



Appendix B RF Test Data

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

Product Name: RF Wireless module

Trade Mark: INNOCN

Test Model: AW.S905D3.03

Environmental Conditions

Temperature:	25.4° C
Relative Humidity:	51.6%
ATM Pressure:	100.0 kPa
Test Engineer:	Simba Huang
Supervised by:	Seal Chen



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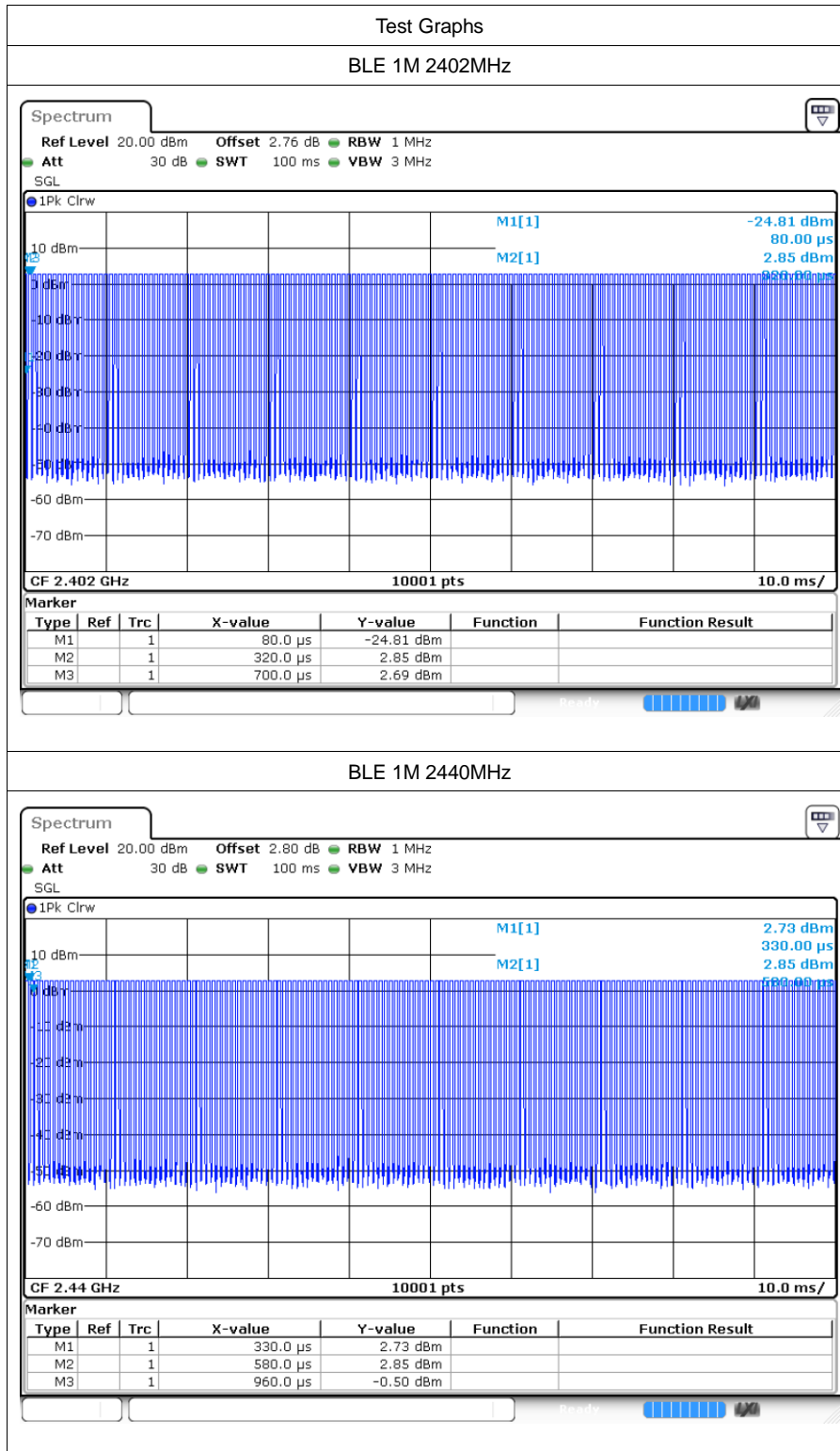


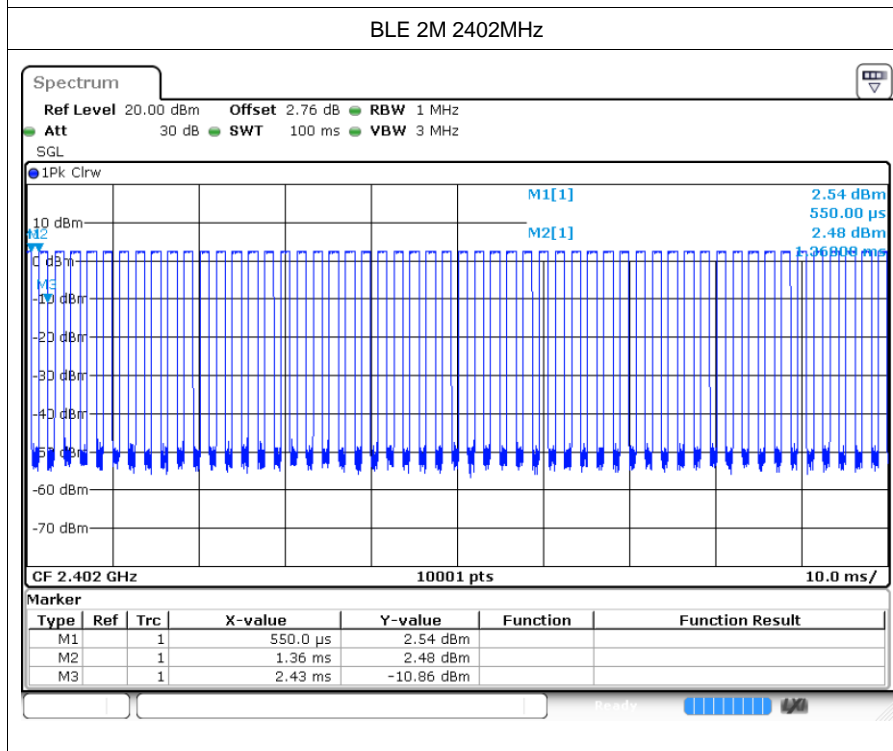
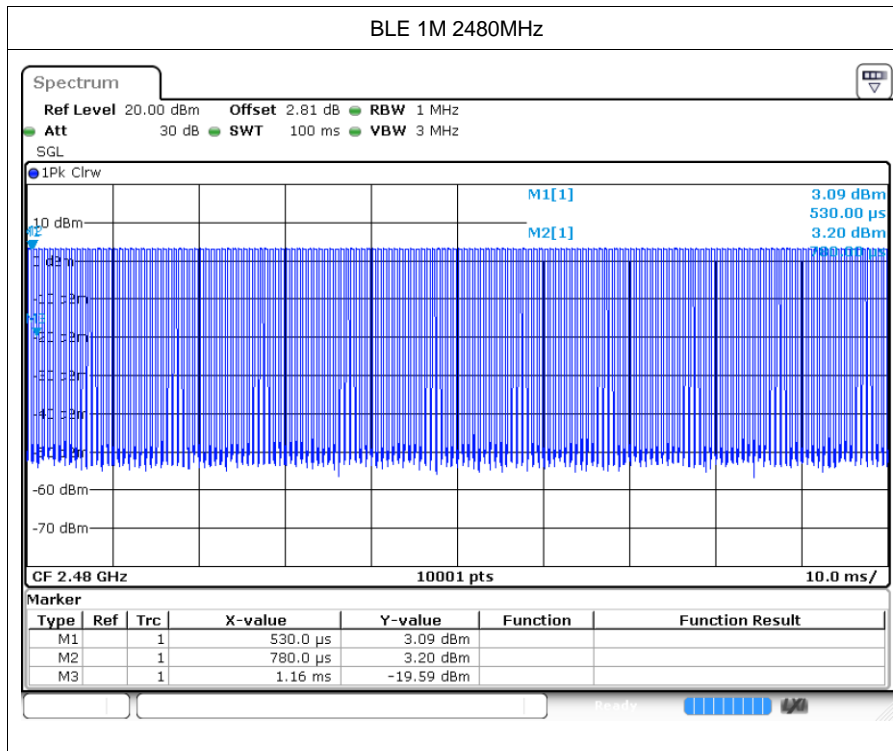
1 Duty Cycle

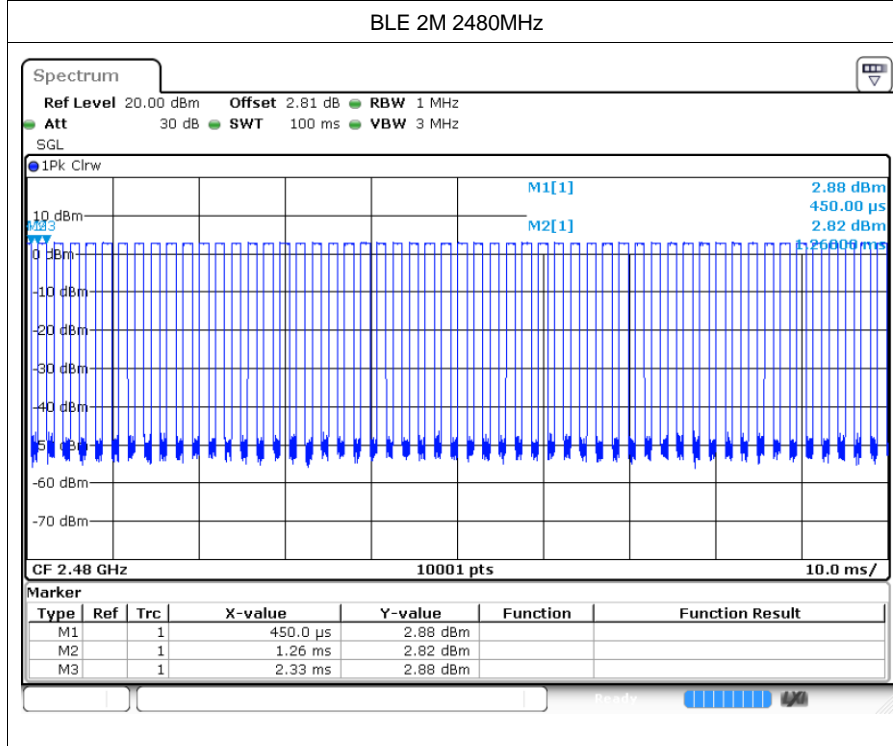
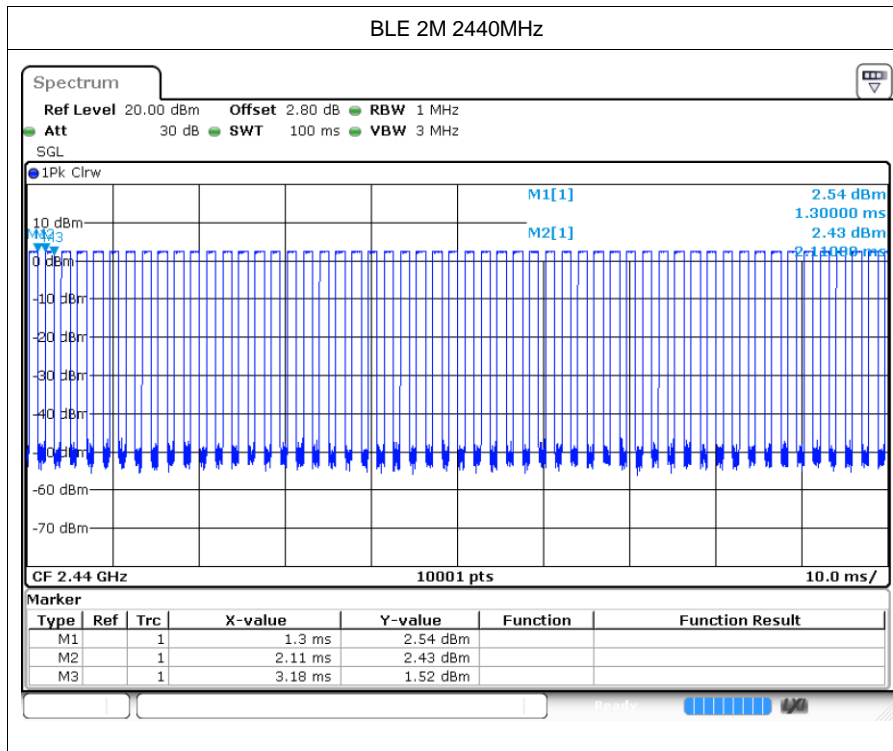
1.1 Test Result

Mode	Frequency (MHz)	Duty Cycle (%)	1/T (kHz)
BLE 1M	2402	62.63	2.63
BLE 1M	2440	62.4	2.63
BLE 1M	2480	62.39	2.63
BLE 2M	2402	57.79	0.93
BLE 2M	2440	57.63	0.93
BLE 2M	2480	57.43	0.93

