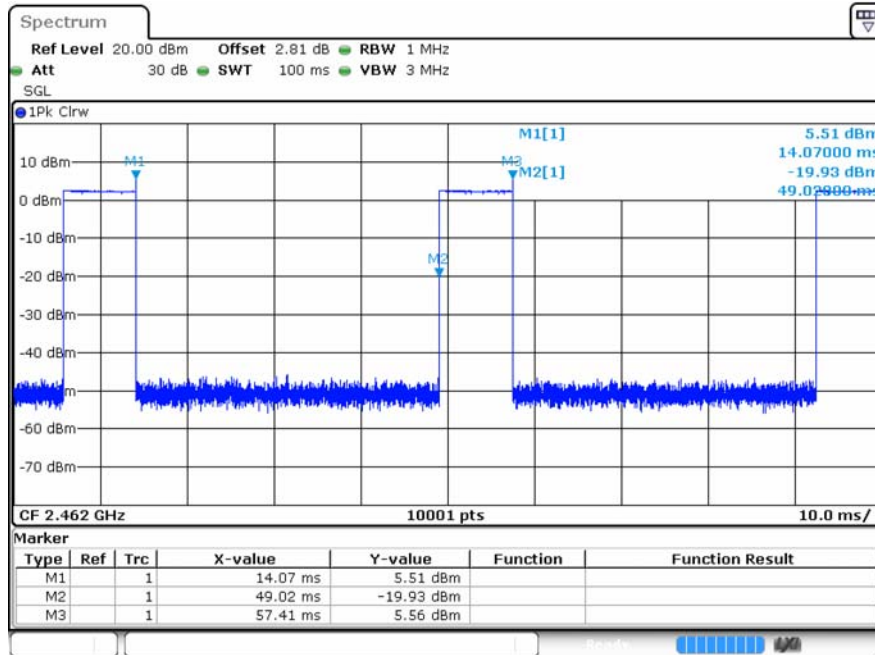
Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	1/T (kHz)
b	2412	Ant1	25.19	0.12
b	2437	Ant1	22.89	0.12
b	2462	Ant1	24.44	0.12
g	2412	Ant1	9.84	0.71
g	2437	Ant1	9.84	0.71
g	2462	Ant1	9.82	0.72
n20	2412	Ant1	9.66	0.76
n20	2437	Ant1	10.5	0.77
n20	2462	Ant1	10.5	0.76
n40	2422	Ant1	10.56	1.54
n40	2437	Ant1	9.9	1.54
n40	2452	Ant1	10.56	1.54

1.2 Test Graphs

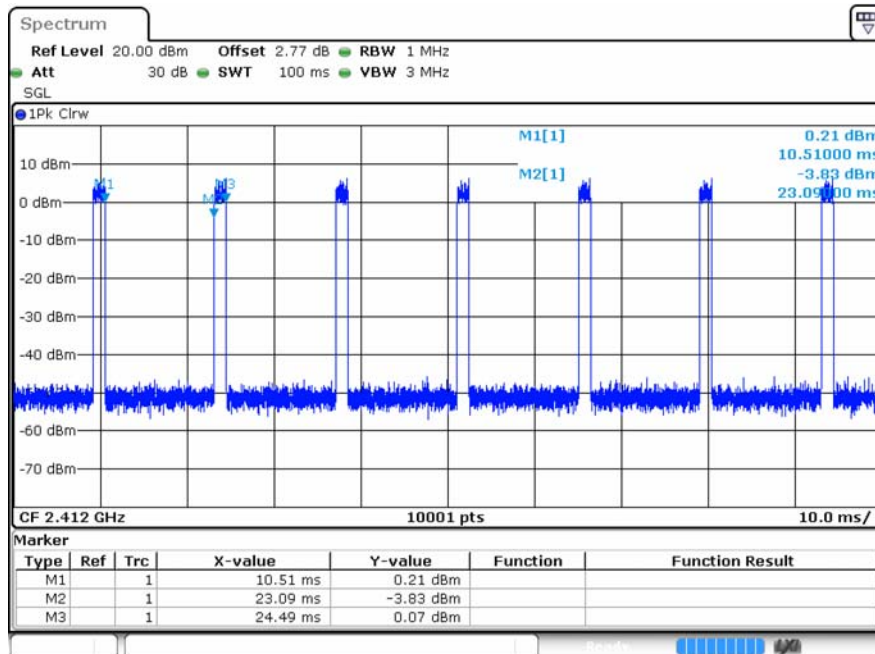


Test Graphs

b 2462MHz Ant1

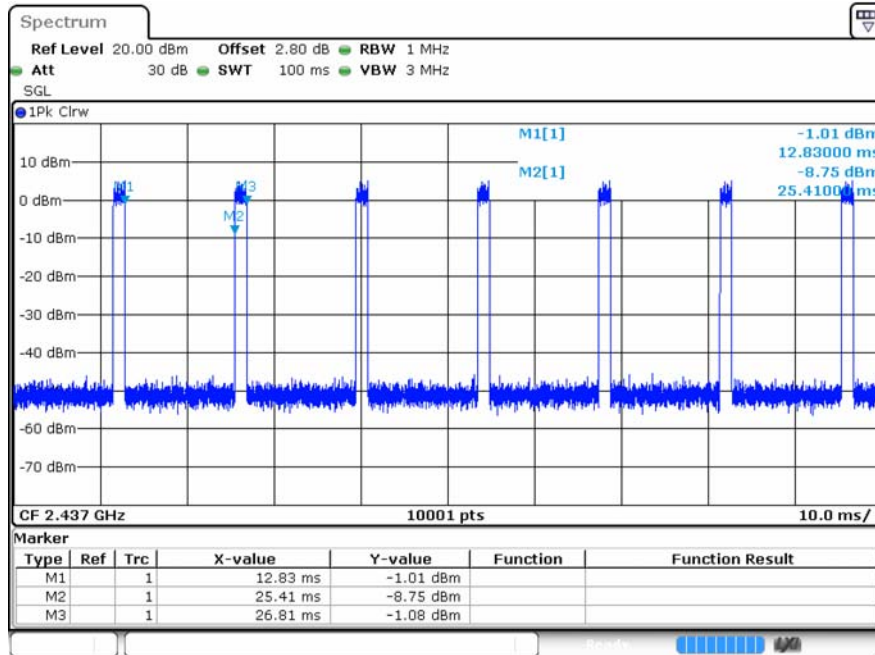


g 2412MHz Ant1

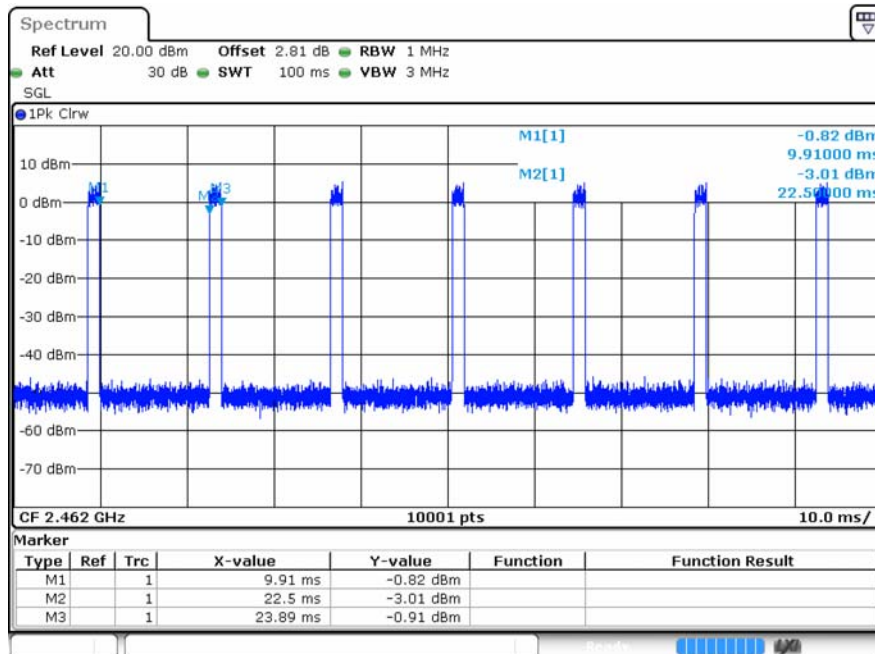


Test Graphs

g 2437MHz Ant1

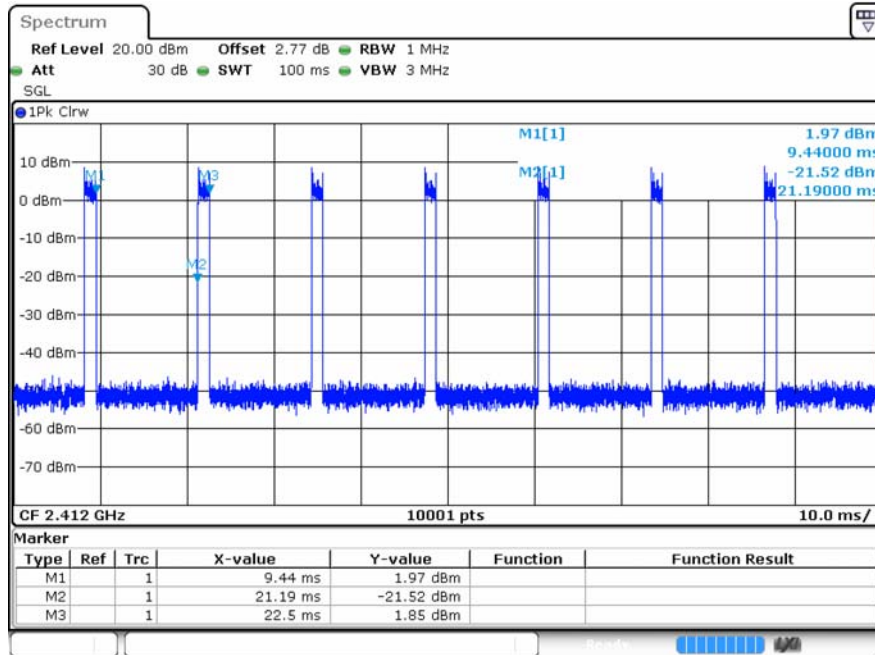


g 2462MHz Ant1

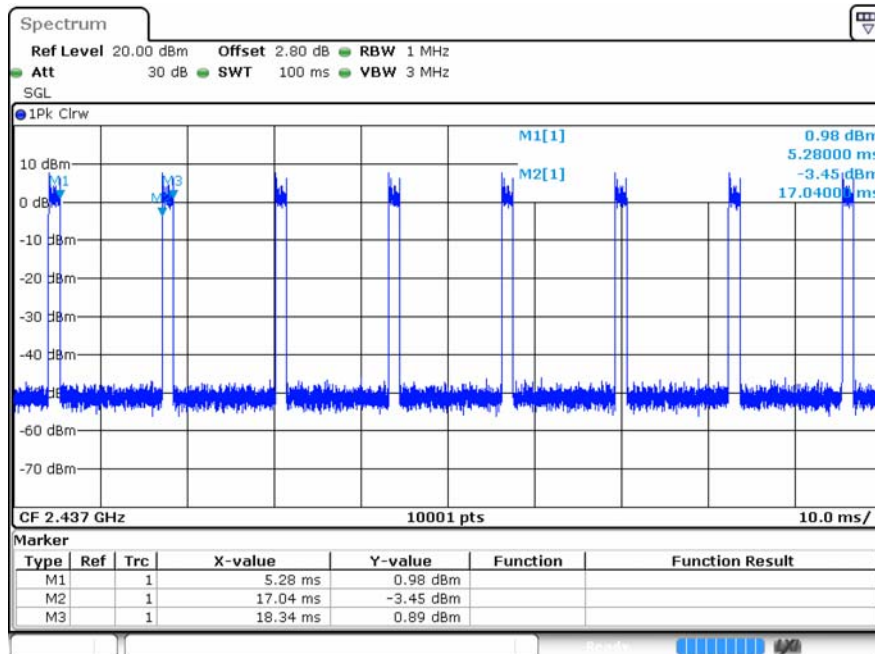


Test Graphs

n20 2412MHz Ant1

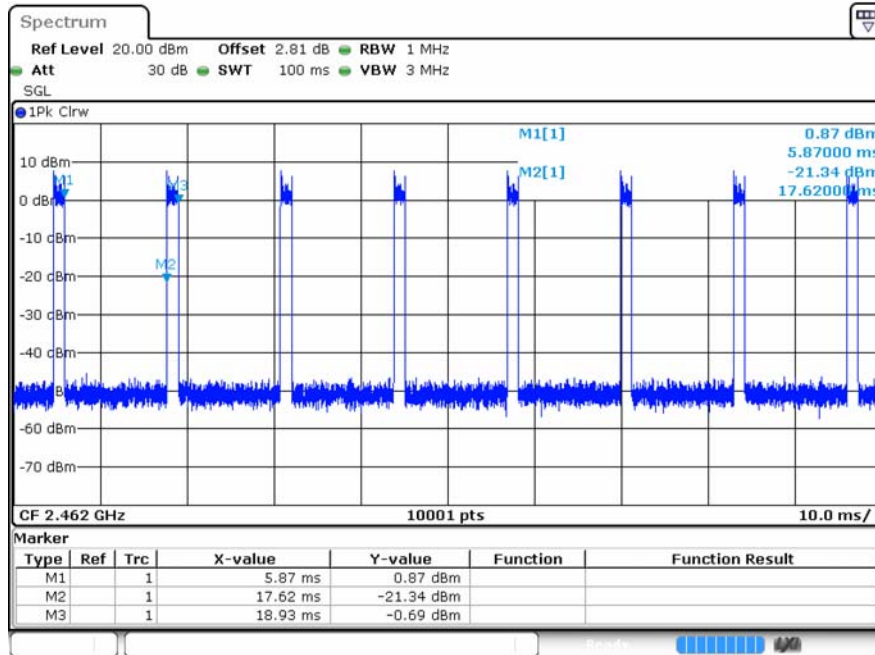


n20 2437MHz Ant1

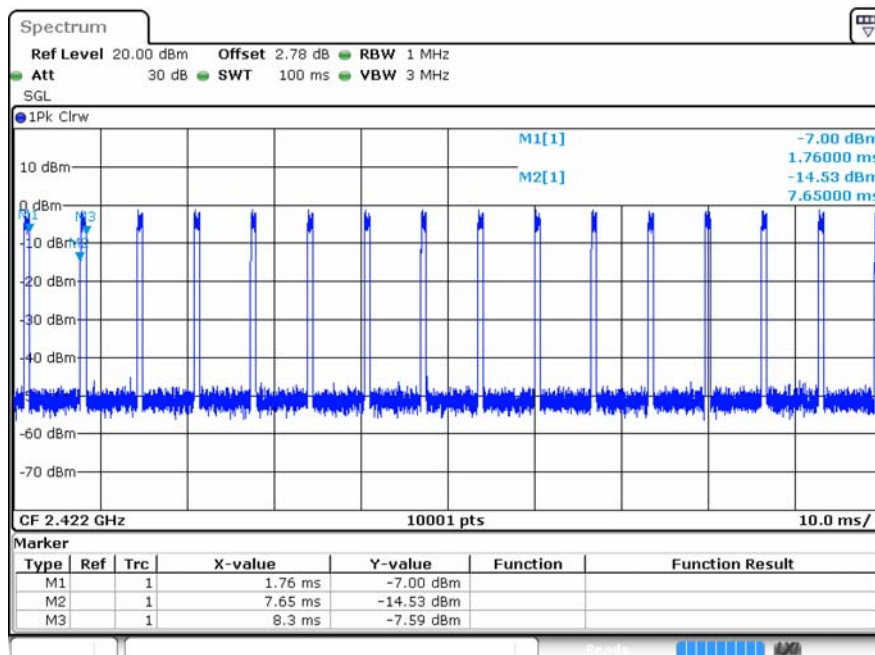


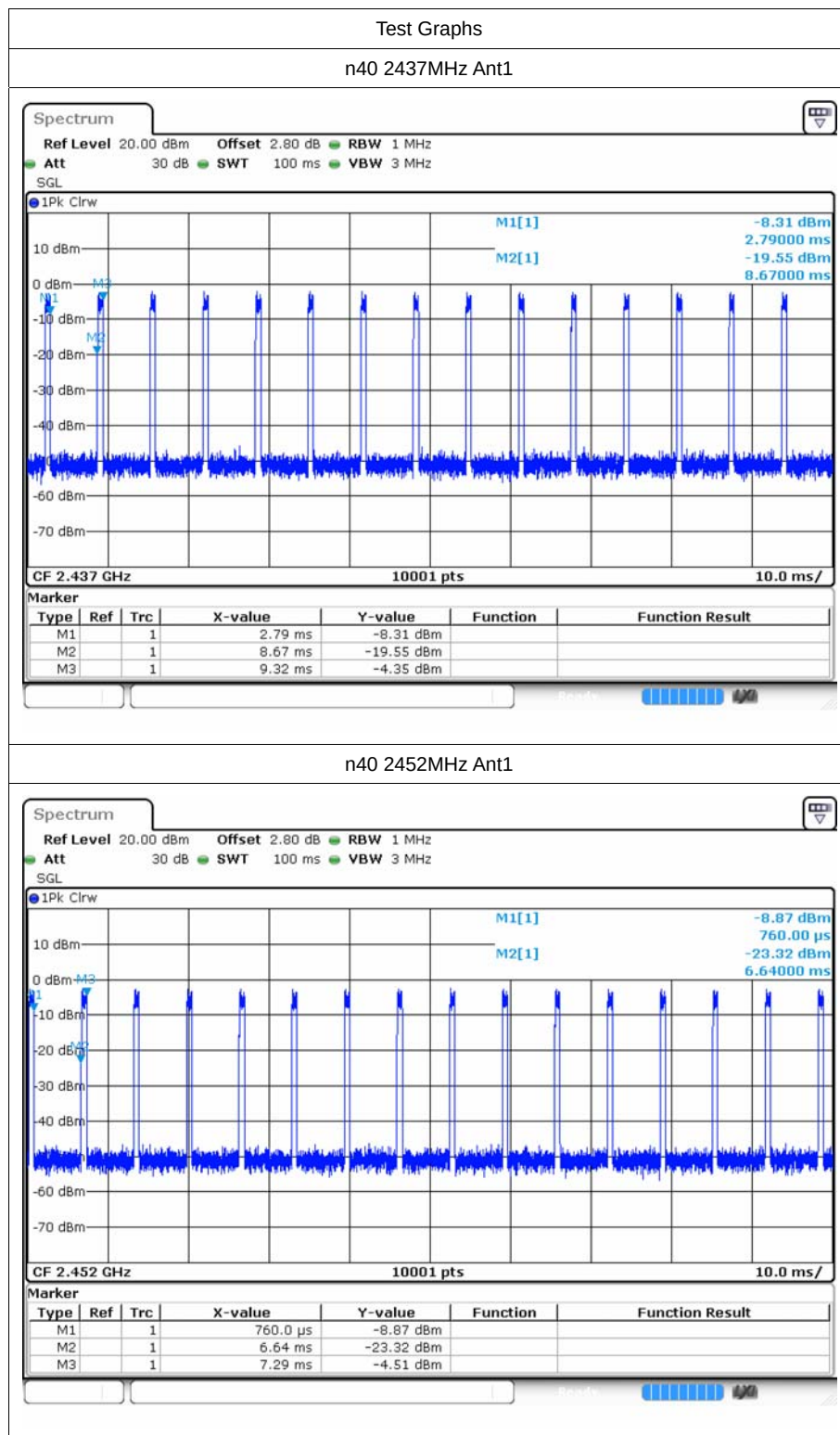
Test Graphs

n20 2462MHz Ant1



n40 2422MHz Ant1







2 Maximum Conducted Output Power

2.1 Test Result

Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
b	2412	Ant1	14.06	30	Pass
b	2437	Ant1	13.3	30	Pass
b	2462	Ant1	13.16	30	Pass
g	2412	Ant1	13.81	30	Pass
g	2437	Ant1	12.78	30	Pass
g	2462	Ant1	12.72	30	Pass
n20	2412	Ant1	13.81	30	Pass
n20	2437	Ant1	12.77	30	Pass
n20	2462	Ant1	12.56	30	Pass
n40	2422	Ant1	13.91	30	Pass
n40	2437	Ant1	12.92	30	Pass
n40	2452	Ant1	12.68	30	Pass

