

Appendix C

RF Test Data for 2.4GHz WIFI Conducted Measurement

FCC ID:2A7DX-FLAT1

Product Name:Smart phone

Test Model:FLAT 1C

Environmental Conditions

Temperature:	21℃
Relative Humidity:	51%
ATM Pressure:	101Kpa
Test Engineer:	Simba Huang
Supervised by:	Seal Chen

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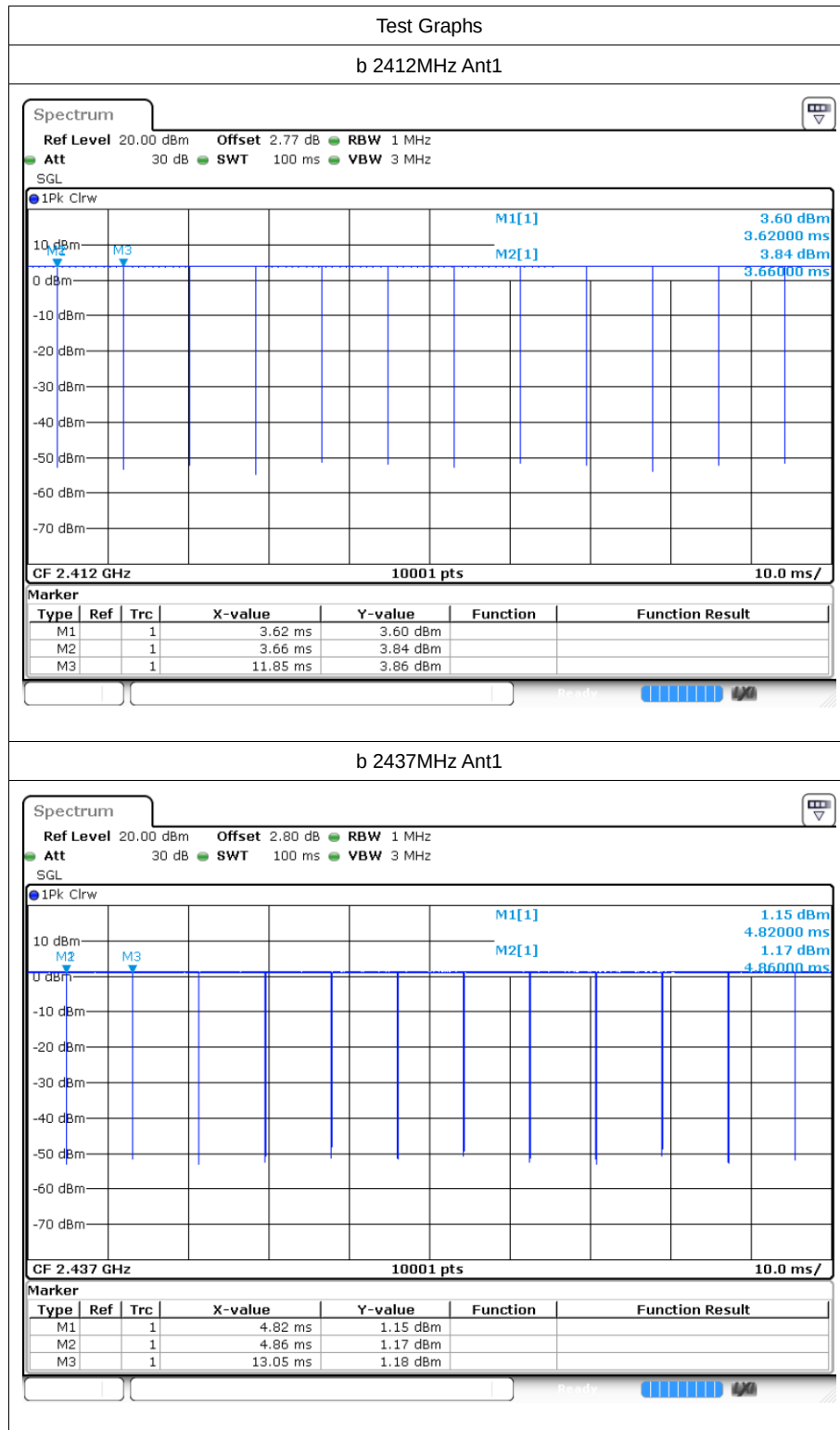
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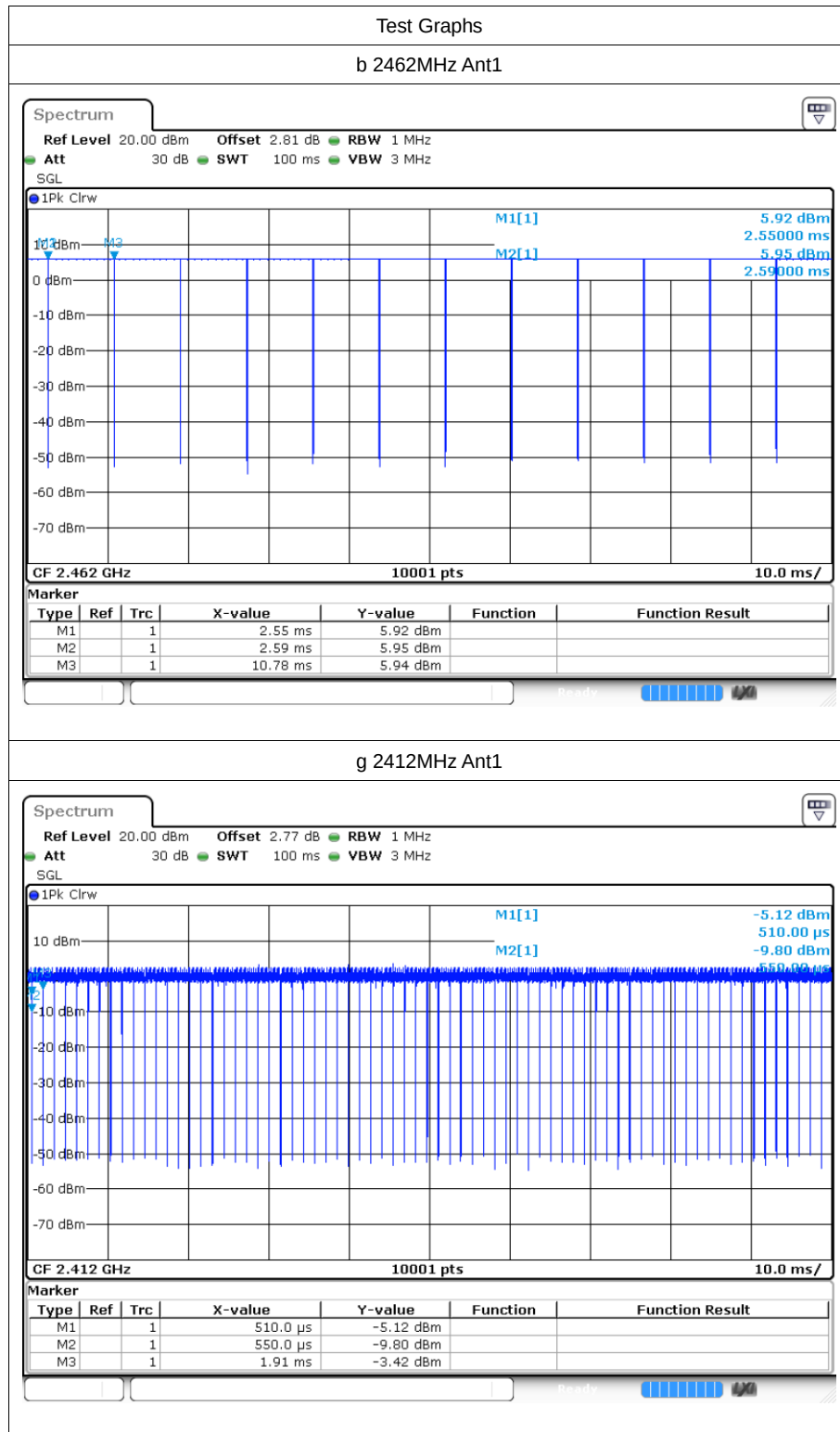
1 Duty Cycle

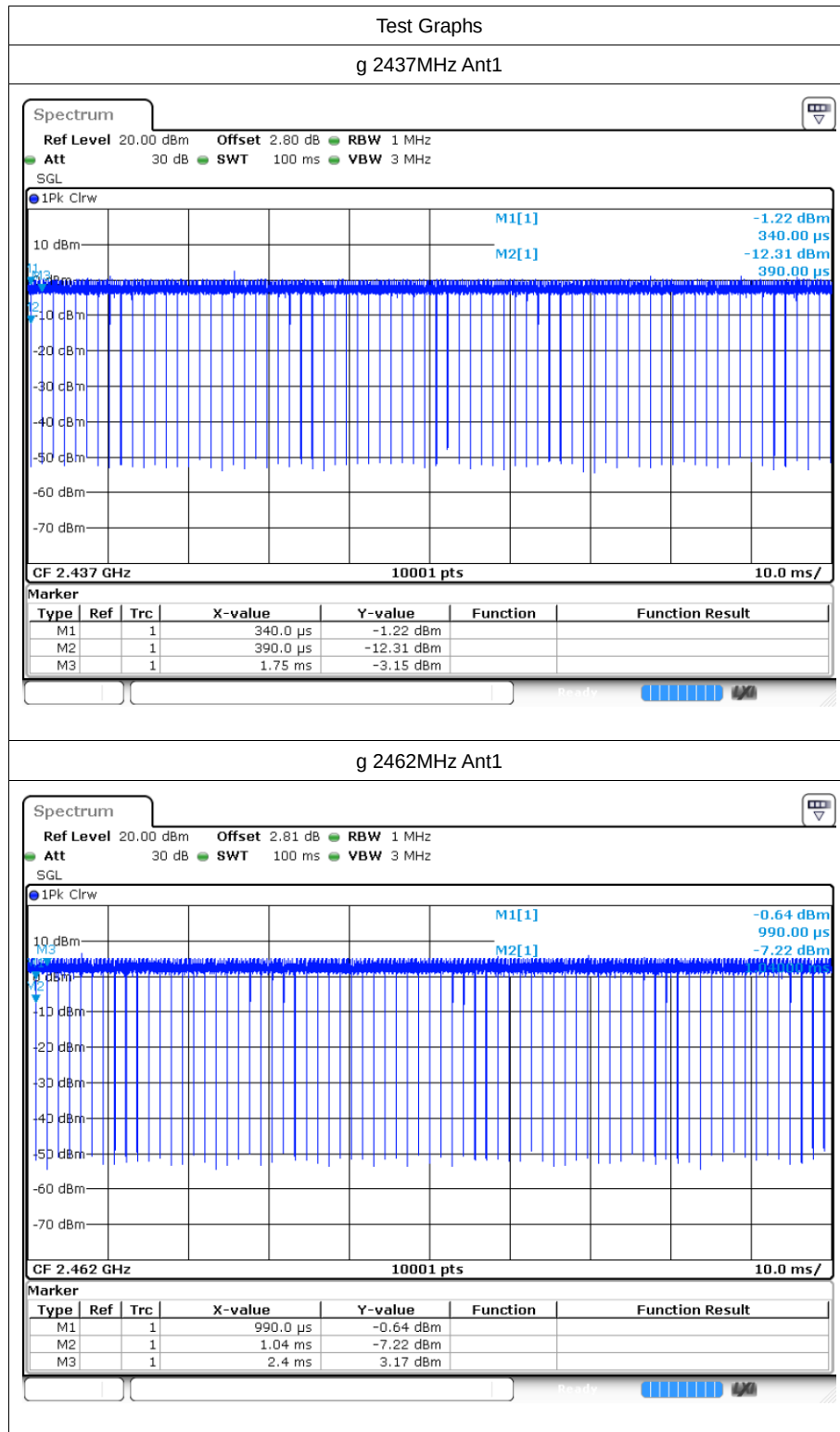
1.1 Test Result

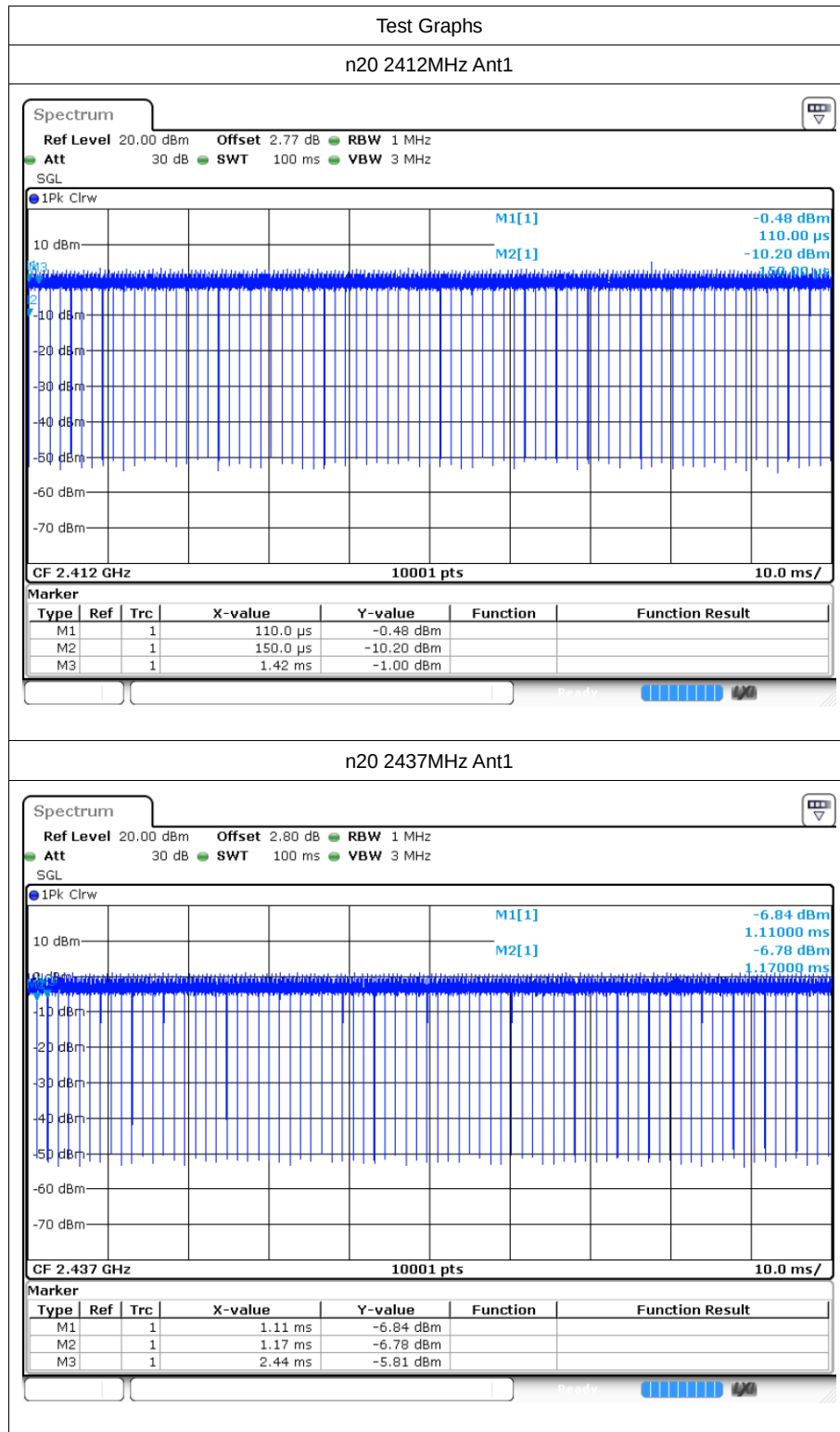
Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	1/T (kHz)
b	2412	Ant1	99.63	0.12
b	2437	Ant1	99.59	0.12
b	2462	Ant1	99.63	0.12
g	2412	Ant1	97.77	0.74
g	2437	Ant1	97.79	0.74
g	2462	Ant1	97.92	0.74
n20	2412	Ant1	97.74	0.79
n20	2437	Ant1	97.73	0.79
n20	2462	Ant1	97.65	0.79
n40	2422	Ant1	96.51	0.83
n40	2437	Ant1	96.53	0.83
n40	2452	Ant1	96.84	0.83

