

Appendix C

RF Test Data for 2.4GHz WIFI Conducted Measurement

FCC ID:2A7DX-WAVE6

Product Name:Smart phone

Test Model:WAVE 6C

Environmental Conditions

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

Contents

Page

COVER PAGE

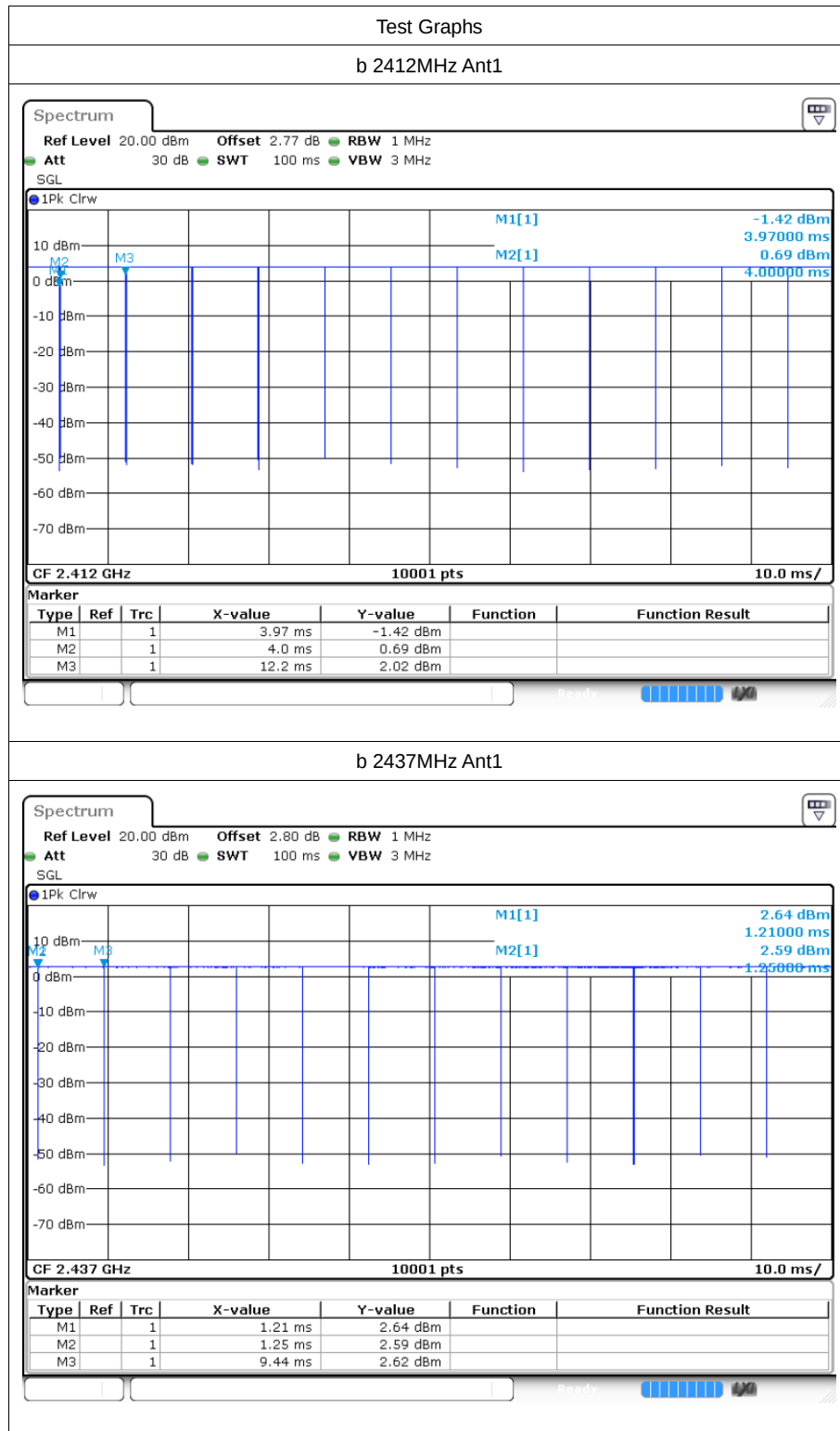
1 Duty Cycle	3
1.1 Test Result	3
1.2 Test Graphs	4
2 Maximum Conducted Output Power	10
2.1 Test Result	10
3 -6dB Bandwidth	11
3.1 Test Result	11
3.2 Test Graphs	12
4 Maximum Power Spectral Density Level.....	18
4.1 Test Result	18
4.2 Test Graphs	19
5 Band Edge	25
5.1 Test Result	25
5.2 Test Graphs	26
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
7.2 Test Graphs	49

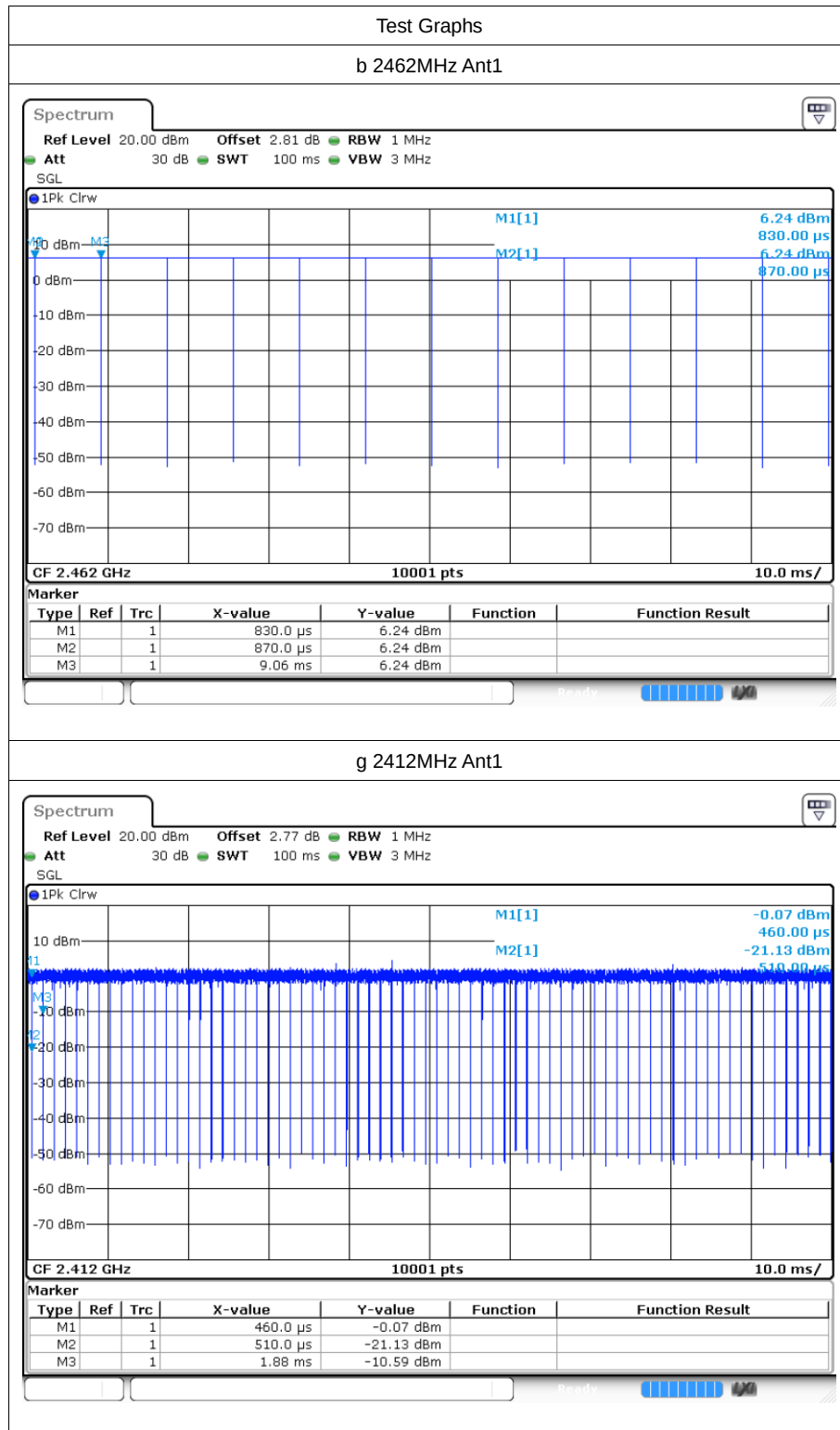
1 Duty Cycle

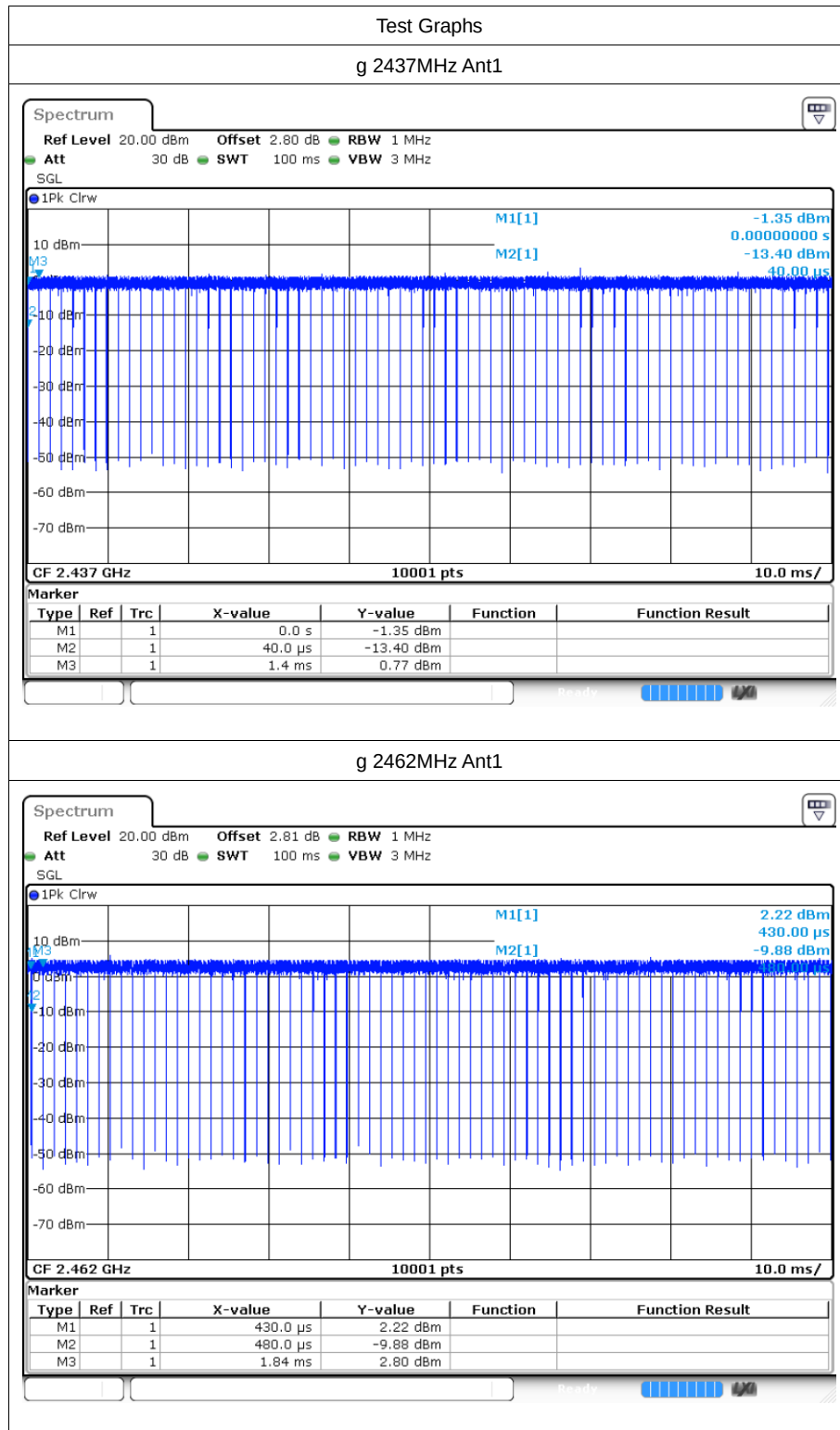
1.1 Test Result

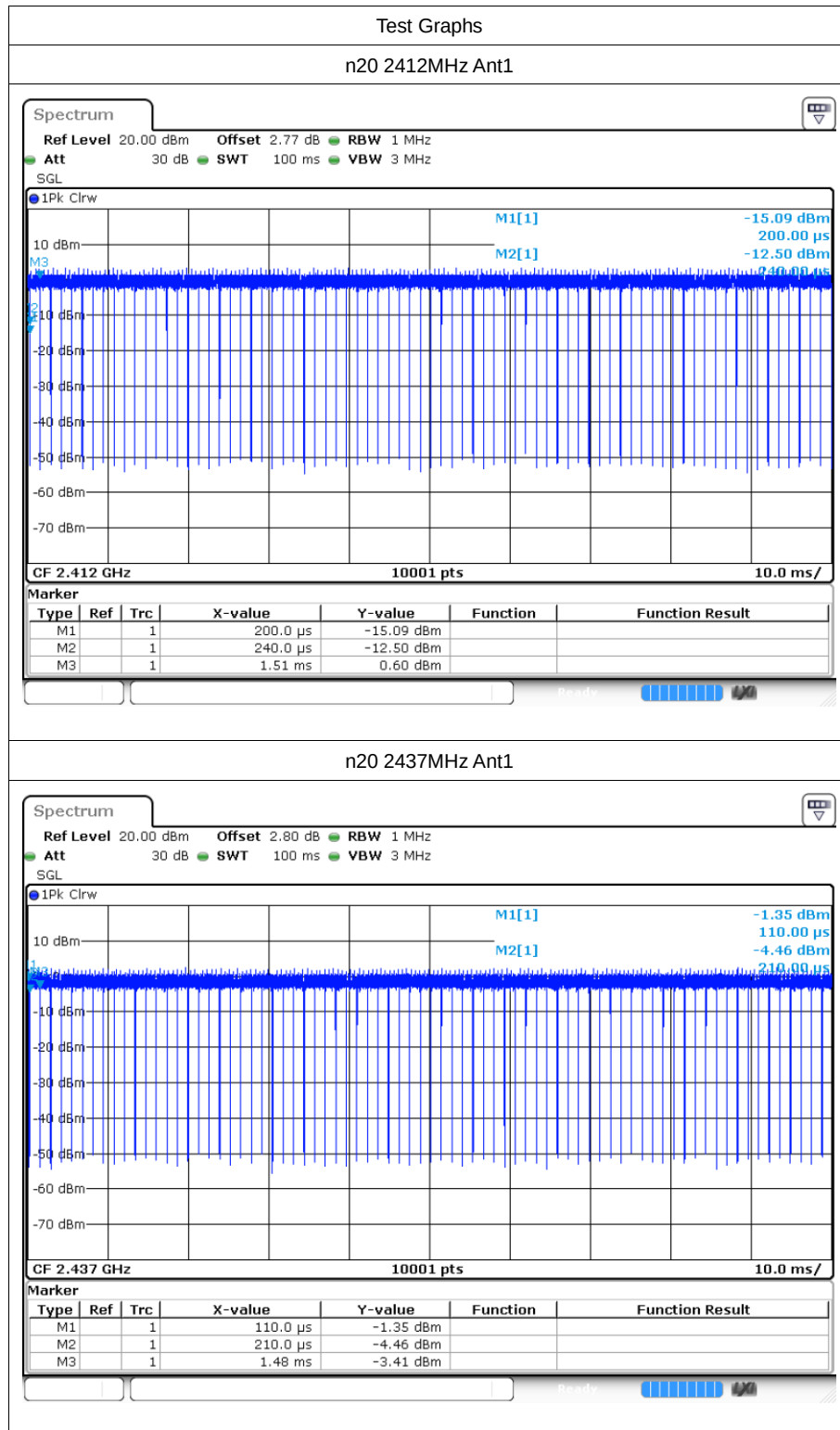
Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	1/T (kHz)
b	2412	Ant1	99.68	0.12
b	2437	Ant1	99.51	0.12
b	2462	Ant1	99.56	0.12
g	2412	Ant1	97.86	0.73
g	2437	Ant1	97.72	0.74
g	2462	Ant1	97.93	0.74
n20	2412	Ant1	97.71	0.79
n20	2437	Ant1	97.47	0.79
n20	2462	Ant1	97.67	0.79
802.11n40	2422	Ant1	76.51	1.72
802.11n40	2437	Ant1	76.53	1.69
802.11n40	2452	Ant1	76.84	1.69

