



Appendix B

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

Product Name: Smart Electronic Nameplate

Trade Mark: BiLight

Test Model: BLLT01A

Environmental Conditions

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



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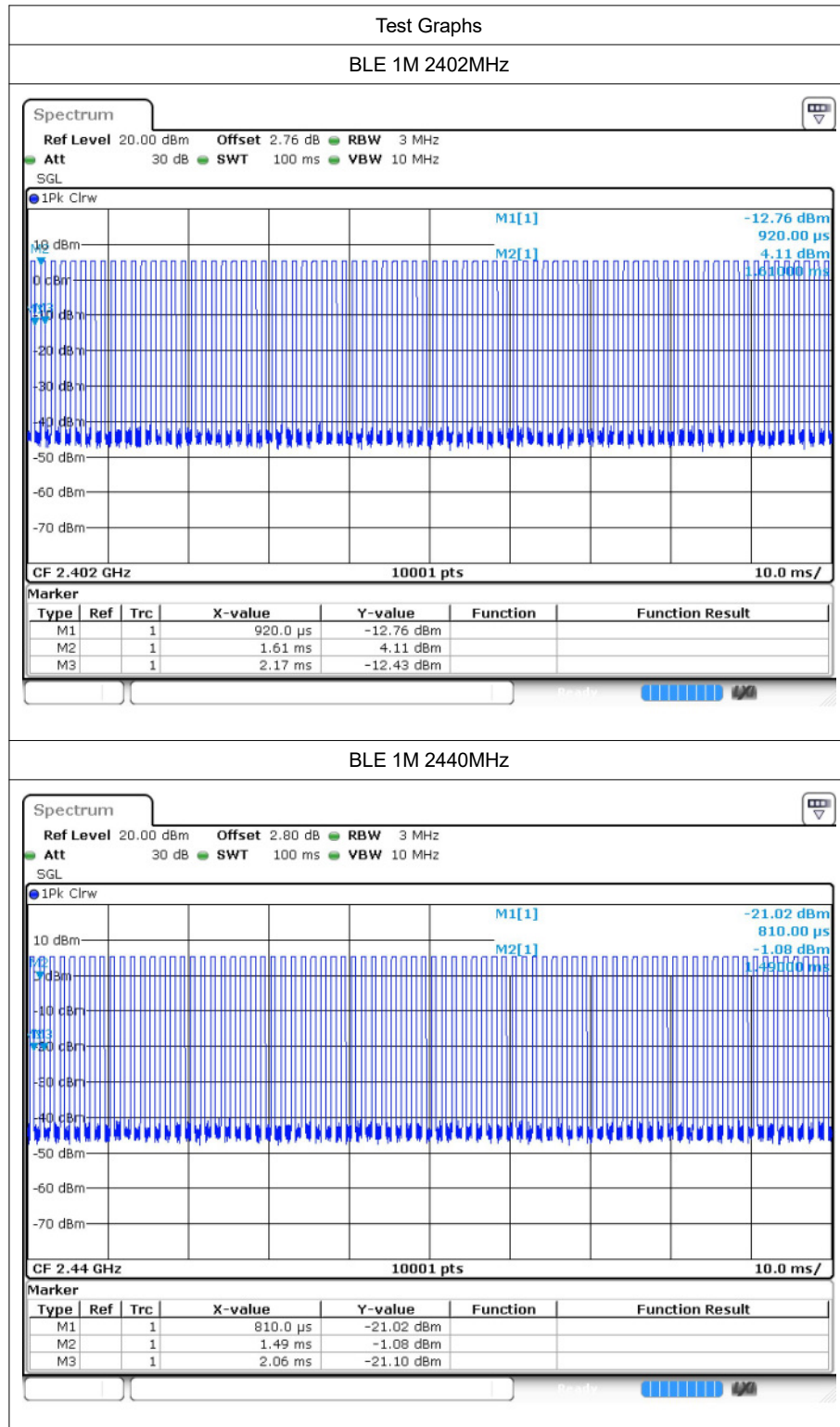


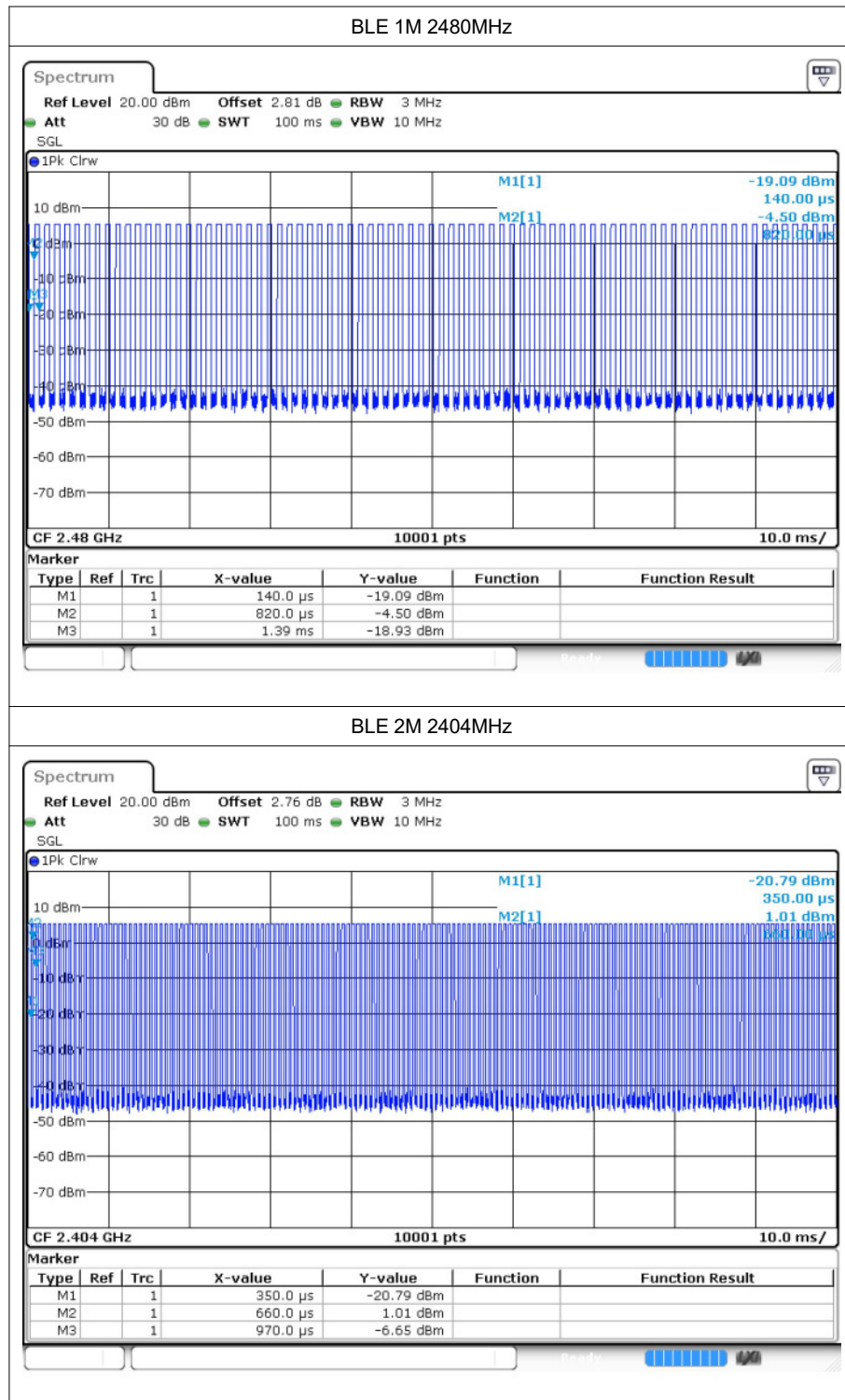
1 Duty Cycle

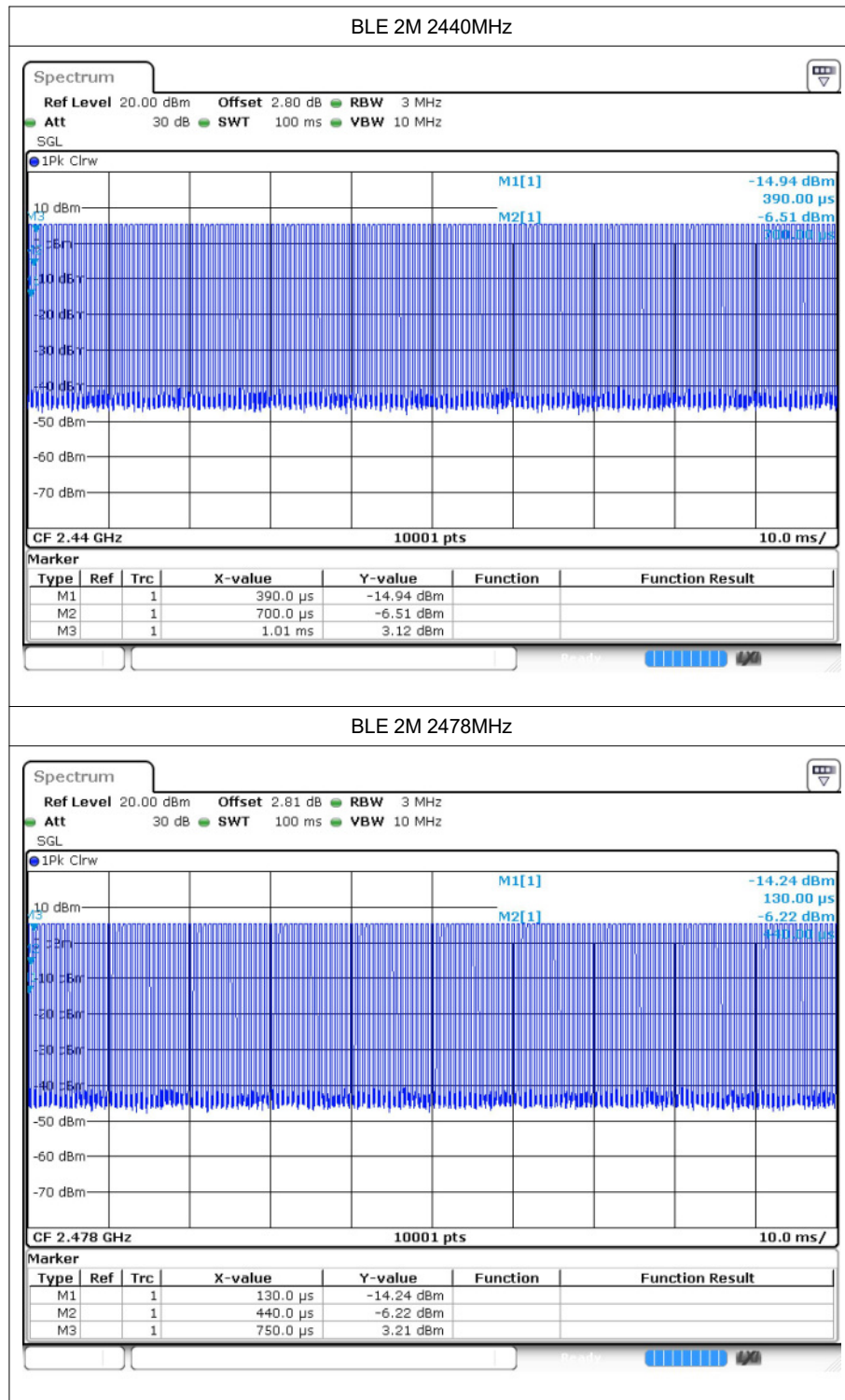
1.1 Test Result

Mode	Frequency (MHz)	Duty Cycle (%)	Correction Factor	1/T (kHz)
BLE 1M	2402	45.6	3.41	1.79
BLE 1M	2440	46.14	3.36	1.75
BLE 1M	2480	45.96	3.38	1.75
BLE 2M	2404	51.31	2.9	3.23
BLE 2M	2440	51.31	2.9	3.23
BLE 2M	2478	51.33	2.9	3.23