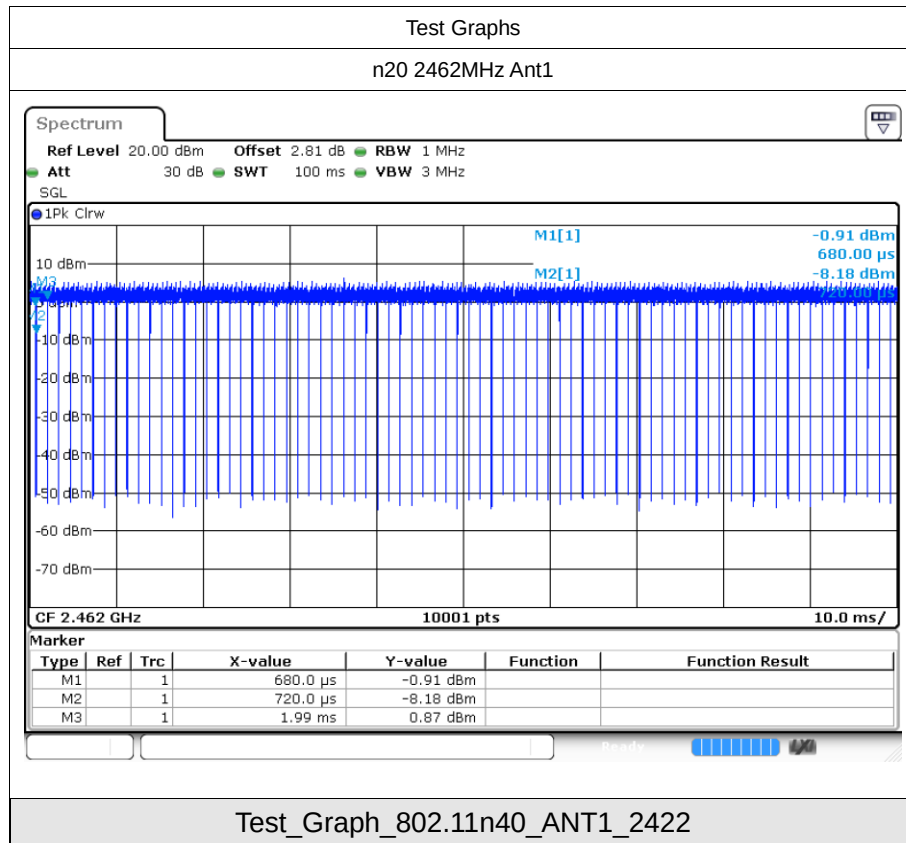
1.2 Test Graphs

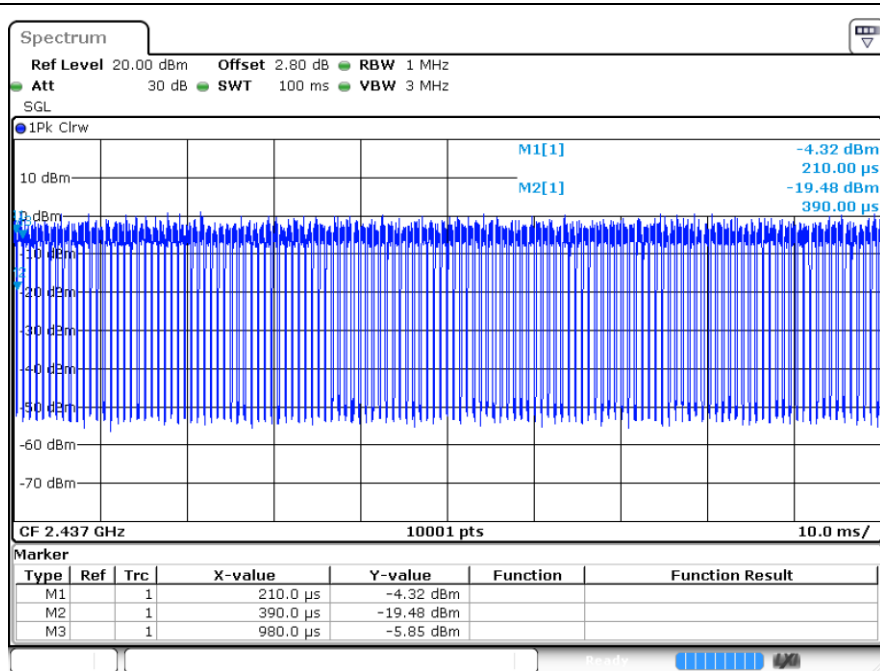




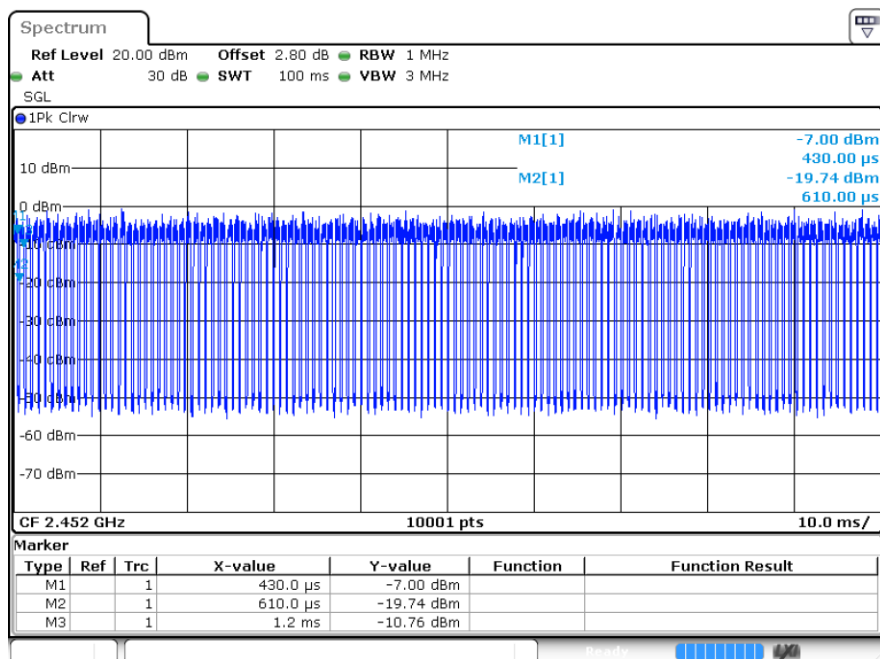








Test_Graph_802.11n40_ANT1_2437



Test_Graph_802.11n40_ANT1_2452

2 Maximum Conducted Output Power

2.1 Test Result

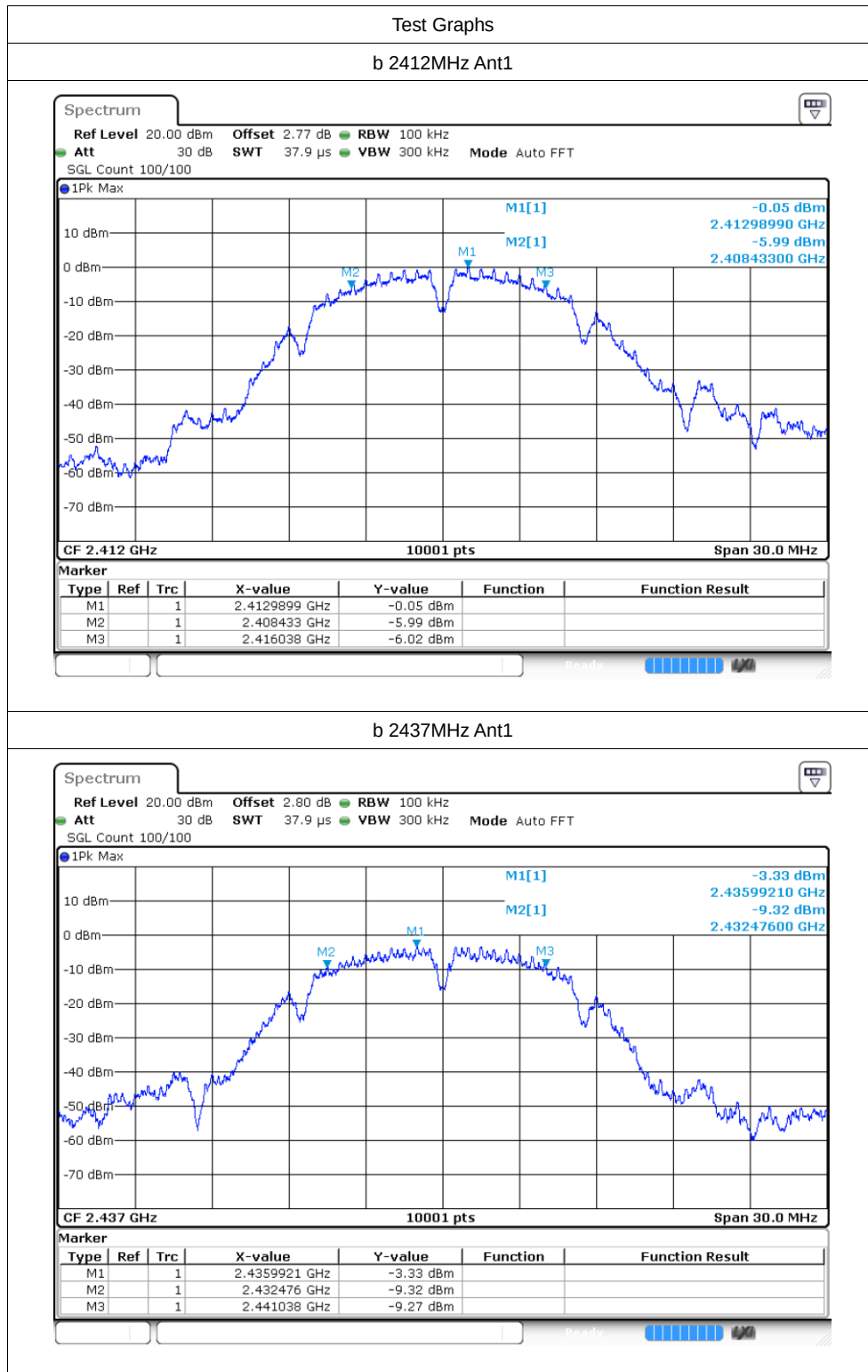
Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
b	2412	Ant1	13.12	30	Pass
b	2437	Ant1	10.57	30	Pass
b	2462	Ant1	15.34	30	Pass
g	2412	Ant1	13.37	30	Pass
g	2437	Ant1	11.63	30	Pass
g	2462	Ant1	16	30	Pass
n20	2412	Ant1	12.95	30	Pass
n20	2437	Ant1	11.38	30	Pass
n20	2462	Ant1	15.38	30	Pass
n40	2422	Ant1	16.38	30	Pass
n40	2437	Ant1	14.78	30	Pass
n40	2452	Ant1	15.73	30	Pass

3 -6dB Bandwidth

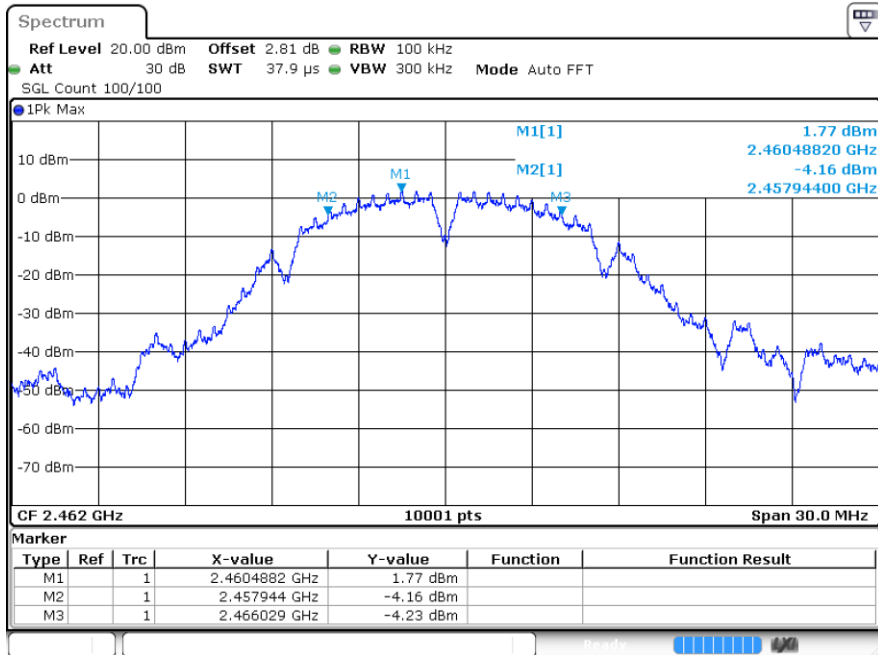
3.1 Test Result

Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
b	2412	Ant1	7.605	0.5	Pass
b	2437	Ant1	8.562	0.5	Pass
b	2462	Ant1	8.085	0.5	Pass
g	2412	Ant1	16.437	0.5	Pass
g	2437	Ant1	16.563	0.5	Pass
g	2462	Ant1	16.317	0.5	Pass
n20	2412	Ant1	16.542	0.5	Pass
n20	2437	Ant1	17.745	0.5	Pass
n20	2462	Ant1	17.268	0.5	Pass
n40	2422	Ant1	36.45	0.5	Pass
n40	2437	Ant1	27.552	0.5	Pass
n40	2452	Ant1	21.312	0.5	Pass

