



Appendix C

RF Test Data for 2.4GWIFI (Conducted Measurement)

Product Name: UV Photocuring 3D Printer

Trade Mark: ELEGOO

Test Model: Saturn 3 Ultra

Environmental Conditions

Temperature:	25.8° C
Relative Humidity:	52.4%
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	93.35	0.76
b	2437	Ant1	93.05	0.76
b	2462	Ant1	93.35	0.77
g	2412	Ant1	73.48	4
g	2437	Ant1	73.97	3.85
g	2462	Ant1	73.52	4
n20	2412	Ant1	71.96	4.35
n20	2437	Ant1	72.2	4.35
n20	2462	Ant1	72.47	4.35
n40	2422	Ant1	59.08	8.33
n40	2437	Ant1	60.15	7.69
n40	2452	Ant1	59.56	7.69

1.2 Test Graphs

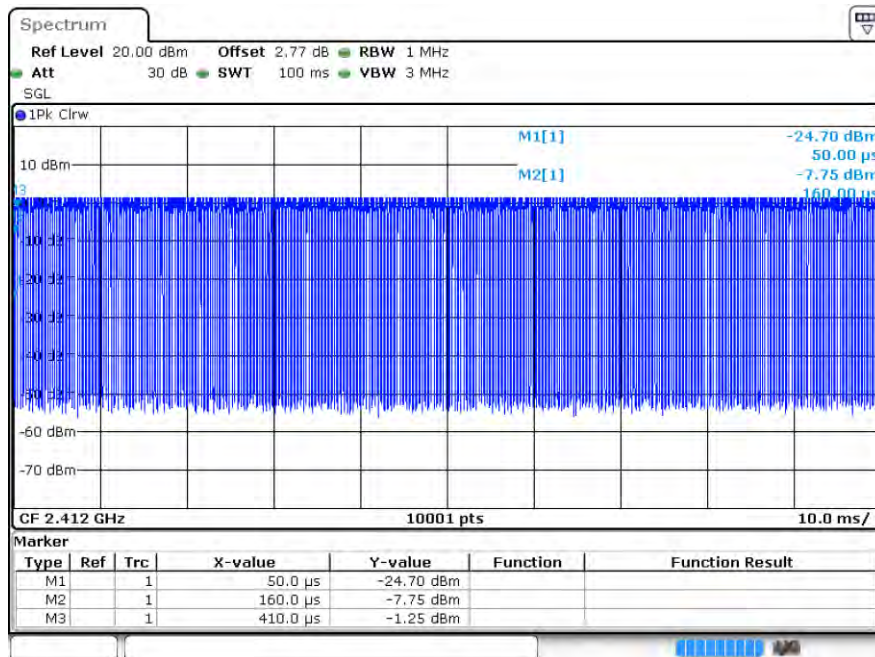


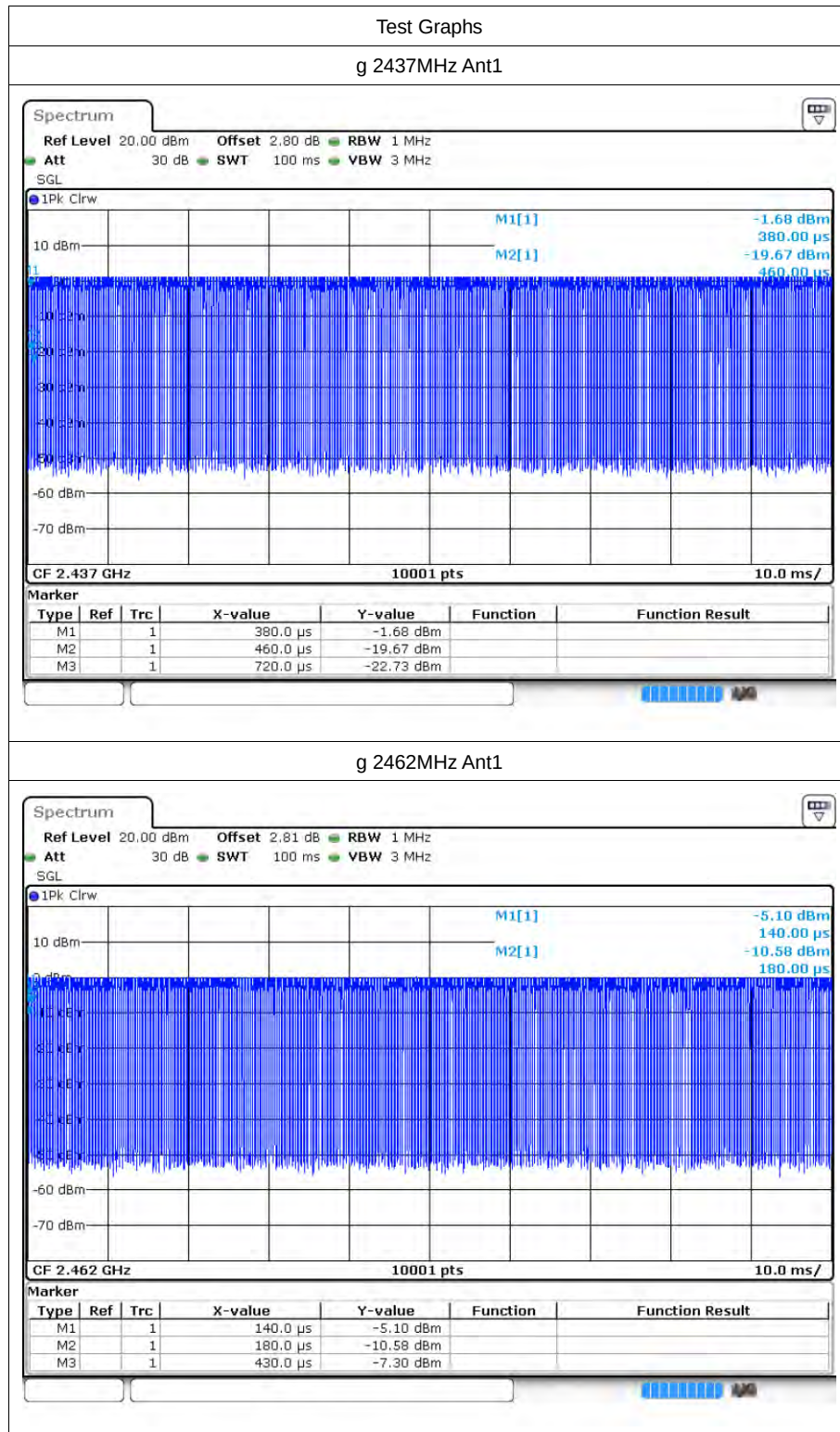
Test Graphs

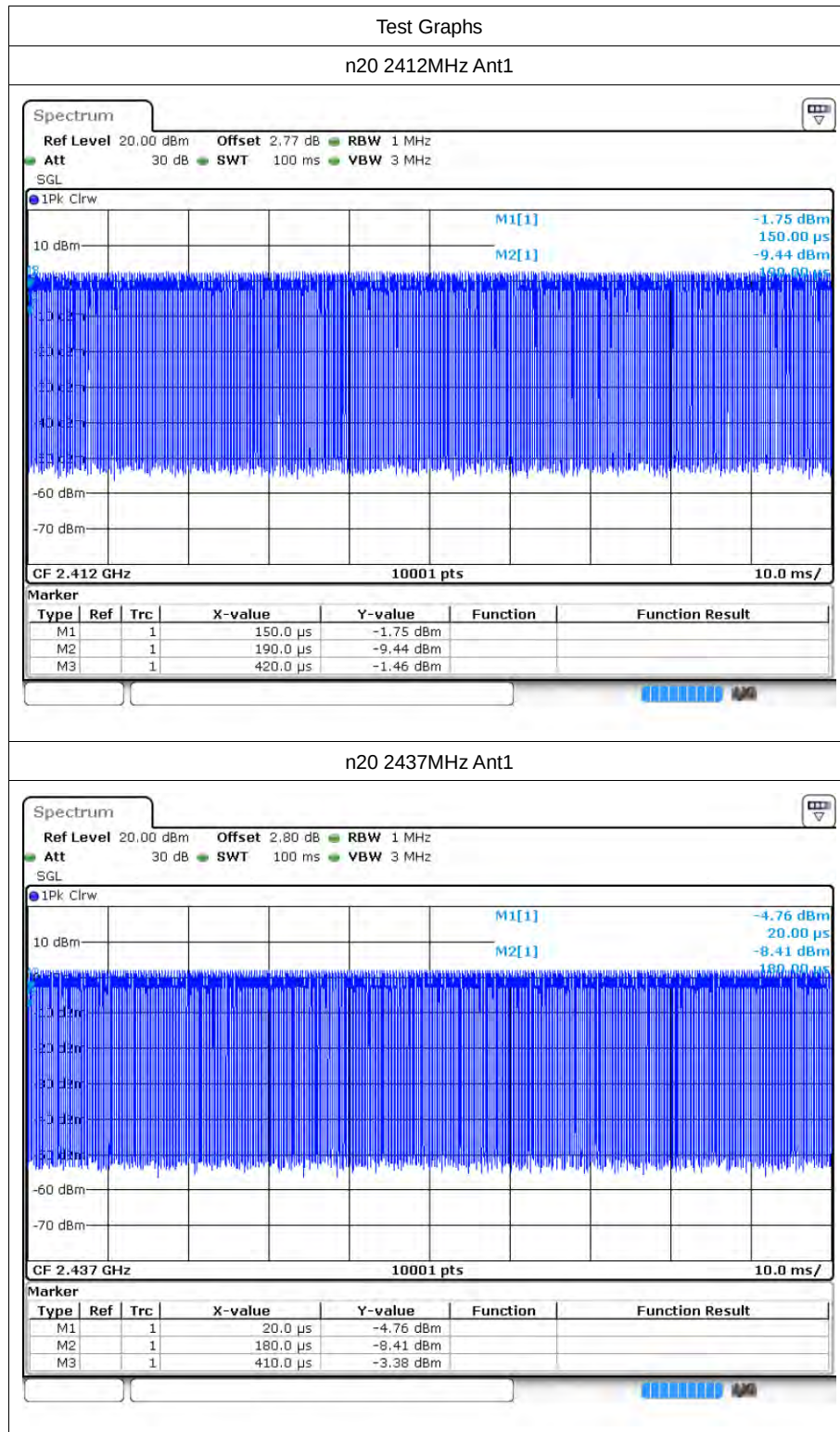
b 2462MHz Ant1

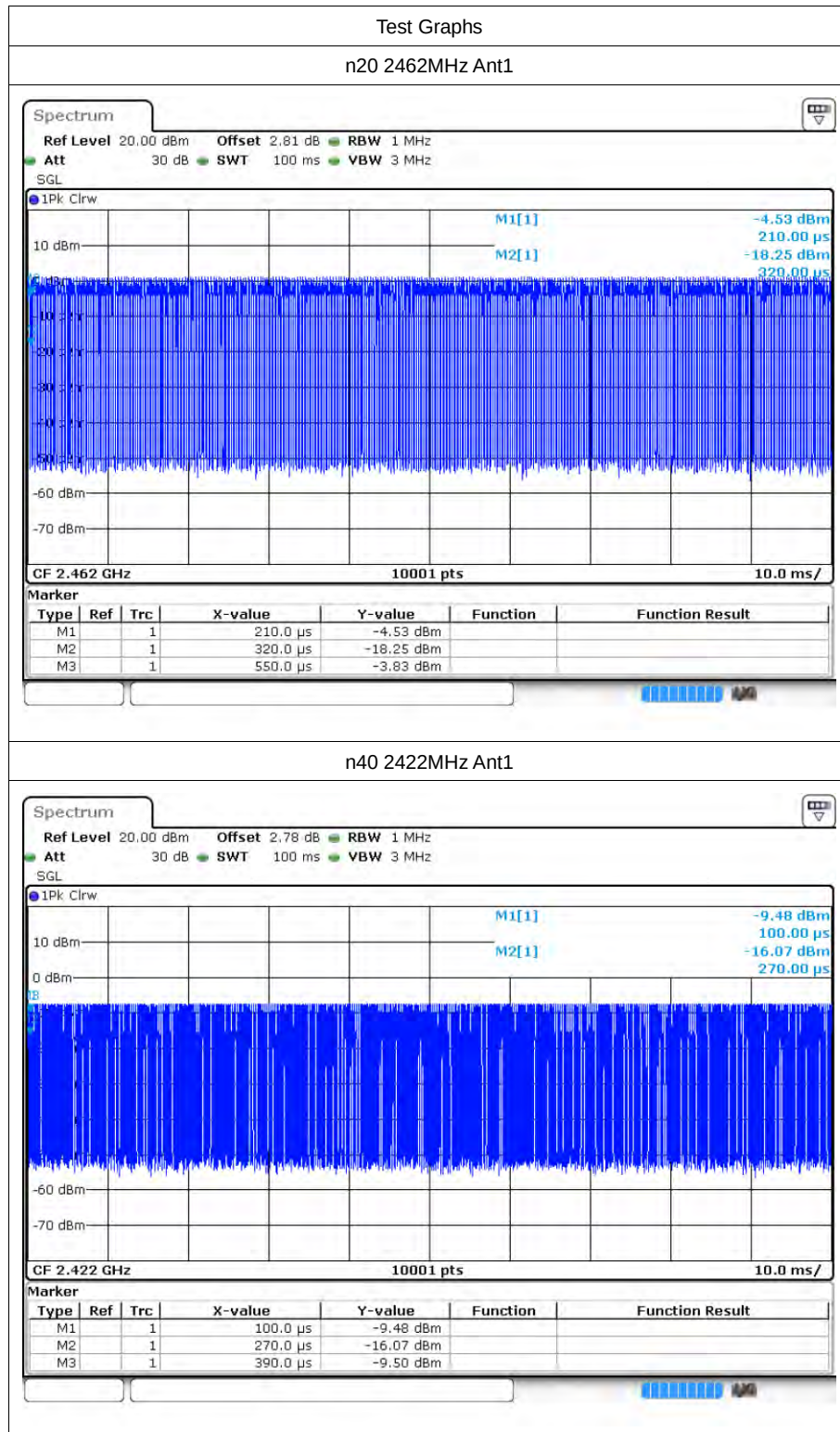


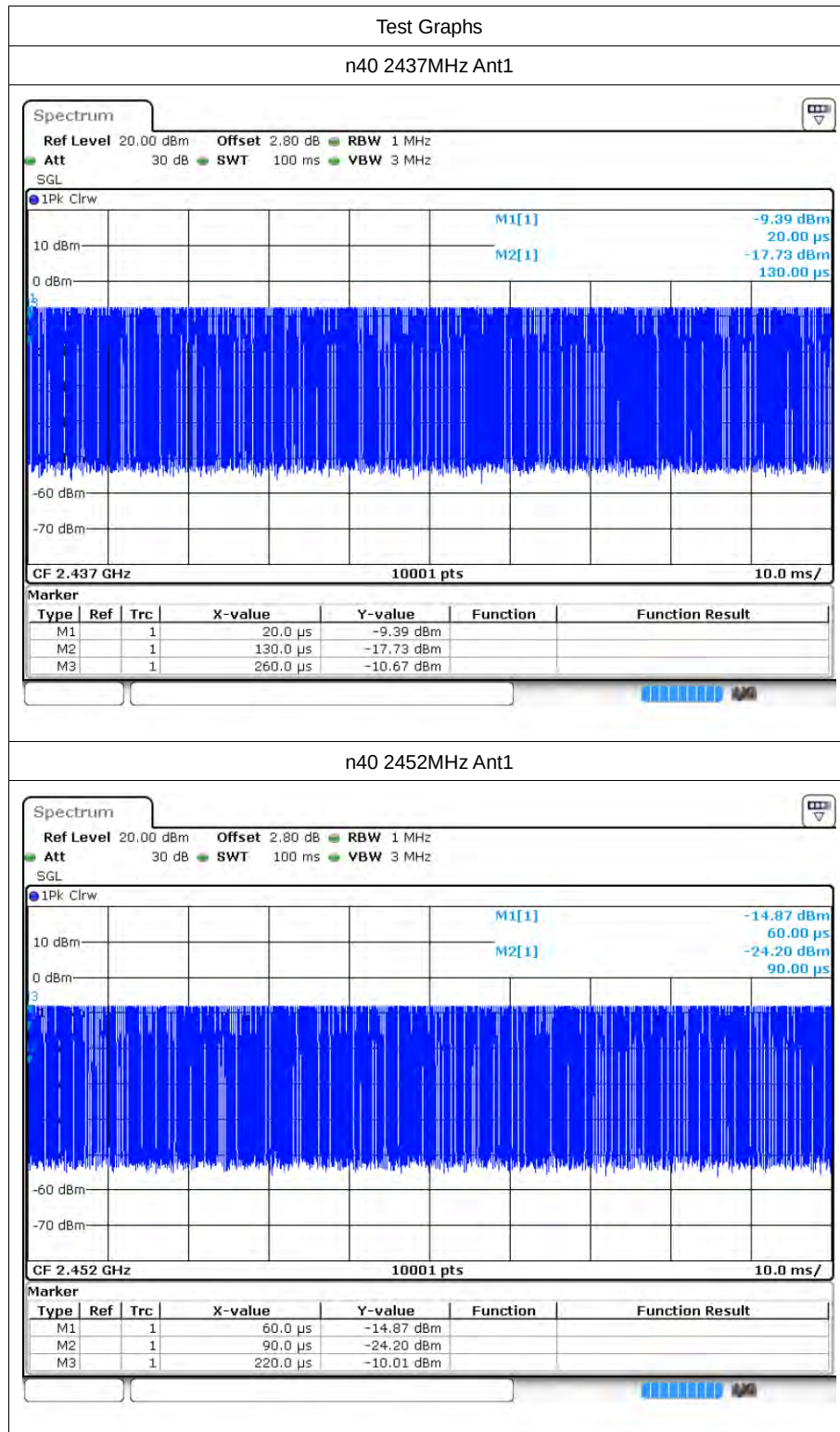
g 2412MHz Ant1













2 Maximum Conducted Output Power

2.1 Test Result

Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
b	2412	Ant1	14.55	30	Pass
b	2437	Ant1	13.96	30	Pass
b	2462	Ant1	12.95	30	Pass
g	2412	Ant1	14.25	30	Pass
g	2437	Ant1	13.83	30	Pass
g	2462	Ant1	12.87	30	Pass
n20	2412	Ant1	13.85	30	Pass
n20	2437	Ant1	13.19	30	Pass
n20	2462	Ant1	12.35	30	Pass
n40	2422	Ant1	13.25	30	Pass
n40	2437	Ant1	13.01	30	Pass
n40	2452	Ant1	12.55	30	Pass

