



## Appendix B

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

Product Name: Indoor Smart Bike

Trade Mark: N/A

Test Model: T7

#### Environmental Conditions

|                    |             |
|--------------------|-------------|
| Temperature:       | 25.6° C     |
| Relative Humidity: | 52.4%       |
| ATM Pressure:      | 100.0 kPa   |
| Test Engineer:     | Emiya lin   |
| Supervised by:     | Simba Haung |



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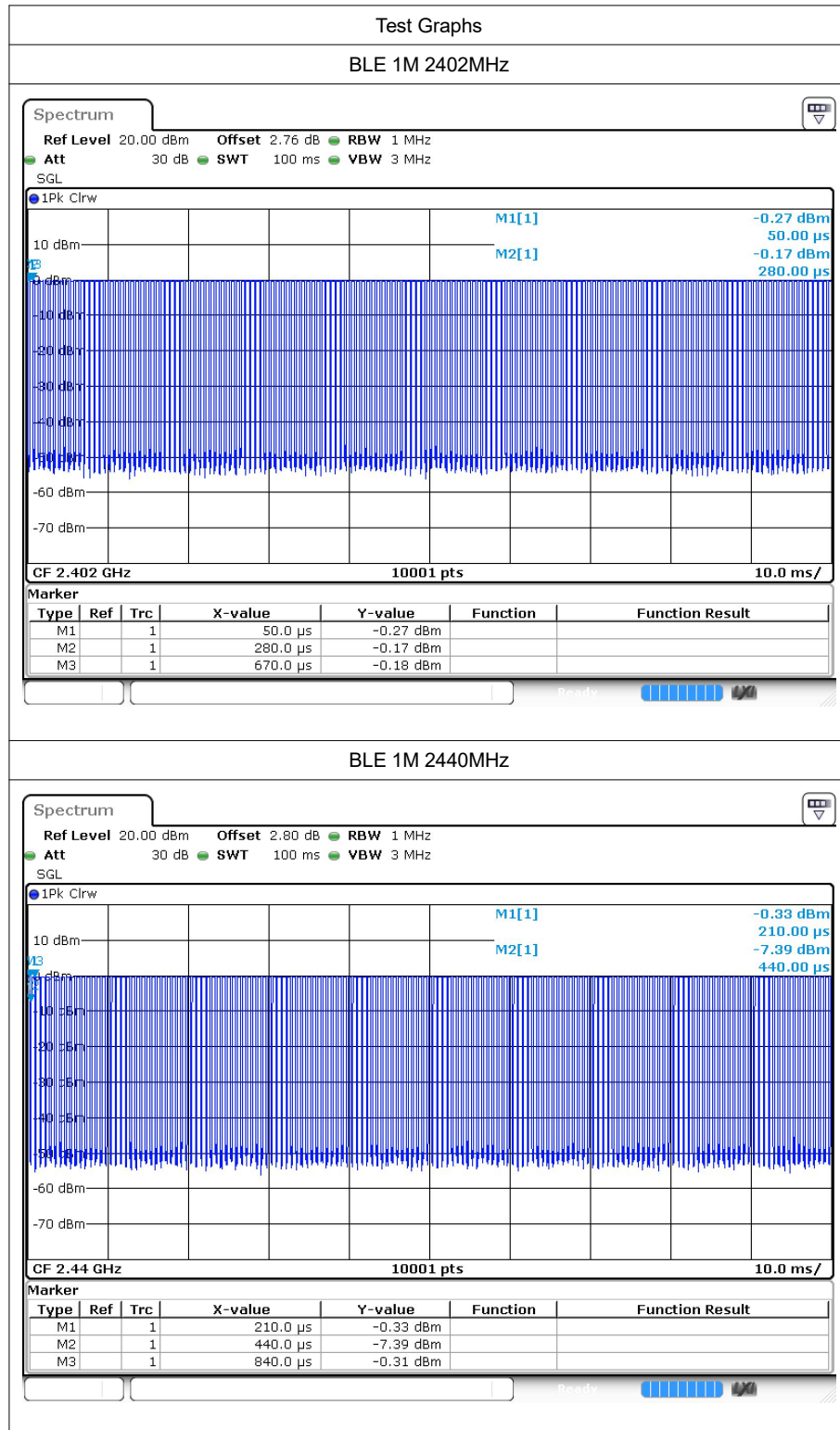


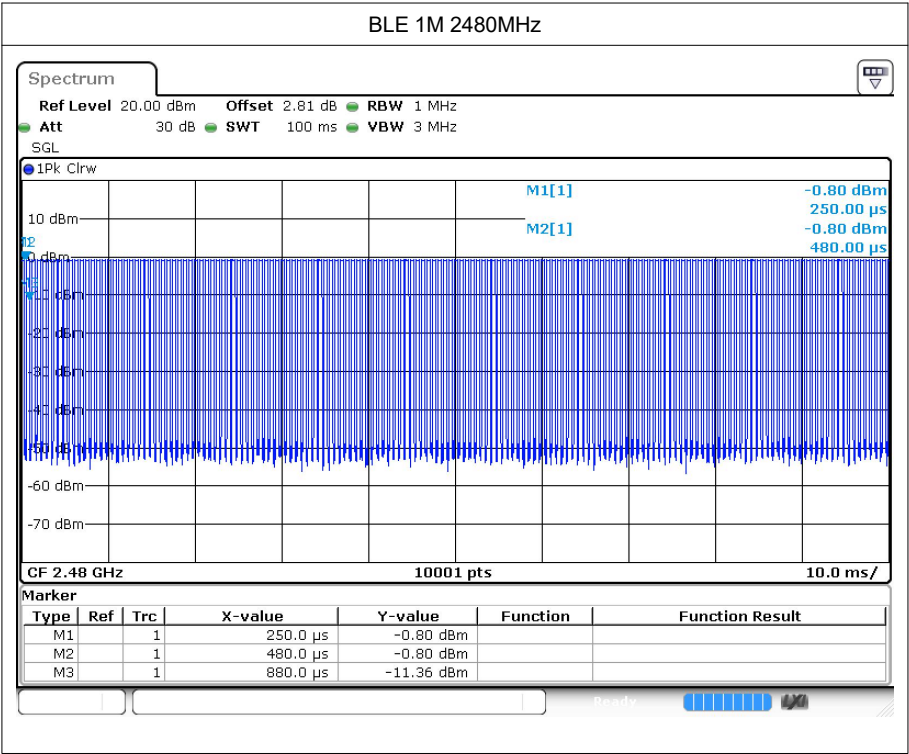
# 1 Duty Cycle

## 1.1 Test Result

| Mode   | Frequency (MHz) | Duty Cycle (%) | Correction Factor | 1/T (kHz) |
|--------|-----------------|----------------|-------------------|-----------|
| BLE 1M | 2402            | 64.8           | 1.88              | 2.56      |
| BLE 1M | 2440            | 64.8           | 1.88              | 2.5       |
| BLE 1M | 2480            | 64.8           | 1.88              | 2.5       |

