



Appendix B

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

Product Name: LED Bulb String Lights

Trade Mark: ASAHOM

Test Model: S1021

Environmental Conditions

| | |
|--------------------|-------------|
| Temperature: | 26.2° C |
| Relative Humidity: | 51.6% |
| ATM Pressure: | 100.0 kPa |
| Test Engineer: | Simba Huang |
| Supervised by: | Seal Chen |



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 |

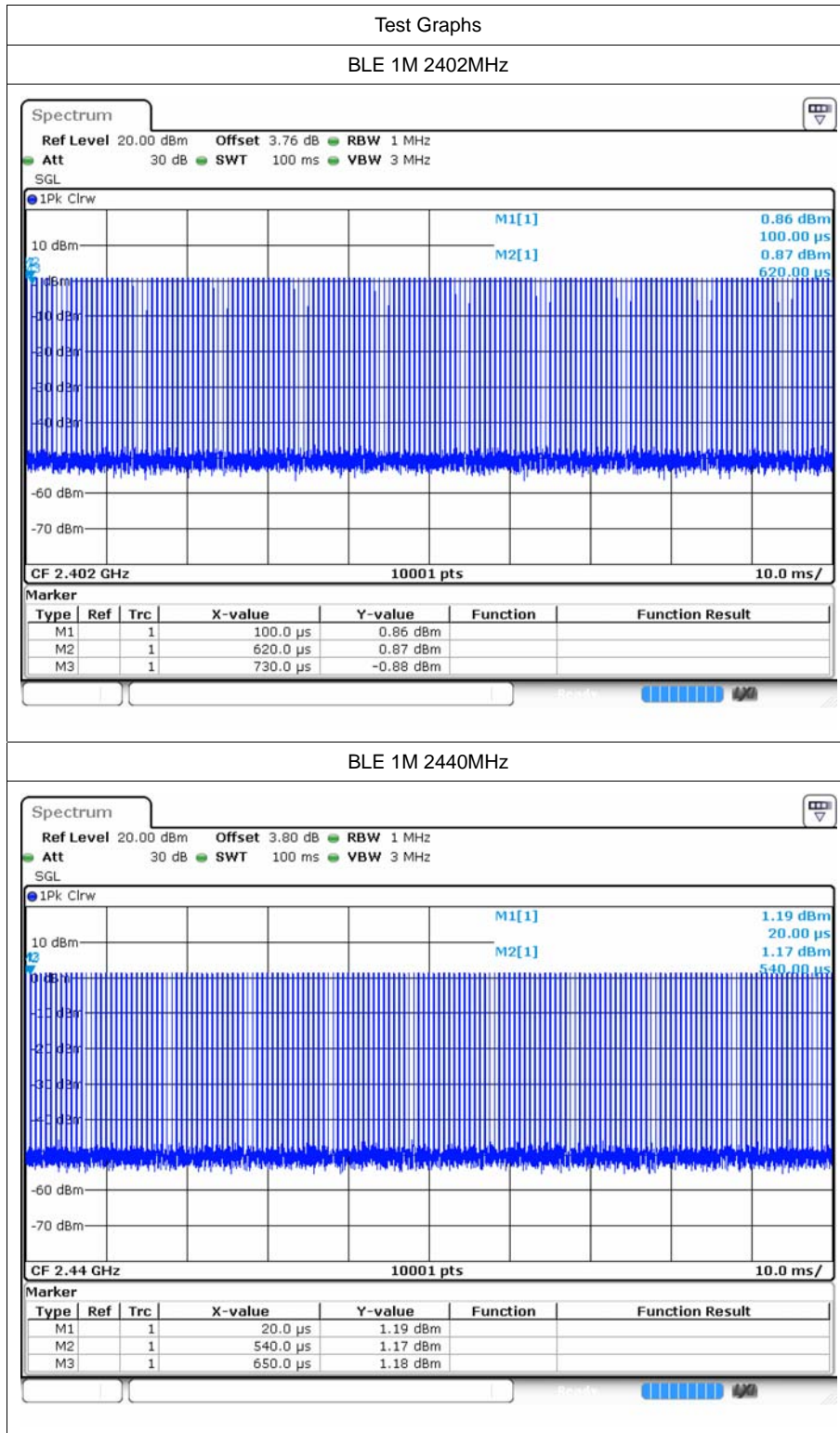


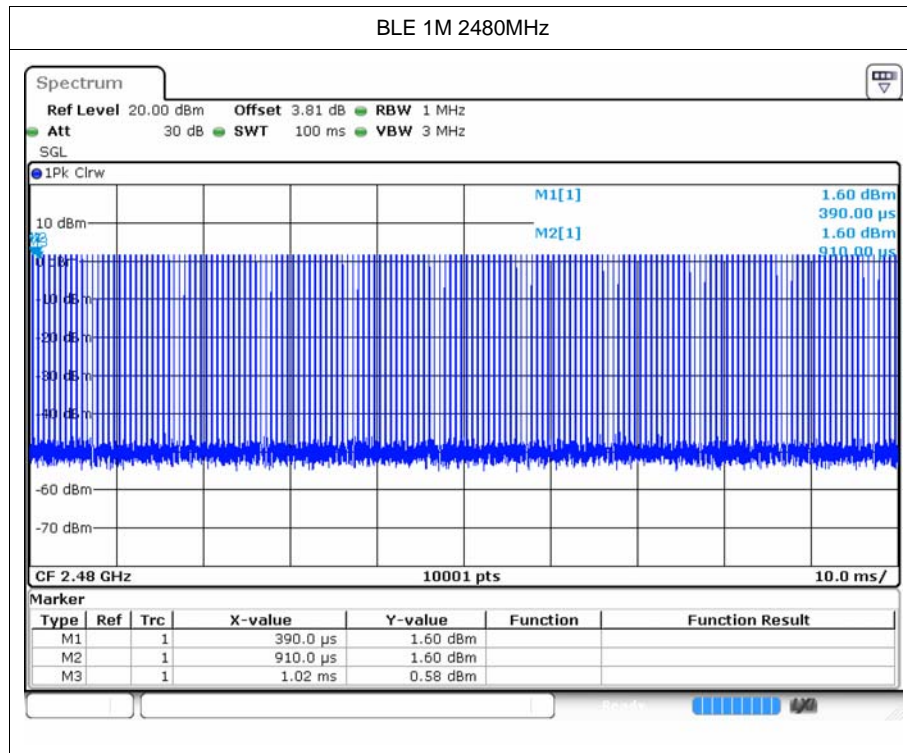
1 Duty Cycle

1.1 Test Result

| Mode | Frequency (MHz) | Duty Cycle (%) | 1/T (kHz) |
|--------|-----------------|----------------|-----------|
| BLE 1M | 2402 | 19.21 | 9.09 |
| BLE 1M | 2440 | 18.41 | 9.09 |
| BLE 1M | 2480 | 19.2 | 9.09 |