1.2 Test Graphs







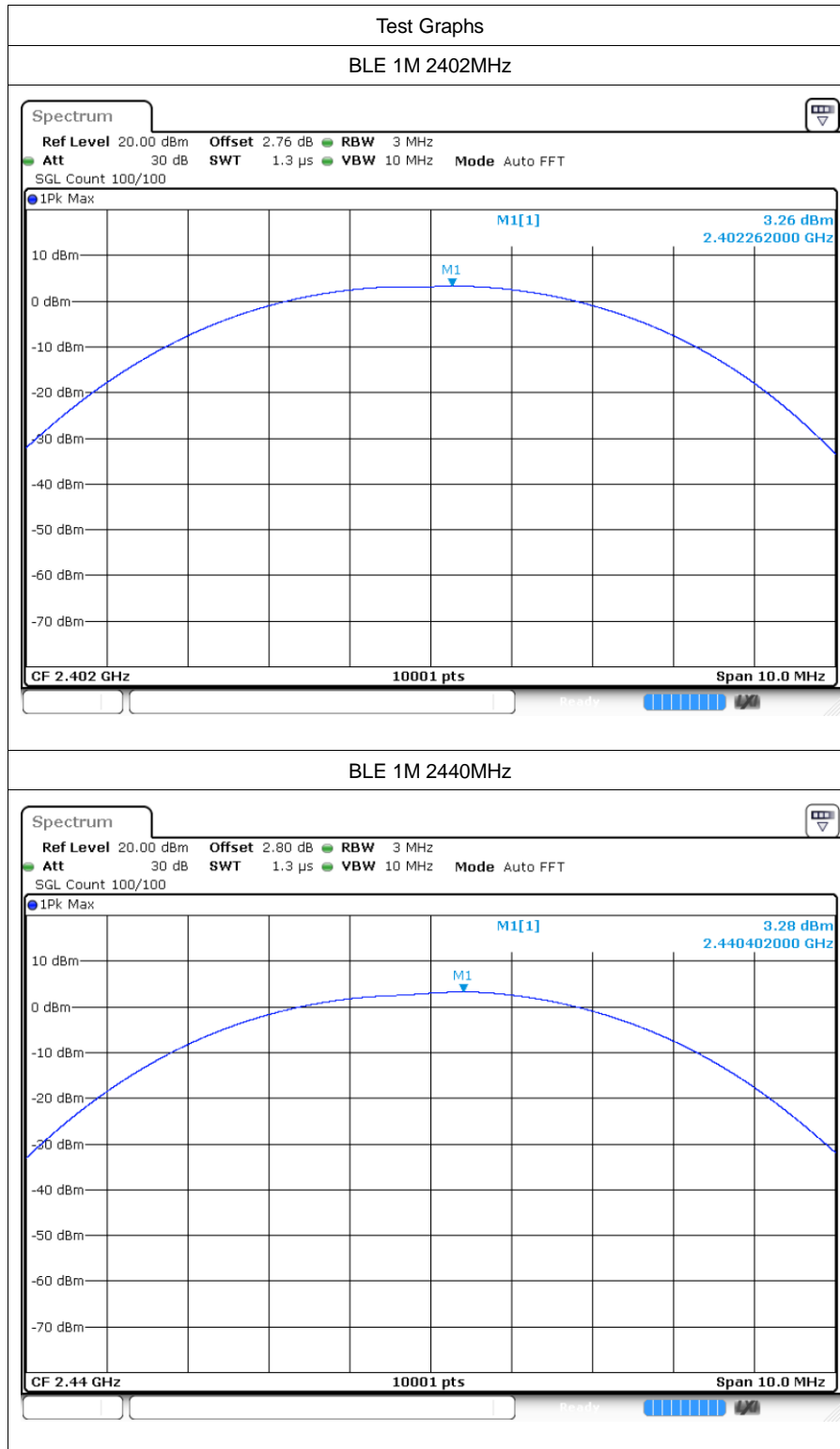


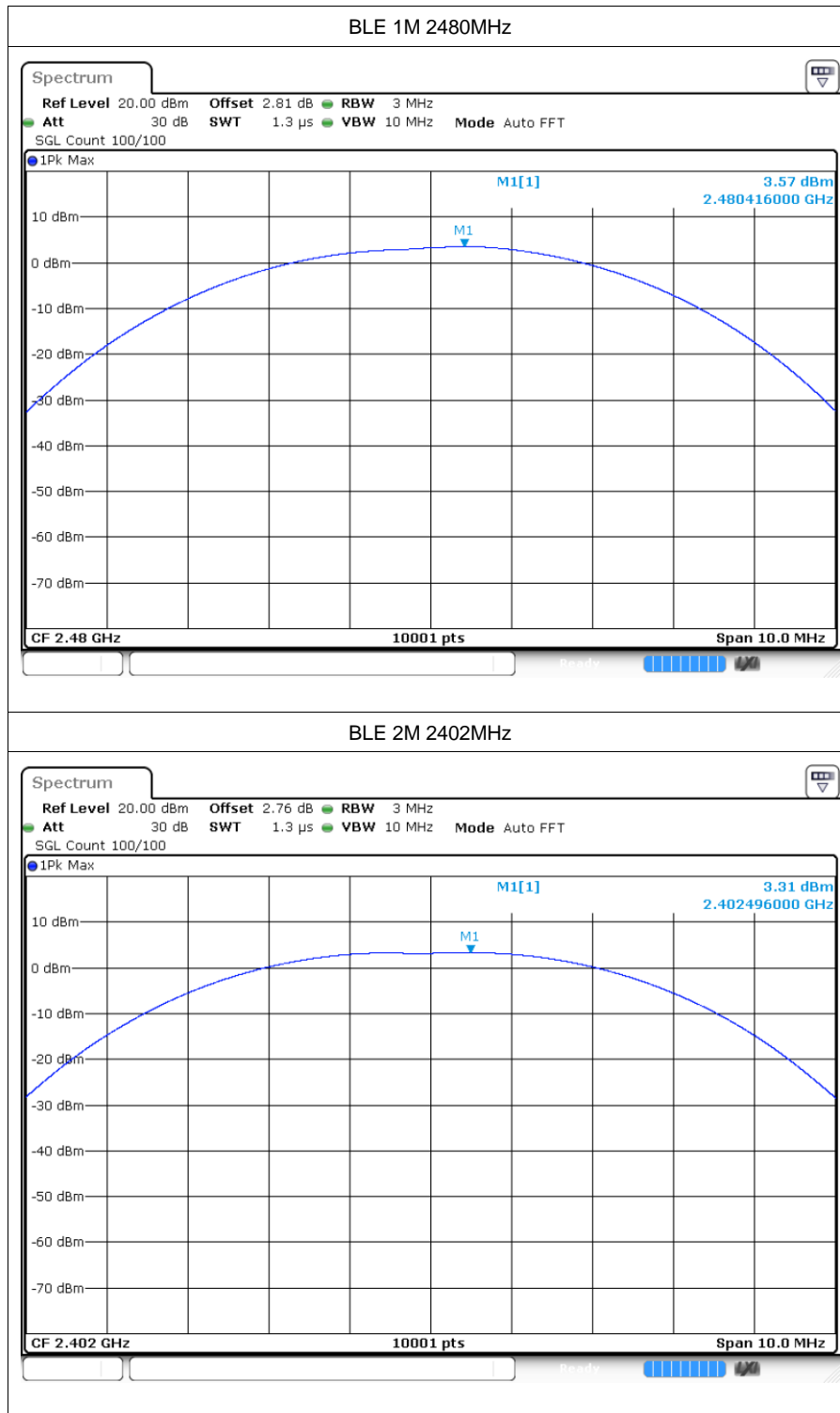
2 Maximum Conducted Output Power

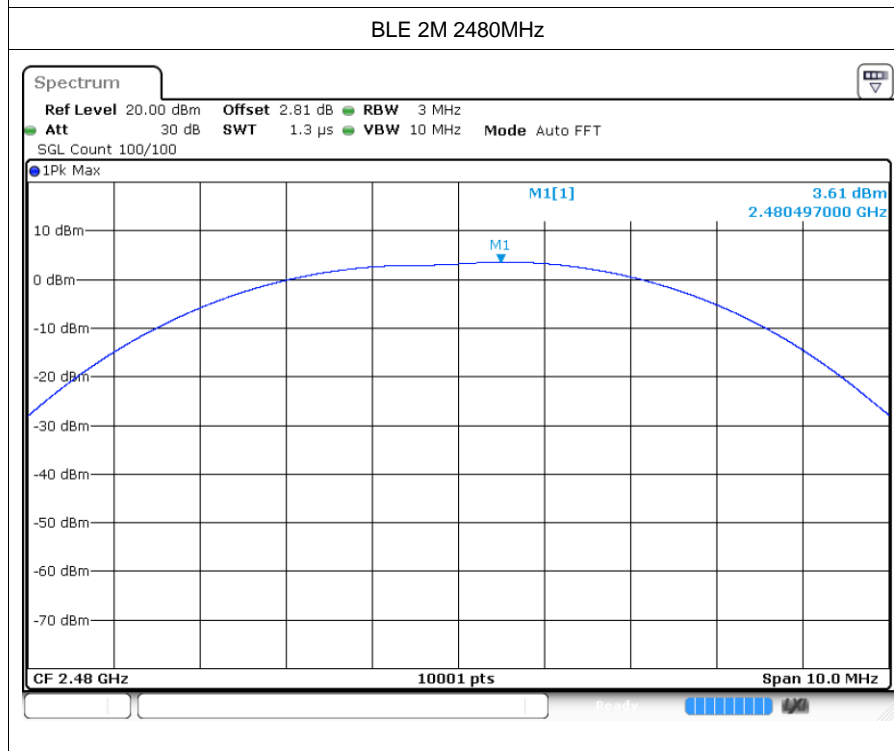
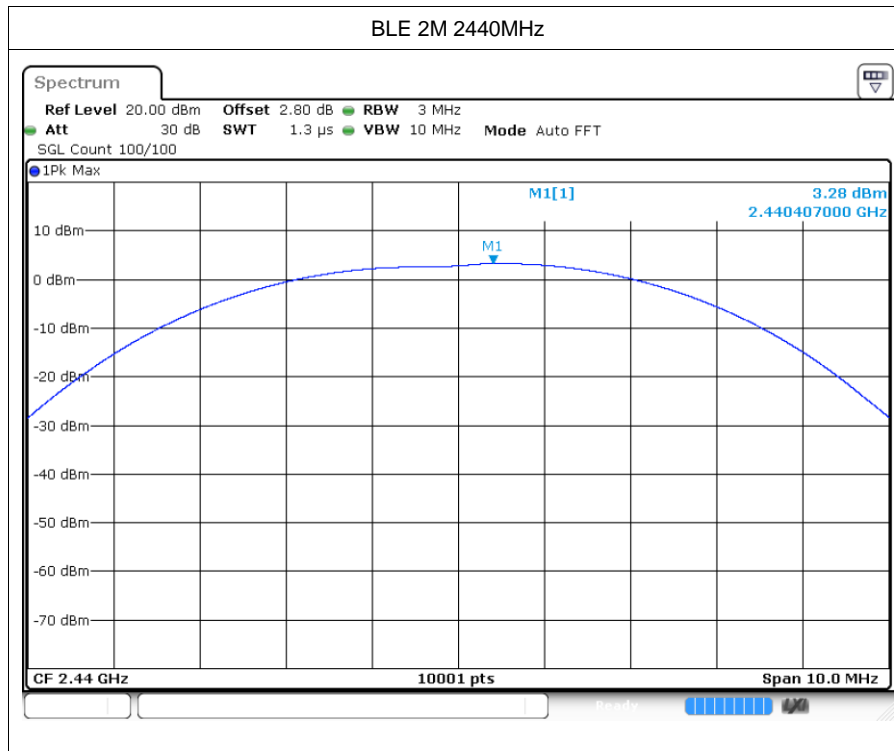
2.1 Test Result

Mode	Frequency (MHz)	Conducted Power (dBm)	Limit (dBm)	Verdict
BLE 1M	2402	3.26	30	Pass
BLE 1M	2440	3.28	30	Pass
BLE 1M	2480	3.57	30	Pass
BLE 2M	2402	3.31	30	Pass
BLE 2M	2440	3.28	30	Pass
BLE 2M	2480	3.61	30	Pass

