



Appendix C

RF Test Data for 2.4GWIFI (Conducted Measurement)

Product Name: TV BOX

Trade Mark: N/A

Test Model: H20Pro

Environmental Conditions

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



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
7 Restrict Band	66
7.1 Test Result	66
7.2 Test Graphs	68

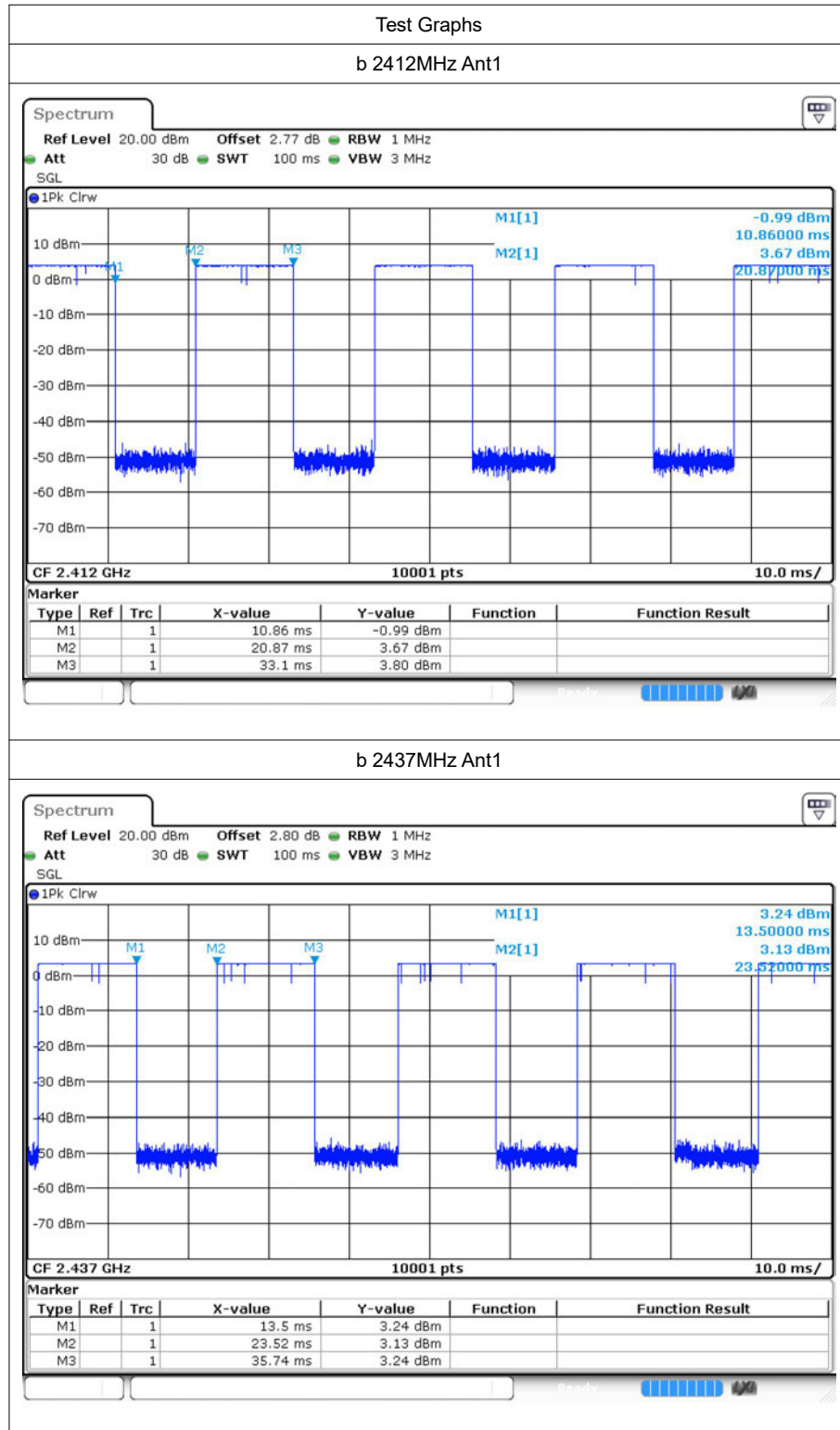


1 Duty Cycle

1.1 Test Result

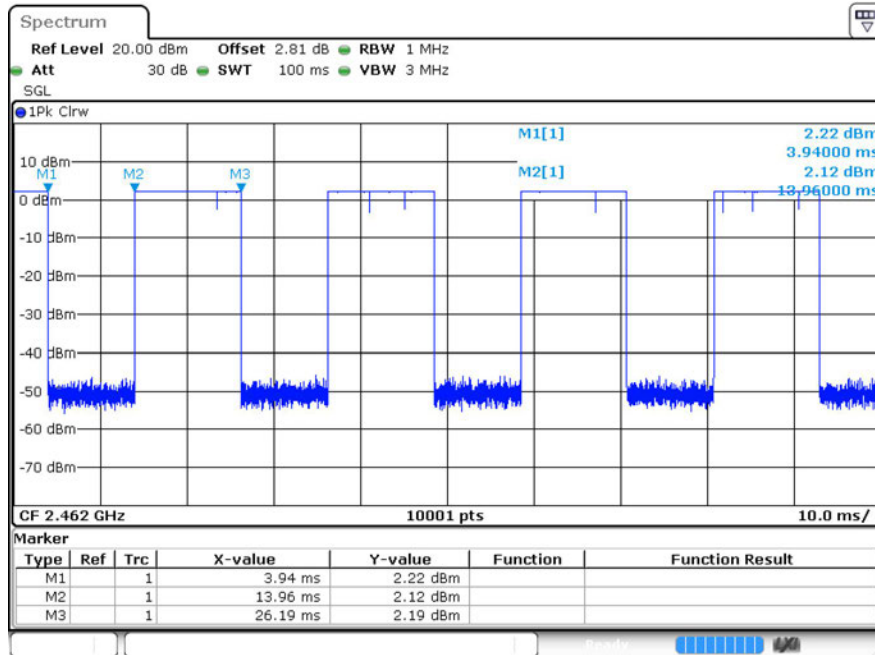
Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor	1/T (kHz)
b	2412	Ant1	59.76	2.24	0.08
b	2437	Ant1	58.05	2.36	0.08
b	2462	Ant1	52.9	2.77	0.08
g	2412	Ant1	16.35	7.87	0.49
g	2437	Ant1	16.34	7.87	0.49
g	2462	Ant1	16.34	7.87	0.49
n20	2412	Ant1	16.21	7.9	0.53
n20	2437	Ant1	15.51	8.09	0.53
n20	2462	Ant1	15.5	8.1	0.53
n40	2422	Ant1	32.66	4.86	0.2
n40	2437	Ant1	32.33	4.9	0.2
n40	2452	Ant1	29.45	5.31	0.2
ax20	2412	Ant1	11.91	9.24	0.68
ax20	2437	Ant1	11.77	9.29	0.68
ax20	2462	Ant1	10.3	9.87	0.68
ax40	2422	Ant1	28.98	5.38	0.26
ax40	2437	Ant1	27.17	5.66	0.26
ax40	2452	Ant1	27.83	5.56	0.26

