



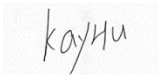
## Appendix A

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

Product Name: 3 Inch Wi-Fi/BLE Recessed Down Light

Test Model: LJD005SMWH

#### Environmental Conditions

|                    |                                                                                                 |
|--------------------|-------------------------------------------------------------------------------------------------|
| Temperature:       | 23.5 ° C                                                                                        |
| Relative Humidity: | 52.2%                                                                                           |
| ATM Pressure:      | 100.0 kPa                                                                                       |
| Test Engineer:     | <br>Kay Hu    |
| Supervised by:     | <br>Li Huan |





## A.1 -6dB Bandwidth

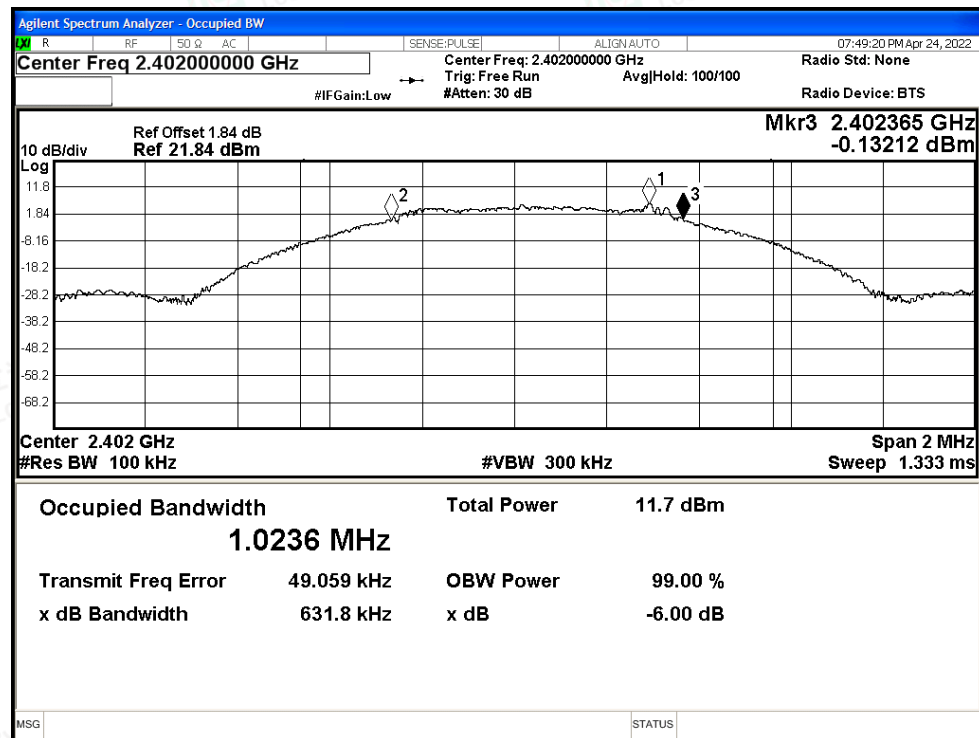
| Condition | Mode   | Frequency (MHz) | Antenna | -6 dB Bandwidth (MHz) | Limit -6 dB Bandwidth (MHz) | Verdict |
|-----------|--------|-----------------|---------|-----------------------|-----------------------------|---------|
| NVNT      | BLE 1M | 2402            | Ant1    | 0.632                 | 0.5                         | Pass    |
| NVNT      | BLE 1M | 2440            | Ant1    | 0.658                 | 0.5                         | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | 0.651                 | 0.5                         | Pass    |