1.2 Test Graphs





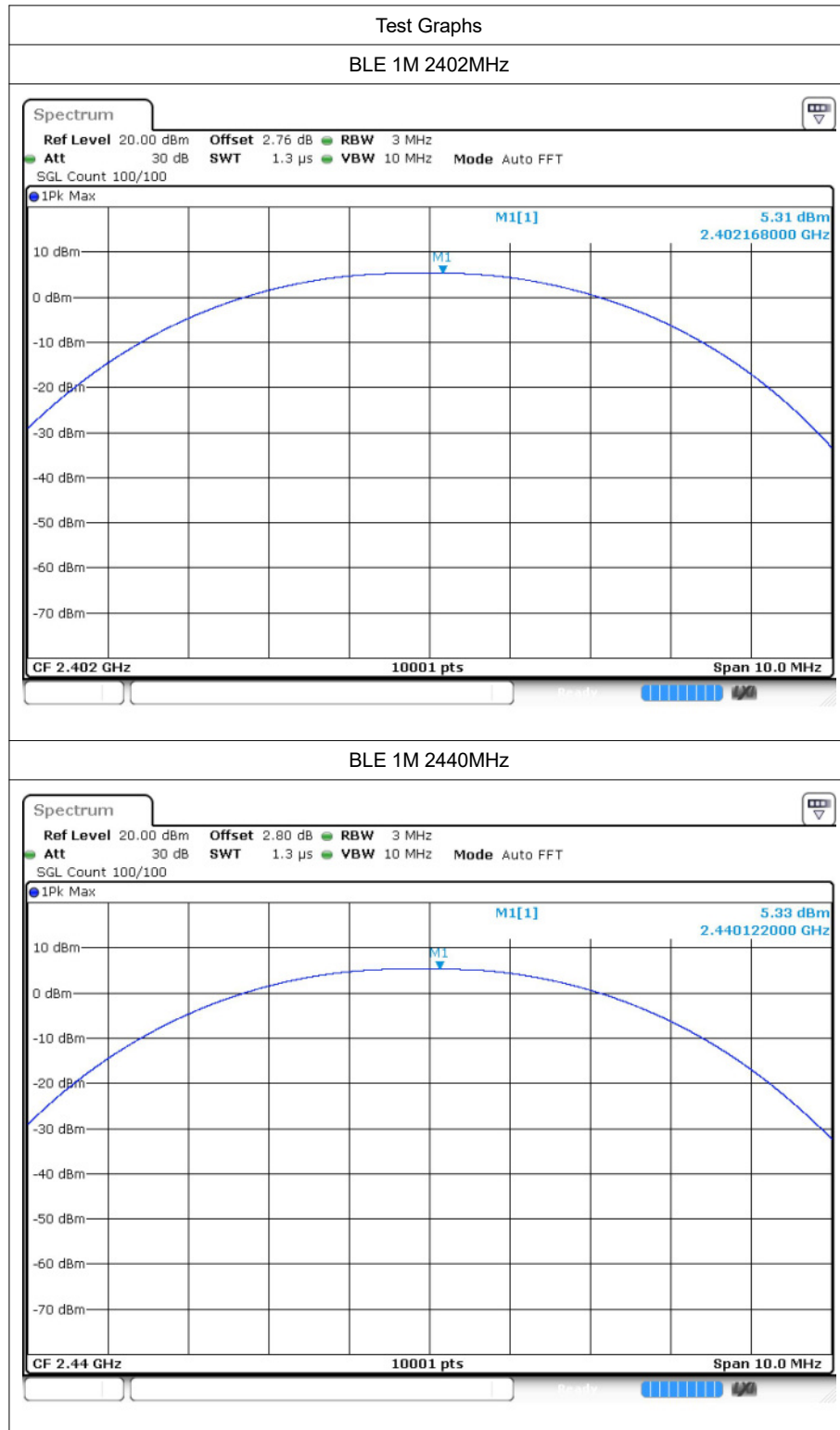


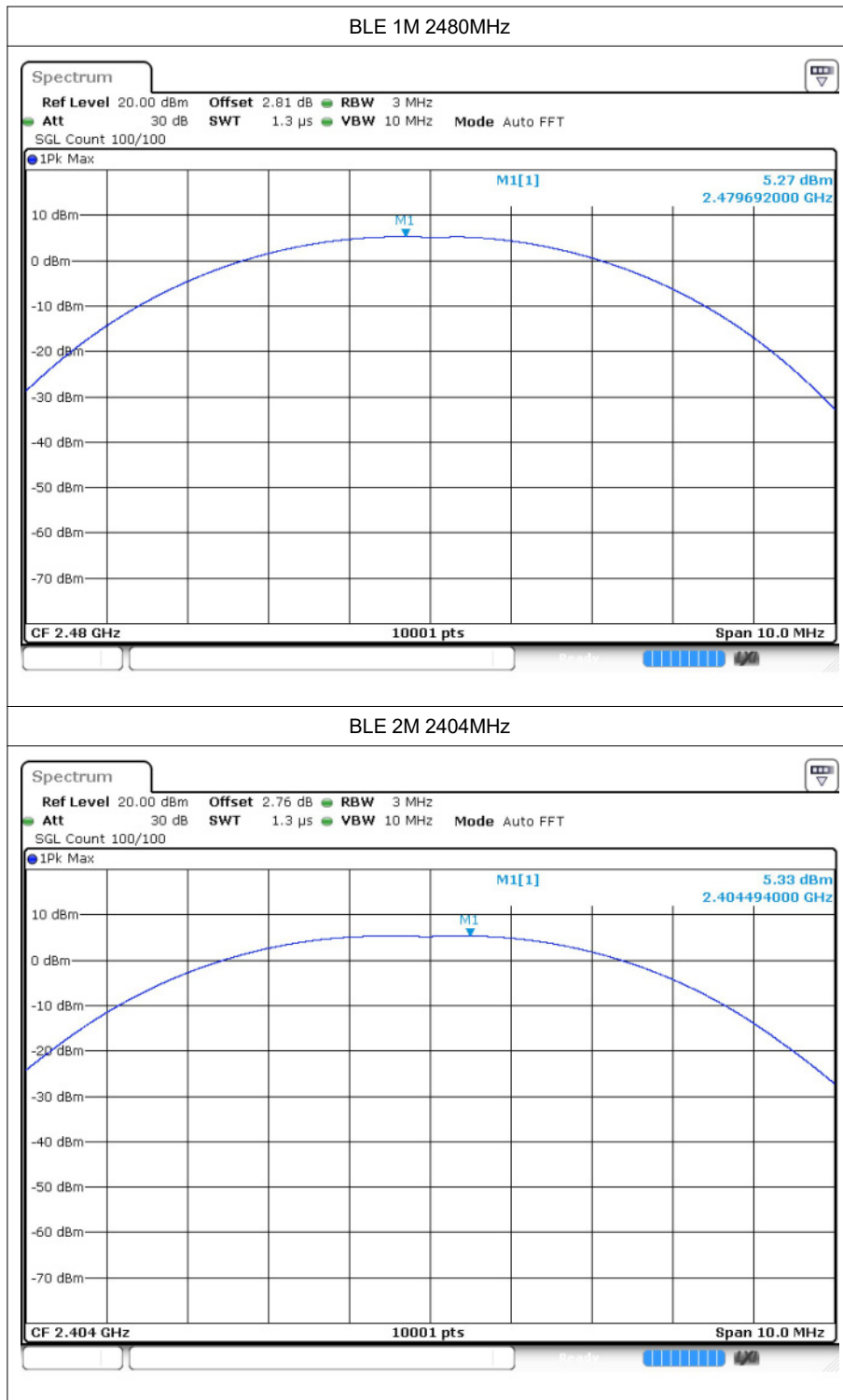
2 Maximum Conducted Output Power

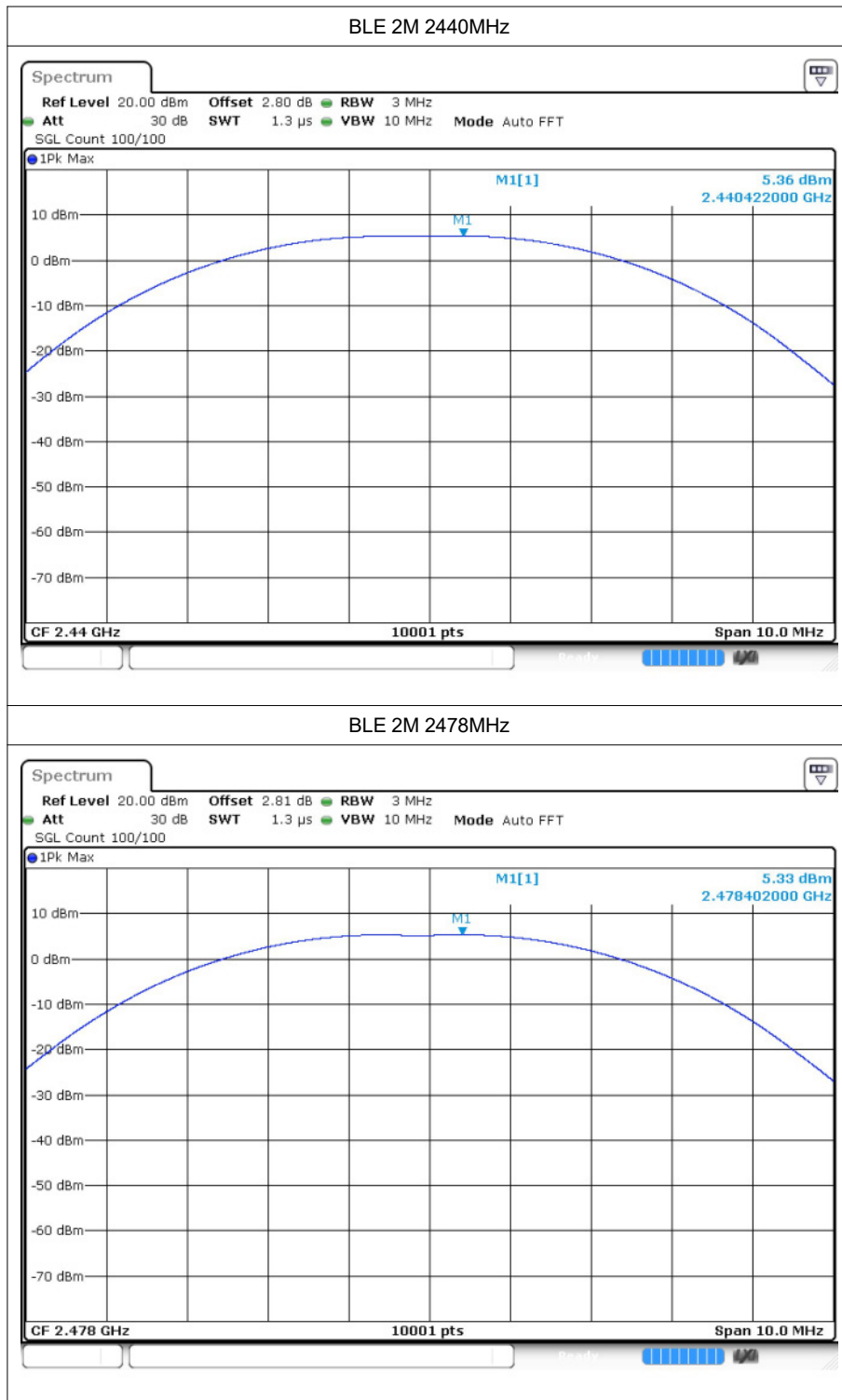
2.1 Test Result

Mode	Frequency (MHz)	Conducted Power (dBm)	Limit (dBm)	Verdict
BLE 1M	2402	5.31	30	Pass
BLE 1M	2440	5.33	30	Pass
BLE 1M	2480	5.27	30	Pass
BLE 2M	2404	5.33	30	Pass
BLE 2M	2440	5.36	30	Pass
BLE 2M	2478	5.33	30	Pass

