Appendix C

RF Test Data for 2.4GWIFI (Conducted Measurement)

FCC ID:2A7DX-A200PRO

Product Name: Smart phone

Test Model: A200 Pro

Environmental Conditions

Temperature:	24.6° C
Relative Humidity:	52.4%
ATM Pressure:	100.0 kPa
Test Engineer:	Simba Huang
Supervised by:	Seal Chen

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1 Duty Cycle

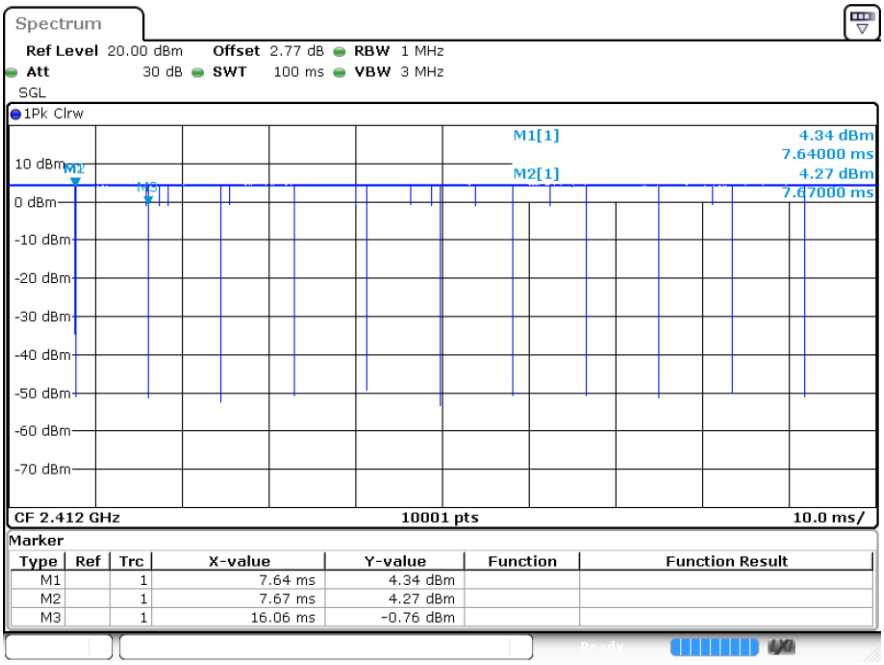
1.1 Test Result

Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	1/T (kHz)
b	2412	Ant1	99.8	0.12
b	2437	Ant1	99.79	0.12
b	2462	Ant1	99.79	0.12
g	2412	Ant1	98.23	0.72
g	2437	Ant1	98.23	0.72
g	2462	Ant1	98.22	0.72
n20	2412	Ant1	98.14	0.77
n20	2437	Ant1	98.11	0.77
n20	2462	Ant1	98.11	0.77
n40	2422	Ant1	96.5	1.54
n40	2437	Ant1	96.36	1.54
n40	2452	Ant1	96.47	1.54

