Appendix C

RF Test Data for 2.4GWIFI (Conducted Measurement)

Product Name: HyRead Gaze Mini

Trade Mark: Gaze

Test Model: K06N

Environmental Conditions

Temperature:	25.2℃
Relative Humidity:	51.2%
ATM Pressure:	101Kpa
Test Engineer:	Simba Huang
Supervised by:	Seal Chen

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1 Duty Cycle

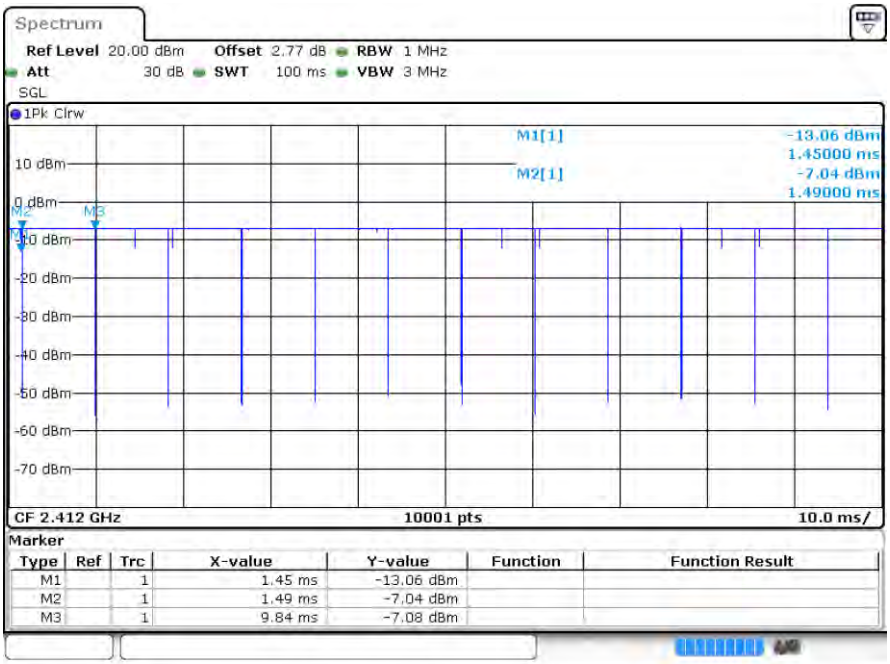
1.1 Test Result

Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	1/T (kHz)
b	2412	Ant1	99.59	0.12
b	2437	Ant1	99.61	0.12
b	2462	Ant1	99.6	0.12
g	2412	Ant1	86.72	4.76
g	2437	Ant1	86.77	4.76
g	2462	Ant1	86.8	4.76
n20	2412	Ant1	87.31	4.35
n20	2437	Ant1	87.38	4.17
n20	2462	Ant1	87.38	4.35
n40	2422	Ant1	76.75	4.55
n40	2437	Ant1	76.73	4.76
n40	2452	Ant1	76.72	4.76

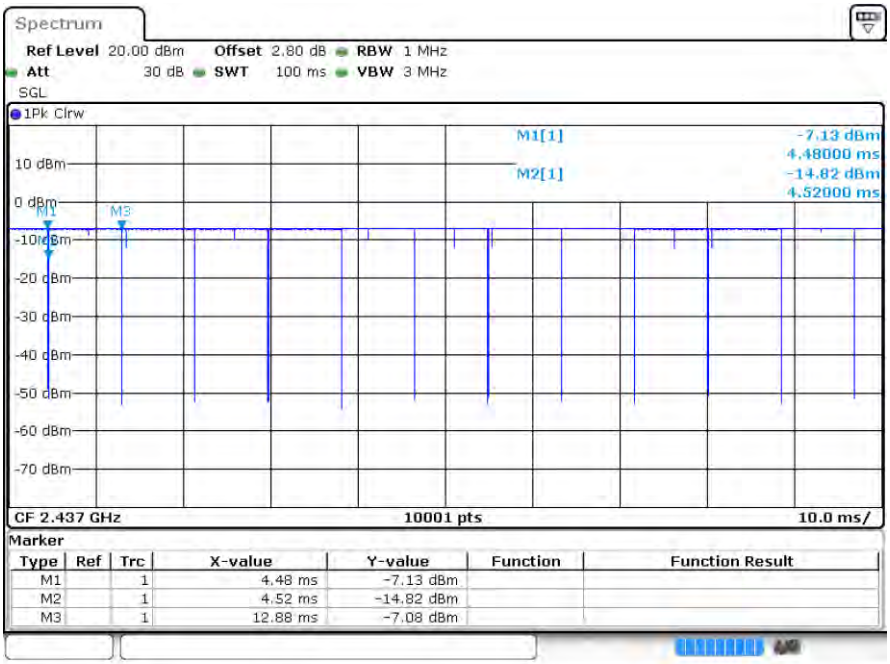
1.2 Test Graphs

Test Graphs

b 2412MHz Ant1

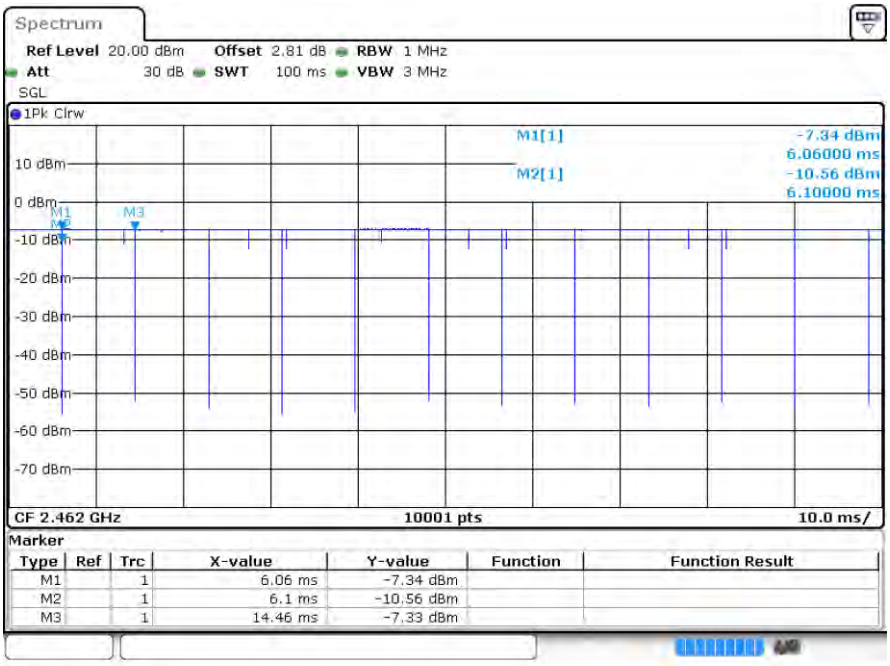


b 2437MHz Ant1

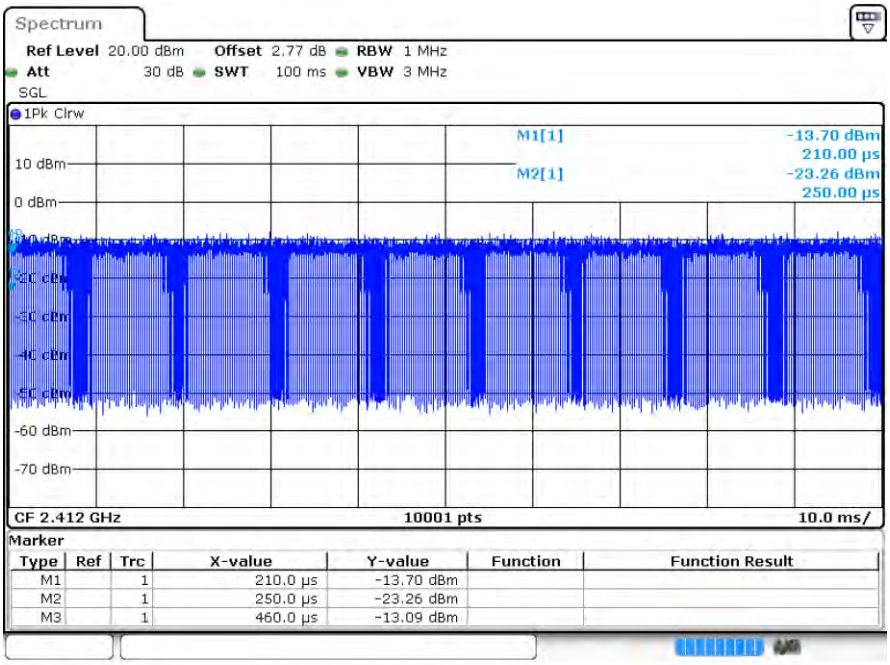


Test Graphs

b 2462MHz Ant1

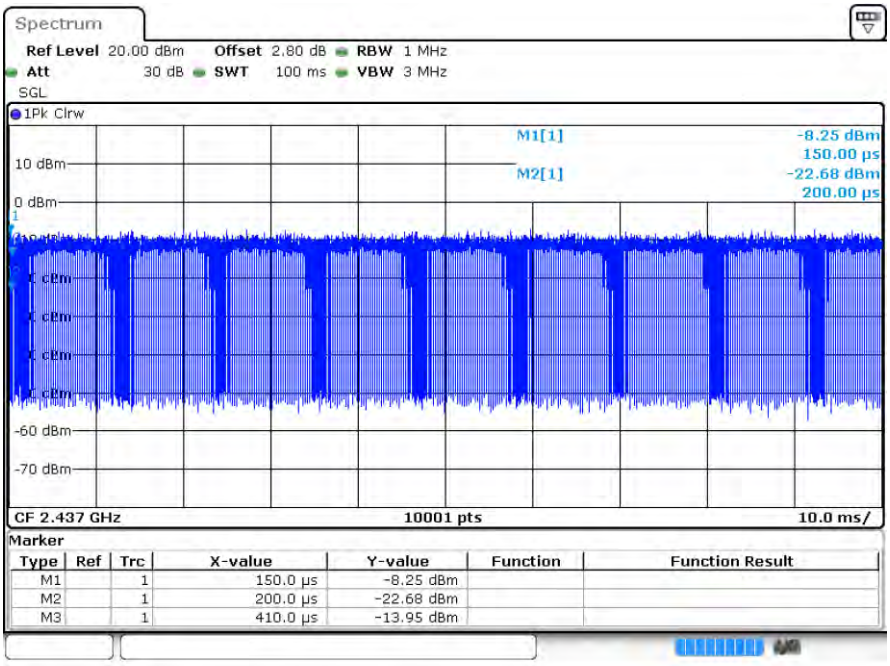


g 2412MHz Ant1

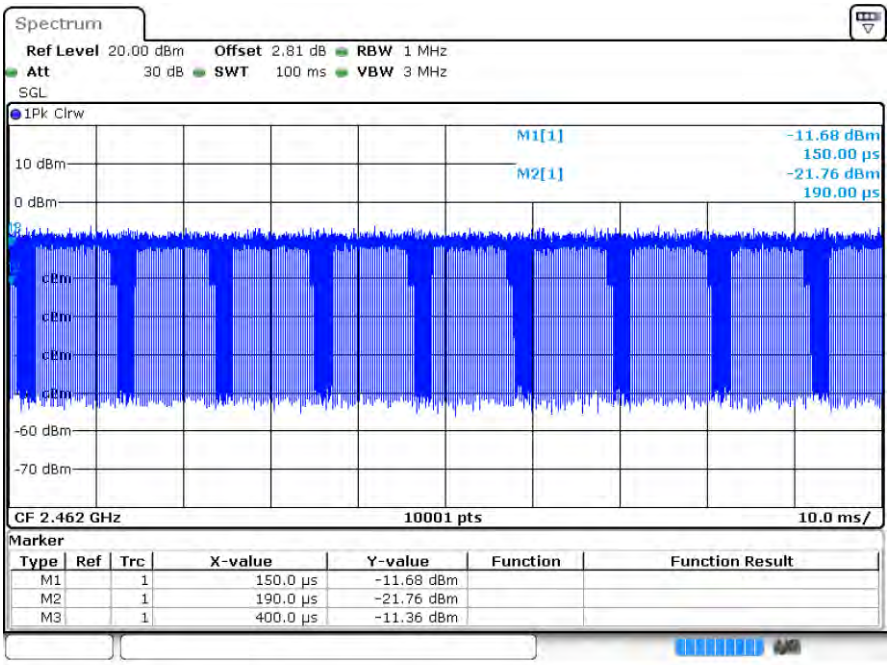


Test Graphs

g 2437MHz Ant1

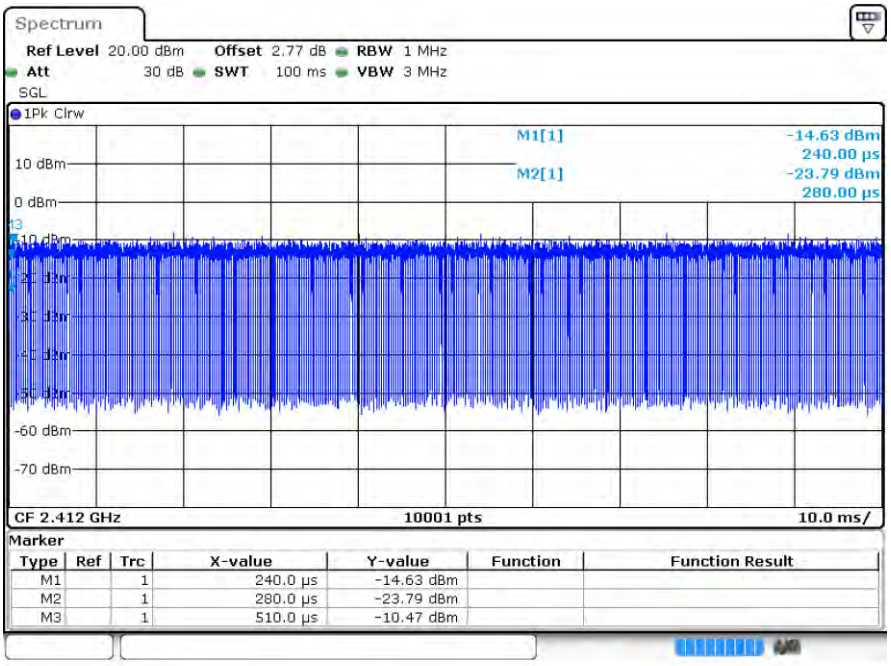


g 2462MHz Ant1

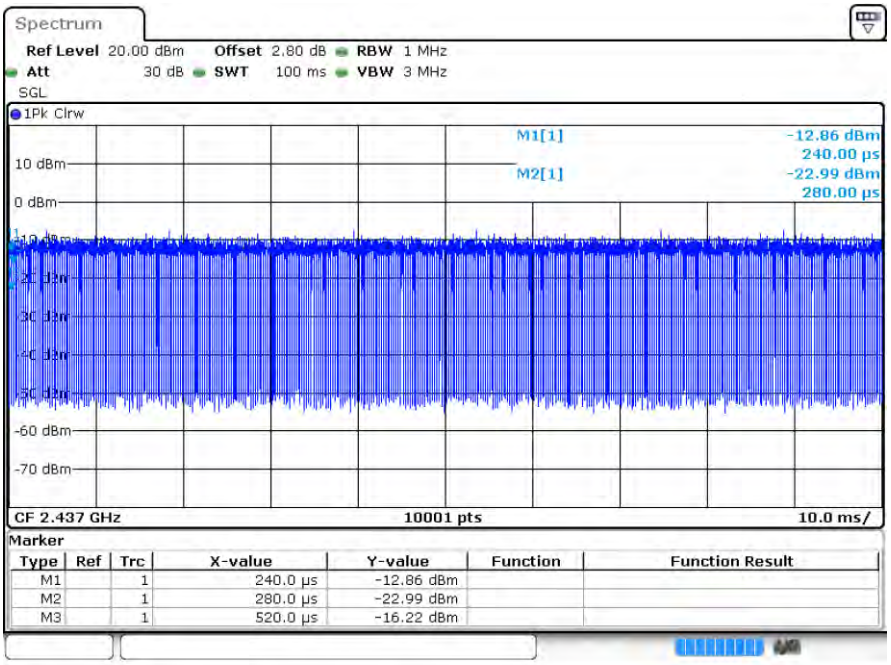


Test Graphs

n20 2412MHz Ant1

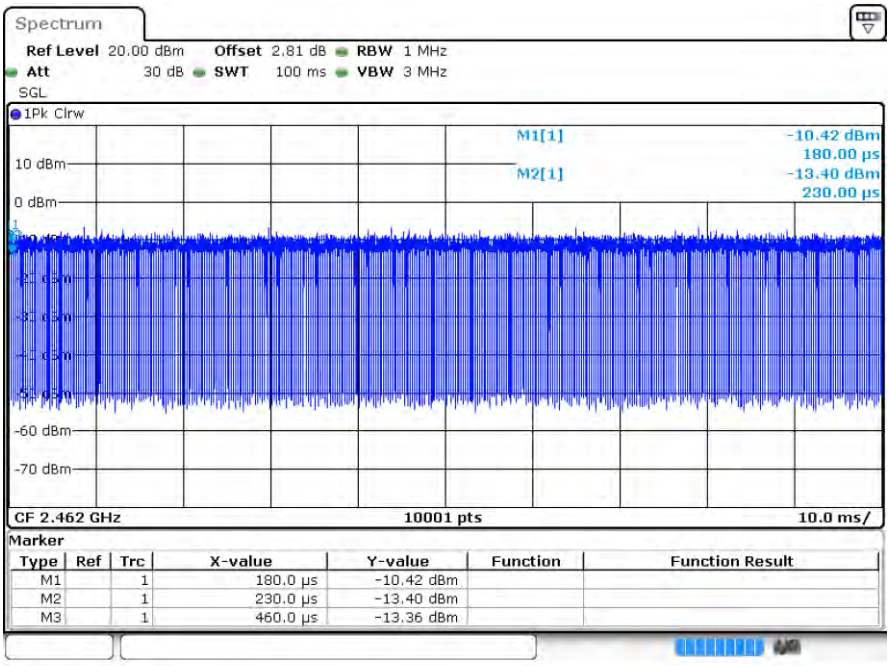


n20 2437MHz Ant1

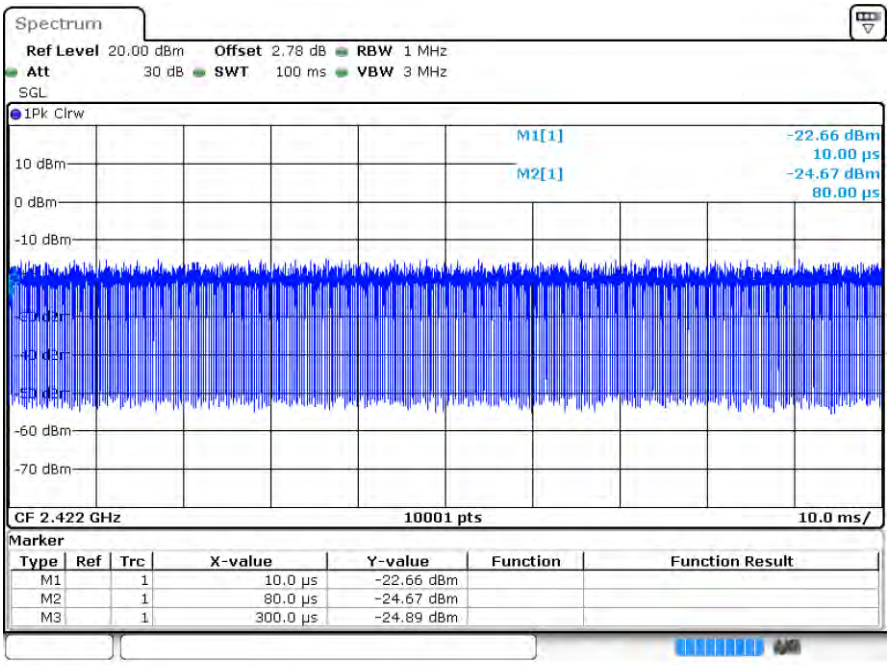


Test Graphs

n20 2462MHz Ant1

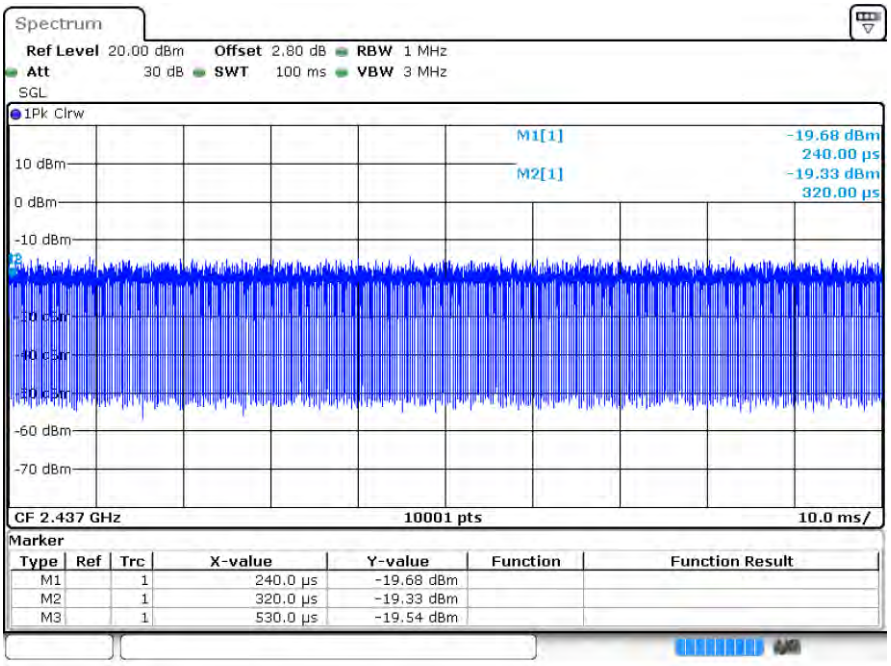


n40 2422MHz Ant1

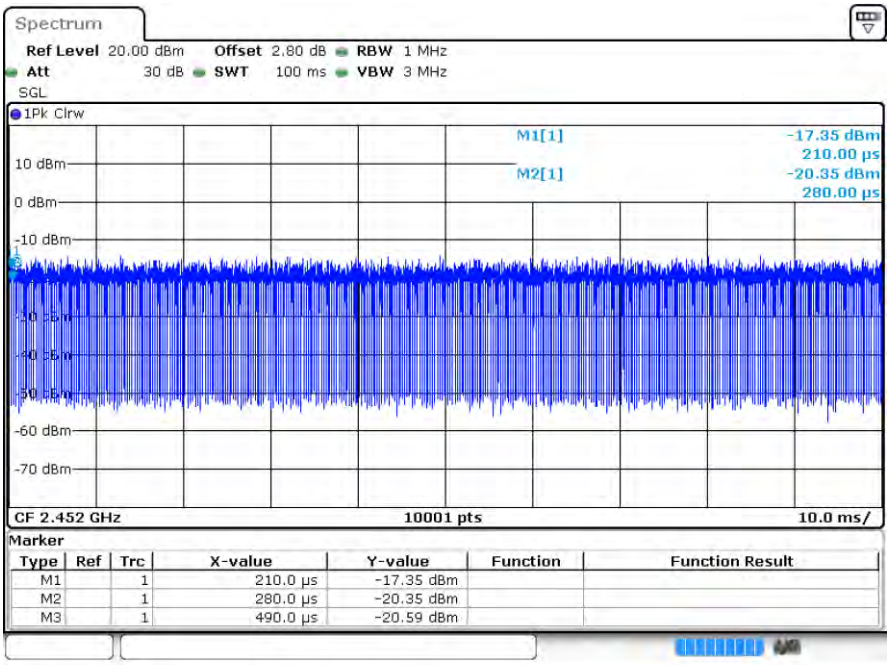


Test Graphs

n40 2437MHz Ant1



n40 2452MHz Ant1



2 Maximum Conducted Output Power

2.1 Test Result

Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
b	2412	Ant1	2.29	30	Pass
b	2437	Ant1	2.34	30	Pass
b	2462	Ant1	2.24	30	Pass
g	2412	Ant1	1.3	30	Pass
g	2437	Ant1	1.45	30	Pass
g	2462	Ant1	1.76	30	Pass
n20	2412	Ant1	0.84	30	Pass
n20	2437	Ant1	1.56	30	Pass
n20	2462	Ant1	1.62	30	Pass
n40	2422	Ant1	1.47	30	Pass
n40	2437	Ant1	1.88	30	Pass
n40	2452	Ant1	1.21	30	Pass

