



## Appendix A

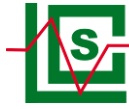
### RF Test Data for BT (Conducted Measurement)

Product Name: soundbar

Test Model: B0117-00601BK

#### Environmental Conditions

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



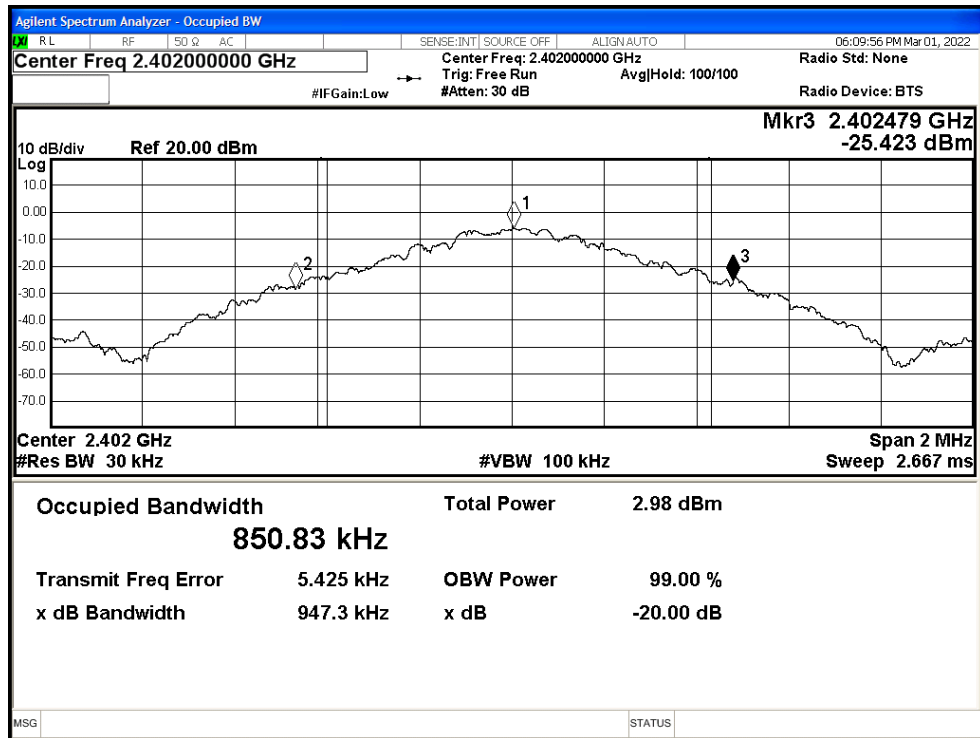
## A.1 20dB Bandwidth

| Condition | Mode  | Frequency (MHz) | Antenna | -20 dB Bandwidth (MHz) | Limit -20 dB Bandwidth (MHz) | Verdict |
|-----------|-------|-----------------|---------|------------------------|------------------------------|---------|
| NVNT      | 1-DH5 | 2402            | Ant1    | 0.947                  | No Limit                     | Pass    |
| NVNT      | 1-DH5 | 2441            | Ant1    | 0.942                  | No Limit                     | Pass    |
| NVNT      | 1-DH5 | 2480            | Ant1    | 0.945                  | No Limit                     | Pass    |
| NVNT      | 2-DH5 | 2402            | Ant1    | 1.312                  | No Limit                     | Pass    |
| NVNT      | 2-DH5 | 2441            | Ant1    | 1.309                  | No Limit                     | Pass    |
| NVNT      | 2-DH5 | 2480            | Ant1    | 1.321                  | No Limit                     | Pass    |
| NVNT      | 3-DH5 | 2402            | Ant1    | 1.296                  | No Limit                     | Pass    |
| NVNT      | 3-DH5 | 2441            | Ant1    | 1.297                  | No Limit                     | Pass    |
| NVNT      | 3-DH5 | 2480            | Ant1    | 1.294                  | No Limit                     | Pass    |

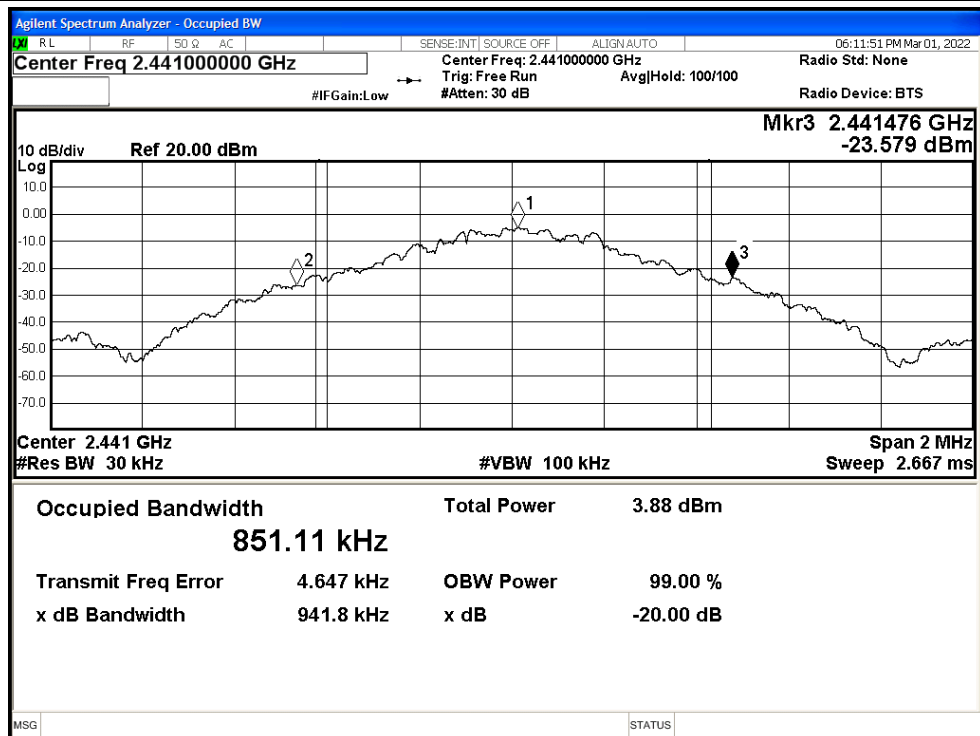


## Test Graphs

## -20dB Bandwidth NVNT 1-DH5 2402MHz Ant1

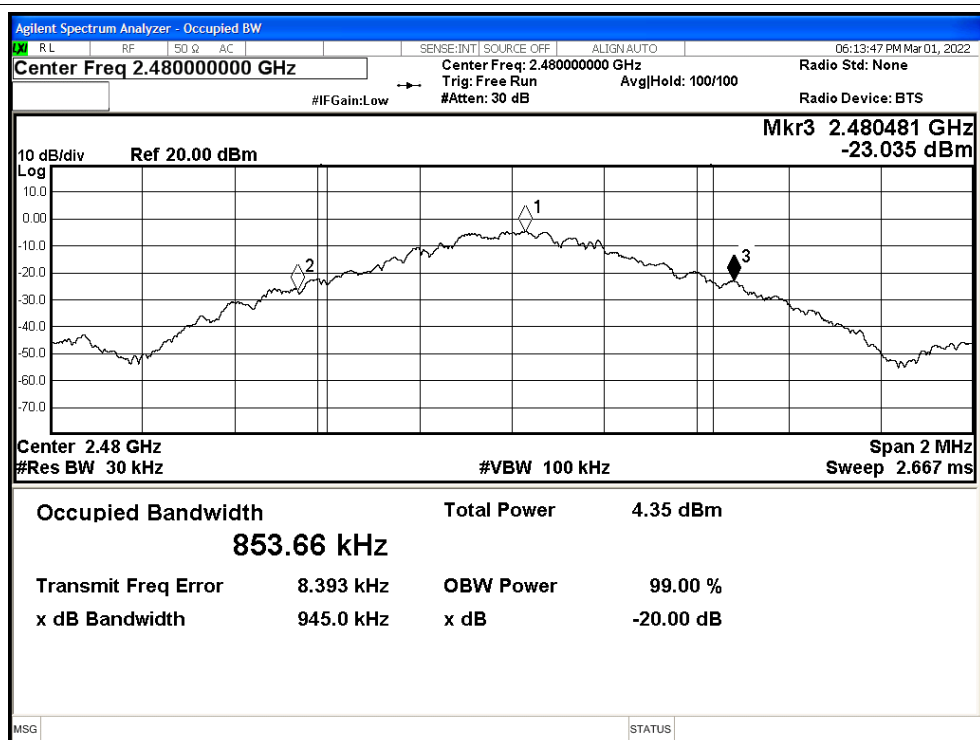


## -20dB Bandwidth NVNT 1-DH5 2441MHz Ant1

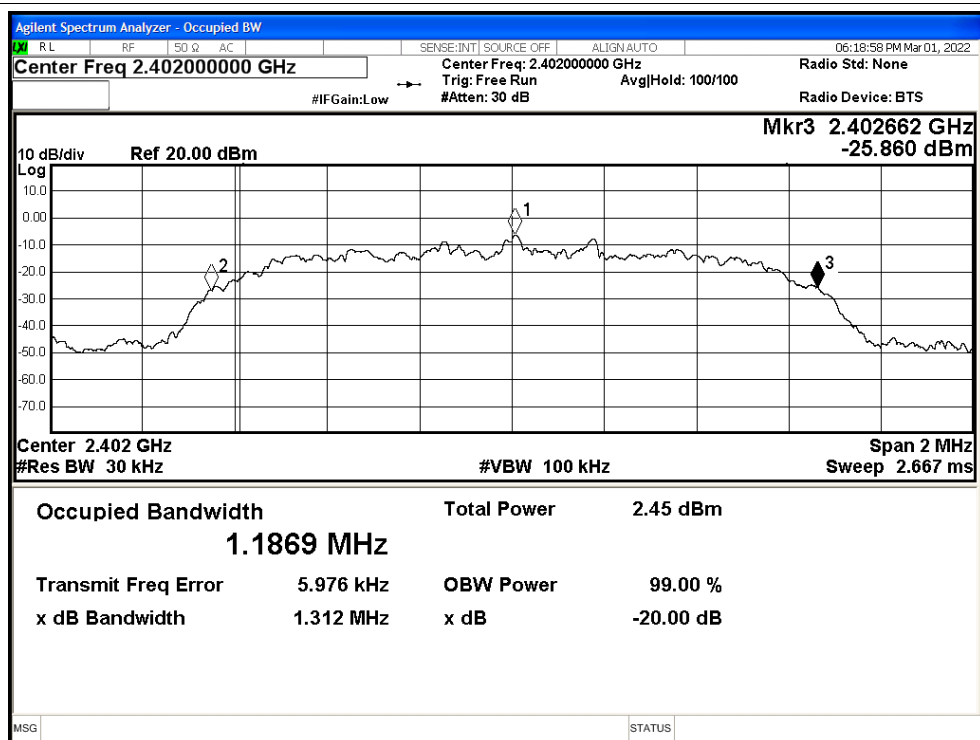




## -20dB Bandwidth NVNT 1-DH5 2480MHz Ant1

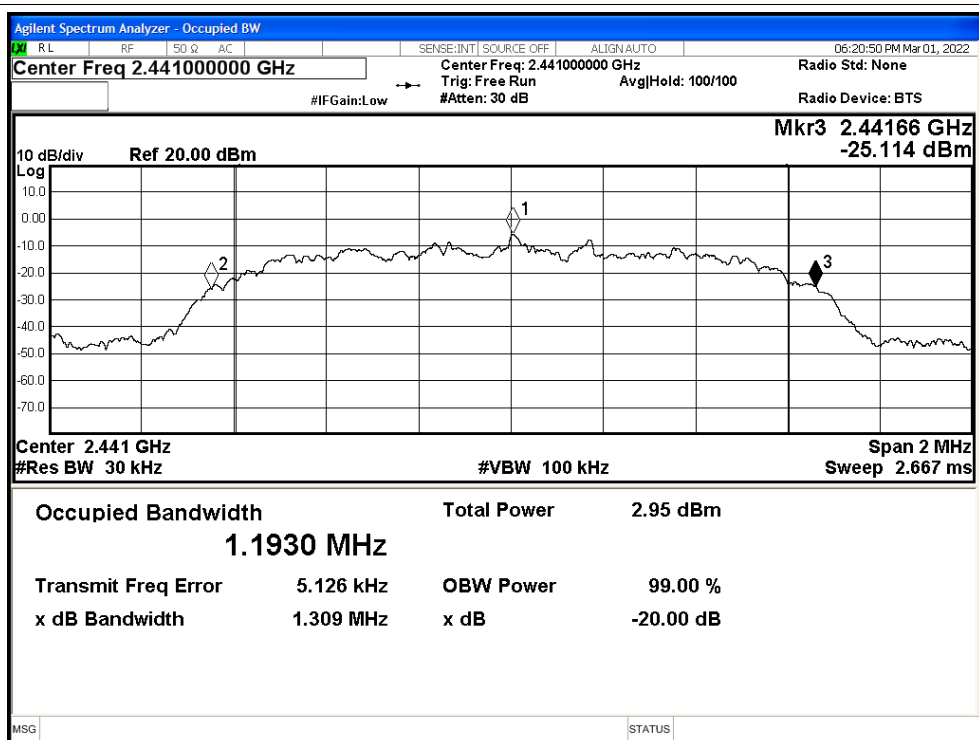


## -20dB Bandwidth NVNT 2-DH5 2402MHz Ant1

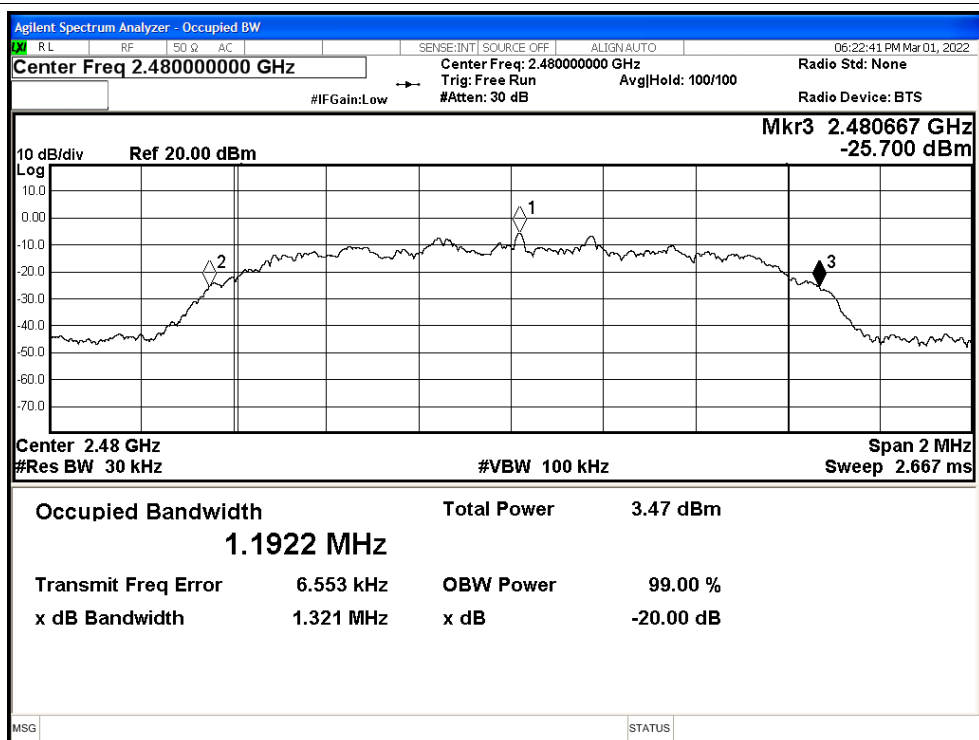




## -20dB Bandwidth NVNT 2-DH5 2441MHz Ant1

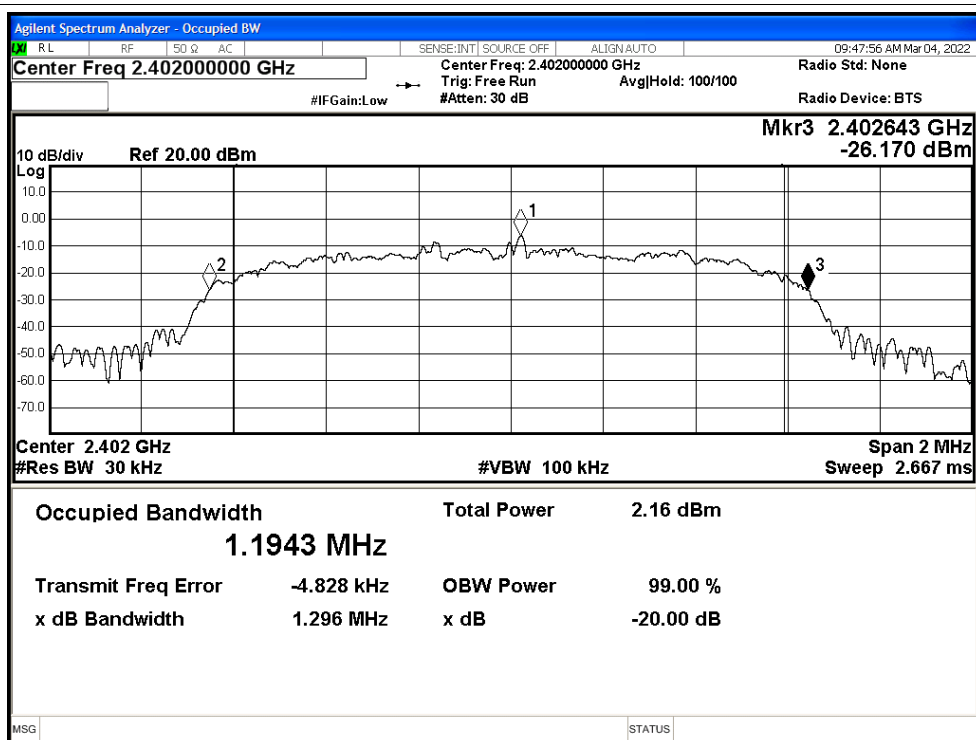


## -20dB Bandwidth NVNT 2-DH5 2480MHz Ant1

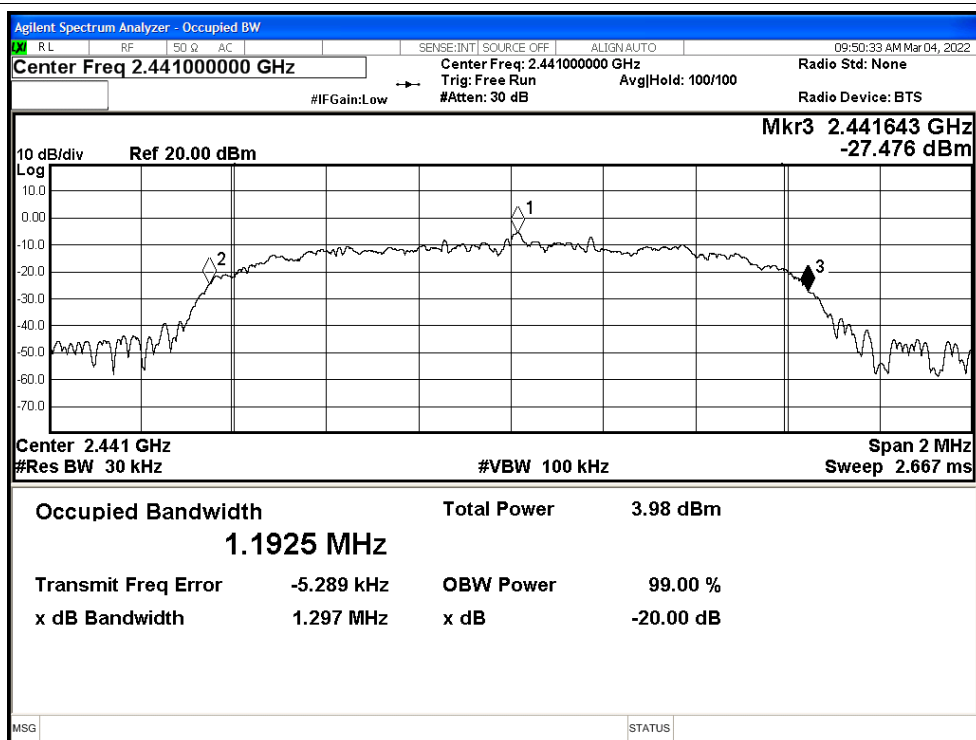




## -20dB Bandwidth NVNT 3-DH5 2402MHz Ant1

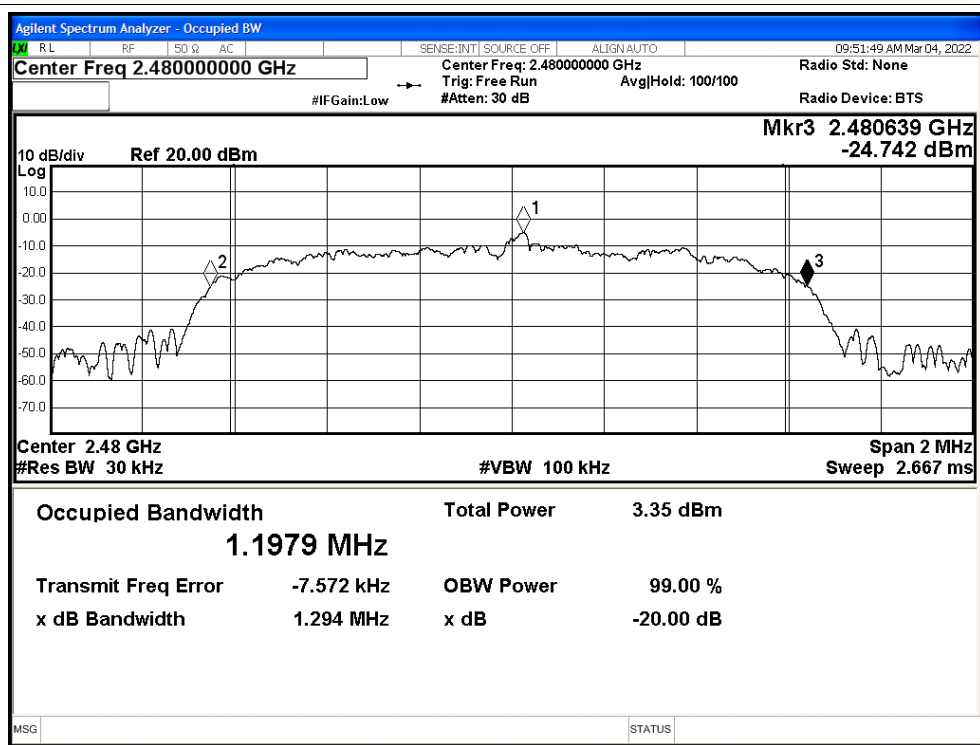


## -20dB Bandwidth NVNT 3-DH5 2441MHz Ant1





## -20dB Bandwidth NVNT 3-DH5 2480MHz Ant1





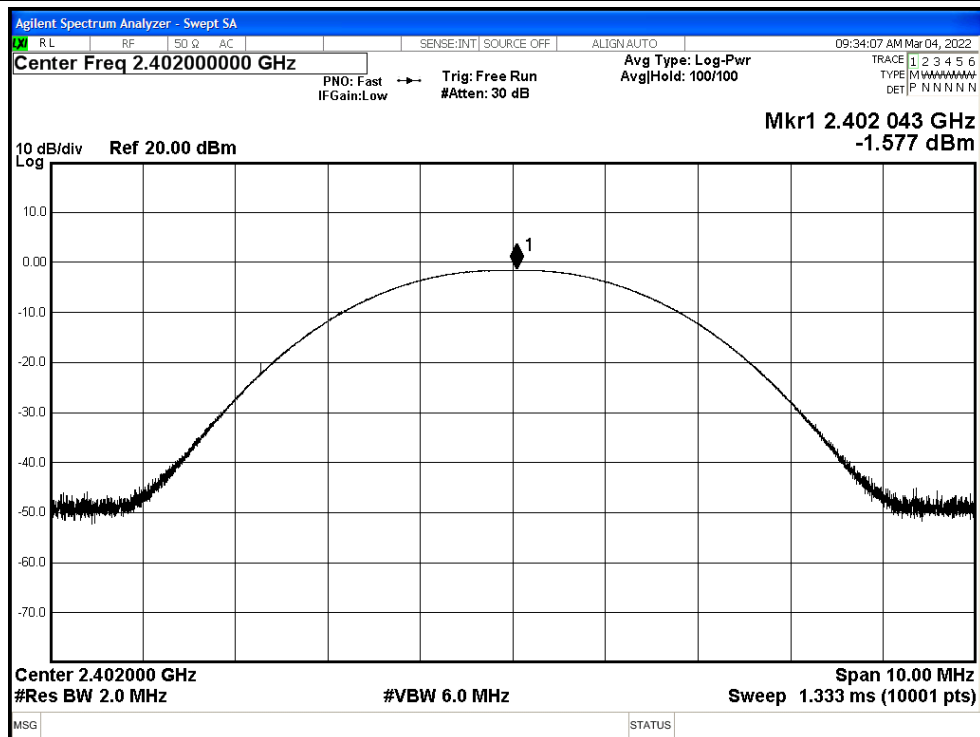
## A.2 Maximum Conducted Output Power

| Condition | Mode  | Frequency (MHz) | Antenna | Conducted Power (dBm) | Duty Factor (dB) | Total Power (dBm) | Limit (dBm) | Verdict |
|-----------|-------|-----------------|---------|-----------------------|------------------|-------------------|-------------|---------|
| NVNT      | 1-DH5 | 2402            | Ant1    | -1.58                 | 0                | -1.58             | 21          | Pass    |
| NVNT      | 1-DH5 | 2441            | Ant1    | 0.11                  | 0                | 0.11              | 21          | Pass    |
| NVNT      | 1-DH5 | 2480            | Ant1    | -0.47                 | 0                | -0.47             | 21          | Pass    |
| NVNT      | 2-DH5 | 2402            | Ant1    | 0.27                  | 0                | 0.27              | 21          | Pass    |
| NVNT      | 2-DH5 | 2441            | Ant1    | -0.33                 | 0                | -0.33             | 21          | Pass    |
| NVNT      | 2-DH5 | 2480            | Ant1    | 0.45                  | 0                | 0.45              | 21          | Pass    |
| NVNT      | 3-DH5 | 2402            | Ant1    | -1.78                 | 0                | -1.78             | 21          | Pass    |
| NVNT      | 3-DH5 | 2441            | Ant1    | 0.09                  | 0                | 0.09              | 21          | Pass    |
| NVNT      | 3-DH5 | 2480            | Ant1    | -0.63                 | 0                | -0.63             | 21          | Pass    |

