Appendix C

RF Test Data for 2.4GWIFI (Conducted Measurement)

Product Name: Hidden wifi Car Dashcam

Trade Mark: N/A

Test Model: KH1

Environmental Conditions

Temperature:	24.6° C
Relative Humidity:	52.4%
ATM Pressure:	100.0 kPa
Test Engineer:	Emiya lin
Supervised by:	Simba Haung

Contents

Page

COVER PAGE

1 Duty Cycle 3
1.1 Test Result 3
1.2 Test Graphs 4
2 Maximum Conducted Output Power 9
2.1 Test Result 9
3 -6dB Bandwidth 10
3.1 Test Result 10
3.2 Test Graphs 11
4 Maximum Power Spectral Density Level 16
4.1 Test Result 16
4.2 Test Graphs 17
5 Band Edge 22
5.1 Test Result 22
5.2 Test Graphs 23
6 Conducted RF Spurious Emission 29
6.1 Test Result 29
6.2 Test Graphs 30
7 Restrict Band 39
7.1 Test Result 39
7.2 Test Graphs 41

1 Duty Cycle

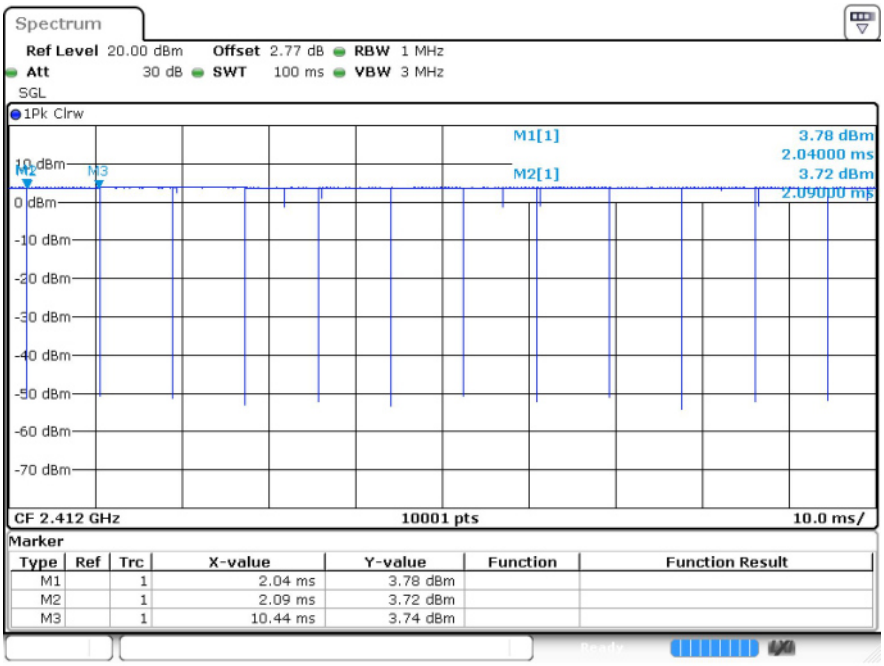
1.1 Test Result

Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor	1/T (kHz)
b	2412	Ant1	99.59	0.02	0.12
b	2437	Ant1	99.6	0.02	0.12
b	2462	Ant1	99.6	0.02	0.12
g	2412	Ant1	86.92	0.61	4.55
g	2437	Ant1	86.88	0.61	4.55
g	2462	Ant1	86.89	0.61	4.76
n20	2412	Ant1	87.59	0.58	4.35
n20	2437	Ant1	87.58	0.58	4.35
n20	2462	Ant1	87.62	0.57	4.17