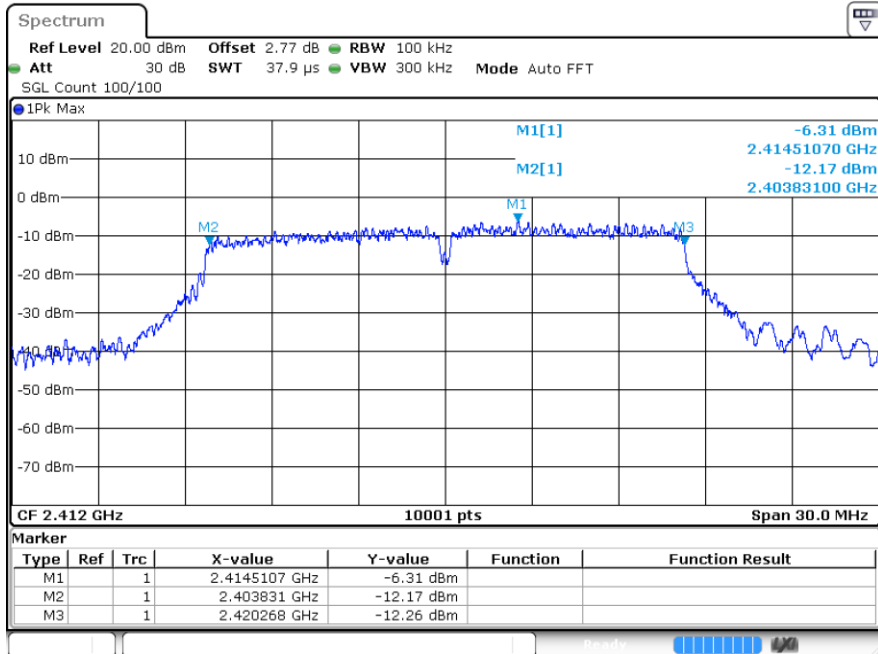
3.2 Test Graphs



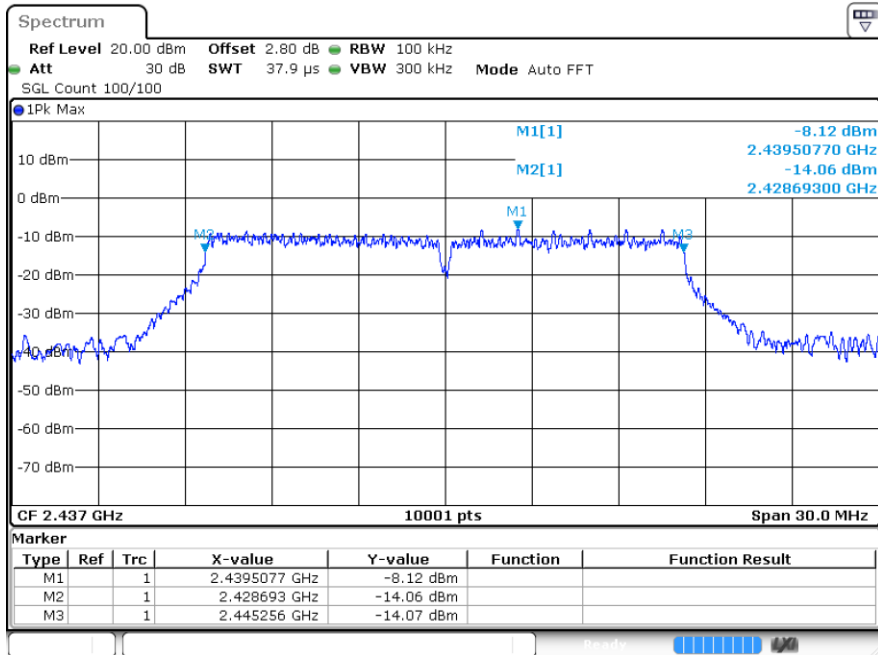
b 2462MHz Ant1



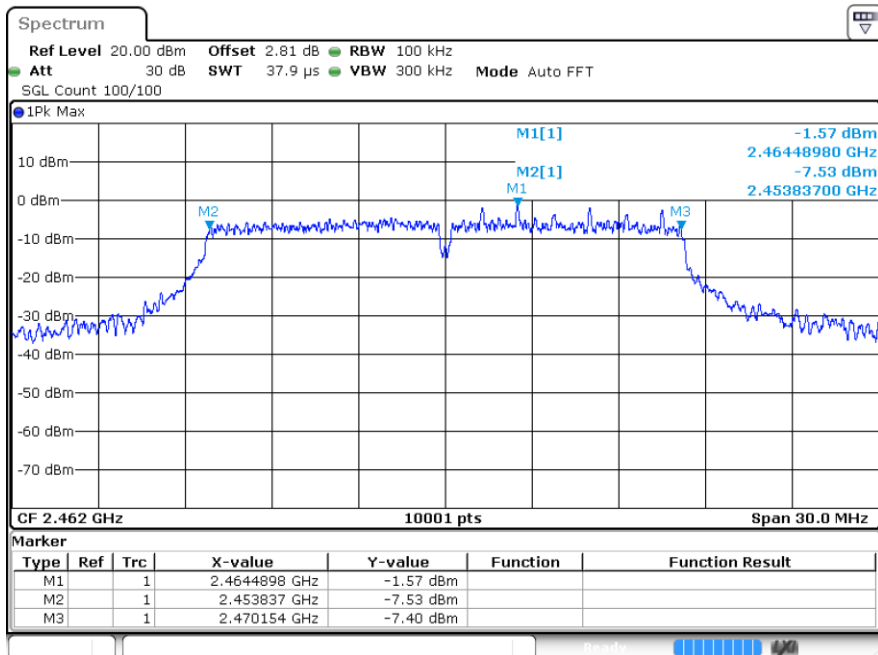
g 2412MHz Ant1

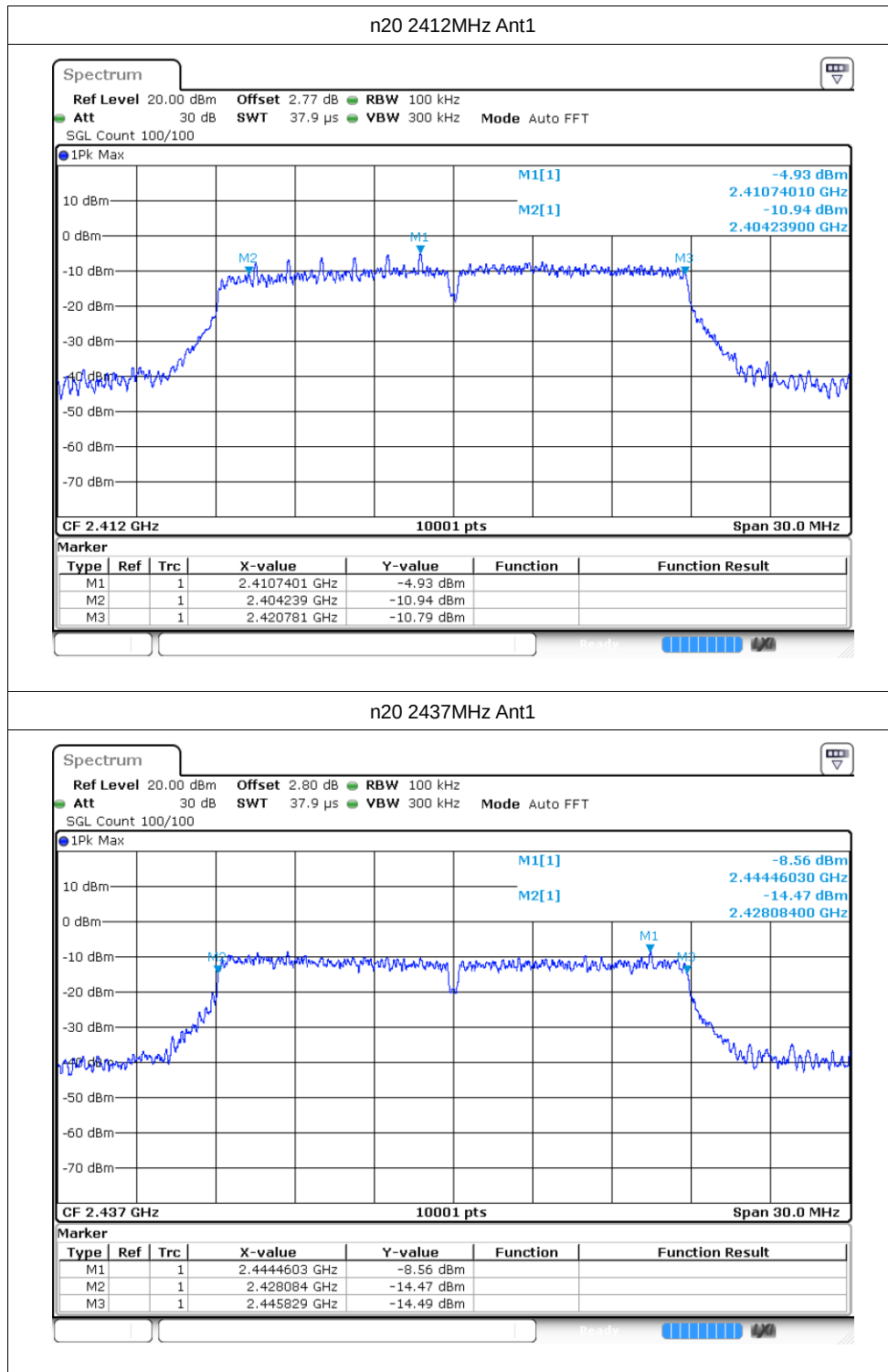


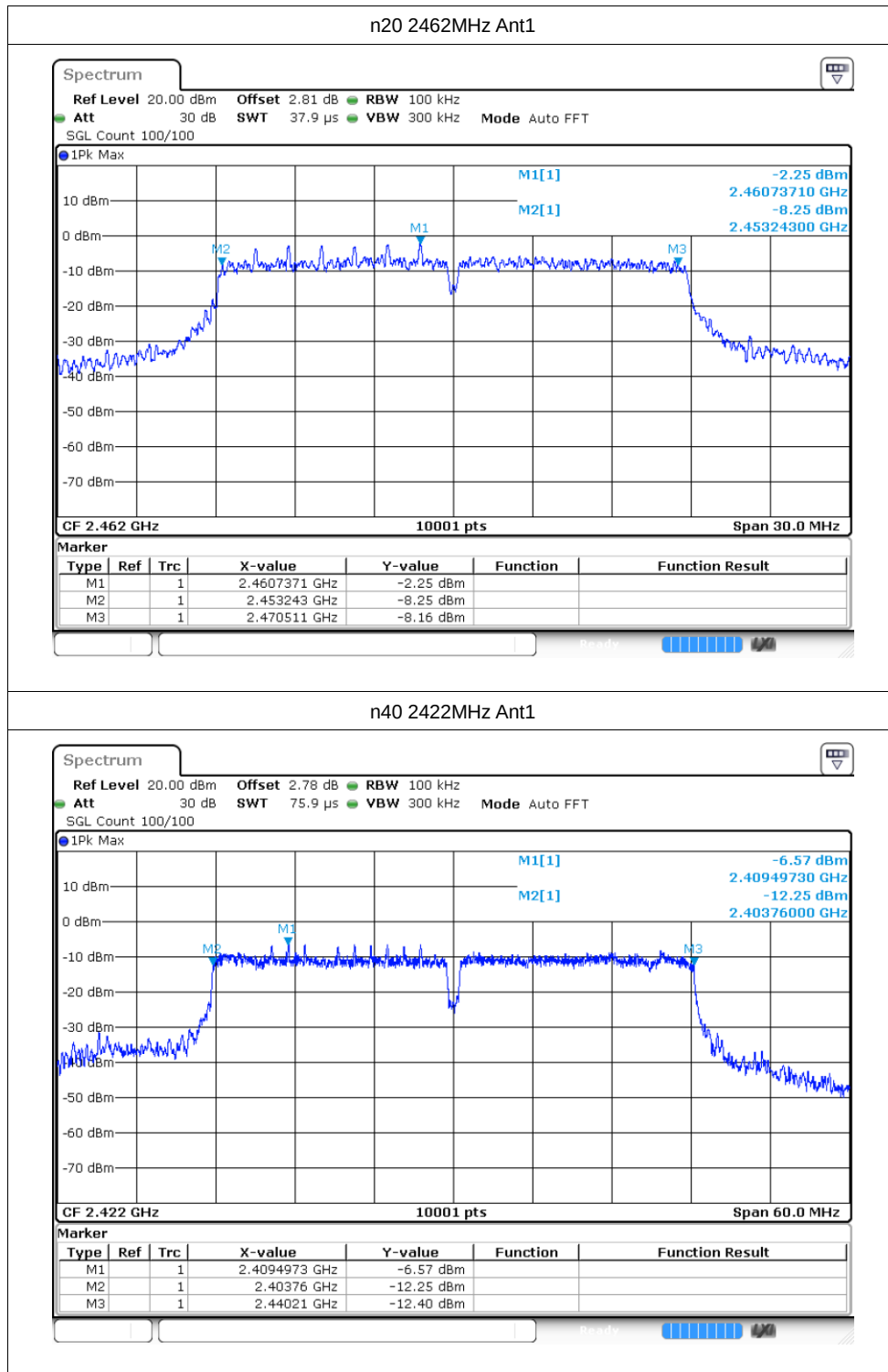
g 2437MHz Ant1

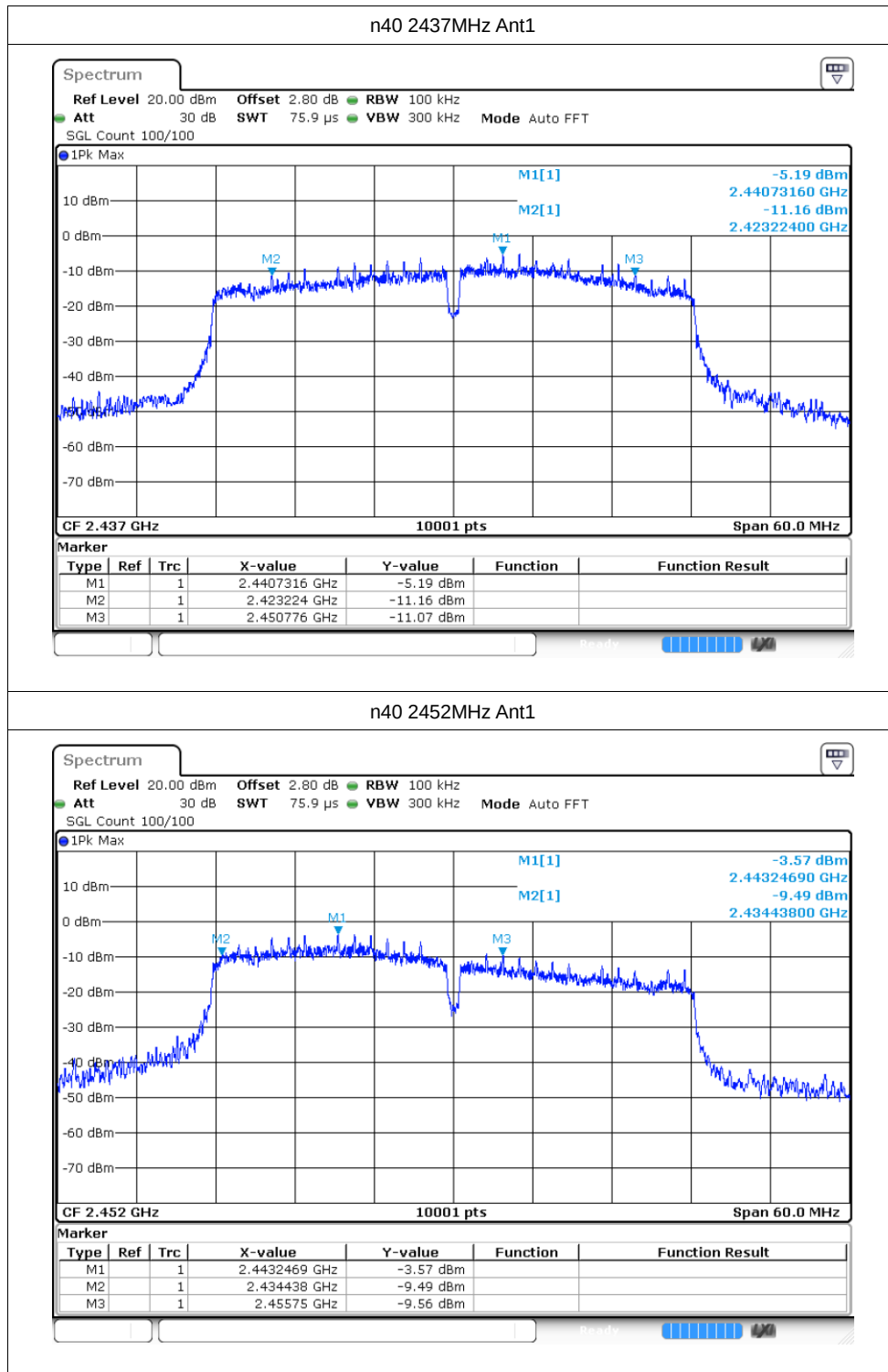


g 2462MHz Ant1







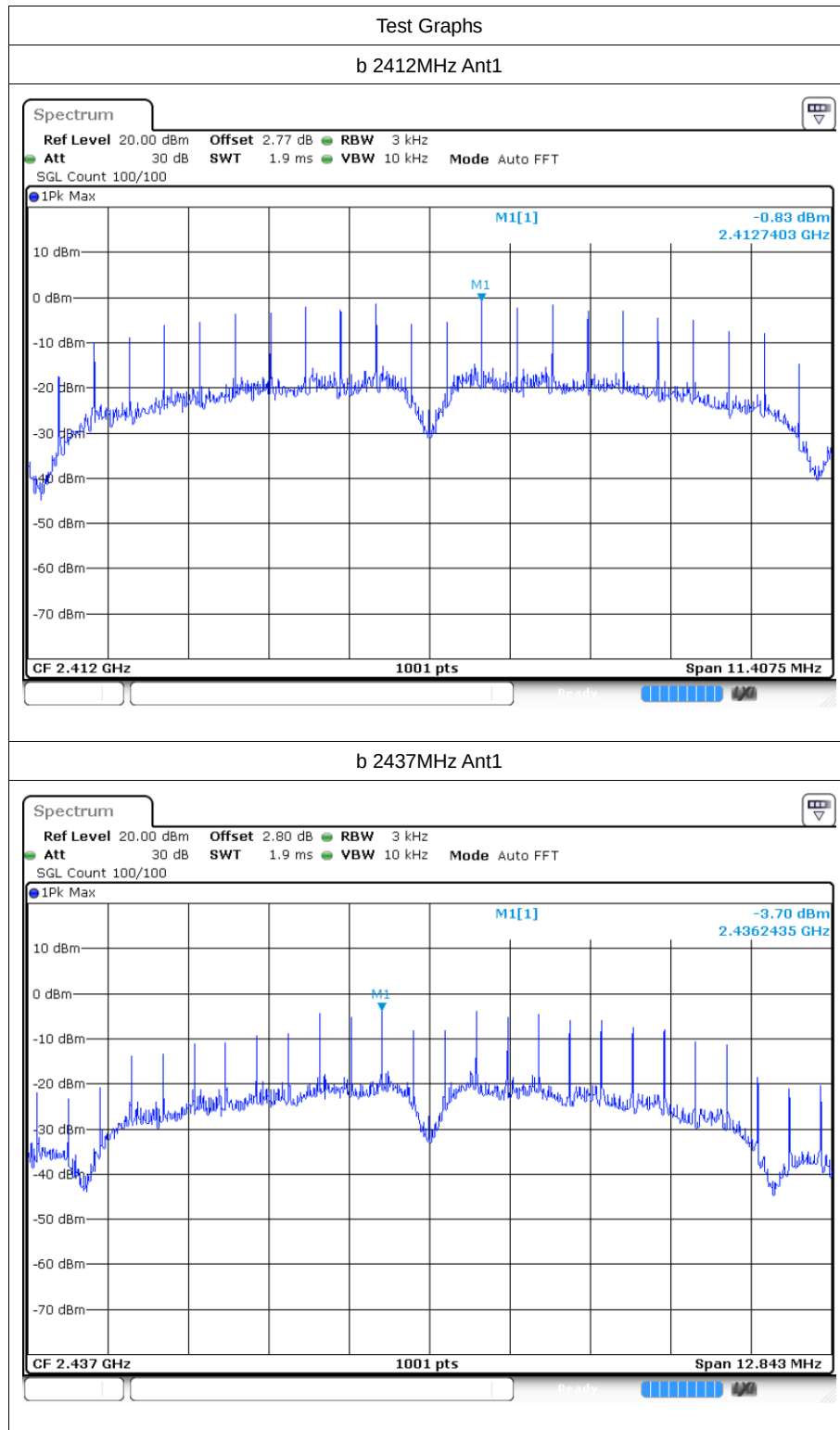


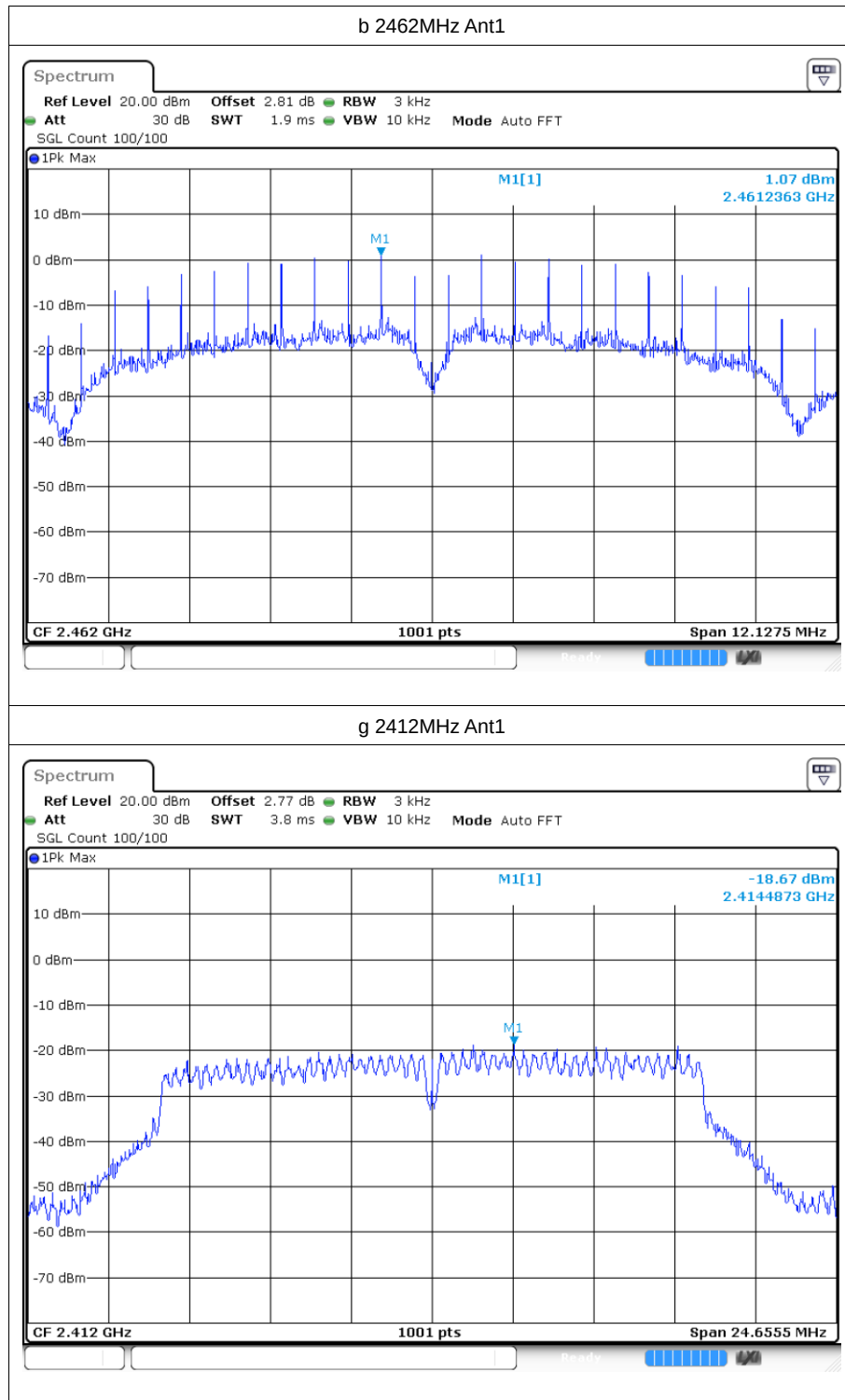
4 Maximum Power Spectral Density Level

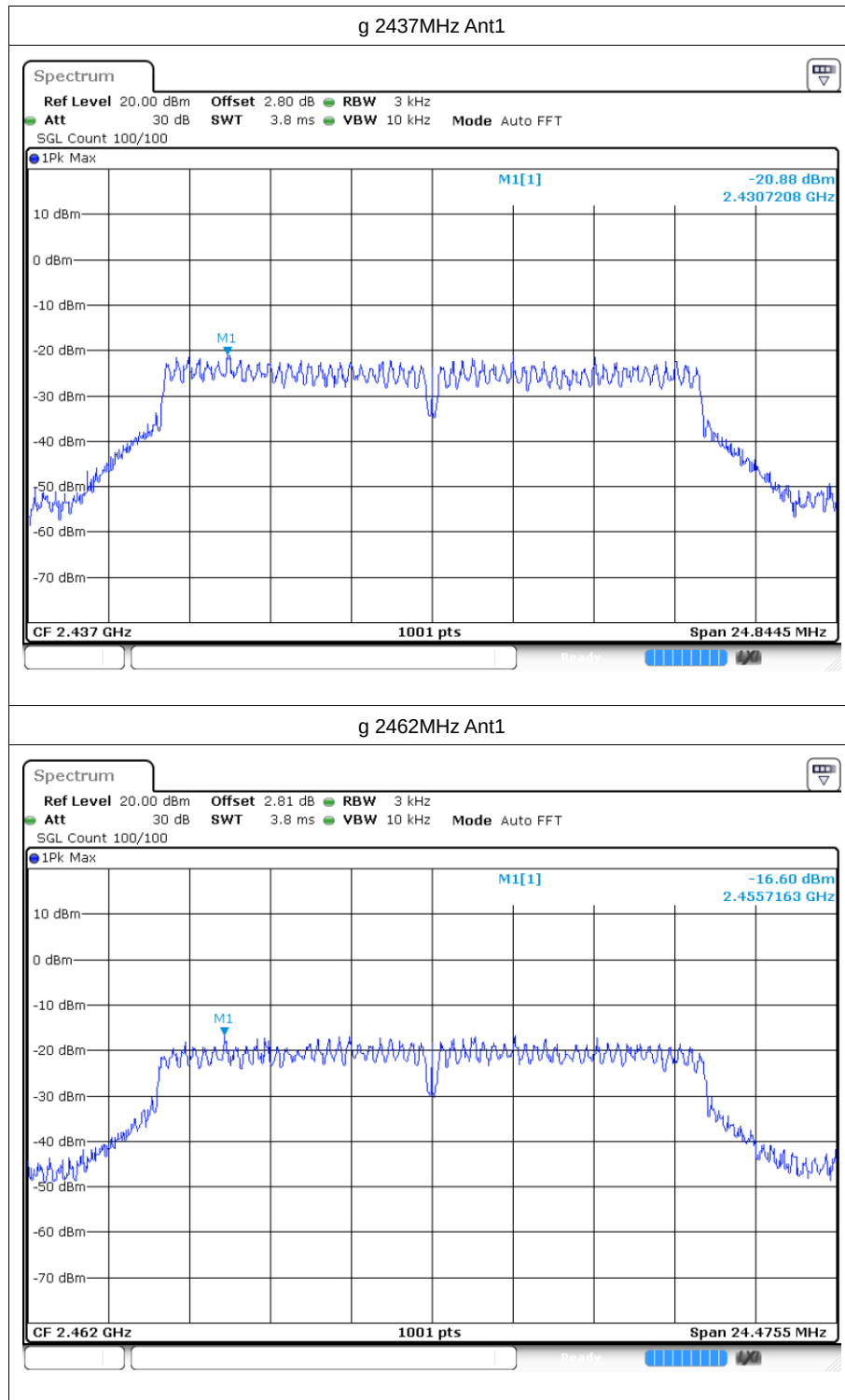
4.1 Test Result

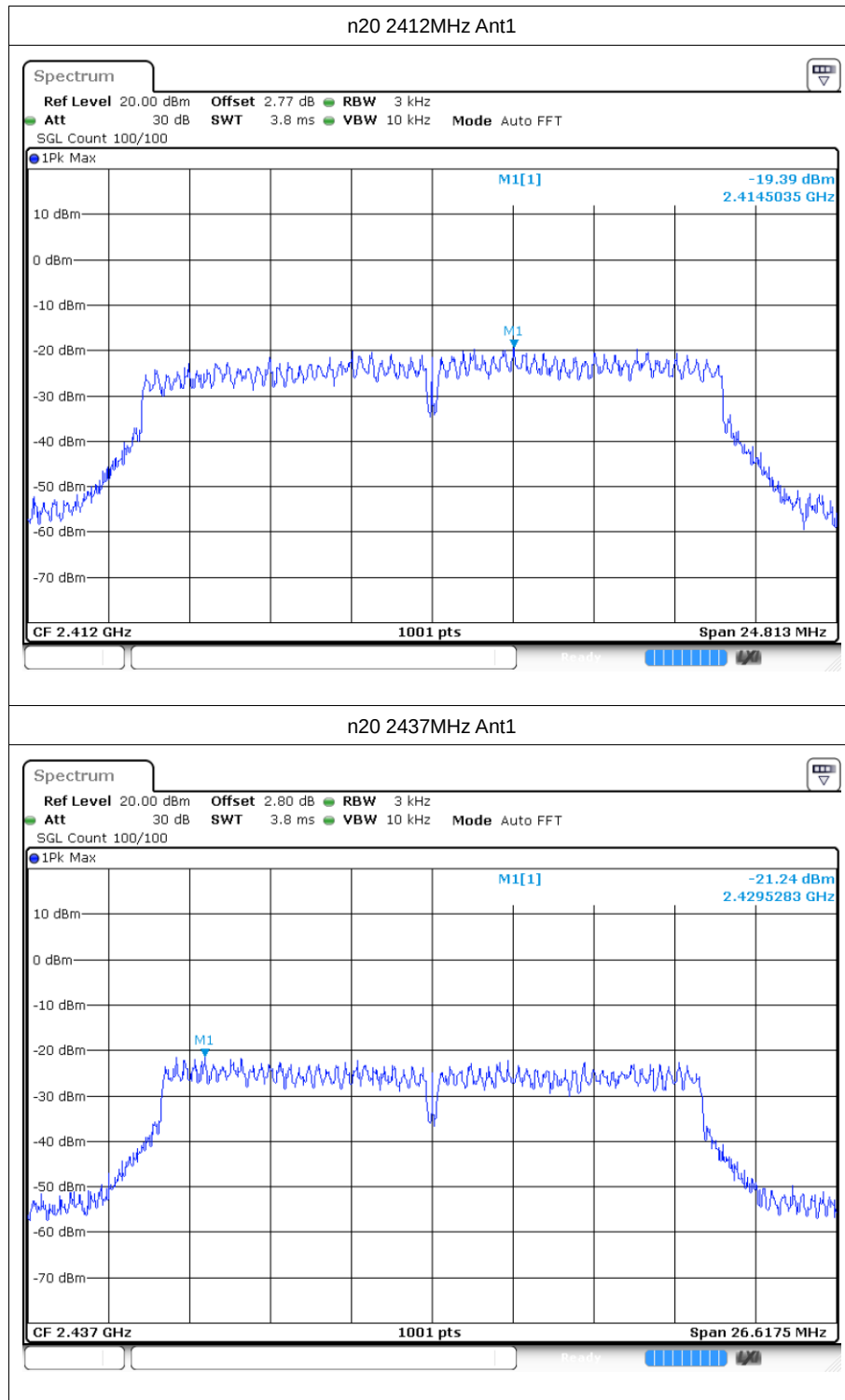
Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3-100kHz)	Limit (dBm/3kHz)	Verdict
b	2412	Ant1	-0.83	≤ 8	Pass
b	2437	Ant1	-3.7	≤ 8	Pass
b	2462	Ant1	1.07	≤ 8	Pass
g	2412	Ant1	-18.67	≤ 8	Pass
g	2437	Ant1	-20.88	≤ 8	Pass
g	2462	Ant1	-16.6	≤ 8	Pass
n20	2412	Ant1	-19.39	≤ 8	Pass
n20	2437	Ant1	-21.24	≤ 8	Pass
n20	2462	Ant1	-17.81	≤ 8	Pass
n40	2422	Ant1	-22.52	≤ 8	Pass
n40	2437	Ant1	-23.14	≤ 8	Pass
n40	2452	Ant1	-22.82	≤ 8	Pass

