



Appendix C

RF Test Data for 2.4GWIFI (Conducted Measurement)

Product Name: 3D printer

Trade Mark: ELEGOO

Test Model: NEPTUNE 4 PLUS

Environmental Conditions

Temperature:	24.6° C
Relative Humidity:	52.4%
ATM Pressure:	100.0 kPa
Test Engineer:	Emiya Lin
Supervised by:	Simba Huang



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

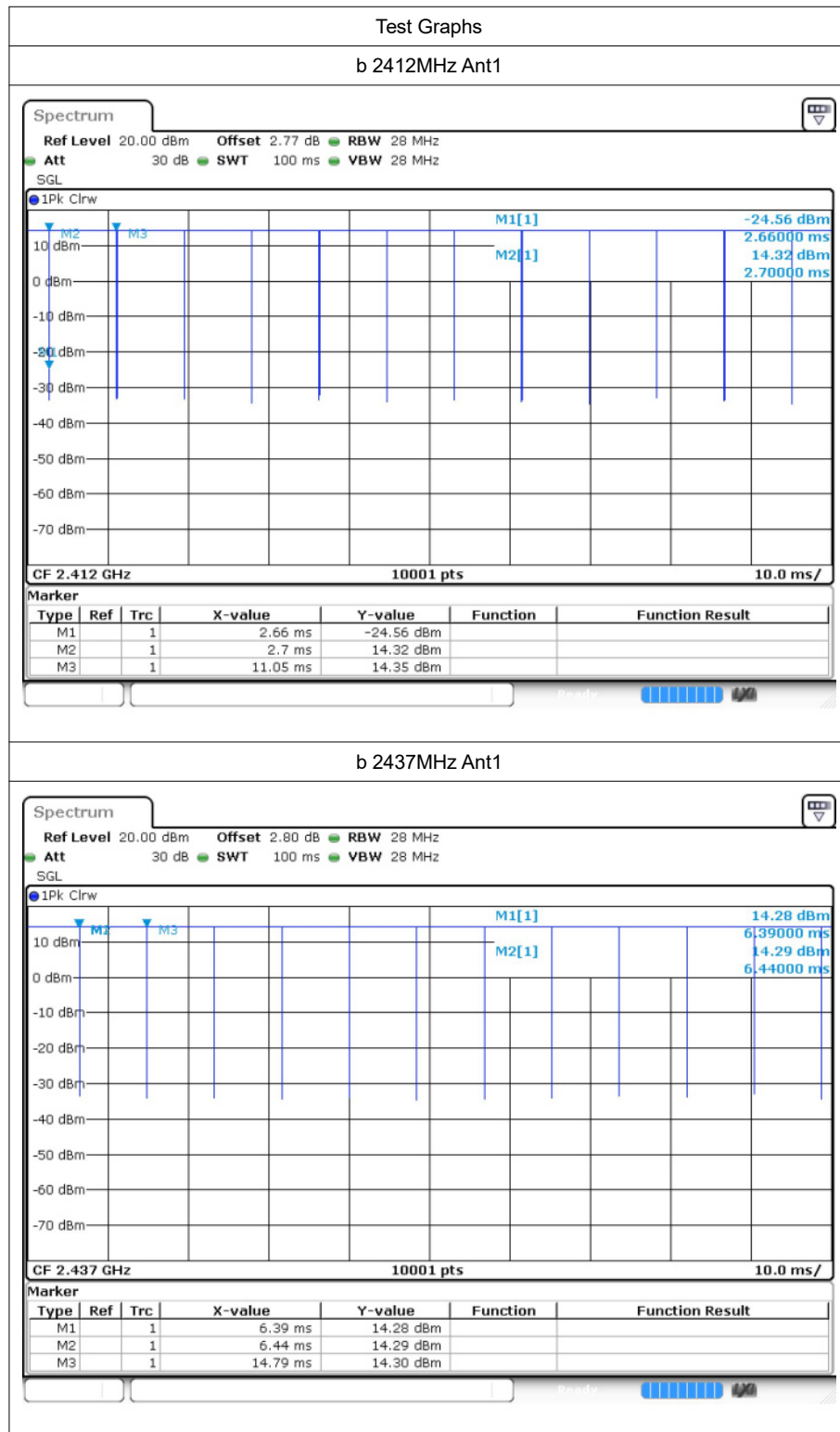


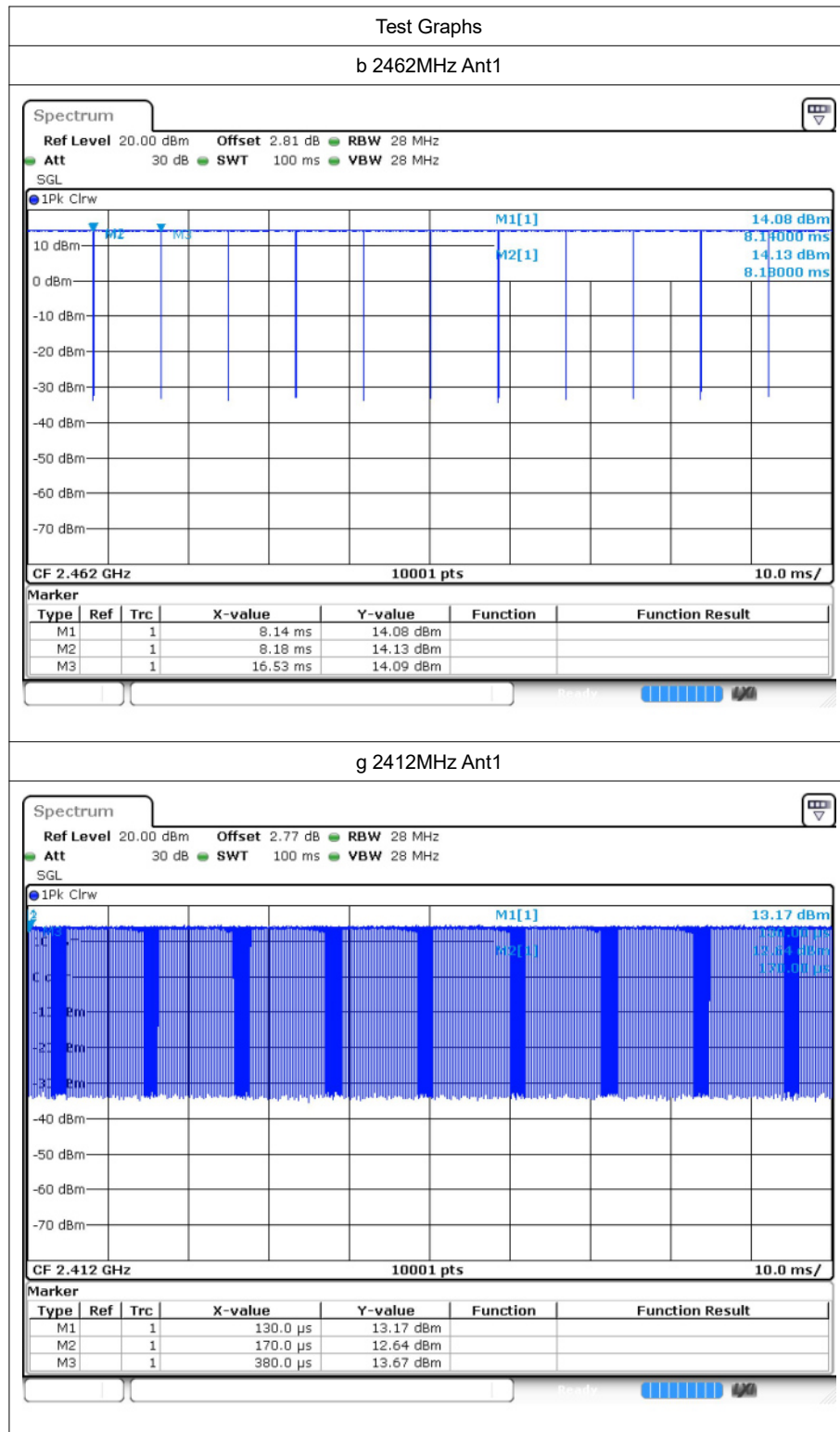
1 Duty Cycle

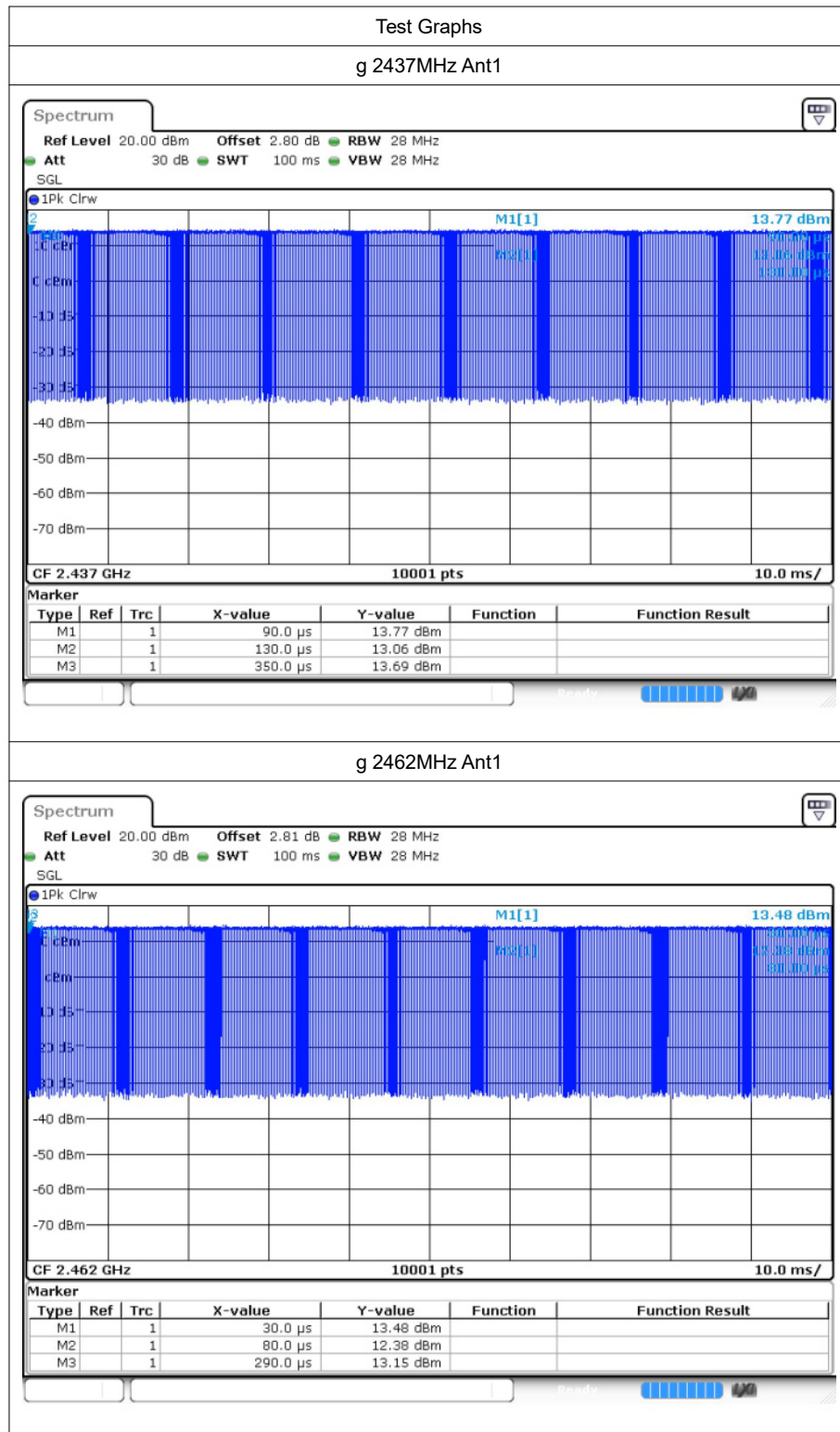
1.1 Test Result

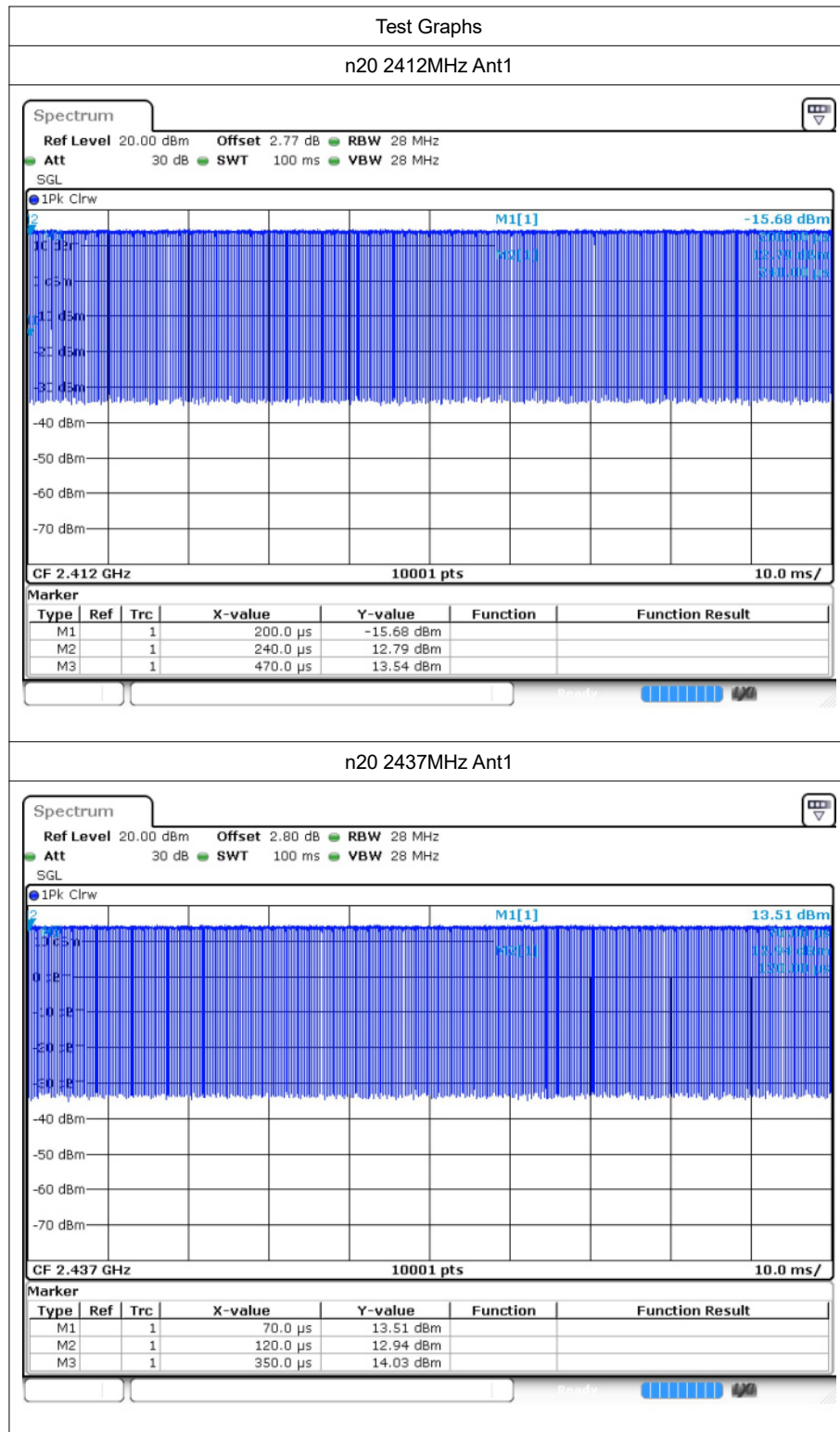
Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor	1/T (kHz)
b	2412	Ant1	99.6	0.02	0.12