## 1.2 Test Graphs



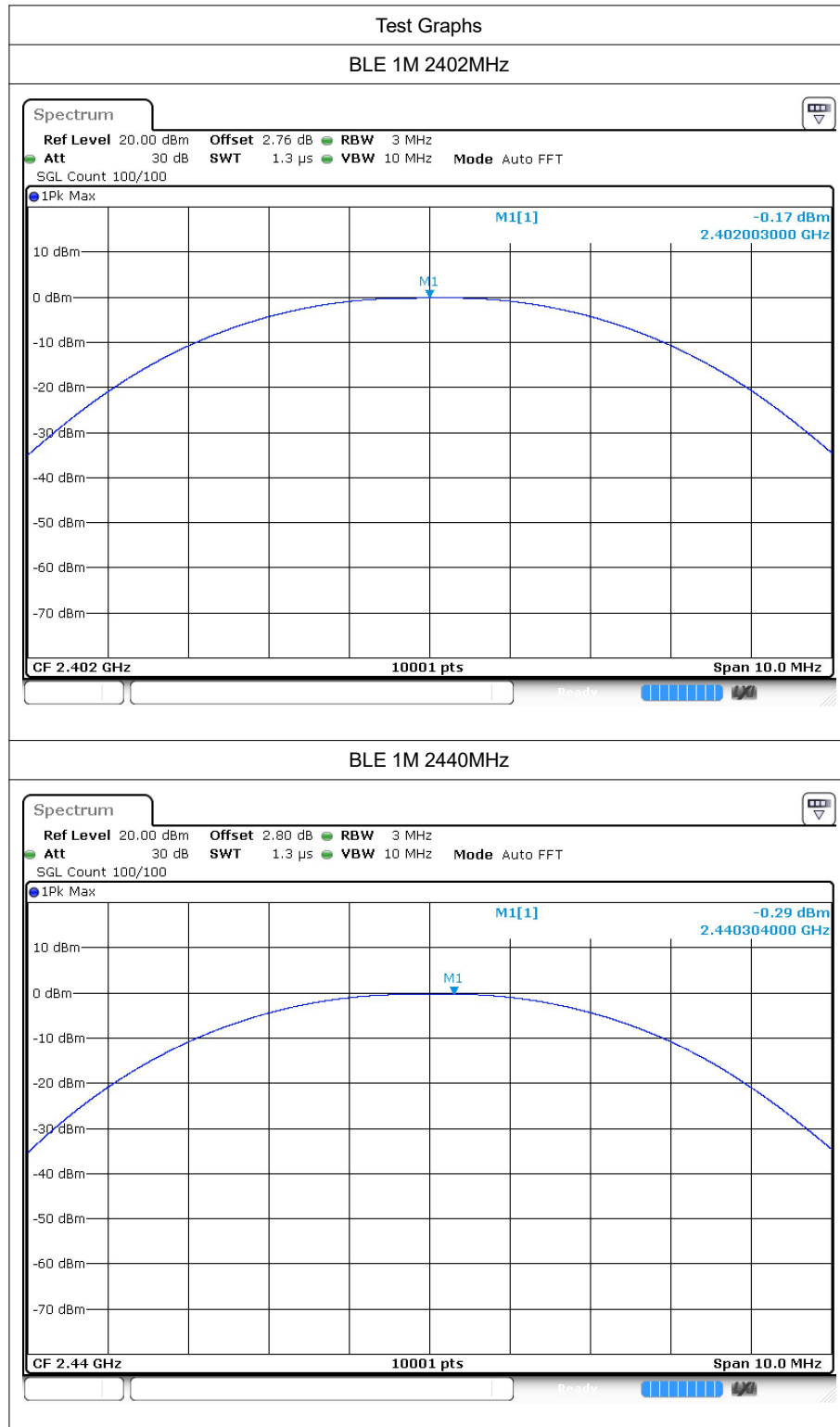


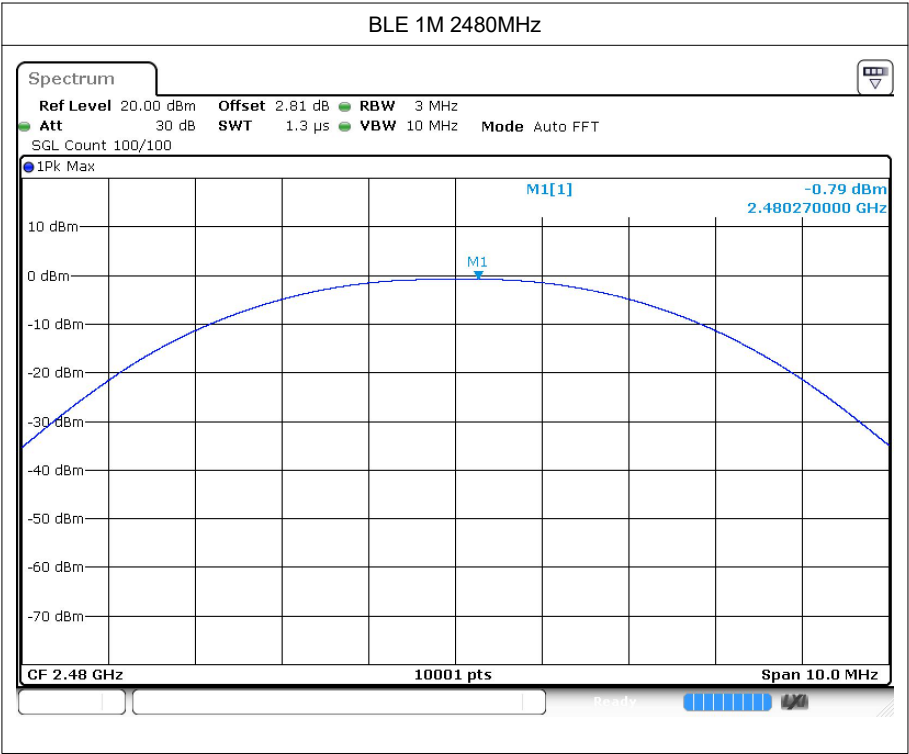
## 2 Maximum Conducted Output Power

### 2.1 Test Result

| Mode   | Frequency (MHz) | Conducted Power<br>(dBm) | Limit (dBm) | Verdict |
|--------|-----------------|--------------------------|-------------|---------|
| BLE 1M | 2402            | -0.17                    | 30          | Pass    |
| BLE 1M | 2440            | -0.29                    | 30          | Pass    |
| BLE 1M | 2480            | -0.79                    | 30          | Pass    |

