

Appendix A

RF Test Data for BT LE (Conducted Measurement)

Product Name: Edge Smart Dartboard  
Test Model: DASDB500

Environmental Conditions

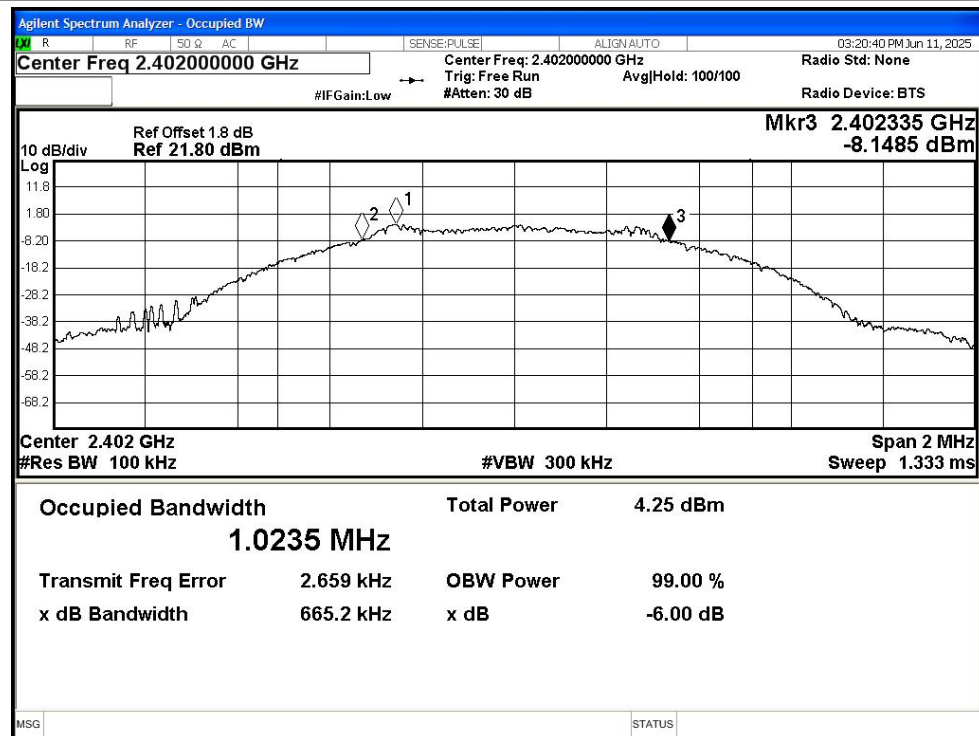
|                    |           |
|--------------------|-----------|
| Temperature:       | 23.7°C    |
| Relative Humidity: | 52.3%     |
| ATM Pressure:      | 100.0 kPa |
| Test Engineer:     | Jone.Lee  |
| Supervised by:     | Yan Chen  |

## A.1 -6dB Bandwidth

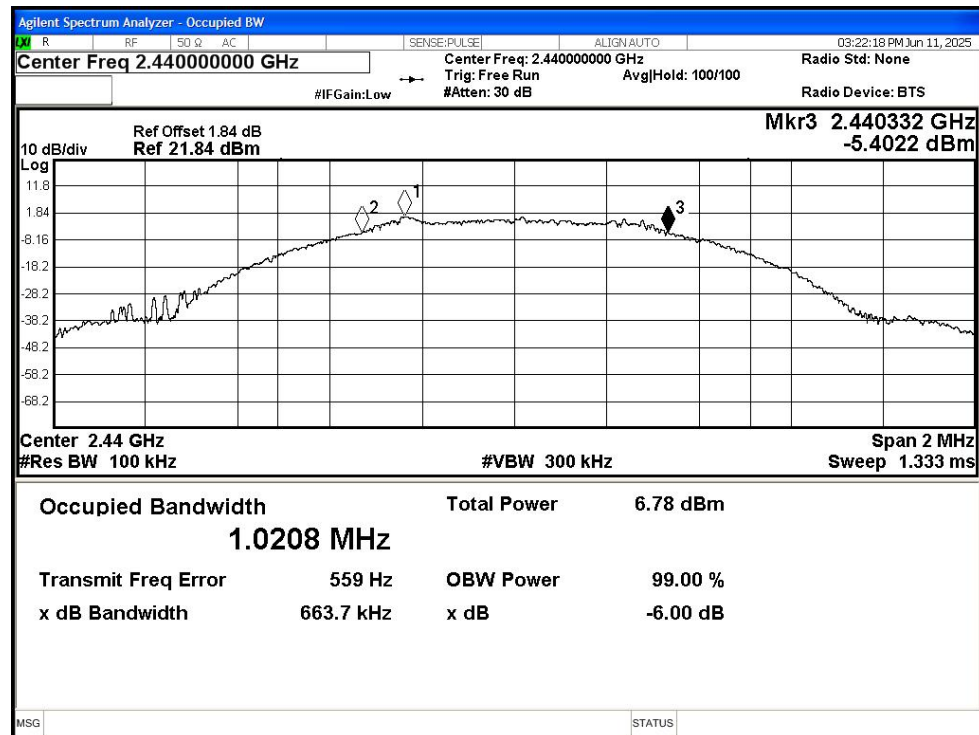
| Condition | Mode   | Frequency (MHz) | Antenna | -6 dB Bandwidth (MHz) | Limit -6 dB Bandwidth (MHz) | Verdict |
|-----------|--------|-----------------|---------|-----------------------|-----------------------------|---------|
| NVNT      | BLE 1M | 2402            | Ant1    | 0.665                 | $\geq 0.5$                  | Pass    |
| NVNT      | BLE 1M | 2440            | Ant1    | 0.664                 | $\geq 0.5$                  | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | 0.662                 | $\geq 0.5$                  | Pass    |