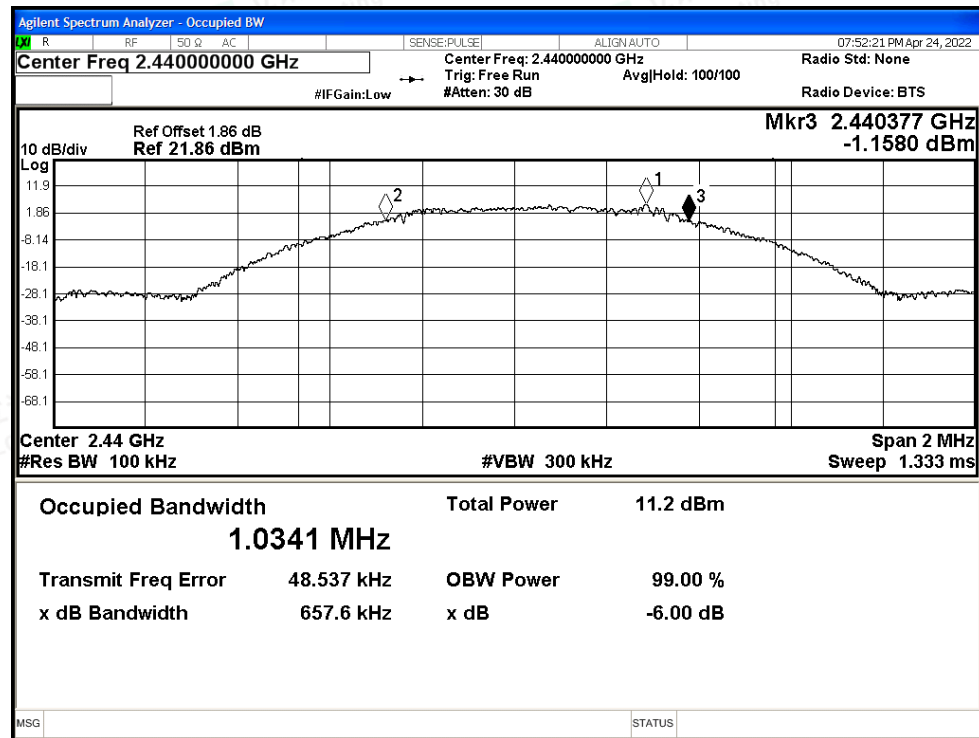


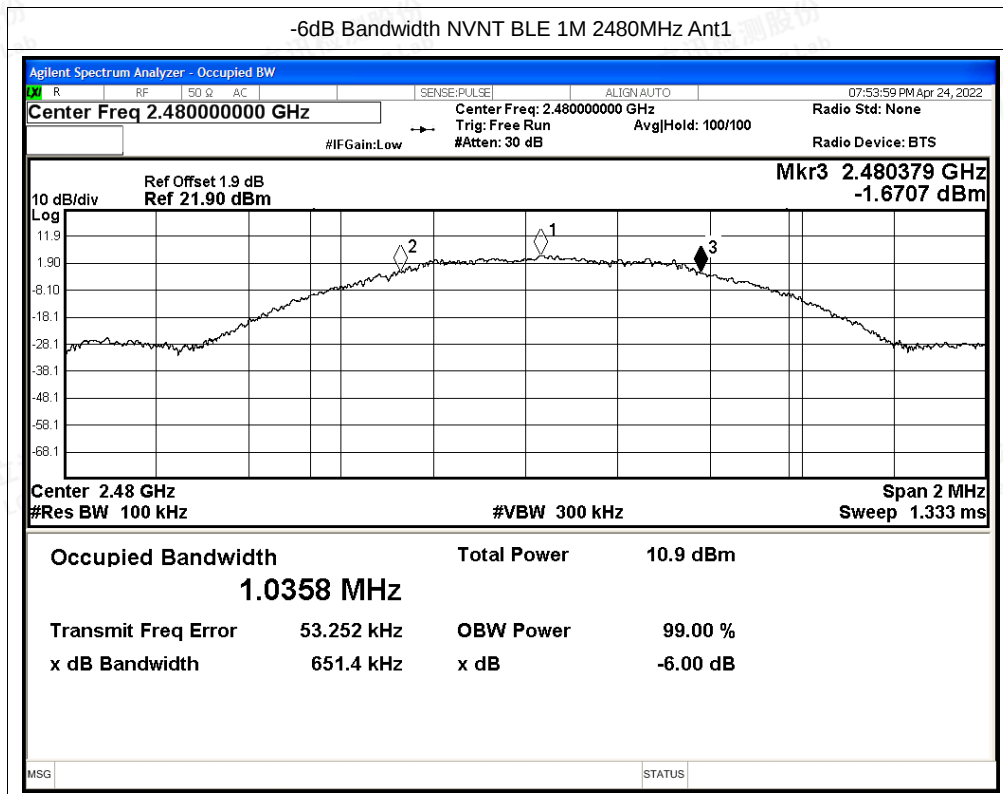
## Test Graphs

-6dB Bandwidth NVNT BLE 1M 2402MHz Ant1



-6dB Bandwidth NVNT BLE 1M 2440MHz Ant1







## A.2 Maximum peak Conducted Output Power

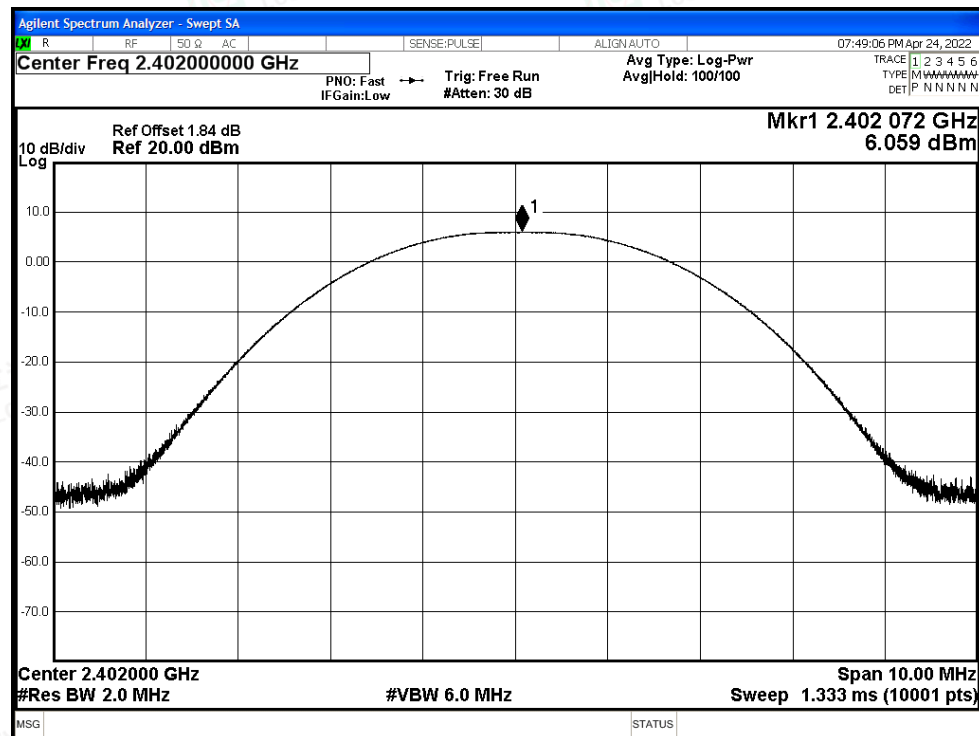
| Condition | Mode   | Frequency (MHz) | Antenna | Total Power (dBm) | Limit (dBm) | Verdict |
|-----------|--------|-----------------|---------|-------------------|-------------|---------|
| NVNT      | BLE 1M | 2402            | Ant1    | 6.06              | 30          | Pass    |
| NVNT      | BLE 1M | 2440            | Ant1    | 5.59              | 30          | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | 5.31              | 30          | Pass    |



