



## Appendix B

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

Product Name: Soundbar

Test Model: B0117-02701BK

#### Environmental Conditions

|                    |           |
|--------------------|-----------|
| Temperature:       | 23.5 ° C  |
| Relative Humidity: | 52.2%     |
| ATM Pressure:      | 100.0 kPa |
| Test Engineer:     | Joker Hu  |
| Supervised by:     | Ling Zhu  |



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## B.1 -6dB Bandwidth

| Condition | Mode   | Frequency (MHz) | Antenna | -6 dB Bandwidth (MHz) | Limit -6 dB Bandwidth (MHz) | Verdict |
|-----------|--------|-----------------|---------|-----------------------|-----------------------------|---------|
| NVNT      | BLE 1M | 2402            | Ant2    | 0.707                 | 0.5                         | Pass    |
| NVNT      | BLE 1M | 2440            | Ant2    | 0.702                 | 0.5                         | Pass    |
| NVNT      | BLE 1M | 2480            | Ant2    | 0.691                 | 0.5                         | Pass    |



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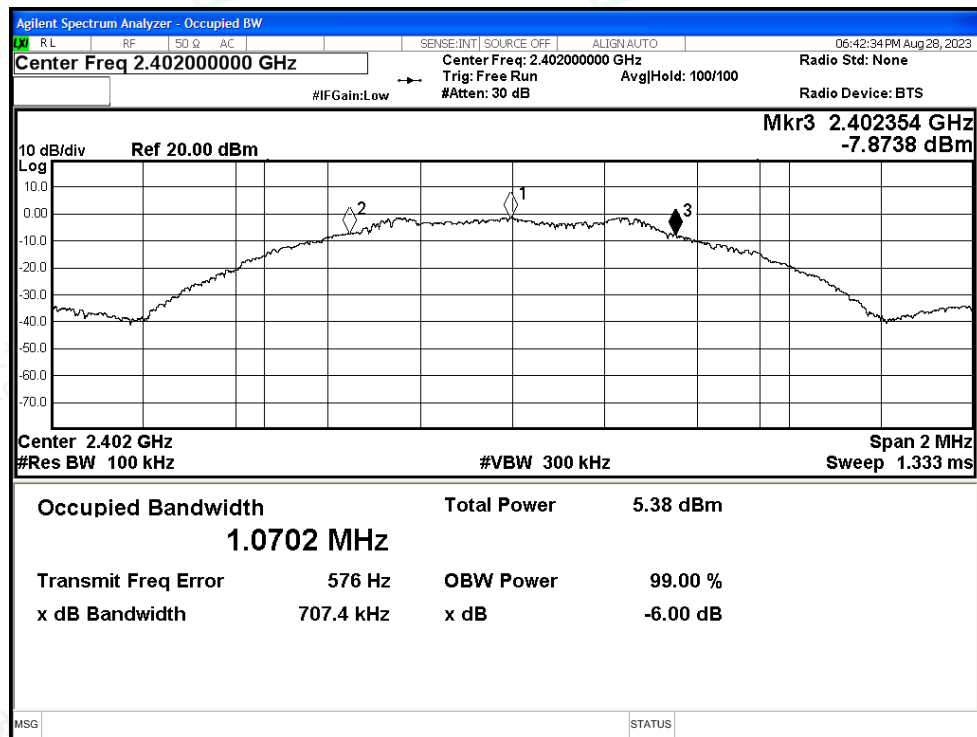
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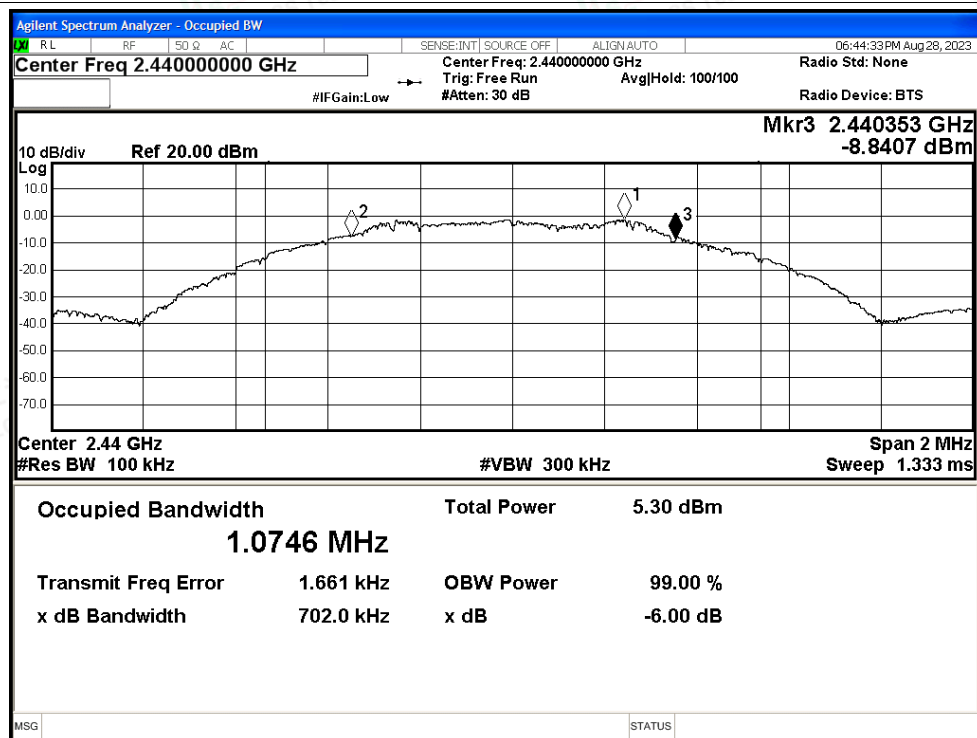


## Test Graphs

-6dB Bandwidth NVNT BLE 1M 2402MHz Ant2



-6dB Bandwidth NVNT BLE 1M 2440MHz Ant2

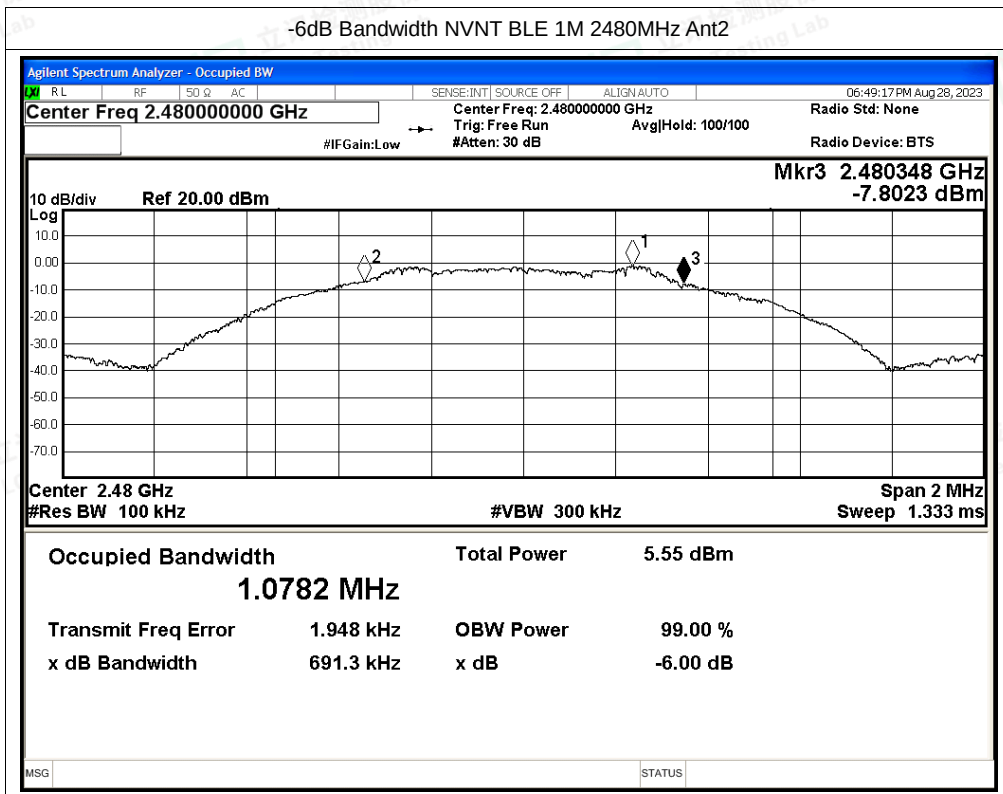


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## B.2 Maximum Conducted Output Power

| Condition | Mode   | Frequency (MHz) | Antenna | Total Power (dBm) | Limit (dBm) | Verdict |
|-----------|--------|-----------------|---------|-------------------|-------------|---------|
| NVNT      | BLE 1M | 2402            | Ant2    | -0.37             | 30          | Pass    |
| NVNT      | BLE 1M | 2440            | Ant2    | -0.38             | 30          | Pass    |
| NVNT      | BLE 1M | 2480            | Ant2    | -0.17             | 30          | Pass    |