1.2 Test Graphs

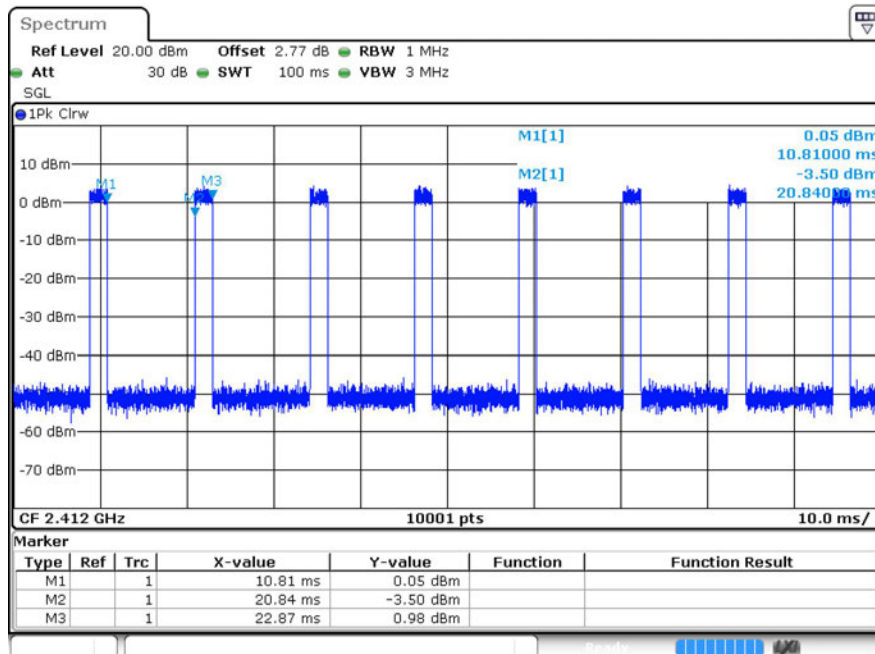


Test Graphs

b 2462MHz Ant1

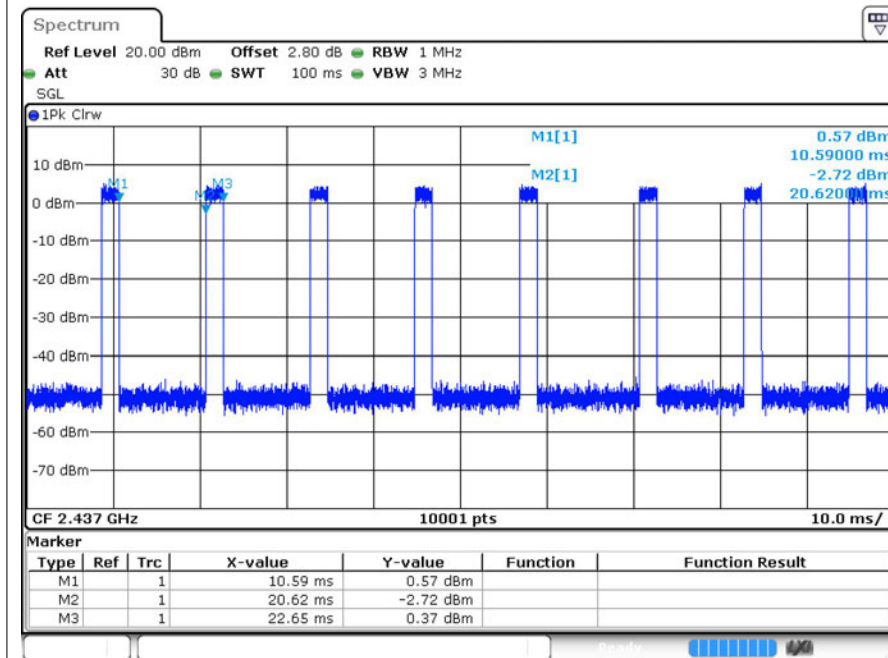


g 2412MHz Ant1

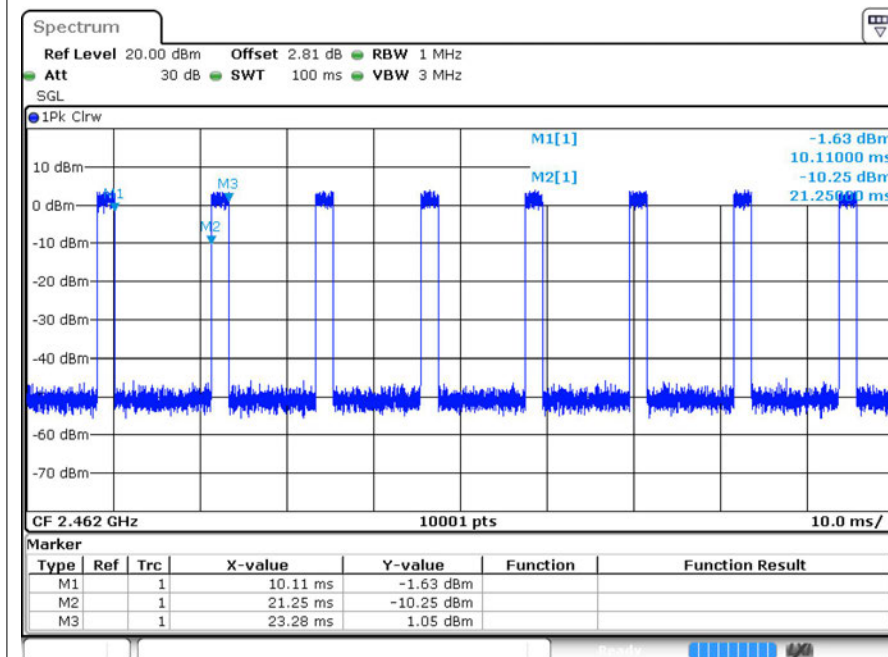


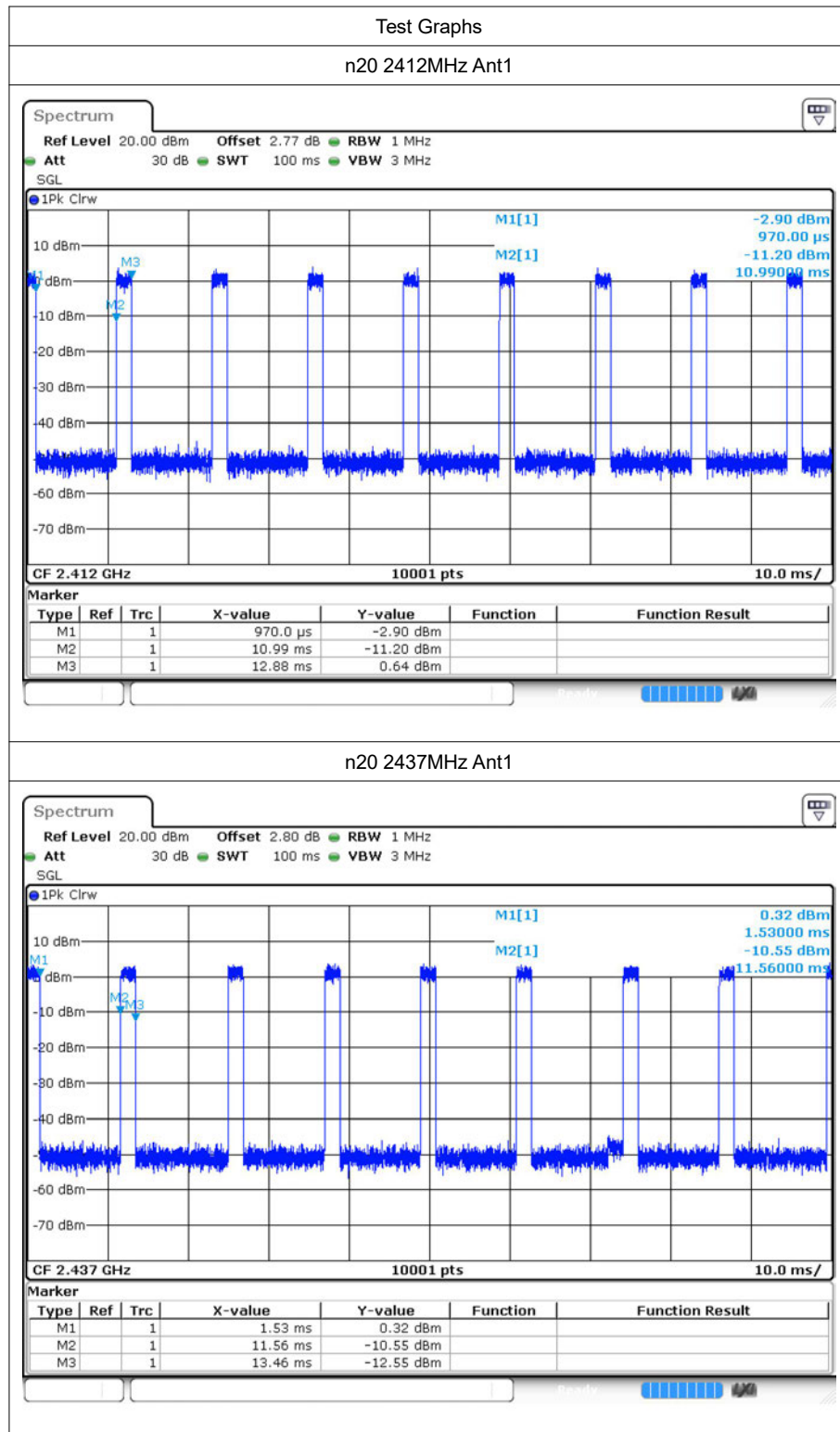
Test Graphs

g 2437MHz Ant1



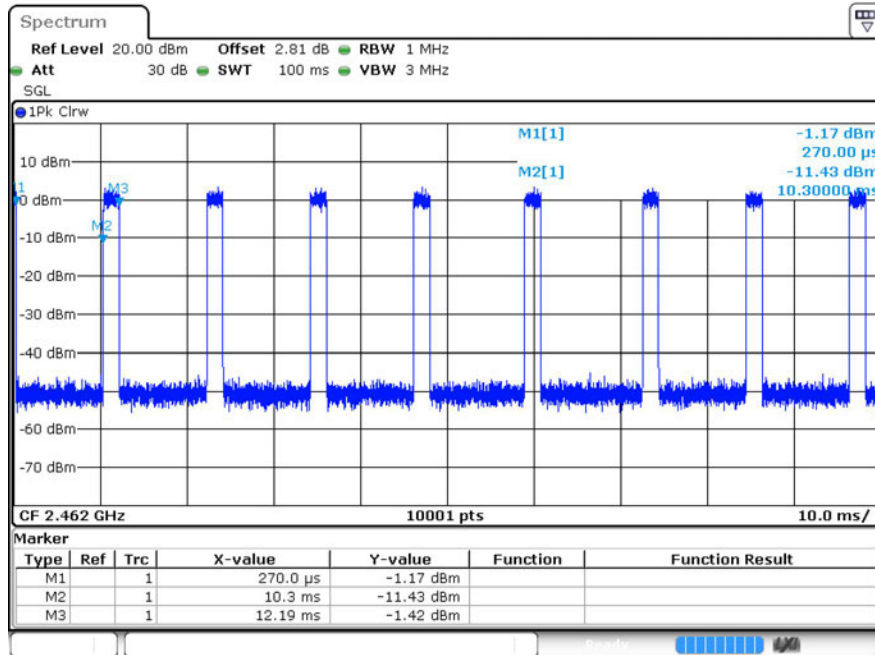
g 2462MHz Ant1



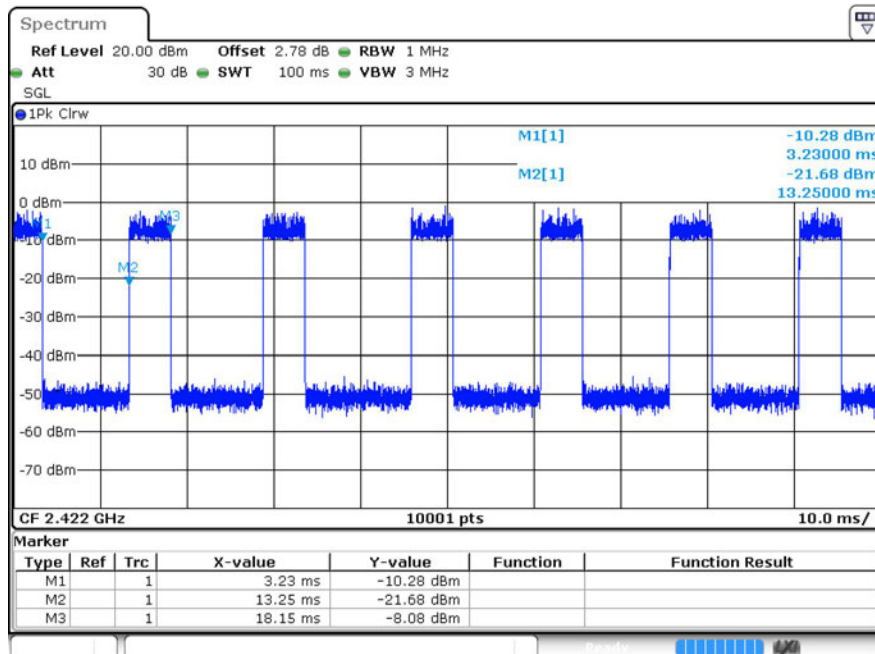


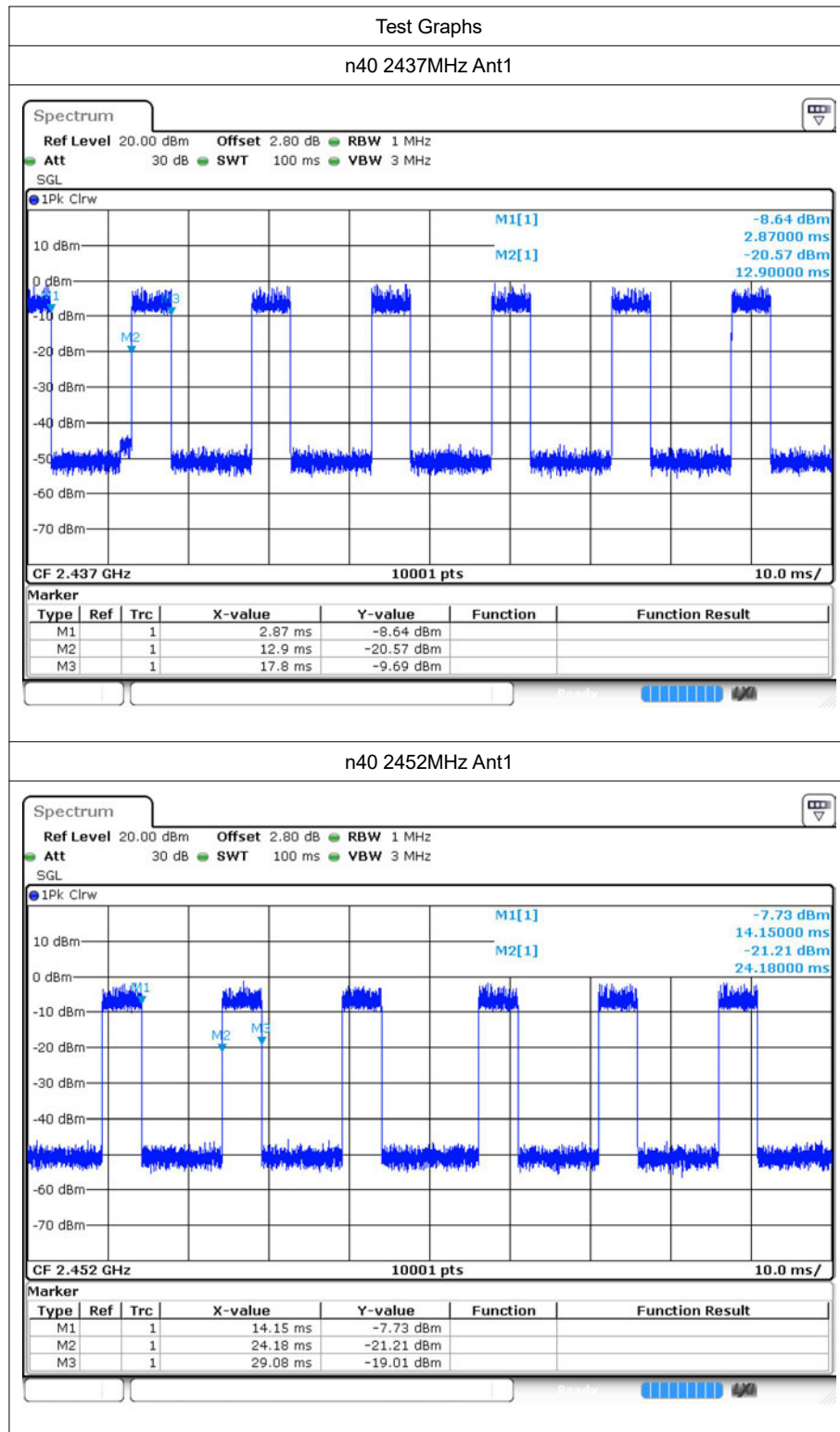
Test Graphs

n20 2462MHz Ant1



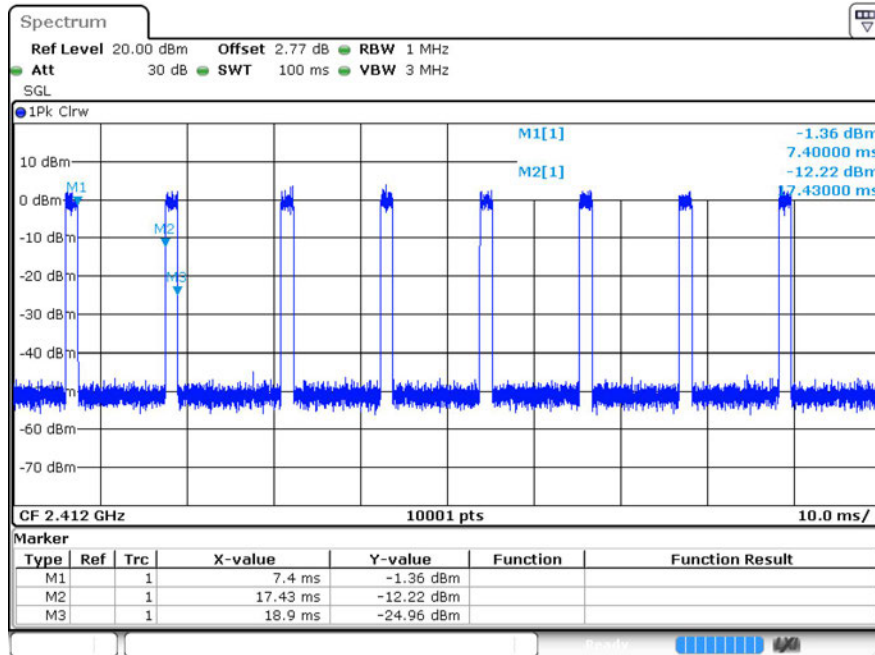
n40 2422MHz Ant1



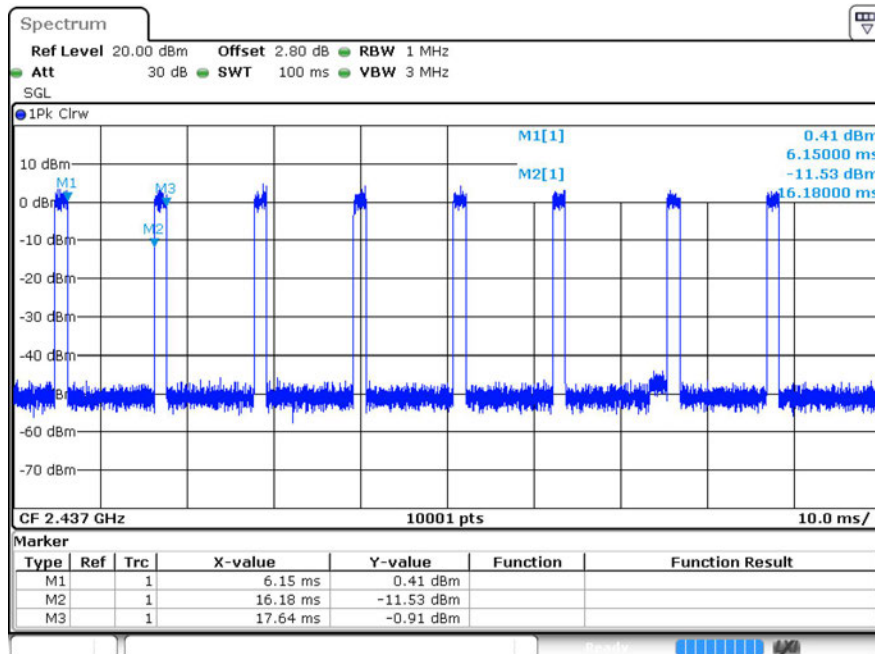


Test Graphs

ax20 2412MHz Ant1

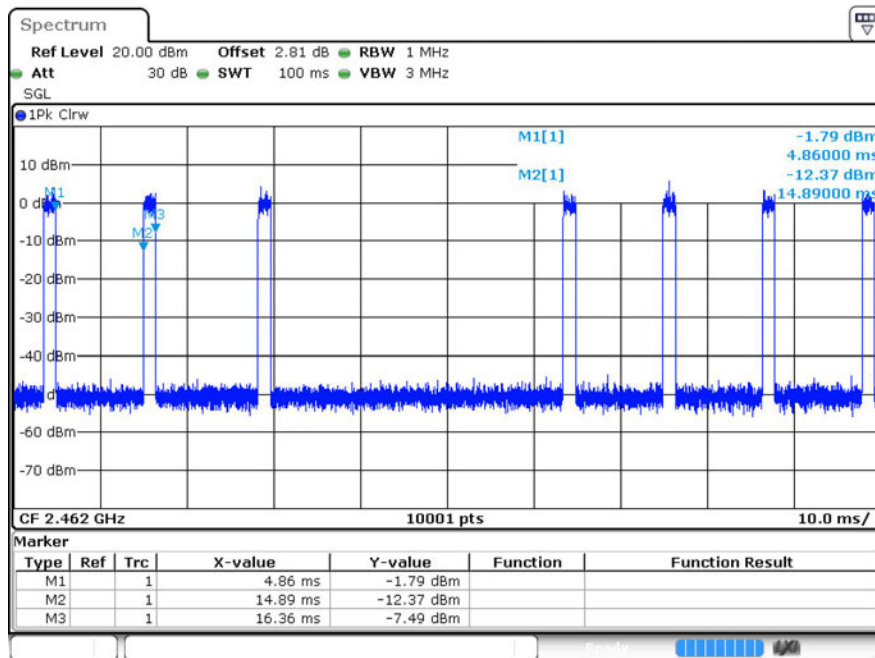


ax20 2437MHz Ant1

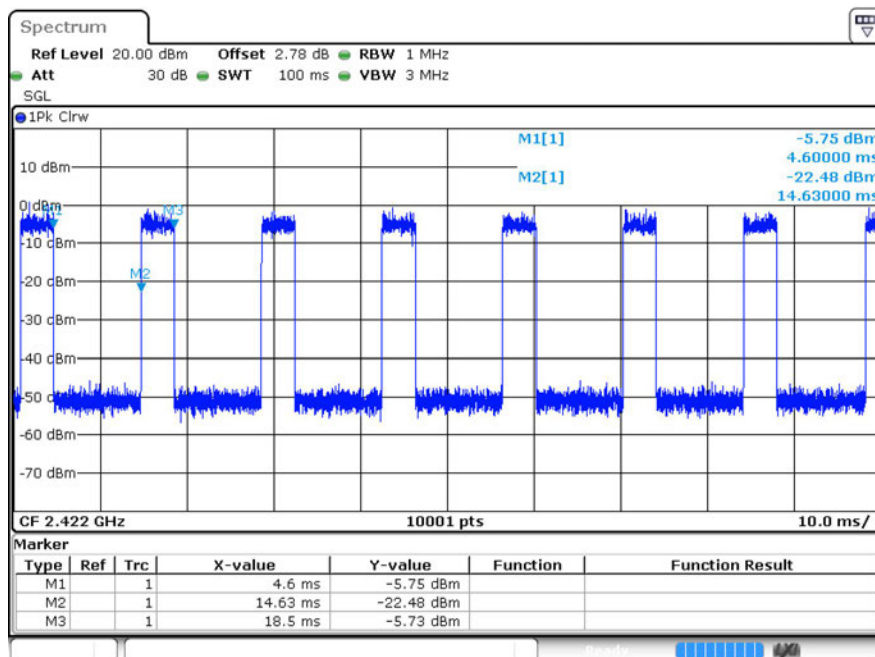


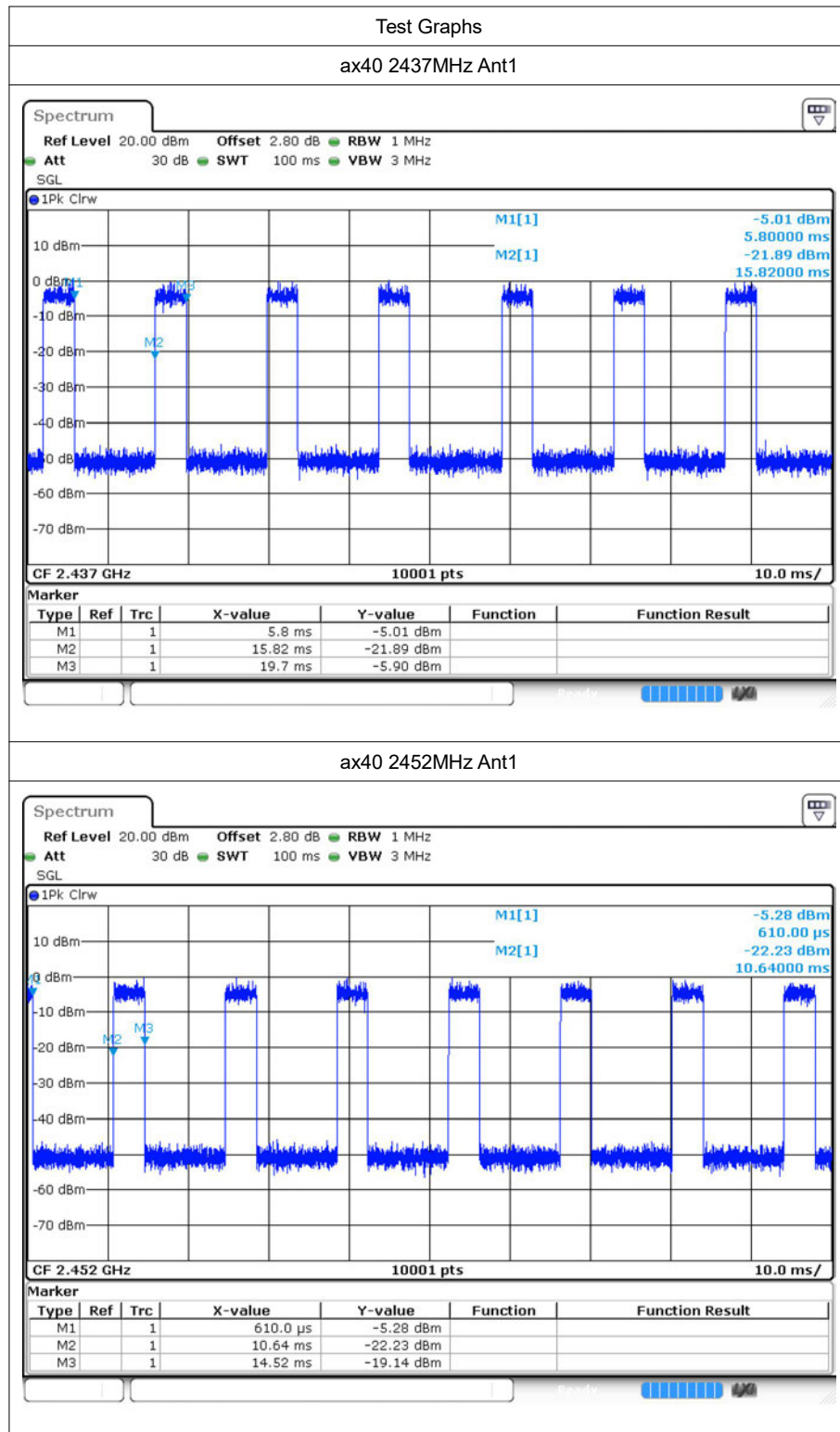
Test Graphs

ax20 2462MHz Ant1



ax40 2422MHz Ant1





2 Maximum Conducted Output Power

2.1 Test Result

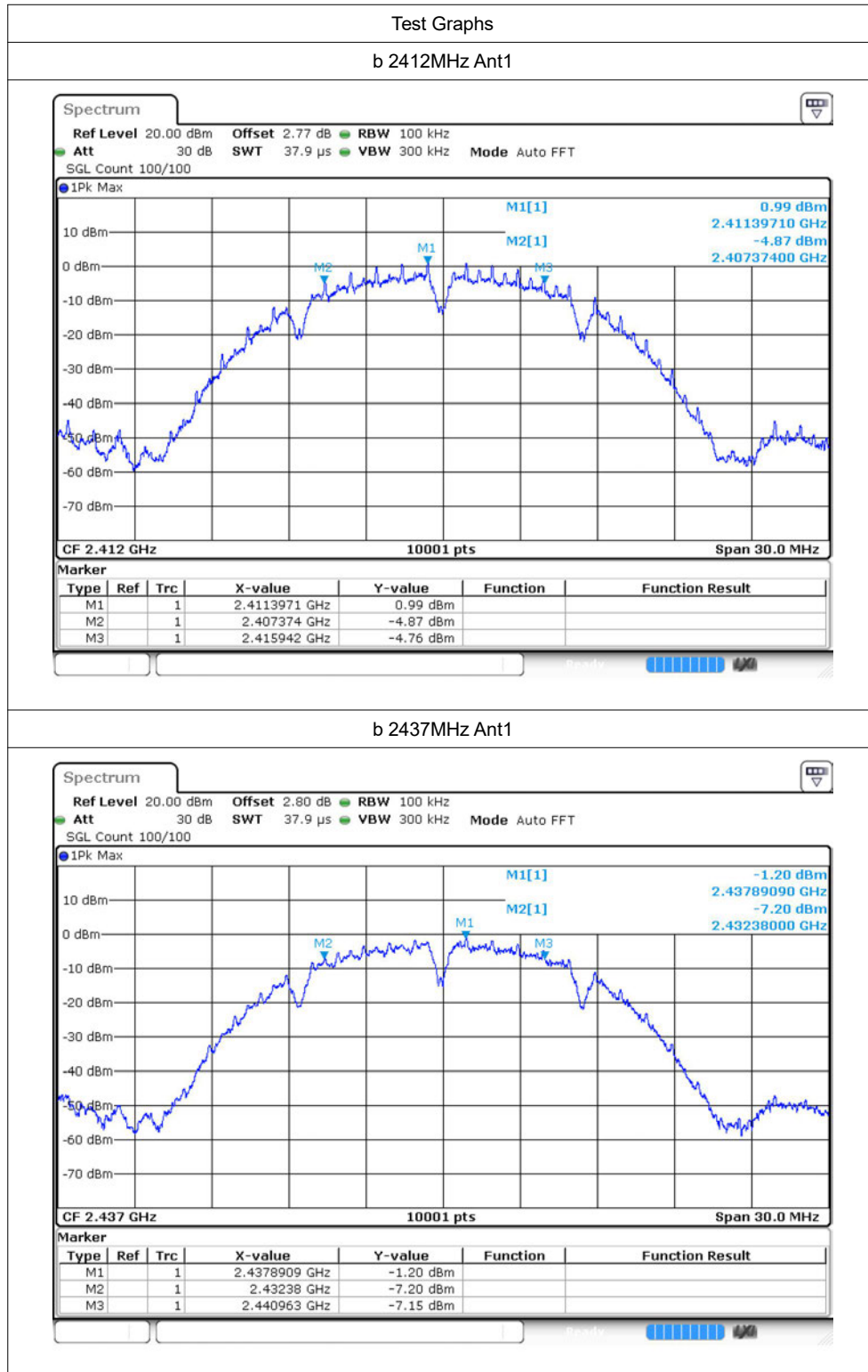
Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
b	2412	Ant1	13.31	30	Pass
b	2437	Ant1	12.76	30	Pass
b	2462	Ant1	11.72	30	Pass
g	2412	Ant1	13.34	30	Pass
g	2437	Ant1	13.92	30	Pass
g	2462	Ant1	13.19	30	Pass
n20	2412	Ant1	11.91	30	Pass
n20	2437	Ant1	12.53	30	Pass
n20	2462	Ant1	11.84	30	Pass
n40	2422	Ant1	13.01	30	Pass
n40	2437	Ant1	13.73	30	Pass
n40	2452	Ant1	13.38	30	Pass
ax20	2412	Ant1	12.74	30	Pass
ax20	2437	Ant1	13.24	30	Pass
ax20	2462	Ant1	12.68	30	Pass
ax40	2422	Ant1	12.25	30	Pass
ax40	2437	Ant1	13.19	30	Pass
ax40	2452	Ant1	12.78	30	Pass