1.2 Test Graphs





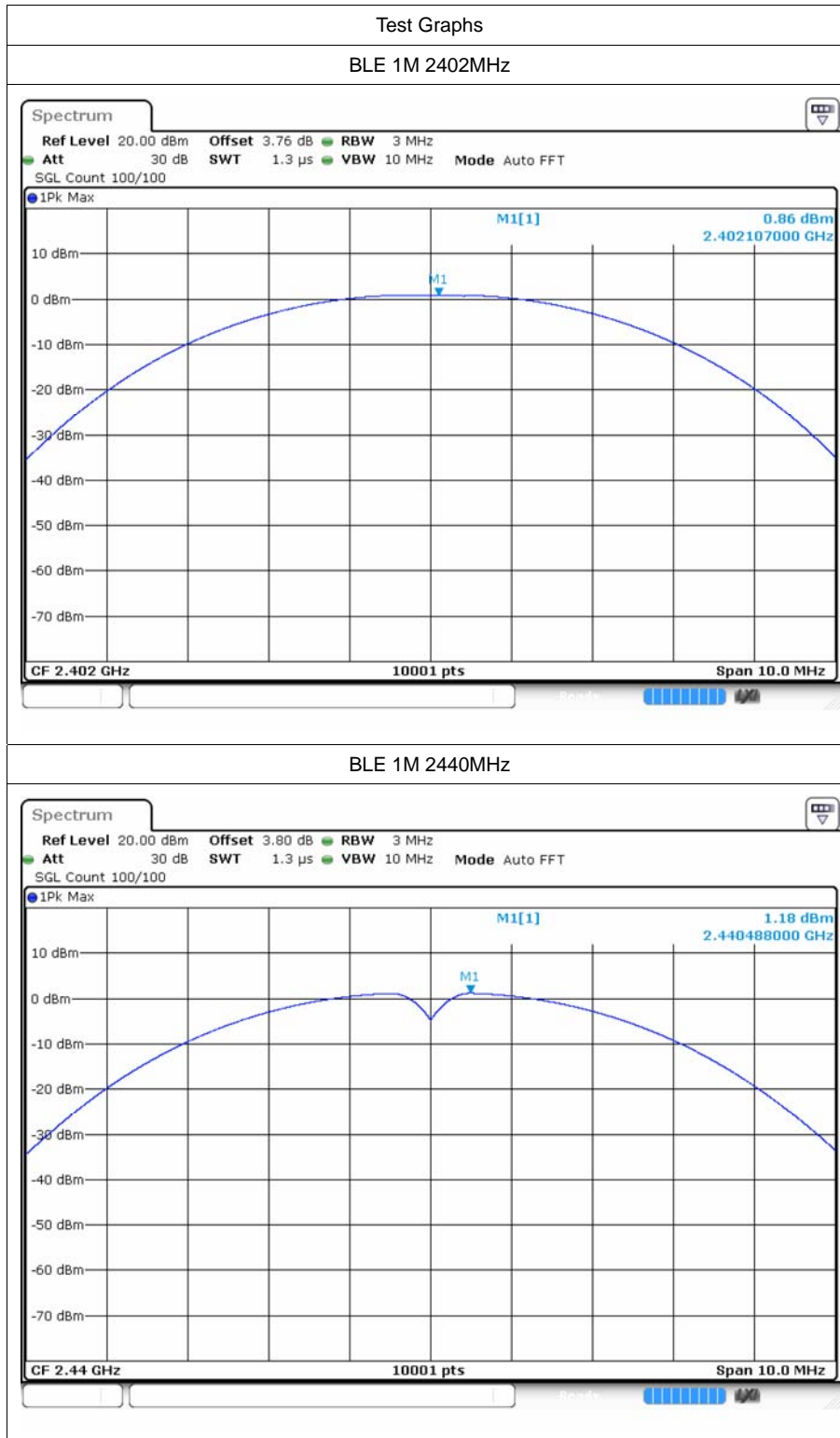


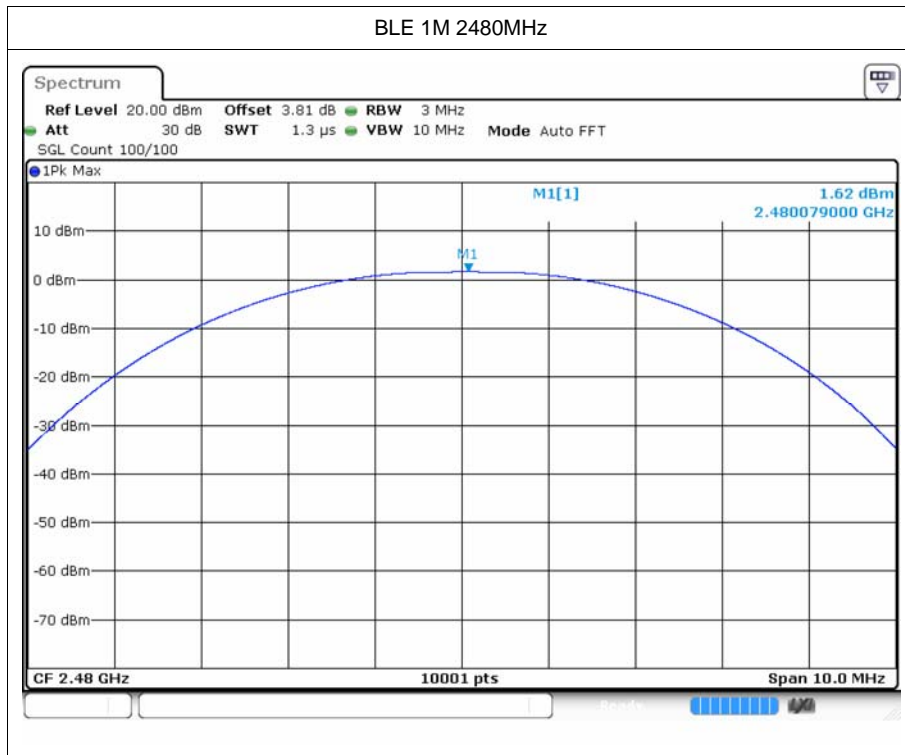
2 Maximum Conducted Output Power

2.1 Test Result

| Mode | Frequency (MHz) | Conducted Power (dBm) | Limit (dBm) | Verdict |
|--------|-----------------|-----------------------|-------------|---------|
| BLE 1M | 2402 | 0.86 | 30 | Pass |
| BLE 1M | 2440 | 1.18 | 30 | Pass |
| BLE 1M | 2480 | 1.62 | 30 | Pass |