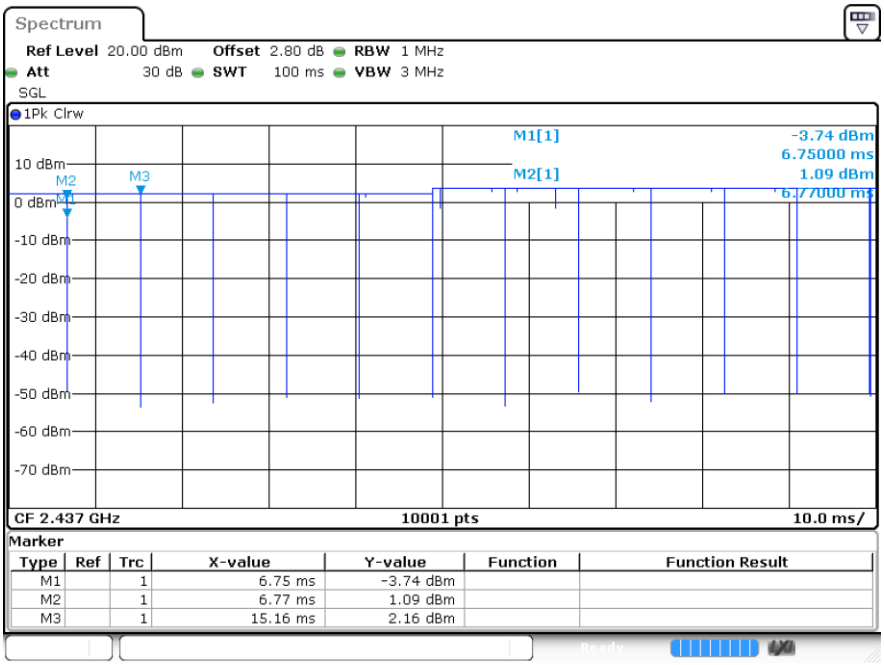
1.2 Test Graphs

Test Graphs

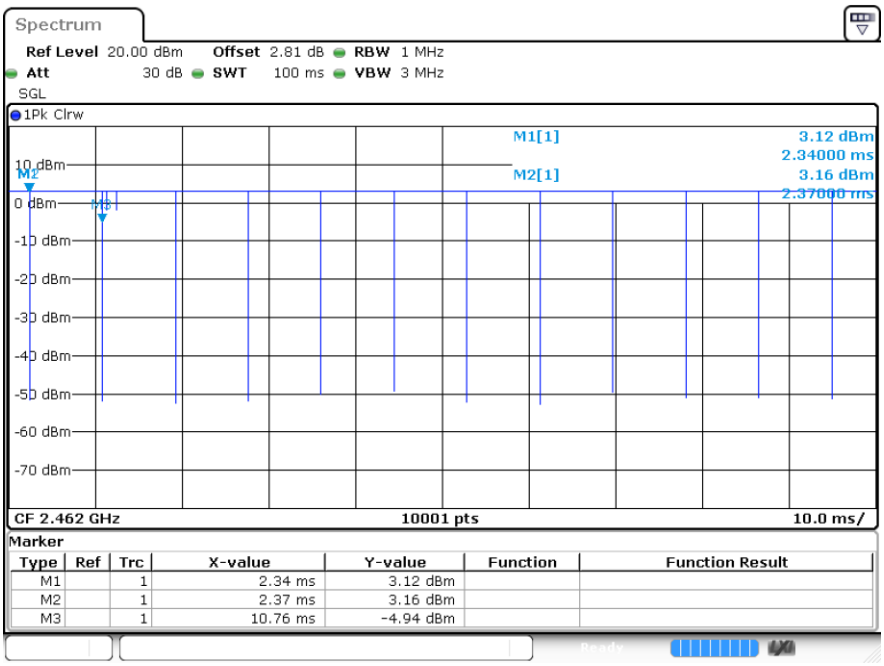
b 2412MHz Ant1



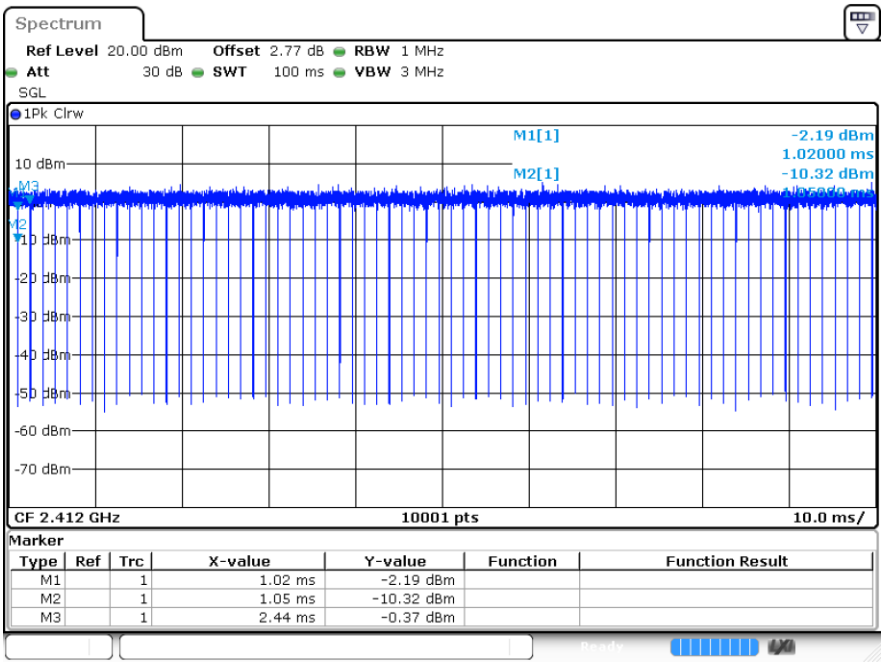
b 2437MHz Ant1



Test Graphs
b 2462MHz Ant1

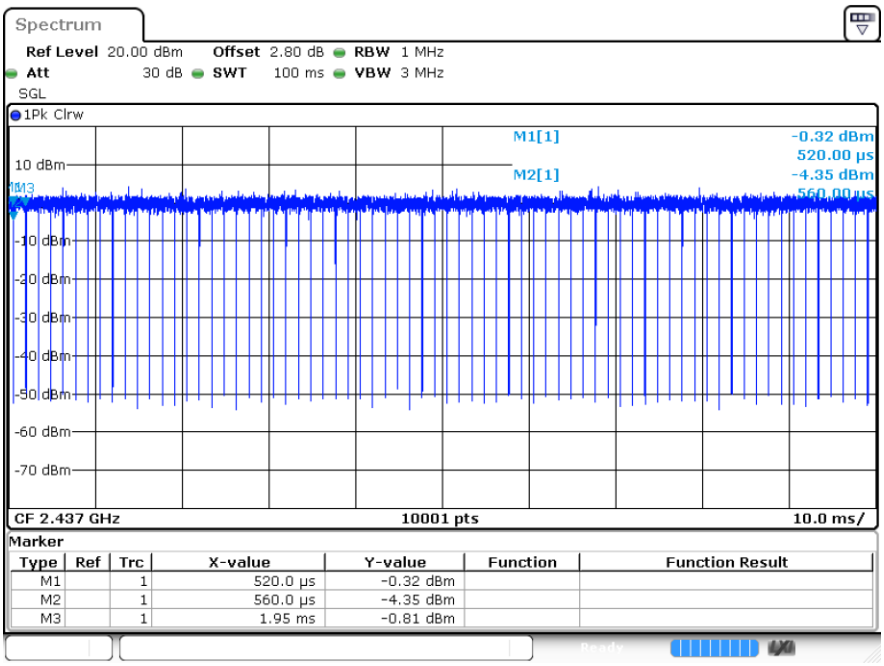


g 2412MHz Ant1

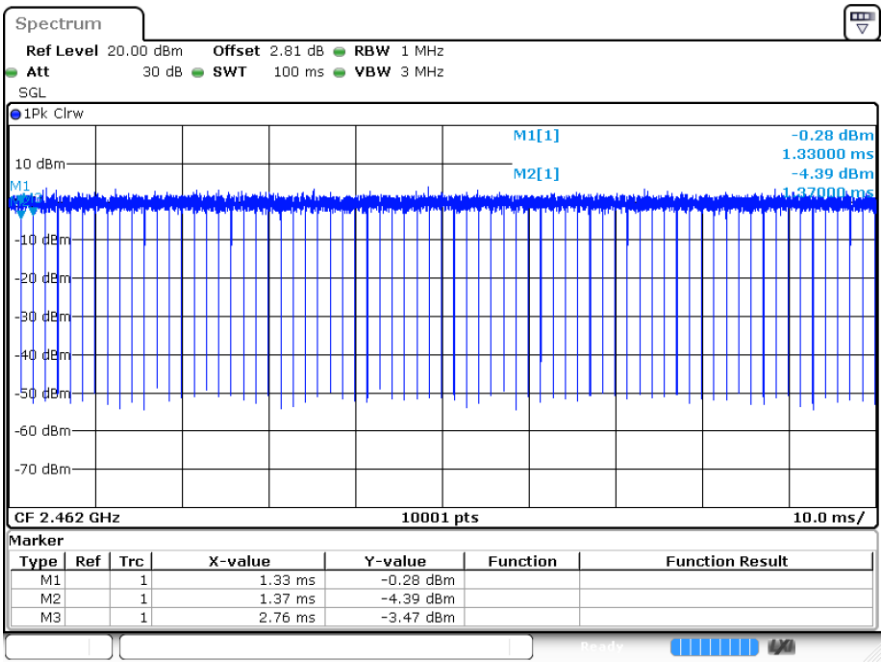


Test Graphs

g 2437MHz Ant1

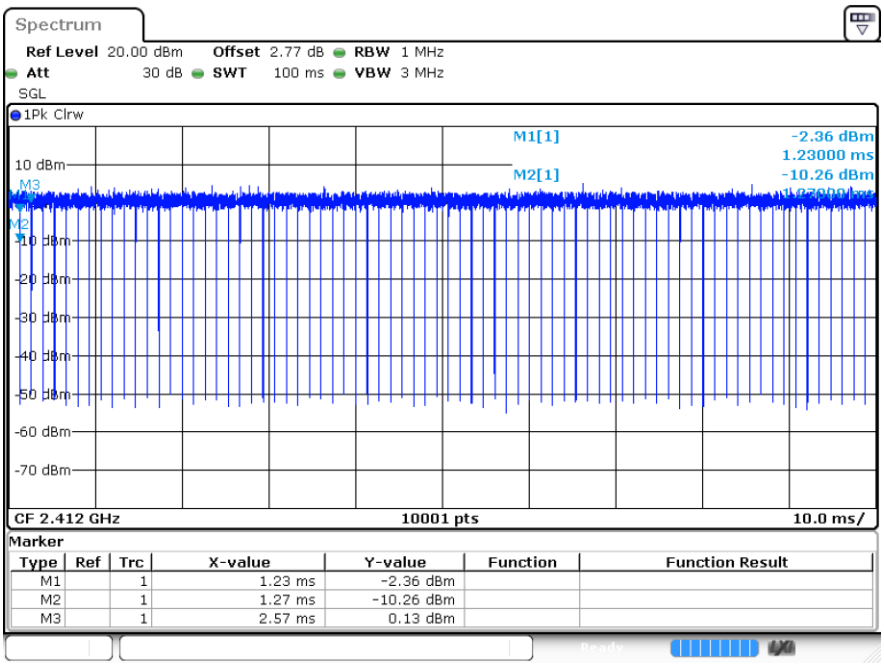


g 2462MHz Ant1

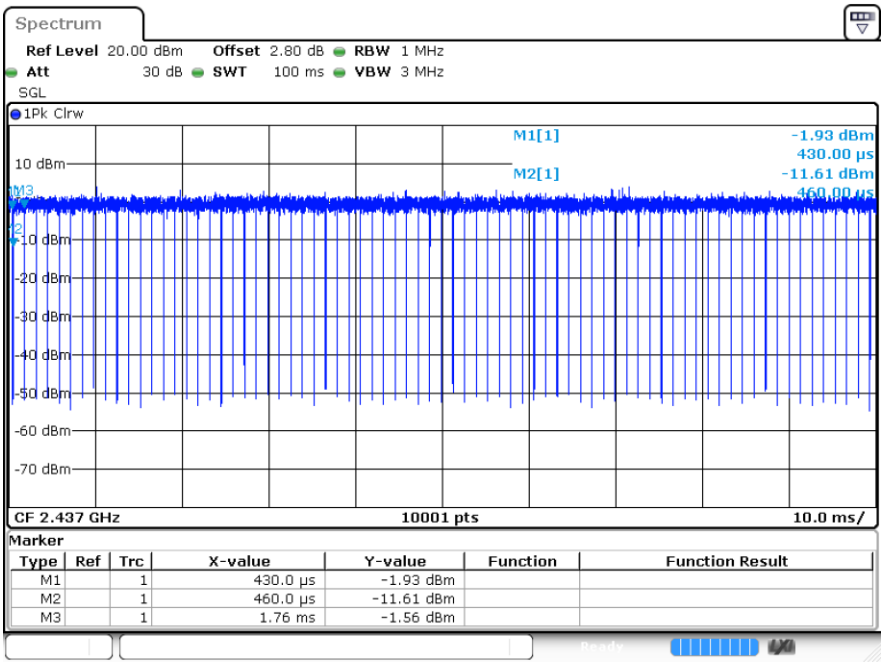


Test Graphs

n20 2412MHz Ant1

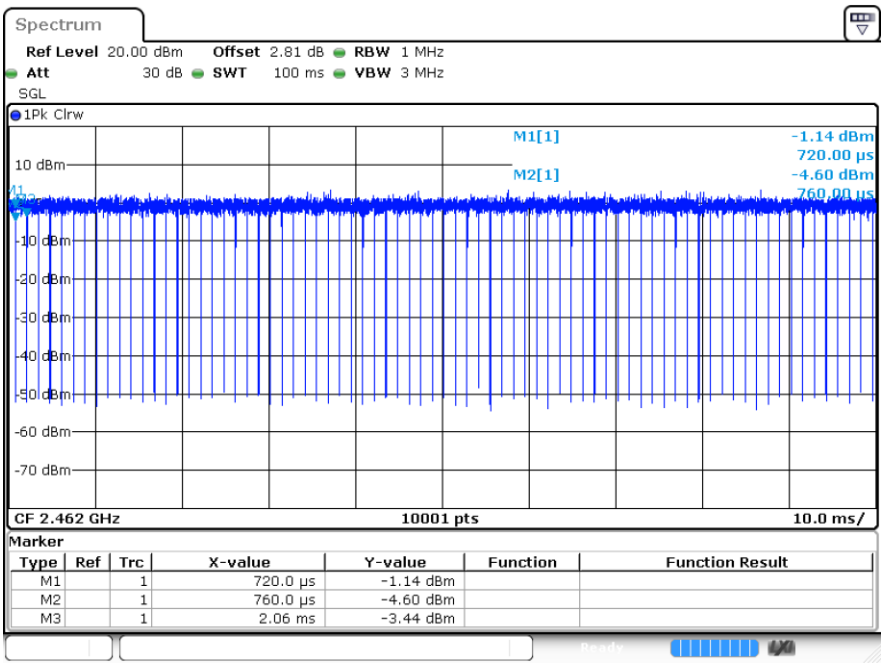


n20 2437MHz Ant1

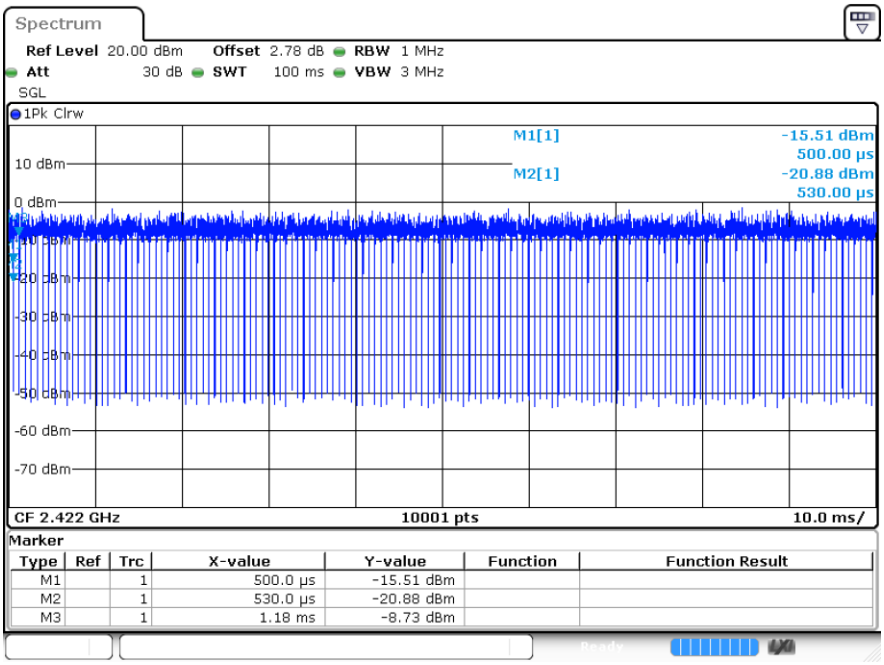


Test Graphs

n20 2462MHz Ant1

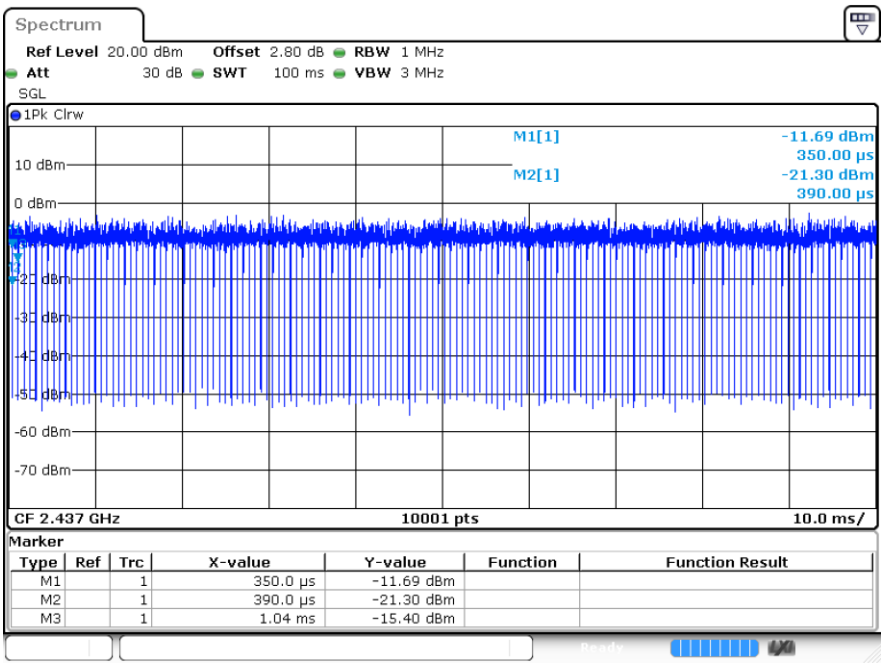


n40 2422MHz Ant1

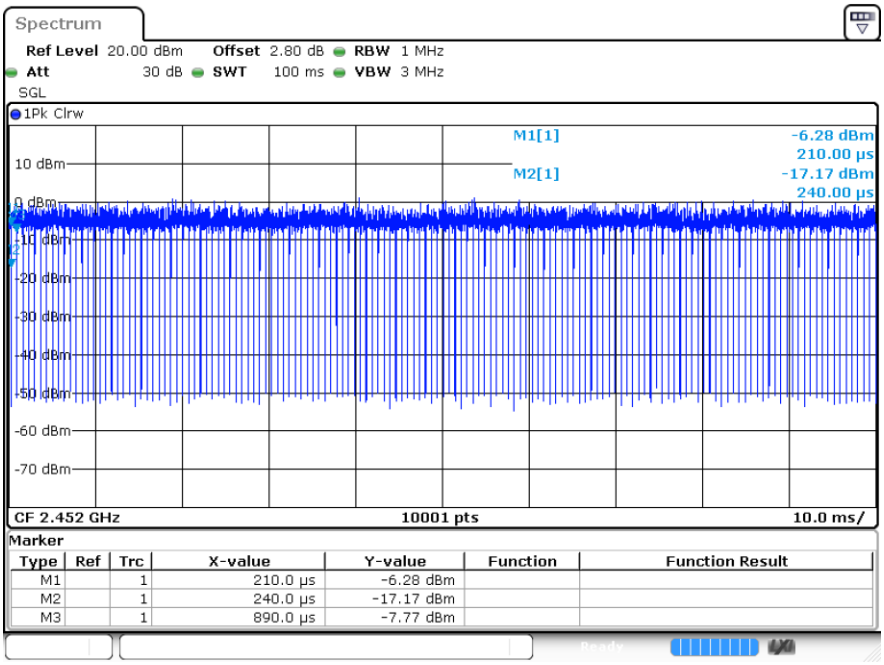


Test Graphs

n40 2437MHz Ant1



n40 2452MHz Ant1



2 Maximum Peak Conducted Output Power

2.1 Test Result

Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
b	2412	Ant1	13.4	30	Pass
b	2437	Ant1	12.26	30	Pass
b	2462	Ant1	12.49	30	Pass
g	2412	Ant1	13.48	30	Pass
g	2437	Ant1	12.42	30	Pass
g	2462	Ant1	12.55	30	Pass
n20	2412	Ant1	13.45	30	Pass
n20	2437	Ant1	12.41	30	Pass
n20	2462	Ant1	12.43	30	Pass
n40	2422	Ant1	13.7	30	Pass
n40	2437	Ant1	13.16	30	Pass
n40	2452	Ant1	13.32	30	Pass

3 -6dB Bandwidth

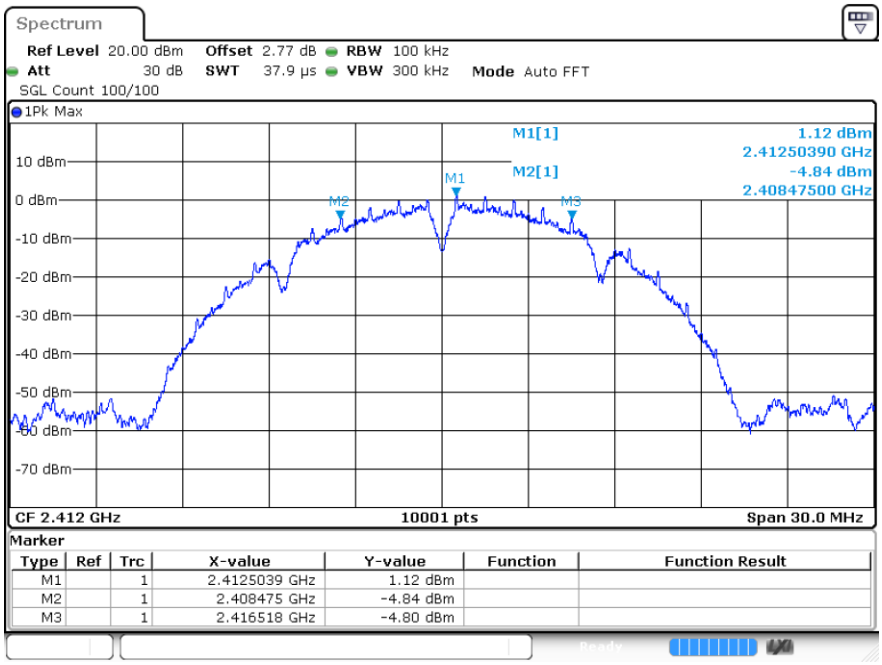
3.1 Test Result

Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
b	2412	Ant1	8.043	0.5	Pass
b	2437	Ant1	8.058	0.5	Pass
b	2462	Ant1	8.031	0.5	Pass
g	2412	Ant1	16.377	0.5	Pass
g	2437	Ant1	16.374	0.5	Pass
g	2462	Ant1	16.092	0.5	Pass
n20	2412	Ant1	14.394	0.5	Pass
n20	2437	Ant1	17.607	0.5	Pass
n20	2462	Ant1	17.004	0.5	Pass
n40	2422	Ant1	33.798	0.5	Pass
n40	2437	Ant1	35.94	0.5	Pass
n40	2452	Ant1	17.502	0.5	Pass