3 -6dB Bandwidth

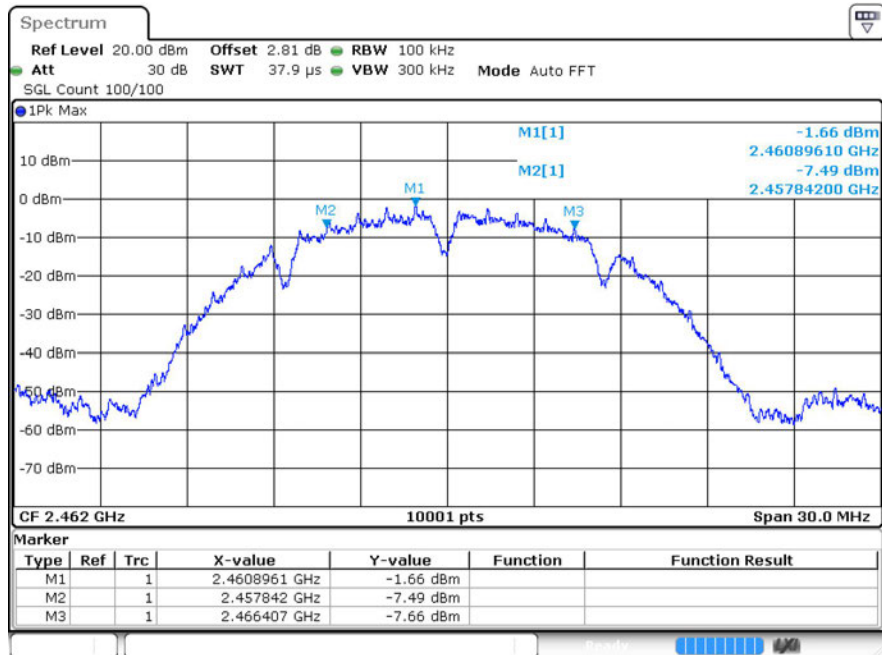
3.1 Test Result

Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
b	2412	Ant1	8.568	0.5	Pass
b	2437	Ant1	8.583	0.5	Pass
b	2462	Ant1	8.565	0.5	Pass
g	2412	Ant1	16.482	0.5	Pass
g	2437	Ant1	16.44	0.5	Pass
g	2462	Ant1	16.389	0.5	Pass
n20	2412	Ant1	17.607	0.5	Pass
n20	2437	Ant1	17.604	0.5	Pass
n20	2462	Ant1	17.607	0.5	Pass
n40	2422	Ant1	36.342	0.5	Pass
n40	2437	Ant1	36.366	0.5	Pass
n40	2452	Ant1	36.354	0.5	Pass
ax20	2412	Ant1	17.691	0.5	Pass
ax20	2437	Ant1	19.077	0.5	Pass
ax20	2462	Ant1	13.017	0.5	Pass
ax40	2422	Ant1	38.088	0.5	Pass
ax40	2437	Ant1	37.14	0.5	Pass
ax40	2452	Ant1	36.612	0.5	Pass

