



Appendix C

RF Test Data for 2.4GWIFI (Conducted Measurement)

Product Name: AUTOMOTIVE DIAGNOSIS SYSTEM

Trade Mark: AUTEL

Test Model: MaxiCheck MX900

Environmental Conditions

Temperature:	24.6° C
Relative Humidity:	52.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Simba Huang
Supervised by:	Seal Chen



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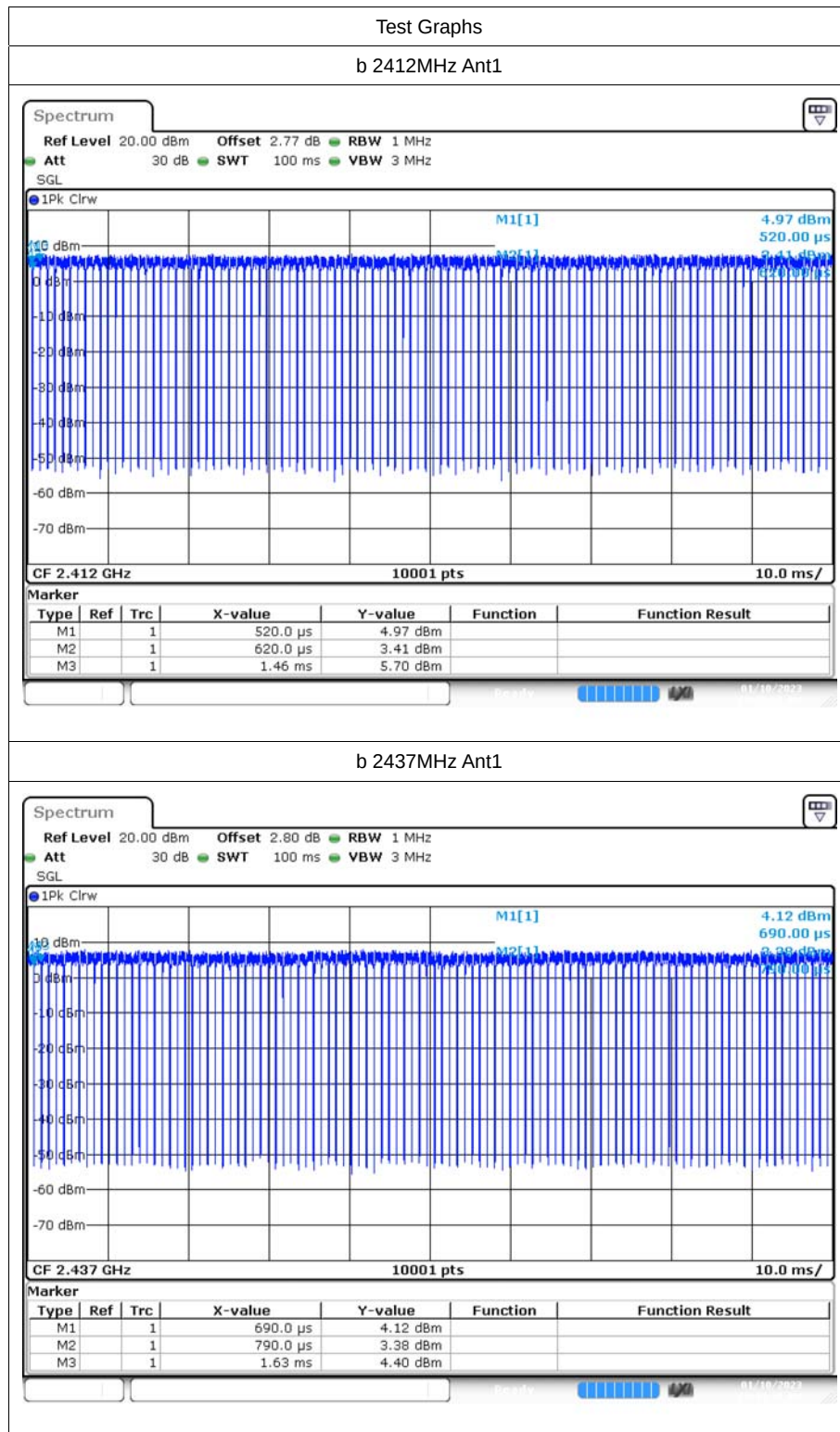


1 Duty Cycle

1.1 Test Result

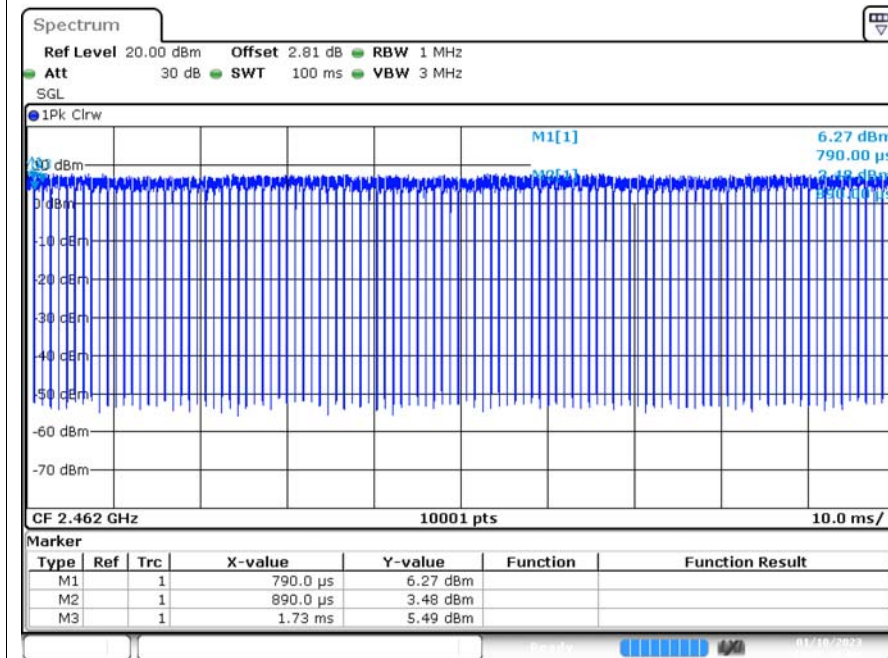
Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	1/T (kHz)
b	2412	Ant1	91.01	1.19
b	2437	Ant1	91.05	1.19
b	2462	Ant1	91.01	1.19
g	2412	Ant1	67.07	5.88
g	2437	Ant1	67.15	5.56
g	2462	Ant1	67.1	5.88
n20	2412	Ant1	65.67	5.88
n20	2437	Ant1	65.67	5.88
n20	2462	Ant1	65.67	5.88
n40	2422	Ant1	73.51	10
n40	2437	Ant1	73.44	11.11
n40	2452	Ant1	74.03	11.11

1.2 Test Graphs

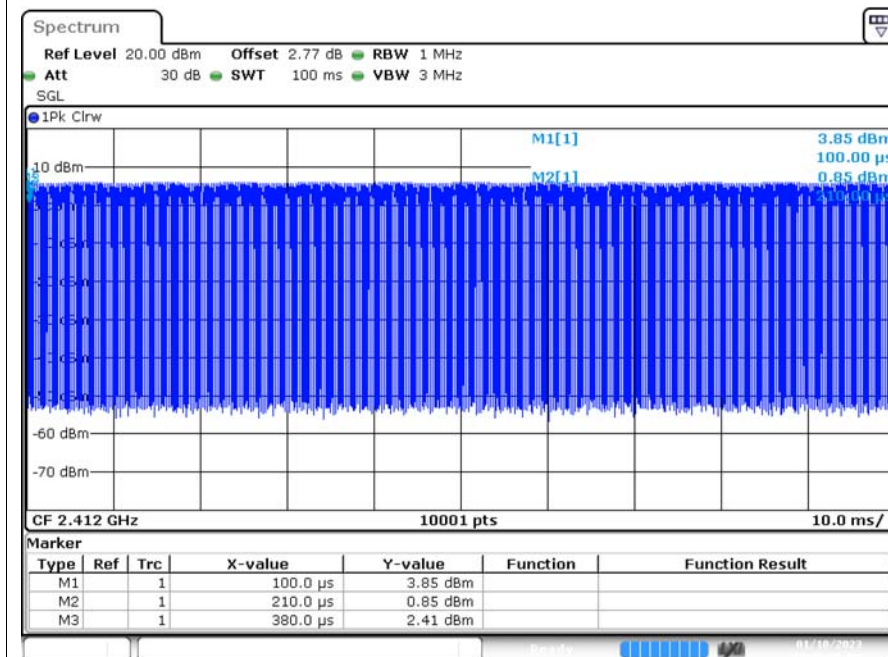


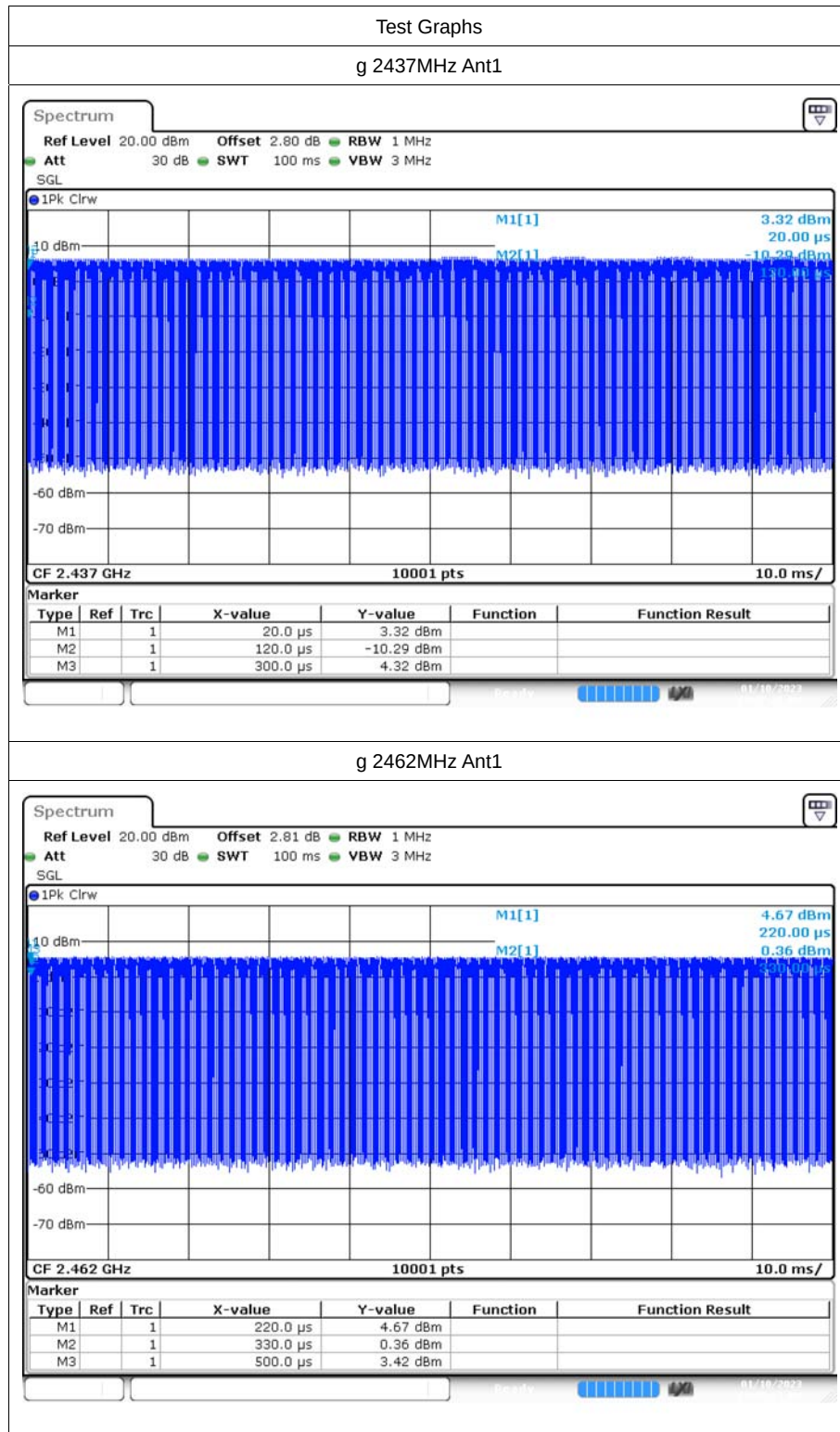
Test Graphs

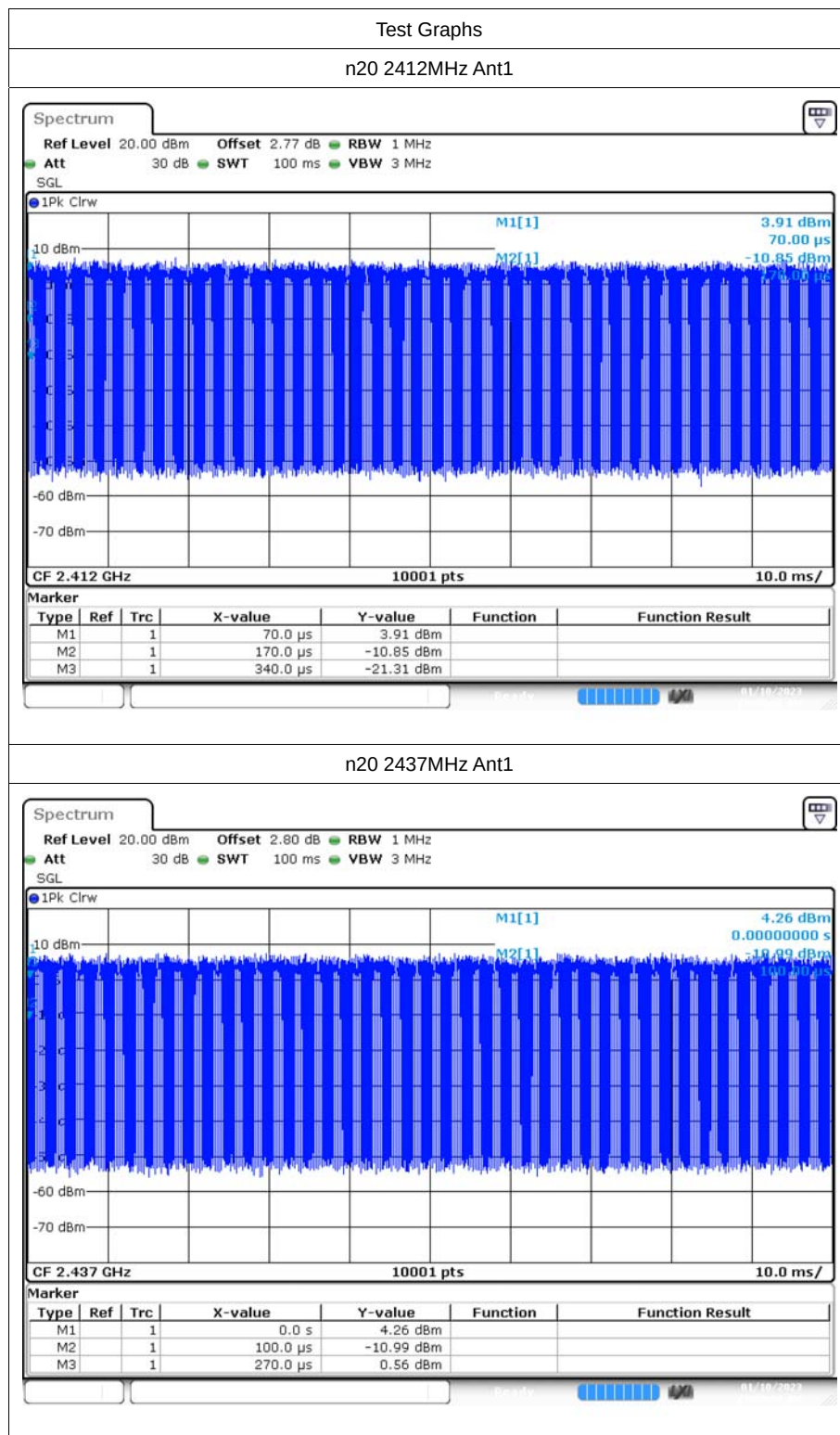
b 2462MHz Ant1

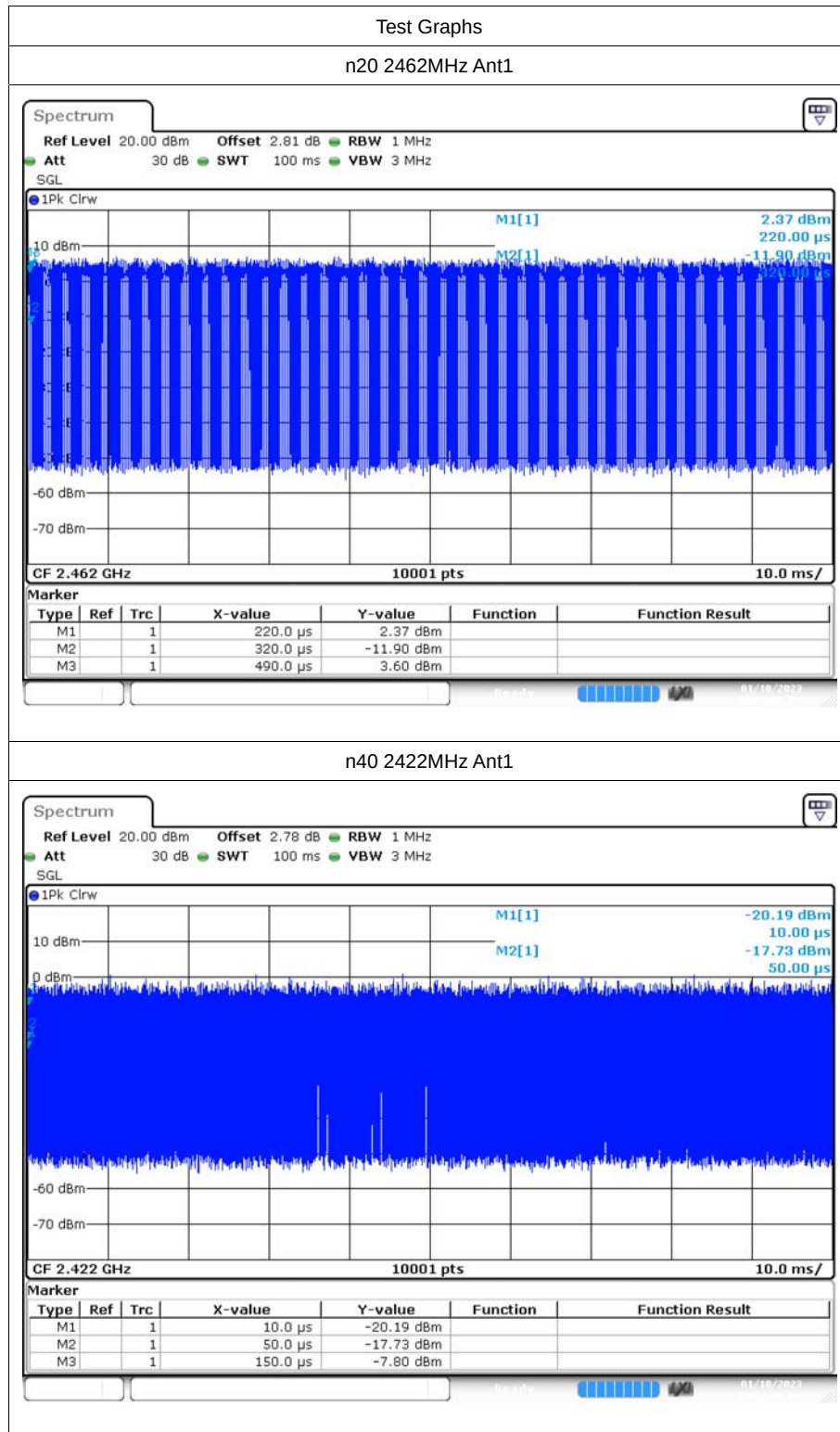


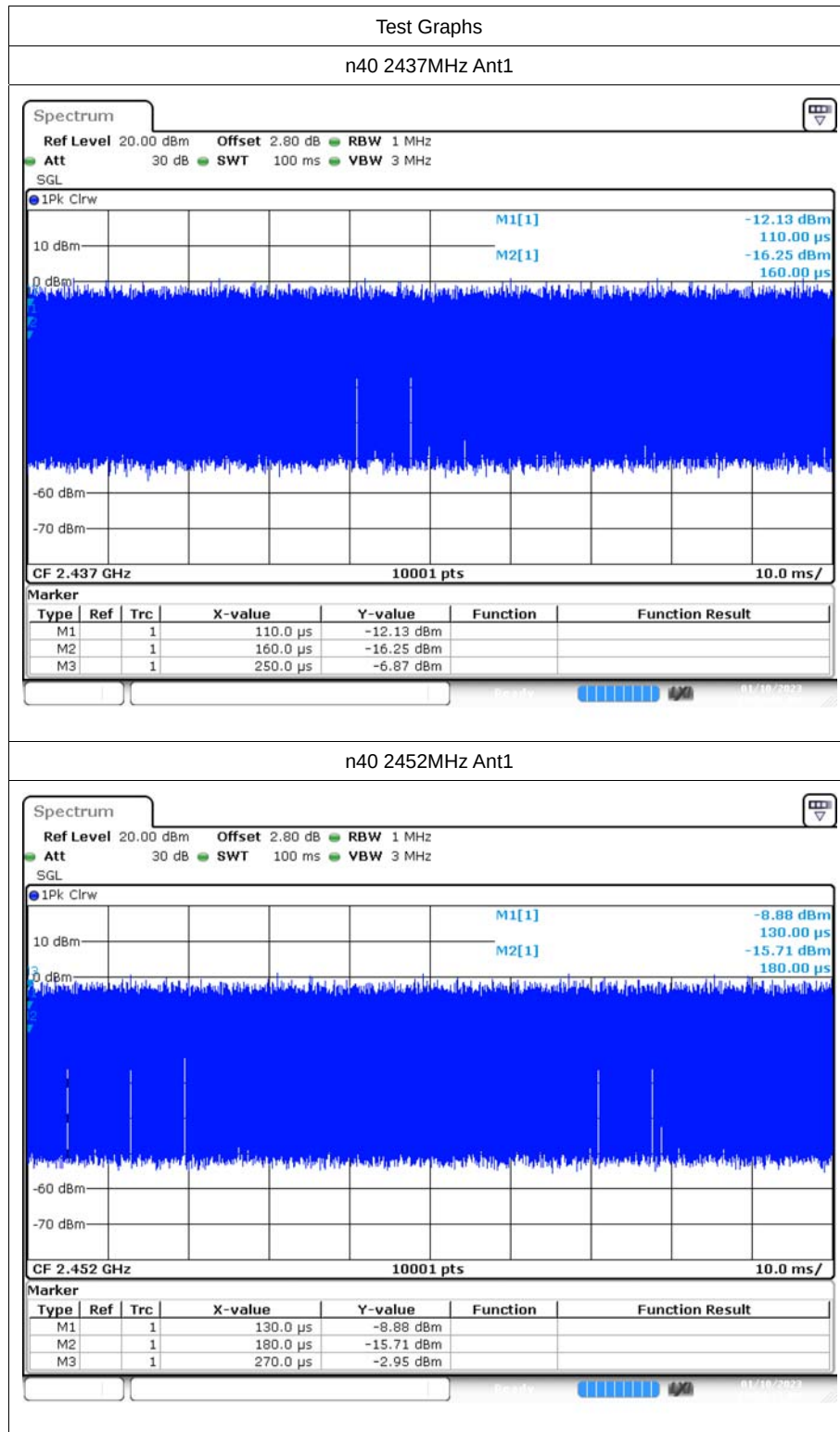
g 2412MHz Ant1













2 Maximum Conducted Output Power

2.1 Test Result

Mode	Frequency (MHz)	Conducted Power (dBm)	Limit (dBm)	Verdict
b	2412	15.59	30	Pass
b	2437	15.8	30	Pass
b	2462	15.85	30	Pass
g	2412	15.16	30	Pass
g	2437	15.09	30	Pass
g	2462	15.11	30	Pass
n20	2412	15.07	30	Pass
n20	2437	15.03	30	Pass
n20	2462	15.01	30	Pass
n40	2422	14.15	30	Pass
n40	2437	14.43	30	Pass
n40	2452	14.09	30	Pass

