



## Appendix B

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

Product Name: Retroid pocket

Test Model: Retroid Pocket 5

#### Environmental Conditions

|                    |           |
|--------------------|-----------|
| Temperature:       | 23.8° C   |
| Relative Humidity: | 52.1%     |
| ATM Pressure:      | 100.0 kPa |
| Test Engineer:     | Jerry Chu |
| Supervised by:     | Nick Peng |





## B.1 -6dB Bandwidth

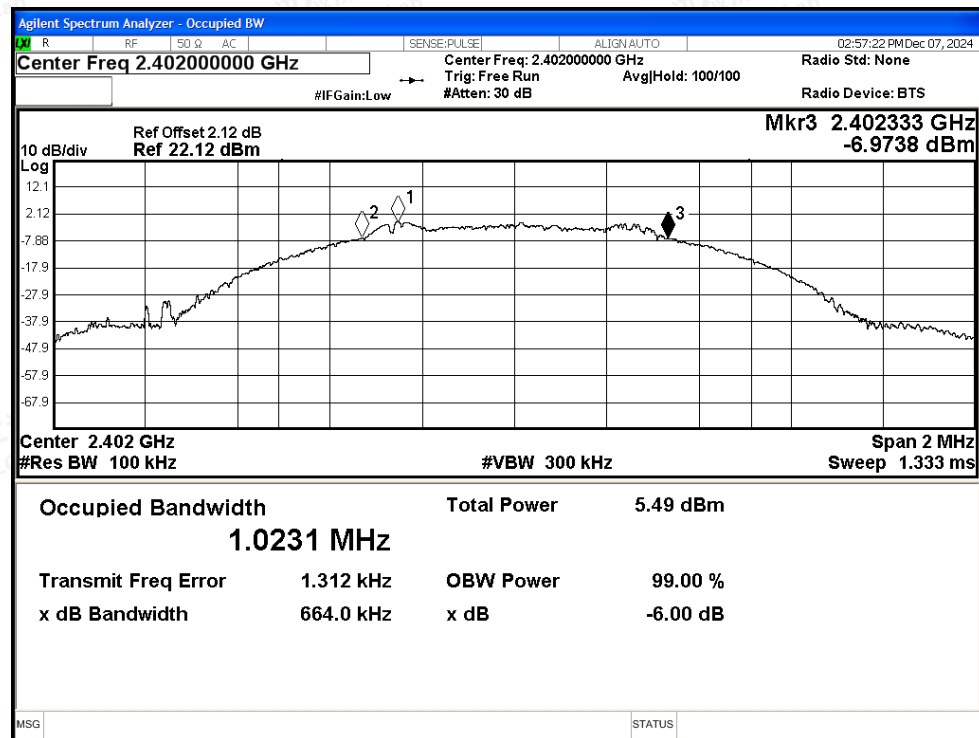
| Condition | Mode   | Frequency (MHz) | Antenna | -6 dB Bandwidth (MHz) | Limit -6 dB Bandwidth (MHz) | Verdict |
|-----------|--------|-----------------|---------|-----------------------|-----------------------------|---------|
| NVNT      | BLE 1M | 2402            | Ant1    | 0.664                 | $\geq 0.5$                  | Pass    |
| NVNT      | BLE 1M | 2440            | Ant1    | 0.663                 | $\geq 0.5$                  | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | 0.657                 | $\geq 0.5$                  | Pass    |
| NVNT      | BLE 2M | 2402            | Ant1    | 1.142                 | $\geq 0.5$                  | Pass    |
| NVNT      | BLE 2M | 2440            | Ant1    | 1.171                 | $\geq 0.5$                  | Pass    |
| NVNT      | BLE 2M | 2480            | Ant1    | 1.141                 | $\geq 0.5$                  | Pass    |



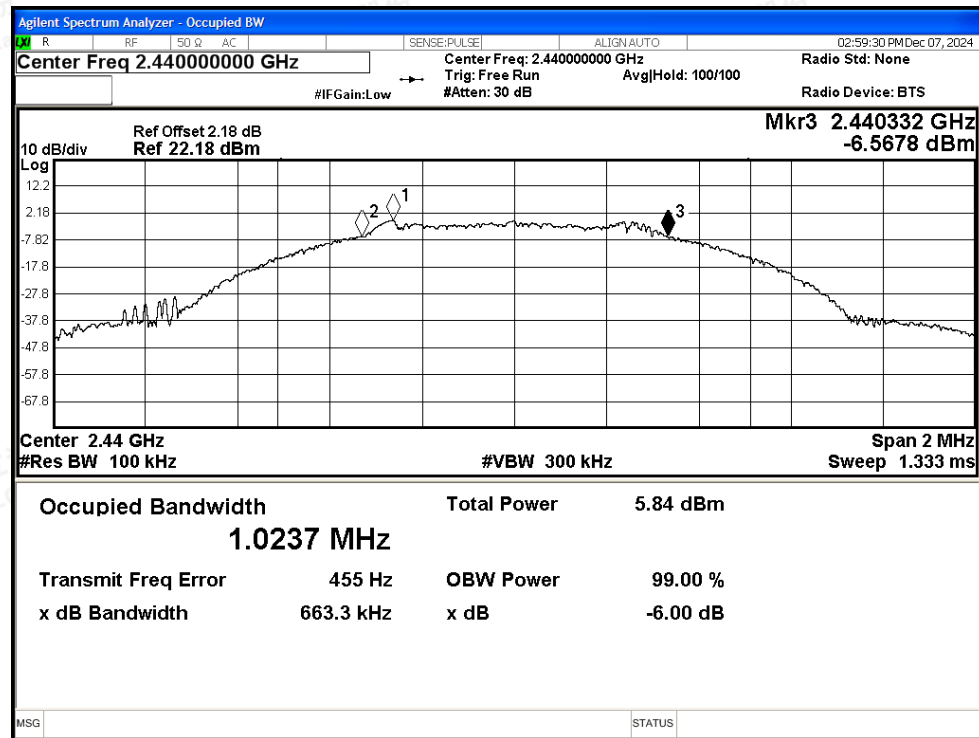


## Test Graphs

-6dB Bandwidth NVNT BLE 1M 2402MHz Ant1



-6dB Bandwidth NVNT BLE 1M 2440MHz Ant1



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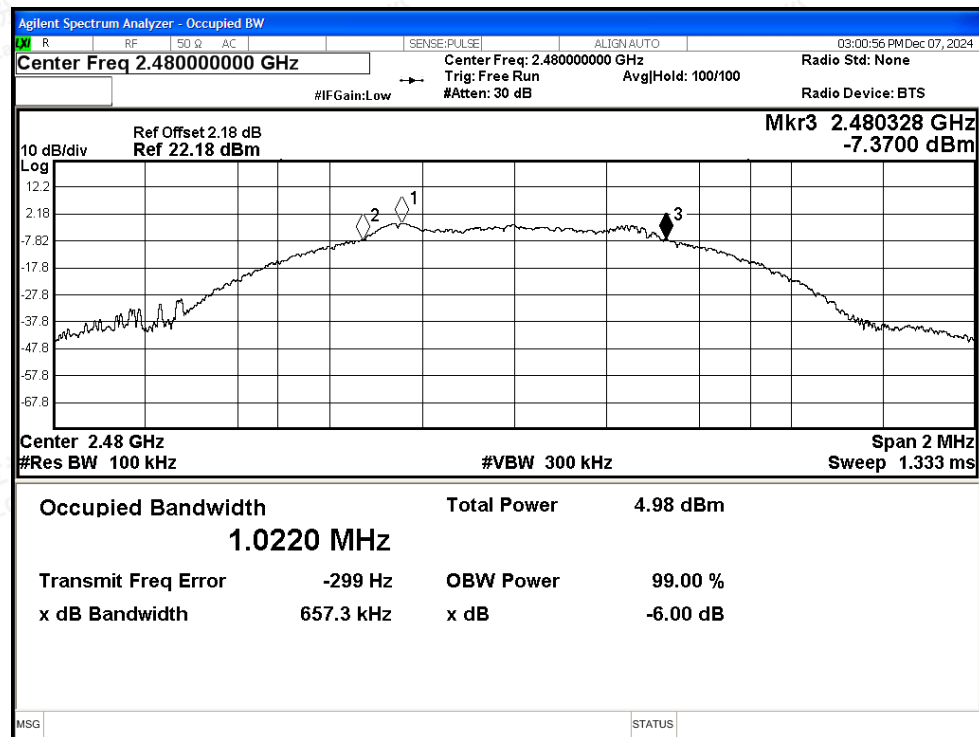
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Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

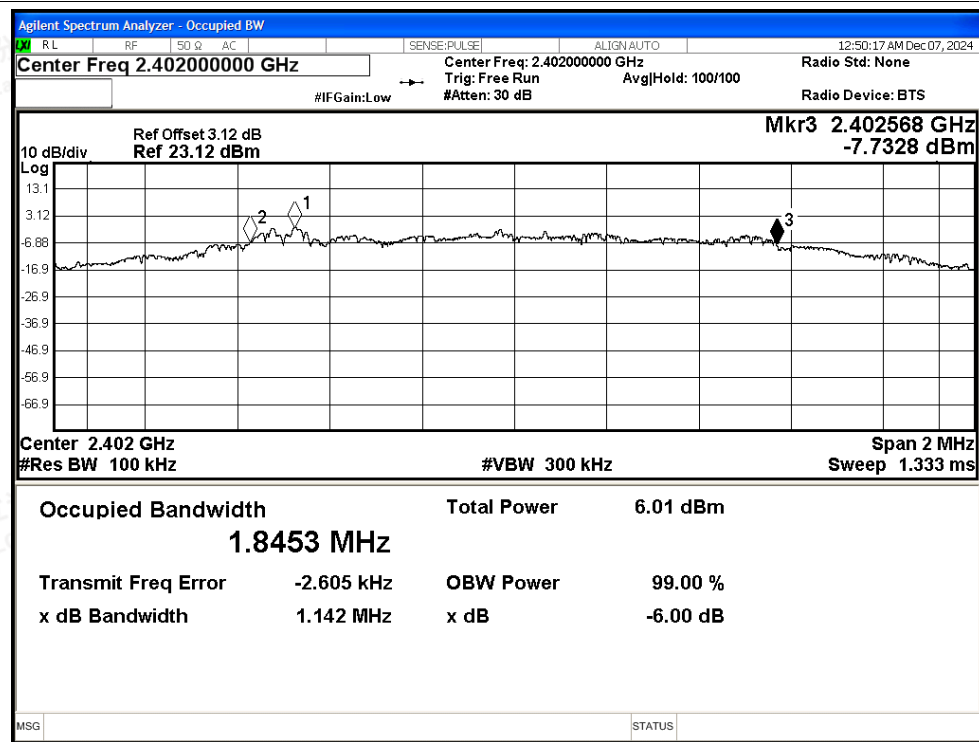
Scan code to check authenticity



## -6dB Bandwidth NVNT BLE 1M 2480MHz Ant1



## -6dB Bandwidth NVNT BLE 2M 2402MHz Ant1

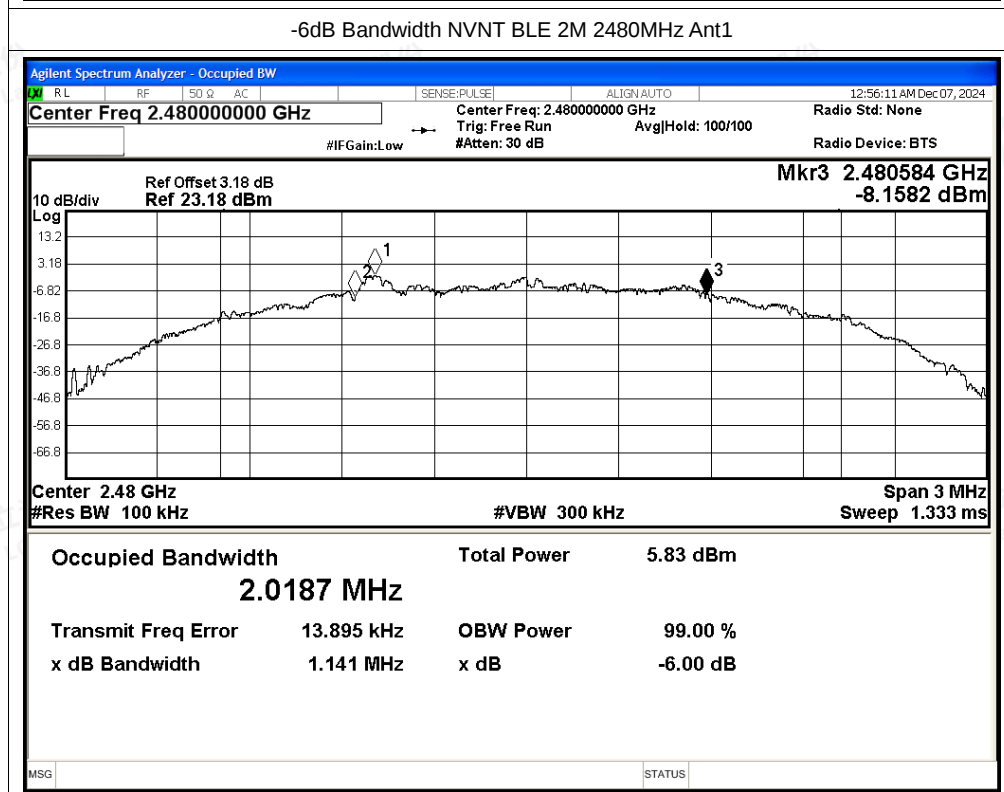
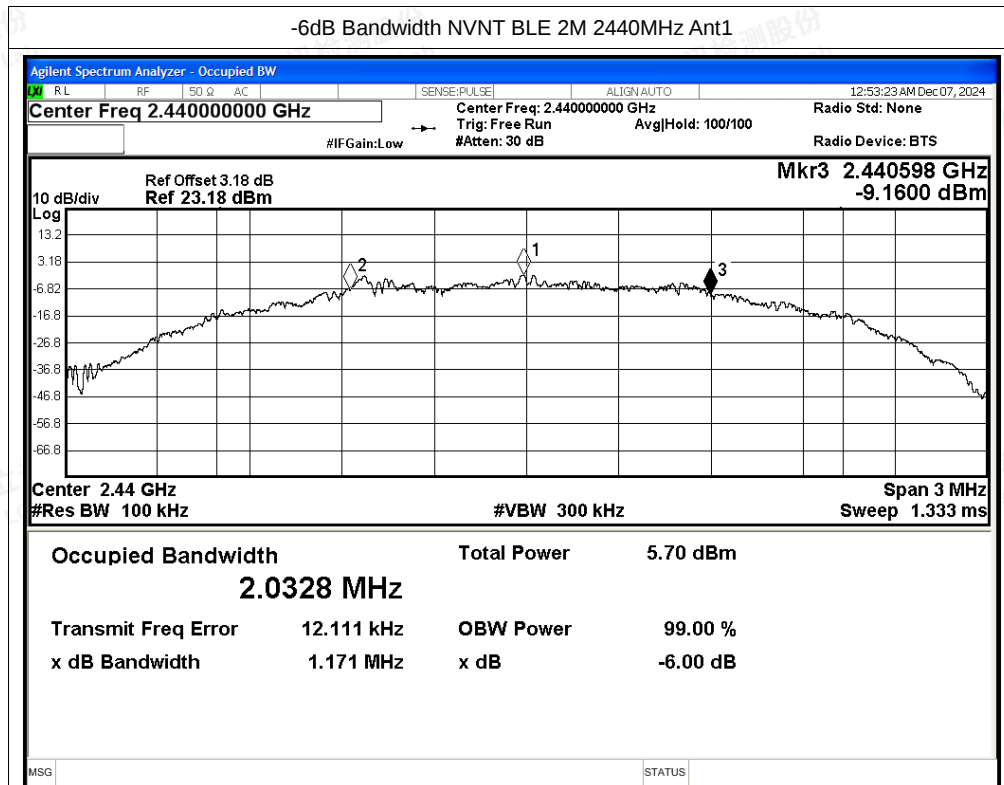


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## B.2 Maximum Peak Conducted Output Power

