



## Appendix C-1

### RF Test Data for 2.4GWIFI (Conducted Measurement)

Product Name: RF Wireless module

Trade Mark: INNOCN

Test Model: AW.S905D3.03

Environmental Conditions

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



# Contents

	Page
<b>COVER PAGE</b>	
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
7 Restrict Band .....	66
7.1 Test Result .....	66
7.2 Test Graphs.....	68



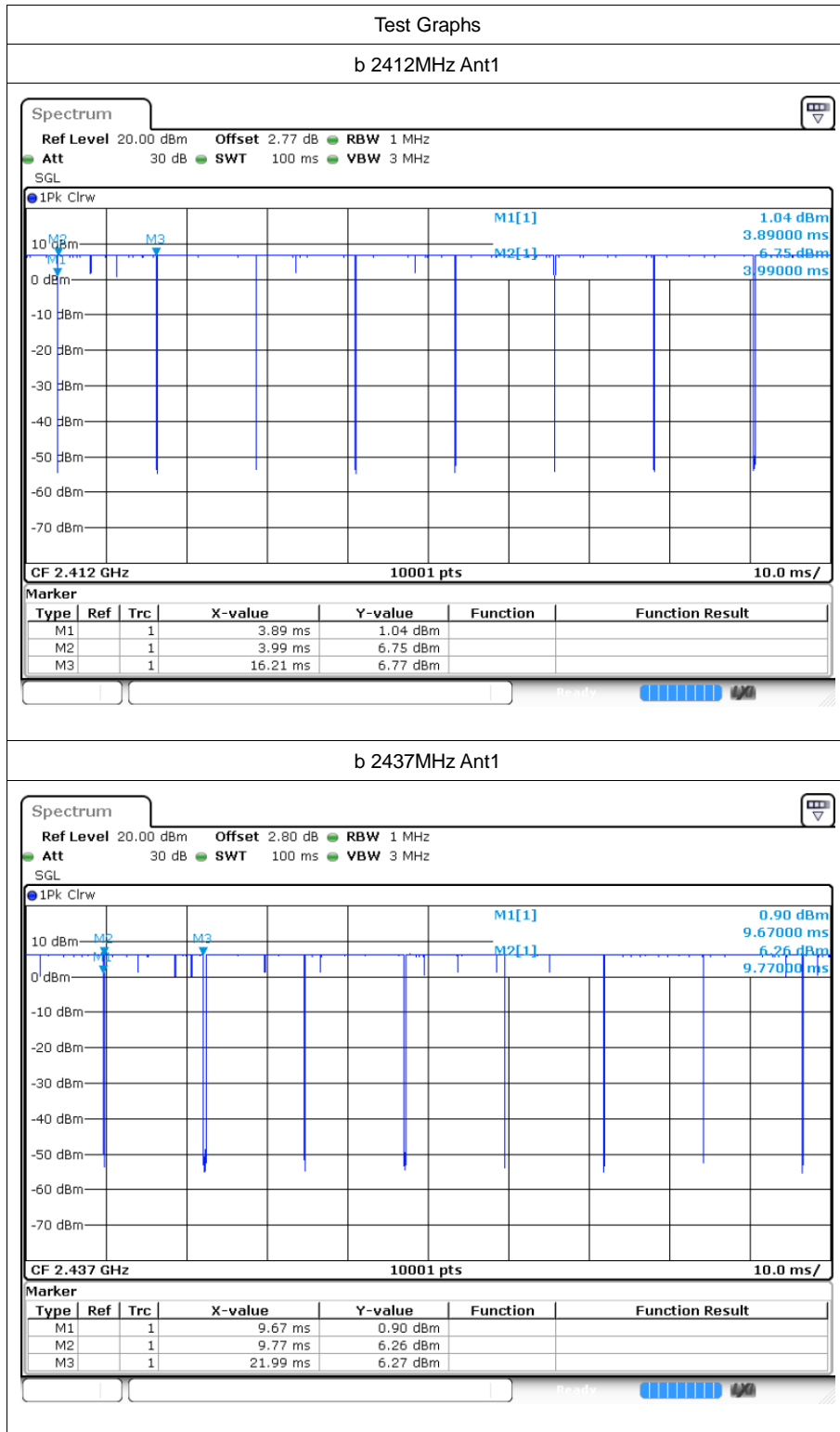
# 1 Duty Cycle

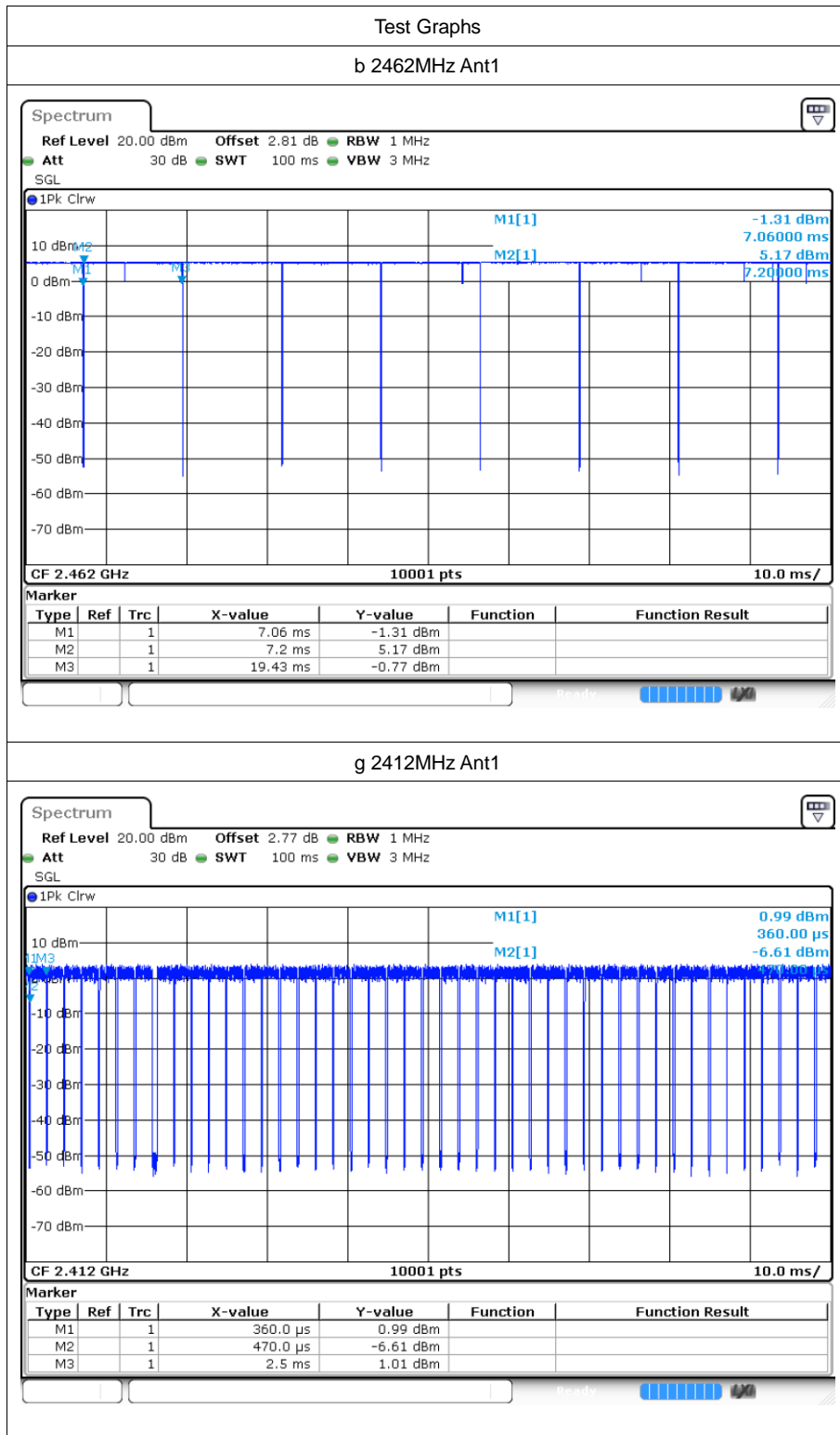
## 1.1 Test Result

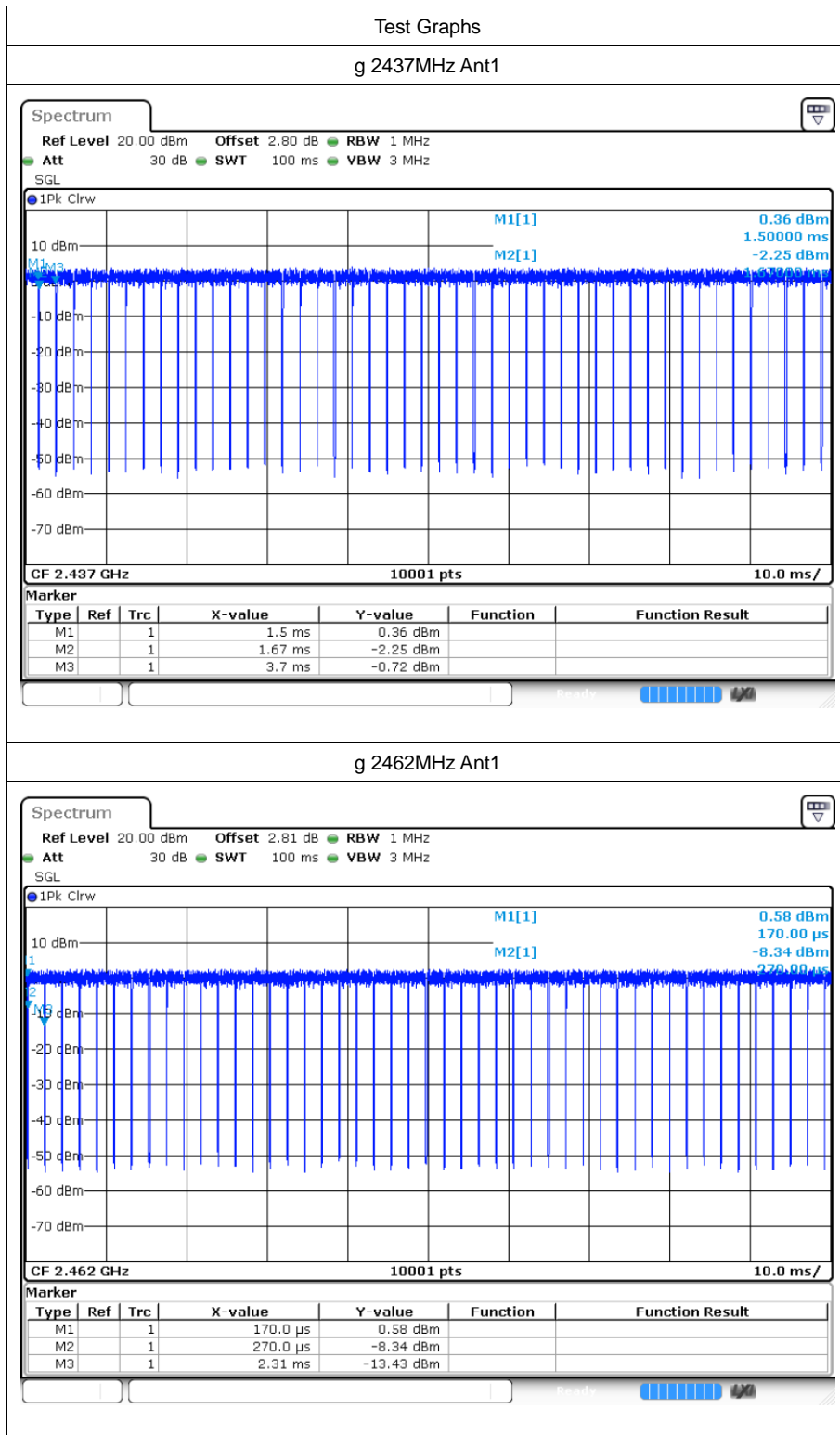
Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	1/T (kHz)
b	2412	Ant1	98.96	0.08
b	2437	Ant1	98.73	0.08
b	2462	Ant1	99.22	0.08
g	2412	Ant1	92.01	0.49
g	2437	Ant1	94.49	0.49
g	2462	Ant1	94.87	0.49
n20	2412	Ant1	94.28	0.53
n20	2437	Ant1	94.59	0.53
n20	2462	Ant1	94.56	0.53
n40	2422	Ant1	89.62	1.06
n40	2437	Ant1	88.85	1.06
n40	2452	Ant1	89.13	1.08
ax20	2412	Ant1	92.84	0.68
ax20	2437	Ant1	90.35	0.69
ax20	2462	Ant1	92.69	0.68
ax40	2422	Ant1	86.38	1.35
ax40	2437	Ant1	86.46	1.33
ax40	2452	Ant1	79.02	1.33