b	2437	Ant1	99.59	0.02	0.12
b	2462	Ant1	99.63	0.02	0.12
g	2412	Ant1	86.88	0.61	4.76
g	2437	Ant1	86.84	0.61	4.55
g	2462	Ant1	86.83	0.61	4.76
n20	2412	Ant1	87.54	0.58	4.35
n20	2437	Ant1	87.49	0.58	4.35
n20	2462	Ant1	87.54	0.58	4.35

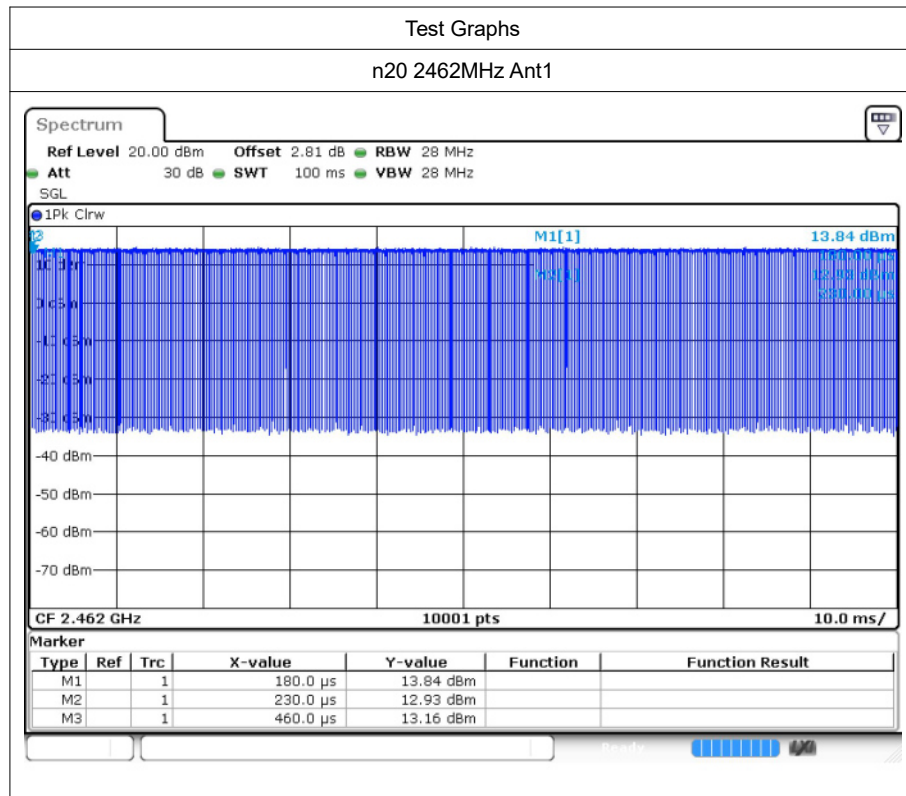
1.2 Test Graphs











2 Maximum Conducted Output Power

2.1 Test Result

Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
b	2412	Ant1	15.42	30	Pass
b	2437	Ant1	15.4	30	Pass
b	2462	Ant1	15.2	30	Pass
g	2412	Ant1	14.84	30	Pass
g	2437	Ant1	15.64	30	Pass
g	2462	Ant1	15.52	30	Pass
n20	2412	Ant1	15.71	30	Pass
n20	2437	Ant1	15.68	30	Pass
n20	2462	Ant1	15.39	30	Pass