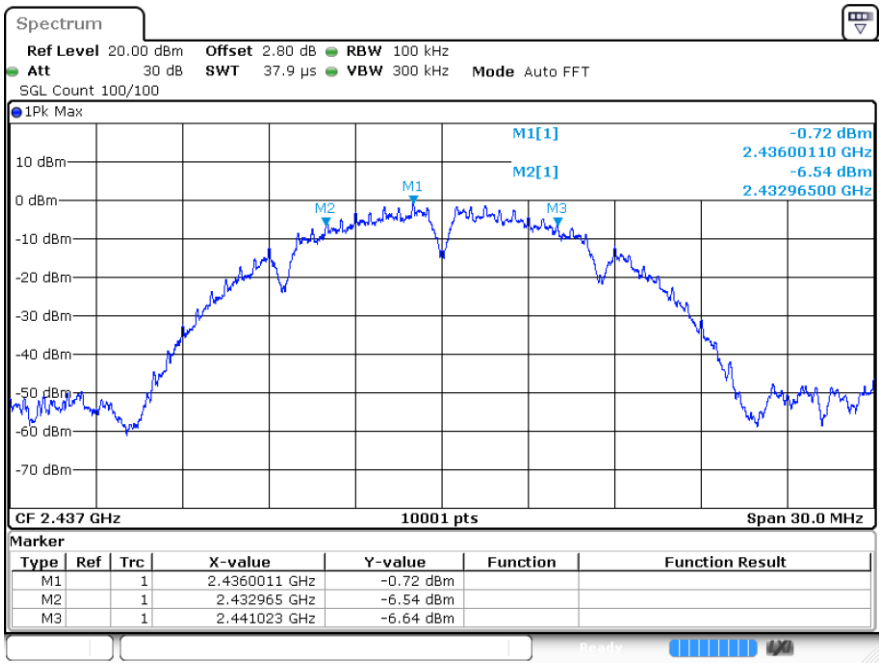
3.2 Test Graphs

Test Graphs

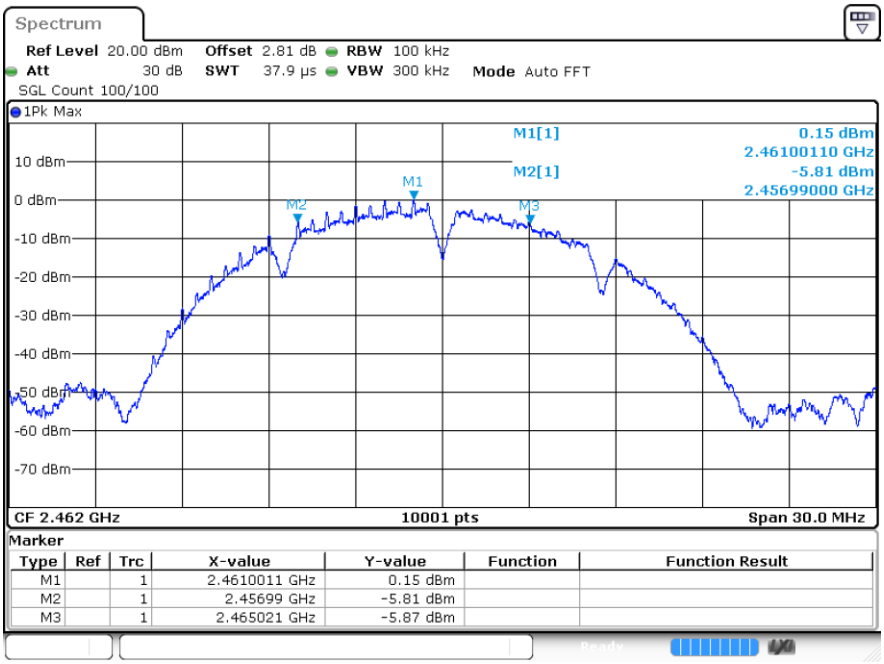
b 2412MHz Ant1



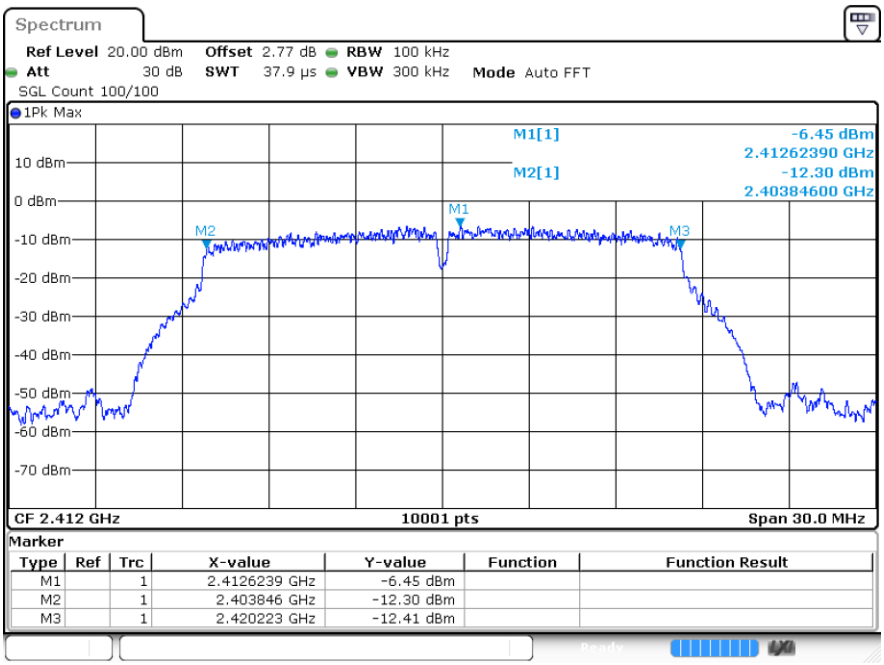
b 2437MHz Ant1



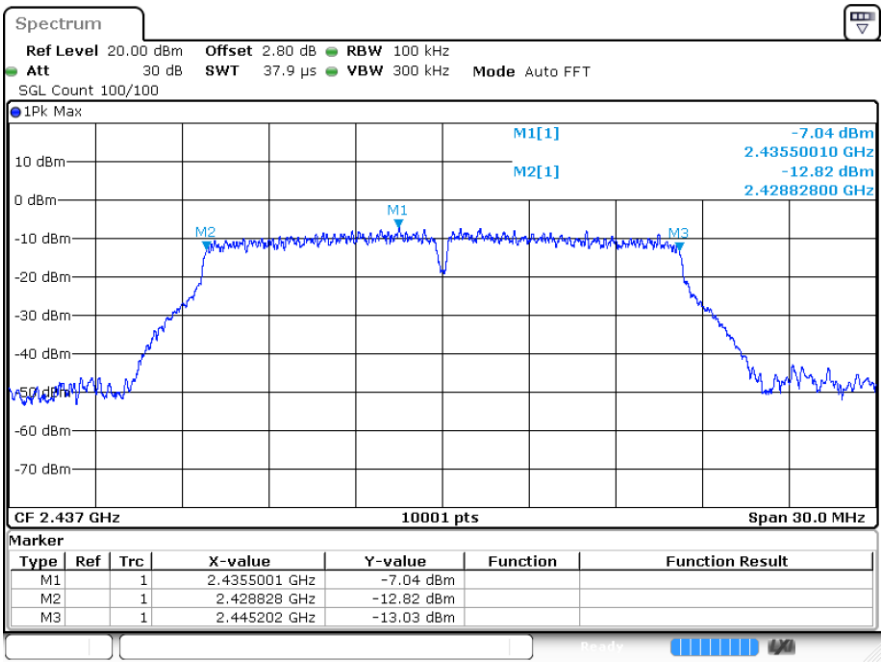
b 2462MHz Ant1



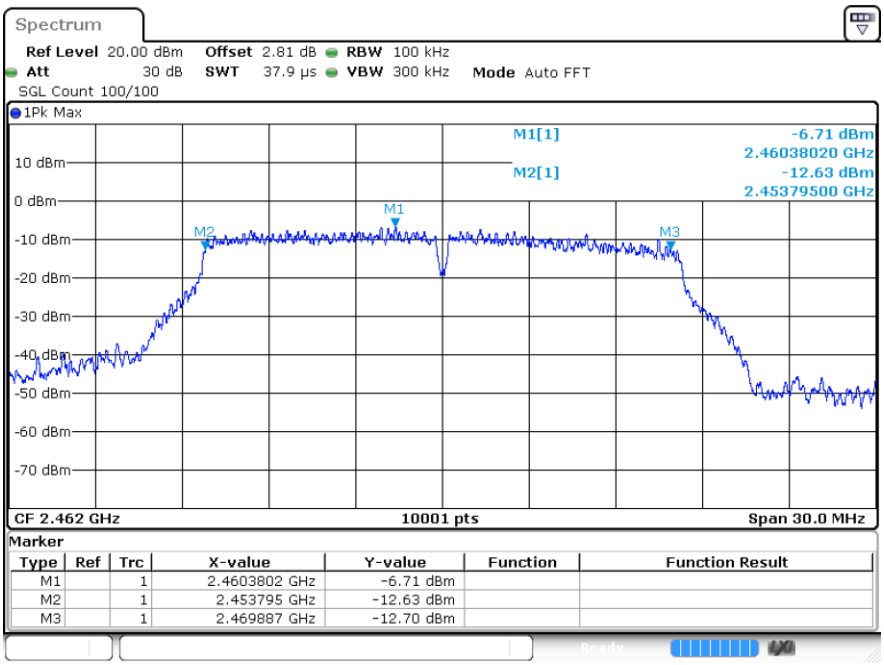
g 2412MHz Ant1



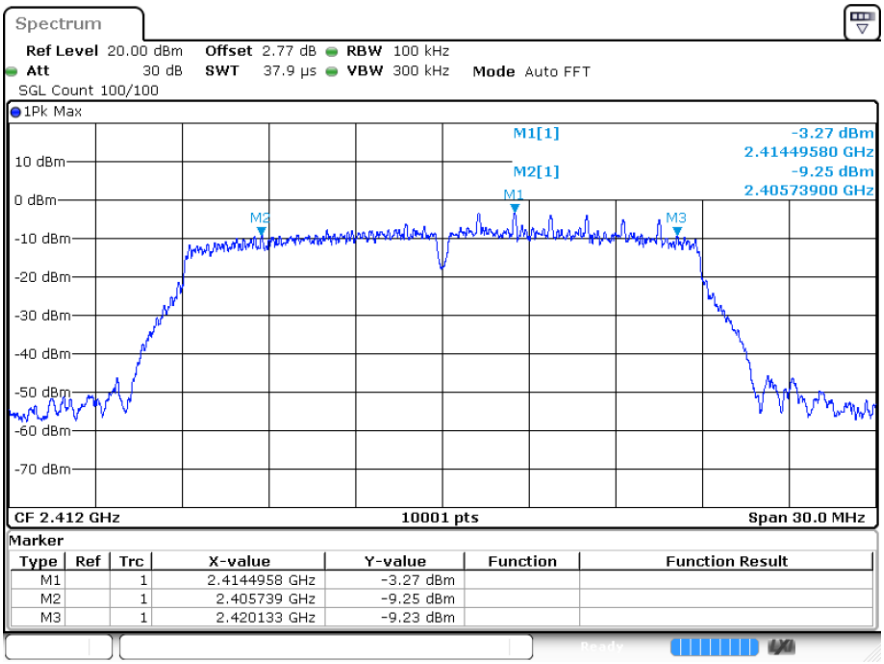
g 2437MHz Ant1



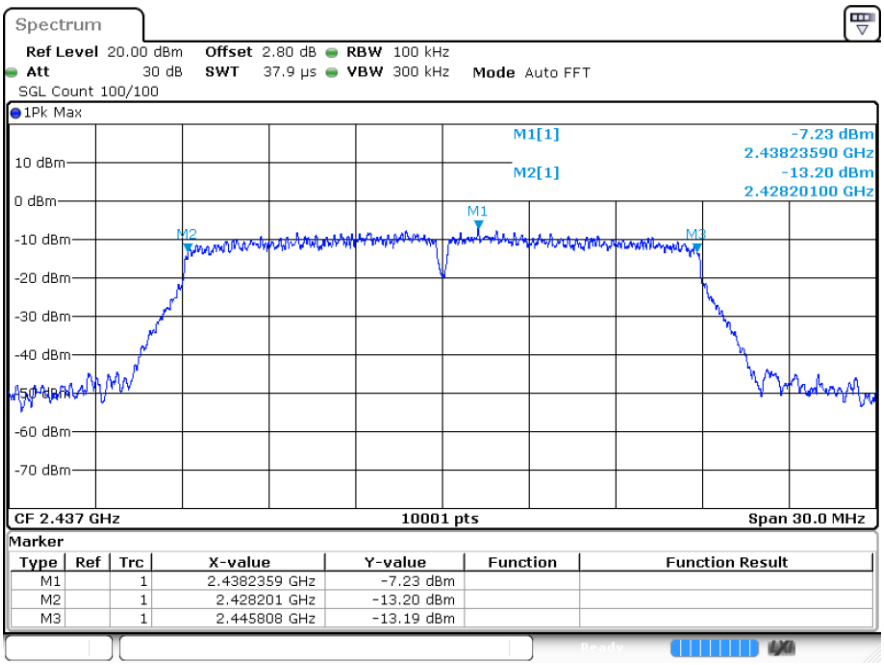
g 2462MHz Ant1



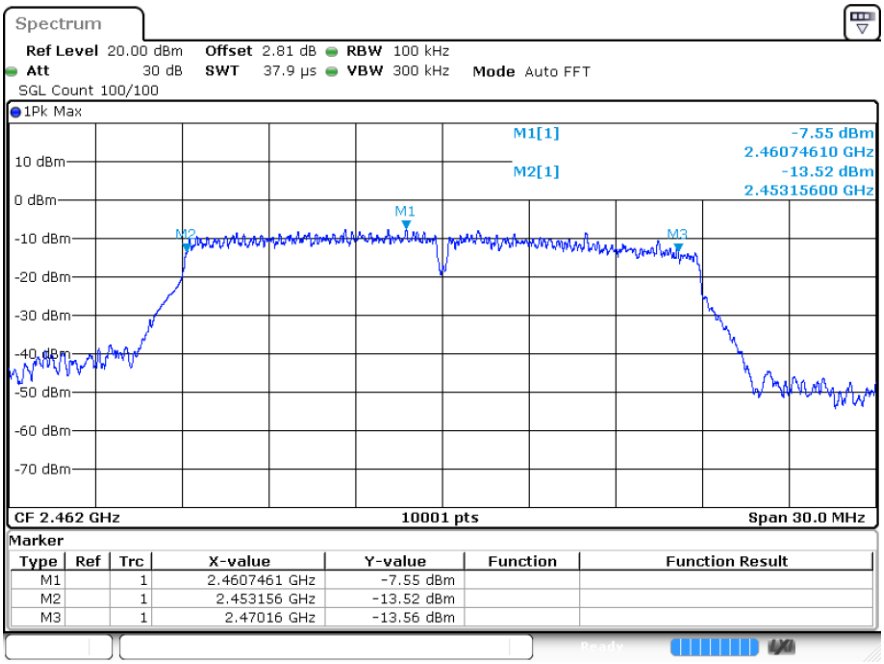
n20 2412MHz Ant1



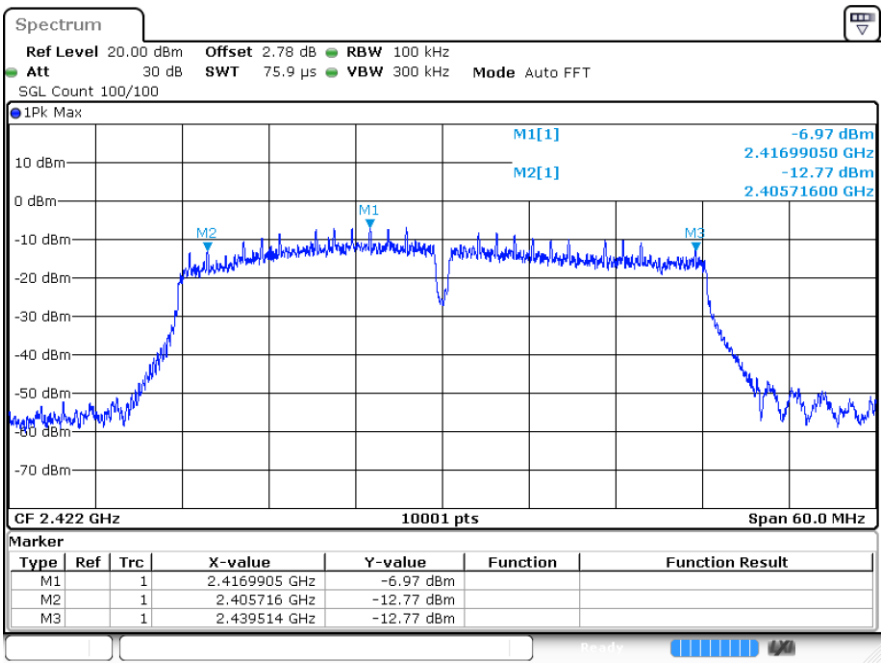
n20 2437MHz Ant1



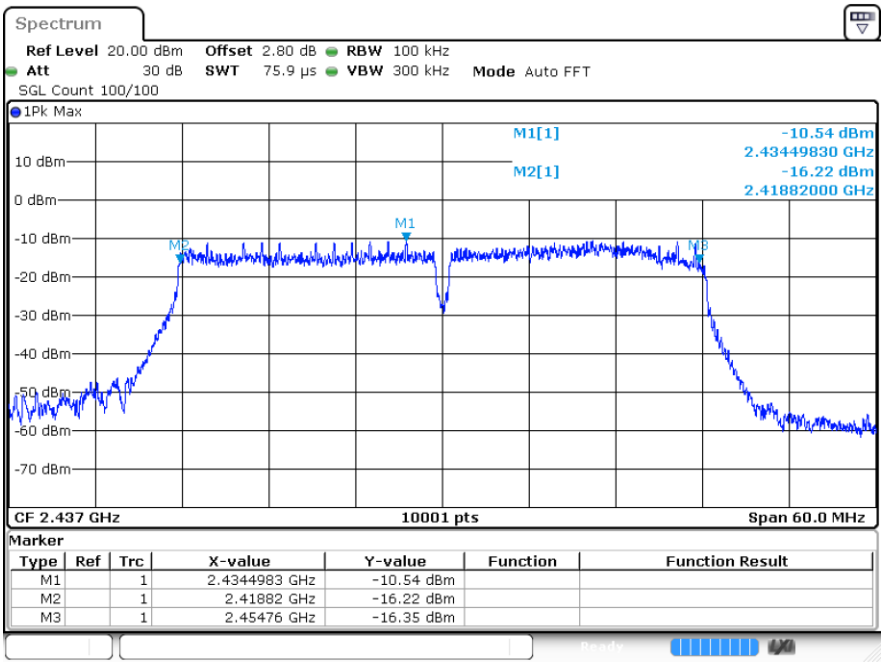
n20 2462MHz Ant1



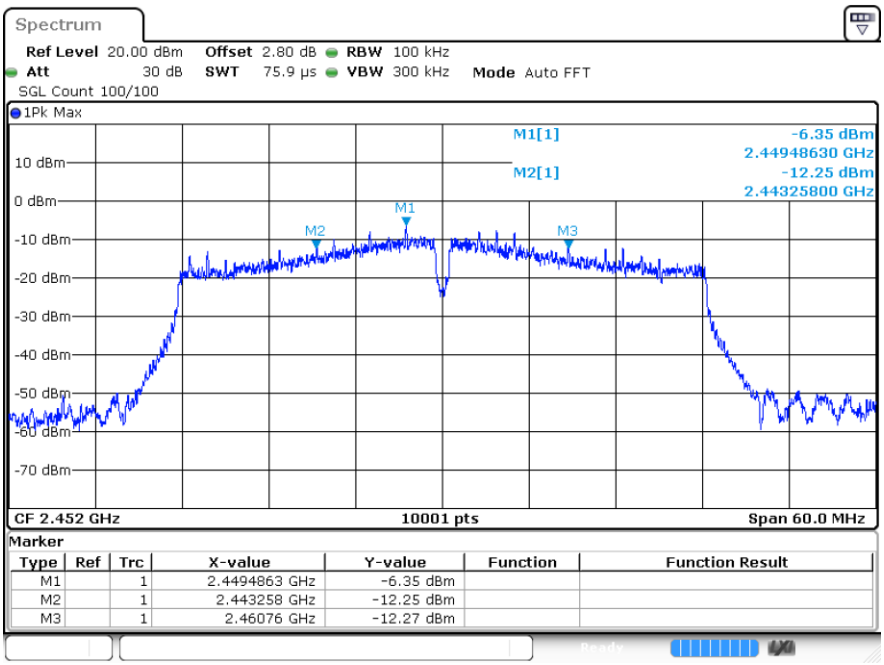
n40 2422MHz Ant1



n40 2437MHz Ant1



n40 2452MHz Ant1



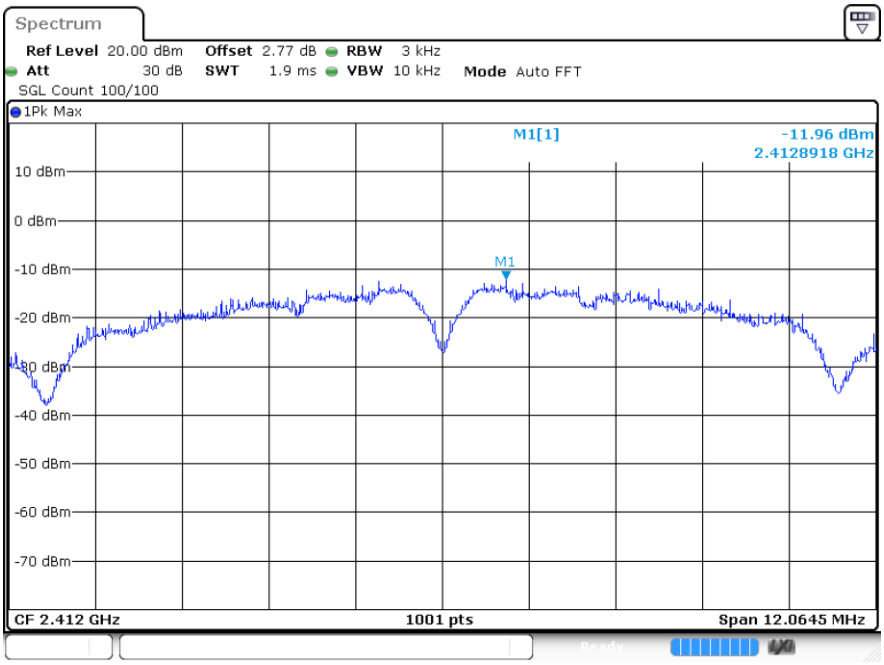
4 Maximum Power Spectral Density Level

4.1 Test Result

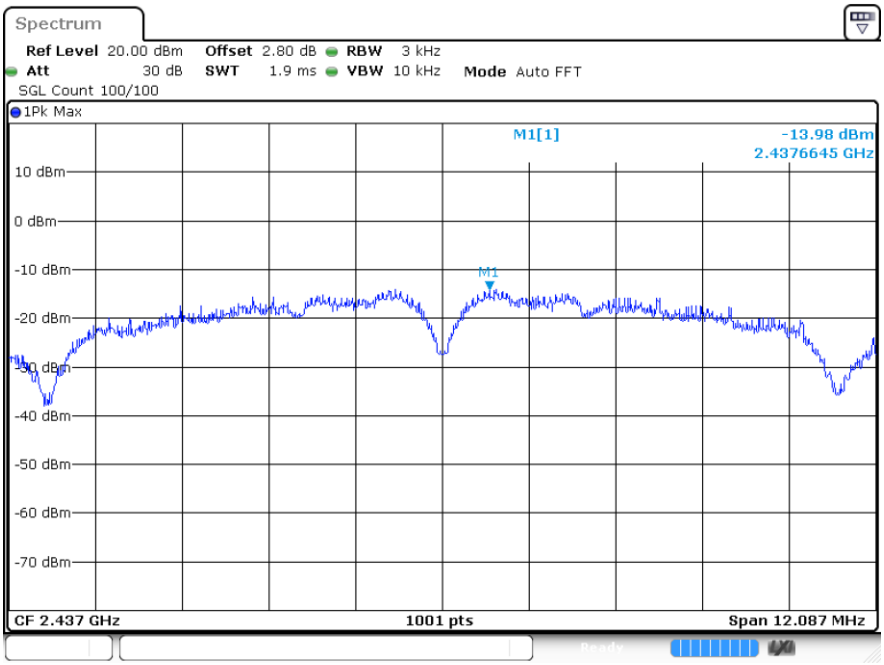
Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3-100kHz)	Limit (dBm/3kHz)	Verdict
b	2412	Ant1	-11.96	≤8	Pass
b	2437	Ant1	-13.98	≤8	Pass
b	2462	Ant1	-13.28	≤8	Pass
g	2412	Ant1	-16.39	≤8	Pass
g	2437	Ant1	-17.94	≤8	Pass
g	2462	Ant1	-17.32	≤8	Pass
n20	2412	Ant1	-16.47	≤8	Pass
n20	2437	Ant1	-17.64	≤8	Pass
n20	2462	Ant1	-17.57	≤8	Pass
n40	2422	Ant1	-20.79	≤8	Pass
n40	2437	Ant1	-21.54	≤8	Pass
n40	2452	Ant1	-22.88	≤8	Pass