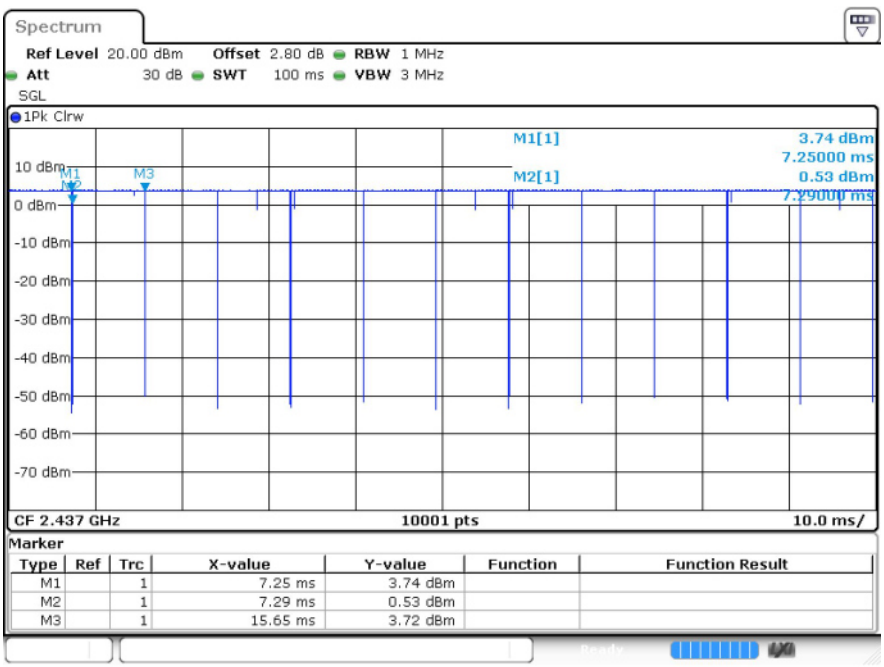
1.2 Test Graphs

Test Graphs

b 2412MHz Ant1

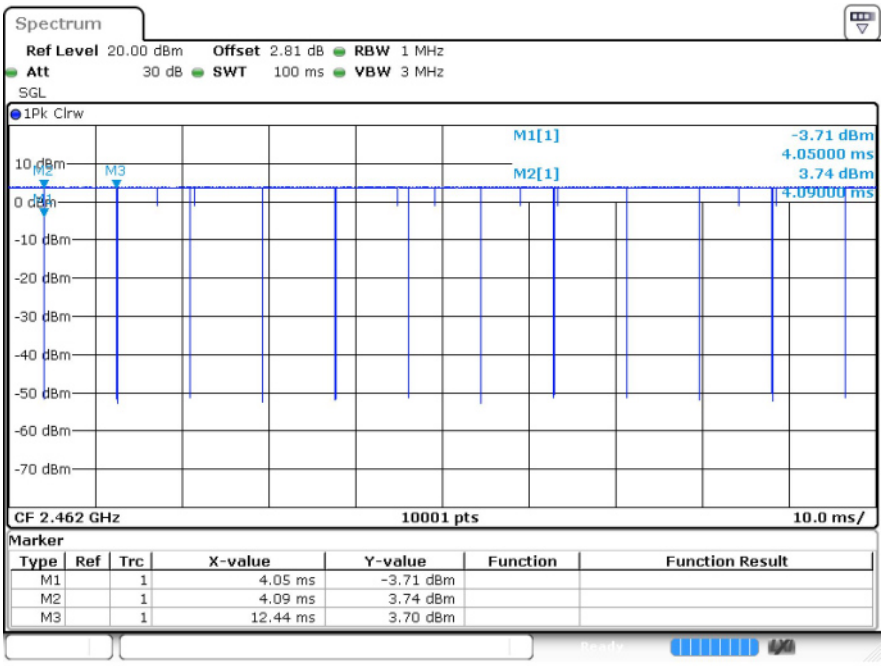


b 2437MHz Ant1

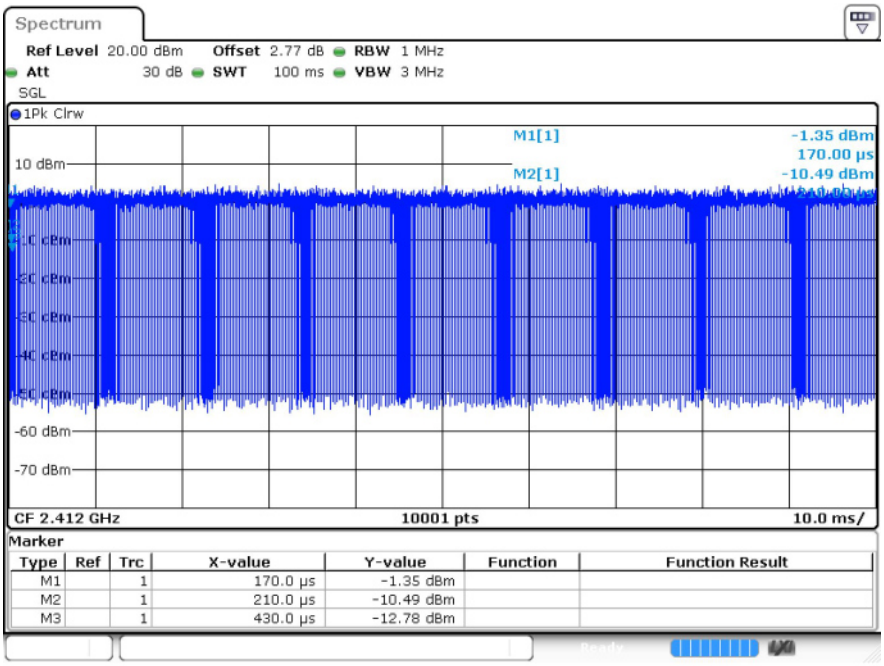


Test Graphs

b 2462MHz Ant1

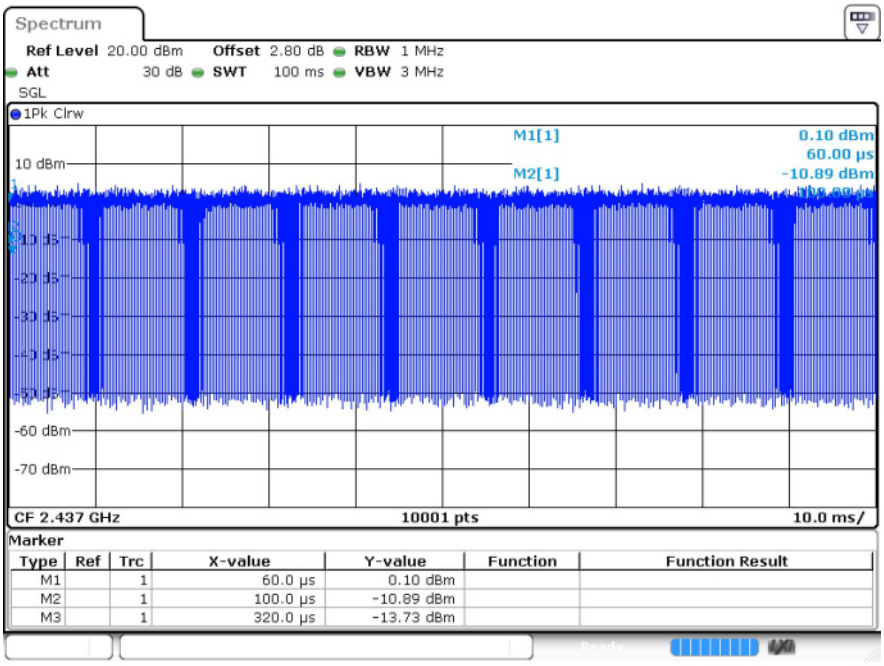


g 2412MHz Ant1

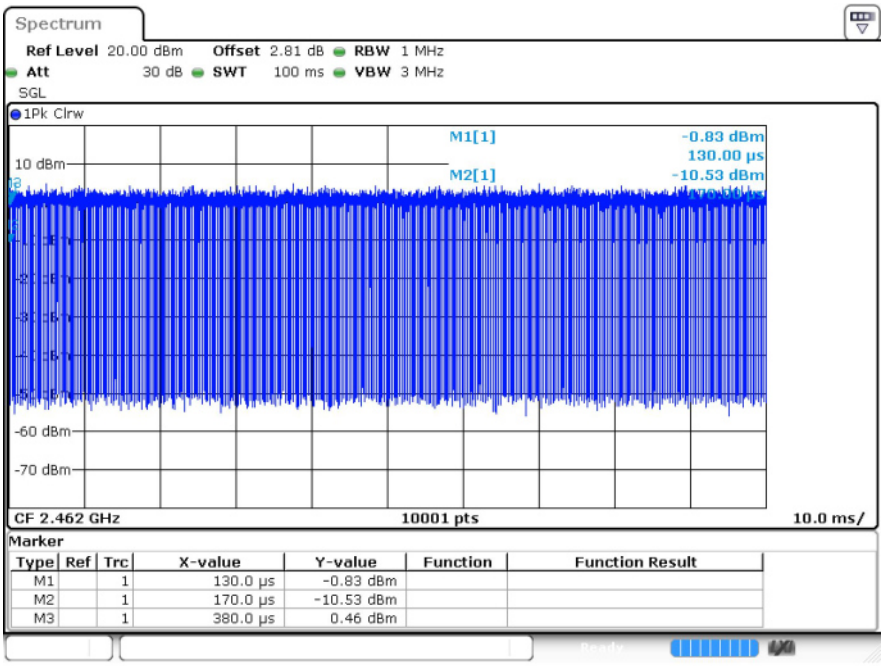


Test Graphs

g 2437MHz Ant1

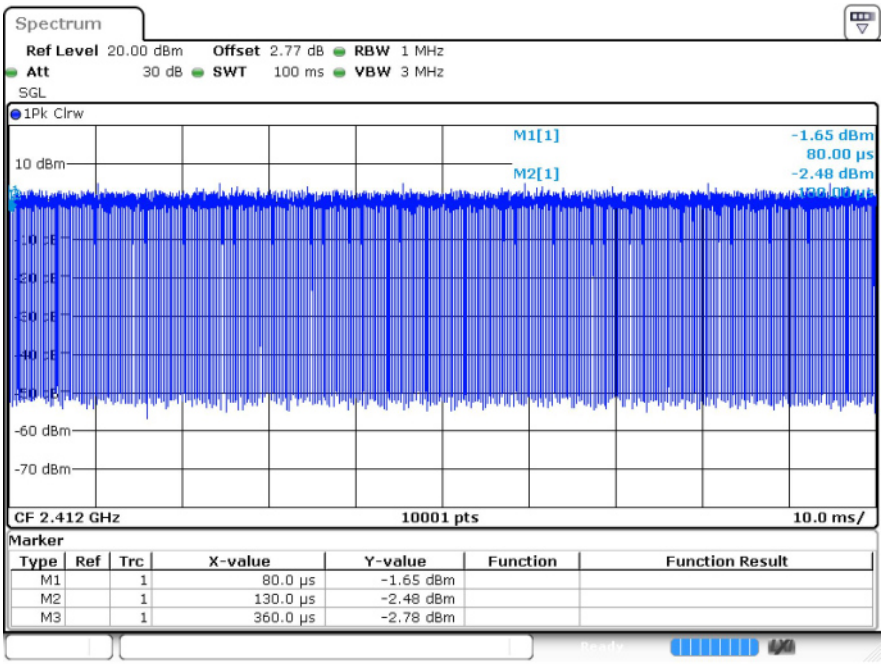


g 2462MHz Ant1

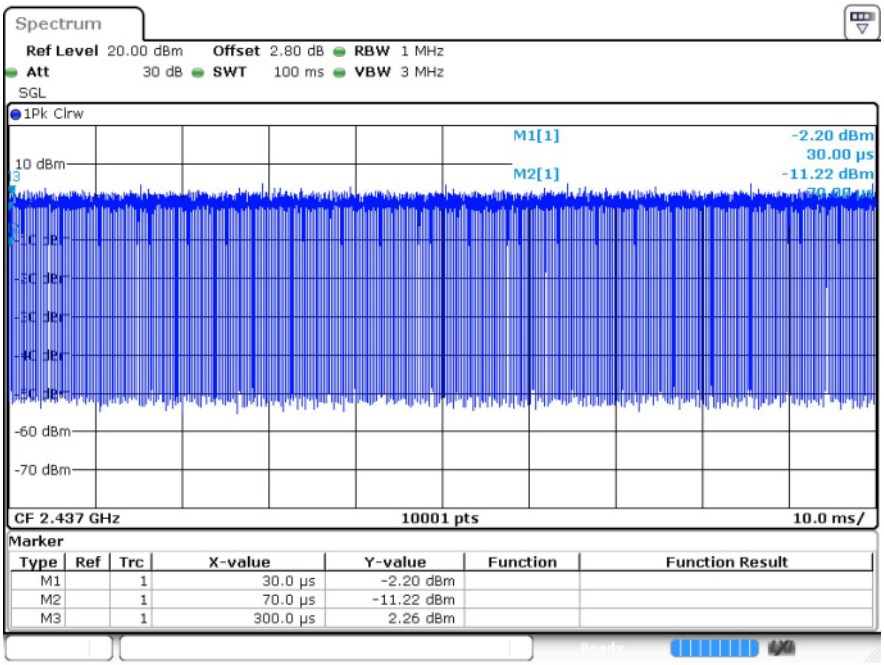


Test Graphs

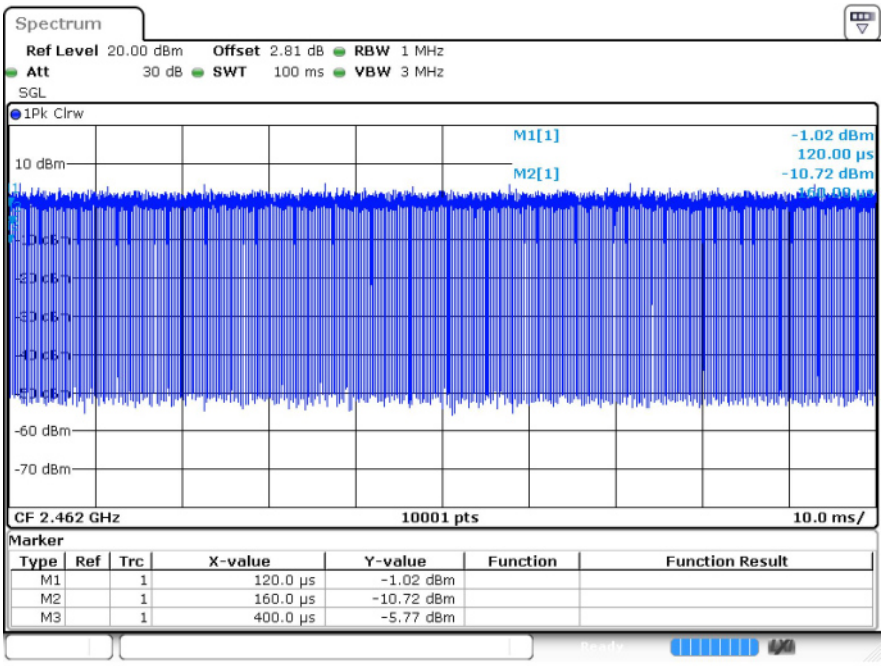
n20 2412MHz Ant1



n20 2437MHz Ant1



Test Graphs
n20 2462MHz Ant1



2 Maximum Conducted Output Power

2.1 Test Result

Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