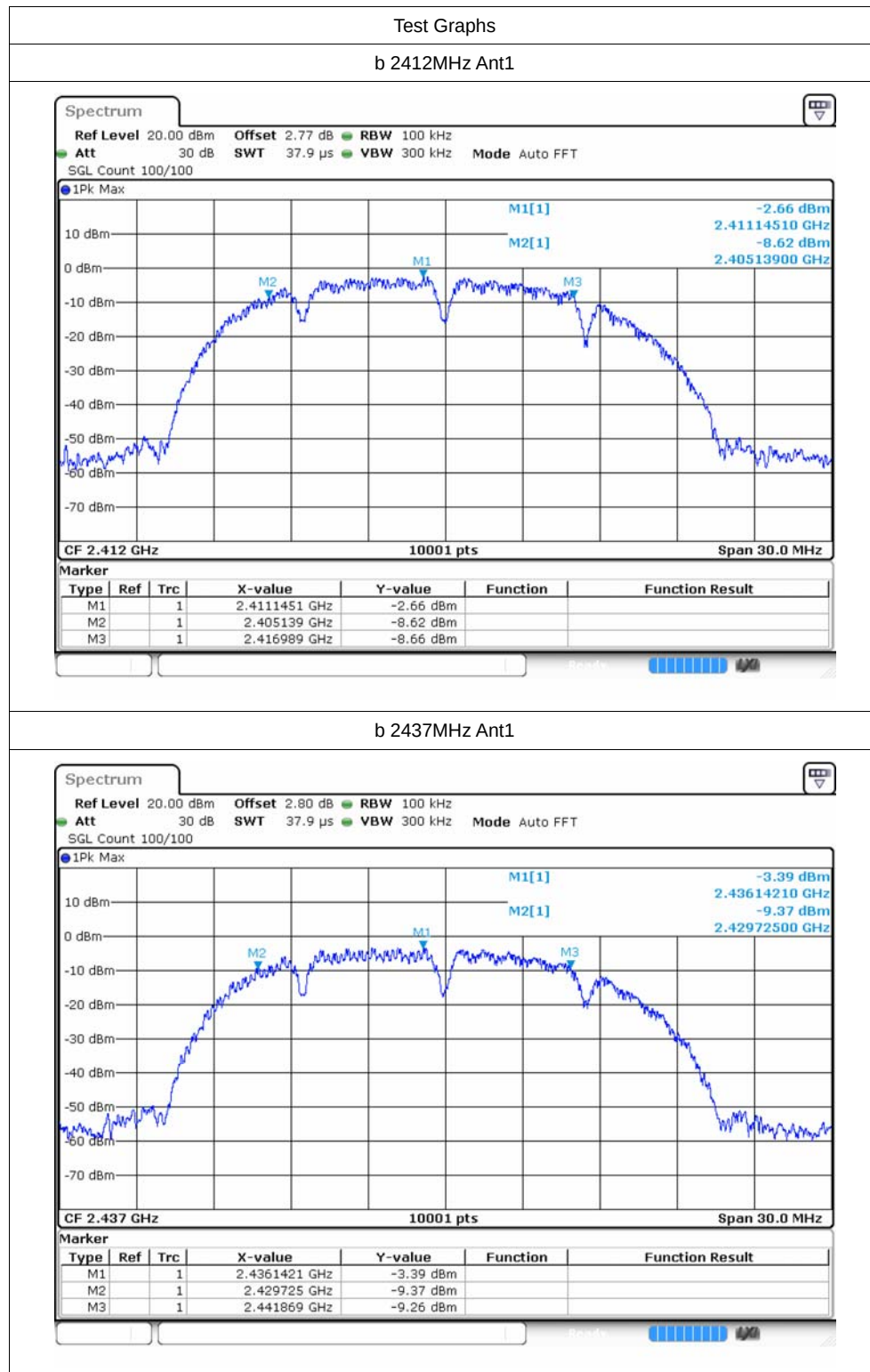


3 -6dB Bandwidth

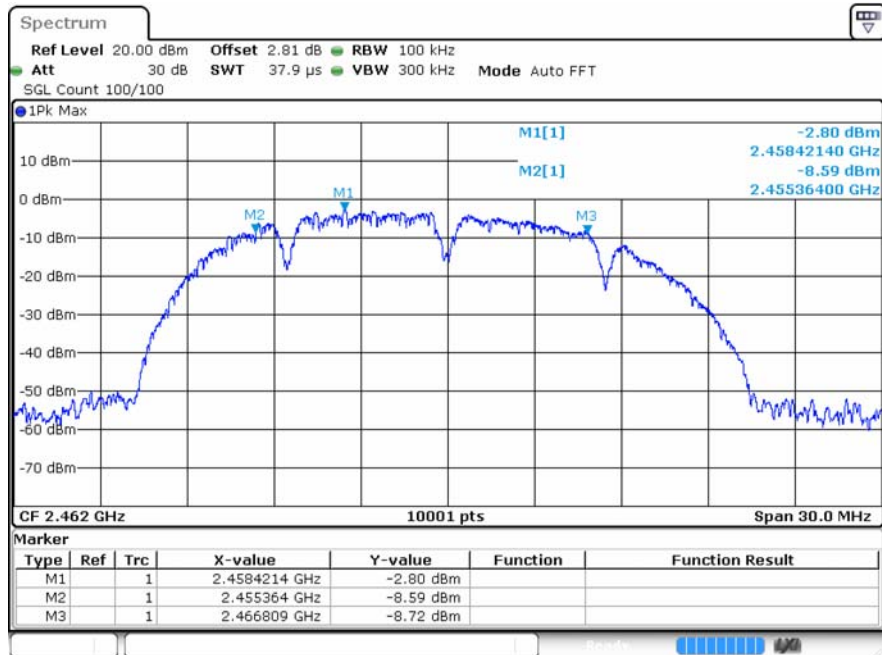
3.1 Test Result

Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
b	2412	Ant1	11.85	0.5	Pass
b	2437	Ant1	12.144	0.5	Pass
b	2462	Ant1	11.445	0.5	Pass
g	2412	Ant1	16.542	0.5	Pass
g	2437	Ant1	16.563	0.5	Pass
g	2462	Ant1	16.482	0.5	Pass
n20	2412	Ant1	17.961	0.5	Pass
n20	2437	Ant1	17.775	0.5	Pass
n20	2462	Ant1	18.231	0.5	Pass
n40	2422	Ant1	36.306	0.5	Pass
n40	2437	Ant1	35.964	0.5	Pass
n40	2452	Ant1	30.264	0.5	Pass