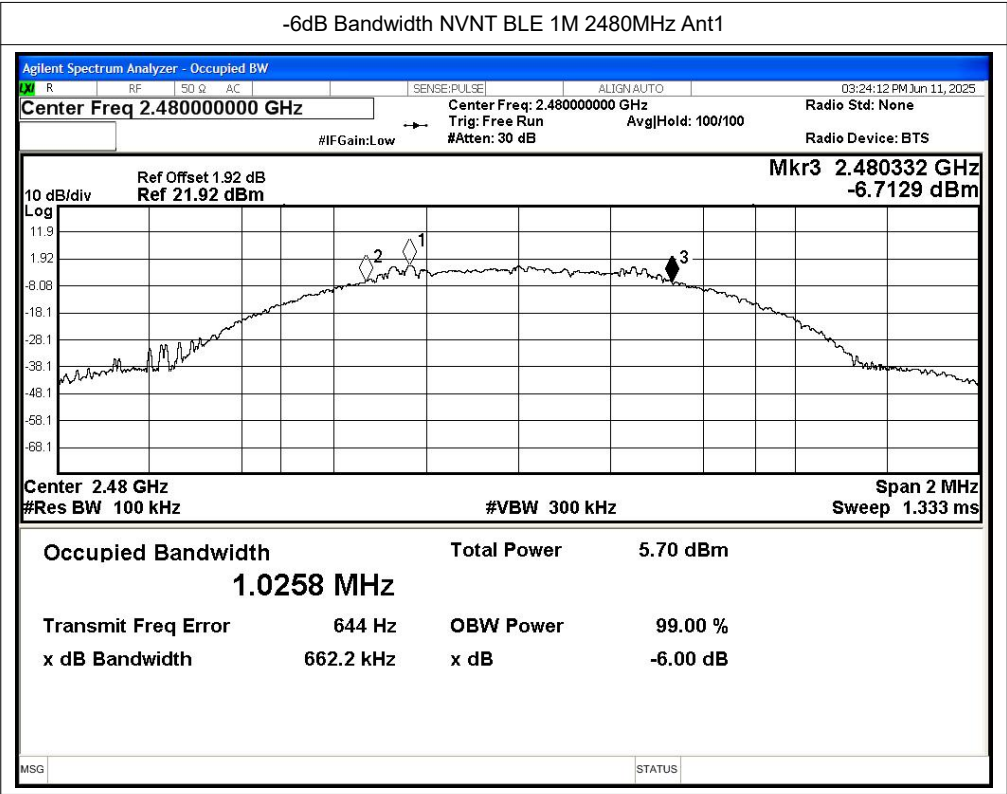
## Test Graphs

-6dB Bandwidth NVNT BLE 1M 2402MHz Ant1



-6dB Bandwidth NVNT BLE 1M 2440MHz Ant1



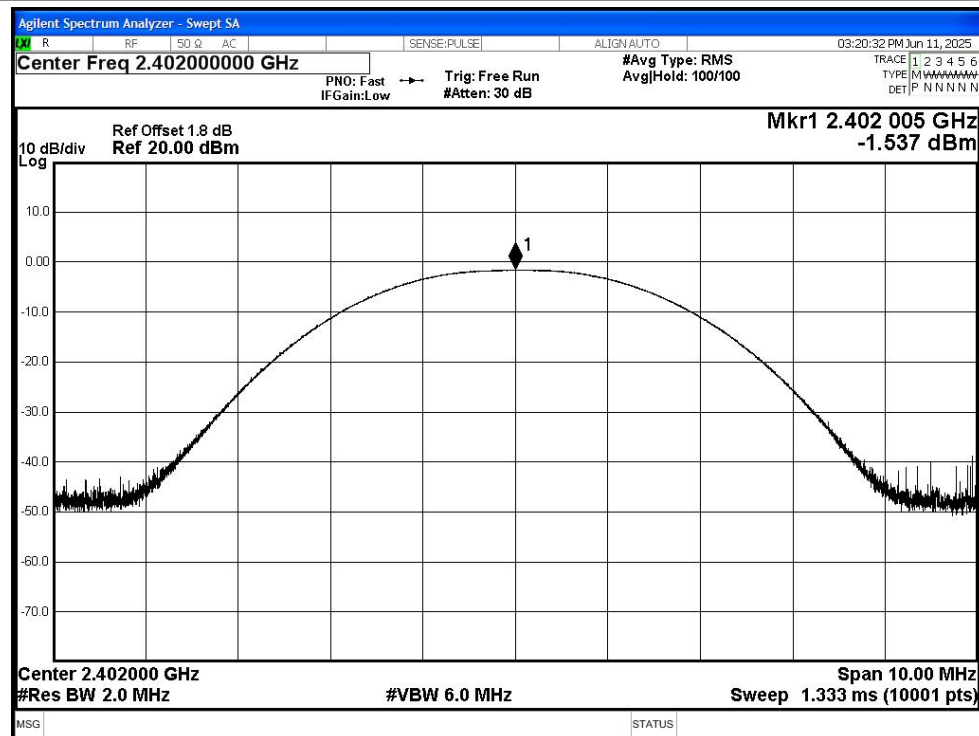


## A.2 Maximum Peak Conducted Output Power

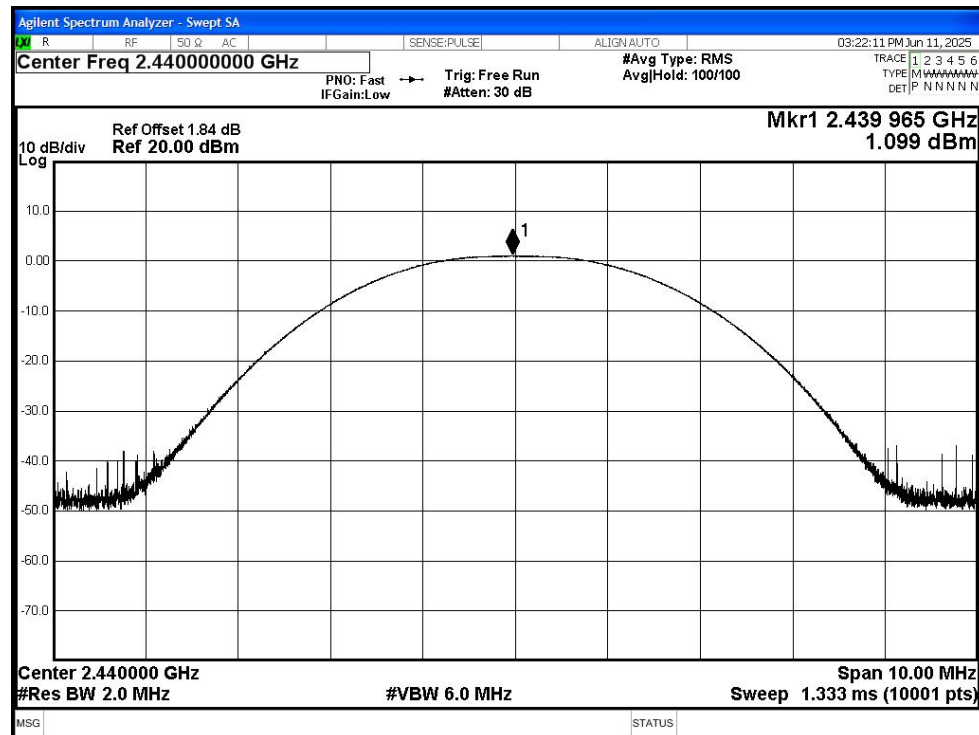
| Condition | Mode   | Frequency (MHz) | Antenna | Conducted Power (dBm) | Limit (dBm) | Verdict |
|-----------|--------|-----------------|---------|-----------------------|-------------|---------|
| NVNT      | BLE 1M | 2402            | Ant1    | -1.54                 | 30          | Pass    |
| NVNT      | BLE 1M | 2440            | Ant1    | 1.1                   | 30          | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | 0.11                  | 30          | Pass    |

