



Appendix B

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

Product Name: CUBE

Trade Mark: GANCUBE

Test Model: GAN i4

Environmental Conditions

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



Contents

Page

COVER PAGE

1	Duty Cycle	3
1.1	Test Result	3
1.2	Test Graphs	4
2	Maximum Conducted Output Power	6
2.1	Test Result	6
2.2	Test Graphs	7
3	-6dB Bandwidth	9
3.1	Test Result	9
3.2	Test Graphs	10
4	Maximum Power Spectral Density Level	12
4.1	Test Result	12
4.2	Test Graphs	13
5	Band Edge	15
5.1	Test Result	15
5.2	Test Graphs	16
6	Conducted RF Spurious Emission	18
6.1	Test Result	18
6.2	Test Graphs	19
7	Restrict Band	22
7.1	Test Result	22
7.2	Test Graphs	23

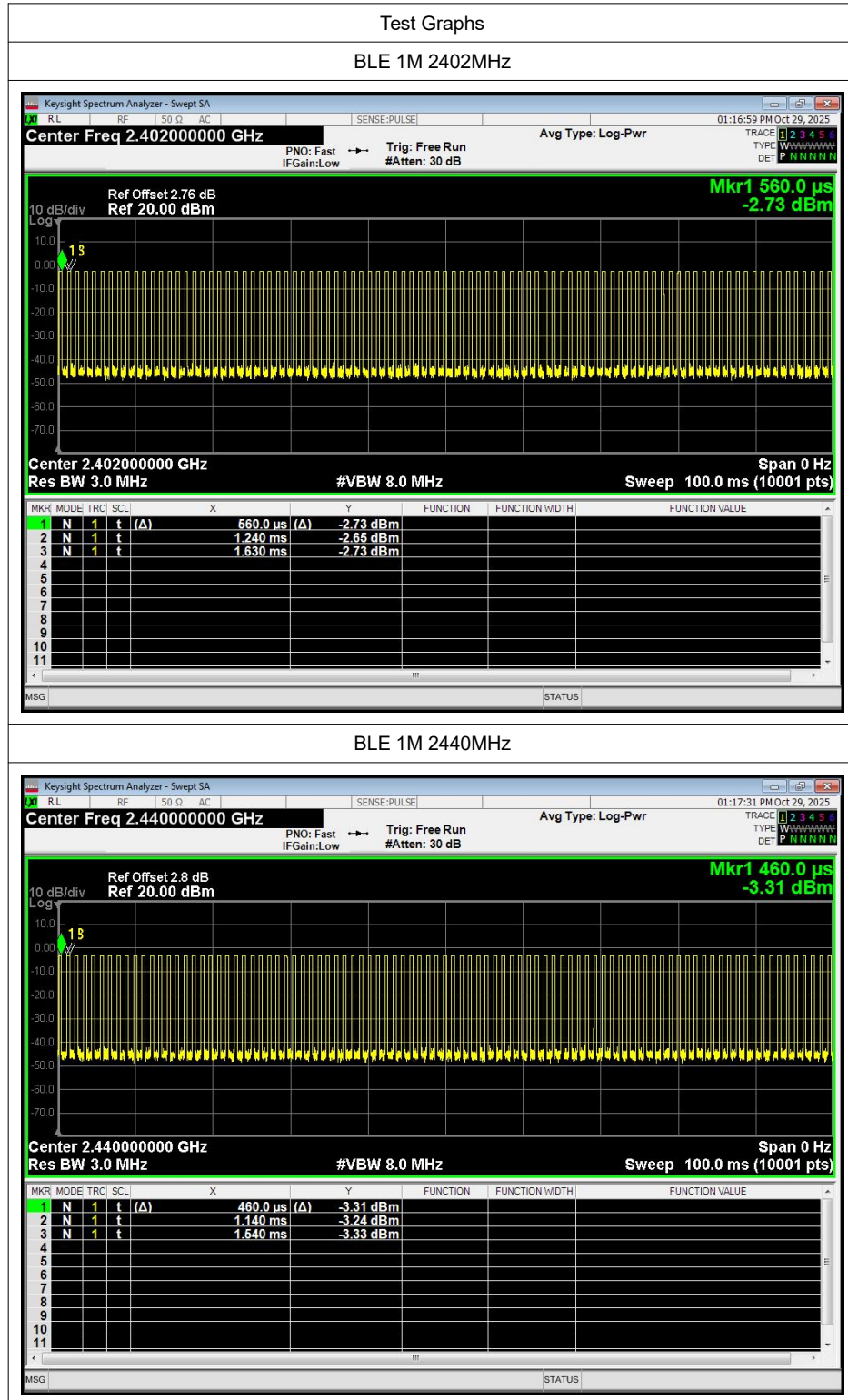


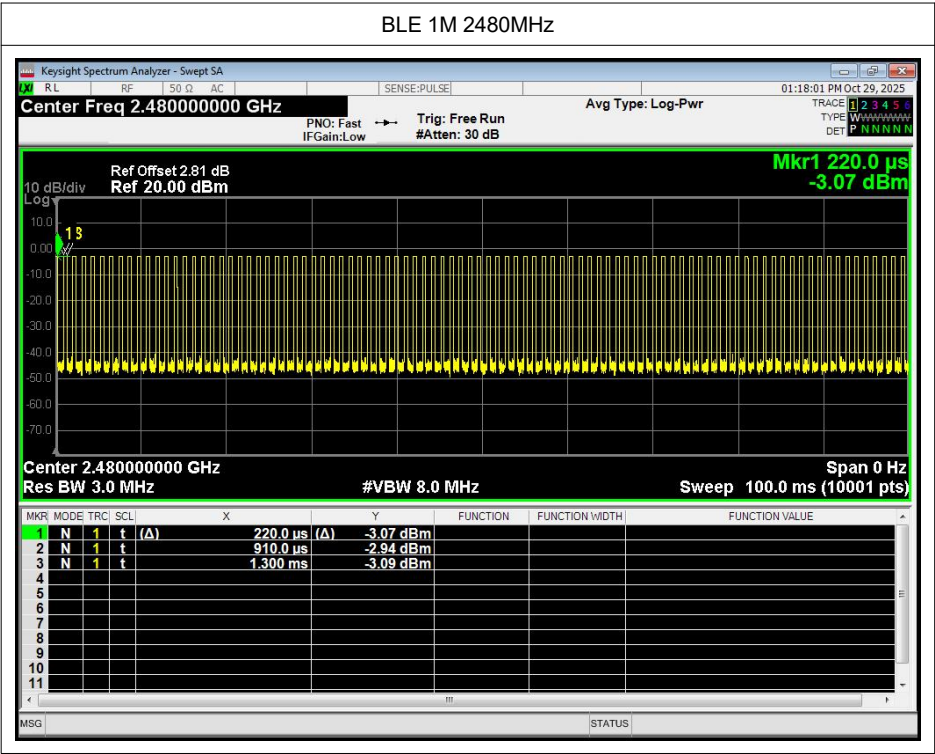
1 Duty Cycle

1.1 Test Result

Mode	Frequency (MHz)	Duty Cycle (%)	Correction Factor	1/T (kHz)
BLE 1M	2402	37.84	4.22	2.56
BLE 1M	2440	37.75	4.23	2.5
BLE 1M	2480	37.57	4.25	2.56

1.2 Test Graphs





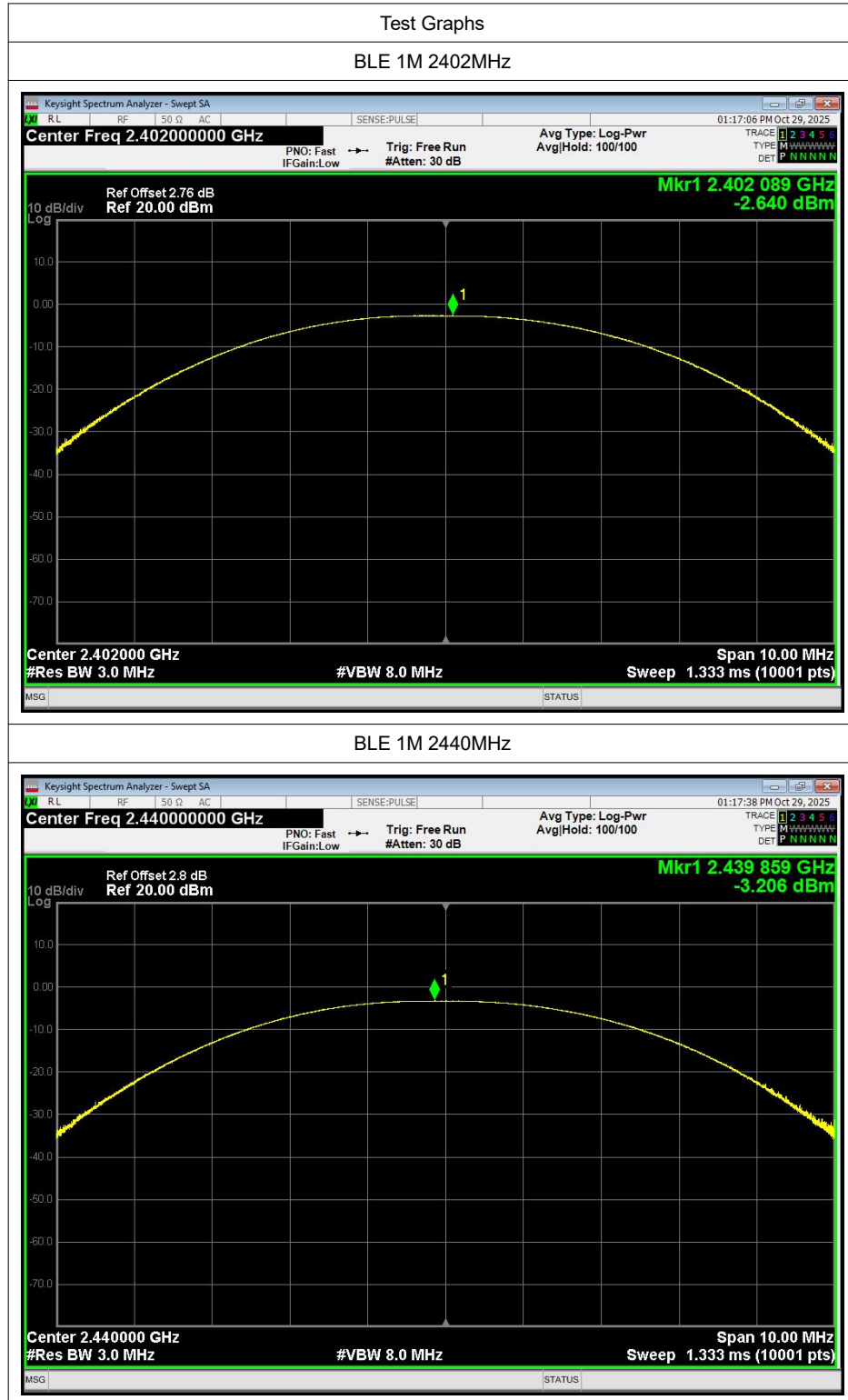


2 Maximum Conducted Output Power

2.1 Test Result

Mode	Frequency (MHz)	Conducted Power (dBm)	Limit (dBm)	Verdict
BLE 1M	2402	-2.64	30	Pass
BLE 1M	2440	-3.21	30	Pass
BLE 1M	2480	-2.92	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	0.634	0.5	Pass
BLE 1M	2440	0.655	0.5	Pass
BLE 1M	2480	0.622	0.5	Pass