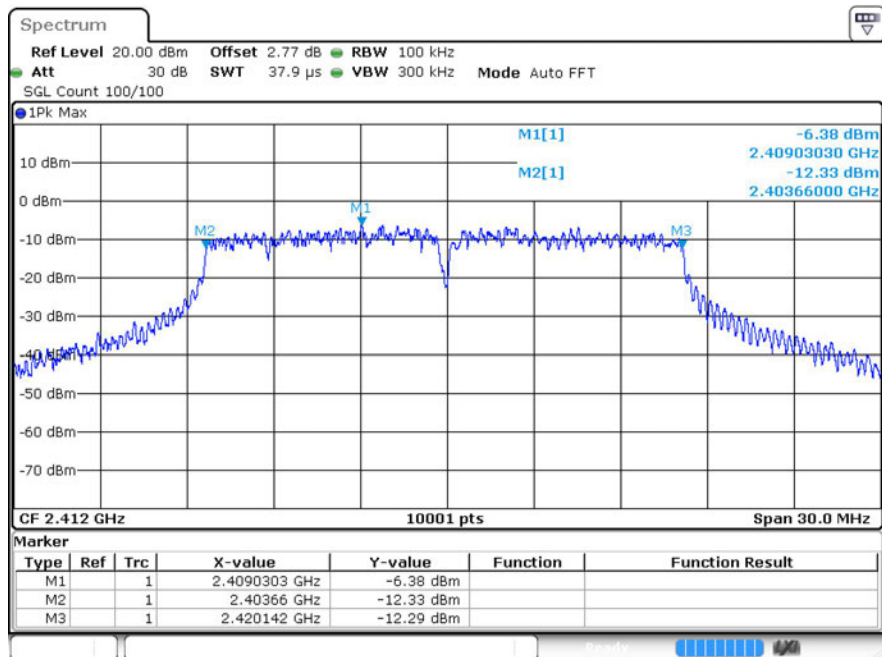
3.2 Test Graphs



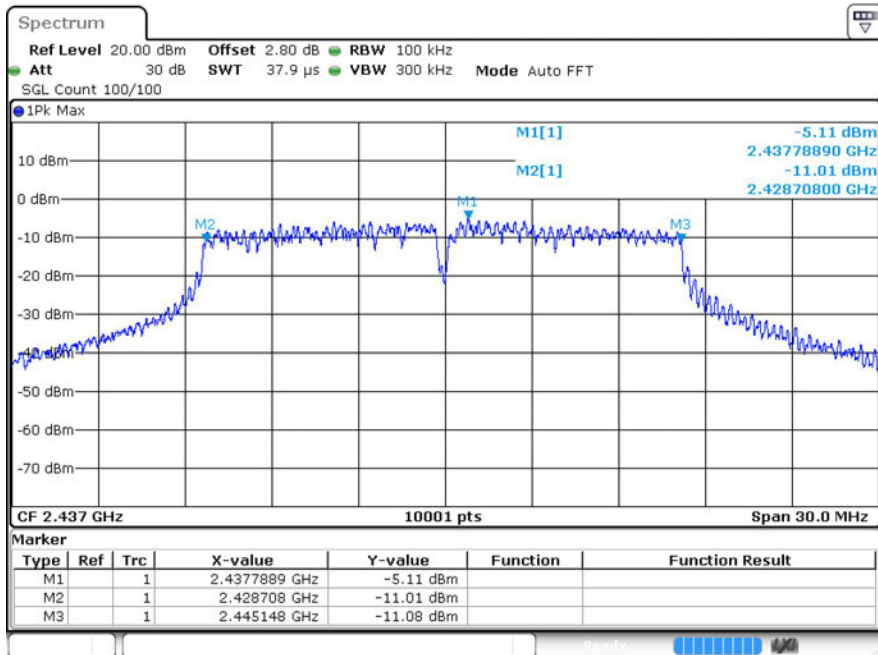
b 2462MHz Ant1



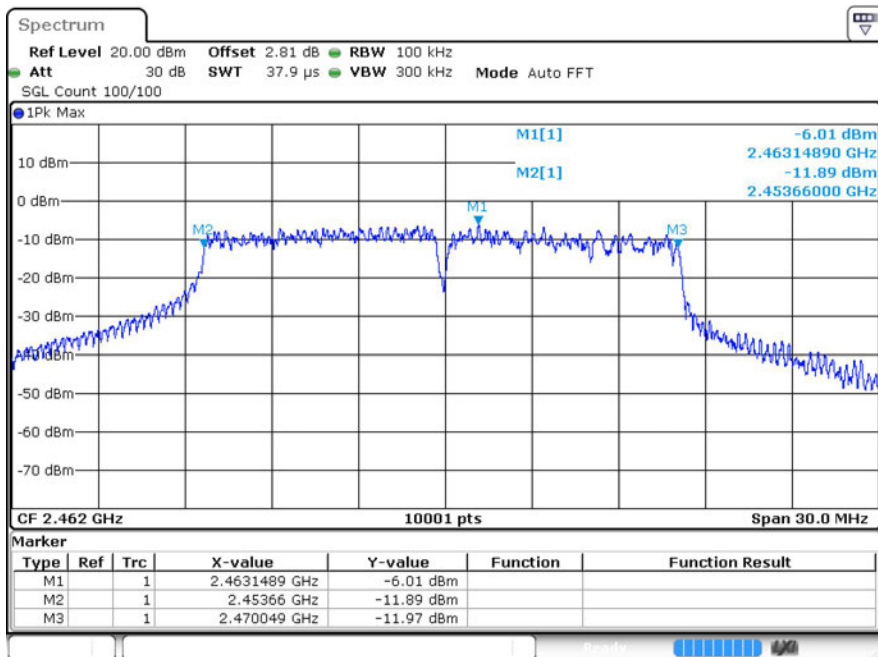
g 2412MHz Ant1

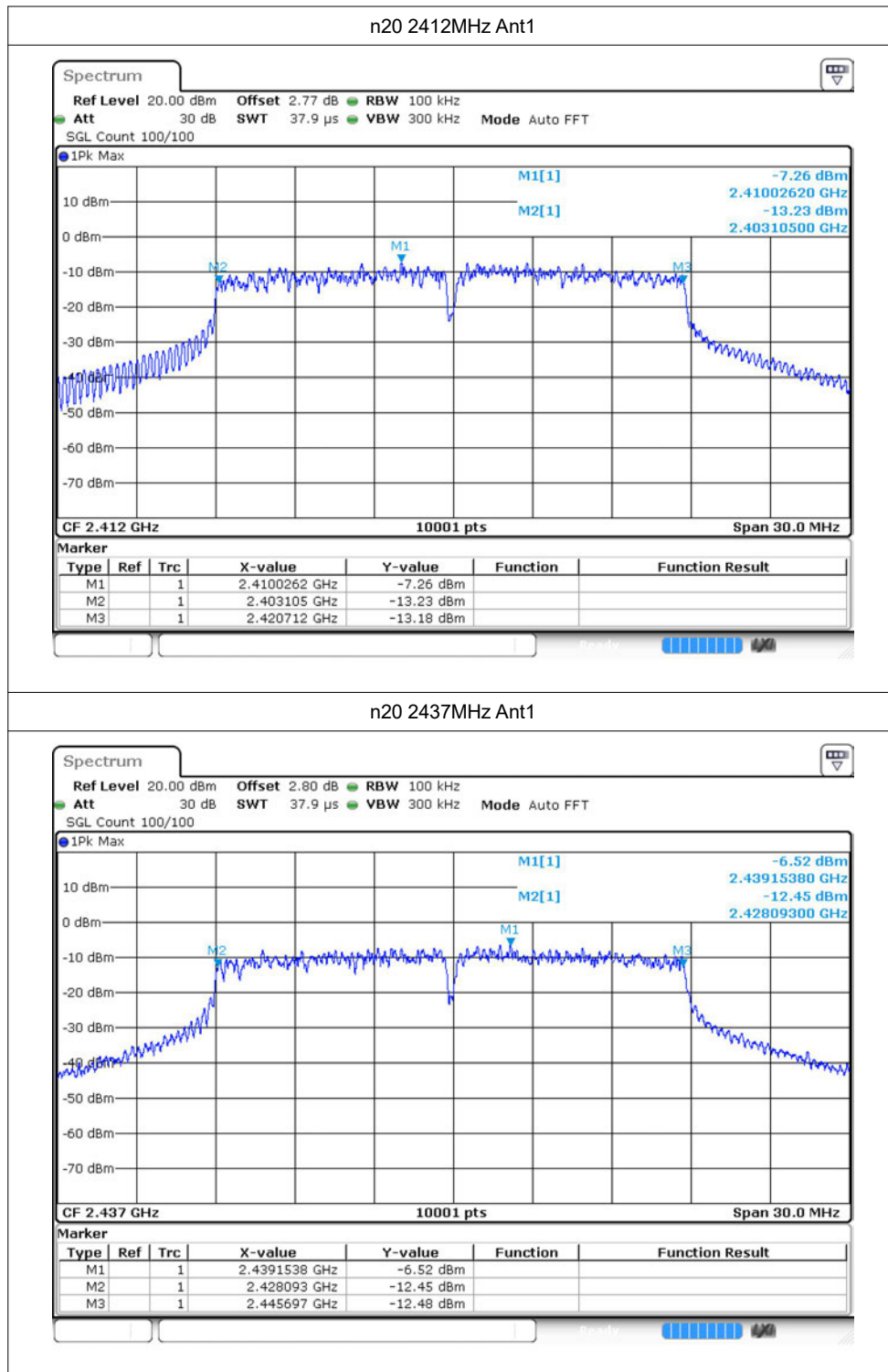


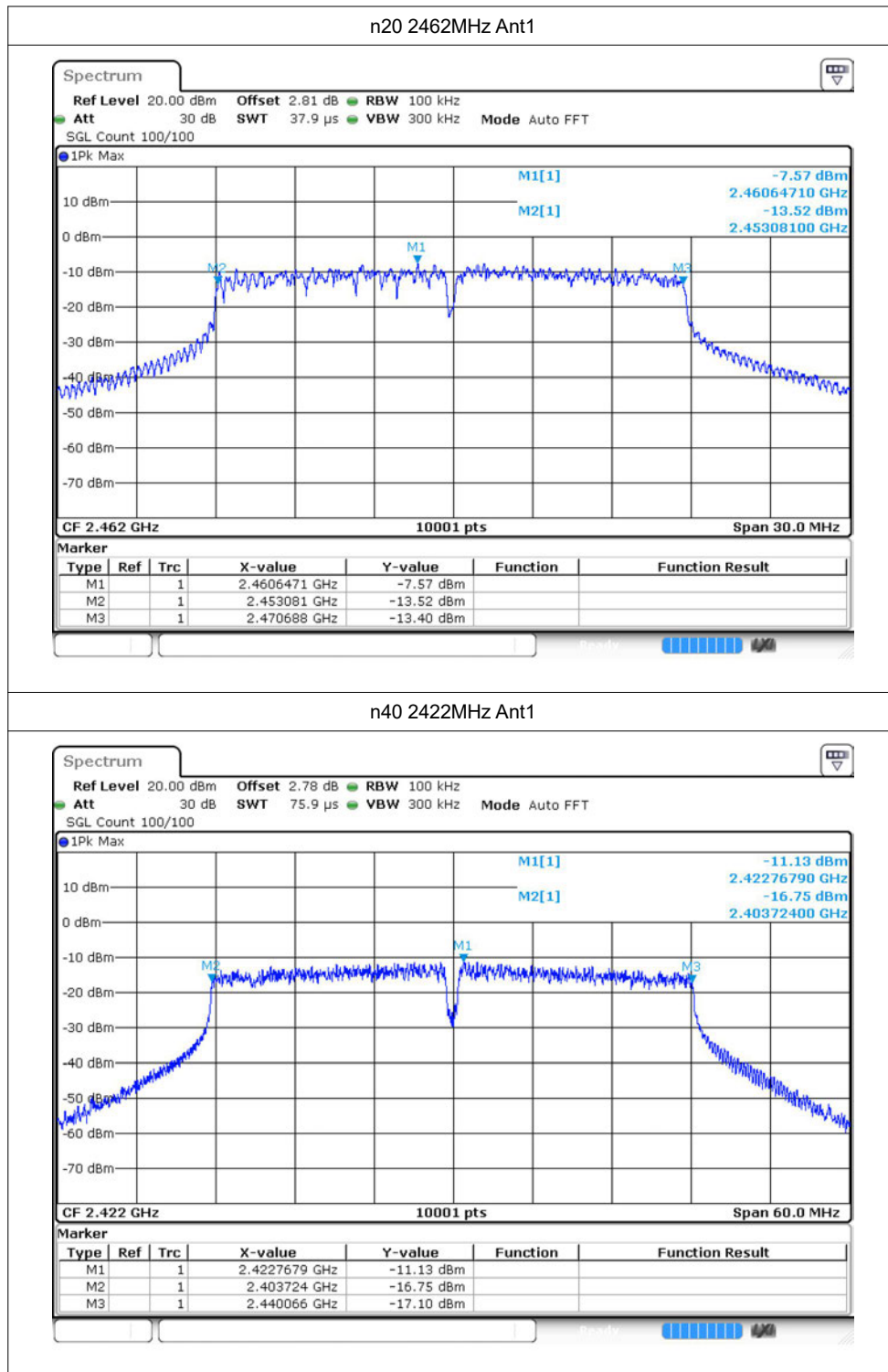
g 2437MHz Ant1

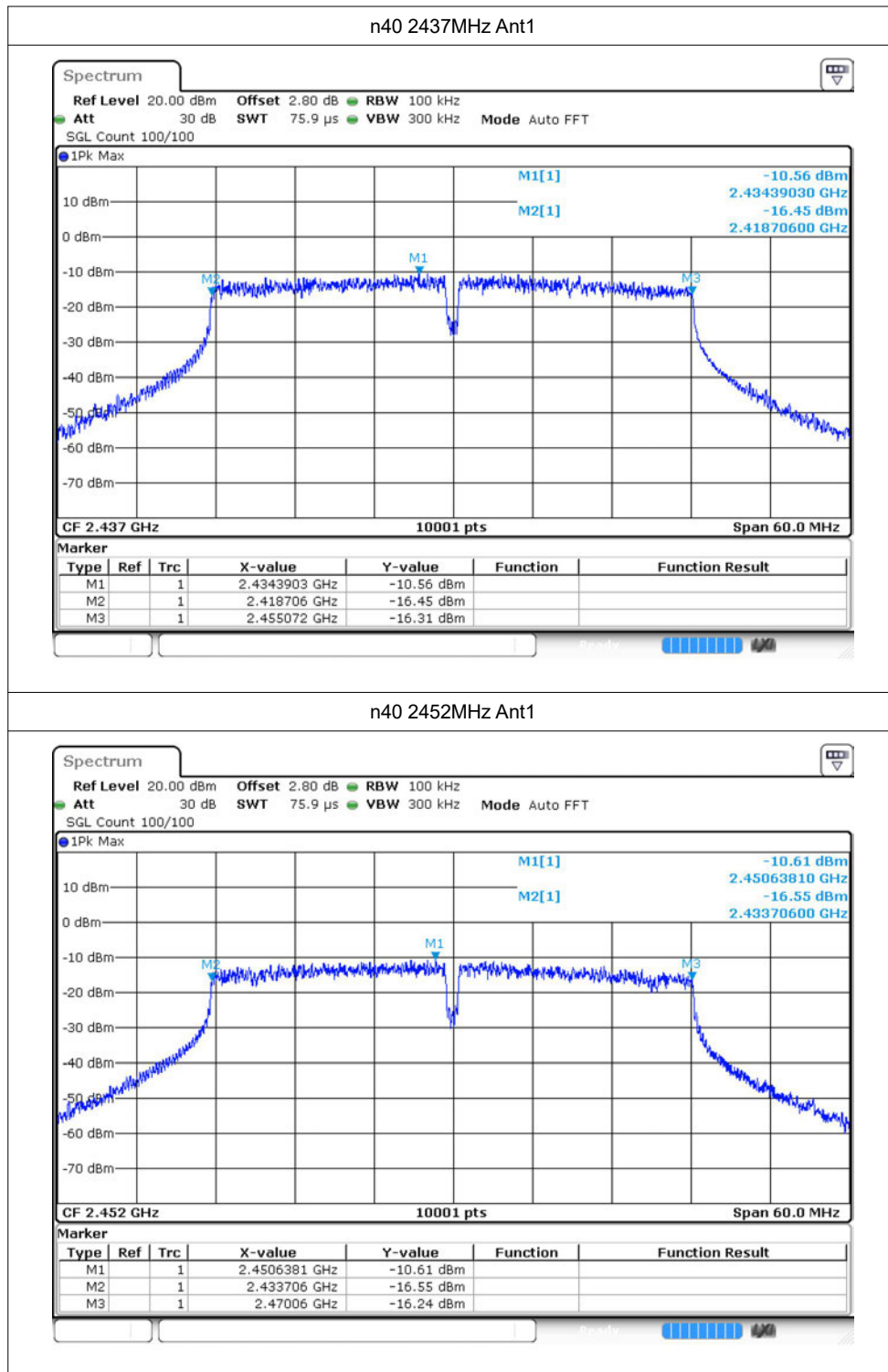


g 2462MHz Ant1

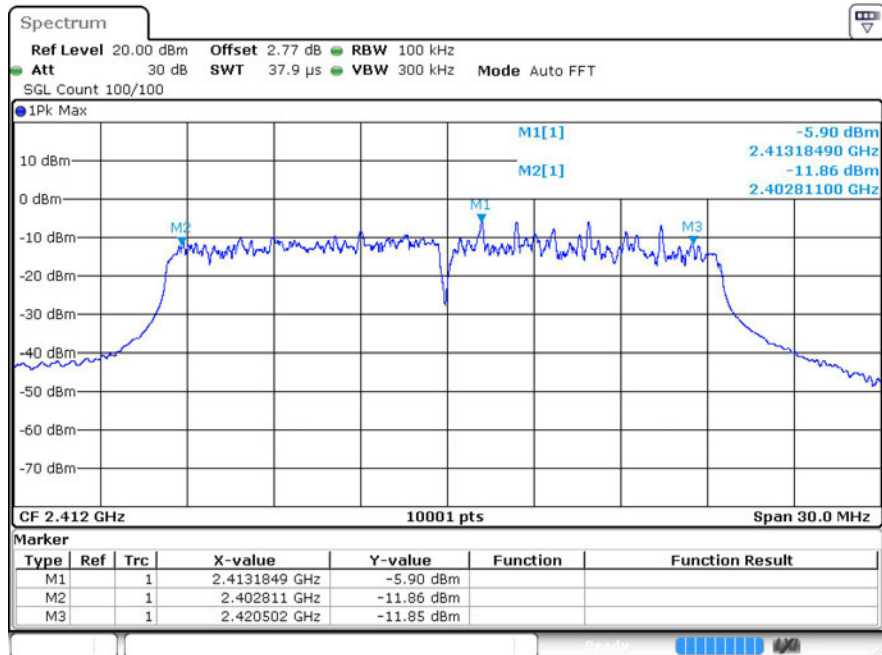




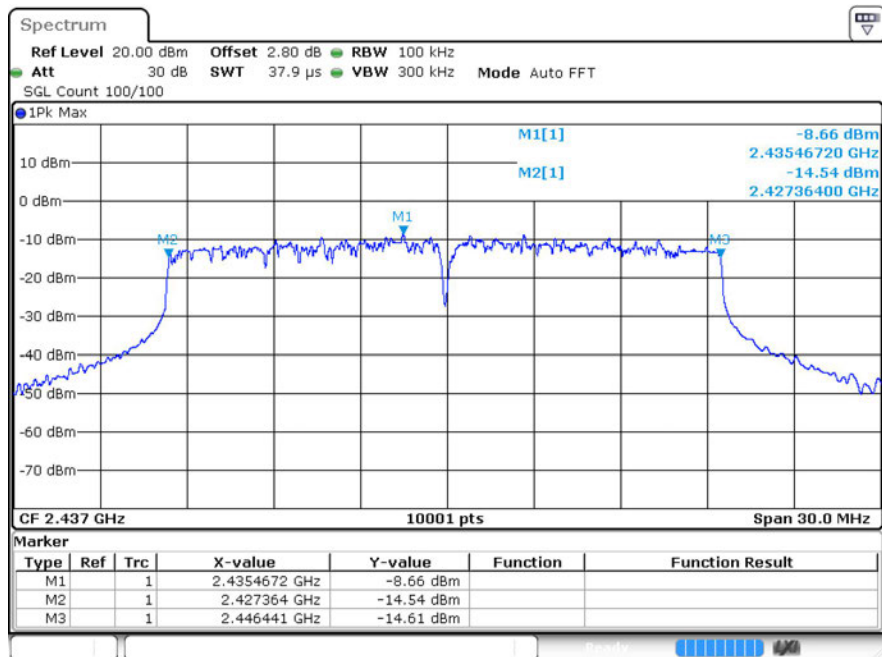




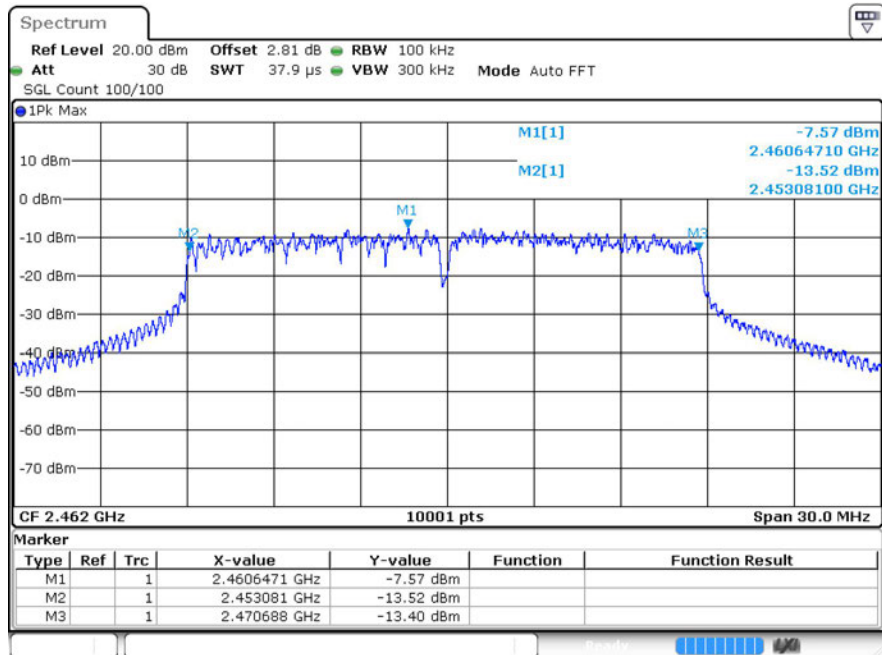
ax20 2412MHz Ant1



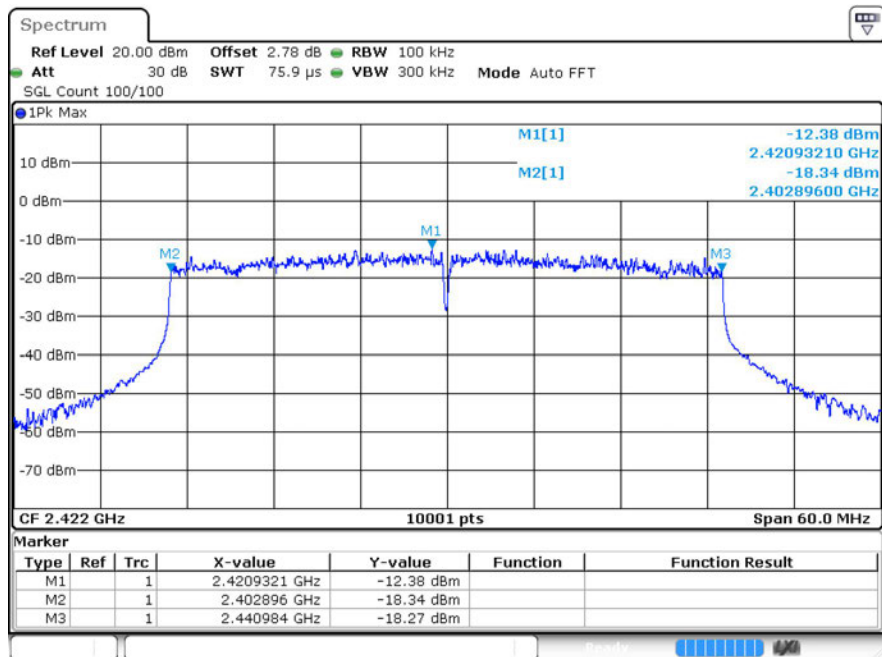
ax20 2437MHz Ant1



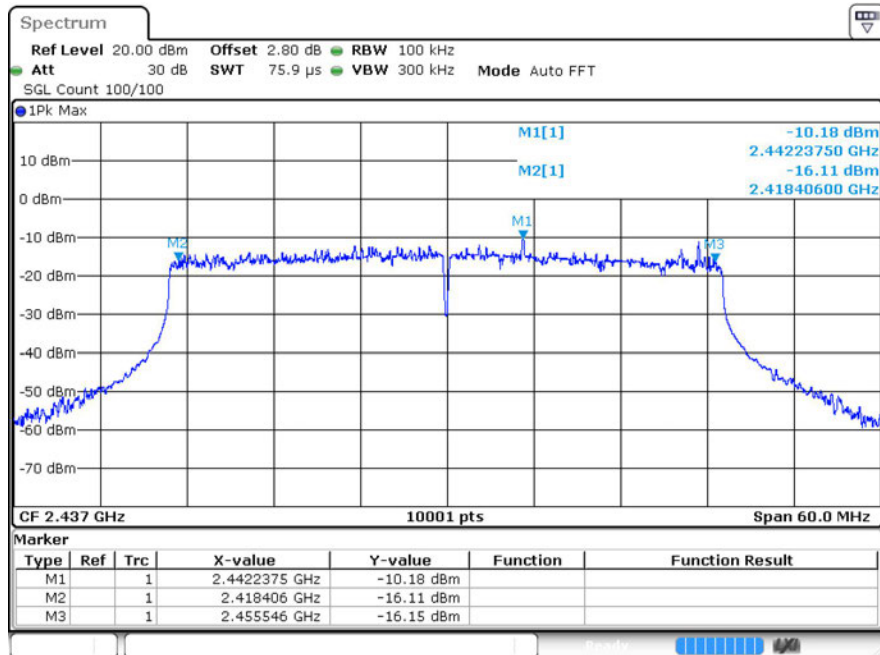
ax20 2462MHz Ant1



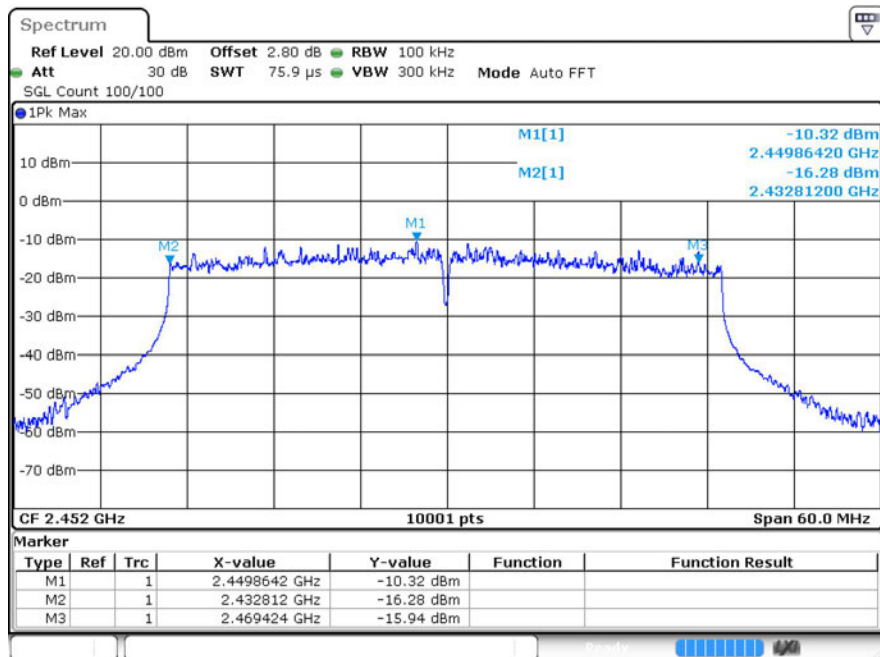
ax40 2422MHz Ant1



ax40 2437MHz Ant1



ax40 2452MHz Ant1

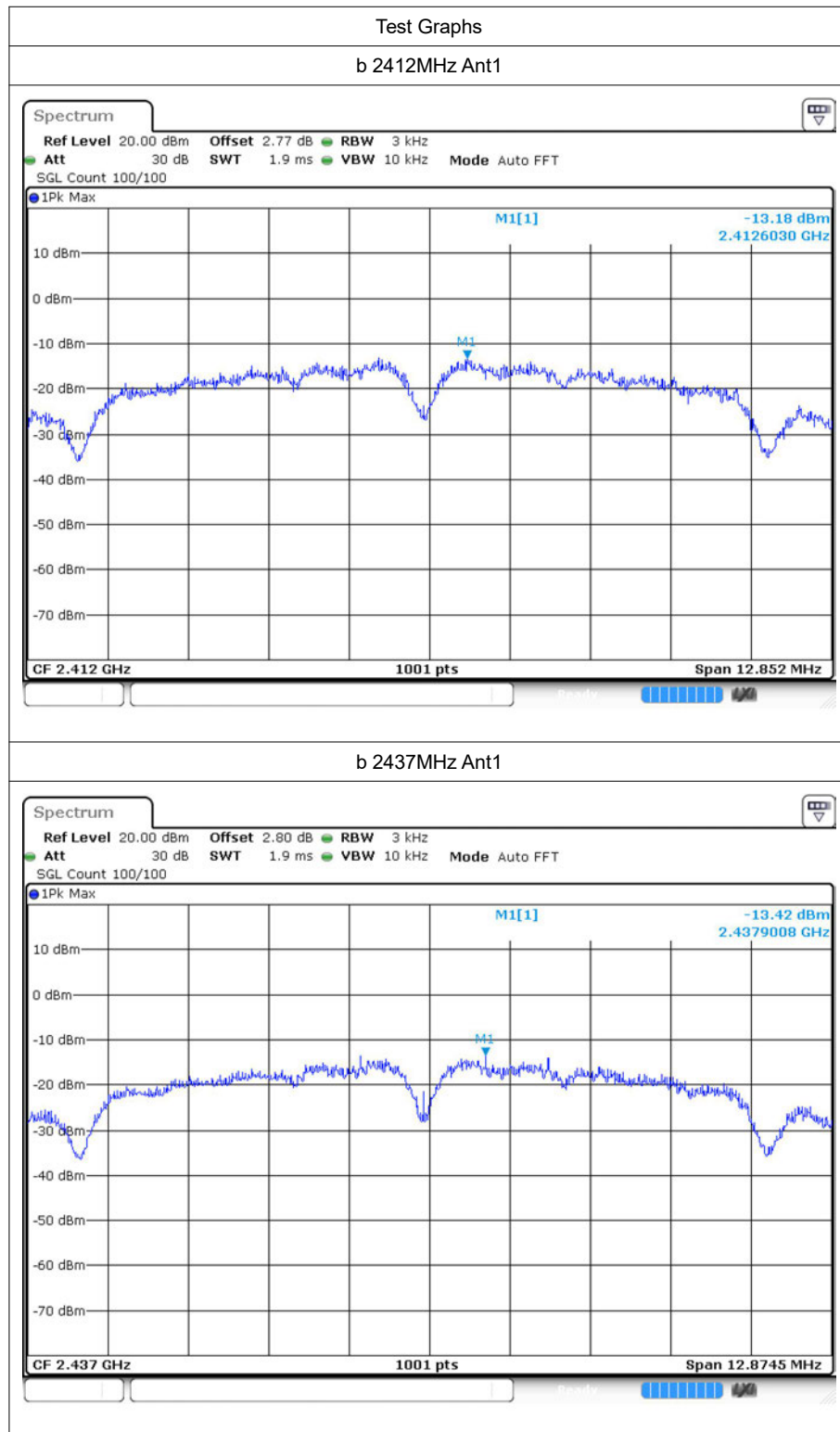