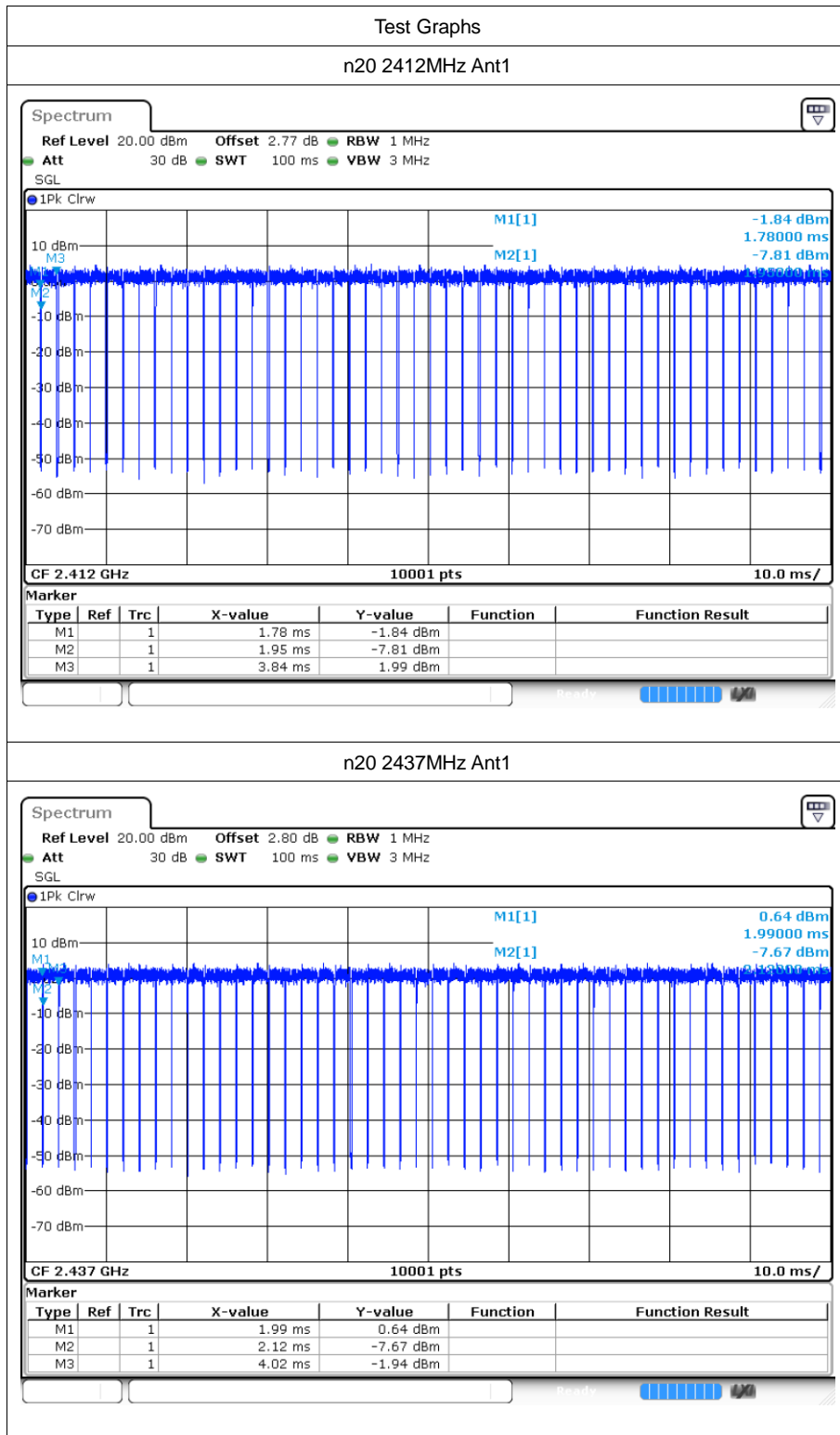


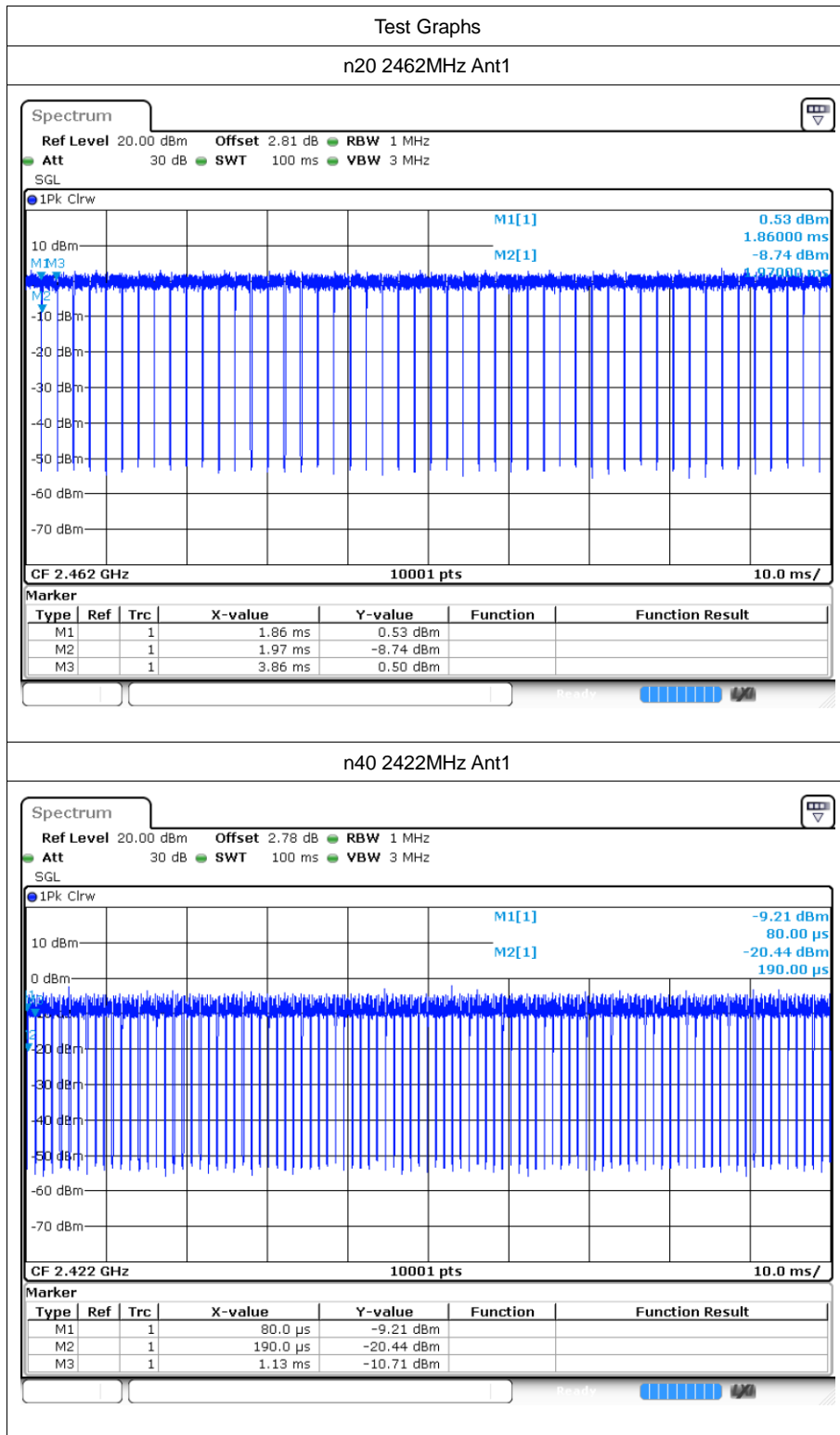
## 1.2 Test Graphs



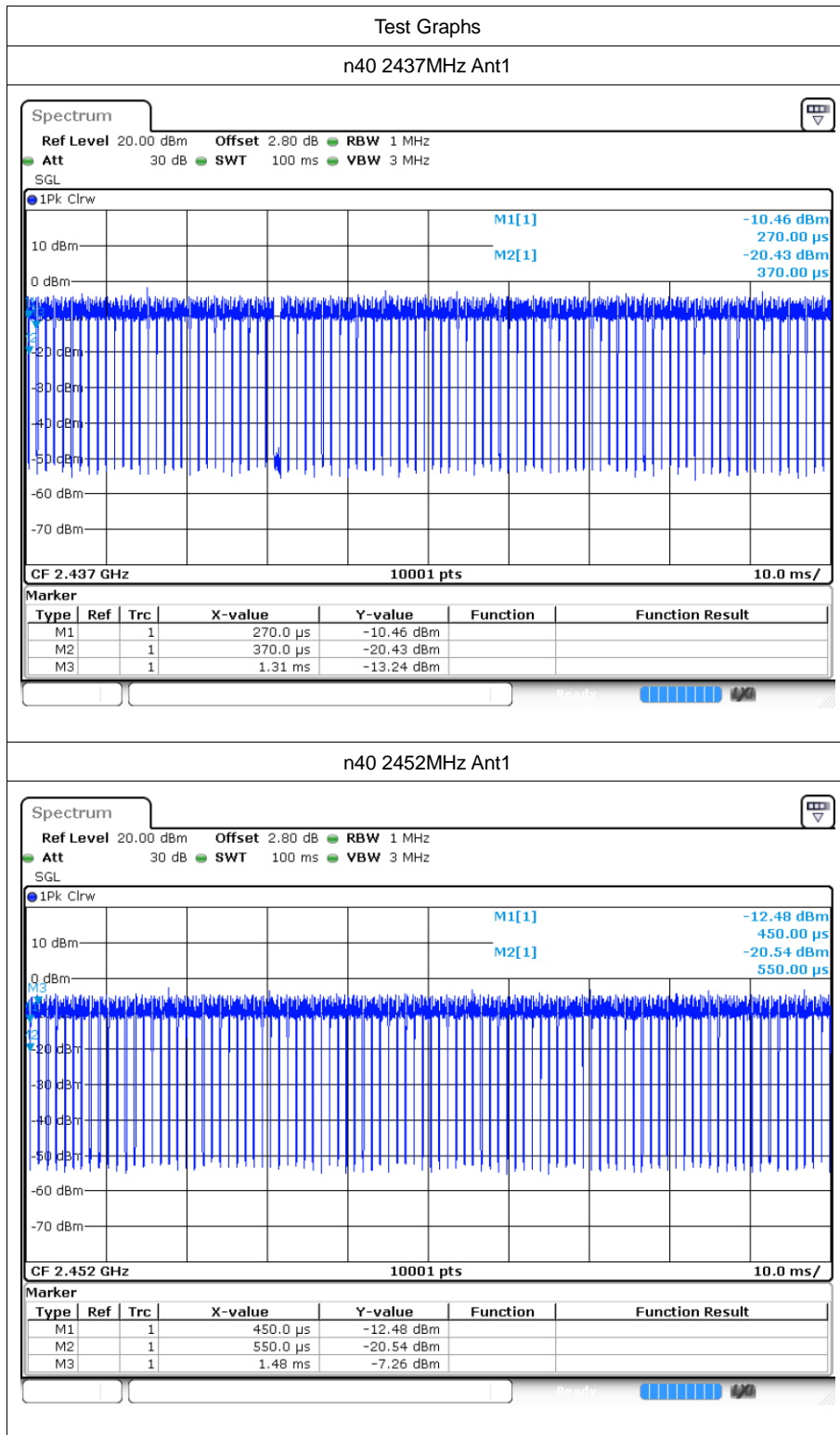


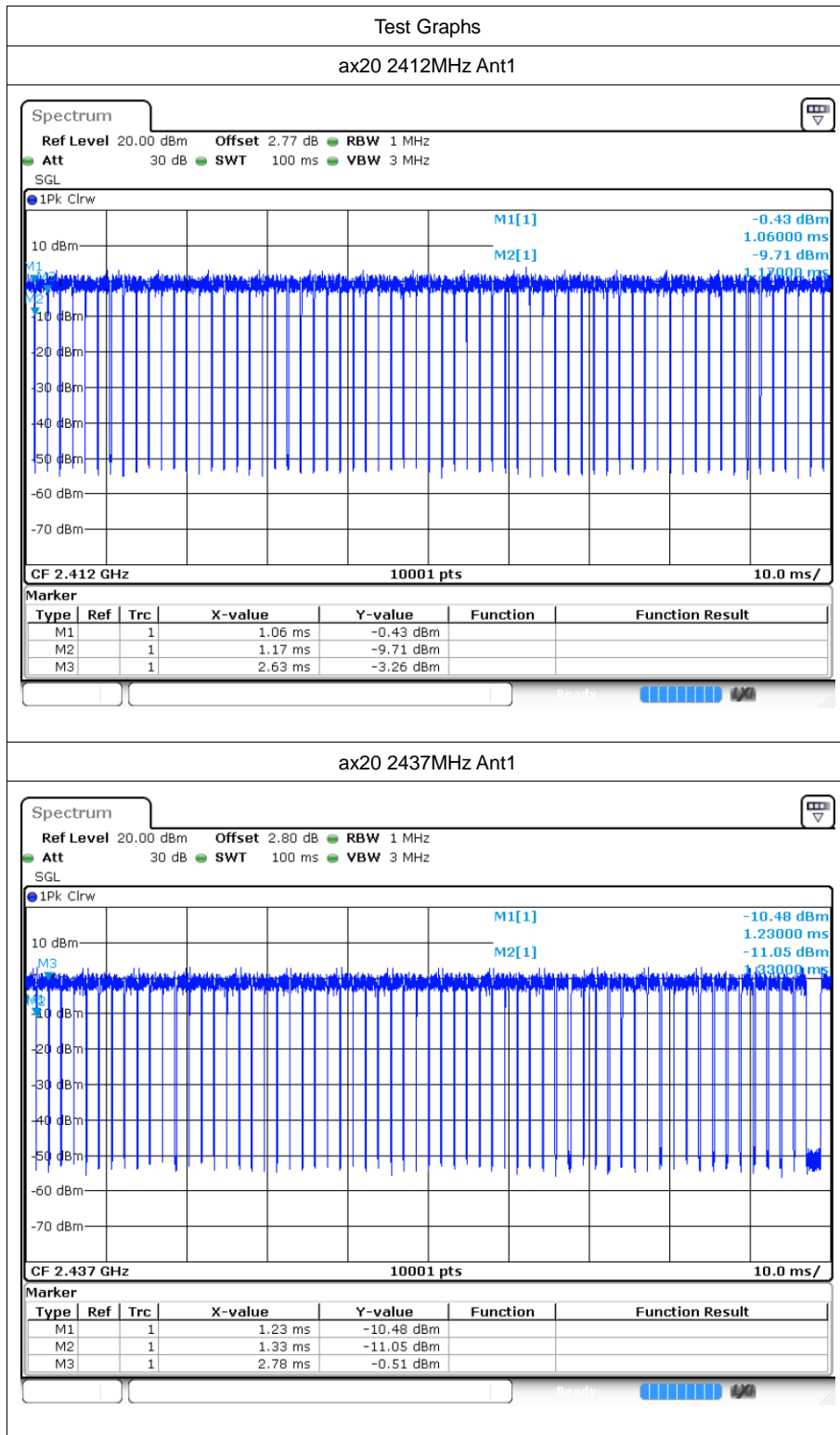


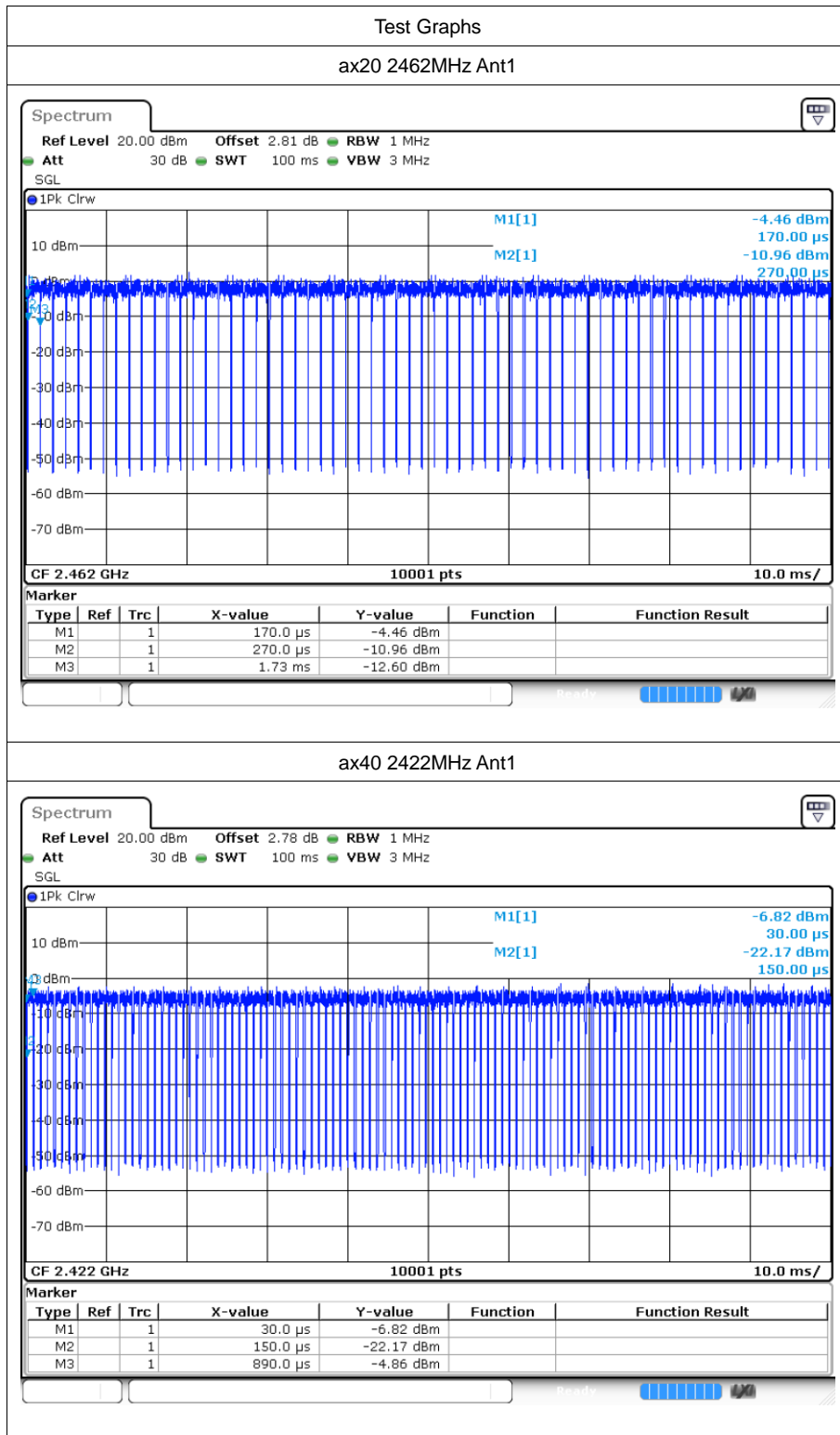


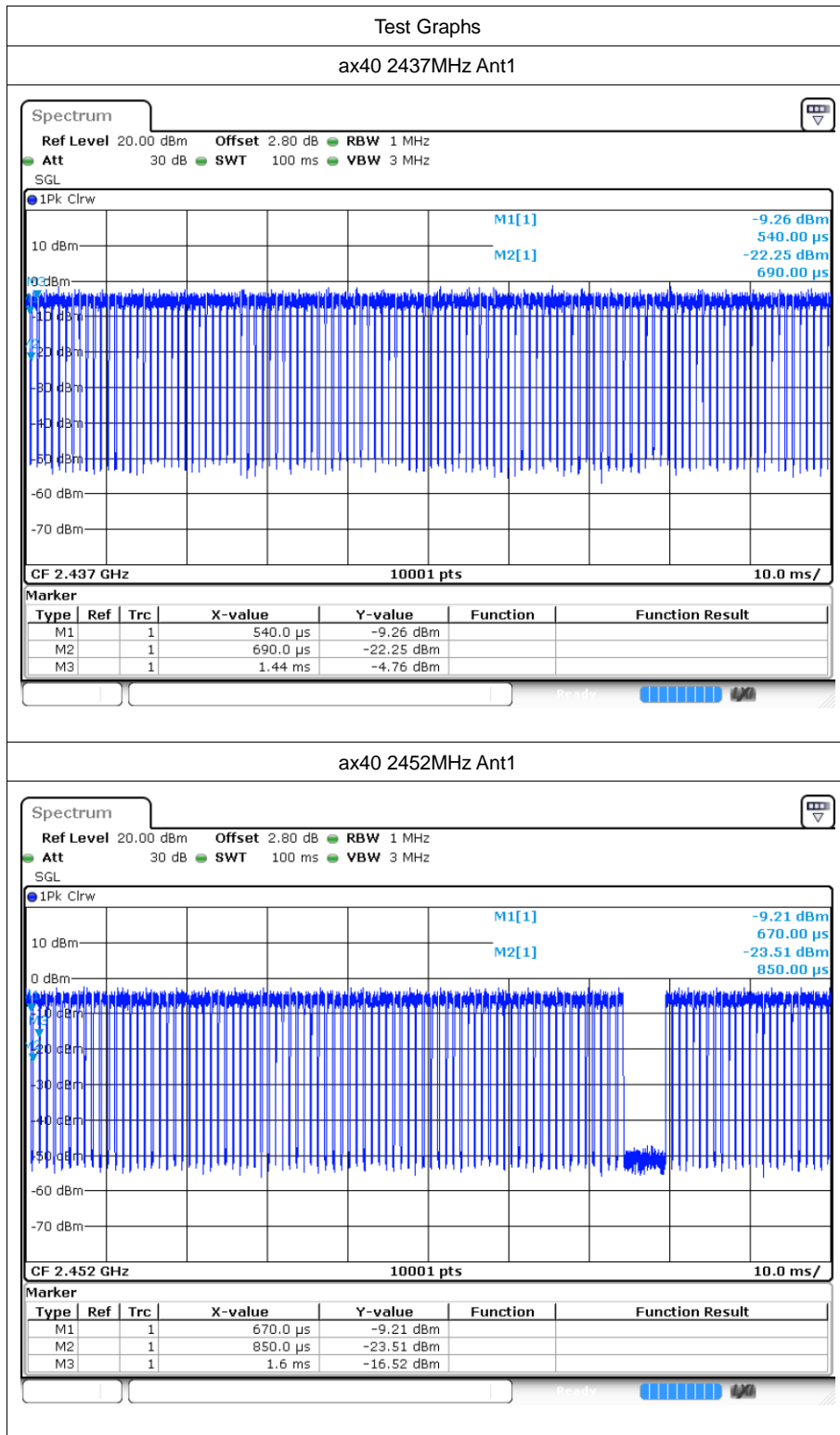














## 2 Maximum Conducted Output Power

### 2.1 Test Result

Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
b	2412	Ant1	15.46	30	Pass
b	2437	Ant1	14.94	30	Pass
b	2462	Ant1	13.89	30	Pass
g	2412	Ant1	15.04	30	Pass
g	2437	Ant1	14.74	30	Pass
g	2462	Ant1	13.71	30	Pass
n20	2412	Ant1	15.14	30	Pass
n20	2437	Ant1	14.57	30	Pass
n20	2462	Ant1	13.71	30	Pass
n40	2422	Ant1	13.6	30	Pass
n40	2437	Ant1	13.27	30	Pass
n40	2452	Ant1	13.26	30	Pass
ax20	2412	Ant1	14.54	30	Pass
ax20	2437	Ant1	14.01	30	Pass
ax20	2462	Ant1	13.32	30	Pass
ax40	2422	Ant1	14.18	30	Pass
ax40	2437	Ant1	13.77	30	Pass
ax40	2452	Ant1	13.83	30	Pass

