

## Appendix A

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

Product Name: Portable power station

Test Model: BP2000 PRO

#### Environmental Conditions

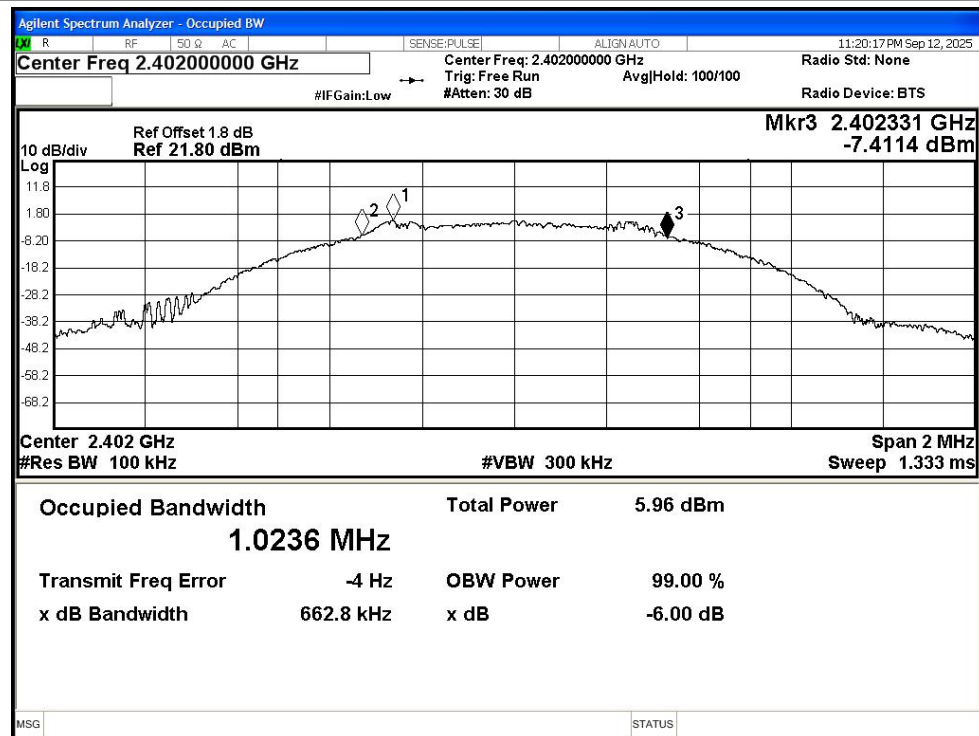
|                    |             |
|--------------------|-------------|
| Temperature:       | 24.6°C      |
| Relative Humidity: | 52.3%       |
| ATM Pressure:      | 100.0 kPa   |
| Test Engineer:     | Suichao Lai |
| Supervised by:     | Yan Chen    |

## A.1 -6dB Bandwidth

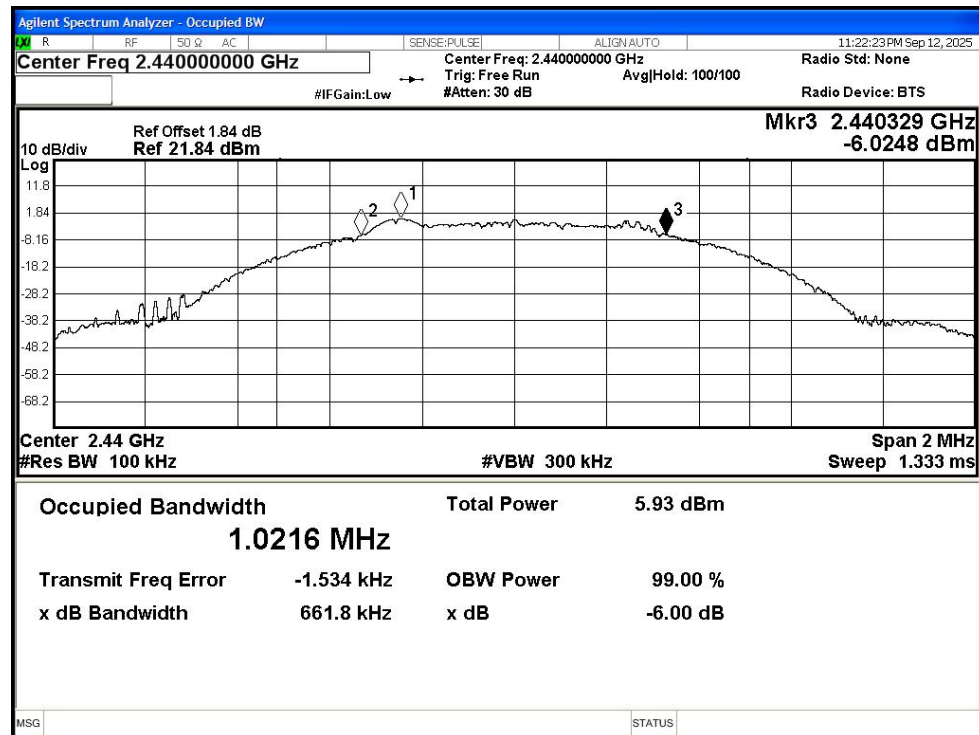
| Condition | Mode   | Frequency (MHz) | Antenna | -6 dB Bandwidth (MHz) | Limit -6 dB Bandwidth (MHz) | Verdict |
|-----------|--------|-----------------|---------|-----------------------|-----------------------------|---------|
| NVNT      | BLE 1M | 2402            | Ant1    | 0.663                 | $\geq 0.5$                  | Pass    |
| NVNT      | BLE 1M | 2440            | Ant1    | 0.662                 | $\geq 0.5$                  | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | 0.663                 | $\geq 0.5$                  | Pass    |

