



Appendix B

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

Product Name: Nybble Q

Trade Mark: N/A

Test Model: Plastic servo

Environmental Conditions

Temperature:	25.3℃
Relative Humidity:	52.2%
ATM Pressure:	101Kpa
Test Engineer:	Emiya lin
Supervised by:	Simba Haung



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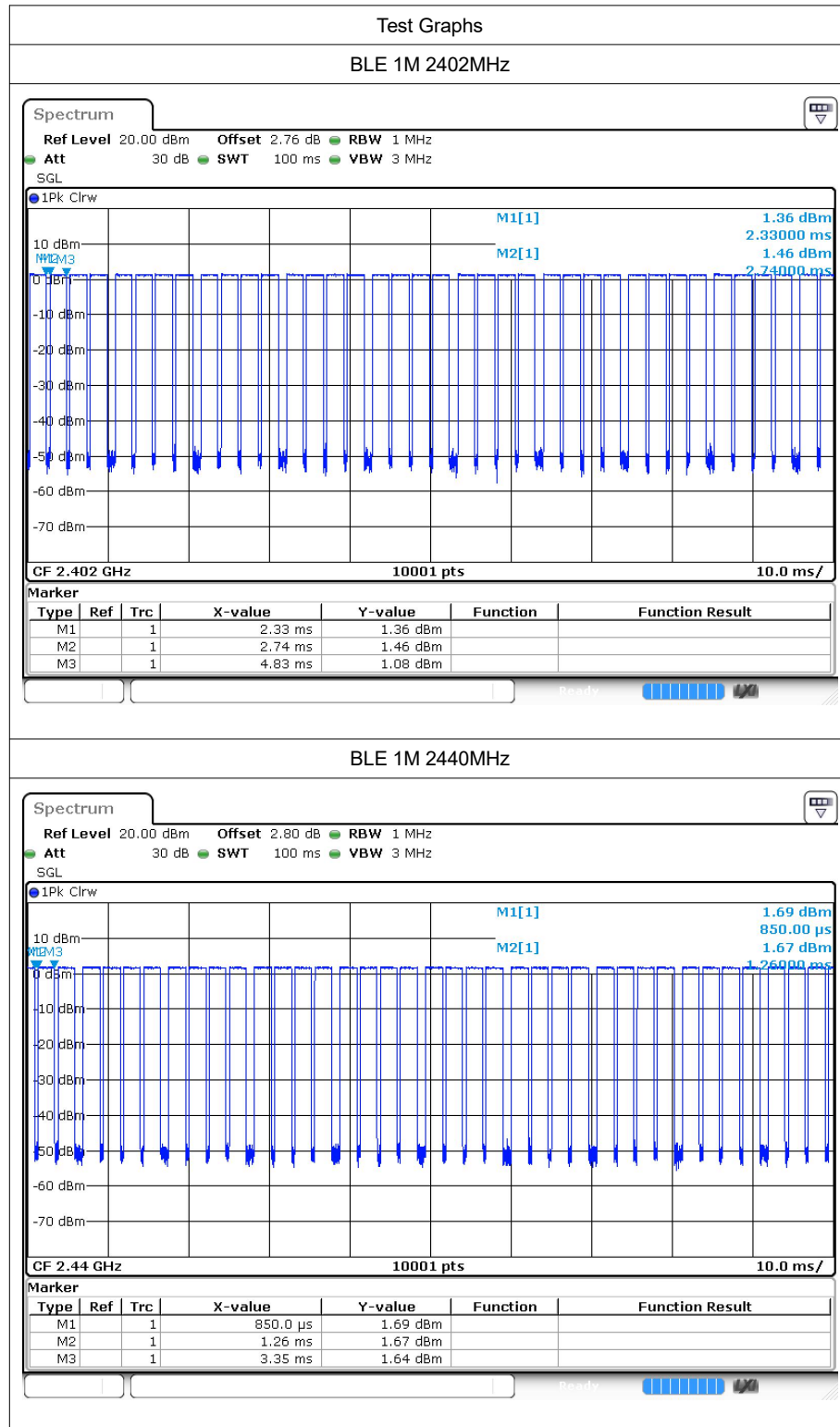


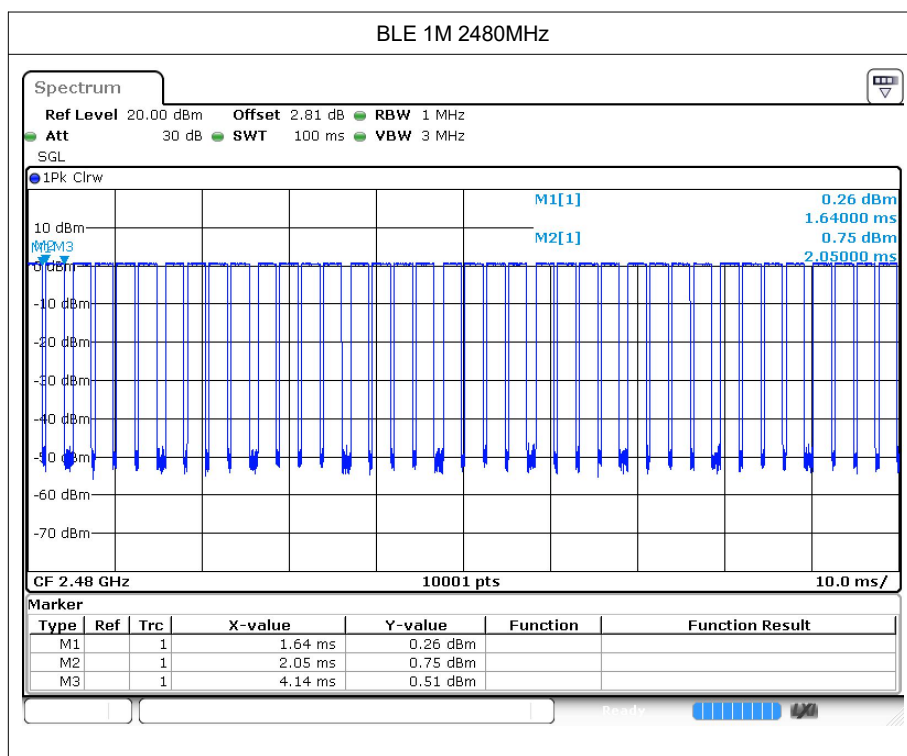
1 Duty Cycle

1.1 Test Result

Mode	Frequency (MHz)	Duty Cycle (%)	Correction Factor	1/T (kHz)
BLE 1M	2402	79.41	1	0.48
BLE 1M	2440	79.37	1	0.48
BLE 1M	2480	79.48	1	0.48