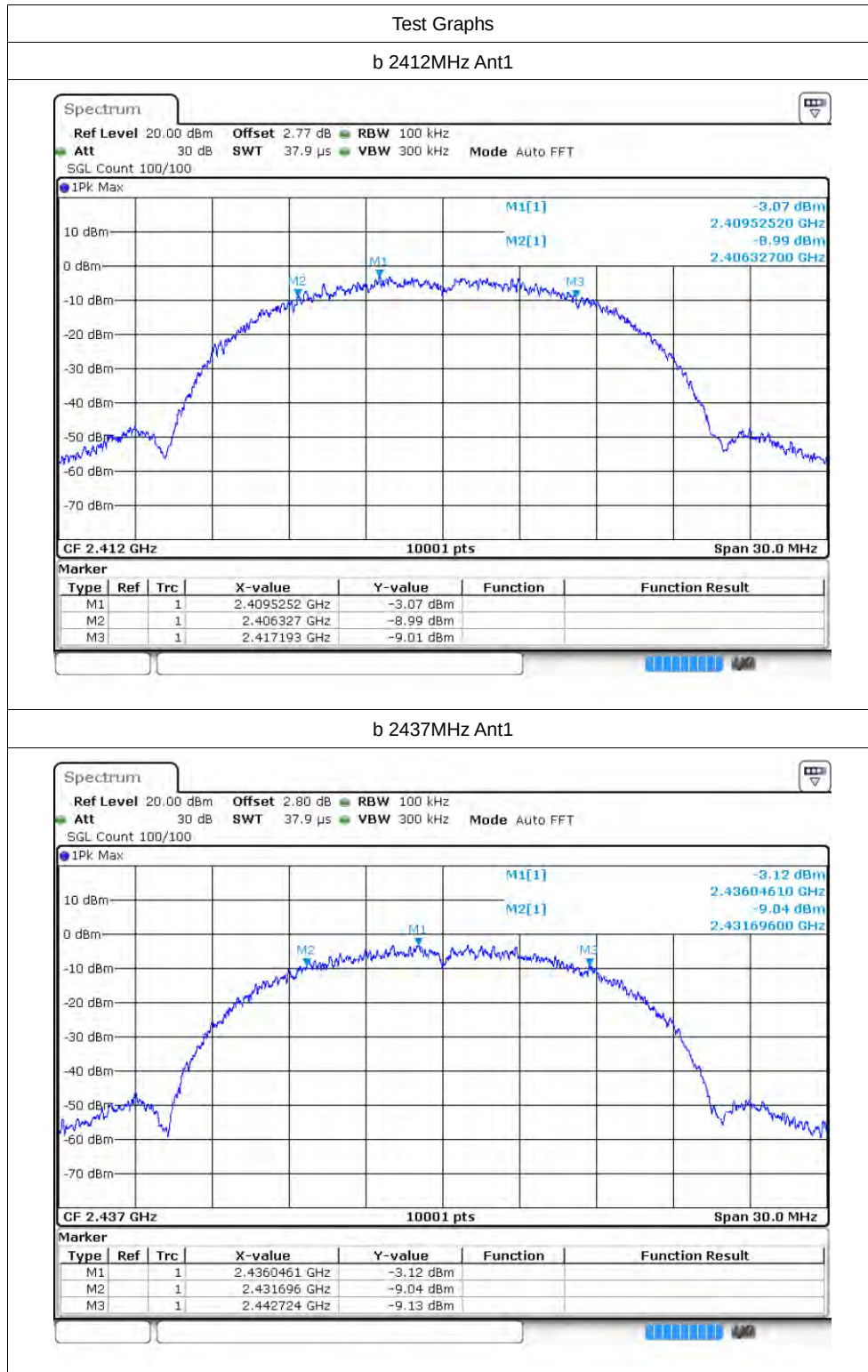


3 -6dB Bandwidth

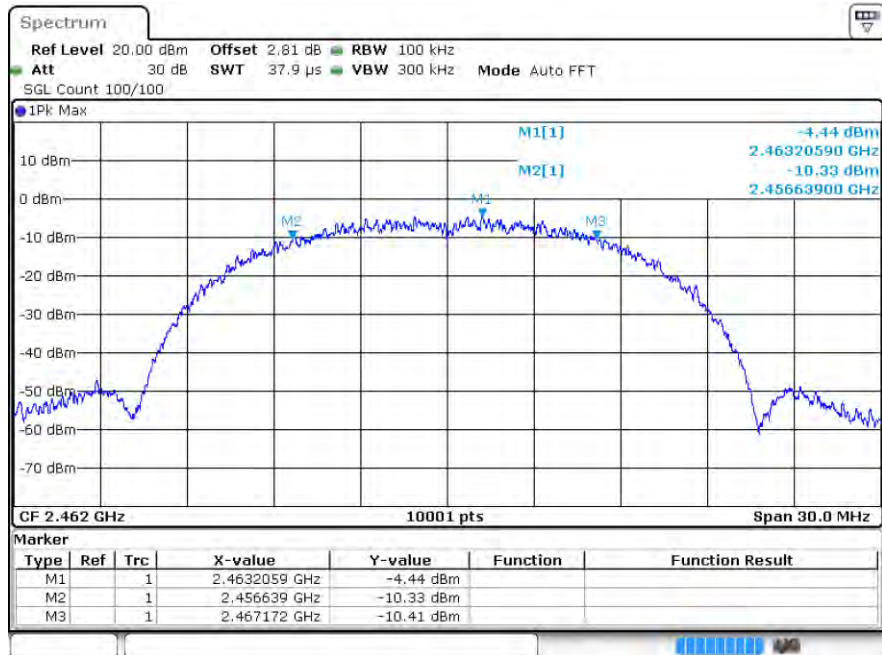
3.1 Test Result

Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
b	2412	Ant1	10.866	0.5	Pass
b	2437	Ant1	11.028	0.5	Pass
b	2462	Ant1	10.533	0.5	Pass
g	2412	Ant1	16.422	0.5	Pass
g	2437	Ant1	16.416	0.5	Pass
g	2462	Ant1	16.428	0.5	Pass
n20	2412	Ant1	17.274	0.5	Pass
n20	2437	Ant1	17.193	0.5	Pass
n20	2462	Ant1	17.331	0.5	Pass
n40	2422	Ant1	35.574	0.5	Pass
n40	2437	Ant1	35.322	0.5	Pass
n40	2452	Ant1	35.418	0.5	Pass

