



## Appendix B

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

Product Name: Wireless 2-in-1Adapter

Trade Mark: N/A

Test Model: T1

#### Environmental Conditions

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



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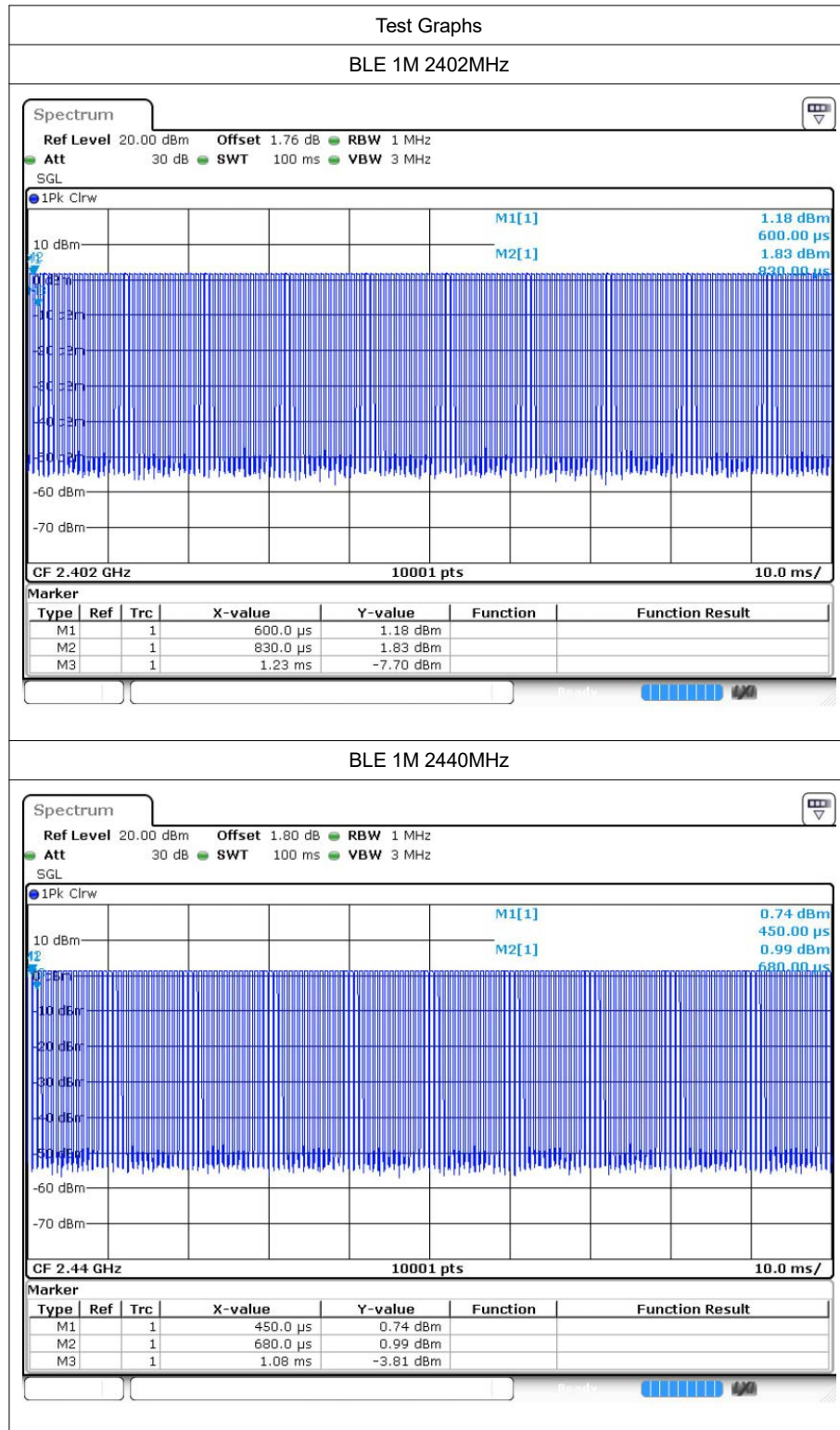


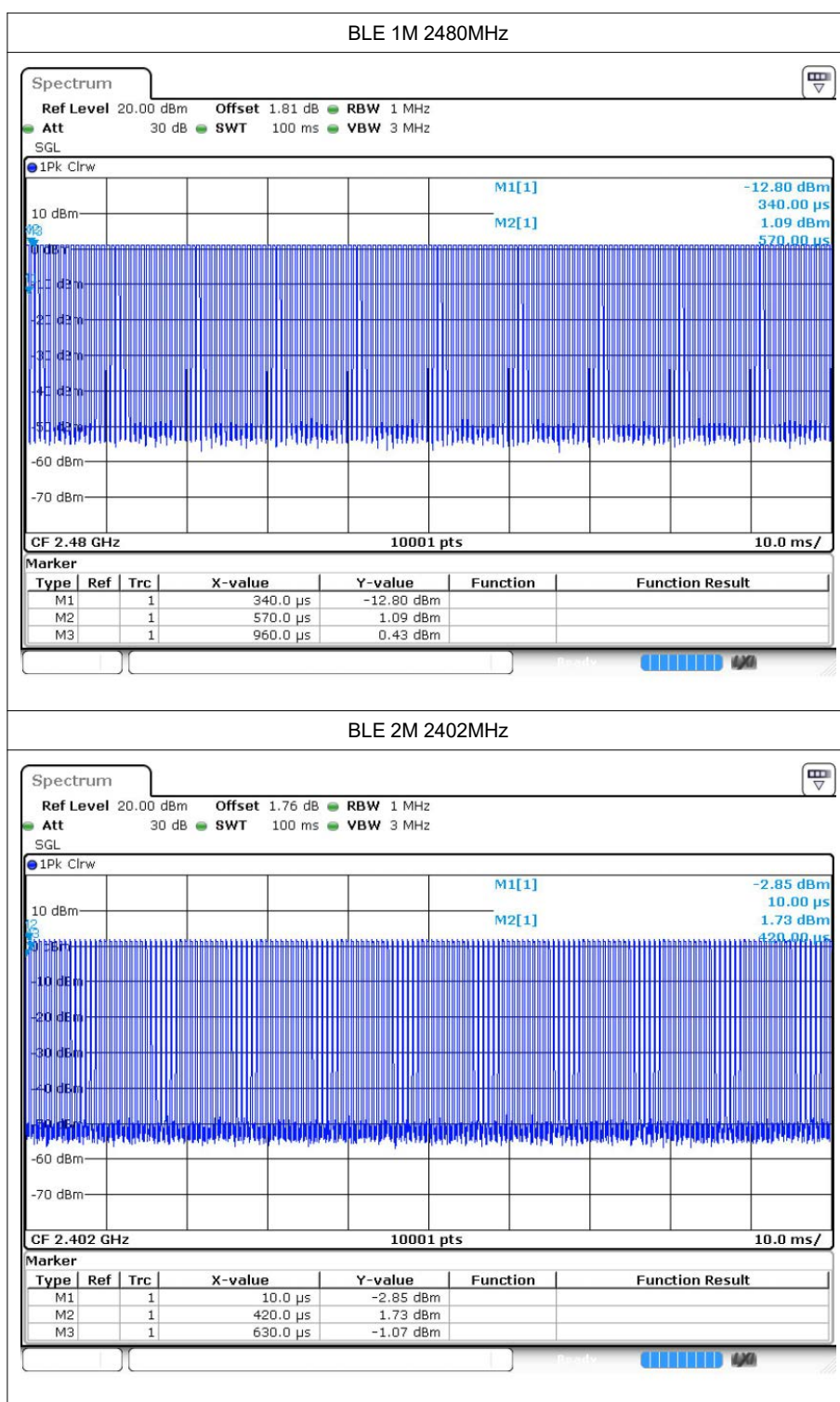
# 1 Duty Cycle

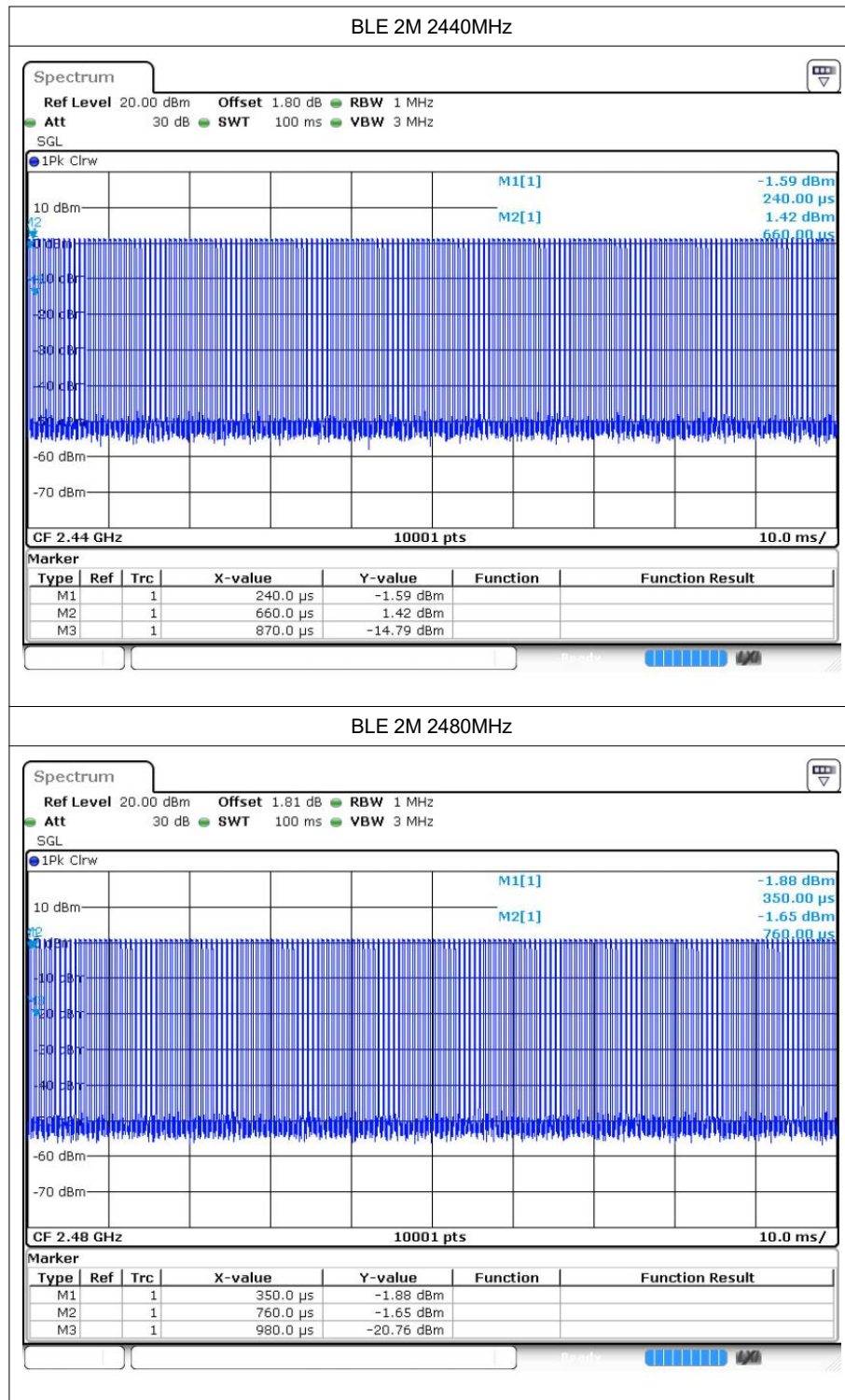
## 1.1 Test Result

| Mode   | Frequency (MHz) | Duty Cycle (%) | Correction Factor | 1/T (kHz) |
|--------|-----------------|----------------|-------------------|-----------|
| BLE 1M | 2402            | 64.79          | 1.88              | 2.5       |
| BLE 1M | 2440            | 64.79          | 1.88              | 2.5       |
| BLE 1M | 2480            | 64.8           | 1.88              | 2.56      |
| BLE 2M | 2402            | 35.21          | 4.53              | 4.76      |
| BLE 2M | 2440            | 35.83          | 4.46              | 4.76      |
| BLE 2M | 2480            | 35.81          | 4.46              | 4.55      |