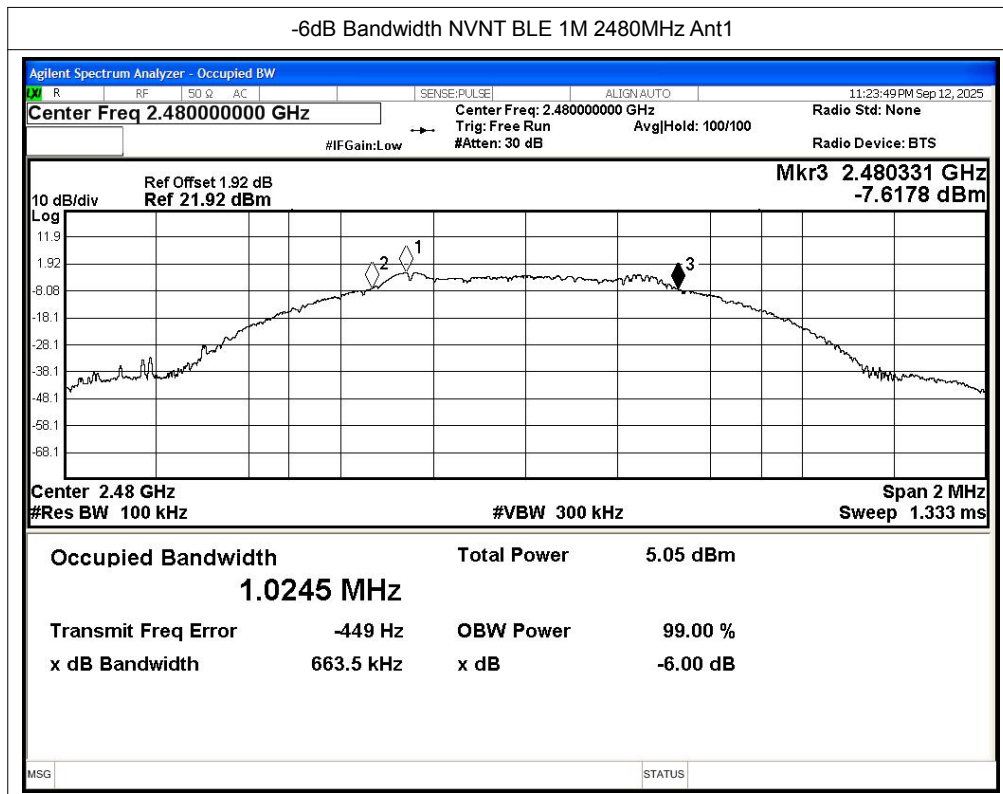
## Test Graphs

-6dB Bandwidth NVNT BLE 1M 2402MHz Ant1



-6dB Bandwidth NVNT BLE 1M 2440MHz Ant1



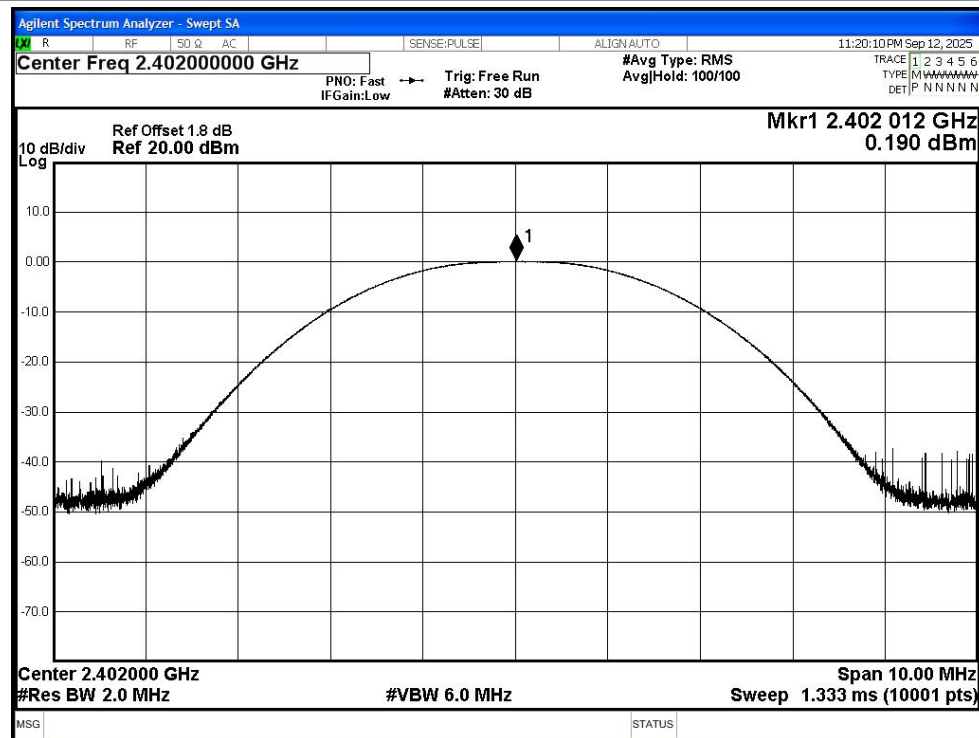


## A.2 Maximum Peak Conducted Output Power

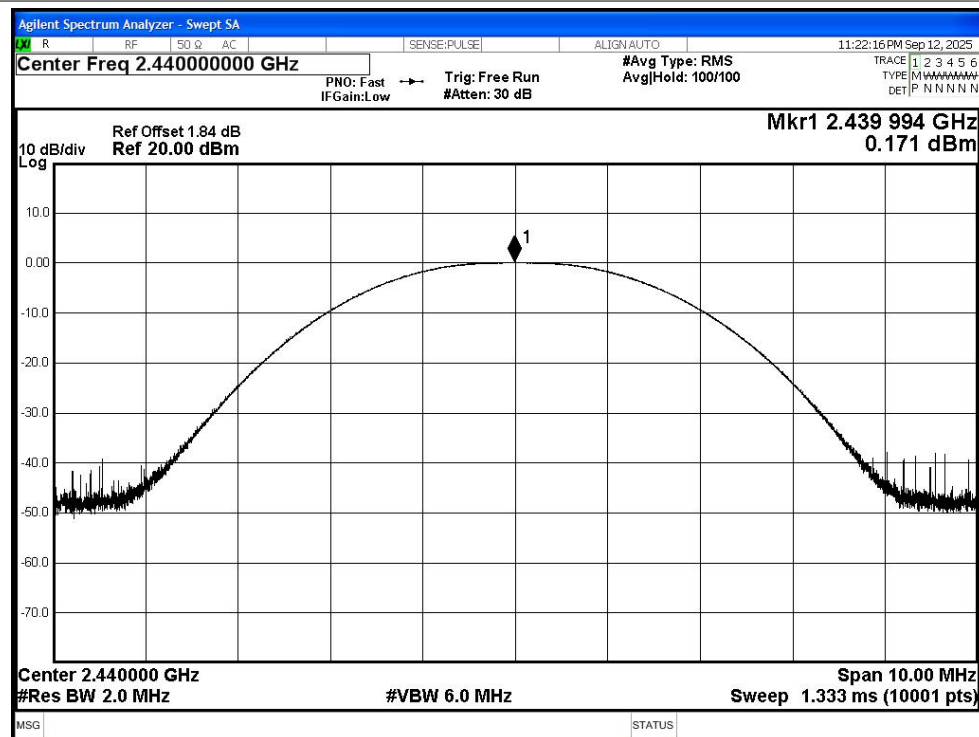
| Condition | Mode   | Frequency (MHz) | Antenna | Conducted Power (dBm) | Limit (dBm) | Verdict |
|-----------|--------|-----------------|---------|-----------------------|-------------|---------|
| NVNT      | BLE 1M | 2402            | Ant1    | 0.19                  | 30          | Pass    |
| NVNT      | BLE 1M | 2440            | Ant1    | 0.17                  | 30          | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | -0.75                 | 30          | Pass    |

