



Appendix C

RF Test Data for 2.4GWIFI (Conducted Measurement)

Product Name: Smart Pet Feeder

Trade Mark: CATBOAT

Test Model: DCA013

Environmental Conditions

Temperature:	20.5° C
Relative Humidity:	42.0%
ATM Pressure:	100.0 kPa
Test Engineer:	Simba Huang
Supervised by:	Seal Chen



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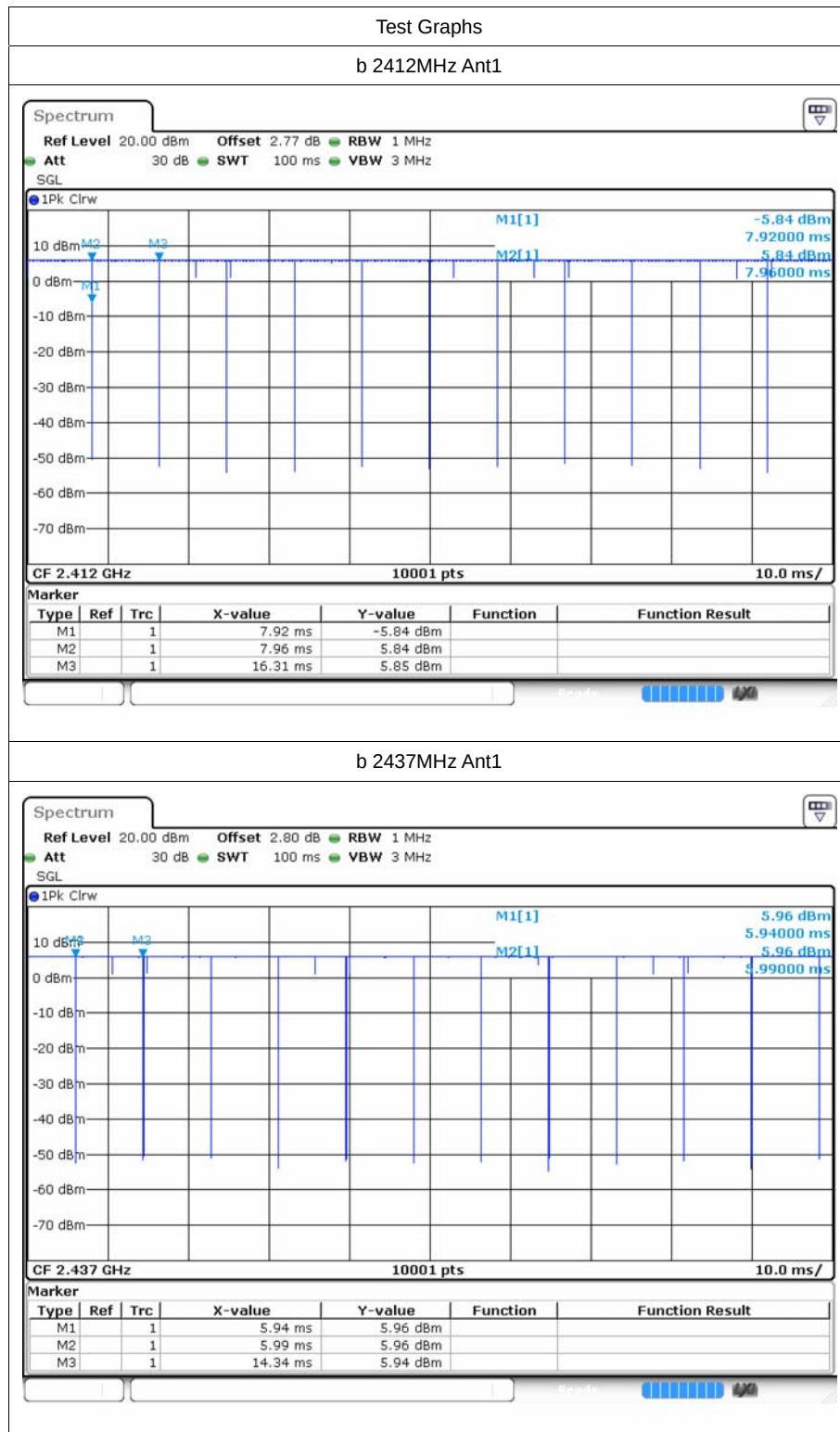


1 Duty Cycle

1.1 Test Result

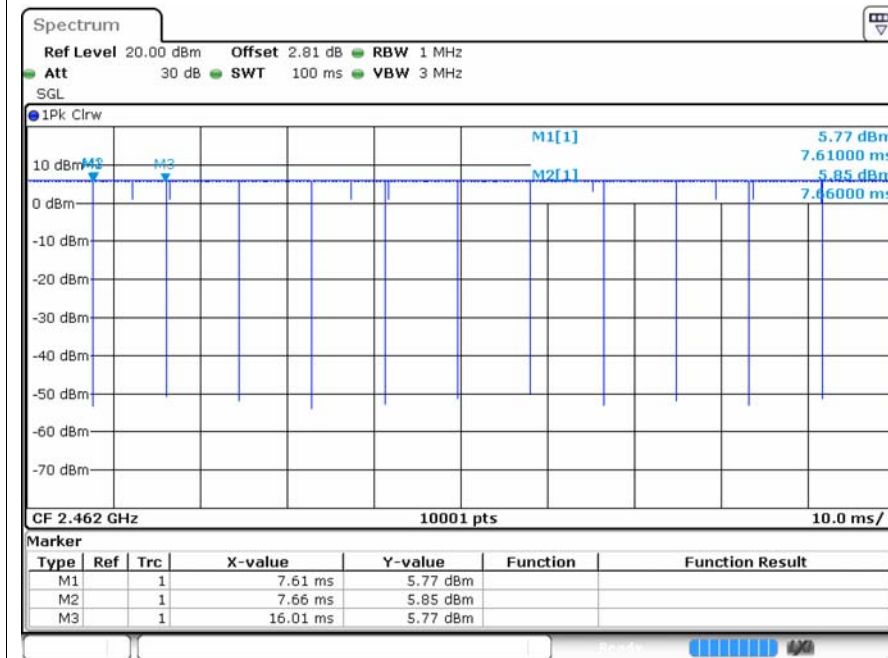
Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	1/T (kHz)
b	2412	Ant1	99.65	0.12
b	2437	Ant1	99.59	0.12
b	2462	Ant1	99.6	0.12
g	2412	Ant1	86.98	4.76
g	2437	Ant1	86.91	4.76
g	2462	Ant1	86.94	4.76
n20	2412	Ant1	87.61	4.35
n20	2437	Ant1	87.61	4.35
n20	2462	Ant1	87.55	4.35

1.2 Test Graphs

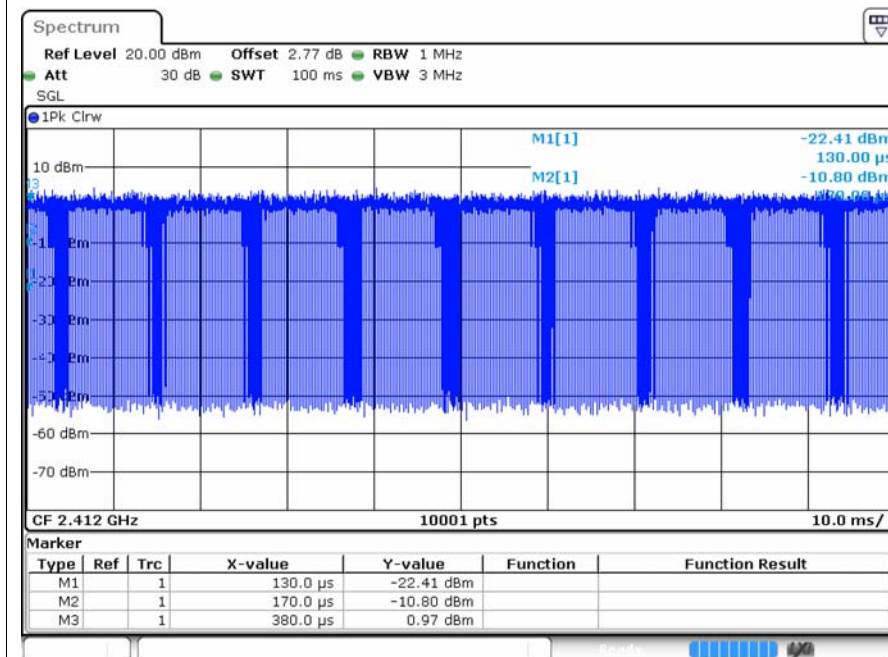


Test Graphs

b 2462MHz Ant1

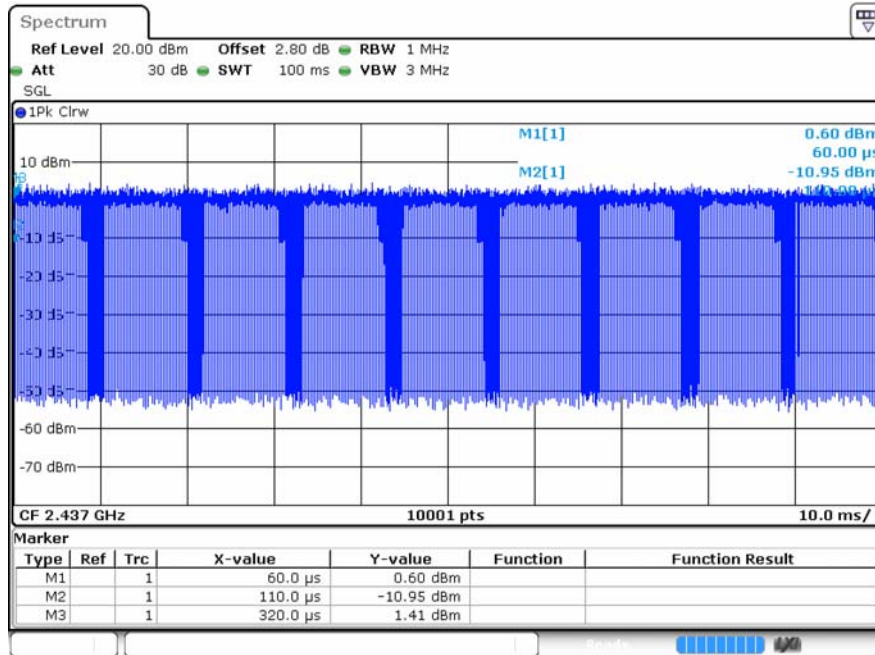


g 2412MHz Ant1

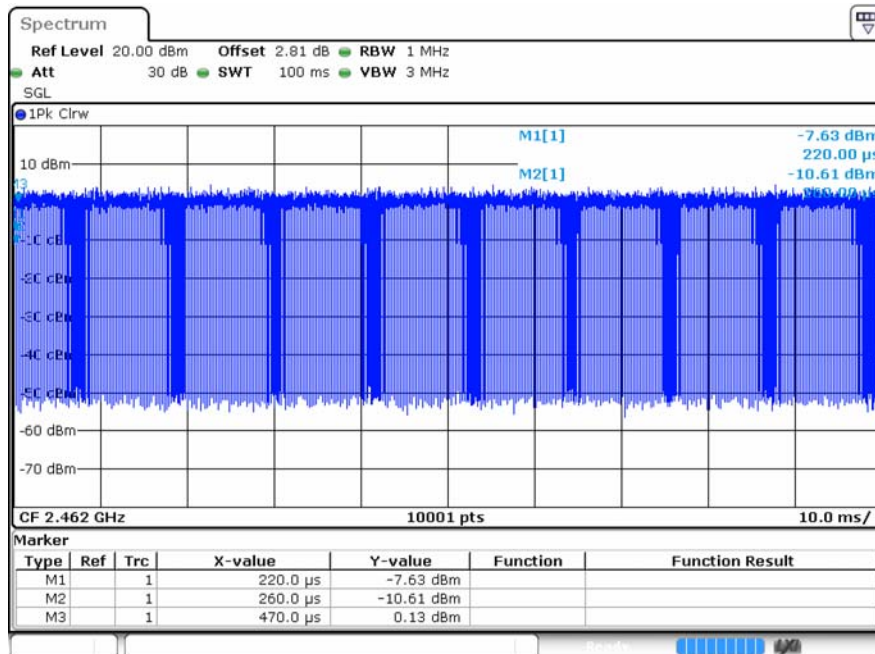


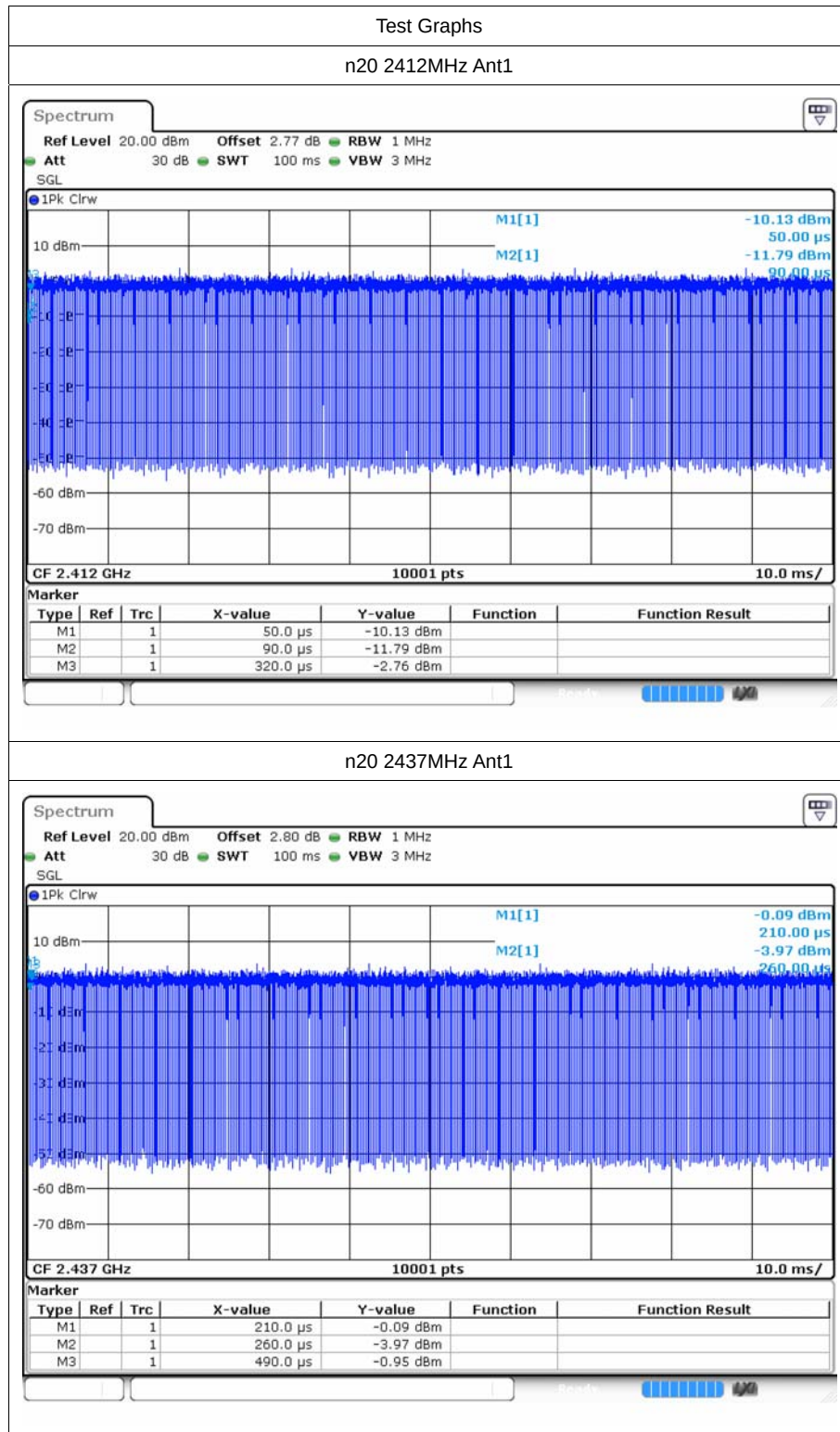
Test Graphs

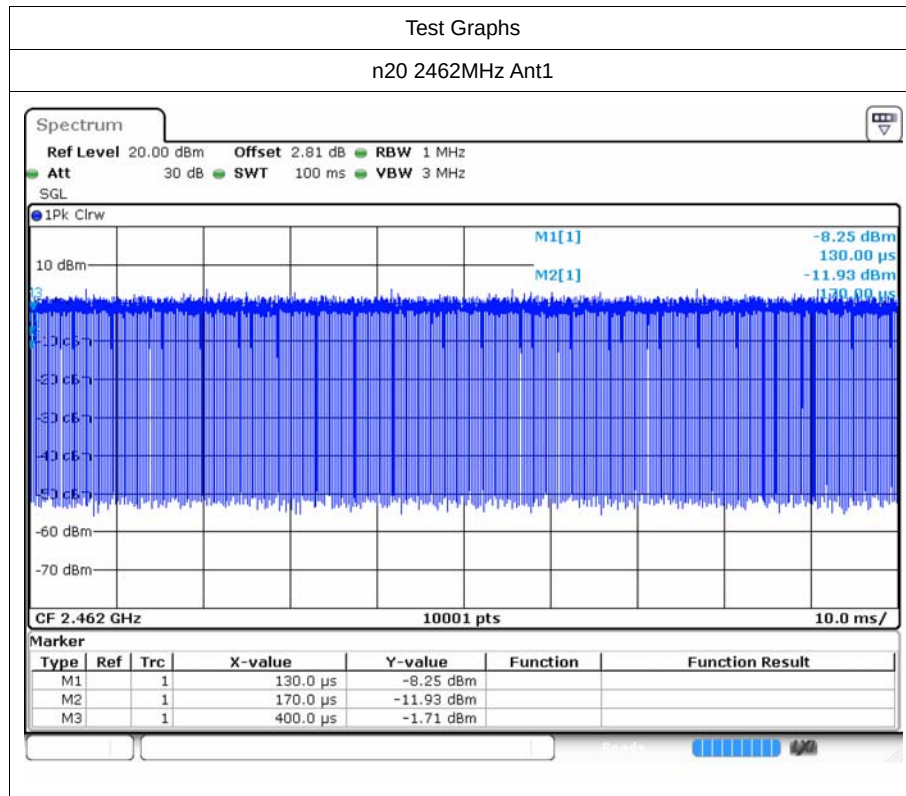
g 2437MHz Ant1



g 2462MHz Ant1









2 Maximum Conducted Output Power

2.1 Test Result

Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
b	2412	Ant1	17.34	30	Pass
b	2437	Ant1	17.40	30	Pass
b	2462	Ant1	17.27	30	Pass
g	2412	Ant1	14.67	30	Pass
g	2437	Ant1	14.71	30	Pass
g	2462	Ant1	14.58	30	Pass
n20	2412	Ant1	13.70	30	Pass
n20	2437	Ant1	13.87	30	Pass
n20	2462	Ant1	13.59	30	Pass

