



Appendix C

RF Test Data for 2.4GWIFI (Conducted Measurement)

Product Name: Smart Card Replicator

Trade Mark: COPYKEY

Test Model: COPYKEY-X5E

Environmental Conditions

Temperature:	25.7° C
Relative Humidity:	52.3%
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

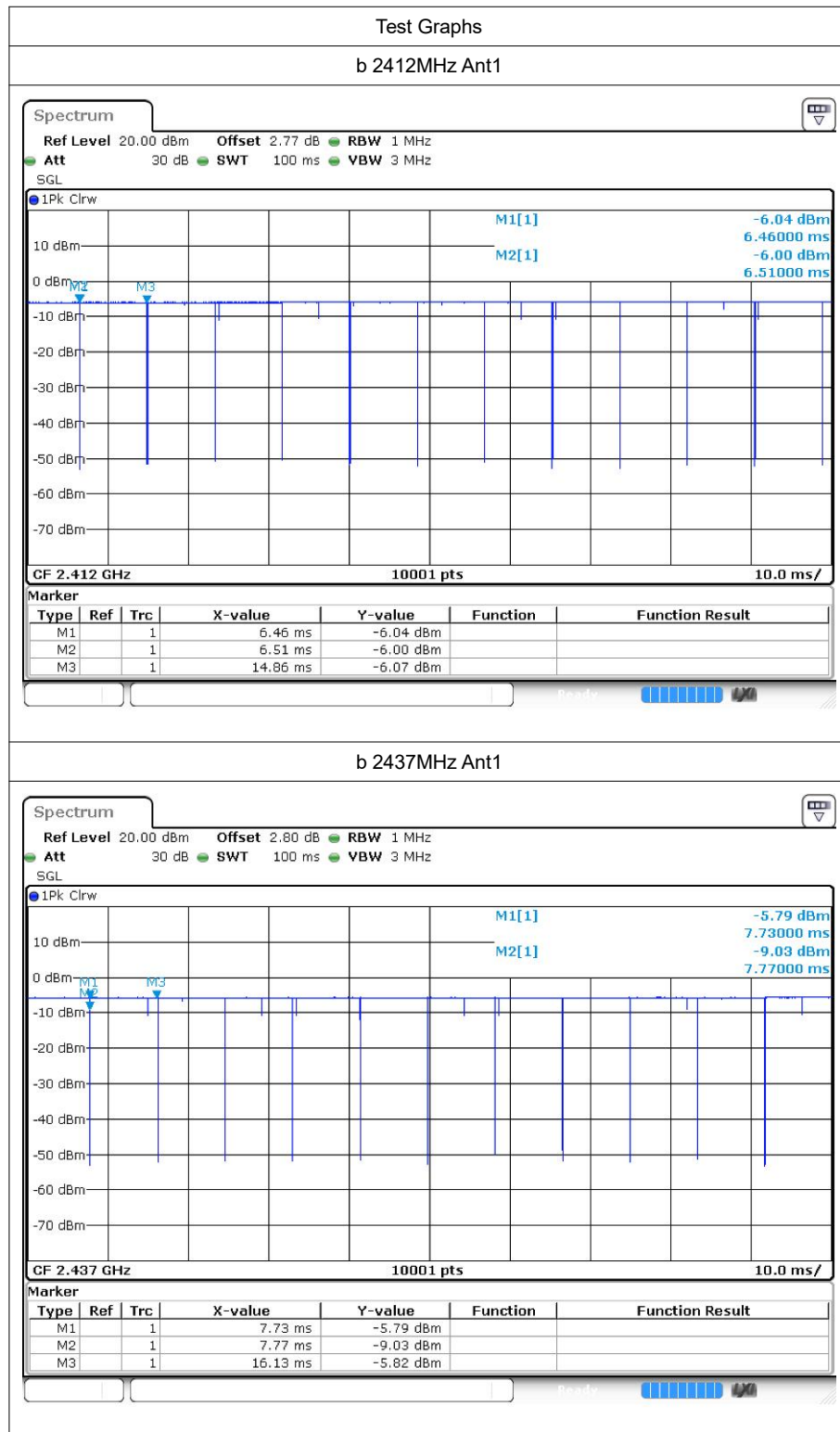


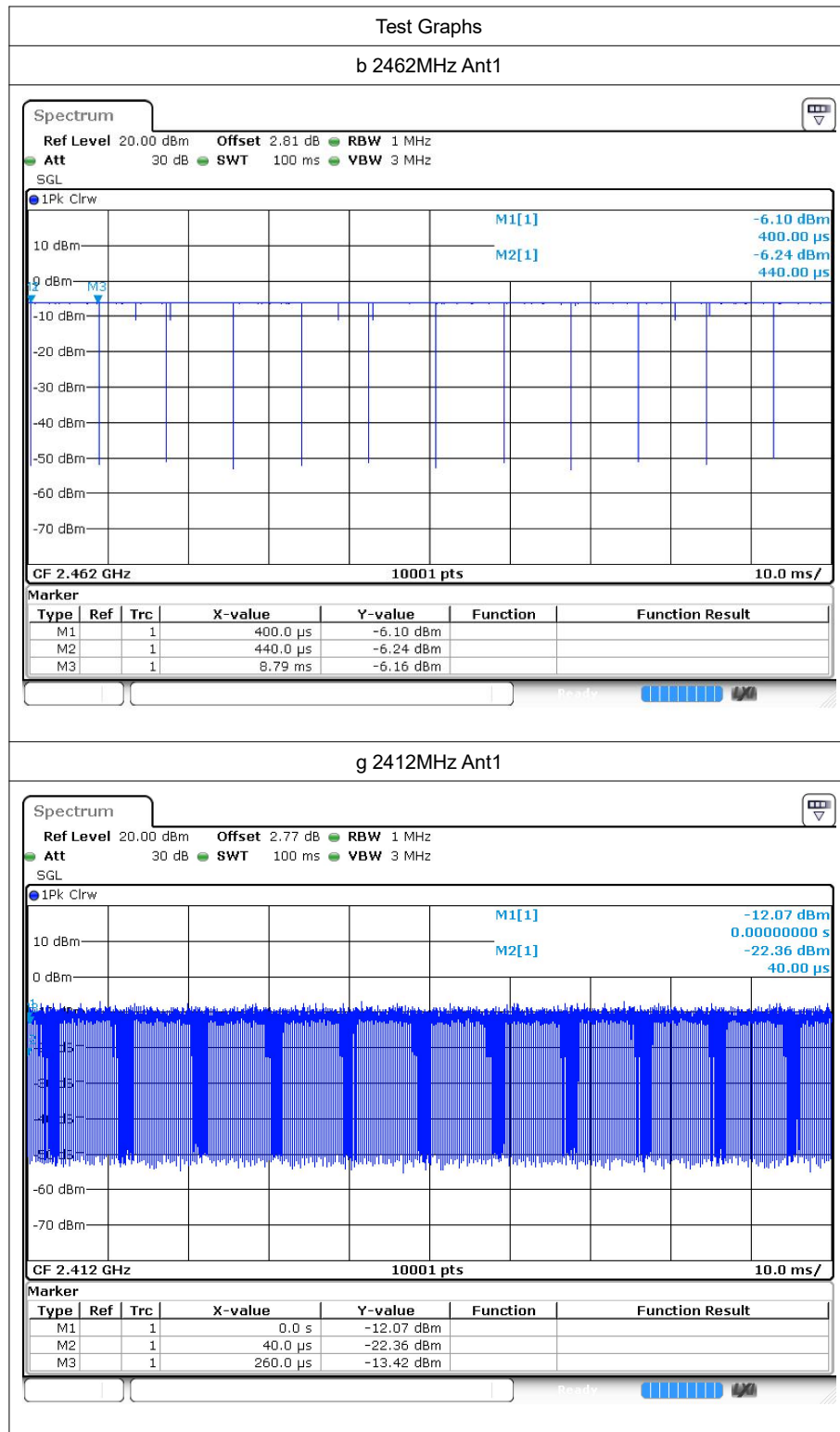
1 Duty Cycle

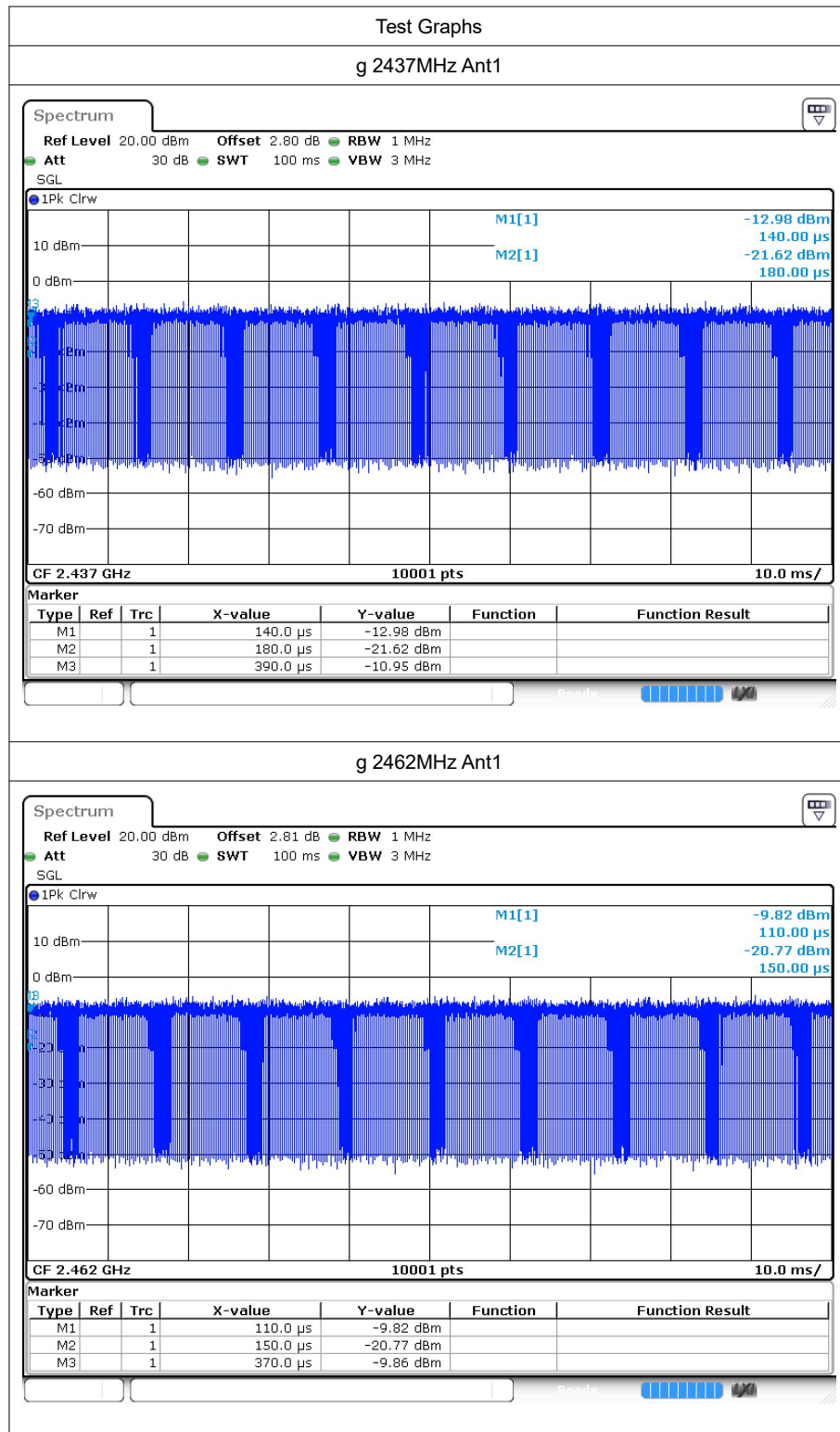
1.1 Test Result

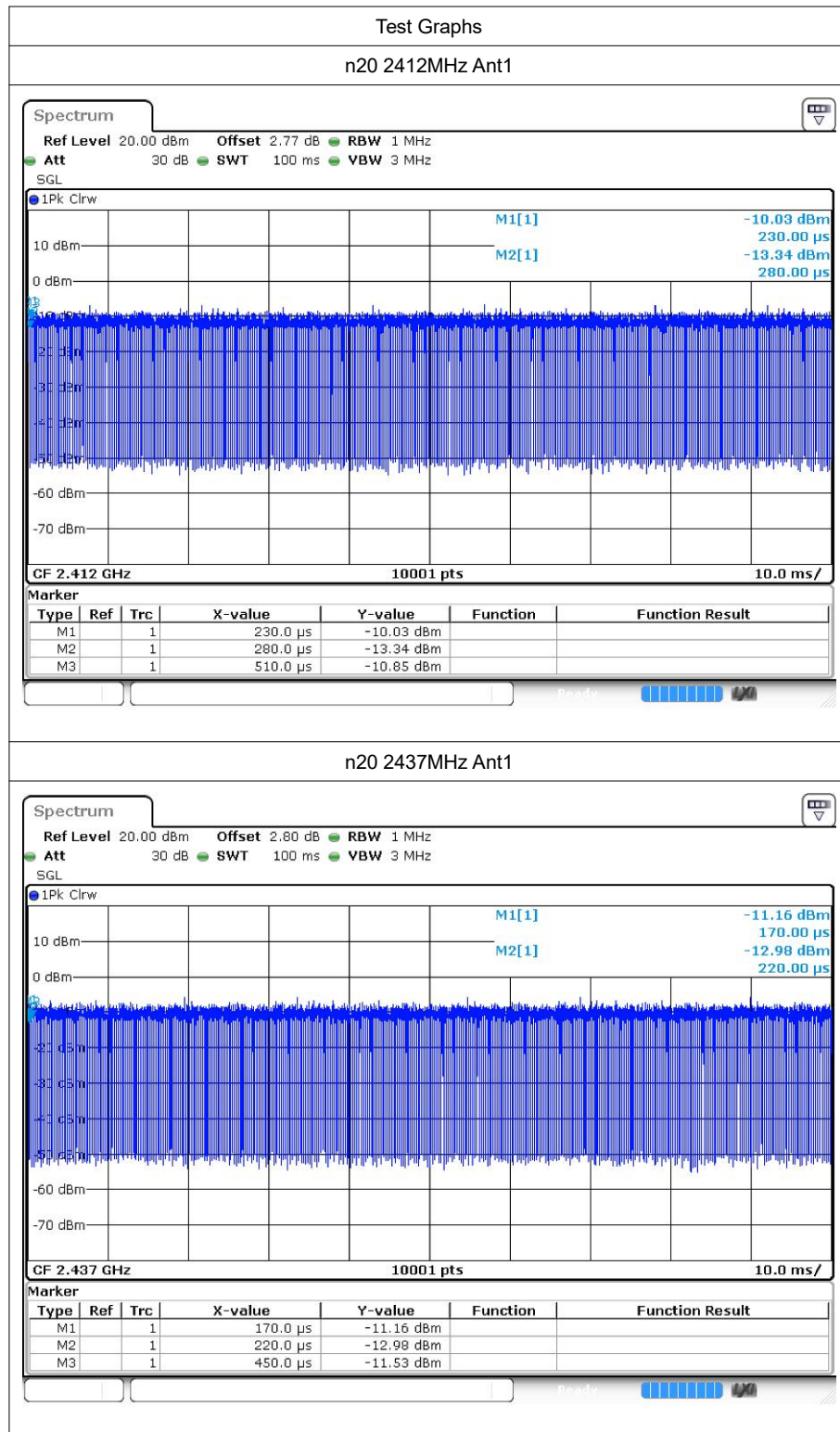
Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	1/T (kHz)
b	2412	Ant1	99.59	0.12
b	2437	Ant1	99.63	0.12