## 2.2 Test Graphs





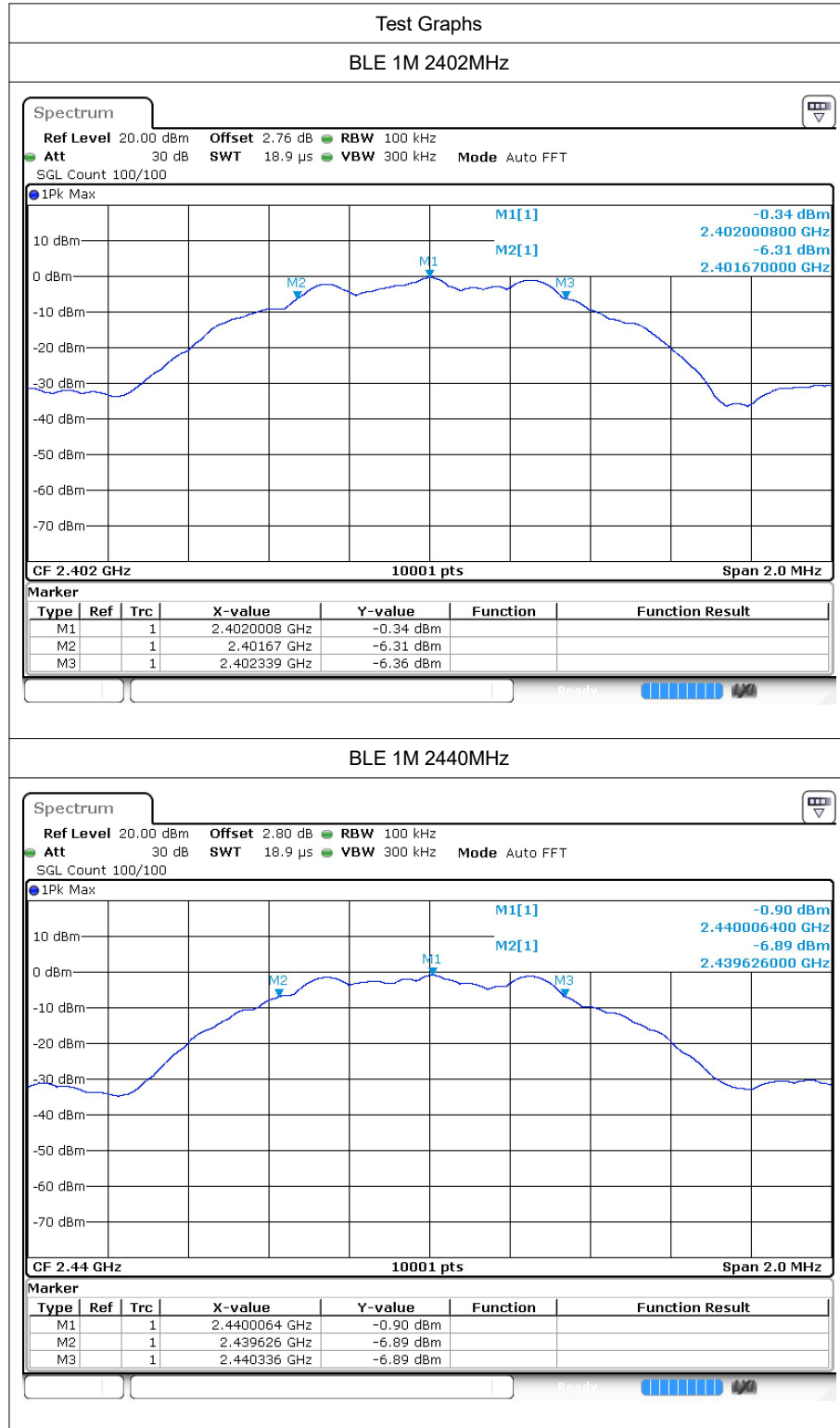


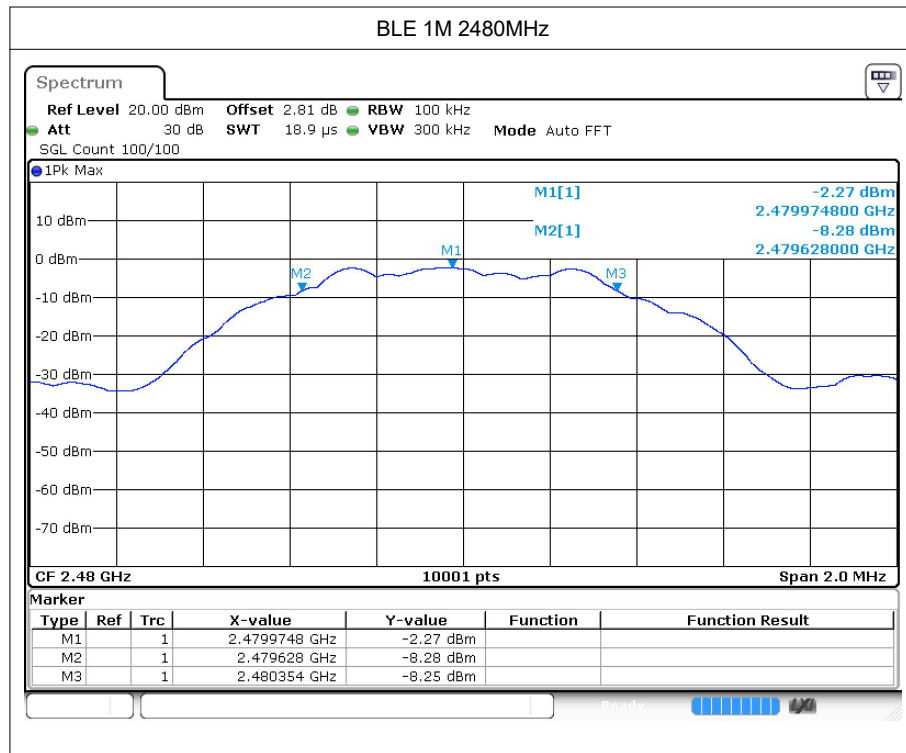
### 3 -6dB Bandwidth

#### 3.1 Test Result

| Mode   | Frequency (MHz) | -6 dB Bandwidth (MHz) | Limit -6 dB Bandwidth (MHz) | Verdict |
|--------|-----------------|-----------------------|-----------------------------|---------|
| BLE 1M | 2402            | 0.669                 | 0.5                         | Pass    |
| BLE 1M | 2440            | 0.71                  | 0.5                         | Pass    |
| BLE 1M | 2480            | 0.726                 | 0.5                         | Pass    |