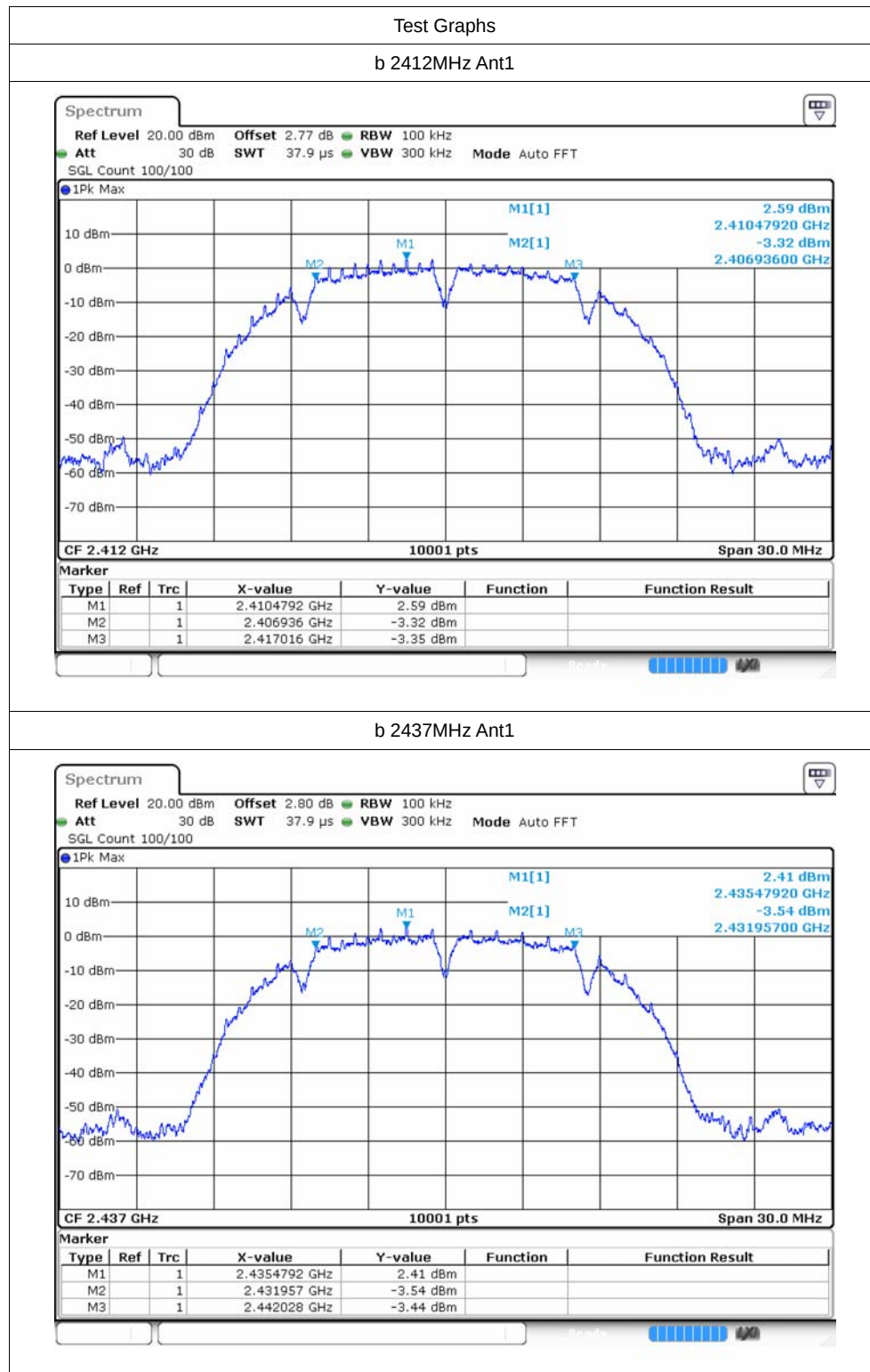


3 -6dB Bandwidth

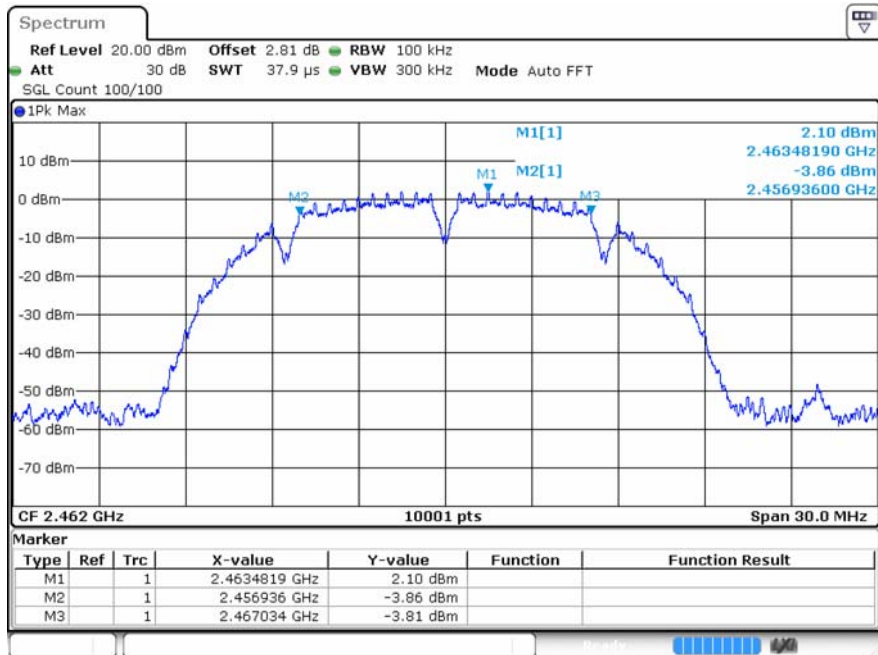
3.1 Test Result

Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
b	2412	Ant1	10.08	0.5	Pass
b	2437	Ant1	10.071	0.5	Pass
b	2462	Ant1	10.098	0.5	Pass
g	2412	Ant1	15.129	0.5	Pass
g	2437	Ant1	13.443	0.5	Pass
g	2462	Ant1	15.114	0.5	Pass
n20	2412	Ant1	15.114	0.5	Pass
n20	2437	Ant1	15.105	0.5	Pass
n20	2462	Ant1	15.123	0.5	Pass