b	2462	Ant1	99.6	0.12
g	2412	Ant1	86.5	4.55
g	2437	Ant1	86.75	4.76
g	2462	Ant1	86.88	4.55
n20	2412	Ant1	87.38	4.35
n20	2437	Ant1	87.39	4.35
n20	2462	Ant1	87.43	4.17

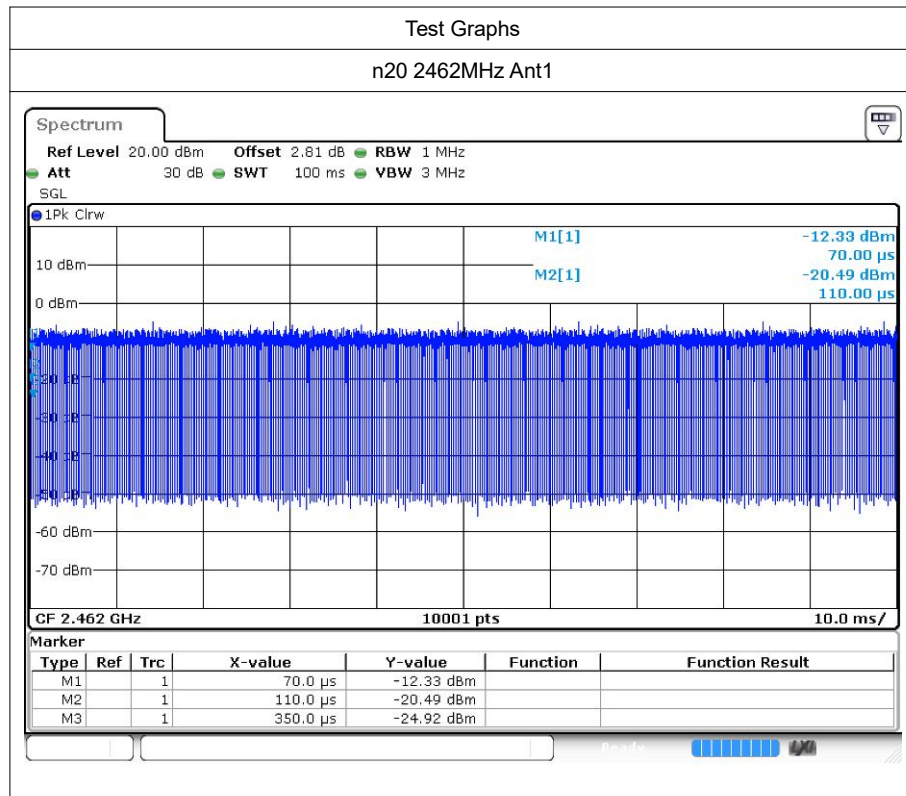
1.2 Test Graphs











2 Maximum Conducted Output Power

2.1 Test Result

Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
b	2412	Ant1	2.84	30	Pass
b	2437	Ant1	2.52	30	Pass
b	2462	Ant1	2.46	30	Pass
g	2412	Ant1	1.16	30	Pass
g	2437	Ant1	1.25	30	Pass
g	2462	Ant1	1.94	30	Pass
n20	2412	Ant1	1.2	30	Pass
n20	2437	Ant1	1.17	30	Pass
n20	2462	Ant1	1.92	30	Pass