b	2412	Ant1	14.18	30	Pass
b	2437	Ant1	14.22	30	Pass
b	2462	Ant1	14.22	30	Pass
g	2412	Ant1	13.96	30	Pass
g	2437	Ant1	13.83	30	Pass
g	2462	Ant1	14.05	30	Pass
n20	2412	Ant1	13.76	30	Pass
n20	2437	Ant1	13.53	30	Pass
n20	2462	Ant1	13.67	30	Pass

3 -6dB Bandwidth

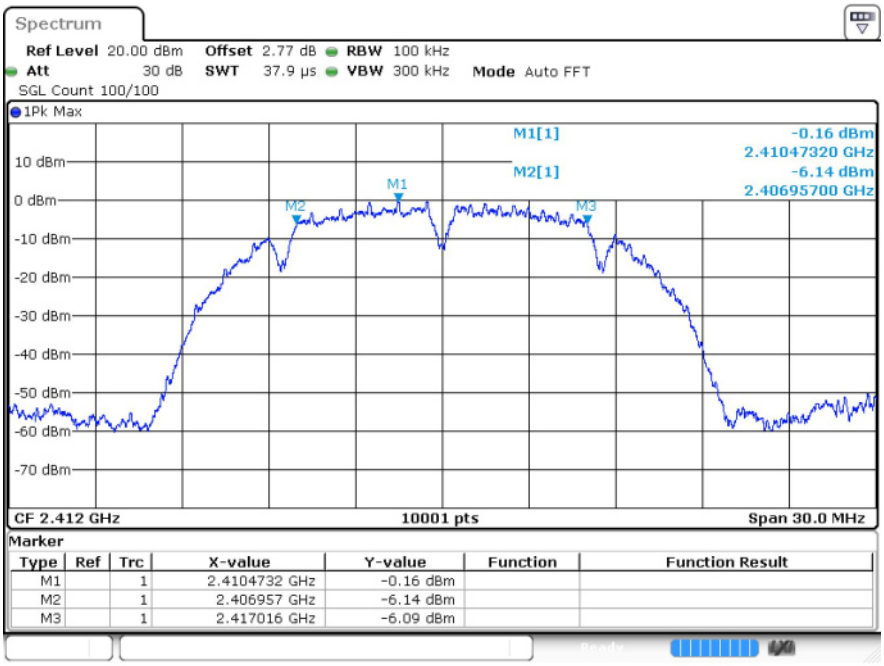
3.1 Test Result

Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
b	2412	Ant1	10.059	0.5	Pass
b	2437	Ant1	10.083	0.5	Pass
b	2462	Ant1	10.098	0.5	Pass
g	2412	Ant1	15.114	0.5	Pass
g	2437	Ant1	15.021	0.5	Pass
g	2462	Ant1	15.126	0.5	Pass
n20	2412	Ant1	15.084	0.5	Pass
n20	2437	Ant1	15.108	0.5	Pass
n20	2462	Ant1	15.078	0.5	Pass