1.2 Test Graphs





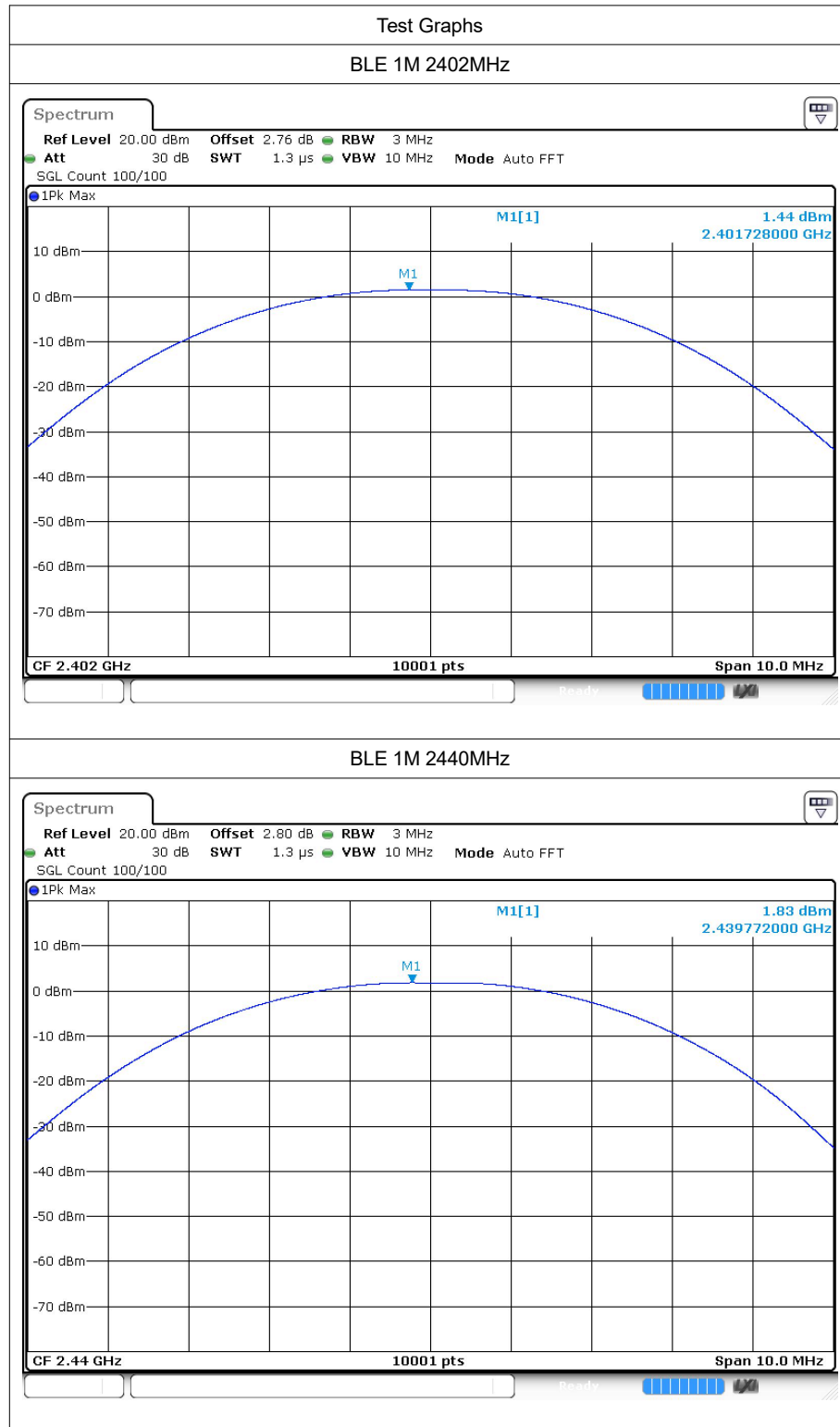


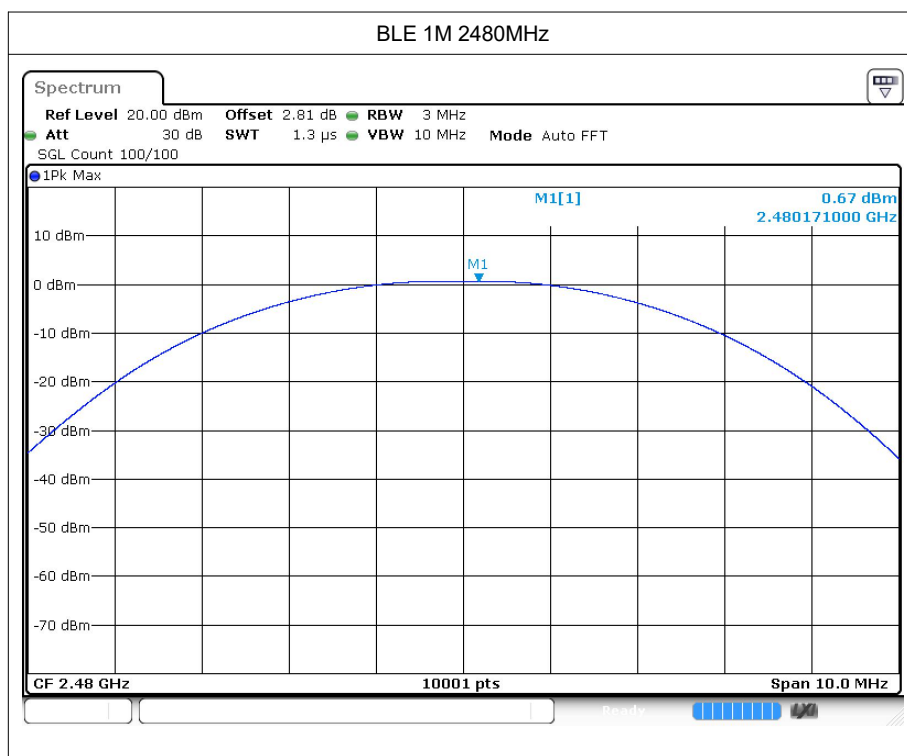
2 Maximum Peak Conducted Output Power

2.1 Test Result

Mode	Frequency (MHz)	Conducted Power (dBm)	Limit (dBm)	Verdict
BLE 1M	2402	1.44	30	Pass
BLE 1M	2440	1.83	30	Pass
BLE 1M	2480	0.67	30	Pass