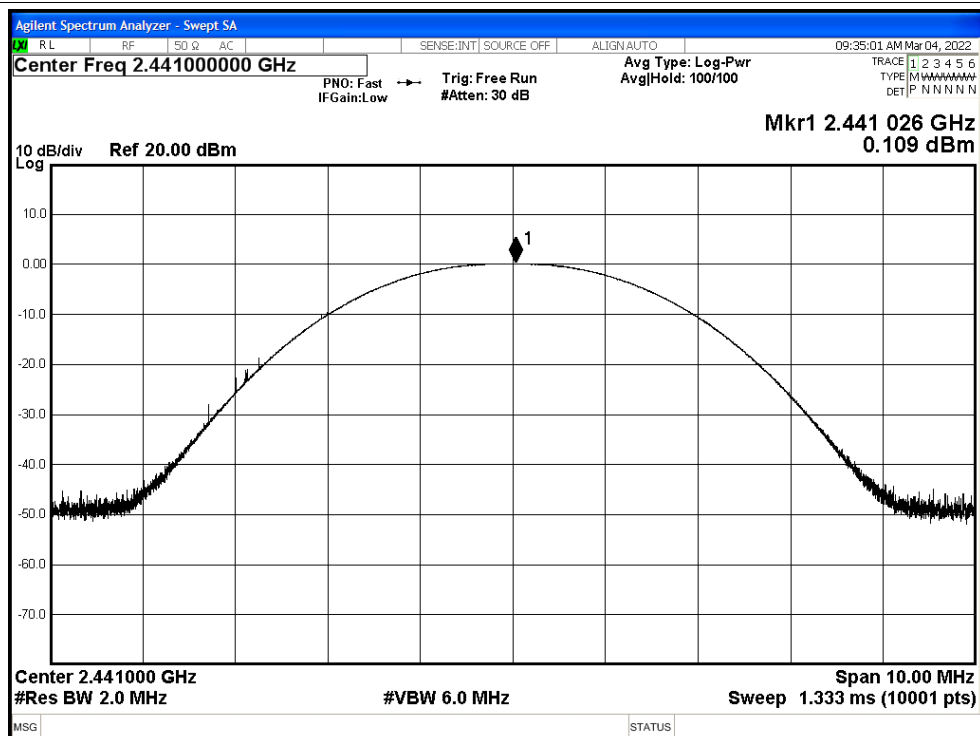


## Test Graphs

## Power NVNT 1-DH5 2402MHz Ant1

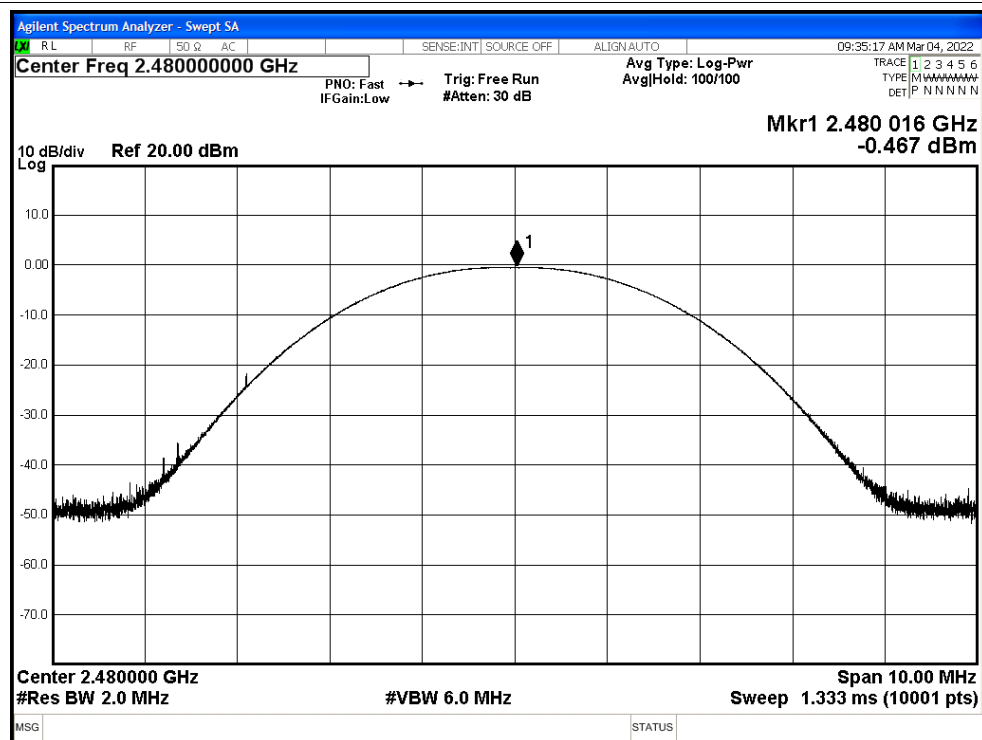


## Power NVNT 1-DH5 2441MHz Ant1

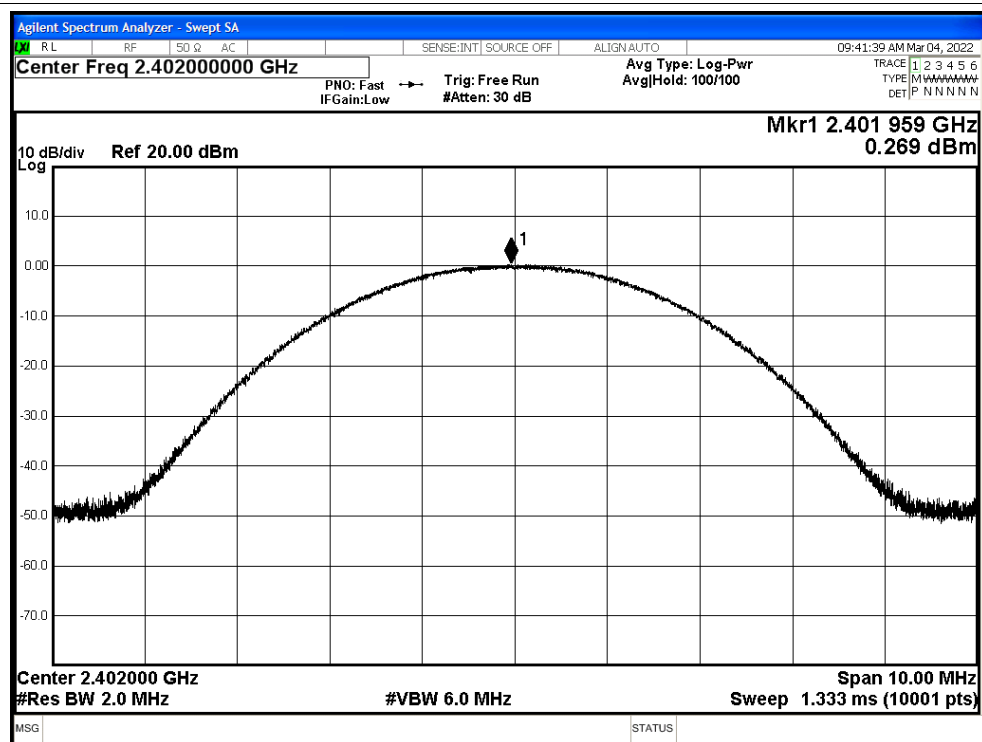




Power NVNT 1-DH5 2480MHz Ant1

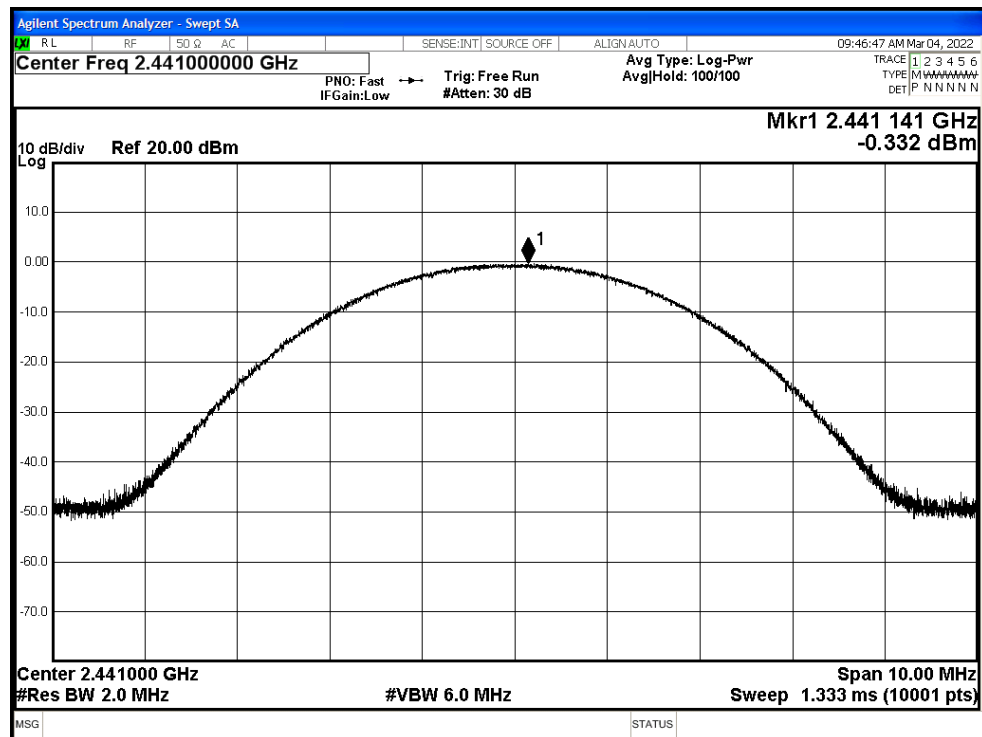


Power NVNT 2-DH5 2402MHz Ant1

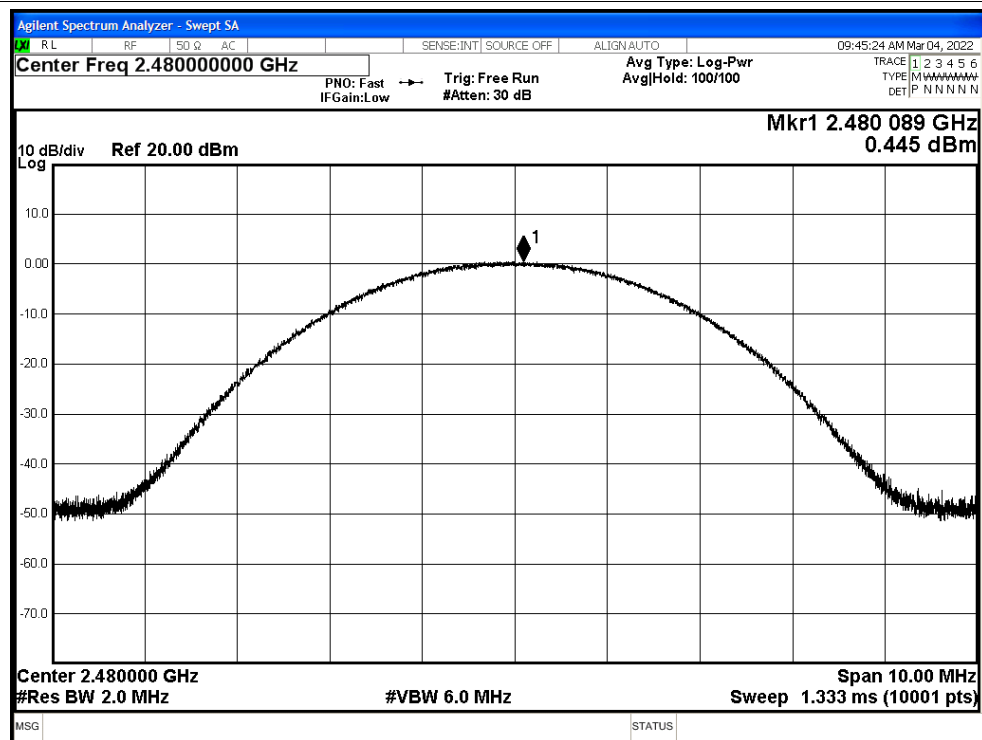




Power NVNT 2-DH5 2441MHz Ant1

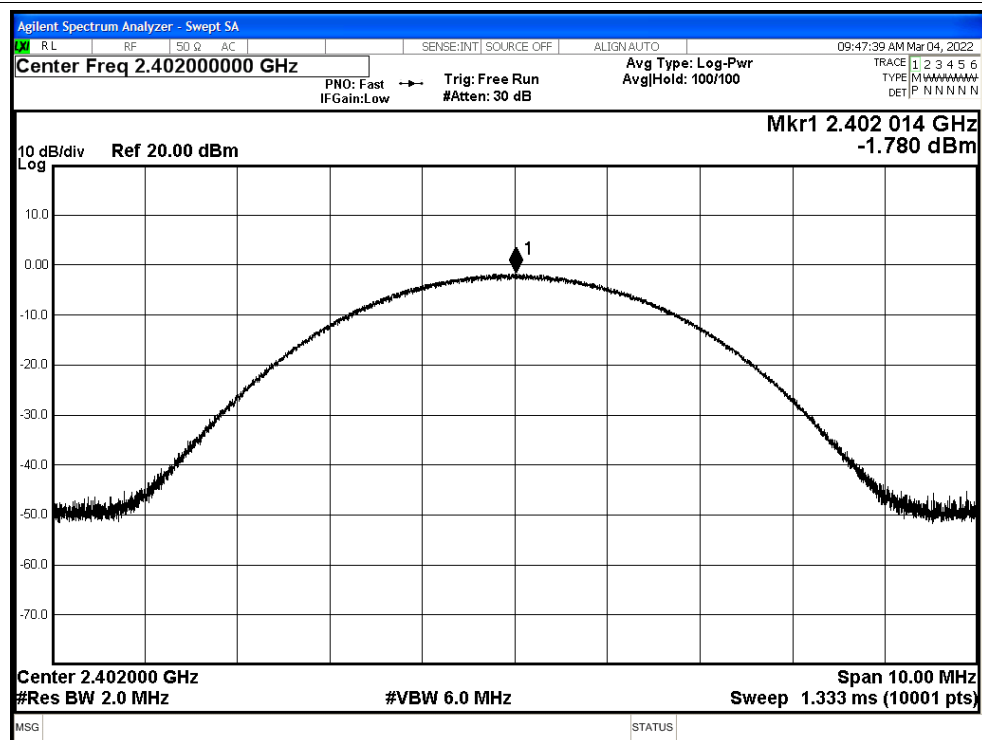


Power NVNT 2-DH5 2480MHz Ant1

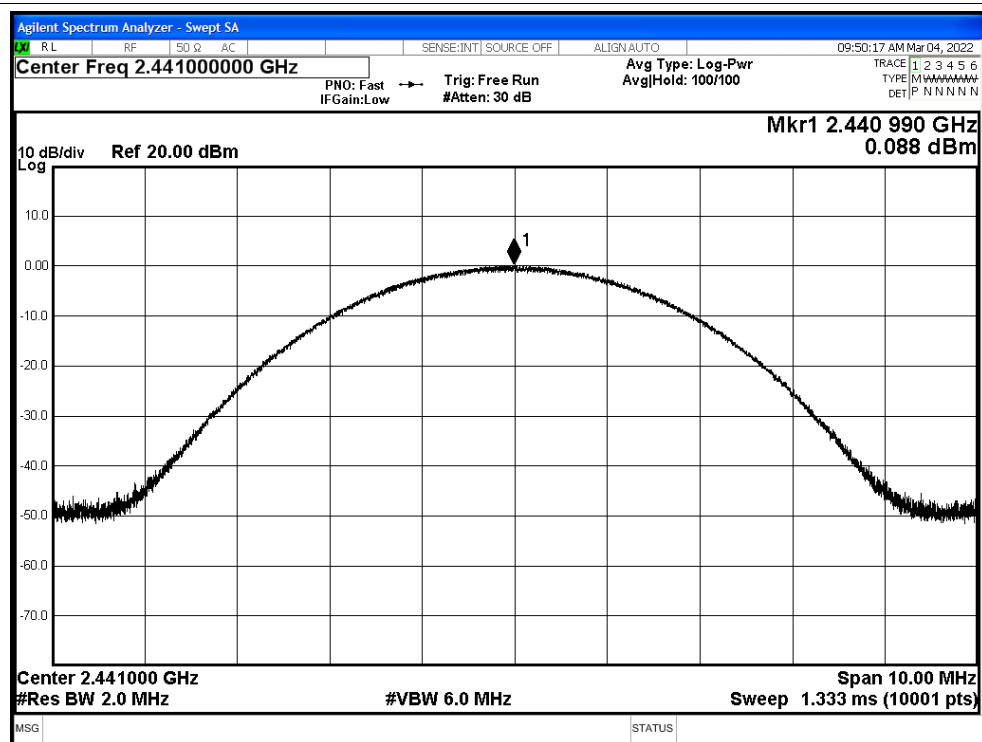


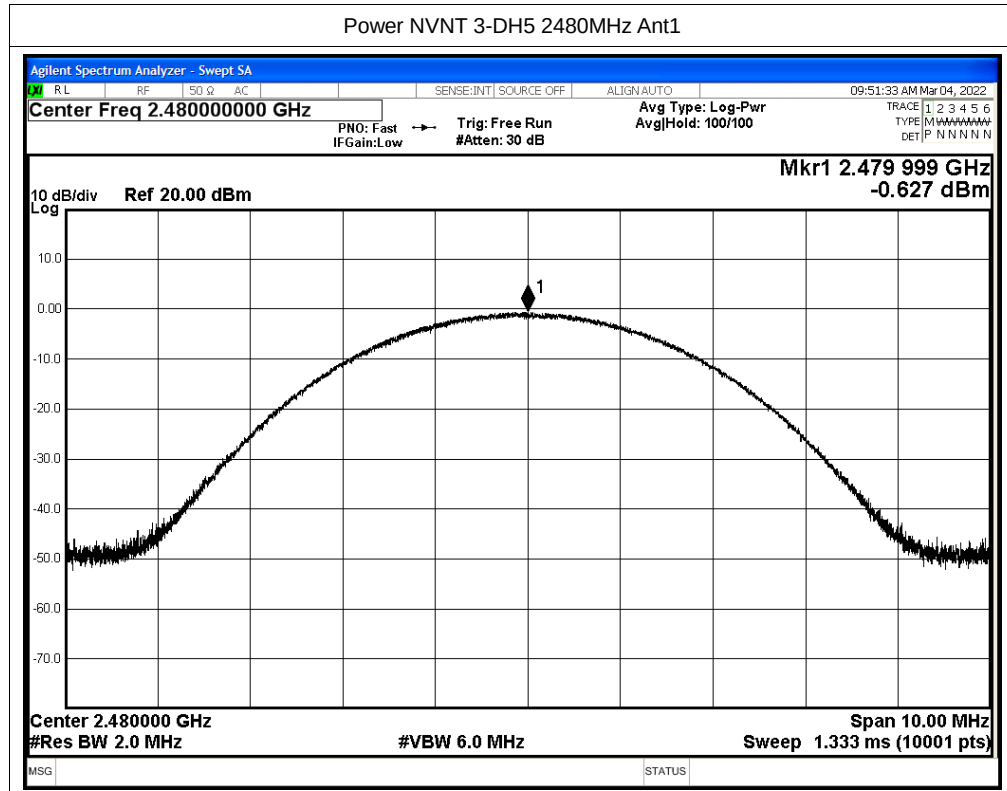


Power NVNT 3-DH5 2402MHz Ant1



Power NVNT 3-DH5 2441MHz Ant1

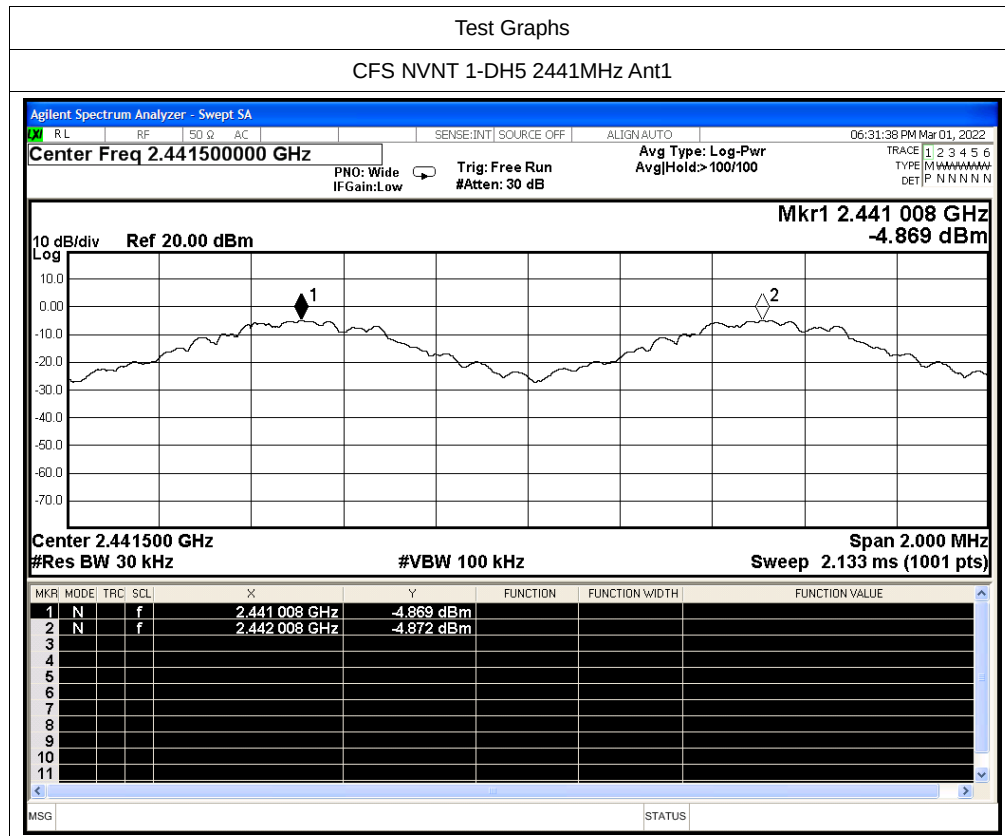






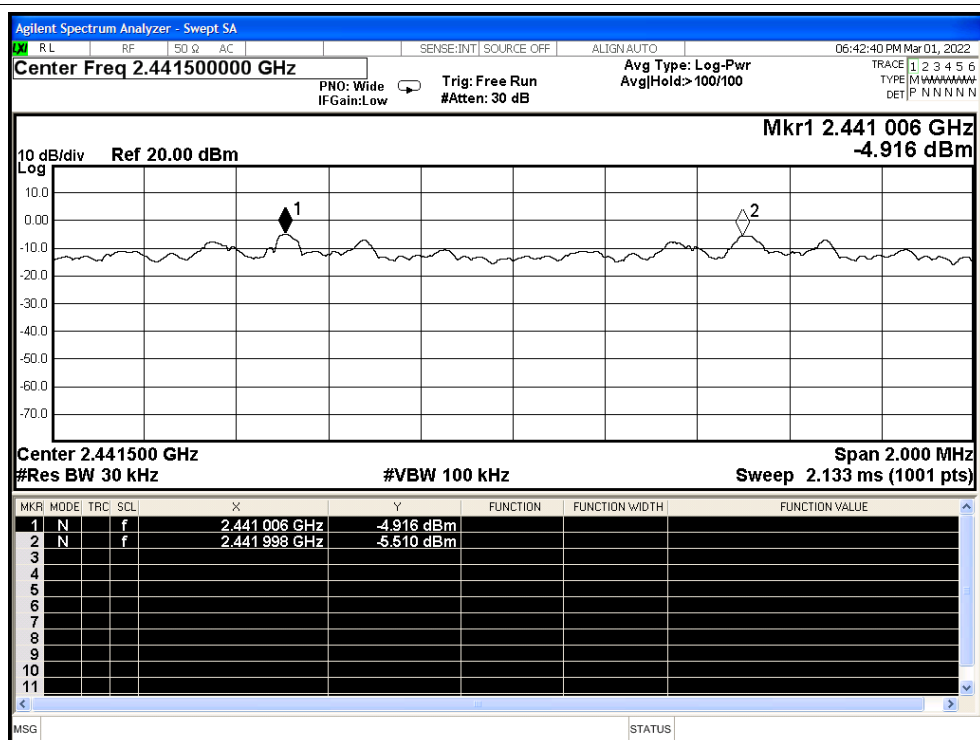
## A.3 Carrier Frequencies Separation

| Condition | Mode  | Antenna | Hopping Freq1 (MHz) | Hopping Freq2 (MHz) | HFS (MHz) | Limit (MHz) | Verdict |
|-----------|-------|---------|---------------------|---------------------|-----------|-------------|---------|
| NVNT      | 1-DH5 | Ant1    | 2441.008            | 2442.008            | 1         | 0.628       | Pass    |
| NVNT      | 2-DH5 | Ant1    | 2441.006            | 2441.998            | 0.992     | 0.873       | Pass    |
| NVNT      | 3-DH5 | Ant1    | 2441.018            | 2442.16             | 1.142     | 0.865       | Pass    |