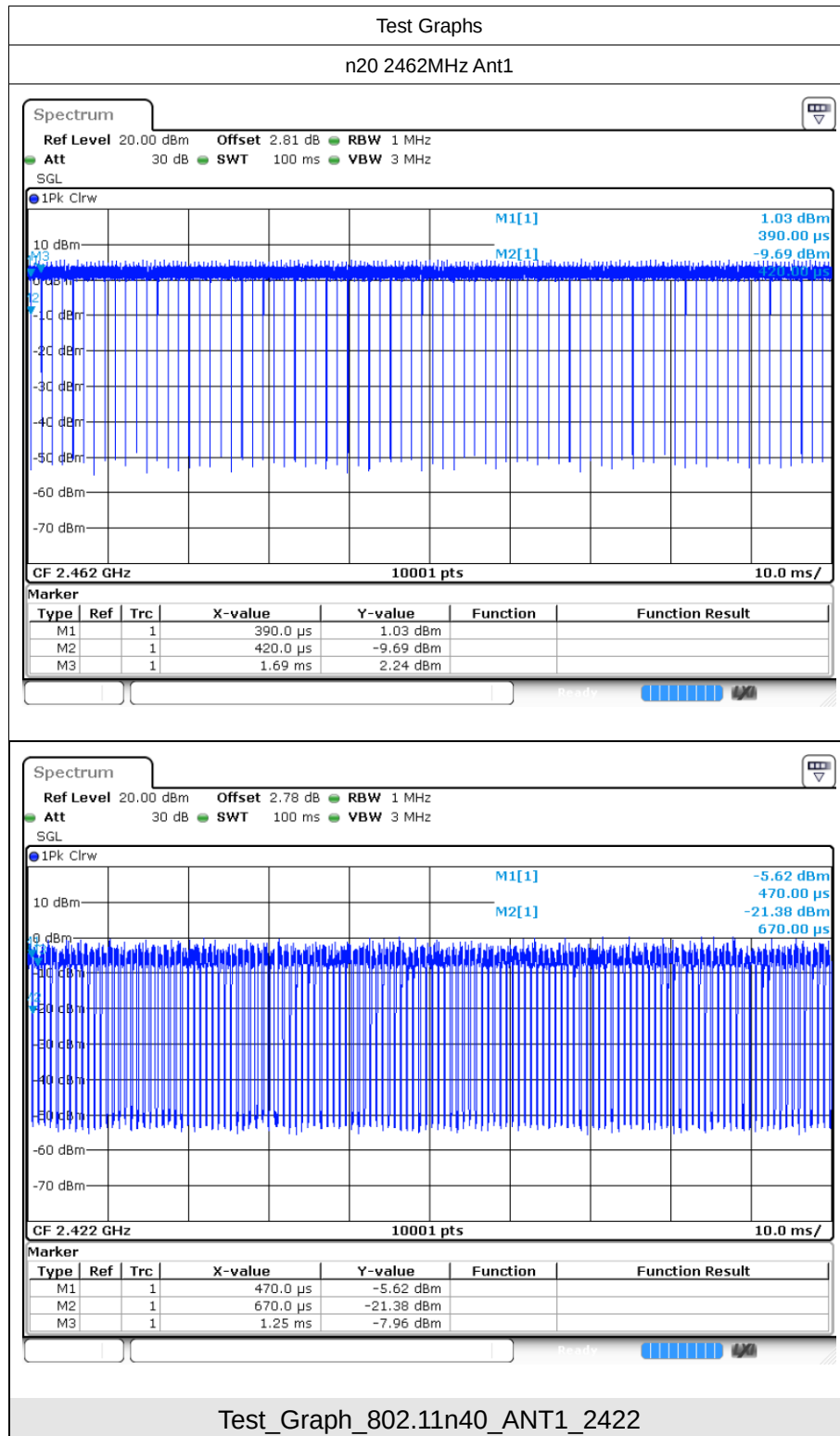
1.2 Test Graphs

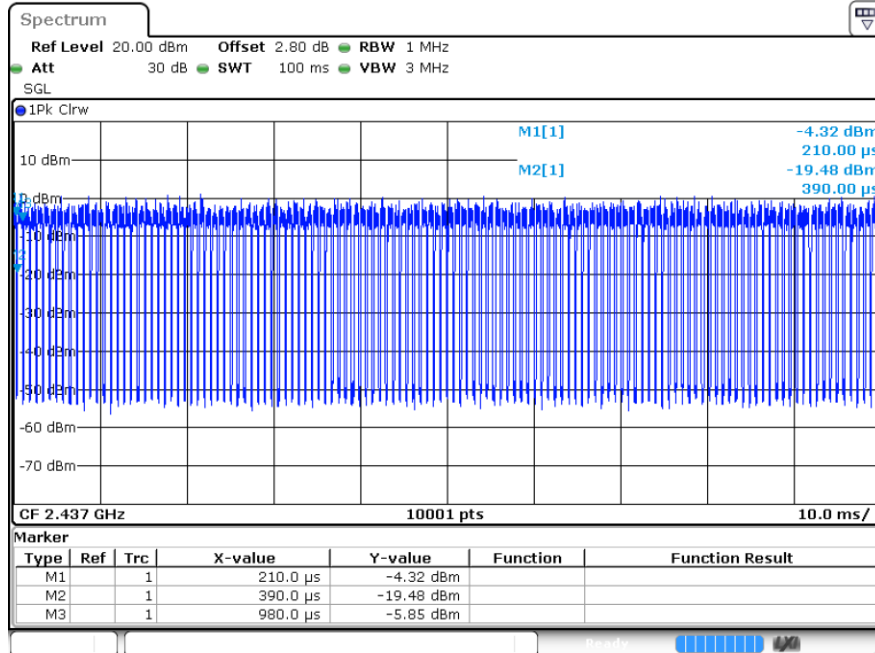




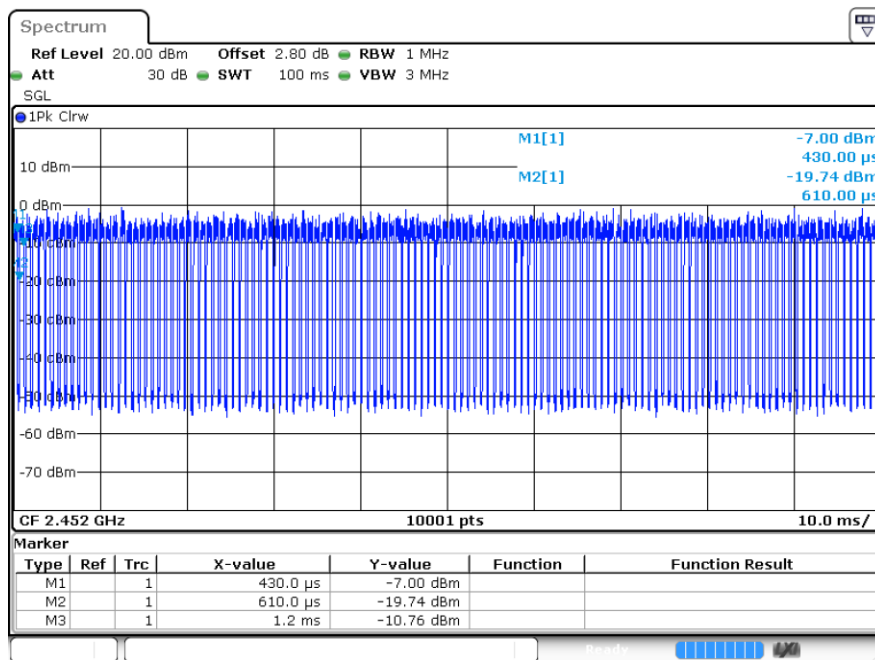








Test_Graph_802.11n40_ANT1_2437



Test_Graph_802.11n40_ANT1_2452

2 Maximum Conducted Output Power

2.1 Test Result

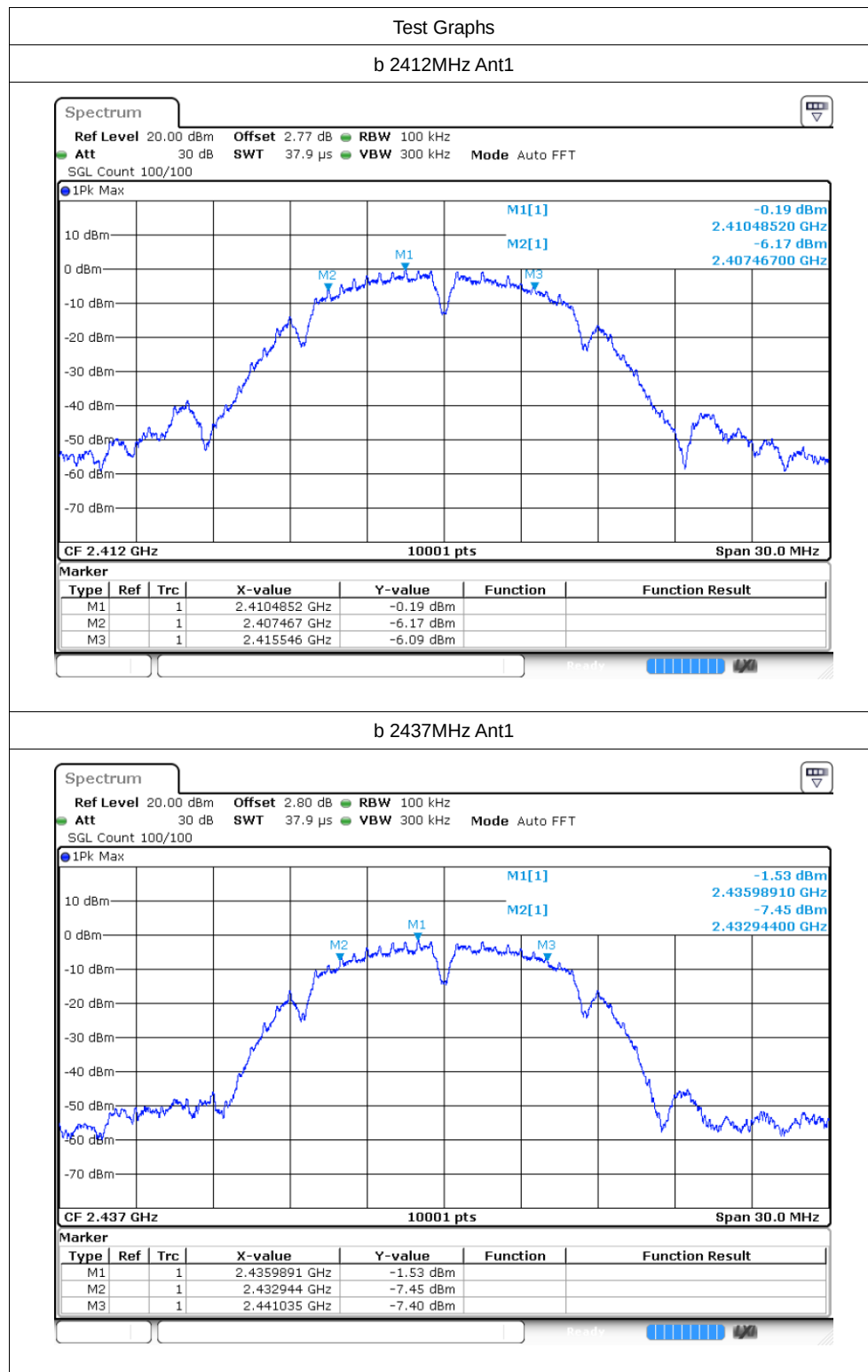
Test Data of Conducted Output Power				
Test Mode	Test Channel (MHz)	Peak Power (dBm)	Limits (dBm)	Pass or Fail
802.11b	2412	13.37	≤ 30	Pass
	2437	12.1	≤ 30	Pass
	2462	15.65	≤ 30	Pass
802.11g	2412	13.71	≤ 30	Pass
	2437	12.99	≤ 30	Pass
	2462	15.93	≤ 30	Pass
802.11n20	2412	13.45	≤ 30	Pass
	2437	12.62	≤ 30	Pass
	2462	15.7	≤ 30	Pass
802.11n40	2422	16.38	≤ 30	Pass
	2437	14.78	≤ 30	Pass
	2452	15.73	≤ 30	Pass

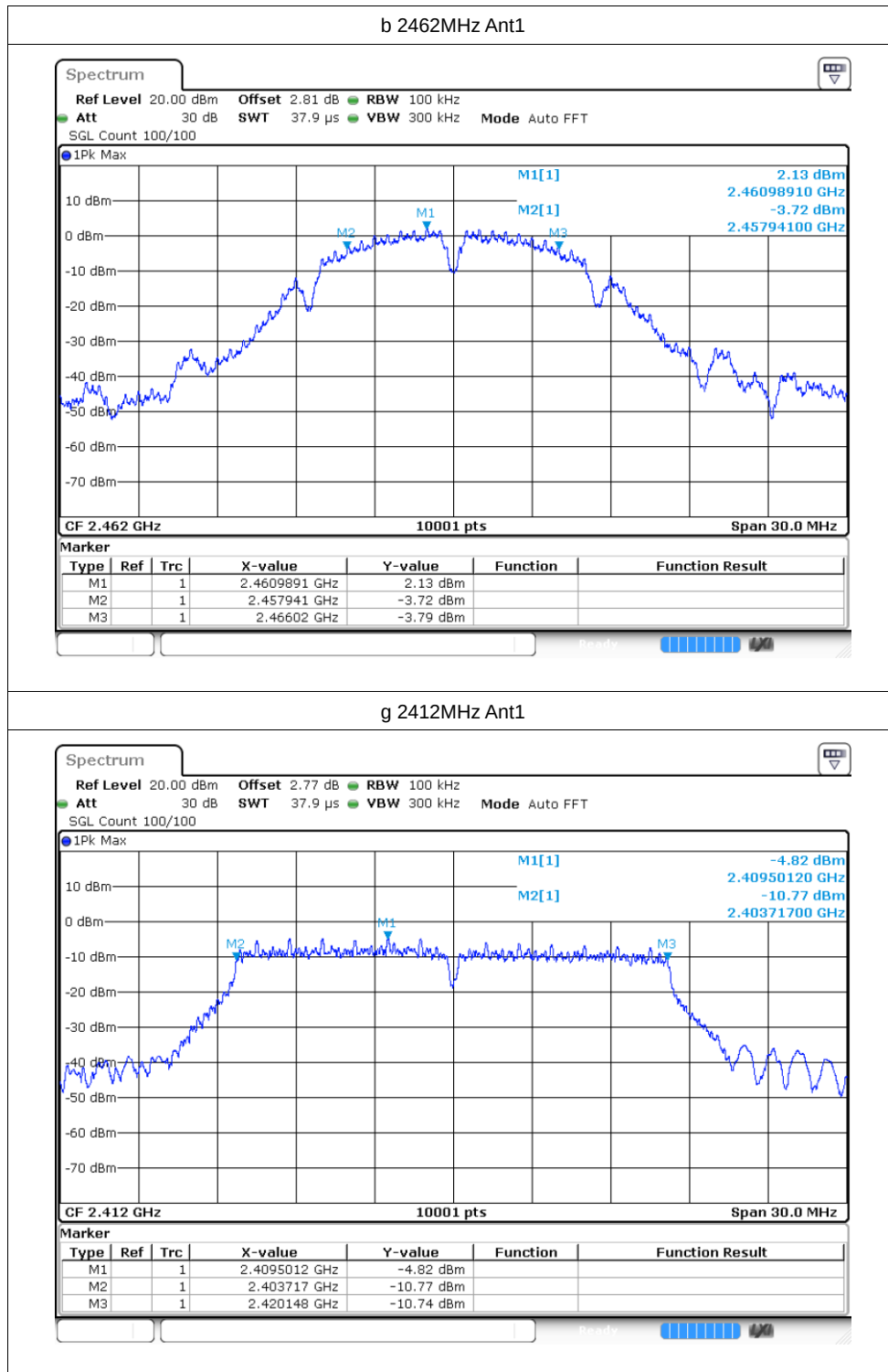
3 -6dB Bandwidth

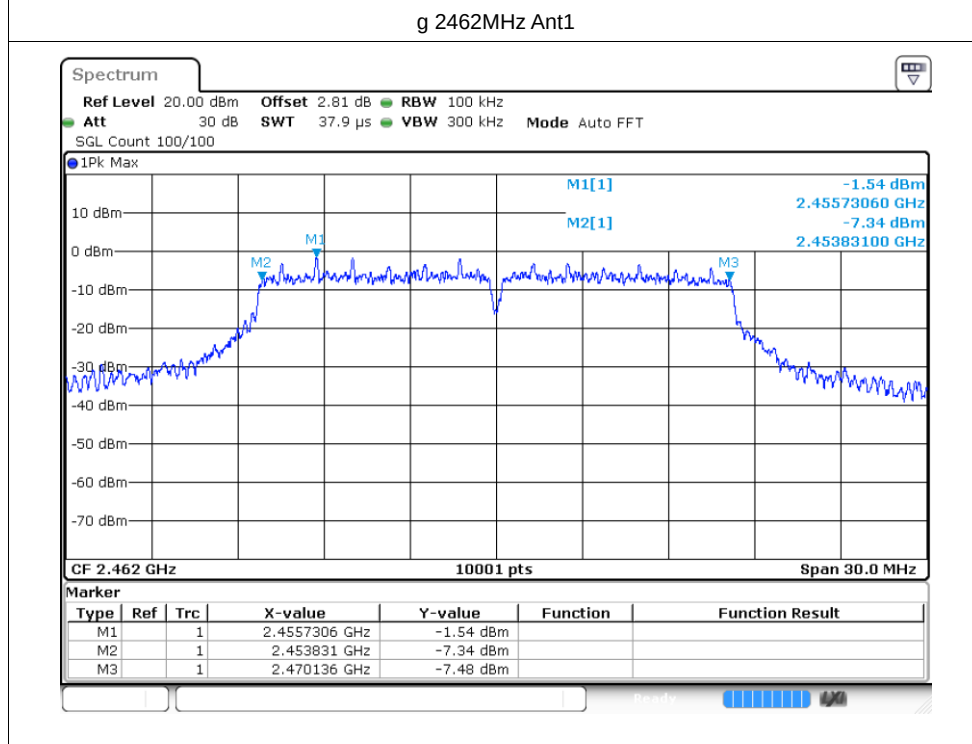
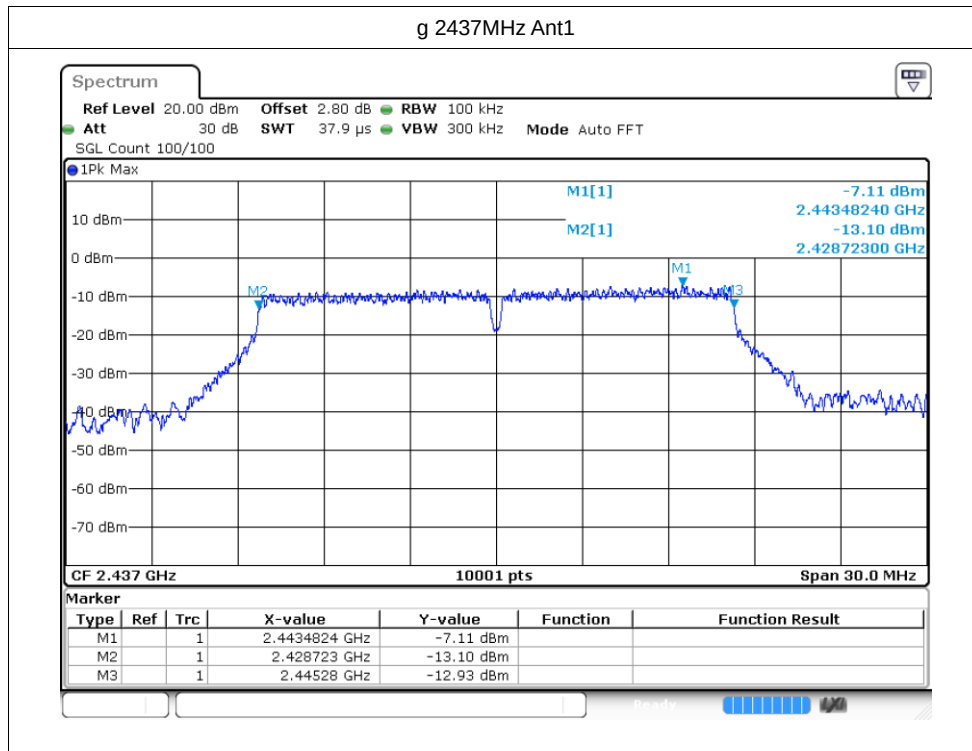
3.1 Test Result

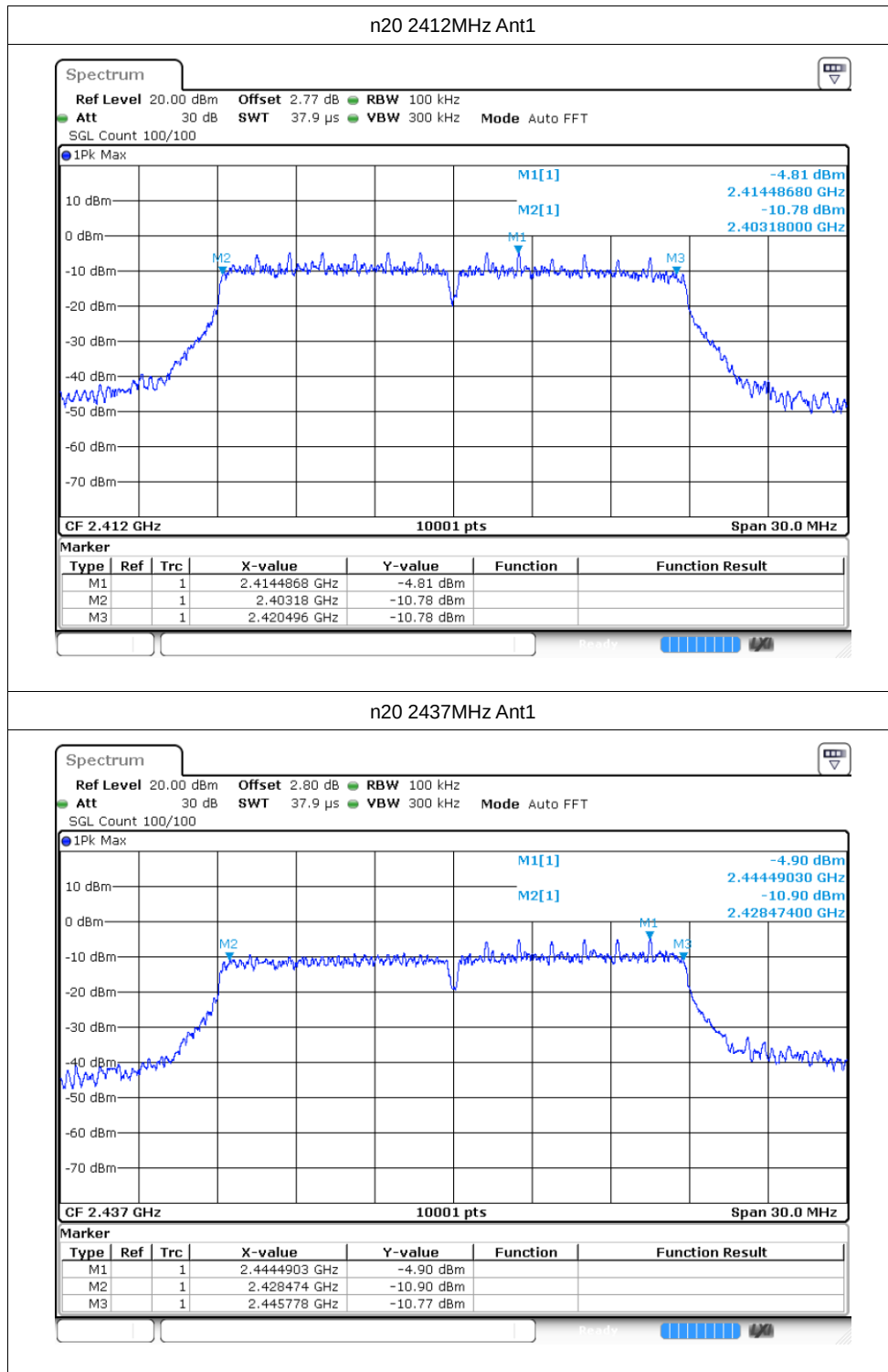
Test Data of Occupied Bandwidth and DTS Bandwidth				
Test Mode	Test Channel (MHz)	-6dB Bandwidth (MHz)	Limits (MHz)	Pass or Fail
802.11b	2412	8.079	≥ 0.5	Pass
	2437	8.091	≥ 0.5	Pass
	2462	8.079	≥ 0.5	Pass
802.11g	2412	16.431	≥ 0.5	Pass
	2437	16.557	≥ 0.5	Pass
	2462	16.305	≥ 0.5	Pass
802.11n20	2412	17.316	≥ 0.5	Pass
	2437	17.304	≥ 0.5	Pass
	2462	17.265	≥ 0.5	Pass
802.11n40	2422	36.45	≥ 0.5	Pass
	2437	27.552	≥ 0.5	Pass
	2452	21.312	≥ 0.5	Pass

