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# FCC ID: 2BMHL-X1PRO

|                                      |    |
|--------------------------------------|----|
| Maximum Conducted Output Power ..... | 2  |
| -20dB Bandwidth .....                | 8  |
| Occupied Channel Bandwidth .....     | 14 |
| Carrier Frequencies Separation ..... | 20 |
| Number of Hopping Channel .....      | 21 |
| Dwell Time .....                     | 32 |
| Band Edge .....                      | 42 |
| Band Edge(Hopping) .....             | 49 |
| Conducted RF Spurious Emission ..... | 56 |

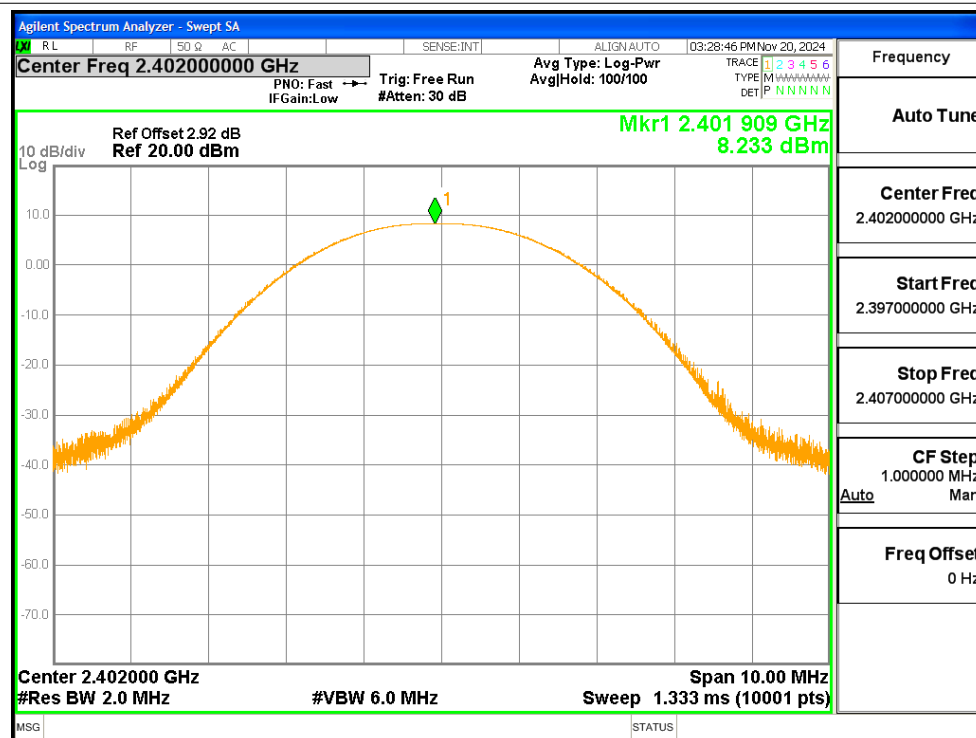
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## Maximum Conducted Output Power

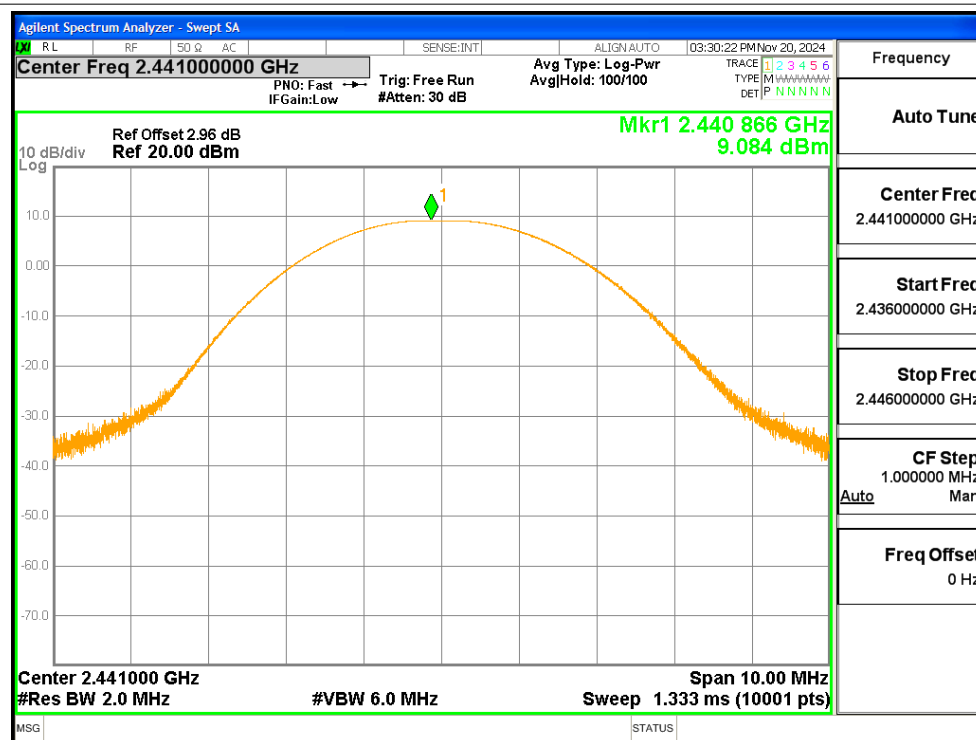
| Condition | Mode  | Frequency (MHz) | Antenna | Conducted Power (dBm) | Limit (dBm) | Verdict |
|-----------|-------|-----------------|---------|-----------------------|-------------|---------|
| NVNT      | 1-DH5 | 2402            | Ant1    | 8.23                  | 21          | Pass    |
|           |       | 2441            |         | 9.08                  | 21          | Pass    |
|           |       | 2480            |         | 8.99                  | 21          | Pass    |
|           | 2-DH5 | 2402            |         | 8.22                  | 21          | Pass    |
|           |       | 2441            |         | 9.08                  | 21          | Pass    |
|           |       | 2480            |         | 8.95                  | 21          | Pass    |
|           | 3-DH5 | 2402            |         | 8.37                  | 21          | Pass    |
|           |       | 2441            |         | 9.14                  | 21          | Pass    |
|           |       | 2480            |         | 9.04                  | 21          | Pass    |
|           |       |                 |         |                       |             |         |
|           |       |                 |         |                       |             |         |
|           |       |                 |         |                       |             |         |