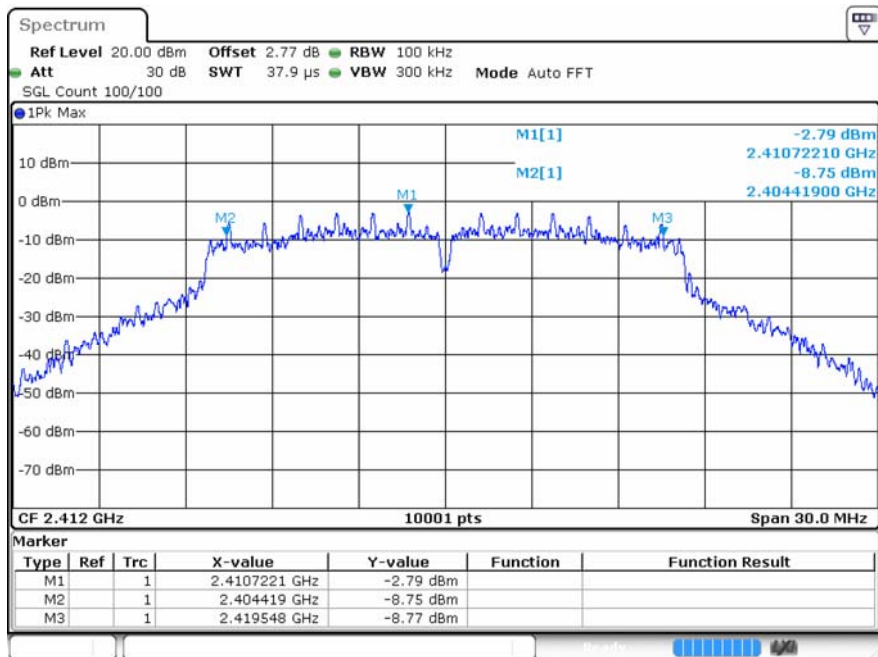
3.2 Test Graphs



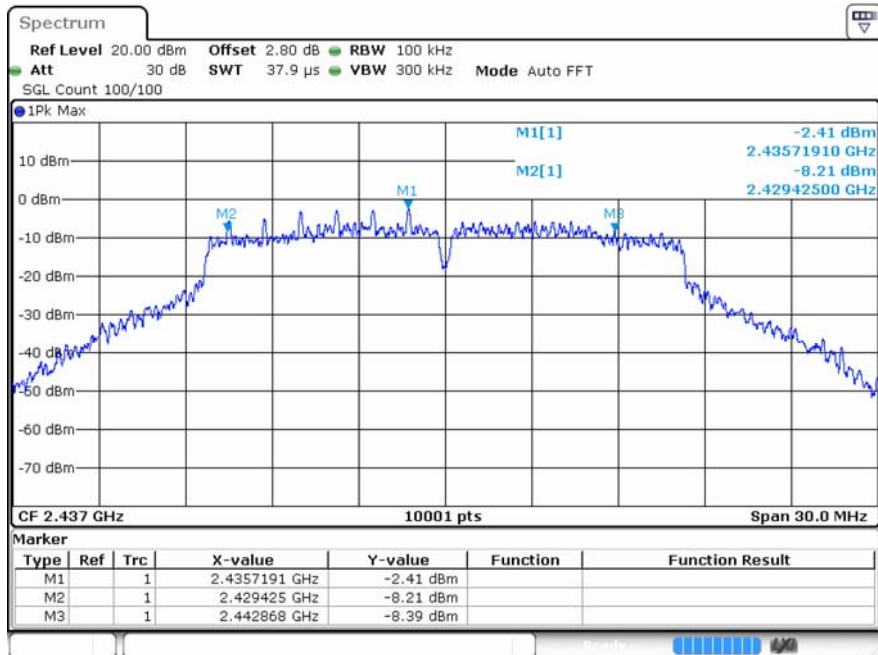
b 2462MHz Ant1



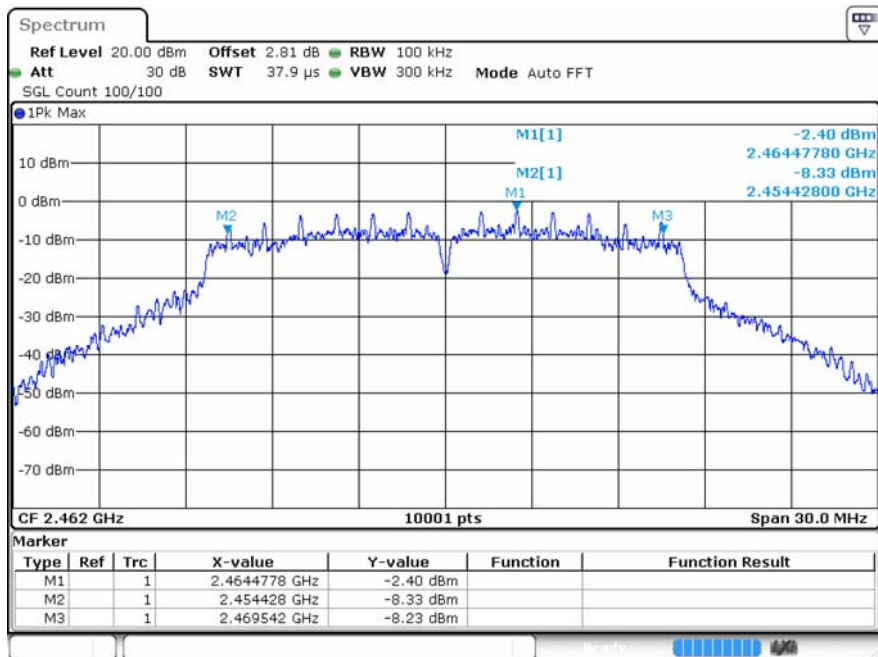
g 2412MHz Ant1



g 2437MHz Ant1

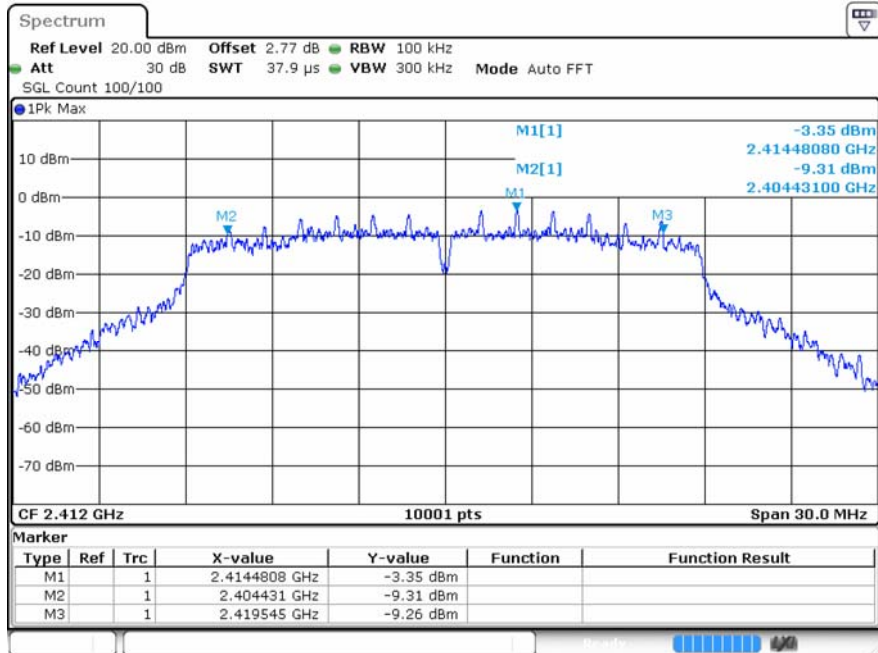


g 2462MHz Ant1

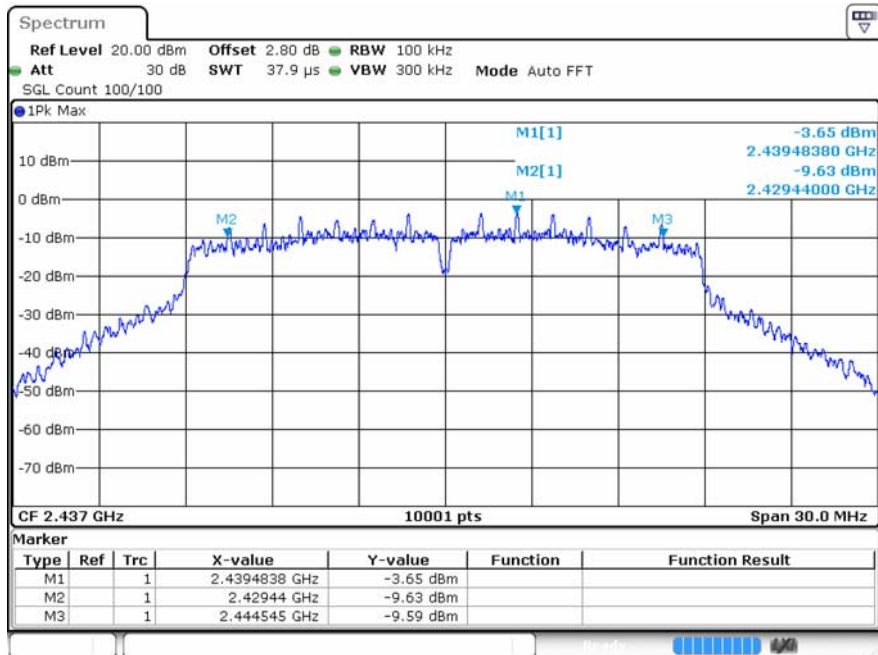


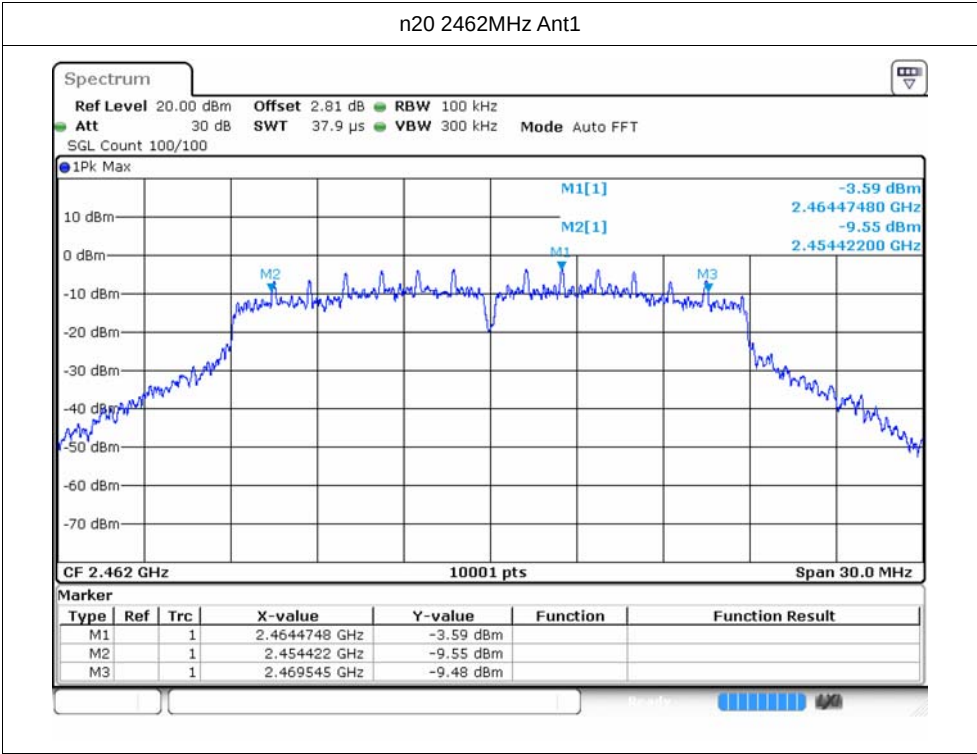


n20 2412MHz Ant1



n20 2437MHz Ant1



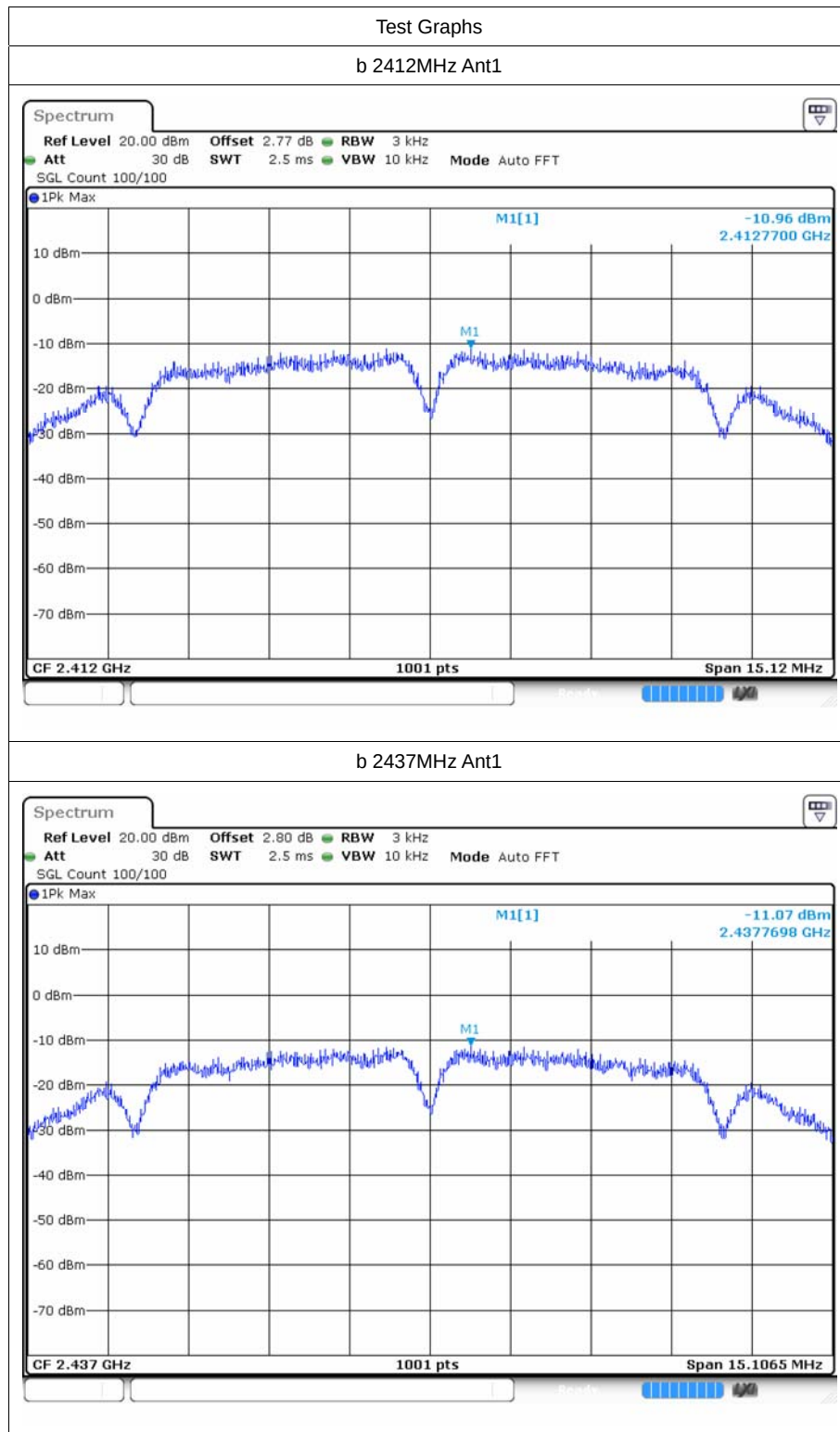


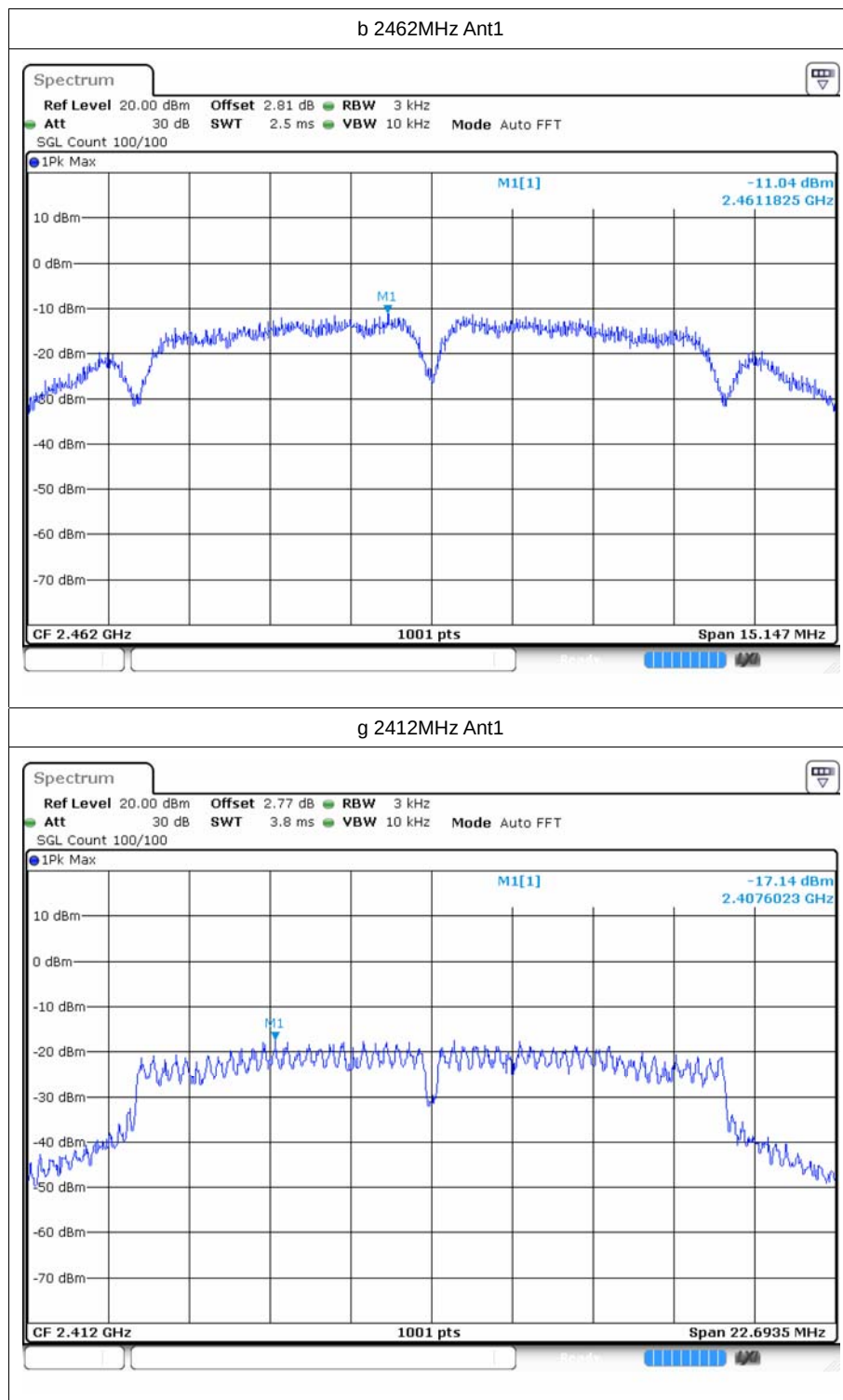
4 Maximum Power Spectral Density Level

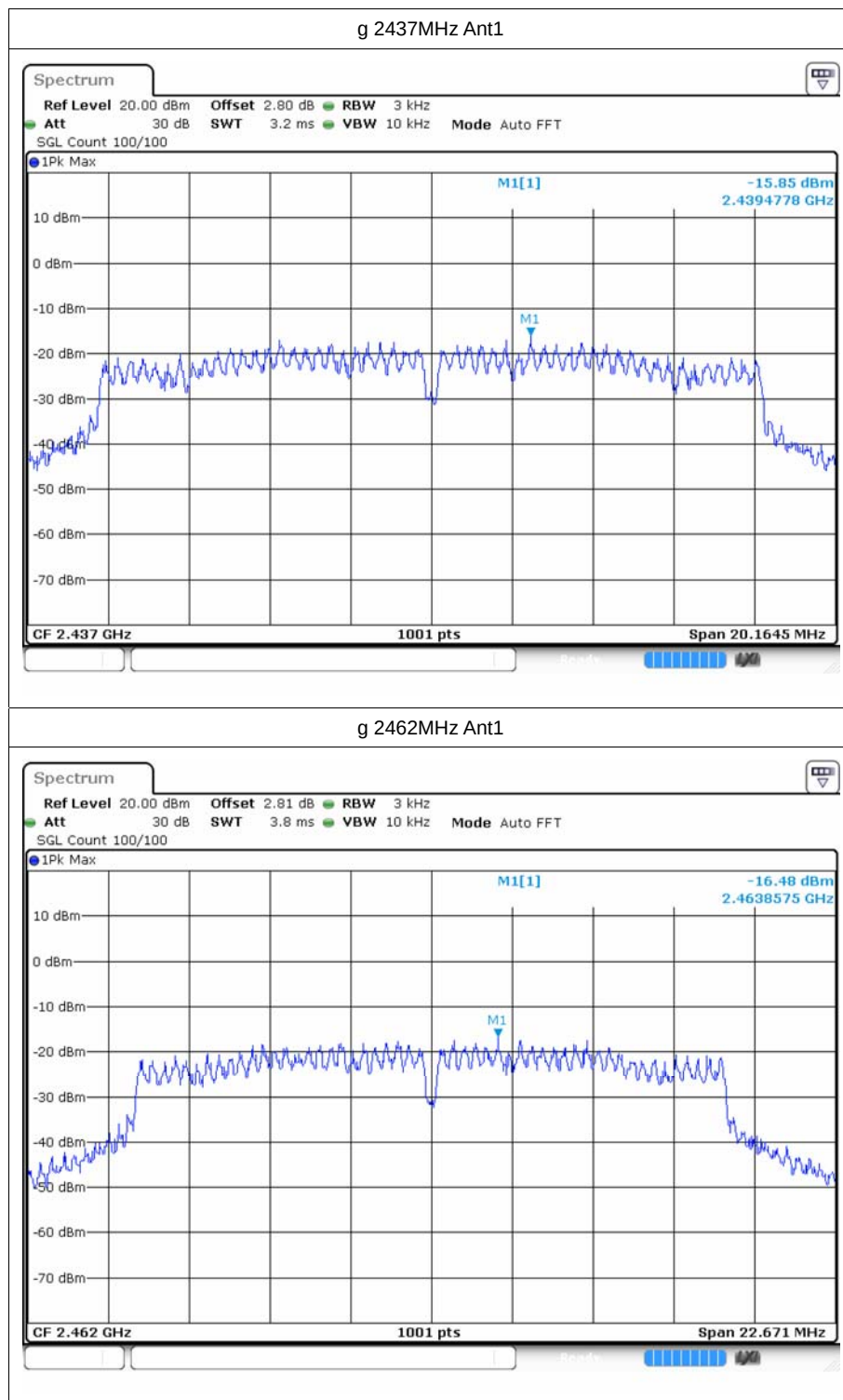
4.1 Test Result

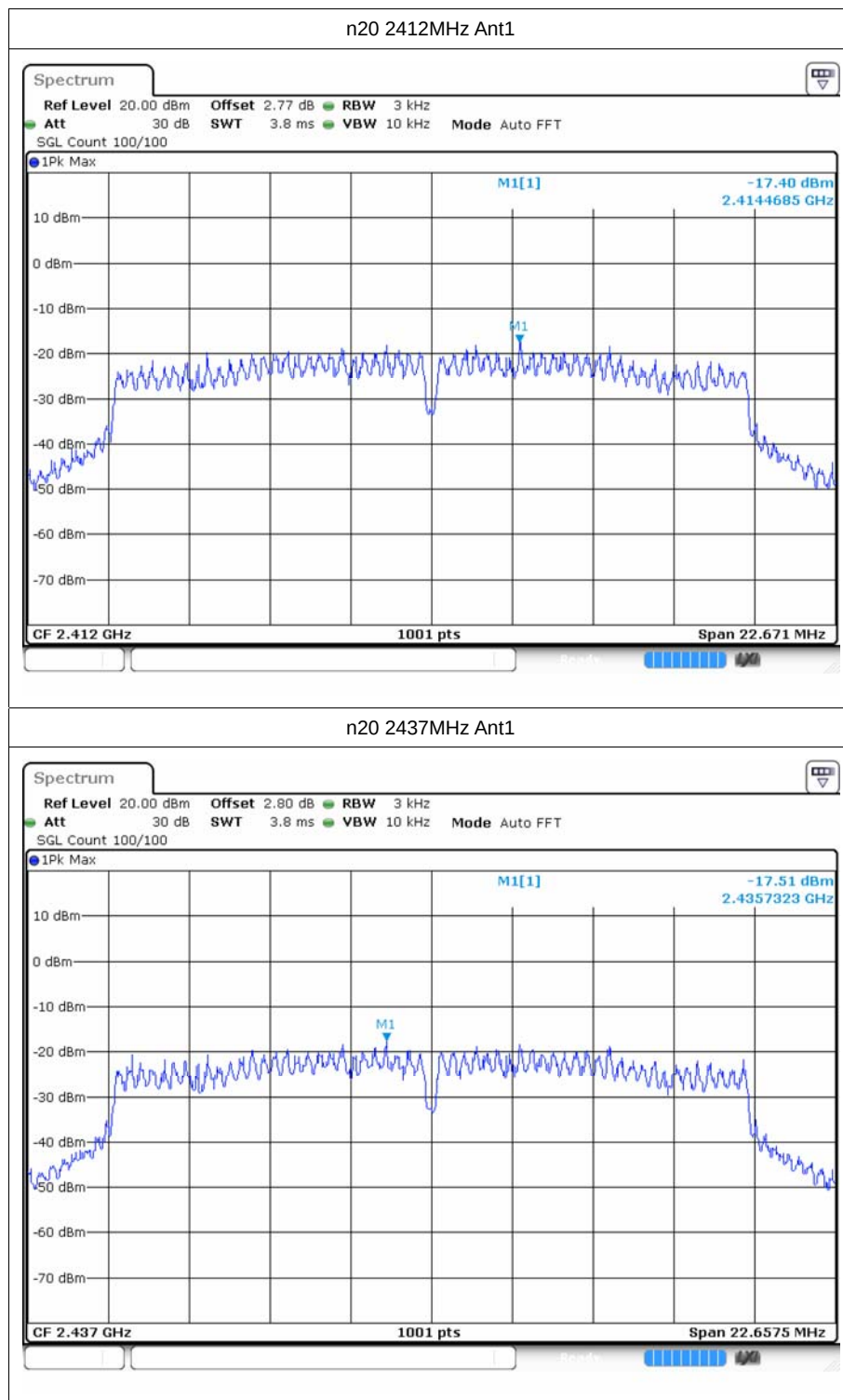
Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3-100kHz)	Limit (dBm/3kHz)	Verdict
b	2412	Ant1	-10.96	≤ 8	Pass
b	2437	Ant1	-11.07	≤ 8	Pass
b	2462	Ant1	-11.04	≤ 8	Pass
g	2412	Ant1	-17.14	≤ 8	Pass
g	2437	Ant1	-15.85	≤ 8	Pass
g	2462	Ant1	-16.48	≤ 8	Pass
n20	2412	Ant1	-17.4	≤ 8	Pass
n20	2437	Ant1	-17.51	≤ 8	Pass
n20	2462	Ant1	-17.64	≤ 8	Pass