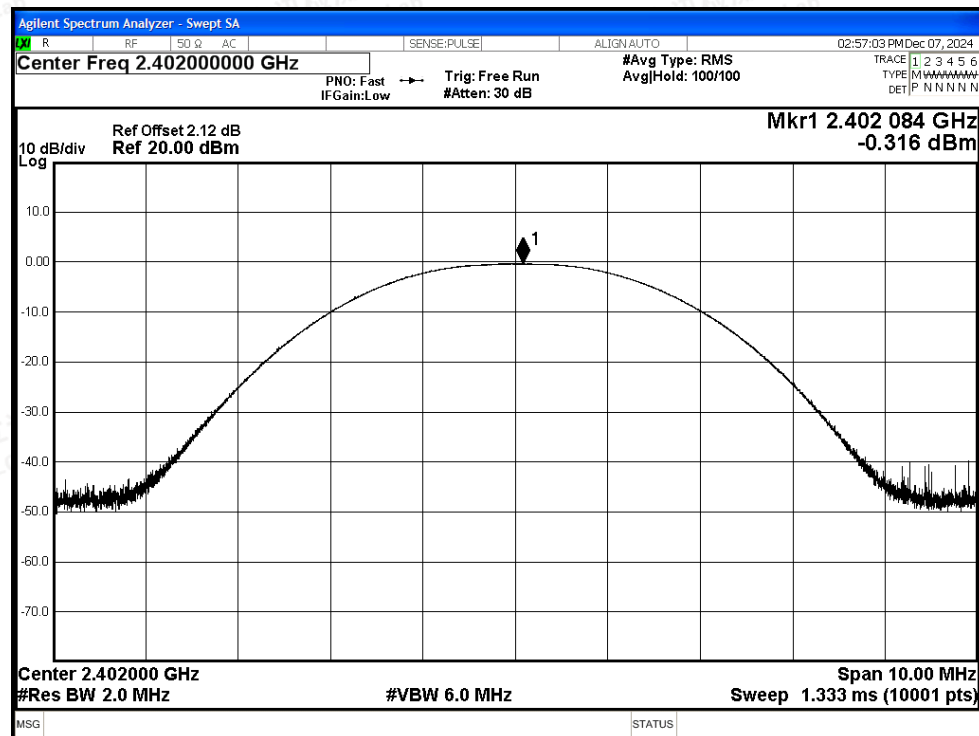
| Condition | Mode   | Frequency (MHz) | Antenna | Total Power (dBm) | Limit (dBm) | Verdict |
|-----------|--------|-----------------|---------|-------------------|-------------|---------|
| NVNT      | BLE 1M | 2402            | Ant1    | -0.32             | 30          | Pass    |
| NVNT      | BLE 1M | 2440            | Ant1    | 0.13              | 30          | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | -0.93             | 30          | Pass    |
| NVNT      | BLE 2M | 2402            | Ant1    | -0.04             | 30          | Pass    |
| NVNT      | BLE 2M | 2440            | Ant1    | -0.57             | 30          | Pass    |
| NVNT      | BLE 2M | 2480            | Ant1    | -0.65             | 30          | Pass    |



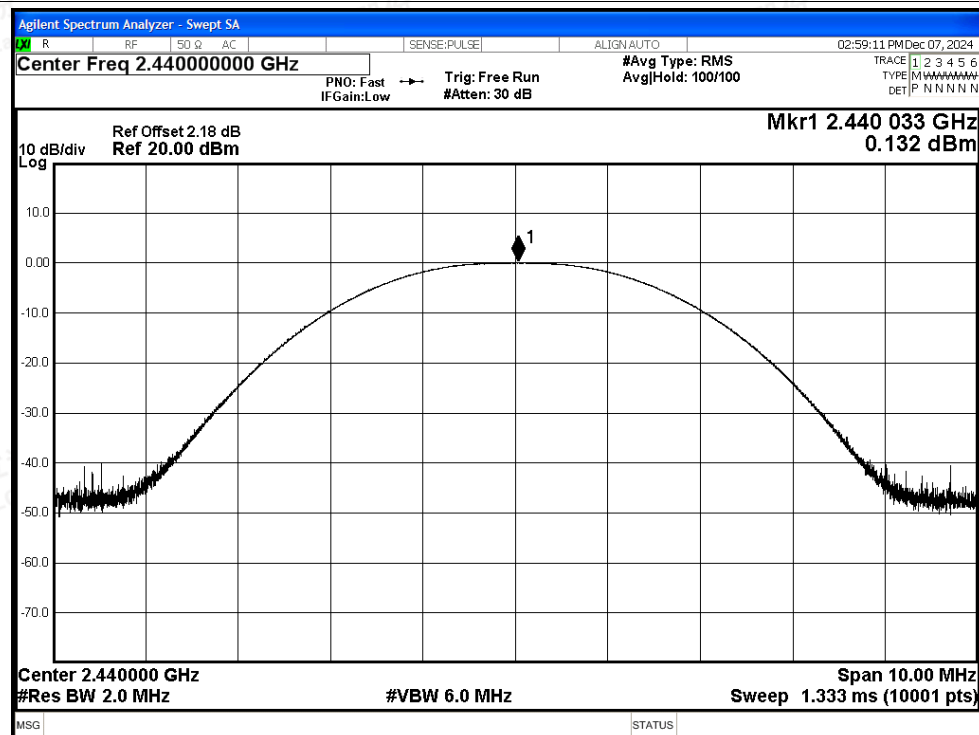


## Test Graphs

Power NVNT BLE 1M 2402MHz Ant1



Power NVNT BLE 1M 2440MHz Ant1

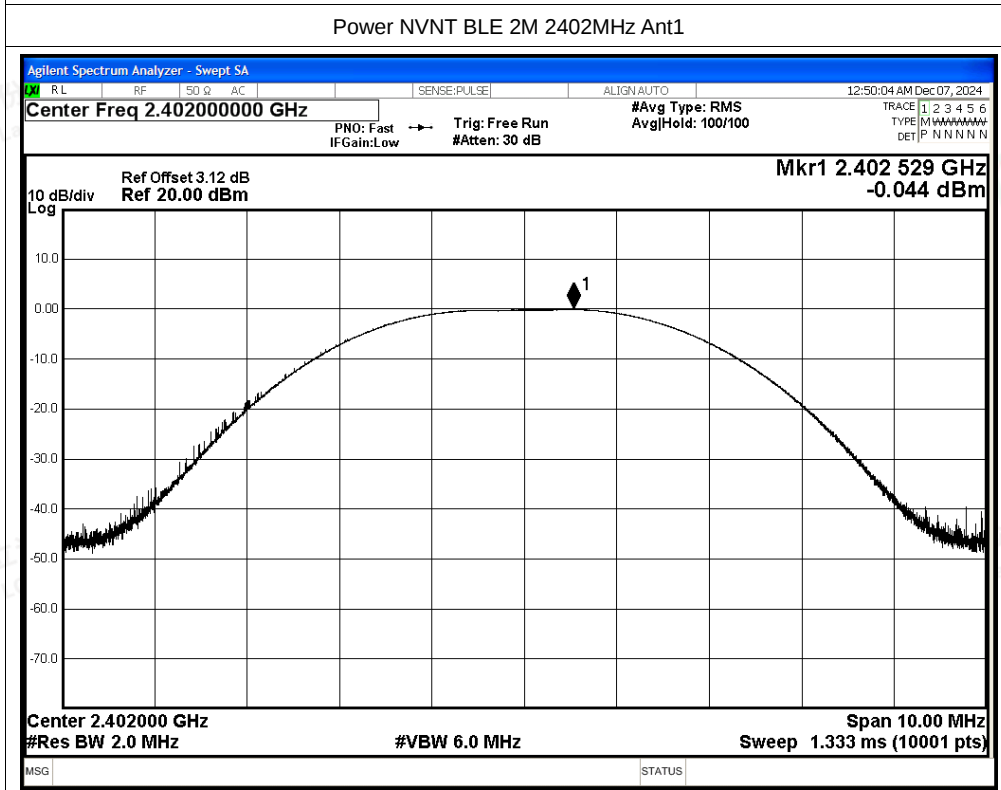
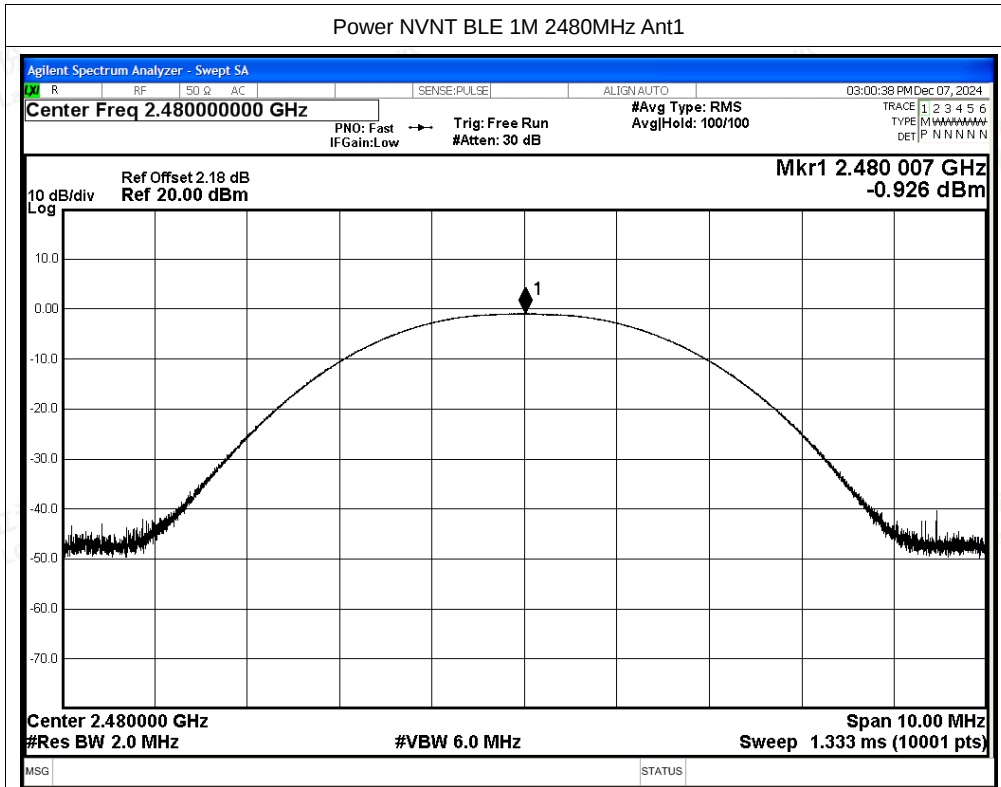


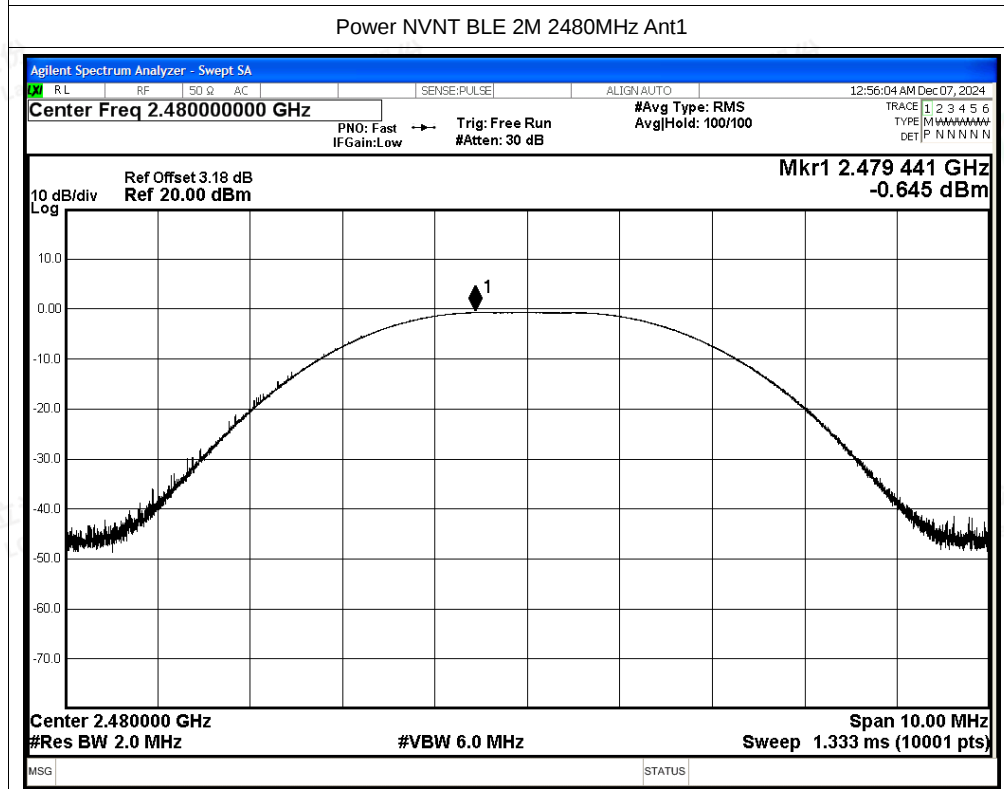
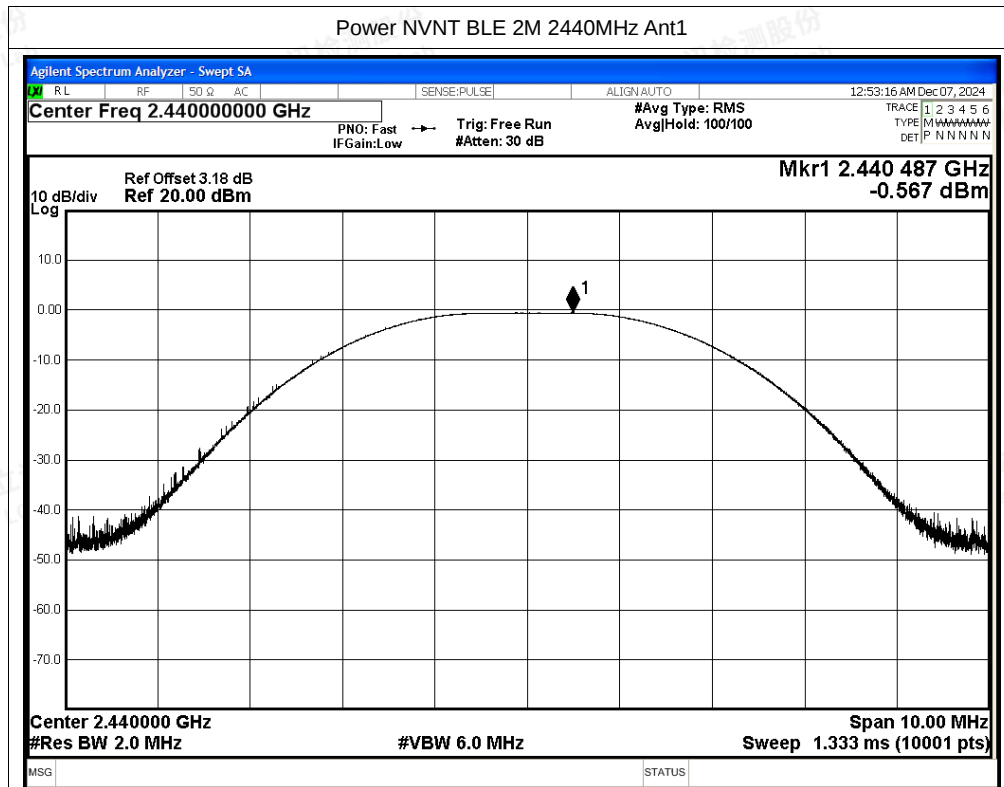
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### B.3 Maximum Power Spectral Density Level

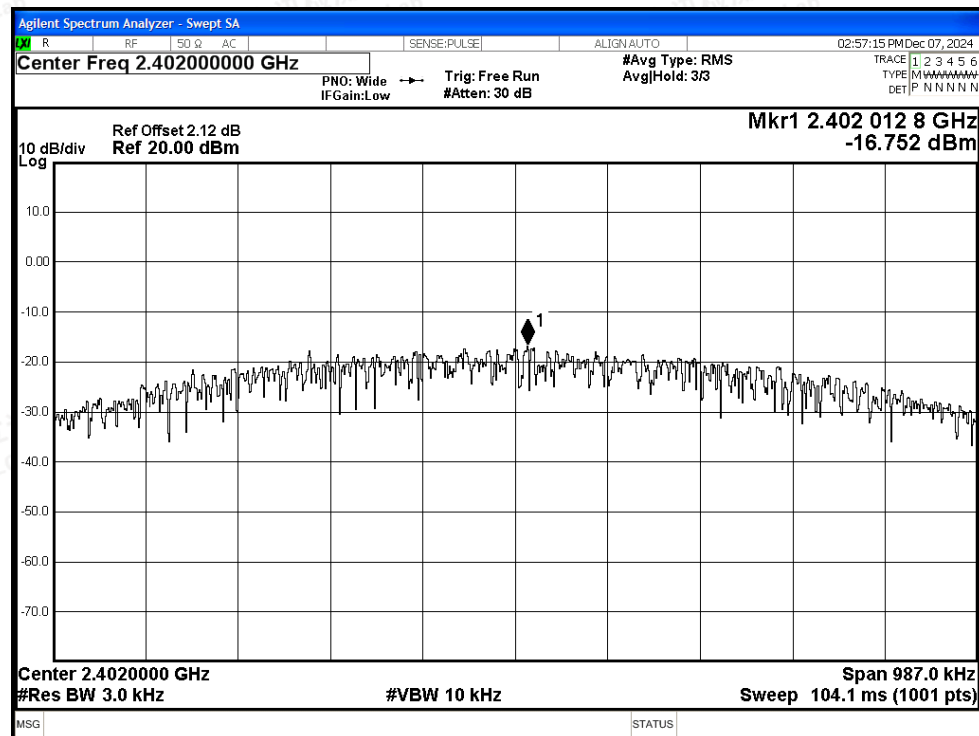
| Condition | Mode   | Frequency (MHz) | Antenna | Total PSD (dBm/3kHz) | Limit (dBm/3kHz) | Verdict |
|-----------|--------|-----------------|---------|----------------------|------------------|---------|
| NVNT      | BLE 1M | 2402            | Ant1    | -16.75               | 8                | Pass    |
| NVNT      | BLE 1M | 2440            | Ant1    | -16.37               | 8                | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | -17.61               | 8                | Pass    |
| NVNT      | BLE 2M | 2402            | Ant1    | -19.53               | 8                | Pass    |
| NVNT      | BLE 2M | 2440            | Ant1    | -20.24               | 8                | Pass    |
| NVNT      | BLE 2M | 2480            | Ant1    | -20.59               | 8                | Pass    |