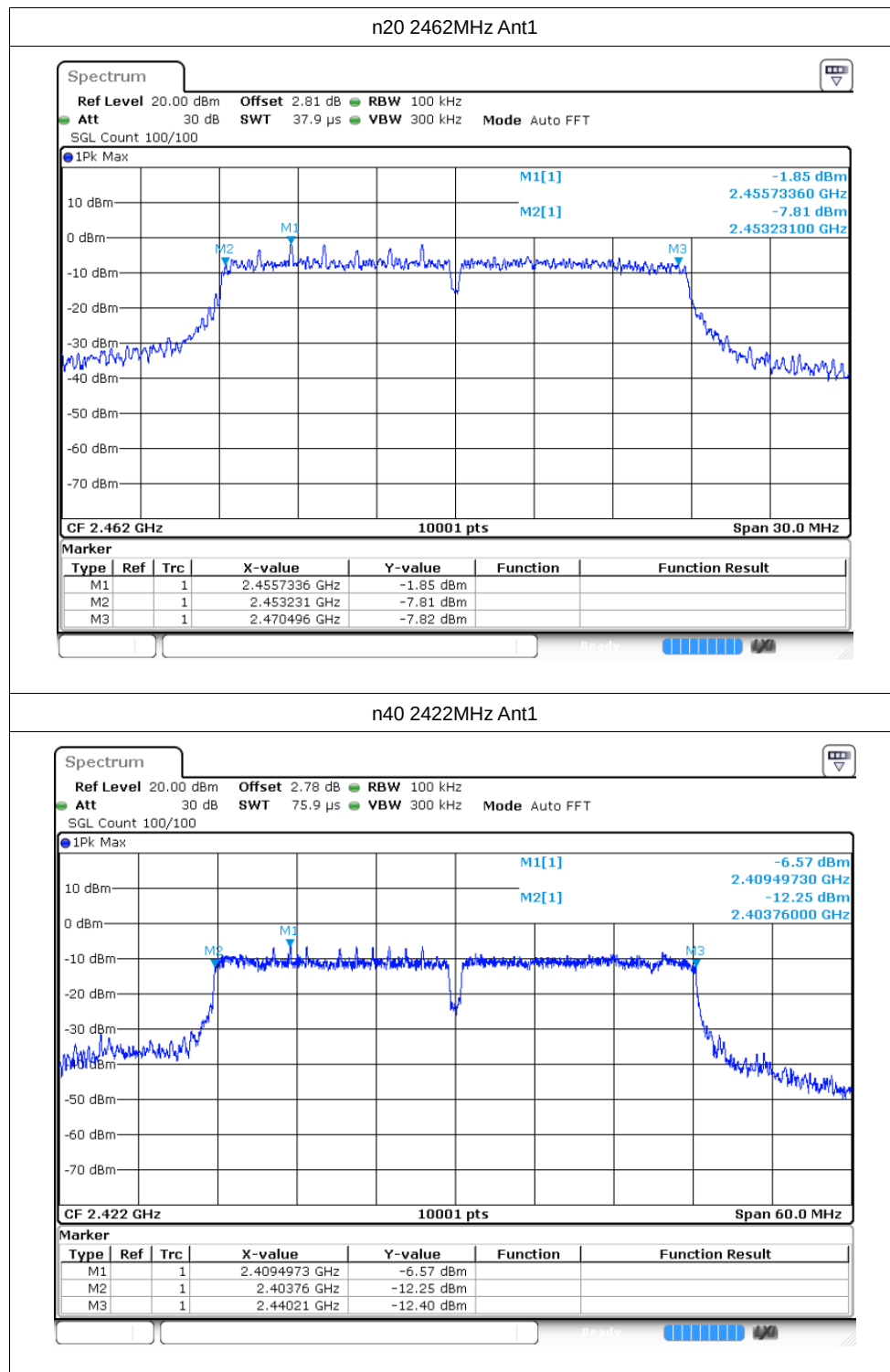
3.2 Test Graphs

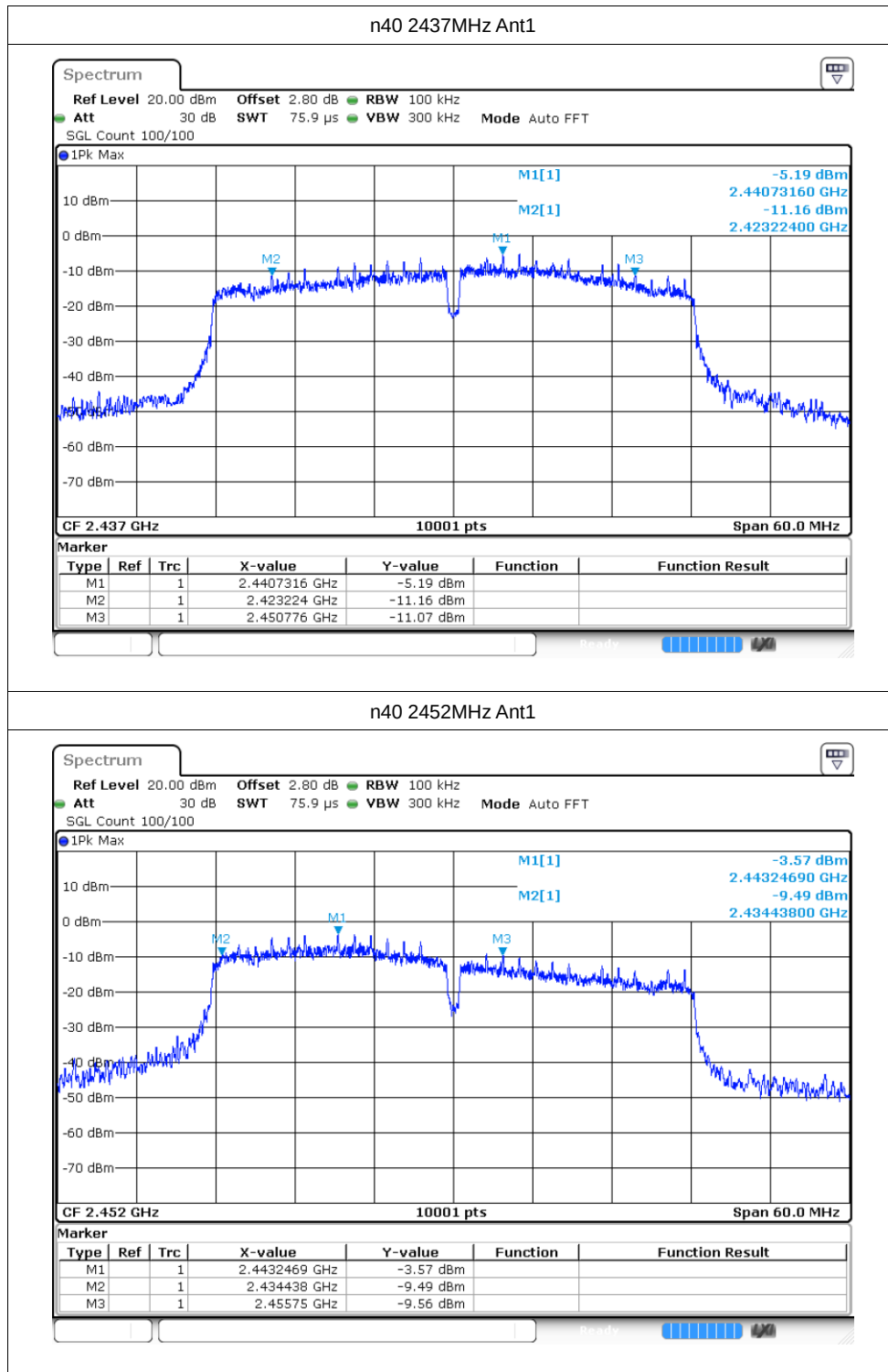










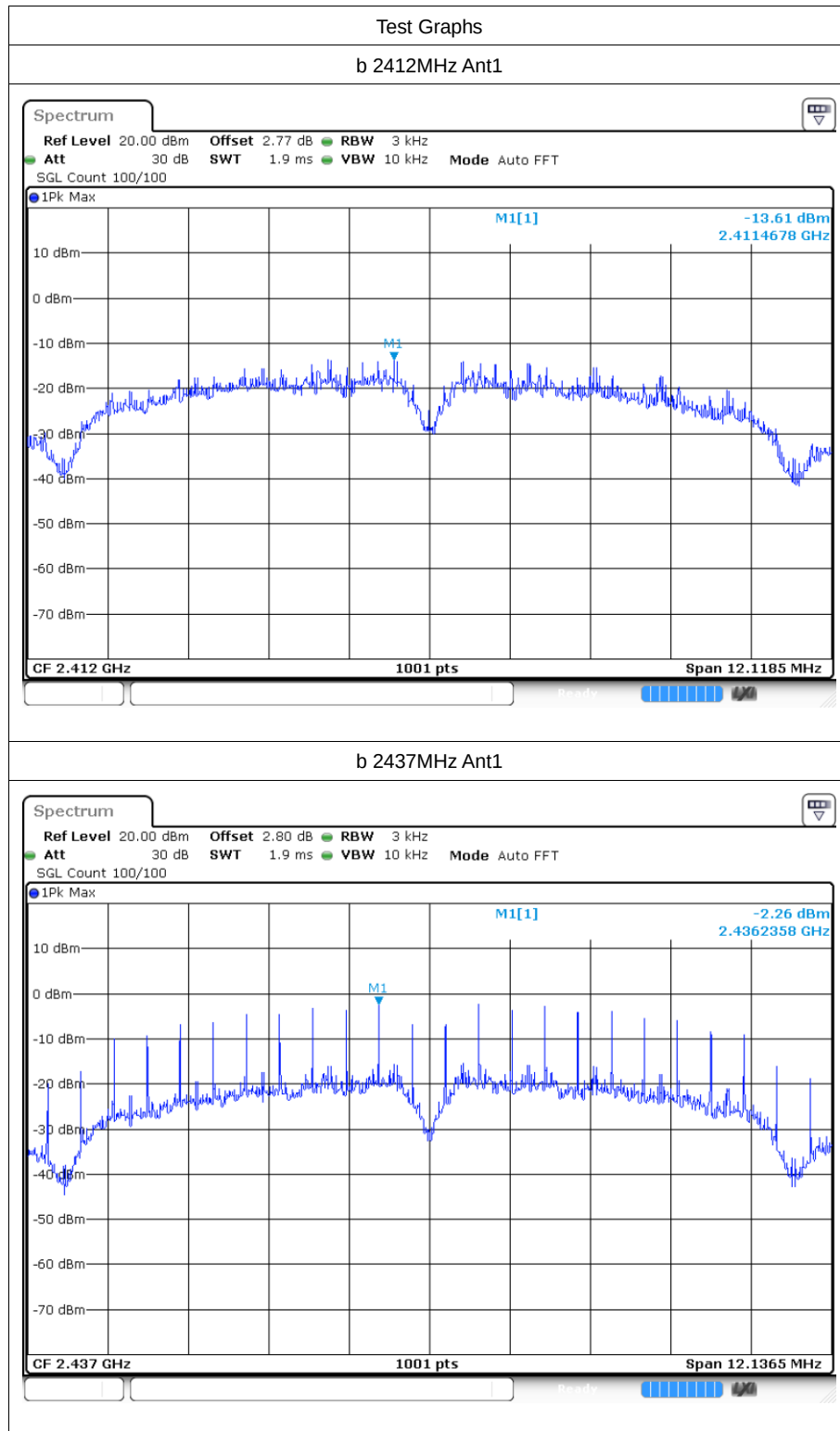


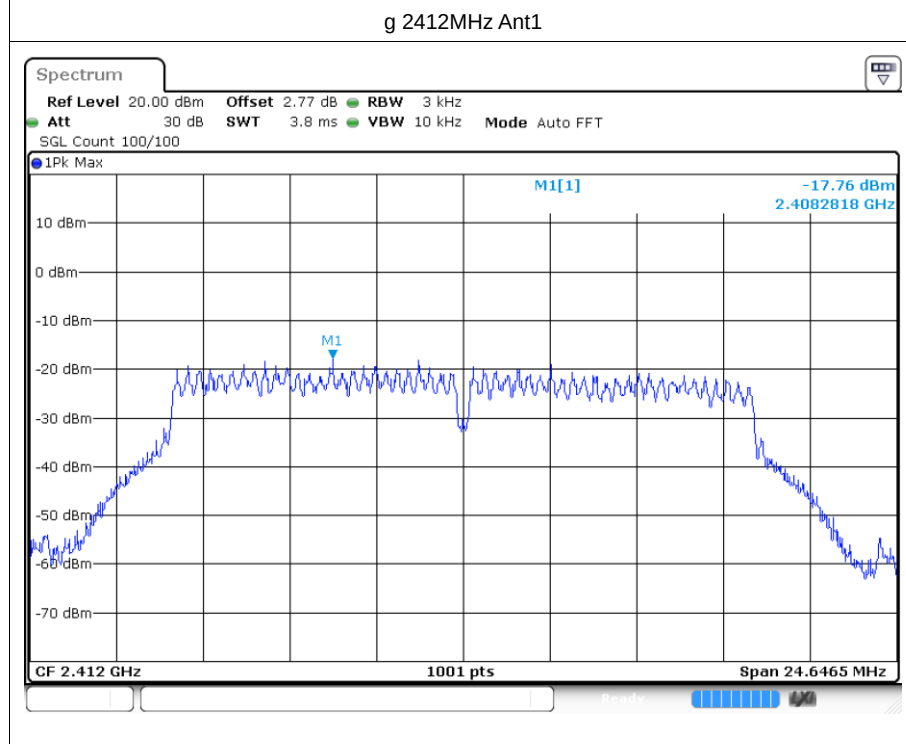
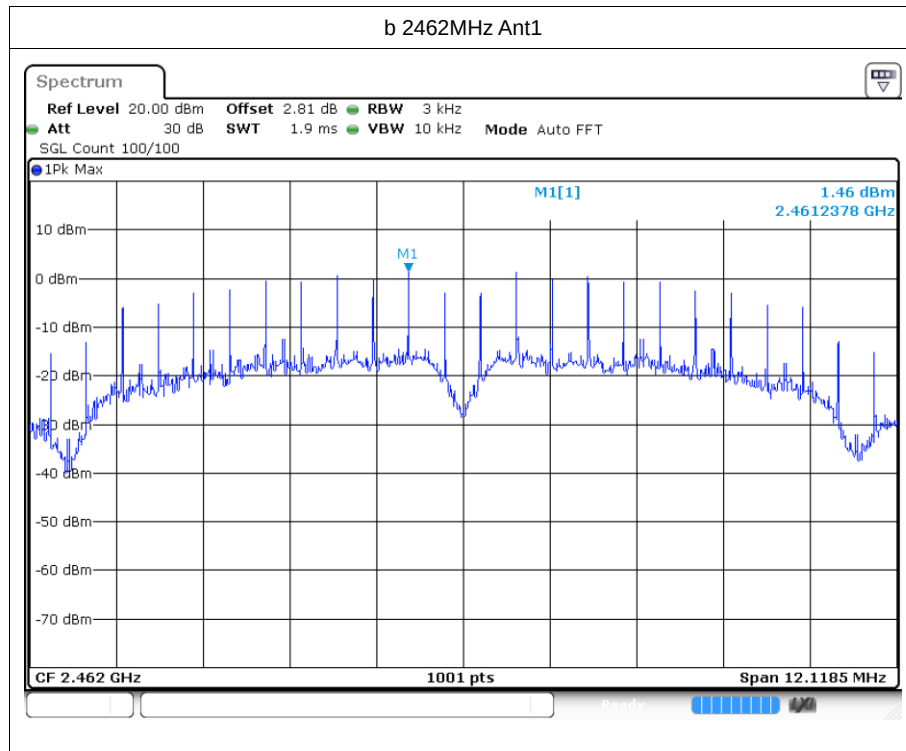
4 Maximum Power Spectral Density Level

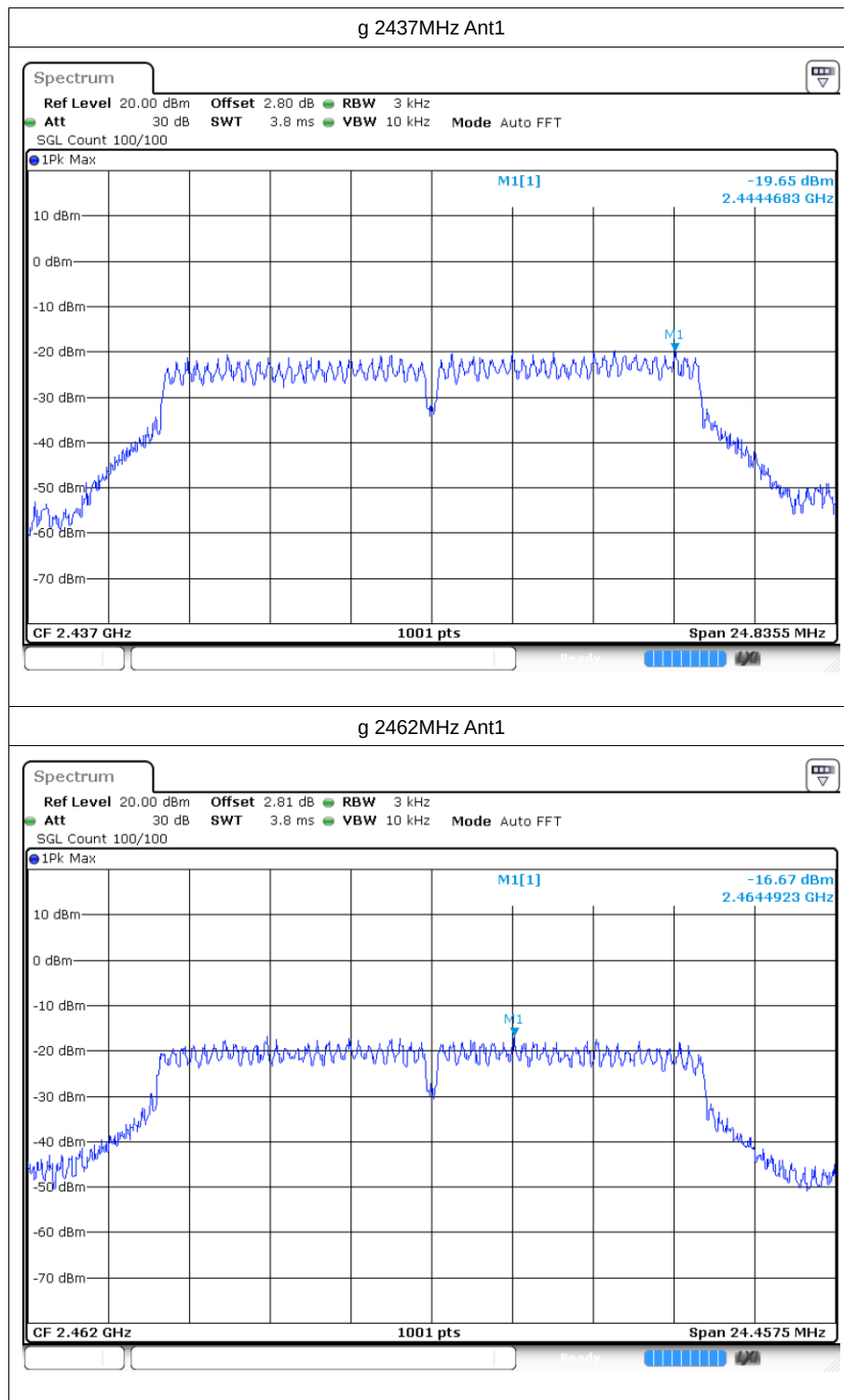
4.1 Test Result

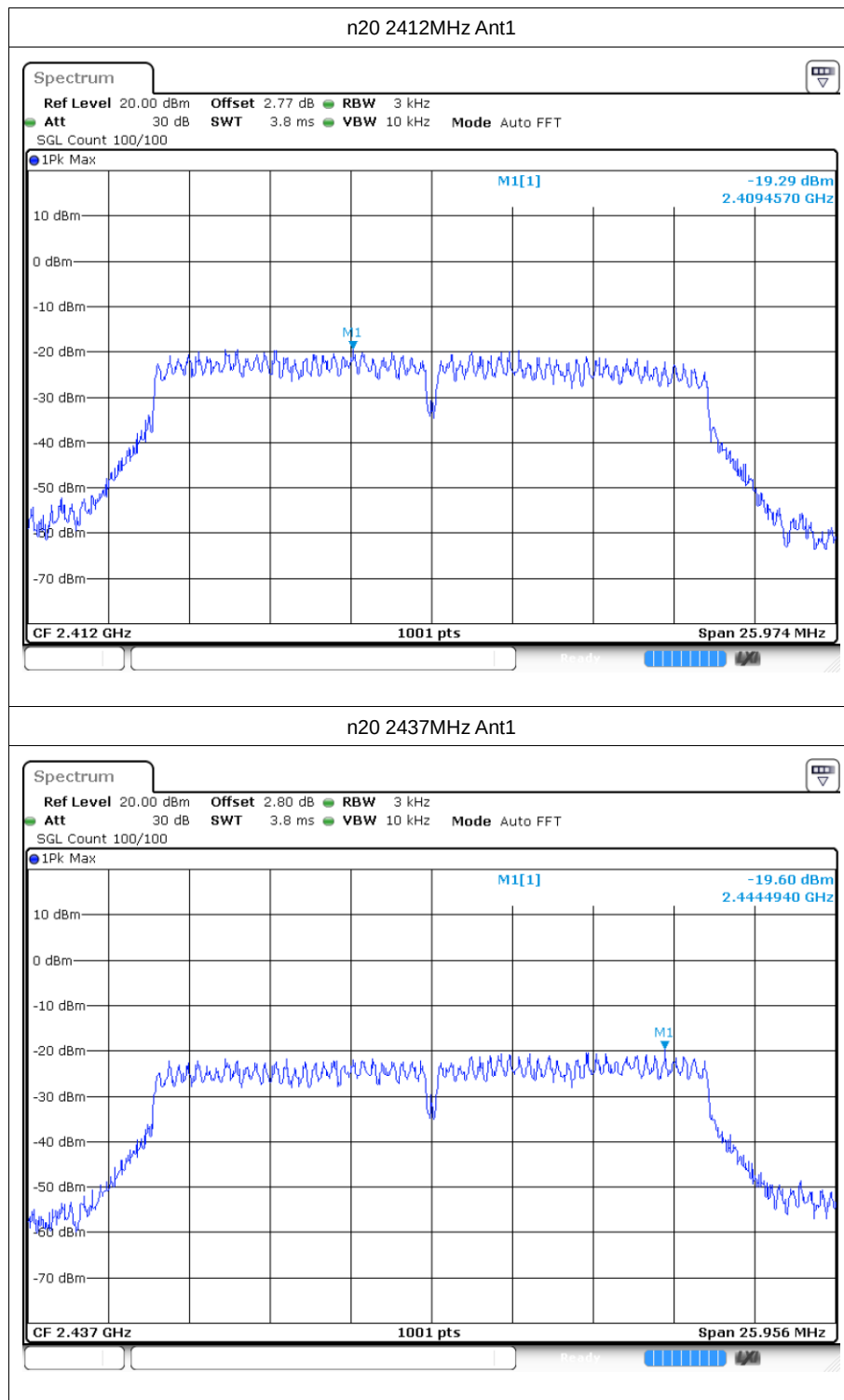
Test Data of Conducted Output Power Spectral Density				
Test Mode	Test Channel	Power density (dBm/3kHz)	Limit (dBm/3kHz)	Pass or Fail
802.11b	2412	-13.61	≤ 8	Pass
	2437	-2.26	≤ 8	Pass
	2462	1.46	≤ 8	Pass
802.11g	2412	-17.76	≤ 8	Pass
	2437	-19.65	≤ 8	Pass
	2462	-16.67	≤ 8	Pass
802.11n20	2412	-19.29	≤ 8	Pass
	2437	-19.6	≤ 8	Pass
	2462	-17.24	≤ 8	Pass
802.11n40	2422	-19.64	≤ 8	Pass
	2437	-20.47	≤ 8	Pass
	2452	-18.81	≤ 8	Pass