3 -6dB Bandwidth

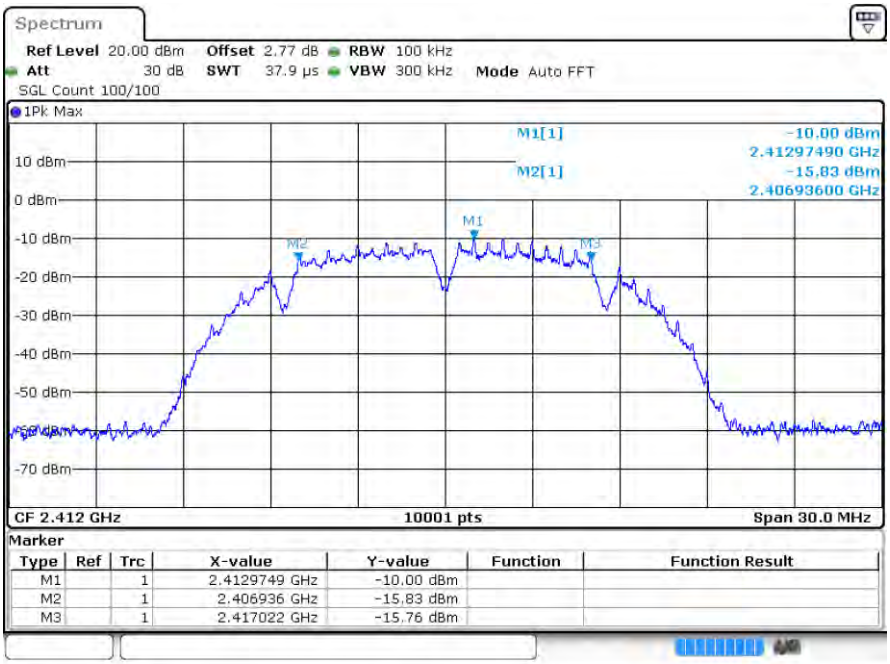
3.1 Test Result

Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
b	2412	Ant1	10.086	0.5	Pass
b	2437	Ant1	10.098	0.5	Pass
b	2462	Ant1	10.074	0.5	Pass
g	2412	Ant1	15.114	0.5	Pass
g	2437	Ant1	15.066	0.5	Pass
g	2462	Ant1	15.114	0.5	Pass
n20	2412	Ant1	15.12	0.5	Pass
n20	2437	Ant1	15.108	0.5	Pass
n20	2462	Ant1	12.672	0.5	Pass
n40	2422	Ant1	33.852	0.5	Pass
n40	2437	Ant1	33.81	0.5	Pass
n40	2452	Ant1	35.034	0.5	Pass