2.2 Test Graphs





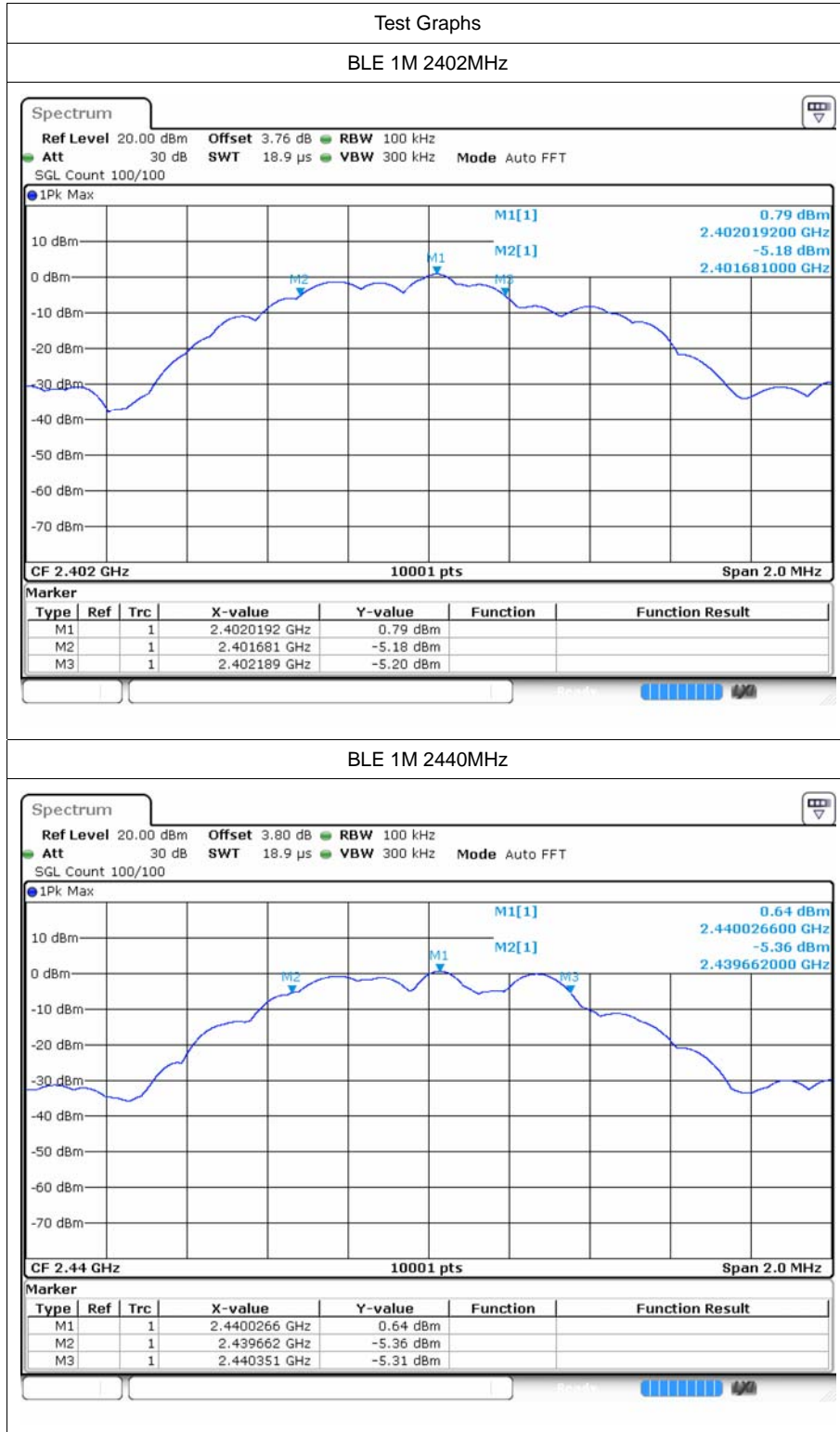


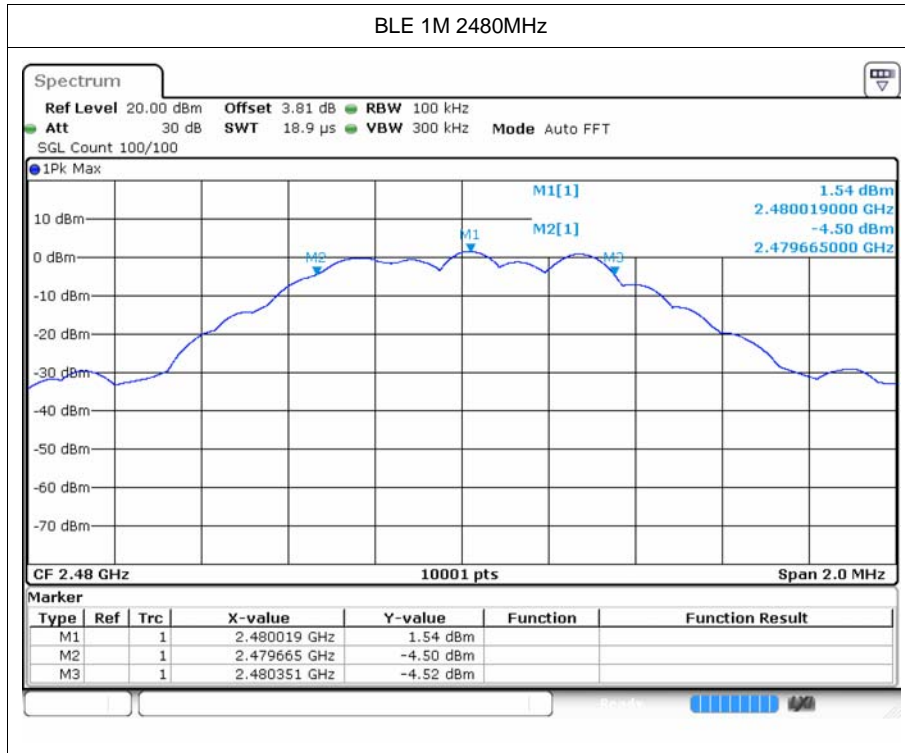
3 -6dB Bandwidth

3.1 Test Result

| Mode | Frequency (MHz) | -6 dB Bandwidth (MHz) | Limit -6 dB Bandwidth (MHz) | Verdict |
|--------|-----------------|-----------------------|-----------------------------|---------|
| BLE 1M | 2402 | 0.508 | 0.5 | Pass |
| BLE 1M | 2440 | 0.69 | 0.5 | Pass |
| BLE 1M | 2480 | 0.685 | 0.5 | Pass |