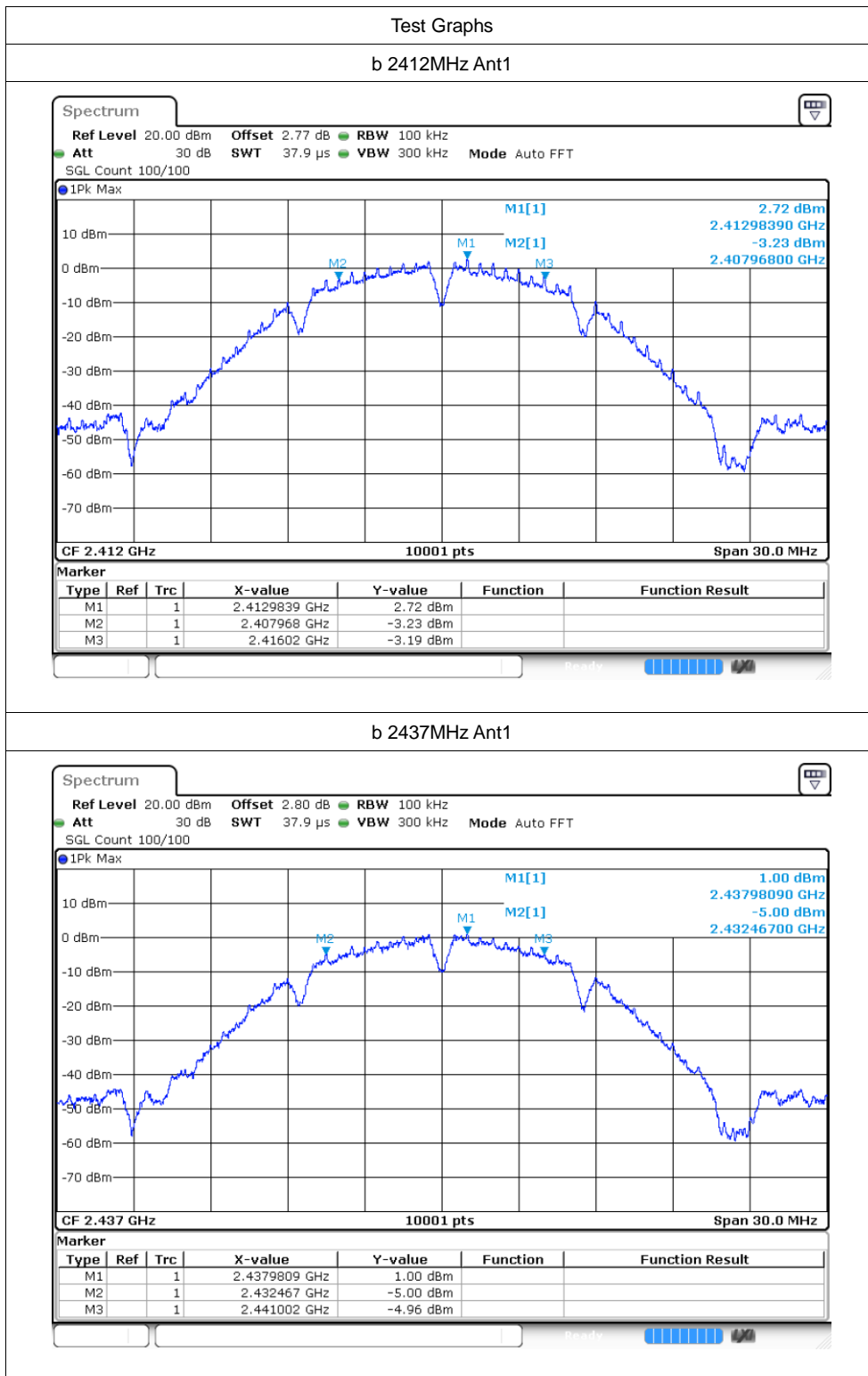


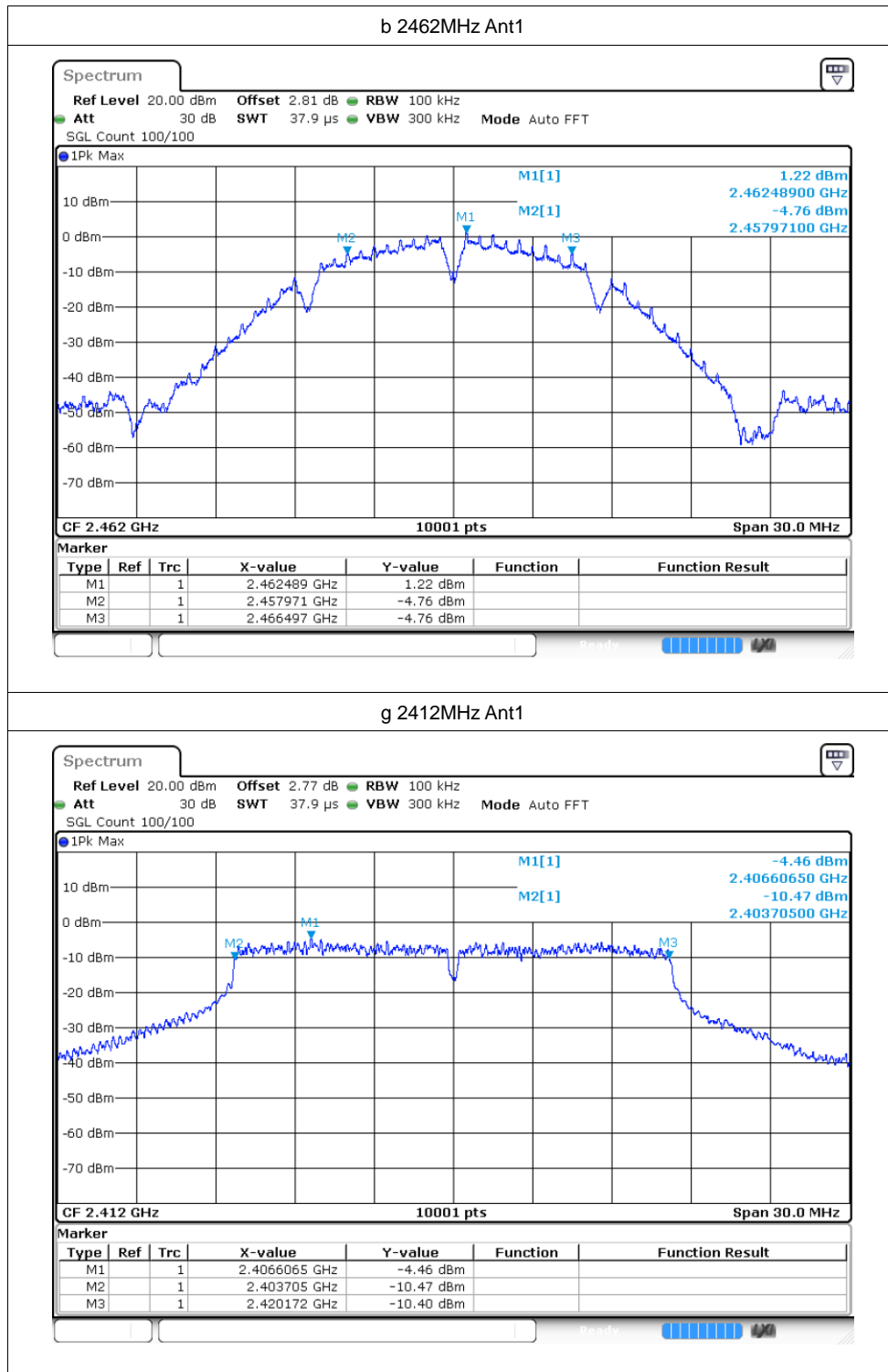
### 3 -6dB Bandwidth

#### 3.1 Test Result

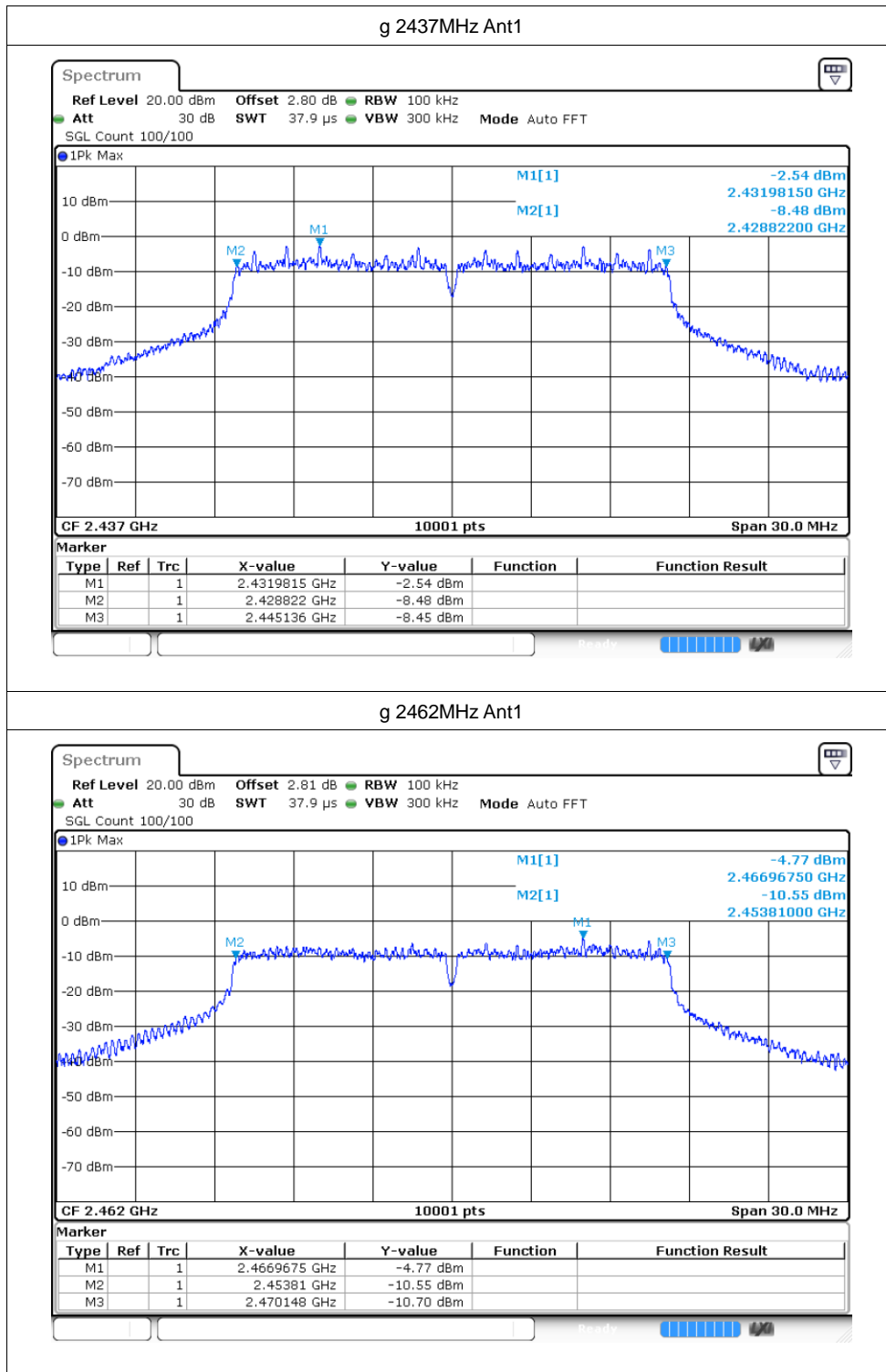
Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
b	2412	Ant1	8.052	0.5	Pass
b	2437	Ant1	8.535	0.5	Pass
b	2462	Ant1	8.526	0.5	Pass
g	2412	Ant1	16.467	0.5	Pass
g	2437	Ant1	16.314	0.5	Pass
g	2462	Ant1	16.338	0.5	Pass
n20	2412	Ant1	17.646	0.5	Pass
n20	2437	Ant1	17.688	0.5	Pass
n20	2462	Ant1	17.607	0.5	Pass
n40	2422	Ant1	36.294	0.5	Pass
n40	2437	Ant1	35.67	0.5	Pass
n40	2452	Ant1	36.312	0.5	Pass
ax20	2412	Ant1	19.185	0.5	Pass
ax20	2437	Ant1	18.753	0.5	Pass
ax20	2462	Ant1	19.206	0.5	Pass
ax40	2422	Ant1	37.836	0.5	Pass
ax40	2437	Ant1	38.022	0.5	Pass
ax40	2452	Ant1	38.028	0.5	Pass

