Appendix B

RF Test Data for BT (BLE) (Conducted Measurement)

Product Name: Lamp controller

Trade Mark: N/A

Test Model: BT-PF001

Environmental Conditions

Temperature:	25.6° C
Relative Humidity:	52.4%
ATM Pressure:	100.0 kPa
Test Engineer:	Emiya lin
Supervised by:	Simba Haung

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1 Duty Cycle

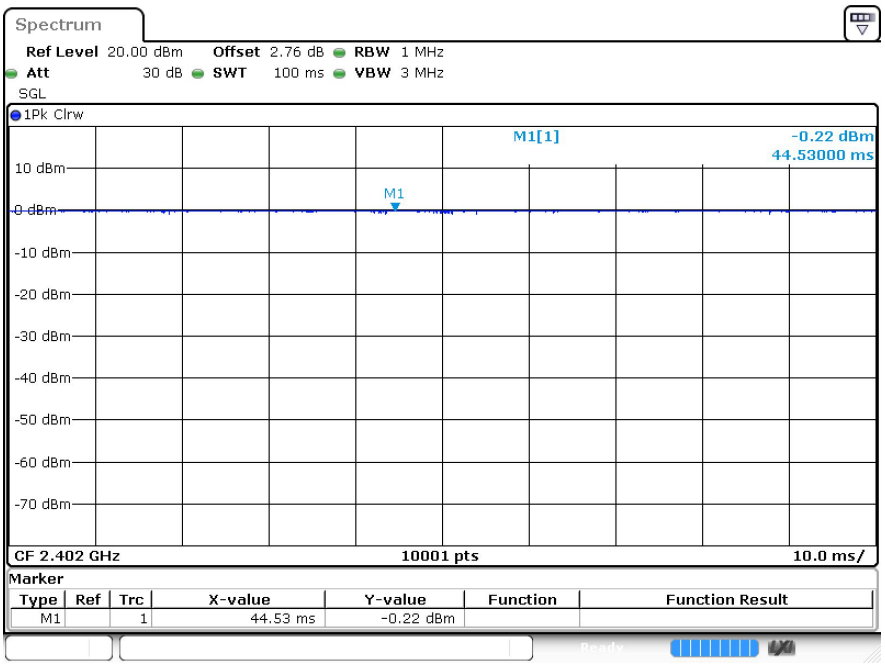
1.1 Test Result

Mode	Frequency (MHz)	Duty Cycle (%)	Correction Factor	1/T (kHz)
BLE 1M	2402	100	0	0
BLE 1M	2440	100	0	0
BLE 1M	2480	100	0	0
BLE 2M	2402	100	0	0
BLE 2M	2440	100	0	0
BLE 2M	2480	100	0	0