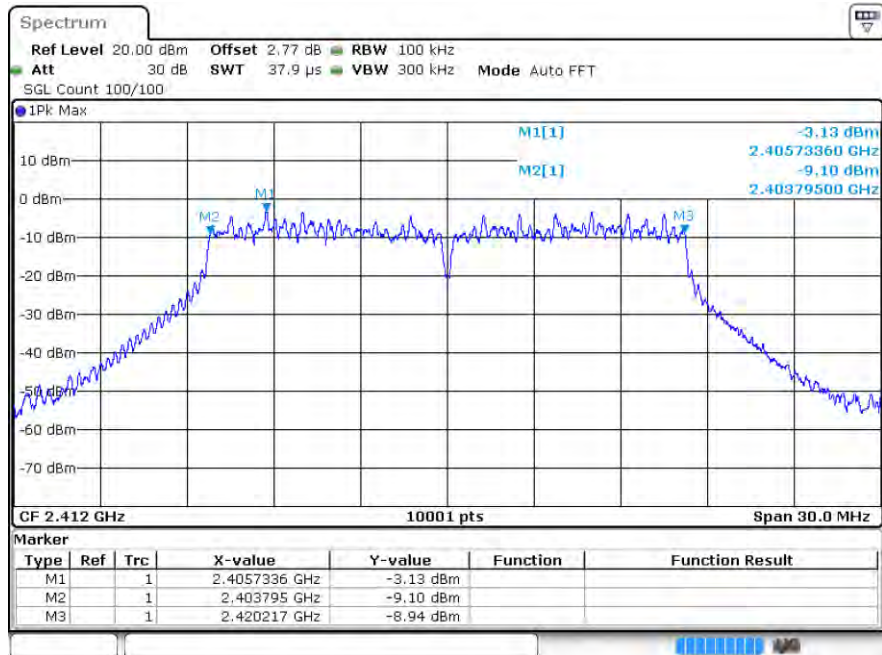
3.2 Test Graphs



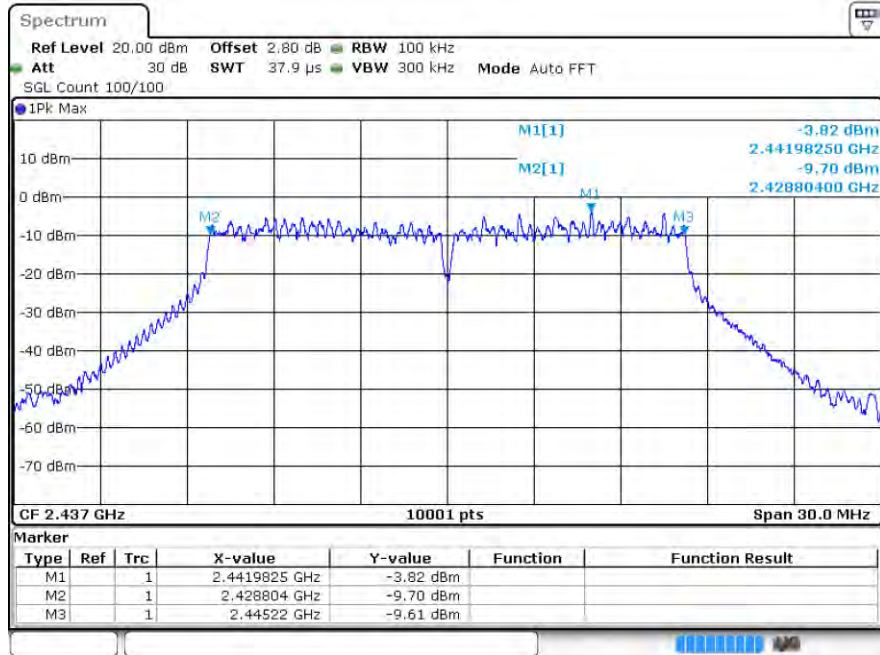
b 2462MHz Ant1



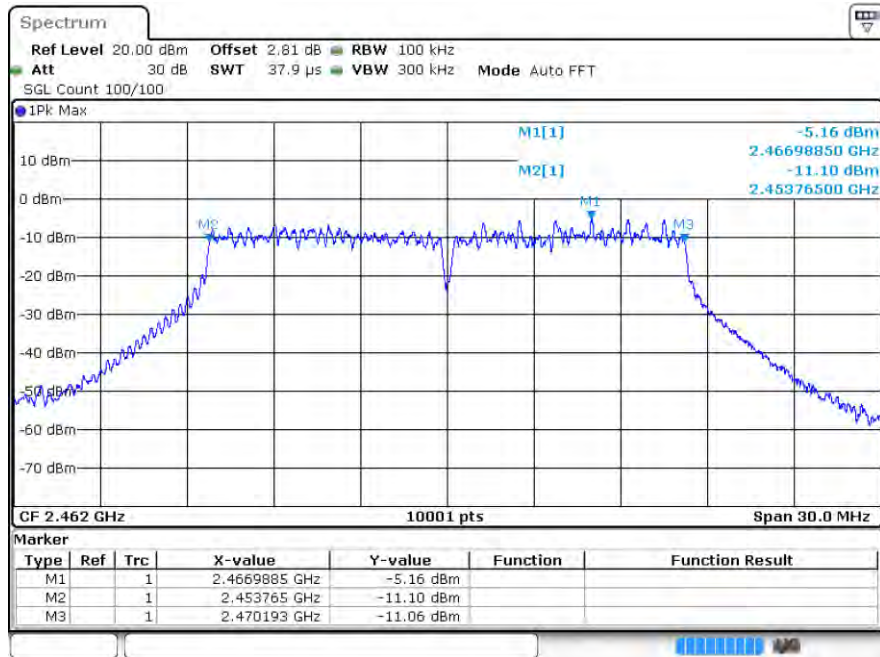
g 2412MHz Ant1



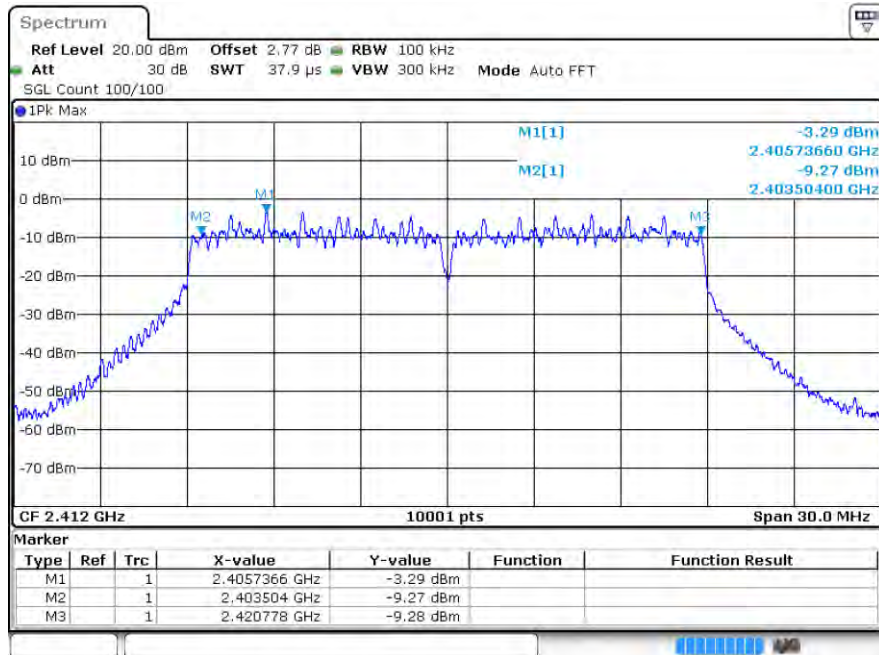
g 2437MHz Ant1



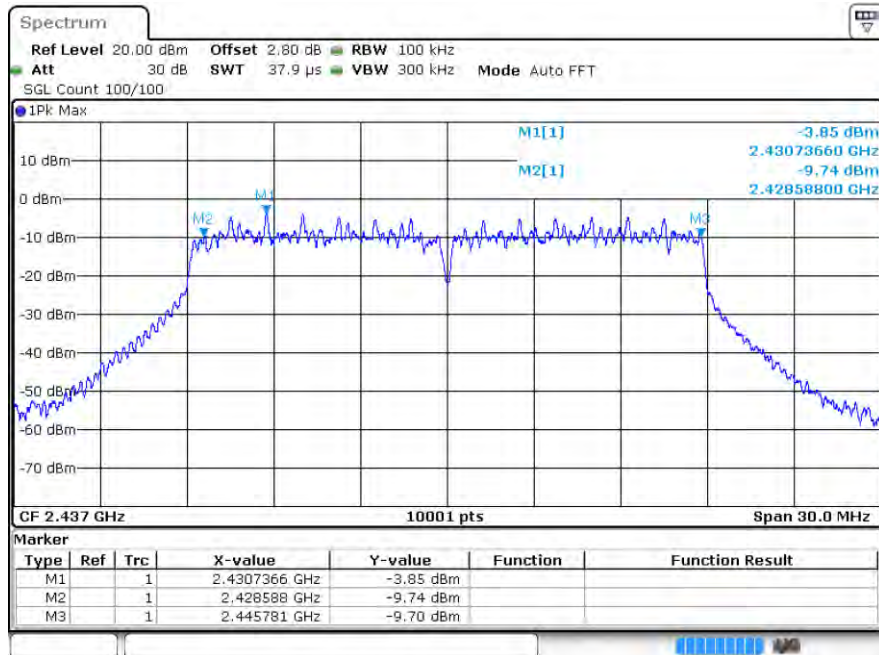
g 2462MHz Ant1



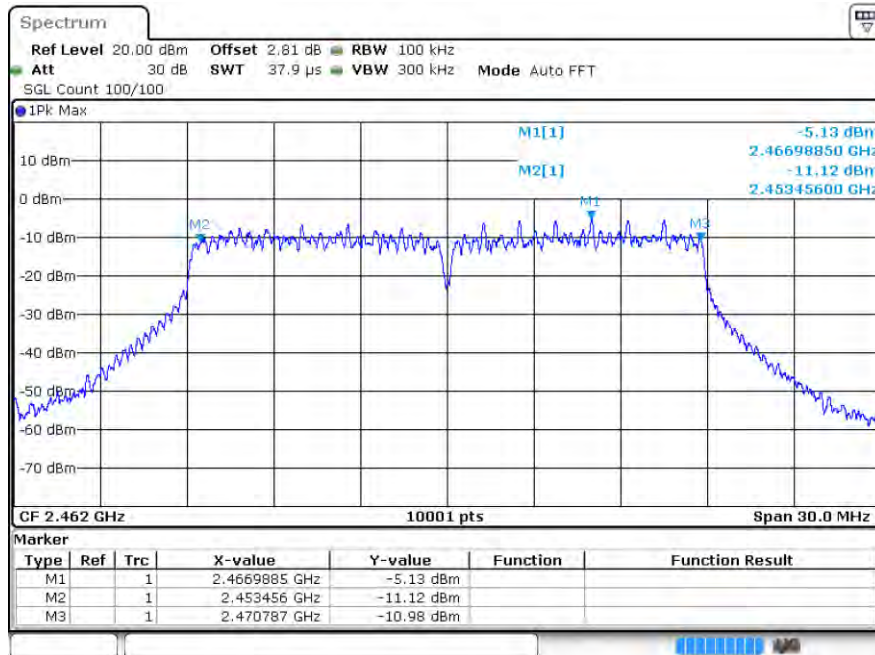
n20 2412MHz Ant1



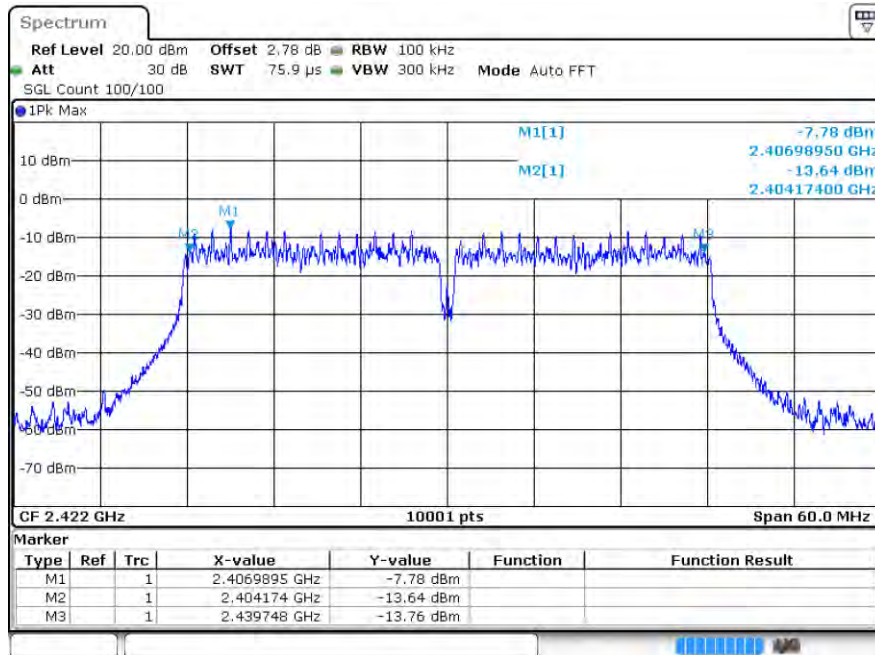
n20 2437MHz Ant1



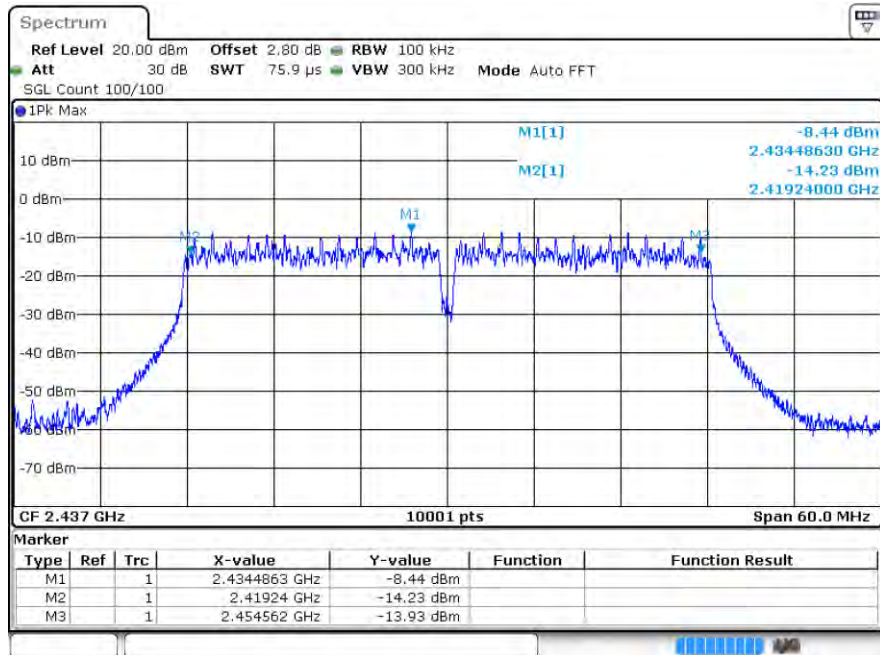
n20 2462MHz Ant1



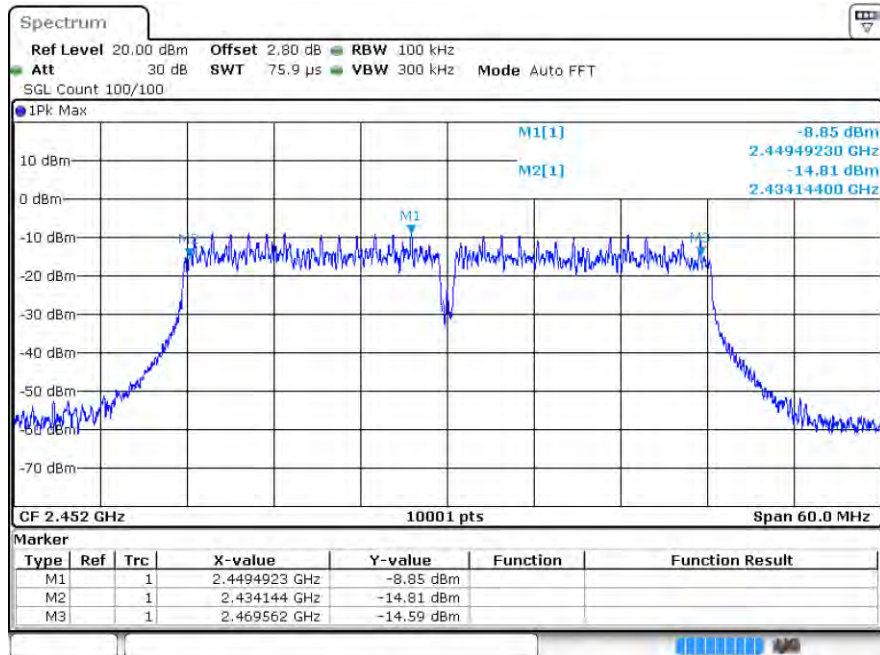
n40 2422MHz Ant1



n40 2437MHz Ant1



n40 2452MHz Ant1

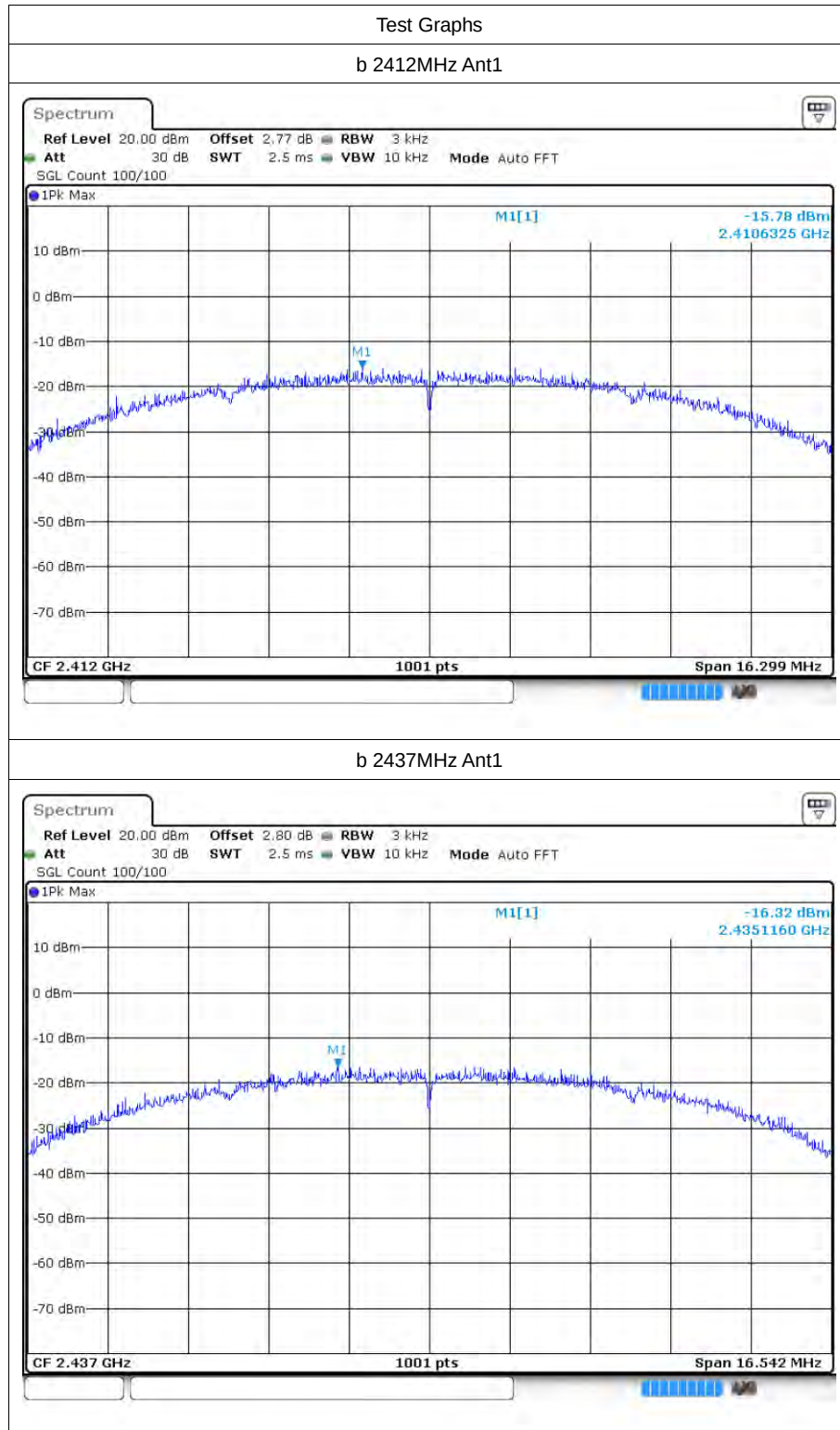


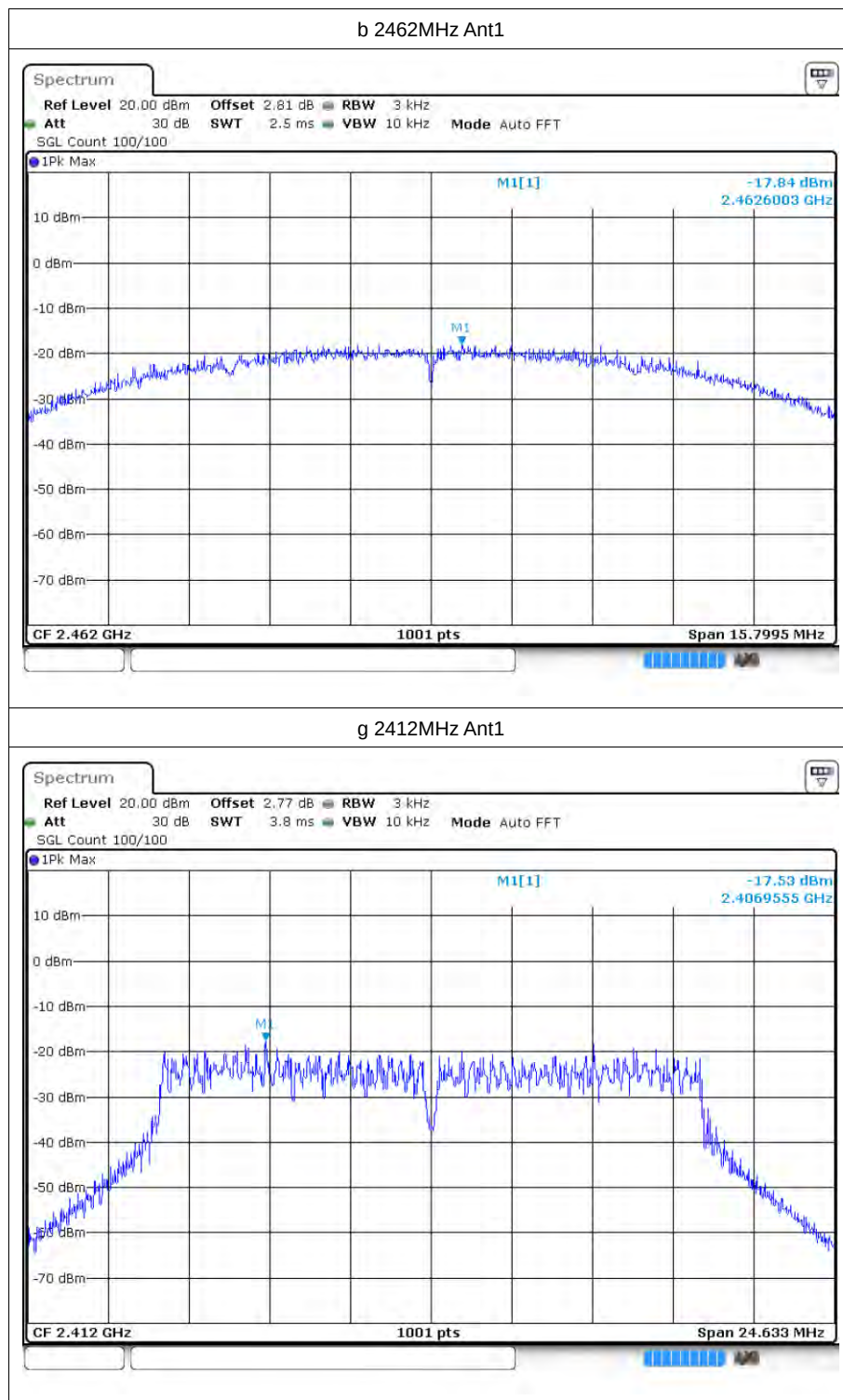
4 Maximum Power Spectral Density Level

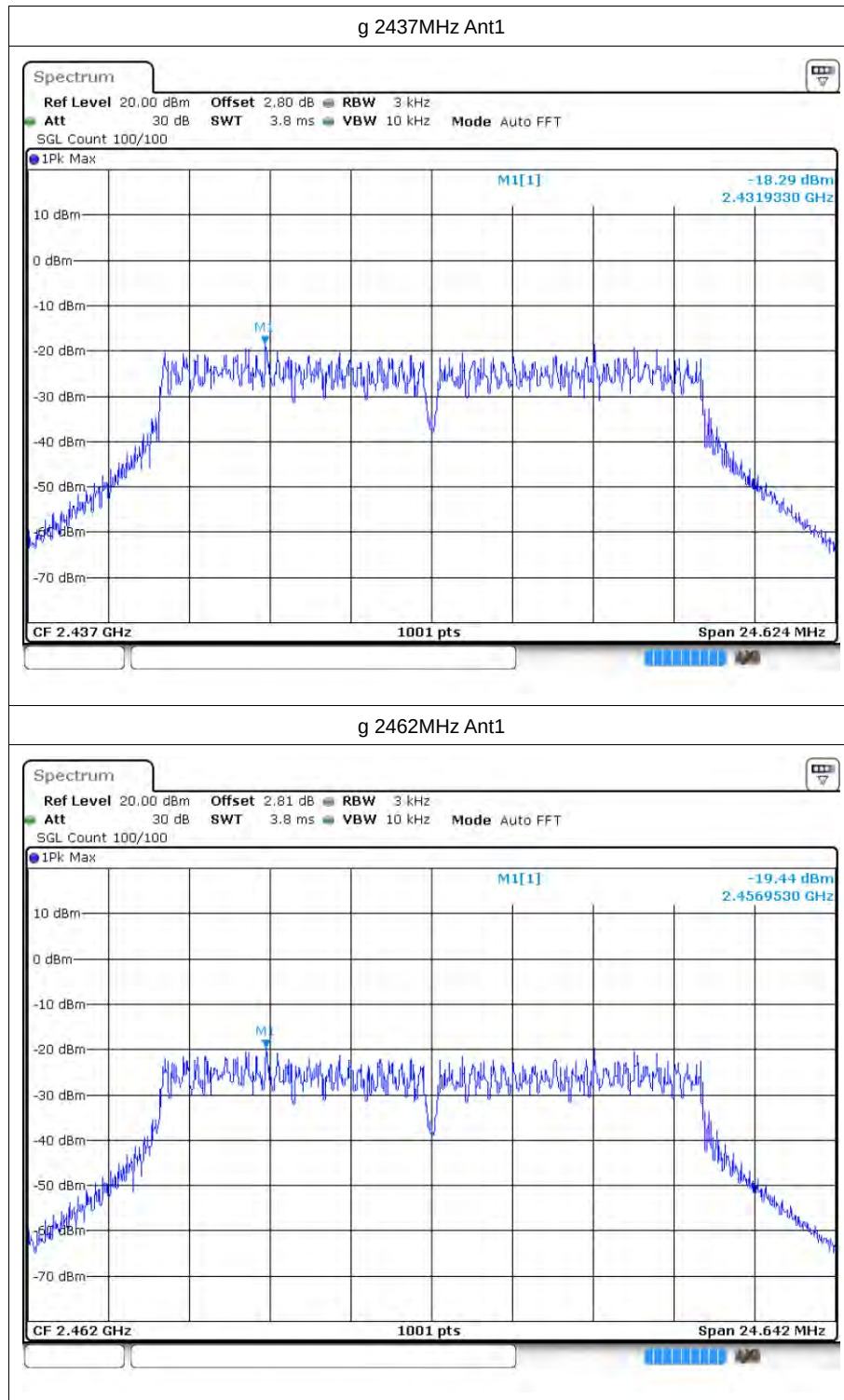
4.1 Test Result

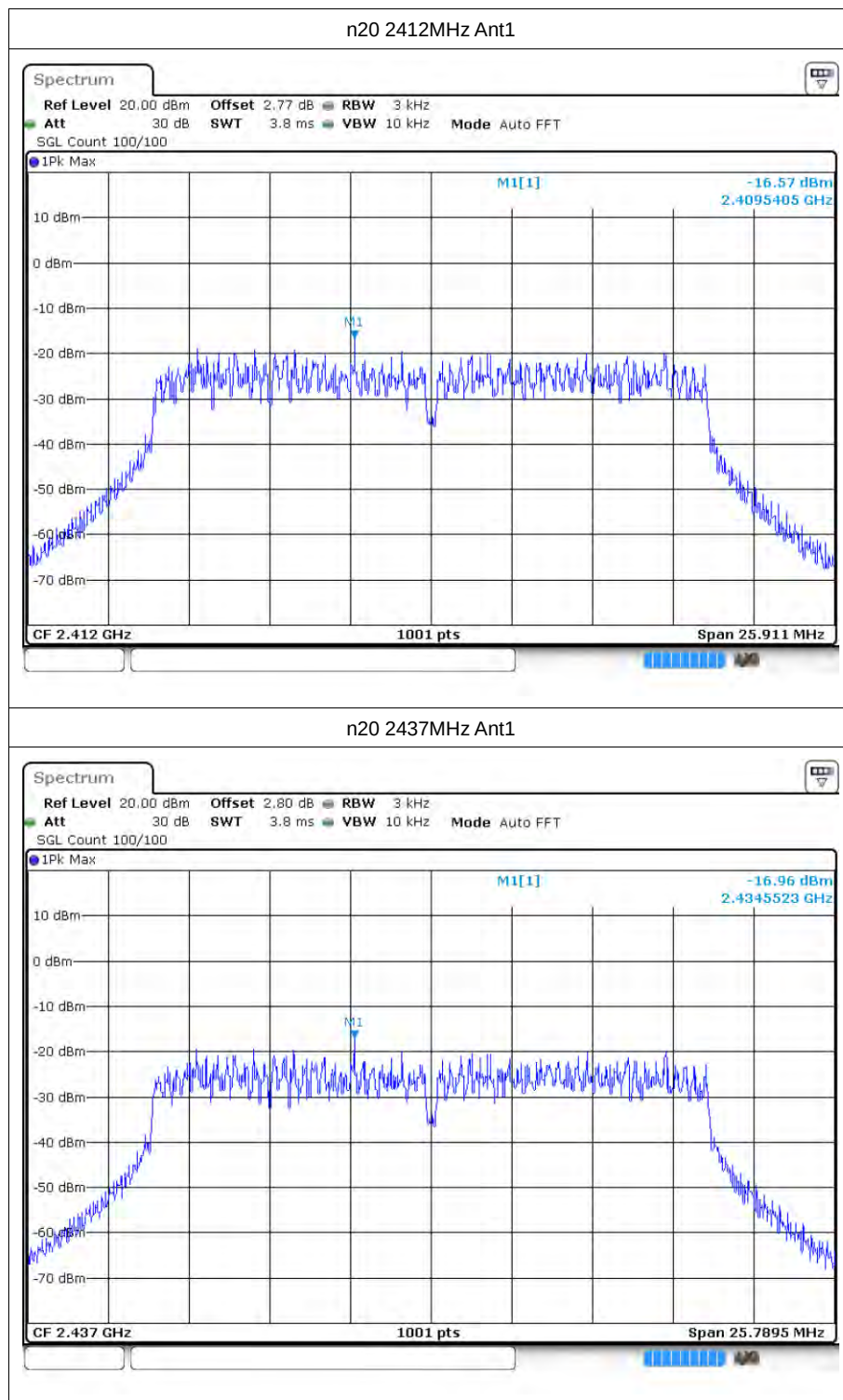
Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3-100kHz)	Limit (dBm/3kHz)	Verdict
b	2412	Ant1	-15.78	≤ 8	Pass
b	2437	Ant1	-16.32	≤ 8	Pass
b	2462	Ant1	-17.84	≤ 8	Pass
g	2412	Ant1	-17.53	≤ 8	Pass
g	2437	Ant1	-18.29	≤ 8	Pass
g	2462	Ant1	-19.44	≤ 8	Pass
n20	2412	Ant1	-16.57	≤ 8	Pass
n20	2437	Ant1	-16.96	≤ 8	Pass
n20	2462	Ant1	-17.94	≤ 8	Pass
n40	2422	Ant1	-22.08	≤ 8	Pass
n40	2437	Ant1	-22.11	≤ 8	Pass
n40	2452	Ant1	-21.89	≤ 8	Pass