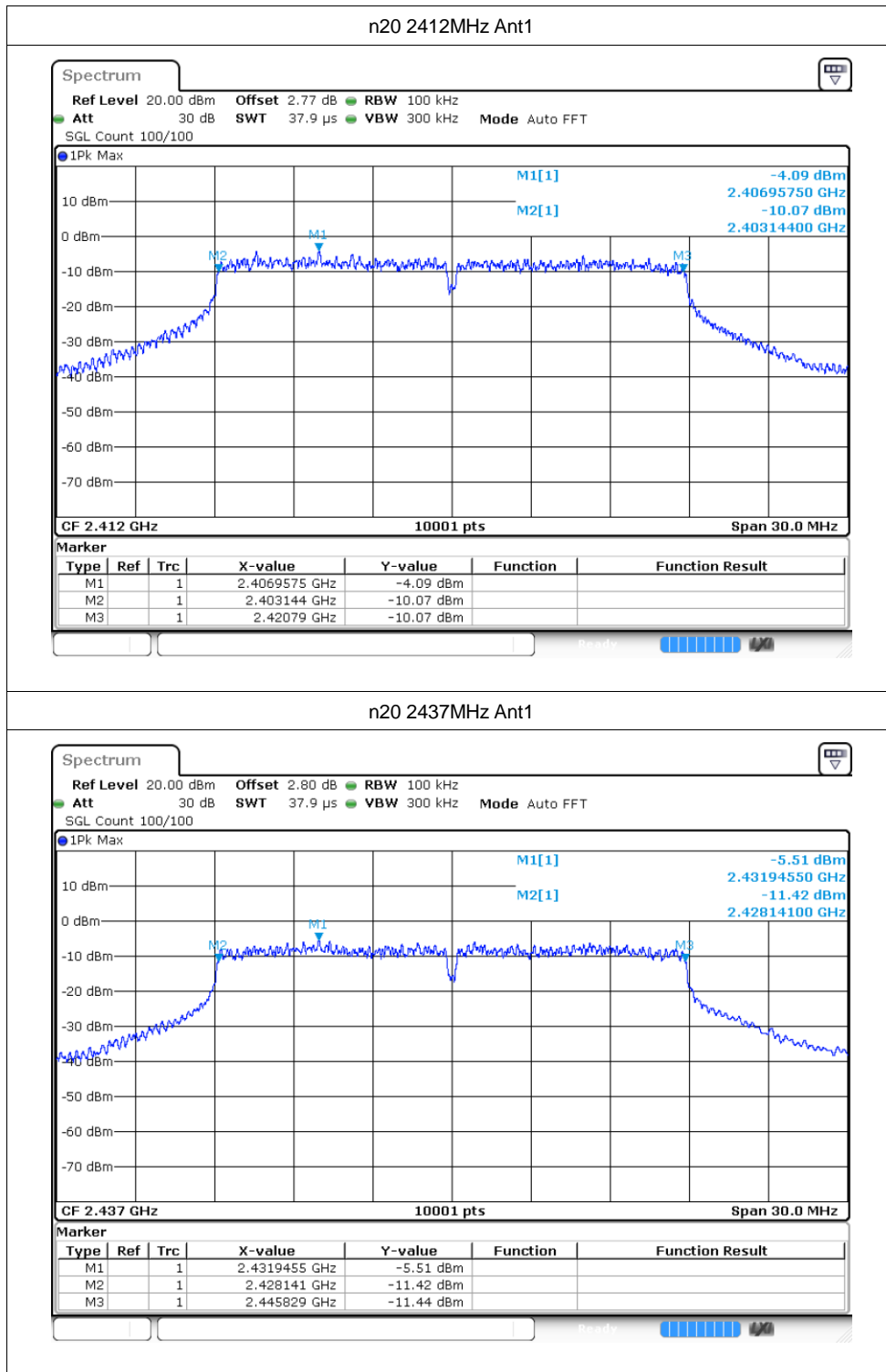
### 3.2 Test Graphs

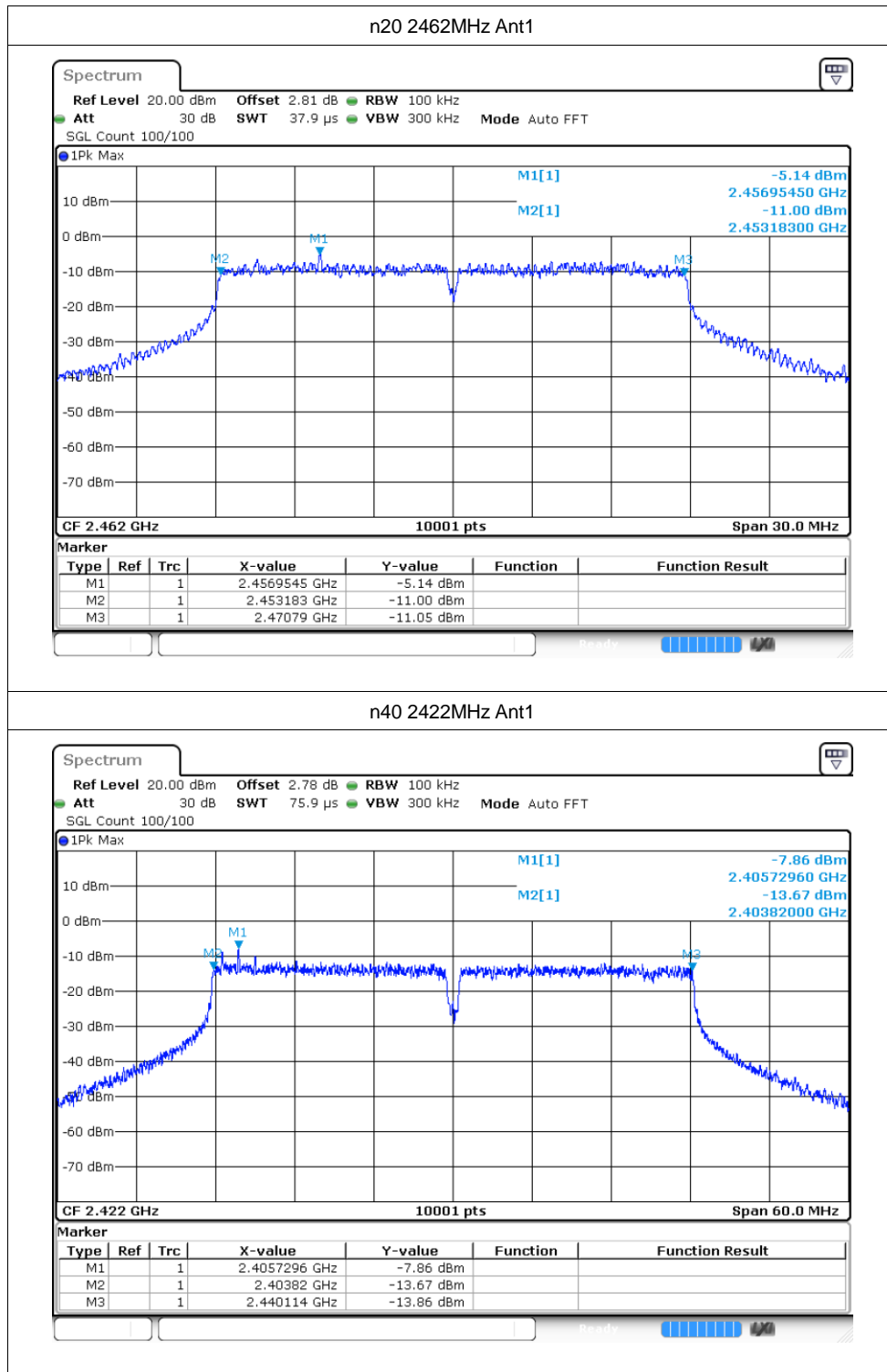


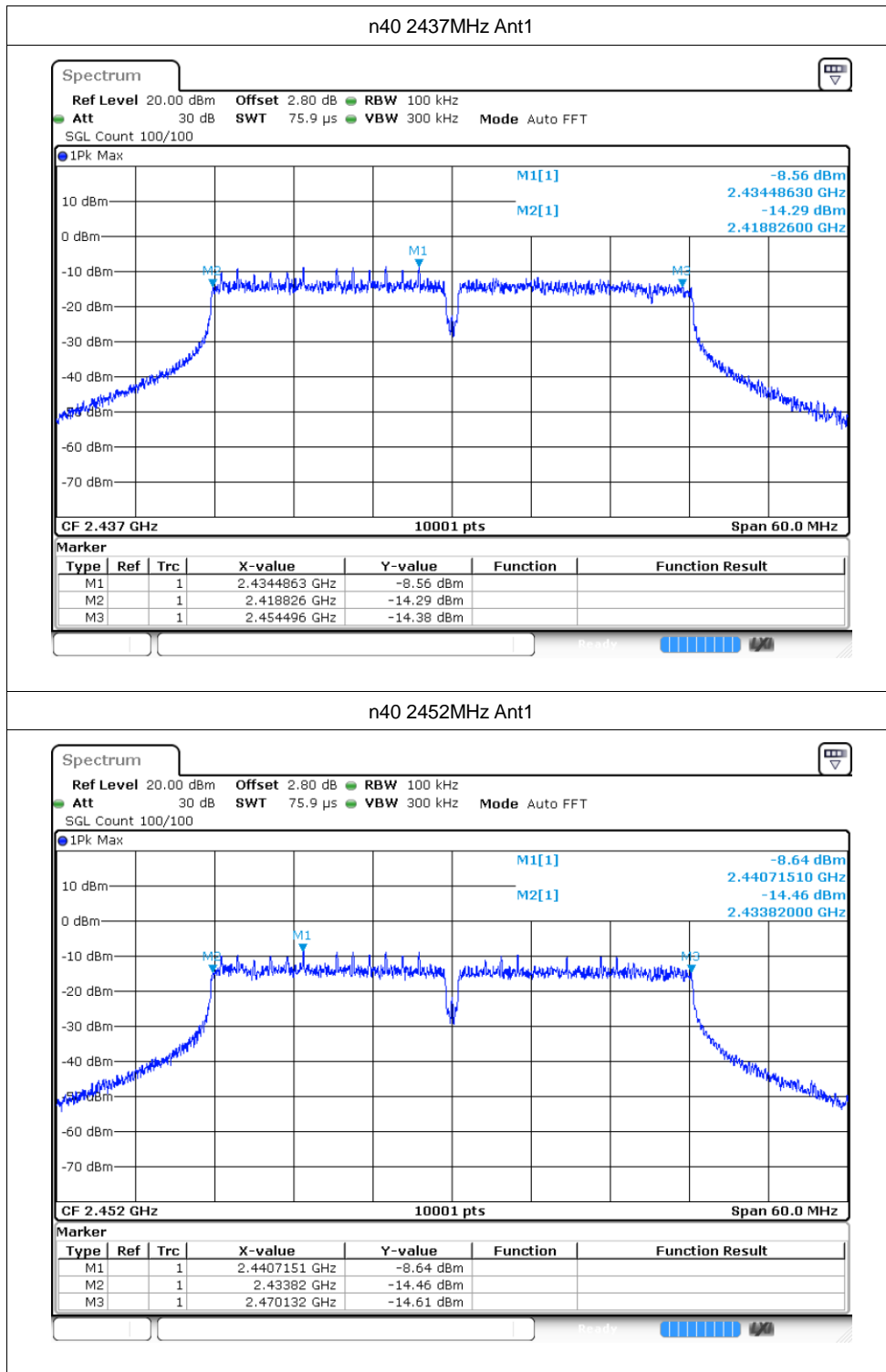


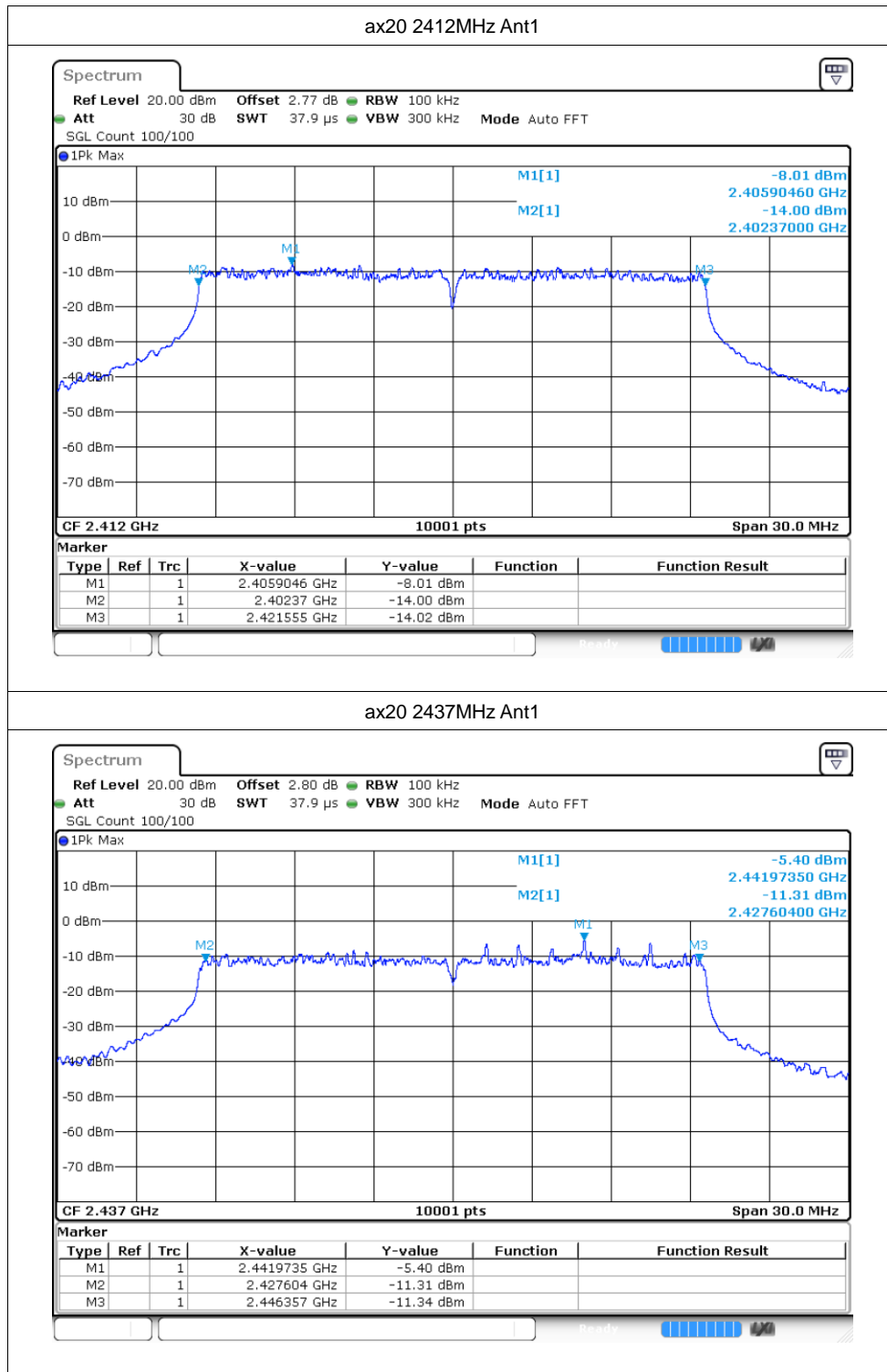


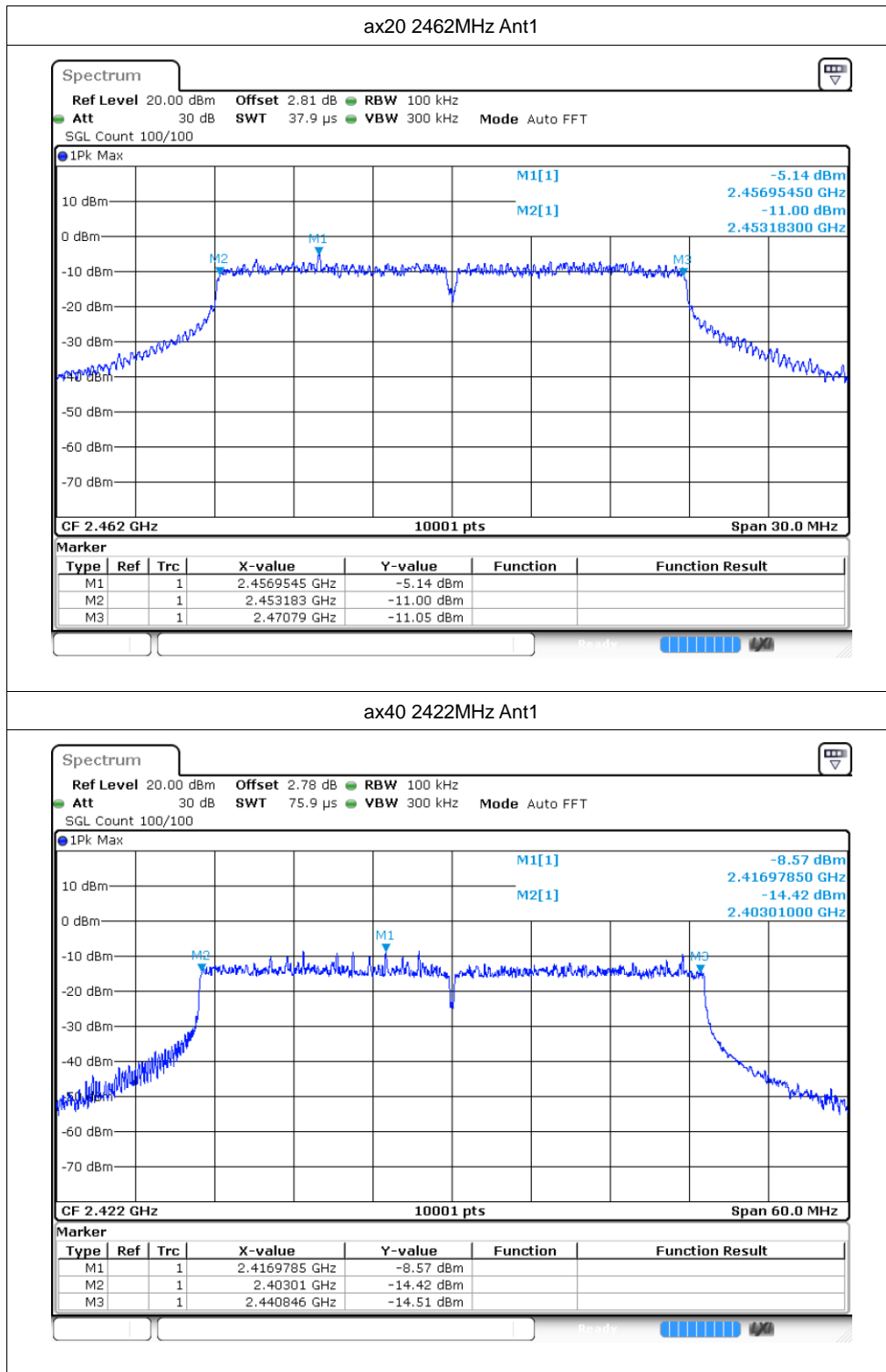


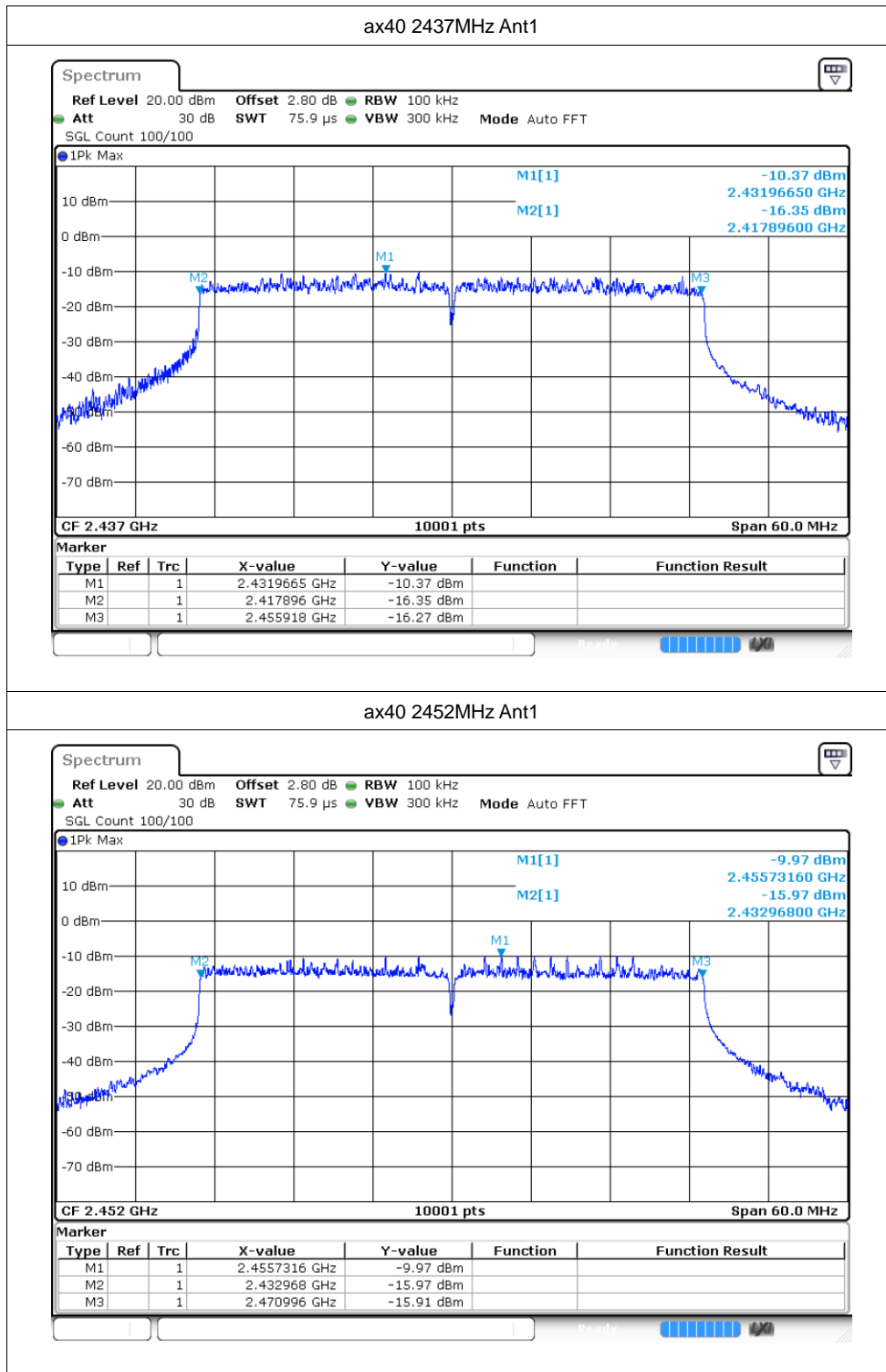












## 4 Maximum Power Spectral Density Level

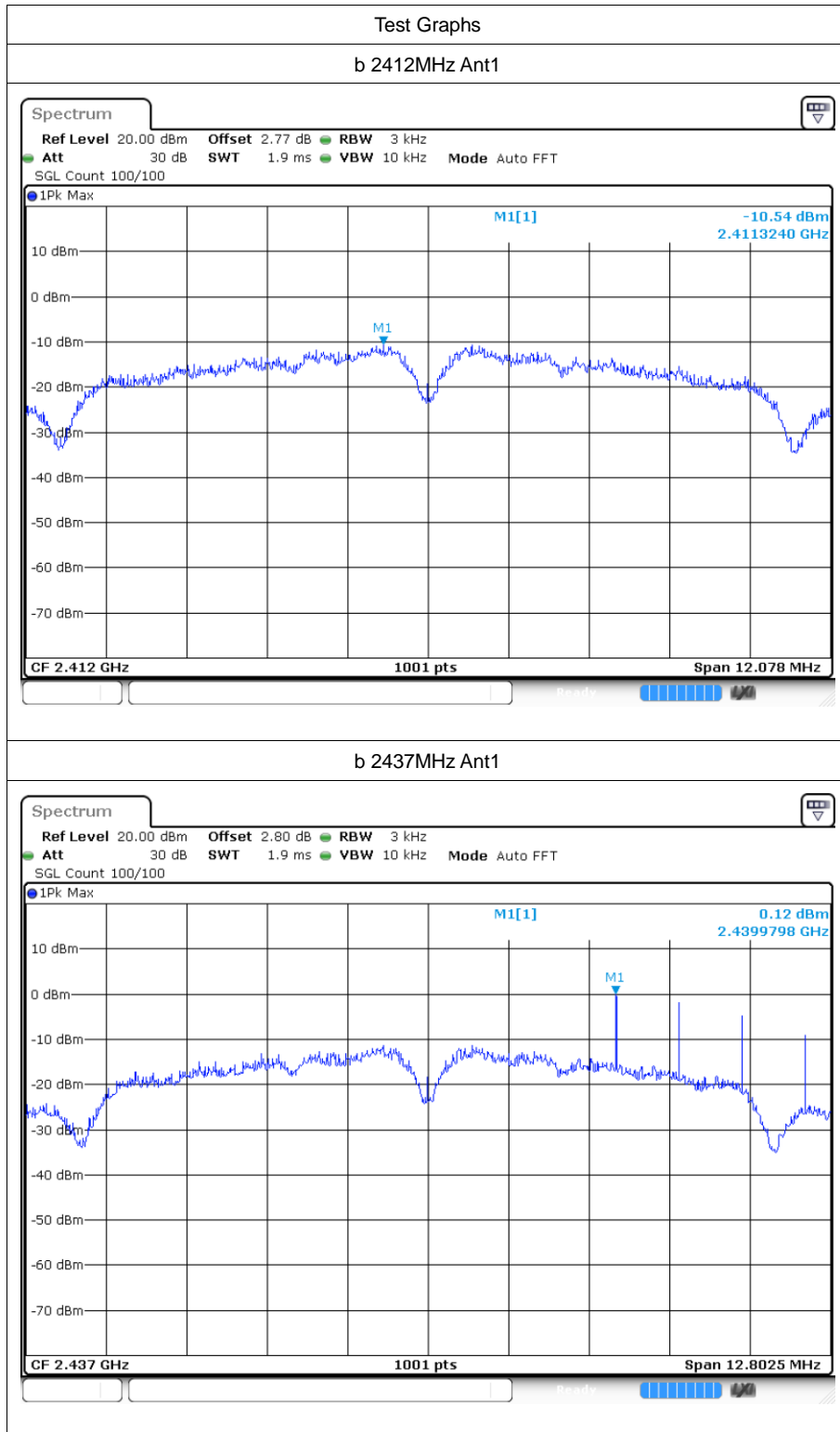
### 4.1 Test Result

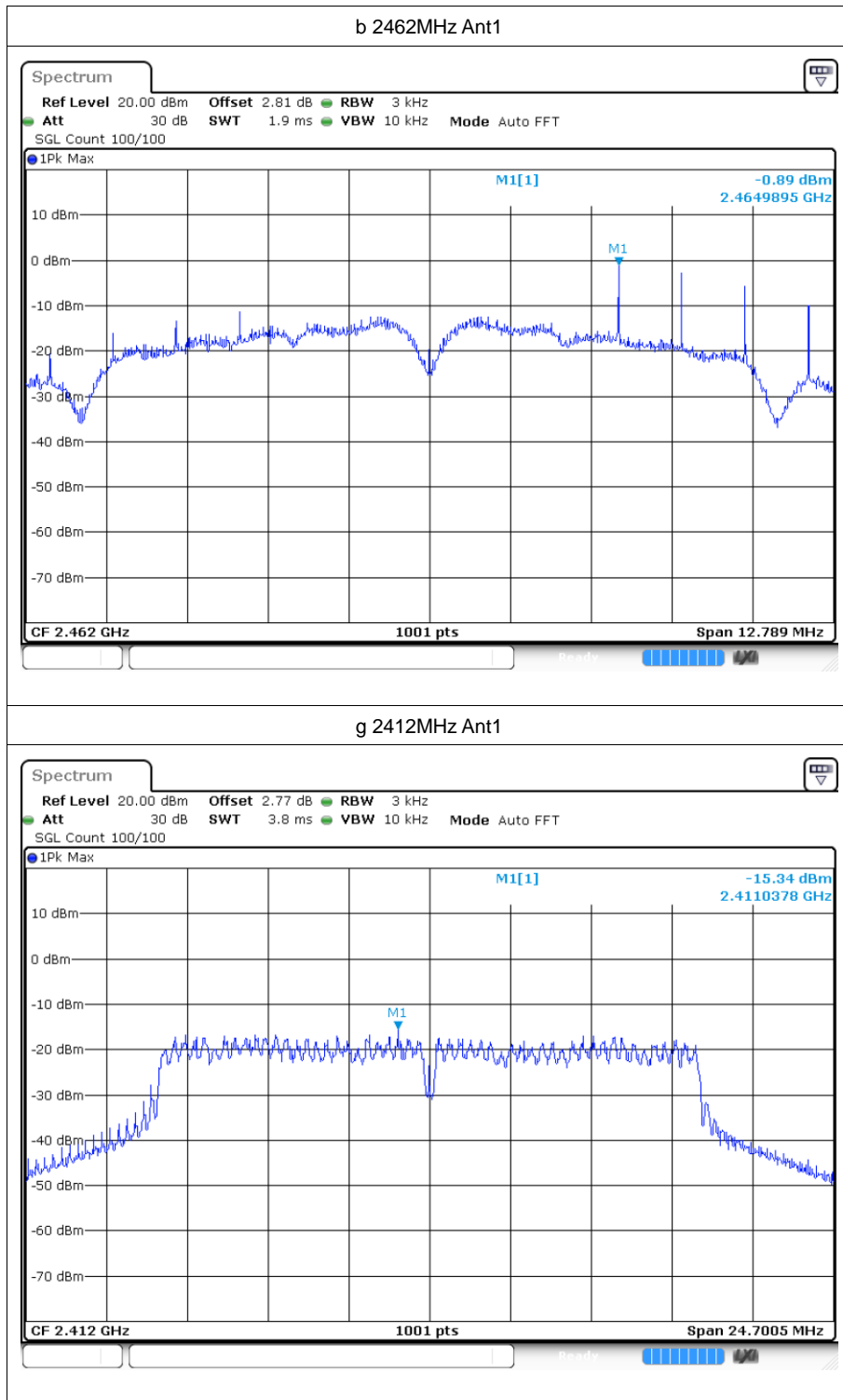
Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3-100kHz)	Limit (dBm/3kHz)	Verdict
b	2412	Ant1	-10.54	≤8	Pass
b	2437	Ant1	0.12	≤8	Pass
b	2462	Ant1	-0.89	≤8	Pass
g	2412	Ant1	-15.34	≤8	Pass
g	2437	Ant1	-15.89	≤8	Pass
g	2462	Ant1	-17.26	≤8	Pass
n20	2412	Ant1	-15.42	≤8	Pass
n20	2437	Ant1	-16.49	≤8	Pass
n20	2462	Ant1	-17.35	≤8	Pass
n40	2422	Ant1	-21.4	≤8	Pass
n40	2437	Ant1	-21.56	≤8	Pass
n40	2452	Ant1	-21.79	≤8	Pass
ax20	2412	Ant1	-4.34	≤8	Pass
ax20	2437	Ant1	-7.53	≤8	Pass
ax20	2462	Ant1	-8.96	≤8	Pass
ax40	2422	Ant1	-8.55	≤8	Pass
ax40	2437	Ant1	-8.56	≤8	Pass
ax40	2452	Ant1	-9.02	≤8	Pass