3.2 Test Graphs



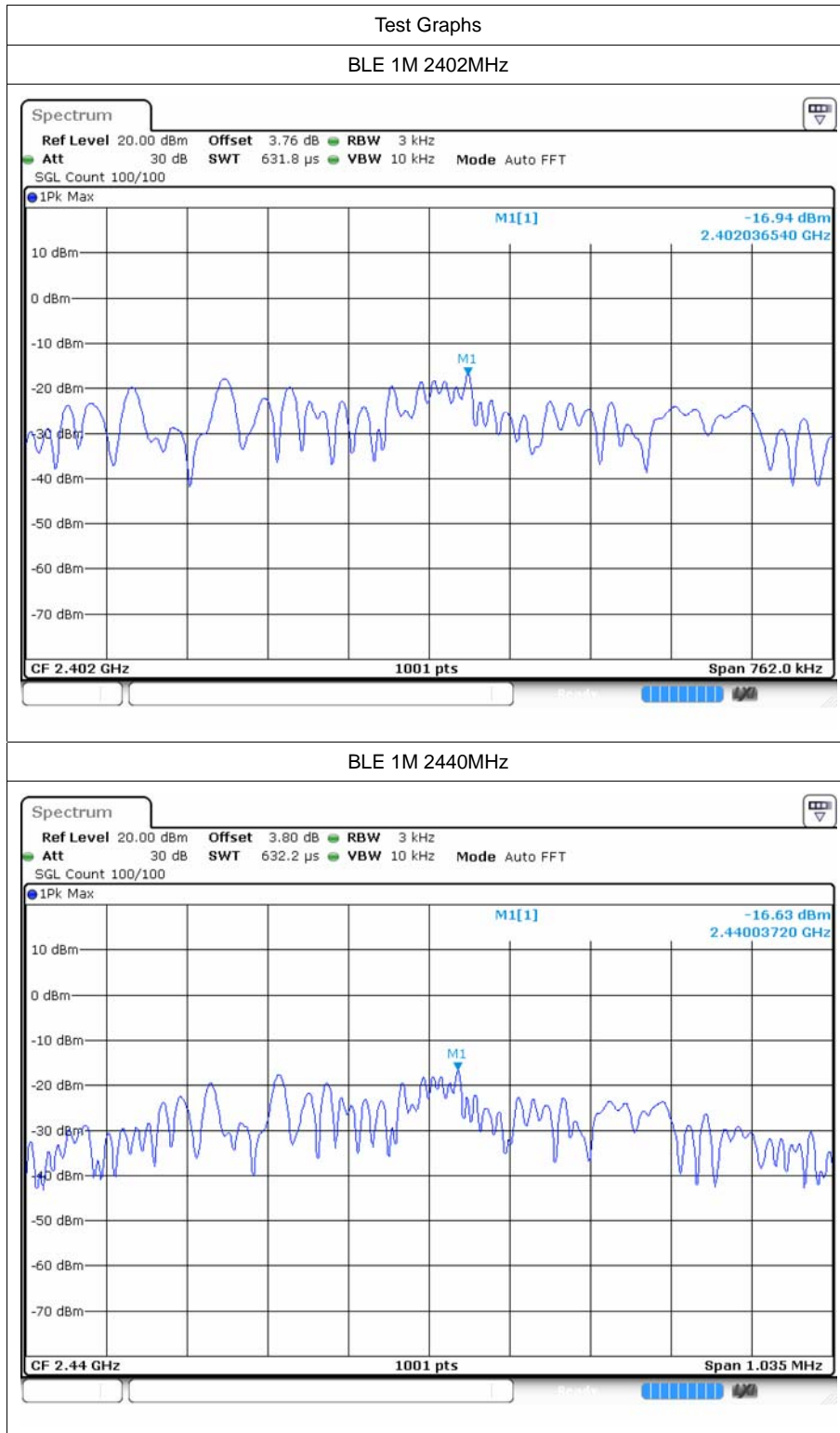


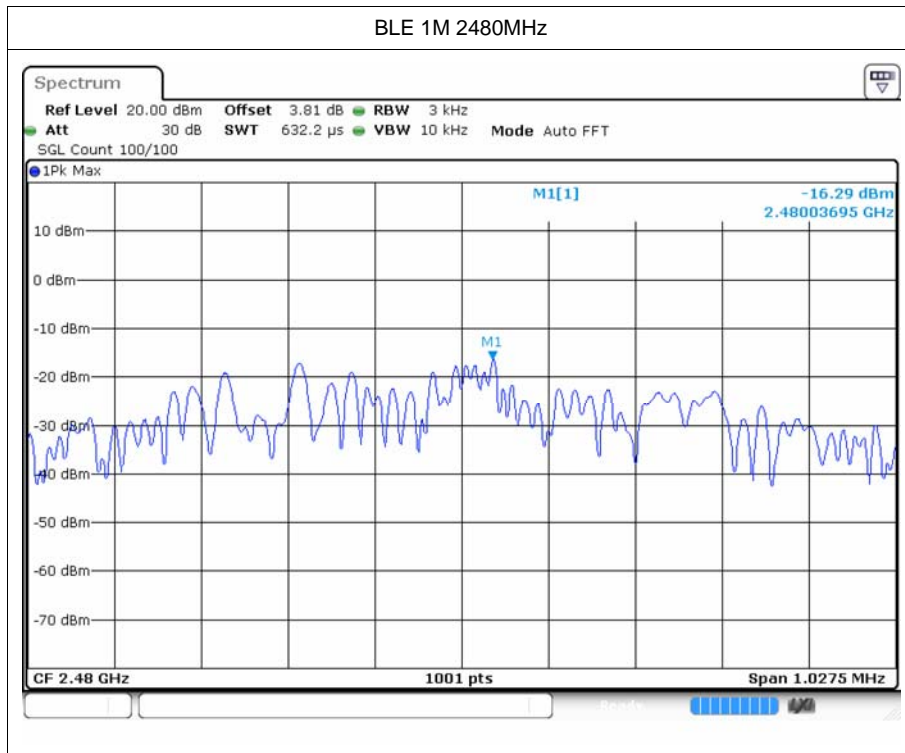
4 Maximum Power Spectral Density Level

4.1 Test Result

| Mode | Frequency (MHz) | Conducted PSD (dBm/3-100kHz) | Limit (dBm/3kHz) | Verdict |
|--------|-----------------|---------------------------------|---------------------|---------|
| BLE 1M | 2402 | -16.94 | ≤8 | Pass |
| BLE 1M | 2440 | -16.63 | ≤8 | Pass |
| BLE 1M | 2480 | -16.29 | ≤8 | Pass |

