



Appendix C

RF Test Data for 2.4GWIFI (Conducted Measurement)

Product Name: 3D Printer

Trade Mark: MALYAN

Test Model: Belt

Environmental Conditions

Temperature:	25.1° C
Relative Humidity:	51.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Simba Huang
Supervised by:	Seal Chen



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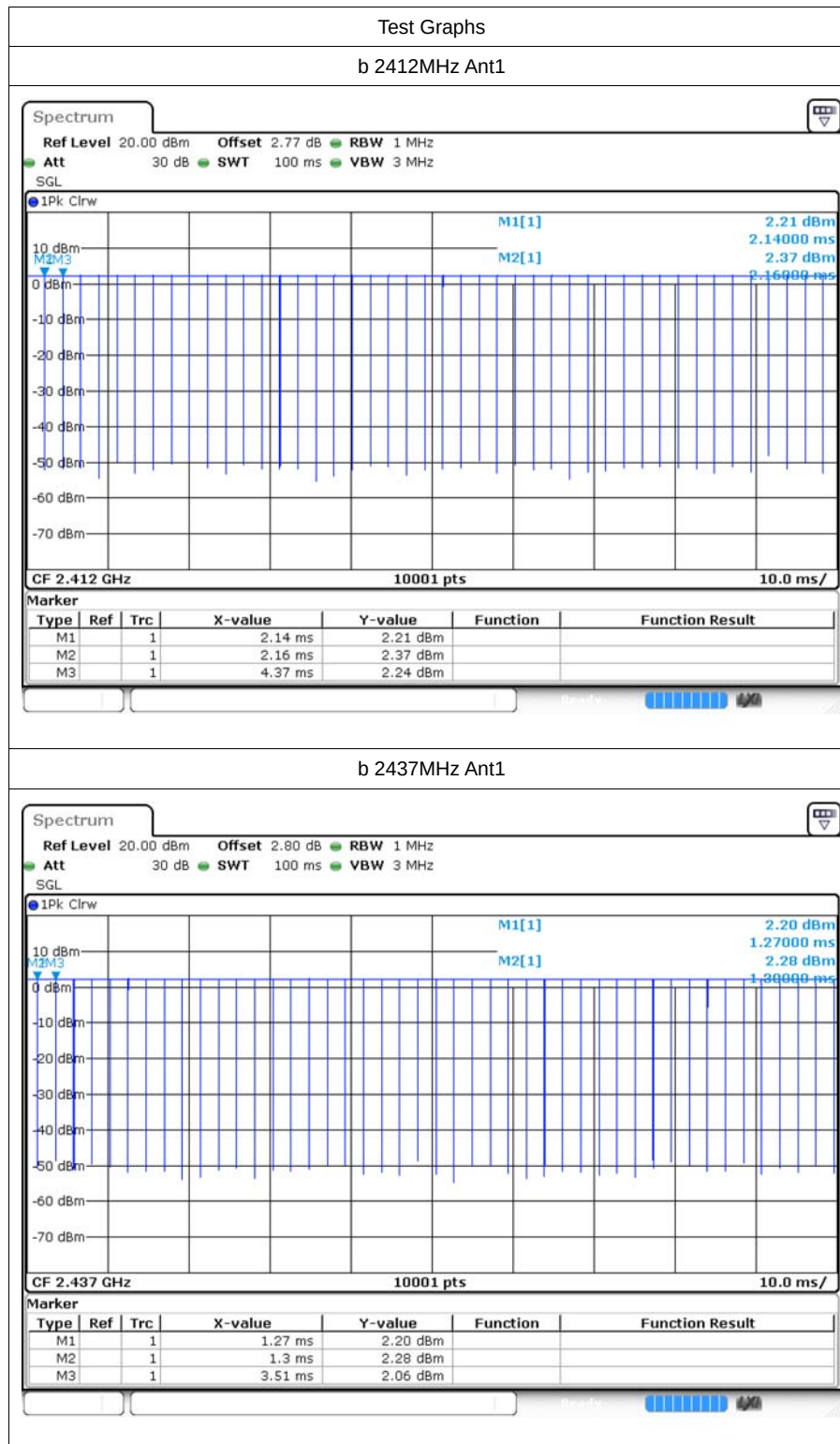
1 Duty Cycle

1.1 Test Result

Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	1/T (kHz)
b	2412	Ant1	99.34	0.01
b	2437	Ant1	99.32	0.01
b	2462	Ant1	99.33	0.01
g	2412	Ant1	99.2	0.01
g	2437	Ant1	99.21	0.01
g	2462	Ant1	99.22	0.01
n20	2412	Ant1	99.17	0.01
n20	2437	Ant1	99.14	0.01
n20	2462	Ant1	99.17	0.01