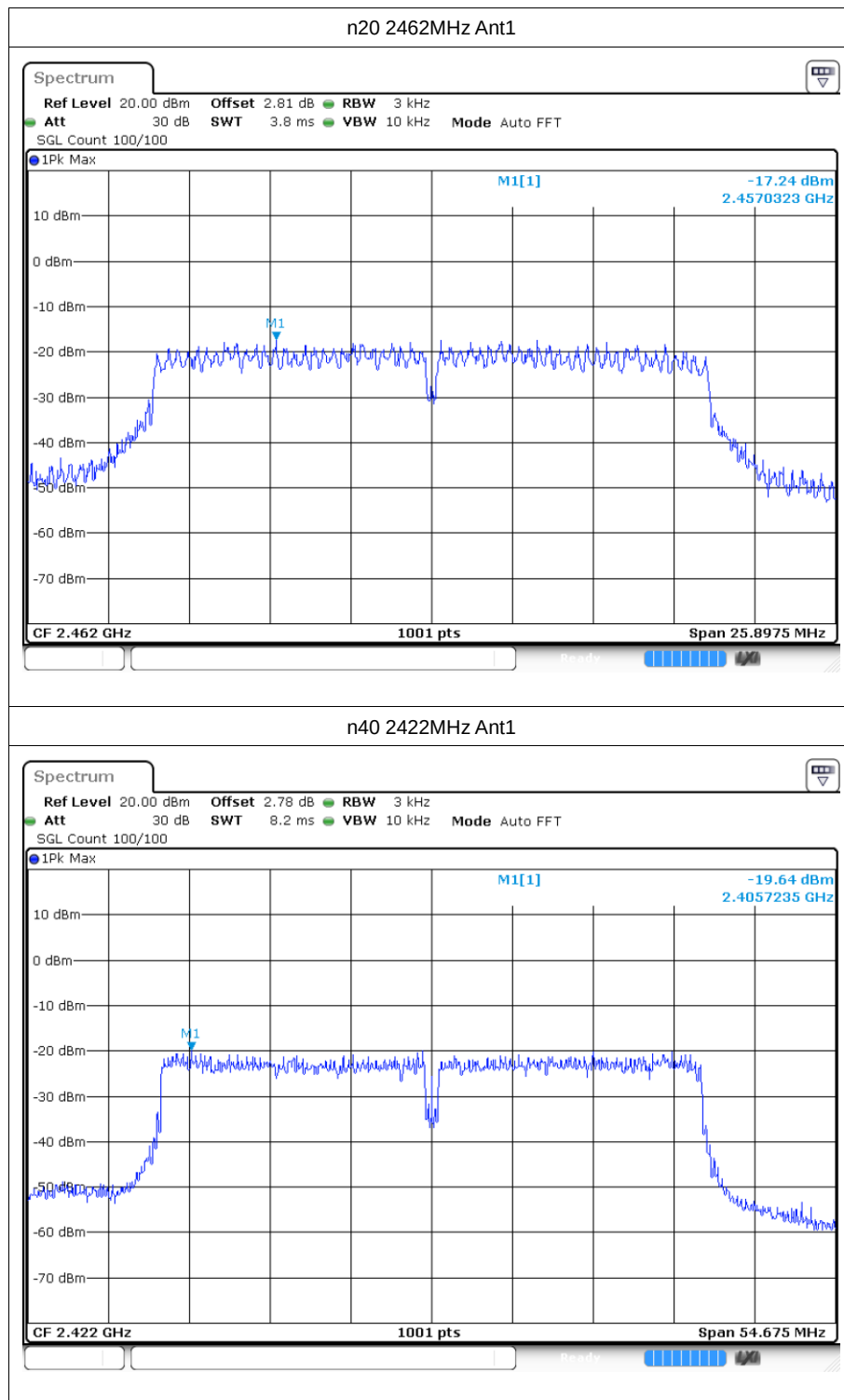
4.2 Test Graphs

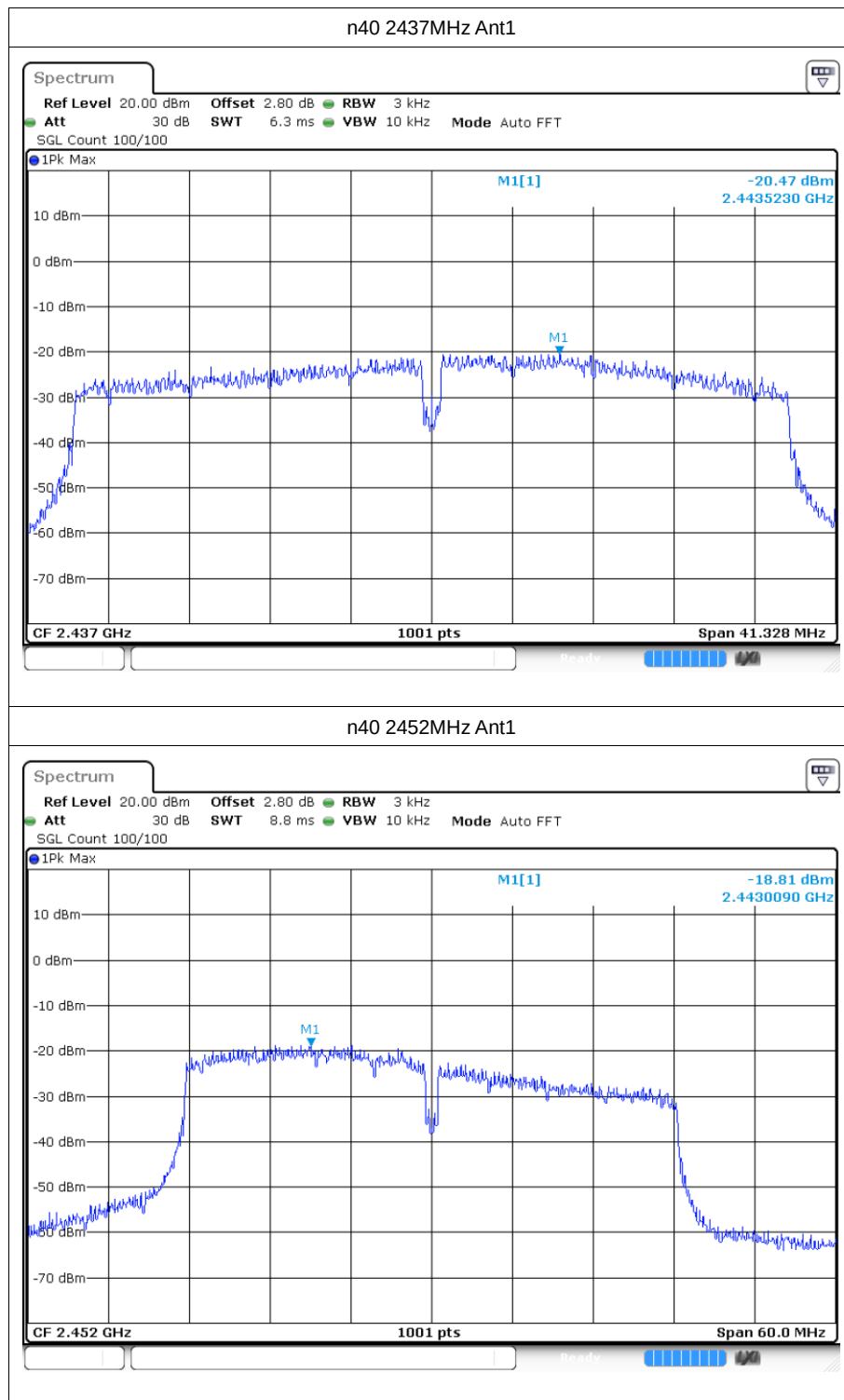










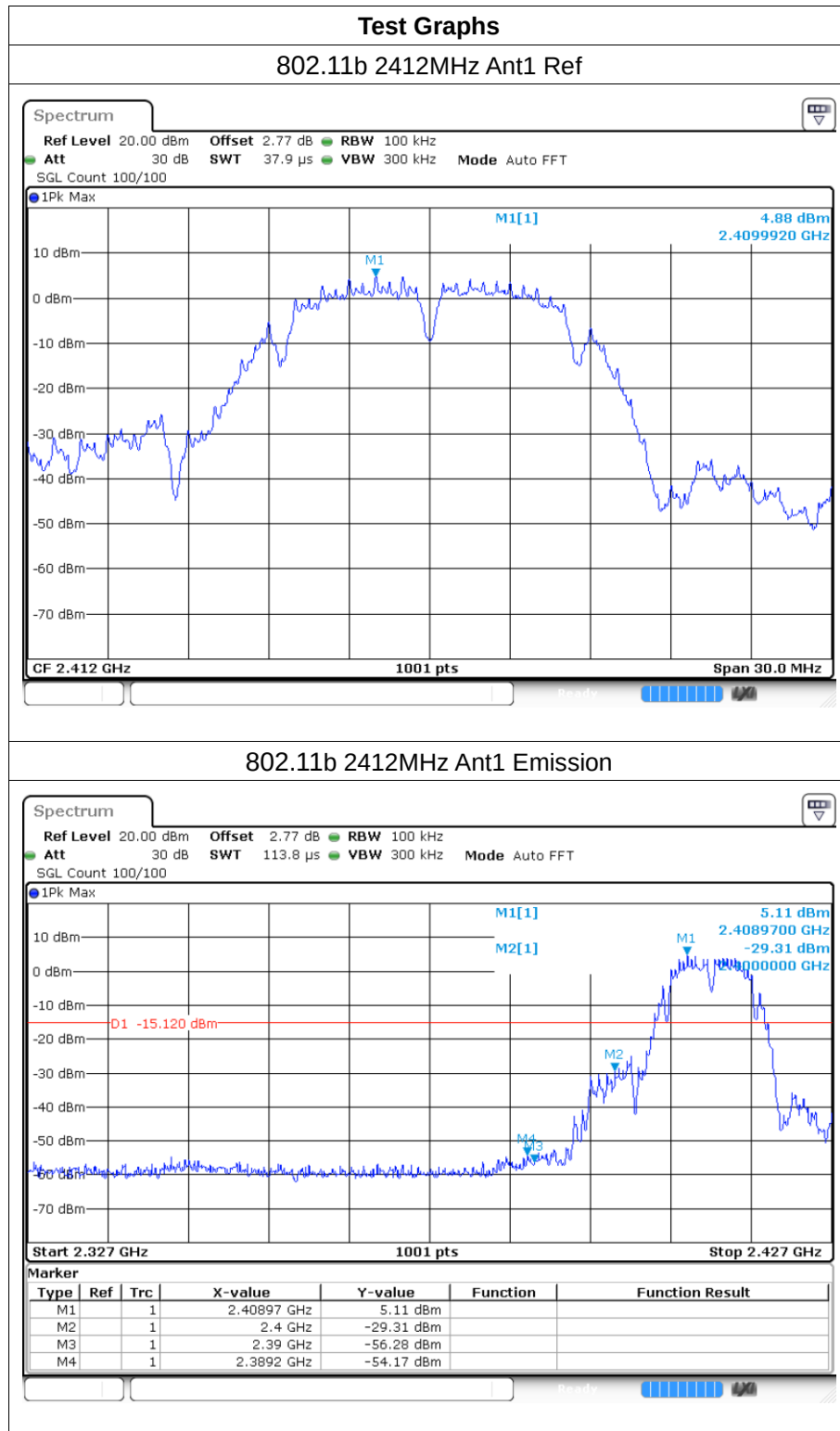


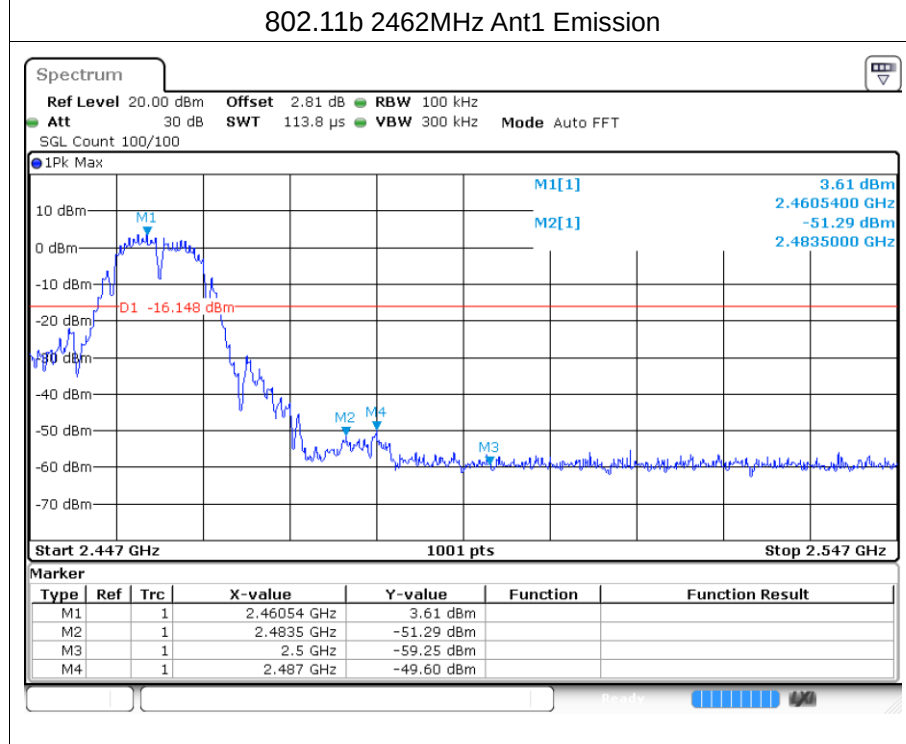
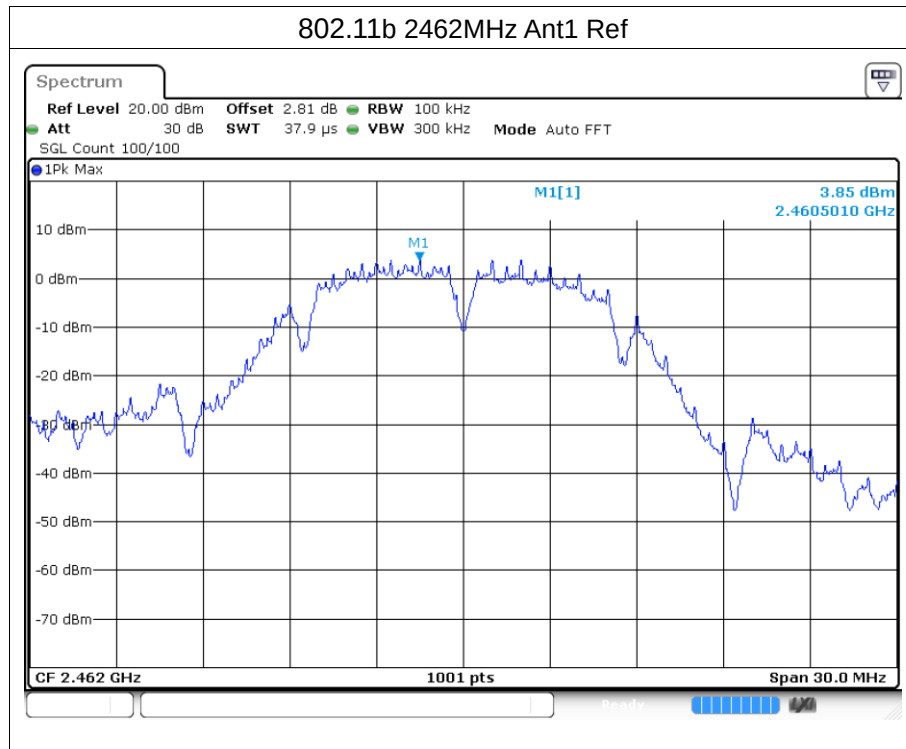
5 Band Edge

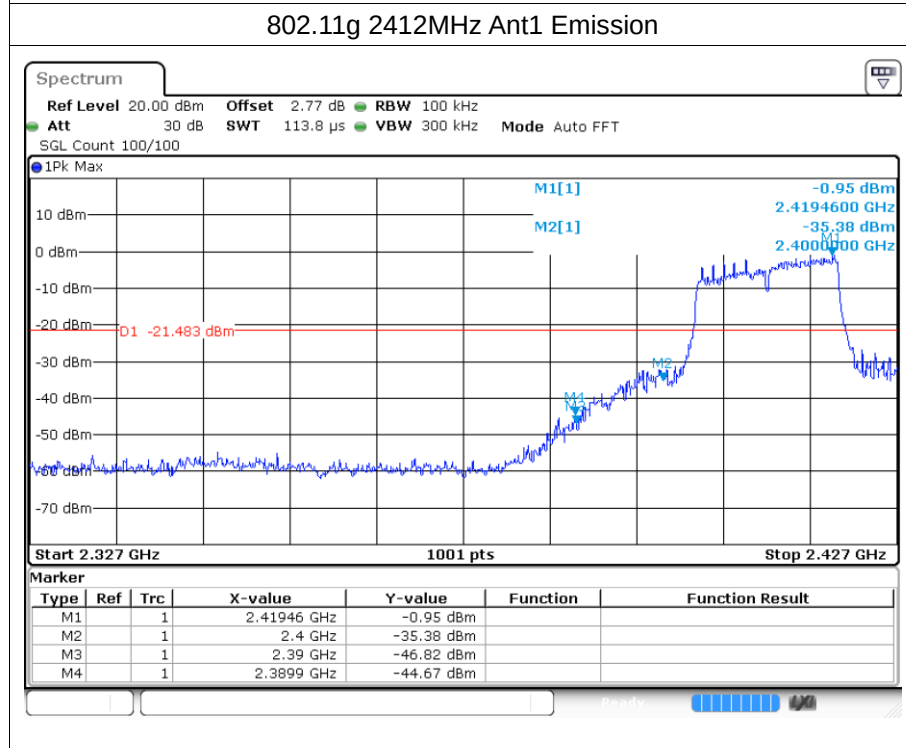
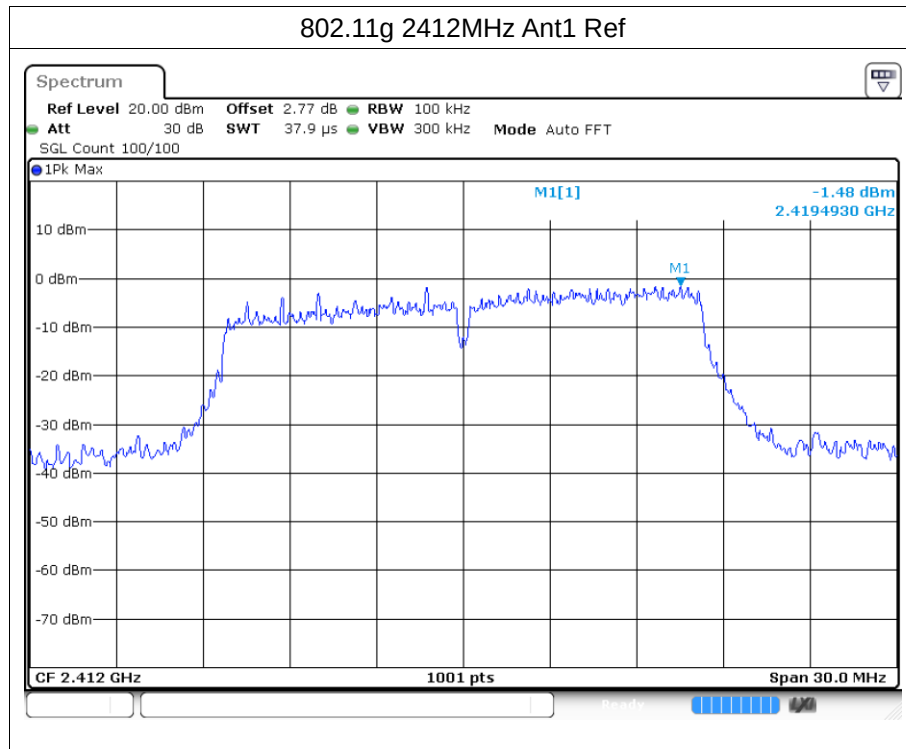
5.1 Test Result

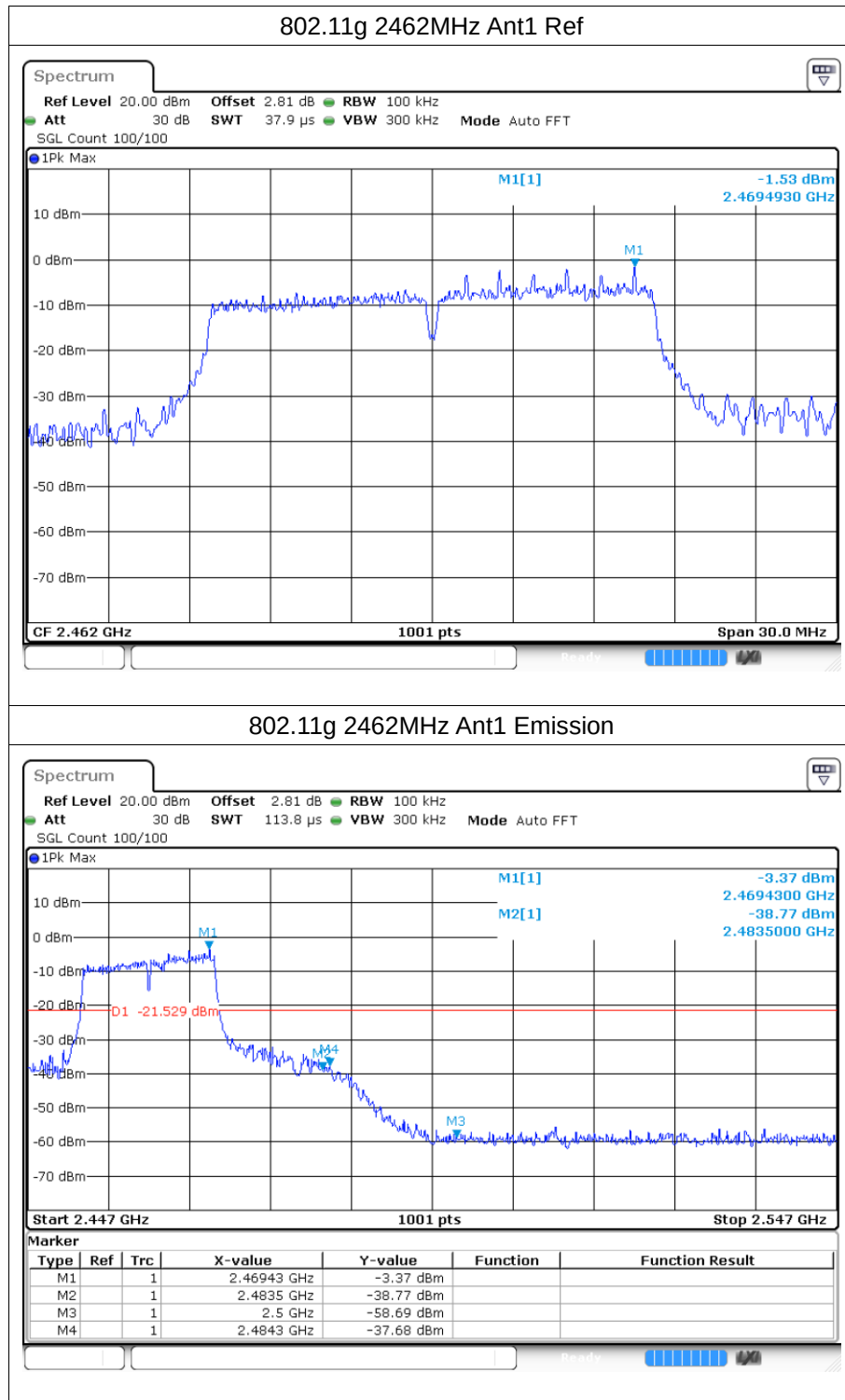
Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
802.11b	2412	Ant1	-59.05	-20	-59.05
802.11b	2462	Ant1	-53.45	-20	Pass
802.11g	2412	Ant1	-43.19	-20	Pass
802.11g	2462	Ant1	-36.15	-20	Pass
802.11n20	2412	Ant1	-42.92	-20	Pass
802.11n20	2462	Ant1	-34	-20	Pass
802.11n40	2422	Ant1	-35.47	-20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

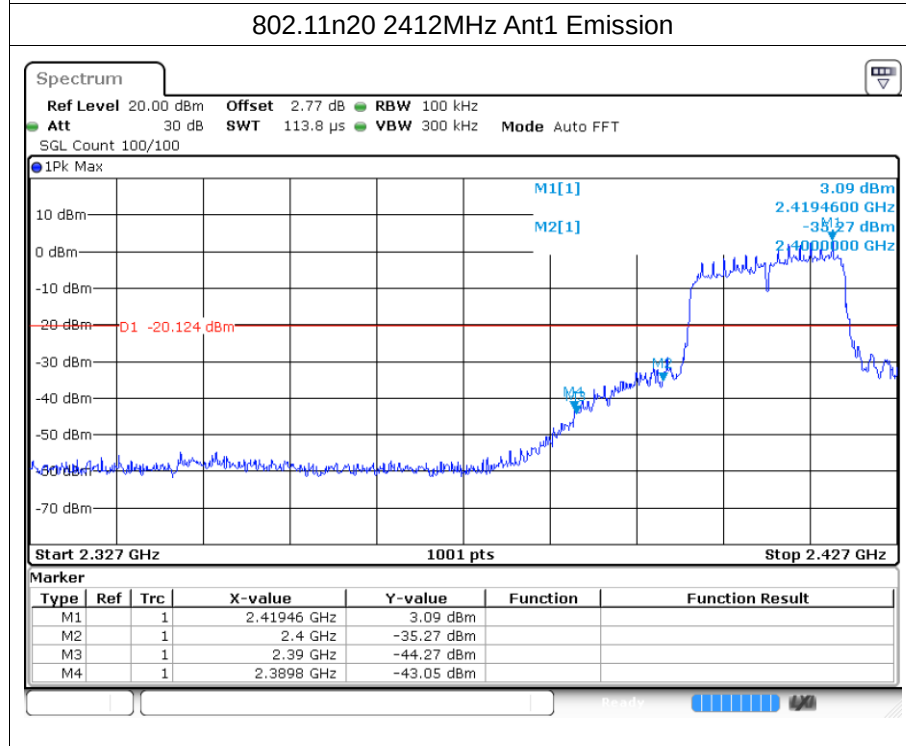
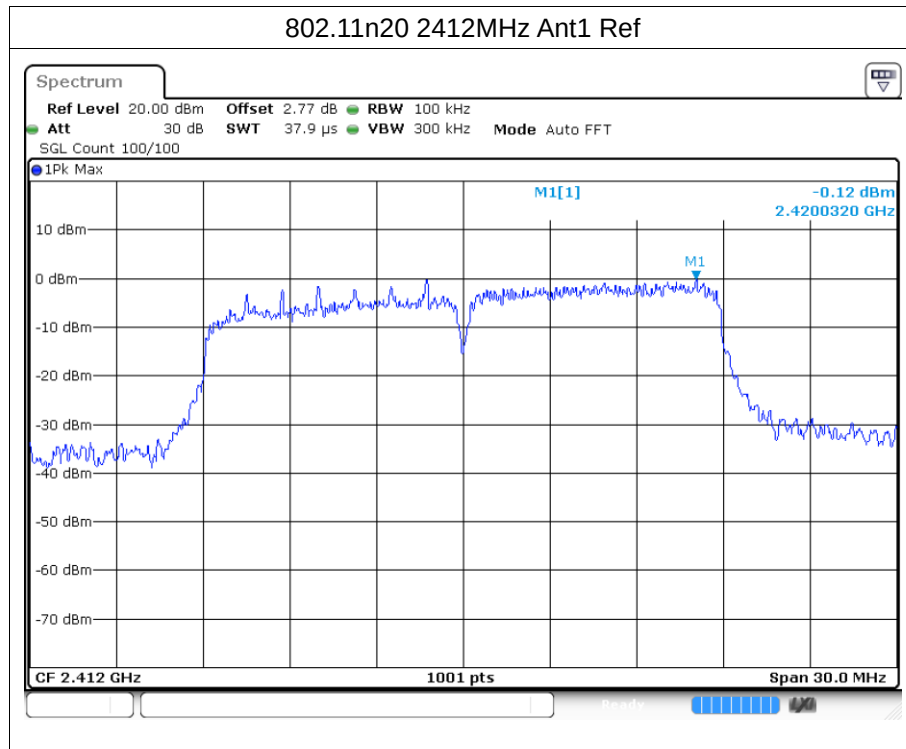
5.2 Test Graphs