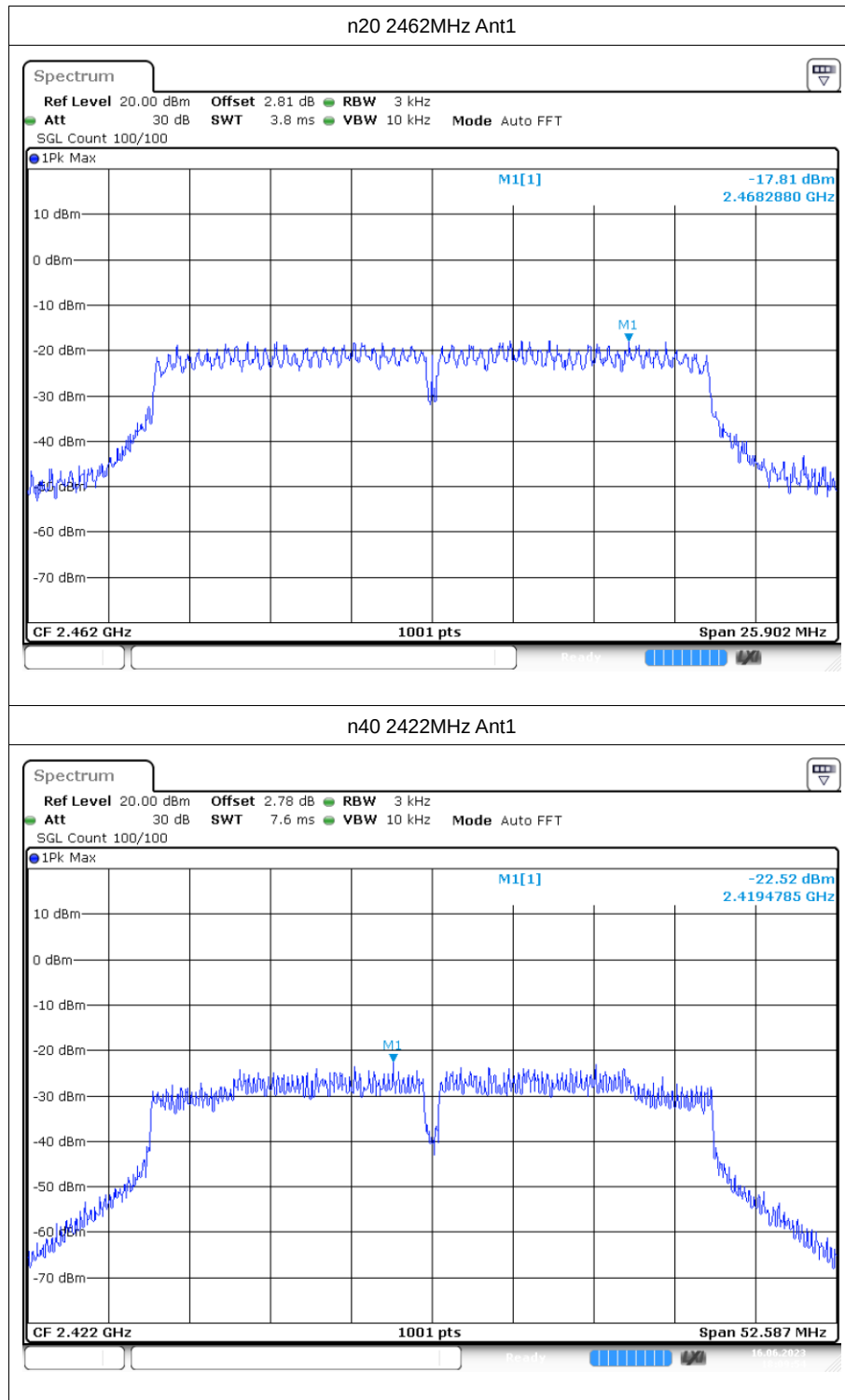
4.2 Test Graphs

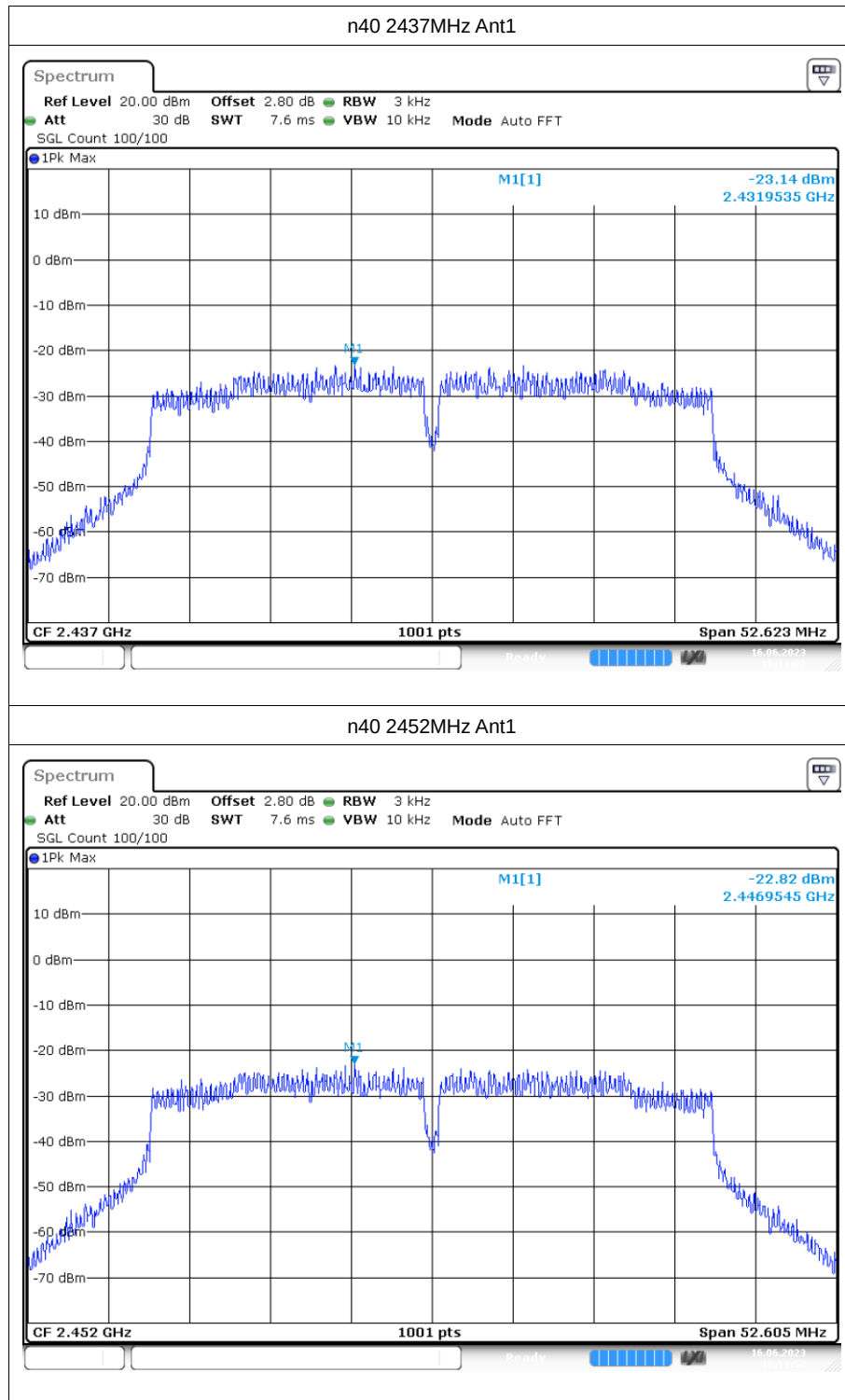










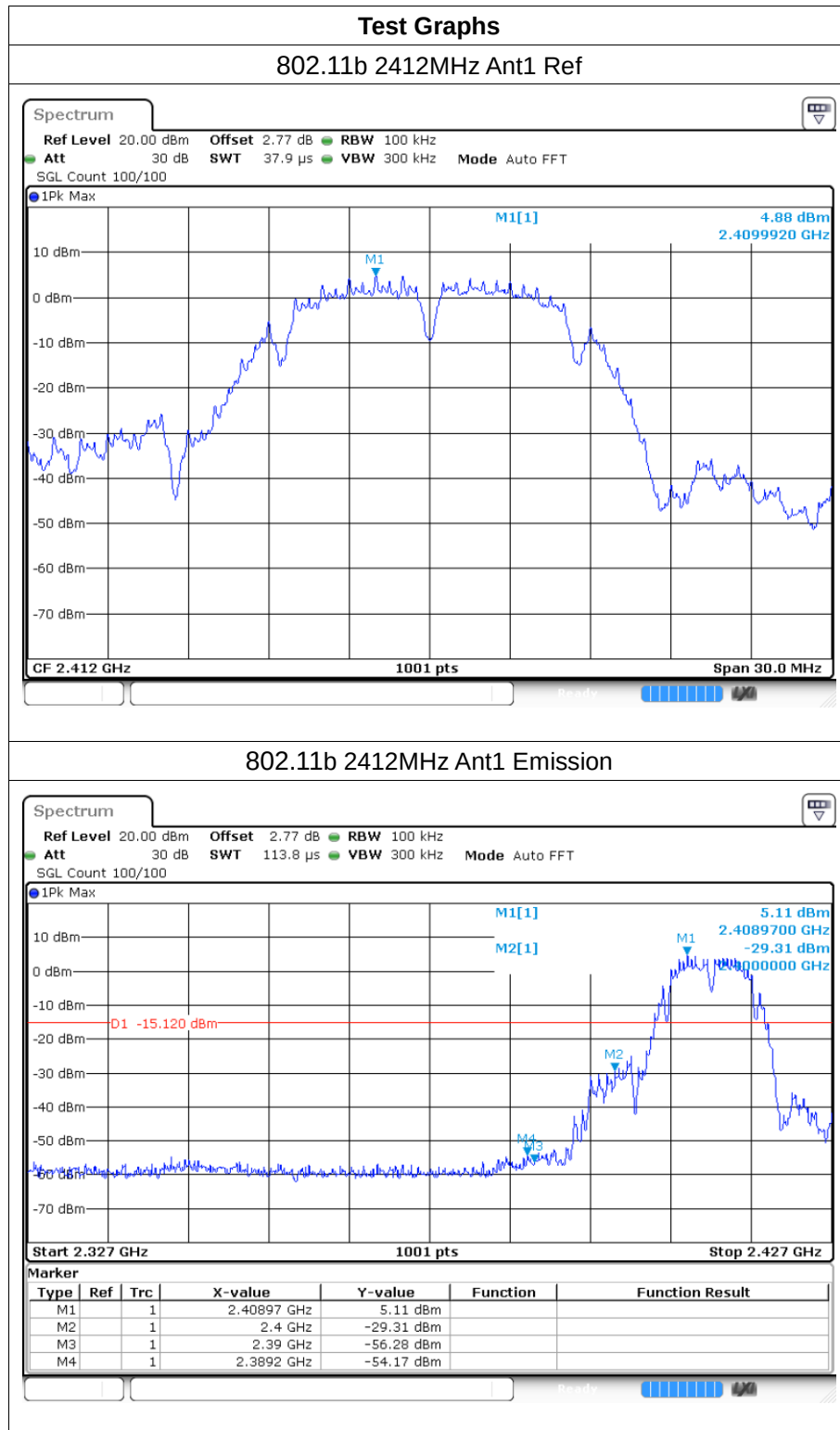


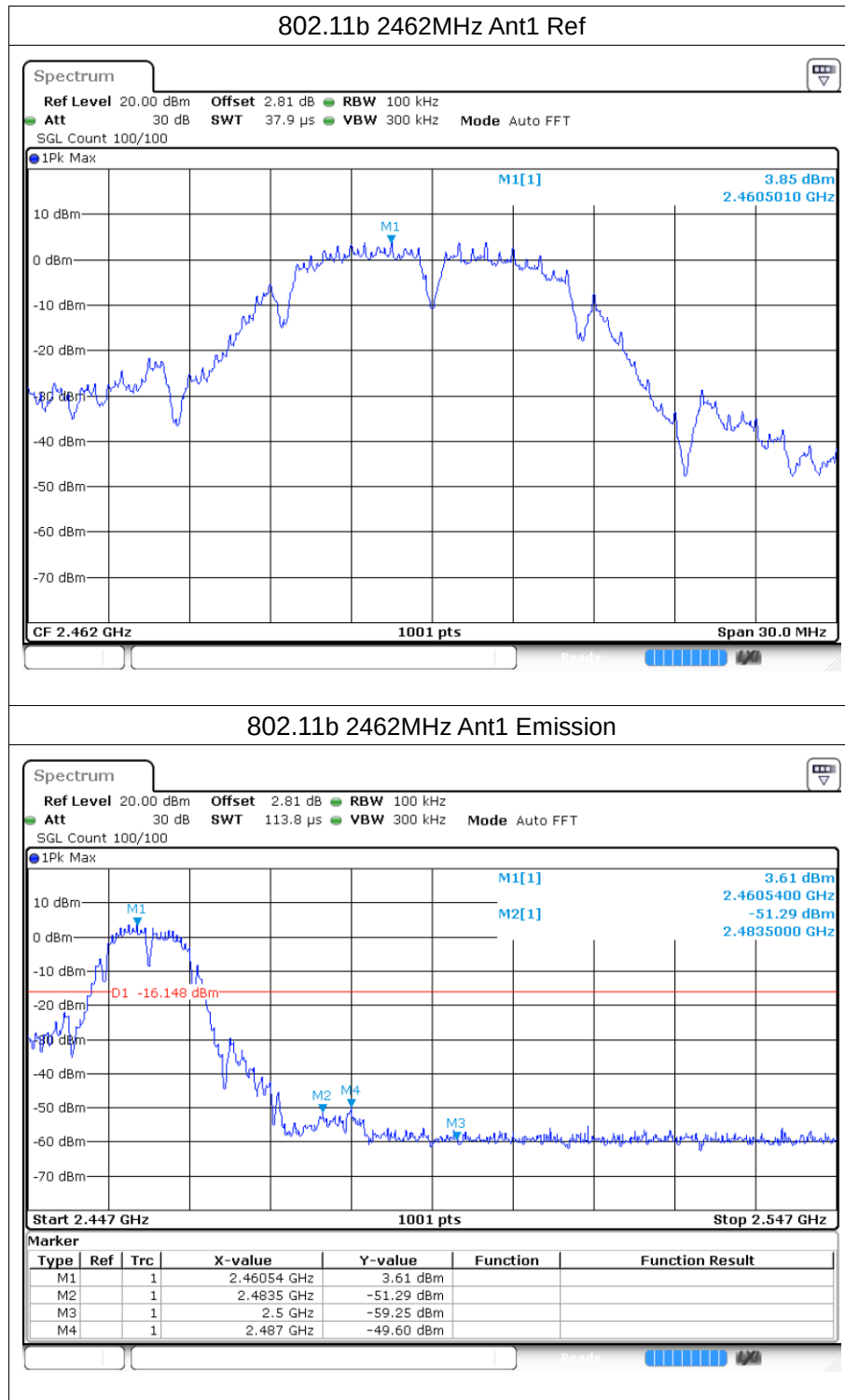
5 Band Edge

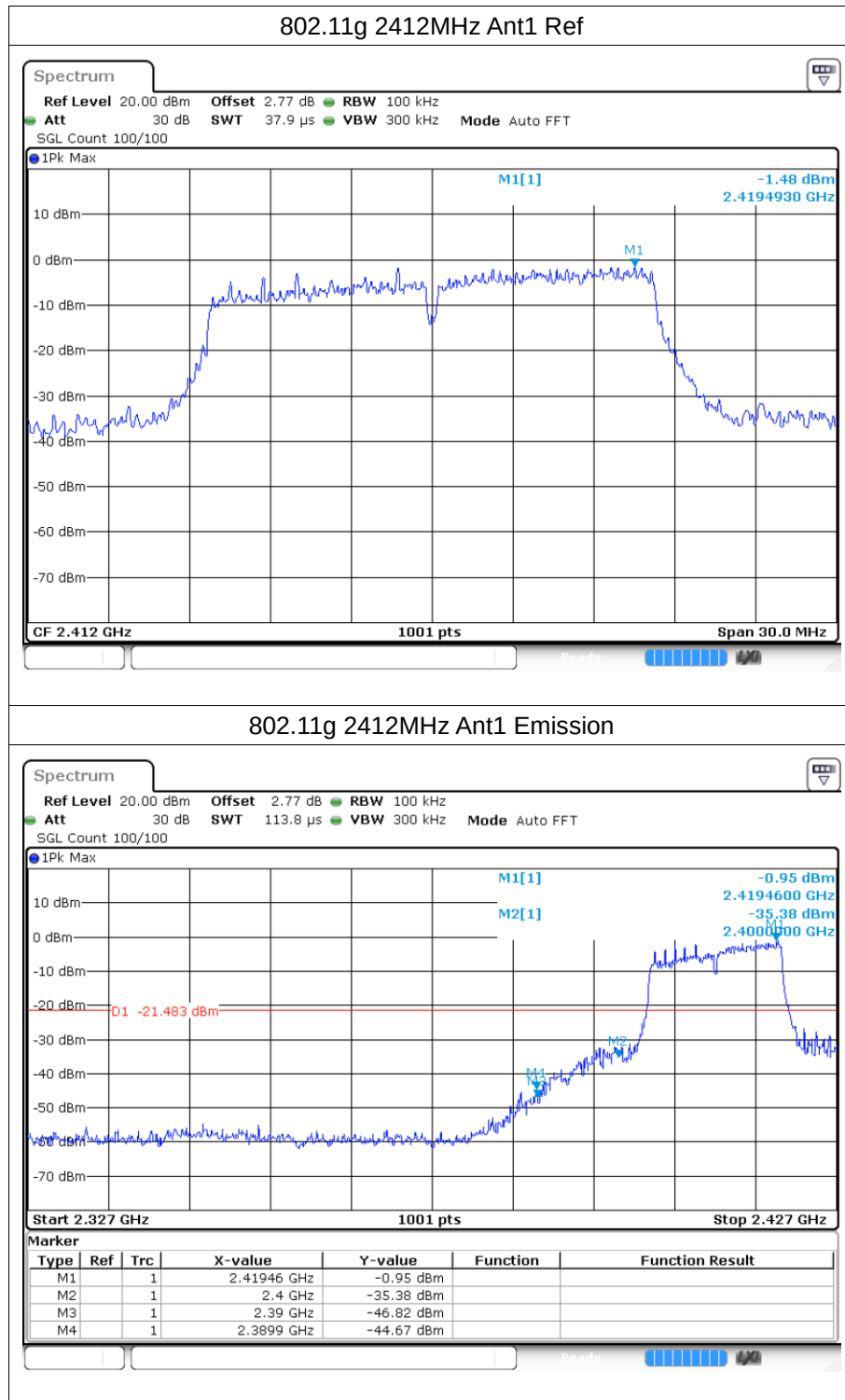
5.1 Test Result

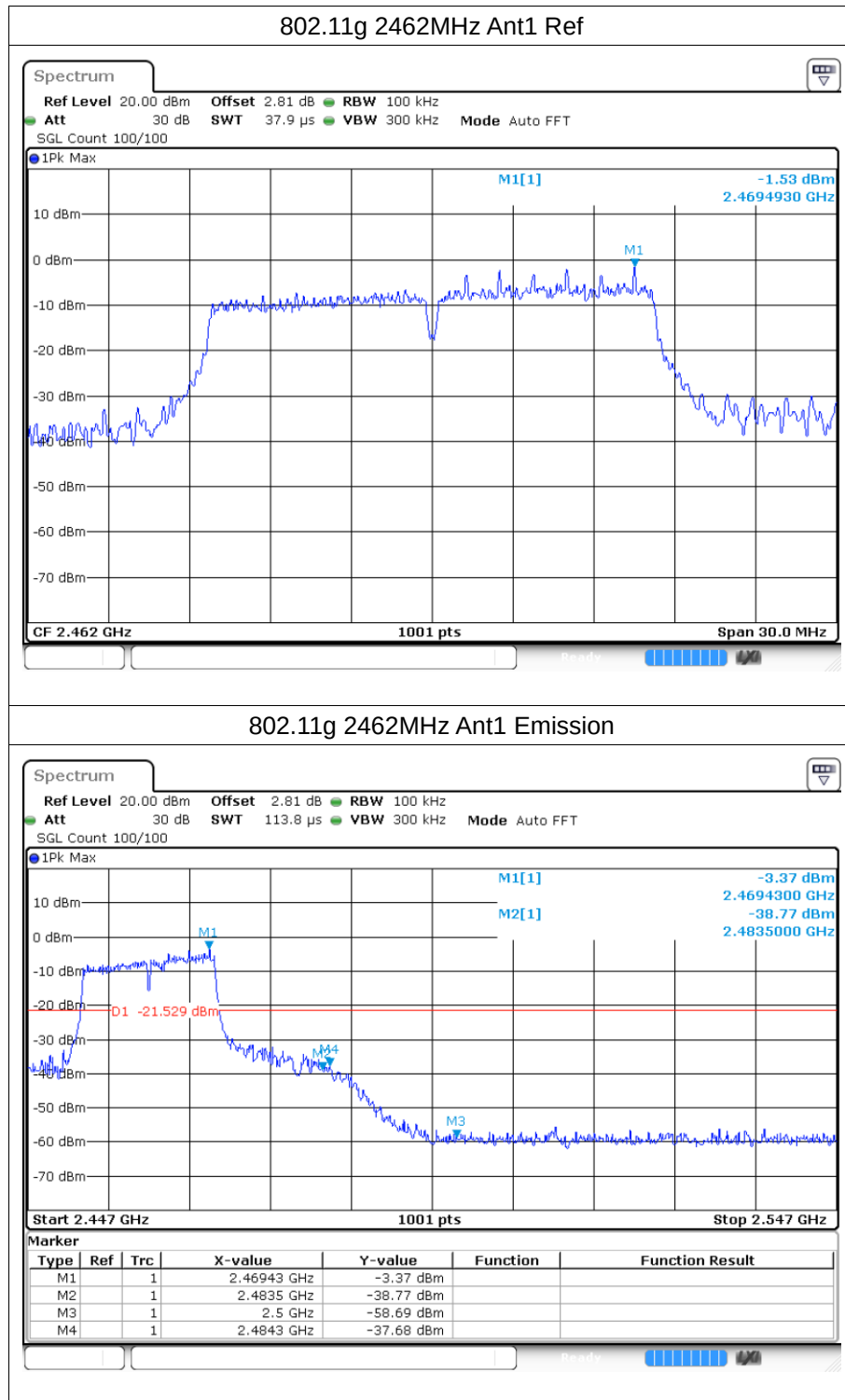
Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
802.11b	2412	Ant1	-59.05	-20	-59.05
802.11b	2462	Ant1	-53.45	-20	Pass
802.11g	2412	Ant1	-43.19	-20	Pass
802.11g	2462	Ant1	-36.15	-20	Pass
802.11n20	2412	Ant1	-42.92	-20	Pass
802.11n20	2462	Ant1	-34	-20	Pass
802.11n40	2422	Ant1	-35.47	-20	Pass
802.11n40	2452	Ant1	-43.97	-20	Pass