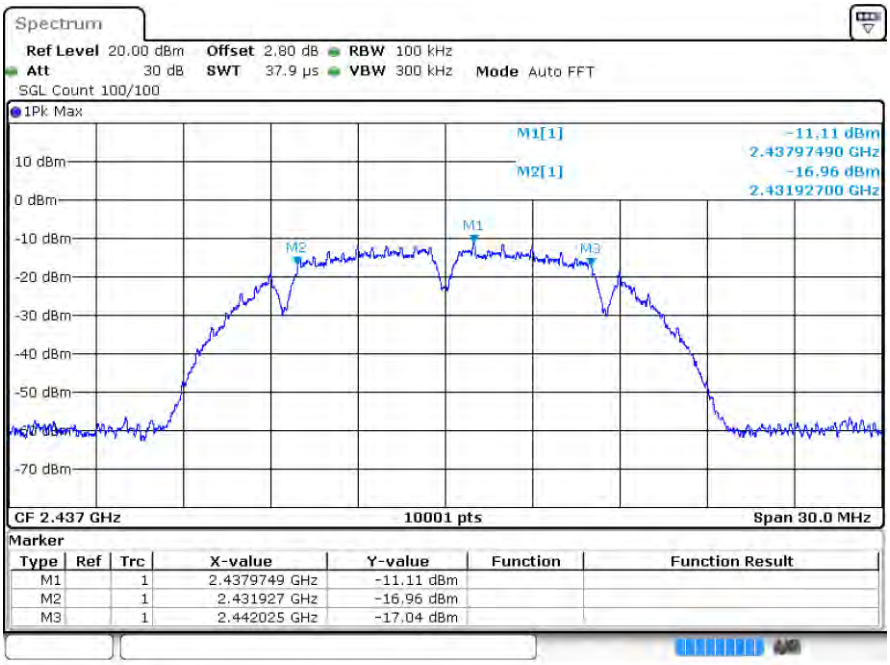
3.2 Test Graphs

Test Graphs

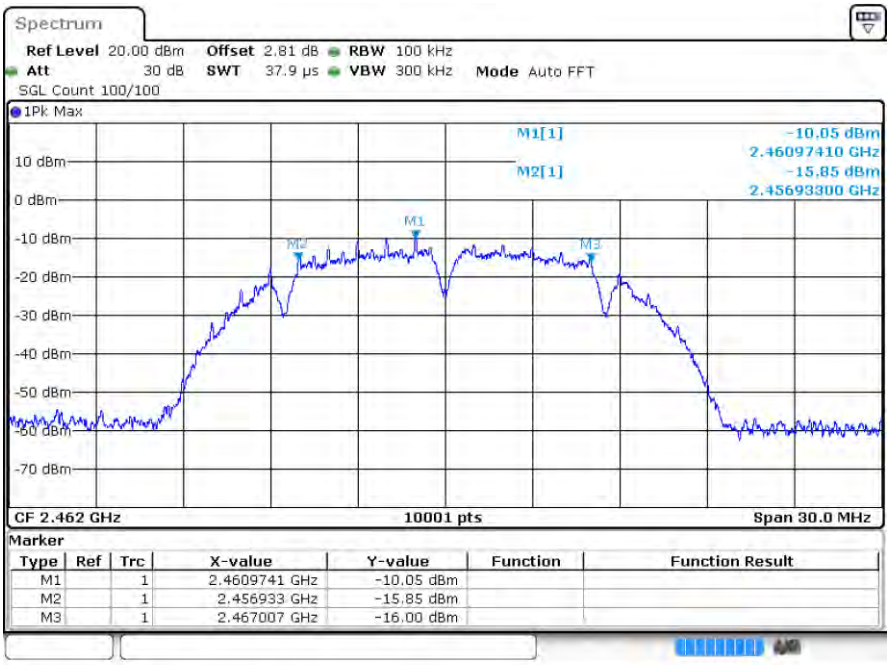
b 2412MHz Ant1



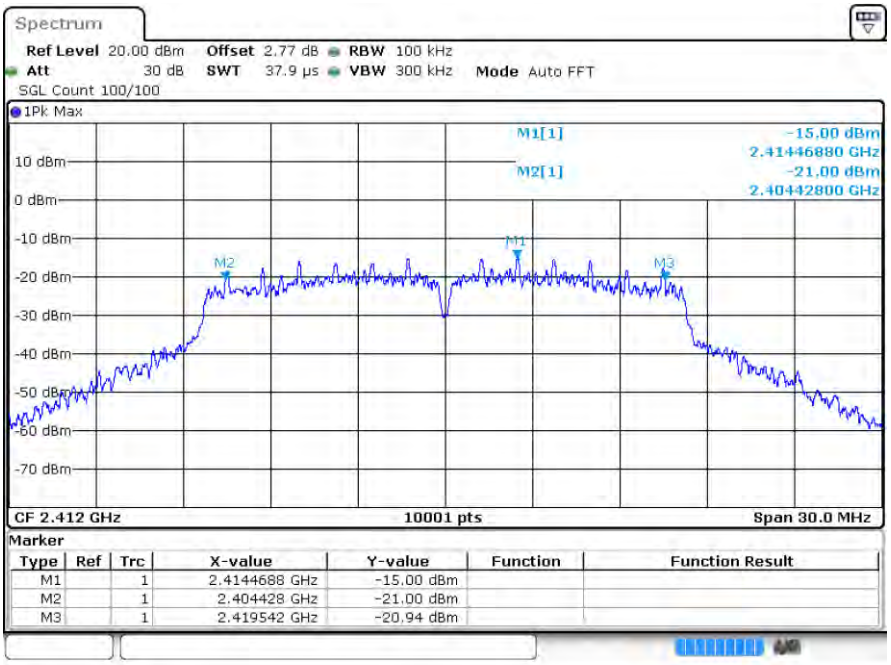
b 2437MHz Ant1



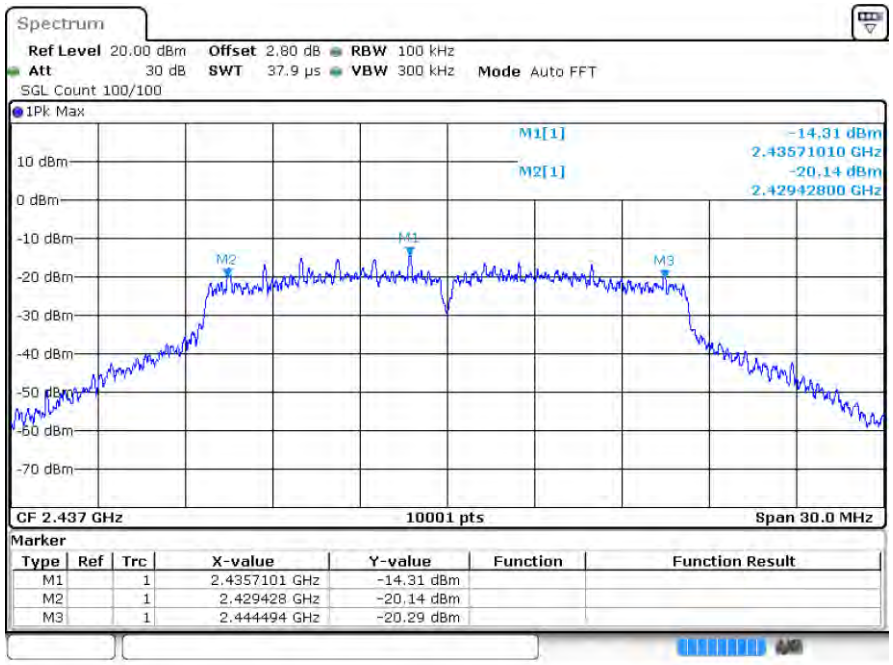
b 2462MHz Ant1



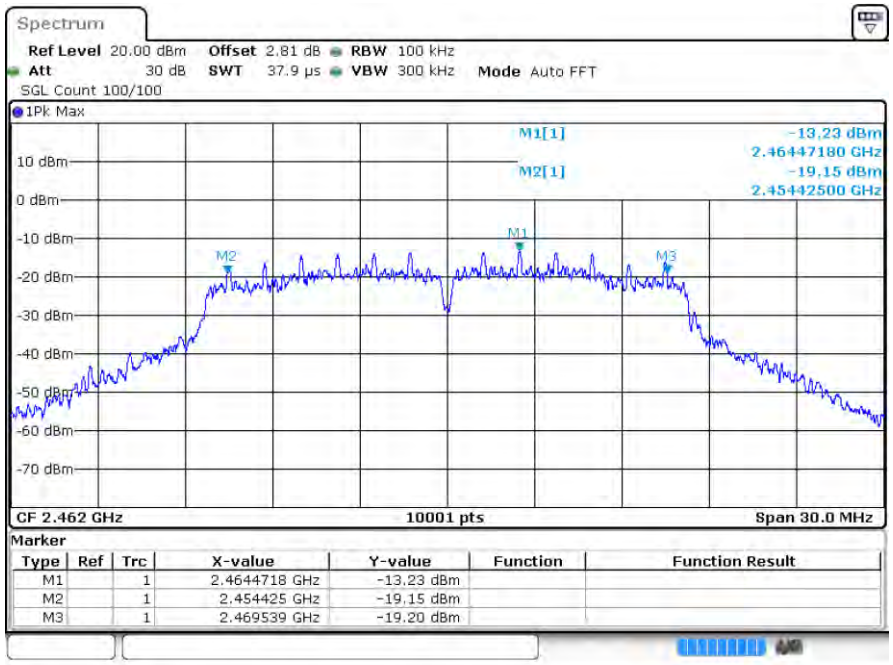
g 2412MHz Ant1



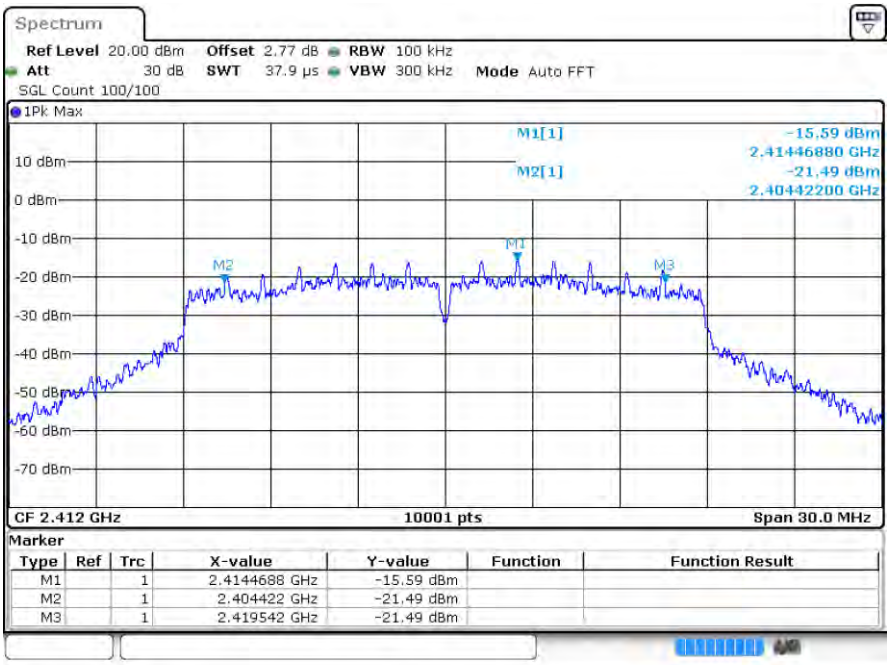
g 2437MHz Ant1



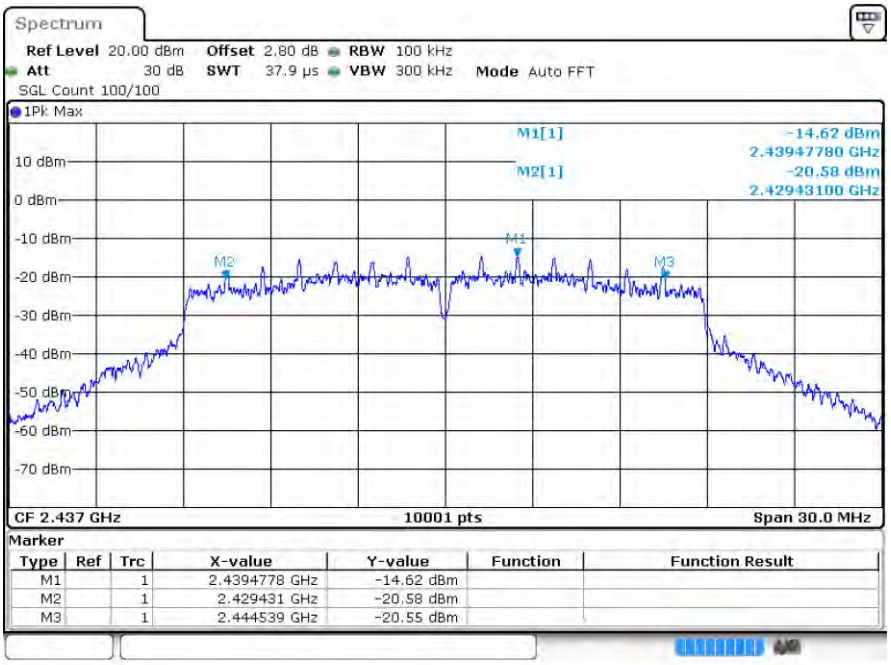
g 2462MHz Ant1



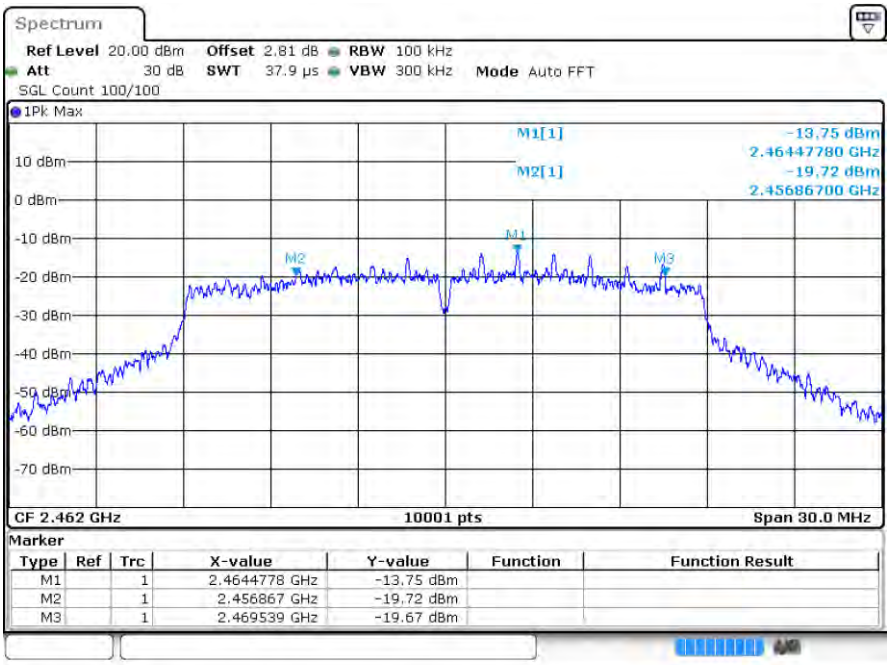
n20 2412MHz Ant1



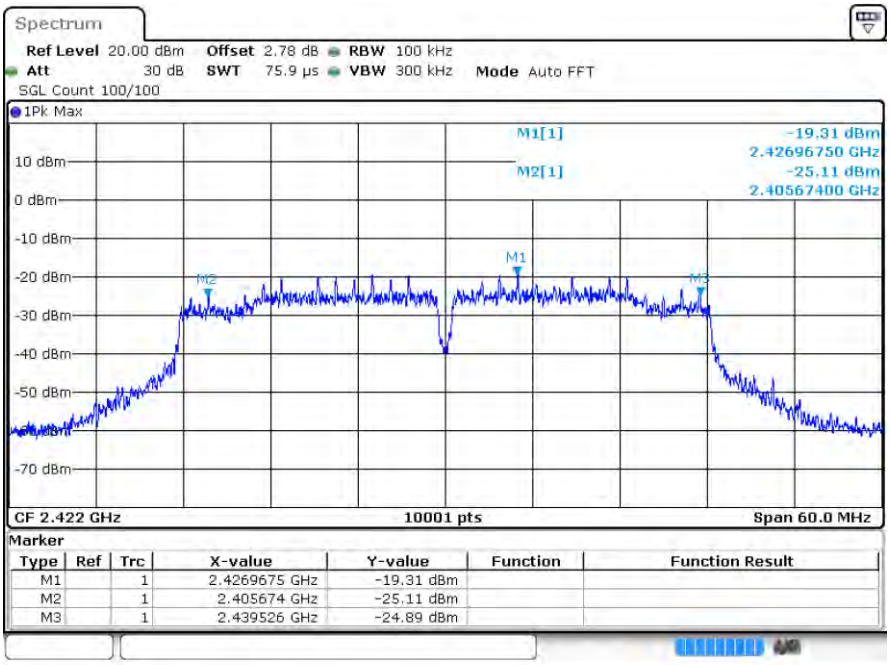
n20 2437MHz Ant1



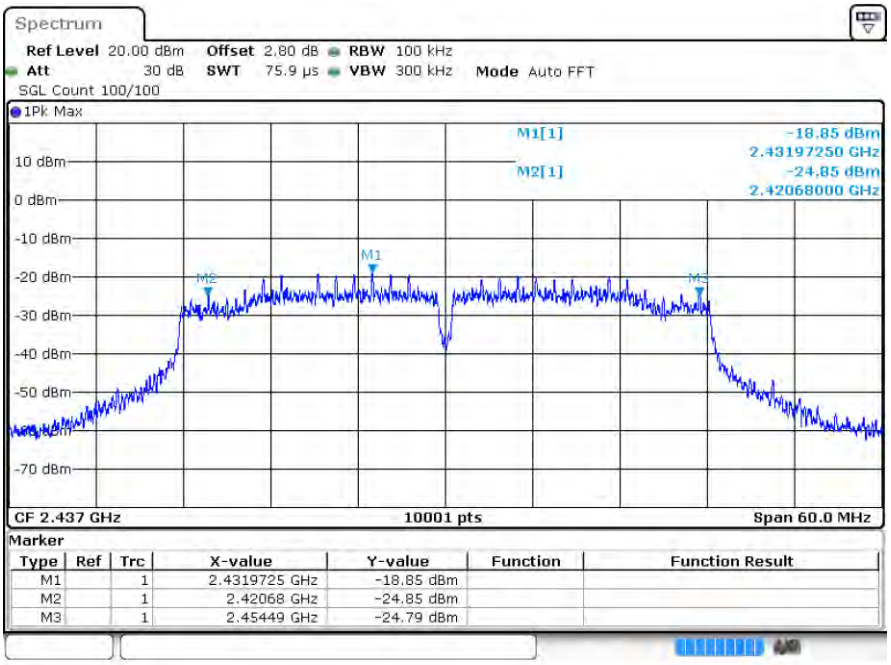
n20 2462MHz Ant1



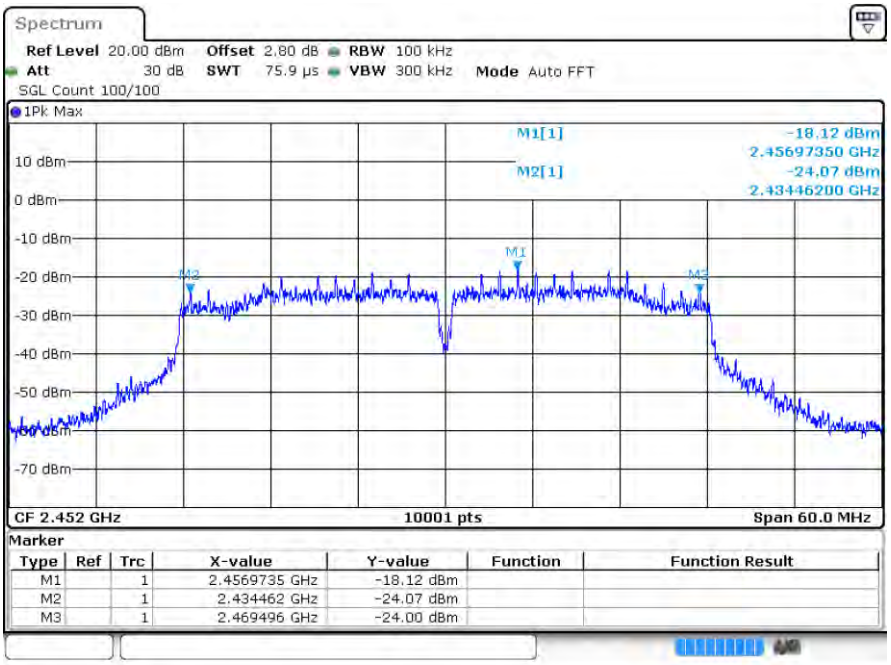
n40 2422MHz Ant1



n40 2437MHz Ant1



n40 2452MHz Ant1

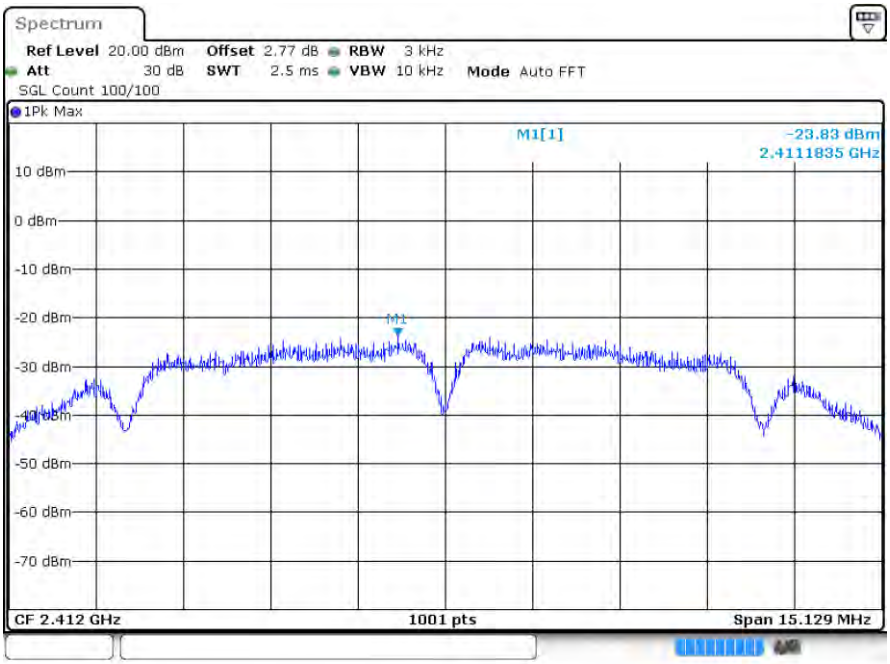
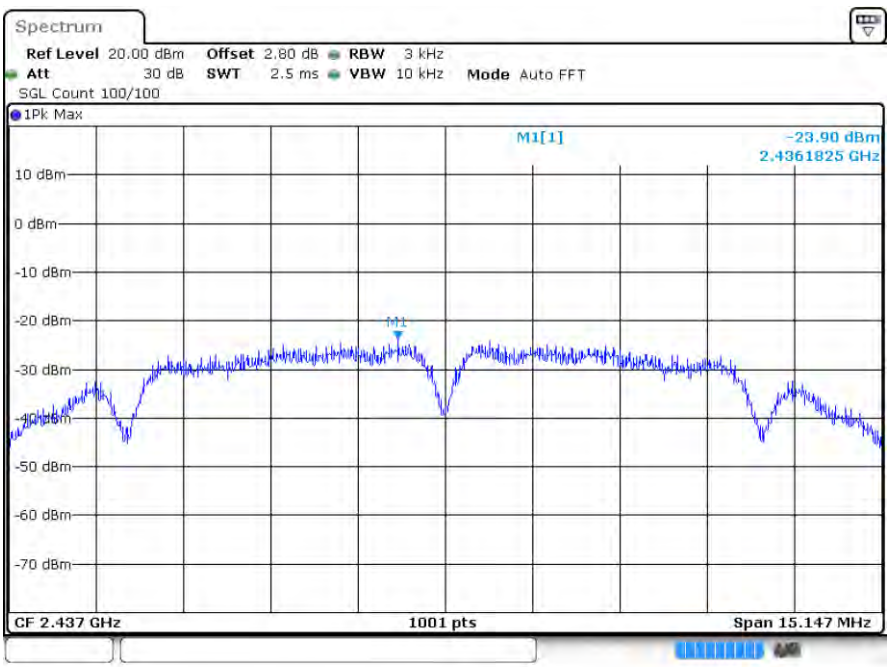


4 Maximum Power Spectral Density Level

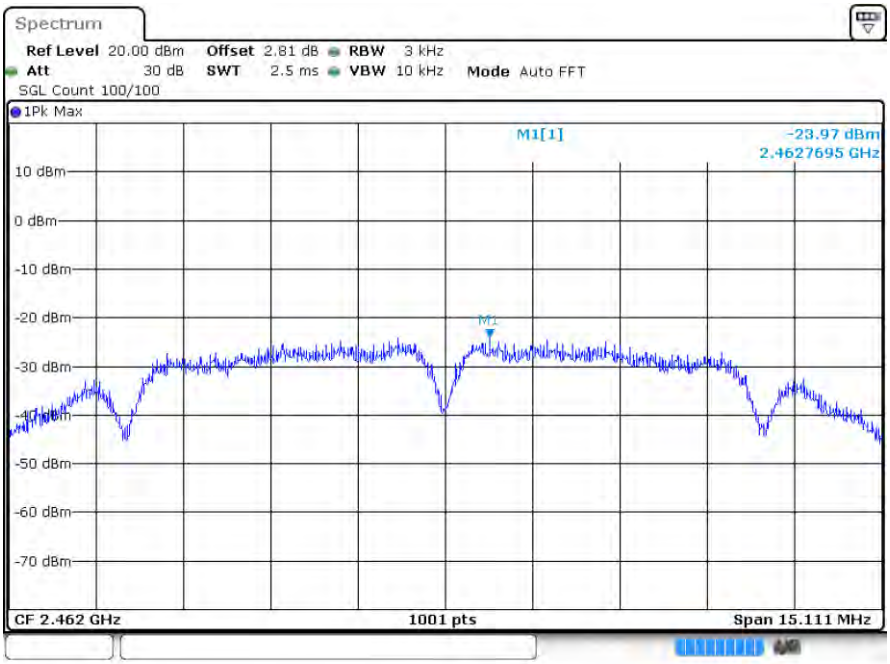
4.1 Test Result

Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3-100kHz)	Limit (dBm/3kHz)	Verdict
b	2412	Ant1	-23.83	≤8	Pass
b	2437	Ant1	-23.9	≤8	Pass
b	2462	Ant1	-23.97	≤8	Pass
g	2412	Ant1	-29.52	≤8	Pass
g	2437	Ant1	-28.92	≤8	Pass
g	2462	Ant1	-28.7	≤8	Pass
n20	2412	Ant1	-29.73	≤8	Pass
n20	2437	Ant1	-28.39	≤8	Pass
n20	2462	Ant1	-28.71	≤8	Pass
n40	2422	Ant1	-32.92	≤8	Pass
n40	2437	Ant1	-32.58	≤8	Pass
n40	2452	Ant1	-31.97	≤8	Pass