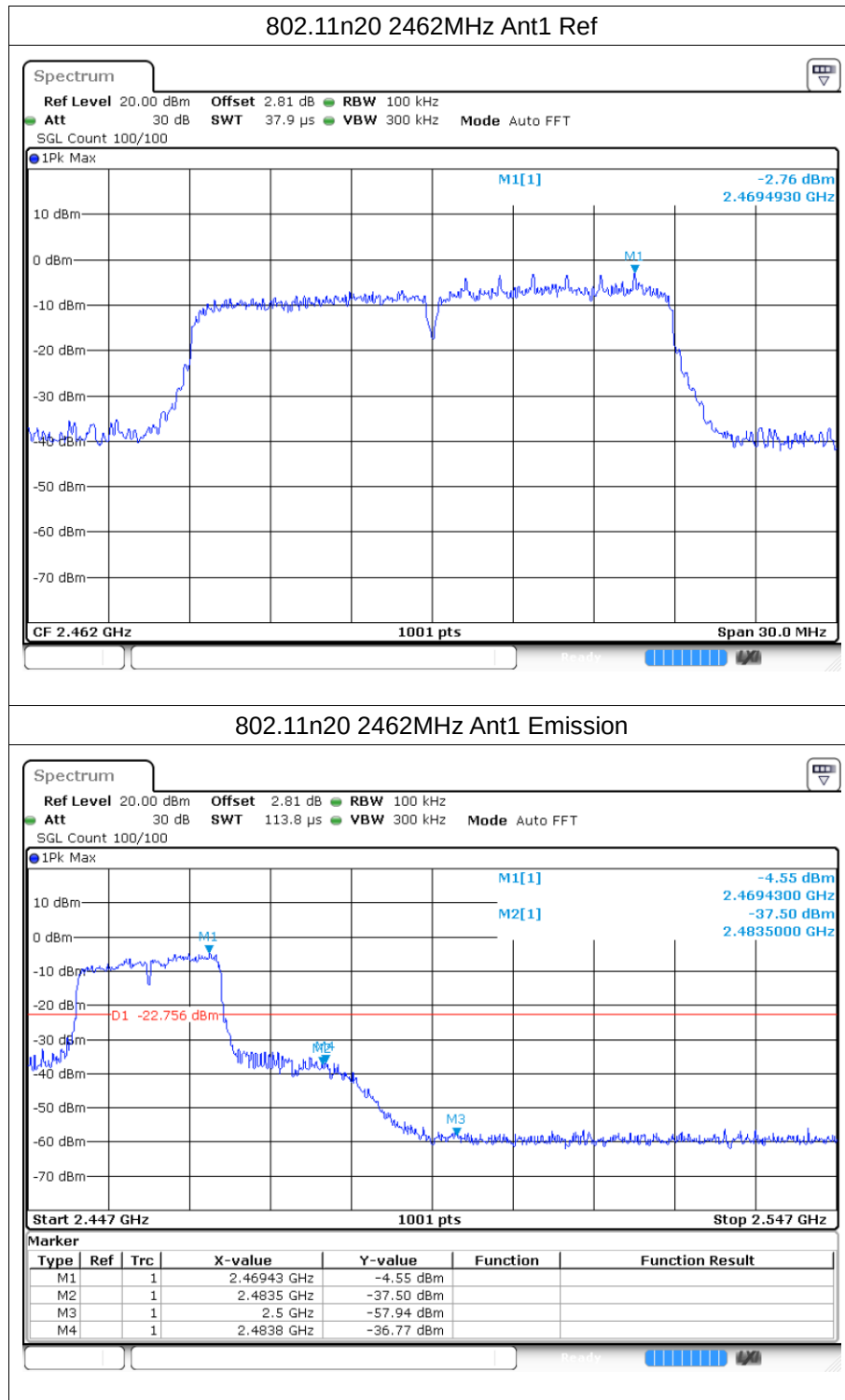


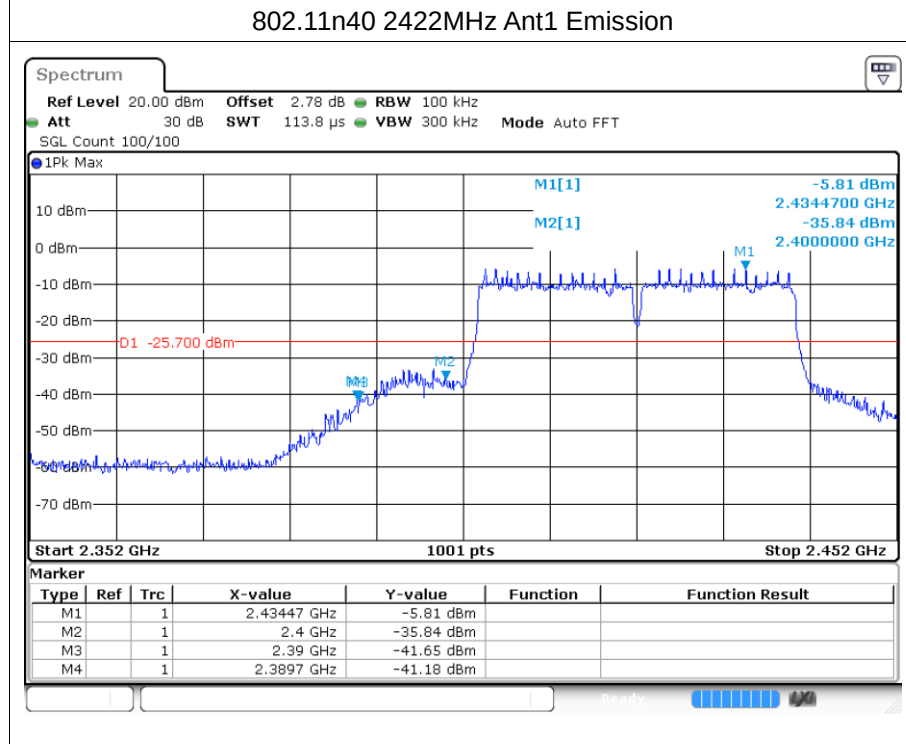
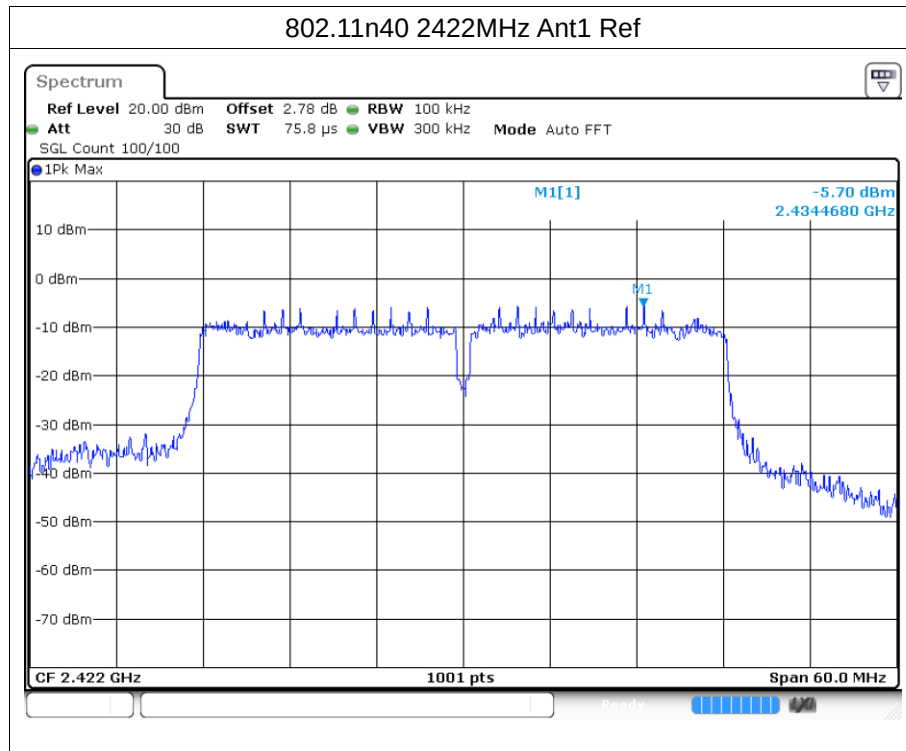


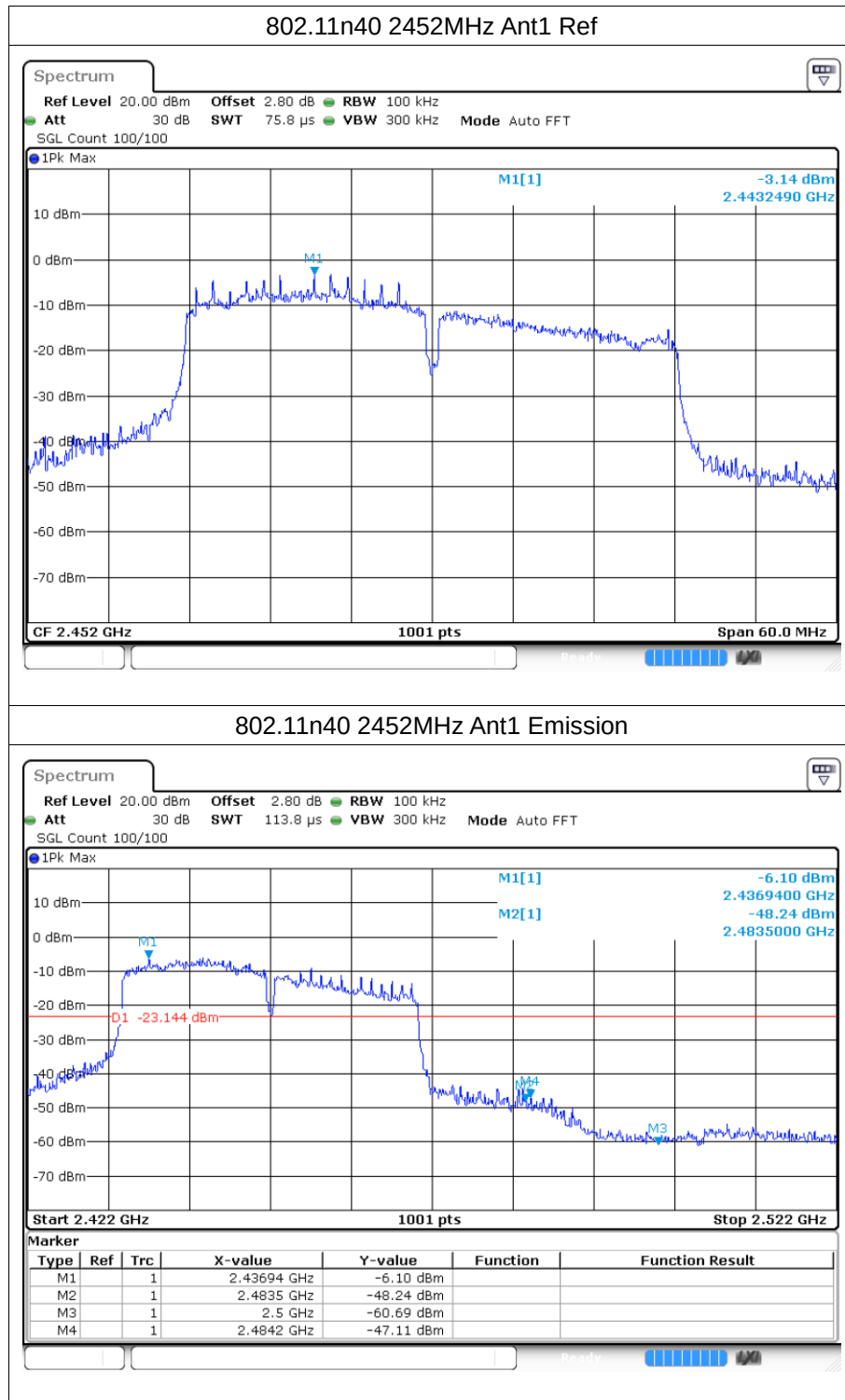










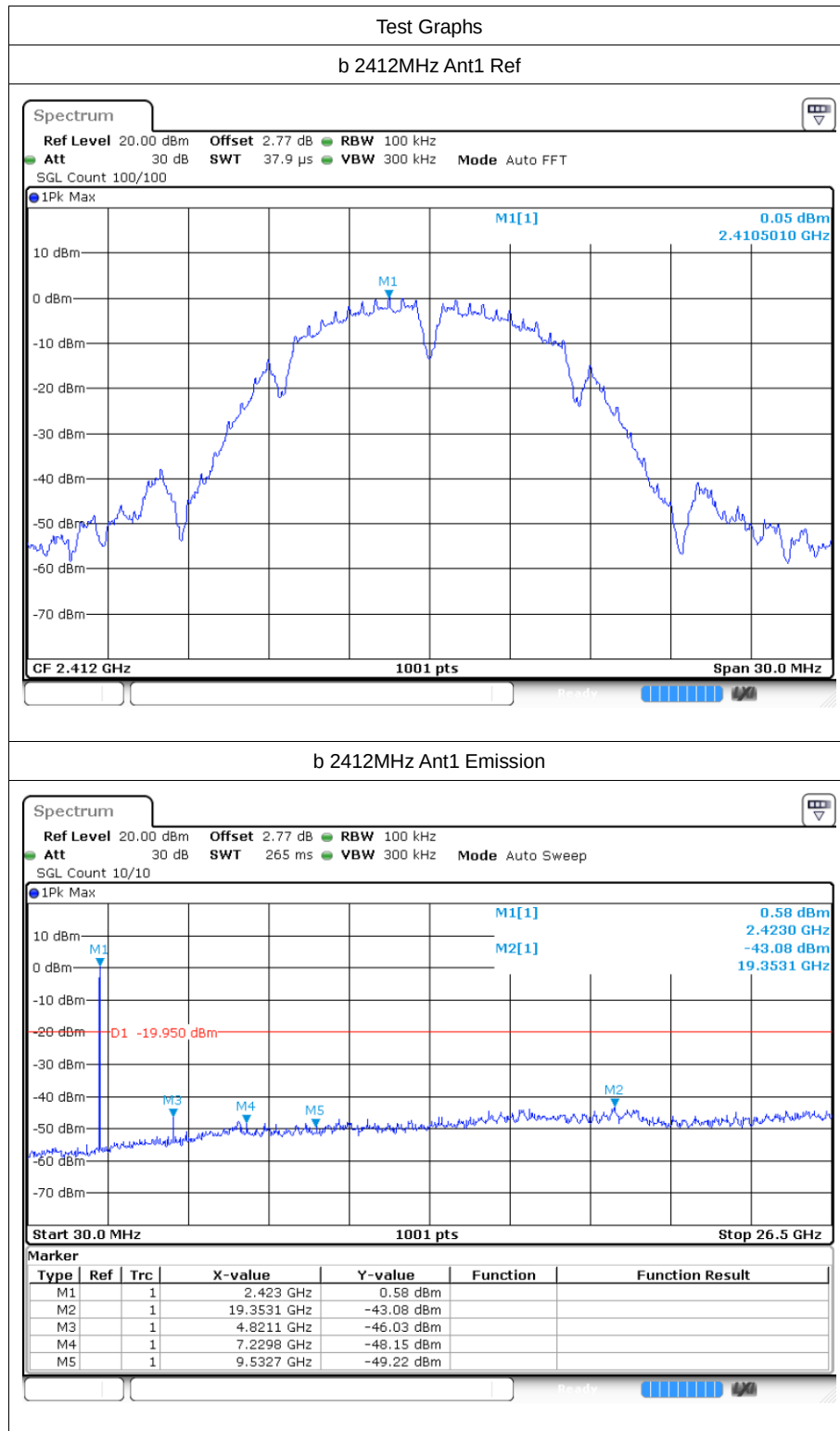


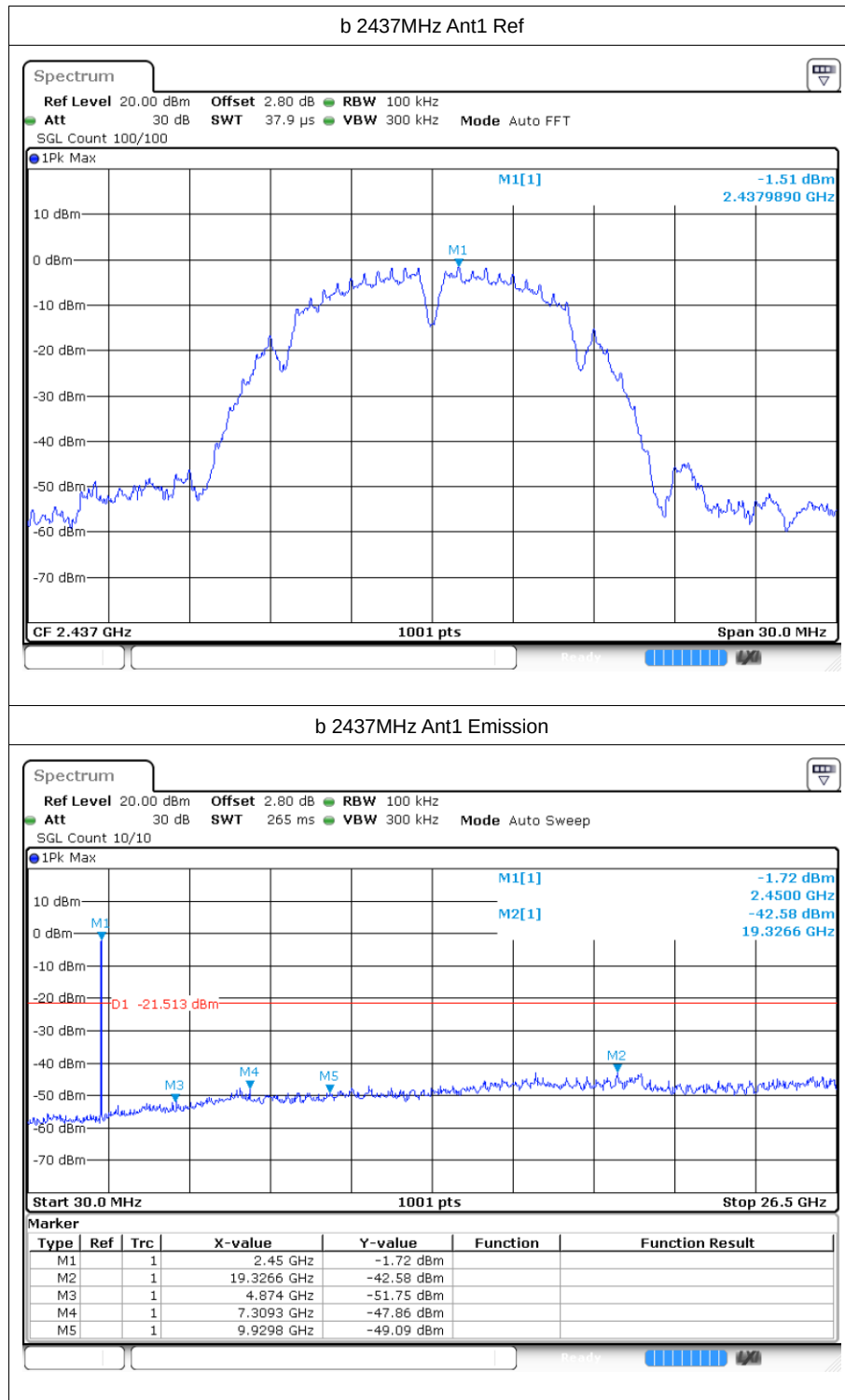
6 Conducted RF Spurious Emission

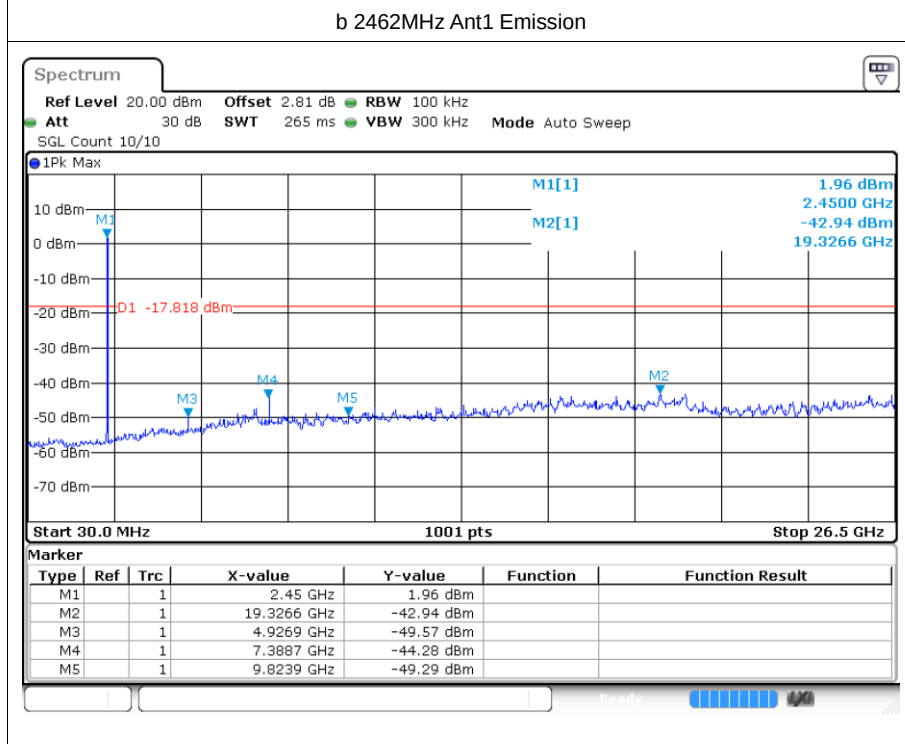
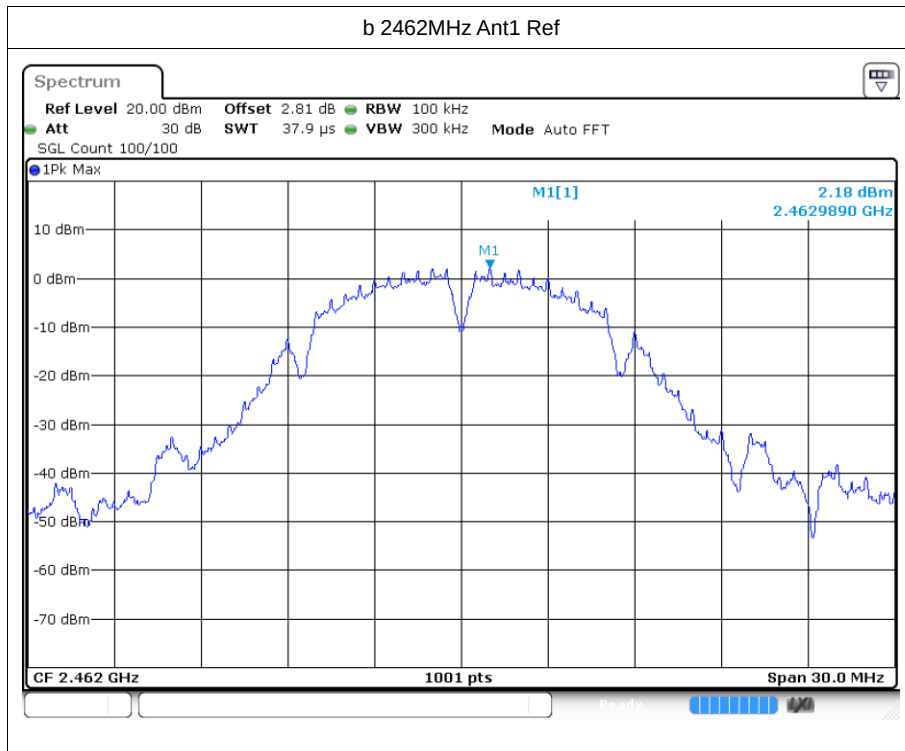
6.1 Test Result