2.2 Test Graphs





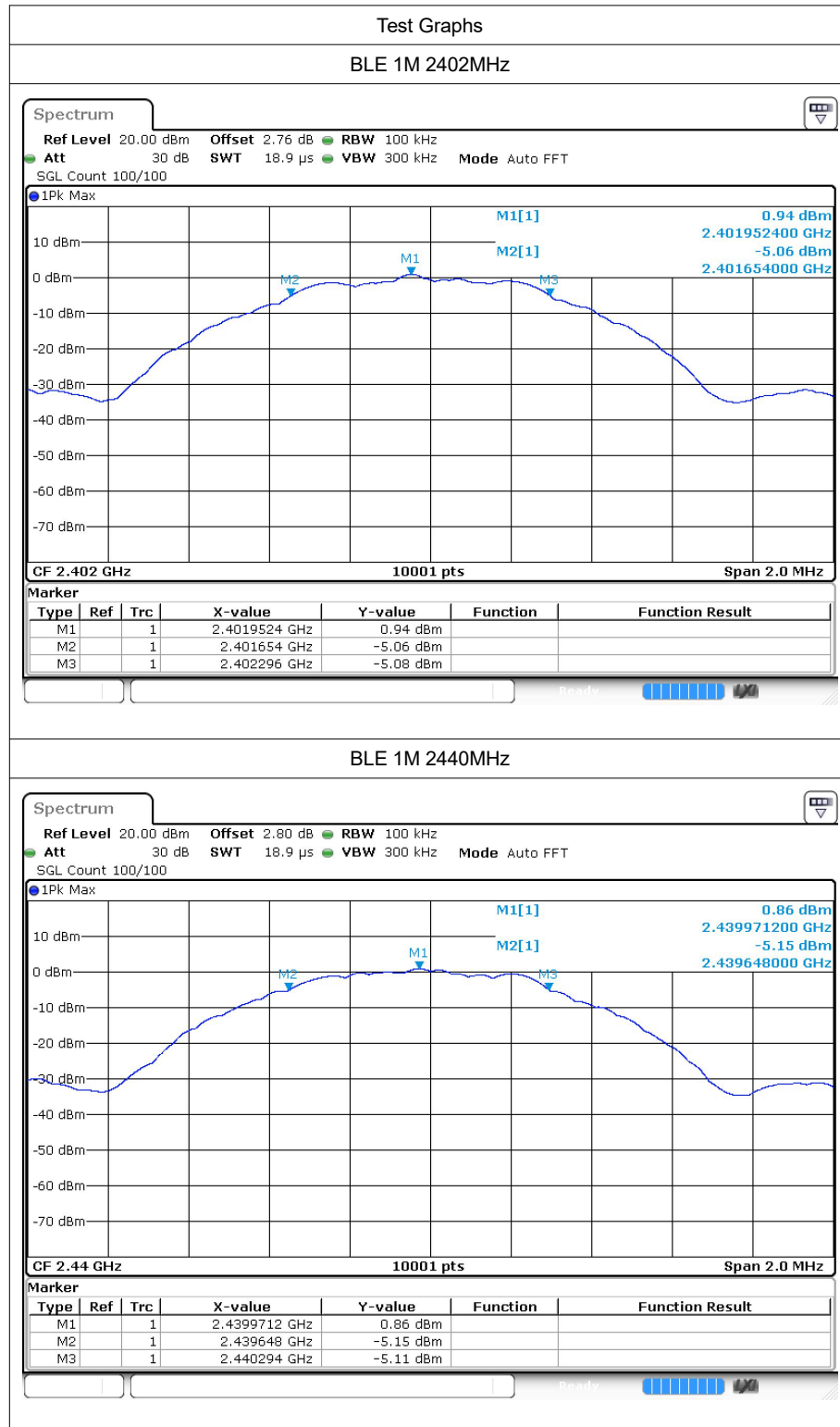


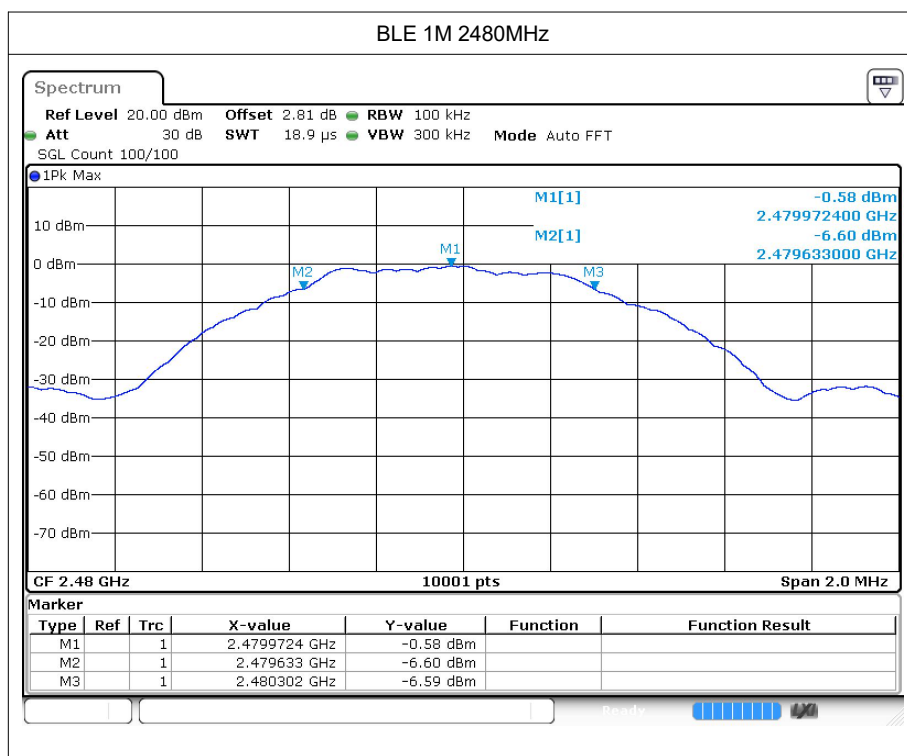
3 -6dB Bandwidth

3.1 Test Result

Mode	Frequency (MHz)	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
BLE 1M	2402	0.642	0.5	Pass
BLE 1M	2440	0.646	0.5	Pass
BLE 1M	2480	0.669	0.5	Pass