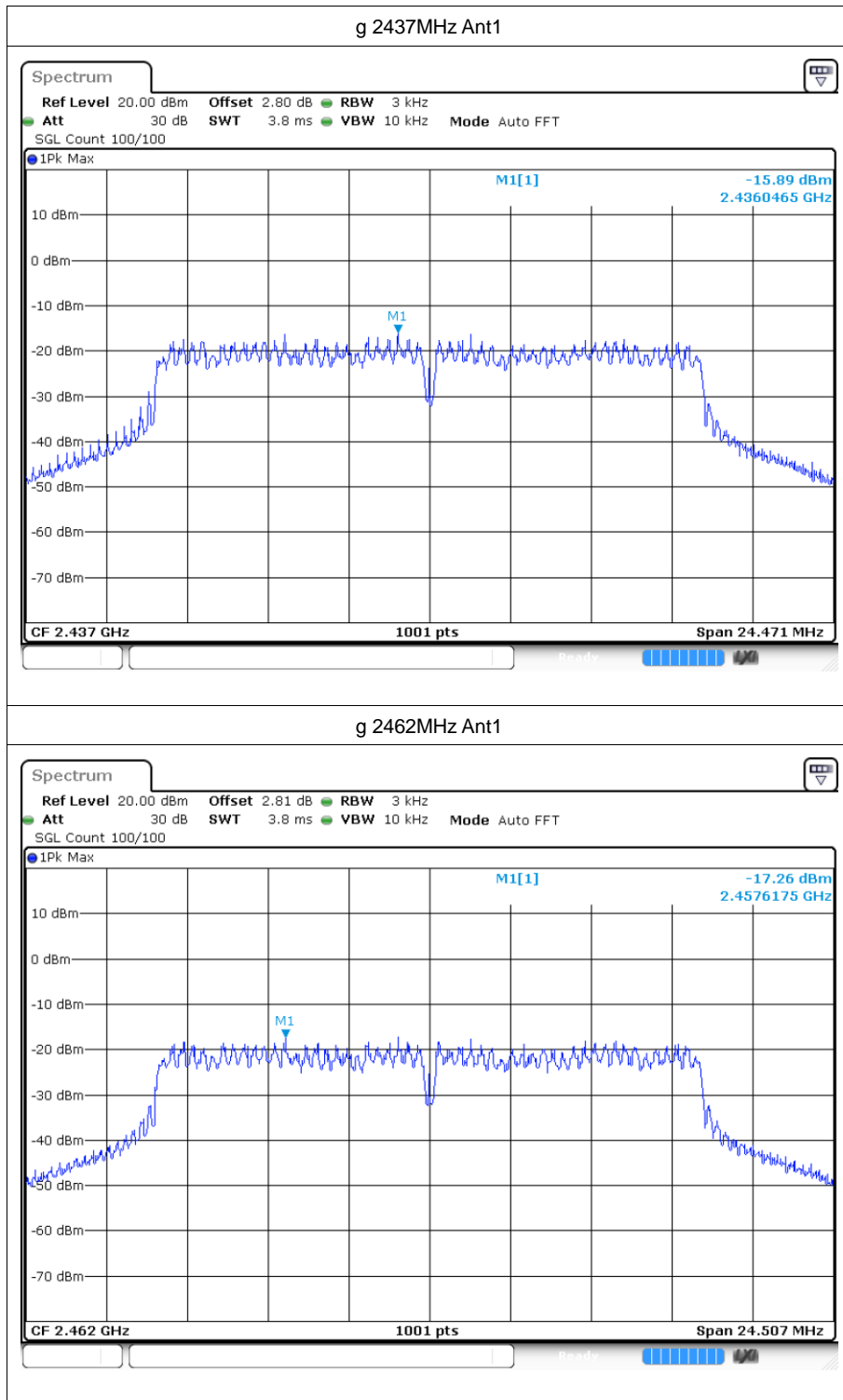


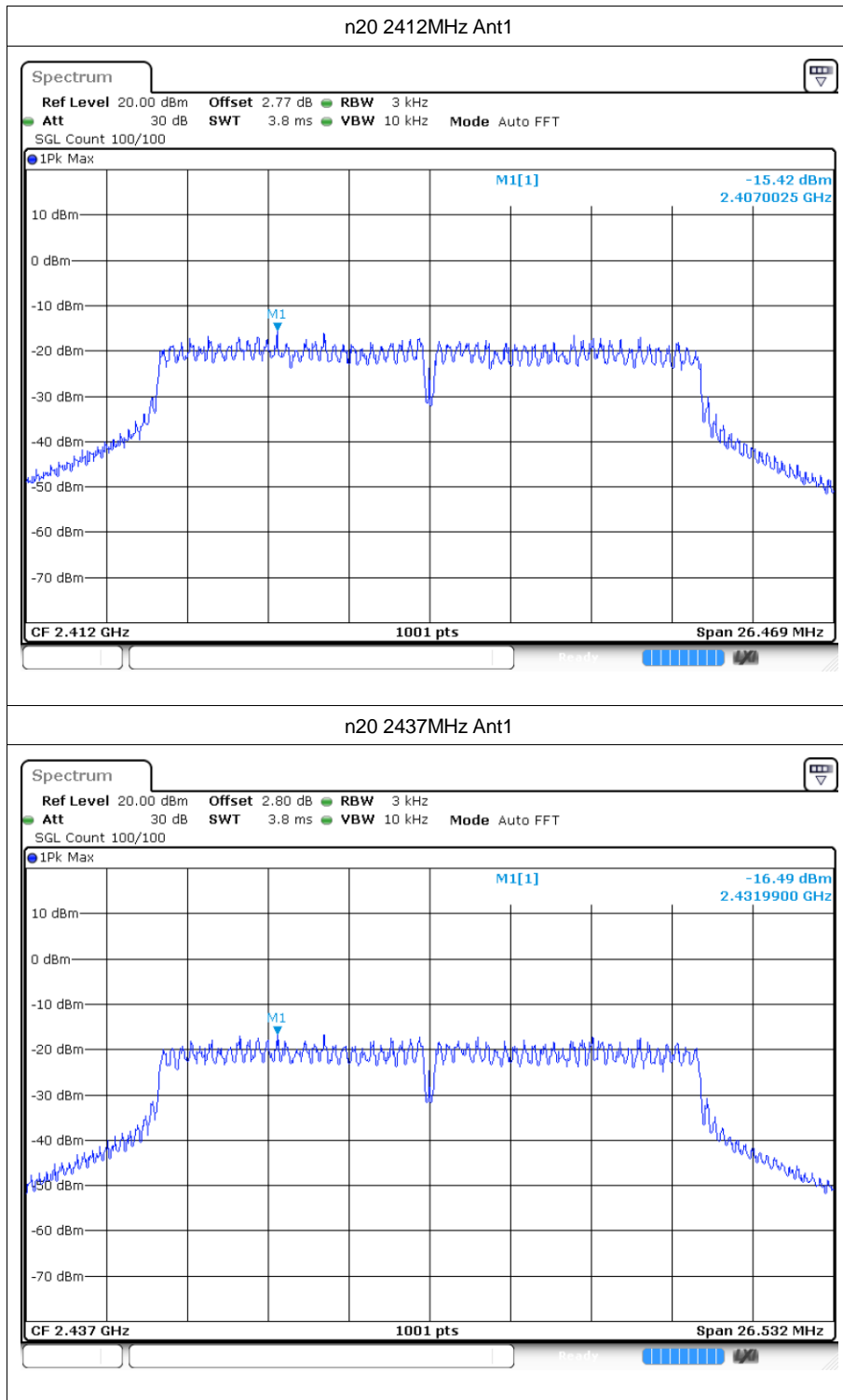


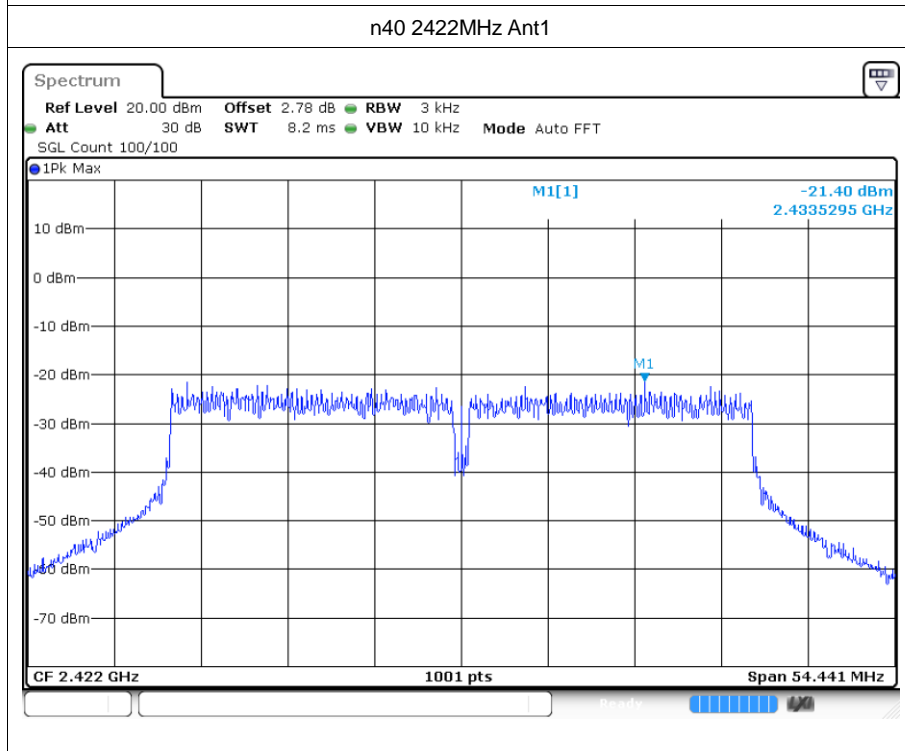
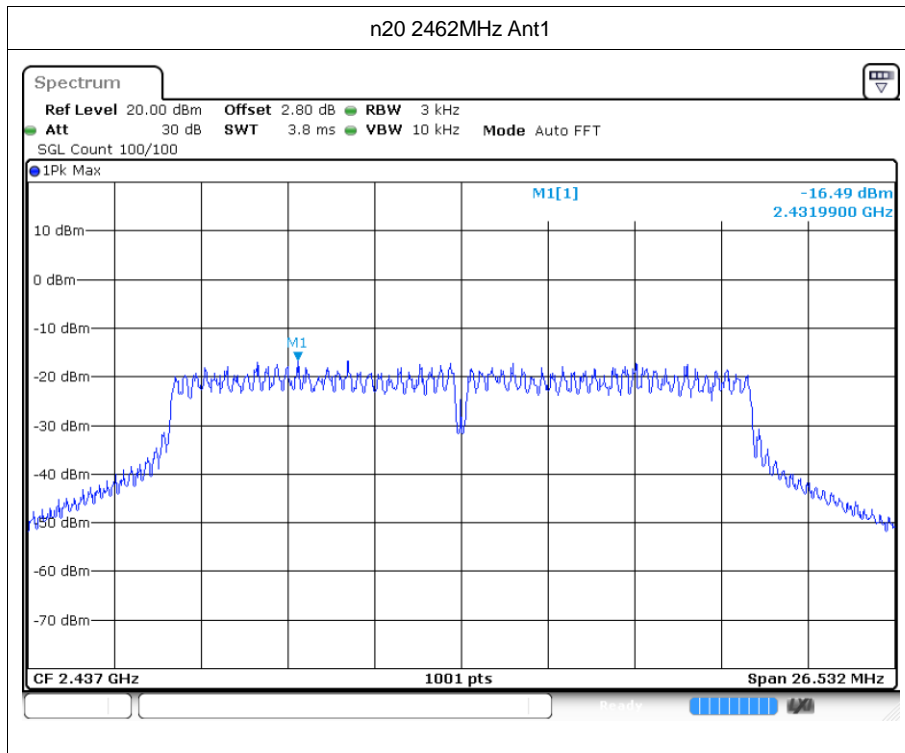
## 4.2 Test Graphs