### 3.2 Test Graphs



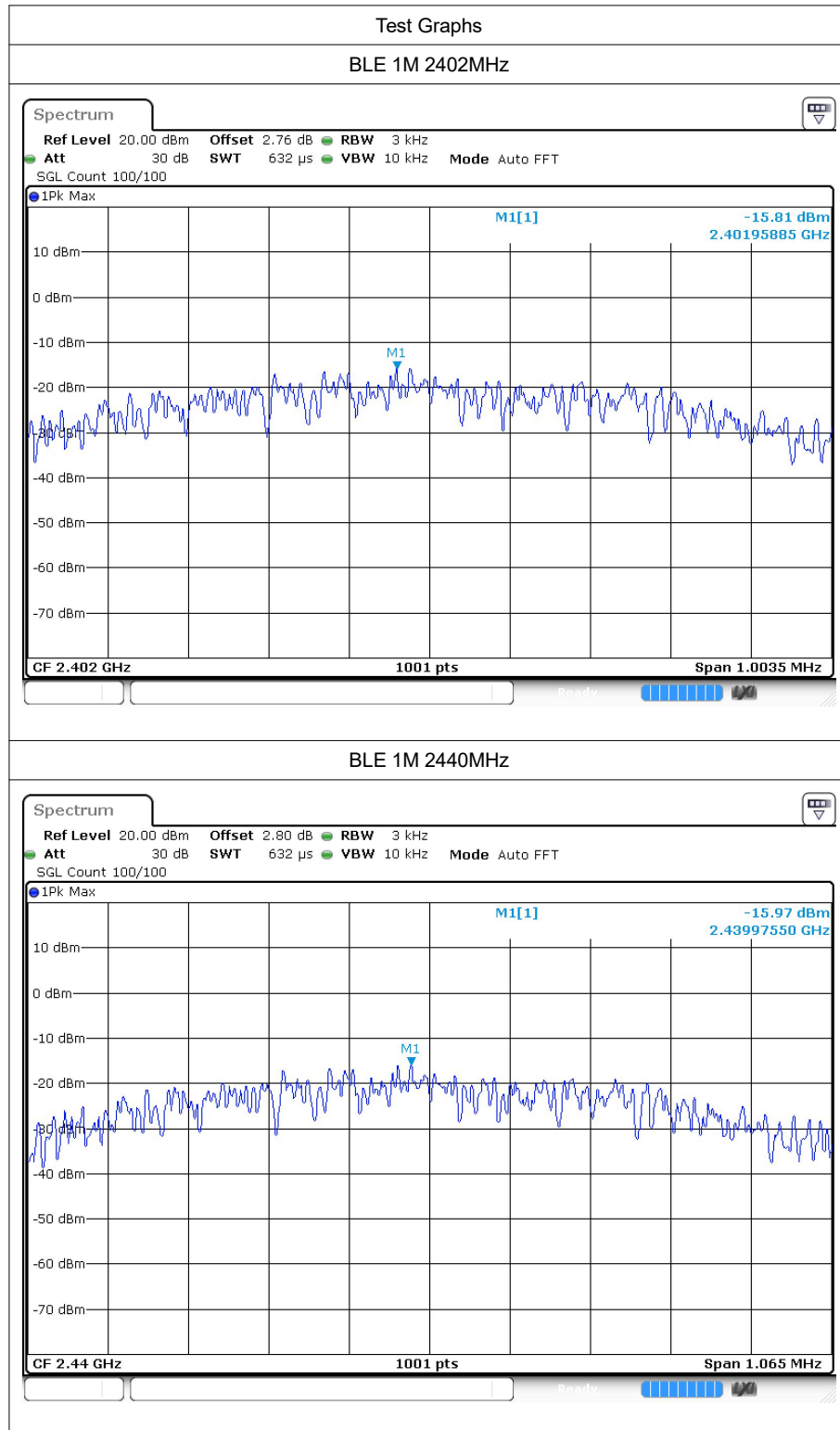


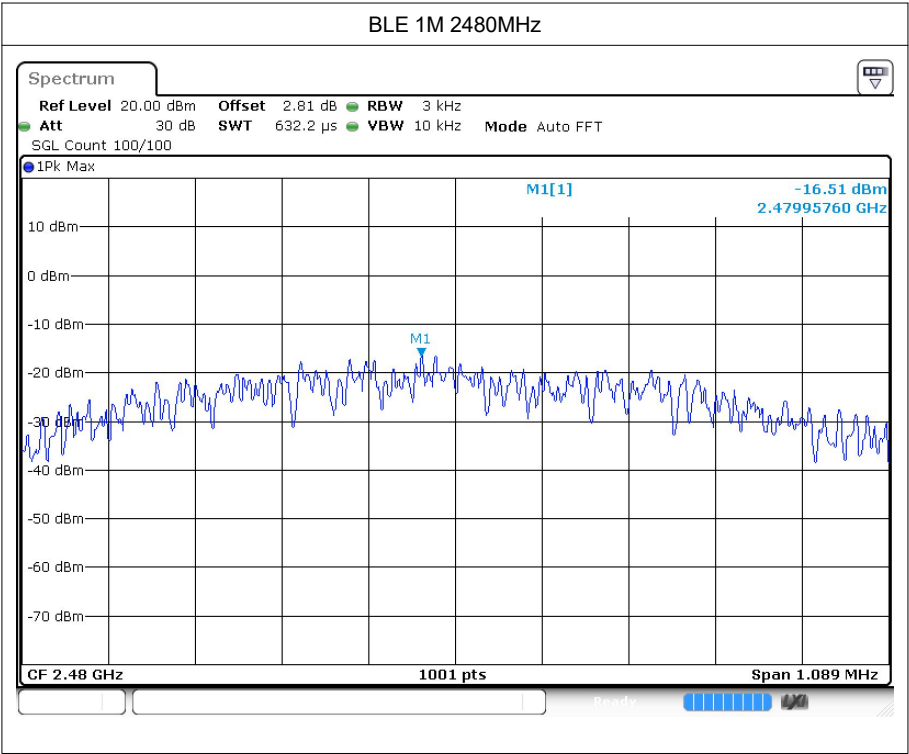
## 4 Maximum Power Spectral Density Level

### 4.1 Test Result

| Mode   | Frequency (MHz) | Conducted PSD<br>(dBm/3kHz) | Limit<br>(dBm/3kHz) | Verdict |
|--------|-----------------|-----------------------------|---------------------|---------|
| BLE 1M | 2402            | -15.81                      | ≤8                  | Pass    |
| BLE 1M | 2440            | -15.97                      | ≤8                  | Pass    |
| BLE 1M | 2480            | -16.51                      | ≤8                  | Pass    |

