



Appendix C

RF Test Data for 2.4GWIFI (Conducted Measurement)

Product Name: WIFI signal amplifier

Trade Mark: sunhans

Test Model: SHRC5824G2W

Environmental Conditions

Temperature:	26.7° C
Relative Humidity:	58.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Simba Huang
Supervised by:	Seal Chen



Contents

Page

COVER PAGE

1	Duty Cycle	3
1.1	Test Result.....	3
1.2	Test Graphs	4
2	Maximum Conducted Output Power	10
2.1	Test Result.....	10
3	-6dB Bandwidth	11
3.1	Test Result.....	11
3.2	Test Graphs	12
4	Maximum Power Spectral Density Level	18
4.1	Test Result.....	18
4.2	Test Graphs	19
5	Band Edge.....	25
5.1	Test Result.....	25
5.2	Test Graphs	26
6	Conducted RF Spurious Emission.....	34
6.1	Test Result.....	34
6.2	Test Graphs	35
7	Restrict Band	47
7.1	Test Result.....	47

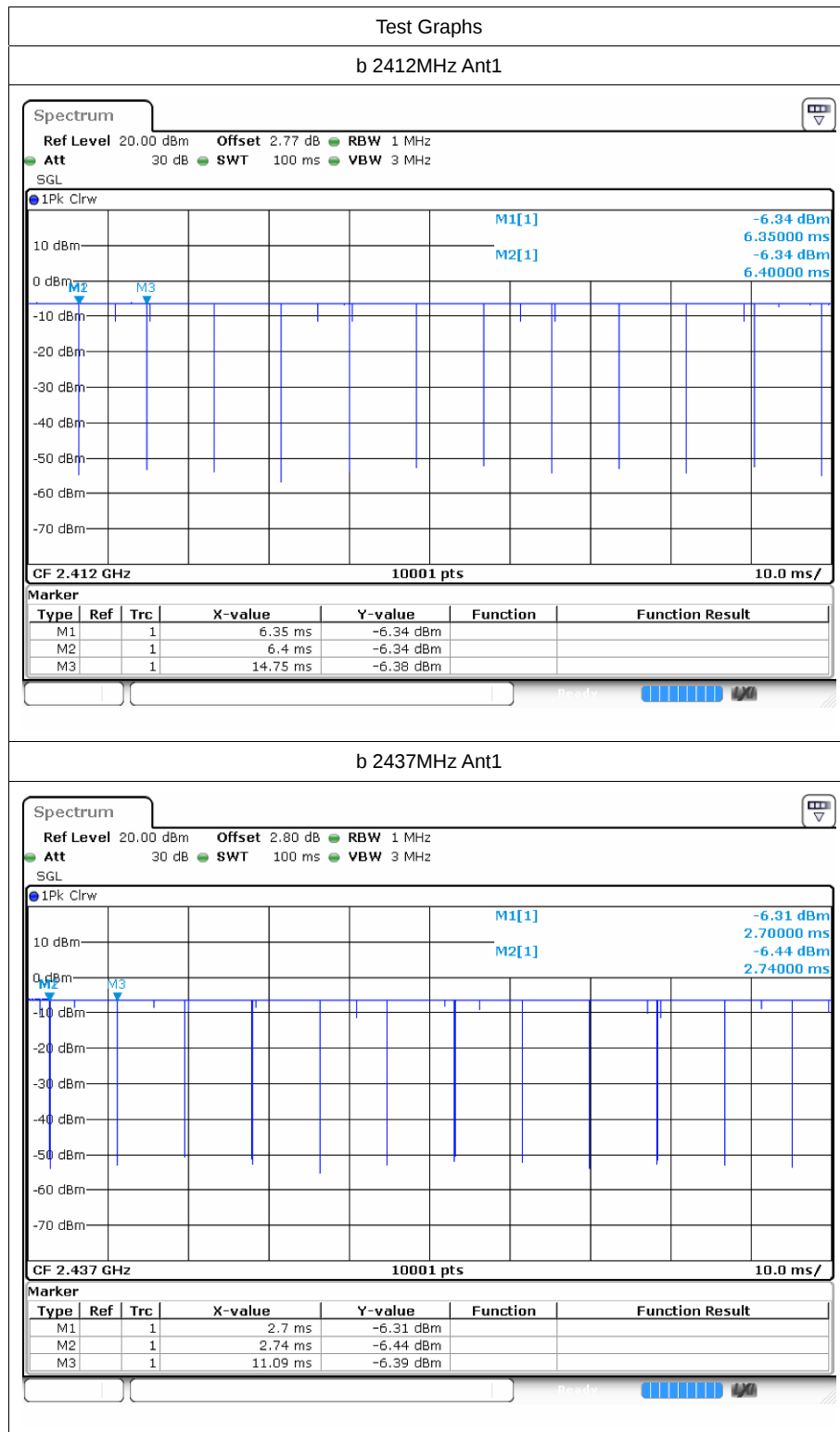


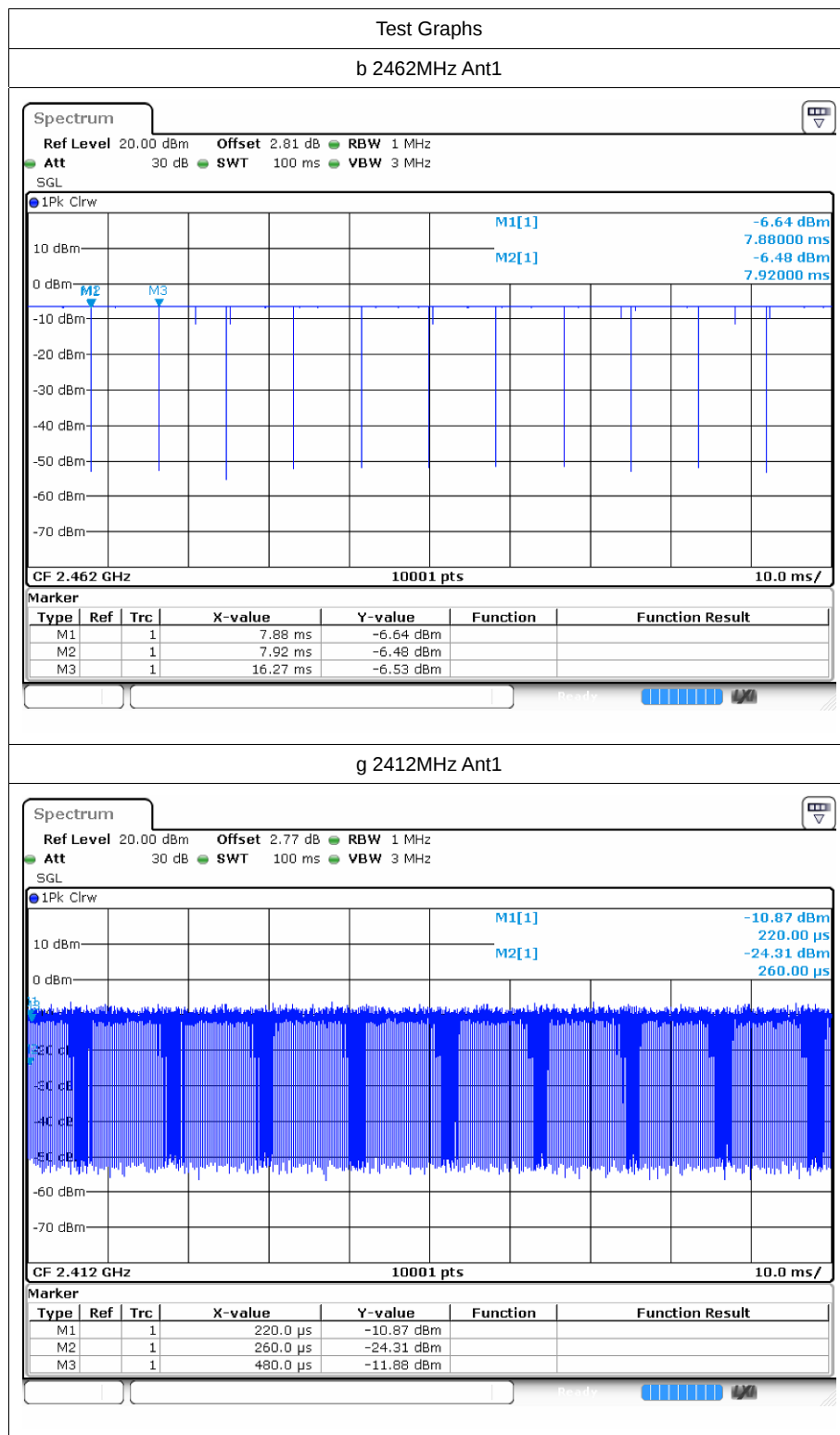
1 Duty Cycle

1.1 Test Result

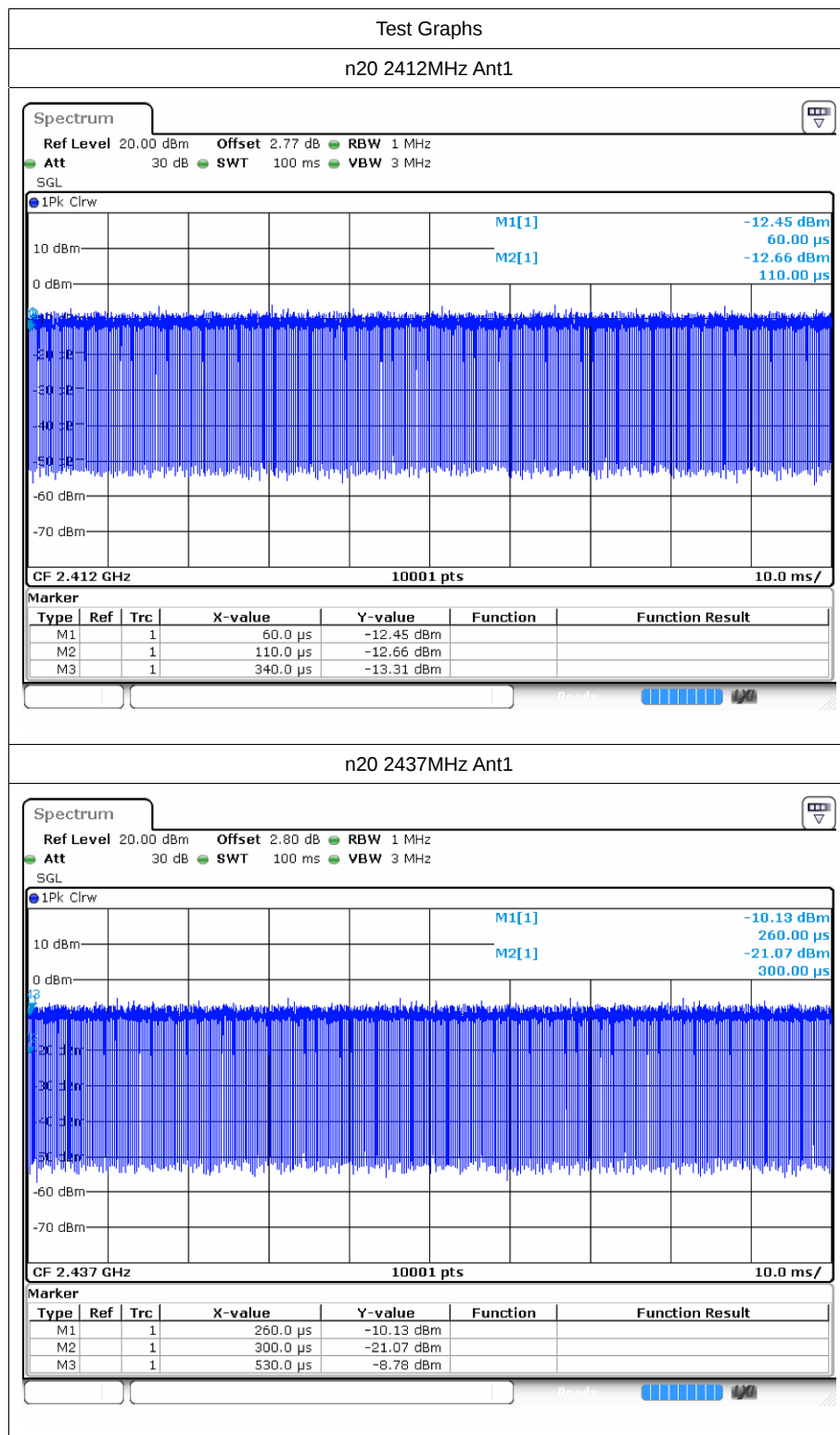
Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	1/T (kHz)
b	2412	Ant1	99.59	0.01
b	2437	Ant1	99.6	0.01
b	2462	Ant1	99.63	0.01
g	2412	Ant1	86.74	4.55
g	2437	Ant1	86.75	4.76
g	2462	Ant1	86.78	4.76
n20	2412	Ant1	87.41	4.35
n20	2437	Ant1	87.41	4.35
n20	2462	Ant1	87.48	4.17
n40	2422	Ant1	76.79	4.76
n40	2437	Ant1	76.97	4.55
n40	2452	Ant1	78.93	4.55

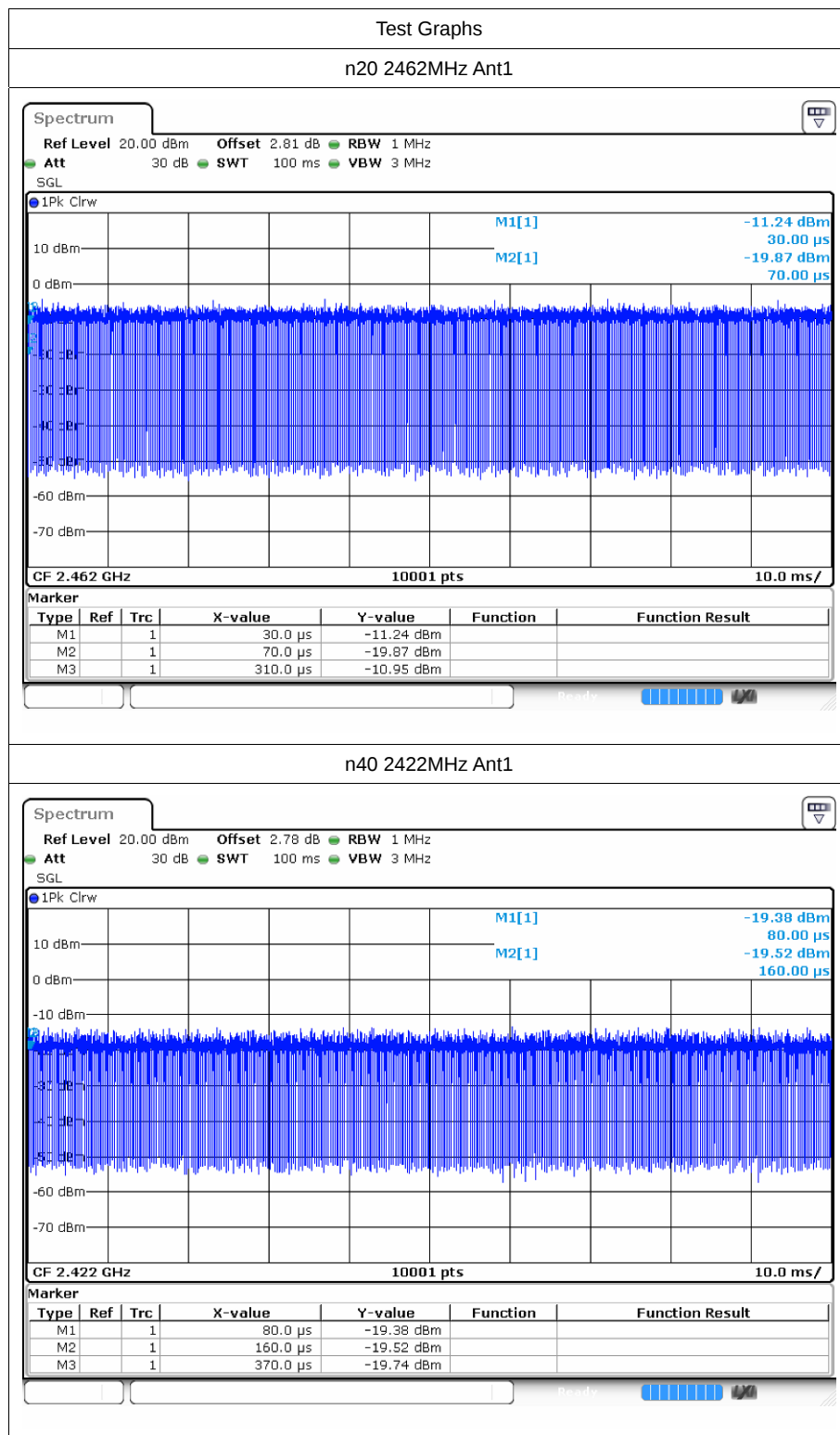
1.2 Test Graphs

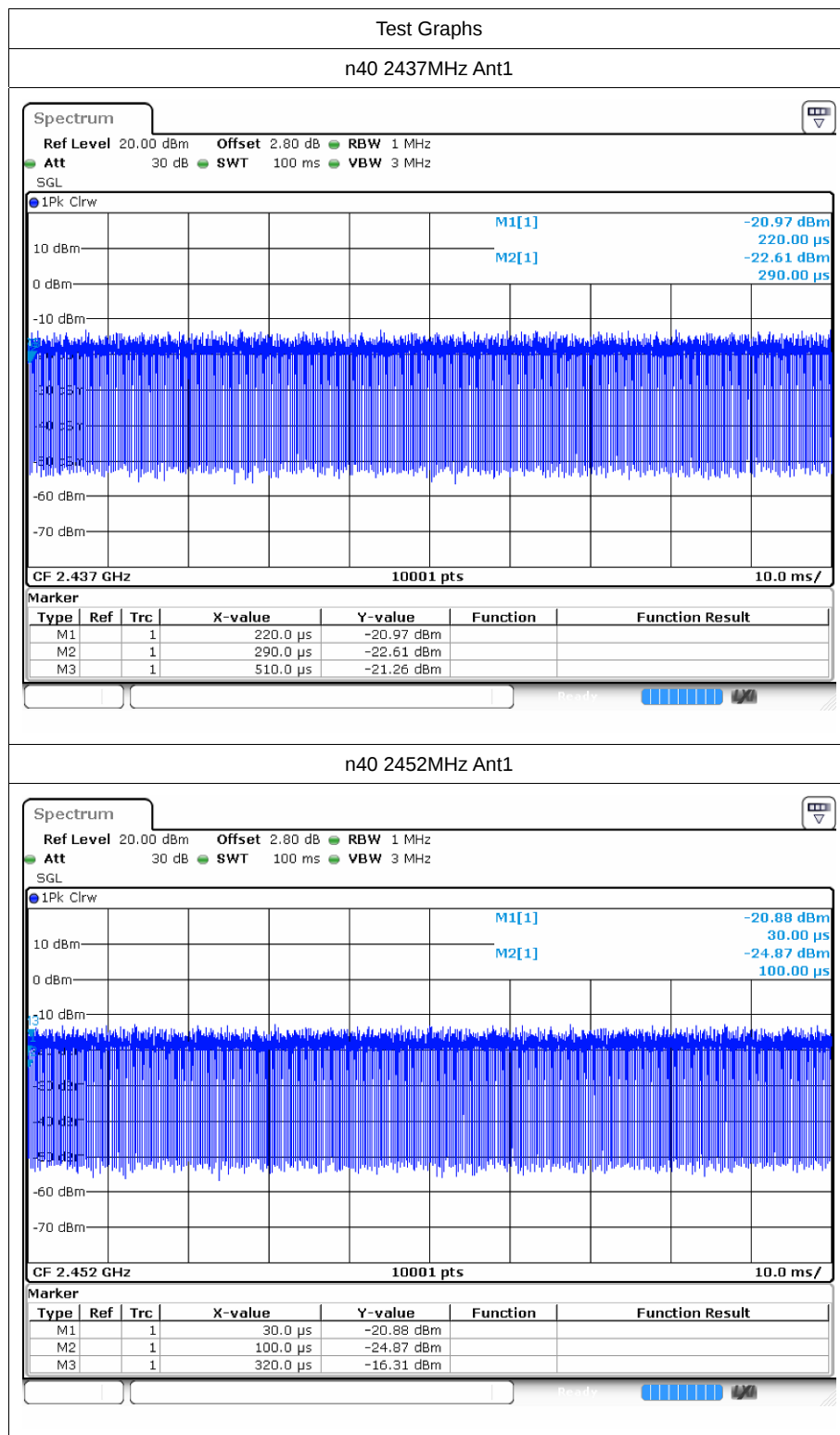














2 Maximum Conducted Output Power

2.1 Test Result

Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
b	2412	Ant1	4.21	18	Pass
b	2437	Ant1	4.18	18	Pass
b	2462	Ant1	4.09	18	Pass
g	2412	Ant1	2.97	18	Pass
g	2437	Ant1	3.82	18	Pass
g	2462	Ant1	4.59	18	Pass
n20	2412	Ant1	2.84	18	Pass
n20	2437	Ant1	3.67	18	Pass
n20	2462	Ant1	4.46	18	Pass
n40	2422	Ant1	2.82	18	Pass
n40	2437	Ant1	3.38	18	Pass
n40	2452	Ant1	3.73	18	Pass