4.2 Test Graphs





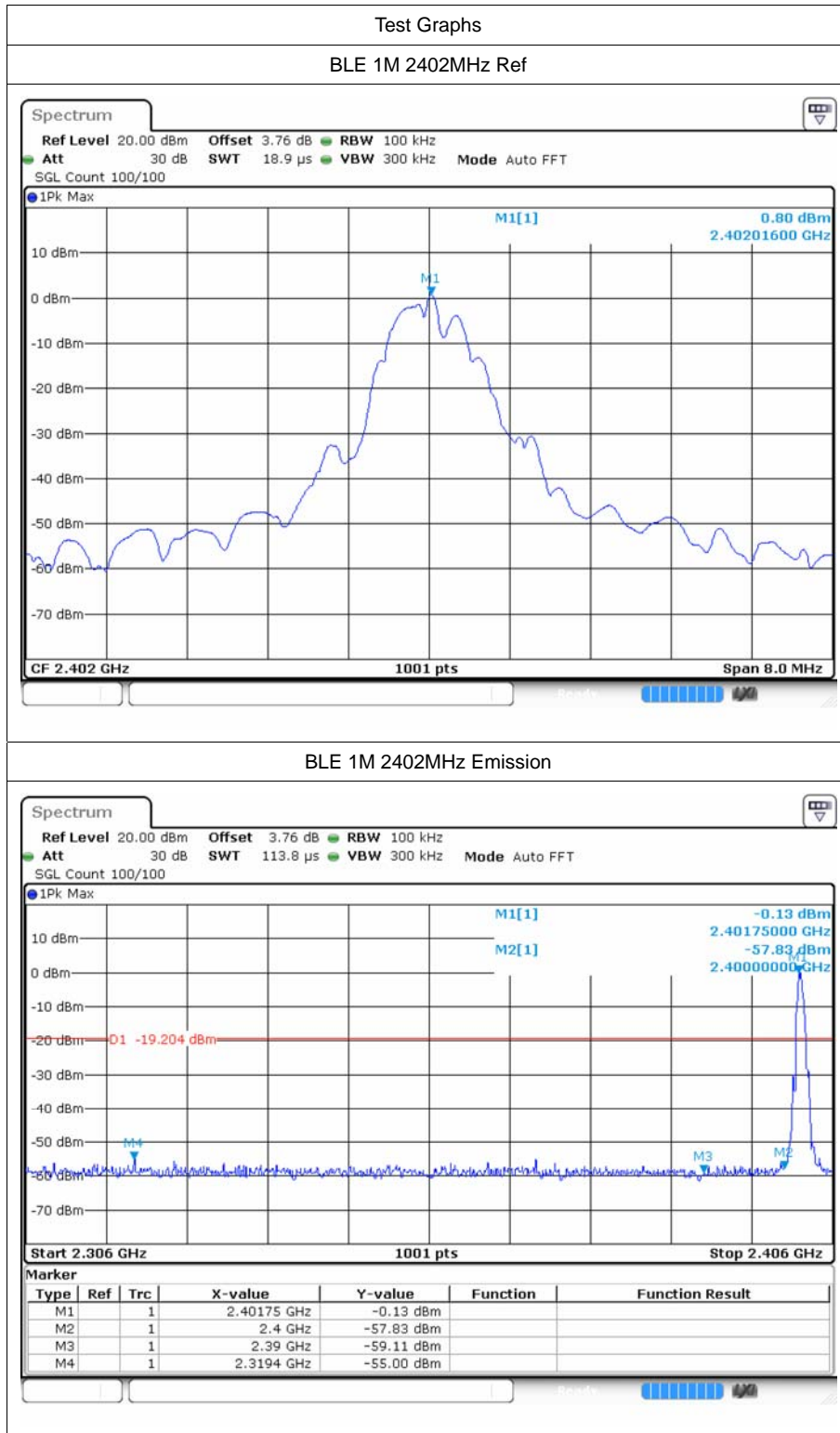


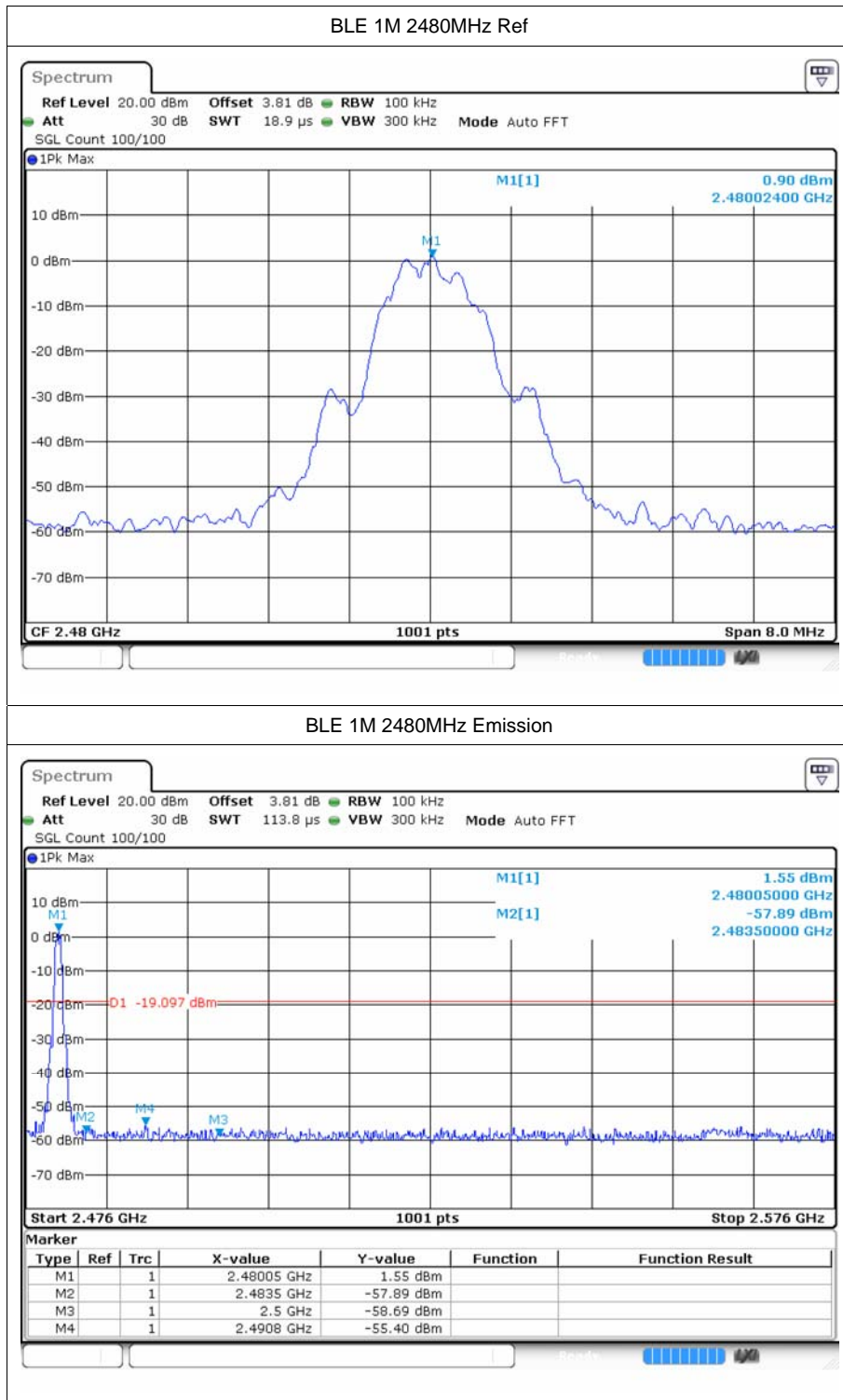
5 Band Edge

5.1 Test Result

| Mode | Frequency (MHz) | Max Value (dBc) | Limit (dBc) | Verdict |
|--------|-----------------|-----------------|-------------|---------|
| BLE 1M | 2402 | -55.8 | -20 | Pass |
| BLE 1M | 2480 | -56.3 | -20 | Pass |