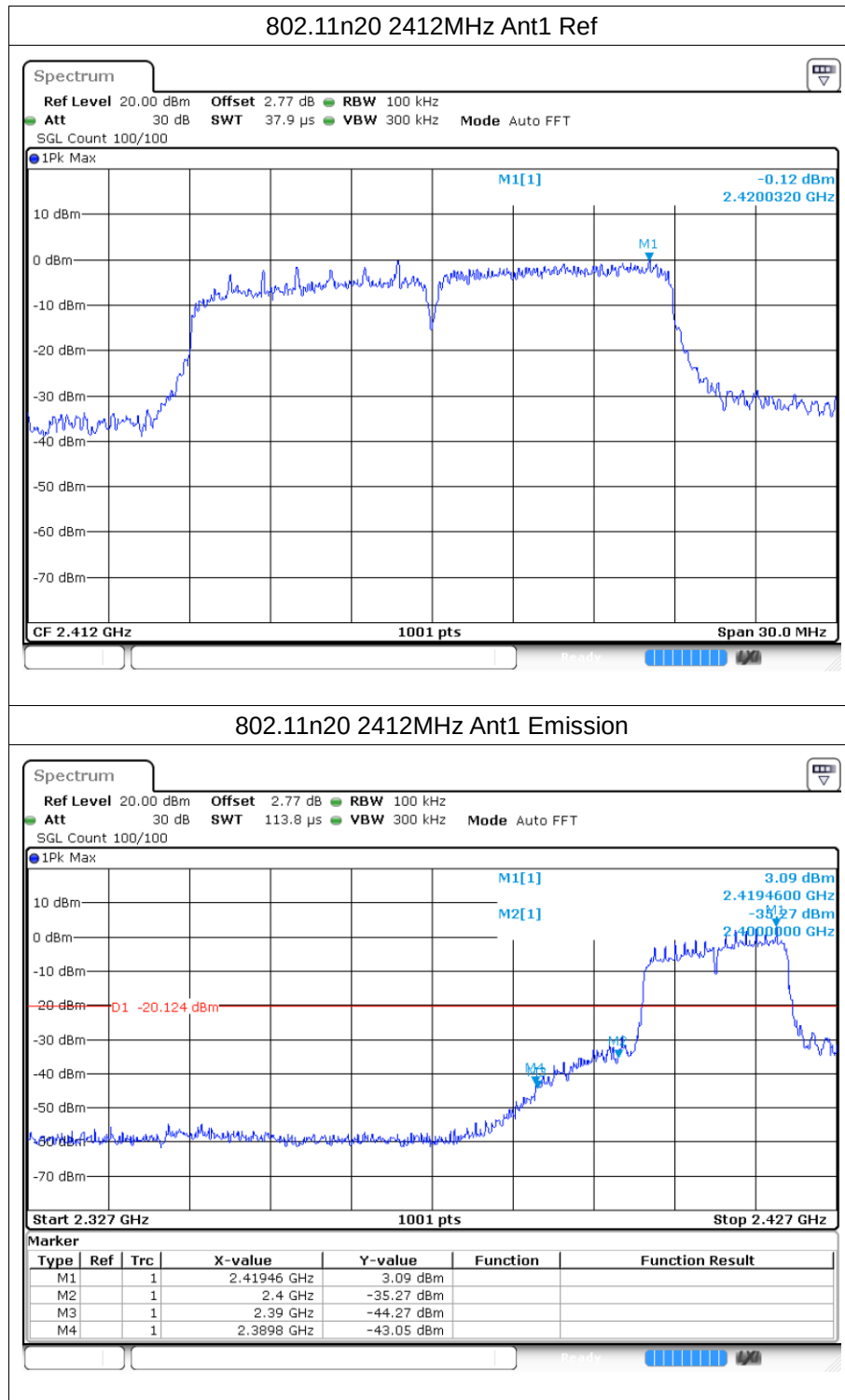
5.2 Test Graphs

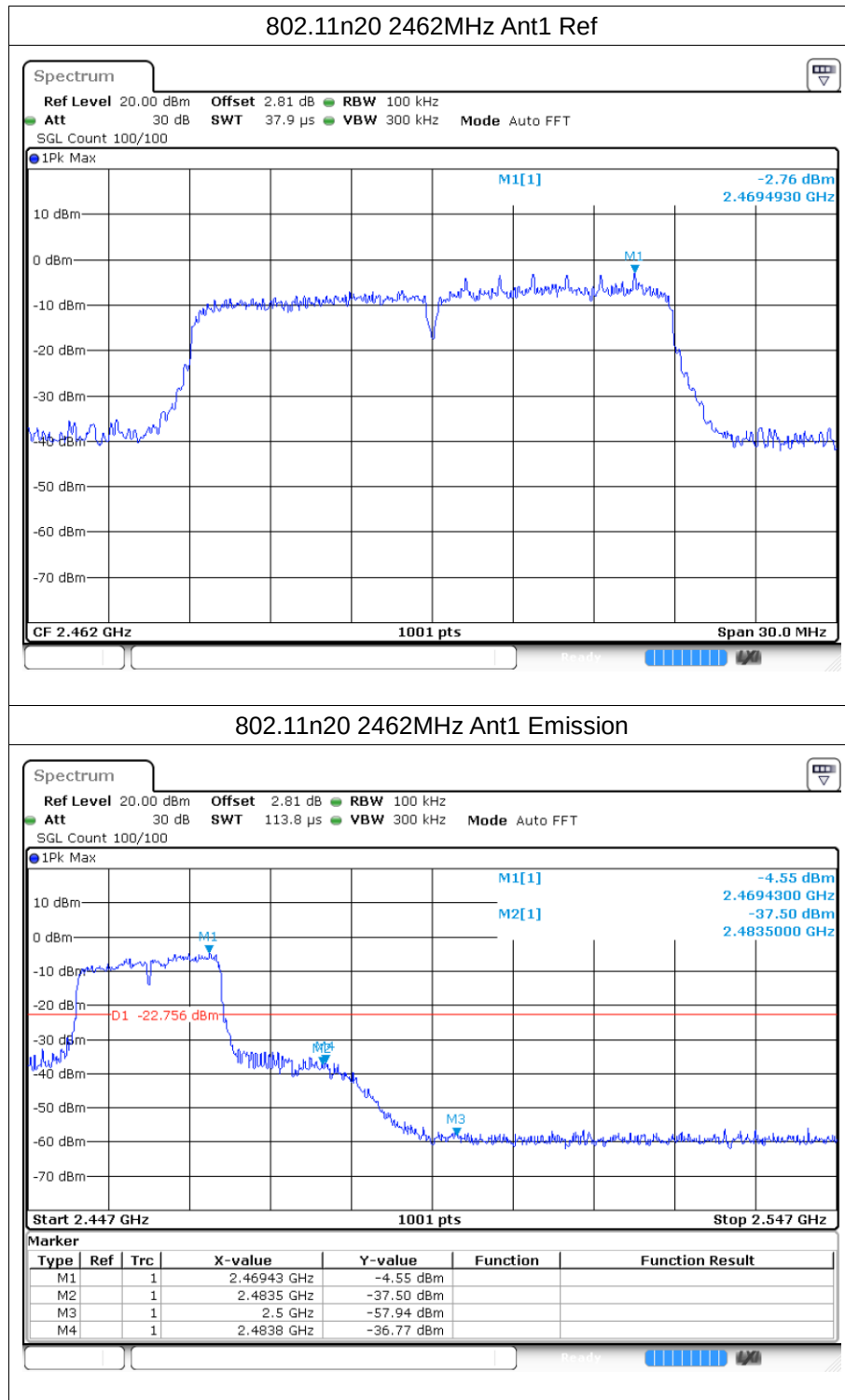




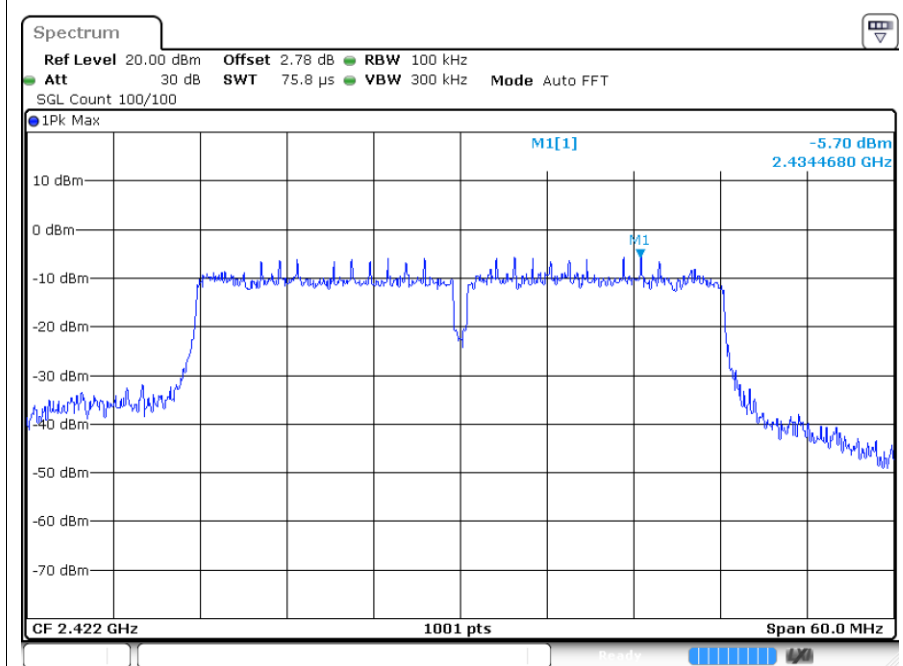




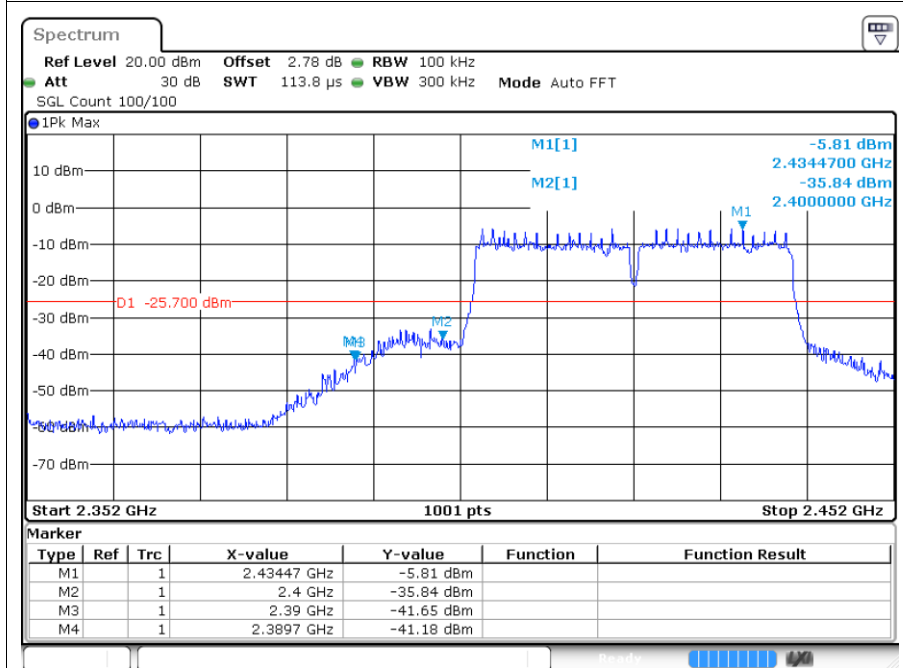


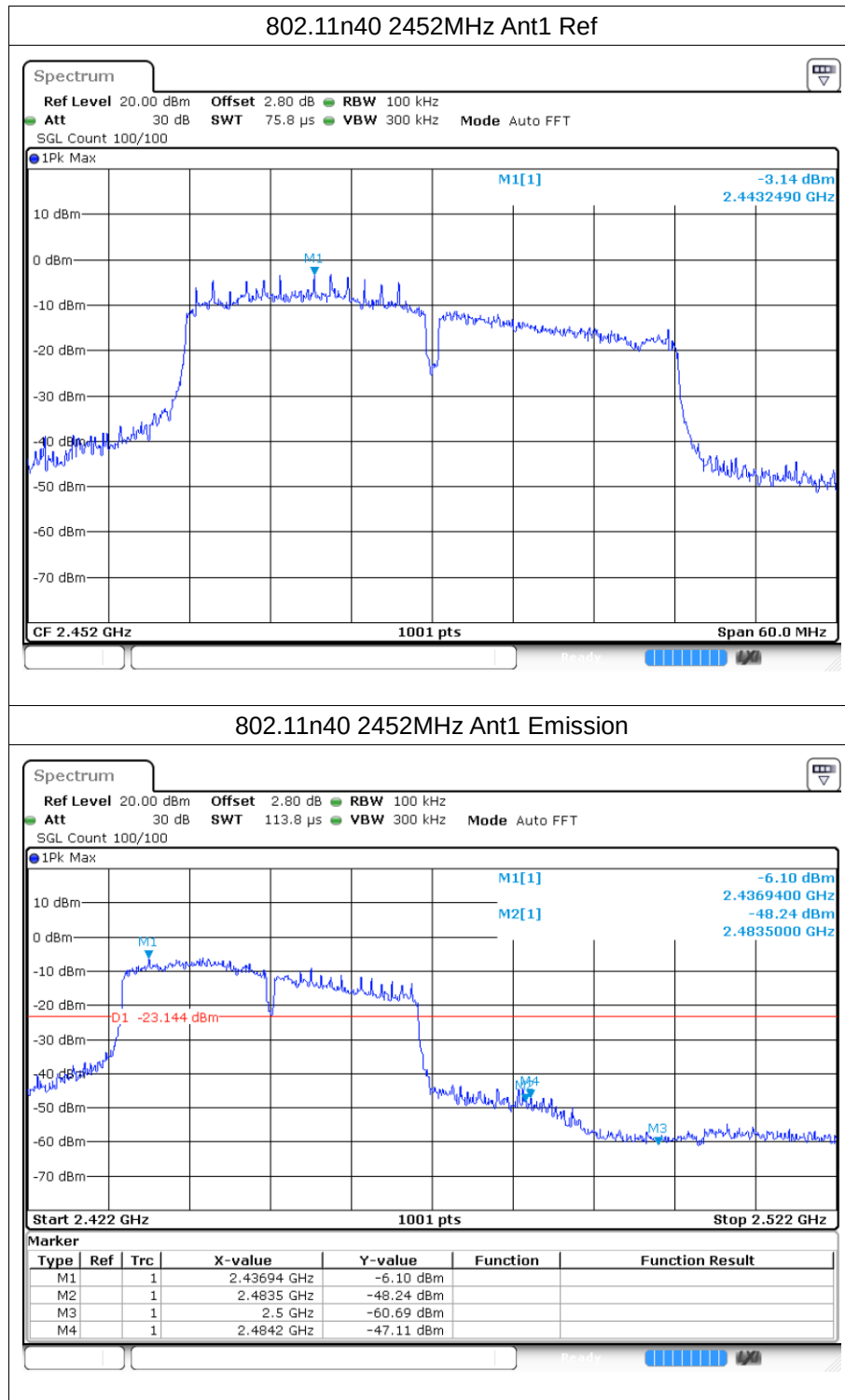


802.11n40 2422MHz Ant1 Ref



802.11n40 2422MHz Ant1 Emission



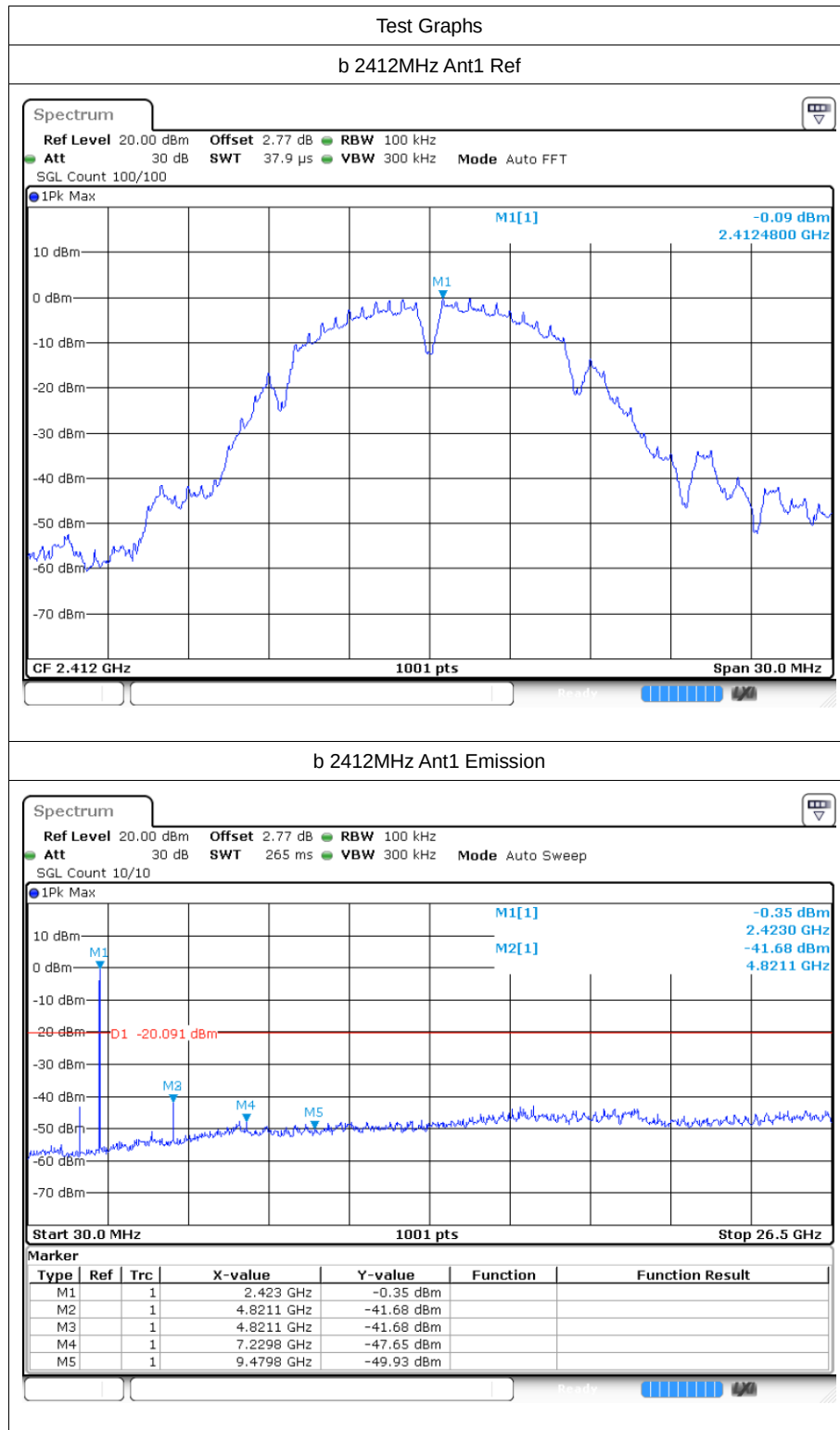


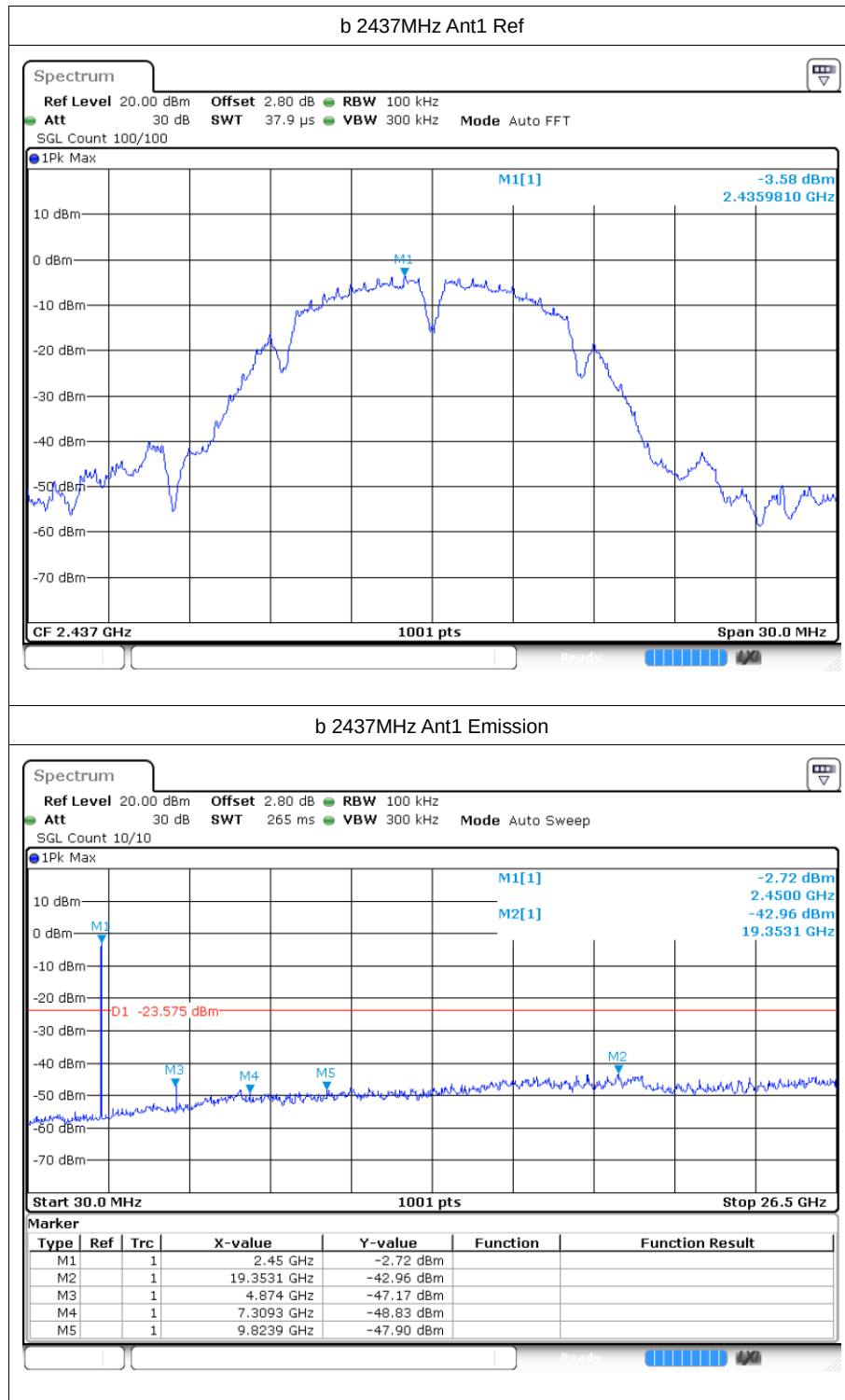
6 Conducted RF Spurious Emission

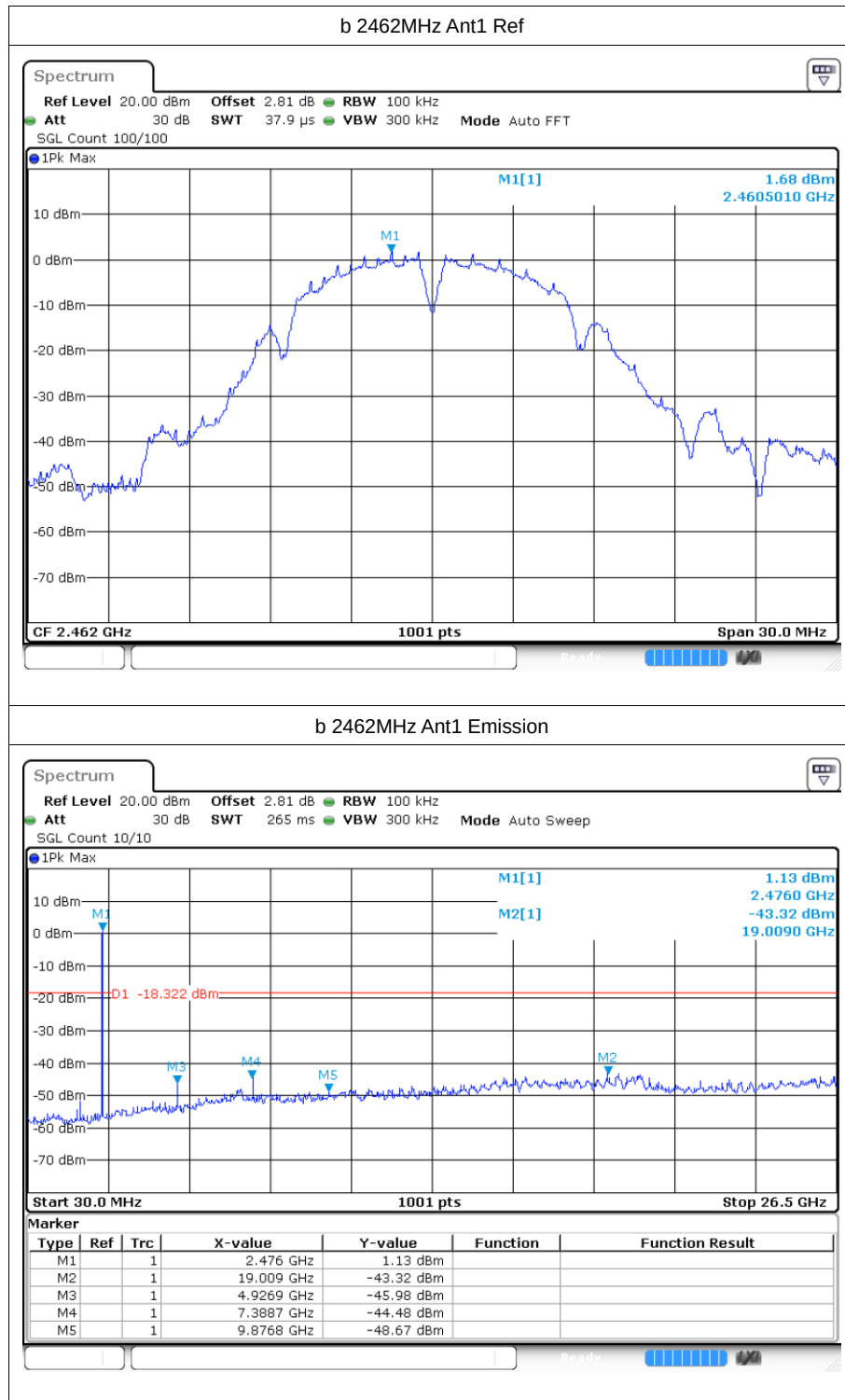
6.1 Test Result

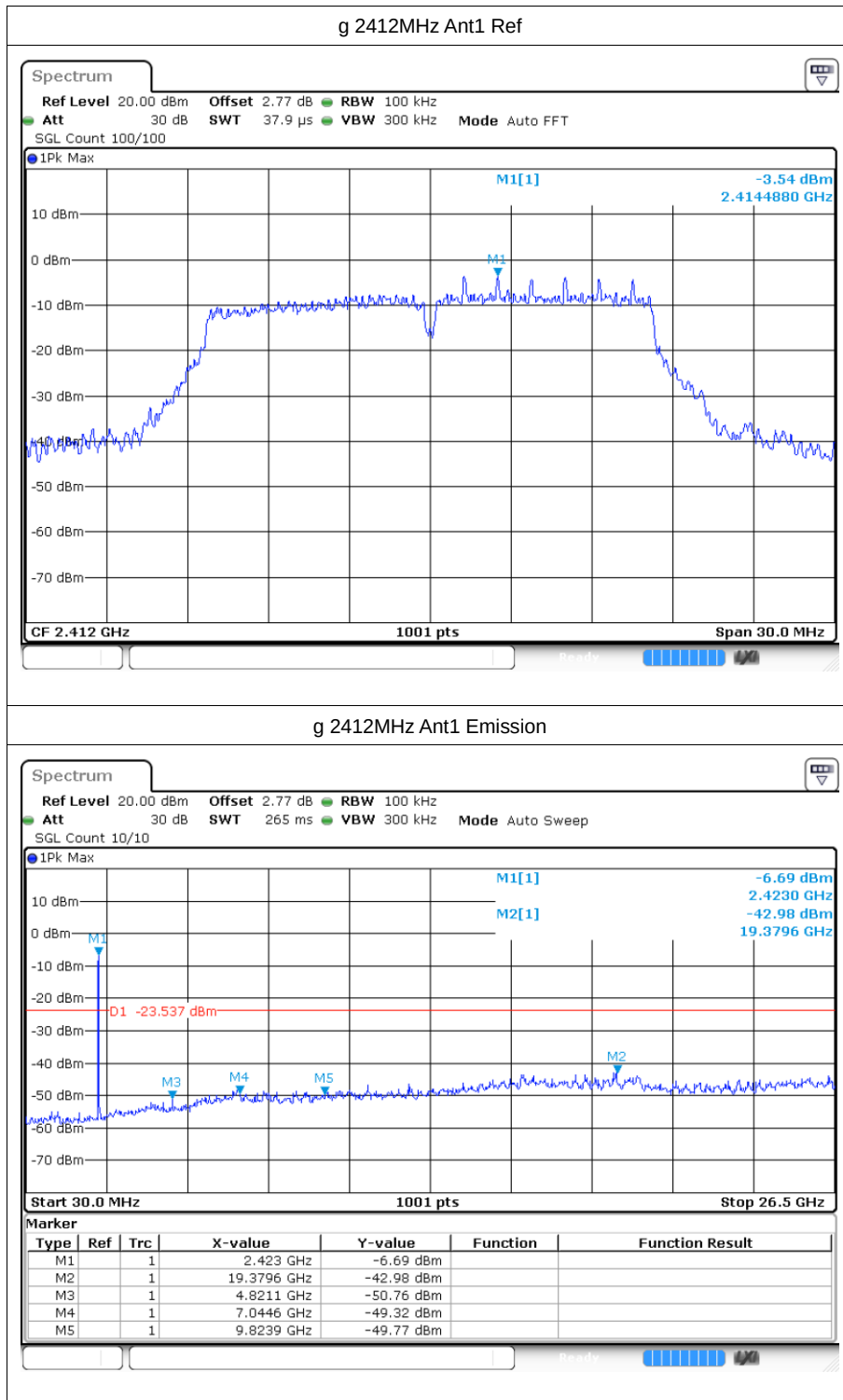
Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
b	2412	Ant1	-41.58	-20	Pass
b	2437	Ant1	-39.37	-20	Pass
b	2462	Ant1	-44.99	-20	Pass
g	2412	Ant1	-39.43	-20	Pass
g	2437	Ant1	-35.84	-20	Pass
g	2462	Ant1	-40.45	-20	Pass
n20	2412	Ant1	-36.49	-20	Pass
n20	2437	Ant1	-37.03	-20	Pass
n20	2462	Ant1	-39.94	-20	Pass
n40	2422	Ant1	-33.55	-20	Pass
n40	2437	Ant1	-38.78	-20	Pass
n40	2452	Ant1	-39.65	-20	Pass