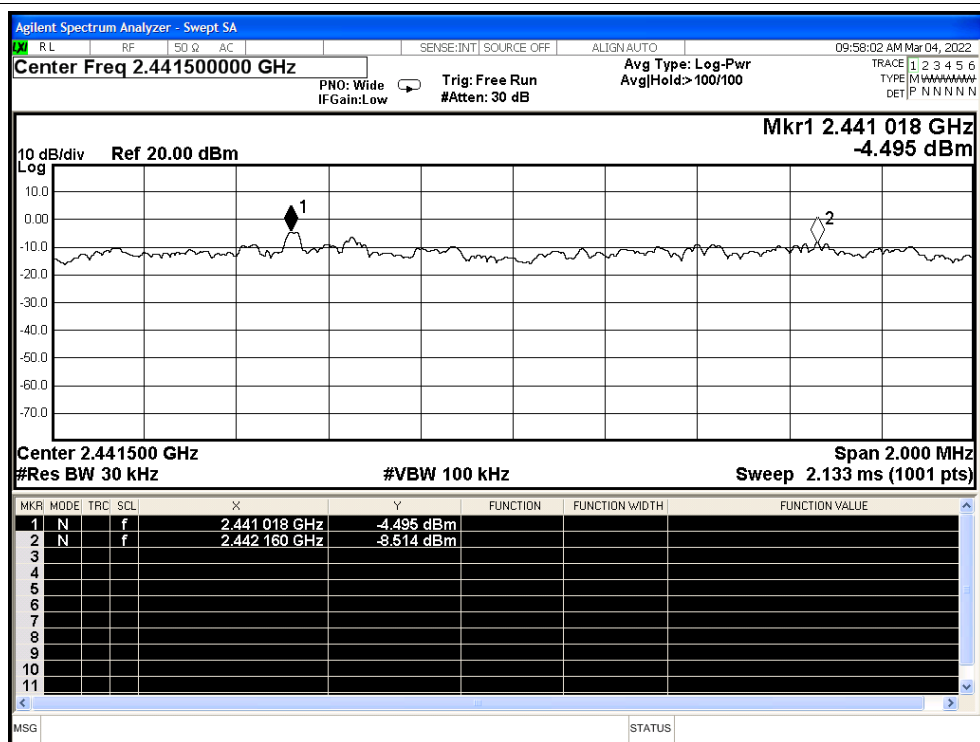




## CFS NVNT 2-DH5 2441MHz Ant1



## CFS NVNT 3-DH5 2441MHz Ant1





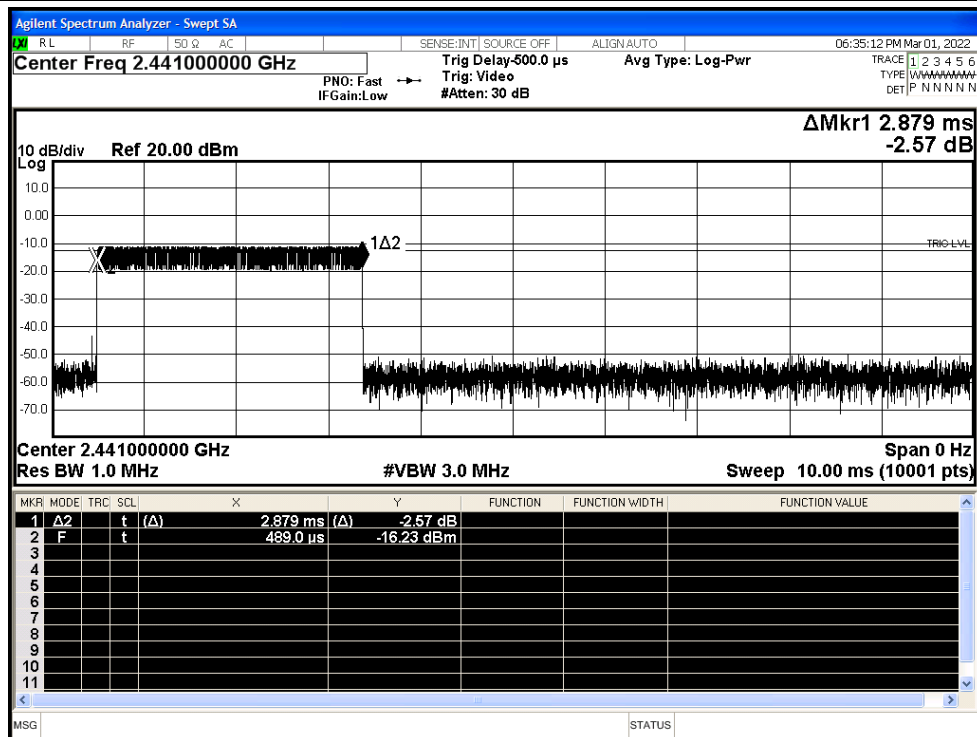
## A.4 Dwell Time

| Condition | Mode  | Frequency<br>(MHz) | Antenna | Pulse Time<br>(ms) | Total Dwell Time<br>(ms) | Burst<br>Count | Period Time<br>(ms) | Limit<br>(ms) | Verdict |
|-----------|-------|--------------------|---------|--------------------|--------------------------|----------------|---------------------|---------------|---------|
| NVNT      | 1-DH5 | 2441               | Ant1    | 2.879              | 287.9                    | 100            | 31600               | 400           | Pass    |
| NVNT      | 2-DH5 | 2441               | Ant1    | 2.885              | 271.19                   | 94             | 31600               | 400           | Pass    |
| NVNT      | 3-DH5 | 2441               | Ant1    | 2.883              | 305.598                  | 106            | 31600               | 400           | Pass    |

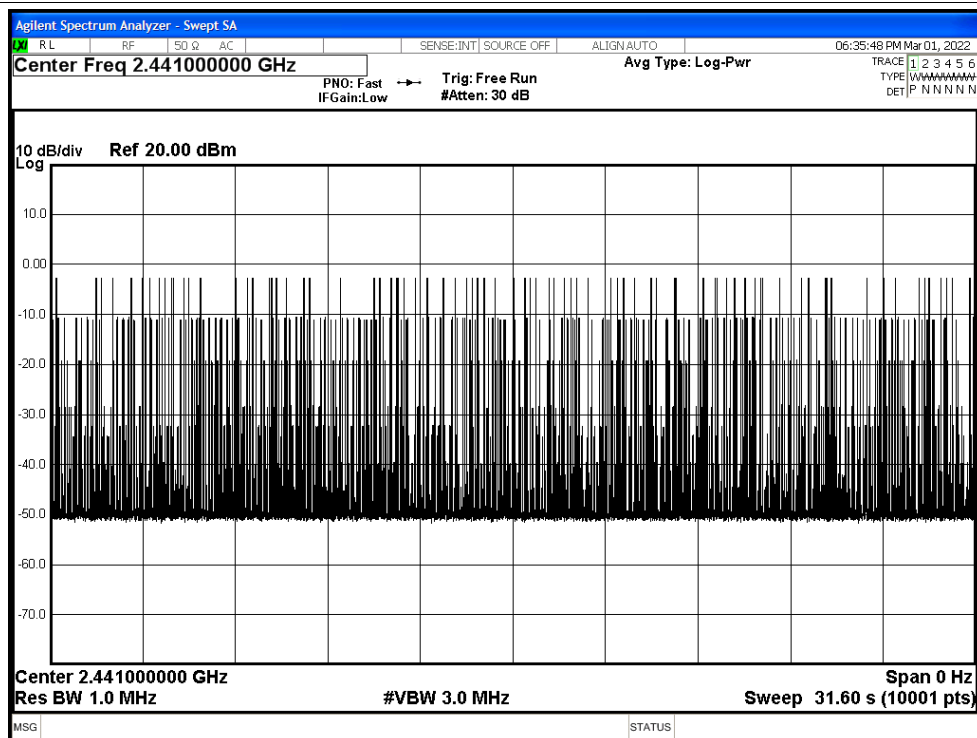


## Test Graphs

## Dwell NVNT 1-DH5 2441MHz Ant1 One Burst

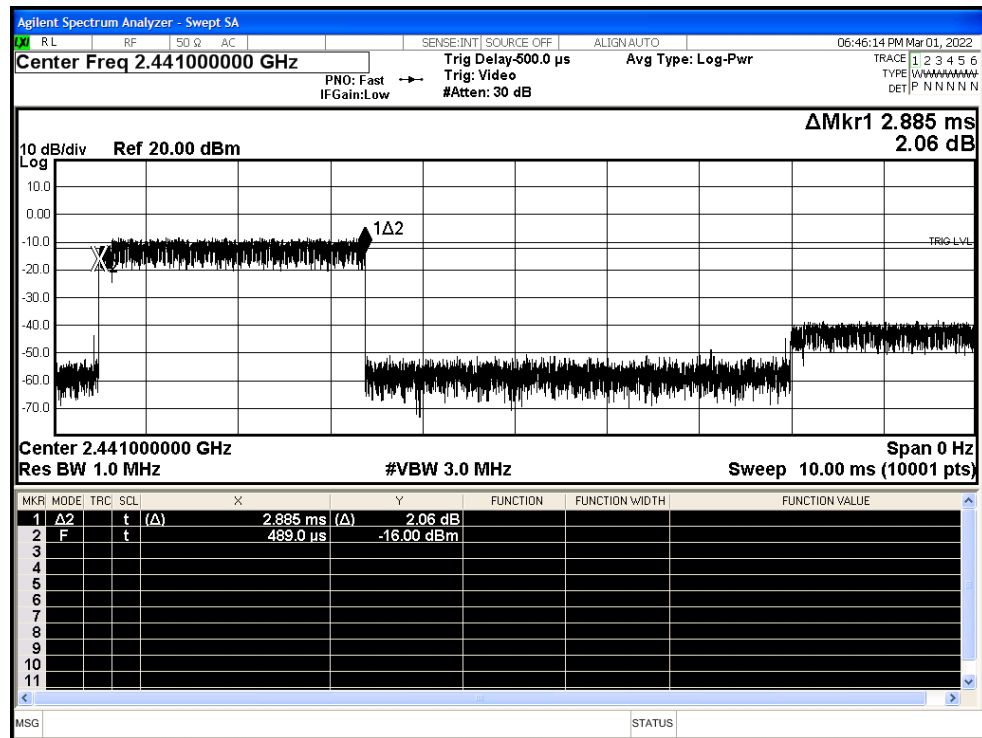


## Dwell NVNT 1-DH5 2441MHz Ant1 Accumulated

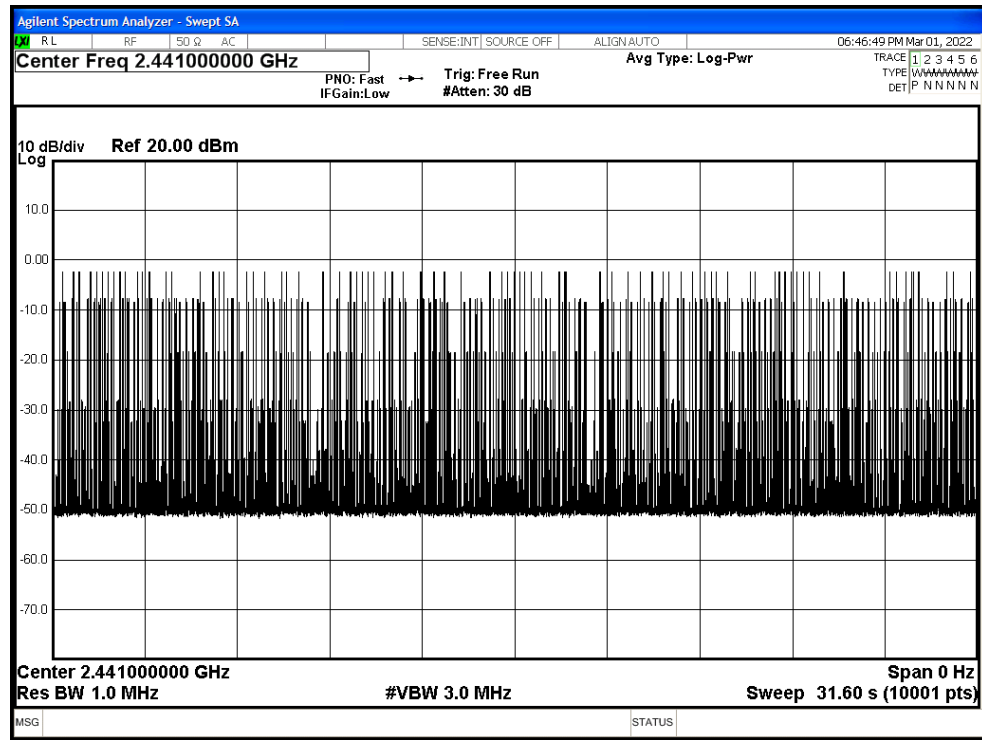




## Dwell NVNT 2-DH5 2441MHz Ant1 One Burst

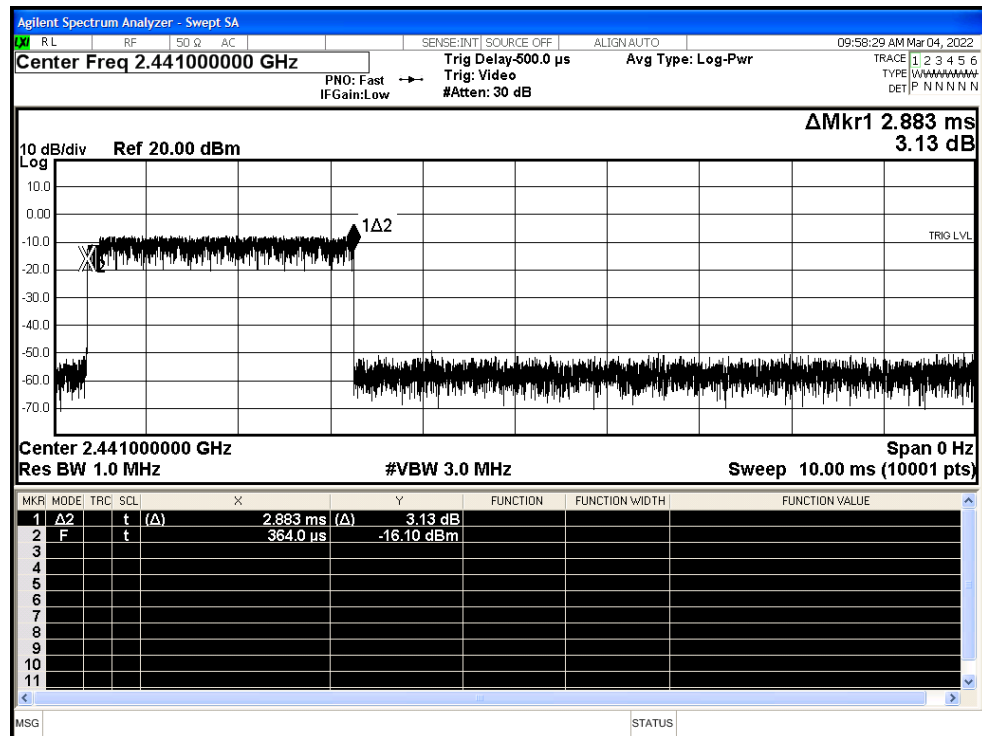


## Dwell NVNT 2-DH5 2441MHz Ant1 Accumulated

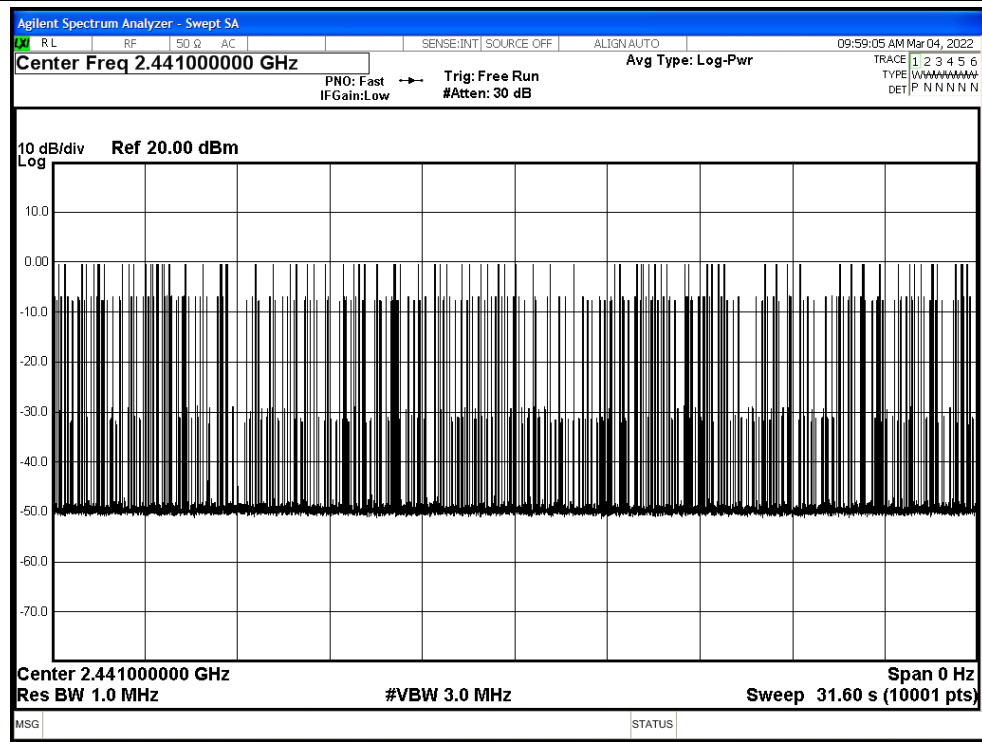




## Dwell NVNT 3-DH5 2441MHz Ant1 One Burst



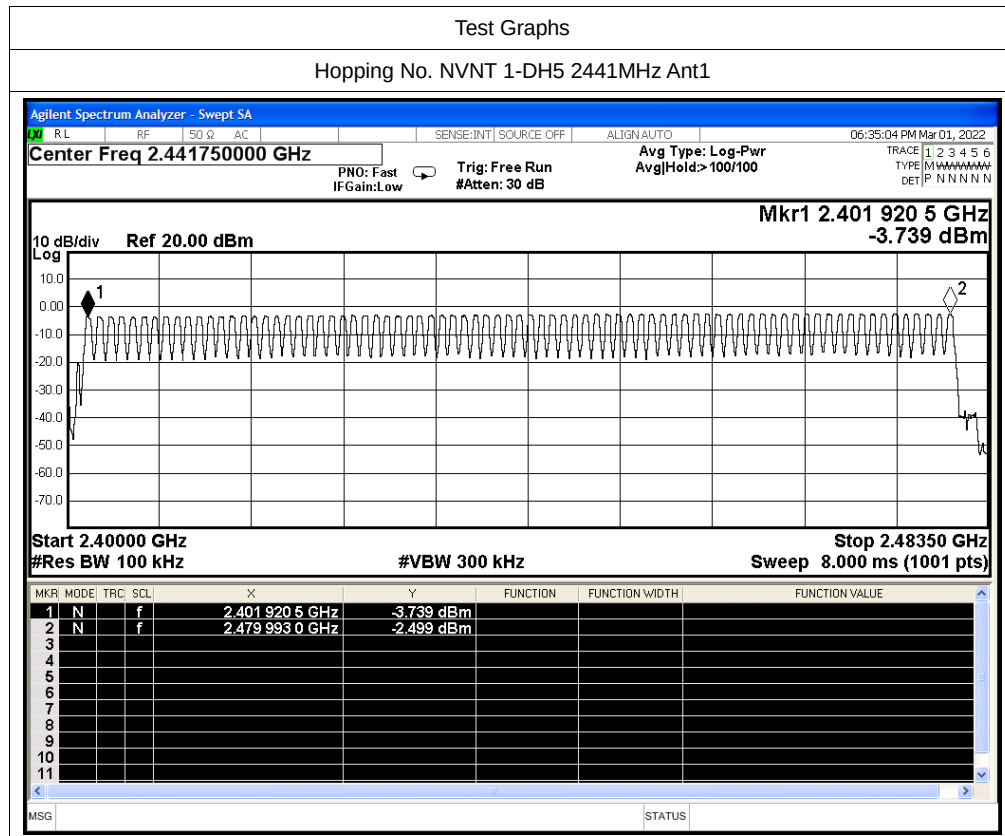
## Dwell NVNT 3-DH5 2441MHz Ant1 Accumulated





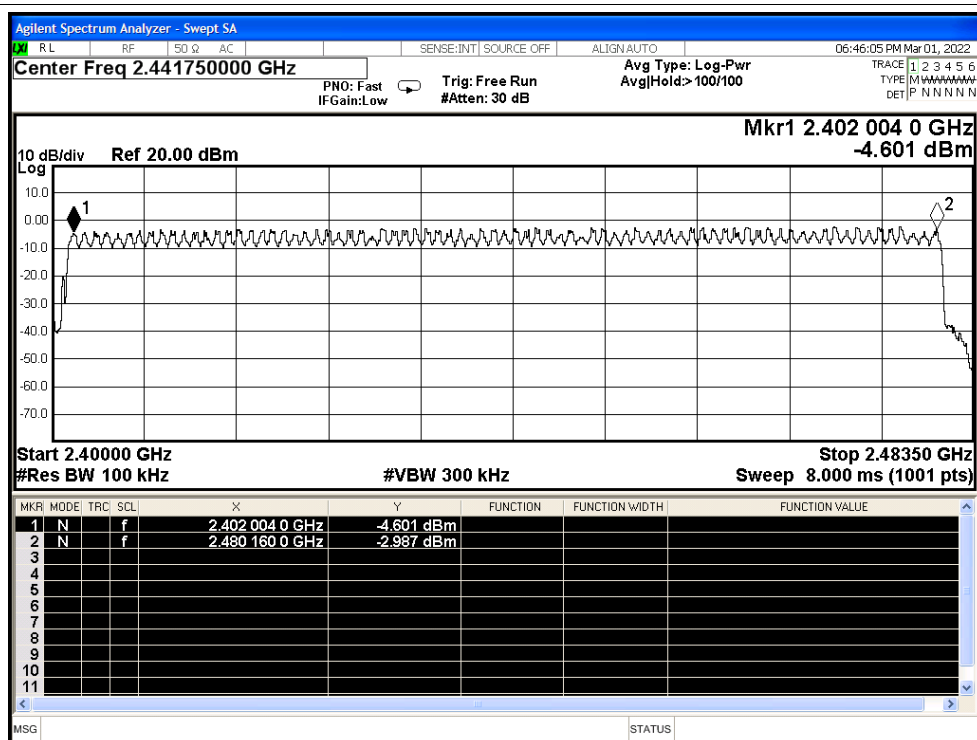
## A.5 Number of Hopping Channel

| Condition | Mode  | Antenna | Hopping Number | Limit | Verdict |
|-----------|-------|---------|----------------|-------|---------|
| NVNT      | 1-DH5 | Ant1    | 79             | 15    | Pass    |
| NVNT      | 2-DH5 | Ant1    | 79             | 15    | Pass    |
| NVNT      | 3-DH5 | Ant1    | 79             | 15    | Pass    |

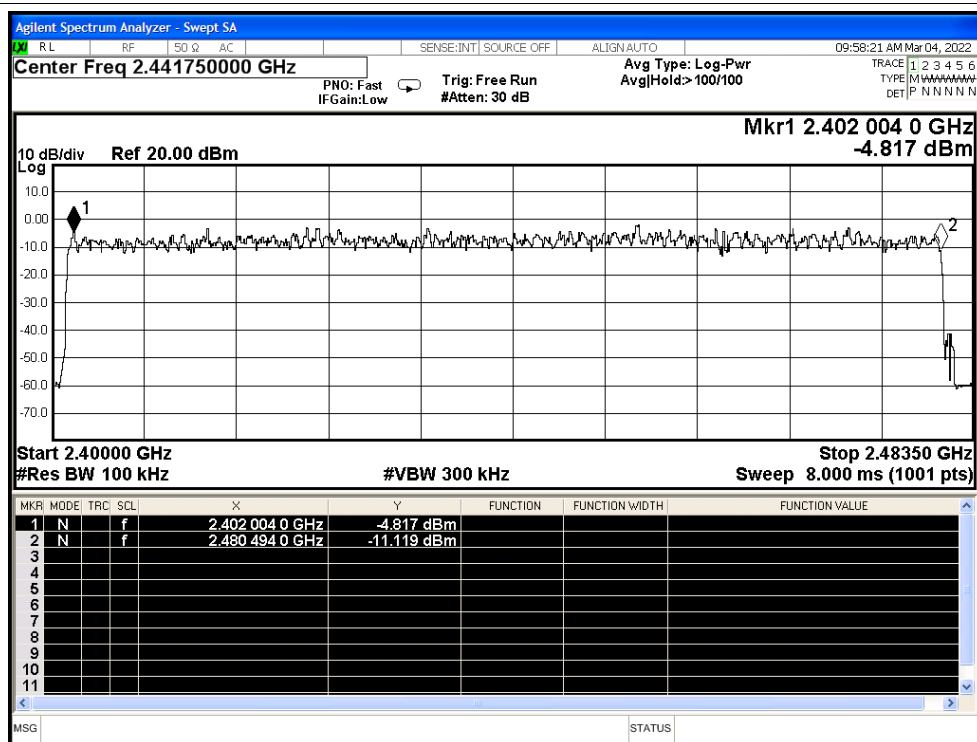




## Hopping No. NVNT 2-DH5 2441MHz Ant1



## Hopping No. NVNT 3-DH5 2441MHz Ant1





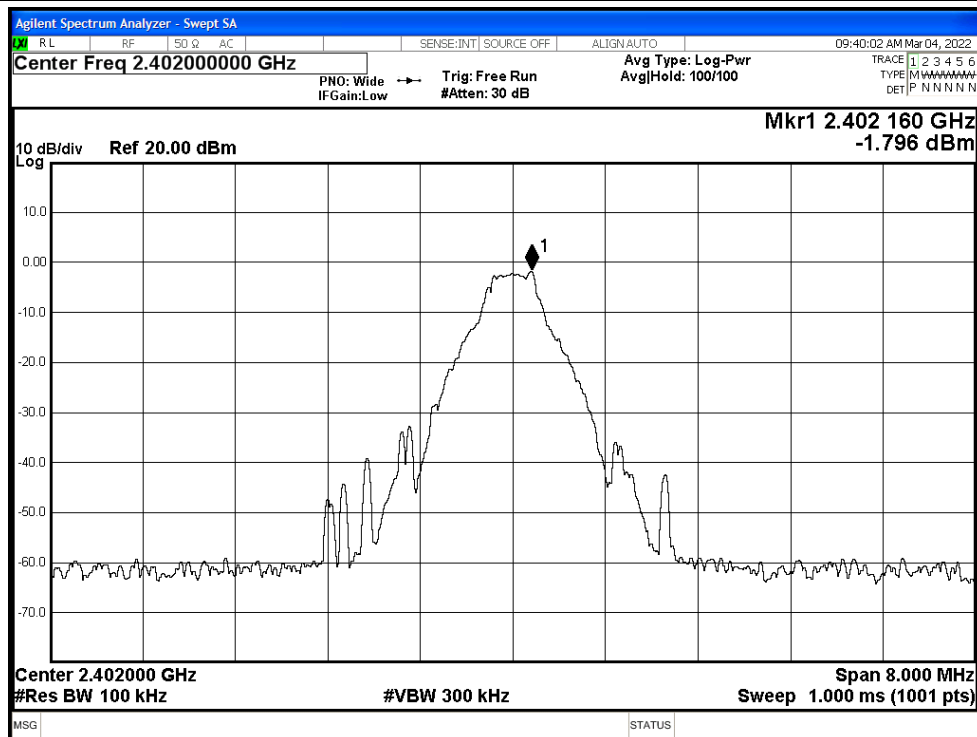
## A.6 Band Edge

| Condition | Mode  | Frequency (MHz) | Antenna | Hopping Mode | Max Value (dBc) | Limit (dBc) | Verdict |
|-----------|-------|-----------------|---------|--------------|-----------------|-------------|---------|
| NVNT      | 1-DH5 | 2402            | Ant1    | No-Hopping   | -57.09          | -20         | Pass    |
| NVNT      | 1-DH5 | 2480            | Ant1    | No-Hopping   | -57.58          | -20         | Pass    |
| NVNT      | 2-DH5 | 2402            | Ant1    | No-Hopping   | -55.86          | -20         | Pass    |
| NVNT      | 2-DH5 | 2480            | Ant1    | No-Hopping   | -55.39          | -20         | Pass    |
| NVNT      | 3-DH5 | 2402            | Ant1    | No-Hopping   | -52.63          | -20         | Pass    |
| NVNT      | 3-DH5 | 2480            | Ant1    | No-Hopping   | -52.8           | -20         | Pass    |