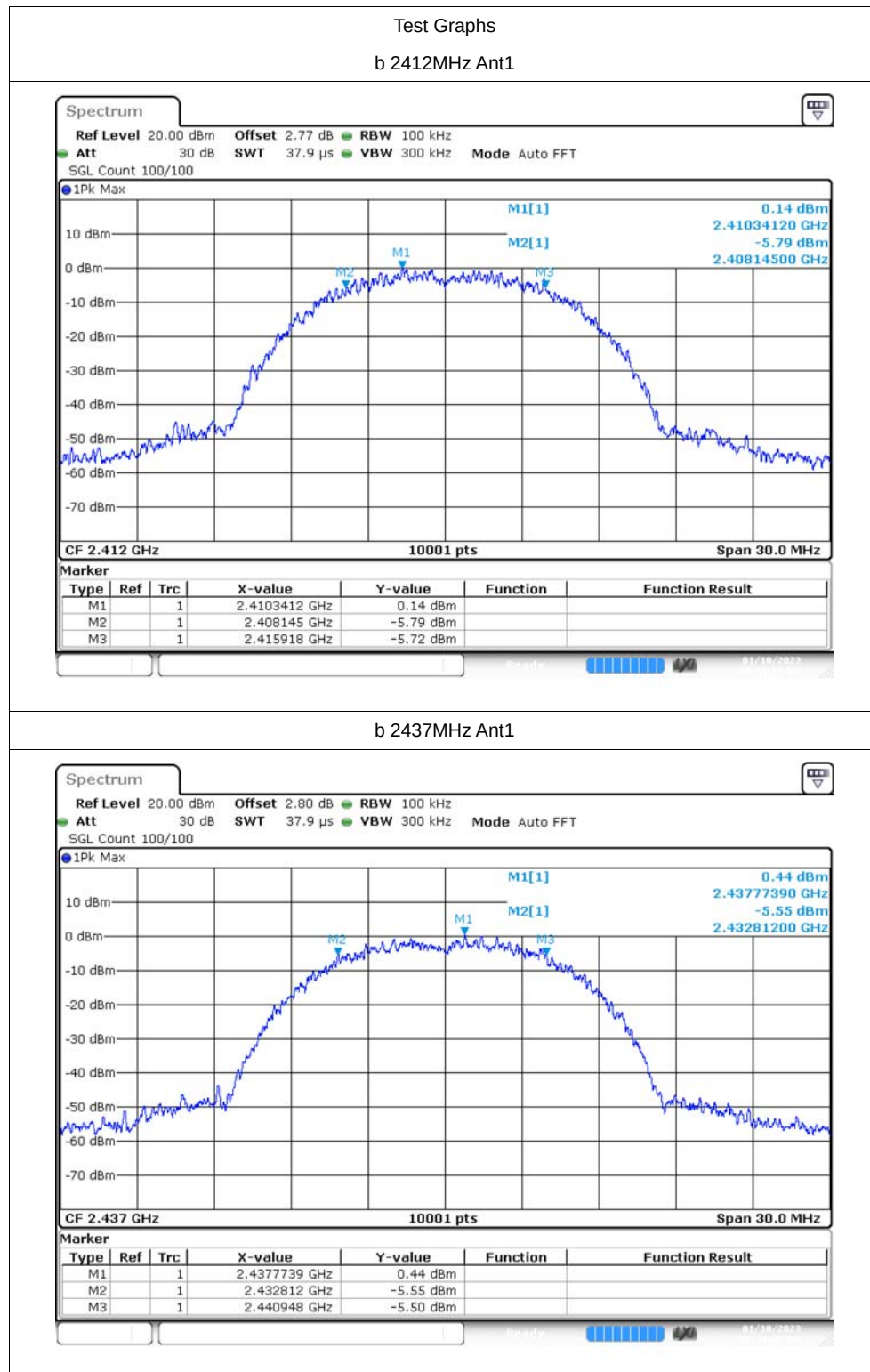


3 -6dB Bandwidth

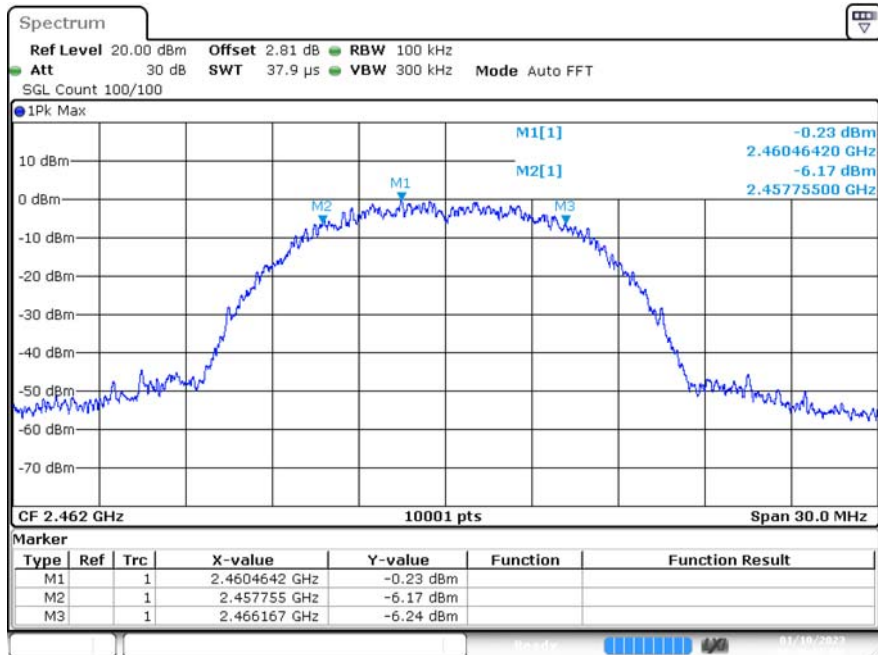
3.1 Test Result

Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
b	2412	Ant1	7.773	0.5	Pass
b	2437	Ant1	8.136	0.5	Pass
b	2462	Ant1	8.412	0.5	Pass
g	2412	Ant1	15.978	0.5	Pass
g	2437	Ant1	15.144	0.5	Pass
g	2462	Ant1	15.723	0.5	Pass
n20	2412	Ant1	15.423	0.5	Pass
n20	2437	Ant1	15.162	0.5	Pass
n20	2462	Ant1	16.011	0.5	Pass
n40	2422	Ant1	36.09	0.5	Pass
n40	2437	Ant1	35.652	0.5	Pass
n40	2452	Ant1	35.406	0.5	Pass