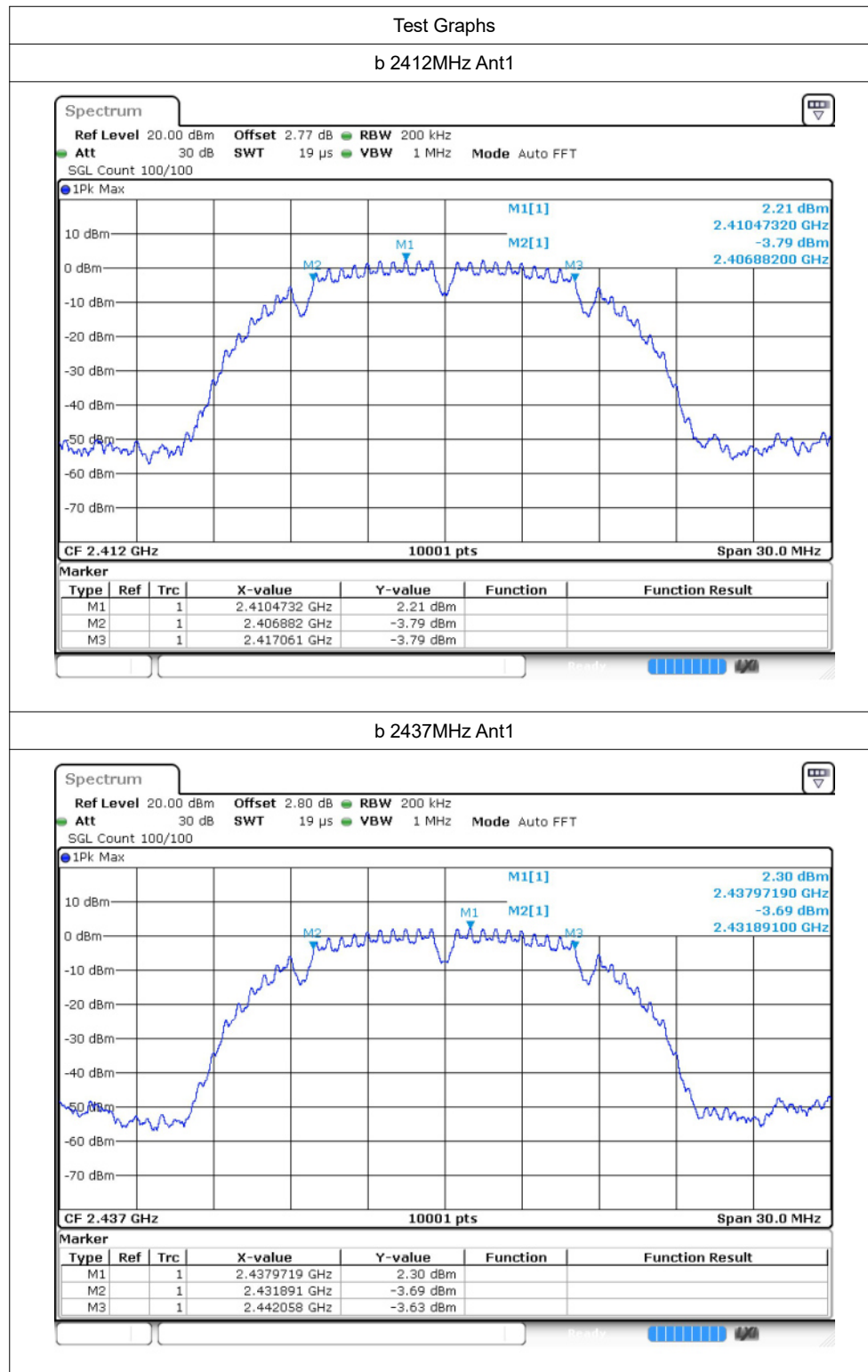


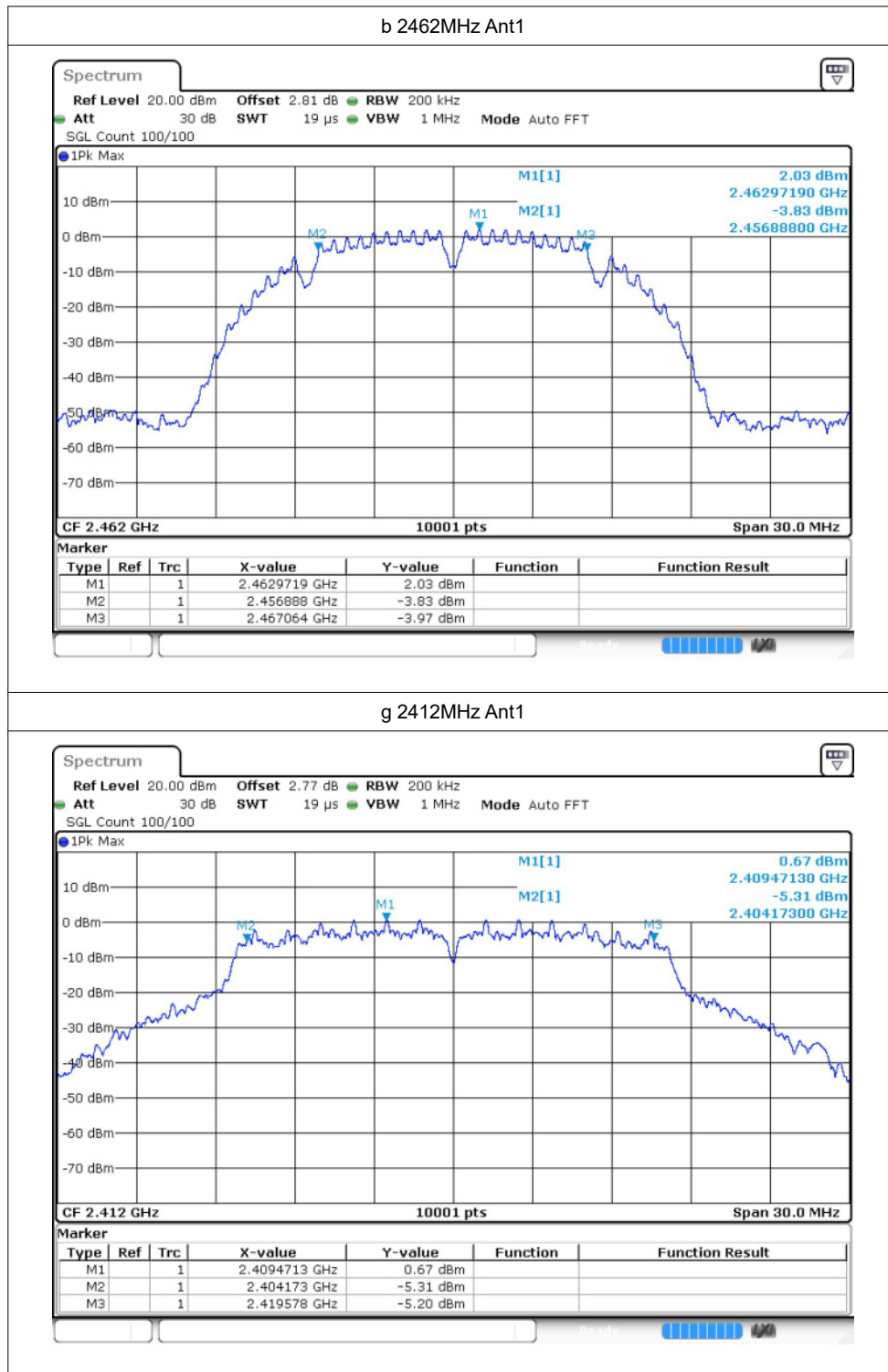
3 -6dB Bandwidth

3.1 Test Result

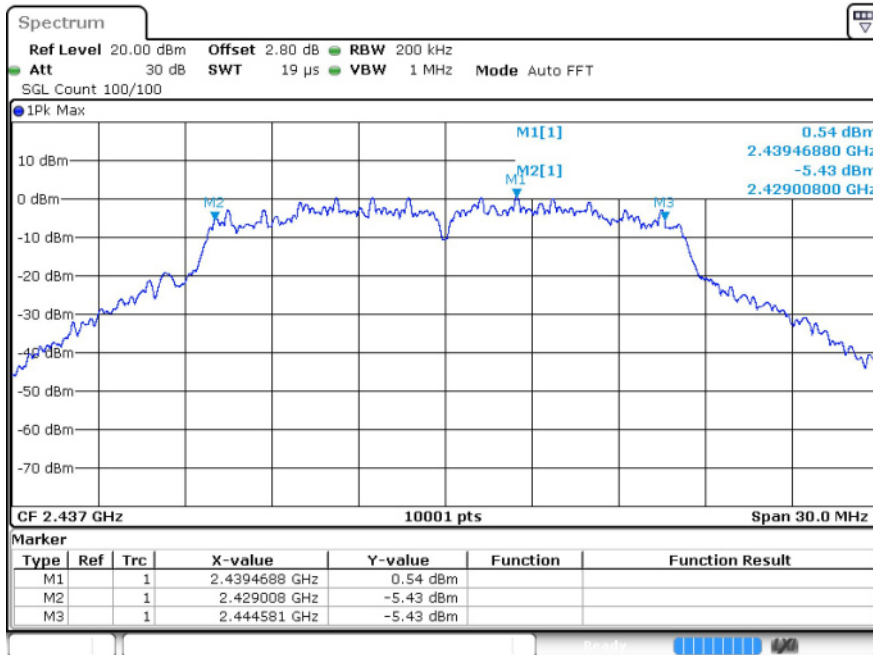
Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
b	2412	Ant1	10.179	0.5	Pass
b	2437	Ant1	10.167	0.5	Pass
b	2462	Ant1	10.176	0.5	Pass
g	2412	Ant1	15.405	0.5	Pass
g	2437	Ant1	15.573	0.5	Pass
g	2462	Ant1	15.375	0.5	Pass
n20	2412	Ant1	15.189	0.5	Pass
n20	2437	Ant1	15.333	0.5	Pass
n20	2462	Ant1	15.168	0.5	Pass