## 1.2 Test Graphs







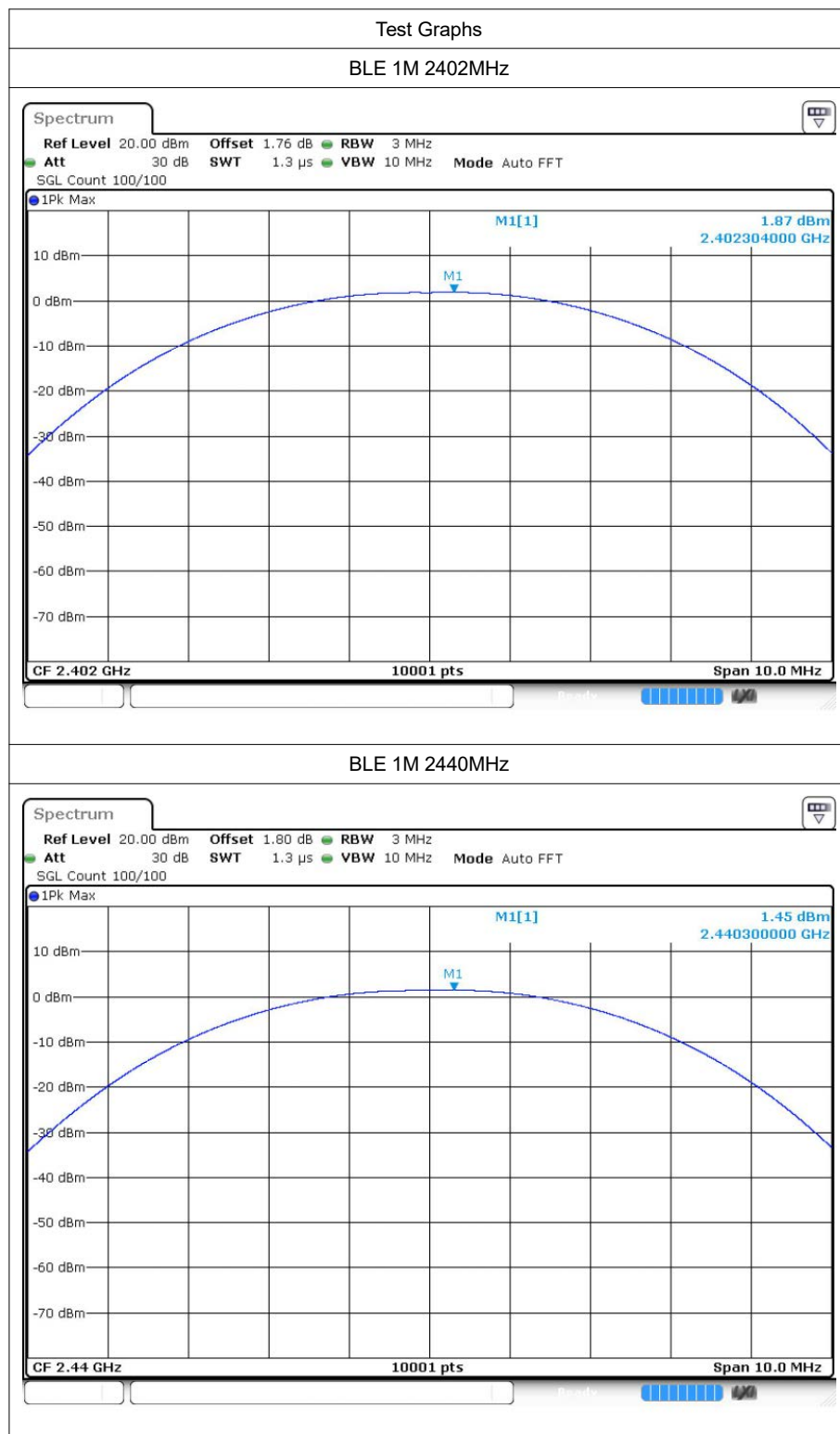


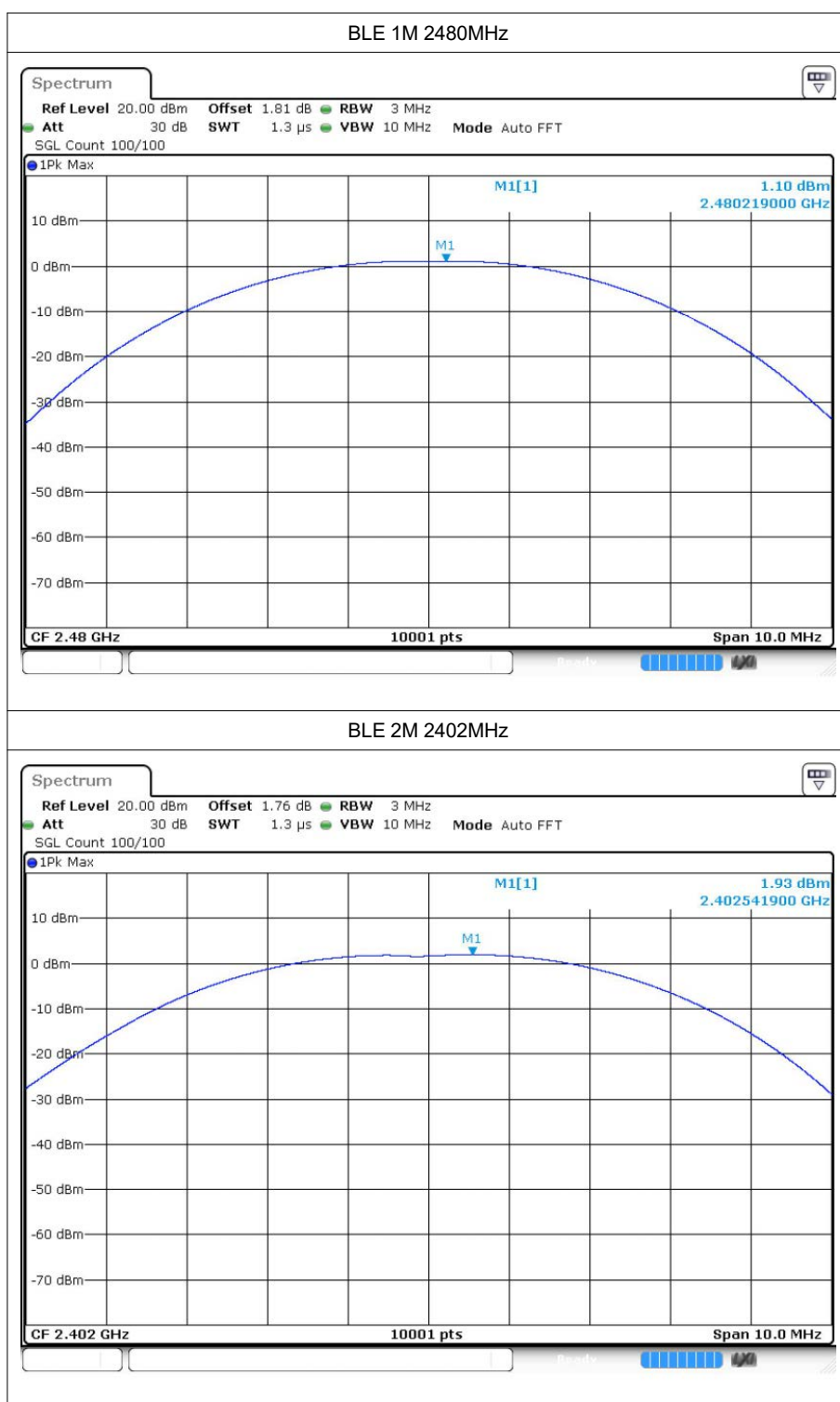
## 2 Maximum Conducted Output Power

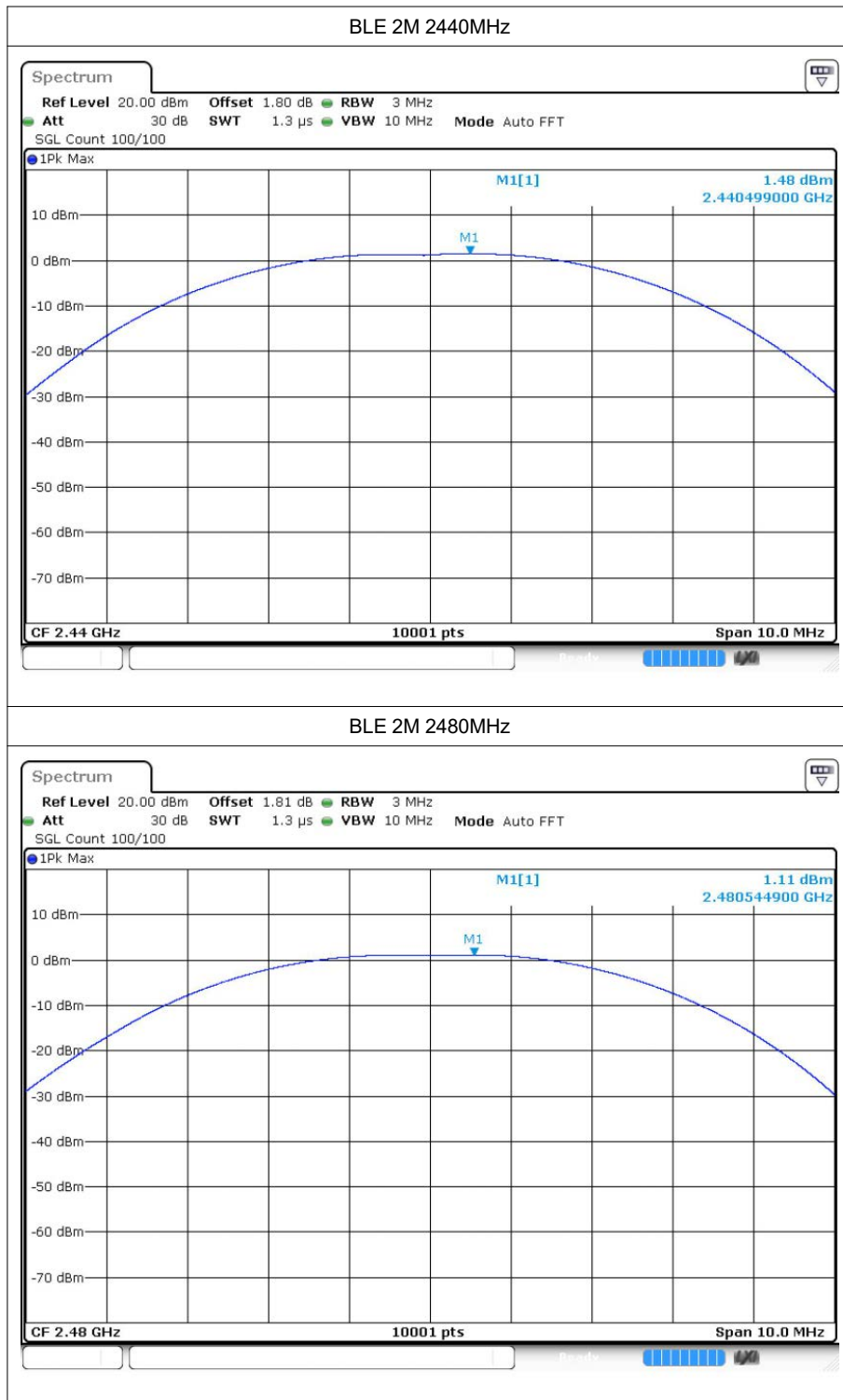
### 2.1 Test Result

| Mode   | Frequency (MHz) | Conducted Power<br>(dBm) | Limit (dBm) | Verdict |
|--------|-----------------|--------------------------|-------------|---------|
| BLE 1M | 2402            | 1.87                     | 30          | Pass    |
| BLE 1M | 2440            | 1.45                     | 30          | Pass    |
| BLE 1M | 2480            | 1.1                      | 30          | Pass    |
| BLE 2M | 2402            | 1.93                     | 30          | Pass    |
| BLE 2M | 2440            | 1.48                     | 30          | Pass    |
| BLE 2M | 2480            | 1.11                     | 30          | Pass    |