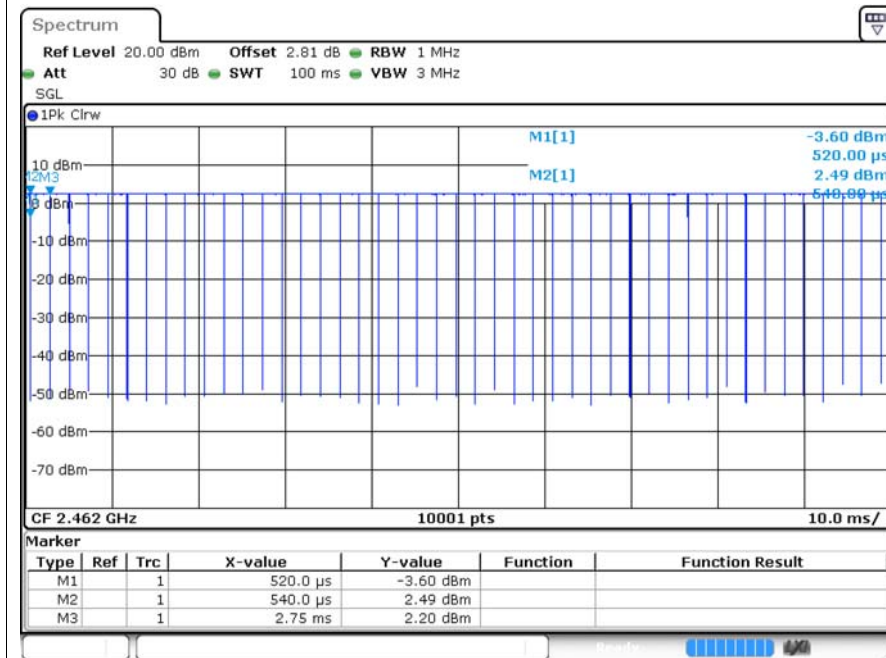


1.2 Test Graphs

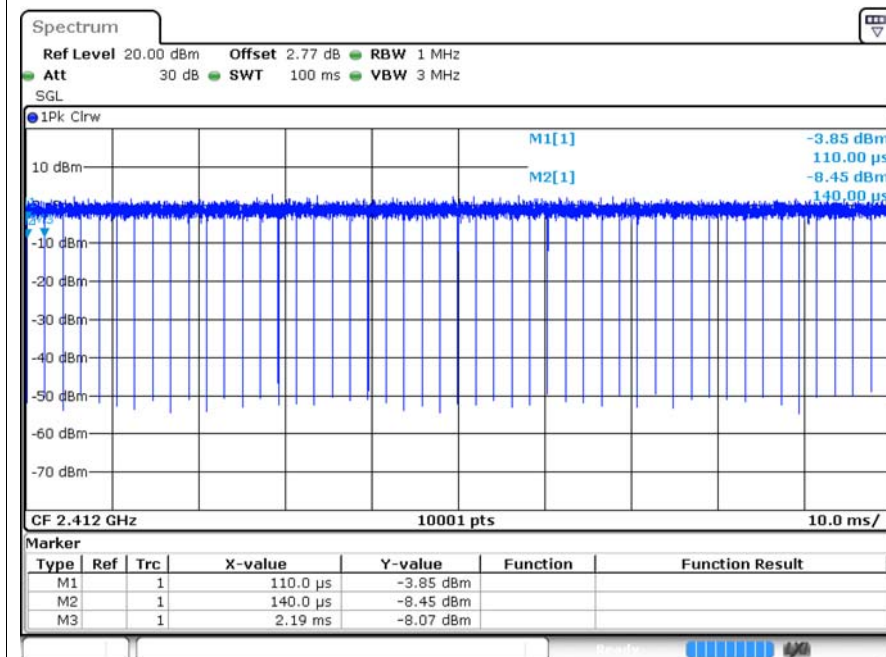


Test Graphs

b 2462MHz Ant1

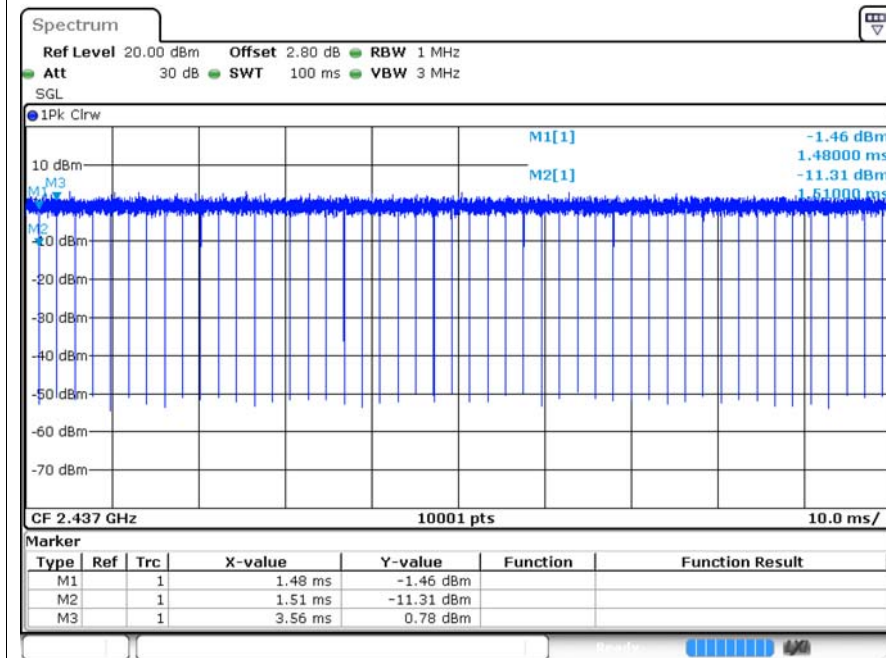


g 2412MHz Ant1

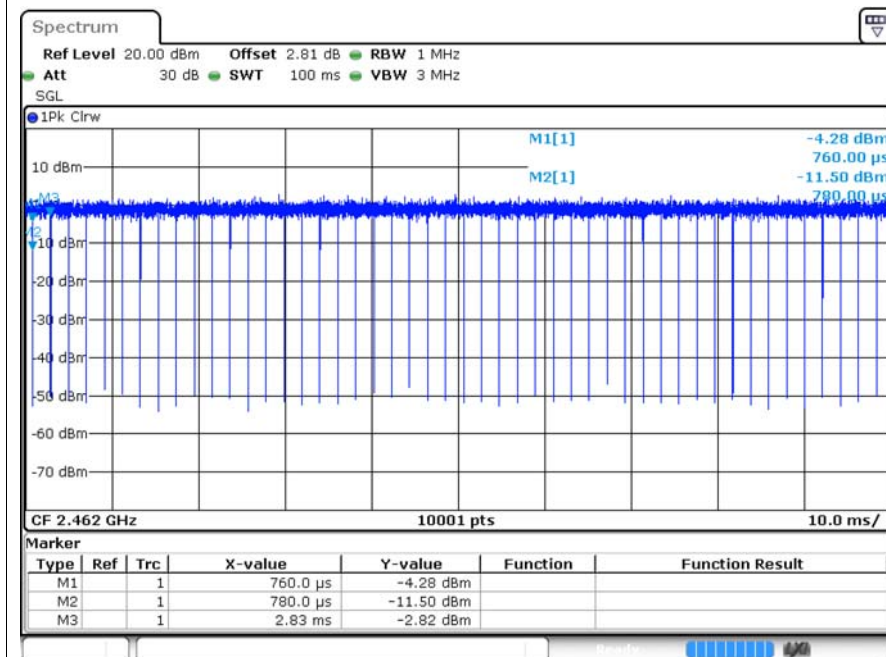


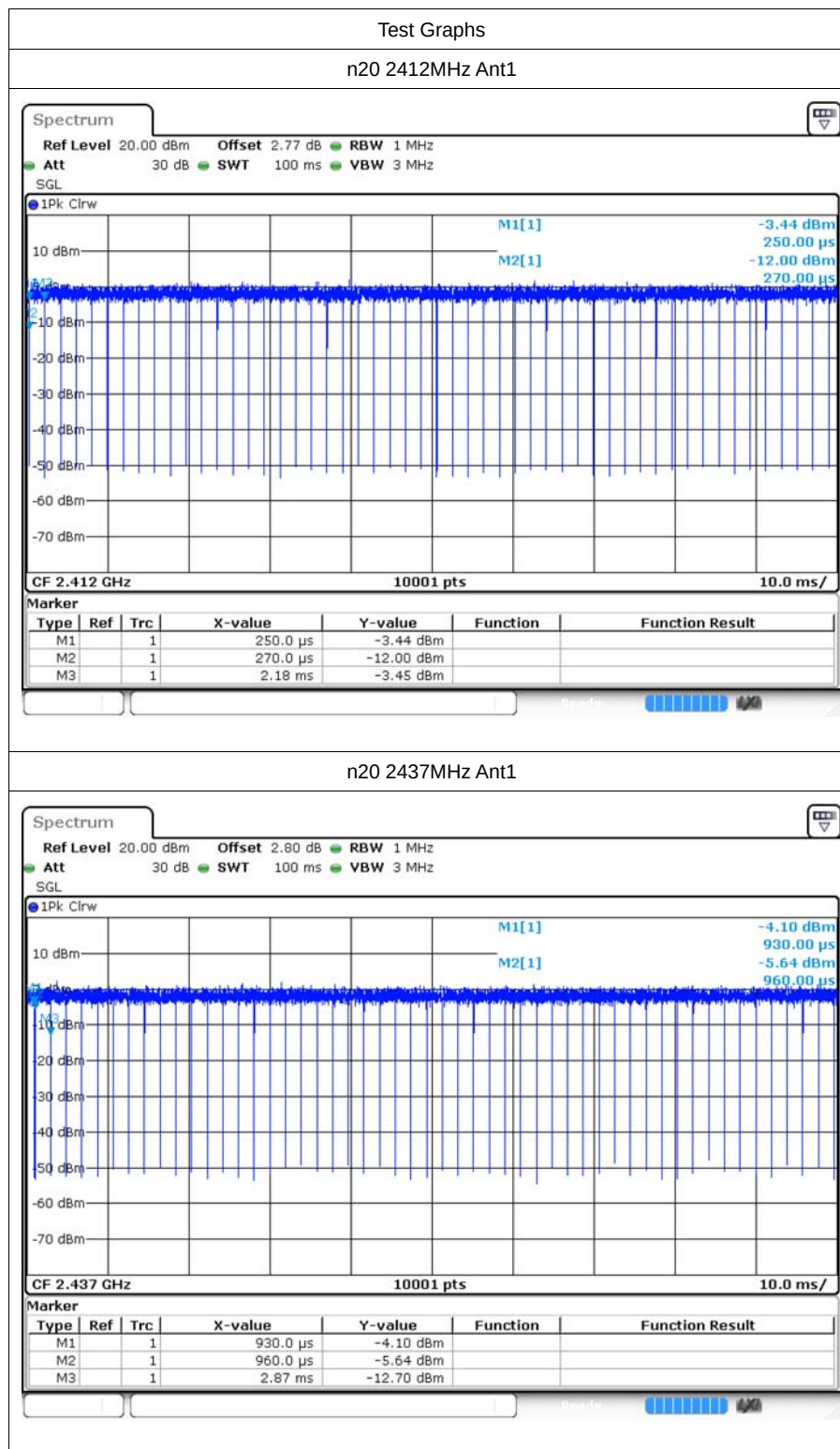
Test Graphs

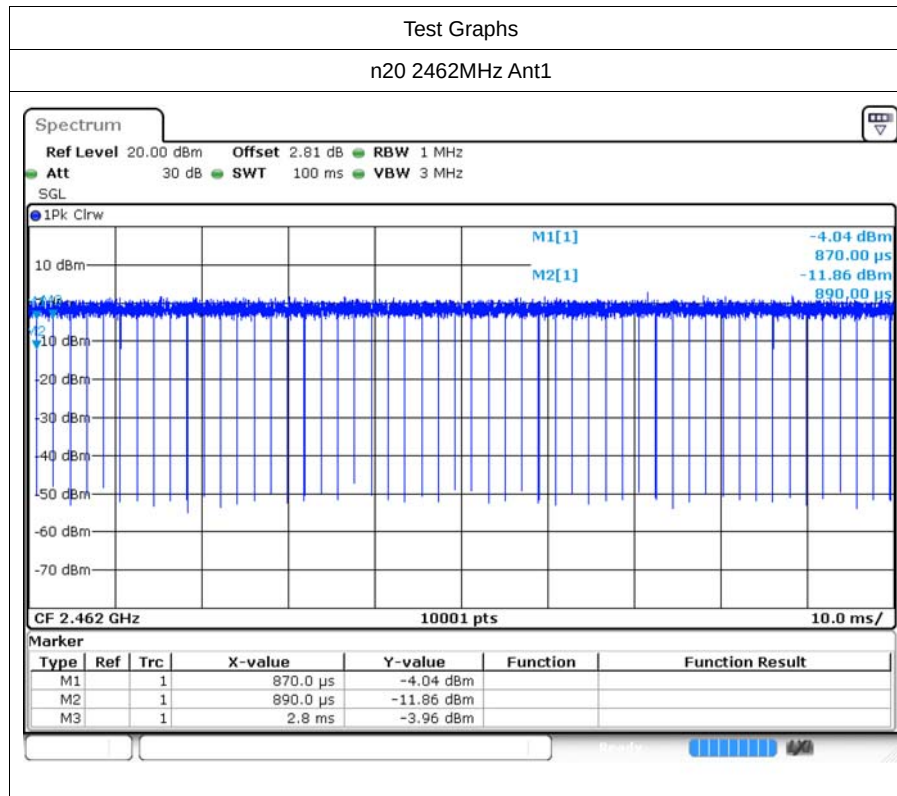
g 2437MHz Ant1



g 2462MHz Ant1









2 Maximum Conducted Output Power

2.1 Test Result

Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
b	2412	Ant1	14.33	30	Pass
b	2437	Ant1	14.17	30	Pass
b	2462	Ant1	14.34	30	Pass
g	2412	Ant1	13.79	30	Pass
g	2437	Ant1	14.22	30	Pass
g	2462	Ant1	13.85	30	Pass
n20	2412	Ant1	13.26	30	Pass
n20	2437	Ant1	13.46	30	Pass
n20	2462	Ant1	13.73	30	Pass

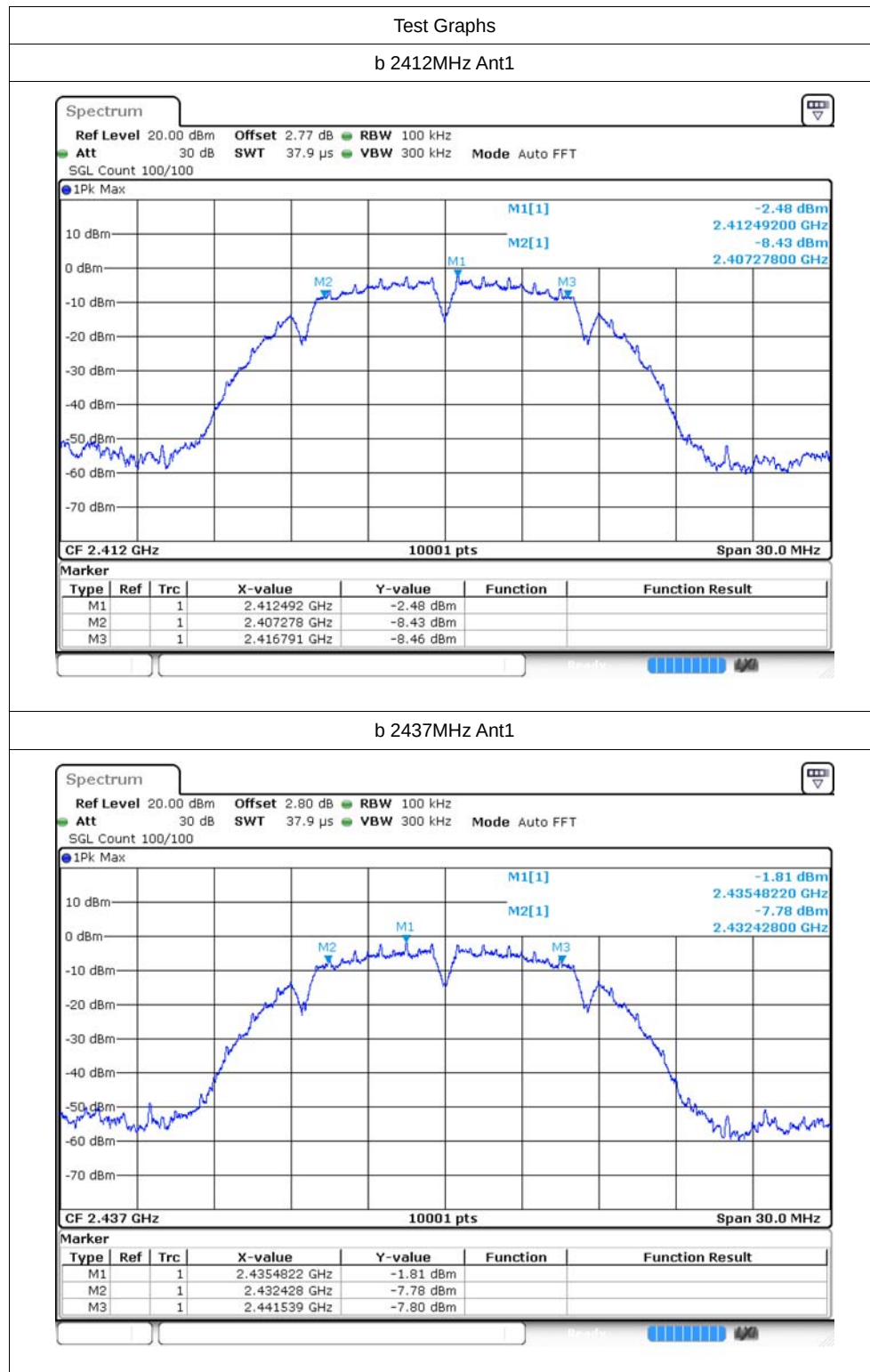


3 -6dB Bandwidth

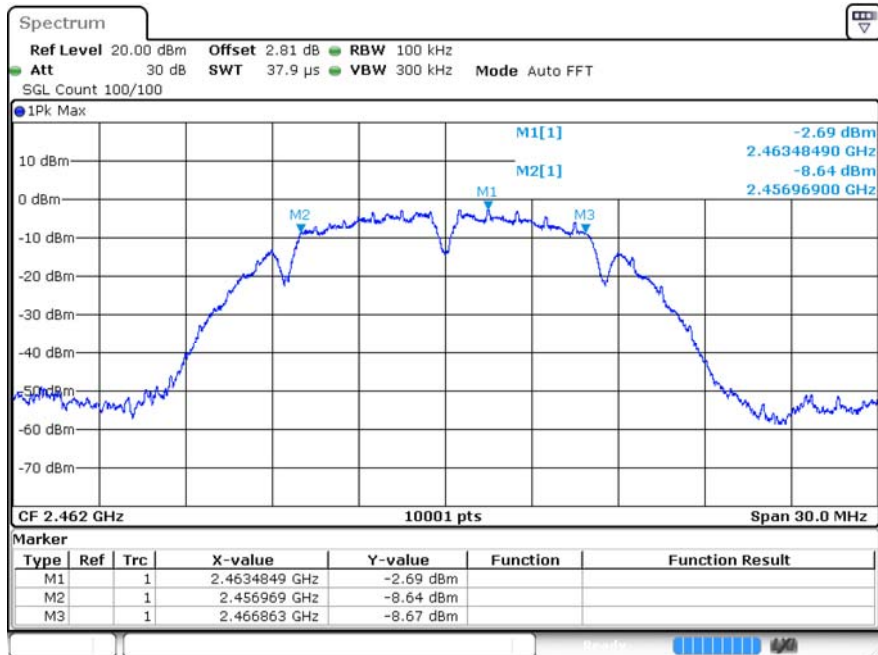
3.1 Test Result

Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
b	2412	Ant1	9.513	0.5	Pass
b	2437	Ant1	9.111	0.5	Pass
b	2462	Ant1	9.894	0.5	Pass
g	2412	Ant1	16.344	0.5	Pass
g	2437	Ant1	13.455	0.5	Pass
g	2462	Ant1	14.073	0.5	Pass
n20	2412	Ant1	15.27	0.5	Pass
n20	2437	Ant1	17.559	0.5	Pass
n20	2462	Ant1	15.12	0.5	Pass