3.2 Test Graphs





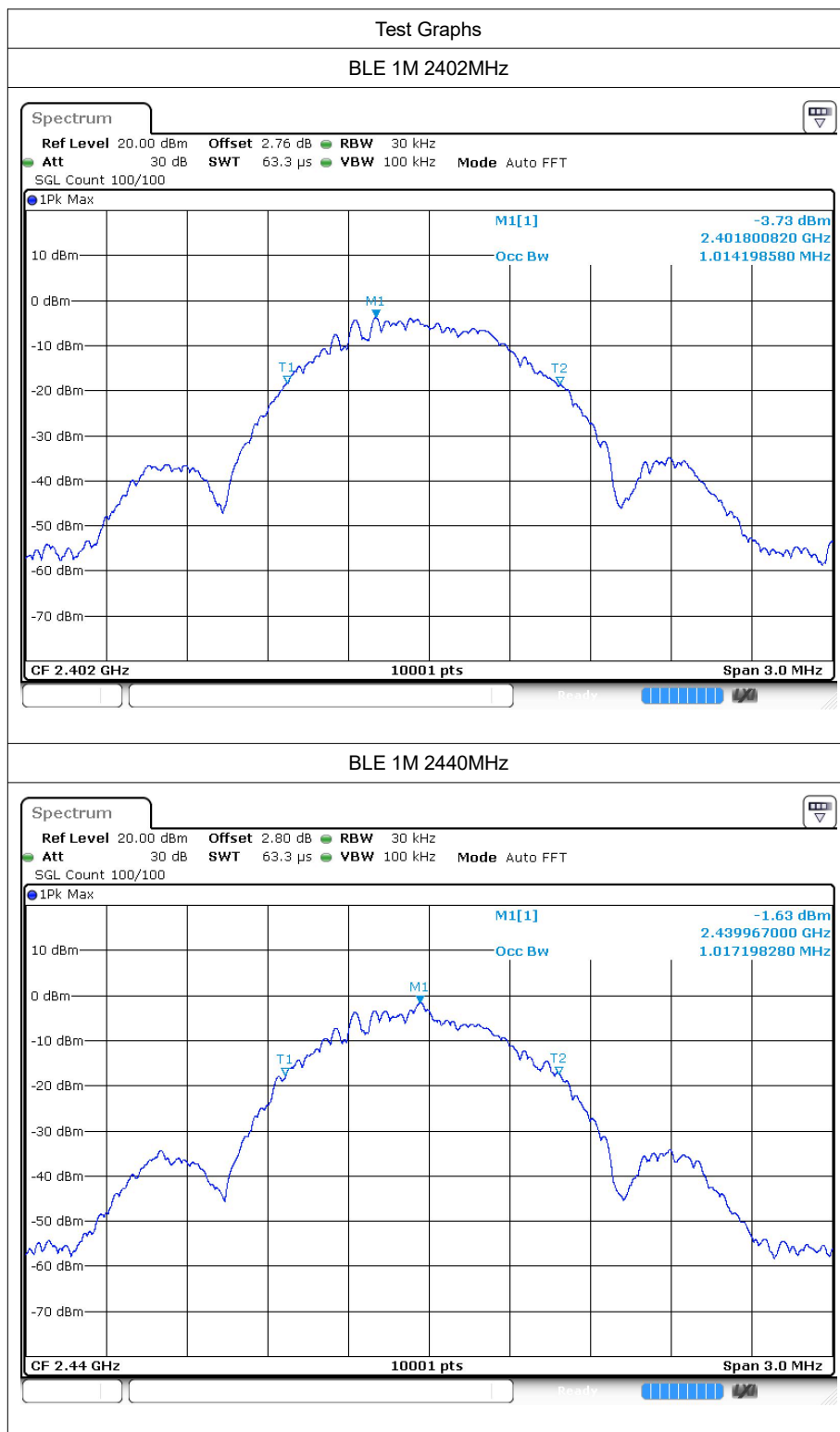


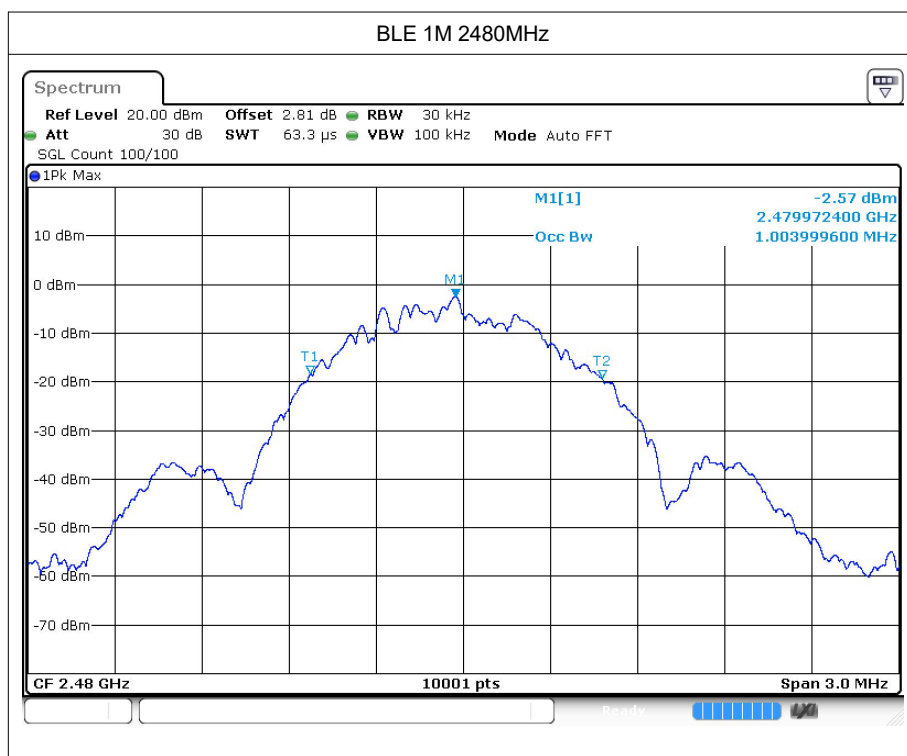
4 Occupied Channel Bandwidth

4.1 Test Result

Mode	Frequency (MHz)	99% OBW (MHz)
BLE 1M	2402	1.014
BLE 1M	2440	1.017
BLE 1M	2480	1.004