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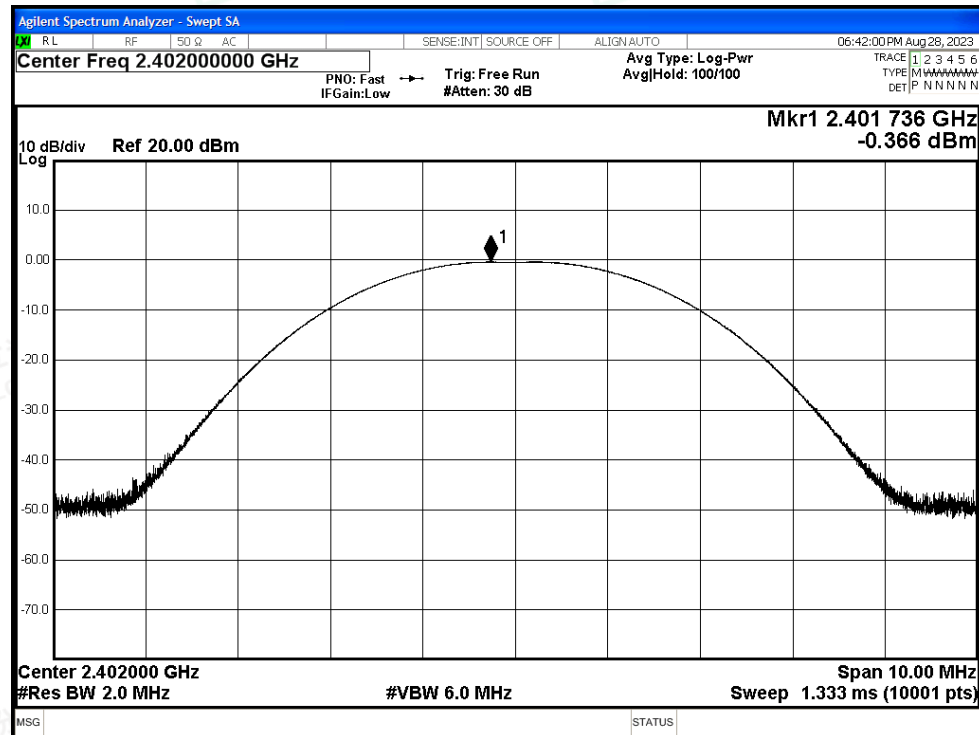
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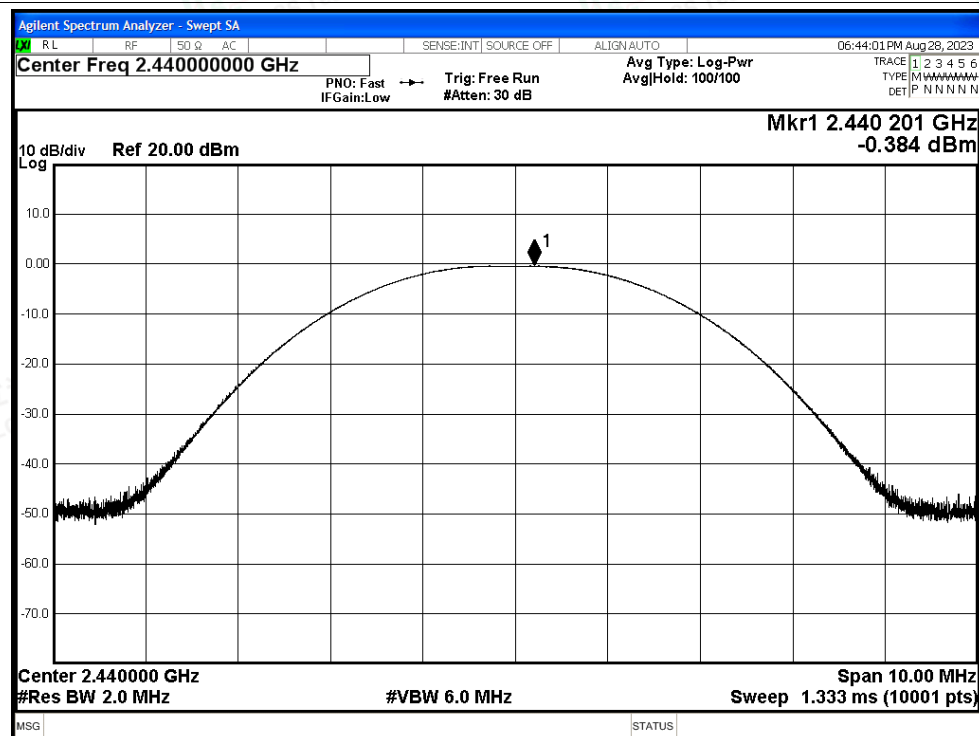


## Test Graphs

Power NVNT BLE 1M 2402MHz Ant2



Power NVNT BLE 1M 2440MHz Ant2

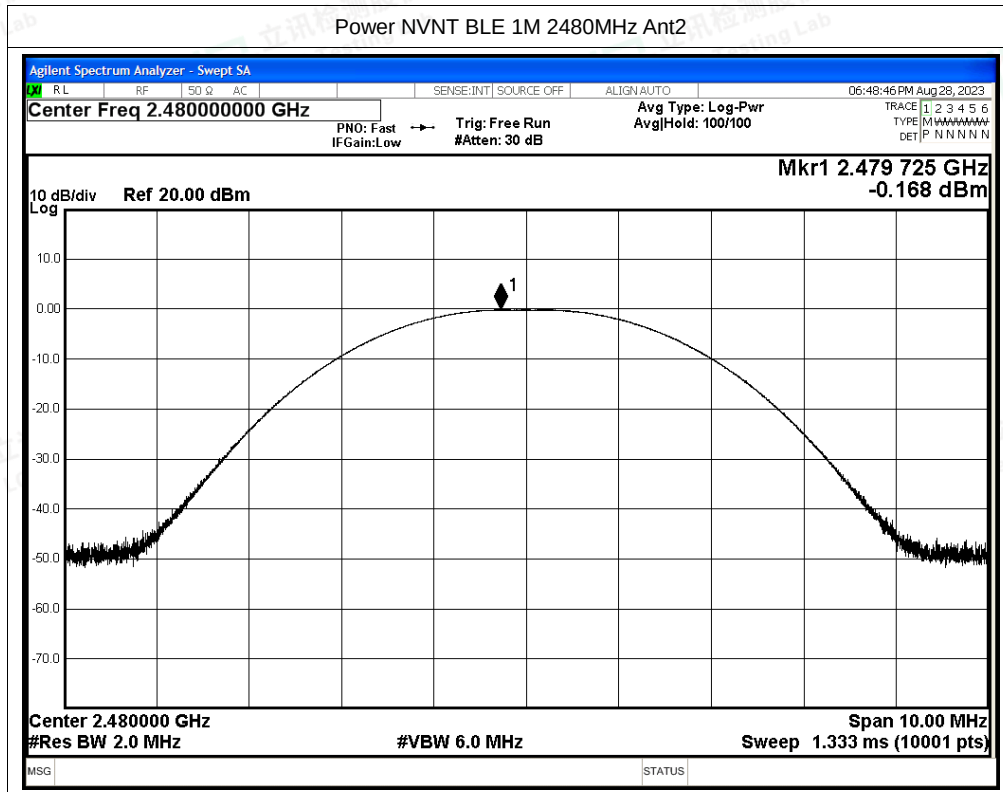


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### B.3 Maximum Power Spectral Density Level

| Condition | Mode   | Frequency (MHz) | Antenna | Total PSD<br>(dBm/3kHz) | Limit<br>(dBm/3kHz) | Verdict |
|-----------|--------|-----------------|---------|-------------------------|---------------------|---------|
| NVNT      | BLE 1M | 2402            | Ant2    | -15.52                  | 8                   | Pass    |
| NVNT      | BLE 1M | 2440            | Ant2    | -15.5                   | 8                   | Pass    |
| NVNT      | BLE 1M | 2480            | Ant2    | -15.28                  | 8                   | Pass    |