4.2 Test Graphs

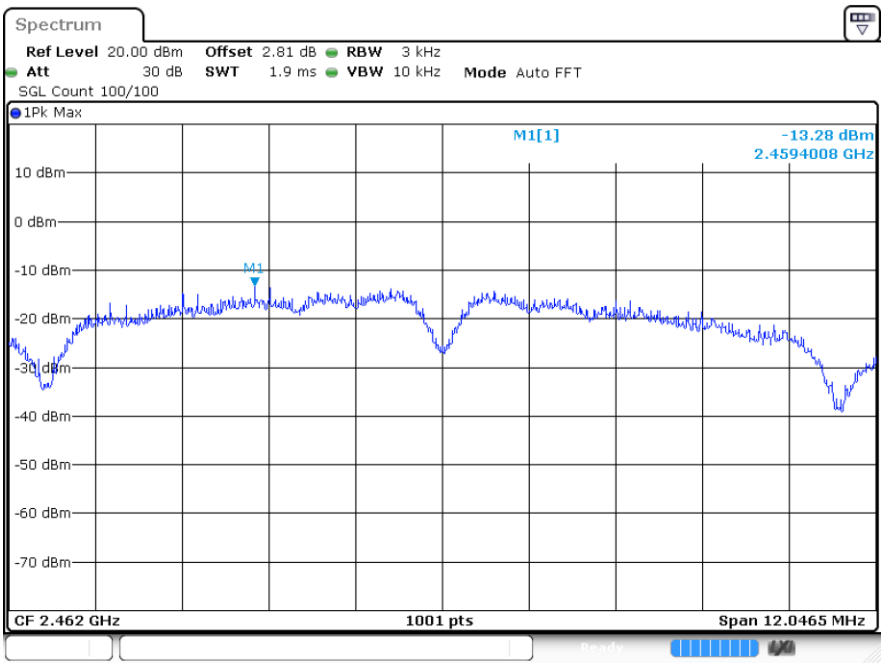
Test Graphs
b 2412MHz Ant1



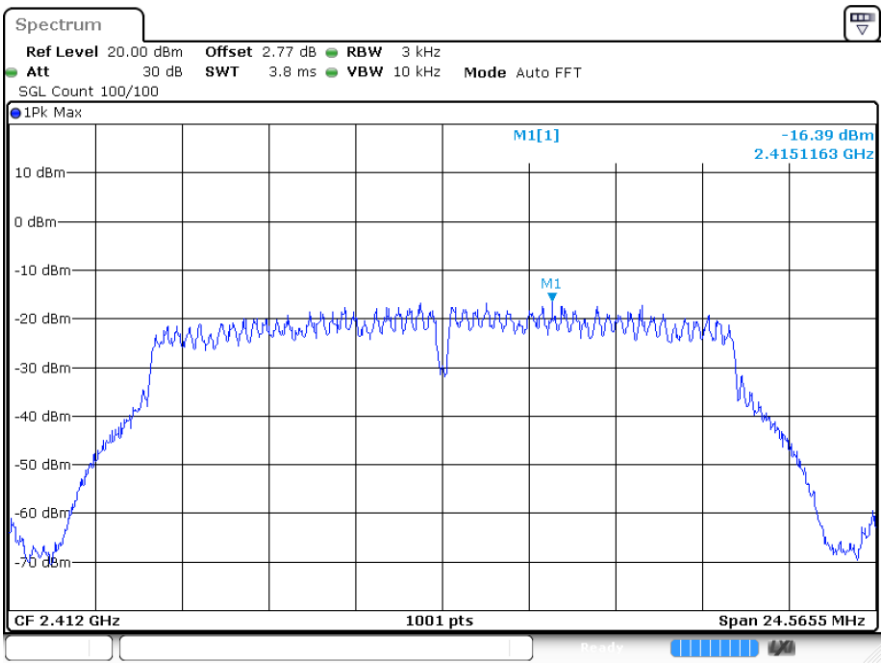
b 2437MHz Ant1



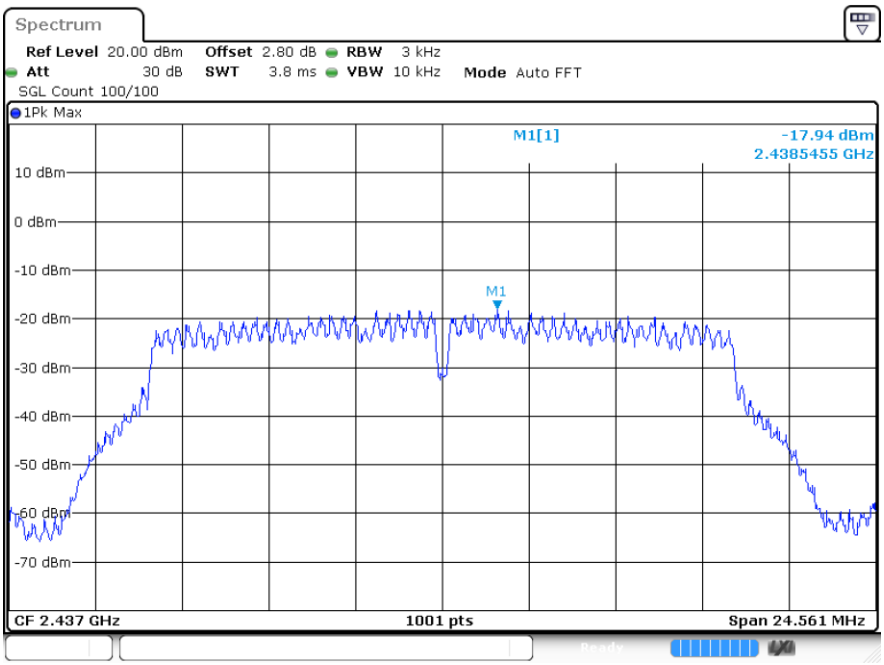
b 2462MHz Ant1



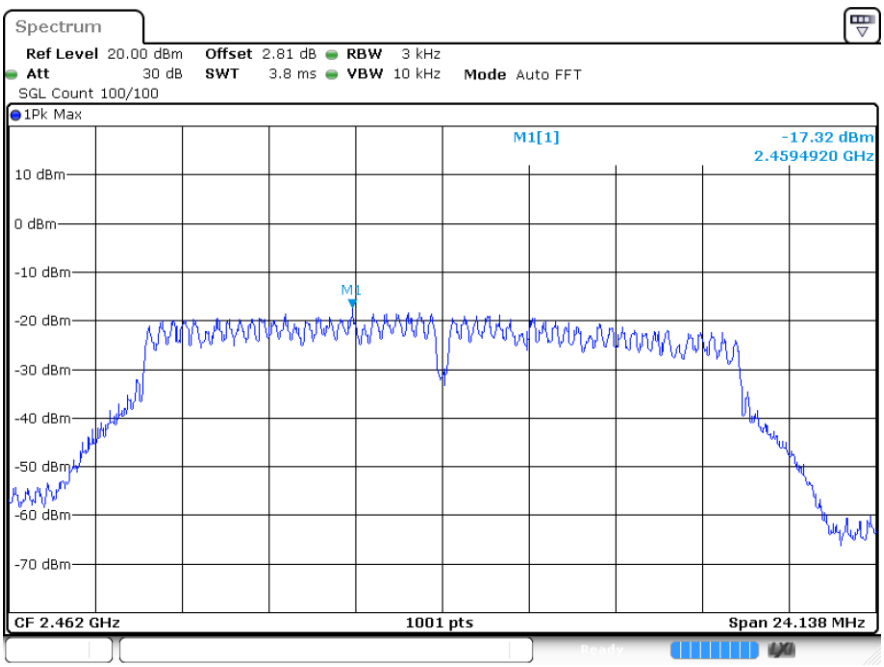
g 2412MHz Ant1



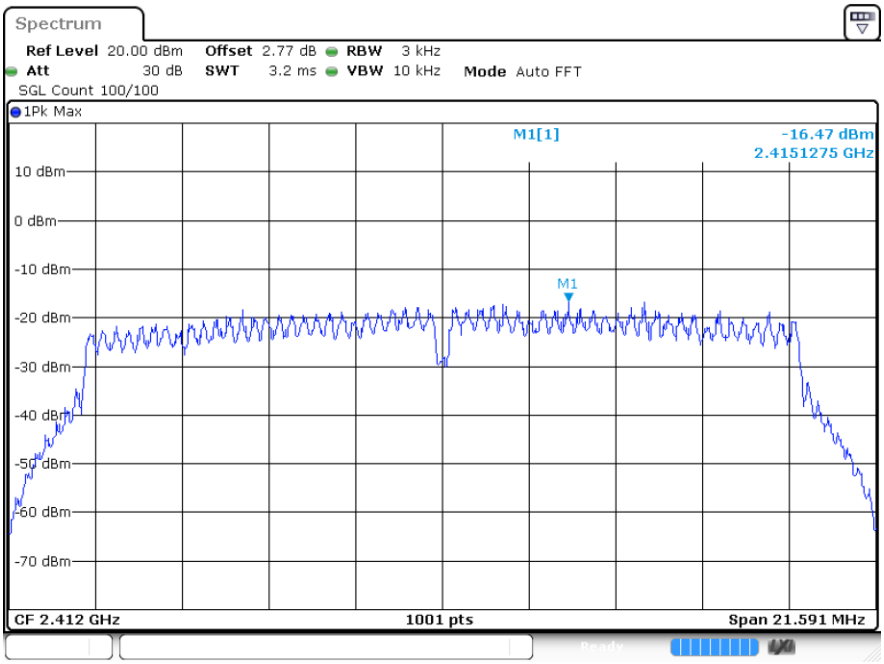
g 2437MHz Ant1



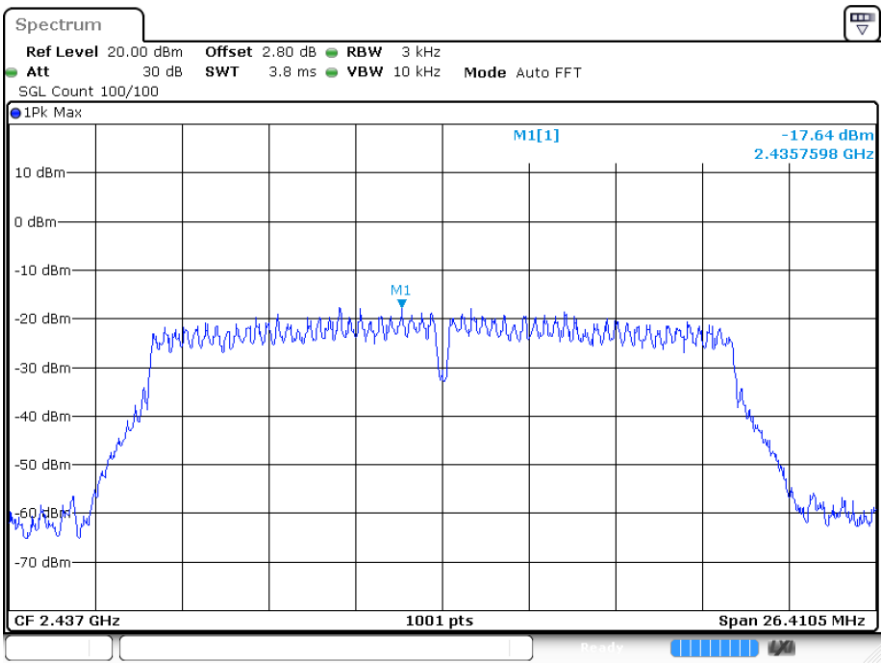
g 2462MHz Ant1



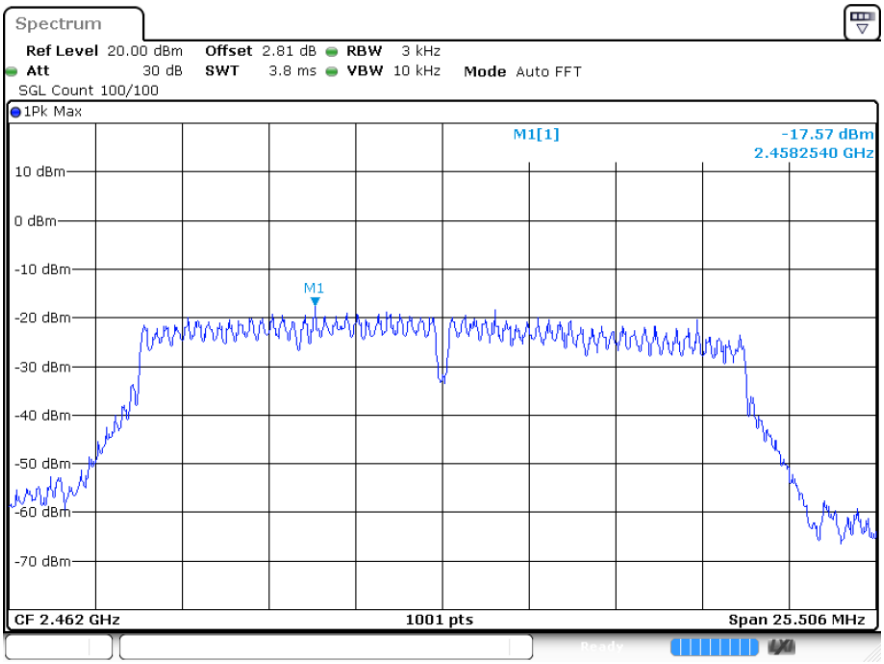
n20 2412MHz Ant1



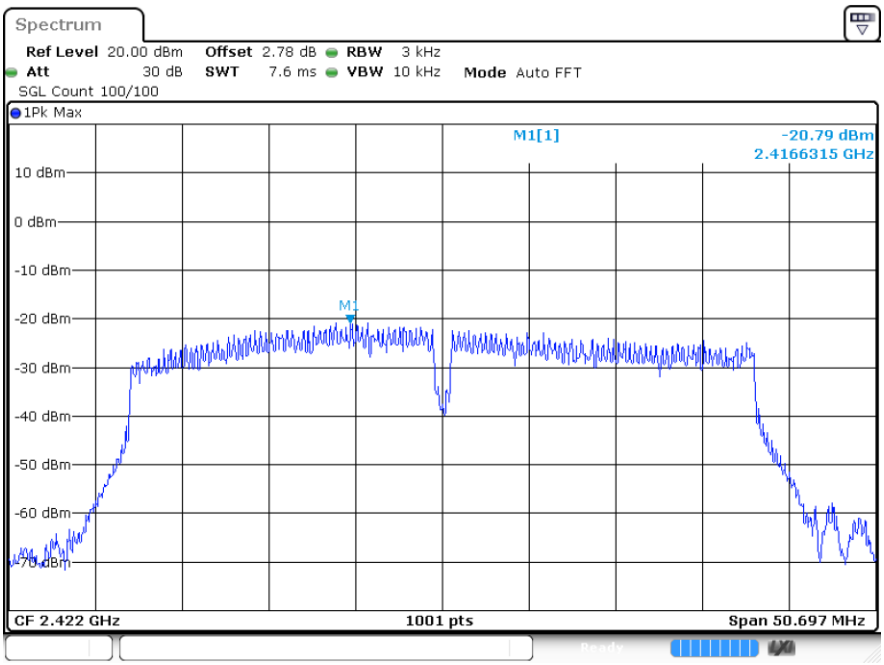
n20 2437MHz Ant1



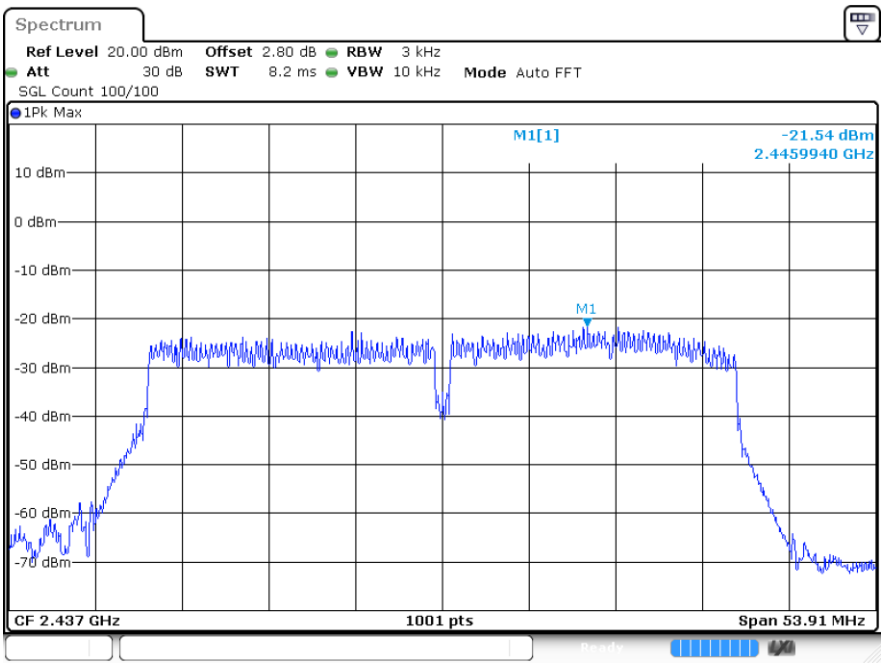
n20 2462MHz Ant1



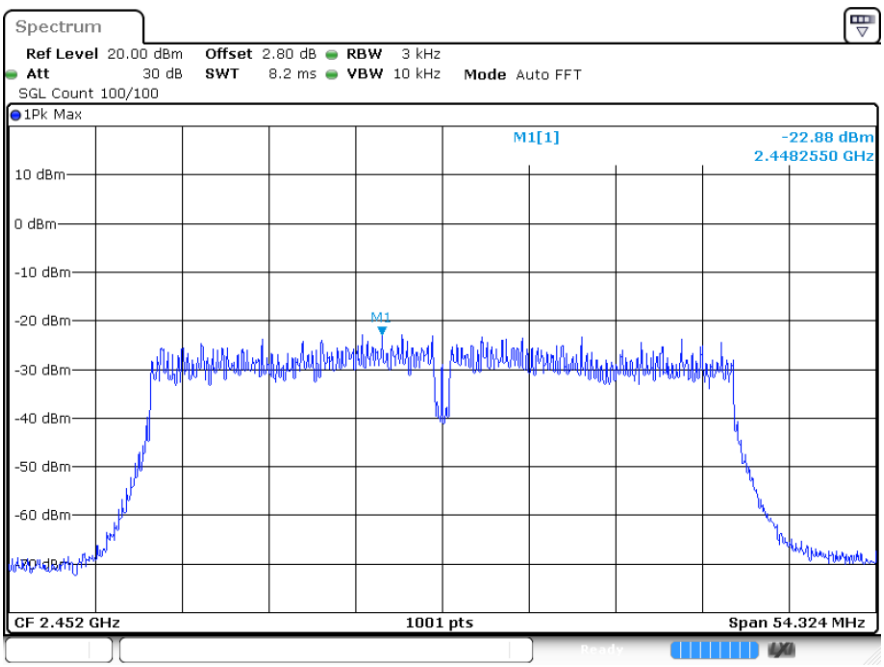
n40 2422MHz Ant1



n40 2437MHz Ant1



n40 2452MHz Ant1



5 Band Edge

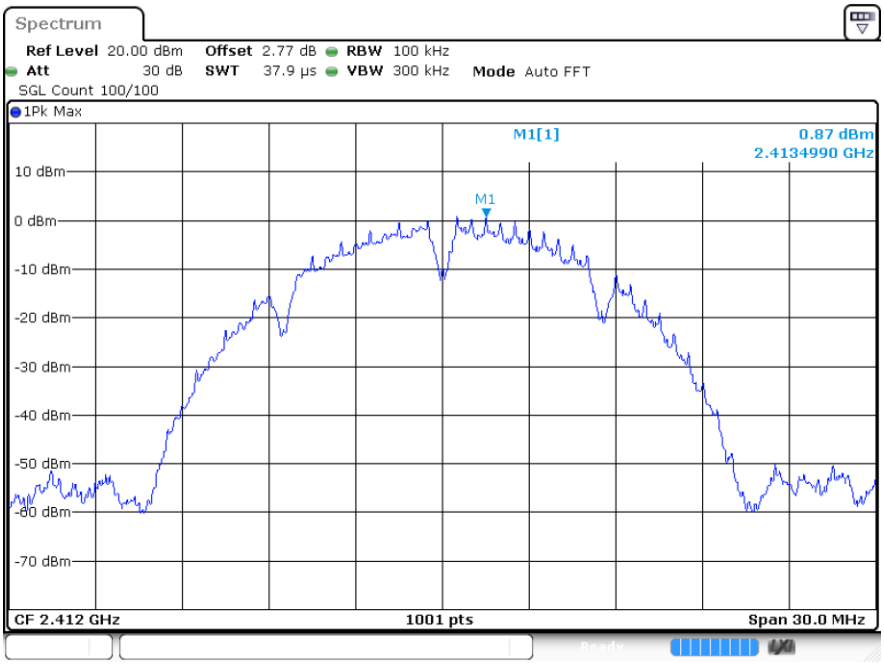
5.1 Test Result

Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
b	2412	Ant1	-56.26	-20	Pass
b	2462	Ant1	-54.96	-20	Pass
g	2412	Ant1	-52.12	-20	Pass
g	2462	Ant1	-51.01	-20	Pass
n20	2412	Ant1	-51.32	-20	Pass
n20	2462	Ant1	-48.03	-20	Pass
n40	2422	Ant1	-48.1	-20	Pass
n40	2452	Ant1	-49.53	-20	Pass