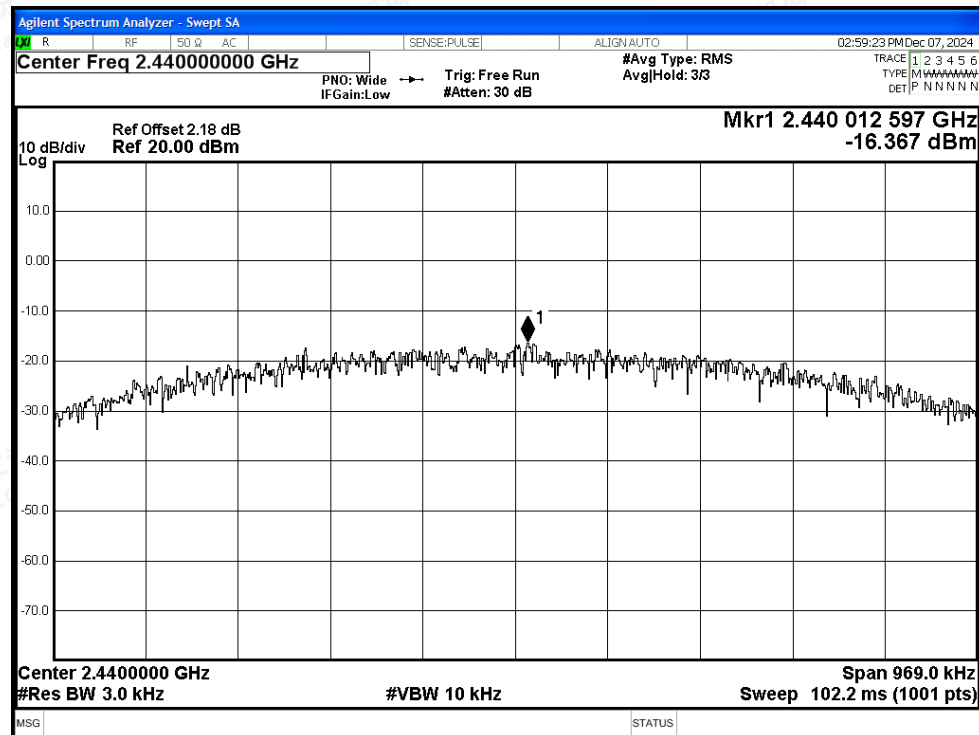


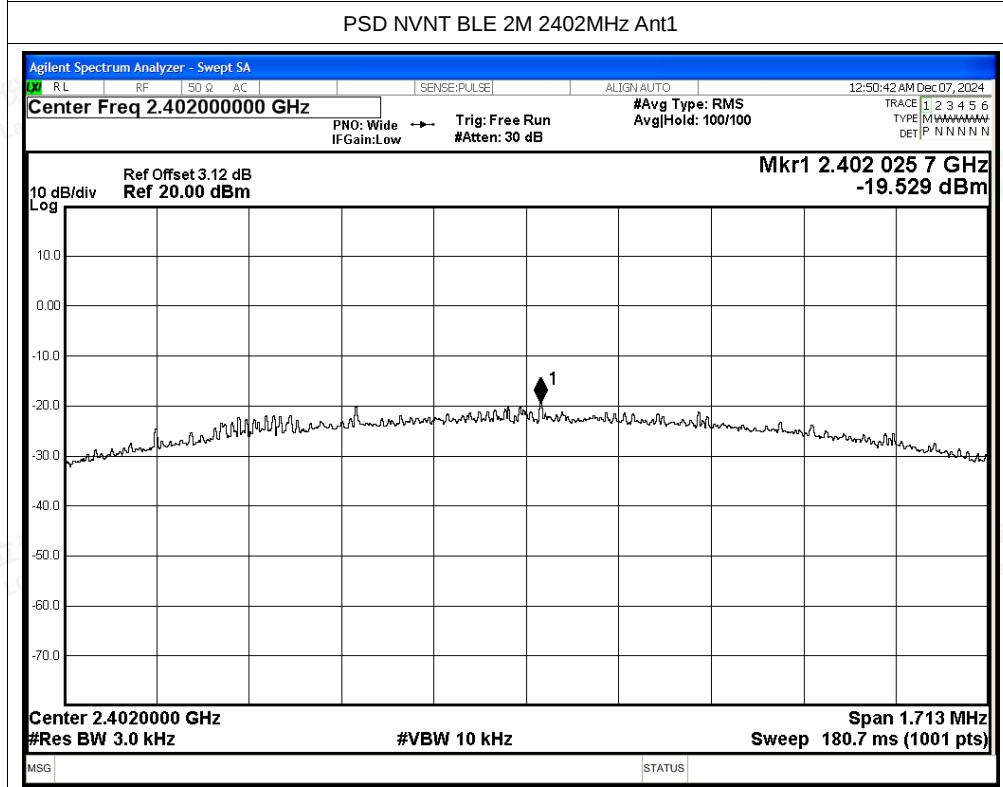
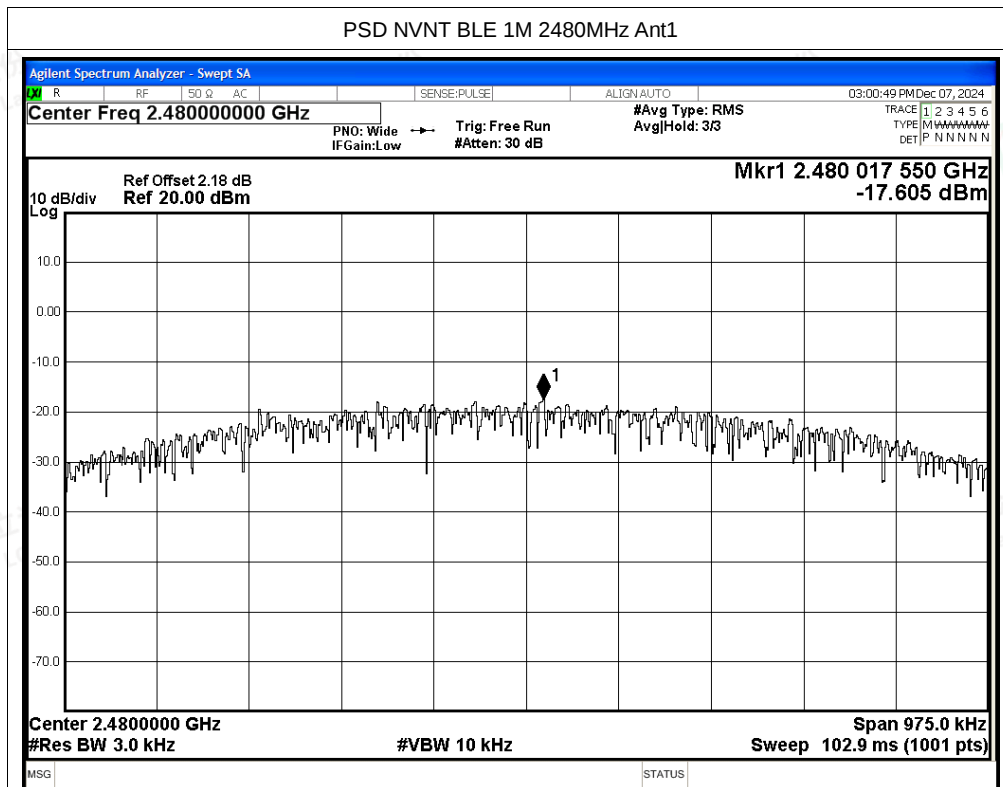
## Test Graphs

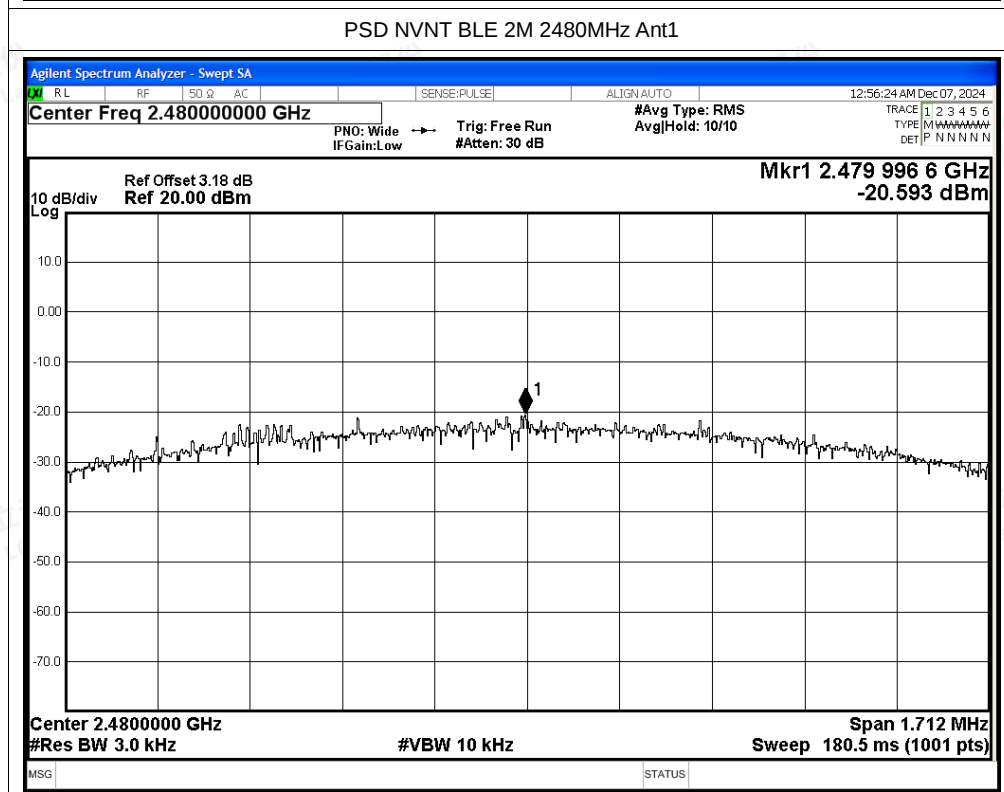
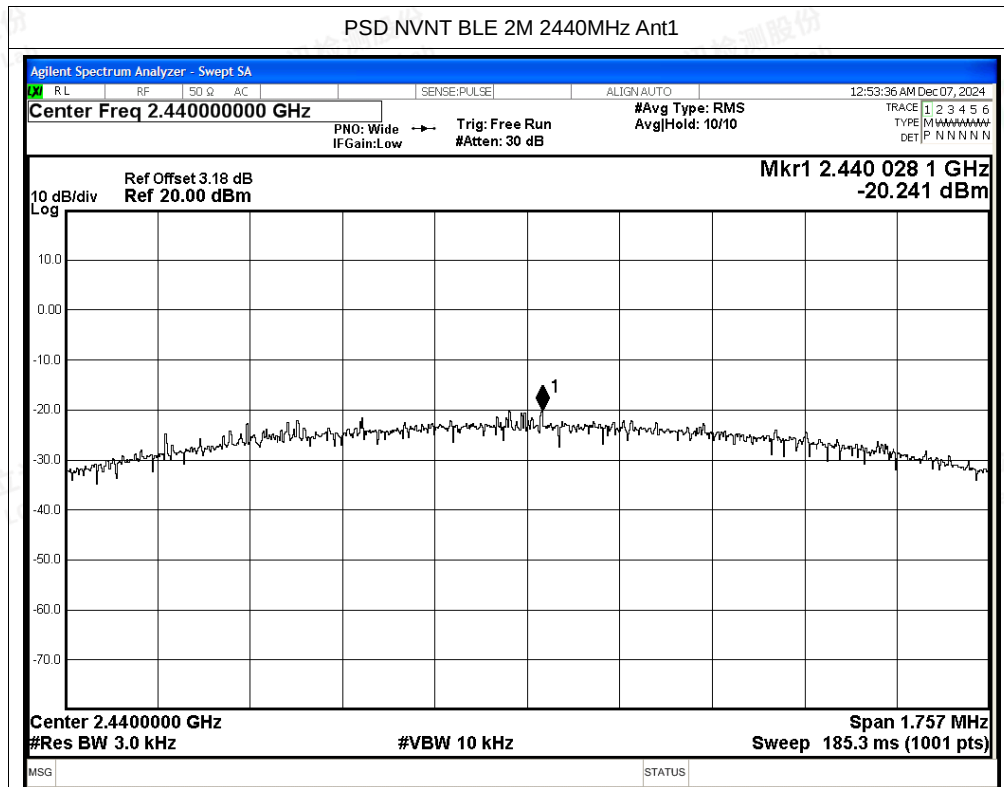
PSD NVNT BLE 1M 2402MHz Ant1



PSD NVNT BLE 1M 2440MHz Ant1









## B.4 Band Edge

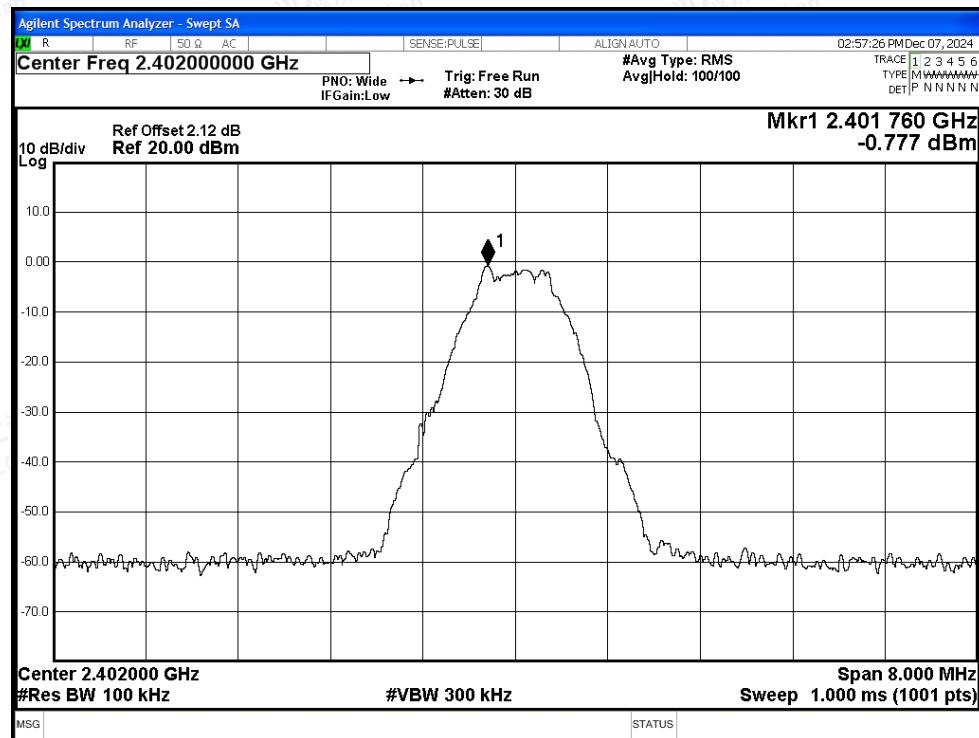
| Condition | Mode   | Frequency (MHz) | Antenna | Max Value (dBc) | Limit (dBc) | Verdict |
|-----------|--------|-----------------|---------|-----------------|-------------|---------|
| NVNT      | BLE 1M | 2402            | Ant1    | -55.94          | -20         | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | -55.34          | -20         | Pass    |
| NVNT      | BLE 2M | 2402            | Ant1    | -46.2           | -20         | Pass    |
| NVNT      | BLE 2M | 2480            | Ant1    | -54.43          | -20         | Pass    |