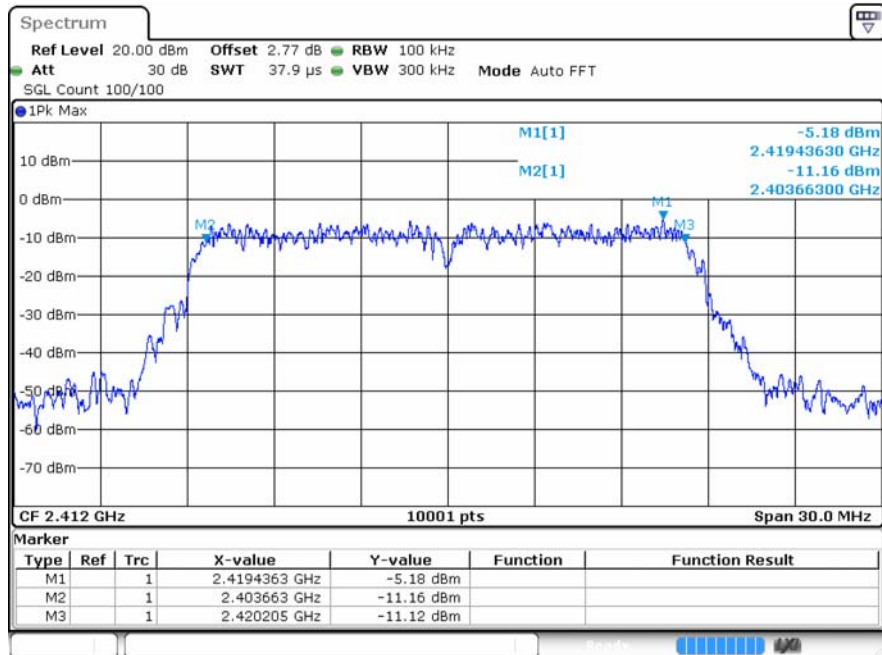
3.2 Test Graphs



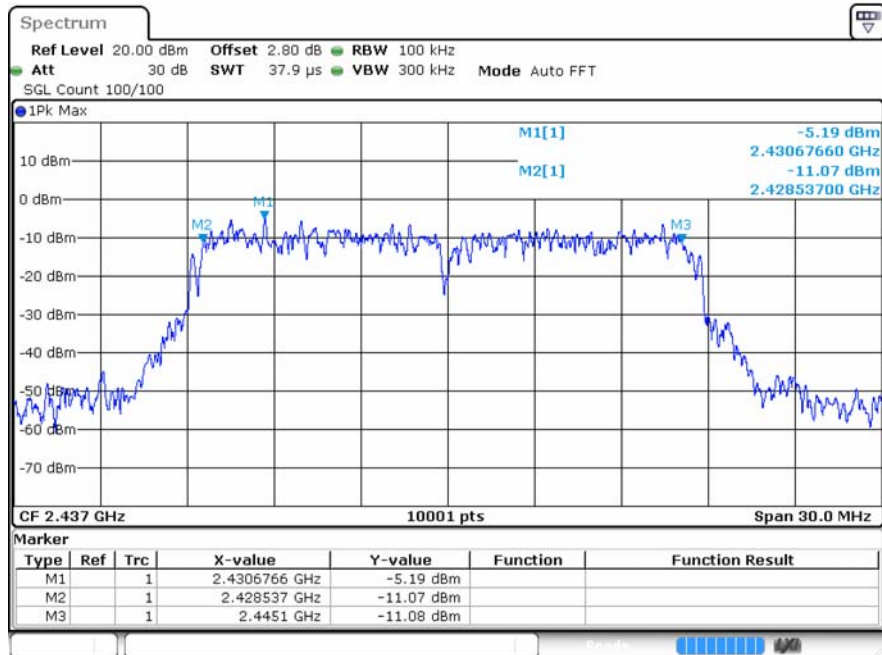
b 2462MHz Ant1



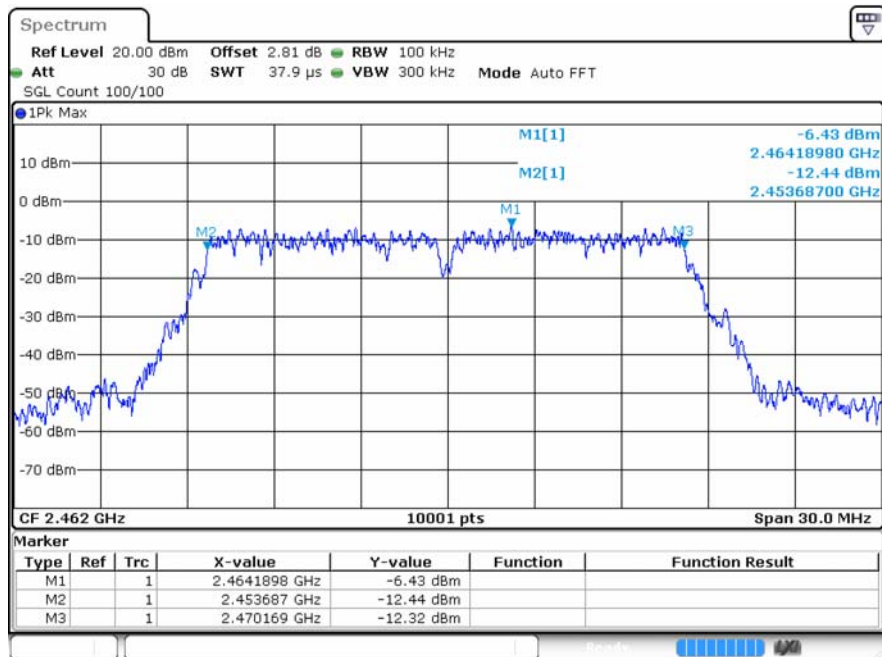
g 2412MHz Ant1



g 2437MHz Ant1

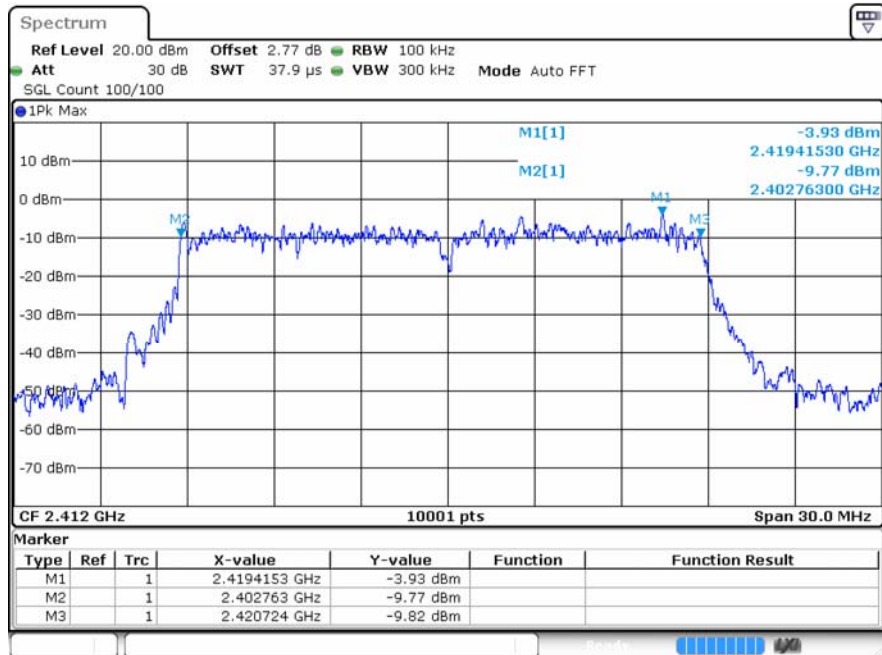


g 2462MHz Ant1

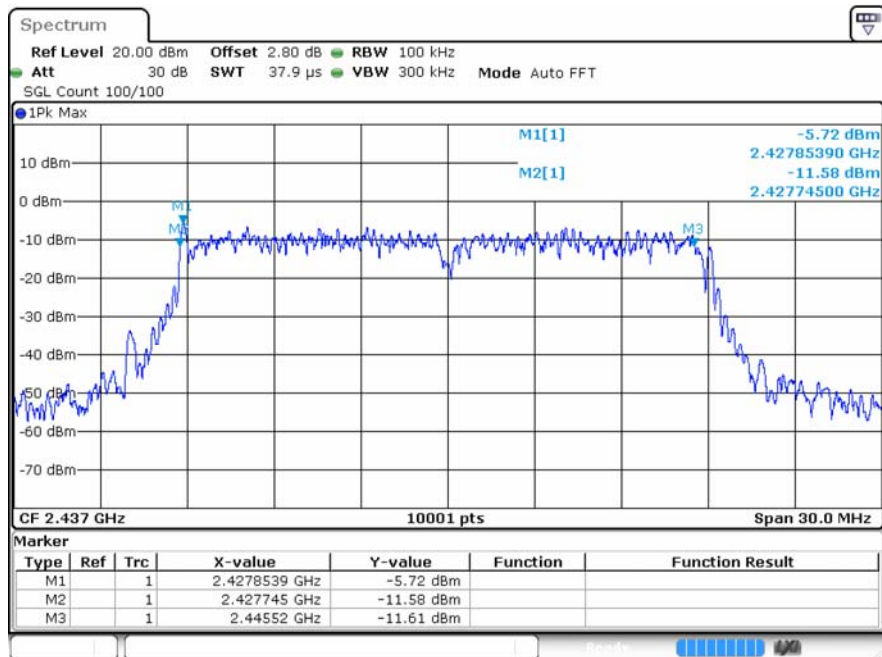




n20 2412MHz Ant1

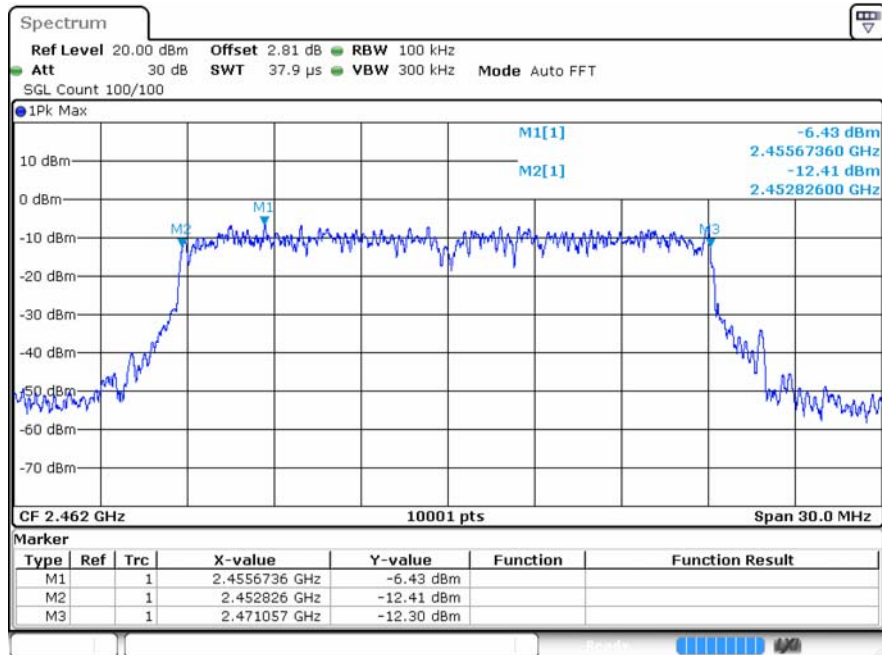


n20 2437MHz Ant1

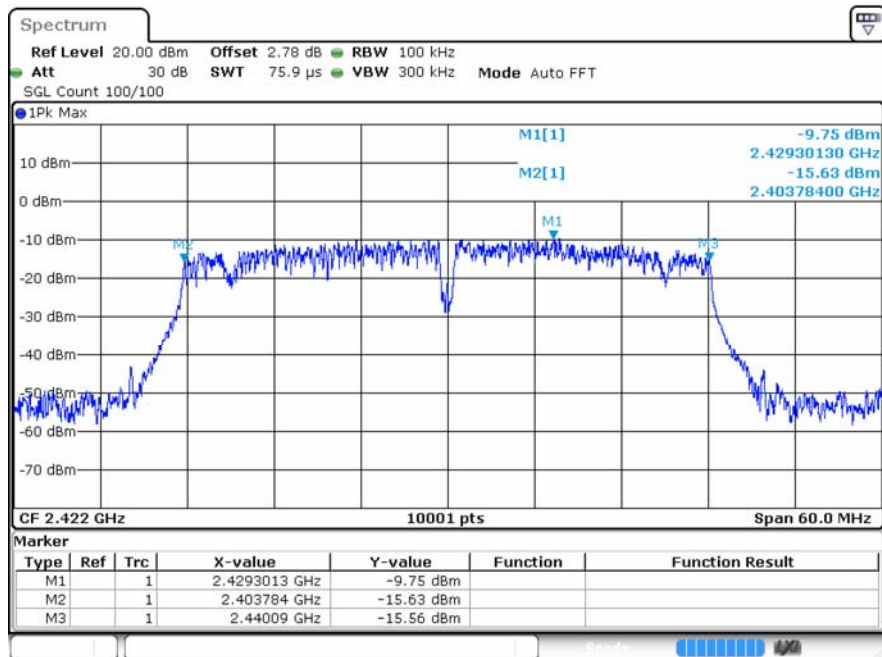


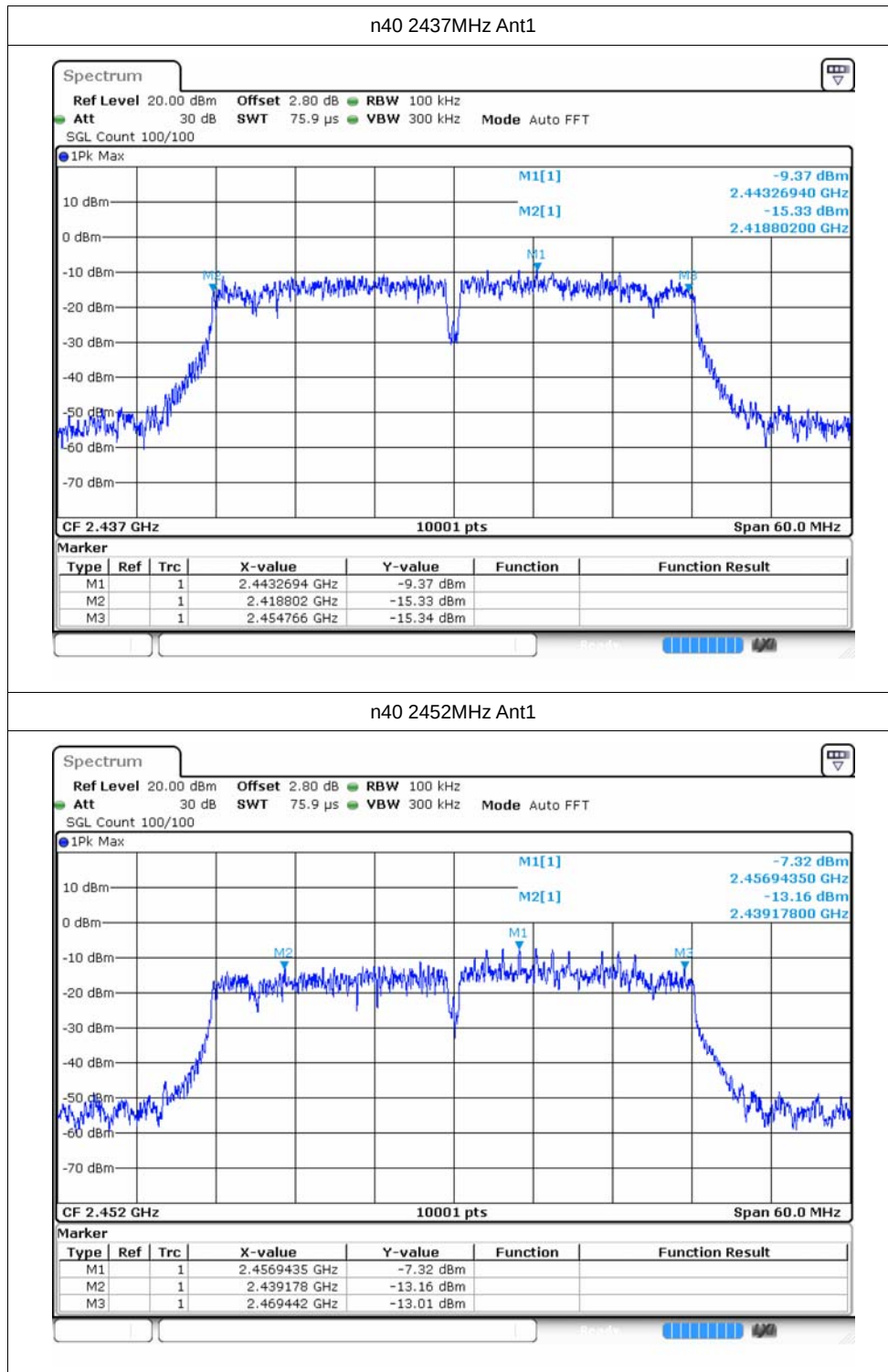


n20 2462MHz Ant1



n40 2422MHz Ant1



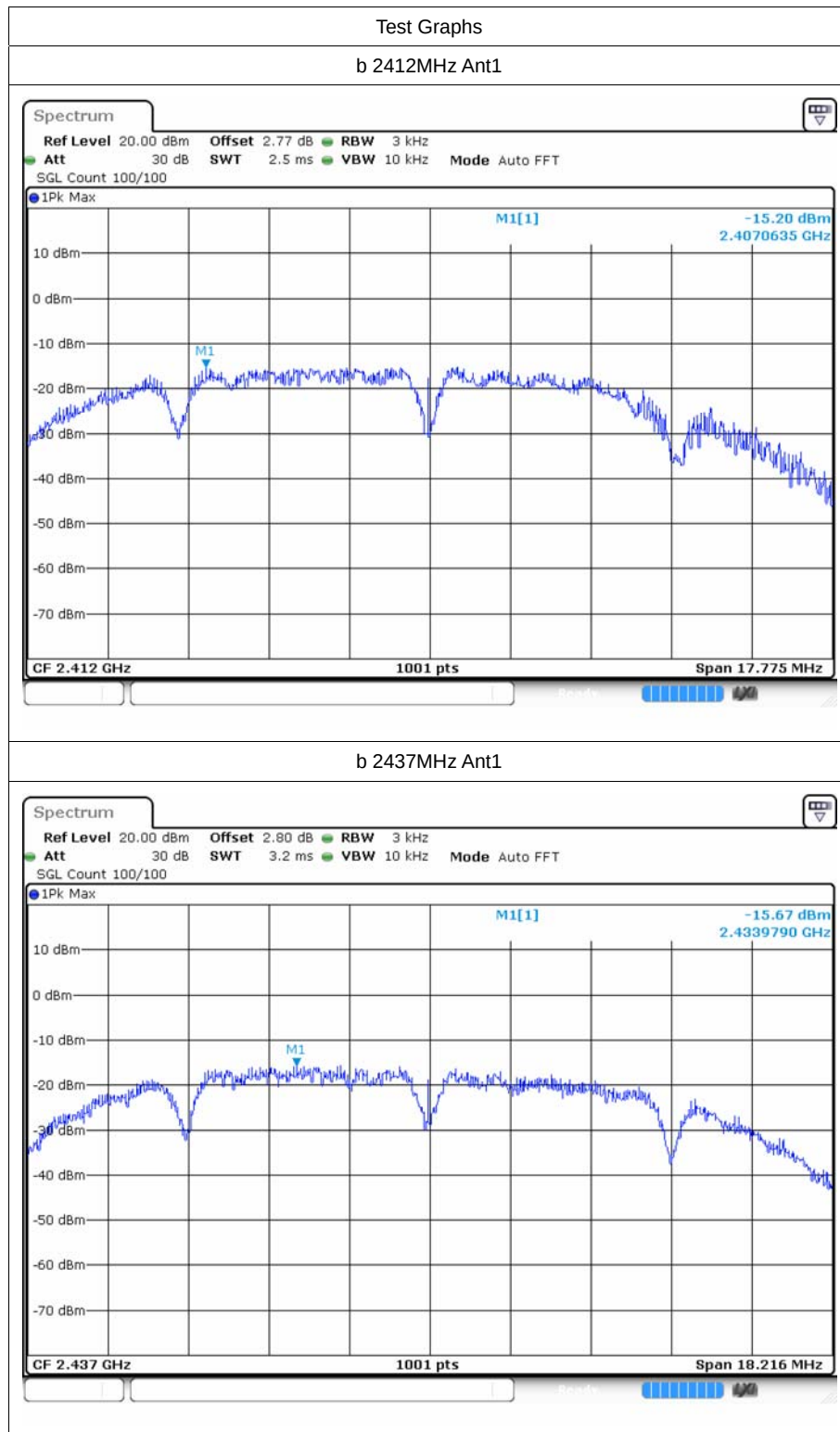


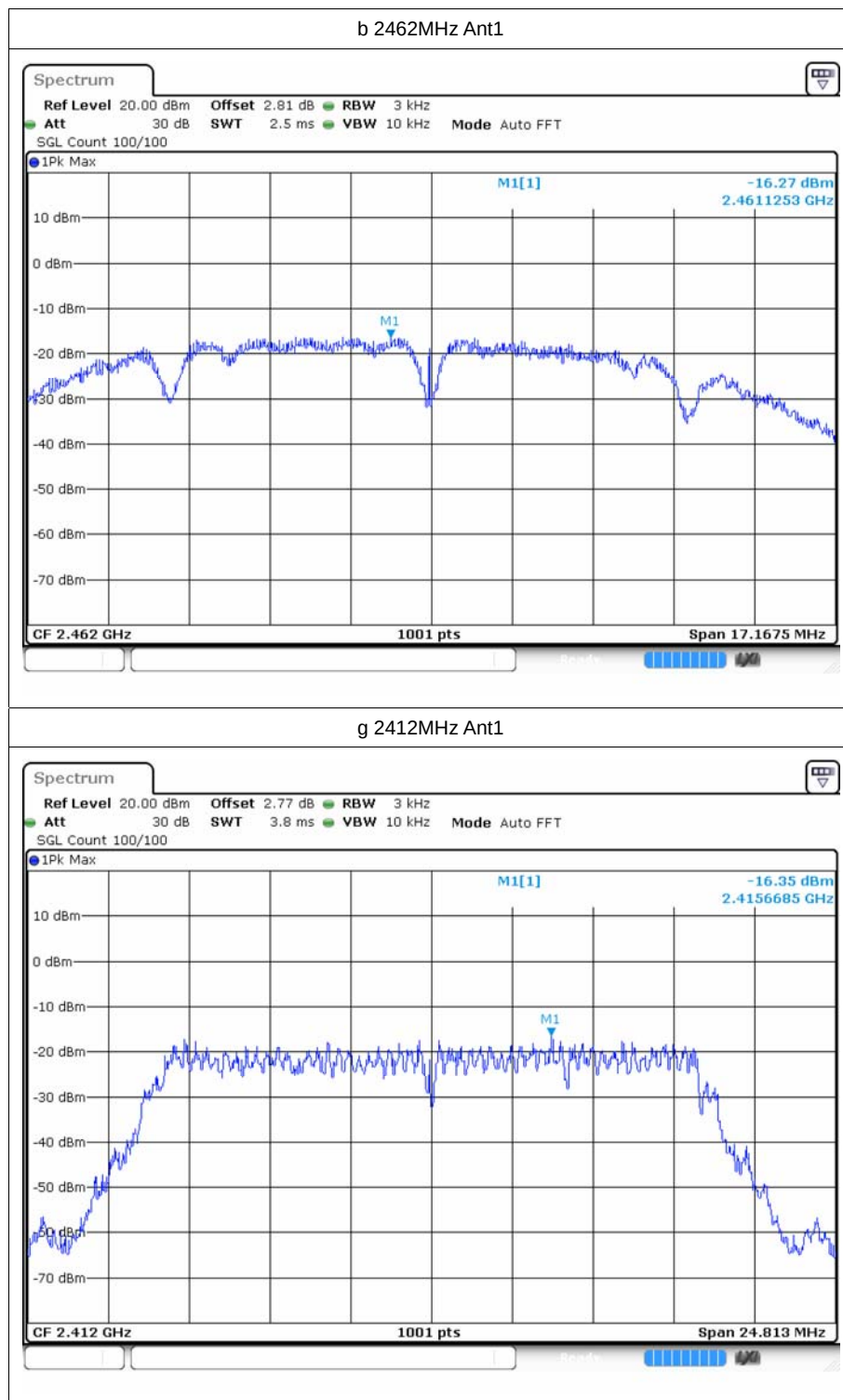
4 Maximum Power Spectral Density Level

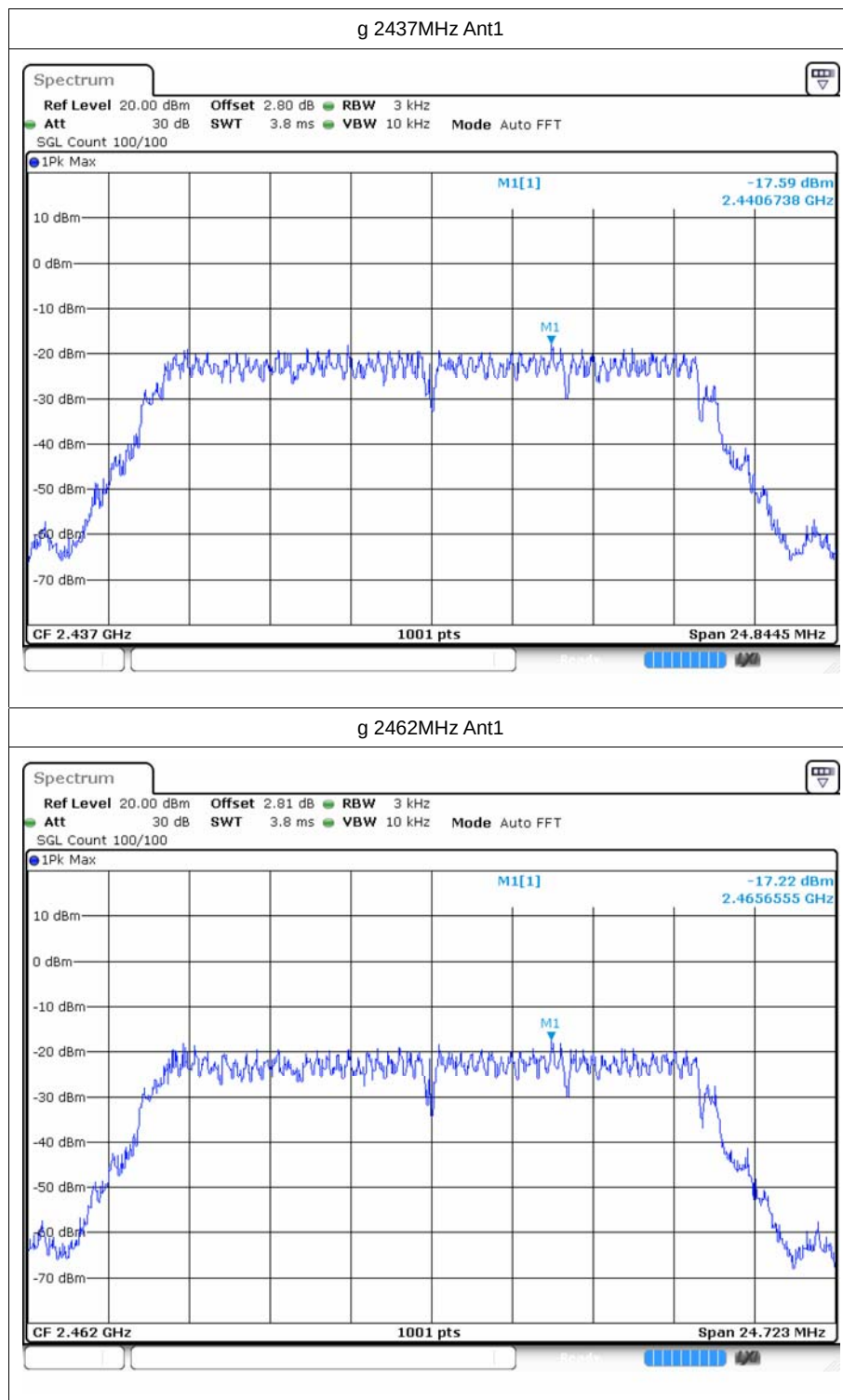
4.1 Test Result

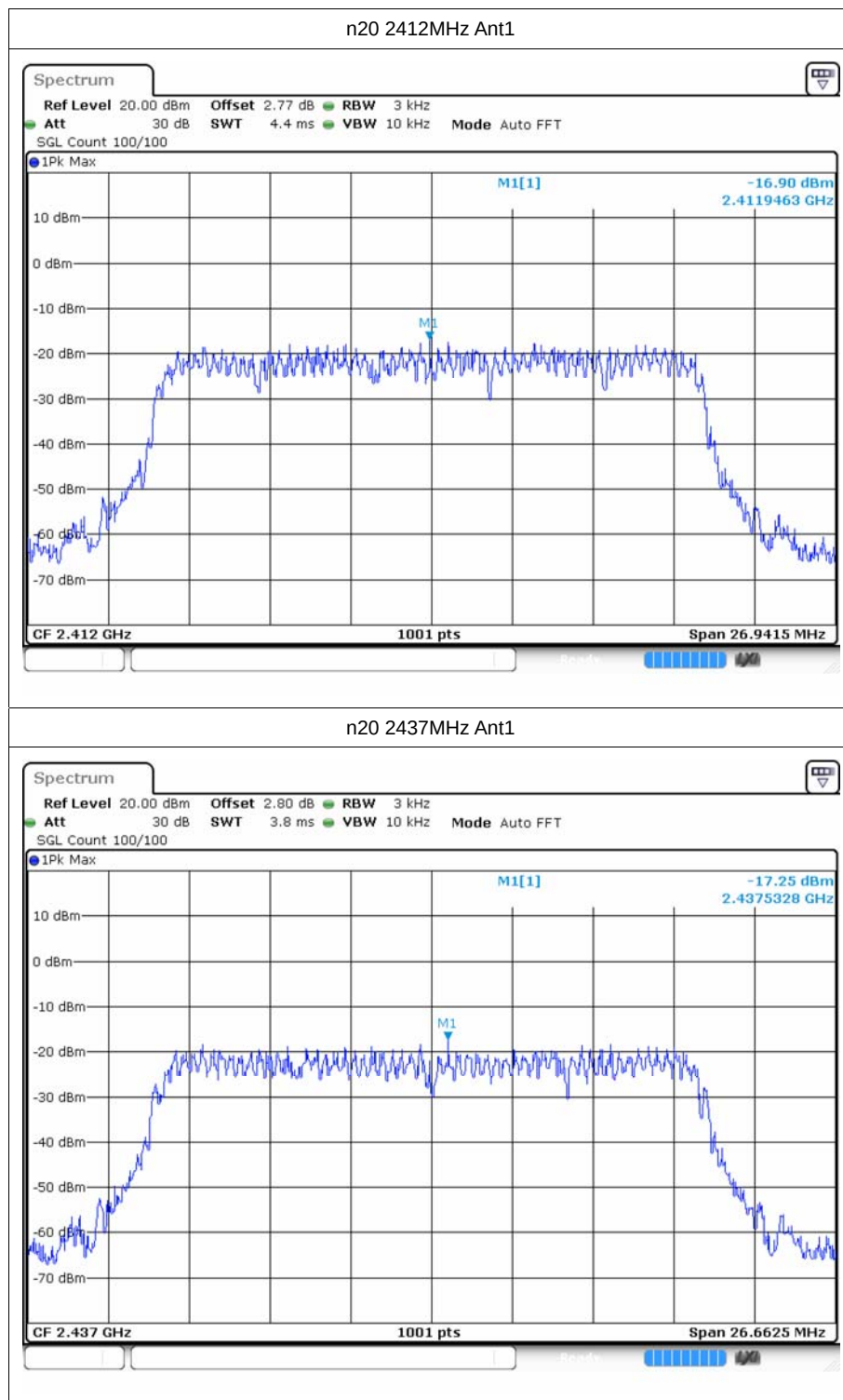
Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3-100kHz)	Limit (dBm/3kHz)	Verdict
b	2412	Ant1	-15.2	≤ 8	Pass
b	2437	Ant1	-15.67	≤ 8	Pass
b	2462	Ant1	-16.27	≤ 8	Pass
g	2412	Ant1	-16.35	≤ 8	Pass
g	2437	Ant1	-17.59	≤ 8	Pass
g	2462	Ant1	-17.22	≤ 8	Pass
n20	2412	Ant1	-16.9	≤ 8	Pass
n20	2437	Ant1	-17.25	≤ 8	Pass
n20	2462	Ant1	-16.69	≤ 8	Pass
n40	2422	Ant1	-19.13	≤ 8	Pass
n40	2437	Ant1	-19.01	≤ 8	Pass
n40	2452	Ant1	-19.22	≤ 8	Pass