## Test Graphs

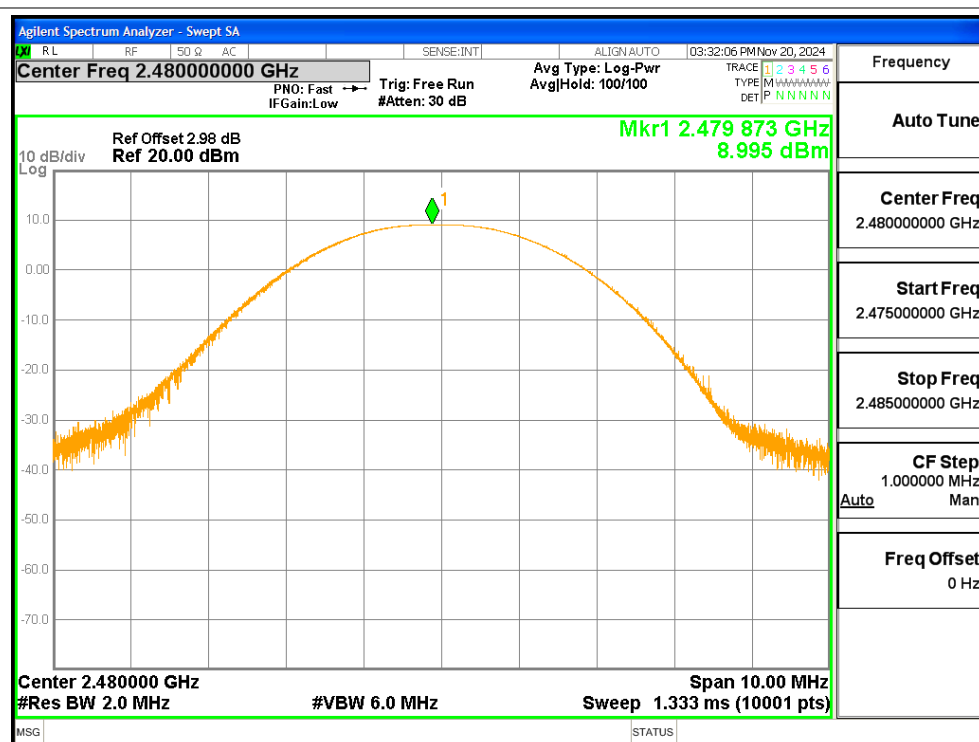
## Power NVNT 1-DH5 2402MHz Ant1



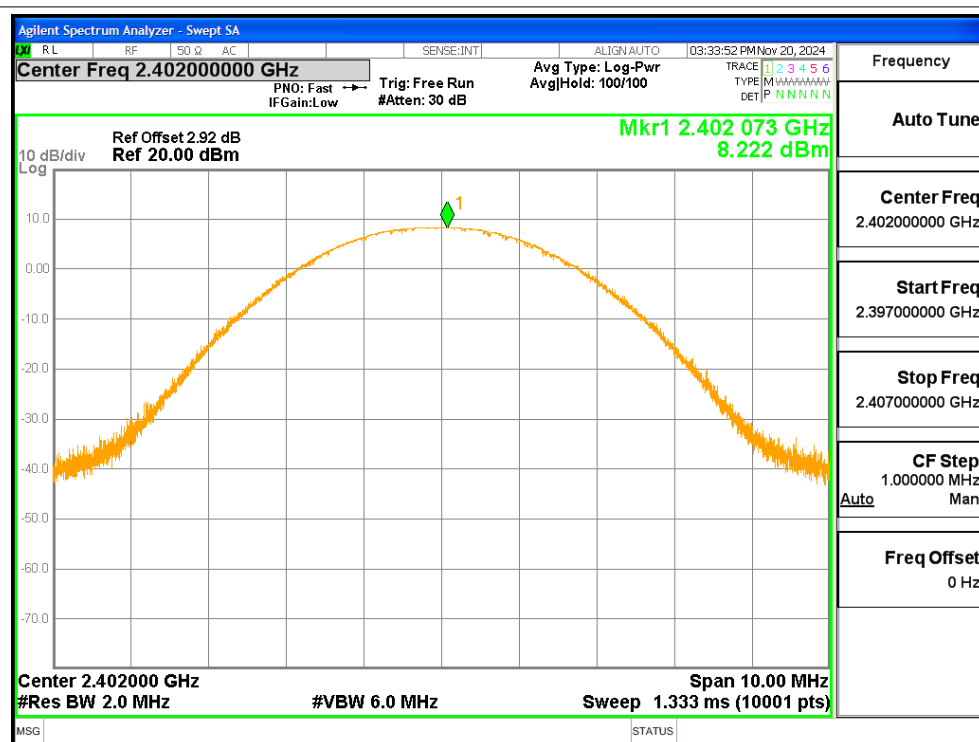
## Power NVNT 1-DH5 2441MHz Ant1



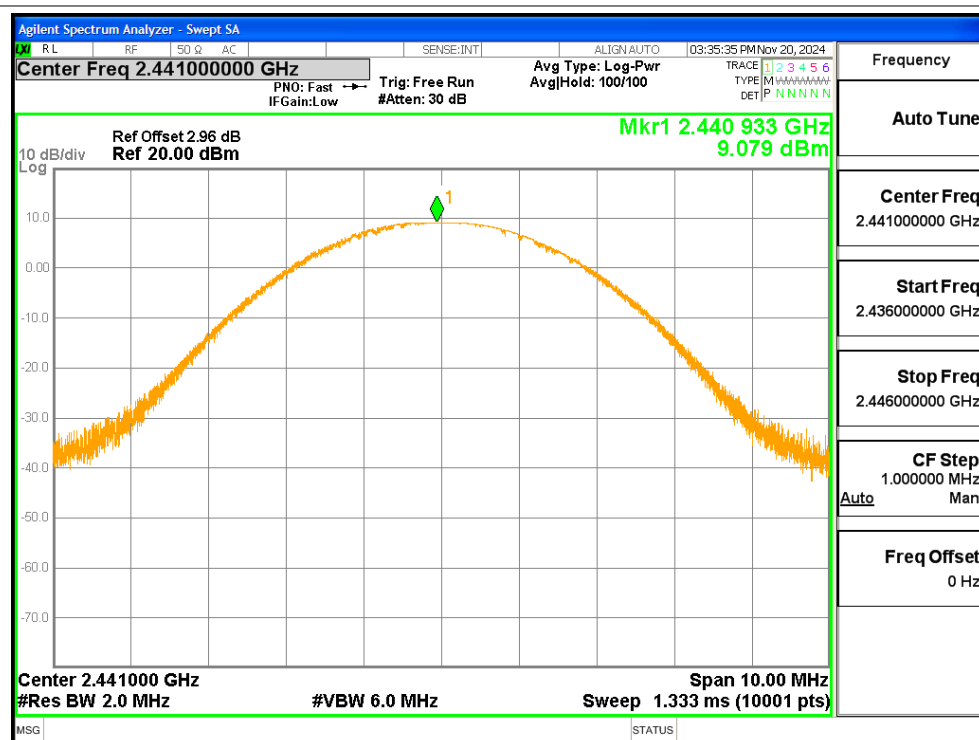
Power NVNT 1-DH5 2480MHz Ant1



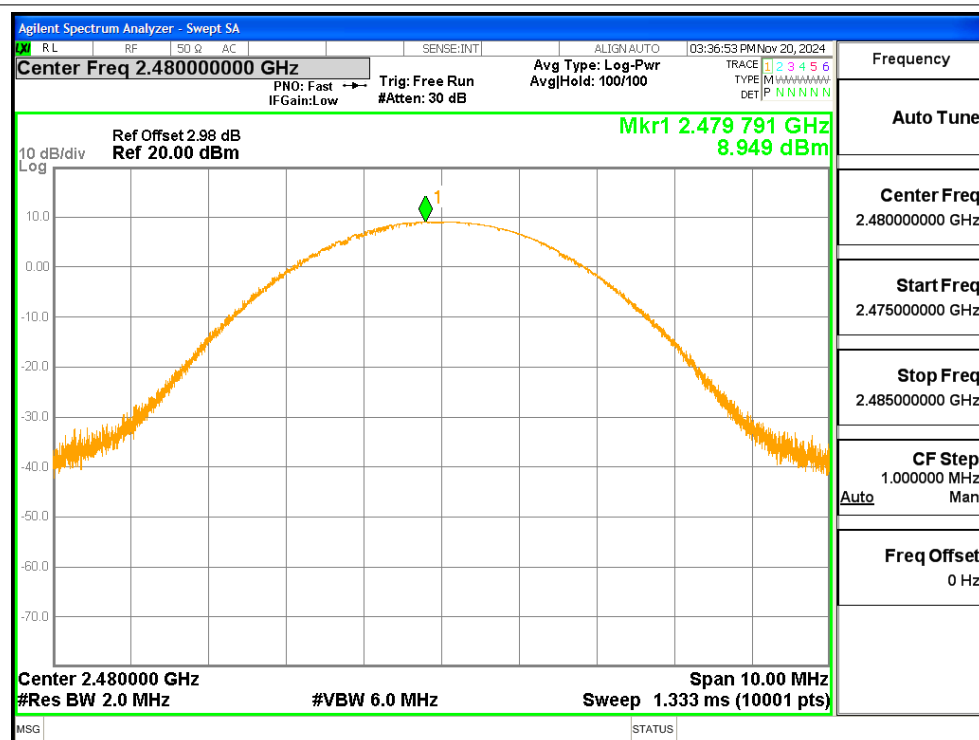
Power NVNT 2-DH5 2402MHz Ant1



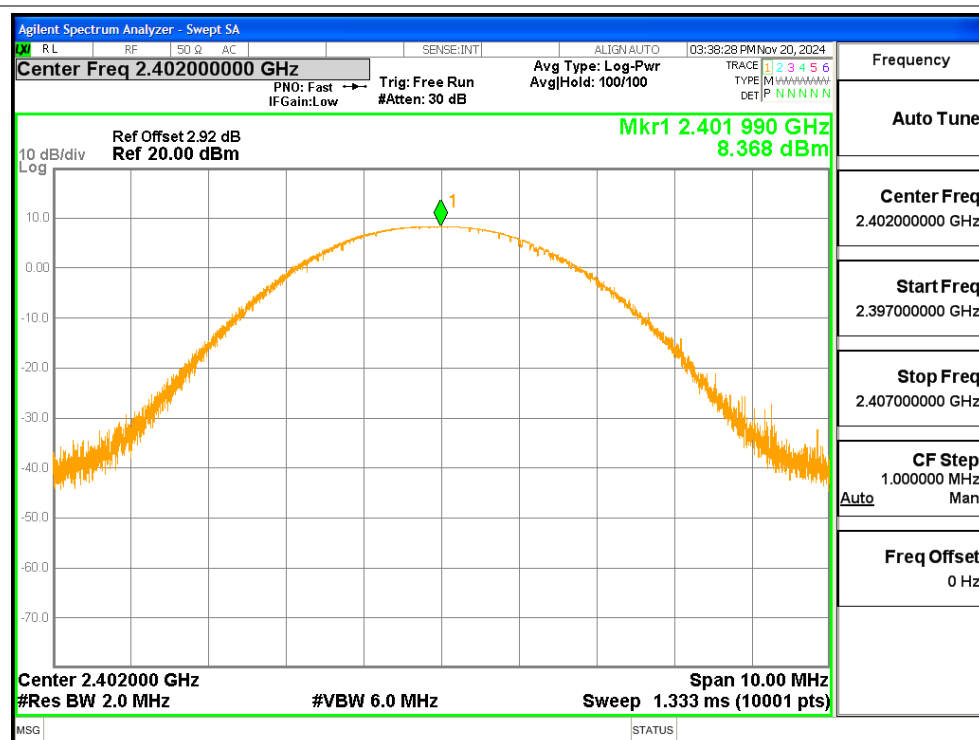