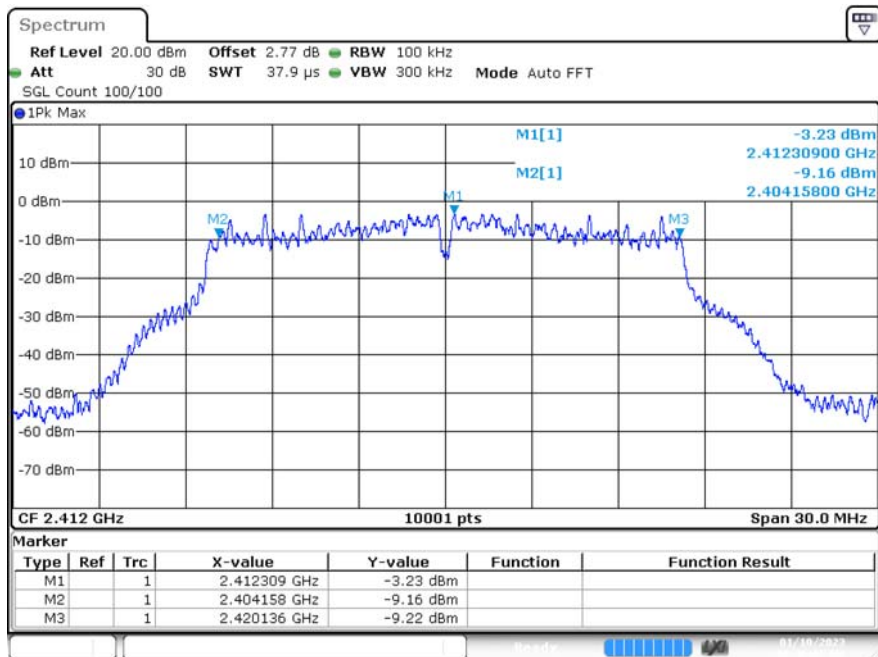
3.2 Test Graphs



b 2462MHz Ant1

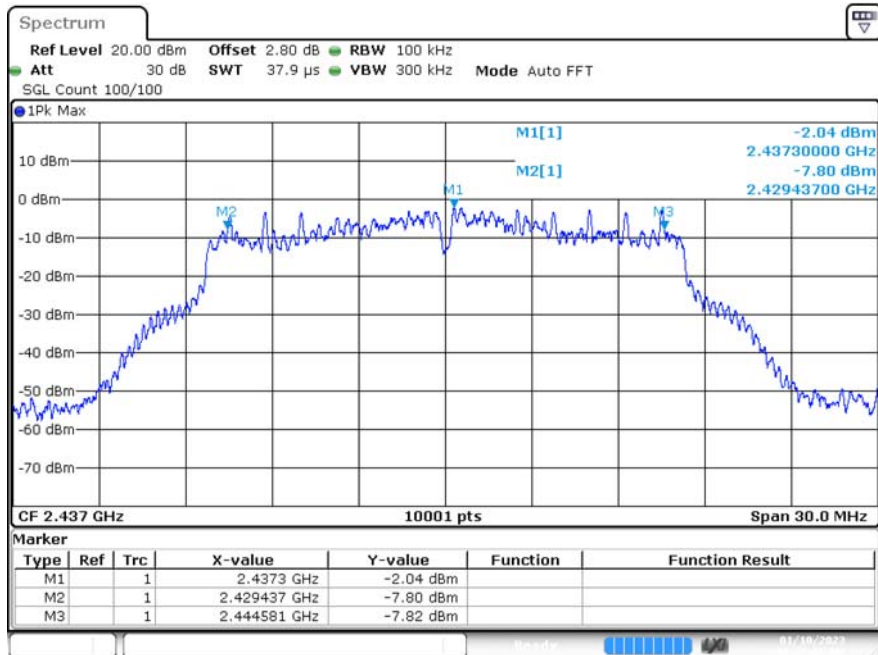


g 2412MHz Ant1

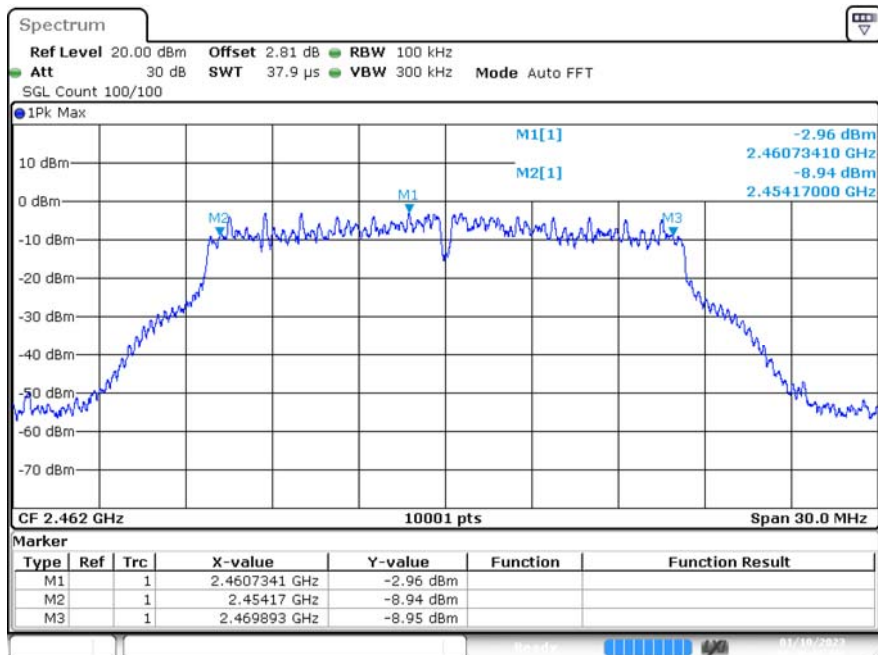


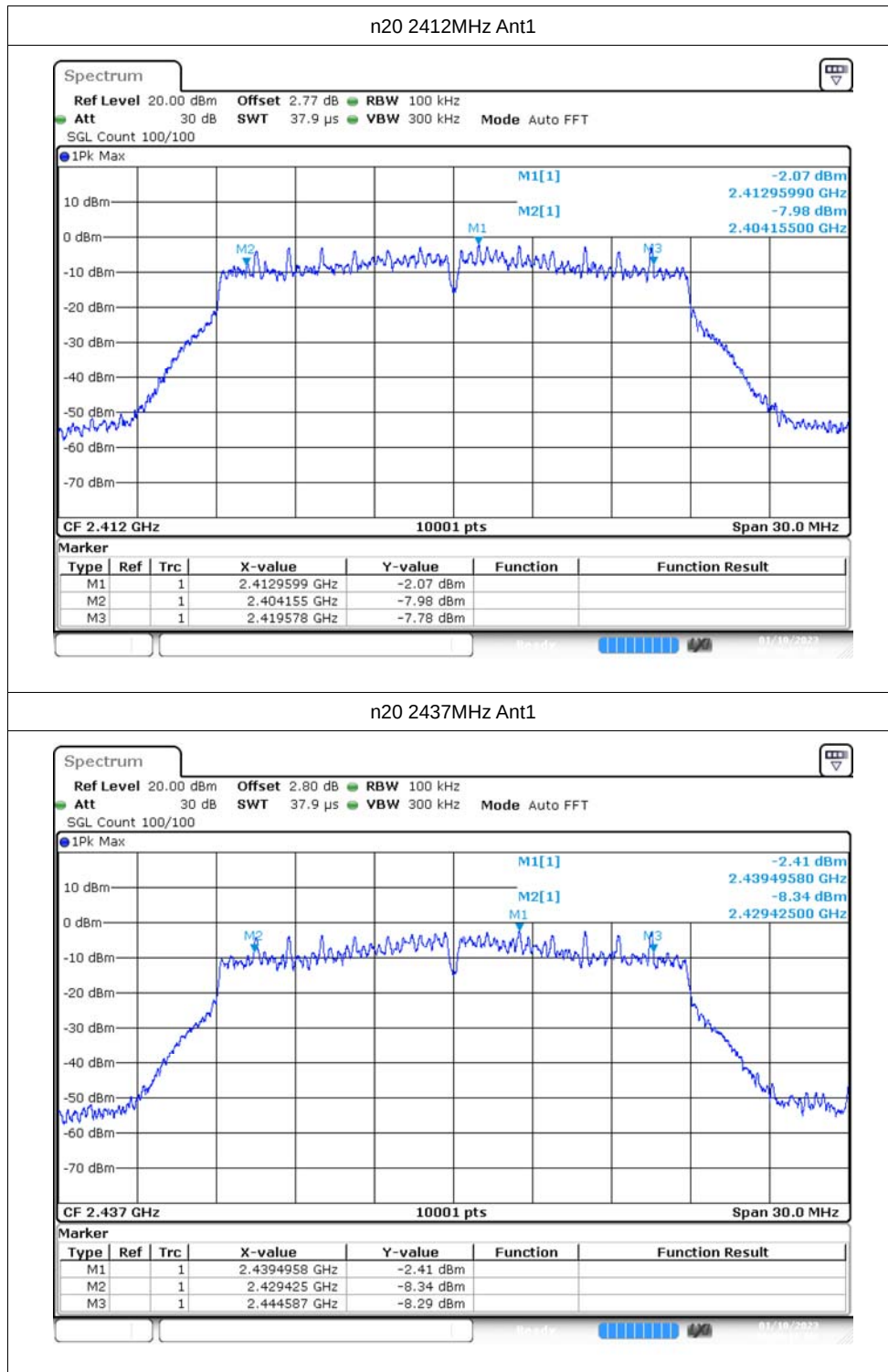


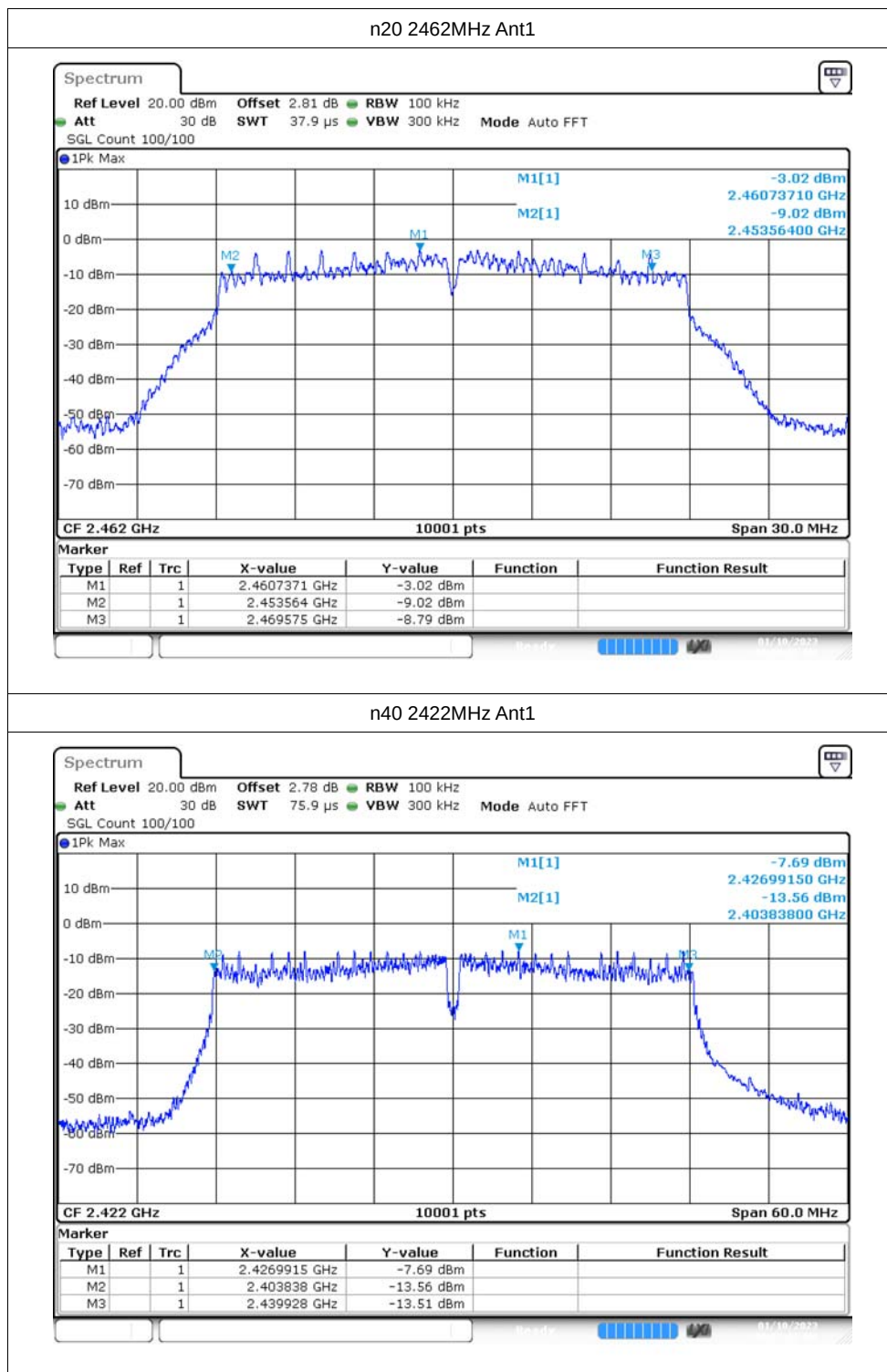
g 2437MHz Ant1



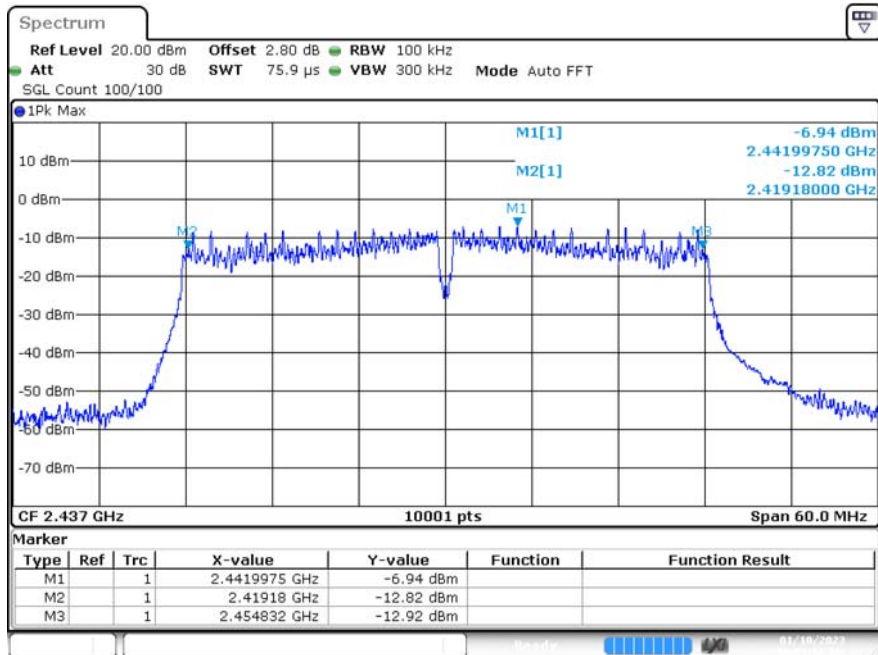
g 2462MHz Ant1



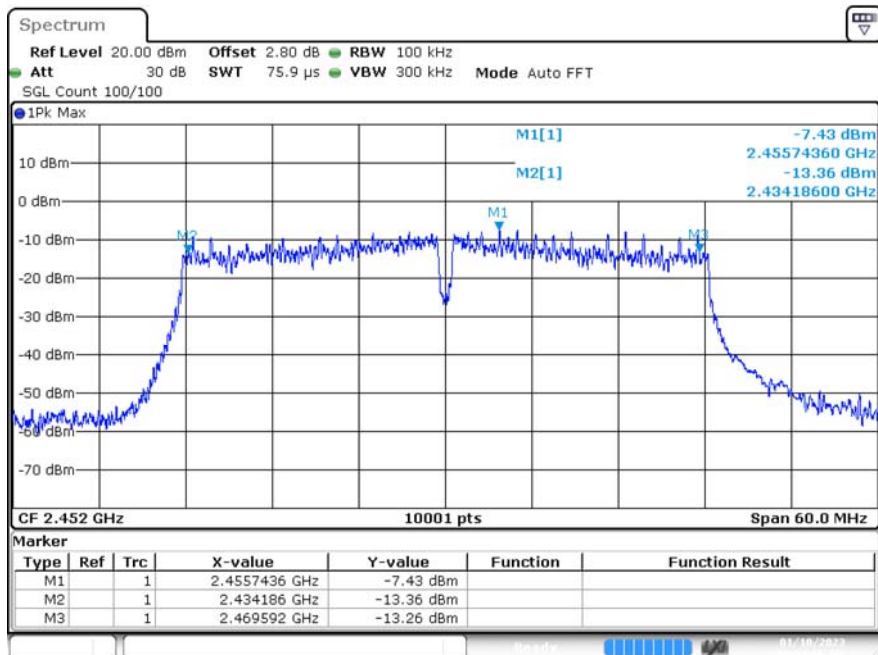




n40 2437MHz Ant1



n40 2452MHz Ant1

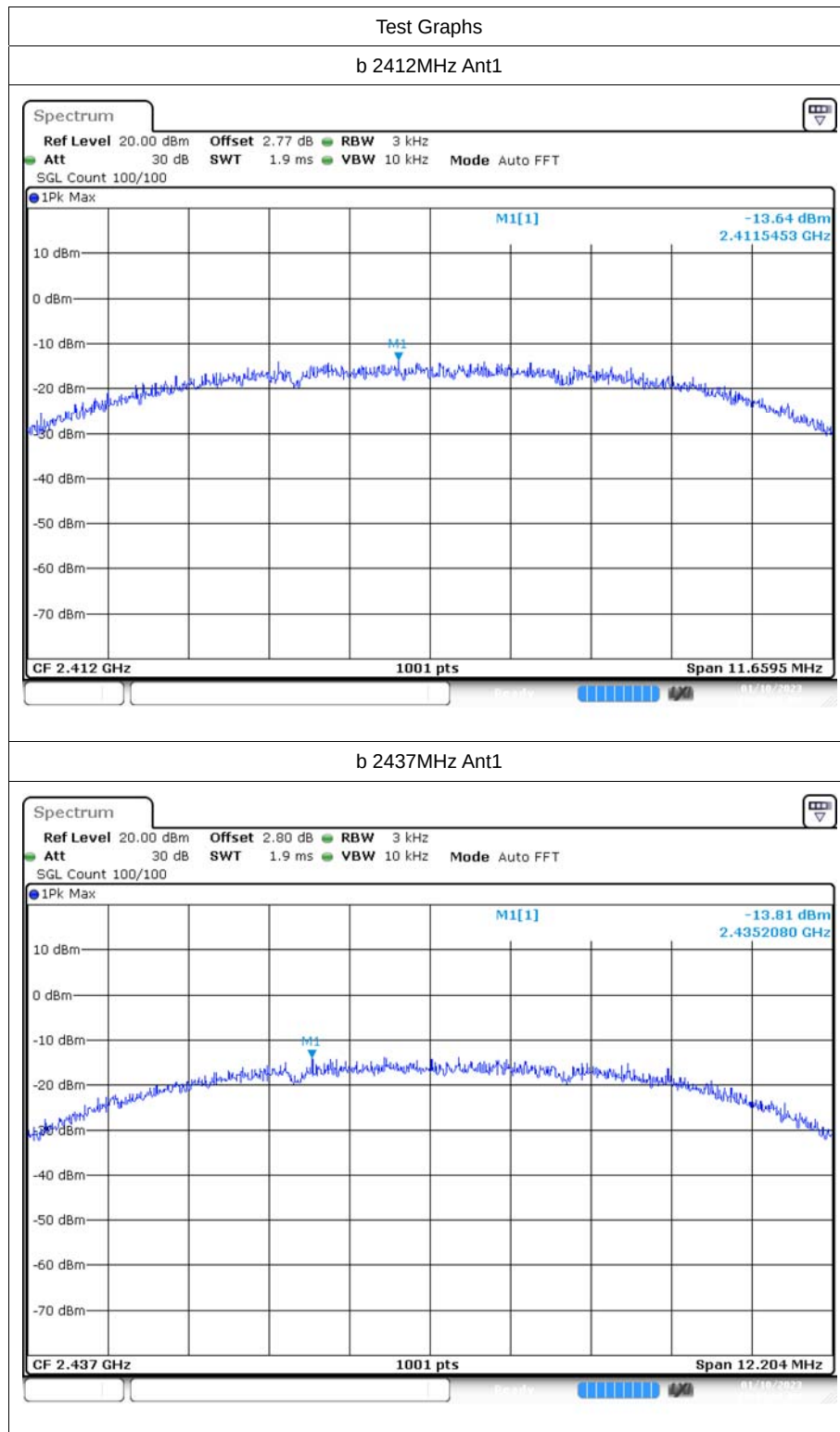


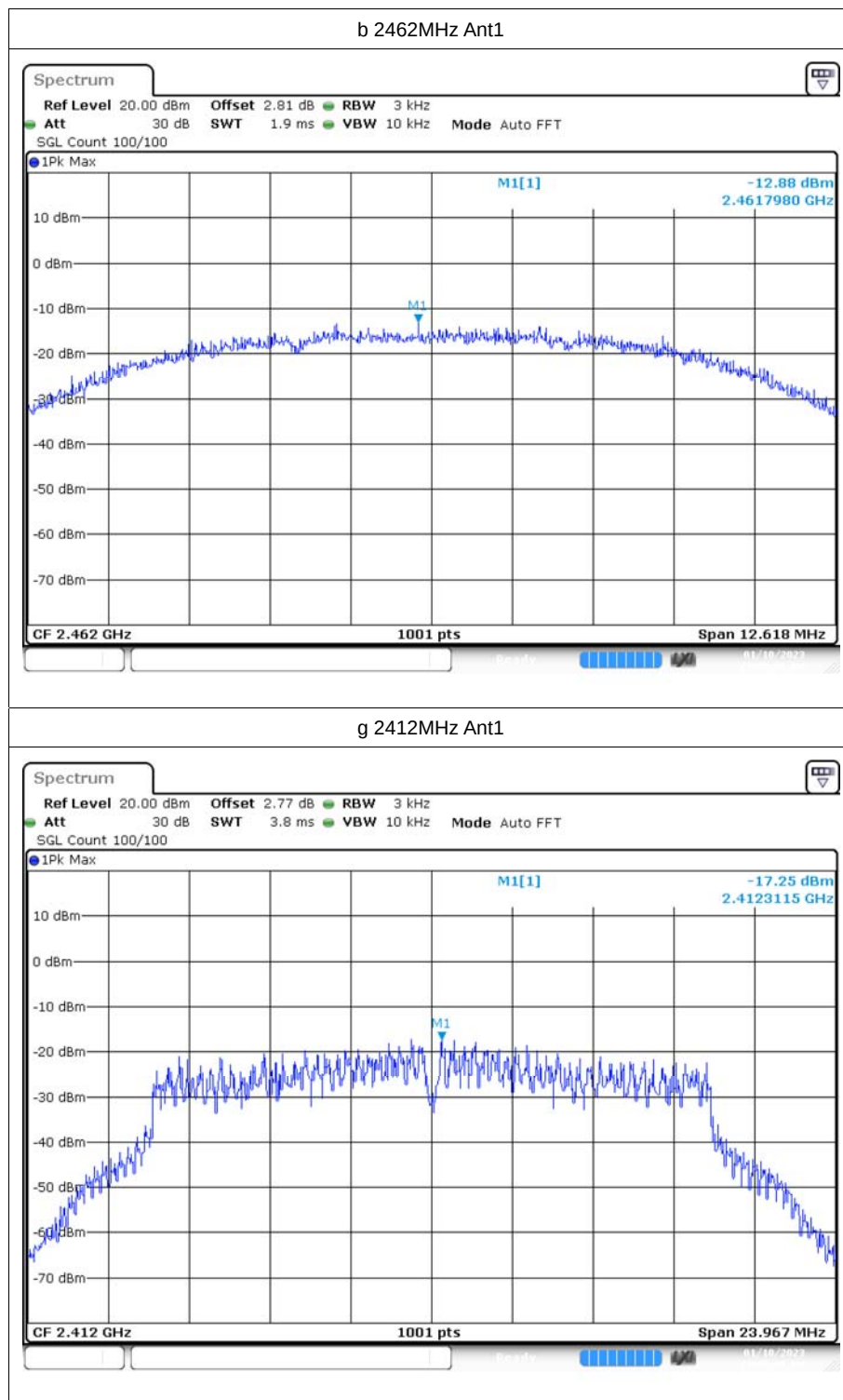
4 Maximum Power Spectral Density Level

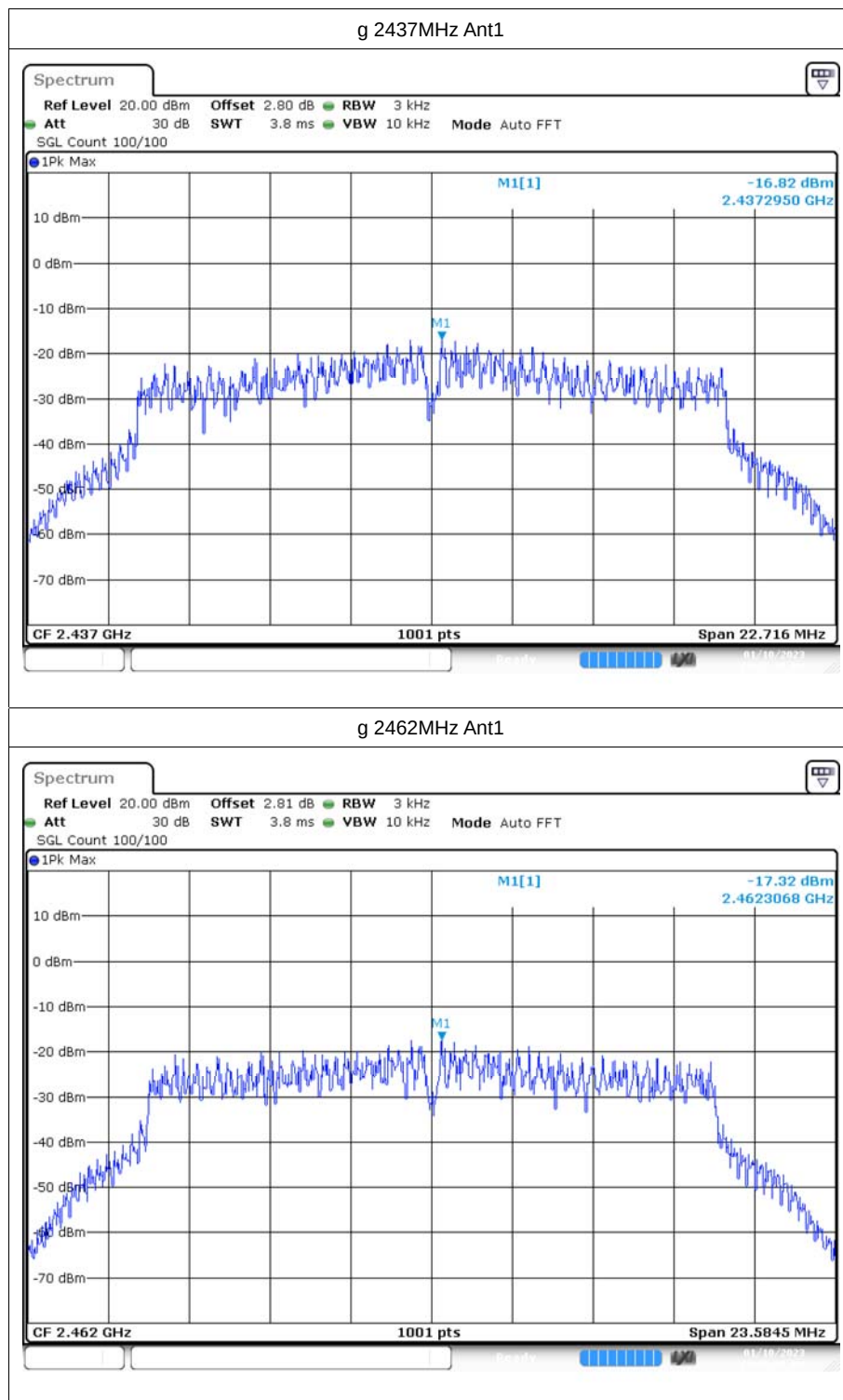
4.1 Test Result

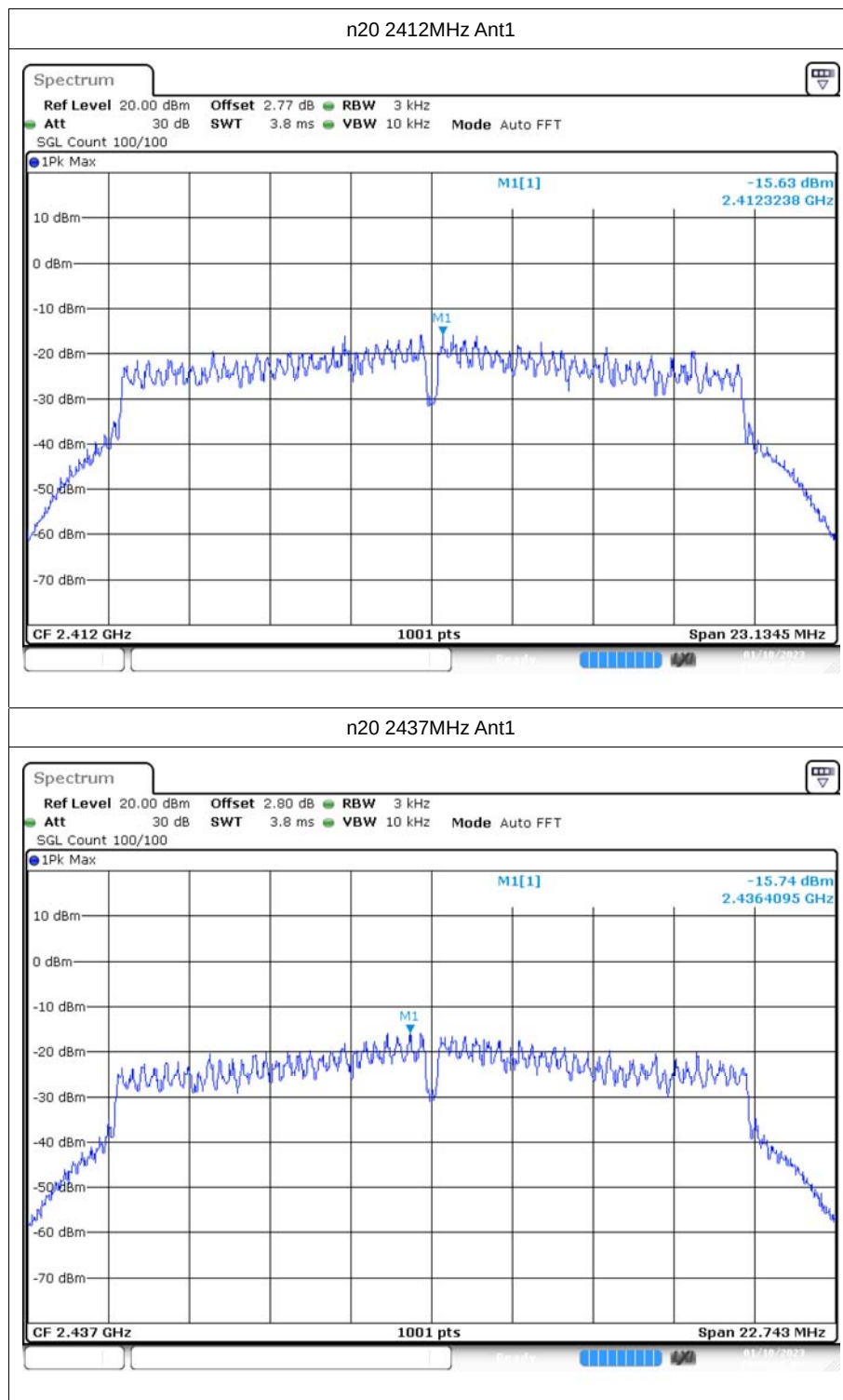
Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3-100kHz)	Limit (dBm/3kHz)	Verdict
b	2412	Ant1	-13.64	≤ 8	Pass
b	2437	Ant1	-13.81	≤ 8	Pass
b	2462	Ant1	-12.88	≤ 8	Pass
g	2412	Ant1	-17.25	≤ 8	Pass
g	2437	Ant1	-16.82	≤ 8	Pass
g	2462	Ant1	-17.32	≤ 8	Pass
n20	2412	Ant1	-15.63	≤ 8	Pass
n20	2437	Ant1	-15.74	≤ 8	Pass
n20	2462	Ant1	-15.71	≤ 8	Pass
n40	2422	Ant1	-19.5	≤ 8	Pass
n40	2437	Ant1	-20.45	≤ 8	Pass
n40	2452	Ant1	-19.2	≤ 8	Pass

