



Appendix C

RF Test Data for 2.4GWIFI (Conducted Measurement)

Product Name: carplay and android auto adapter

Trade Mark: marolak

Test Model: Z1

Environmental Conditions

Temperature:	24.6° C
Relative Humidity:	52.4%
ATM Pressure:	100.0 kPa
Test Engineer:	Aalen.Ye
Supervised by:	Allen Wang



Contents

Page

COVER PAGE

1	Duty Cycle	3
1.1	Test Result	3
1.2	Test Graphs	4
2	Maximum Conducted Output Power	13
2.1	Test Result	13
3	-6dB Bandwidth	14
3.1	Test Result	14
3.2	Test Graphs	15
4	Maximum Power Spectral Density Level	24
4.1	Test Result	24
4.2	Test Graphs	25
5	Band Edge	34
5.1	Test Result	34
5.2	Test Graphs	35
6	Conducted RF Spurious Emission	47
6.1	Test Result	47
6.2	Test Graphs	48

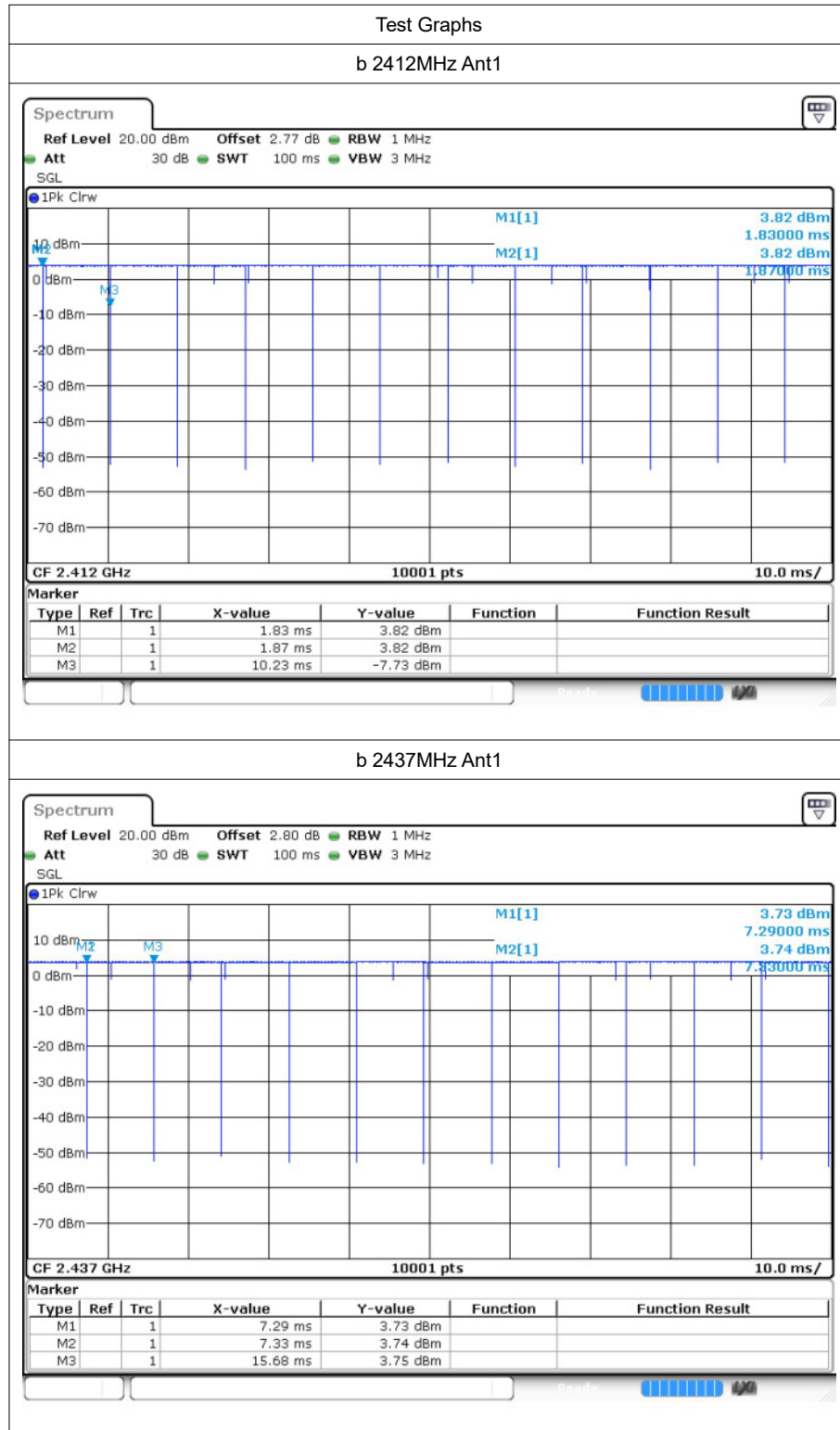