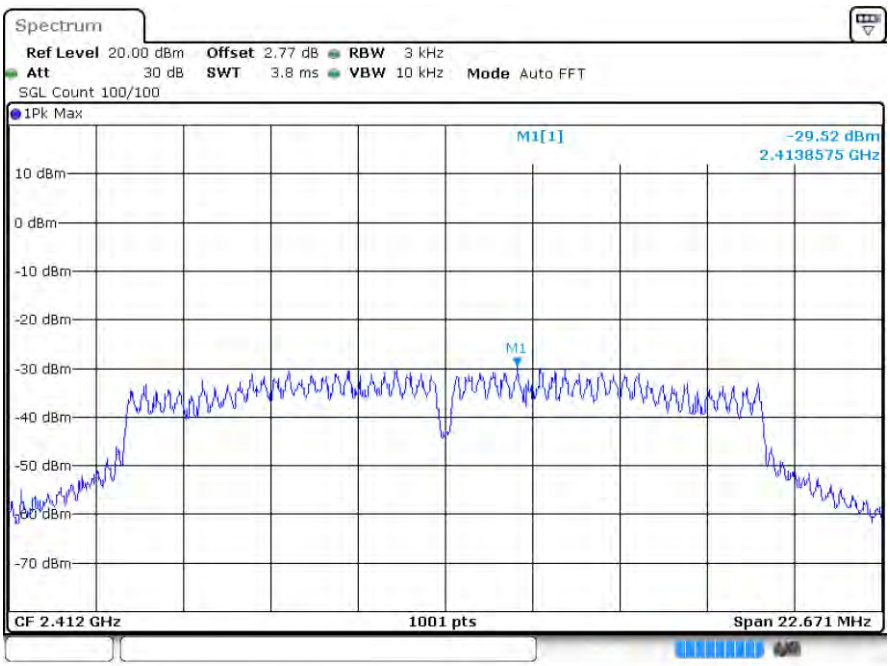
4.2 Test Graphs

Test Graphs
b 2412MHz Ant1

b 2437MHz Ant1


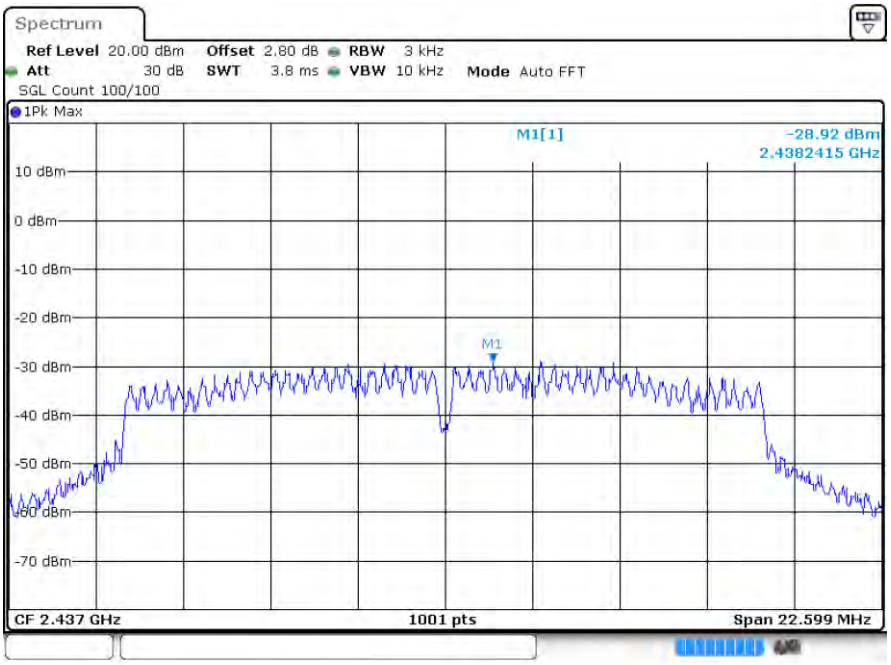
b 2462MHz Ant1



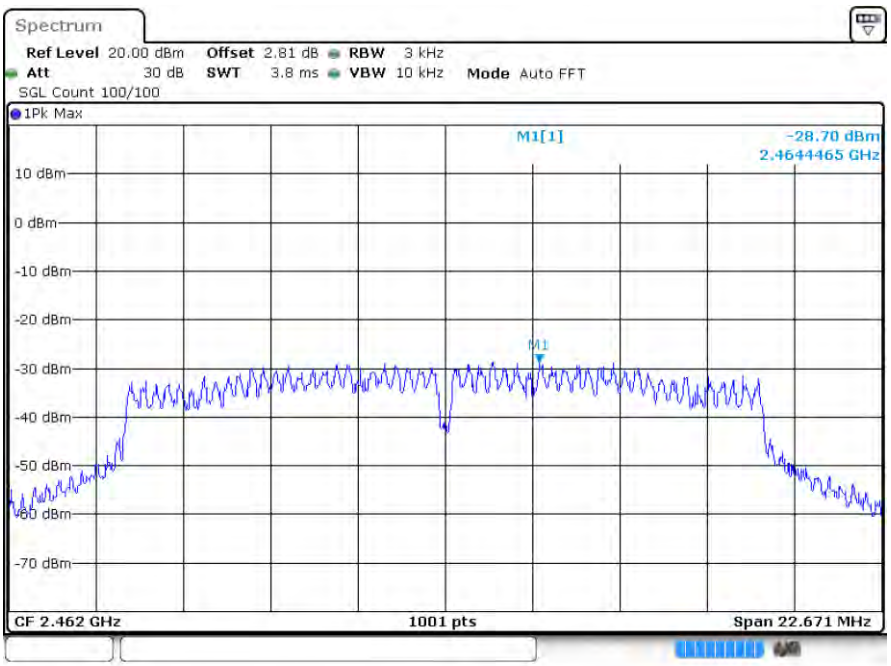
g 2412MHz Ant1



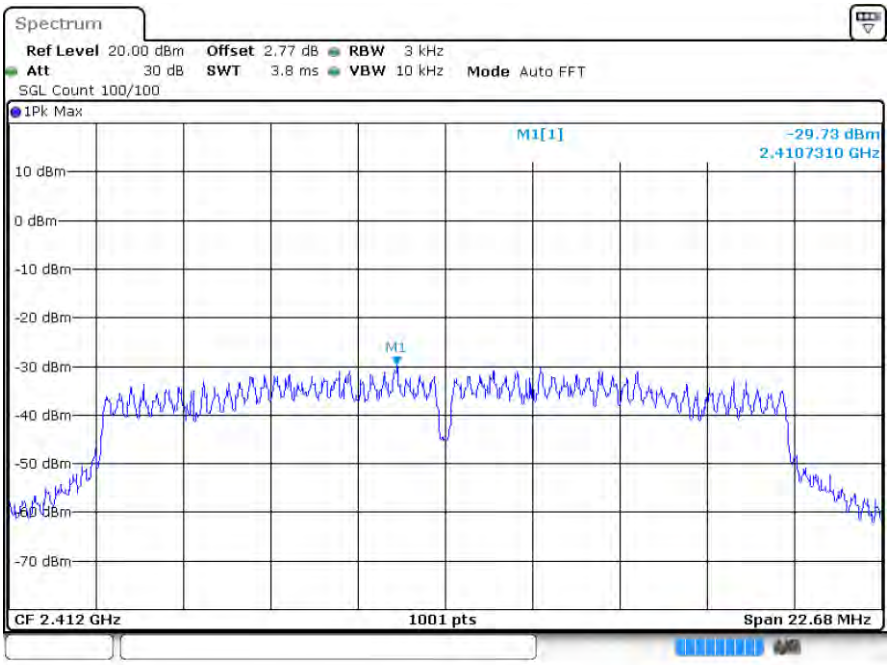
g 2437MHz Ant1



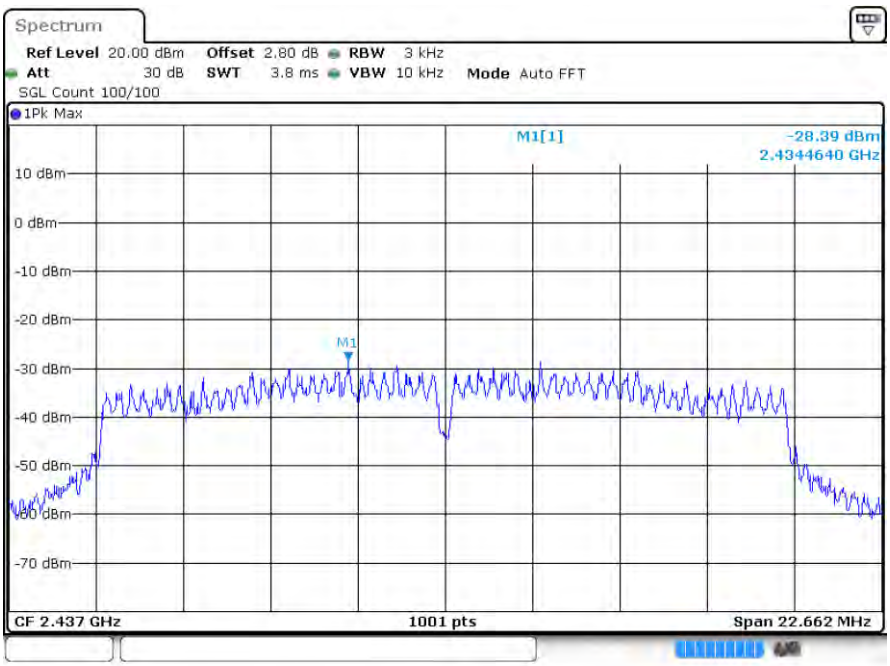
g 2462MHz Ant1



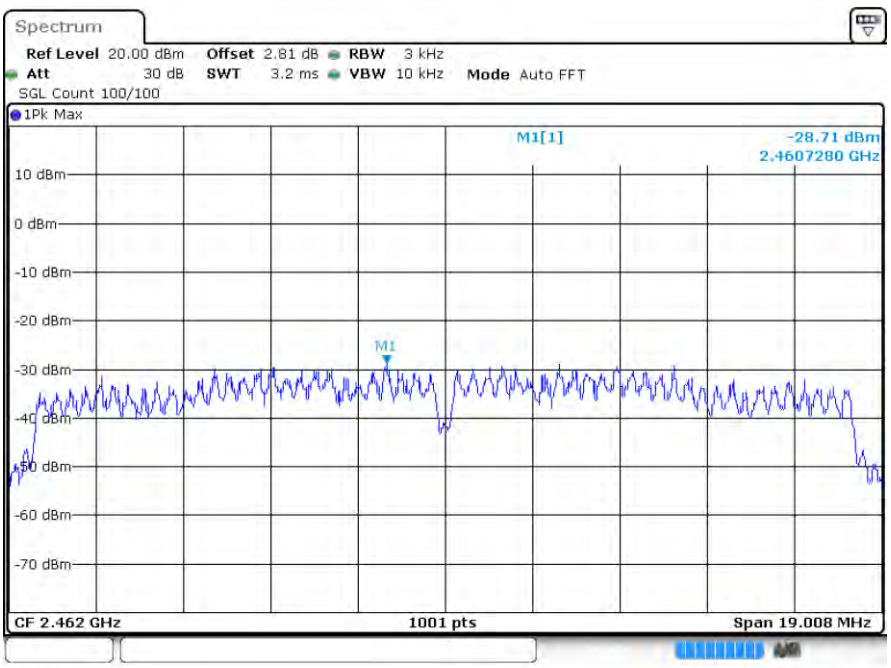
n20 2412MHz Ant1



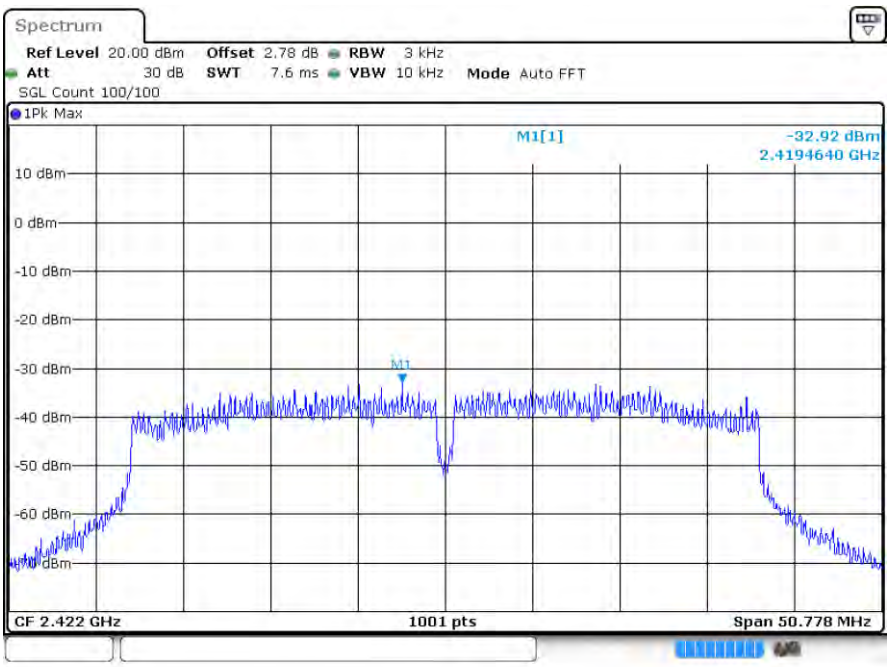
n20 2437MHz Ant1



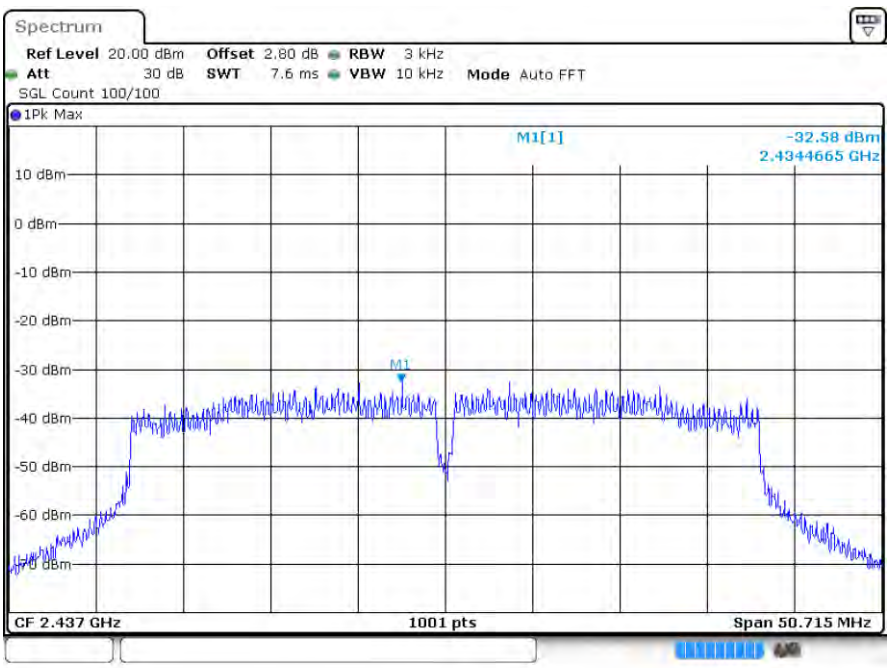
n20 2462MHz Ant1



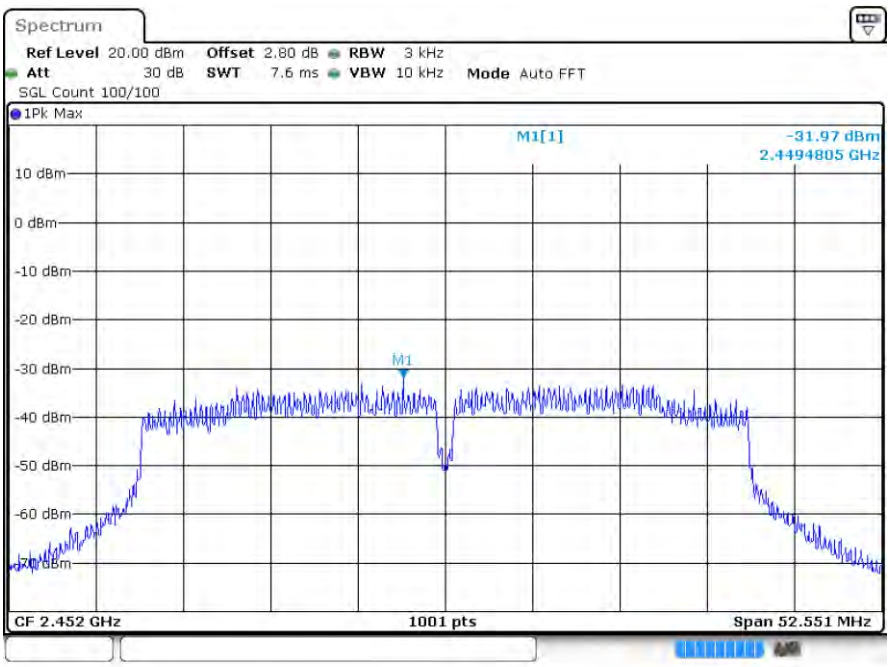
n40 2422MHz Ant1



n40 2437MHz Ant1



n40 2452MHz Ant1



5 Band Edge

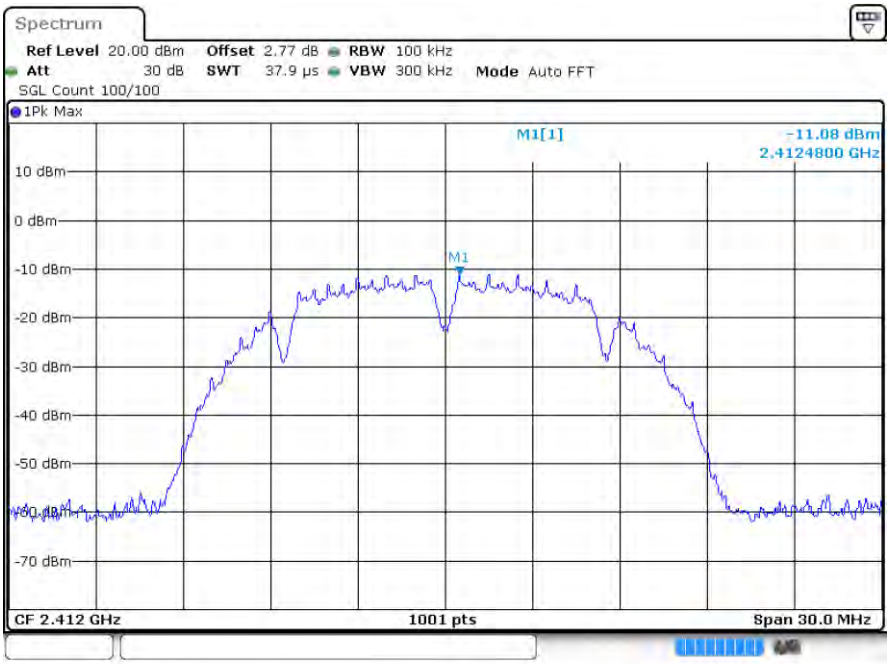
5.1 Test Result

Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
b	2412	Ant1	-43.61	-20	-43.61
b	2462	Ant1	-44.91	-20	Pass
g	2412	Ant1	-40.22	-20	Pass
g	2462	Ant1	-43.07	-20	Pass
n20	2412	Ant1	-39.77	-20	Pass
n20	2462	Ant1	-41.1	-20	Pass
n40	2422	Ant1	-36.2	-20	Pass
n40	2452	Ant1	-38.39	-20	Pass

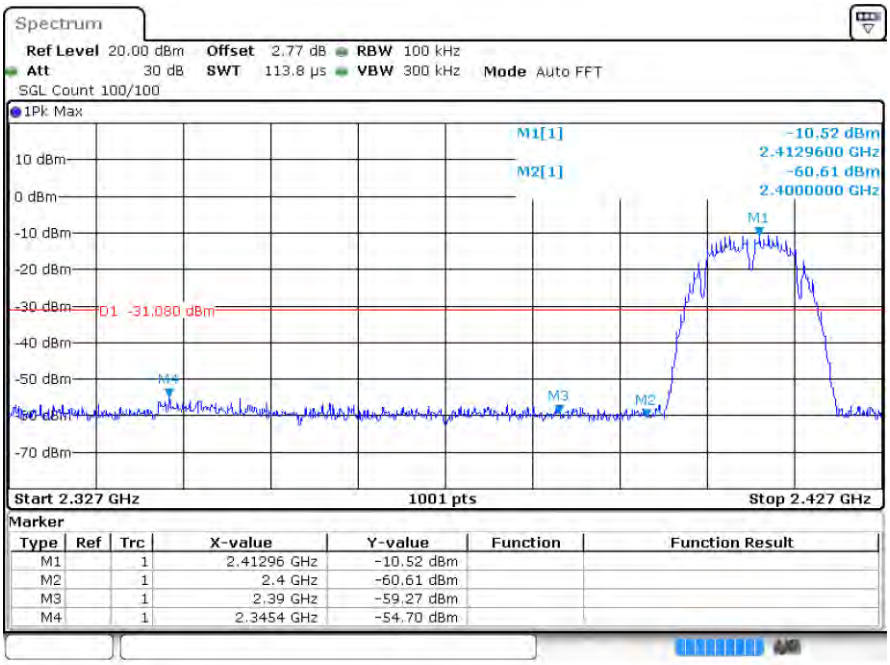
5.2 Test Graphs

Test Graphs

b 2412MHz Ant1 Ref

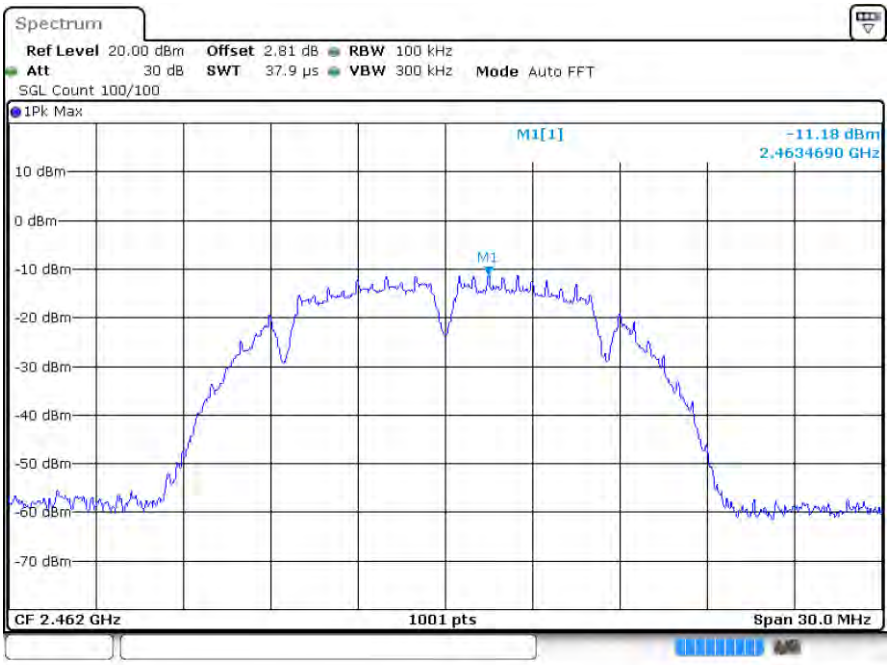


b 2412MHz Ant1 Emission

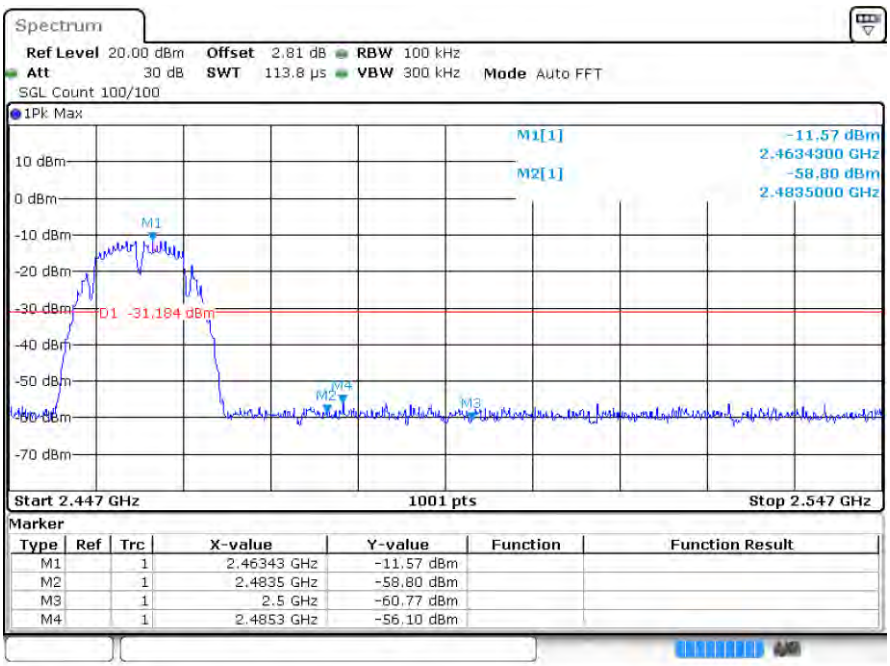


Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.41296 GHz	-10.52 dBm		
M2		1	2.4 GHz	-60.61 dBm		
M3		1	2.39 GHz	-59.27 dBm		
M4		1	2.3454 GHz	-54.70 dBm		

b 2462MHz Ant1 Ref



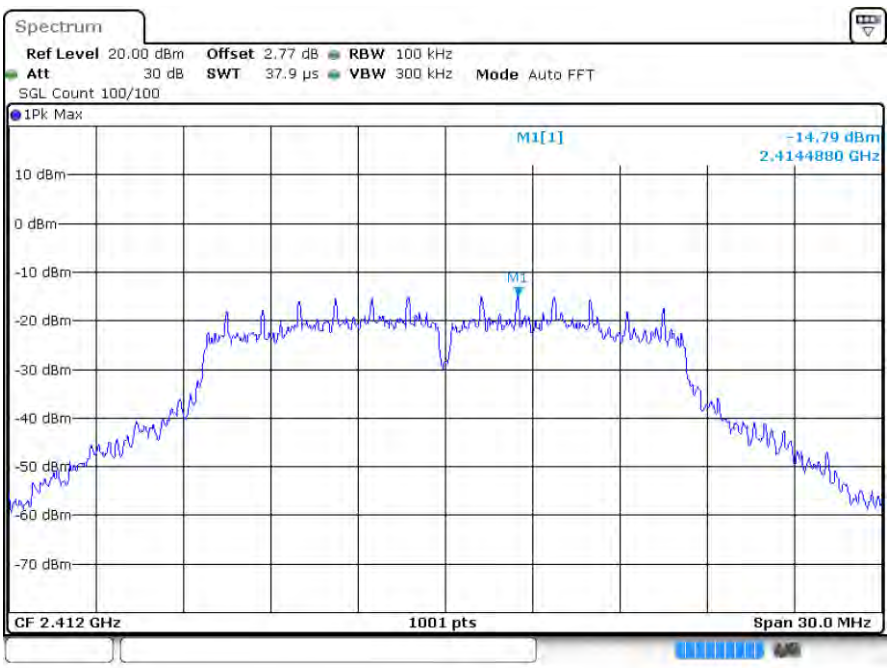
b 2462MHz Ant1 Emission



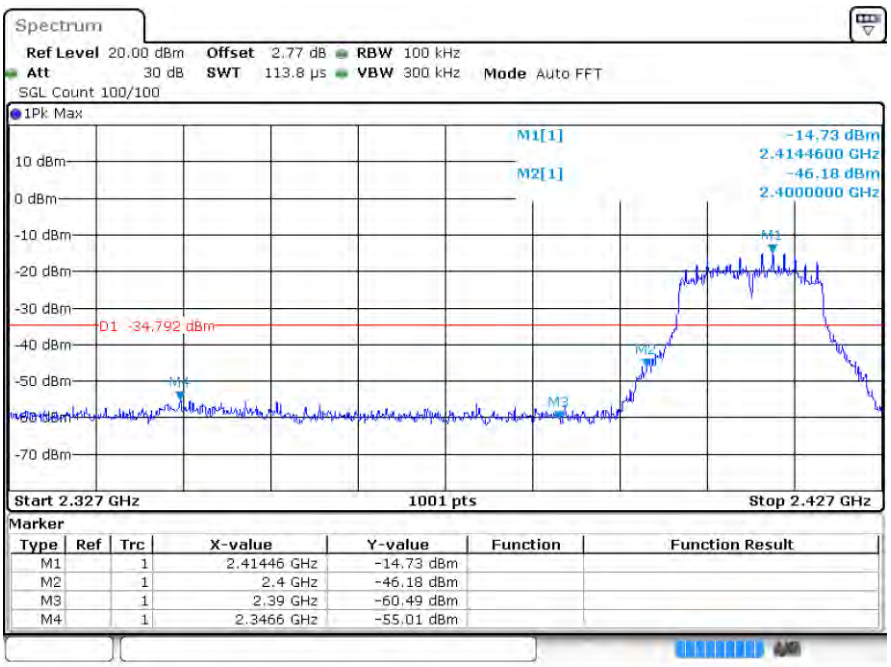
Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.46343 GHz	-11.57 dBm		
M2		1	2.4835 GHz	-58.80 dBm		
M3		1	2.5 GHz	-60.77 dBm		
M4		1	2.4853 GHz	-56.10 dBm		