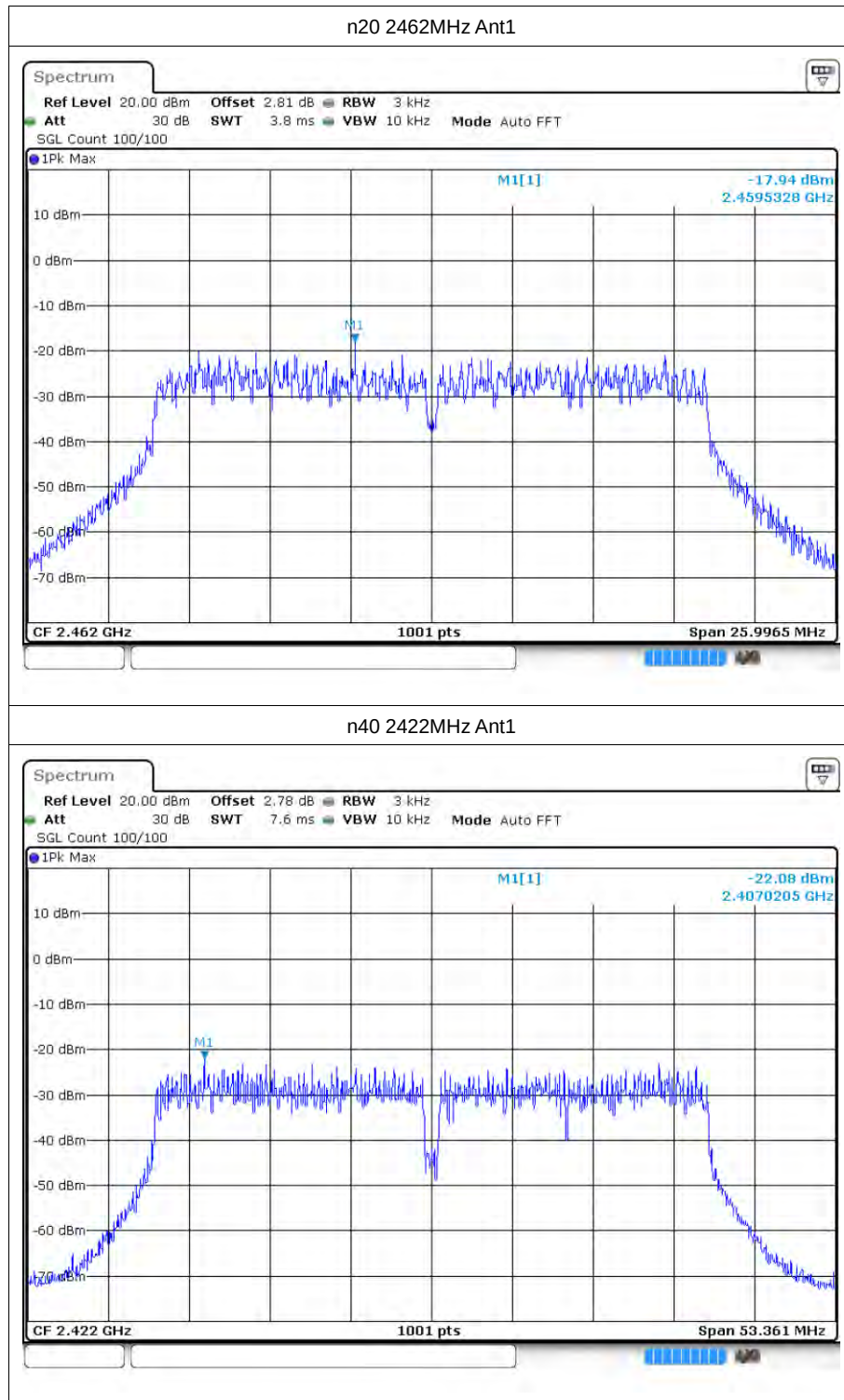
4.2 Test Graphs

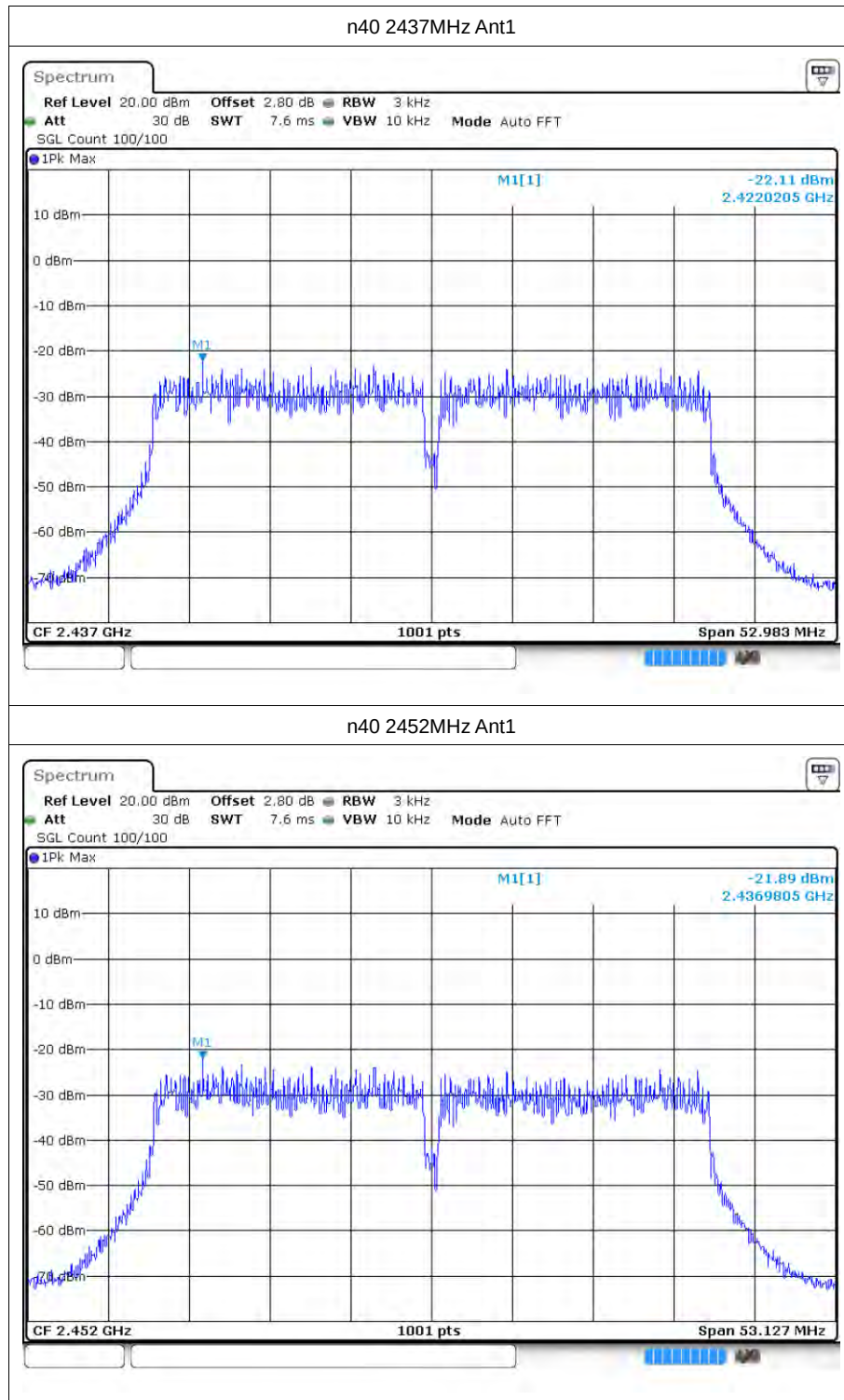












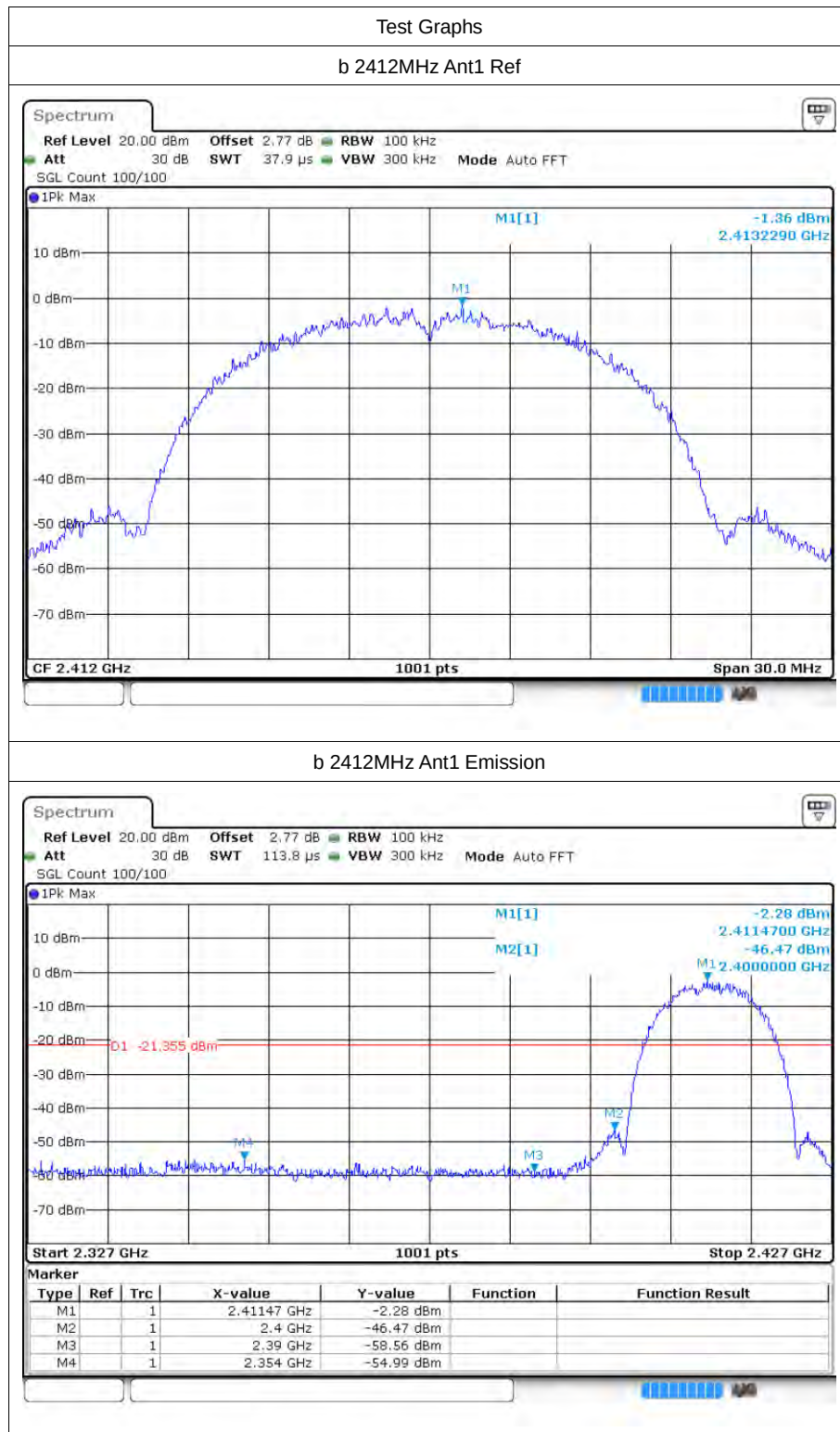


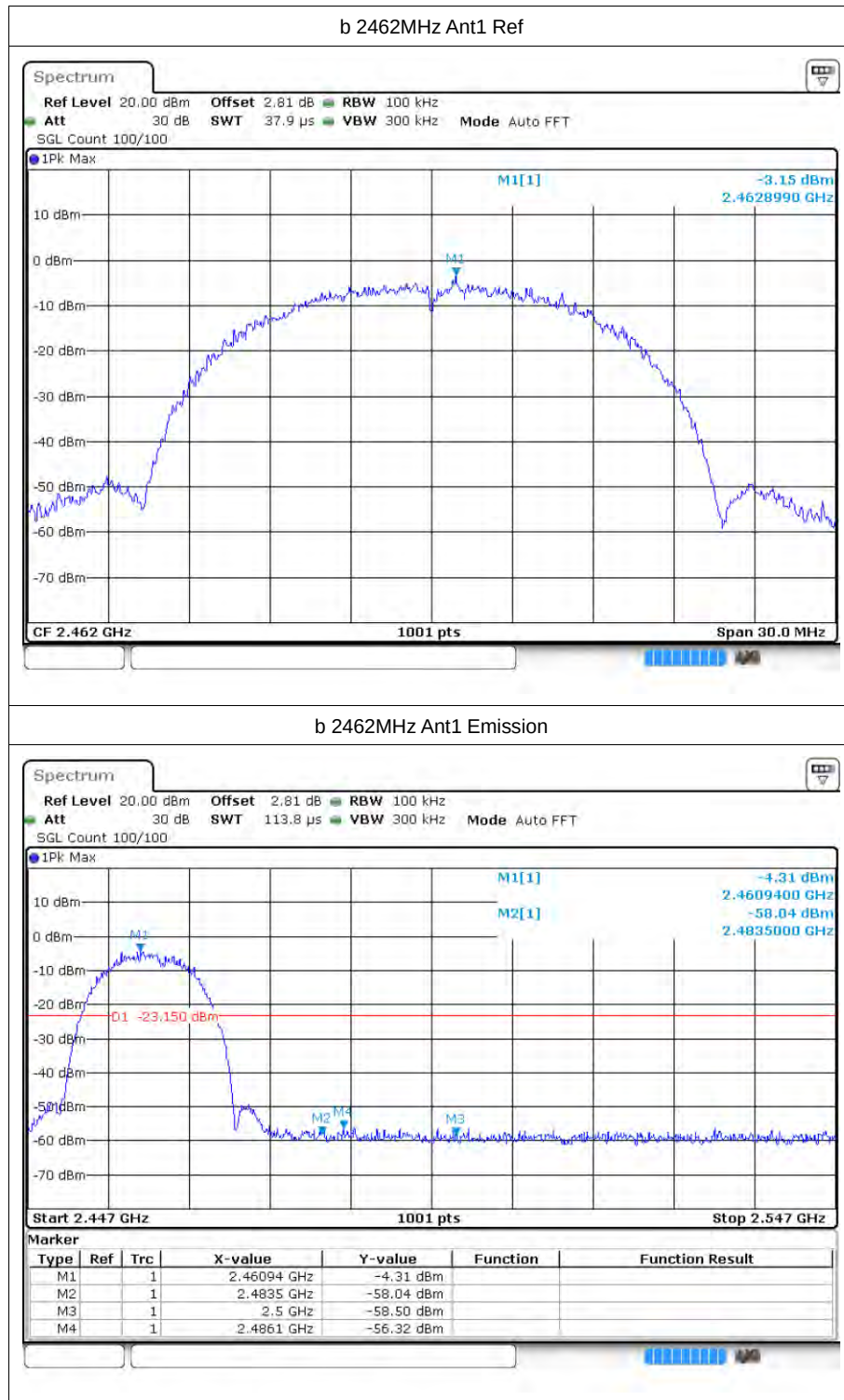
5 Band Edge

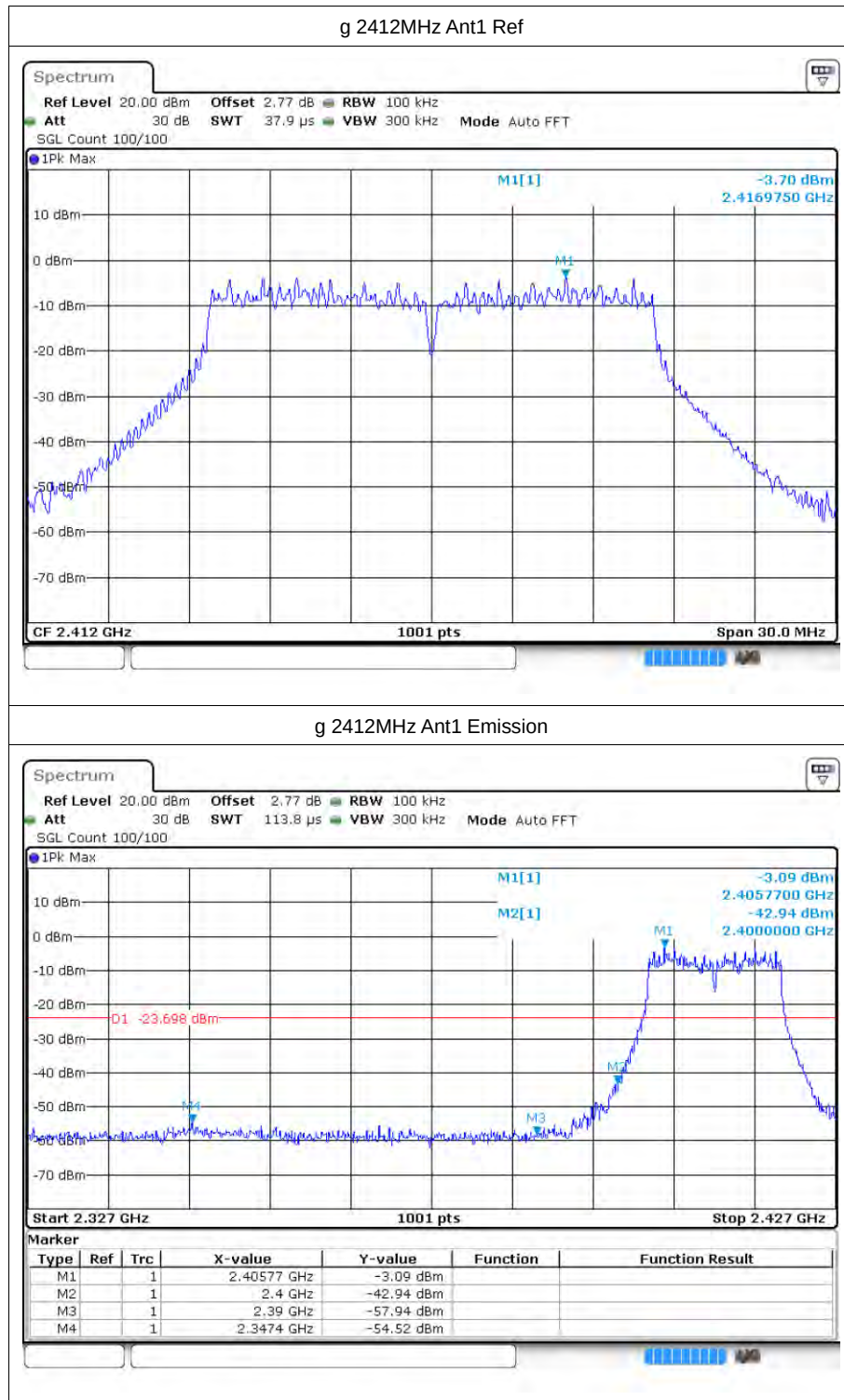
5.1 Test Result

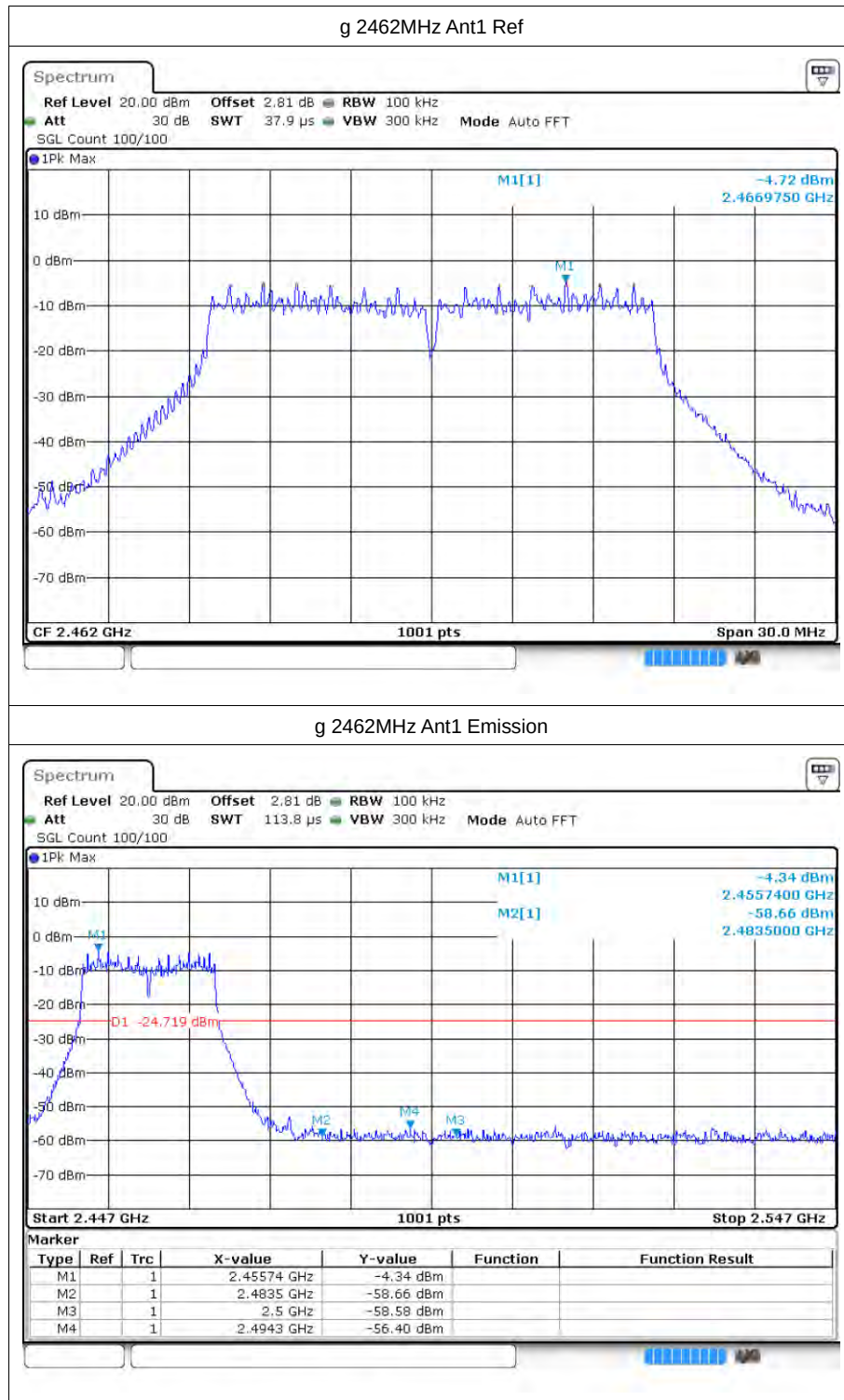
Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
b	2412	Ant1	-53.62	-20	-53.62
b	2462	Ant1	-53.17	-20	Pass
g	2412	Ant1	-50.82	-20	Pass
g	2462	Ant1	-51.68	-20	Pass
n20	2412	Ant1	-49	-20	Pass
n20	2462	Ant1	-51.2	-20	Pass
n40	2422	Ant1	-46.52	-20	Pass
n40	2452	Ant1	-45.97	-20	Pass