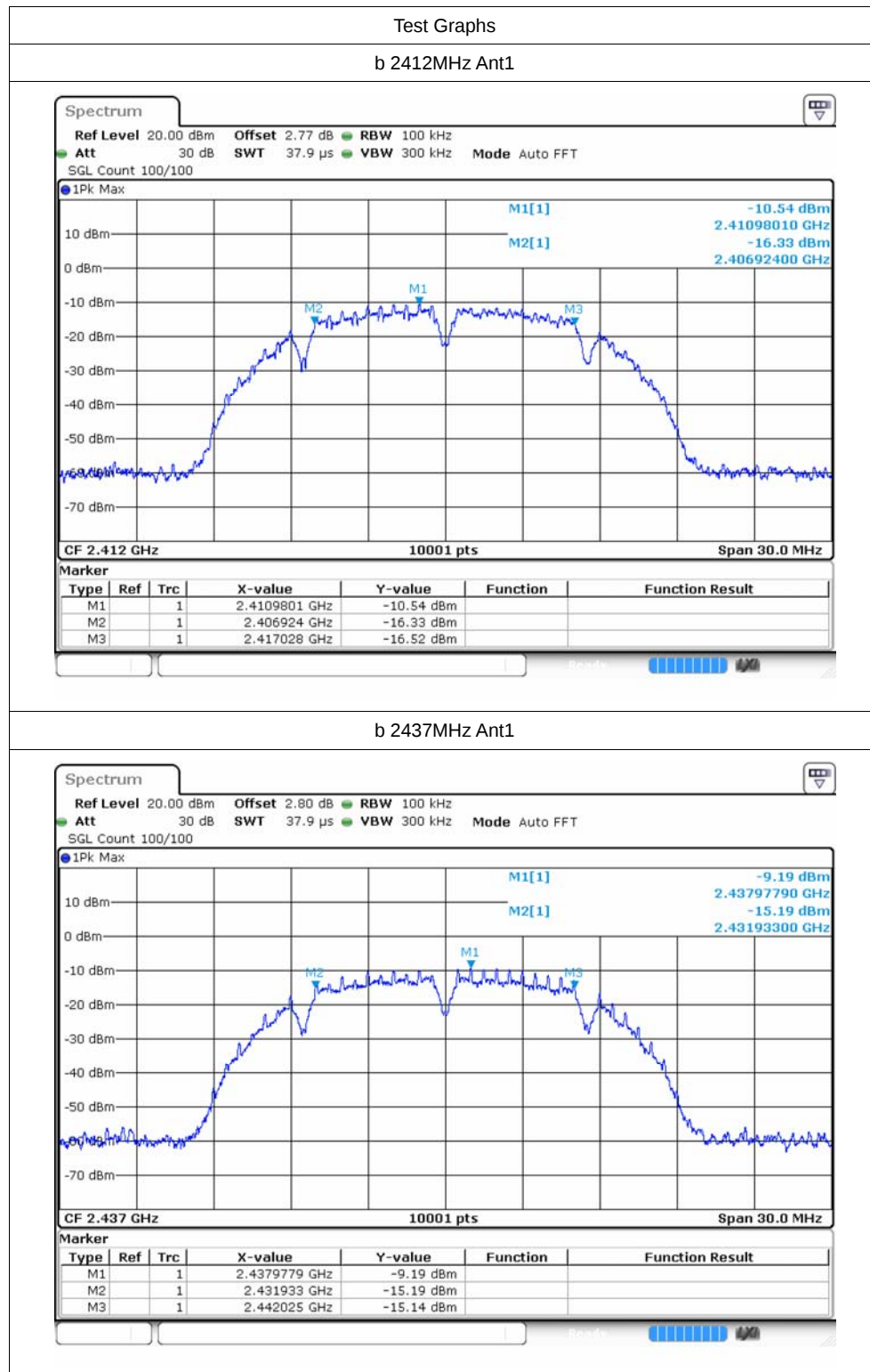


3 -6dB Bandwidth

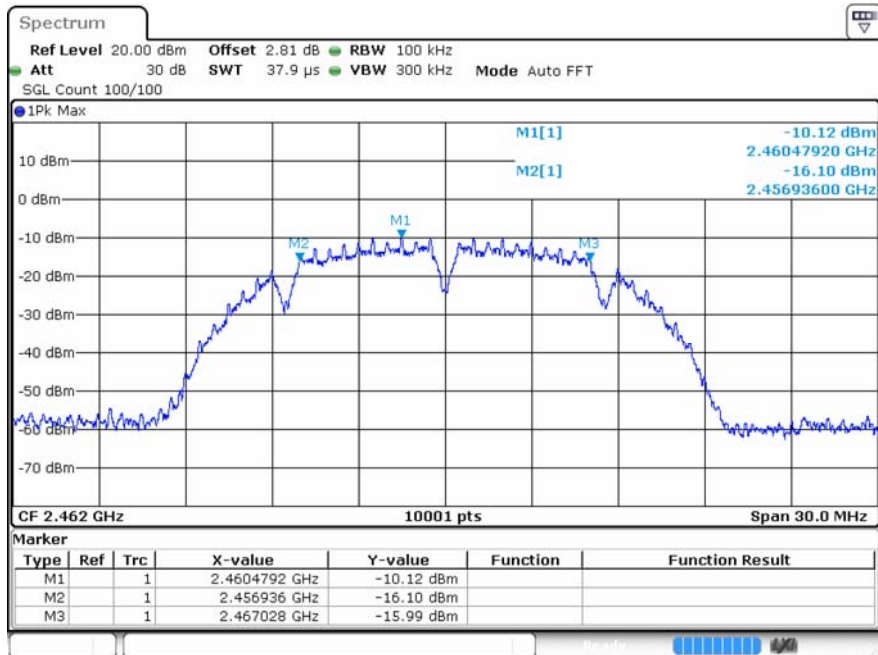
3.1 Test Result

Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
b	2412	Ant1	10.104	0.5	Pass
b	2437	Ant1	10.092	0.5	Pass
b	2462	Ant1	10.092	0.5	Pass
g	2412	Ant1	15.12	0.5	Pass
g	2437	Ant1	15.114	0.5	Pass
g	2462	Ant1	15.123	0.5	Pass
n20	2412	Ant1	15.078	0.5	Pass
n20	2437	Ant1	15.108	0.5	Pass
n20	2462	Ant1	15.111	0.5	Pass
n40	2422	Ant1	35.07	0.5	Pass
n40	2437	Ant1	35.046	0.5	Pass
n40	2452	Ant1	33.822	0.5	Pass