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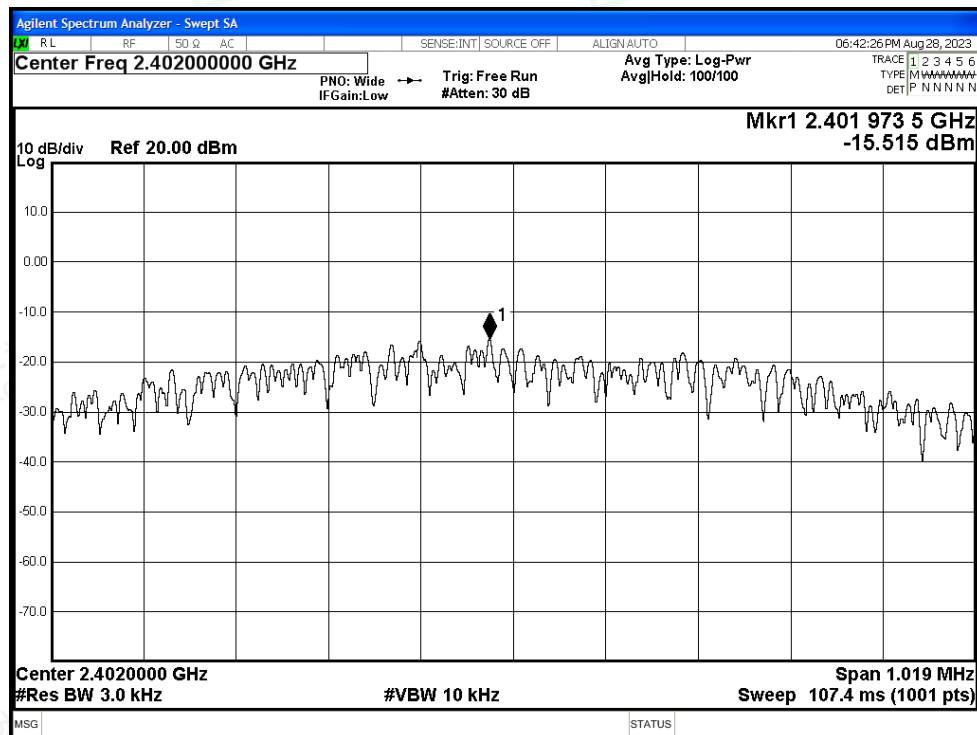
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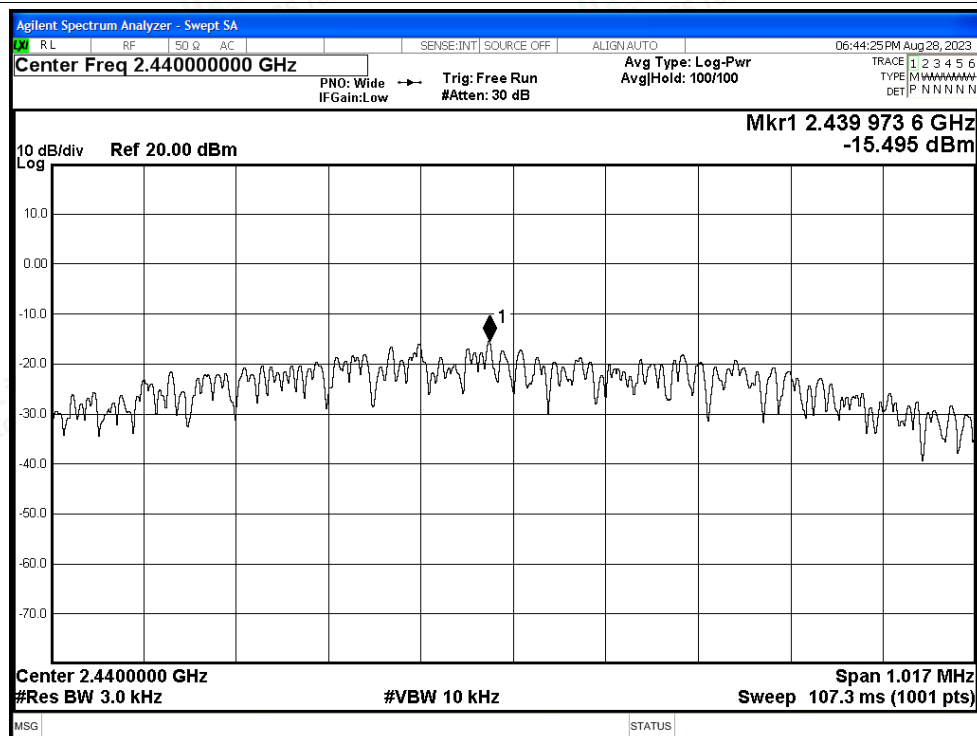


## Test Graphs

## PSD NVNT BLE 1M 2402MHz Ant2



## PSD NVNT BLE 1M 2440MHz Ant2

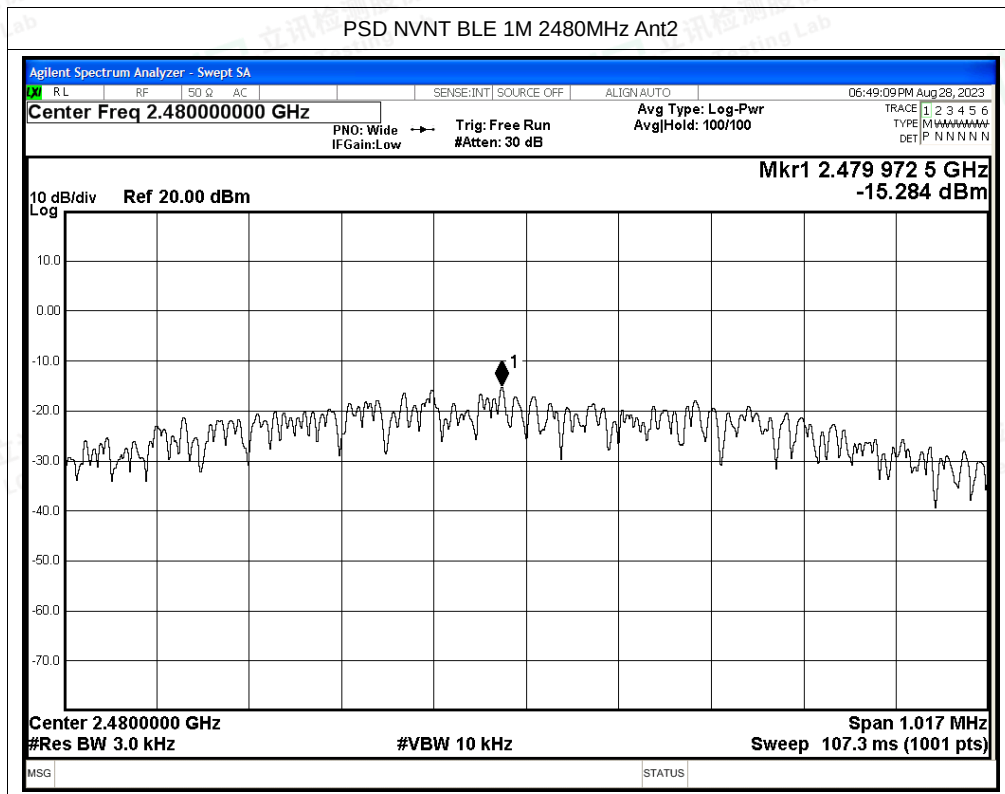


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B.4 Band Edge

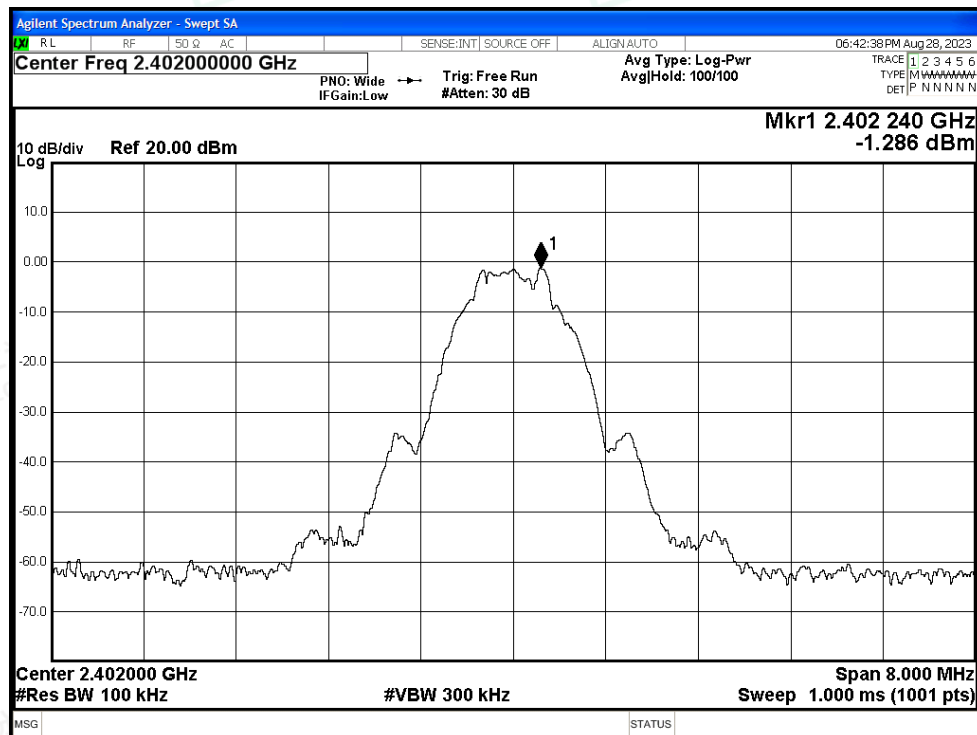
| Condition | Mode   | Frequency (MHz) | Antenna | Max Value (dBc) | Limit (dBc) | Verdict |
|-----------|--------|-----------------|---------|-----------------|-------------|---------|
| NVNT      | BLE 1M | 2402            | Ant2    | -56.83          | -20         | Pass    |
| NVNT      | BLE 1M | 2480            | Ant2    | -57.71          | -20         | Pass    |