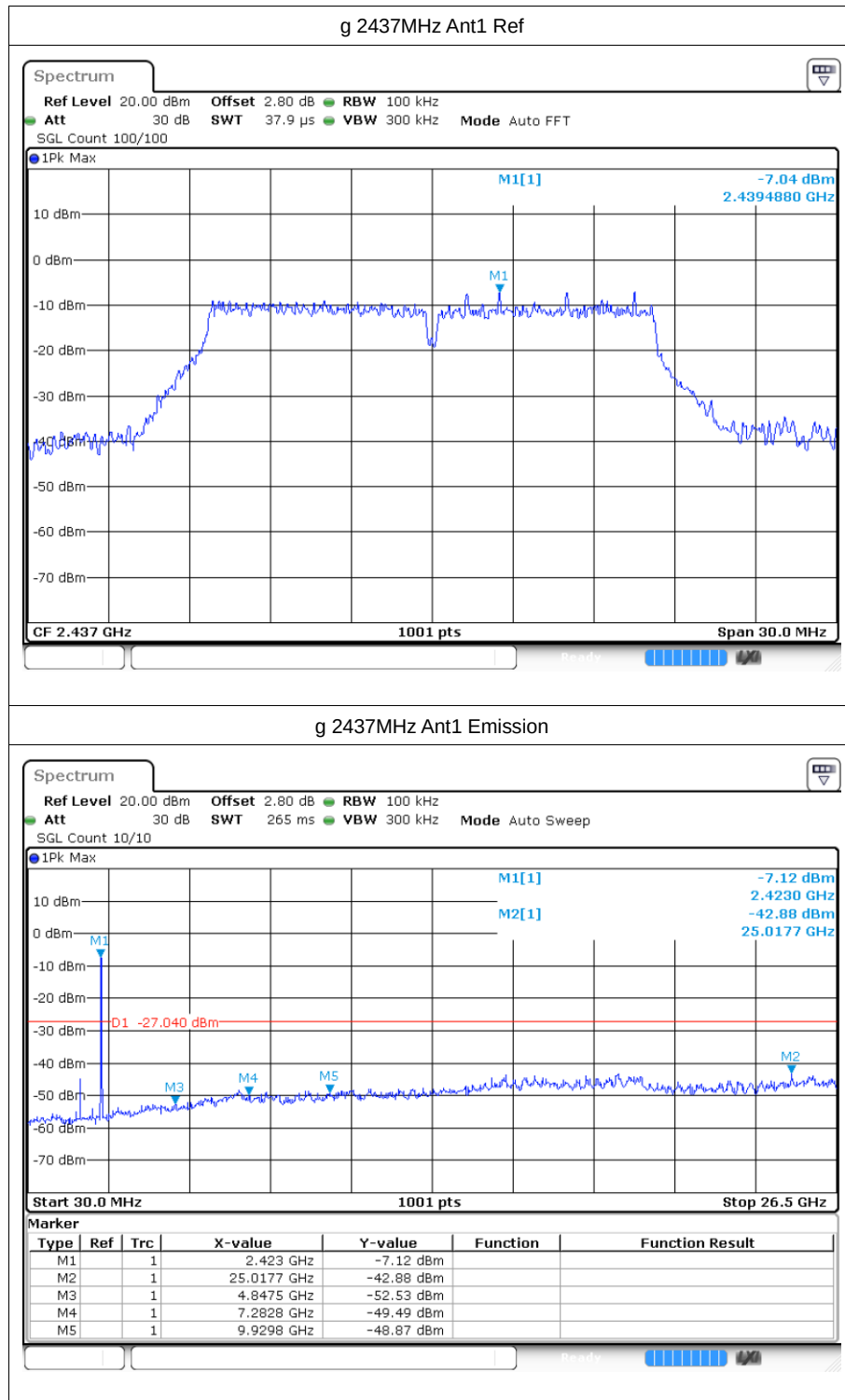
6.2 Test Graphs

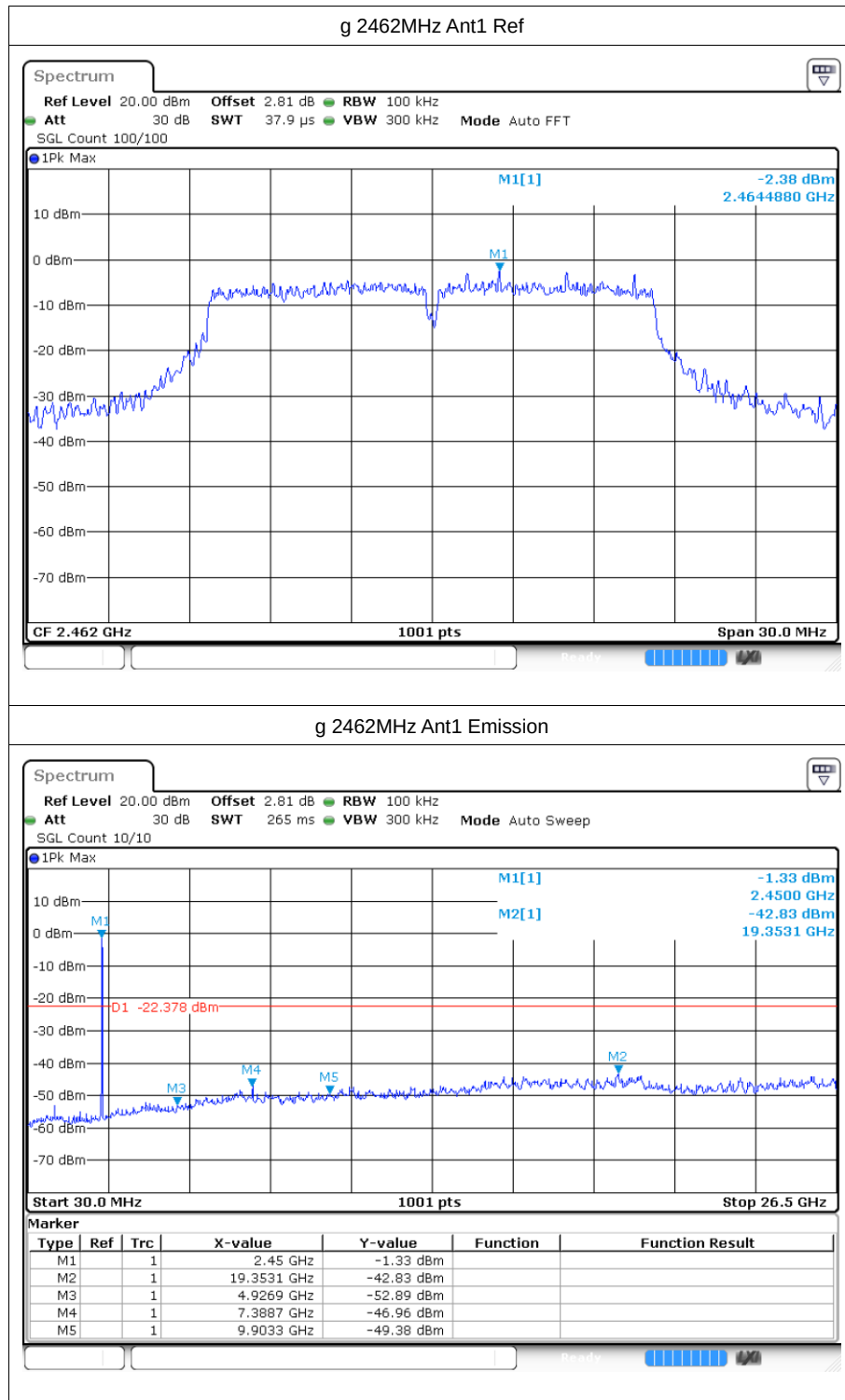


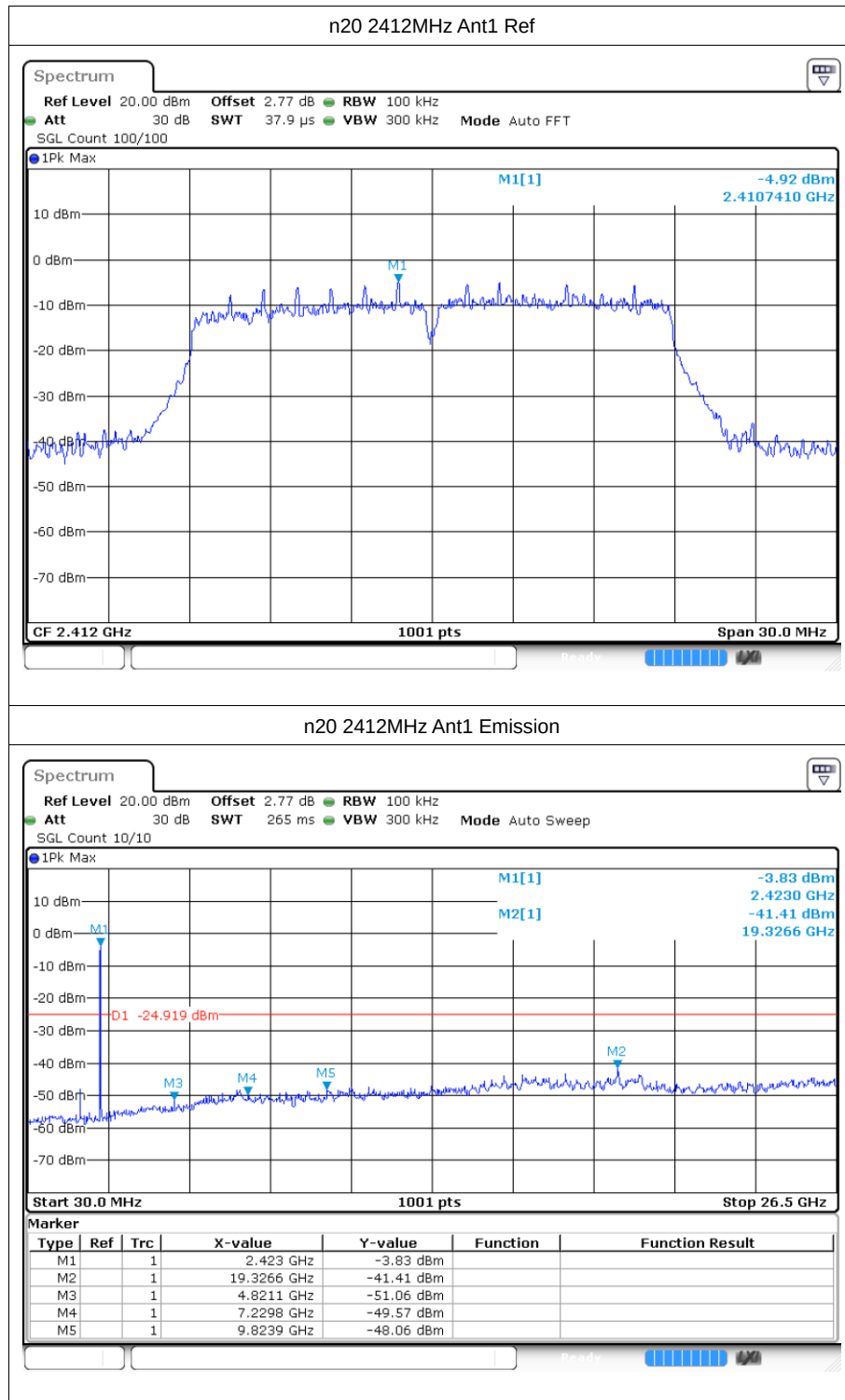


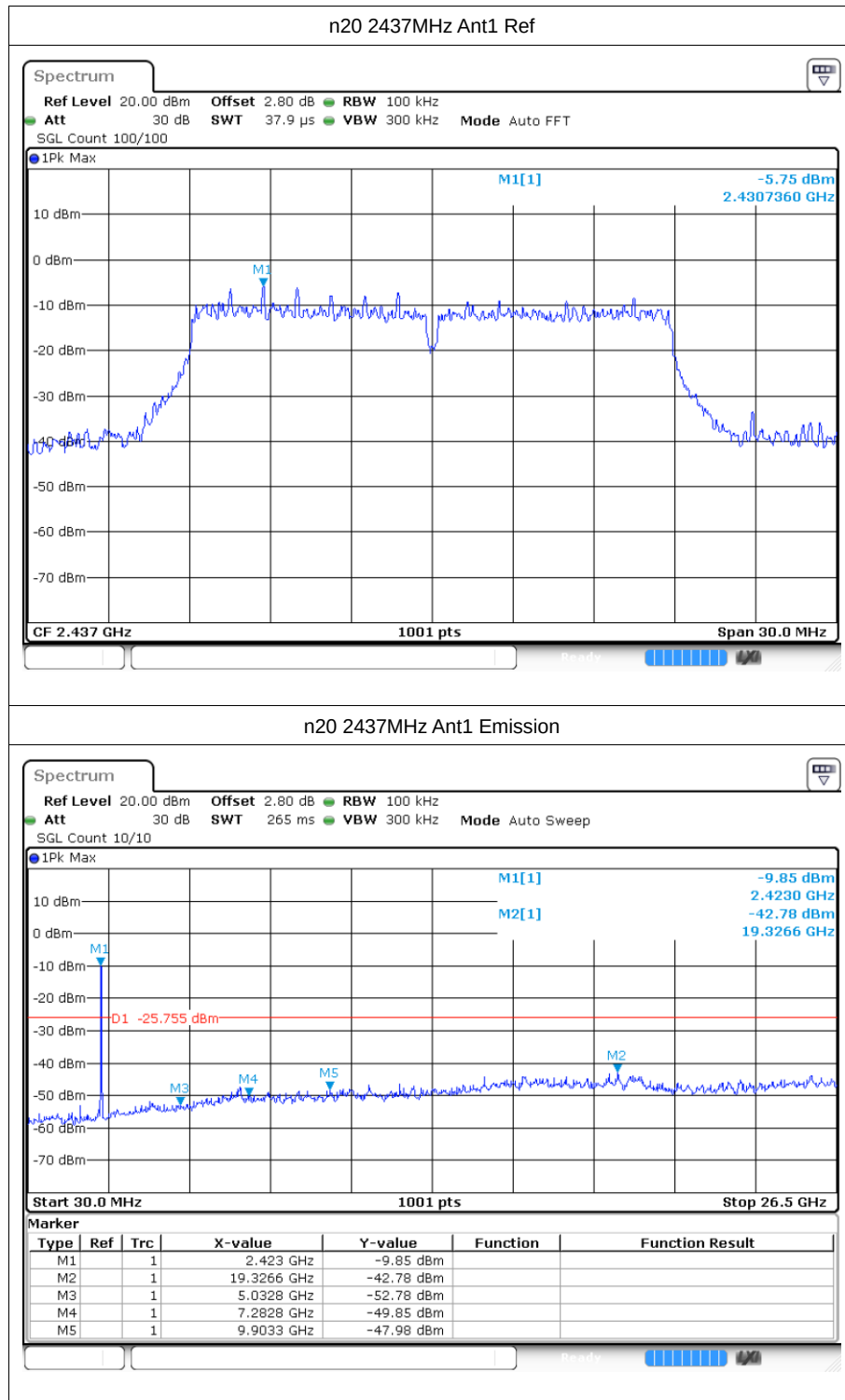


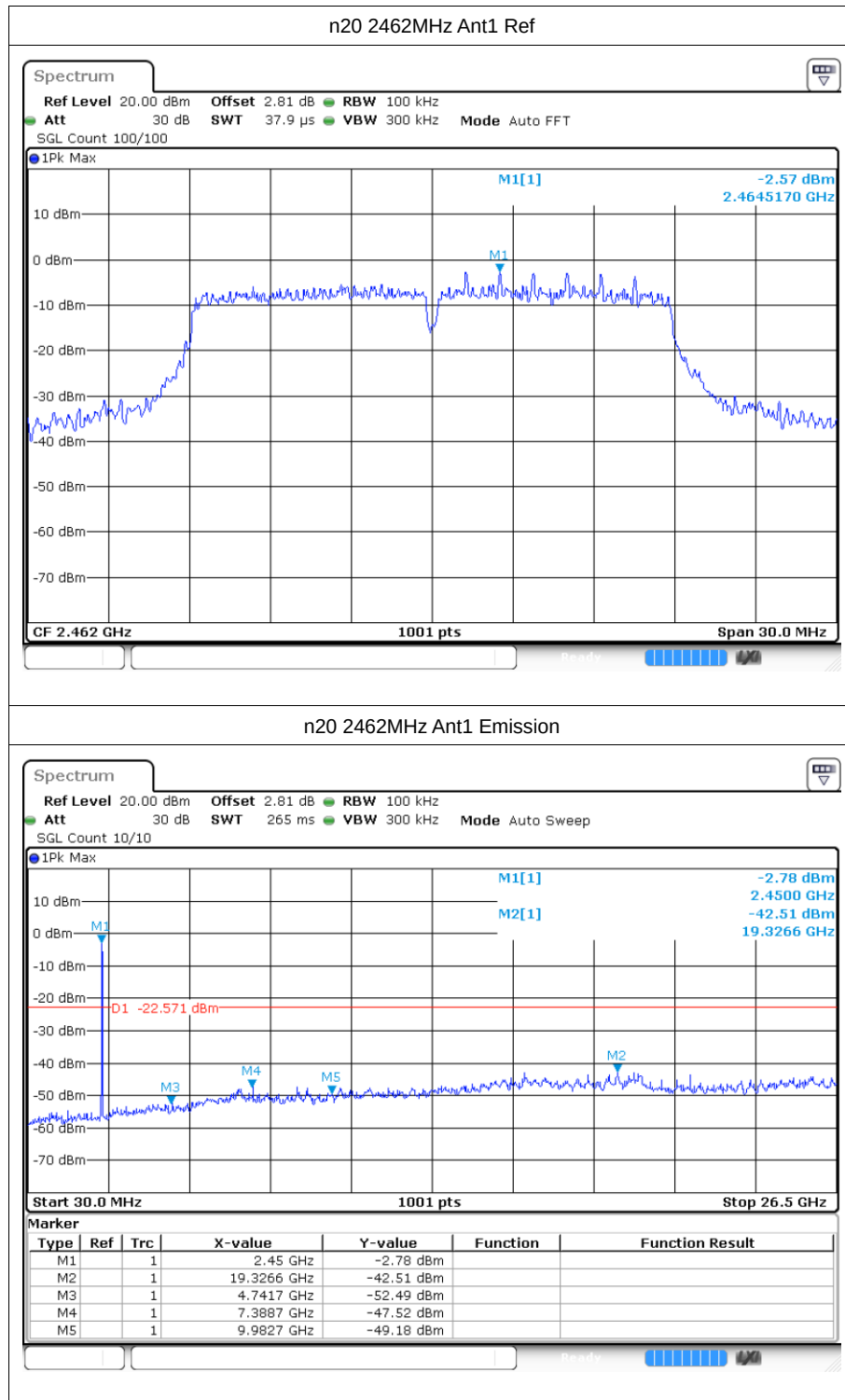


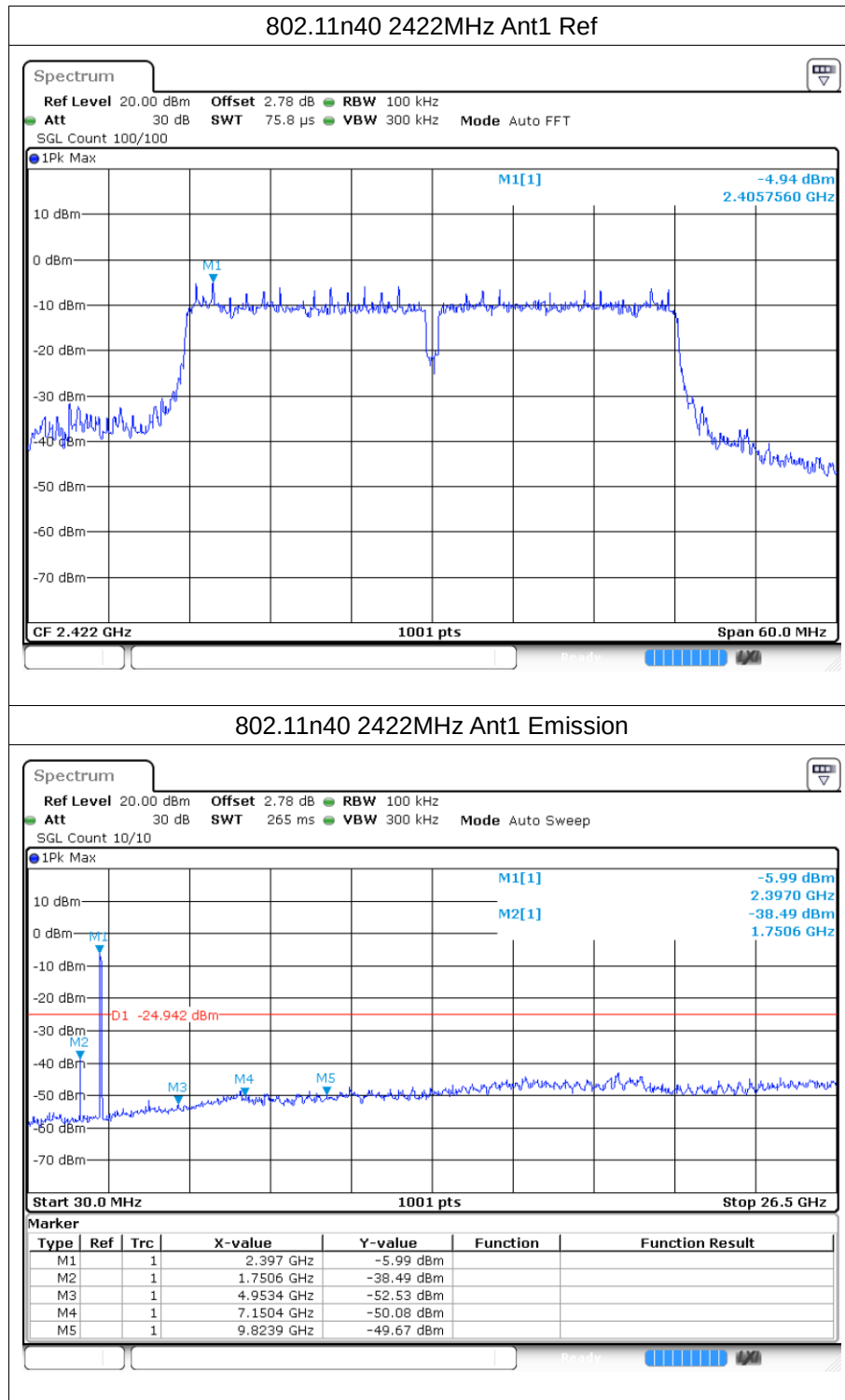


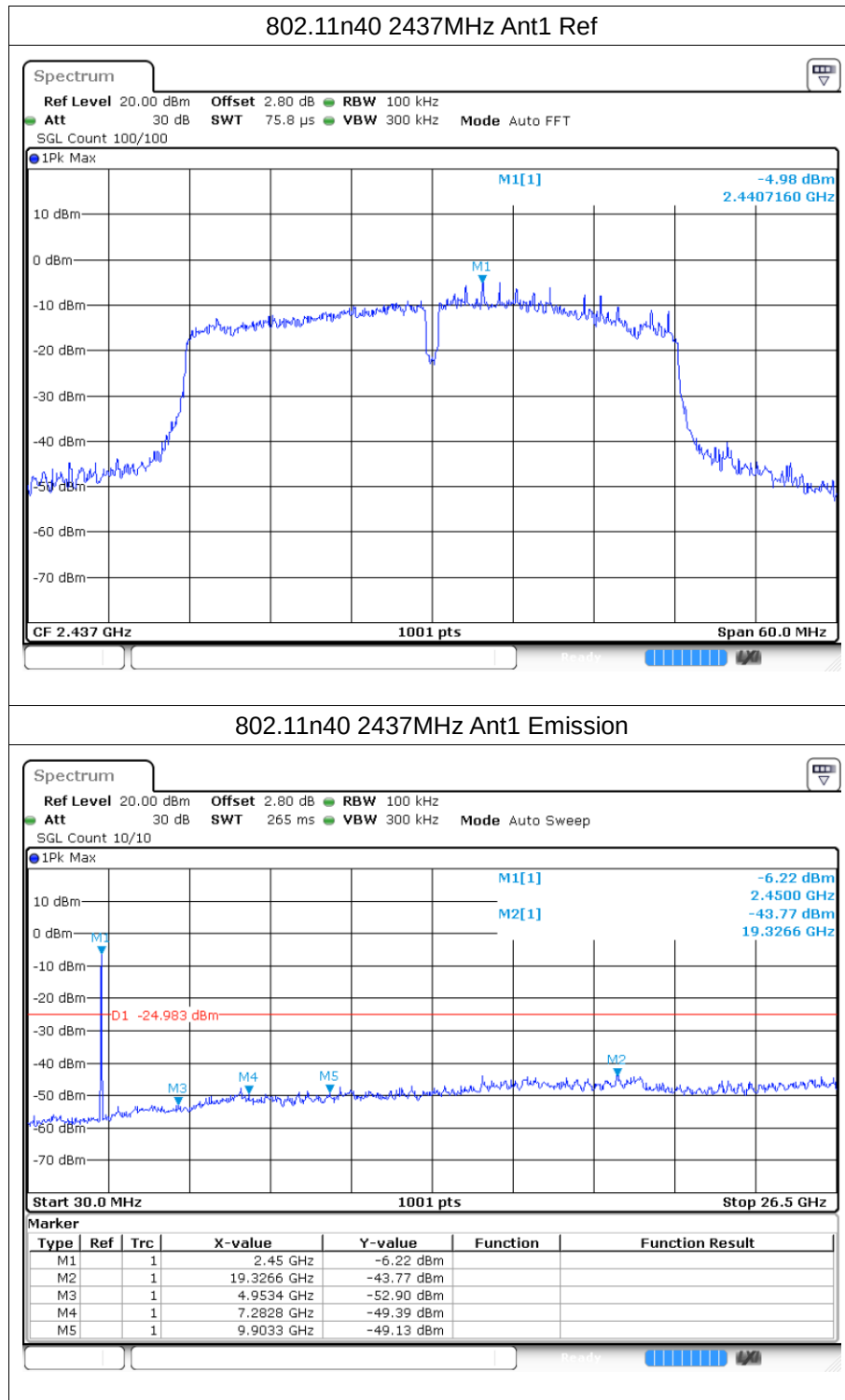


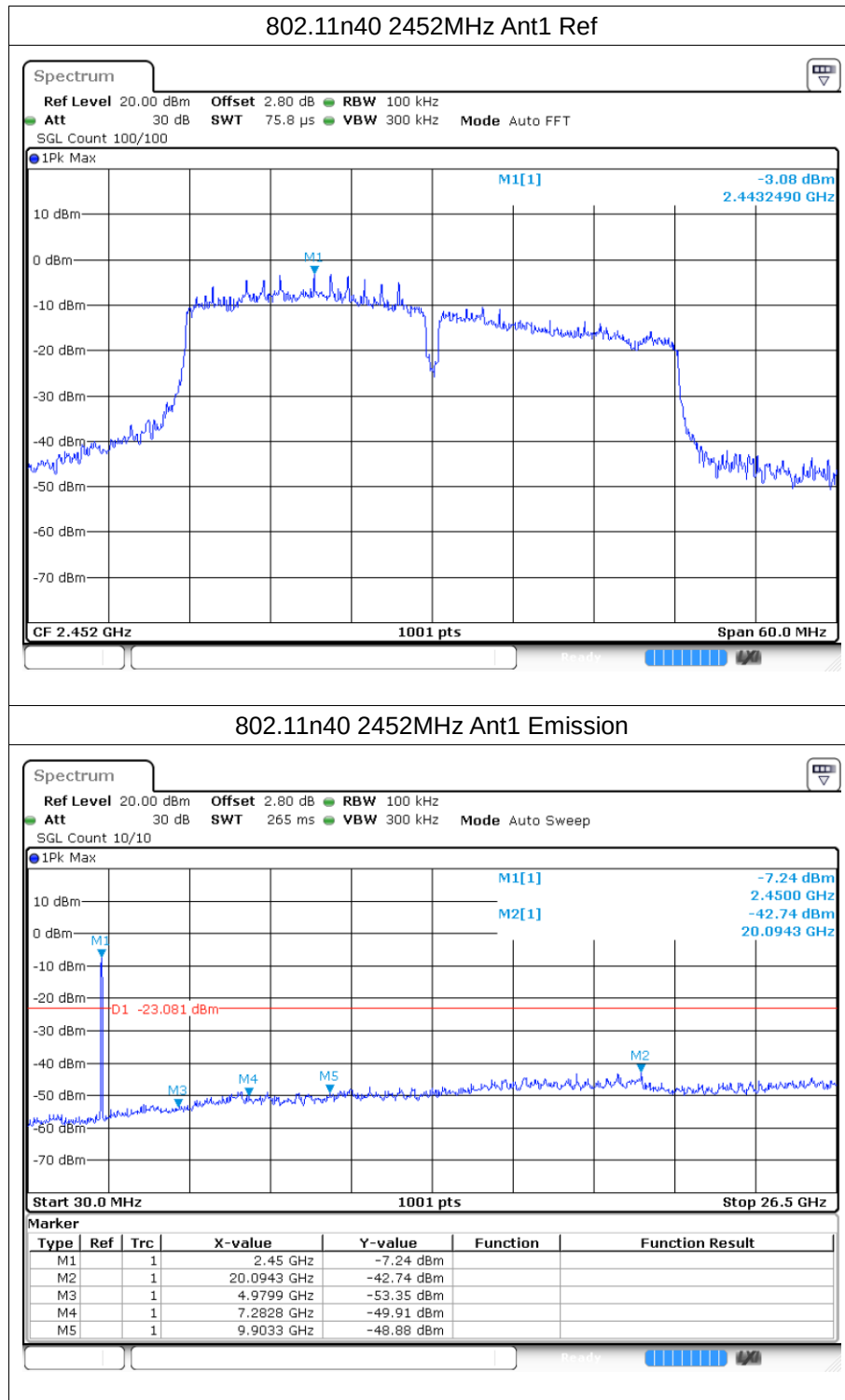












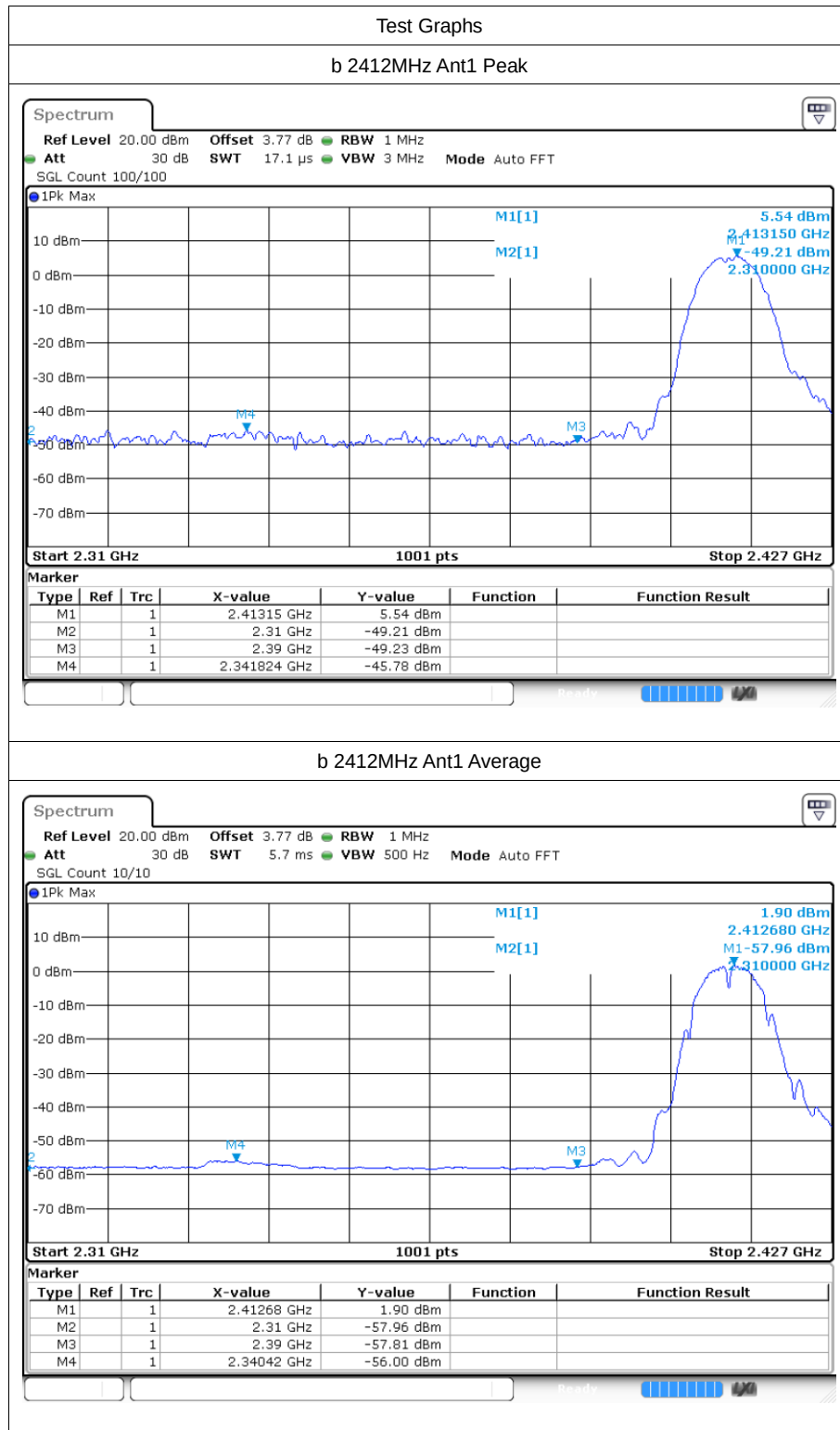
7 Restrict Band

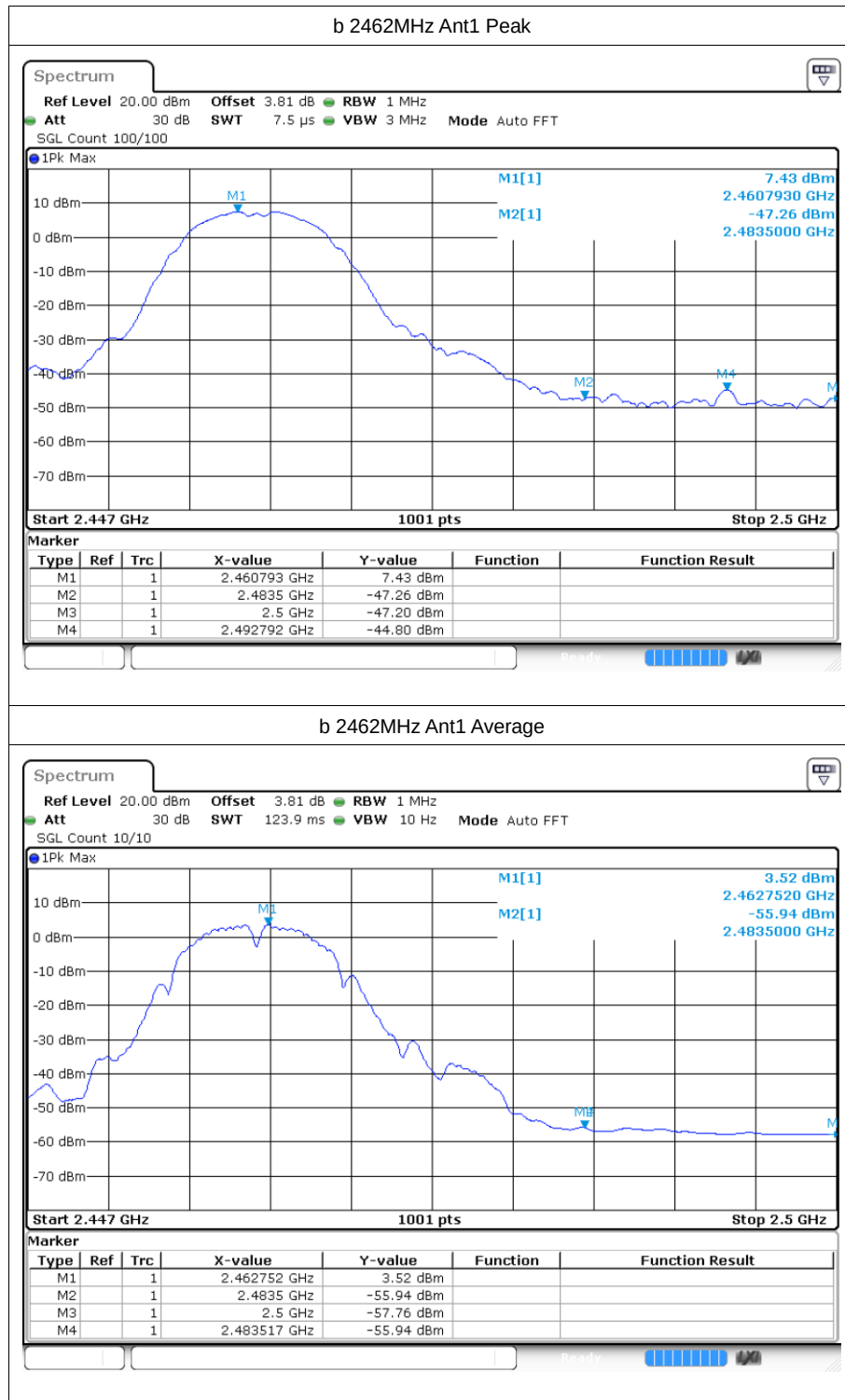
7.1 Test Result

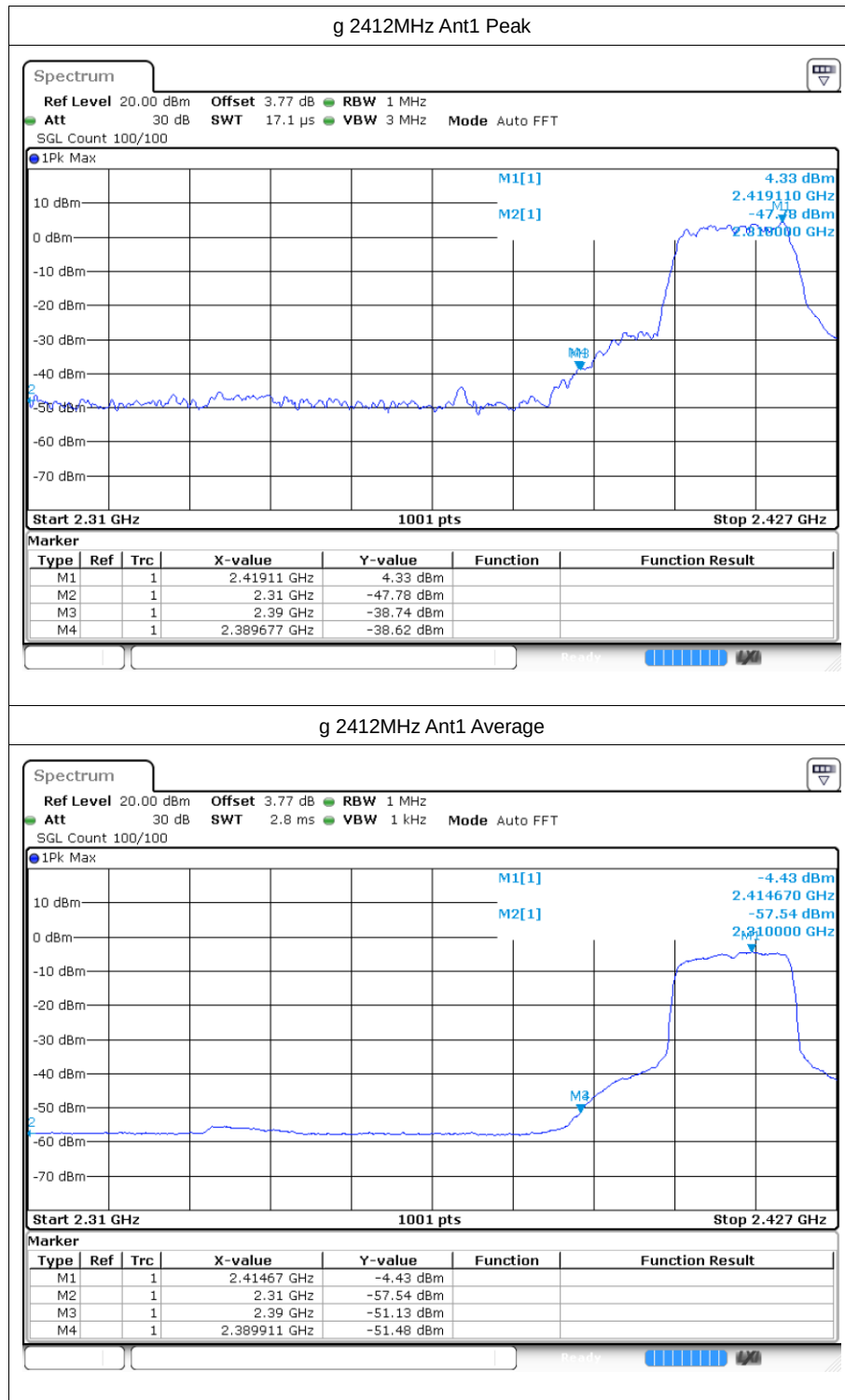
Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
b	2412	Ant1	2310	-49.21	2	48.05	Peak	74	Pass
b	2412	Ant1	2310	-57.96	2	39.3	Average	54	Pass
b	2412	Ant1	2341.824	-45.78	2	51.48	Peak	74	Pass
b	2412	Ant1	2340.42	-55.99	2	41.27	Average	54	Pass
b	2412	Ant1	2390	-49.22	2	48.04	Peak	74	Pass
b	2412	Ant1	2390	-57.81	2	39.45	Average	54	Pass
b	2462	Ant1	2483.5	-47.25	2	50.01	Peak	74	50.01
b	2462	Ant1	2483.5	-55.93	2	41.33	Average	54	Pass
b	2462	Ant1	2492.792	-44.8	2	52.46	Peak	74	Pass
b	2462	Ant1	2483.517	-55.93	2	41.33	Average	54	Pass
b	2462	Ant1	2500	-47.2	2	50.06	Peak	74	Pass
