



Appendix C

RF Test Data for 2.4GWIFI (Conducted Measurement)

Product Name: R1 Reader

Trade Mark: Reinkstone

Test Model: Reink600

Environmental Conditions

Temperature:	25.5° C
Relative Humidity:	52.2%
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 Conducted Output Power	9
2.1 Test Result	9
3 -6dB Bandwidth.....	10
3.1 Test Result	10
3.2 Test Graphs.....	11
4 Maximum Power Spectral Density Level.....	16
4.1 Test Result	16
4.2 Test Graphs.....	17
5 Band Edge	22
5.1 Test Result	22
5.2 Test Graphs.....	23
6 Conducted RF Spurious Emission	29
6.1 Test Result	29
6.2 Test Graphs.....	30
7 Restrict Band	39
7.1 Test Result	39
7.2 Test Graphs.....	41

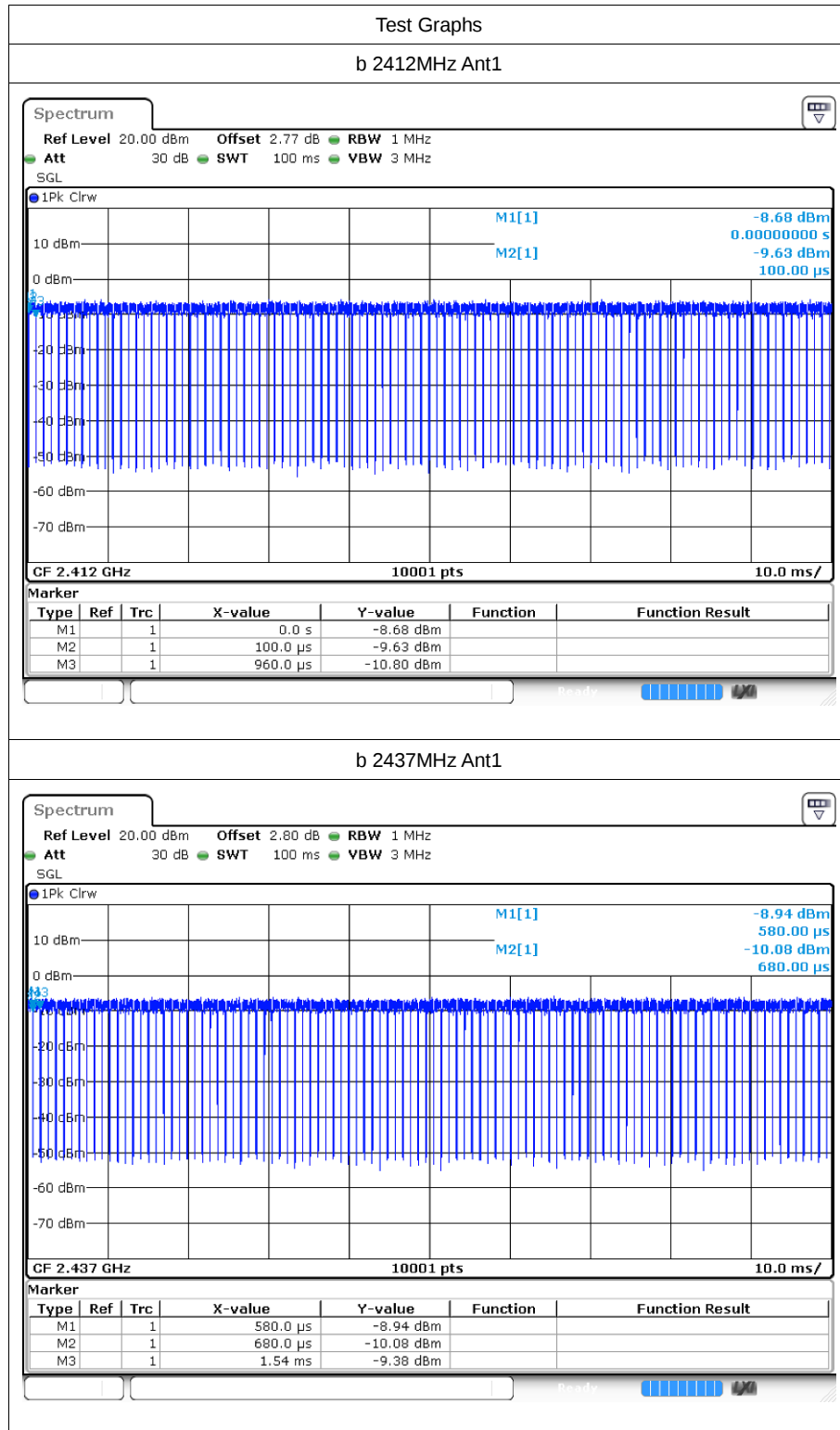


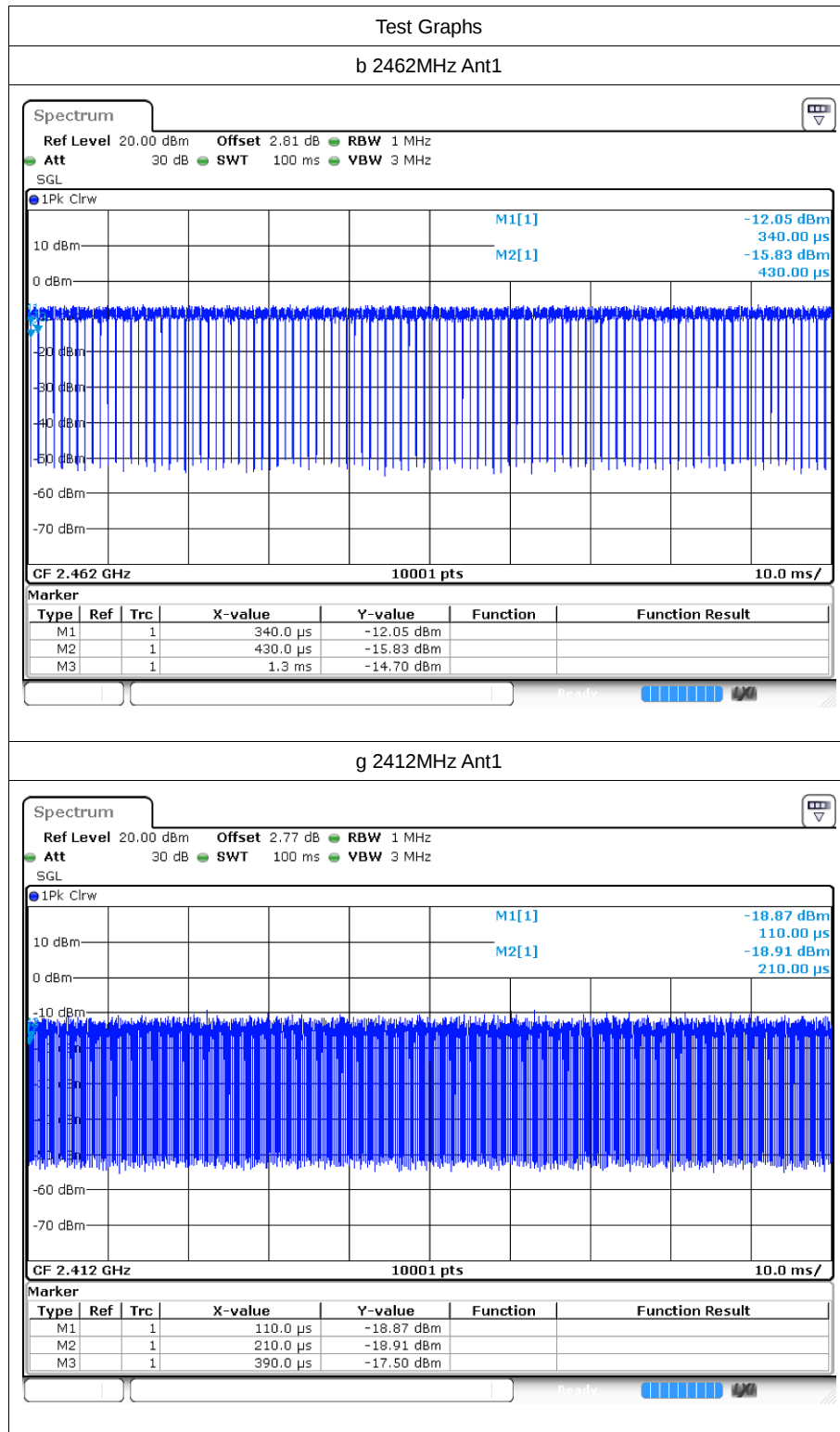
1 Duty Cycle

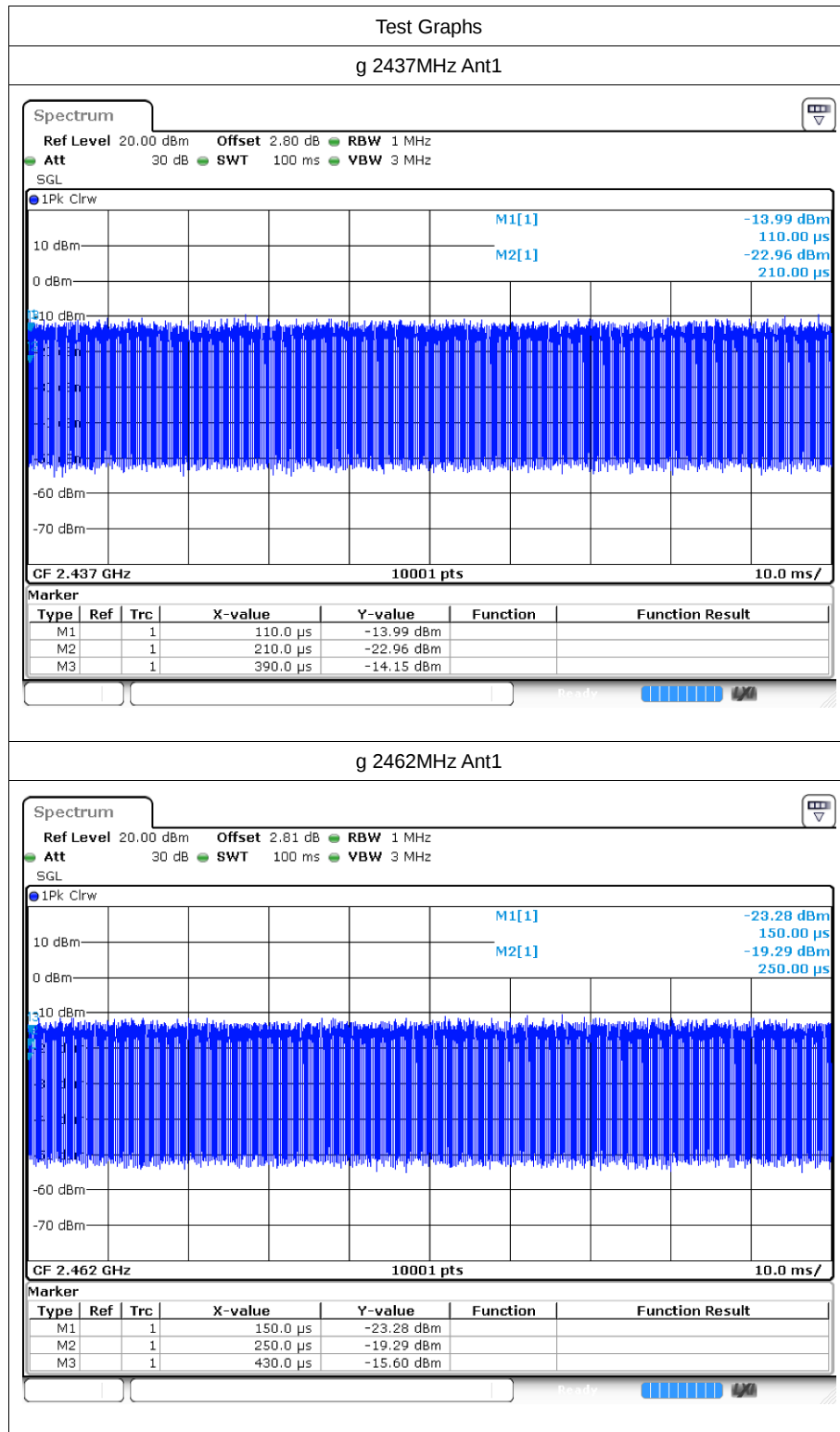
1.1 Test Result

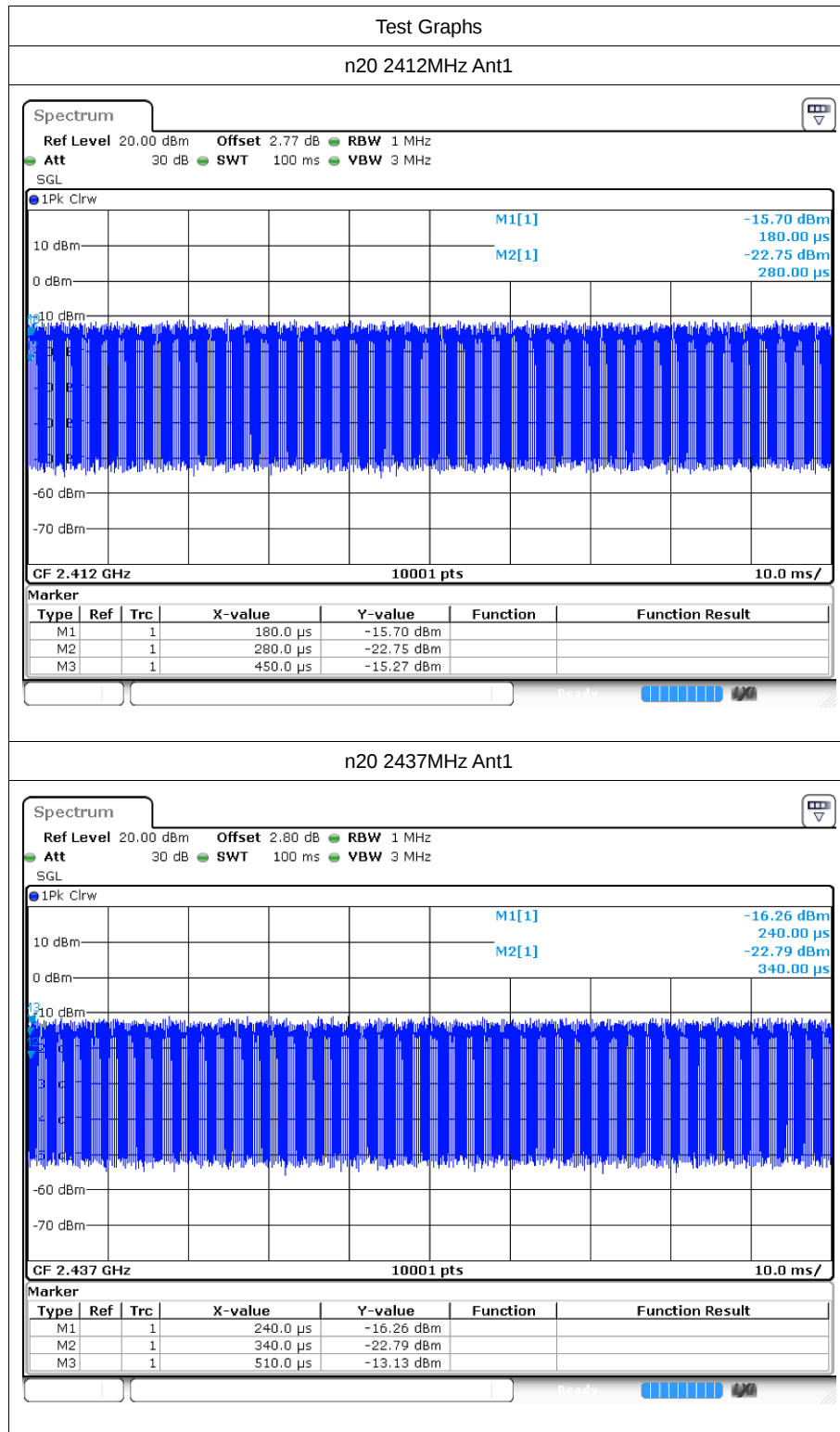
Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	1/T (kHz)
b	2412	Ant1	90.9	1.16
b	2437	Ant1	90.94	1.16
b	2462	Ant1	90.95	1.15
g	2412	Ant1	67.64	5.56
g	2437	Ant1	67.59	5.56
g	2462	Ant1	67.57	5.56
n20	2412	Ant1	66.4	5.88
n20	2437	Ant1	66.19	5.88
n20	2462	Ant1	66.21	5.88