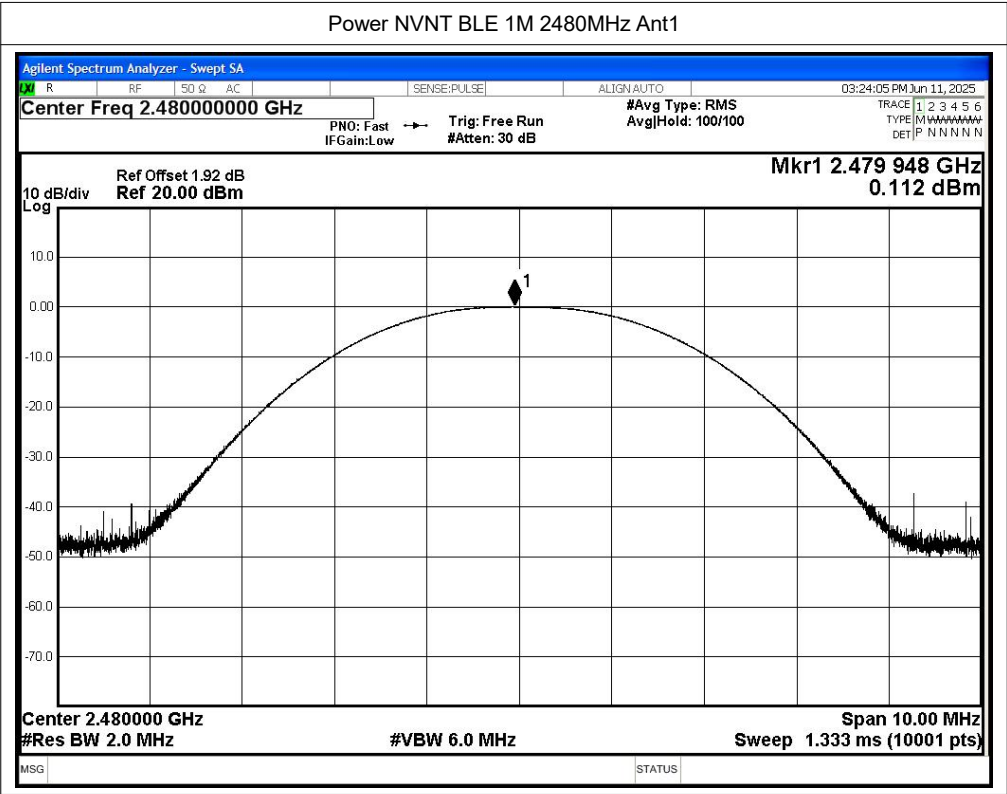
## Test Graphs

Power NVNT BLE 1M 2402MHz Ant1



Power NVNT BLE 1M 2440MHz Ant1



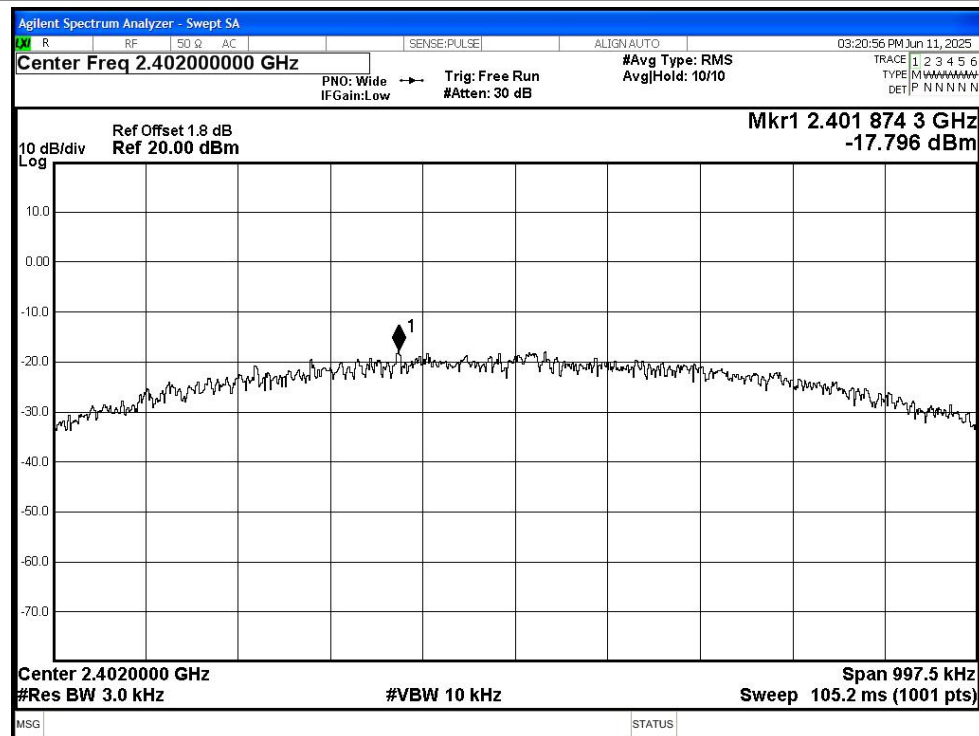


### A.3 Maximum Power Spectral Density Level

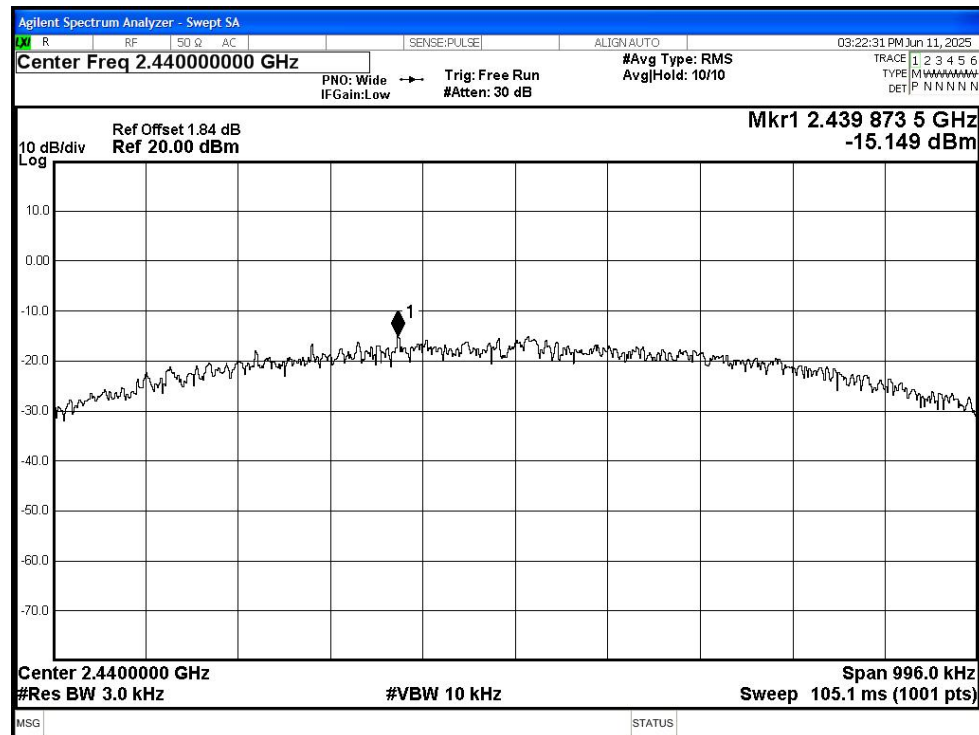
| Condition | Mode   | Frequency (MHz) | Antenna | Conducted PSD (dBm/3kHz) | Limit (dBm/3kHz) | Verdict |
|-----------|--------|-----------------|---------|--------------------------|------------------|---------|
| NVNT      | BLE 1M | 2402            | Ant1    | -17.8                    | 8                | Pass    |
| NVNT      | BLE 1M | 2440            | Ant1    | -15.15                   | 8                | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | -16.14                   | 8                | Pass    |