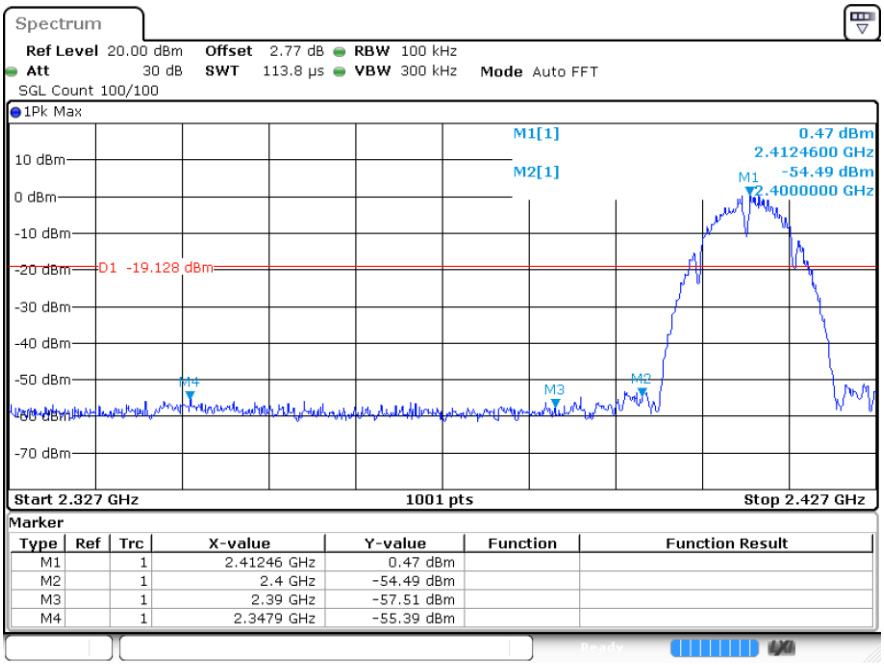
5.2 Test Graphs

Test Graphs

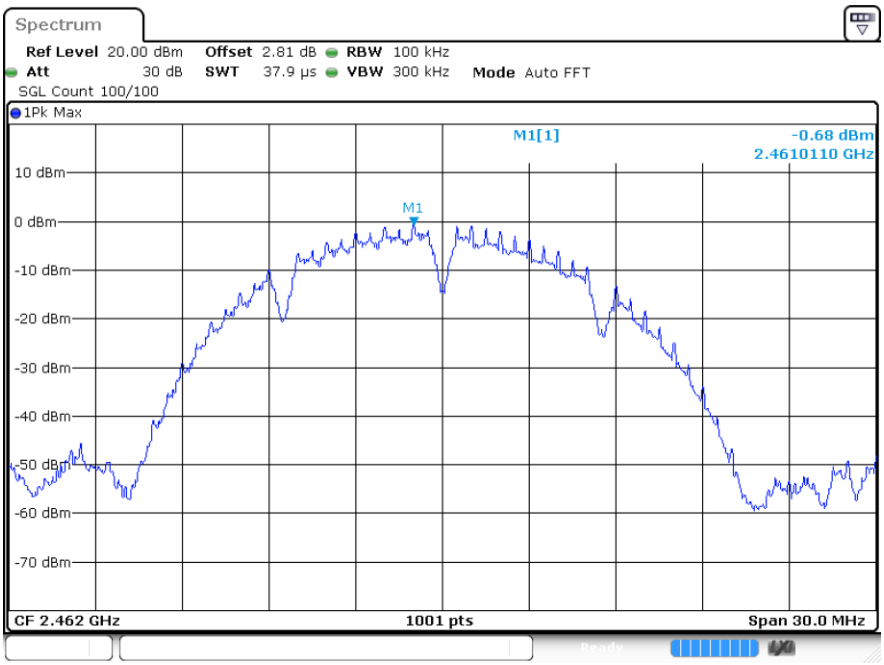
b 2412MHz Ant1 Ref



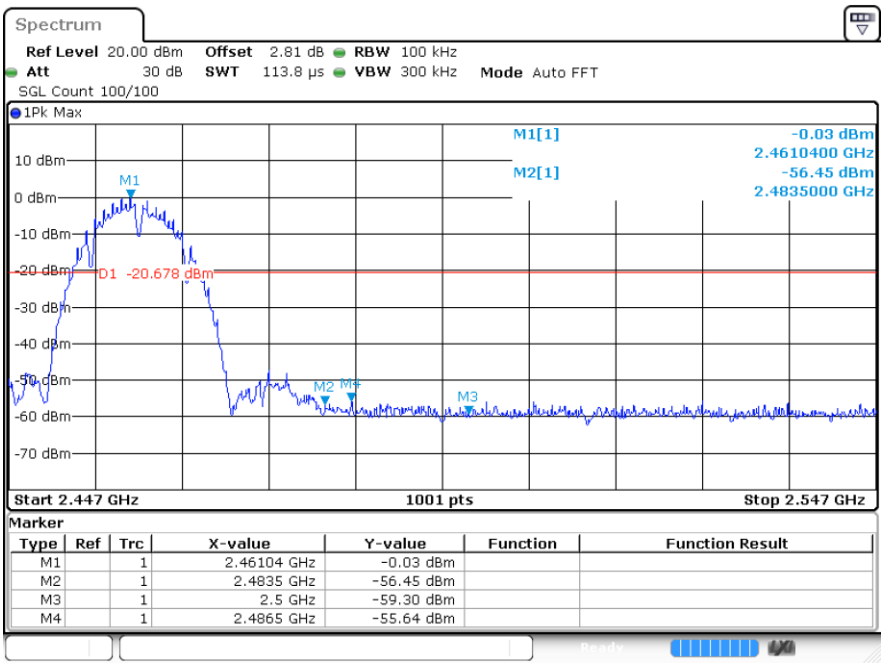
b 2412MHz Ant1 Emission



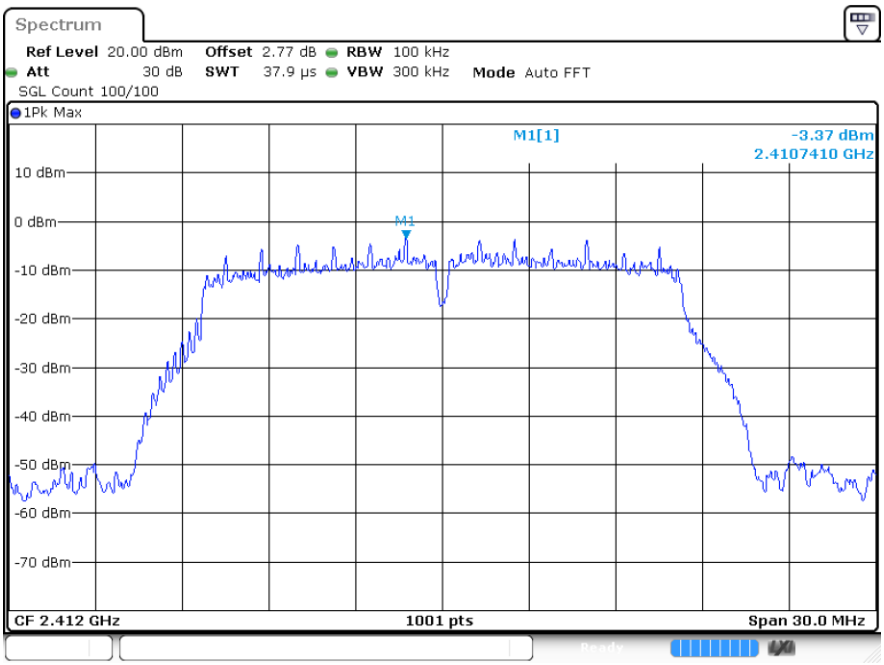
b 2462MHz Ant1 Ref



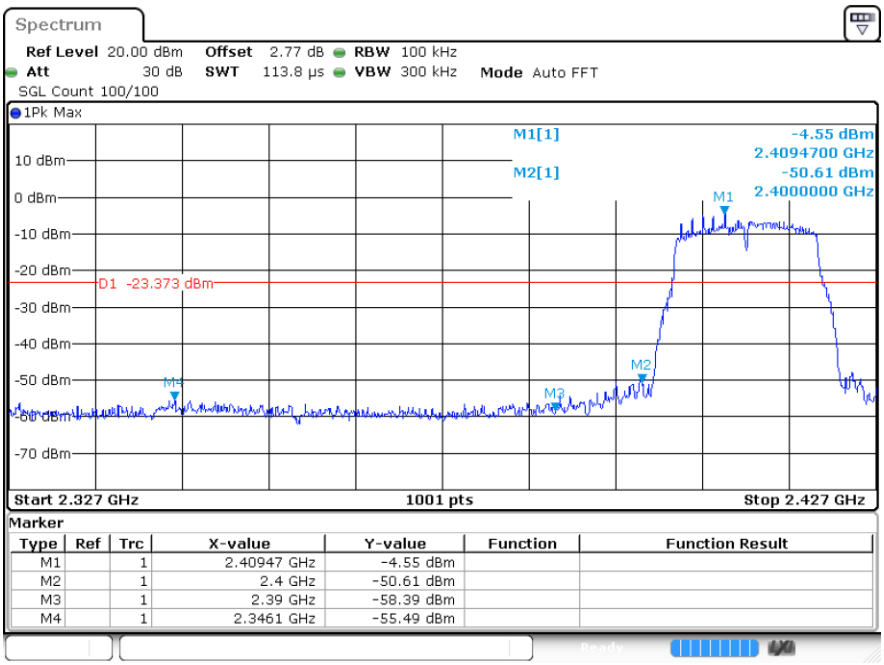
b 2462MHz Ant1 Emission



g 2412MHz Ant1 Ref



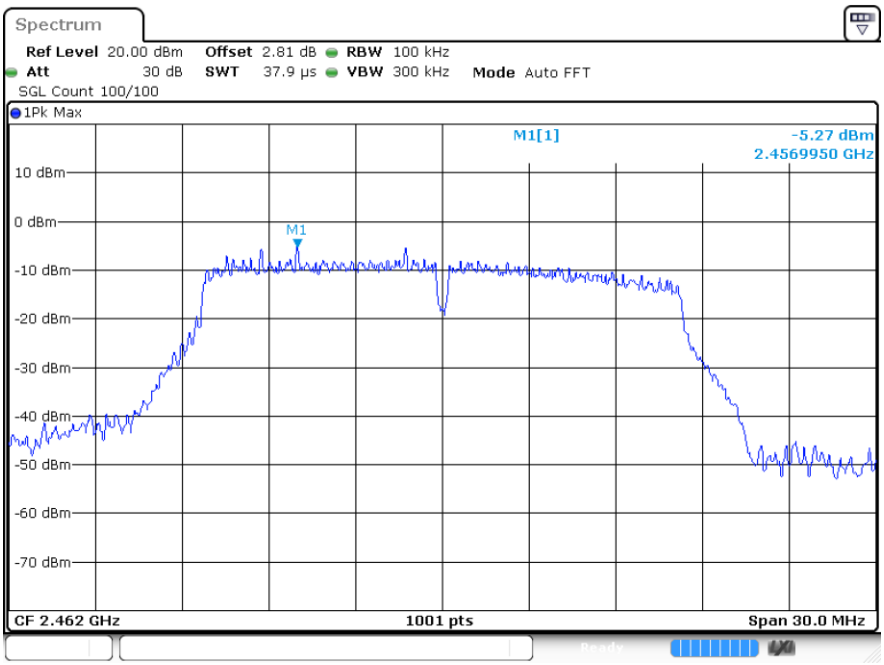
g 2412MHz Ant1 Emission



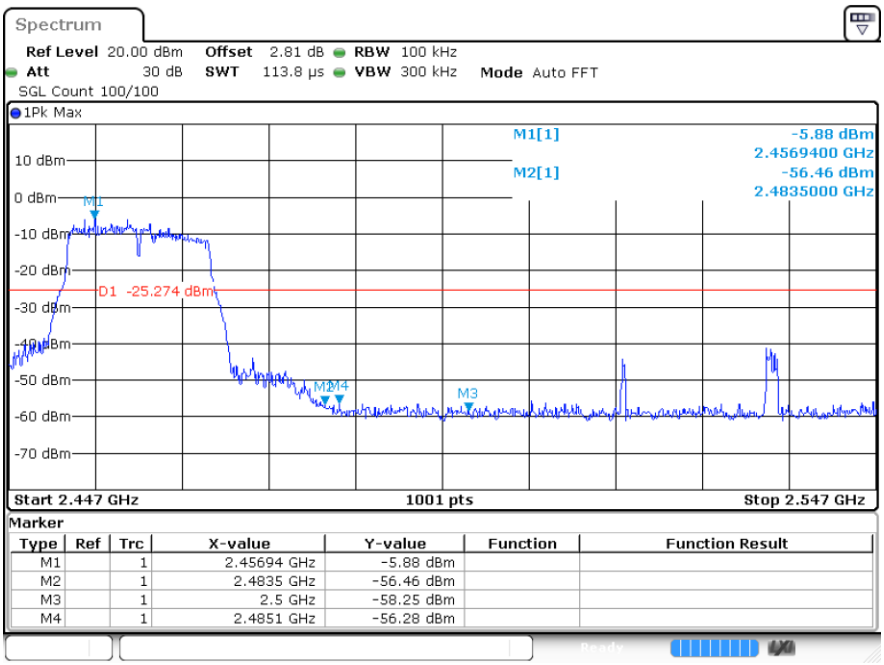
Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.40947 GHz	-4.55 dBm		
M2		1	2.4 GHz	-50.61 dBm		
M3		1	2.39 GHz	-58.39 dBm		
M4		1	2.3461 GHz	-55.49 dBm		

g 2462MHz Ant1 Ref

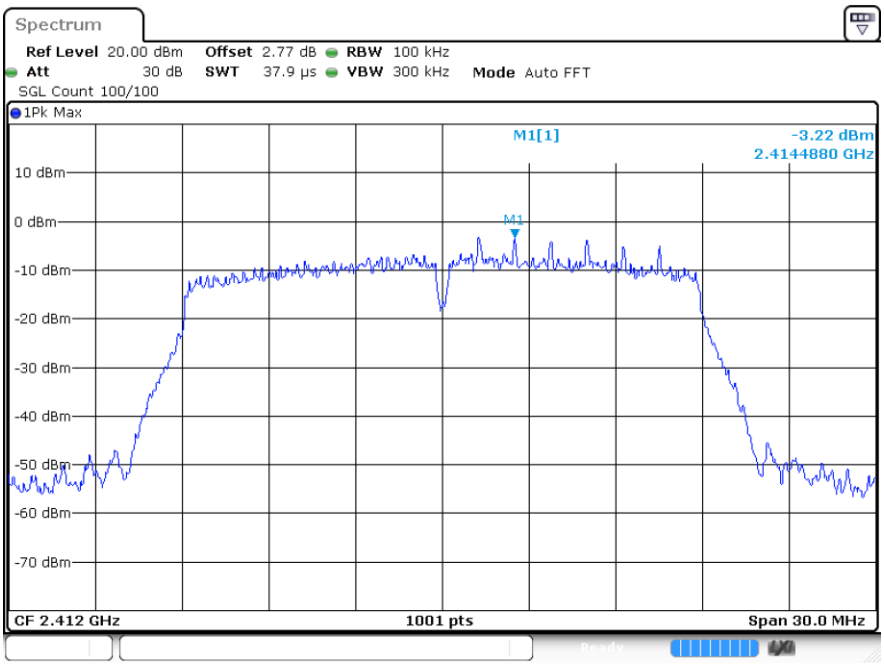


g 2462MHz Ant1 Emission

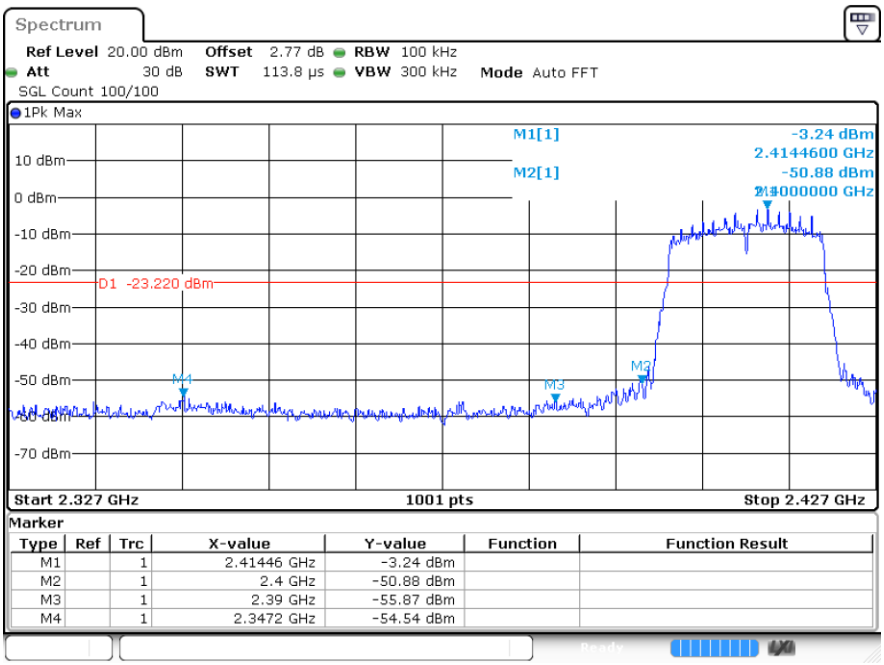


Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.45694 GHz	-5.88 dBm		
M2		1	2.4835 GHz	-56.46 dBm		
M3		1	2.5 GHz	-58.25 dBm		
M4		1	2.4851 GHz	-56.28 dBm		