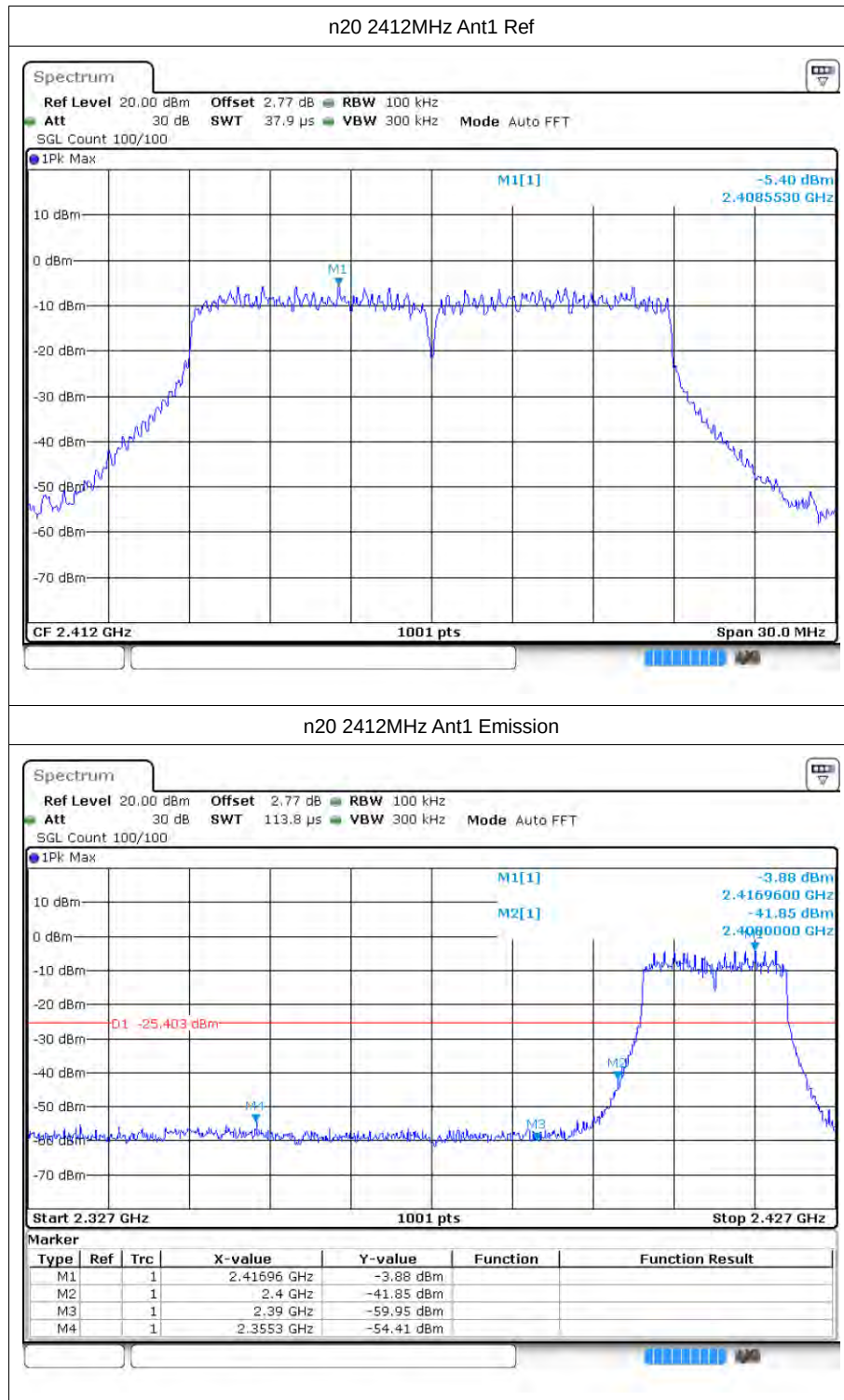
5.2 Test Graphs

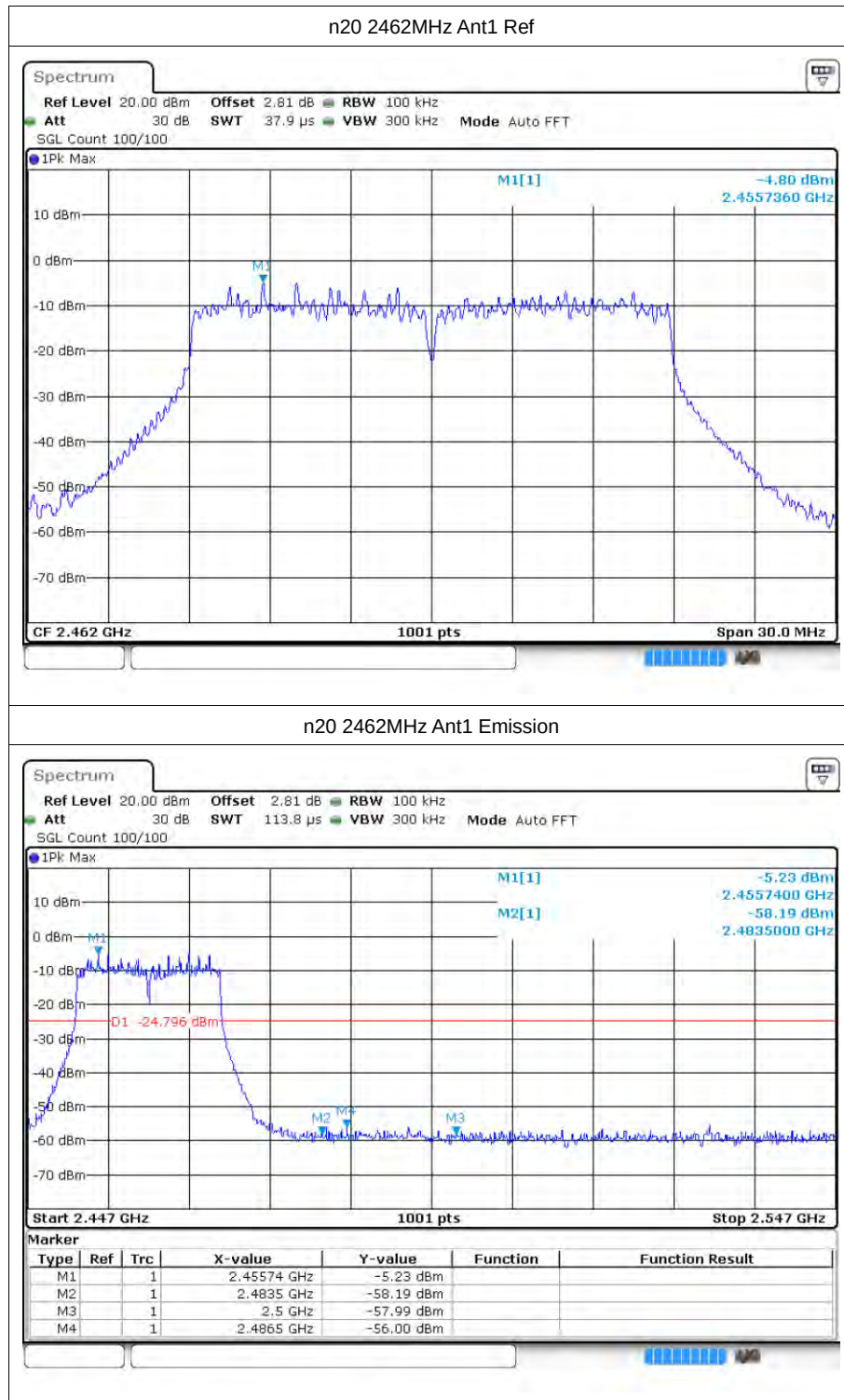


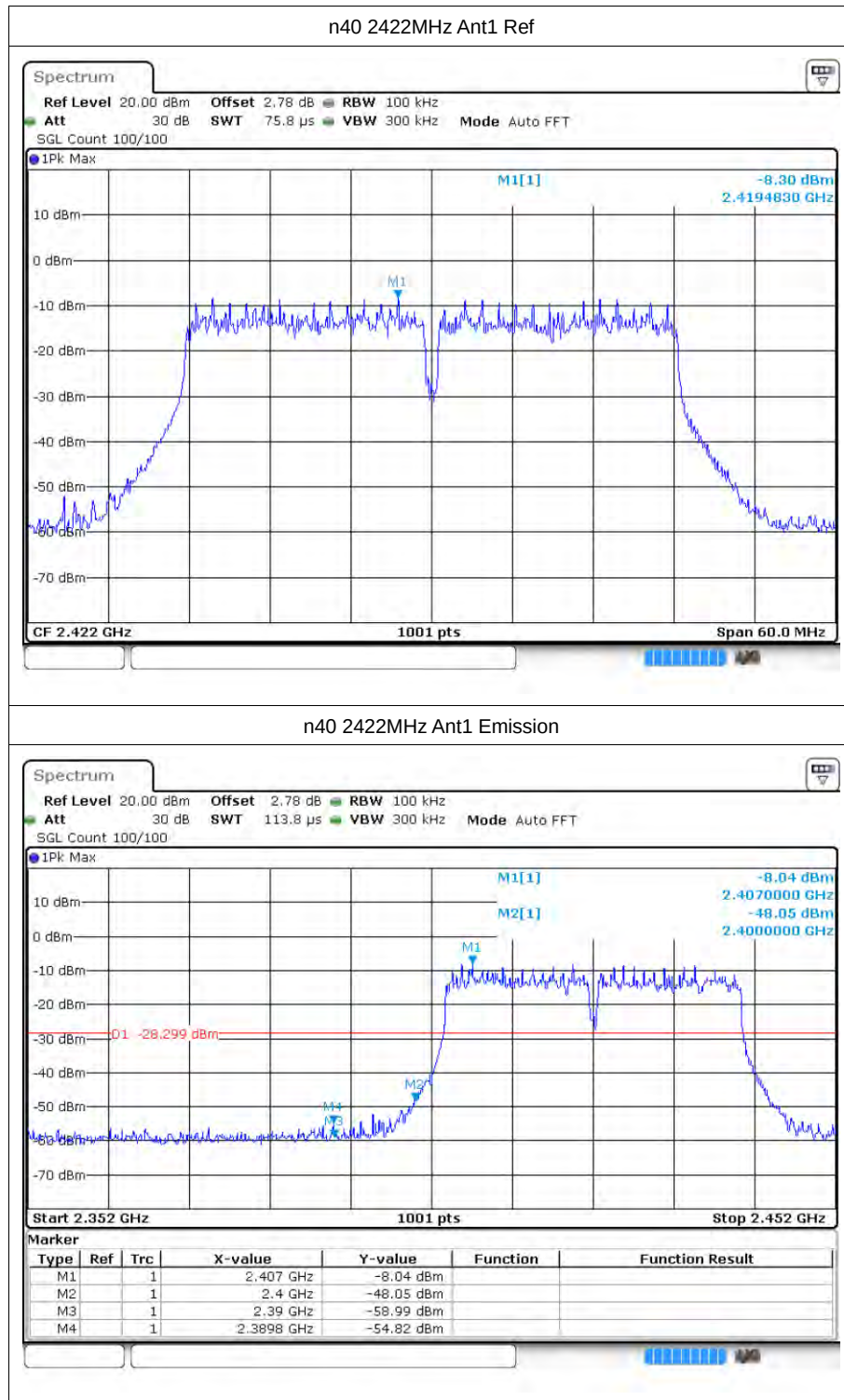


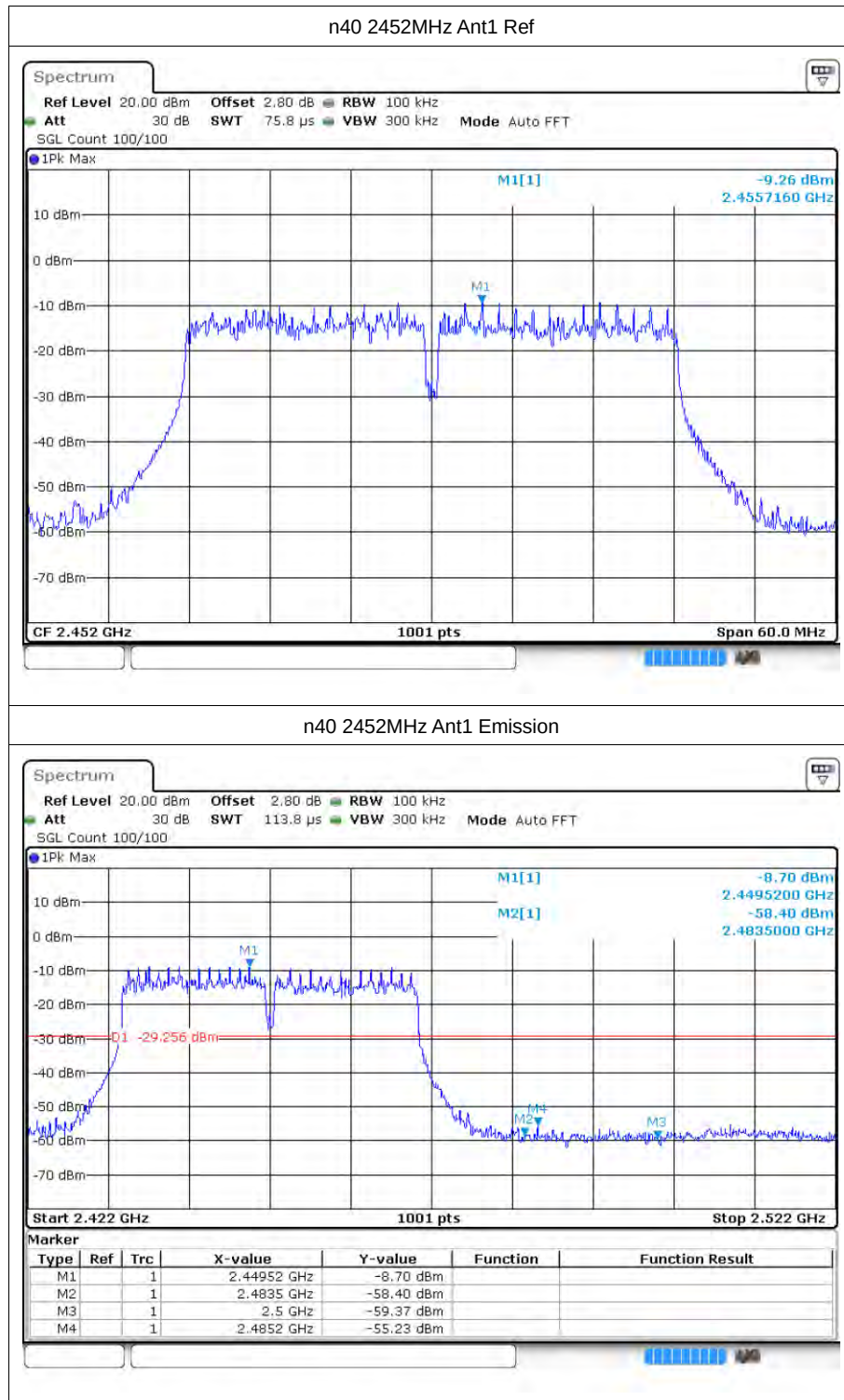












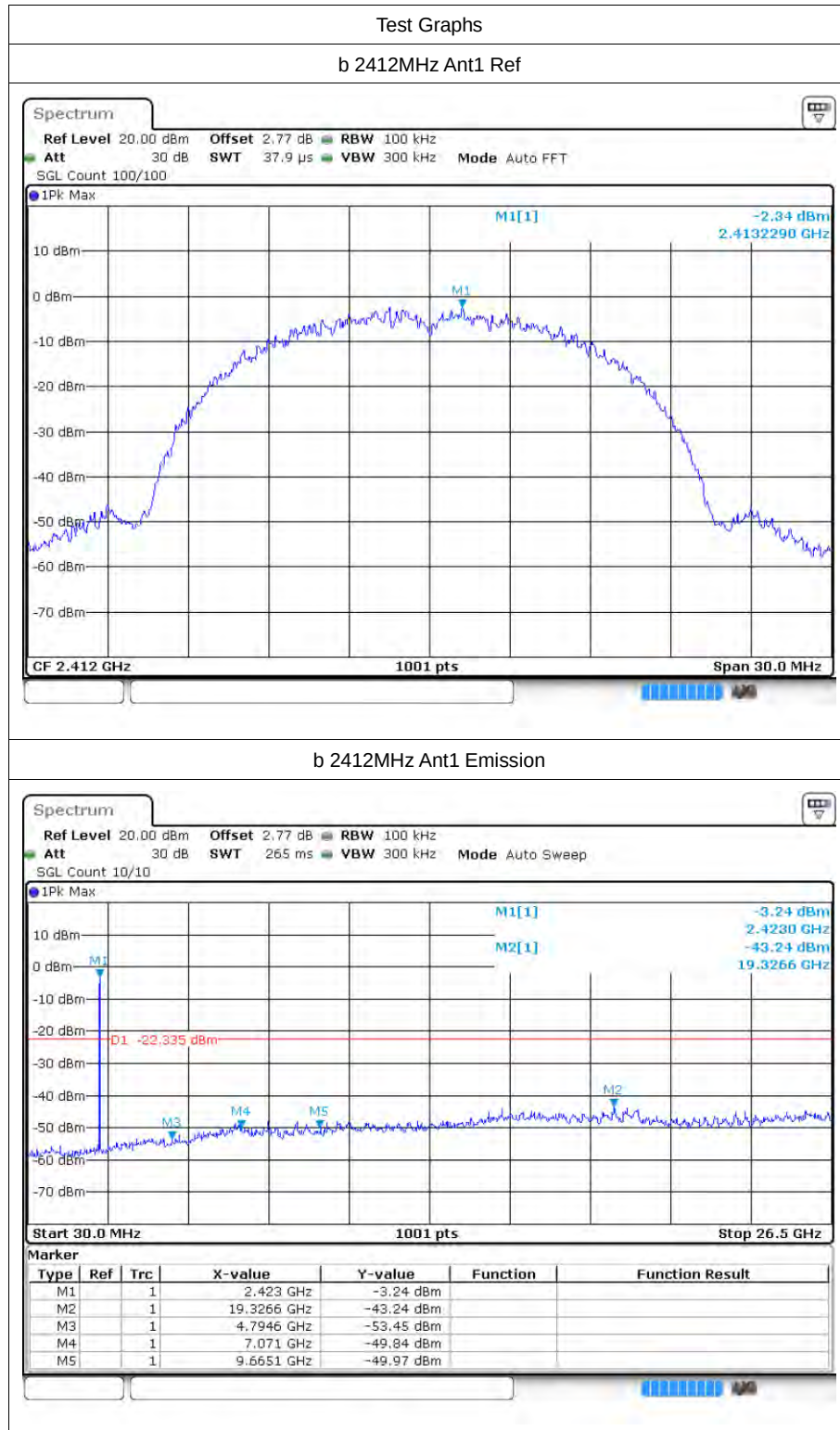


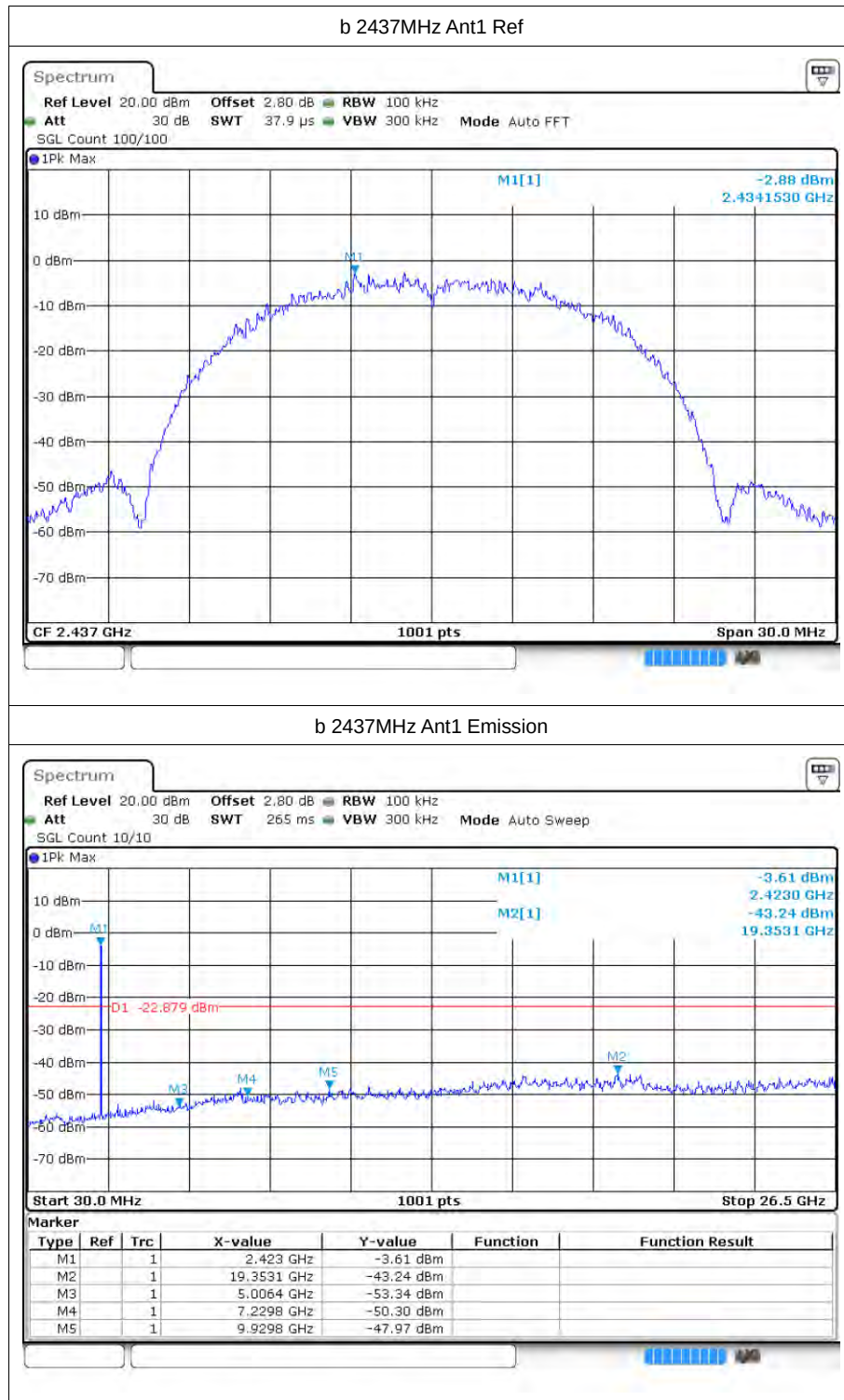
6 Conducted RF Spurious Emission

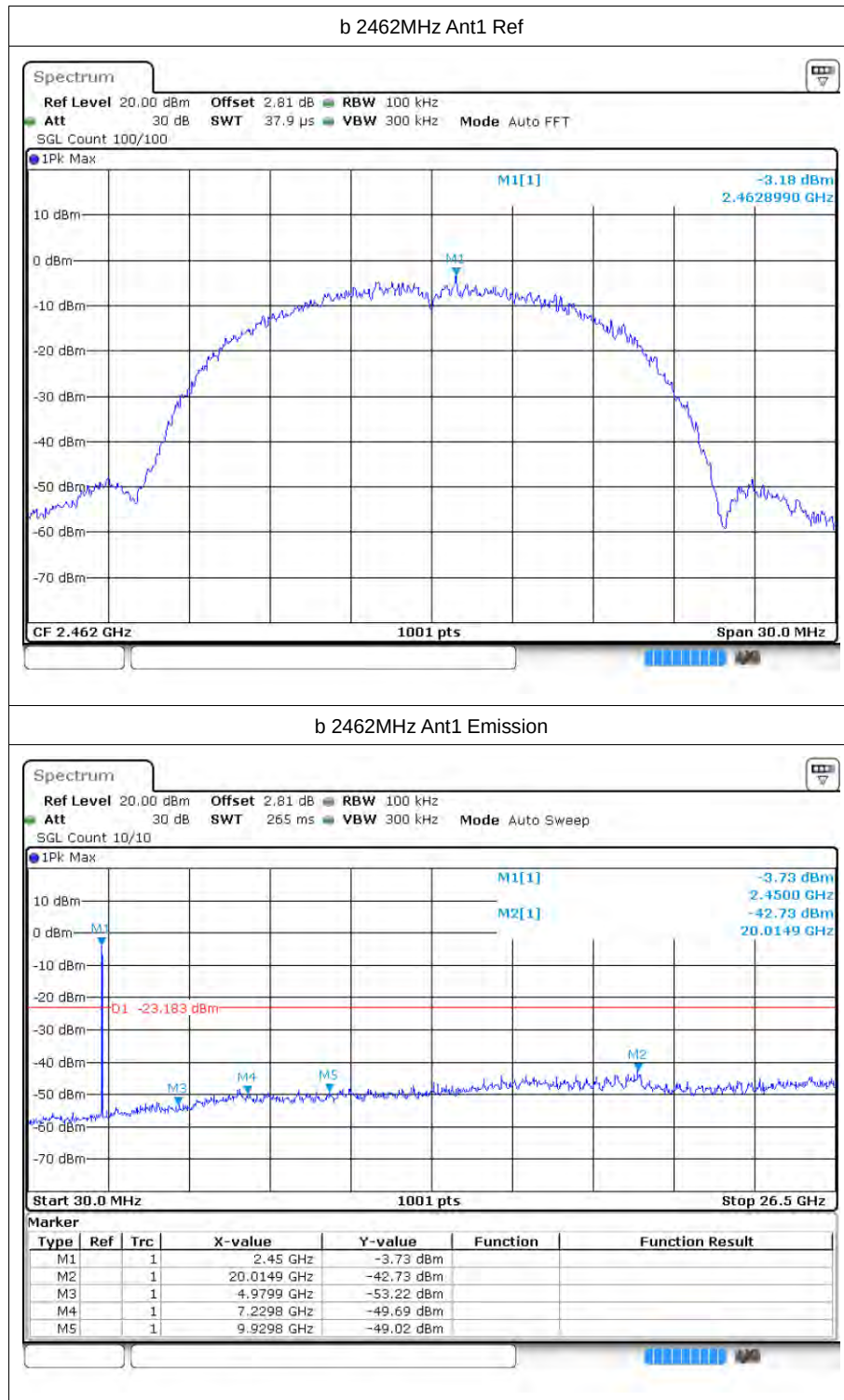
6.1 Test Result

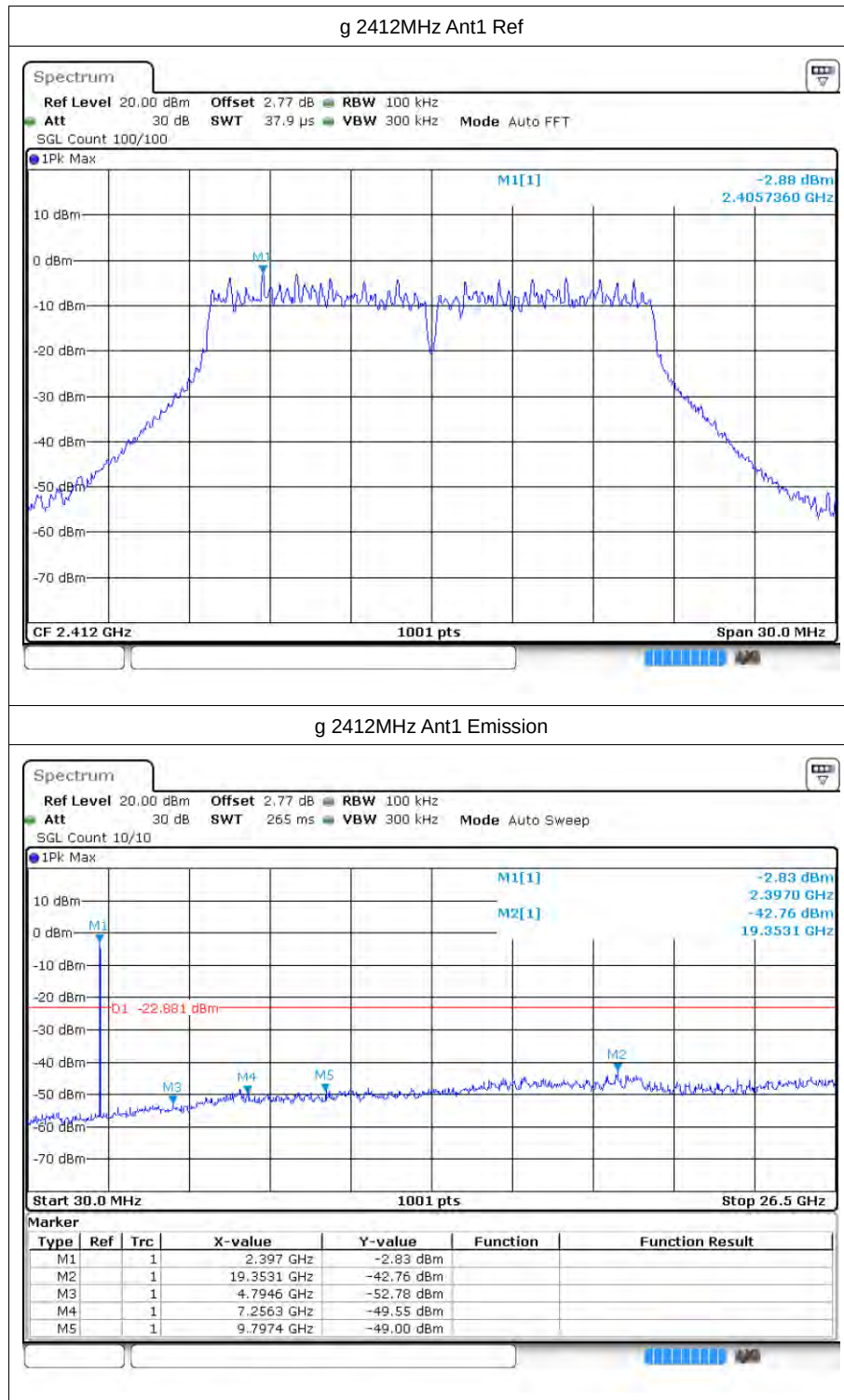
Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
b	2412	Ant1	-40.9	-20	Pass
b	2437	Ant1	-40.35	-20	Pass
b	2462	Ant1	-39.54	-20	Pass
g	2412	Ant1	-39.88	-20	Pass
g	2437	Ant1	-38.95	-20	Pass
g	2462	Ant1	-38.04	-20	Pass
n20	2412	Ant1	-39.95	-20	Pass
n20	2437	Ant1	-38.04	-20	Pass
n20	2462	Ant1	-38.66	-20	Pass
n40	2422	Ant1	-36.25	-20	Pass
n40	2437	Ant1	-34.53	-20	Pass
n40	2452	Ant1	-33.92	-20	Pass