## Power NVNT 2-DH5 2441MHz Ant1



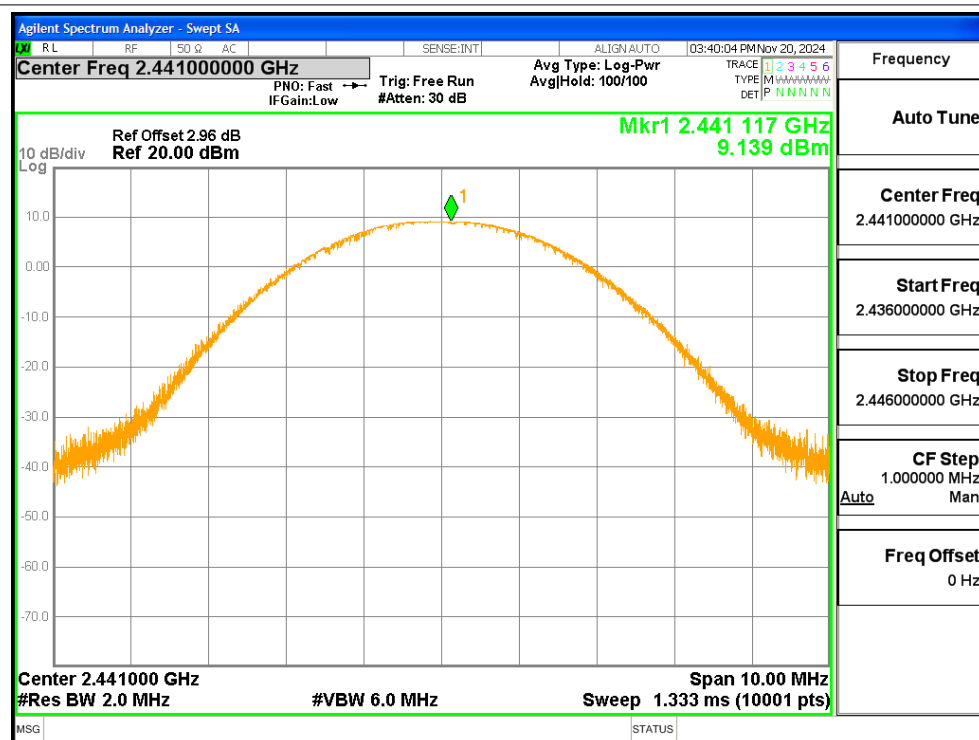
## Power NVNT 2-DH5 2480MHz Ant1



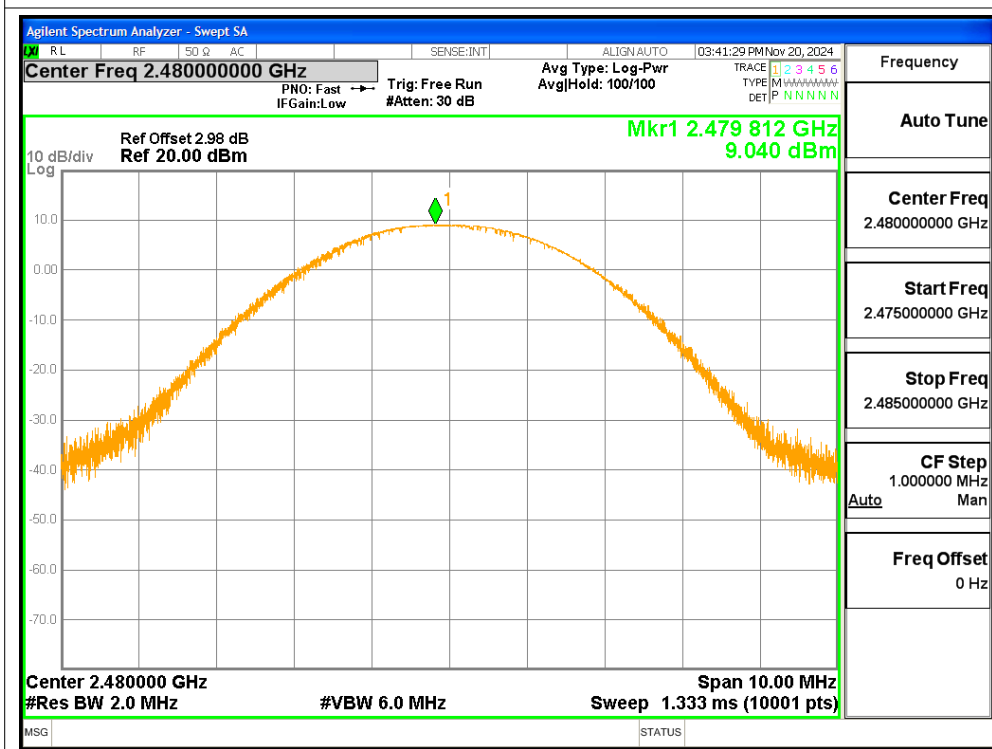
## Power NVNT 3-DH5 2402MHz Ant1



## Power NVNT 3-DH5 2441MHz Ant1



## Power NVNT 3-DH5 2480MHz Ant1



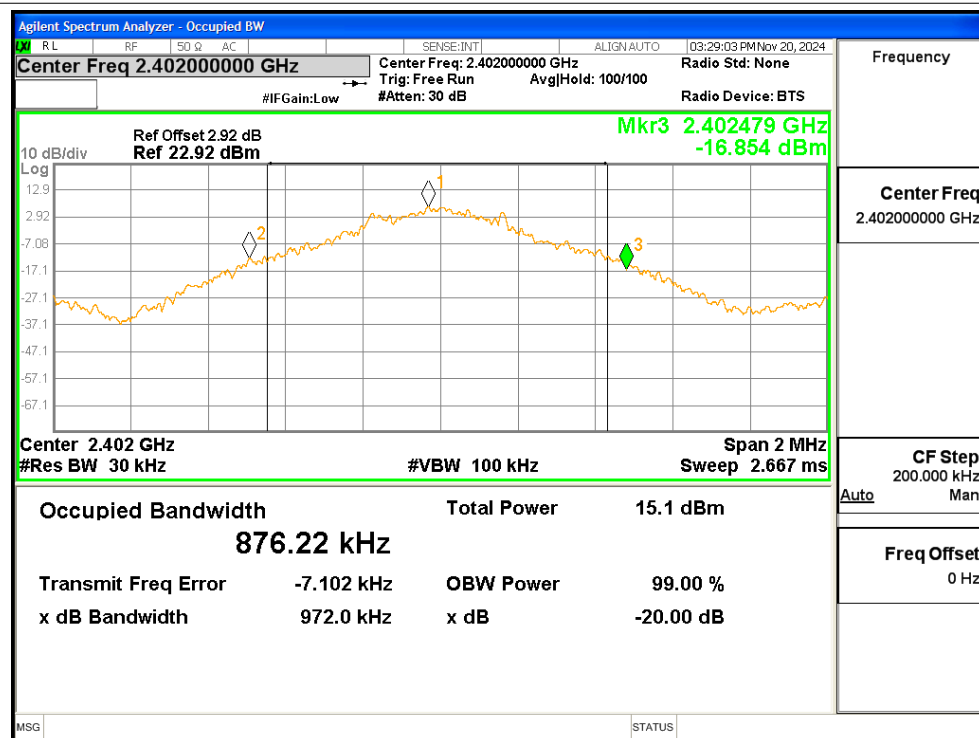
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## -20dB Bandwidth