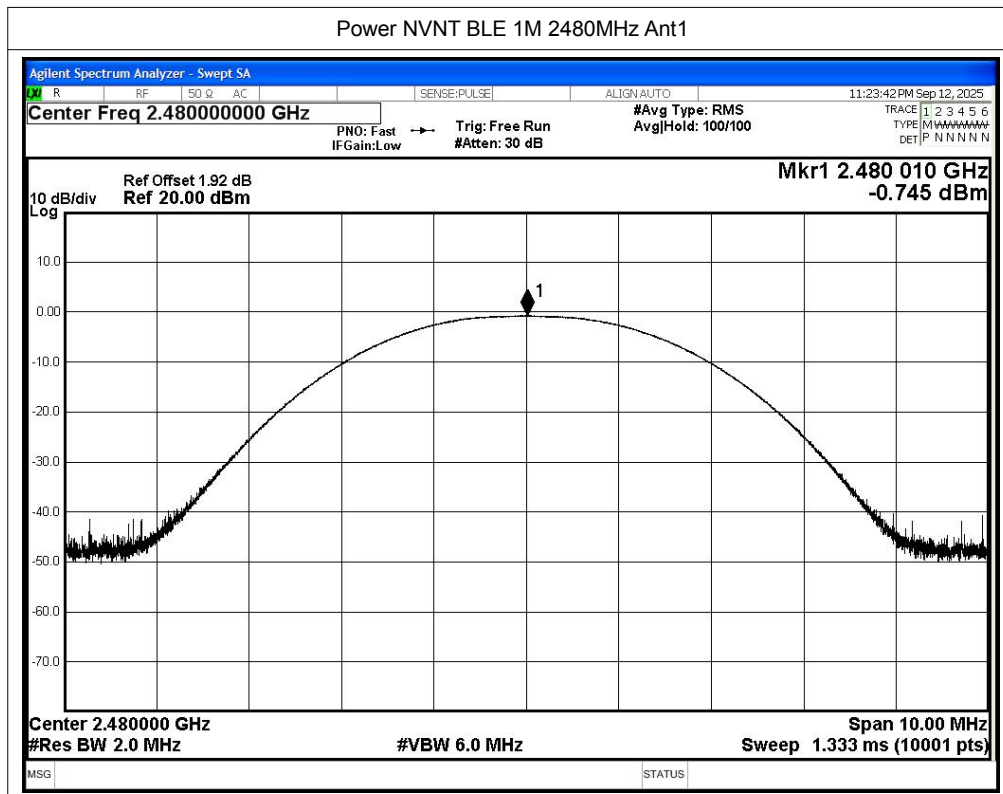
## Test Graphs

Power NVNT BLE 1M 2402MHz Ant1



Power NVNT BLE 1M 2440MHz Ant1



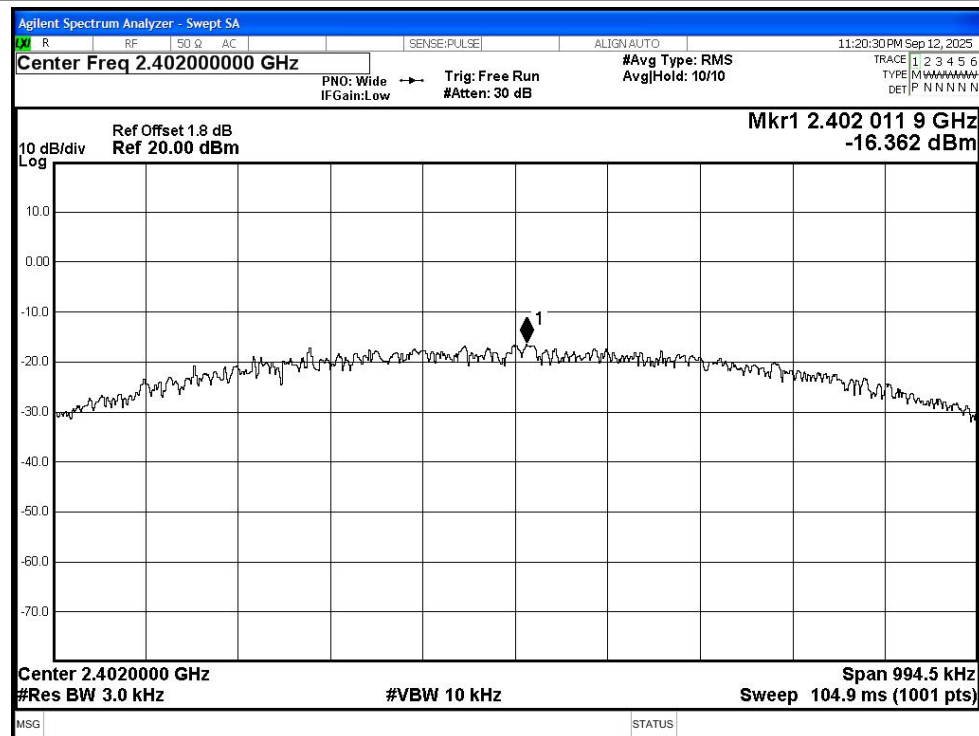


### A.3 Maximum Power Spectral Density Level

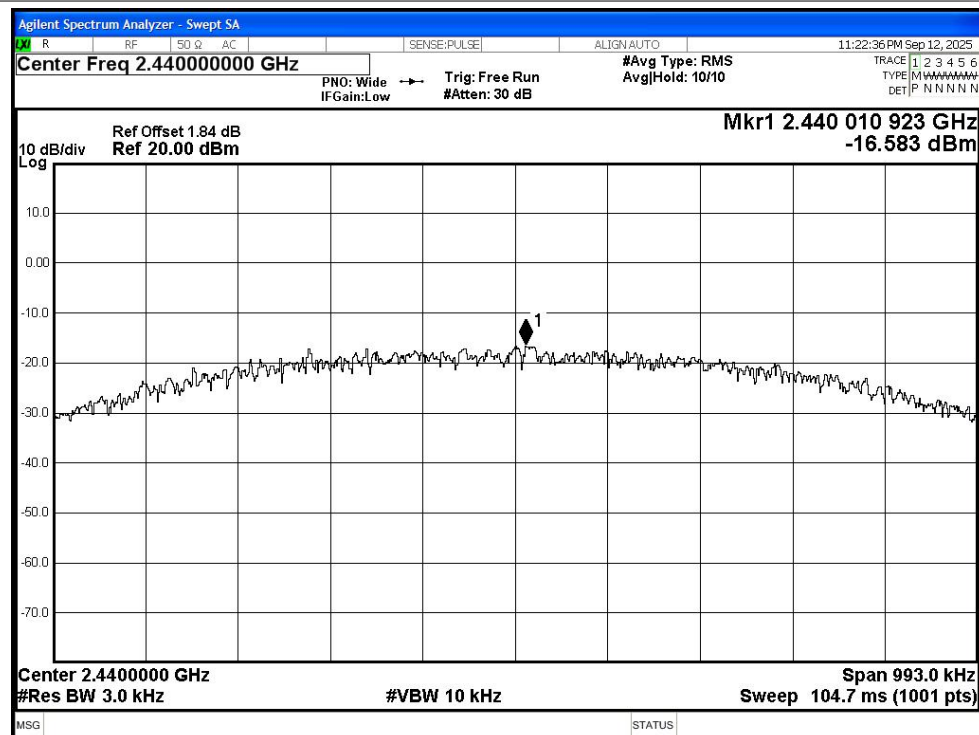
| Condition | Mode   | Frequency (MHz) | Antenna | Conducted PSD (dBm/3kHz) | Limit (dBm/3kHz) | Verdict |
|-----------|--------|-----------------|---------|--------------------------|------------------|---------|
| NVNT      | BLE 1M | 2402            | Ant1    | -16.36                   | 8                | Pass    |
| NVNT      | BLE 1M | 2440            | Ant1    | -16.58                   | 8                | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | -17.24                   | 8                | Pass    |