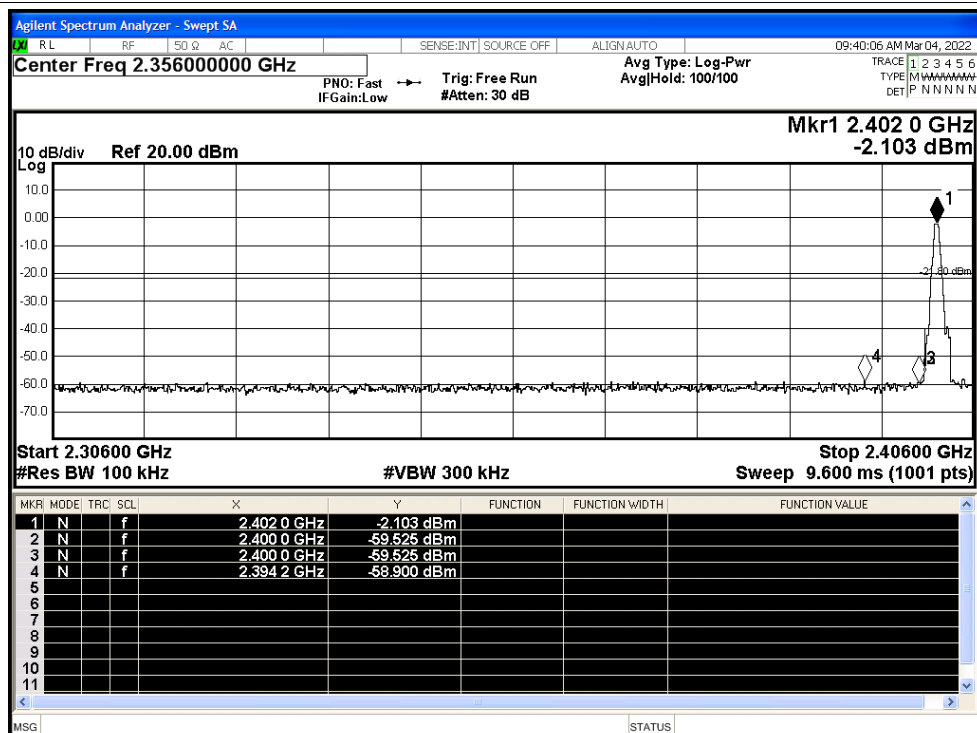


## Test Graphs

## Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Ref

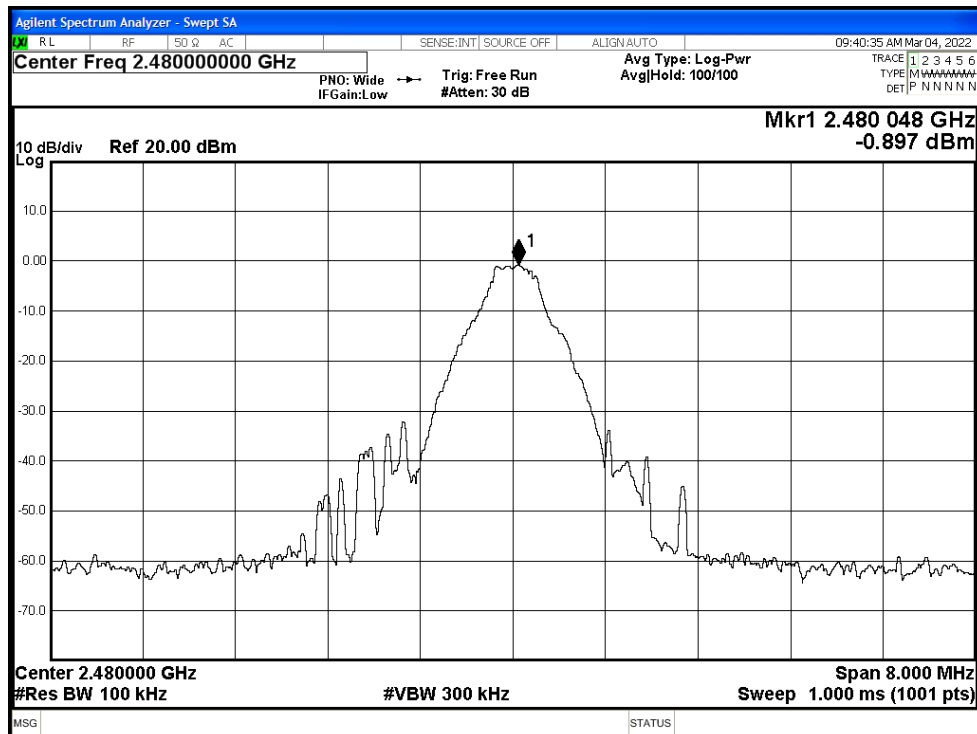


## Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Emission

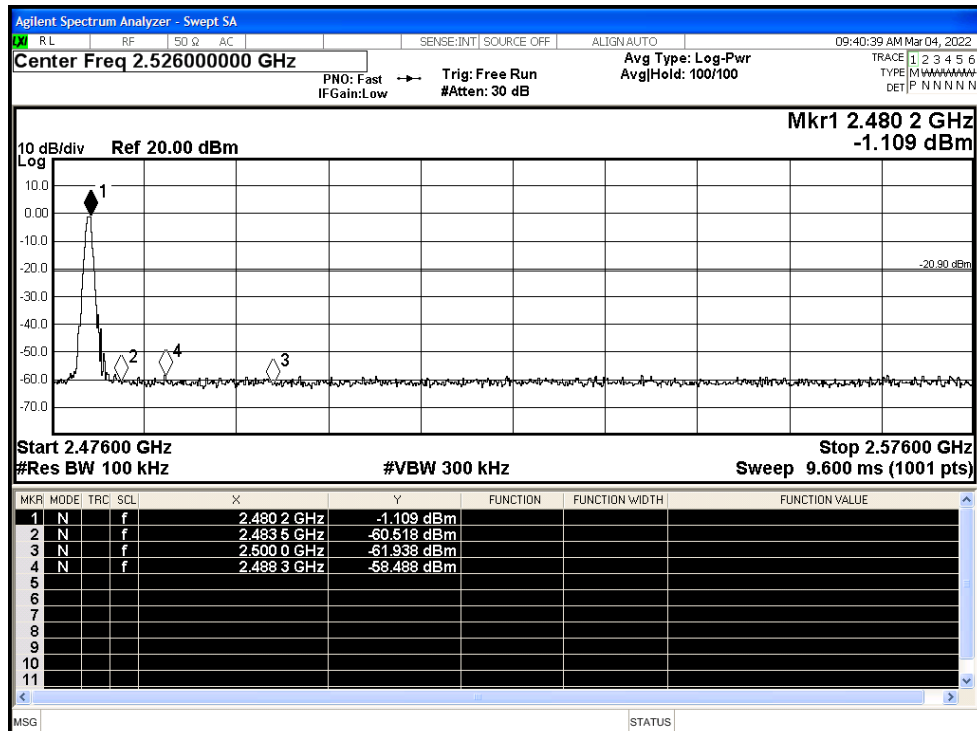




## Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref

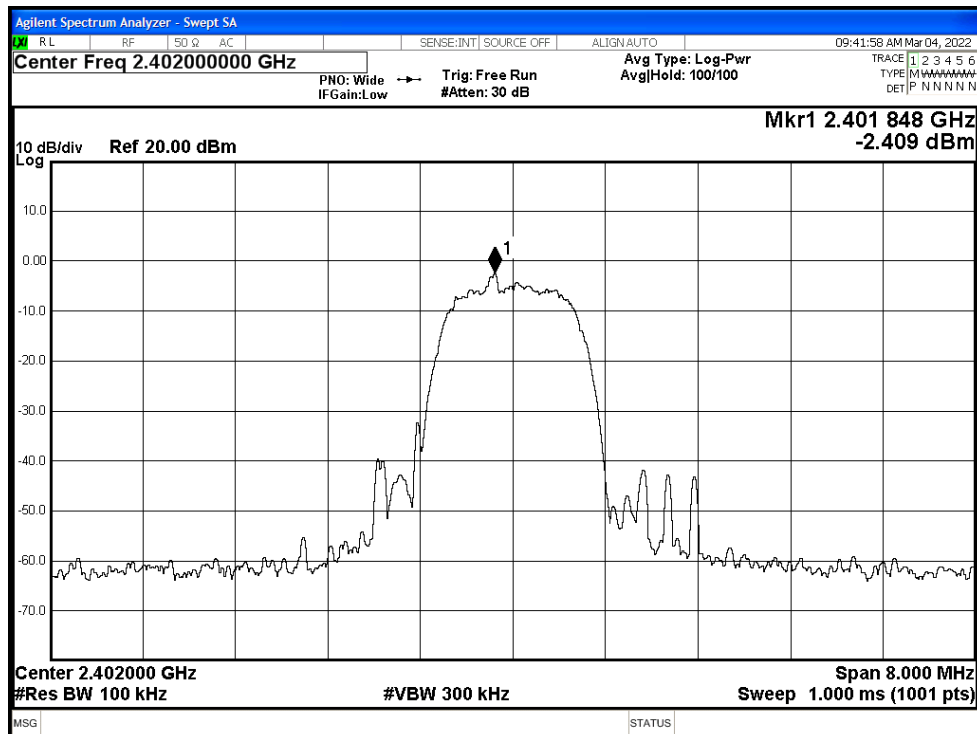


## Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Emission

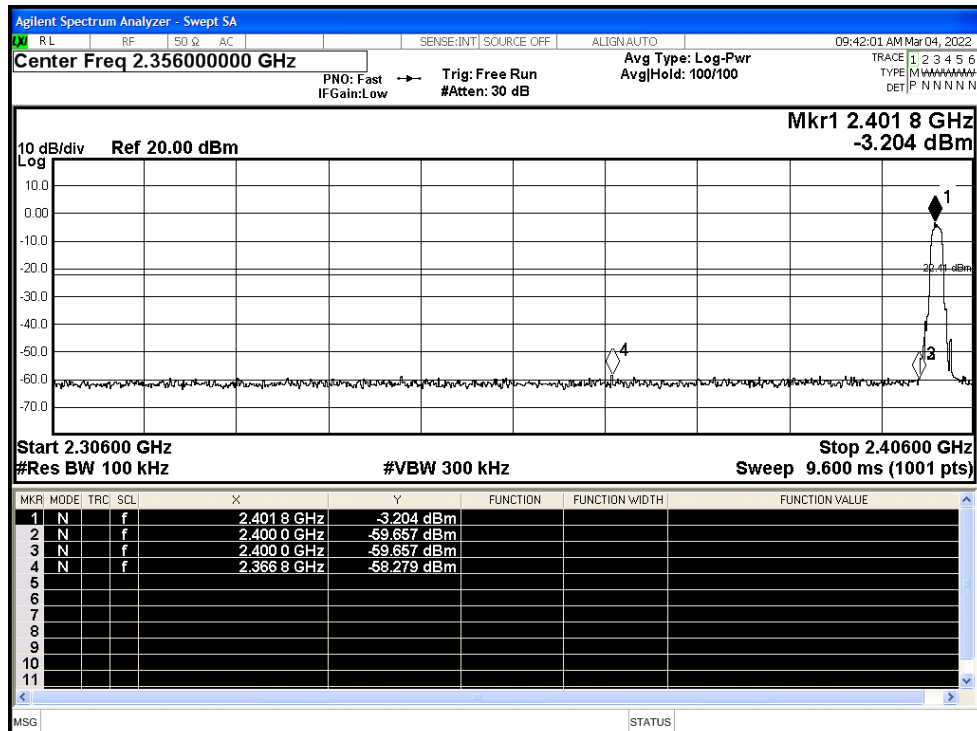




## Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Ref

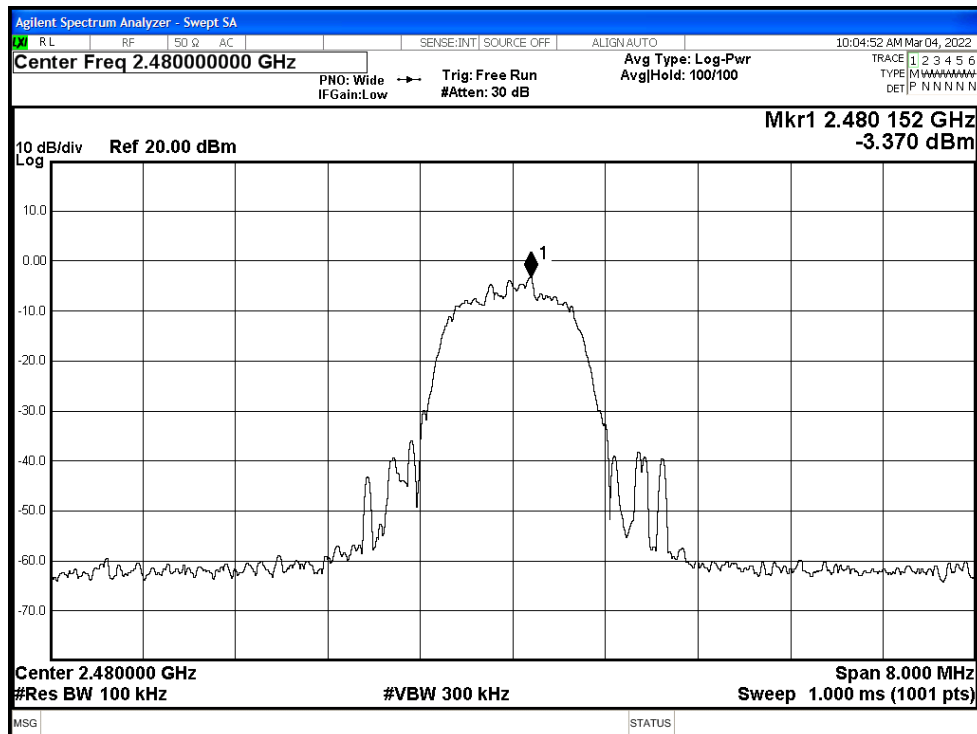


## Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Emission

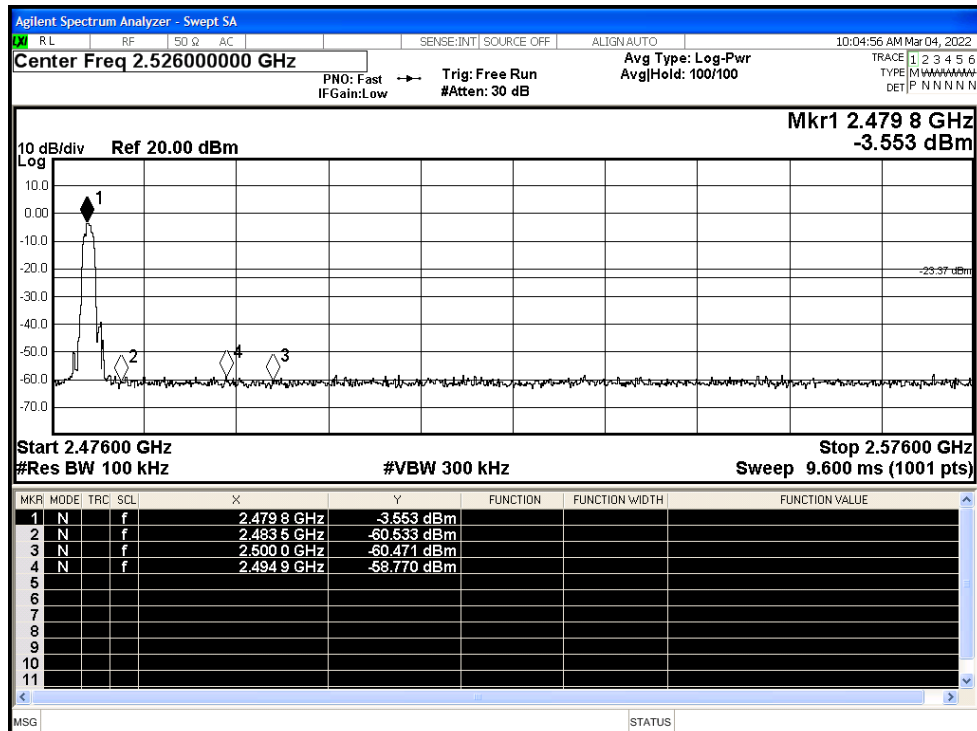




## Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Ref

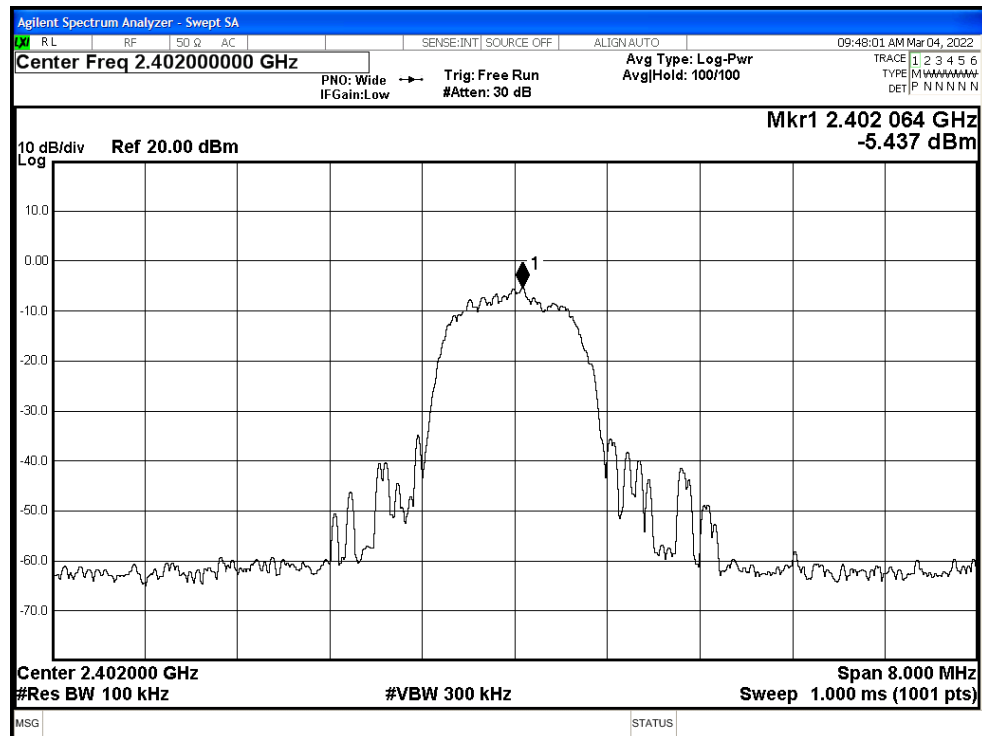


## Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Emission

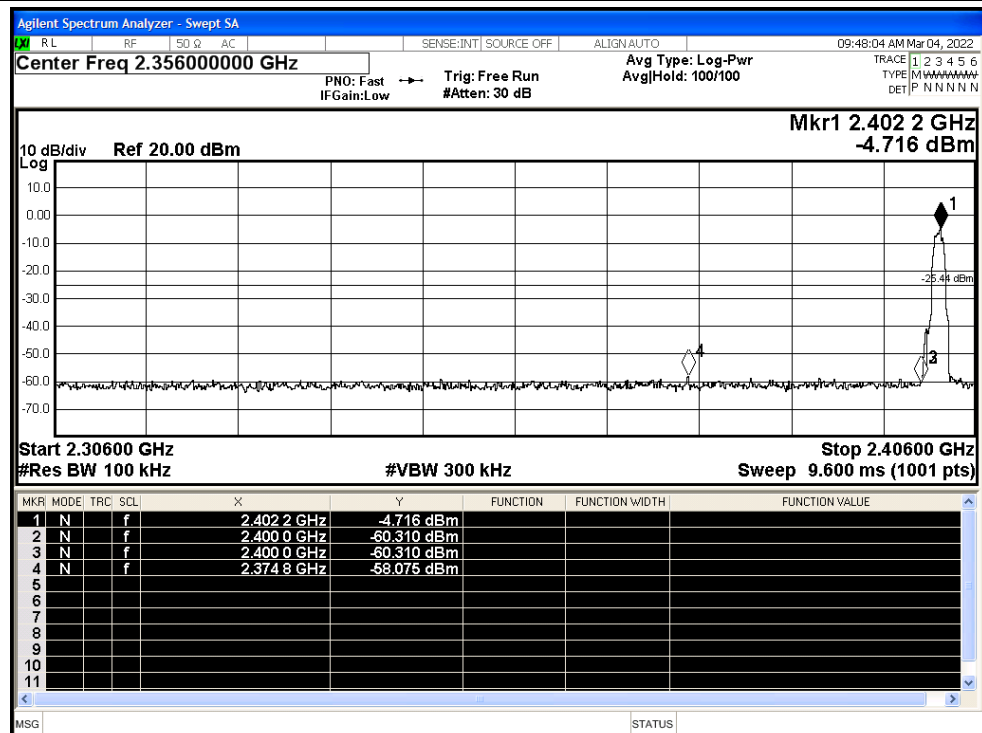




## Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Ref

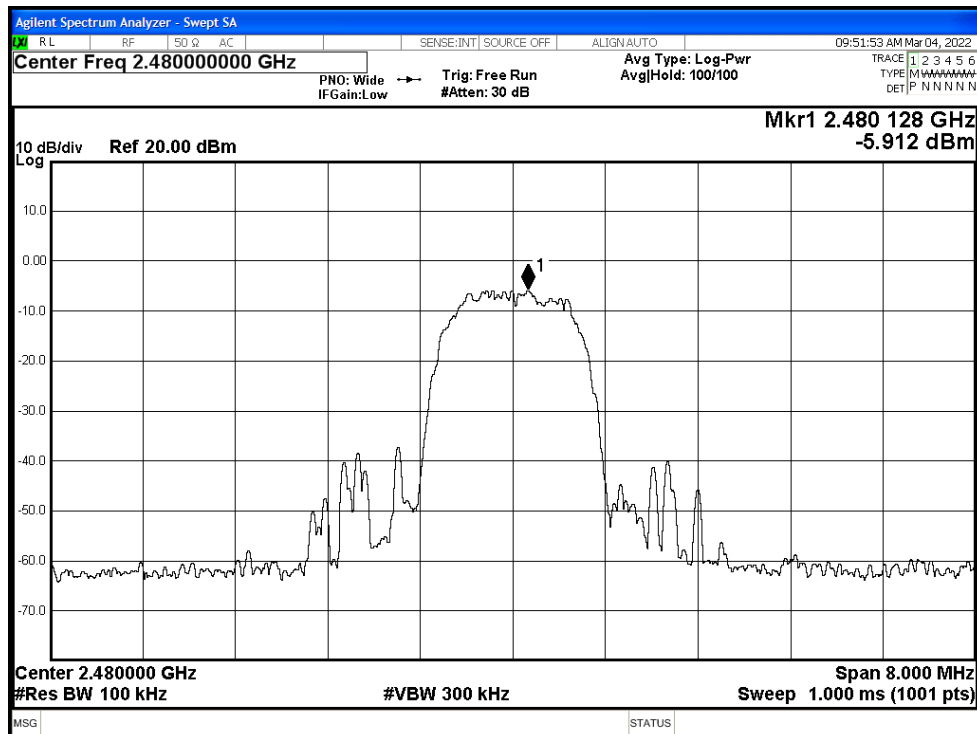


## Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Emission

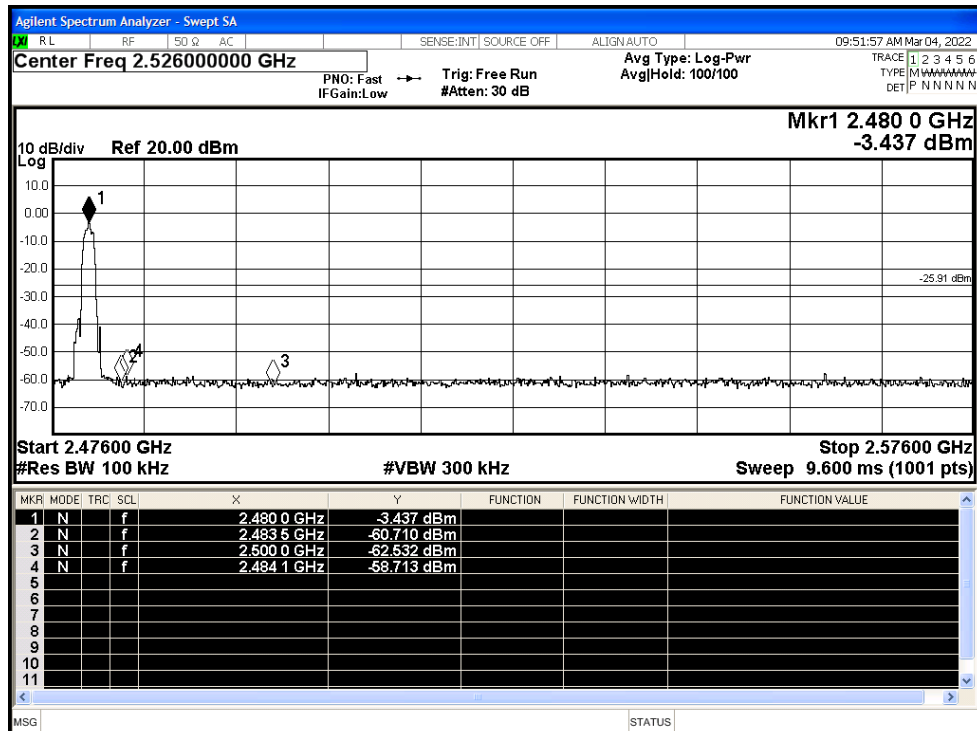




## Band Edge NVNT 3-DH5 2480MHz Ant1 No-Hopping Ref



## Band Edge NVNT 3-DH5 2480MHz Ant1 No-Hopping Emission





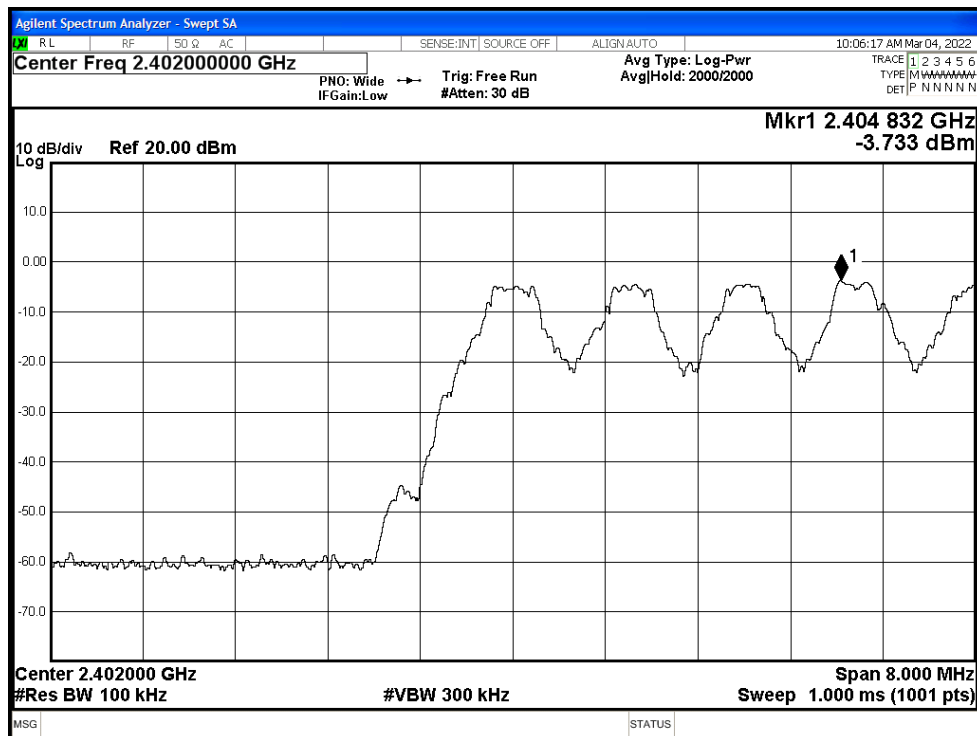
## (Hopping)