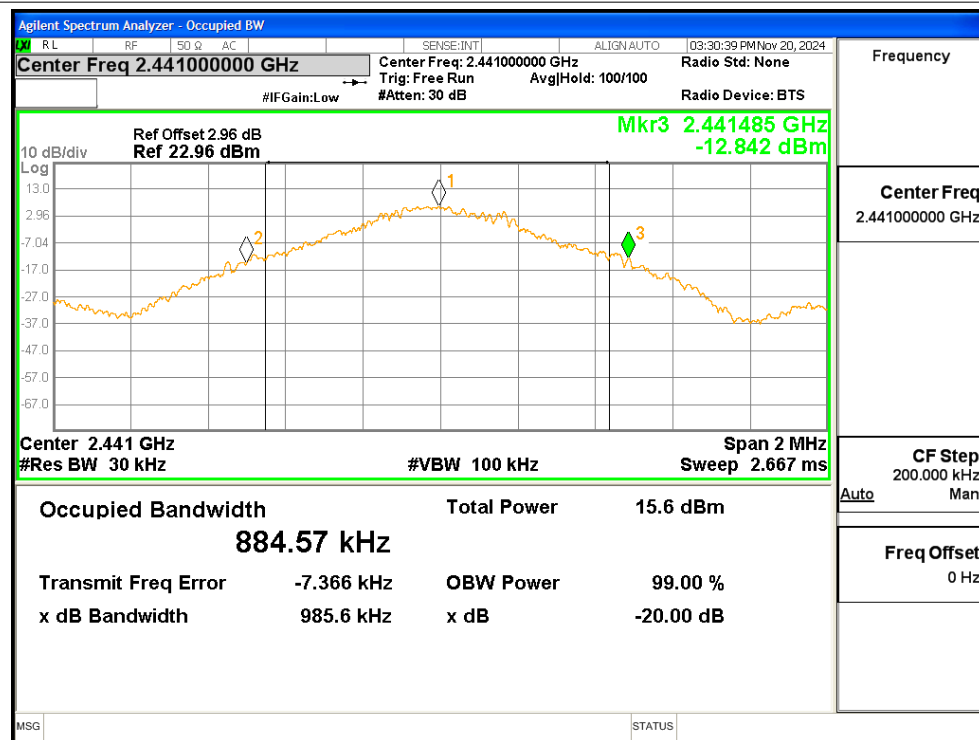
| Condition | Mode  | Frequency (MHz) | Antenna | -20 dB Bandwidth (MHz) | Verdict |
|-----------|-------|-----------------|---------|------------------------|---------|
| NVNT      | 1-DH5 | 2402            | Ant1    | 0.972                  | Pass    |
|           |       | 2441            |         | 0.986                  | Pass    |
|           |       | 2480            |         | 0.965                  | Pass    |
|           | 2-DH5 | 2402            |         | 1.268                  | Pass    |
|           |       | 2441            |         | 1.268                  | Pass    |
|           |       | 2480            |         | 1.285                  | Pass    |
|           | 3-DH5 | 2402            |         | 1.239                  | Pass    |
|           |       | 2441            |         | 1.243                  | Pass    |
|           |       | 2480            |         | 1.243                  | Pass    |