## 2.2 Test Graphs







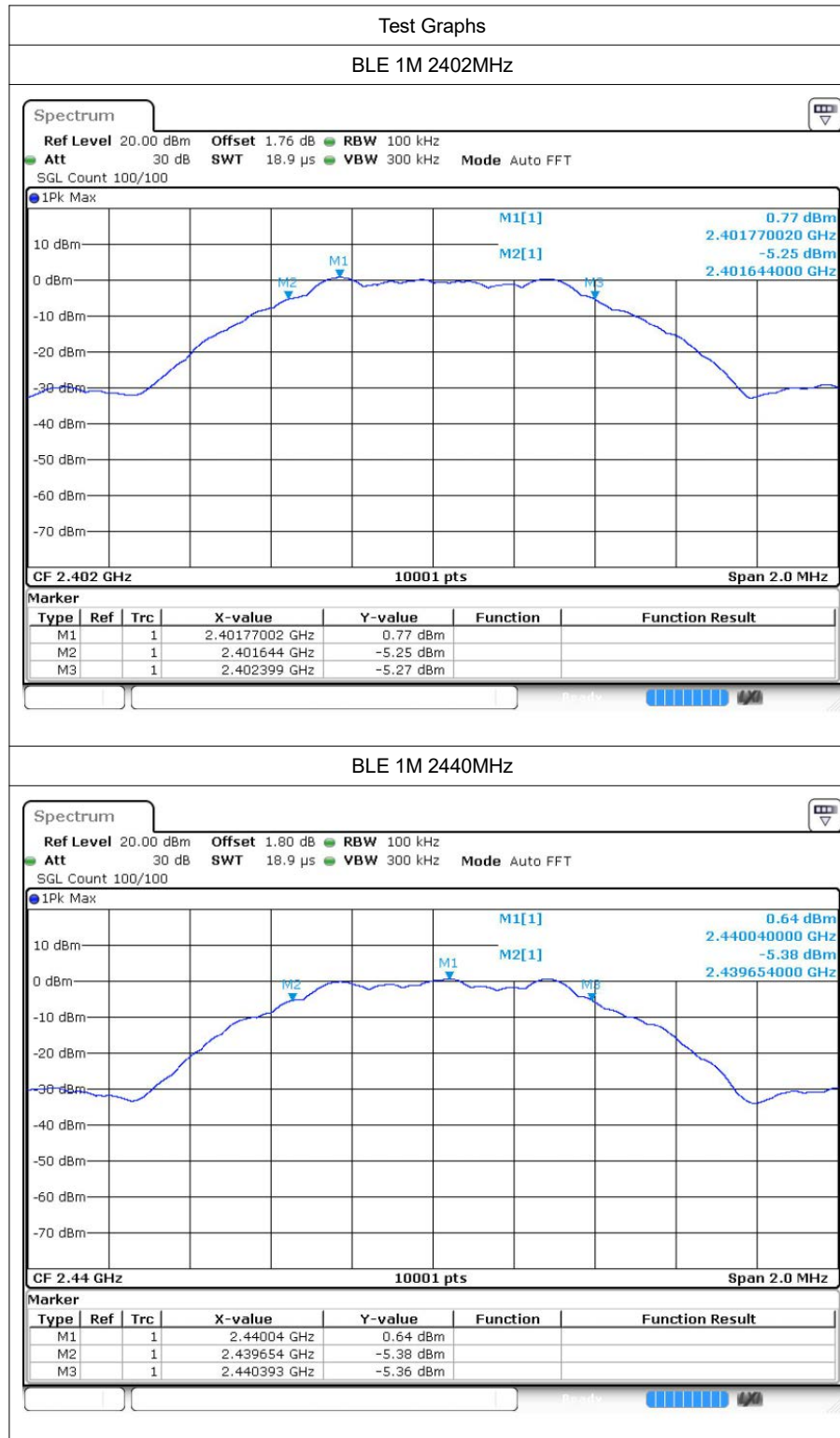


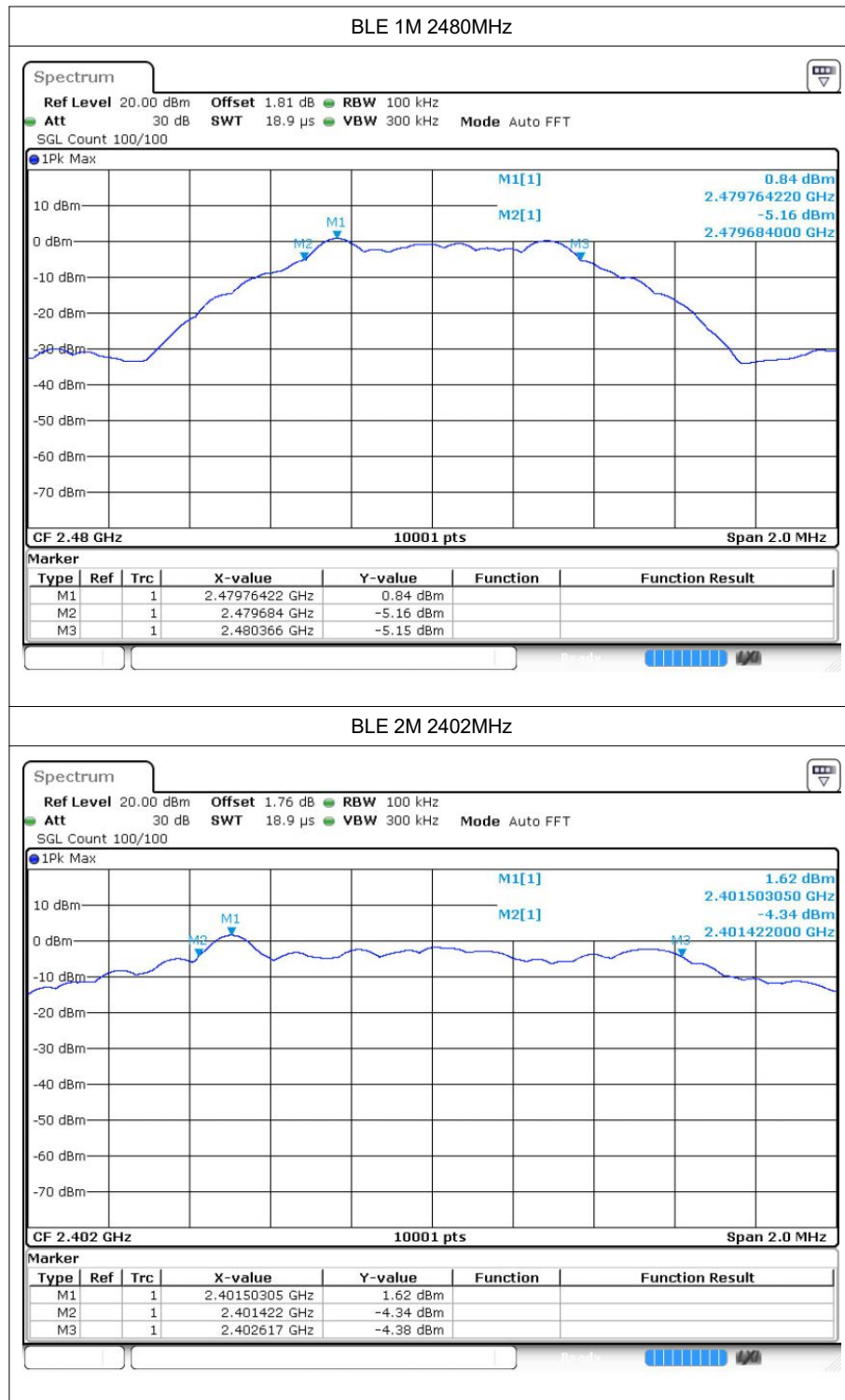
### 3 -6dB Bandwidth

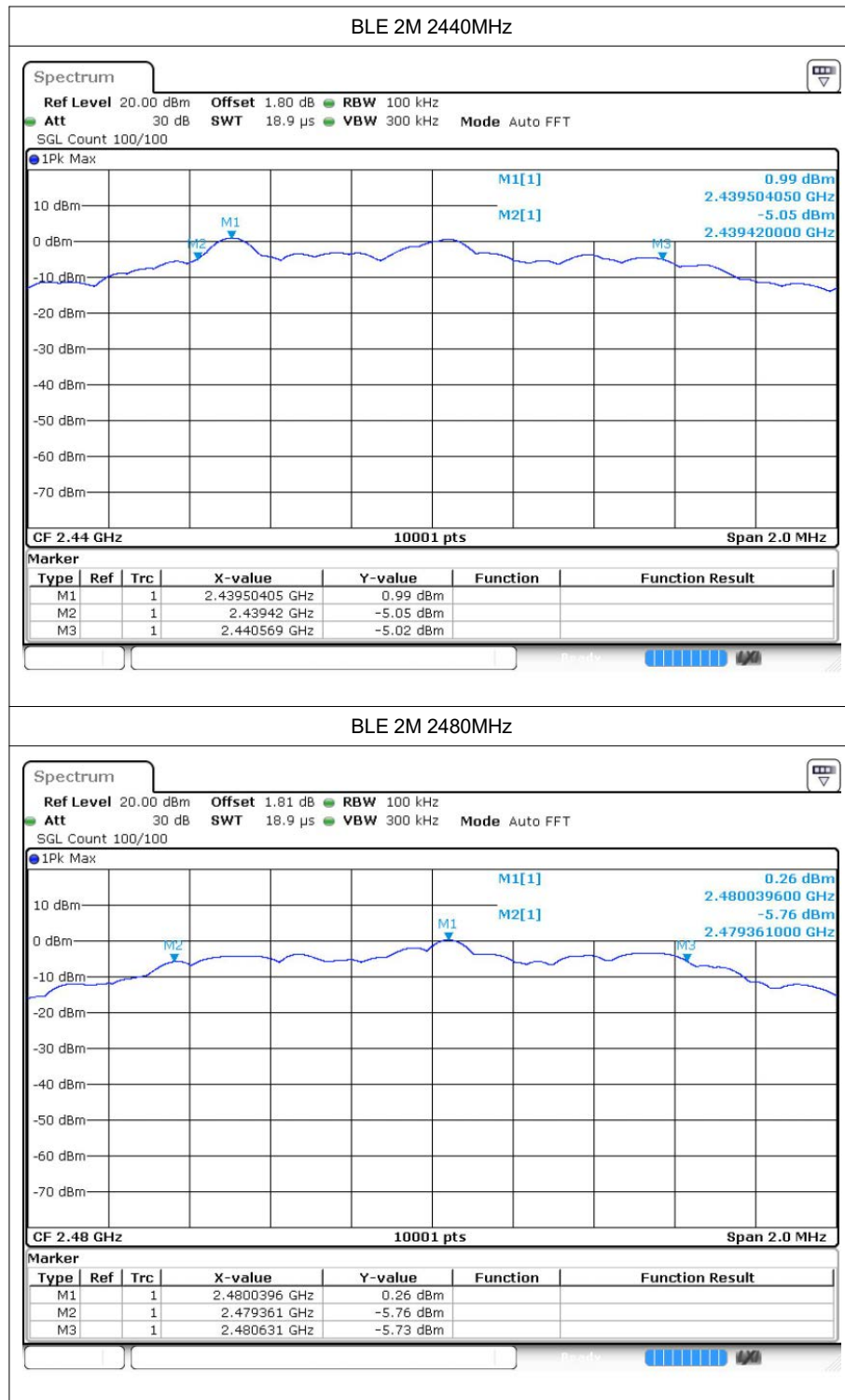
#### 3.1 Test Result

| Mode   | Frequency (MHz) | -6 dB Bandwidth (MHz) | Limit -6 dB Bandwidth (MHz) | Verdict |
|--------|-----------------|-----------------------|-----------------------------|---------|
| BLE 1M | 2402            | 0.754                 | 0.5                         | Pass    |
| BLE 1M | 2440            | 0.739                 | 0.5                         | Pass    |
| BLE 1M | 2480            | 0.682                 | 0.5                         | Pass    |
| BLE 2M | 2402            | 1.196                 | 0.5                         | Pass    |
| BLE 2M | 2440            | 1.149                 | 0.5                         | Pass    |
| BLE 2M | 2480            | 1.27                  | 0.5                         | Pass    |