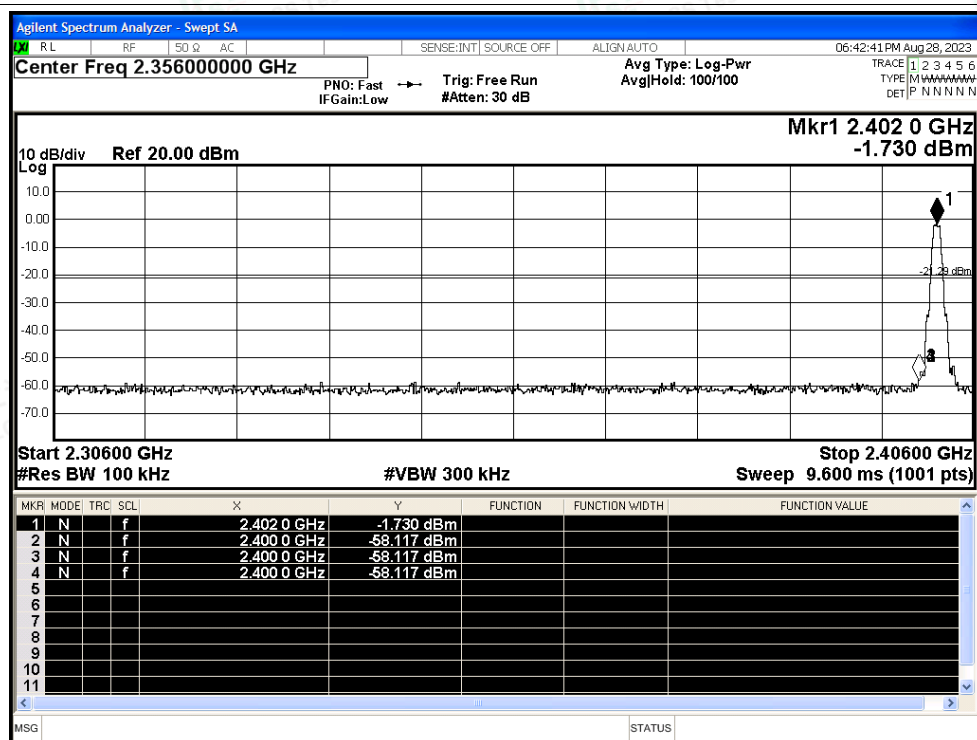


## Test Graphs

## Band Edge NVNT BLE 1M 2402MHz Ant2 Ref



## Band Edge NVNT BLE 1M 2402MHz Ant2 Emission



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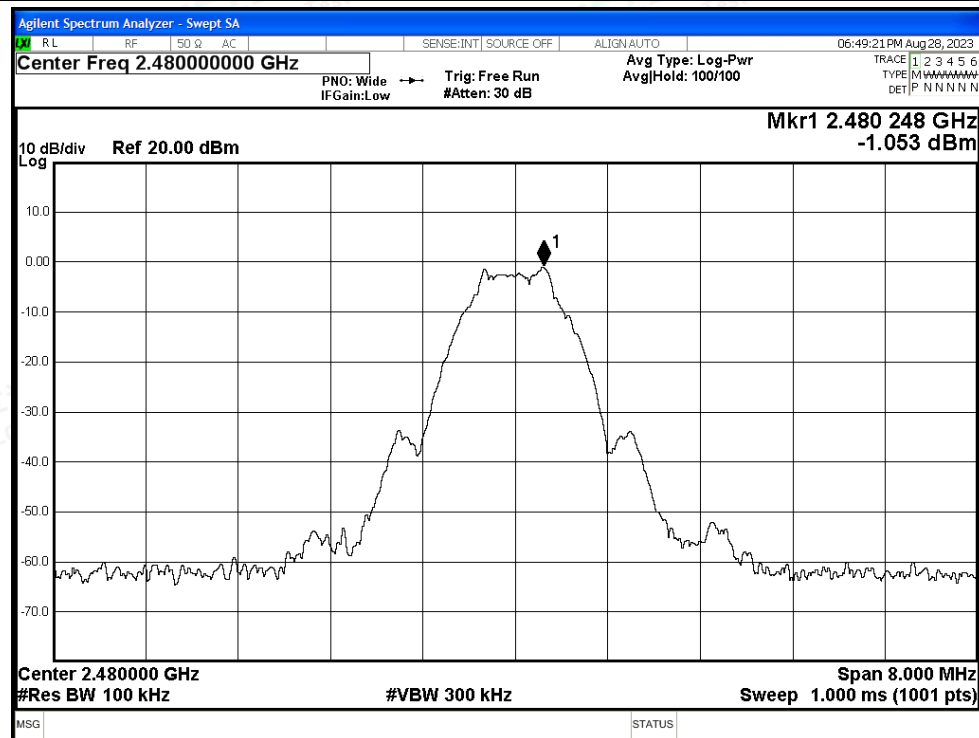
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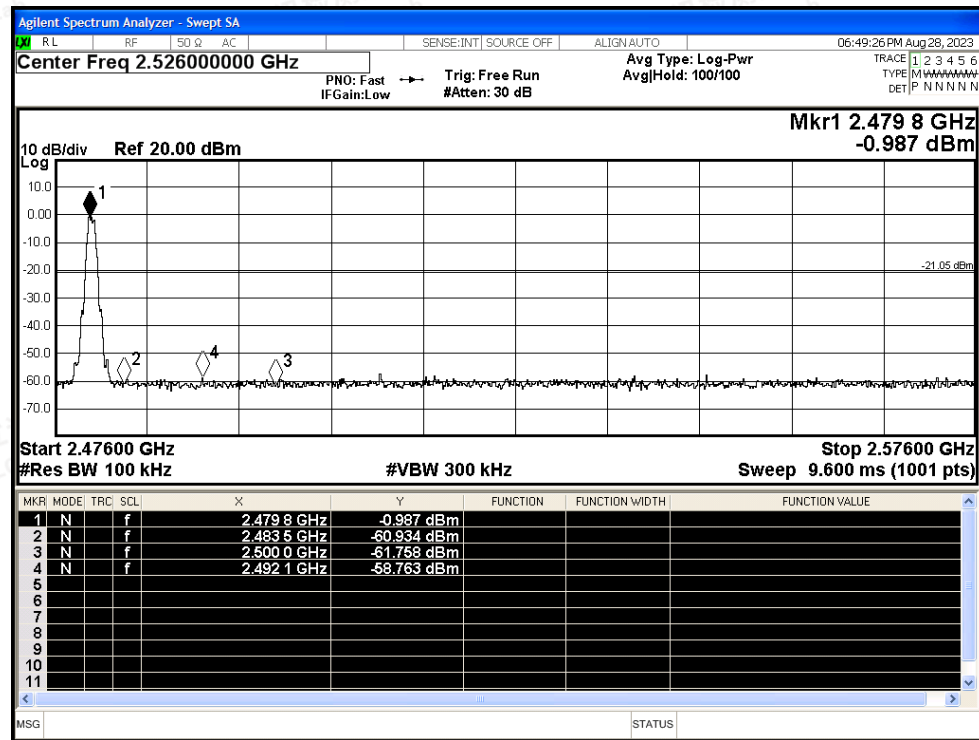
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## Band Edge NVNT BLE 1M 2480MHz Ant2 Ref



## Band Edge NVNT BLE 1M 2480MHz Ant2 Emission



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B.5 Conducted RF Spurious Emission