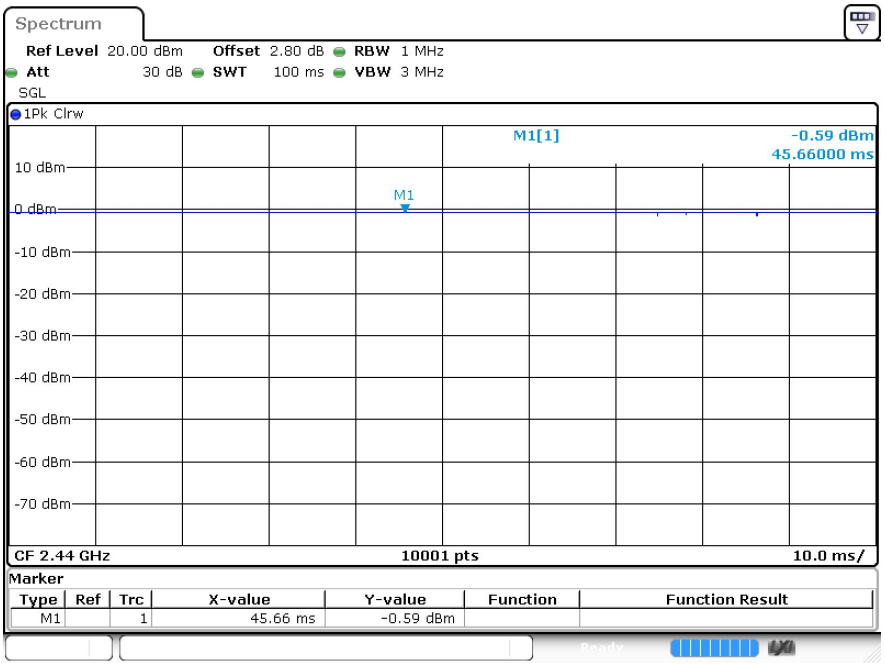
1.2 Test Graphs

Test Graphs

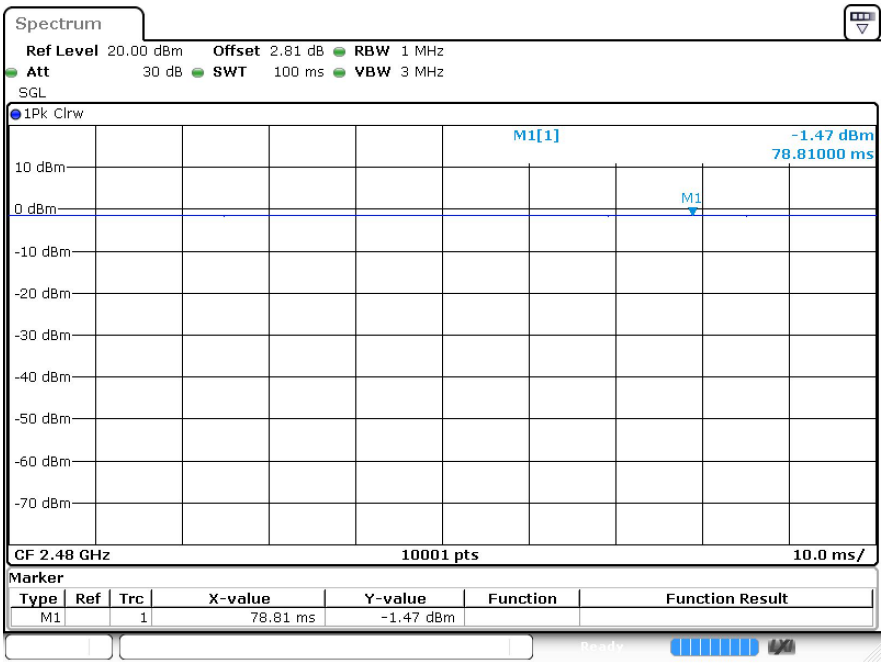
BLE 1M 2402MHz



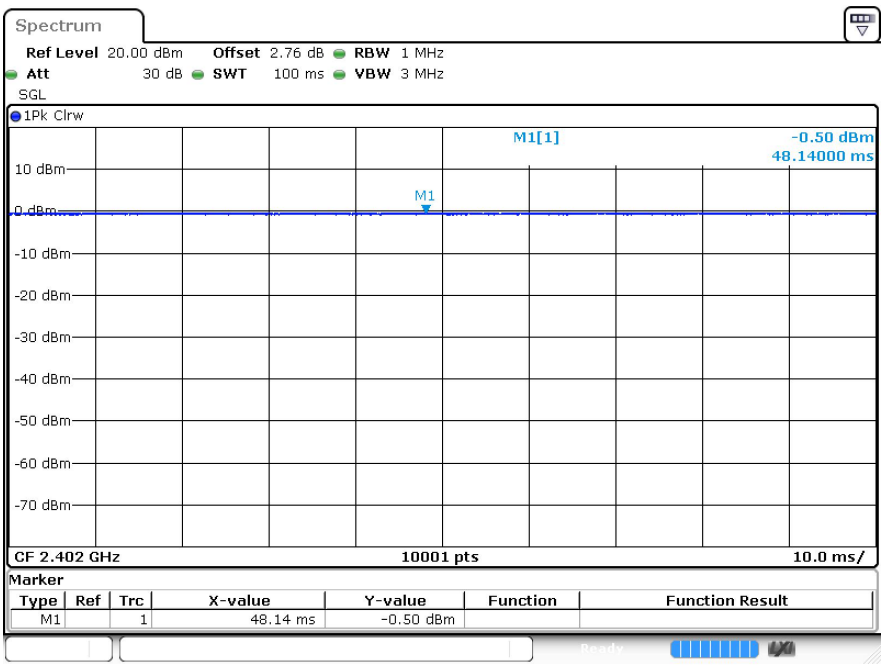
BLE 1M 2440MHz



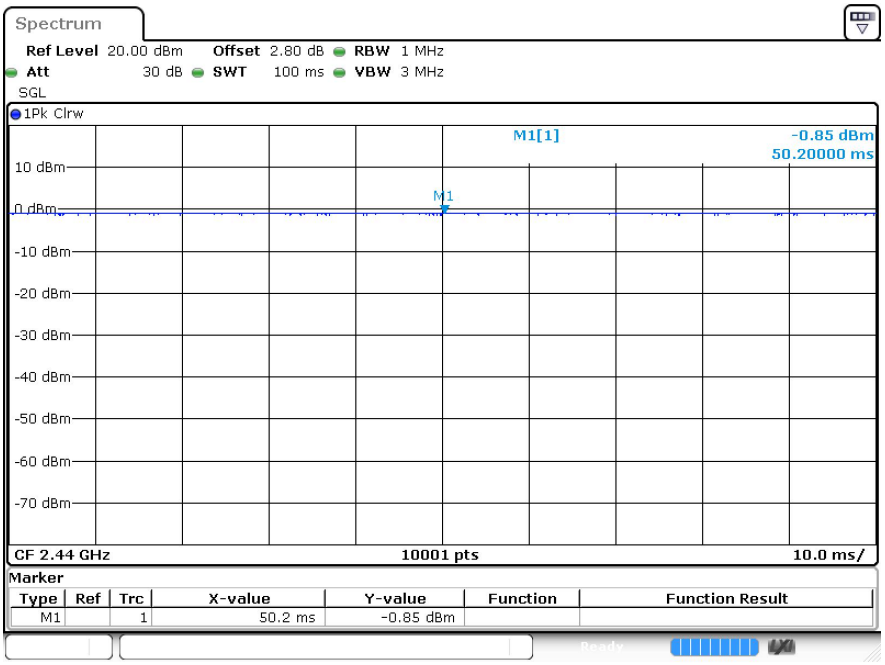
BLE 1M 2480MHz



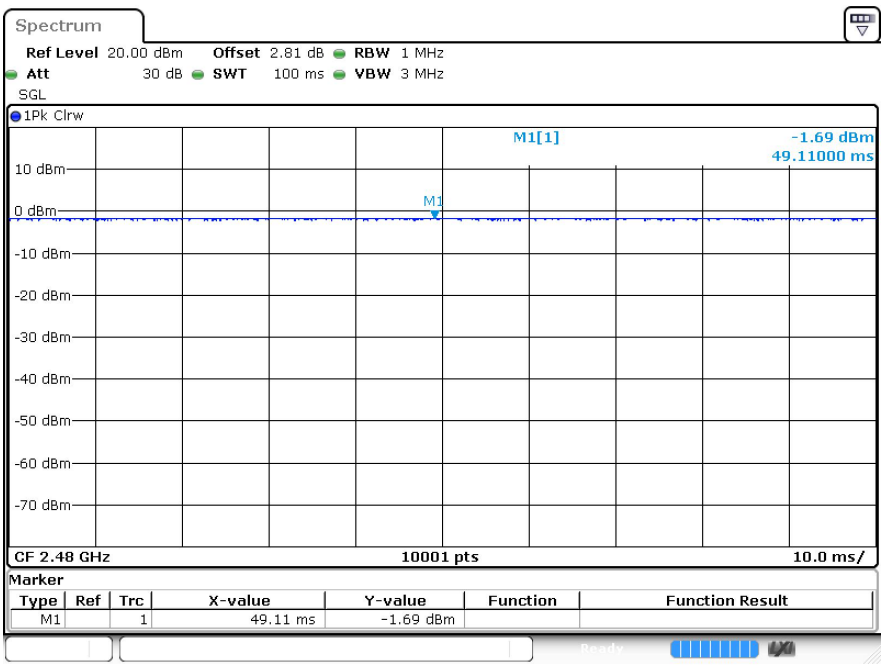
BLE 2M 2402MHz



BLE 2M 2440MHz