3.2 Test Graphs

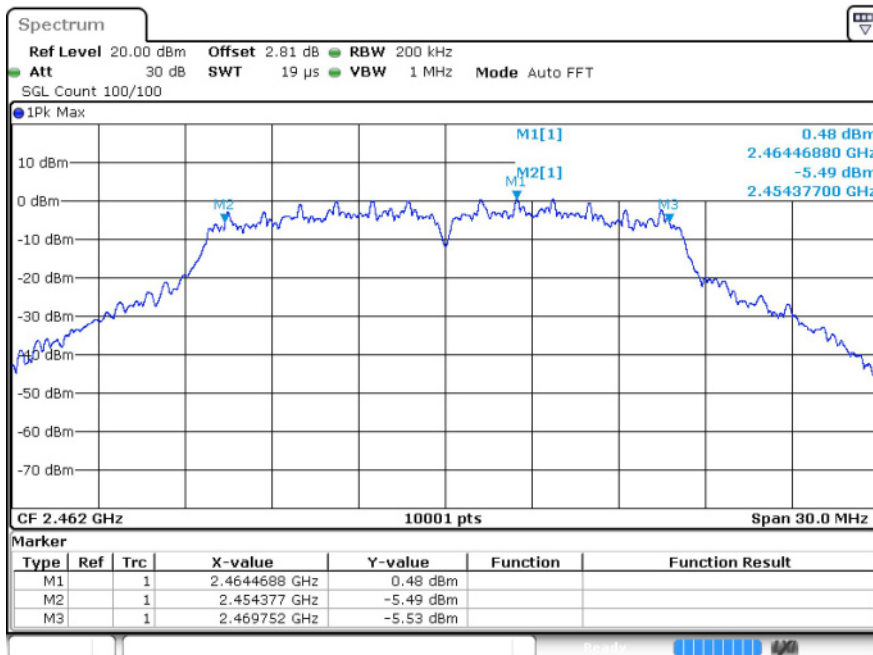


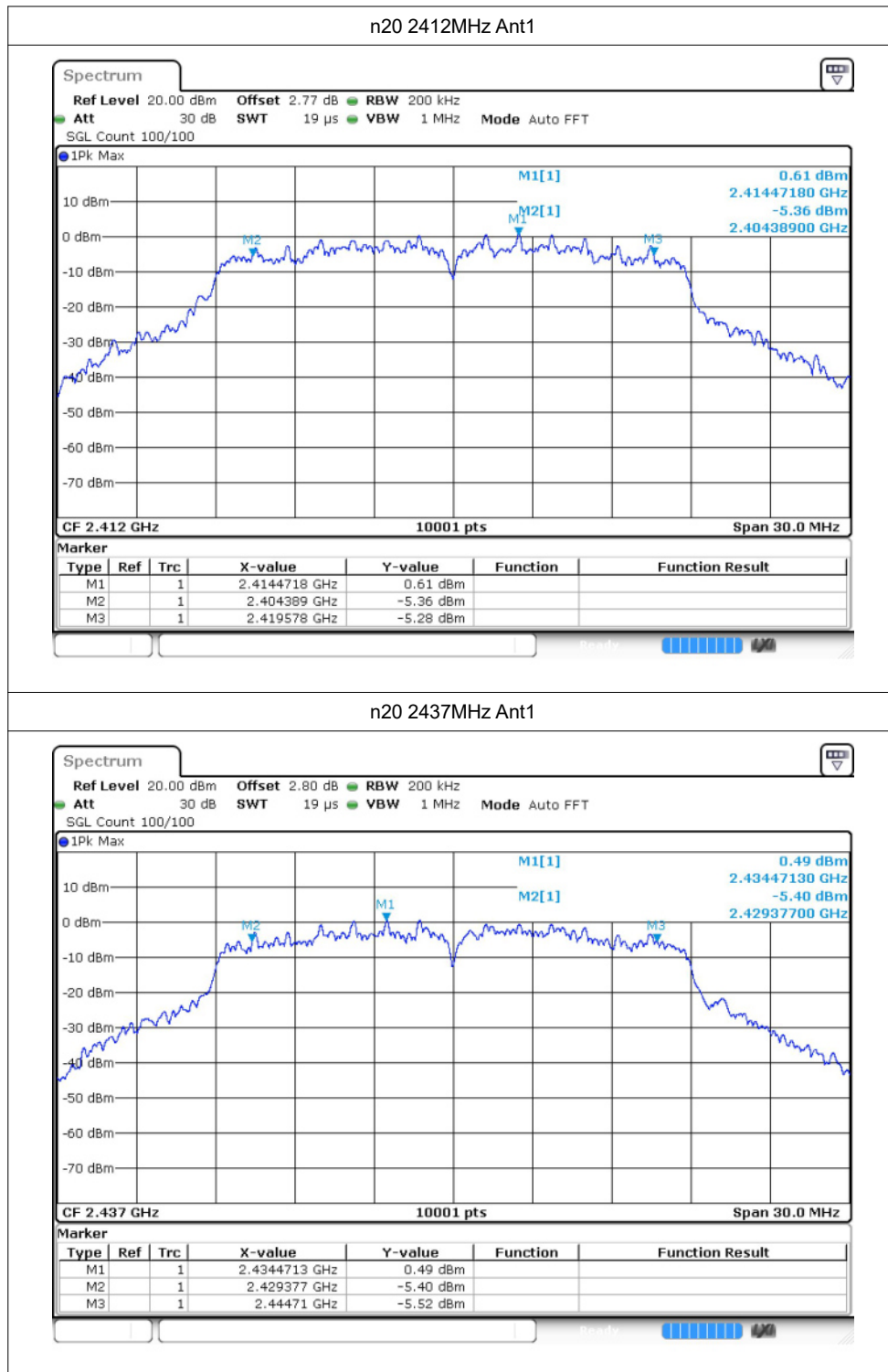


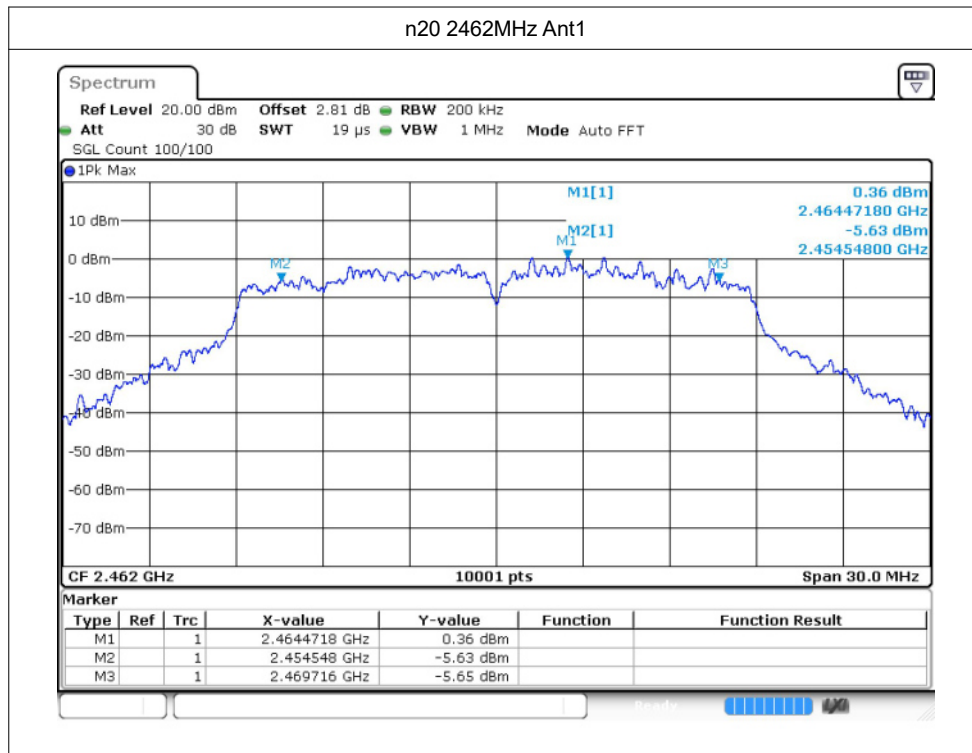
g 2437MHz Ant1



g 2462MHz Ant1





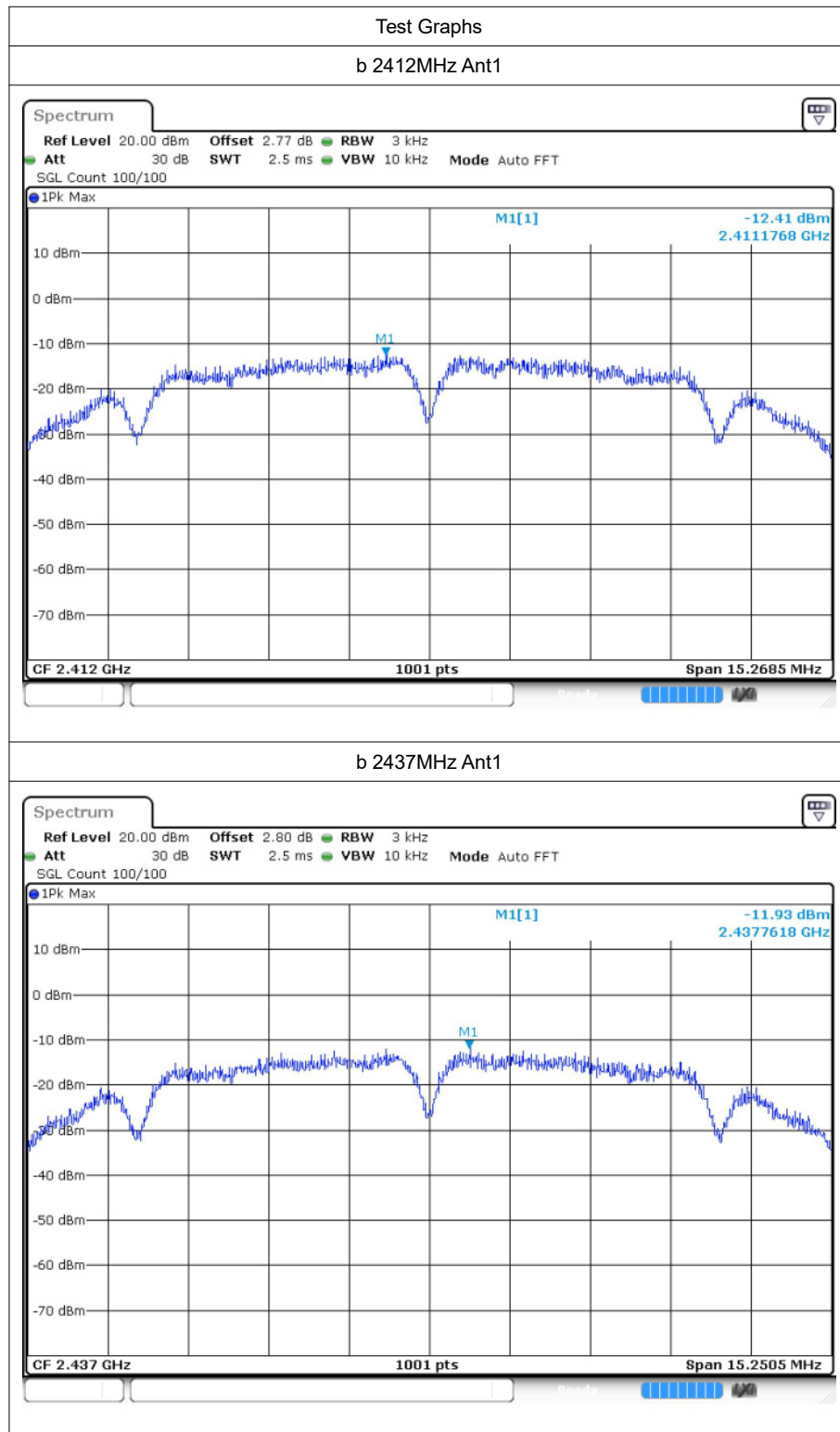


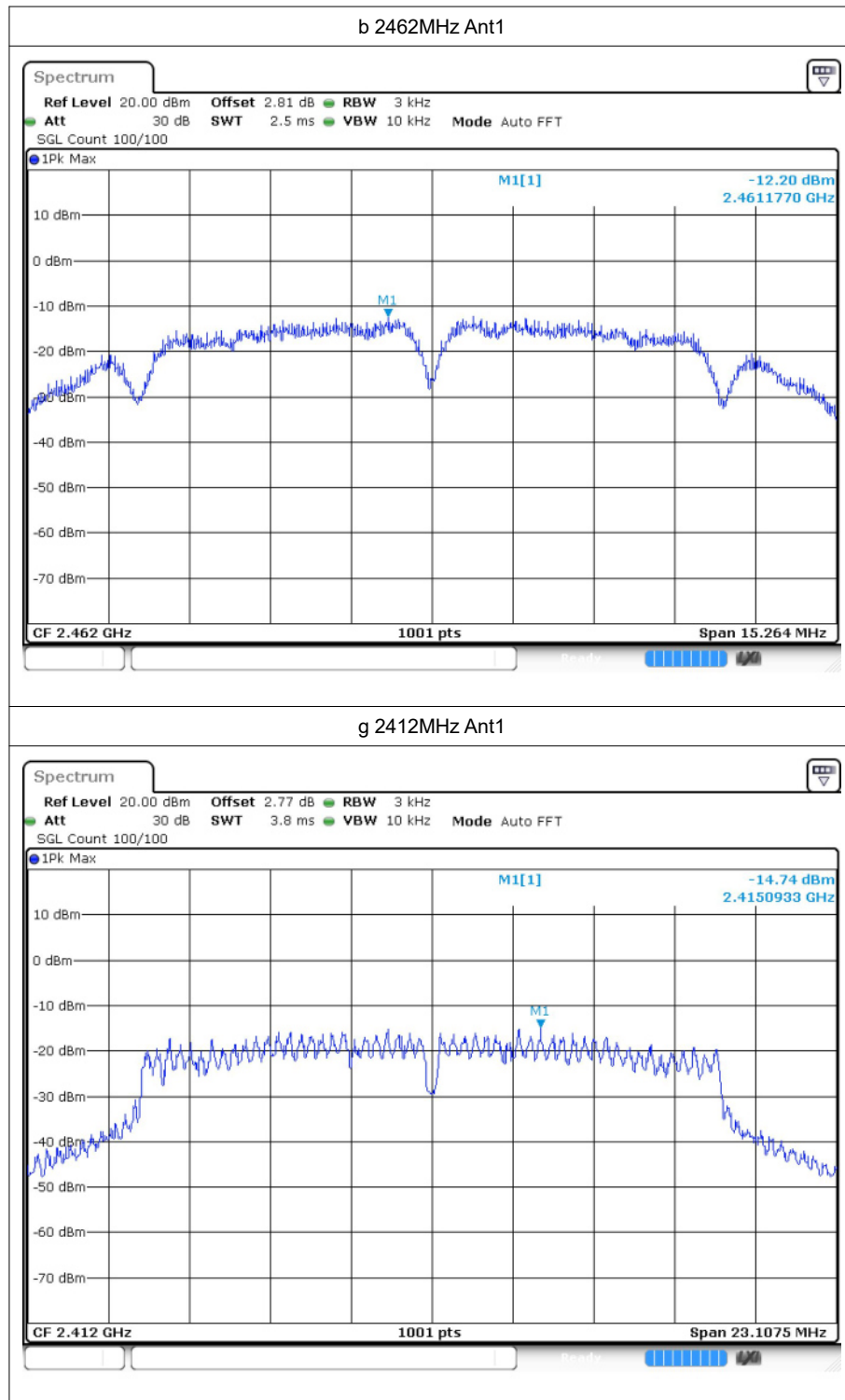
4 Maximum Power Spectral Density Level

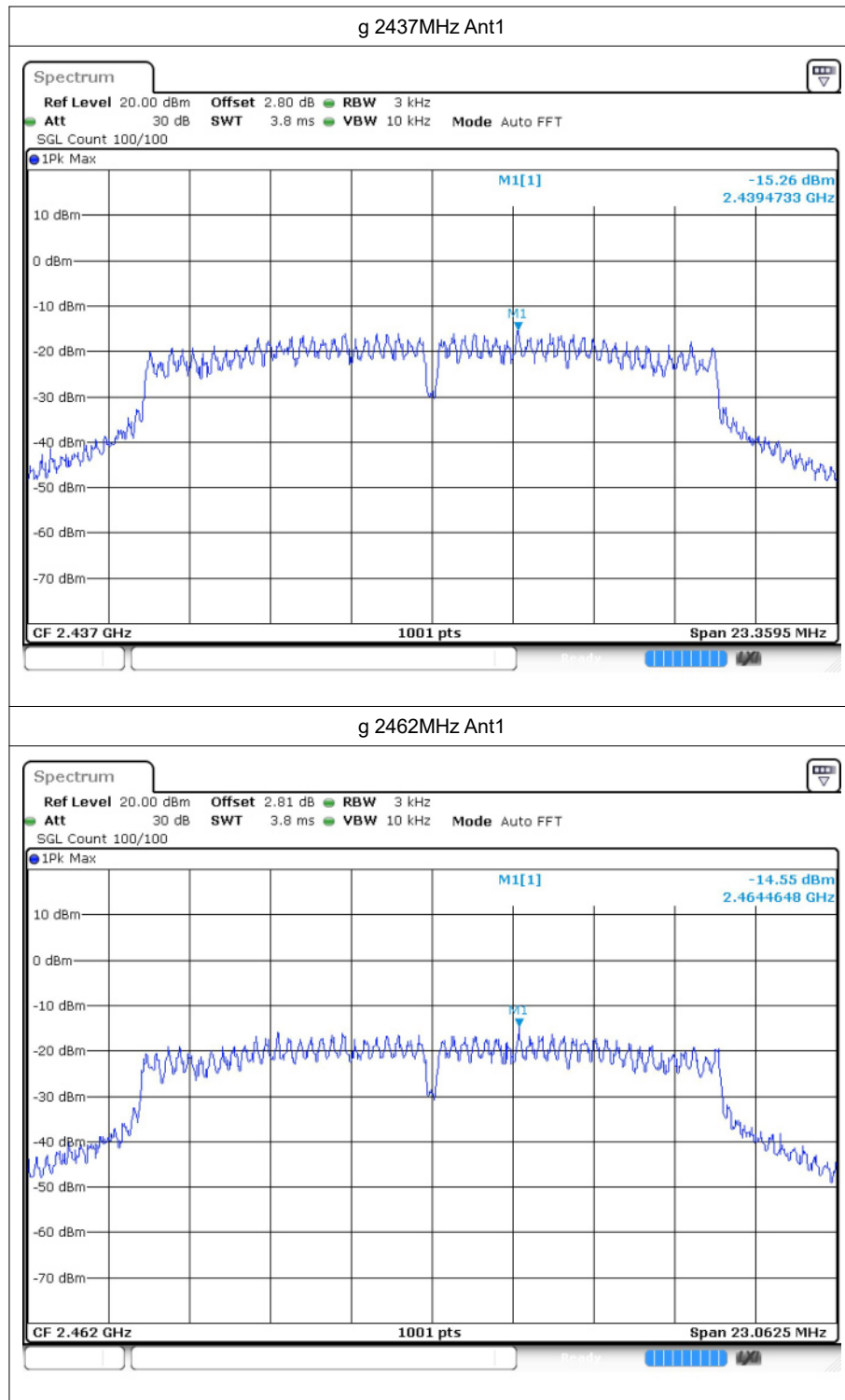
4.1 Test Result