2.2 Test Graphs







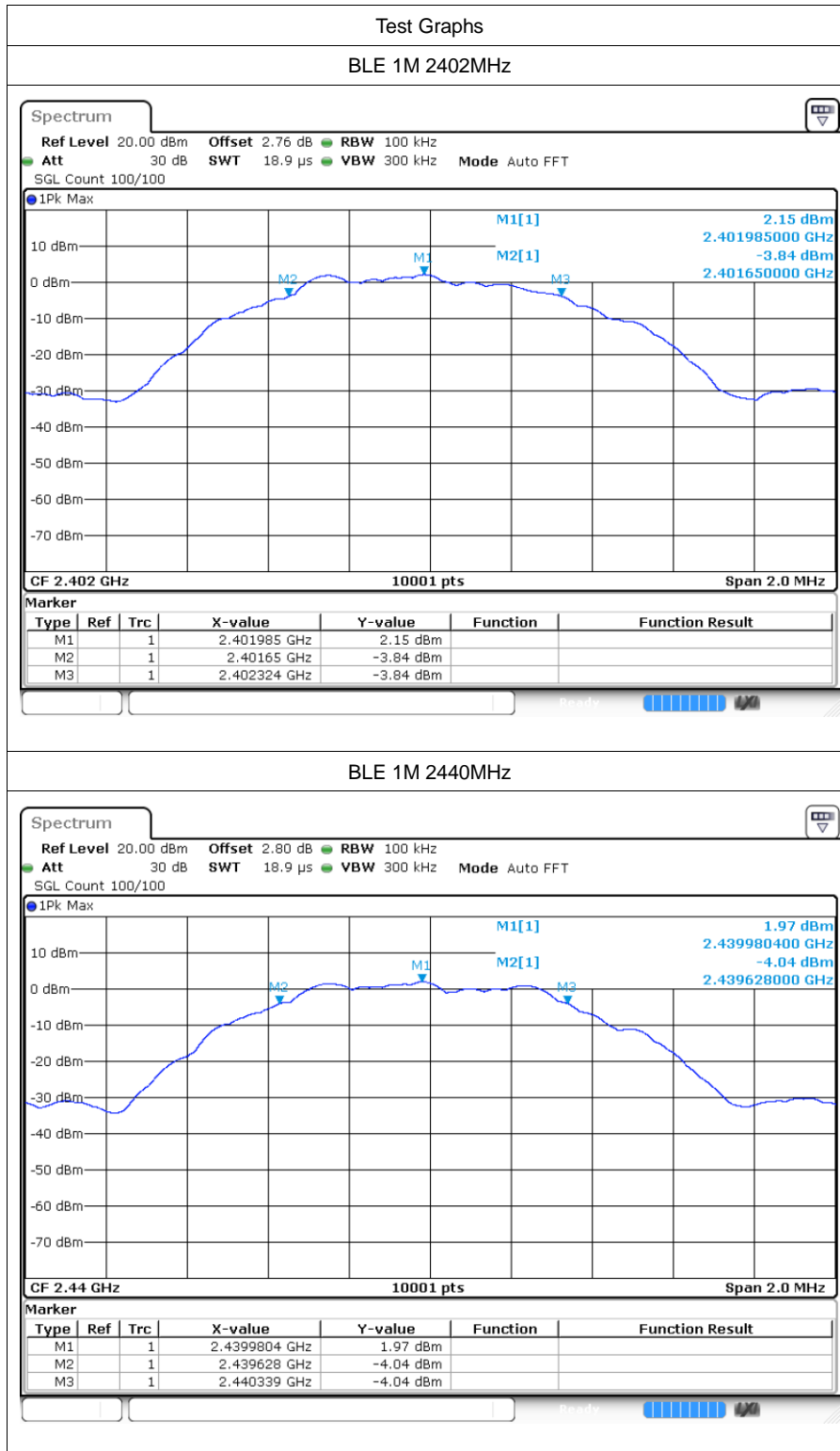


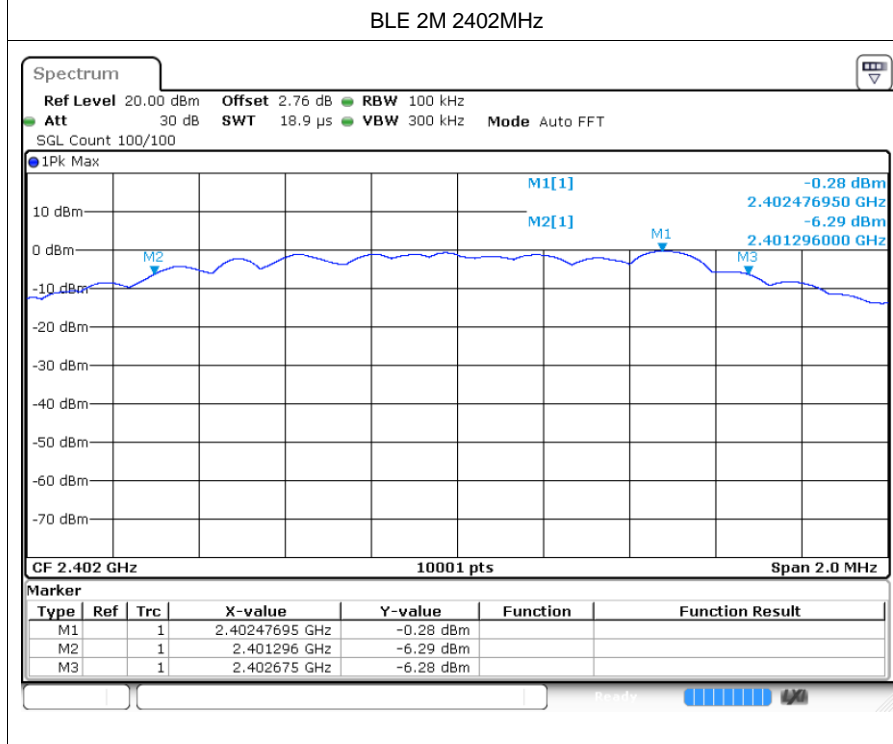
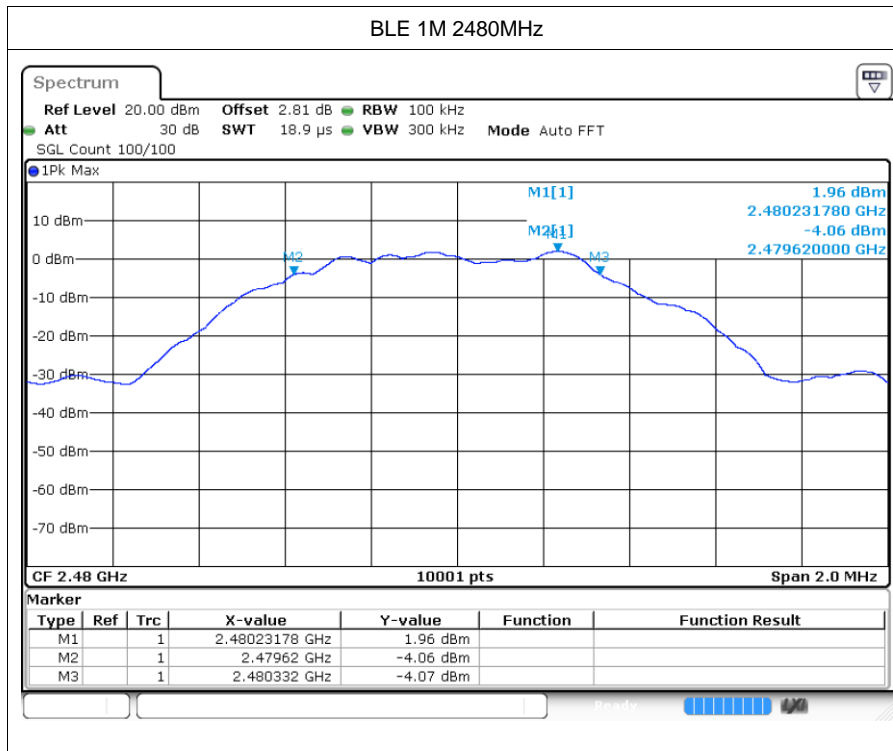
3 -6dB Bandwidth

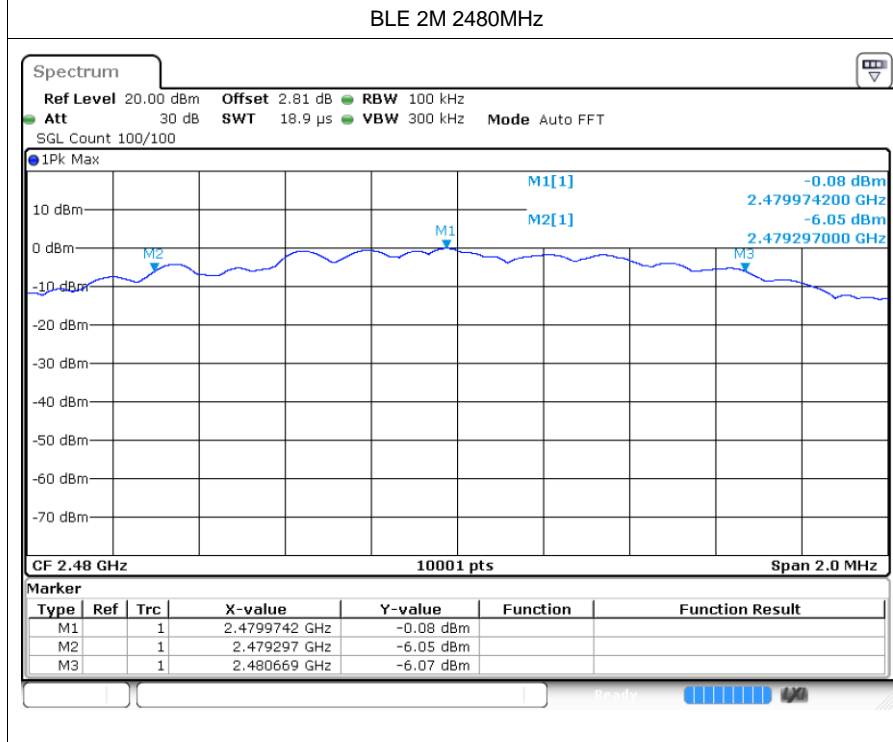
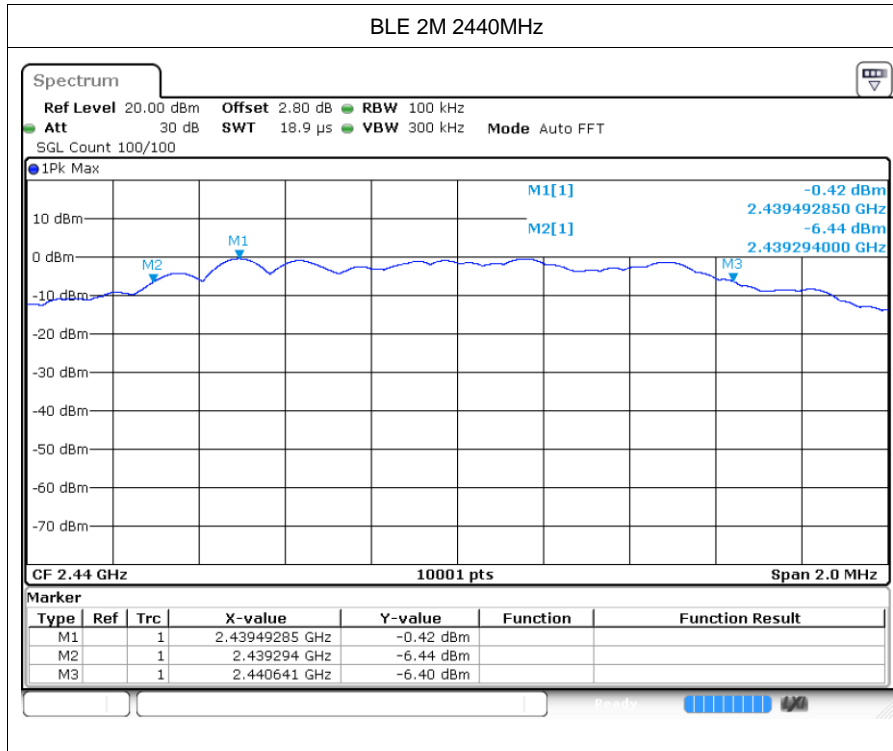
3.1 Test Result

Mode	Frequency (MHz)	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
BLE 1M	2402	0.675	0.5	Pass
BLE 1M	2440	0.711	0.5	Pass
BLE 1M	2480	0.711	0.5	Pass
BLE 2M	2402	1.378	0.5	Pass
BLE 2M	2440	1.347	0.5	Pass
BLE 2M	2480	1.373	0.5	Pass