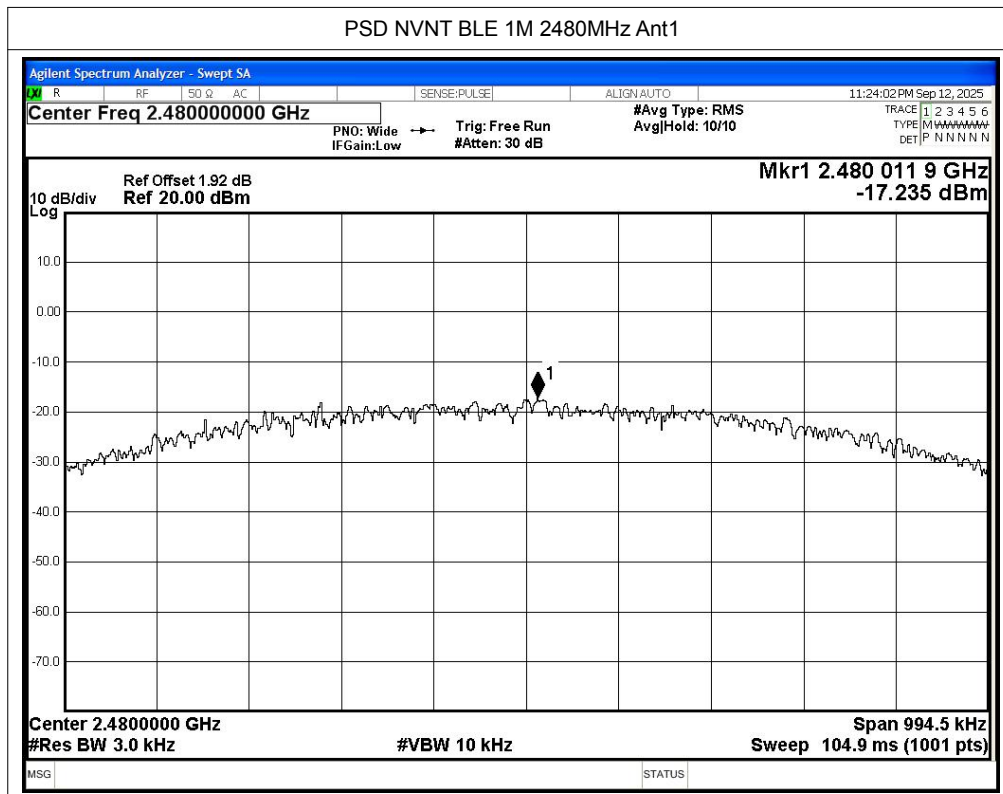
## Test Graphs

PSD NVNT BLE 1M 2402MHz Ant1



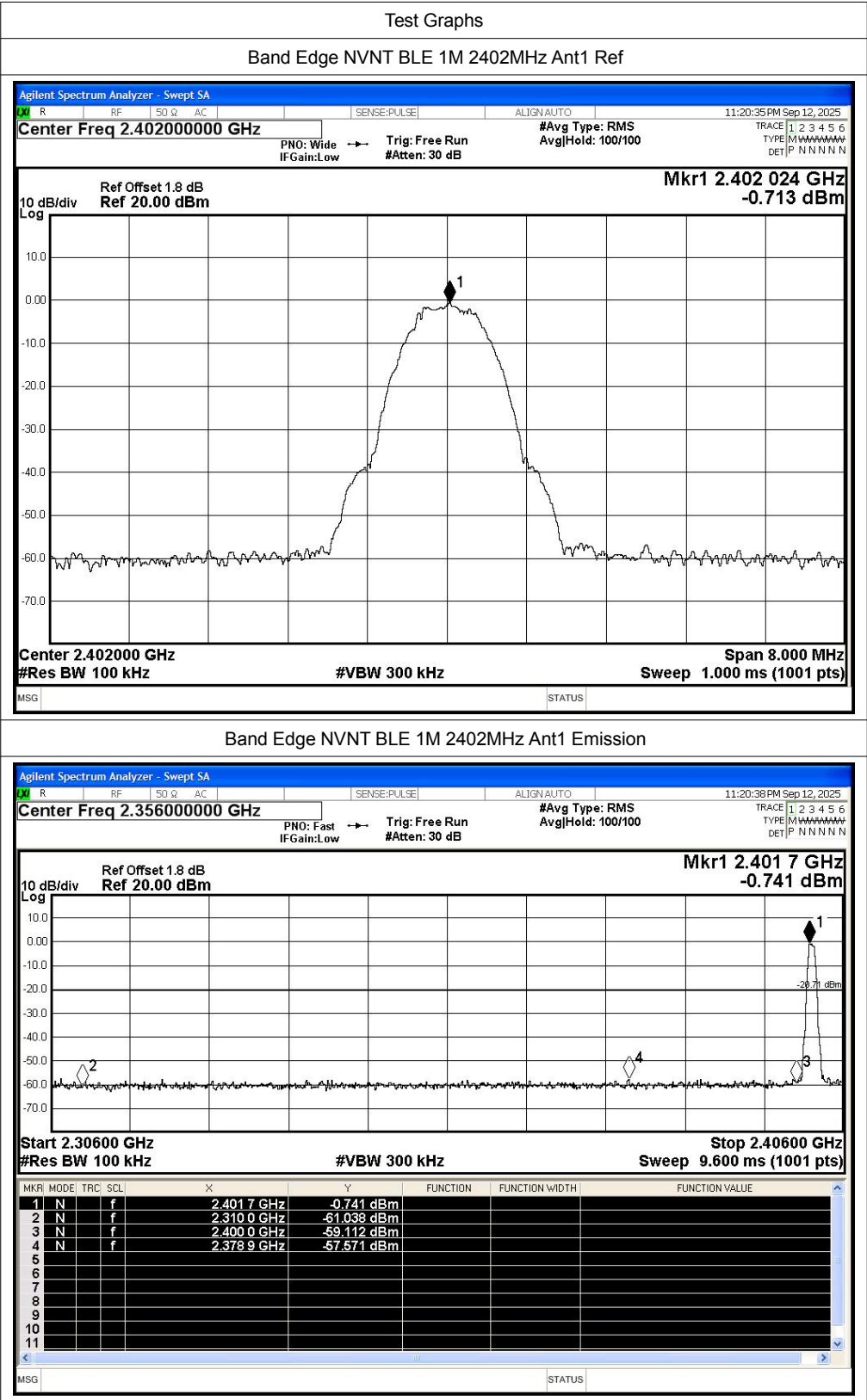
PSD NVNT BLE 1M 2440MHz Ant1

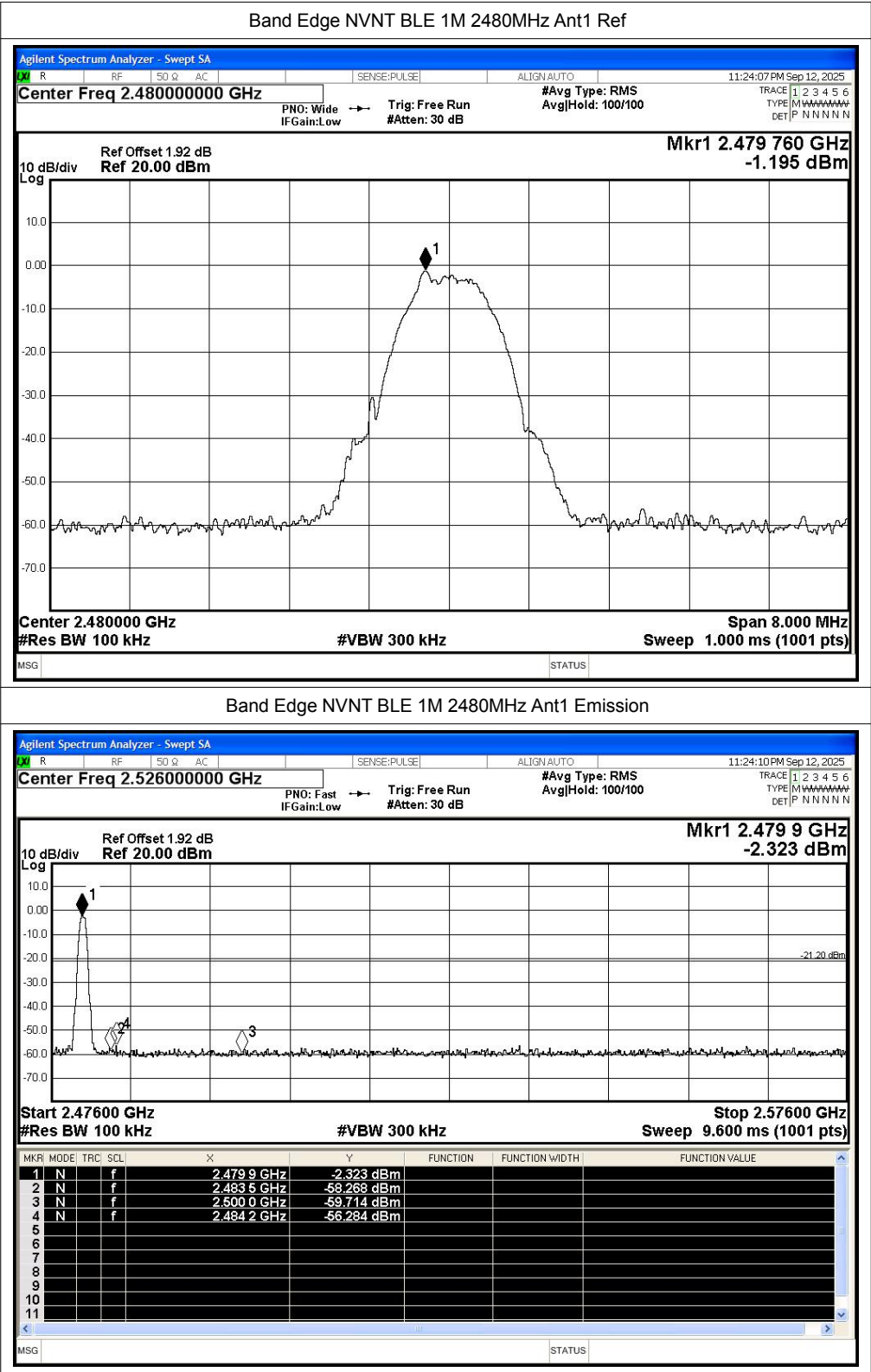




## A.4 Band Edge

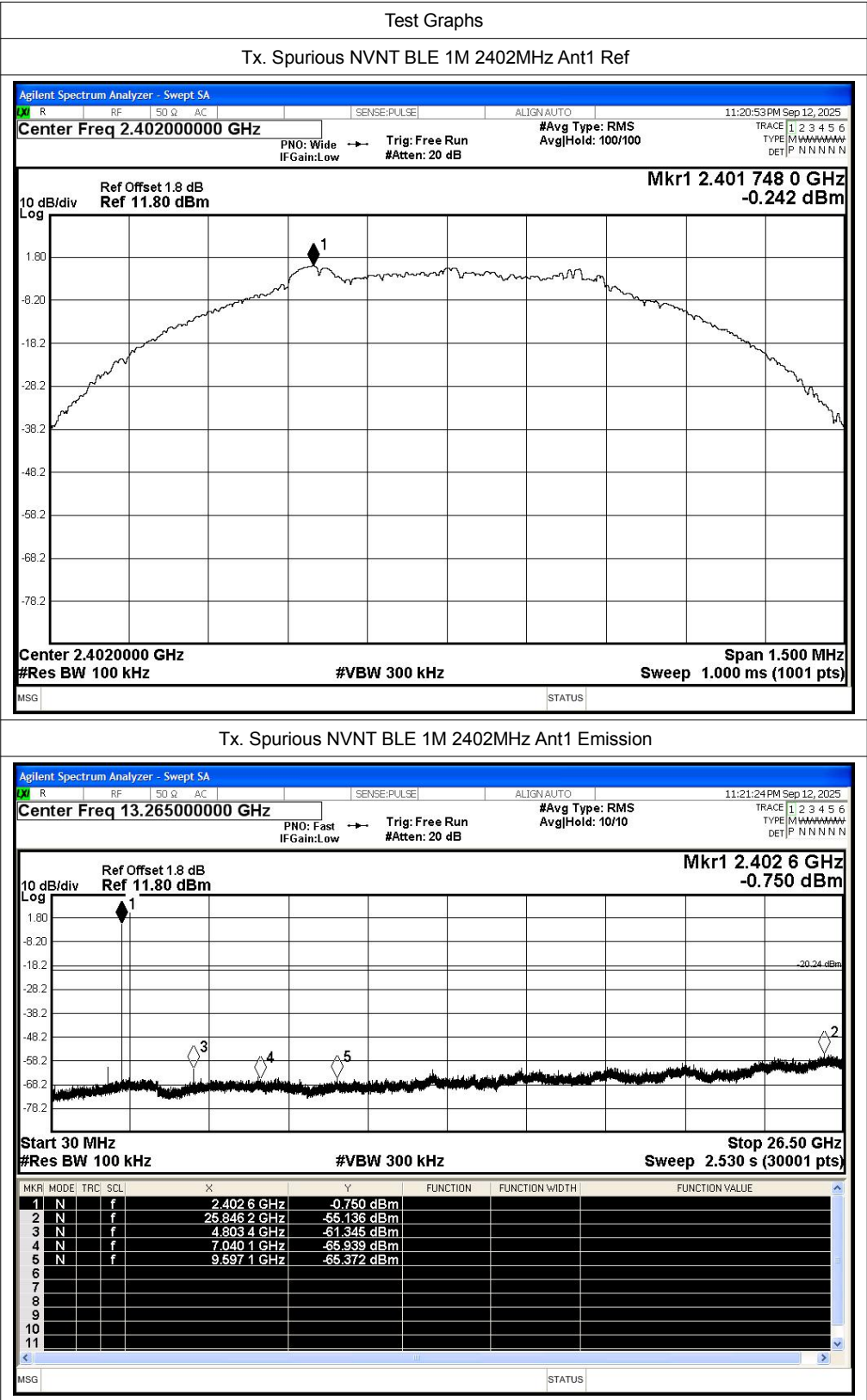
| Condition | Mode   | Frequency (MHz) | Antenna | Max Value (dBc) | Limit (dBc) | Verdict |
|-----------|--------|-----------------|---------|-----------------|-------------|---------|
| NVNT      | BLE 1M | 2402            | Ant1    | -56.86          | -20         | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | -55.09          | -20         | Pass    |