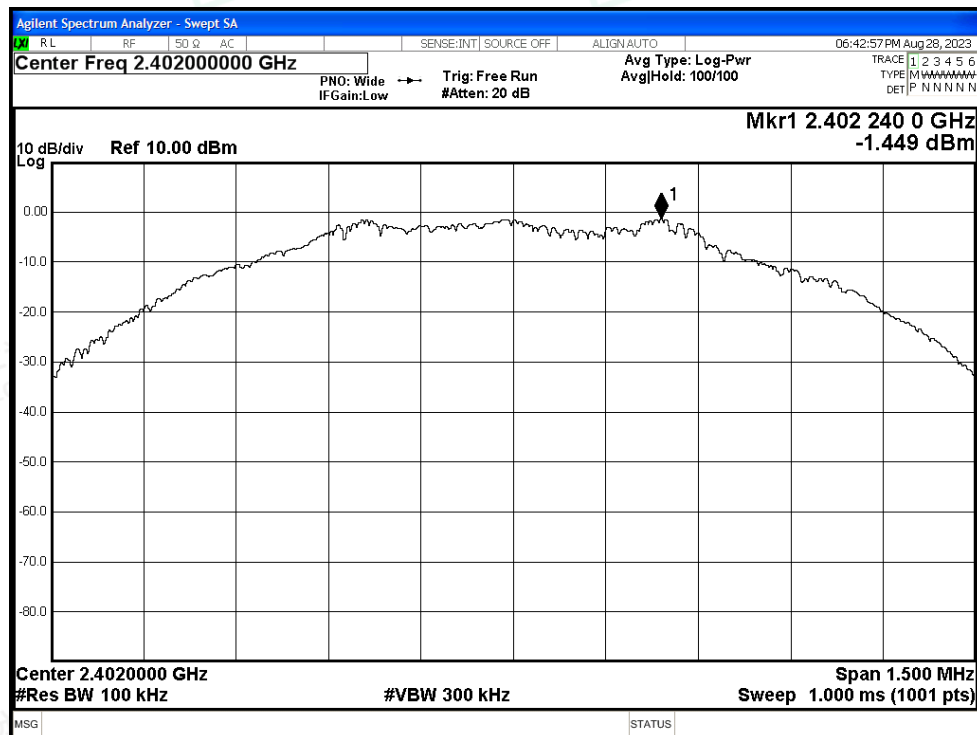
| Condition | Mode   | Frequency (MHz) | Antenna | Max Value (dBc) | Limit (dBc) | Verdict |
|-----------|--------|-----------------|---------|-----------------|-------------|---------|
| NVNT      | BLE 1M | 2402            | Ant2    | -55.14          | -20         | Pass    |
| NVNT      | BLE 1M | 2440            | Ant2    | -54.71          | -20         | Pass    |
| NVNT      | BLE 1M | 2480            | Ant2    | -39.42          | -20         | Pass    |



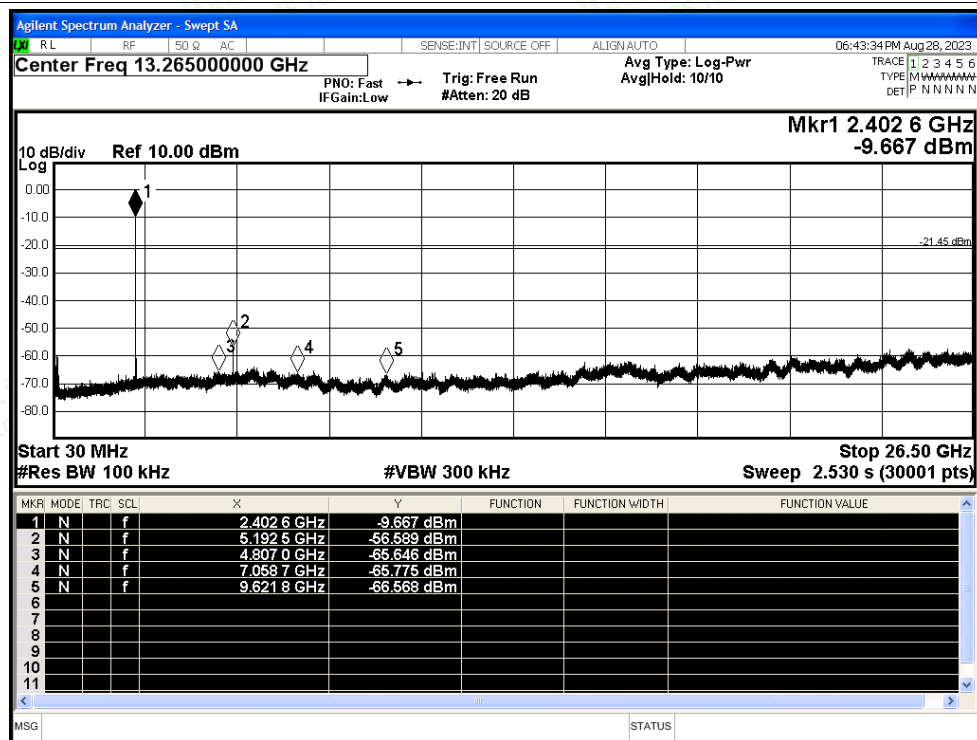


## Test Graphs

Tx. Spurious NVNT BLE 1M 2402MHz Ant2 Ref



Tx. Spurious NVNT BLE 1M 2402MHz Ant2 Emission



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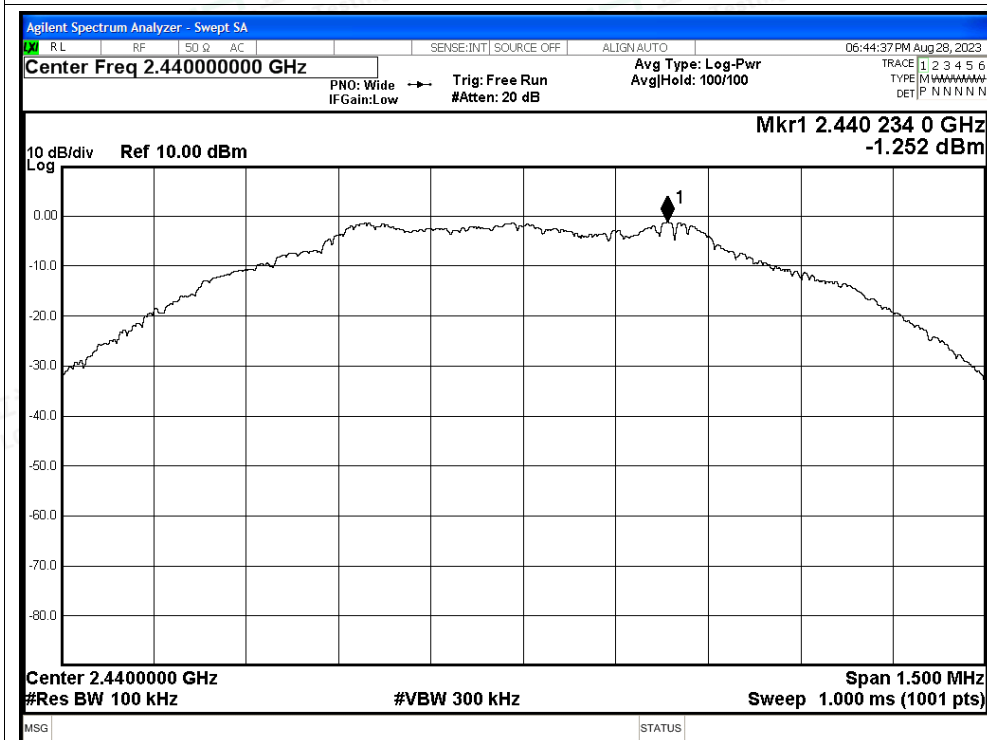
Add: 101, 201 Bldg A &amp; 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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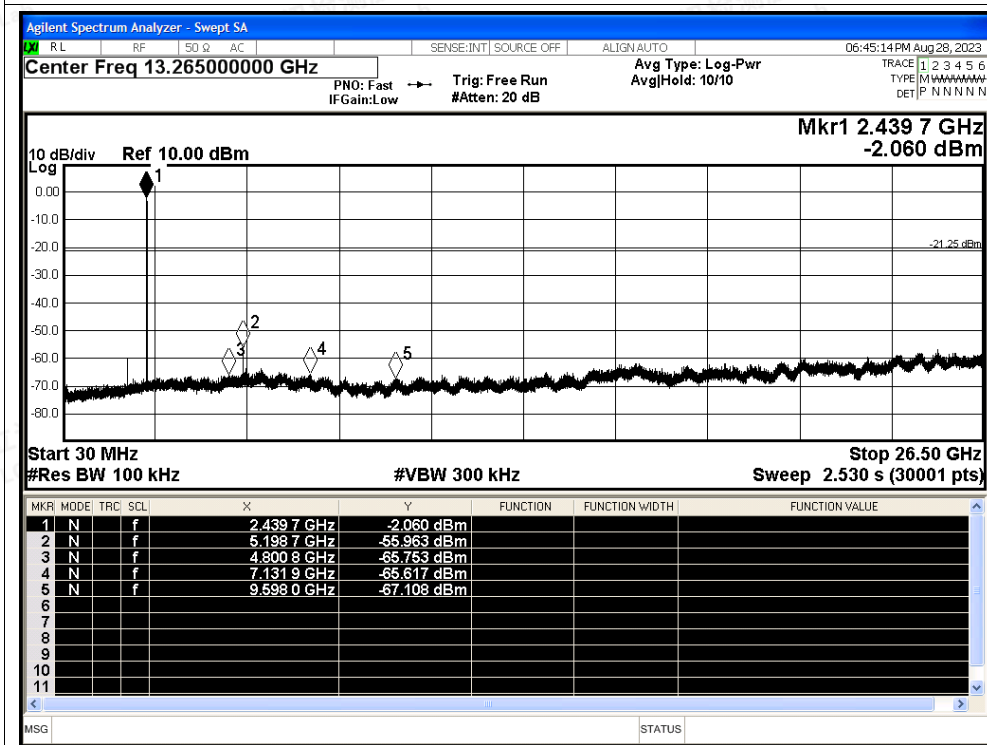
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## Tx. Spurious NVNT BLE 1M 2440MHz Ant2 Ref