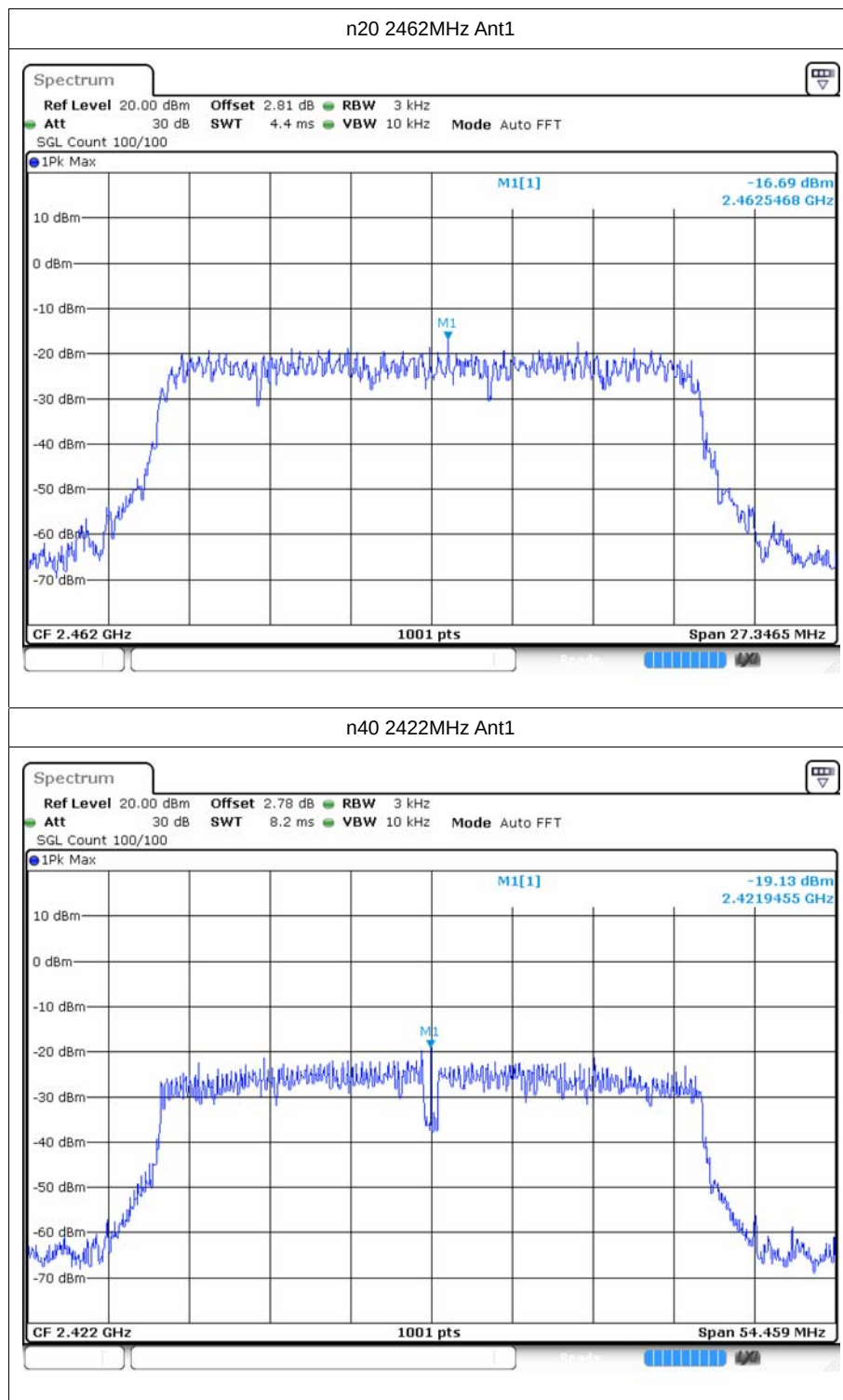
4.2 Test Graphs

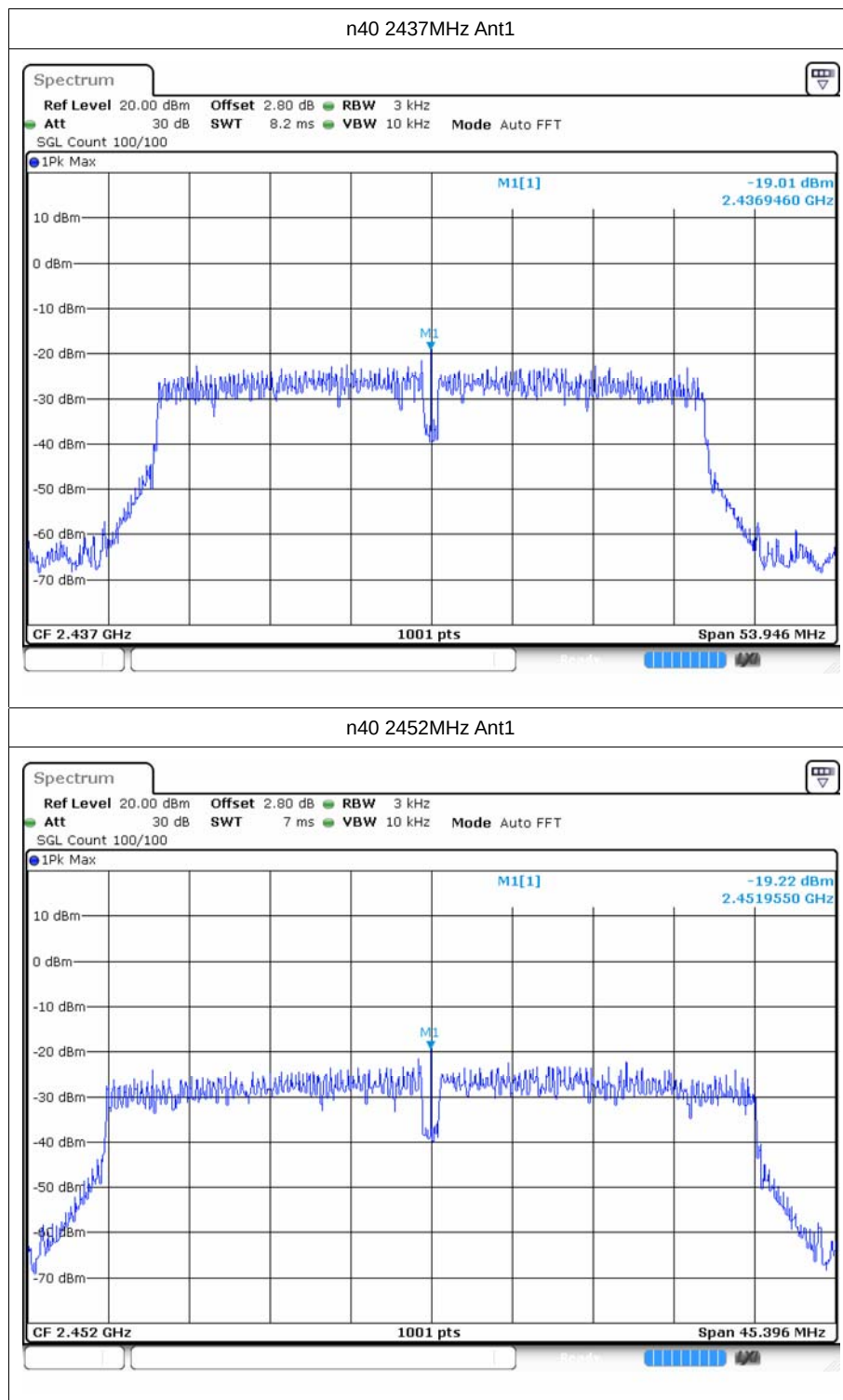












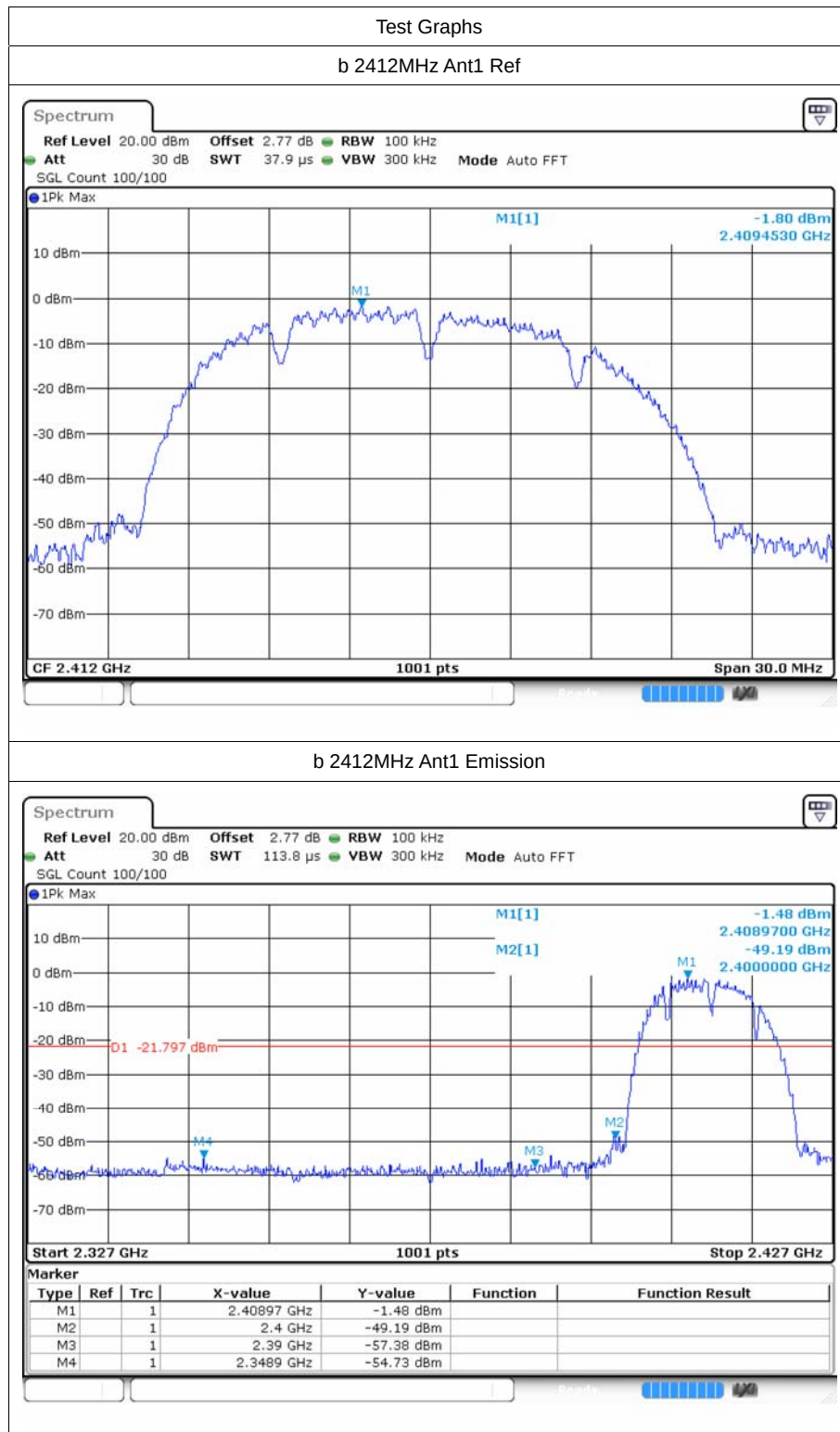


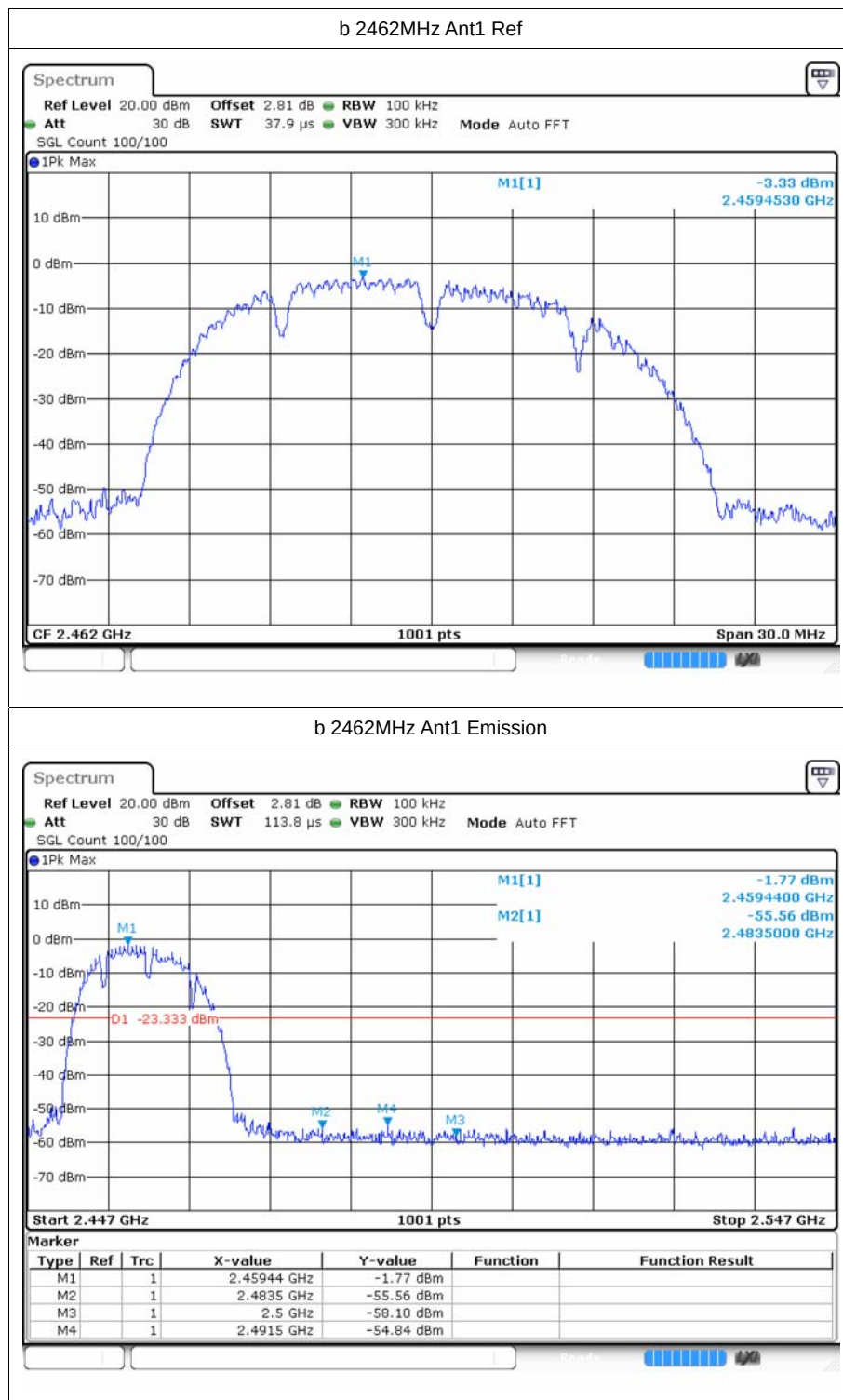
5 Band Edge

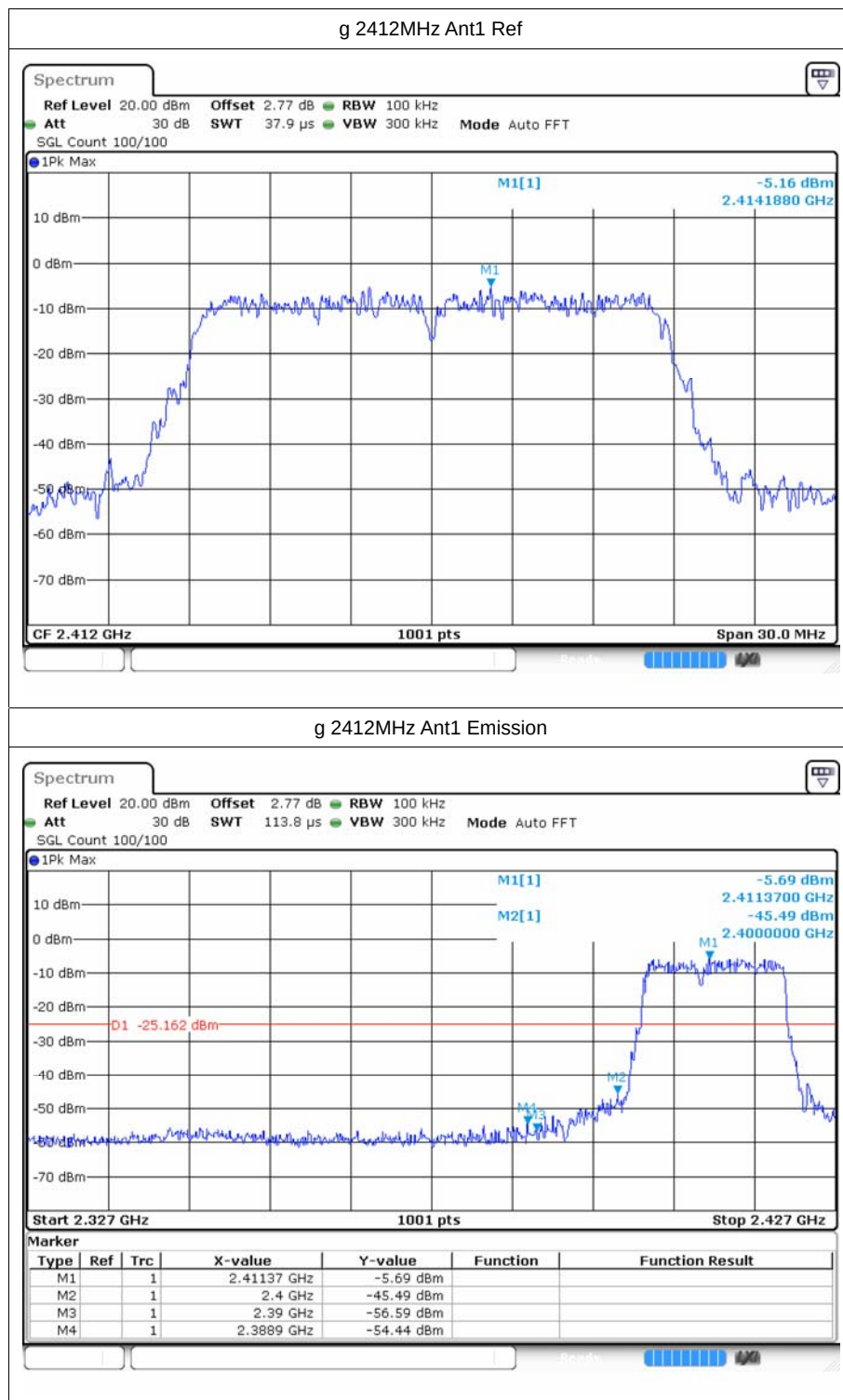
5.1 Test Result

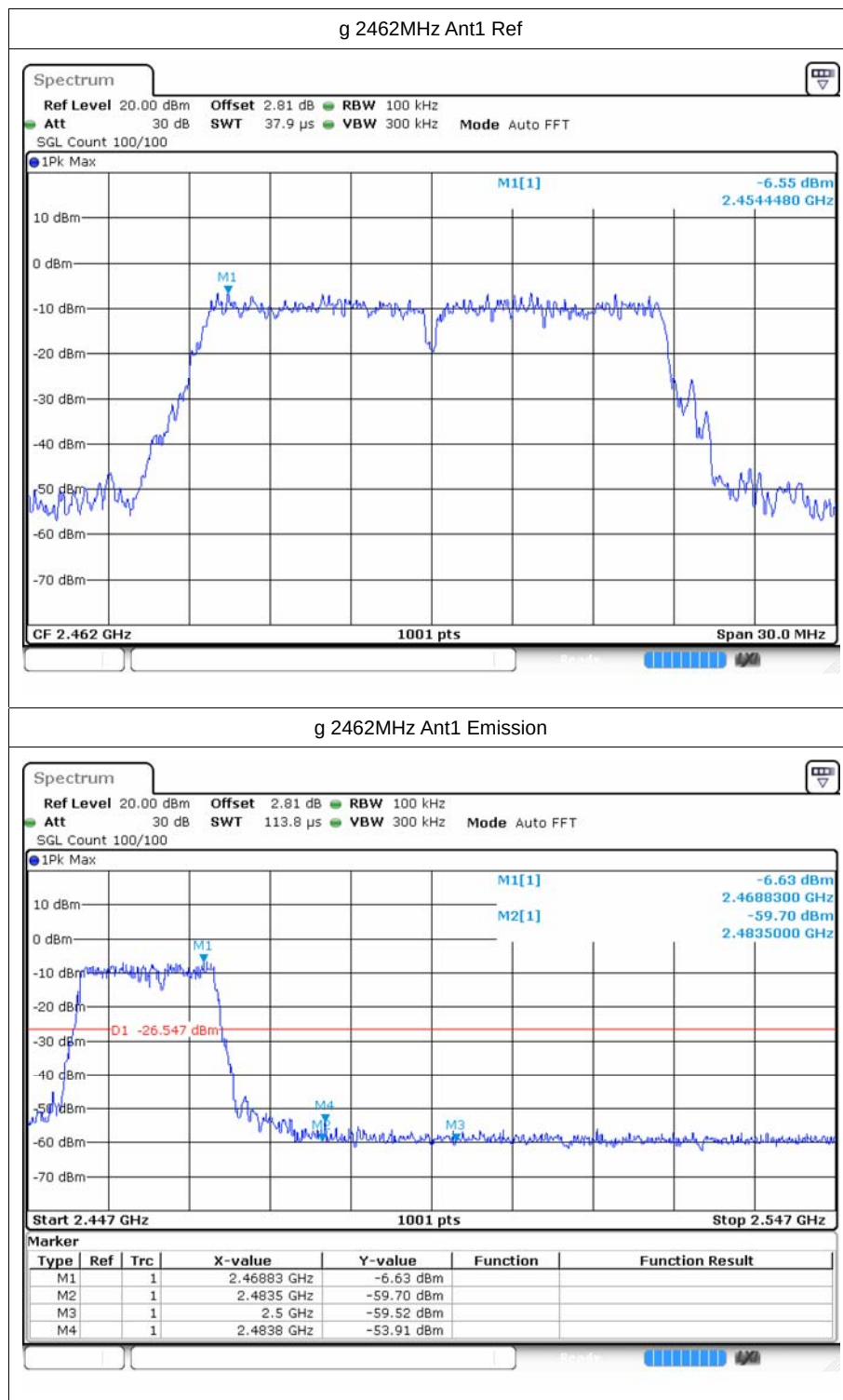
Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
b	2412	Ant1	-52.92	-20	-52.92
b	2462	Ant1	-51.51	-20	Pass
g	2412	Ant1	-49.28	-20	Pass
g	2462	Ant1	-47.36	-20	Pass
n20	2412	Ant1	-46.72	-20	Pass
n20	2462	Ant1	-48.22	-20	Pass
n40	2422	Ant1	-42.99	-20	Pass
n40	2452	Ant1	-41.44	-20	Pass