BLE 2M 2480MHz



2 Maximum Conducted Output Power

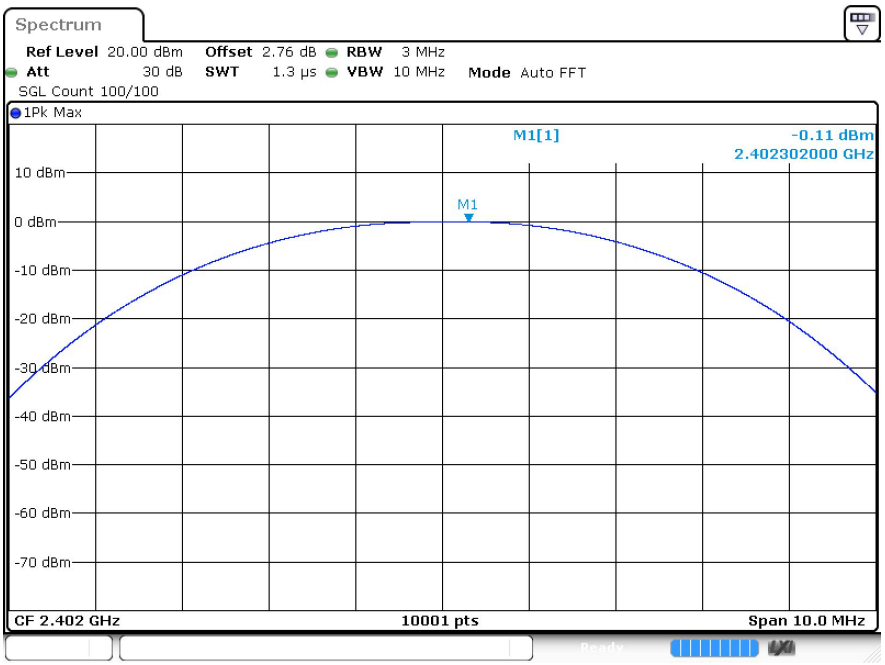
2.1 Test Result

Mode	Frequency (MHz)	Conducted Power (dBm)	Limit (dBm)	Verdict
BLE 1M	2402	-0.11	30	Pass
BLE 1M	2440	-0.48	30	Pass
BLE 1M	2480	-1.37	30	Pass
BLE 2M	2402	-0.09	30	Pass
BLE 2M	2440	-0.46	30	Pass
BLE 2M	2480	-1.35	30	Pass