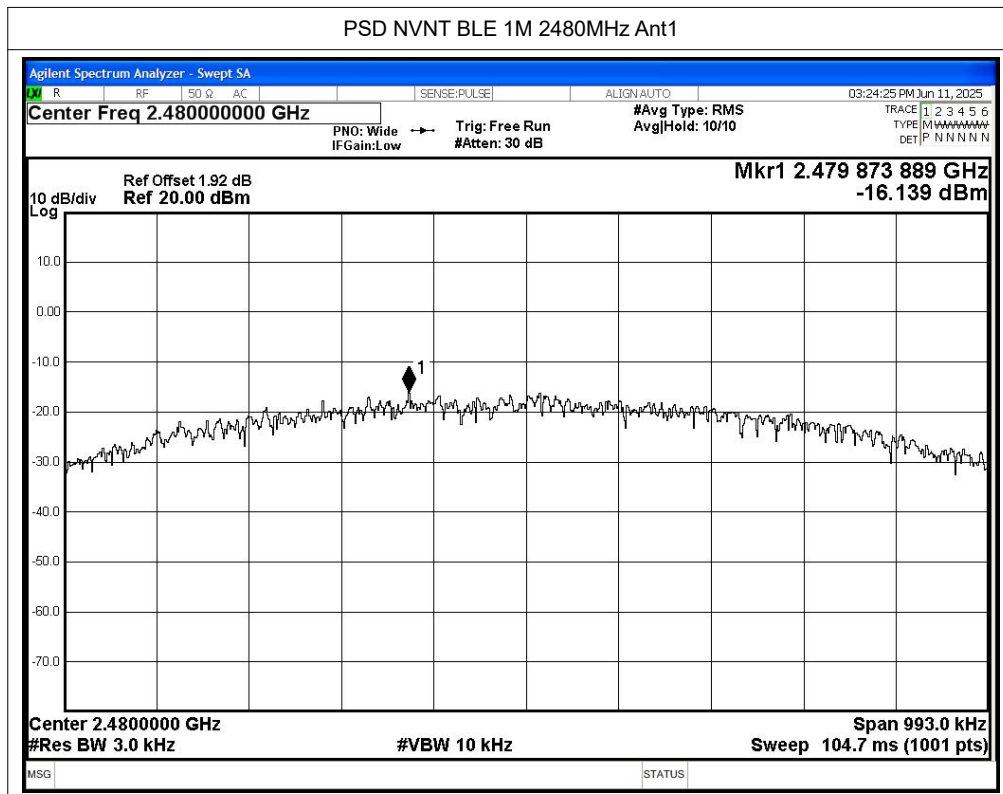
## Test Graphs

PSD NVNT BLE 1M 2402MHz Ant1



PSD NVNT BLE 1M 2440MHz Ant1



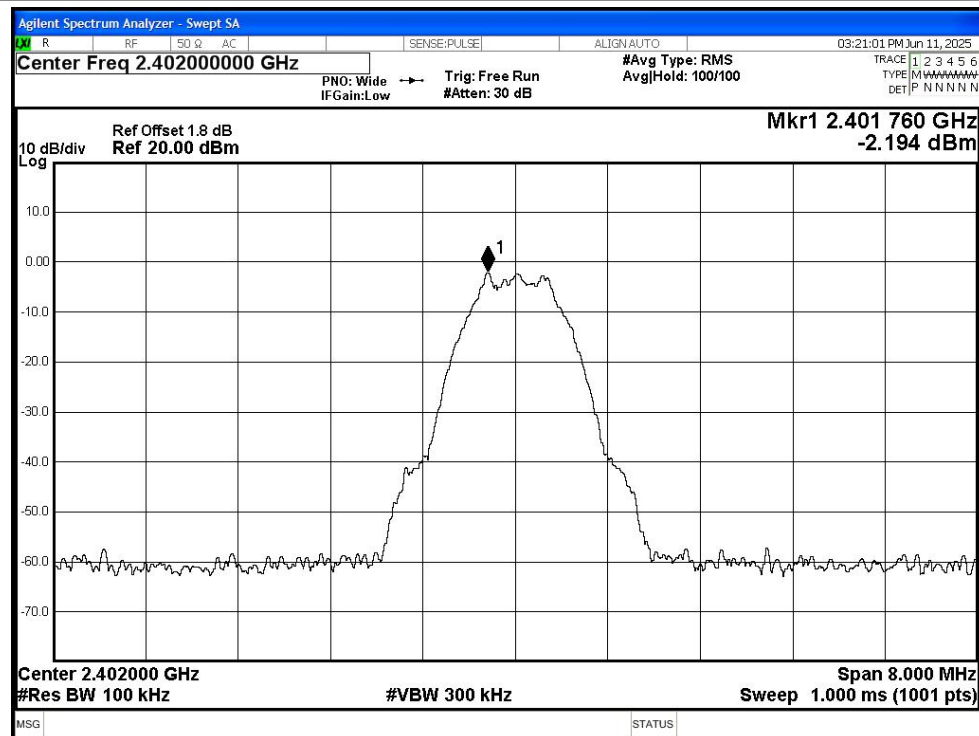


## A.4 Band Edge

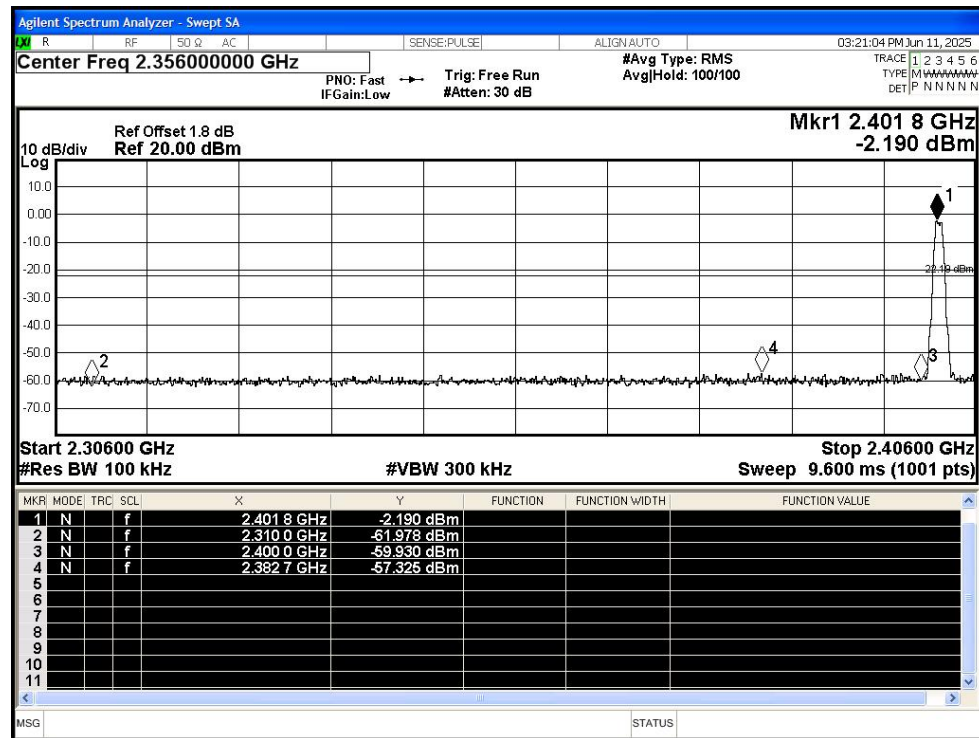
| Condition | Mode   | Frequency (MHz) | Antenna | Max Value (dBc) | Limit (dBc) | Verdict |
|-----------|--------|-----------------|---------|-----------------|-------------|---------|
| NVNT      | BLE 1M | 2402            | Ant1    | -55.13          | -20         | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | -56.87          | -20         | Pass    |