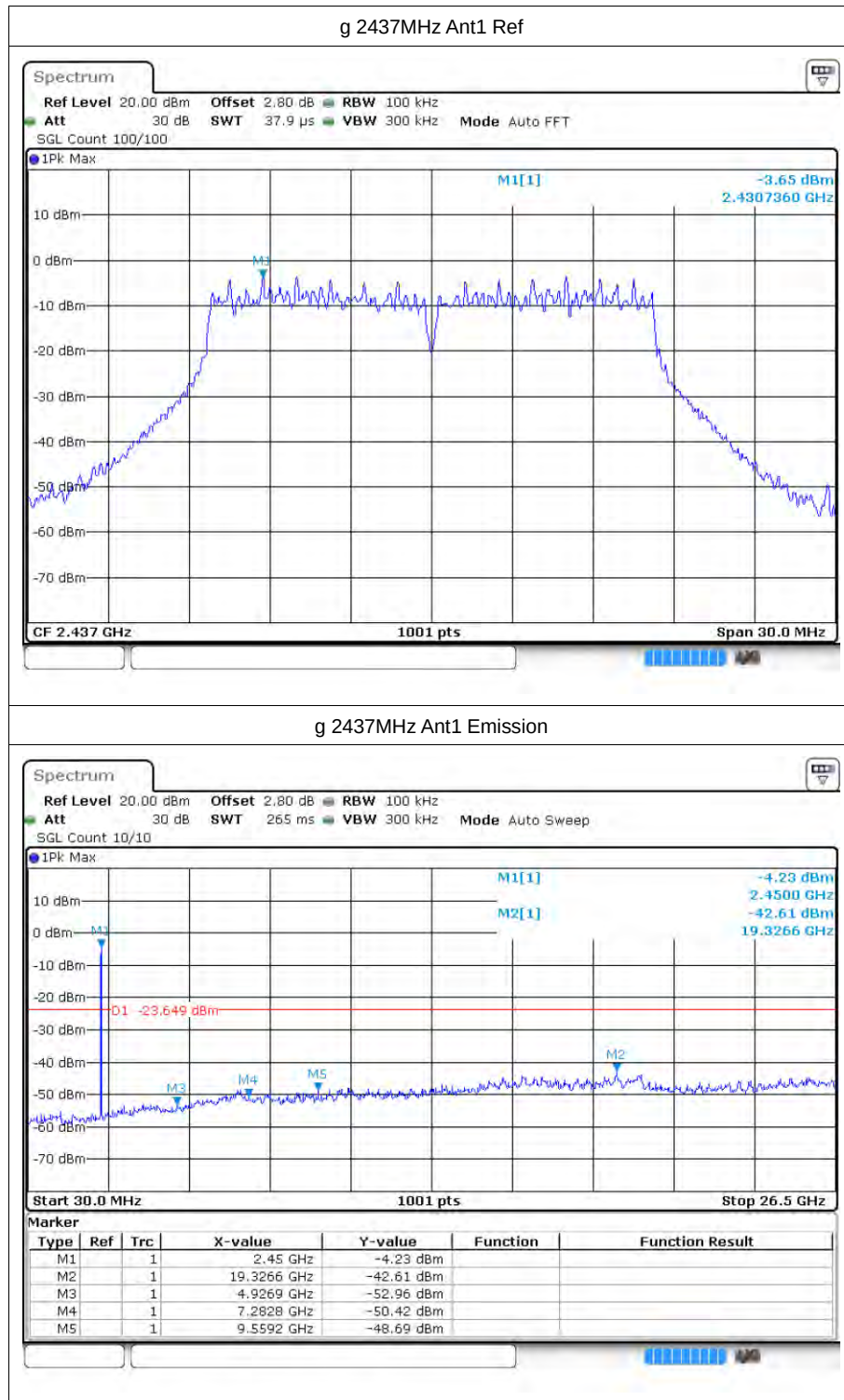
6.2 Test Graphs

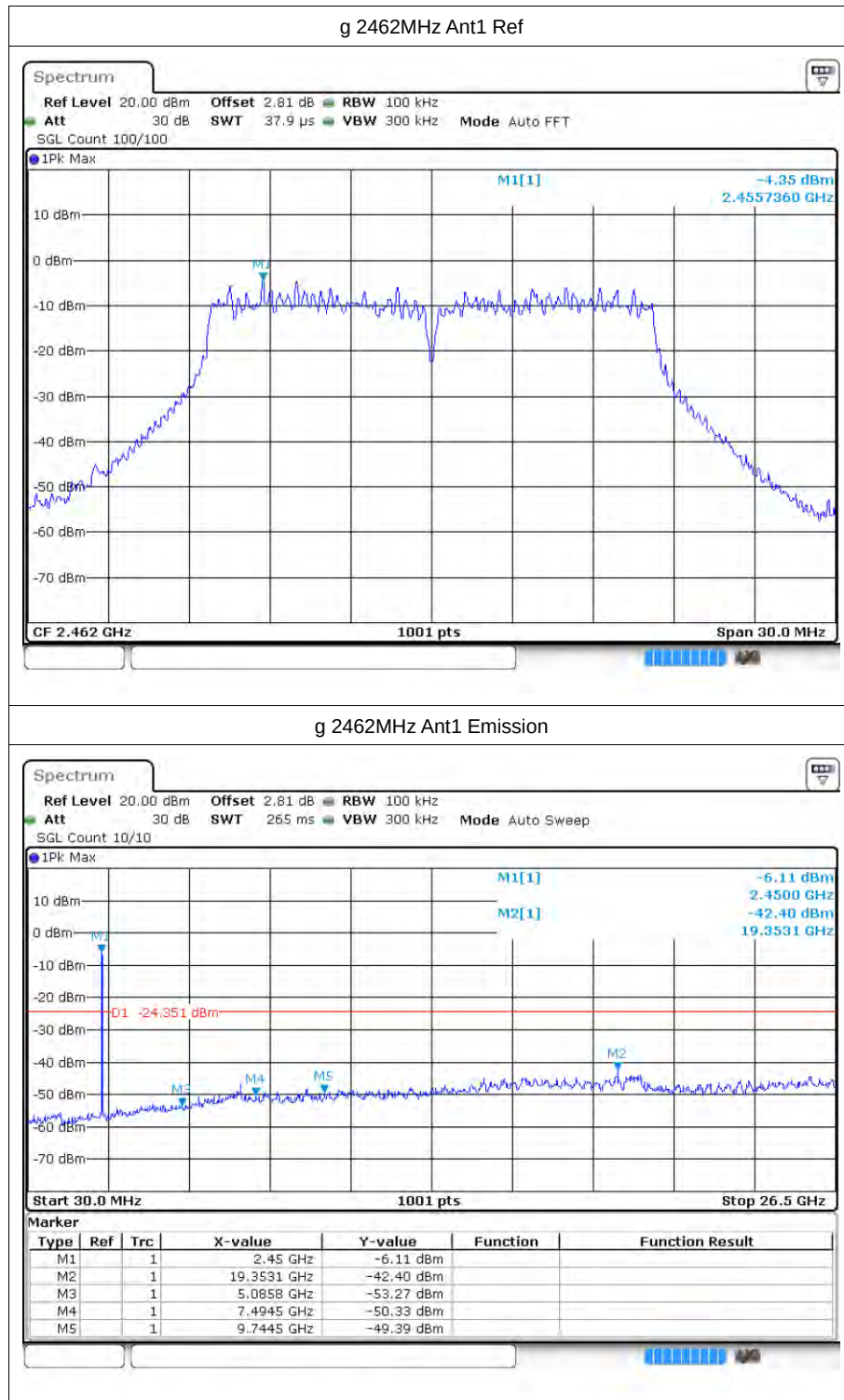


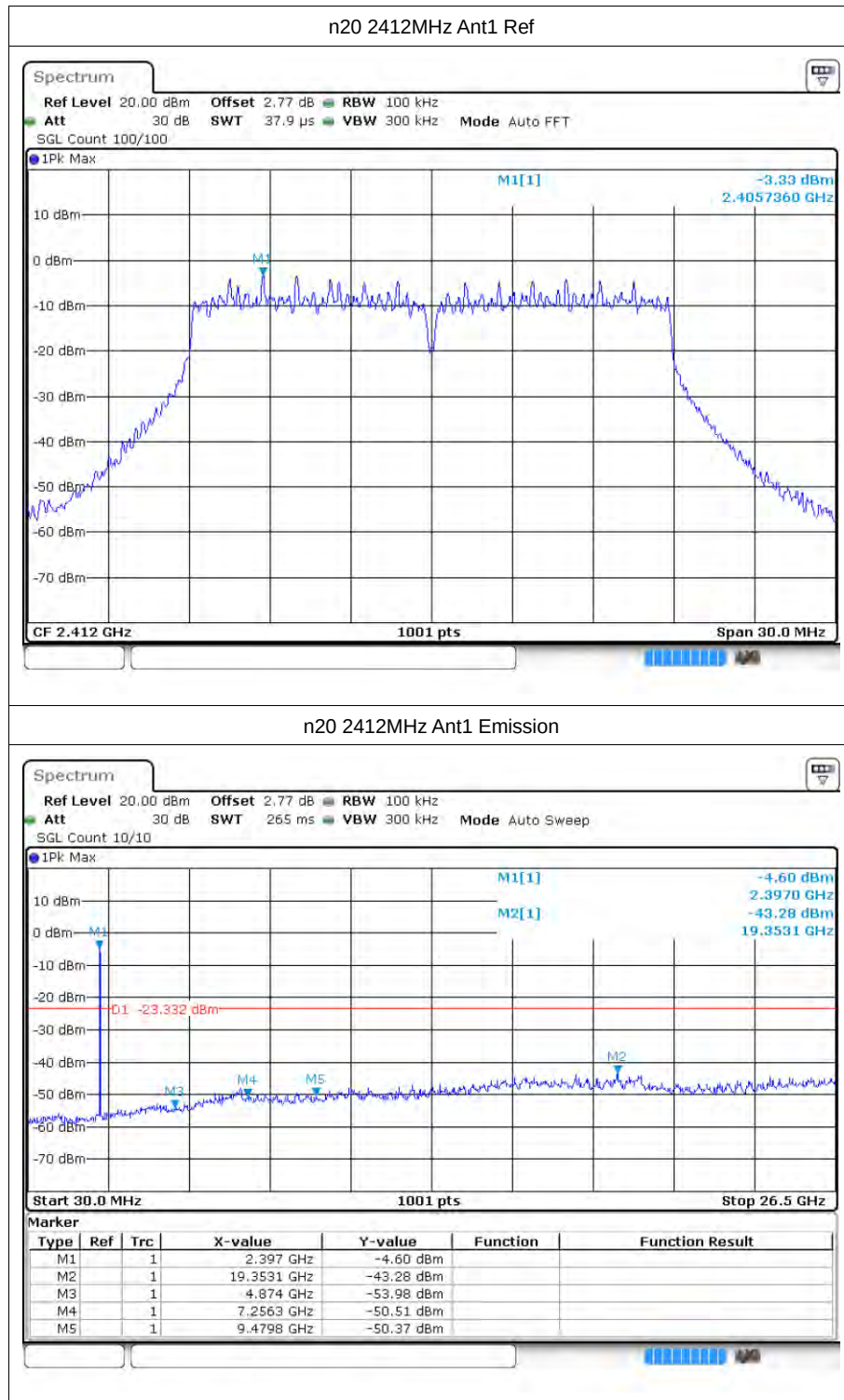


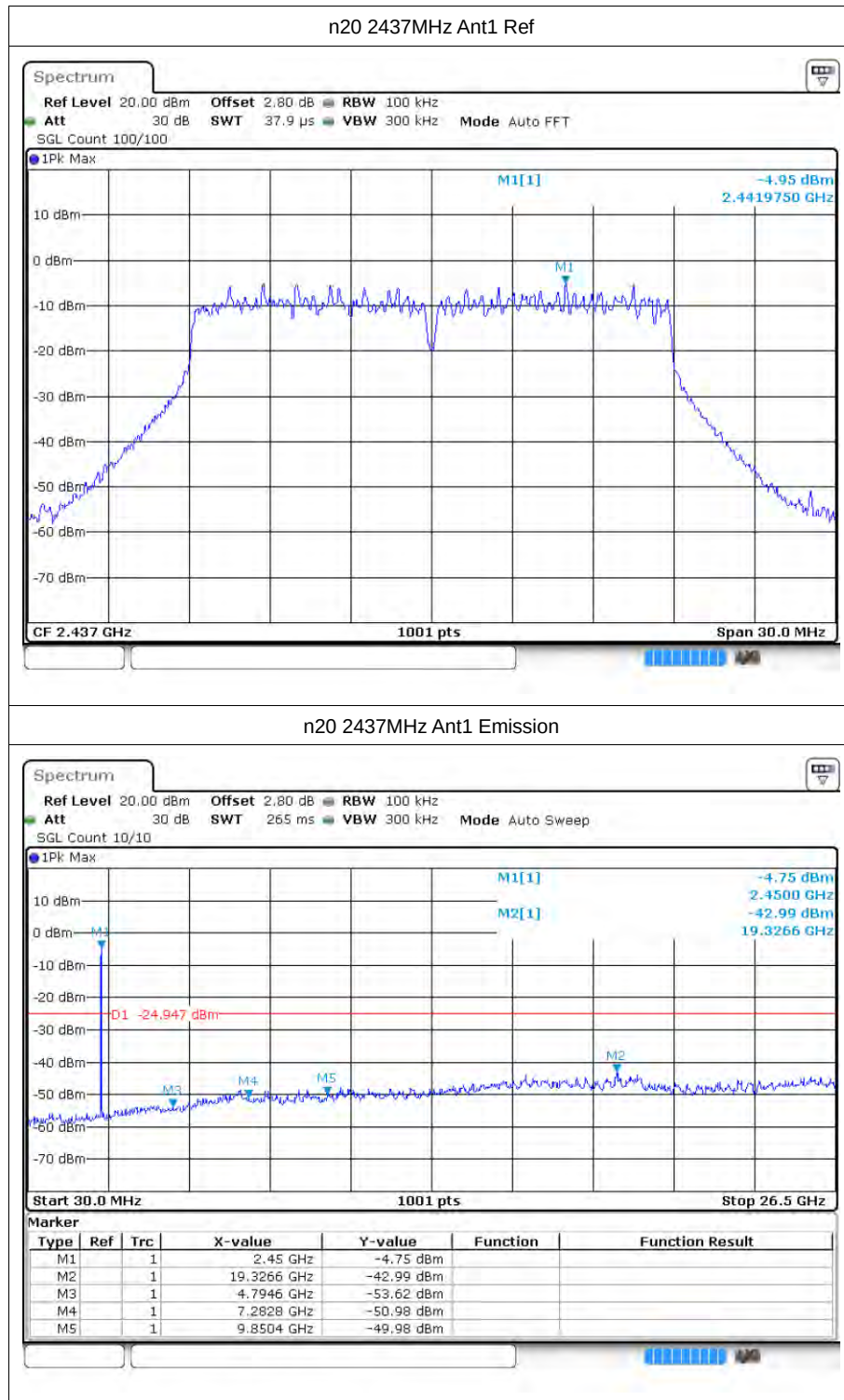


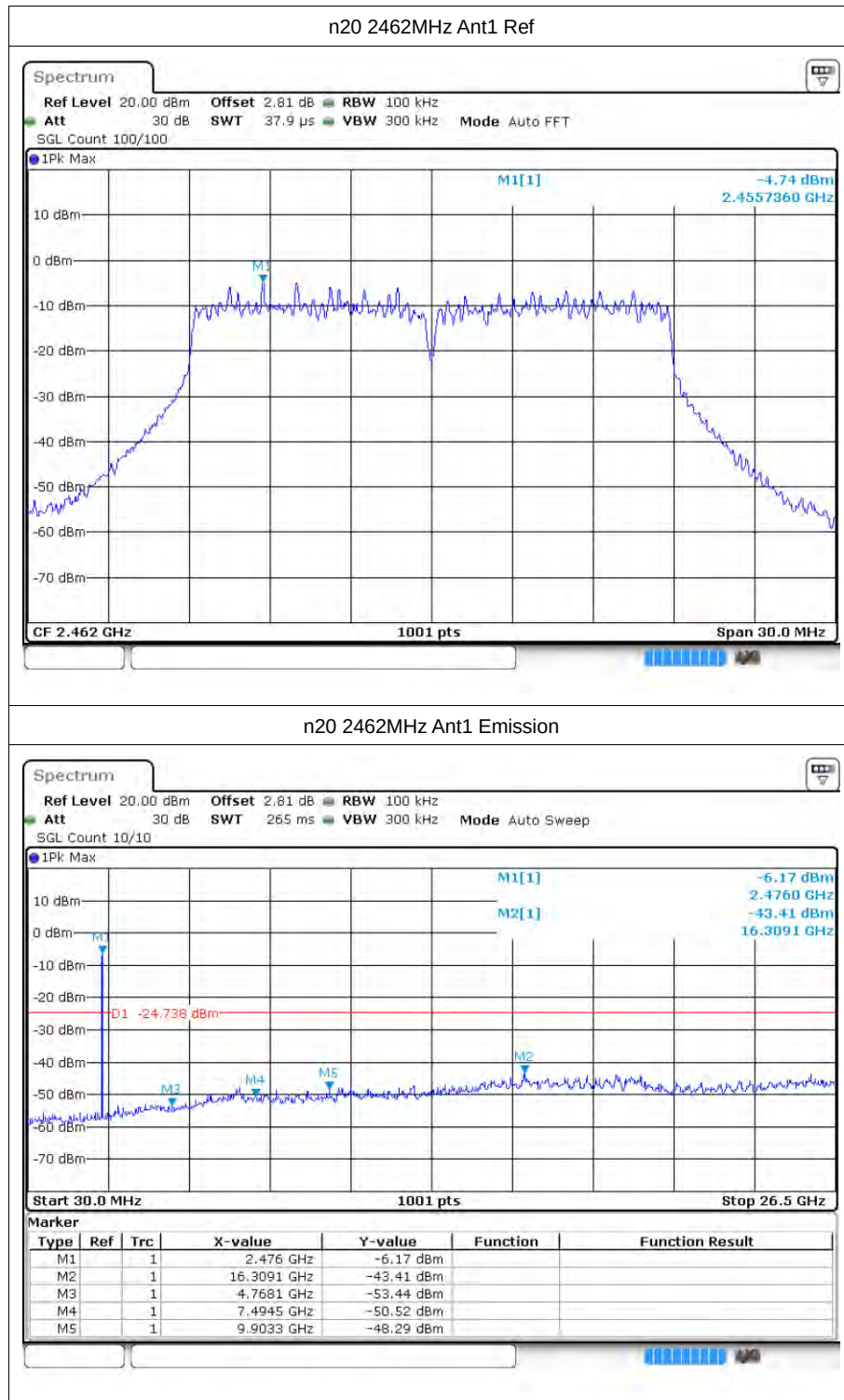


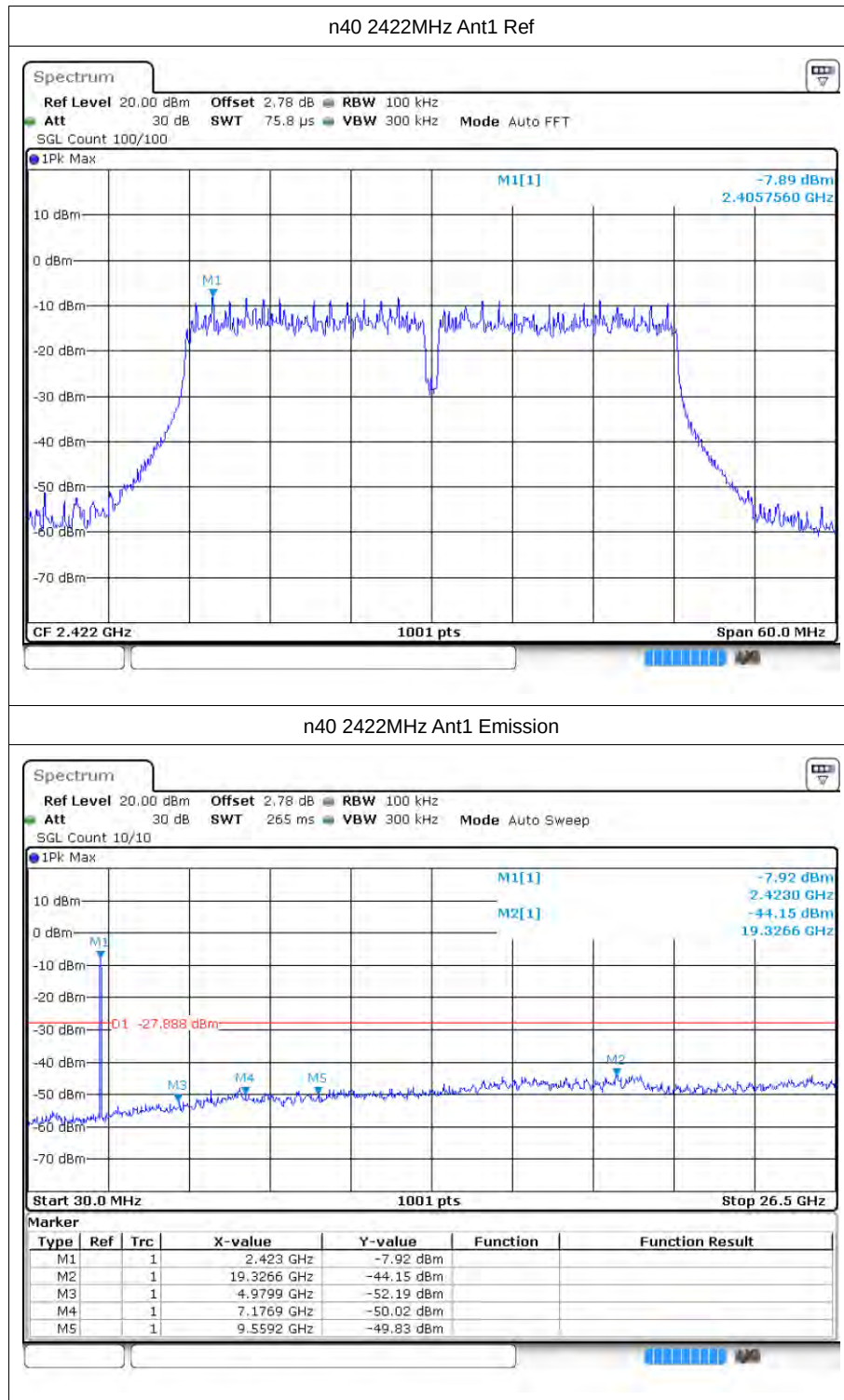


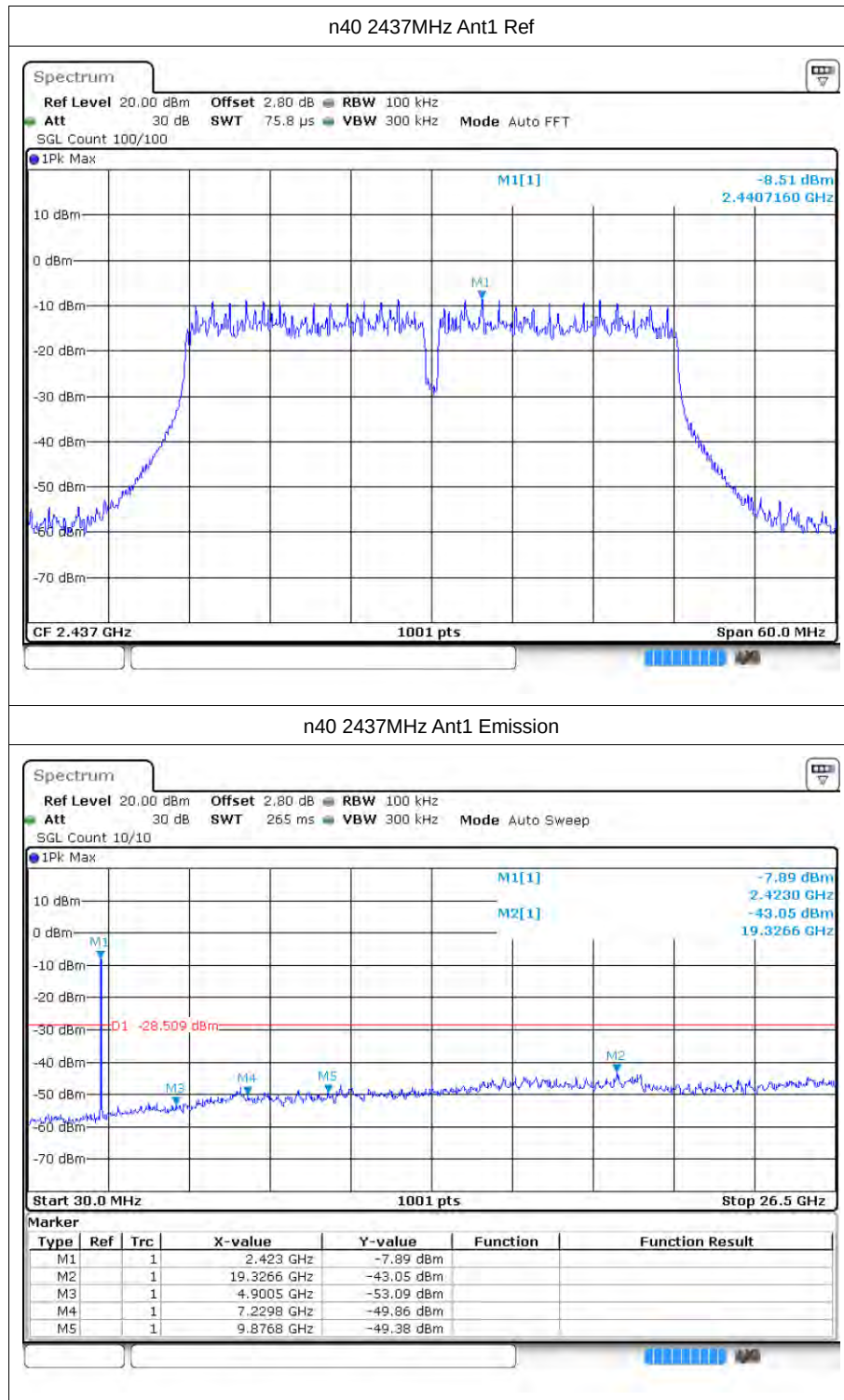


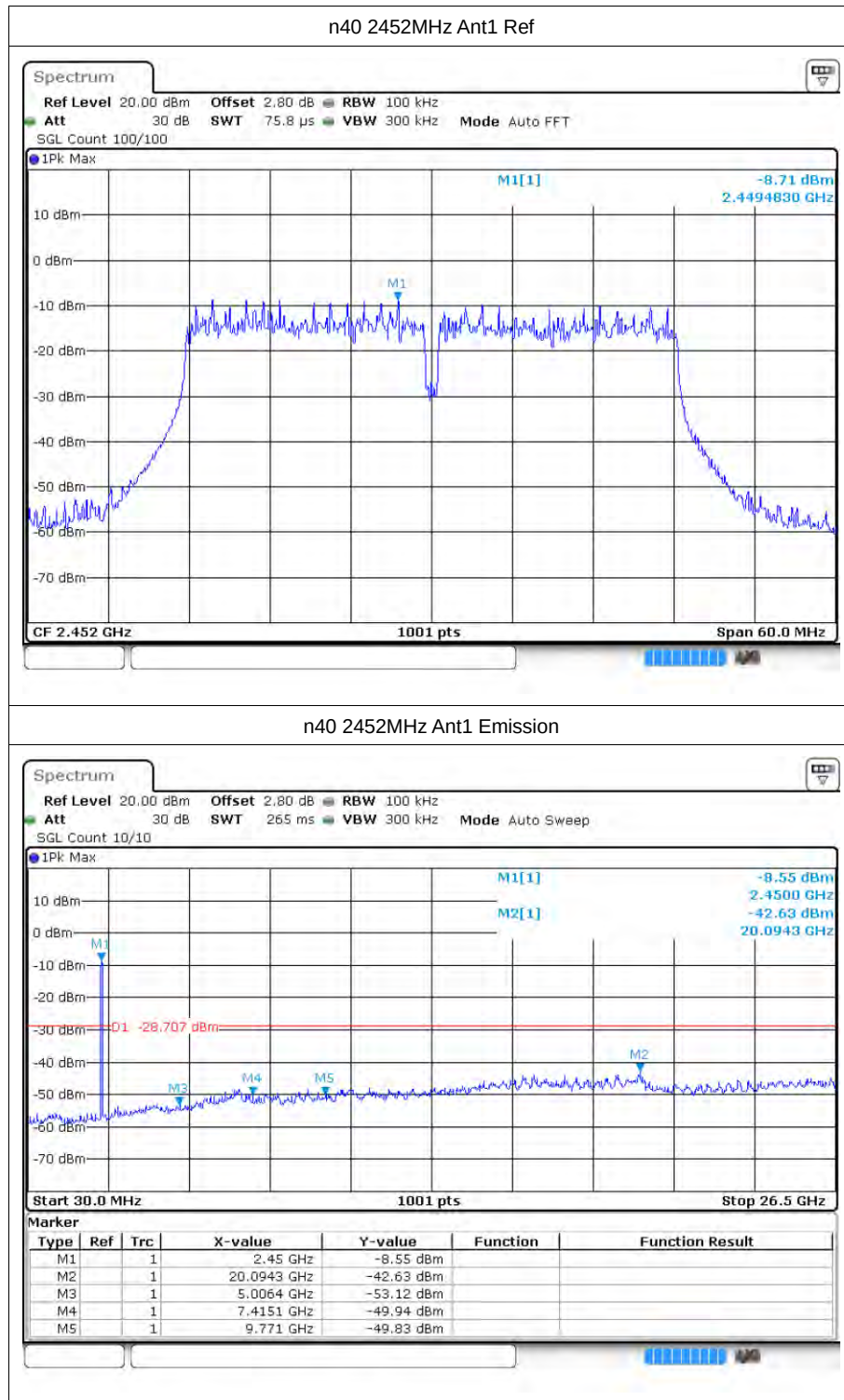














7 Restrict Band

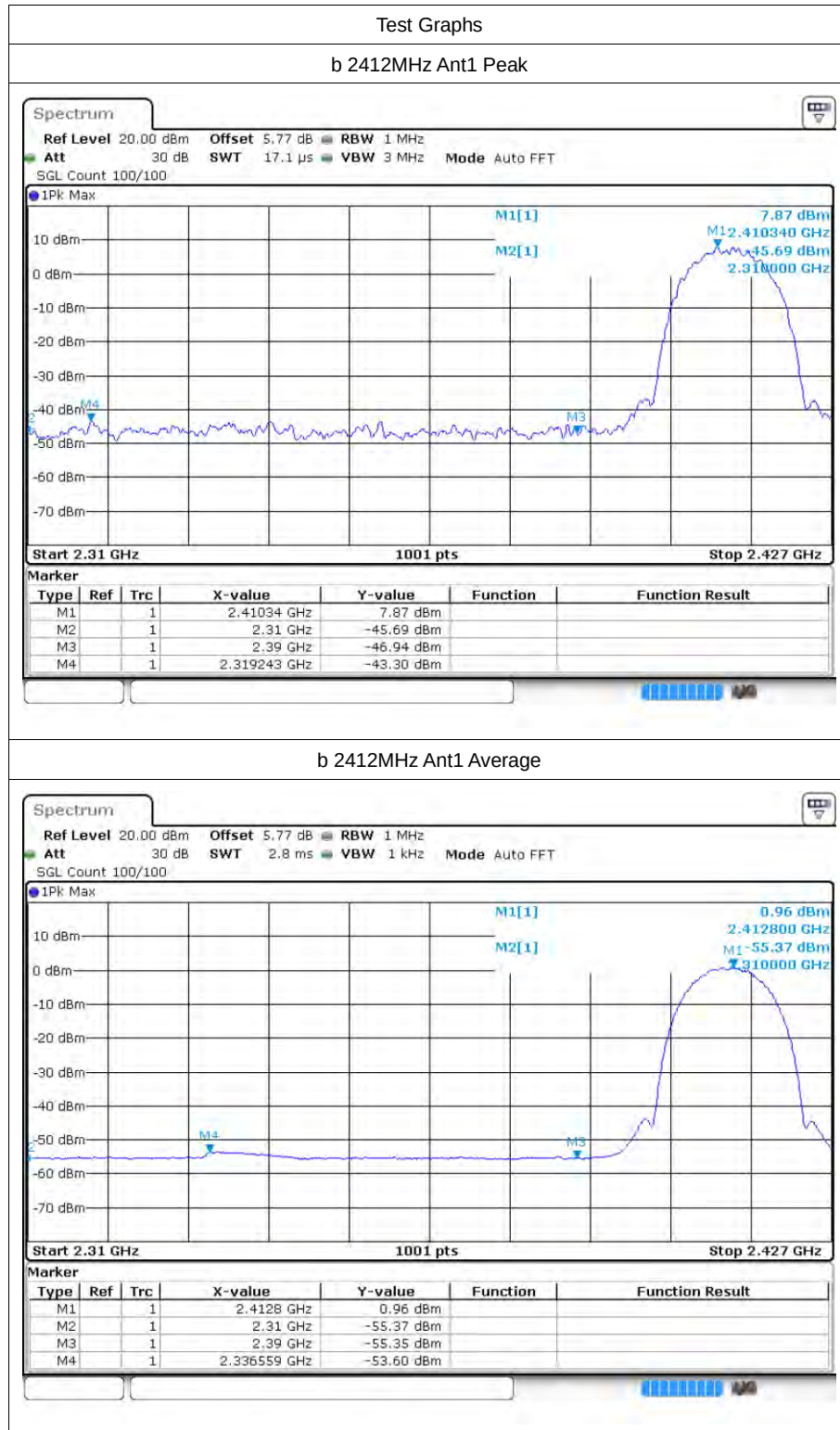
7.1 Test Result

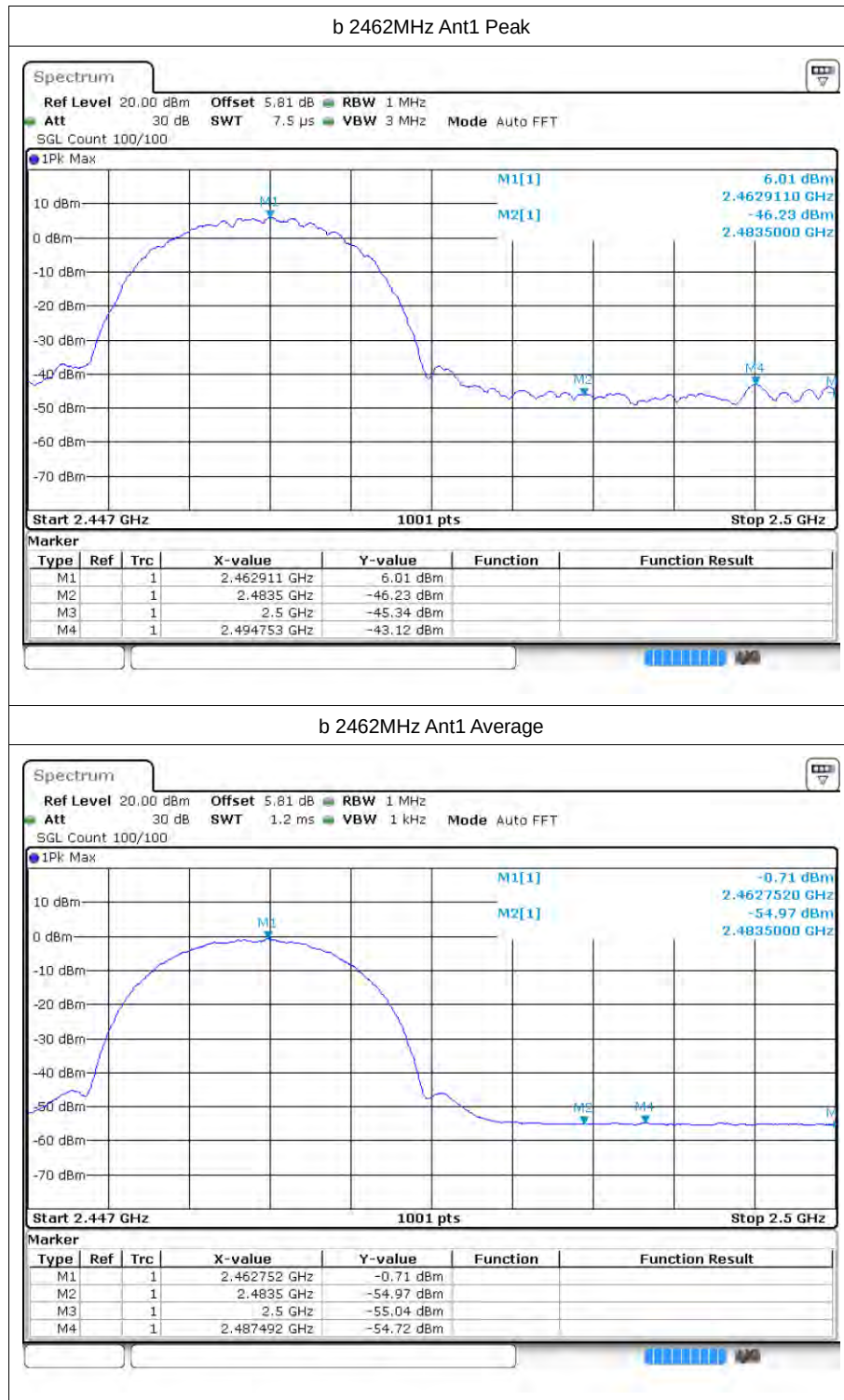
Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
b	2412	Ant1	2310	-45.69	3	52.57	Peak	74	Pass
b	2412	Ant1	2310	-55.37	3	42.89	Average	54	Pass
b	2412	Ant1	2319.243	-43.29	3	54.97	Peak	74	Pass
b	2412	Ant1	2336.559	-53.59	3	44.67	Average	54	Pass
b	2412	Ant1	2390	-46.93	3	51.33	Peak	74	Pass
b	2412	Ant1	2390	-55.34	3	42.92	Average	54	Pass
b	2462	Ant1	2483.5	-46.23	3	52.03	Peak	74	52.03
b	2462	Ant1	2483.5	-54.96	3	43.3	Average	54	Pass
b	2462	Ant1	2494.753	-43.12	3	55.14	Peak	74	Pass
b	2462	Ant1	2487.492	-54.72	3	43.54	Average	54	Pass
b	2462	Ant1	2500	-45.34	3	52.92	Peak	74	Pass
b	2462	Ant1	2500	-55.04	3	43.22	Average	54	Pass