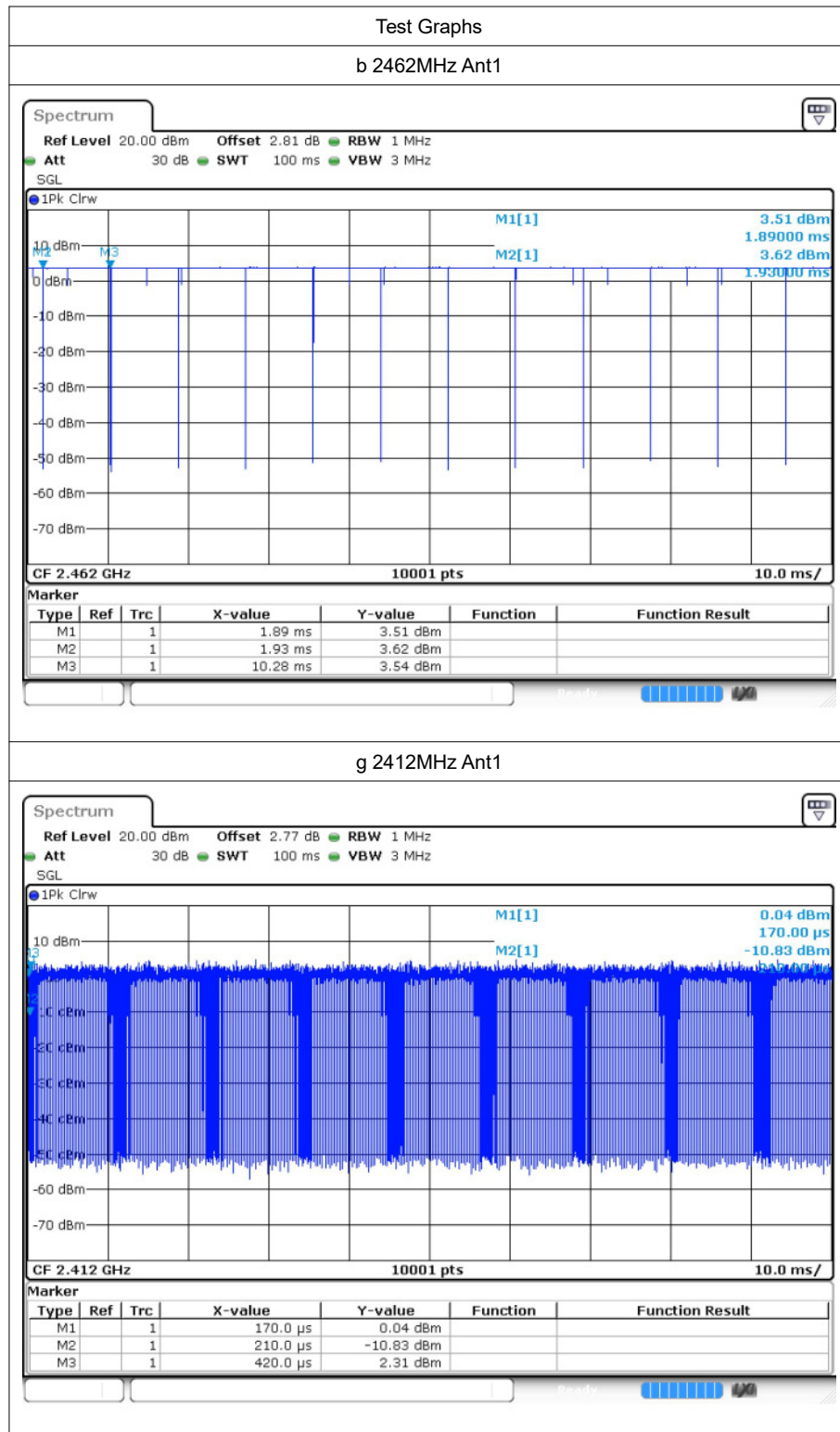
1 Duty Cycle

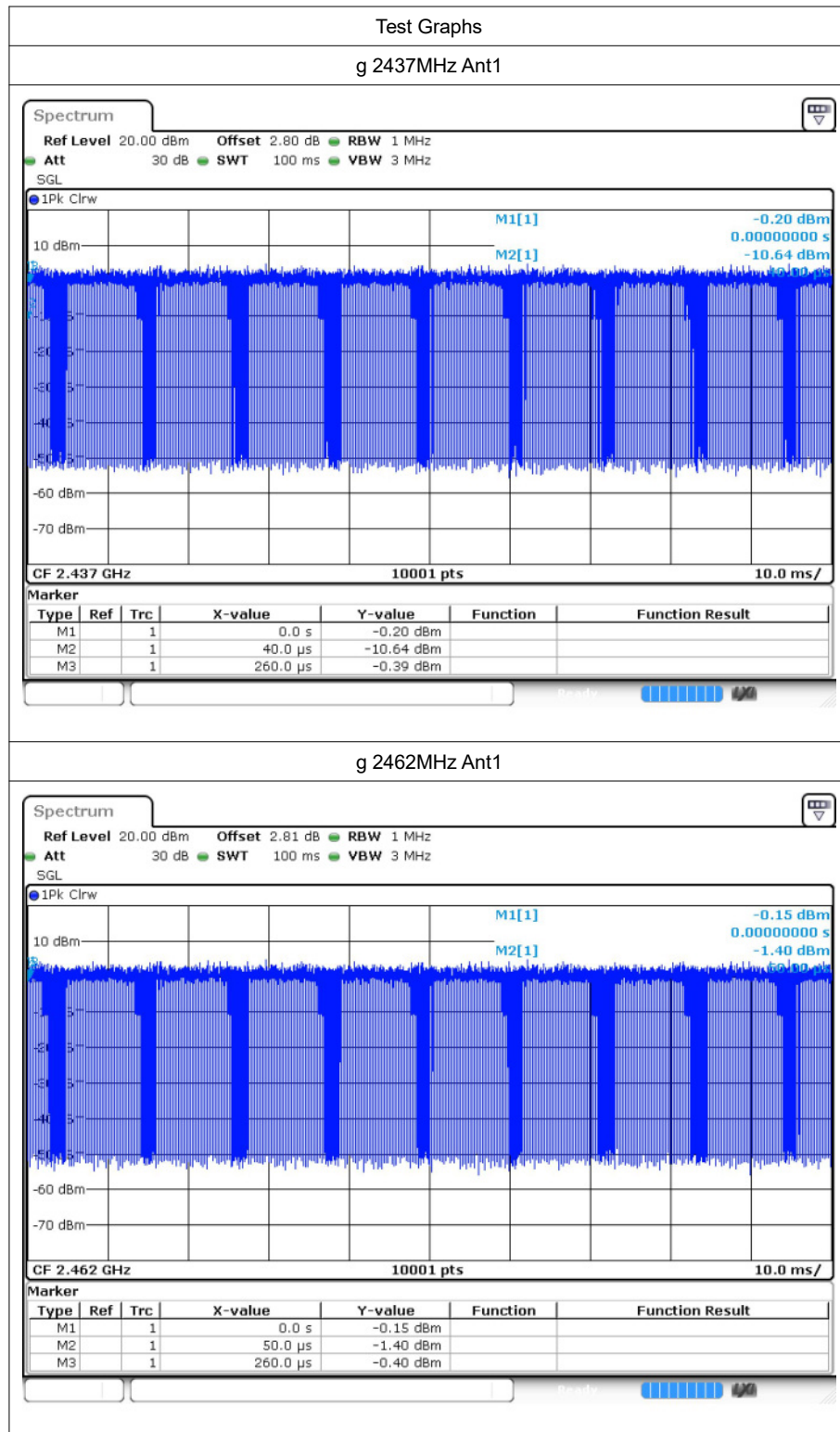
1.1 Test Result

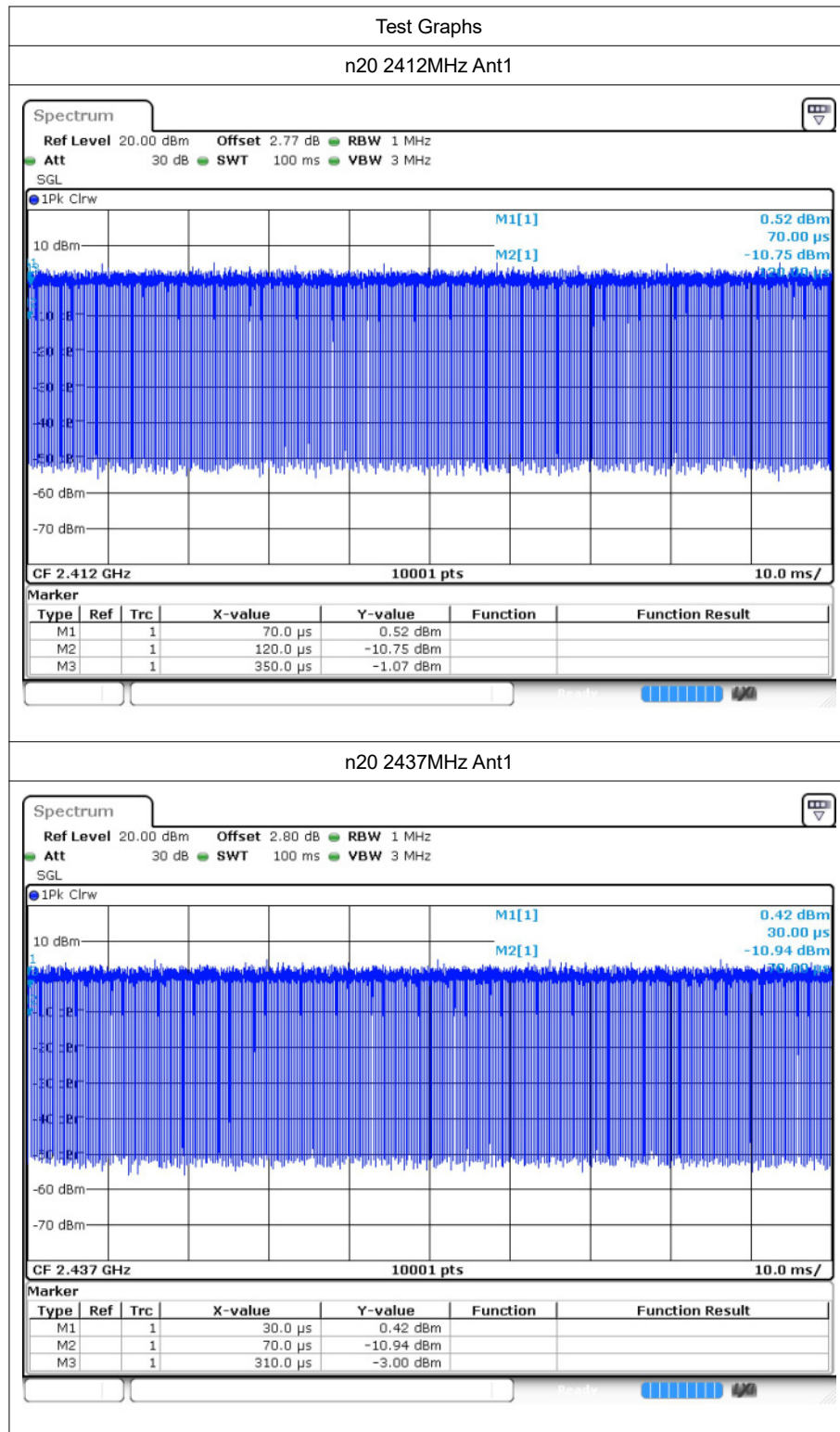
Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor	1/T (kHz)
b	2412	Ant1	99.62	0.02	0.12
b	2437	Ant1	99.61	0.02	0.12
b	2462	Ant1	99.61	0.02	0.12
g	2412	Ant1	87.03	0.6	4.76
g	2437	Ant1	86.98	0.61	4.55
g	2462	Ant1	86.83	0.61	4.76
n20	2412	Ant1	87.58	0.58	4.35
n20	2437	Ant1	87.59	0.58	4.17
n20	2462	Ant1	87.58	0.58	4.17
n40	2422	Ant1	88.09	0.55	4.17
n40	2437	Ant1	88.04	0.55	4.17
n40	2452	Ant1	88.08	0.55	4.17
ax20	2412	Ant1	87.04	0.6	4.35
ax20	2437	Ant1	87.08	0.6	4.55
ax20	2462	Ant1	86.9	0.61	4.35
ax40	2422	Ant1	86.77	0.62	4.35
ax40	2437	Ant1	86.99	0.61	4.55
ax40	2452	Ant1	87.04	0.6	4.35