## 3.2 Test Graphs





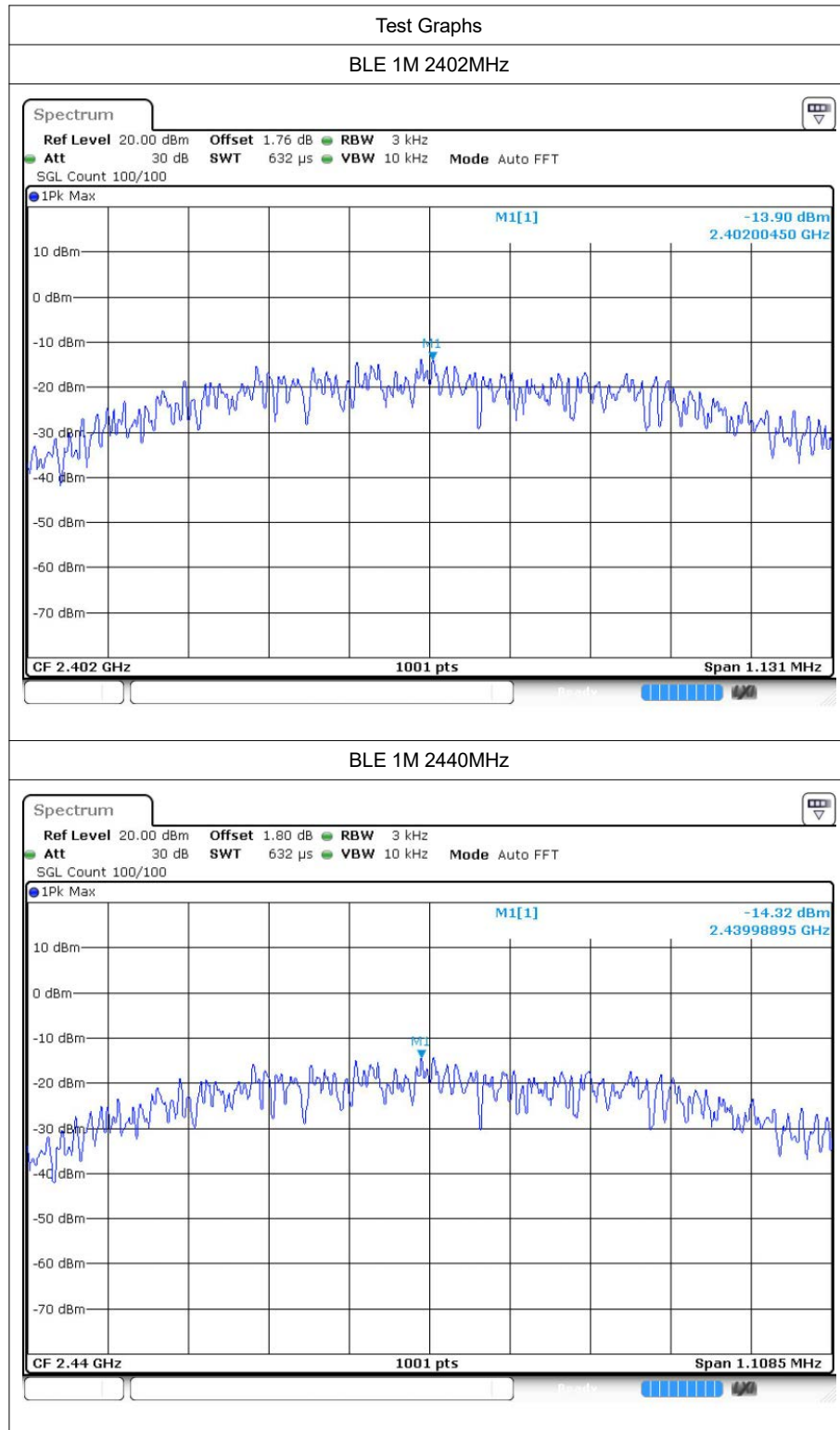


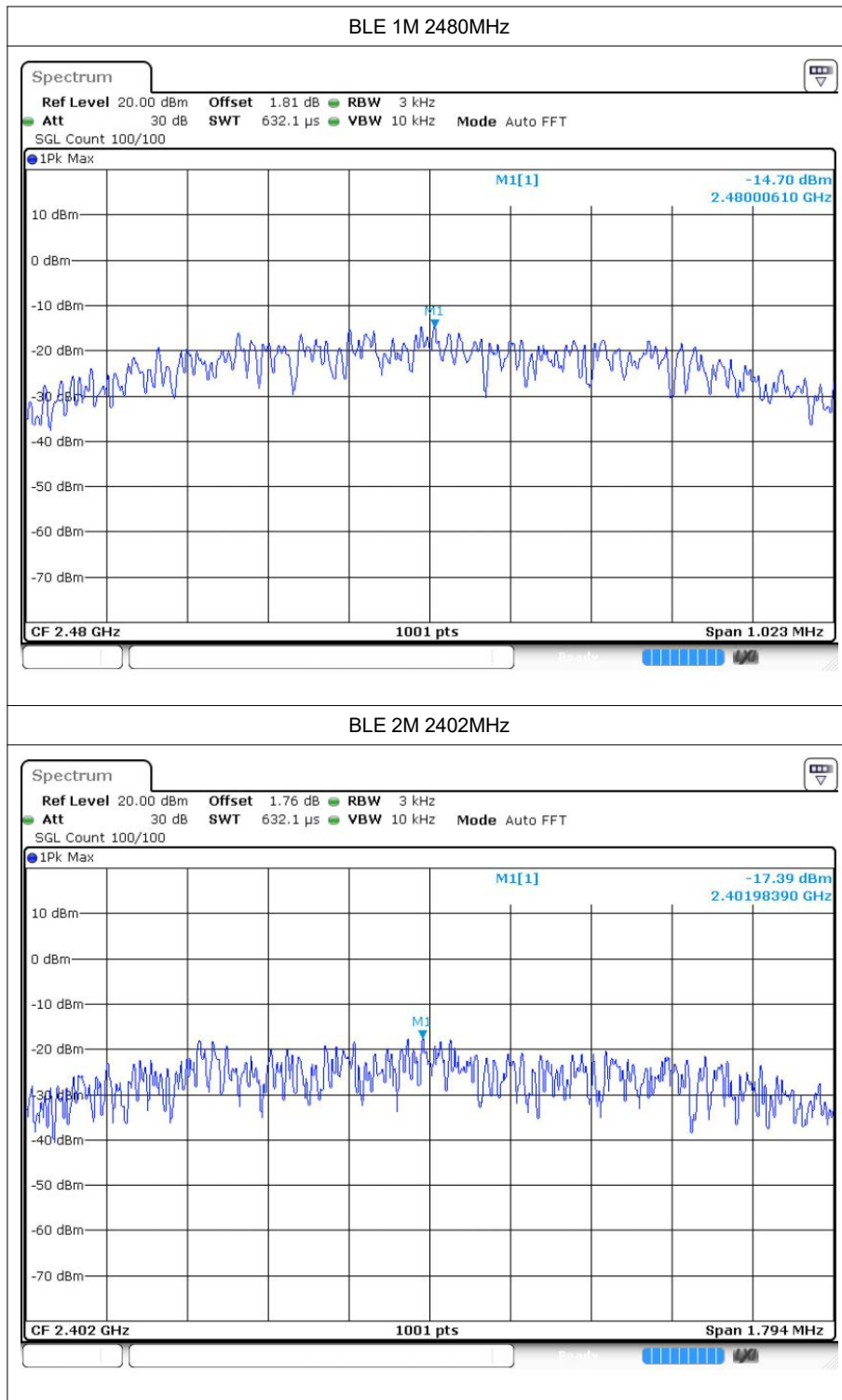
## 4 Maximum Power Spectral Density Level

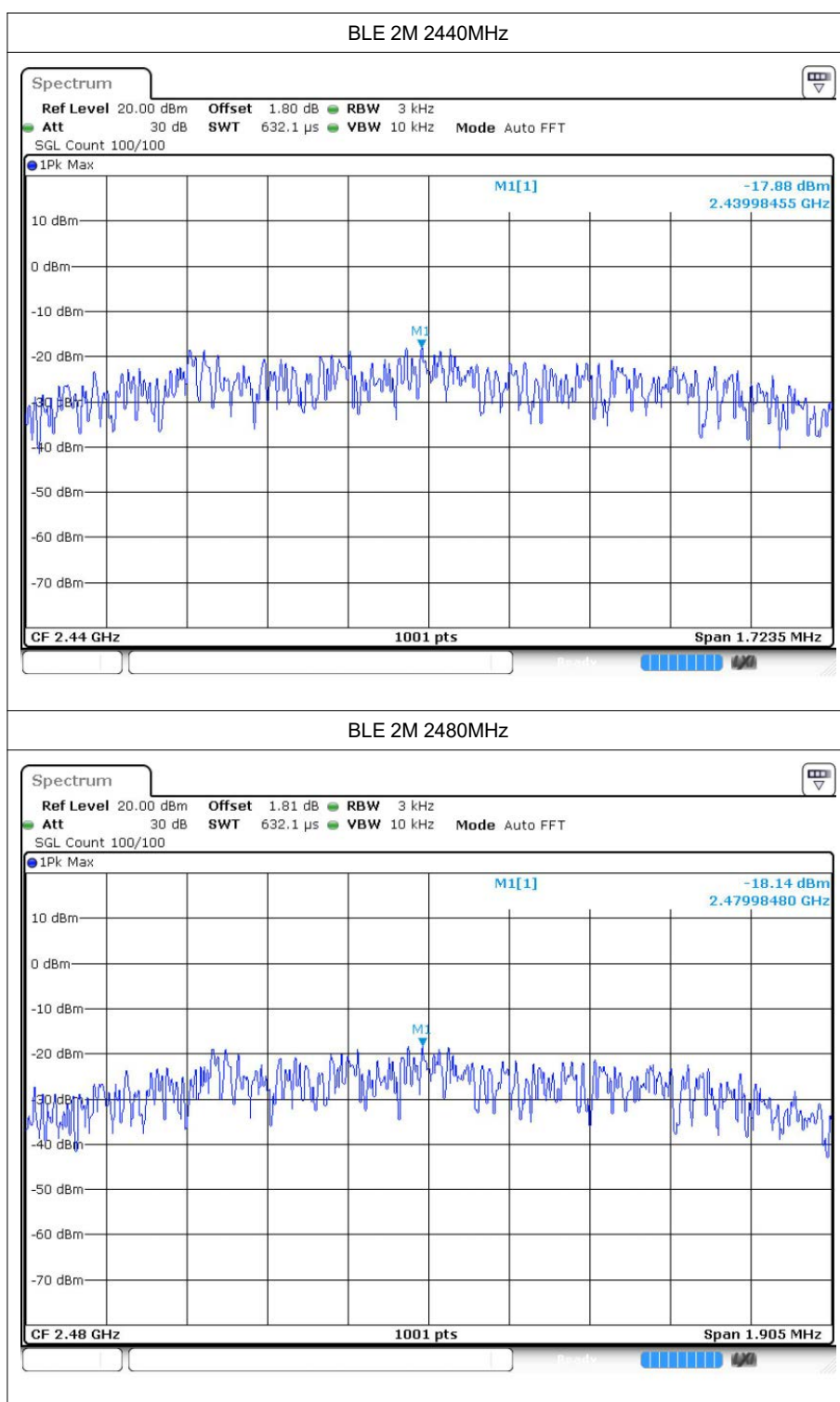
### 4.1 Test Result

| Mode   | Frequency (MHz) | Conducted PSD<br>(dBm/3-100kHz) | Limit<br>(dBm/3kHz) | Verdict |
|--------|-----------------|---------------------------------|---------------------|---------|
| BLE 1M | 2402            | -13.9                           | $\leq 8$            | Pass    |
| BLE 1M | 2440            | -14.32                          | $\leq 8$            | Pass    |
| BLE 1M | 2480            | -14.7                           | $\leq 8$            | Pass    |
| BLE 2M | 2402            | -17.39                          | $\leq 8$            | Pass    |
| BLE 2M | 2440            | -17.88                          | $\leq 8$            | Pass    |
| BLE 2M | 2480            | -18.14                          | $\leq 8$            | Pass    |