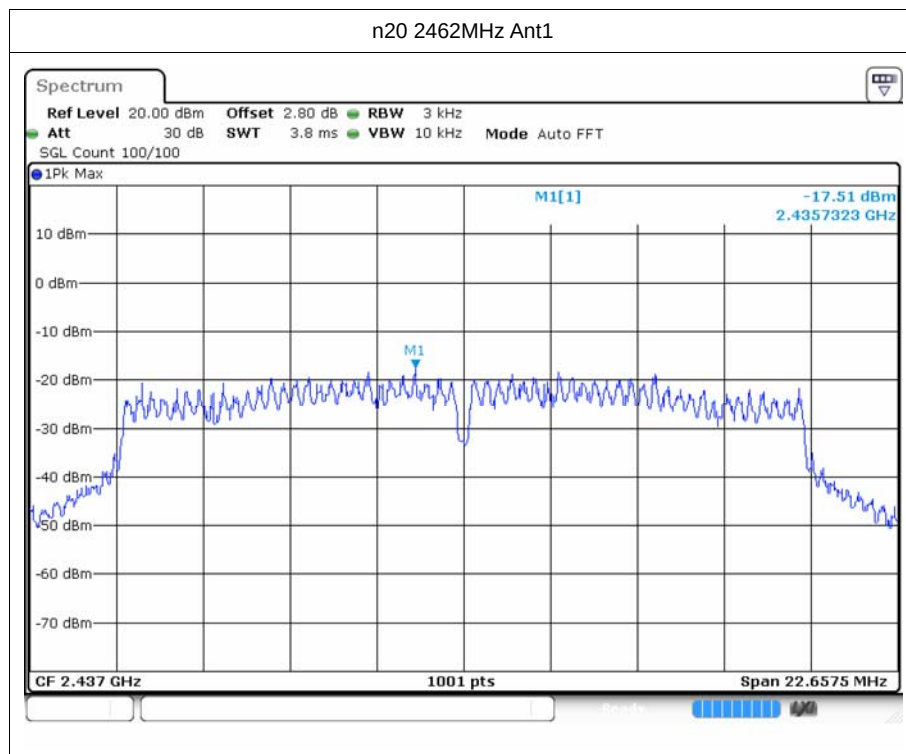
4.2 Test Graphs











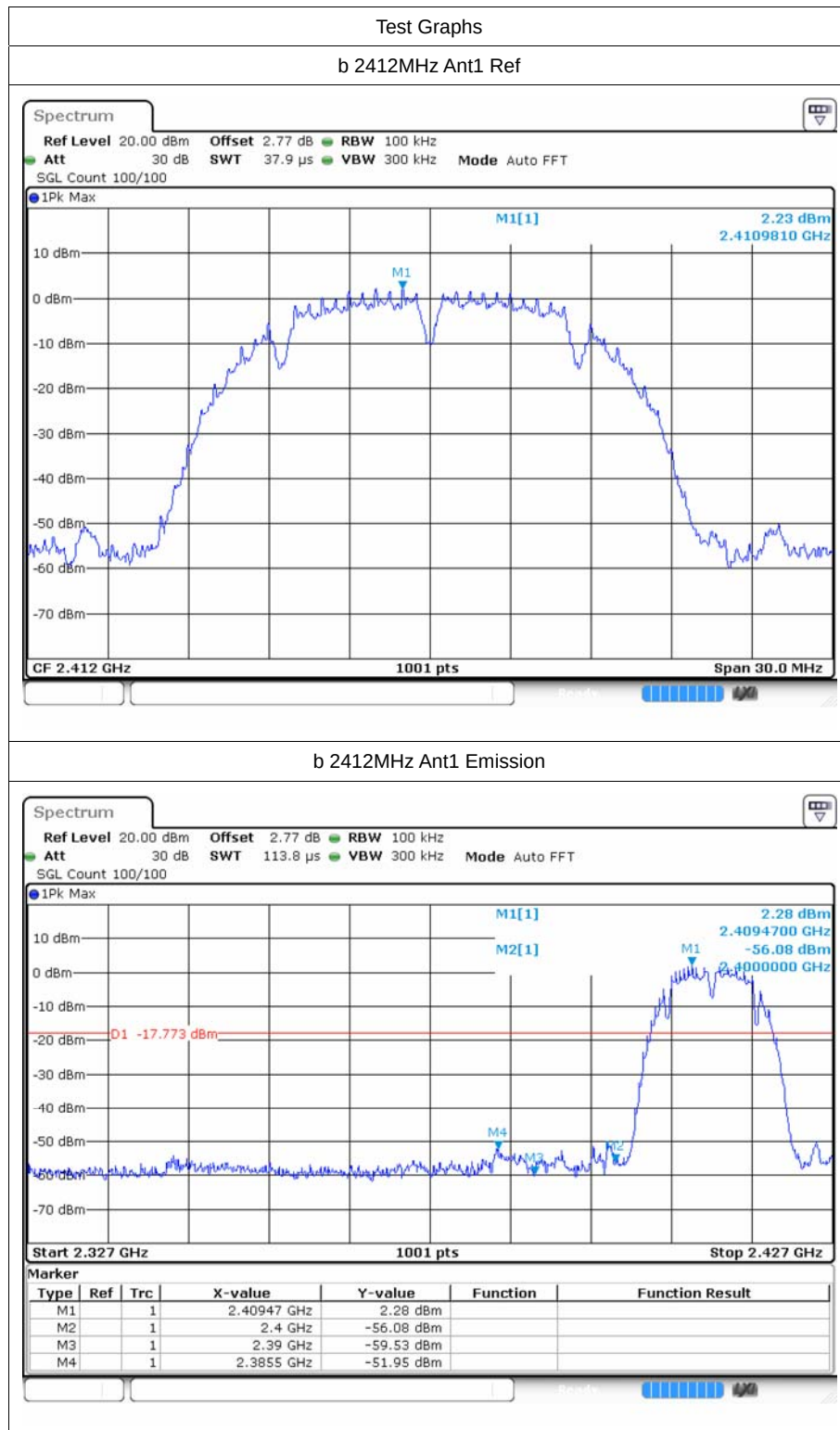


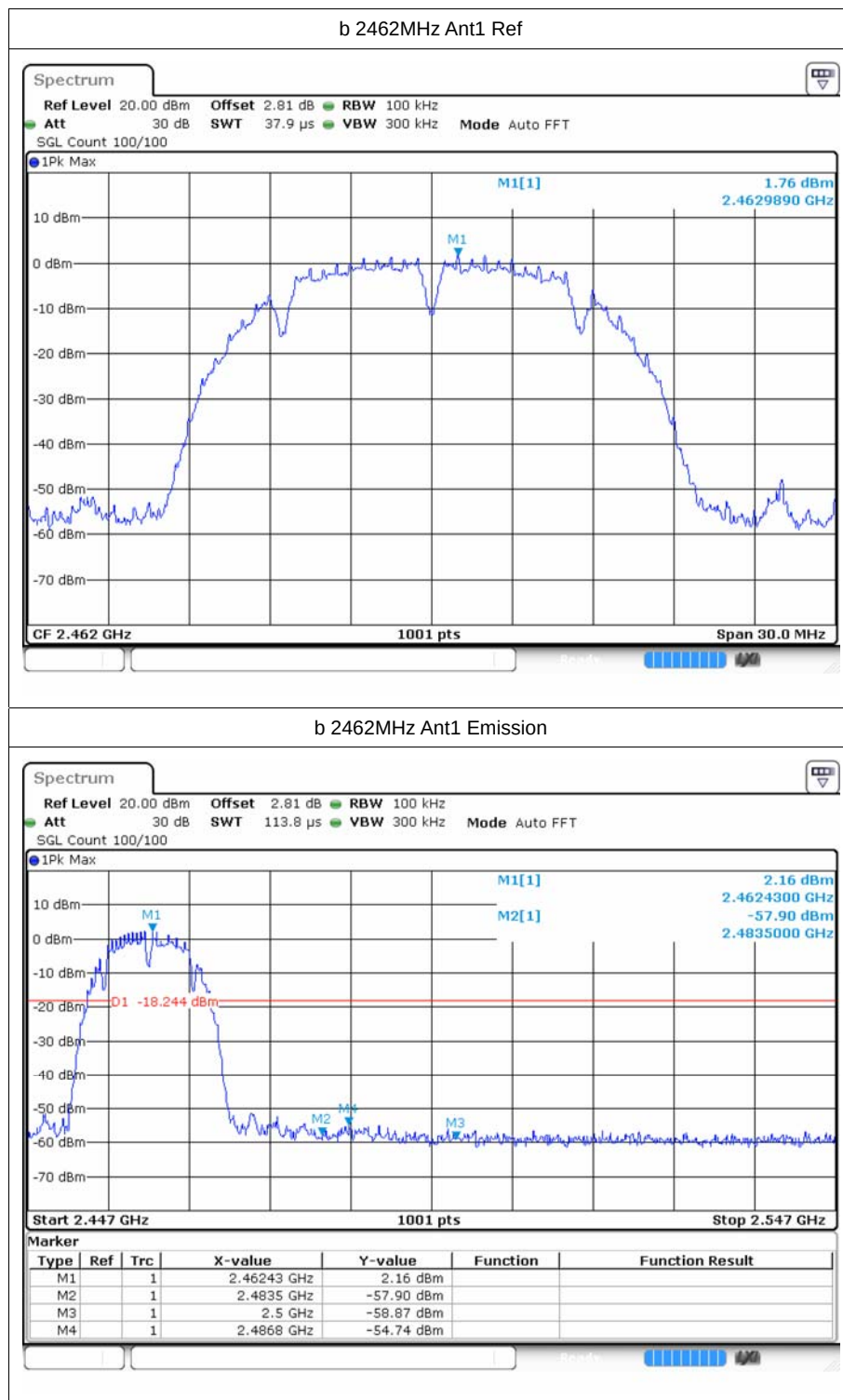
5 Band Edge

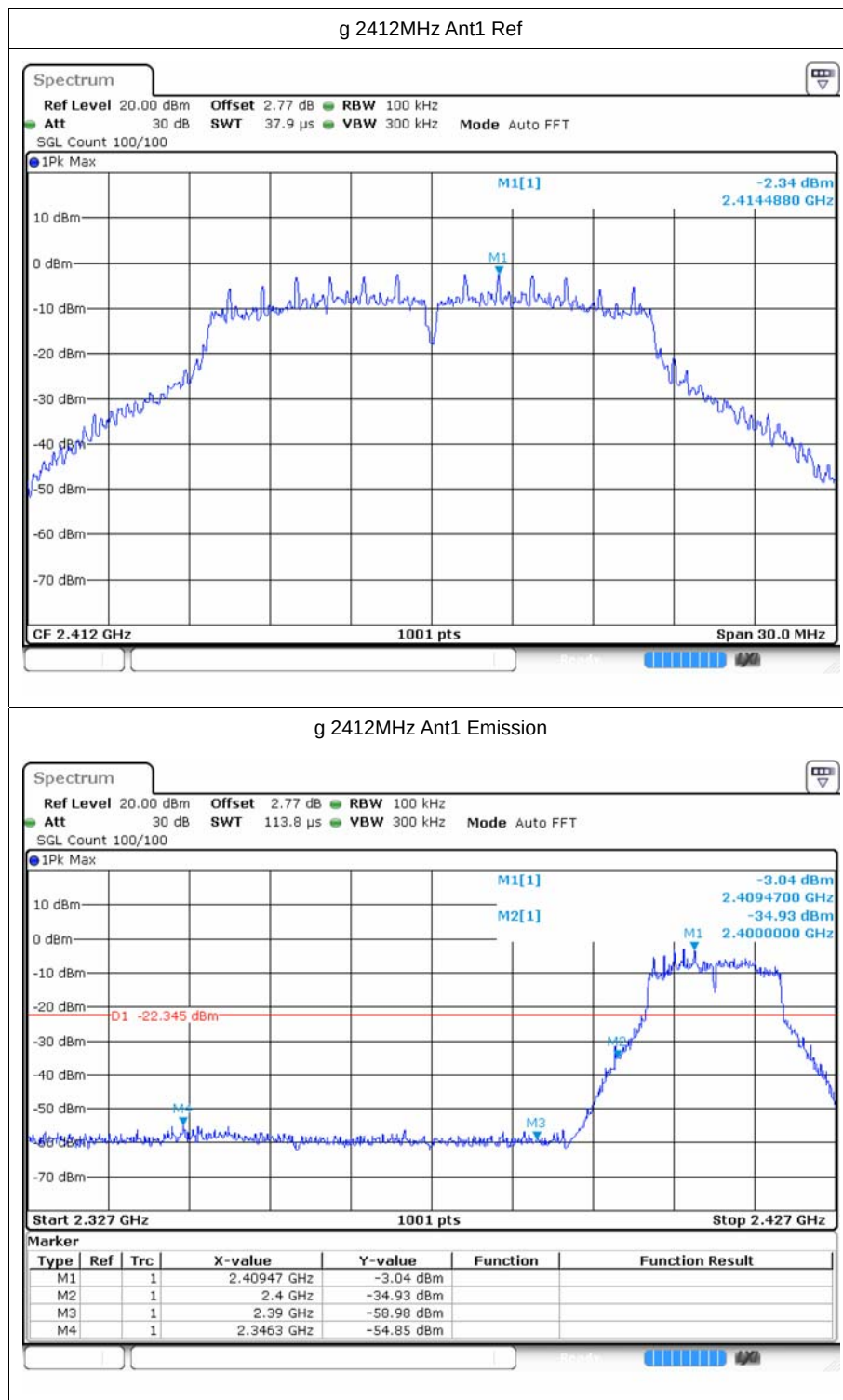
5.1 Test Result

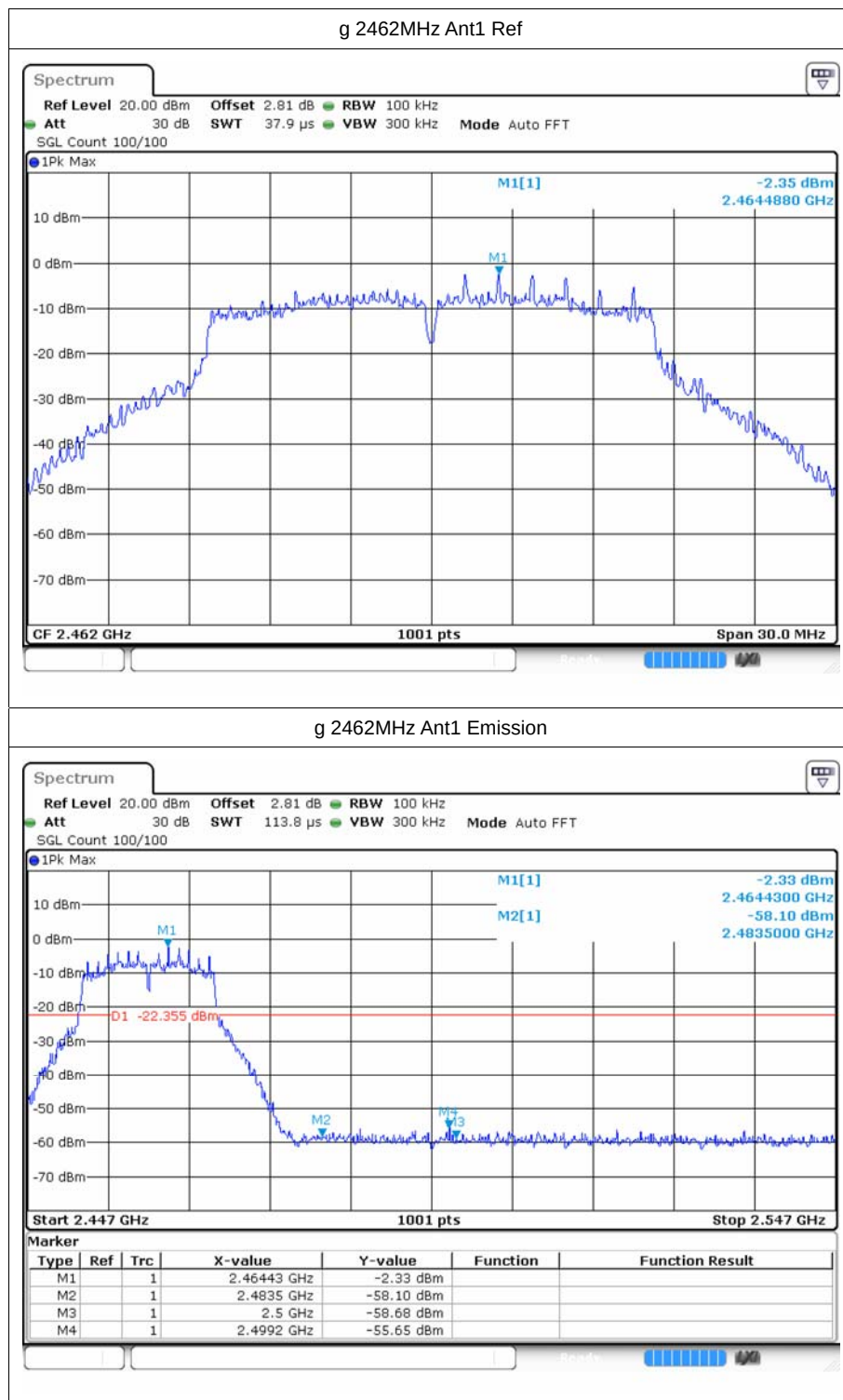
Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
b	2412	Ant1	-54.17	-20	-54.17
b	2462	Ant1	-56.5	-20	Pass
g	2412	Ant1	-52.51	-20	Pass
g	2462	Ant1	-53.29	-20	Pass
n20	2412	Ant1	-51.82	-20	Pass
n20	2462	Ant1	-53.36	-20	Pass