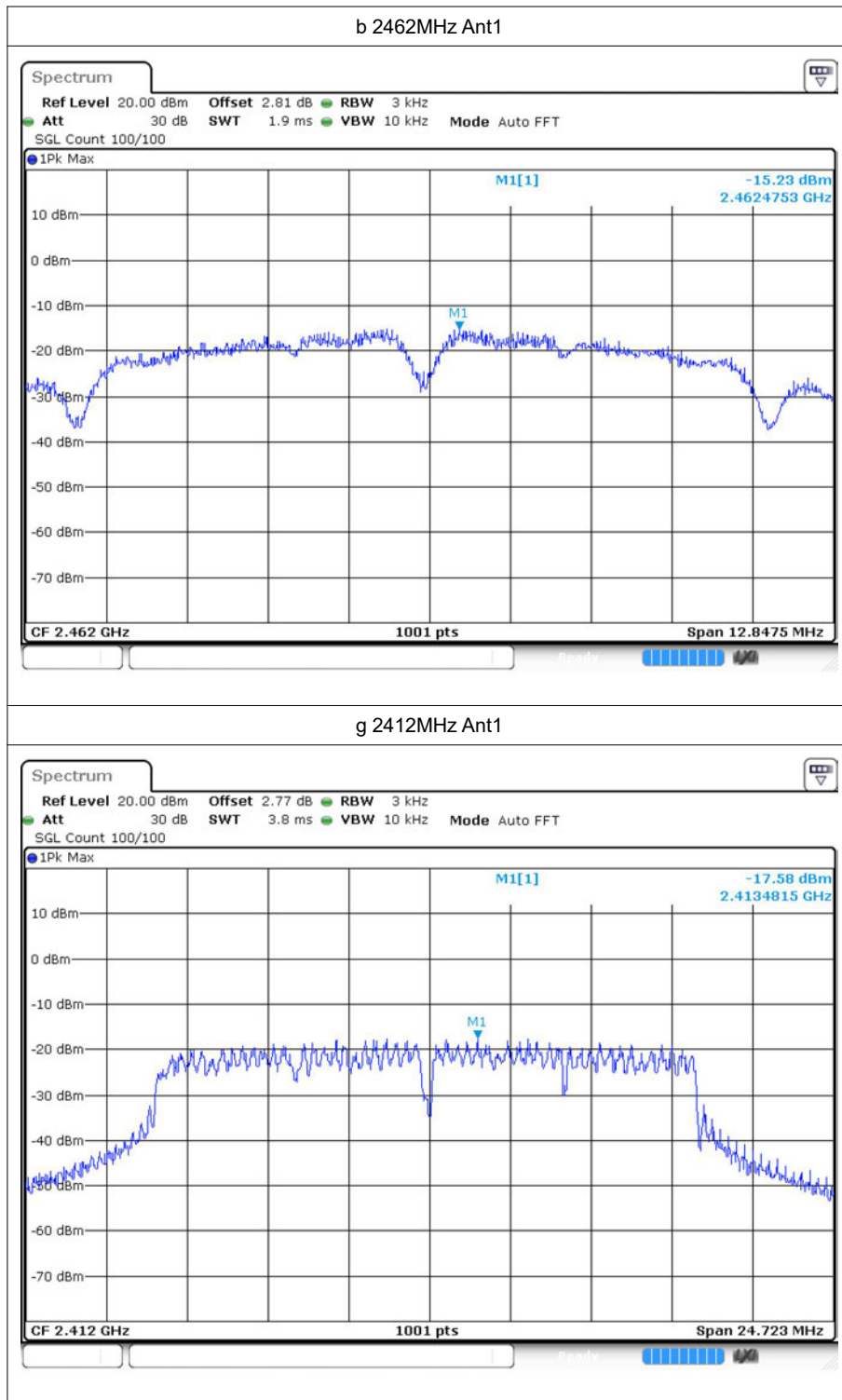
4 Maximum Power Spectral Density Level

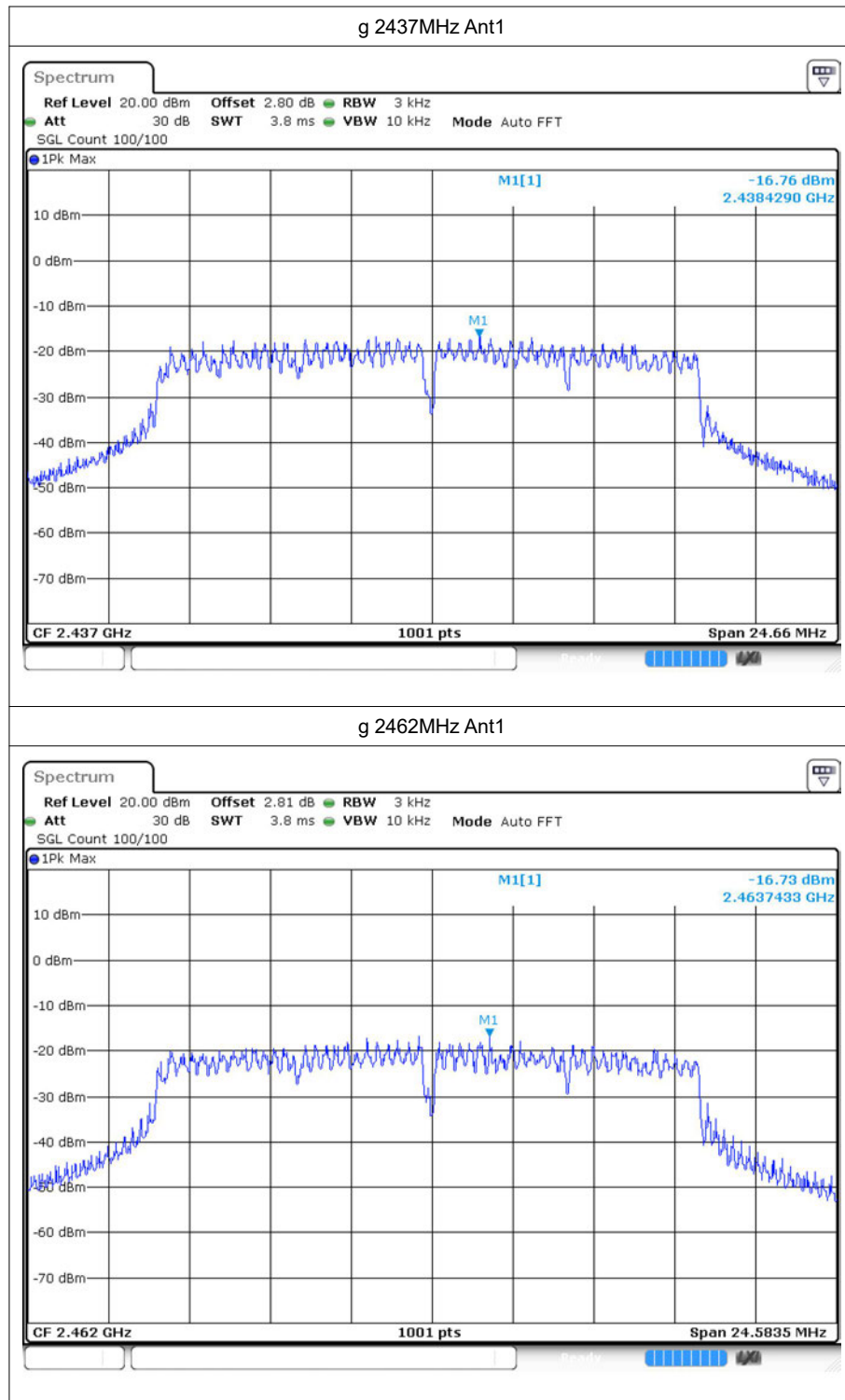
4.1 Test Result

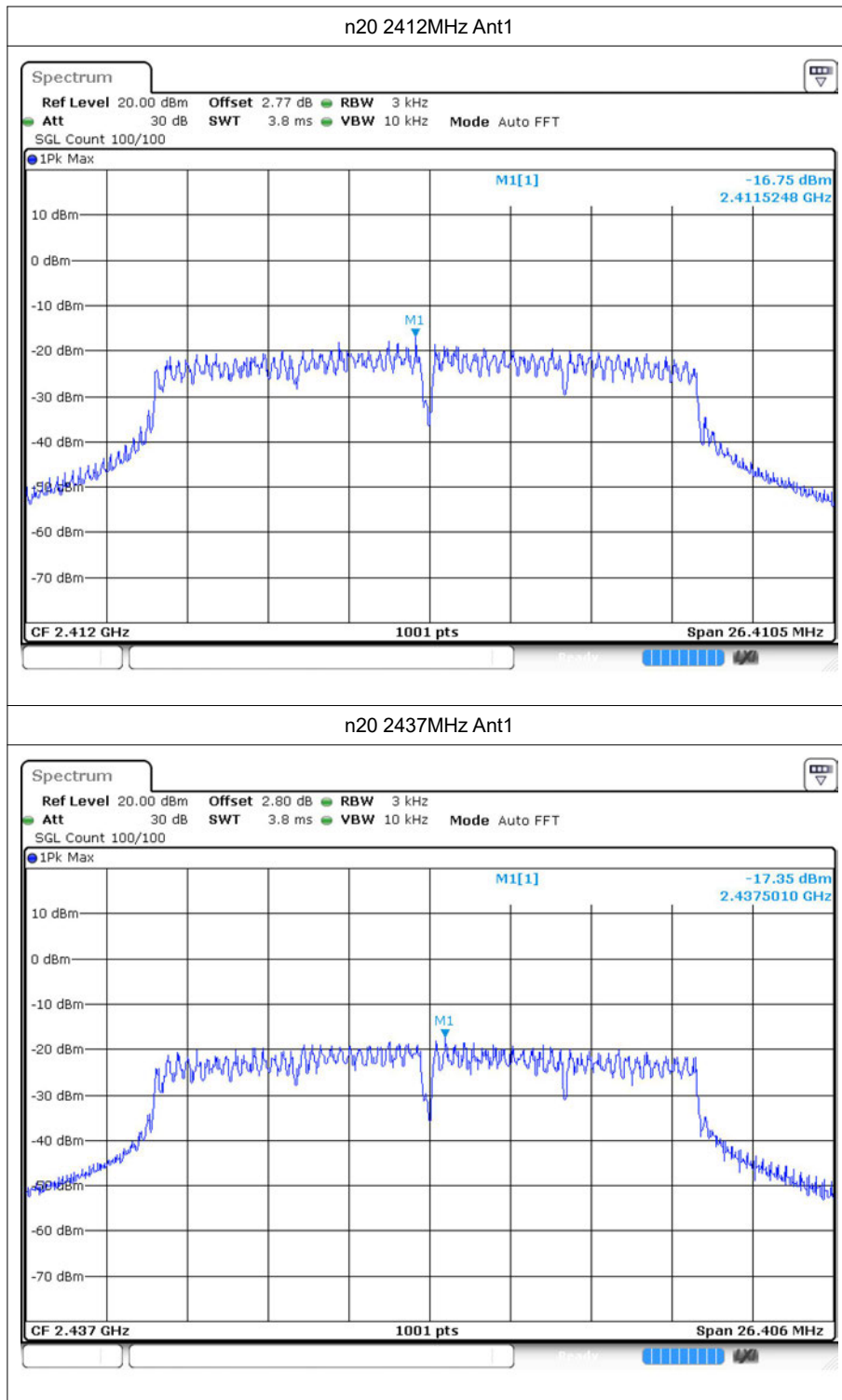
Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3-100kHz)	Limit (dBm/3kHz)	Verdict
b	2412	Ant1	-13.18	≤8	Pass
b	2437	Ant1	-13.42	≤8	Pass
b	2462	Ant1	-15.23	≤8	Pass
g	2412	Ant1	-17.58	≤8	Pass
g	2437	Ant1	-16.76	≤8	Pass
g	2462	Ant1	-16.73	≤8	Pass
n20	2412	Ant1	-16.75	≤8	Pass
n20	2437	Ant1	-17.35	≤8	Pass
n20	2462	Ant1	-18.39	≤8	Pass
n40	2422	Ant1	-21.82	≤8	Pass
n40	2437	Ant1	-20.65	≤8	Pass
n40	2452	Ant1	-20.78	≤8	Pass
ax20	2412	Ant1	-4.83	≤8	Pass
ax20	2437	Ant1	-7.89	≤8	Pass
ax20	2462	Ant1	-8.31	≤8	Pass
ax40	2422	Ant1	-11.76	≤8	Pass
ax40	2437	Ant1	-10.49	≤8	Pass
ax40	2452	Ant1	-12.21	≤8	Pass