g	2412	Ant1	2310	-44.15	3	54.11	Peak	74	Pass
g	2412	Ant1	2310	-54.79	3	43.47	Average	54	Pass
g	2412	Ant1	2389.677	-43.49	3	54.77	Peak	74	Pass
g	2412	Ant1	2337.378	-52.59	3	45.67	Average	54	Pass
g	2412	Ant1	2390	-43.98	3	51.33	Peak	74	Pass
g	2412	Ant1	2390	-54.18	3	44.08	Average	54	Pass
g	2462	Ant1	2483.5	-46.15	3	52.11	Peak	74	Pass
g	2462	Ant1	2483.5	-54.22	3	44.04	Average	54	Pass
g	2462	Ant1	2494.753	-44.17	3	54.09	Peak	74	Pass
g	2462	Ant1	2485.902	-53.39	3	44.87	Average	54	Pass
g	2462	Ant1	2500	-46.08	3	52.92	Peak	74	Pass
g	2462	Ant1	2500	-53.79	3	44.47	Average	54	Pass
n20	2412	Ant1	2310	-47.06	3	51.2	Peak	74	Pass
n20	2412	Ant1	2310	-54.7	3	43.56	Average	54	Pass
n20	2412	Ant1	2341.239	-43.77	3	54.49	Peak	74	Pass
n20	2412	Ant1	2337.495	-52.21	3	46.05	Average	54	Pass
n20	2412	Ant1	2390	-46.2	3	52.06	Peak	74	Pass
n20	2412	Ant1	2390	-54.2	3	44.06	Average	54	Pass
n20	2462	Ant1	2483.5	-46.01	3	52.25	Peak	74	Pass
n20	2462	Ant1	2483.5	-53.93	3	44.33	Average	54	Pass
n20	2462	Ant1	2499.576	-44.54	3	53.72	Peak	74	Pass
n20	2462	Ant1	2494.594	-53.34	3	44.92	Average	54	Pass