| Condition | Mode  | Frequency (MHz) | Antenna | Hopping Mode | Max Value (dBc) | Limit (dBc) | Verdict |
|-----------|-------|-----------------|---------|--------------|-----------------|-------------|---------|
| NVNT      | 1-DH5 | 2402            | Ant1    | Hopping      | -53.67          | -20         | Pass    |
| NVNT      | 1-DH5 | 2480            | Ant1    | Hopping      | -54.59          | -20         | Pass    |
| NVNT      | 2-DH5 | 2402            | Ant1    | Hopping      | -51.55          | -20         | Pass    |
| NVNT      | 2-DH5 | 2480            | Ant1    | Hopping      | -51.06          | -20         | Pass    |
| NVNT      | 3-DH5 | 2402            | Ant1    | Hopping      | -53.28          | -20         | Pass    |
| NVNT      | 3-DH5 | 2480            | Ant1    | Hopping      | -51.88          | -20         | Pass    |

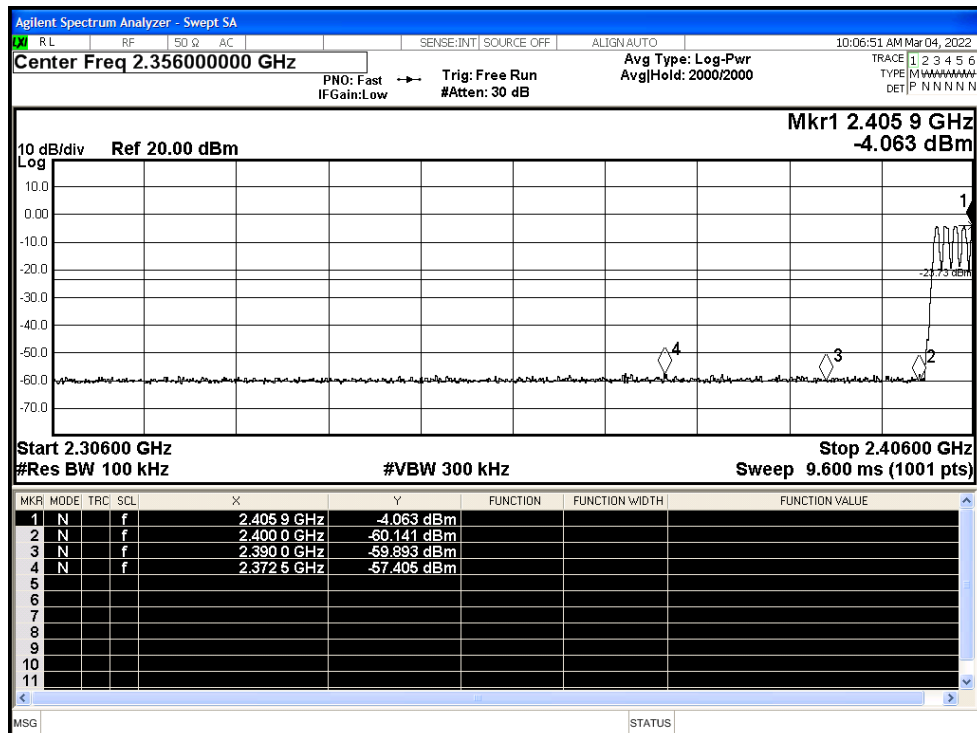


## Test Graphs

## Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Ref

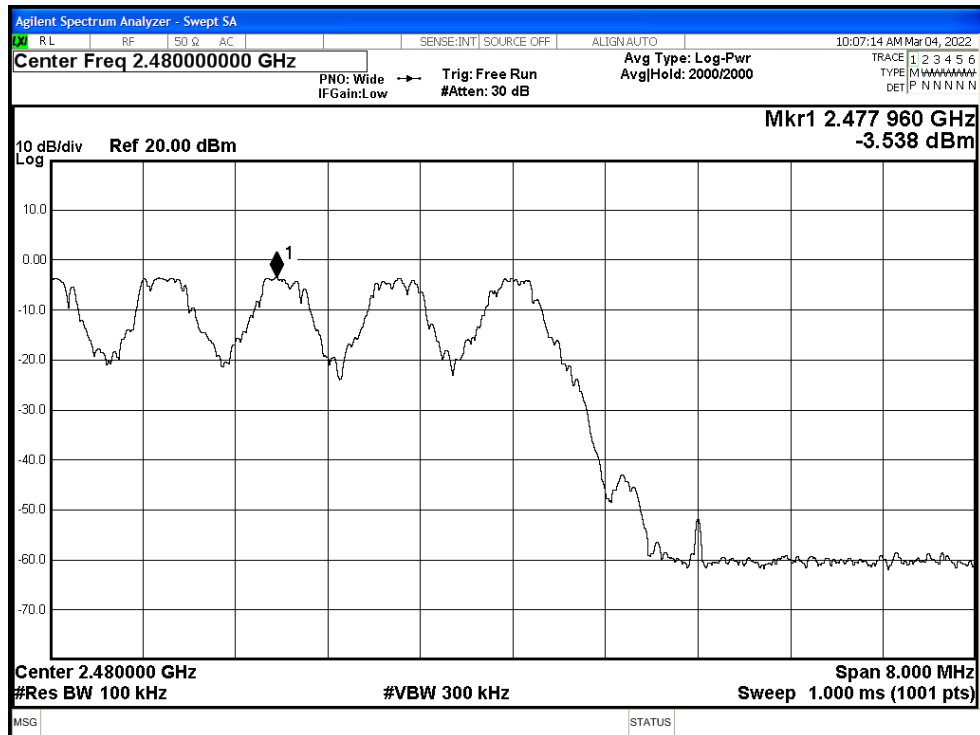


## Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission

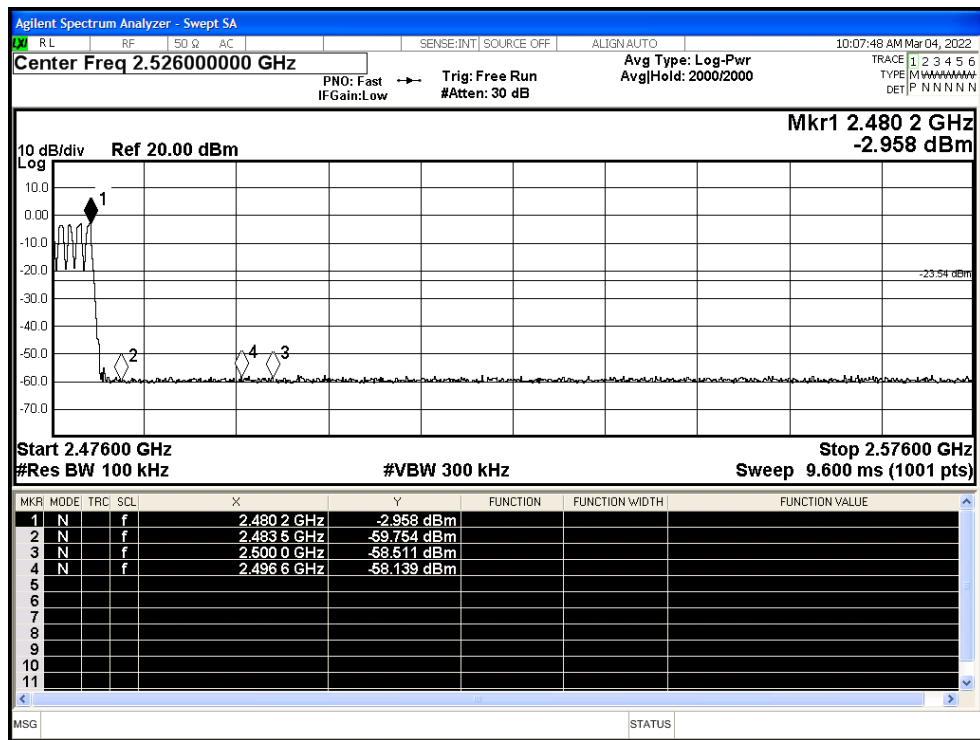




## Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Ref

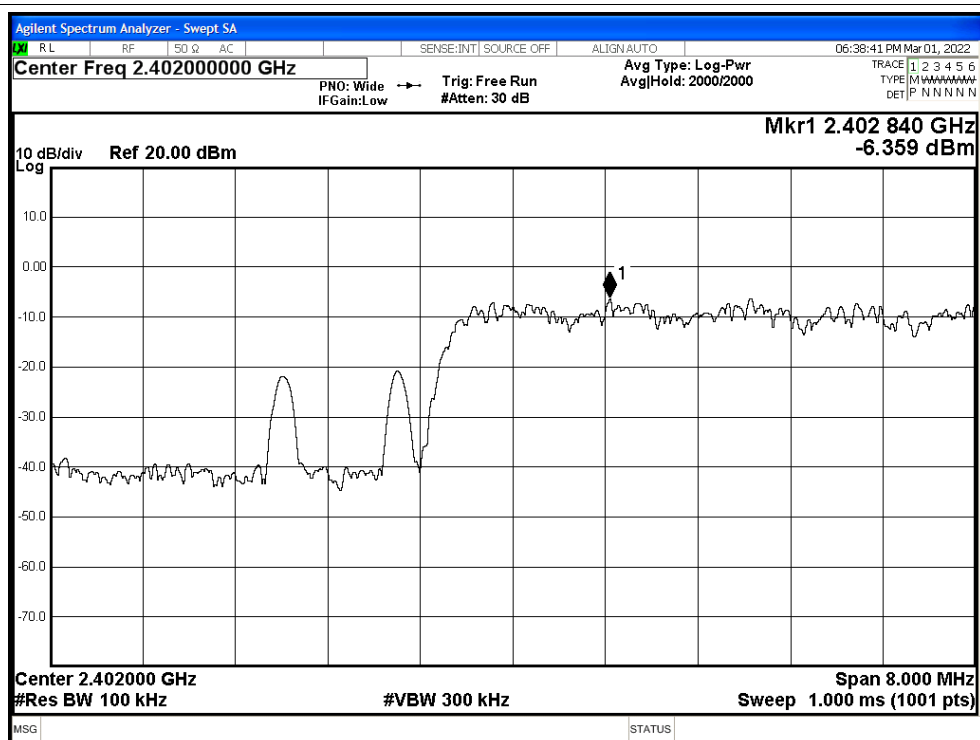


## Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Emission

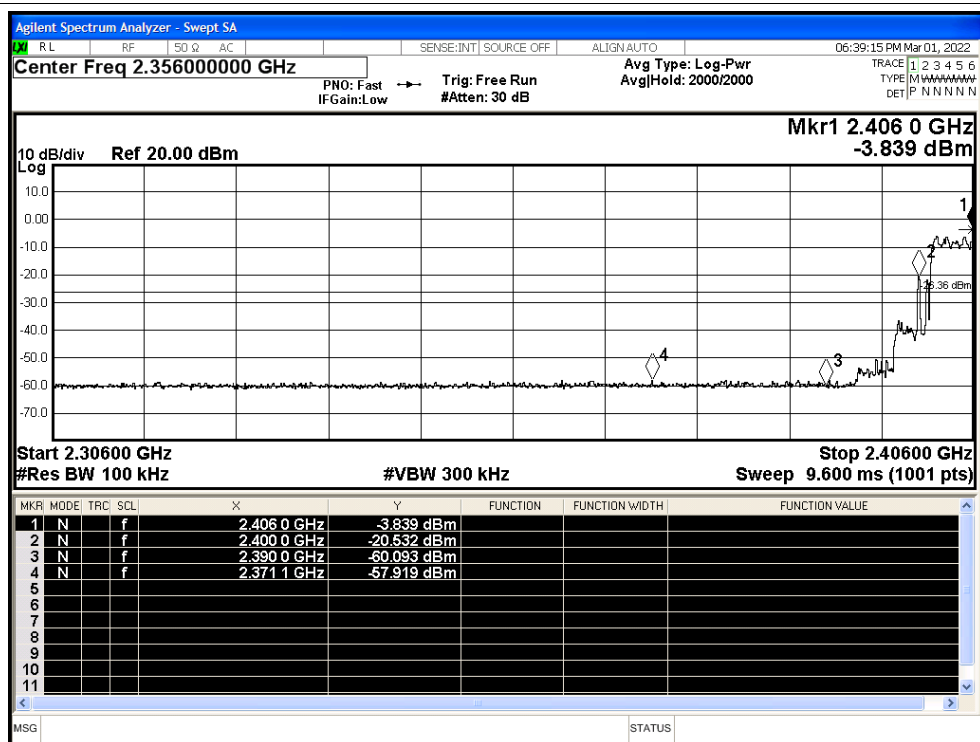




## Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Ref

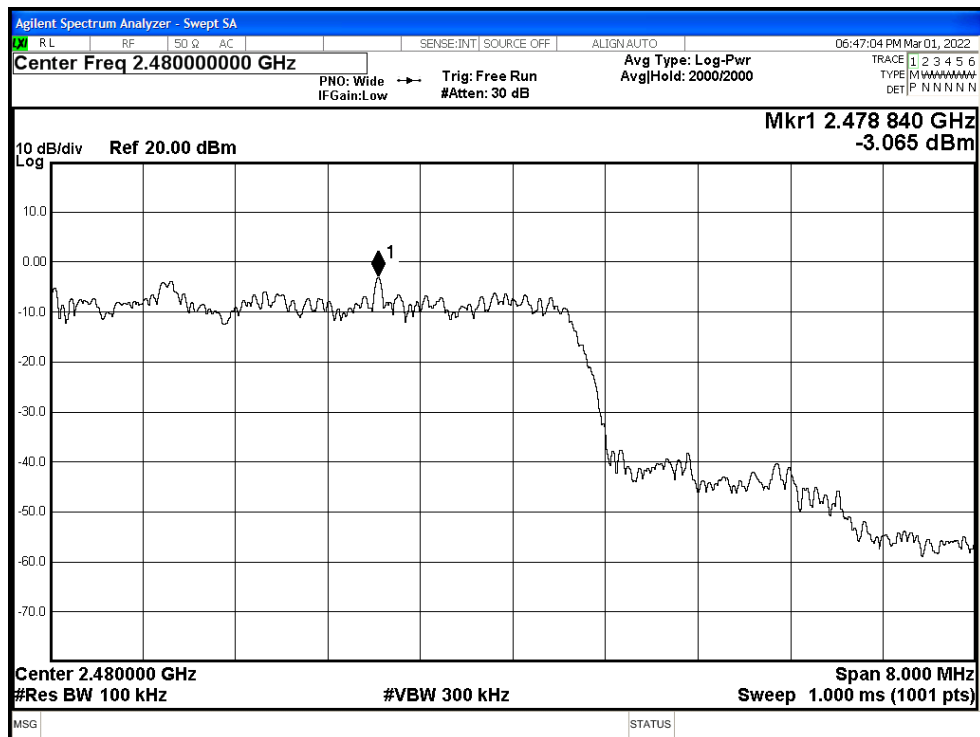


## Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Emission

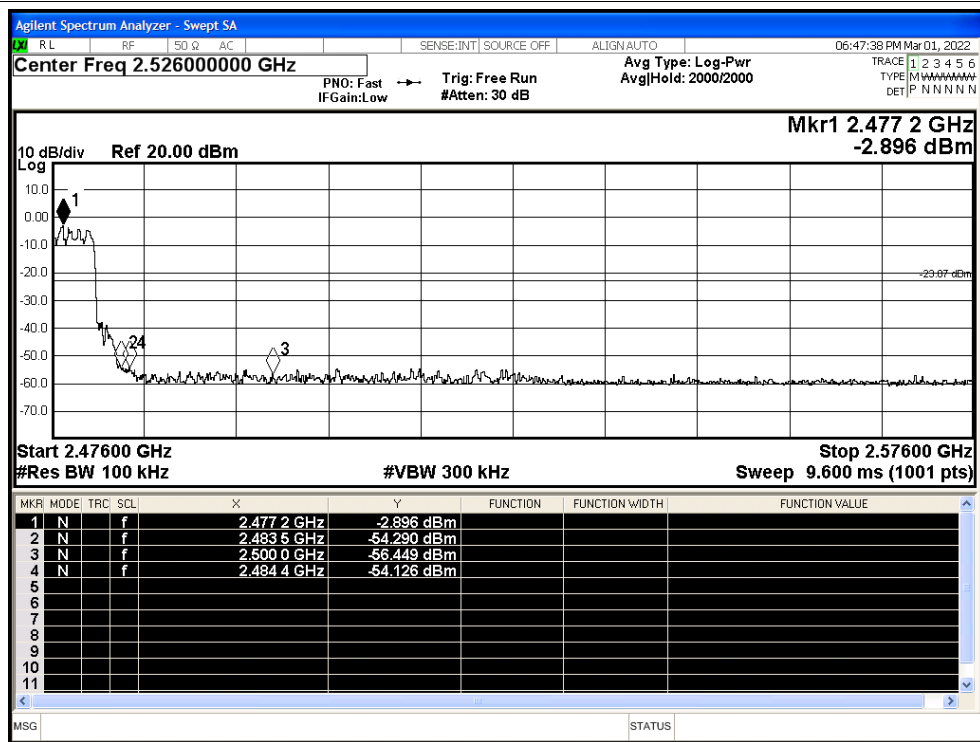




## Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Ref

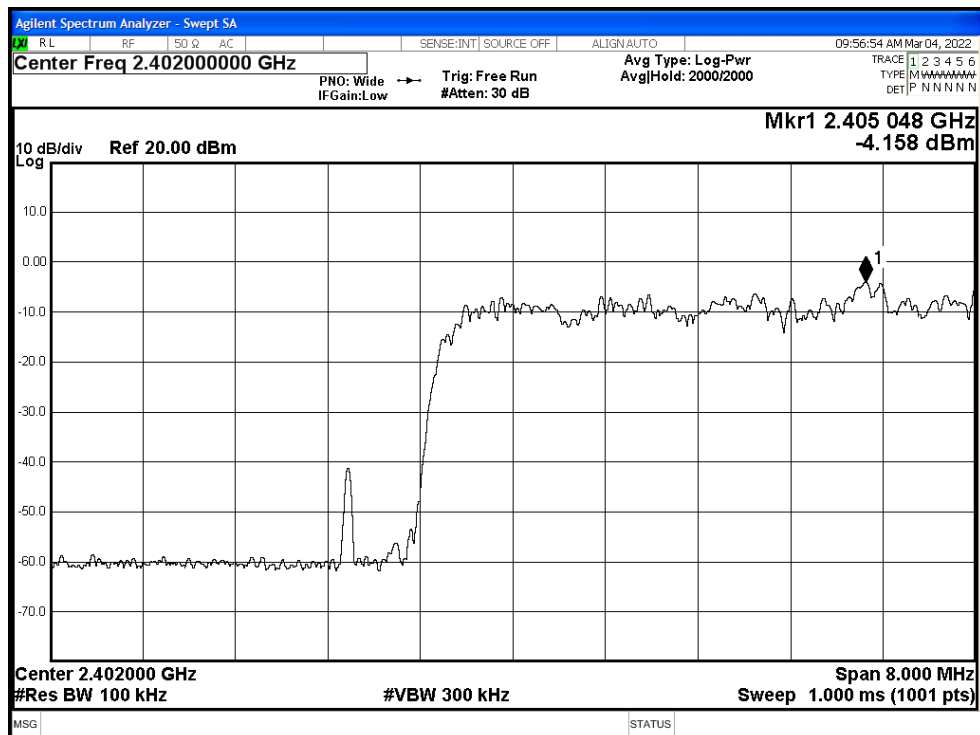


## Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Emission

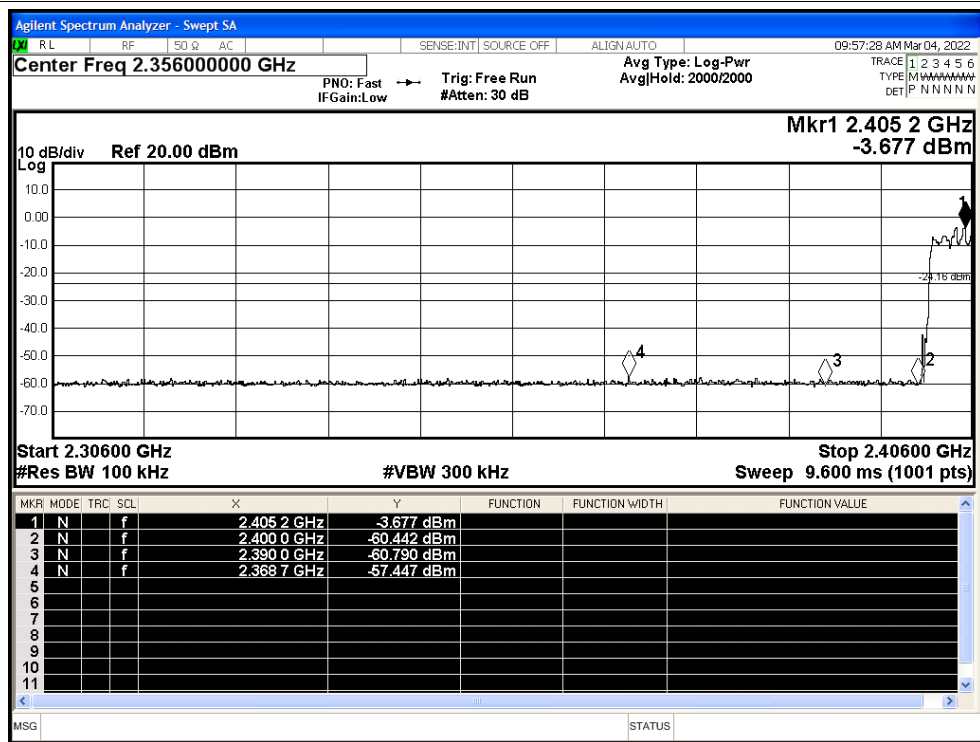




## Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Ref

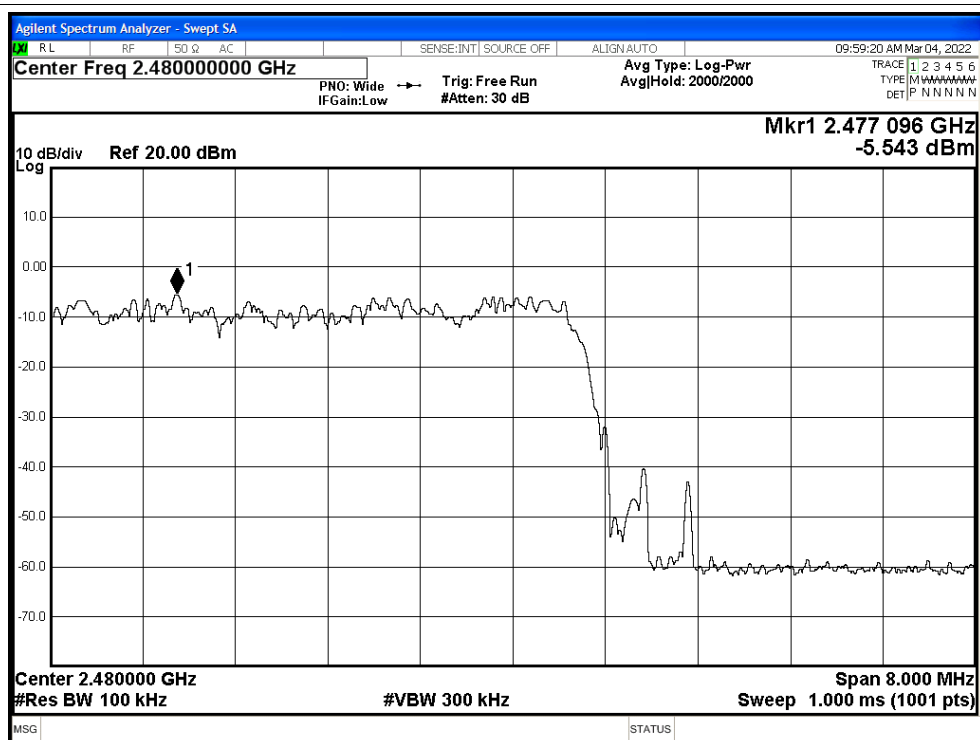


## Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Emission

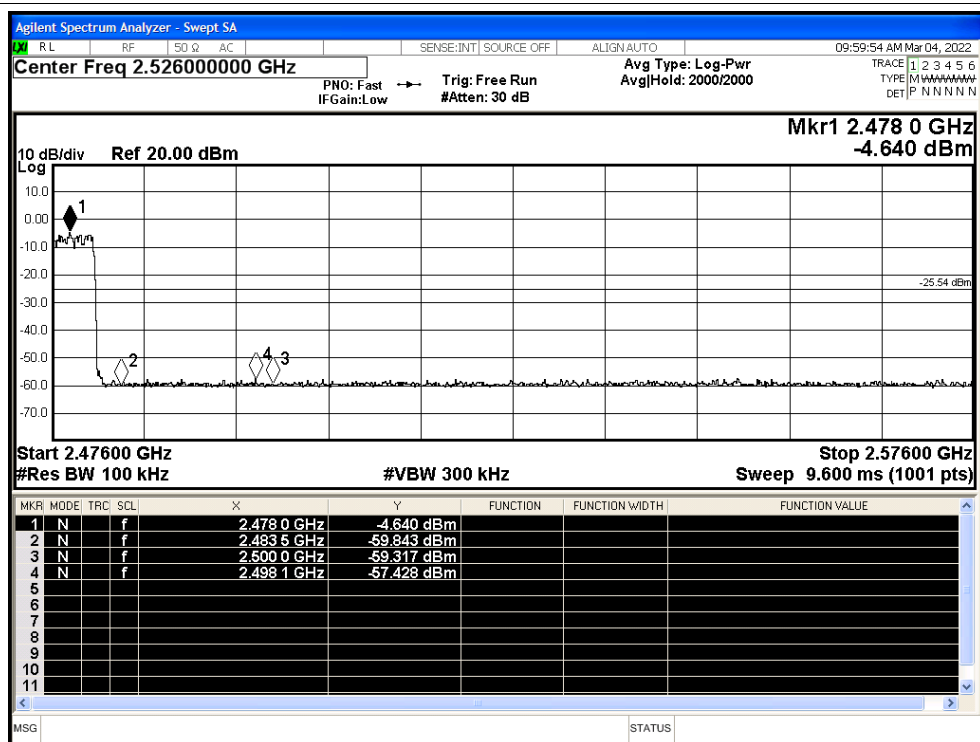




## Band Edge(Hopping) NVNT 3-DH5 2480MHz Ant1 Hopping Ref



## Band Edge(Hopping) NVNT 3-DH5 2480MHz Ant1 Hopping Emission





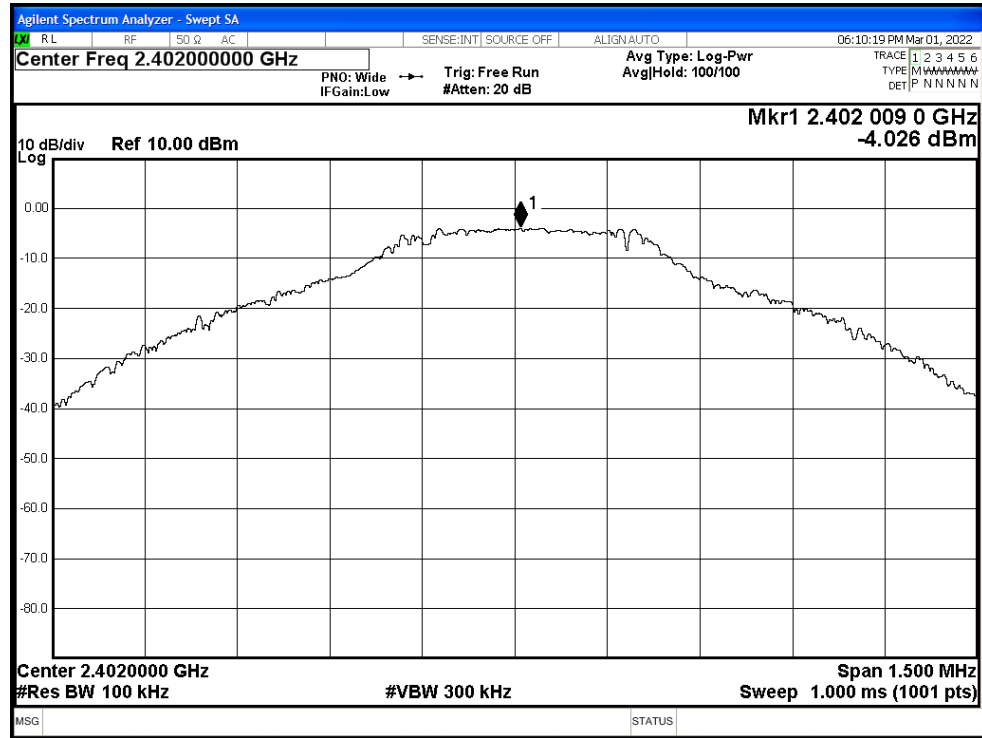
## A.7 Conducted RF Spurious Emission

| Condition | Mode  | Frequency (MHz) | Antenna | Max Value (dBc) | Limit (dBc) | Verdict |
|-----------|-------|-----------------|---------|-----------------|-------------|---------|
| NVNT      | 1-DH5 | 2402            | Ant1    | -35.92          | -20         | Pass    |
| NVNT      | 1-DH5 | 2441            | Ant1    | -36.57          | -20         | Pass    |
| NVNT      | 1-DH5 | 2480            | Ant1    | -38.9           | -20         | Pass    |
| NVNT      | 2-DH5 | 2402            | Ant1    | -40.02          | -20         | Pass    |
| NVNT      | 2-DH5 | 2441            | Ant1    | -42             | -20         | Pass    |
| NVNT      | 2-DH5 | 2480            | Ant1    | -42.3           | -20         | Pass    |
| NVNT      | 3-DH5 | 2402            | Ant1    | -53.26          | -20         | Pass    |
| NVNT      | 3-DH5 | 2441            | Ant1    | -53.57          | -20         | Pass    |
| NVNT      | 3-DH5 | 2480            | Ant1    | -53.98          | -20         | Pass    |