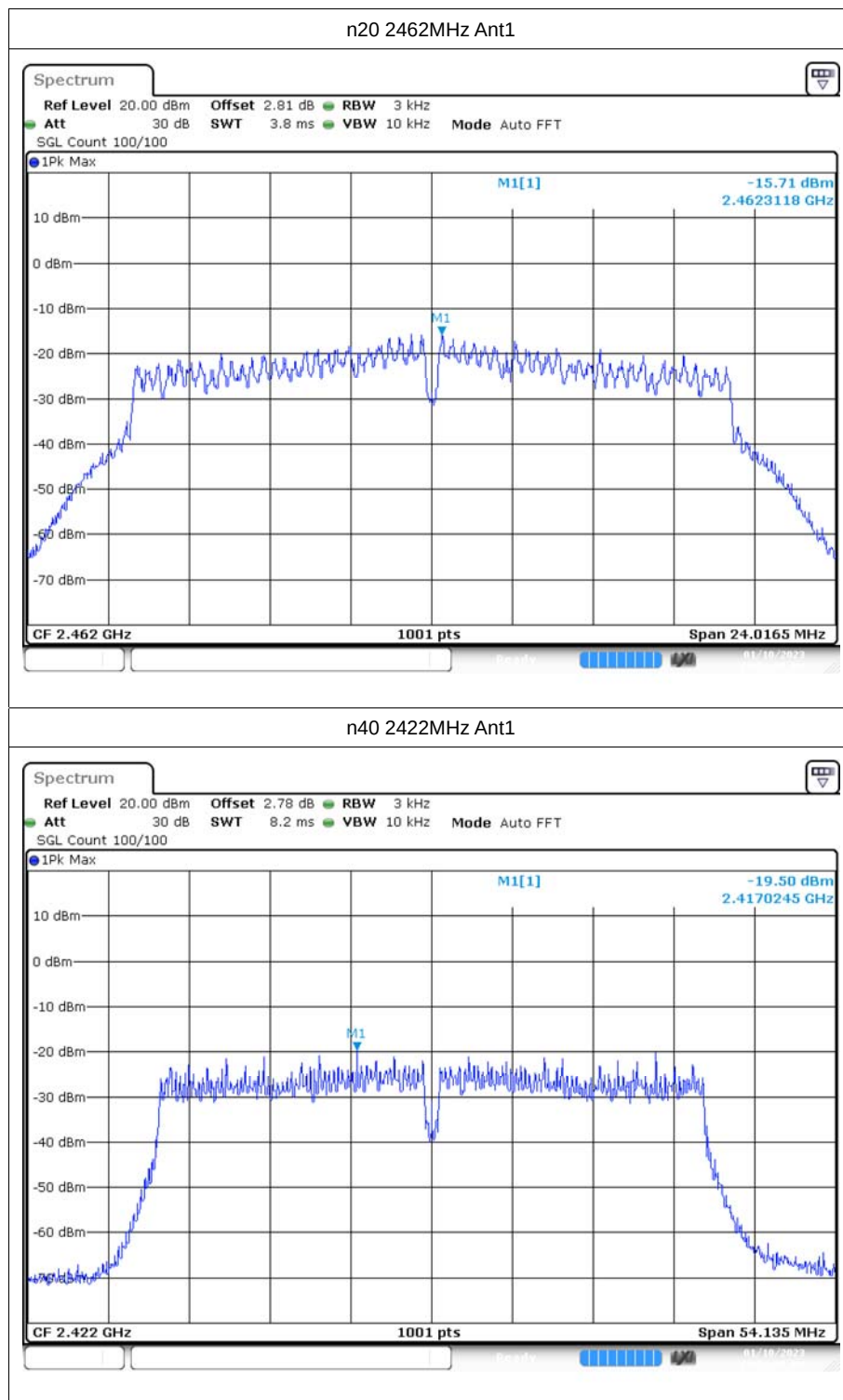
4.2 Test Graphs

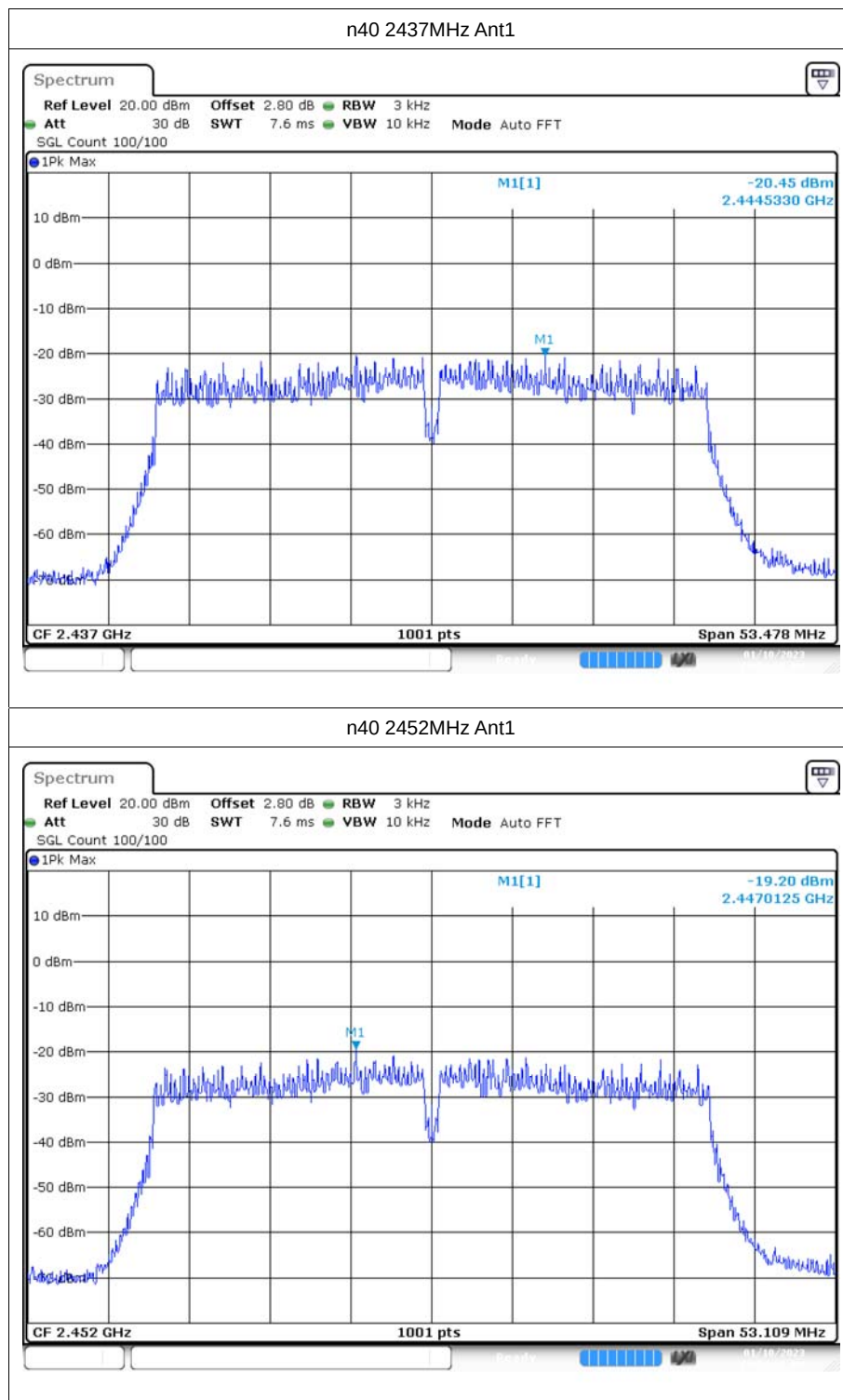












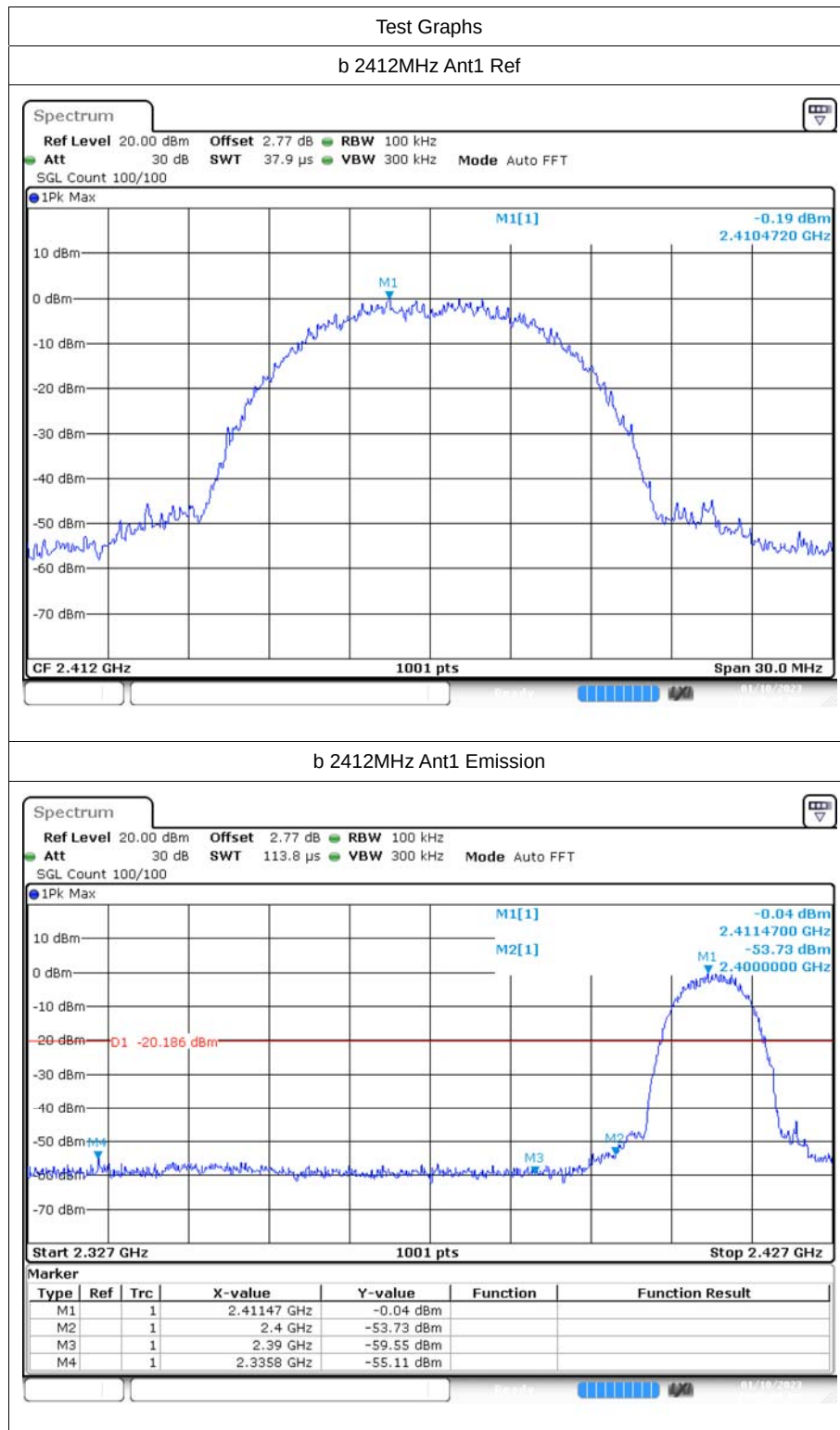


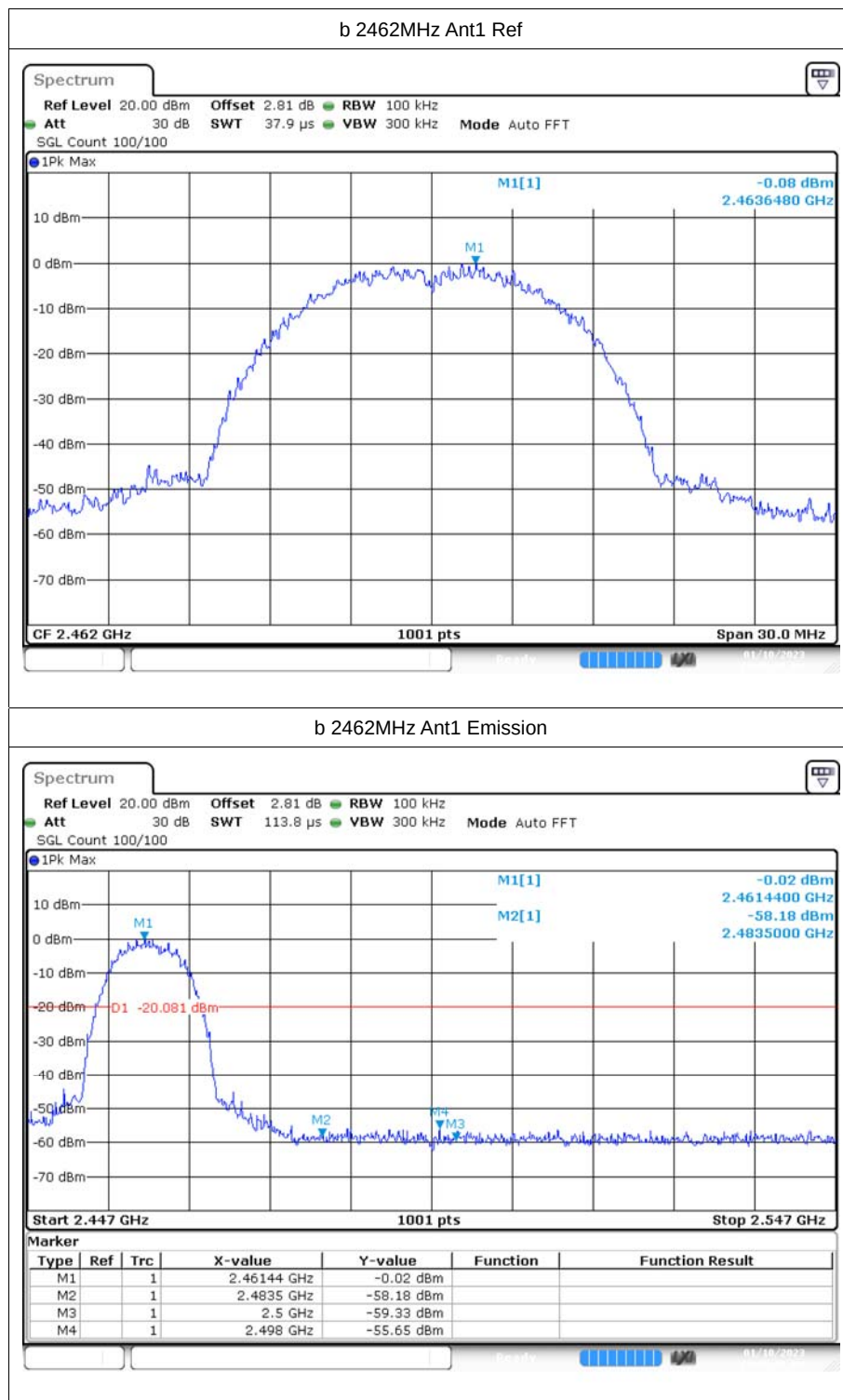
5 Band Edge

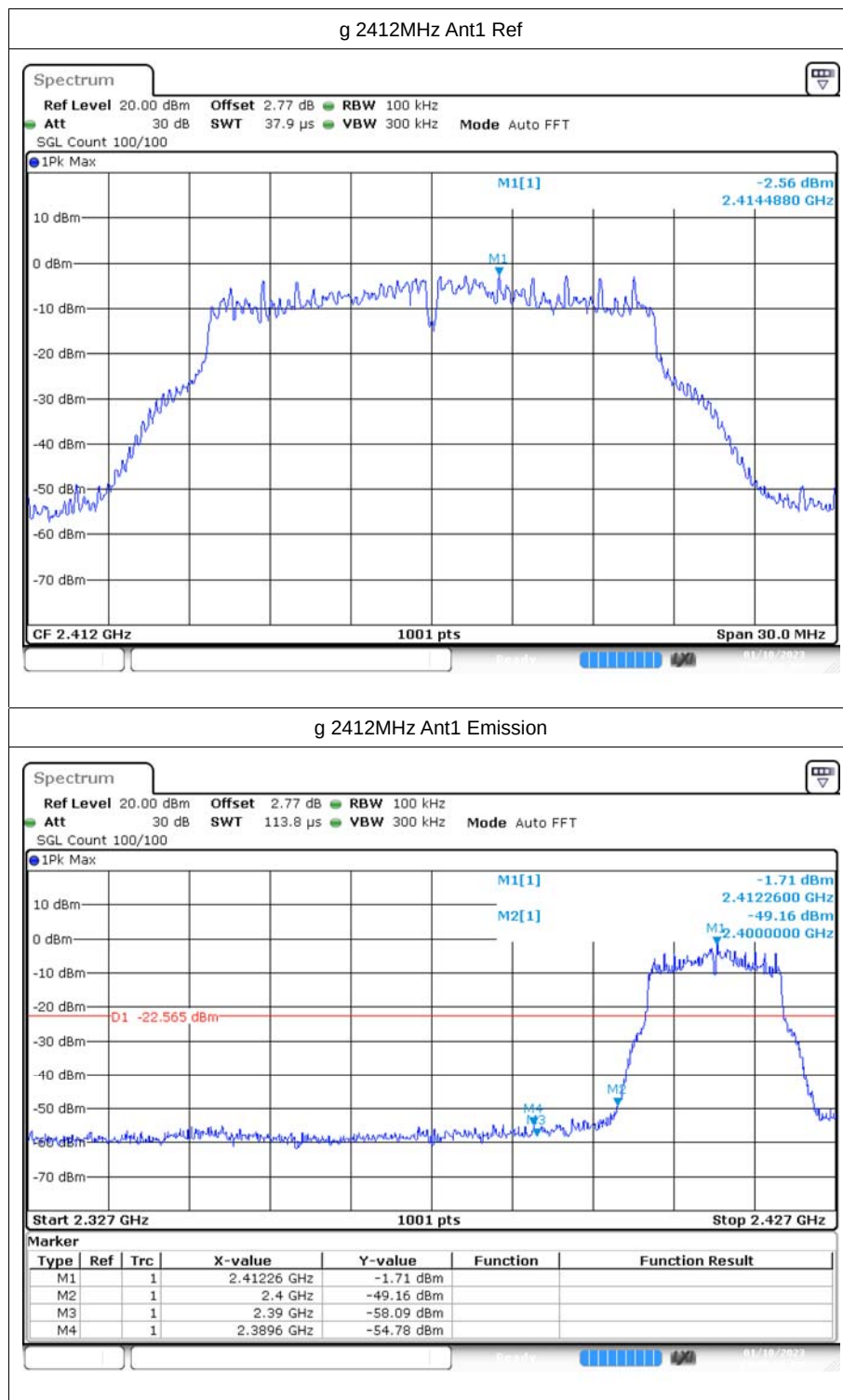
5.1 Test Result

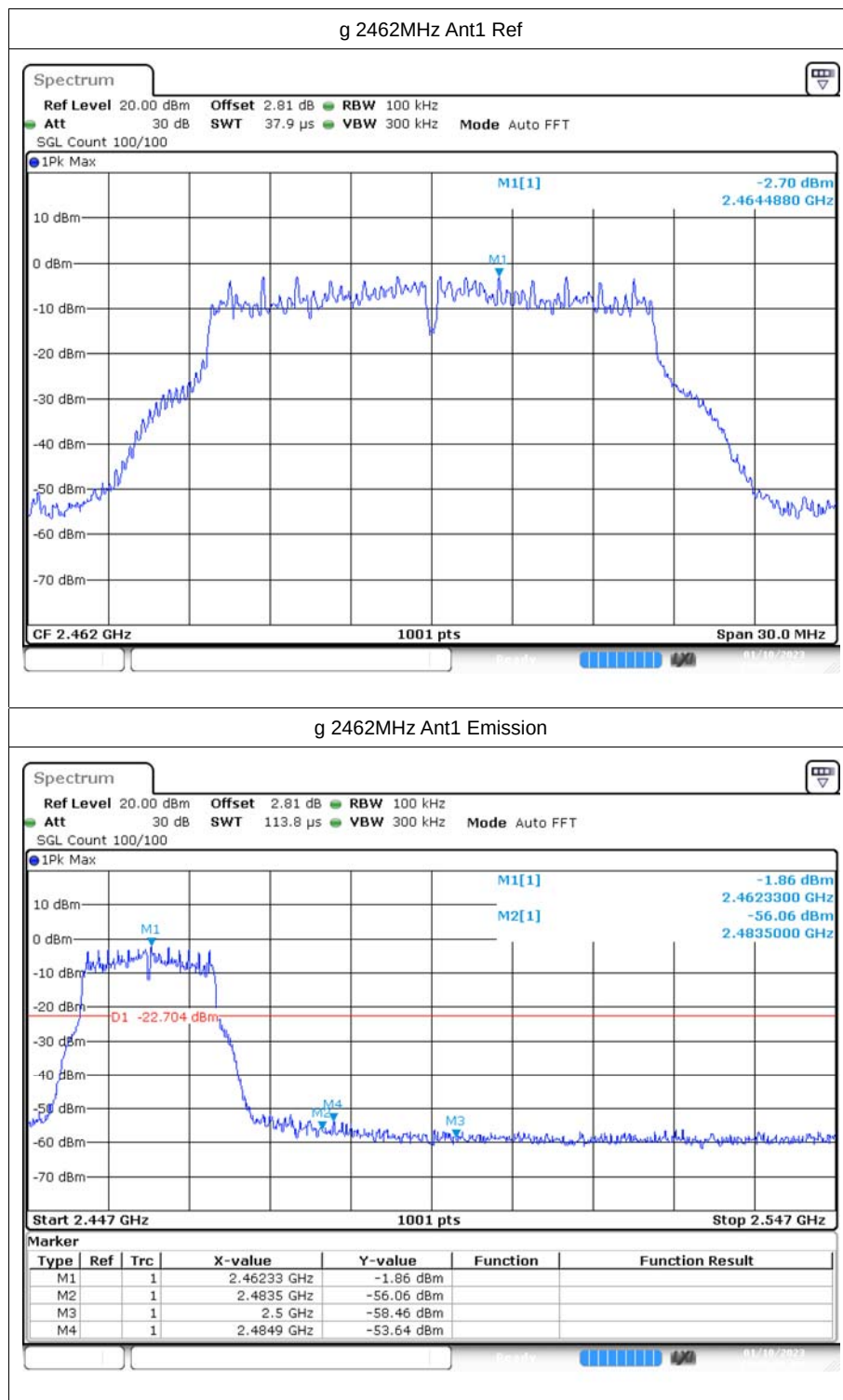
Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
b	2412	Ant1	-54.92	-20	-54.92
b	2462	Ant1	-55.57	-20	Pass
g	2412	Ant1	-52.22	-20	Pass
g	2462	Ant1	-50.93	-20	Pass
n20	2412	Ant1	-52.06	-20	Pass
n20	2462	Ant1	-49.94	-20	Pass
n40	2422	Ant1	-47.07	-20	Pass
n40	2452	Ant1	-42.27	-20	Pass