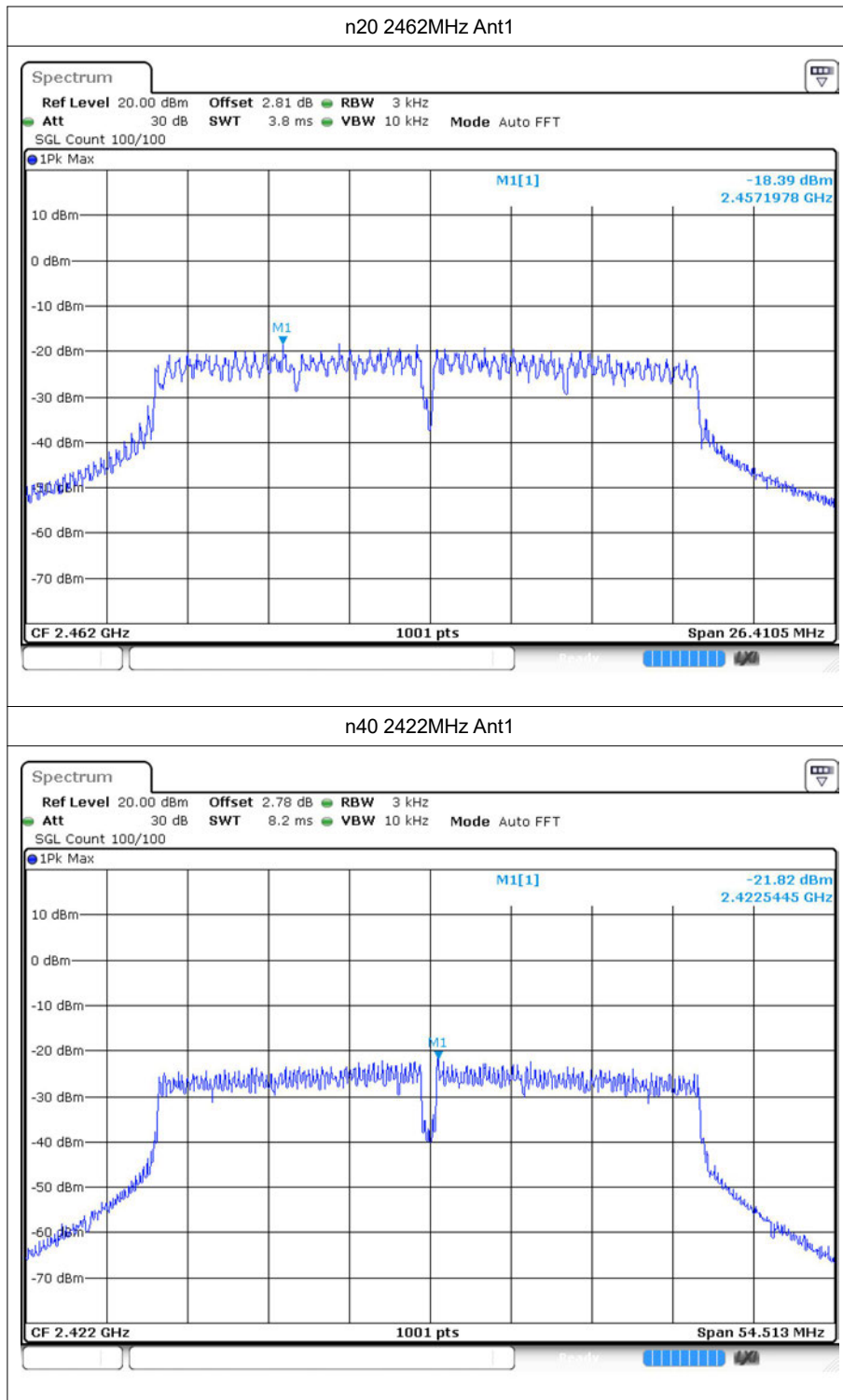
4.2 Test Graphs

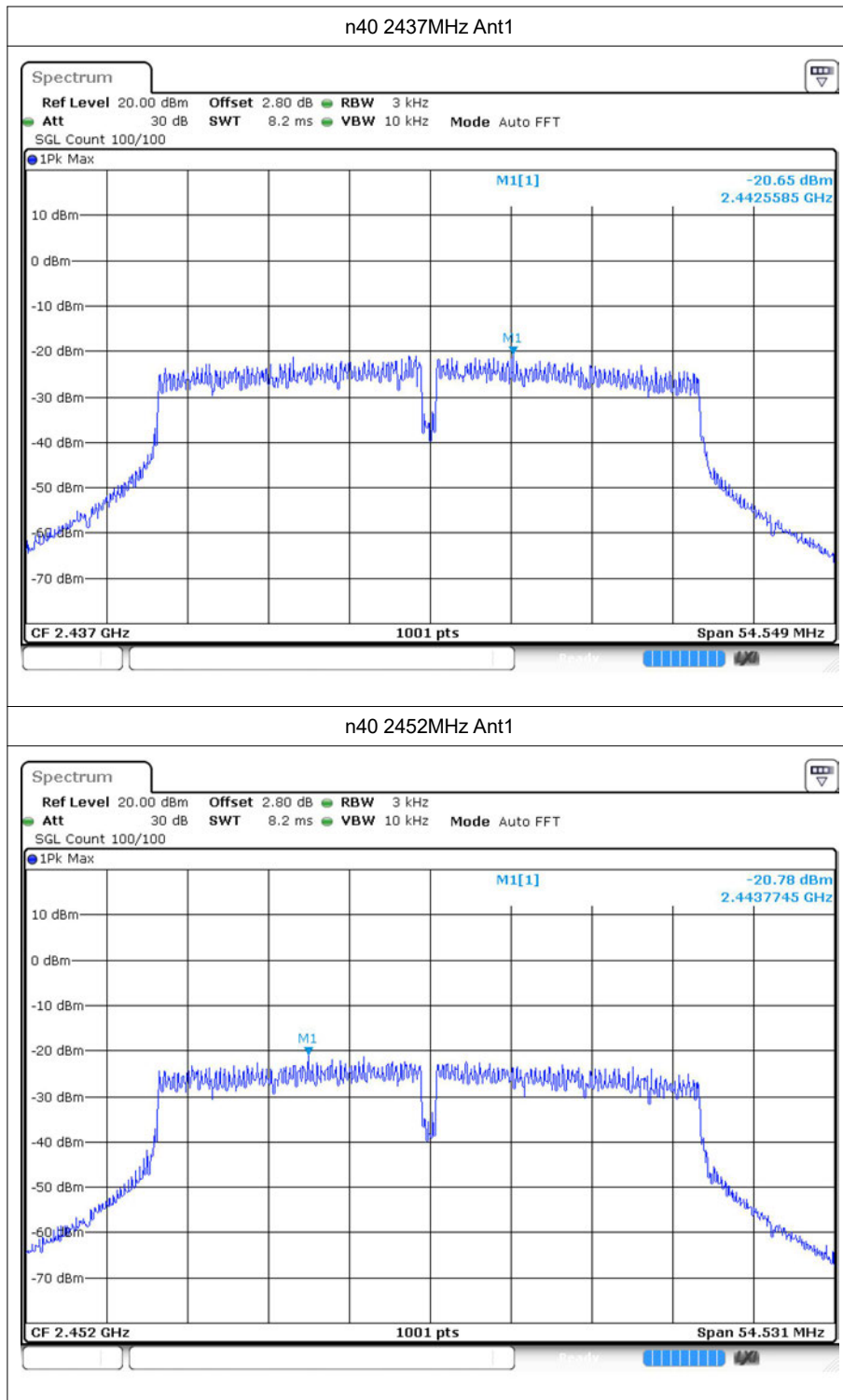


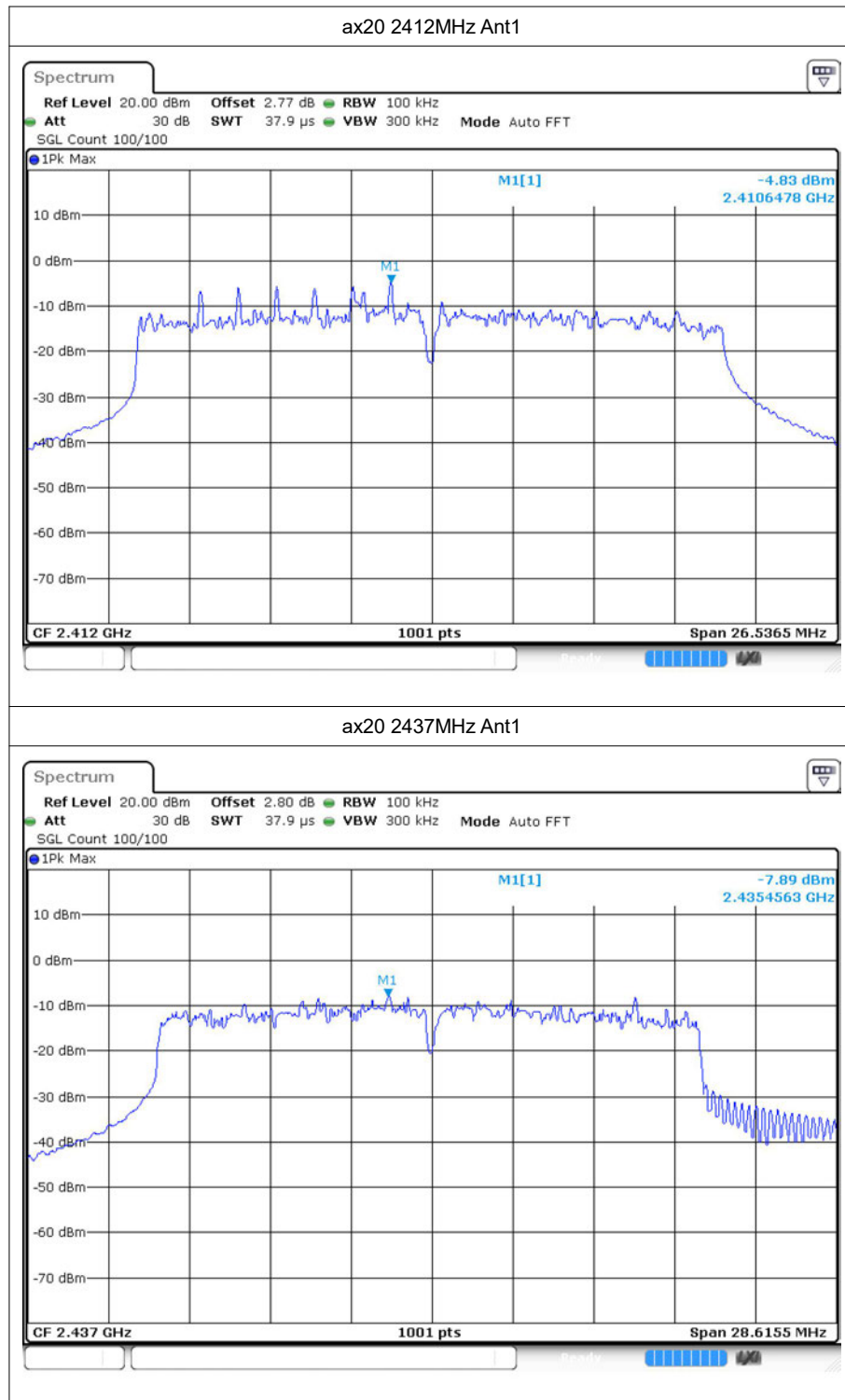


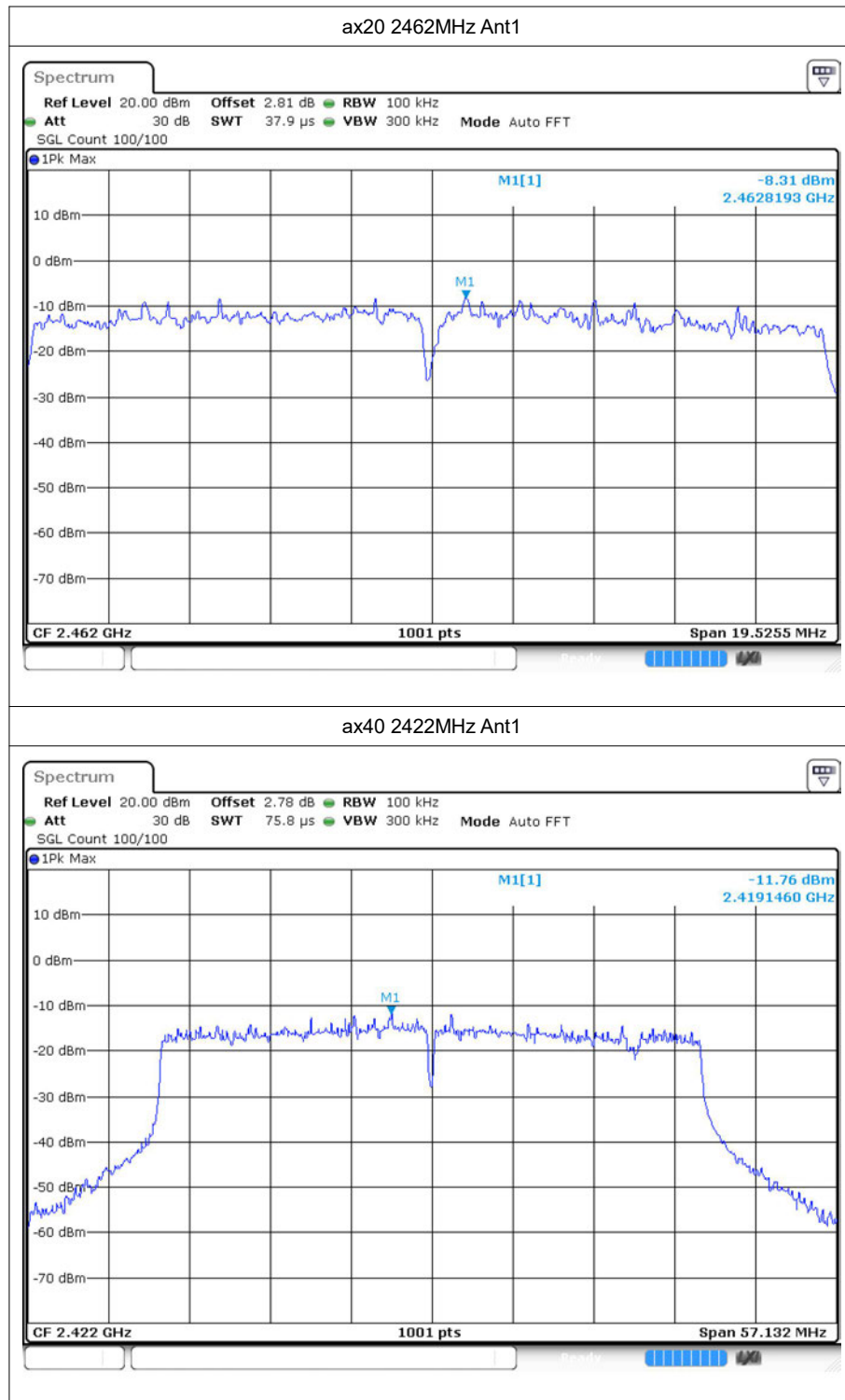


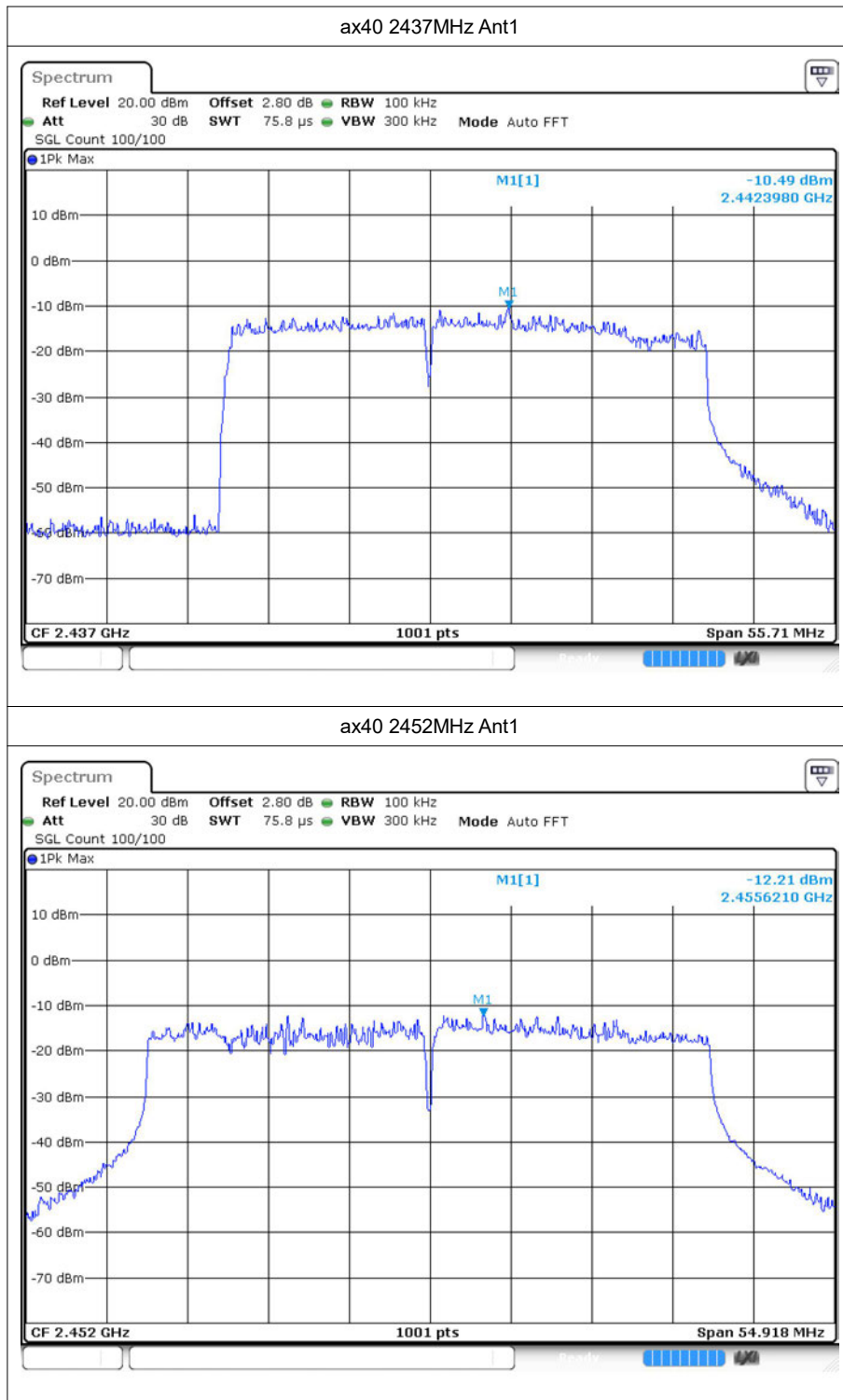










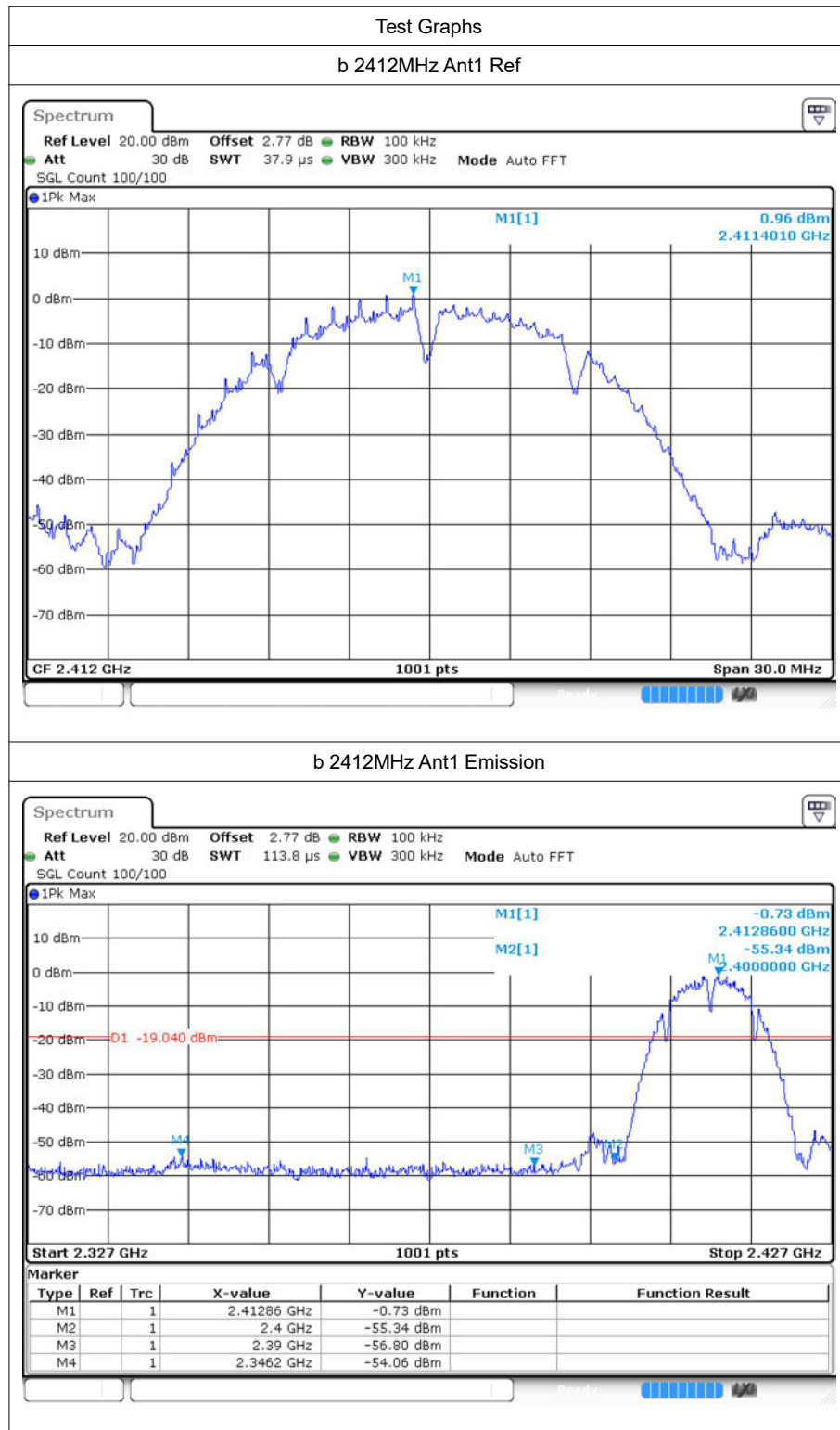


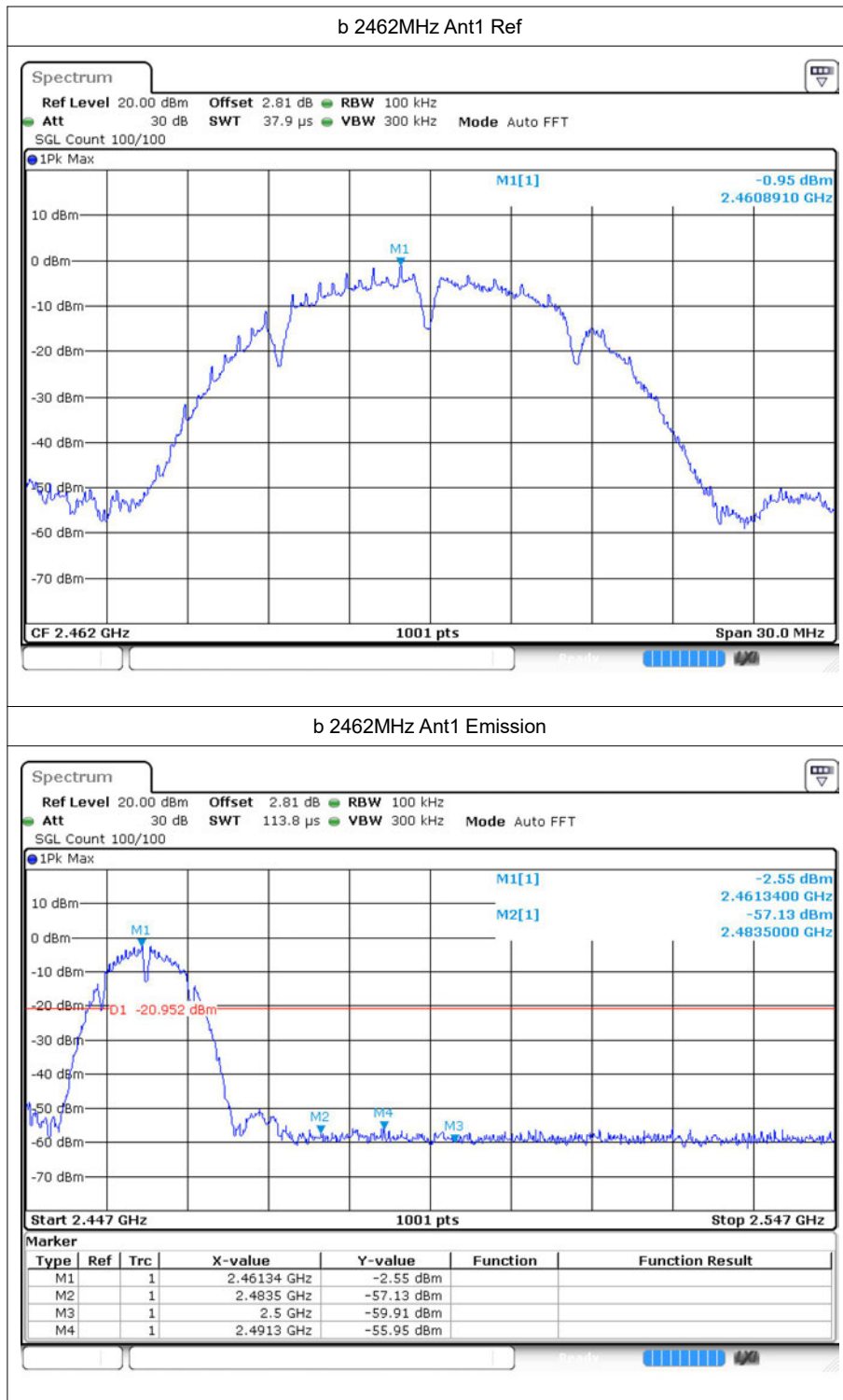
5 Band Edge

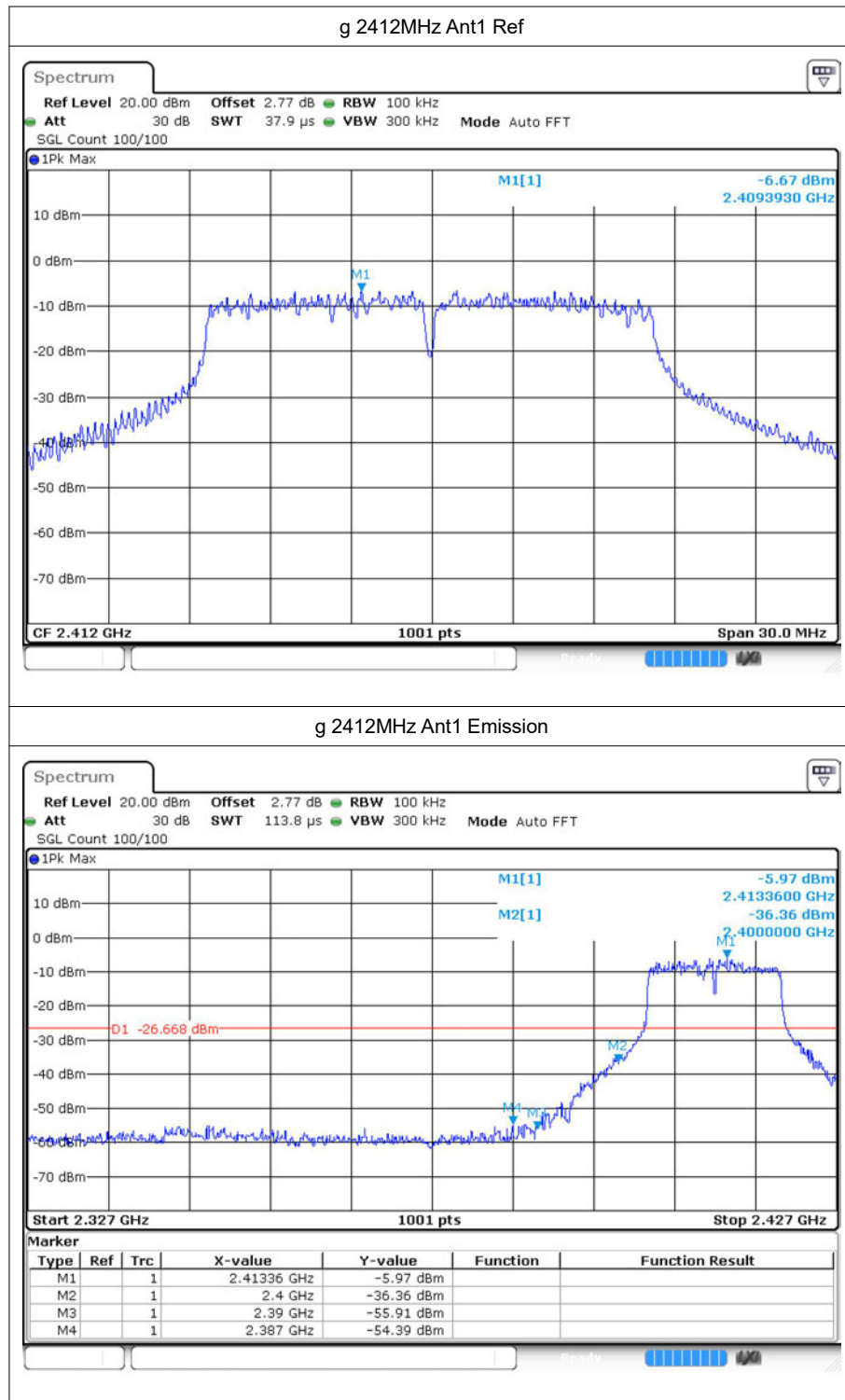
5.1 Test Result

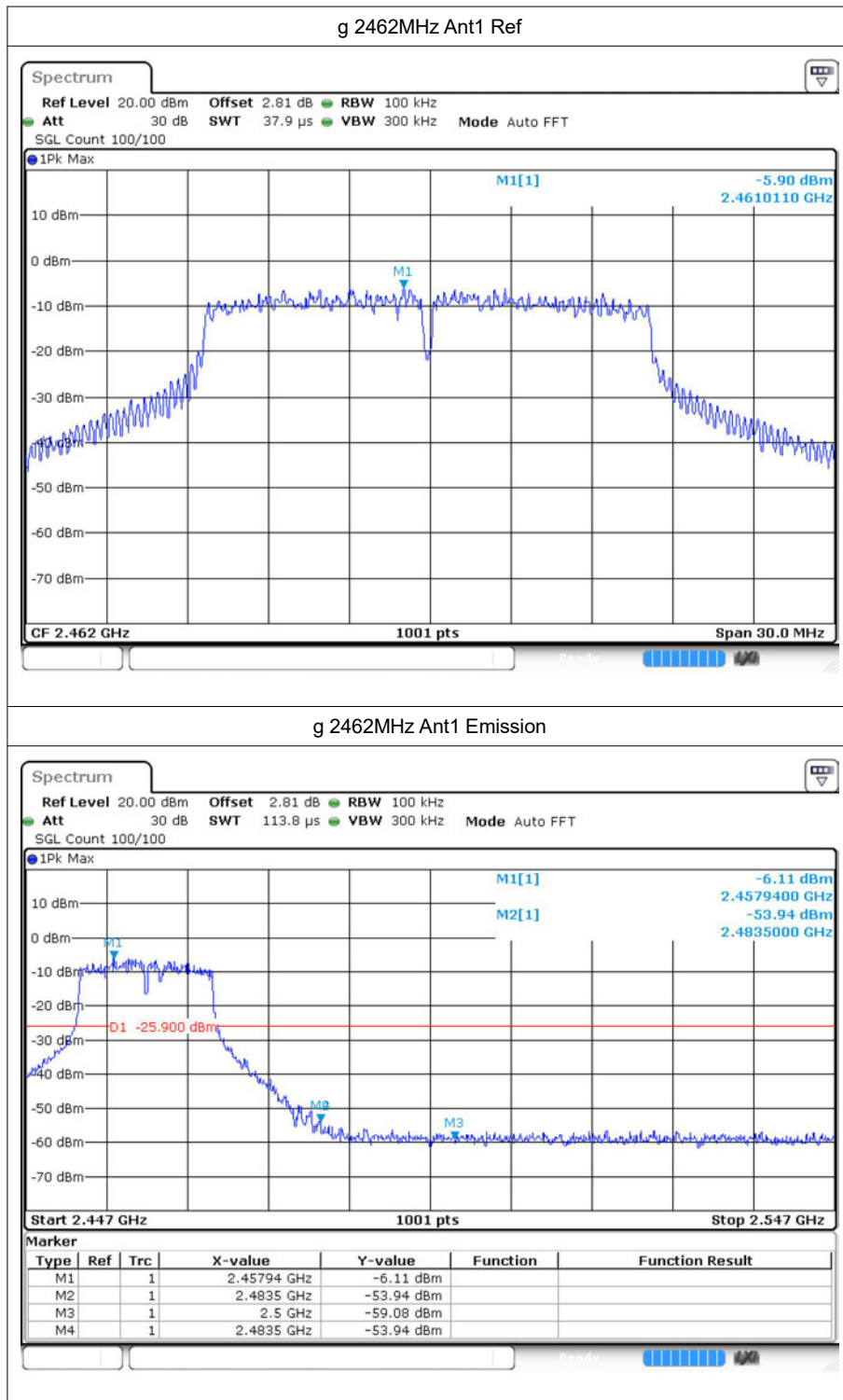
Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
b	2412	Ant1	-55.01	-20	Pass
b	2462	Ant1	-55	-20	Pass
g	2412	Ant1	-47.71	-20	Pass
g	2462	Ant1	-48.04	-20	Pass
n20	2412	Ant1	-46.11	-20	Pass
n20	2462	Ant1	-47.21	-20	Pass
n40	2422	Ant1	-45.21	-20	Pass
n40	2452	Ant1	-45.39	-20	Pass
ax20	2412	Ant1	-45.77	-20	Pass
ax20	2462	Ant1	-47.14	-20	Pass
ax40	2422	Ant1	-42.82	-20	Pass
ax40	2452	Ant1	-43.8	-20	Pass