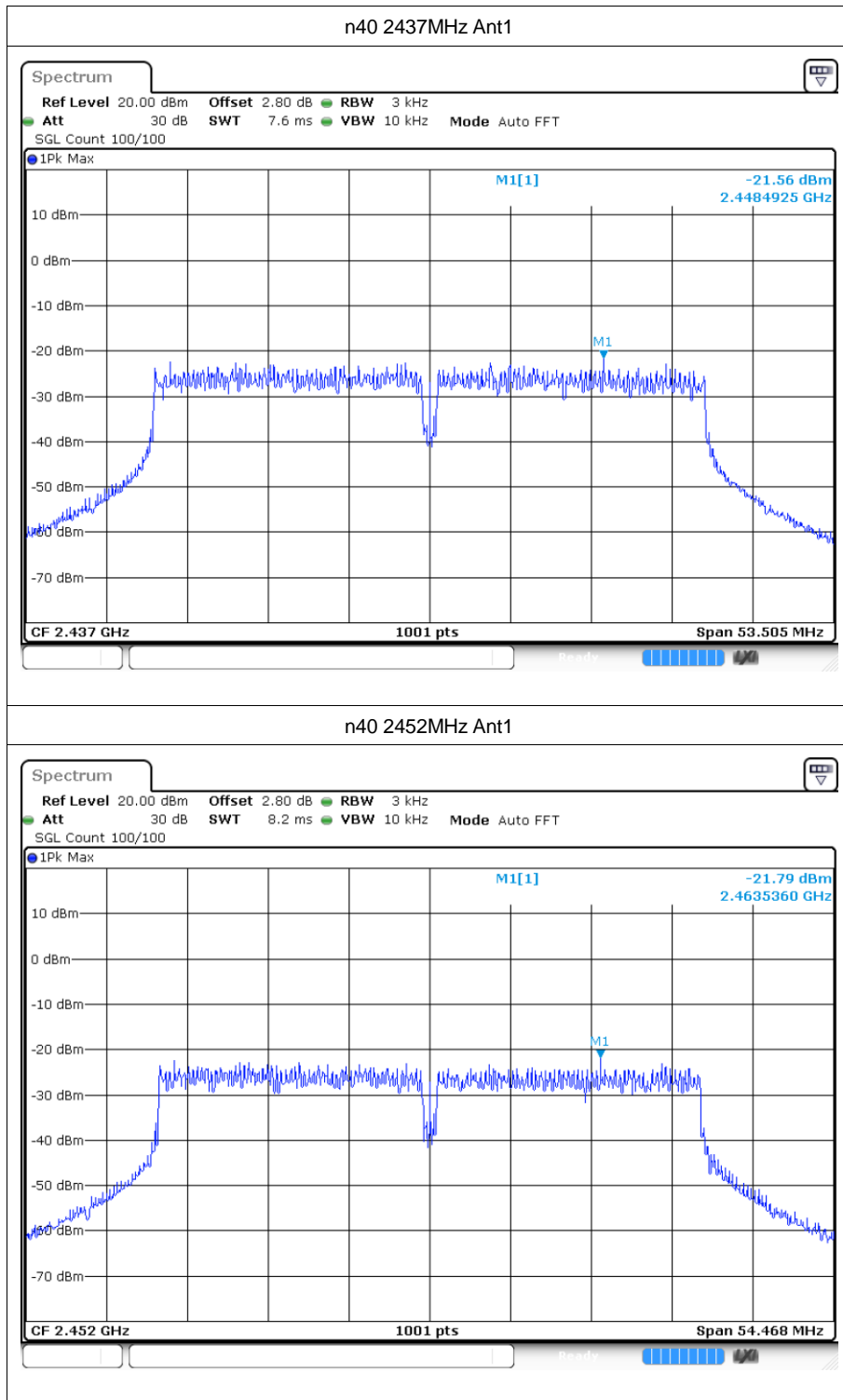


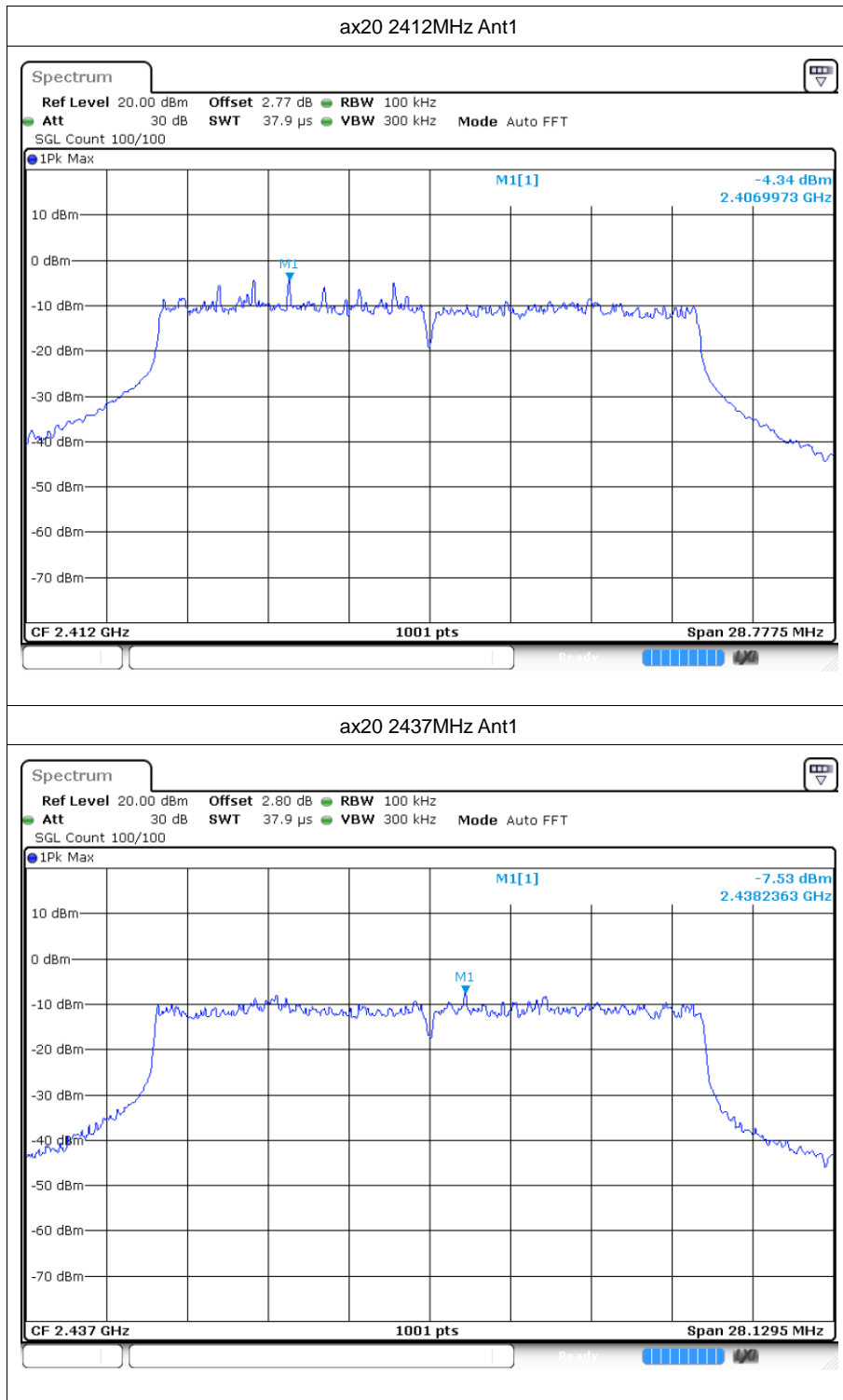


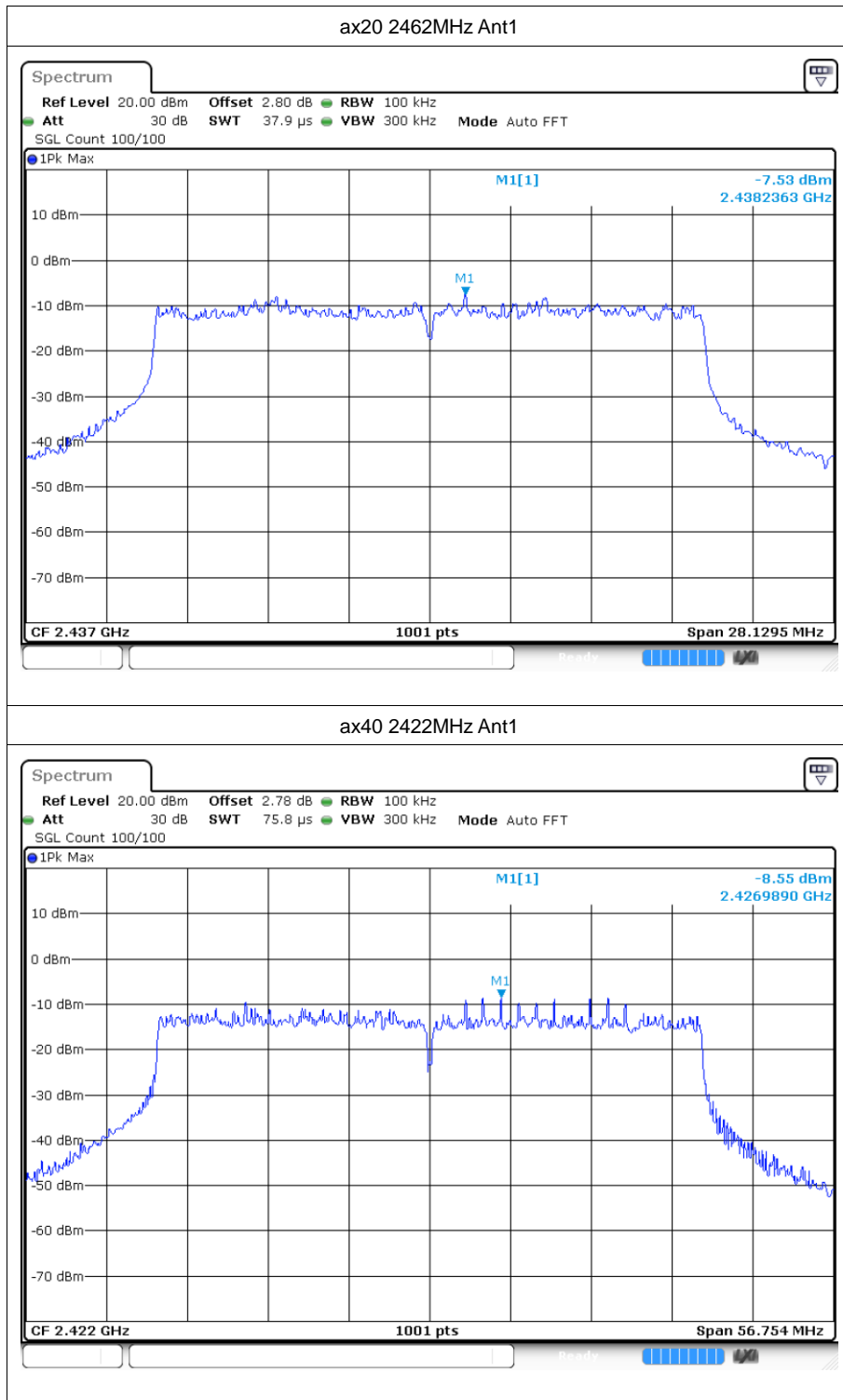




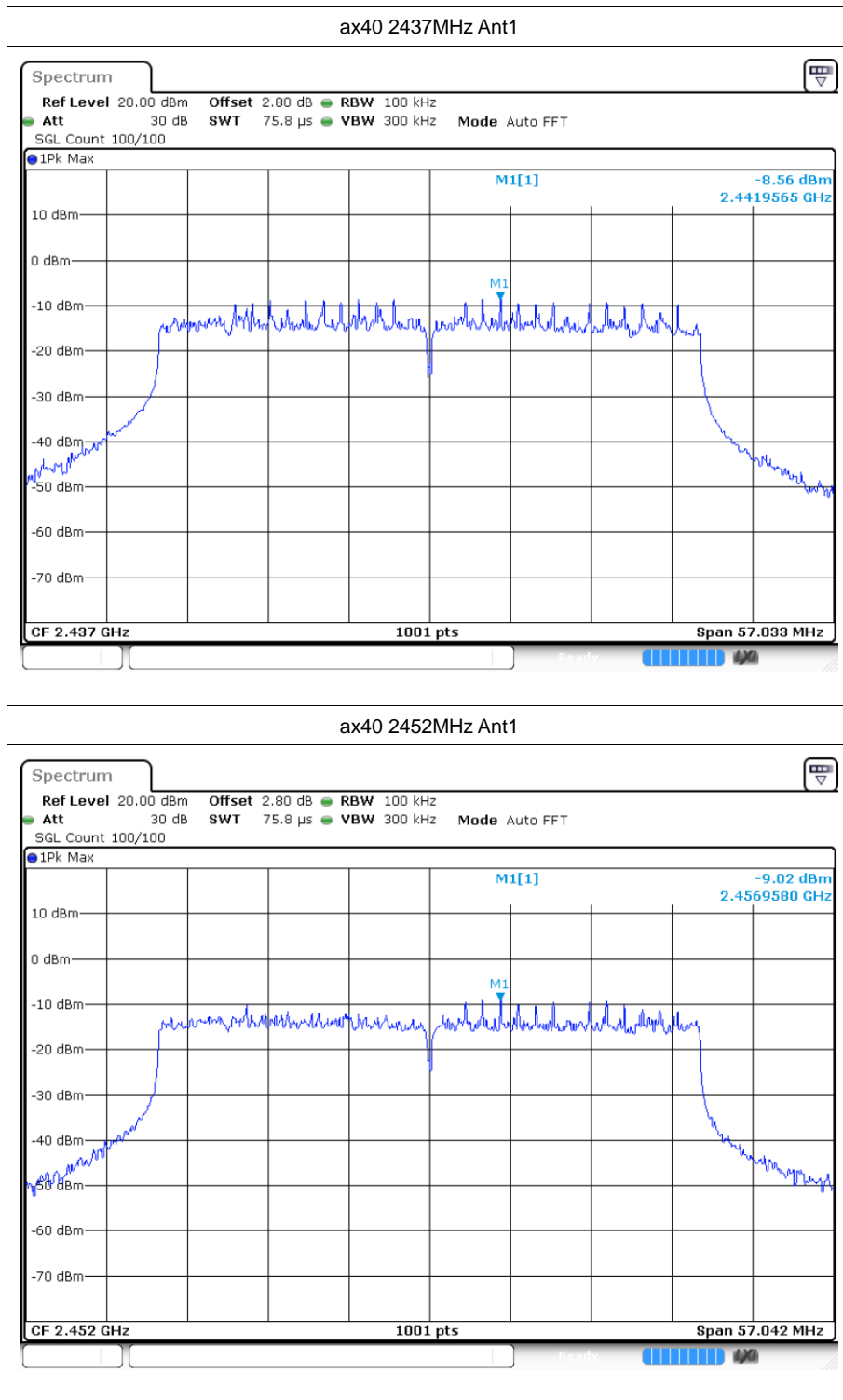












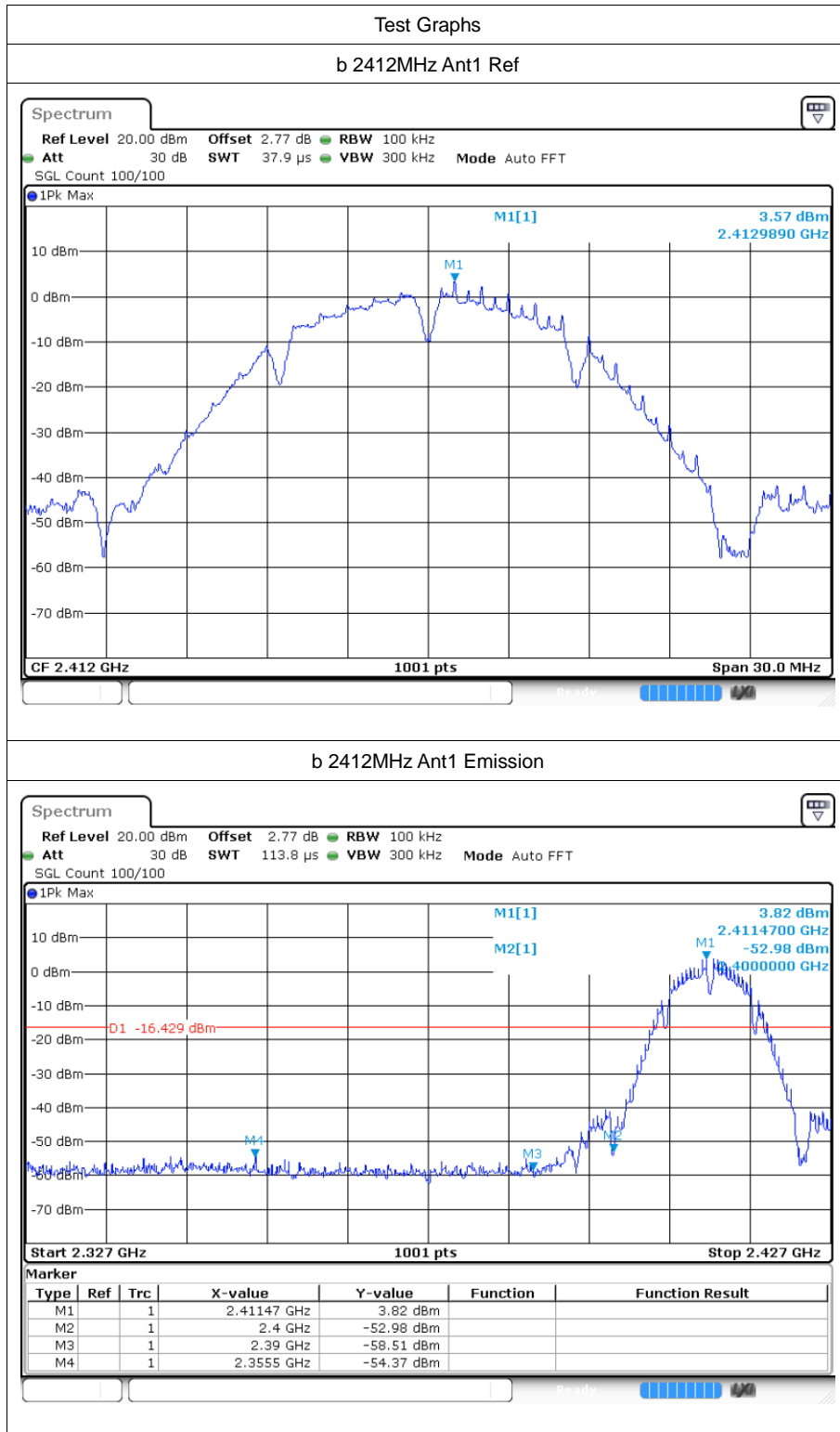


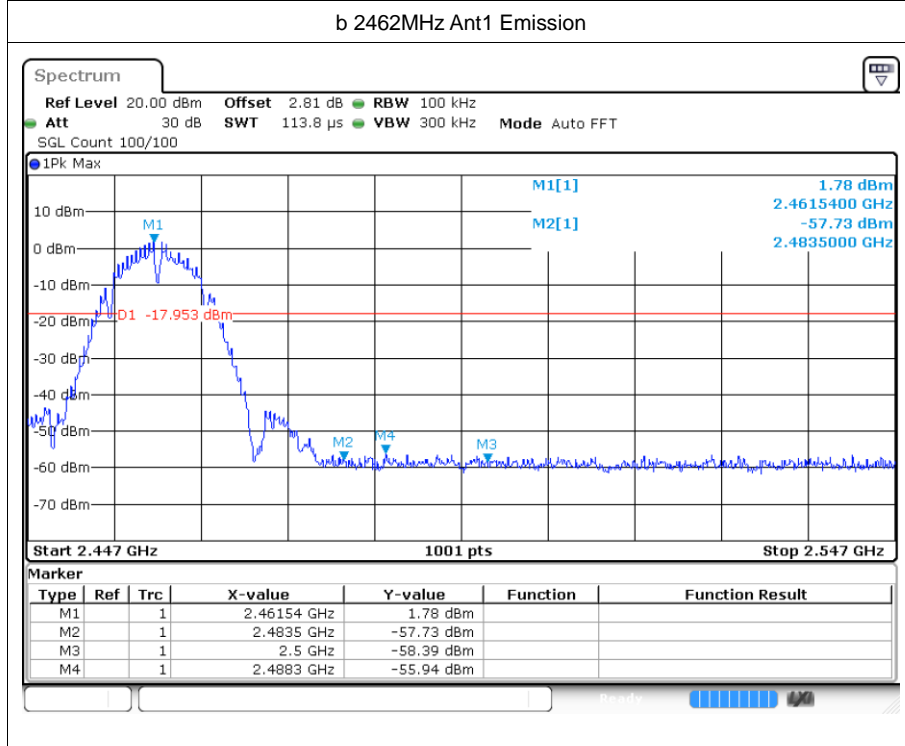
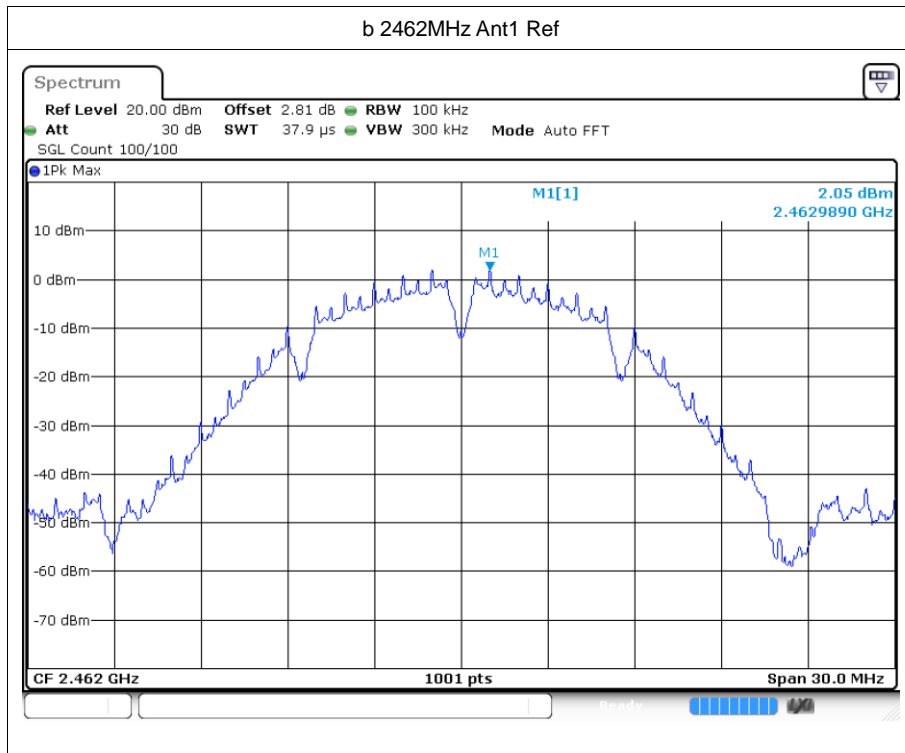
## 5 Band Edge