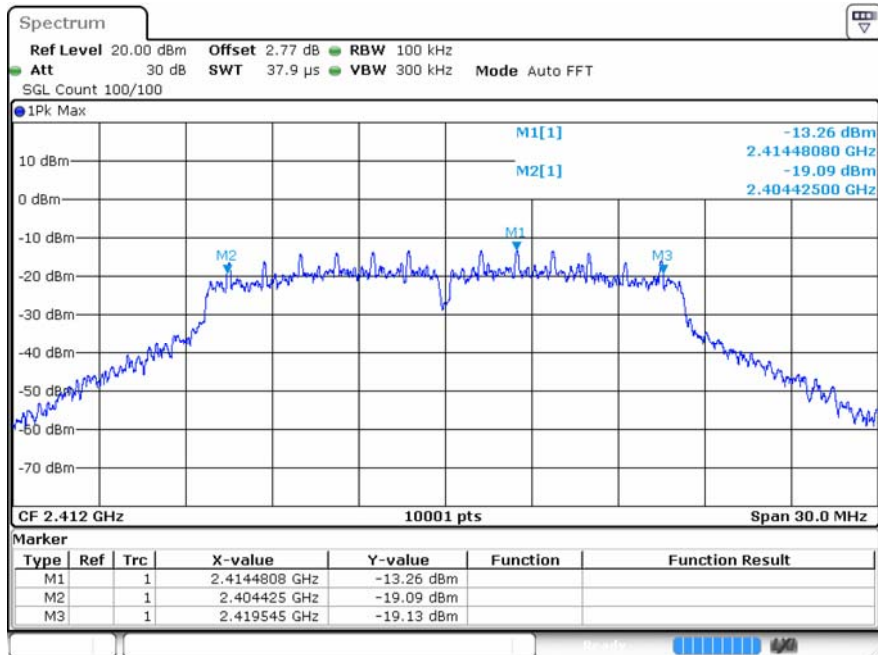
3.2 Test Graphs



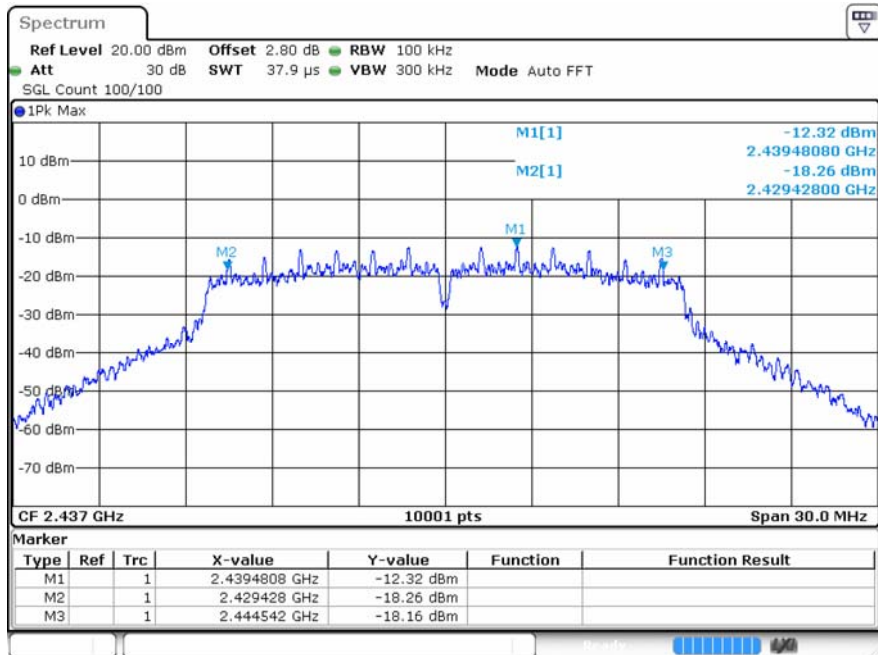
b 2462MHz Ant1



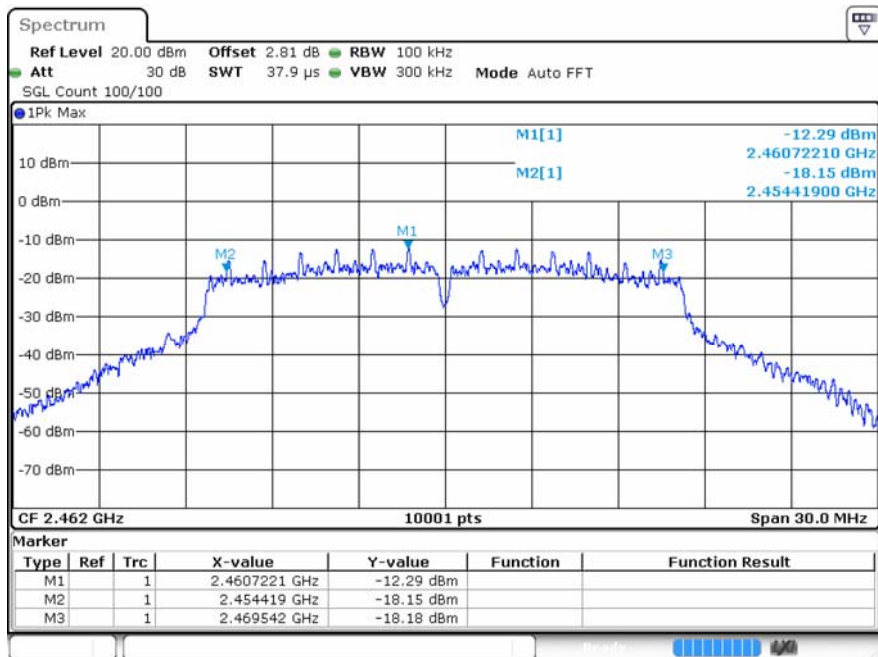
g 2412MHz Ant1



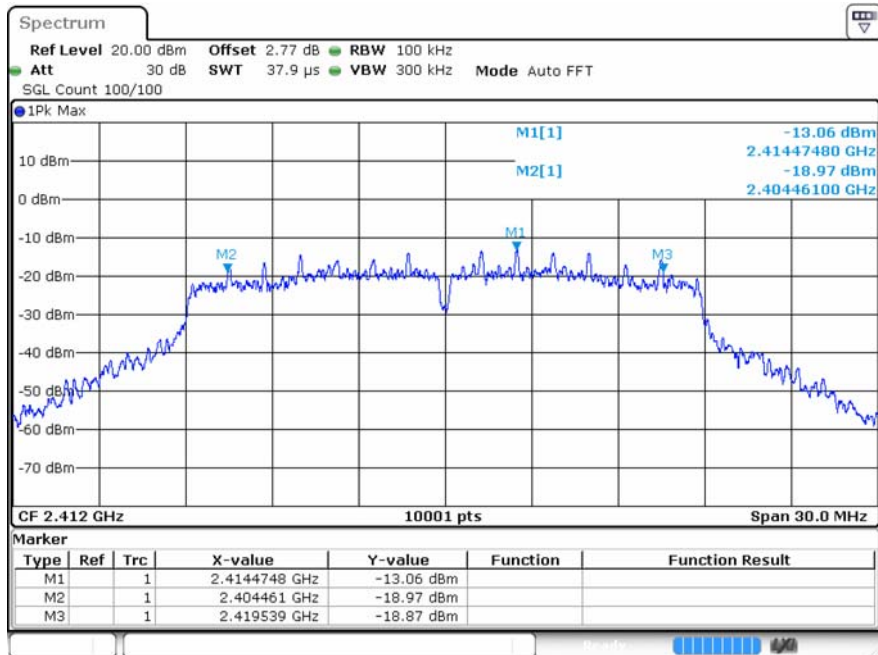
g 2437MHz Ant1



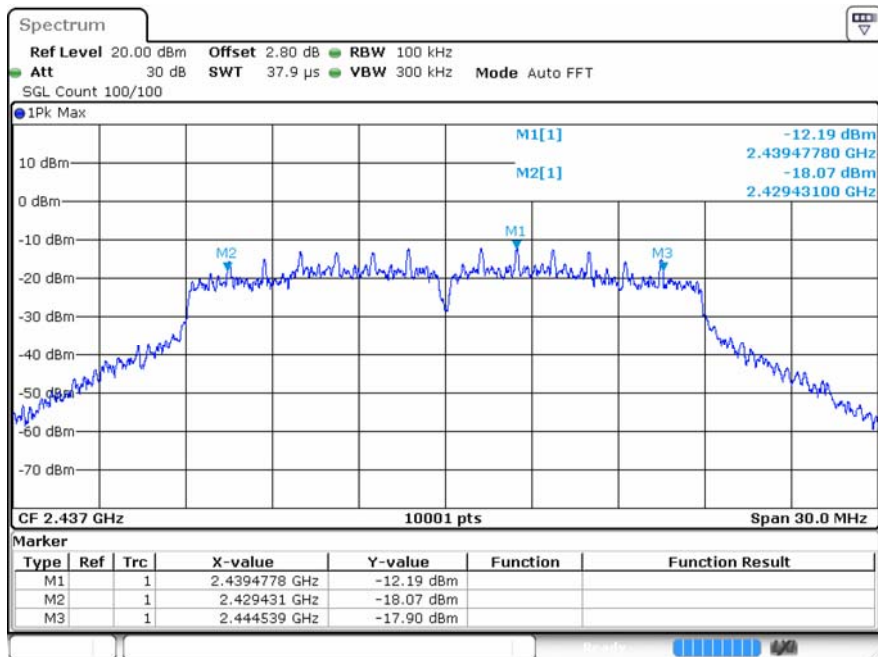
g 2462MHz Ant1

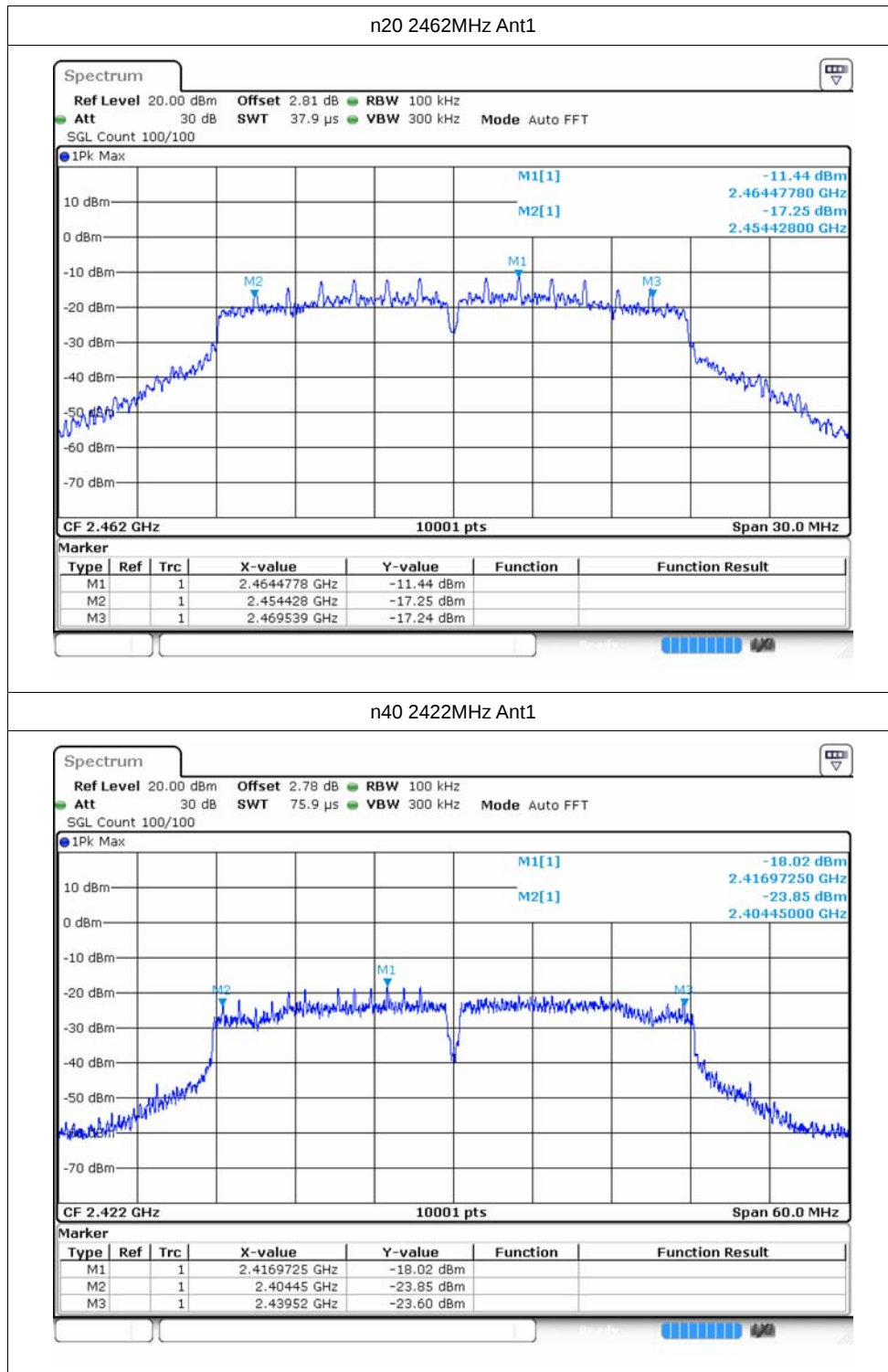


n20 2412MHz Ant1

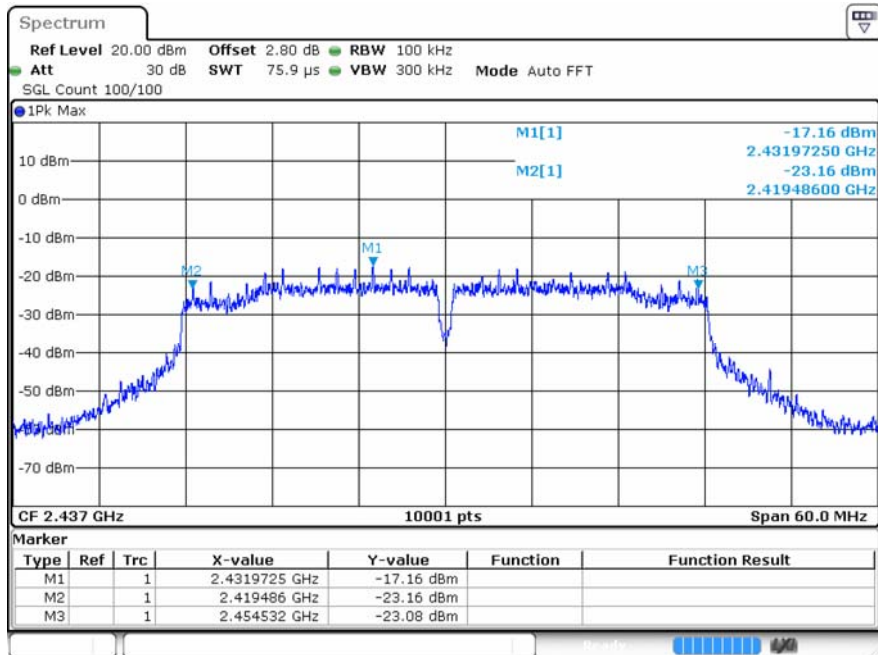


n20 2437MHz Ant1

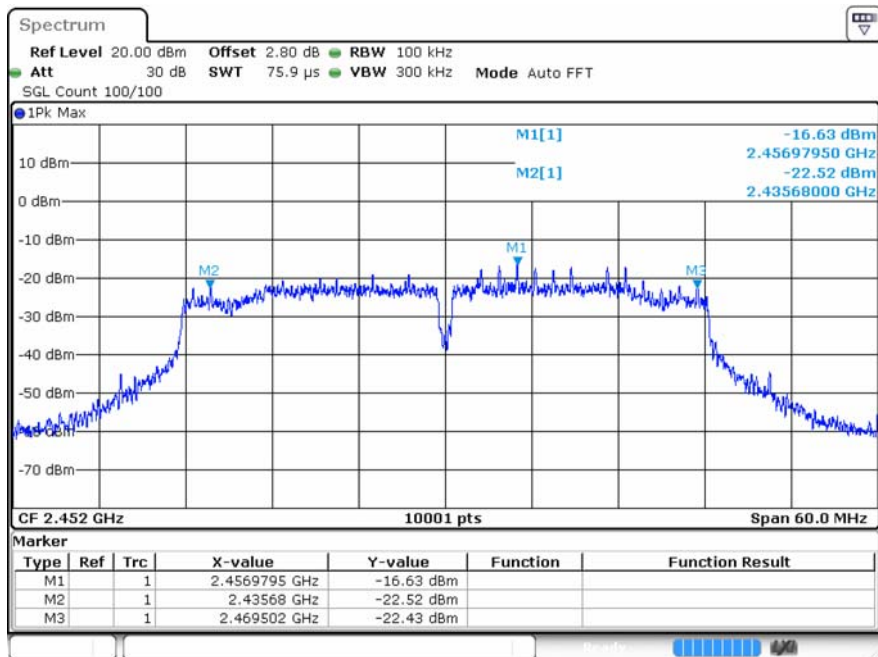




n40 2437MHz Ant1



n40 2452MHz Ant1

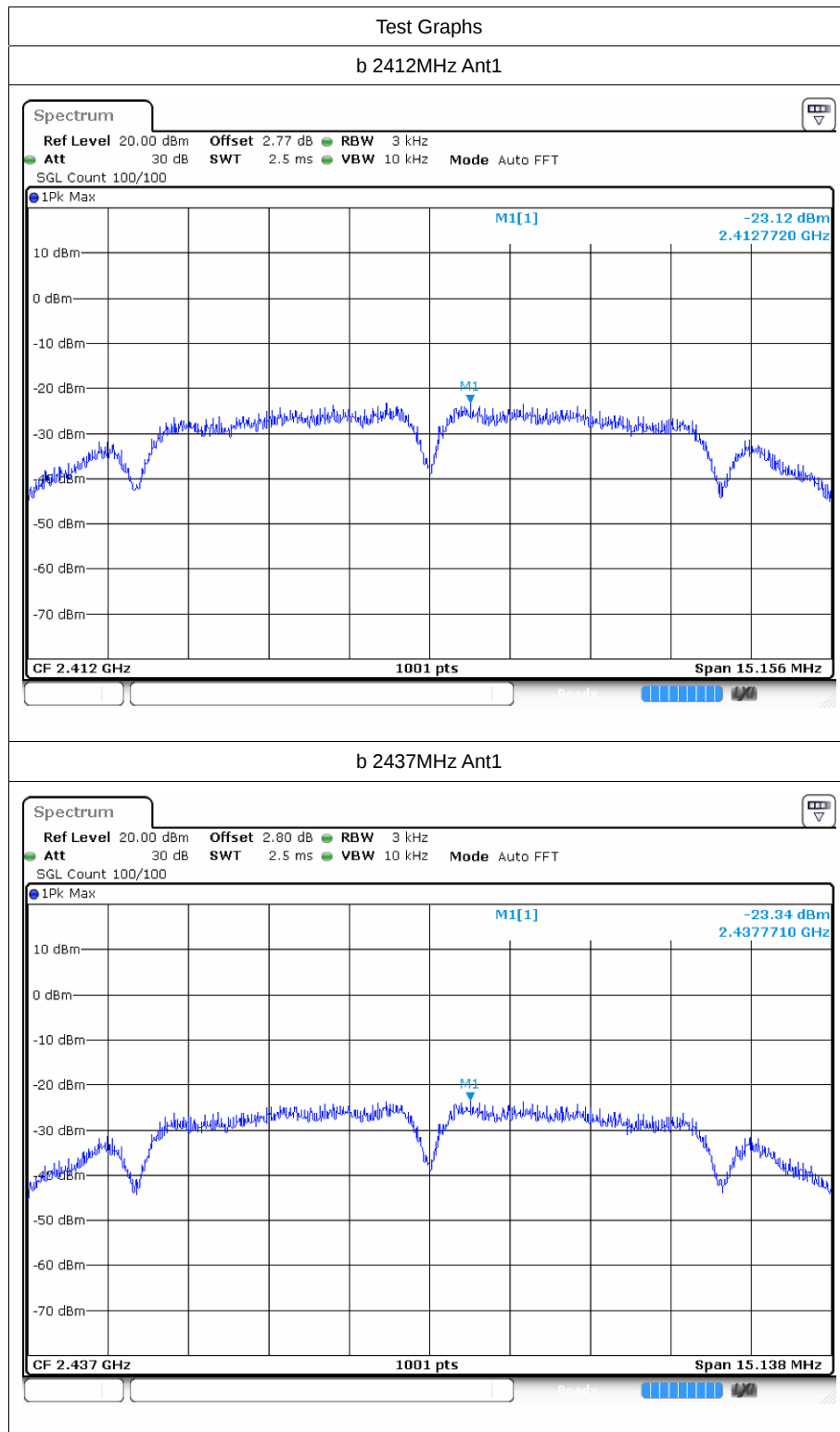


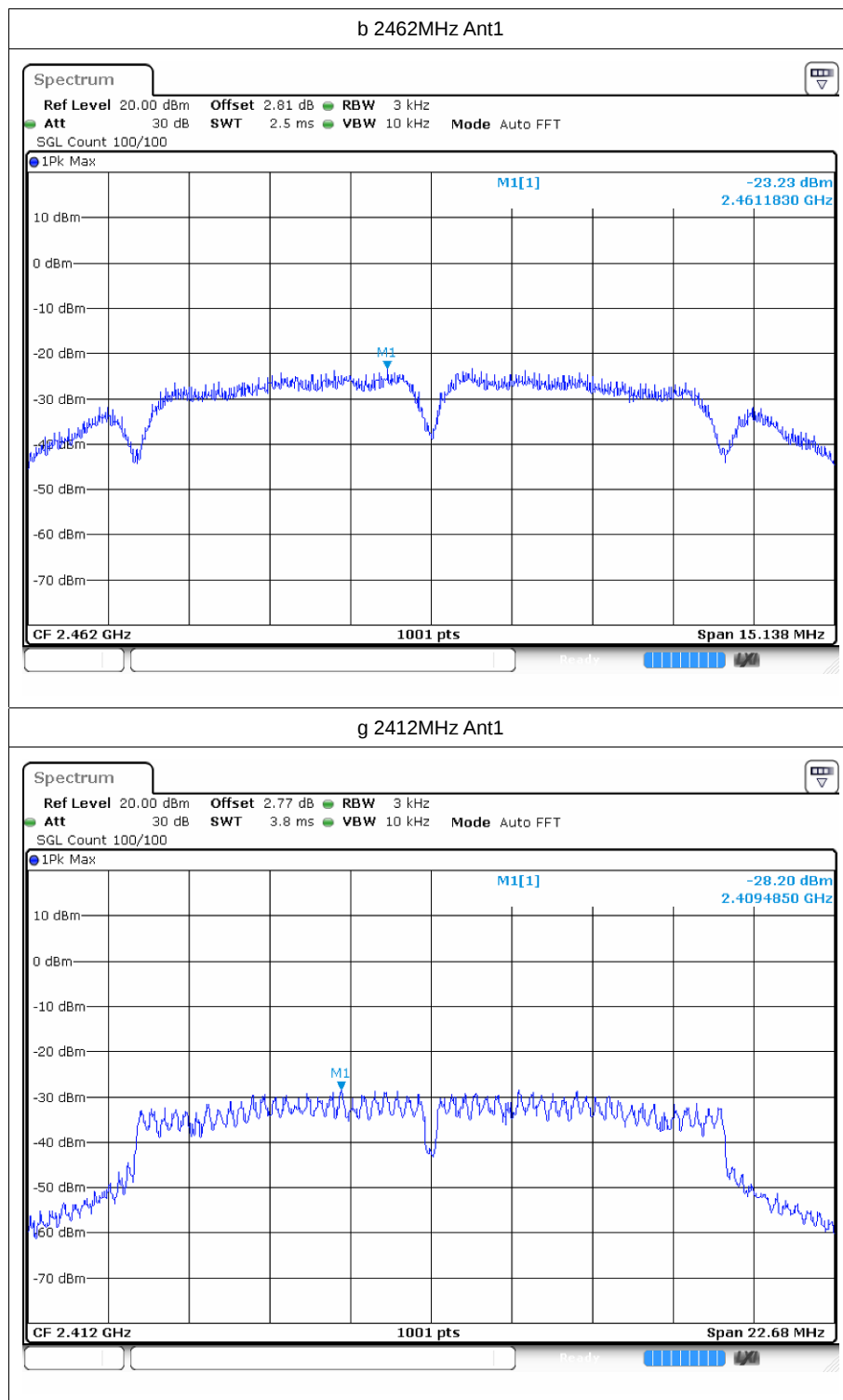
4 Maximum Power Spectral Density Level

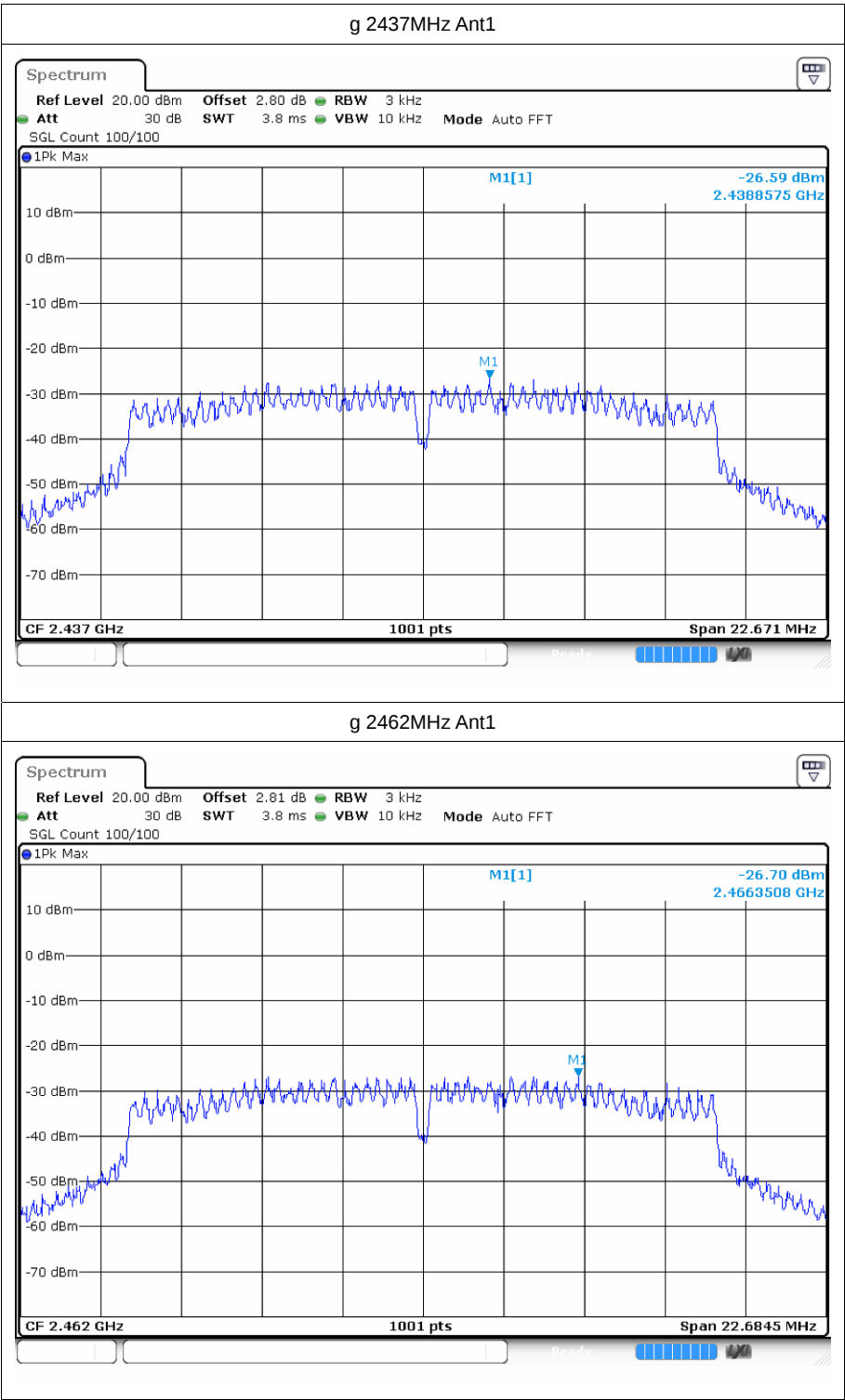
4.1 Test Result

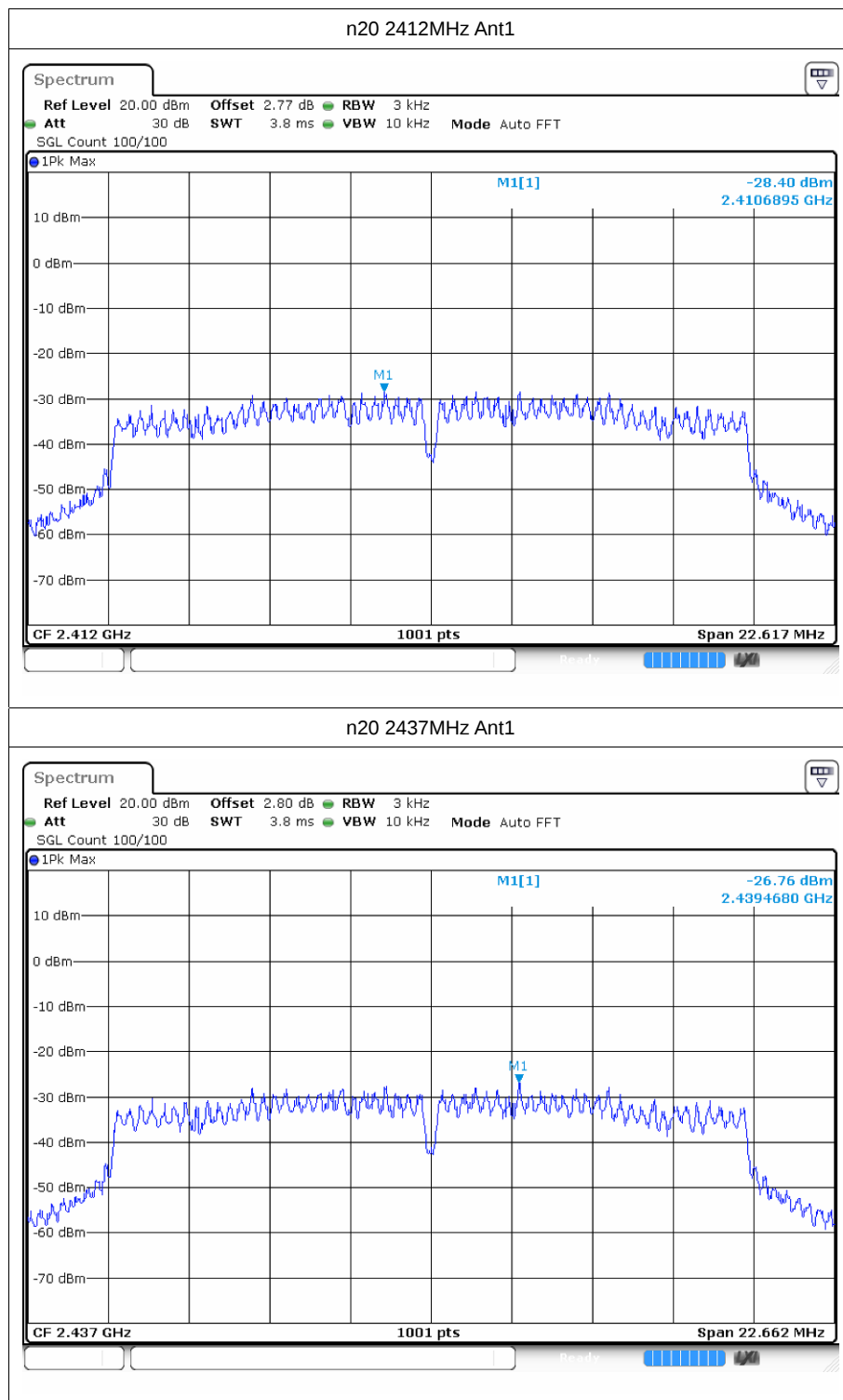
Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3-100kHz)	Limit (dBm/3kHz)	Verdict
b	2412	Ant1	-23.12	≤ -4	Pass
b	2437	Ant1	-23.34	≤ -4	Pass
b	2462	Ant1	-23.23	≤ -4	Pass
g	2412	Ant1	-28.2	≤ -4	Pass
g	2437	Ant1	-26.59	≤ -4	Pass
g	2462	Ant1	-26.7	≤ -4	Pass
n20	2412	Ant1	-28.4	≤ -4	Pass
n20	2437	Ant1	-26.76	≤ -4	Pass
n20	2462	Ant1	-25.55	≤ -4	Pass
n40	2422	Ant1	-31.98	≤ -4	Pass
n40	2437	Ant1	-31.61	≤ -4	Pass
n40	2452	Ant1	-31.09	≤ -4	Pass