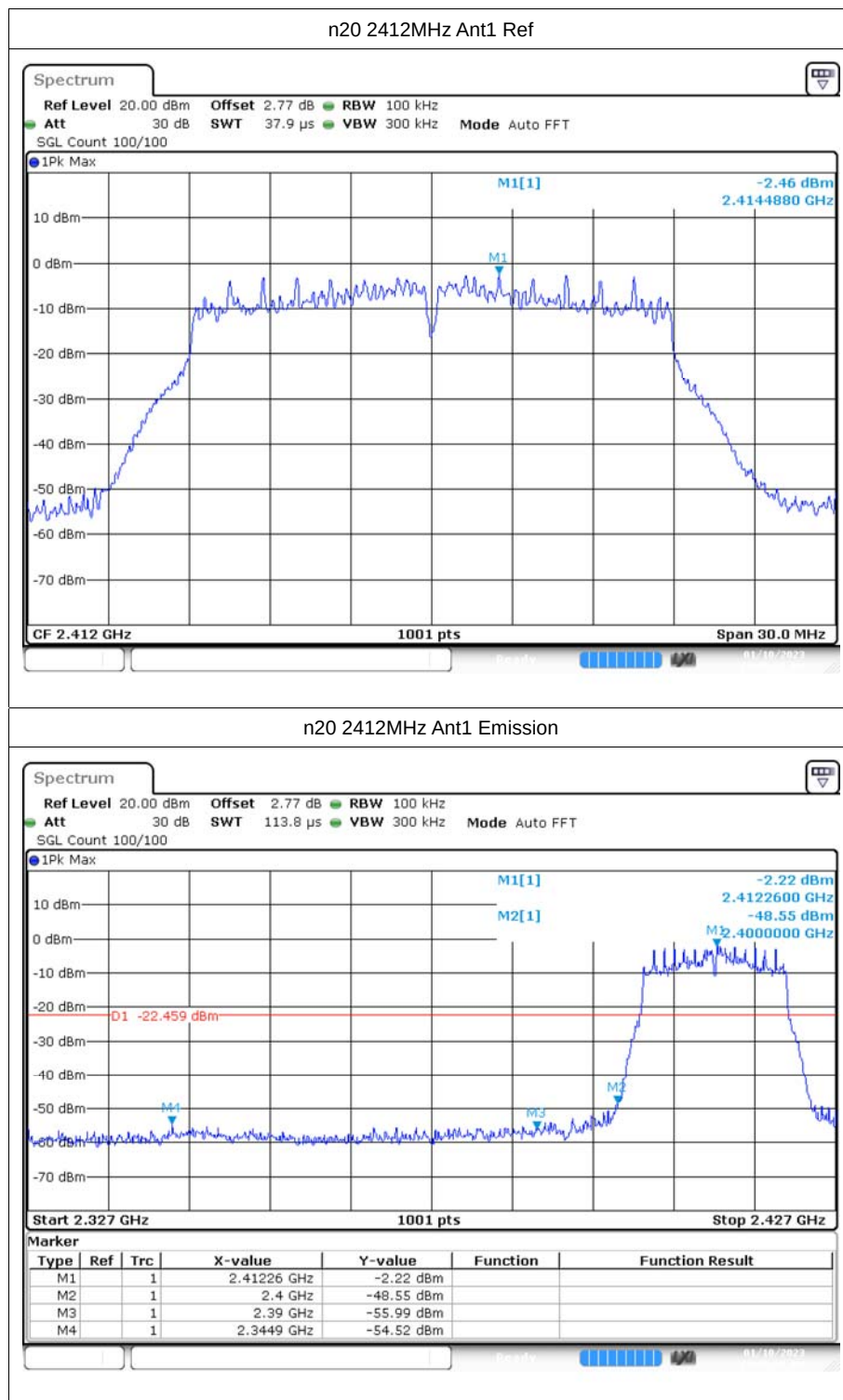
5.2 Test Graphs

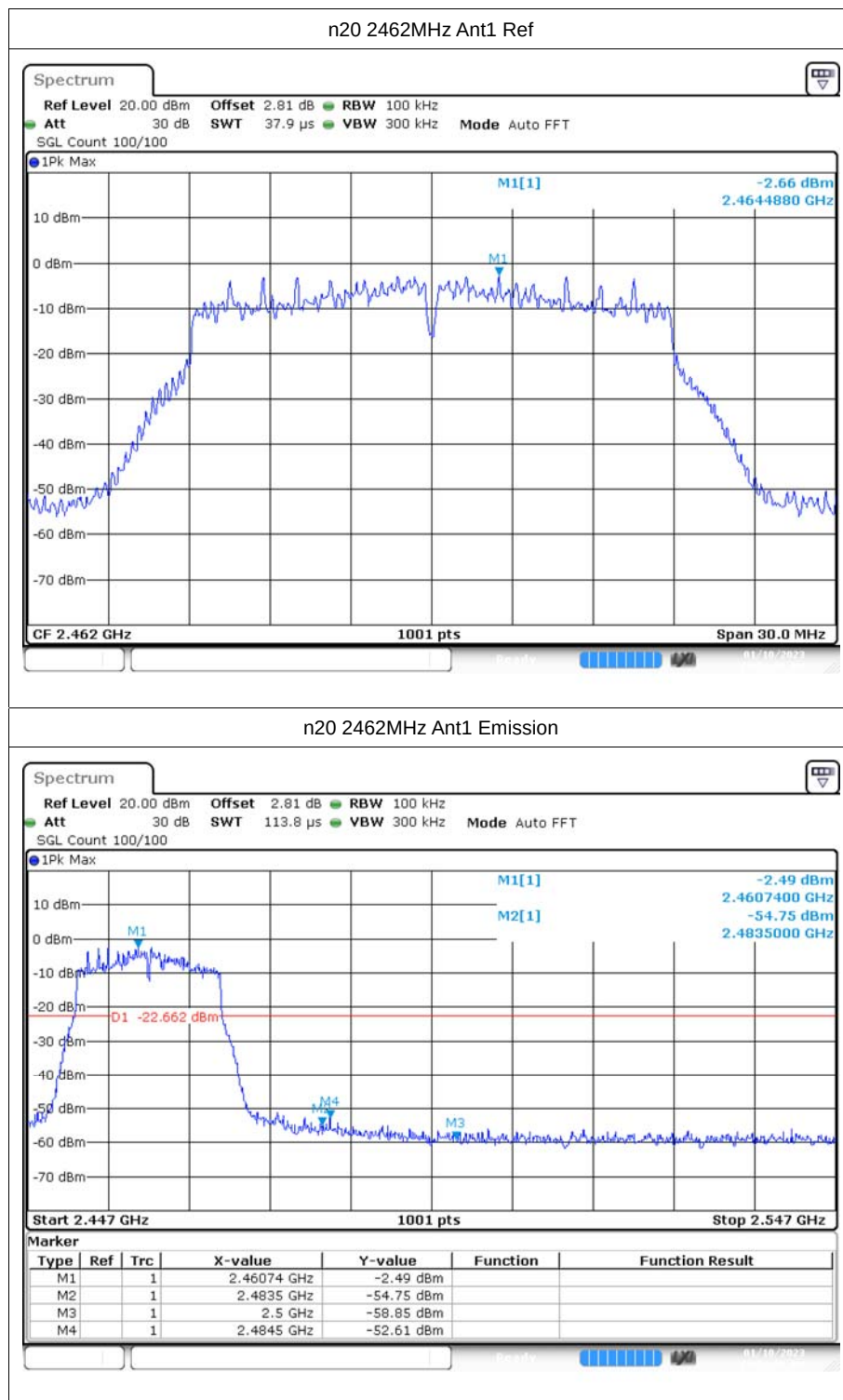


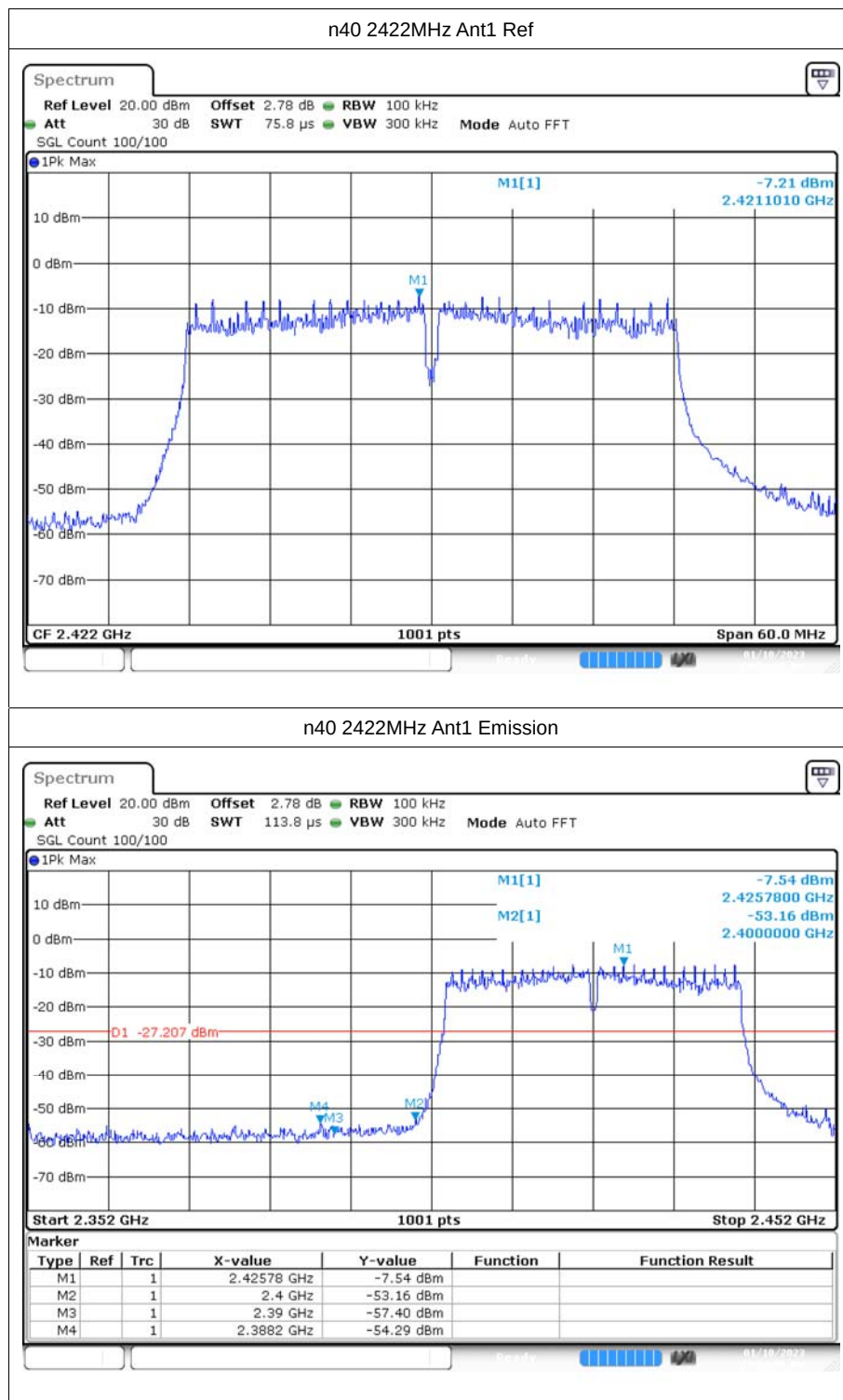


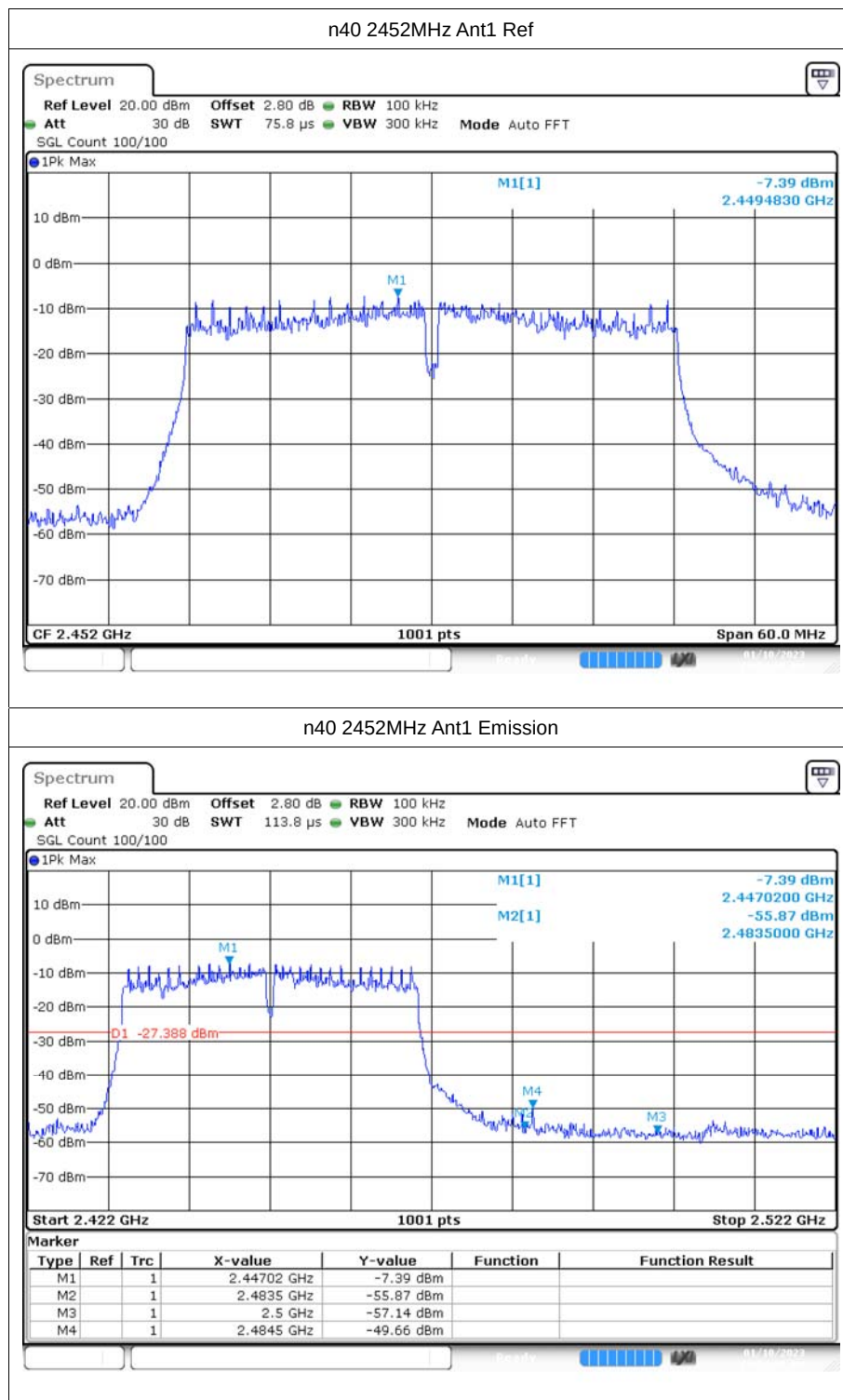












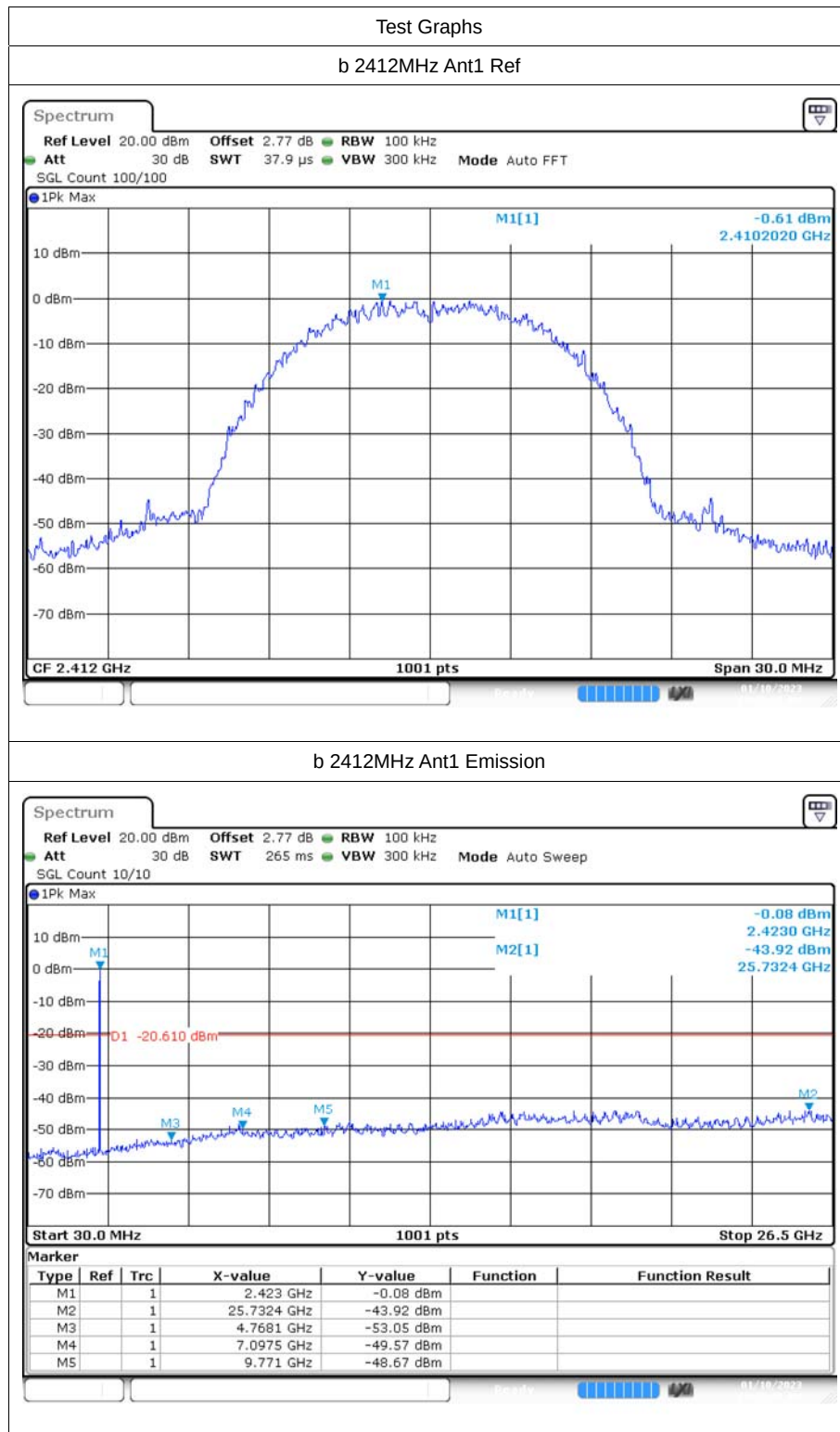


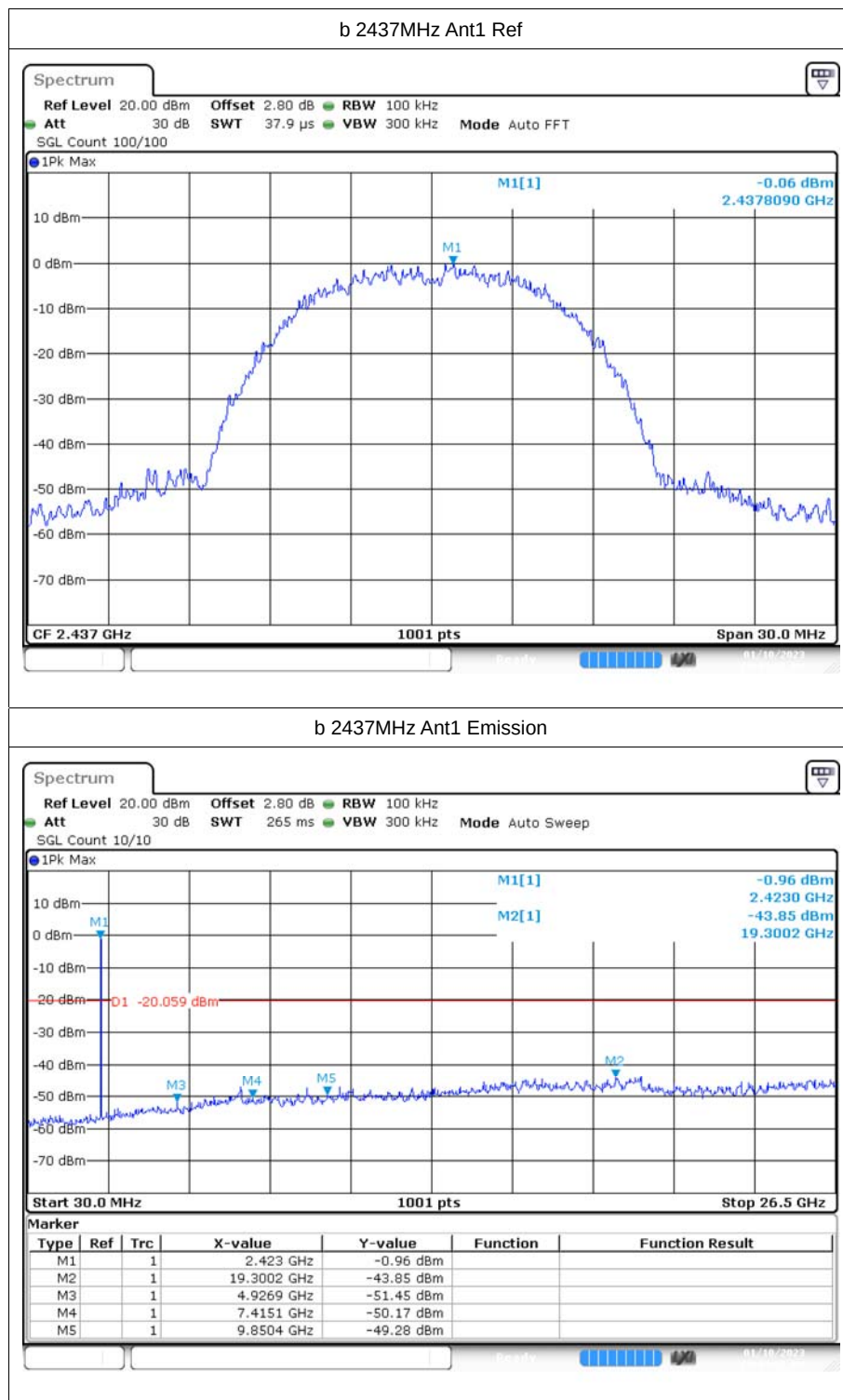
6 Conducted RF Spurious Emission

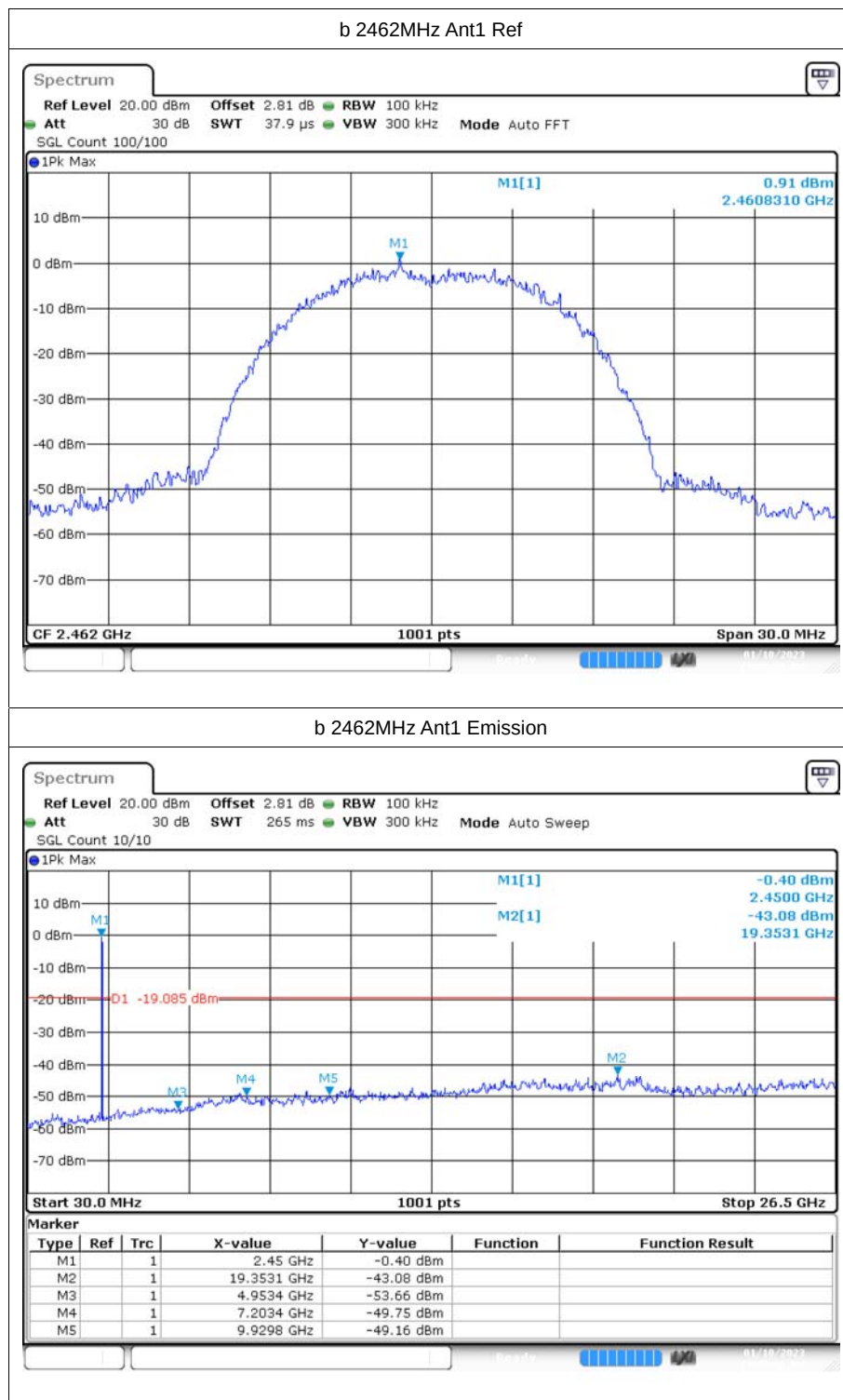
6.1 Test Result

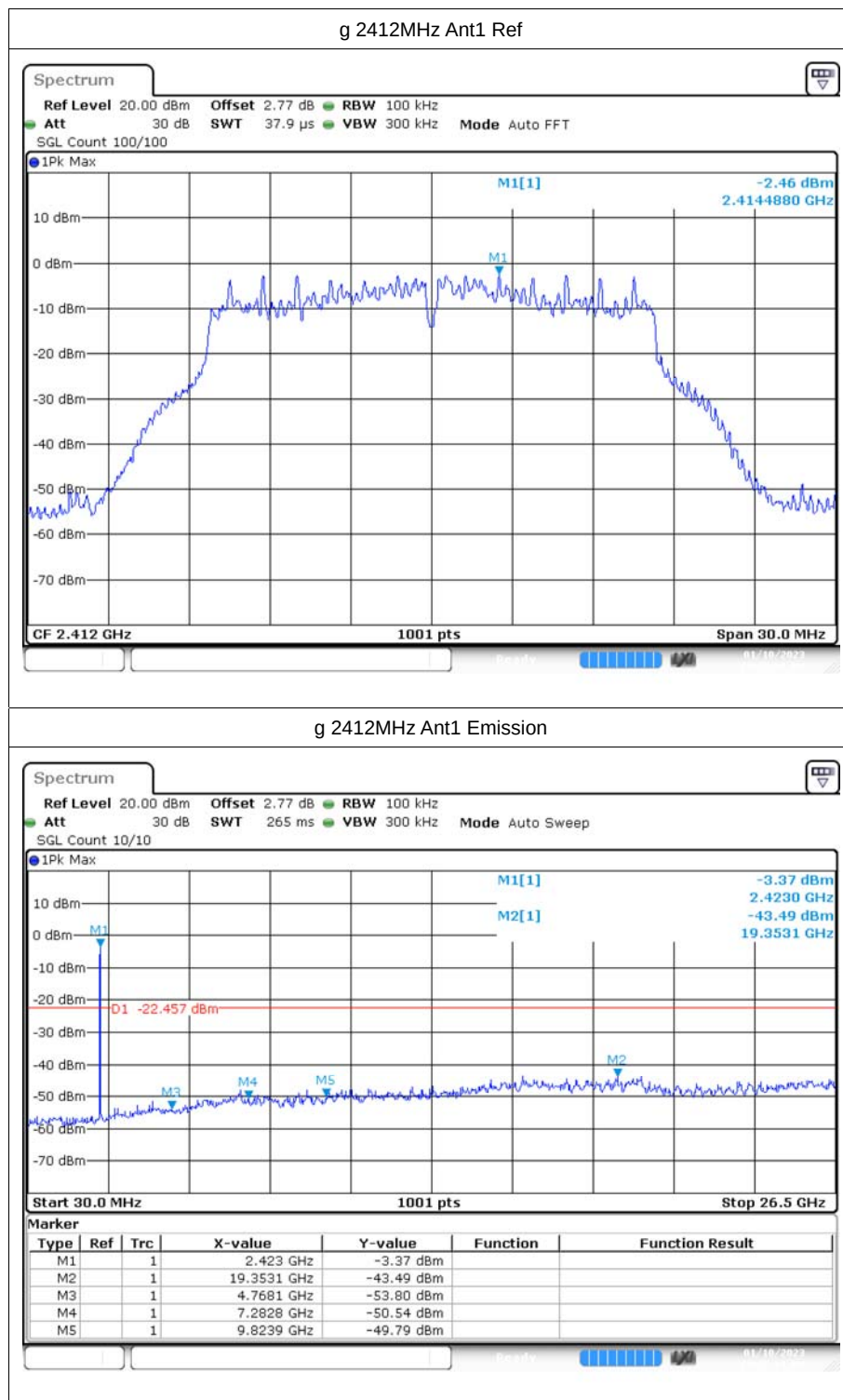
Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
b	2412	Ant1	-43.3	-20	Pass
b	2437	Ant1	-43.79	-20	Pass
b	2462	Ant1	-43.98	-20	Pass
g	2412	Ant1	-41.03	-20	Pass
g	2437	Ant1	-42.24	-20	Pass
g	2462	Ant1	-41.12	-20	Pass
n20	2412	Ant1	-40.2	-20	Pass
n20	2437	Ant1	-41.19	-20	Pass
n20	2462	Ant1	-40.01	-20	Pass
n40	2422	Ant1	-36.01	-20	Pass
n40	2437	Ant1	-36.32	-20	Pass
n40	2452	Ant1	-36.43	-20	Pass