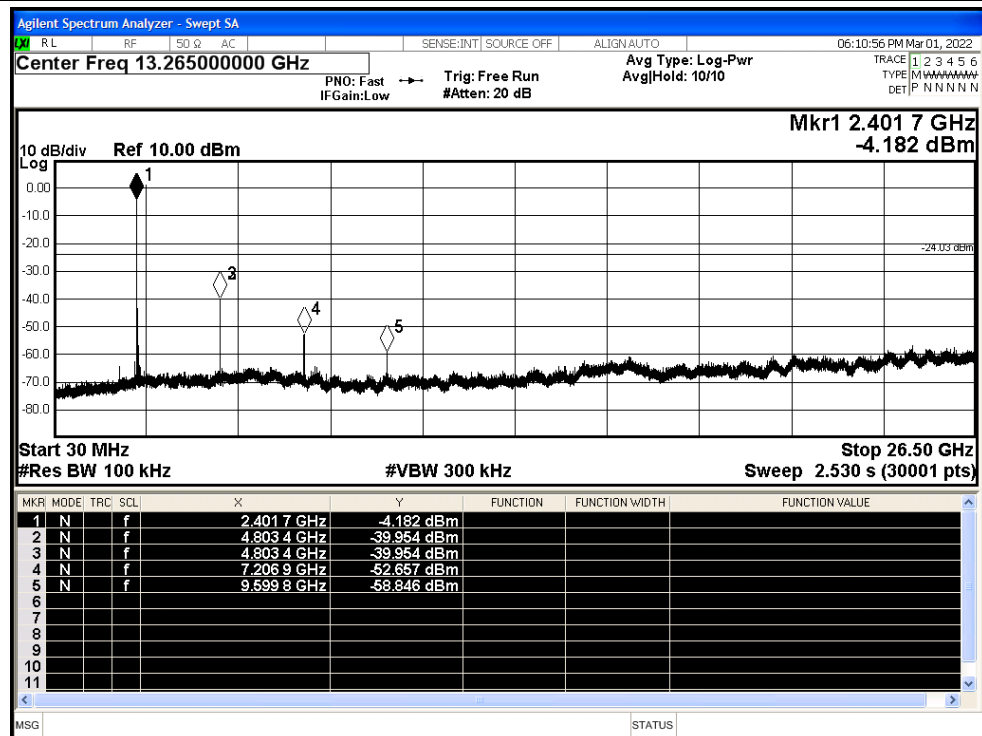


## Test Graphs

## Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref

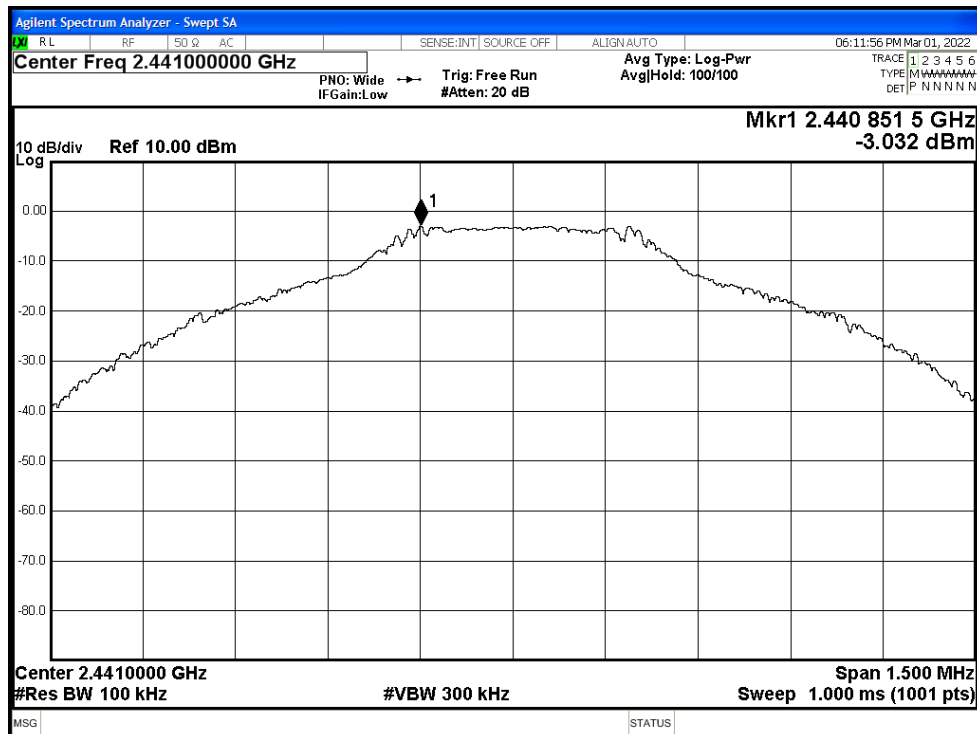


## Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission

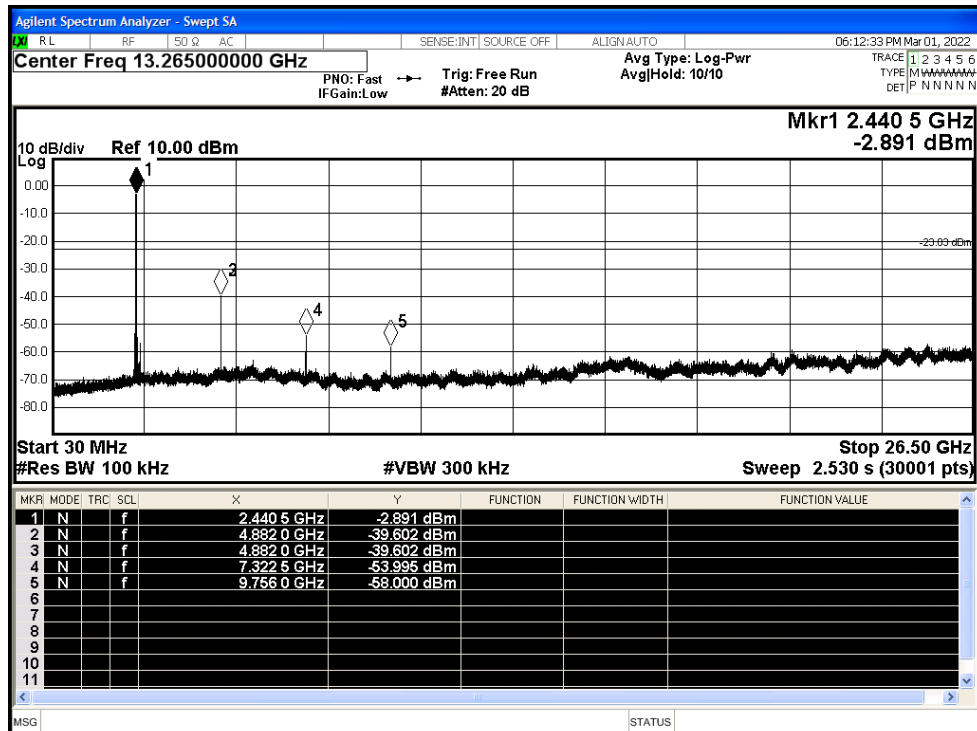




## Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref

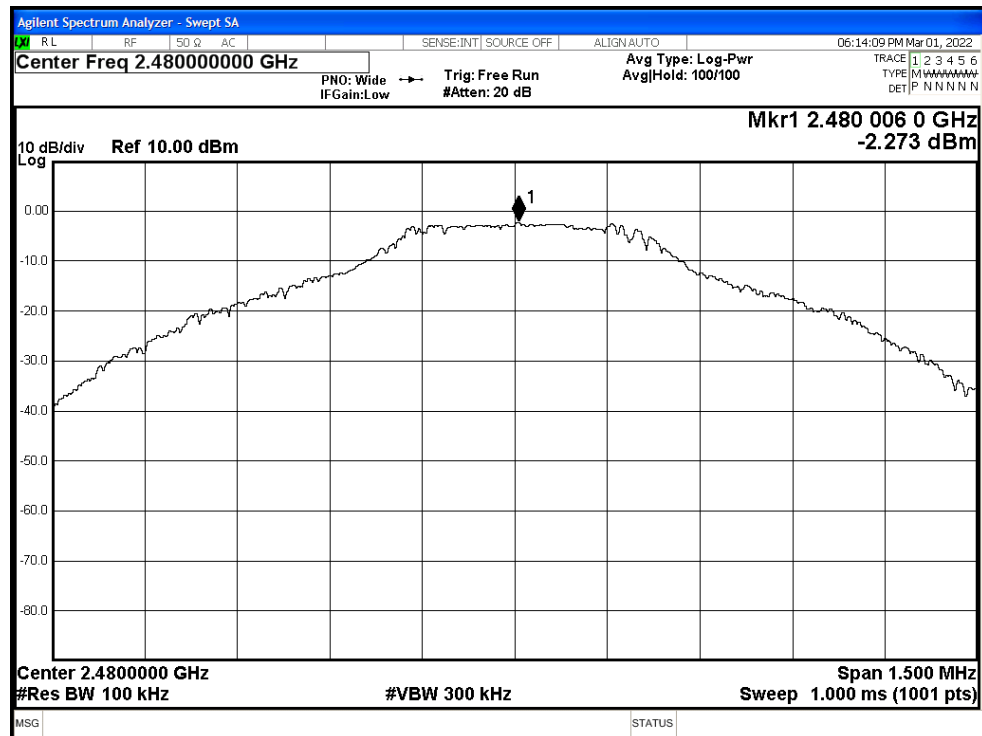


## Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission

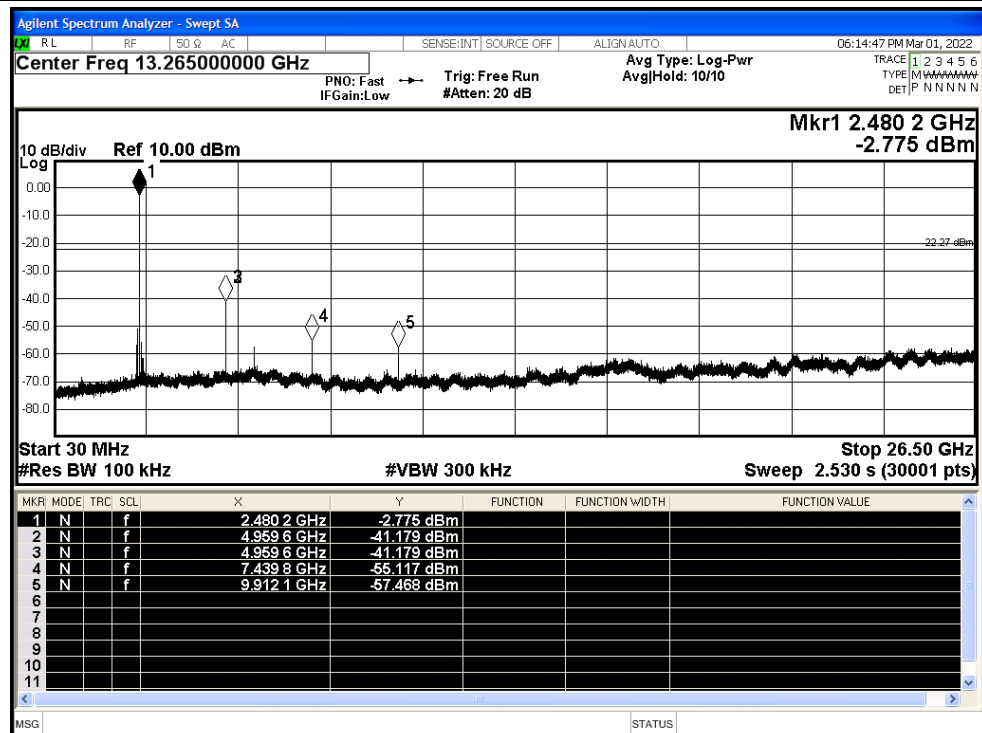




## Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref

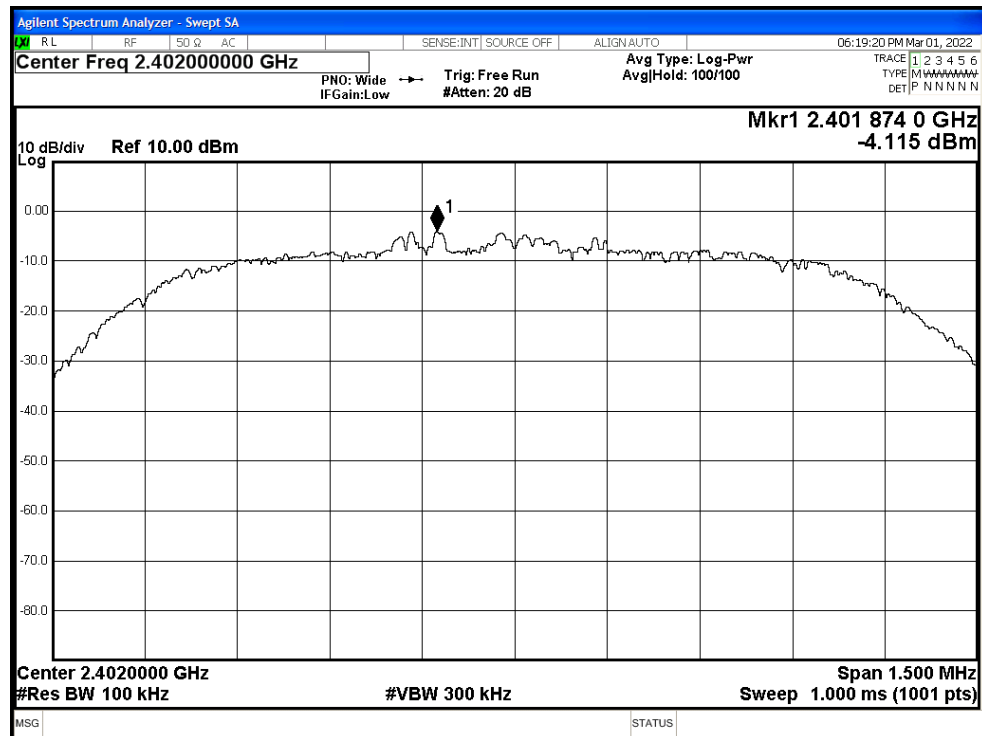


## Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Emission

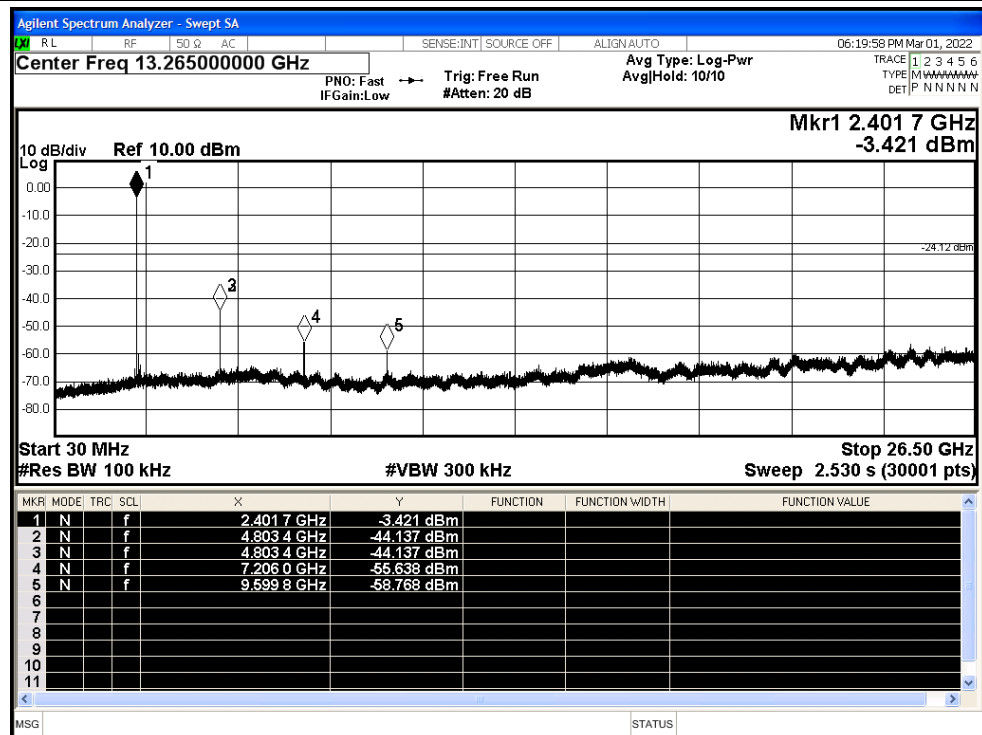




## Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Ref

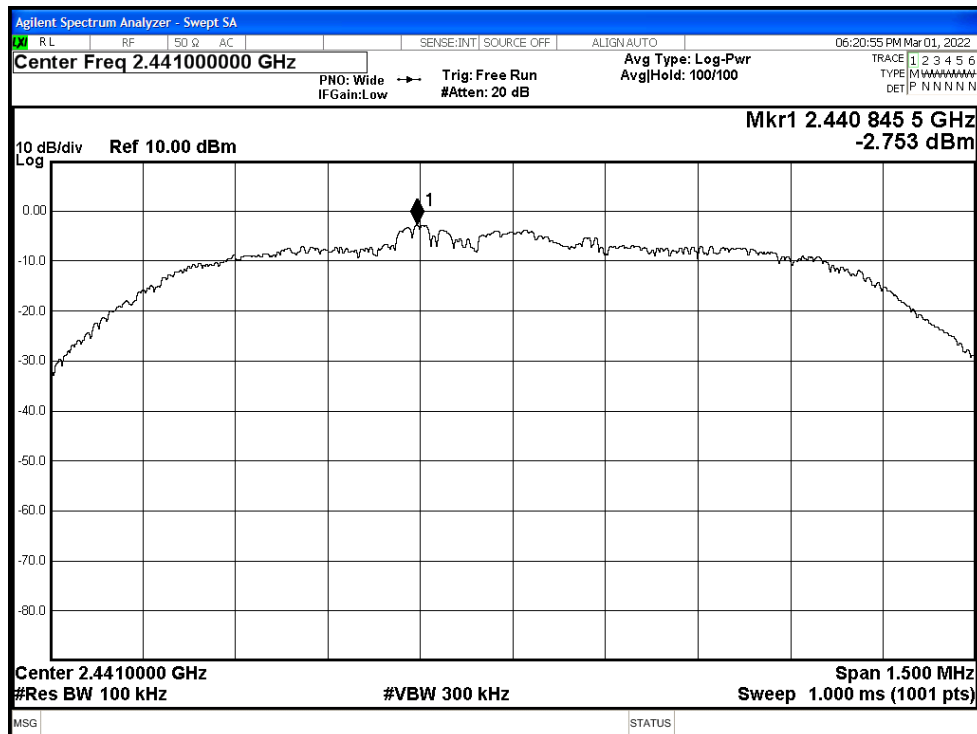


## Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Emission

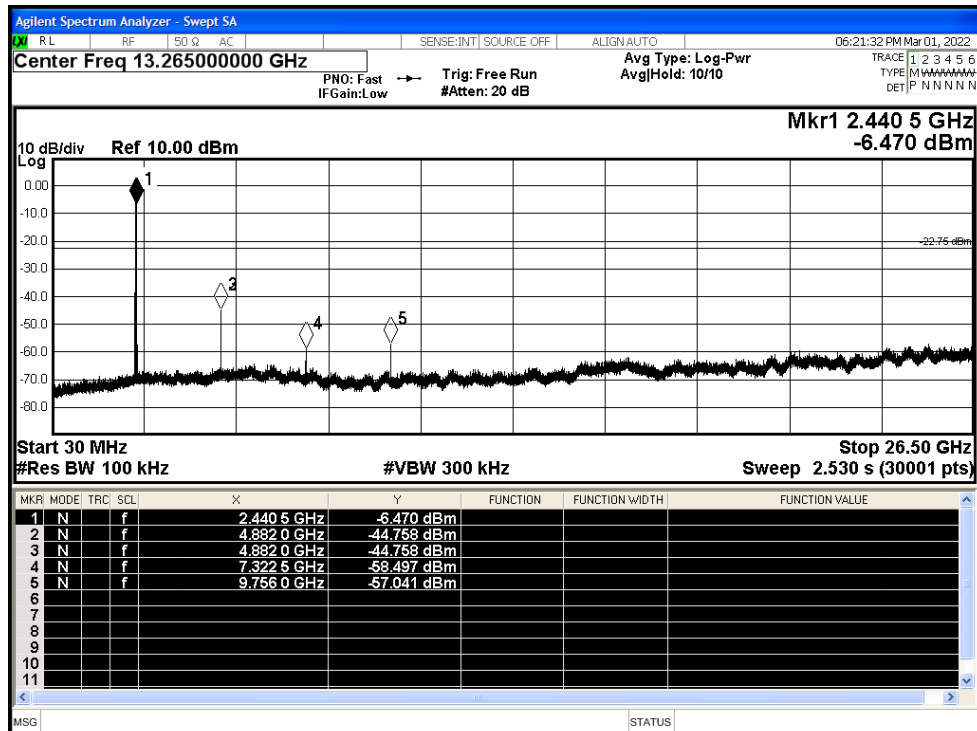




## Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Ref

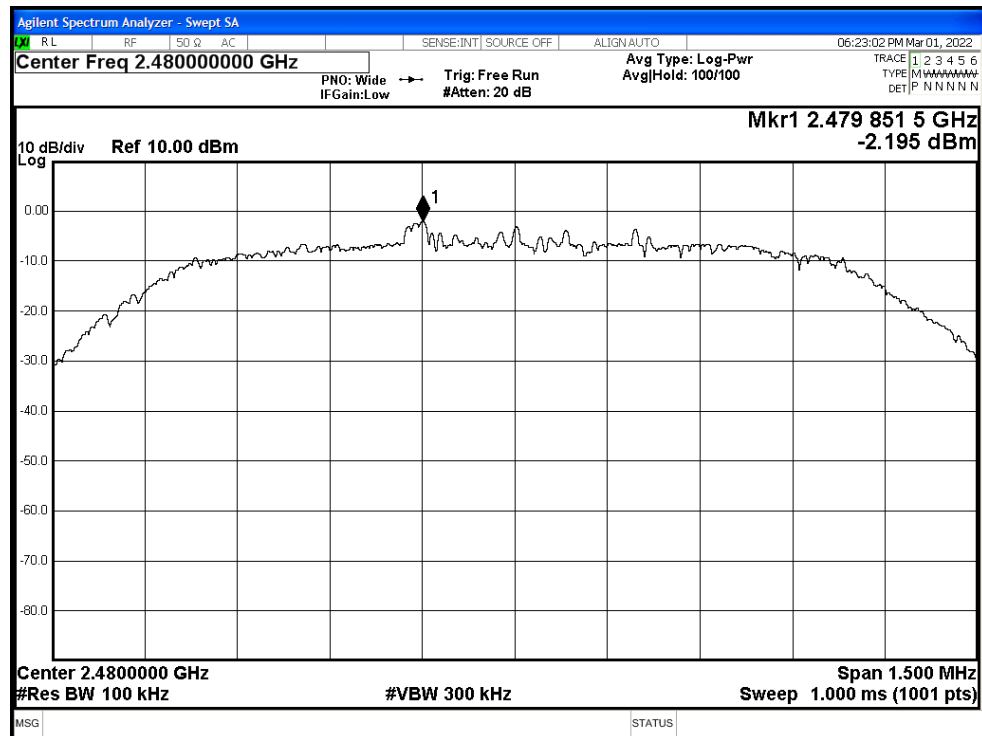


## Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Emission

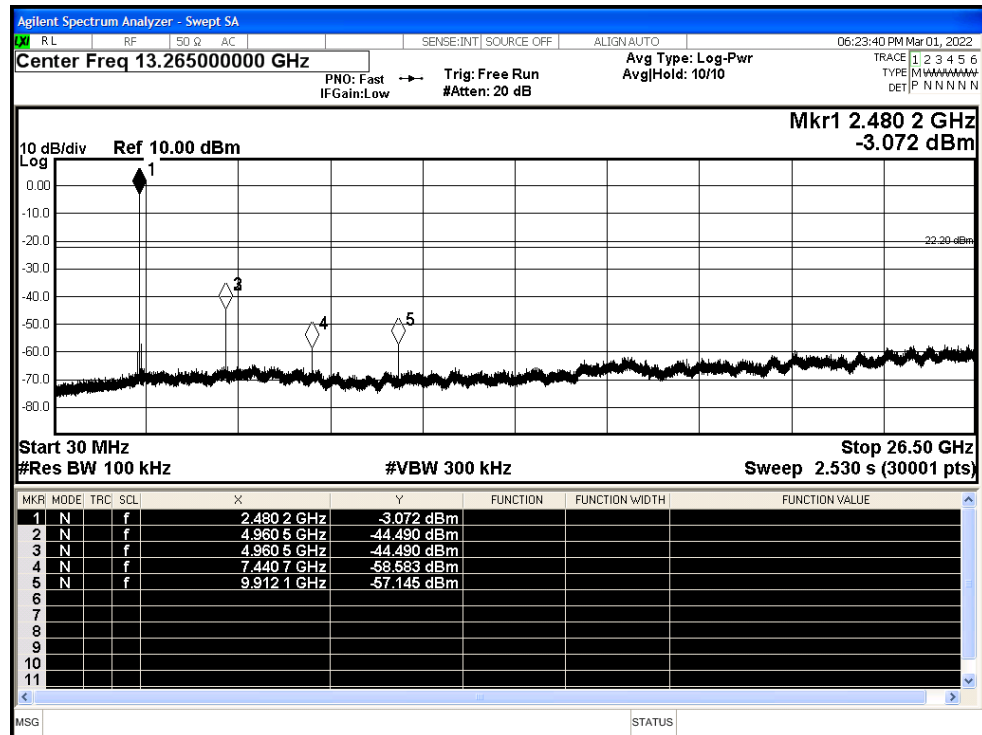




## Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Ref

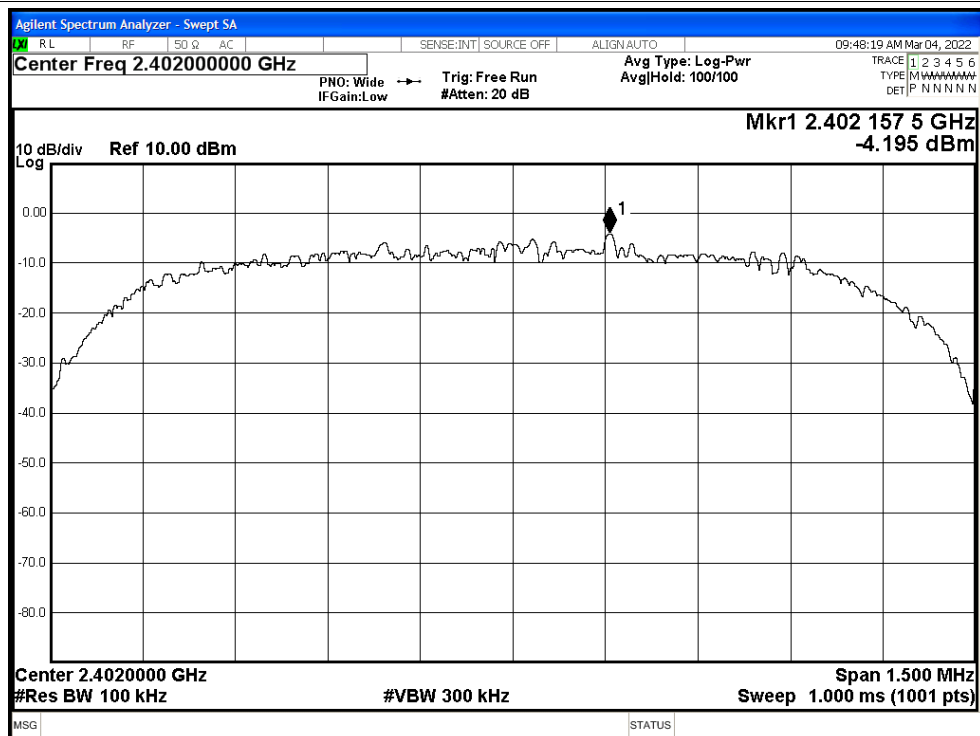


## Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Emission

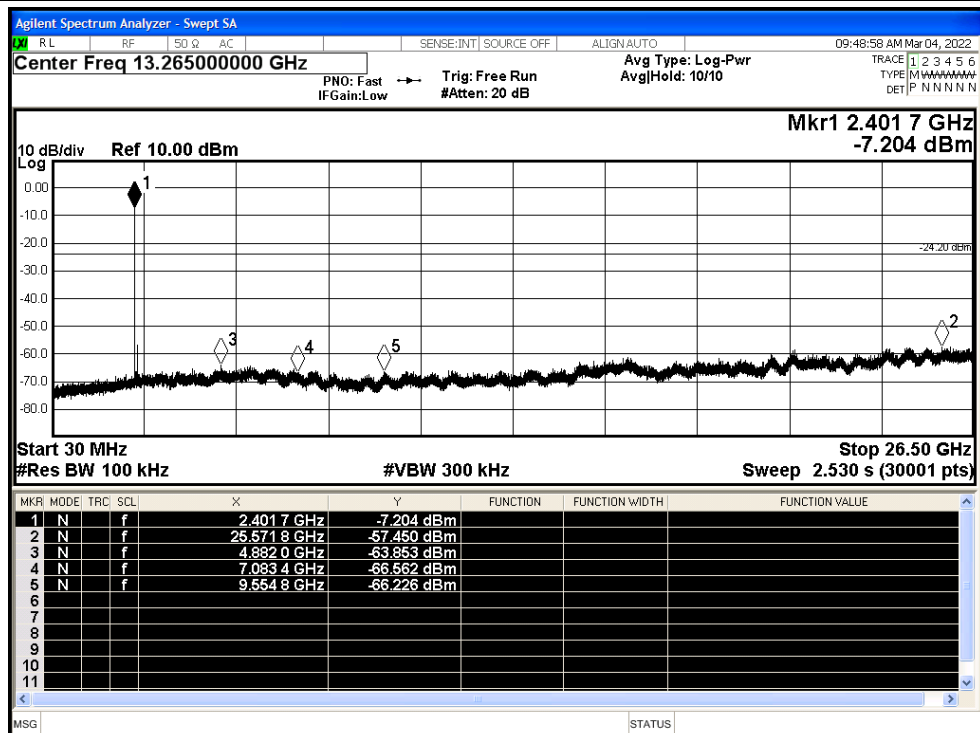




## Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Ref

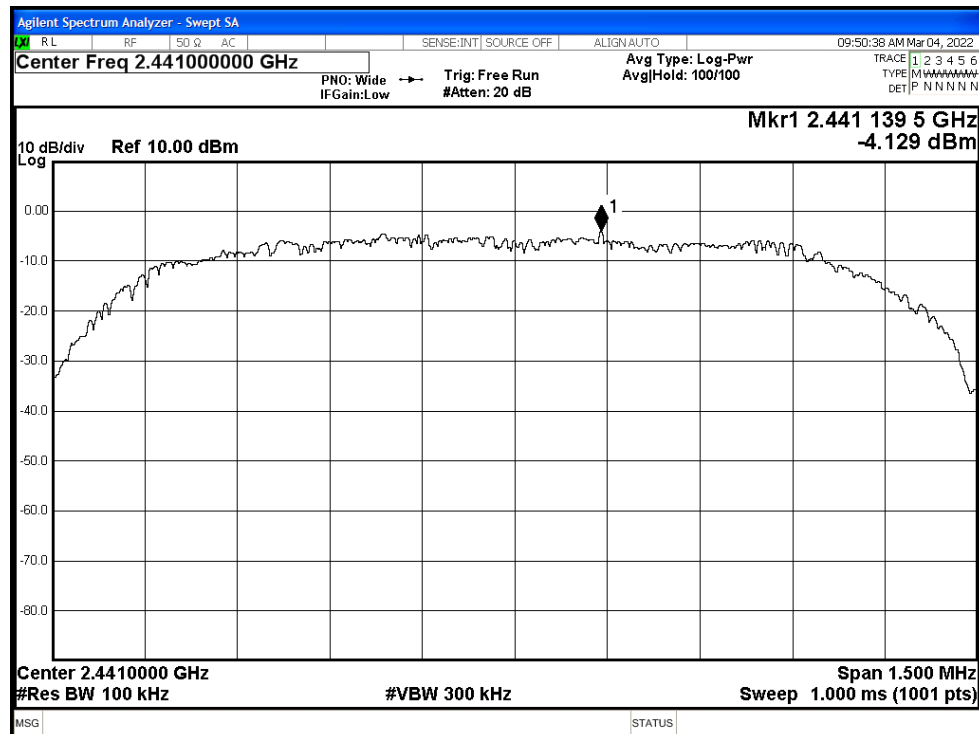


## Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Emission

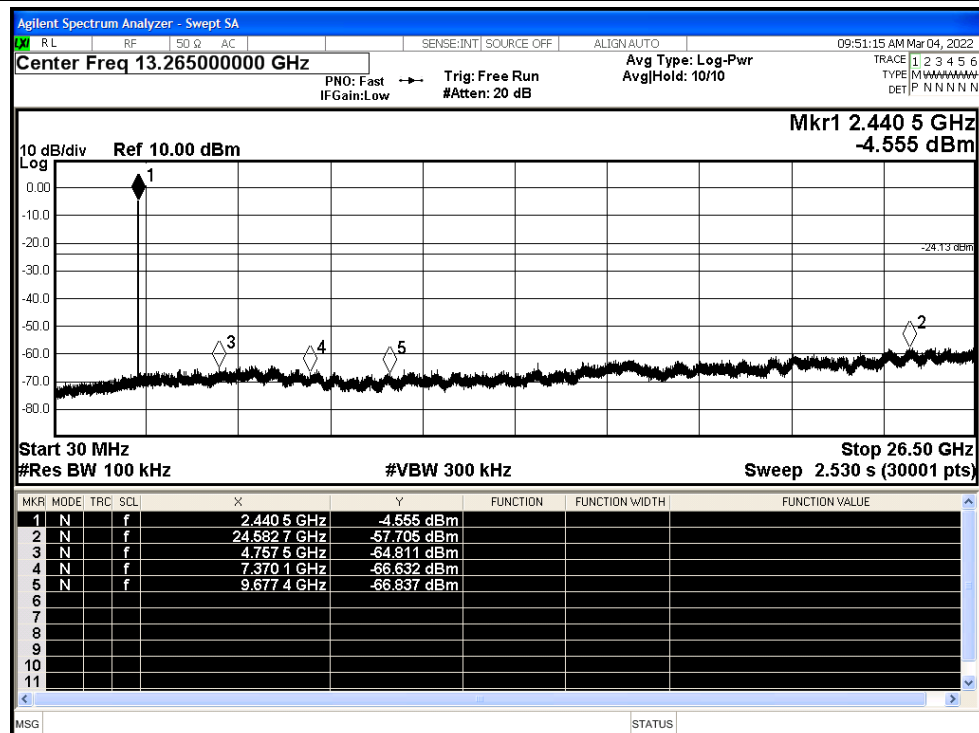




## Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Ref

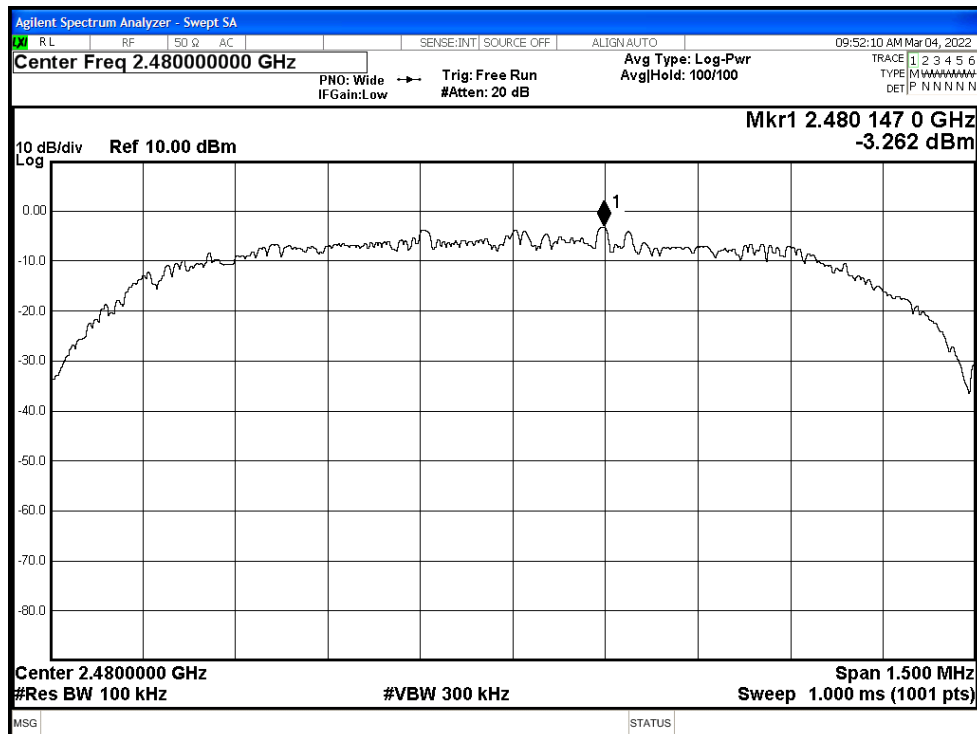


## Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Emission

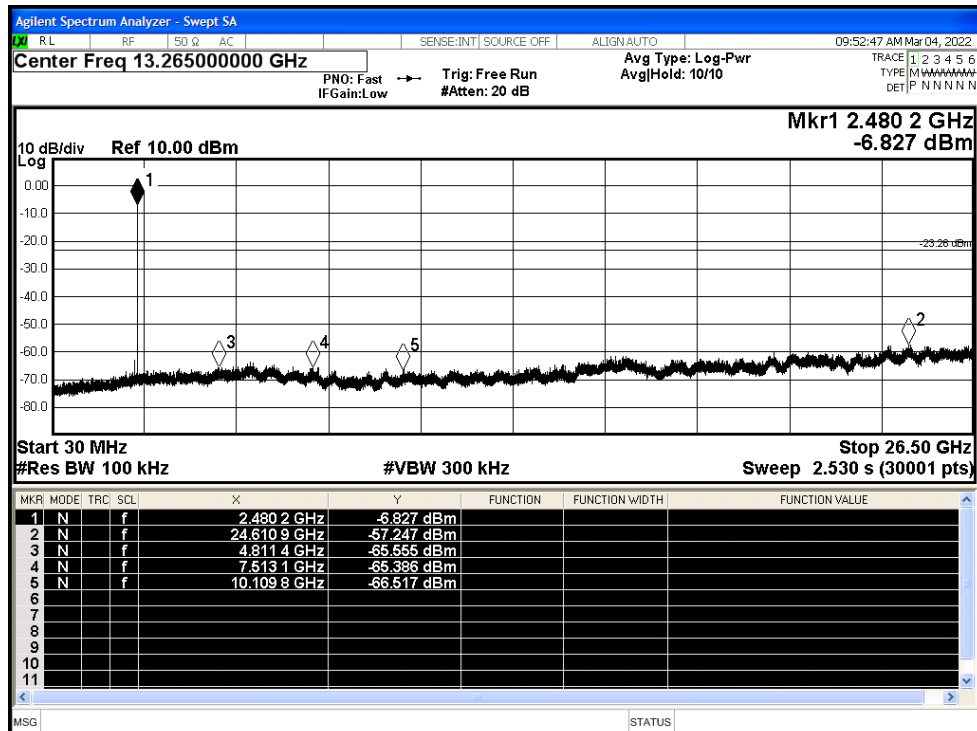


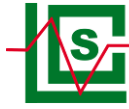


## Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Ref



## Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Emission





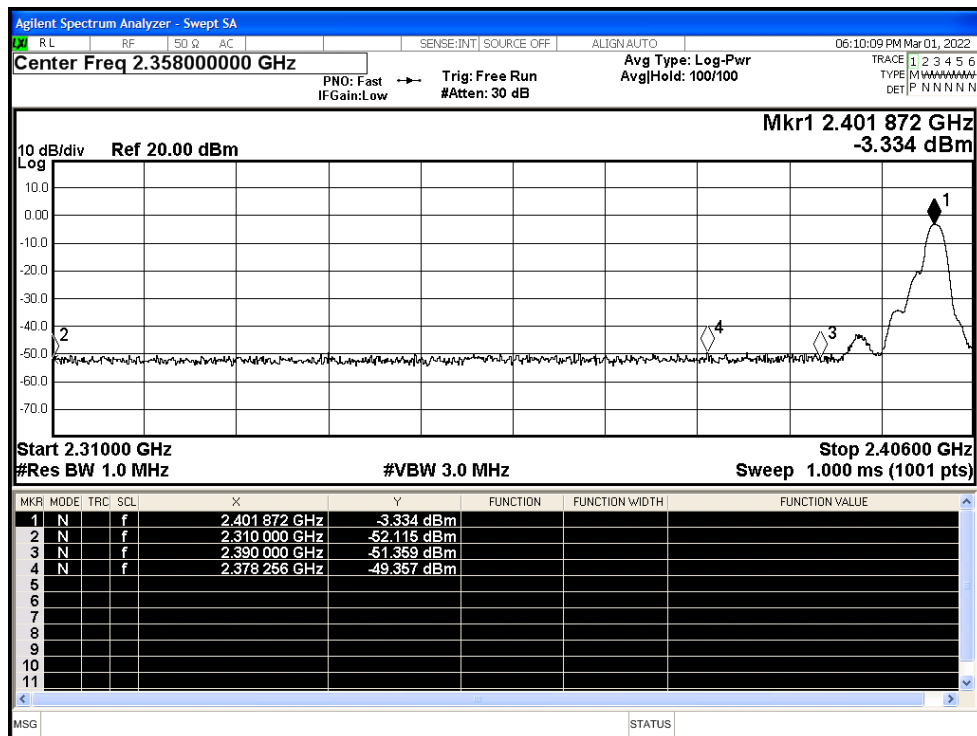
## A.8 Emissions at Restricted Band

| Condition | Mode  | Frequency (MHz) | Antenna | Hopping Mode | Spur Freq (MHz) | Power (dBm) | Gain (dBi) | E (dBuV/m) | Detector | Limit (dBuV/m) | Verdict |
|-----------|-------|-----------------|---------|--------------|-----------------|-------------|------------|------------|----------|----------------|---------|
| NVNT      | 1-DH5 | 2402            | Ant1    | No-Hopping   | 2310            | -52.11      | 2          | 45.15      | Peak     | 74             | Pass    |
| NVNT      | 1-DH5 | 2402            | Ant1    | No-Hopping   | 2310            | -62.12      | 2          | 35.14      | Average  | 54             | Pass    |
| NVNT      | 1-DH5 | 2402            | Ant1    | No-Hopping   | 2378.256        | -49.35      | 2          | 47.91      | Peak     | 74             | Pass    |
| NVNT      | 1-DH5 | 2402            | Ant1    | No-Hopping   | 2353.776        | -60.17      | 2          | 37.09      | Average  | 54             | Pass    |
| NVNT      | 1-DH5 | 2402            | Ant1    | No-Hopping   | 2390            | -52.86      | 2          | 44.4       | Peak     | 74             | Pass    |
| NVNT      | 1-DH5 | 2402            | Ant1    | No-Hopping   | 2390            | -61.7       | 2          | 35.56      | Average  | 54             | Pass    |
| NVNT      | 1-DH5 | 2480            | Ant1    | No-Hopping   | 2483.5          | -43.86      | 2          | 53.4       | Peak     | 74             | Pass    |
| NVNT      | 1-DH5 | 2480            | Ant1    | No-Hopping   | 2483.5          | -50.17      | 2          | 47.09      | Average  | 54             | Pass    |
| NVNT      | 1-DH5 | 2480            | Ant1    | No-Hopping   | 2483.776        | -43.45      | 2          | 53.81      | Peak     | 74             | Pass    |
| NVNT      | 1-DH5 | 2480            | Ant1    | No-Hopping   | 2483.944        | -50.01      | 2          | 47.25      | Average  | 54             | Pass    |
| NVNT      | 1-DH5 | 2480            | Ant1    | No-Hopping   | 2500            | -51.73      | 2          | 45.53      | Peak     | 74             | Pass    |