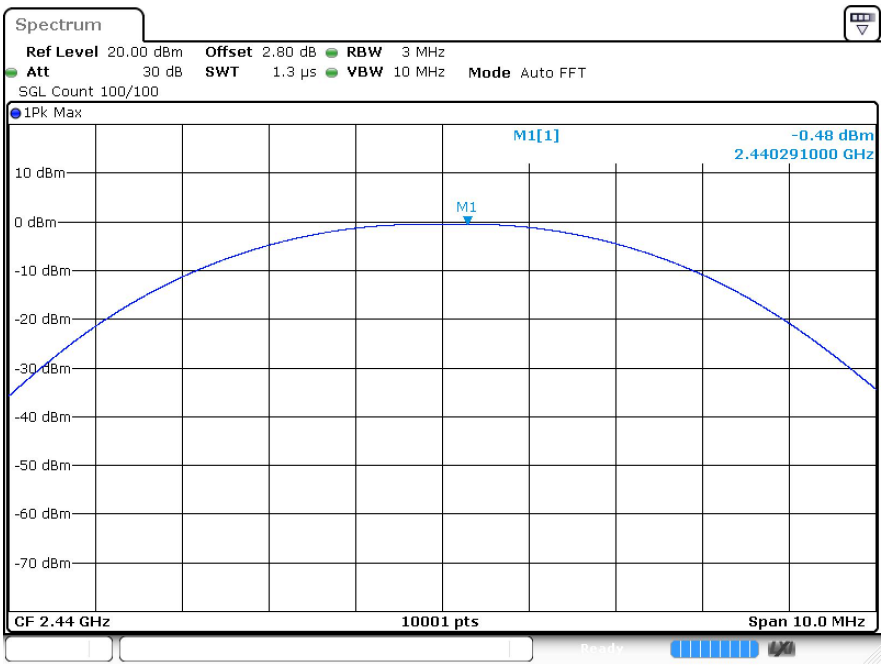
2.2 Test Graphs

Test Graphs

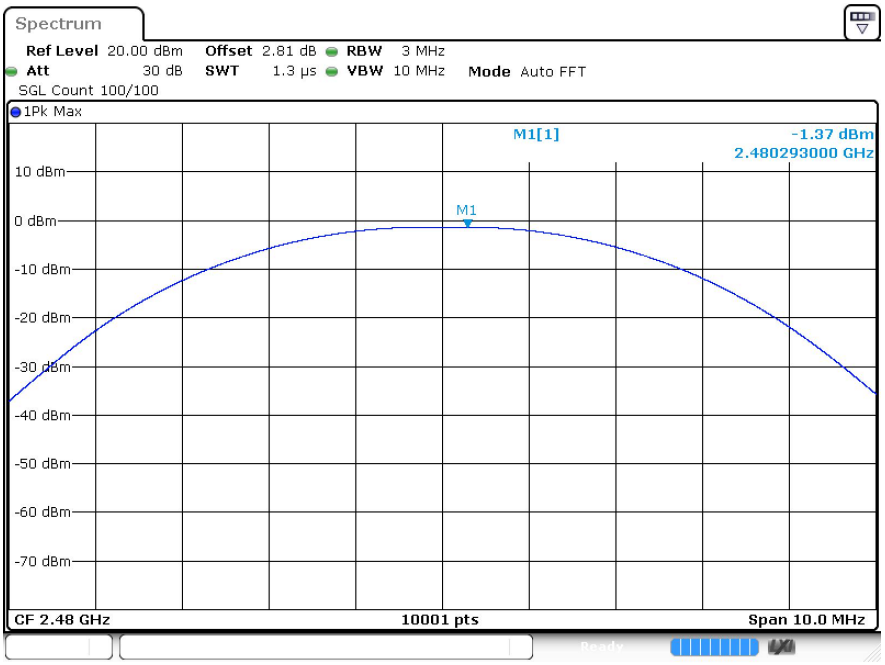
BLE 1M 2402MHz



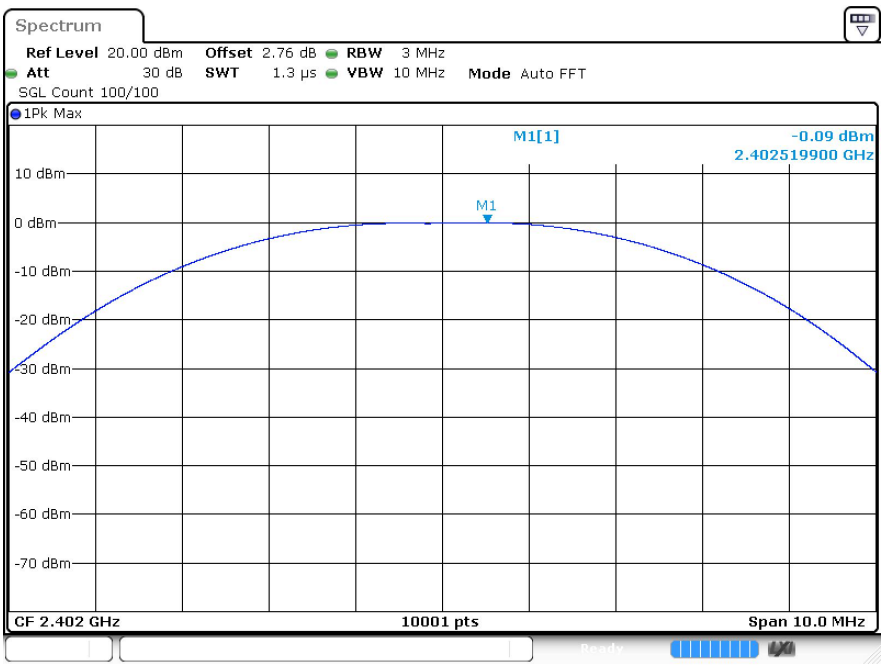
BLE 1M 2440MHz



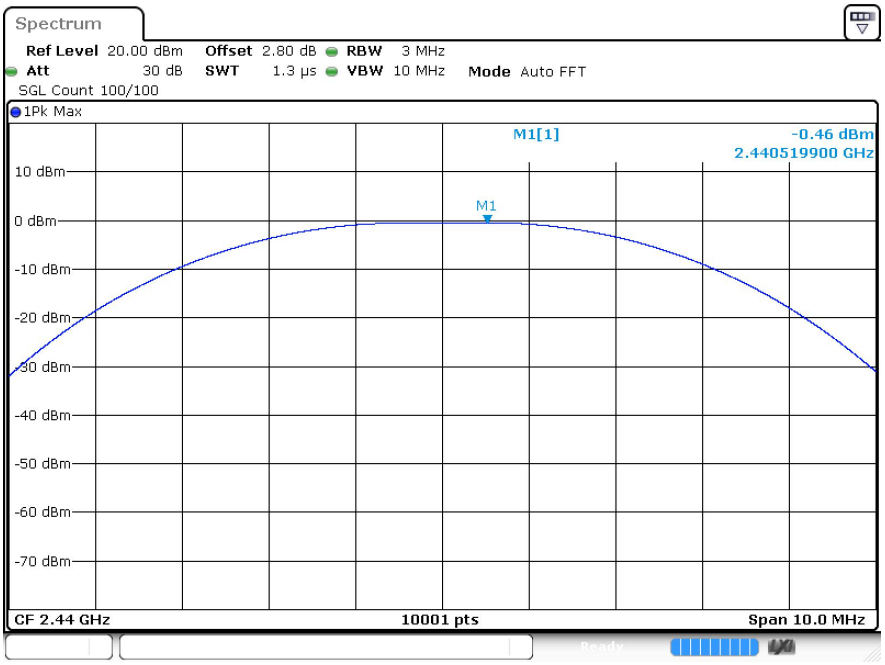
BLE 1M 2480MHz



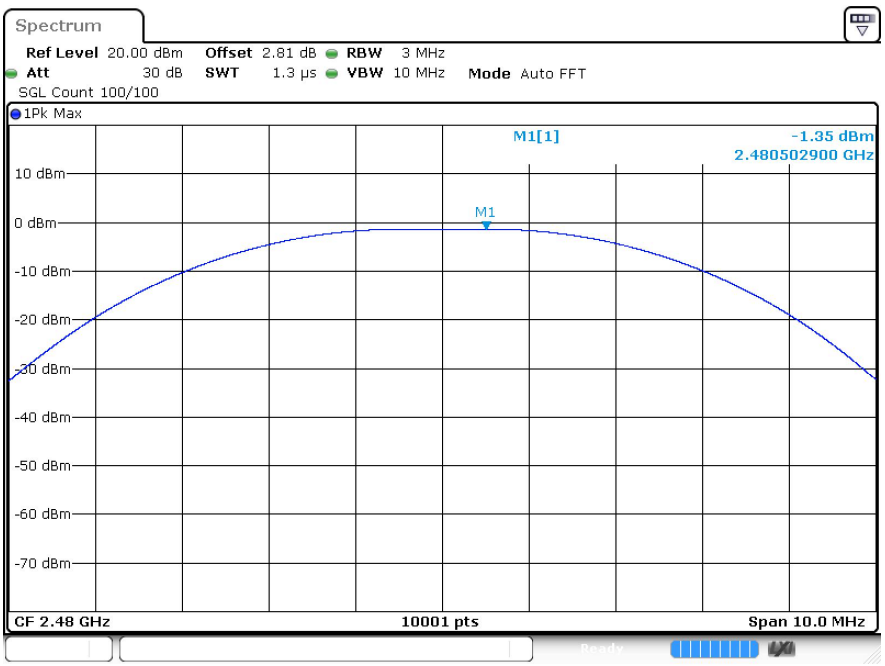
BLE 2M 2402MHz



BLE 2M 2440MHz



BLE 2M 2480MHz



3 -6dB Bandwidth

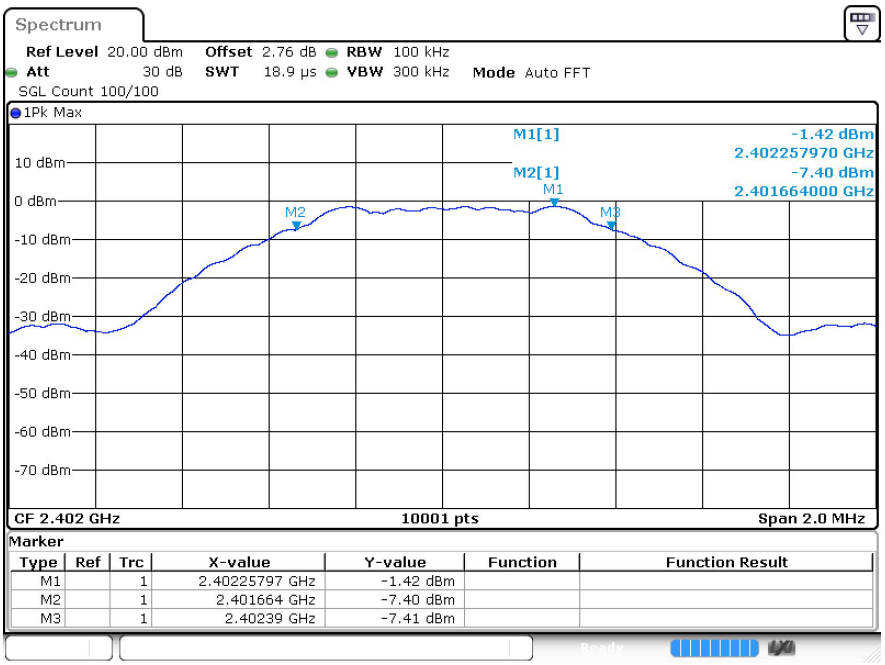
3.1 Test Result

Mode	Frequency (MHz)	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
BLE 1M	2402	0.726	0.5	Pass
BLE 1M	2440	0.695	0.5	Pass
BLE 1M	2480	0.676	0.5	Pass
BLE 2M	2402	1.23	0.5	Pass
BLE 2M	2440	1.176	0.5	Pass
BLE 2M	2480	1.452	0.5	Pass