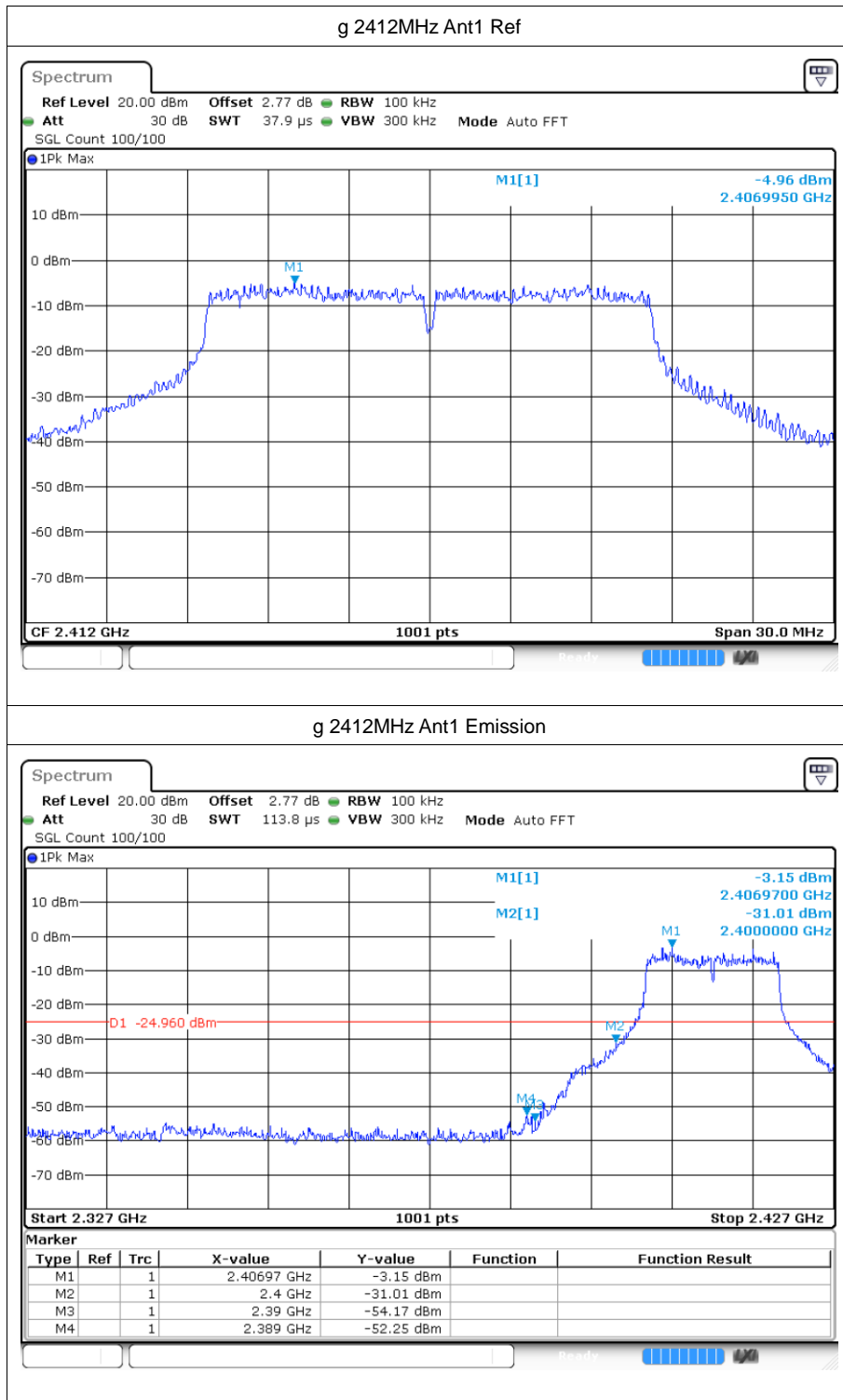
### 5.1 Test Result

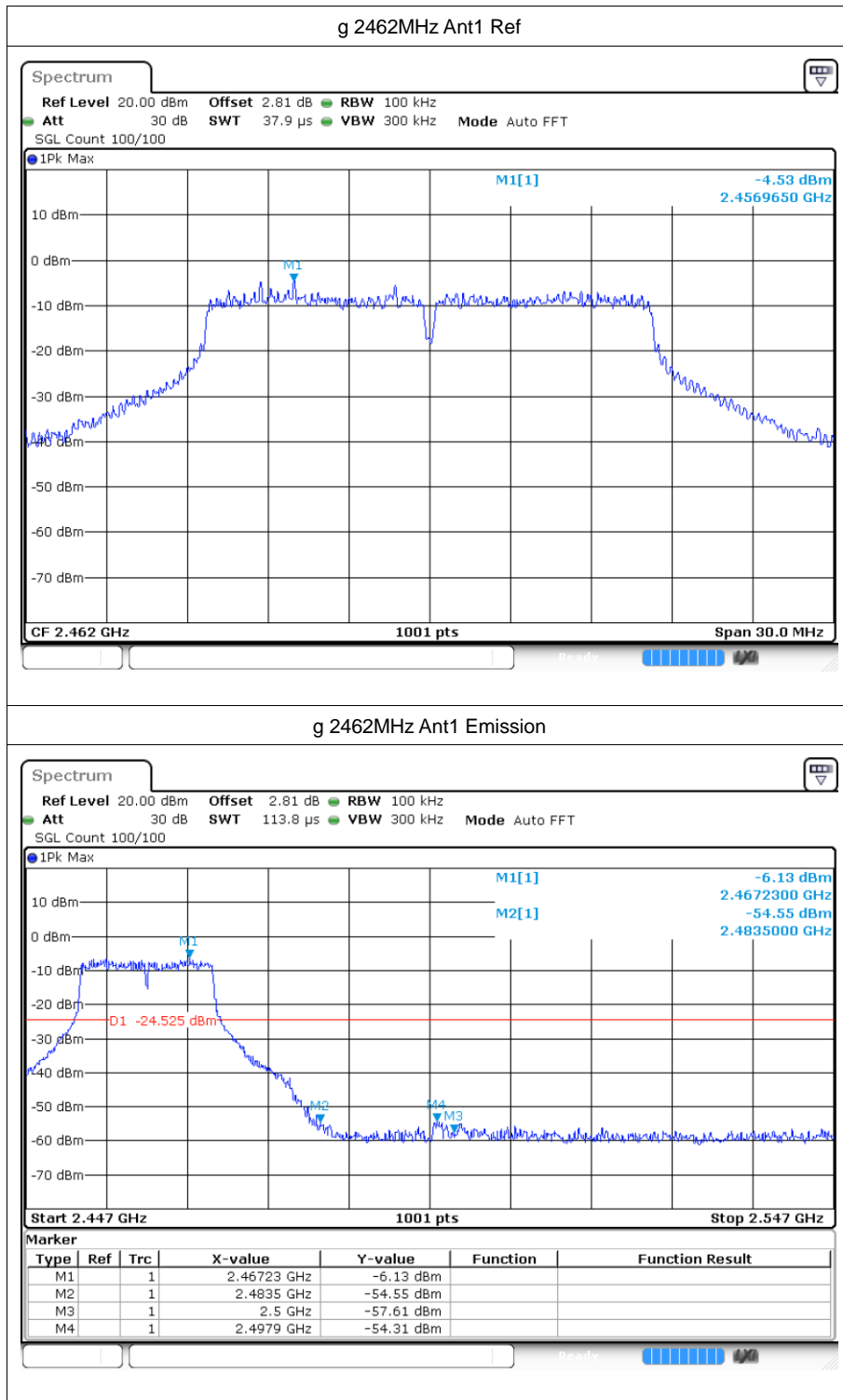
Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
b	2412	Ant1	-57.93	-20	-57.93
b	2462	Ant1	-57.98	-20	Pass
g	2412	Ant1	-47.29	-20	Pass
g	2462	Ant1	-49.78	-20	Pass
n20	2412	Ant1	-45.22	-20	Pass
n20	2462	Ant1	-48.27	-20	Pass
n40	2422	Ant1	-41.03	-20	Pass
n40	2452	Ant1	-41.06	-20	Pass
ax20	2412	Ant1	-47.02	-20	Pass
ax20	2462	Ant1	-40.88	-20	Pass
ax40	2422	Ant1	-38.69	-20	Pass
ax40	2452	Ant1	-40	-20	Pass

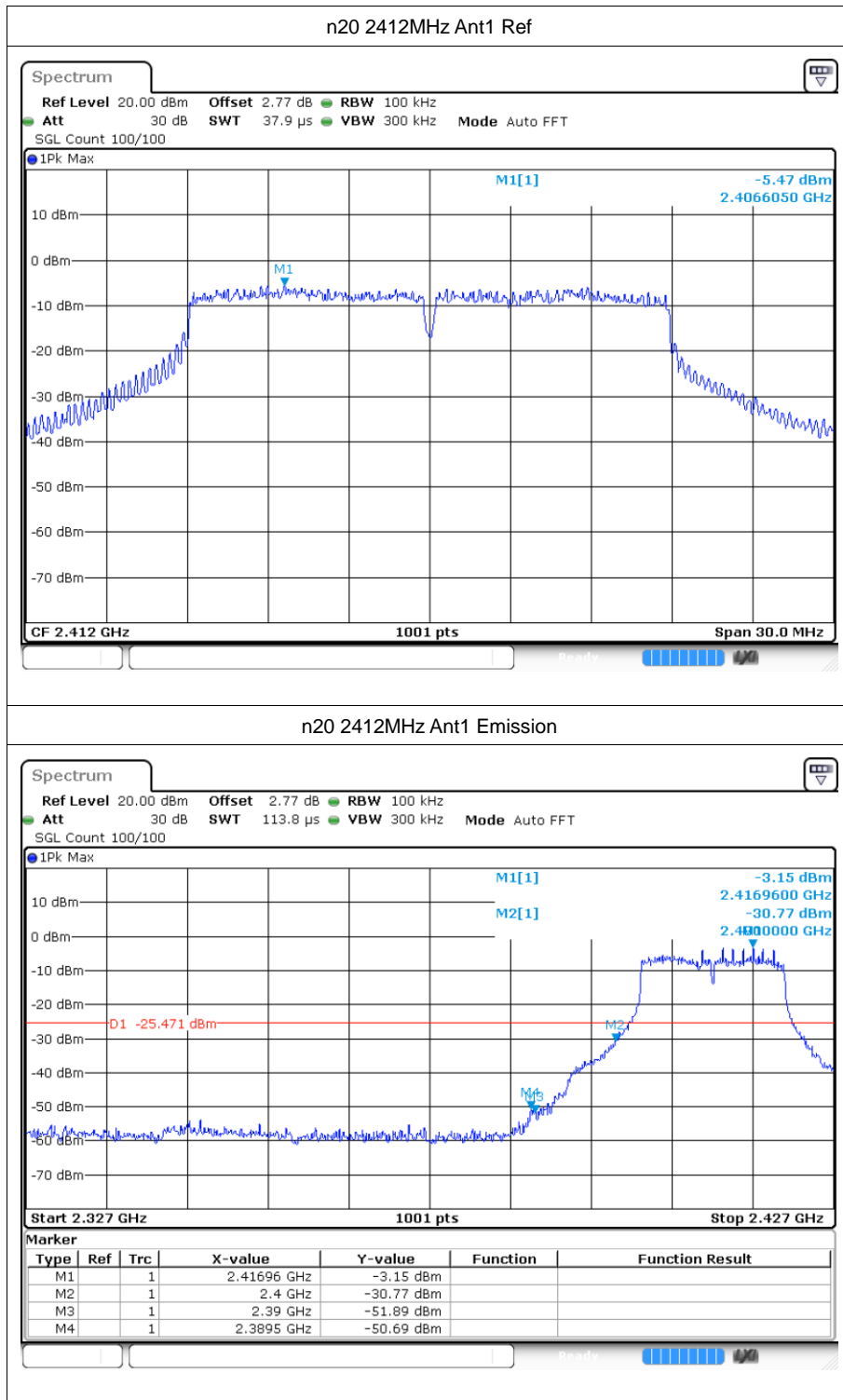
## 5.2 Test Graphs

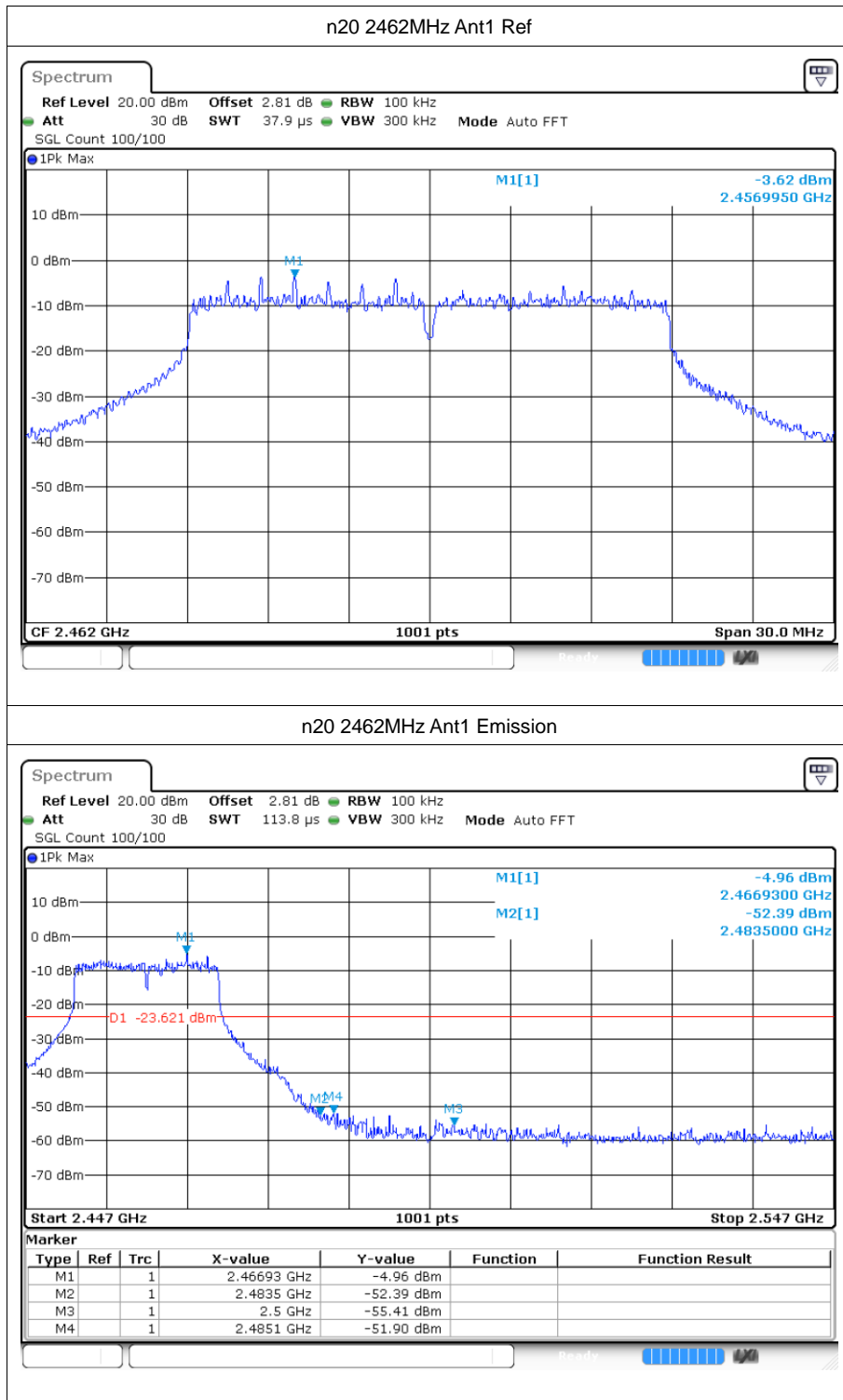




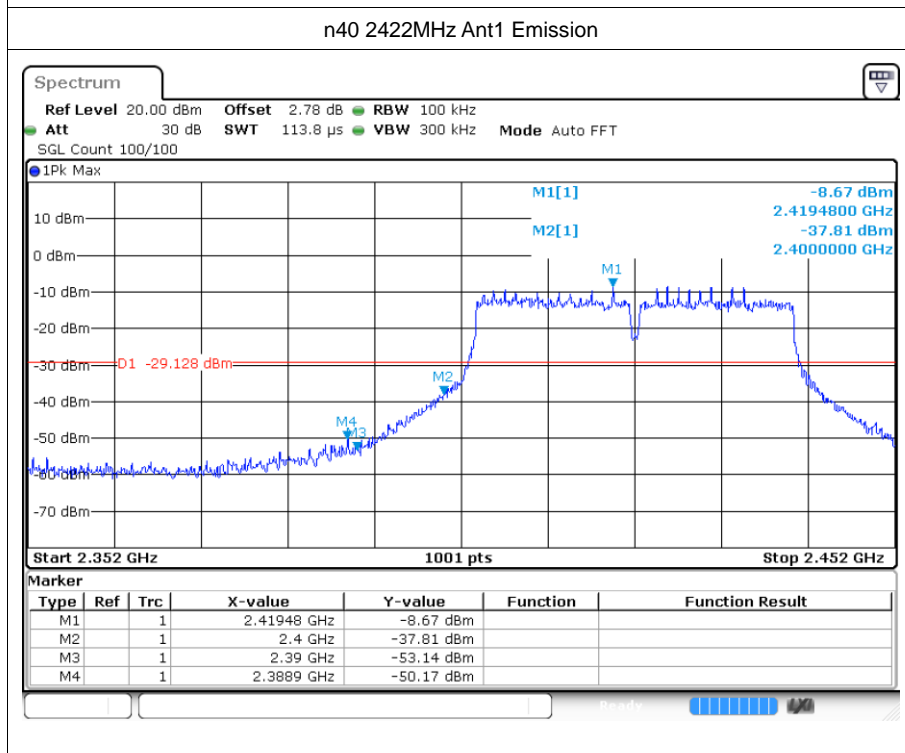
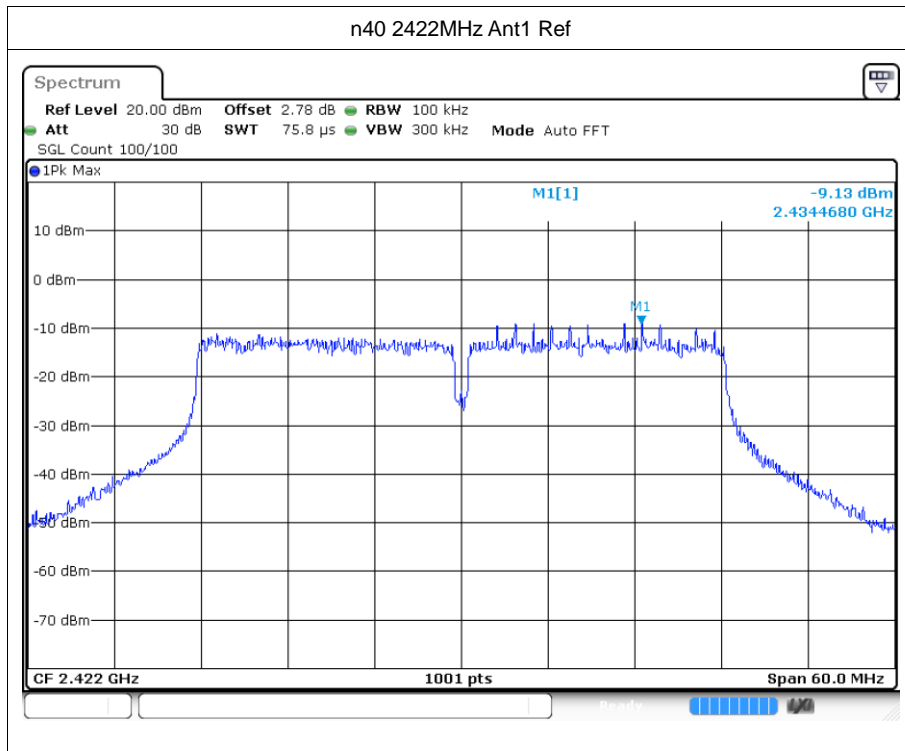


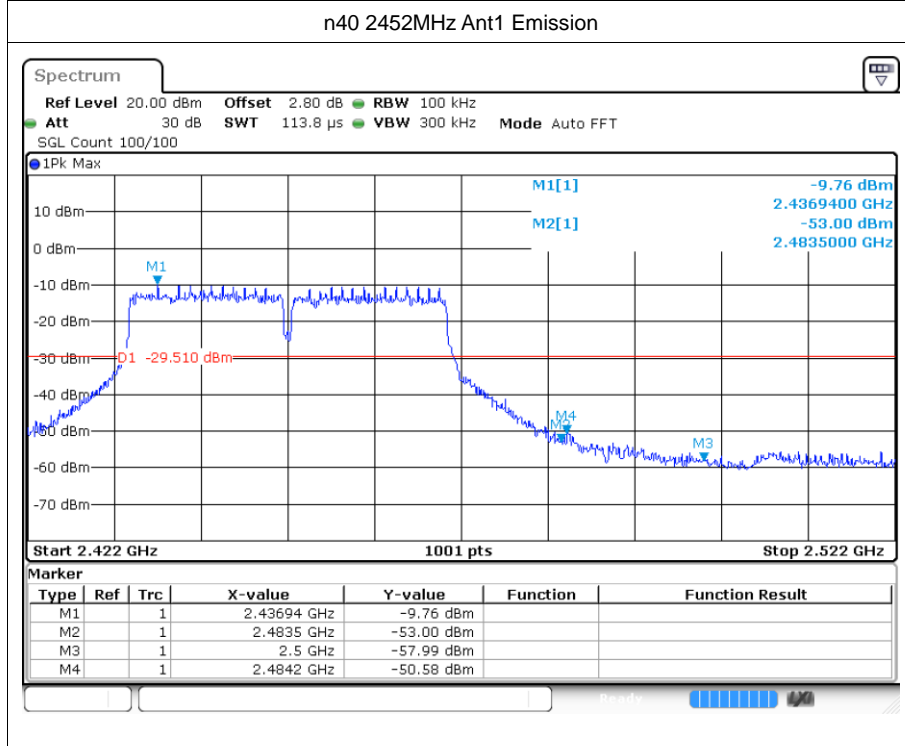
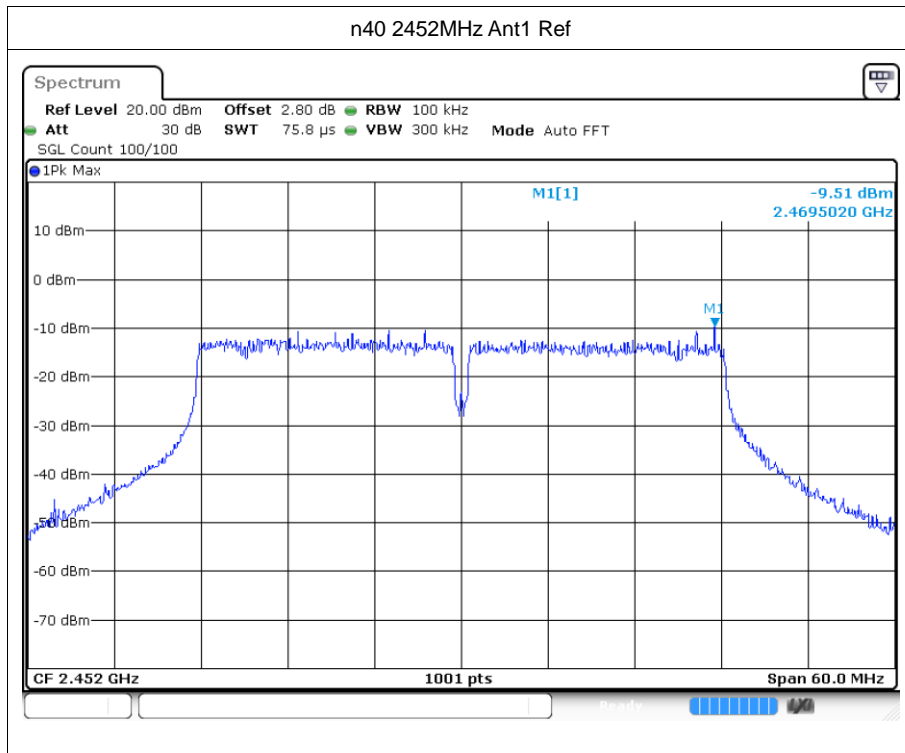