2.2 Test Graphs





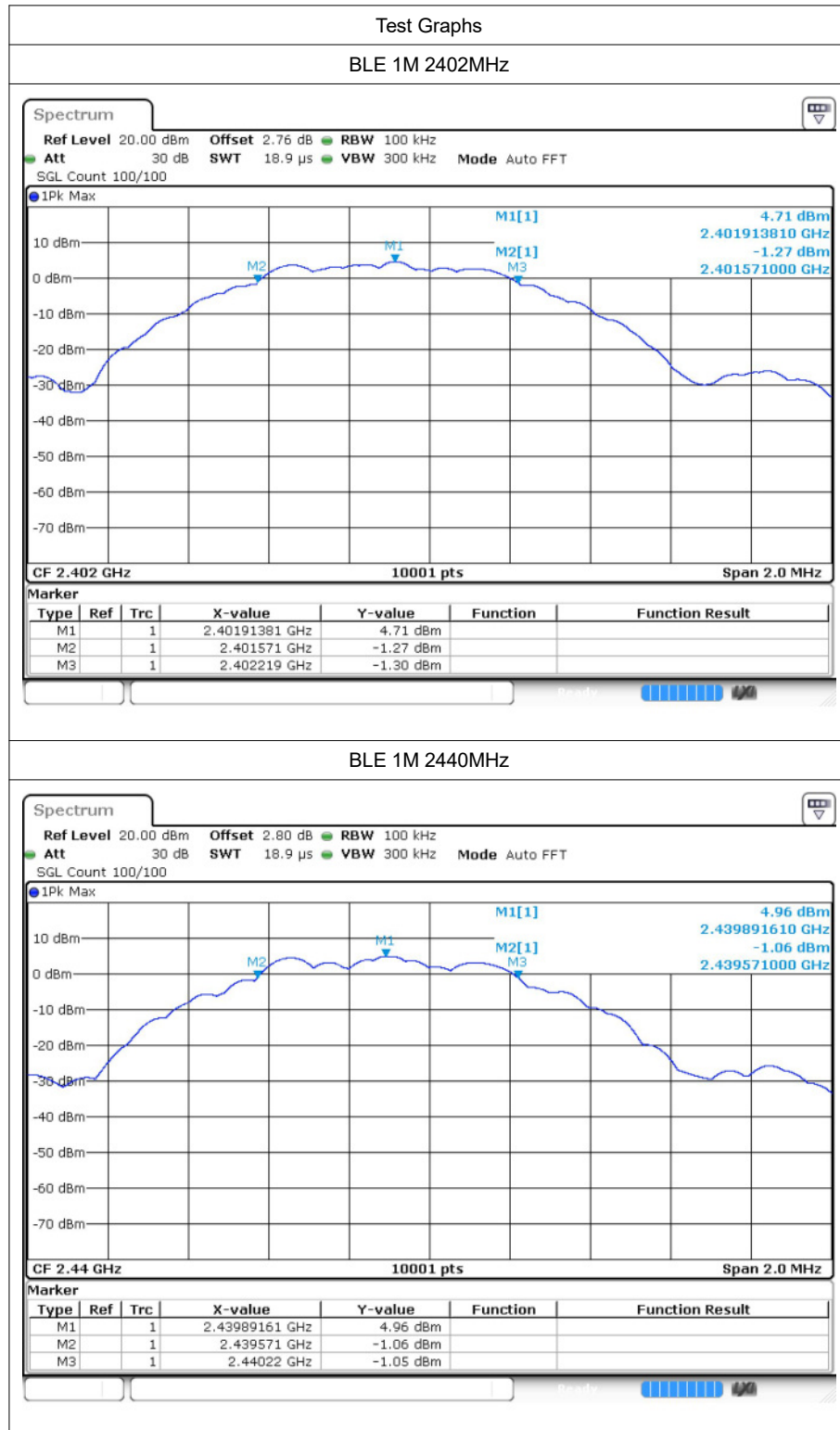


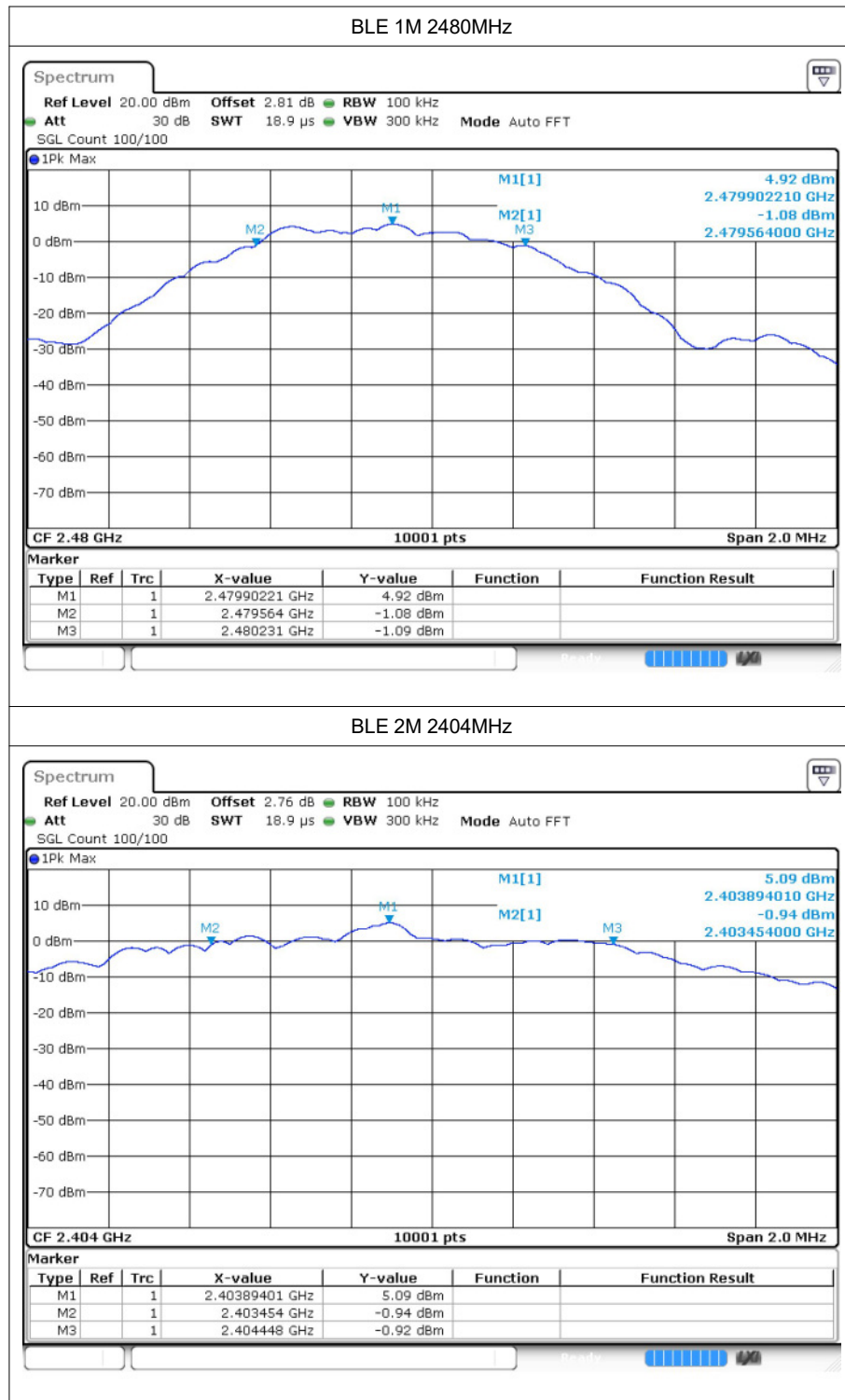
3 -6dB Bandwidth

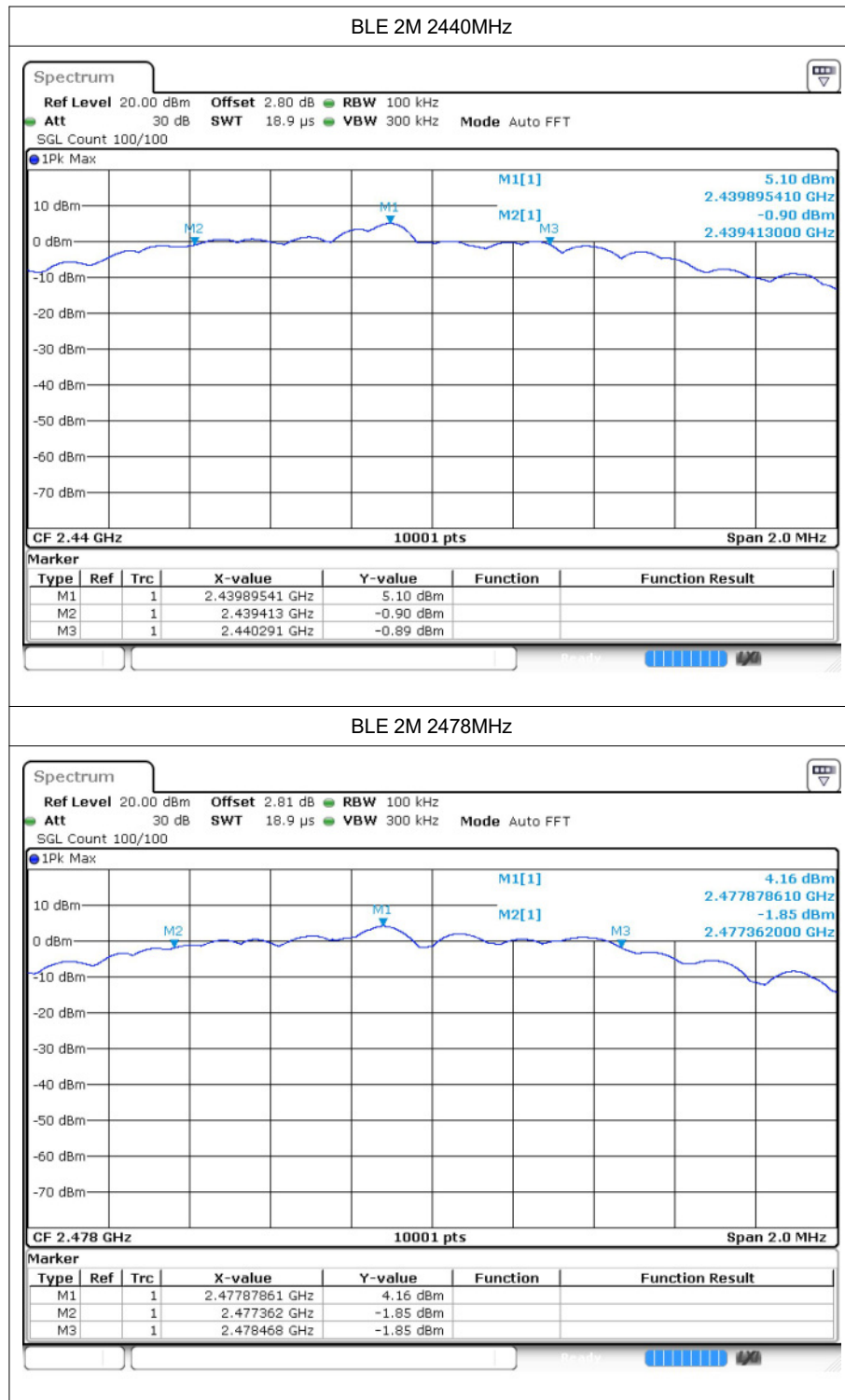
3.1 Test Result

Mode	Frequency (MHz)	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
BLE 1M	2402	0.648	0.5	Pass
BLE 1M	2440	0.649	0.5	Pass
BLE 1M	2480	0.667	0.5	Pass
BLE 2M	2404	0.993	0.5	Pass
BLE 2M	2440	0.878	0.5	Pass
BLE 2M	2478	1.105	0.5	Pass