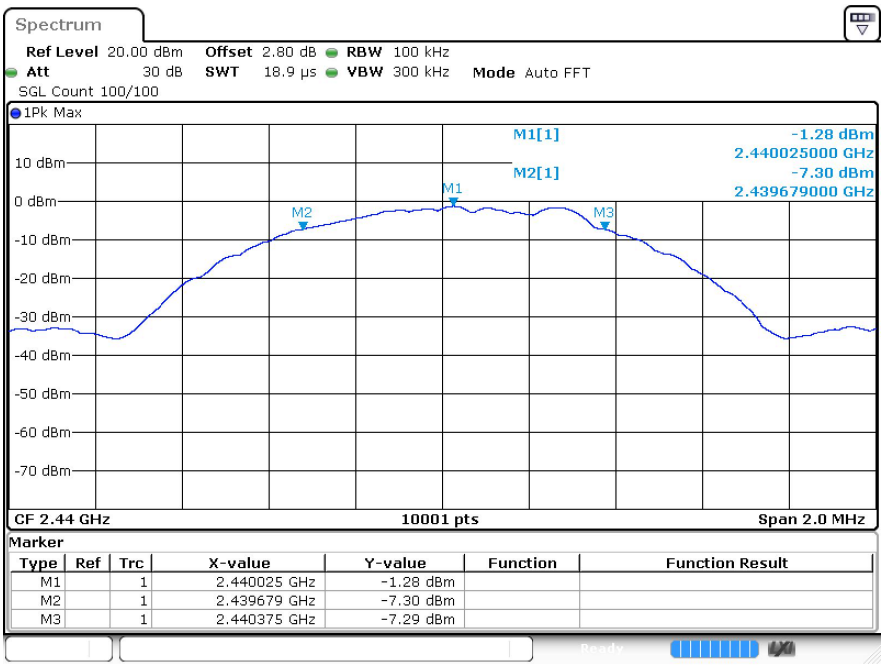
3.2 Test Graphs

Test Graphs

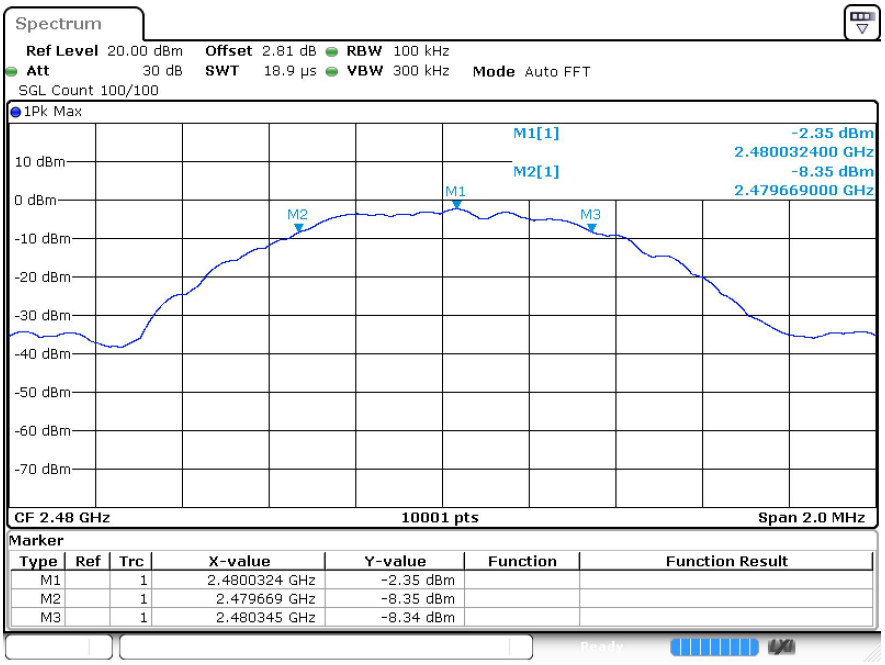
BLE 1M 2402MHz



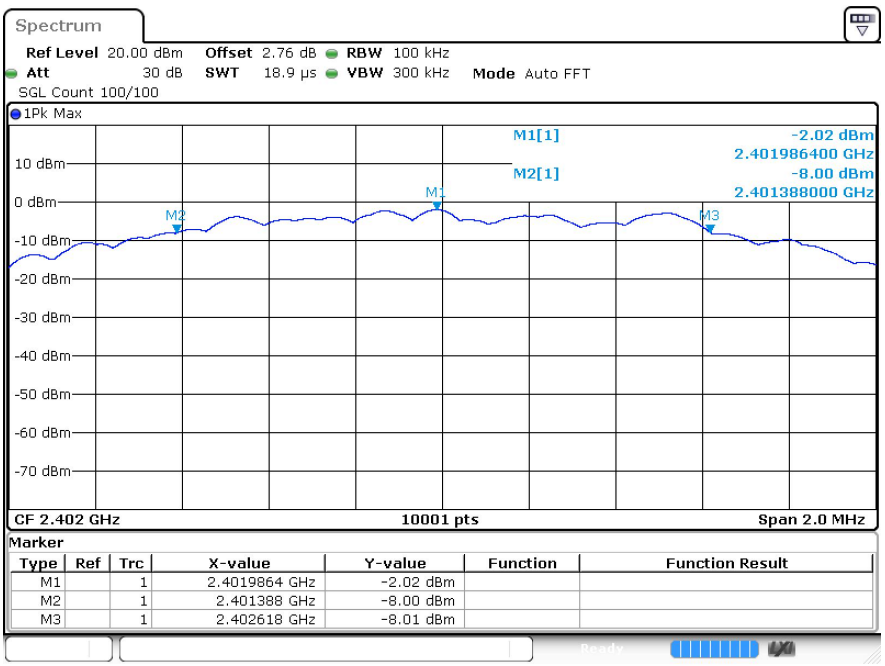
BLE 1M 2440MHz



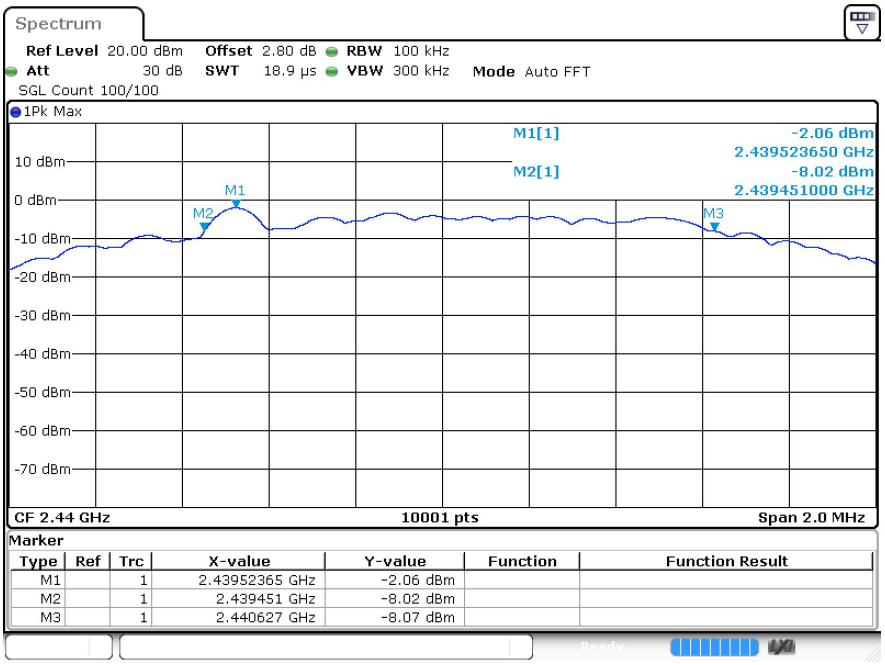
BLE 1M 2480MHz



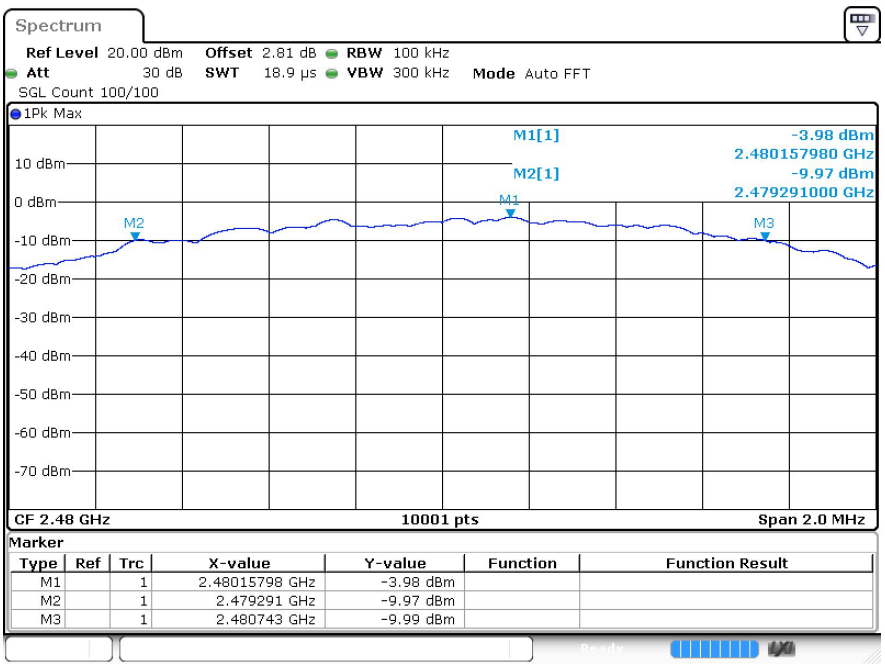
BLE 2M 2402MHz



BLE 2M 2440MHz



BLE 2M 2480MHz