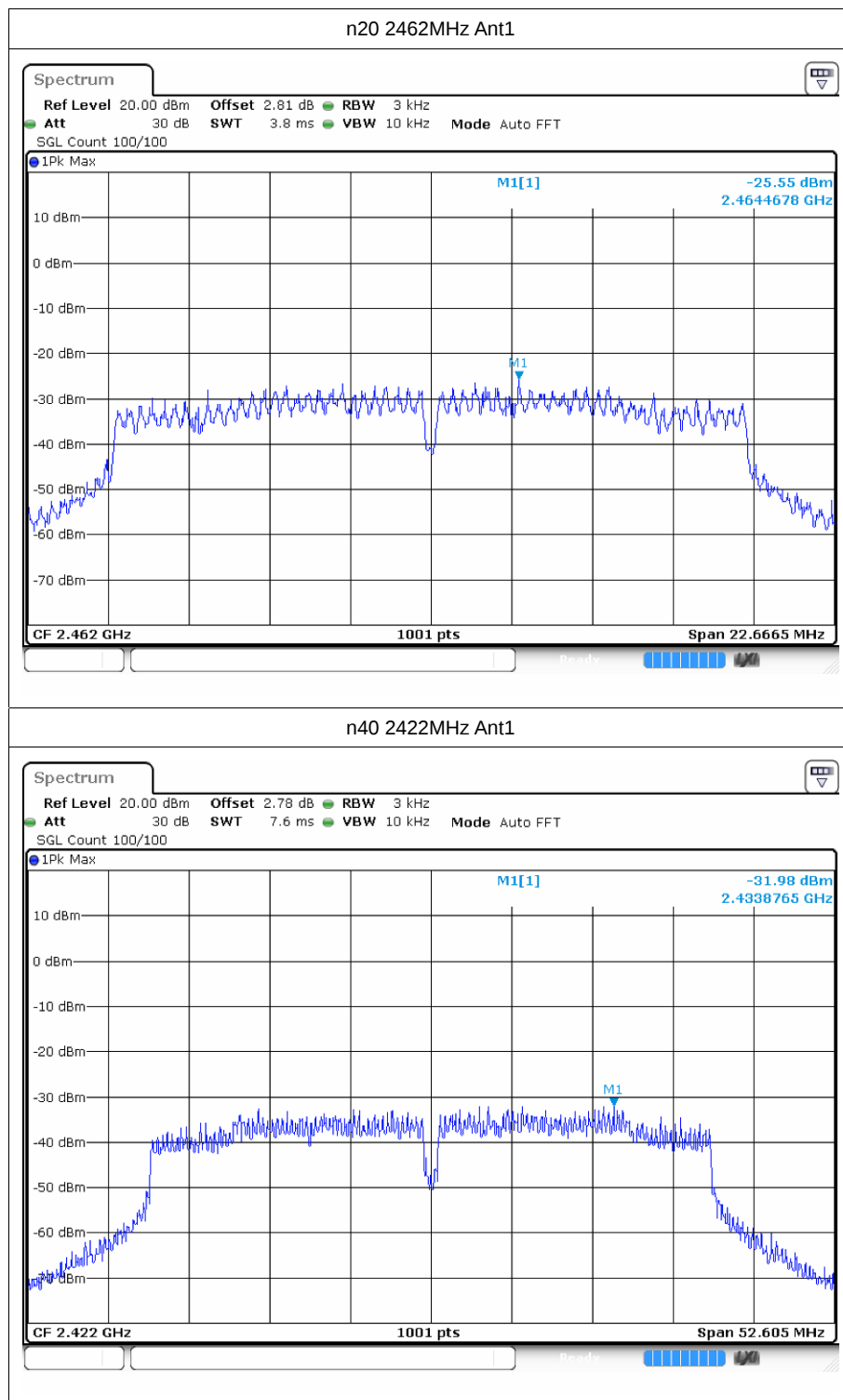
4.2 Test Graphs

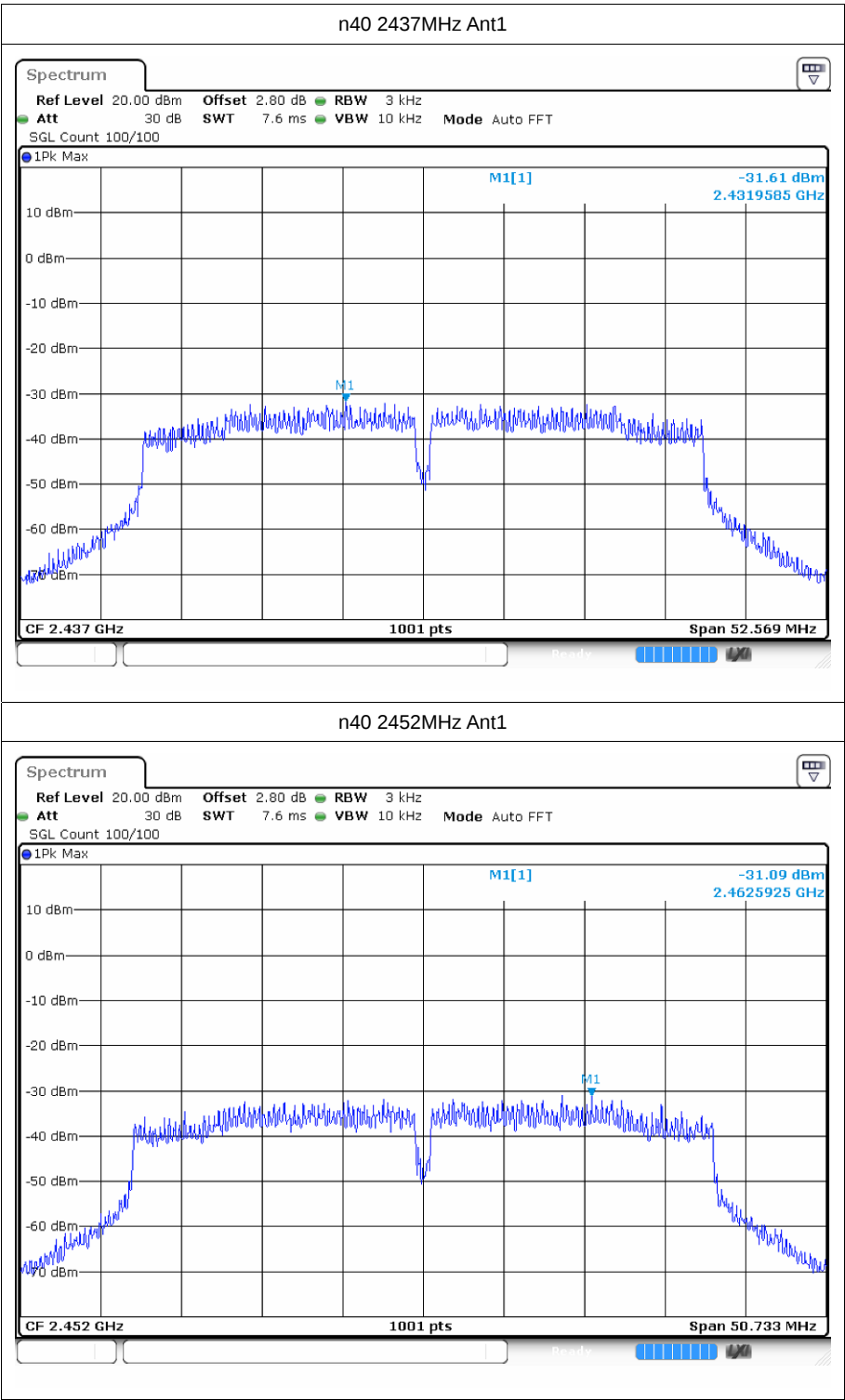












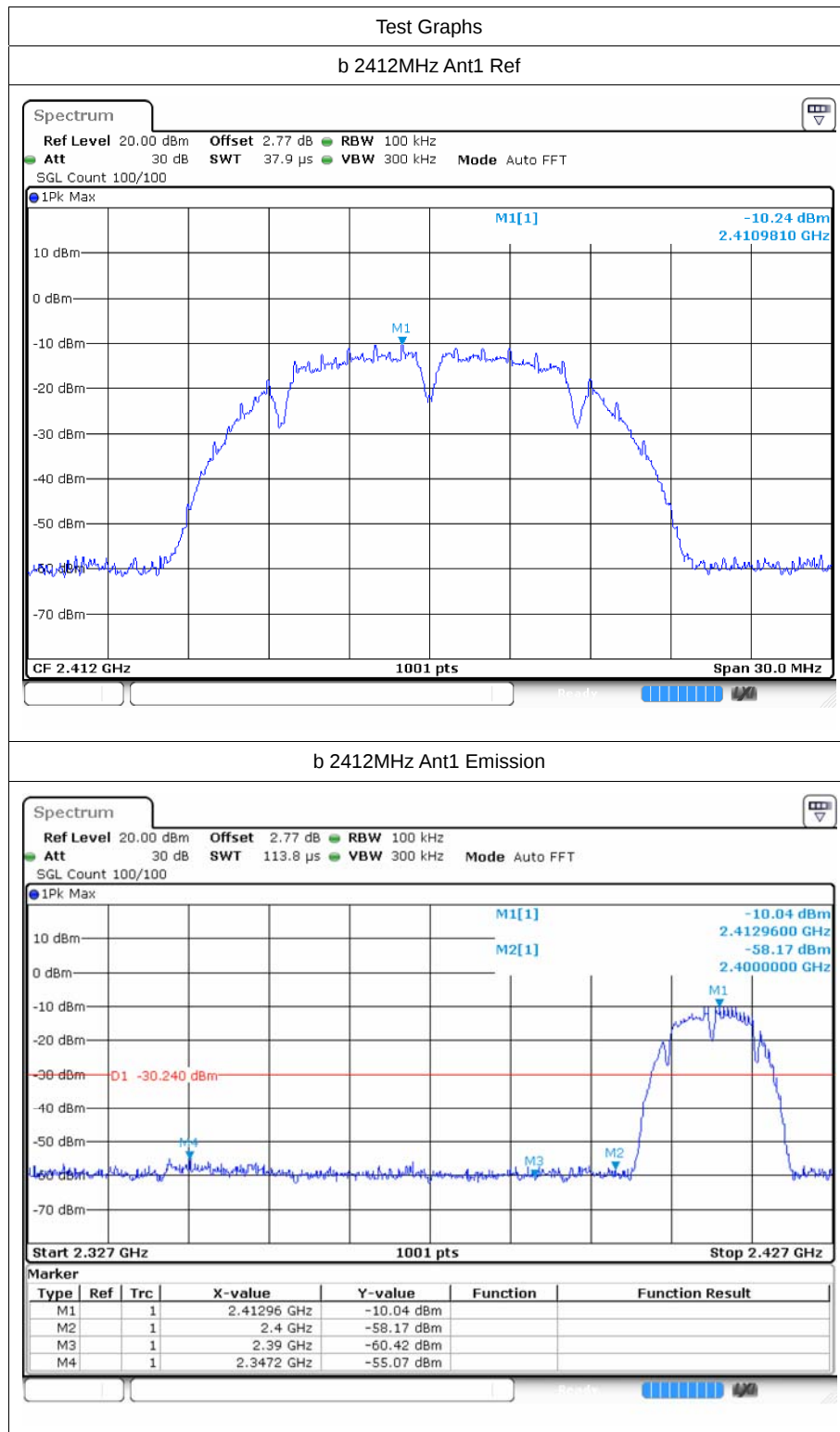


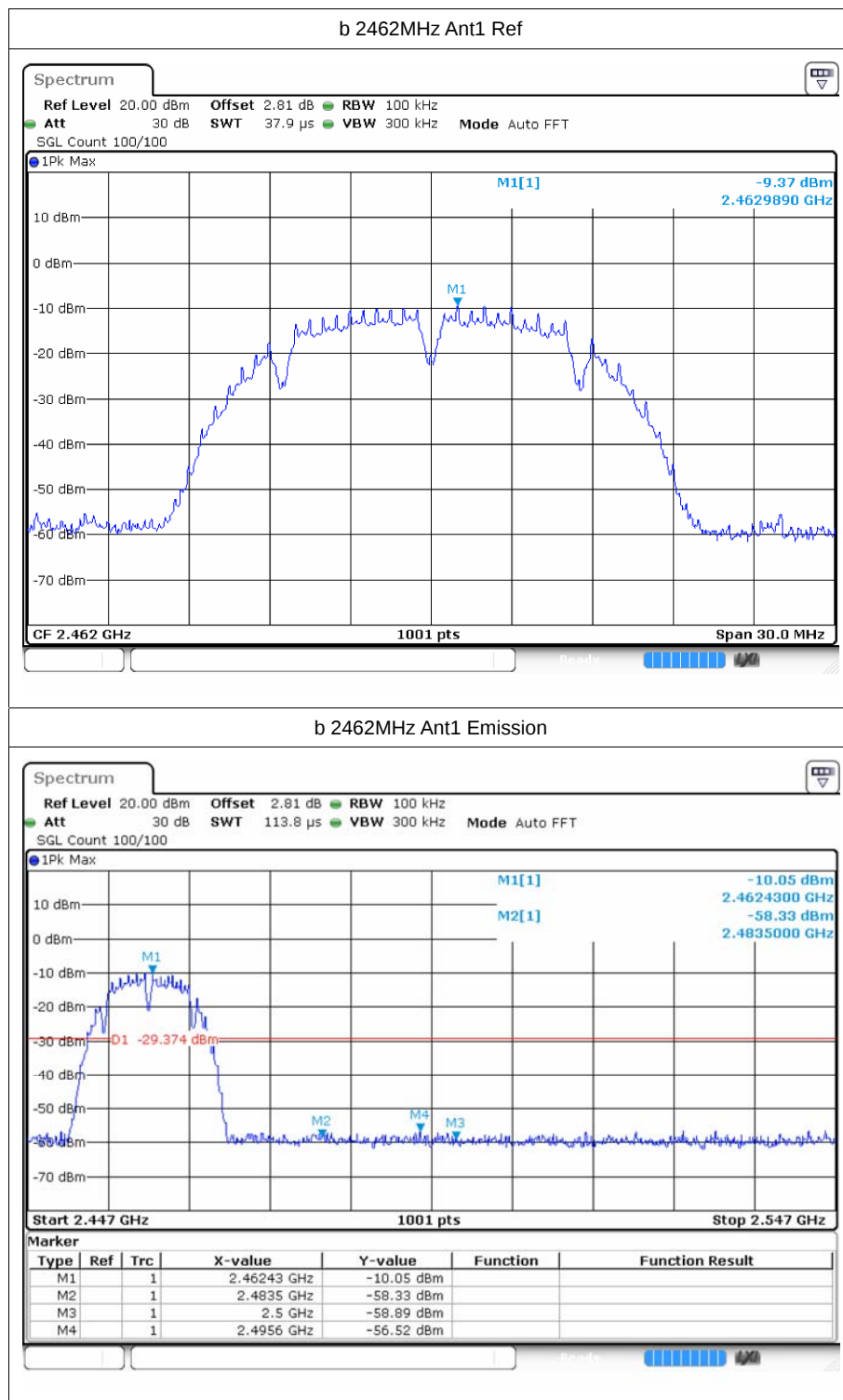
5 Band Edge

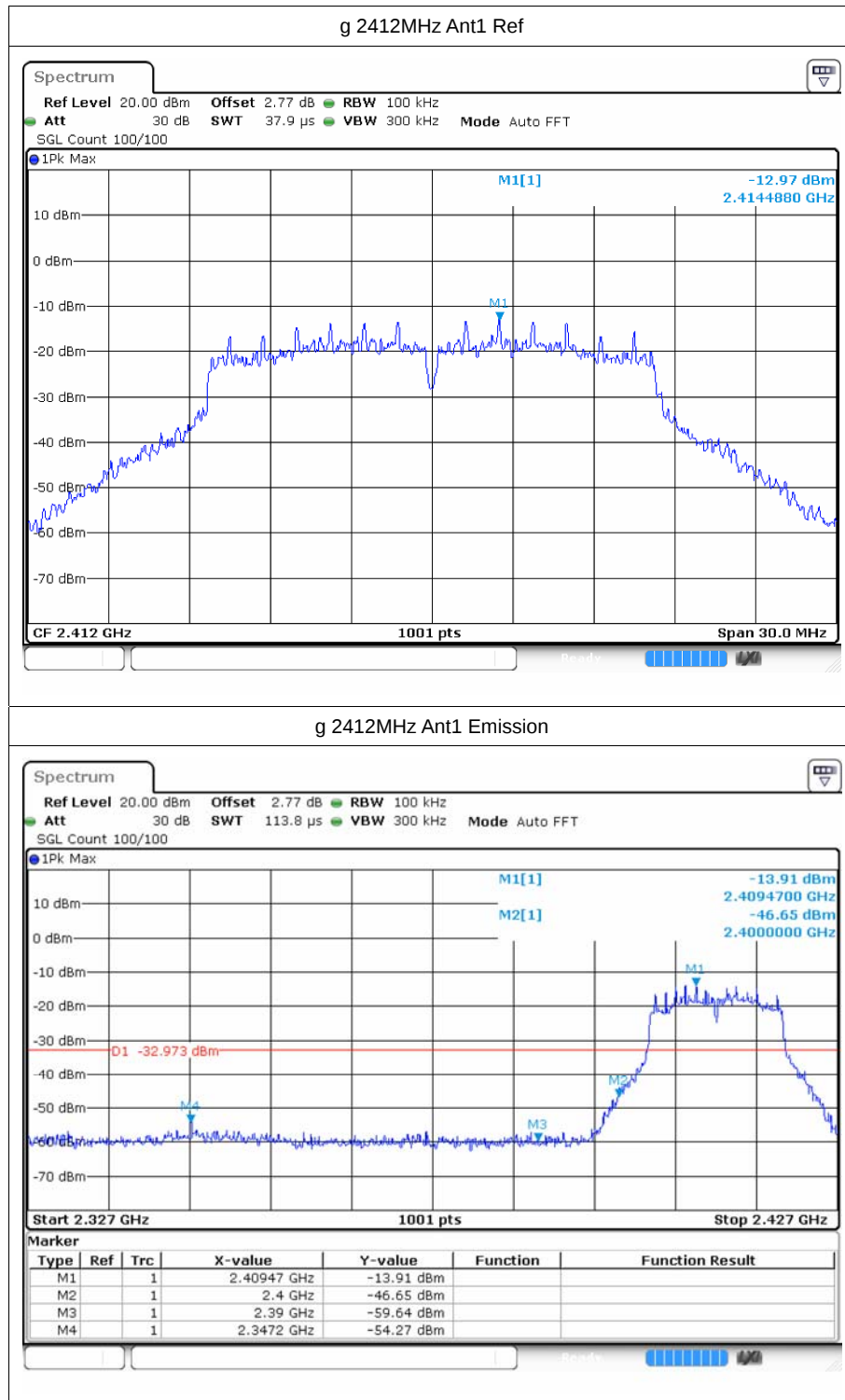
5.1 Test Result

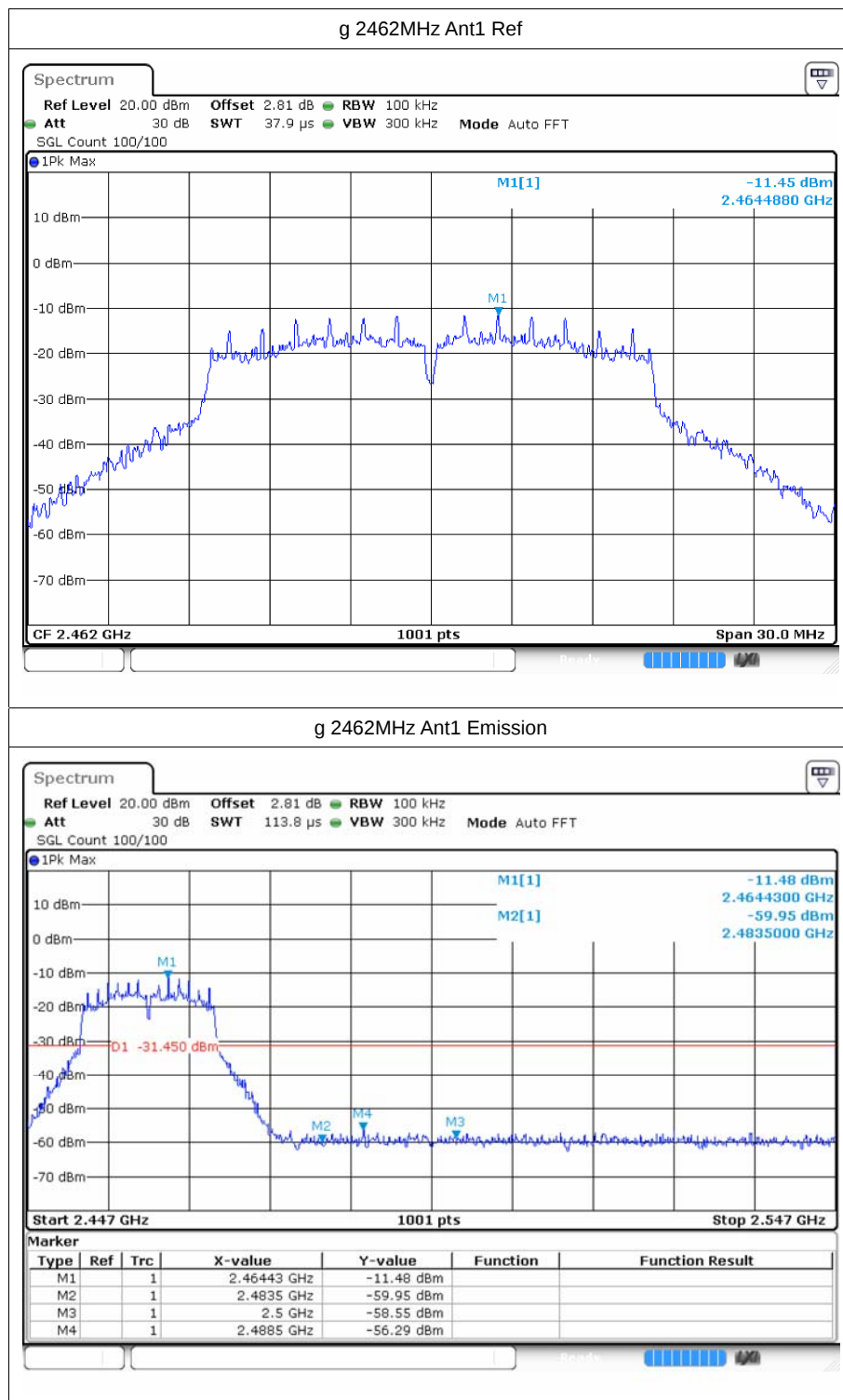
Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
b	2412	Ant1	-44.82	-20	-44.82
b	2462	Ant1	-47.14	-20	Pass
g	2412	Ant1	-41.3	-20	Pass
g	2462	Ant1	-44.84	-20	Pass
n20	2412	Ant1	-42.39	-20	Pass
n20	2462	Ant1	-44.3	-20	Pass
n40	2422	Ant1	-39.49	-20	Pass
n40	2452	Ant1	-38.74	-20	Pass