3.2 Test Graphs





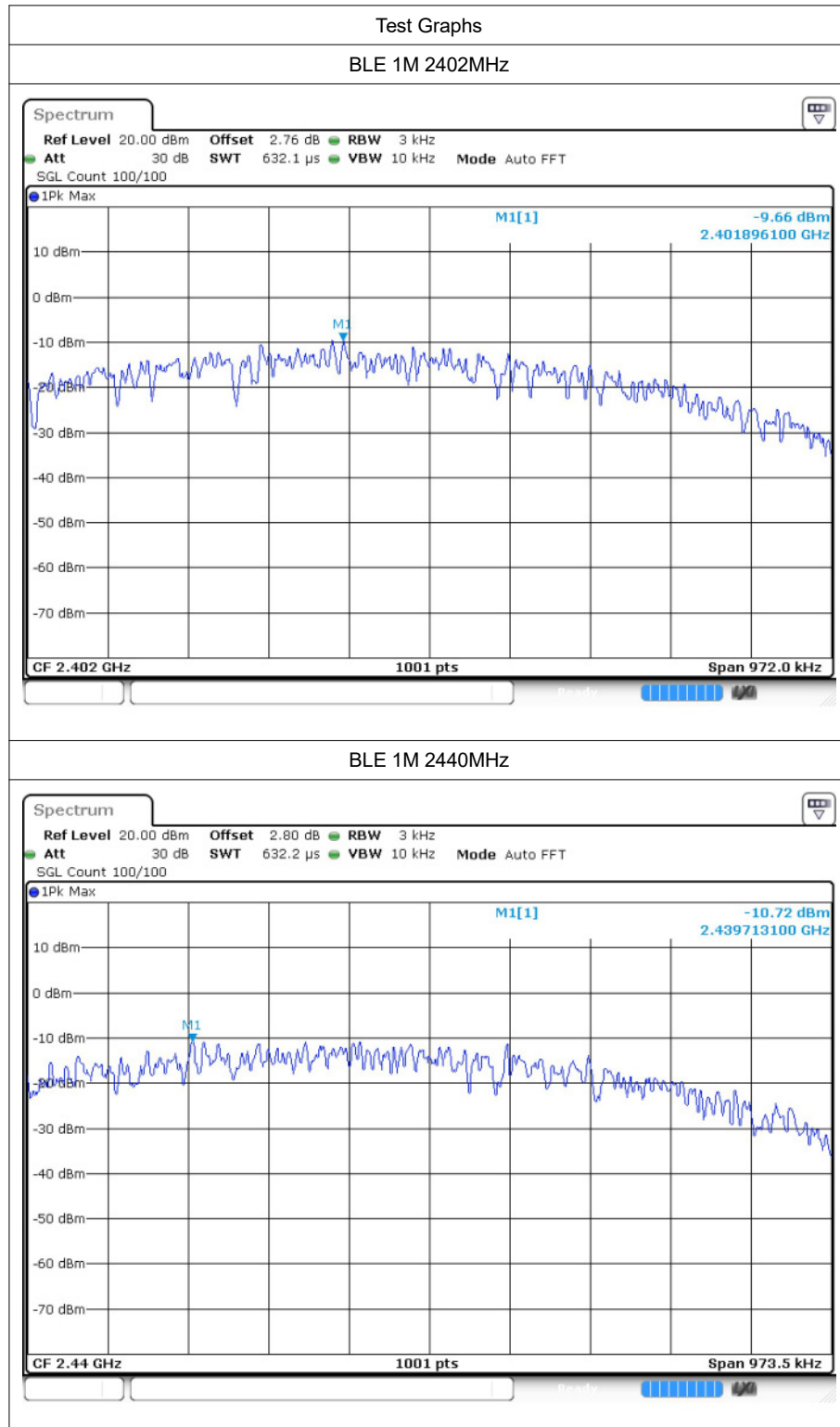


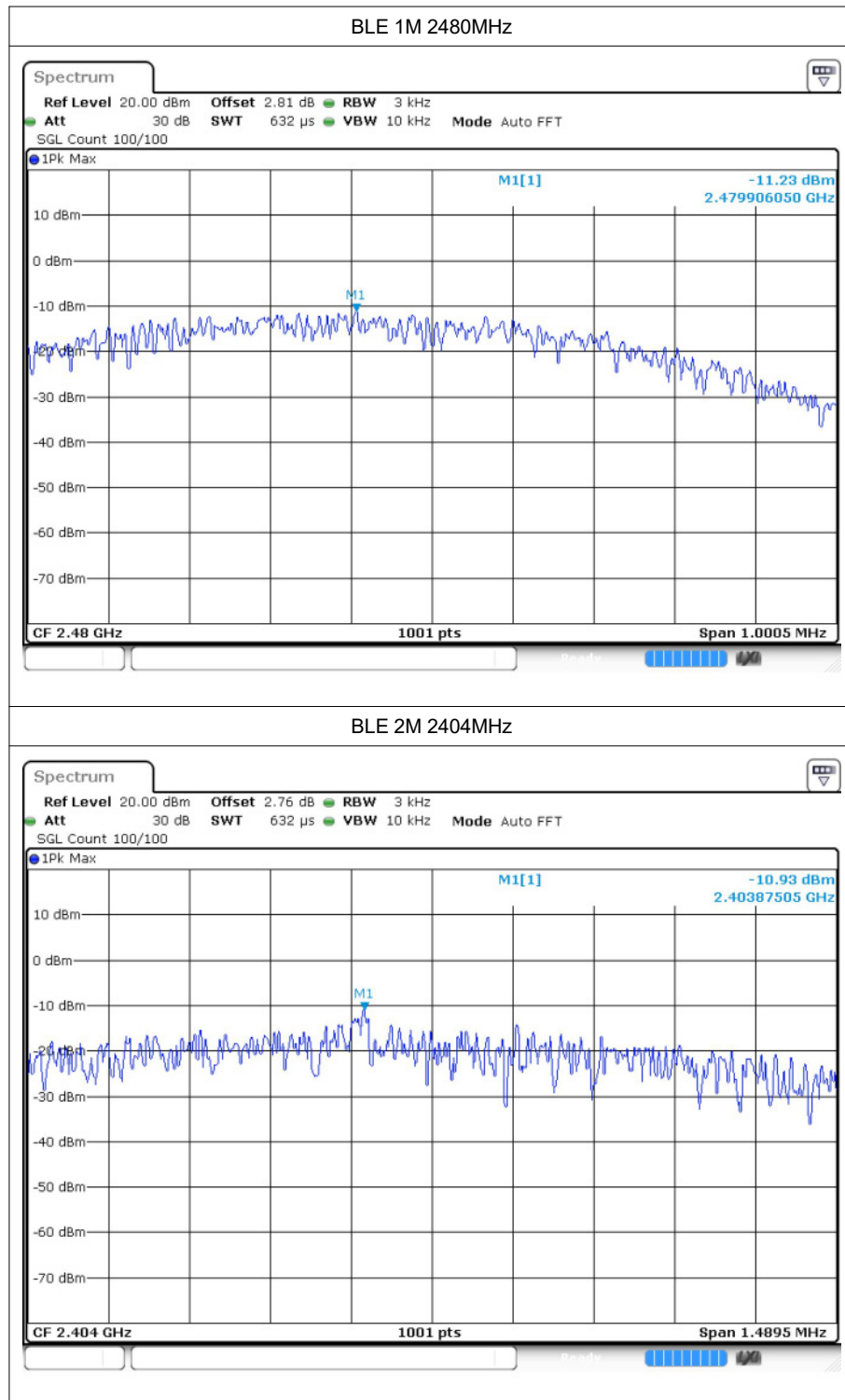
4 Maximum Power Spectral Density Level

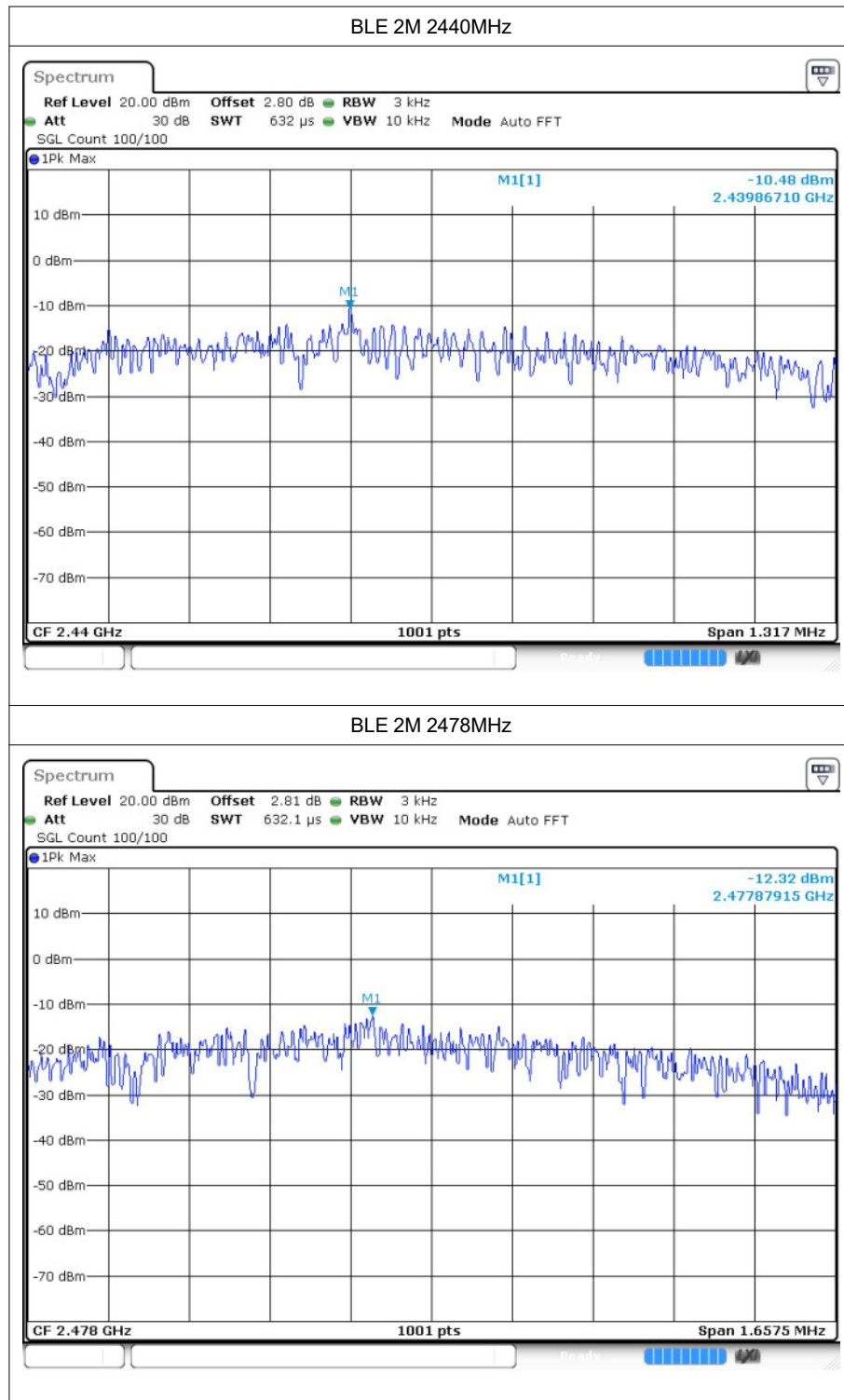
4.1 Test Result

Mode	Frequency (MHz)	Conducted PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
BLE 1M	2402	-9.66	≤8	Pass
BLE 1M	2440	-10.72	≤8	Pass
BLE 1M	2480	-11.23	≤8	Pass
BLE 2M	2404	-10.93	≤8	Pass
BLE 2M	2440	-10.48	≤8	Pass
BLE 2M	2478	-12.32	≤8	Pass