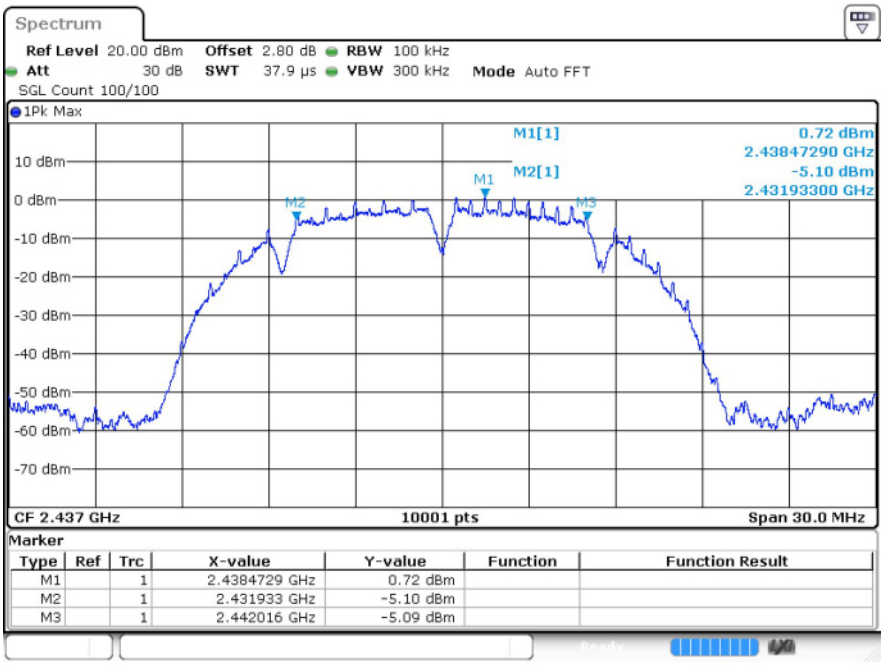
3.2 Test Graphs

Test Graphs

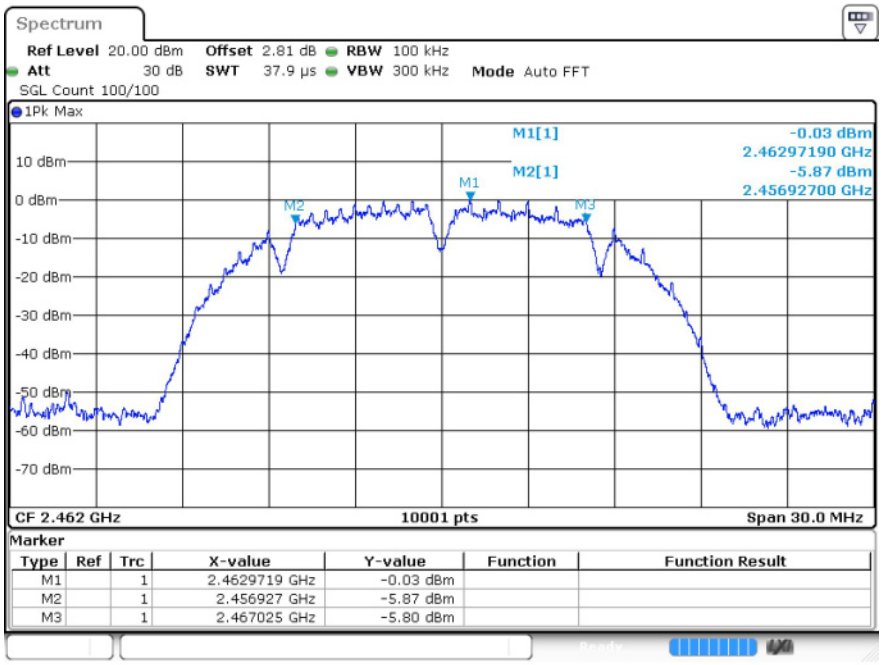
b 2412MHz Ant1



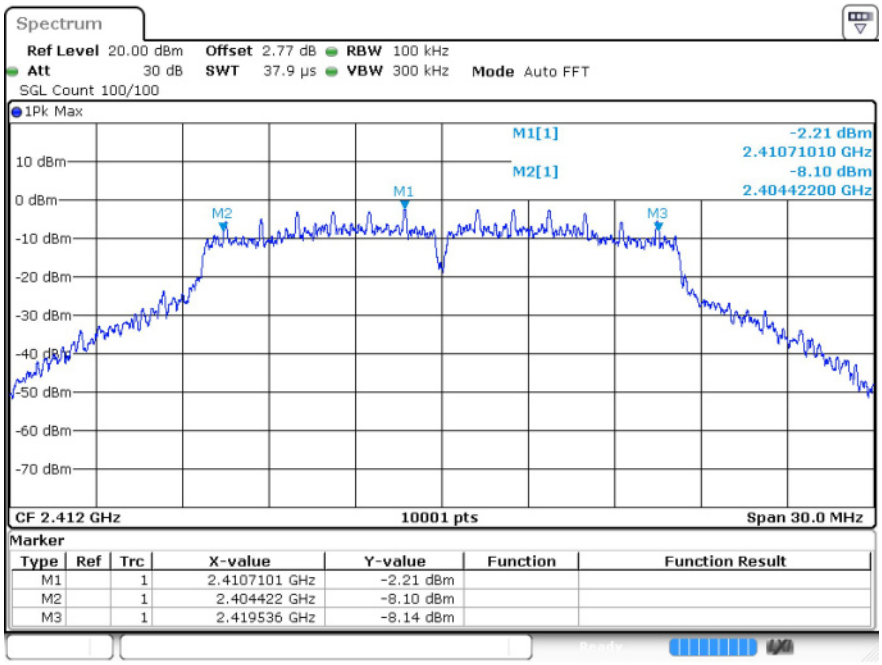
b 2437MHz Ant1



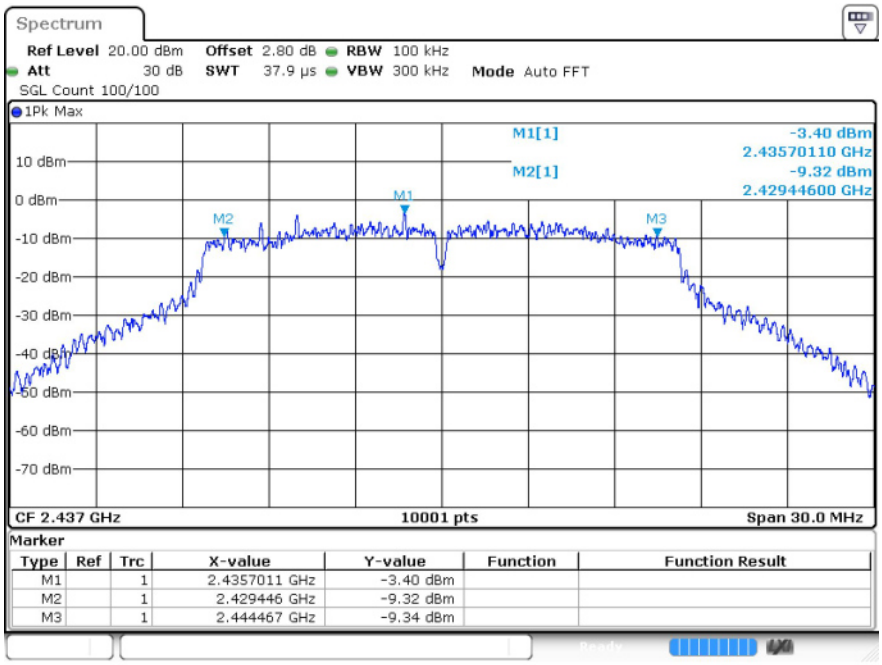
b 2462MHz Ant1



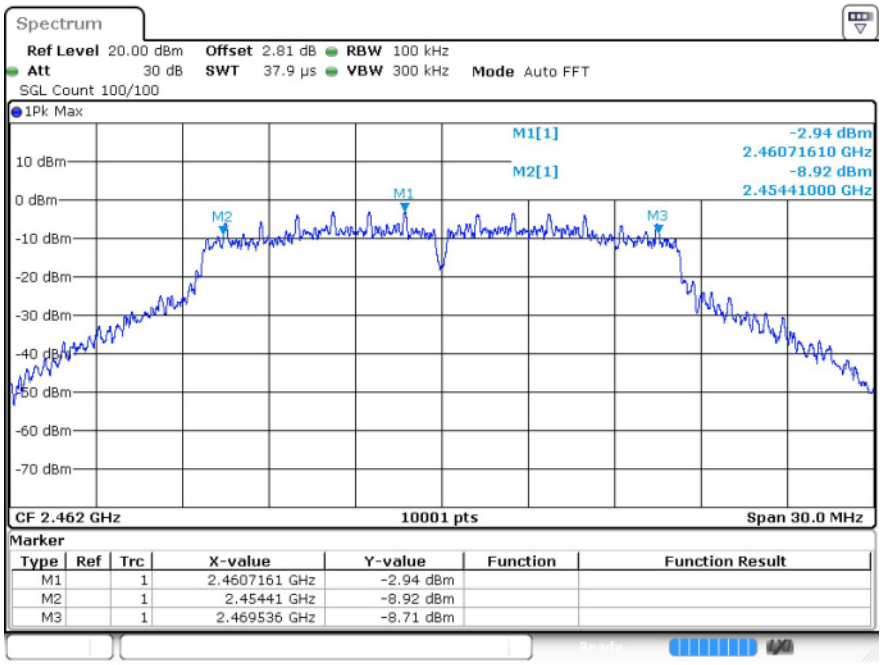
g 2412MHz Ant1



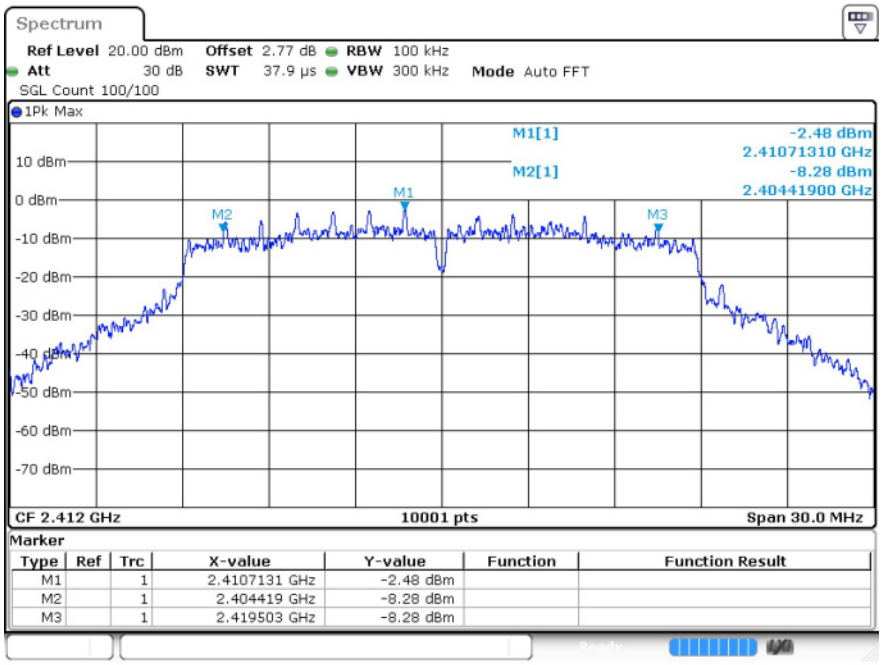
g 2437MHz Ant1



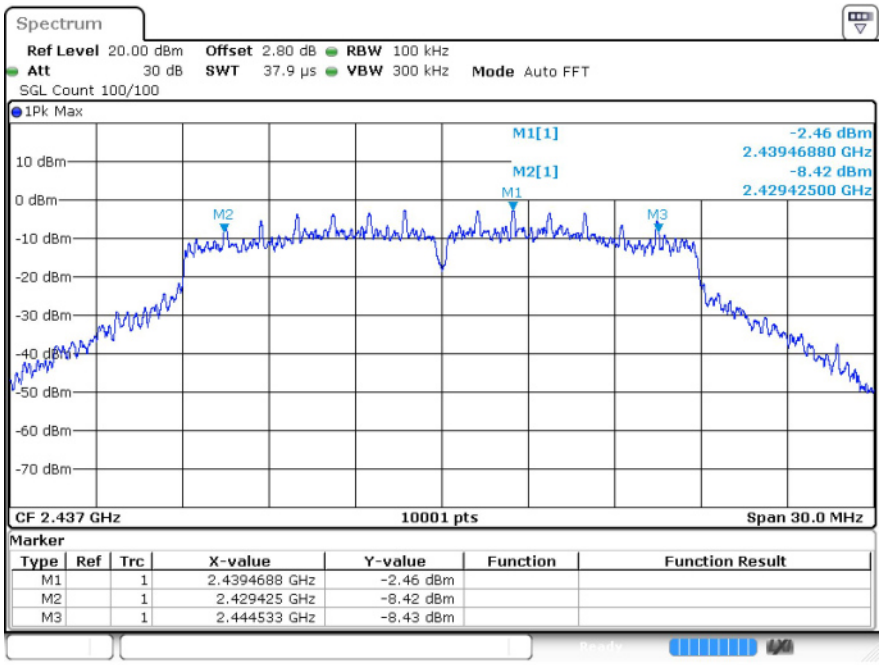
g 2462MHz Ant1



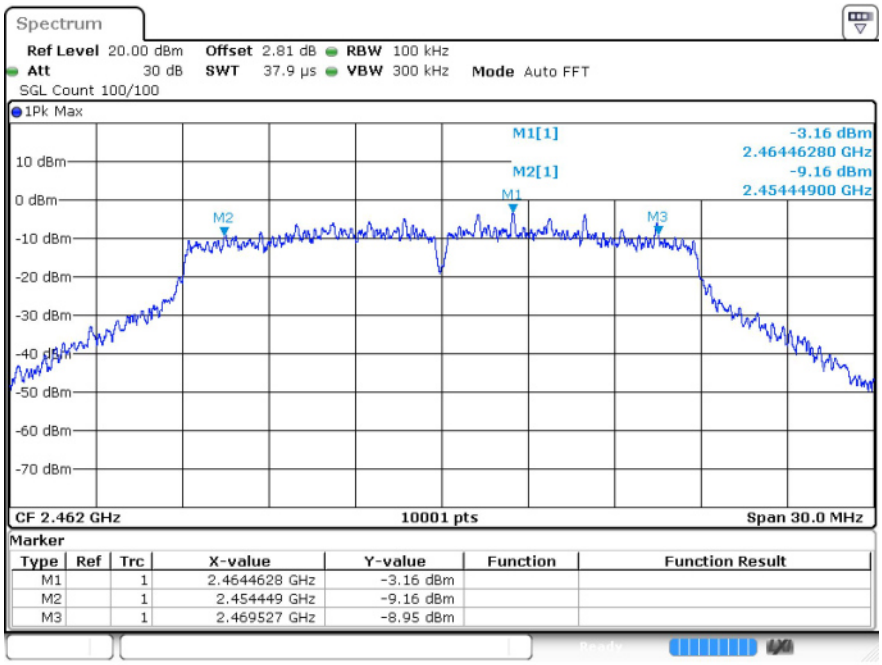
n20 2412MHz Ant1



n20 2437MHz Ant1



n20 2462MHz Ant1