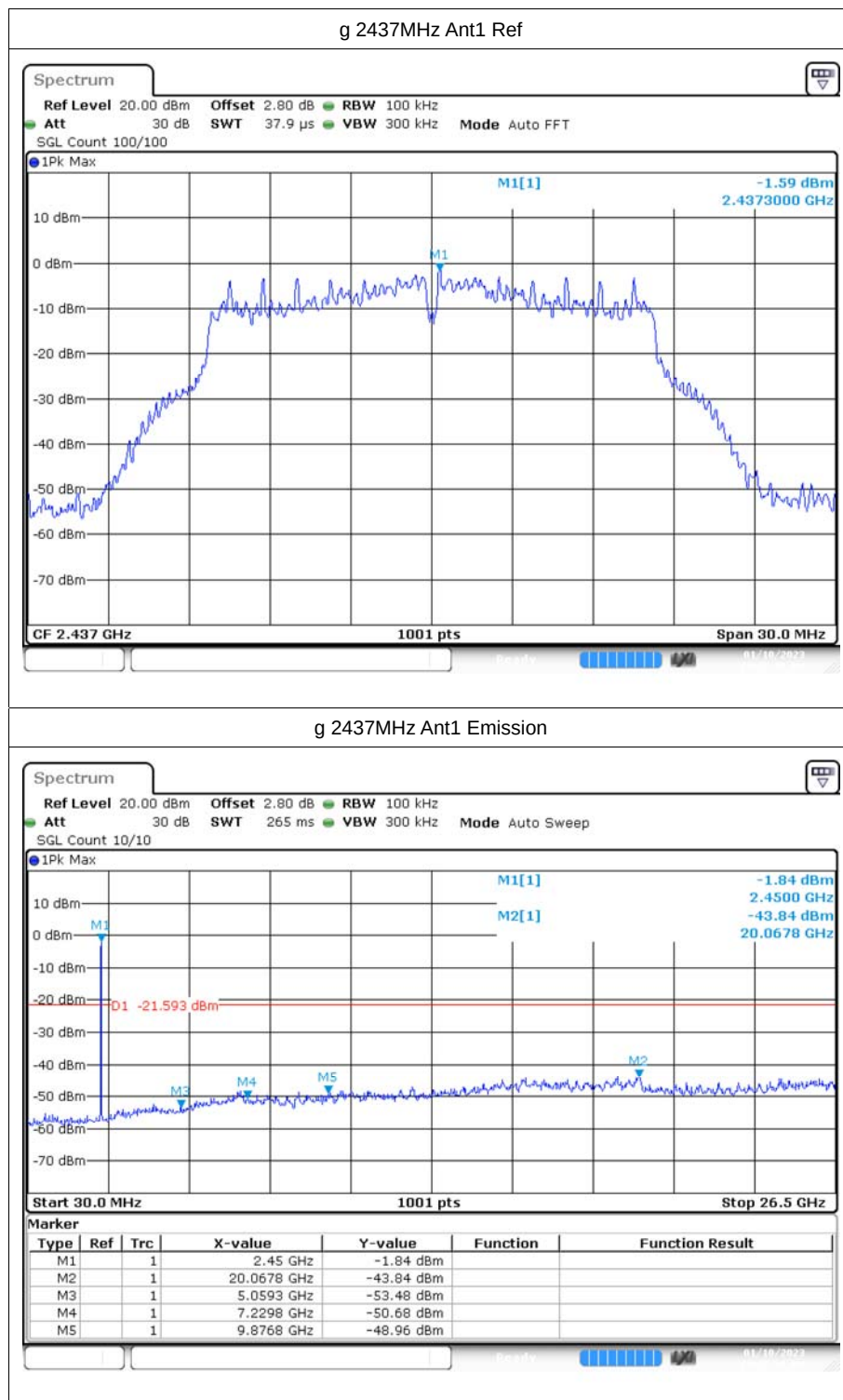
6.2 Test Graphs

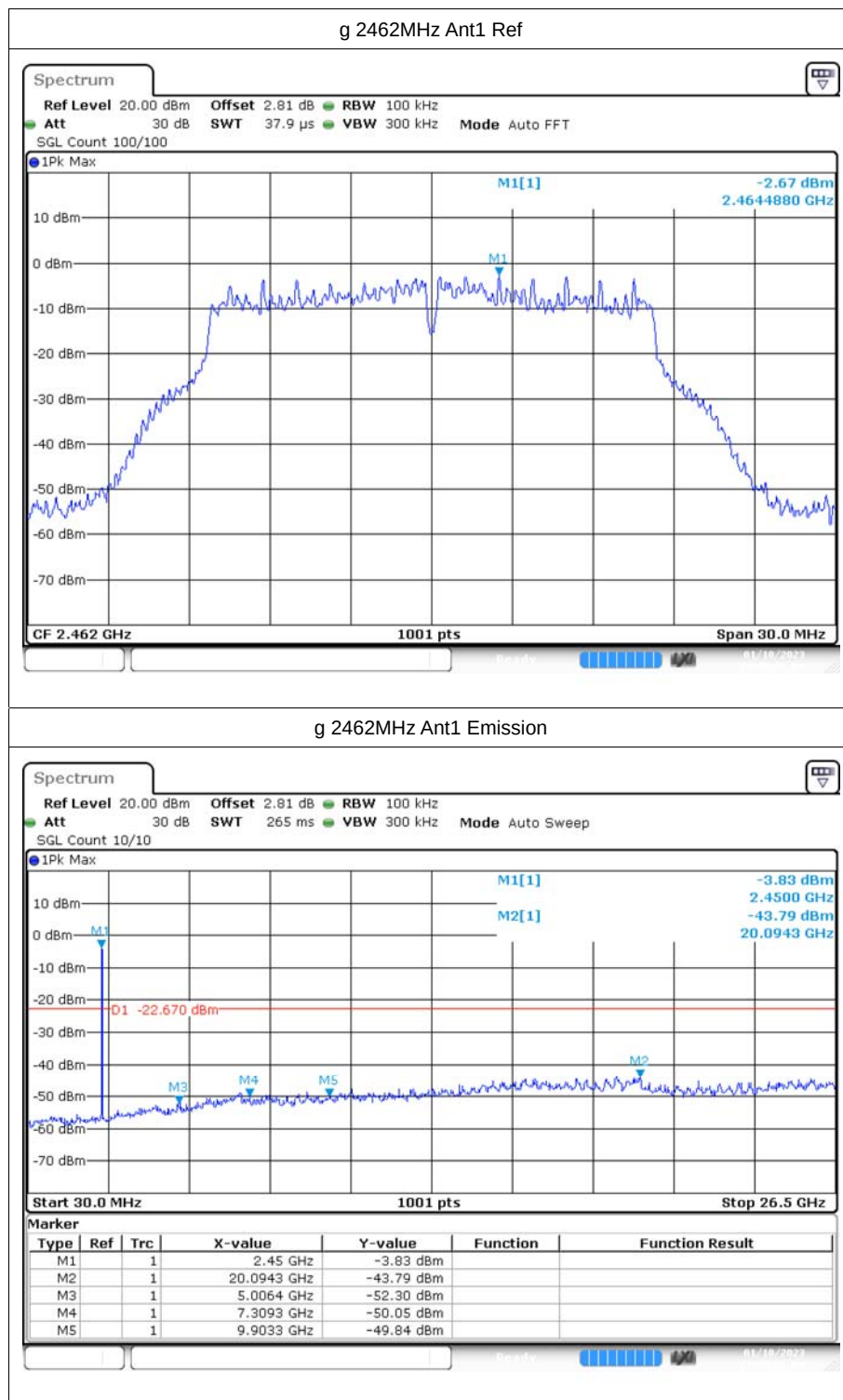


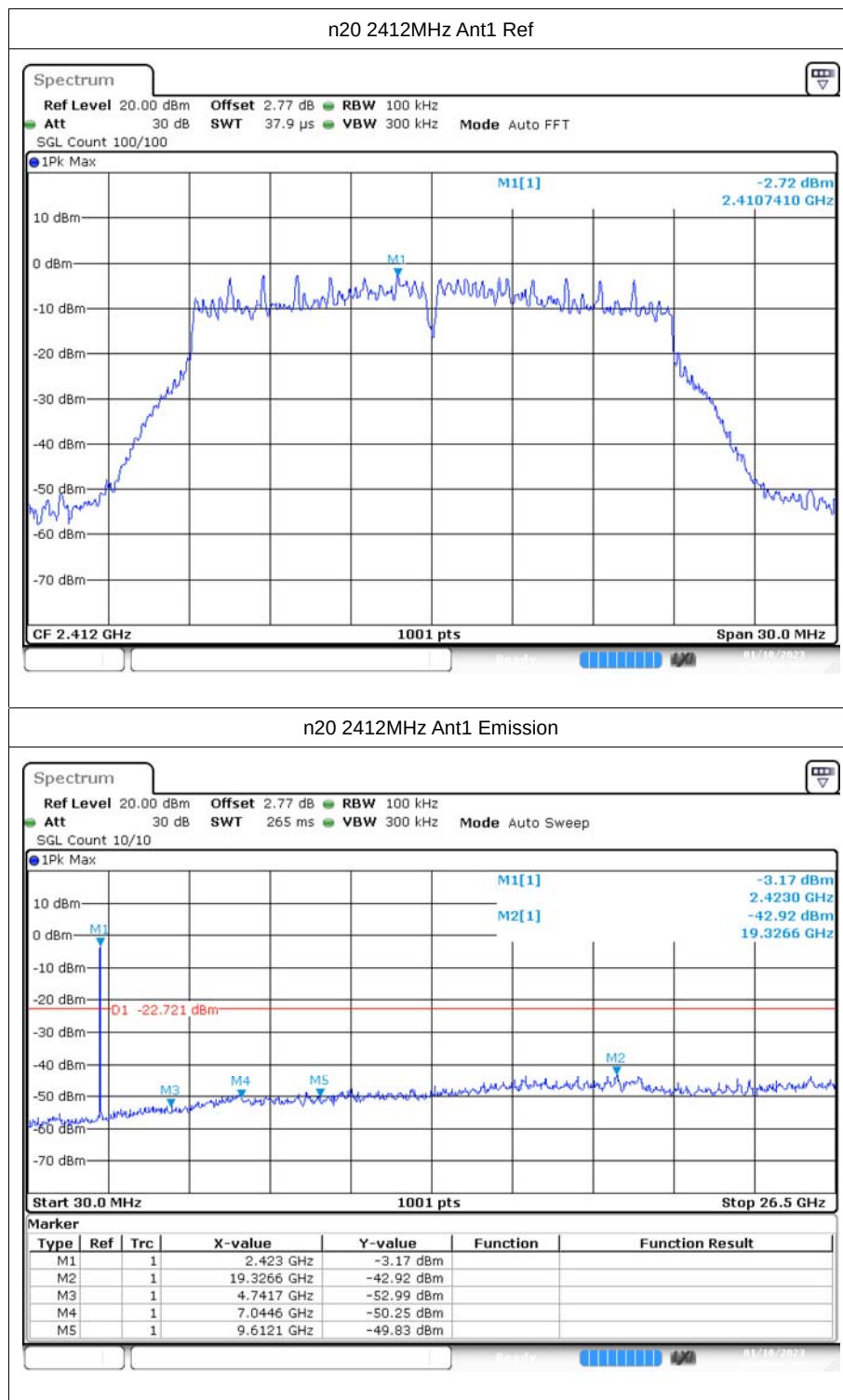


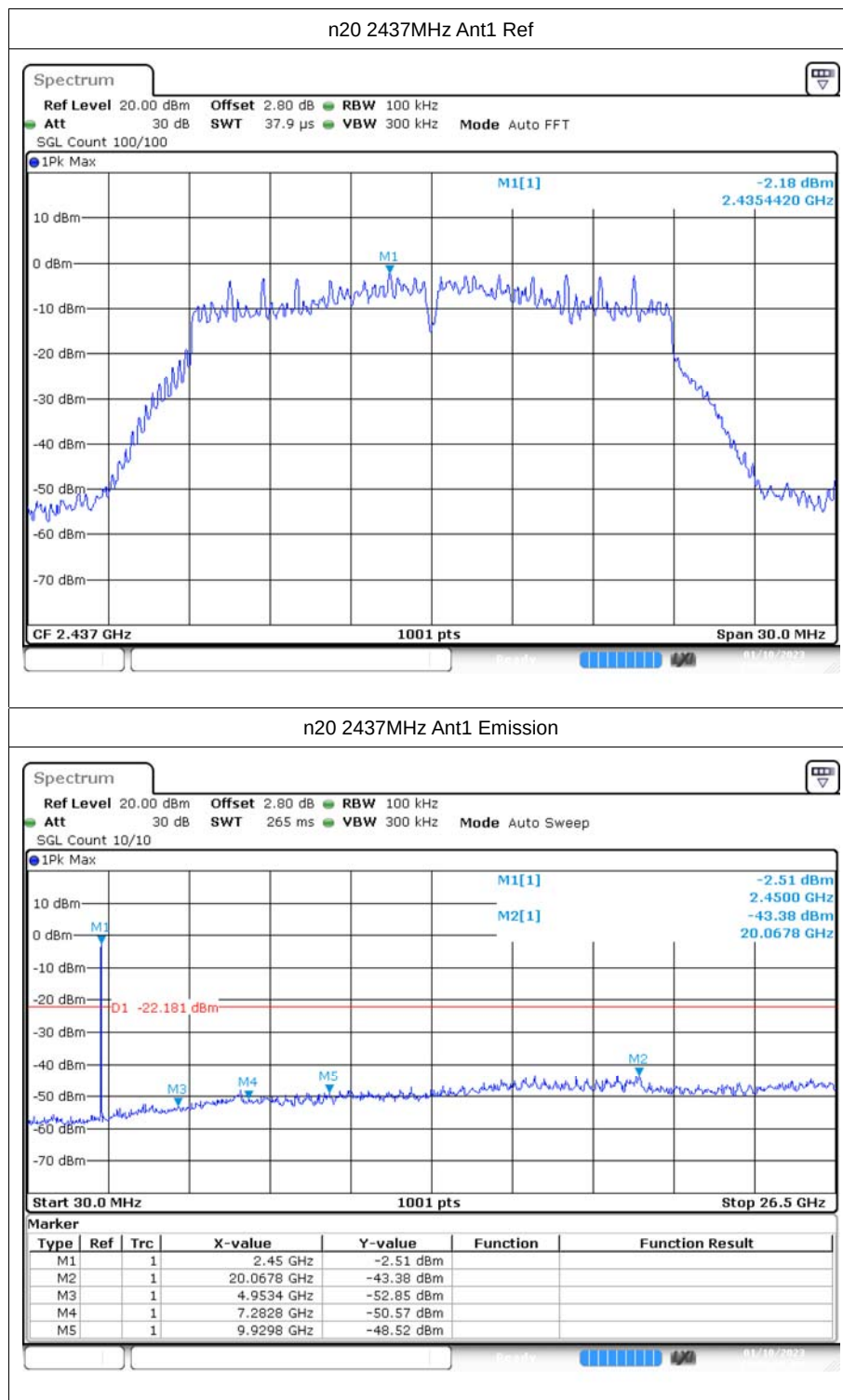


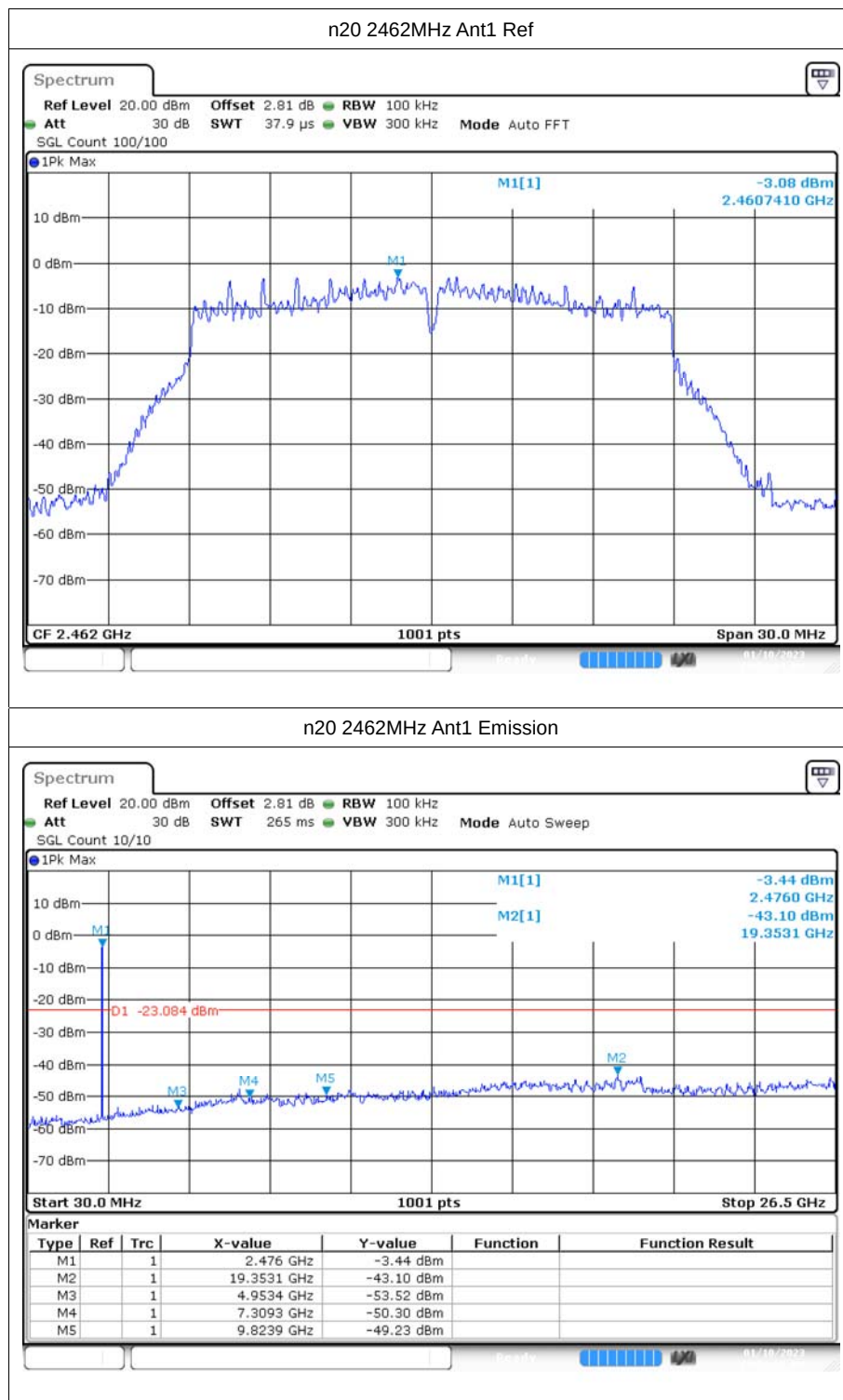


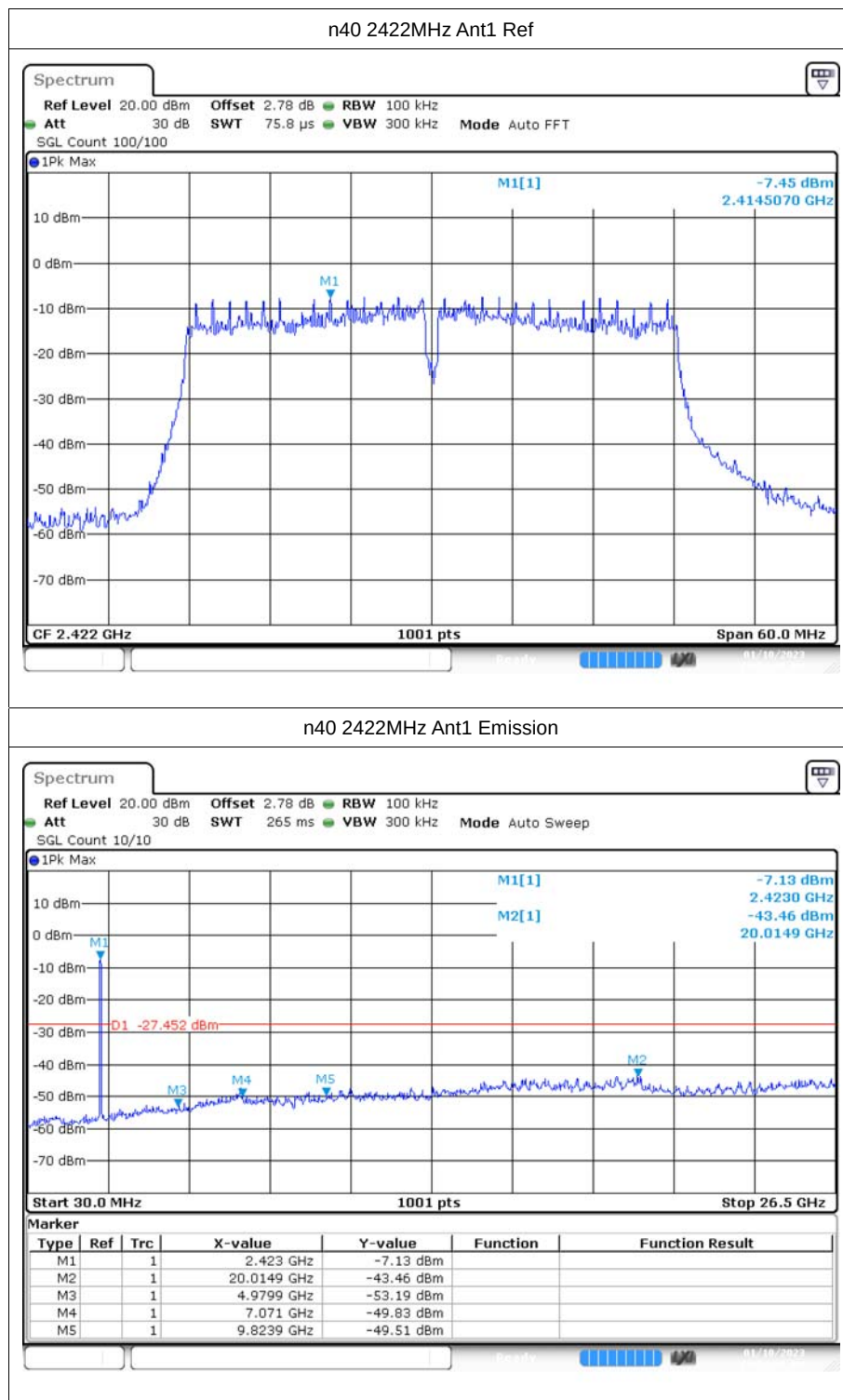


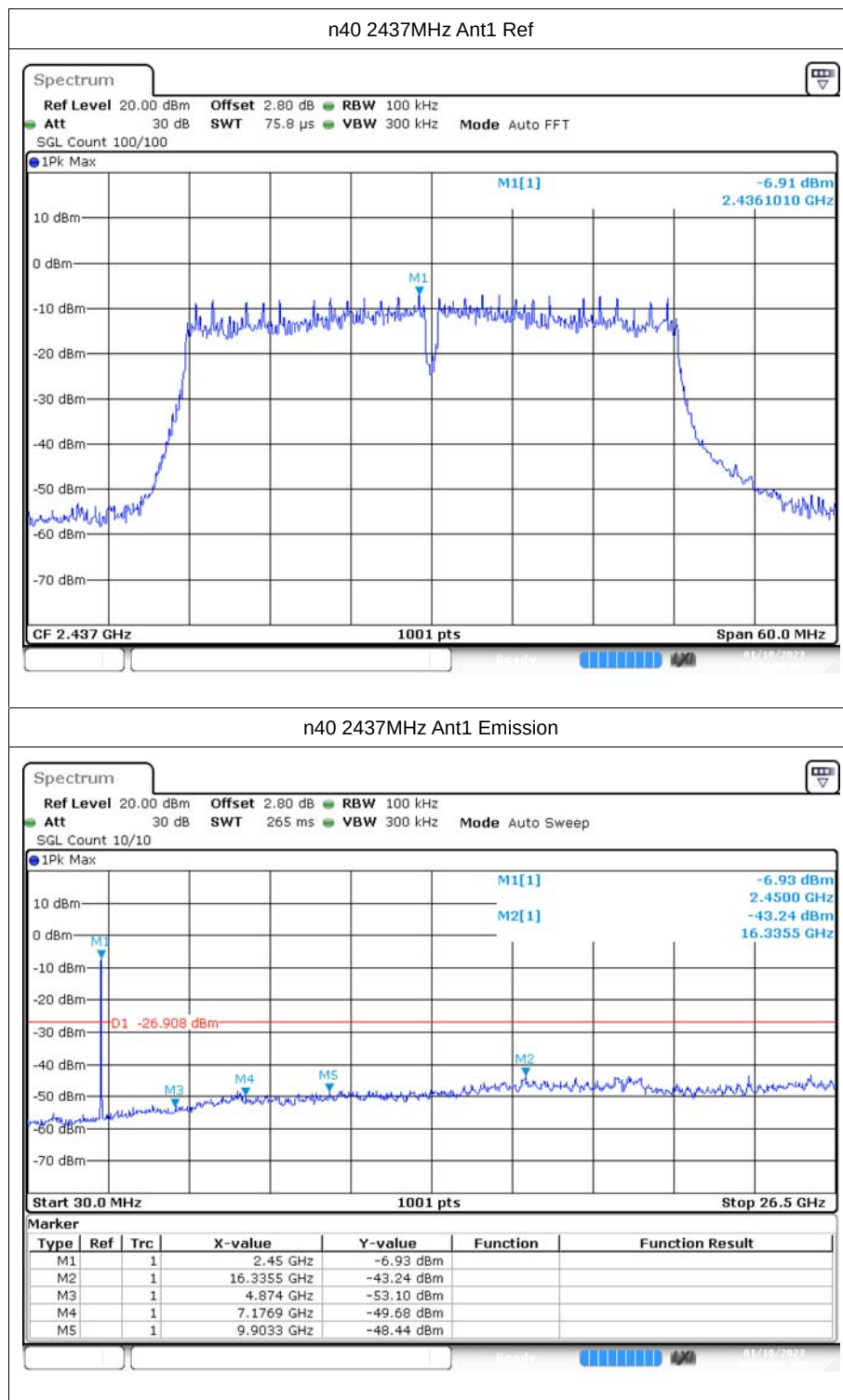


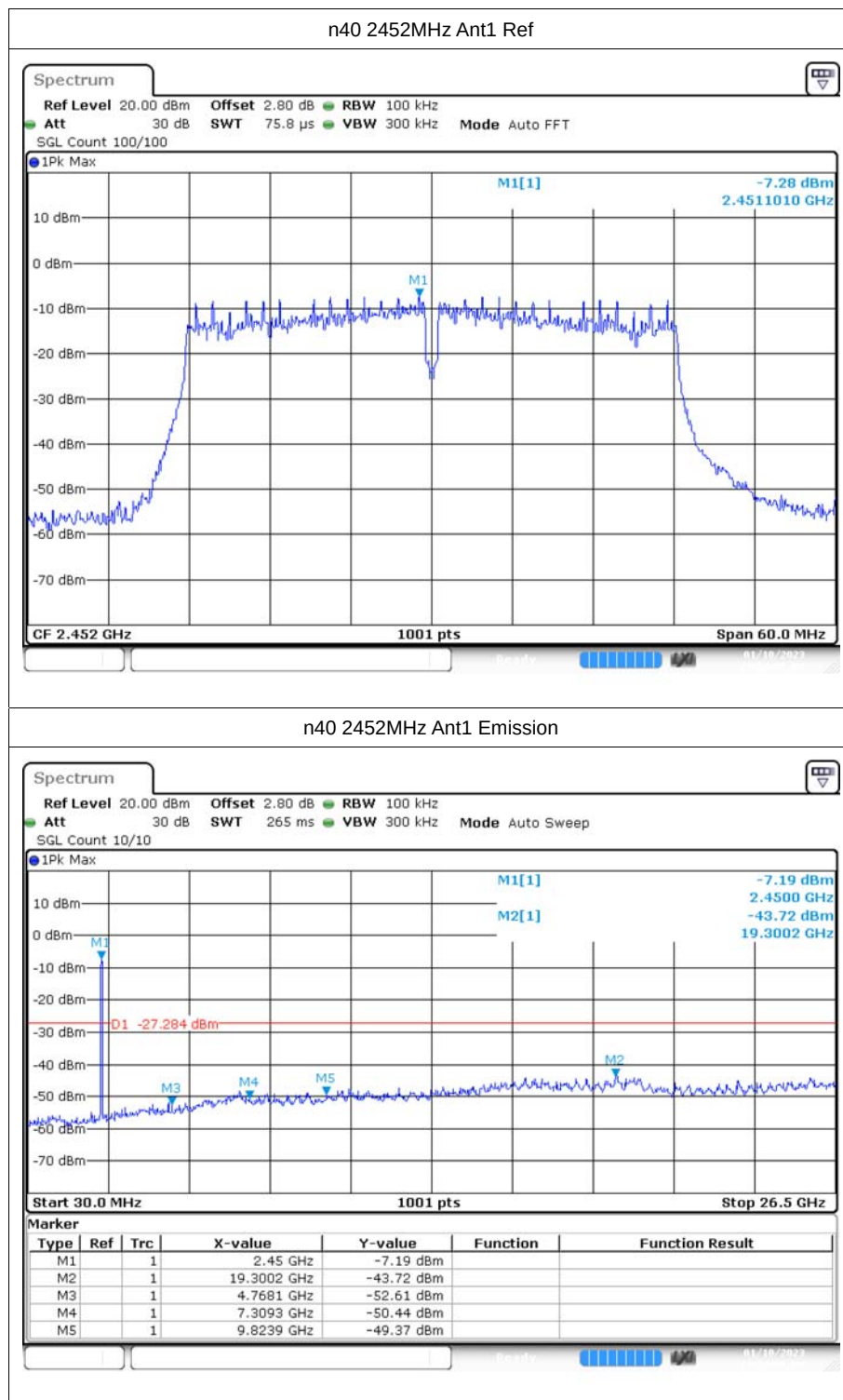














7 Restrict Band

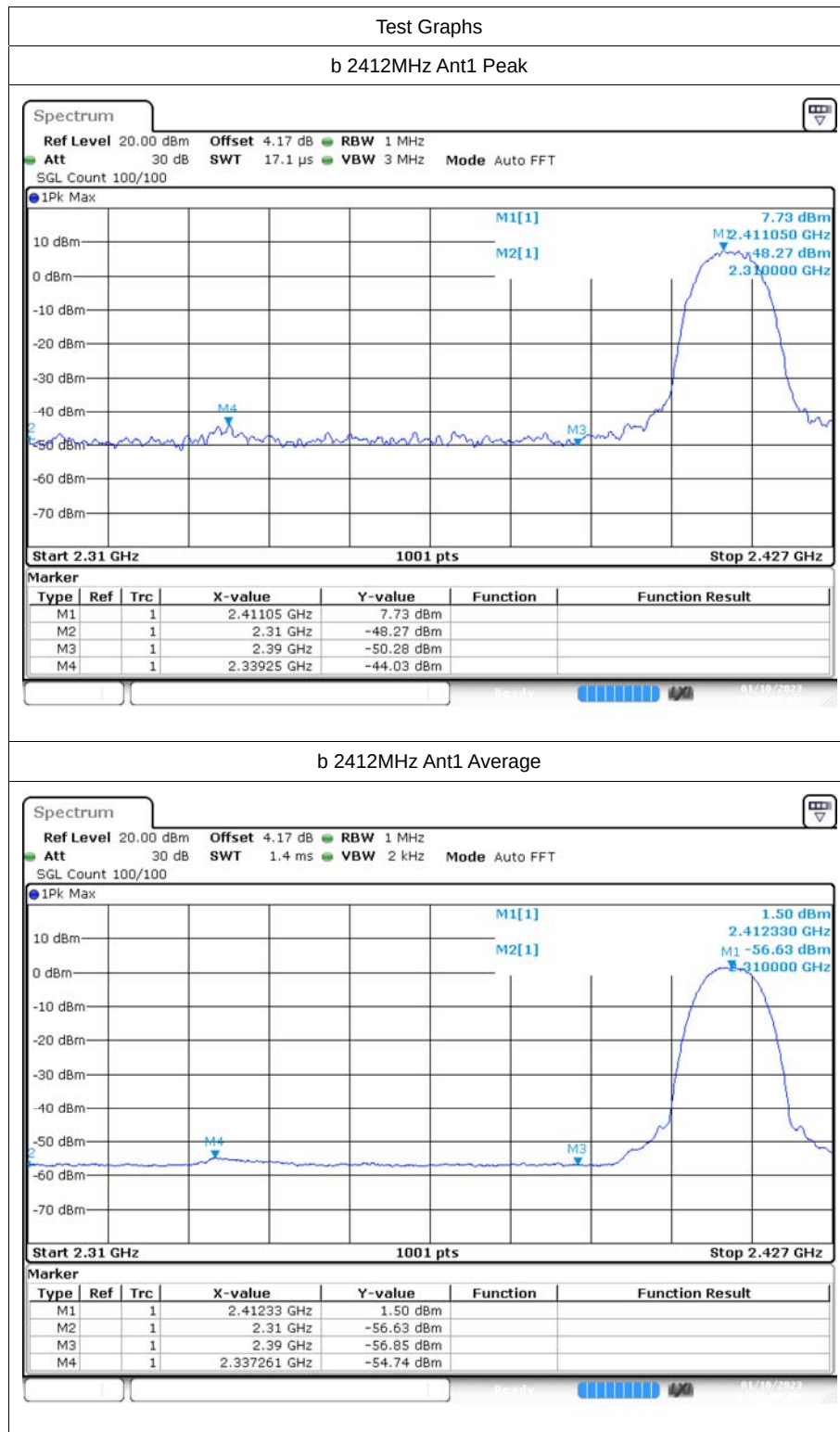
7.1 Test Result

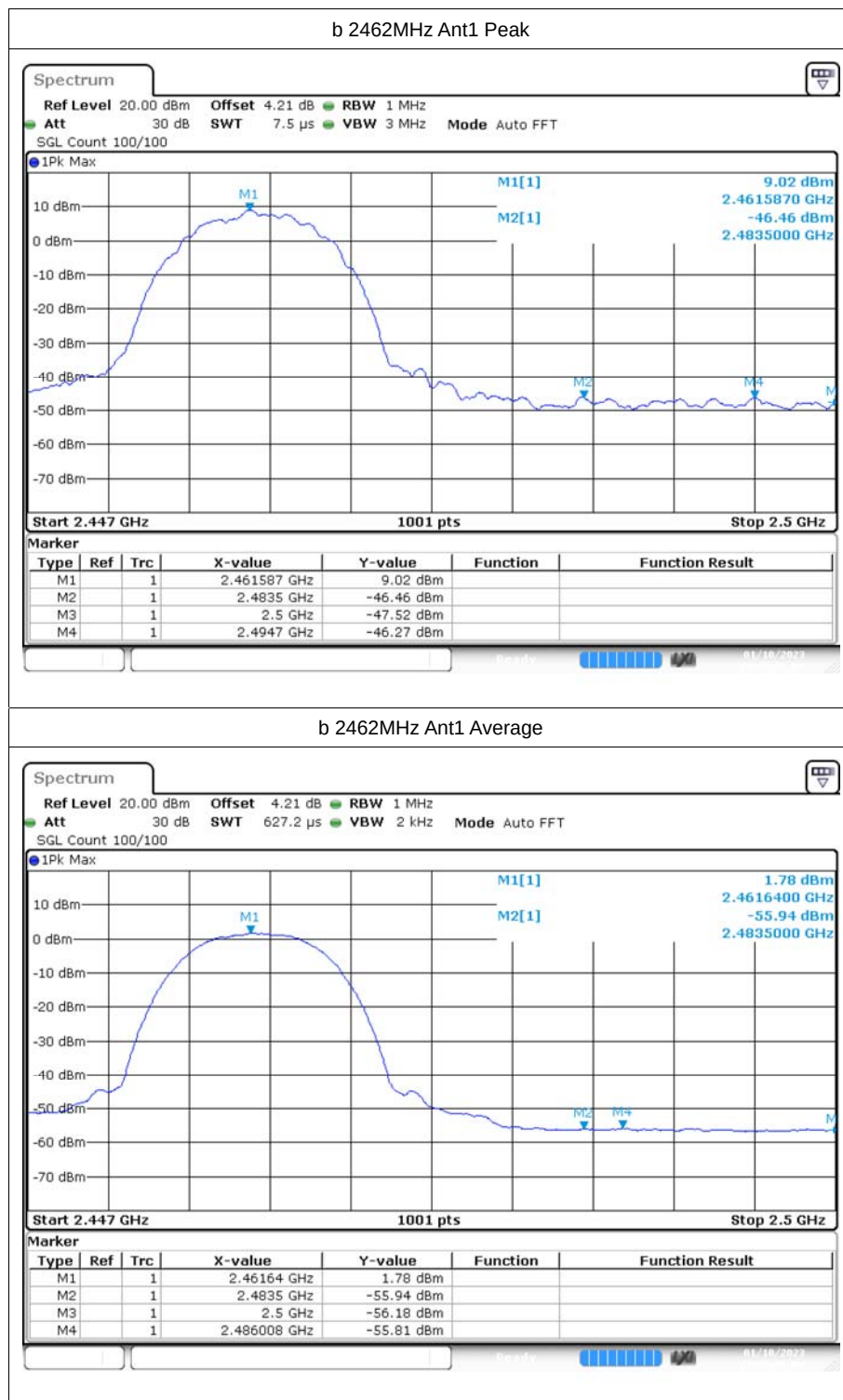
Mod e	Frequency (MHz)	Antenn a	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detecto r	Limit (dBuV/m)	Verdic t
b	2412	Ant1	2310	-48.26	2	49	Peak	74	Pass
b	2412	Ant1	2310	-56.62	2	40.64	Average	54	Pass
b	2412	Ant1	2339.25	-44.03	2	53.23	Peak	74	Pass
b	2412	Ant1	2337.261	-54.73	2	42.53	Average	54	Pass
b	2412	Ant1	2390	-50.28	2	46.98	Peak	74	Pass
b	2412	Ant1	2390	-56.84	2	40.42	Average	54	Pass
b	2462	Ant1	2483.5	-46.46	2	50.8	Peak	74	50.8
b	2462	Ant1	2483.5	-55.93	2	41.33	Average	54	Pass
b	2462	Ant1	2494.7	-46.27	2	50.99	Peak	74	Pass
b	2462	Ant1	2486.008	-55.8	2	41.46	Average	54	Pass
b	2462	Ant1	2500	-47.52	2	49.74	Peak	74	Pass