b	2462	Ant1	2500	-57.75	2	39.51	Average	54	Pass
g	2412	Ant1	2310	-47.77	2	49.49	Peak	74	Pass
g	2412	Ant1	2310	-57.54	2	39.72	Average	54	Pass
g	2412	Ant1	2389.677	-38.62	2	58.64	Peak	74	Pass
g	2412	Ant1	2389.911	-51.48	2	45.78	Average	54	Pass
g	2412	Ant1	2390	-38.73	2	48.04	Peak	74	Pass
g	2412	Ant1	2390	-51.13	2	46.13	Average	54	Pass
g	2462	Ant1	2483.5	-31.9	2	65.36	Peak	74	Pass
g	2462	Ant1	2483.5	-44.75	2	52.51	Average	54	Pass
g	2462	Ant1	2492.792	-29.76	2	67.5	Peak	74	Pass
g	2462	Ant1	2483.517	-44.75	2	52.51	Average	54	Pass
g	2462	Ant1	2500	-45.05	2	50.06	Peak	74	Pass
g	2462	Ant1	2500	-56.05	2	41.21	Average	54	Pass
n20	2412	Ant1	2310	-48.36	2	48.9	Peak	74	Pass
n20	2412	Ant1	2310	-57.5	2	39.76	Average	54	Pass
n20	2412	Ant1	2388.858	-38.94	2	58.32	Peak	74	Pass
n20	2412	Ant1	2389.911	-50.13	2	47.13	Average	54	Pass
n20	2412	Ant1	2390	-39.06	2	58.2	Peak	74	Pass
n20	2412	Ant1	2390	-49.81	2	47.45	Average	54	Pass
n20	2462	Ant1	2483.5	-35.35	2	61.91	Peak	74	Pass
n20	2462	Ant1	2483.5	-44.46	2	52.8	Average	54	Pass
n20	2462	Ant1	2484.153	-34.68	2	62.58	Peak	74	Pass
n20	2462	Ant1	2483.517	-44.46	2	52.8	Average	54	Pass