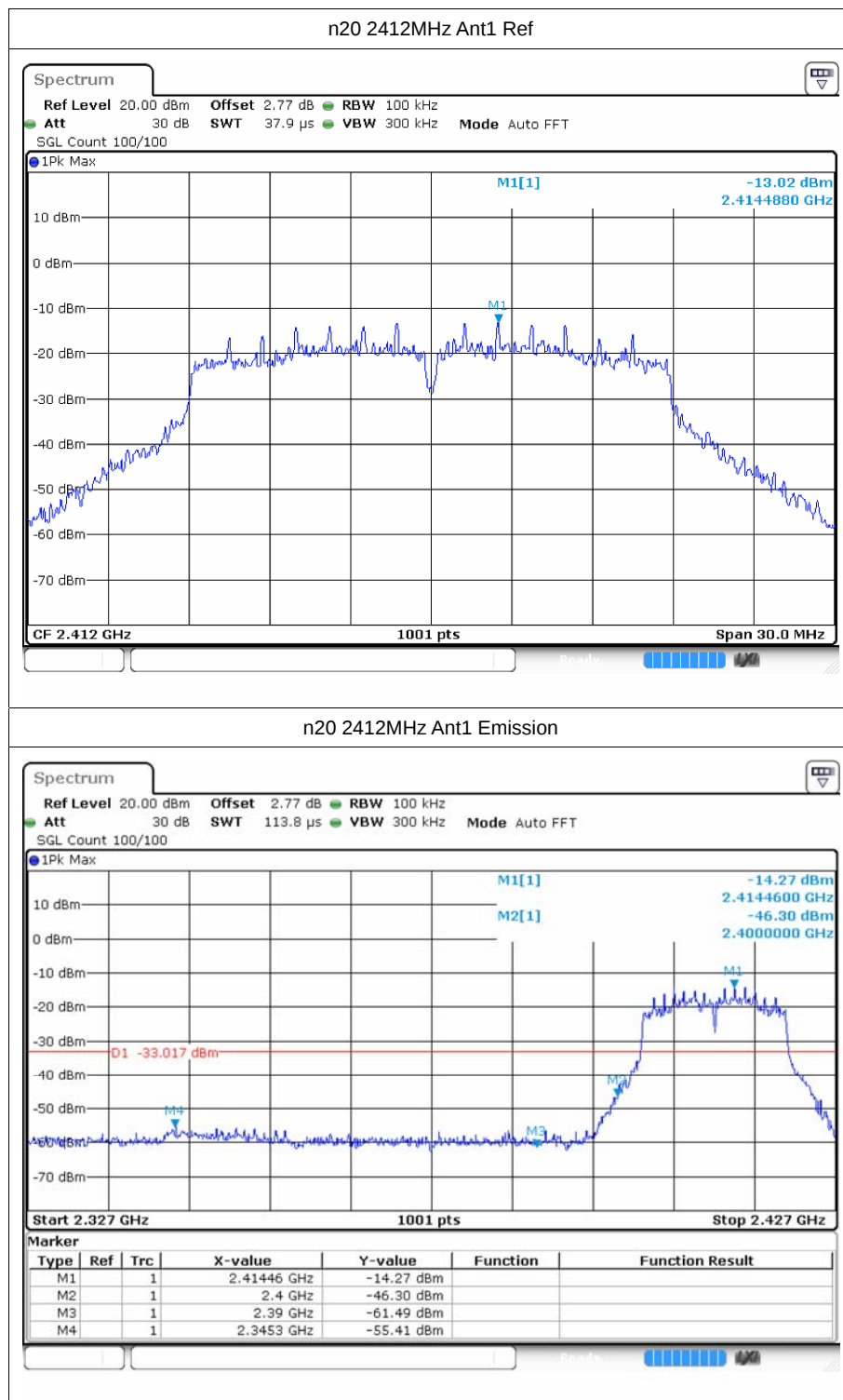
5.2 Test Graphs

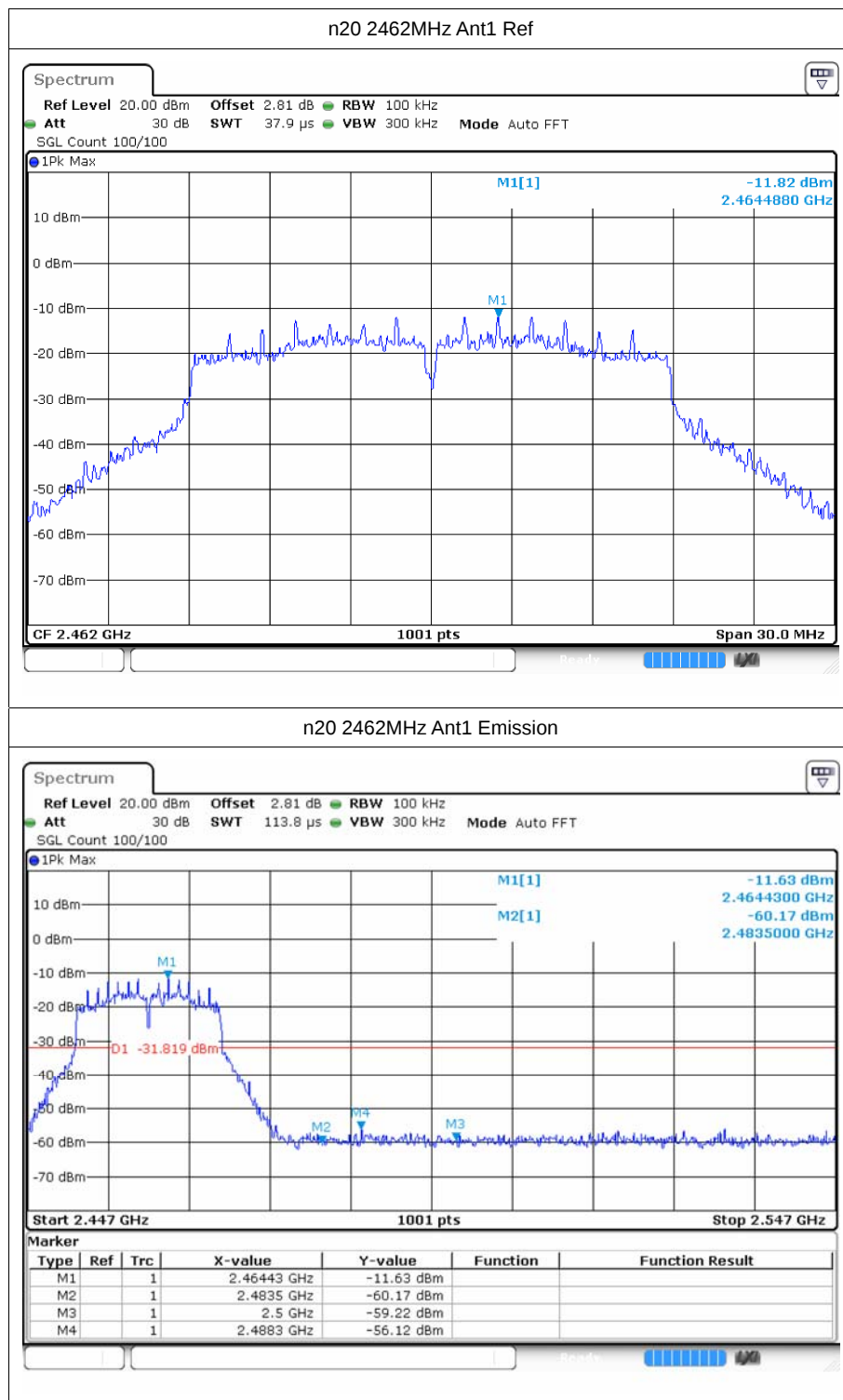


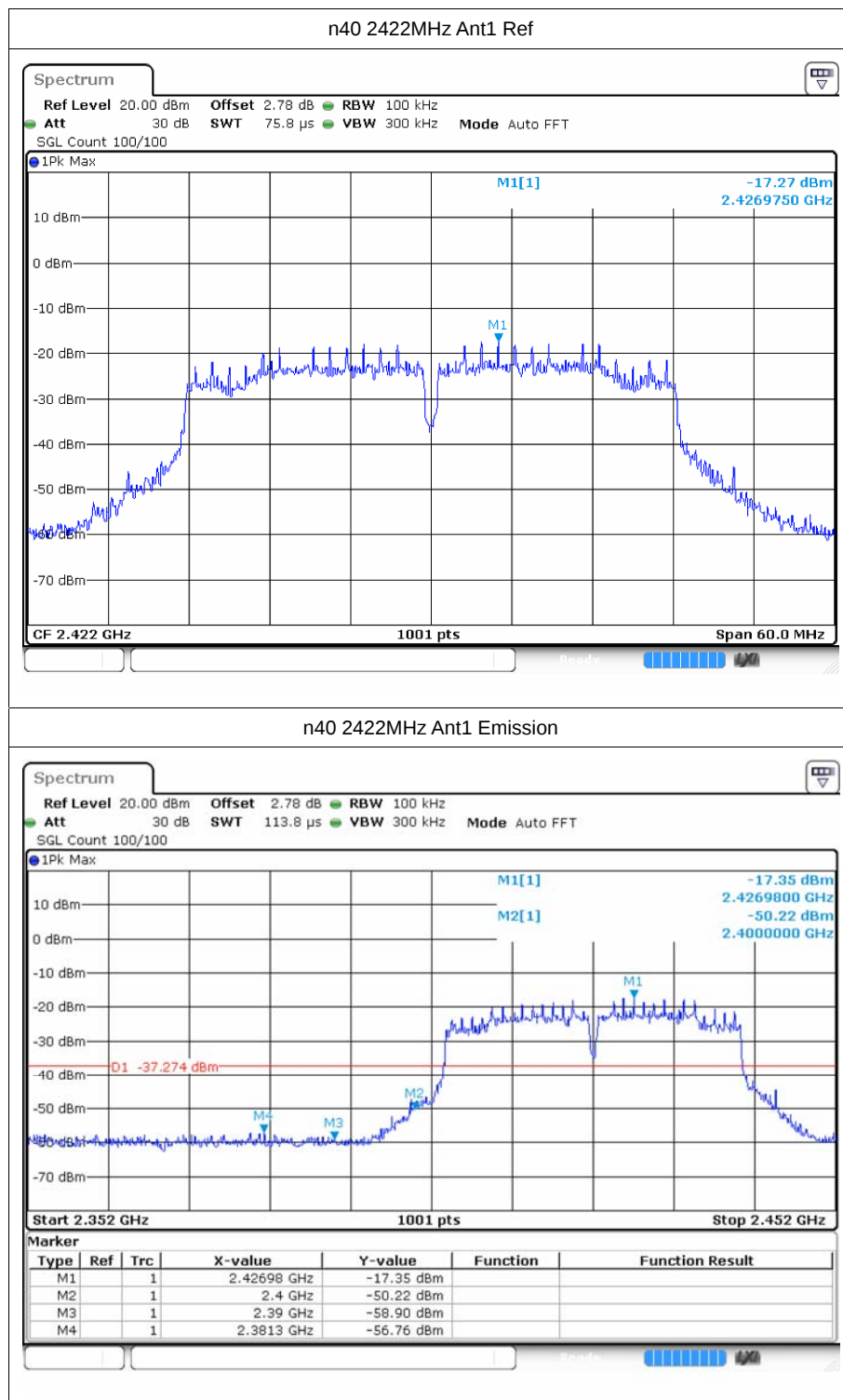


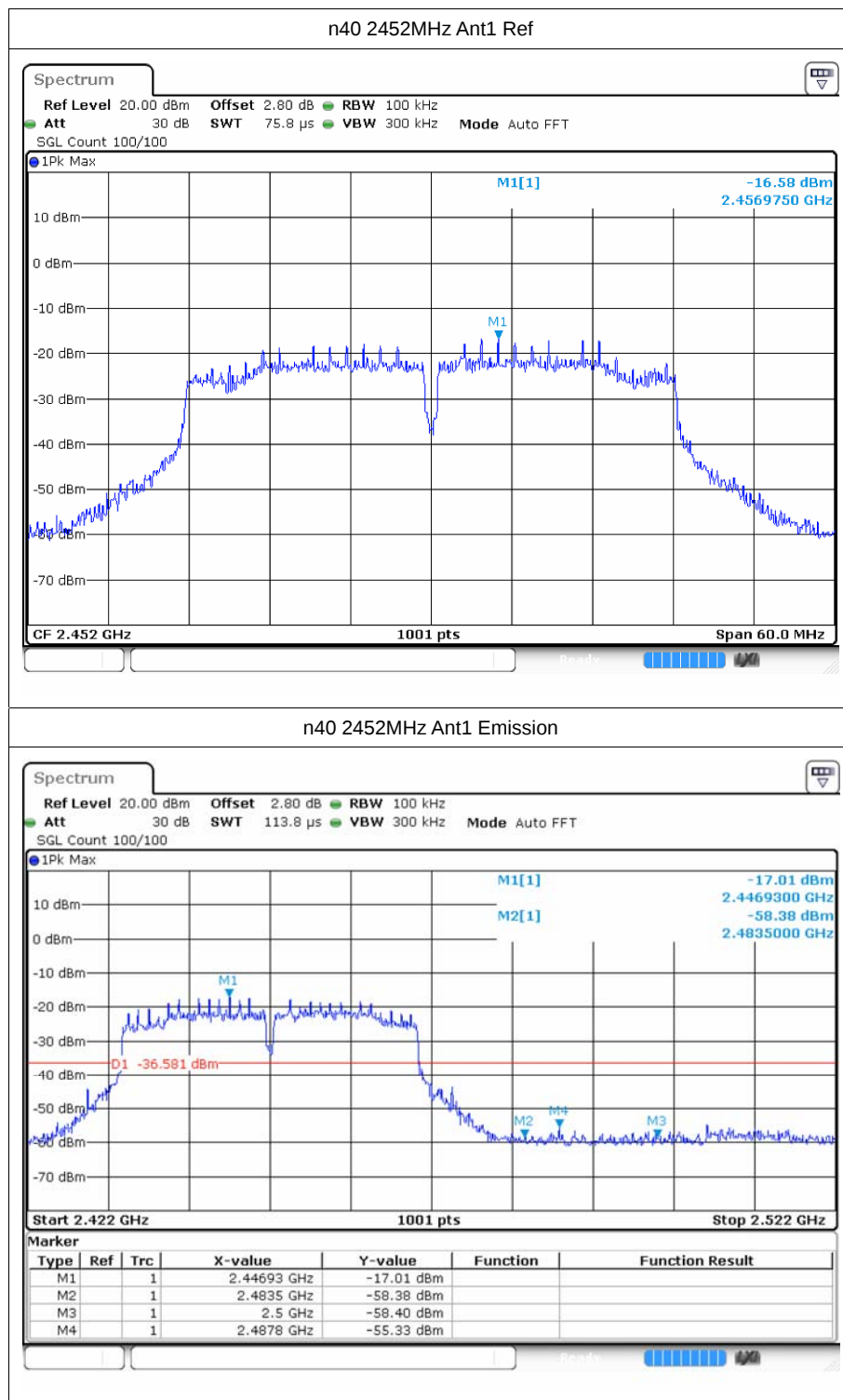












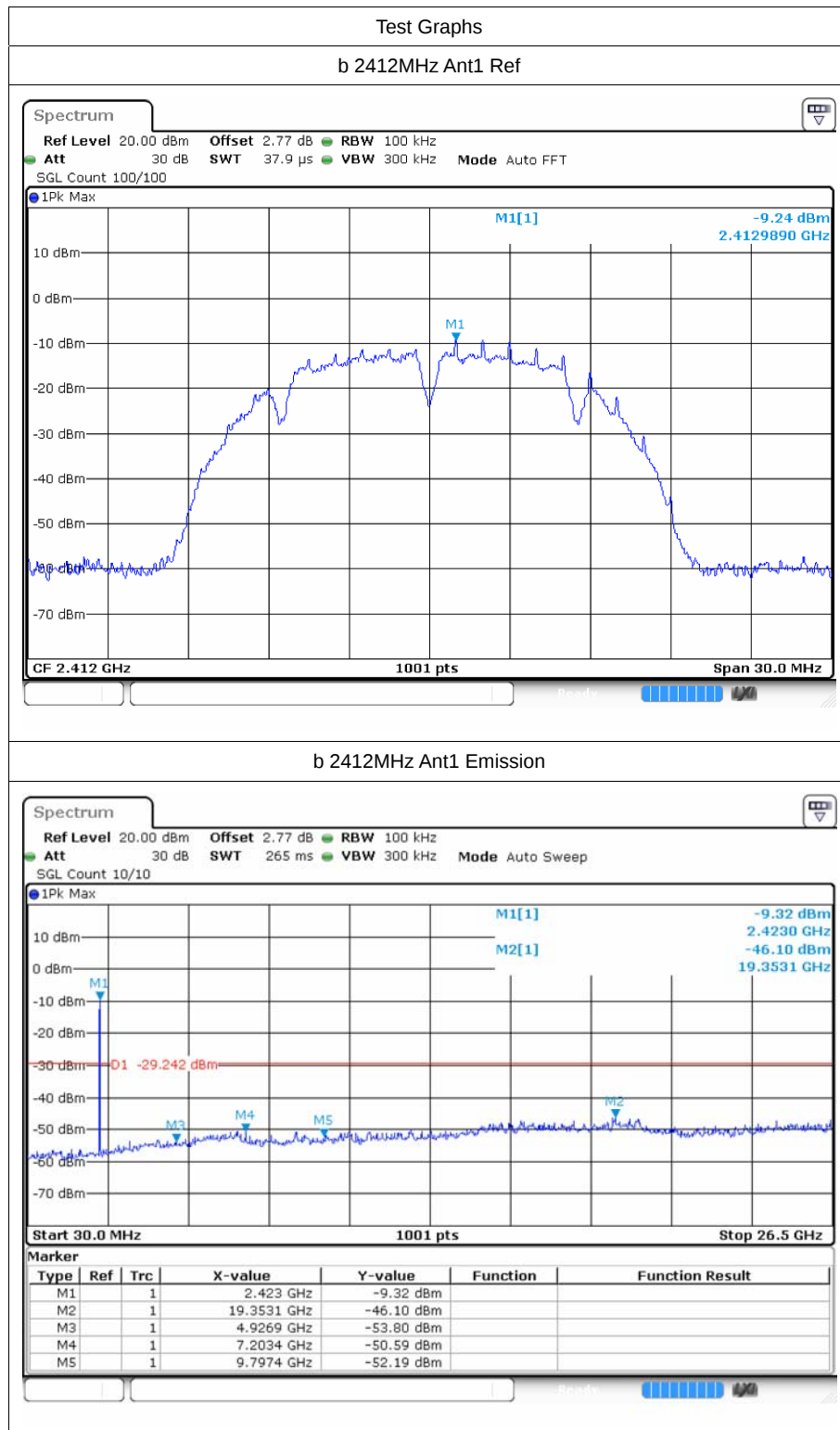


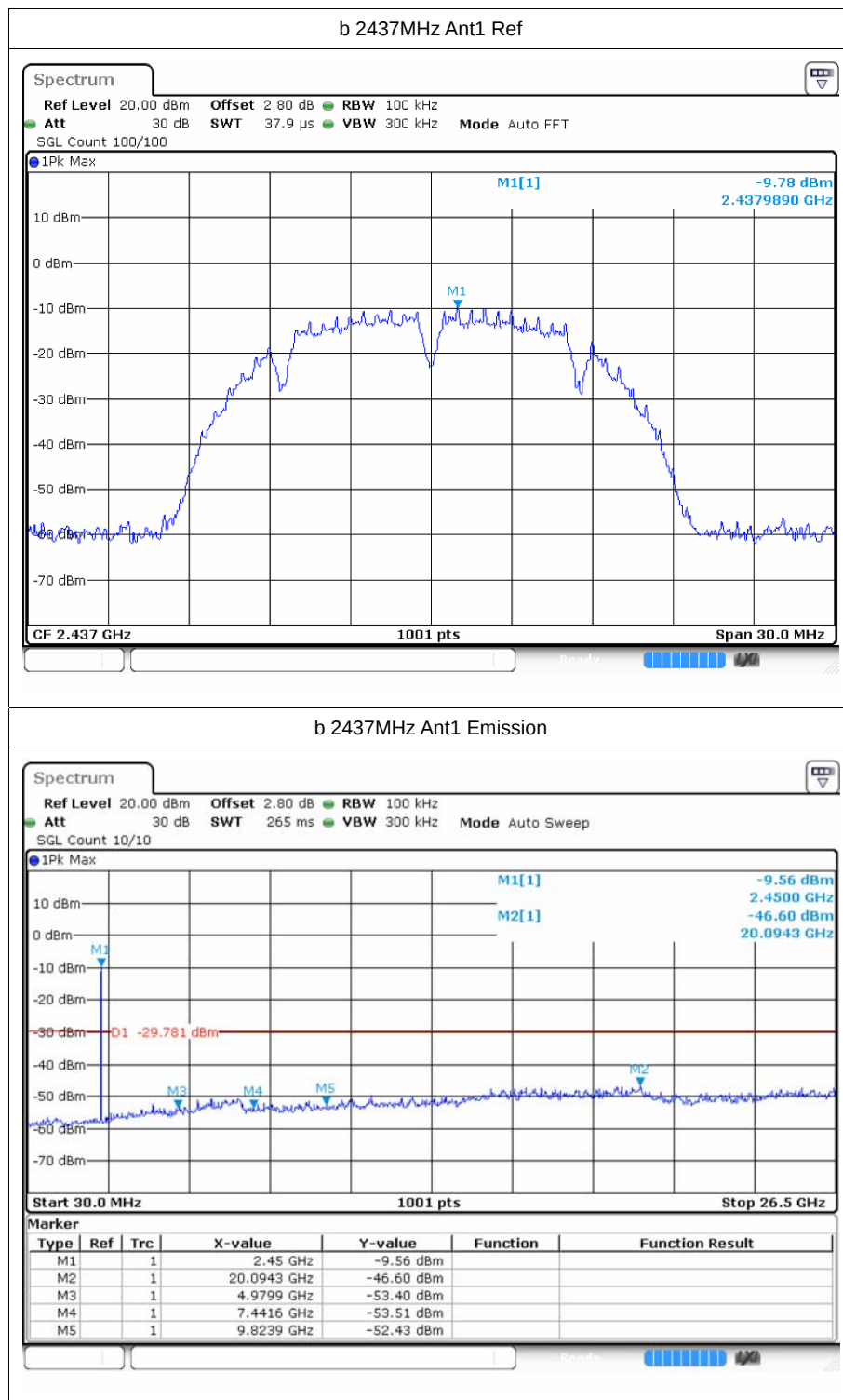
6 Conducted RF Spurious Emission

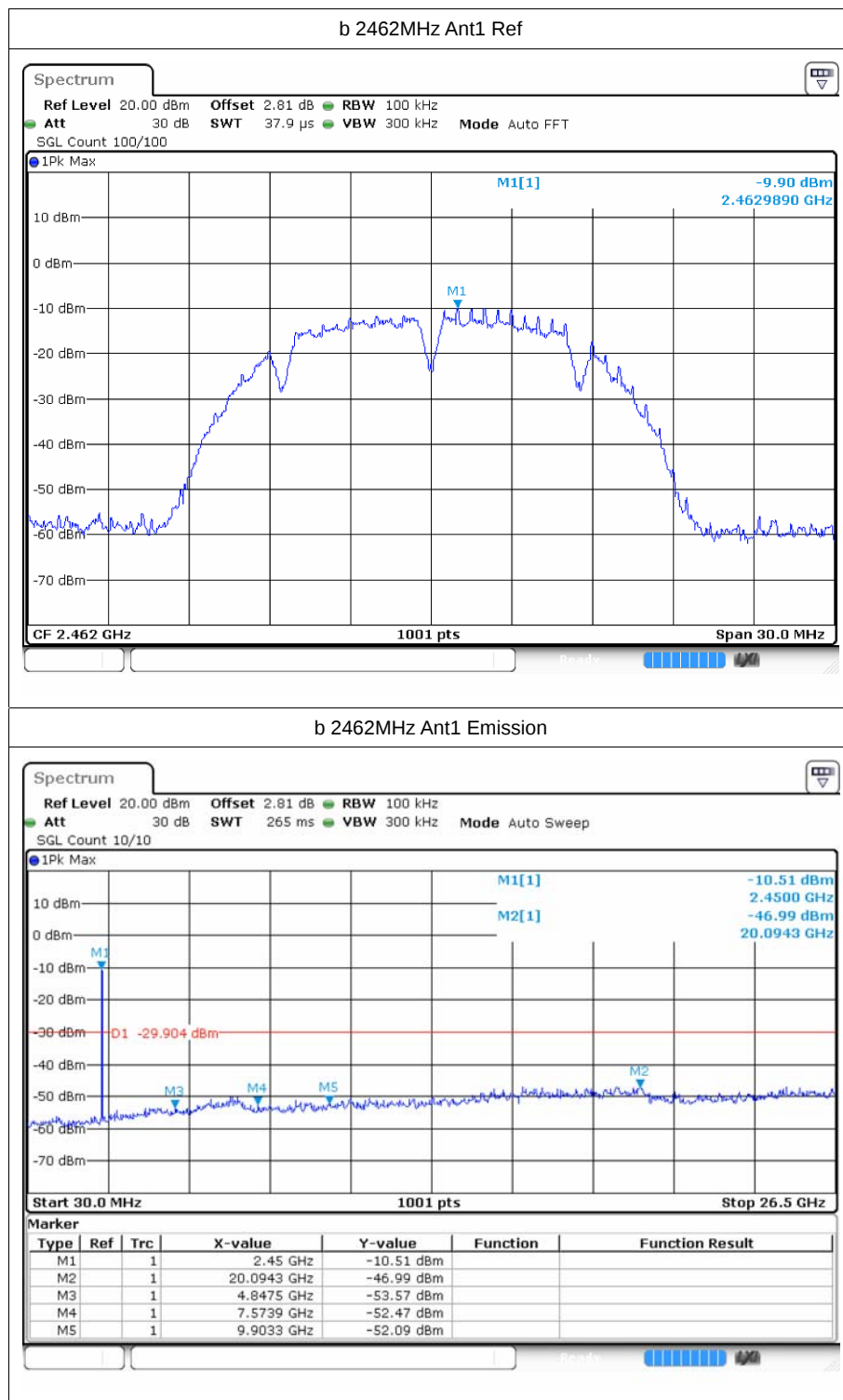
6.1 Test Result

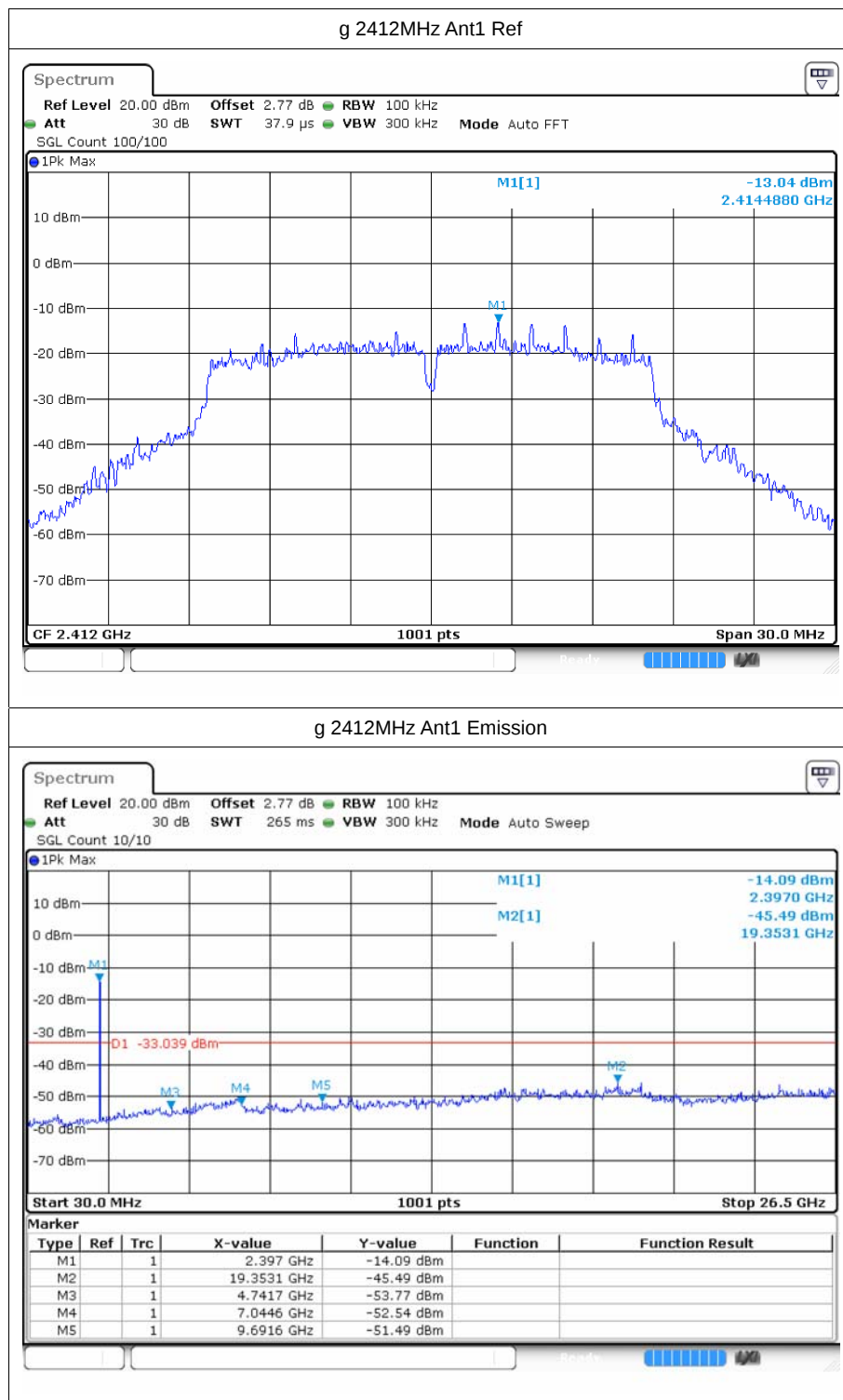
Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
b	2412	Ant1	-36.85	-20	Pass
b	2437	Ant1	-36.81	-20	Pass
b	2462	Ant1	-37.09	-20	Pass
g	2412	Ant1	-32.44	-20	Pass
g	2437	Ant1	-34.02	-20	Pass
g	2462	Ant1	-35.18	-20	Pass
n20	2412	Ant1	-32.99	-20	Pass
n20	2437	Ant1	-33.02	-20	Pass
n20	2462	Ant1	-35.25	-20	Pass
n40	2422	Ant1	-28.93	-20	Pass
n40	2437	Ant1	-30.05	-20	Pass
n40	2452	Ant1	-29.47	-20	Pass