5.2 Test Graphs





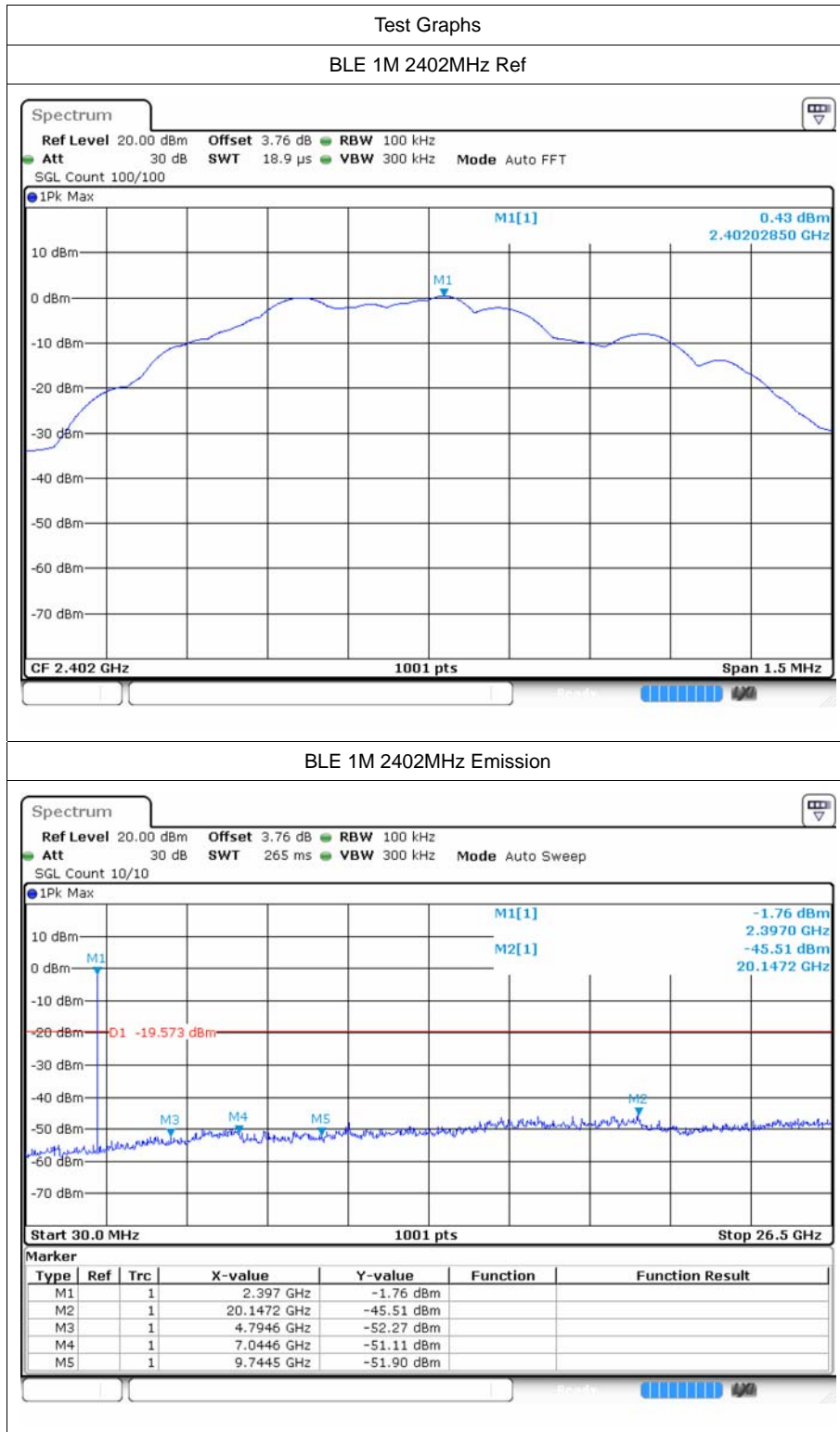


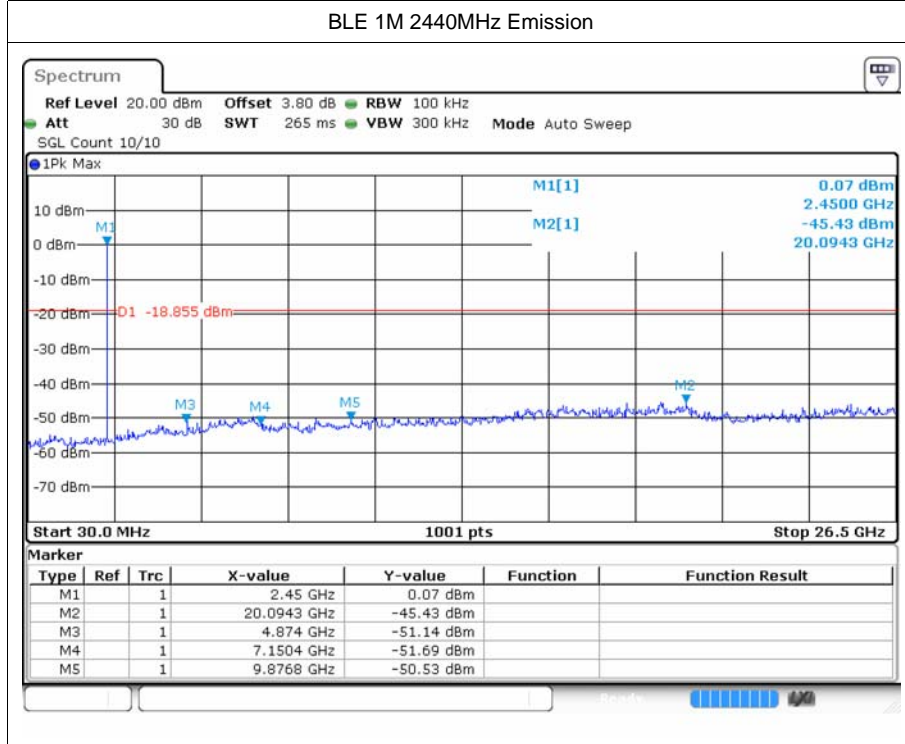
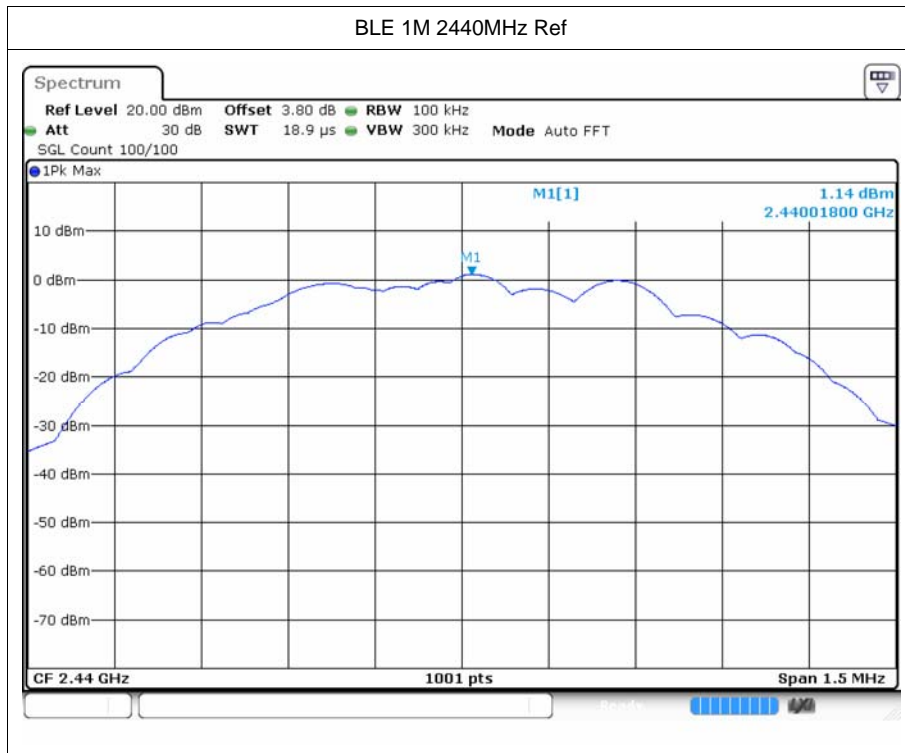
6 Conducted RF Spurious Emission