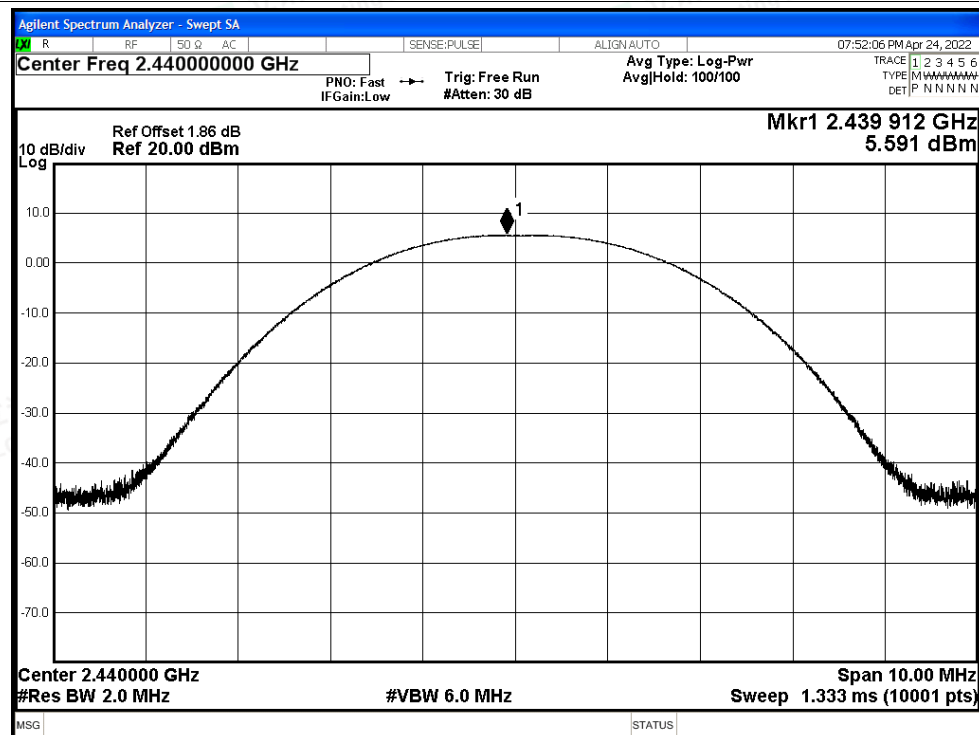


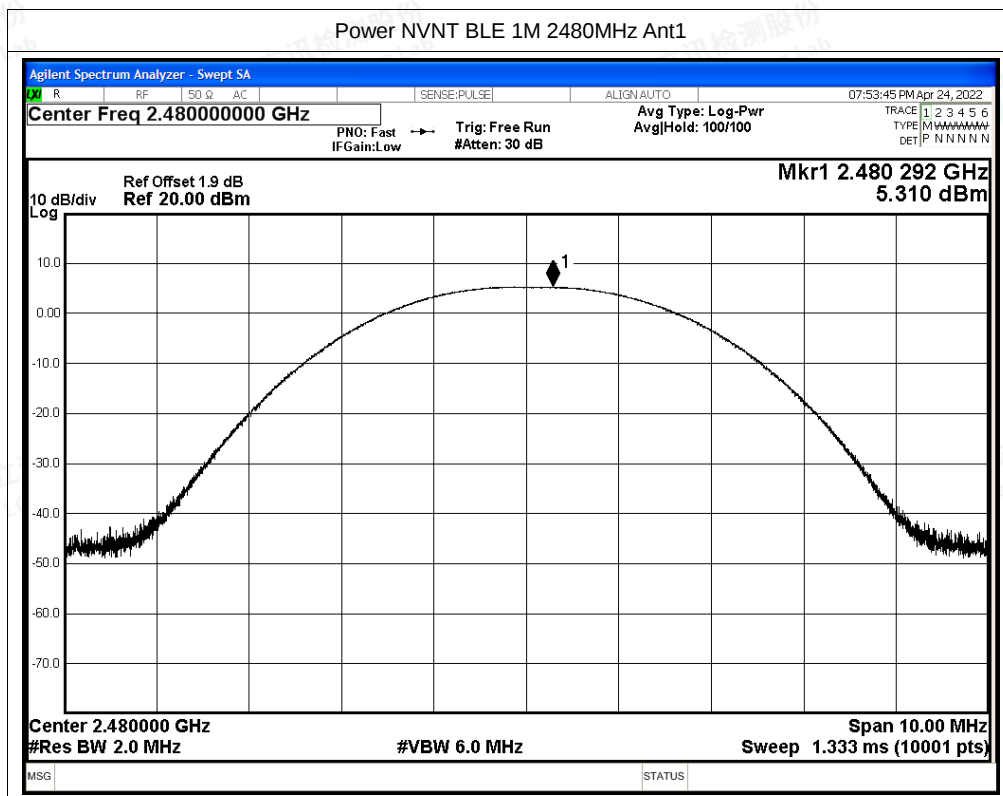
## Test Graphs

Power NVNT BLE 1M 2402MHz Ant1



Power NVNT BLE 1M 2440MHz Ant1







### A.3 Maximum Power Spectral Density Level

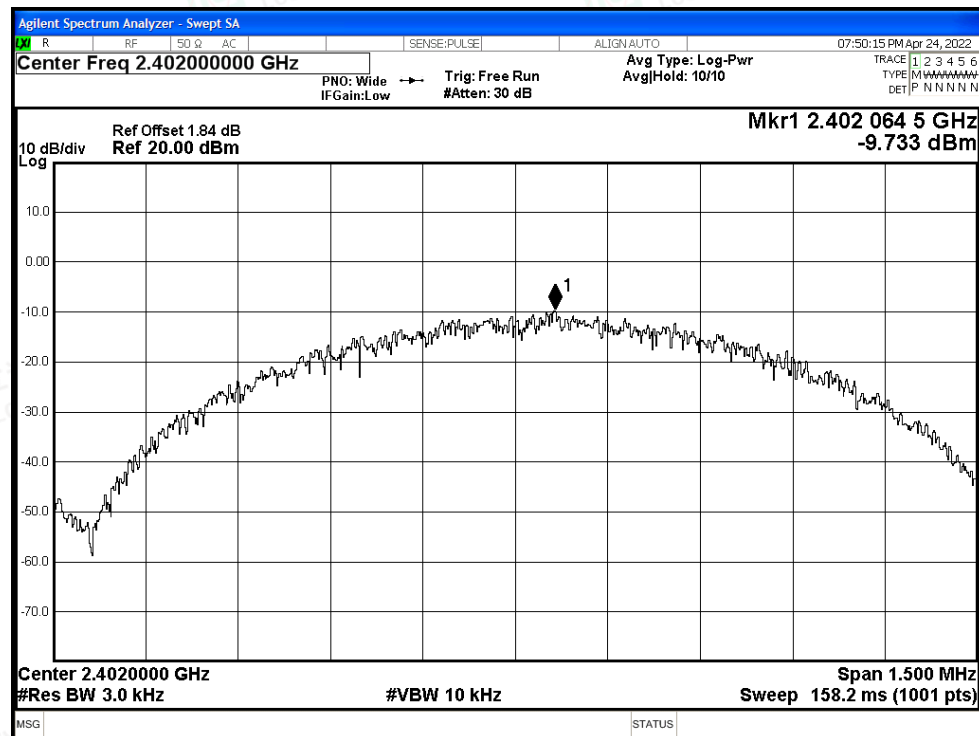
| Condition | Mode   | Frequency (MHz) | Antenna | Total PSD (dBm/3kHz) | Limit (dBm/3kHz) | Verdict |
|-----------|--------|-----------------|---------|----------------------|------------------|---------|
| NVNT      | BLE 1M | 2402            | Ant1    | -9.73                | 8                | Pass    |
| NVNT      | BLE 1M | 2440            | Ant1    | -8.79                | 8                | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | -8.7                 | 8                | Pass    |



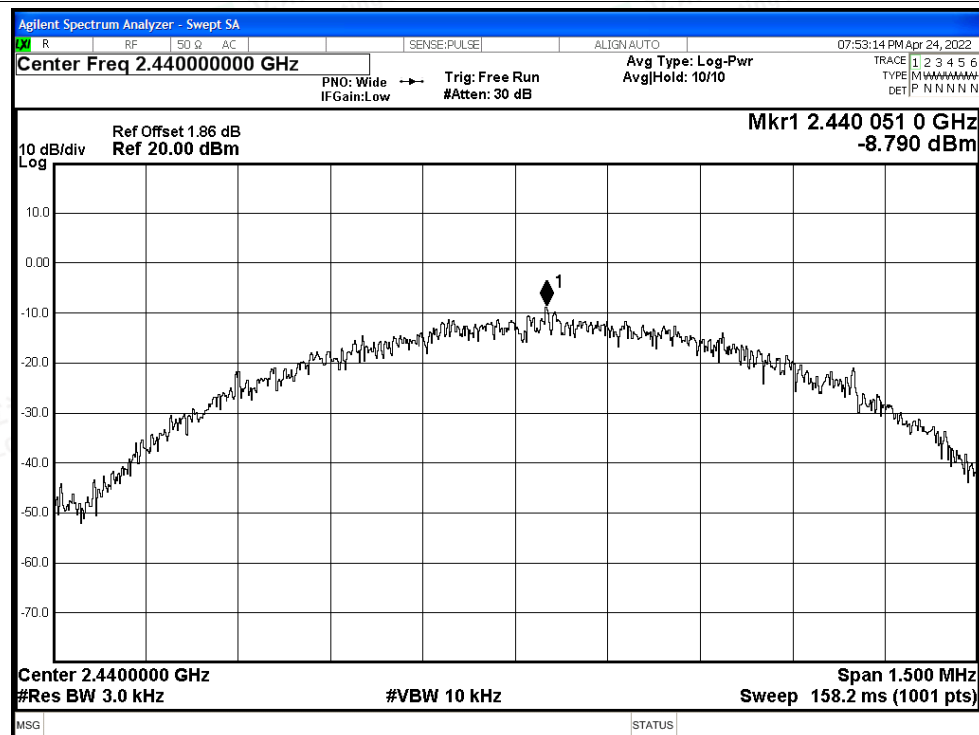


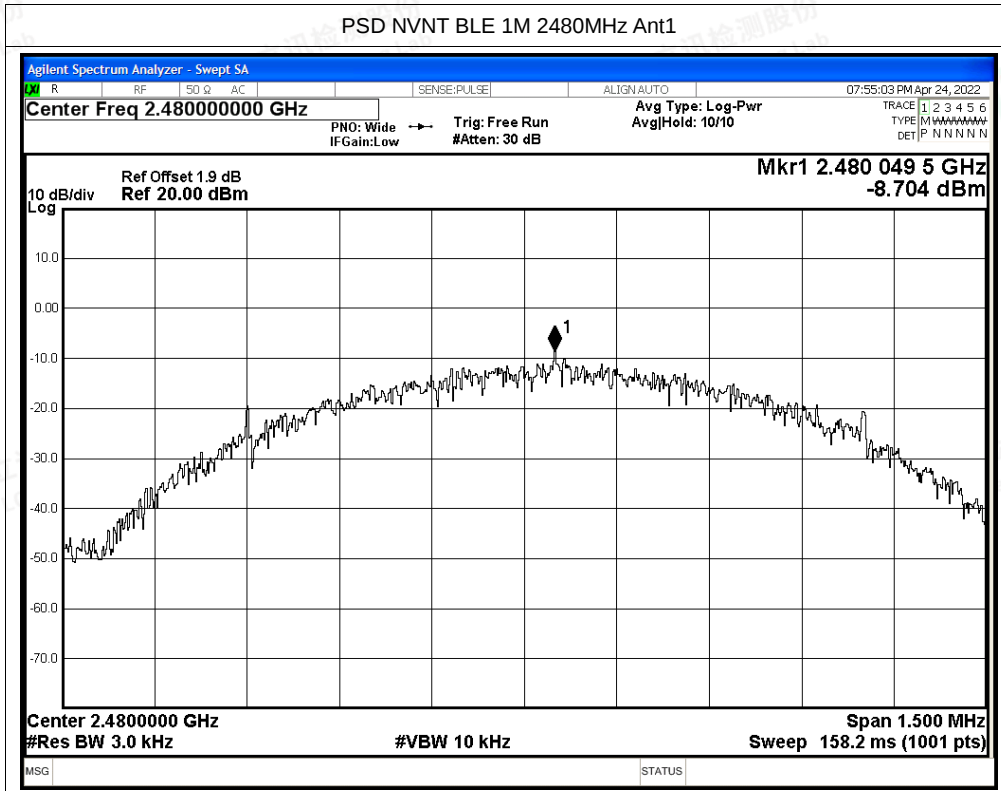
## Test Graphs

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    | -51.49          | -20         | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | -60.78          | -20         | Pass    |