## Tx. Spurious NVNT BLE 1M 2440MHz Ant2 Emission



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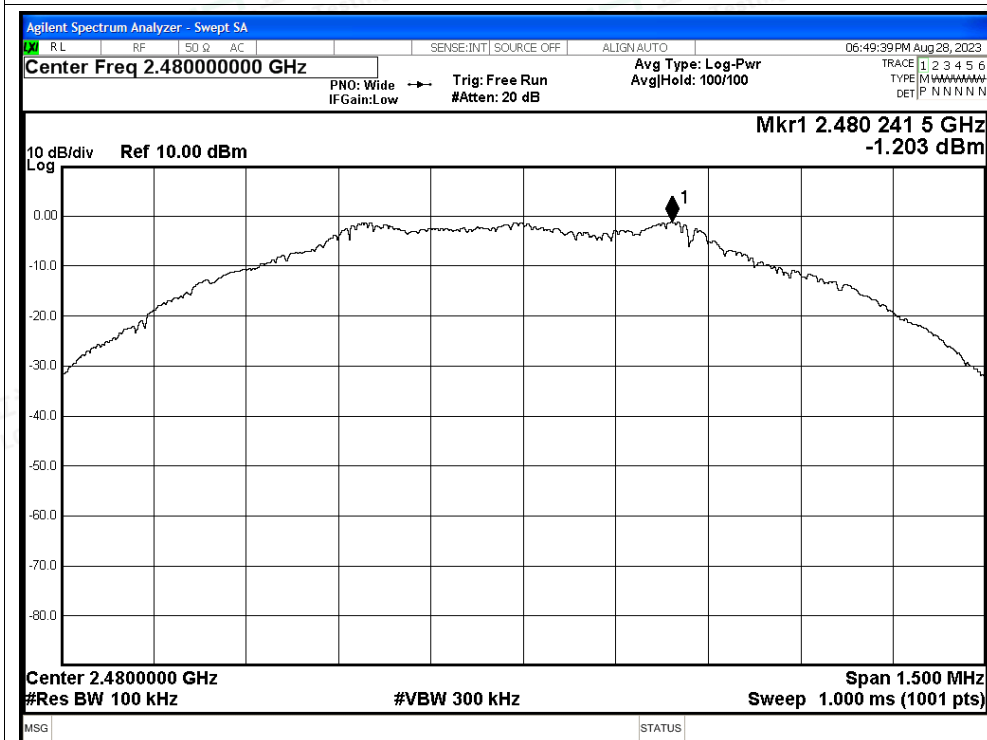
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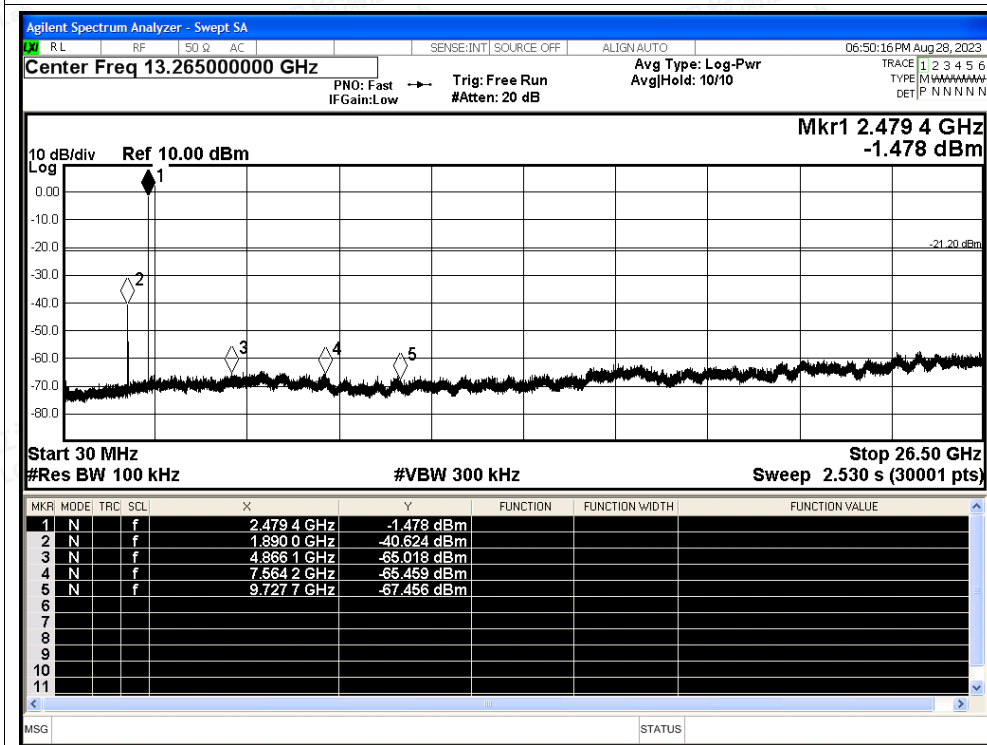
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## Tx. Spurious NVNT BLE 1M 2480MHz Ant2 Ref



## Tx. Spurious NVNT BLE 1M 2480MHz Ant2 Emission



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## B.6 Duty Cycle

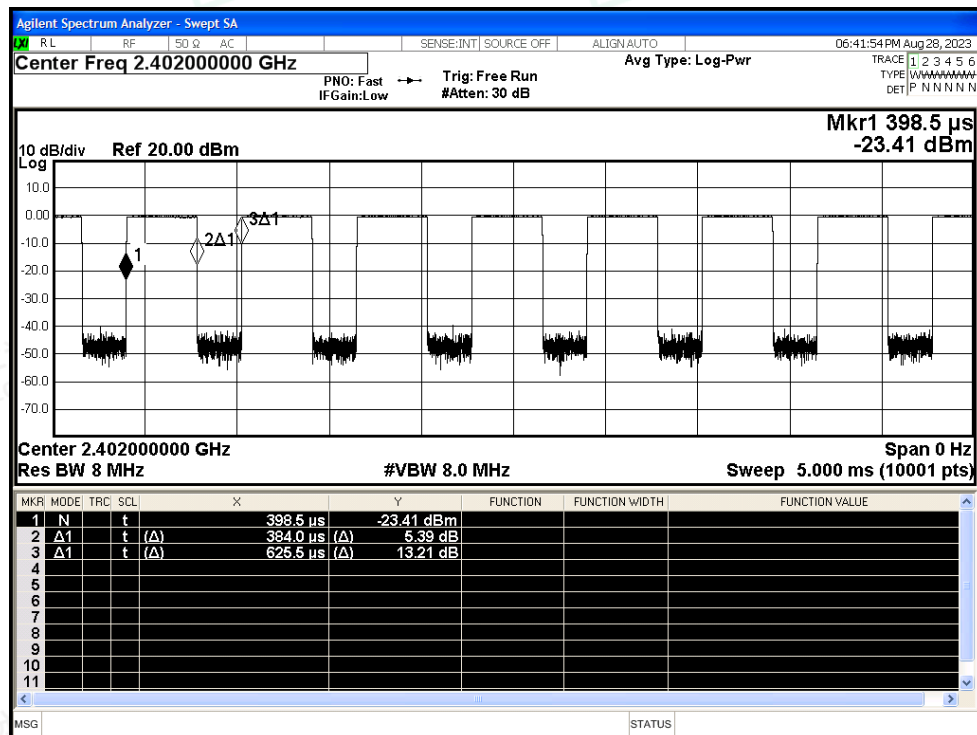
| Condition | Mode   | Frequency (MHz) | Antenna | Duty Cycle (%) | Correction Factor (dB) | 1/T (kHz) |
|-----------|--------|-----------------|---------|----------------|------------------------|-----------|
| NVNT      | BLE 1M | 2402            | Ant2    | 61.39          | 2.12                   | 2.6       |
| NVNT      | BLE 1M | 2440            | Ant2    | 61.44          | 2.12                   | 2.6       |
| NVNT      | BLE 1M | 2480            | Ant2    | 61.36          | 2.12                   | 2.61      |