3.2 Test Graphs



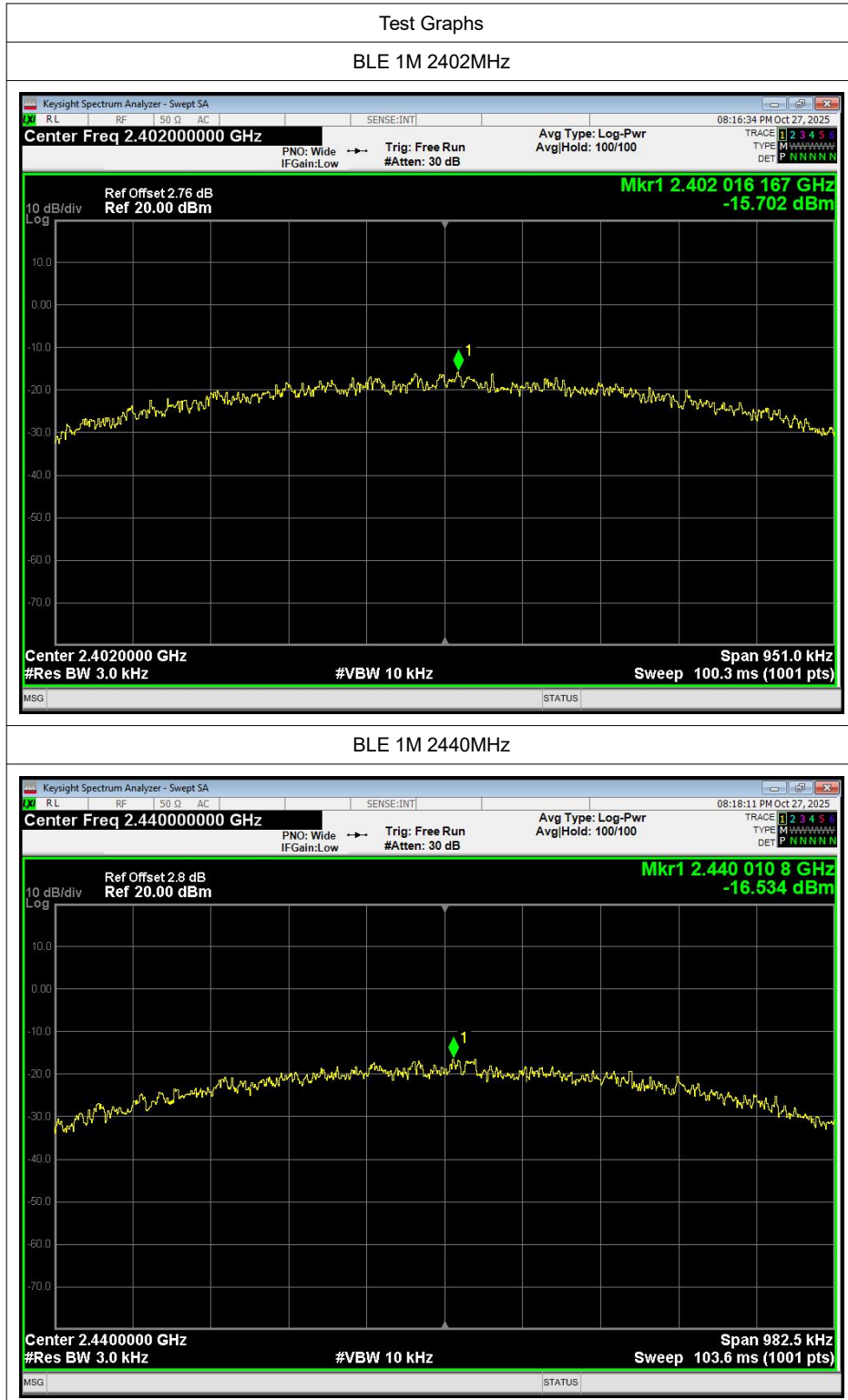


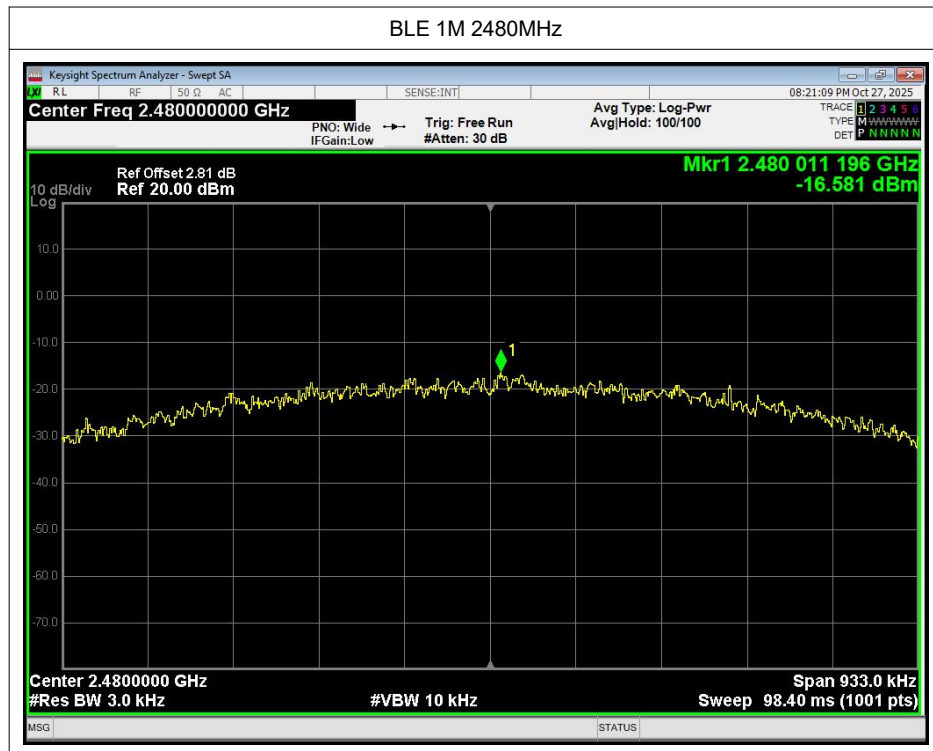
4 Maximum Power Spectral Density Level

4.1 Test Result

Mode	Frequency (MHz)	Conducted PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
BLE 1M	2402	-15.7	≤ 8	Pass