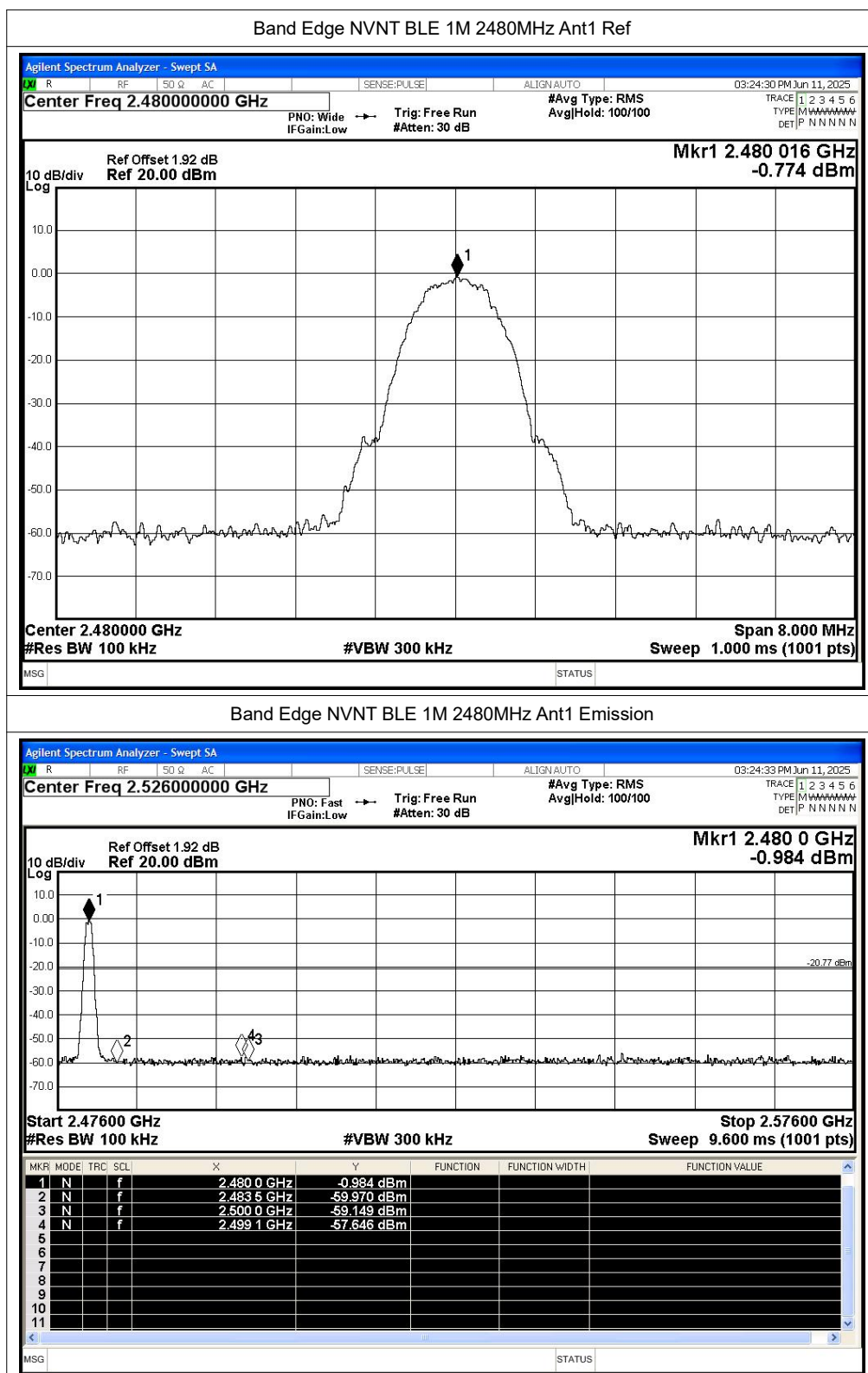
## Test Graphs

## Band Edge NVNT BLE 1M 2402MHz Ant1 Ref



## Band Edge NVNT BLE 1M 2402MHz Ant1 Emission



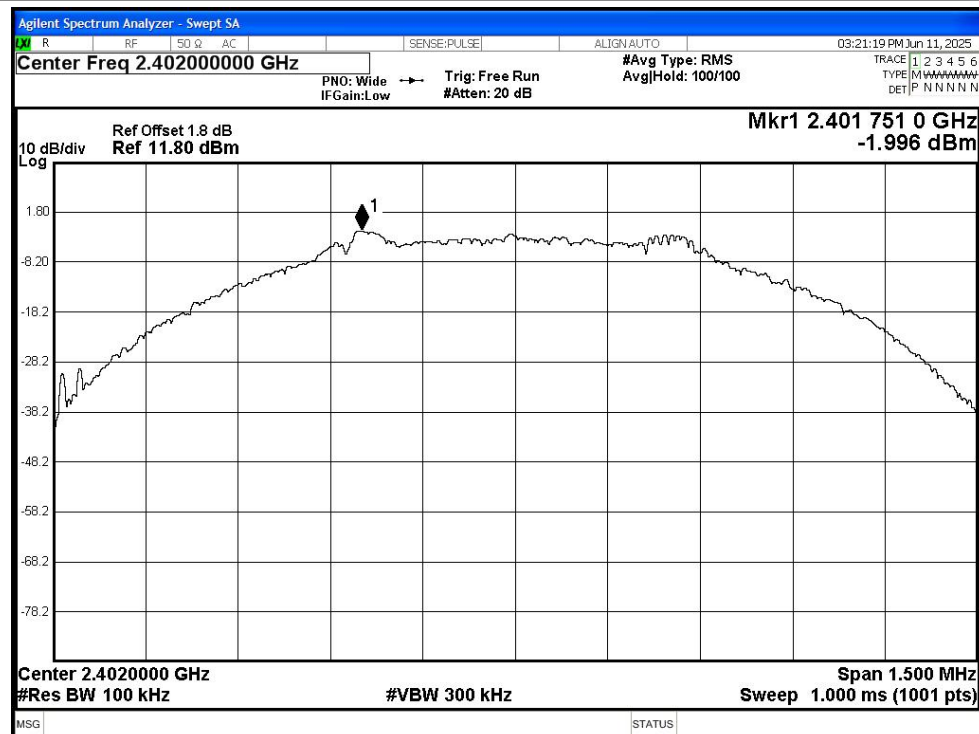


## A.5 Conducted RF Spurious Emission

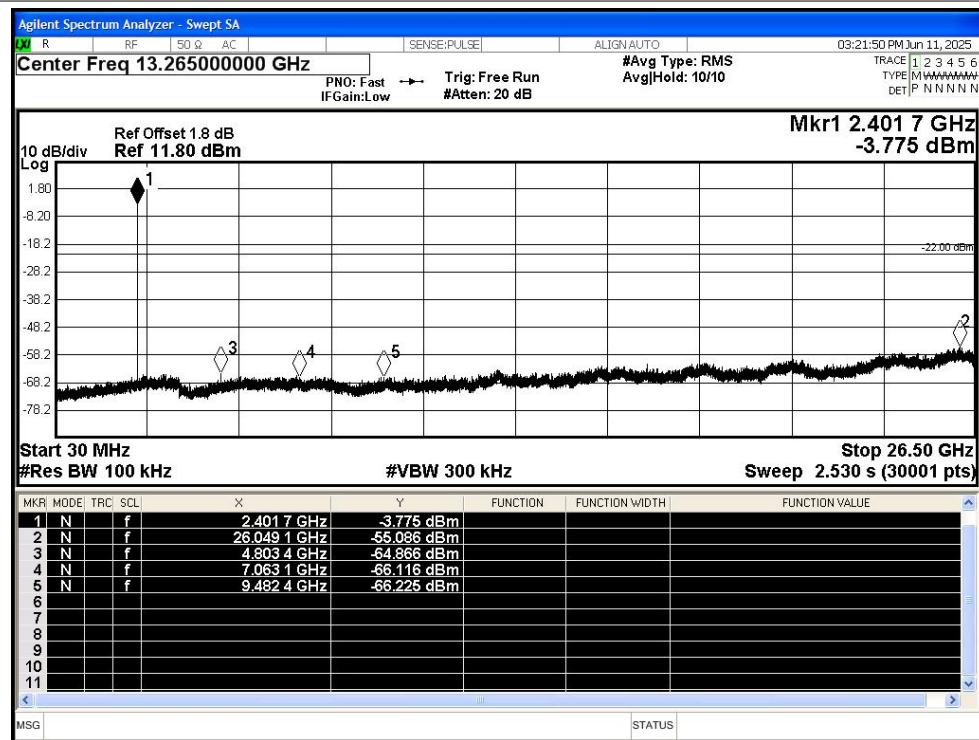
| Condition | Mode   | Frequency (MHz) | Antenna | Max Value (dBc) | Limit (dBc) | Verdict |
|-----------|--------|-----------------|---------|-----------------|-------------|---------|
| NVNT      | BLE 1M | 2402            | Ant1    | -53.09          | -20         | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | -55.13          | -20         | Pass    |