3.2 Test Graphs





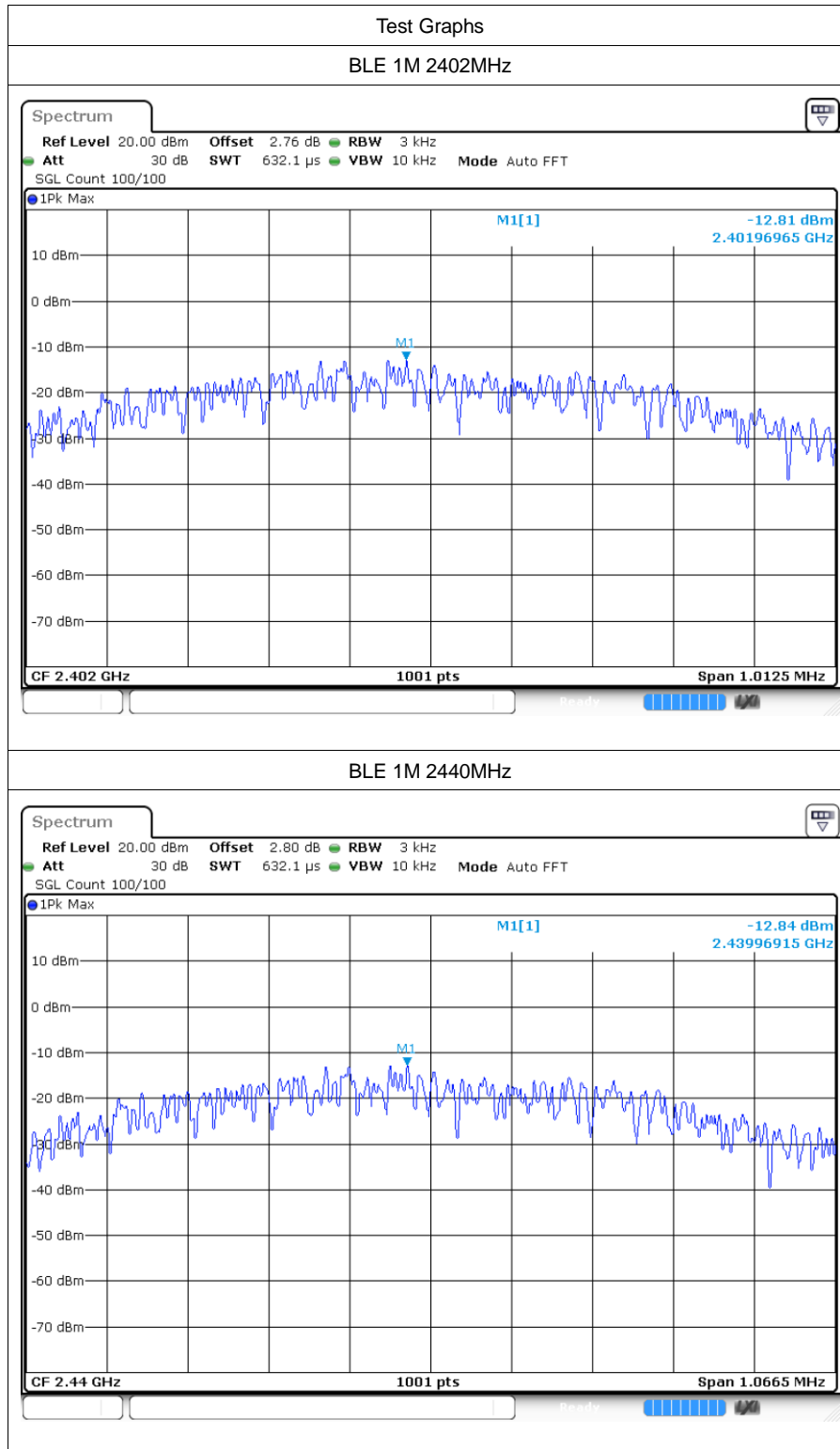


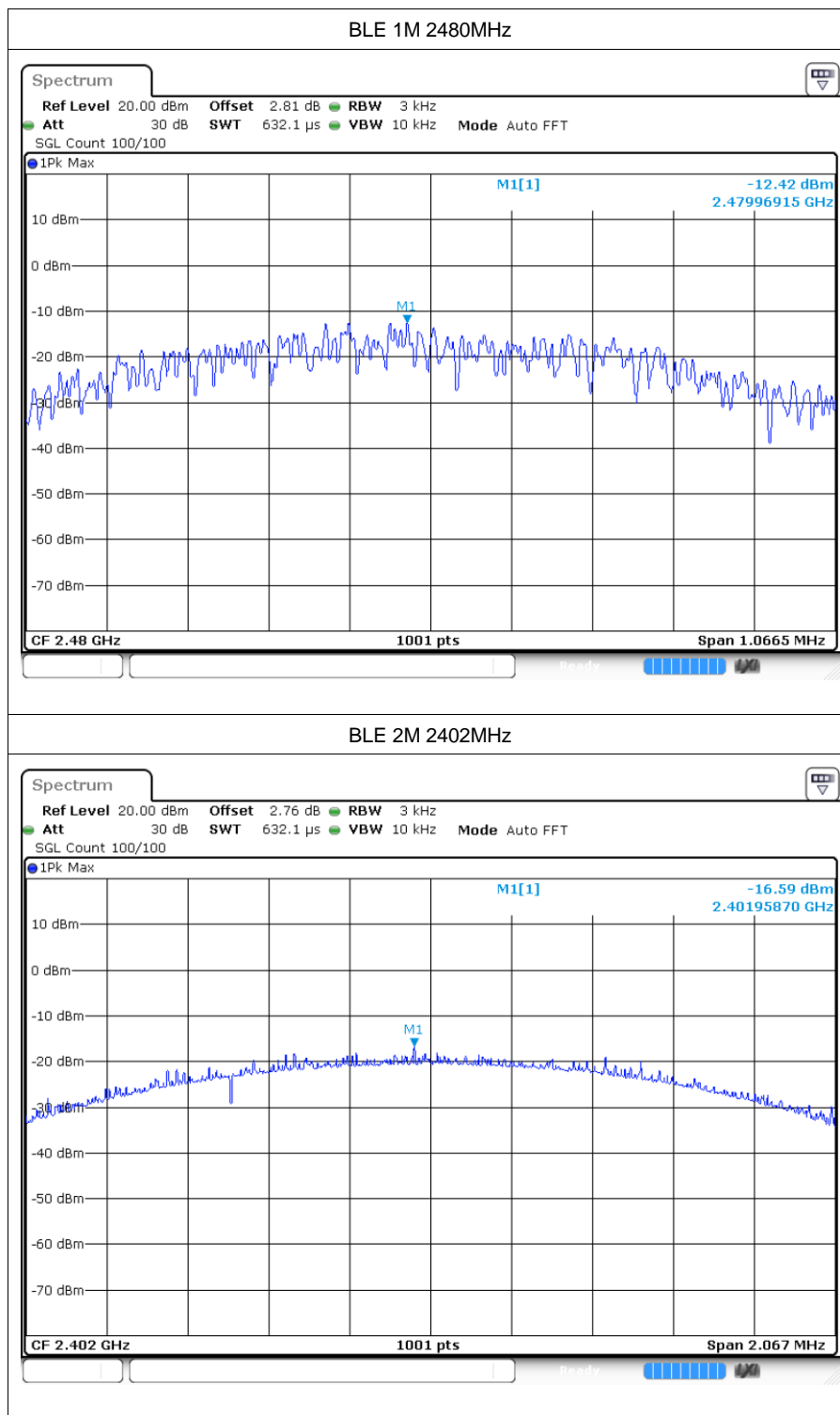
4 Maximum Power Spectral Density Level

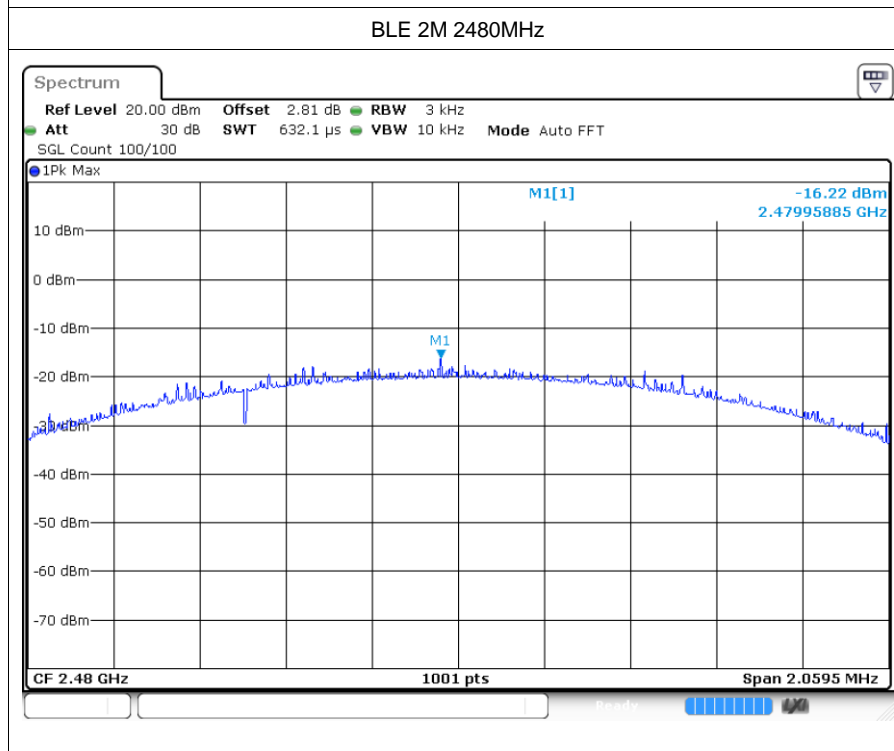
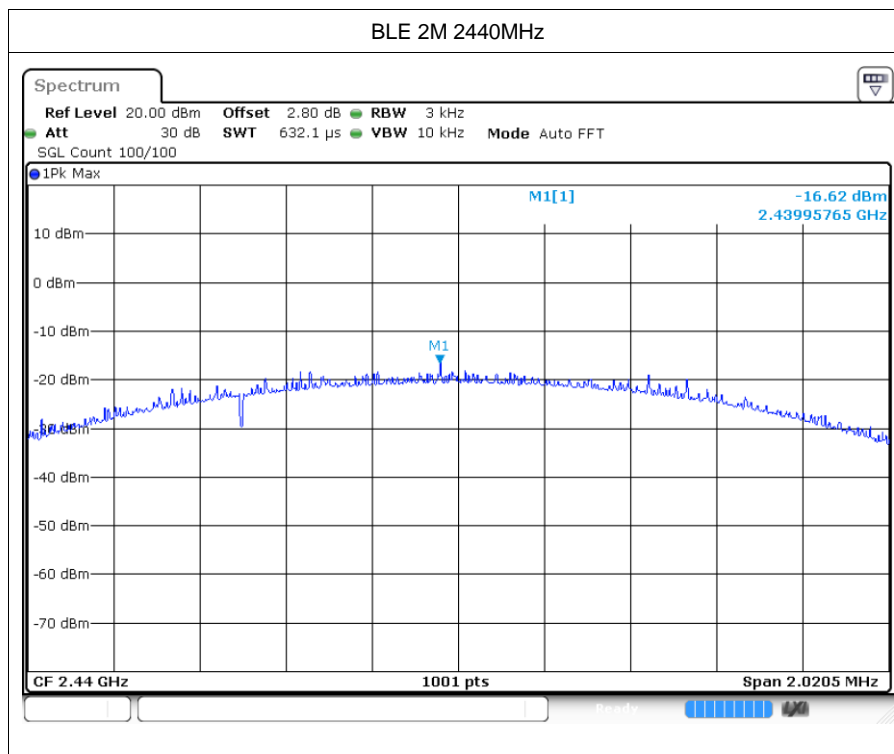
4.1 Test Result

Mode	Frequency (MHz)	Conducted PSD (dBm/3-100kHz)	Limit (dBm/3kHz)	Verdict
BLE 1M	2402	-12.81	≤8	Pass
BLE 1M	2440	-12.84	≤8	Pass
BLE 1M	2480	-12.42	≤8	Pass
BLE 2M	2402	-16.59	≤8	Pass
BLE 2M	2440	-16.62	≤8	Pass
BLE 2M	2480	-16.22	≤8	Pass