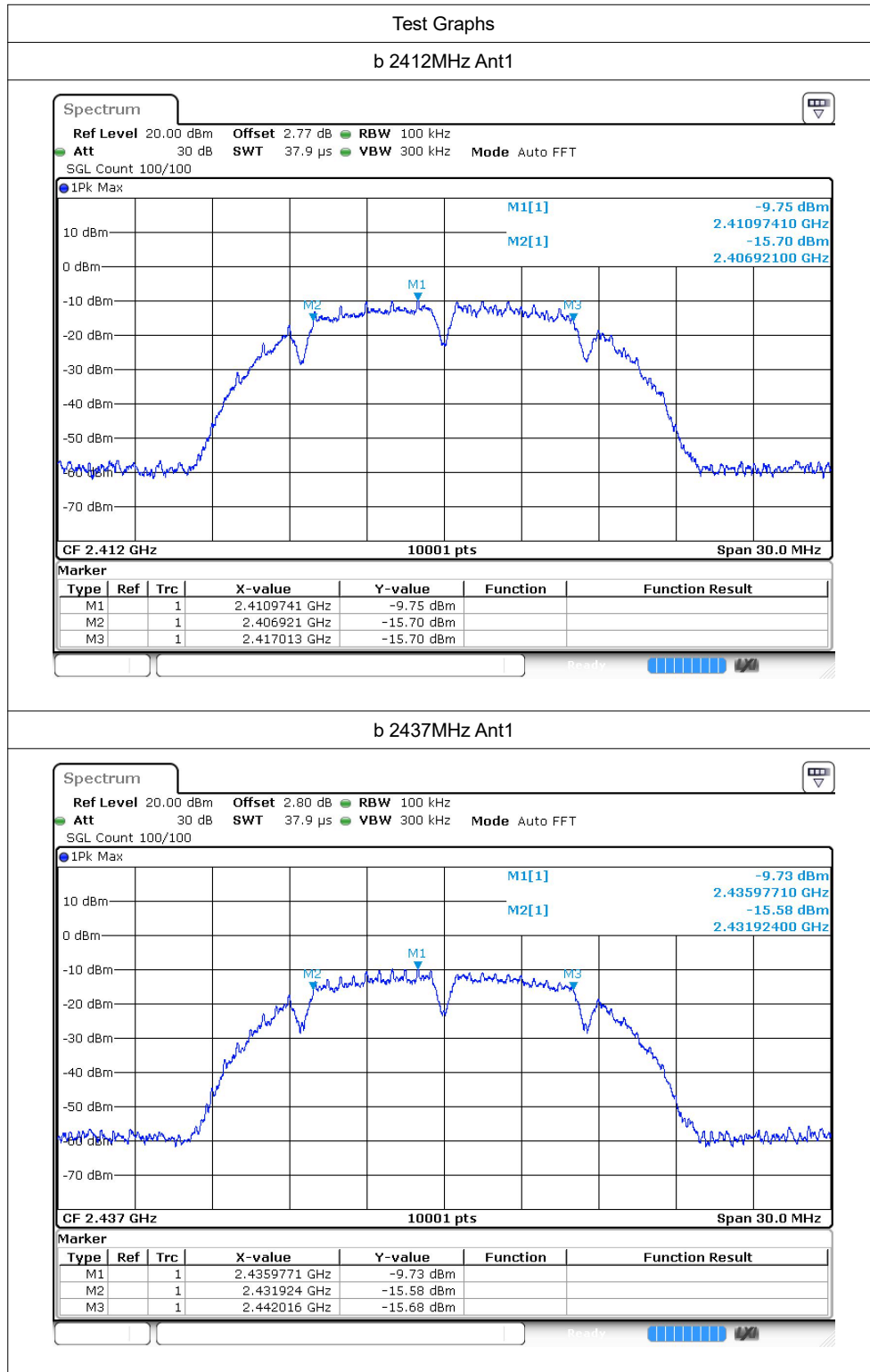


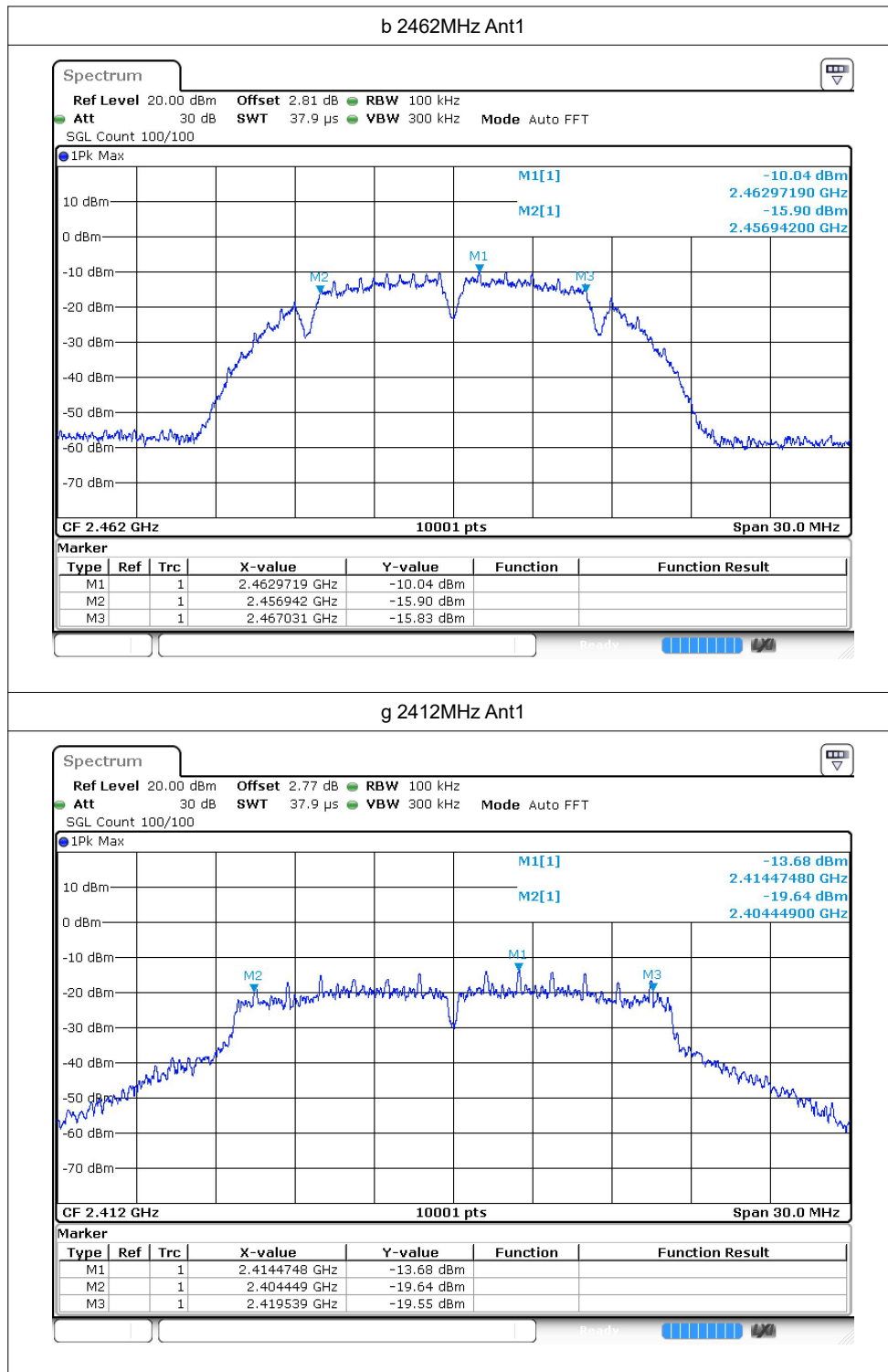
3 -6dB Bandwidth

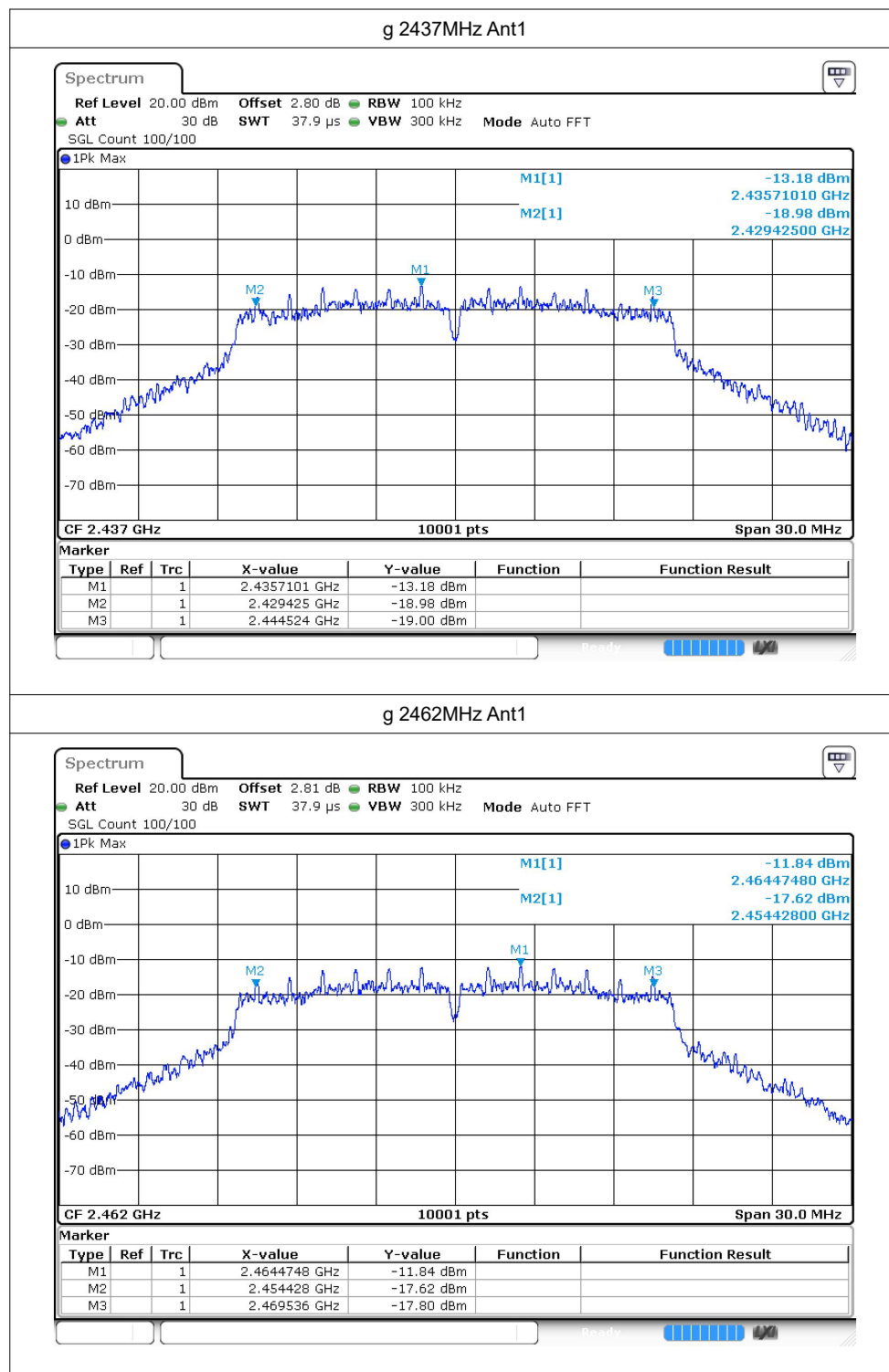
3.1 Test Result

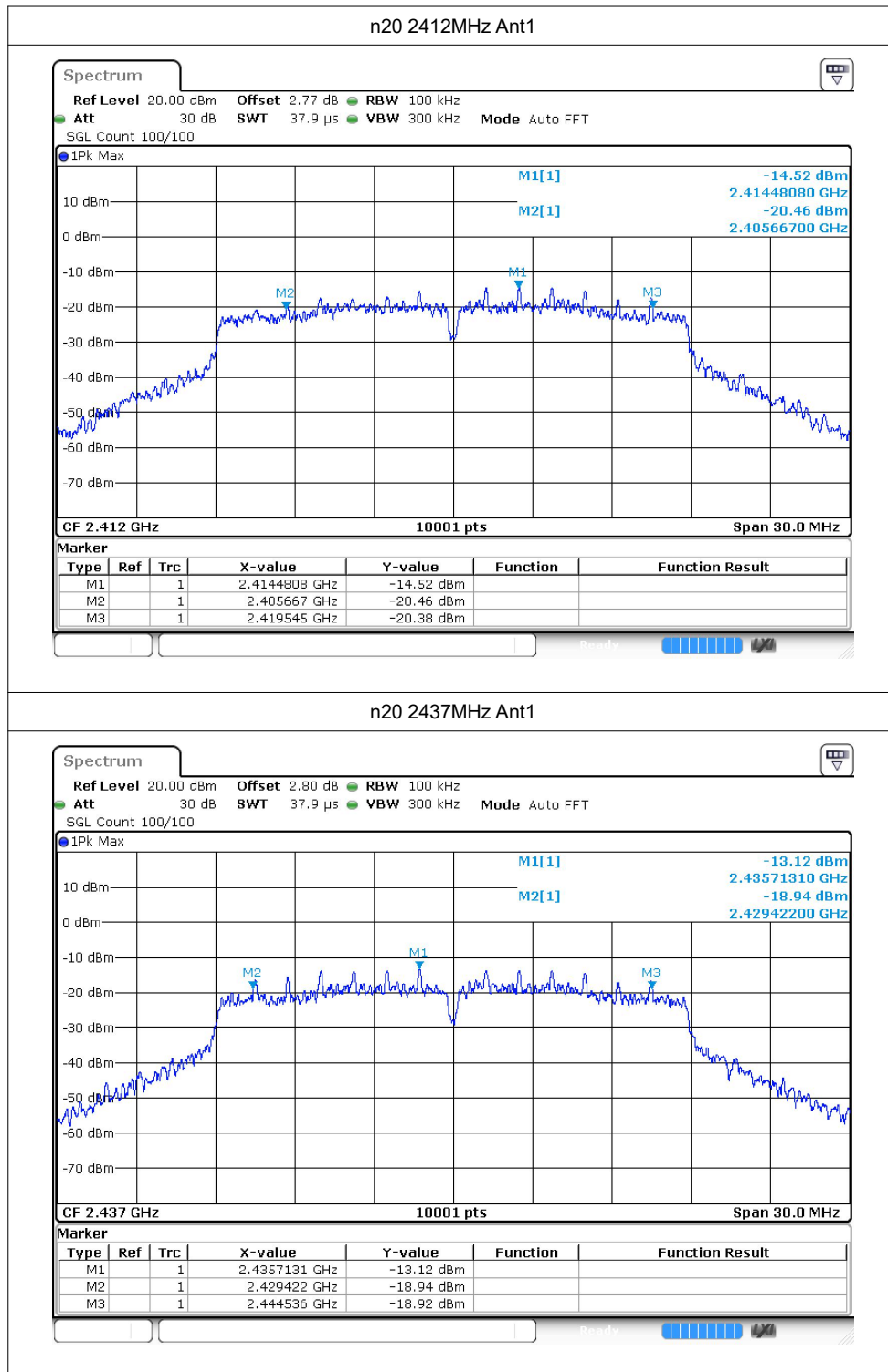
Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
b	2412	Ant1	10.092	0.5	Pass
b	2437	Ant1	10.092	0.5	Pass
b	2462	Ant1	10.089	0.5	Pass
g	2412	Ant1	15.09	0.5	Pass
g	2437	Ant1	15.099	0.5	Pass
g	2462	Ant1	15.108	0.5	Pass
n20	2412	Ant1	13.878	0.5	Pass
n20	2437	Ant1	15.114	0.5	Pass
n20	2462	Ant1	15.111	0.5	Pass