## Test Graphs

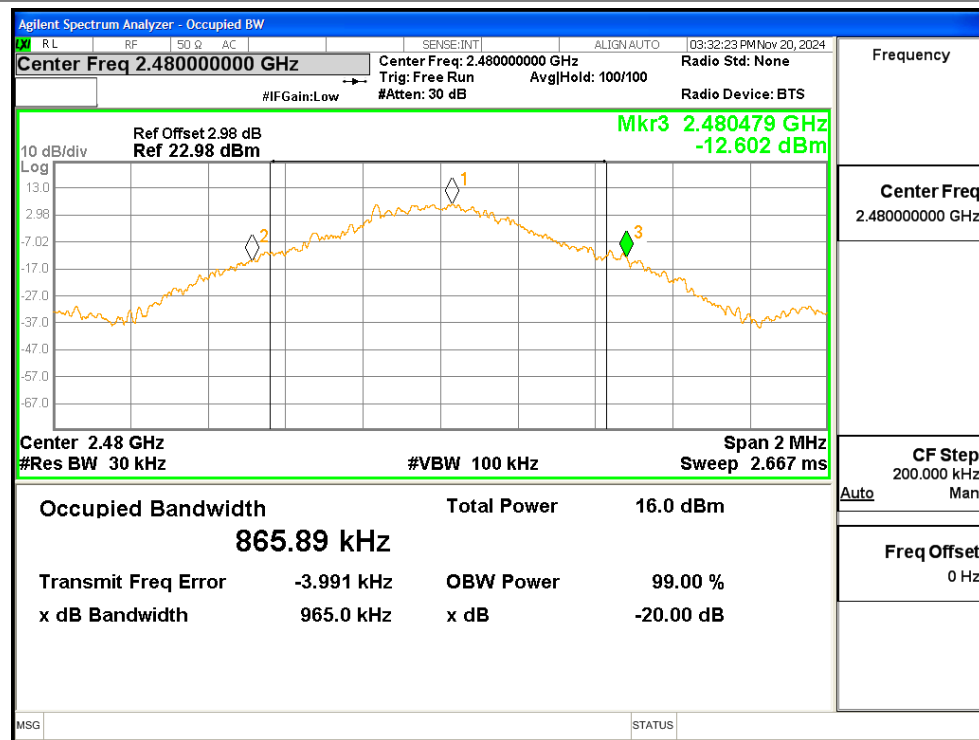
-20dB Bandwidth NVNT 1-DH5 2402MHz Ant1



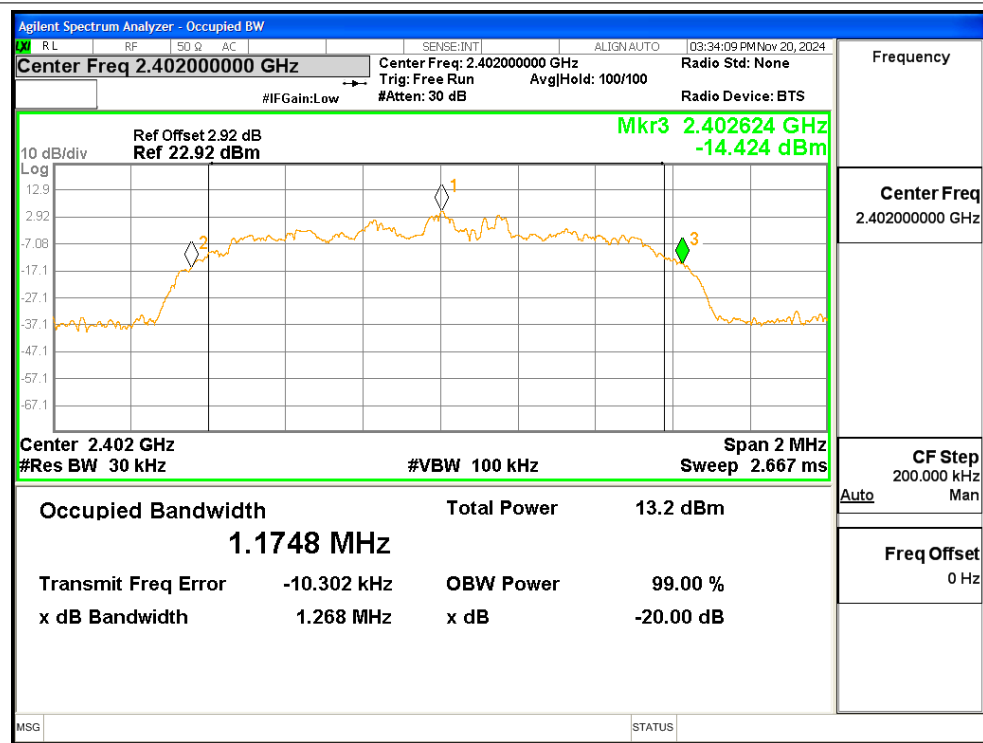
-20dB Bandwidth NVNT 1-DH5 2441MHz Ant1



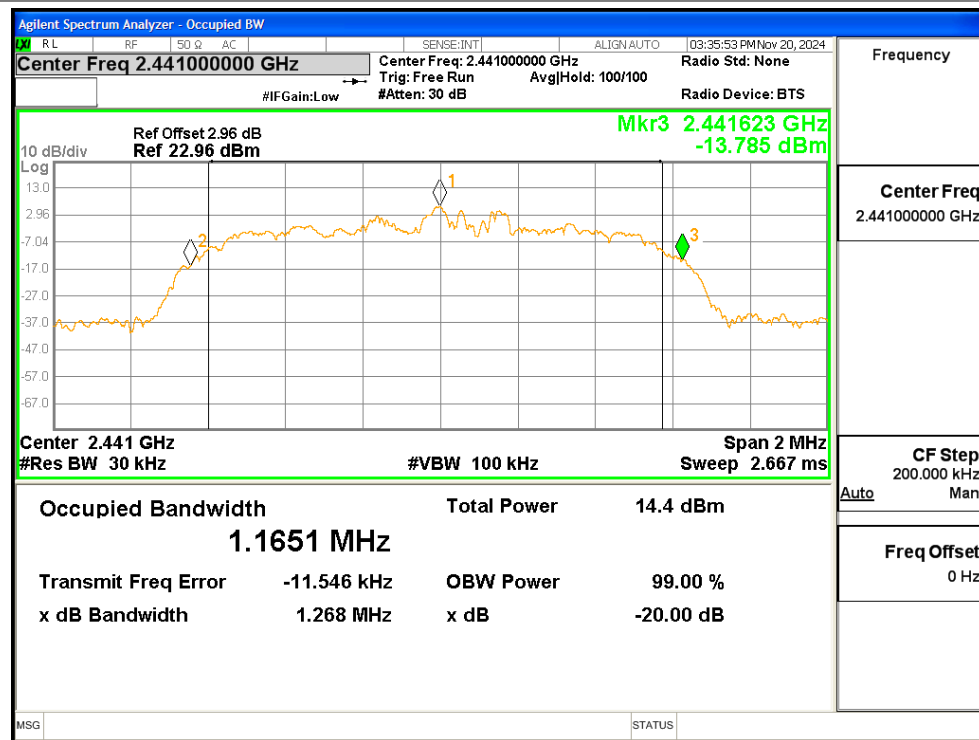
## -20dB Bandwidth NVNT 1-DH5 2480MHz Ant1



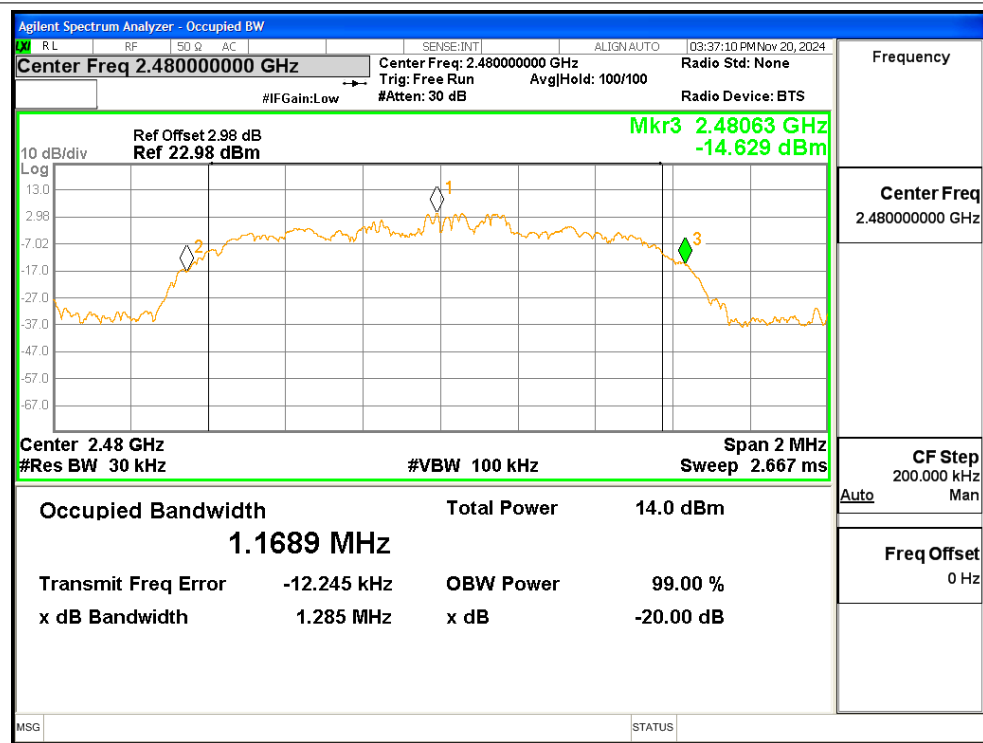
## -20dB Bandwidth NVNT 2-DH5 2402MHz Ant1



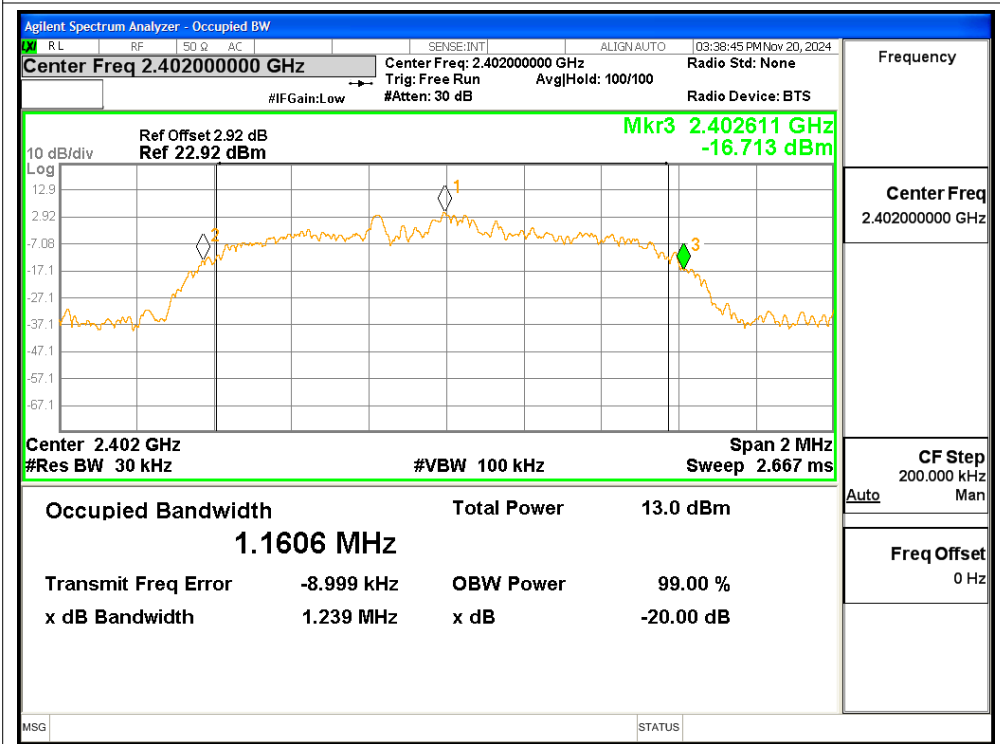
## -20dB Bandwidth NVNT 2-DH5 2441MHz Ant1