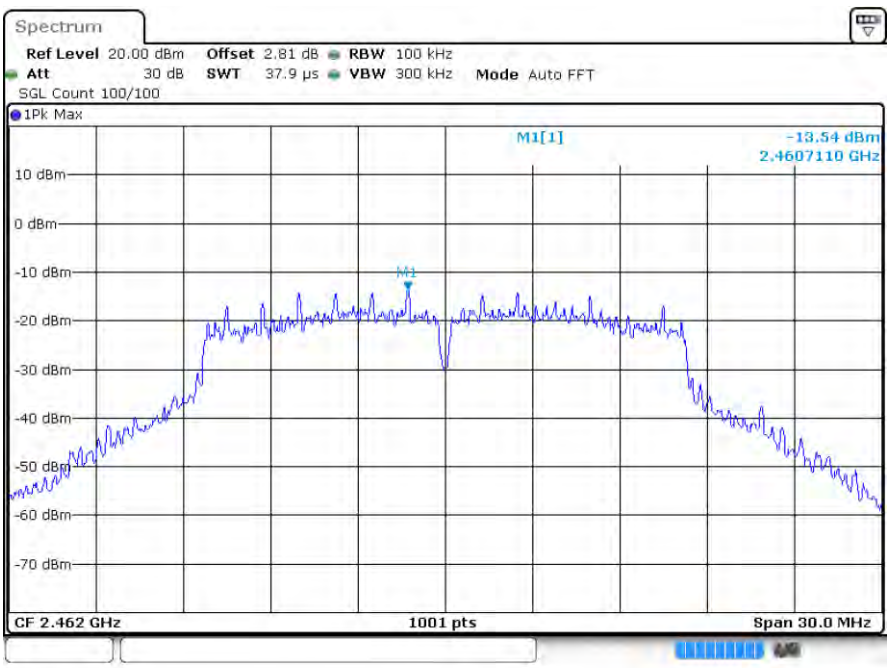
g 2412MHz Ant1 Ref



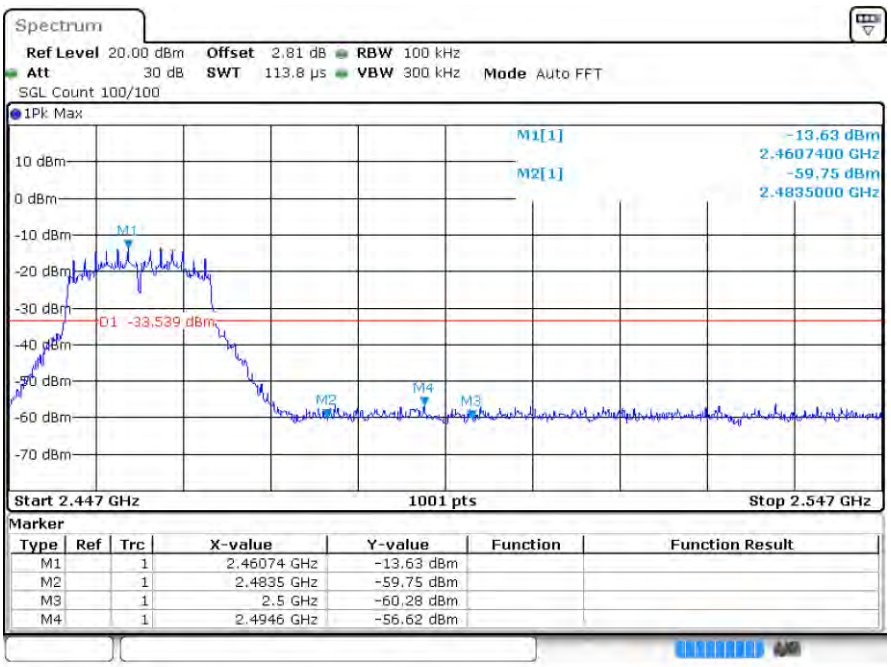
g 2412MHz Ant1 Emission



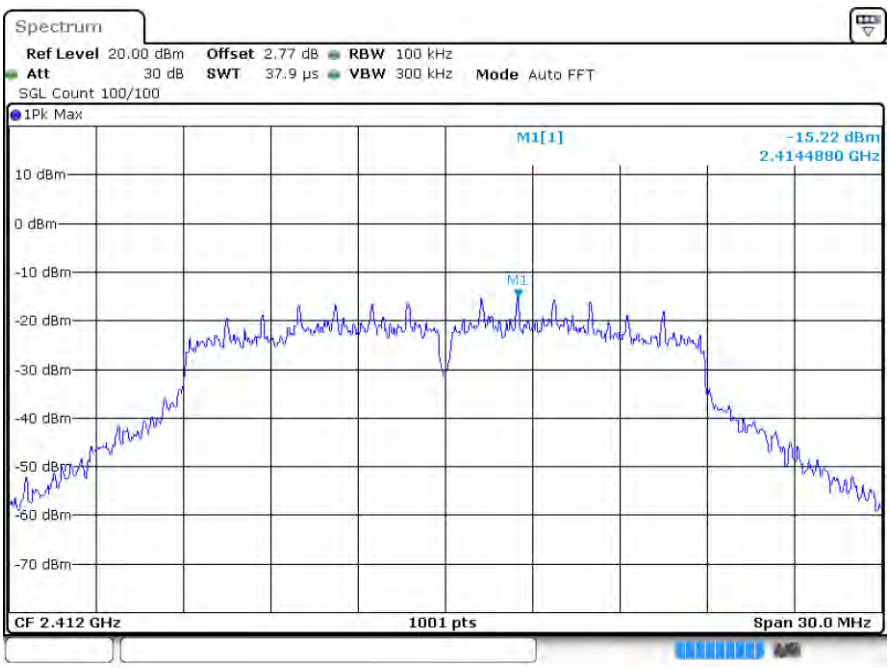
g 2462MHz Ant1 Ref



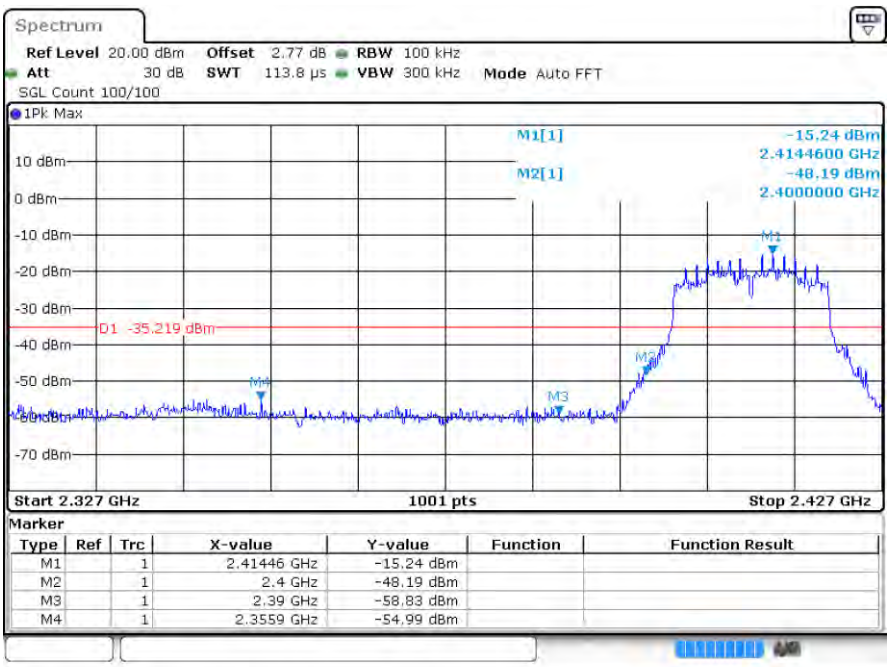
g 2462MHz Ant1 Emission



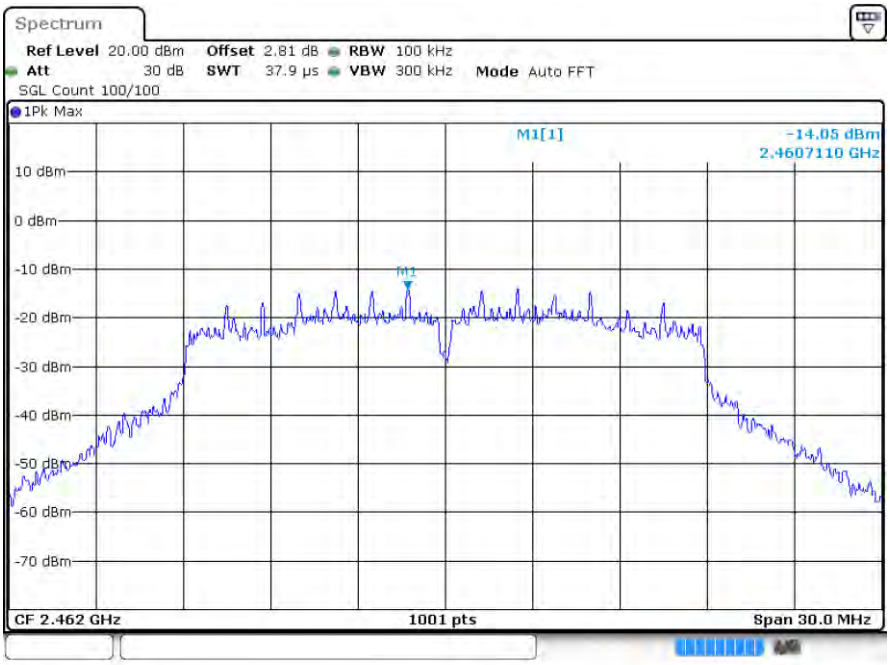
n20 2412MHz Ant1 Ref



n20 2412MHz Ant1 Emission

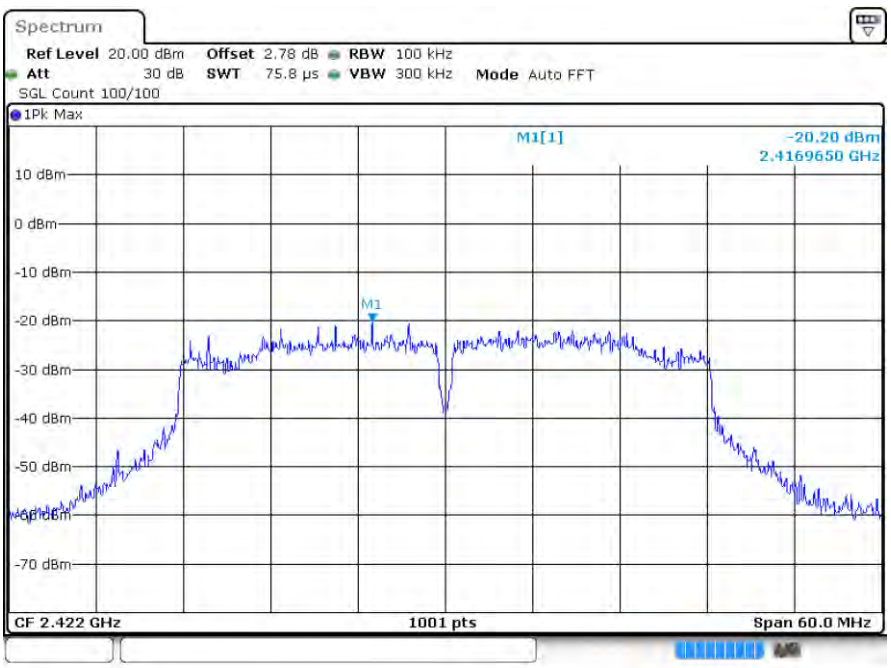


n20 2462MHz Ant1 Ref

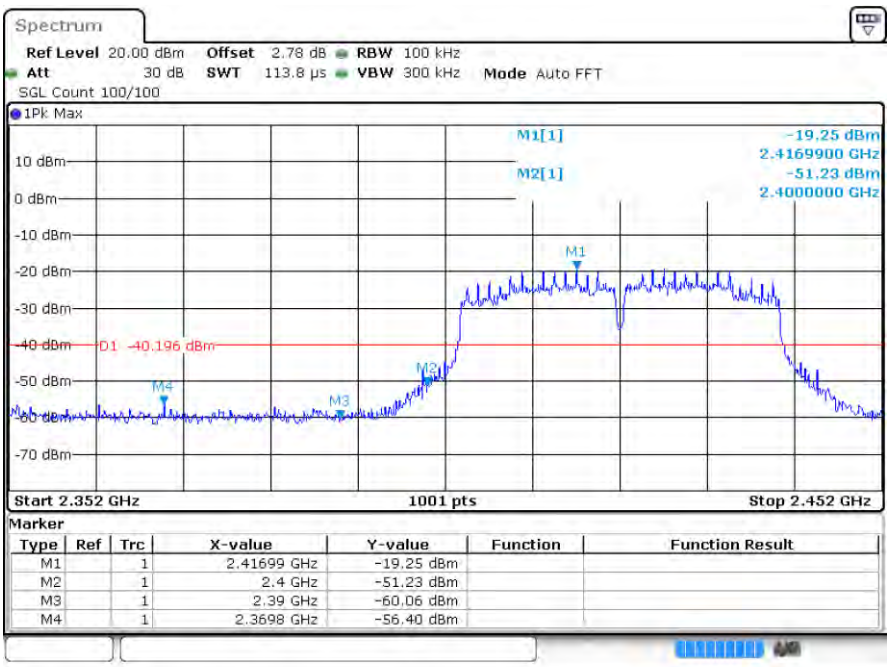


n20 2462MHz Ant1 Emission

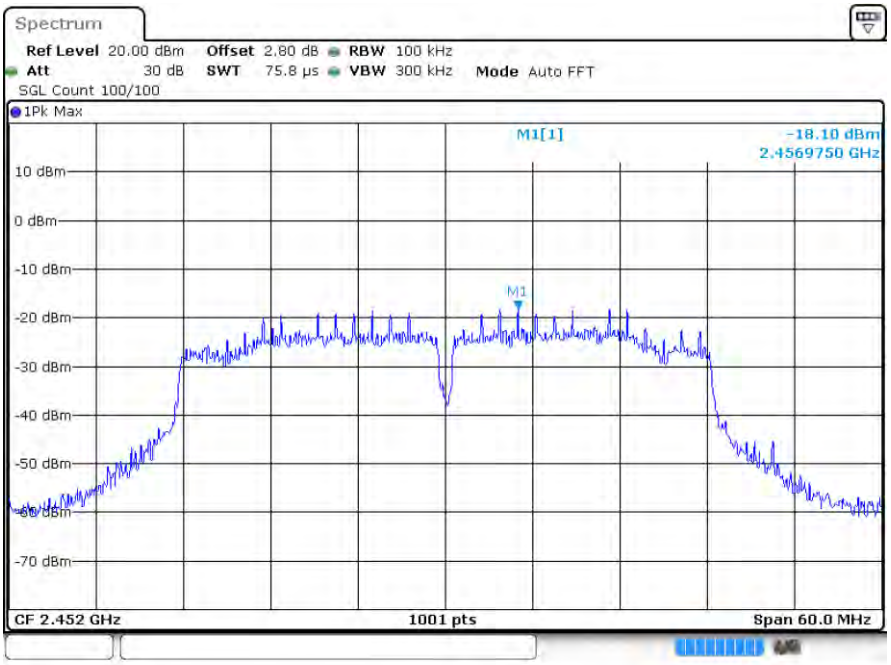
n40 2422MHz Ant1 Ref



n40 2422MHz Ant1 Emission



n40 2452MHz Ant1 Ref



n40 2452MHz Ant1 Emission

6 Conducted RF Spurious Emission

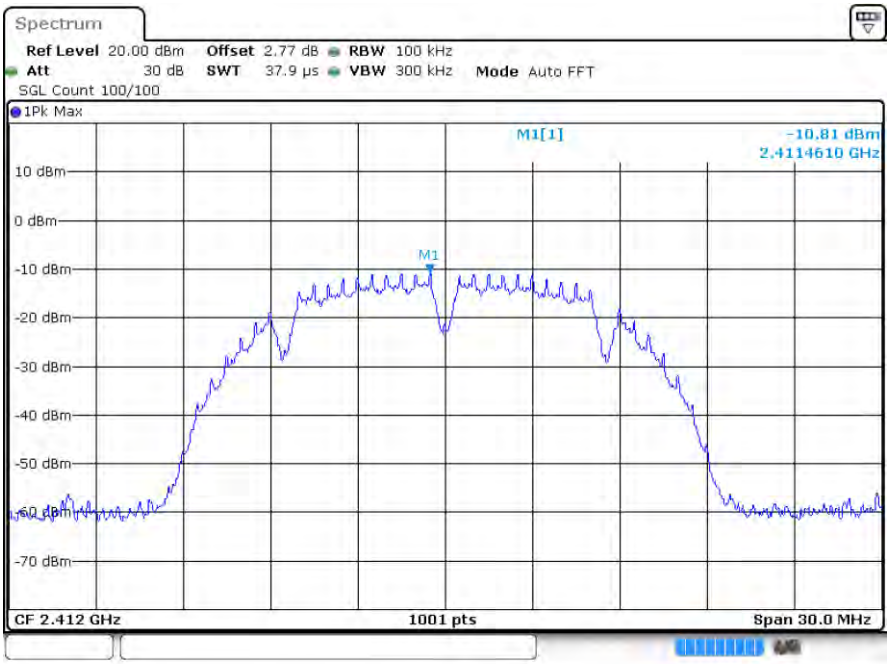
6.1 Test Result

Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
b	2412	Ant1	-32.83	-20	Pass
b	2437	Ant1	-33.03	-20	Pass
b	2462	Ant1	-32.05	-20	Pass
g	2412	Ant1	-29.48	-20	Pass
g	2437	Ant1	-29.25	-20	Pass
g	2462	Ant1	-30.52	-20	Pass
n20	2412	Ant1	-27.36	-20	Pass
n20	2437	Ant1	-28.72	-20	Pass
n20	2462	Ant1	-28.7	-20	Pass
n40	2422	Ant1	-24.42	-20	Pass
n40	2437	Ant1	-24.05	-20	Pass
n40	2452	Ant1	-25.13	-20	Pass

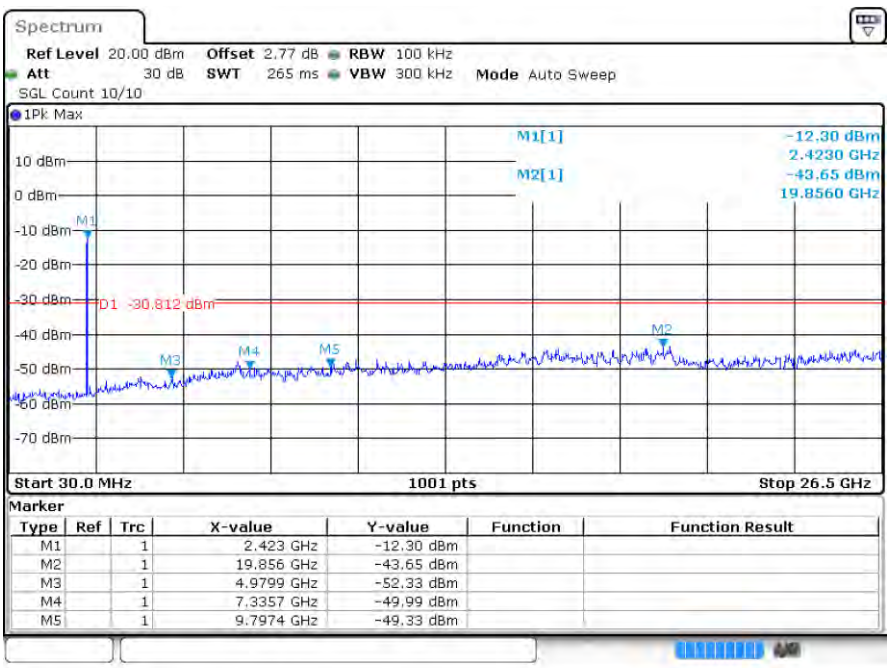
6.2 Test Graphs

Test Graphs

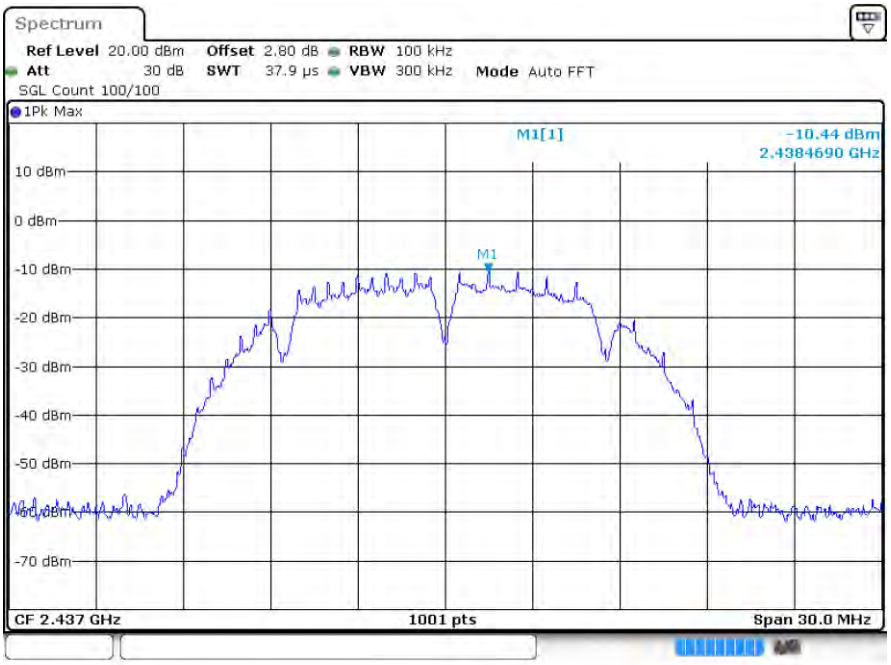
b 2412MHz Ant1 Ref



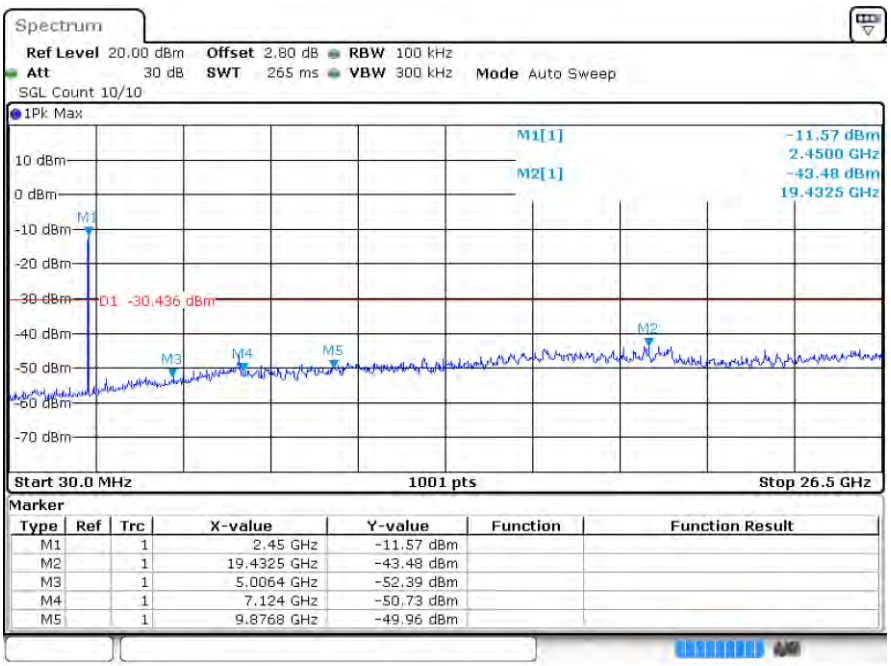
b 2412MHz Ant1 Emission



b 2437MHz Ant1 Ref



b 2437MHz Ant1 Emission

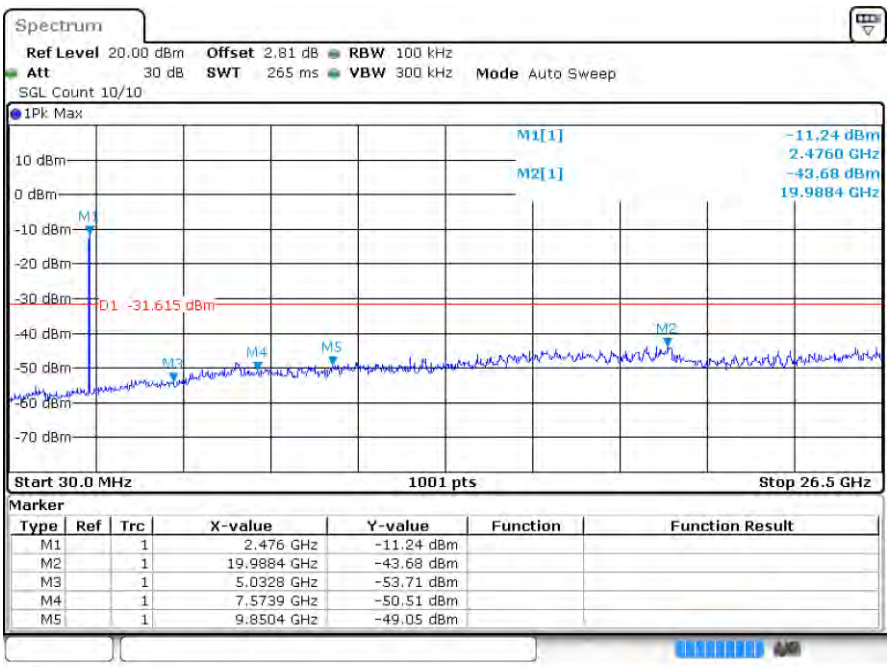


Marker

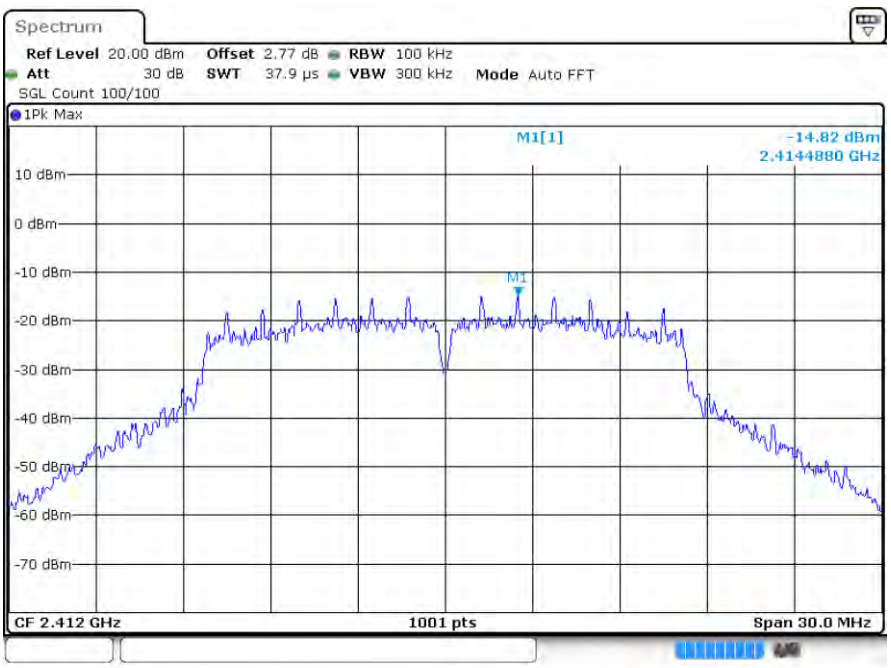
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.45 GHz	-11.57 dBm		
M2		1	19.4325 GHz	-43.48 dBm		
M3		1	5.0064 GHz	-52.39 dBm		
M4		1	7.124 GHz	-50.73 dBm		
M5		1	9.8768 GHz	-49.96 dBm		