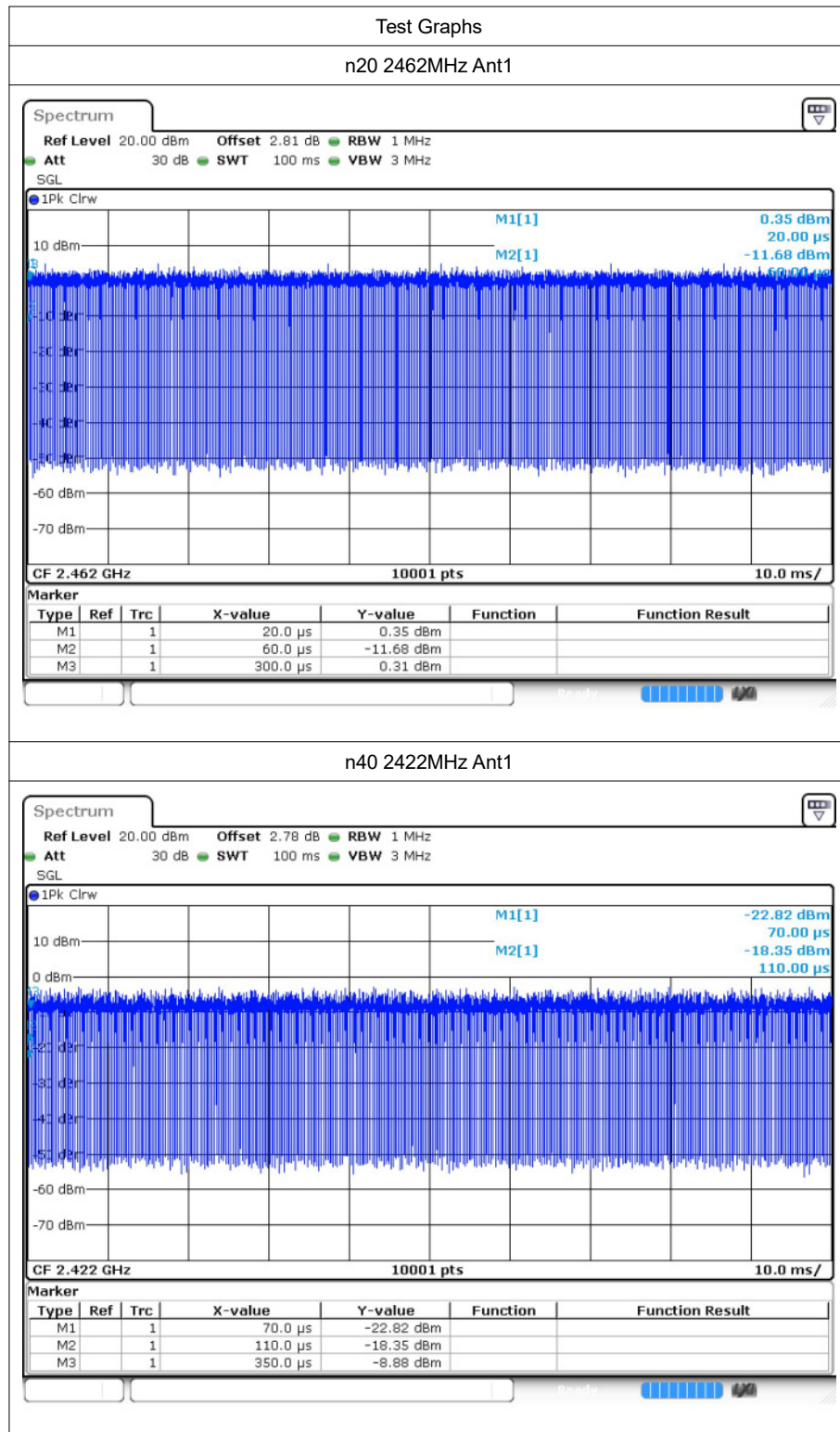
1.2 Test Graphs

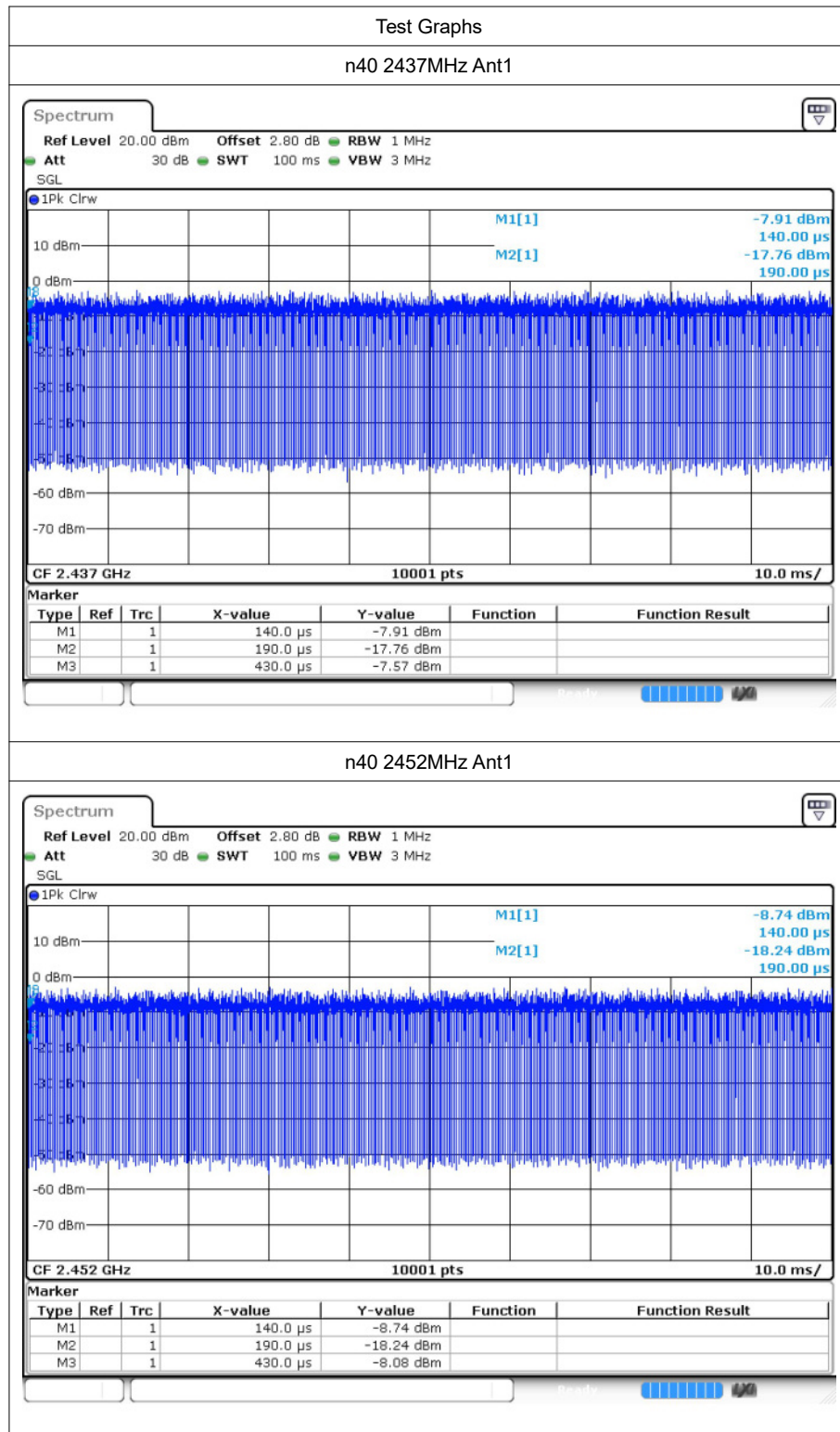


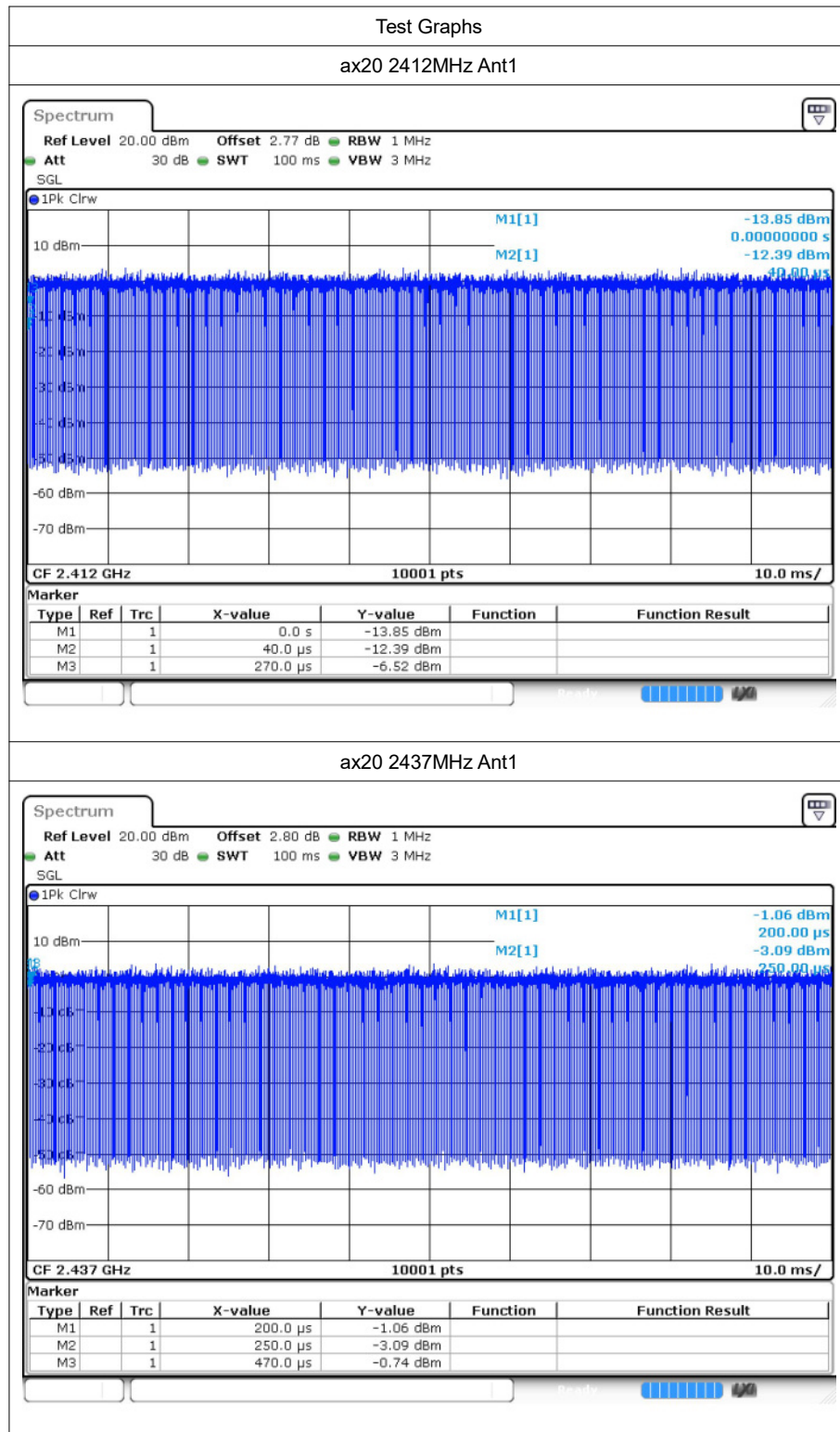


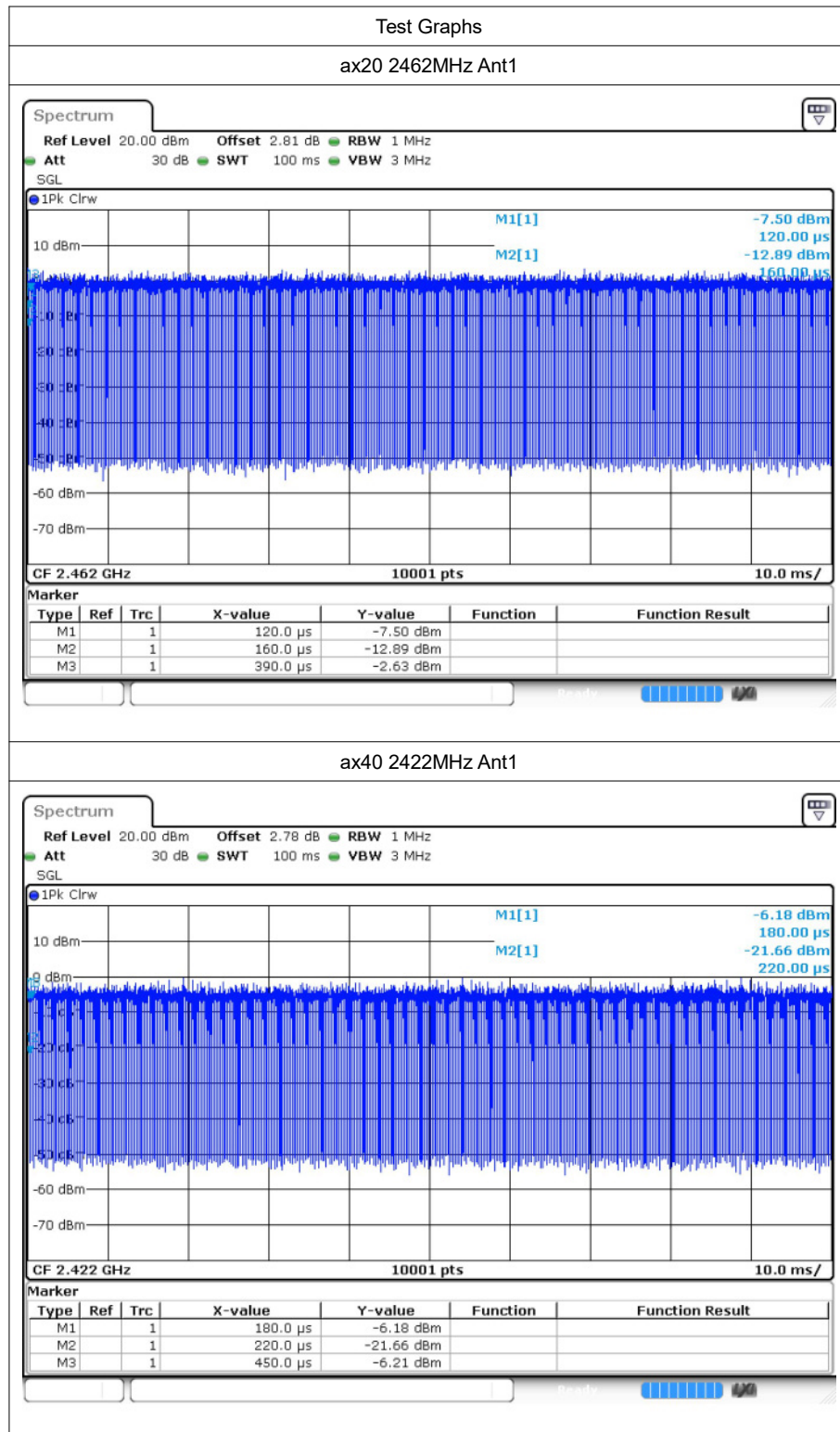


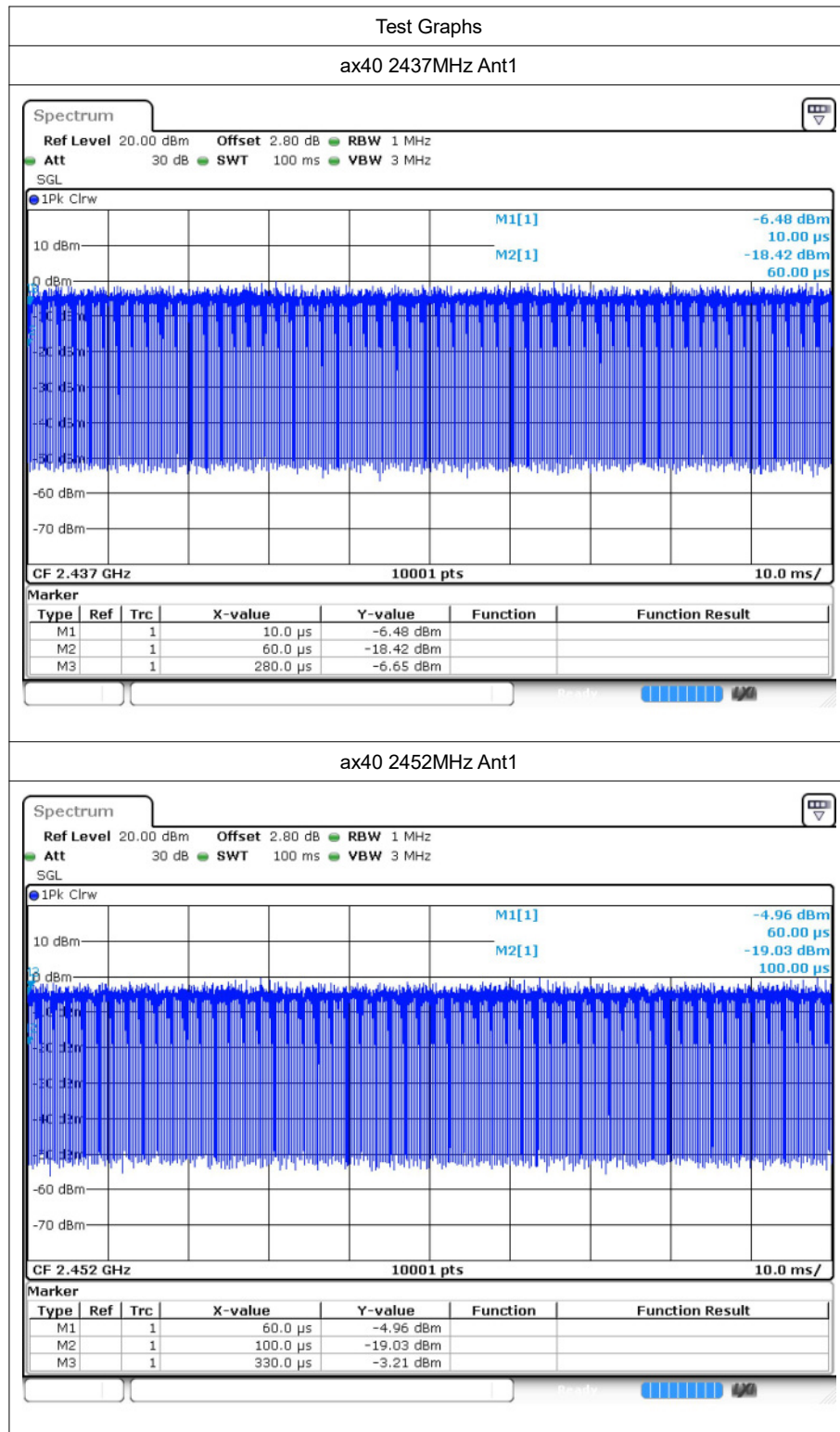












2 Maximum Conducted Output Power

2.1 Test Result

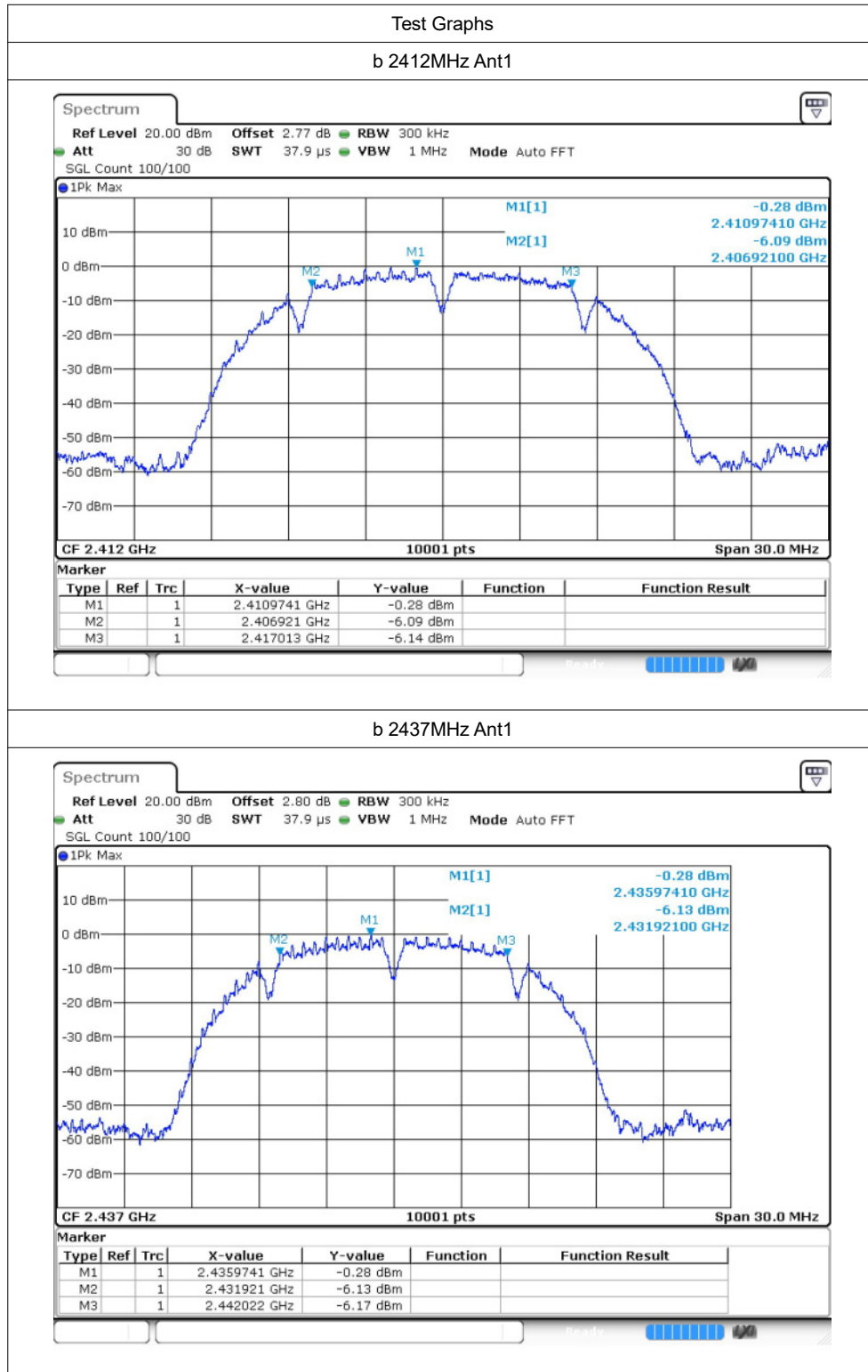
Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
b	2412	Ant1	14.28	30	Pass
b	2437	Ant1	14.2	30	Pass
b	2462	Ant1	14.17	30	Pass
g	2412	Ant1	13.99	30	Pass
g	2437	Ant1	13.84	30	Pass
g	2462	Ant1	13.95	30	Pass
n20	2412	Ant1	13.9	30	Pass
n20	2437	Ant1	13.85	30	Pass
n20	2462	Ant1	13.77	30	Pass
n40	2422	Ant1	13.58	30	Pass
n40	2437	Ant1	13.65	30	Pass
n40	2452	Ant1	13.54	30	Pass
ax20	2412	Ant1	13.87	30	Pass
ax20	2437	Ant1	13.82	30	Pass
ax20	2462	Ant1	13.74	30	Pass
ax40	2422	Ant1	13.65	30	Pass
ax40	2437	Ant1	13.66	30	Pass
ax40	2452	Ant1	13.59	30	Pass