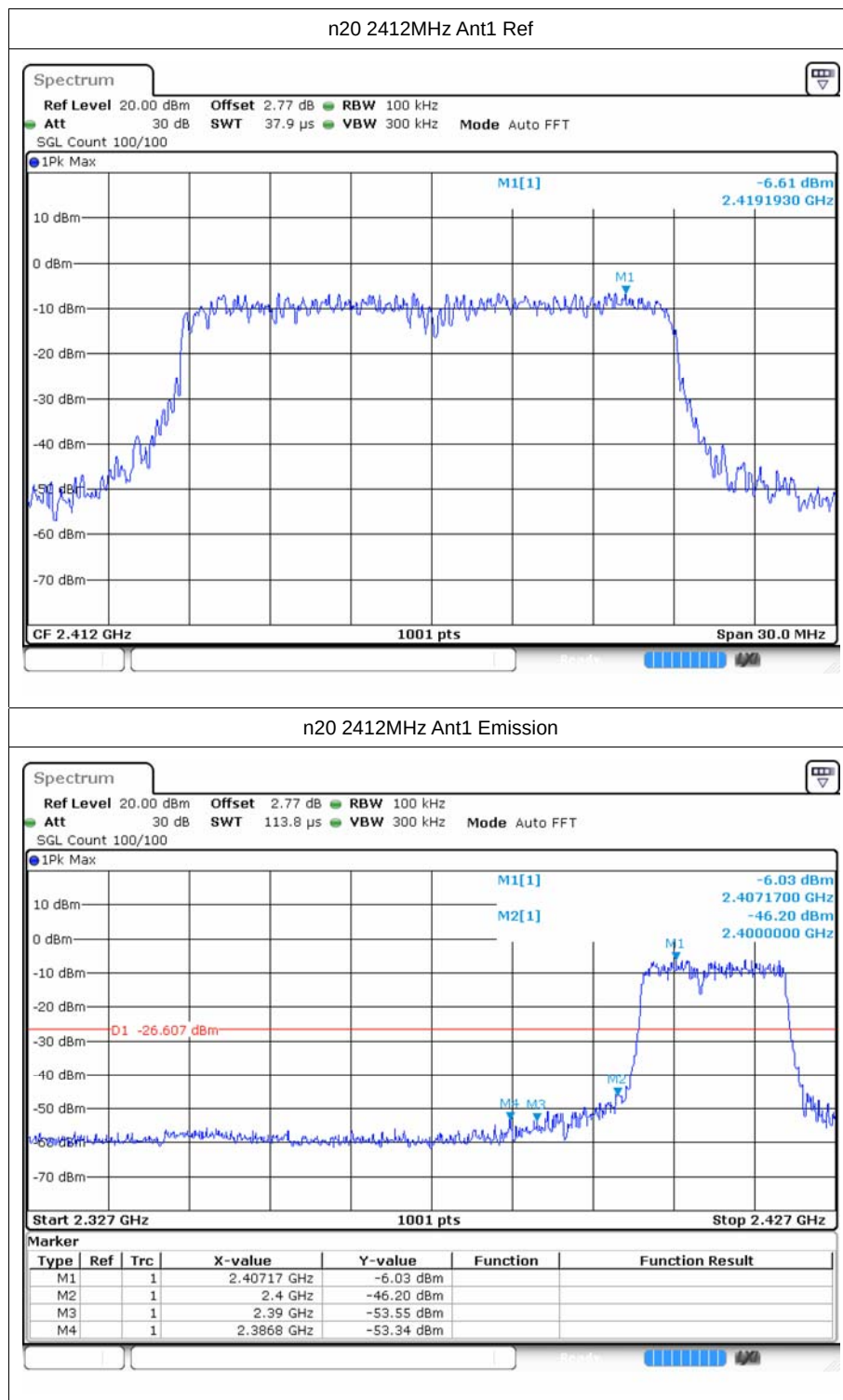
5.2 Test Graphs

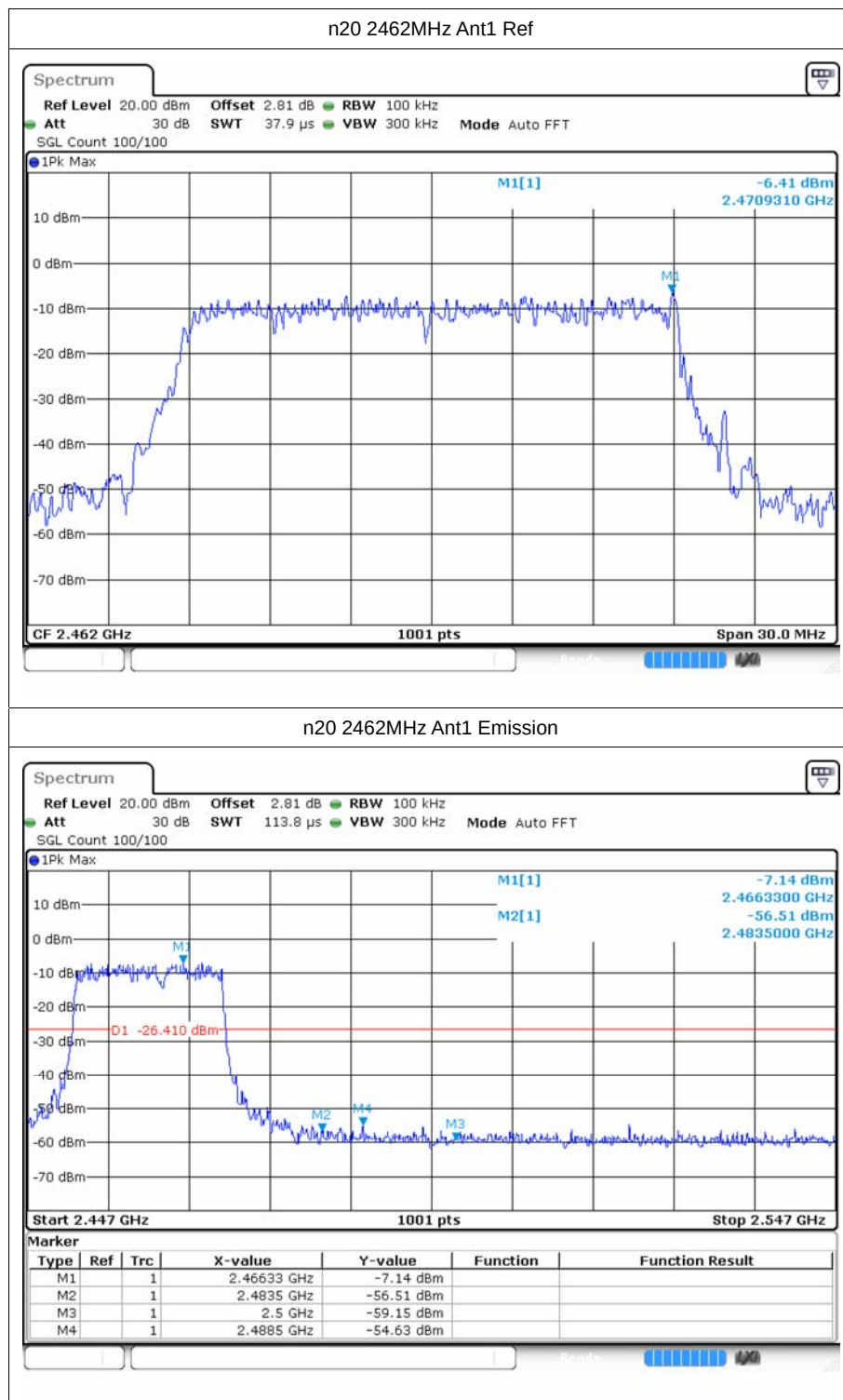


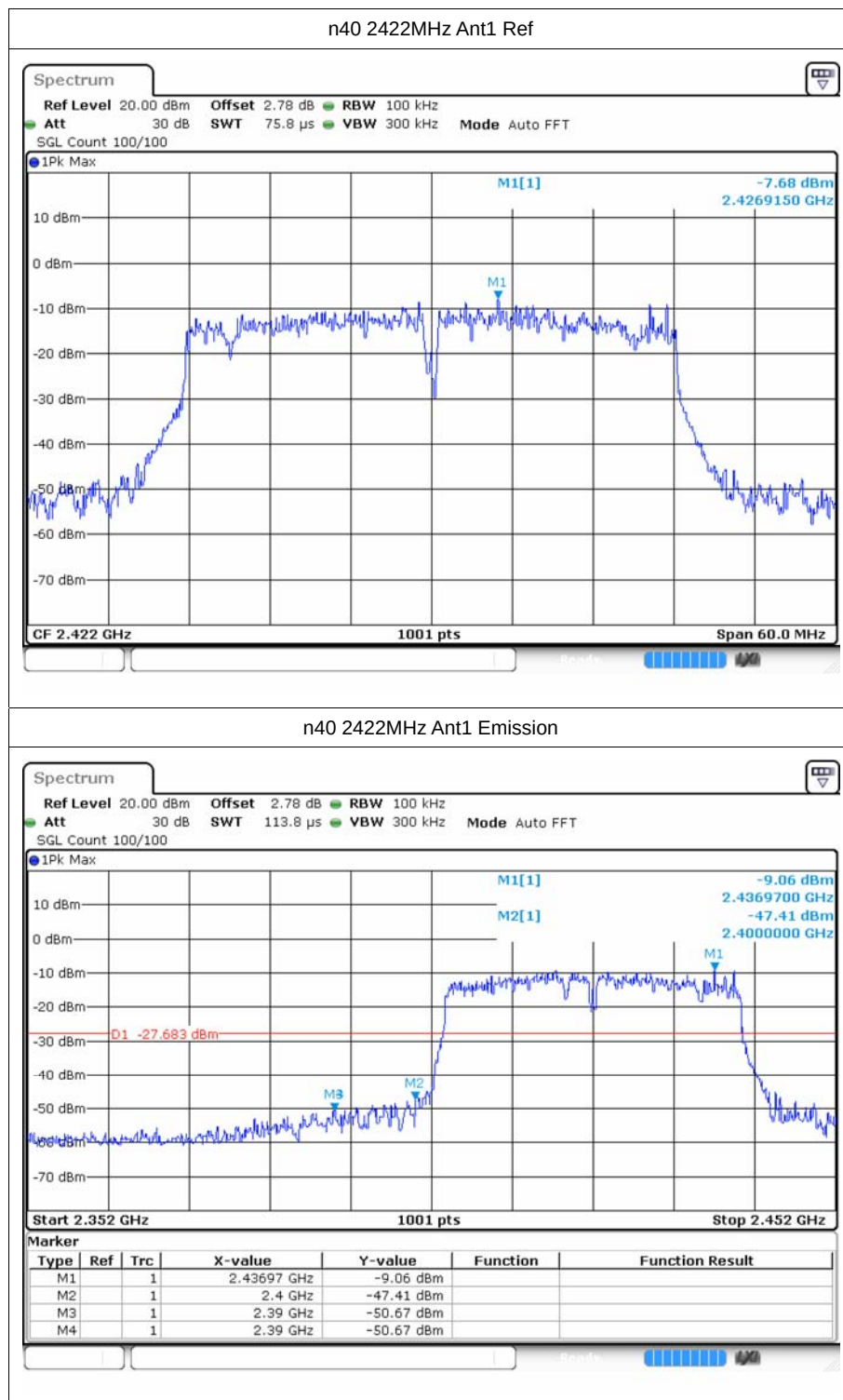


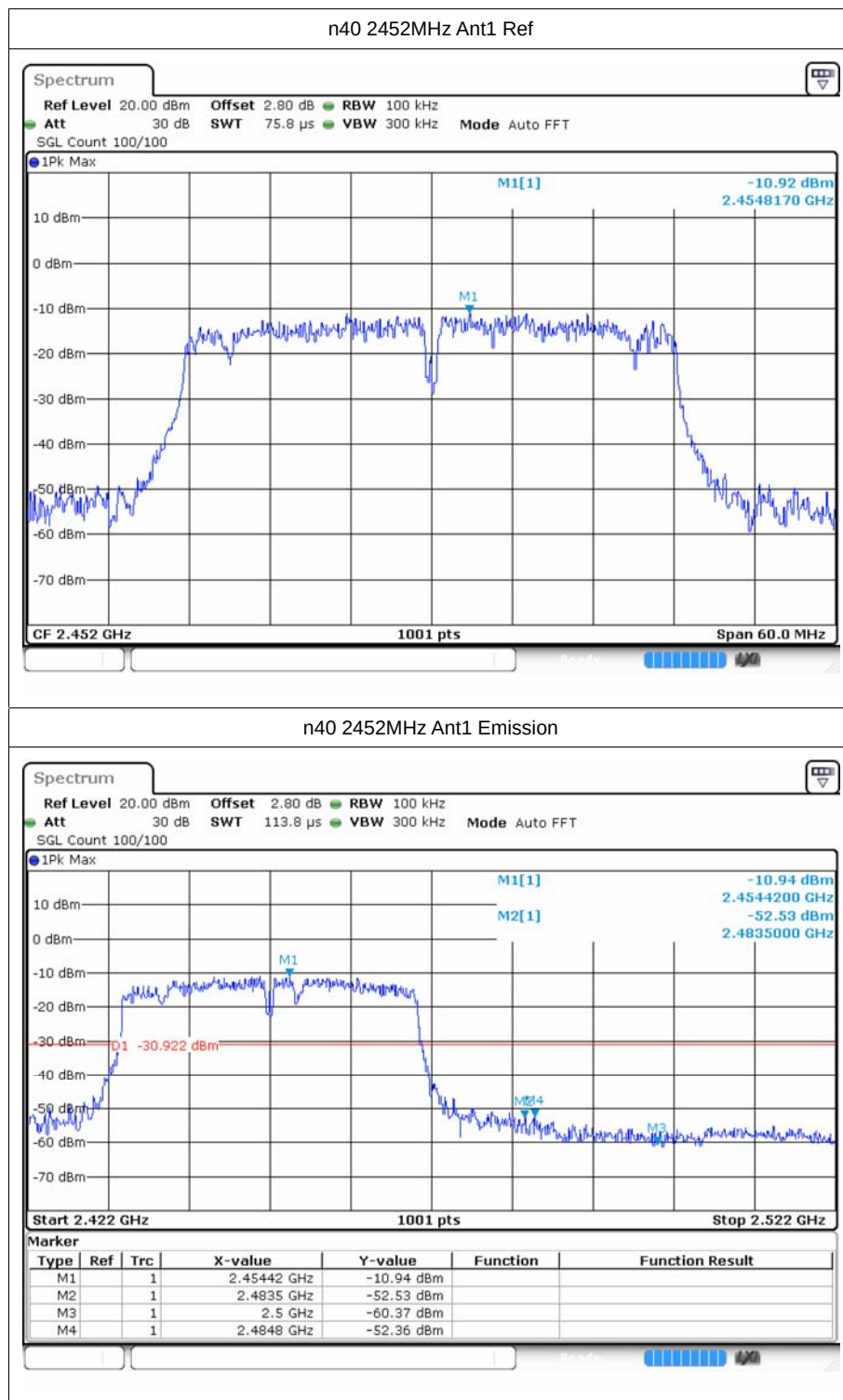












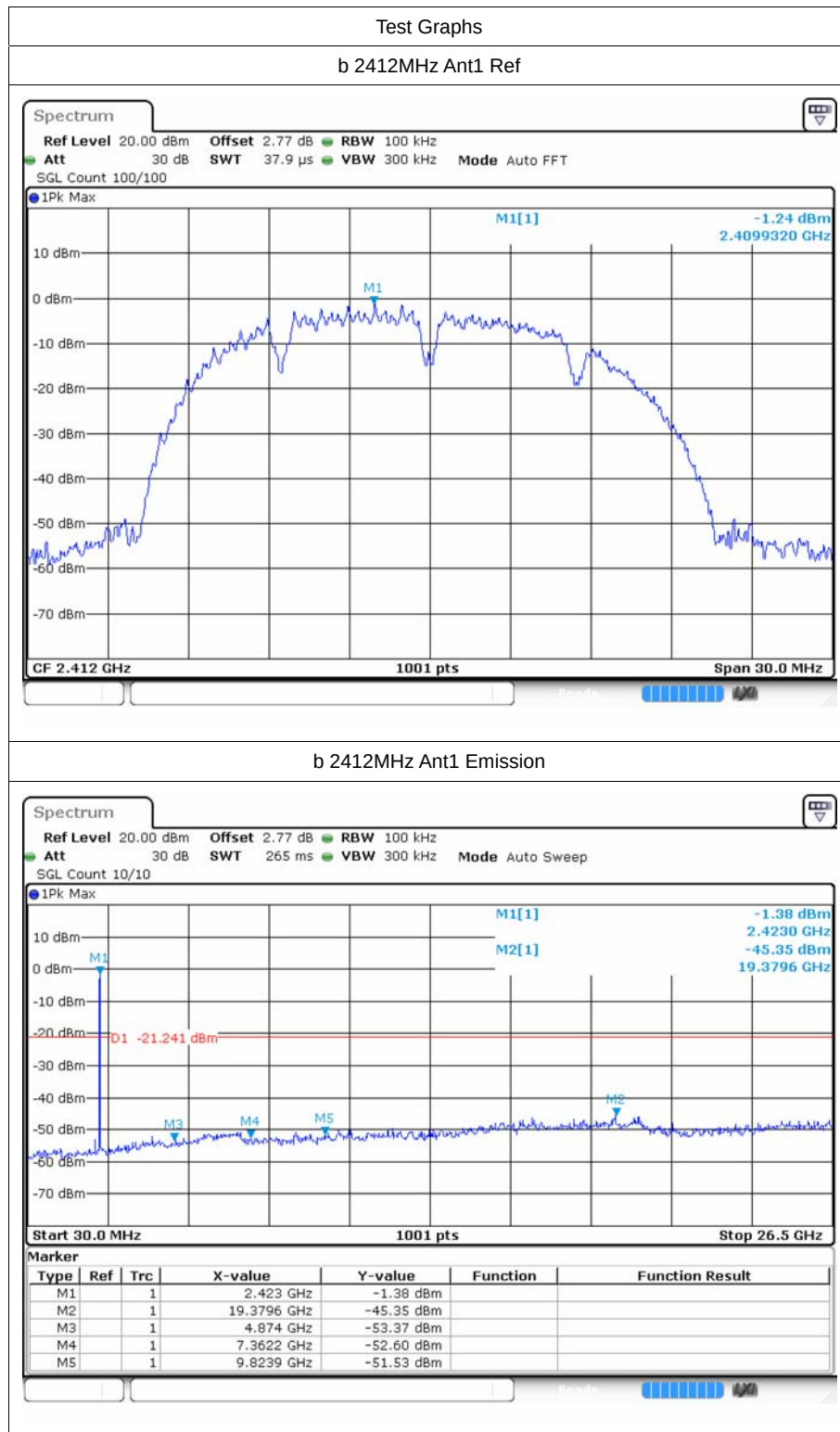


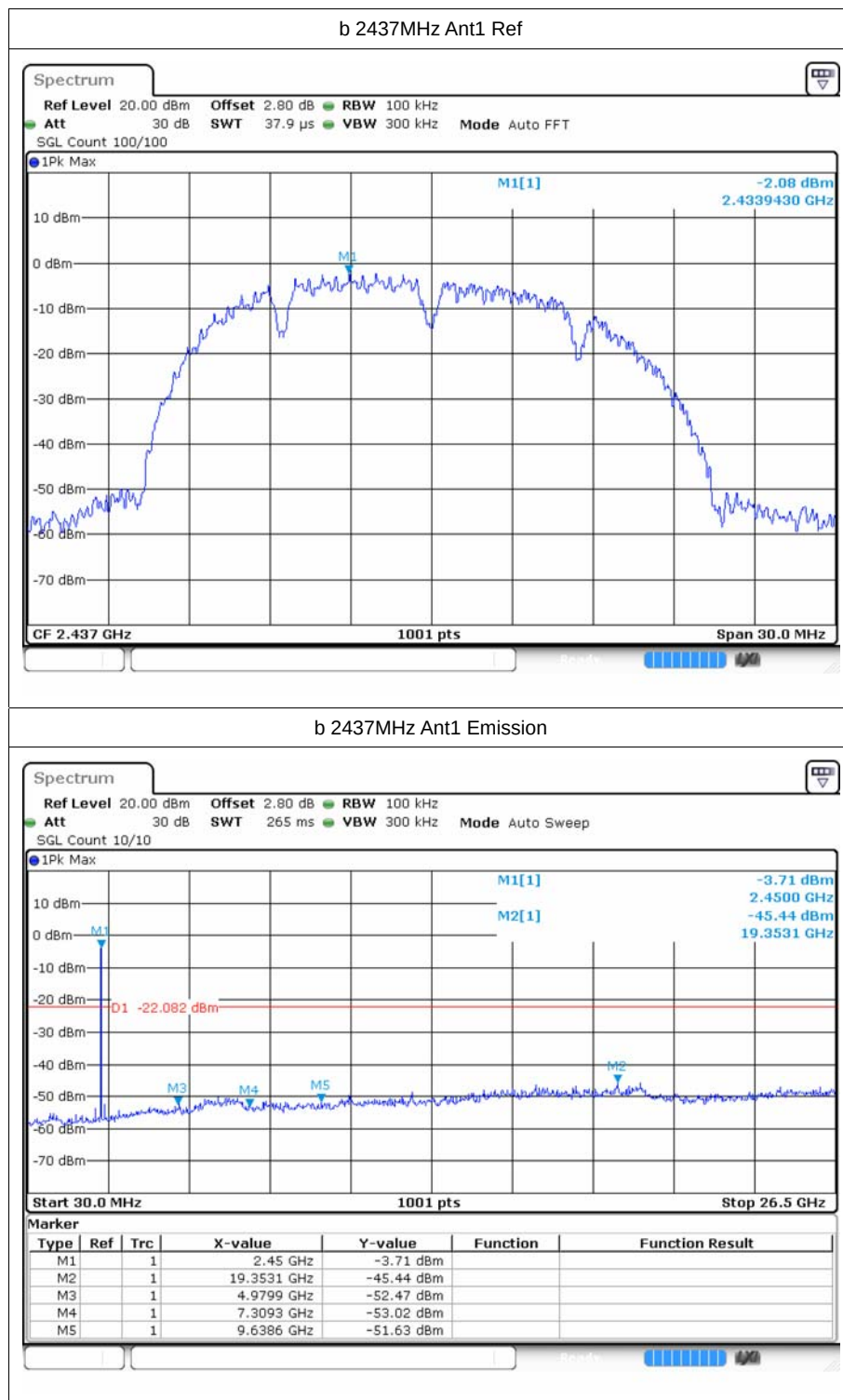
6 Conducted RF Spurious Emission

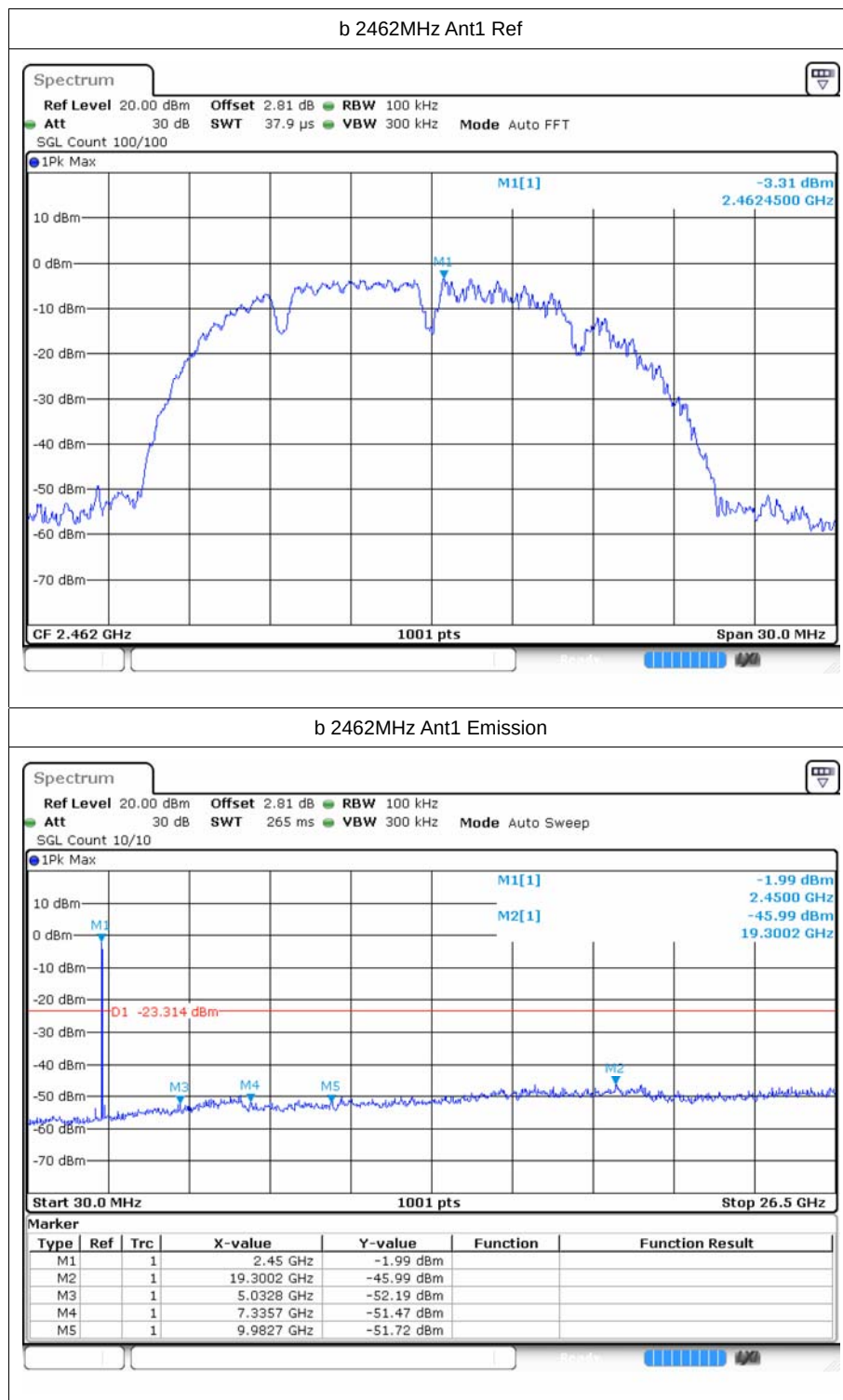
6.1 Test Result

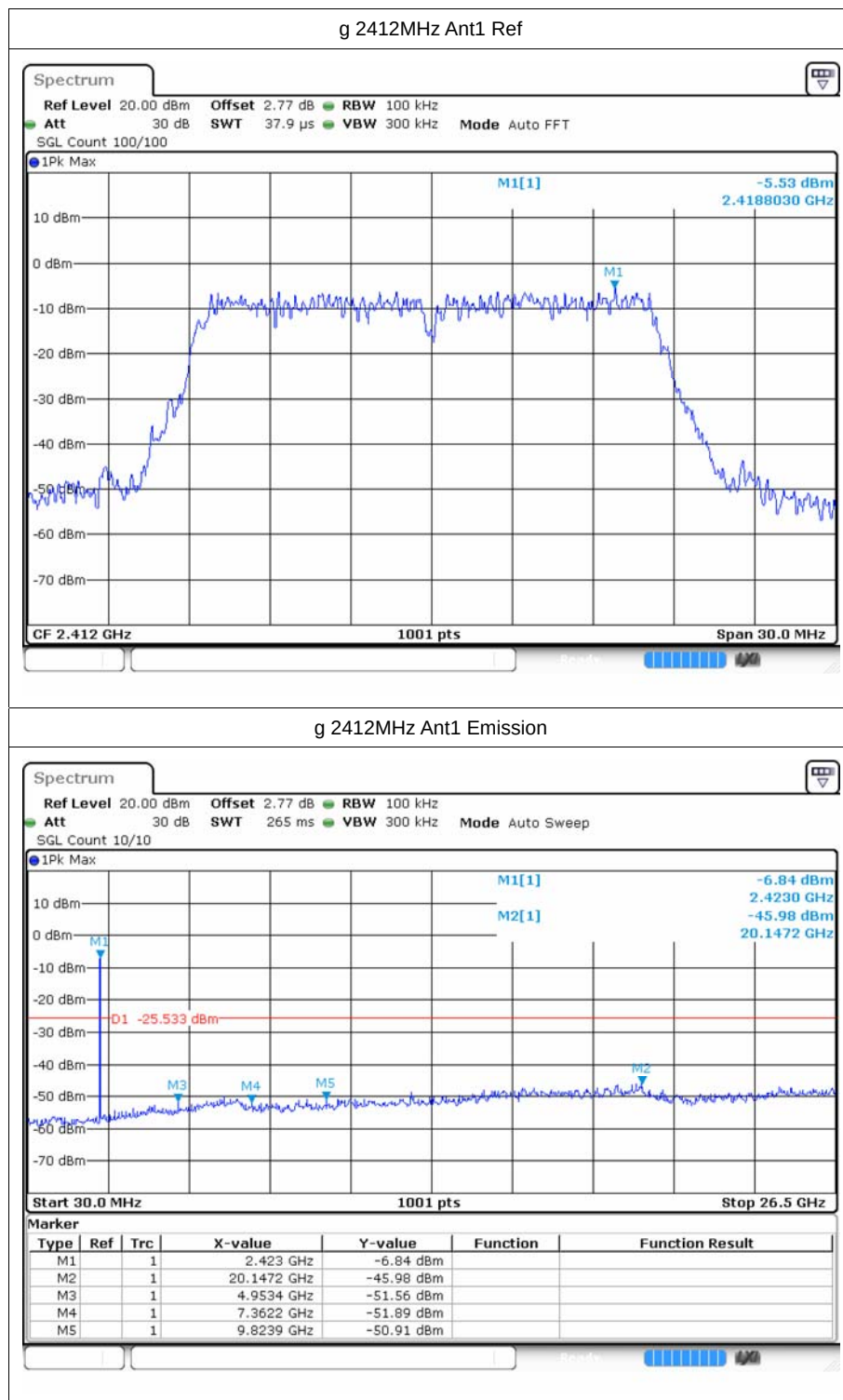
Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
b	2412	Ant1	-44.11	-20	Pass
b	2437	Ant1	-43.36	-20	Pass
b	2462	Ant1	-42.68	-20	Pass
g	2412	Ant1	-40.45	-20	Pass
g	2437	Ant1	-38.95	-20	Pass
g	2462	Ant1	-39.21	-20	Pass
n20	2412	Ant1	-43.59	-20	Pass
n20	2437	Ant1	-40.06	-20	Pass
n20	2462	Ant1	-40.47	-20	Pass
n40	2422	Ant1	-37.85	-20	Pass
n40	2437	Ant1	-34.73	-20	Pass
n40	2452	Ant1	-38.96	-20	Pass