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Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com  
Scan code to check authenticity

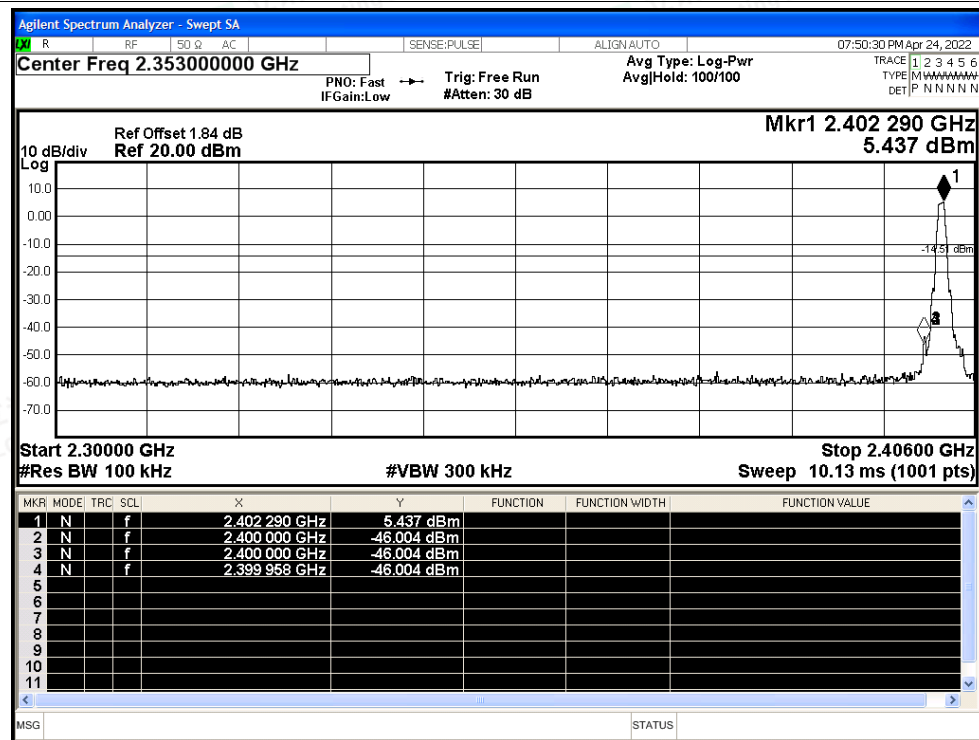


## Test Graphs

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

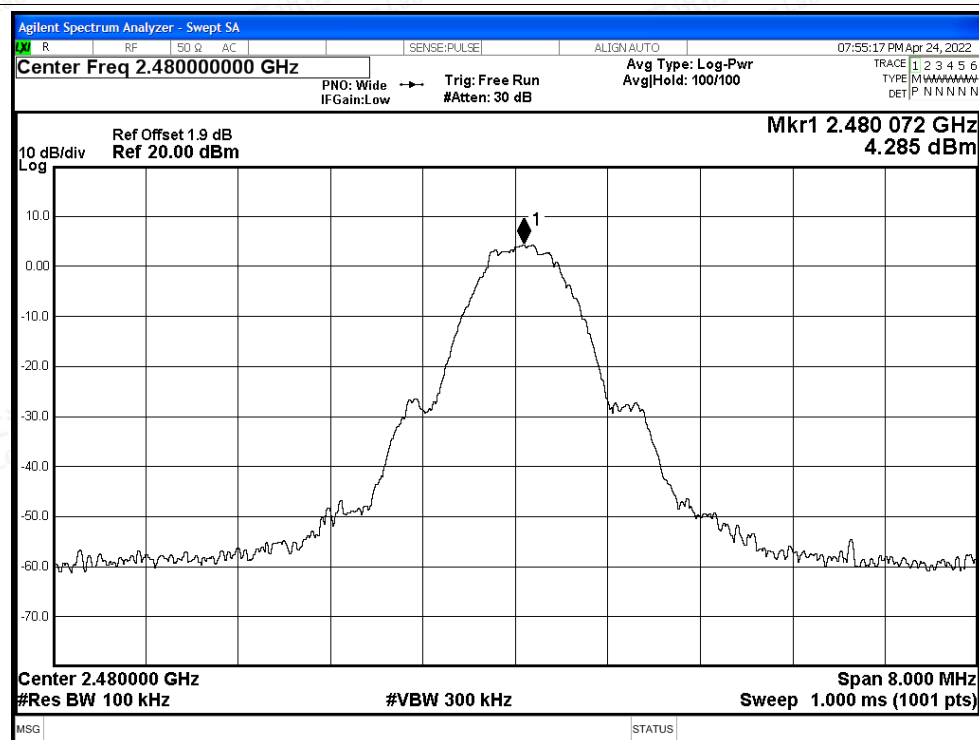


## Band Edge NVNT BLE 1M 2402MHz Ant1 Emission

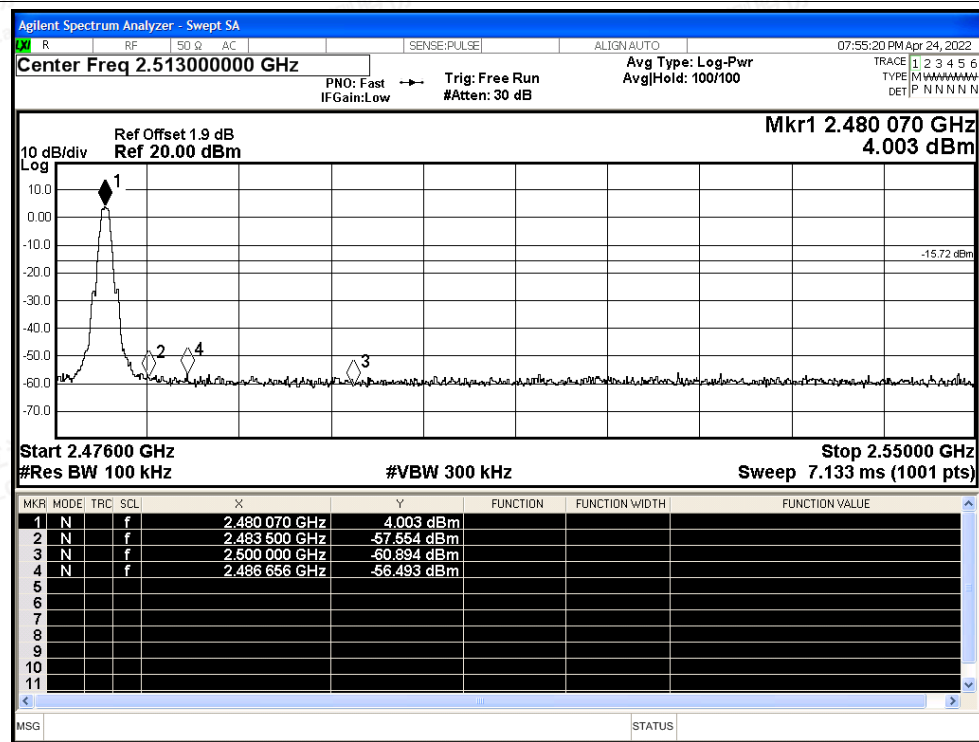




## Band Edge NVNT BLE 1M 2480MHz Ant1 Ref



## Band Edge NVNT BLE 1M 2480MHz Ant1 Emission





## A.5 Conducted RF Spurious Emission

| Condition | Mode   | Frequency (MHz) | Antenna | Max Value (dBc) | Limit (dBc) | Verdict |
|-----------|--------|-----------------|---------|-----------------|-------------|---------|
| NVNT      | BLE 1M | 2402            | Ant1    | -51.79          | -20         | Pass    |
| NVNT      | BLE 1M | 2440            | Ant1    | -52.98          | -20         | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | -51.1           | -20         | Pass    |