4 Maximum Power Spectral Density Level

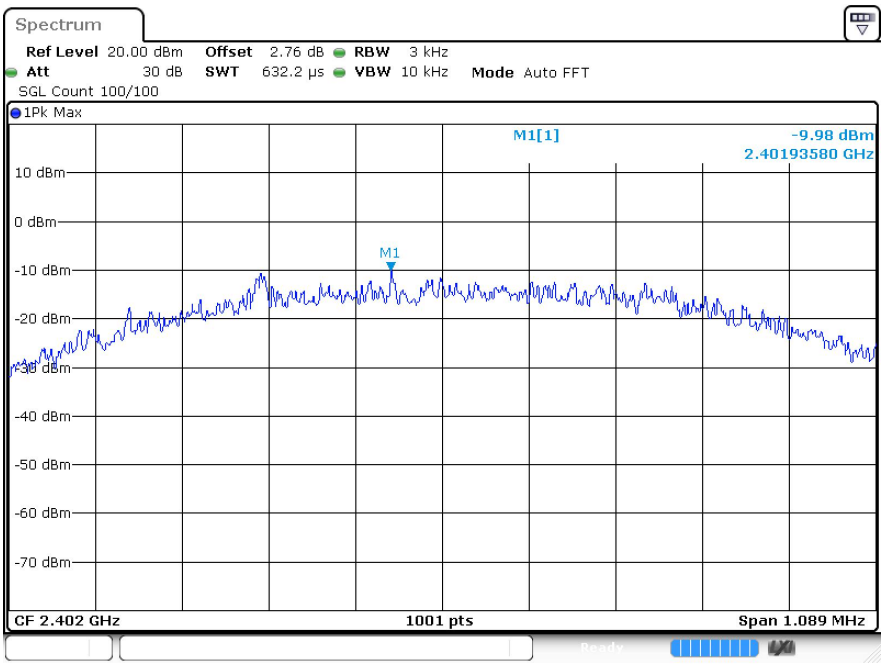
4.1 Test Result

Mode	Frequency (MHz)	Conducted PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
BLE 1M	2402	-9.98	≤8	Pass
BLE 1M	2440	-9.99	≤8	Pass
BLE 1M	2480	-13.16	≤8	Pass
BLE 2M	2402	-11.48	≤8	Pass
BLE 2M	2440	-13.57	≤8	Pass
BLE 2M	2480	-14.1	≤8	Pass