| NVNT      | 1-DH5 | 2480            | Ant1    | No-Hopping   | 2500            | -61.63      | 2          | 35.63      | Average  | 54             | Pass    |
| NVNT      | 2-DH5 | 2402            | Ant1    | No-Hopping   | 2310            | -51.9       | 2          | 45.36      | Peak     | 74             | Pass    |
| NVNT      | 2-DH5 | 2402            | Ant1    | No-Hopping   | 2310            | -62.13      | 2          | 35.13      | Average  | 54             | Pass    |
| NVNT      | 2-DH5 | 2402            | Ant1    | No-Hopping   | 2376.336        | -49.1       | 2          | 48.16      | Peak     | 74             | Pass    |
| NVNT      | 2-DH5 | 2402            | Ant1    | No-Hopping   | 2354.16         | -60.81      | 2          | 36.45      | Average  | 54             | Pass    |
| NVNT      | 2-DH5 | 2402            | Ant1    | No-Hopping   | 2390            | -50.81      | 2          | 46.45      | Peak     | 74             | Pass    |
| NVNT      | 2-DH5 | 2402            | Ant1    | No-Hopping   | 2390            | -61.52      | 2          | 35.74      | Average  | 54             | Pass    |
| NVNT      | 2-DH5 | 2480            | Ant1    | No-Hopping   | 2483.5          | -43.95      | 2          | 53.31      | Peak     | 74             | Pass    |
| NVNT      | 2-DH5 | 2480            | Ant1    | No-Hopping   | 2483.5          | -51.42      | 2          | 45.84      | Average  | 54             | Pass    |
| NVNT      | 2-DH5 | 2480            | Ant1    | No-Hopping   | 2483.56         | -41.91      | 2          | 55.35      | Peak     | 74             | Pass    |
| NVNT      | 2-DH5 | 2480            | Ant1    | No-Hopping   | 2483.512        | -51.42      | 2          | 45.84      | Average  | 54             | Pass    |
| NVNT      | 2-DH5 | 2480            | Ant1    | No-Hopping   | 2500            | -51.81      | 2          | 45.45      | Peak     | 74             | Pass    |
| NVNT      | 2-DH5 | 2480            | Ant1    | No-Hopping   | 2500            | -61.5       | 2          | 35.76      | Average  | 54             | Pass    |
| NVNT      | 3-DH5 | 2402            | Ant1    | No-Hopping   | 2310            | -52.88      | 2          | 44.38      | Peak     | 74             | Pass    |
| NVNT      | 3-DH5 | 2402            | Ant1    | No-Hopping   | 2310            | -61.96      | 2          | 35.3       | Average  | 54             | Pass    |
| NVNT      | 3-DH5 | 2402            | Ant1    | No-Hopping   | 2359.44         | -48.52      | 2          | 48.74      | Peak     | 74             | Pass    |
| NVNT      | 3-DH5 | 2402            | Ant1    | No-Hopping   | 2388.624        | -61.46      | 2          | 35.8       | Average  | 54             | Pass    |
| NVNT      | 3-DH5 | 2402            | Ant1    | No-Hopping   | 2390            | -52.84      | 2          | 44.42      | Peak     | 74             | Pass    |
| NVNT      | 3-DH5 | 2402            | Ant1    | No-Hopping   | 2390            | -61.69      | 2          | 35.57      | Average  | 54             | Pass    |
| NVNT      | 3-DH5 | 2480            | Ant1    | No-Hopping   | 2483.5          | -51.37      | 2          | 45.89      | Peak     | 74             | Pass    |
| NVNT      | 3-DH5 | 2480            | Ant1    | No-Hopping   | 2483.5          | -61.07      | 2          | 36.19      | Average  | 54             | Pass    |
| NVNT      | 3-DH5 | 2480            | Ant1    | No-Hopping   | 2497.024        | -48.98      | 2          | 48.28      | Peak     | 74             | Pass    |
| NVNT      | 3-DH5 | 2480            | Ant1    | No-Hopping   | 2483.512        | -61.07      | 2          | 36.19      | Average  | 54             | Pass    |
| NVNT      | 3-DH5 | 2480            | Ant1    | No-Hopping   | 2500            | -50.5       | 2          | 46.76      | Peak     | 74             | Pass    |
| NVNT      | 3-DH5 | 2480            | Ant1    | No-Hopping   | 2500            | -61.4       | 2          | 35.86      | Average  | 54             | Pass    |