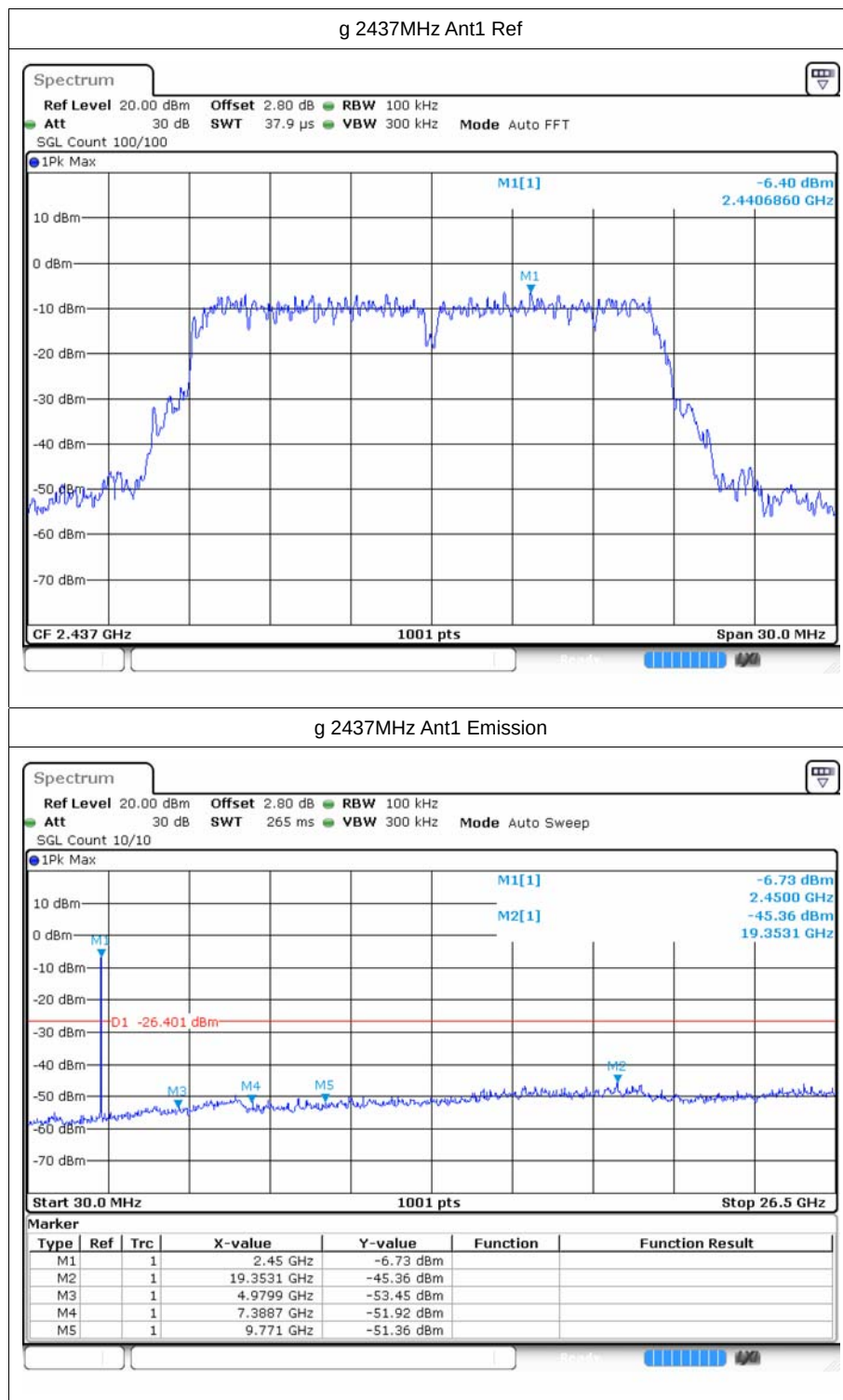
6.2 Test Graphs

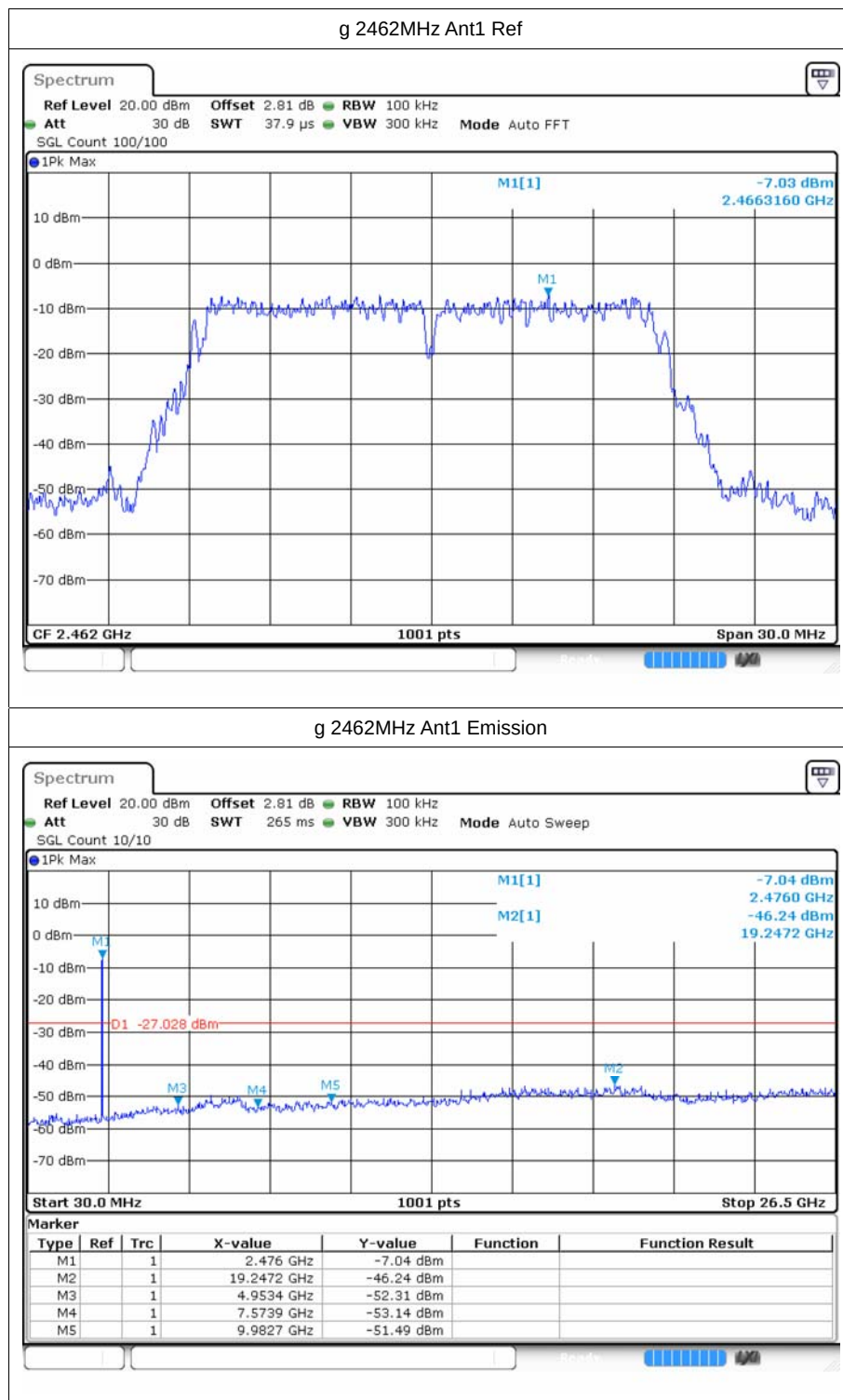


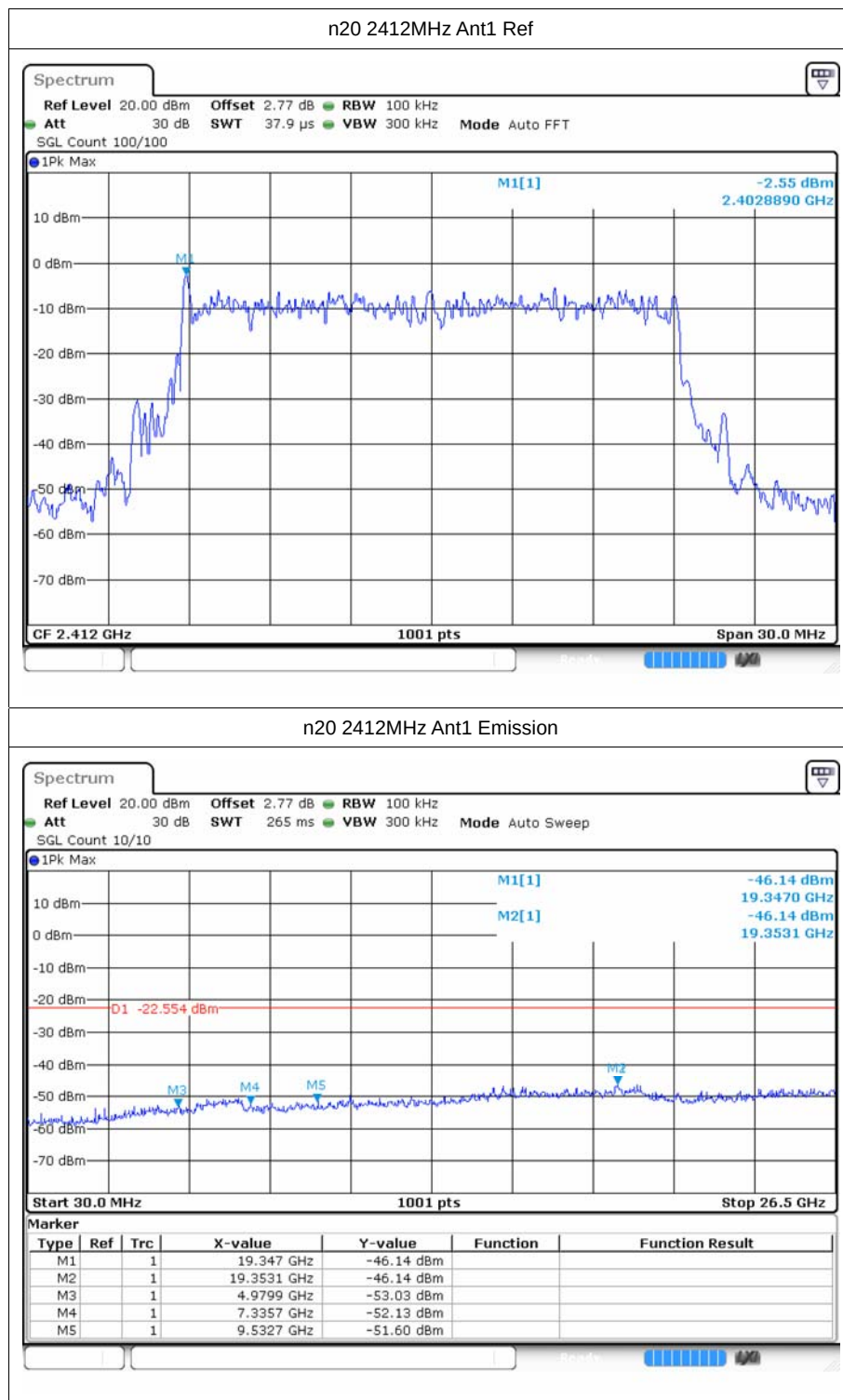


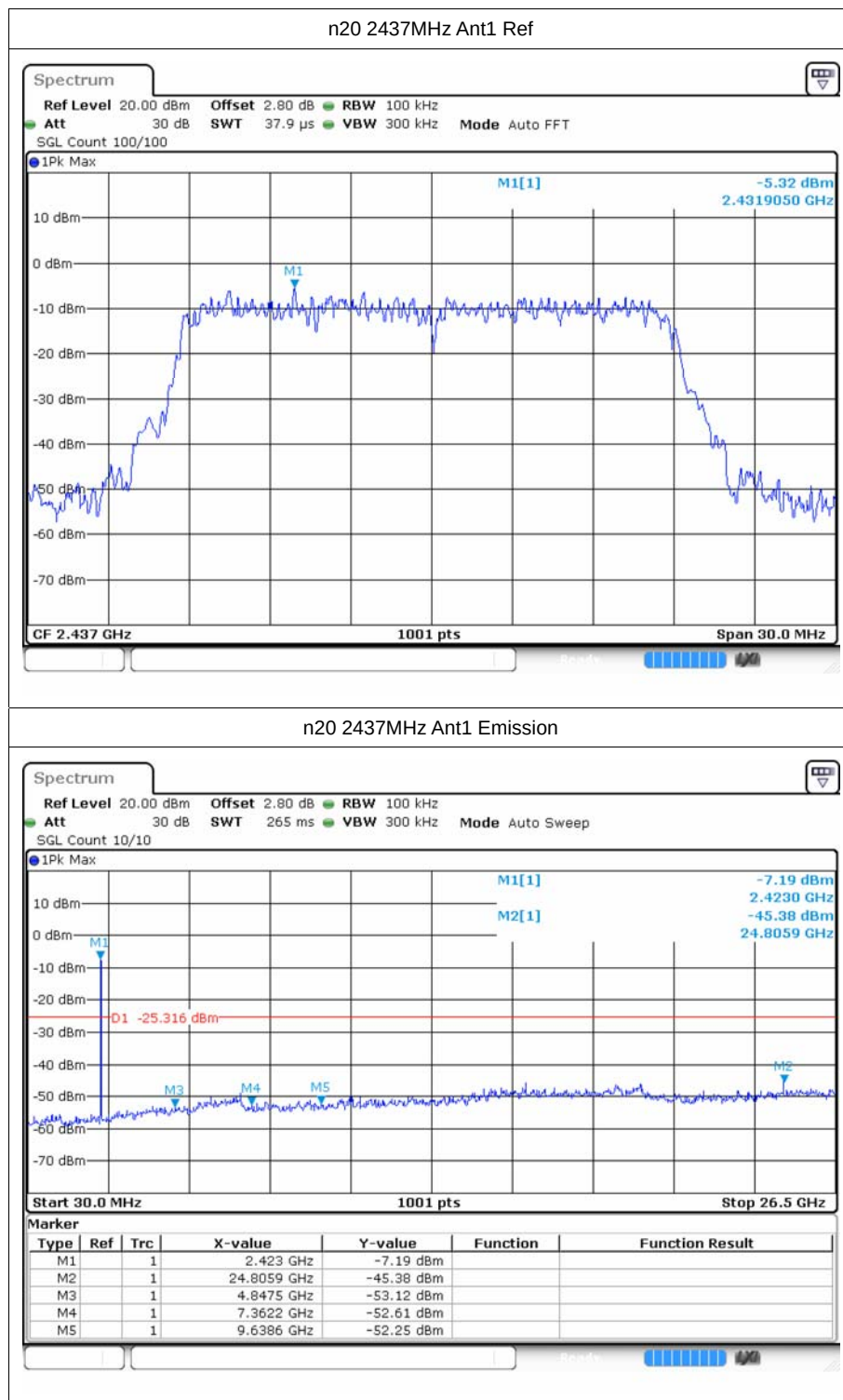


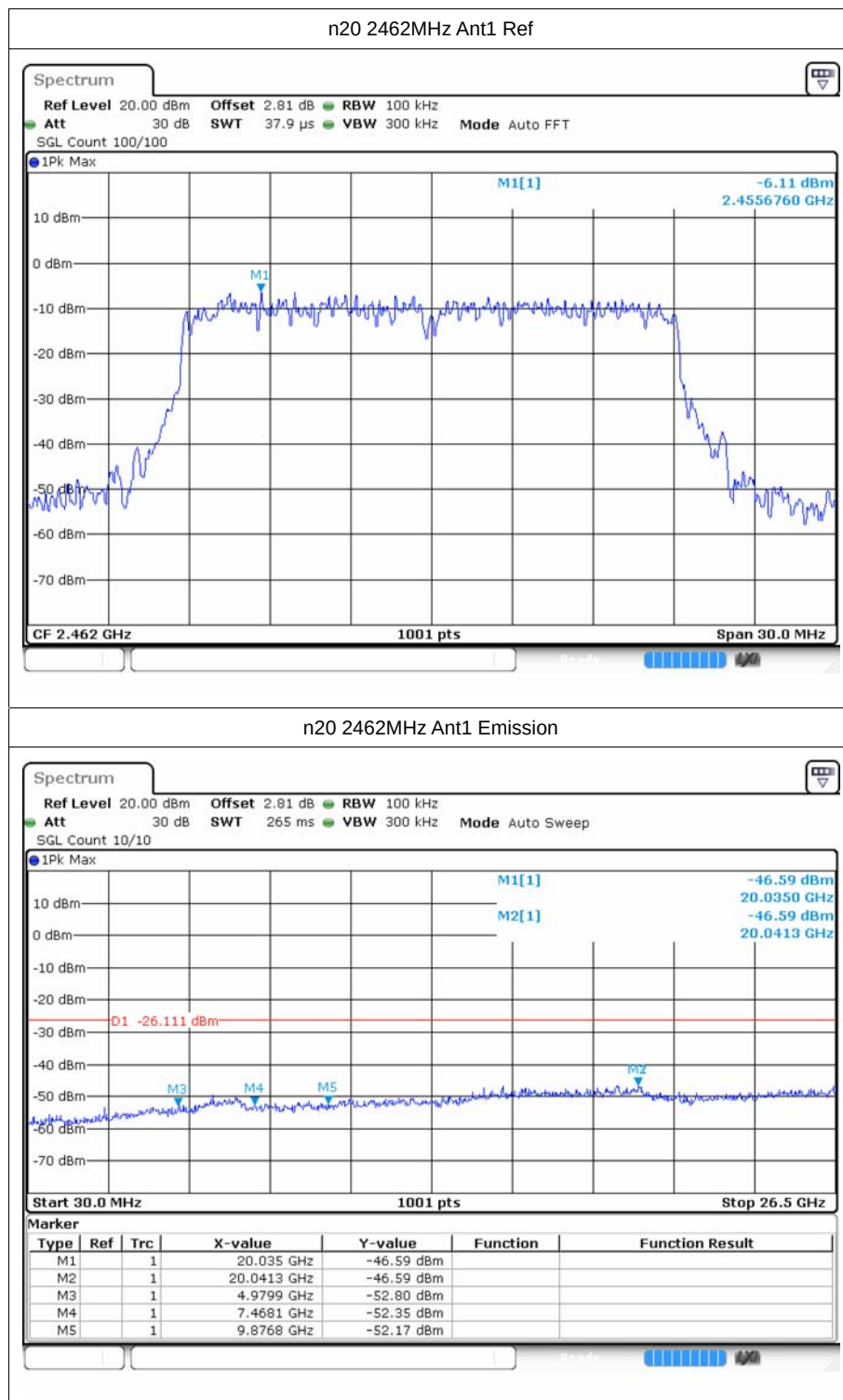


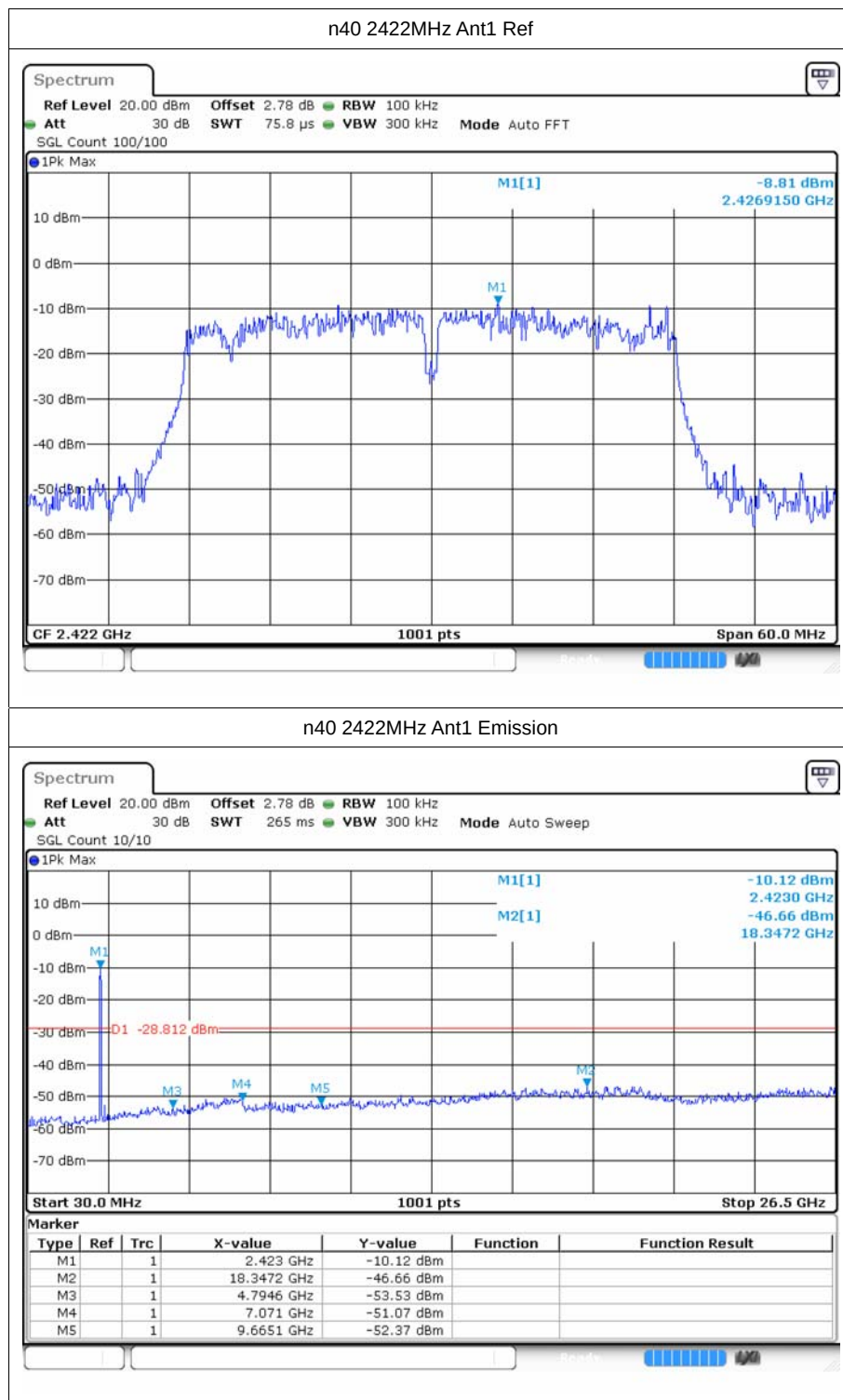


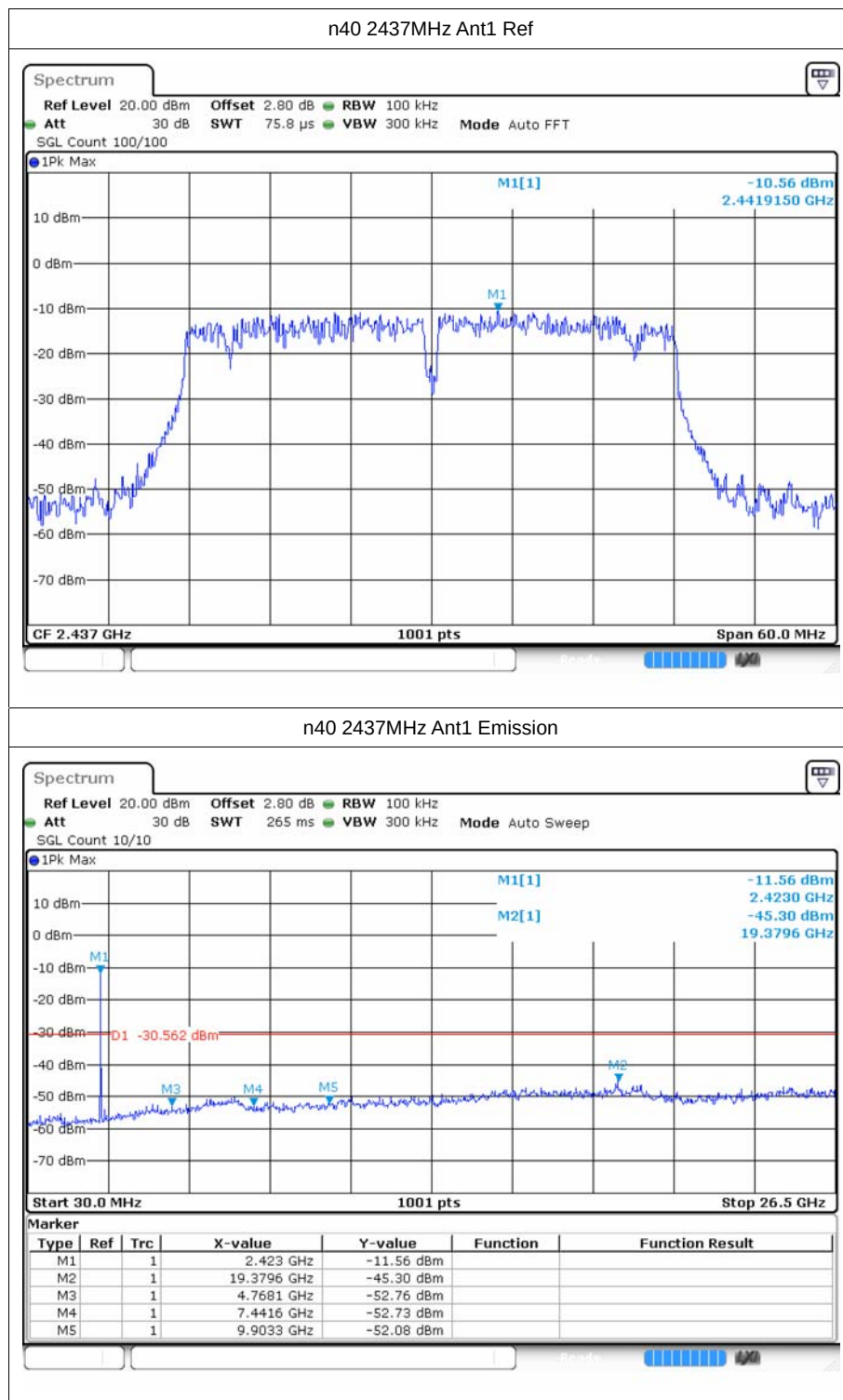


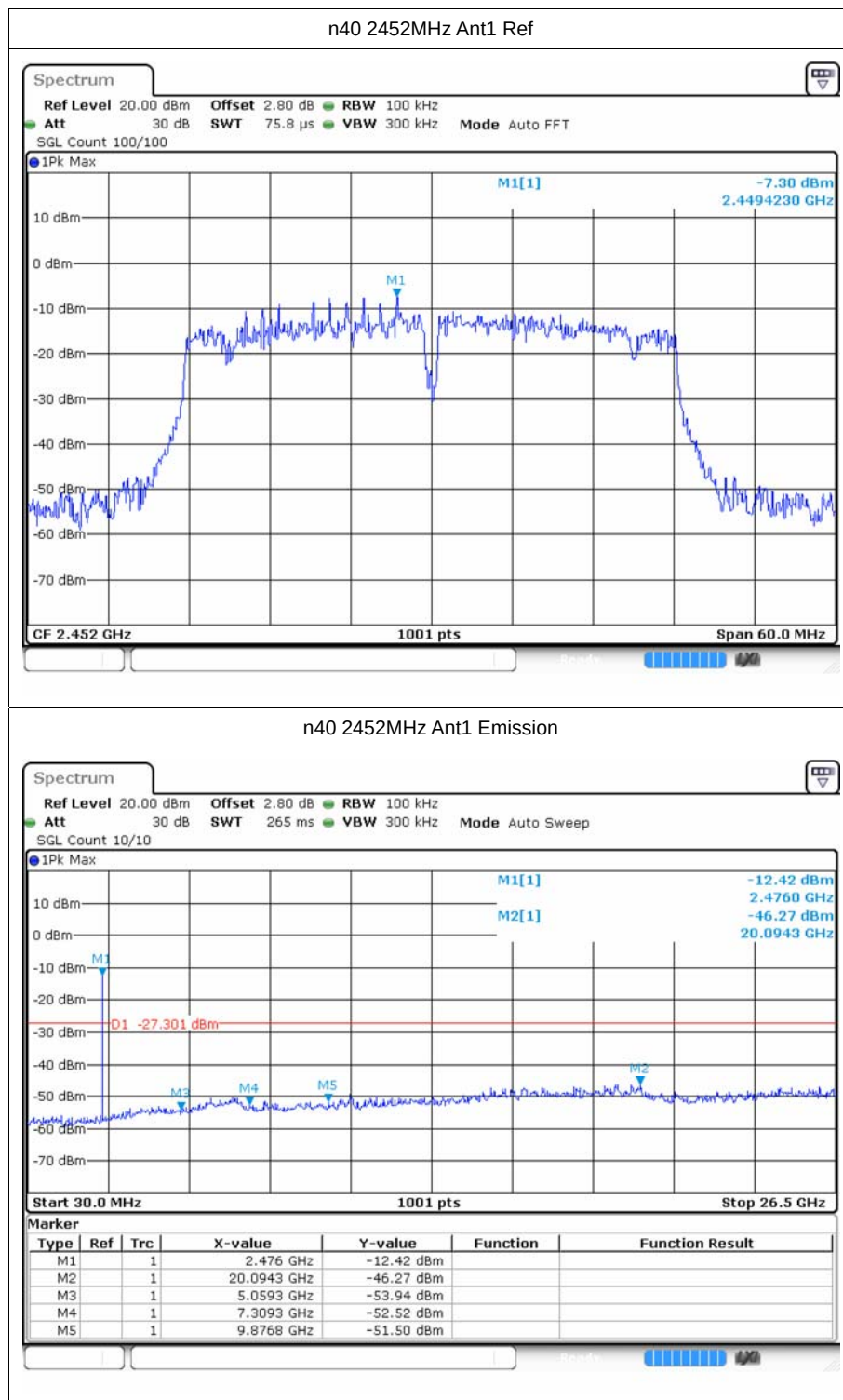














7 Restrict Band

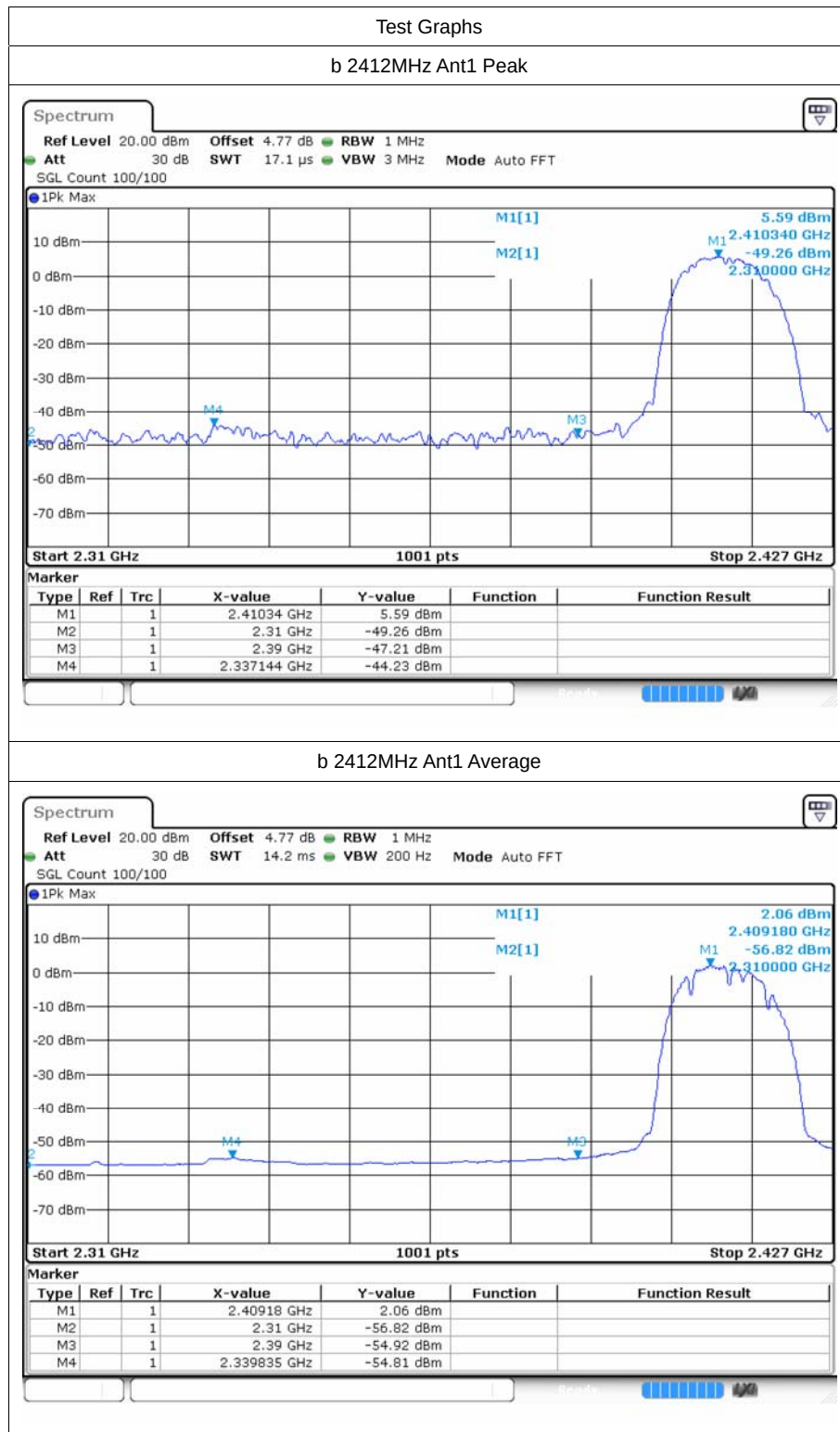
7.1 Test Result

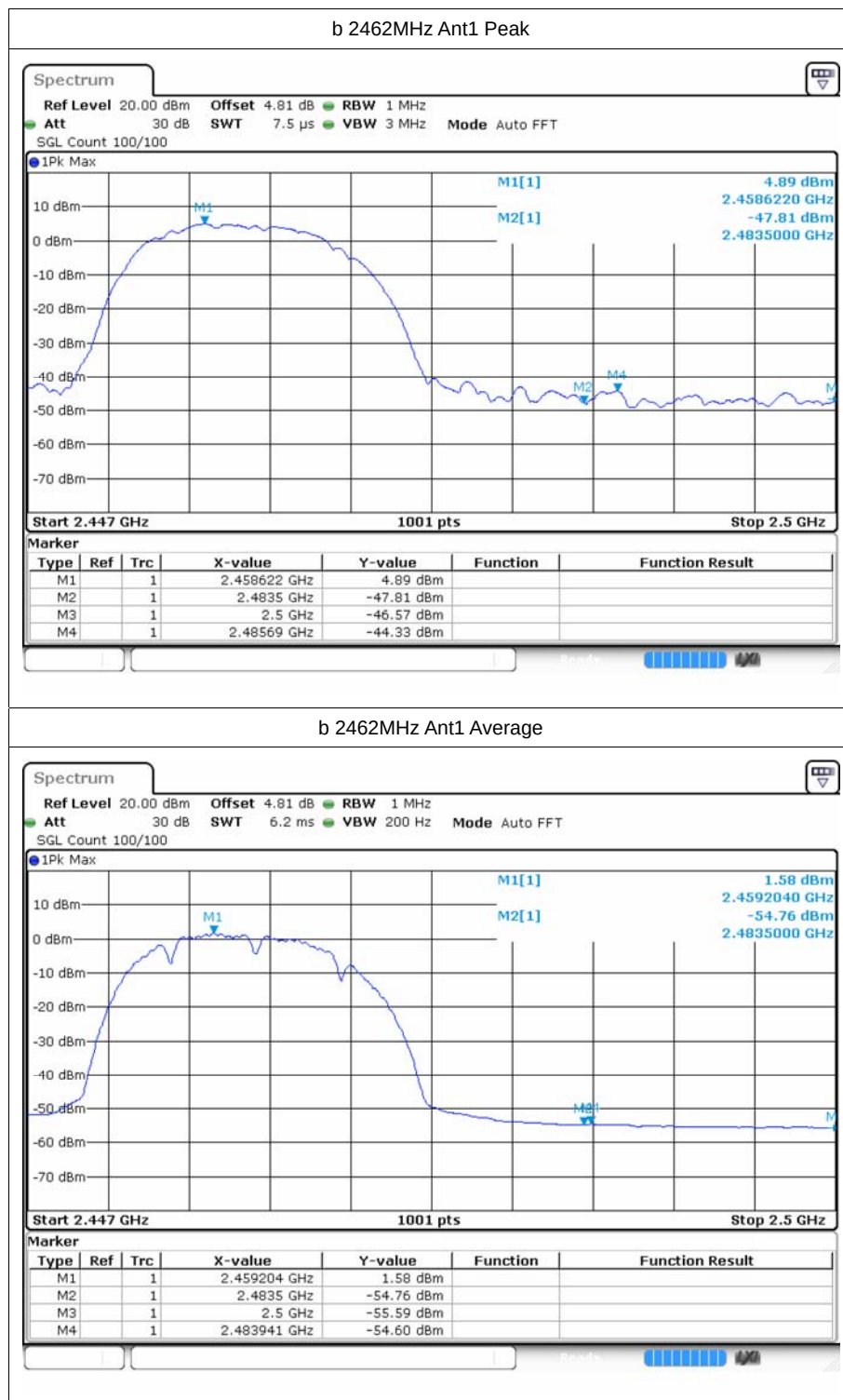
Mod e	Frequency (MHz)	Antenn a	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detecto r	Limit (dBuV/m)	Verdic t
b	2412	Ant1	2310	-49.25	2	48.01	Peak	74	Pass
b	2412	Ant1	2310	-56.82	2	40.44	Average	54	Pass
b	2412	Ant1	2337.144	-44.22	2	53.04	Peak	74	Pass
b	2412	Ant1	2339.835	-54.8	2	42.46	Average	54	Pass
b	2412	Ant1	2390	-47.2	2	50.06	Peak	74	Pass
b	2412	Ant1	2390	-54.92	2	42.34	Average	54	Pass
b	2462	Ant1	2483.5	-47.81	2	49.45	Peak	74	49.45
b	2462	Ant1	2483.5	-54.76	2	42.5	Average	54	Pass
b	2462	Ant1	2485.69	-44.33	2	52.93	Peak	74	Pass
b	2462	Ant1	2483.941	-54.59	2	42.67	Average	54	Pass
b	2462	Ant1	2500	-46.56	2	50.7	Peak	74	Pass