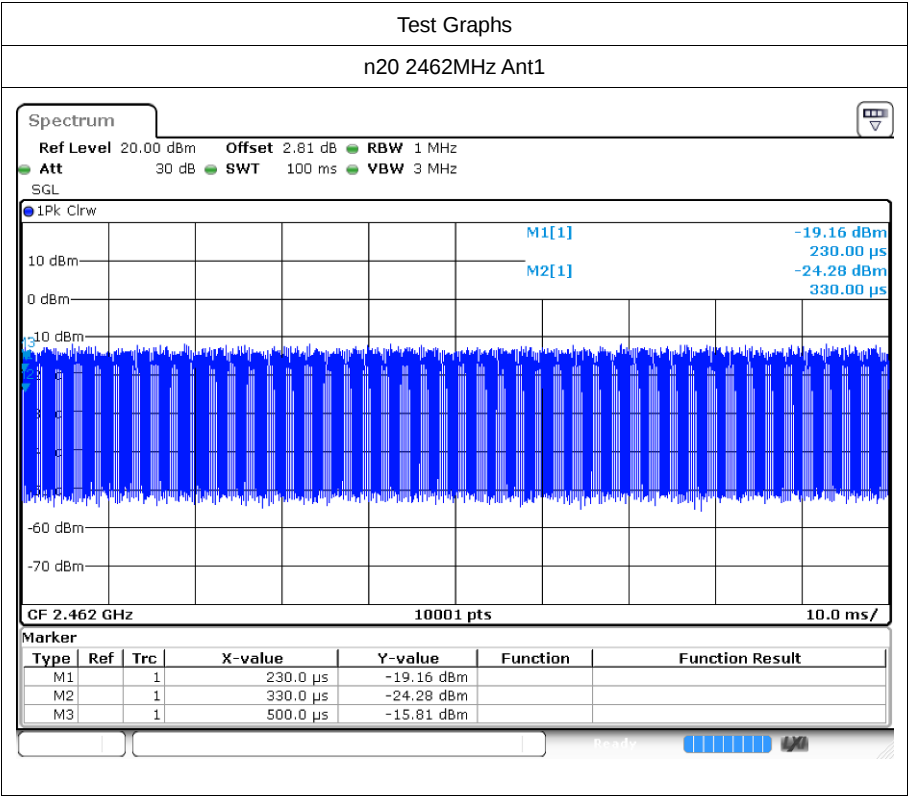
1.2 Test Graphs











2 Maximum Conducted Output Power

2.1 Test Result

Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
b	2412	Ant1	2.09	30	Pass
b	2437	Ant1	1.61	30	Pass
b	2462	Ant1	0.92	30	Pass
g	2412	Ant1	0.59	30	Pass
g	2437	Ant1	0.84	30	Pass
g	2462	Ant1	0.46	30	Pass
n20	2412	Ant1	0.54	30	Pass
n20	2437	Ant1	0.72	30	Pass
n20	2462	Ant1	0.89	30	Pass

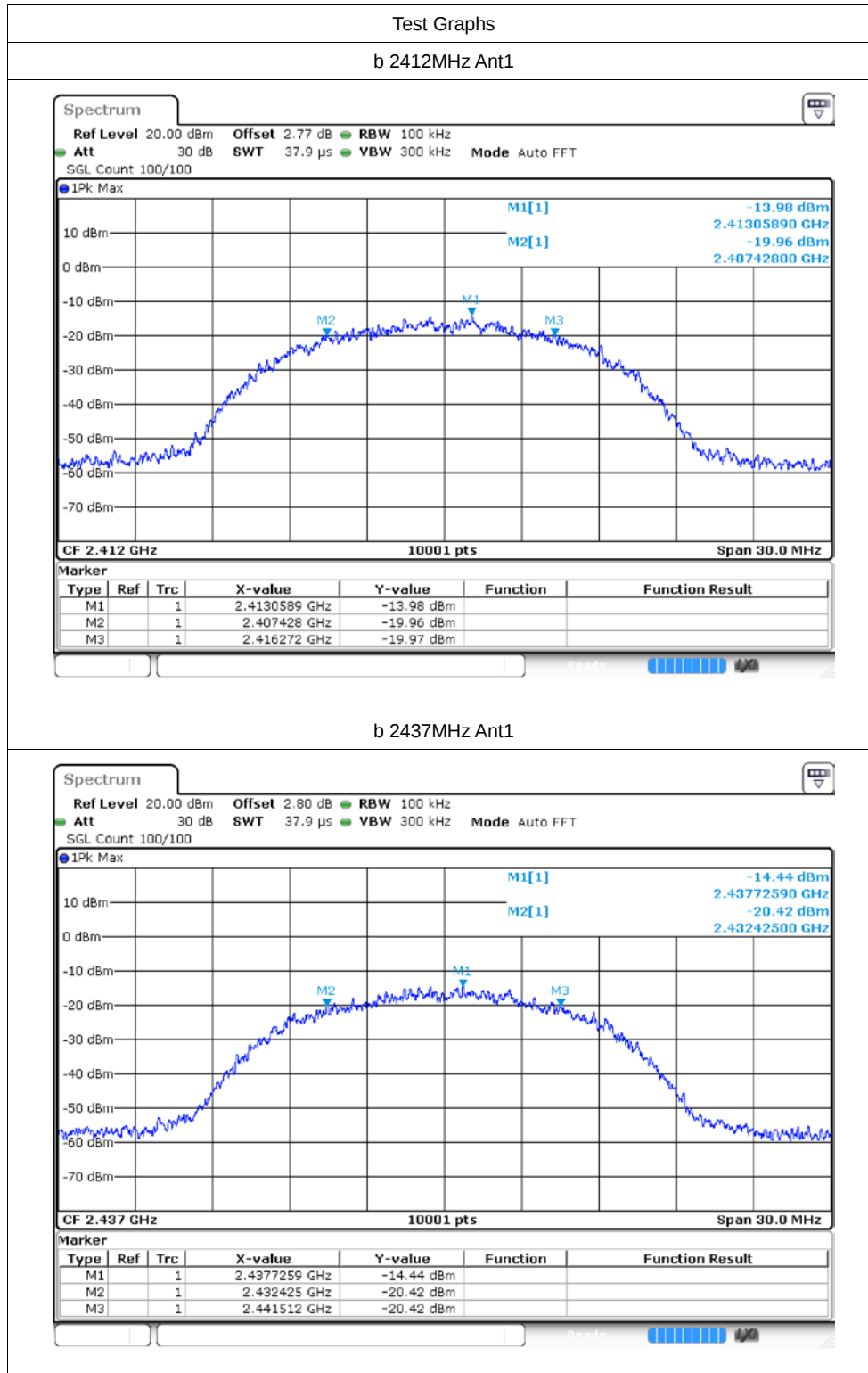


3 -6dB Bandwidth

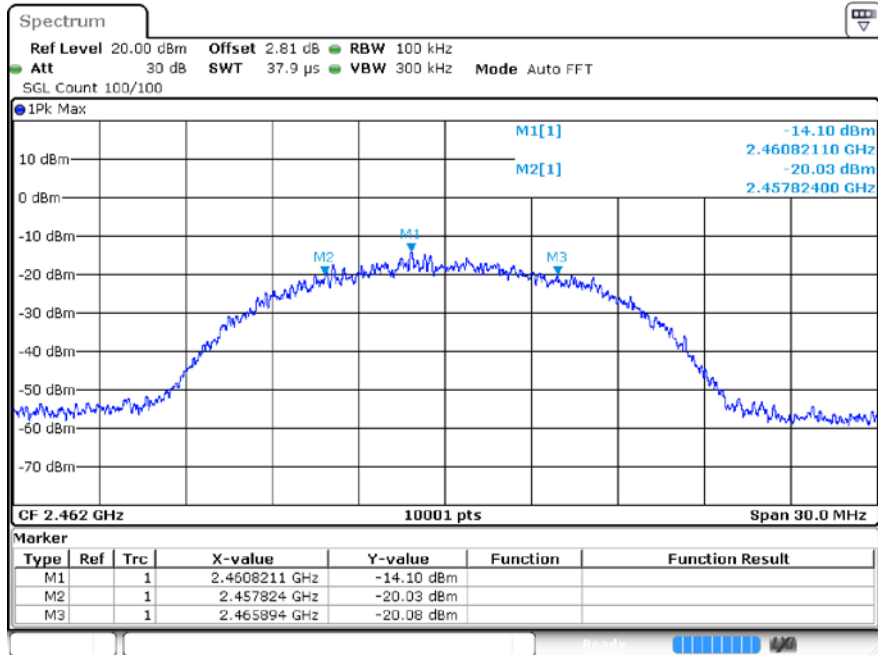
3.1 Test Result

Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
b	2412	Ant1	8.844	0.5	Pass
b	2437	Ant1	9.087	0.5	Pass
b	2462	Ant1	8.07	0.5	Pass
g	2412	Ant1	15.108	0.5	Pass
g	2437	Ant1	15.102	0.5	Pass
g	2462	Ant1	15.417	0.5	Pass
n20	2412	Ant1	15.12	0.5	Pass
n20	2437	Ant1	15.099	0.5	Pass
n20	2462	Ant1	14.784	0.5	Pass