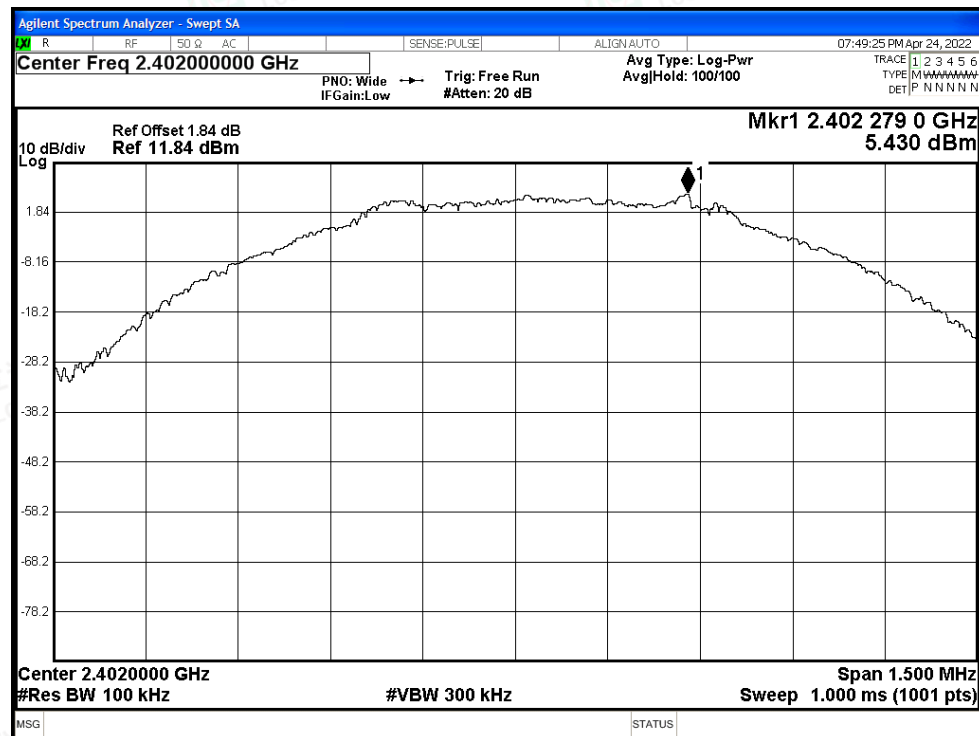


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Scan code to check authenticity