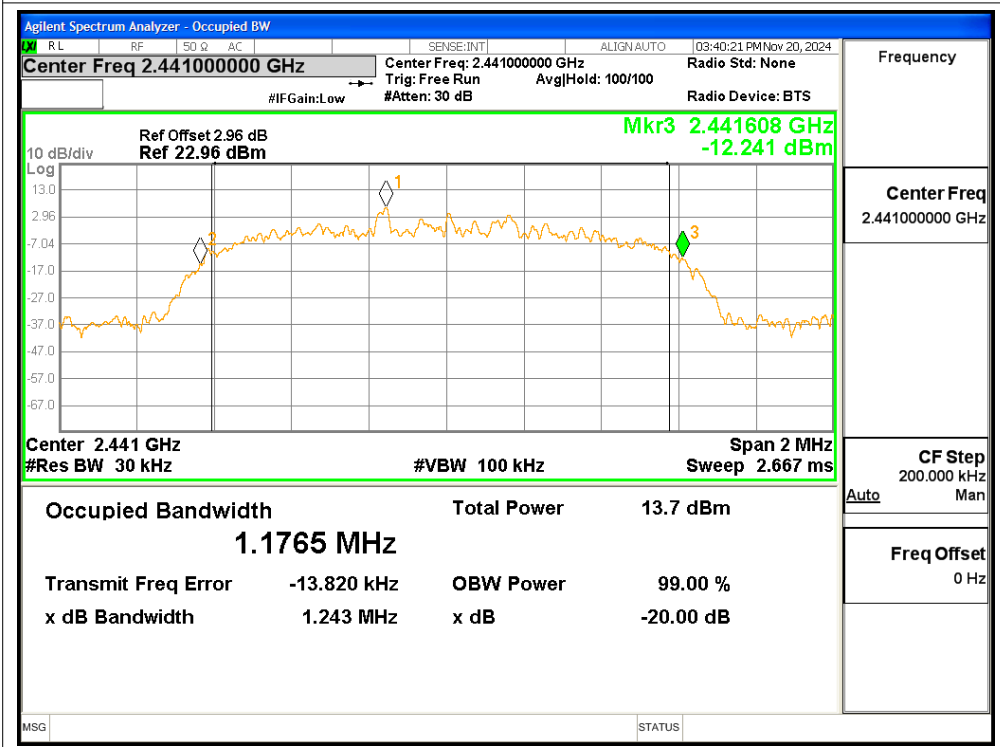
## -20dB Bandwidth NVNT 2-DH5 2480MHz Ant1



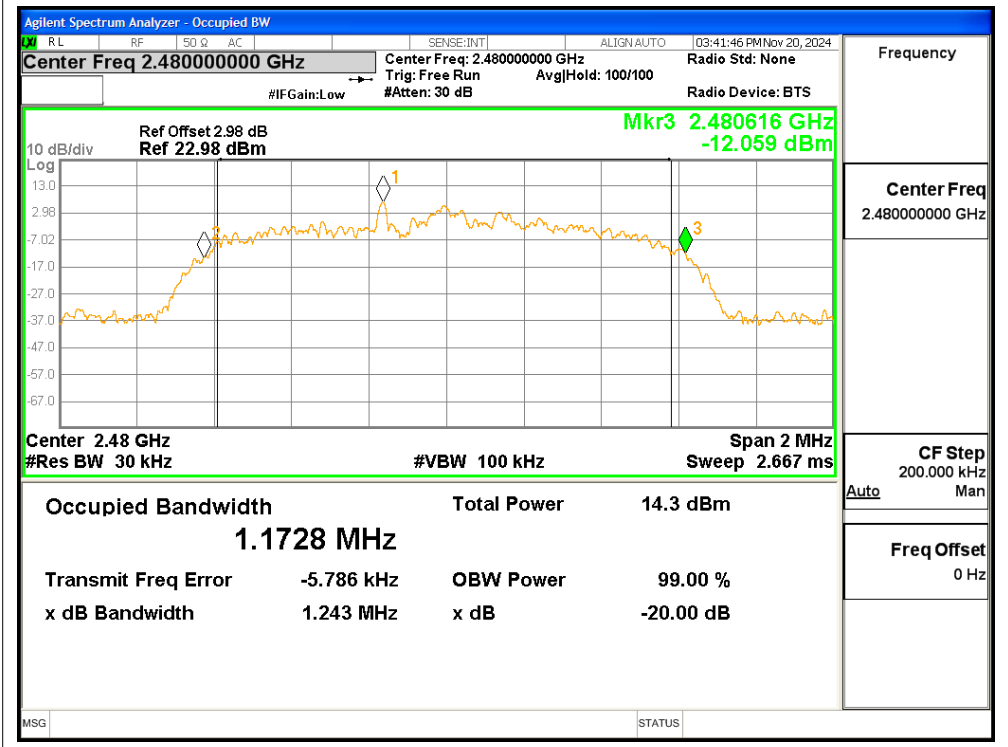
-20dB Bandwidth NVNT 3-DH5 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH5 2441MHz Ant1



-20dB Bandwidth NVNT 3-DH5 2480MHz Ant1



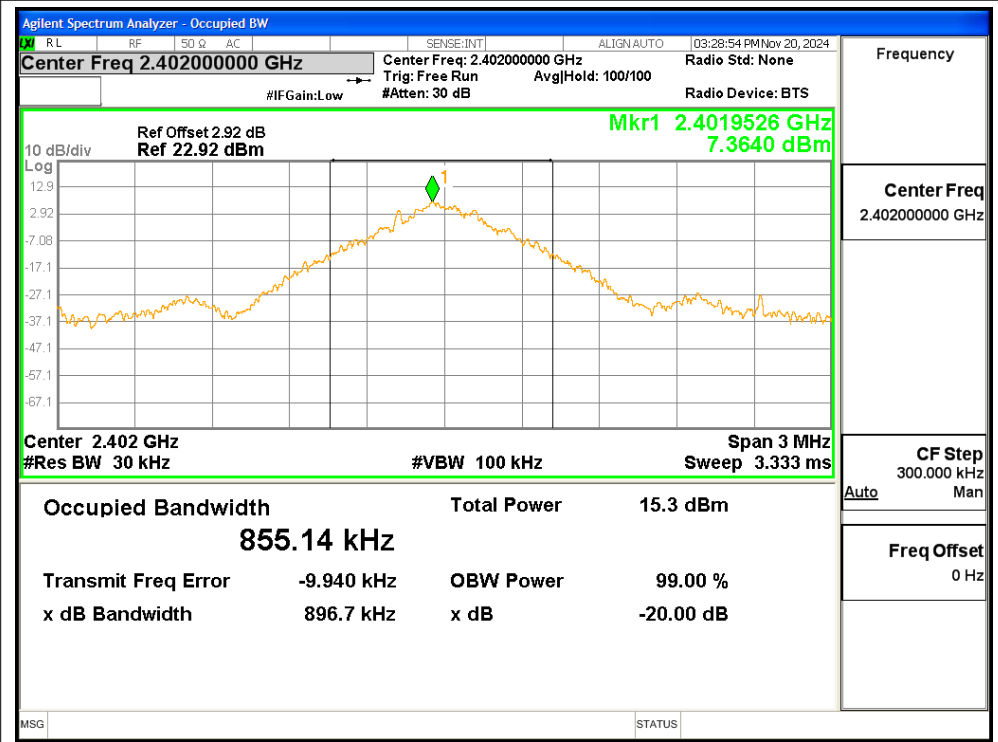
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## Occupied Channel Bandwidth