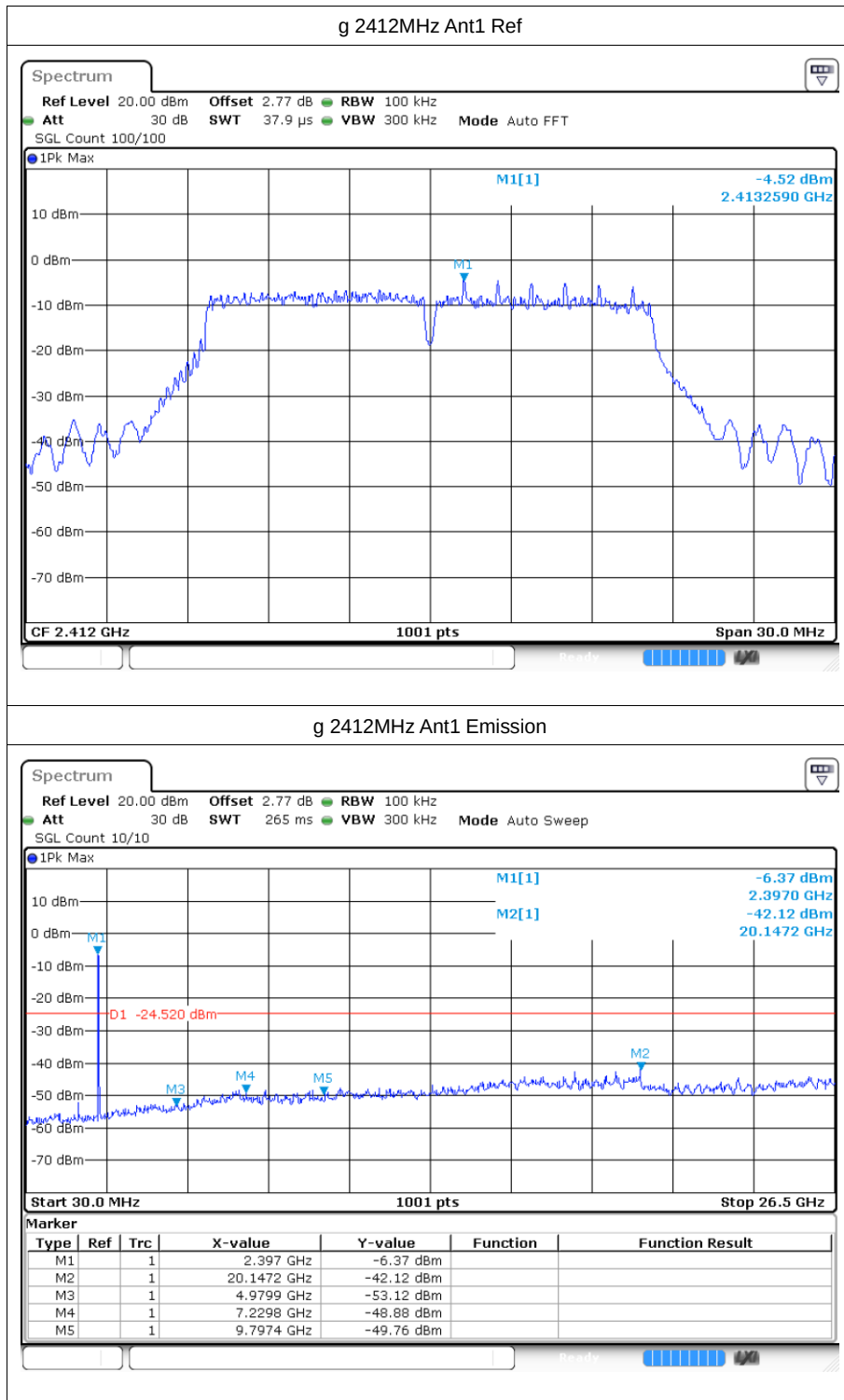
Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
b	2412	Ant1	-43.12	-20	Pass
b	2437	Ant1	-41.06	-20	Pass
b	2462	Ant1	-45.12	-20	Pass
g	2412	Ant1	-37.6	-20	Pass
g	2437	Ant1	-37.25	-20	Pass
g	2462	Ant1	-41.48	-20	Pass
n20	2412	Ant1	-35.02	-20	Pass
n20	2437	Ant1	-36.09	-20	Pass
n20	2462	Ant1	-40.86	-20	Pass
n40	2422	Ant1	-33.55	-20	Pass
n40	2437	Ant1	-38.78	-20	Pass
n40	2452	Ant1	-39.65	-20	Pass

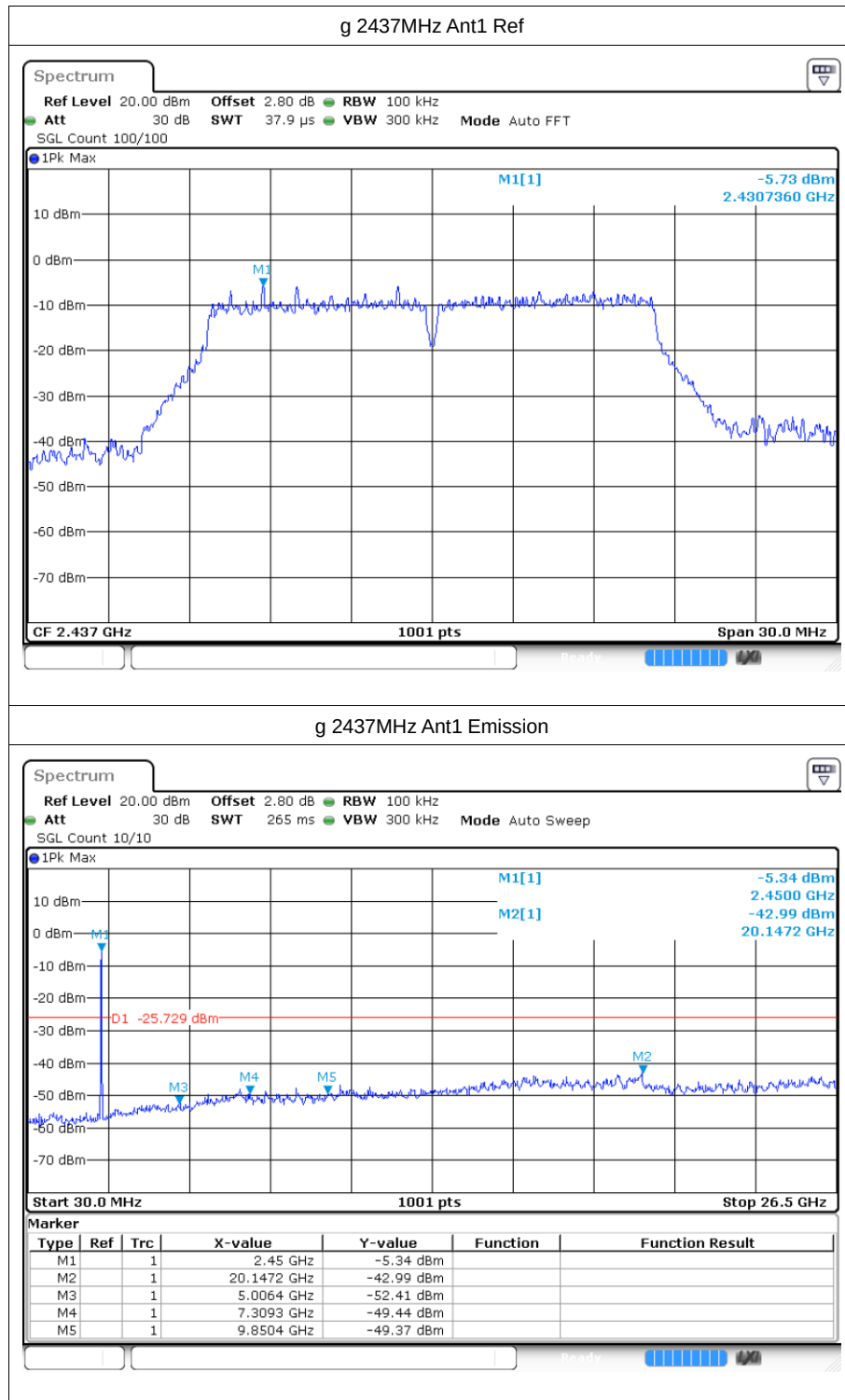
6.2 Test Graphs

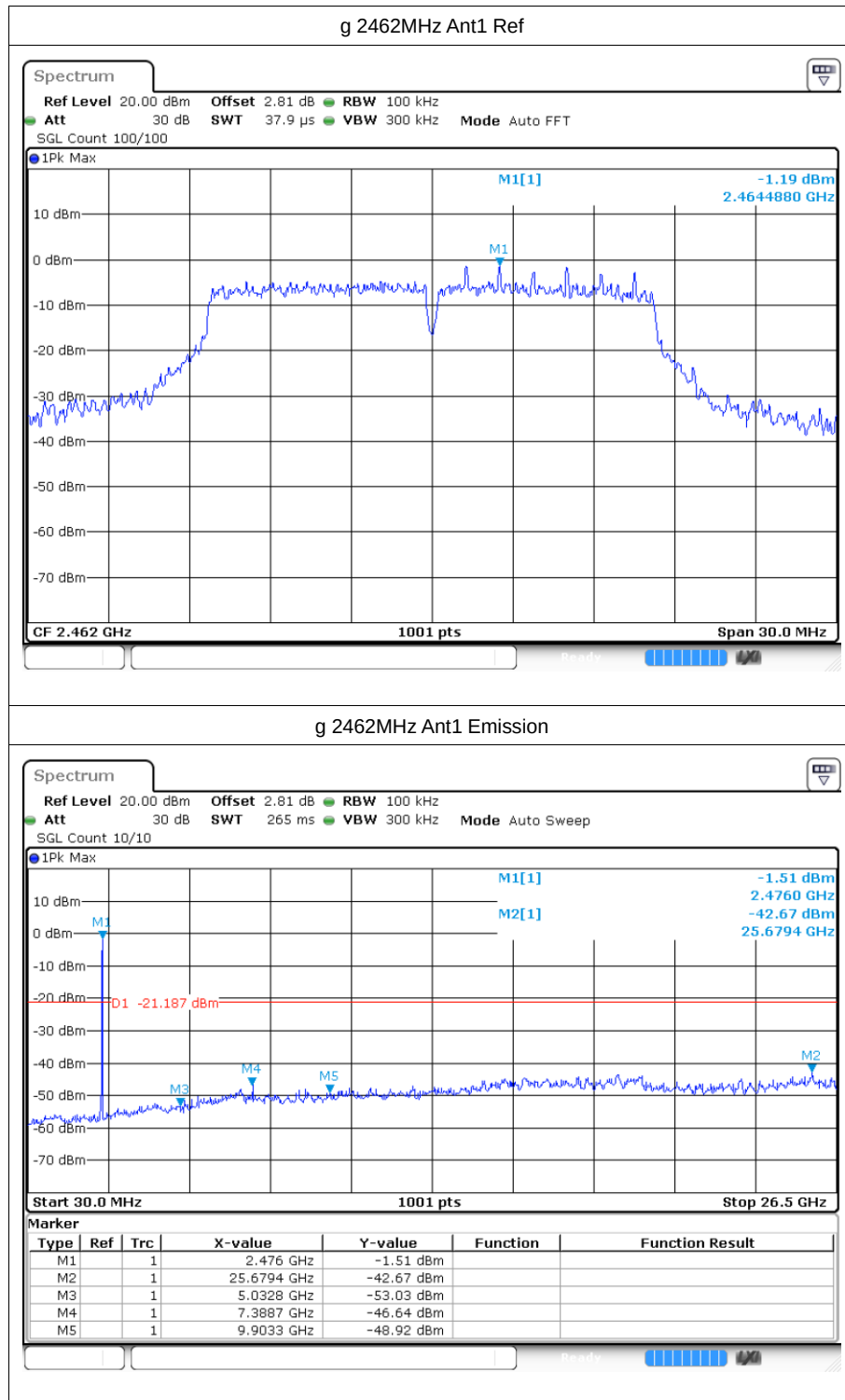


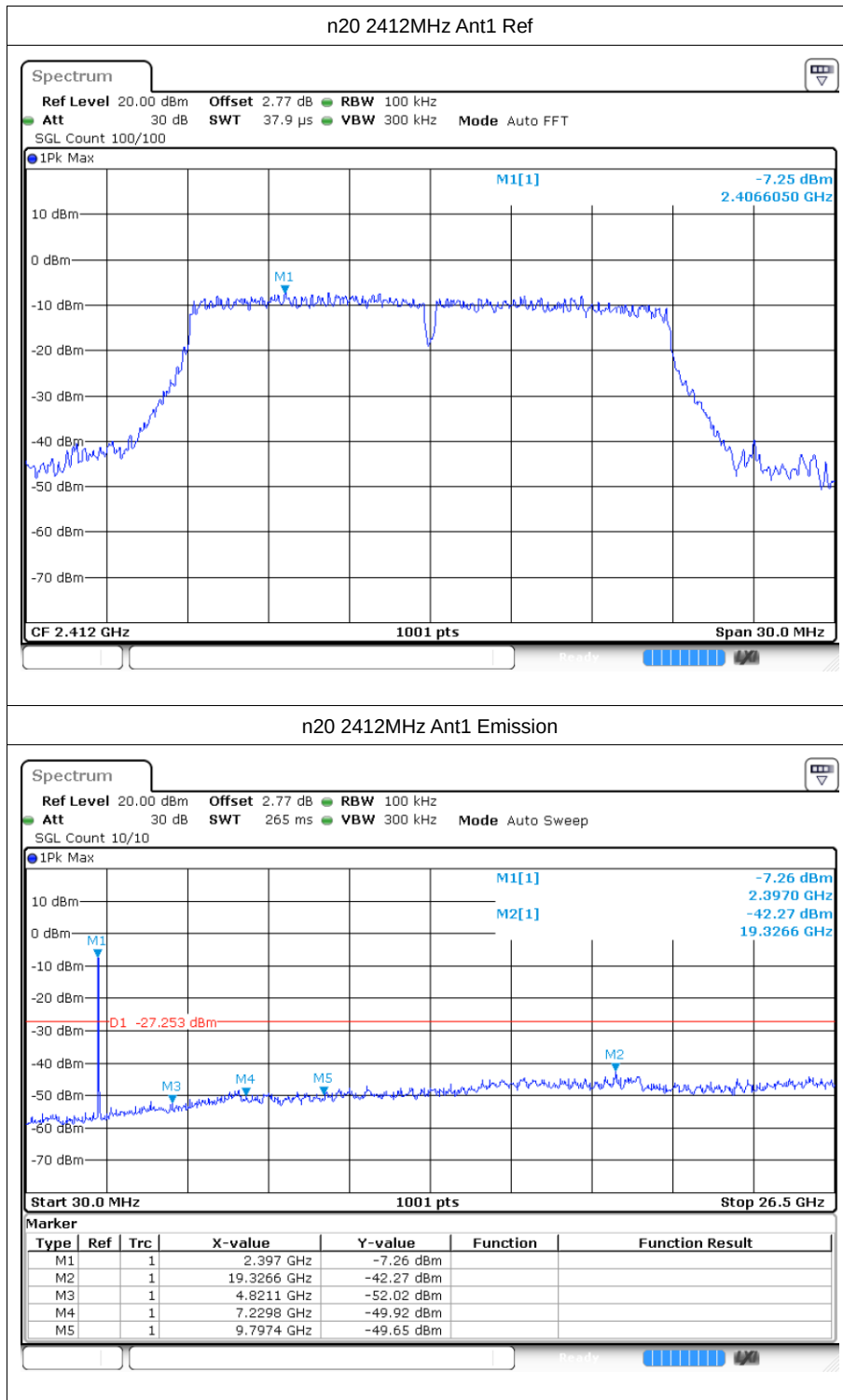


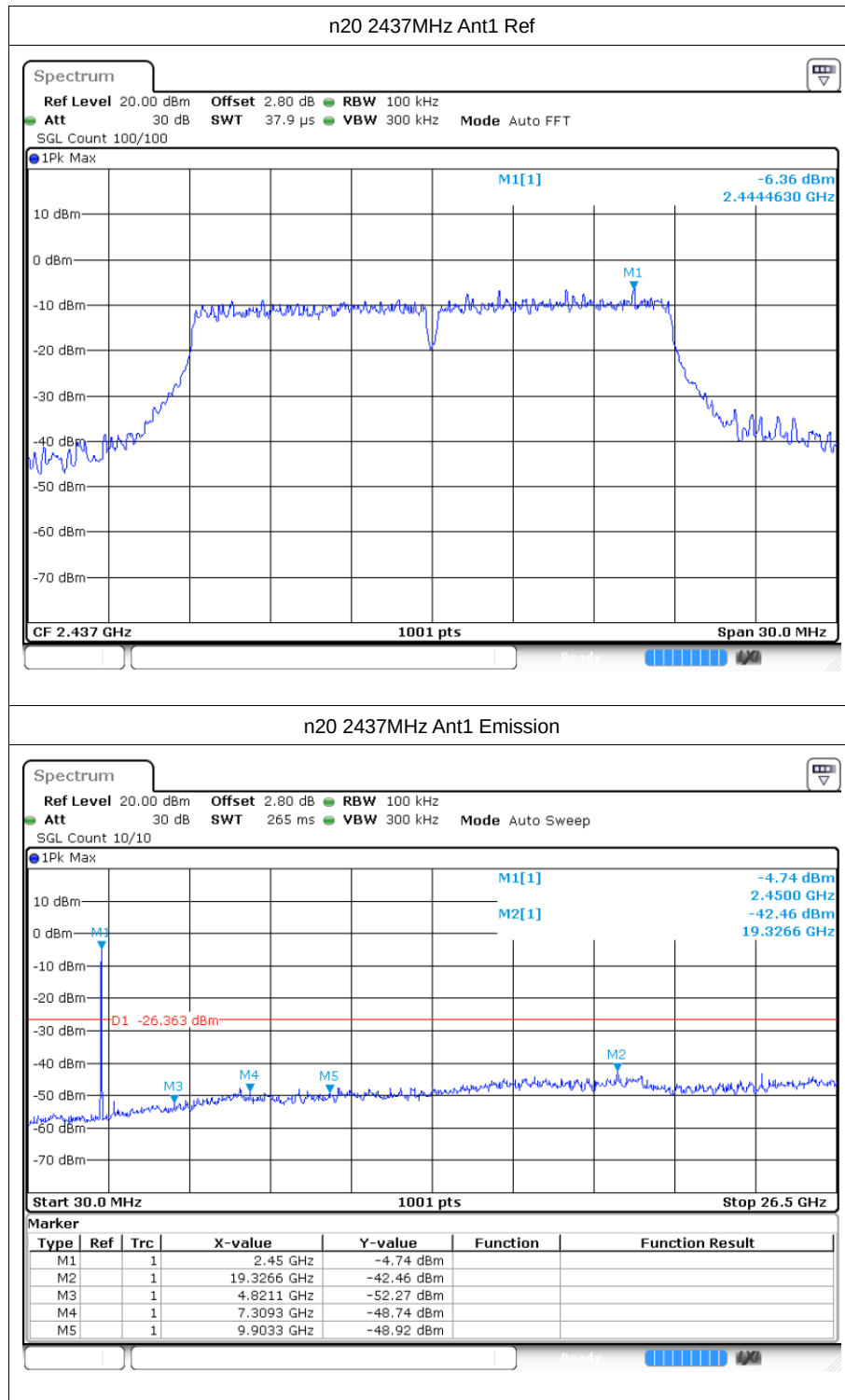


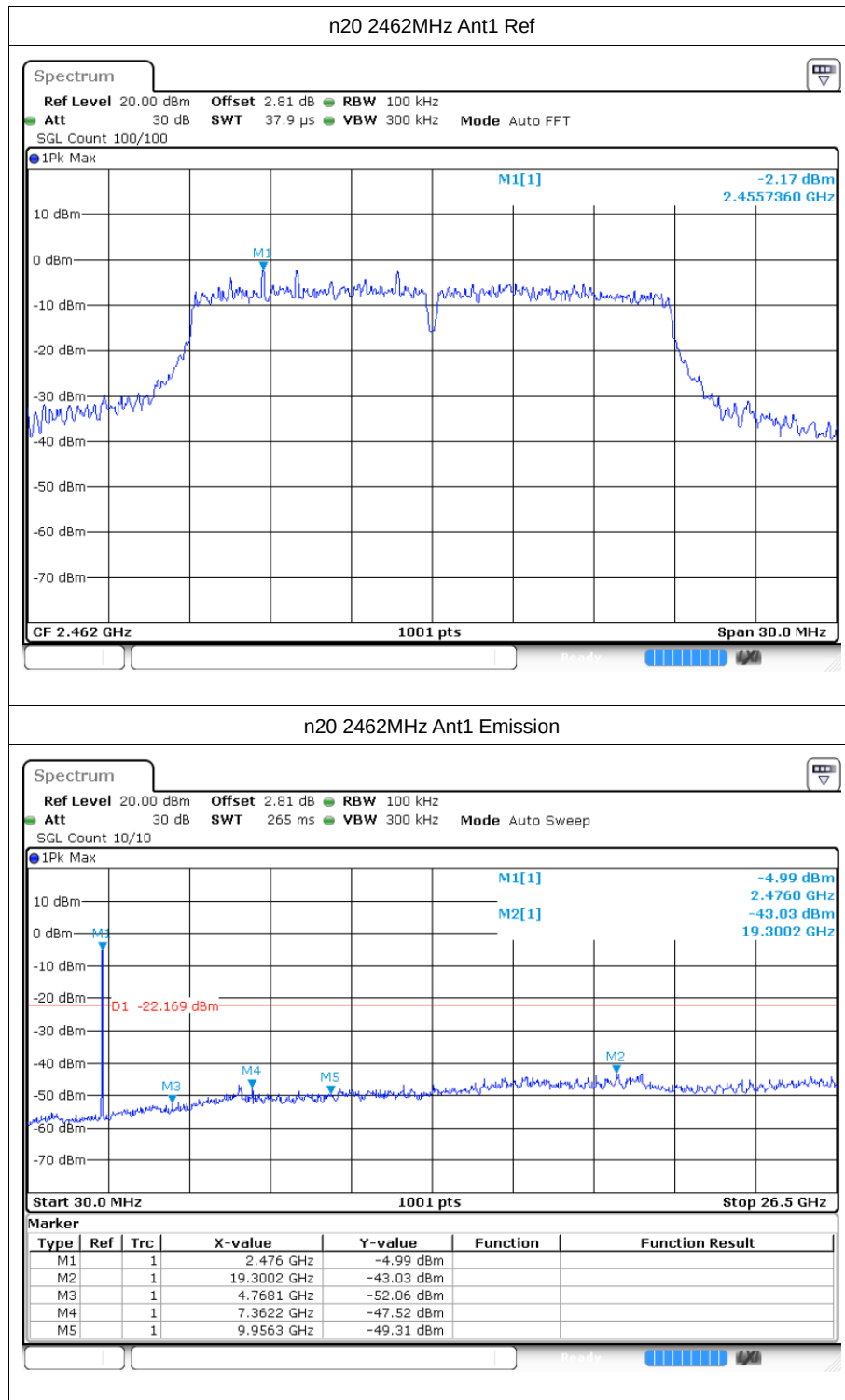


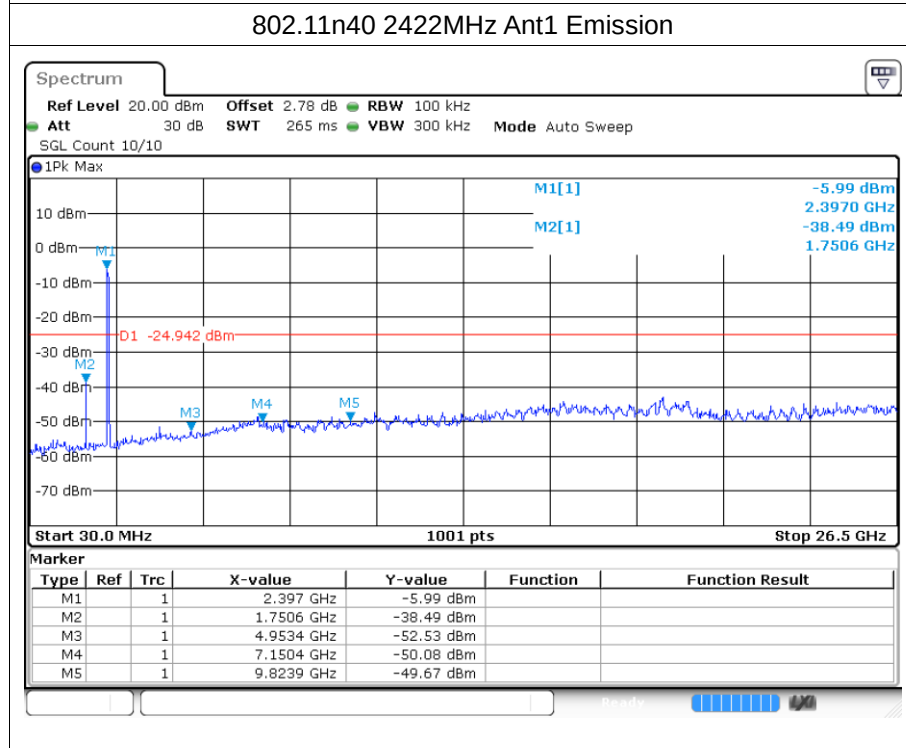
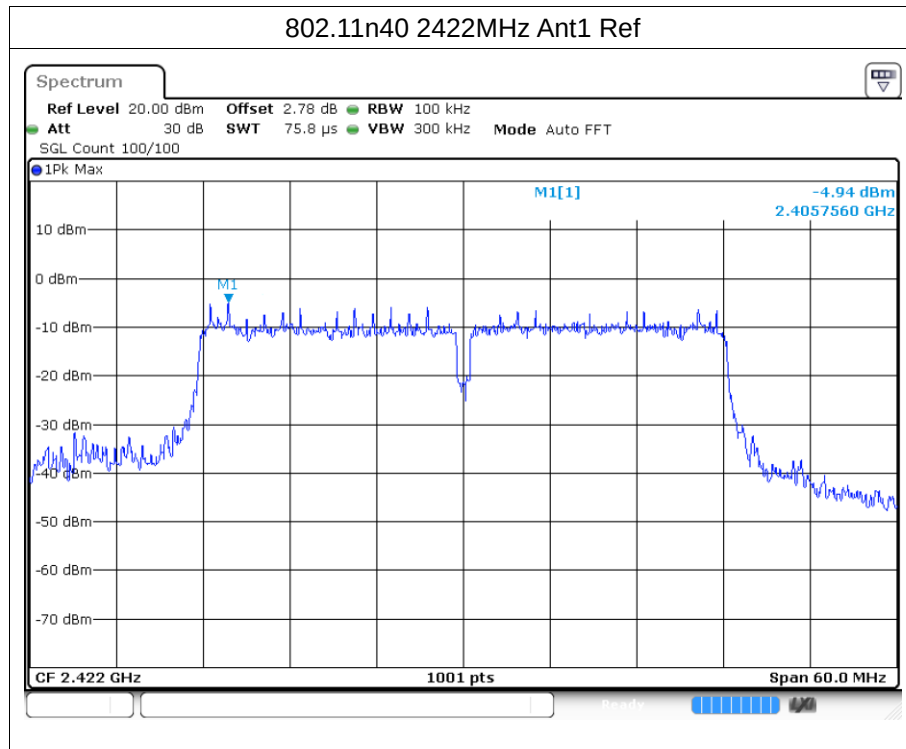