## 4.2 Test Graphs





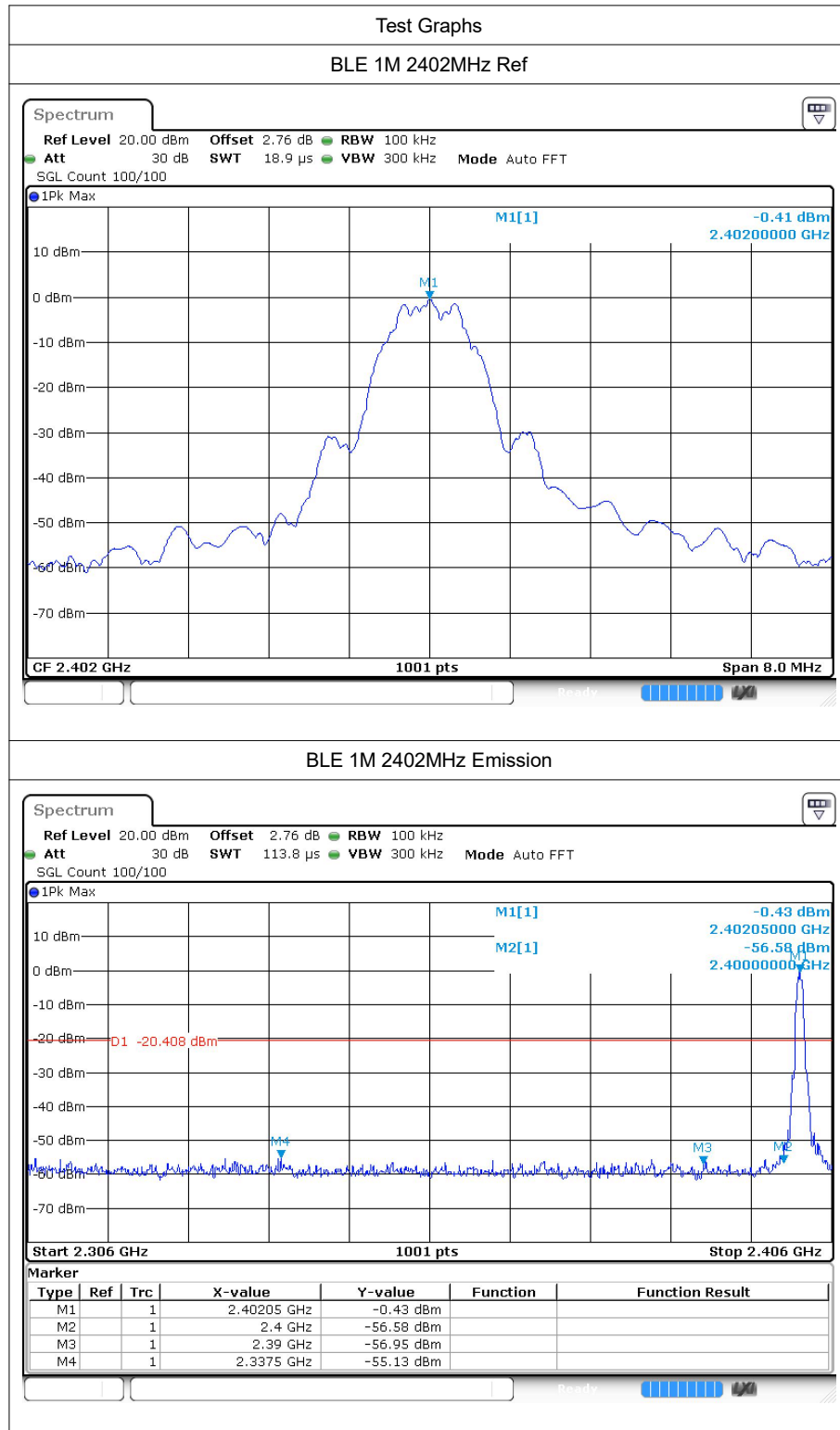


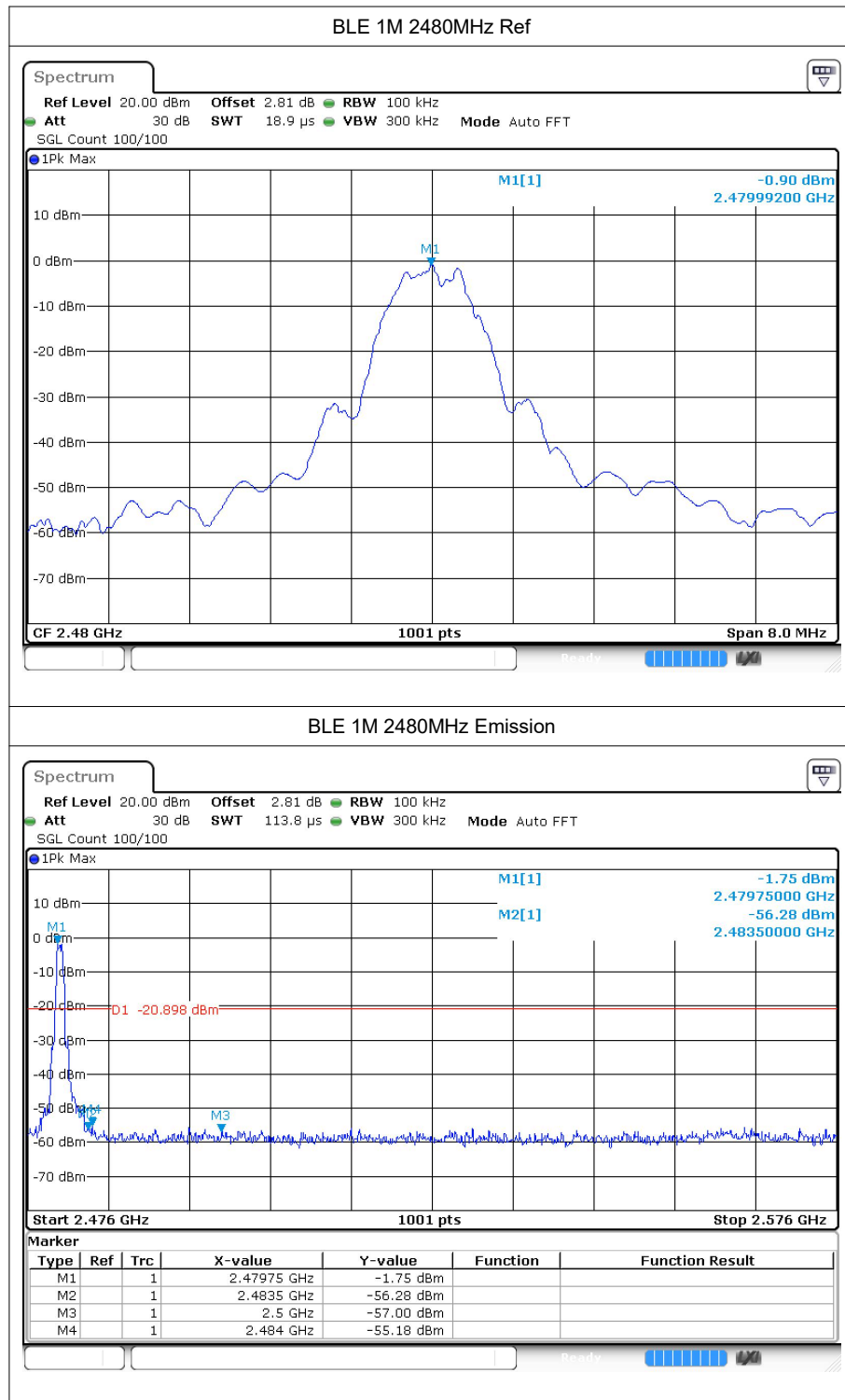
## 5 Band Edge

### 5.1 Test Result

| Mode   | Frequency (MHz) | Max Value (dBc) | Limit (dBc) | Verdict |
|--------|-----------------|-----------------|-------------|---------|
| BLE 1M | 2402            | -54.72          | -20         | Pass    |
| BLE 1M | 2480            | -54.28          | -20         | Pass    |