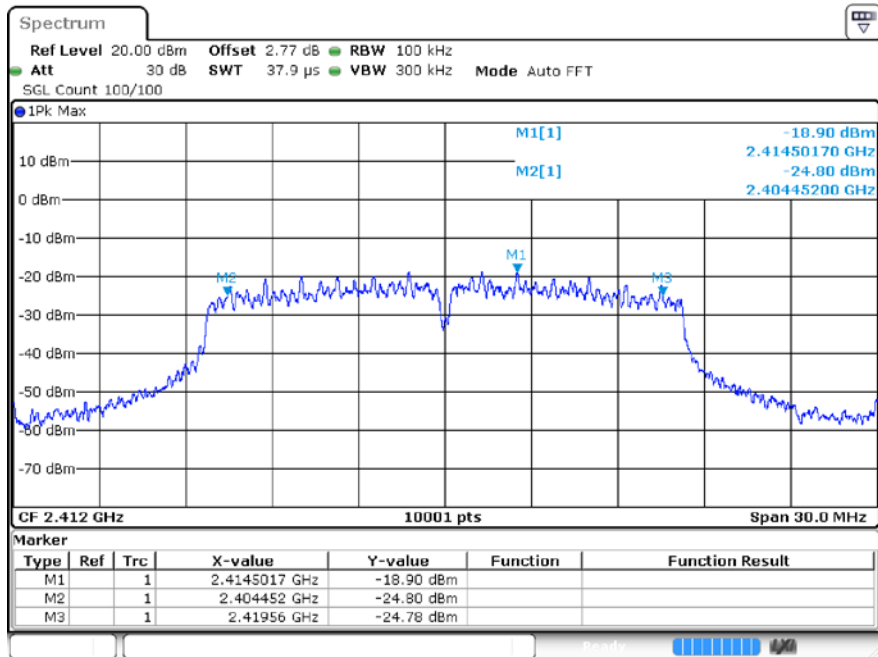
3.2 Test Graphs



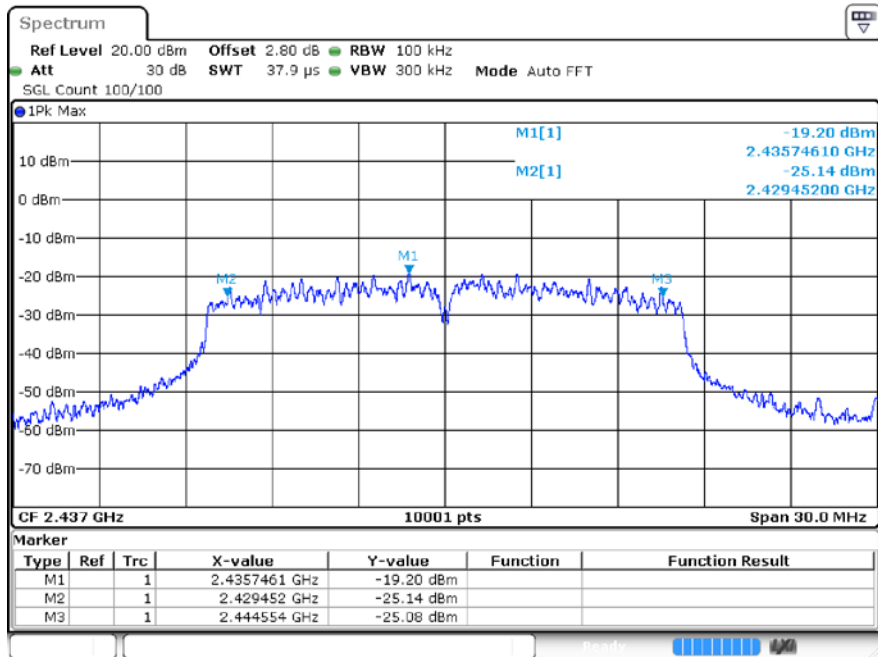
b 2462MHz Ant1



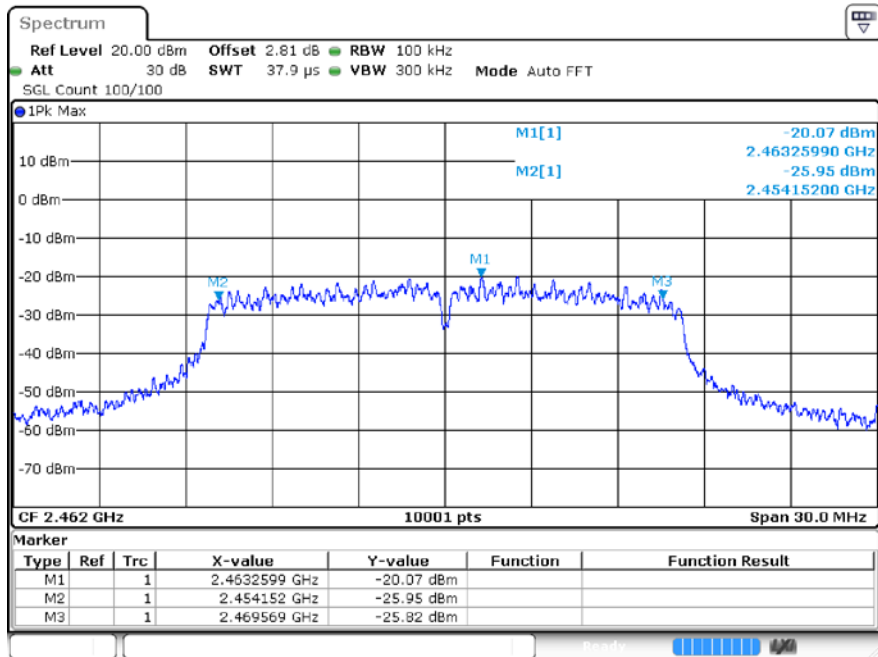
g 2412MHz Ant1



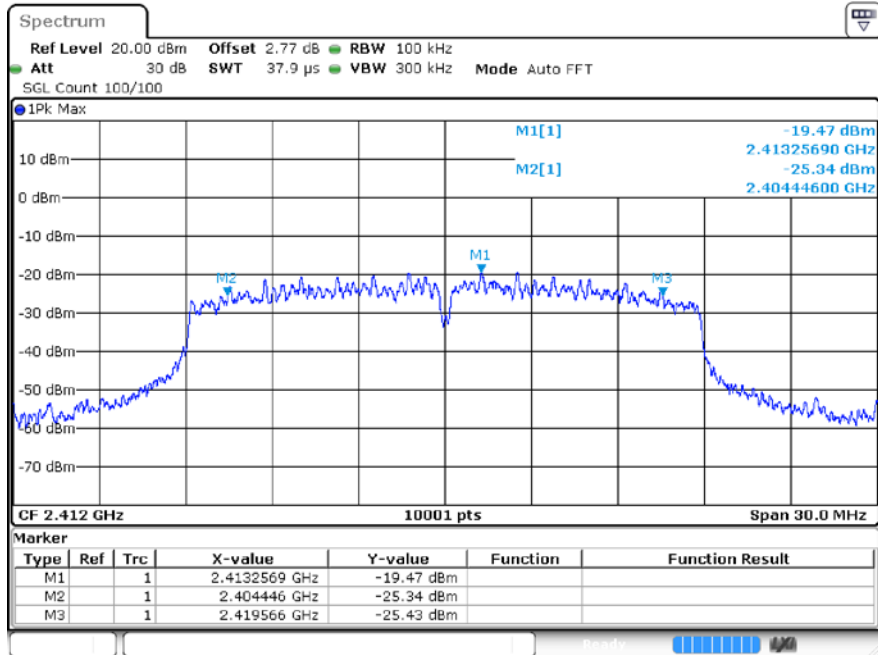
g 2437MHz Ant1



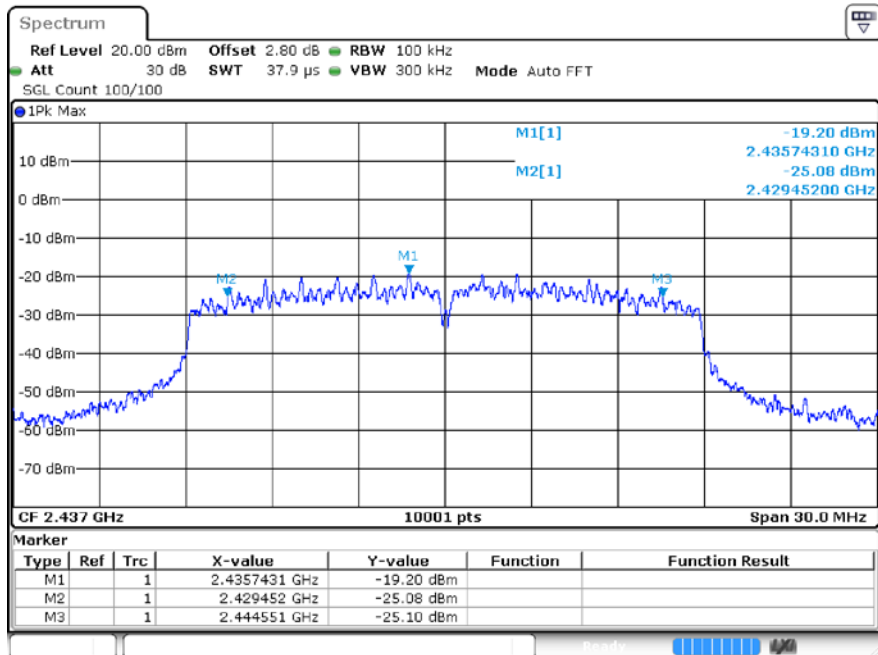
g 2462MHz Ant1

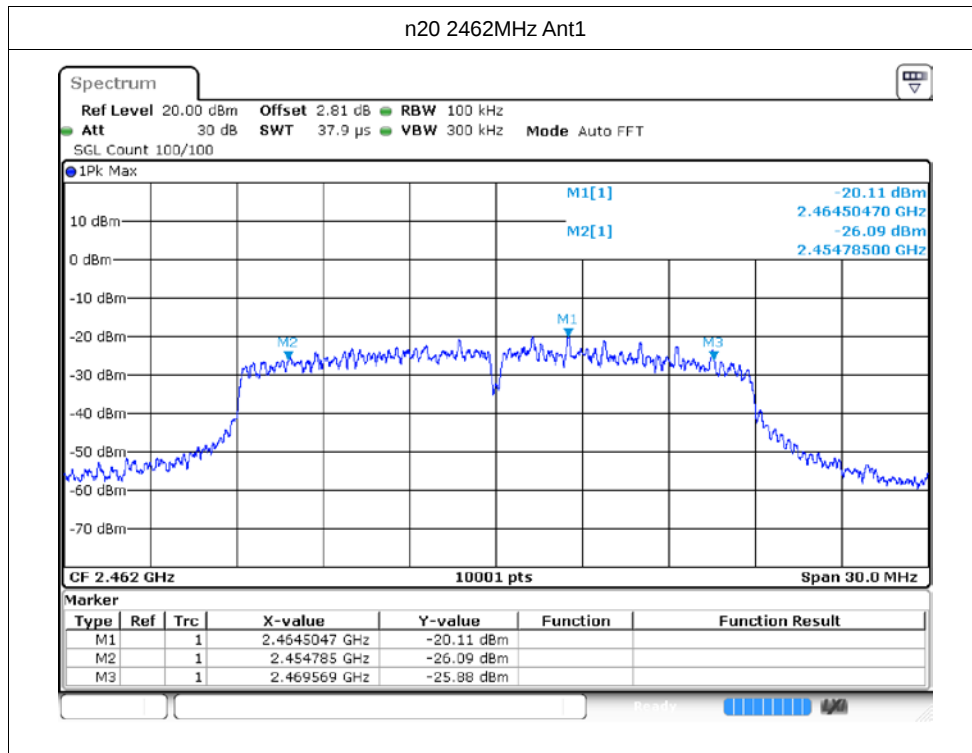


n20 2412MHz Ant1



n20 2437MHz Ant1



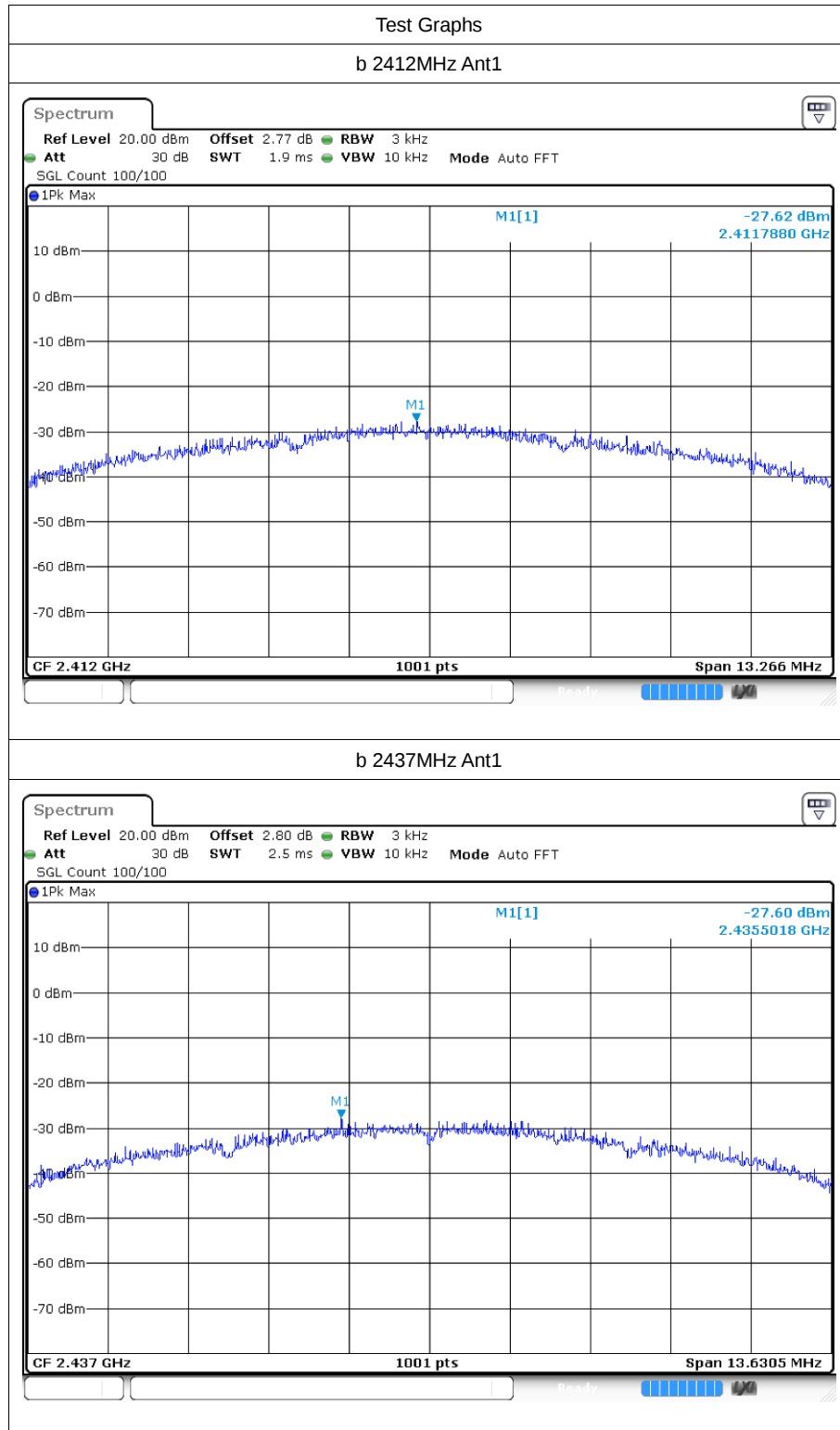


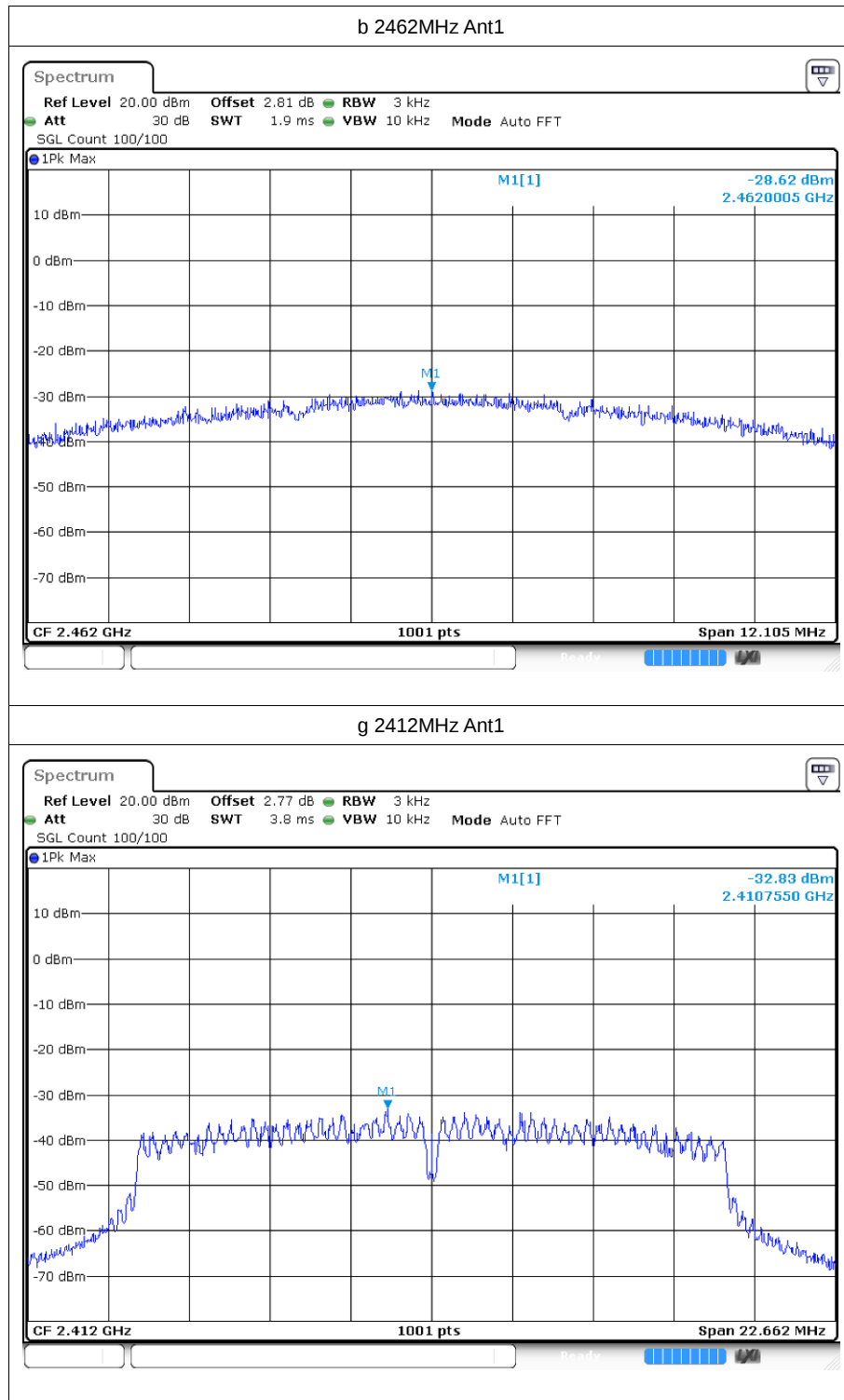
4 Maximum Power Spectral Density Level

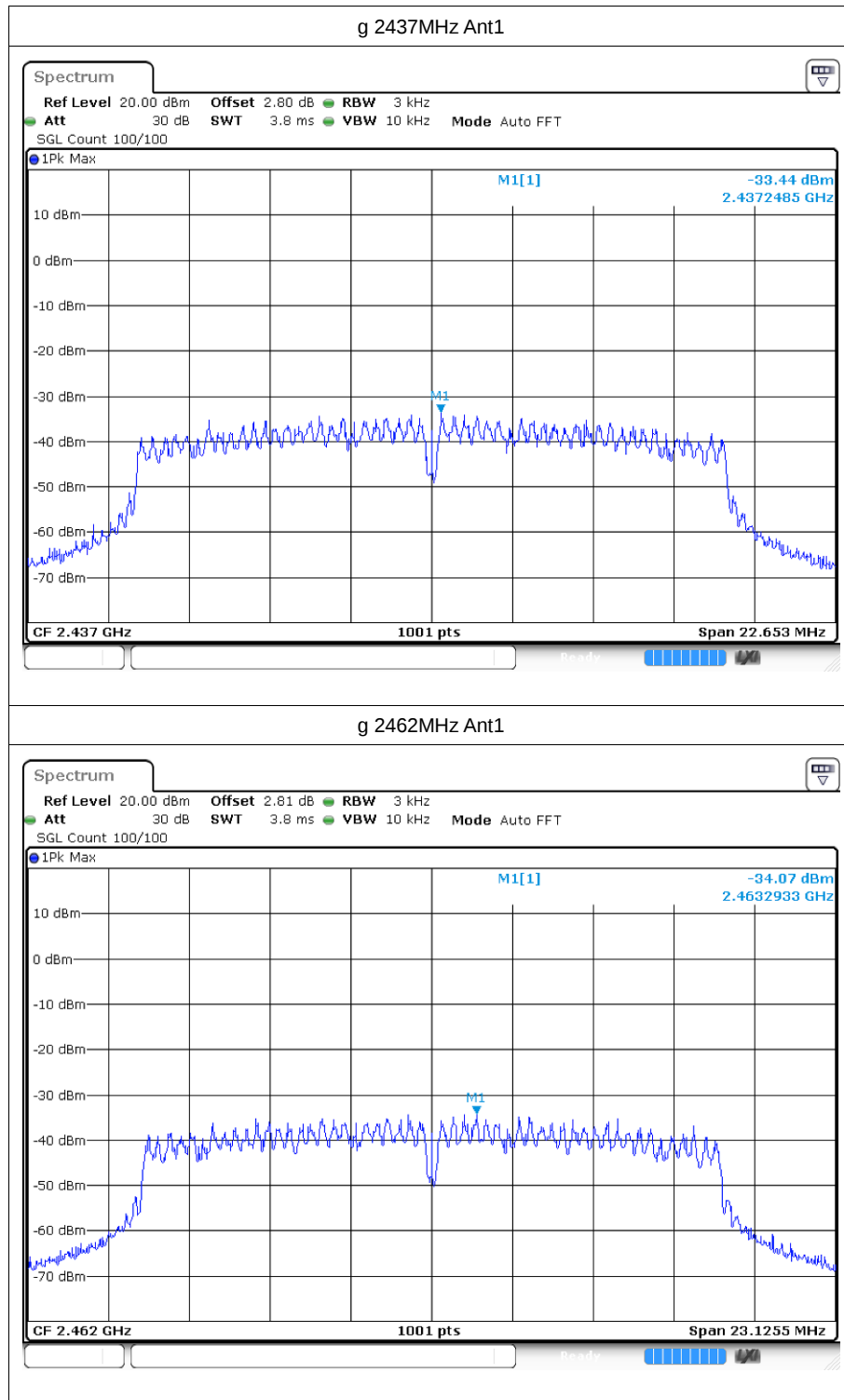
4.1 Test Result

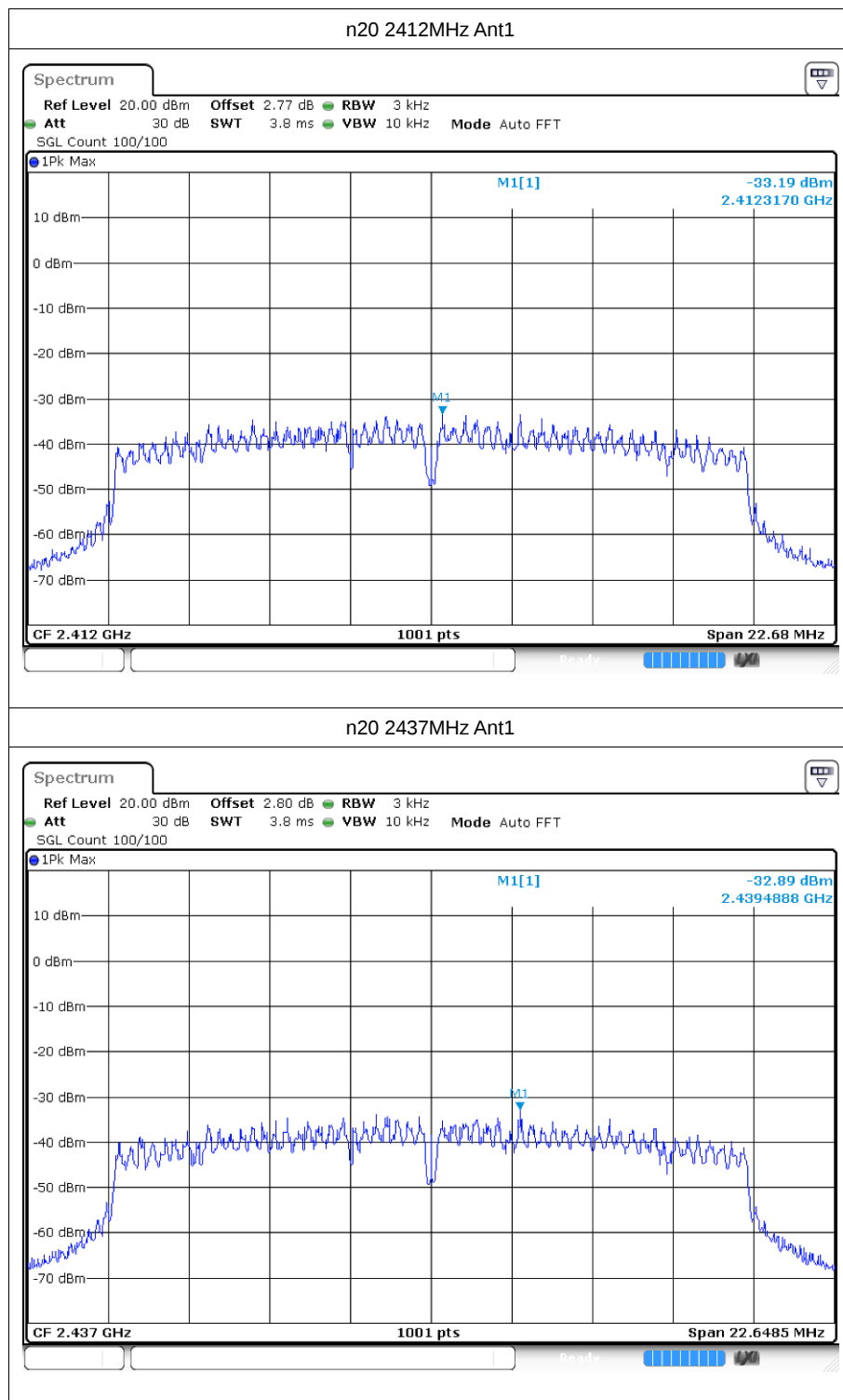
Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3-100kHz)	Limit (dBm/3kHz)	Verdict
b	2412	Ant1	-27.62	≤ 8	Pass
b	2437	Ant1	-27.6	≤ 8	Pass
b	2462	Ant1	-28.62	≤ 8	Pass
g	2412	Ant1	-32.83	≤ 8	Pass
g	2437	Ant1	-33.44	≤ 8	Pass
g	2462	Ant1	-34.07	≤ 8	Pass
n20	2412	Ant1	-33.19	≤ 8	Pass
n20	2437	Ant1	-32.89	≤ 8	Pass
n20	2462	Ant1	-34.35	≤ 8	Pass