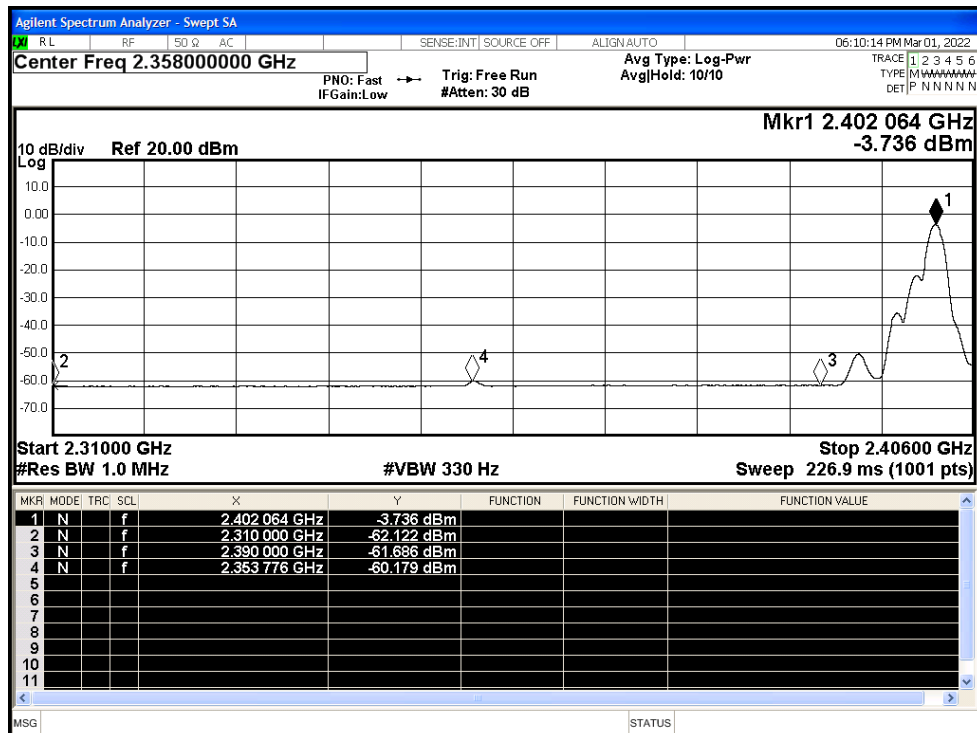


## Test Graphs

## Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Peak

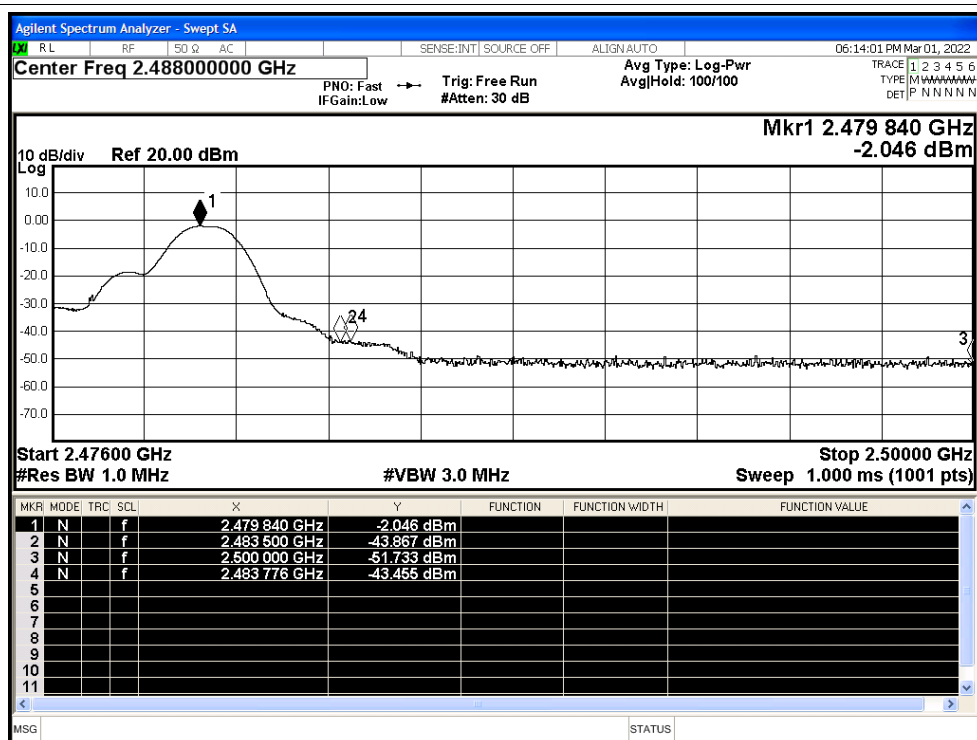


## Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Average

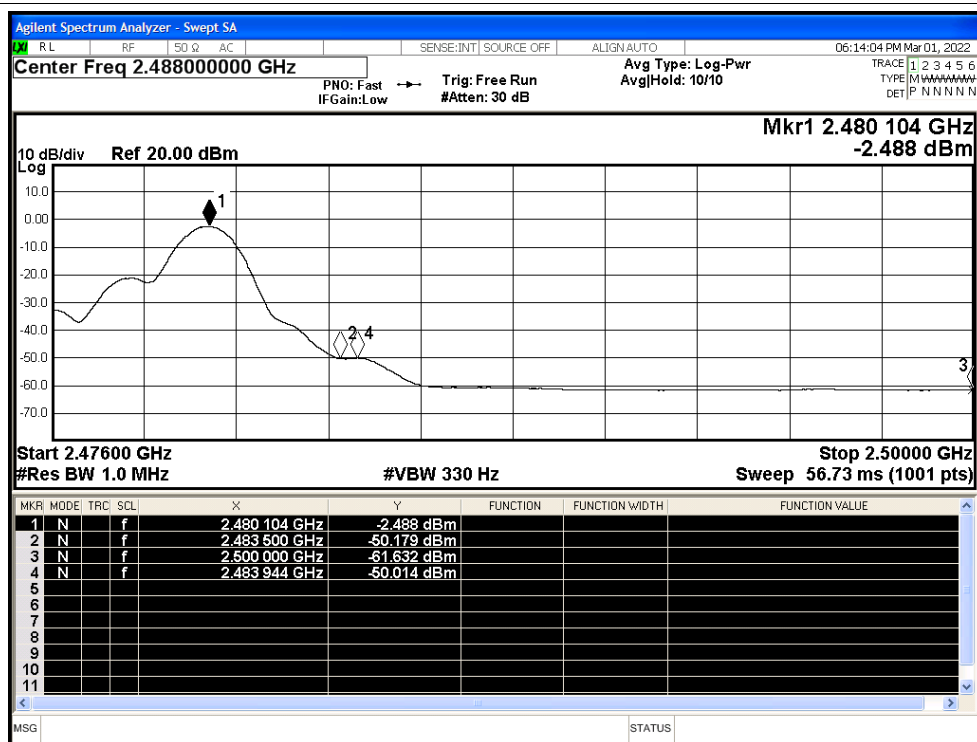




## Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Peak

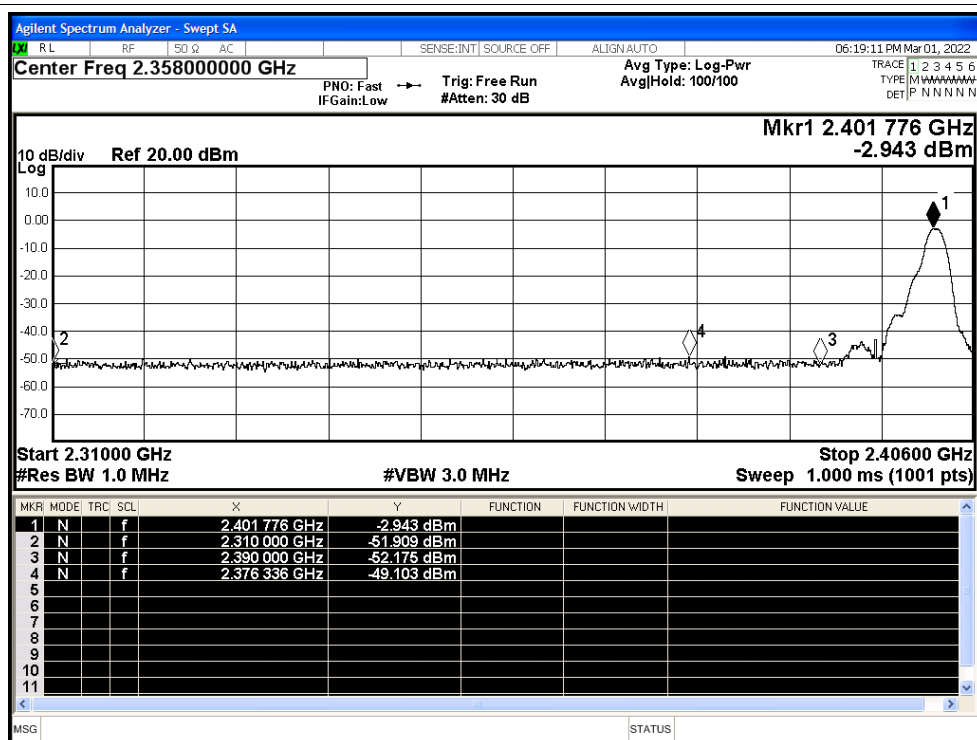


## Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Average

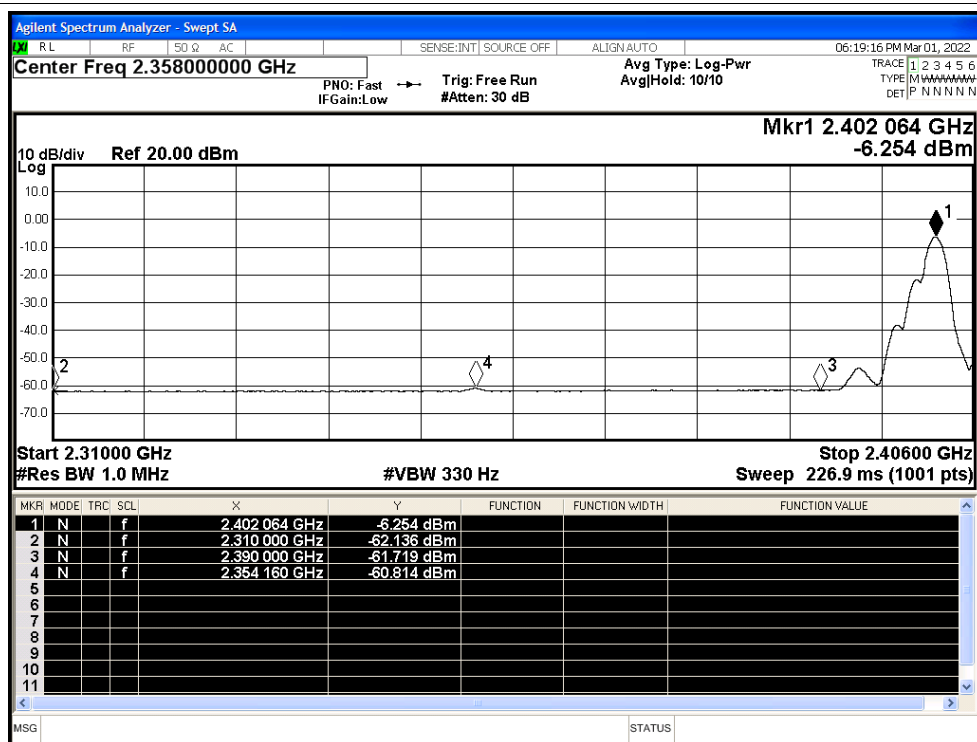




## Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Peak

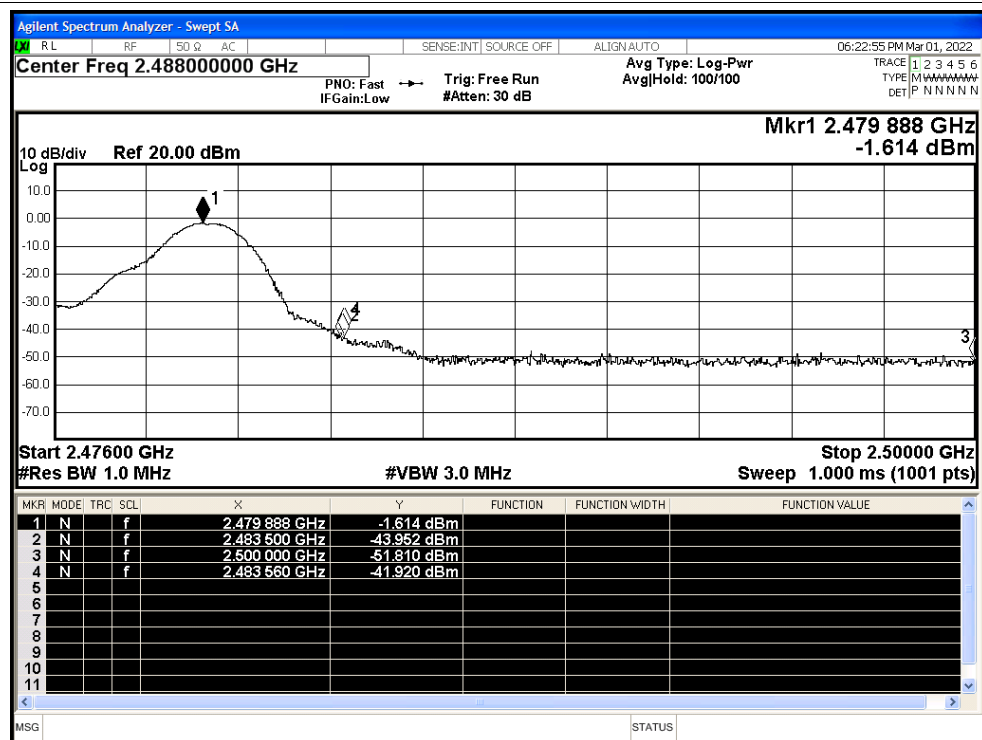


## Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Average

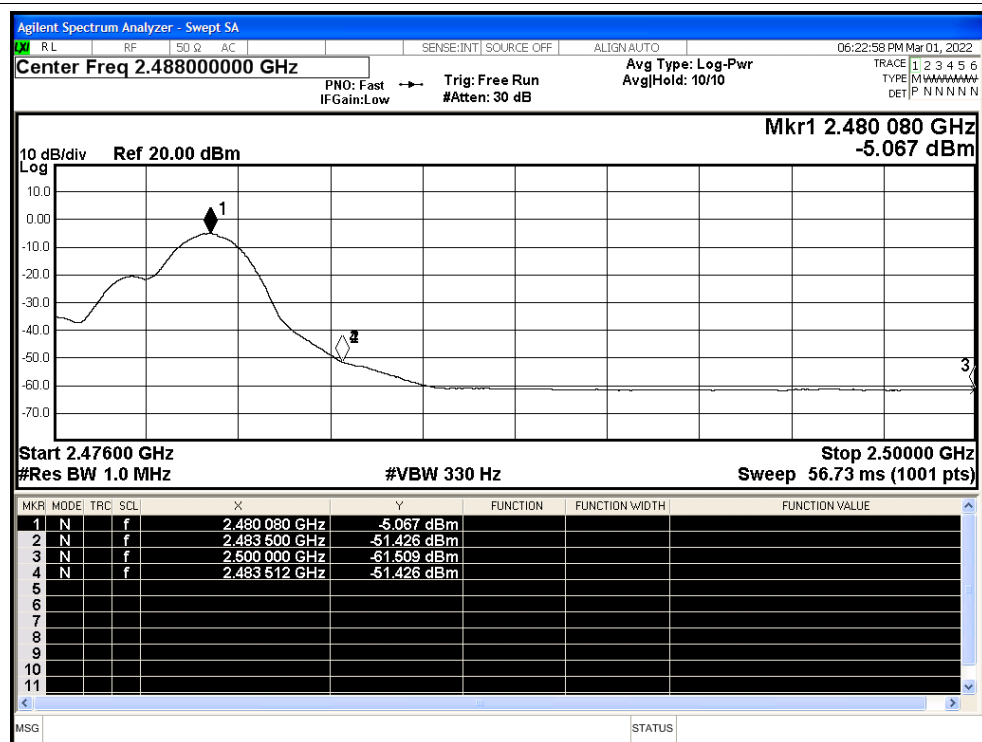




## Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Peak

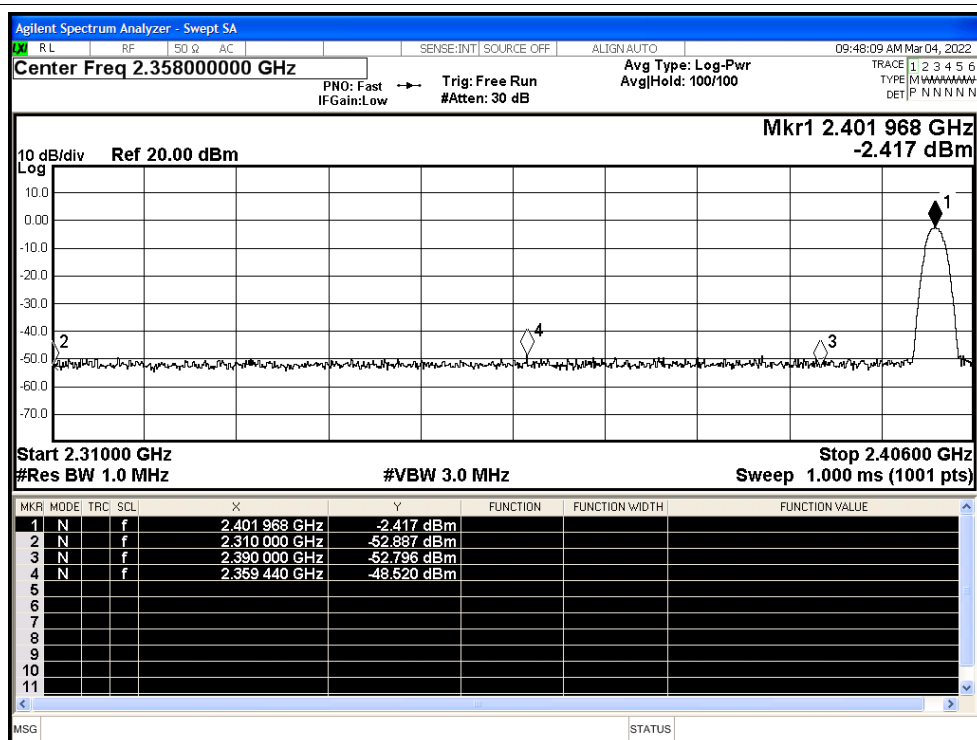


## Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Average

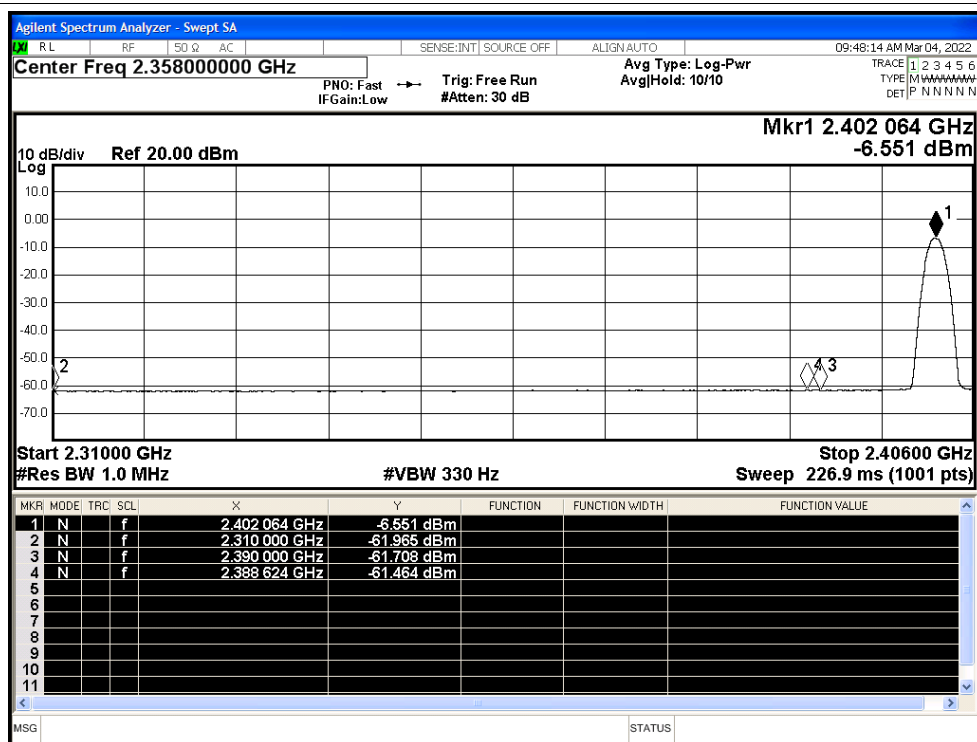




## Restrict Band NVNT 3-DH5 2402MHz Ant1 No-Hopping Peak

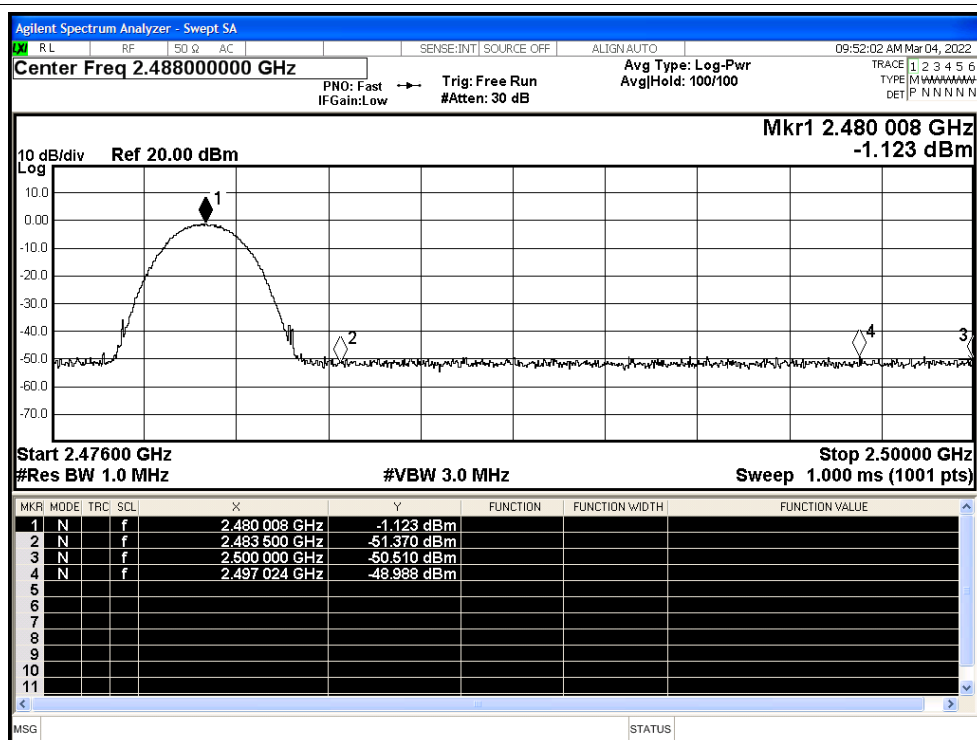


## Restrict Band NVNT 3-DH5 2402MHz Ant1 No-Hopping Average





## Restrict Band NVNT 3-DH5 2480MHz Ant1 No-Hopping Peak



## Restrict Band NVNT 3-DH5 2480MHz Ant1 No-Hopping Average