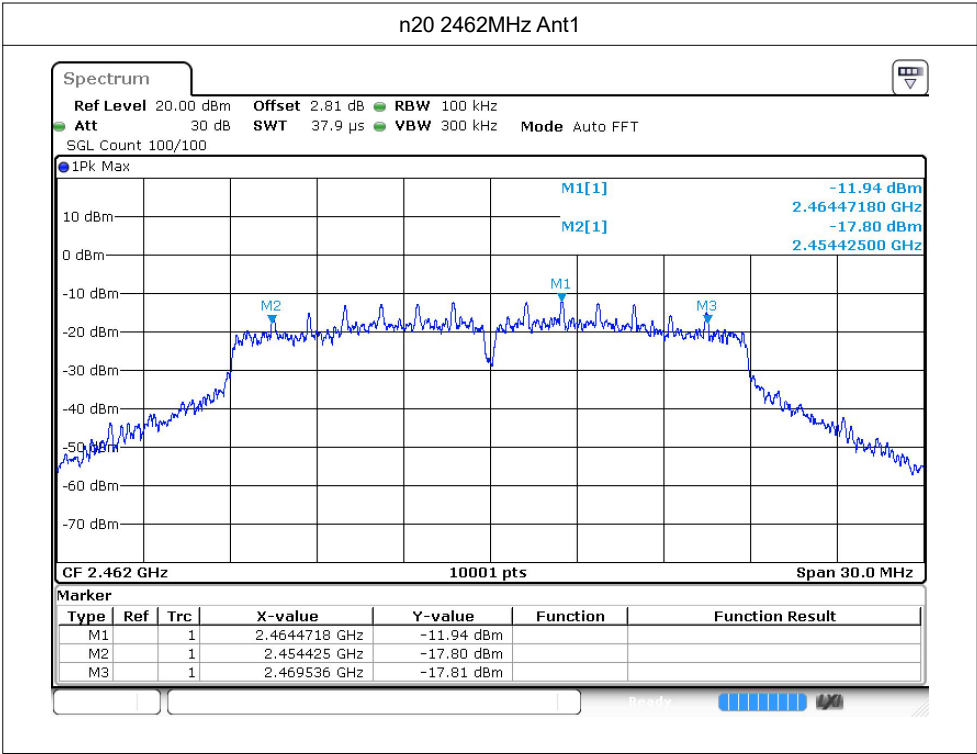
3.2 Test Graphs









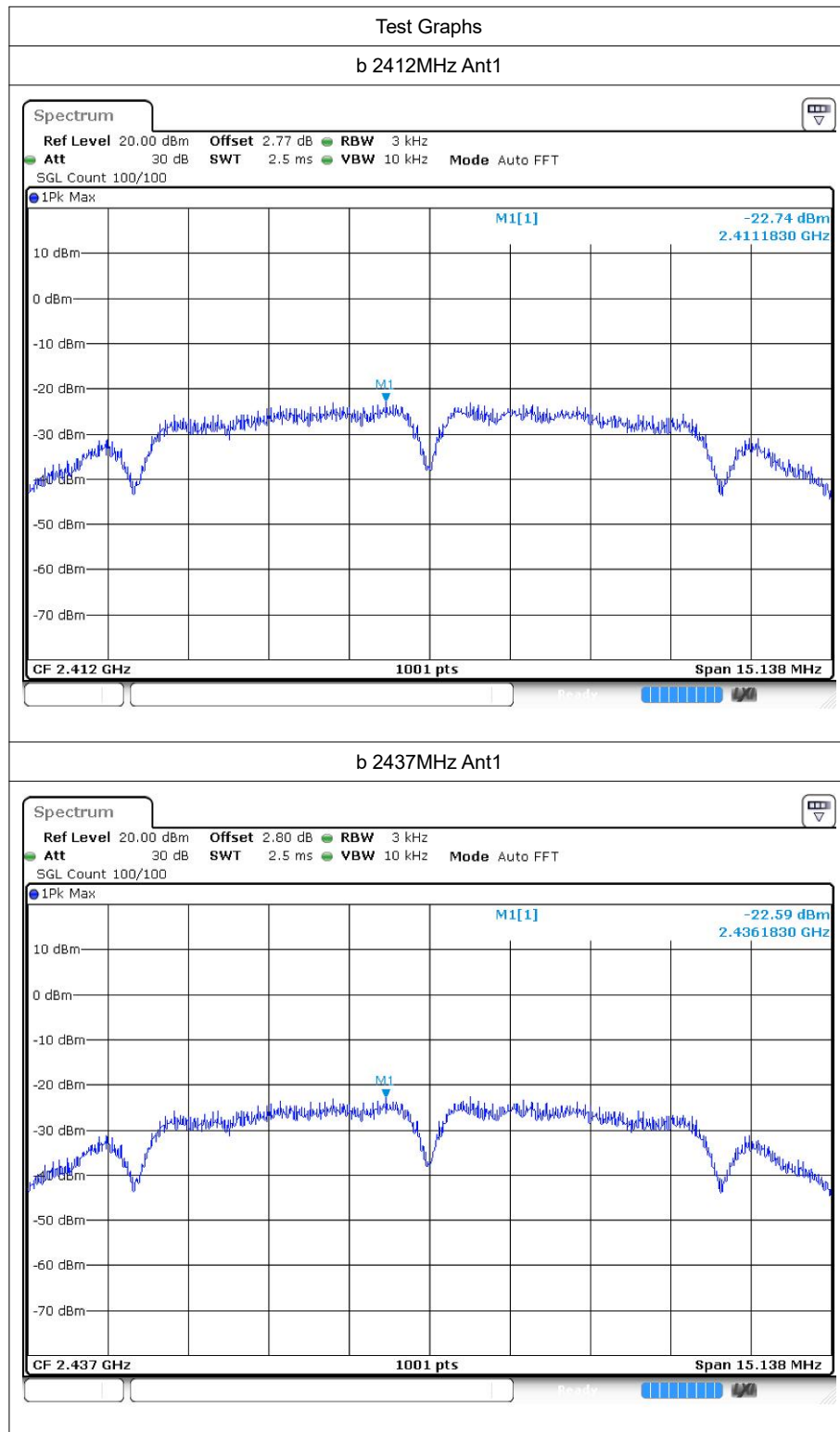


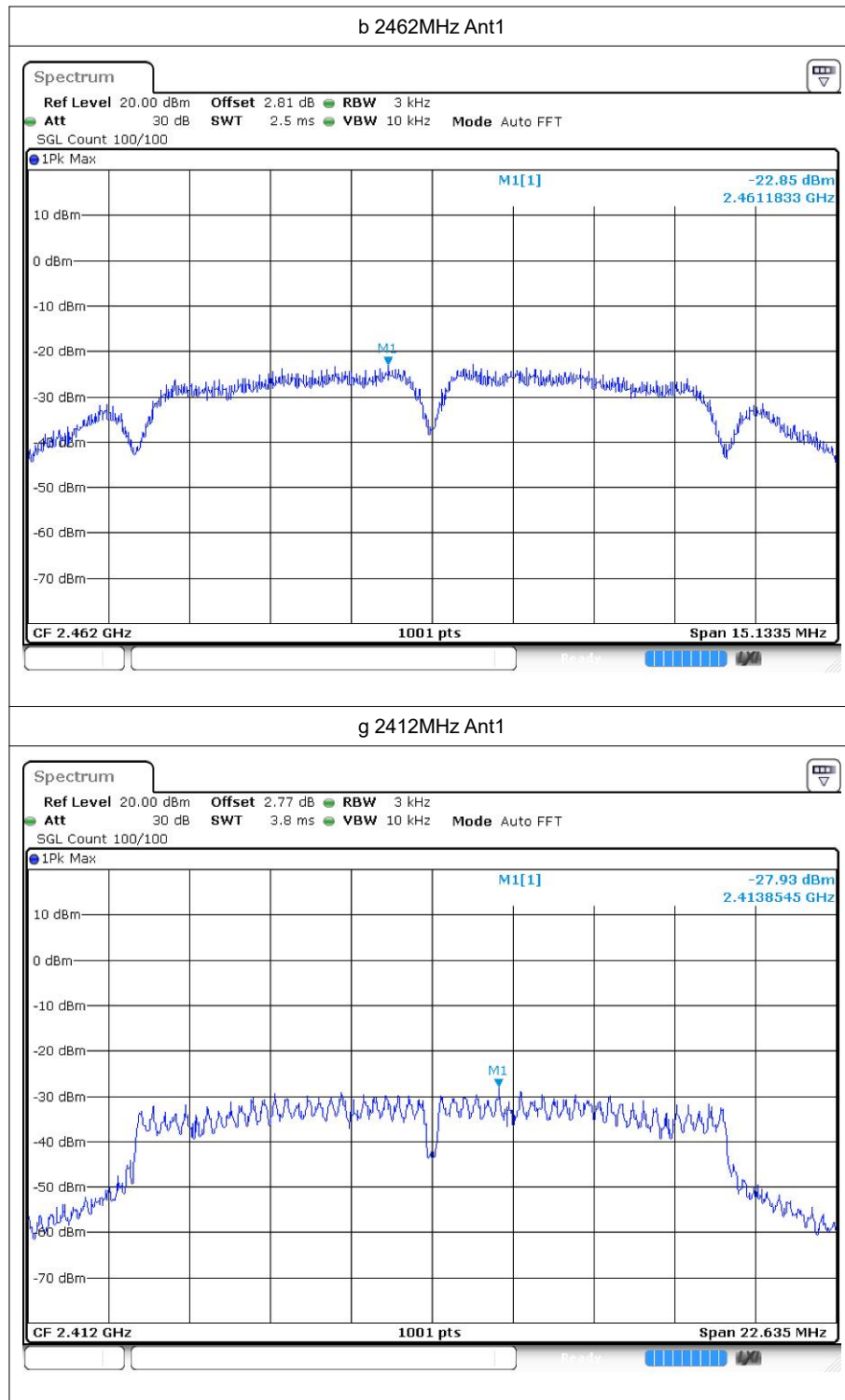
4 Maximum Power Spectral Density Level

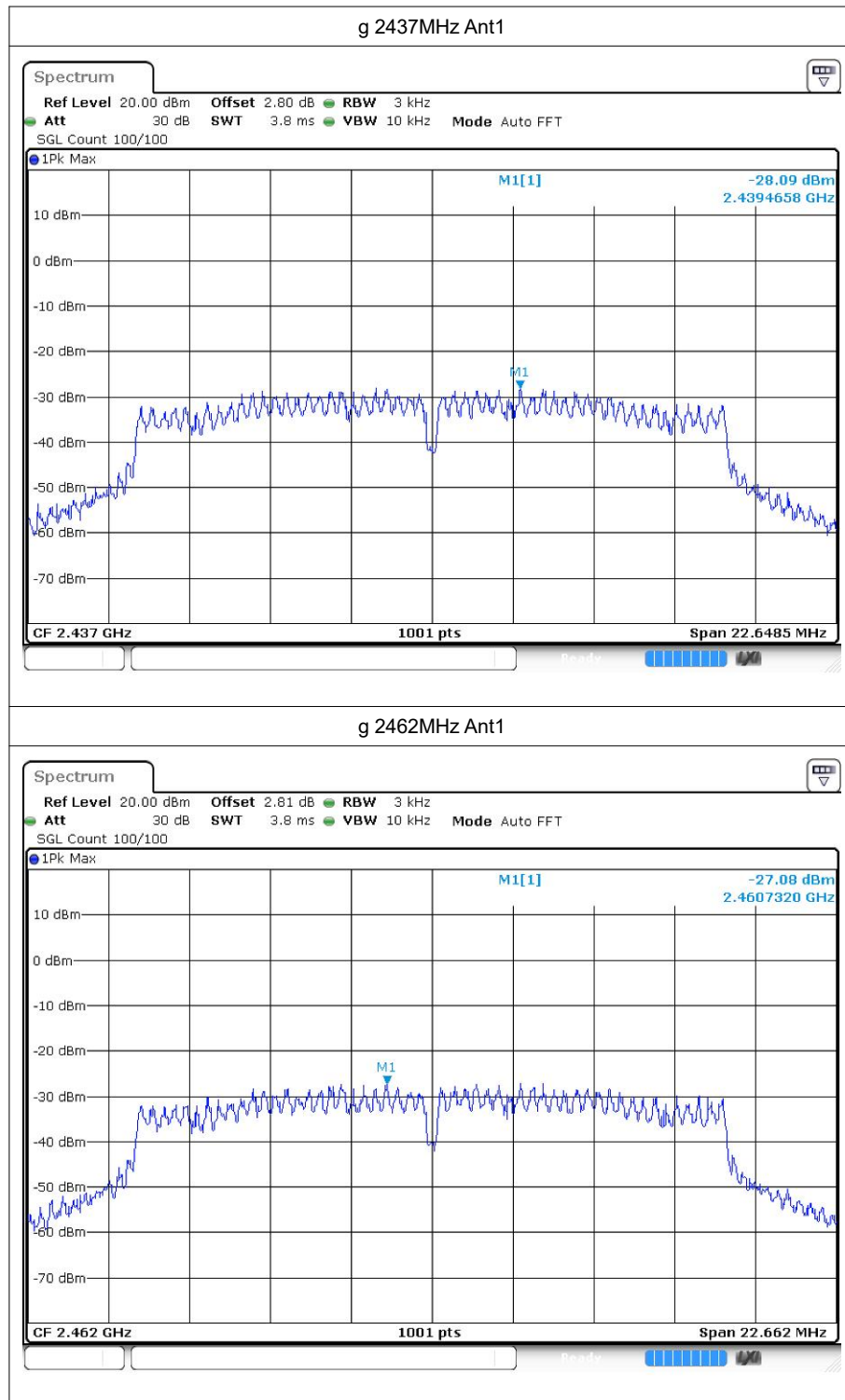
4.1 Test Result

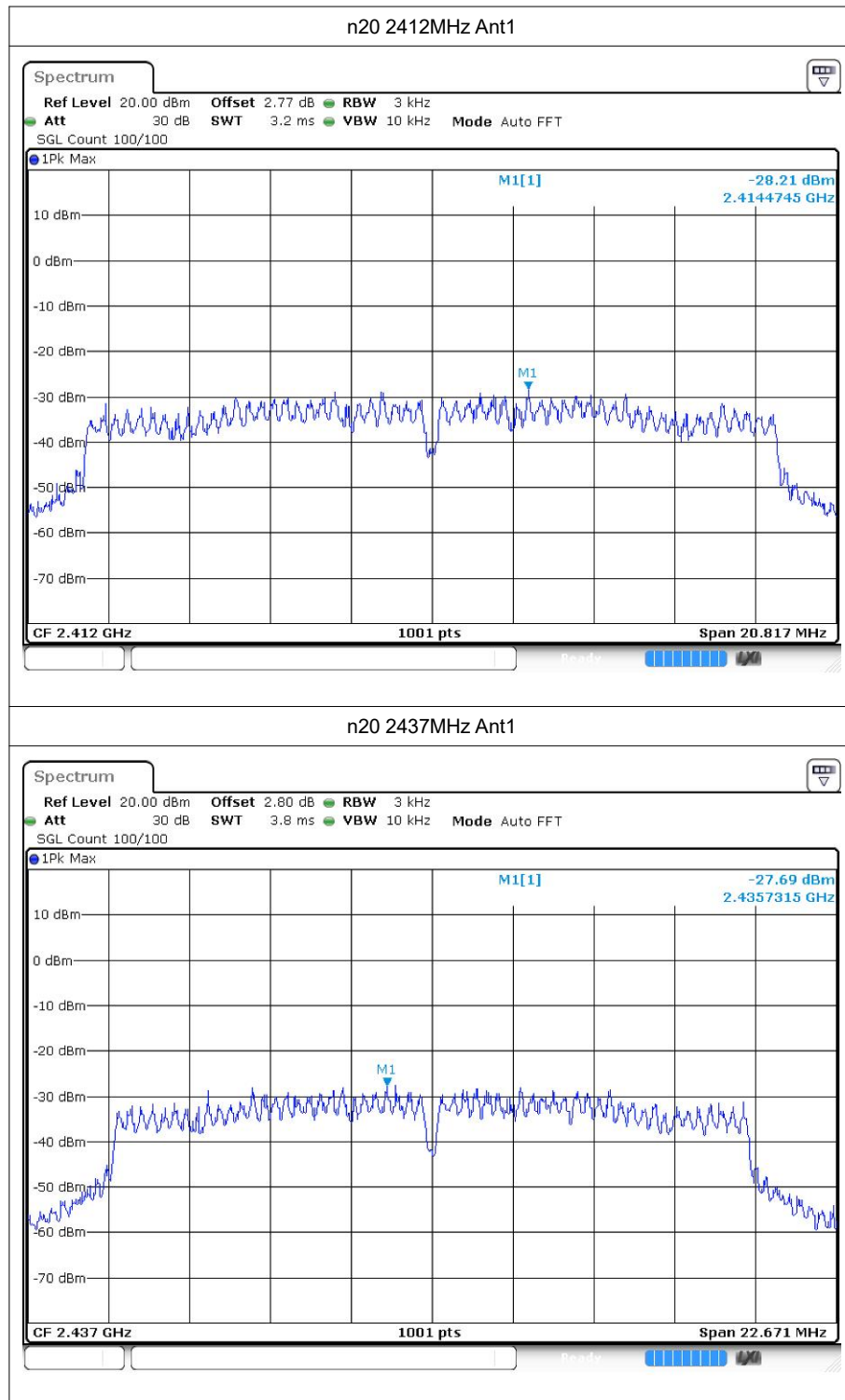
Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3-100kHz)	Limit (dBm/3kHz)	Verdict
b	2412	Ant1	-22.74	≤ 8	Pass
b	2437	Ant1	-22.59	≤ 8	Pass
b	2462	Ant1	-22.85	≤ 8	Pass
g	2412	Ant1	-27.93	≤ 8	Pass
g	2437	Ant1	-28.09	≤ 8	Pass
g	2462	Ant1	-27.08	≤ 8	Pass
n20	2412	Ant1	-28.21	≤ 8	Pass
n20	2437	Ant1	-27.69	≤ 8	Pass
n20	2462	Ant1	-26.92	≤ 8	Pass