b	2462	Ant1	2500	-55.59	2	41.67	Average	54	Pass
g	2412	Ant1	2310	-48.41	2	48.85	Peak	74	Pass
g	2412	Ant1	2310	-56.4	2	40.86	Average	54	Pass
g	2412	Ant1	2385.231	-43.84	2	53.42	Peak	74	Pass
g	2412	Ant1	2389.911	-51.91	2	45.35	Average	54	Pass
g	2412	Ant1	2390	-45.27	2	49.34	Peak	74	Pass
g	2412	Ant1	2390	-51.82	2	45.44	Average	54	Pass
g	2462	Ant1	2483.5	-46.44	2	50.82	Peak	74	Pass
g	2462	Ant1	2483.5	-53.22	2	44.04	Average	54	Pass
g	2462	Ant1	2485.69	-44.32	2	52.94	Peak	74	Pass
g	2462	Ant1	2483.835	-53.19	2	44.07	Average	54	Pass
g	2462	Ant1	2500	-47.24	2	50.7	Peak	74	Pass
g	2462	Ant1	2500	-55.16	2	42.1	Average	54	Pass
n20	2412	Ant1	2310	-46.81	2	50.45	Peak	74	Pass
n20	2412	Ant1	2310	-56.52	2	40.74	Average	54	Pass
n20	2412	Ant1	2385.816	-40.73	2	56.53	Peak	74	Pass
n20	2412	Ant1	2389.911	-52.07	2	45.19	Average	54	Pass
n20	2412	Ant1	2390	-46.31	2	50.95	Peak	74	Pass
n20	2412	Ant1	2390	-51.98	2	45.28	Average	54	Pass
n20	2462	Ant1	2483.5	-44.33	2	52.93	Peak	74	Pass
n20	2462	Ant1	2483.5	-52.98	2	44.28	Average	54	Pass
n20	2462	Ant1	2483.517	-44.33	2	52.93	Peak	74	Pass
n20	2462	Ant1	2483.888	-52.89	2	44.37	Average	54	Pass