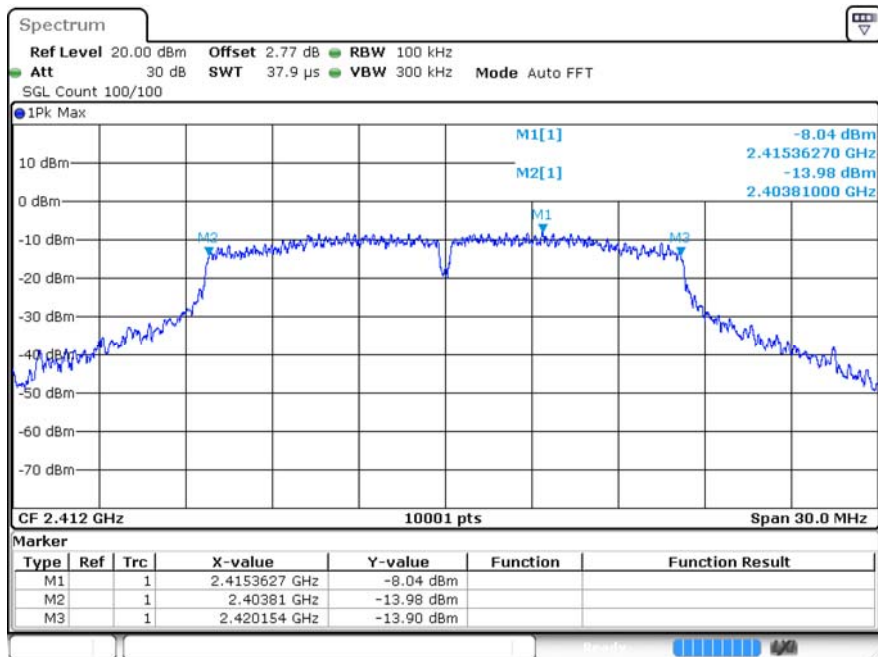
3.2 Test Graphs



b 2462MHz Ant1

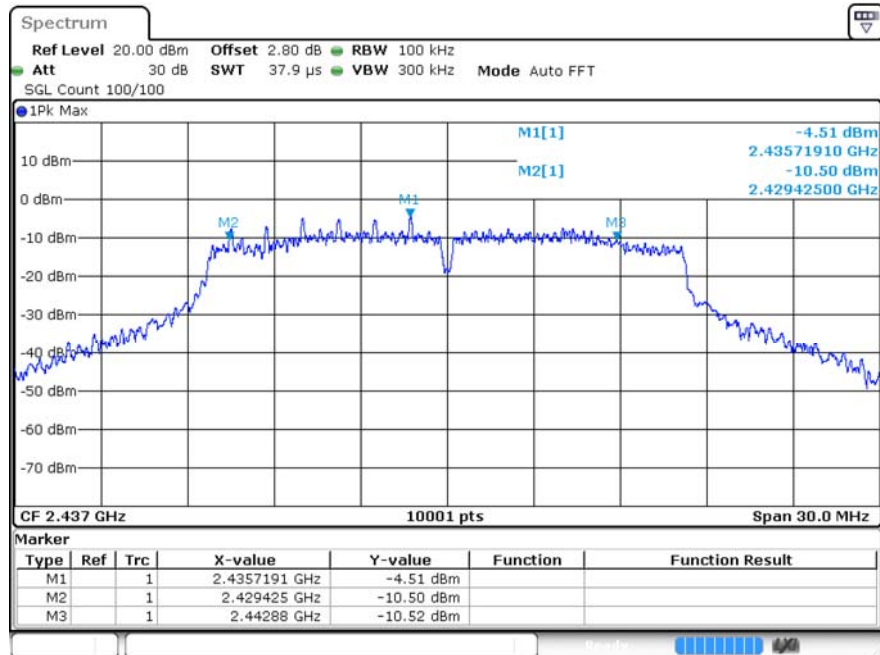


g 2412MHz Ant1

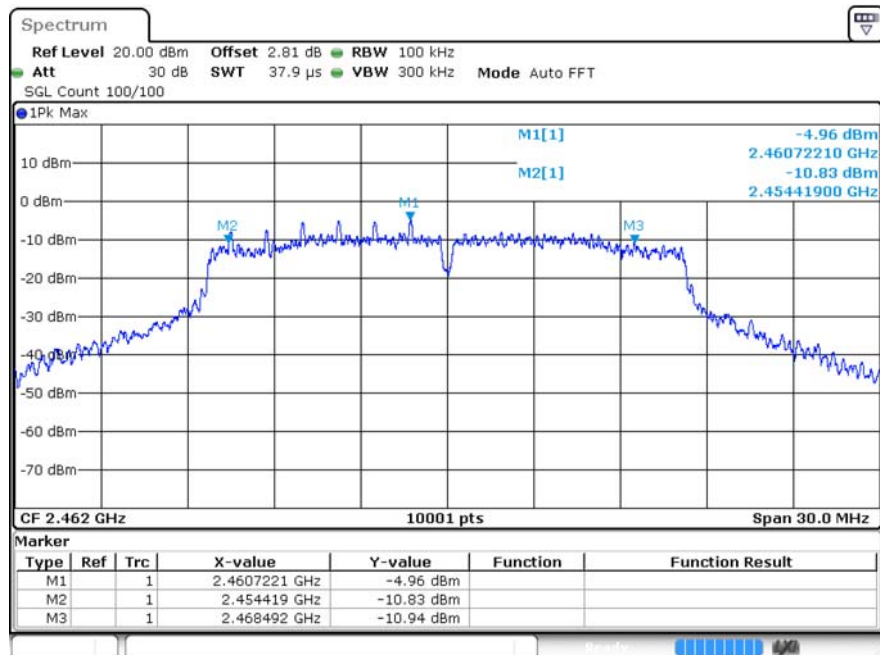




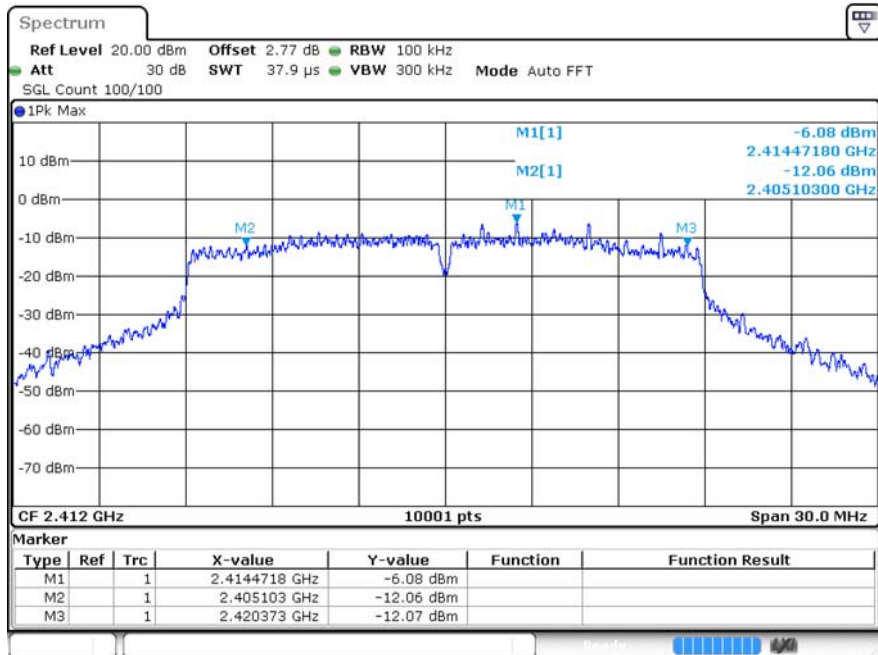
g 2437MHz Ant1



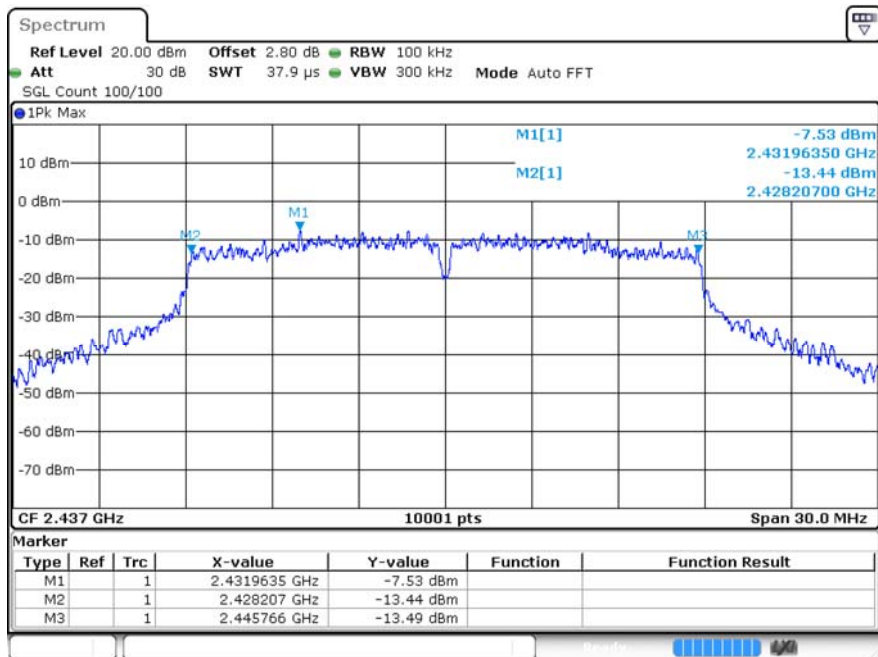
g 2462MHz Ant1

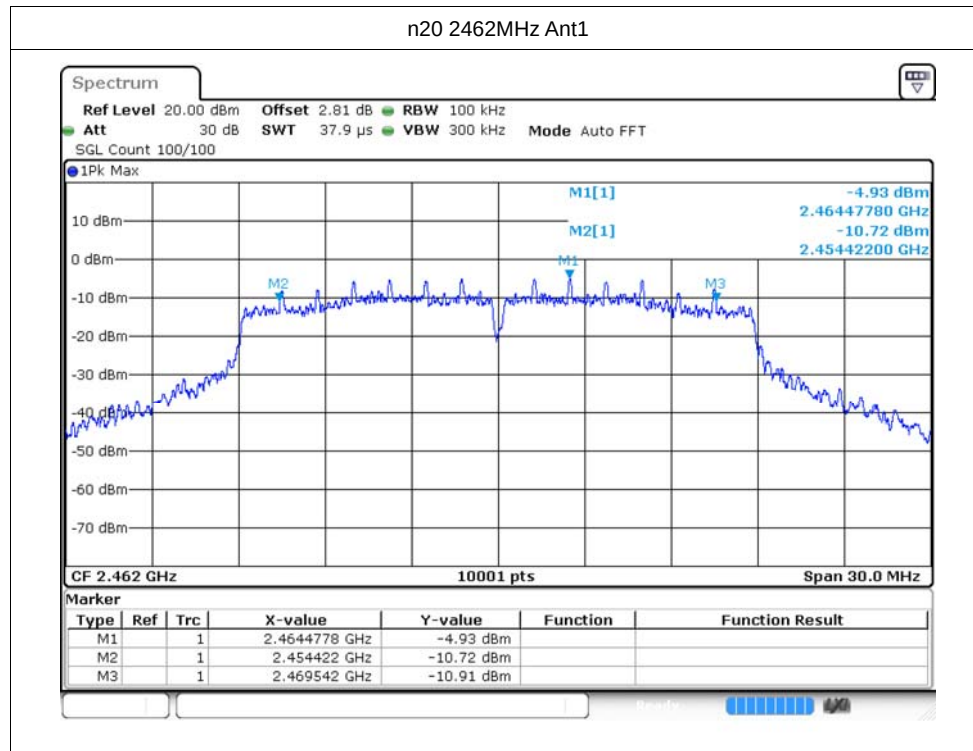


n20 2412MHz Ant1



n20 2437MHz Ant1



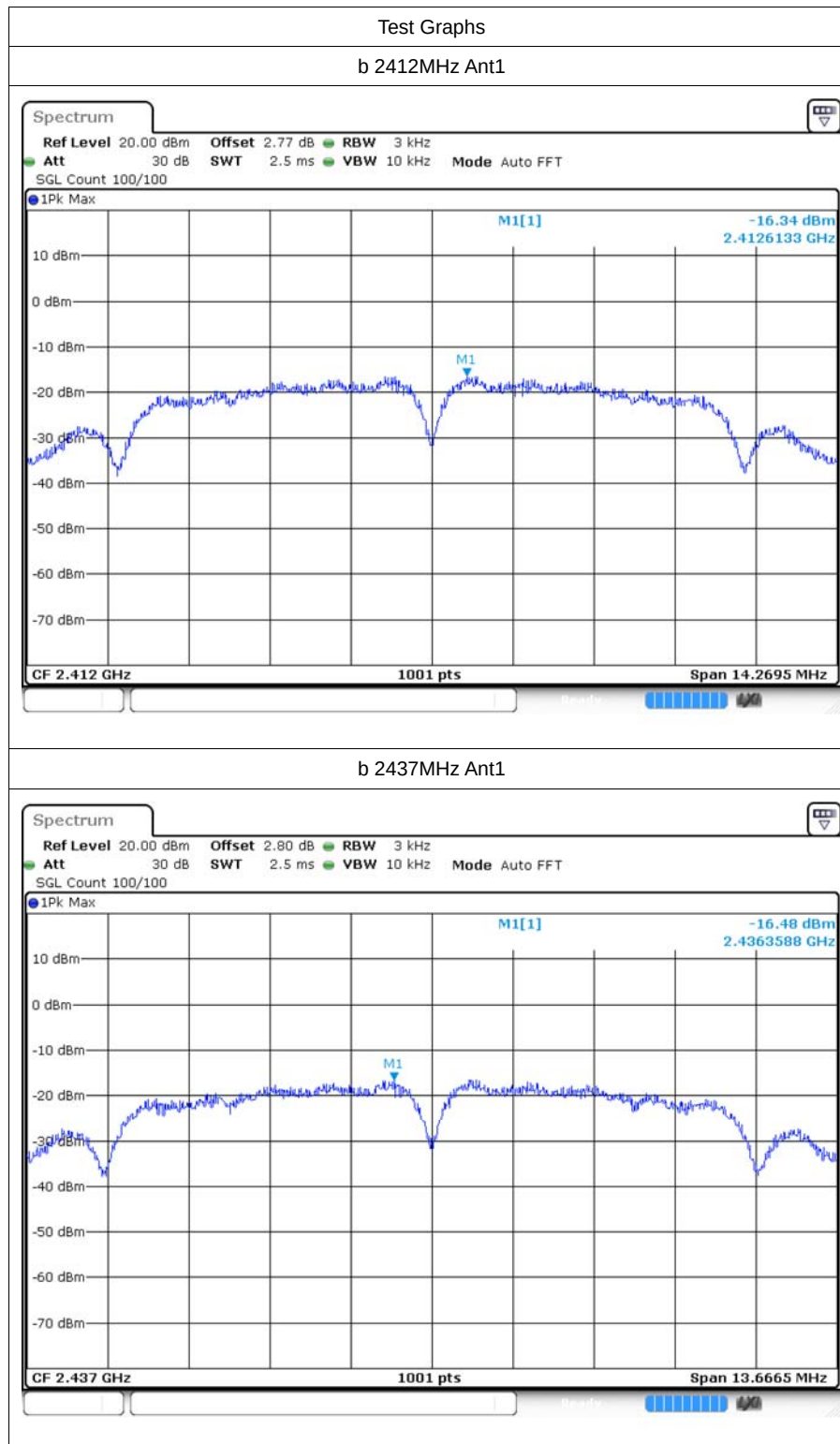


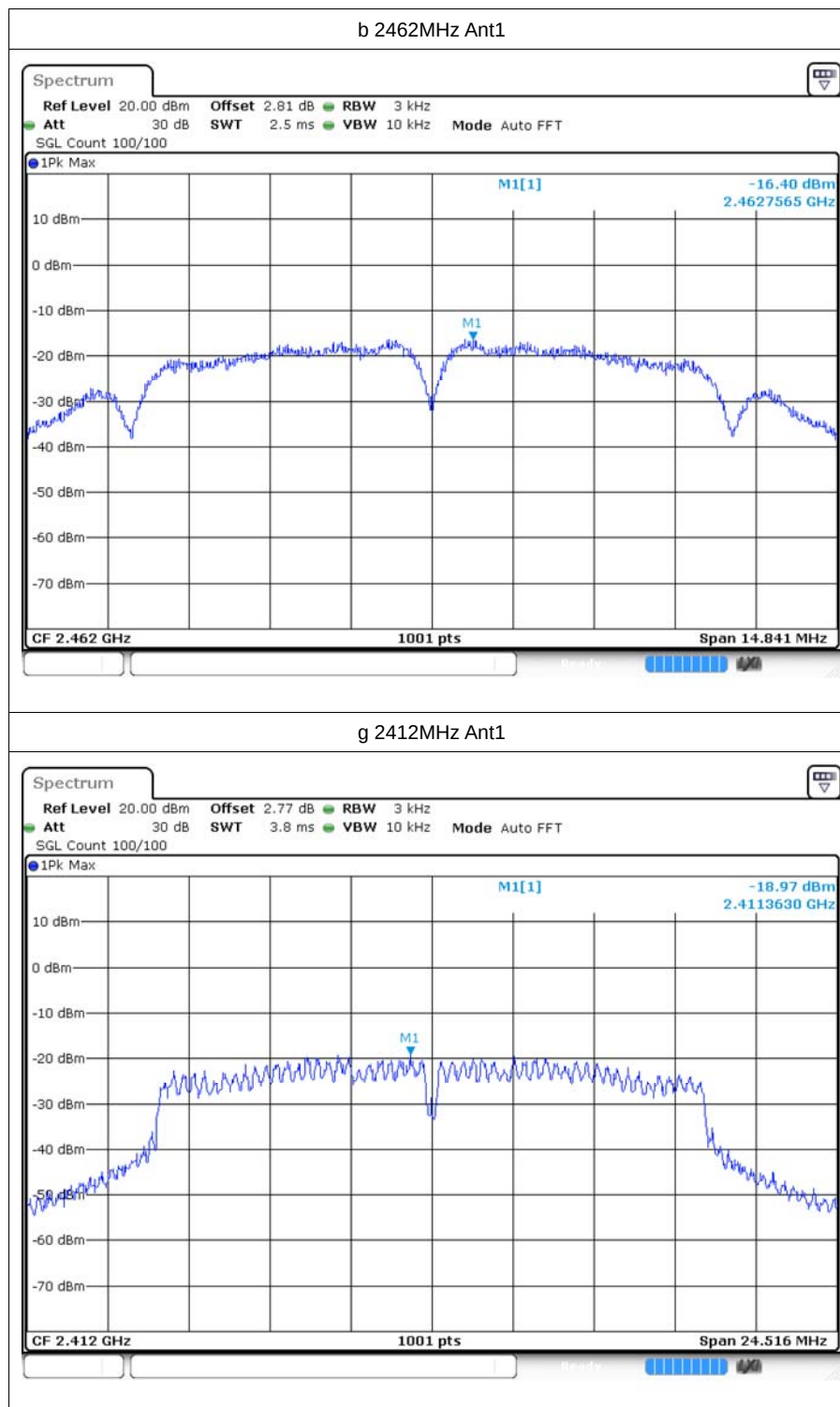