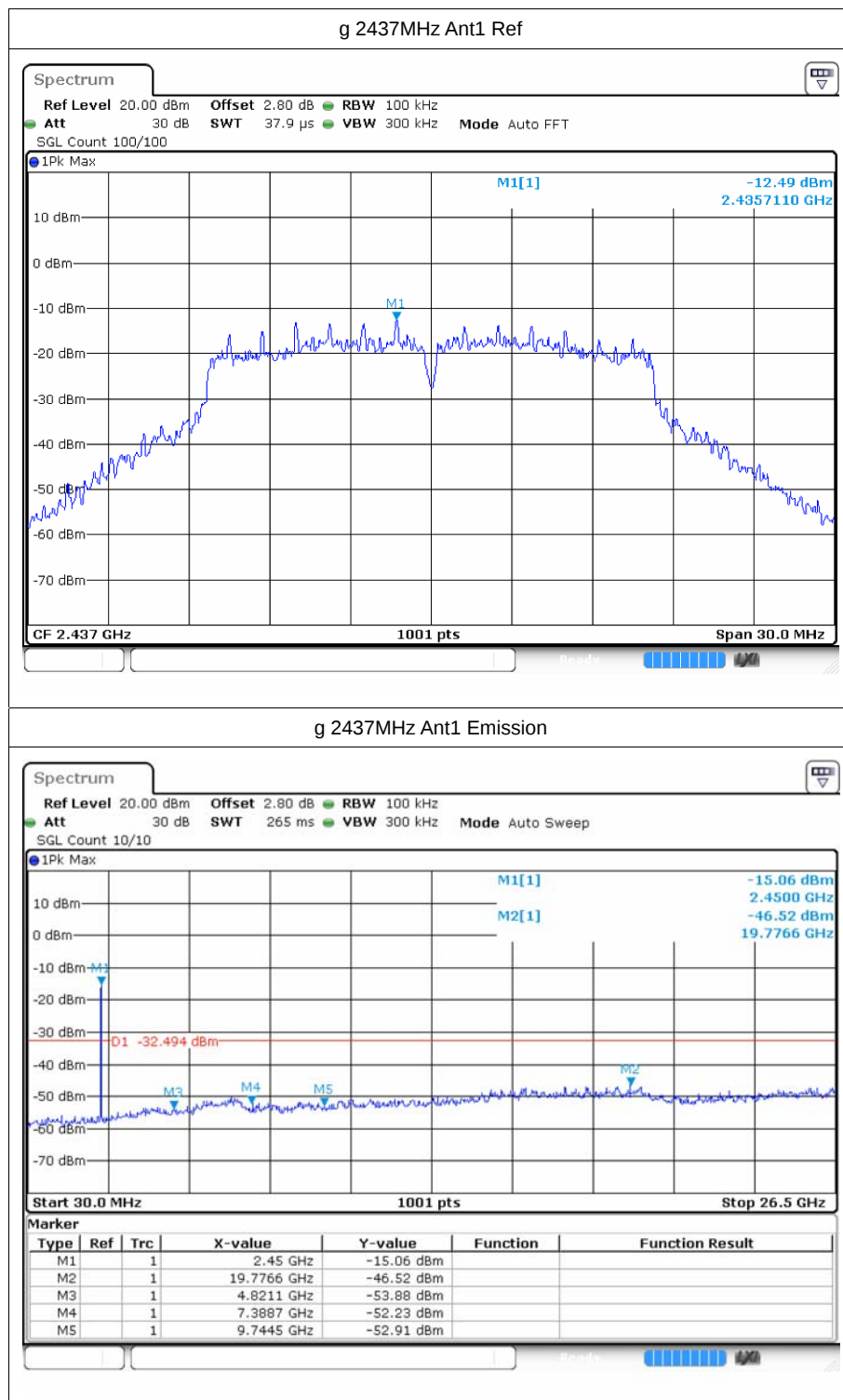
6.2 Test Graphs

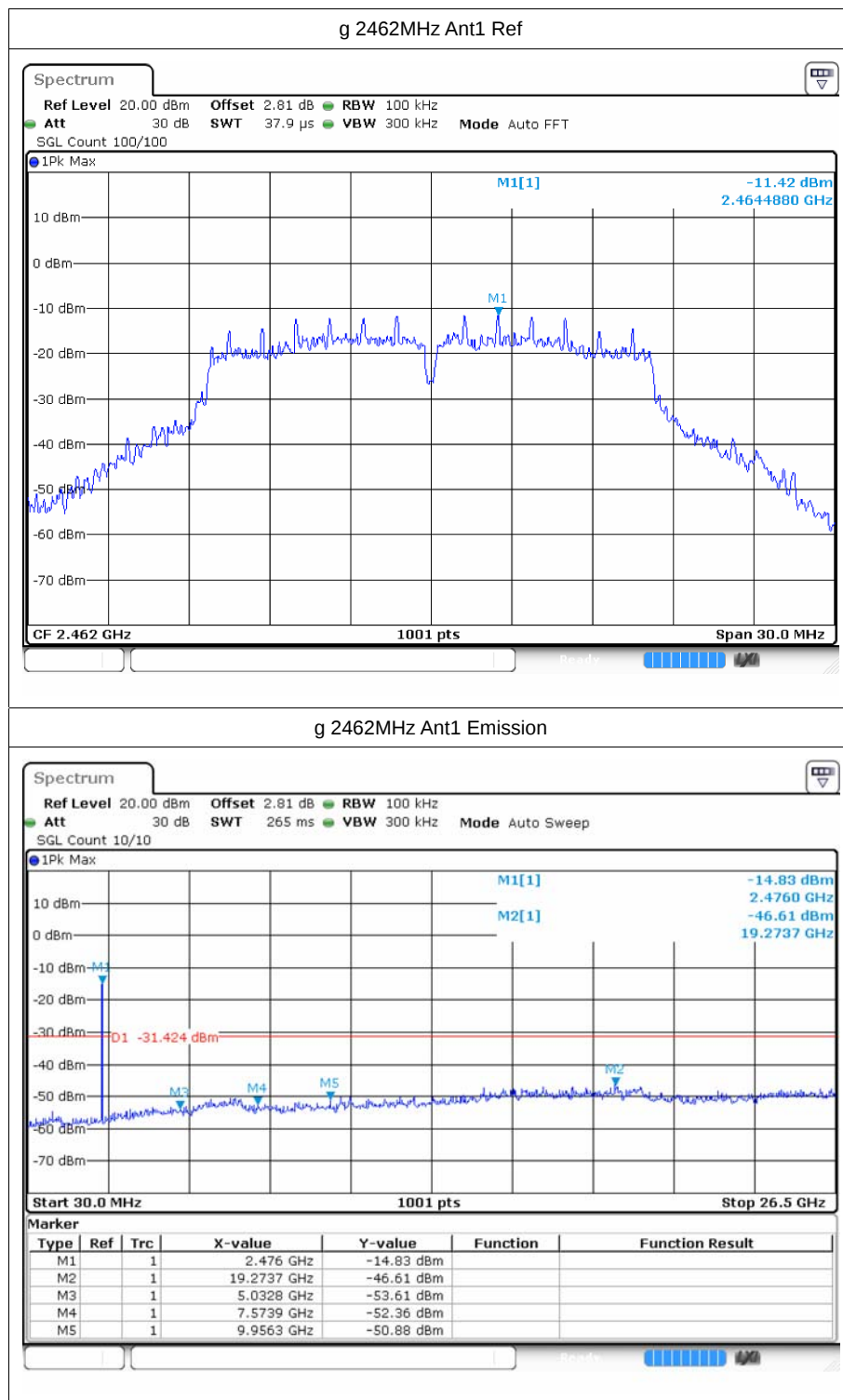


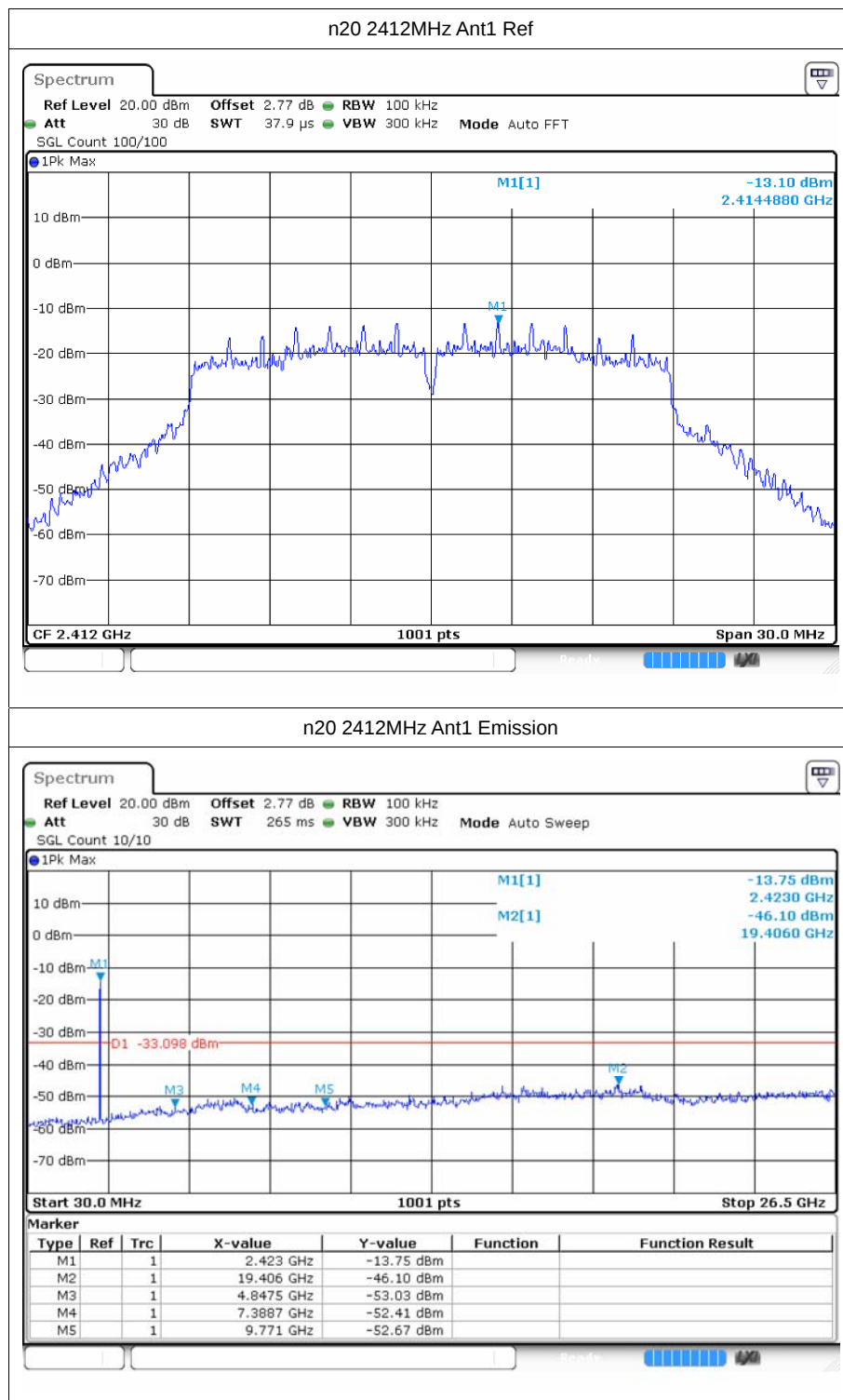


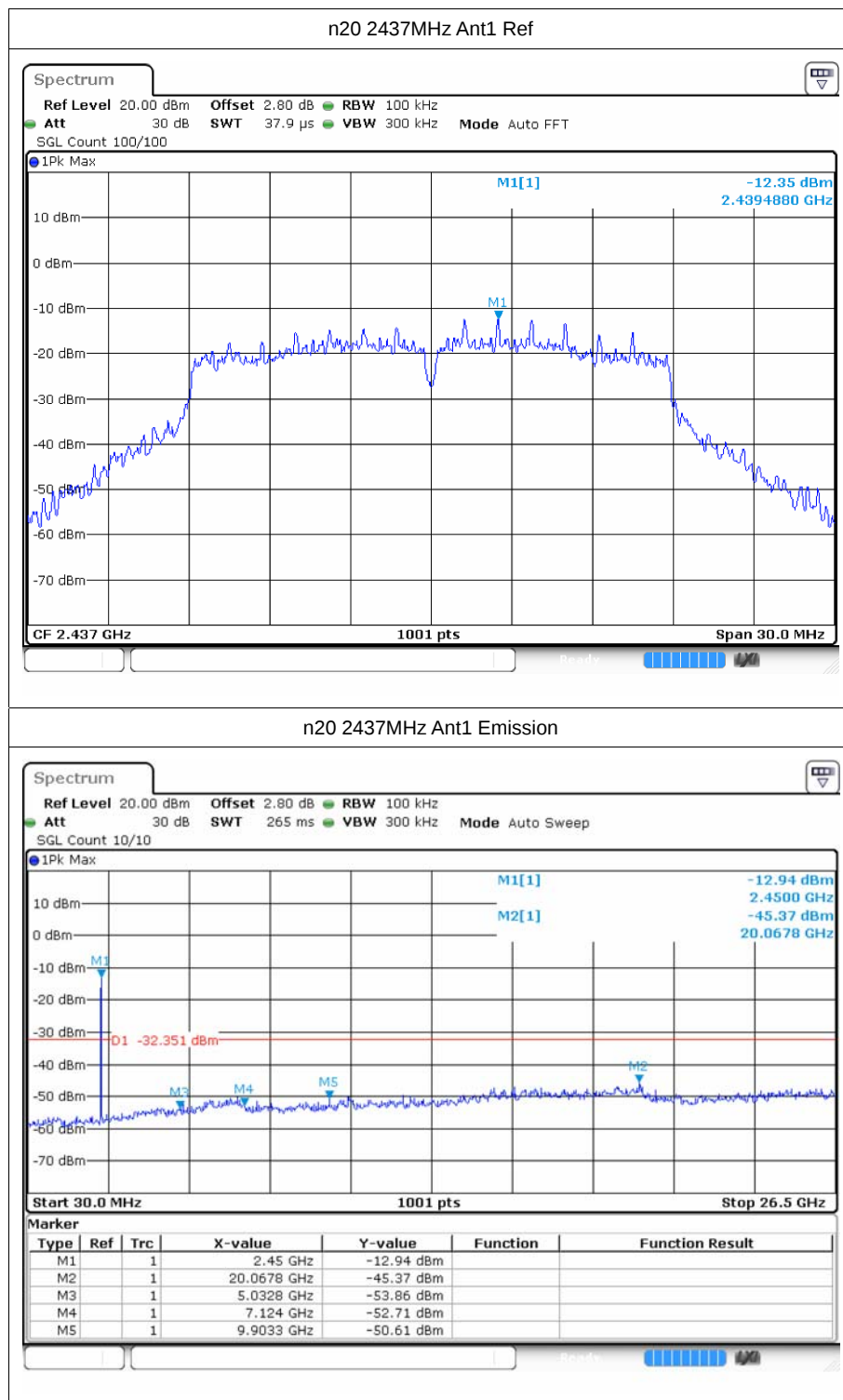


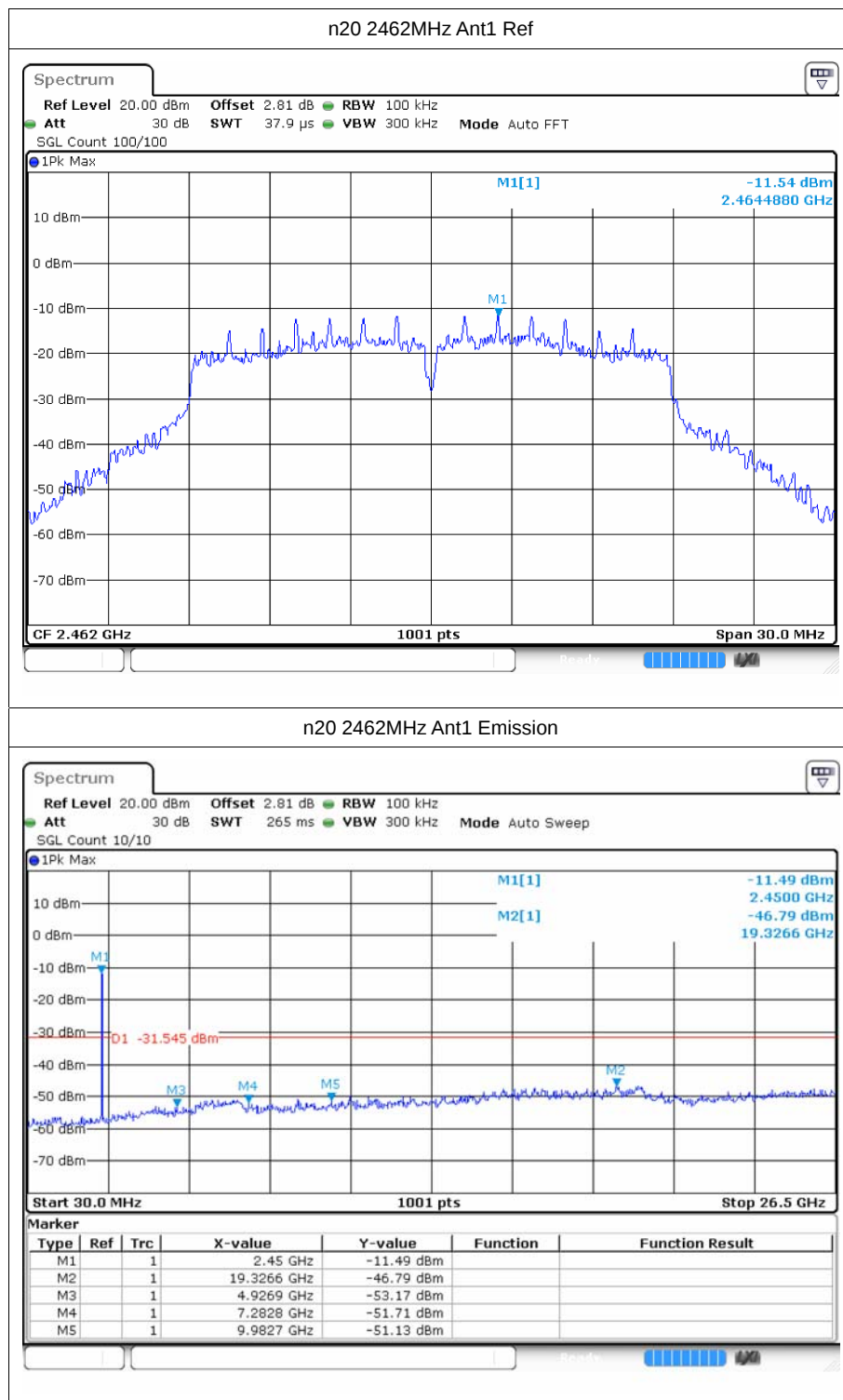


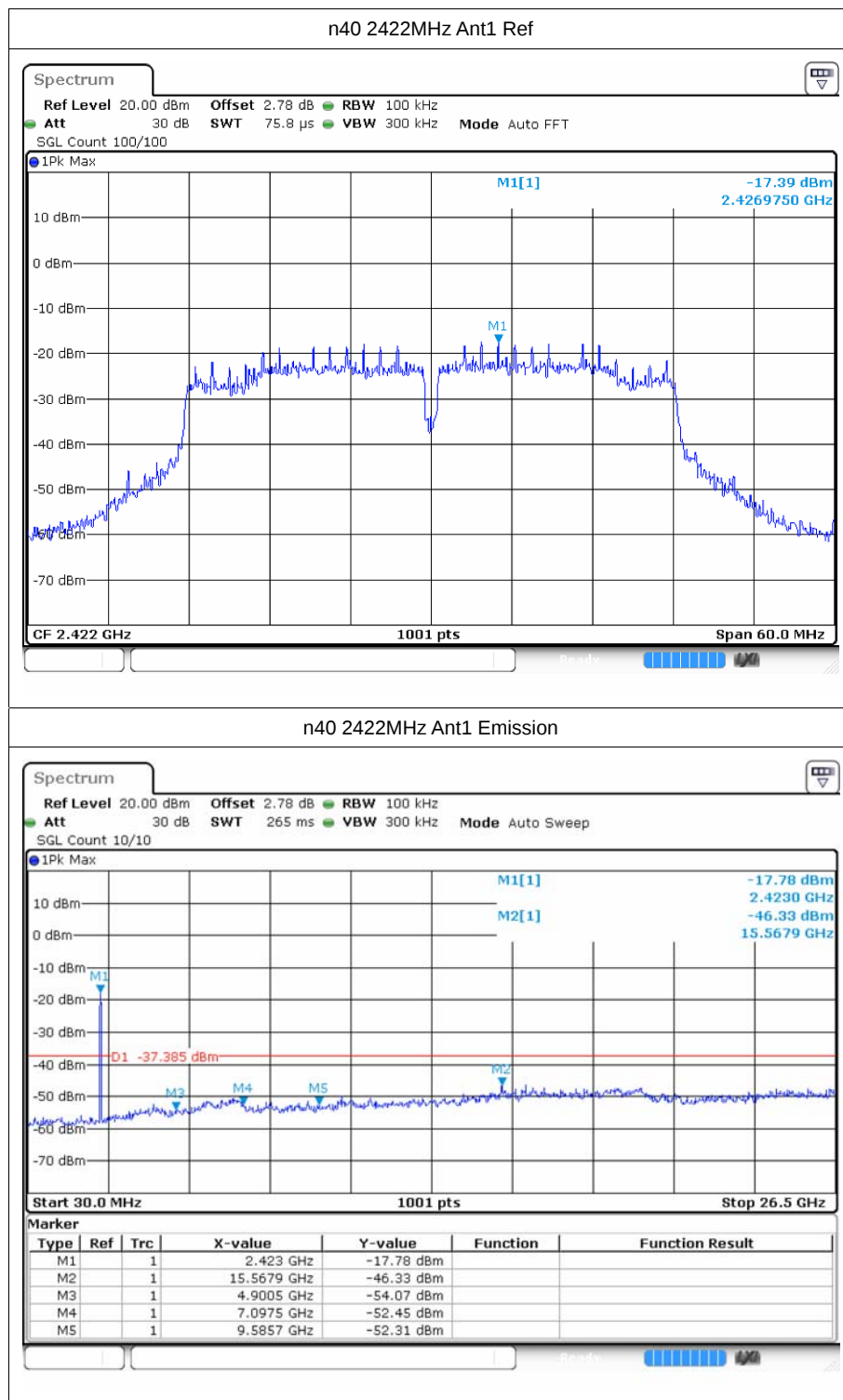


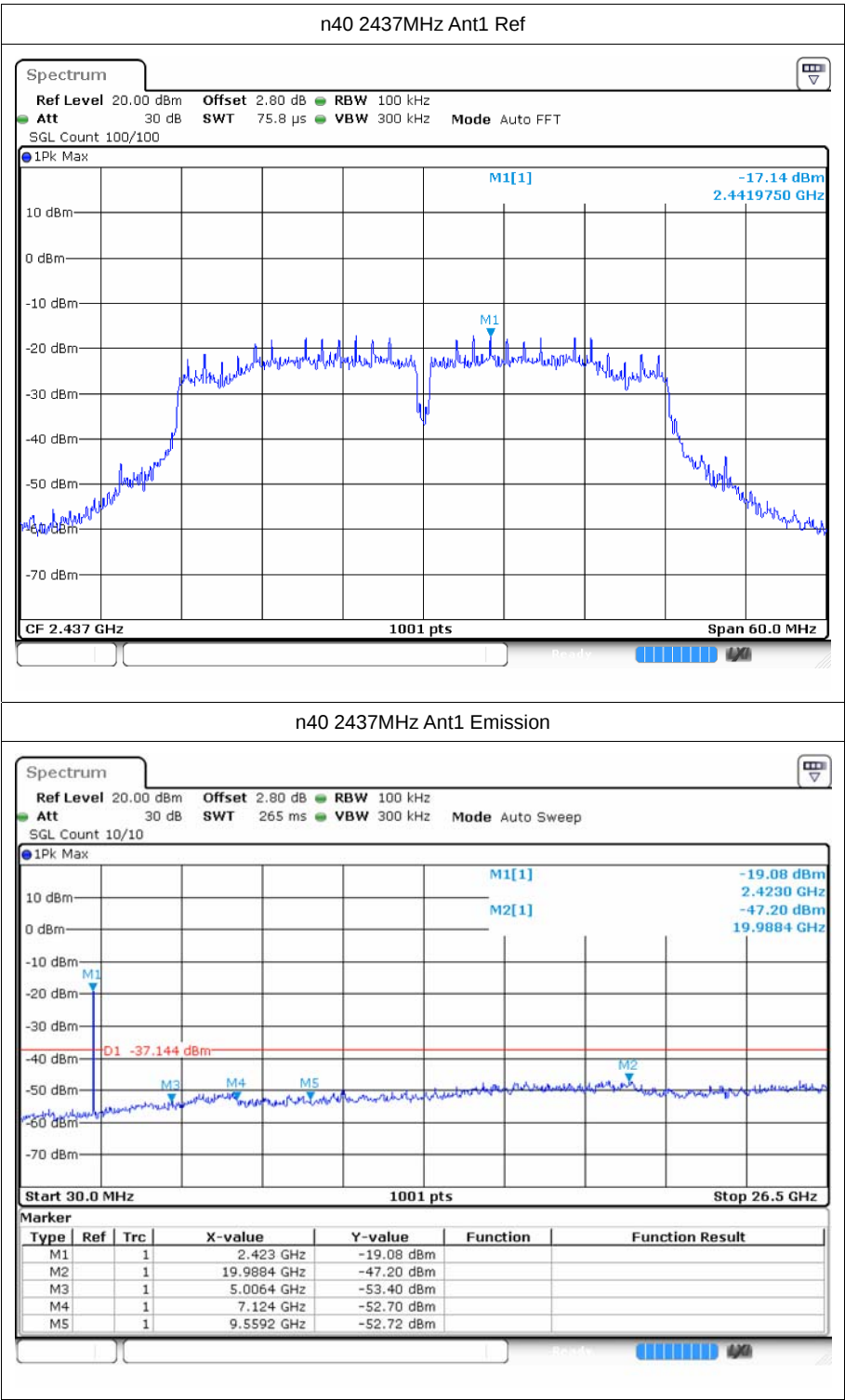


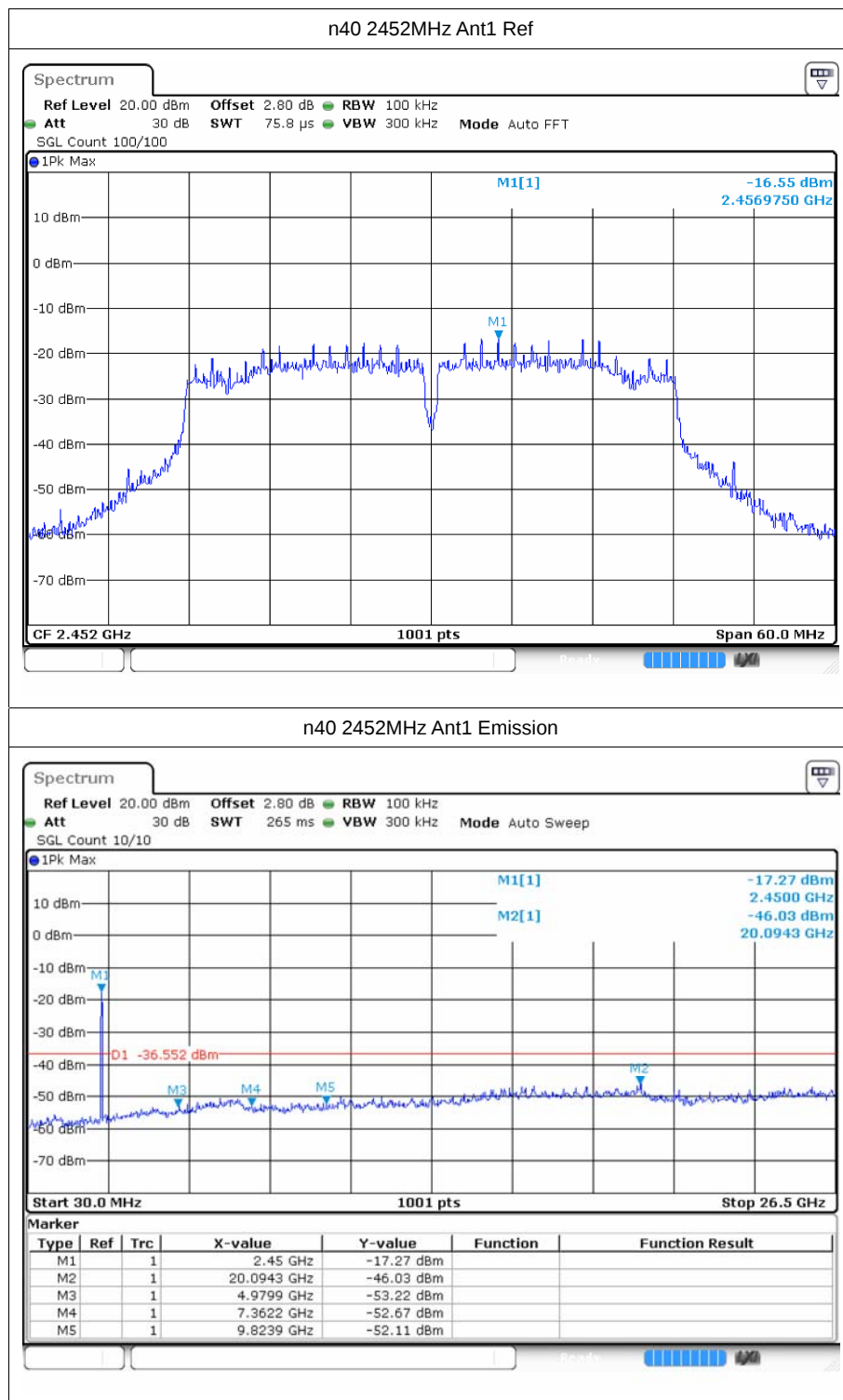














7 Restrict Band

7.1 Test Result

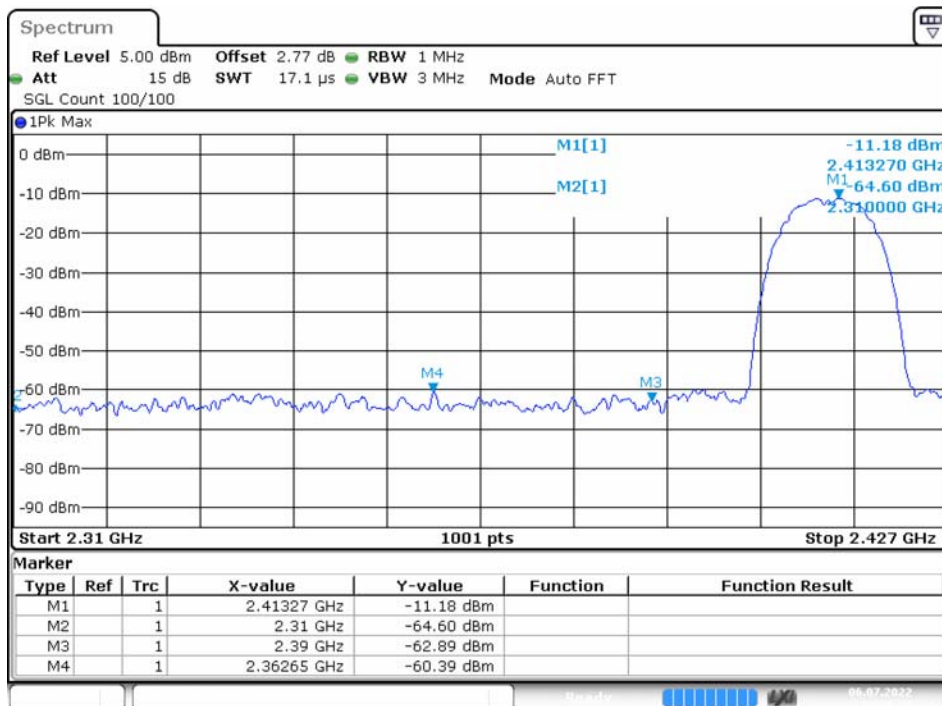
Condition	Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	b	2412	Ant1	2310	-64.6	18	48.63	Peak	74	Pass
NVNT	b	2412	Ant1	2310	-73.59	18	39.64	Average	54	Pass
NVNT	b	2412	Ant1	2362.65	-60.39	18	52.84	Peak	74	Pass
NVNT	b	2412	Ant1	2336.676	-71.74	18	41.49	Average	54	Pass
NVNT	b	2412	Ant1	2390	-62.89	18	50.34	Peak	74	Pass
NVNT	b	2412	Ant1	2390	-72.89	18	40.34	Average	54	Pass
NVNT	b	2462	Ant1	2483.5	-63.77	18	49.46	Peak	74	Pass
NVNT	b	2462	Ant1	2483.5	-72.36	18	40.87	Average	54	Pass
NVNT	b	2462	Ant1	2493.163	-59.92	18	53.31	Peak	74	Pass
NVNT	b	2462	Ant1	2487.863	-72.26	18	40.97	Average	54	Pass
NVNT	b	2462	Ant1	2500	-62.83	18	50.4	Peak	74	Pass
NVNT	b	2462	Ant1	2500	-72.73	18	40.5	Average	54	Pass
NVNT	g	2412	Ant1	2310	-63.58	18	49.65	Peak	74	Pass
NVNT	g	2412	Ant1	2310	-72.16	18	41.07	Average	54	Pass
NVNT	g	2412	Ant1	2338.899	-60.12	18	53.11	Peak	74	Pass
NVNT	g	2412	Ant1	2341.122	-70.17	18	43.06	Average	54	Pass
NVNT	g	2412	Ant1	2390	-63.04	18	50.19	Peak	74	Pass
NVNT	g	2412	Ant1	2390	-72.55	18	40.68	Average	54	Pass
NVNT	g	2462	Ant1	2483.5	-63.69	18	49.54	Peak	74	Pass
NVNT	g	2462	Ant1	2483.5	-71.94	18	41.29	Average	54	Pass
NVNT	g	2462	Ant1	2497.403	-62.03	18	51.2	Peak	74	Pass
NVNT	g	2462	Ant1	2486.273	-71.1	18	42.13	Average	54	Pass