b 2462MHz Ant1 Ref

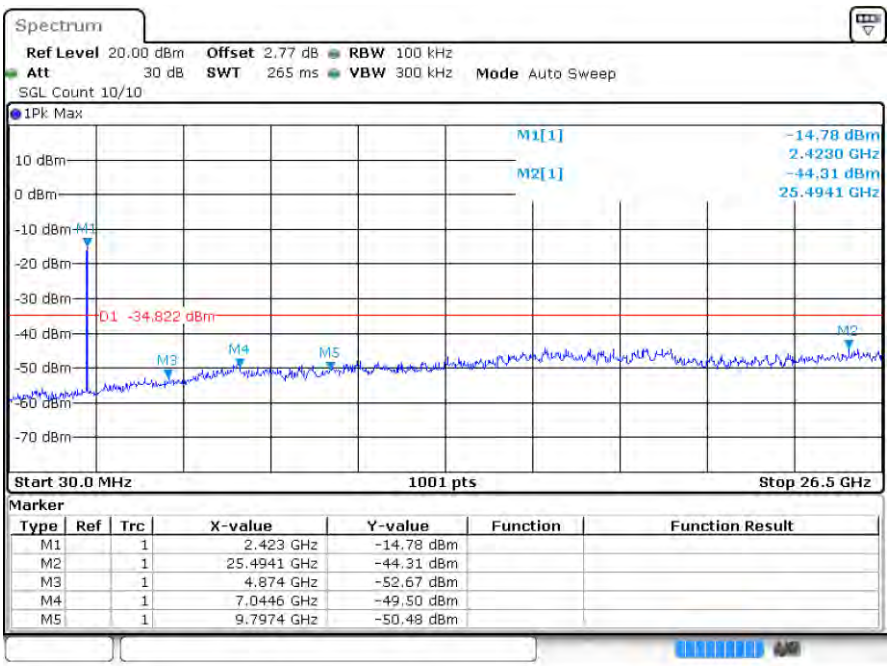
b 2462MHz Ant1 Emission



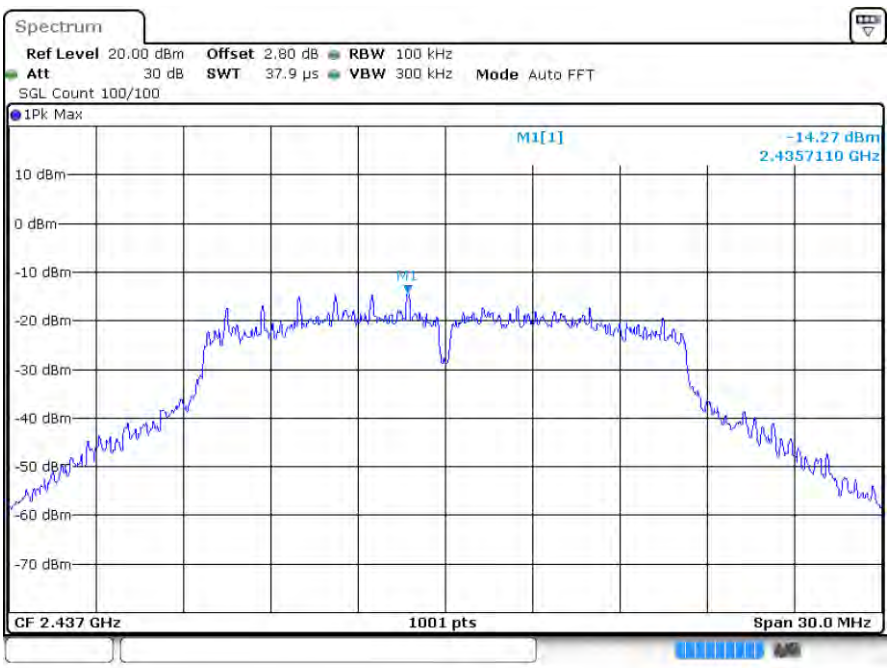
g 2412MHz Ant1 Ref



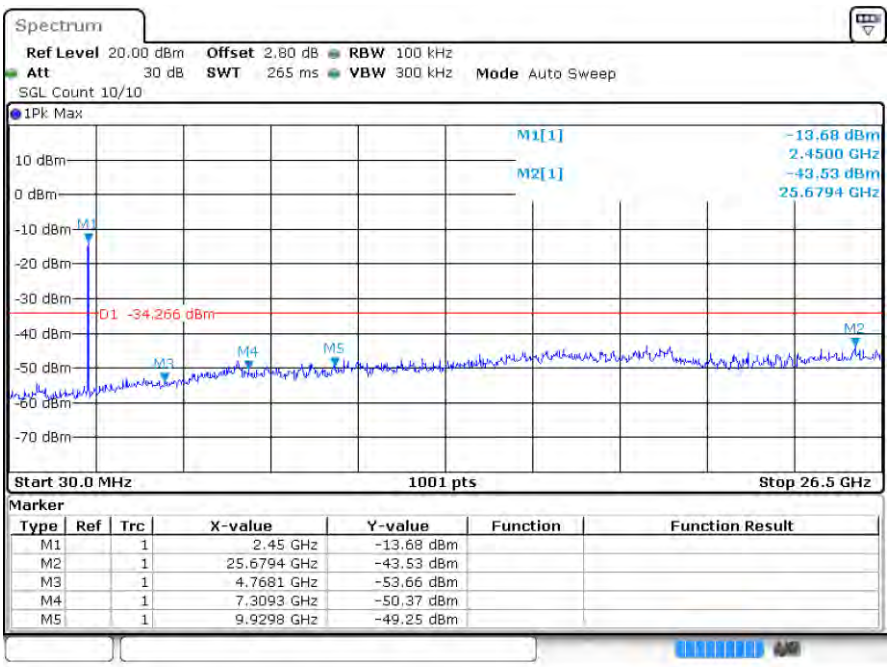
g 2412MHz Ant1 Emission



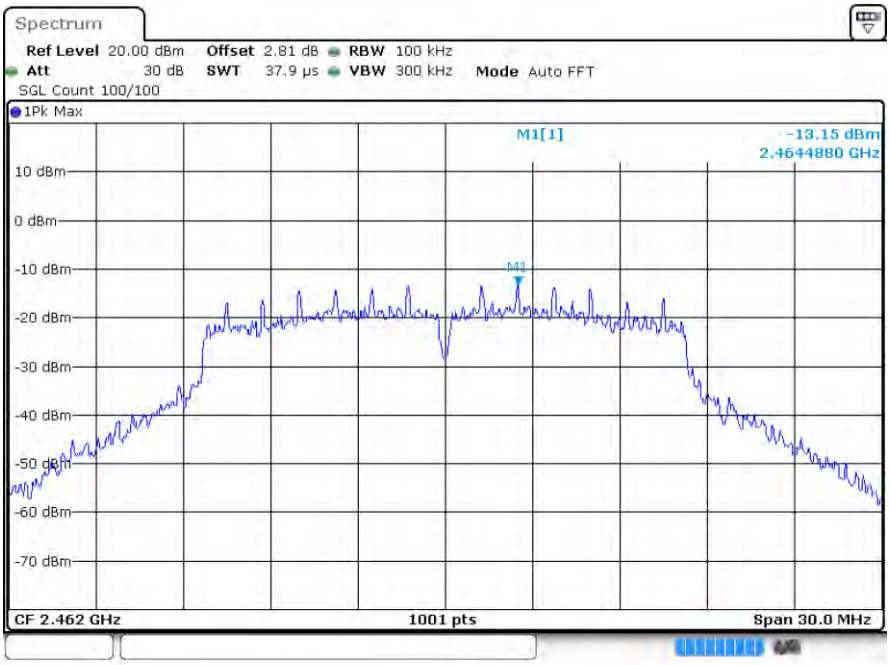
g 2437MHz Ant1 Ref



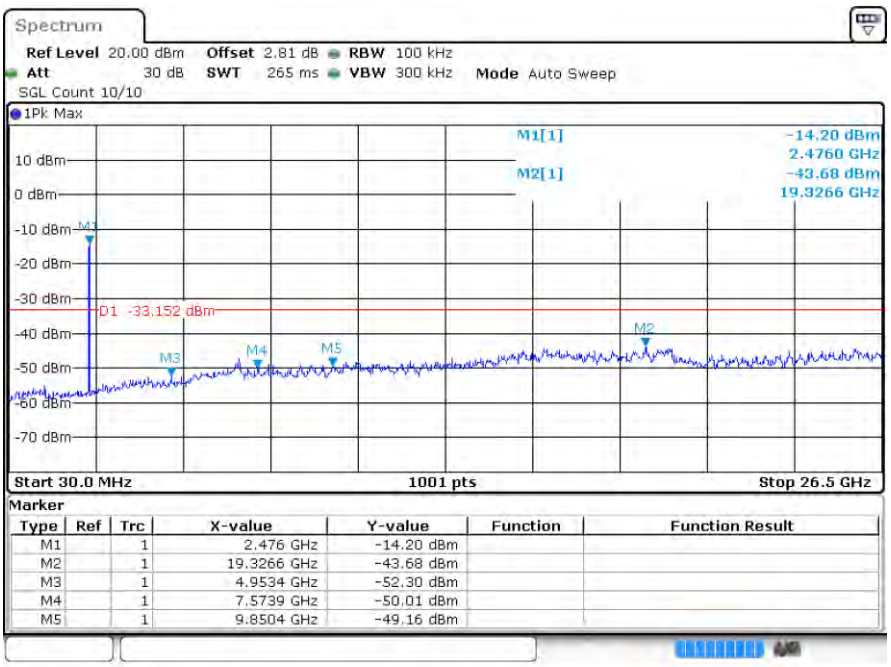
g 2437MHz Ant1 Emission



g 2462MHz Ant1 Ref



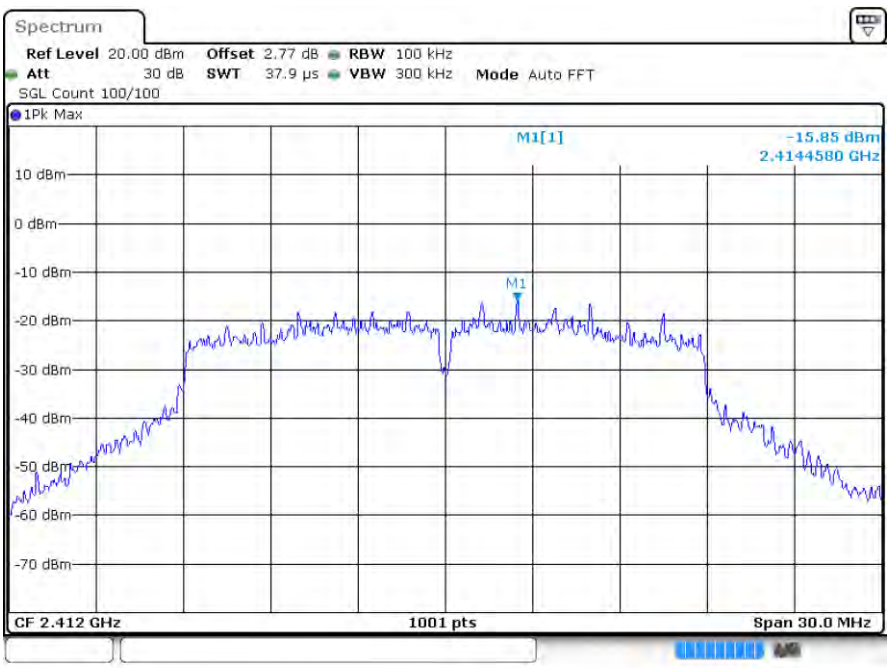
g 2462MHz Ant1 Emission



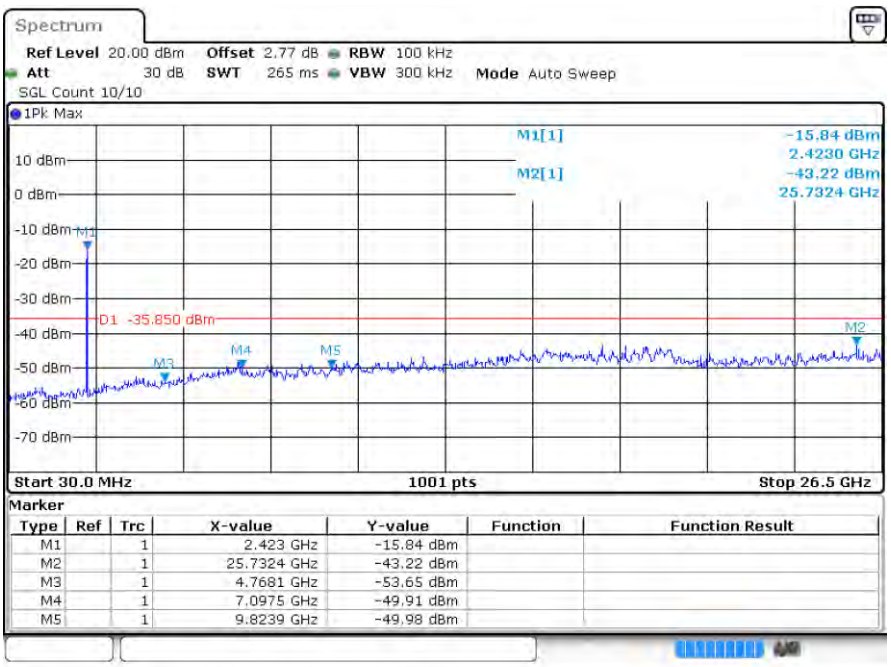
Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.476 GHz	-14.20 dBm		
M2		1	19.3266 GHz	-43.68 dBm		
M3		1	4.9534 GHz	-52.30 dBm		
M4		1	7.5739 GHz	-50.01 dBm		
M5		1	9.8504 GHz	-49.16 dBm		