## 4.2 Test Graphs







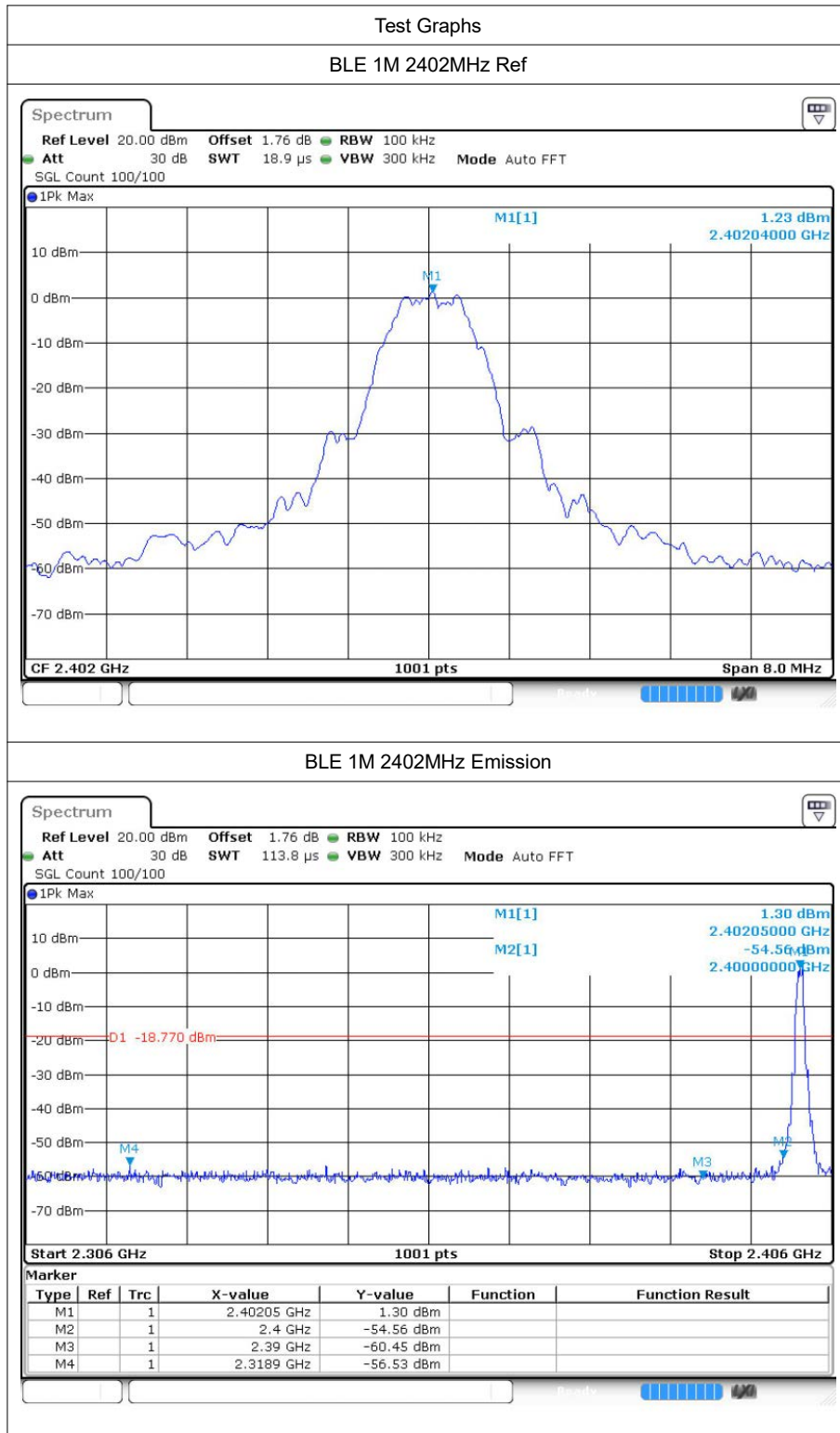


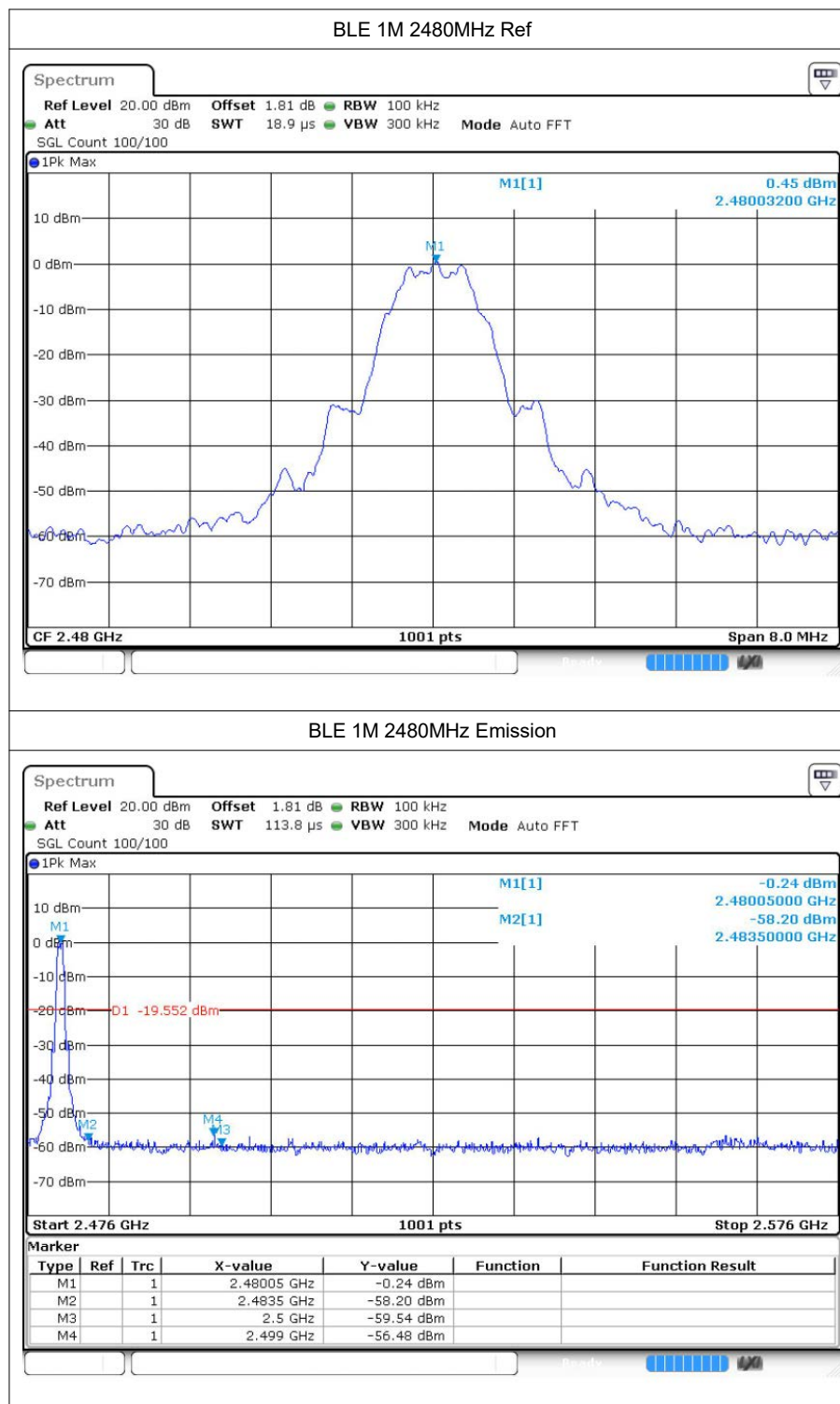
## 5 Band Edge

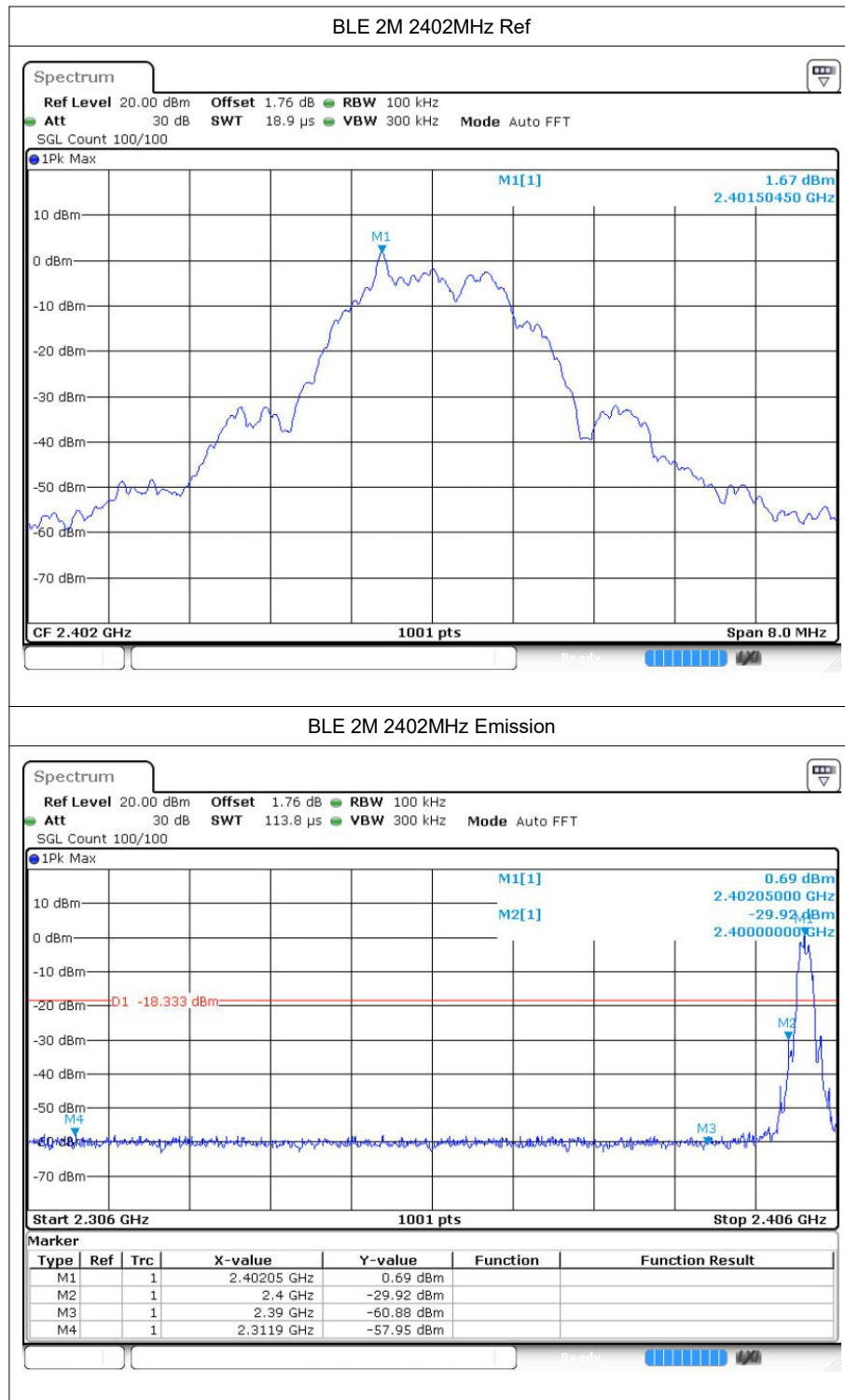
### 5.1 Test Result

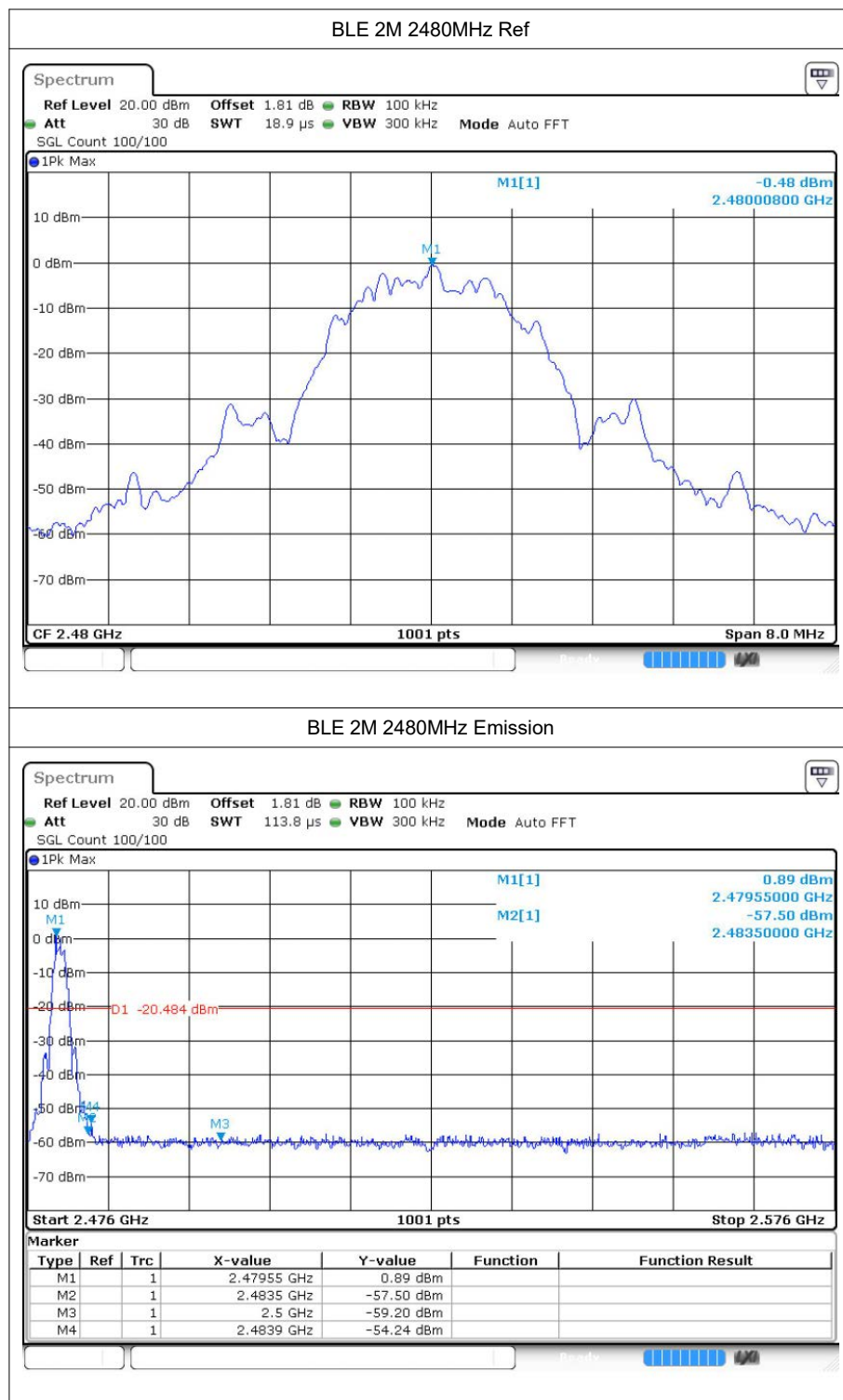
| Mode   | Frequency (MHz) | Max Value (dBc) | Limit (dBc) | Verdict |
|--------|-----------------|-----------------|-------------|---------|
| BLE 1M | 2402            | -57.76          | -20         | Pass    |
| BLE 1M | 2480            | -56.92          | -20         | Pass    |
| BLE 2M | 2402            | -59.62          | -20         | Pass    |
| BLE 2M | 2480            | -53.75          | -20         | Pass    |