BLE 1M	2440	-16.53	≤ 8	Pass
BLE 1M	2480	-16.58	≤ 8	Pass

4.2 Test Graphs





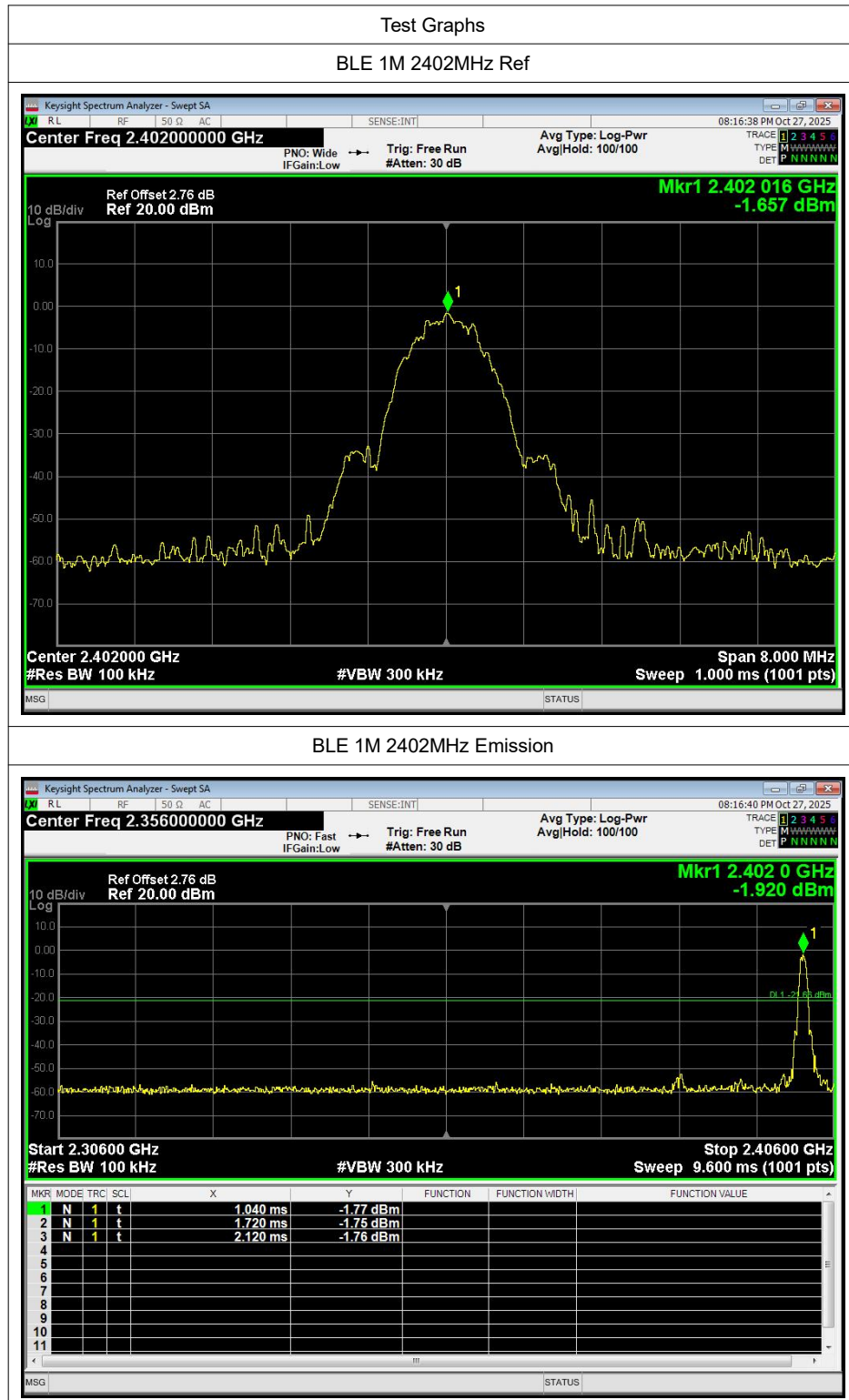


5 Band Edge

5.1 Test Result

Mode	Frequency (MHz)	Max Value (dBc)	Limit (dBc)	Verdict
BLE 1M	2402	-50.73	-20	Pass
BLE 1M	2480	-52.09	-20	Pass