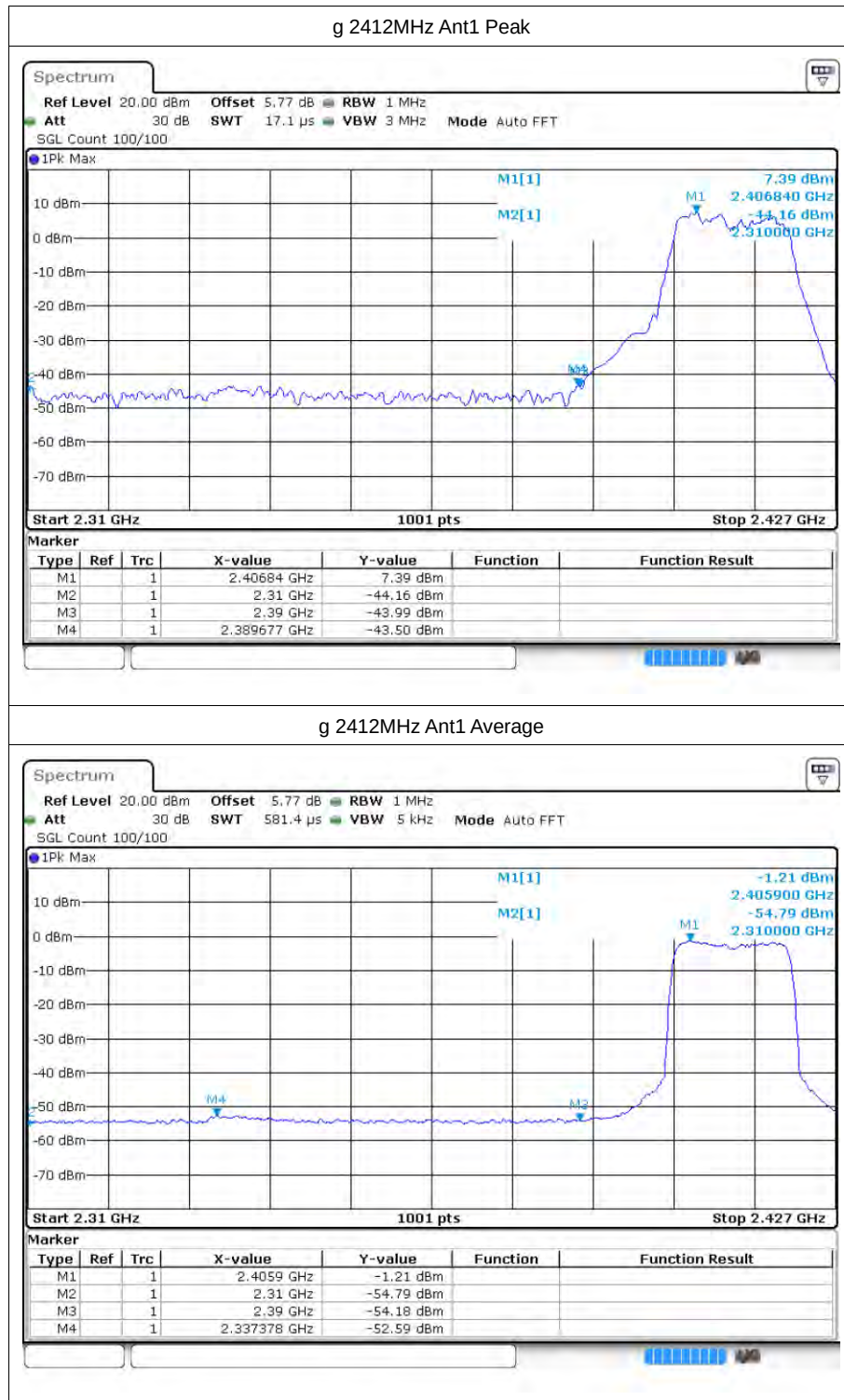


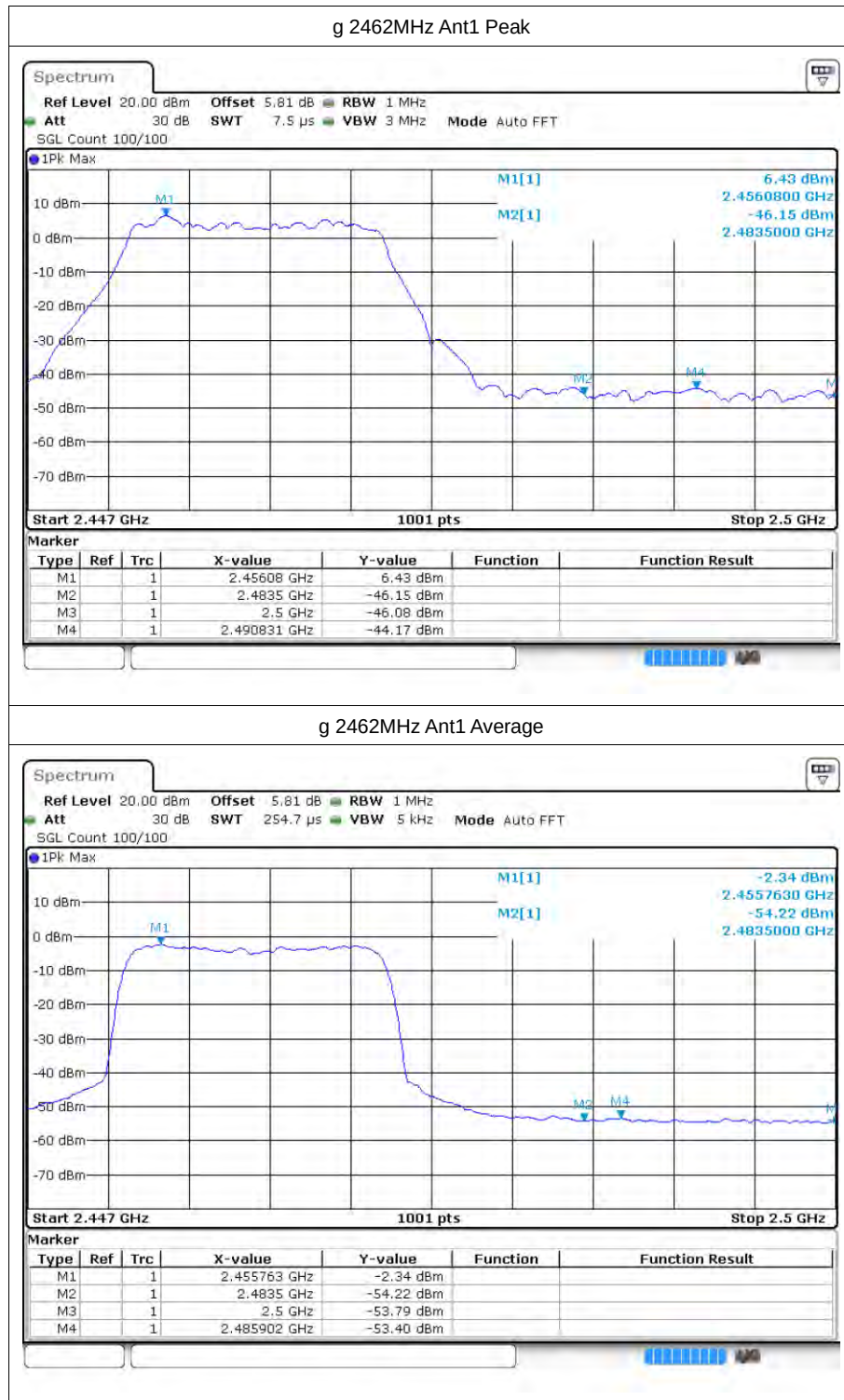
n20	2462	Ant1	2500	-45.28	3	52.98	Peak	74	Pass
n20	2462	Ant1	2500	-54.19	3	44.07	Average	54	Pass
n40	2422	Ant1	2310	-46.64	3	51.62	Peak	74	Pass
n40	2422	Ant1	2310	-54.04	3	44.22	Average	54	Pass
n40	2422	Ant1	2389.946	-42.13	3	56.13	Peak	74	Pass
n40	2422	Ant1	2344.364	-51.78	3	46.48	Average	54	Pass
n40	2422	Ant1	2390	-41.86	3	56.4	Peak	74	Pass
n40	2422	Ant1	2390	-53.31	3	44.95	Average	54	Pass
n40	2452	Ant1	2483.5	-45.98	3	52.28	Peak	74	Pass
n40	2452	Ant1	2483.5	-53.44	3	44.82	Average	54	Pass
n40	2452	Ant1	2496.412	-45.22	3	53.04	Peak	74	Pass
n40	2452	Ant1	2490.484	-52.87	3	45.39	Average	54	Pass
n40	2452	Ant1	2500	-47.34	3	50.92	Peak	74	Pass
n40	2452	Ant1	2500	-54.12	3	44.14	Average	54	Pass

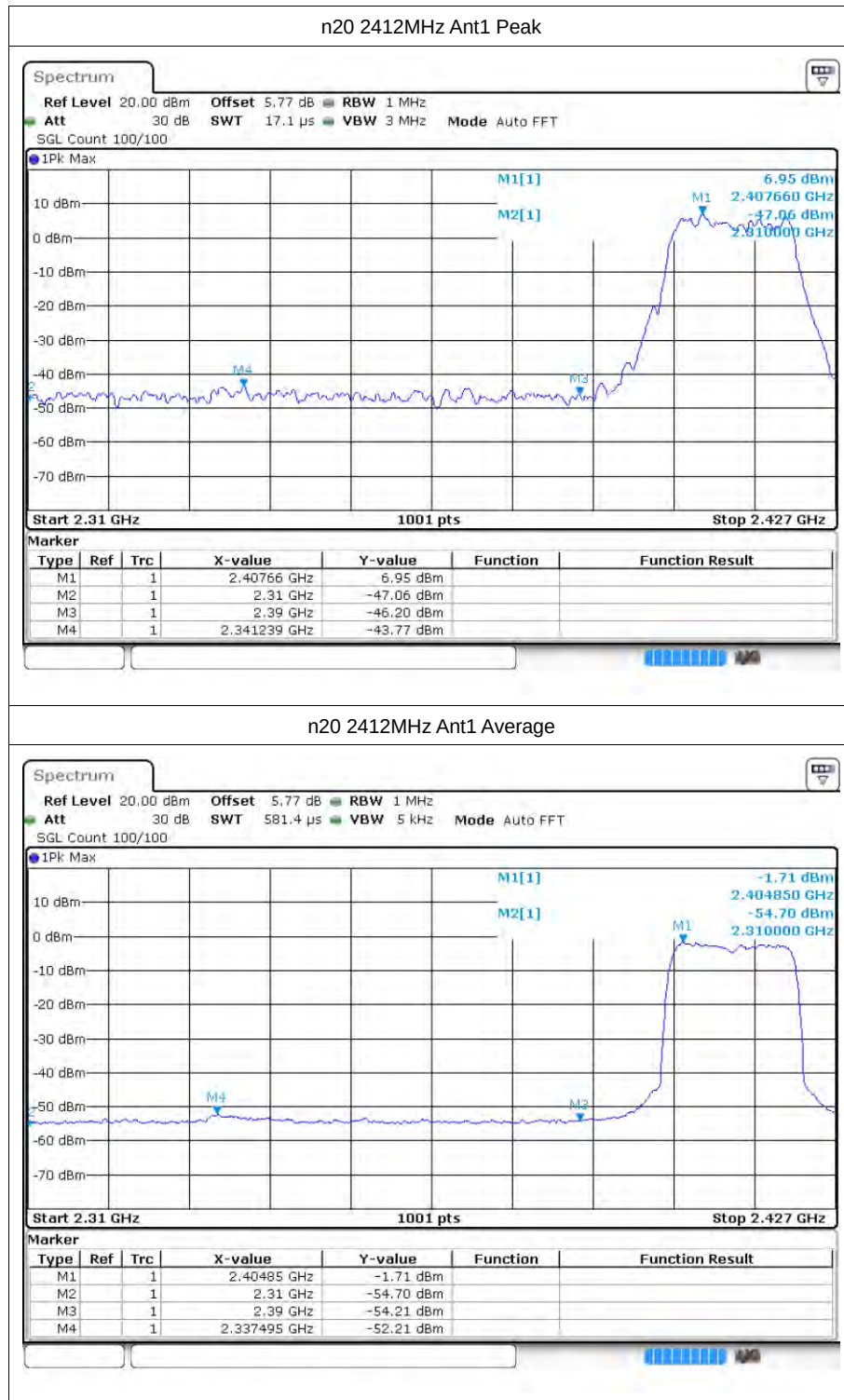
7.2 Test Graphs

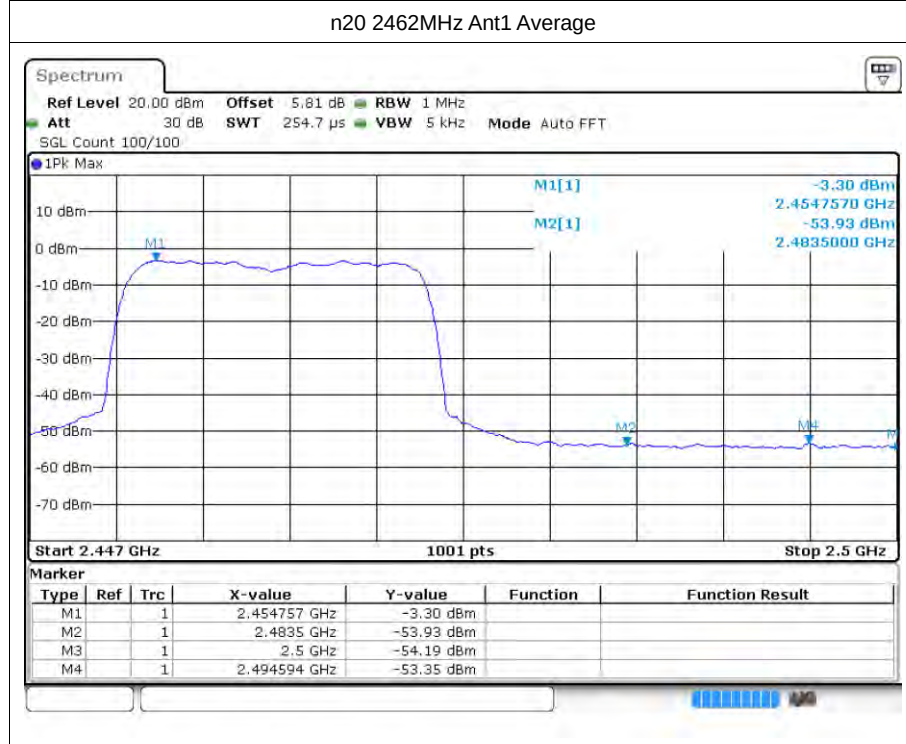
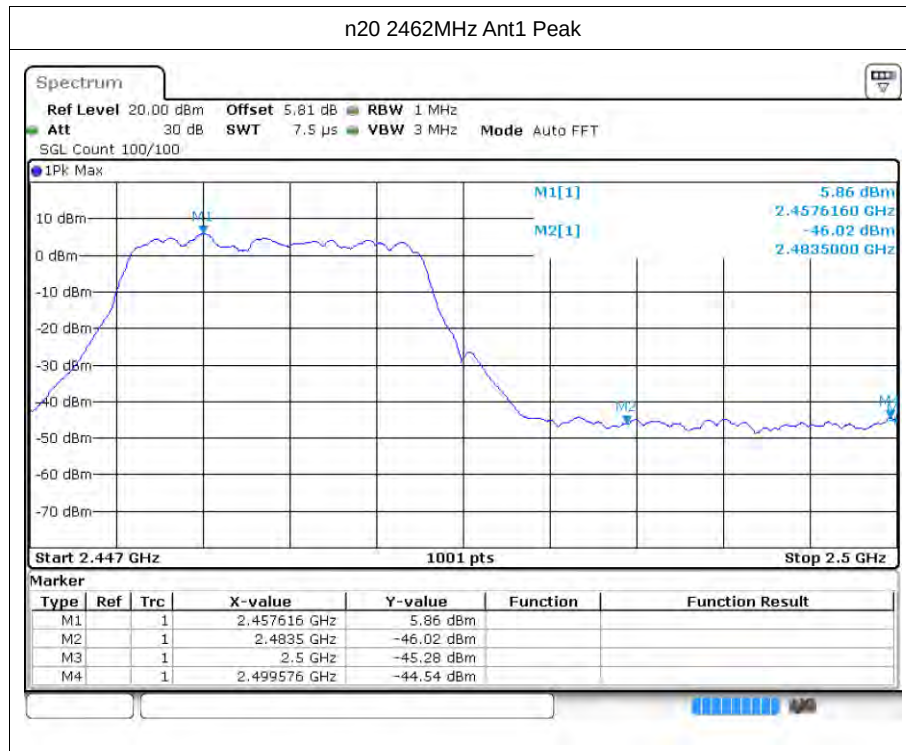


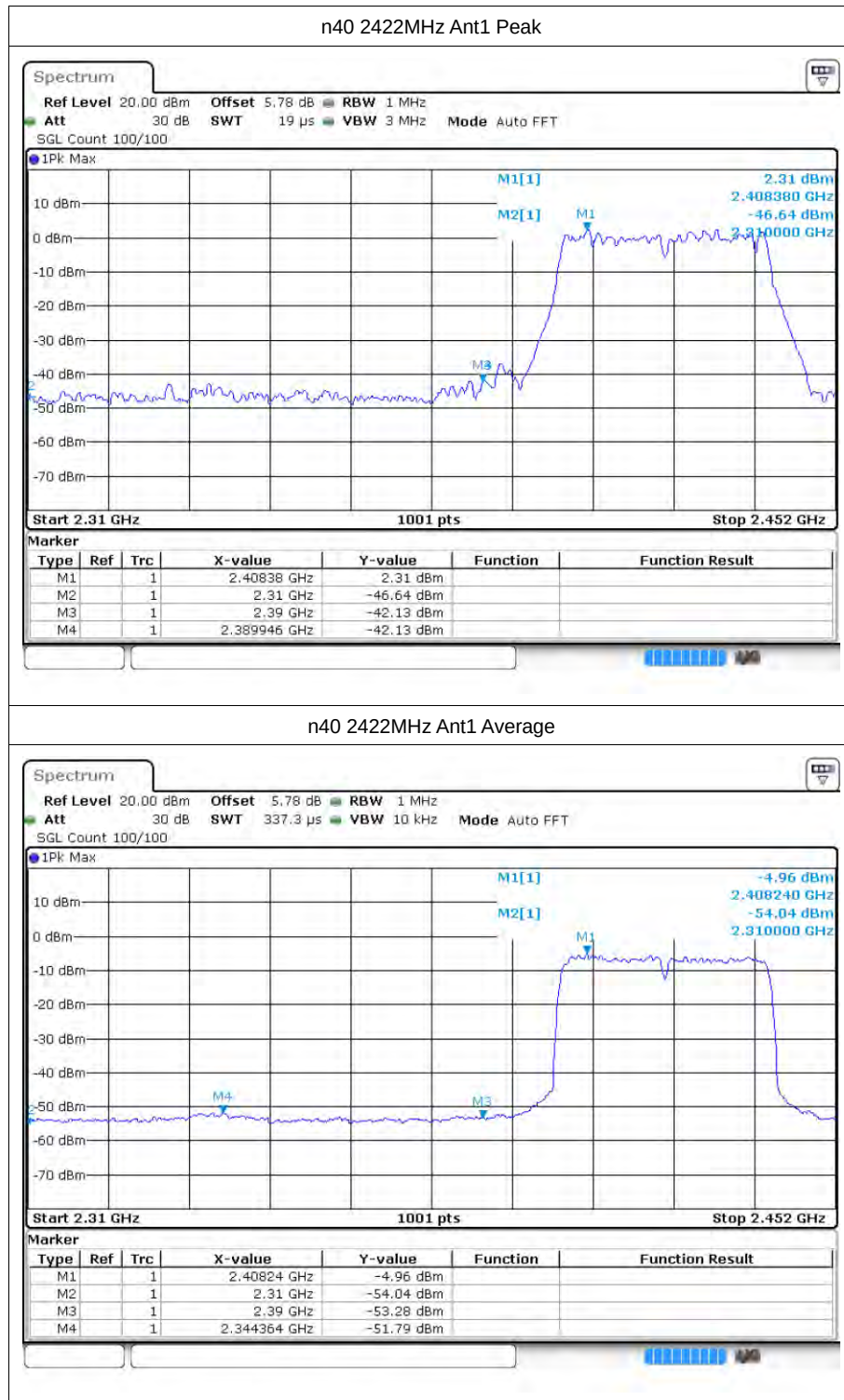














---The End---