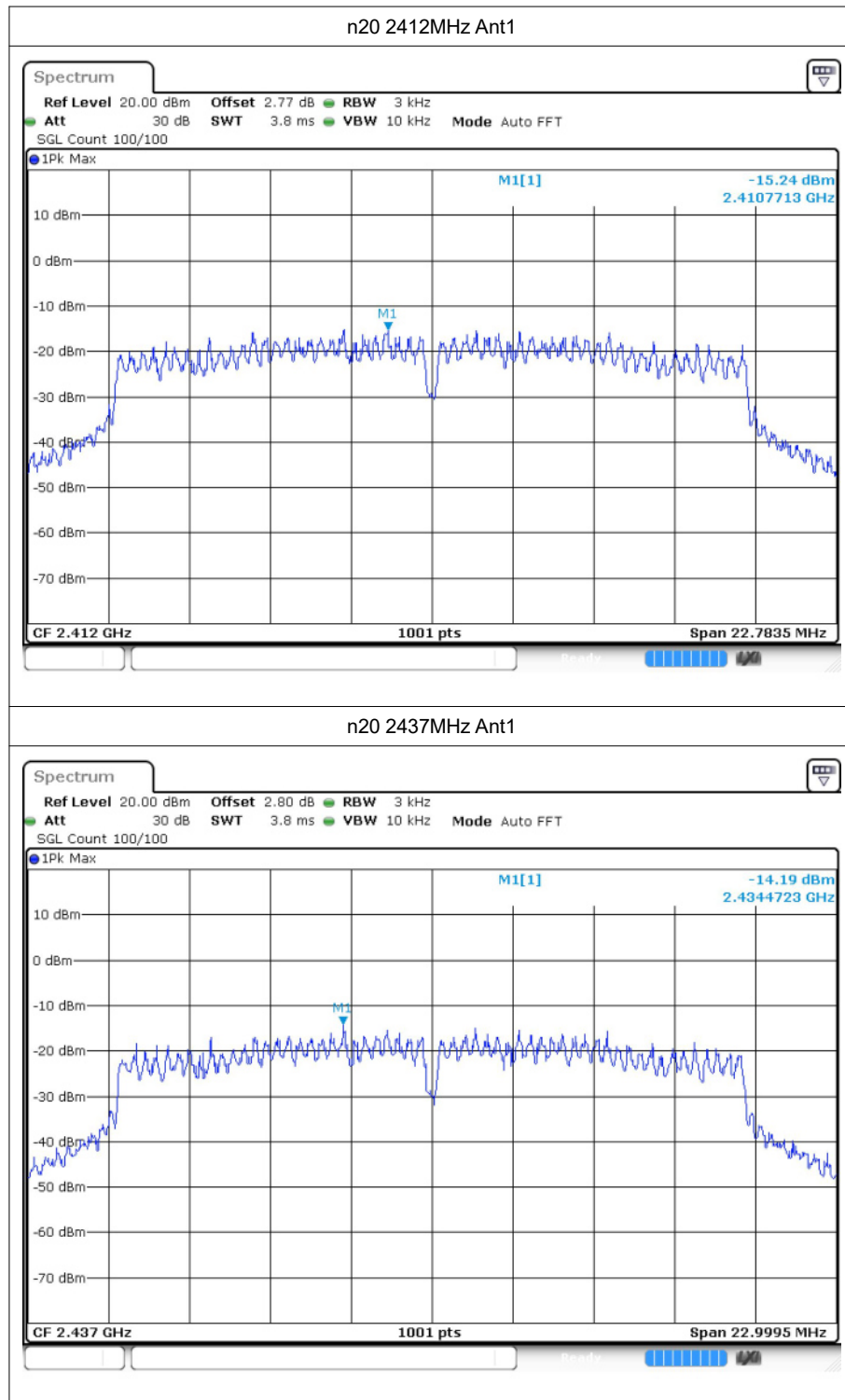
Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3-100kHz)	Limit (dBm/3kHz)	Verdict
b	2412	Ant1	-12.41	≤8	Pass
b	2437	Ant1	-11.93	≤8	Pass
b	2462	Ant1	-12.2	≤8	Pass
g	2412	Ant1	-14.74	≤8	Pass
g	2437	Ant1	-15.26	≤8	Pass
g	2462	Ant1	-14.55	≤8	Pass
n20	2412	Ant1	-15.24	≤8	Pass
n20	2437	Ant1	-14.19	≤8	Pass
n20	2462	Ant1	-14.73	≤8	Pass