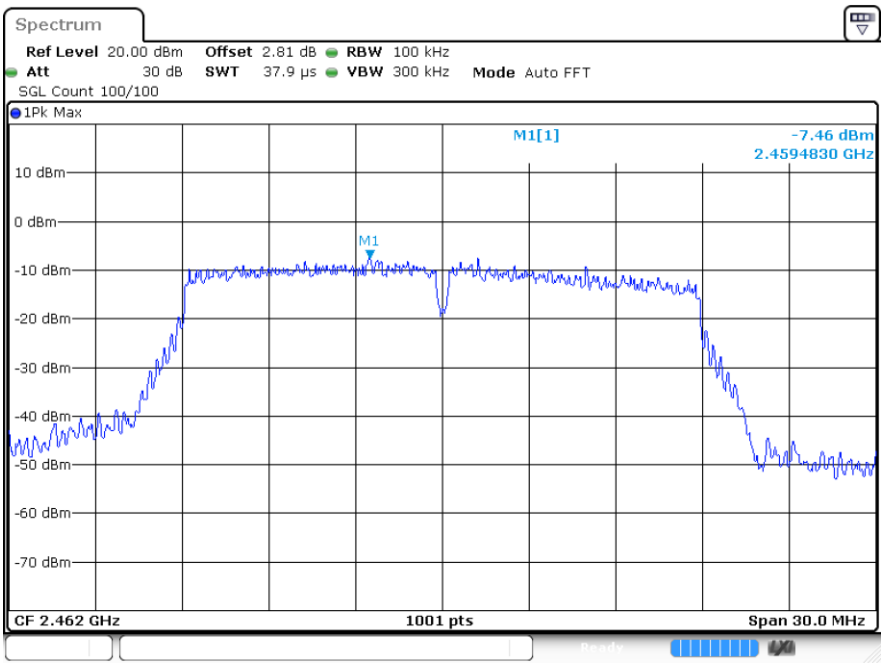
n20 2412MHz Ant1 Ref



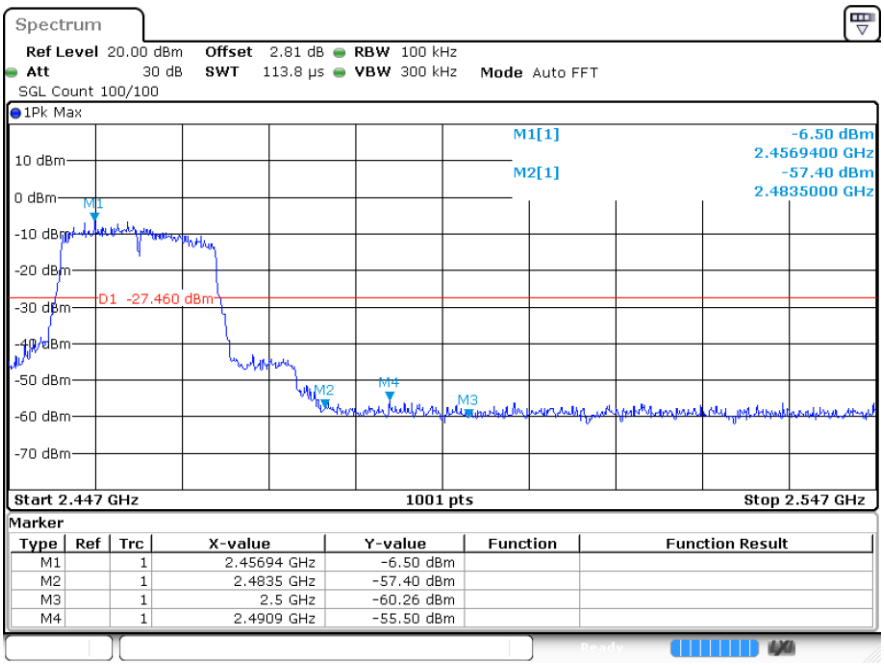
n20 2412MHz Ant1 Emission



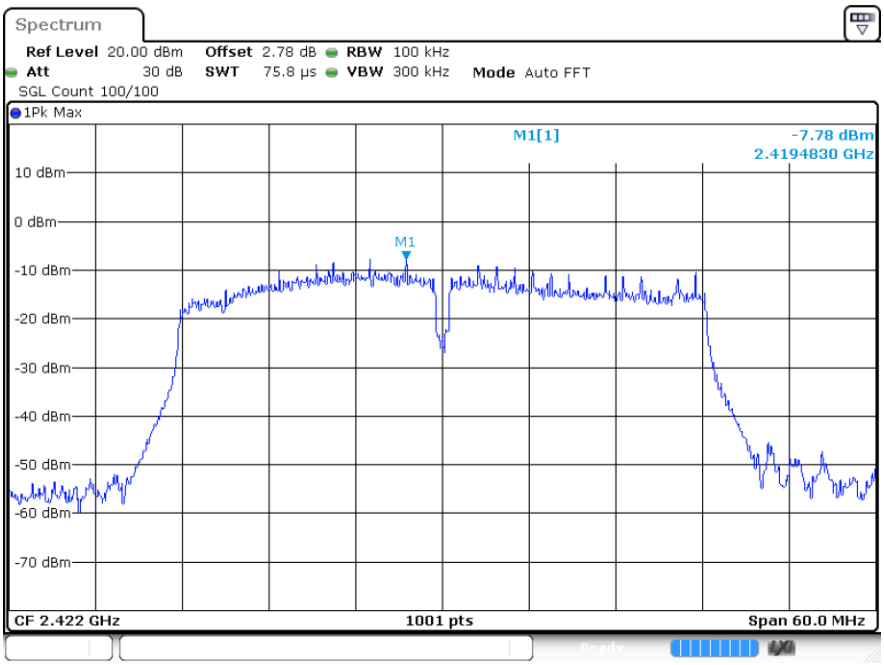
n20 2462MHz Ant1 Ref



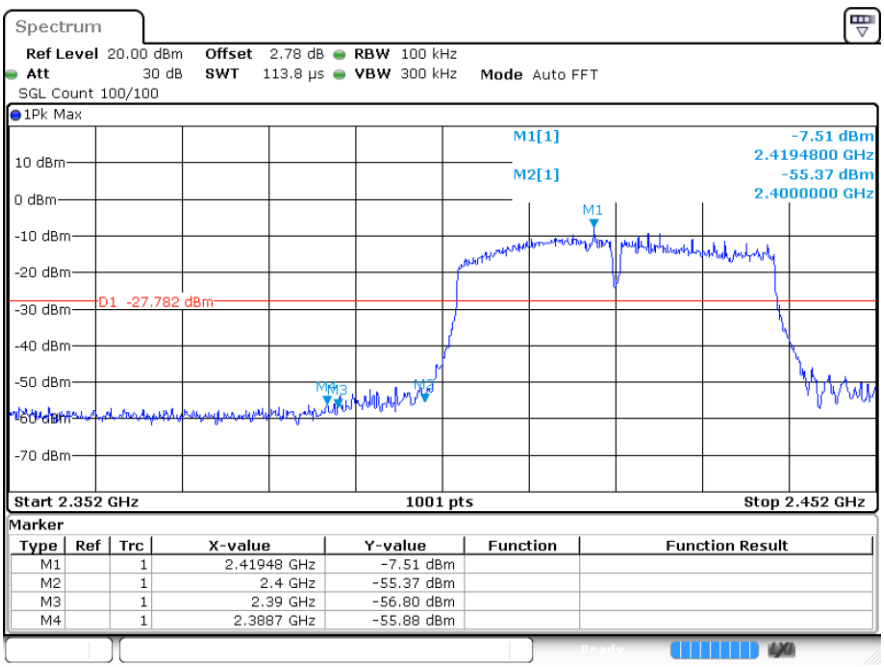
n20 2462MHz Ant1 Emission



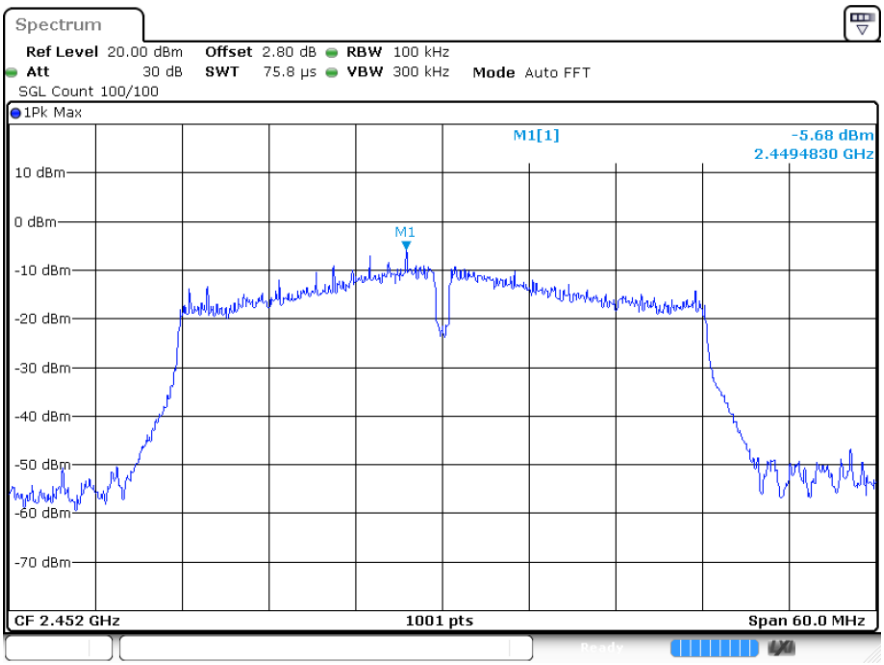
n40 2422MHz Ant1 Ref



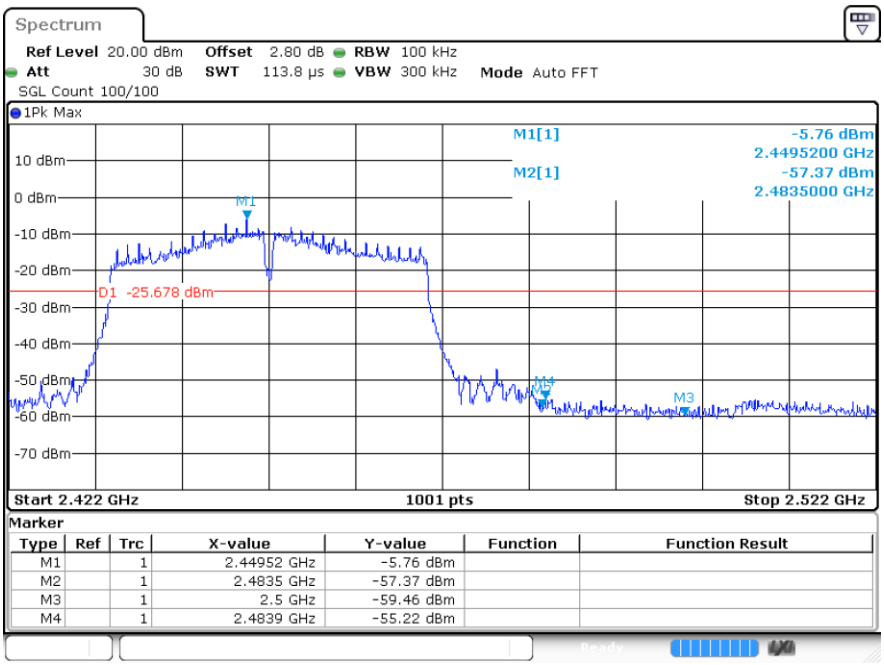
n40 2422MHz Ant1 Emission



n40 2452MHz Ant1 Ref



n40 2452MHz Ant1 Emission



6 Conducted RF Spurious Emission

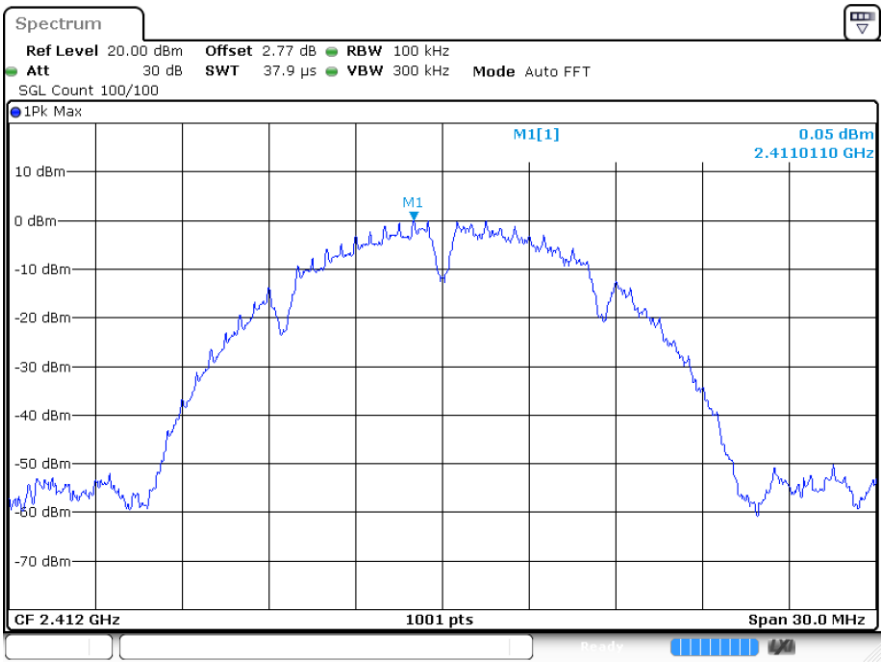
6.1 Test Result

Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
b	2412	Ant1	-42.91	-20	Pass
b	2437	Ant1	-42.69	-20	Pass
b	2462	Ant1	-42.49	-20	Pass
g	2412	Ant1	-38.14	-20	Pass
g	2437	Ant1	-38.68	-20	Pass
g	2462	Ant1	-28.24	-20	Pass
n20	2412	Ant1	-32.3	-20	Pass
n20	2437	Ant1	-30.99	-20	Pass
n20	2462	Ant1	-36.28	-20	Pass
n40	2422	Ant1	-33.81	-20	Pass
n40	2437	Ant1	-35.22	-20	Pass
n40	2452	Ant1	-35.91	-20	Pass

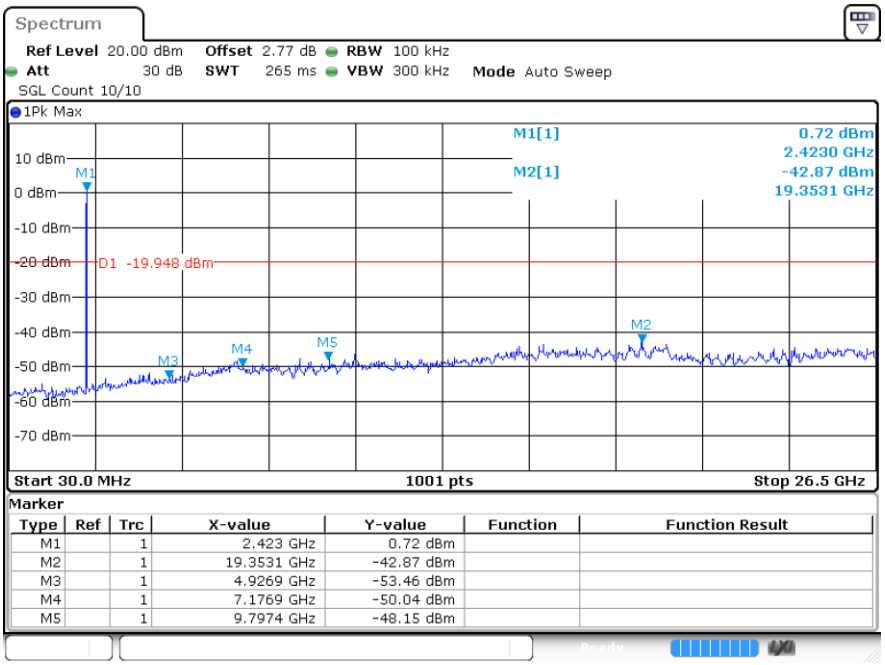
6.2 Test Graphs

Test Graphs

b 2412MHz Ant1 Ref



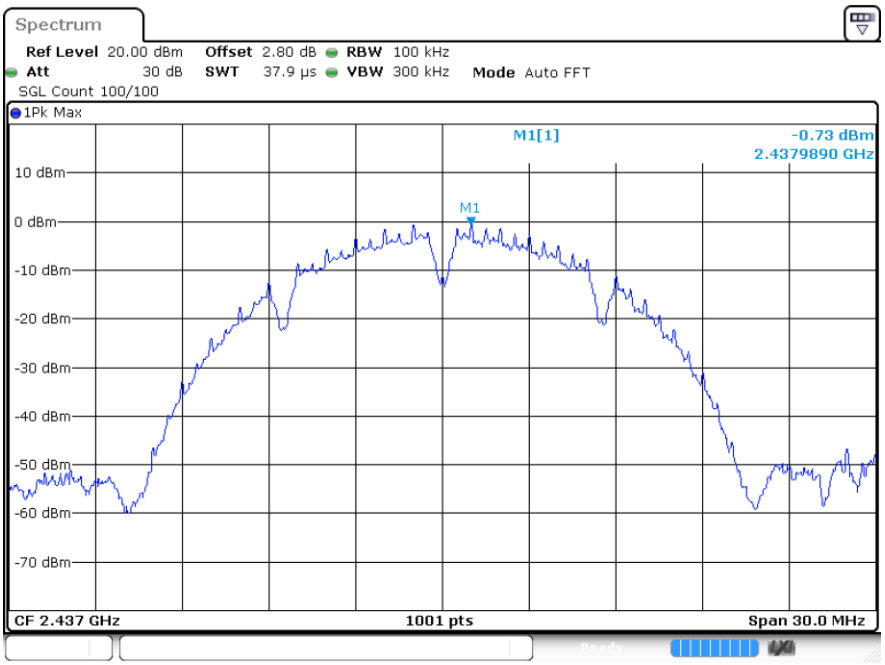
b 2412MHz Ant1 Emission



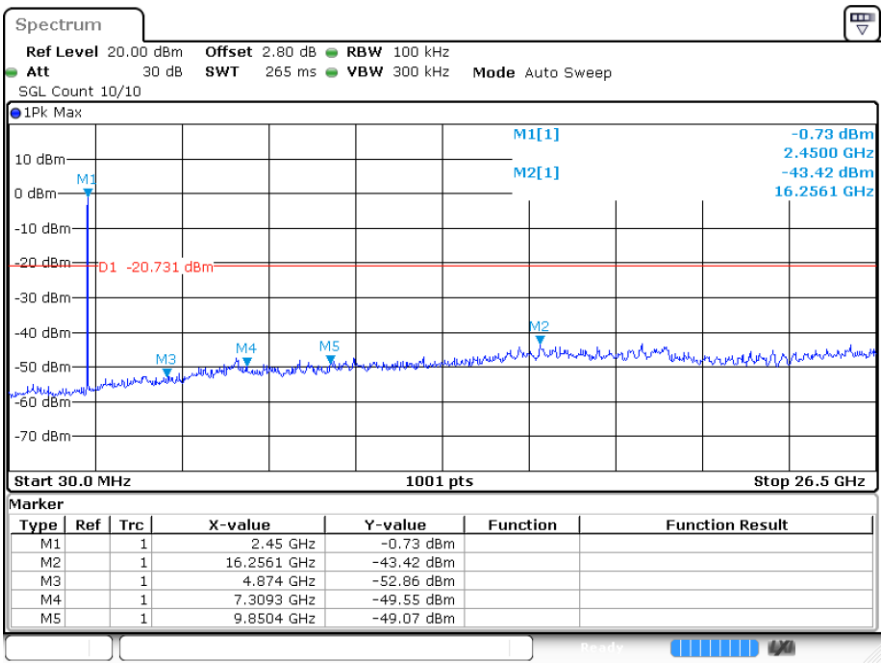
Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.423 GHz	0.72 dBm		
M2		1	19.3531 GHz	-42.87 dBm		
M3		1	4.9269 GHz	-53.46 dBm		
M4		1	7.1769 GHz	-50.04 dBm		
M5		1	9.7974 GHz	-48.15 dBm		