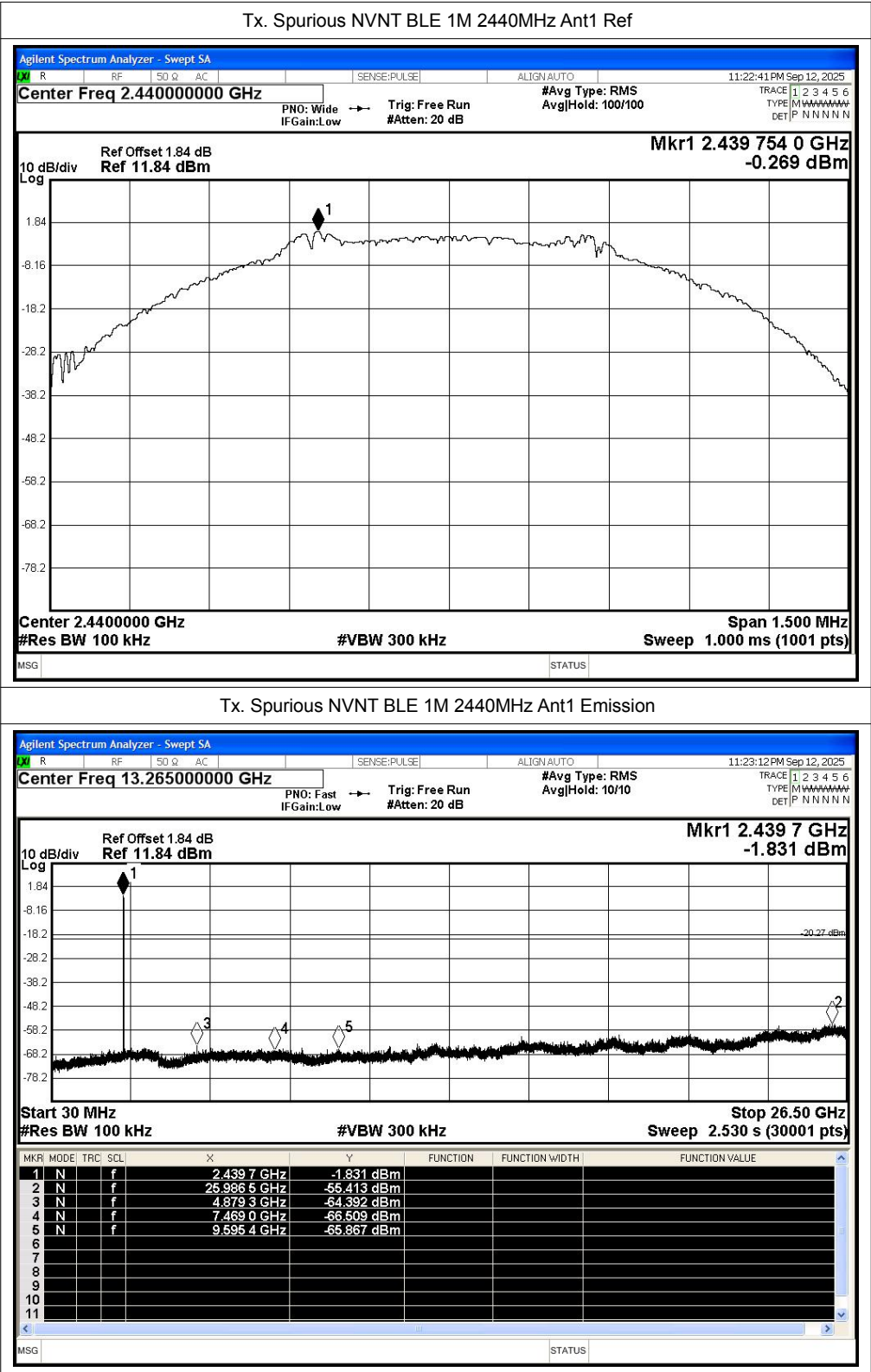


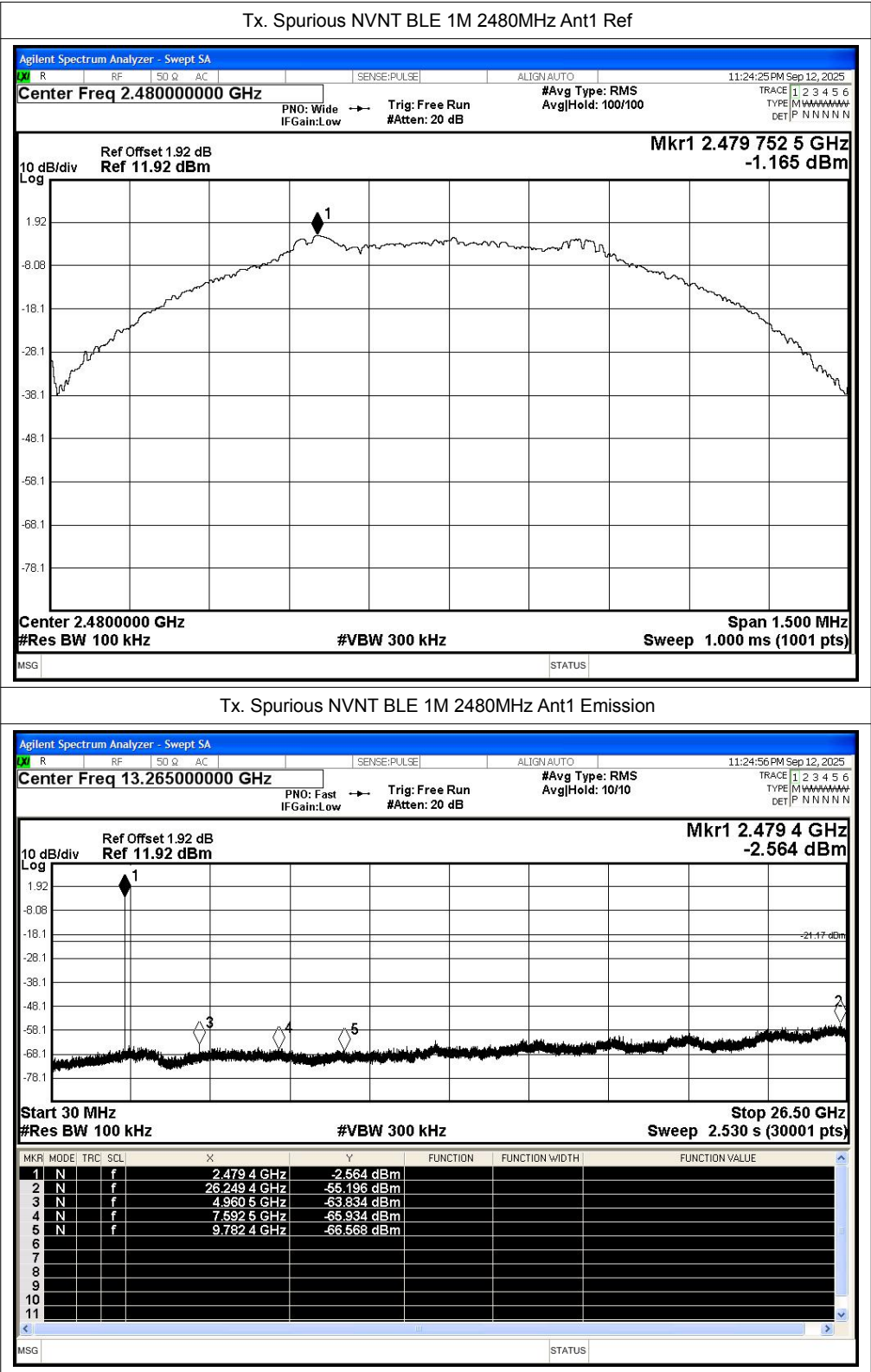


## A.5 Conducted RF Spurious Emission

| Condition | Mode   | Frequency (MHz) | Antenna | Max Value (dBc) | Limit (dBc) | Verdict |
|-----------|--------|-----------------|---------|-----------------|-------------|---------|
| NVNT      | BLE 1M | 2402            | Ant1    | -54.89          | -20         | Pass    |
| NVNT      | BLE 1M | 2440            | Ant1    | -55.14          | -20         | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | -54.03          | -20         | Pass    |