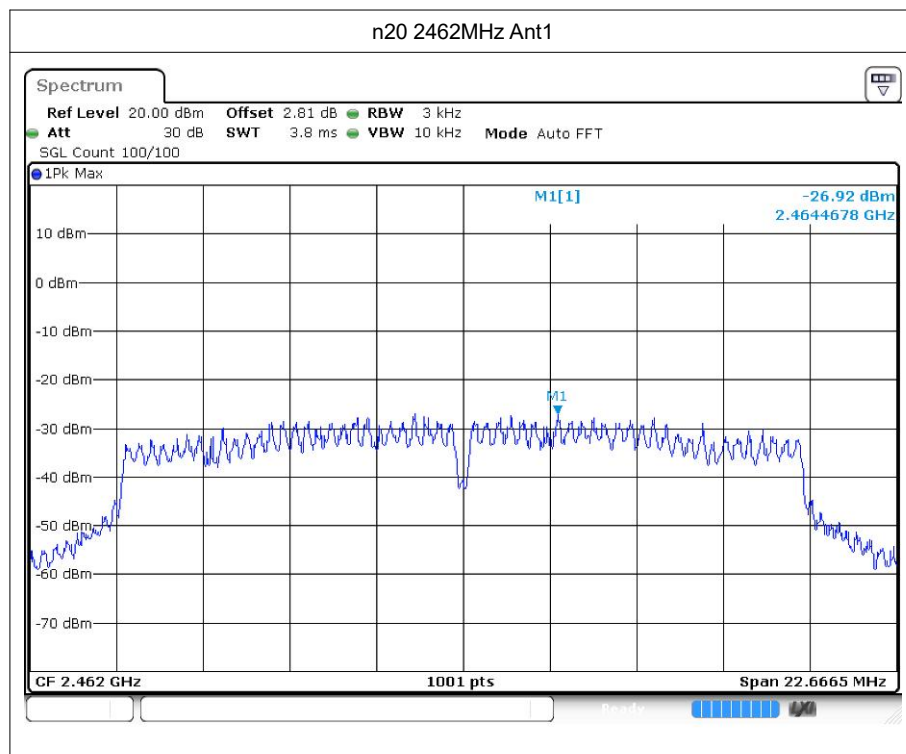
4.2 Test Graphs











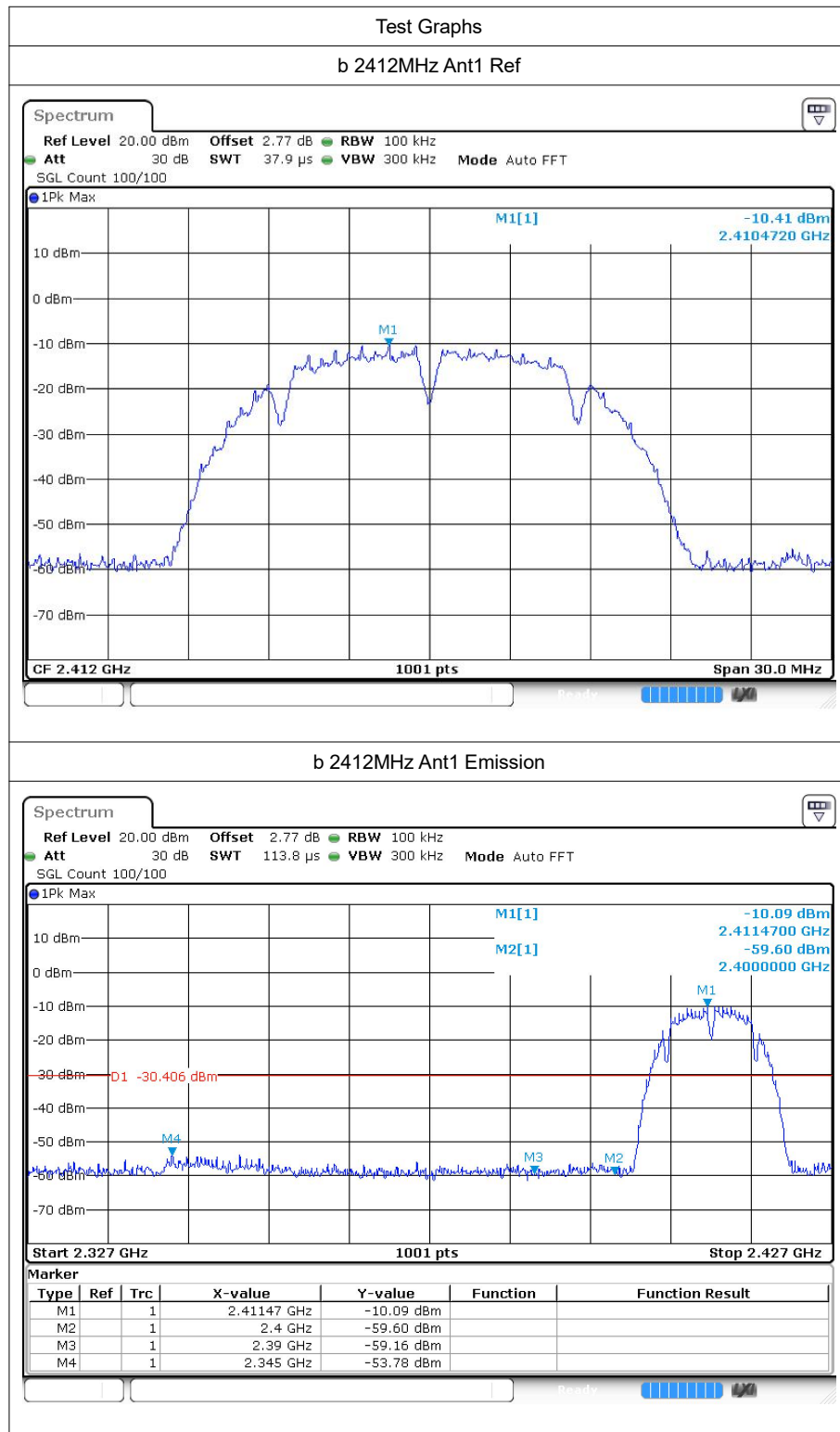


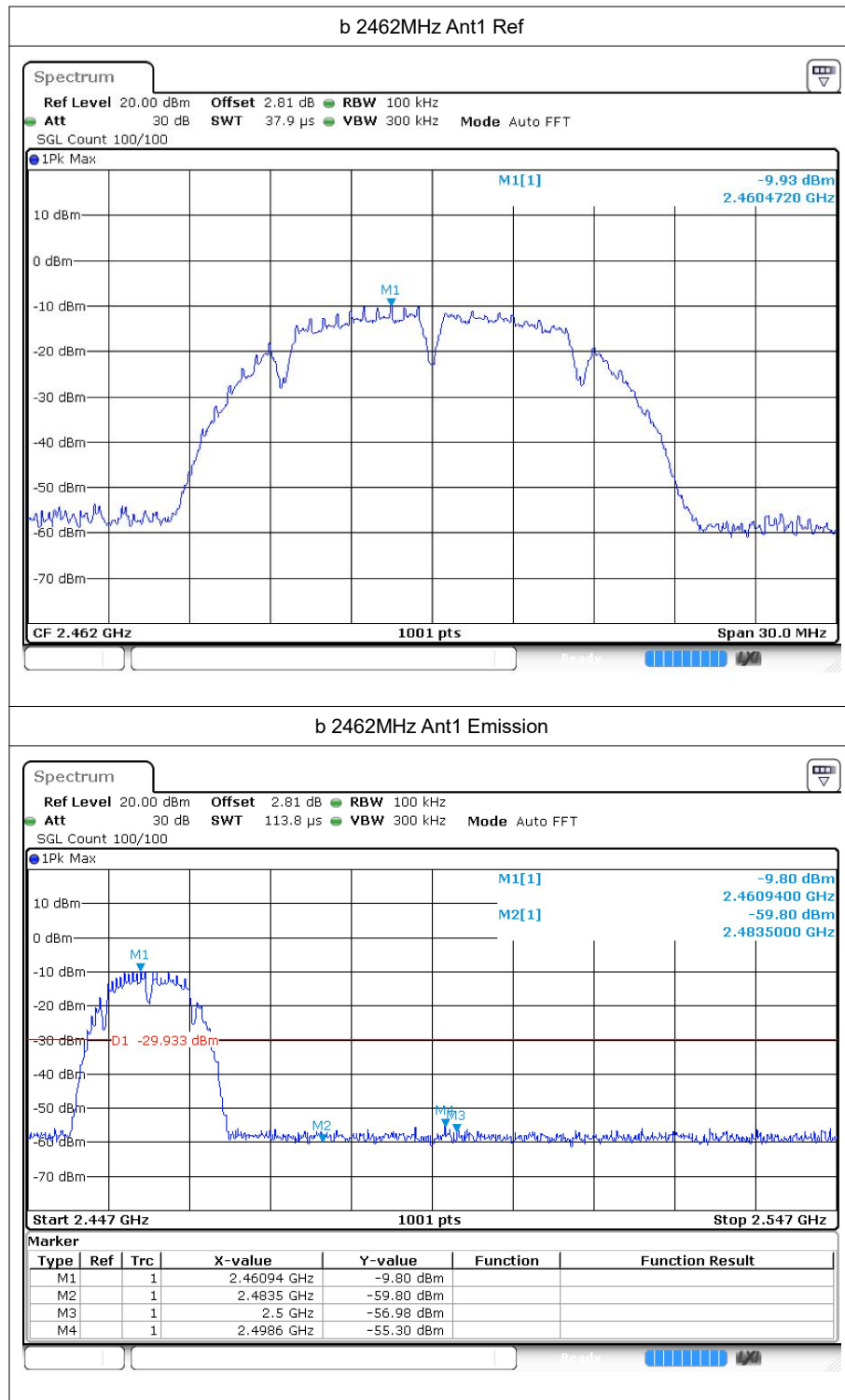
5 Band Edge

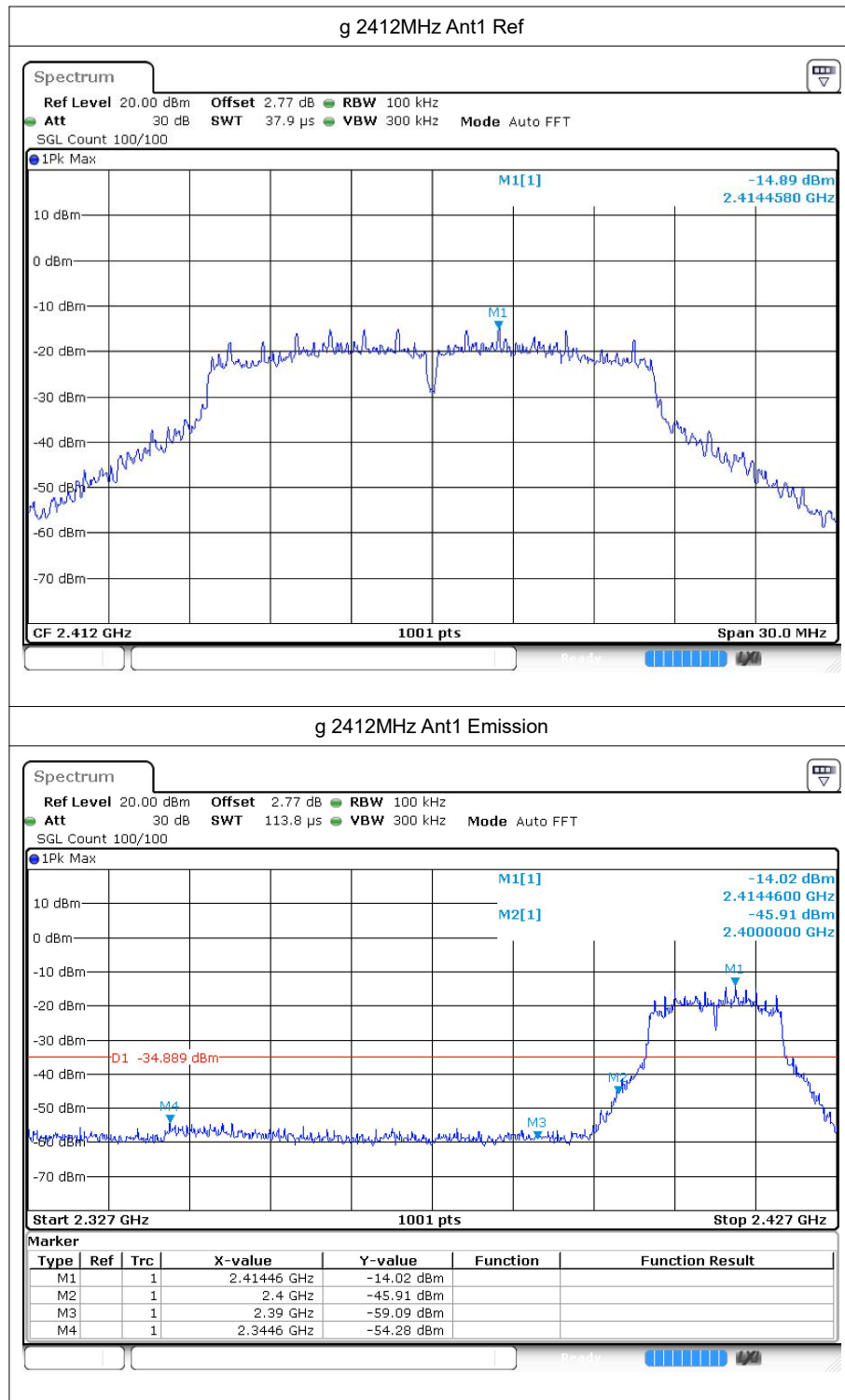
5.1 Test Result

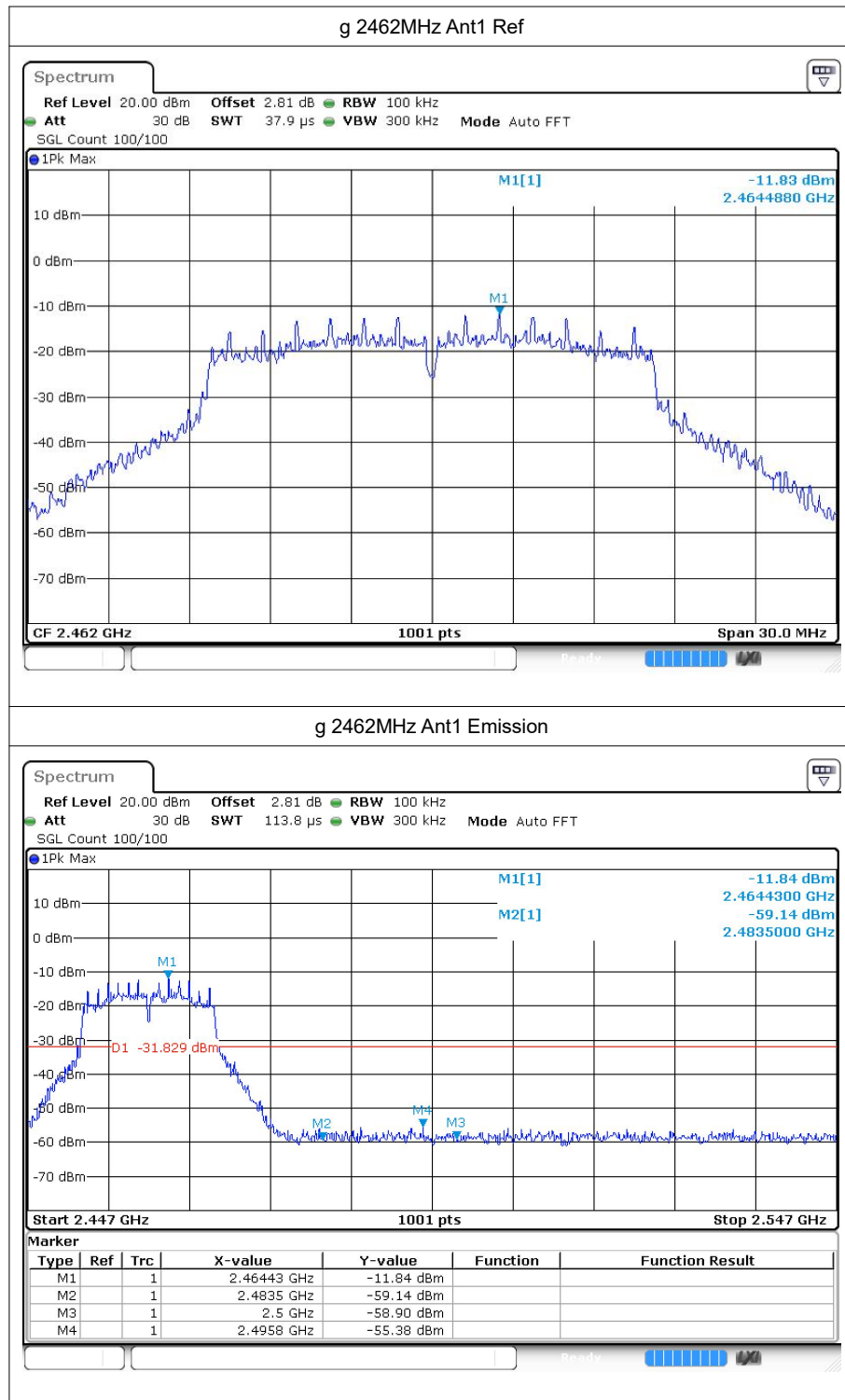
Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
b	2412	Ant1	-43.37	-20	-43.37
b	2462	Ant1	-45.37	-20	Pass
g	2412	Ant1	-39.39	-20	Pass
g	2462	Ant1	-43.54	-20	Pass
n20	2412	Ant1	-39.77	-20	Pass
n20	2462	Ant1	-42.65	-20	Pass