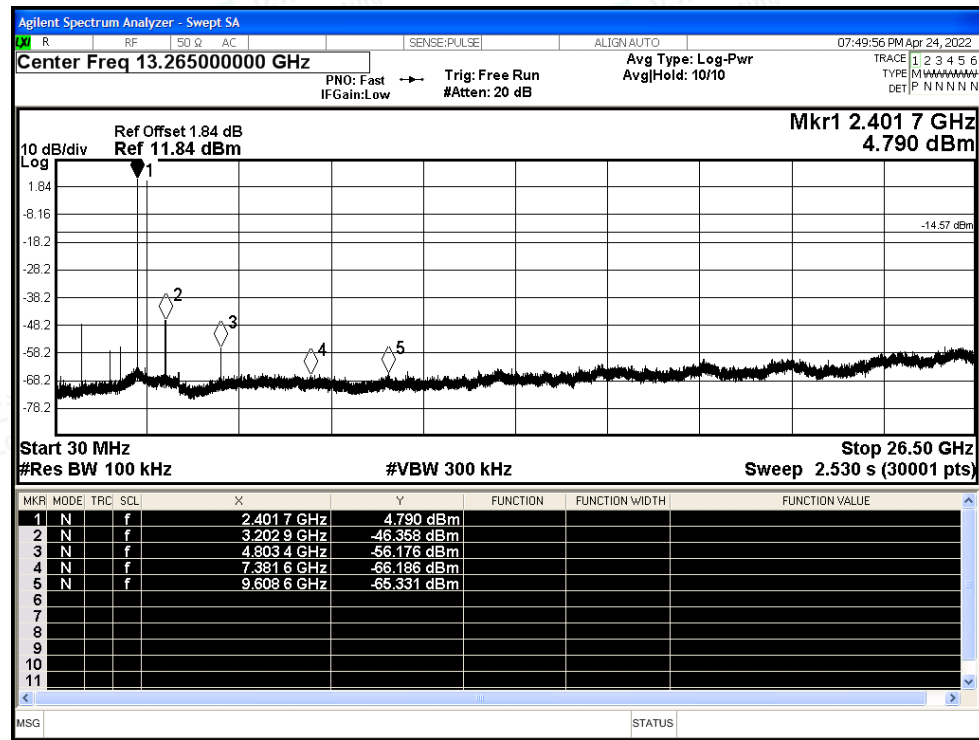


## Test Graphs

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

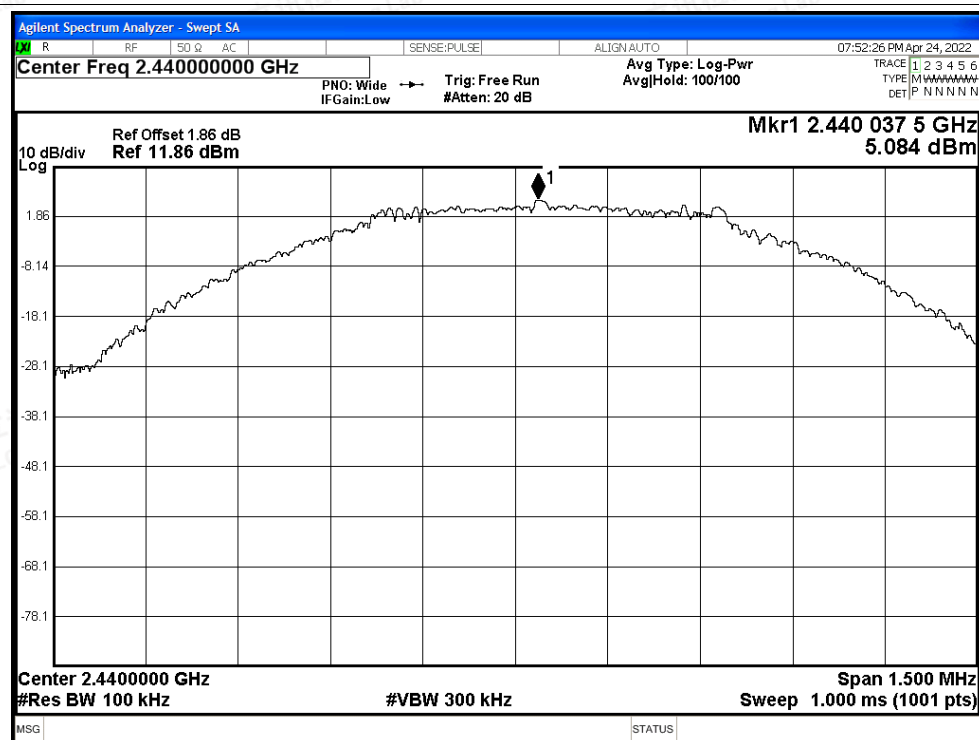


## Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Emission

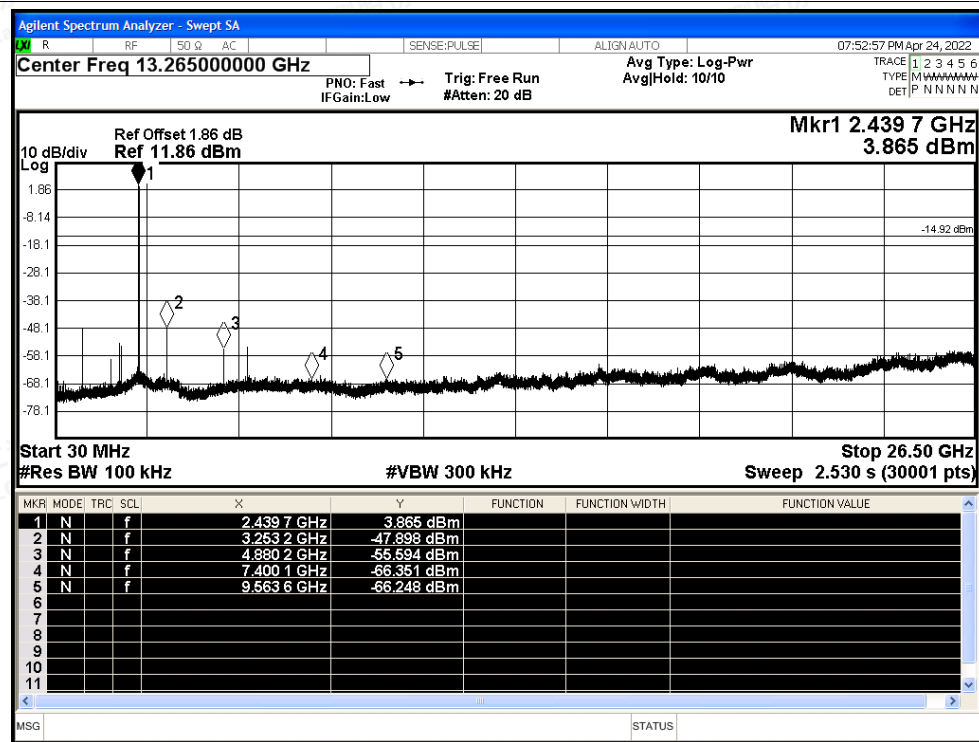




## Tx. Spurious NVNT BLE 1M 2440MHz Ant1 Ref

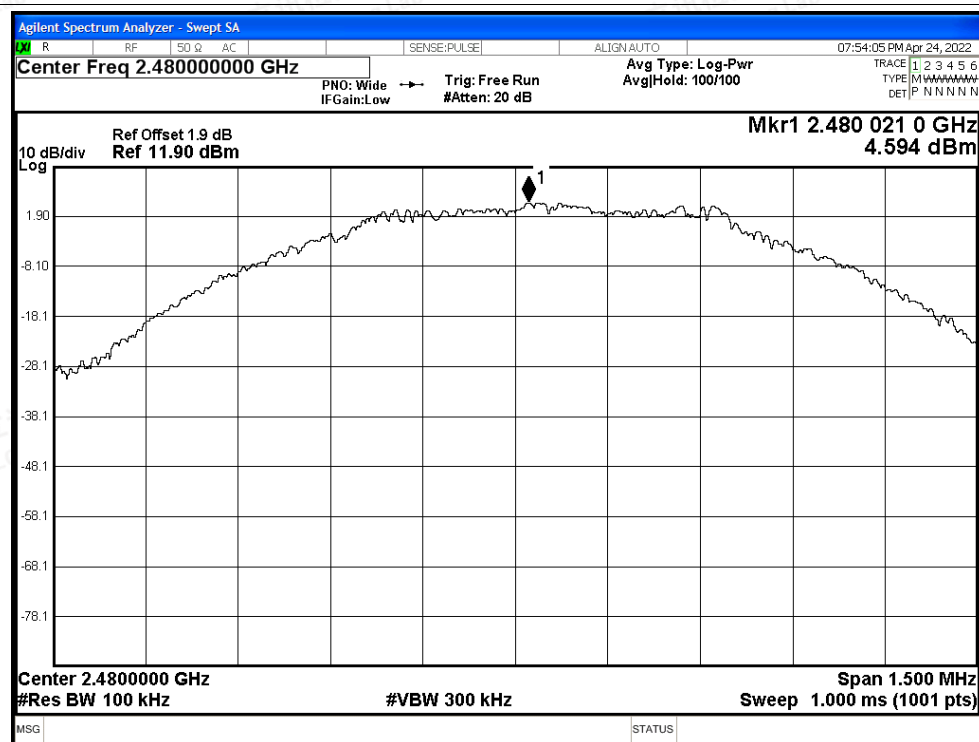


## Tx. Spurious NVNT BLE 1M 2440MHz Ant1 Emission

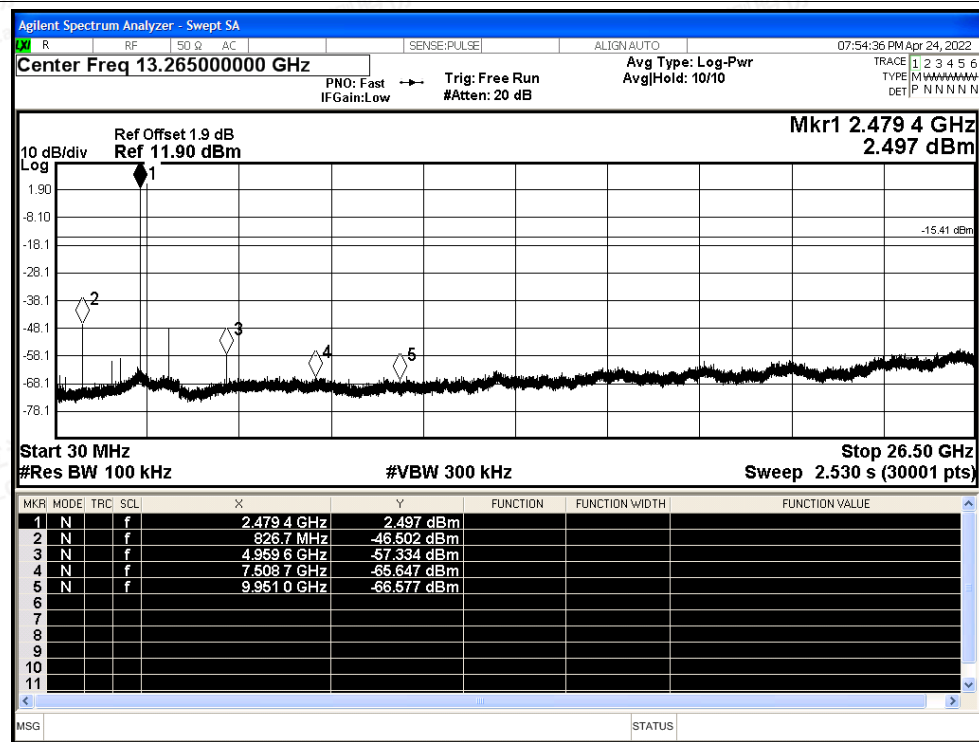




## Tx. Spurious NVNT BLE 1M 2480MHz Ant1 Ref



## 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    | 83.72          | 0.77                   | 0.48      |
| NVNT      | BLE 1M | 2440            | Ant1    | 83.72          | 0.77                   | 0.48      |
| NVNT      | BLE 1M | 2480            | Ant1    | 83.7           | 0.77                   | 0.48      |