## 5.2 Test Graphs









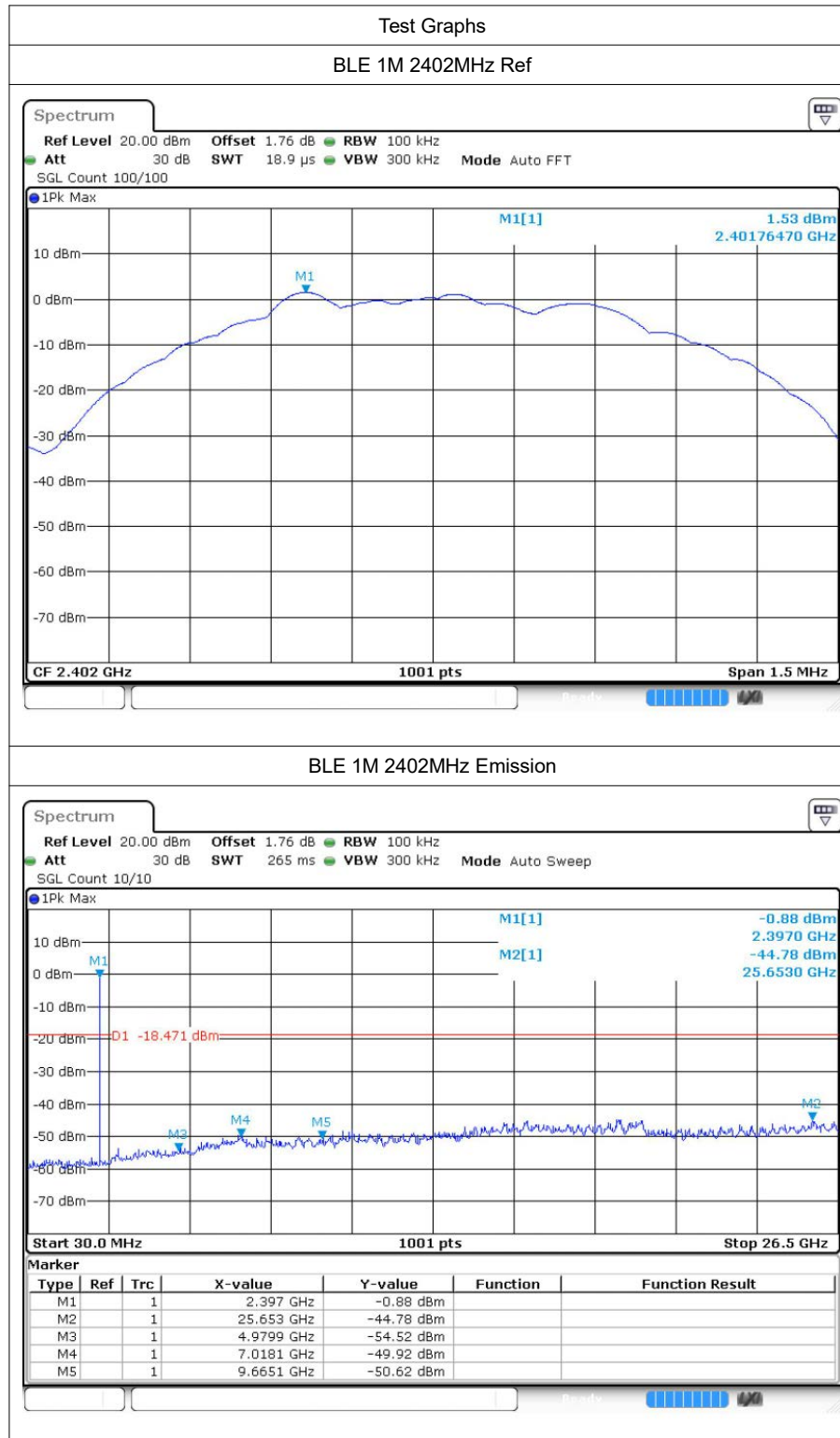


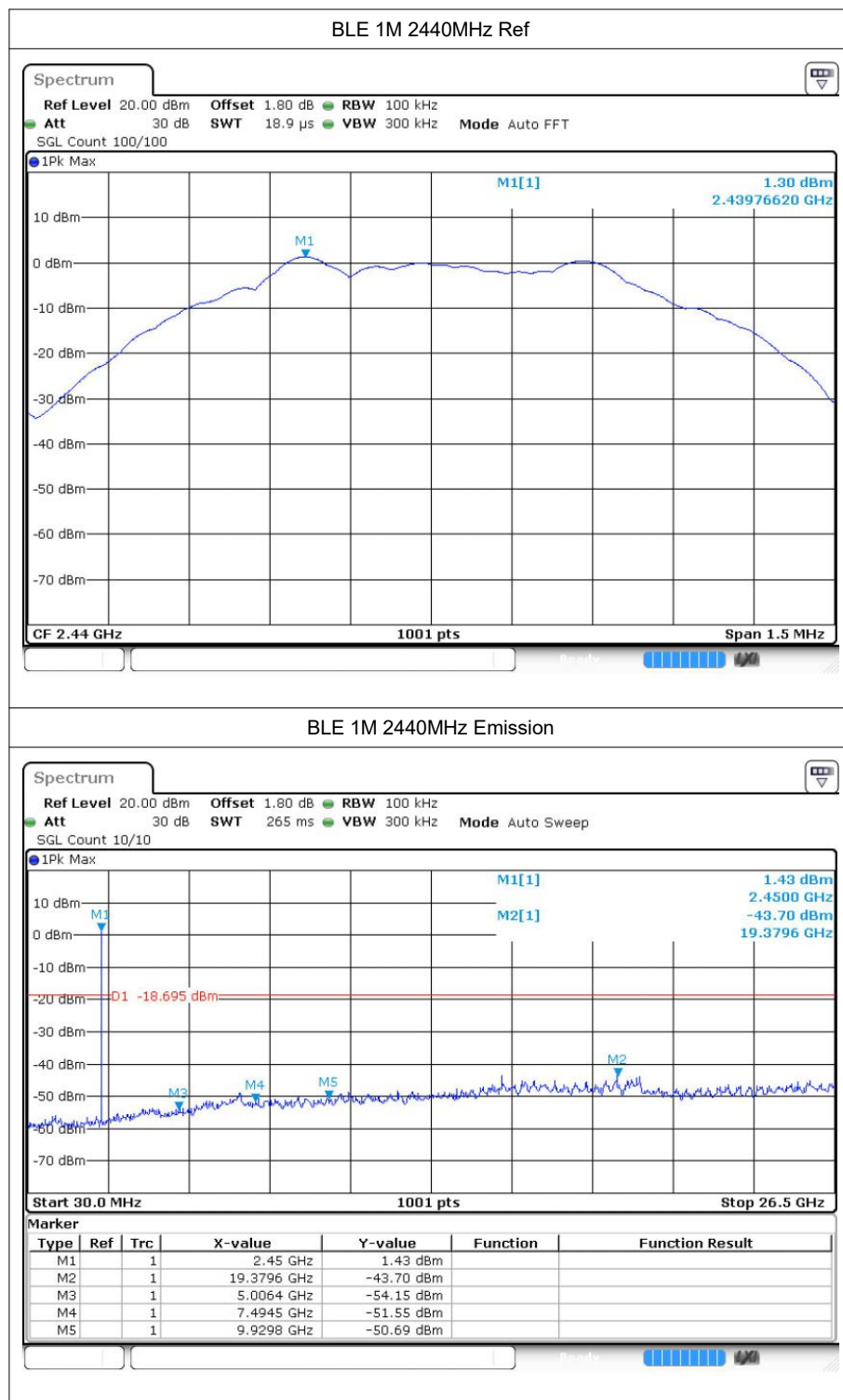
## 6 Conducted RF Spurious Emission

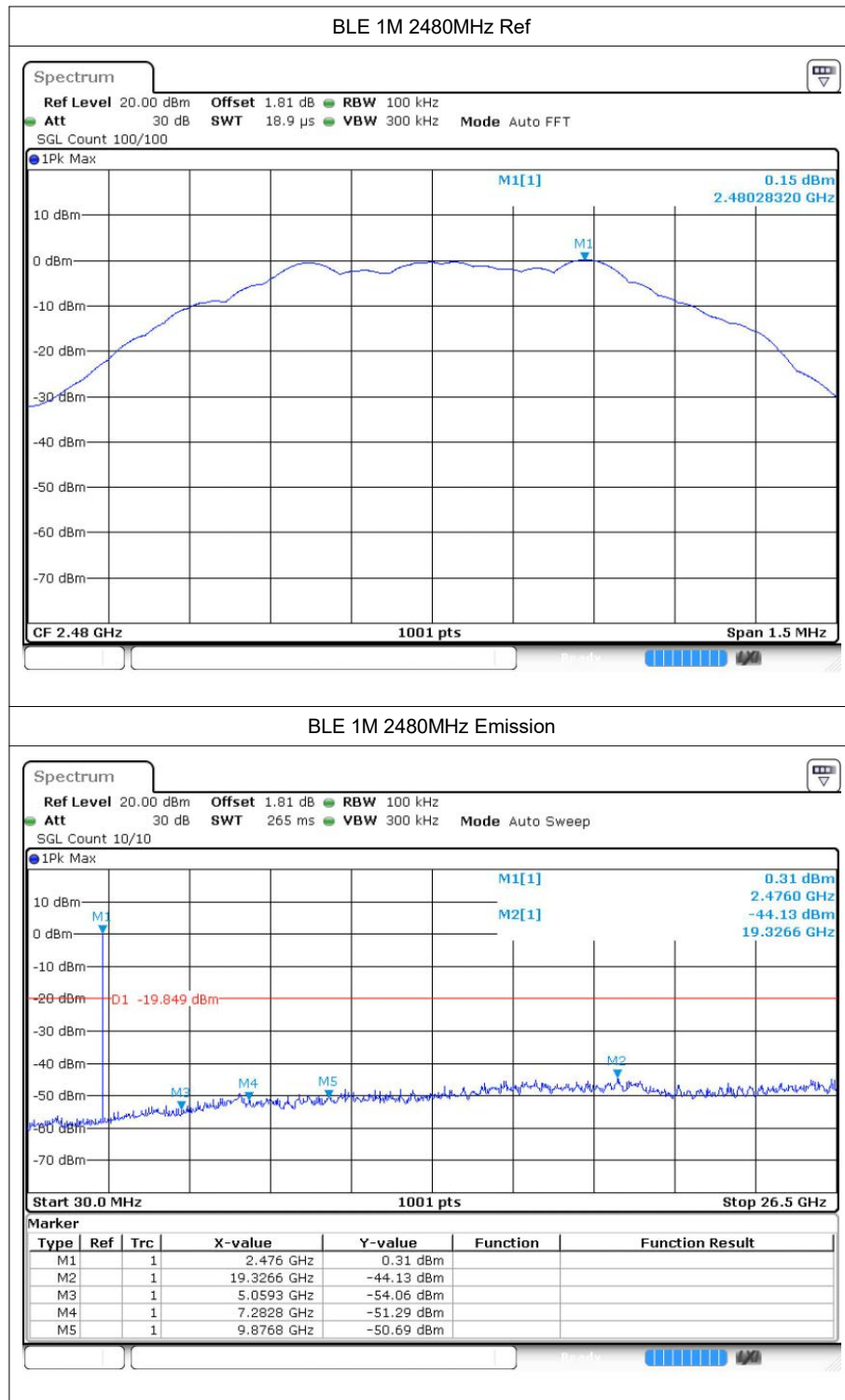
### 6.1 Test Result

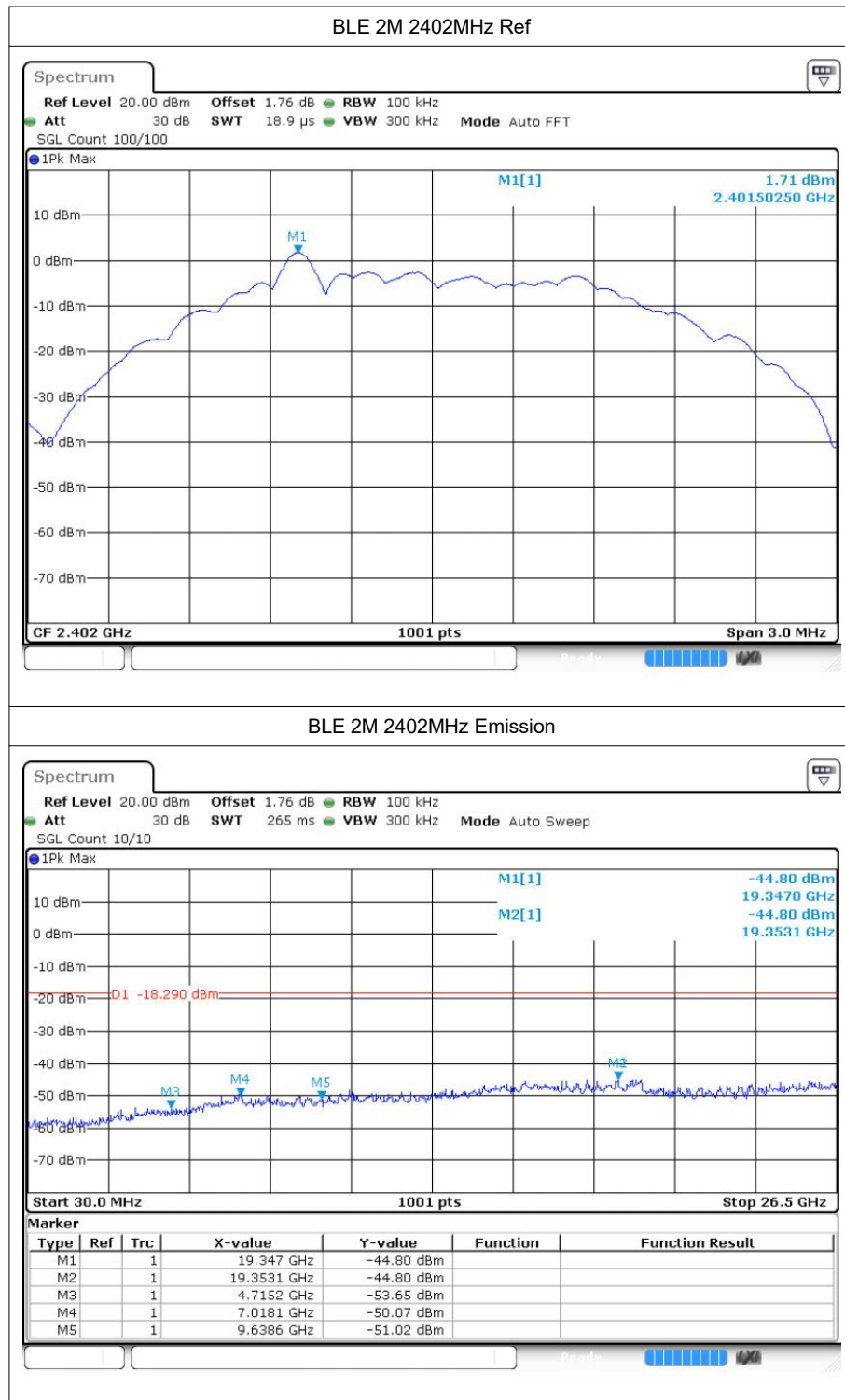
| Mode   | Frequency (MHz) | Max Value (dBc) | Limit (dBc) | Verdict |
|--------|-----------------|-----------------|-------------|---------|
| BLE 1M | 2402            | -46.3           | -20         | Pass    |
| BLE 1M | 2440            | -45             | -20         | Pass    |
| BLE 1M | 2480            | -44.28          | -20         | Pass    |
| BLE 2M | 2402            | -46.51          | -20         | Pass    |
| BLE 2M | 2440            | -42.09          | -20         | Pass    |
| BLE 2M | 2480            | -44.36          | -20         | Pass    |