4.2 Test Graphs







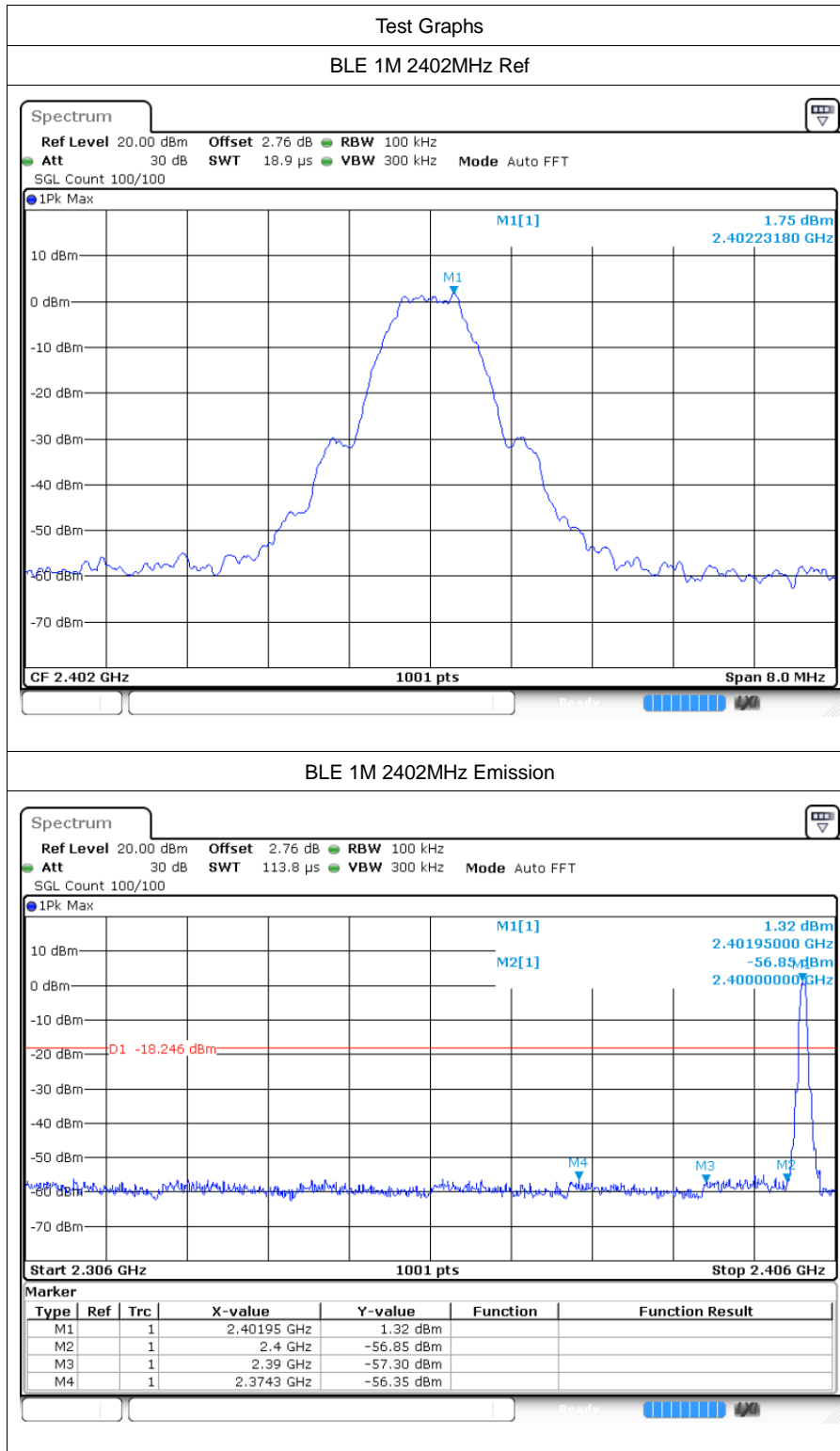


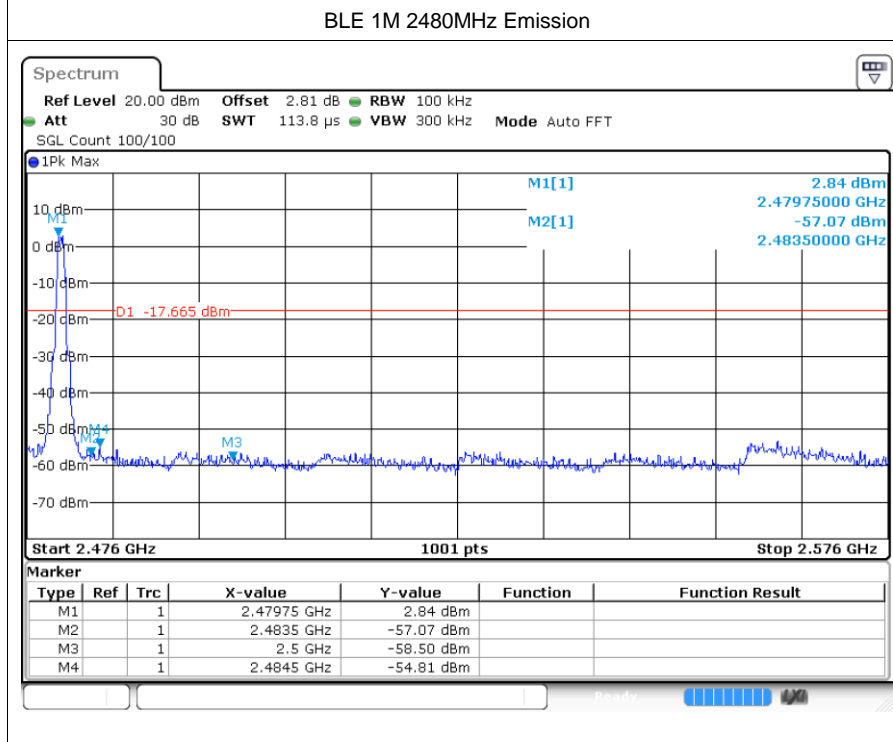
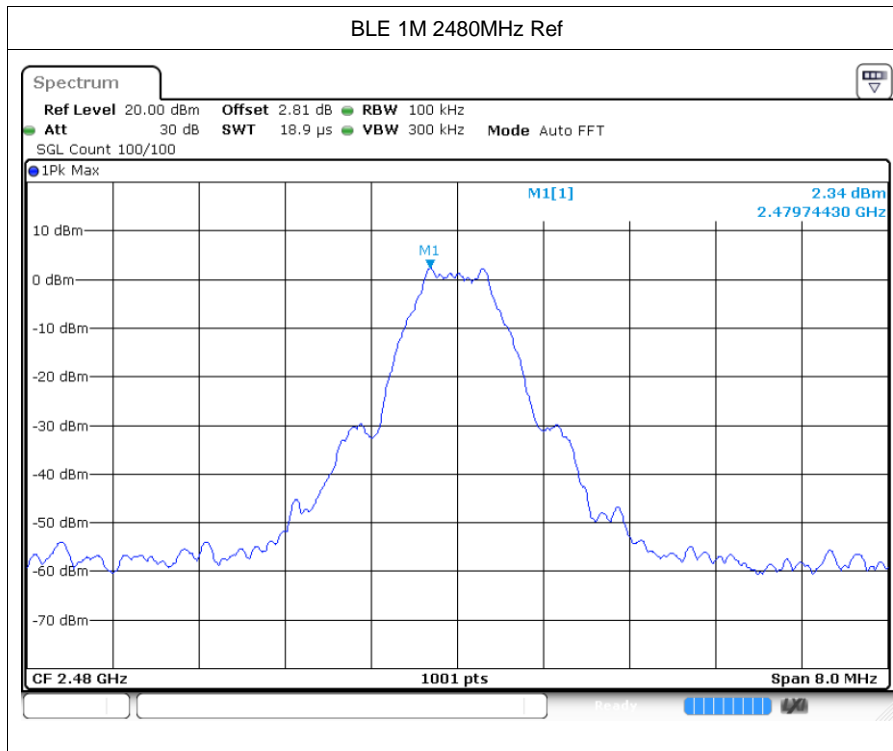
5 Band Edge

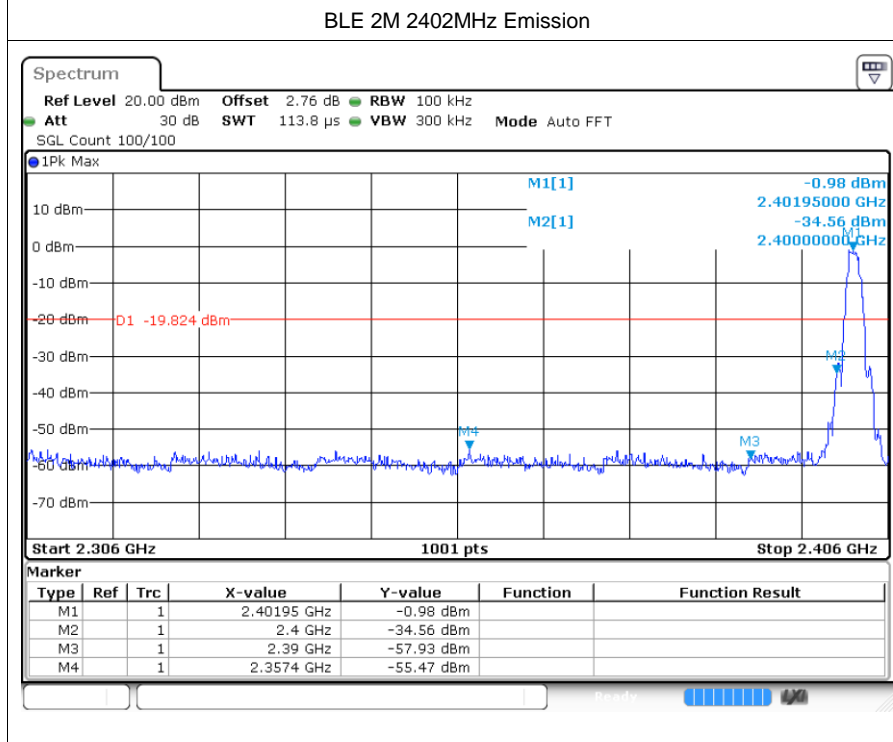
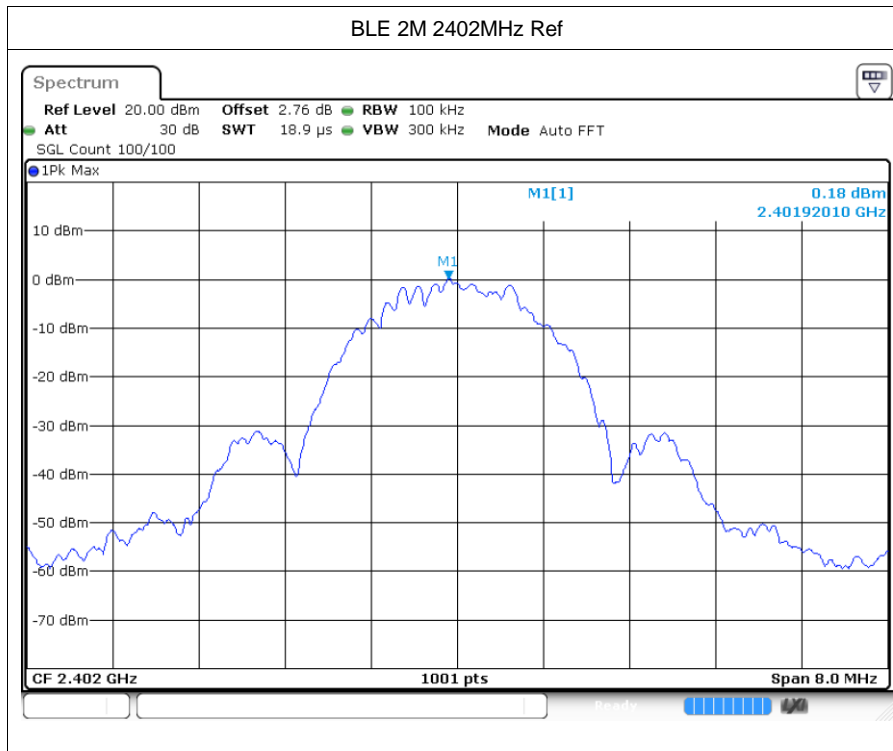
5.1 Test Result

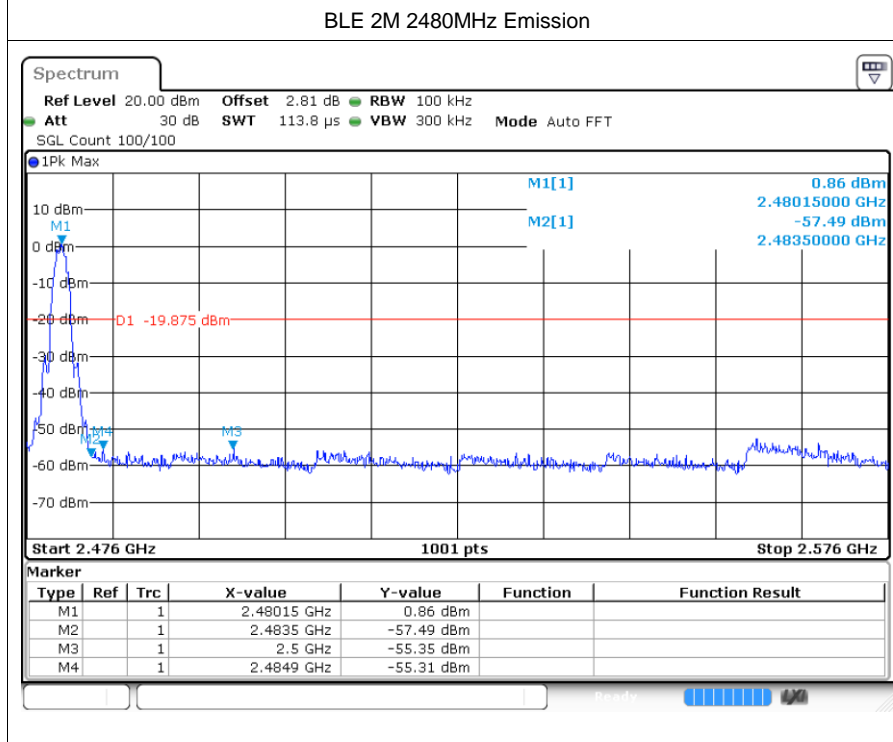
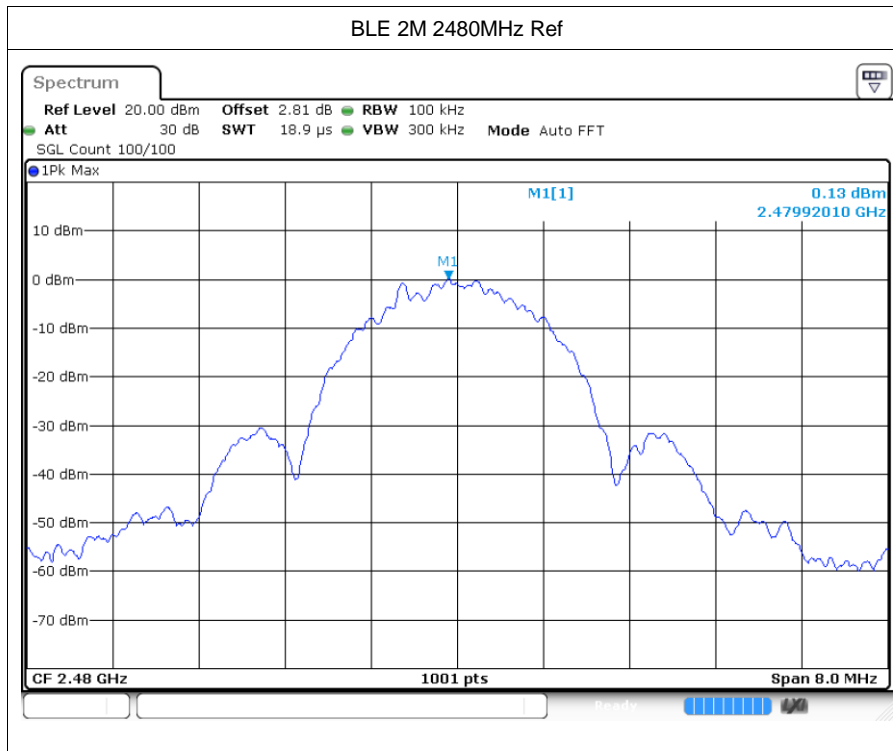
Mode	Frequency (MHz)	Max Value (dBc)	Limit (dBc)	Verdict
BLE 1M	2402	-58.1	-20	Pass
BLE 1M	2480	-57.14	-20	Pass
BLE 2M	2402	-55.65	-20	Pass
BLE 2M	2480	-55.43	-20	Pass