4.2 Test Graphs





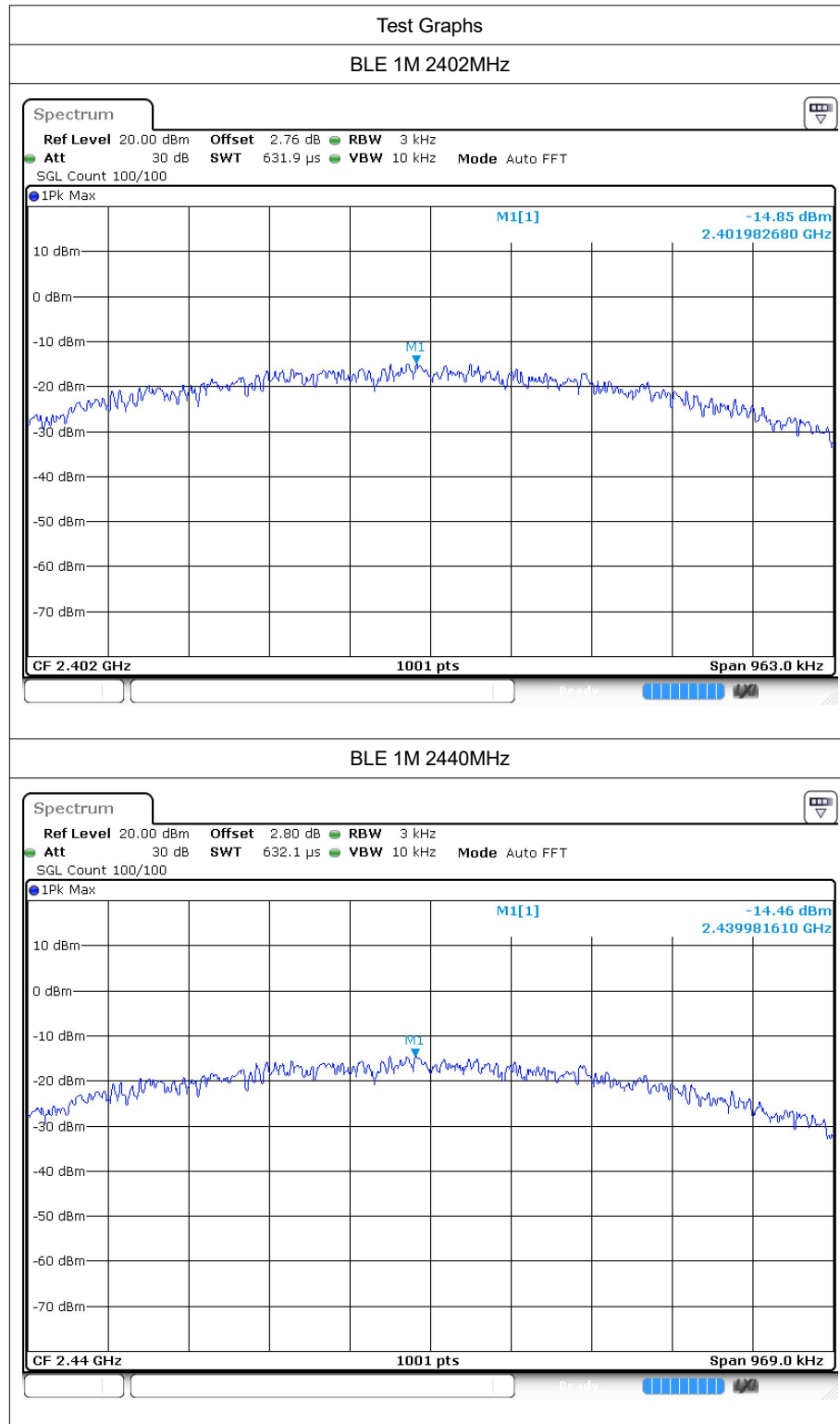


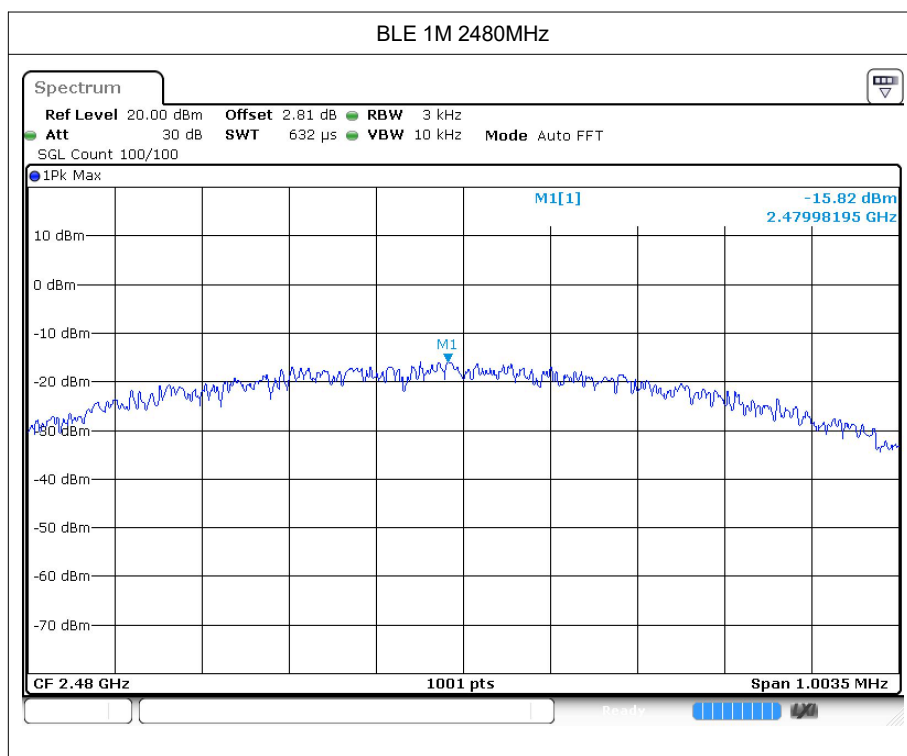
5 Maximum Power Spectral Density Level

5.1 Test Result

Mode	Frequency (MHz)	Conducted PSD (dBm/3-100kHz)	Limit (dBm/3kHz)	Verdict
BLE 1M	2402	-14.85	≤ 8	Pass
BLE 1M	2440	-14.46	≤ 8	Pass
BLE 1M	2480	-15.82	≤ 8	Pass