b 2437MHz Ant1 Ref



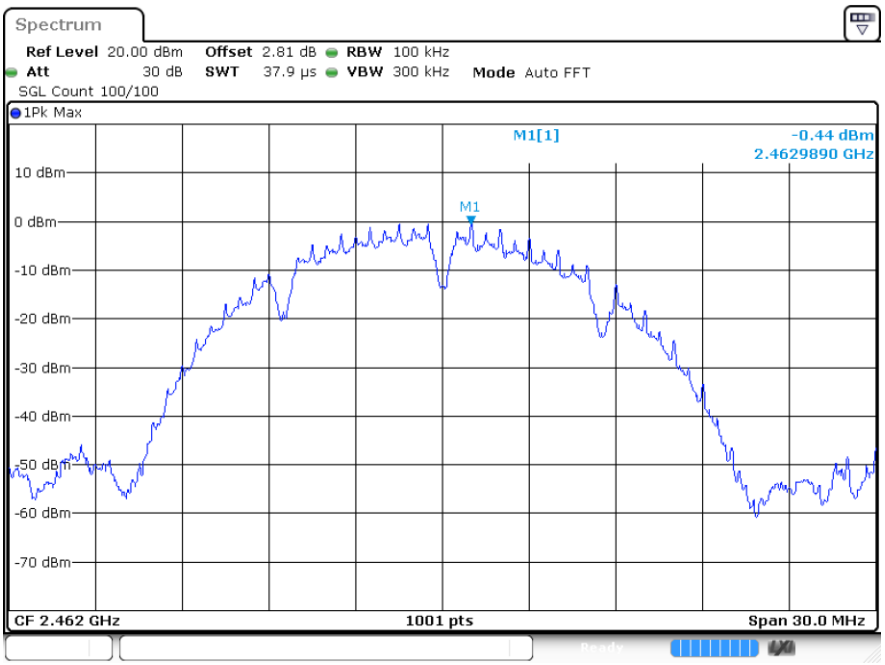
b 2437MHz Ant1 Emission



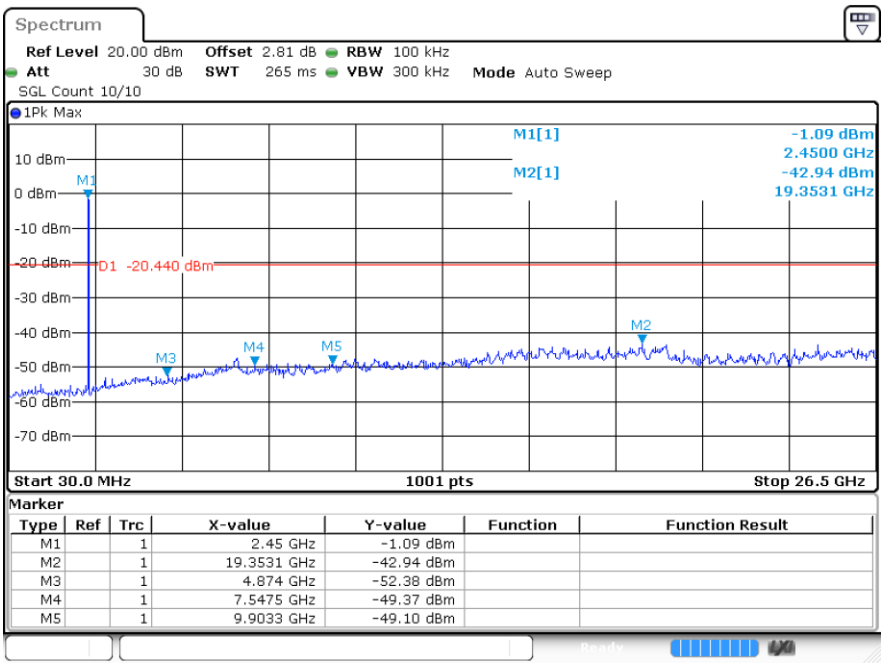
Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.45 GHz	-0.73 dBm		
M2		1	16.2561 GHz	-43.42 dBm		
M3		1	4.874 GHz	-52.86 dBm		
M4		1	7.3093 GHz	-49.55 dBm		
M5		1	9.8504 GHz	-49.07 dBm		

b 2462MHz Ant1 Ref



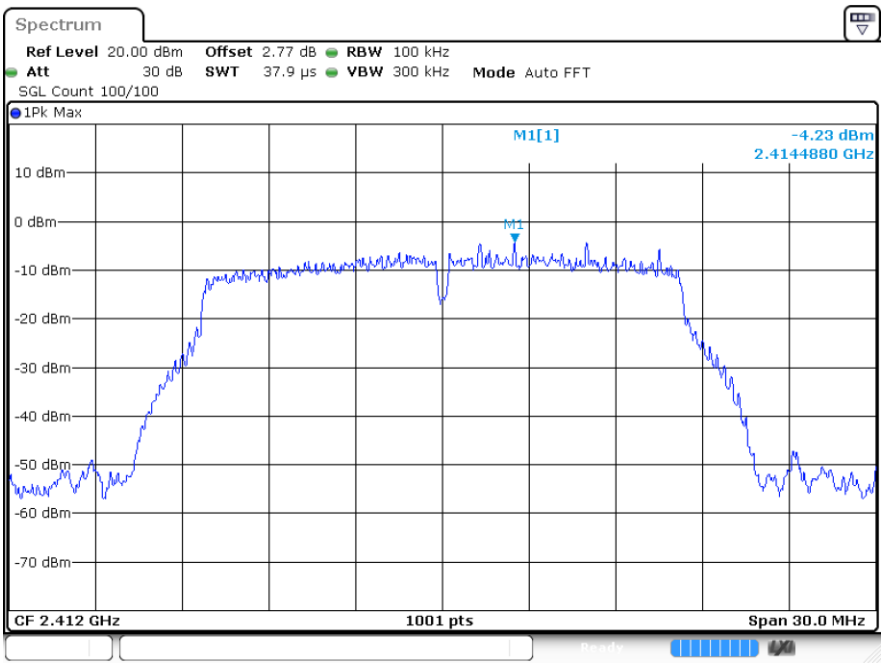
b 2462MHz Ant1 Emission



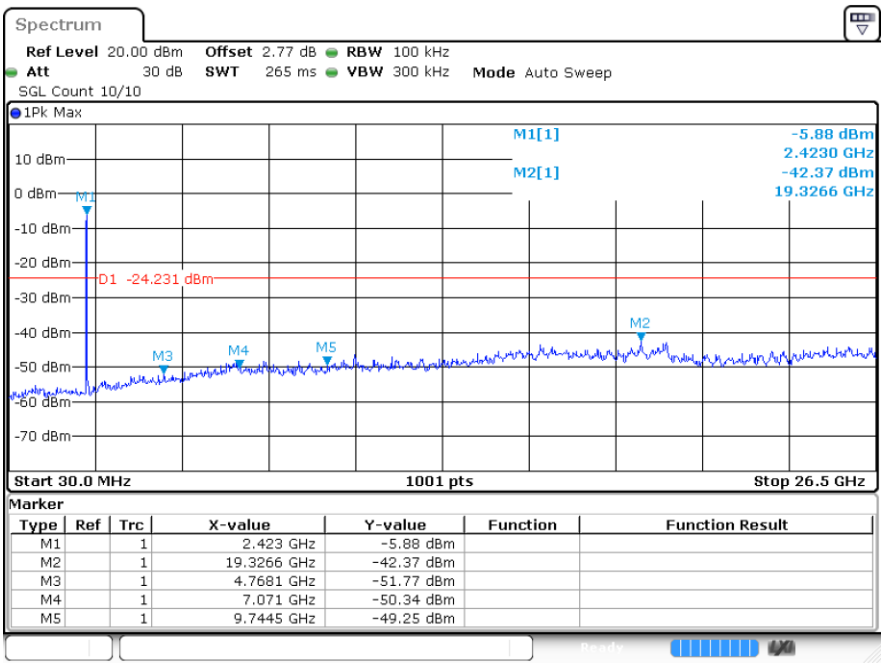
Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.45 GHz	-1.09 dBm		
M2		1	19.3531 GHz	-42.94 dBm		
M3		1	4.874 GHz	-52.38 dBm		
M4		1	7.5475 GHz	-49.37 dBm		
M5		1	9.9033 GHz	-49.10 dBm		

g 2412MHz Ant1 Ref



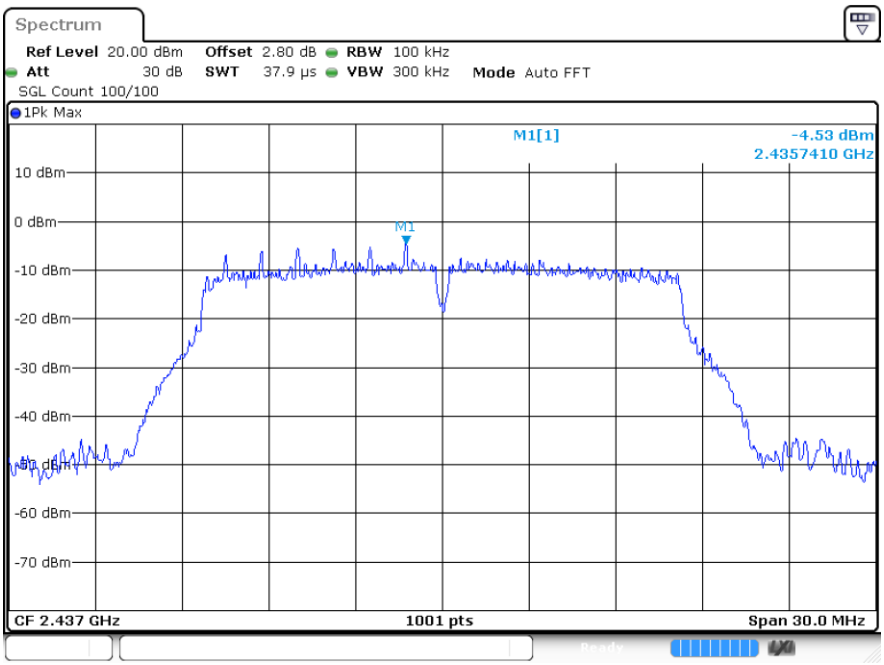
g 2412MHz Ant1 Emission



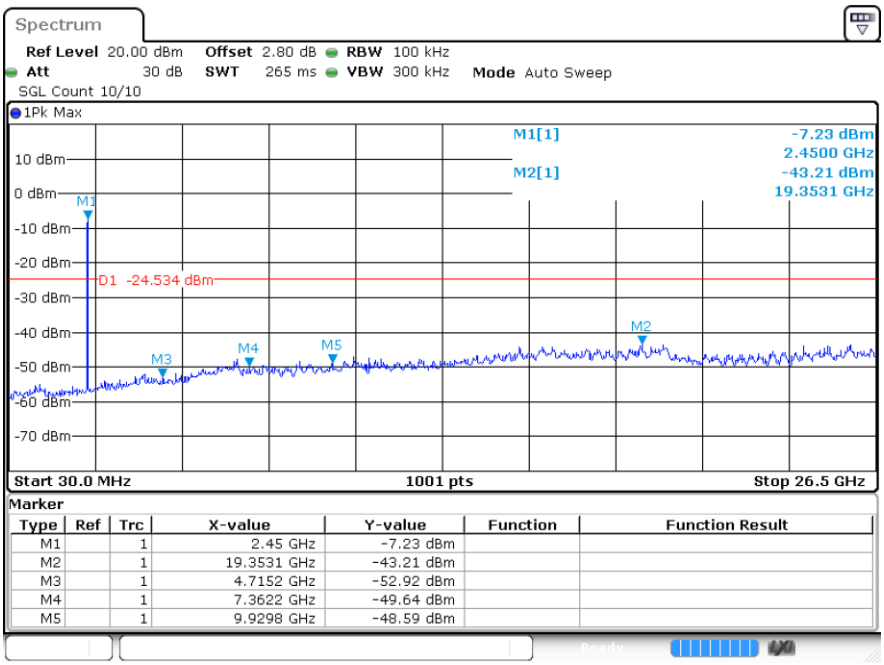
Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.423 GHz	-5.88 dBm		
M2		1	19.3266 GHz	-42.37 dBm		
M3		1	4.7681 GHz	-51.77 dBm		
M4		1	7.071 GHz	-50.34 dBm		
M5		1	9.7445 GHz	-49.25 dBm		

g 2437MHz Ant1 Ref



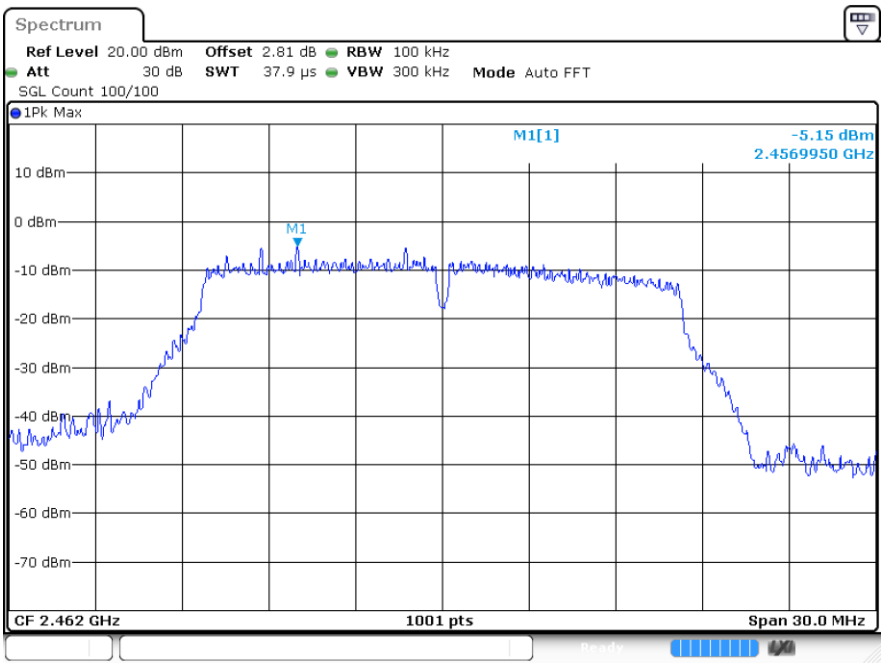
g 2437MHz Ant1 Emission



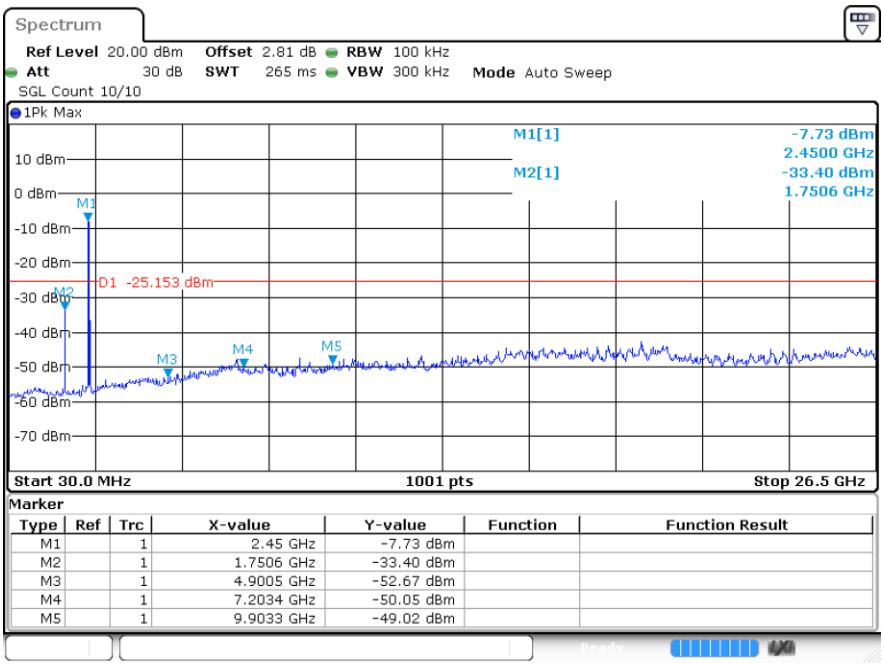
Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.45 GHz	-7.23 dBm		
M2		1	19.3531 GHz	-43.21 dBm		
M3		1	4.7152 GHz	-52.92 dBm		
M4		1	7.3622 GHz	-49.64 dBm		
M5		1	9.9298 GHz	-48.59 dBm		

g 2462MHz Ant1 Ref



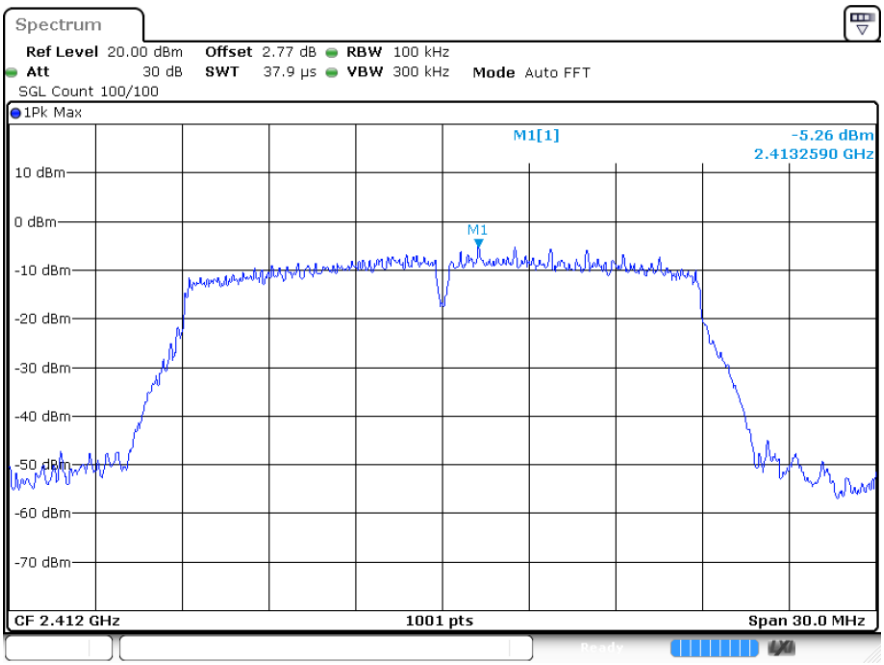
g 2462MHz Ant1 Emission



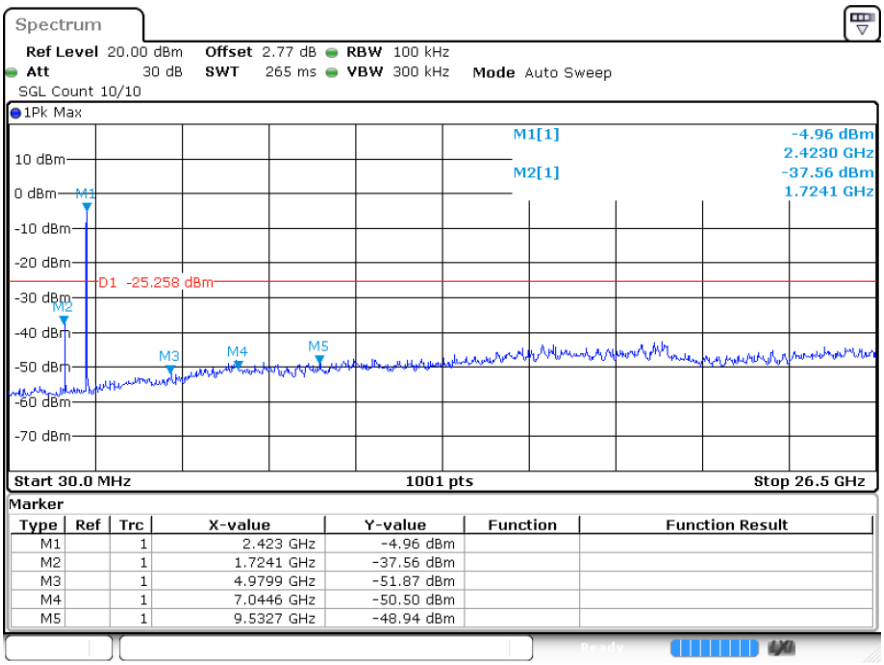
Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.45 GHz	-7.73 dBm		
M2		1	1.7506 GHz	-33.40 dBm		
M3		1	4.9005 GHz	-52.67 dBm		
M4		1	7.2034 GHz	-50.05 dBm		
M5		1	9.9033 GHz	-49.02 dBm		