5.2 Test Graphs









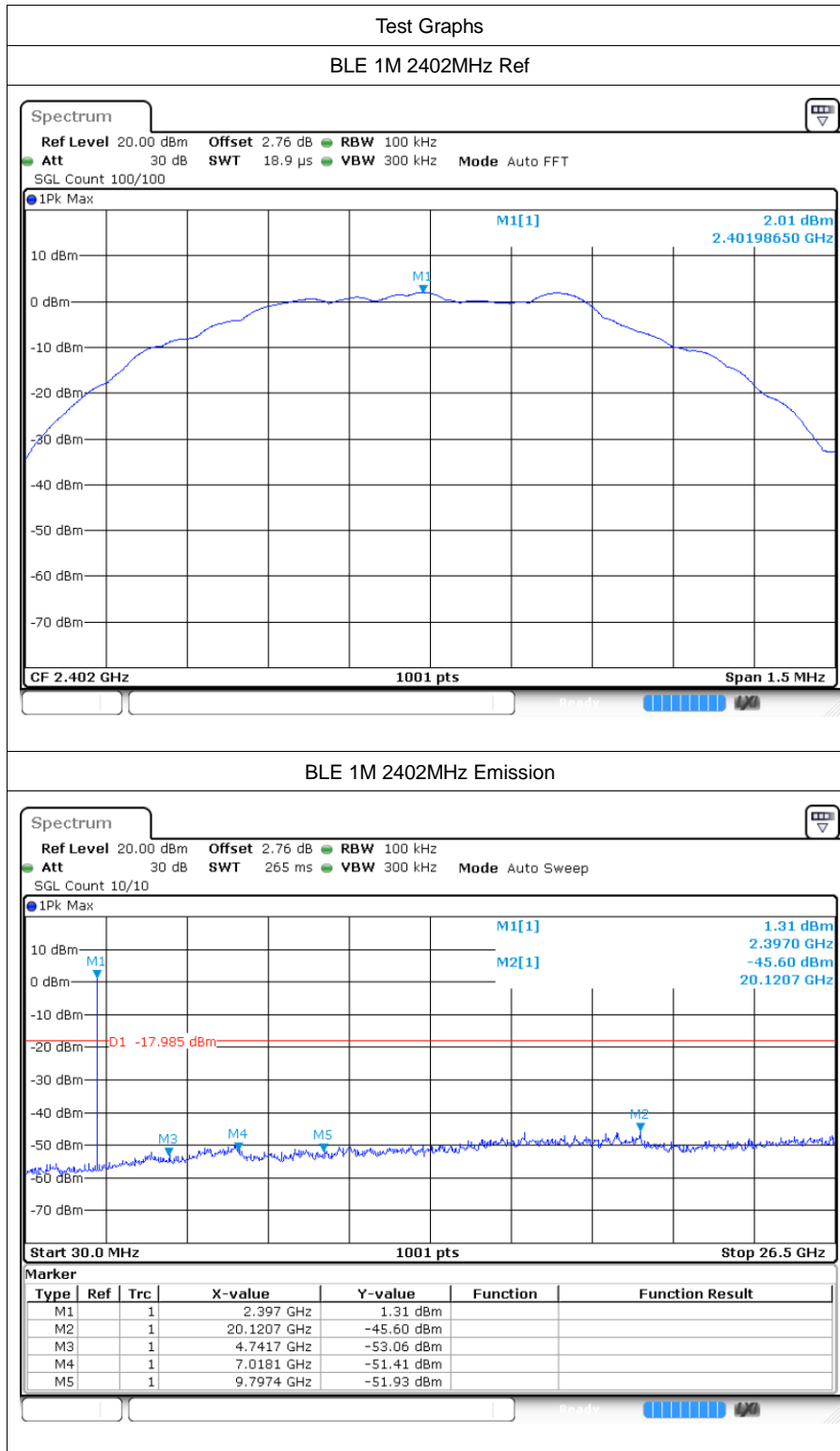


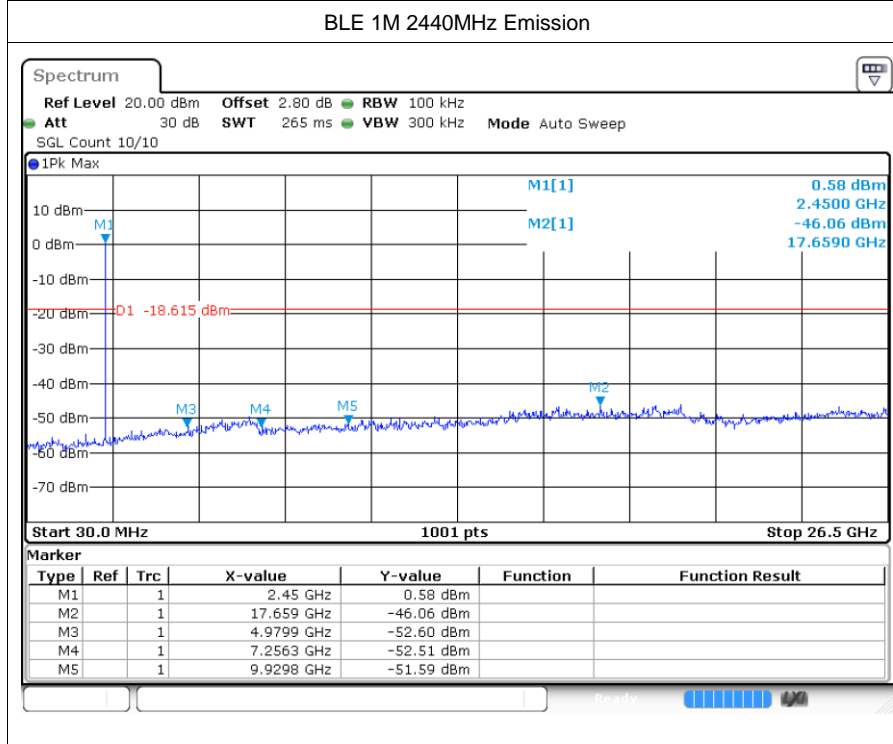
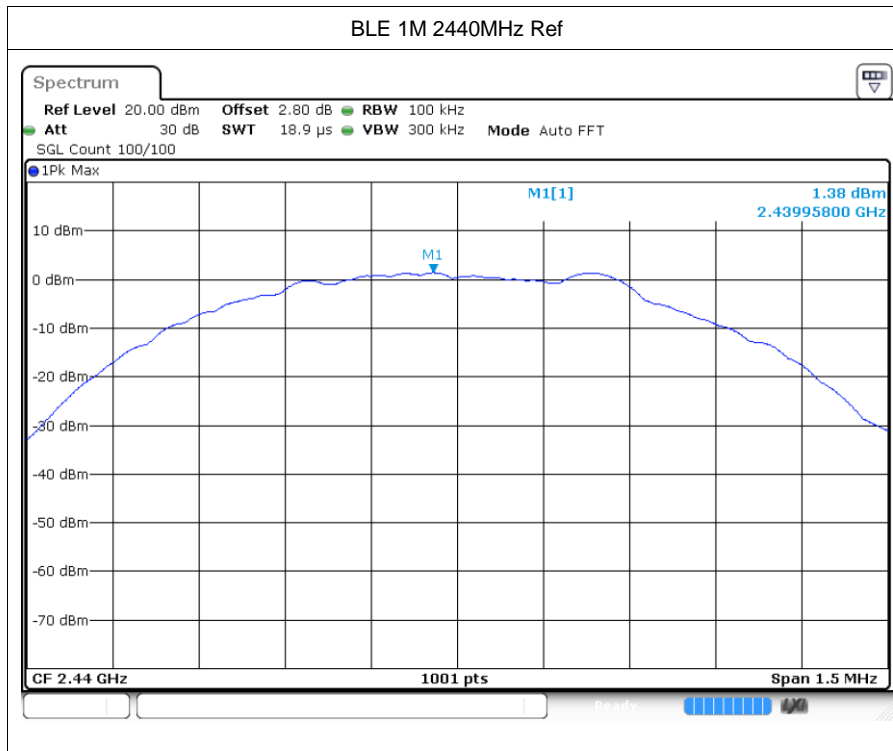
6 Conducted RF Spurious Emission

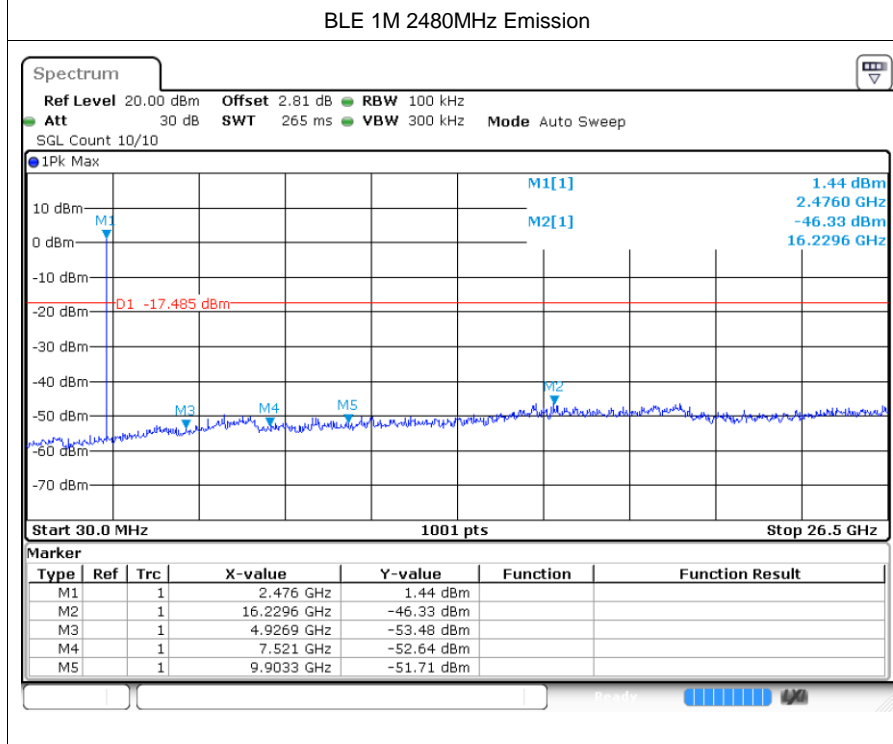
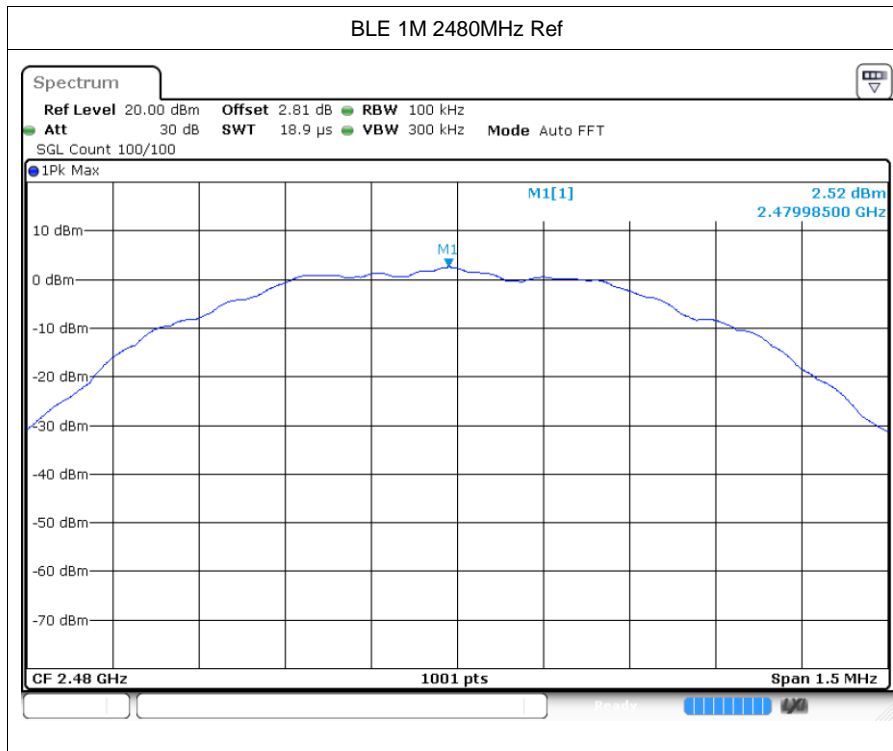
6.1 Test Result

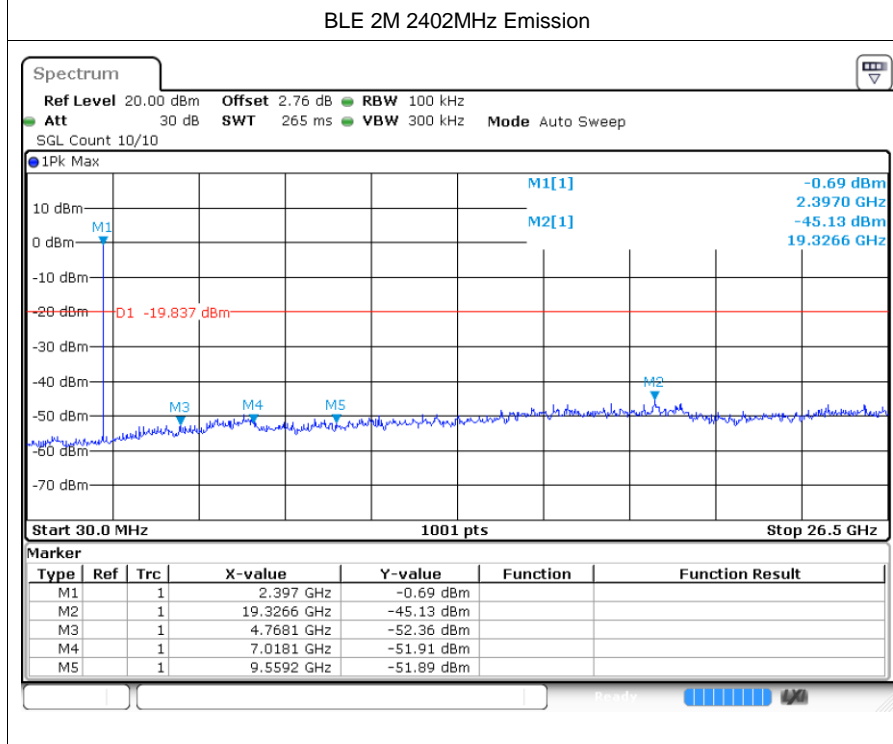
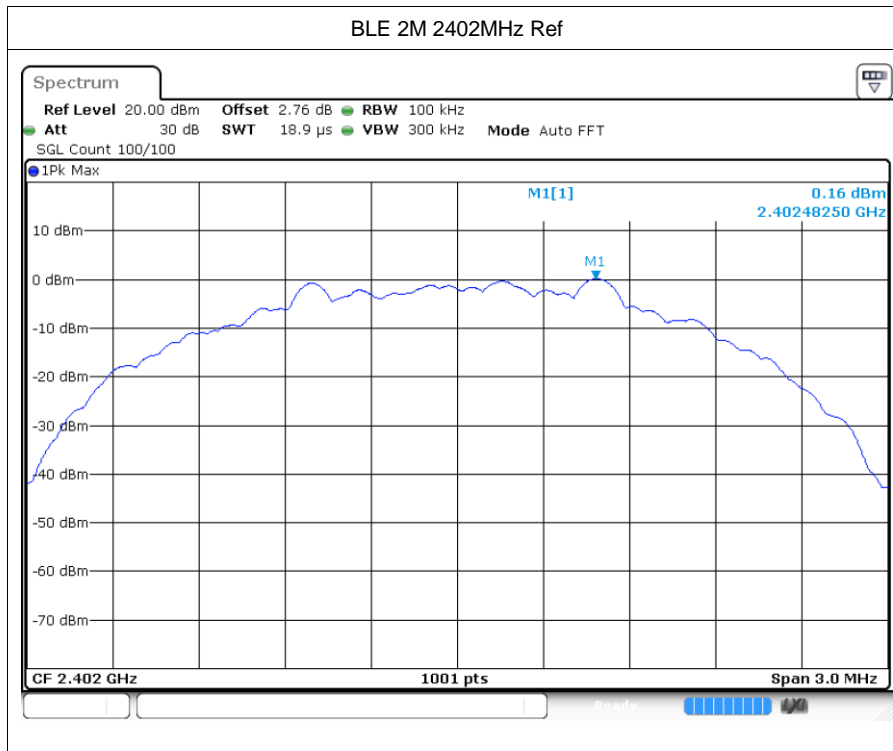
Mode	Frequency (MHz)	Max Value (dBc)	Limit (dBc)	Verdict
BLE 1M	2402	-47.6	-20	Pass
BLE 1M	2440	-47.43	-20	Pass
BLE 1M	2480	-48.85	-20	Pass
BLE 2M	2402	-45.29	-20	Pass
BLE 2M	2440	-46.83	-20	Pass
BLE 2M	2480	-45.17	-20	Pass