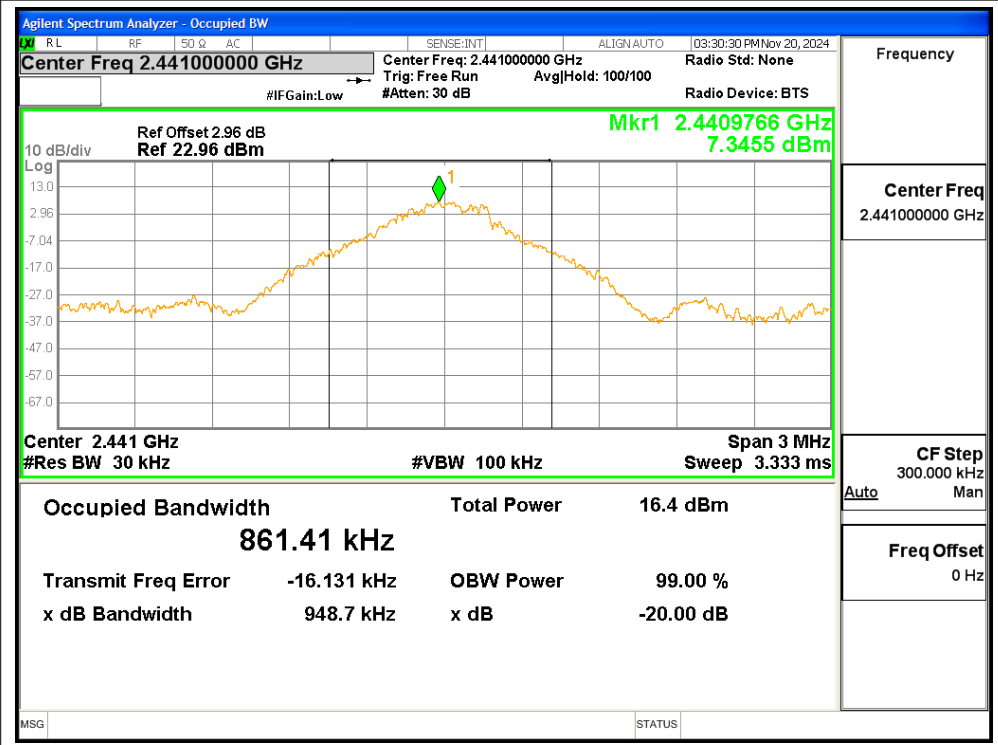
| Condition | Mode  | Frequency (MHz) | Antenna | 99% OBW (MHz) |
|-----------|-------|-----------------|---------|---------------|
| NVNT      | 1-DH5 | 2402            | Ant1    | 0.855         |
|           |       | 2441            |         | 0.861         |
|           |       | 2480            |         | 0.852         |
|           | 2-DH5 | 2402            |         | 1.169         |
|           |       | 2441            |         | 1.166         |
|           |       | 2480            |         | 1.17          |
|           | 3-DH5 | 2402            |         | 1.181         |
|           |       | 2441            |         | 1.162         |
|           |       | 2480            |         | 1.186         |