NVNT	g	2462	Ant1	2500	-64.62	18	48.61	Peak	74	Pass
NVNT	g	2462	Ant1	2500	-72.25	18	40.98	Average	54	Pass
NVNT	n20	2412	Ant1	2310	-61.91	18	51.32	Peak	74	Pass
NVNT	n20	2412	Ant1	2310	-72.74	18	40.49	Average	54	Pass
NVNT	n20	2412	Ant1	2336.676	-60.55	18	52.68	Peak	74	Pass
NVNT	n20	2412	Ant1	2337.729	-69.72	18	43.51	Average	54	Pass
NVNT	n20	2412	Ant1	2390	-61.6	18	51.63	Peak	74	Pass
NVNT	n20	2412	Ant1	2390	-71.56	18	41.67	Average	54	Pass
NVNT	n20	2462	Ant1	2483.5	-62.75	18	50.48	Peak	74	Pass
NVNT	n20	2462	Ant1	2483.5	-71.23	18	42	Average	54	Pass
NVNT	n20	2462	Ant1	2497.297	-60.62	18	52.61	Peak	74	Pass
NVNT	n20	2462	Ant1	2485.955	-70.64	18	42.59	Average	54	Pass



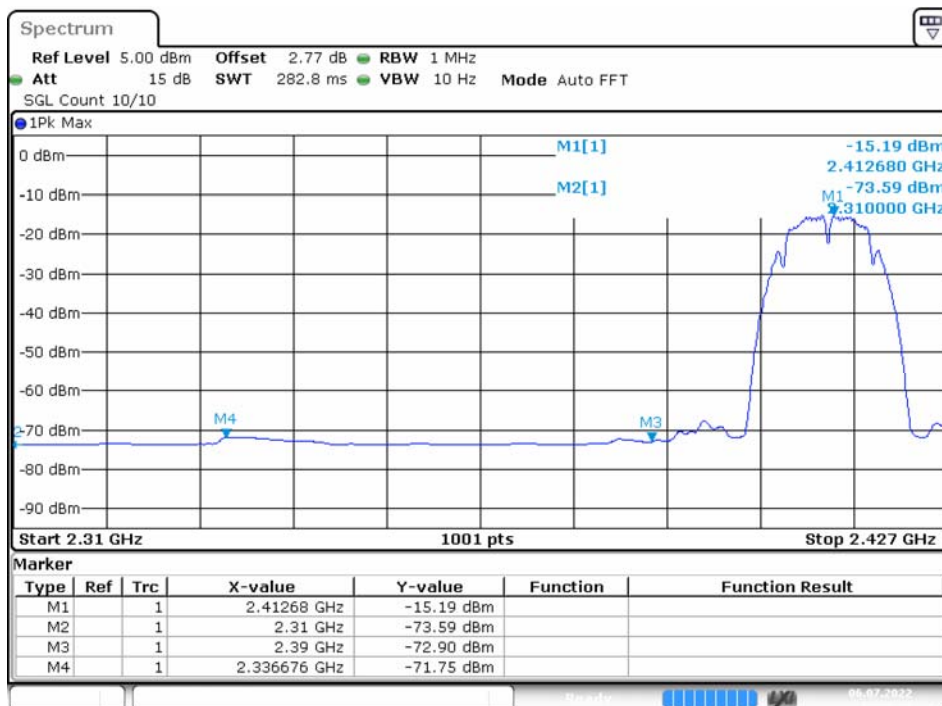
NVNT	n20	2462	Ant1	2500	-63.03	18	50.2	Peak	74	Pass
NVNT	n20	2462	Ant1	2500	-71.87	18	41.36	Average	54	Pass
NVNT	n40	2422	Ant1	2310	-62.06	18	51.17	Peak	74	Pass
NVNT	n40	2422	Ant1	2310	-72.77	18	40.46	Average	54	Pass
NVNT	n40	2422	Ant1	2389.946	-60.27	18	52.96	Peak	74	Pass
NVNT	n40	2422	Ant1	2341.098	-70.31	18	42.92	Average	54	Pass
NVNT	n40	2422	Ant1	2390	-60.19	18	53.04	Peak	74	Pass
NVNT	n40	2422	Ant1	2390	-70.91	18	42.32	Average	54	Pass
NVNT	n40	2452	Ant1	2483.5	-63.21	18	50.02	Peak	74	Pass
NVNT	n40	2452	Ant1	2483.5	-70.63	18	42.6	Average	54	Pass
NVNT	n40	2452	Ant1	2484.322	-59.89	18	53.34	Peak	74	Pass
NVNT	n40	2452	Ant1	2483.542	-70.63	18	42.6	Average	54	Pass
NVNT	n40	2452	Ant1	2500	-64.46	18	48.77	Peak	74	Pass
NVNT	n40	2452	Ant1	2500	-71.87	18	41.36	Average	54	Pass

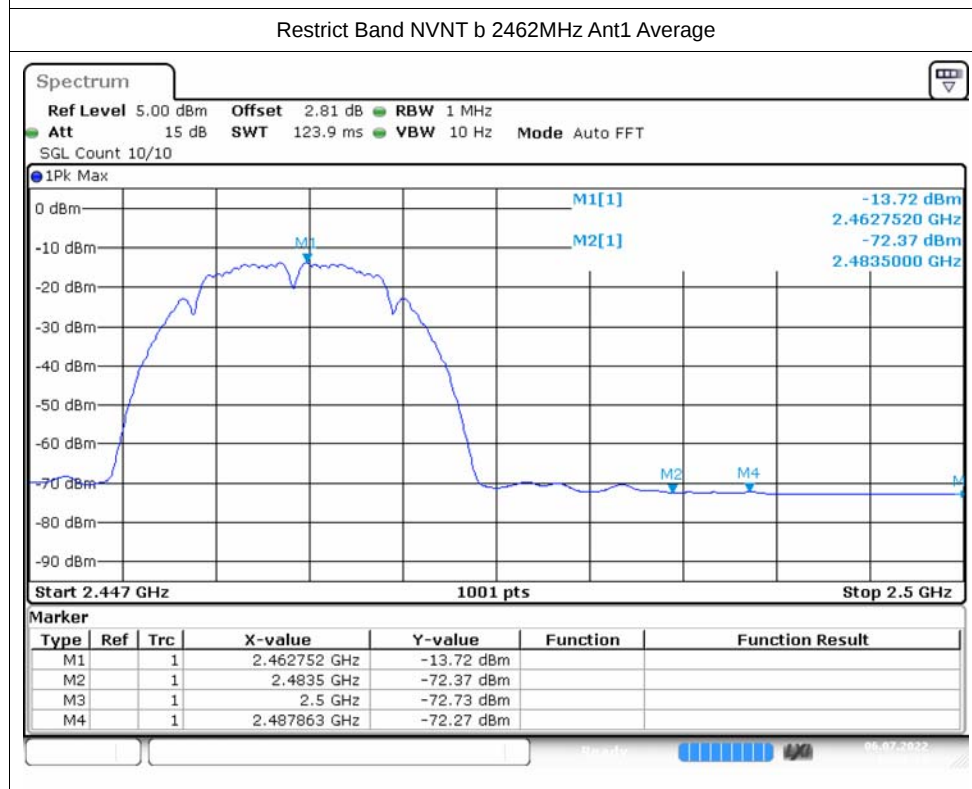
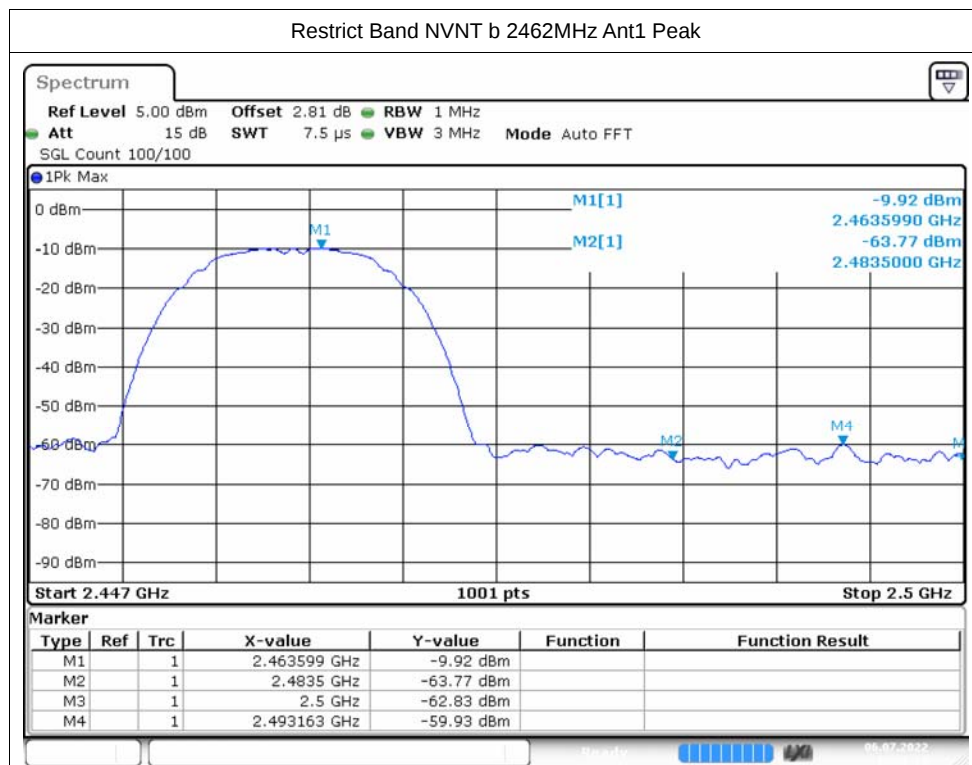
Test Graphs

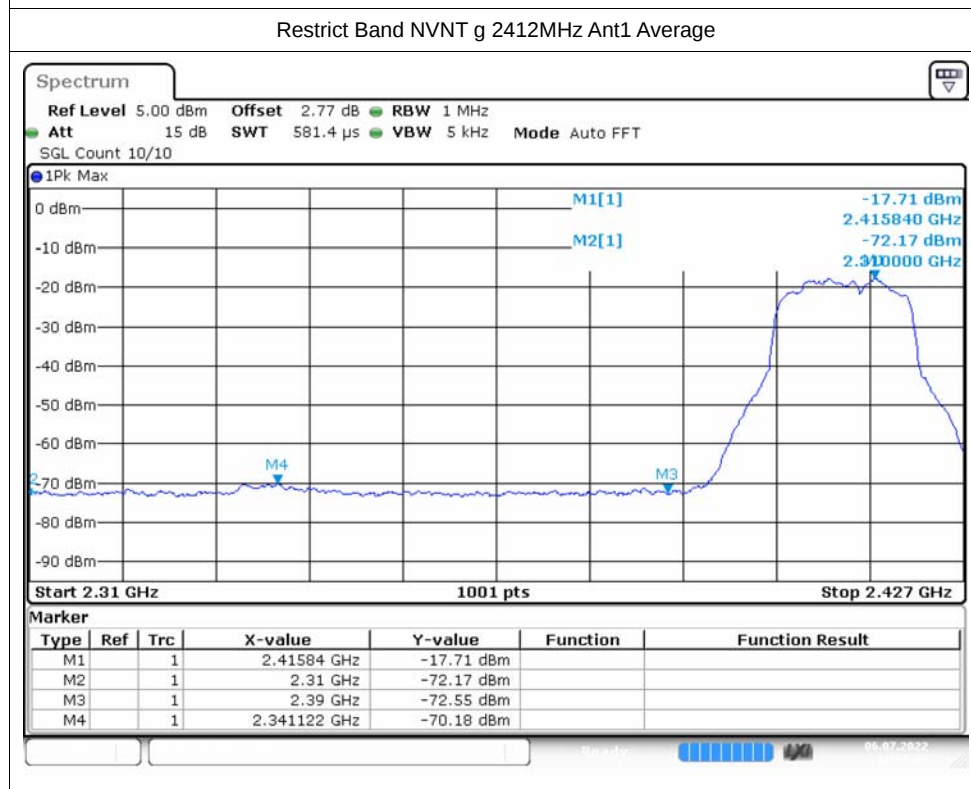
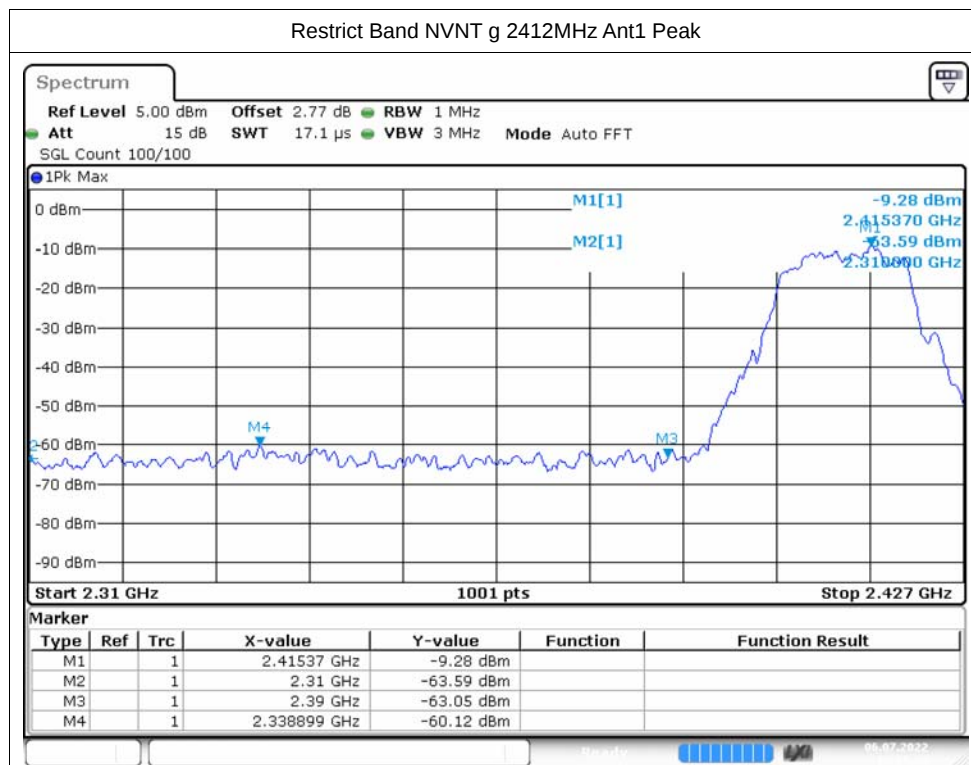
Restrict Band NVNT b 2412MHz Ant1 Peak