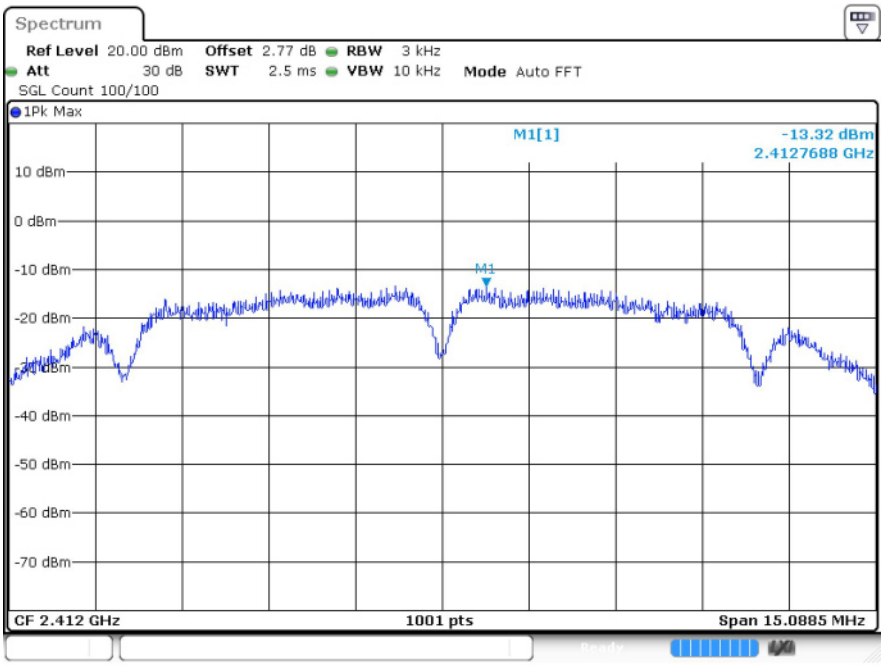
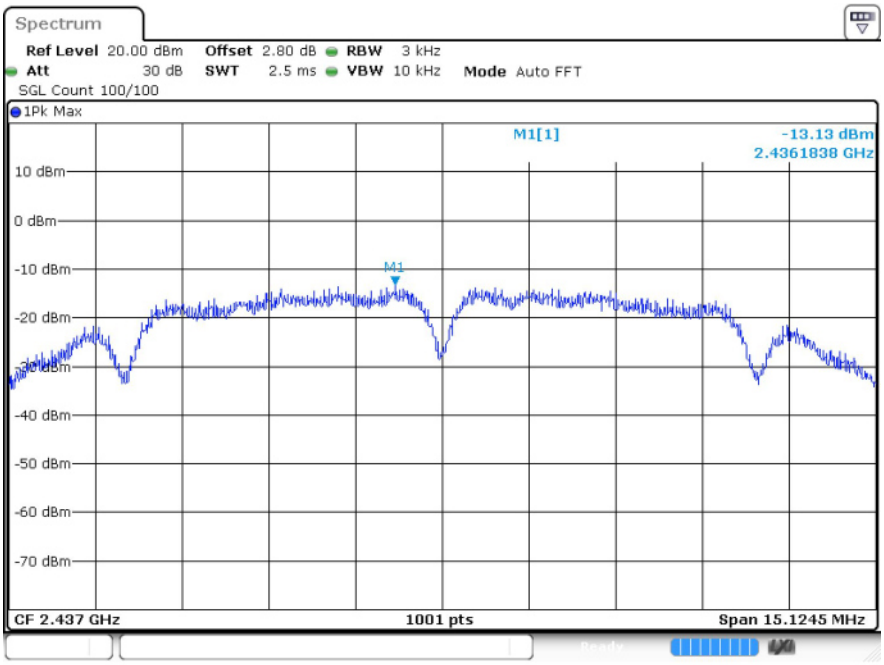


4 Maximum Power Spectral Density Level

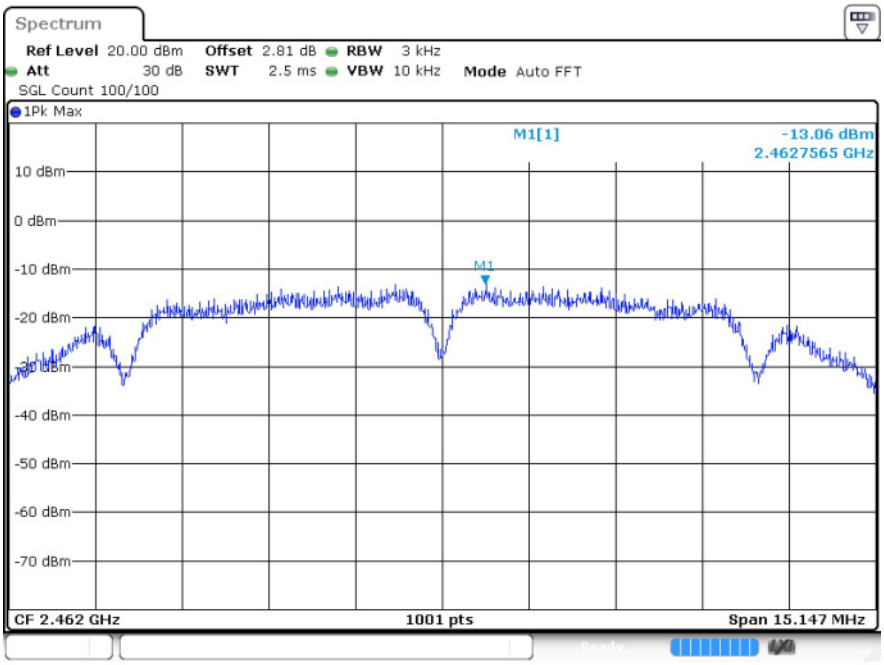
4.1 Test Result

Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3-100kHz)	Limit (dBm/3kHz)	Verdict
b	2412	Ant1	-13.32	≤8	Pass
b	2437	Ant1	-13.13	≤8	Pass
b	2462	Ant1	-13.06	≤8	Pass
g	2412	Ant1	-16.87	≤8	Pass
g	2437	Ant1	-16.83	≤8	Pass
g	2462	Ant1	-17.01	≤8	Pass
n20	2412	Ant1	-16.08	≤8	Pass
n20	2437	Ant1	-16.26	≤8	Pass
n20	2462	Ant1	-17.32	≤8	Pass