4 Maximum Power Spectral Density Level

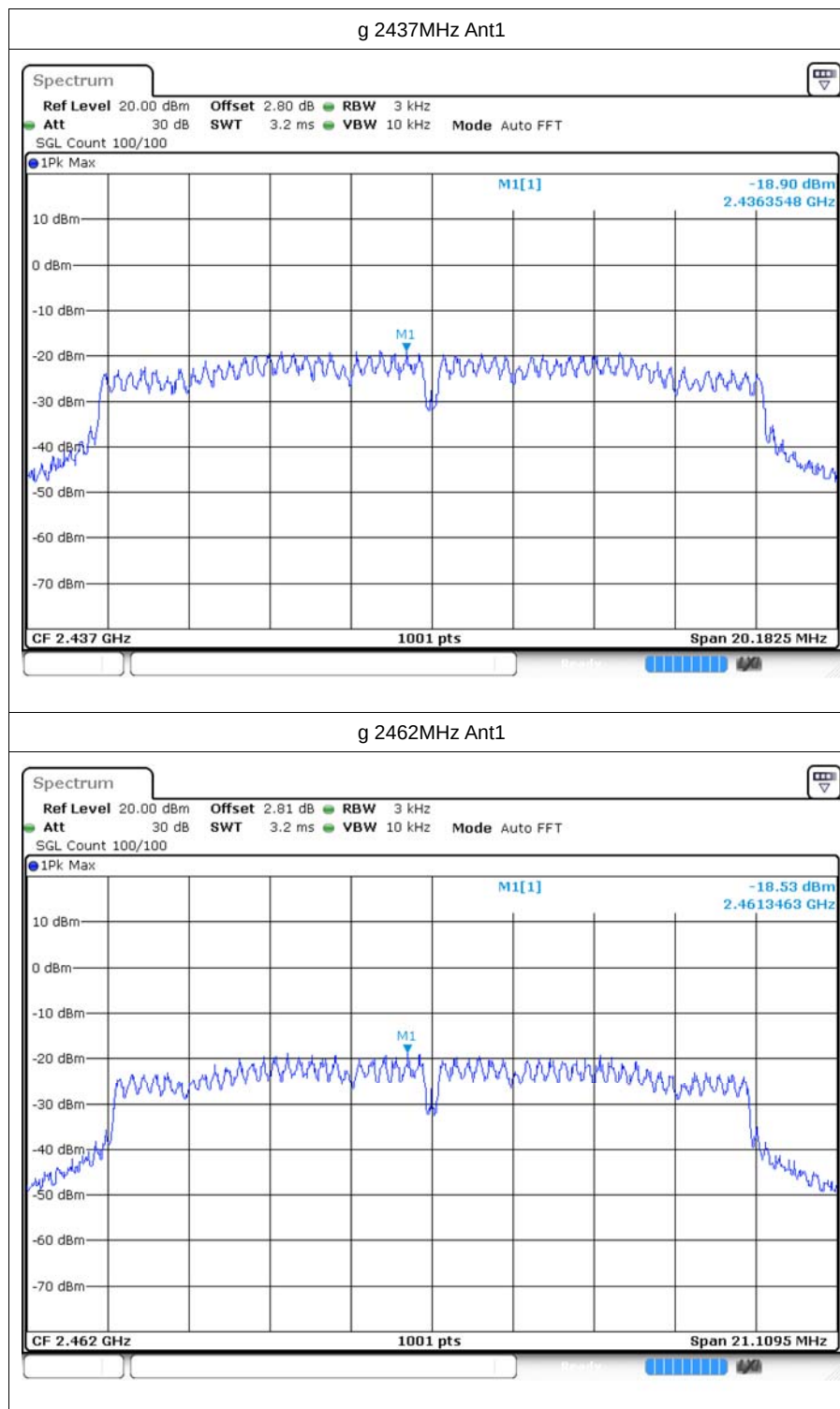
4.1 Test Result

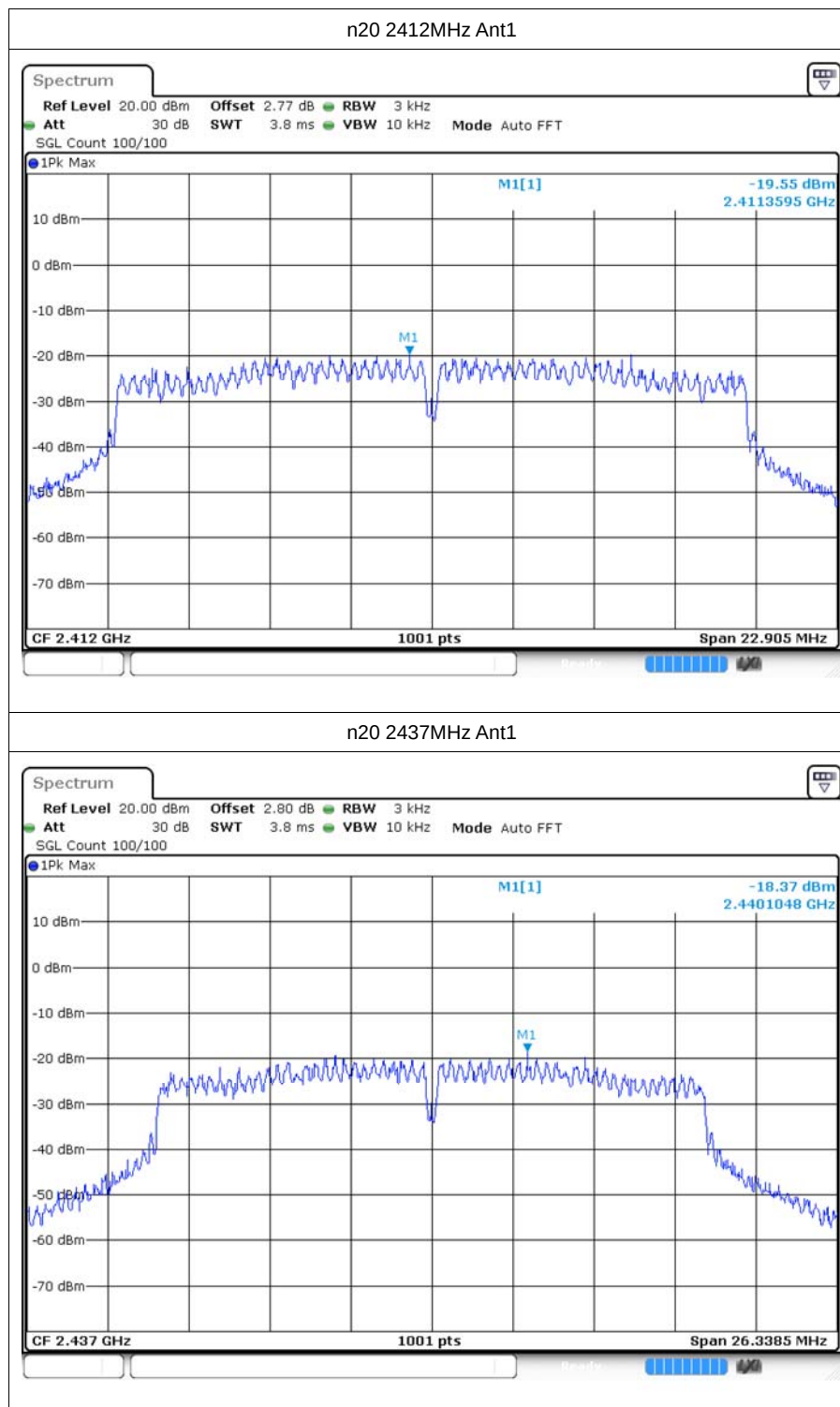
Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3-100kHz)	Limit (dBm/3kHz)	Verdict
b	2412	Ant1	-16.34	≤ 8	Pass
b	2437	Ant1	-16.48	≤ 8	Pass
b	2462	Ant1	-16.4	≤ 8	Pass
g	2412	Ant1	-18.97	≤ 8	Pass
g	2437	Ant1	-18.9	≤ 8	Pass
g	2462	Ant1	-18.53	≤ 8	Pass
n20	2412	Ant1	-19.55	≤ 8	Pass
n20	2437	Ant1	-18.37	≤ 8	Pass
n20	2462	Ant1	-19.3	≤ 8	Pass