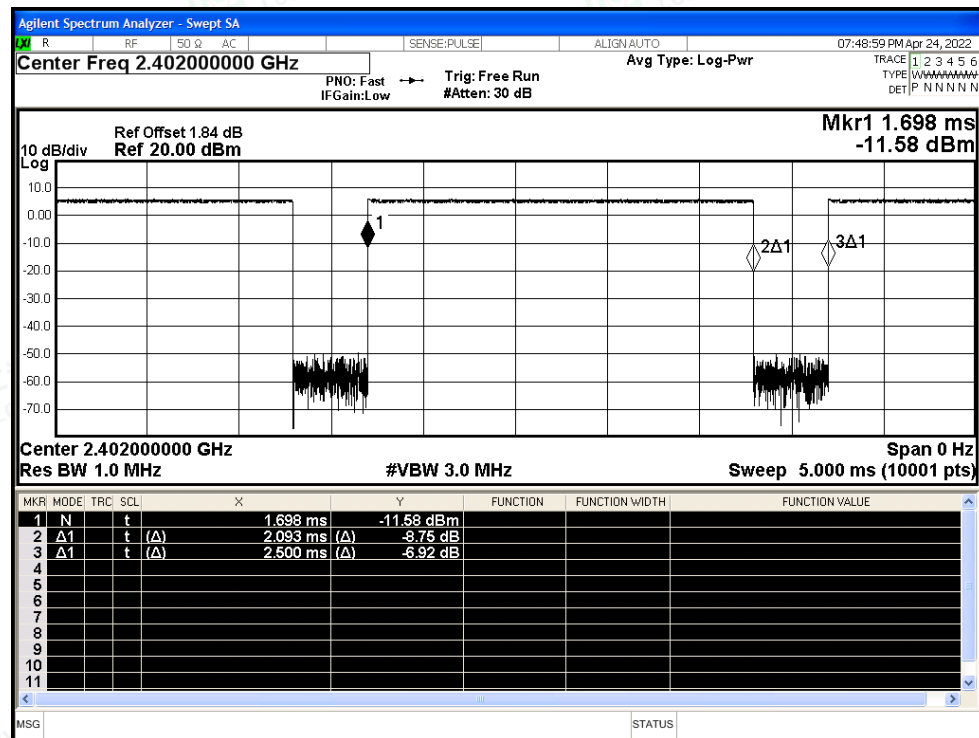


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Scan code to check authenticity