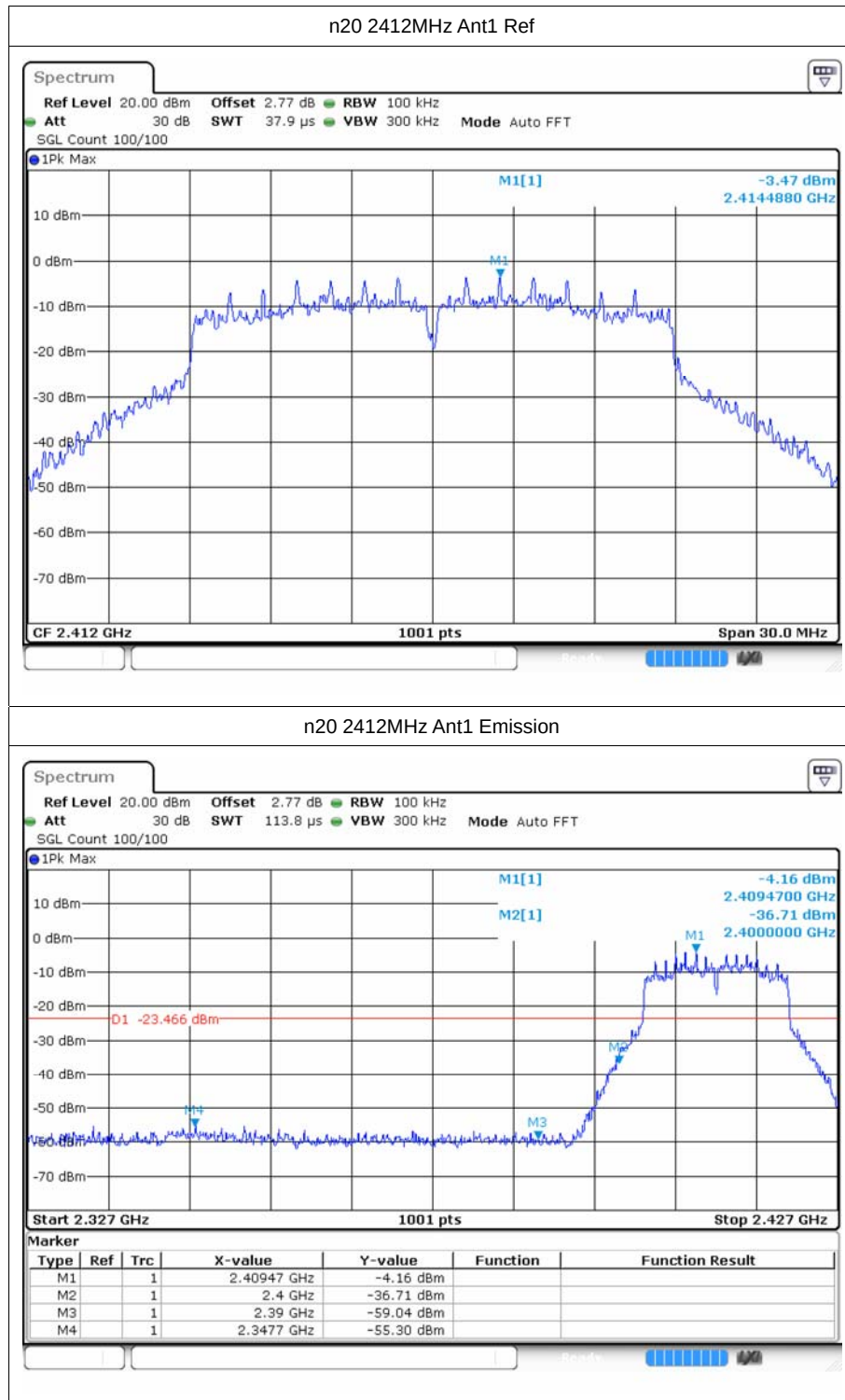
5.2 Test Graphs

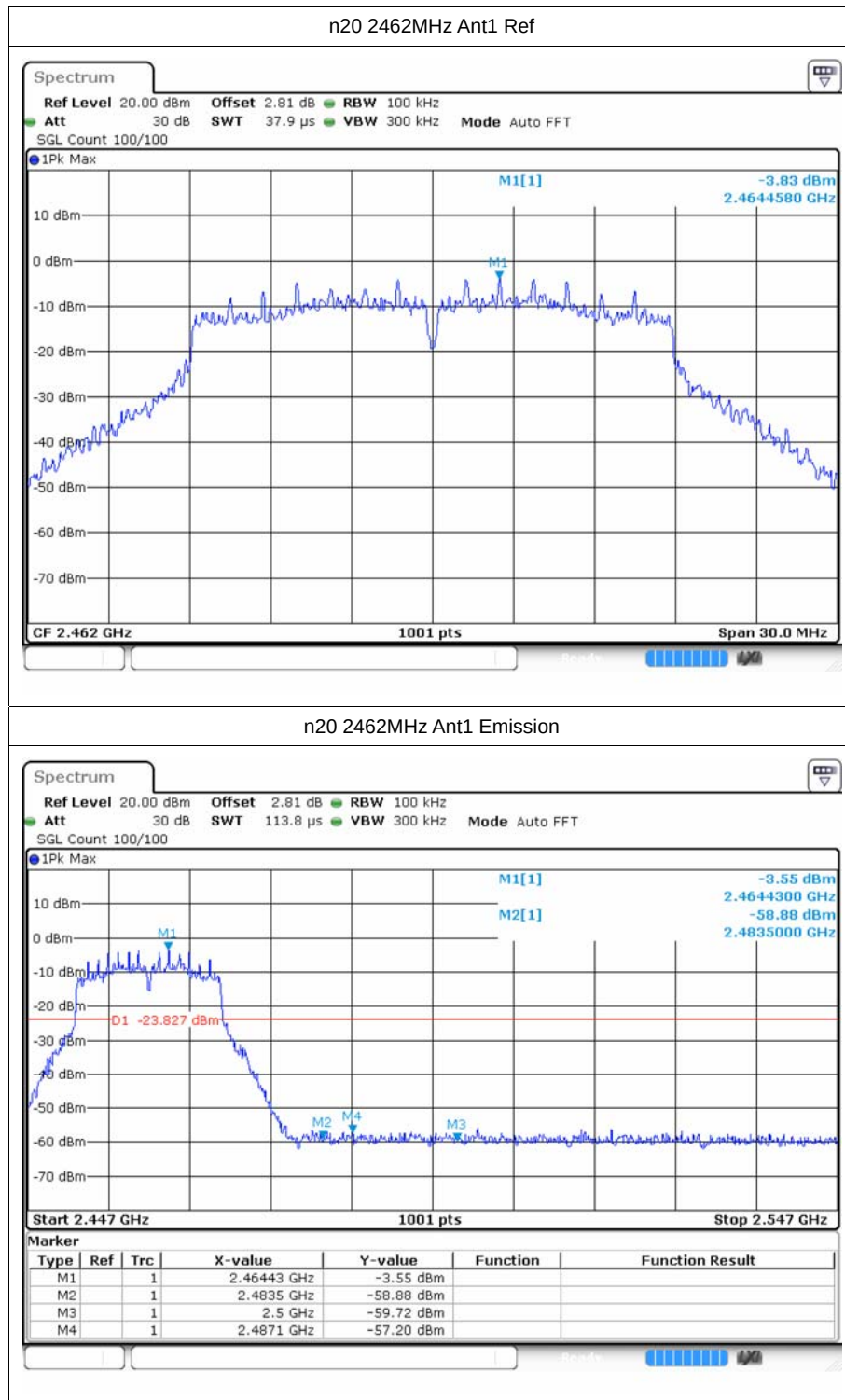












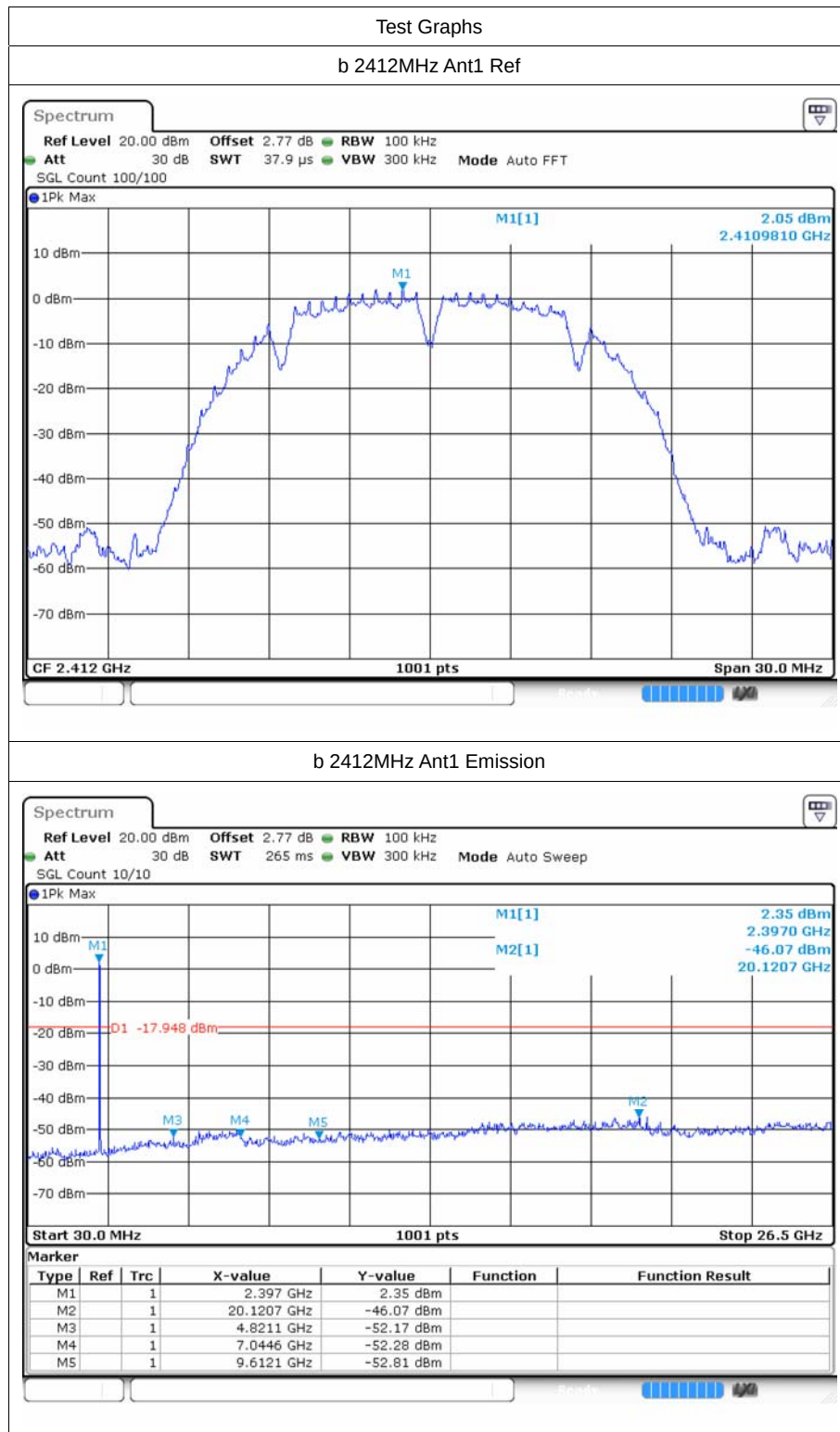


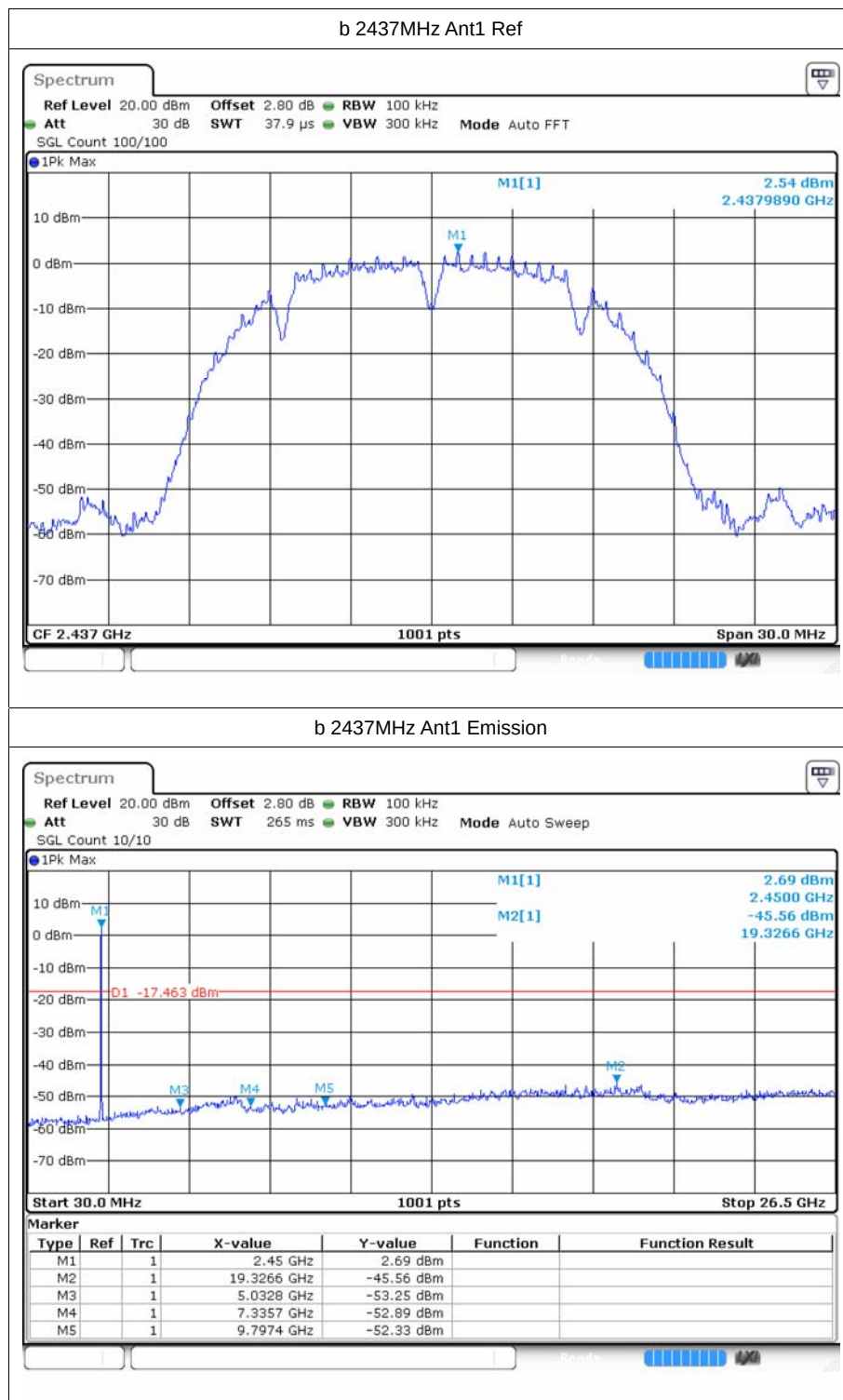
6 Conducted RF Spurious Emission

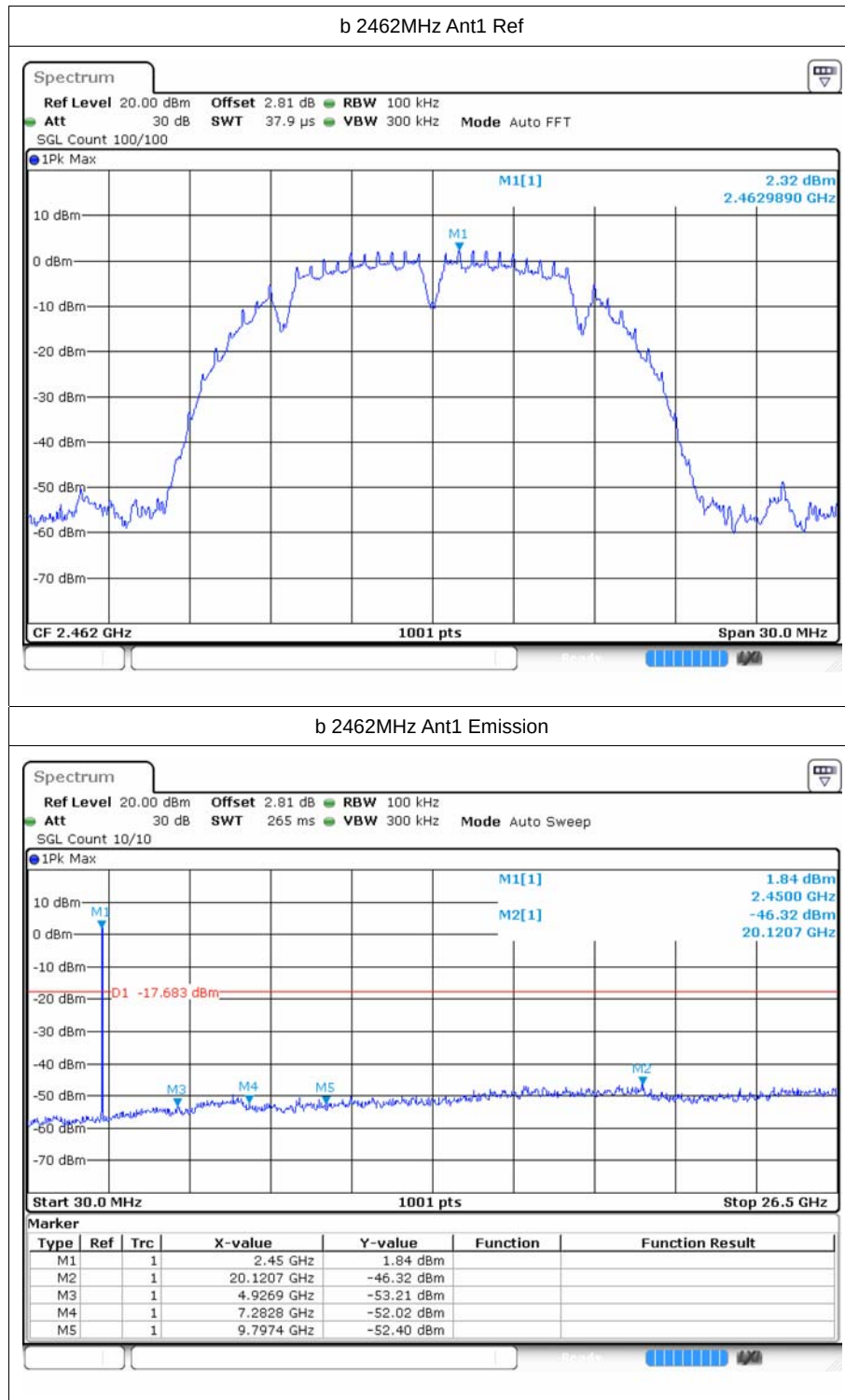
6.1 Test Result

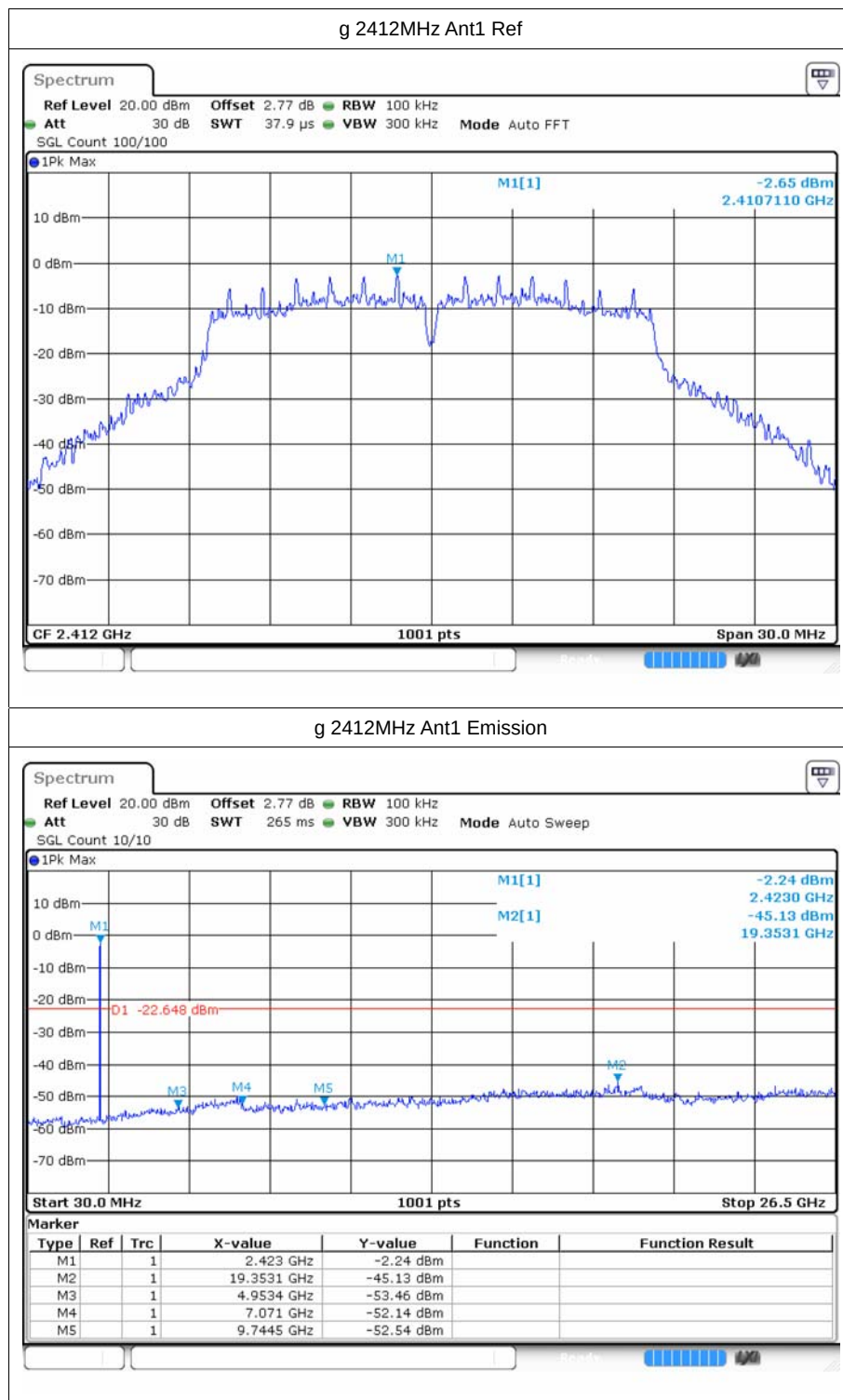
Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
b	2412	Ant1	-48.12	-20	Pass
b	2437	Ant1	-48.09	-20	Pass
b	2462	Ant1	-48.64	-20	Pass
g	2412	Ant1	-42.48	-20	Pass
g	2437	Ant1	-42.42	-20	Pass
g	2462	Ant1	-43.76	-20	Pass
n20	2412	Ant1	-42.12	-20	Pass
n20	2437	Ant1	-43.08	-20	Pass
n20	2462	Ant1	-42.66	-20	Pass