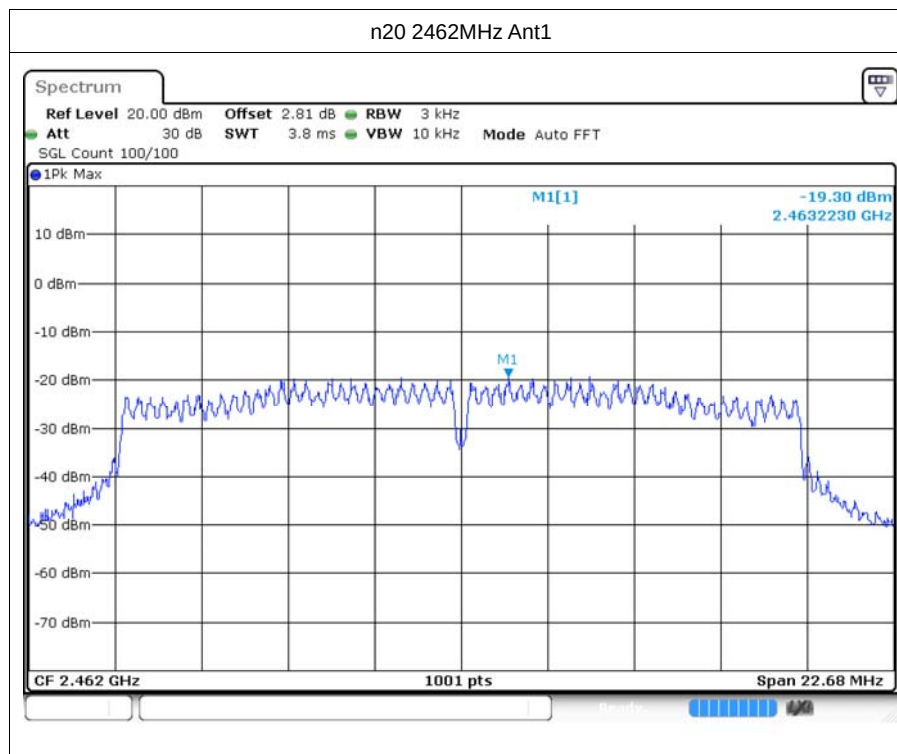
4.2 Test Graphs











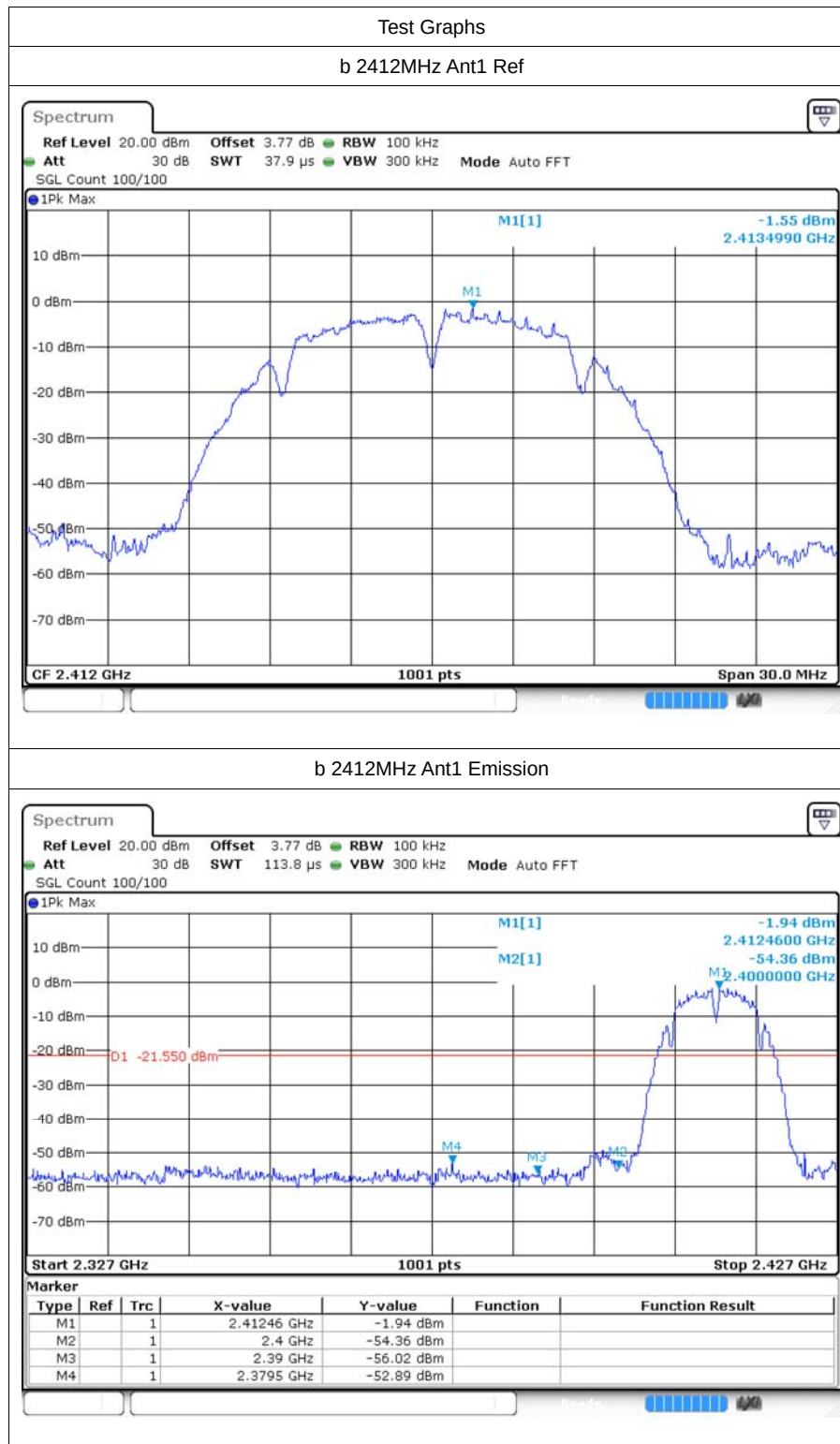


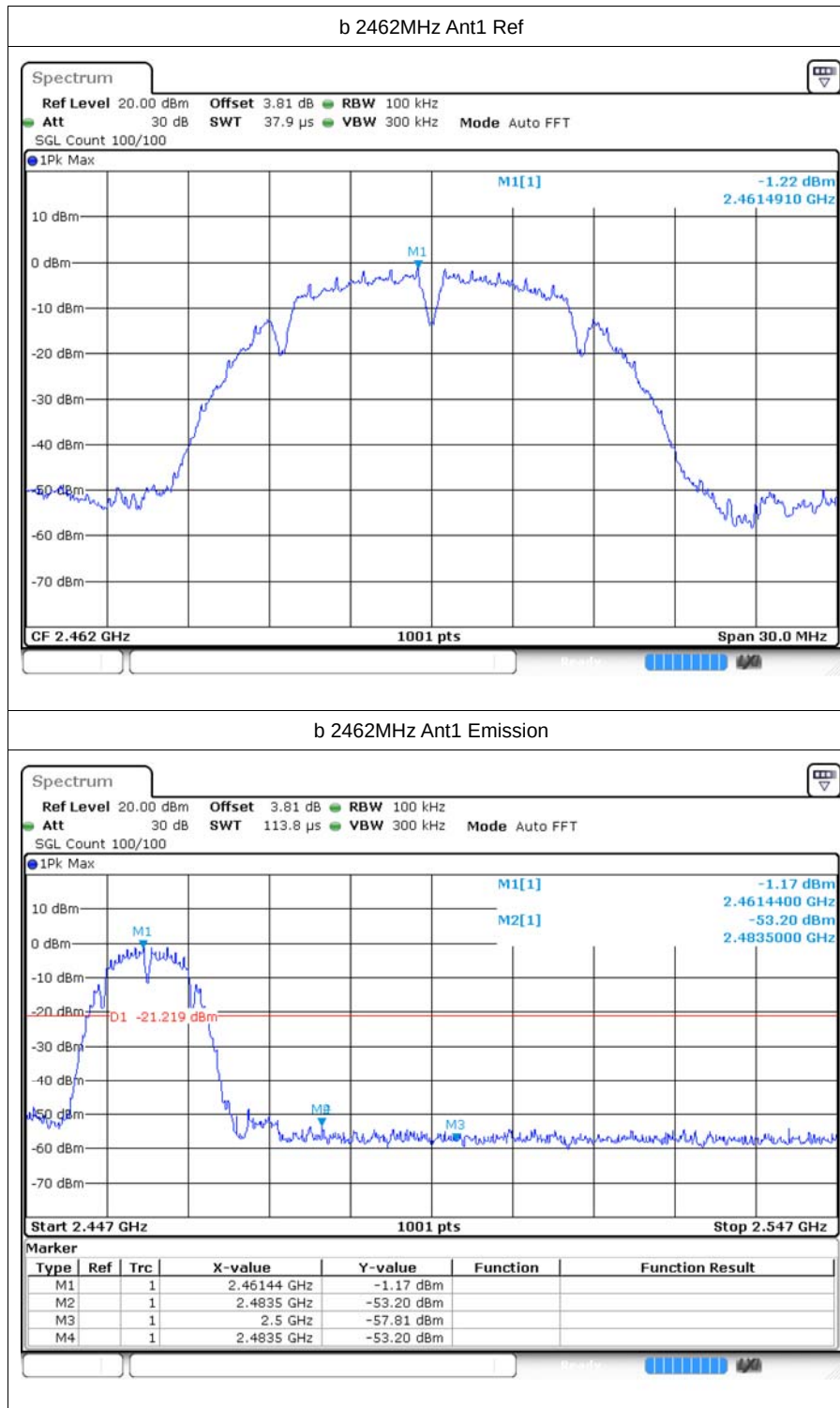
5 Band Edge

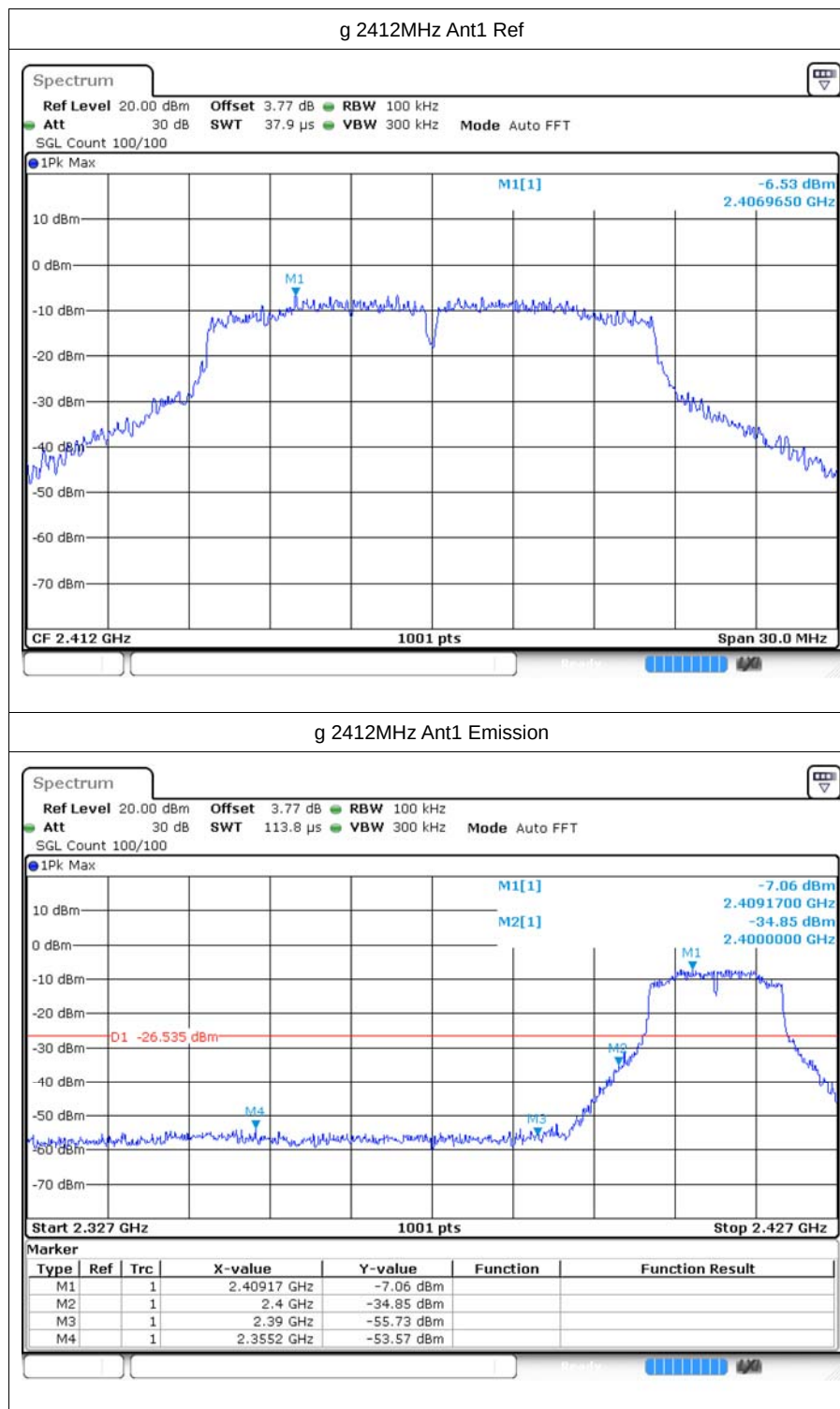
5.1 Test Result

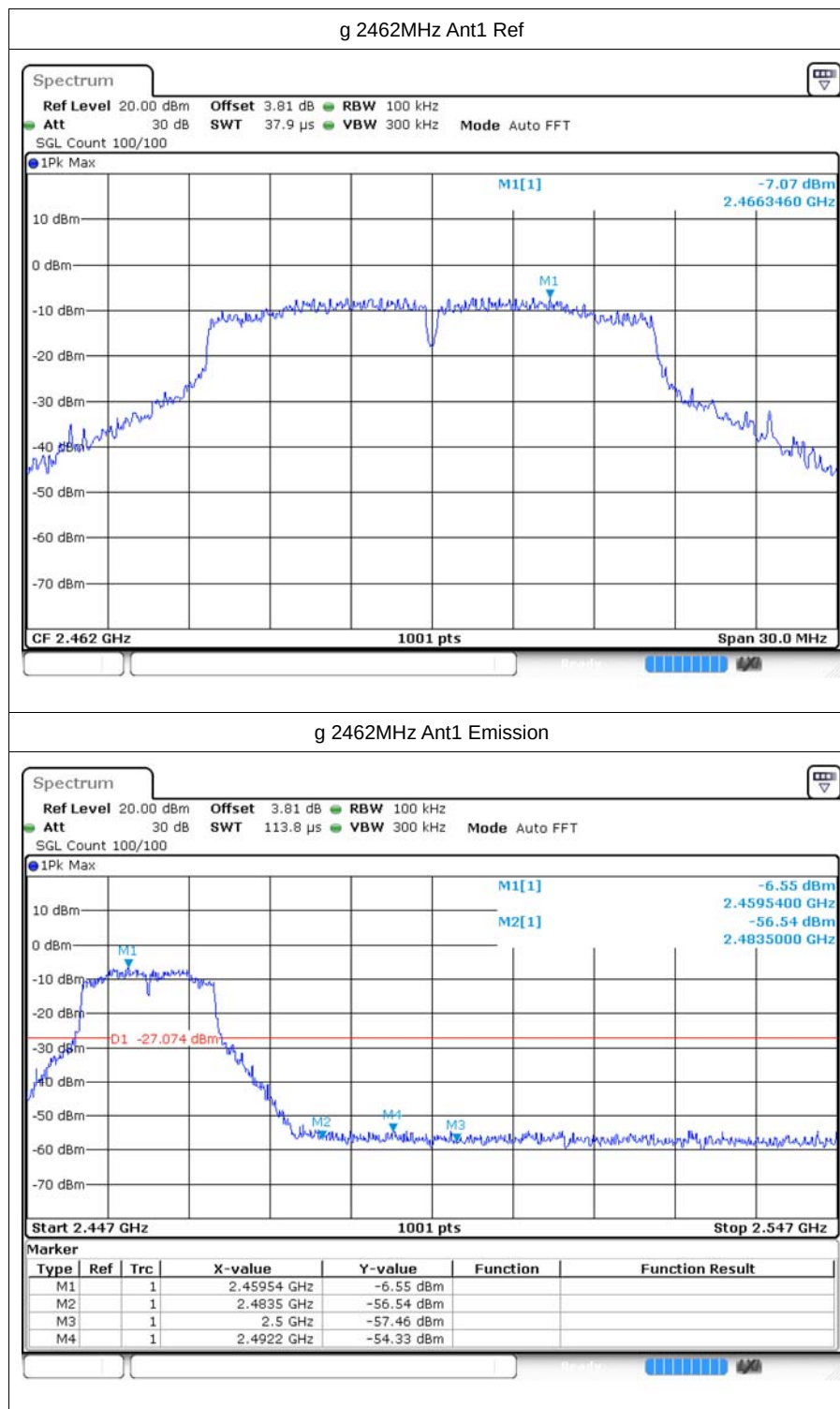
Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
b	2412	Ant1	-51.34	-20	Pass
b	2462	Ant1	-51.97	-20	Pass
g	2412	Ant1	-47.04	-20	Pass
g	2462	Ant1	-47.26	-20	Pass
n20	2412	Ant1	-47.72	-20	Pass
n20	2462	Ant1	-47.26	-20	Pass