## Test Graphs

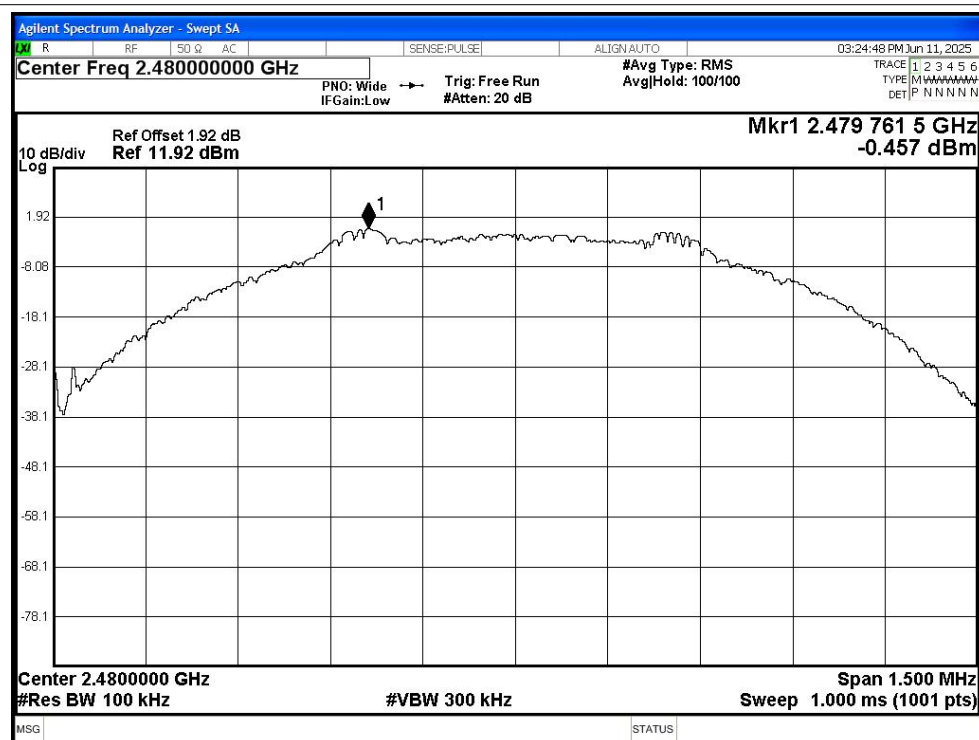
## Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Ref



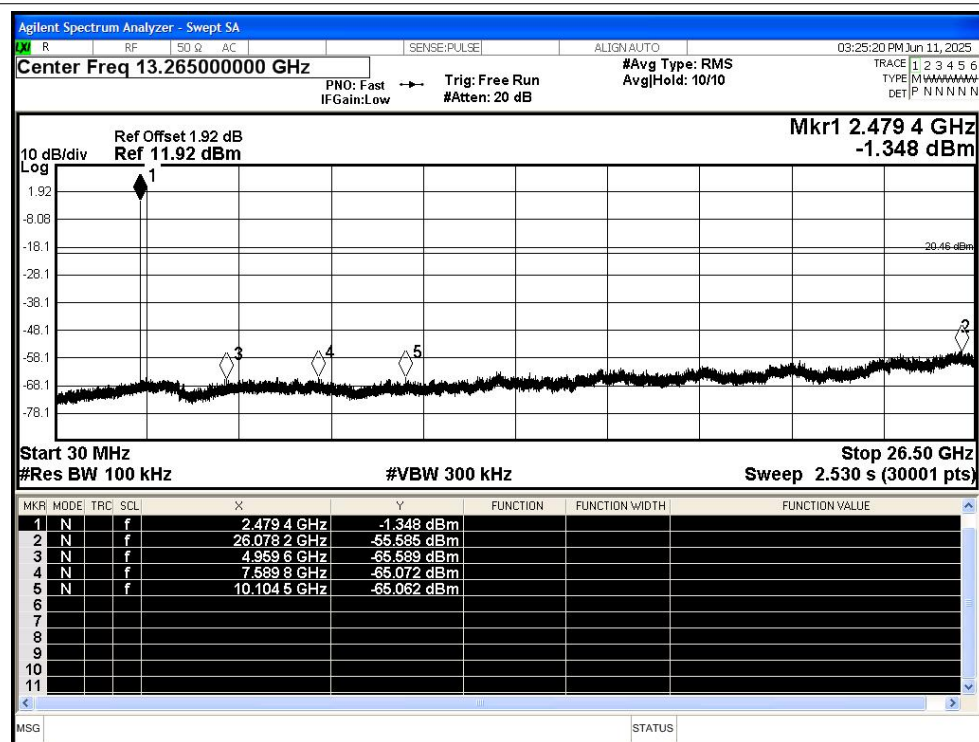
## Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Emission