5.2 Test Graphs





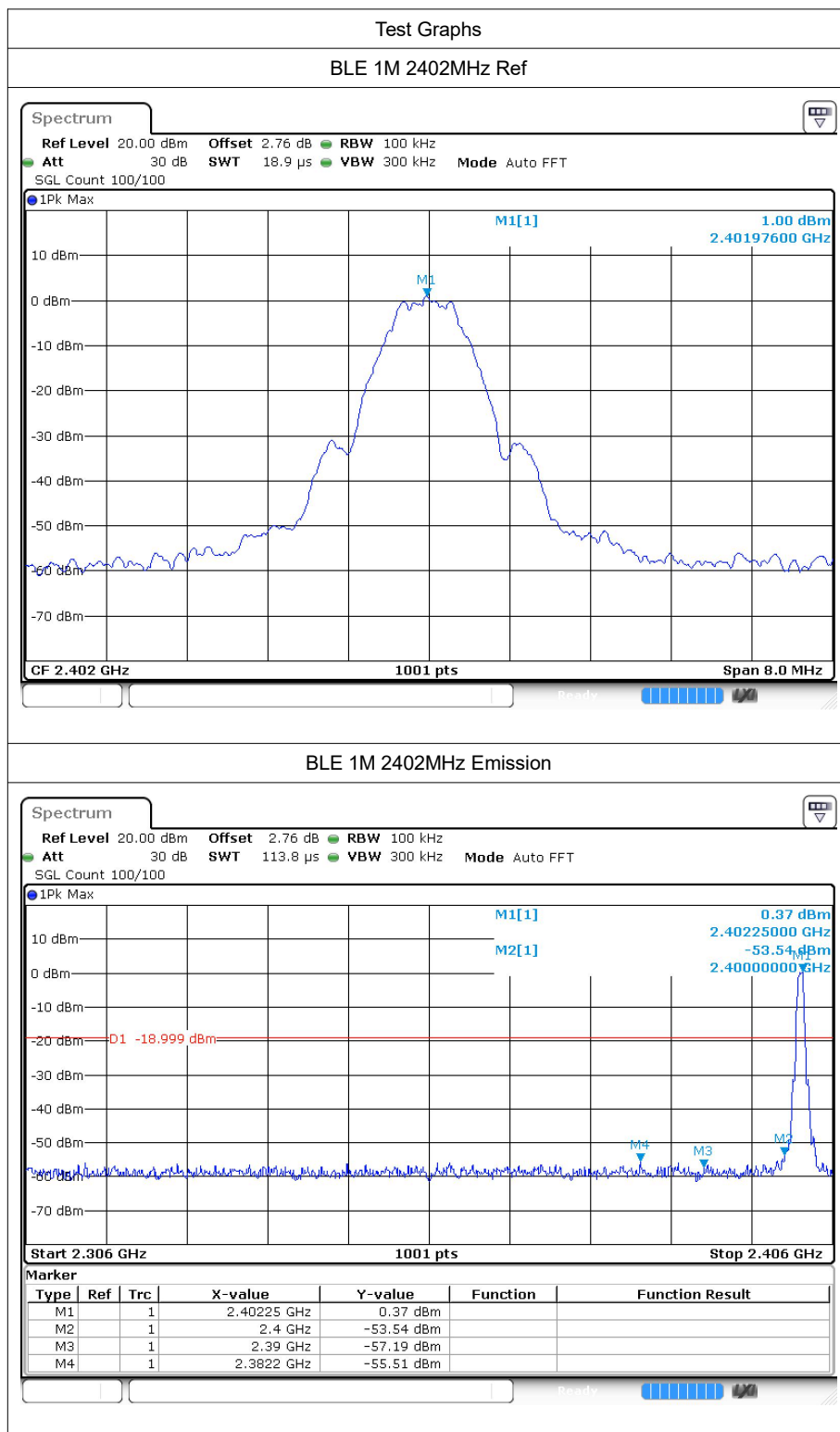


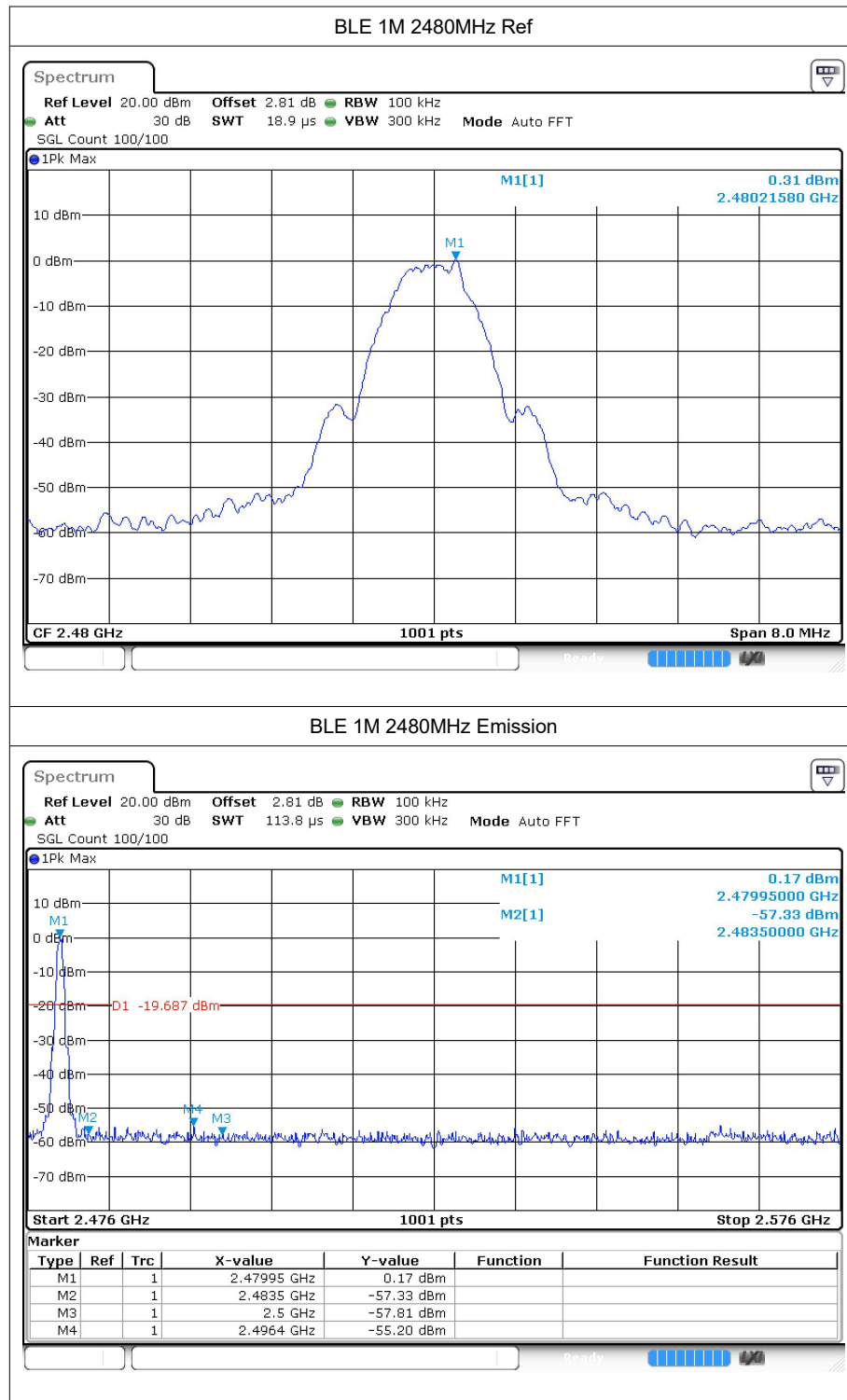
6 Band Edge

6.1 Test Result

Mode	Frequency (MHz)	Max Value (dBc)	Limit (dBc)	Verdict
BLE 1M	2402	-56.51	-20	Pass
BLE 1M	2480	-55.51	-20	Pass