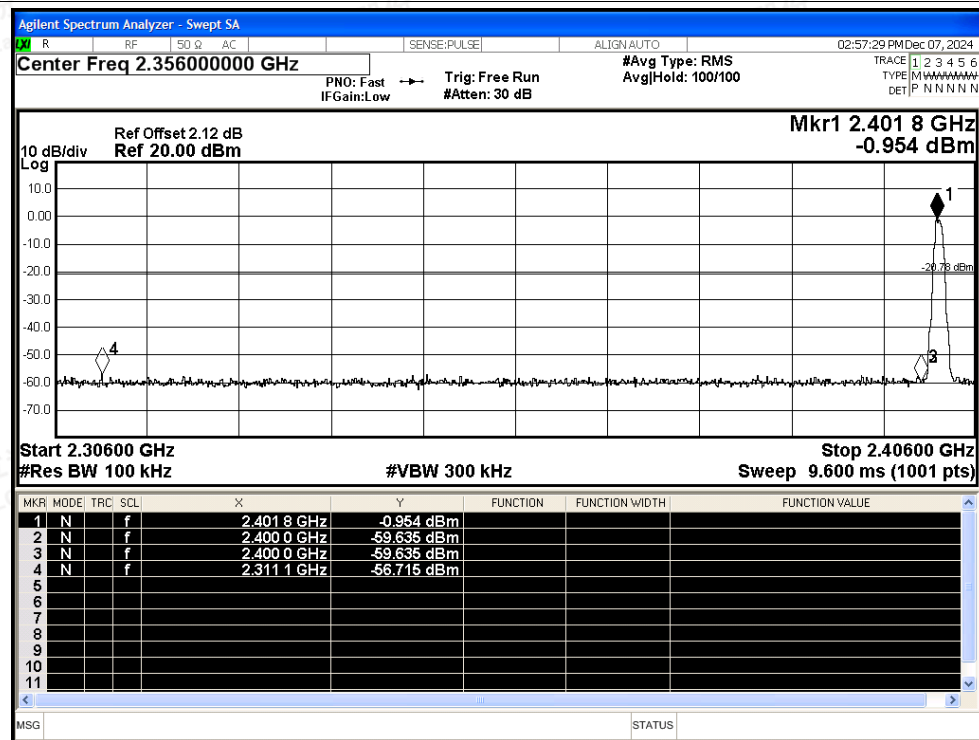


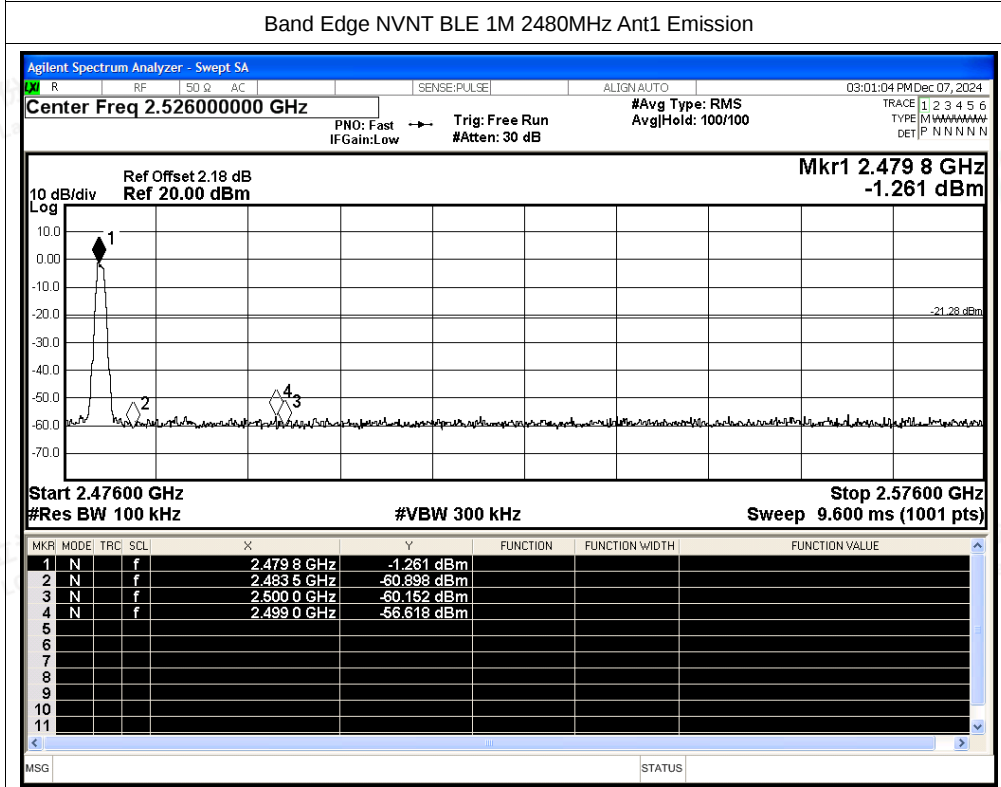
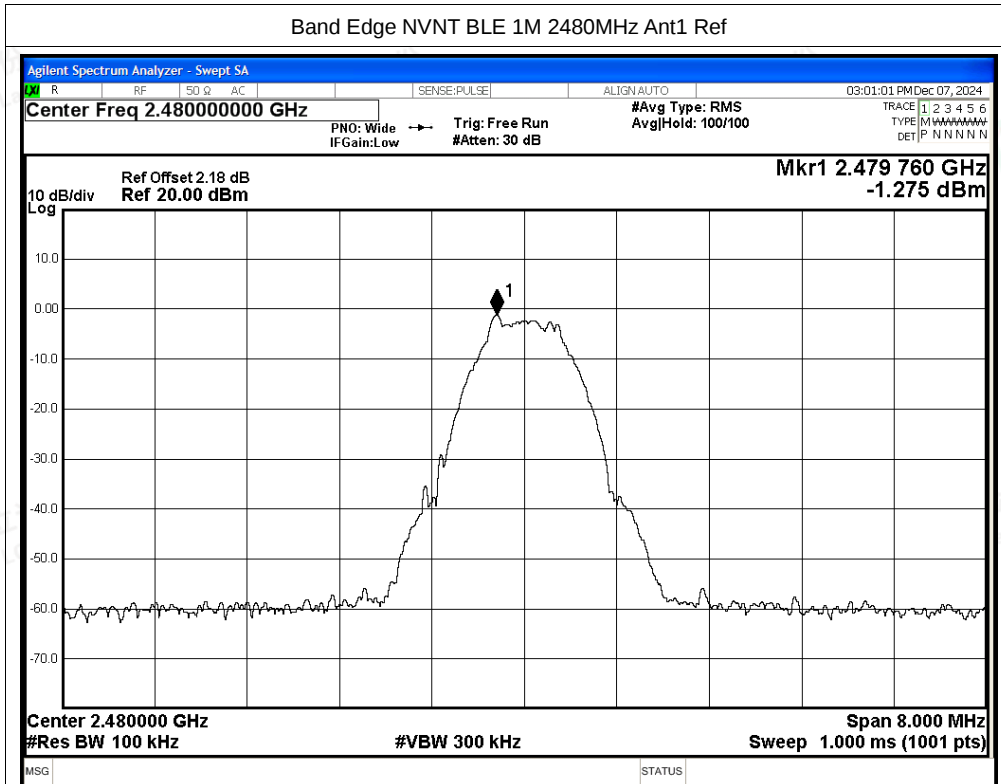
## Test Graphs

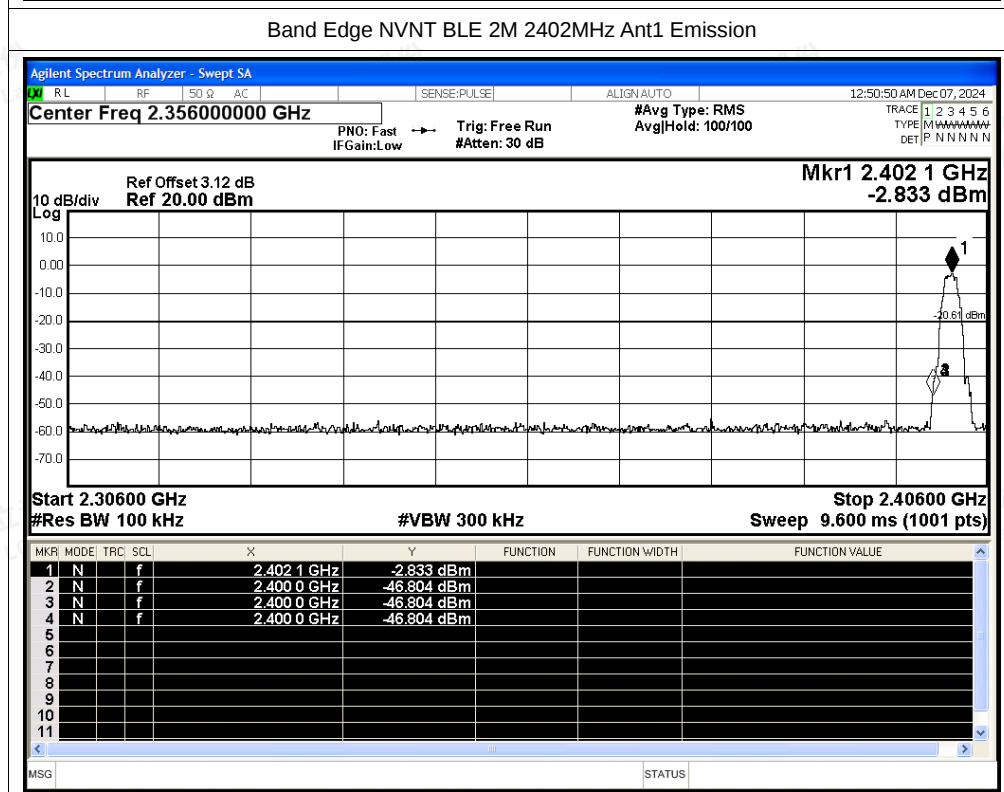
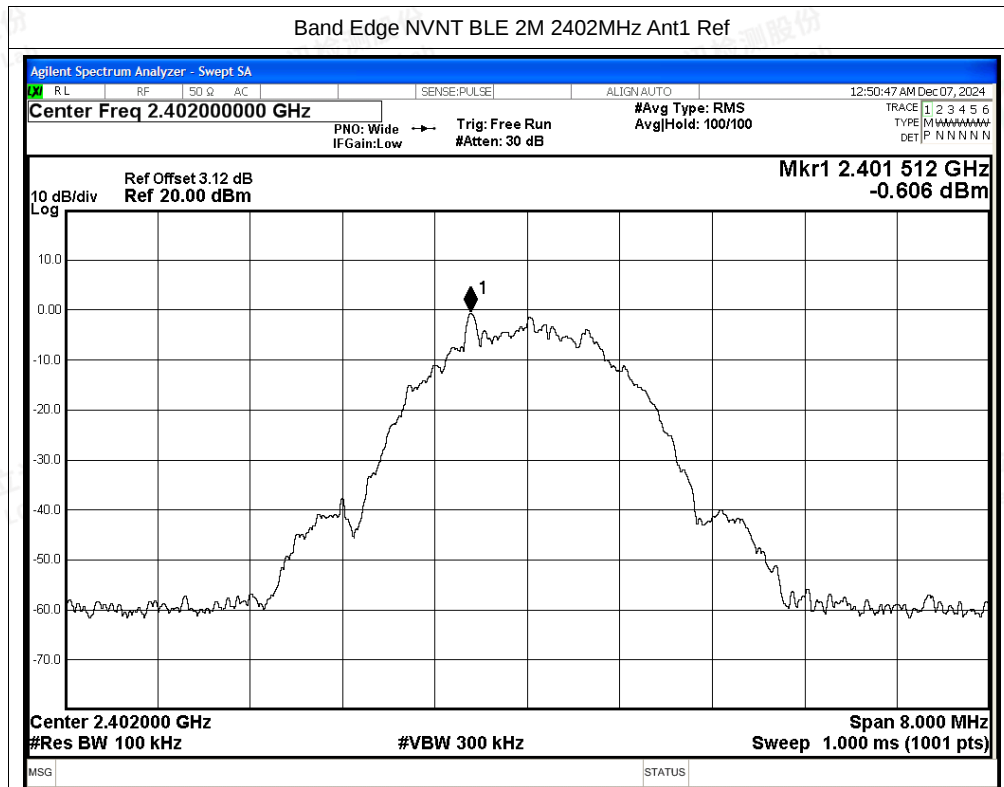
## Band Edge NVNT BLE 1M 2402MHz Ant1 Ref



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





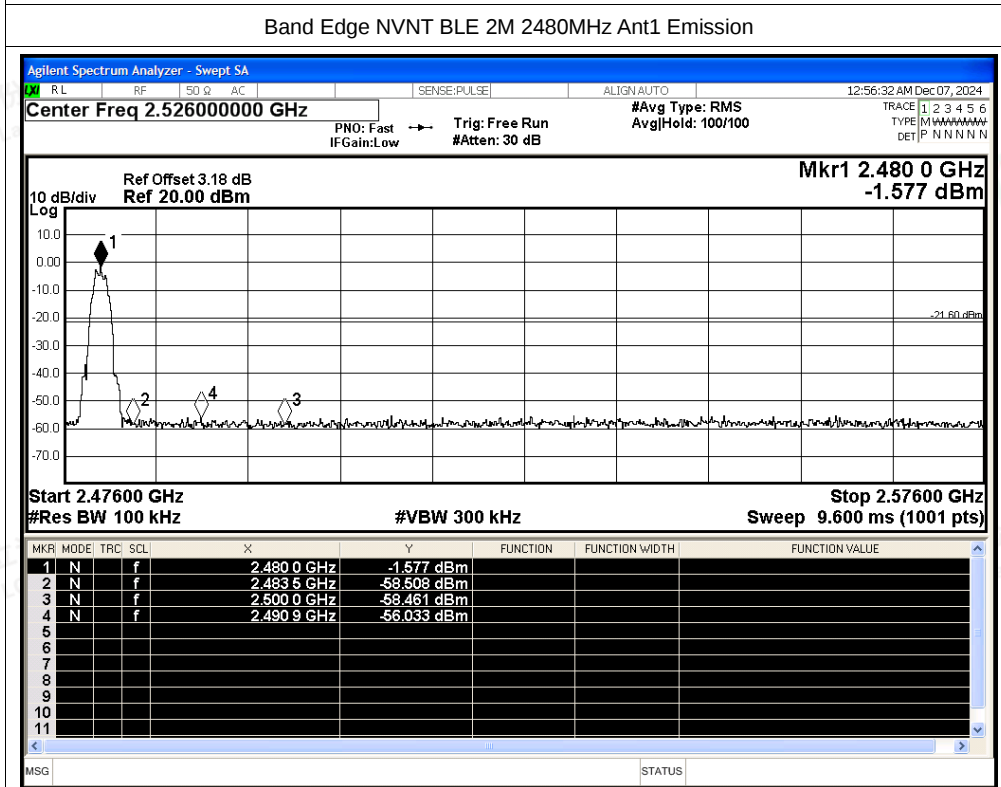
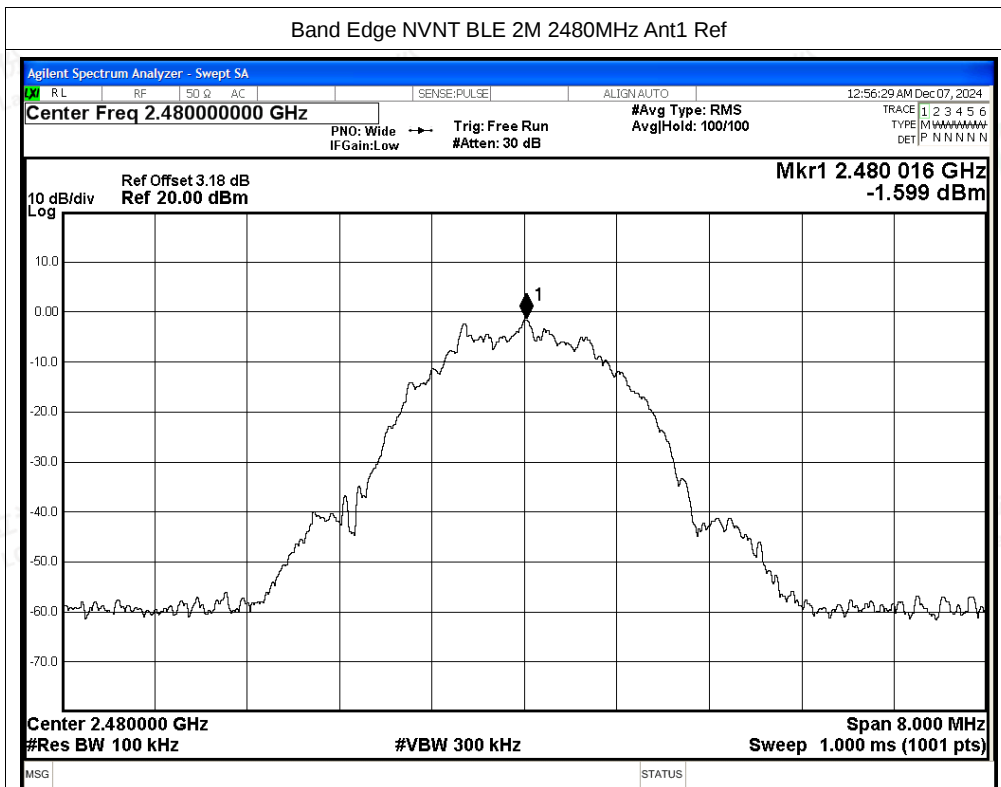