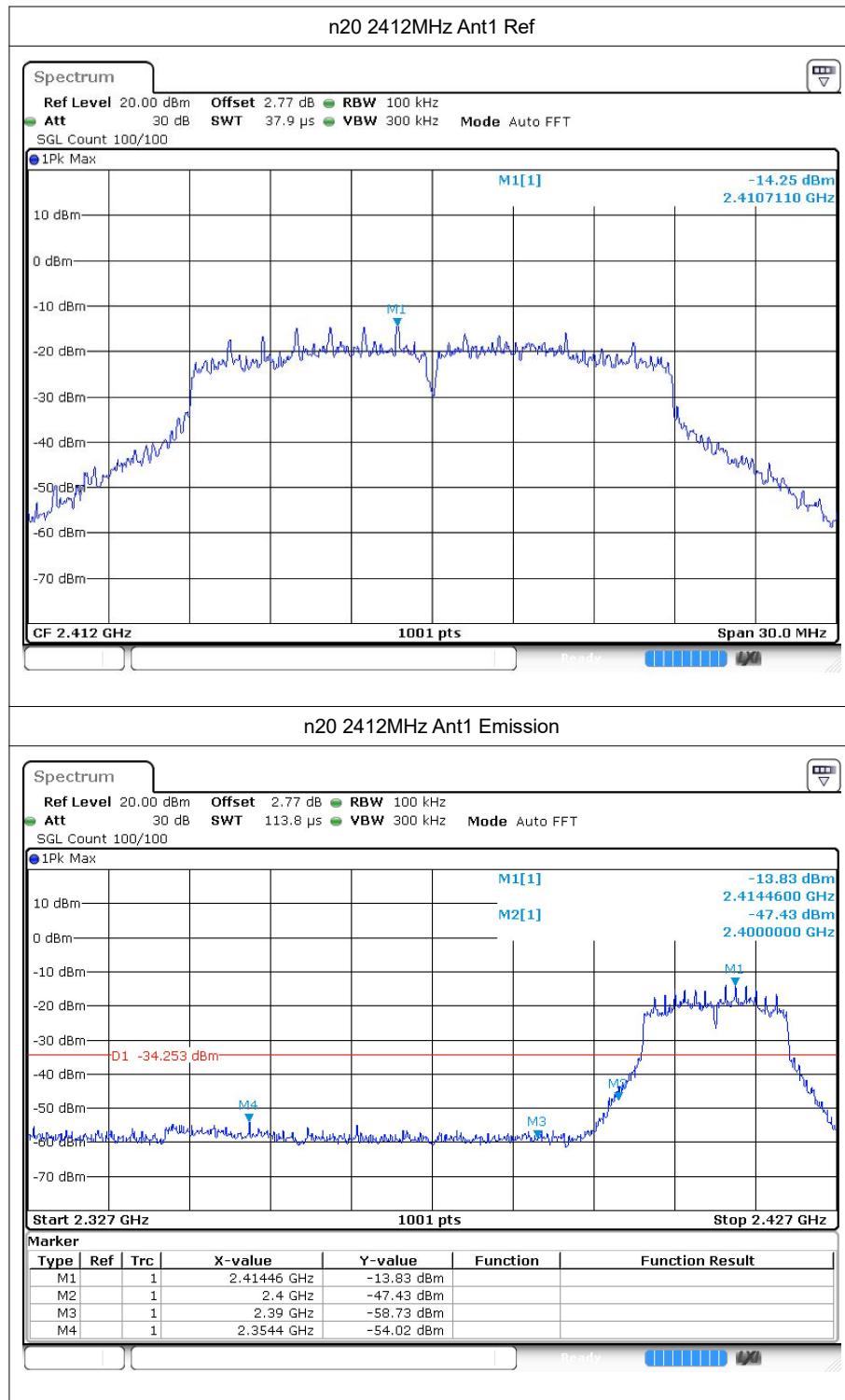
5.2 Test Graphs

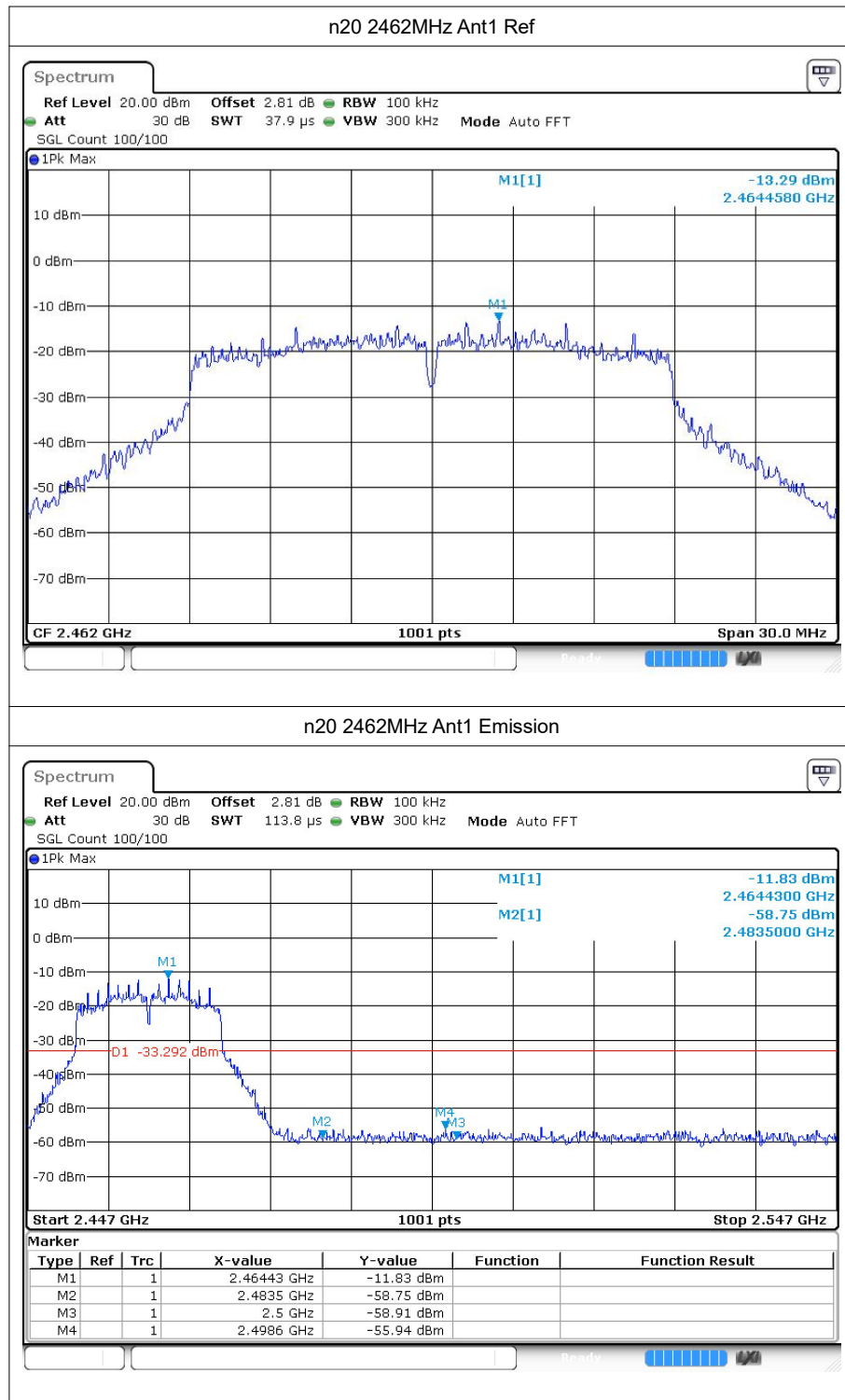














6 Conducted RF Spurious Emission

6.1 Test Result

Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
b	2412	Ant1	-33.63	-20	Pass
b	2437	Ant1	-34.05	-20	Pass
b	2462	Ant1	-33.13	-20	Pass
g	2412	Ant1	-27.72	-20	Pass
g	2437	Ant1	-29.54	-20	Pass
g	2462	Ant1	-30.88	-20	Pass
n20	2412	Ant1	-29.03	-20	Pass
n20	2437	Ant1	-28.03	-20	Pass
n20	2462	Ant1	-29.58	-20	Pass