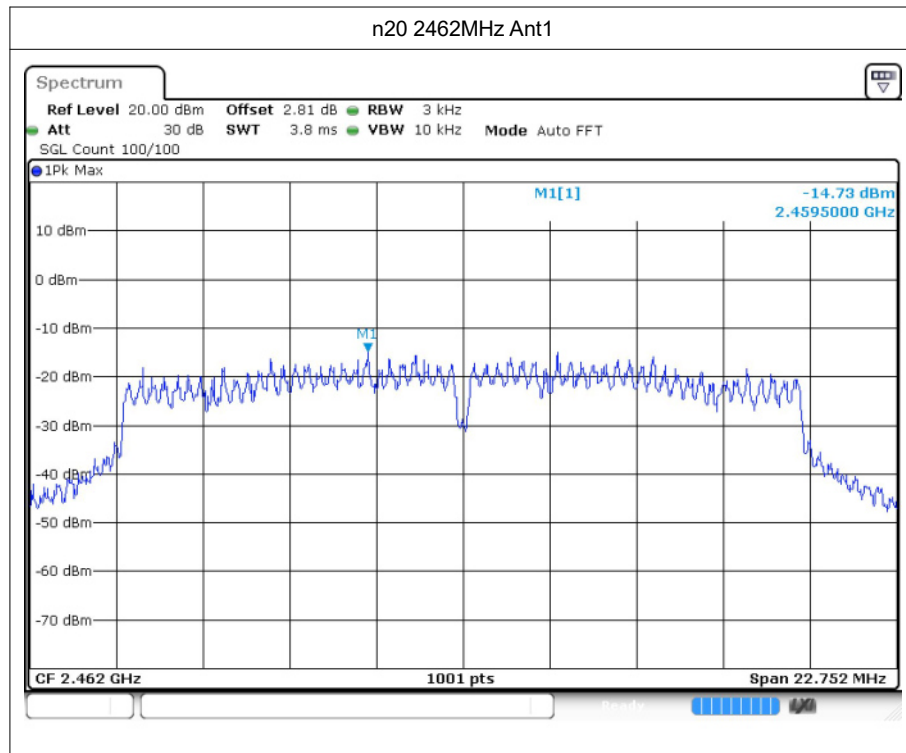
4.2 Test Graphs











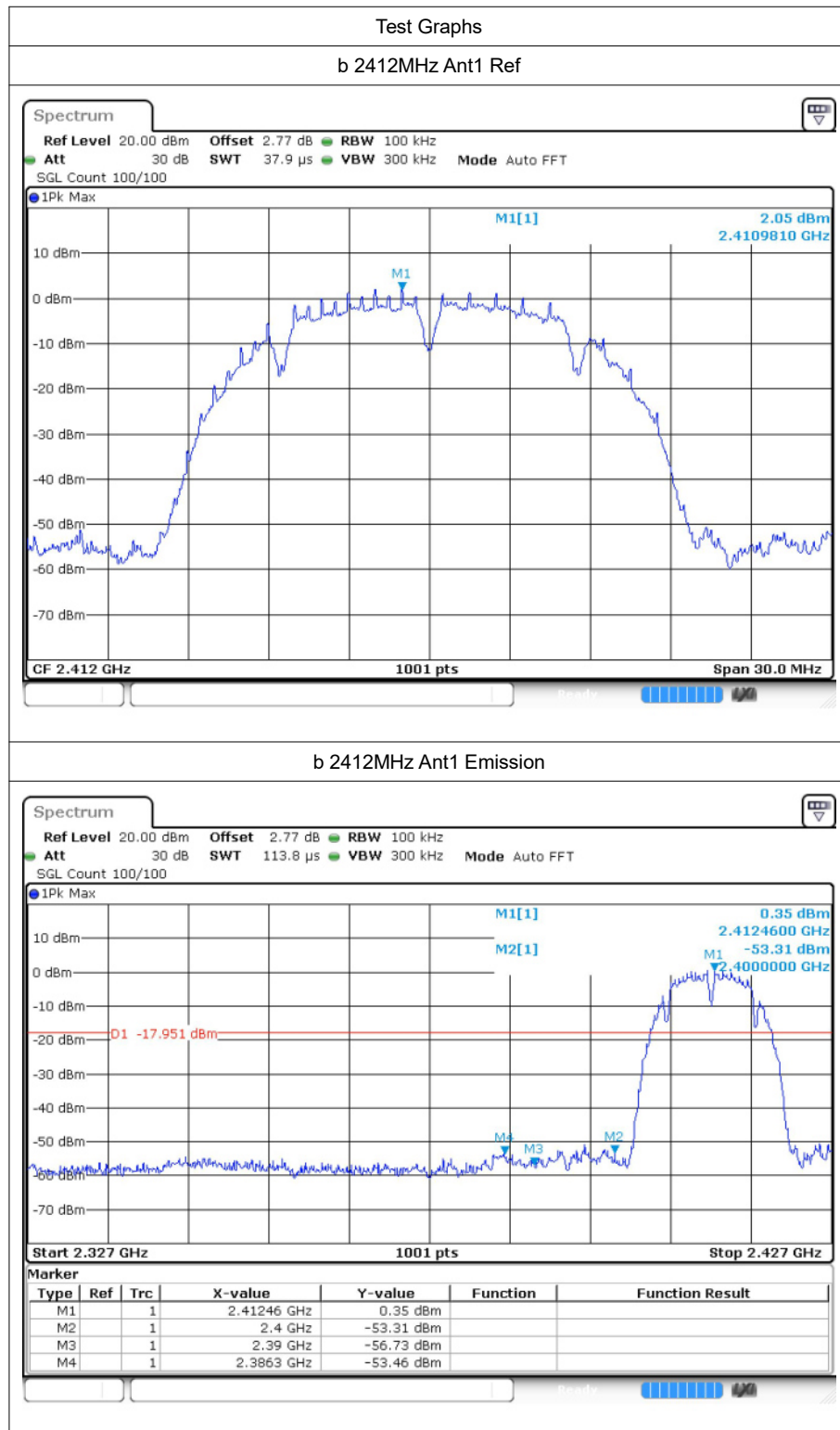


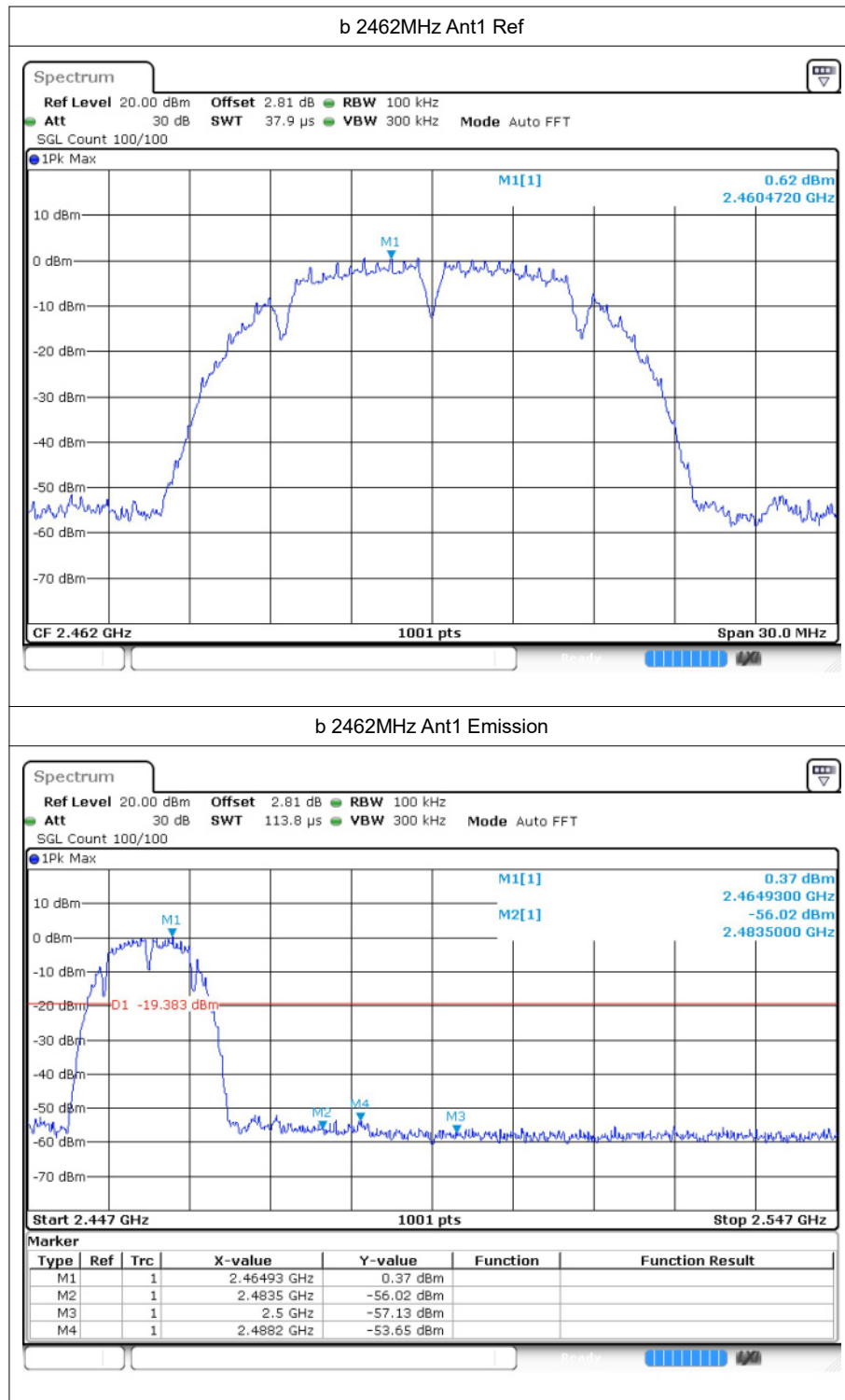
5 Band Edge

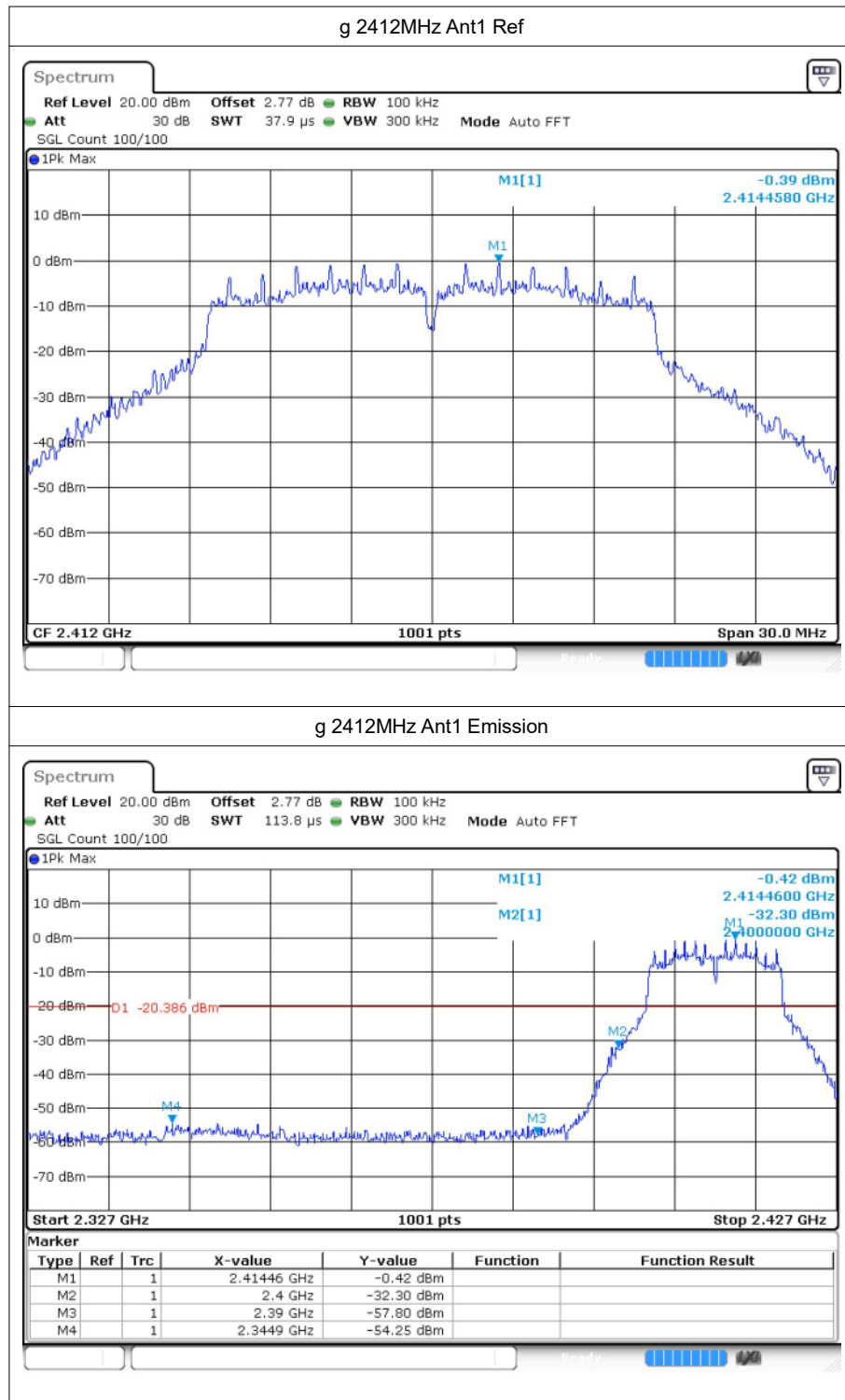
5.1 Test Result

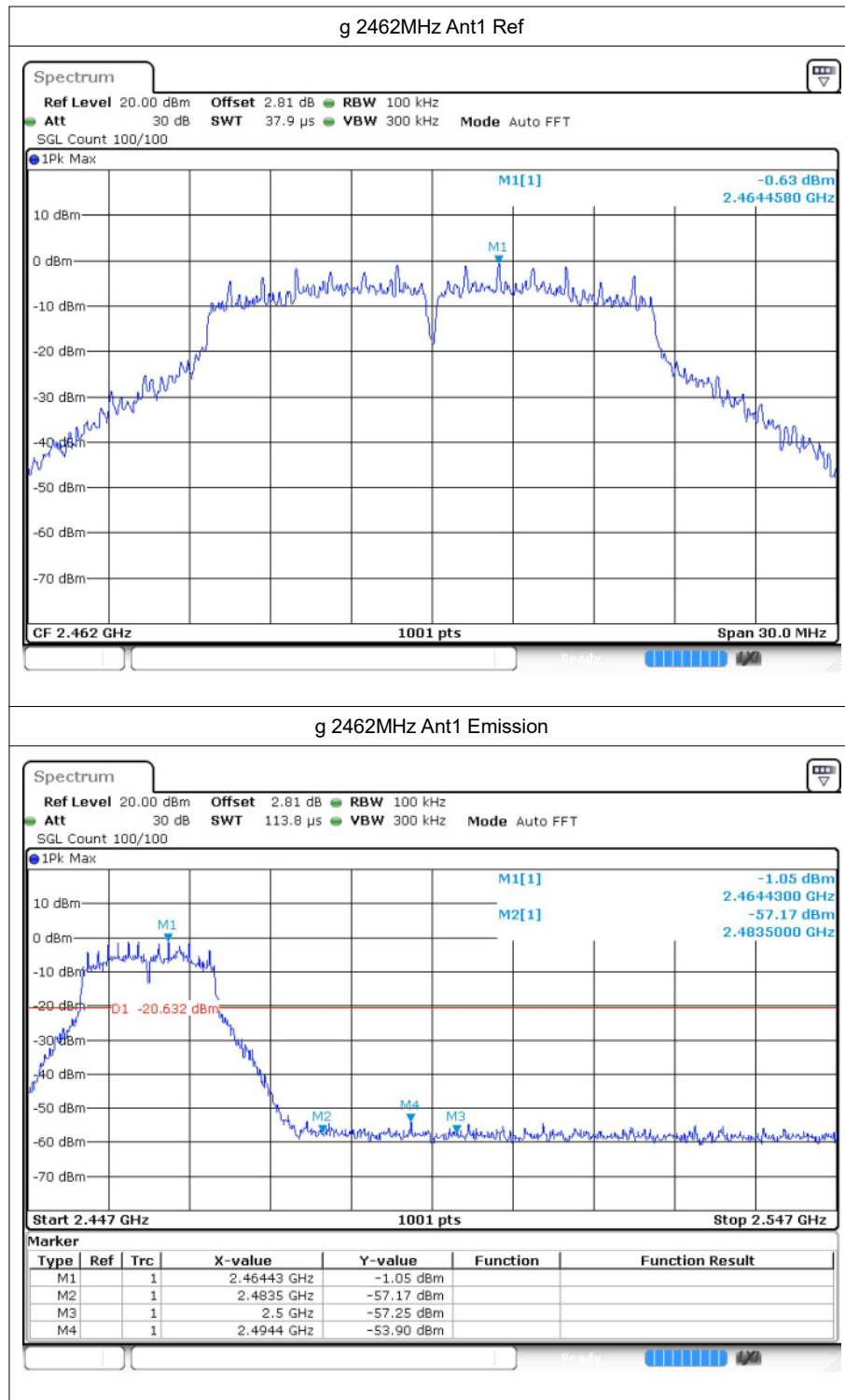
Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
b	2412	Ant1	-55.5	-20	Pass
b	2462	Ant1	-54.27	-20	Pass
g	2412	Ant1	-53.86	-20	Pass
g	2462	Ant1	-53.26	-20	Pass
n20	2412	Ant1	-53.19	-20	Pass
n20	2462	Ant1	-53.28	-20	Pass