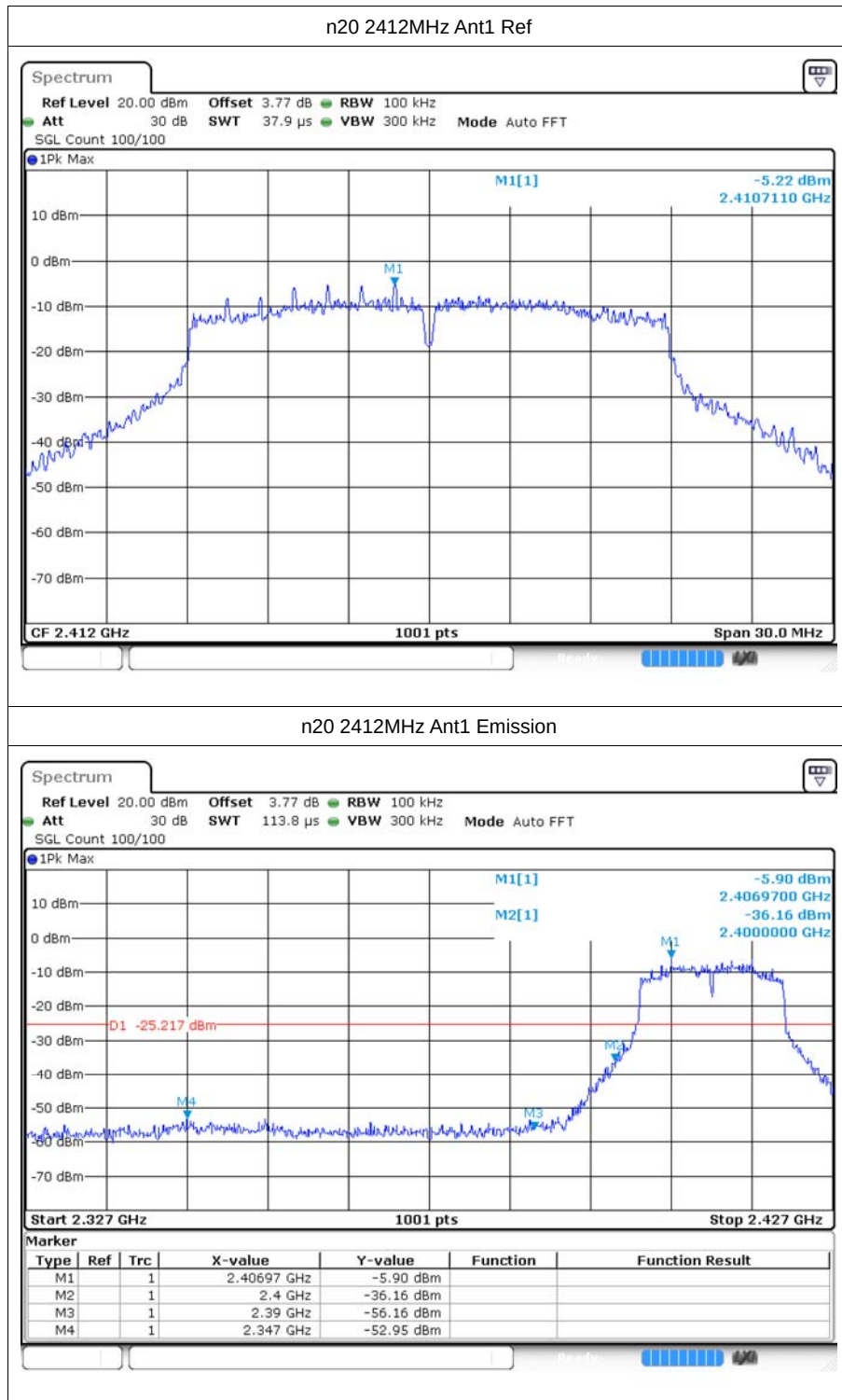
5.2 Test Graphs

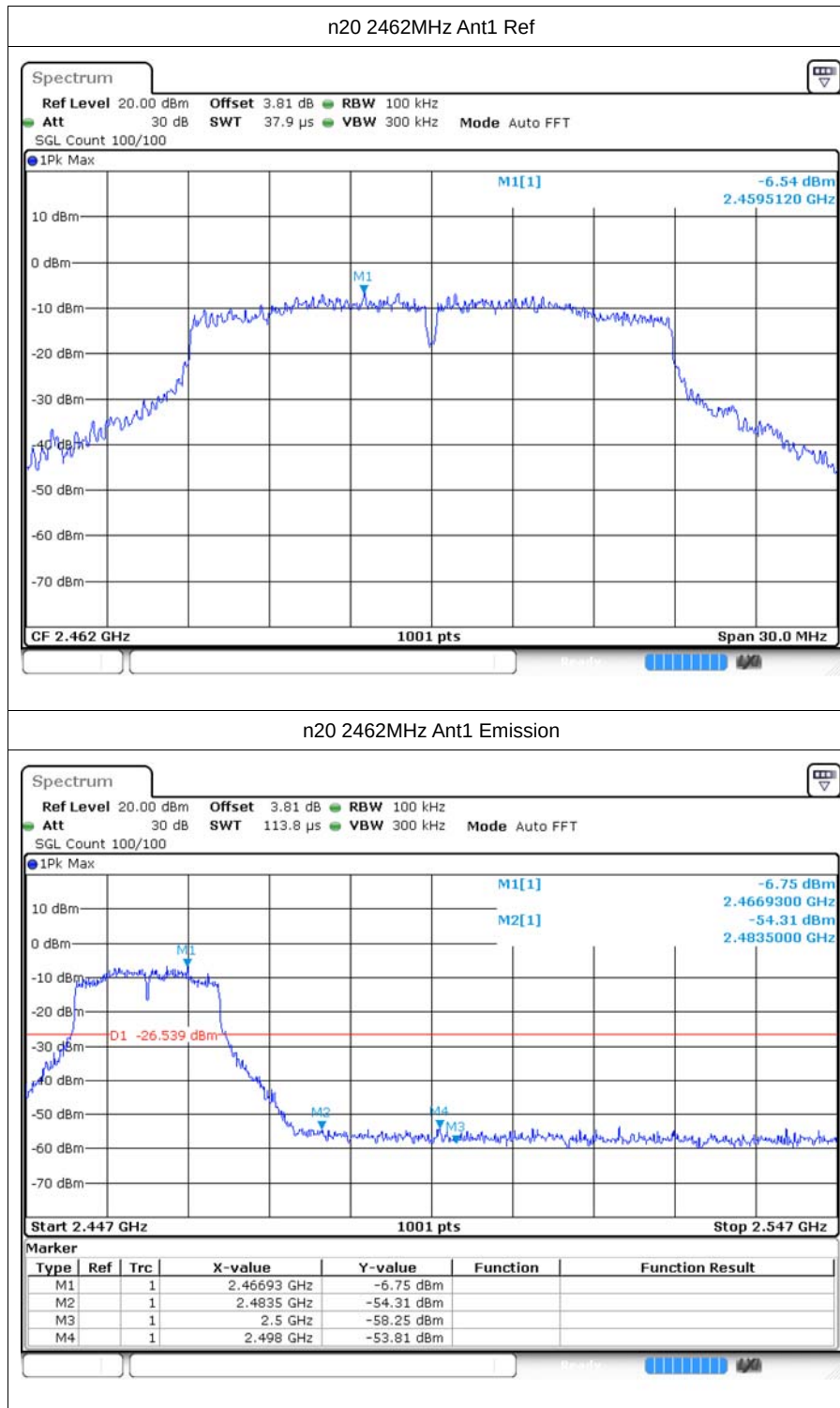












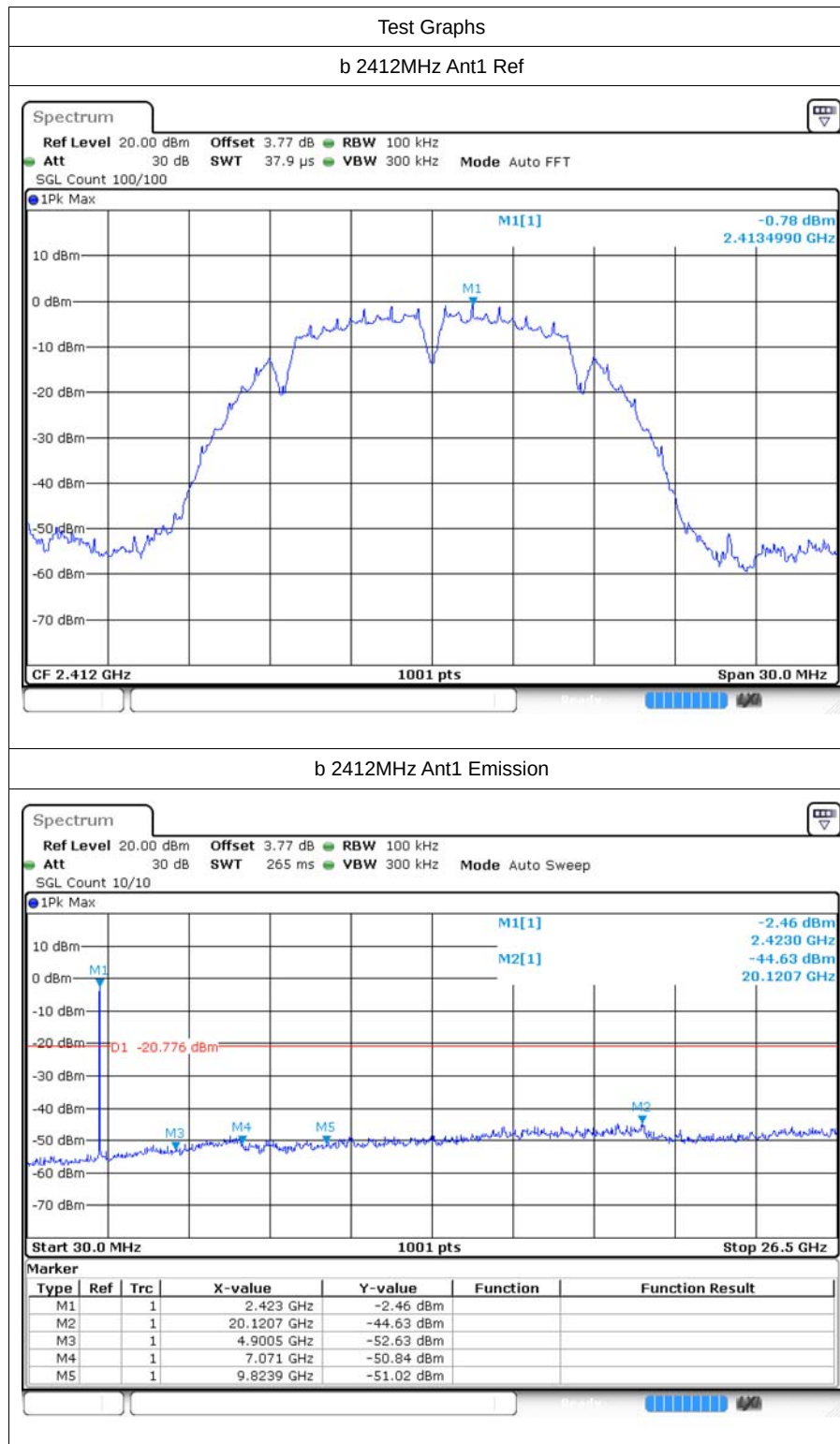


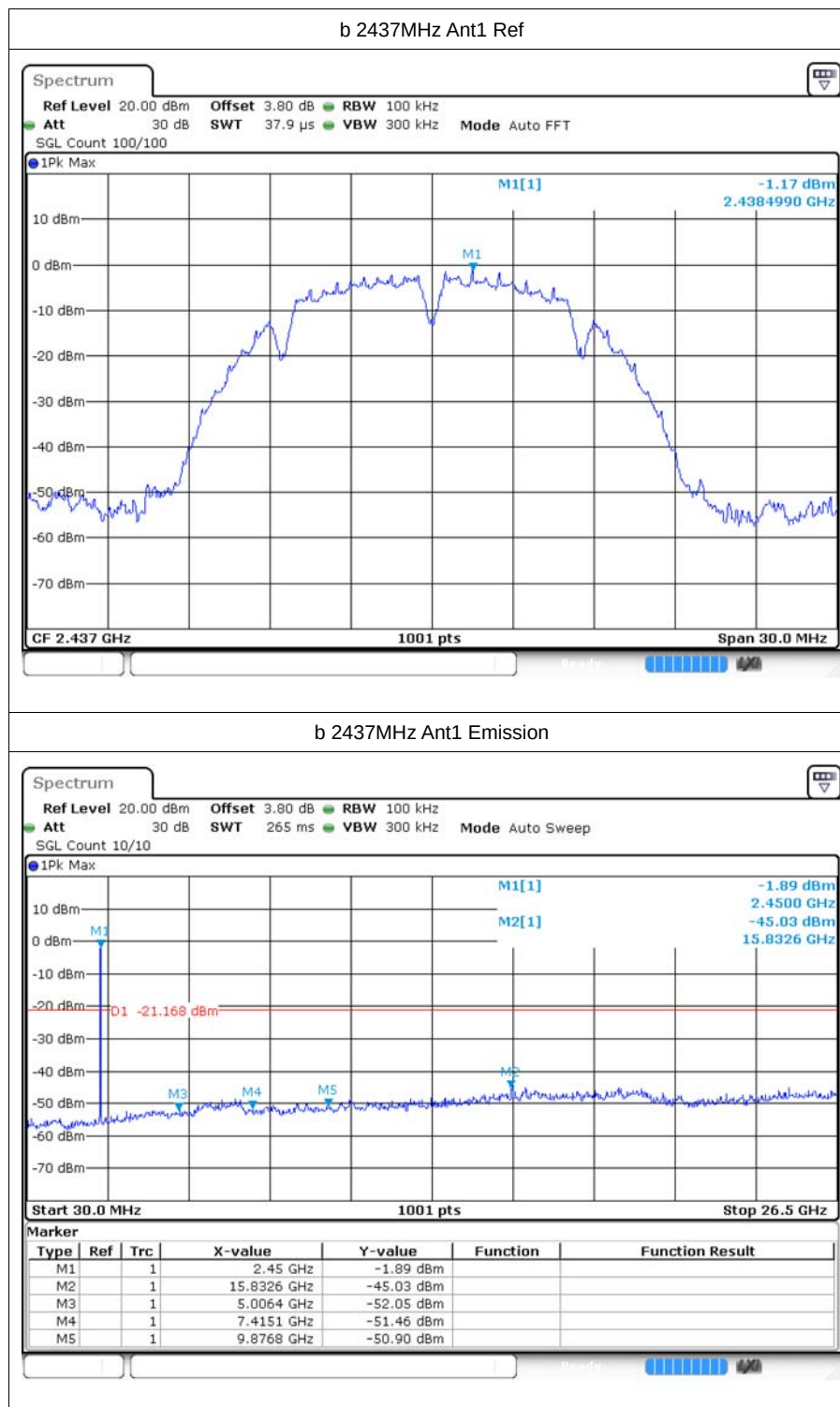
6 Conducted RF Spurious Emission

6.1 Test Result

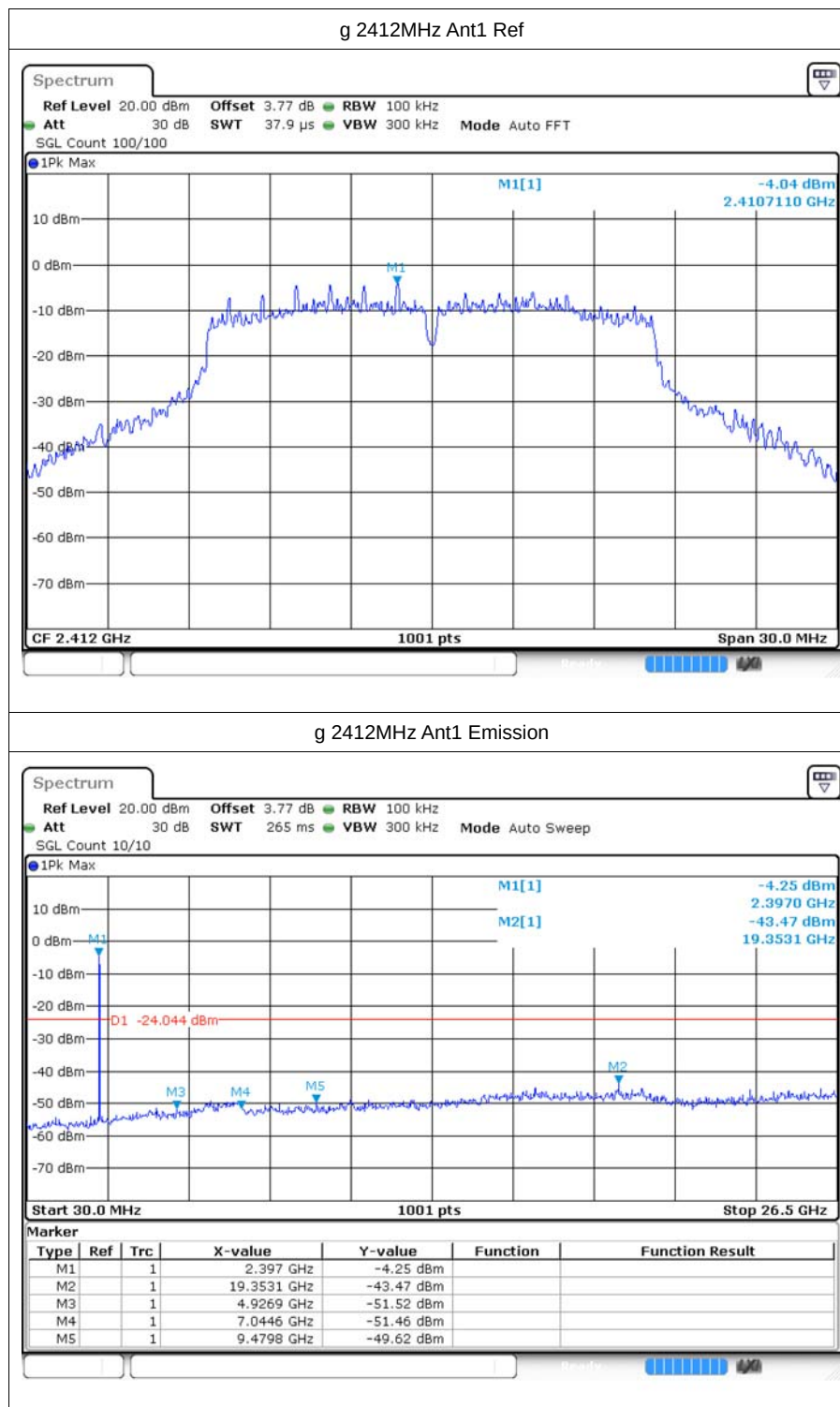
Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
b	2412	Ant1	-43.85	-20	Pass
b	2437	Ant1	-43.86	-20	Pass
b	2462	Ant1	-42.15	-20	Pass
g	2412	Ant1	-39.43	-20	Pass
g	2437	Ant1	-39.72	-20	Pass
g	2462	Ant1	-37.3	-20	Pass
n20	2412	Ant1	-38.9	-20	Pass
n20	2437	Ant1	-38.6	-20	Pass
n20	2462	Ant1	-39.05	-20	Pass