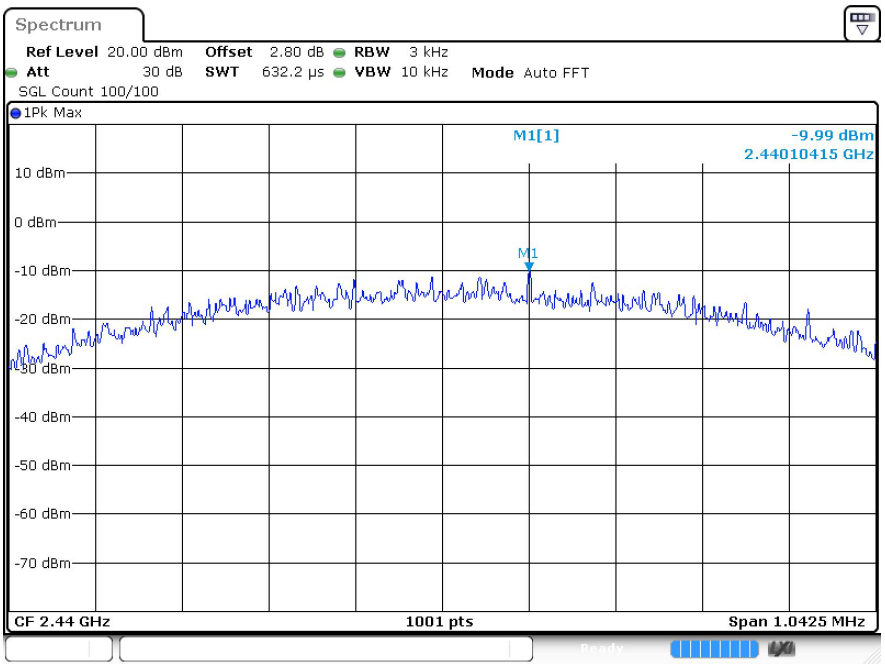
4.2 Test Graphs

Test Graphs

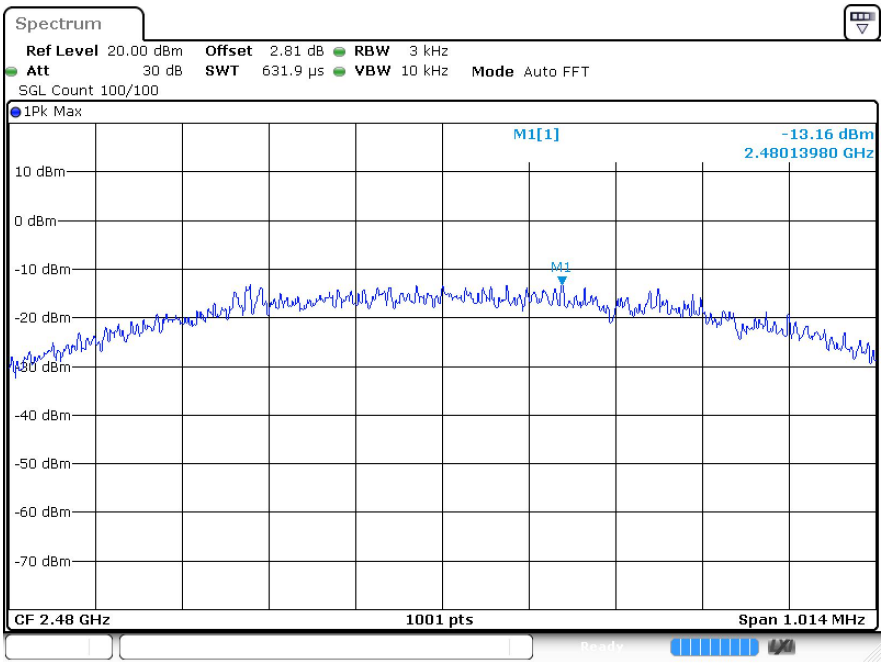
BLE 1M 2402MHz



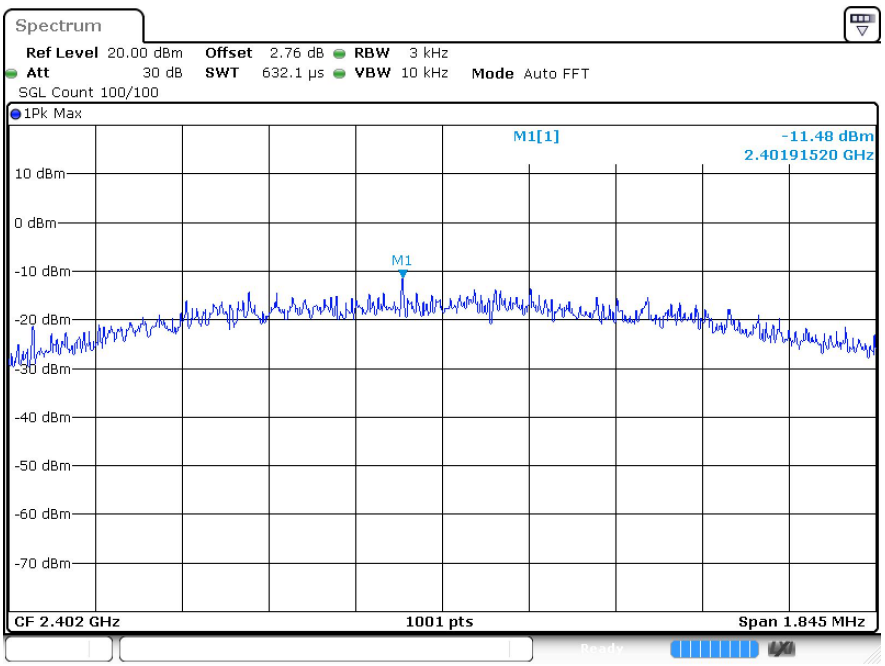
BLE 1M 2440MHz



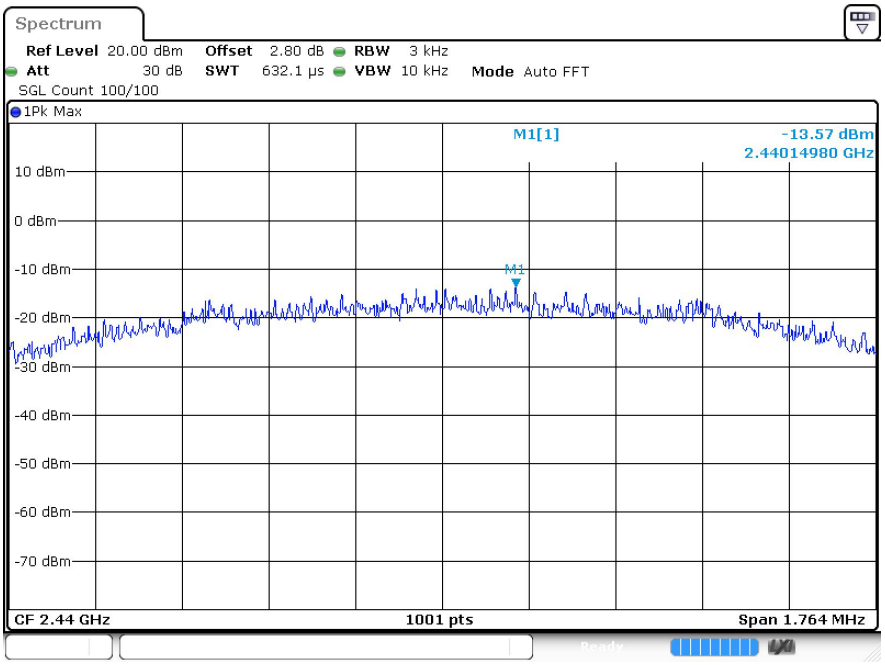
BLE 1M 2480MHz



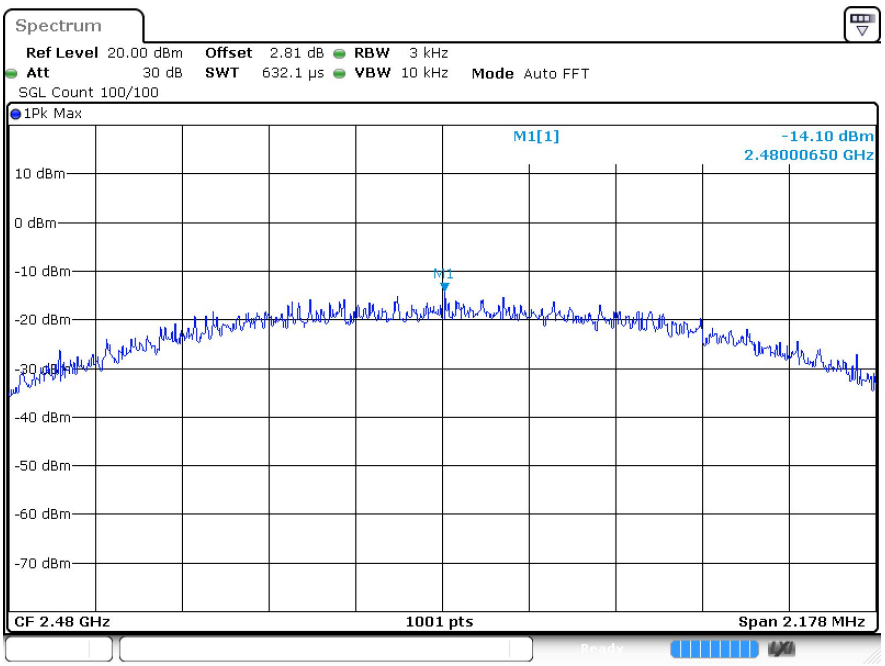
BLE 2M 2402MHz



BLE 2M 2440MHz



BLE 2M 2480MHz



5 Band Edge

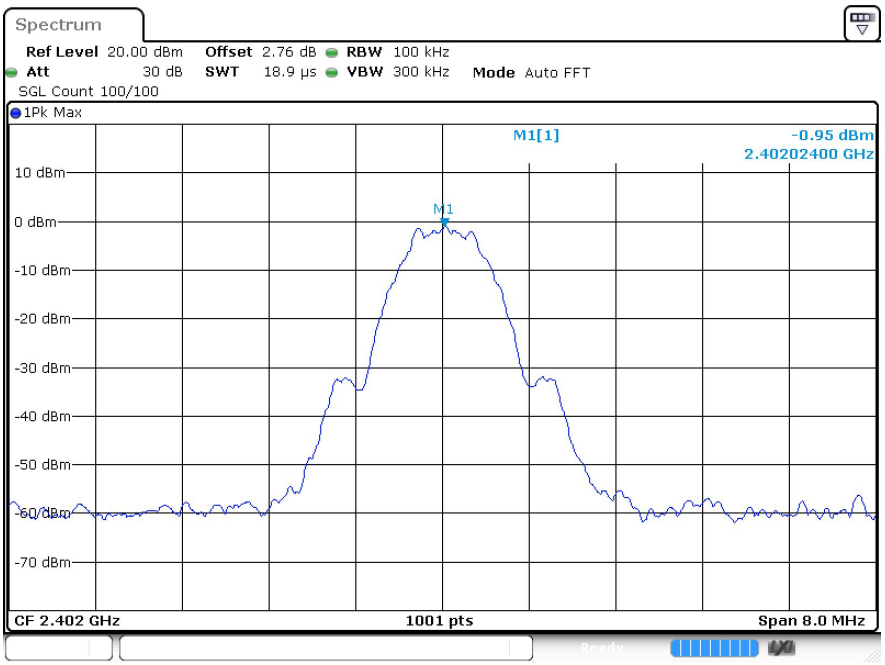
5.1 Test Result

Mode	Frequency (MHz)	Max Value (dBc)	Limit (dBc)	Verdict
BLE 1M	2402	-54.86	-20	Pass
BLE 1M	2480	-53.11	-20	Pass
BLE 2M	2402	-53.09	-20	Pass
BLE 2M	2480	-52.39	-20	Pass