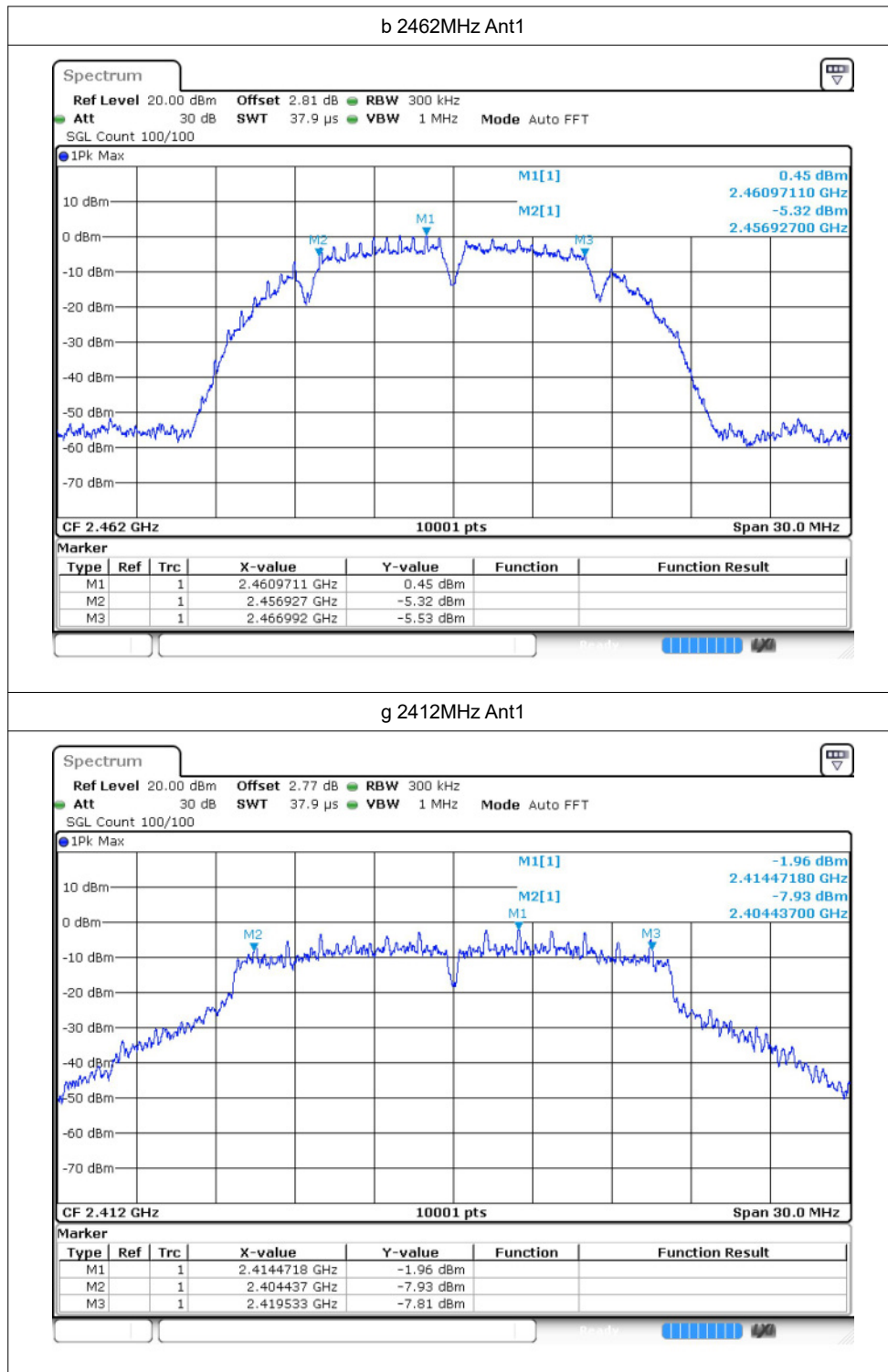
3 -6dB Bandwidth

3.1 Test Result

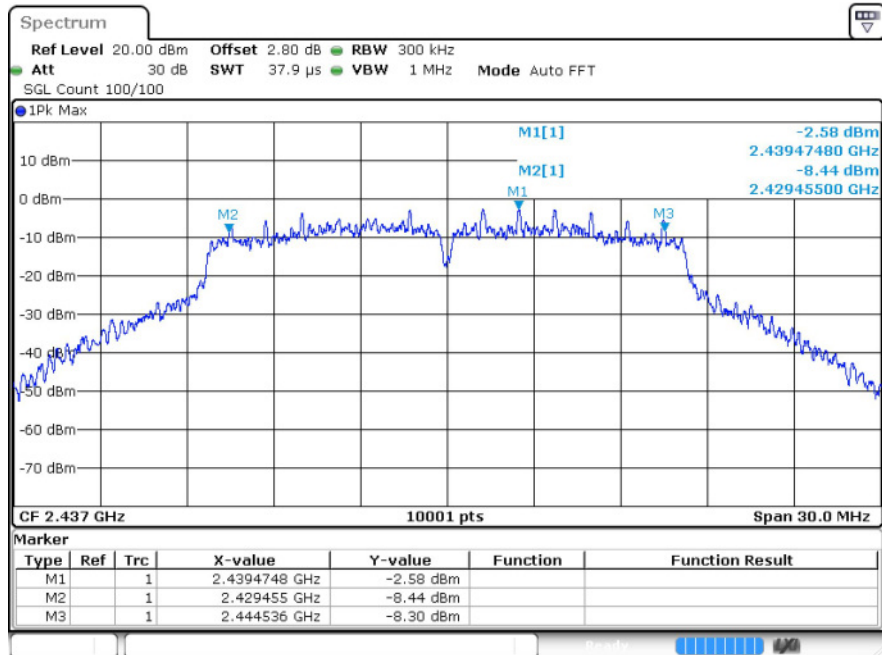
Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
b	2412	Ant1	10.092	0.5	Pass
b	2437	Ant1	10.101	0.5	Pass
b	2462	Ant1	10.065	0.5	Pass
g	2412	Ant1	15.096	0.5	Pass
g	2437	Ant1	15.081	0.5	Pass
g	2462	Ant1	15.12	0.5	Pass
n20	2412	Ant1	15.093	0.5	Pass
n20	2437	Ant1	12.564	0.5	Pass
n20	2462	Ant1	13.857	0.5	Pass
n40	2422	Ant1	35.046	0.5	Pass
n40	2437	Ant1	35.082	0.5	Pass
n40	2452	Ant1	35.064	0.5	Pass
ax20	2412	Ant1	15.114	0.5	Pass
ax20	2437	Ant1	15.045	0.5	Pass
ax20	2462	Ant1	15.099	0.5	Pass
ax40	2422	Ant1	35.076	0.5	Pass
ax40	2437	Ant1	35.052	0.5	Pass
ax40	2452	Ant1	35.064	0.5	Pass