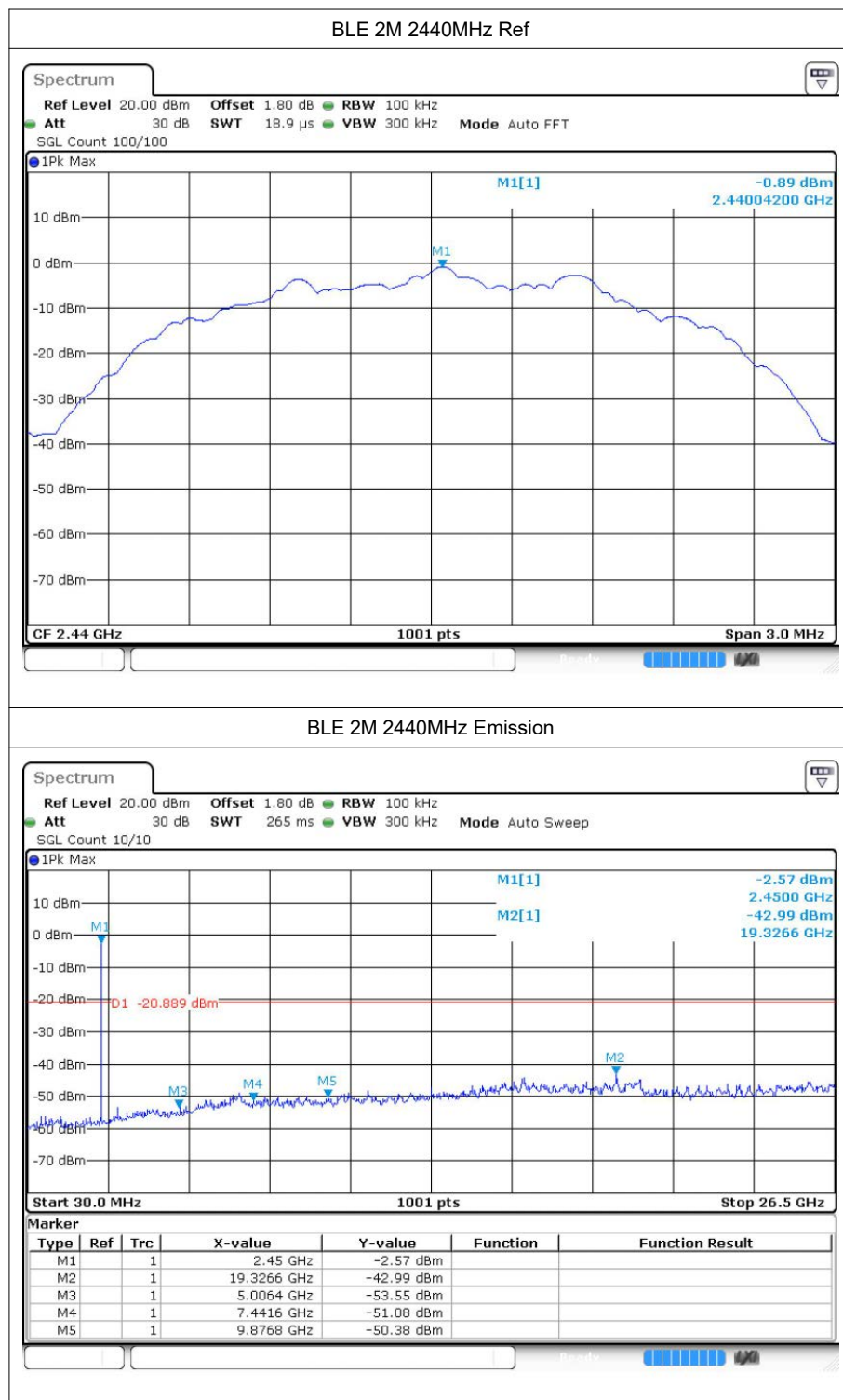
## 6.2 Test Graphs

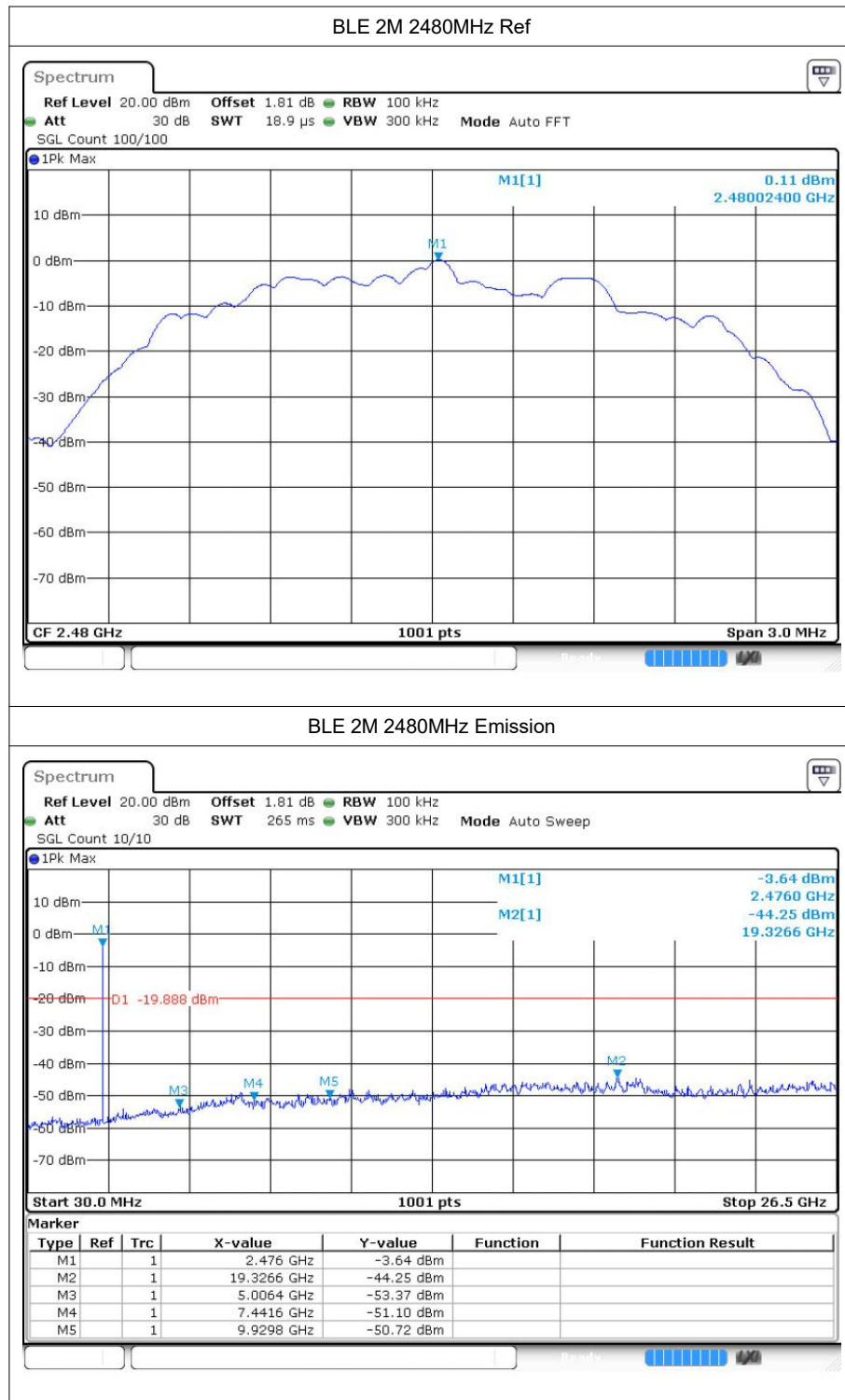












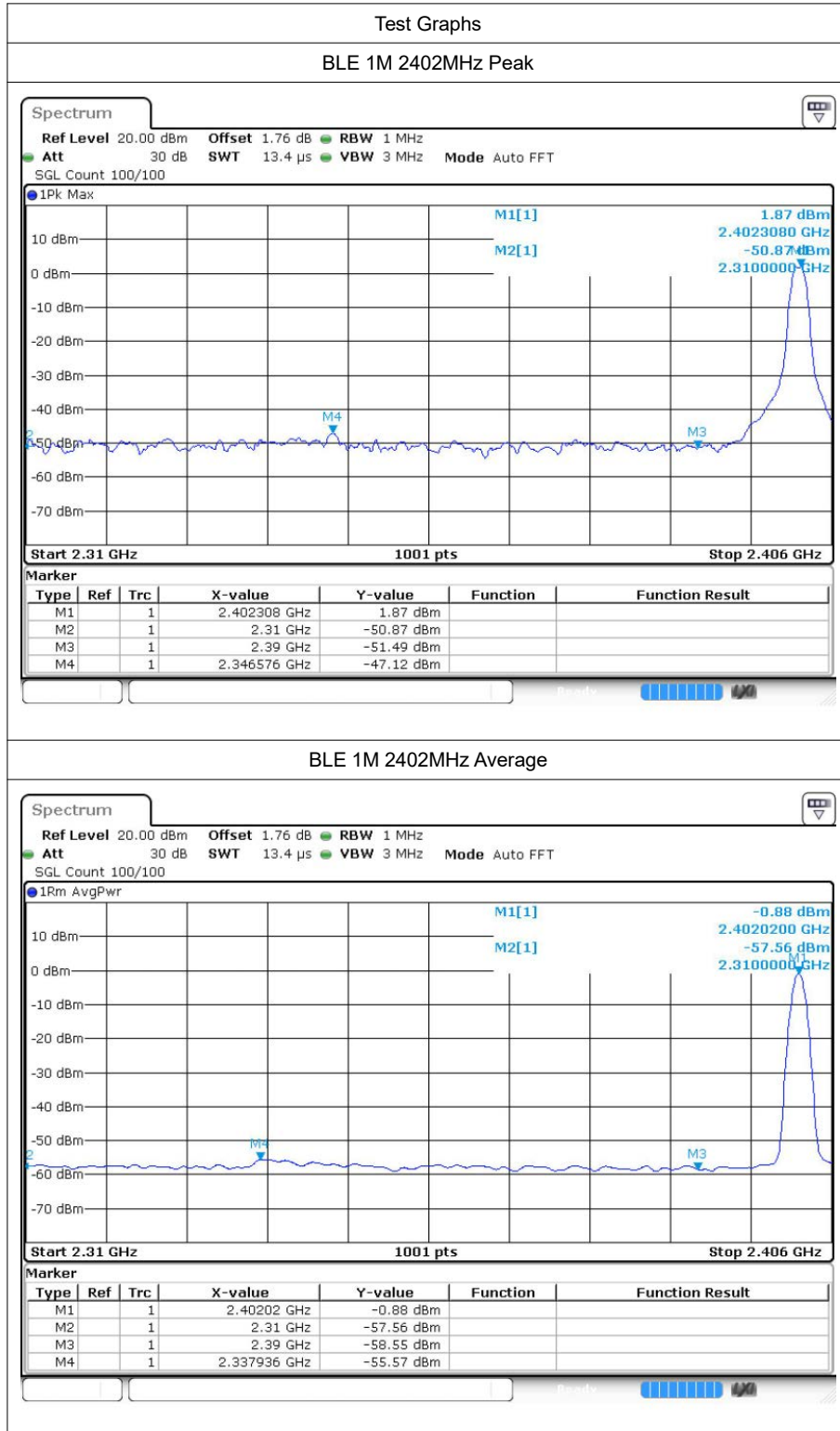


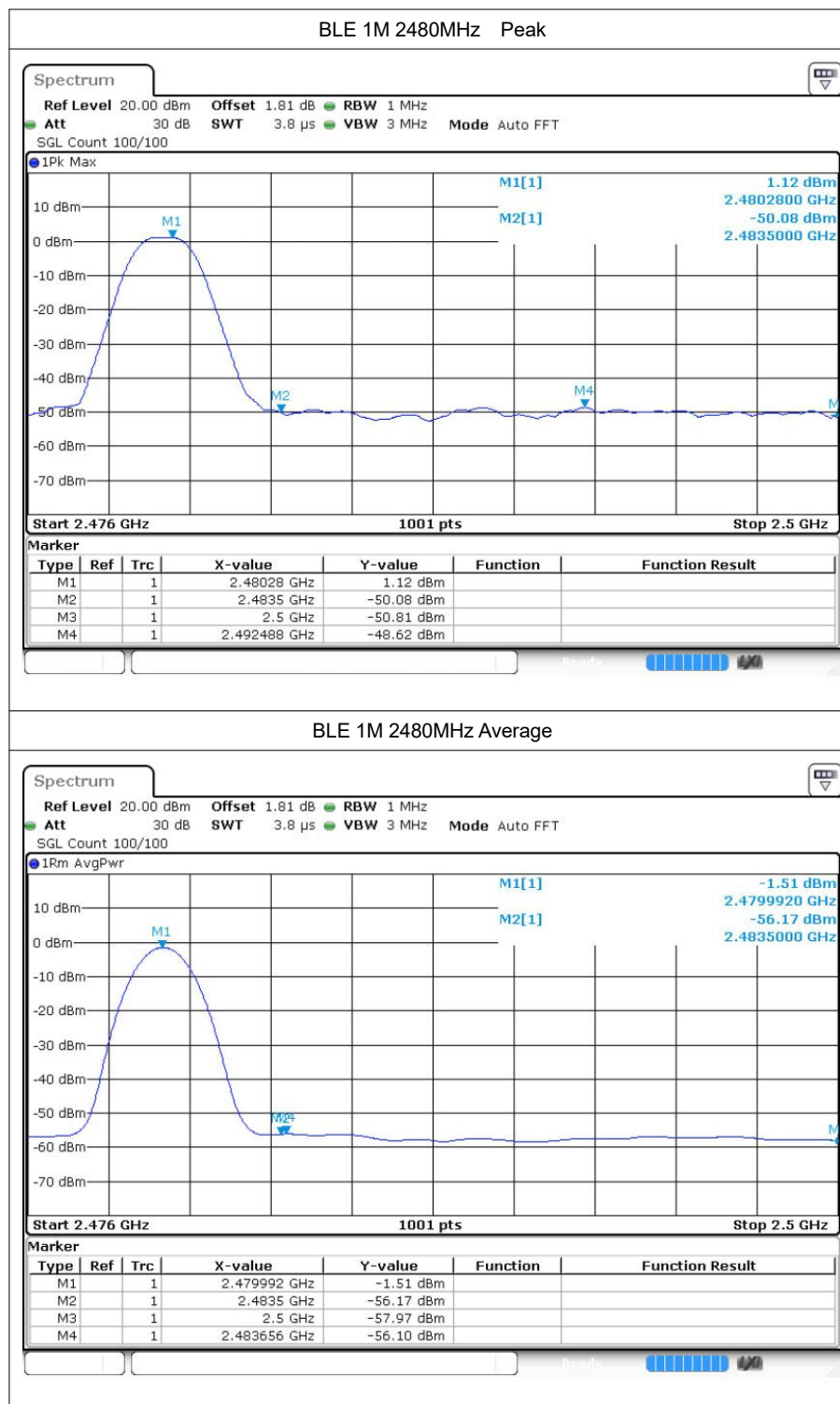
## 7 Restrict Band

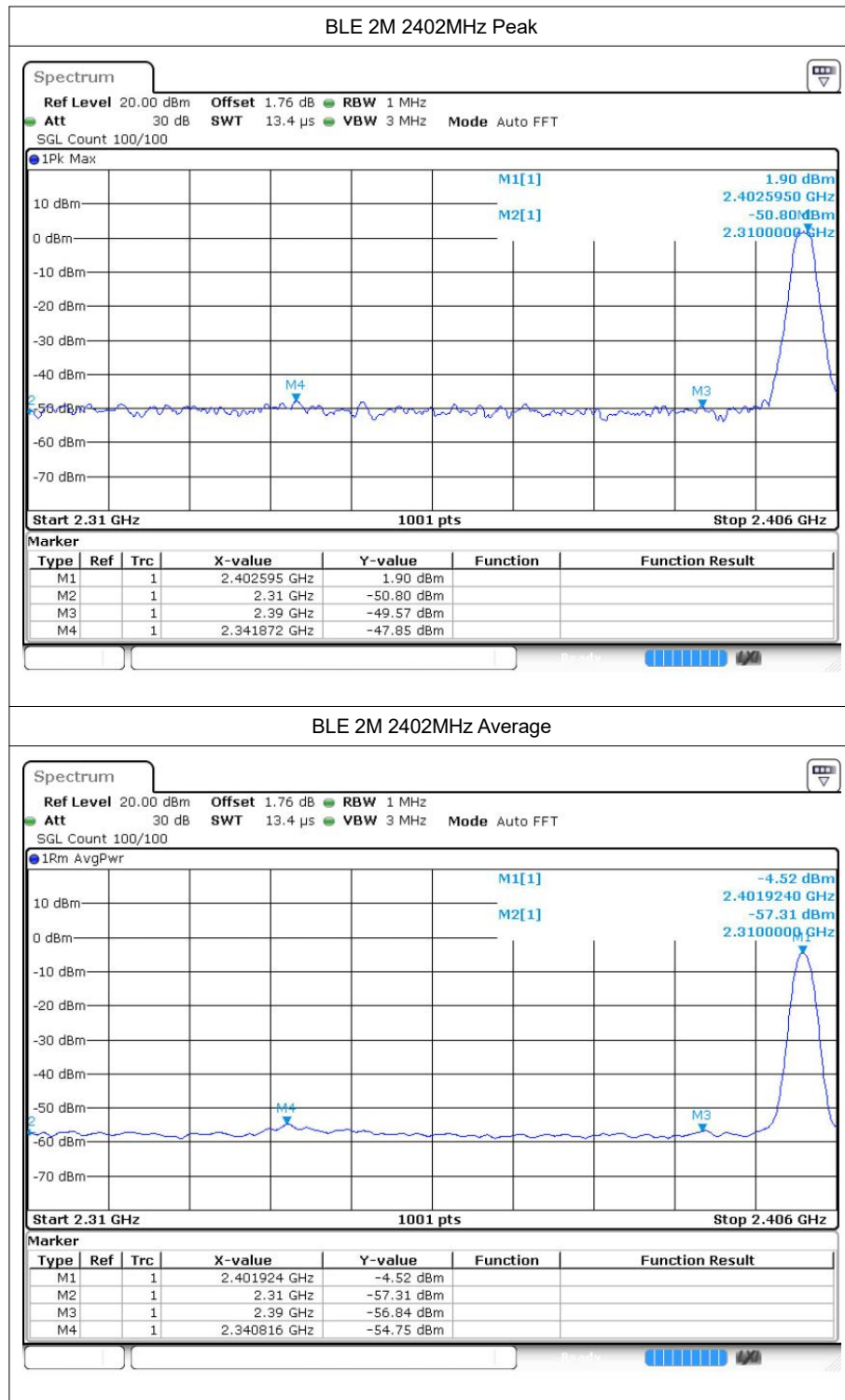
### 7.1 Test Result

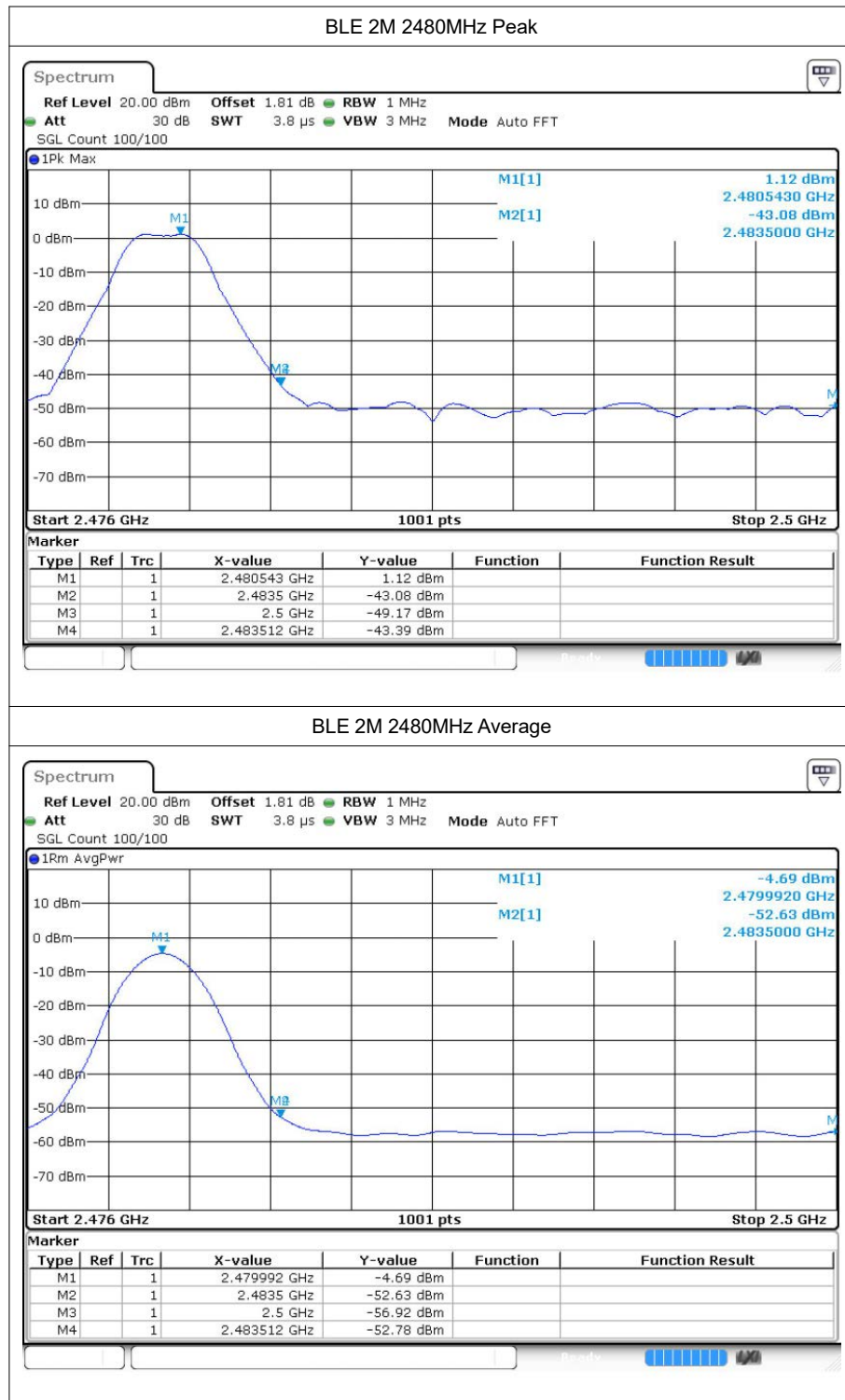
| Mode   | Frequency (MHz) | Spur Freq (MHz) | Power (dBm) | Gain (dBi) | Duty Factor | E (dBuV/m) | Detector | Limit (dBuV/m) | Verdict |
|--------|-----------------|-----------------|-------------|------------|-------------|------------|----------|----------------|---------|
| BLE 1M | 2402            | 2310            | -50.87      | 2          | -           | 46.39      | Peak     | 74             | Pass    |
| BLE 1M | 2402            | 2310            | -57.56      | 2          | 1.88        | 41.58      | Average  | 54             | Pass    |
| BLE 1M | 2402            | 2346.576        | -47.11      | 2          | -           | 50.15      | Peak     | 74             | Pass    |
| BLE 1M | 2402            | 2337.936        | -55.56      | 2          | 1.88        | 43.58      | Average  | 54             | Pass    |
| BLE 1M | 2402            | 2390            | -51.49      | 2          | -           | 45.77      | Peak     | 74             | Pass    |
| BLE 1M | 2402            | 2390            | -58.55      | 2          | 1.88        | 40.59      | Average  | 54             | Pass    |
| BLE 1M | 2480            | 2483.5          | -50.08      | 2          | -           | 47.18      | Peak     | 74             | Pass    |
| BLE 1M | 2480            | 2483.5          | -56.17      | 2          | 1.88        | 42.97      | Average  | 54             | Pass    |
| BLE 1M | 2480            | 2492.488        | -48.61      | 2          | -           | 48.65      | Peak     | 74             | Pass    |
| BLE 1M | 2480            | 2483.656        | -56.09      | 2          | 1.88        | 43.05      | Average  | 54             | Pass    |