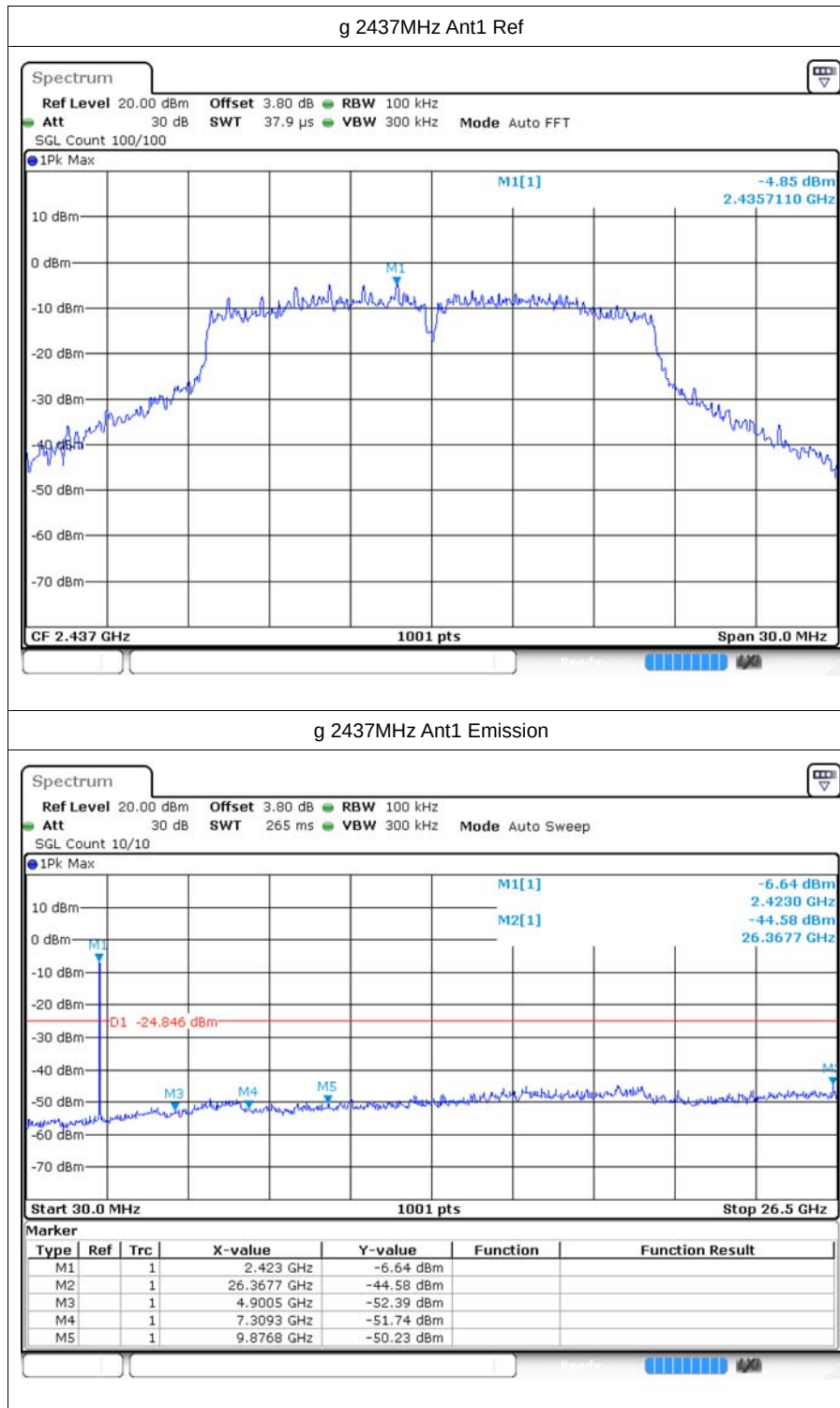
6.2 Test Graphs

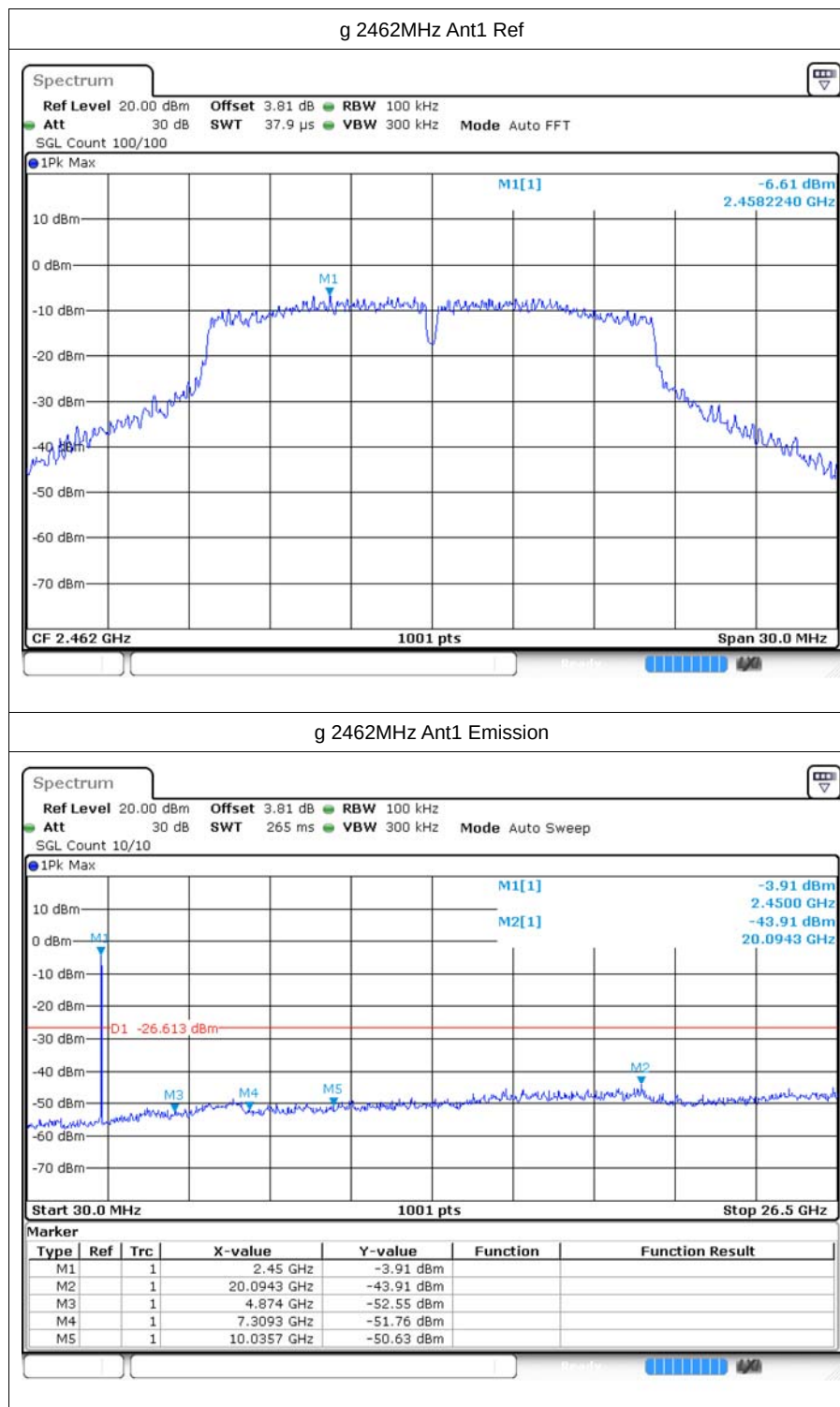


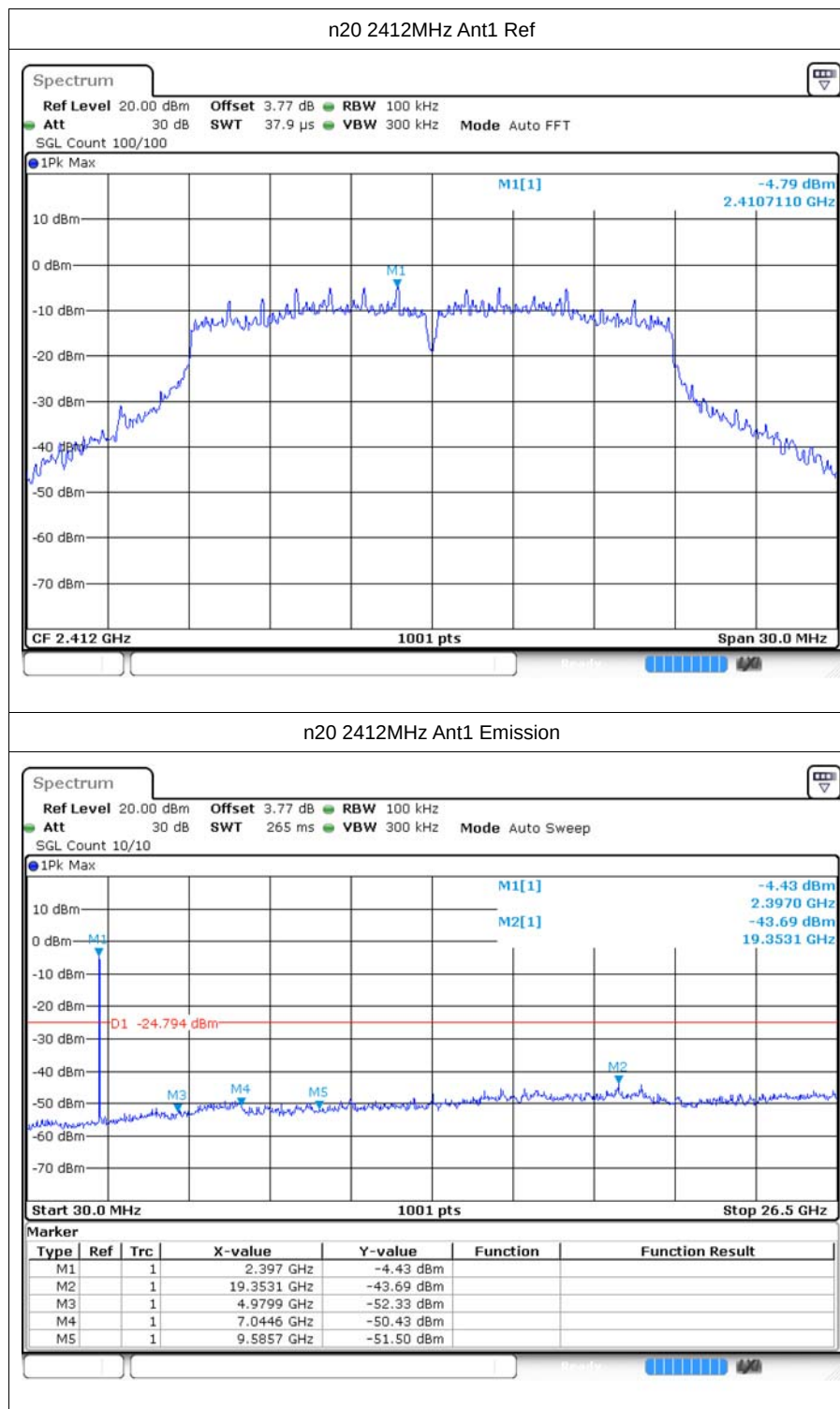


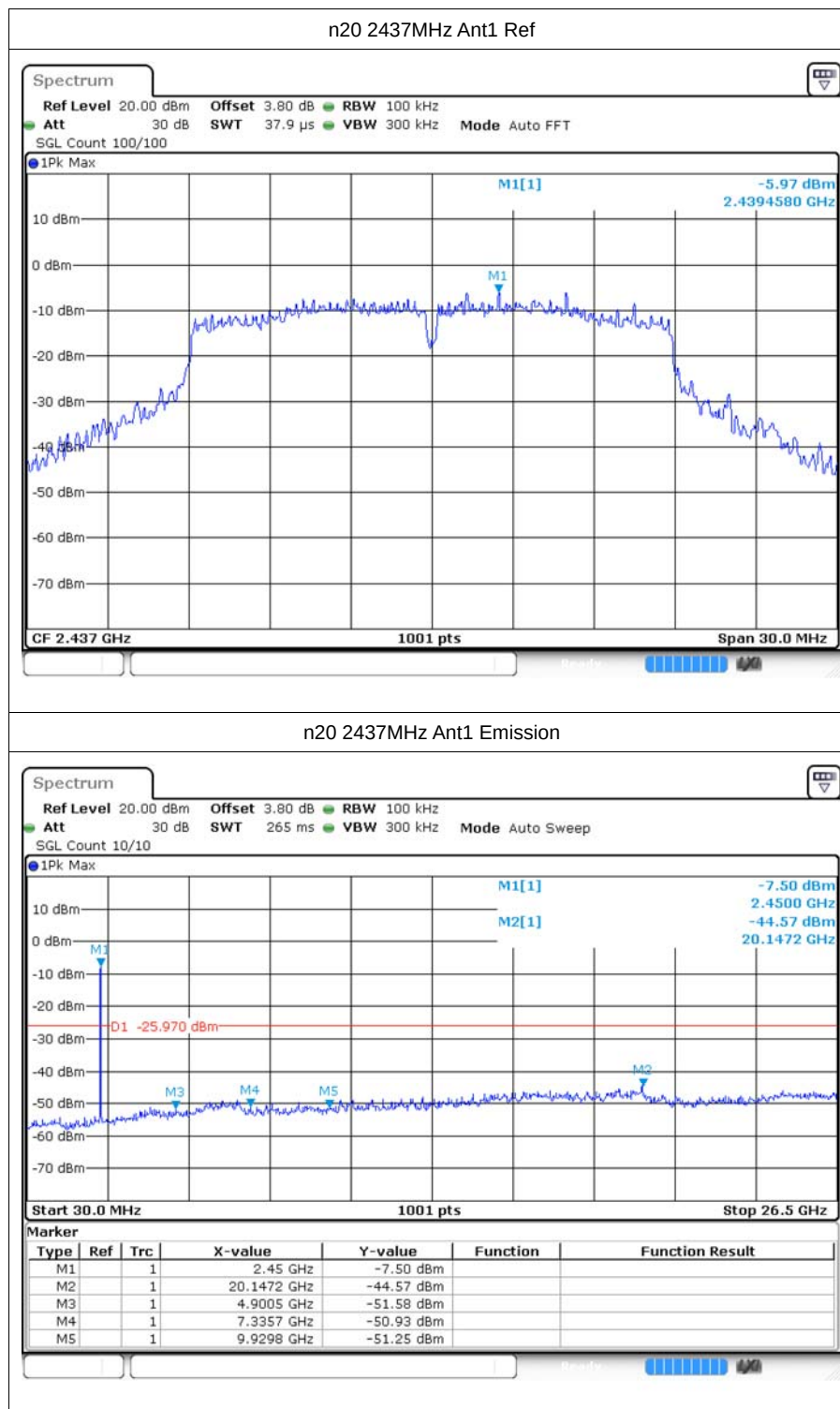


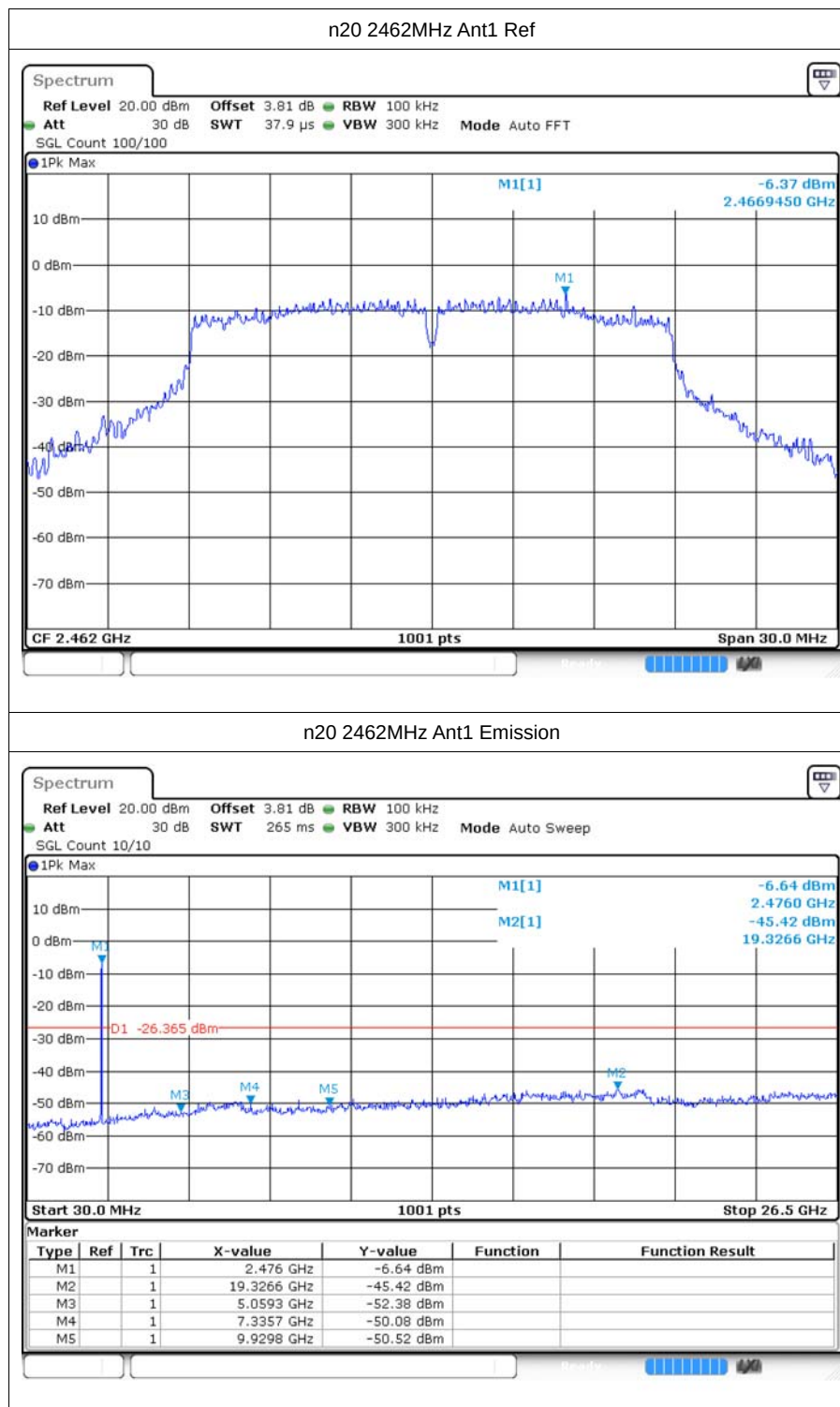














7 Restrict Band

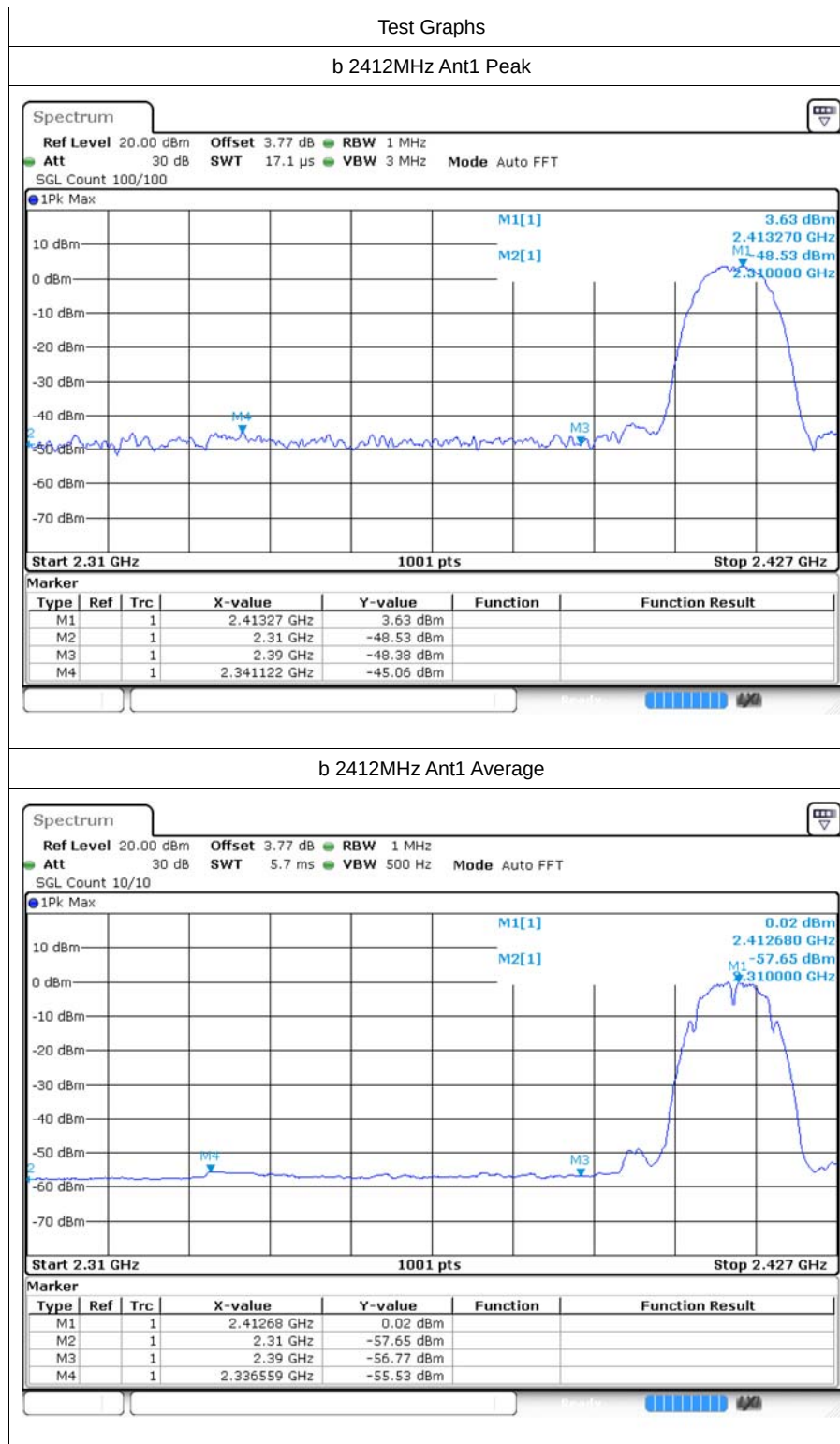
7.1 Test Result

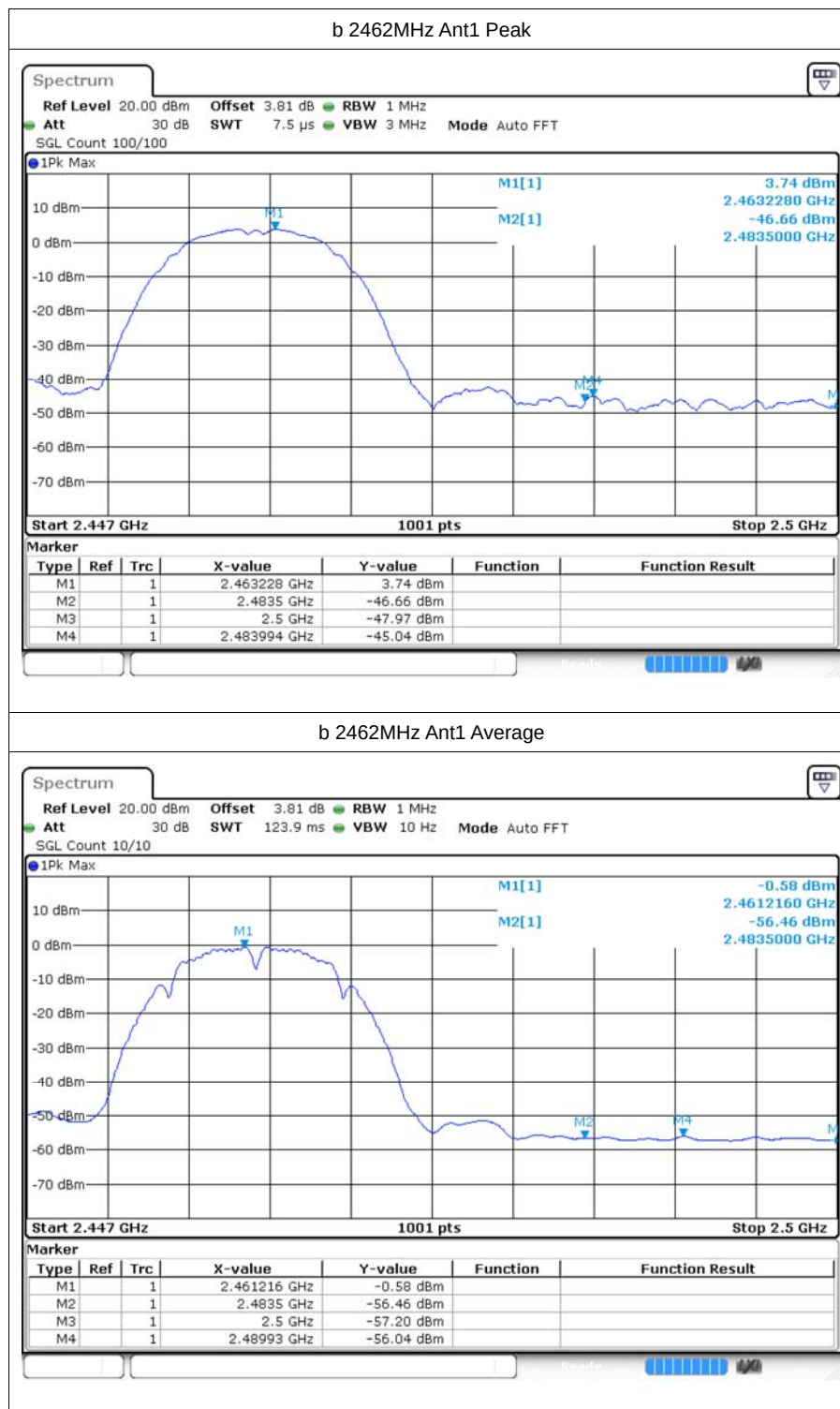
Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
b	2412	Ant1	2310	-48.52	2	48.74	Peak	74	Pass
b	2412	Ant1	2310	-57.64	2	39.62	Average	54	Pass
b	2412	Ant1	2341.122	-45.06	2	52.2	Peak	74	Pass
b	2412	Ant1	2336.559	-55.52	2	41.74	Average	54	Pass
b	2412	Ant1	2390	-48.38	2	48.88	Peak	74	Pass
b	2412	Ant1	2390	-56.76	2	40.5	Average	54	Pass
b	2462	Ant1	2483.5	-46.65	2	50.61	Peak	74	50.61
b	2462	Ant1	2483.5	-56.46	2	40.8	Average	54	Pass
b	2462	Ant1	2483.994	-45.04	2	52.22	Peak	74	Pass
b	2462	Ant1	2489.93	-56.04	2	41.22	Average	54	Pass
b	2462	Ant1	2500	-47.97	2	49.29	Peak	74	Pass
b	2462	Ant1	2500	-57.19	2	40.07	Average	54	Pass
g	2412	Ant1	2310	-47.96	2	49.3	Peak	74	Pass
g	2412	Ant1	2310	-57.97	2	39.29	Average	54	Pass
g	2412	Ant1	2339.016	-44.98	2	52.28	Peak	74	Pass
g	2412	Ant1	2336.676	-56.07	2	41.19	Average	54	Pass
g	2412	Ant1	2390	-48.18	2	48.88	Peak	74	Pass