4.2 Test Graphs







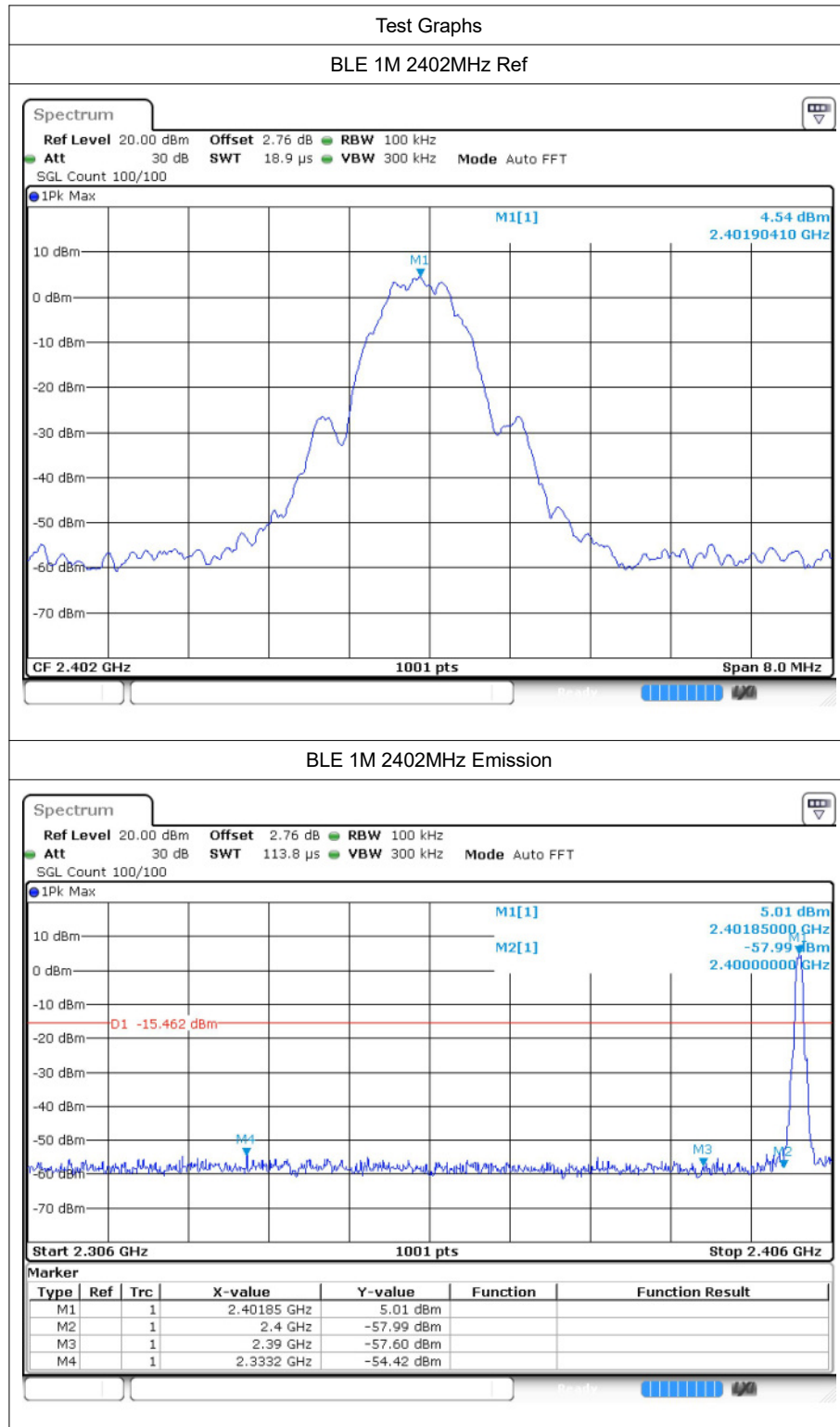


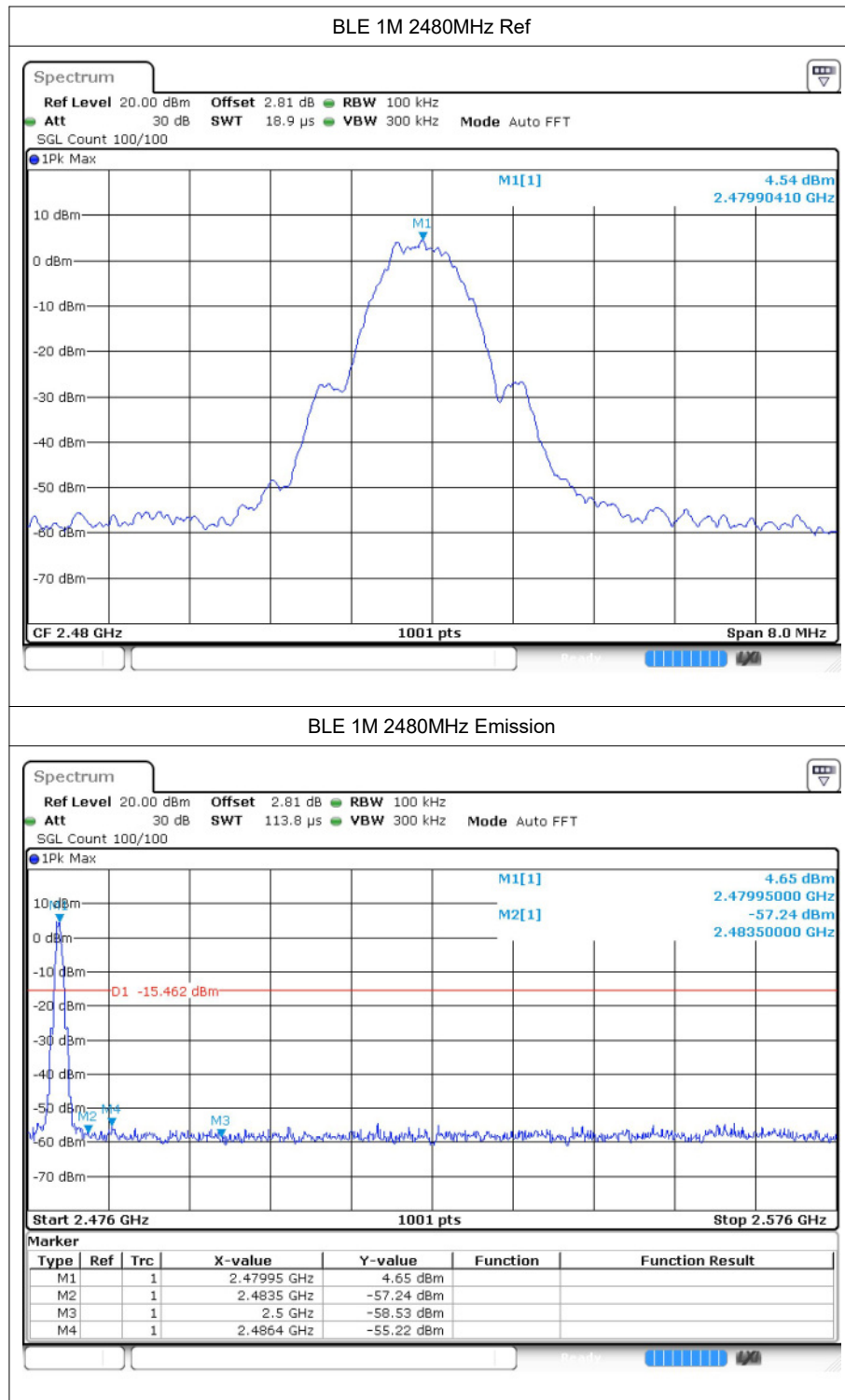
5 Band Edge

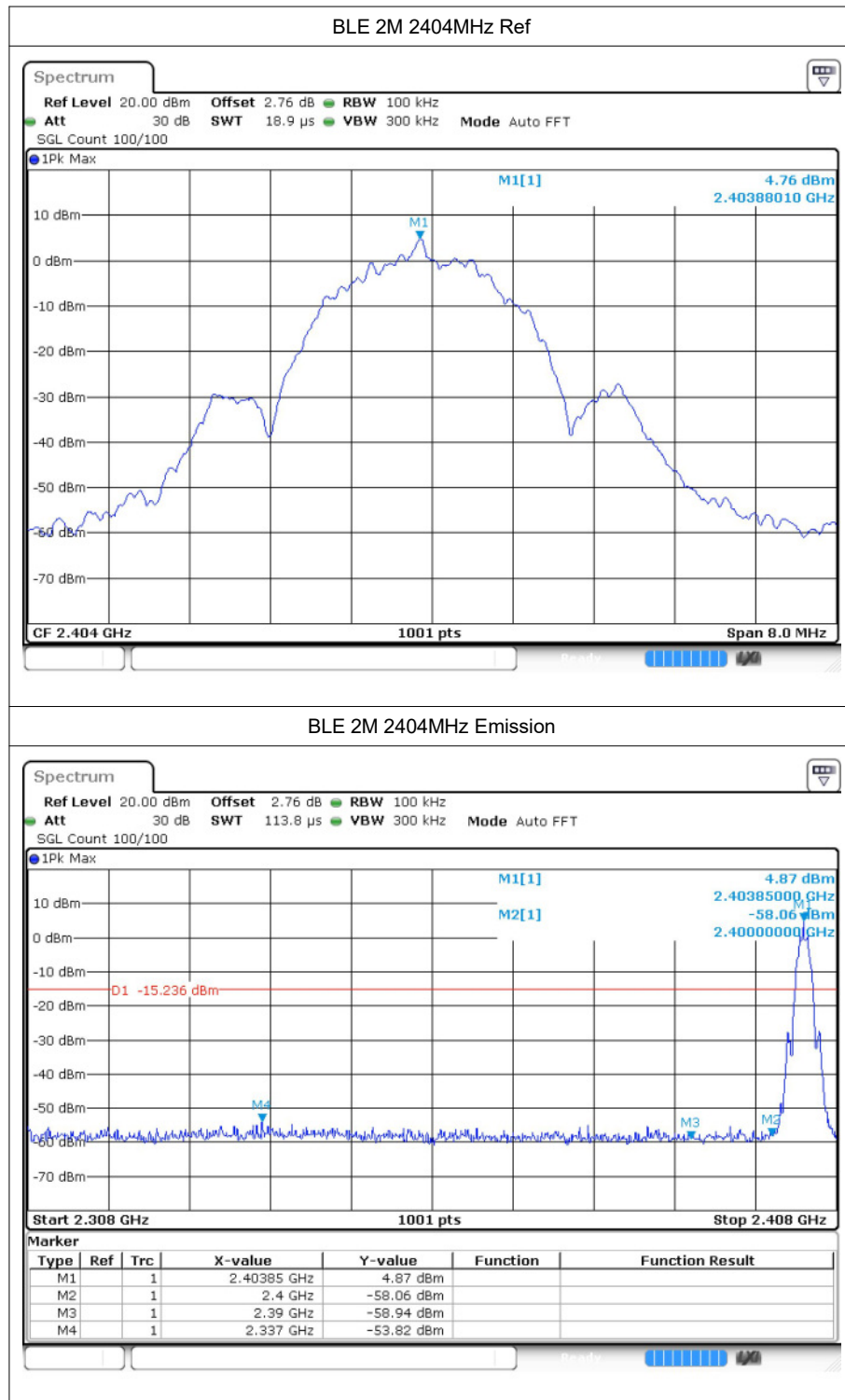
5.1 Test Result

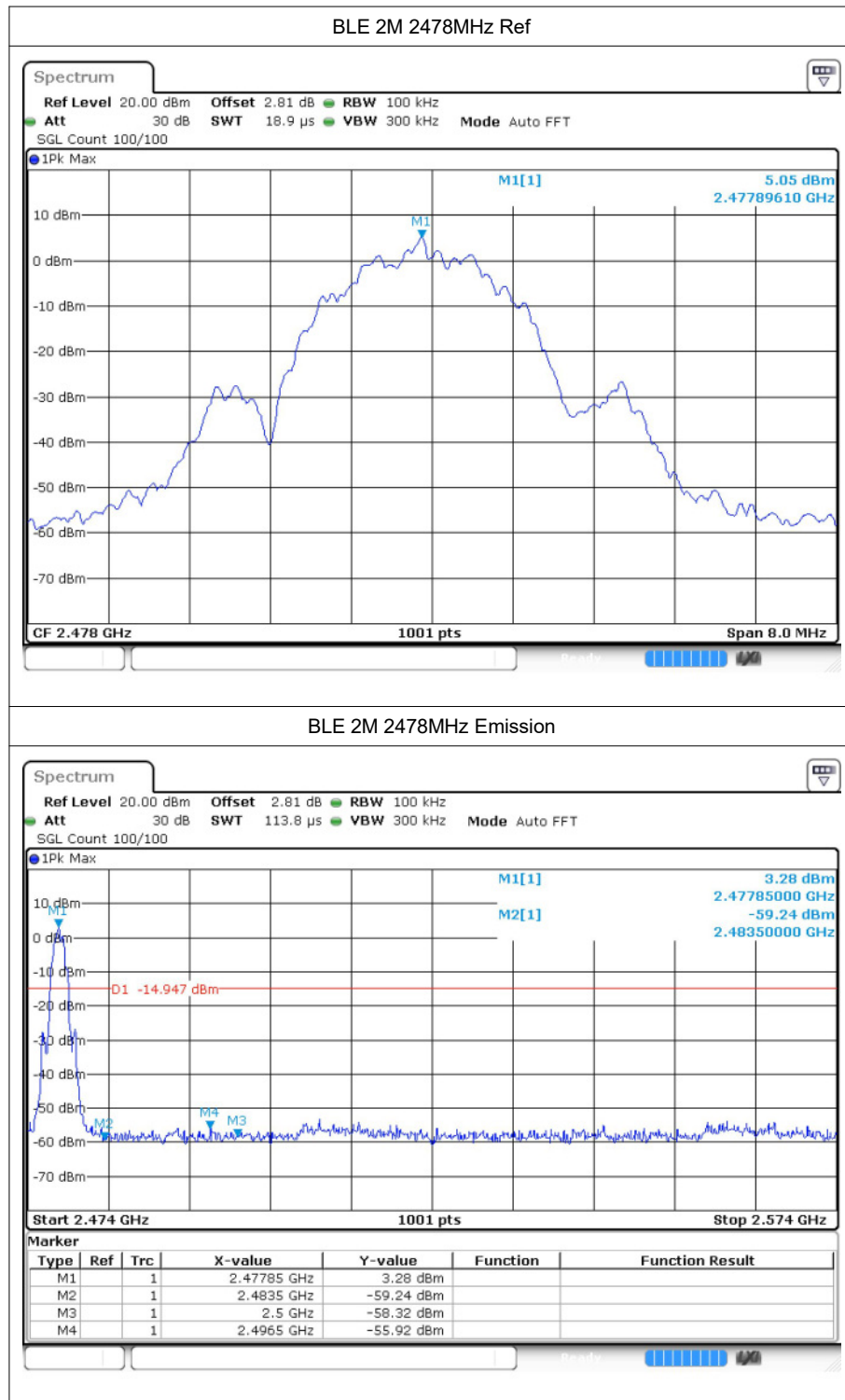
Mode	Frequency (MHz)	Max Value (dBc)	Limit (dBc)	Verdict
BLE 1M	2402	-58.95	-20	Pass
BLE 1M	2480	-59.75	-20	Pass
BLE 2M	2404	-58.57	-20	Pass
BLE 2M	2478	-60.97	-20	Pass