6.2 Test Graphs





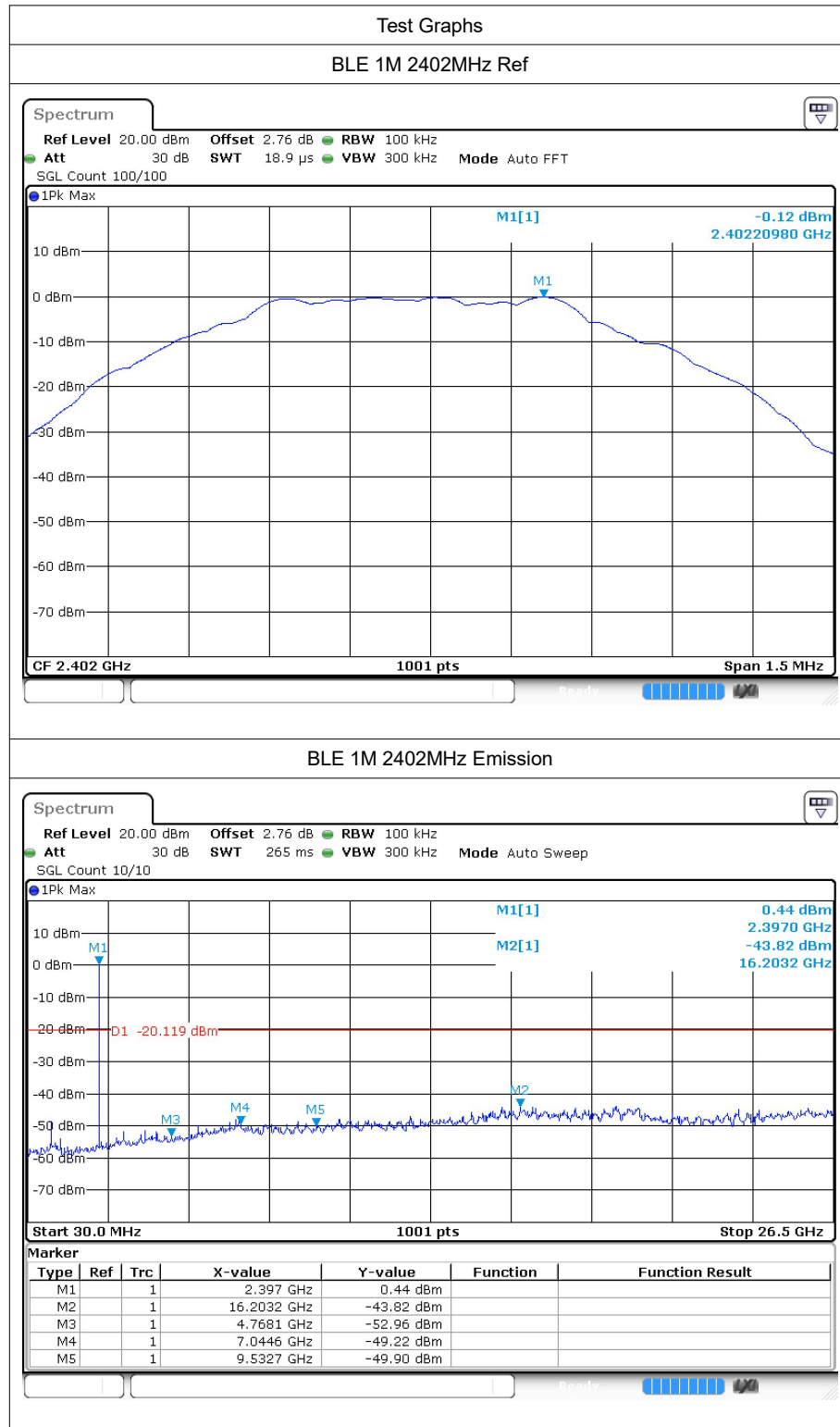


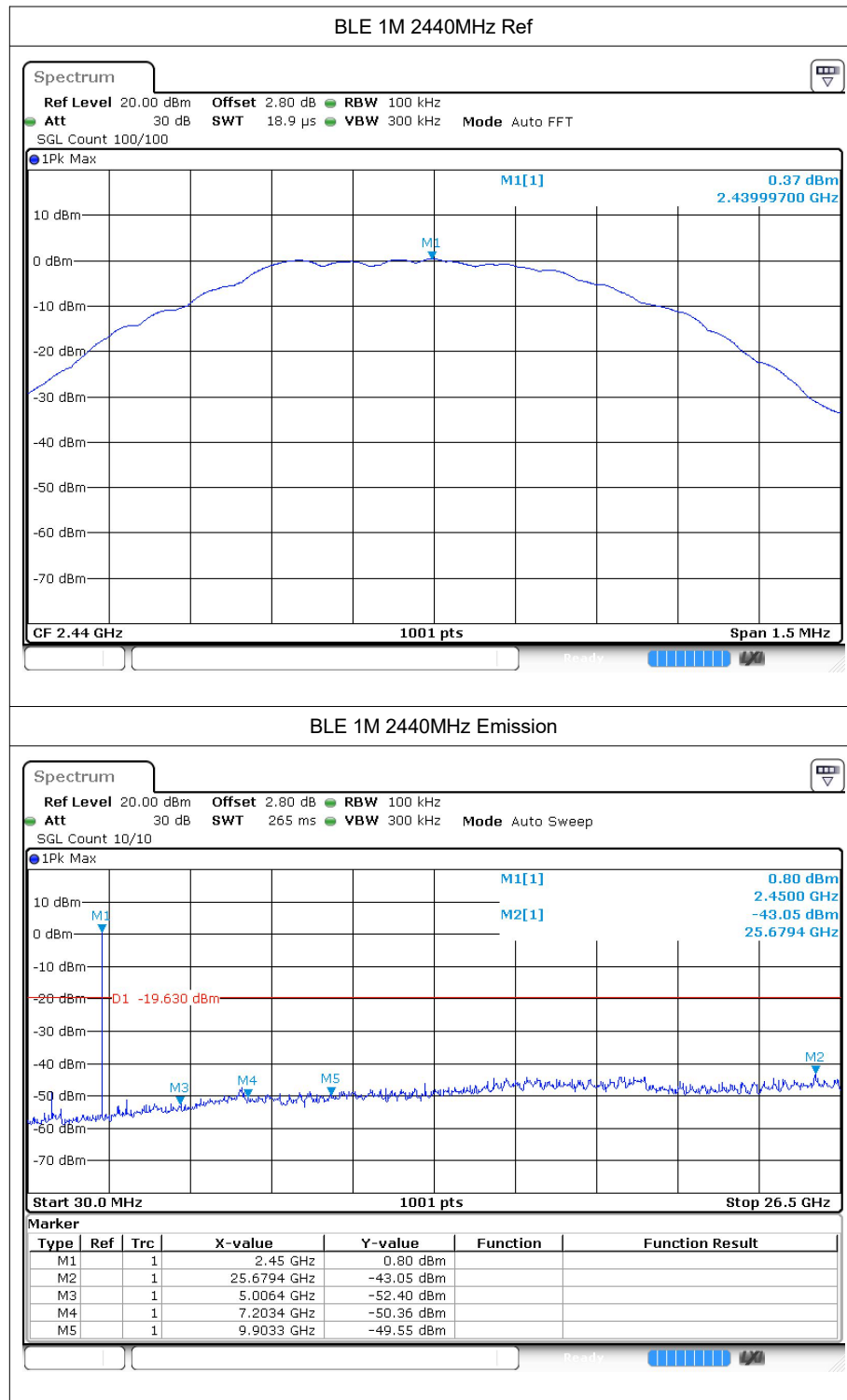
7 Conducted RF Spurious Emission

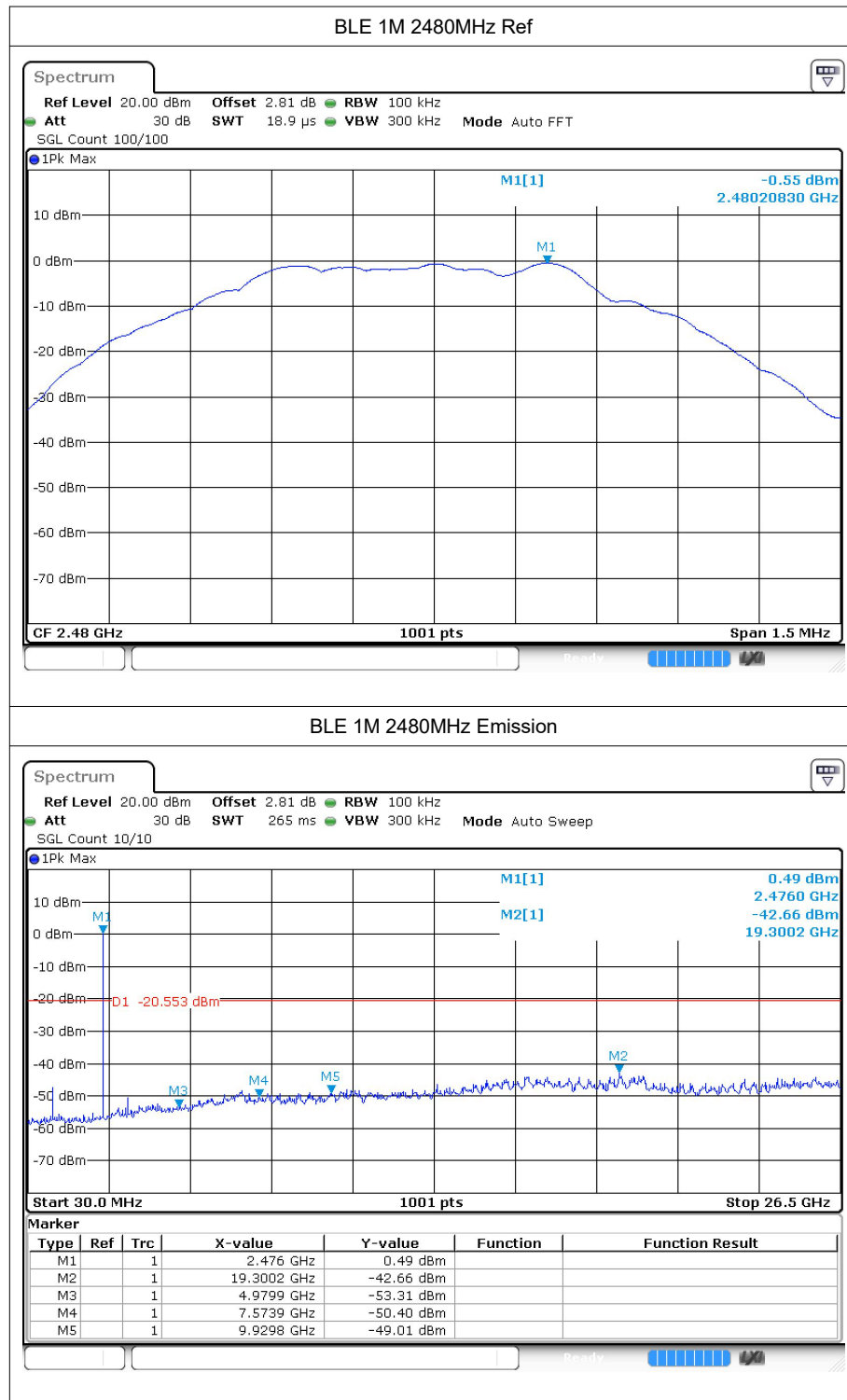
7.1 Test Result

Mode	Frequency (MHz)	Max Value (dBc)	Limit (dBc)	Verdict
BLE 1M	2402	-43.69	-20	Pass
BLE 1M	2440	-43.41	-20	Pass
BLE 1M	2480	-42.1	-20	Pass