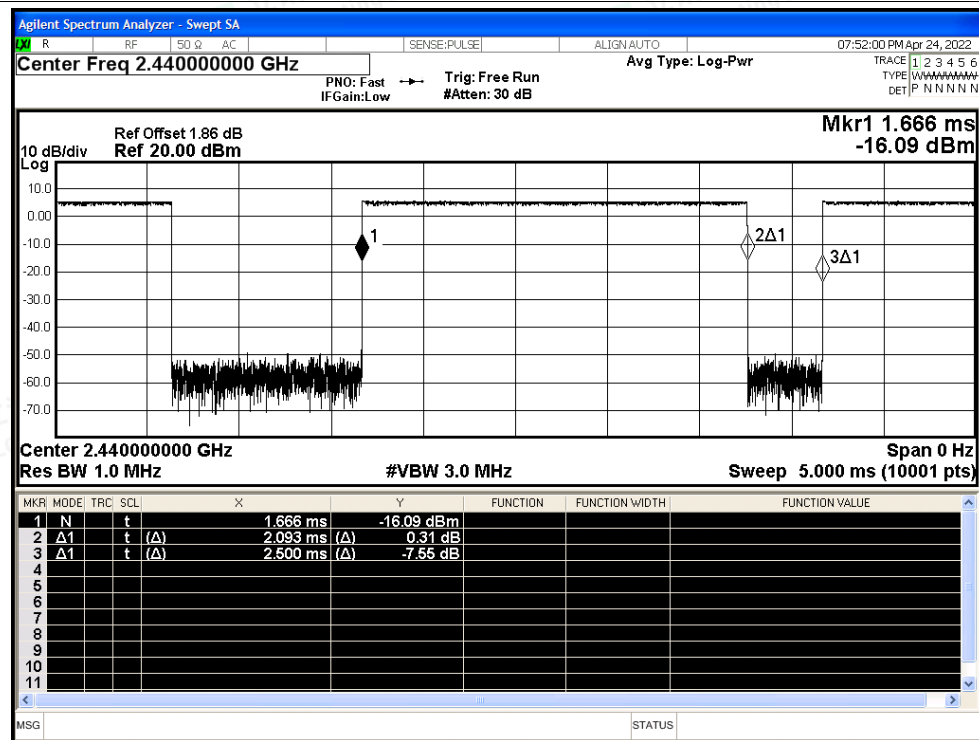


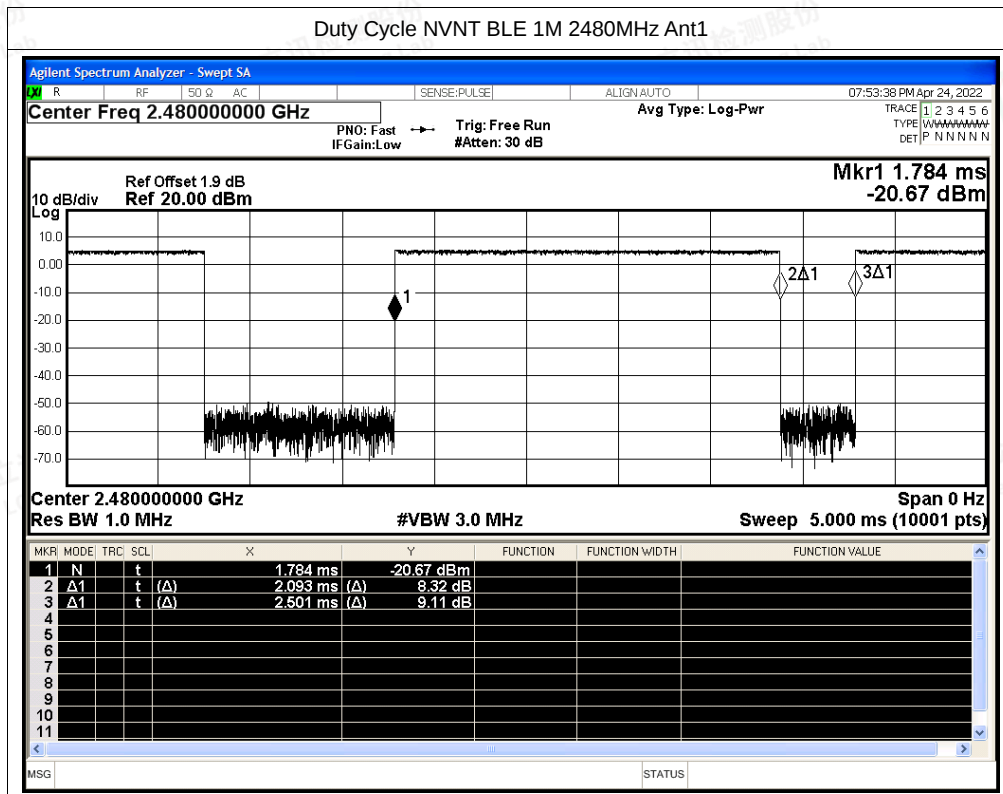
## Test Graphs

## Duty Cycle NVNT BLE 1M 2402MHz Ant1



## Duty Cycle NVNT BLE 1M 2440MHz Ant1







## A.7 Restrict Band

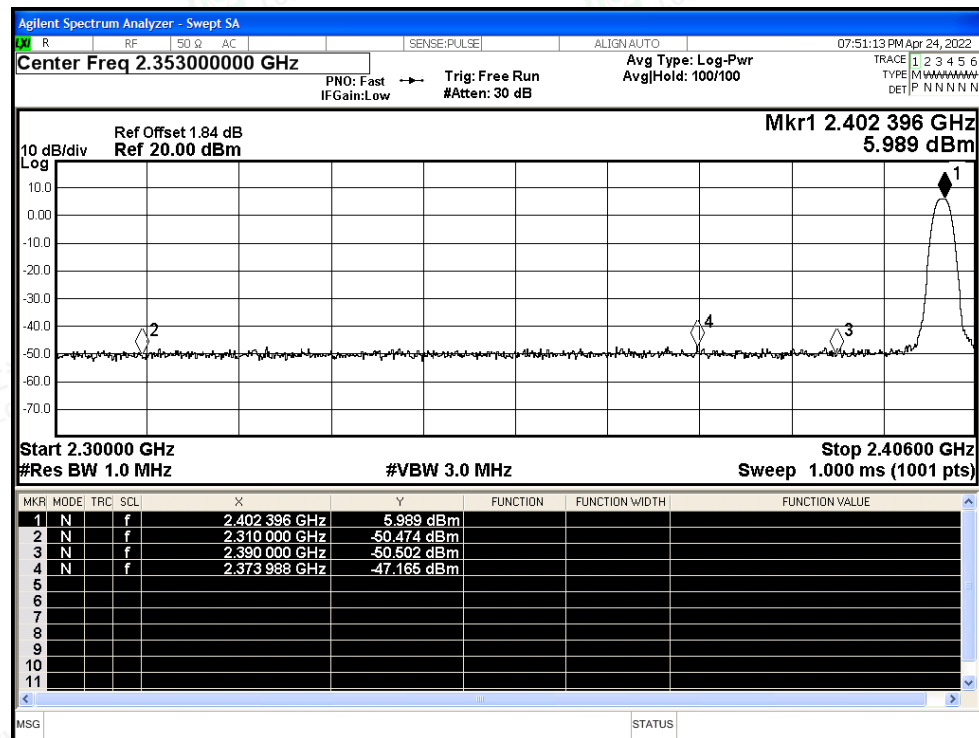
| Condition | Mode   | Frequency (MHz) | Antenna | Spur Freq (MHz) | Power (dBm) | Gain (dBi) | E (dBuV/m) | Detector | Limit (dBuV/m) | Verdict |
|-----------|--------|-----------------|---------|-----------------|-------------|------------|------------|----------|----------------|---------|
| NVNT      | BLE 1M | 2402            | Ant1    | 2310            | -50.62      | 2          | 46.64      | Peak     | 74             | Pass    |
| NVNT      | BLE 1M | 2402            | Ant1    | 2310            | -59.97      | 2          | 37.29      | Average  | 54             | Pass    |
| NVNT      | BLE 1M | 2402            | Ant1    | 2373.988        | -47.17      | 2          | 50.09      | Peak     | 74             | Pass    |
| NVNT      | BLE 1M | 2402            | Ant1    | 2362.01         | -59.12      | 2          | 38.14      | Average  | 54             | Pass    |
| NVNT      | BLE 1M | 2402            | Ant1    | 2390            | -48.1       | 2          | 49.16      | Peak     | 74             | Pass    |
| NVNT      | BLE 1M | 2402            | Ant1    | 2390            | -59.45      | 2          | 37.81      | Average  | 54             | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | 2483.5          | -48.63      | 2          | 48.63      | Peak     | 74             | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | 2483.5          | -57.71      | 2          | 39.55      | Average  | 54             | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | 2487.692        | -47.02      | 2          | 50.24      | Peak     | 74             | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | 2483.548        | -57.71      | 2          | 39.55      | Average  | 54             | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | 2500            | -50.57      | 2          | 46.69      | Peak     | 74             | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | 2500            | -59.21      | 2          | 38.05      | Average  | 54             | Pass    |



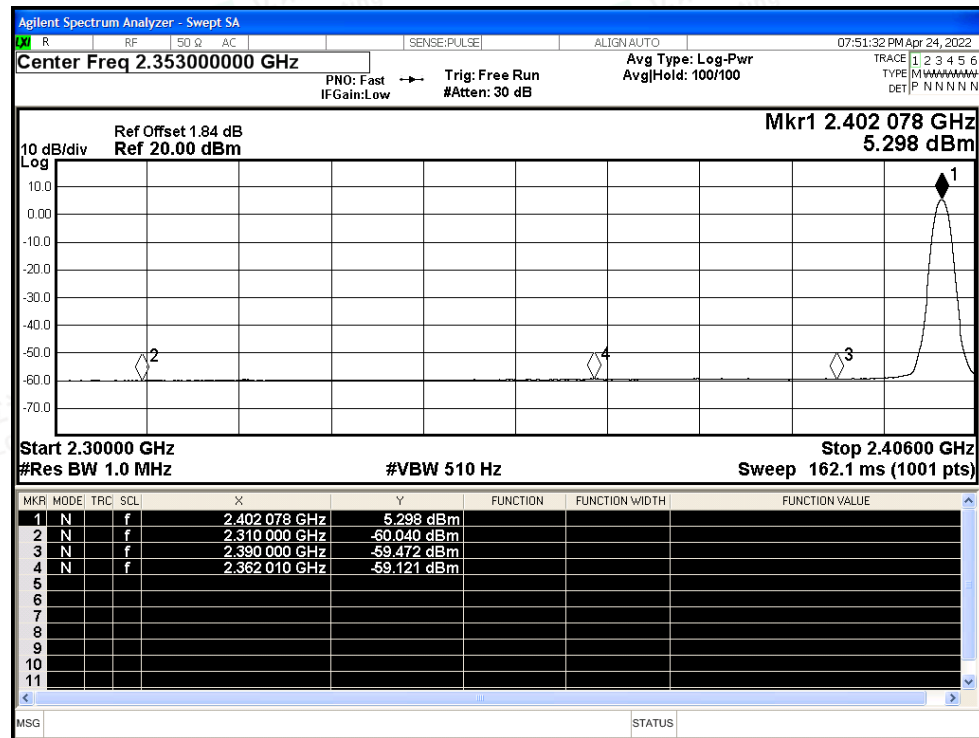


## Test Graphs

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

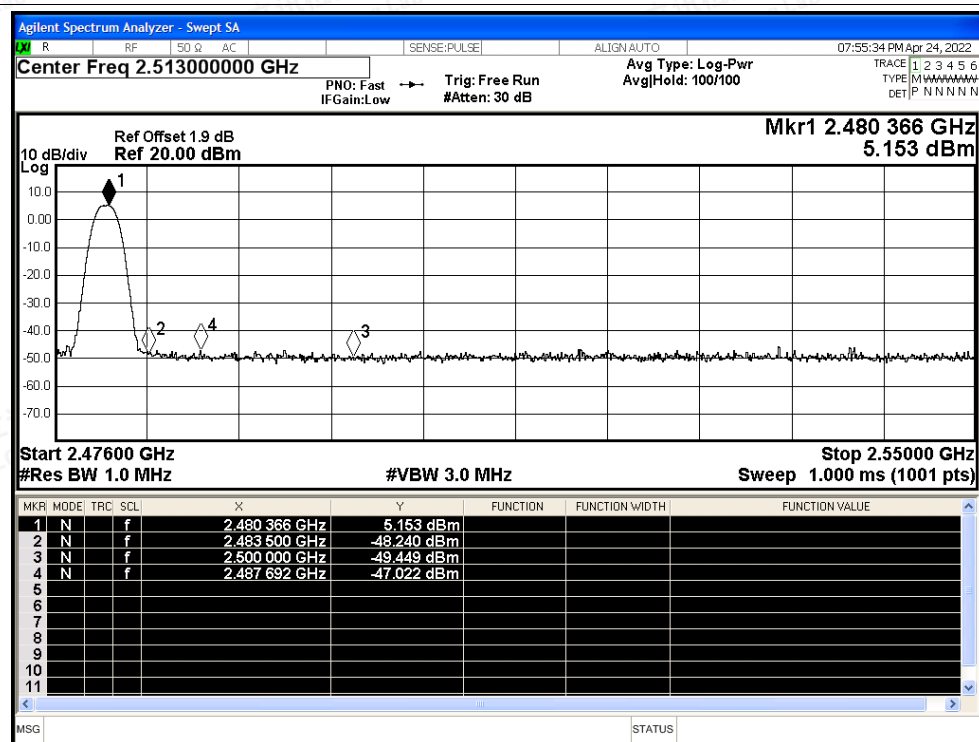


## Restrict Band NVNT BLE 1M 2402MHz Ant1 Average





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



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