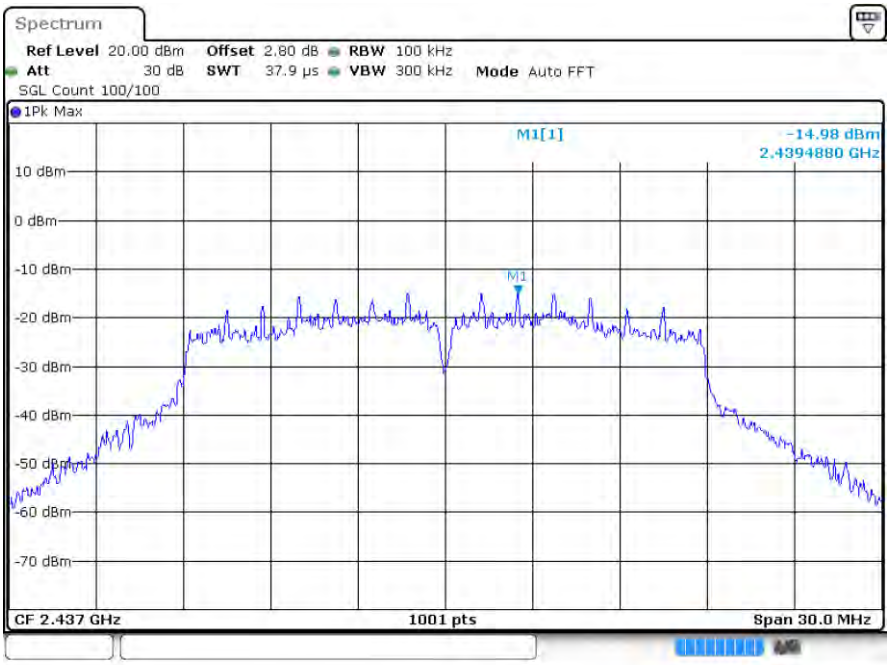
n20 2412MHz Ant1 Ref



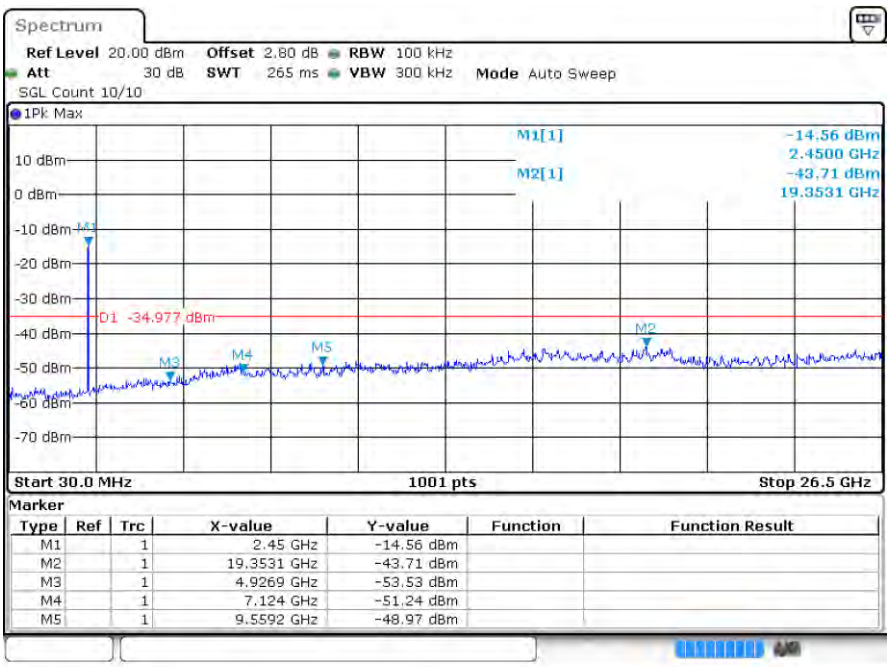
n20 2412MHz Ant1 Emission



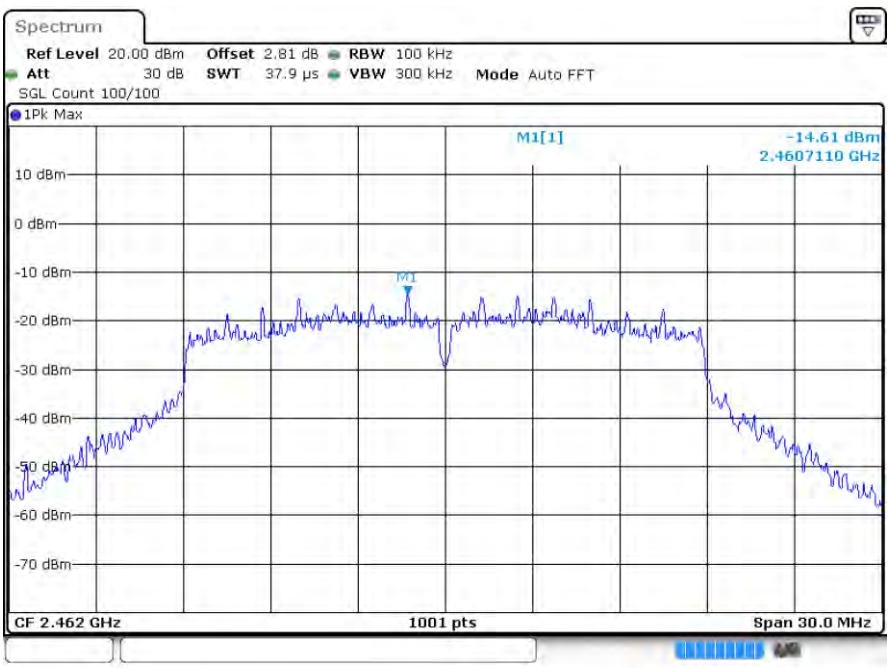
n20 2437MHz Ant1 Ref



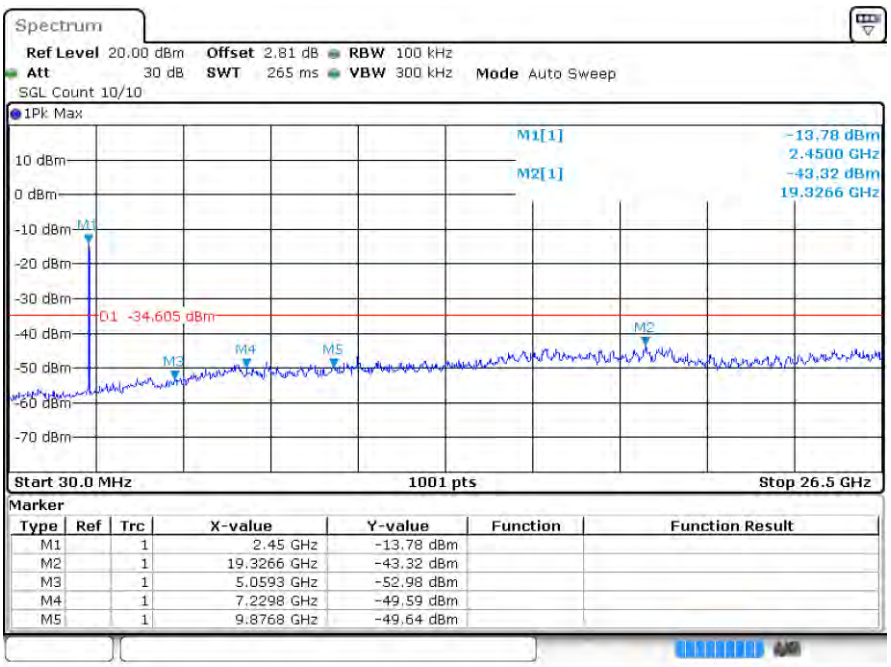
n20 2437MHz Ant1 Emission



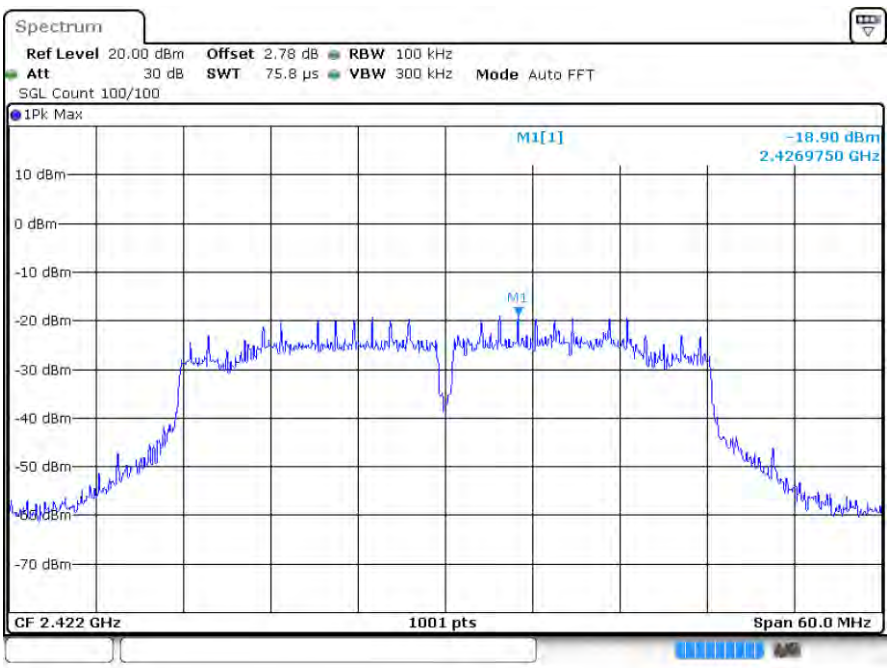
n20 2462MHz Ant1 Ref



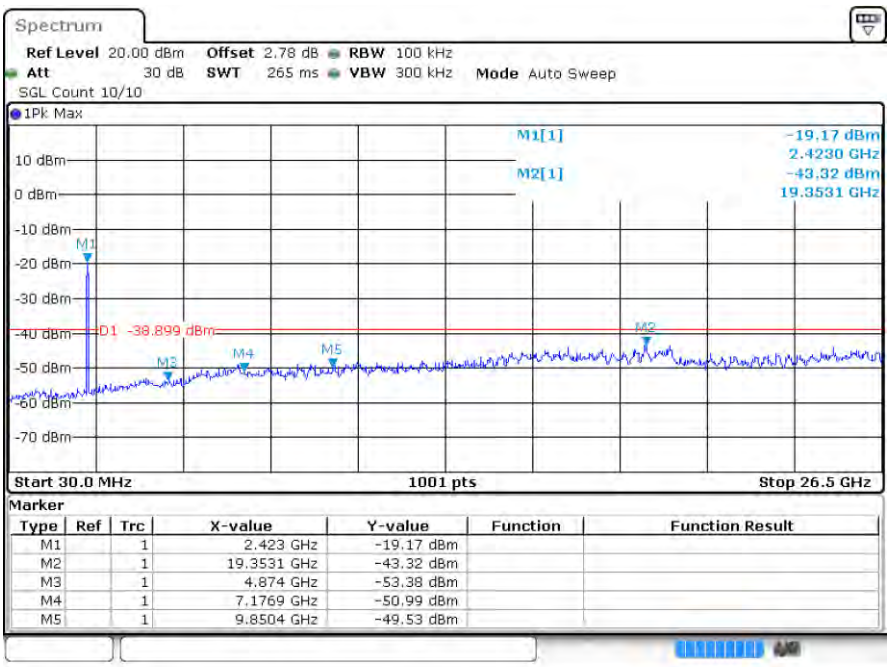
n20 2462MHz Ant1 Emission



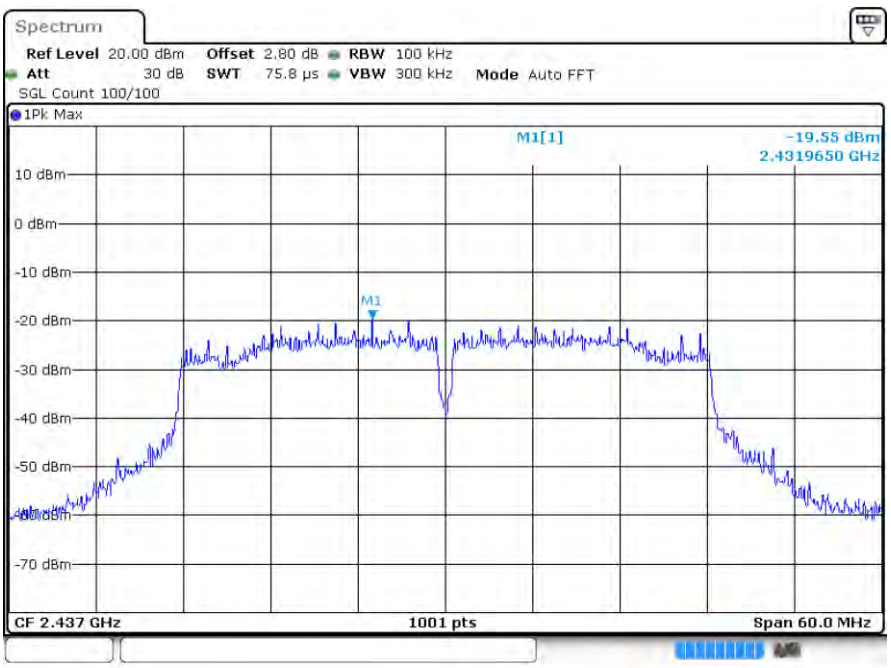
n40 2422MHz Ant1 Ref



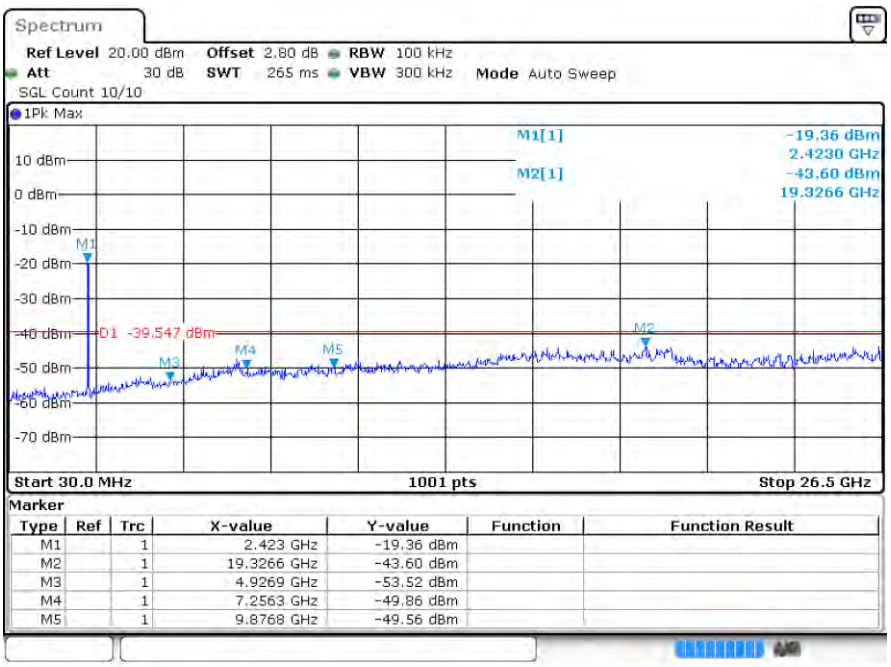
n40 2422MHz Ant1 Emission



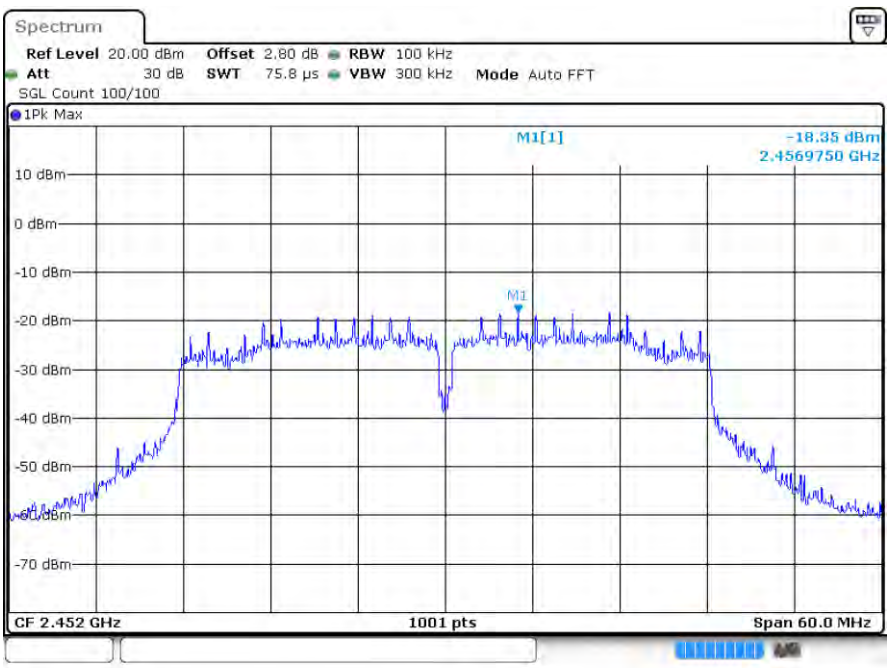
n40 2437MHz Ant1 Ref



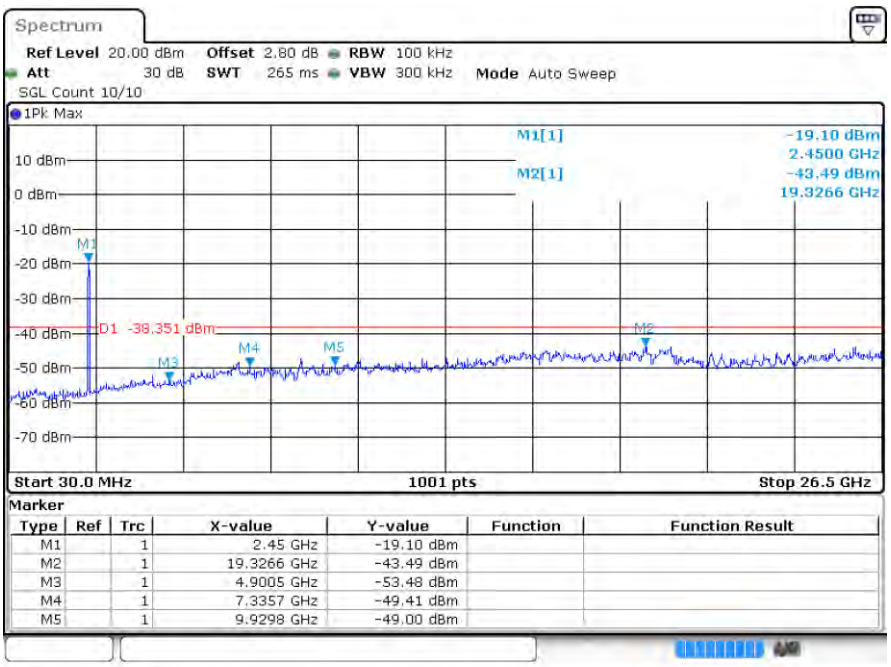
n40 2437MHz Ant1 Emission



n40 2452MHz Ant1 Ref



n40 2452MHz Ant1 Emission



7 Restrict Band

7.1 Test Result

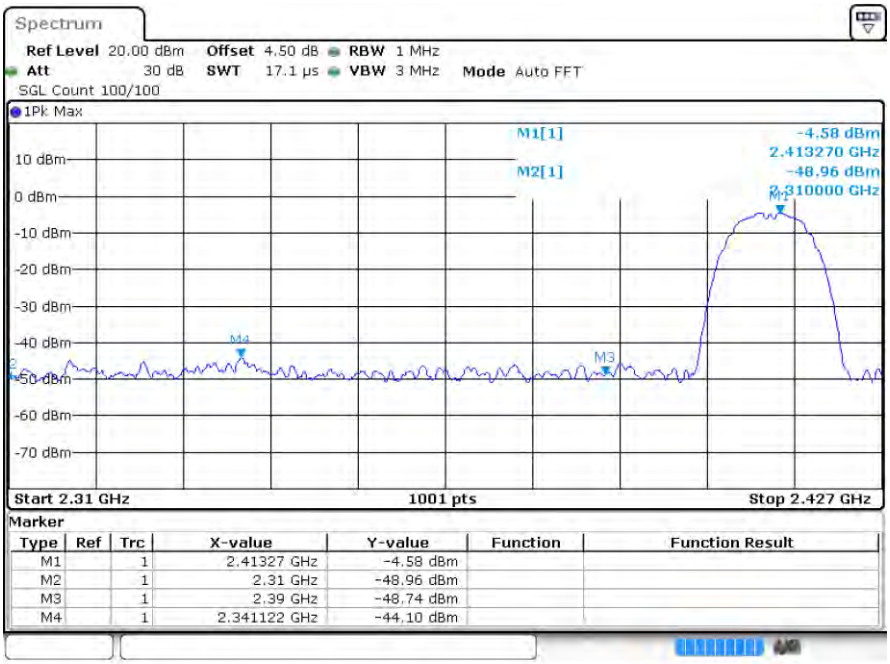
Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
b	2412	Ant1	2310	-48.95	2	48.31	Peak	74	Pass
b	2412	Ant1	2310	-57.34	2	39.92	Average	54	Pass
b	2412	Ant1	2341.122	-44.1	2	53.16	Peak	74	Pass
b	2412	Ant1	2337.963	-55.5	2	41.76	Average	54	Pass
b	2412	Ant1	2390	-48.73	2	48.53	Peak	74	Pass
b	2412	Ant1	2390	-58.02	2	39.24	Average	54	Pass
b	2462	Ant1	2483.5	-48.62	2	48.64	Peak	74	48.64
b	2462	Ant1	2483.5	-57.44	2	39.82	Average	54	Pass
b	2462	Ant1	2485.955	-47.29	2	49.97	Peak	74	Pass
b	2462	Ant1	2484.895	-57.31	2	39.95	Average	54	Pass
b	2462	Ant1	2500	-47.57	2	49.69	Peak	74	Pass
b	2462	Ant1	2500	-57.42	2	39.84	Average	54	Pass
g	2412	Ant1	2310	-47.08	2	50.18	Peak	74	Pass
g	2412	Ant1	2310	-56.15	2	41.11	Average	54	Pass
g	2412	Ant1	2347.206	-44.42	2	52.84	Peak	74	Pass
g	2412	Ant1	2340.42	-53.77	2	43.49	Average	54	Pass
g	2412	Ant1	2390	-48.7	2	48.53	Peak	74	Pass
g	2412	Ant1	2390	-56.55	2	40.71	Average	54	Pass
g	2462	Ant1	2483.5	-48.18	2	49.08	Peak	74	Pass
g	2462	Ant1	2483.5	-56.08	2	41.18	Average	54	Pass
g	2462	Ant1	2485.955	-45.27	2	51.99	Peak	74	Pass
g	2462	Ant1	2494.329	-55.47	2	41.79	Average	54	Pass
g	2462	Ant1	2500	-47.36	2	49.69	Peak	74	Pass
g	2462	Ant1	2500	-56.28	2	40.98	Average	54	Pass
n20	2412	Ant1	2310	-49.49	2	47.77	Peak	74	Pass
n20	2412	Ant1	2310	-56	2	41.26	Average	54	Pass
n20	2412	Ant1	2339.718	-45.11	2	52.15	Peak	74	Pass
n20	2412	Ant1	2339.835	-54.34	2	42.92	Average	54	Pass
n20	2412	Ant1	2390	-47.93	2	49.33	Peak	74	Pass
n20	2412	Ant1	2390	-56.77	2	40.49	Average	54	Pass
n20	2462	Ant1	2483.5	-47.42	2	49.84	Peak	74	Pass
n20	2462	Ant1	2483.5	-55.58	2	41.68	Average	54	Pass
n20	2462	Ant1	2484.153	-45.43	2	51.83	Peak	74	Pass
n20	2462	Ant1	2500	-55.32	2	41.94	Average	54	Pass

n20	2462	Ant1	2500	-48.14	2	49.12	Peak	74	Pass
n20	2462	Ant1	2500	-55.32	2	41.94	Average	54	Pass
n40	2422	Ant1	2310	-49.26	2	48	Peak	74	Pass
n40	2422	Ant1	2310	-55.95	2	41.31	Average	54	Pass
n40	2422	Ant1	2343.512	-44.87	2	52.39	Peak	74	Pass
n40	2422	Ant1	2339.536	-54.01	2	43.25	Average	54	Pass
n40	2422	Ant1	2390	-47.4	2	49.86	Peak	74	Pass
n40	2422	Ant1	2390	-55.68	2	41.58	Average	54	Pass
n40	2452	Ant1	2483.5	-46.07	2	51.19	Peak	74	Pass
n40	2452	Ant1	2483.5	-56.21	2	41.05	Average	54	Pass
n40	2452	Ant1	2483.776	-45.47	2	51.79	Peak	74	Pass
n40	2452	Ant1	2488.924	-55	2	42.26	Average	54	Pass
n40	2452	Ant1	2500	-48.3	2	48.96	Peak	74	Pass
n40	2452	Ant1	2500	-55.73	2	41.53	Average	54	Pass