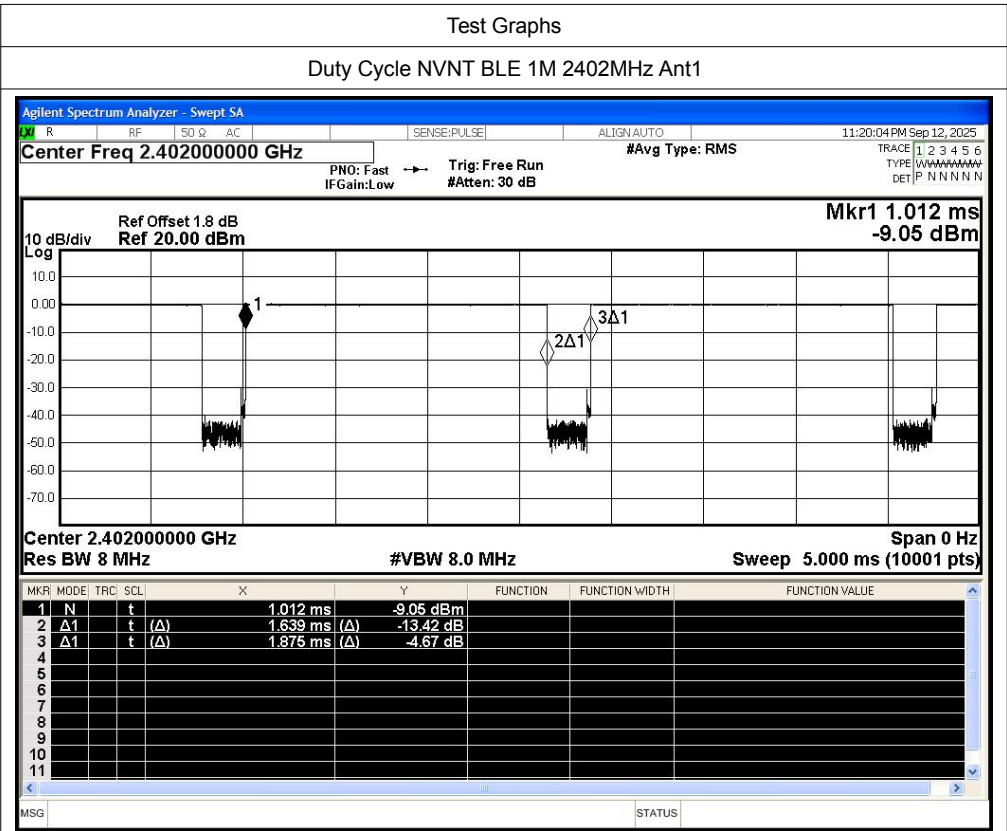




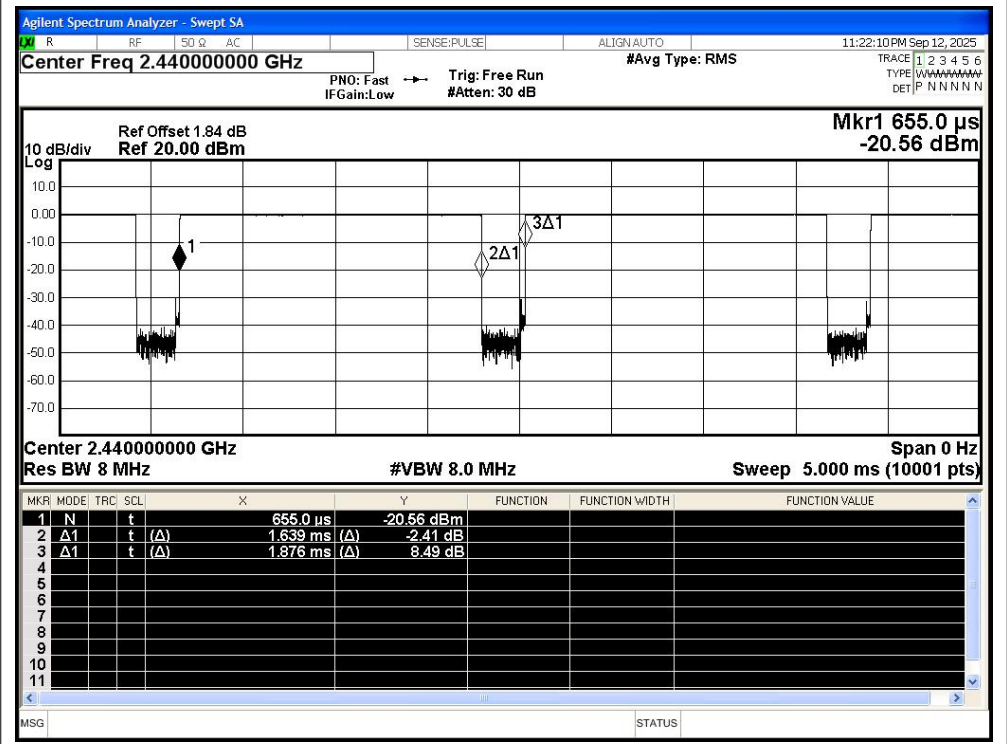


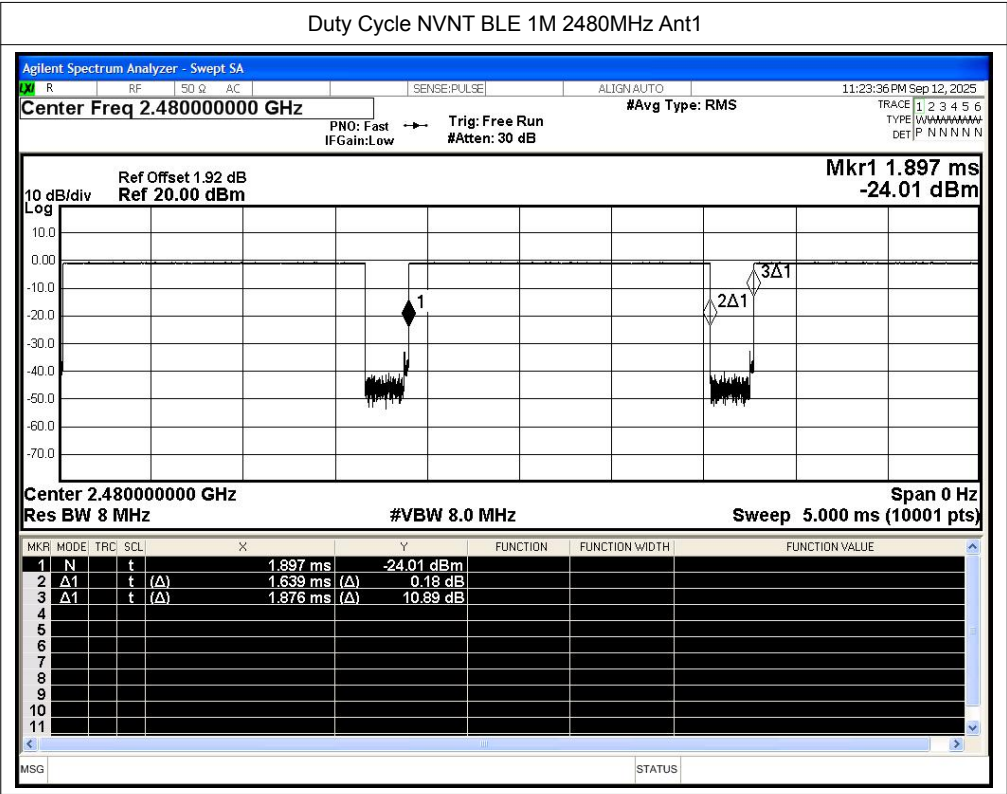
## A.6 Duty Cycle

| Condition | Mode   | Frequency (MHz) | Antenna | Duty Cycle (%) | Correction Factor (dB) | 1/T (kHz) |
|-----------|--------|-----------------|---------|----------------|------------------------|-----------|
| NVNT      | BLE 1M | 2402            | Ant1    | 87.39          | 0.59                   | 0.61      |
| NVNT      | BLE 1M | 2440            | Ant1    | 87.39          | 0.59                   | 0.61      |
| NVNT      | BLE 1M | 2480            | Ant1    | 87.39          | 0.59                   | 0.61      |



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            | -50.11      | 2          | -                | 47.15      | Peak     | 74             | Pass    |
| NVNT      | BLE 1M | 2402            | Ant1    | 2310            | -59.04      | 2          | 0.59             | 38.81      | Average  | 54             | Pass    |
| NVNT      | BLE 1M | 2402            | Ant1    | 2340.816        | -47.65      | 2          | -                | 49.61      | Peak     | 74             | Pass    |
| NVNT      | BLE 1M | 2402            | Ant1    | 2386.896        | -58.26      | 2          | 0.59             | 39.59      | Average  | 54             | Pass    |
| NVNT      | BLE 1M | 2402            | Ant1    | 2390            | -50.51      | 2          | -                | 46.75      | Peak     | 74             | Pass    |
| NVNT      | BLE 1M | 2402            | Ant1    | 2390            | -58.59      | 2          | 0.59             | 39.26      | Average  | 54             | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | 2483.5          | -50.52      | 2          | -                | 46.74      | Peak     | 74             | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | 2483.5          | -58.12      | 2          | 0.59             | 39.73      | Average  | 54             | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | 2483.8          | -43.6       | 2          | -                | 53.66      | Peak     | 74             | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | 2483.776        | -57.76      | 2          | 0.59             | 40.09      | Average  | 54             | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | 2500            | -49.57      | 2          | -                | 47.69      | Peak     | 74             | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | 2500            | -57.81      | 2          | 0.59             | 40.04      | Average  | 54             | Pass    |