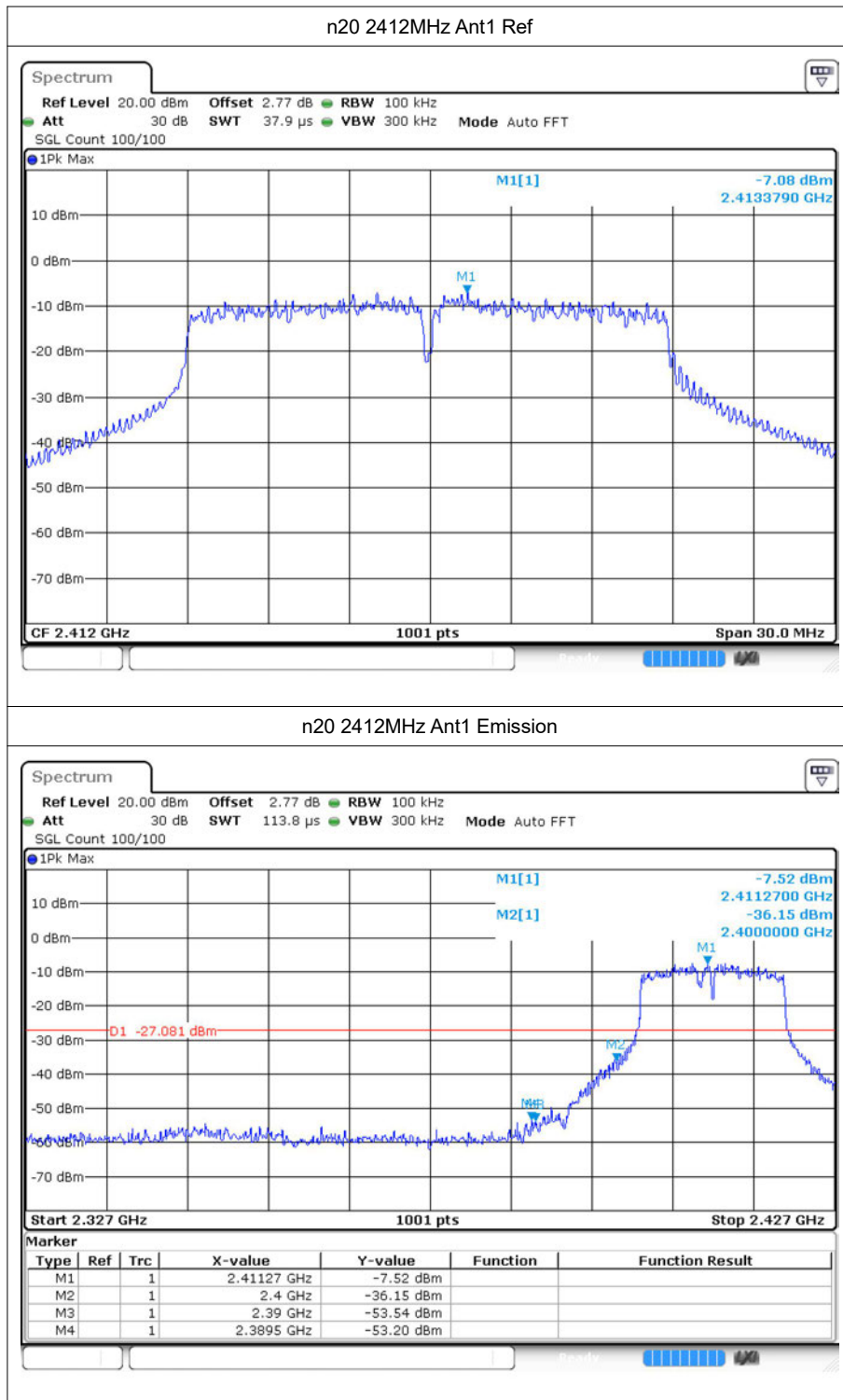
5.2 Test Graphs

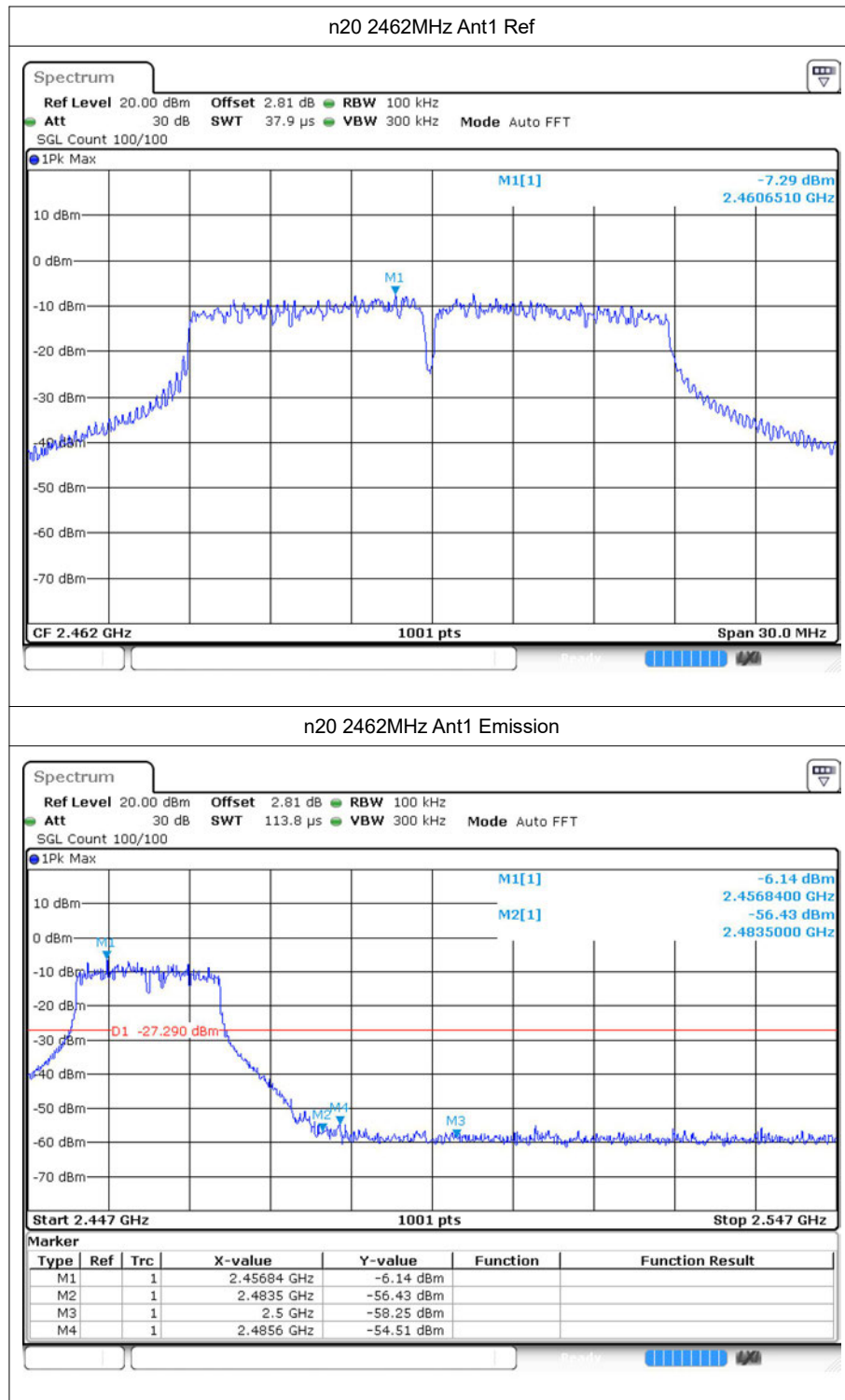


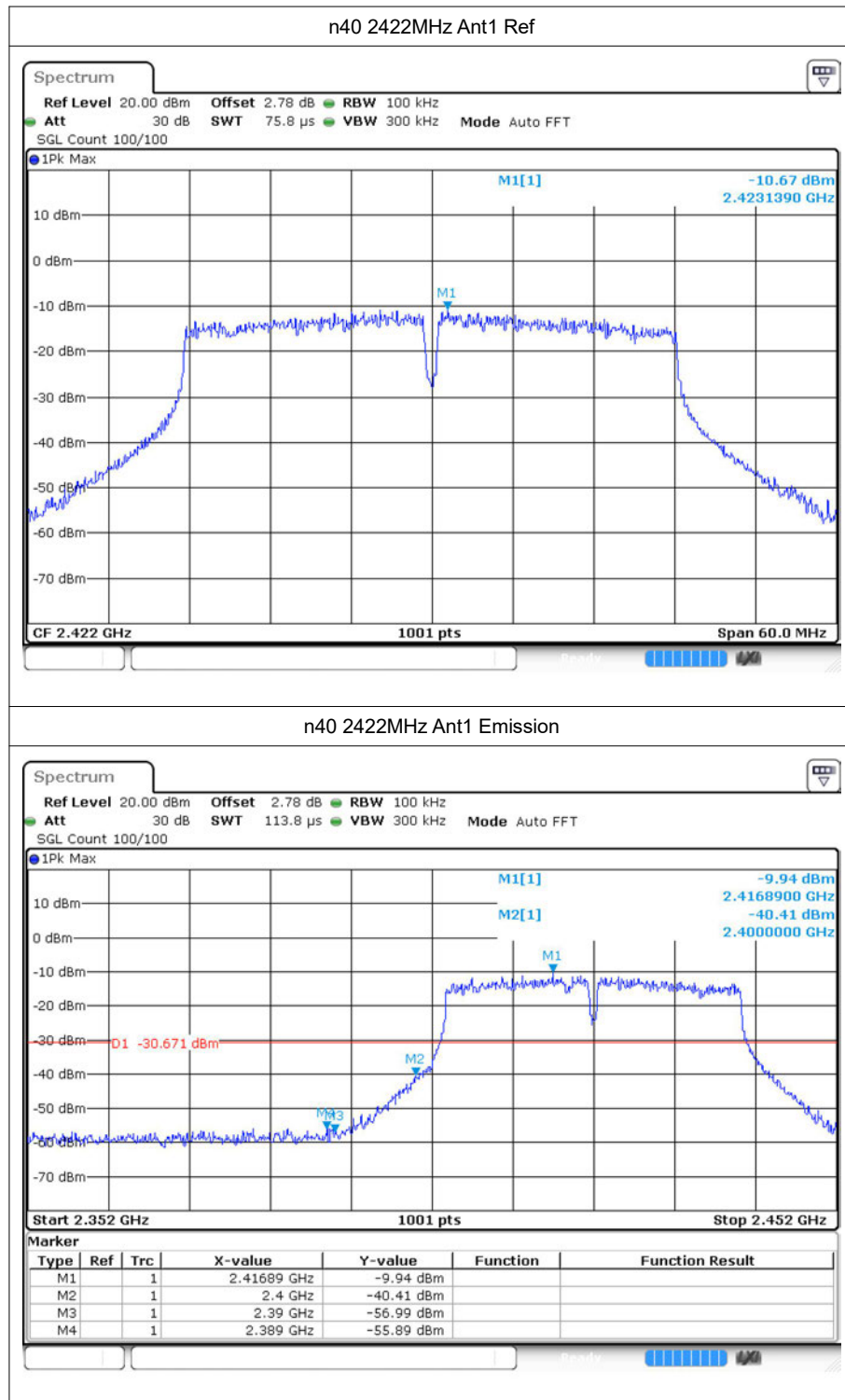


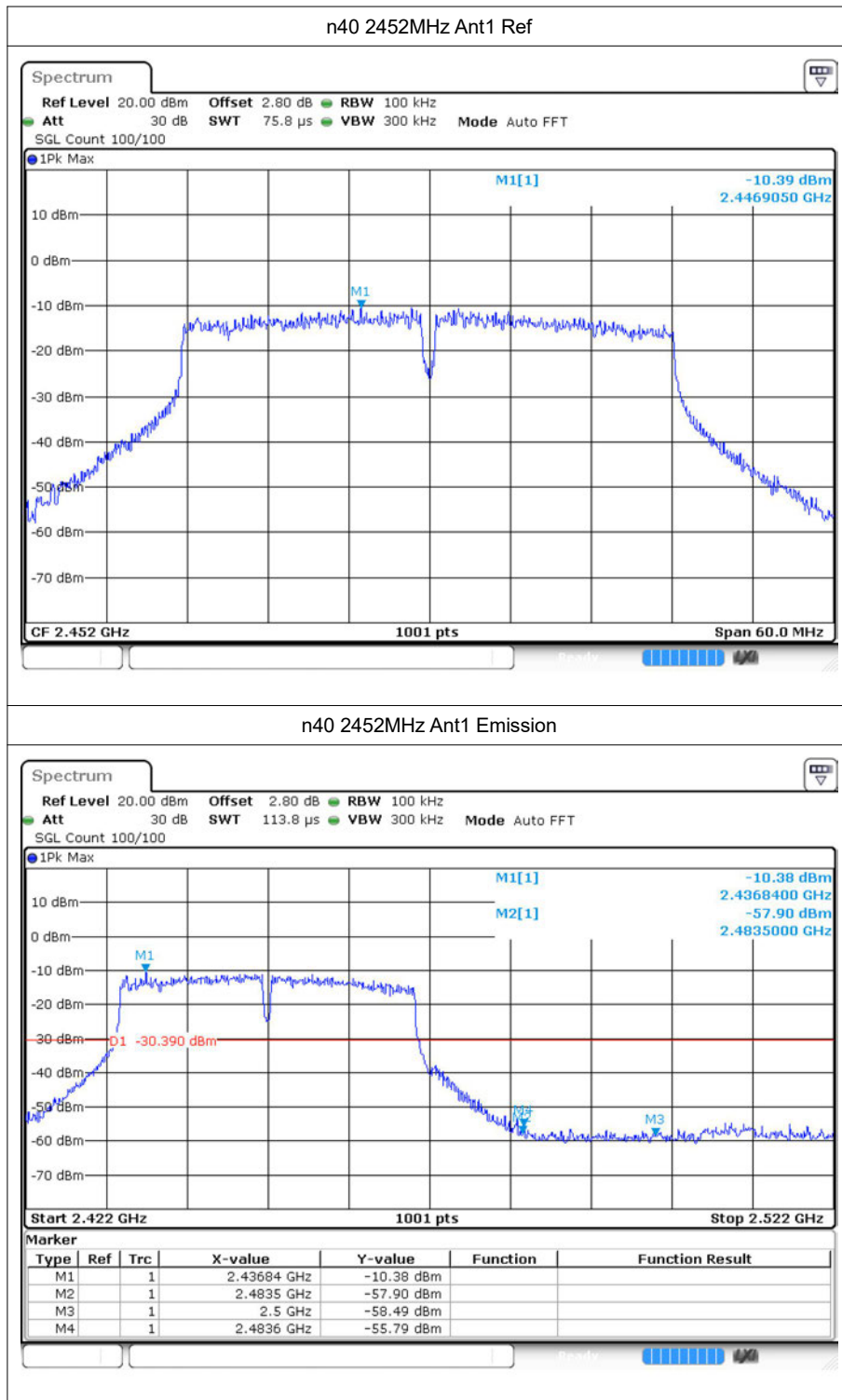


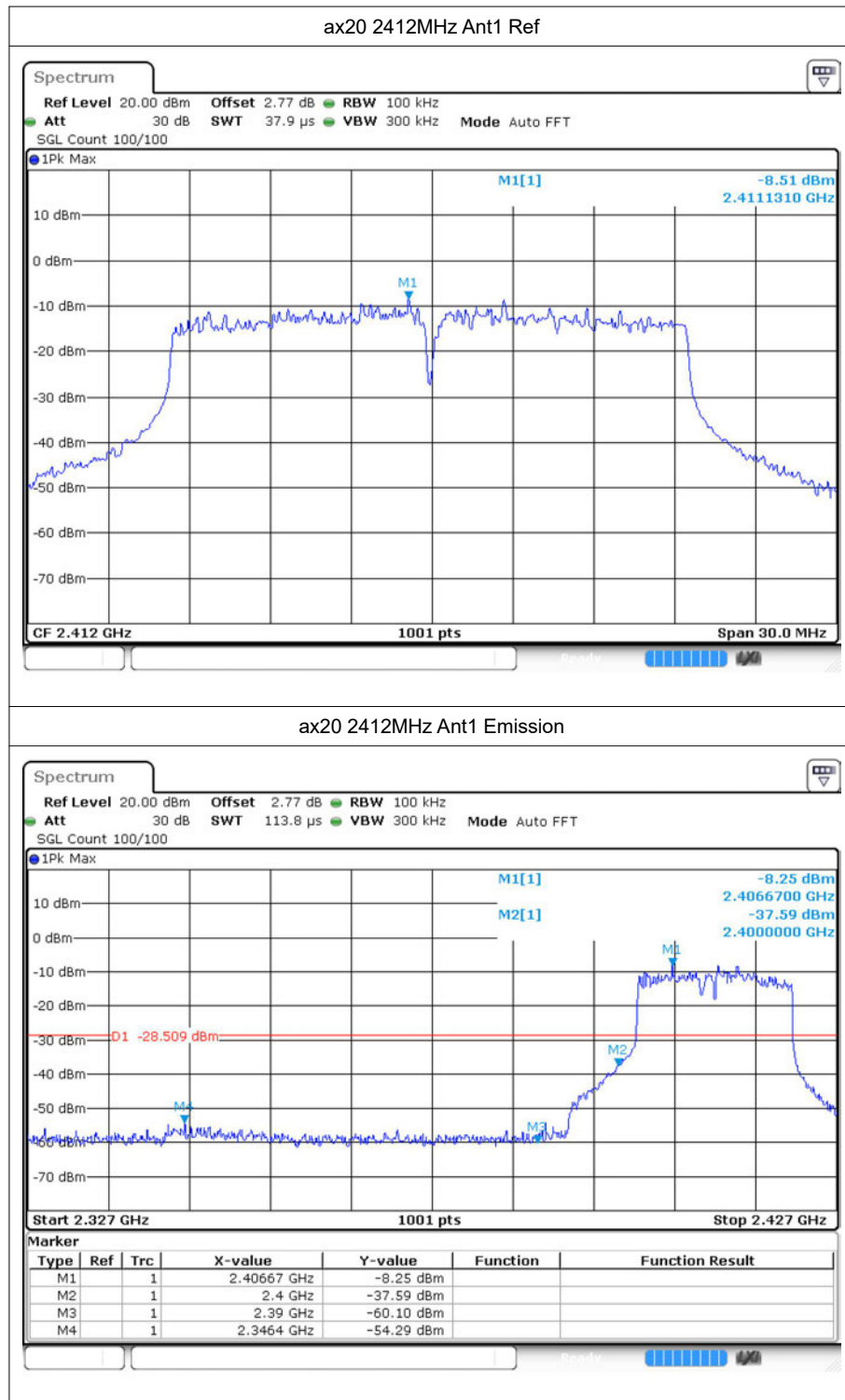


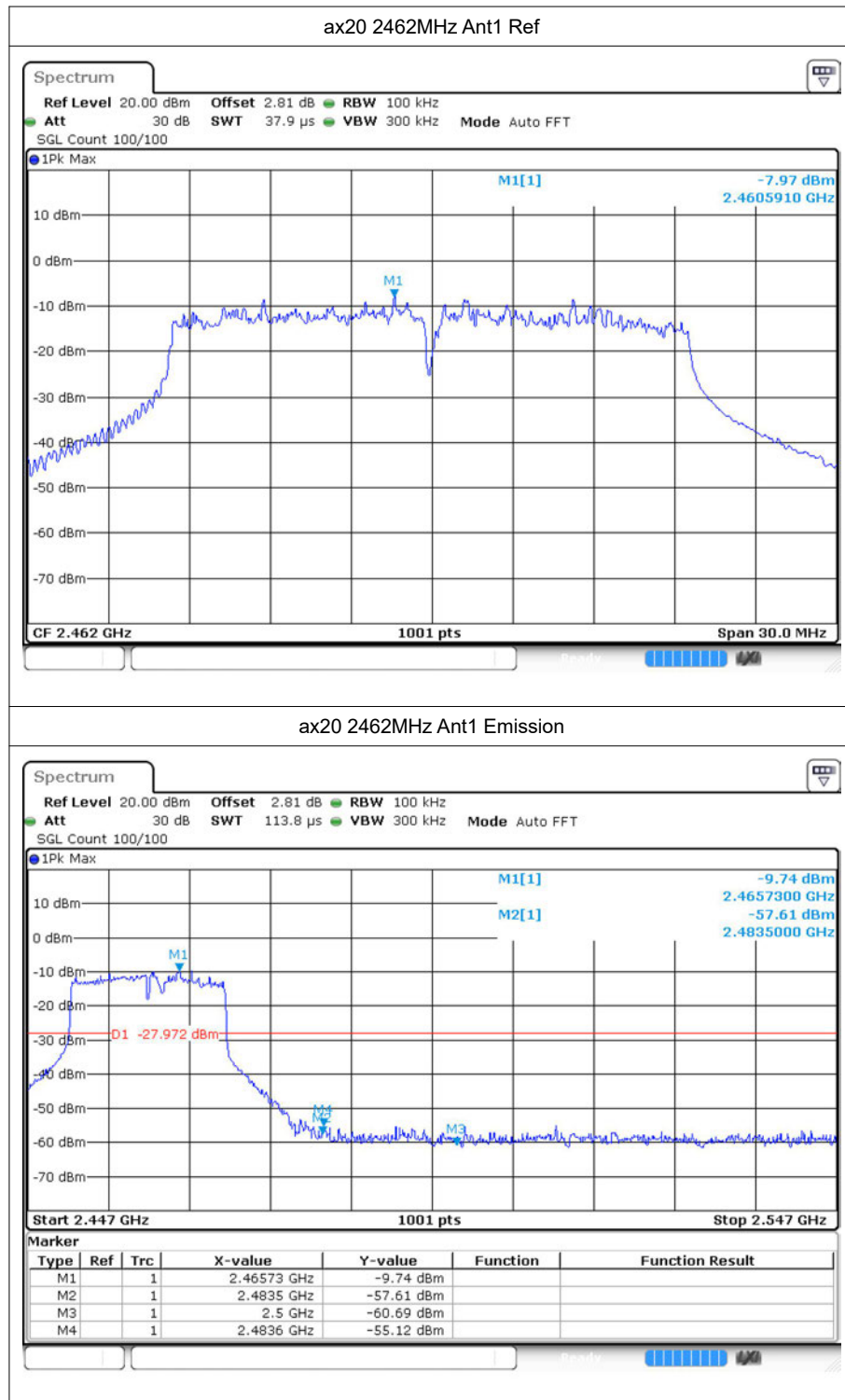


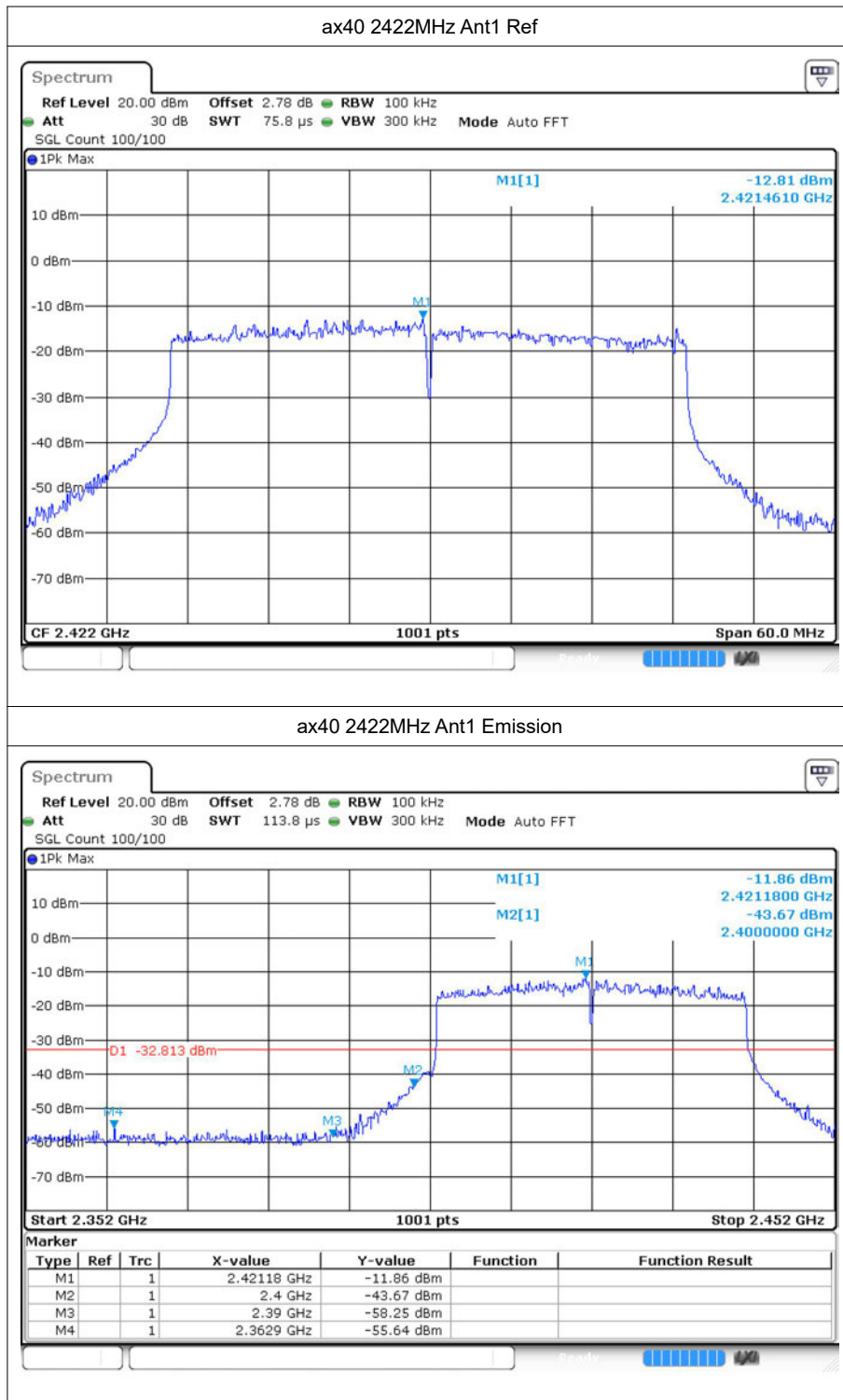


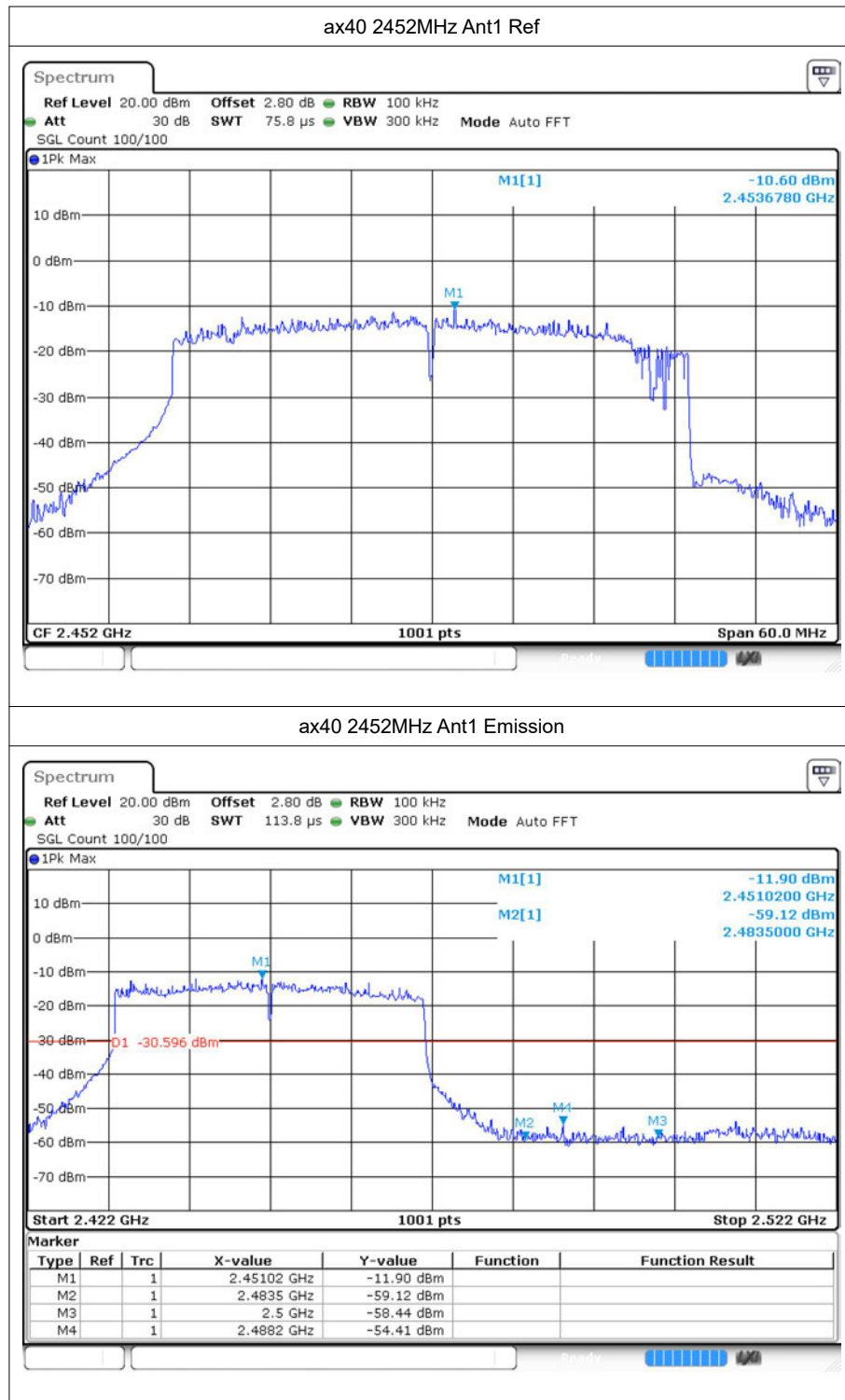














6 Conducted RF Spurious Emission

6.1 Test Result

Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
b	2412	Ant1	-41.99	-20	Pass
b	2437	Ant1	-41.41	-20	Pass
b	2462	Ant1	-40.01	-20	Pass
g	2412	Ant1	-36.83	-20	Pass
g	2437	Ant1	-37.75	-20	Pass
g	2462	Ant1	-36.75	-20	Pass
n20	2412	Ant1	-31.37	-20	Pass
n20	2437	Ant1	-32.92	-20	Pass
n20	2462	Ant1	-35.36	-20	Pass
n40	2422	Ant1	-31.06	-20	Pass
n40	2437	Ant1	-32.76	-20	Pass
n40	2452	Ant1	-32.59	-20	Pass
ax20	2412	Ant1	-33.26	-20	Pass
ax20	2437	Ant1	-35.88	-20	Pass
ax20	2462	Ant1	-33.6	-20	Pass
ax40	2422	Ant1	-30.81	-20	Pass
ax40	2437	Ant1	-30.6	-20	Pass
ax40	2452	Ant1	-31.39	-20	Pass

6.2 Test Graphs