## Tx. Spurious NVNT BLE 1M 2480MHz Ant1 Ref



## Tx. Spurious NVNT BLE 1M 2480MHz Ant1 Emission

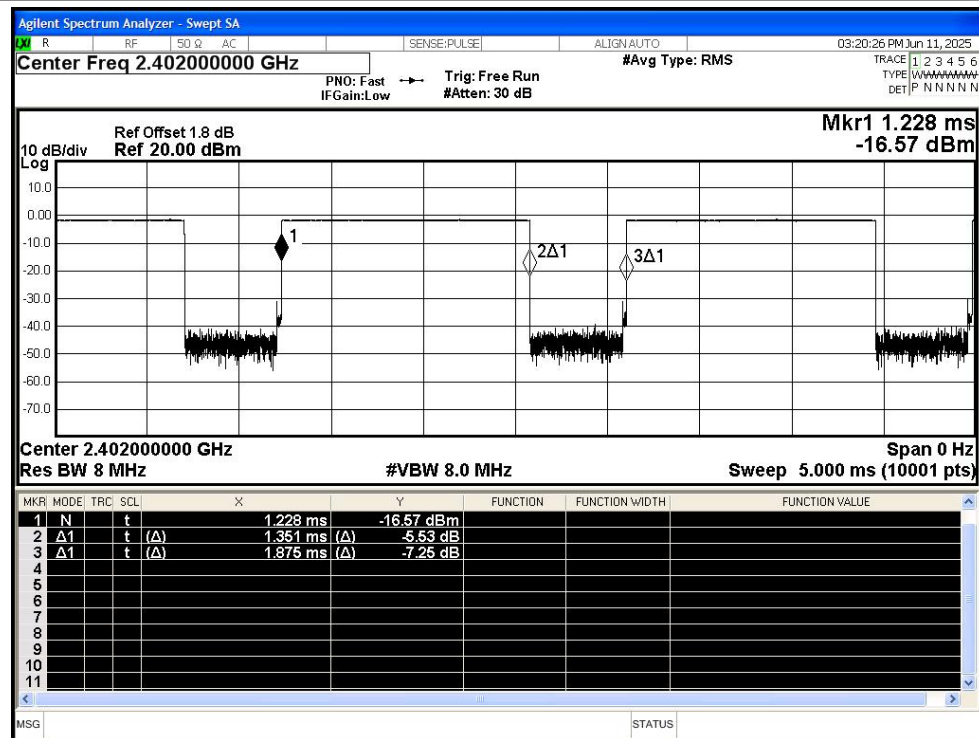


## A.6 Duty Cycle

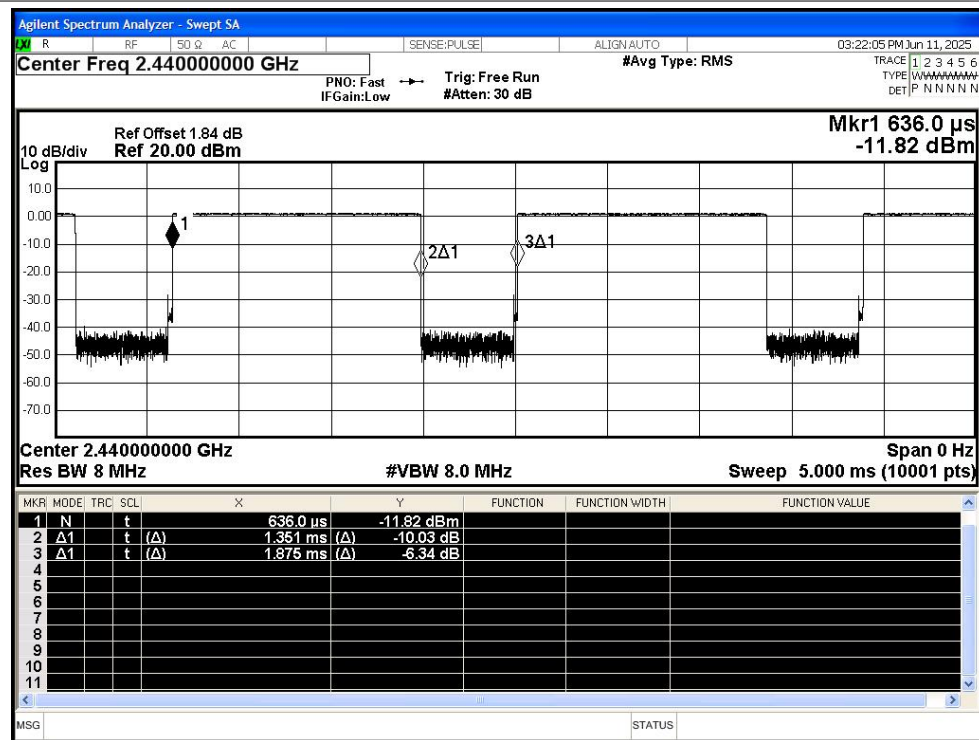
| Condition | Mode   | Frequency (MHz) | Antenna | Duty Cycle (%) | Correction Factor (dB) | 1/T (kHz) |
|-----------|--------|-----------------|---------|----------------|------------------------|-----------|
| NVNT      | BLE 1M | 2402            | Ant1    | 72.03          | 1.42                   | 0.74      |
| NVNT      | BLE 1M | 2440            | Ant1    | 72.03          | 1.42                   | 0.74      |
| NVNT      | BLE 1M | 2480            | Ant1    | 72.01          | 1.43                   | 0.74      |