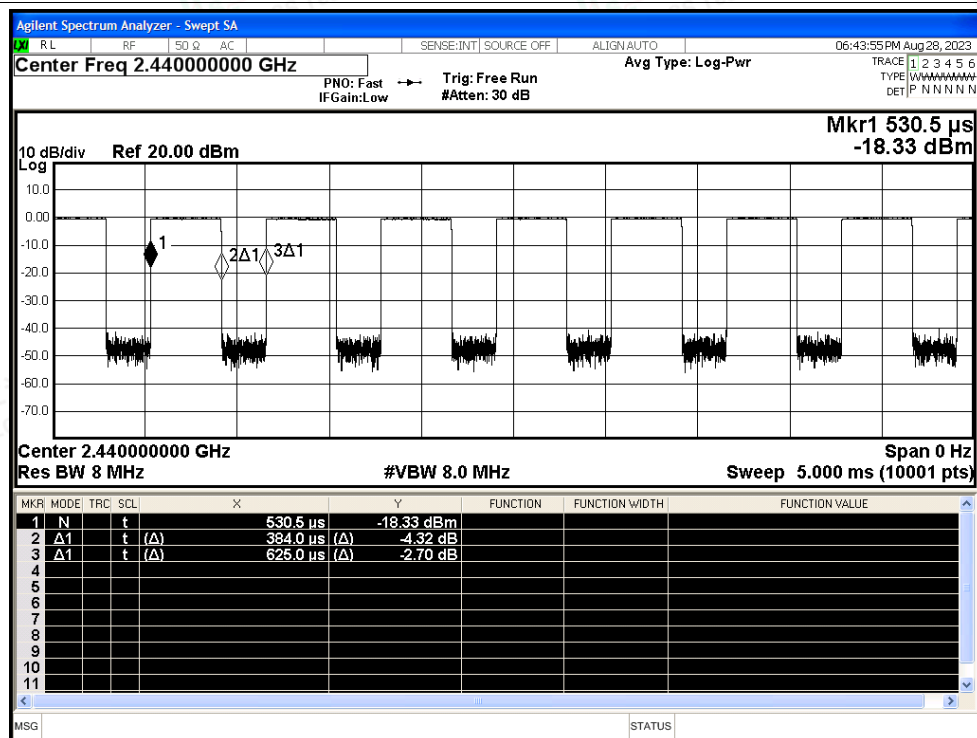


## Test Graphs

## Duty Cycle NVNT BLE 1M 2402MHz Ant2



## Duty Cycle NVNT BLE 1M 2440MHz Ant2

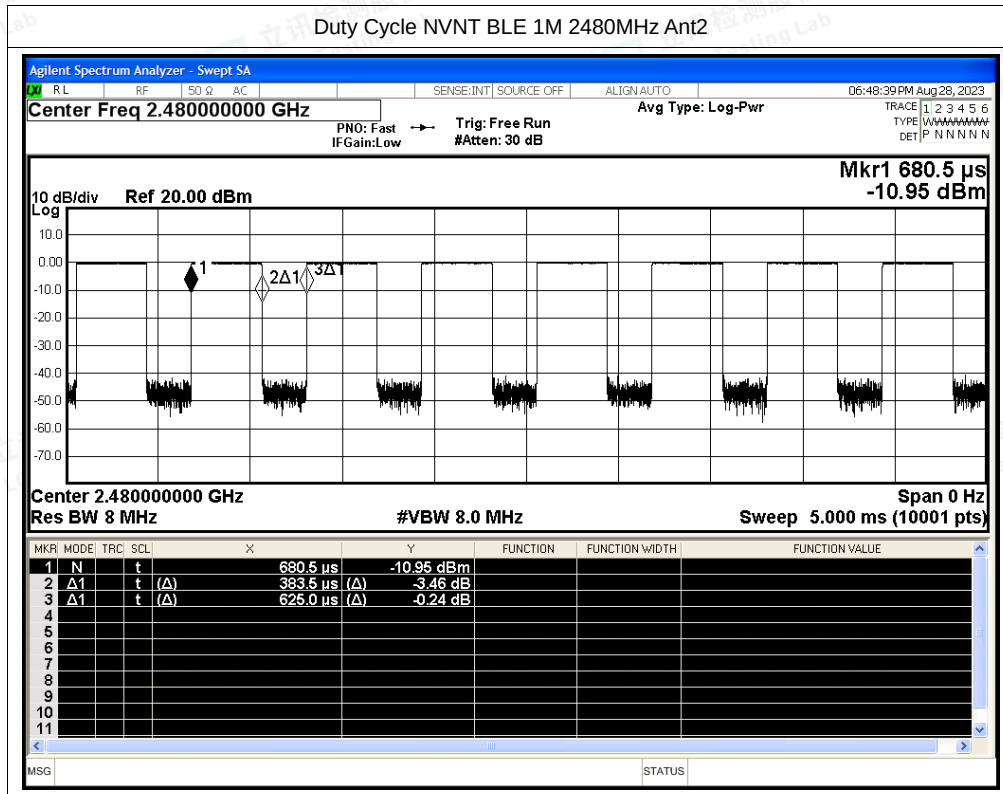


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## B.7 Restrict Band

| Condition | Mode   | Frequency (MHz) | Antenna | Spur Freq (MHz) | Power (dBm) | Gain (dBi) | E (dBuV/m) | Detector | Limit (dBuV/m) | Verdict |
|-----------|--------|-----------------|---------|-----------------|-------------|------------|------------|----------|----------------|---------|
| NVNT      | BLE 1M | 2402            | Ant2    | 2310            | -52.18      | 2          | 45.08      | Peak     | 74             | Pass    |
| NVNT      | BLE 1M | 2402            | Ant2    | 2310            | -61.26      | 2          | 36         | Average  | 54             | Pass    |
| NVNT      | BLE 1M | 2402            | Ant2    | 2350.992        | -48.57      | 2          | 48.69      | Peak     | 74             | Pass    |
| NVNT      | BLE 1M | 2402            | Ant2    | 2382            | -60.46      | 2          | 36.8       | Average  | 54             | Pass    |
| NVNT      | BLE 1M | 2402            | Ant2    | 2390            | -52.81      | 2          | 44.45      | Peak     | 74             | Pass    |
| NVNT      | BLE 1M | 2402            | Ant2    | 2390            | -60.87      | 2          | 36.39      | Average  | 54             | Pass    |
| NVNT      | BLE 1M | 2480            | Ant2    | 2483.5          | -52.15      | 2          | 45.11      | Peak     | 74             | Pass    |
| NVNT      | BLE 1M | 2480            | Ant2    | 2483.5          | -60.49      | 2          | 36.77      | Average  | 54             | Pass    |
| NVNT      | BLE 1M | 2480            | Ant2    | 2486.176        | -48.78      | 2          | 48.48      | Peak     | 74             | Pass    |
| NVNT      | BLE 1M | 2480            | Ant2    | 2486.128        | -59.92      | 2          | 37.34      | Average  | 54             | Pass    |
| NVNT      | BLE 1M | 2480            | Ant2    | 2500            | -52.32      | 2          | 44.94      | Peak     | 74             | Pass    |
| NVNT      | BLE 1M | 2480            | Ant2    | 2500            | -60.84      | 2          | 36.42      | Average  | 54             | Pass    |