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## B.5 Conducted RF Spurious Emission

| Condition | Mode   | Frequency (MHz) | Antenna | Max Value (dBc) | Limit (dBc) | Verdict |
|-----------|--------|-----------------|---------|-----------------|-------------|---------|
| NVNT      | BLE 1M | 2402            | Ant1    | -54.36          | -20         | Pass    |
| NVNT      | BLE 1M | 2440            | Ant1    | -55.21          | -20         | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | -53.76          | -20         | Pass    |
| NVNT      | BLE 2M | 2402            | Ant1    | -52.81          | -20         | Pass    |
| NVNT      | BLE 2M | 2440            | Ant1    | -53.38          | -20         | Pass    |
| NVNT      | BLE 2M | 2480            | Ant1    | -53.53          | -20         | Pass    |

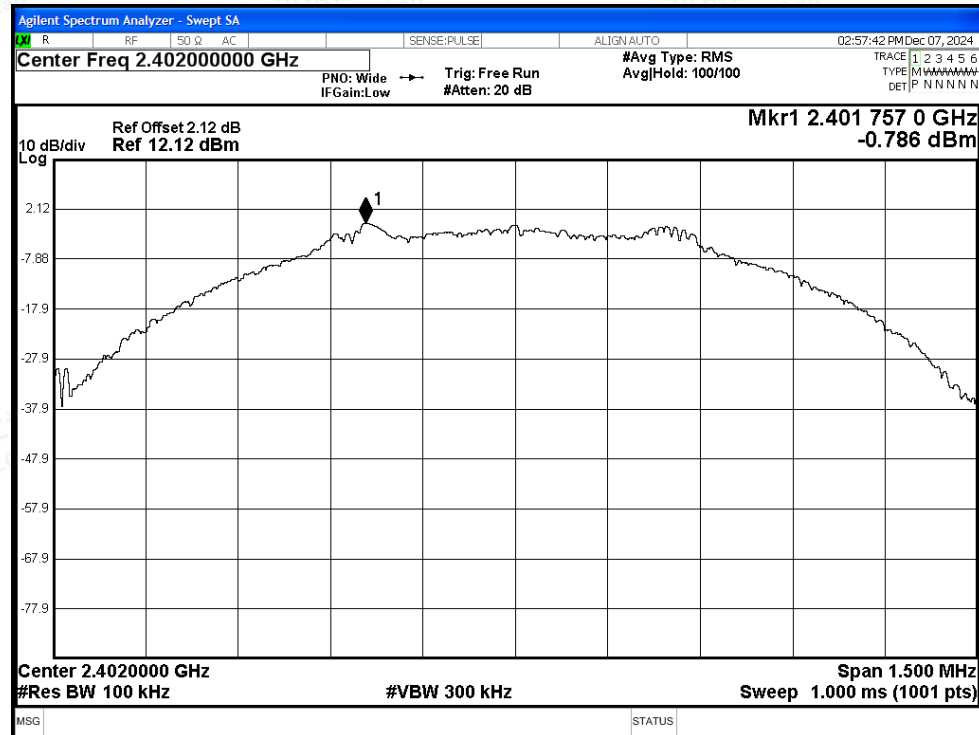


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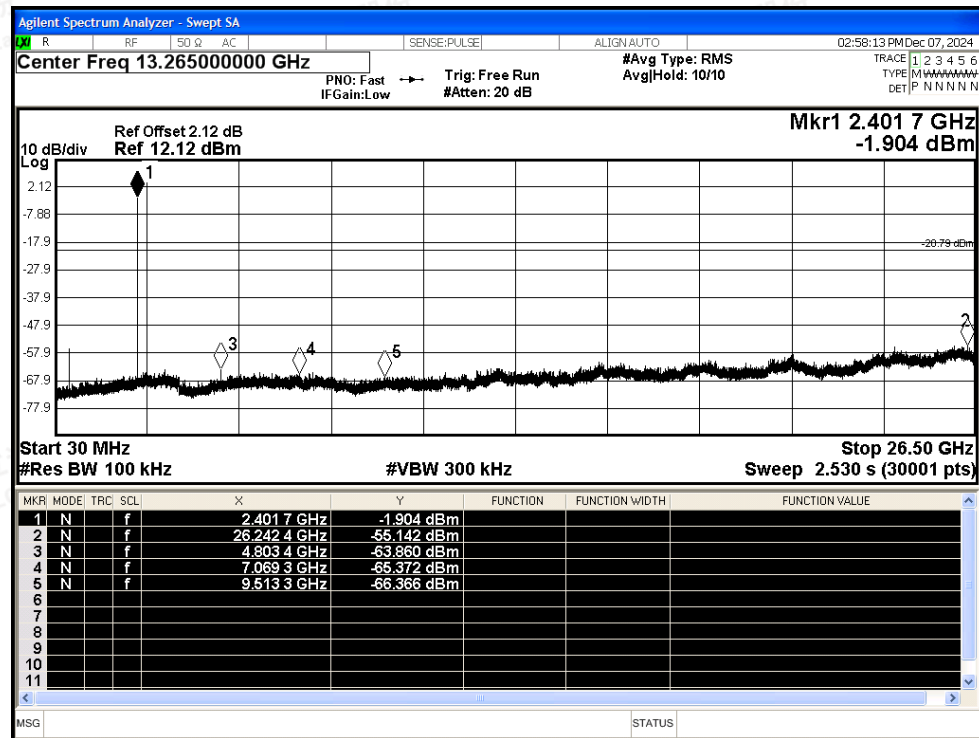