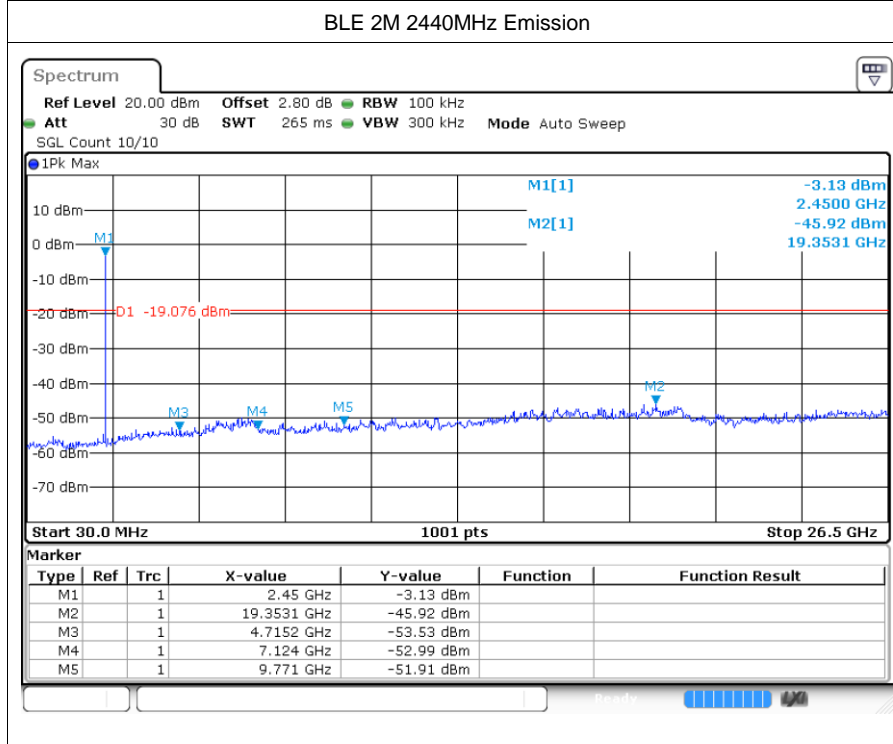
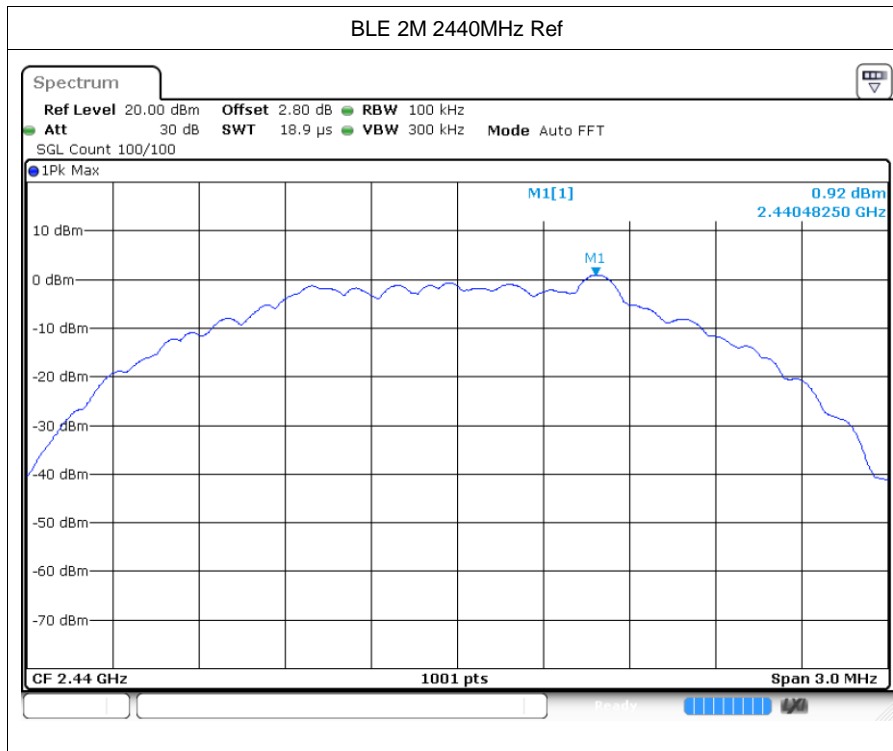
6.2 Test Graphs

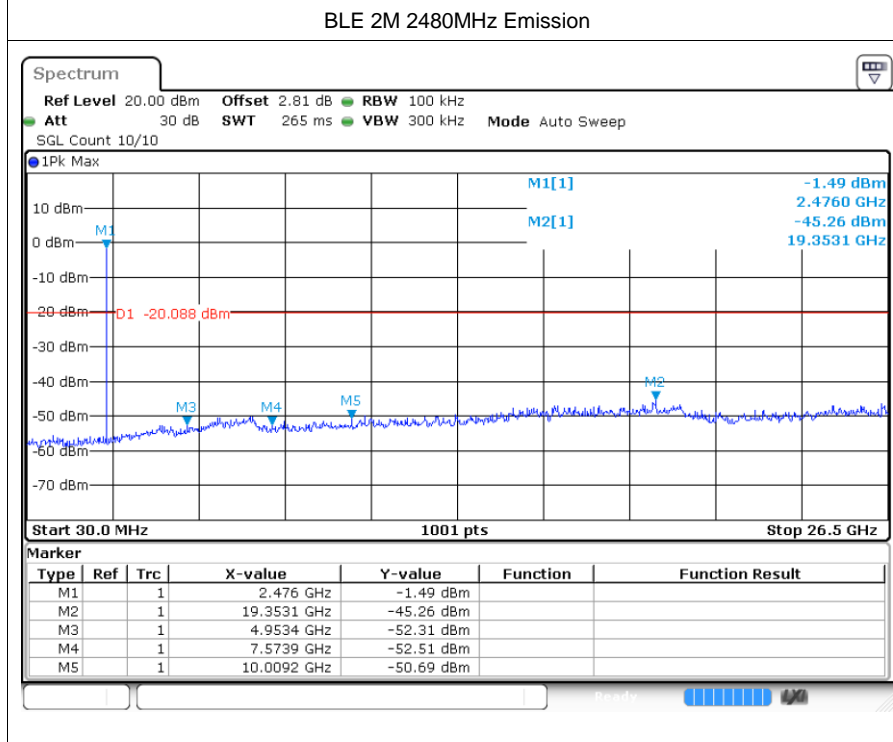
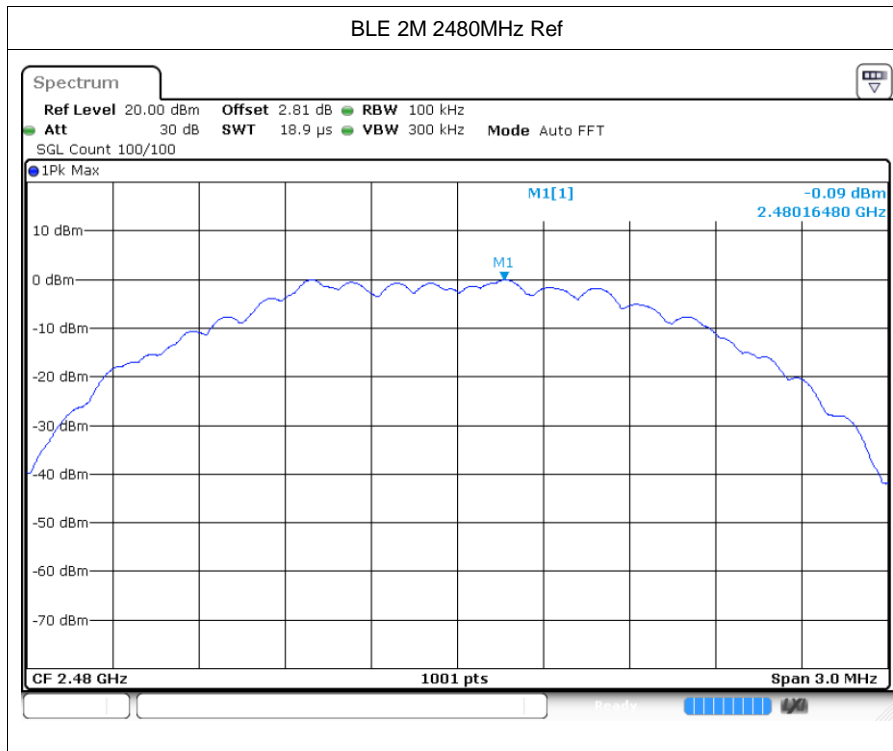