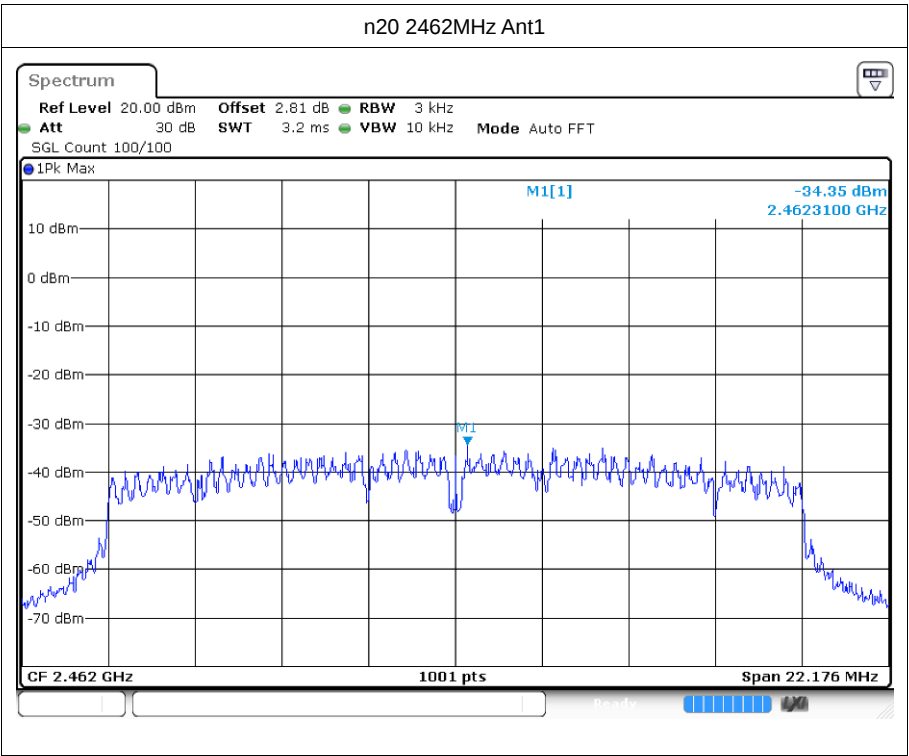
4.2 Test Graphs











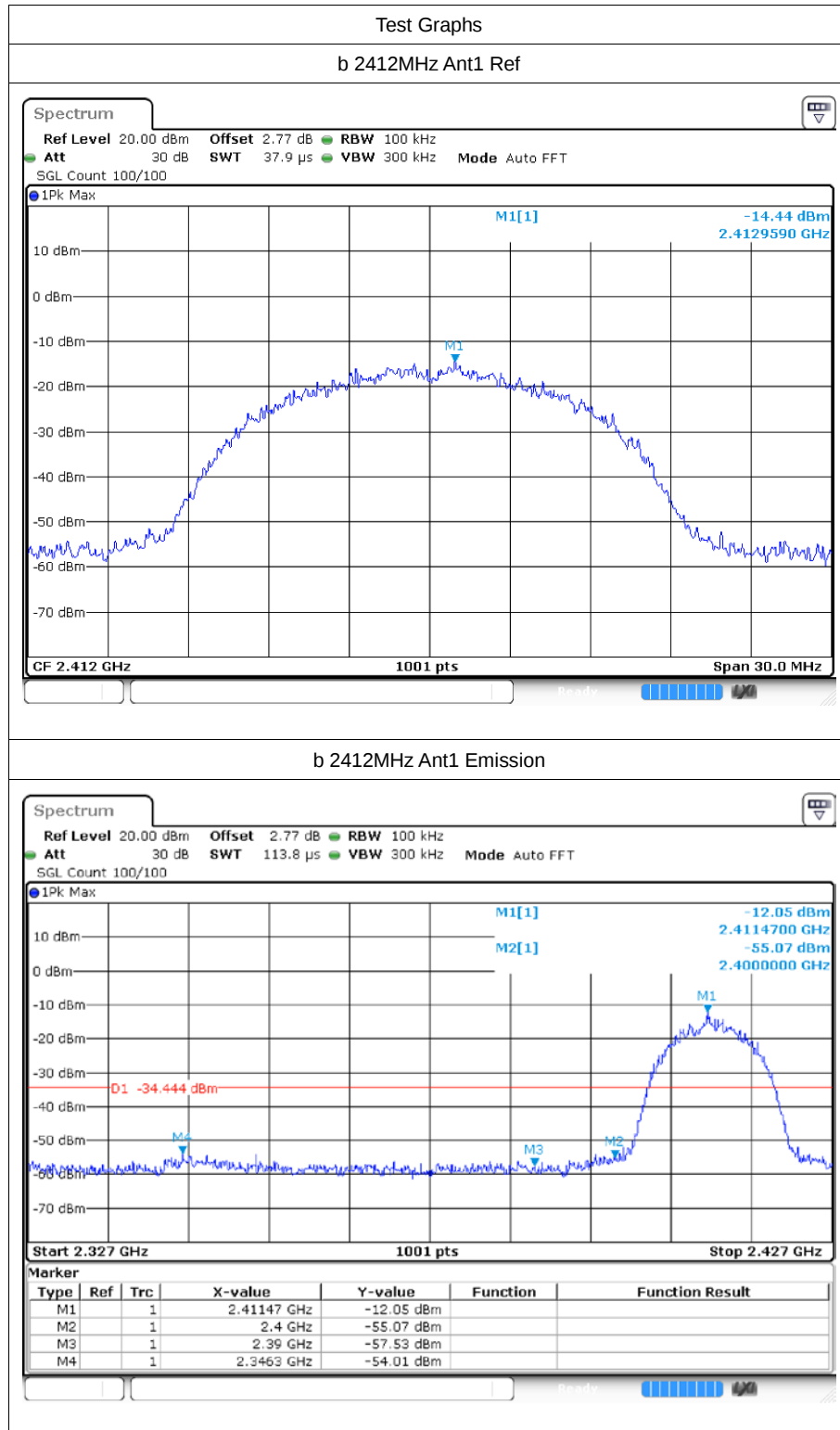


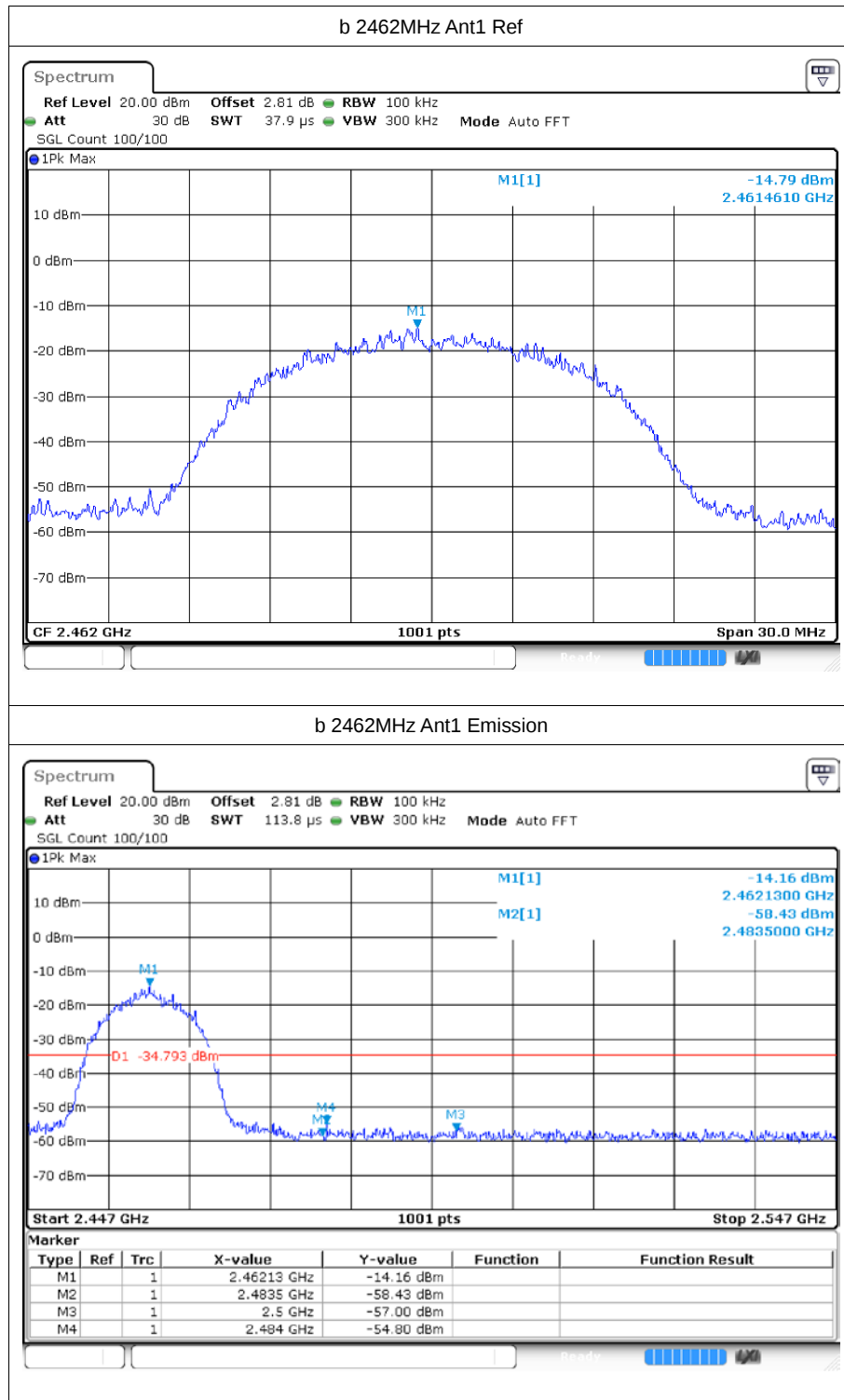
5 Band Edge

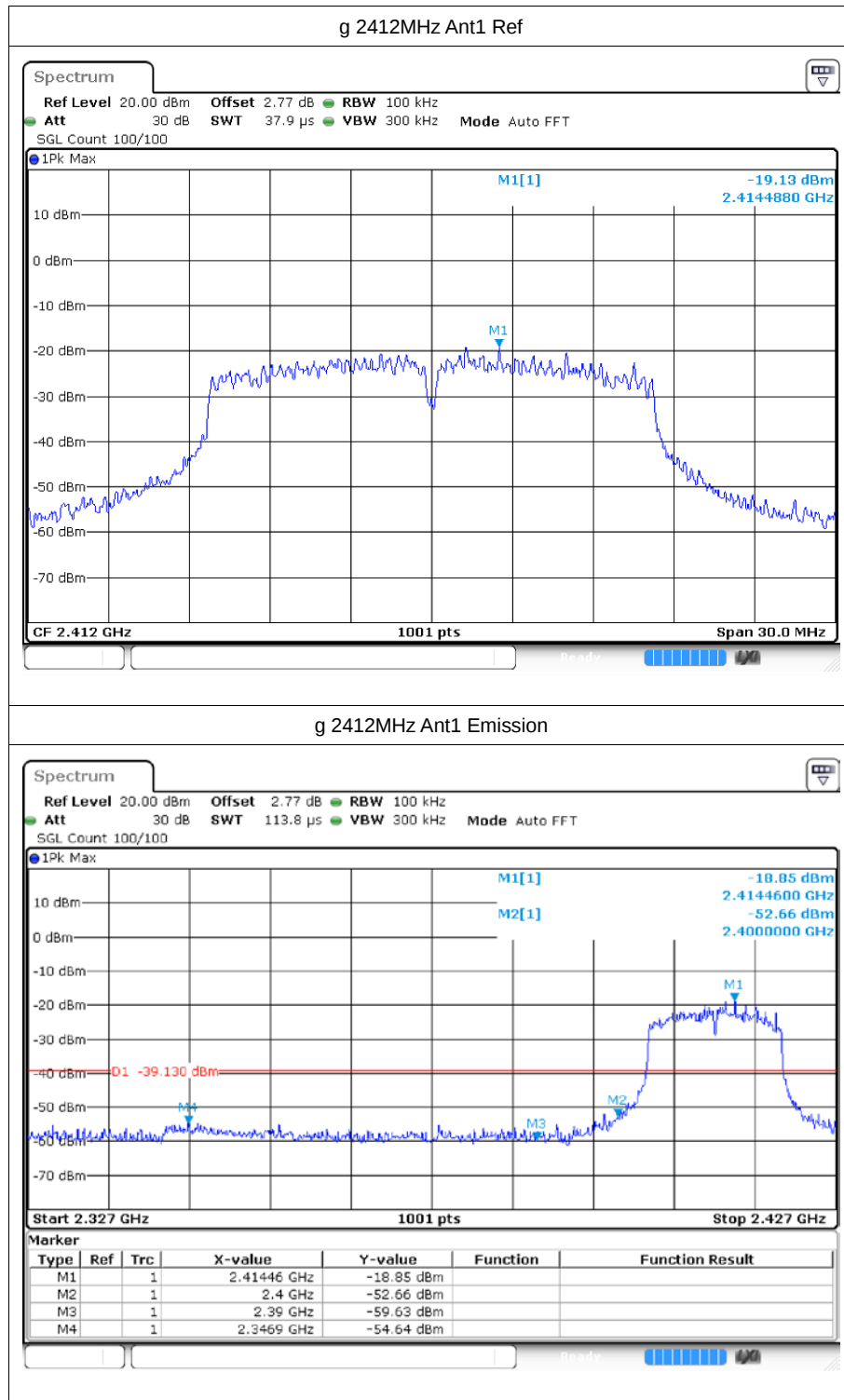
5.1 Test Result

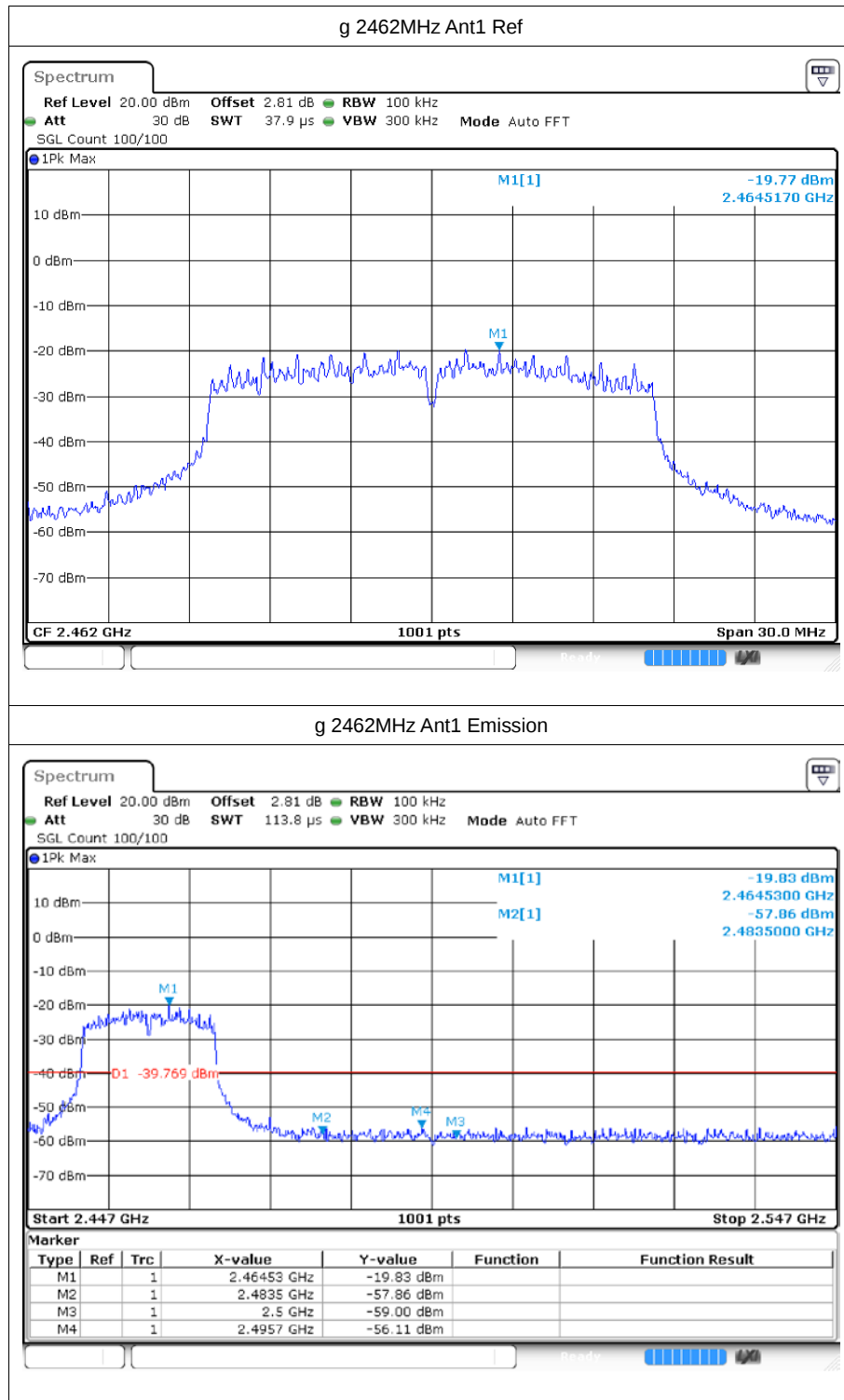
Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
b	2412	Ant1	-39.56	-20	-39.56
b	2462	Ant1	-40	-20	Pass
g	2412	Ant1	-35.5	-20	Pass
g	2462	Ant1	-36.34	-20	Pass
n20	2412	Ant1	-35.68	-20	Pass
n20	2462	Ant1	-35.54	-20	Pass