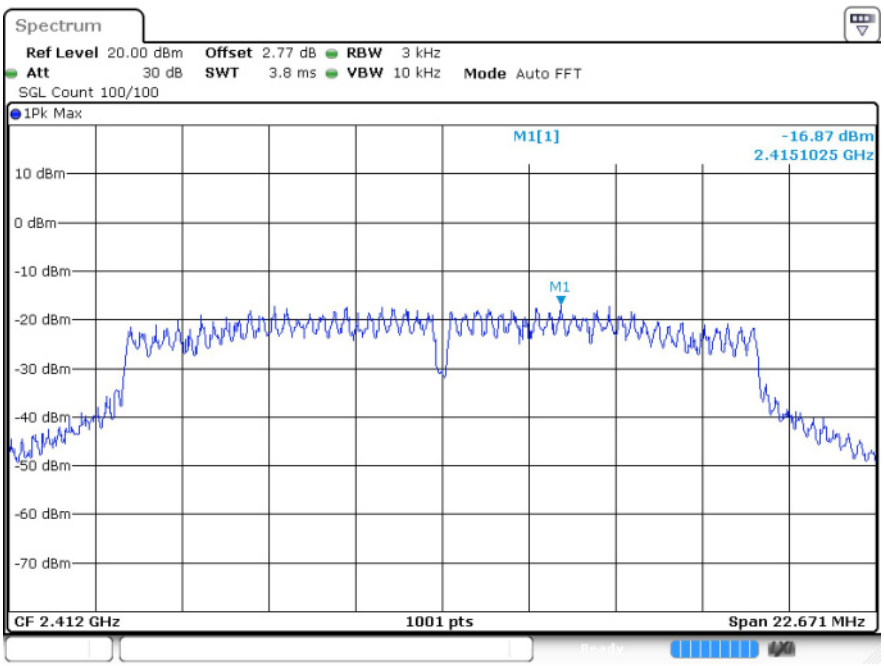
4.2 Test Graphs

Test Graphs
b 2412MHz Ant1

b 2437MHz Ant1


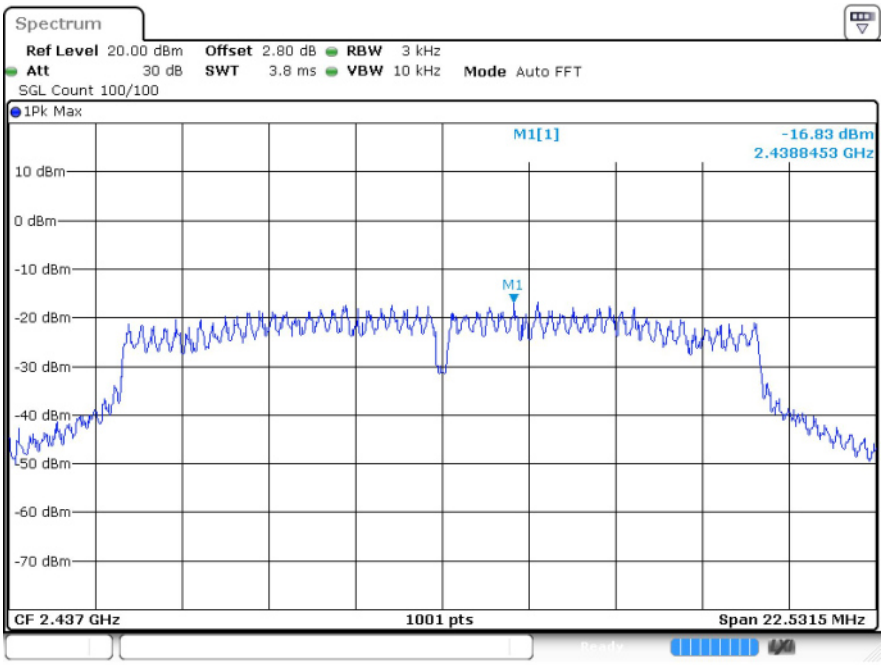
b 2462MHz Ant1



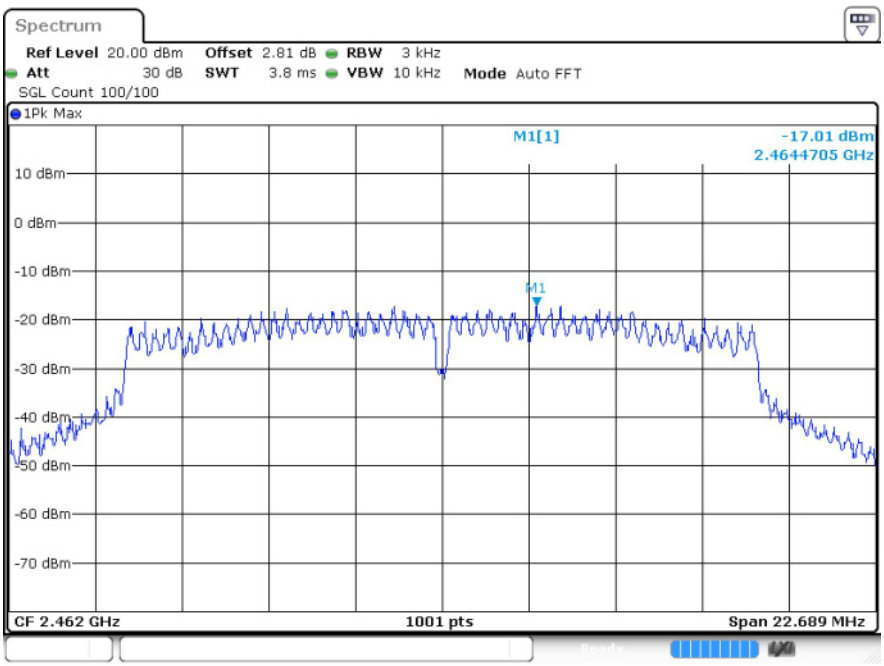
g 2412MHz Ant1



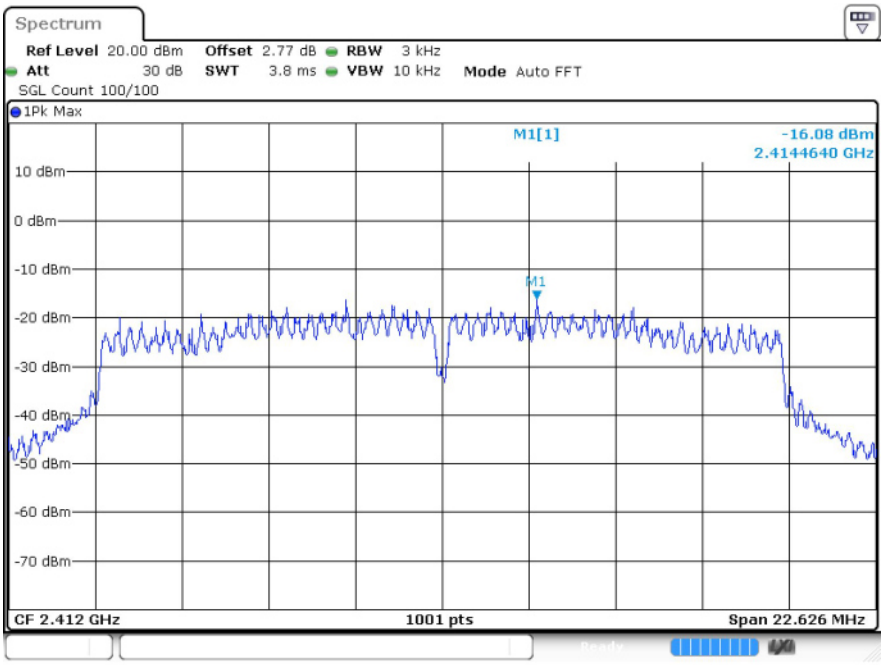
g 2437MHz Ant1



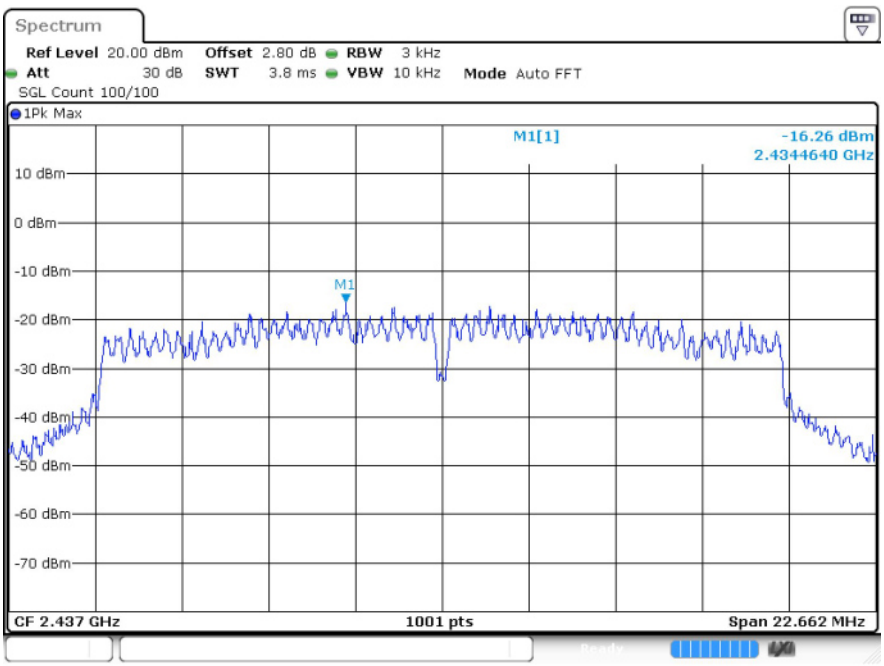
g 2462MHz Ant1



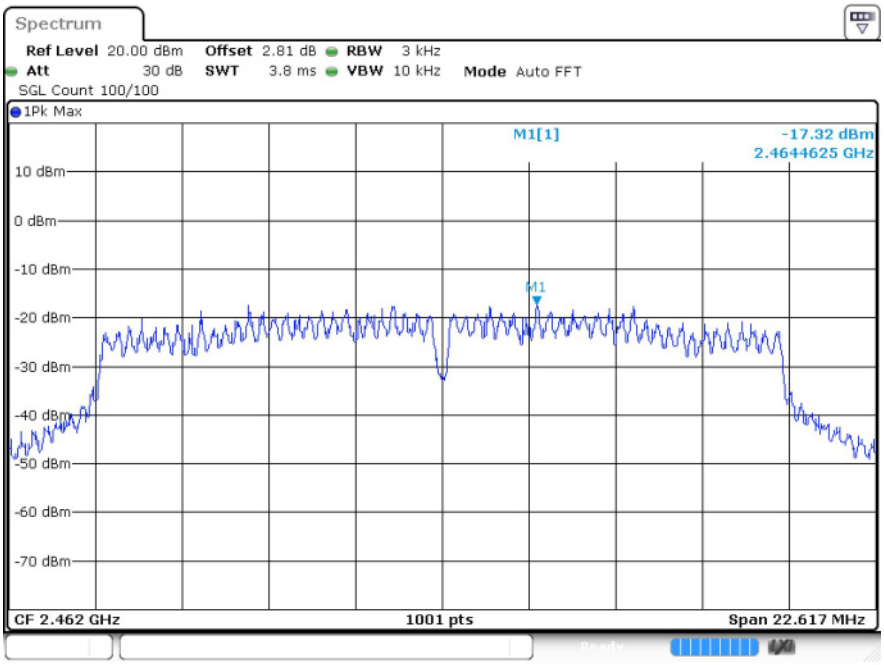
n20 2412MHz Ant1



n20 2437MHz Ant1



n20 2462MHz Ant1



5 Band Edge

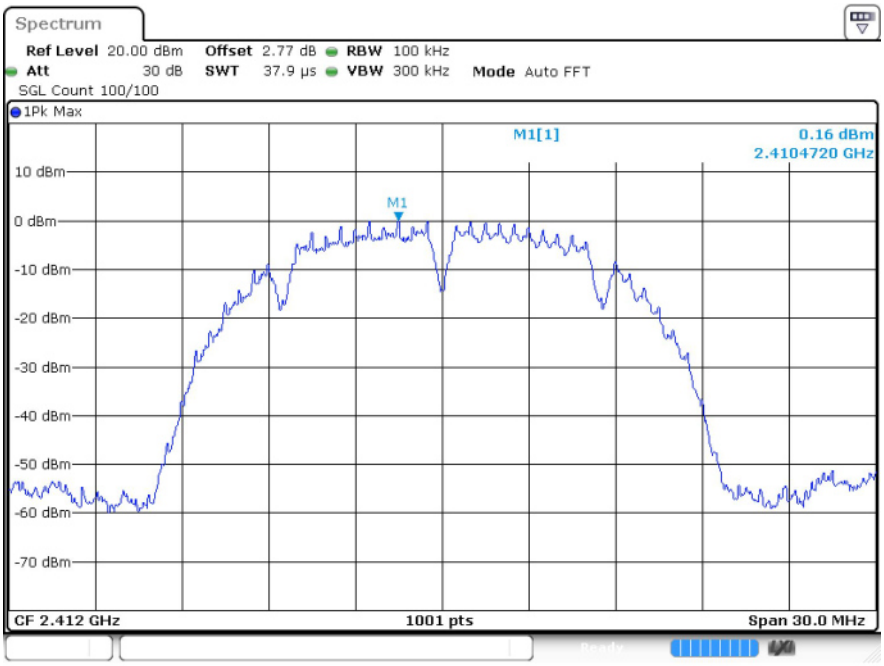
5.1 Test Result

Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