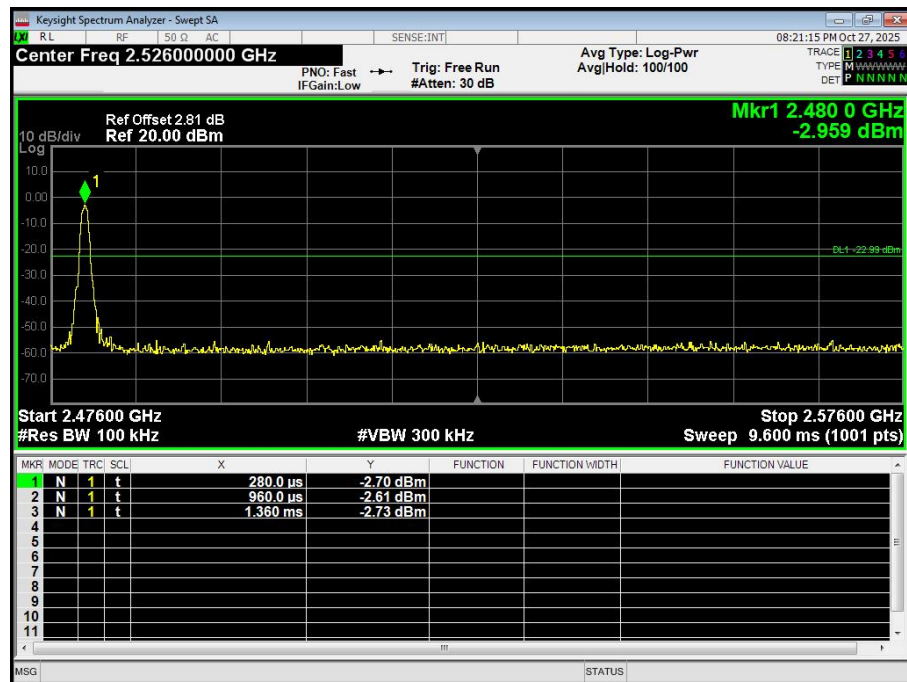
5.2 Test Graphs



BLE 1M 2480MHz Ref



BLE 1M 2480MHz Emission

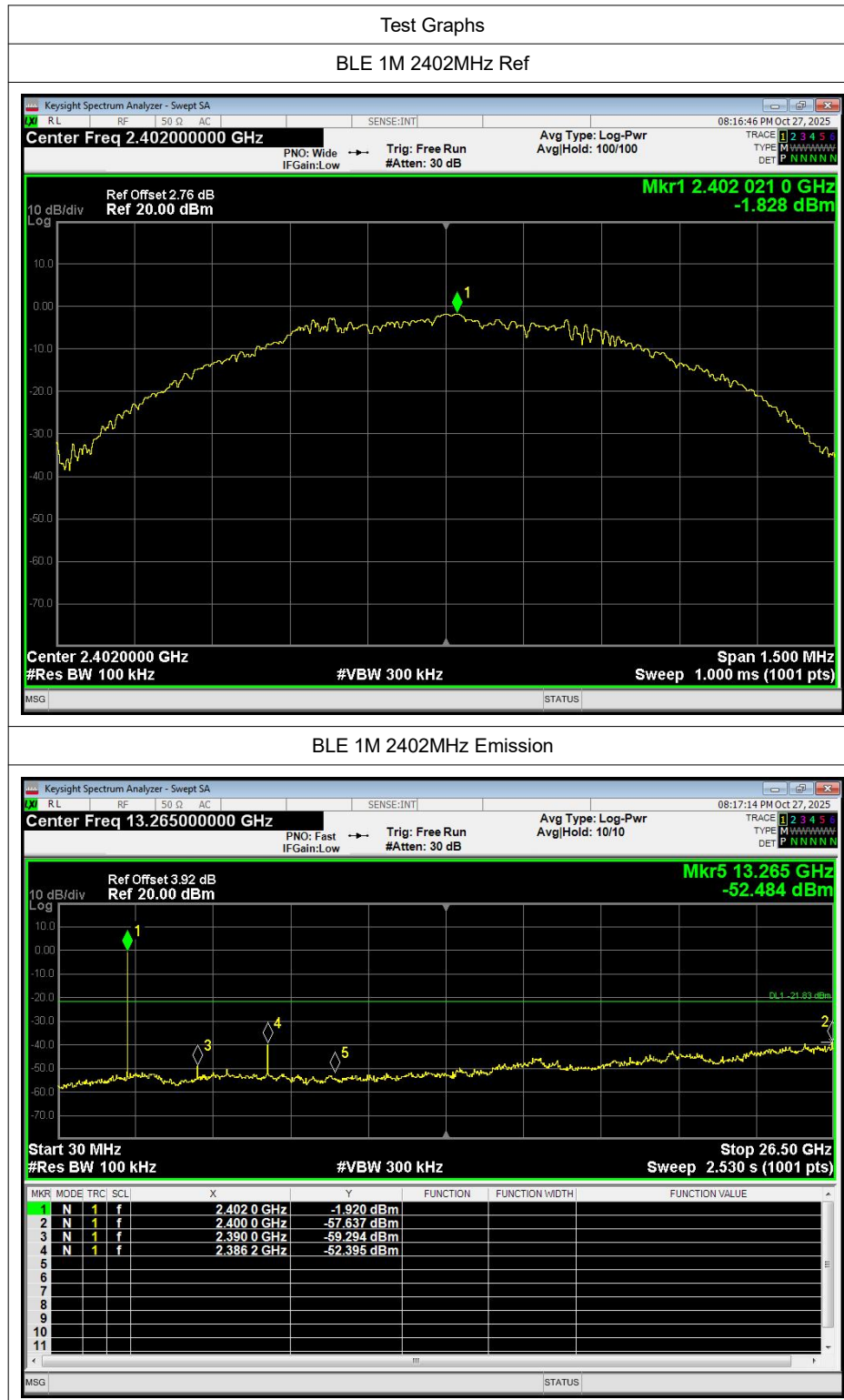


6 Conducted RF Spurious Emission

6.1 Test Result

Mode	Frequency (MHz)	Max Value (dBc)	Limit (dBc)	Verdict
BLE 1M	2402	-37.44	-20	Pass
BLE 1M	2440	-36.68	-20	Pass
BLE 1M	2480	-36.86	-20	Pass