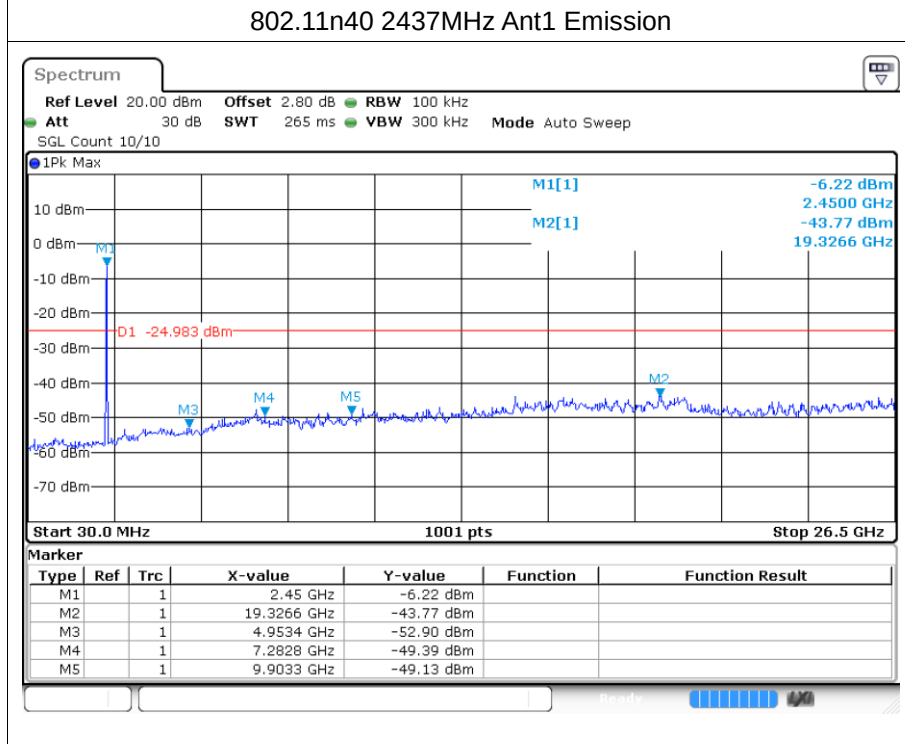
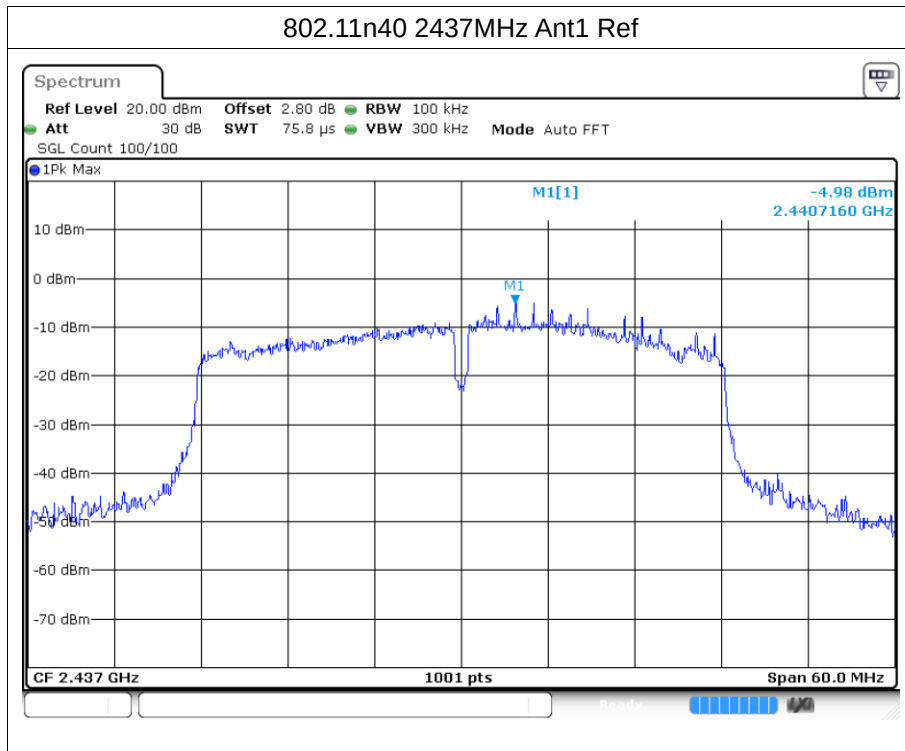


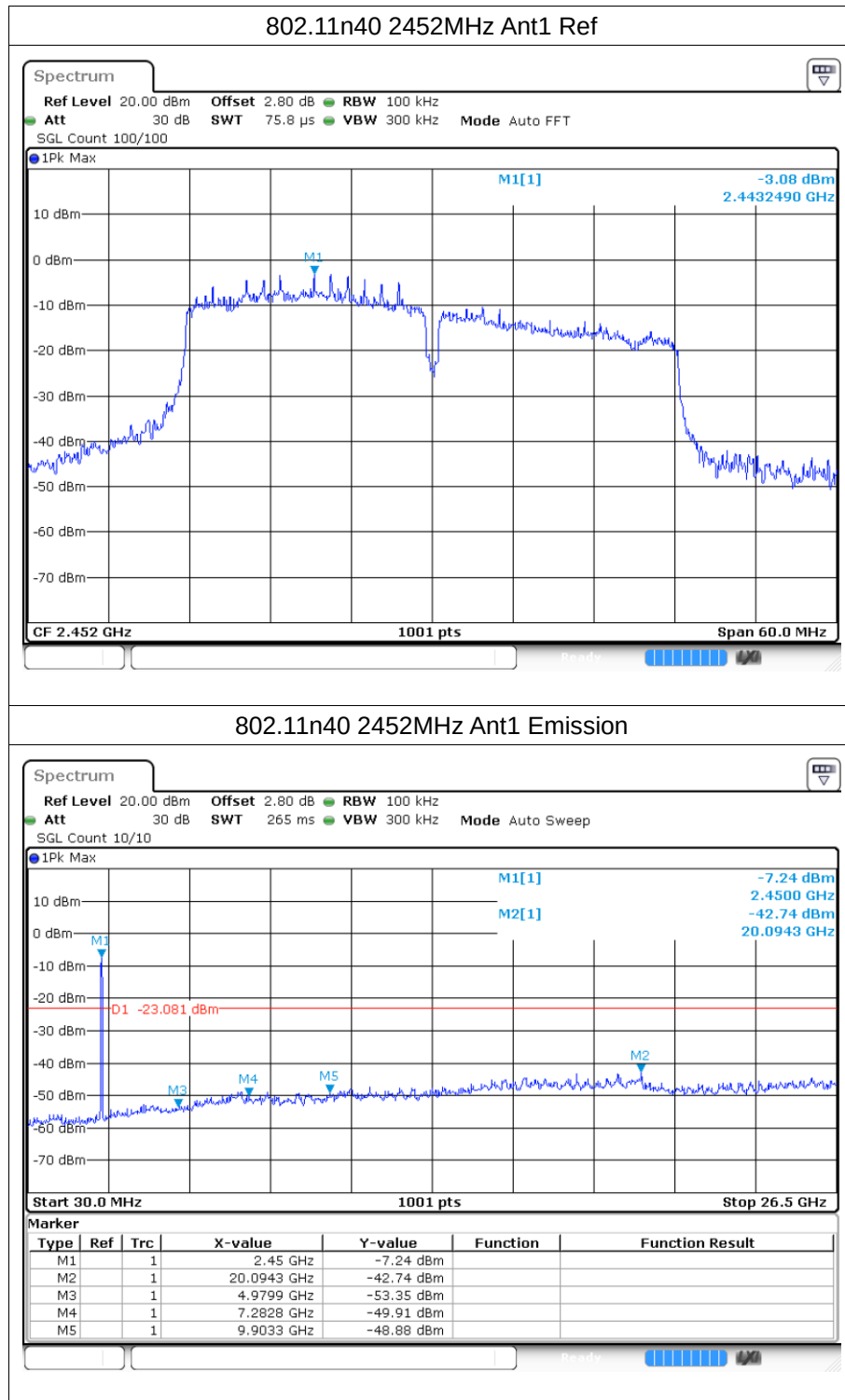












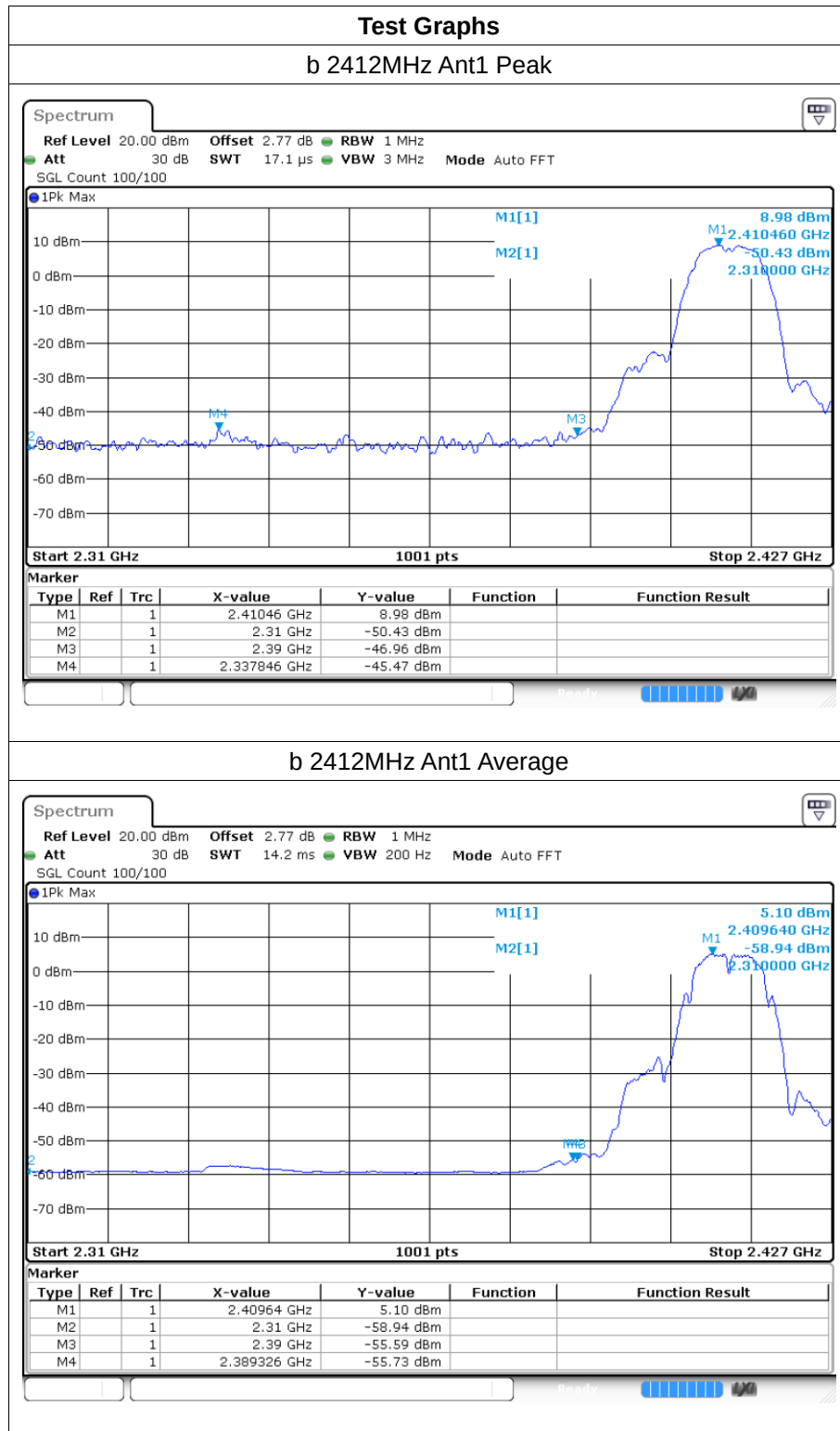
7 Restrict Band

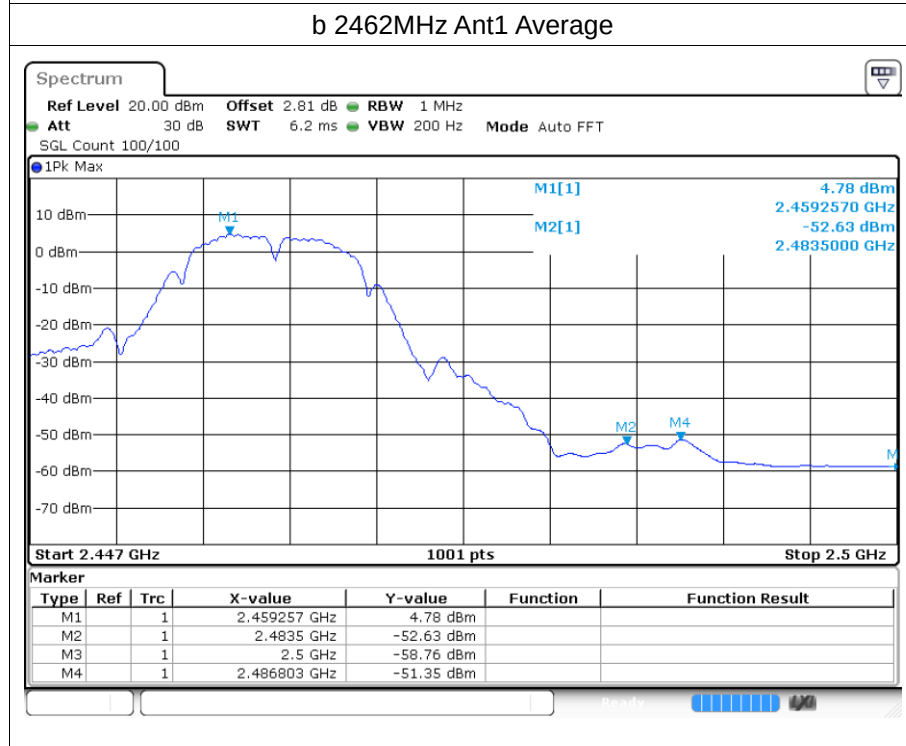
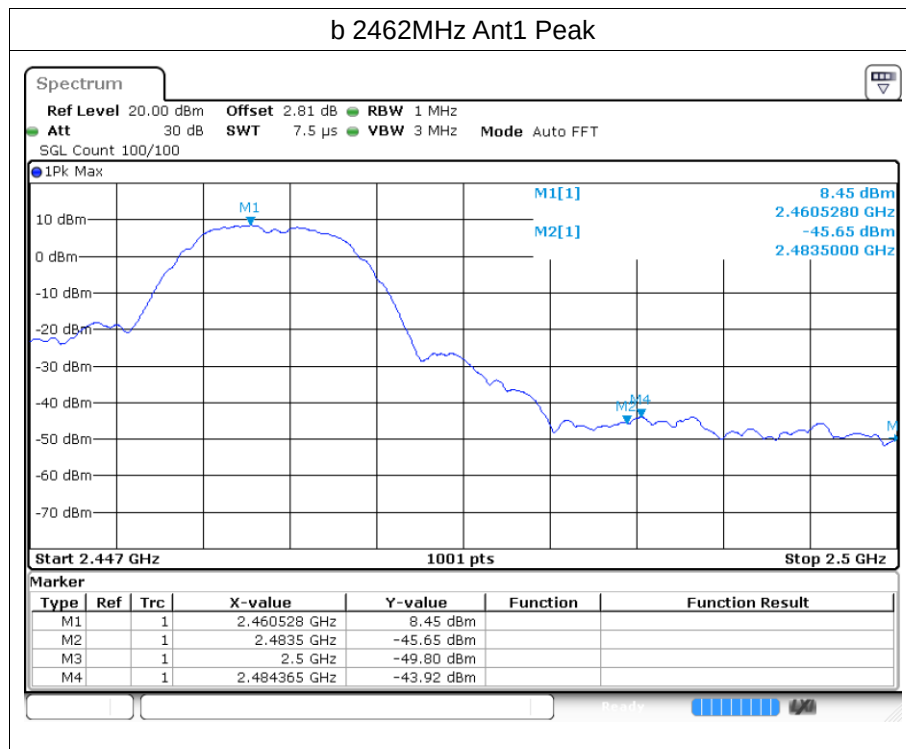
7.1 Test Result

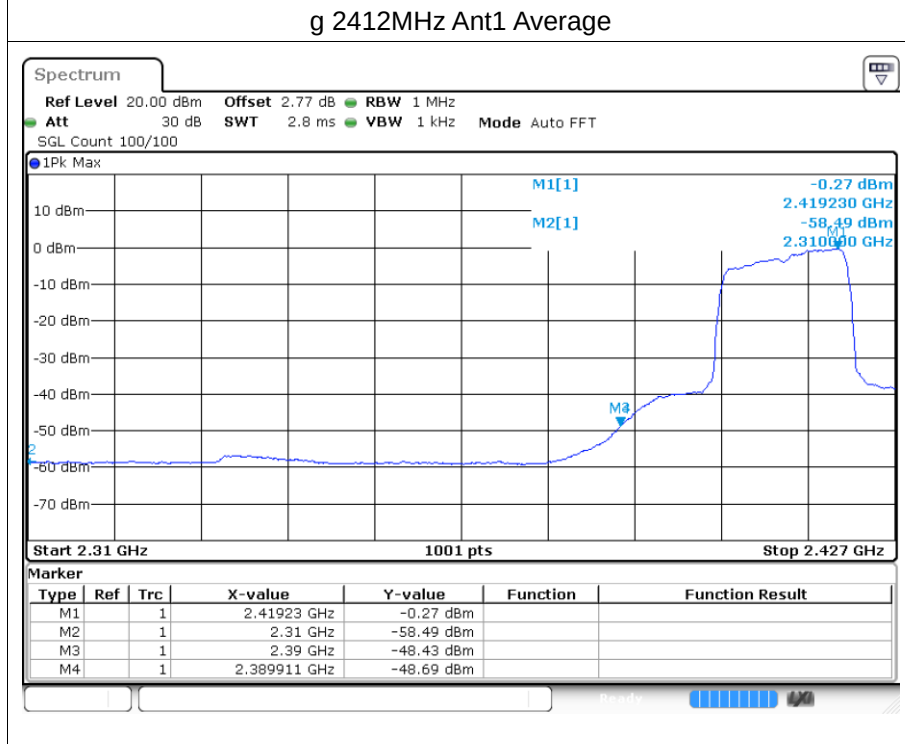
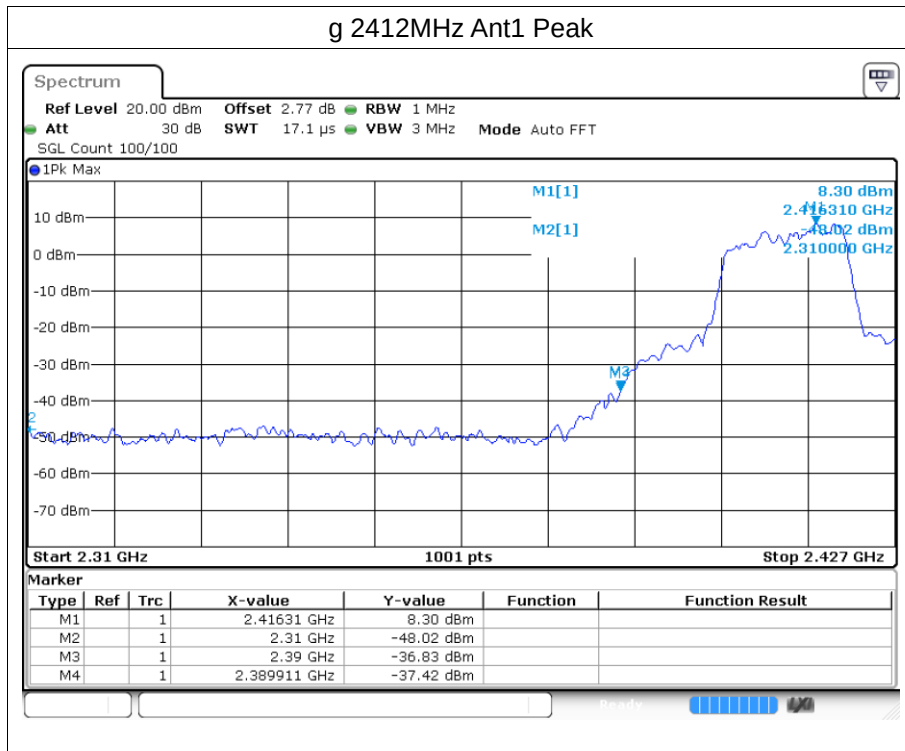
Mode	Frequency (MHz)	Ant.	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
802.11b	2412	Ant1	2310	-50.43	2	46.83	Peak	74	Pass
802.11b	2412	Ant1	2310	-58.93	2	38.33	Average	54	Pass
802.11b	2412	Ant1	2337.846	-45.47	2	51.79	Peak	74	Pass
802.11b	2412	Ant1	2389.326	-55.73	2	41.53	Average	54	Pass
802.11b	2412	Ant1	2390	-46.96	2	50.3	Peak	74	Pass
802.11b	2412	Ant1	2390	-55.59	2	41.67	Average	54	Pass
802.11b	2462	Ant1	2483.5	-45.64	2	51.62	Peak	74	51.62
802.11b	2462	Ant1	2483.5	-52.63	2	44.63	Average	54	Pass
802.11b	2462	Ant1	2484.365	-43.91	2	53.35	Peak	74	Pass
802.11b	2462	Ant1	2486.803	-51.34	2	45.92	Average	54	Pass
802.11b	2462	Ant1	2500	-49.79	2	47.47	Peak	74	Pass
802.11b	2462	Ant1	2500	-58.76	2	38.5	Average	54	Pass
802.11g	2412	Ant1	2310	-48.01	2	49.25	Peak	74	Pass
802.11g	2412	Ant1	2310	-58.48	2	38.78	Average	54	Pass
802.11g	2412	Ant1	2389.911	-37.42	2	59.84	Peak	74	Pass
802.11g	2412	Ant1	2389.911	-48.69	2	48.57	Average	54	Pass
802.11g	2412	Ant1	2390	-36.83	2	50.3	Peak	74	Pass
802.11g	2412	Ant1	2390	-48.42	2	48.84	Average	54	Pass
802.11g	2462	Ant1	2483.5	-28.37	2	68.89	Peak	74	Pass
802.11g	2462	Ant1	2483.5	-47.5	2	49.76	Average	54	Pass
802.11g	2462	Ant1	2484.365	-28.37	2	68.89	Peak	74	Pass
802.11g	2462	Ant1	2483.517	-47.5	2	49.76	Average	54	Pass
802.11g	2462	Ant1	2500	-49.08	2	47.47	Peak	74	Pass
802.11g	2462	Ant1	2500	-58.08	2	39.18	Average	54	Pass
802.11n20	2412	Ant1	2310	-50.01	2	47.25	Peak	74	Pass
802.11n20	2412	Ant1	2310	-58.39	2	38.87	Average	54	Pass
802.11n20	2412	Ant1	2389.911	-33.18	2	64.08	Peak	74	Pass
802.11n20	2412	Ant1	2389.911	-46.8	2	50.46	Average	54	Pass
802.11n20	2412	Ant1	2390	-32.94	2	64.32	Peak	74	Pass
802.11n20	2412	Ant1	2390	-46.44	2	50.82	Average	54	Pass
802.11n20	2462	Ant1	2483.5	-24.05	2	73.21	Peak	74	Pass
802.11n20	2462	Ant1	2483.5	-45.27	2	51.99	Average	54	Pass
802.11n20	2462	Ant1	2483.782	-23.82	2	73.44	Peak	74	Pass
802.11n20	2462	Ant1	2483.623	-45.23	2	52.03	Average	54	Pass