n20 2412MHz Ant1 Ref



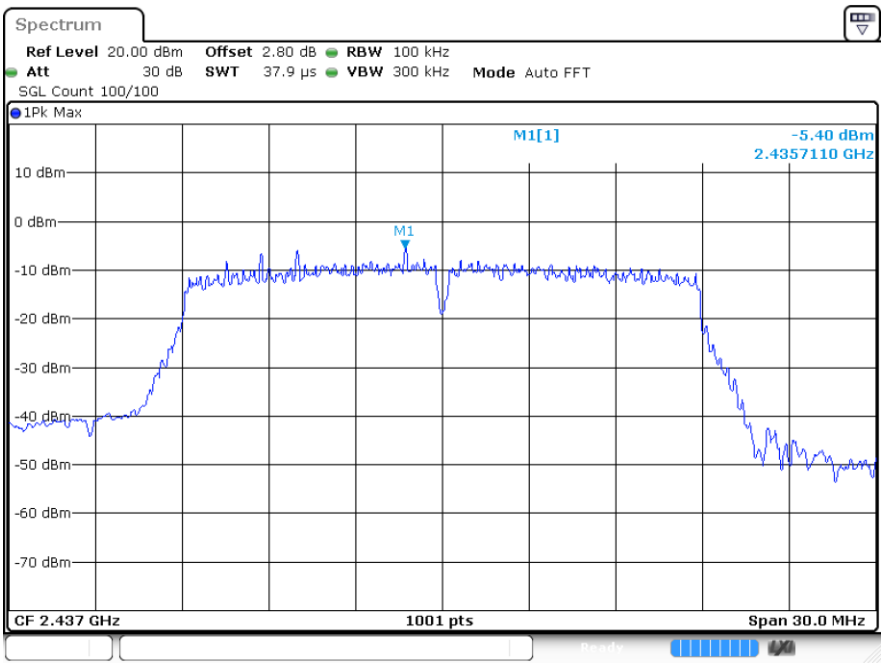
n20 2412MHz Ant1 Emission



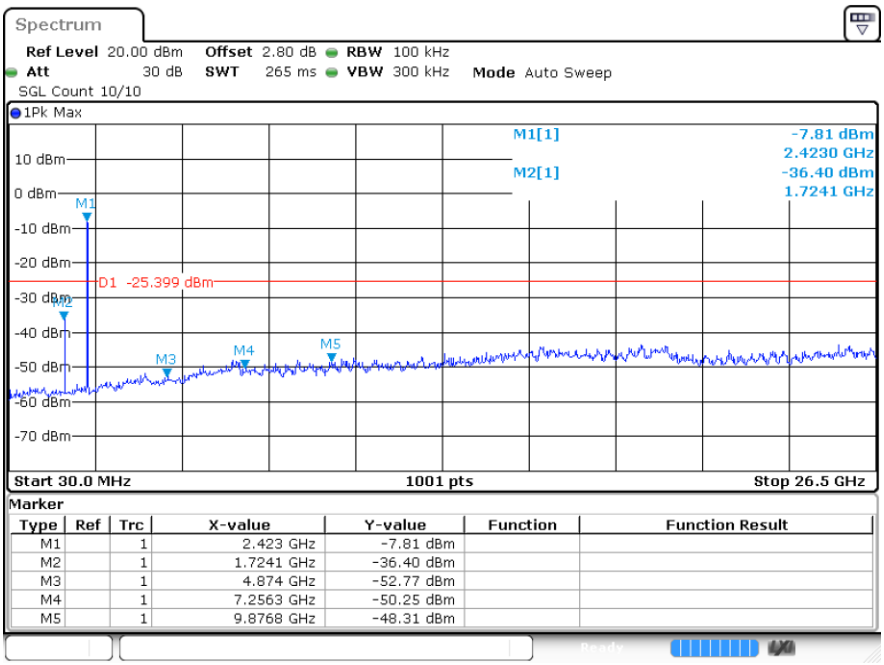
Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.423 GHz	-4.96 dBm		
M2		1	1.7241 GHz	-37.56 dBm		
M3		1	4.9799 GHz	-51.87 dBm		
M4		1	7.0446 GHz	-50.50 dBm		
M5		1	9.5327 GHz	-48.94 dBm		

n20 2437MHz Ant1 Ref



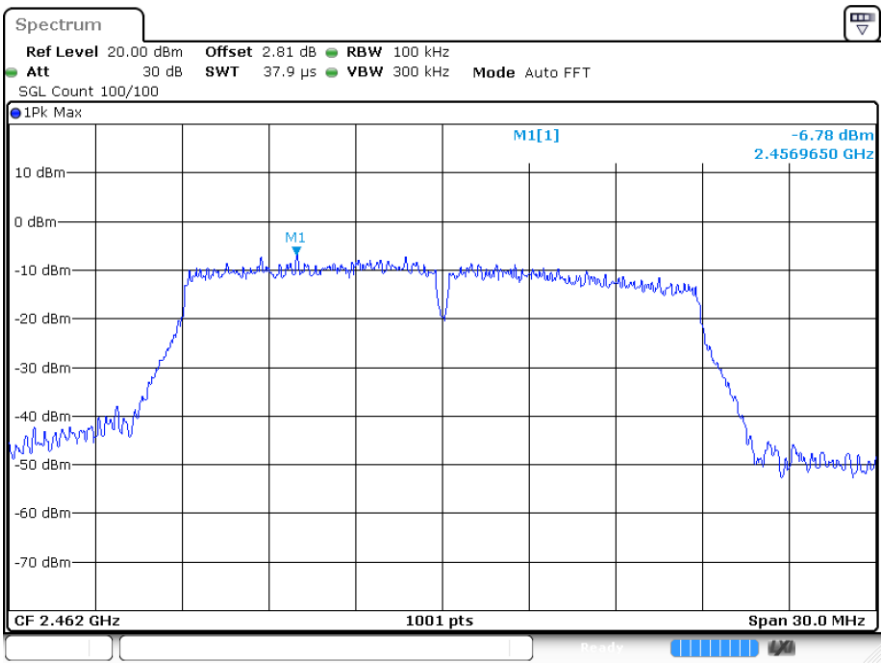
n20 2437MHz Ant1 Emission



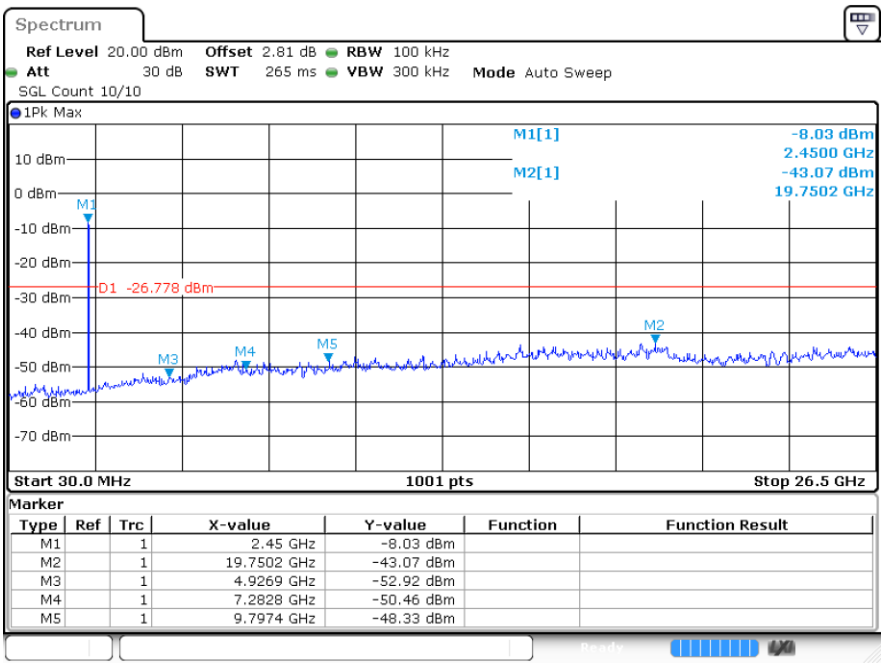
Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.423 GHz	-7.81 dBm		
M2		1	1.7241 GHz	-36.40 dBm		
M3		1	4.874 GHz	-52.77 dBm		
M4		1	7.2563 GHz	-50.25 dBm		
M5		1	9.8768 GHz	-48.31 dBm		

n20 2462MHz Ant1 Ref



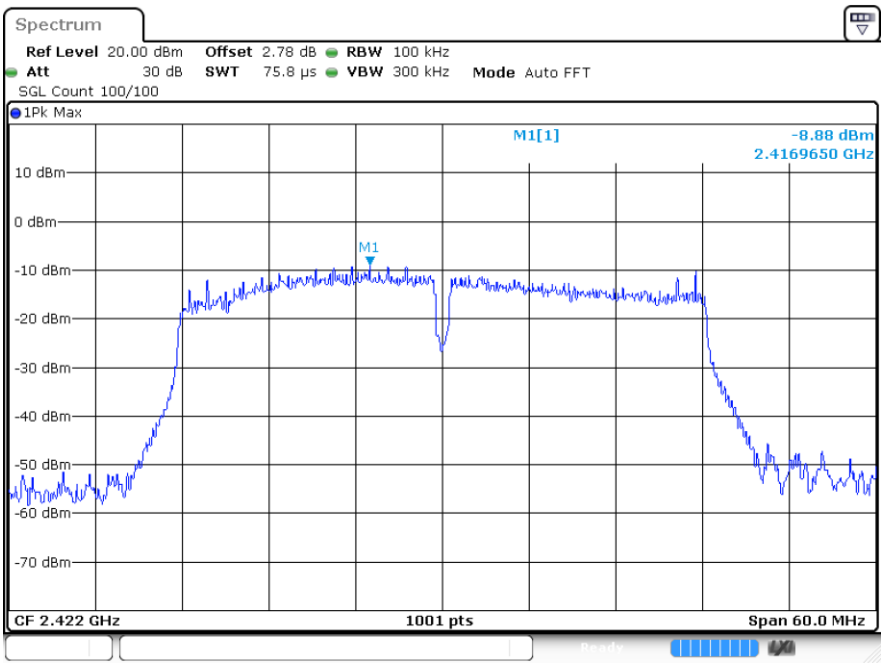
n20 2462MHz Ant1 Emission



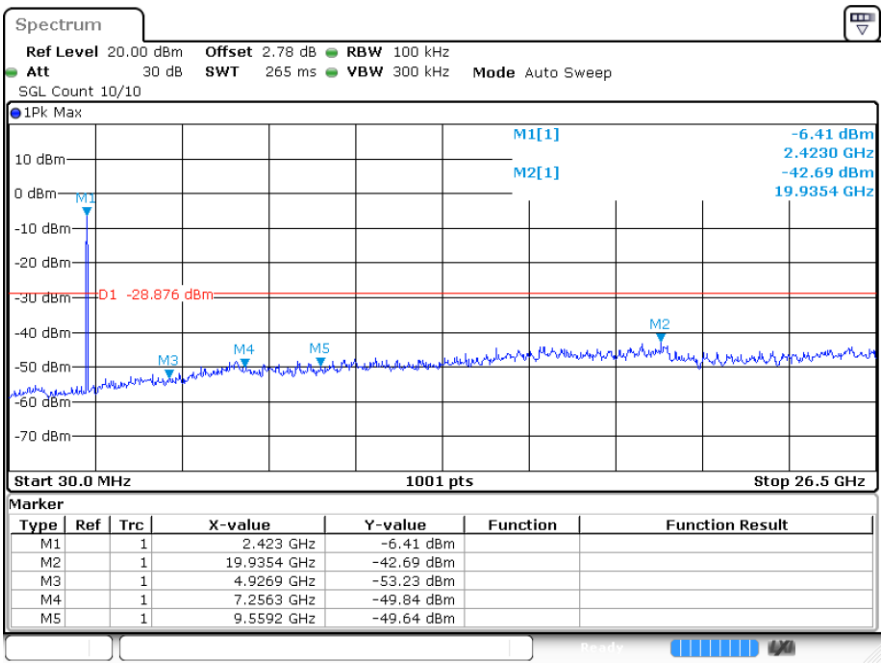
Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.45 GHz	-8.03 dBm		
M2		1	19.7502 GHz	-43.07 dBm		
M3		1	4.9269 GHz	-52.92 dBm		
M4		1	7.2828 GHz	-50.46 dBm		
M5		1	9.7974 GHz	-48.33 dBm		

n40 2422MHz Ant1 Ref



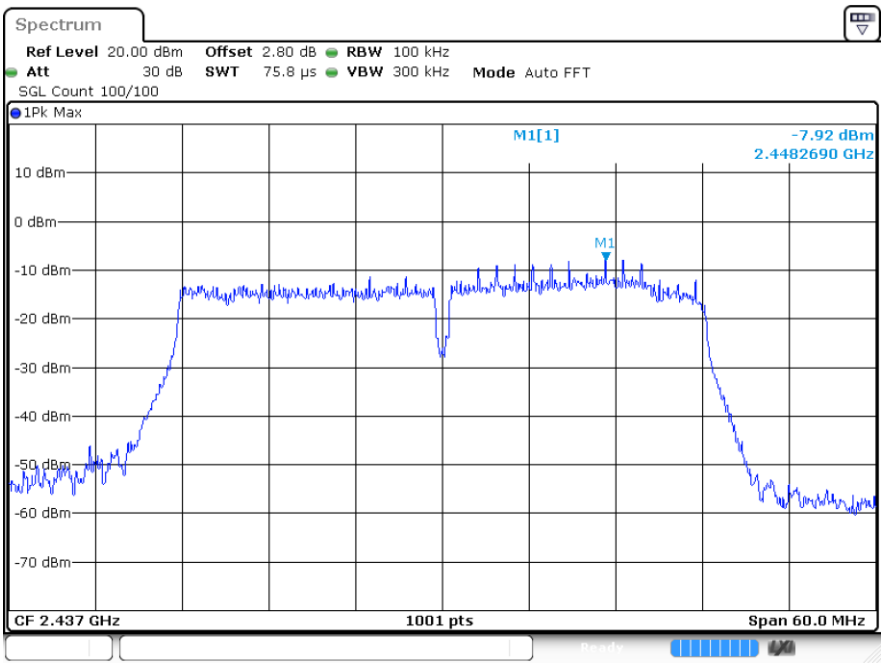
n40 2422MHz Ant1 Emission



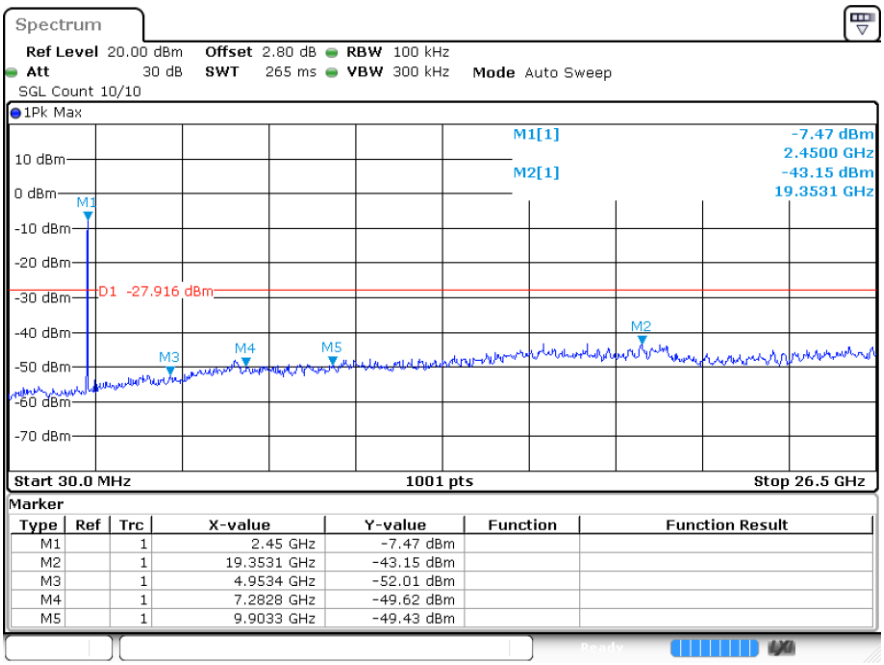
Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.423 GHz	-6.41 dBm		
M2		1	19.9354 GHz	-42.69 dBm		
M3		1	4.9269 GHz	-53.23 dBm		
M4		1	7.2563 GHz	-49.84 dBm		
M5		1	9.5592 GHz	-49.64 dBm		

n40 2437MHz Ant1 Ref



n40 2437MHz Ant1 Emission



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.45 GHz	-7.47 dBm		
M2		1	19.3531 GHz	-43.15 dBm		
M3		1	4.9534 GHz	-52.01 dBm		
M4		1	7.2828 GHz	-49.62 dBm		
M5		1	9.9033 GHz	-49.43 dBm		