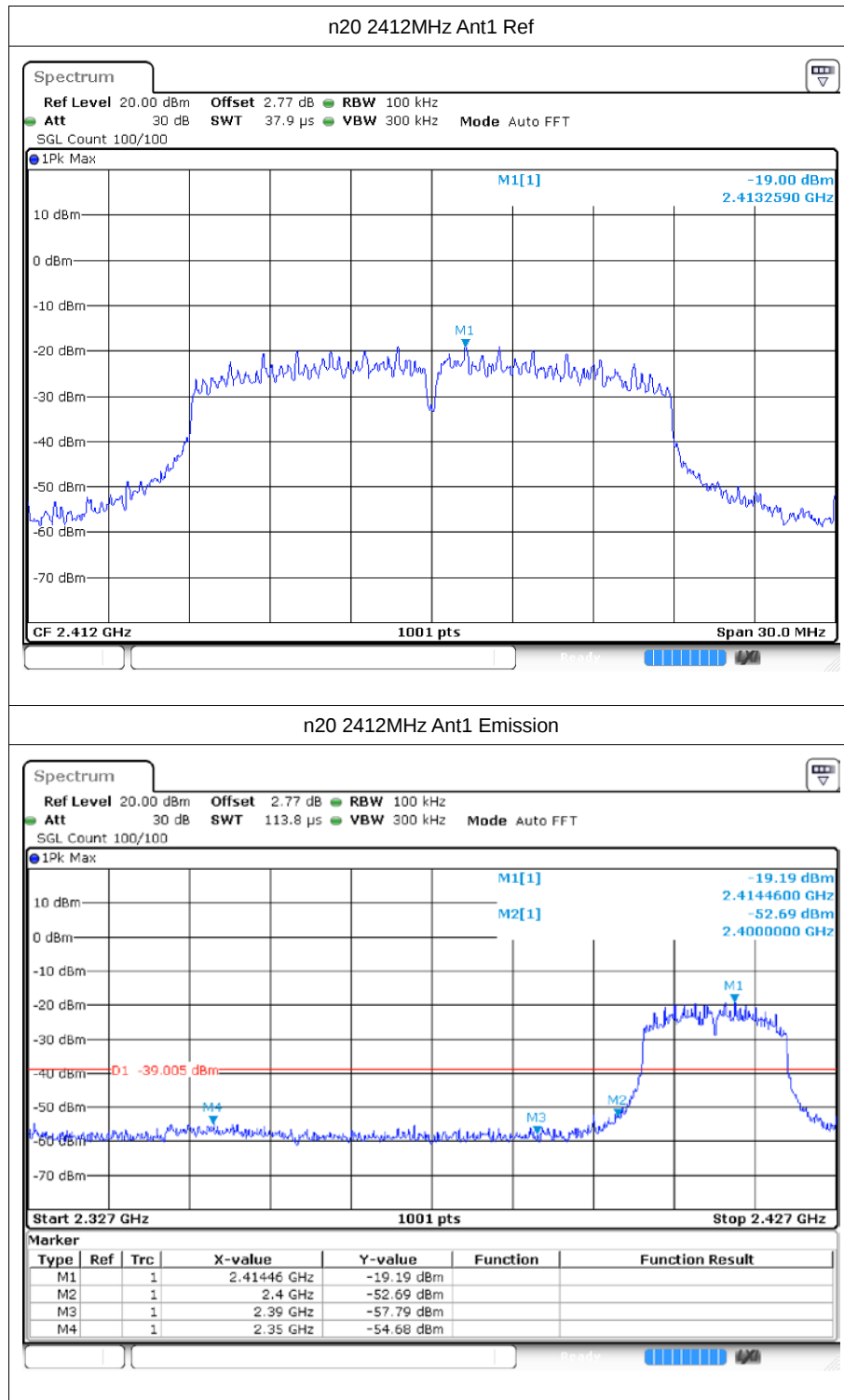
5.2 Test Graphs

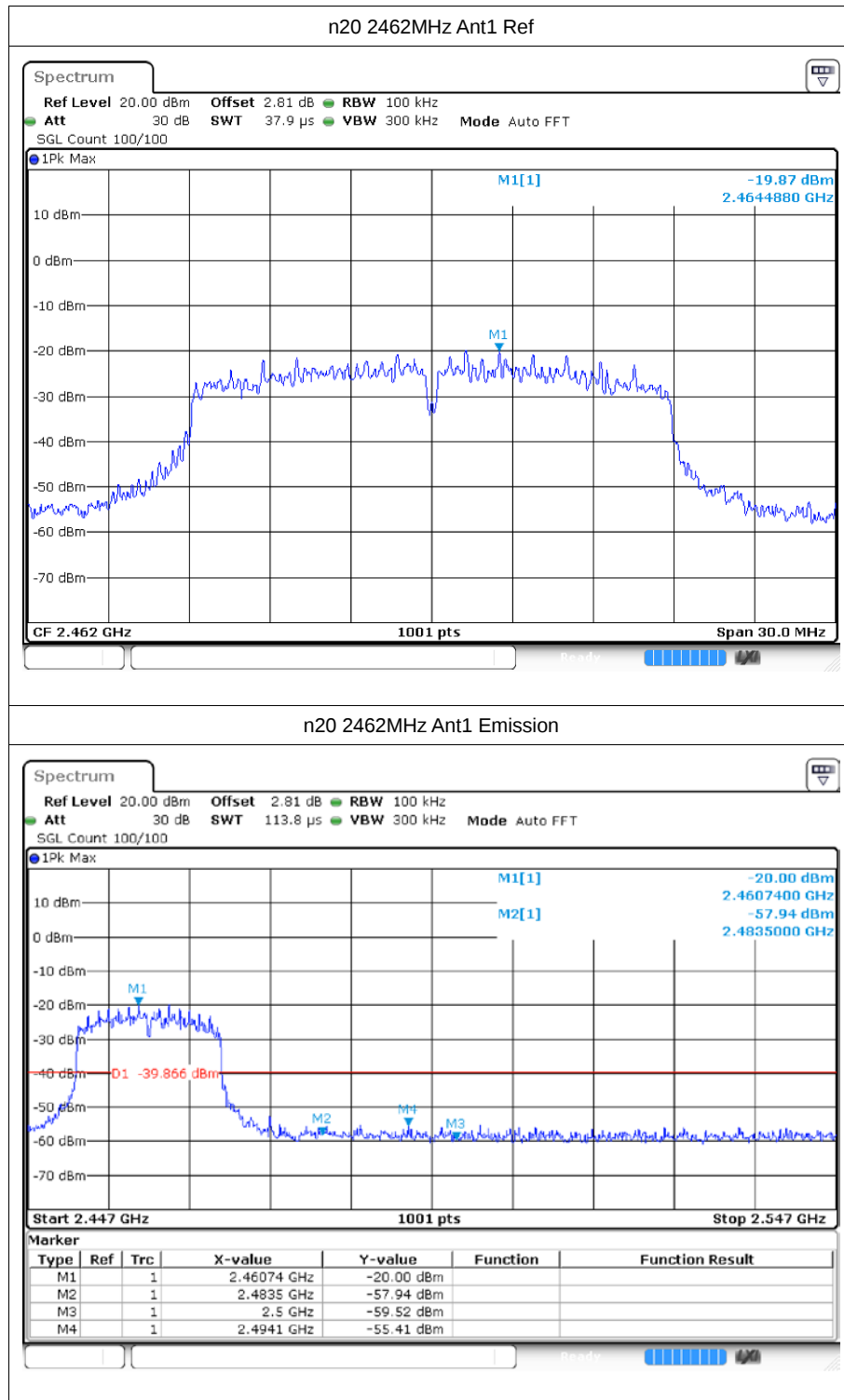












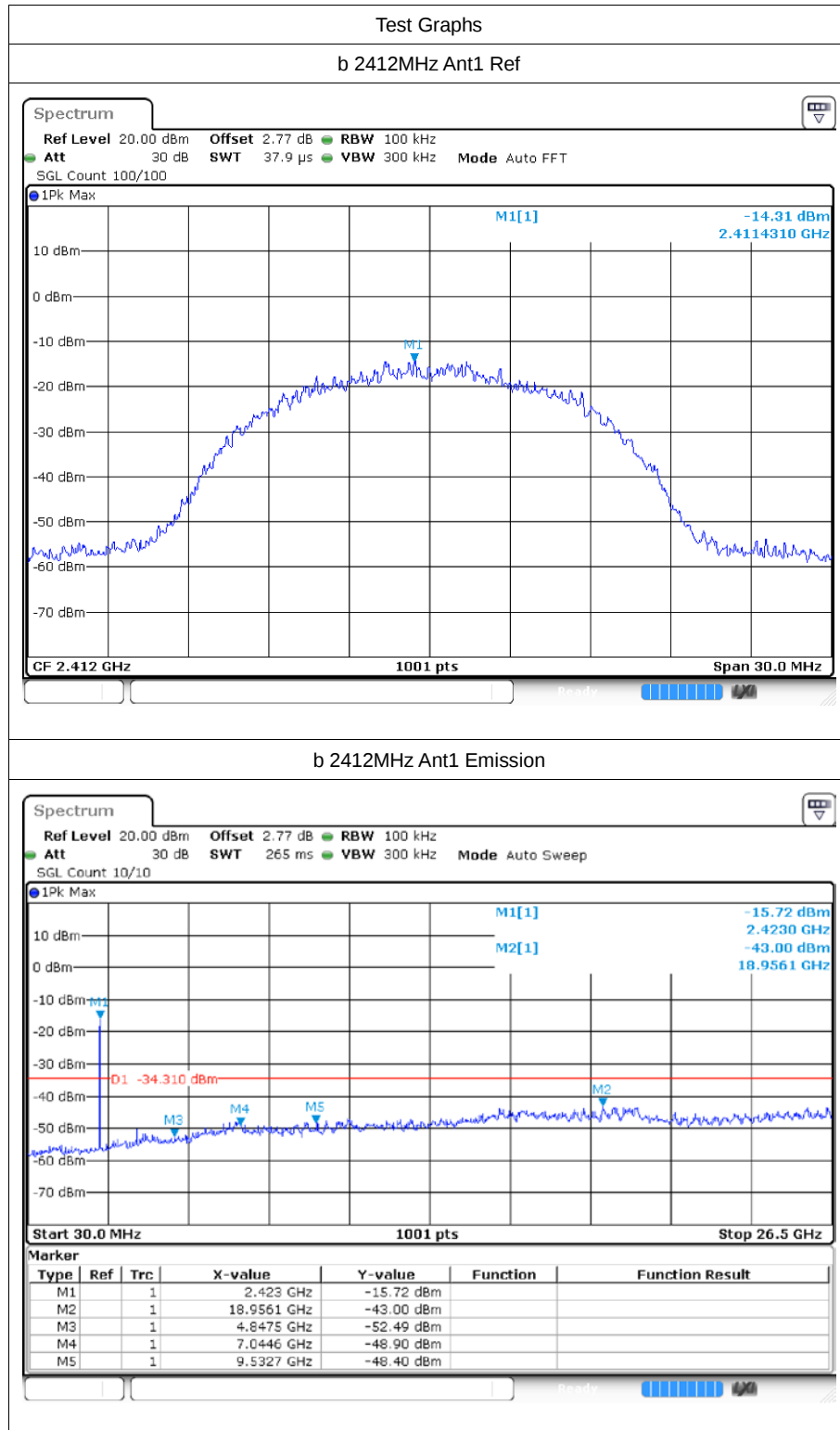


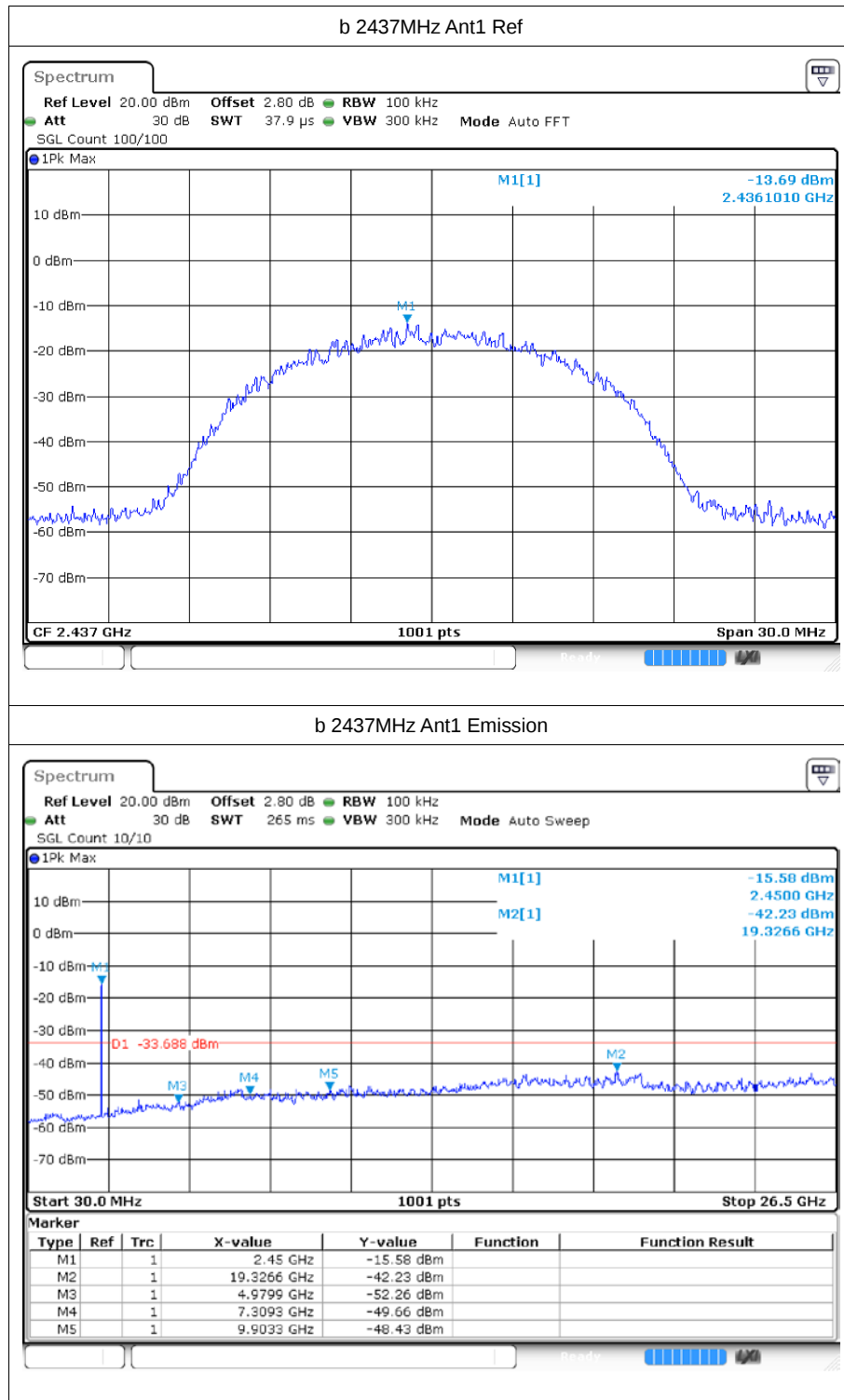
6 Conducted RF Spurious Emission

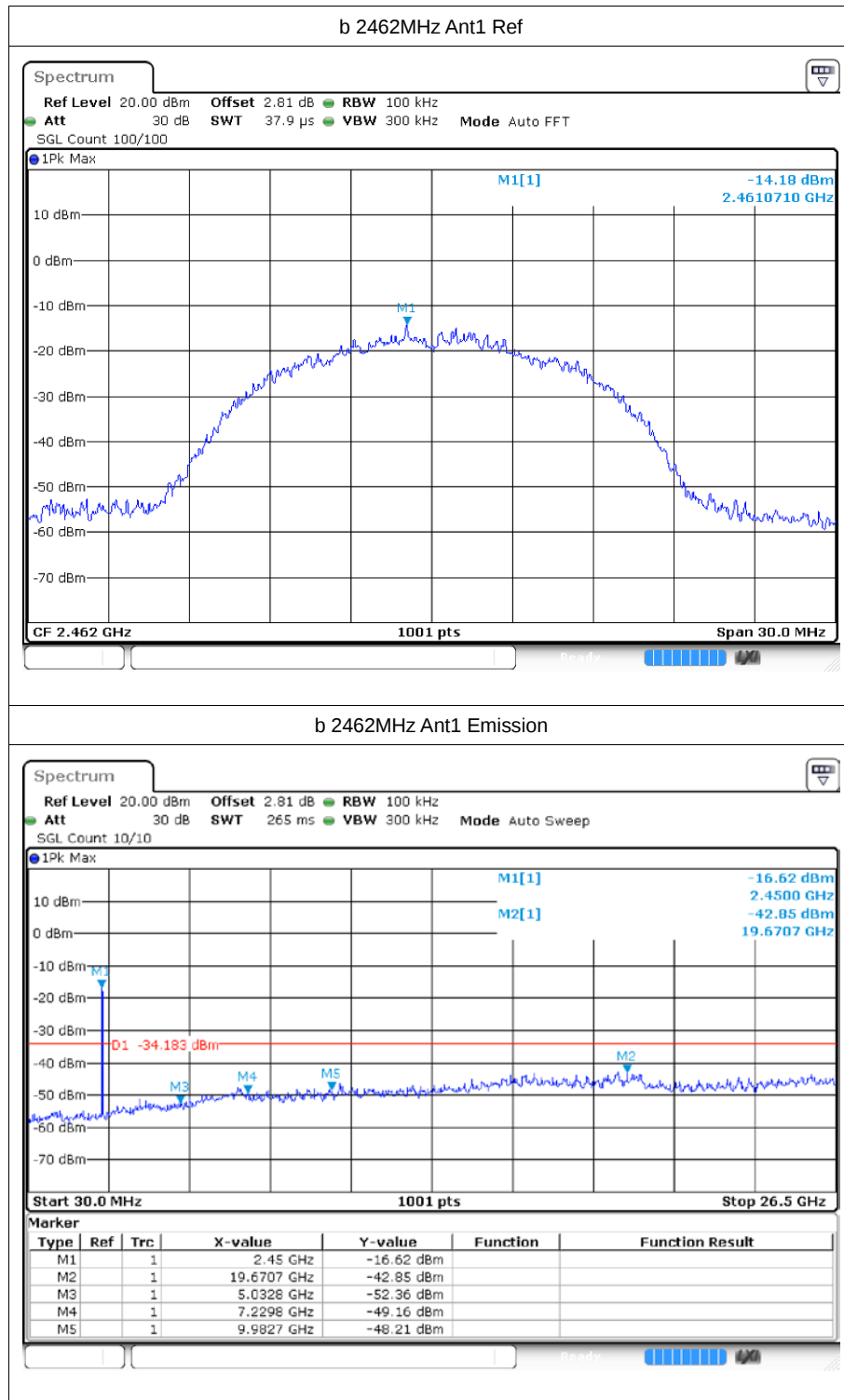
6.1 Test Result

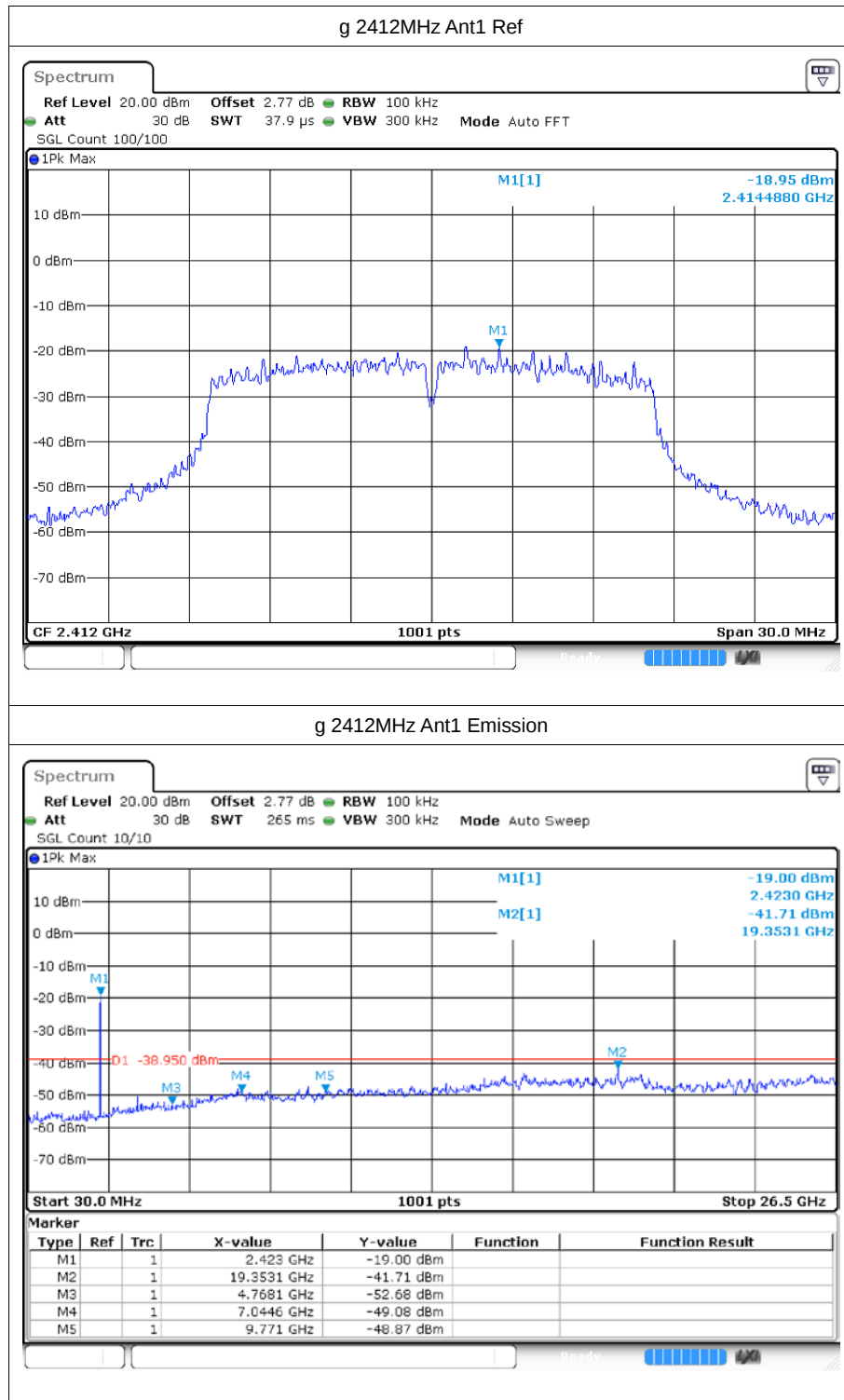
Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
b	2412	Ant1	-28.69	-20	Pass
b	2437	Ant1	-28.53	-20	Pass
b	2462	Ant1	-28.67	-20	Pass
g	2412	Ant1	-22.76	-20	Pass
g	2437	Ant1	-23.56	-20	Pass
g	2462	Ant1	-22.09	-20	Pass
n20	2412	Ant1	-23.4	-20	Pass
n20	2437	Ant1	-22.3	-20	Pass
n20	2462	Ant1	-22.64	-20	Pass