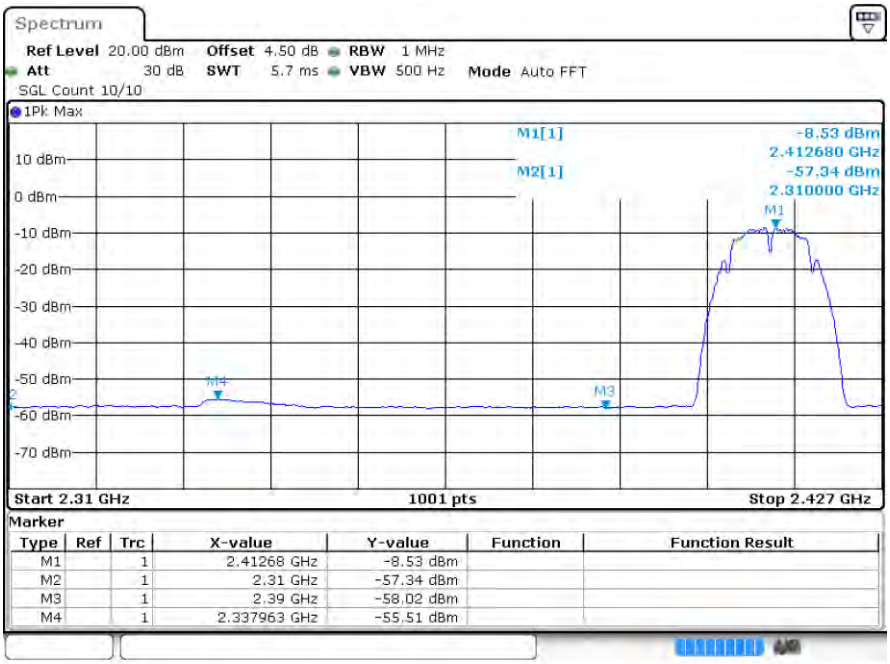
7.2 Test Graphs

Test Graphs

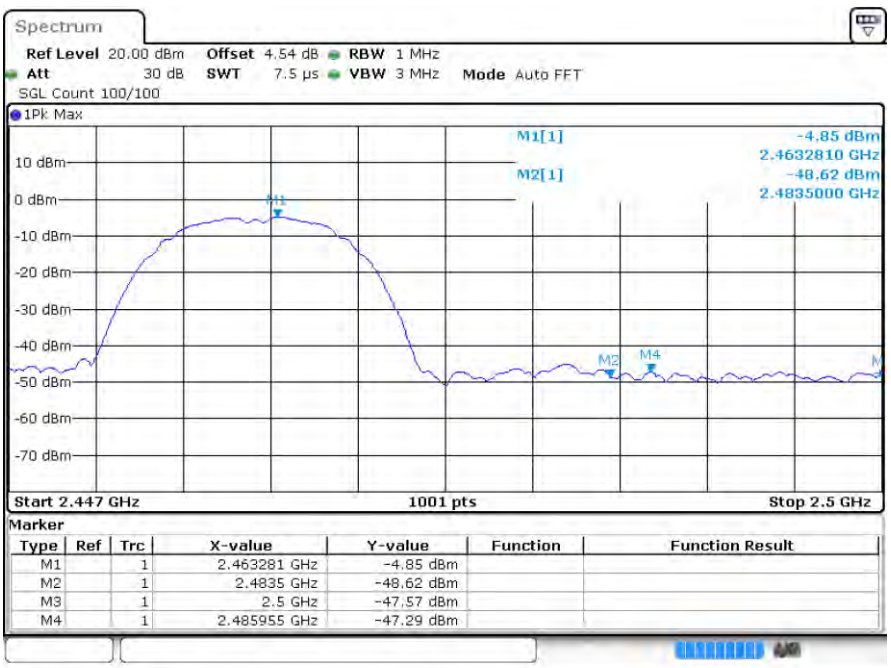
b 2412MHz Ant1 Peak



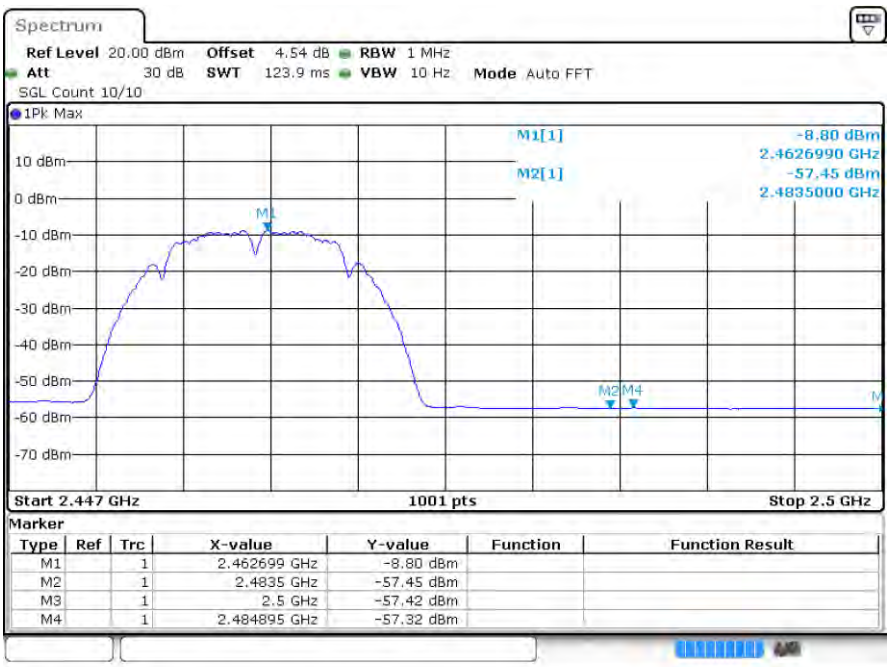
b 2412MHz Ant1 Average



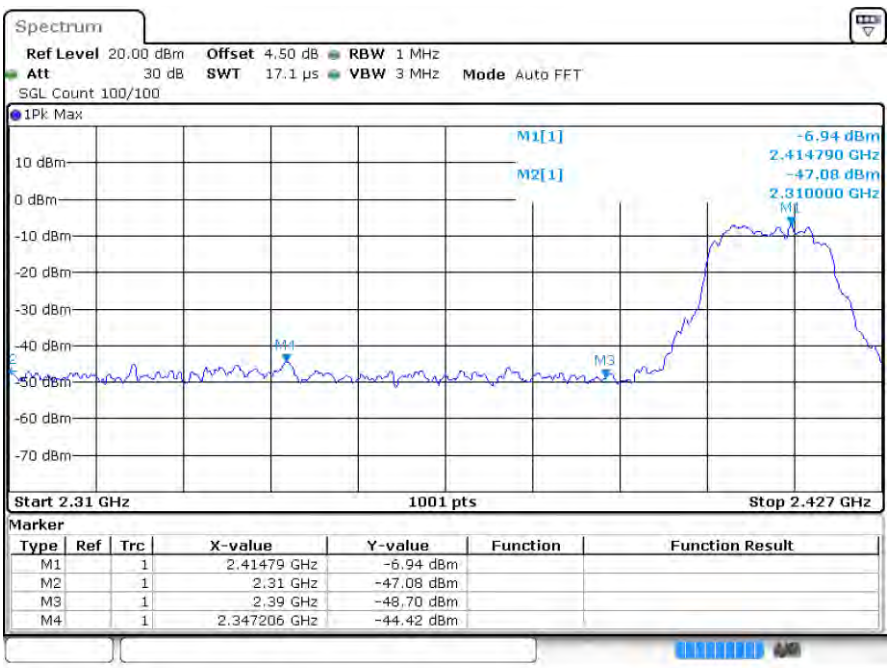
b 2462MHz Ant1 Peak



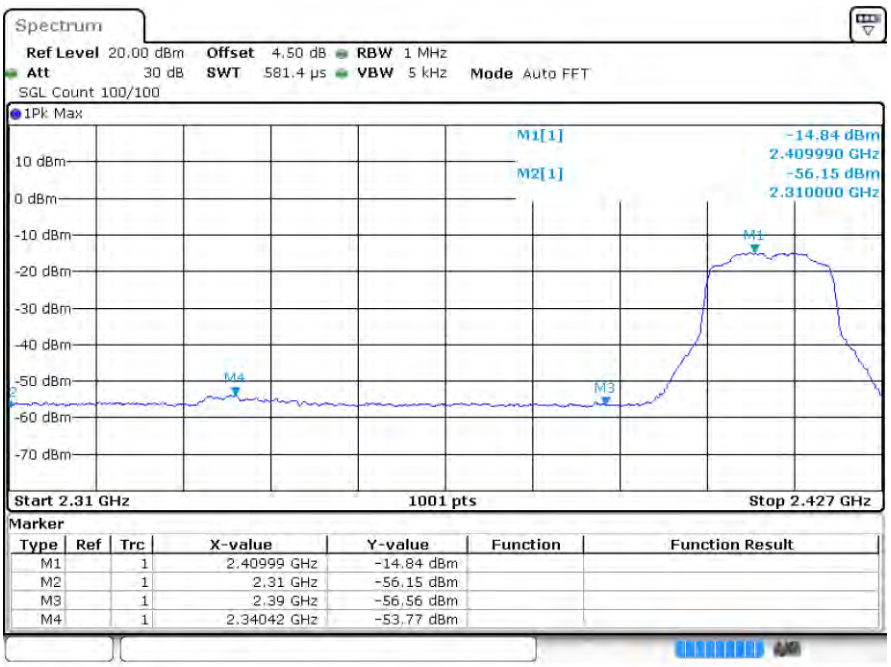
b 2462MHz Ant1 Average



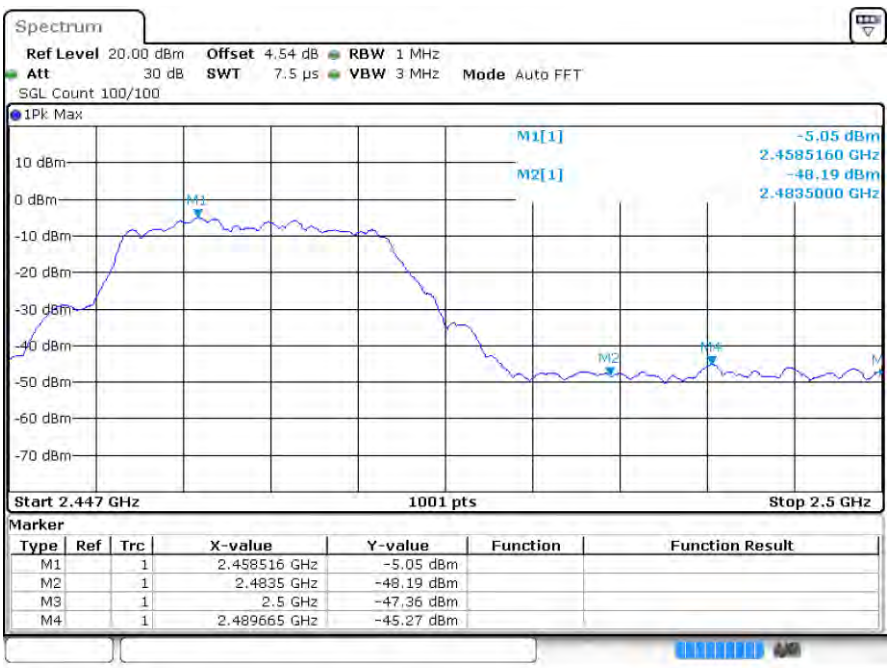
g 2412MHz Ant1 Peak



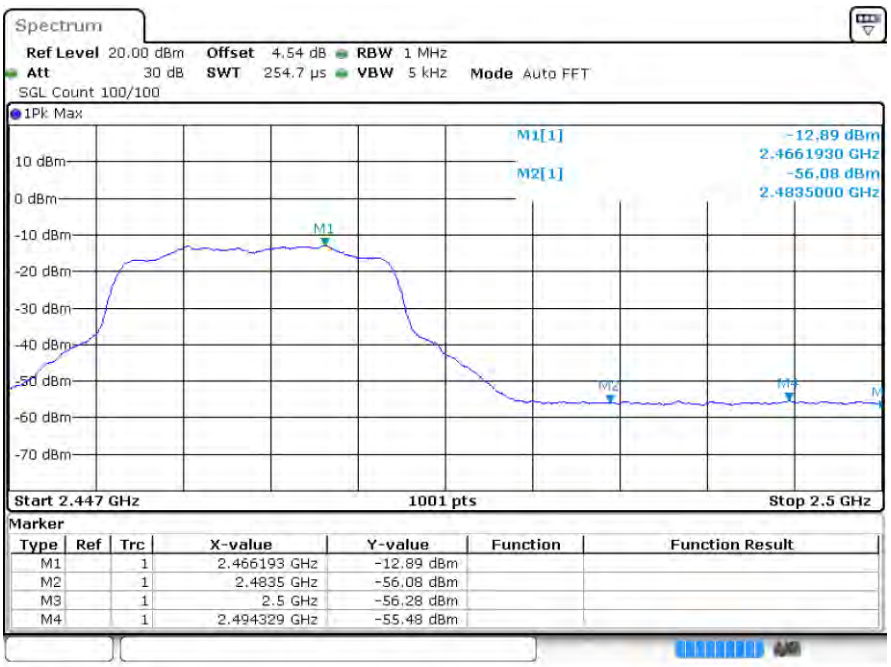
g 2412MHz Ant1 Average



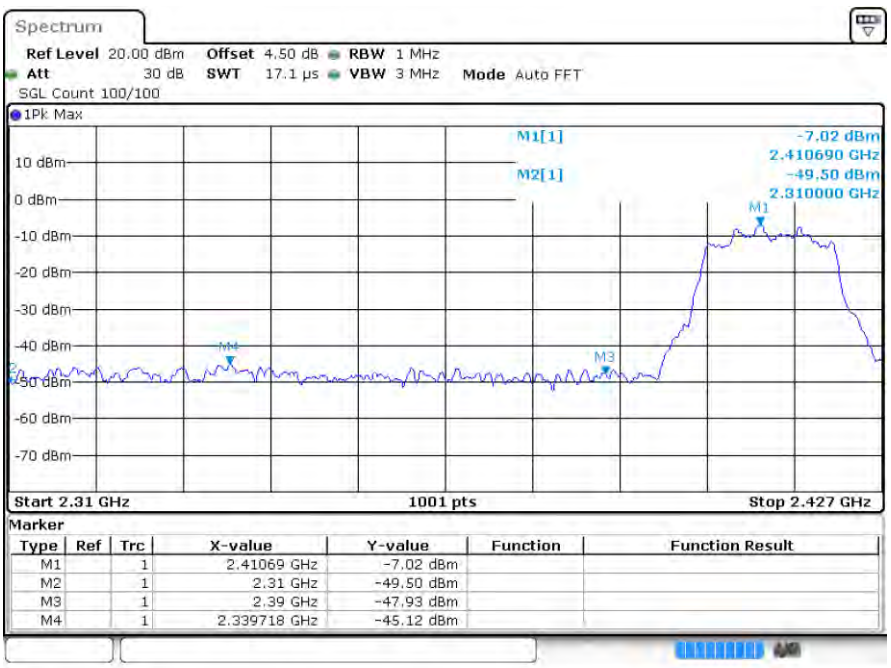
g 2462MHz Ant1 Peak



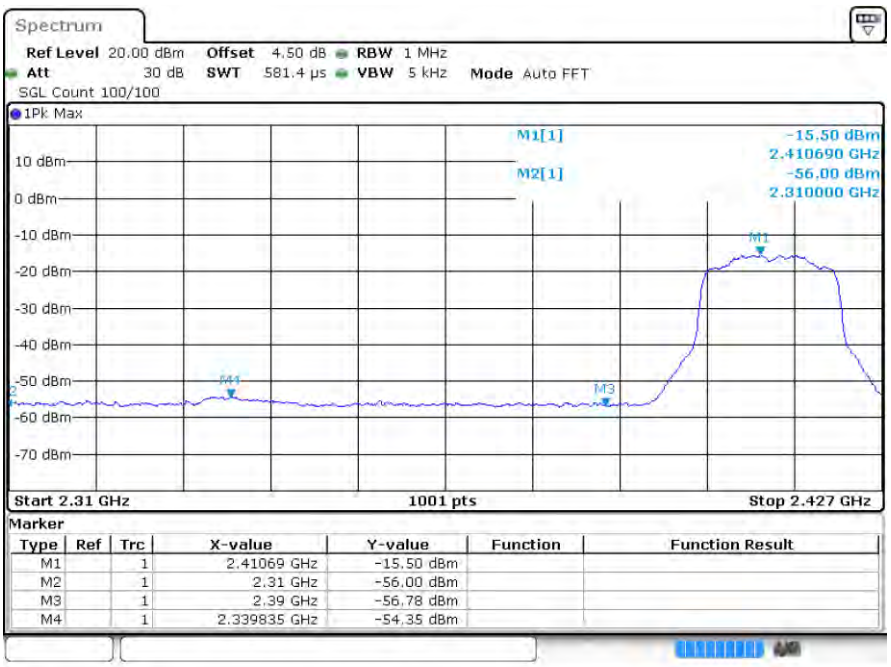
g 2462MHz Ant1 Average



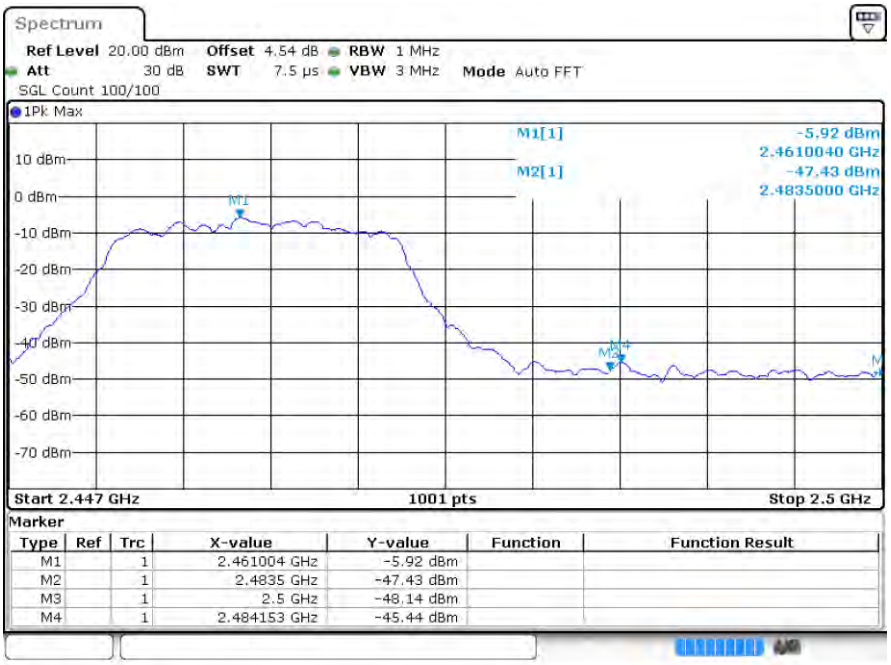
n20 2412MHz Ant1 Peak



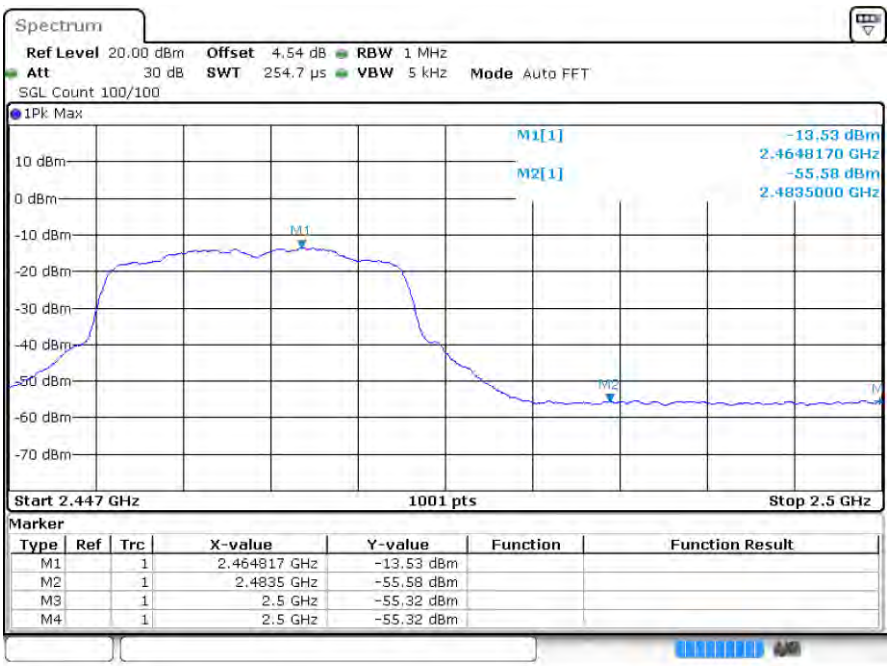
n20 2412MHz Ant1 Average



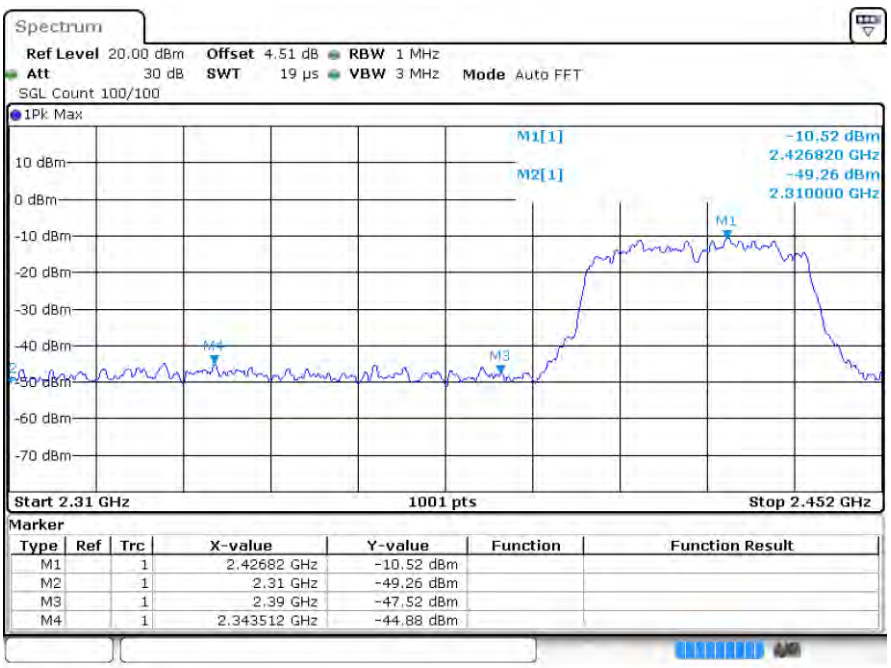
n20 2462MHz Ant1 Peak



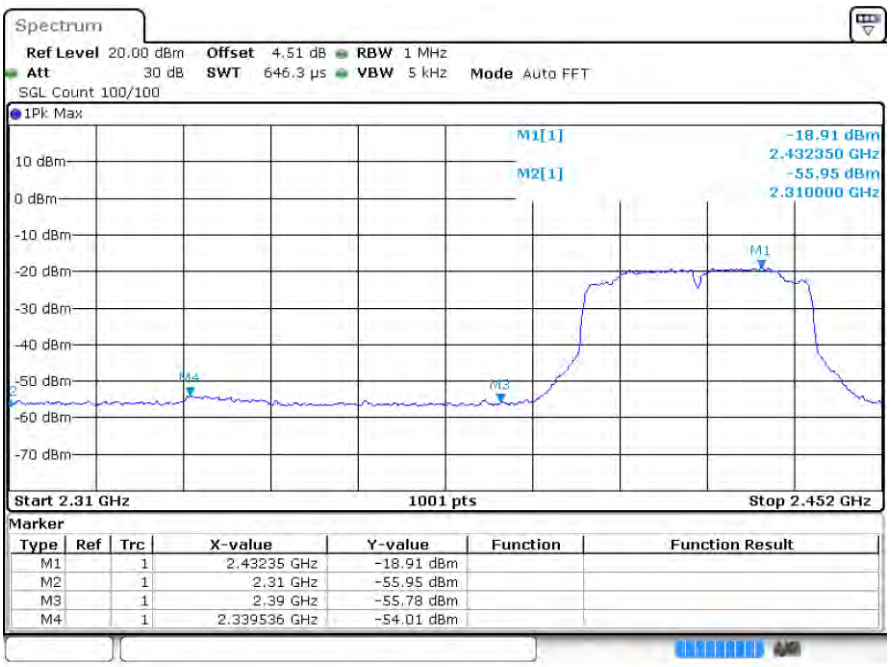
n20 2462MHz Ant1 Average



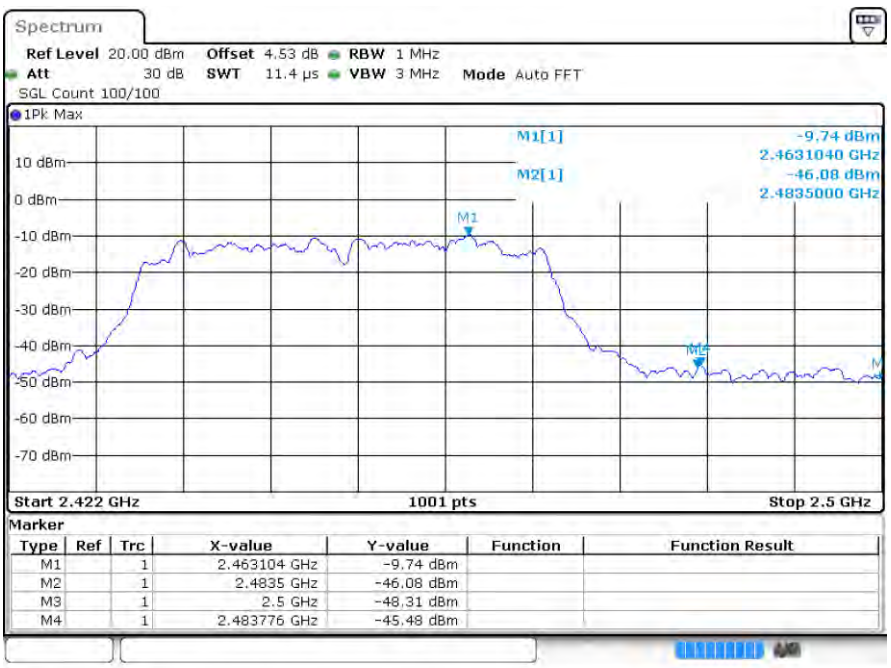
n40 2422MHz Ant1 Peak



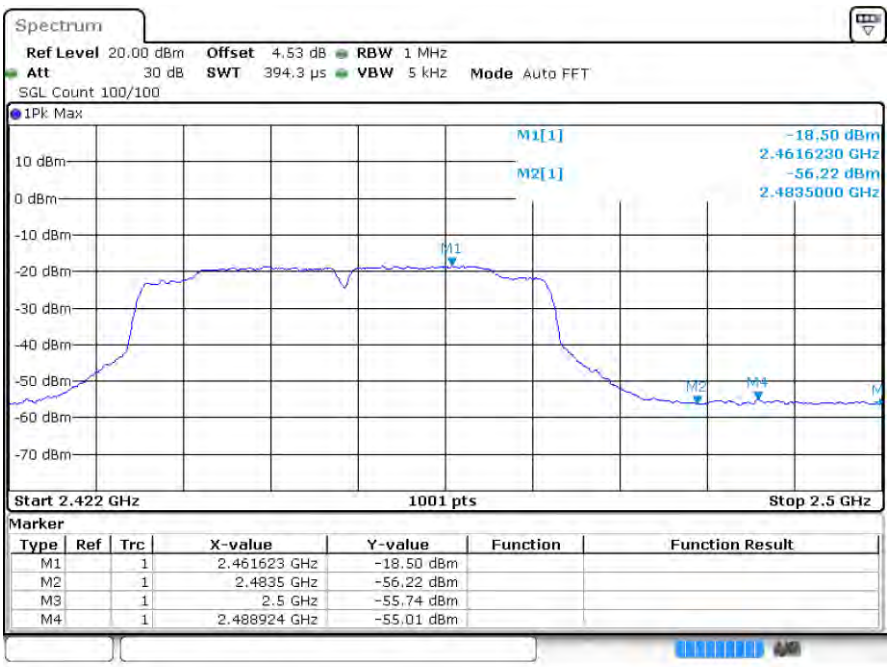
n40 2422MHz Ant1 Average



n40 2452MHz Ant1 Peak



n40 2452MHz Ant1 Average



---The End---