## 5.2 Test Graphs





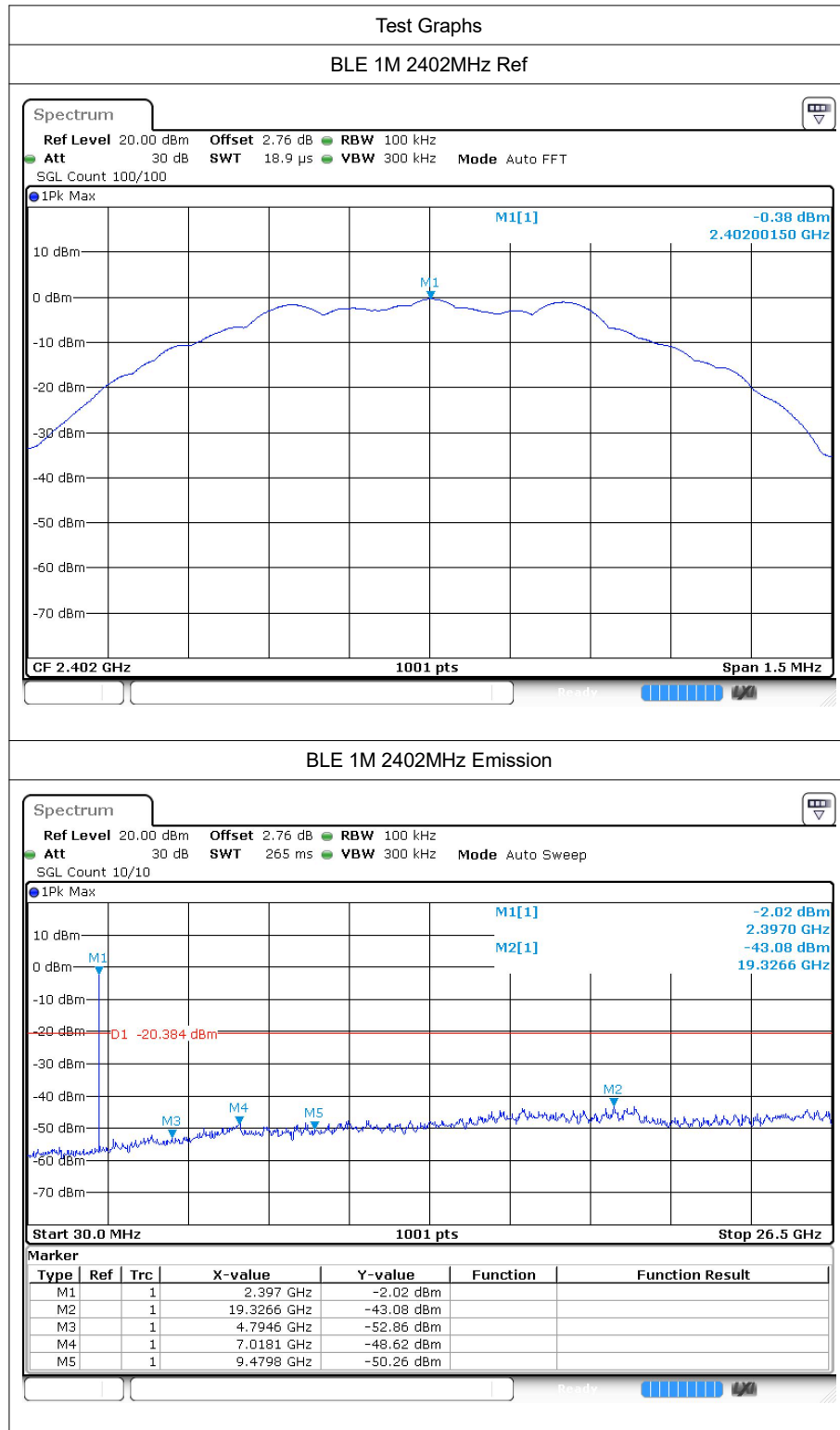


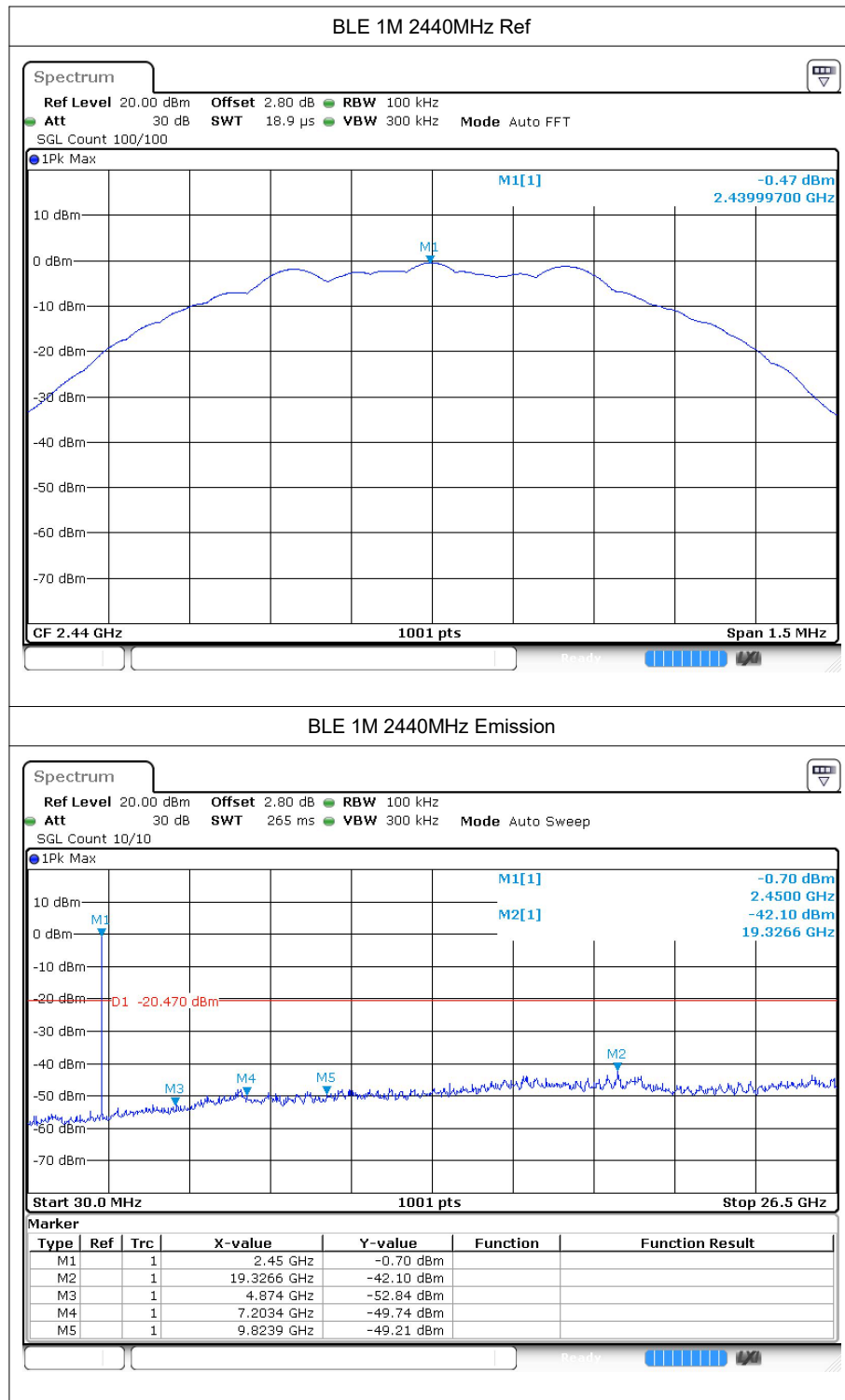
## 6 Conducted RF Spurious Emission

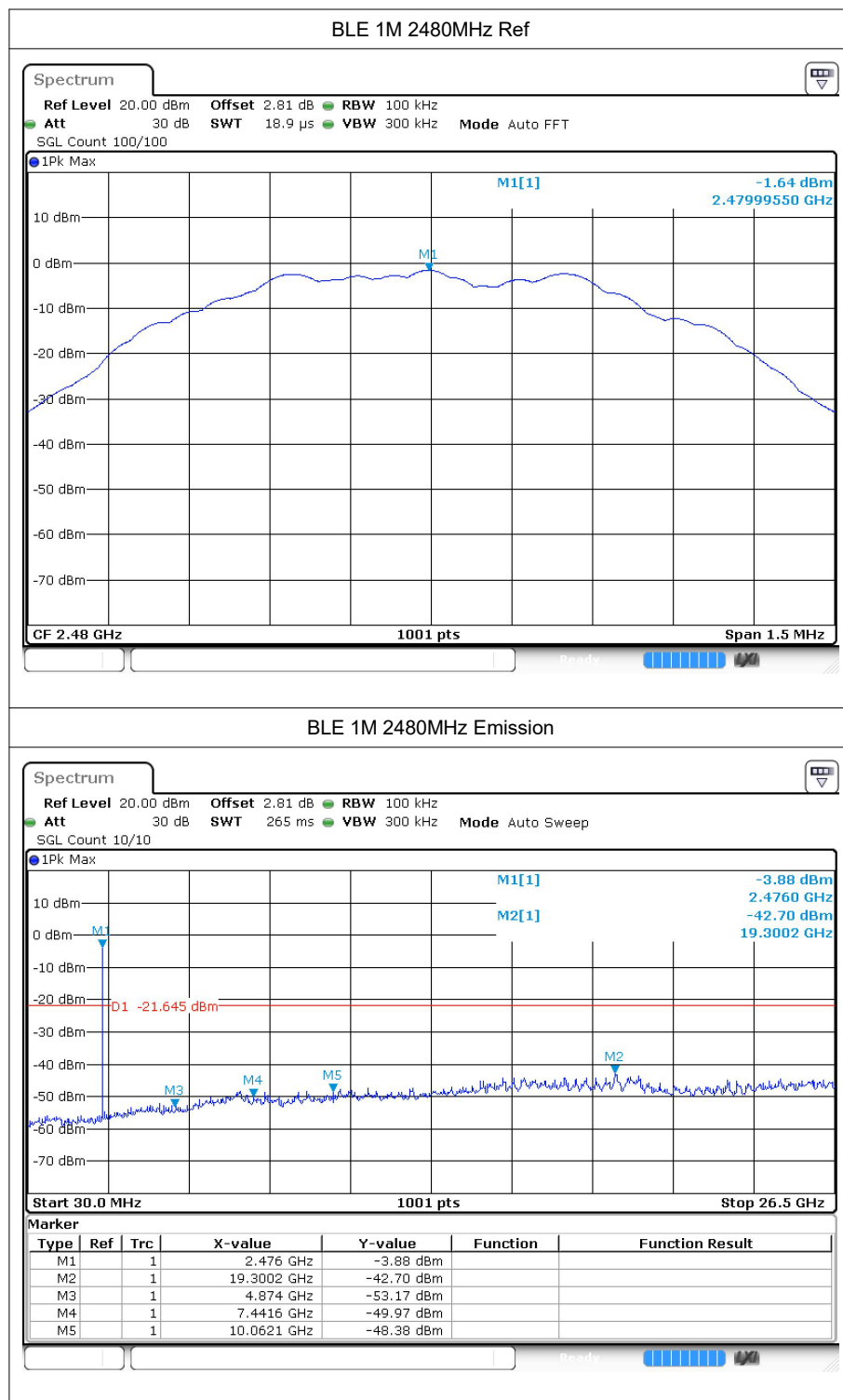
### 6.1 Test Result

| Mode   | Frequency (MHz) | Max Value (dBc) | Limit (dBc) | Verdict |
|--------|-----------------|-----------------|-------------|---------|
| BLE 1M | 2402            | -42.7           | -20         | Pass    |
| BLE 1M | 2440            | -41.63          | -20         | Pass    |
| BLE 1M | 2480            | -41.06          | -20         | Pass    |