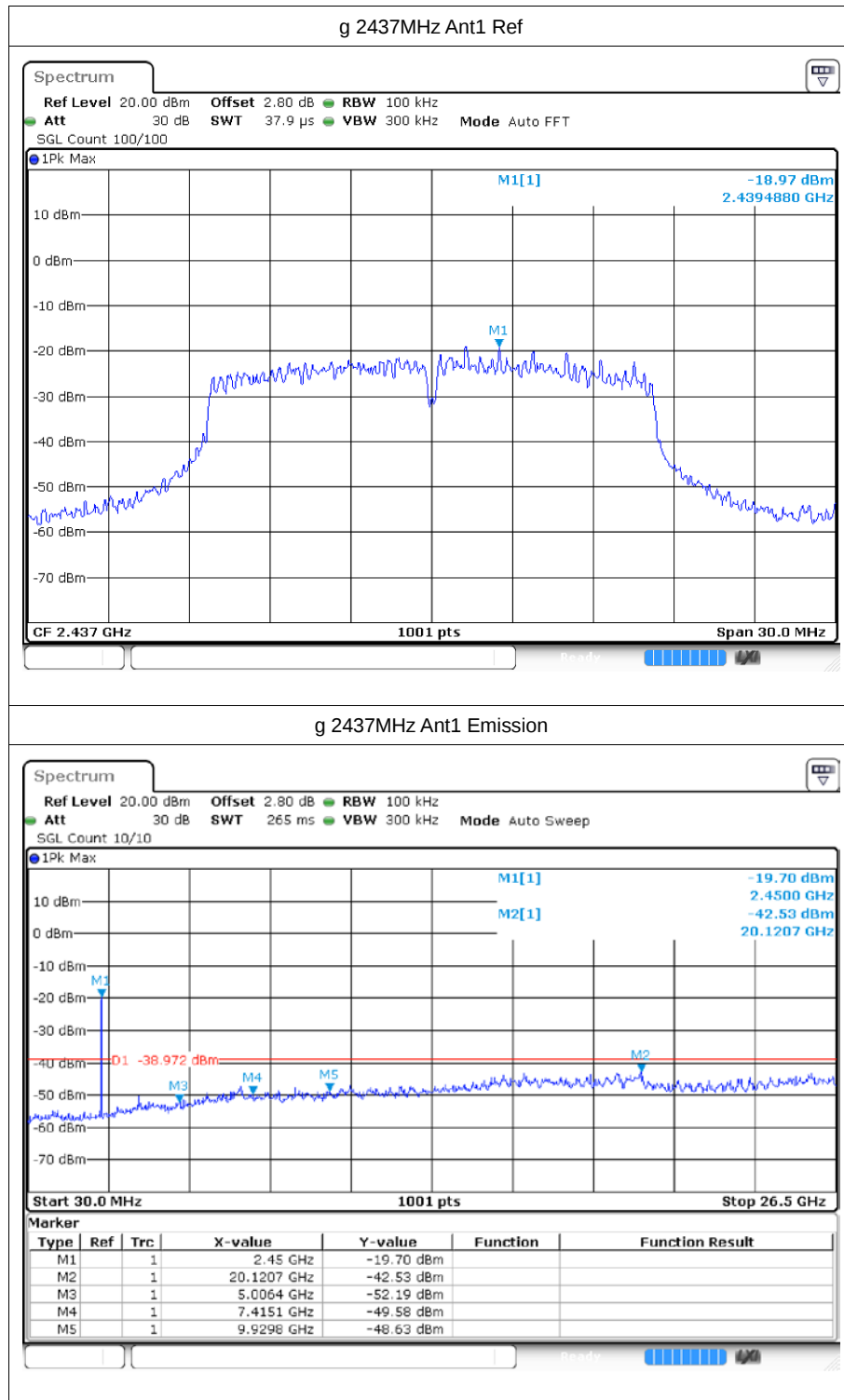
6.2 Test Graphs

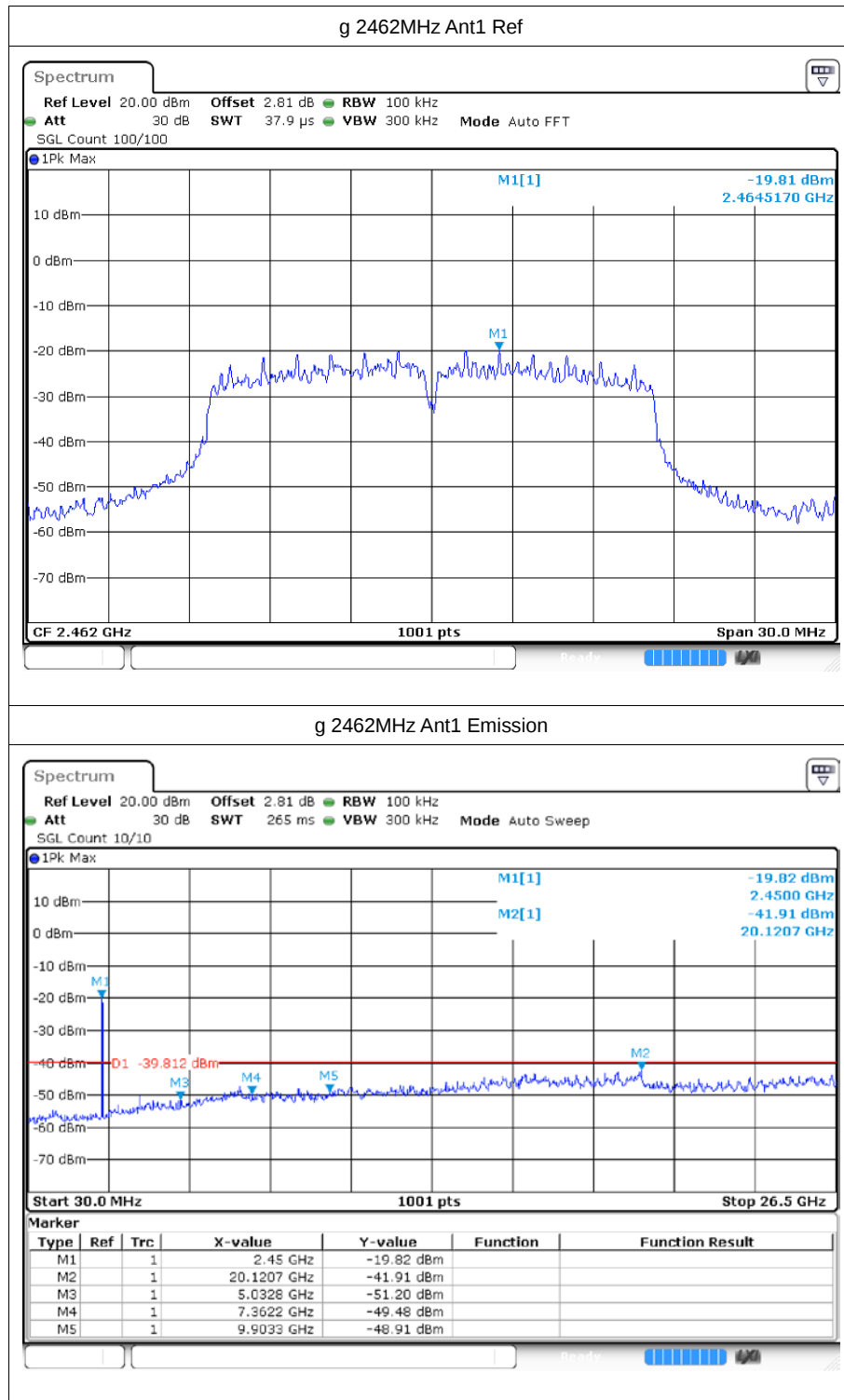


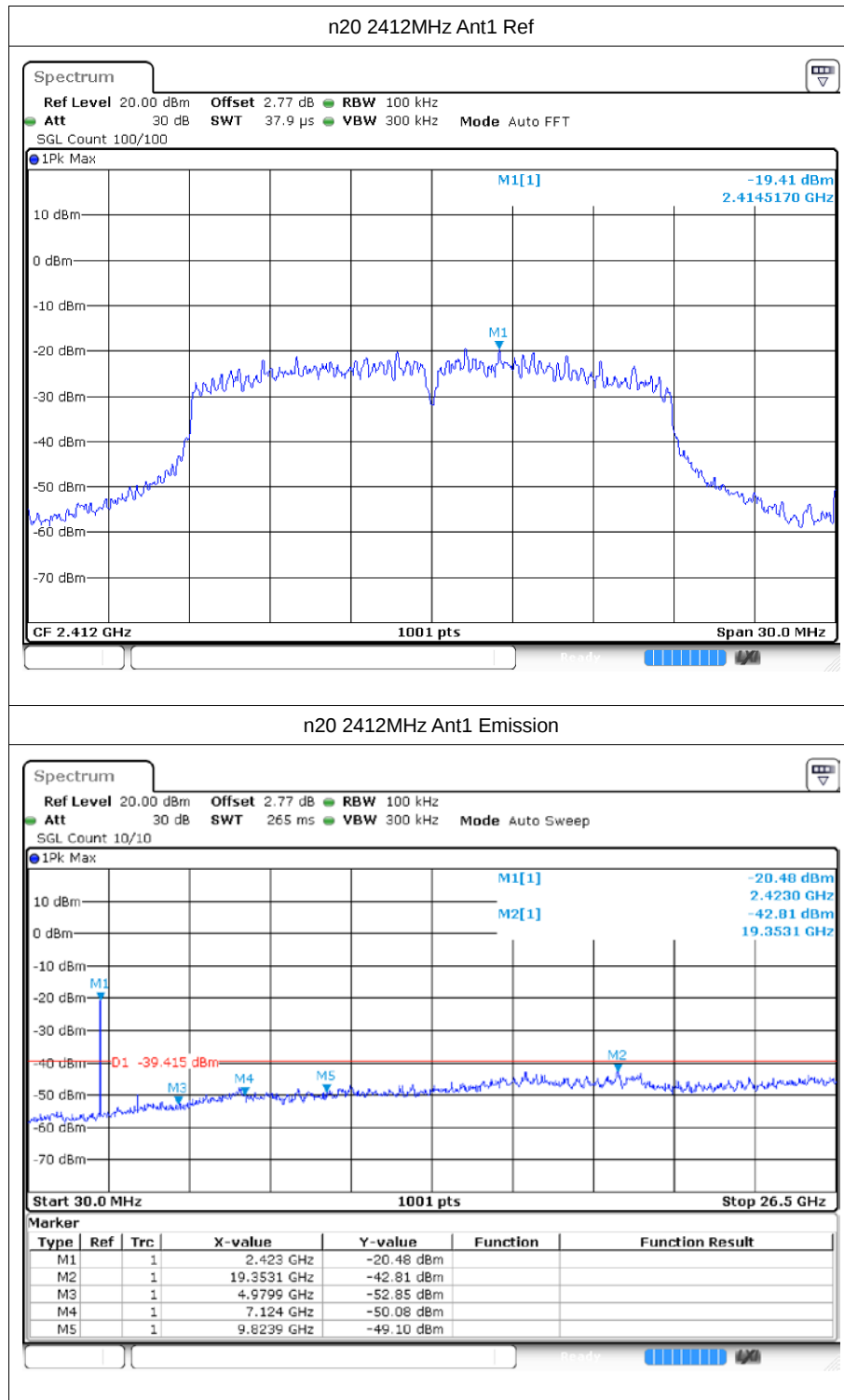


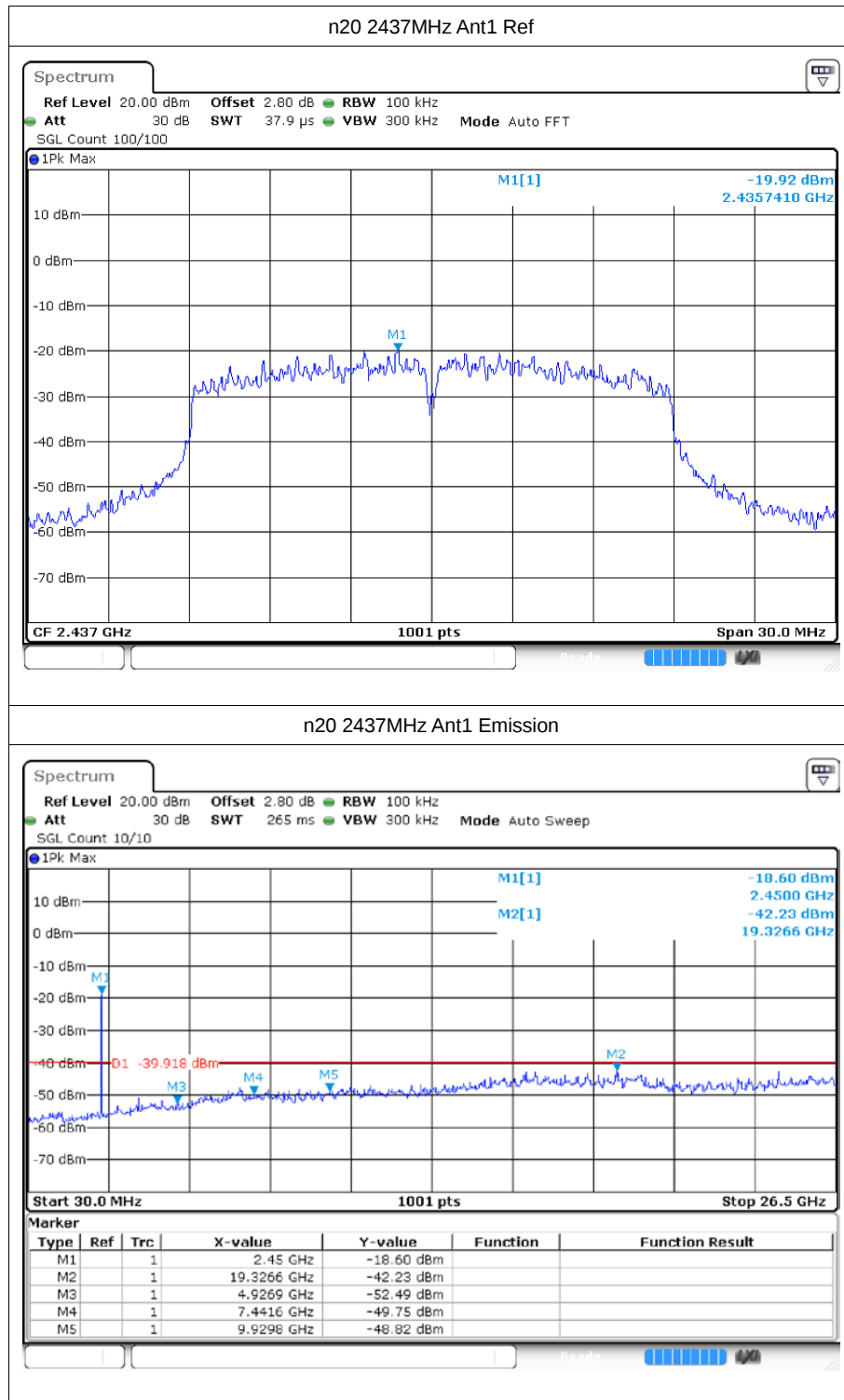


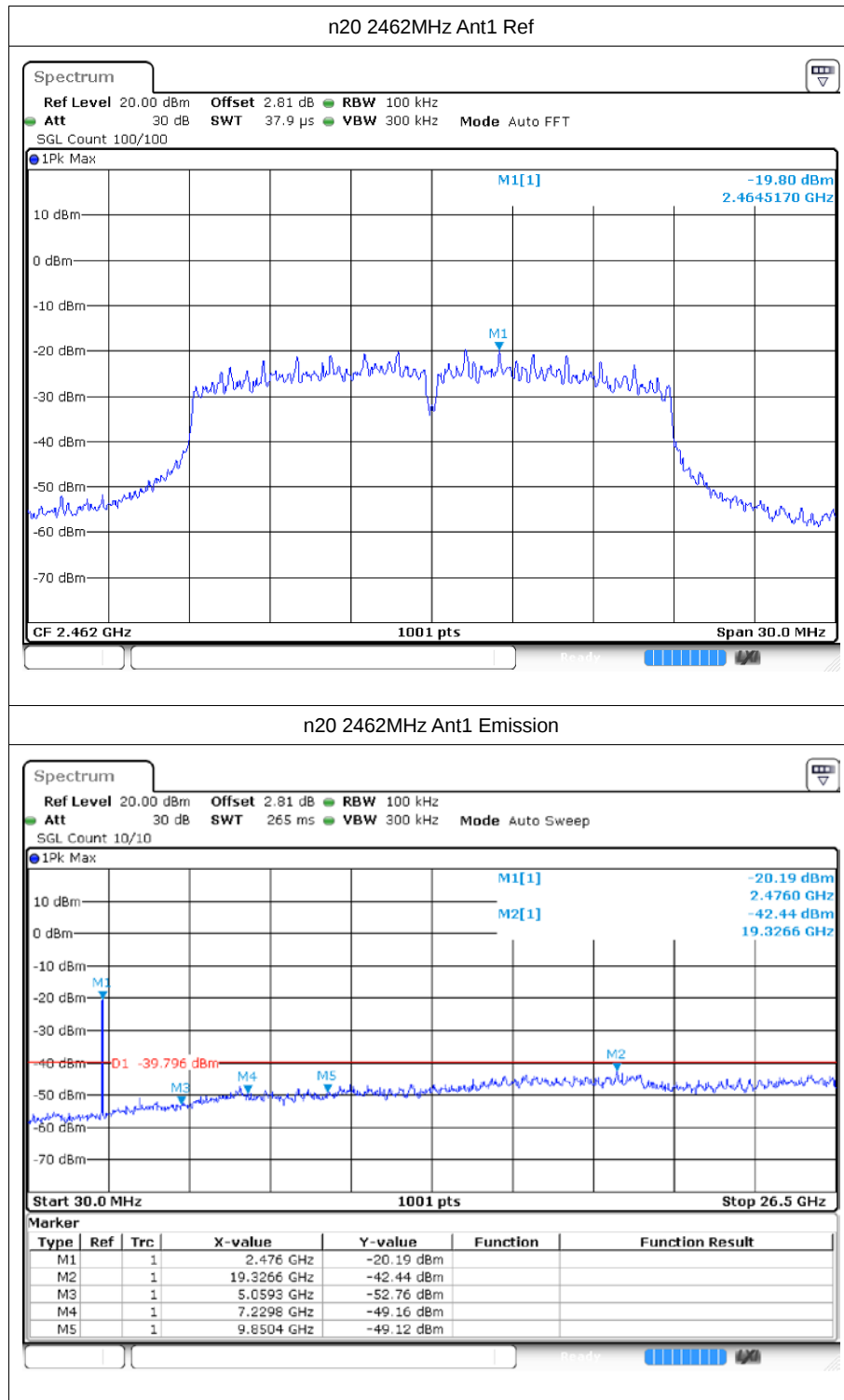














7 Restrict Band

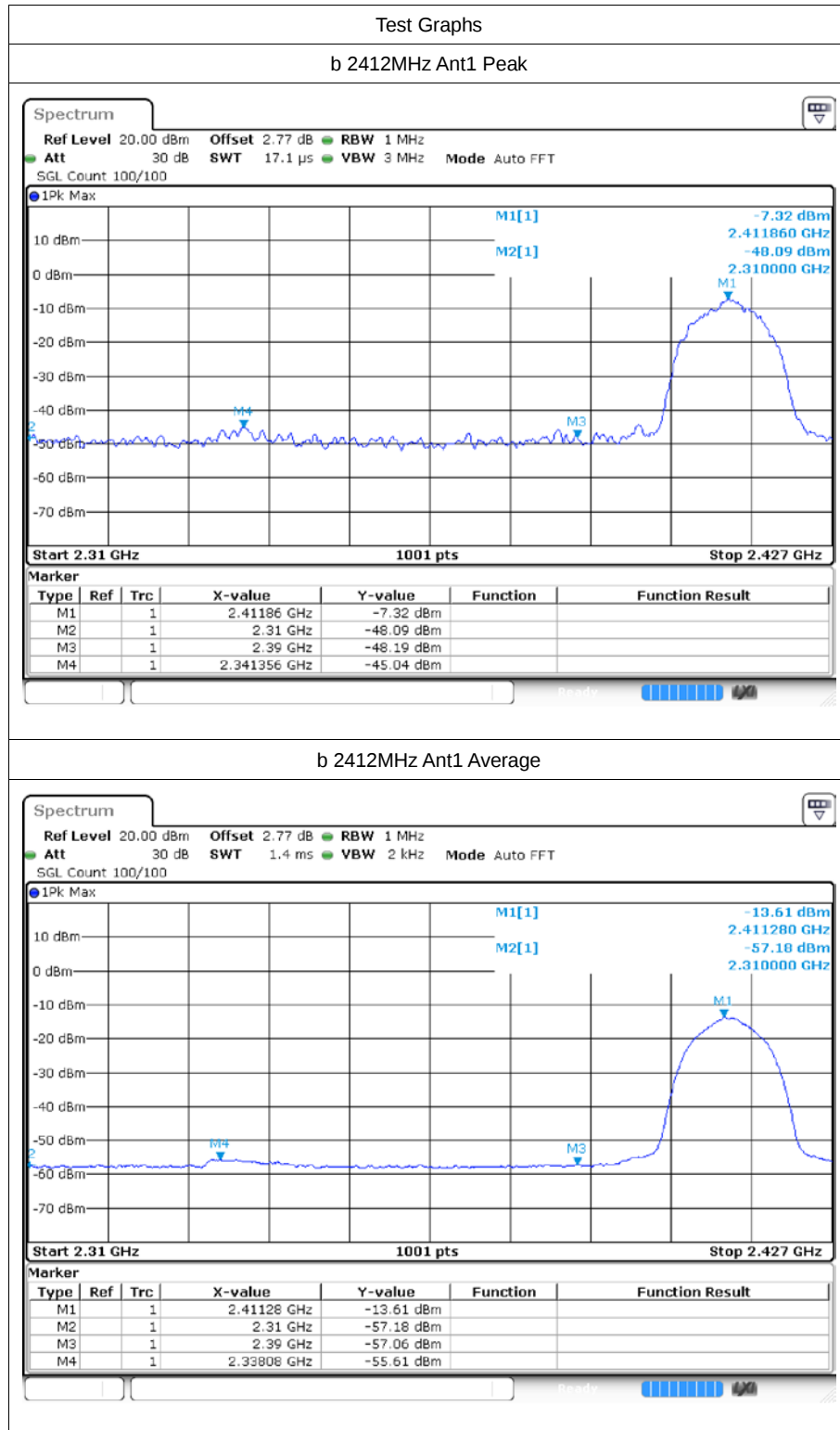
7.1 Test Result

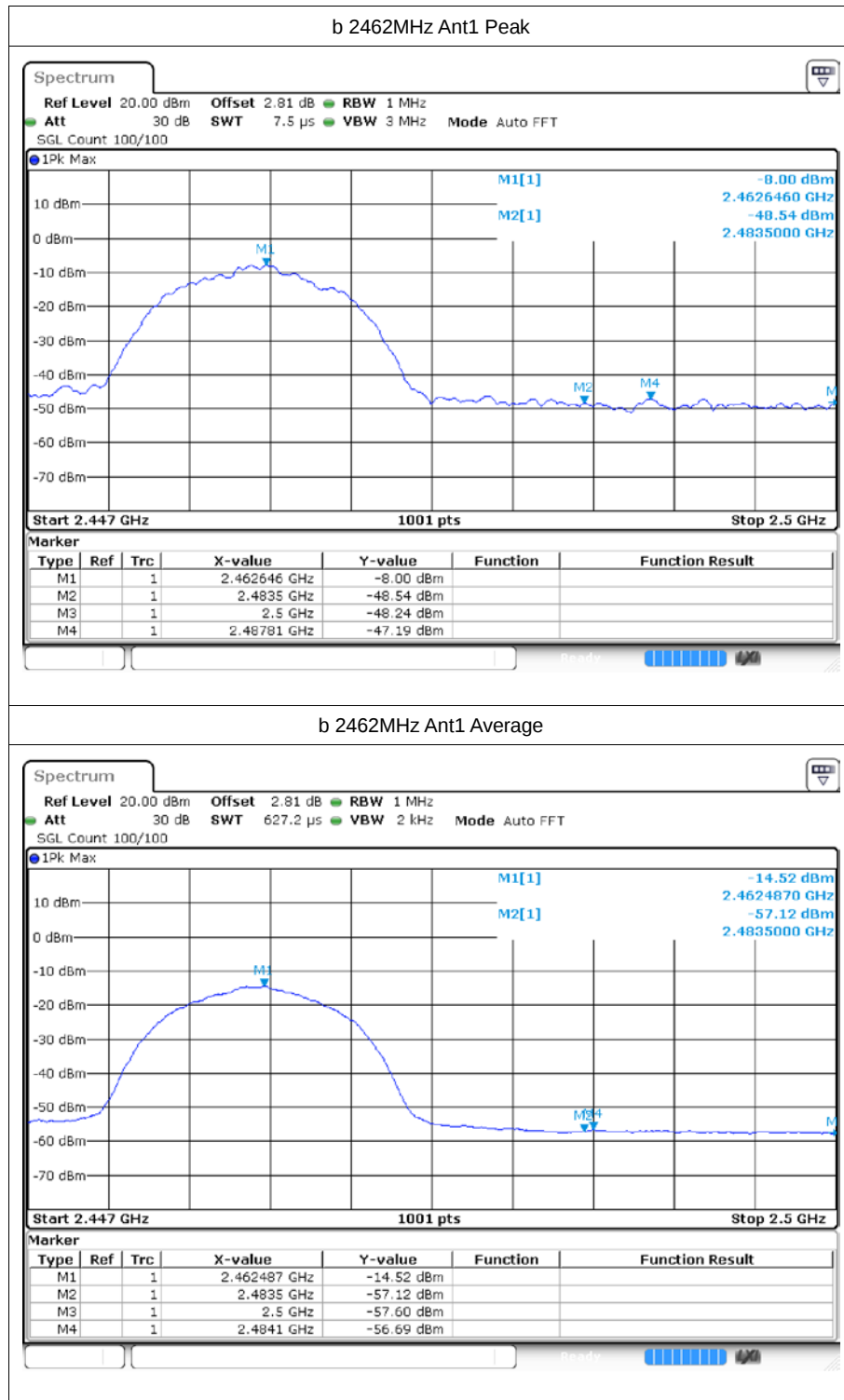
Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
b	2412	Ant1	2310	-48.08	3.14	50.29	Peak	74	Pass
b	2412	Ant1	2310	-57.17	3.14	41.2	Average	54	Pass
b	2412	Ant1	2341.356	-45.03	3.14	53.34	Peak	74	Pass
b	2412	Ant1	2338.08	-55.61	3.14	42.76	Average	54	Pass
b	2412	Ant1	2390	-48.18	3.14	50.19	Peak	74	Pass
b	2412	Ant1	2390	-57.05	3.14	41.32	Average	54	Pass
b	2462	Ant1	2483.5	-48.54	3.14	49.83	Peak	74	48.72
b	2462	Ant1	2483.5	-57.12	3.14	41.25	Average	54	Pass
b	2462	Ant1	2487.81	-47.18	3.14	51.19	Peak	74	Pass
b	2462	Ant1	2484.1	-56.68	3.14	41.69	Average	54	Pass
b	2462	Ant1	2500	-48.24	3.14	50.13	Peak	74	Pass
b	2462	Ant1	2500	-57.6	3.14	40.77	Average	54	Pass
g	2412	Ant1	2310	-49.31	3.14	49.06	Peak	74	Pass