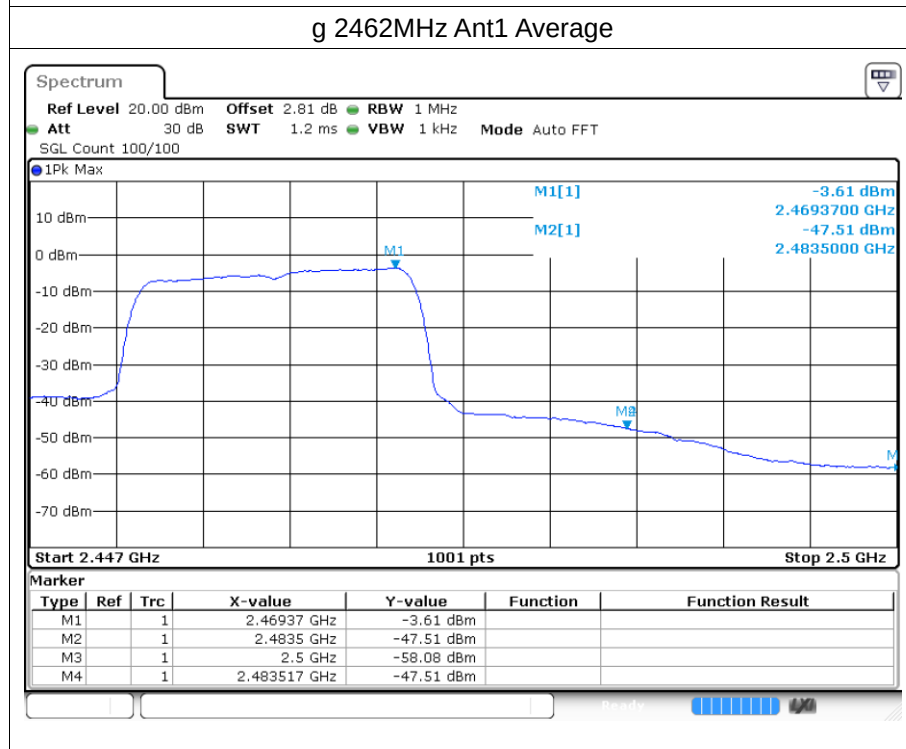
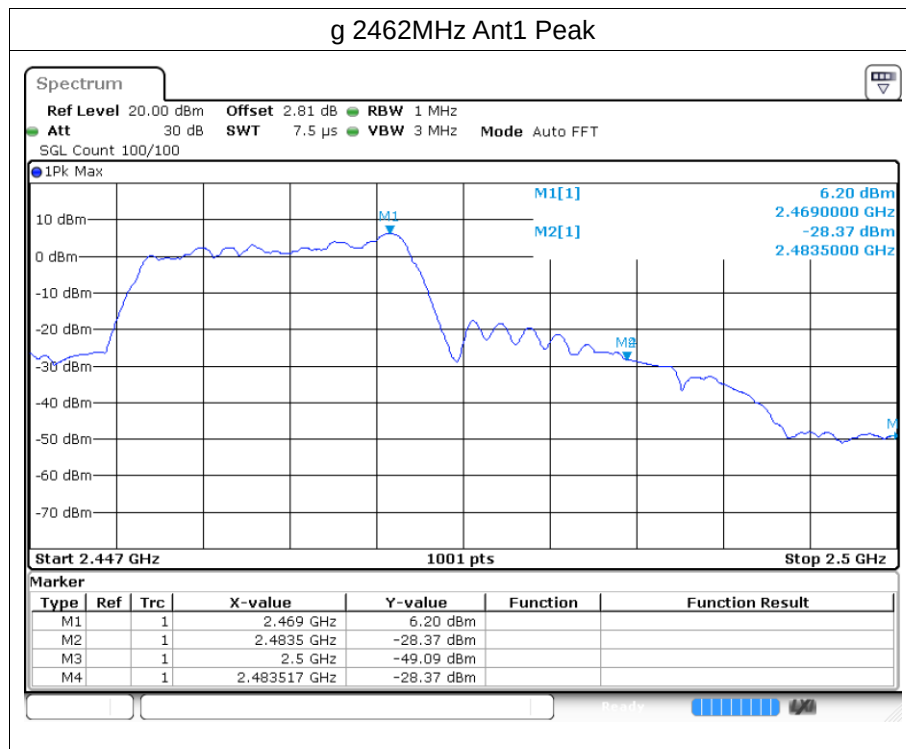
802.11n20	2462	Ant1	2500	-49.33	2	47.93	Peak	74	Pass
802.11n20	2462	Ant1	2500	-57.99	2	39.27	Average	54	Pass
802.11n40	2422	Ant1	2310	-50.36	2	46.9	Peak	74	Pass
802.11n40	2422	Ant1	2310	-58.25	2	39.01	Average	54	Pass
802.11n40	2422	Ant1	2389.946	-33.95	2	63.31	Peak	74	Pass
802.11n40	2422	Ant1	2389.946	-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

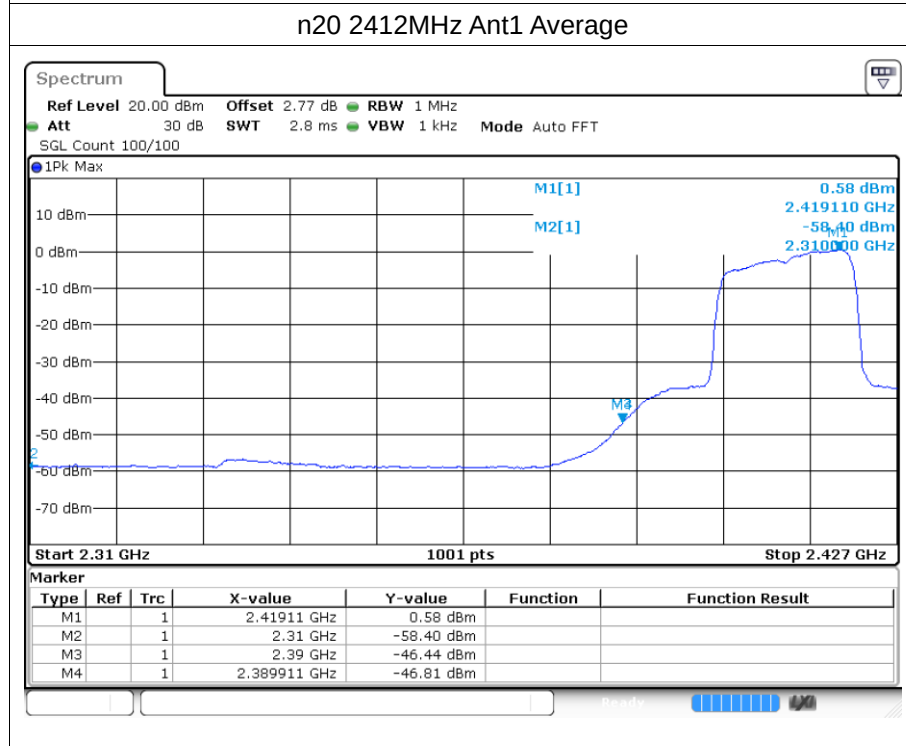
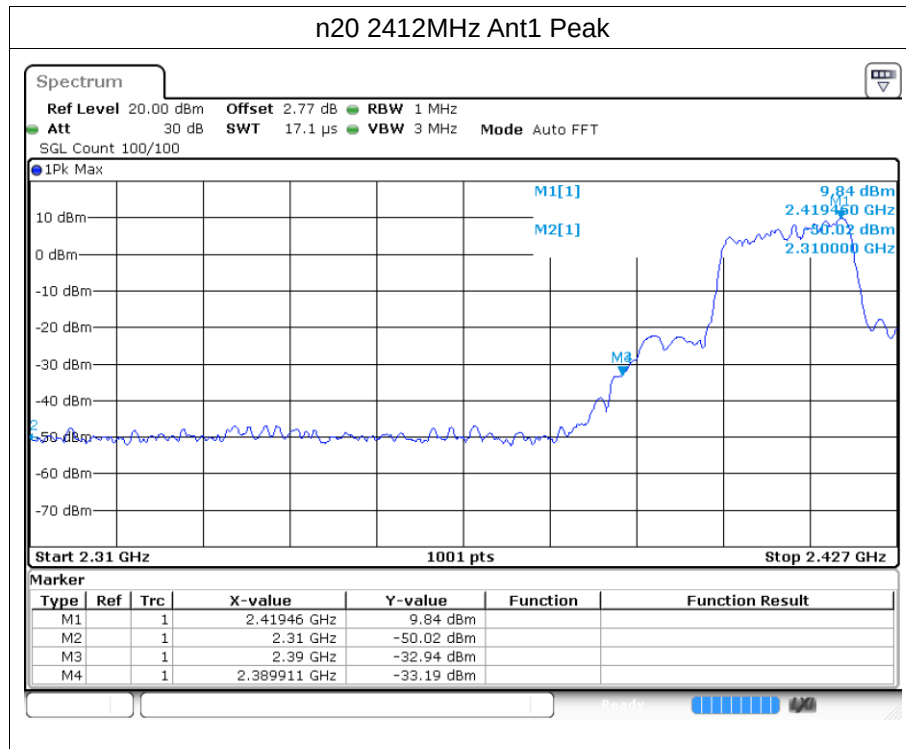
7.2 Test Graphs

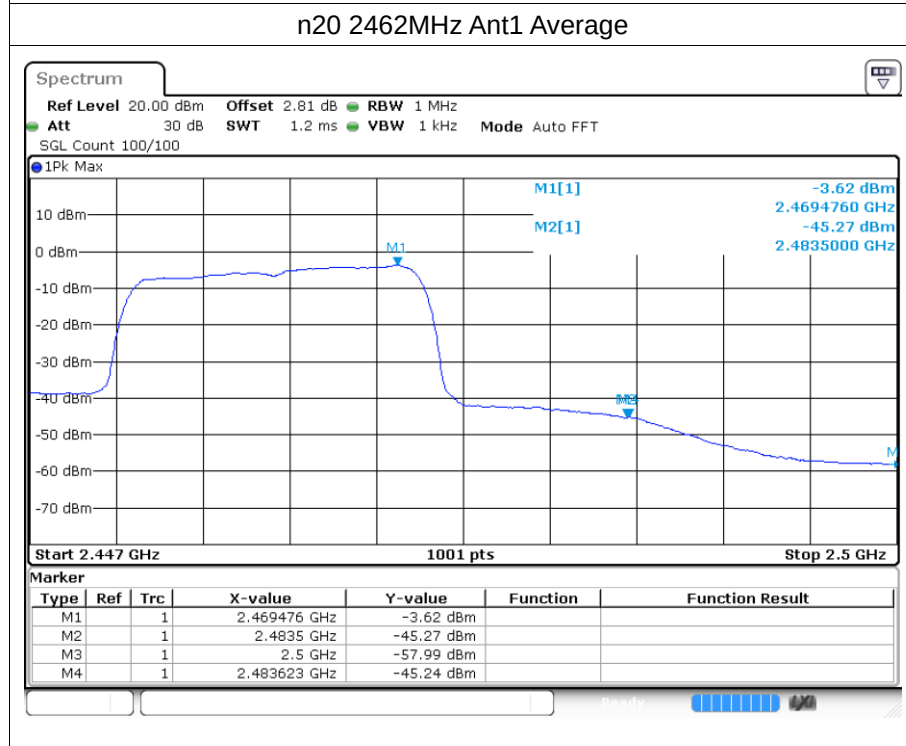
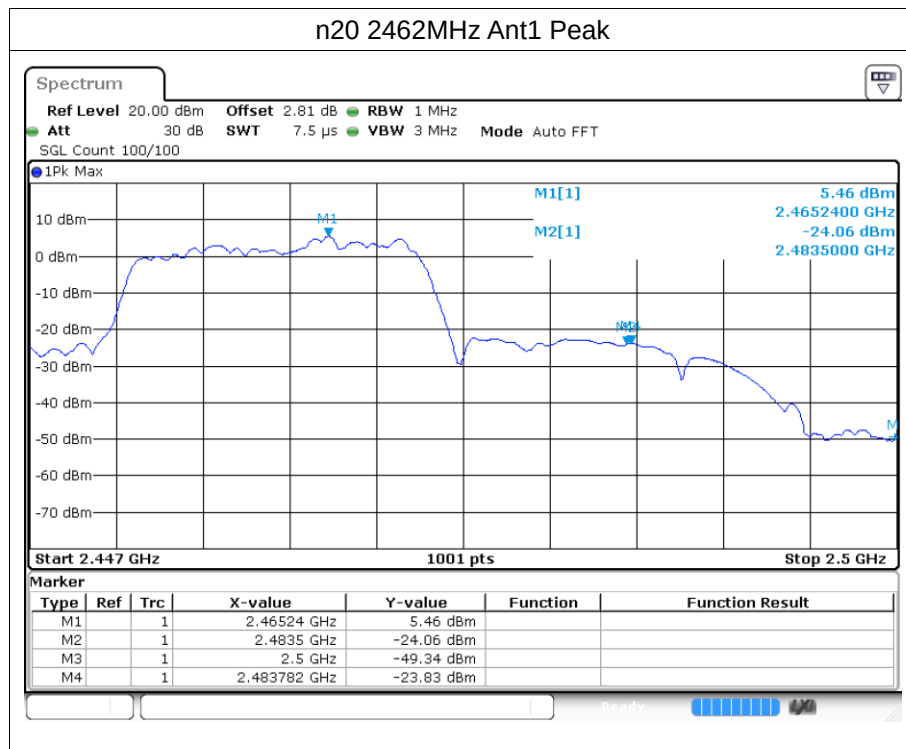


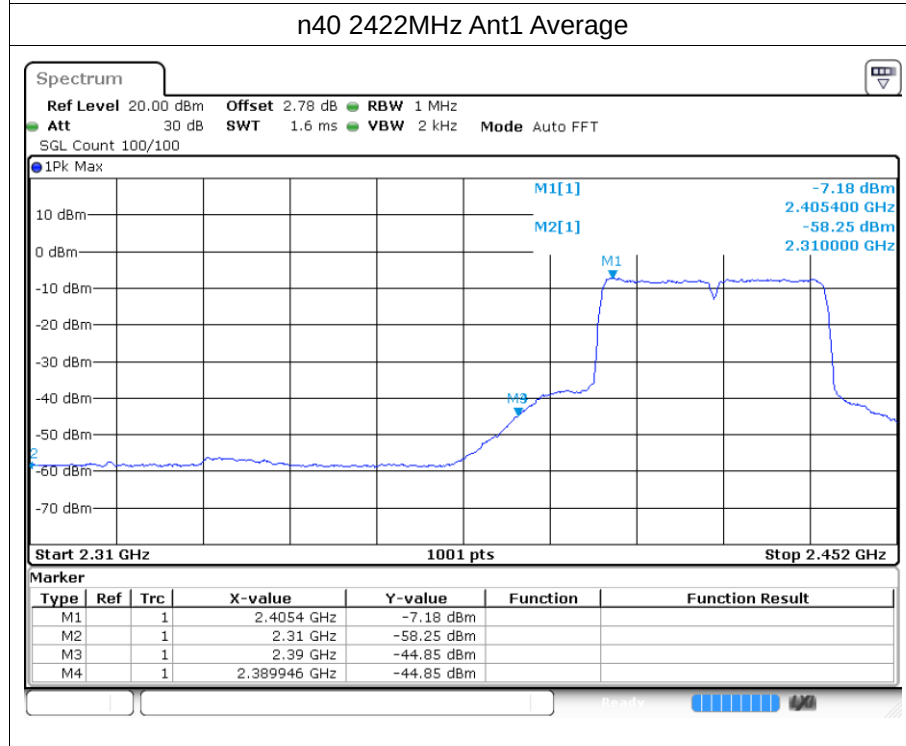
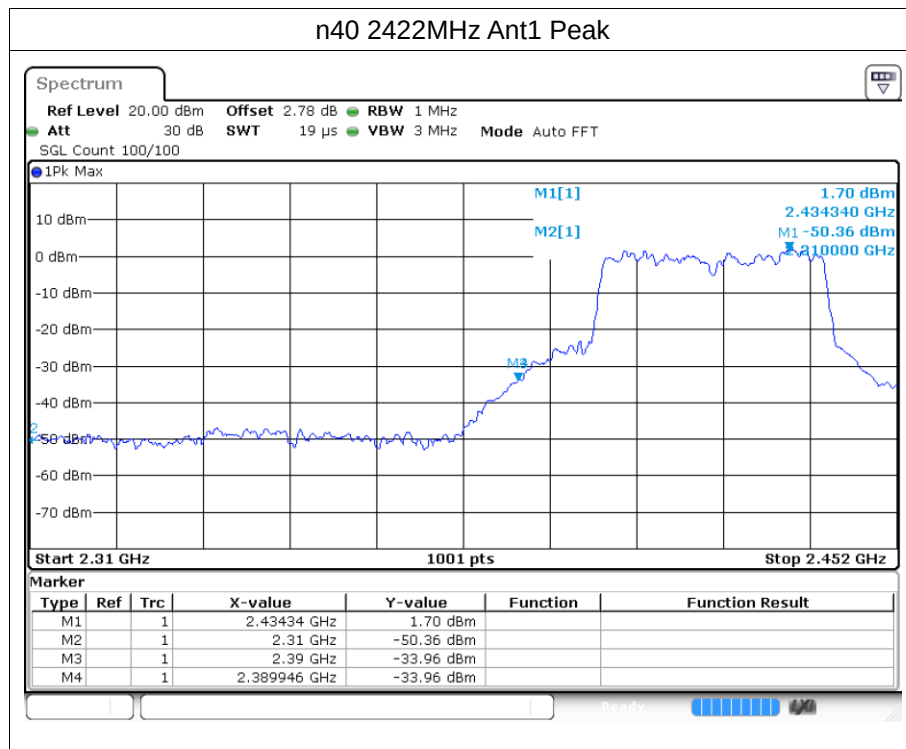


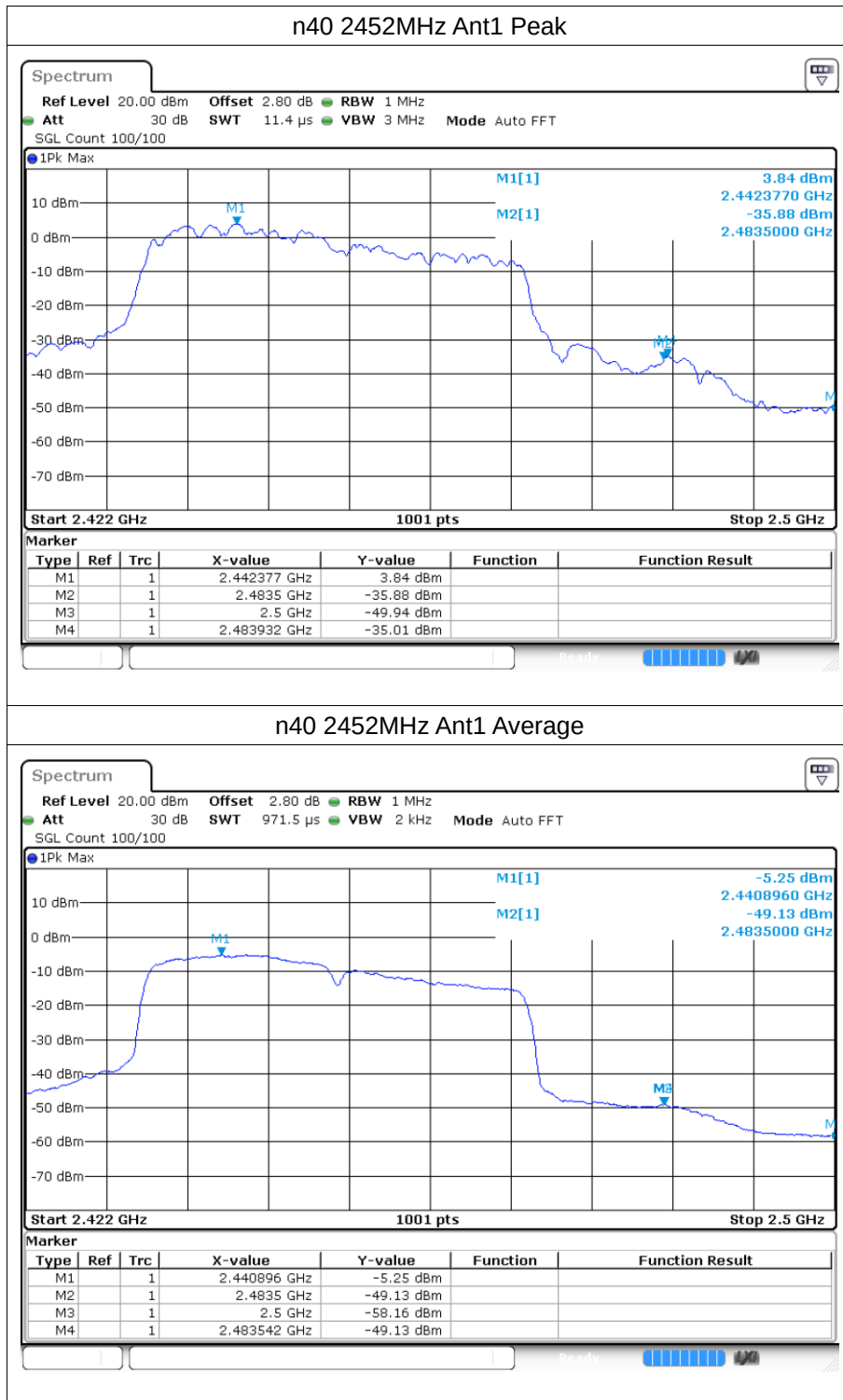












---The End---