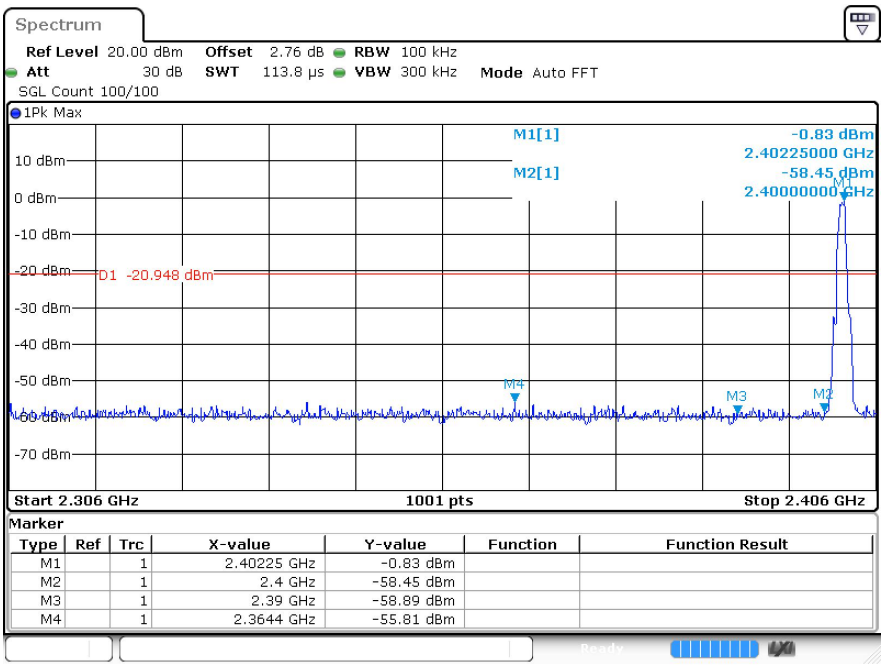
5.2 Test Graphs

Test Graphs

BLE 1M 2402MHz Ref



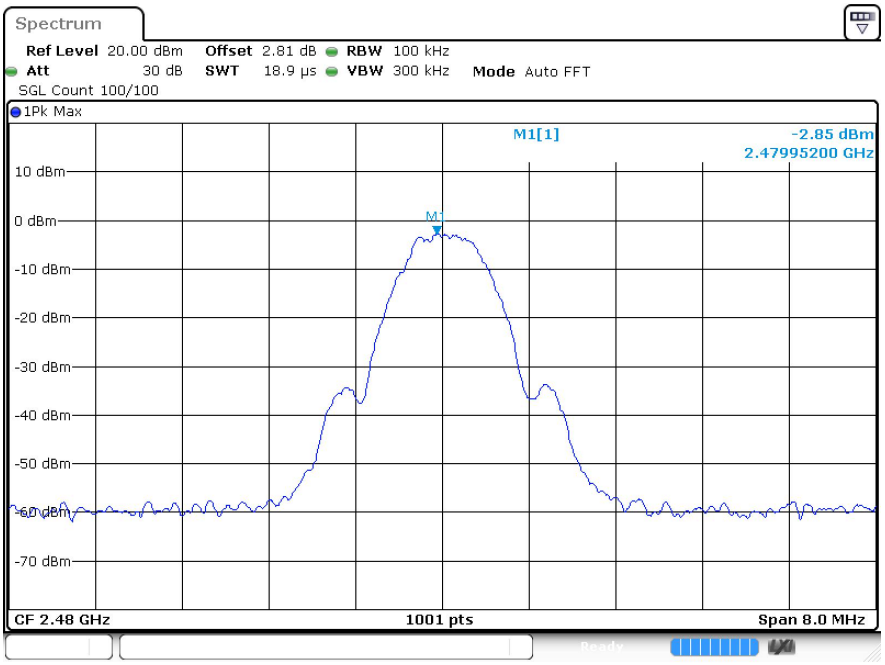
BLE 1M 2402MHz Emission



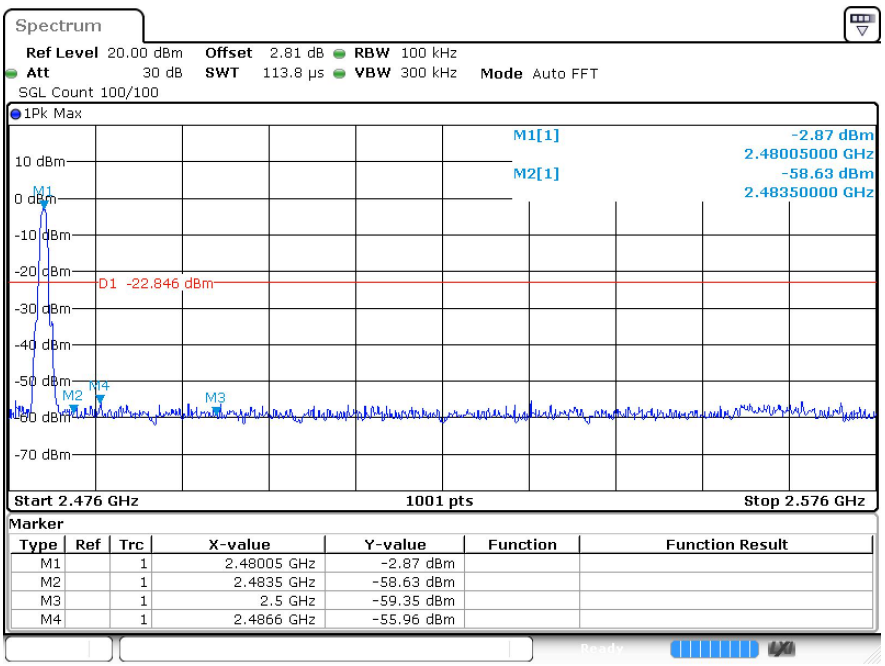
Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.40225 GHz	-0.83 dBm		
M2		1	2.4 GHz	-58.45 dBm		
M3		1	2.39 GHz	-58.89 dBm		
M4		1	2.3644 GHz	-55.81 dBm		

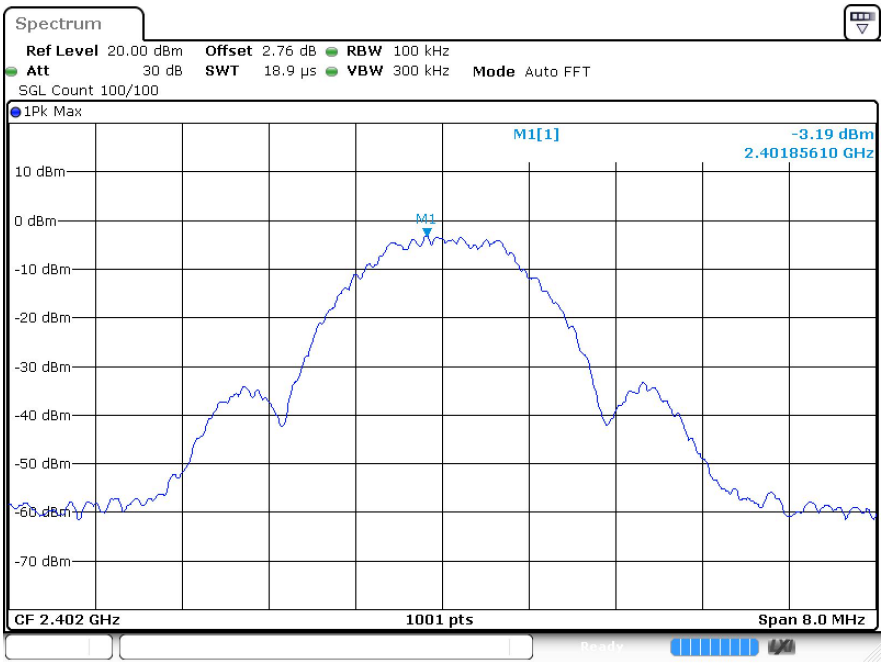
BLE 1M 2480MHz Ref



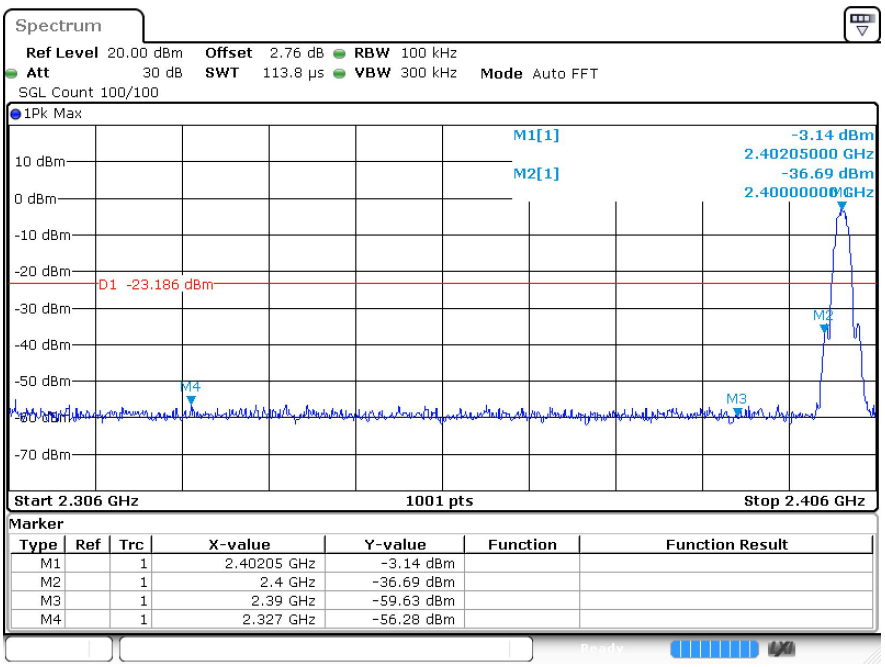
BLE 1M 2480MHz Emission



BLE 2M 2402MHz Ref



BLE 2M 2402MHz Emission



Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.40205 GHz	-3.14 dBm		
M2		1	2.4 GHz	-36.69 dBm		
M3		1	2.39 GHz	-59.63 dBm		
M4		1	2.327 GHz	-56.28 dBm		