g	2412	Ant1	2310	-56.3	3.14	42.07	Average	54	Pass
g	2412	Ant1	2340.069	-46.27	3.14	52.1	Peak	74	Pass
g	2412	Ant1	2338.197	-53.95	3.14	44.42	Average	54	Pass
g	2412	Ant1	2390	-47.62	3.14	50.75	Peak	74	Pass
g	2412	Ant1	2390	-56.04	3.14	42.33	Average	54	Pass
g	2462	Ant1	2483.5	-48.13	3.14	50.24	Peak	74	Pass
g	2462	Ant1	2483.5	-55.76	3.14	42.61	Average	54	Pass
g	2462	Ant1	2487.81	-47.02	3.14	51.35	Peak	74	Pass
g	2462	Ant1	2484.683	-55.56	3.14	42.81	Average	54	Pass
g	2462	Ant1	2500	-48.2	3.14	50.17	Peak	74	Pass
g	2462	Ant1	2500	-56.65	3.14	41.72	Average	54	Pass
n20	2412	Ant1	2310	-50.43	3.14	47.94	Peak	74	Pass
n20	2412	Ant1	2310	-56.75	3.14	41.62	Average	54	Pass
n20	2412	Ant1	2376.807	-46.02	3.14	52.35	Peak	74	Pass
n20	2412	Ant1	2336.559	-53.89	3.14	44.48	Average	54	Pass
n20	2412	Ant1	2390	-49.88	3.14	48.49	Peak	74	Pass
n20	2412	Ant1	2390	-56.18	3.14	42.19	Average	54	Pass
n20	2462	Ant1	2483.5	-49.66	3.14	48.71	Peak	74	Pass
n20	2462	Ant1	2483.5	-55.79	3.14	42.58	Average	54	Pass
n20	2462	Ant1	2492.686	-45.61	3.14	52.76	Peak	74	Pass
n20	2462	Ant1	2487.439	-55.04	3.14	43.33	Average	54	Pass