## Test Graphs

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

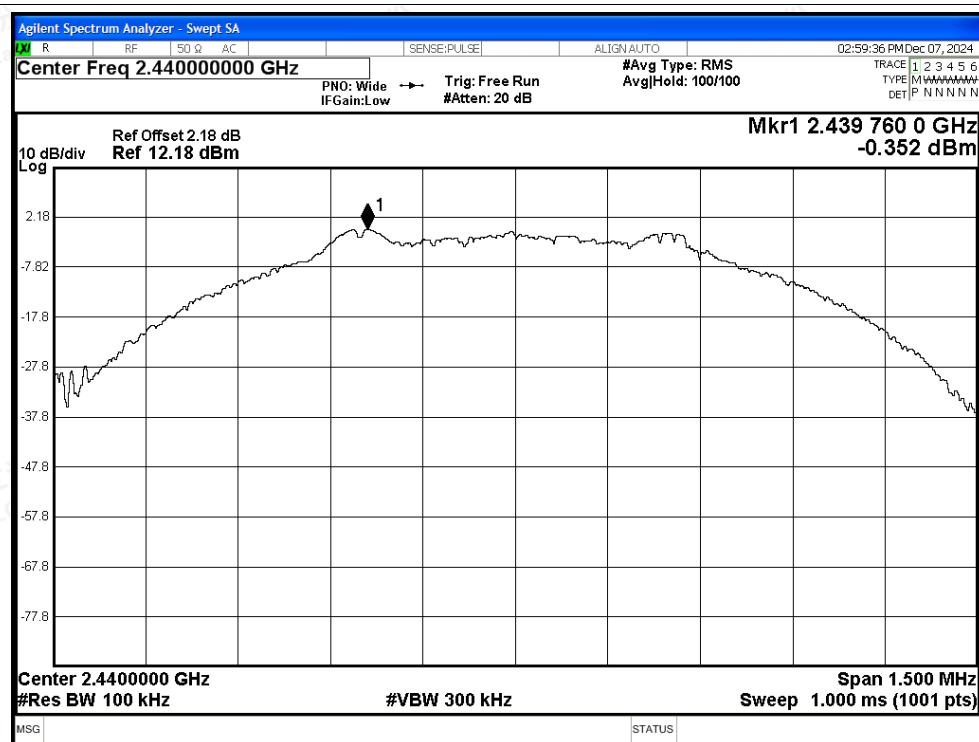


## Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Emission

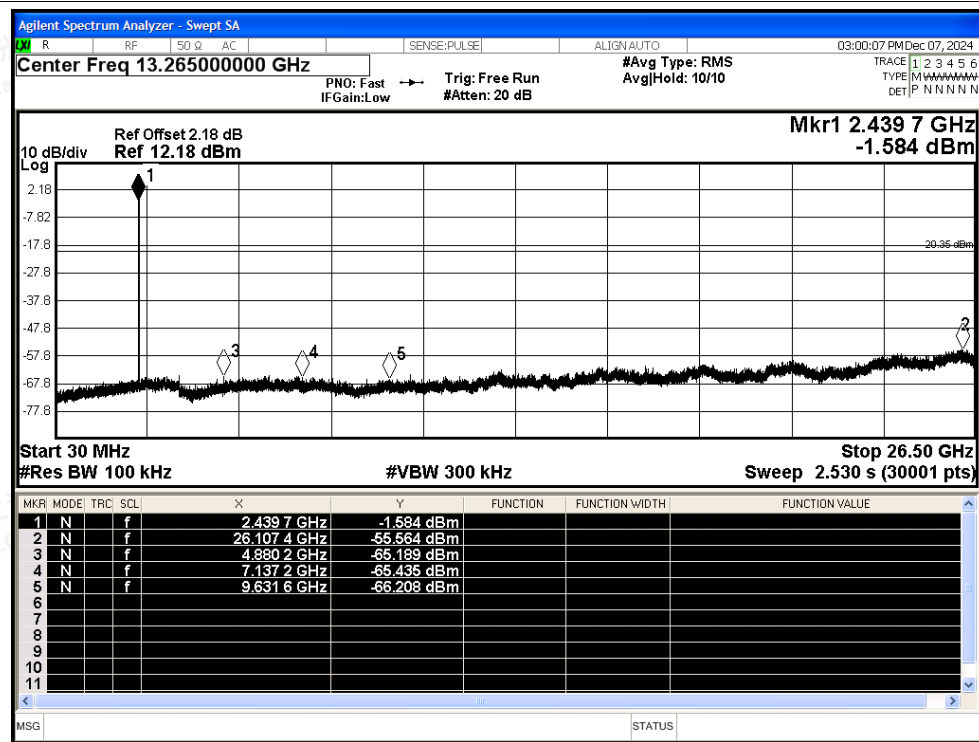




## Tx. Spurious NVNT BLE 1M 2440MHz Ant1 Ref

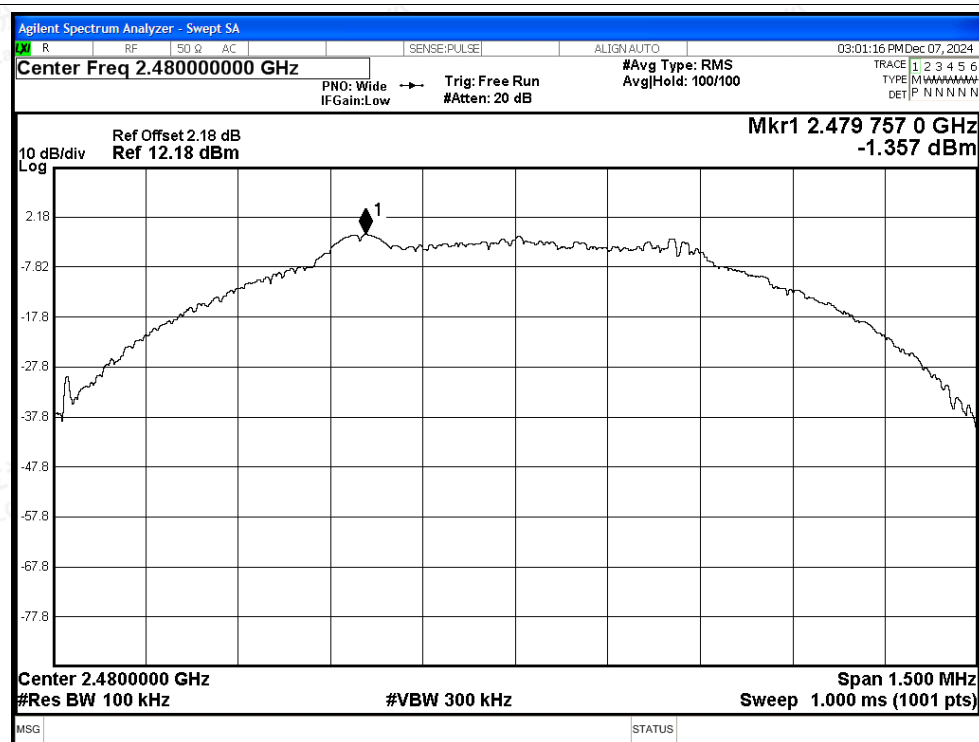


## Tx. Spurious NVNT BLE 1M 2440MHz Ant1 Emission

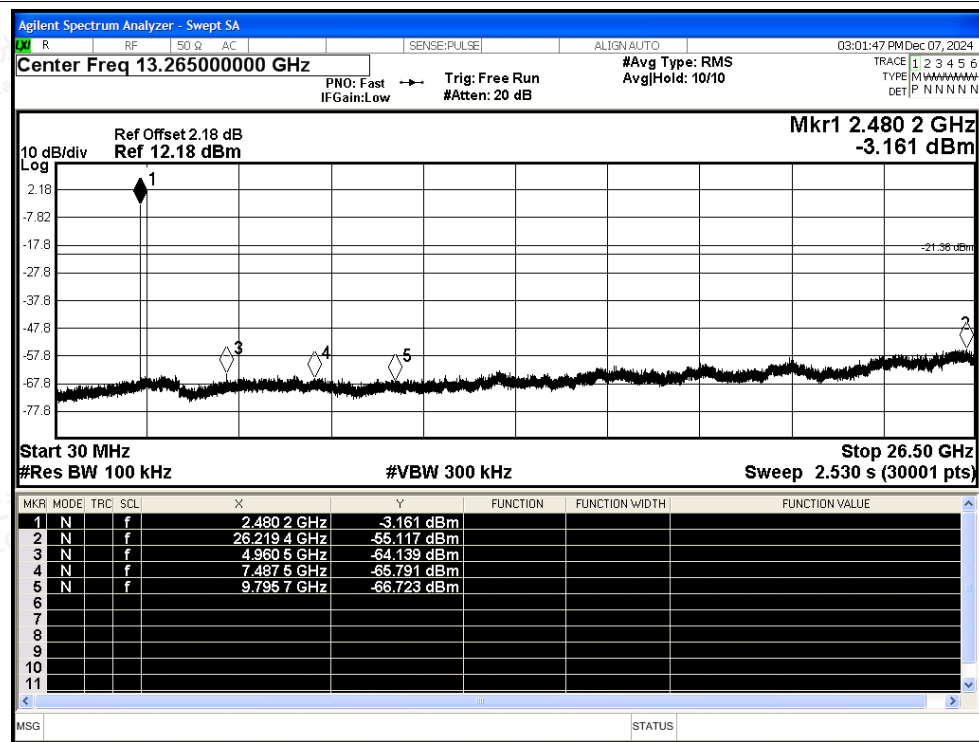




## Tx. Spurious NVNT BLE 1M 2480MHz Ant1 Ref



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

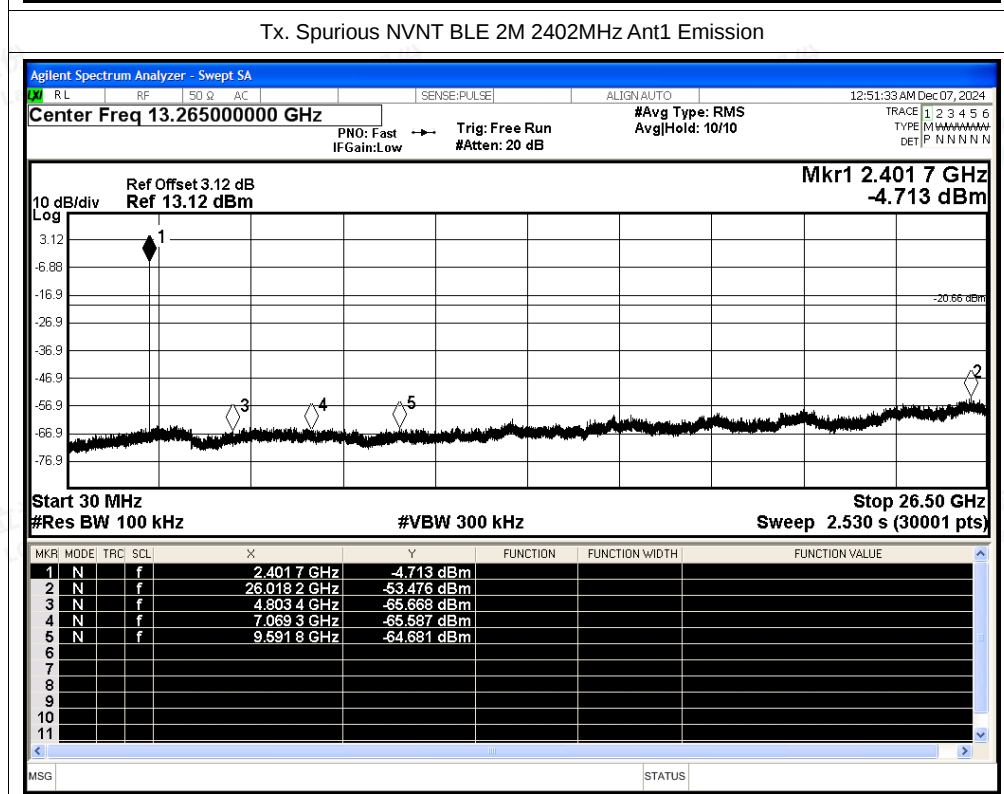
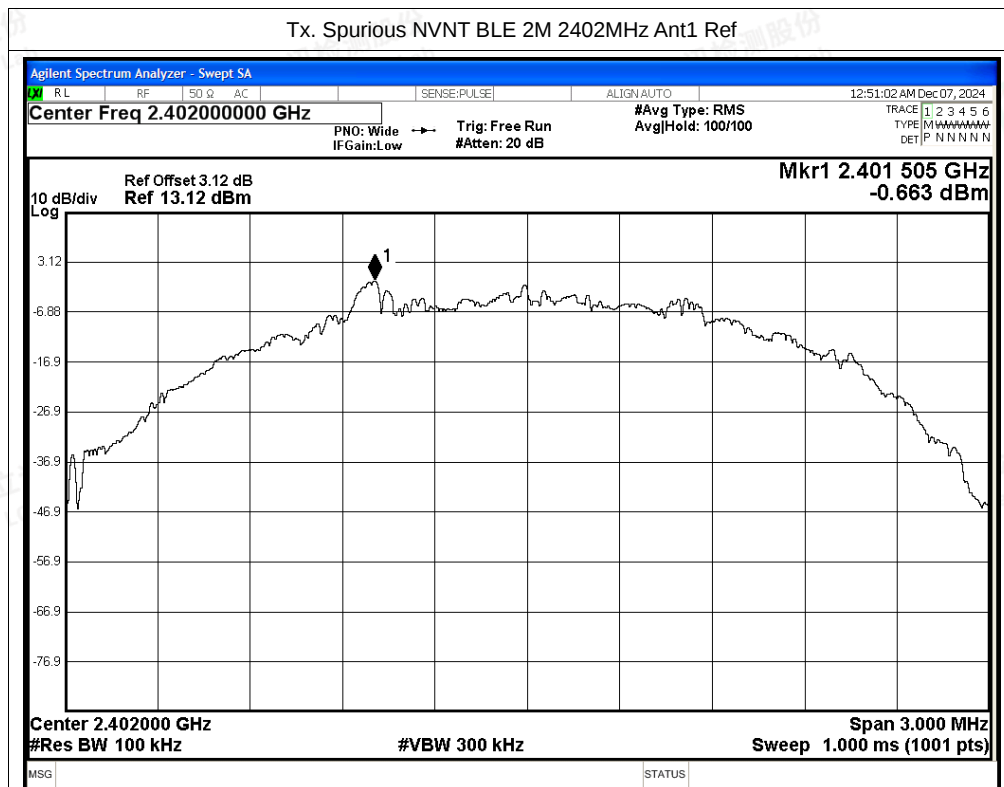


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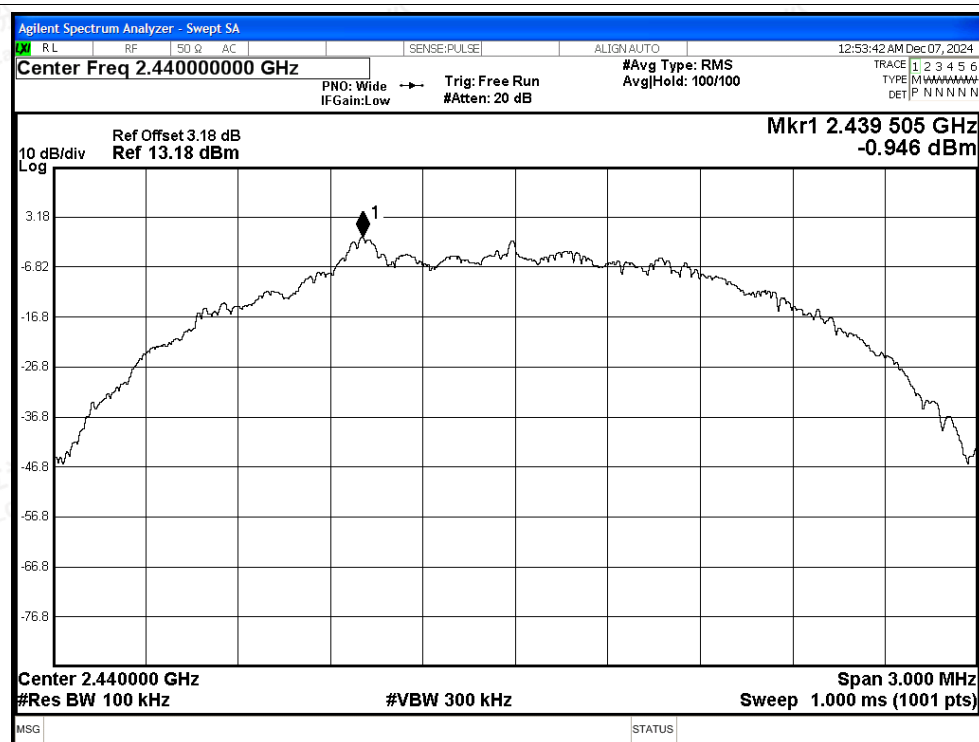
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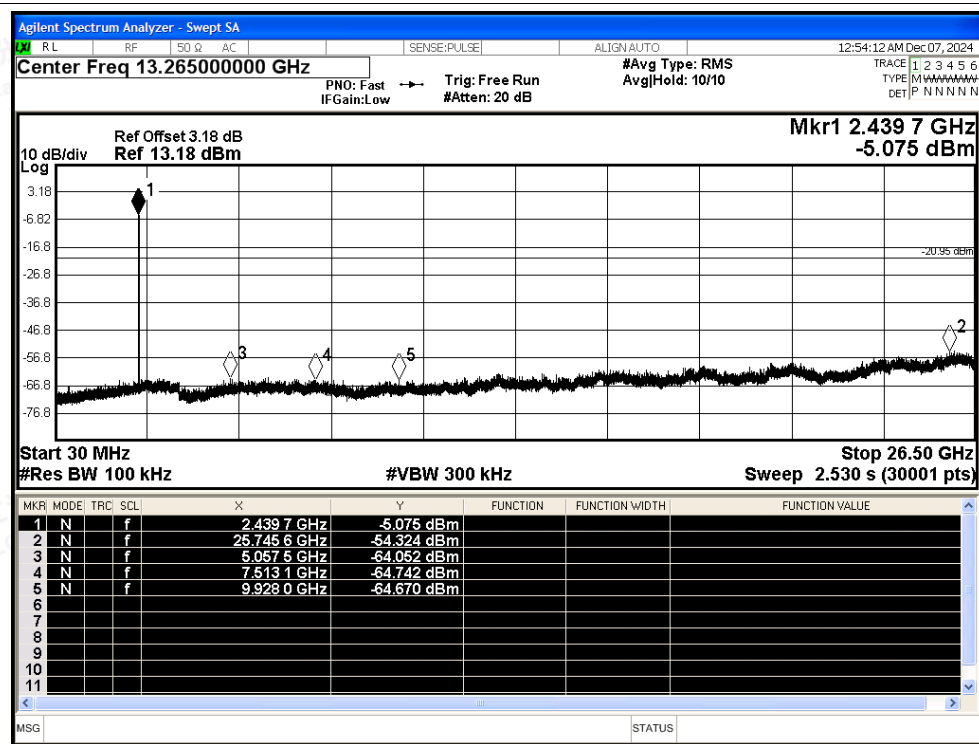




## Tx. Spurious NVNT BLE 2M 2440MHz Ant1 Ref

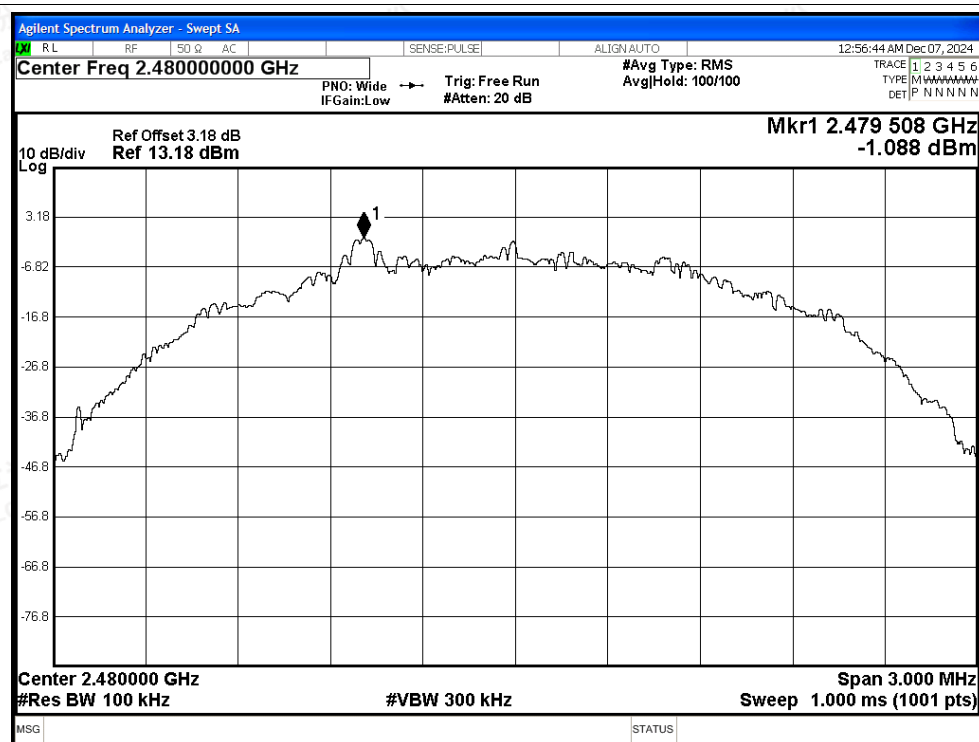


## Tx. Spurious NVNT BLE 2M 2440MHz Ant1 Emission

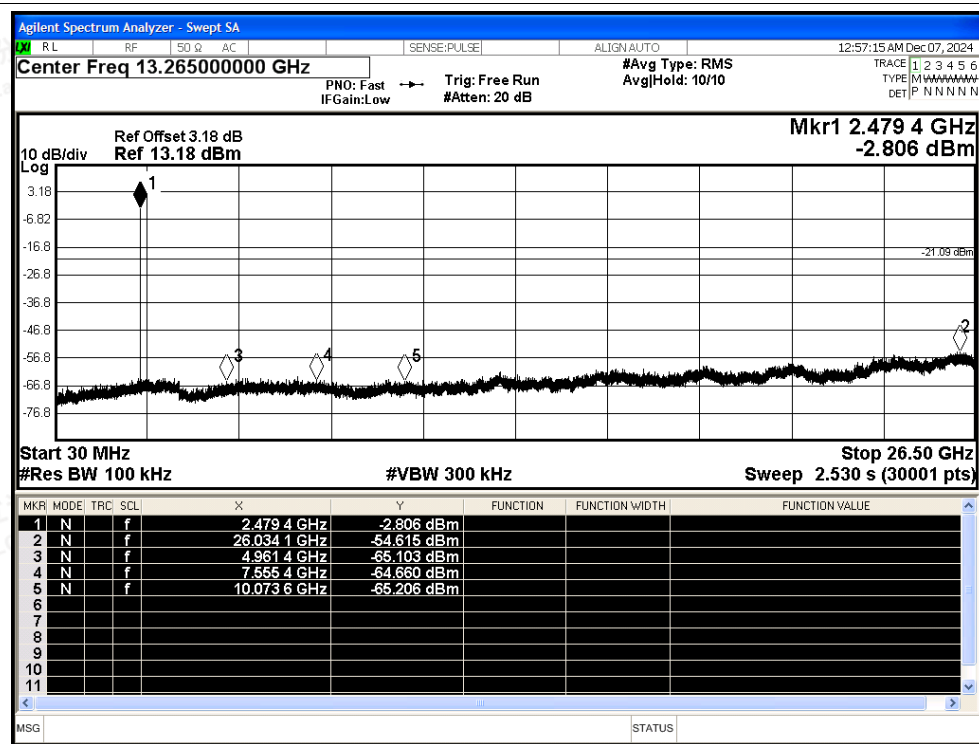




## Tx. Spurious NVNT BLE 2M 2480MHz Ant1 Ref



## Tx. Spurious NVNT BLE 2M 2480MHz Ant1 Emission





## B.6 Duty Cycle

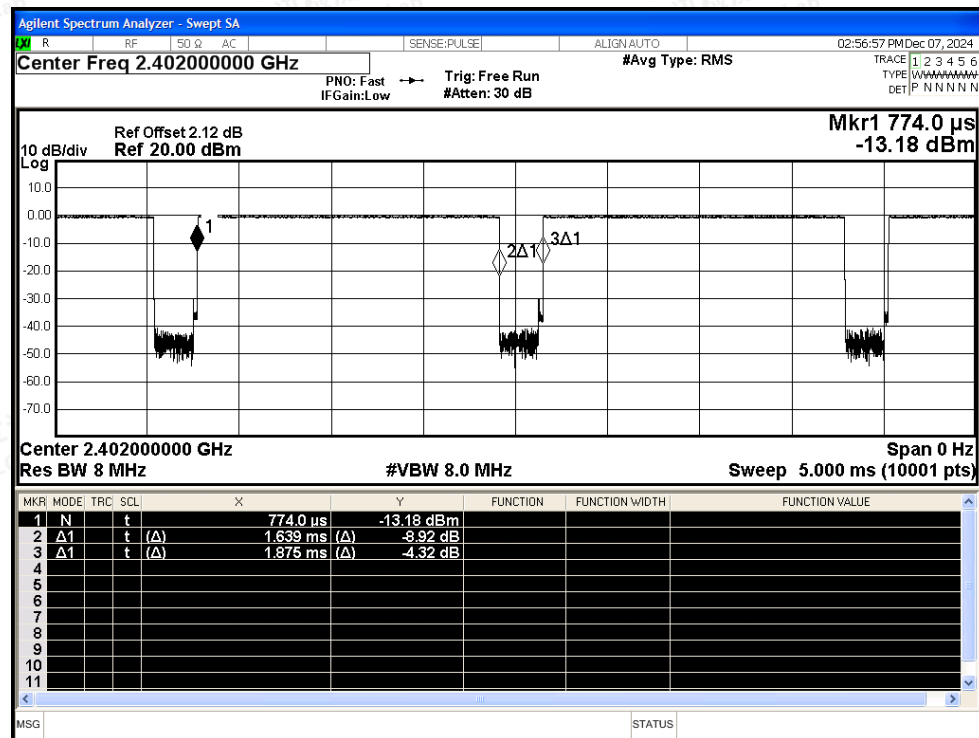
| Condition | Mode   | Frequency (MHz) | Antenna | Duty Cycle (%) | Correction Factor (dB) | 1/T (kHz) |
|-----------|--------|-----------------|---------|----------------|------------------------|-----------|
| NVNT      | BLE 1M | 2402            | Ant1    | 87.39          | 0.59                   | 0.61      |
| NVNT      | BLE 1M | 2440            | Ant1    | 87.39          | 0.59                   | 0.61      |
| NVNT      | BLE 1M | 2480            | Ant1    | 87.39          | 0.59                   | 0.61      |
| NVNT      | BLE 2M | 2402            | Ant1    | 65.97          | 1.81                   | 1.21      |
| NVNT      | BLE 2M | 2440            | Ant1    | 65.96          | 1.81                   | 1.21      |
| NVNT      | BLE 2M | 2480            | Ant1    | 65.96          | 1.81                   | 1.21      |