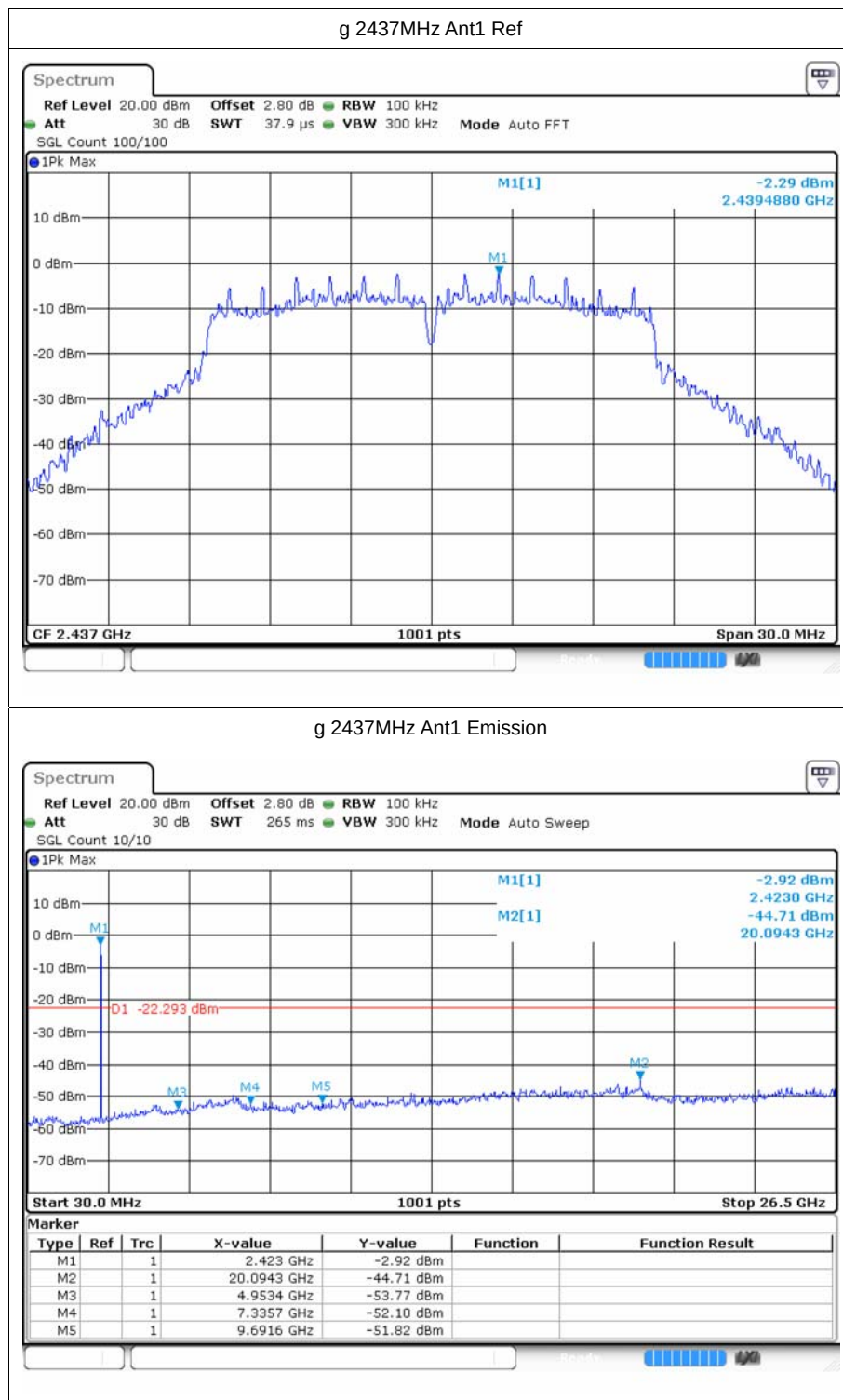
6.2 Test Graphs

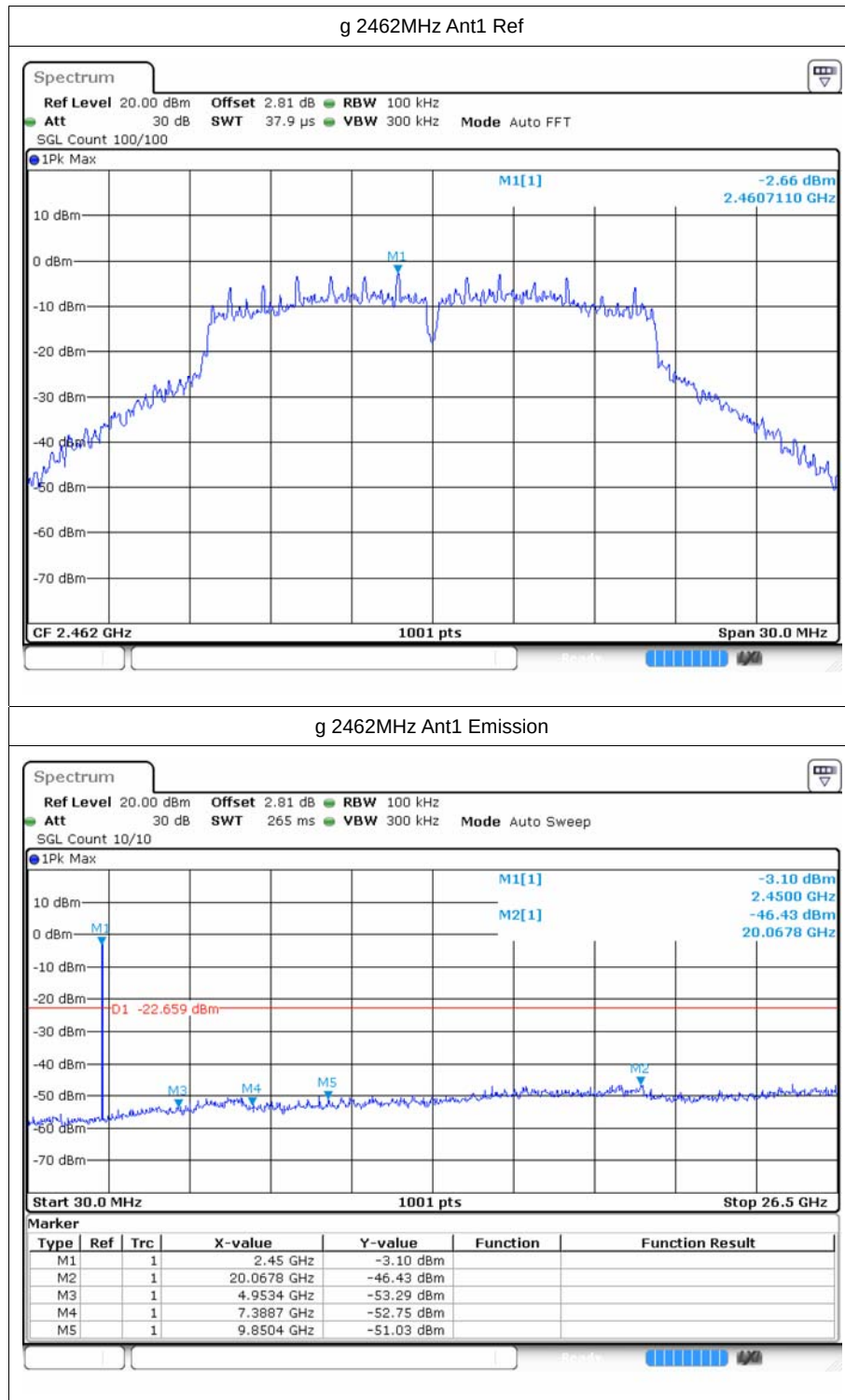


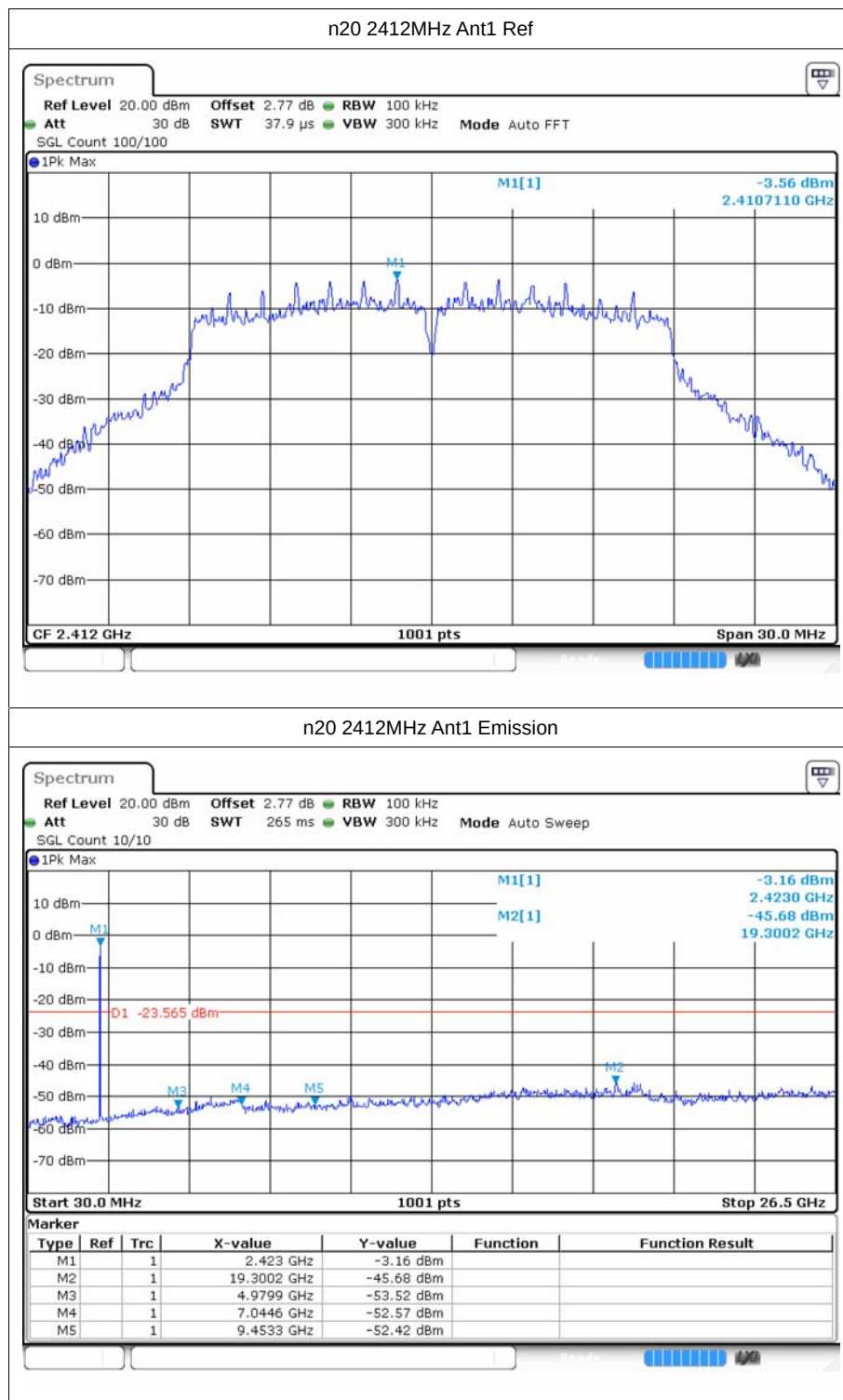


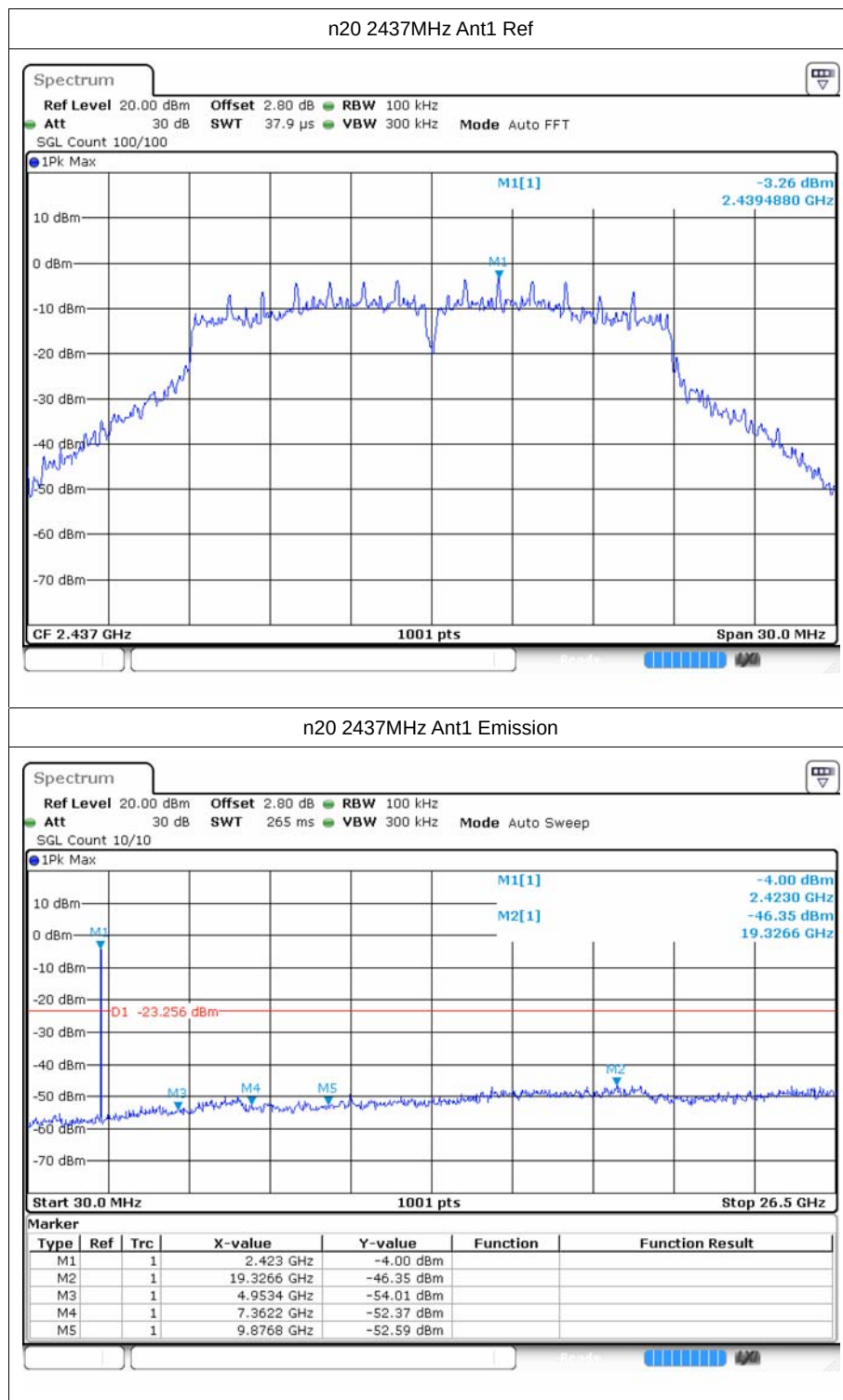


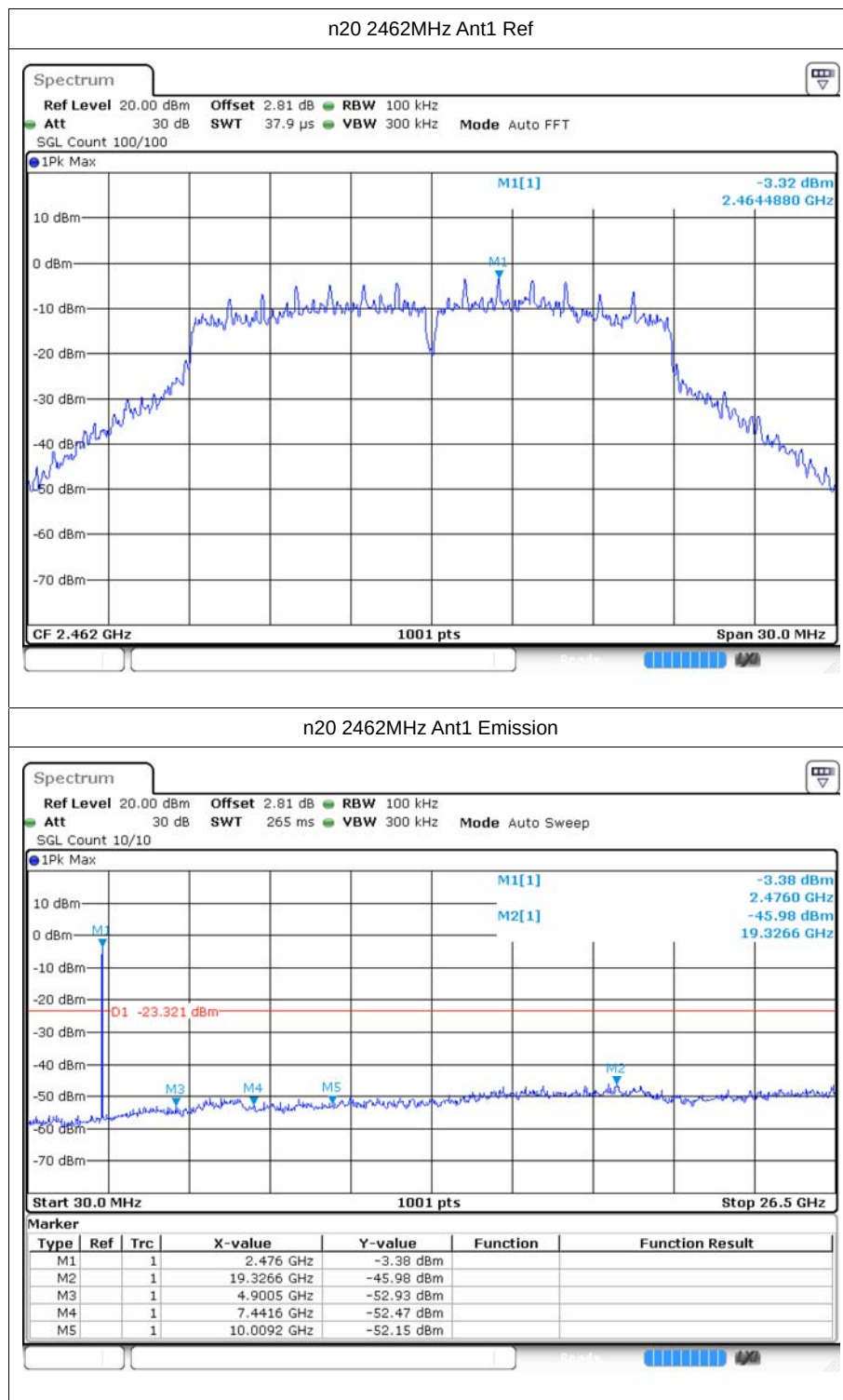














7 Restrict Band

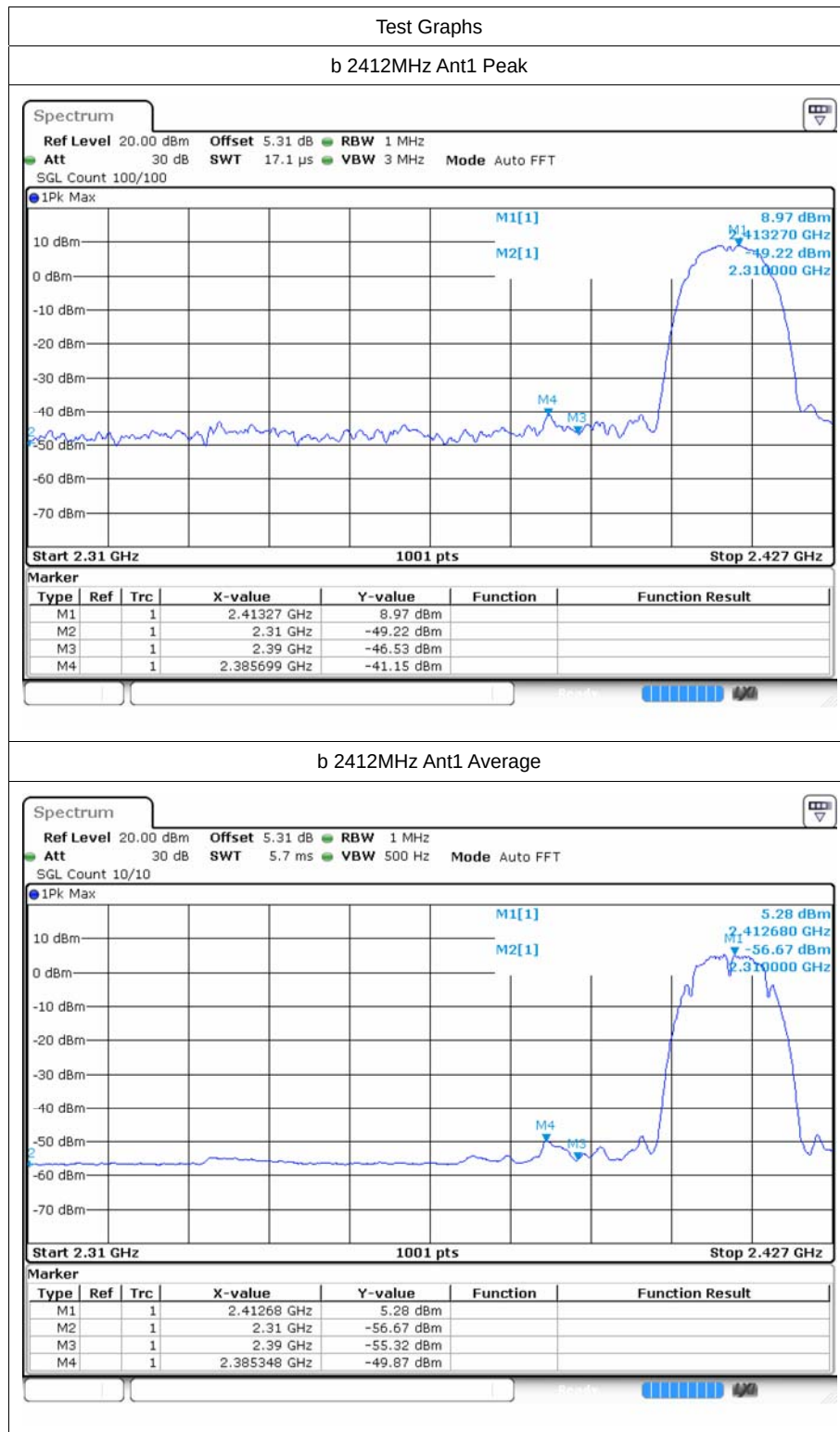
7.1 Test Result

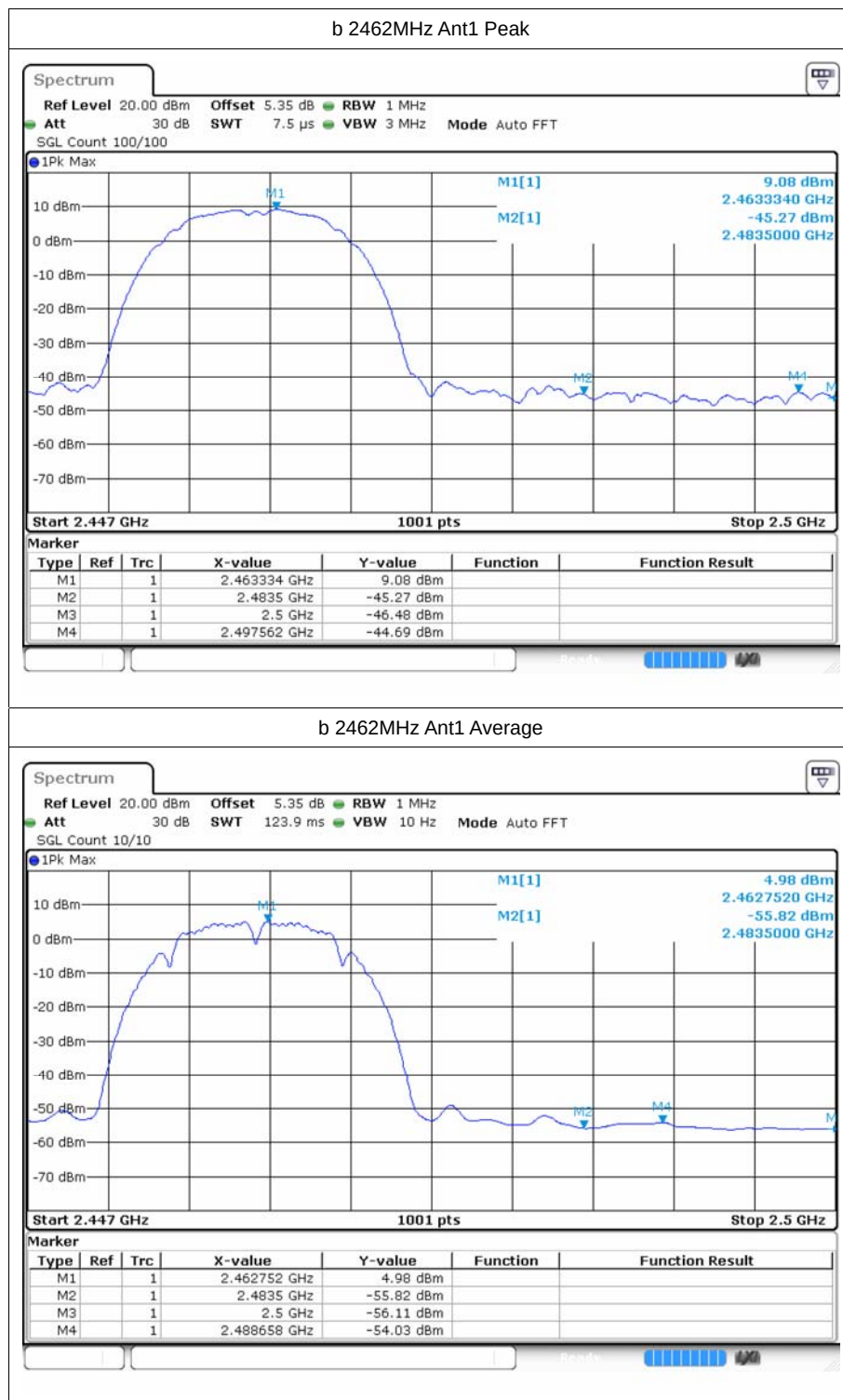
Mod e	Frequency (MHz)	Antenn a	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detecto r	Limit (dBuV/m)	Verdic t
b	2412	Ant1	2310	-49.22	2.54	48.58	Peak	74	Pass
b	2412	Ant1	2310	-56.67	2.54	41.13	Average	54	Pass
b	2412	Ant1	2385.699	-41.15	2.54	56.65	Peak	74	Pass
b	2412	Ant1	2385.348	-49.87	2.54	47.93	Average	54	Pass
b	2412	Ant1	2390	-46.53	2.54	51.27	Peak	74	Pass
b	2412	Ant1	2390	-55.31	2.54	42.49	Average	54	Pass
b	2462	Ant1	2483.5	-45.27	2.54	52.53	Peak	74	52.53
b	2462	Ant1	2483.5	-55.82	2.54	41.98	Average	54	Pass
b	2462	Ant1	2497.562	-44.68	2.54	53.12	Peak	74	Pass
b	2462	Ant1	2488.658	-54.03	2.54	43.77	Average	54	Pass
b	2462	Ant1	2500	-46.48	2.54	51.32	Peak	74	Pass
b	2462	Ant1	2500	-56.11	2.54	41.69	Average	54	Pass
g	2412	Ant1	2310	-47.84	2.54	49.96	Peak	74	Pass