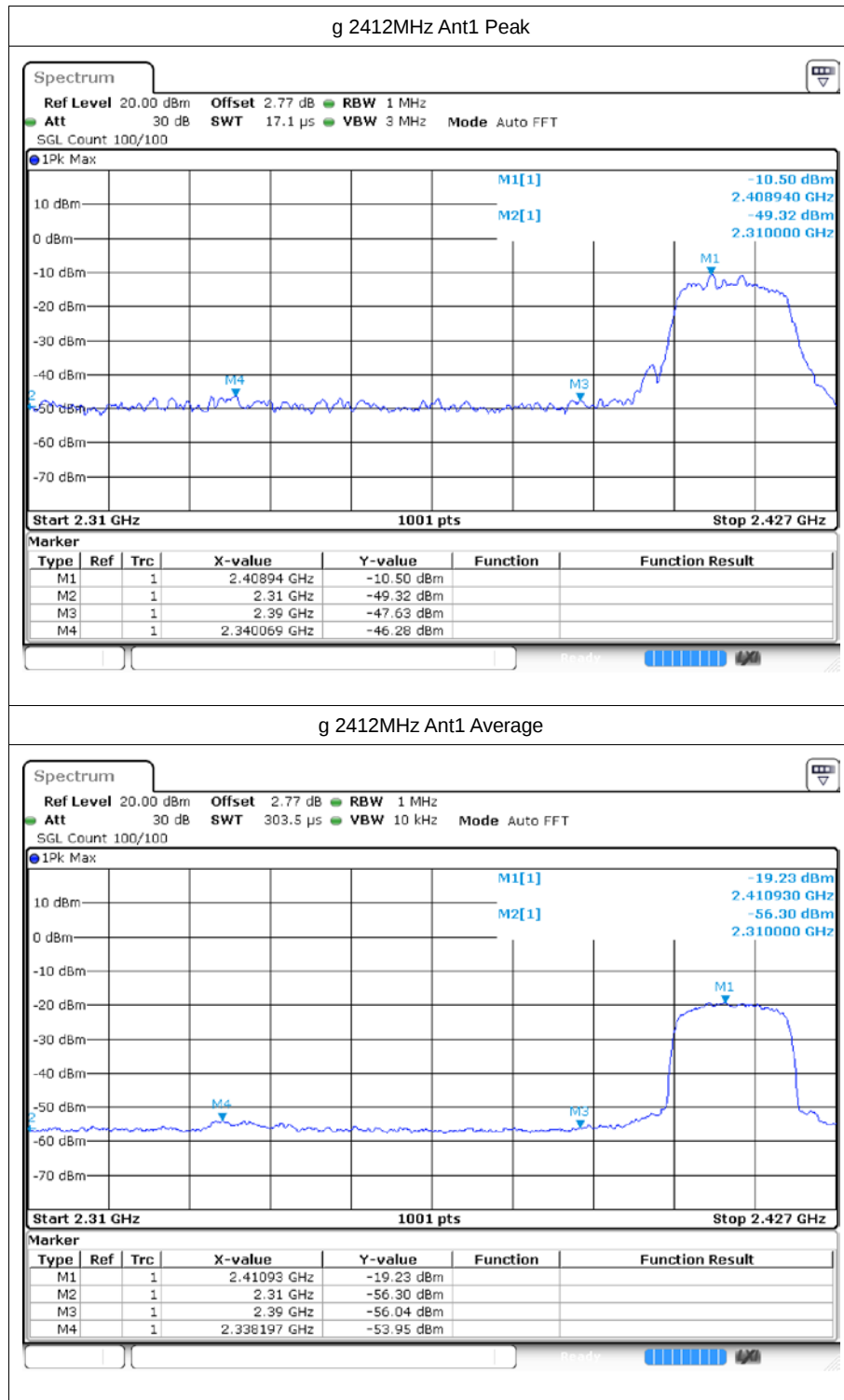


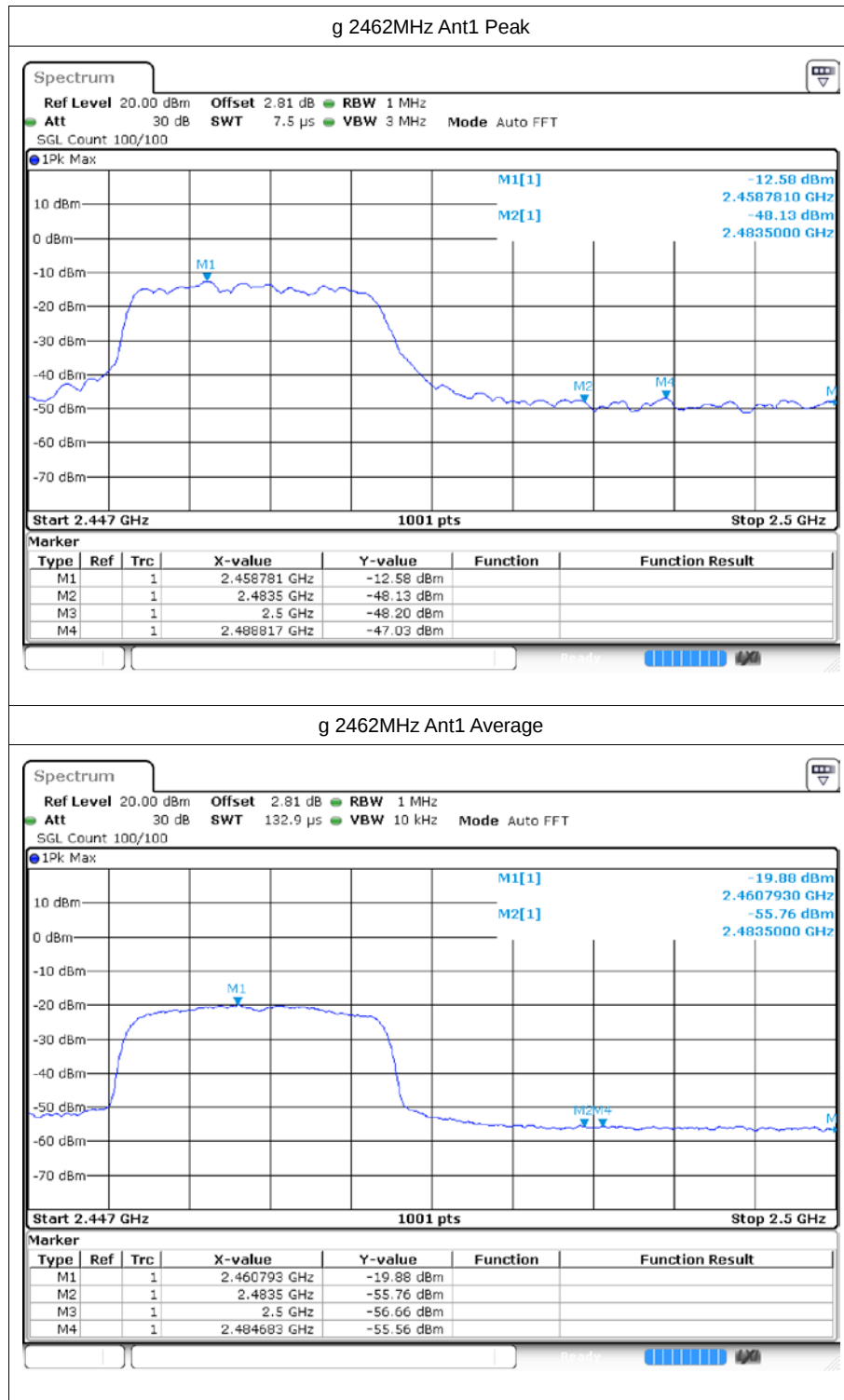
n20	2462	Ant1	2500	-48.41	3.14	49.96	Peak	74	Pass
n20	2462	Ant1	2500	-56.78	3.14	41.59	Average	54	Pass

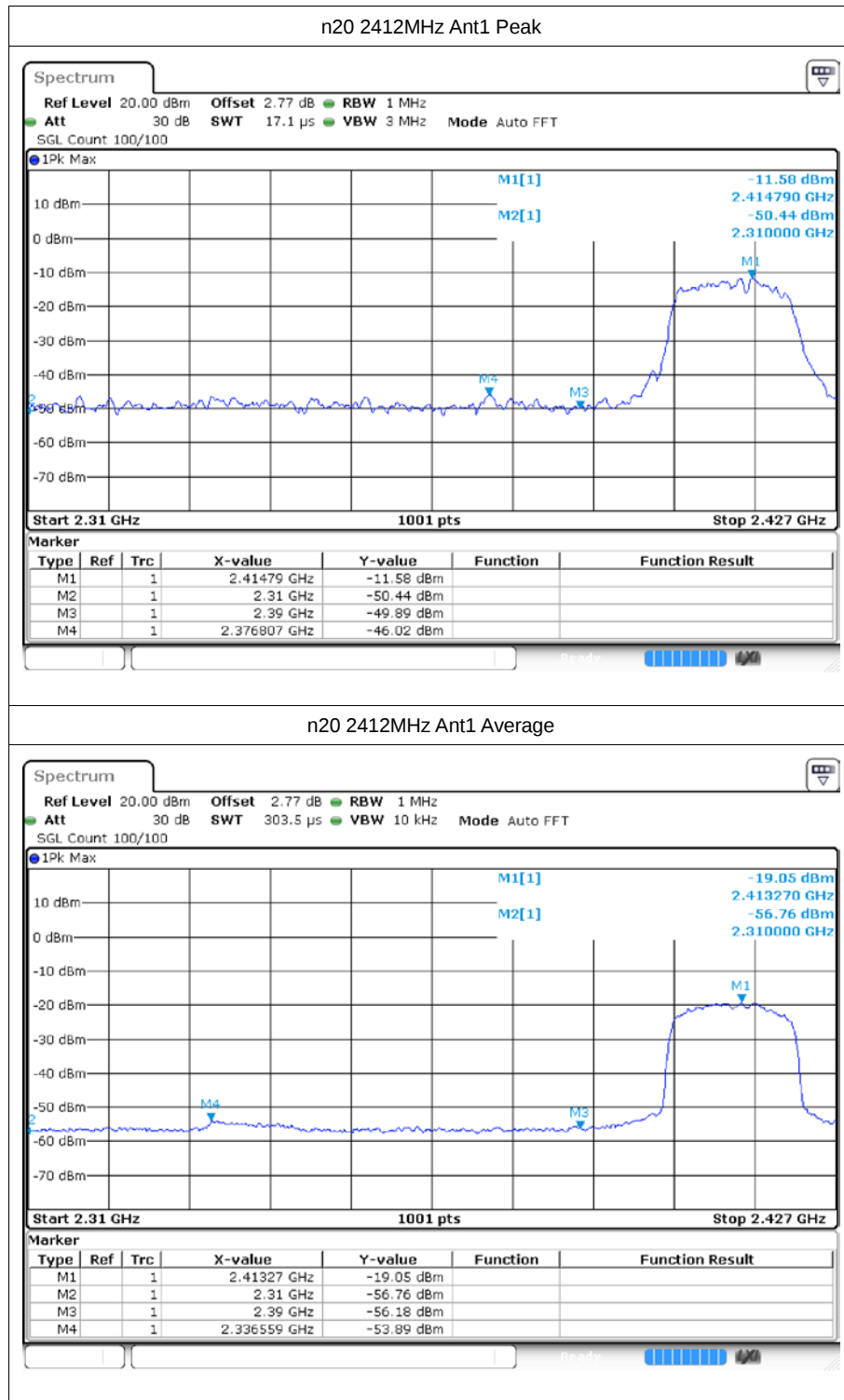
7.2 Test Graphs

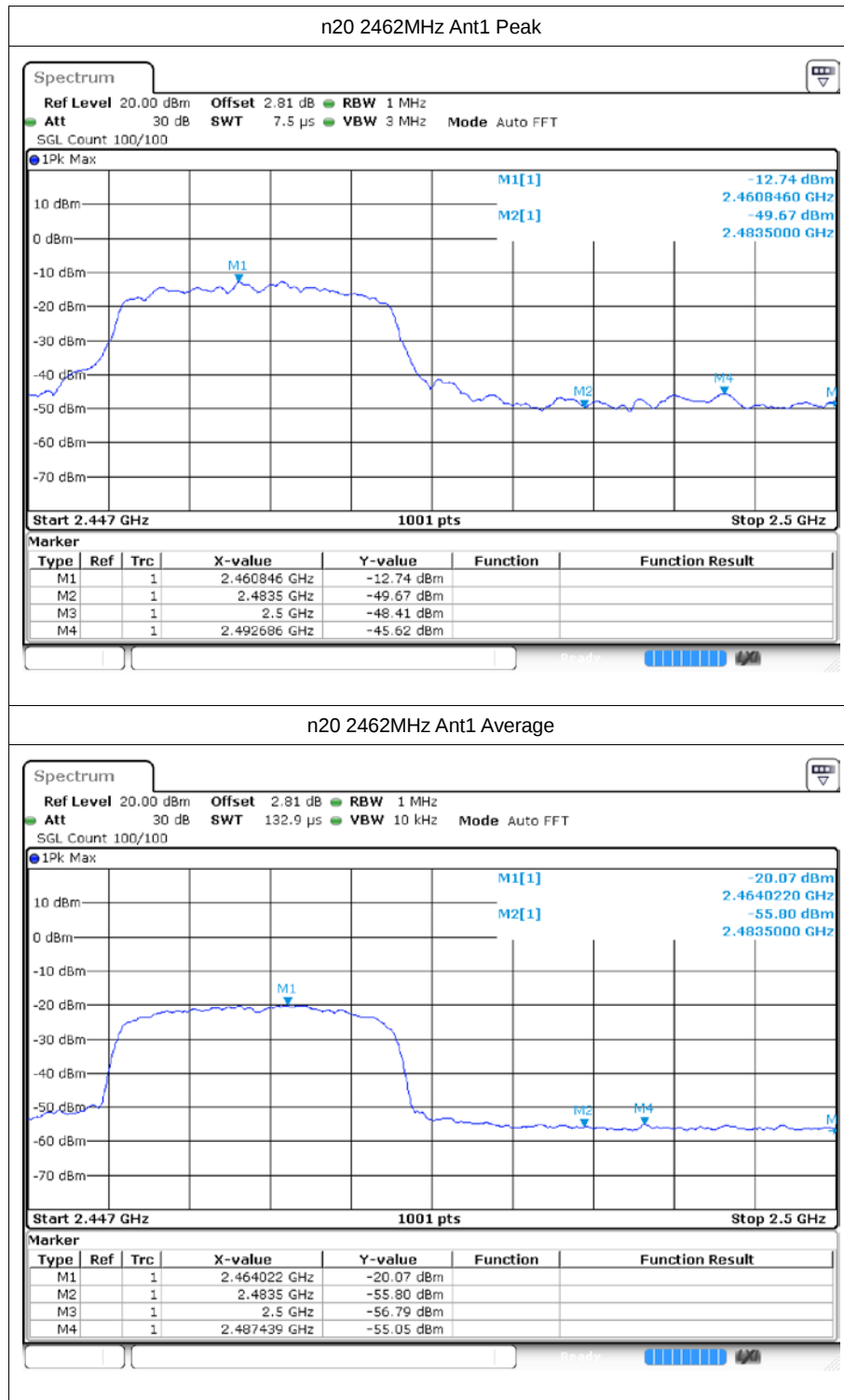












---The End---