g	2412	Ant1	2390	-56.27	2	40.99	Average	54	Pass
g	2462	Ant1	2483.5	-47.03	2	50.23	Peak	74	Pass
g	2462	Ant1	2483.5	-55.98	2	41.28	Average	54	Pass
g	2462	Ant1	2483.994	-45.37	2	51.89	Peak	74	Pass
g	2462	Ant1	2483.517	-55.98	2	41.28	Average	54	Pass
g	2462	Ant1	2500	-46.64	2	49.29	Peak	74	Pass
g	2462	Ant1	2500	-56.77	2	40.49	Average	54	Pass
n20	2412	Ant1	2310	-50.92	2	46.34	Peak	74	Pass
n20	2412	Ant1	2310	-57.98	2	39.28	Average	54	Pass
n20	2412	Ant1	2388.624	-44.39	2	52.87	Peak	74	Pass
n20	2412	Ant1	2336.676	-56.1	2	41.16	Average	54	Pass
n20	2412	Ant1	2390	-47.3	2	49.96	Peak	74	Pass
n20	2412	Ant1	2390	-56.24	2	41.02	Average	54	Pass
n20	2462	Ant1	2483.5	-47.39	2	49.87	Peak	74	Pass
n20	2462	Ant1	2483.5	-55.82	2	41.44	Average	54	Pass
n20	2462	Ant1	2500	-43.9	2	53.36	Peak	74	Pass
n20	2462	Ant1	2483.517	-55.82	2	41.44	Average	54	Pass

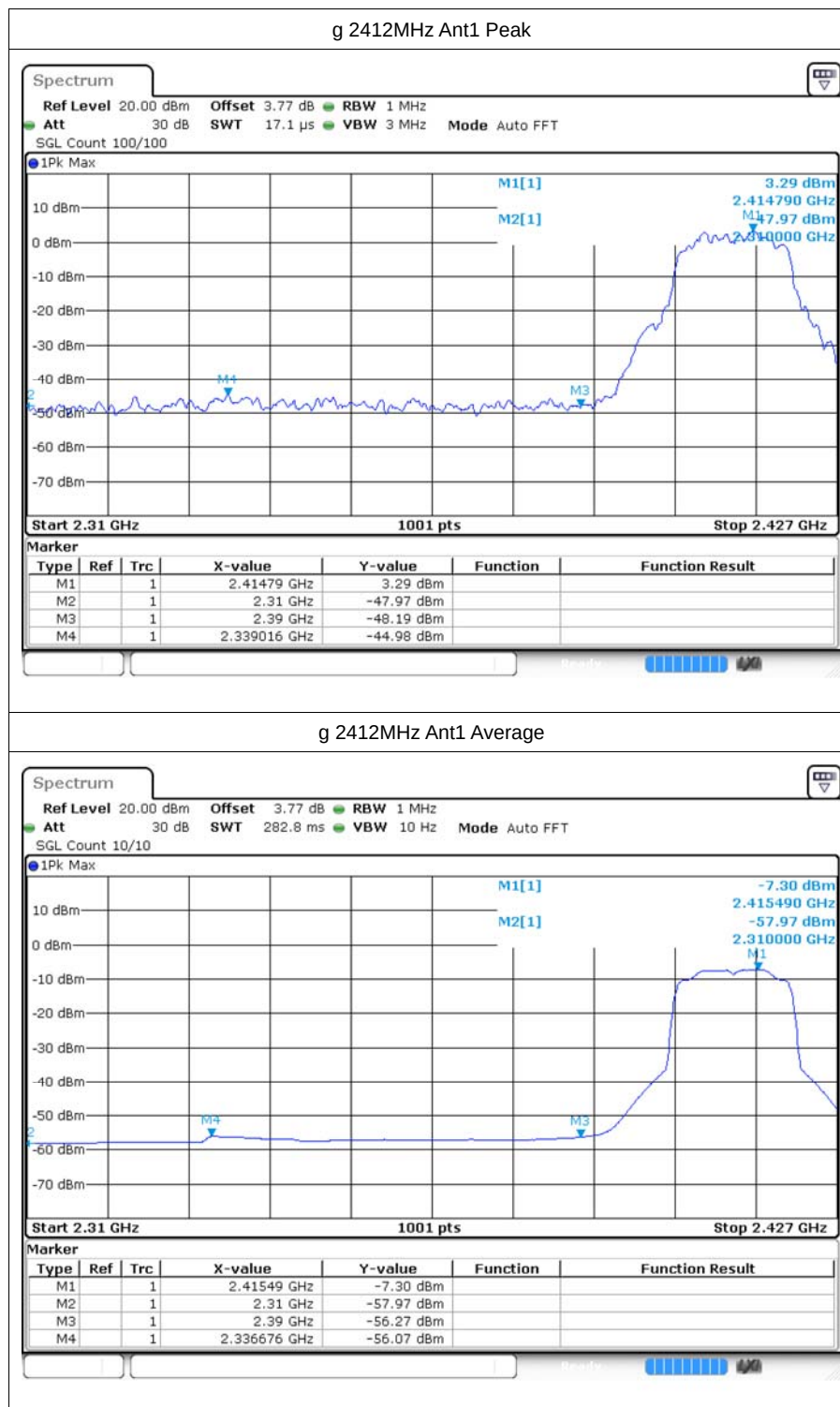


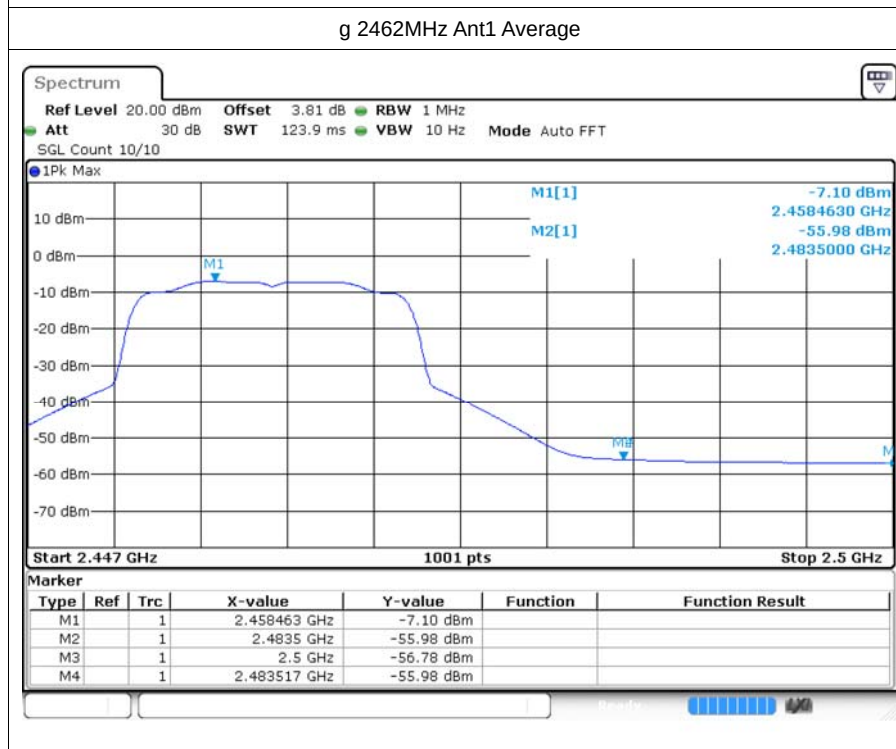
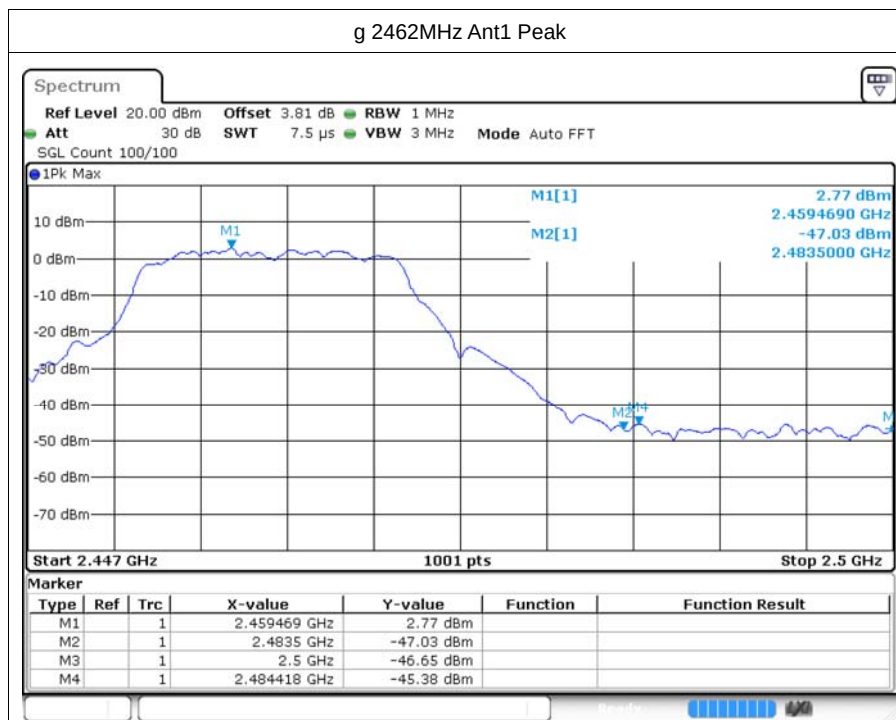
n20	2462	Ant1	2500	-43.9	2	53.36	Peak	74	Pass
n20	2462	Ant1	2500	-56.78	2	40.48	Average	54	Pass

7.2 Test Graphs

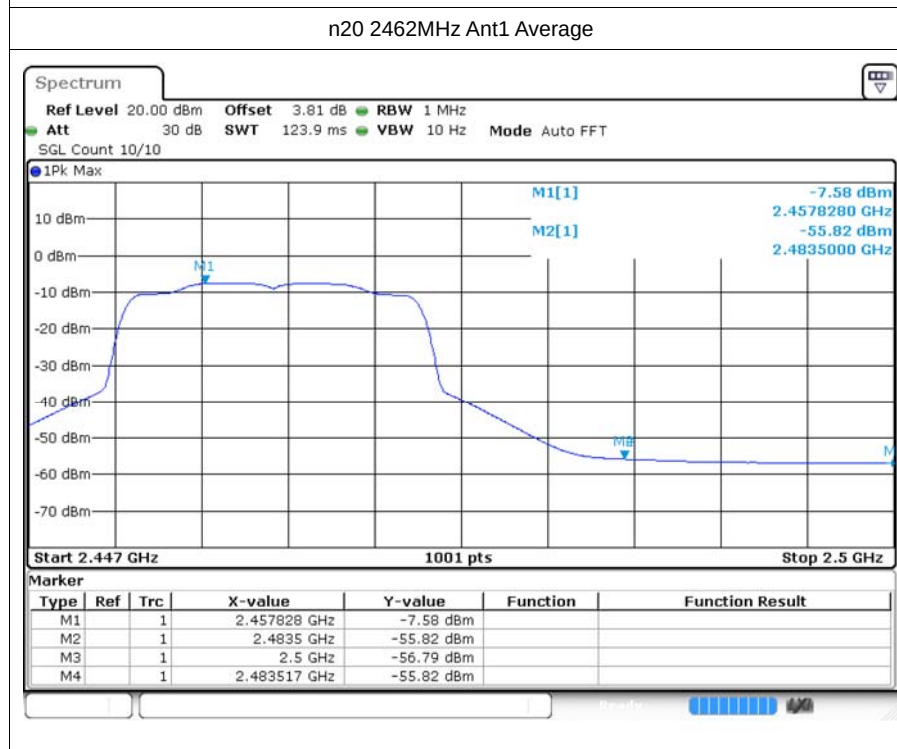
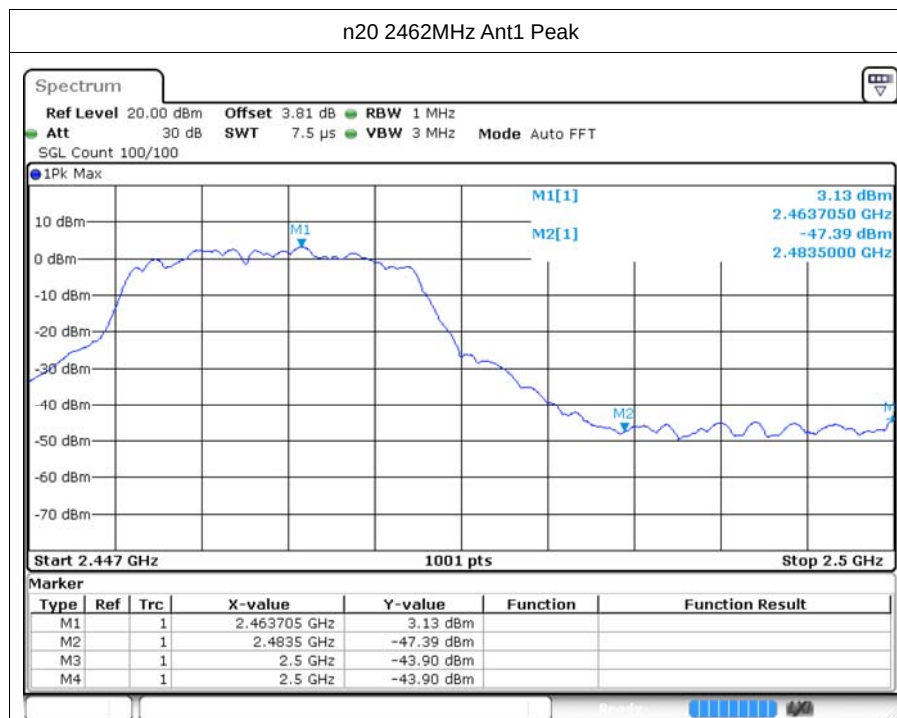












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