g	2412	Ant1	2310	-55.37	2.54	42.43	Average	54	Pass
g	2412	Ant1	2340.303	-44.59	2.54	53.21	Peak	74	Pass
g	2412	Ant1	2337.027	-53.37	2.54	44.43	Average	54	Pass
g	2412	Ant1	2390	-48.4	2.54	51.27	Peak	74	Pass
g	2412	Ant1	2390	-55.55	2.54	42.25	Average	54	Pass
g	2462	Ant1	2483.5	-48.06	2.54	49.74	Peak	74	Pass
g	2462	Ant1	2483.5	-54.52	2.54	43.28	Average	54	Pass
g	2462	Ant1	2497.562	-44	2.54	53.8	Peak	74	Pass
g	2462	Ant1	2498.569	-54.43	2.54	43.37	Average	54	Pass
g	2462	Ant1	2500	-47.6	2.54	51.32	Peak	74	Pass
g	2462	Ant1	2500	-55	2.54	42.8	Average	54	Pass
n20	2412	Ant1	2310	-48.73	2.54	49.07	Peak	74	Pass
n20	2412	Ant1	2310	-55.38	2.54	42.42	Average	54	Pass
n20	2412	Ant1	2338.665	-44.16	2.54	53.64	Peak	74	Pass
n20	2412	Ant1	2339.133	-53.42	2.54	44.38	Average	54	Pass
n20	2412	Ant1	2390	-48.02	2.54	49.78	Peak	74	Pass
n20	2412	Ant1	2390	-55.68	2.54	42.12	Average	54	Pass
n20	2462	Ant1	2483.5	-45.64	2.54	52.16	Peak	74	Pass
n20	2462	Ant1	2483.5	-55.11	2.54	42.69	Average	54	Pass
n20	2462	Ant1	2484.789	-43.53	2.54	54.27	Peak	74	Pass
n20	2462	Ant1	2486.061	-54.01	2.54	43.79	Average	54	Pass