3.2 Test Graphs

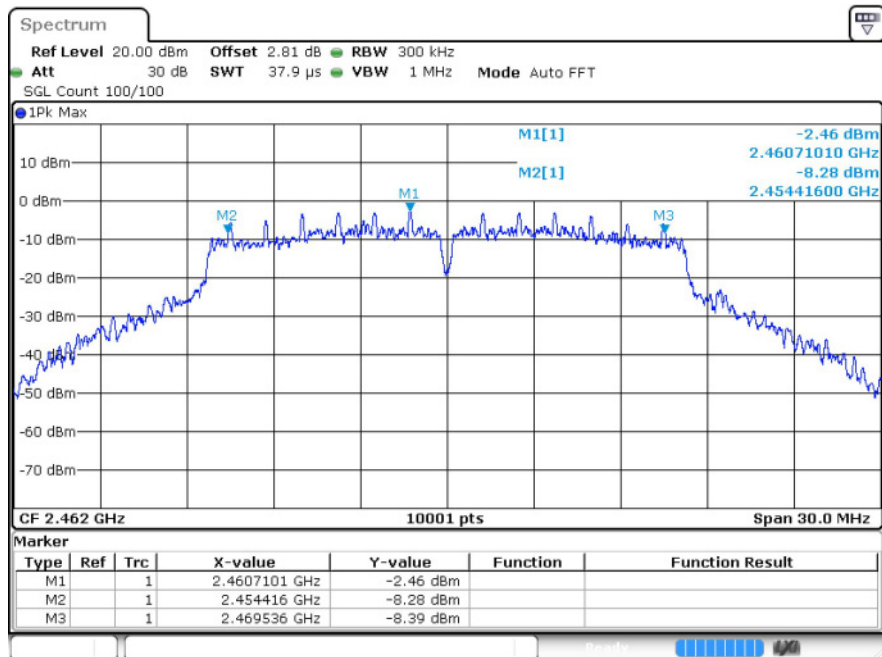


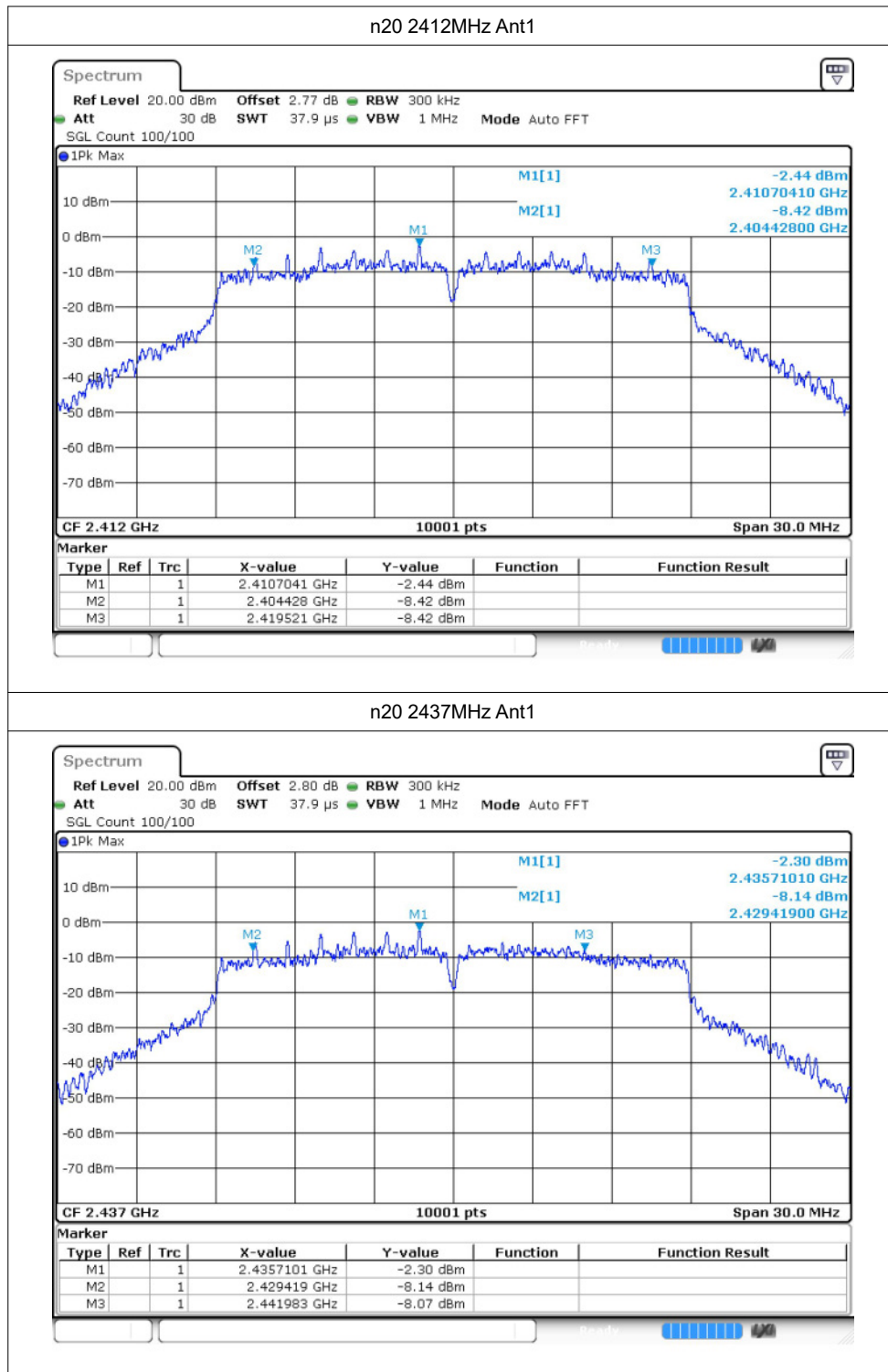


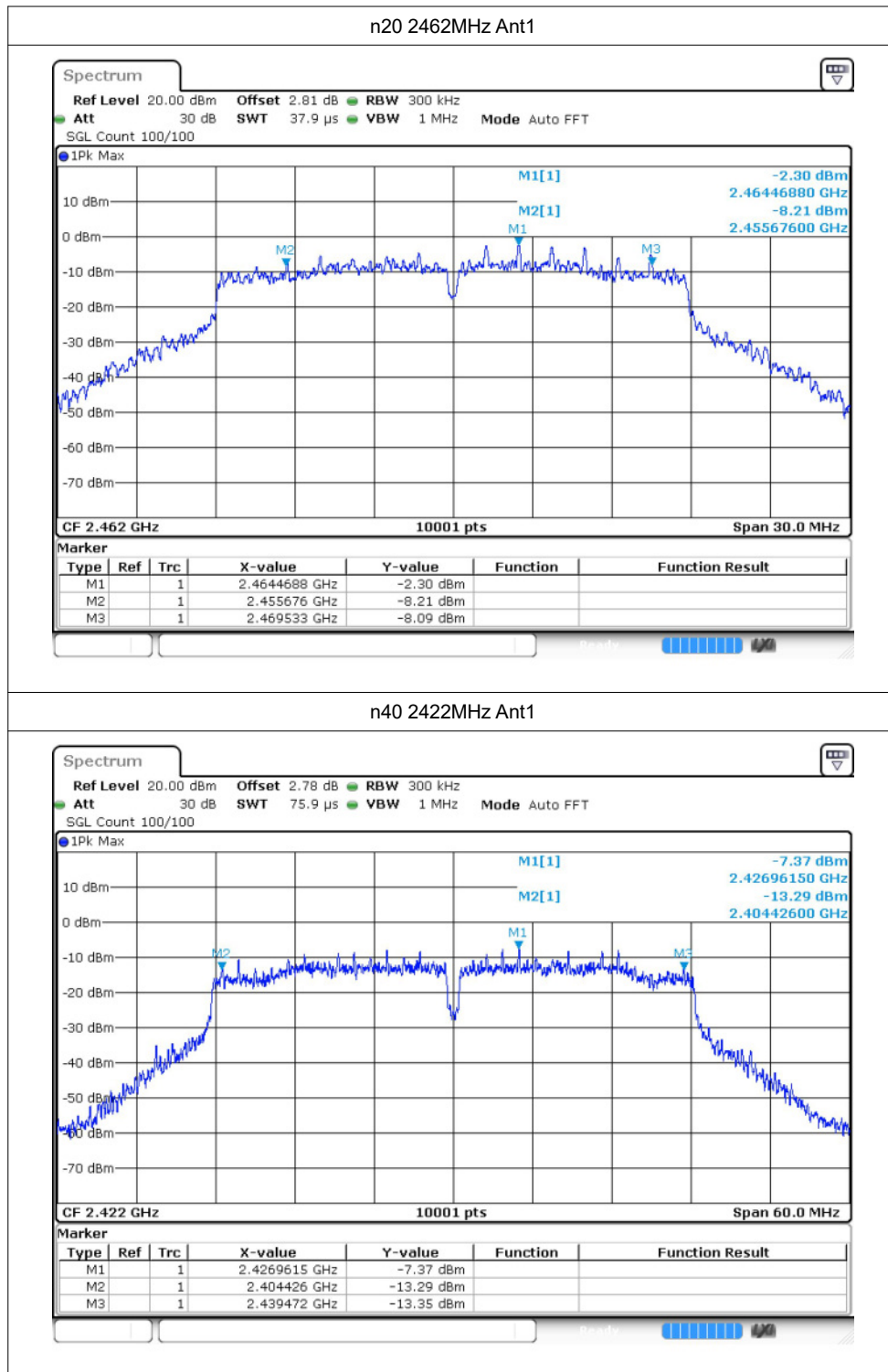
g 2437MHz Ant1



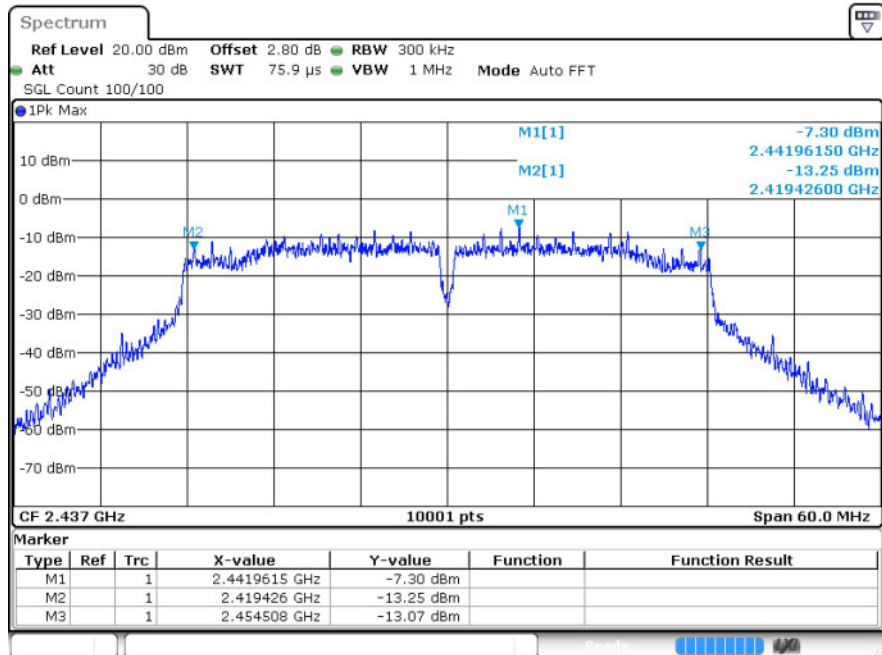
g 2462MHz Ant1



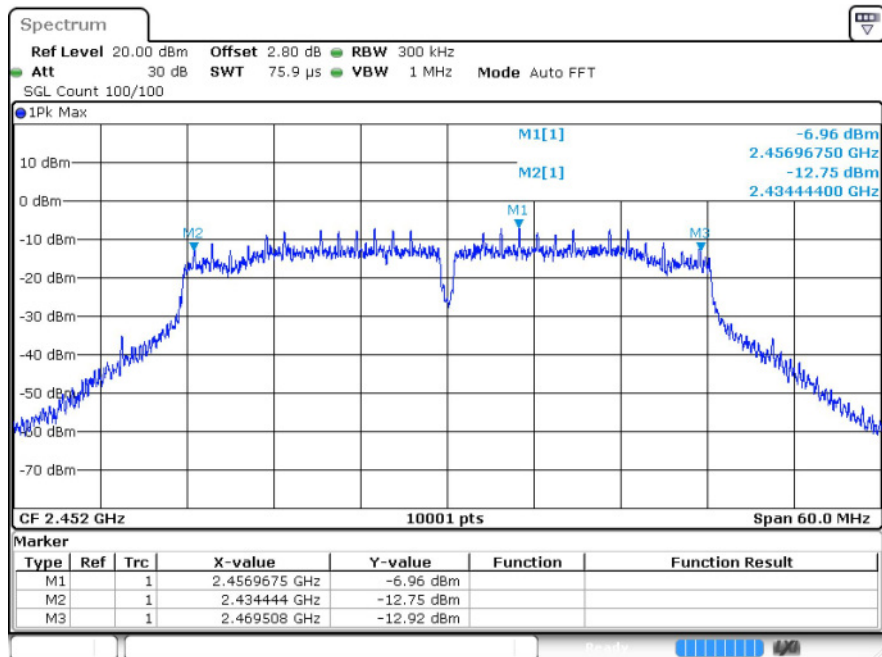


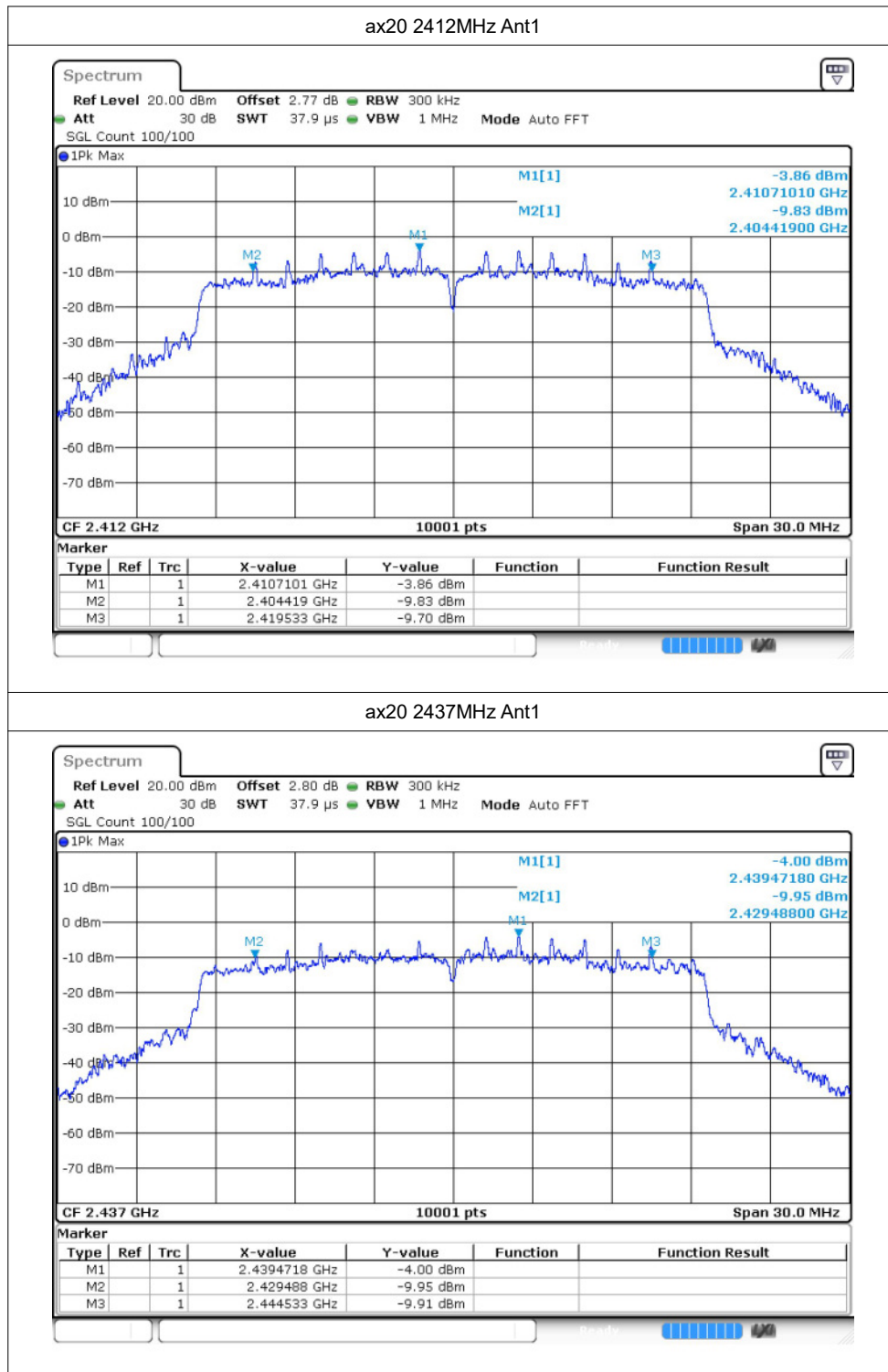


n40 2437MHz Ant1

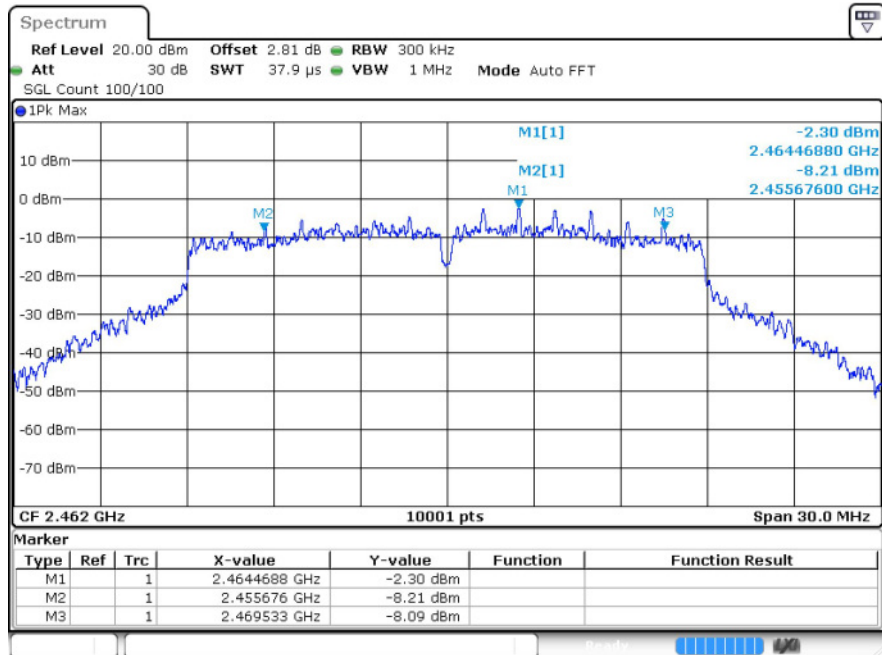


n40 2452MHz Ant1