## 6.2 Test Graphs







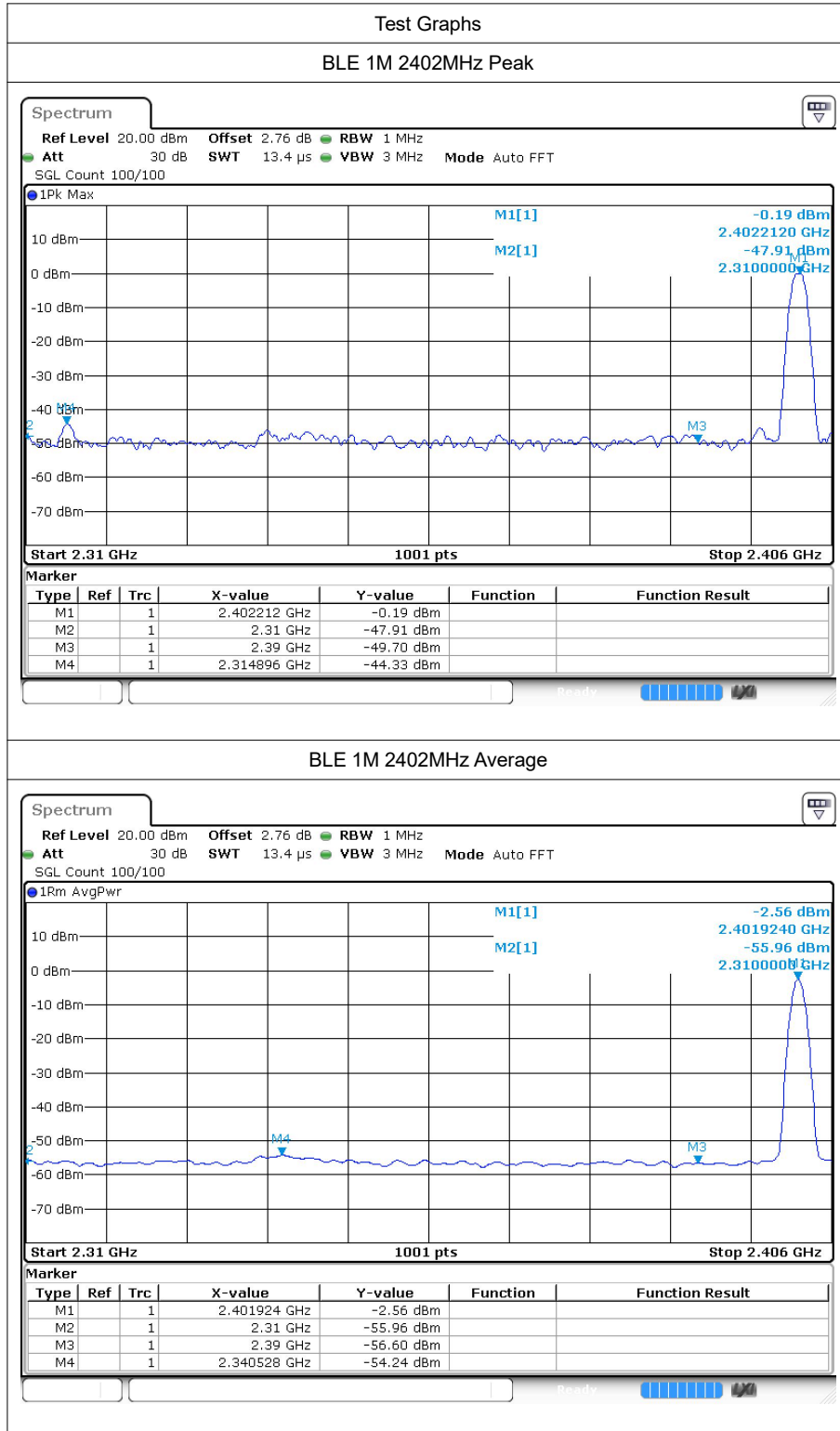


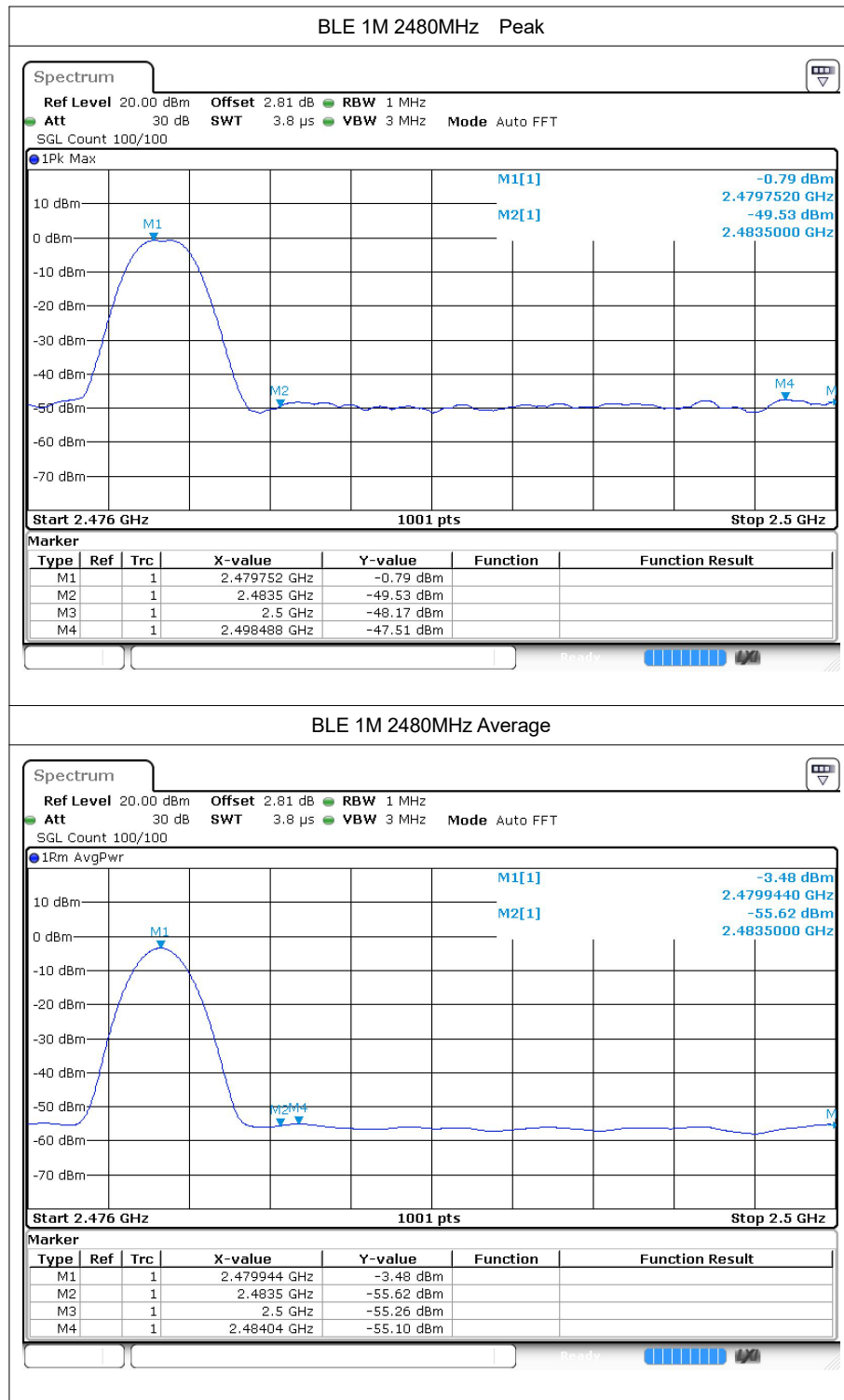
## 7 Restrict Band

### 7.1 Test Result

| Mode   | Frequency<br>(MHz) | Spur Freq<br>(MHz) | Power<br>(dBm) | Gain<br>(dBi) | Duty<br>Factor | E<br>(dBuV/m) | Detector | Limit<br>(dBuV/m) | Verdict |
|--------|--------------------|--------------------|----------------|---------------|----------------|---------------|----------|-------------------|---------|
| BLE 1M | 2402               | 2310               | -47.91         | 5.23          | -              | 52.55         | Peak     | 74                | Pass    |
| BLE 1M | 2402               | 2310               | -55.96         | 5.23          | 1.88           | 46.38         | Average  | 54                | Pass    |
| BLE 1M | 2402               | 2314.896           | -44.32         | 5.23          | -              | 56.14         | Peak     | 74                | Pass    |
| BLE 1M | 2402               | 2340.528           | -54.23         | 5.23          | 1.88           | 48.11         | Average  | 54                | Pass    |
| BLE 1M | 2402               | 2390               | -49.7          | 5.23          | -              | 50.76         | Peak     | 74                | Pass    |
| BLE 1M | 2402               | 2390               | -56.6          | 5.23          | 1.88           | 45.74         | Average  | 54                | Pass    |
| BLE 1M | 2480               | 2483.5             | -49.53         | 5.23          | -              | 50.93         | Peak     | 74                | Pass    |
| BLE 1M | 2480               | 2483.5             | -55.62         | 5.23          | 1.88           | 46.72         | Average  | 54                | Pass    |
| BLE 1M | 2480               | 2498.488           | -47.5          | 5.23          | -              | 52.96         | Peak     | 74                | Pass    |
| BLE 1M | 2480               | 2484.04            | -55.09         | 5.23          | 1.88           | 47.25         | Average  | 54                | Pass    |
| BLE 1M | 2480               | 2500               | -48.17         | 5.23          | -              | 52.29         | Peak     | 74                | Pass    |
| BLE 1M | 2480               | 2500               | -55.26         | 5.23          | 1.88           | 47.08         | Average  | 54                | Pass    |

## 7.2 Test Graphs





---The End---