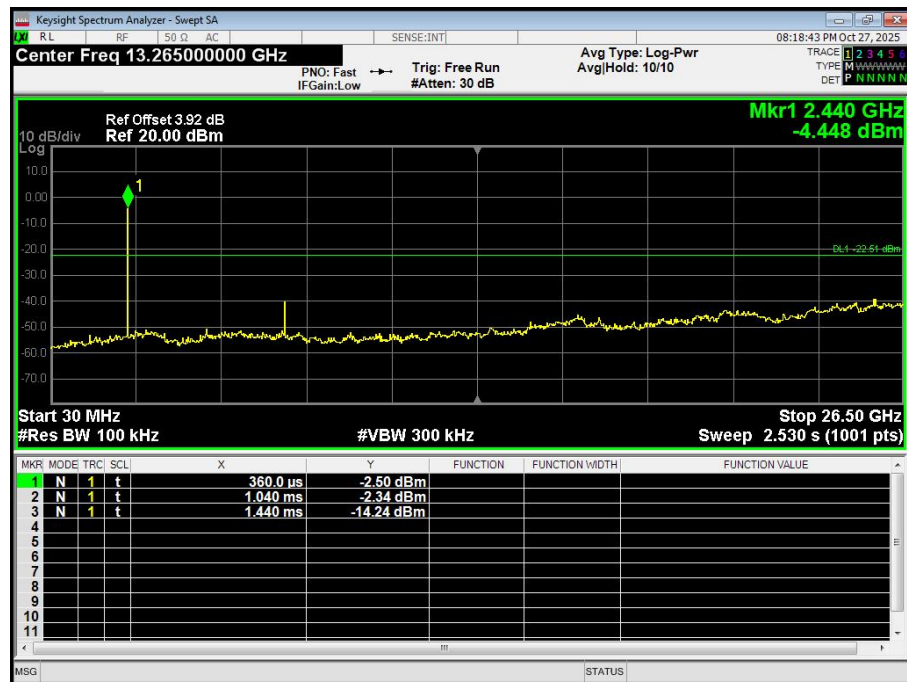
6.2 Test Graphs



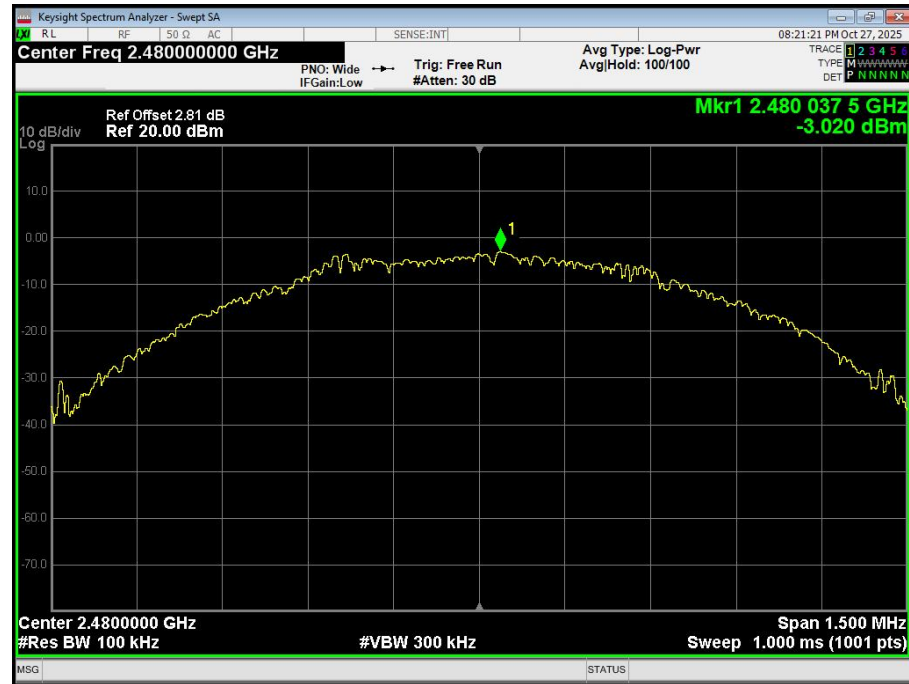
BLE 1M 2440MHz Ref



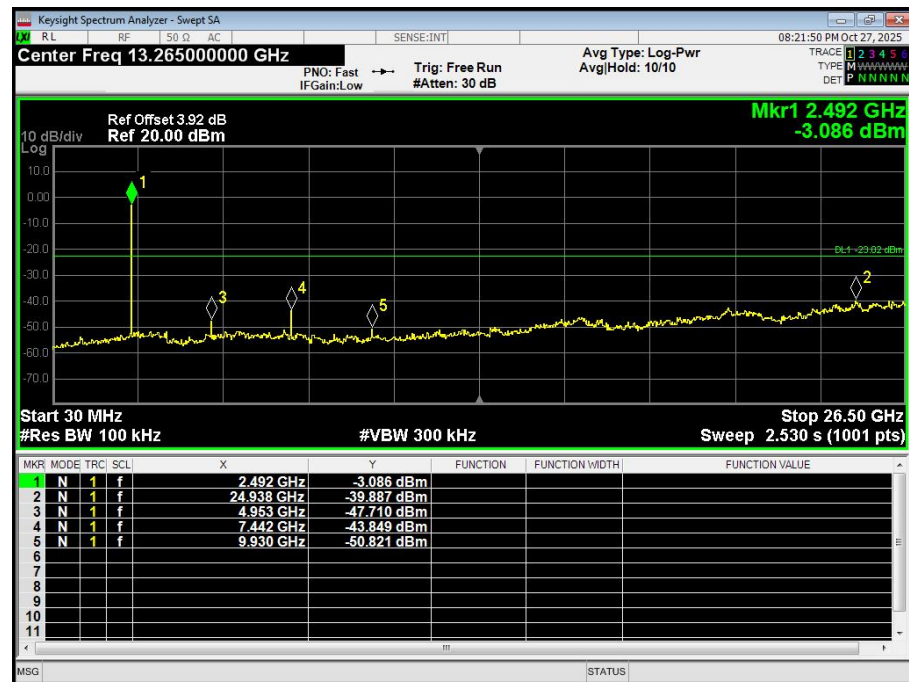
BLE 1M 2440MHz Emission



BLE 1M 2480MHz Ref



BLE 1M 2480MHz Emission



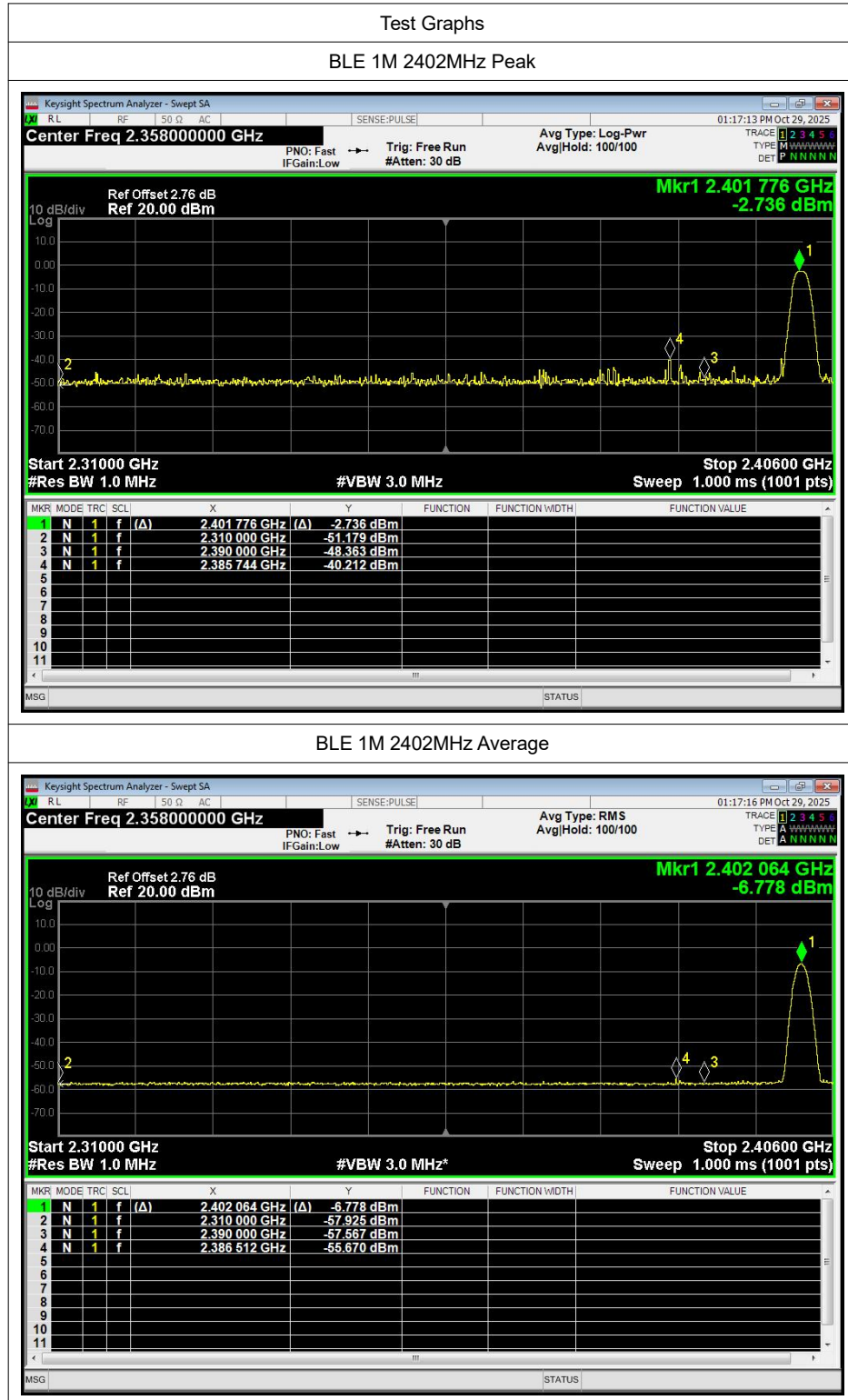


7 Restrict Band

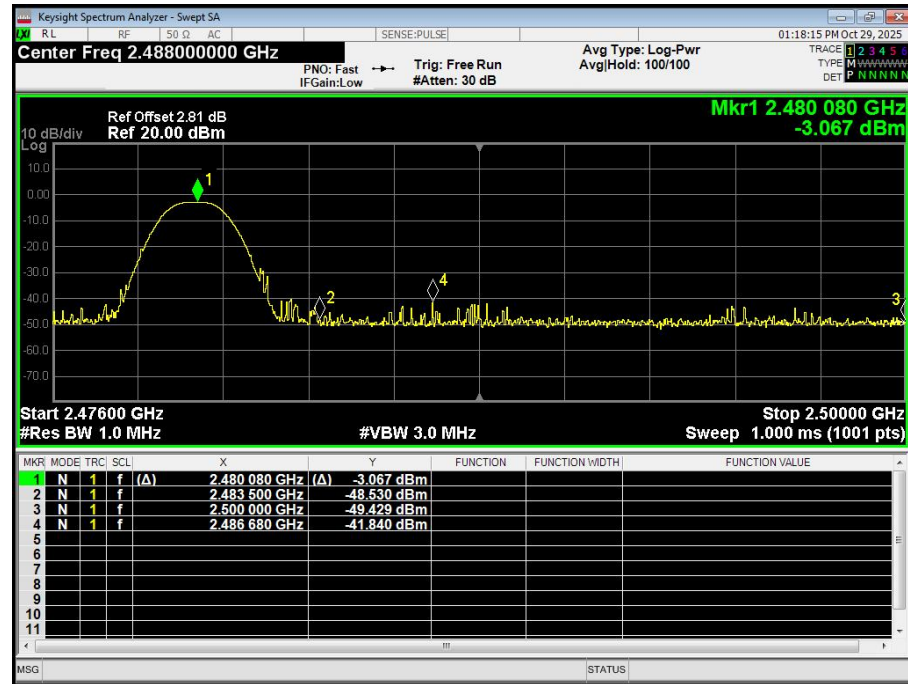
7.1 Test Result

Mode	Frequency (MHz)	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