5.2 Test Graphs







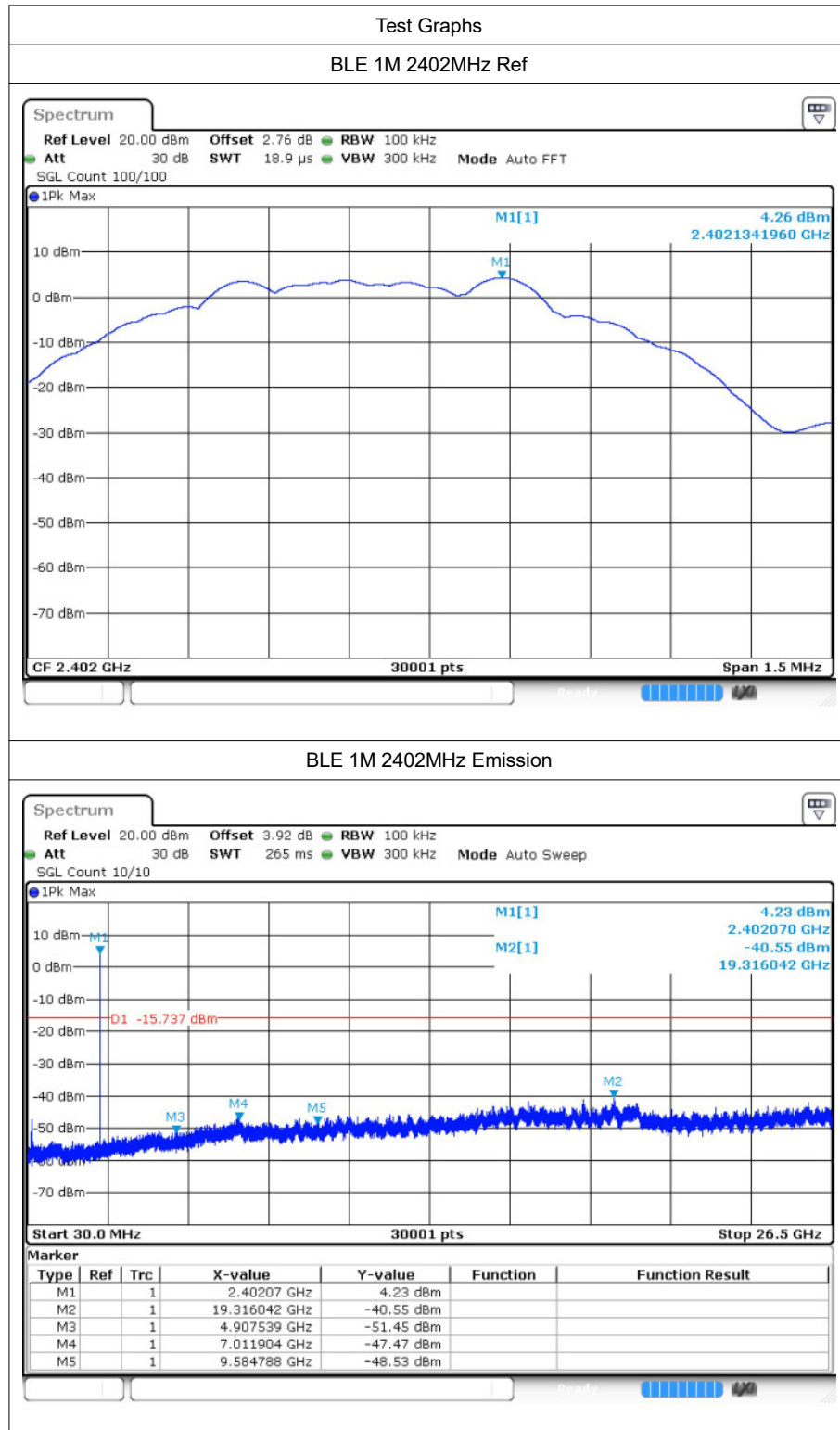


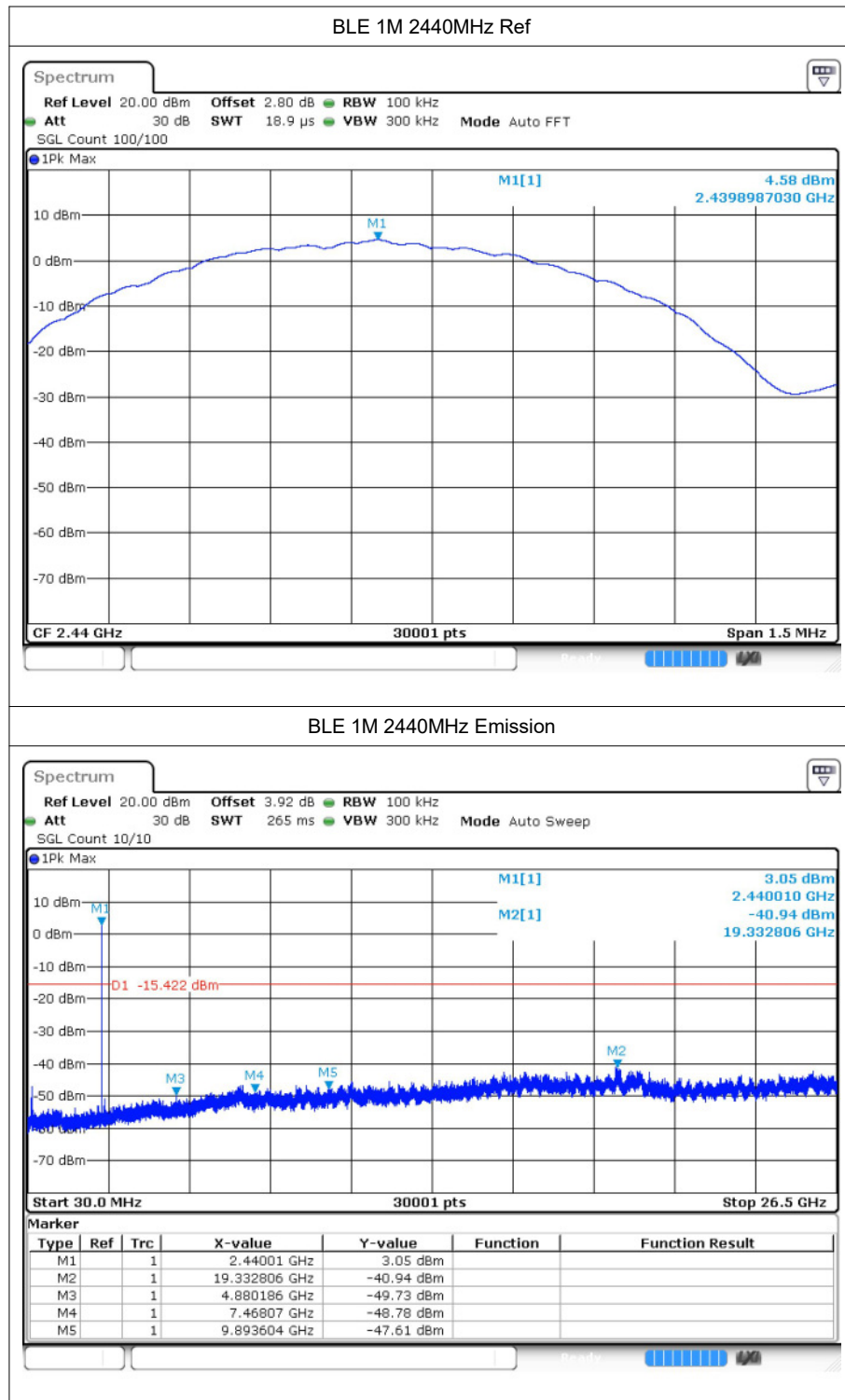
6 Conducted RF Spurious Emission

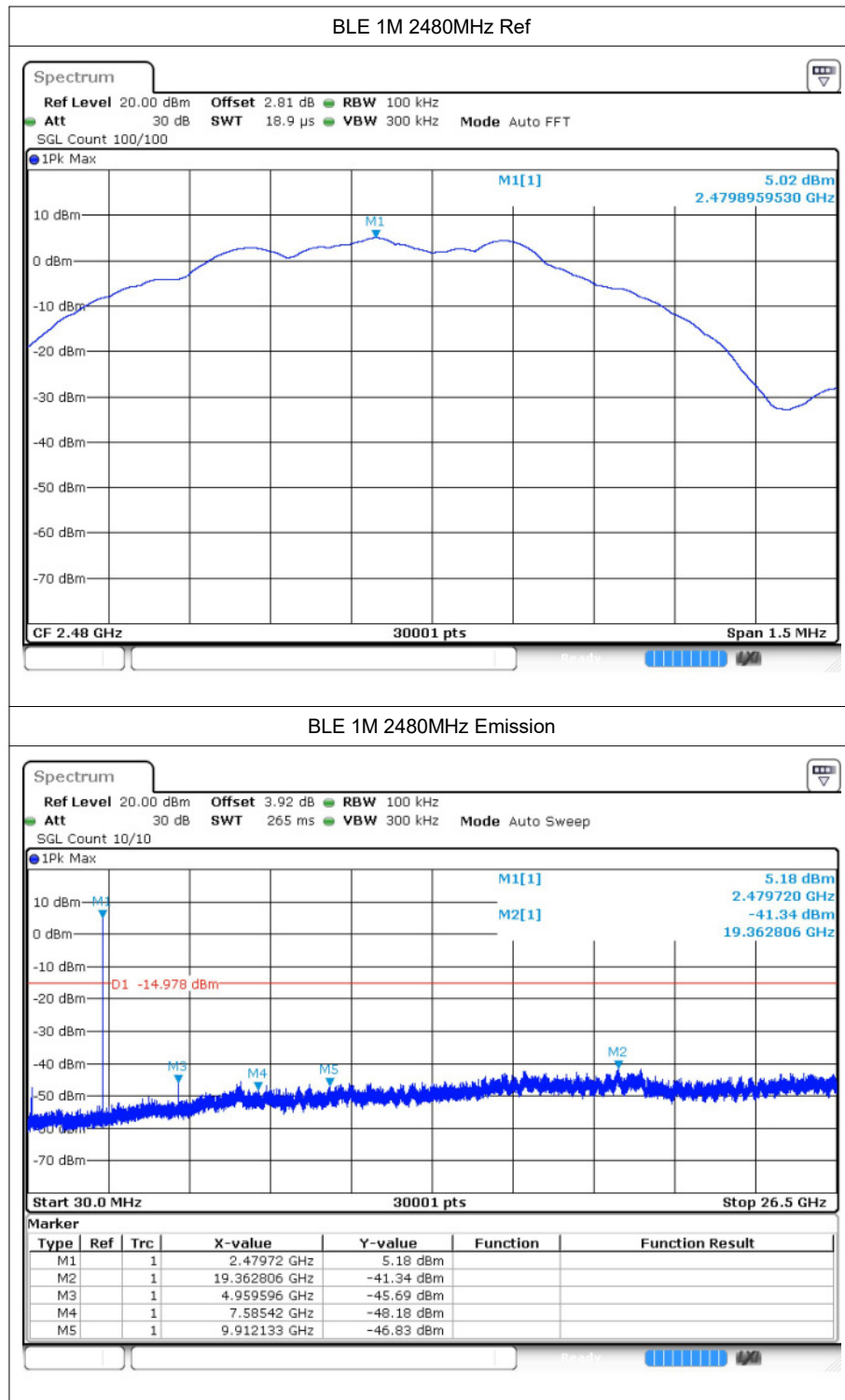
6.1 Test Result

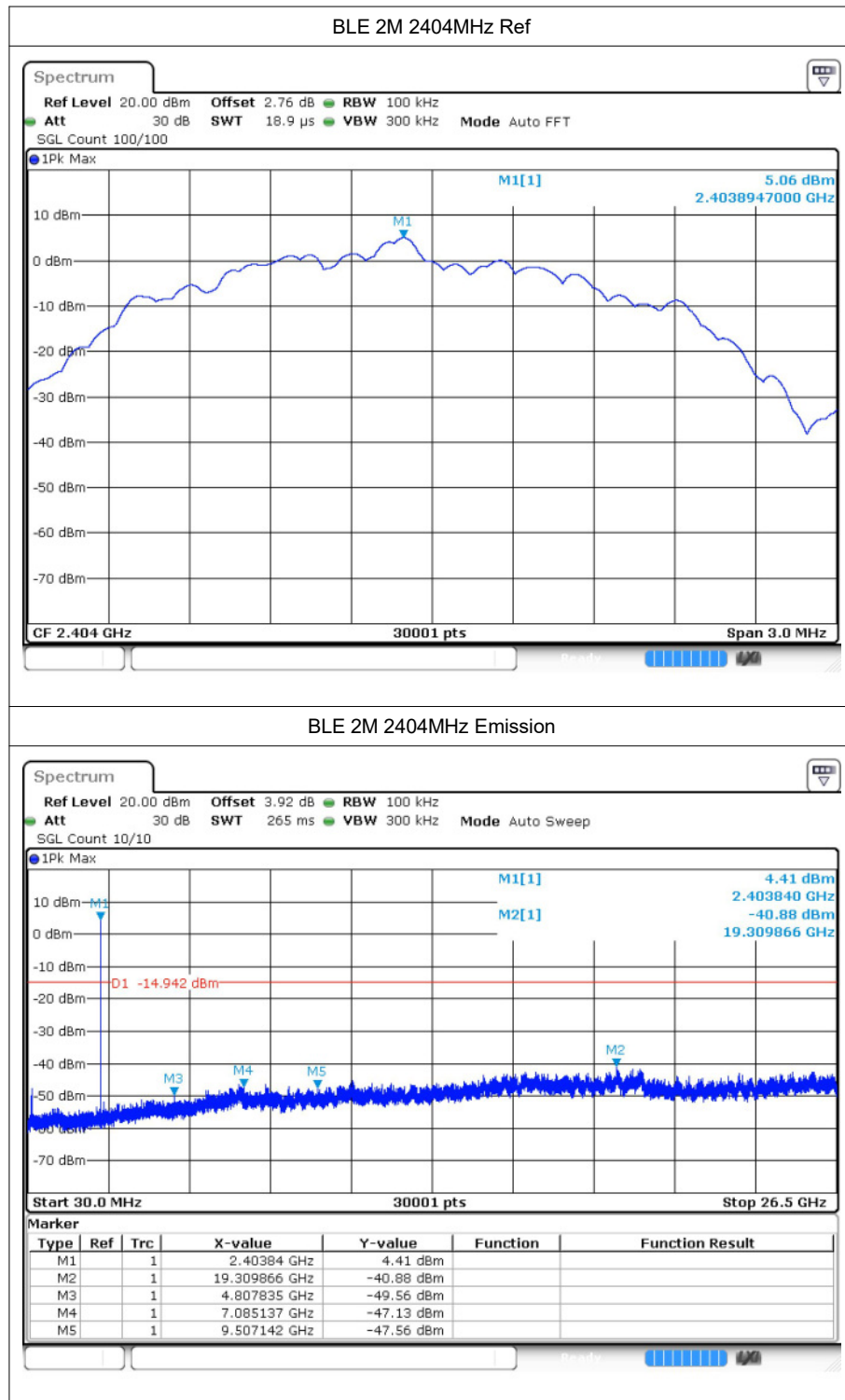
Mode	Frequency (MHz)	Max Value (dBc)	Limit (dBc)	Verdict
BLE 1M	2402	-44.8	-20	Pass
BLE 1M	2440	-45.51	-20	Pass
BLE 1M	2480	-46.35	-20	Pass
BLE 2M	2404	-45.94	-20	Pass
BLE 2M	2440	-46.7	-20	Pass
BLE 2M	2478	-46.77	-20	Pass