b	2462	Ant1	2500	-56.17	2	41.09	Average	54	Pass
g	2412	Ant1	2310	-47.28	2	49.98	Peak	74	Pass
g	2412	Ant1	2310	-55.55	2	41.71	Average	54	Pass
g	2412	Ant1	2387.454	-41.58	2	55.68	Peak	74	Pass
g	2412	Ant1	2337.027	-52.94	2	44.32	Average	54	Pass
g	2412	Ant1	2390	-45.33	2	46.98	Peak	74	Pass
g	2412	Ant1	2390	-53.73	2	43.53	Average	54	Pass
g	2462	Ant1	2483.5	-44.15	2	53.11	Peak	74	Pass
g	2462	Ant1	2483.5	-52.85	2	44.41	Average	54	Pass
g	2462	Ant1	2494.7	-43.16	2	54.1	Peak	74	Pass
g	2462	Ant1	2485.743	-52.44	2	44.82	Average	54	Pass
g	2462	Ant1	2500	-49.56	2	49.74	Peak	74	Pass
g	2462	Ant1	2500	-54.82	2	42.44	Average	54	Pass
n20	2412	Ant1	2310	-50.29	2	46.97	Peak	74	Pass
n20	2412	Ant1	2310	-55.89	2	41.37	Average	54	Pass
n20	2412	Ant1	2385.699	-42.78	2	54.48	Peak	74	Pass
n20	2412	Ant1	2384.997	-52.52	2	44.74	Average	54	Pass
n20	2412	Ant1	2390	-45.06	2	52.2	Peak	74	Pass
n20	2412	Ant1	2390	-53.55	2	43.71	Average	54	Pass
n20	2462	Ant1	2483.5	-46.47	2	50.79	Peak	74	Pass
n20	2462	Ant1	2483.5	-52.03	2	45.23	Average	54	Pass
n20	2462	Ant1	2488.075	-43.04	2	54.22	Peak	74	Pass
n20	2462	Ant1	2483.517	-52.03	2	45.23	Average	54	Pass