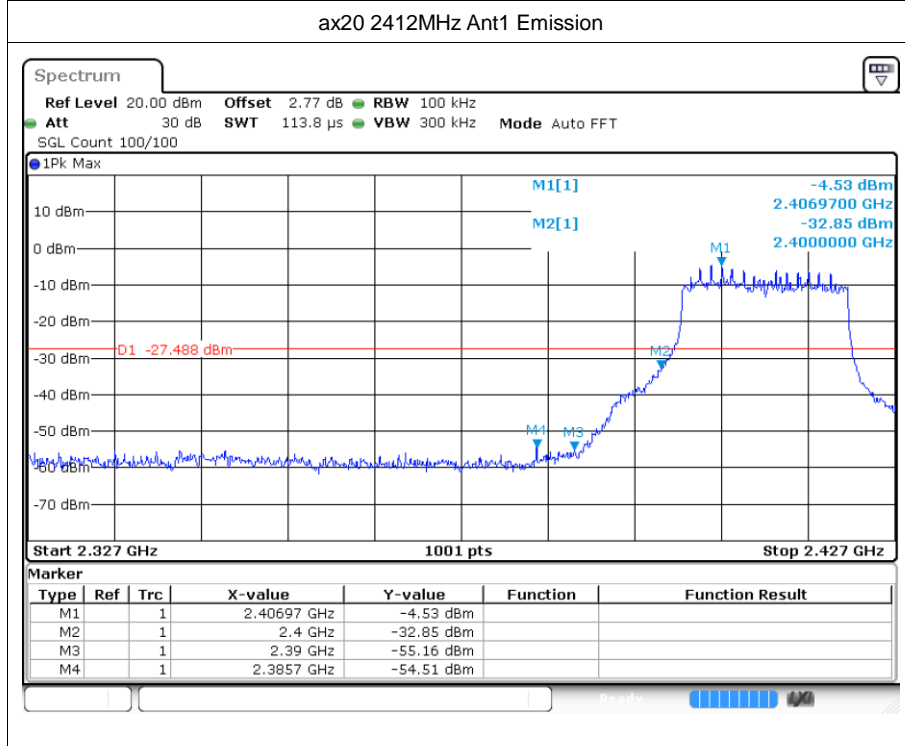
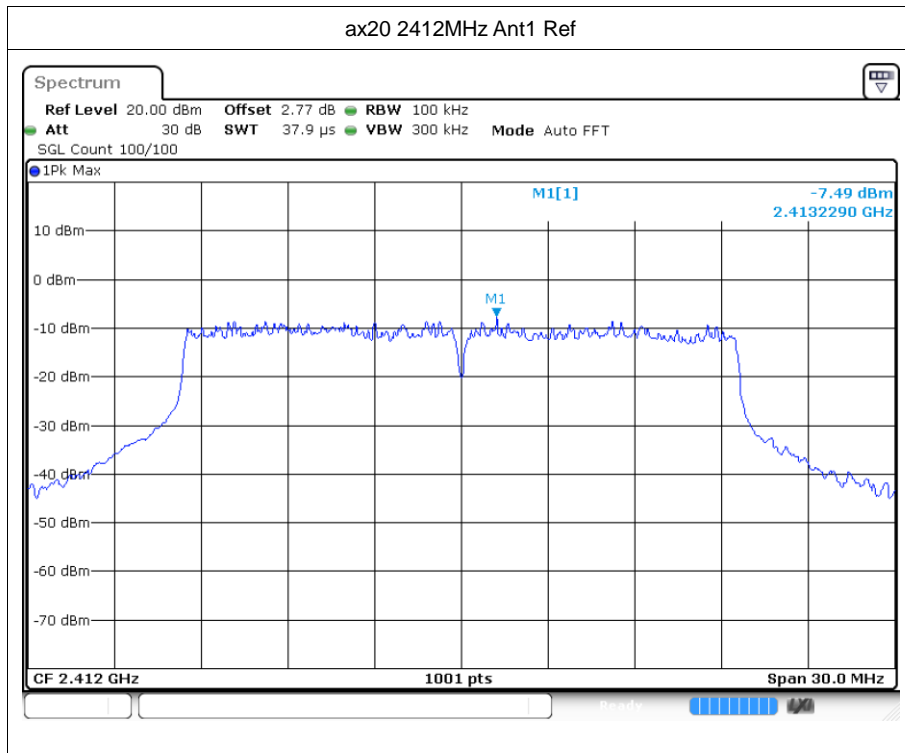


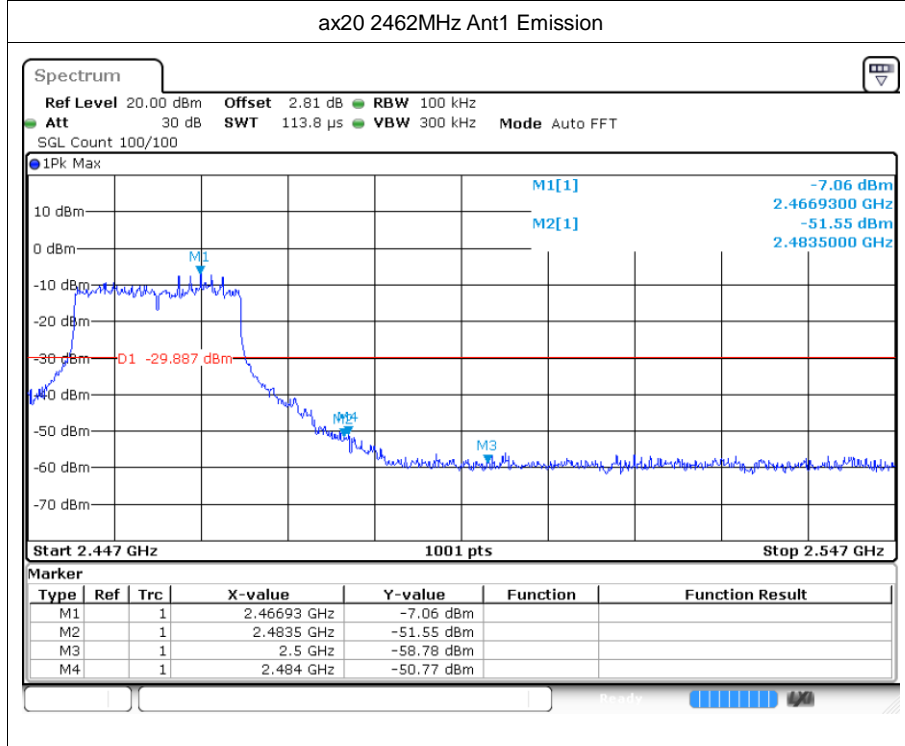
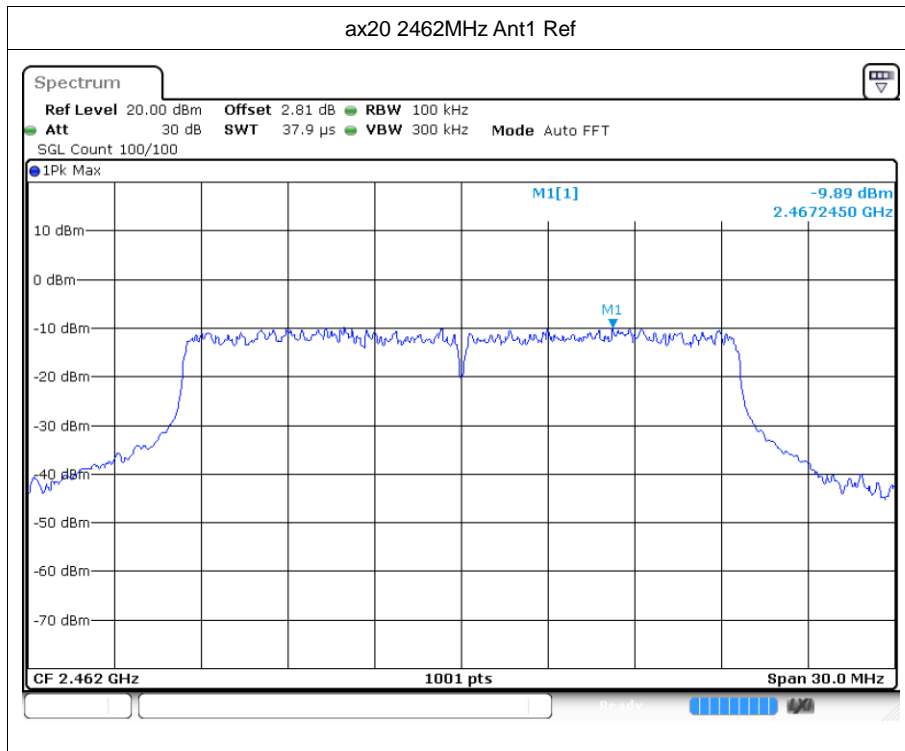


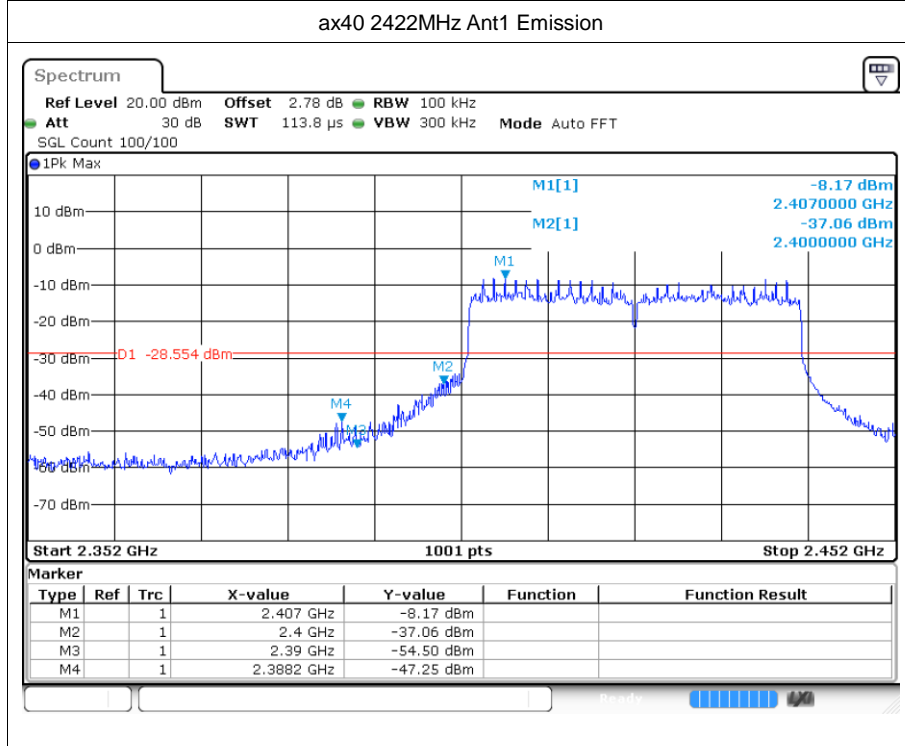
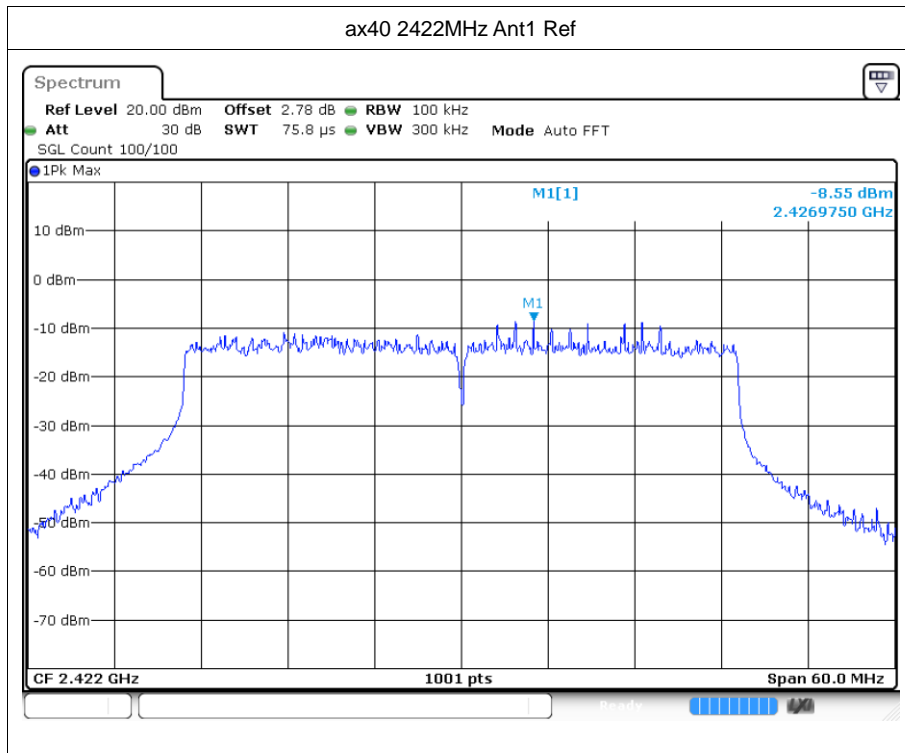


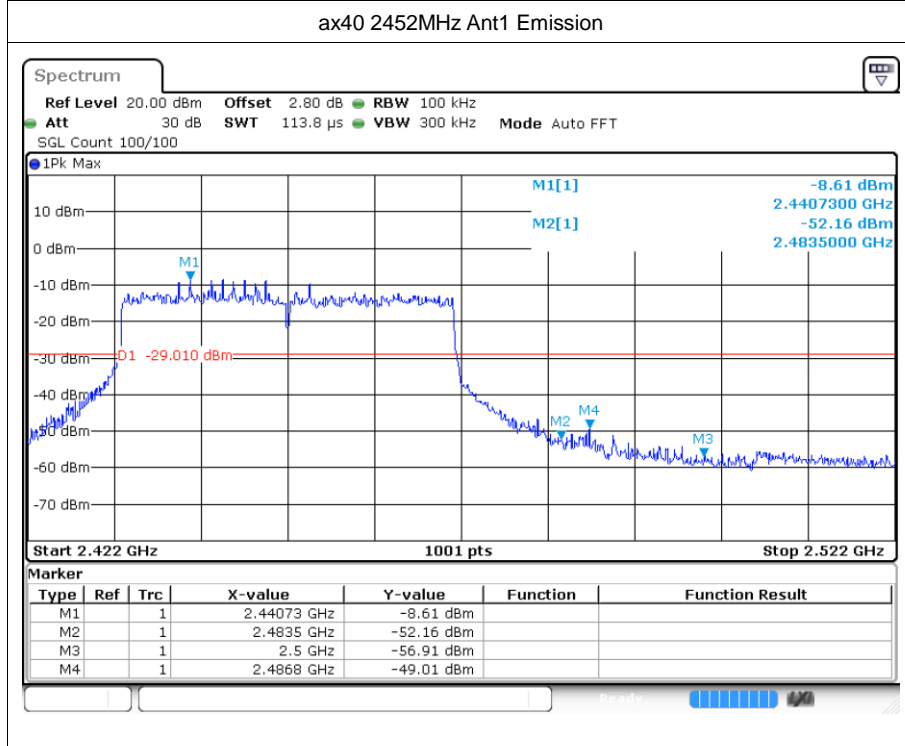
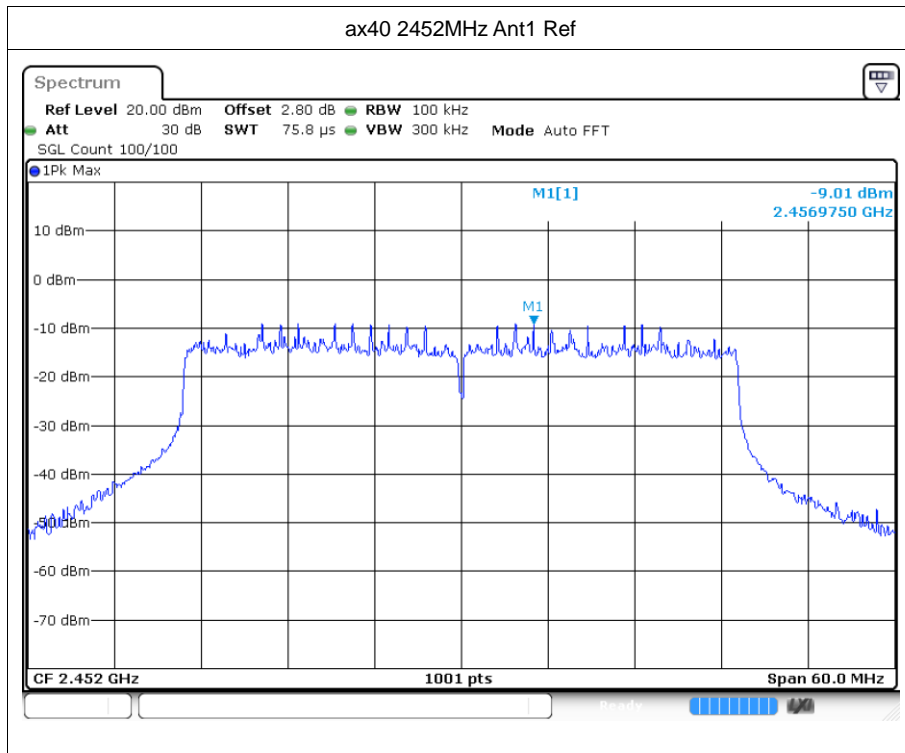














## 6 Conducted RF Spurious Emission

### 6.1 Test Result

Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
b	2412	Ant1	-44.59	-20	Pass
b	2437	Ant1	-43.41	-20	Pass
b	2462	Ant1	-44.29	-20	Pass
g	2412	Ant1	-42.72	-20	Pass
g	2437	Ant1	-42.1	-20	Pass
g	2462	Ant1	-39.95	-20	Pass
n20	2412	Ant1	-40.04	-20	Pass
n20	2437	Ant1	-40.39	-20	Pass
n20	2462	Ant1	-42.58	-20	Pass
n40	2422	Ant1	-37.67	-20	Pass
n40	2437	Ant1	-37.24	-20	Pass
n40	2452	Ant1	-34.75	-20	Pass
ax20	2412	Ant1	-39.52	-20	Pass
ax20	2437	Ant1	-39.55	-20	Pass
ax20	2462	Ant1	-40.74	-20	Pass
ax40	2422	Ant1	-35.67	-20	Pass
ax40	2437	Ant1	-37.33	-20	Pass
ax40	2452	Ant1	-37.75	-20	Pass