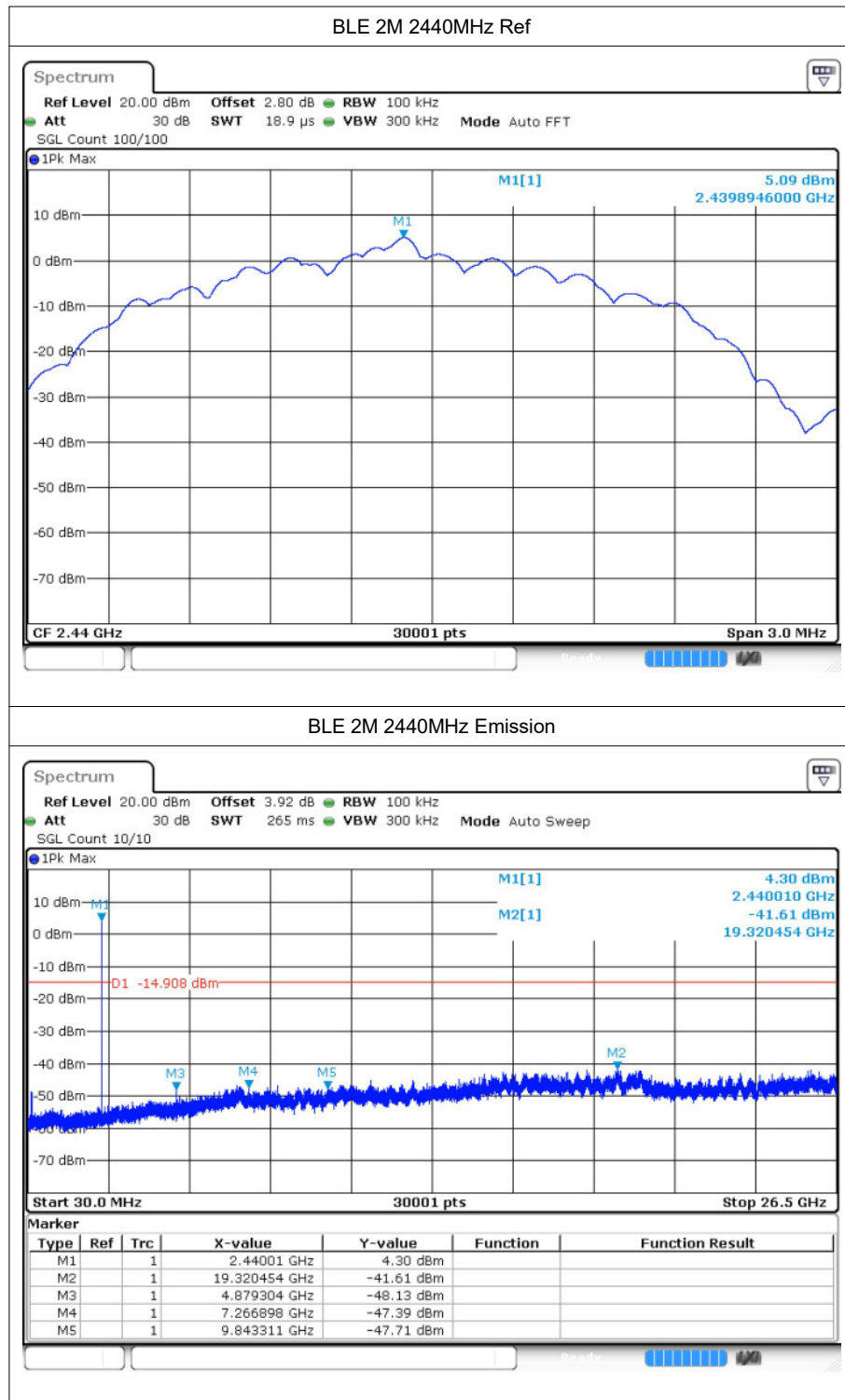
6.2 Test Graphs

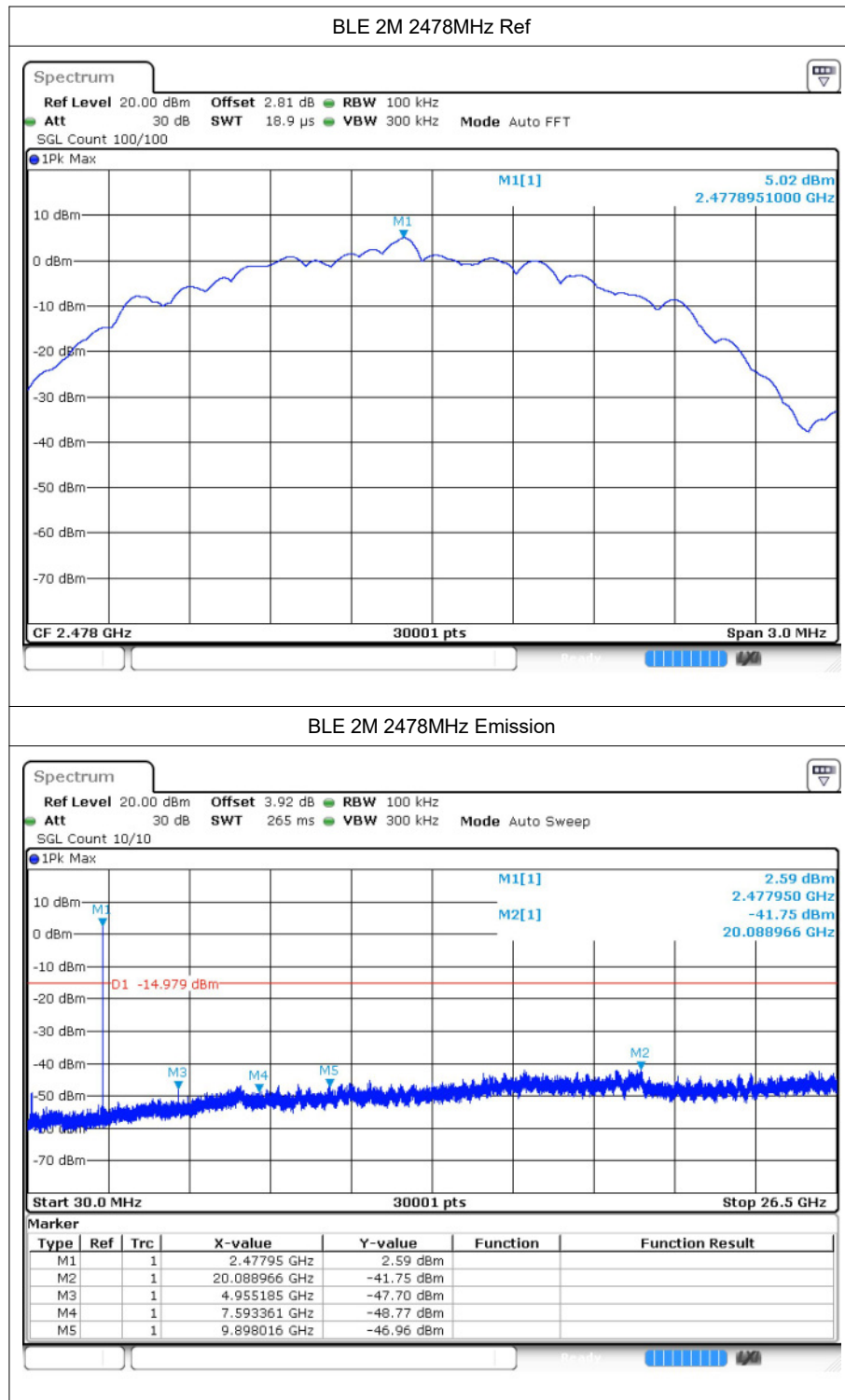










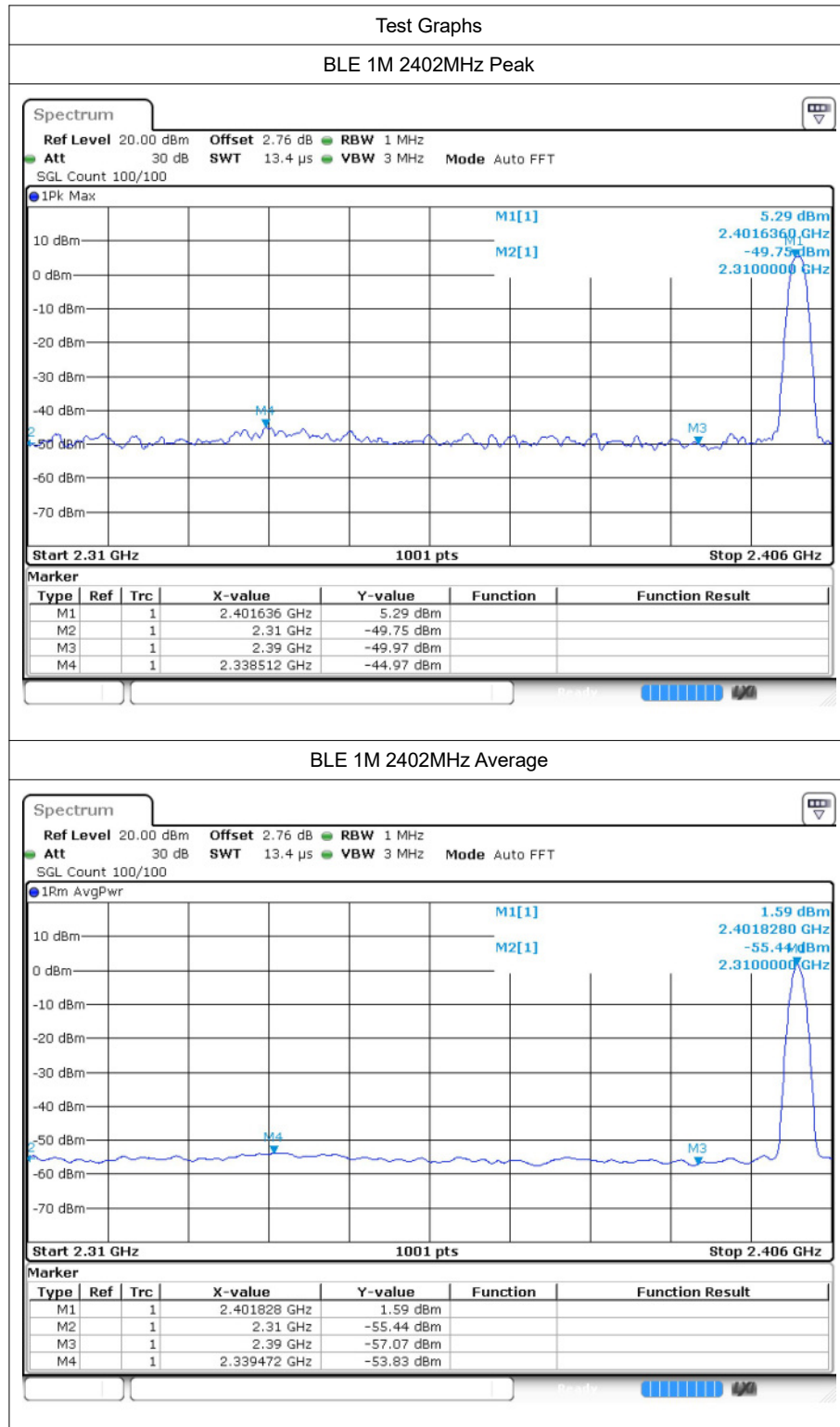


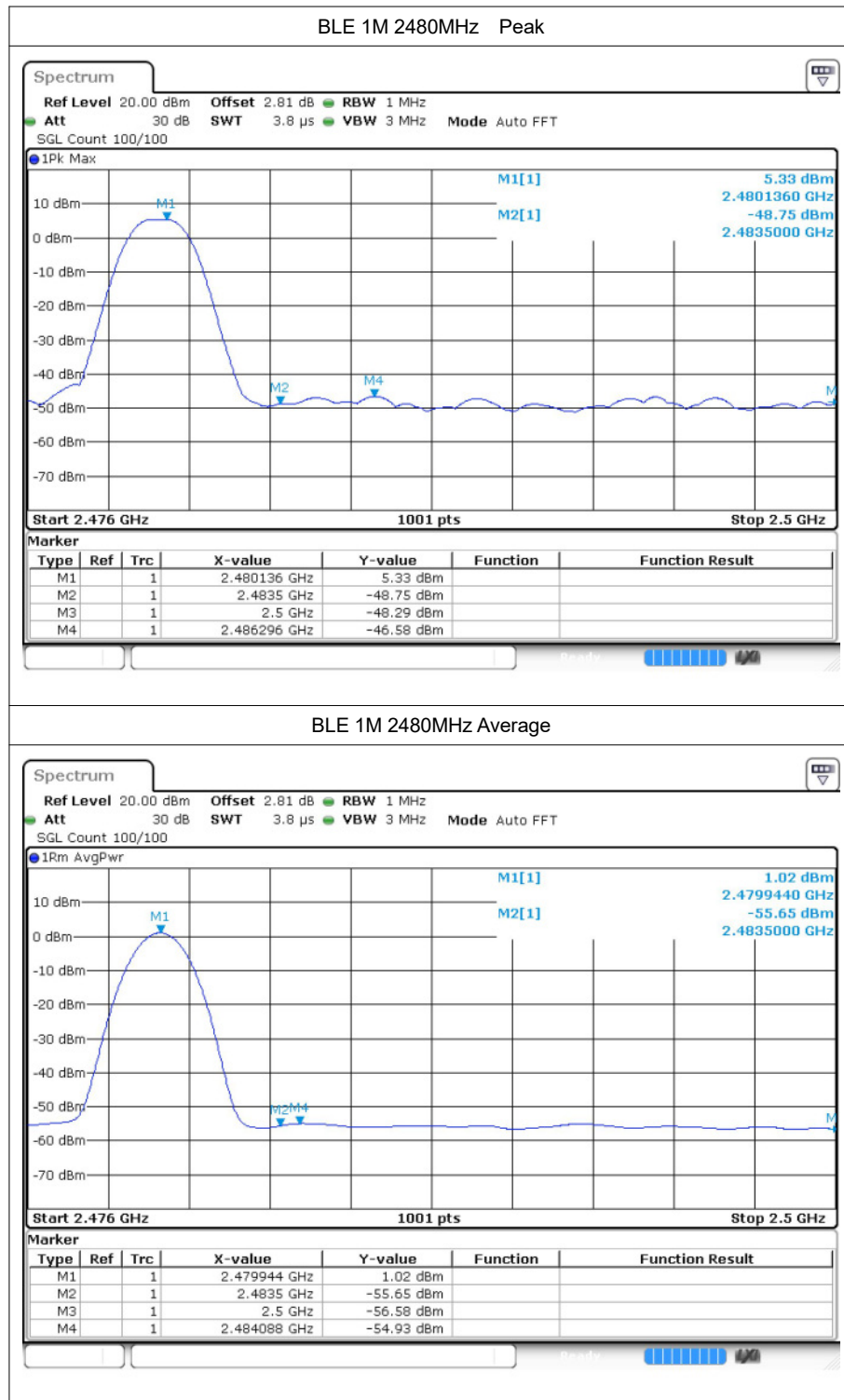
7 Restrict Band

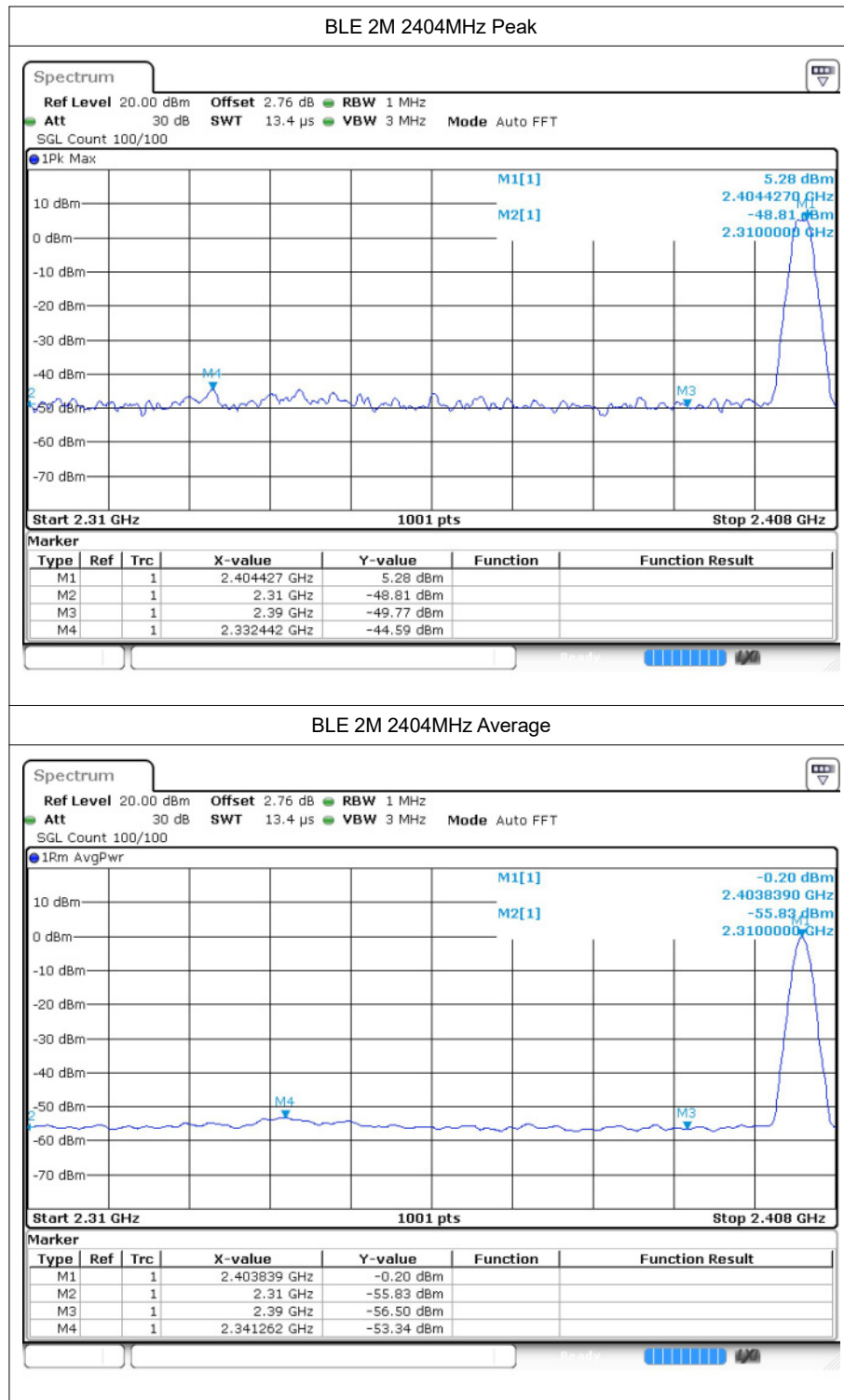
7.1 Test Result

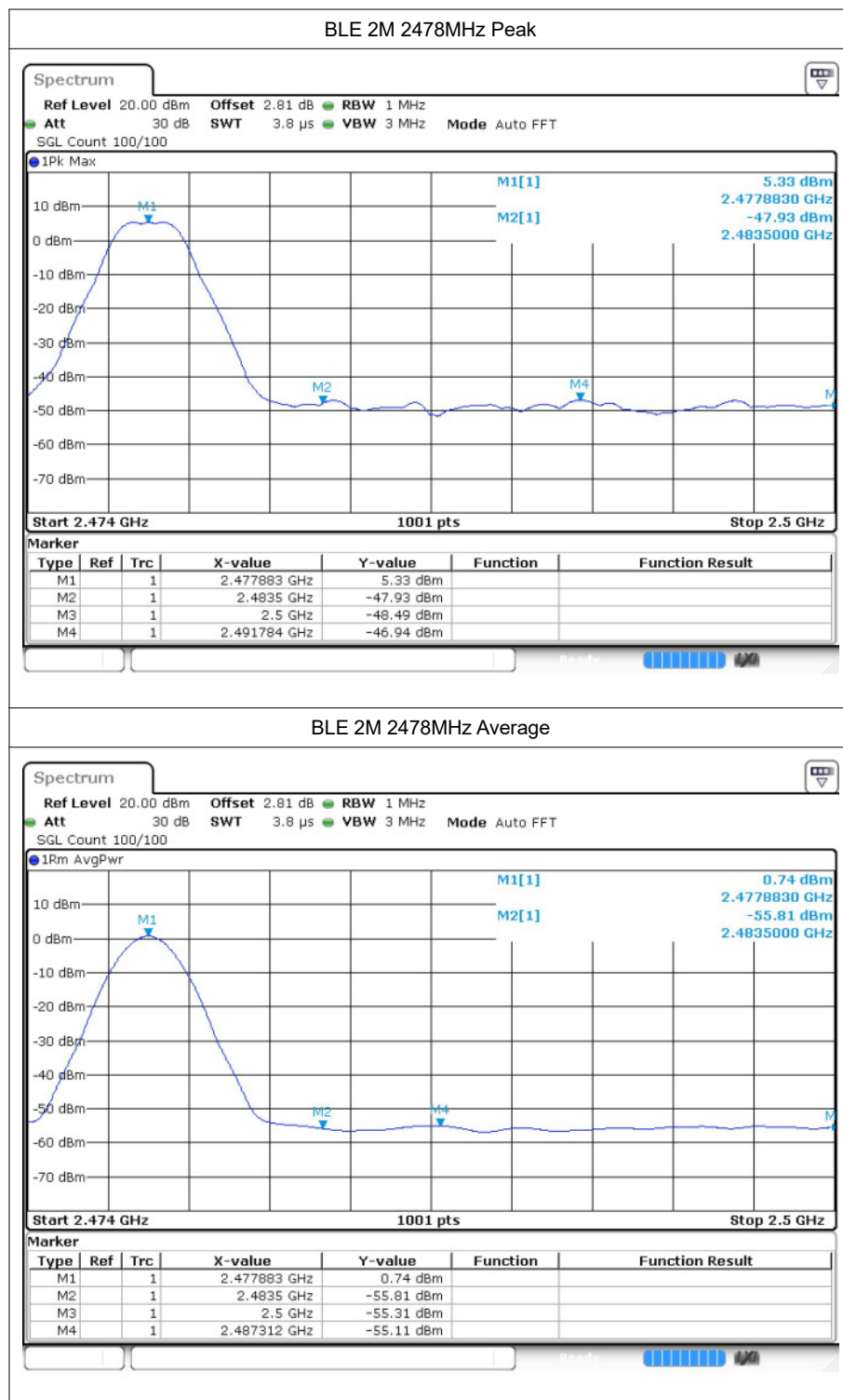
Mode	Frequency (MHz)	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
BLE 1M	2402	2310	-49.75	5	-	50.51	Peak	74	Pass
BLE 1M	2402	2310	-55.44	5	3.41	48.23	Average	54	Pass
BLE 1M	2402	2338.512	-44.96	5	-	55.3	Peak	74	Pass
BLE 1M	2402	2339.472	-53.82	5	3.41	49.85	Average	54	Pass
BLE 1M	2402	2390	-49.97	5	-	50.29	Peak	74	Pass
BLE 1M	2402	2390	-57.07	5	3.41	46.6	Average	54	Pass
BLE 1M	2480	2483.5	-48.75	5	-	51.51	Peak	74	Pass
BLE 1M	2480	2483.5	-55.65	5	3.38	47.99	Average	54	Pass
BLE 1M	2480	2486.296	-46.57	5	-	53.69	Peak	74	Pass