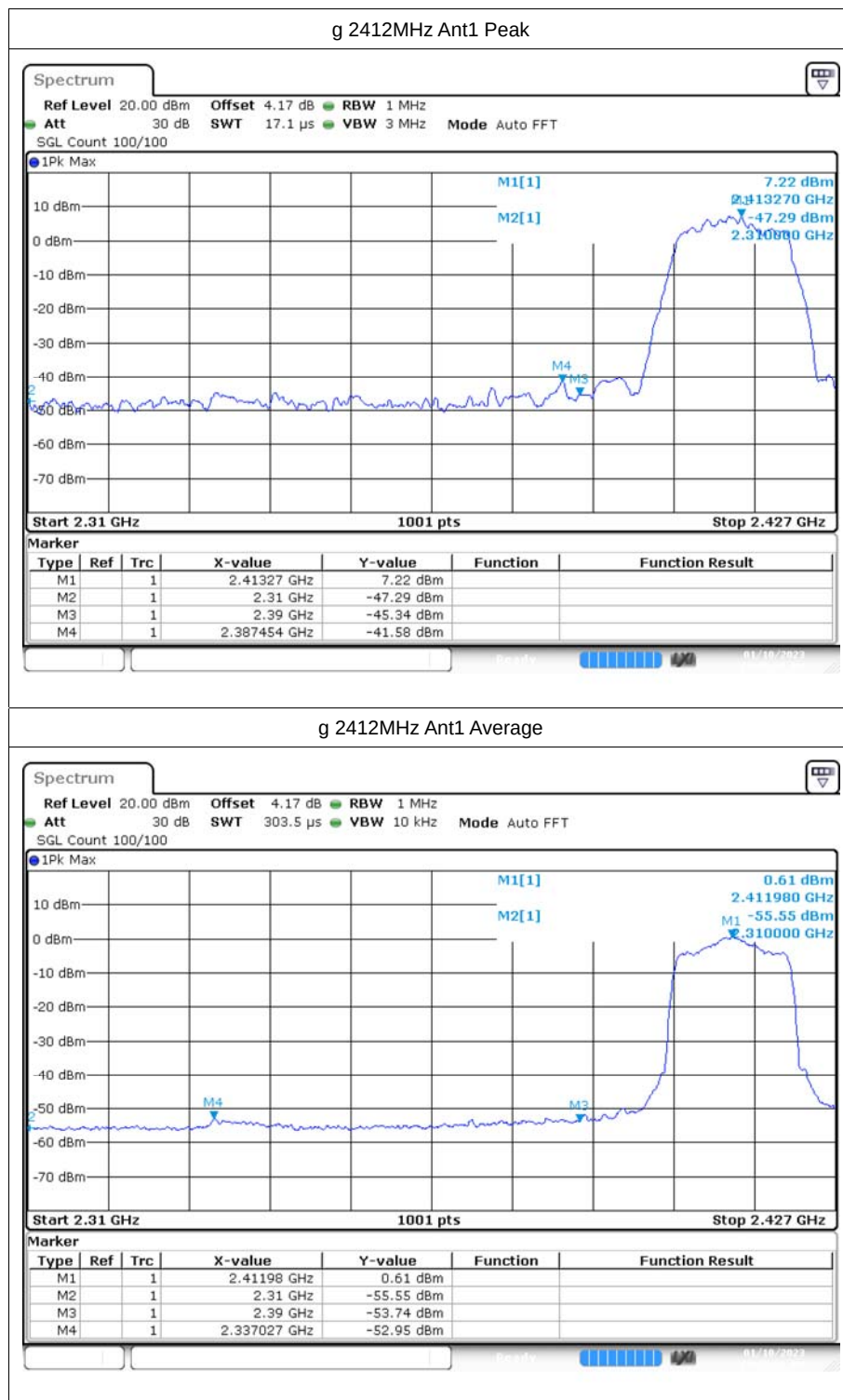


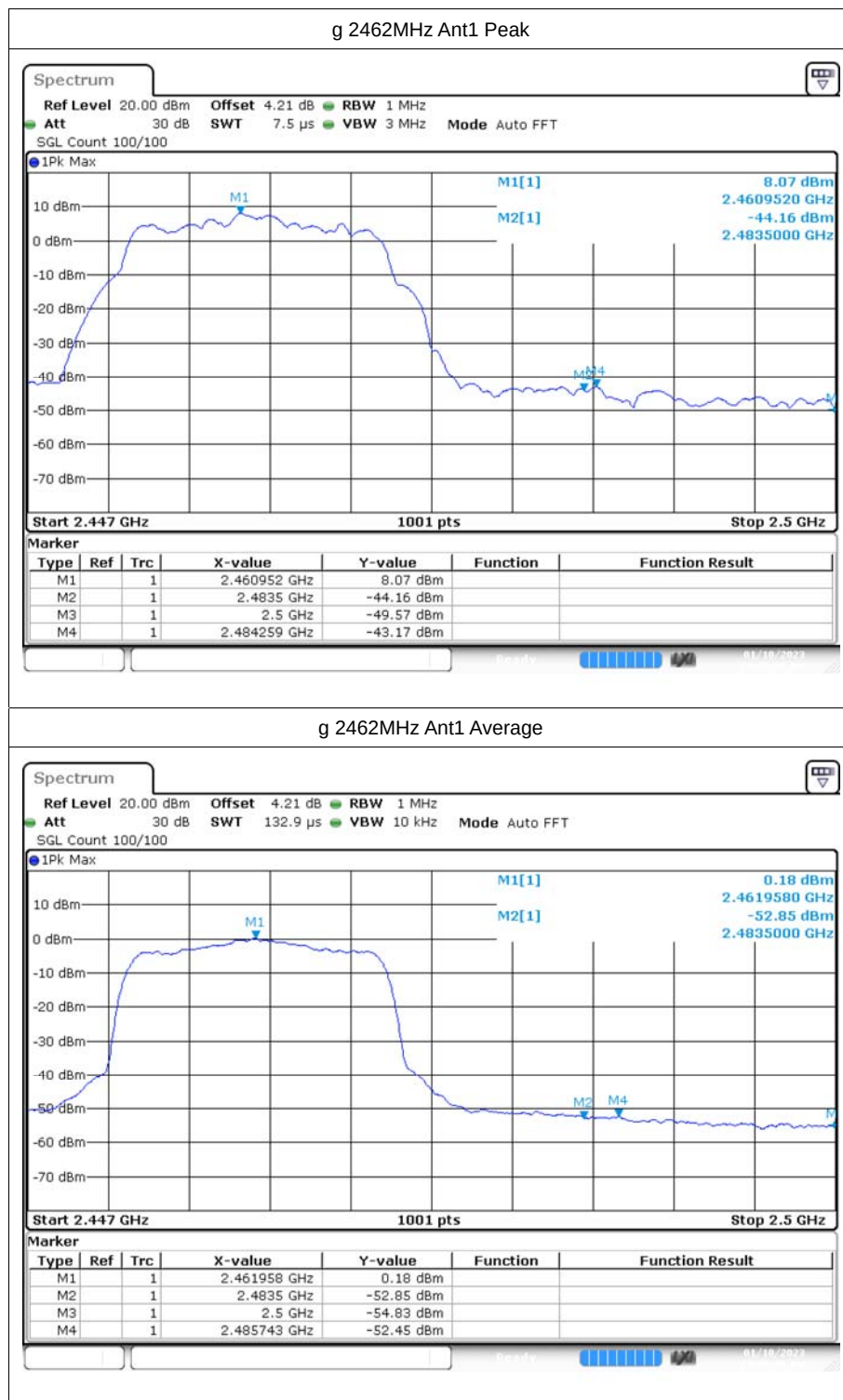
n20	2462	Ant1	2500	-48.27	2	48.99	Peak	74	Pass
n20	2462	Ant1	2500	-55.53	2	41.73	Average	54	Pass
n40	2422	Ant1	2310	-47.43	2	49.83	Peak	74	Pass
n40	2422	Ant1	2310	-55.04	2	42.22	Average	54	Pass
n40	2422	Ant1	2386.964	-43.15	2	54.11	Peak	74	Pass
n40	2422	Ant1	2389.946	-53.14	2	44.12	Average	54	Pass
n40	2422	Ant1	2390	-43.75	2	53.51	Peak	74	Pass
n40	2422	Ant1	2390	-53.12	2	44.14	Average	54	Pass
n40	2452	Ant1	2483.5	-42.78	2	54.48	Peak	74	Pass
n40	2452	Ant1	2483.5	-50.88	2	46.38	Average	54	Pass
n40	2452	Ant1	2487.988	-42.23	2	55.03	Peak	74	Pass
n40	2452	Ant1	2484.556	-50.29	2	46.97	Average	54	Pass
n40	2452	Ant1	2500	-47.16	2	50.1	Peak	74	Pass
n40	2452	Ant1	2500	-53.66	2	43.6	Average	54	Pass

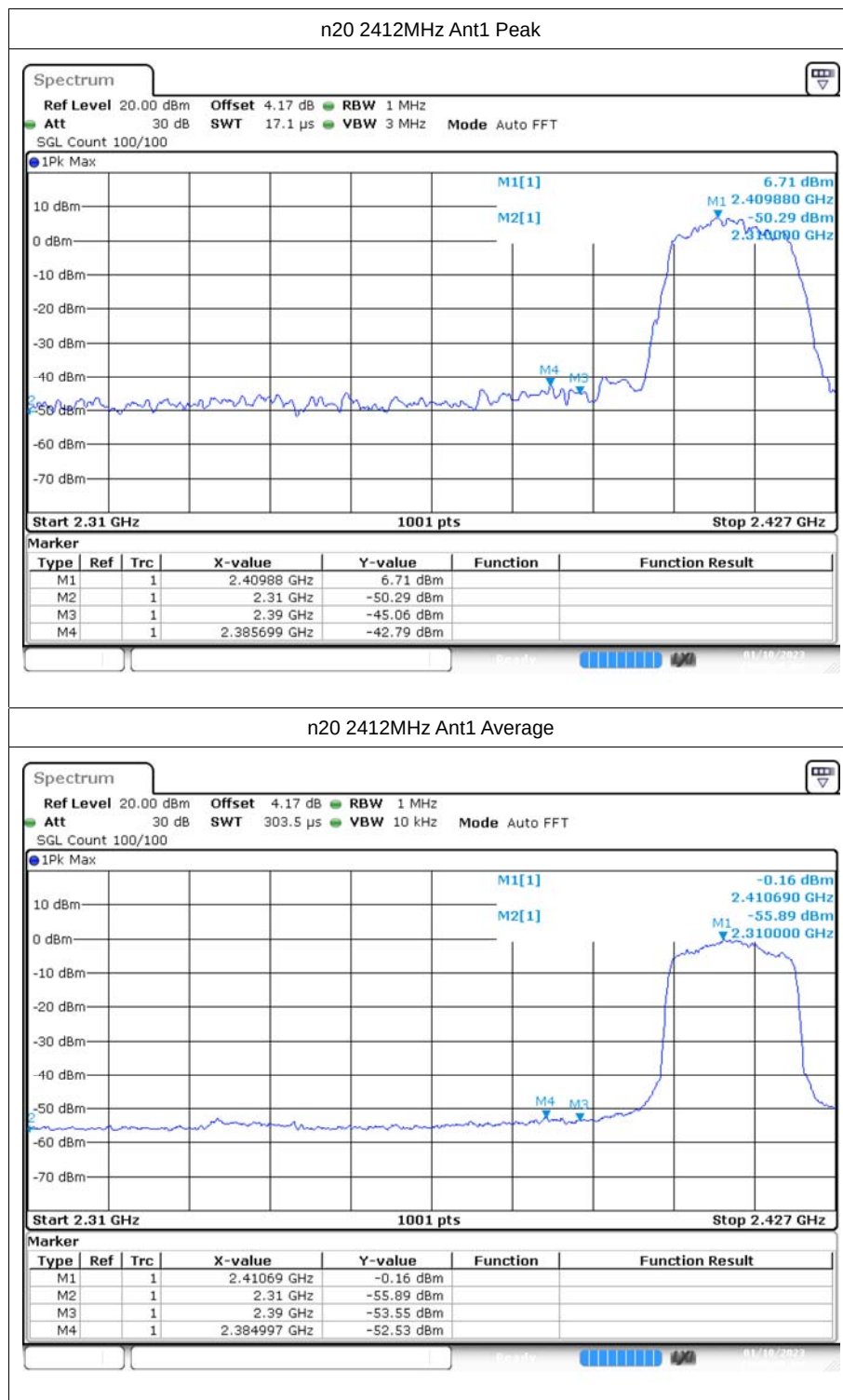
7.2 Test Graphs

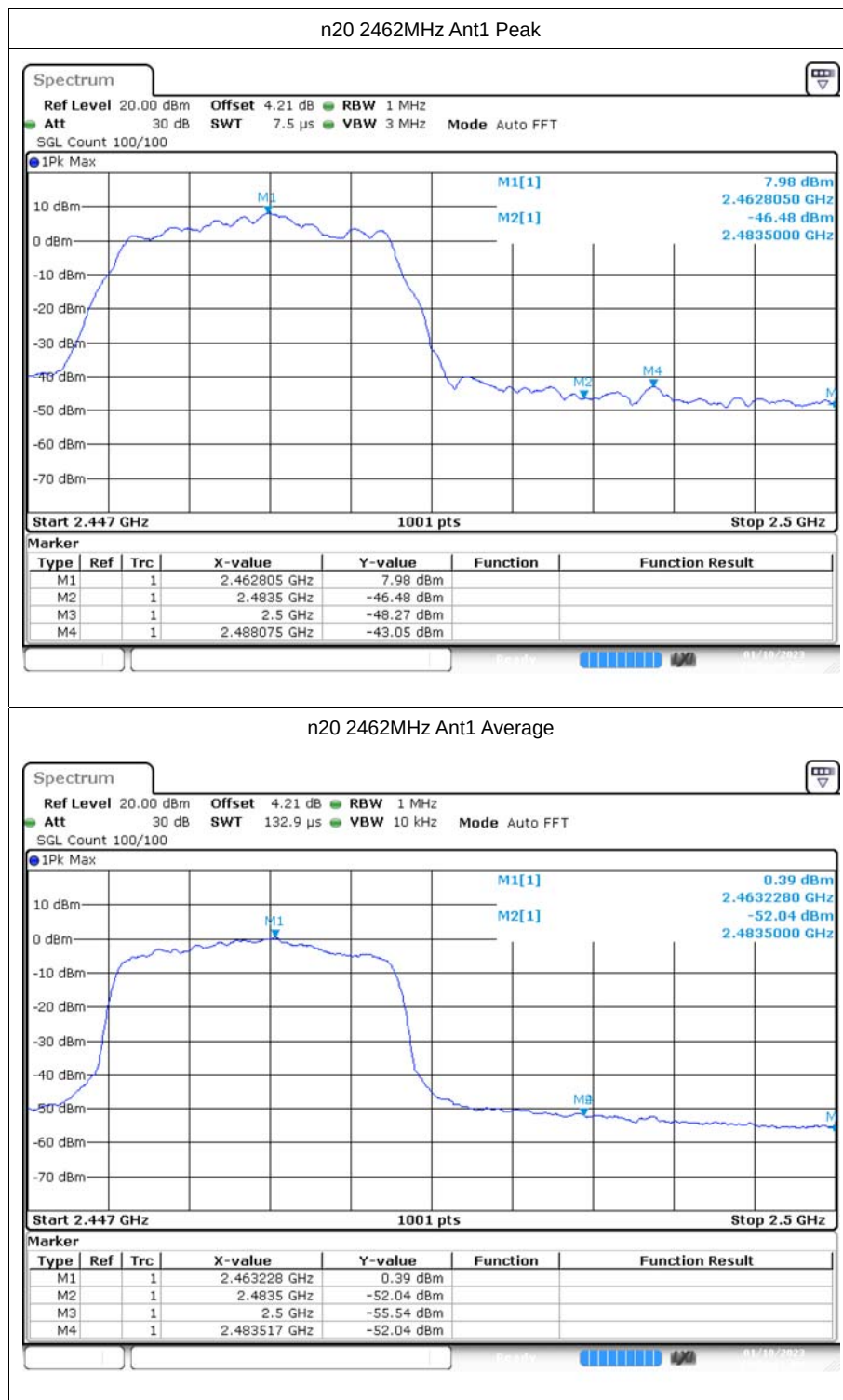


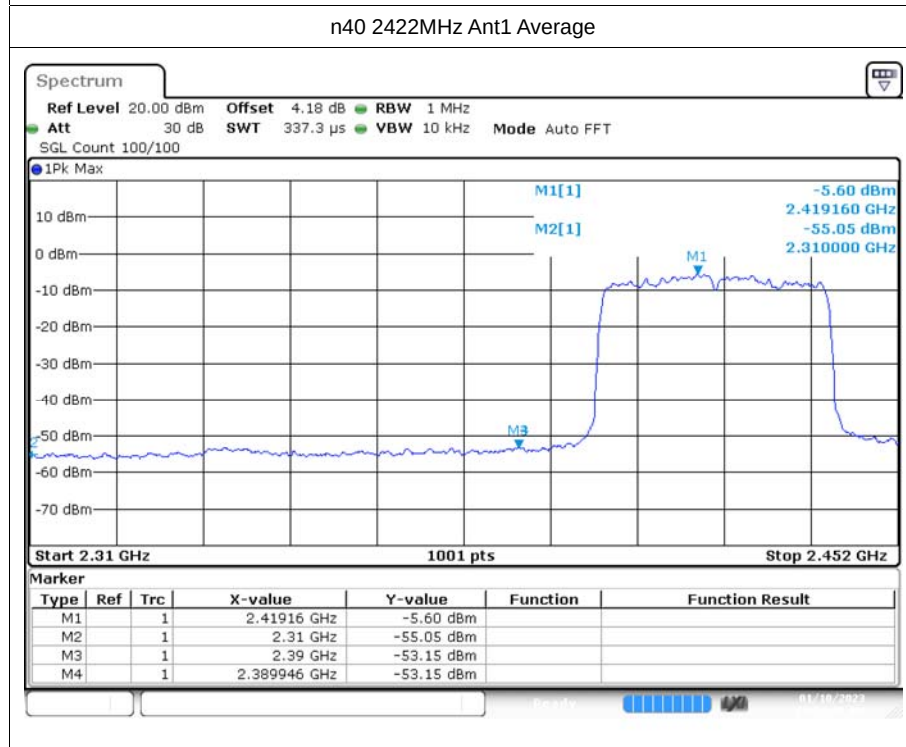
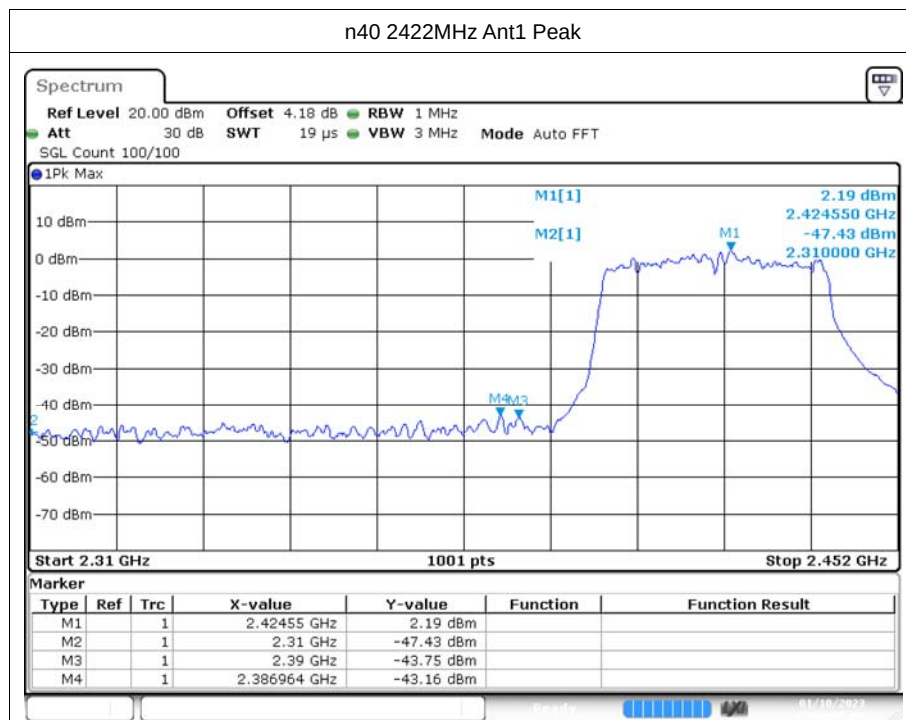


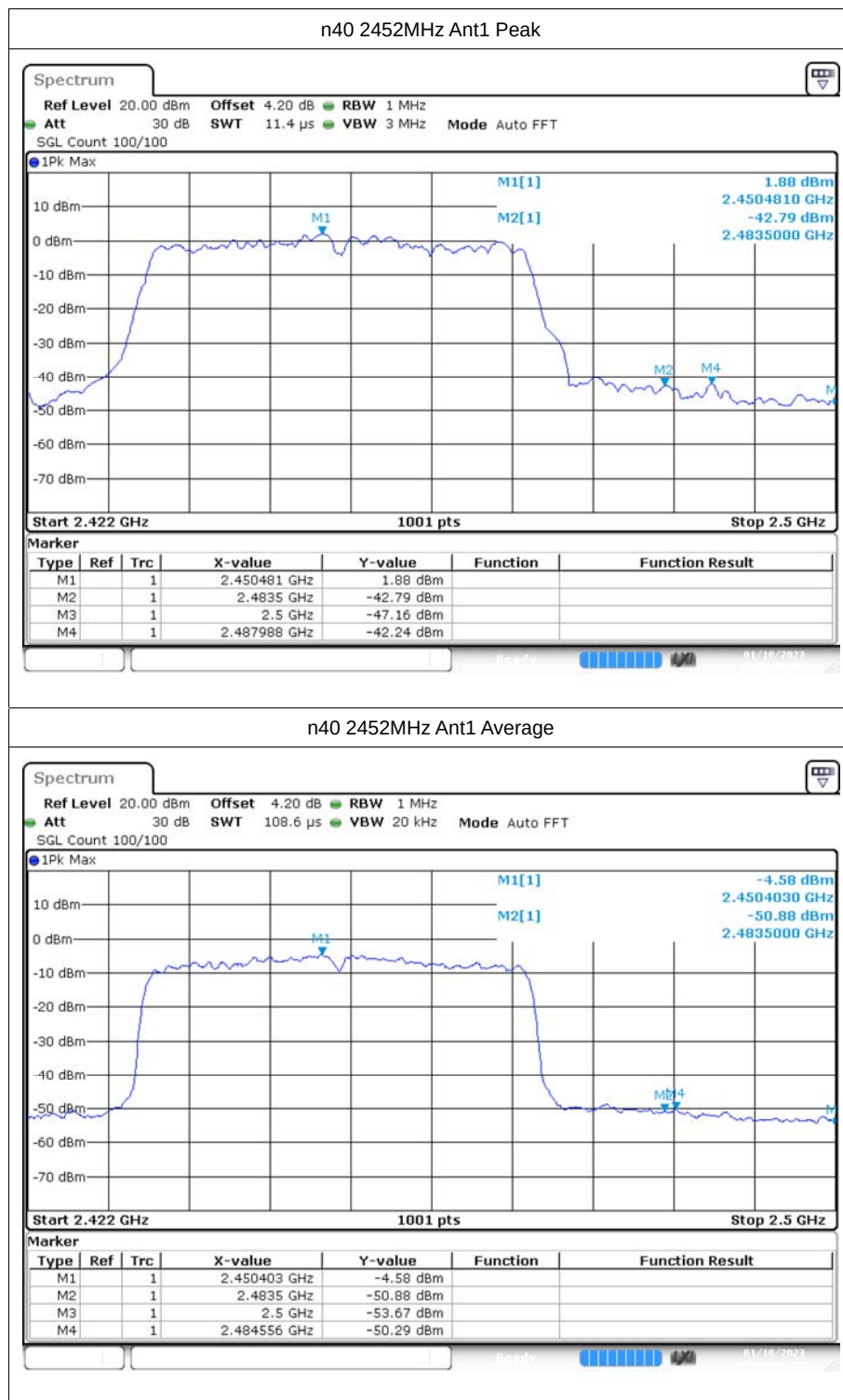












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