| BLE 1M | 2480            | 2500            | -50.81      | 2          | -           | 46.45      | Peak     | 74             | Pass    |
| BLE 1M | 2480            | 2500            | -57.97      | 2          | 1.88        | 41.17      | Average  | 54             | Pass    |
| BLE 2M | 2402            | 2310            | -50.8       | 2          | -           | 46.46      | Peak     | 74             | Pass    |
| BLE 2M | 2402            | 2310            | -57.31      | 2          | 4.53        | 44.48      | Average  | 54             | Pass    |
| BLE 2M | 2402            | 2341.872        | -47.85      | 2          | -           | 49.41      | Peak     | 74             | Pass    |
| BLE 2M | 2402            | 2340.816        | -54.74      | 2          | 4.53        | 47.05      | Average  | 54             | Pass    |
| BLE 2M | 2402            | 2390            | -49.57      | 2          | -           | 47.69      | Peak     | 74             | Pass    |
| BLE 2M | 2402            | 2390            | -56.84      | 2          | 4.53        | 44.95      | Average  | 54             | Pass    |
| BLE 2M | 2480            | 2483.5          | -43.08      | 2          | -           | 54.18      | Peak     | 74             | Pass    |
| BLE 2M | 2480            | 2483.5          | -52.63      | 2          | 4.46        | 49.09      | Average  | 54             | Pass    |
| BLE 2M | 2480            | 2483.512        | -43.39      | 2          | -           | 53.87      | Peak     | 74             | Pass    |
| BLE 2M | 2480            | 2483.512        | -52.77      | 2          | 4.46        | 48.95      | Average  | 54             | Pass    |
| BLE 2M | 2480            | 2500            | -49.17      | 2          | -           | 48.09      | Peak     | 74             | Pass    |
| BLE 2M | 2480            | 2500            | -56.92      | 2          | 4.46        | 44.8       | Average  | 54             | Pass    |

## 7.2 Test Graphs









---The End---