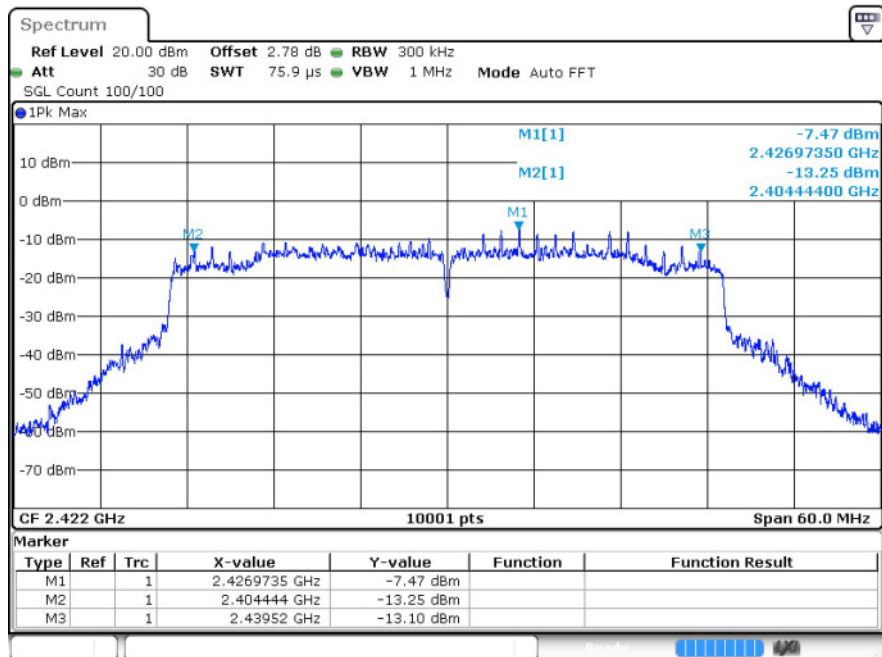




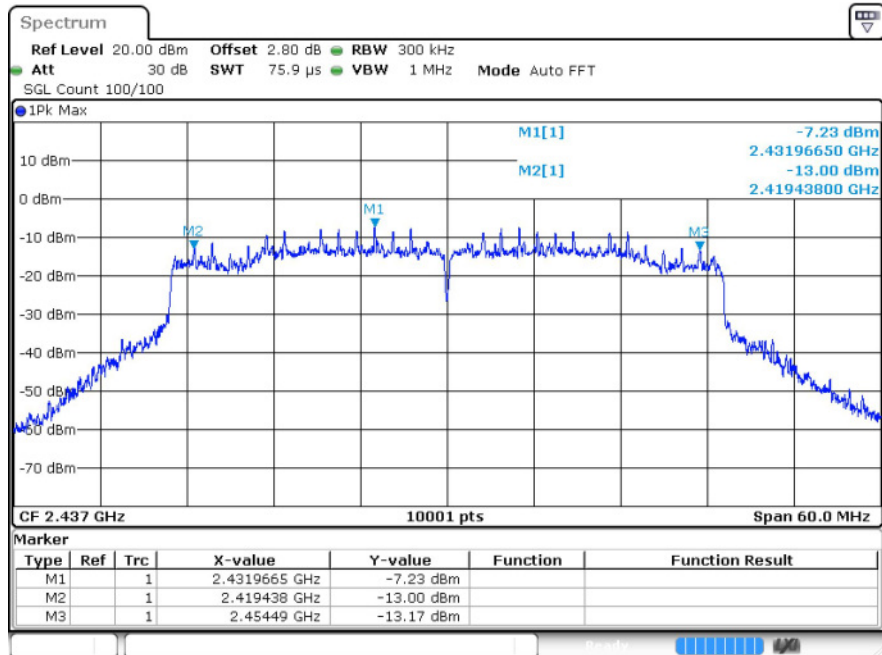
ax20 2462MHz Ant1



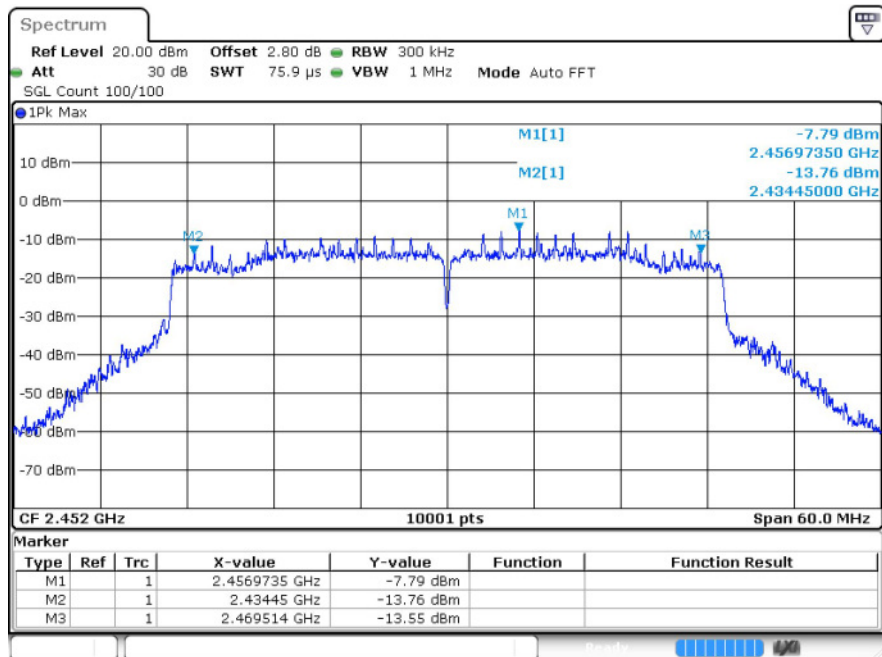
ax40 2422MHz Ant1



ax40 2437MHz Ant1



ax40 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	-13.03	≤8	Pass
b	2437	Ant1	-13.06	≤8	Pass
b	2462	Ant1	-13.17	≤8	Pass
g	2412	Ant1	-17.02	≤8	Pass
g	2437	Ant1	-16.38	≤8	Pass
g	2462	Ant1	-17.2	≤8	Pass
n20	2412	Ant1	-16.83	≤8	Pass
n20	2437	Ant1	-16.26	≤8	Pass
n20	2462	Ant1	-16.36	≤8	Pass
n40	2422	Ant1	-21.21	≤8	Pass
n40	2437	Ant1	-21.06	≤8	Pass
n40	2452	Ant1	-21.78	≤8	Pass
ax20	2412	Ant1	-3.99	≤8	Pass
ax20	2437	Ant1	-4.12	≤8	Pass
ax20	2462	Ant1	-3.98	≤8	Pass
ax40	2422	Ant1	-7.48	≤8	Pass
ax40	2437	Ant1	-7.22	≤8	Pass
ax40	2452	Ant1	-7.61	≤8	Pass

4.2 Test Graphs