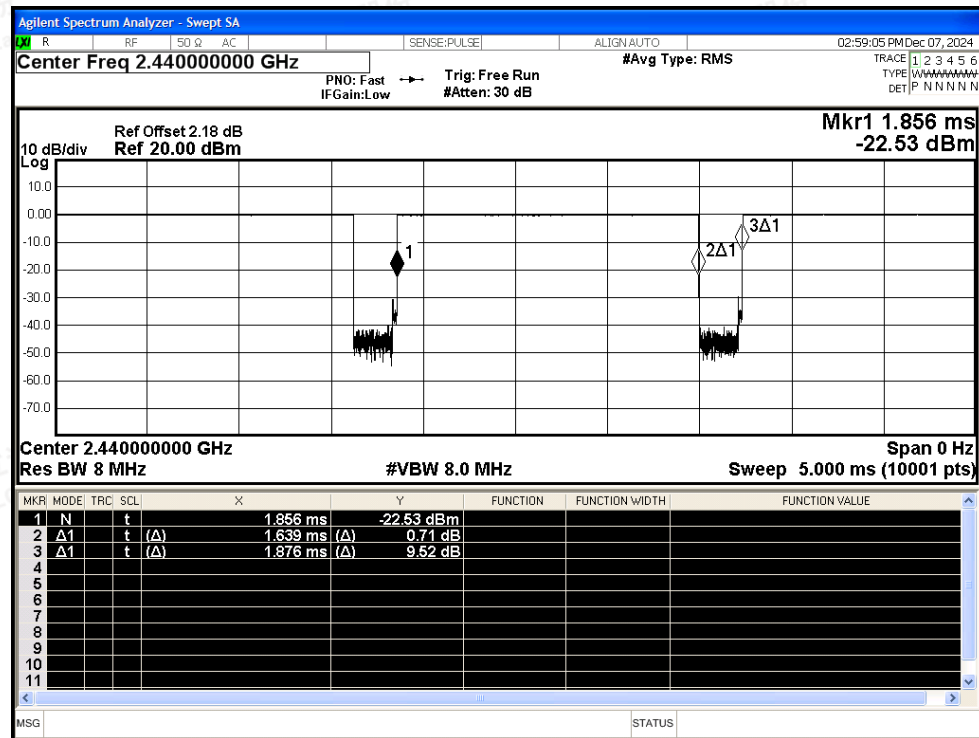


## Test Graphs

## Duty Cycle NVNT BLE 1M 2402MHz Ant1



## Duty Cycle NVNT BLE 1M 2440MHz Ant1



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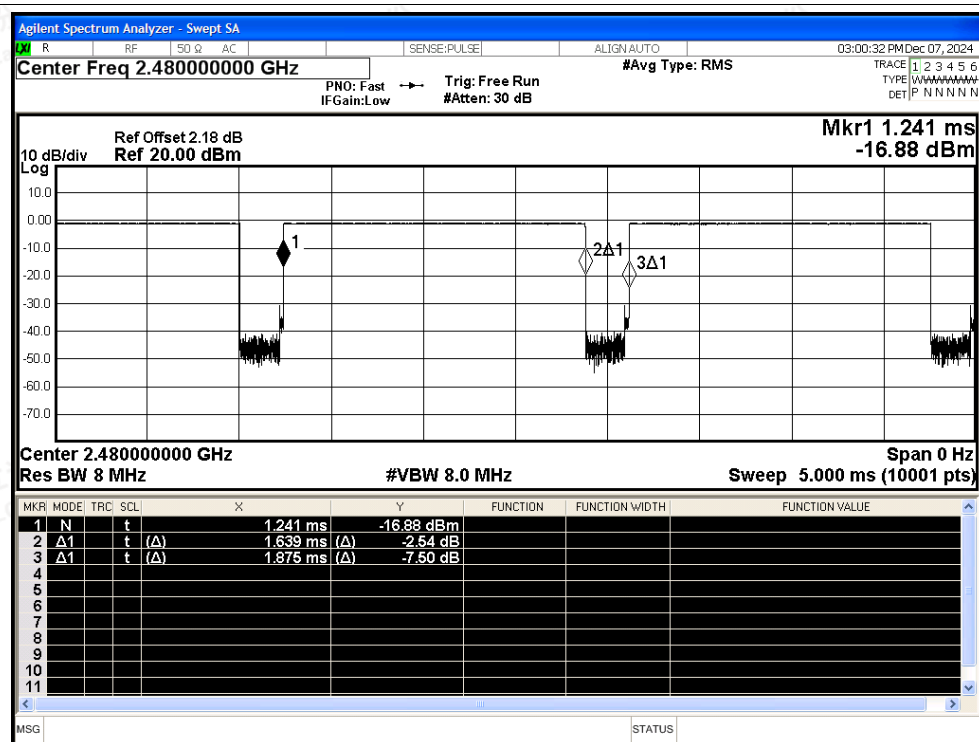
Add: 101, 201 Bldg A &amp; 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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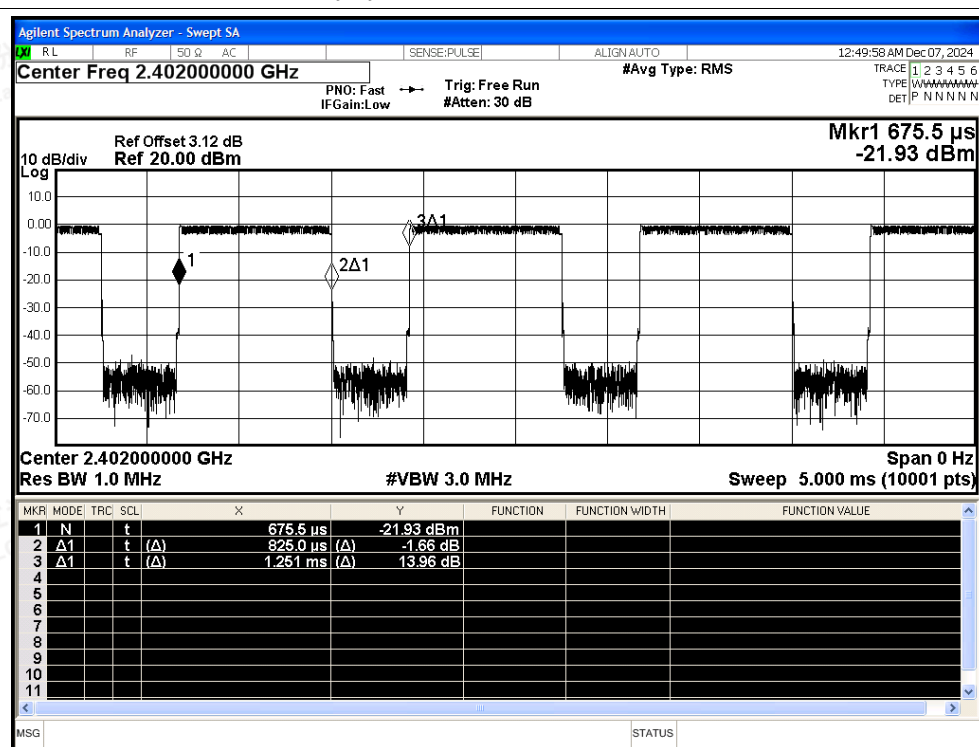
Scan code to check authenticity



## Duty Cycle NVNT BLE 1M 2480MHz Ant1



## Duty Cycle NVNT BLE 2M 2402MHz Ant1

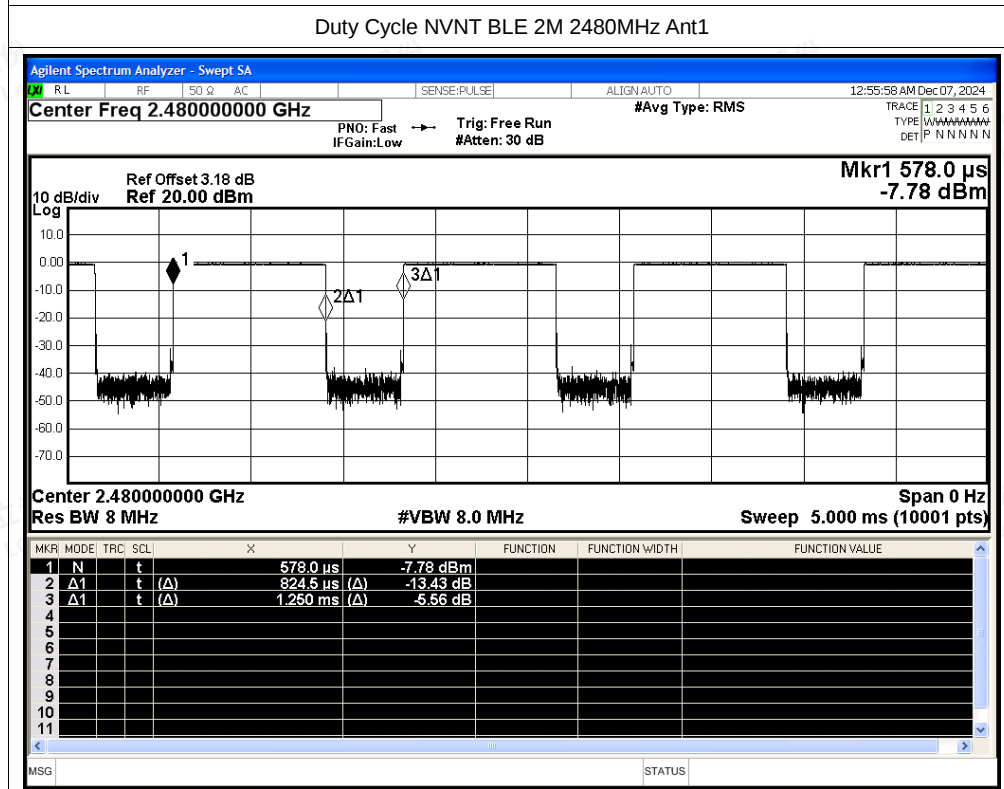
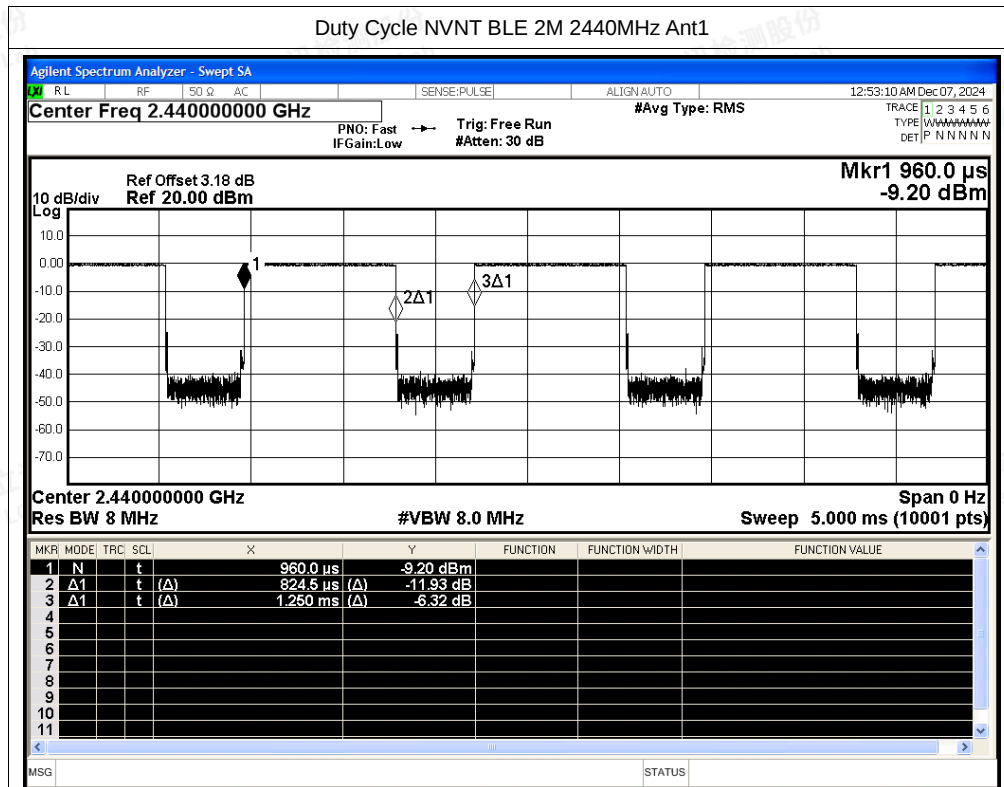


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## B.7 Restrict Band

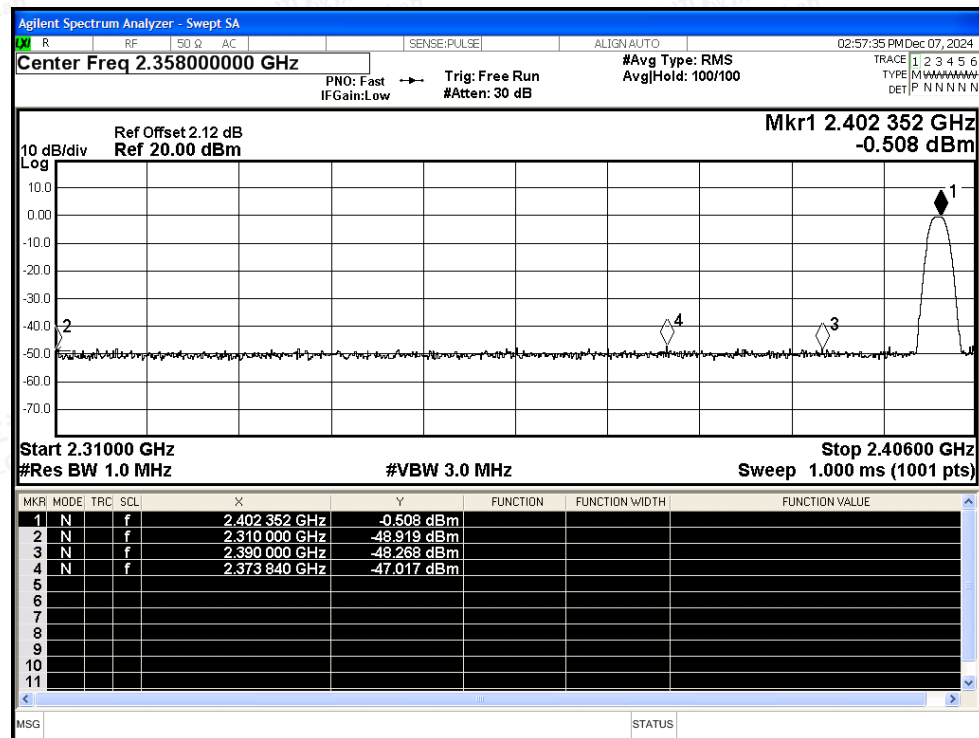
| Condition | Mode   | Frequency (MHz) | Antenna | Spur Freq (MHz) | Power (dBm) | Gain (dBi) | Duty Factor (dB) | E (dBuV/m) | Detector | Limit (dBuV/m) | Verdict |
|-----------|--------|-----------------|---------|-----------------|-------------|------------|------------------|------------|----------|----------------|---------|
| NVNT      | BLE 1M | 2402            | Ant1    | 2310            | -48.92      | 2          | -                | 48.34      | Peak     | 74             | Pass    |
| NVNT      | BLE 1M | 2402            | Ant1    | 2310            | -58.6       | 2          | 0.59             | 39.25      | Average  | 54             | Pass    |
| NVNT      | BLE 1M | 2402            | Ant1    | 2373.84         | -47.02      | 2          | -                | 50.24      | Peak     | 74             | Pass    |
| NVNT      | BLE 1M | 2402            | Ant1    | 2389.872        | -57.56      | 2          | 0.59             | 40.29      | Average  | 54             | Pass    |
| NVNT      | BLE 1M | 2402            | Ant1    | 2390            | -48.27      | 2          | -                | 48.99      | Peak     | 74             | Pass    |
| NVNT      | BLE 1M | 2402            | Ant1    | 2390            | -57.74      | 2          | 0.59             | 40.11      | Average  | 54             | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | 2483.5          | -50.03      | 2          | -                | 47.23      | Peak     | 74             | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | 2483.5          | -57.95      | 2          | 0.59             | 39.9       | Average  | 54             | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | 2494.168        | -46.51      | 2          | -                | 50.75      | Peak     | 74             | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | 2485.12         | -57.04      | 2          | 0.59             | 40.81      | Average  | 54             | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | 2500            | -50.31      | 2          | -                | 46.95      | Peak     | 74             | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | 2500            | -57.41      | 2          | 0.59             | 40.44      | Average  | 54             | Pass    |
| NVNT      | BLE 2M | 2402            | Ant1    | 2310            | -49.05      | 2          | -                | 48.21      | Peak     | 74             | Pass    |
| NVNT      | BLE 2M | 2402            | Ant1    | 2310            | -57.32      | 2          | 1.81             | 41.75      | Average  | 54             | Pass    |
| NVNT      | BLE 2M | 2402            | Ant1    | 2381.424        | -46.64      | 2          | -                | 50.62      | Peak     | 74             | Pass    |
| NVNT      | BLE 2M | 2402            | Ant1    | 2337.744        | -56.64      | 2          | 1.81             | 42.43      | Average  | 54             | Pass    |
| NVNT      | BLE 2M | 2402            | Ant1    | 2390            | -49.1       | 2          | -                | 48.16      | Peak     | 74             | Pass    |
| NVNT      | BLE 2M | 2402            | Ant1    | 2390            | -57.5       | 2          | 1.81             | 41.57      | Average  | 54             | Pass    |
| NVNT      | BLE 2M | 2480            | Ant1    | 2483.5          | -47.16      | 2          | -                | 50.1       | Peak     | 74             | Pass    |
| NVNT      | BLE 2M | 2480            | Ant1    | 2483.5          | -56.97      | 2          | 1.81             | 42.1       | Average  | 54             | Pass    |
| NVNT      | BLE 2M | 2480            | Ant1    | 2485.552        | -45.36      | 2          | -                | 51.9       | Peak     | 74             | Pass    |
| NVNT      | BLE 2M | 2480            | Ant1    | 2485.552        | -56.15      | 2          | 1.81             | 42.92      | Average  | 54             | Pass    |
| NVNT      | BLE 2M | 2480            | Ant1    | 2500            | -49.05      | 2          | -                | 48.21      | Peak     | 74             | Pass    |
| NVNT      | BLE 2M | 2480            | Ant1    | 2500            | -56.85      | 2          | 1.81             | 42.22      | Average  | 54             | Pass    |