b	2412	Ant1	-55.02	-20	Pass
b	2462	Ant1	-55.02	-20	Pass
g	2412	Ant1	-52.09	-20	Pass
g	2462	Ant1	-52.93	-20	Pass
n20	2412	Ant1	-52.67	-20	Pass
n20	2462	Ant1	-53.31	-20	Pass

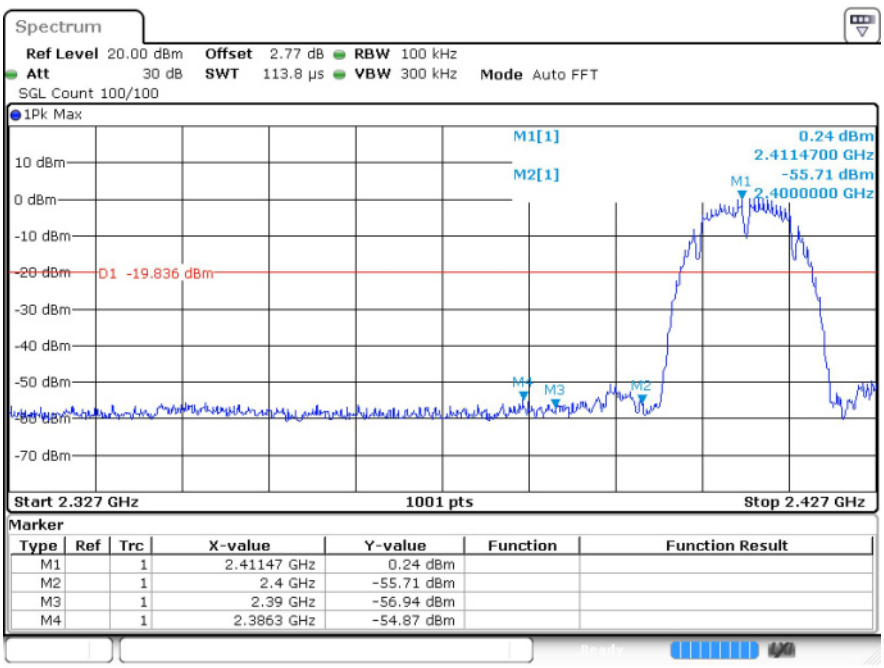
5.2 Test Graphs

Test Graphs

b 2412MHz Ant1 Ref



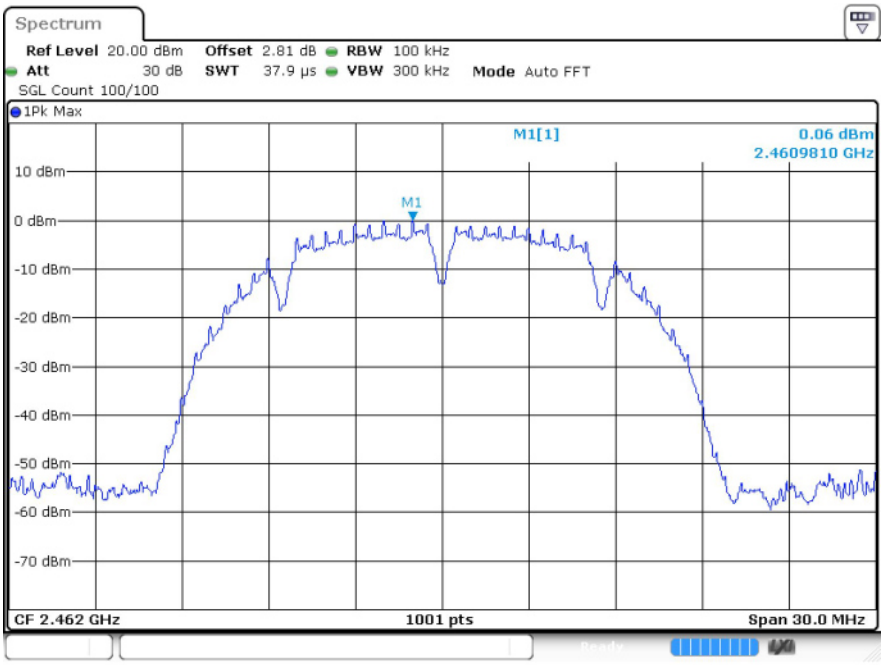
b 2412MHz Ant1 Emission



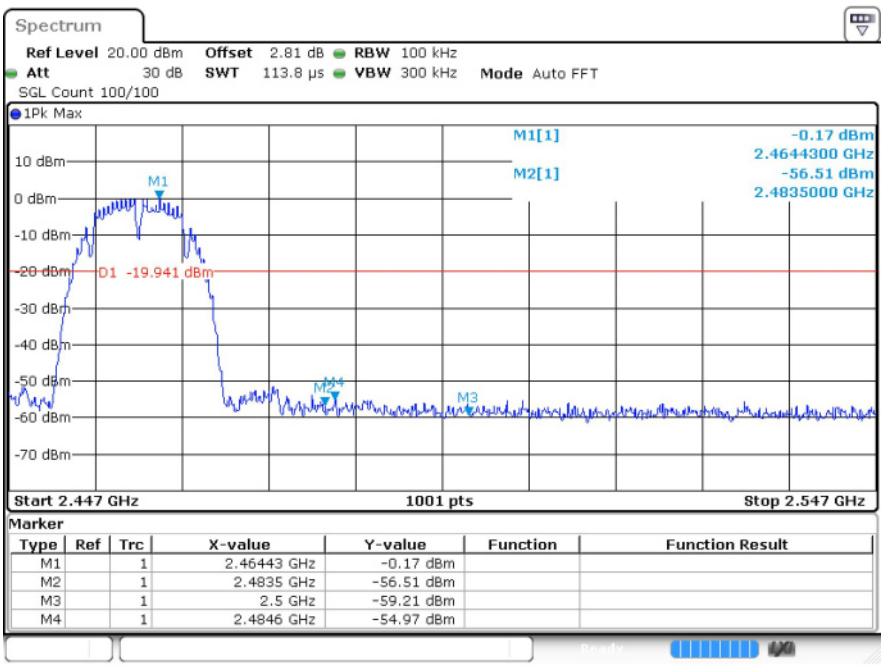
Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.41147 GHz	0.24 dBm		
M2		1	2.4 GHz	-55.71 dBm		
M3		1	2.39 GHz	-56.94 dBm		
M4		1	2.3863 GHz	-54.87 dBm		