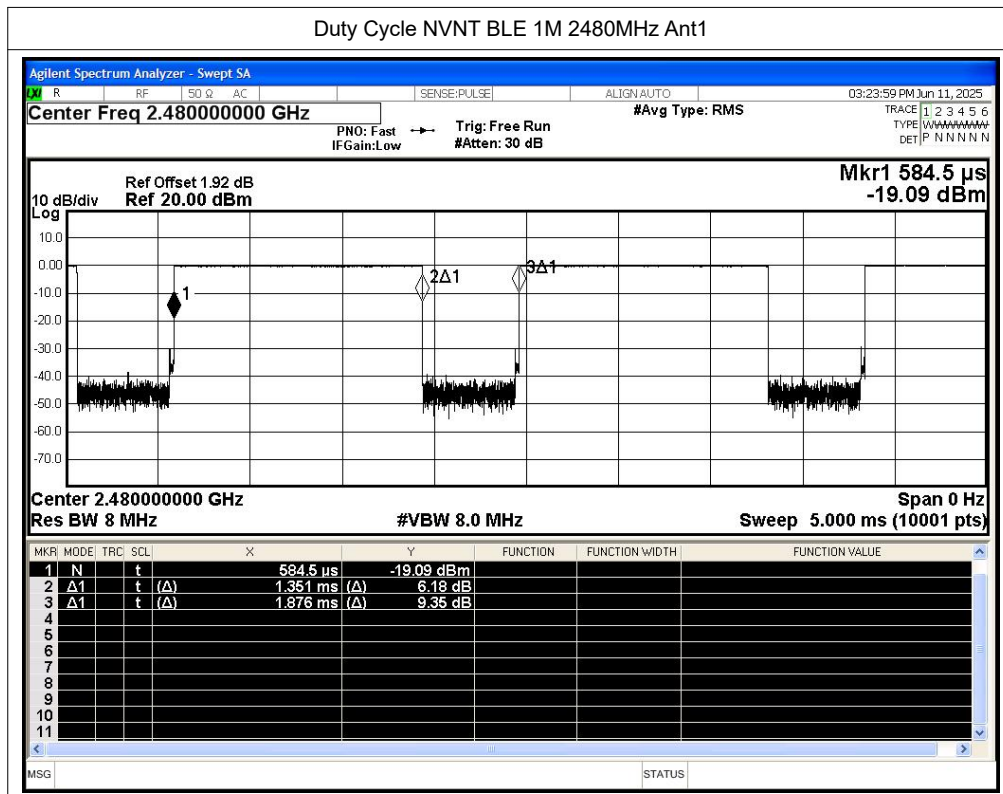
## Test Graphs

## Duty Cycle NVNT BLE 1M 2402MHz Ant1



## Duty Cycle NVNT BLE 1M 2440MHz Ant1



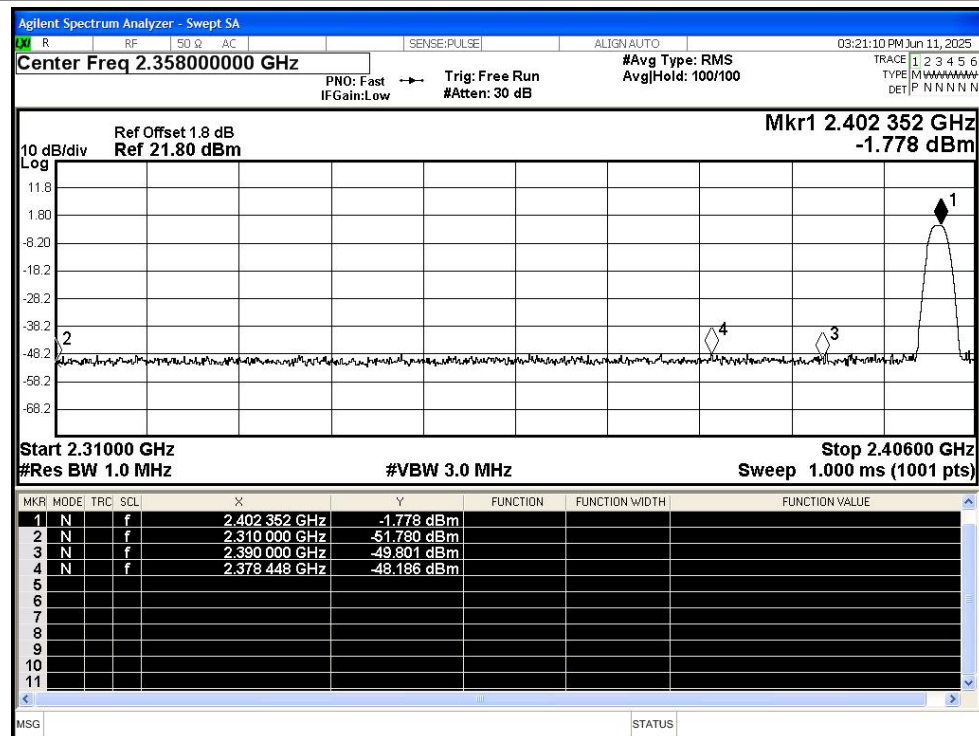


## A.7 Restrict Band

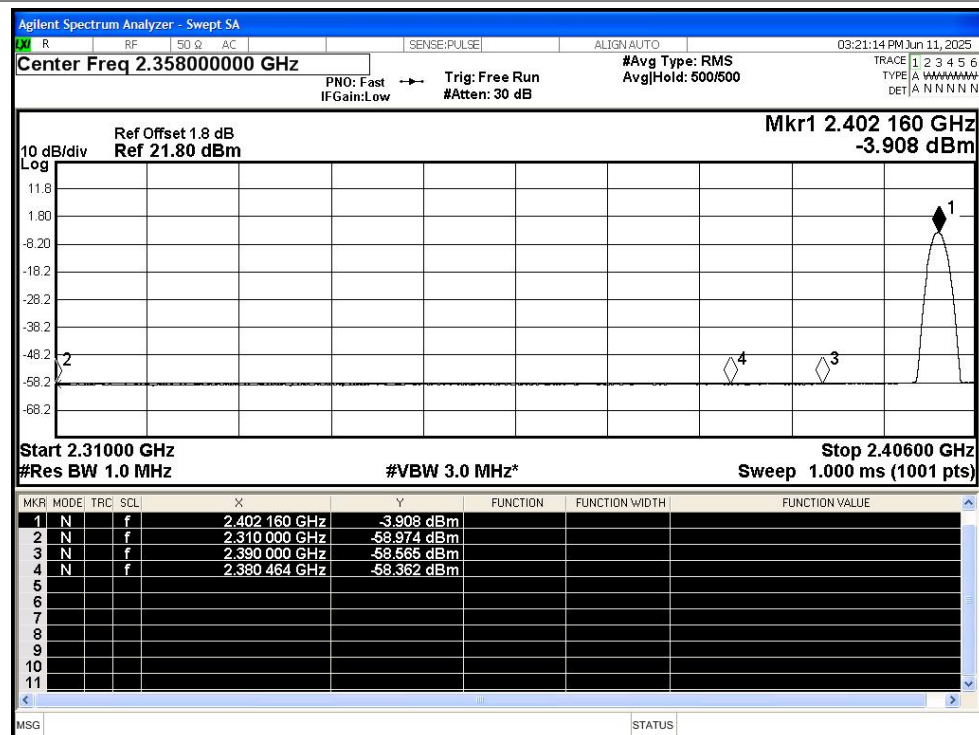
| Condition | Mode   | Frequency (MHz) | Antenna | Spur Freq (MHz) | Power (dBm) | Gain (dBi) | Duty Factor (dB) | E (dBuV/m) | Detector | Limit (dBuV/m) | Verdict |
|-----------|--------|-----------------|---------|-----------------|-------------|------------|------------------|------------|----------|----------------|---------|
| NVNT      | BLE 1M | 2402            | Ant1    | 2310            | -51.78      | 3.5        | -                | 46.98      | Peak     | 74             | Pass    |
| NVNT      | BLE 1M | 2402            | Ant1    | 2310            | -58.97      | 3.5        | 1.42             | 41.21      | Average  | 54             | Pass    |
| NVNT      | BLE 1M | 2402            | Ant1    | 2378.448        | -48.19      | 3.5        | -                | 50.57      | Peak     | 74             | Pass    |
| NVNT      | BLE 1M | 2402            | Ant1    | 2380.464        | -58.36      | 3.5        | 1.42             | 41.82      | Average  | 54             | Pass    |
| NVNT      | BLE 1M | 2402            | Ant1    | 2390            | -49.8       | 3.5        | -                | 48.96      | Peak     | 74             | Pass    |
| NVNT      | BLE 1M | 2402            | Ant1    | 2390            | -58.57      | 3.5        | 1.42             | 41.61      | Average  | 54             | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | 2483.5          | -50.34      | 3.5        | -                | 48.42      | Peak     | 74             | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | 2483.5          | -57.79      | 3.5        | 1.43             | 42.40      | Average  | 54             | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | 2486.848        | -44.58      | 3.5        | -                | 54.18      | Peak     | 74             | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | 2485.216        | -57.6       | 3.5        | 1.43             | 42.59      | Average  | 54             | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | 2500            | -48.52      | 3.5        | -                | 50.24      | Peak     | 74             | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | 2500            | -58.1       | 3.5        | 1.43             | 42.09      | Average  | 54             | Pass    |

## Test Graphs

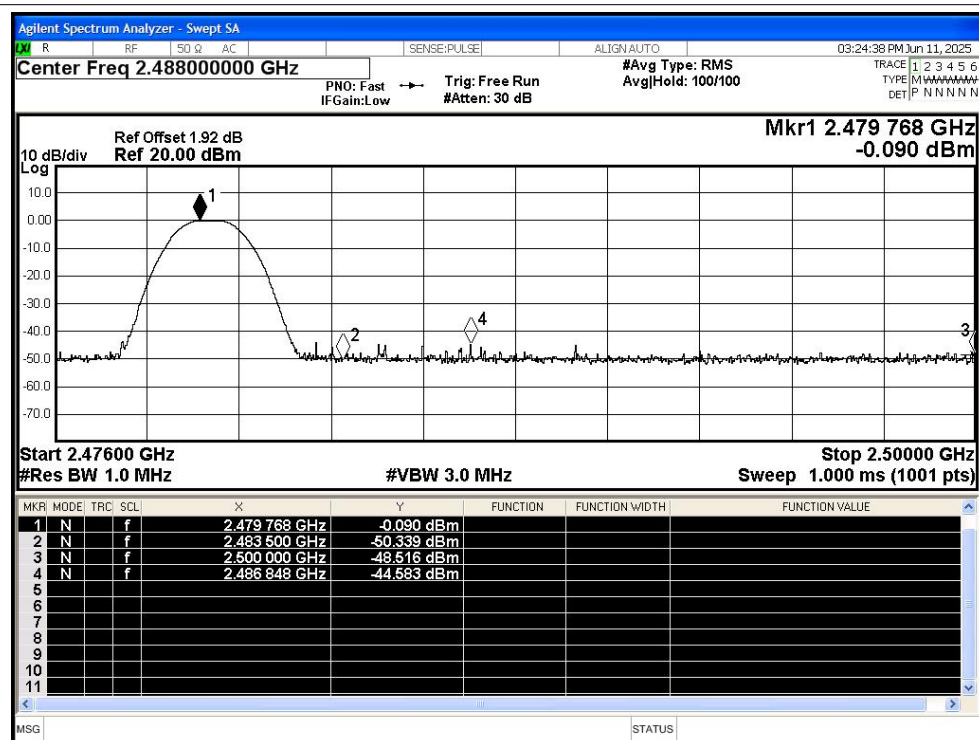
## Restrict Band NVNT BLE 1M 2402MHz Ant1 Peak



## Restrict Band NVNT BLE 1M 2402MHz Ant1 Average



## Restrict Band NVNT BLE 1M 2480MHz Ant1 Peak



## Restrict Band NVNT BLE 1M 2480MHz Ant1 Average