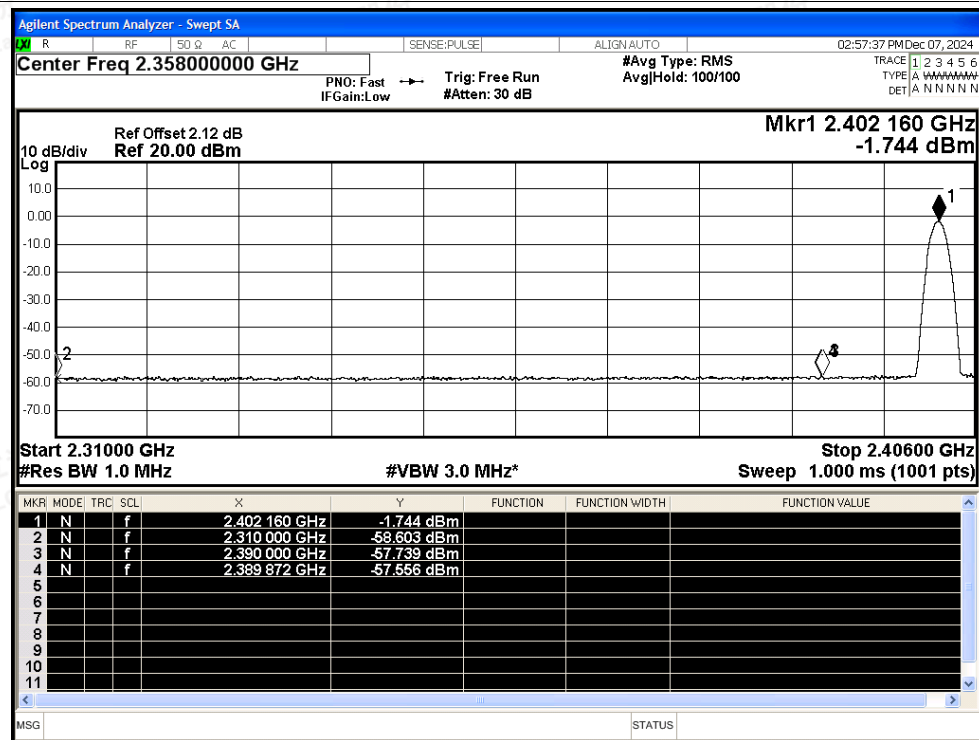


## Test Graphs

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

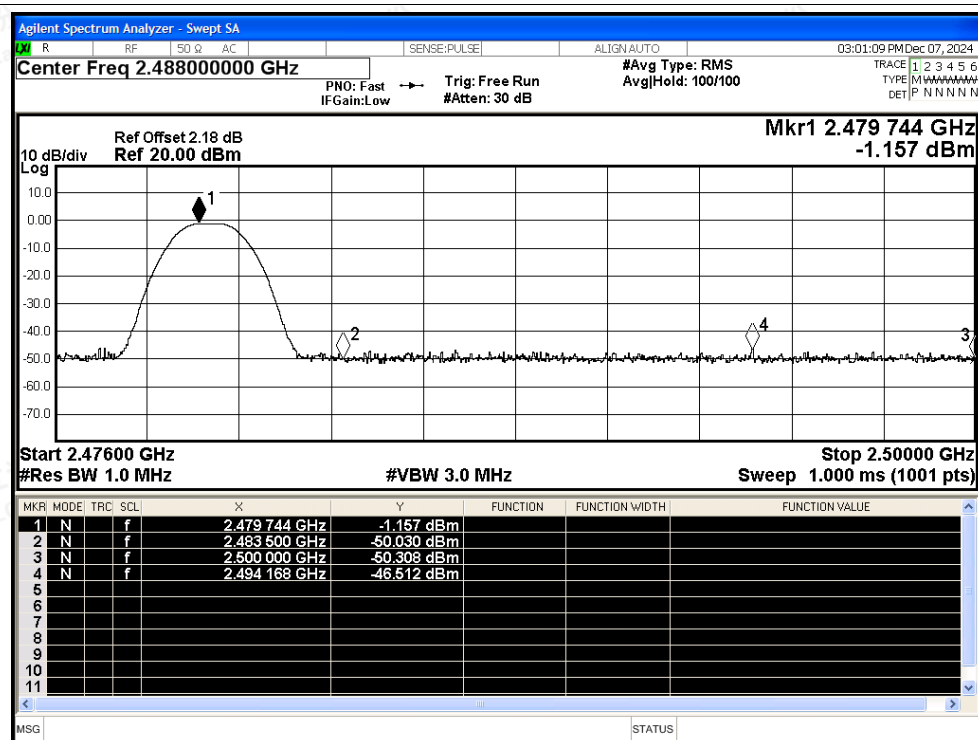


## Restrict Band NVNT BLE 1M 2402MHz Ant1 Average

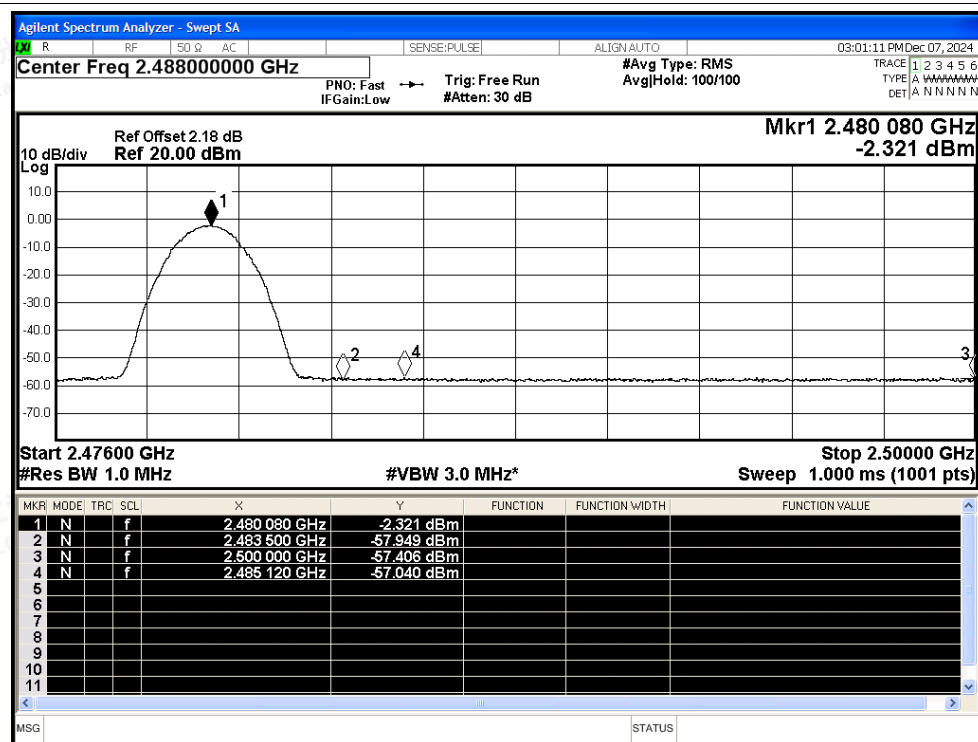




## Restrict Band NVNT BLE 1M 2480MHz Ant1 Peak



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

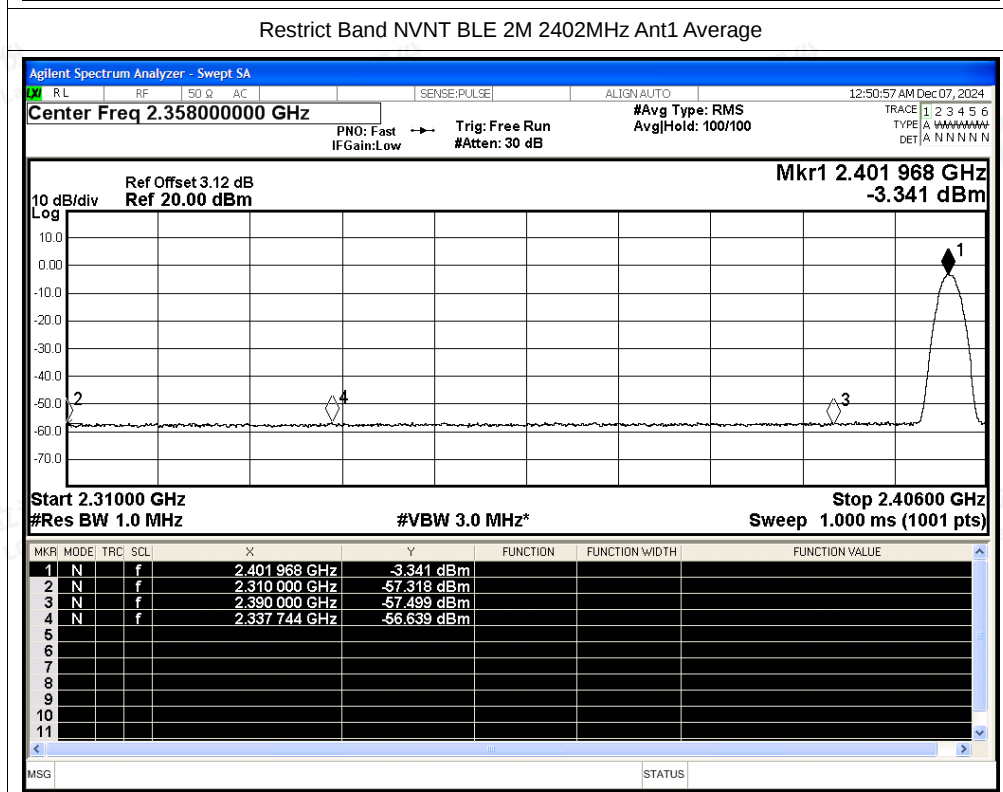
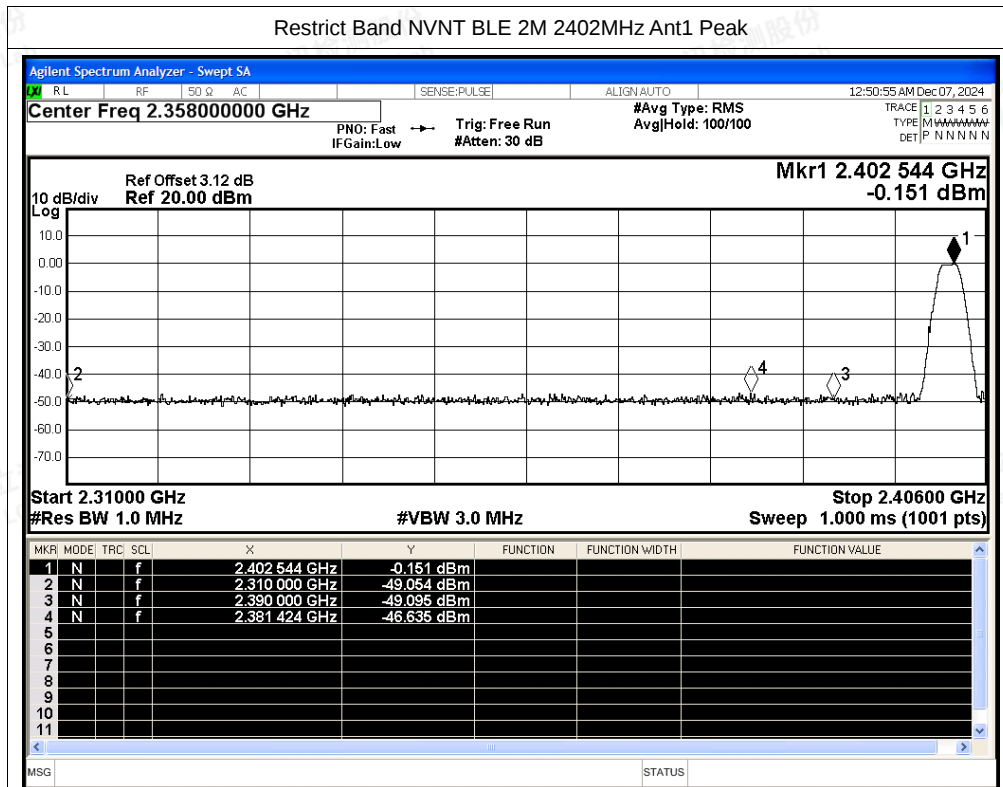


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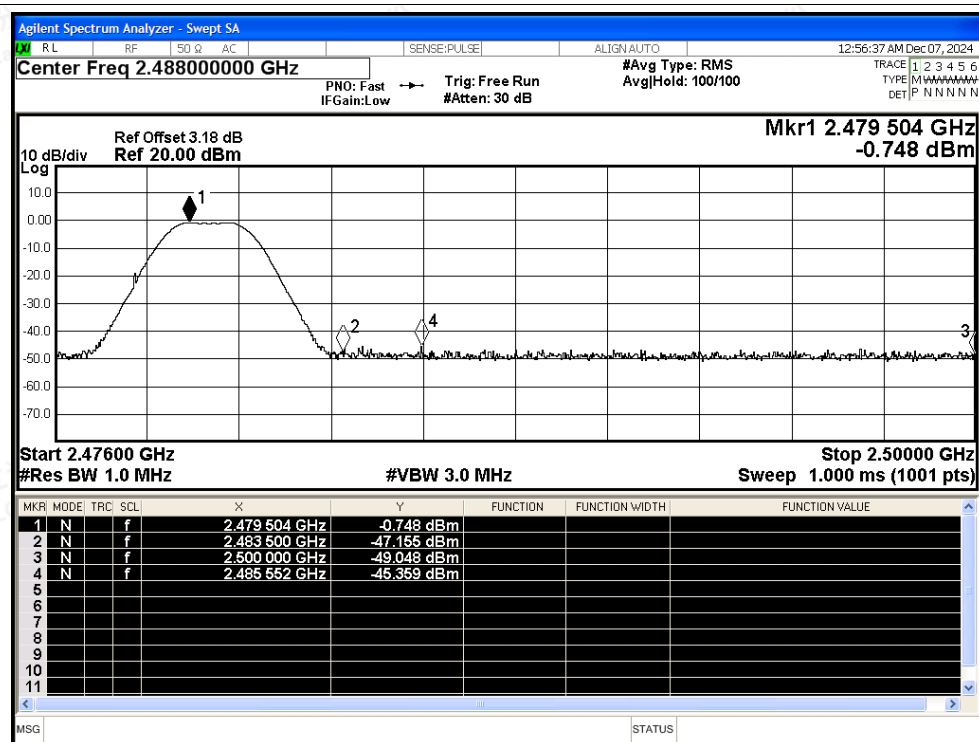
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity

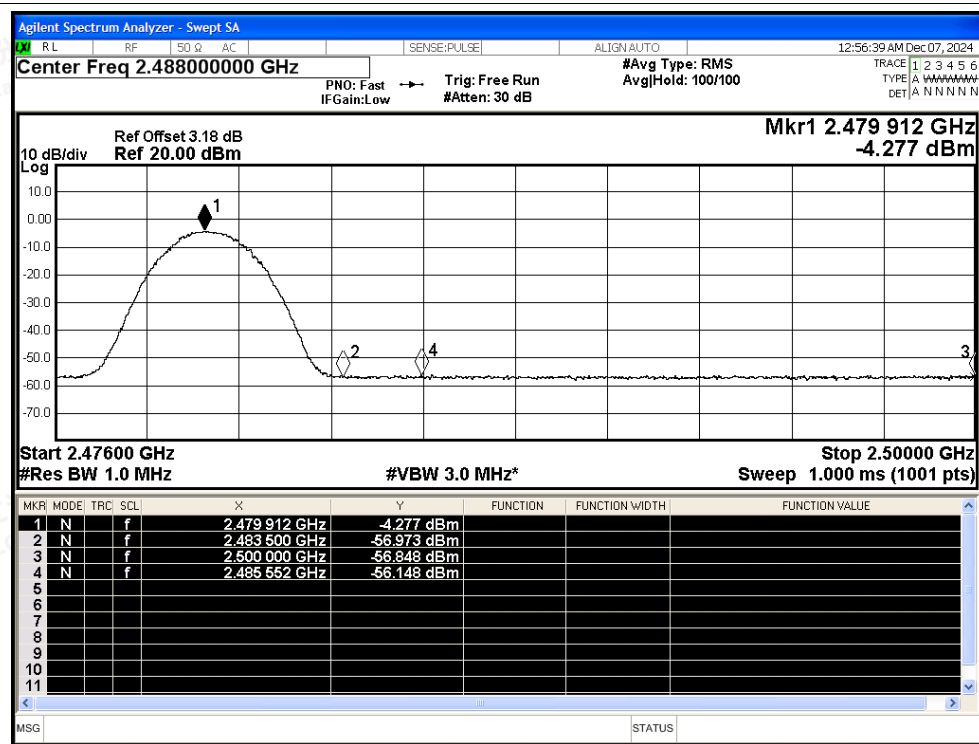




## Restrict Band NVNT BLE 2M 2480MHz Ant1 Peak



## Restrict Band NVNT BLE 2M 2480MHz Ant1 Average



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