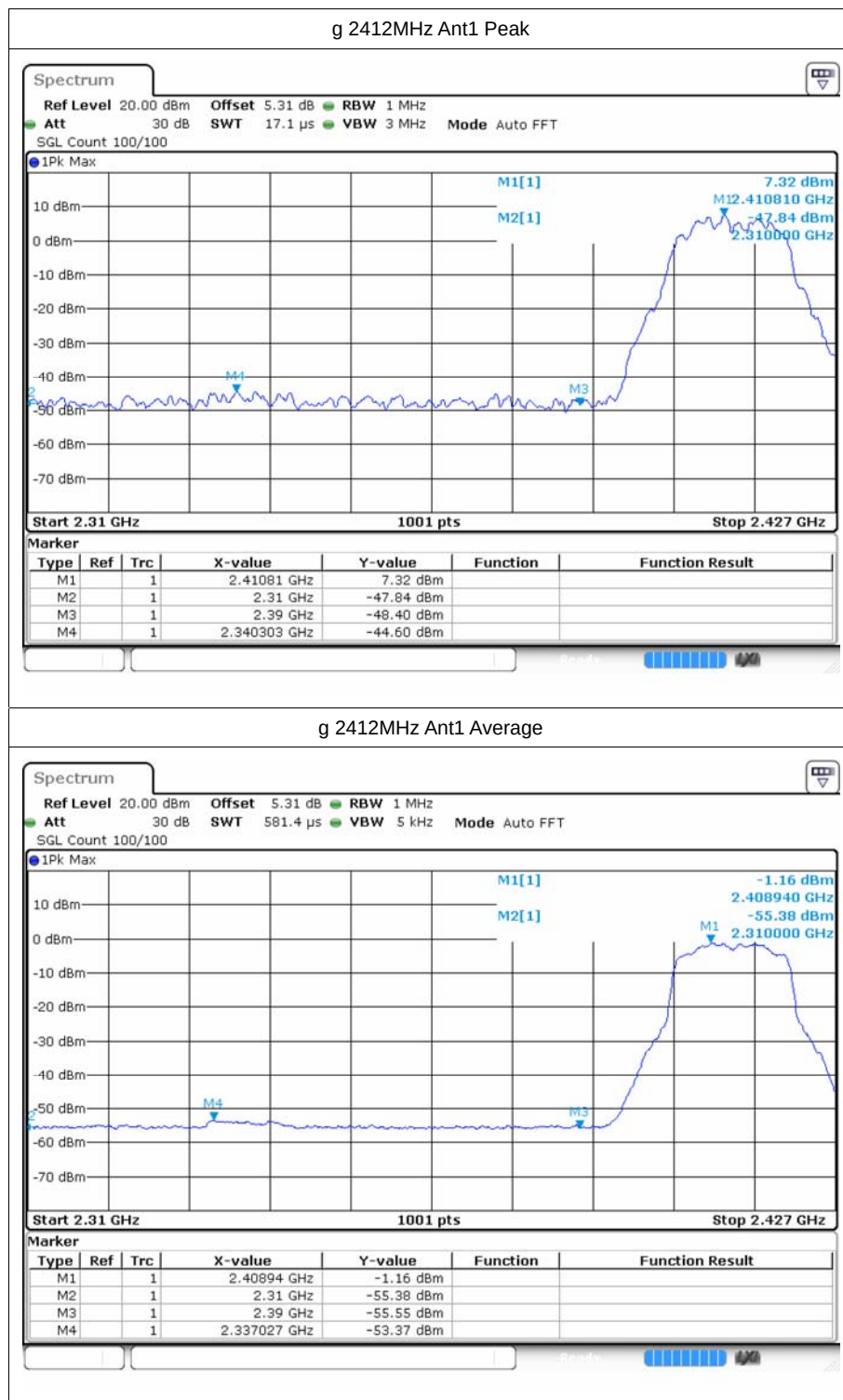


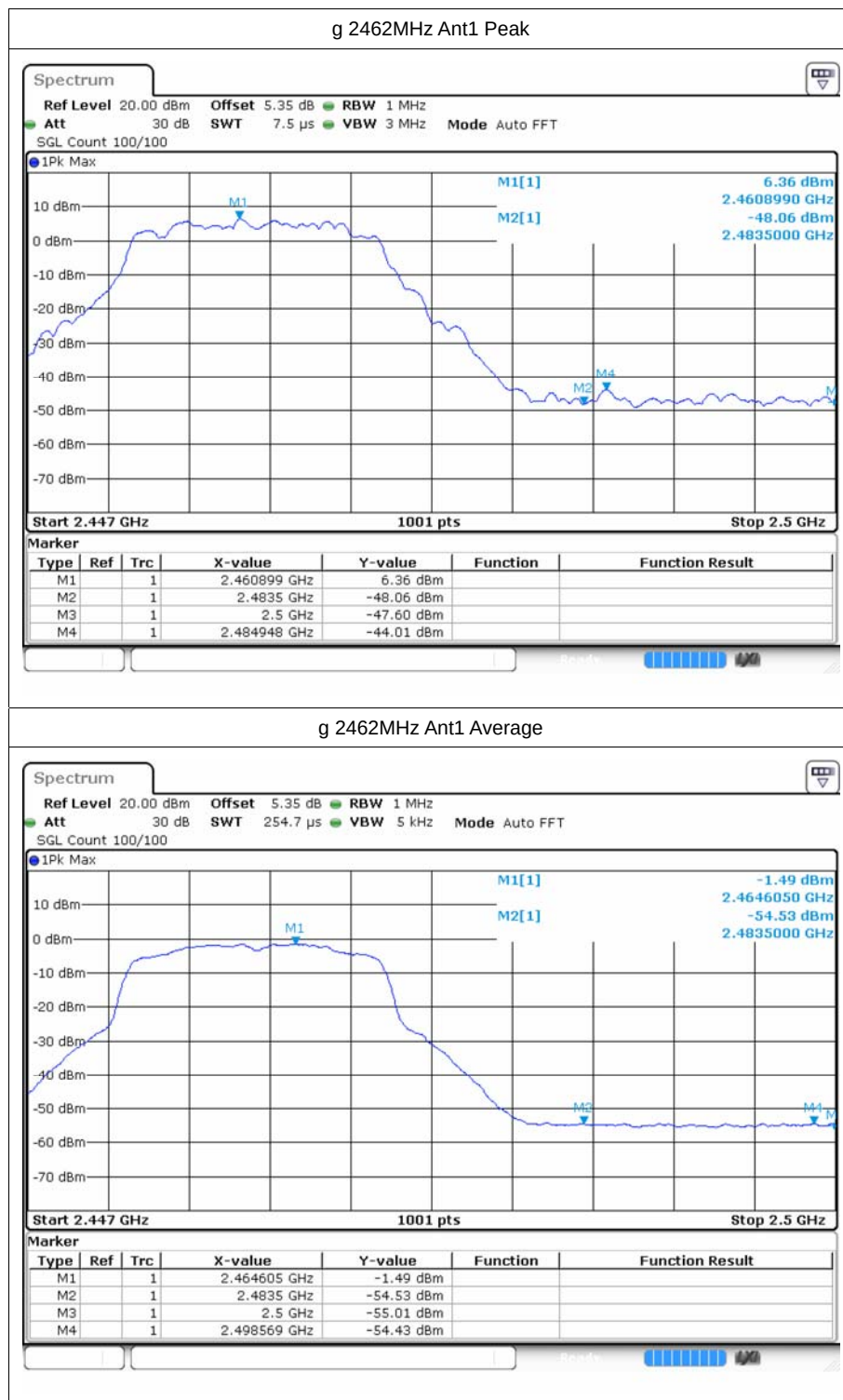
n20	2462	Ant1	2500	-46.26	2.54	51.54	Peak	74	Pass
n20	2462	Ant1	2500	-55.01	2.54	42.79	Average	54	Pass

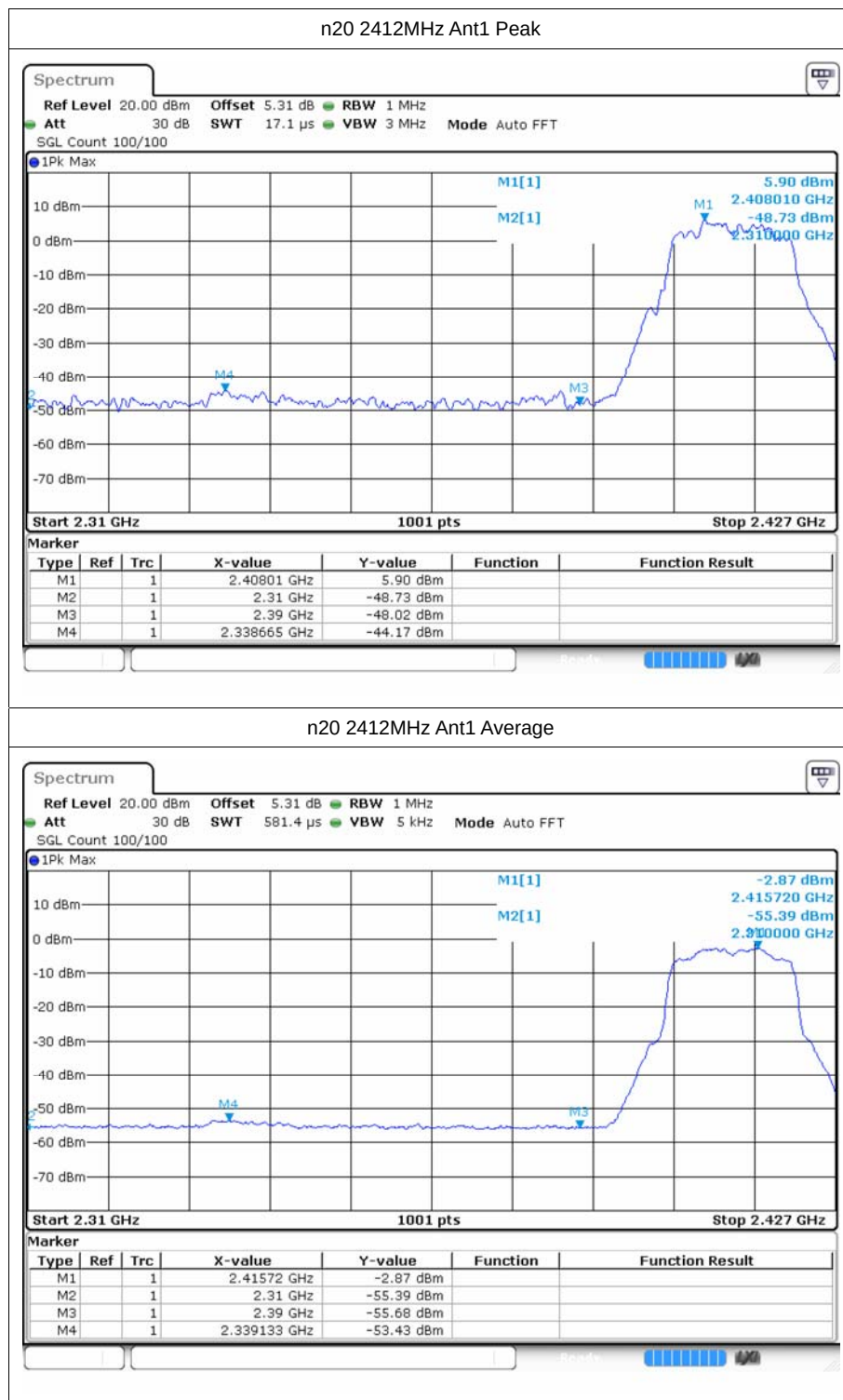
7.2 Test Graphs

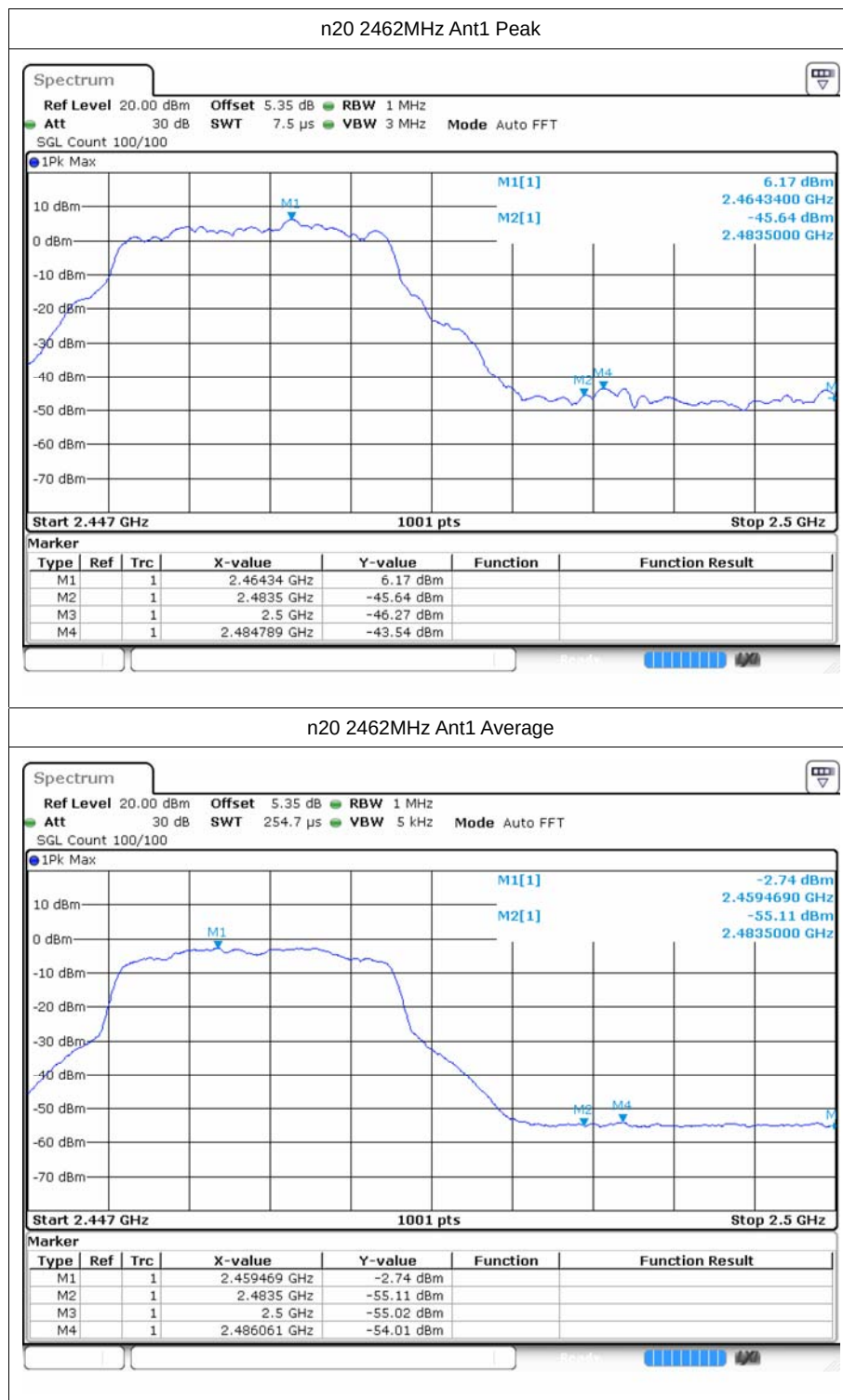












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