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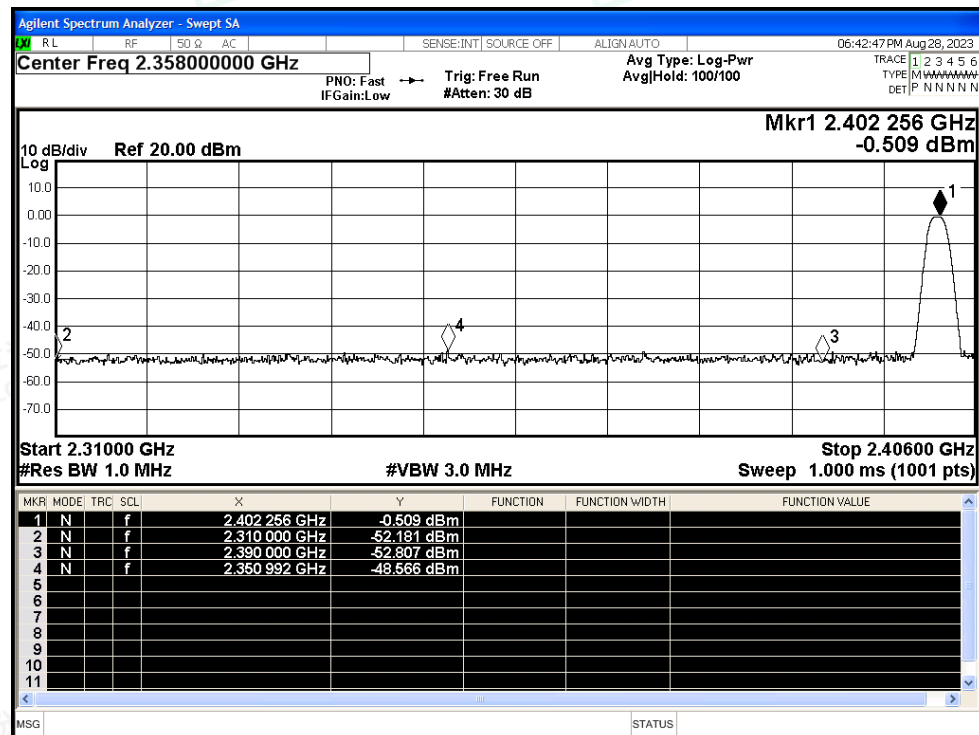
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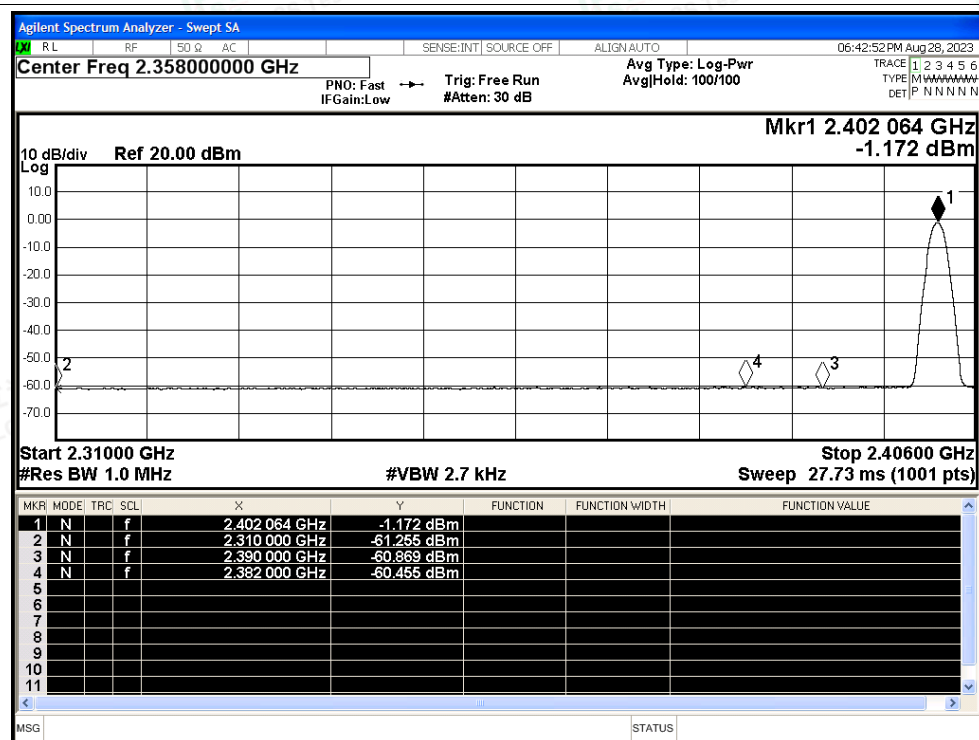


## Test Graphs

## Restrict Band NVNT BLE 1M 2402MHz Ant2 Peak



## Restrict Band NVNT BLE 1M 2402MHz Ant2 Average

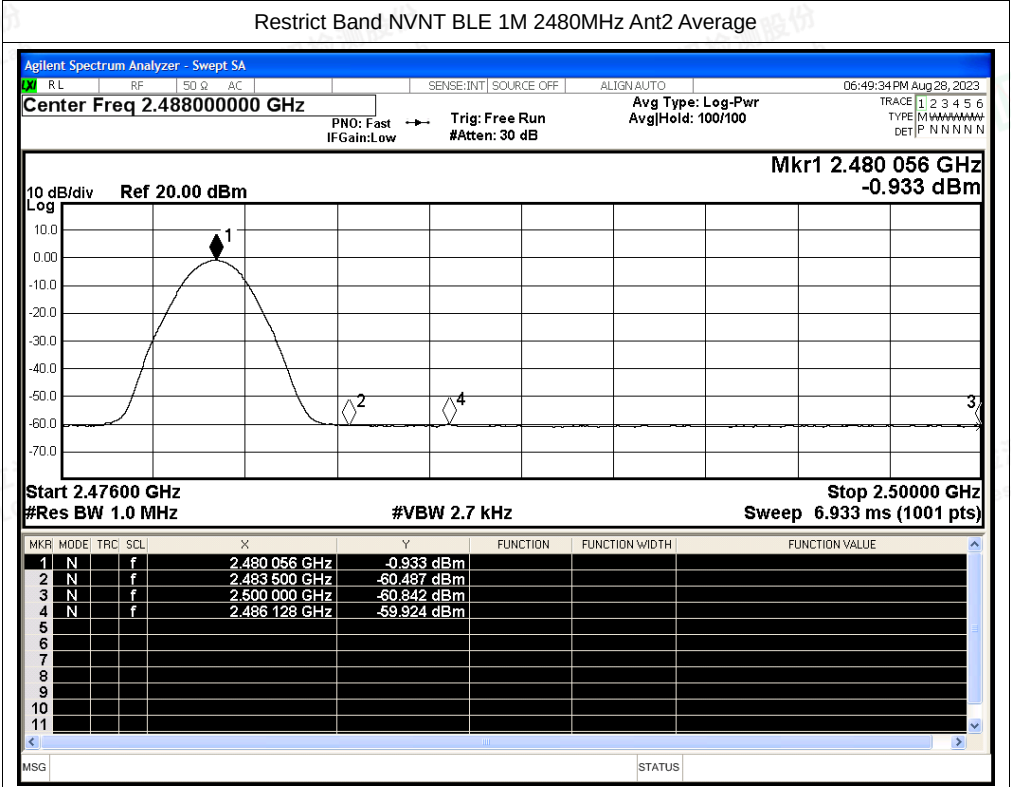
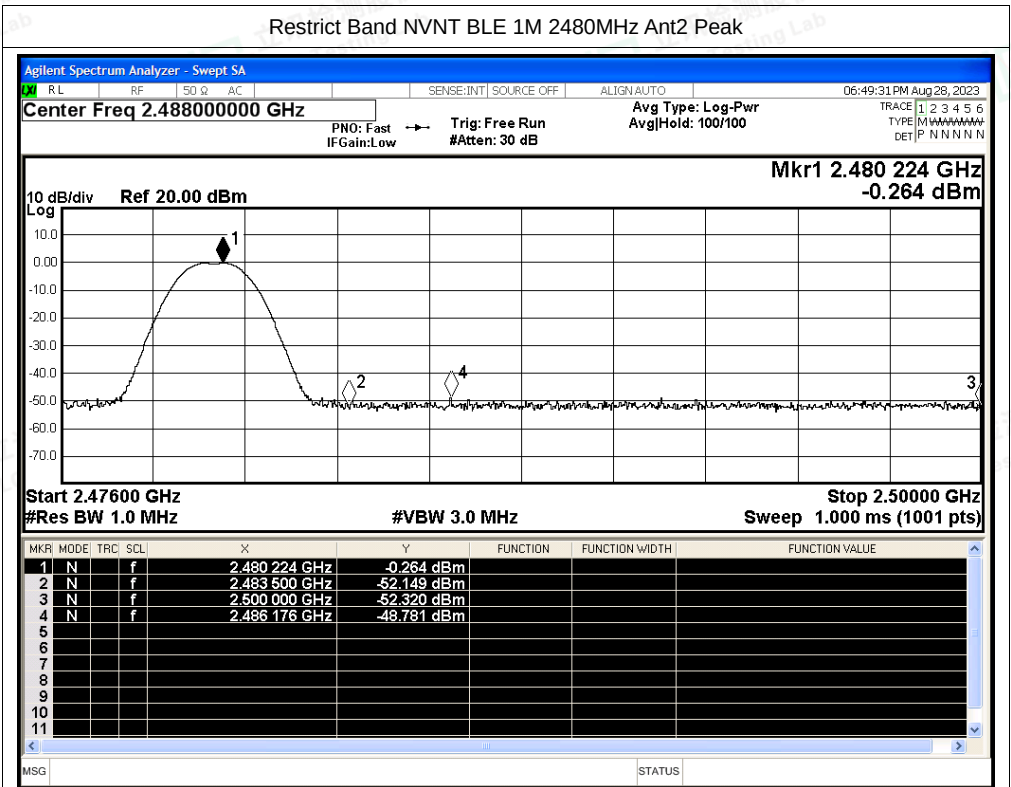


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