b 2462MHz Ant1 Ref



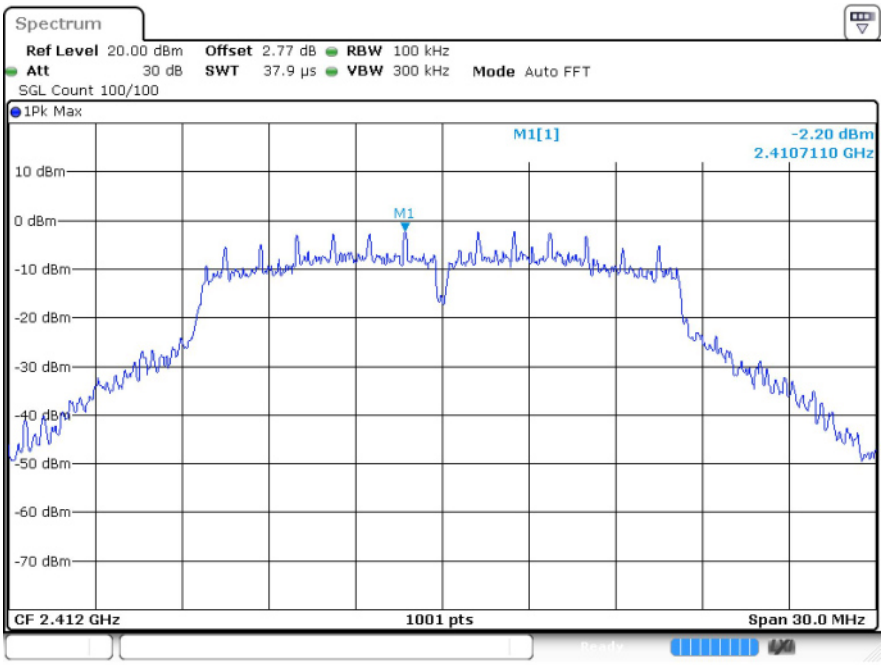
b 2462MHz Ant1 Emission



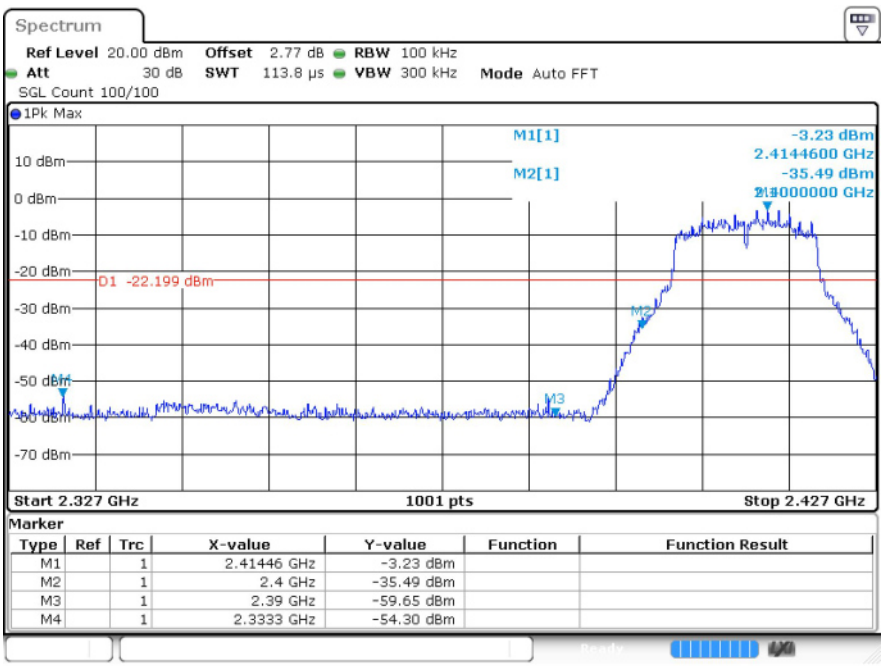
Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.46443 GHz	-0.17 dBm		
M2		1	2.4835 GHz	-56.51 dBm		
M3		1	2.5 GHz	-59.21 dBm		
M4		1	2.4846 GHz	-54.97 dBm		

g 2412MHz Ant1 Ref



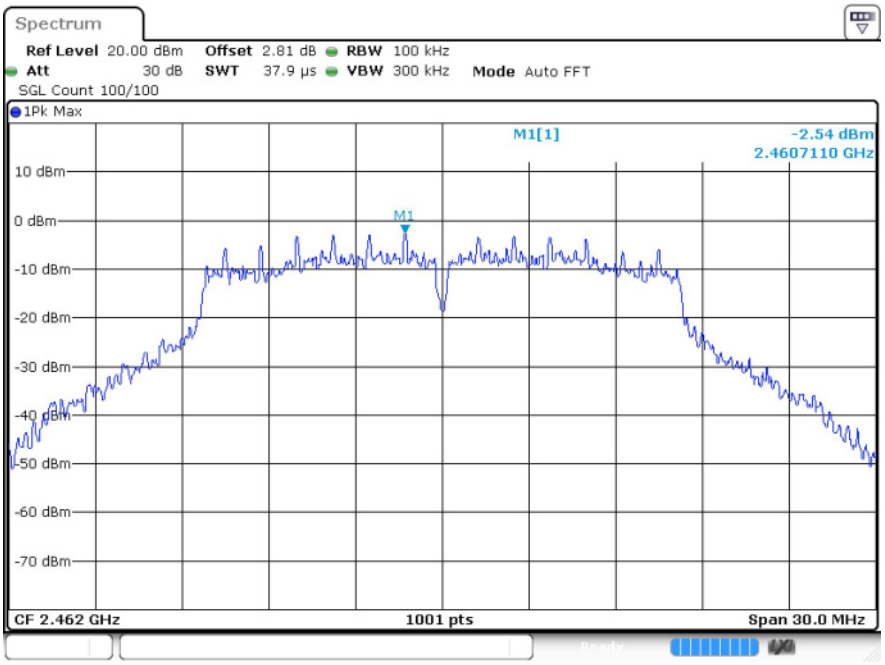
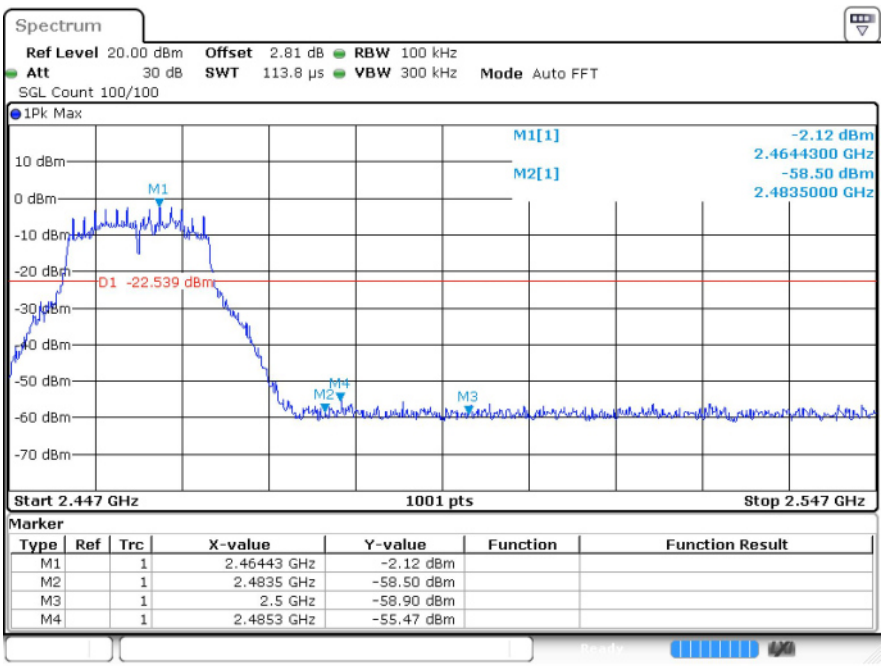
g 2412MHz Ant1 Emission



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.41446 GHz	-3.23 dBm		
M2		1	2.4 GHz	-35.49 dBm		
M3		1	2.39 GHz	-59.65 dBm		
M4		1	2.3333 GHz	-54.30 dBm		

g 2462MHz Ant1 Ref



g 2462MHz Ant1 Emission