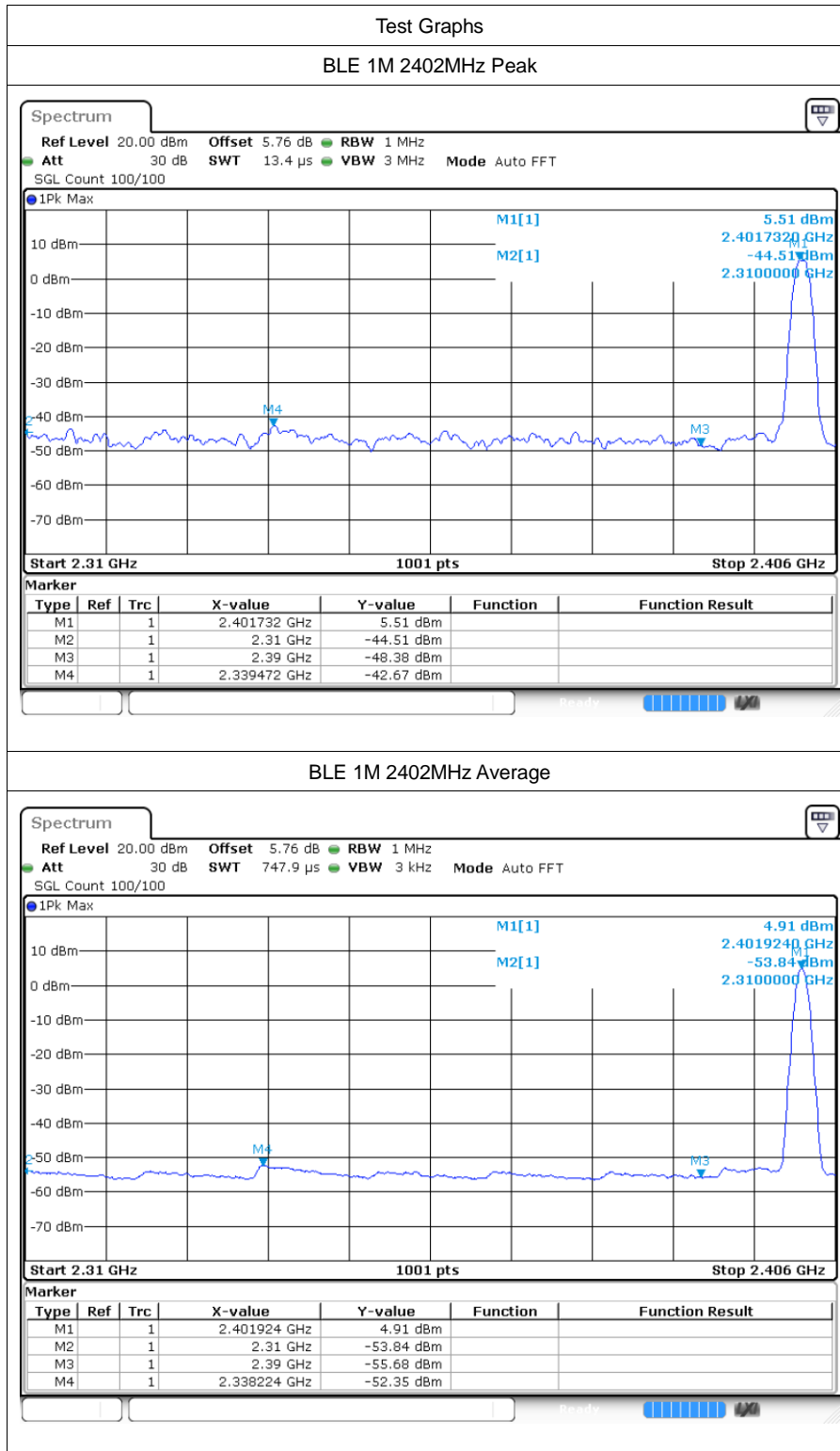


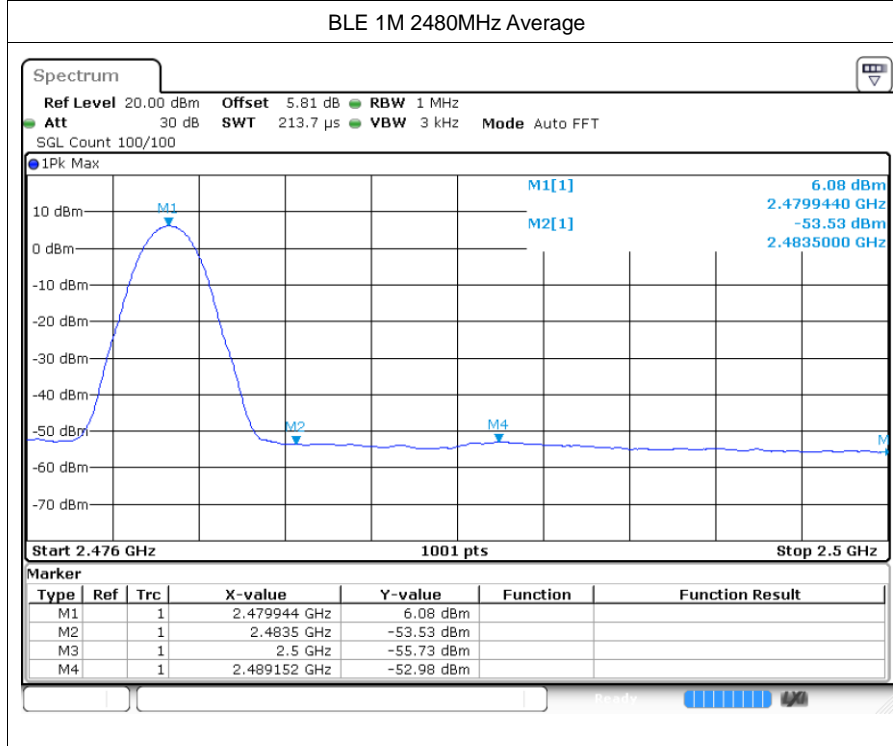
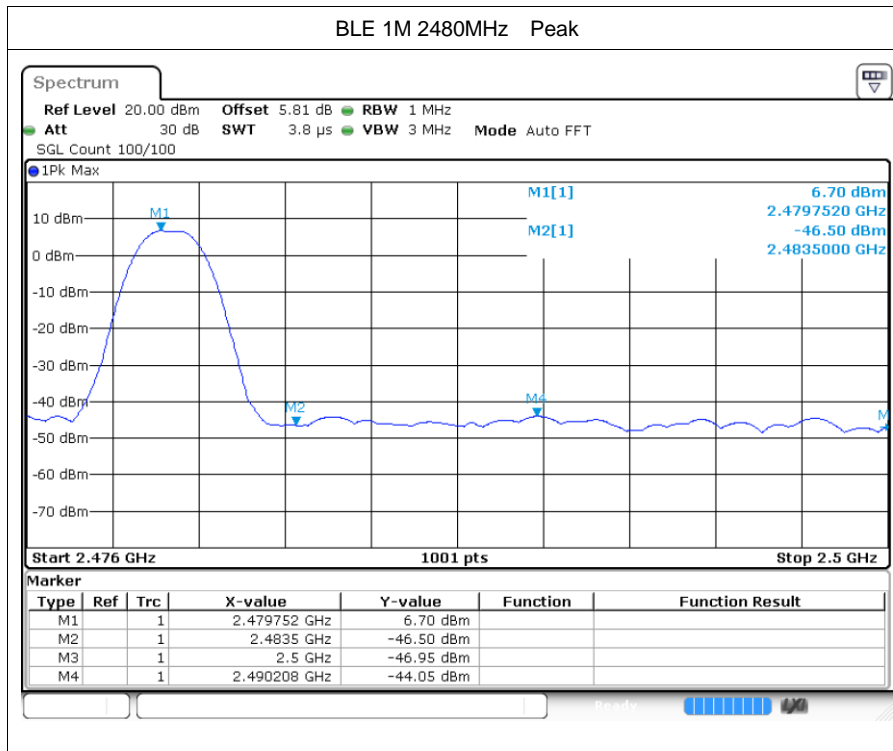
7 Restrict Band

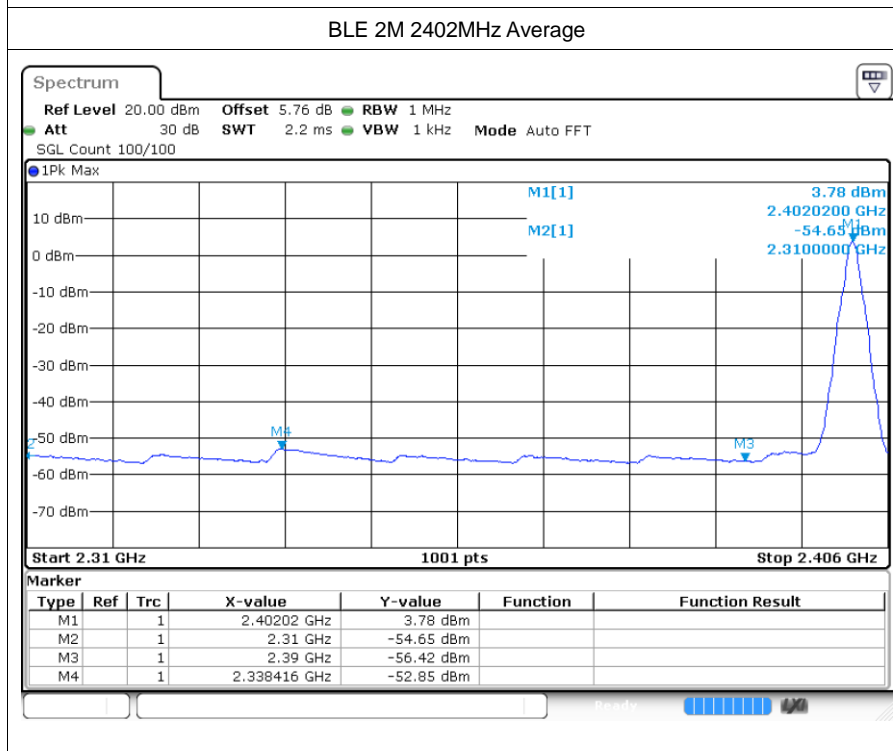
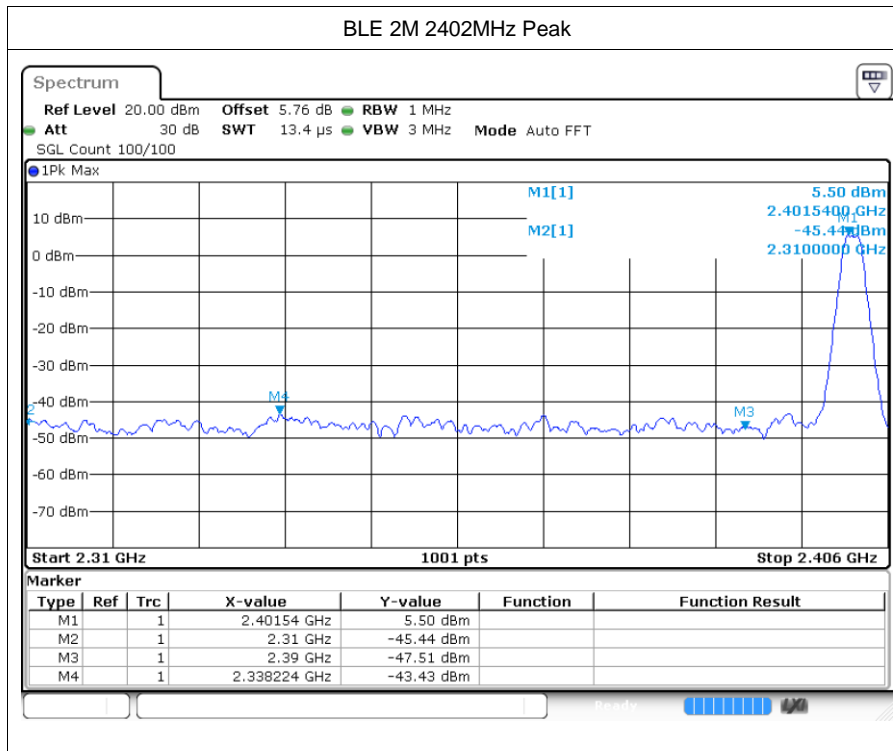
7.1 Test Result

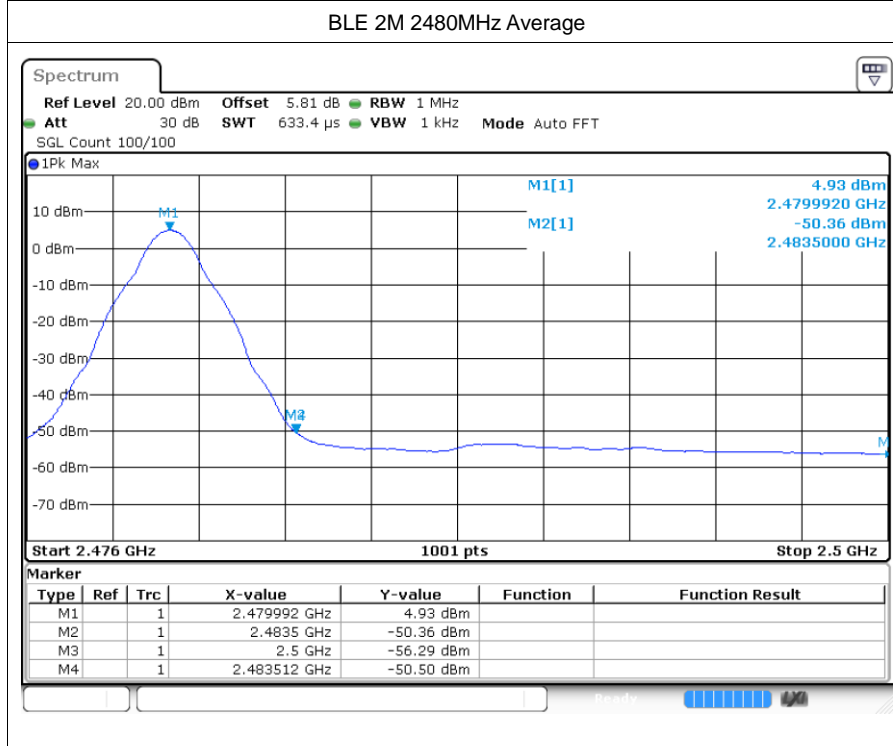
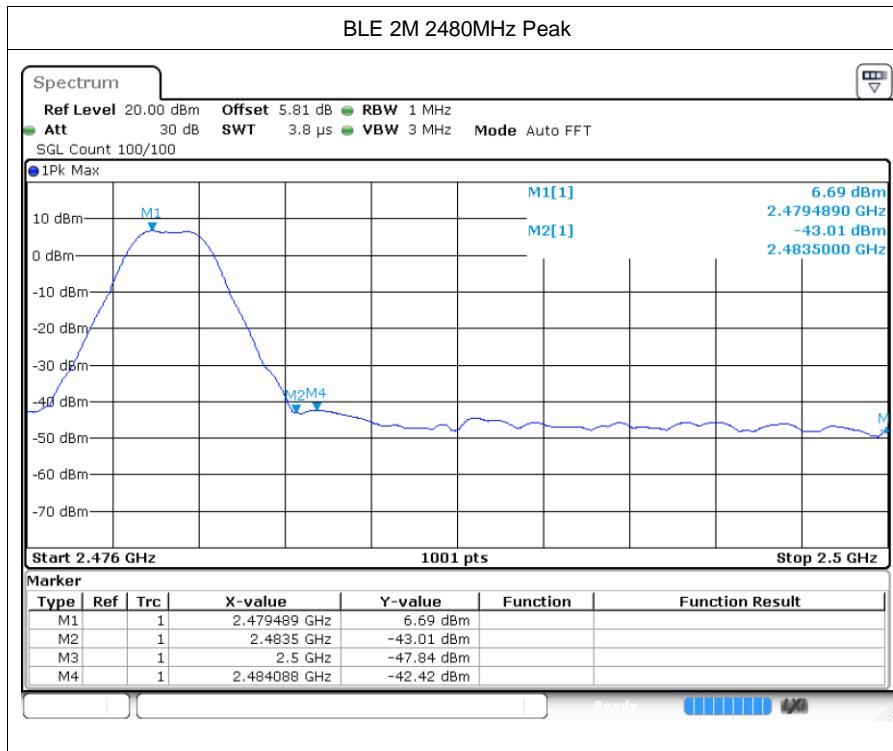
Mode	Frequency (MHz)	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
BLE 1M	2402	2310	-44.5	3	53.76	Peak	74	Pass
BLE 1M	2402	2310	-53.83	3	44.43	Average	54	Pass
BLE 1M	2402	2339.472	-42.66	3	55.6	Peak	74	Pass
BLE 1M	2402	2338.224	-52.35	3	45.91	Average	54	Pass
BLE 1M	2402	2390	-48.38	3	49.88	Peak	74	Pass
BLE 1M	2402	2390	-55.67	3	42.59	Average	54	Pass
BLE 1M	2480	2483.5	-46.57	3	51.69	Peak	74	Pass
BLE 1M	2480	2483.5	-53.53	3	44.73	Average	54	Pass
BLE 1M	2480	2490.208	-44.04	3	54.22	Peak	74	Pass
BLE 1M	2480	2489.152	-52.98	3	45.28	Average	54	Pass
BLE 1M	2480	2500	-46.94	3	51.32	Peak	74	Pass
BLE 1M	2480	2500	-55.73	3	42.53	Average	54	Pass
BLE 2M	2402	2310	-45.44	3	52.82	Peak	74	Pass
BLE 2M	2402	2310	-54.65	3	43.61	Average	54	Pass
BLE 2M	2402	2338.224	-43.43	3	54.83	Peak	74	Pass
BLE 2M	2402	2338.416	-52.84	3	45.42	Average	54	Pass
BLE 2M	2402	2390	-47.5	3	50.76	Peak	74	Pass
BLE 2M	2402	2390	-56.42	3	41.84	Average	54	Pass
BLE 2M	2480	2483.5	-43.05	3	55.21	Peak	74	Pass
BLE 2M	2480	2483.5	-50.5	3	47.76	Average	54	Pass
BLE 2M	2480	2484.088	-42.41	3	55.85	Peak	74	Pass
BLE 2M	2480	2483.512	-50.5	3	47.76	Average	54	Pass
BLE 2M	2480	2500	-47.83	3	50.43	Peak	74	Pass
BLE 2M	2480	2500	-56.28	3	41.98	Average	54	Pass

7.2 Test Graphs









---The End---