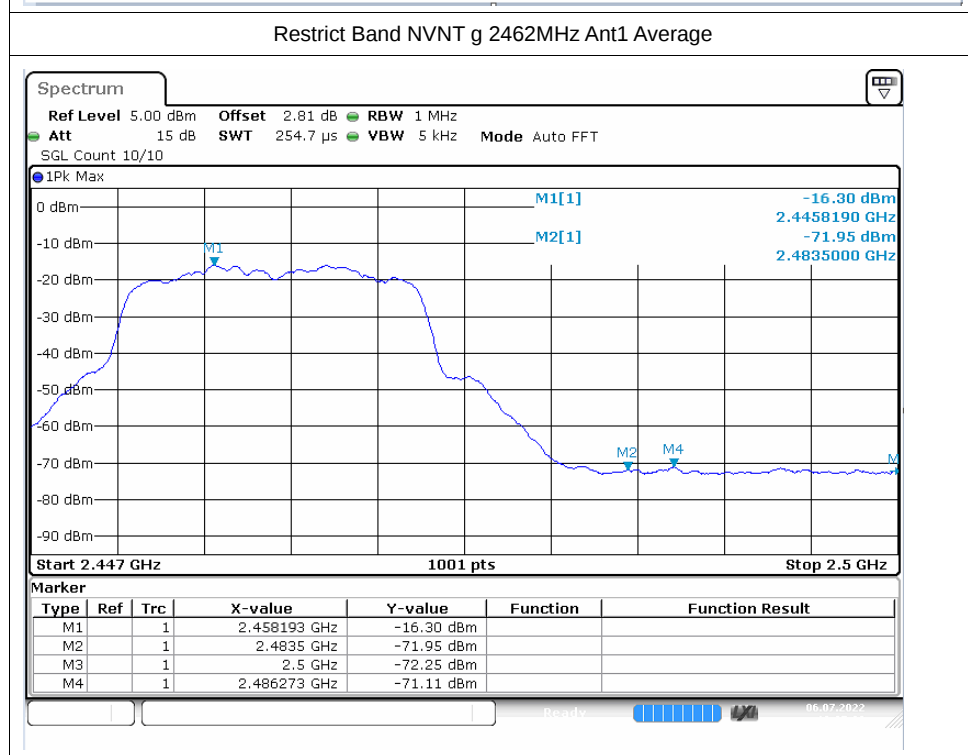
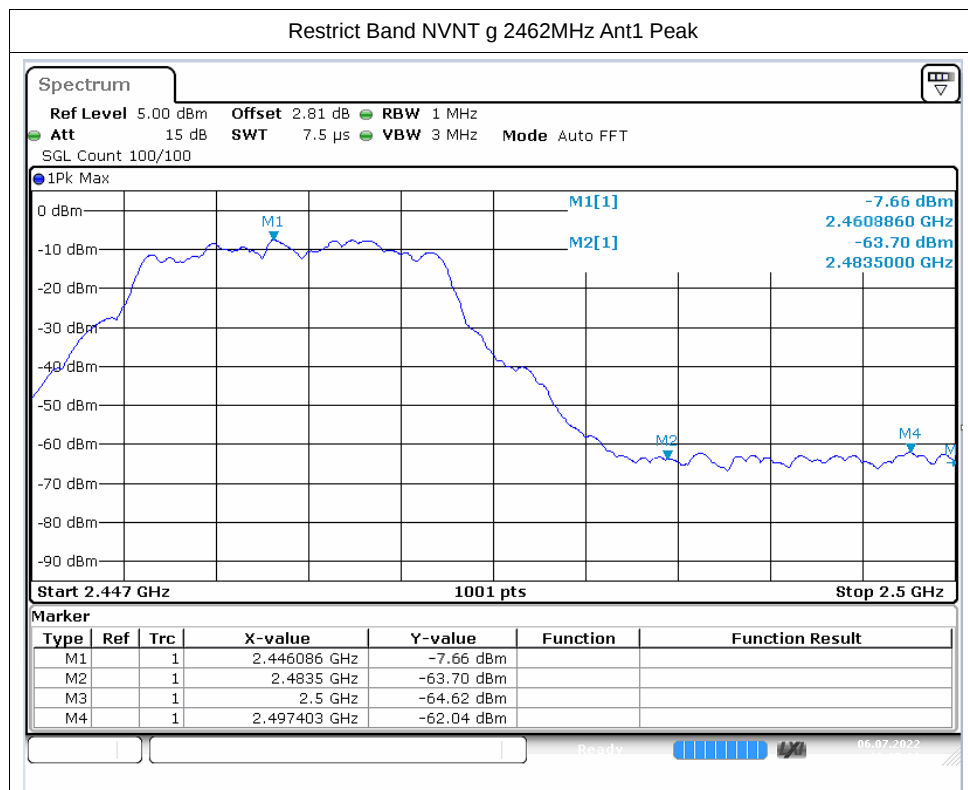


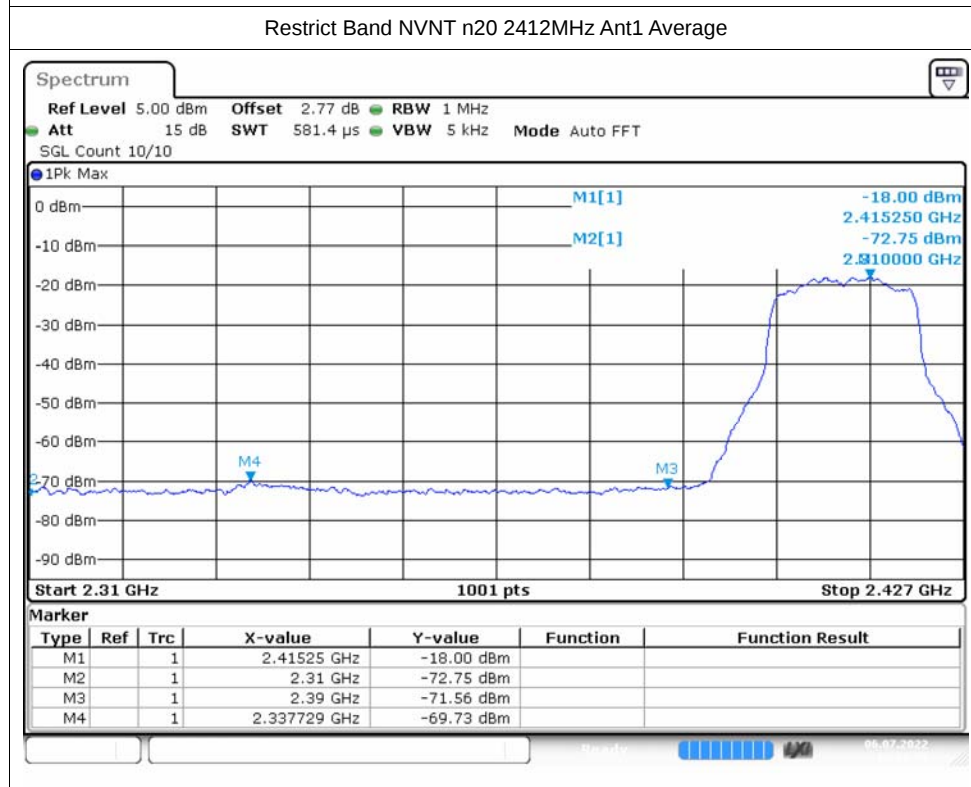
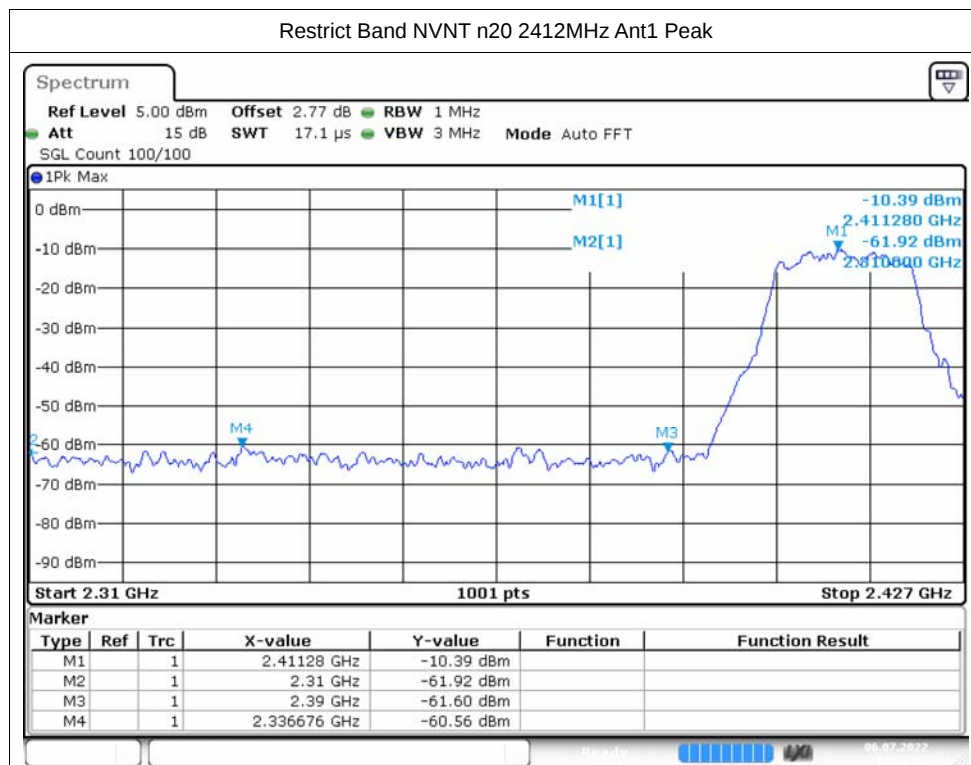
Restrict Band NVNT b 2412MHz Ant1 Average

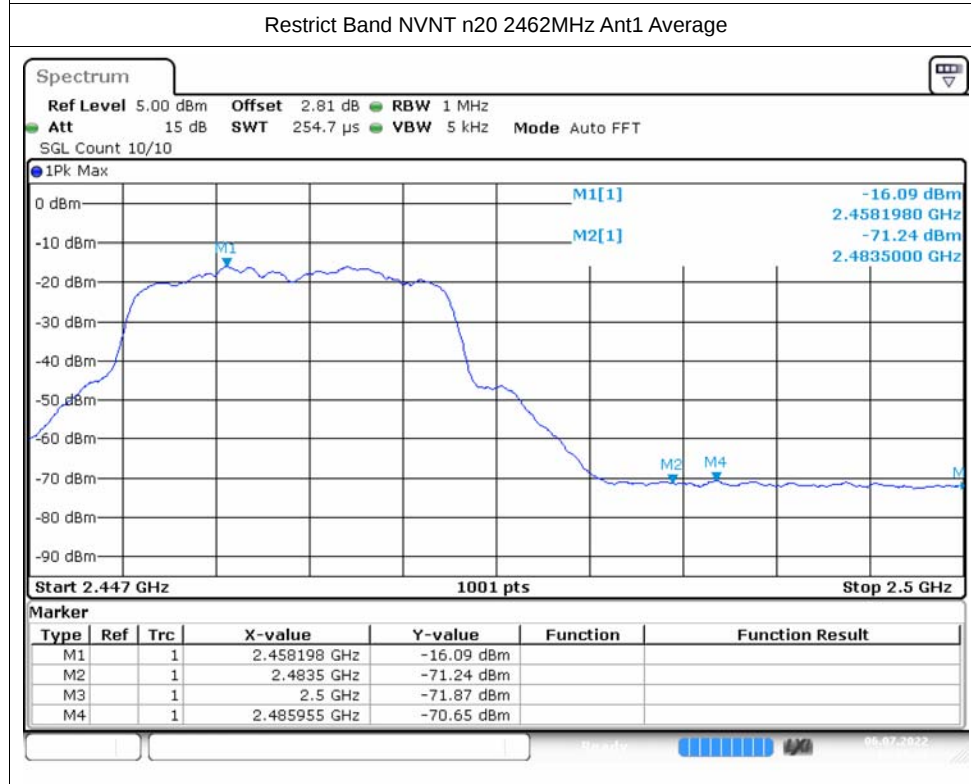
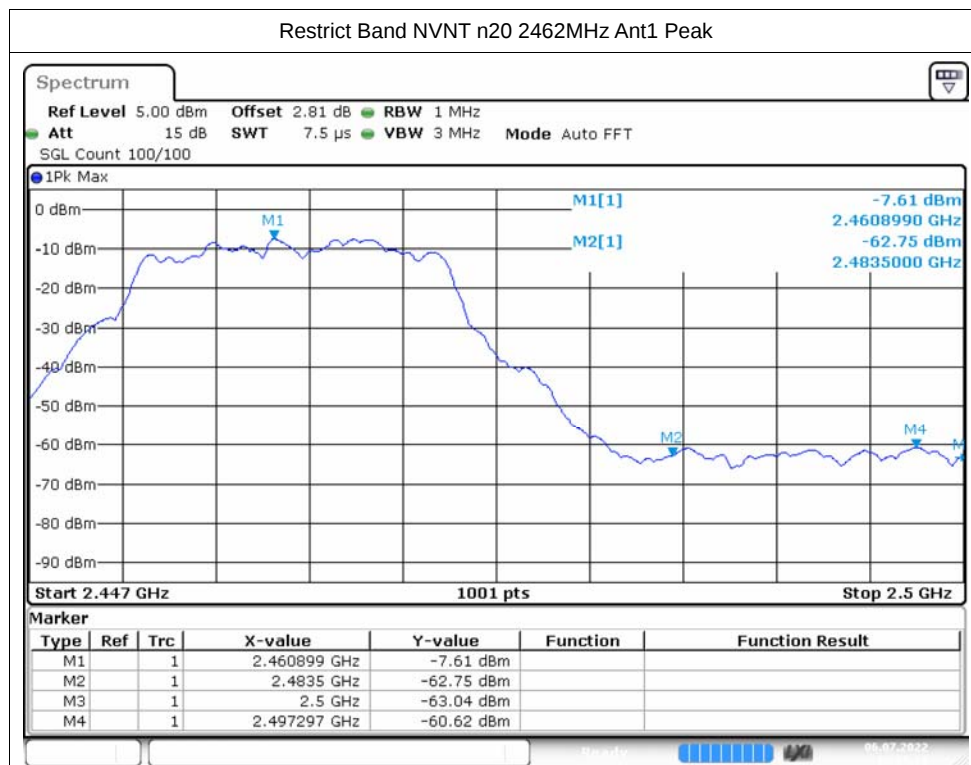


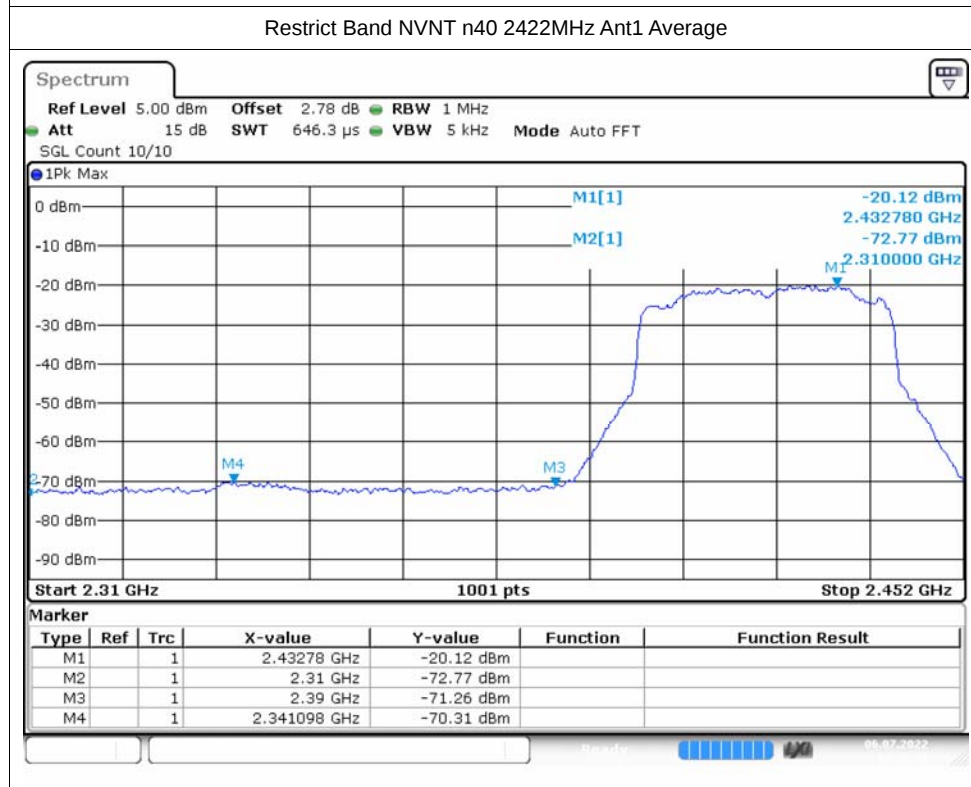
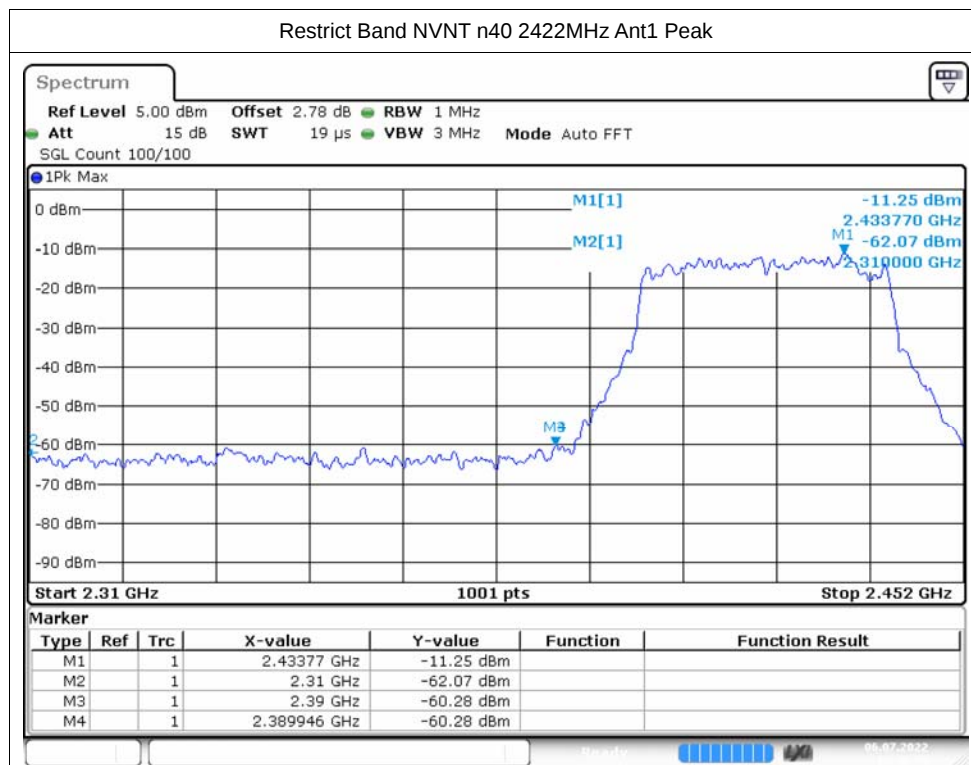


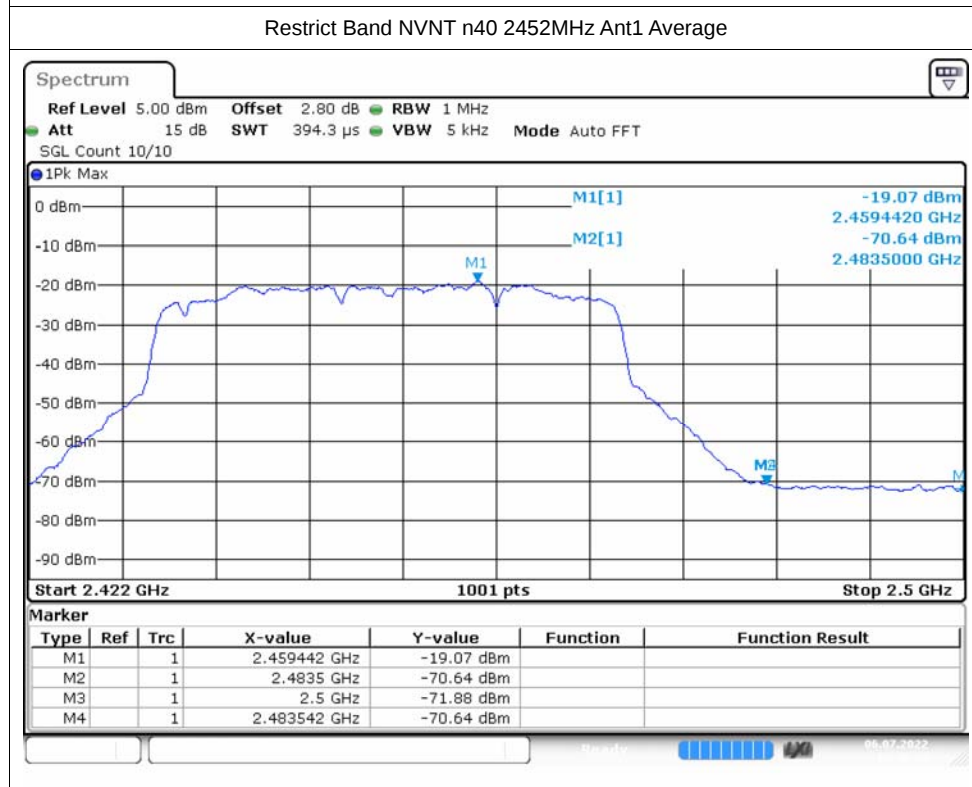
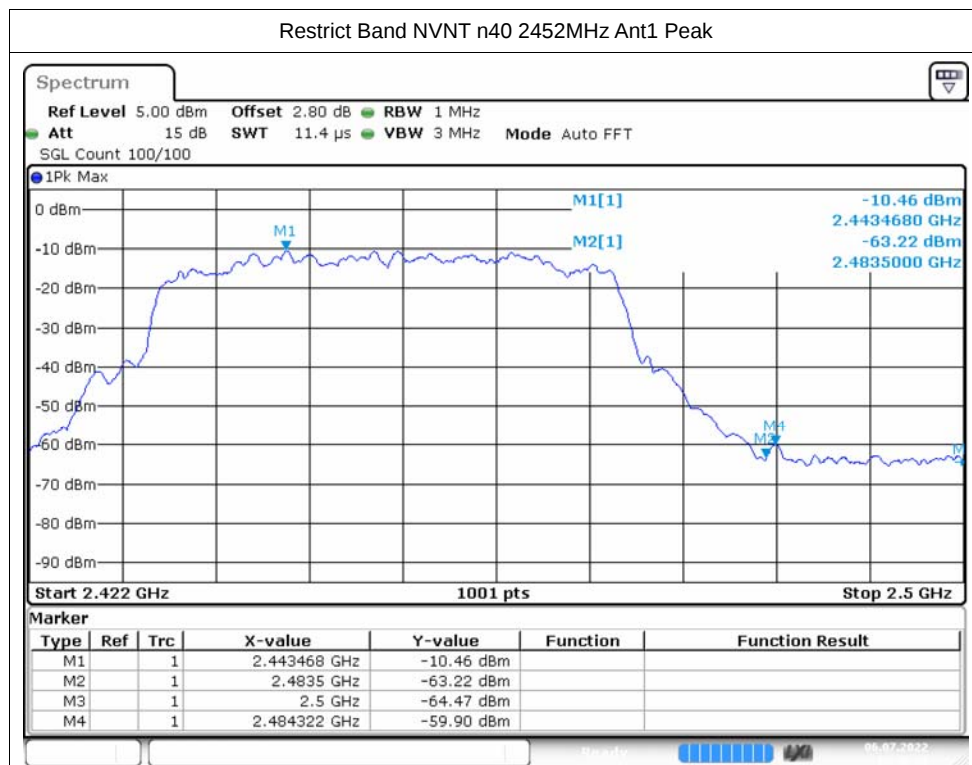












---The End---