BLE 1M	2402	2310	-51.18	2.28	-	46.36	Peak	74	Pass
BLE 1M	2402	2310	-57.93	2.28	4.22	43.83	Average	54	Pass
BLE 1M	2402	2385.744	-40.21	2.28	-	57.33	Peak	74	Pass
BLE 1M	2402	2386.512	-55.67	2.28	4.22	46.09	Average	54	Pass
BLE 1M	2402	2390	-48.36	2.28	-	49.18	Peak	74	Pass
BLE 1M	2402	2390	-57.57	2.28	4.22	44.19	Average	54	Pass
BLE 1M	2480	2483.5	-48.53	2.28	-	49.01	Peak	74	Pass
BLE 1M	2480	2483.5	-57.66	2.28	4.25	44.13	Average	54	Pass
BLE 1M	2480	2486.68	-41.84	2.28	-	55.7	Peak	74	Pass
BLE 1M	2480	2486.008	-56.27	2.28	4.25	45.52	Average	54	Pass
BLE 1M	2480	2500	-49.43	2.28	-	48.11	Peak	74	Pass
BLE 1M	2480	2500	-57.52	2.28	4.25	44.27	Average	54	Pass

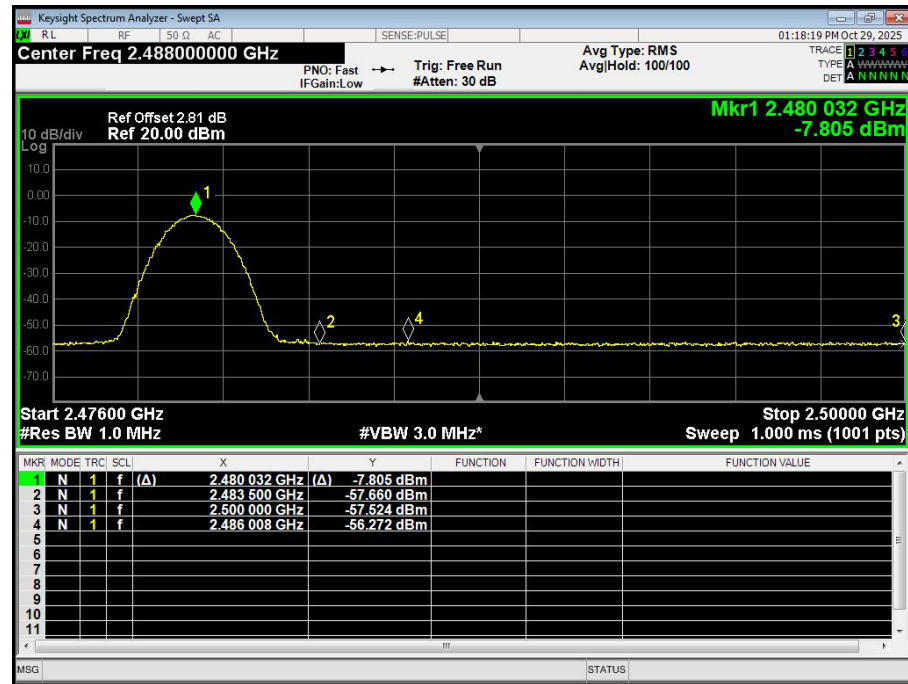
7.2 Test Graphs



BLE 1M 2480MHz Peak



BLE 1M 2480MHz Average



---The End---