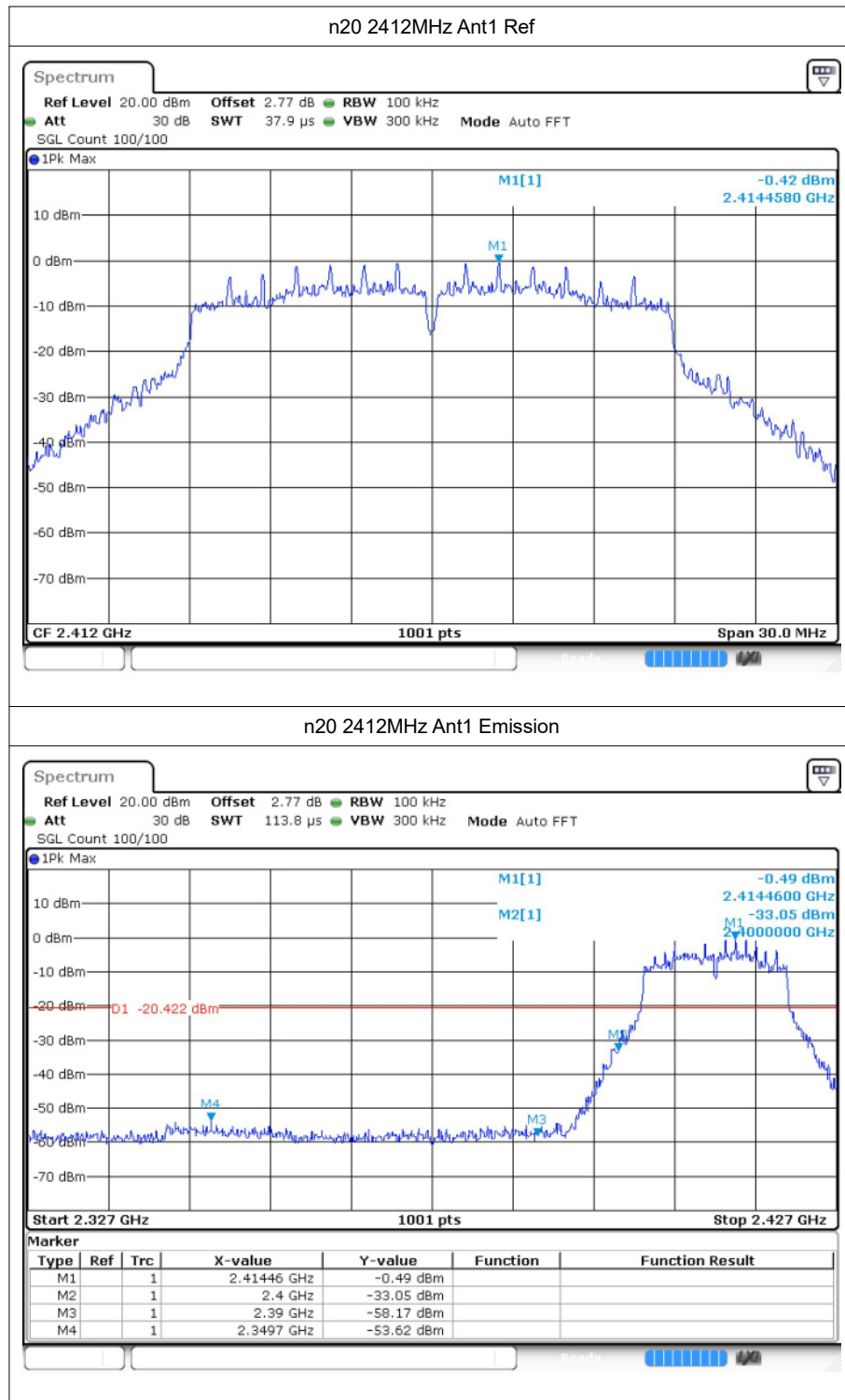
5.2 Test Graphs

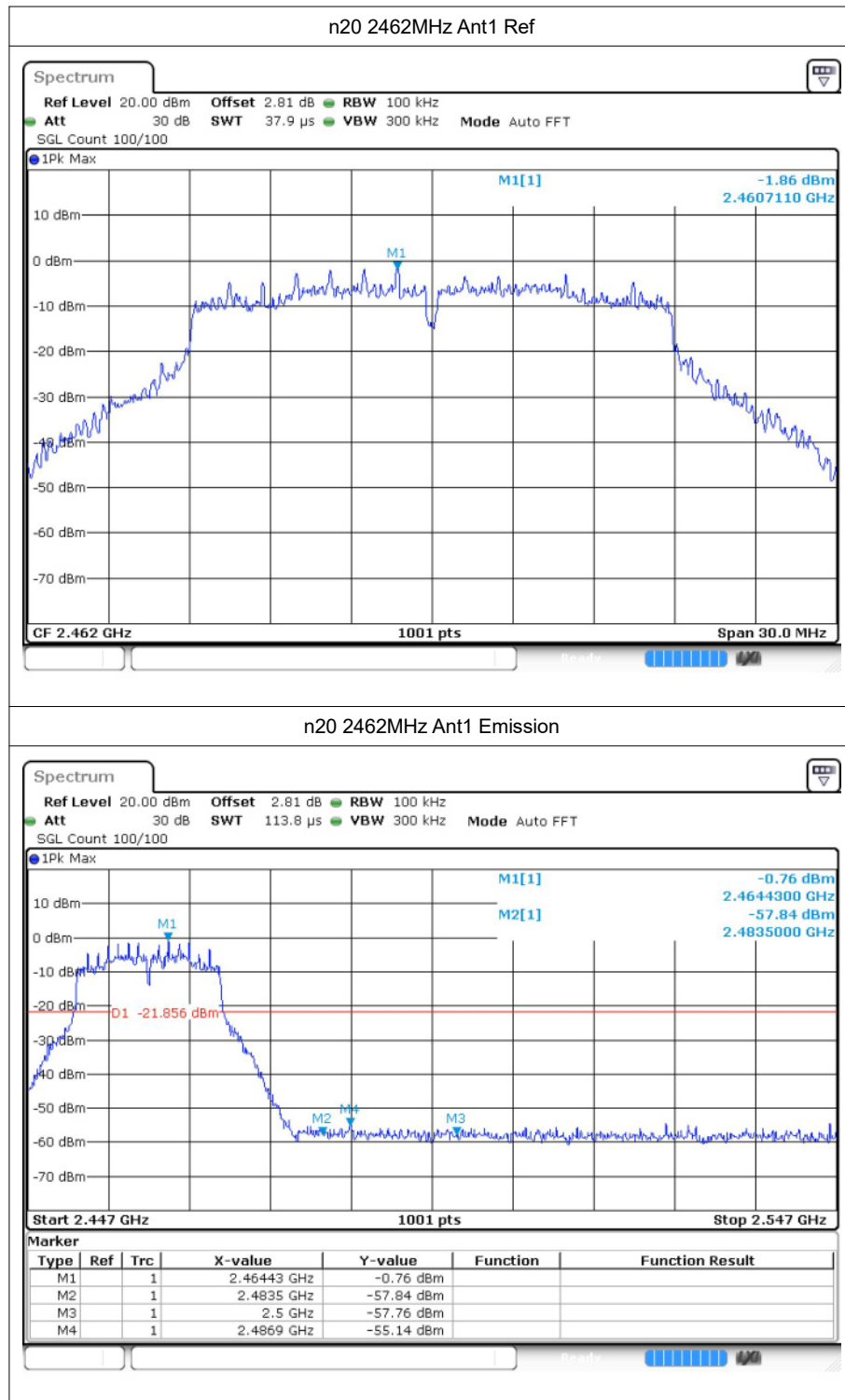












6 Conducted RF Spurious Emission

6.1 Test Result

Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
b	2412	Ant1	-41.83	-20	Pass
b	2437	Ant1	-43.26	-20	Pass
b	2462	Ant1	-43.45	-20	Pass
g	2412	Ant1	-40.23	-20	Pass
g	2437	Ant1	-42.12	-20	Pass
g	2462	Ant1	-42.46	-20	Pass
n20	2412	Ant1	-39.2	-20	Pass
n20	2437	Ant1	-41.05	-20	Pass
n20	2462	Ant1	-40.02	-20	Pass

6.2 Test Graphs