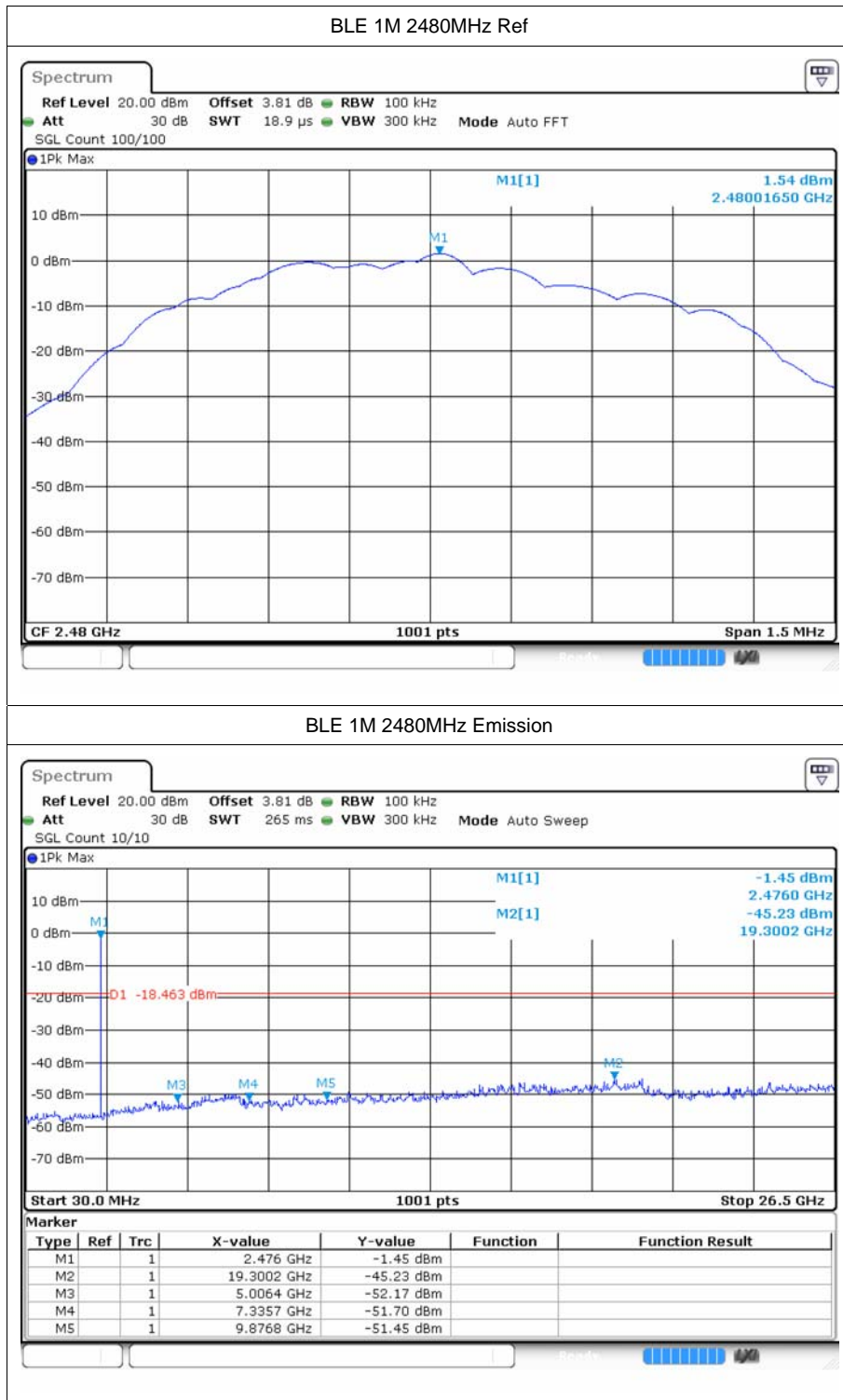
6.1 Test Result

| Mode | Frequency (MHz) | Max Value (dBc) | Limit (dBc) | Verdict |
|--------|-----------------|-----------------|-------------|---------|
| BLE 1M | 2402 | -45.94 | -20 | Pass |
| BLE 1M | 2440 | -46.56 | -20 | Pass |
| BLE 1M | 2480 | -46.76 | -20 | Pass |