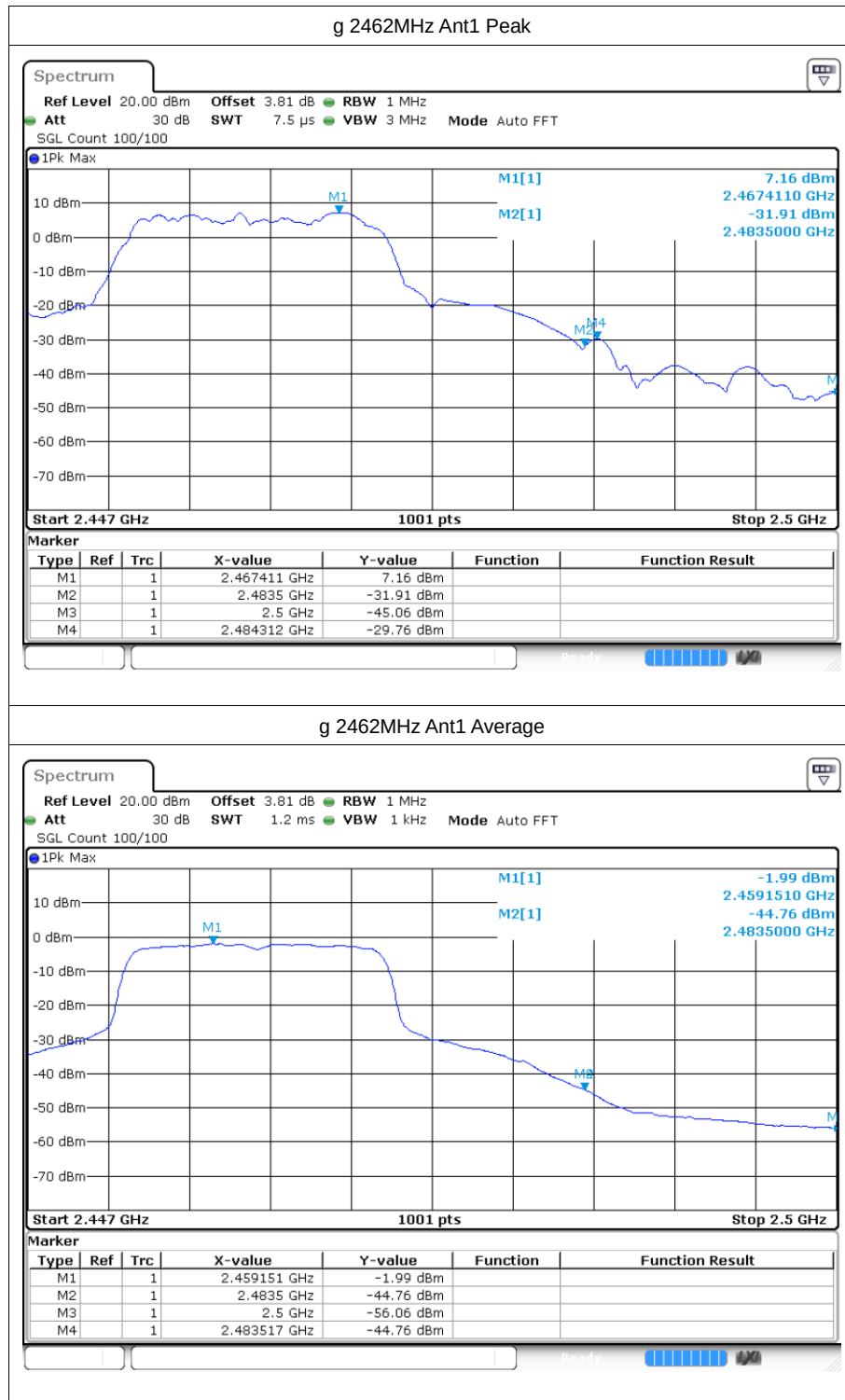
n20	2462	Ant1	2500	-47.49	2	49.77	Peak	74	Pass
n20	2462	Ant1	2500	-56.09	2	41.17	Average	54	Pass
802.11n40	2422	Ant1	2310	-50.36	2	46.9	Peak	74	Pass
802.11n40	2422	Ant1	2310	-58.25	2	39.01	Average	54	Pass
802.11n40	2422	Ant1	2389.946	-33.95	2	63.31	Peak	74	Pass
802.11n40	2422	Ant1	2389.946	-44.85	2	52.41	Average	54	Pass
802.11n40	2422	Ant1	2390	-33.8	2	63.46	Peak	74	Pass
802.11n40	2422	Ant1	2390	-44.57	2	52.69	Average	54	Pass
802.11n40	2452	Ant1	2483.5	-35.88	2	61.38	Peak	74	Pass
802.11n40	2452	Ant1	2483.5	-49.12	2	48.14	Average	54	Pass
802.11n40	2452	Ant1	2483.932	-35	2	62.26	Peak	74	Pass
802.11n40	2452	Ant1	2483.542	-49.12	2	48.14	Average	54	Pass
802.11n40	2452	Ant1	2500	-49.93	2	47.33	Peak	74	Pass
802.11n40	2452	Ant1	2500	-58.15	2	39.11	Average	54	Pass

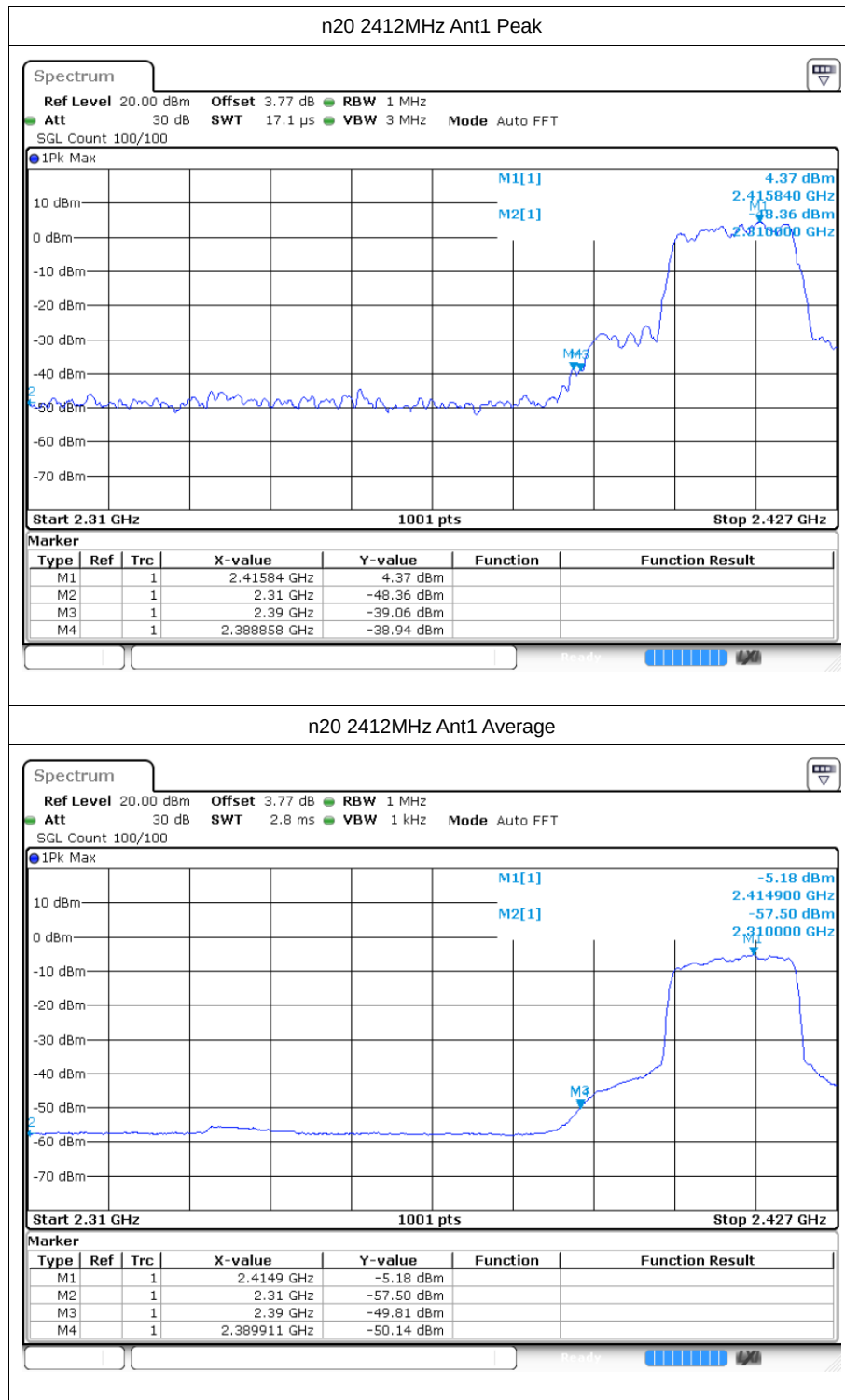
Test Graphs

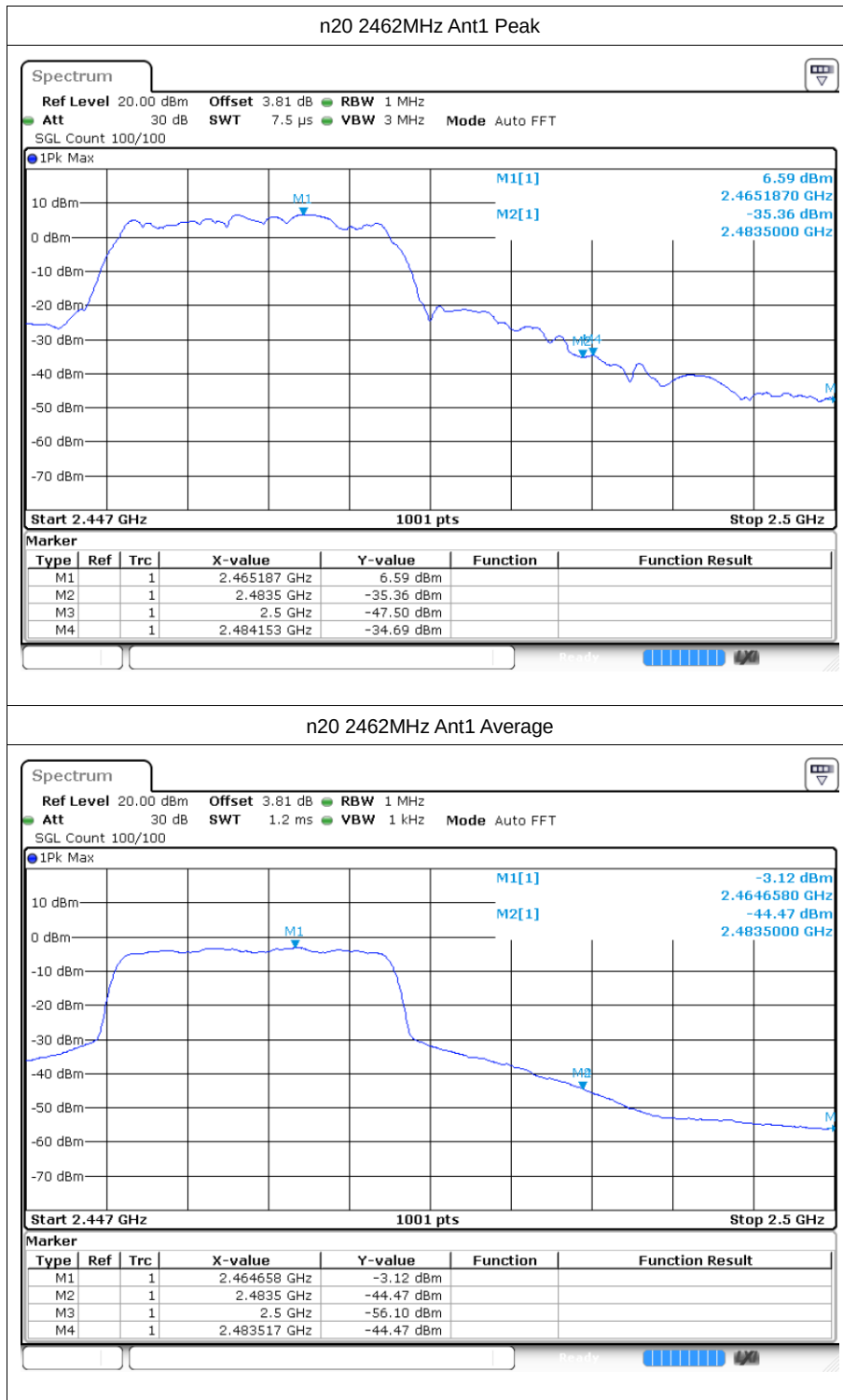


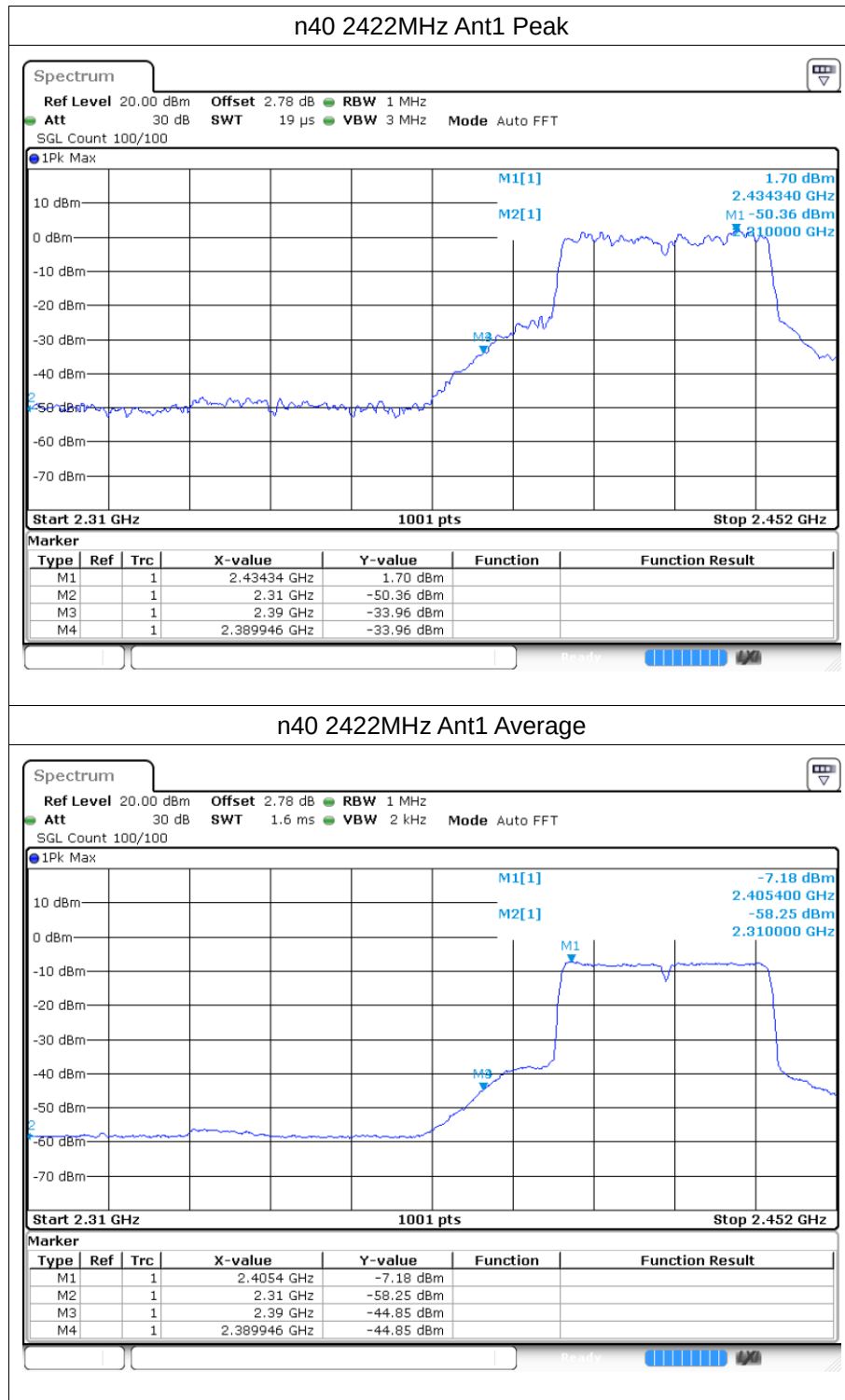


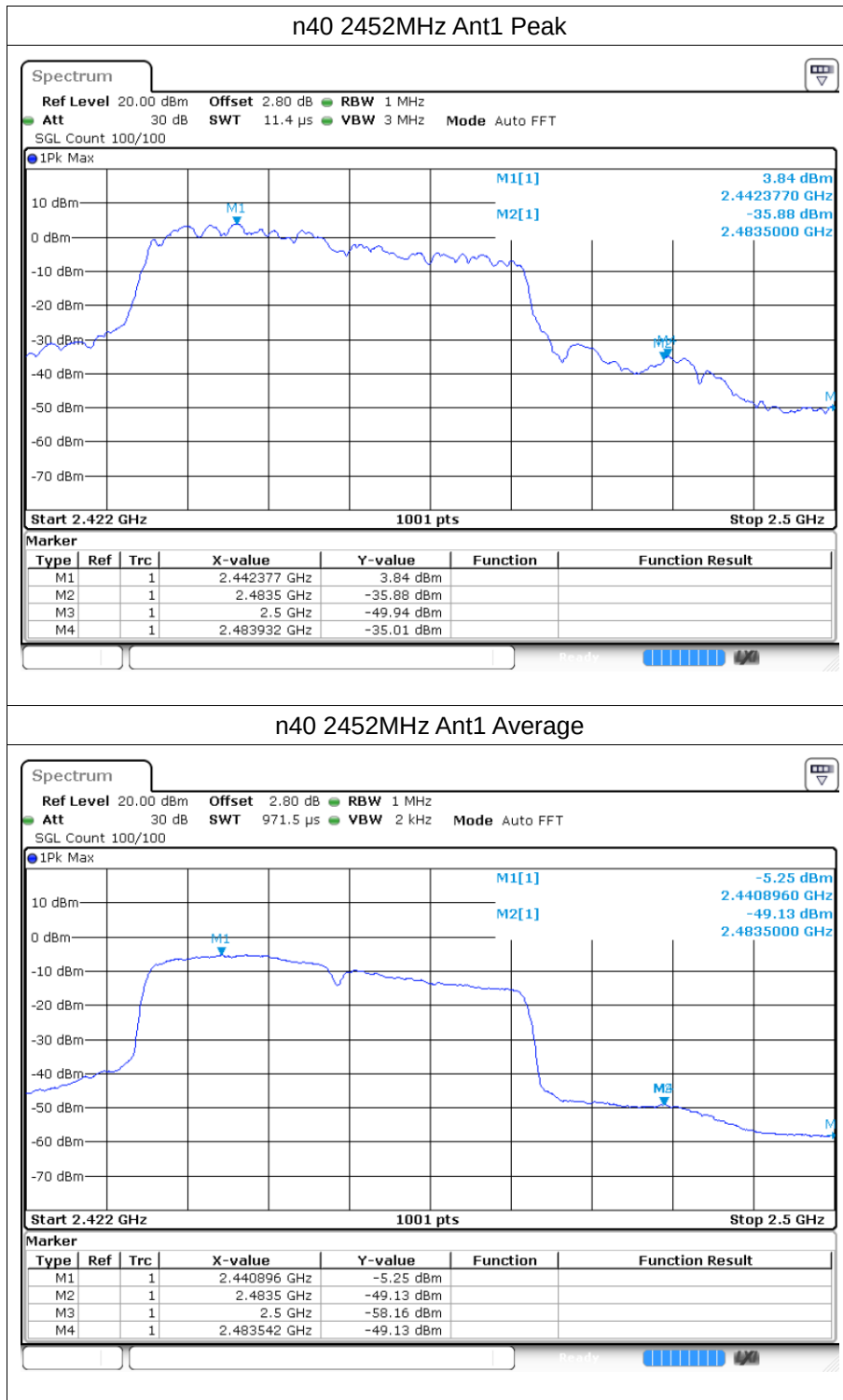












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