7.2 Test Graphs







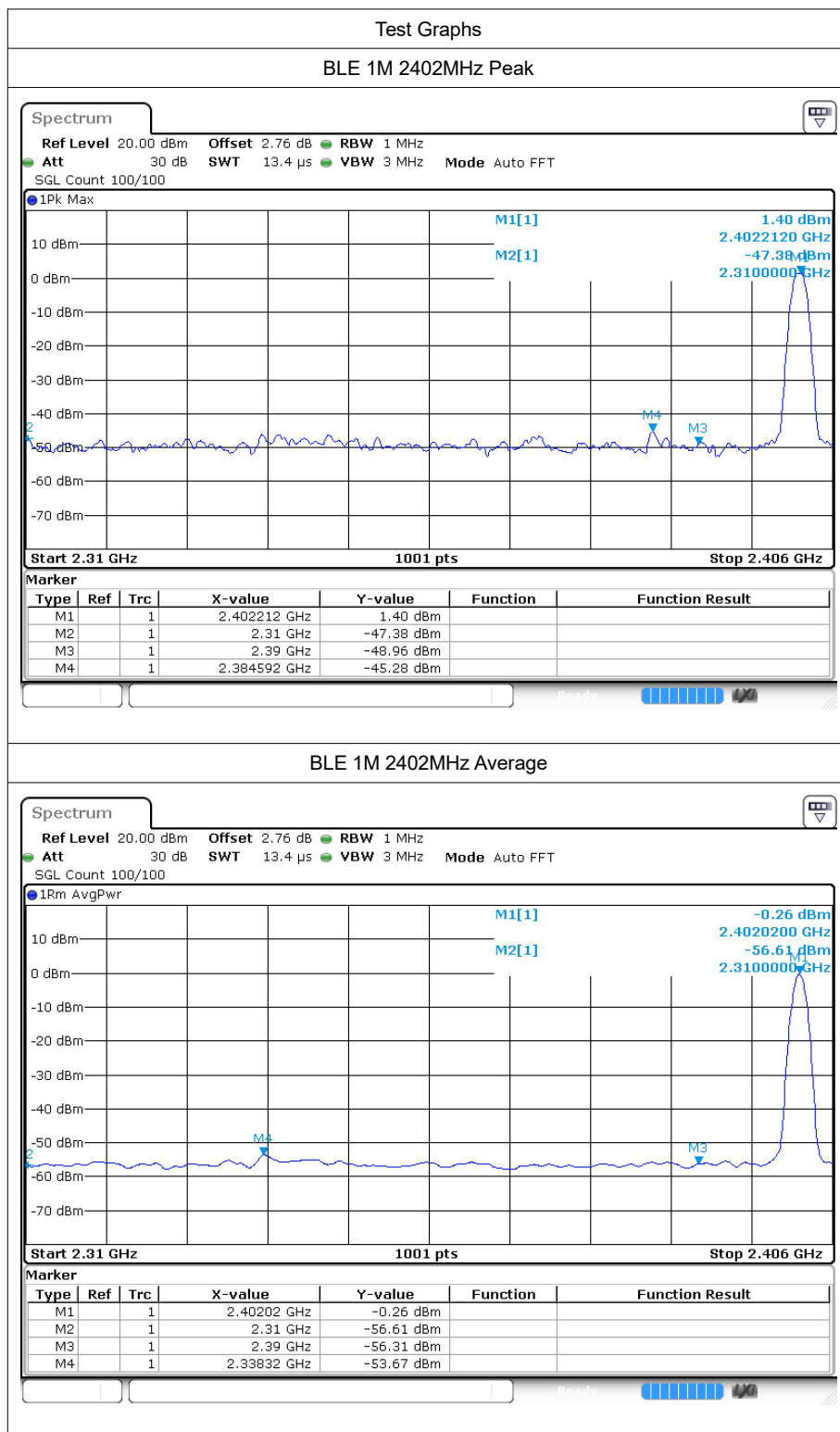


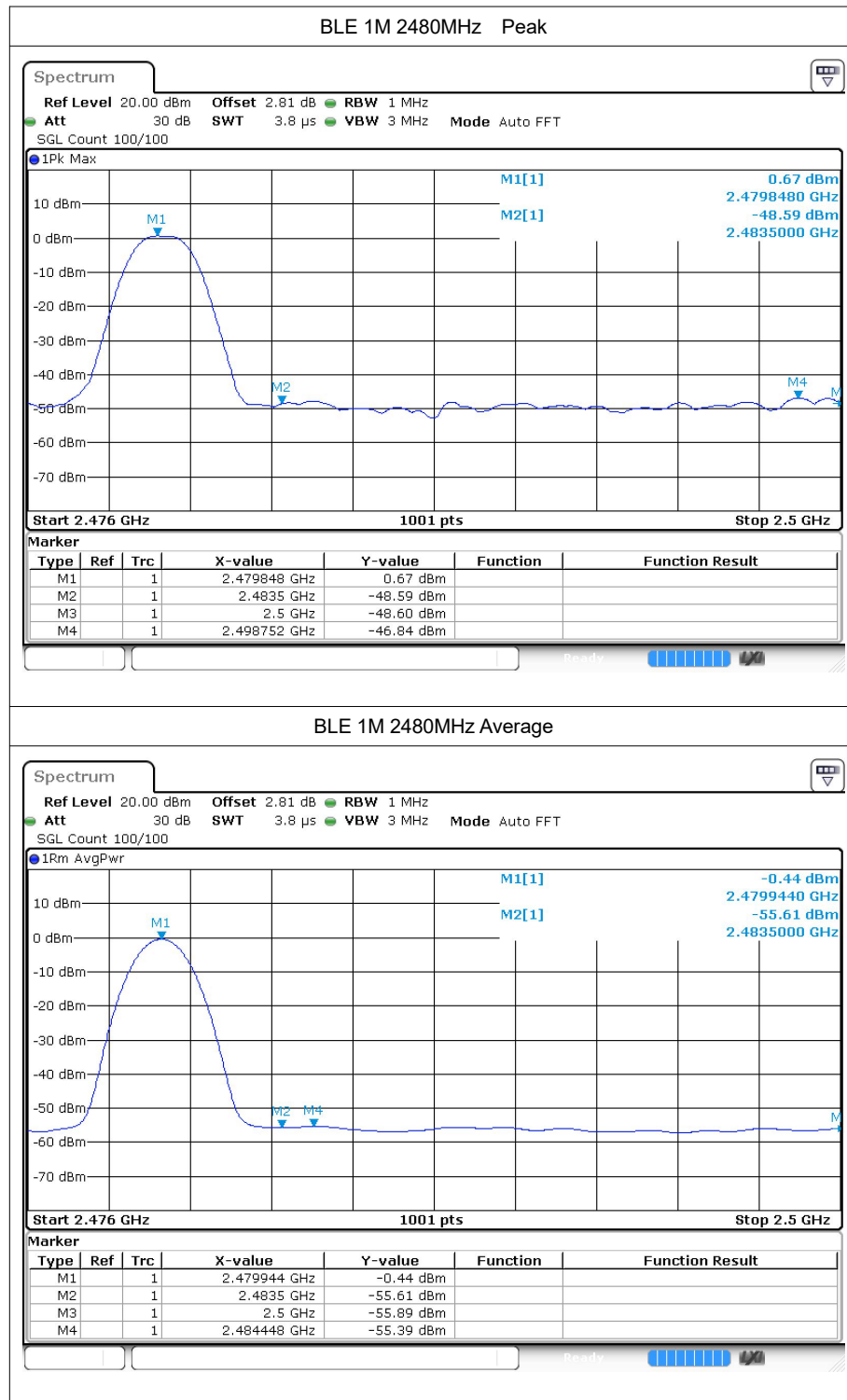
8 Restrict Band

8.1 Test Result

Mode	Frequency (MHz)	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
BLE 1M	2402	2310	-47.38	2.7	-	50.55	Peak	74	Pass
BLE 1M	2402	2310	-56.61	2.7	1	42.32	Average	54	Pass
BLE 1M	2402	2384.592	-45.28	2.7	-	52.65	Peak	74	Pass
BLE 1M	2402	2338.32	-53.67	2.7	1	45.26	Average	54	Pass
BLE 1M	2402	2390	-48.96	2.7	-	48.97	Peak	74	Pass
BLE 1M	2402	2390	-56.31	2.7	1	42.62	Average	54	Pass
BLE 1M	2480	2483.5	-48.59	2.7	-	49.34	Peak	74	Pass
BLE 1M	2480	2483.5	-55.61	2.7	1	43.32	Average	54	Pass
BLE 1M	2480	2498.752	-46.84	2.7	-	51.09	Peak	74	Pass
BLE 1M	2480	2484.448	-55.38	2.7	1	43.55	Average	54	Pass
BLE 1M	2480	2500	-48.6	2.7	-	49.33	Peak	74	Pass
BLE 1M	2480	2500	-55.89	2.7	1	43.04	Average	54	Pass

8.2 Test Graphs





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