6.2 Test Graphs







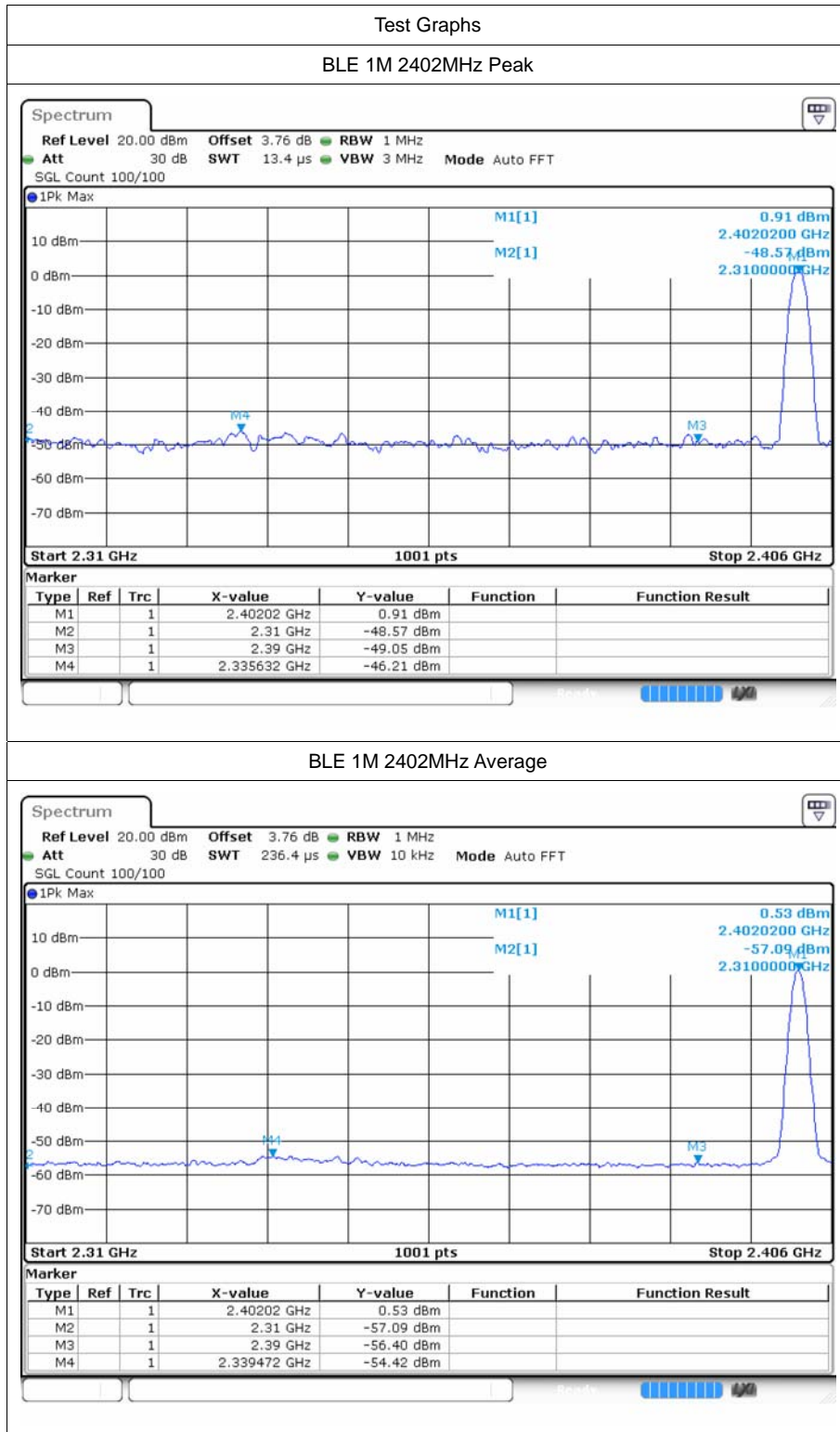


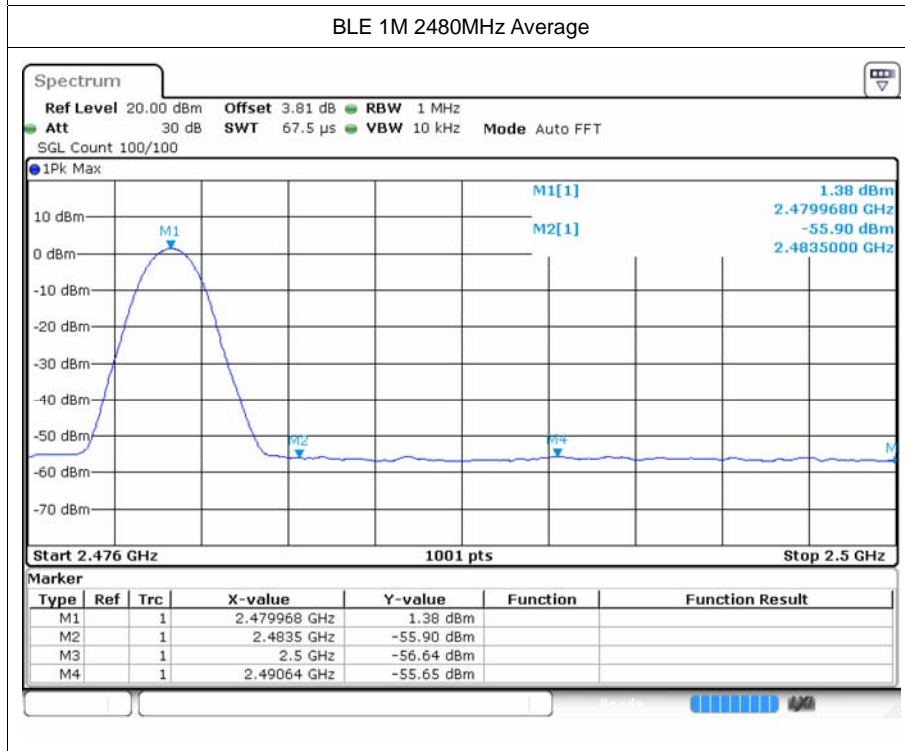
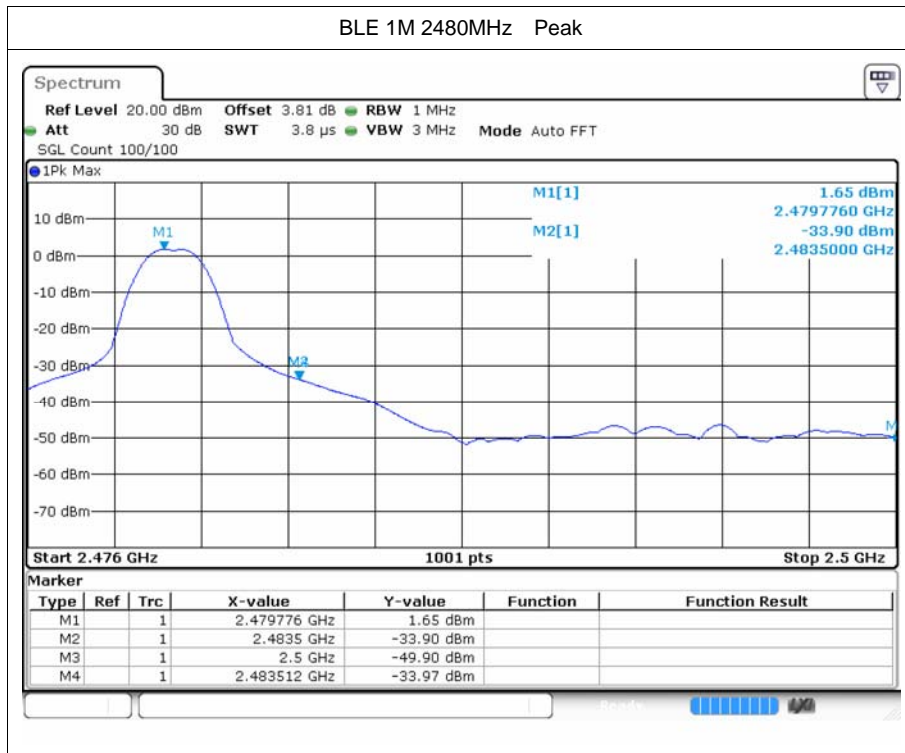
7 Restrict Band

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 | -48.56 | 2 | 48.7 | Peak | 74 | Pass |
| BLE 1M | 2402 | 2310 | -57.09 | 2 | 40.17 | Average | 54 | Pass |
| BLE 1M | 2402 | 2335.632 | -46.2 | 2 | 51.06 | Peak | 74 | Pass |
| BLE 1M | 2402 | 2339.472 | -54.41 | 2 | 42.85 | Average | 54 | Pass |
| BLE 1M | 2402 | 2390 | -49.05 | 2 | 48.21 | Peak | 74 | Pass |
| BLE 1M | 2402 | 2390 | -56.39 | 2 | 40.87 | Average | 54 | Pass |
| BLE 1M | 2480 | 2483.5 | -33.97 | 2 | 63.29 | Peak | 74 | Pass |
| BLE 1M | 2480 | 2483.5 | -55.92 | 2 | 41.34 | Average | 54 | Pass |
| BLE 1M | 2480 | 2483.512 | -33.97 | 2 | 63.29 | Peak | 74 | Pass |
| BLE 1M | 2480 | 2490.64 | -55.64 | 2 | 41.62 | Average | 54 | Pass |
| BLE 1M | 2480 | 2500 | -49.9 | 2 | 47.36 | Peak | 74 | Pass |
| BLE 1M | 2480 | 2500 | -56.63 | 2 | 40.63 | Average | 54 | Pass |

7.2 Test Graphs





---The End---