BLE 1M	2480	2484.088	-54.92	5	3.38	48.72	Average	54	Pass
BLE 1M	2480	2500	-48.29	5	-	51.97	Peak	74	Pass
BLE 1M	2480	2500	-56.58	5	3.38	47.06	Average	54	Pass
BLE 2M	2404	2310	-48.81	5	-	51.45	Peak	74	Pass
BLE 2M	2404	2310	-55.83	5	2.9	47.33	Average	54	Pass
BLE 2M	2404	2332.442	-44.58	5	-	55.68	Peak	74	Pass
BLE 2M	2404	2341.262	-53.33	5	2.9	49.83	Average	54	Pass
BLE 2M	2404	2390	-49.77	5	-	50.49	Peak	74	Pass
BLE 2M	2404	2390	-56.5	5	2.9	46.66	Average	54	Pass
BLE 2M	2478	2483.5	-47.93	5	-	52.33	Peak	74	Pass
BLE 2M	2478	2483.5	-55.81	5	2.9	47.35	Average	54	Pass
BLE 2M	2478	2491.784	-46.93	5	-	53.33	Peak	74	Pass
BLE 2M	2478	2487.312	-55.1	5	2.9	48.06	Average	54	Pass
BLE 2M	2478	2500	-48.49	5	-	51.77	Peak	74	Pass
BLE 2M	2478	2500	-55.31	5	2.9	47.85	Average	54	Pass

7.2 Test Graphs









---The End---