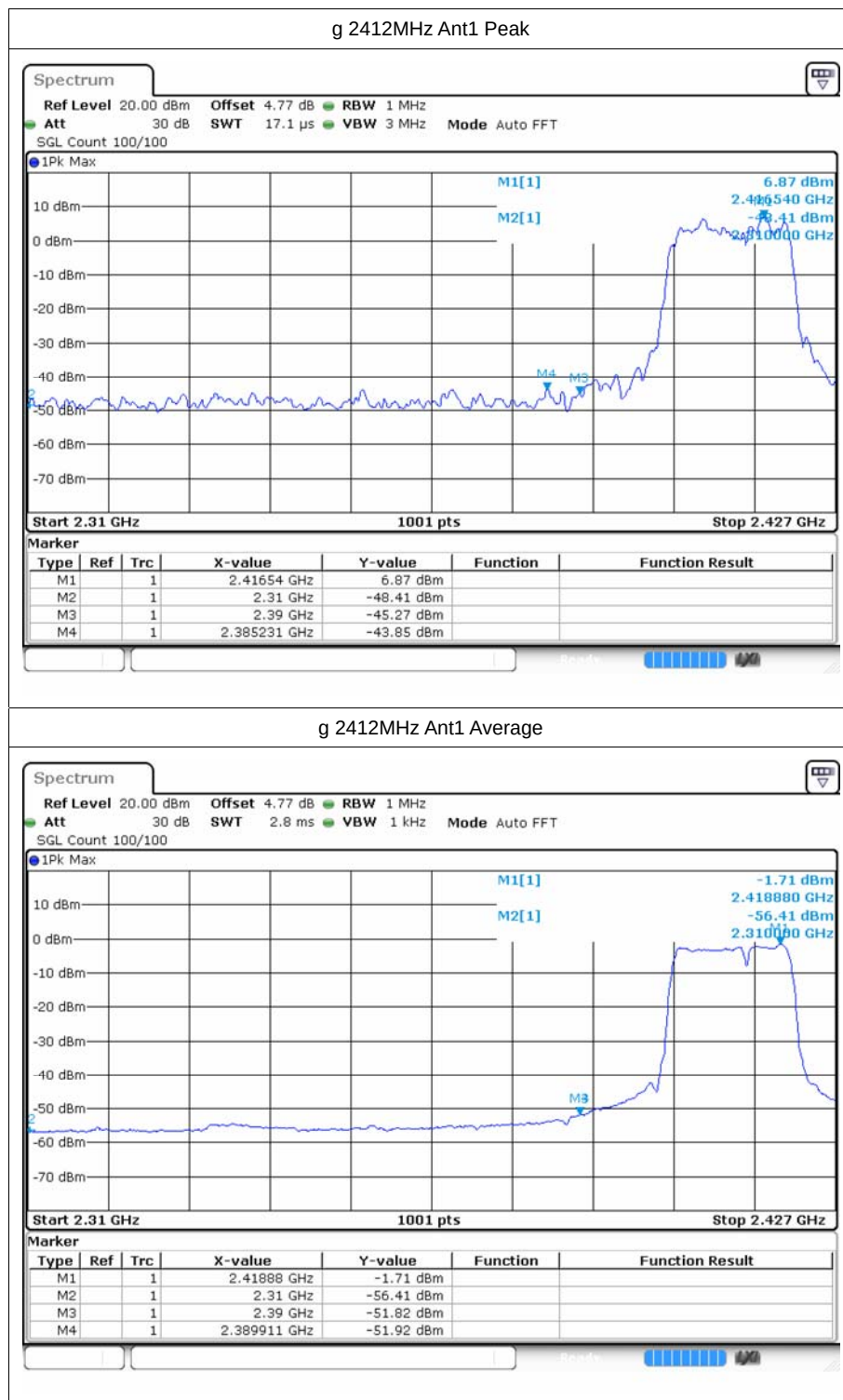


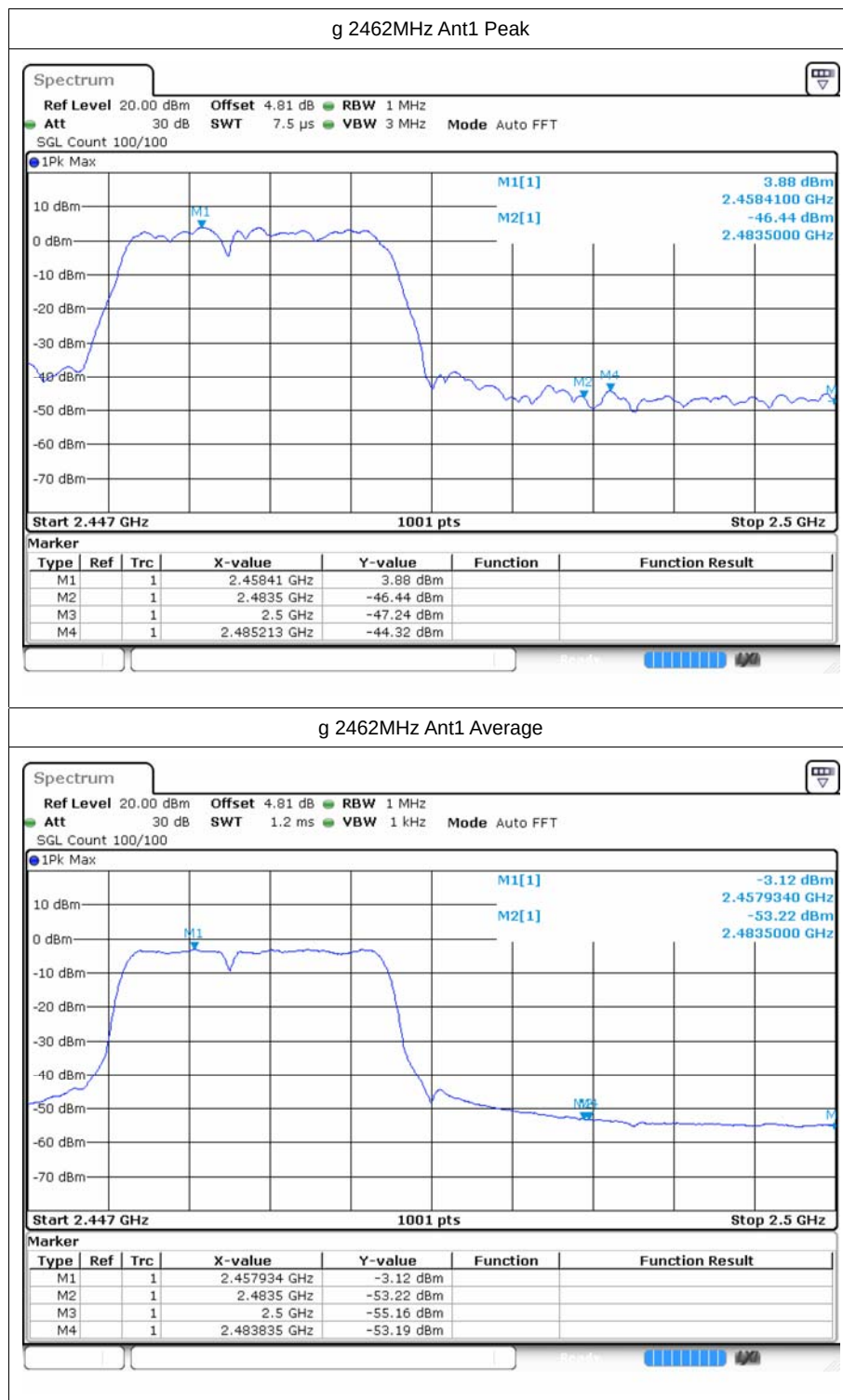
n20	2462	Ant1	2500	-46.4	2	50.86	Peak	74	Pass
n20	2462	Ant1	2500	-55.26	2	42	Average	54	Pass
n40	2422	Ant1	2310	-48.28	2	48.98	Peak	74	Pass
n40	2422	Ant1	2310	-56.22	2	41.04	Average	54	Pass
n40	2422	Ant1	2386.538	-40.12	2	57.14	Peak	74	Pass
n40	2422	Ant1	2389.804	-47.82	2	49.44	Average	54	Pass
n40	2422	Ant1	2390	-40.27	2	56.99	Peak	74	Pass
n40	2422	Ant1	2390	-47.8	2	49.46	Average	54	Pass
n40	2452	Ant1	2483.5	-41.17	2	56.09	Peak	74	Pass
n40	2452	Ant1	2483.5	-50.44	2	46.82	Average	54	Pass
n40	2452	Ant1	2483.776	-40.49	2	56.77	Peak	74	Pass
n40	2452	Ant1	2484.01	-49.7	2	47.56	Average	54	Pass
n40	2452	Ant1	2500	-45.6	2	51.66	Peak	74	Pass
n40	2452	Ant1	2500	-54.72	2	42.54	Average	54	Pass

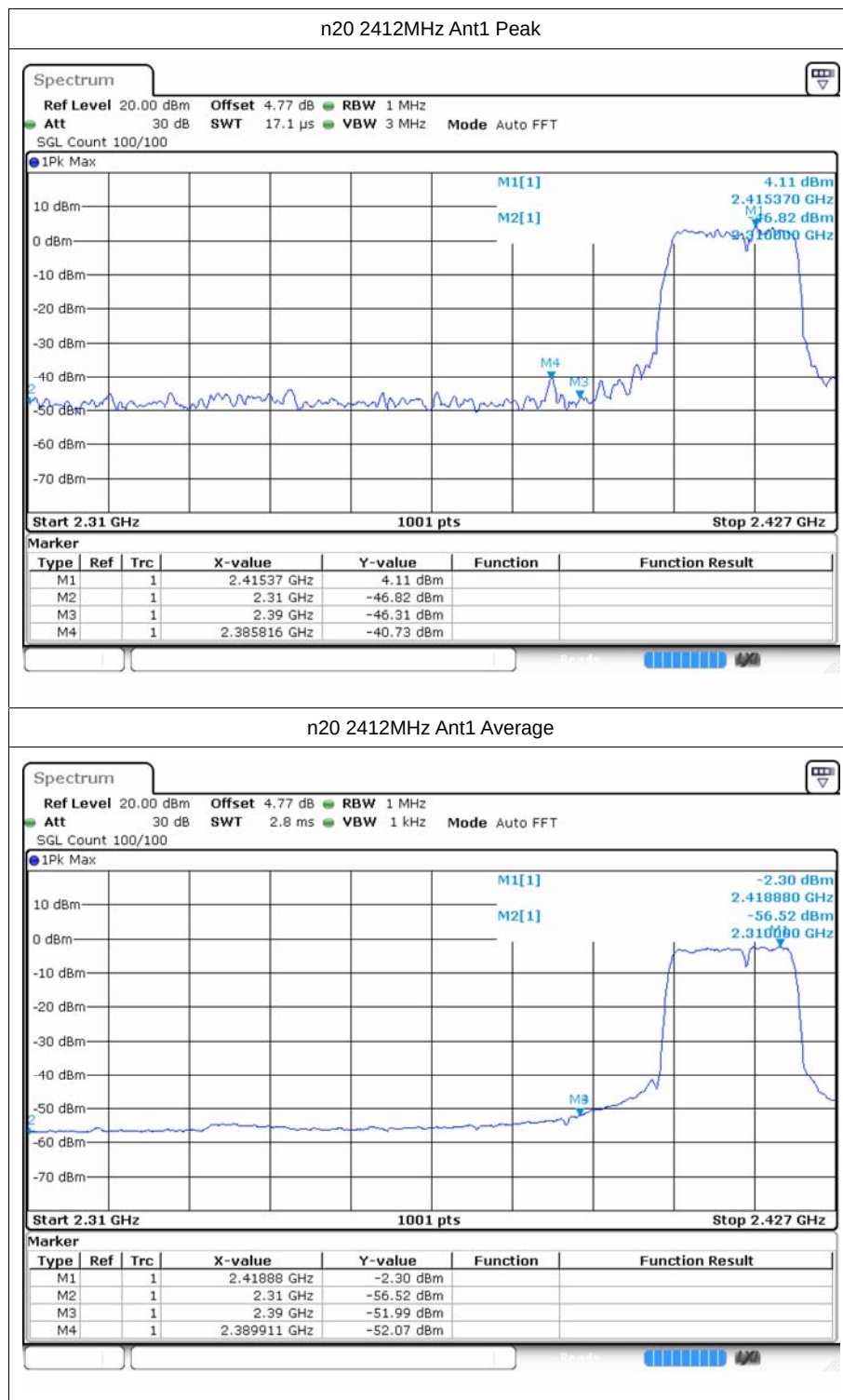
7.2 Test Graphs

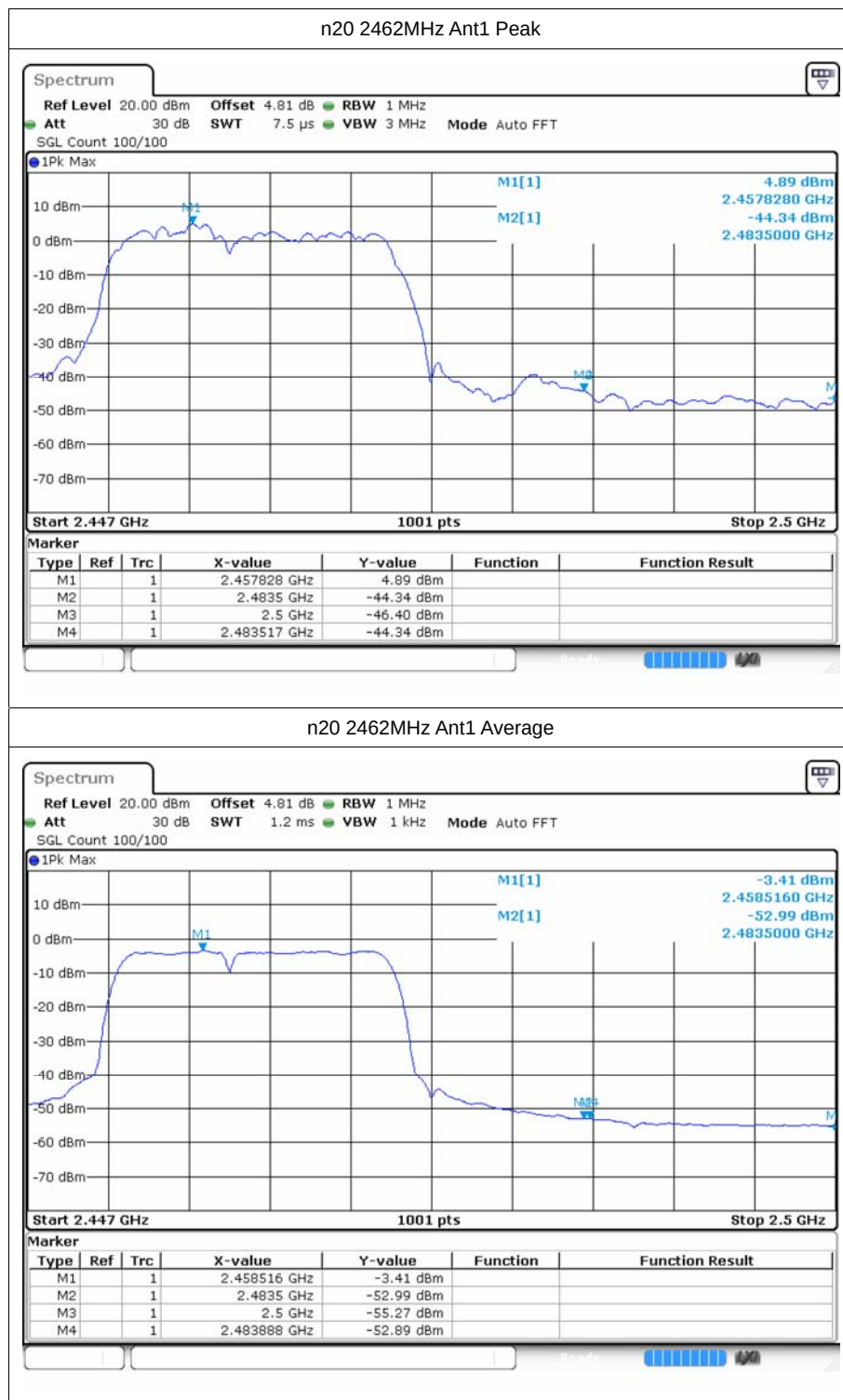


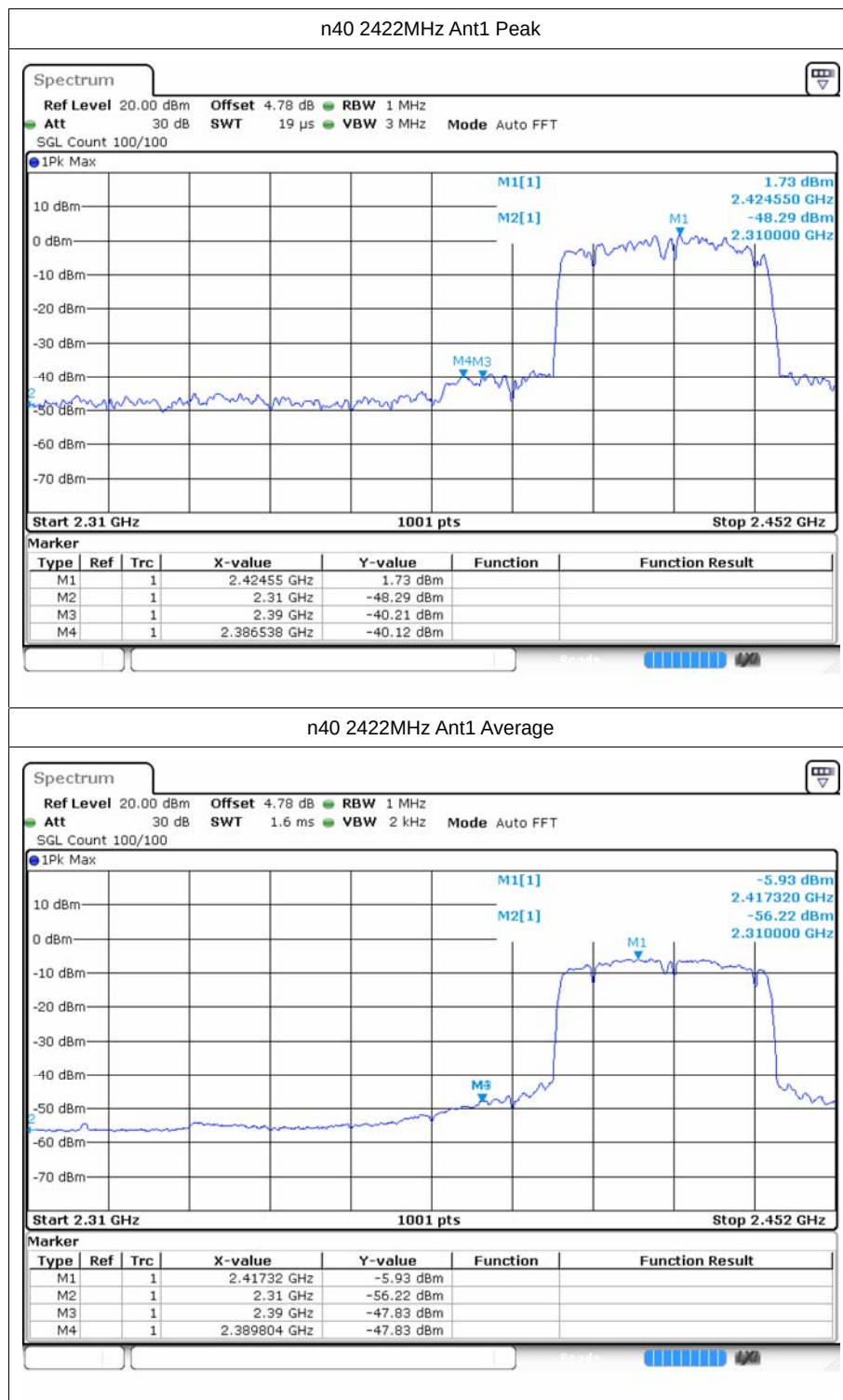


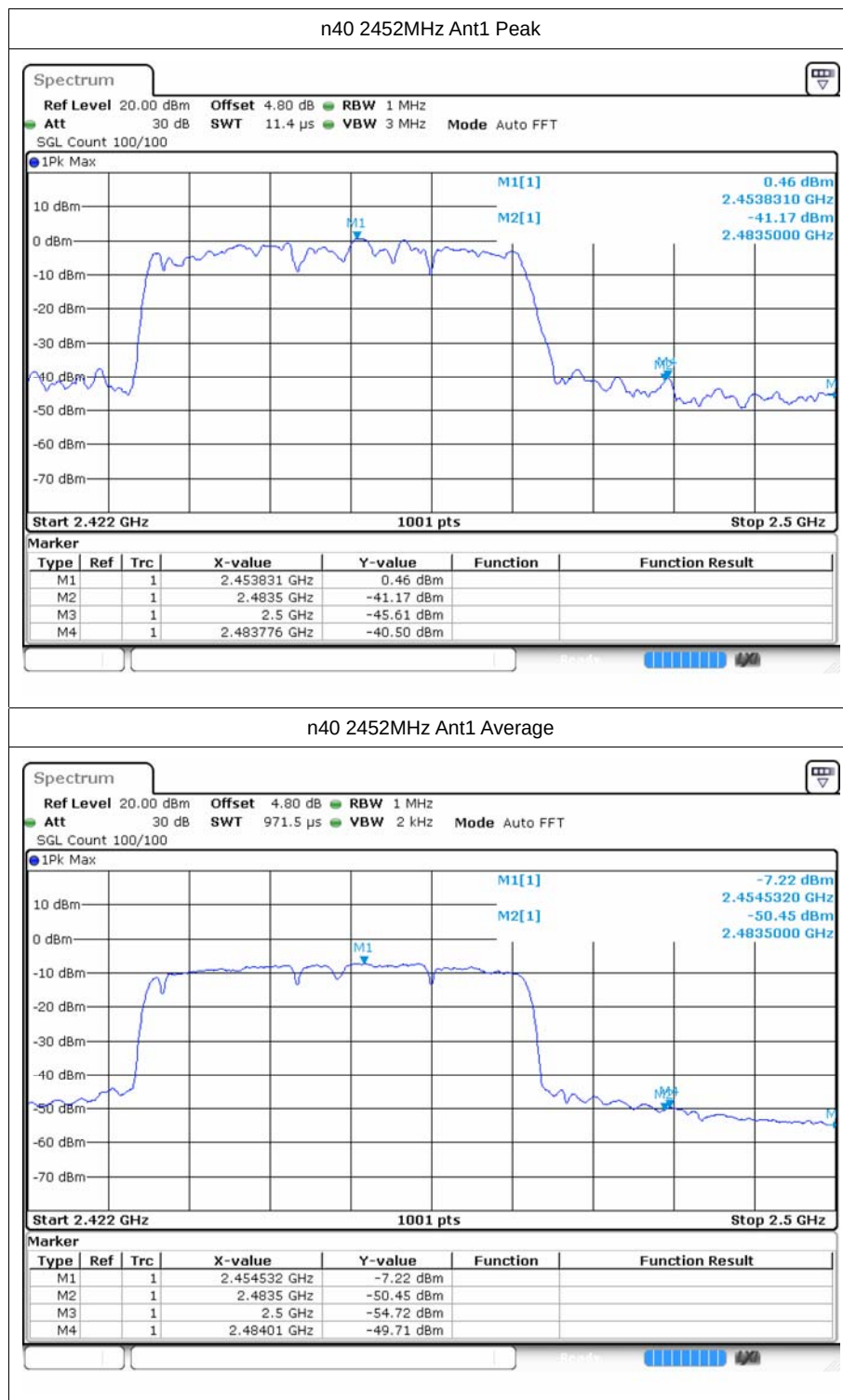












---The End---