Test Graphs

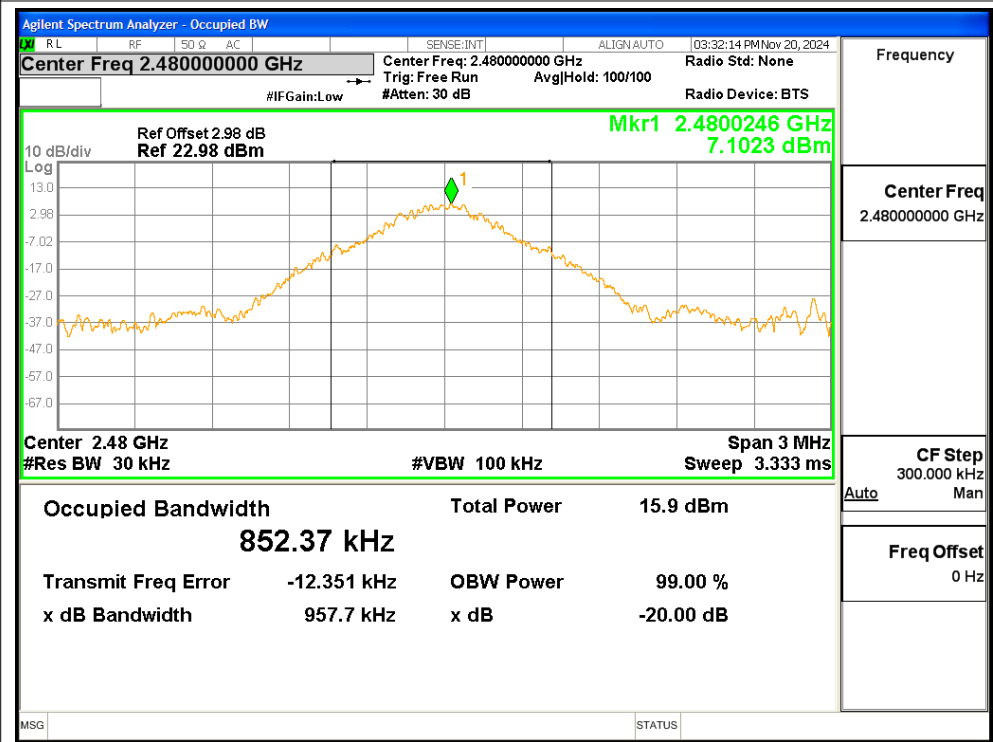
OBW NVNT 1-DH5 2402MHz Ant1



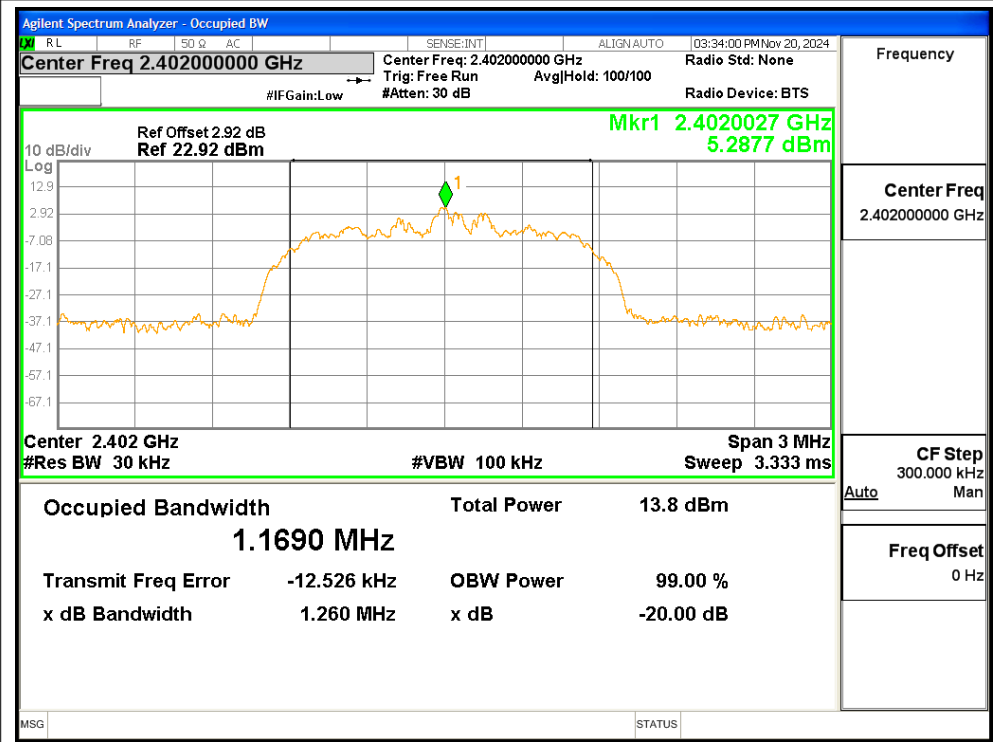
OBW NVNT 1-DH5 2441MHz Ant1



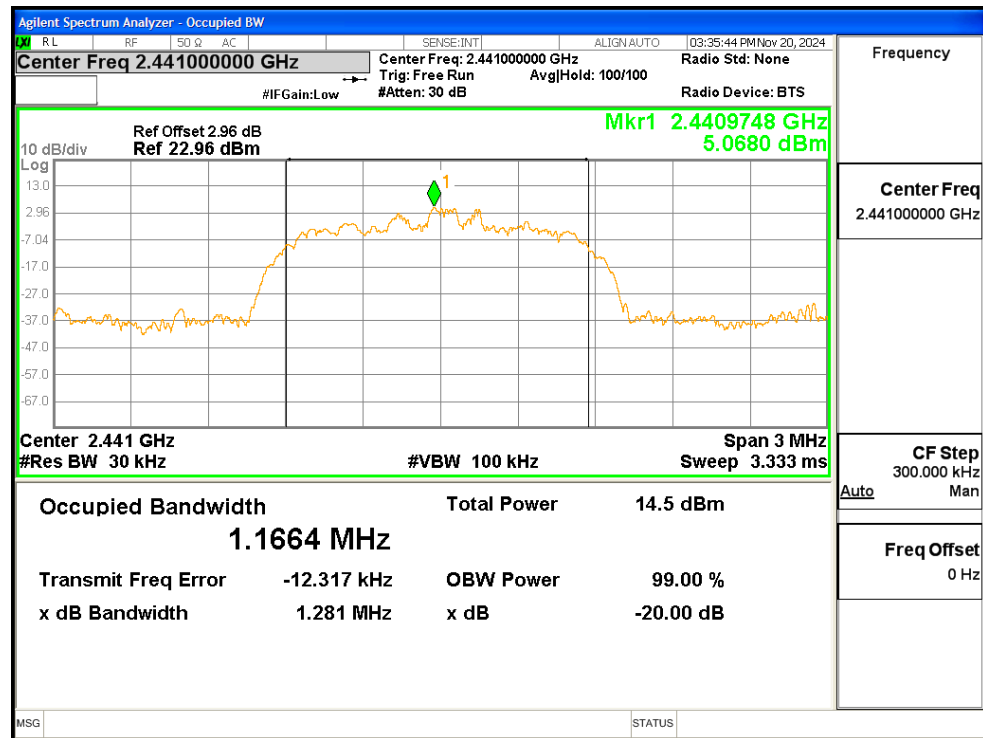
OBW NVNT 1-DH5 2480MHz Ant1



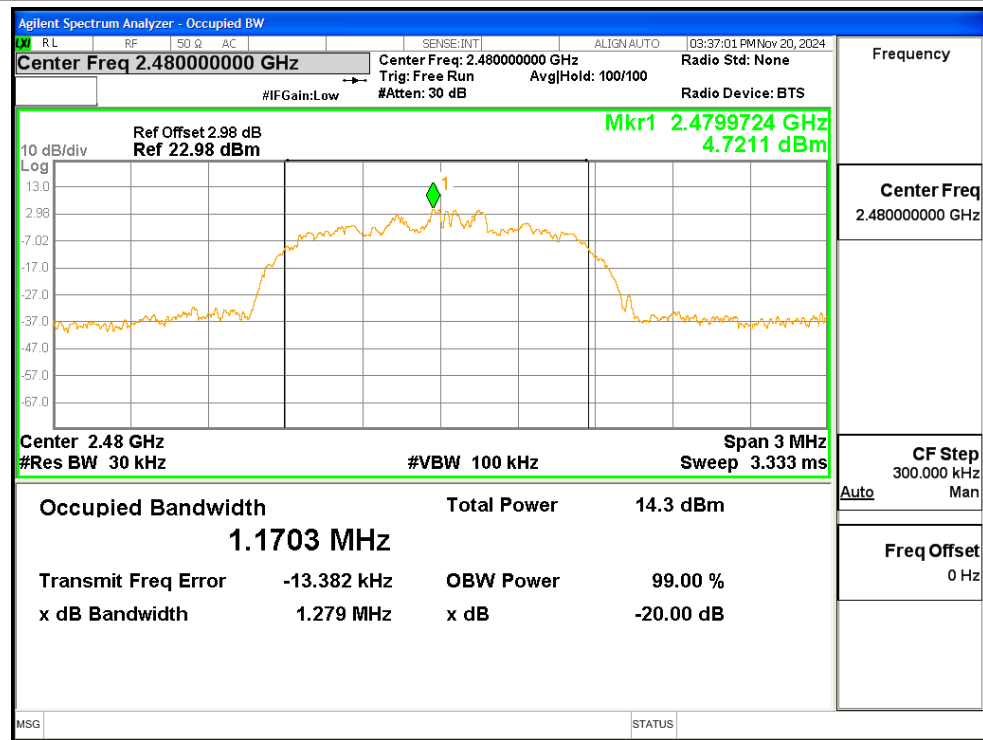
OBW NVNT 2-DH5 2402MHz Ant1



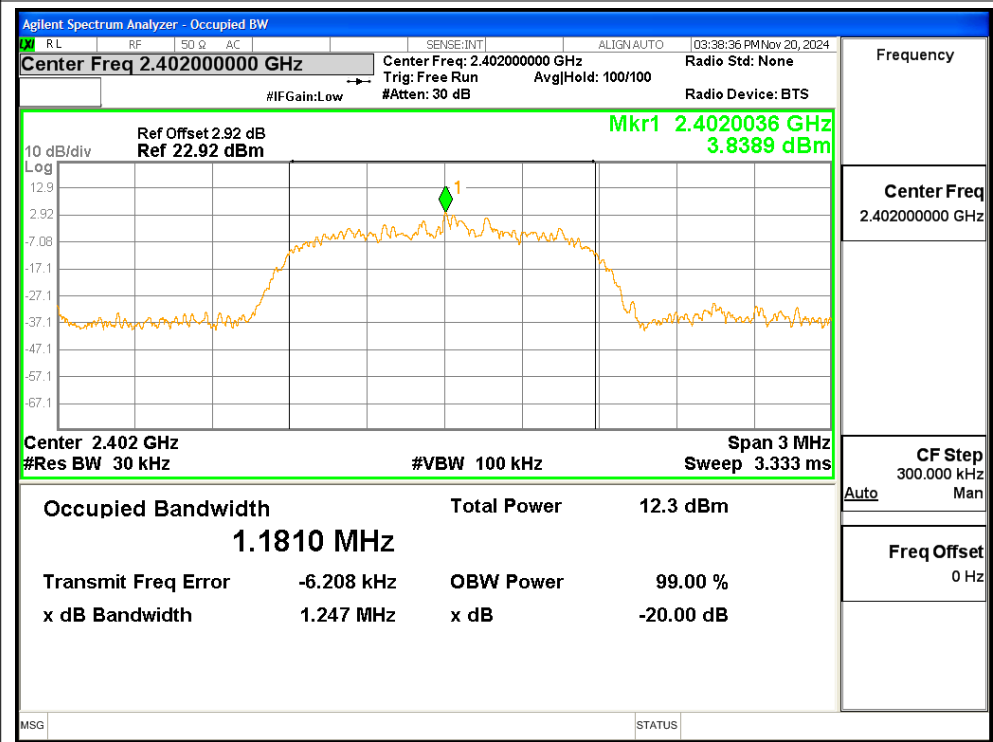
## OBW NVNT 2-DH5 2441MHz Ant1



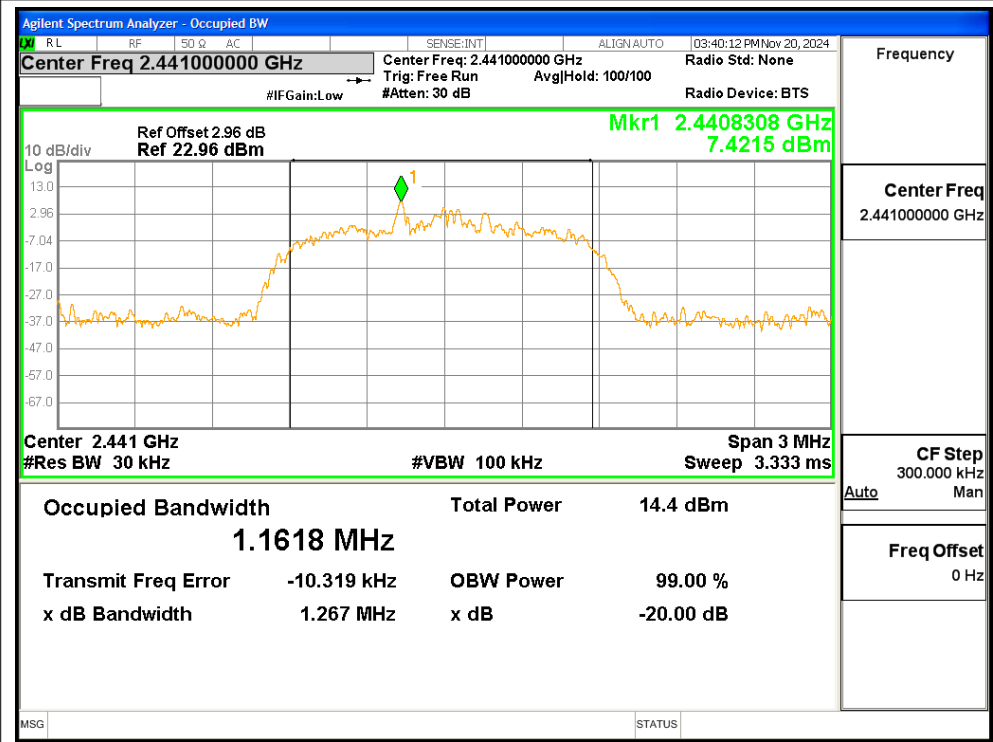
## OBW NVNT 2-DH5 2480MHz Ant1



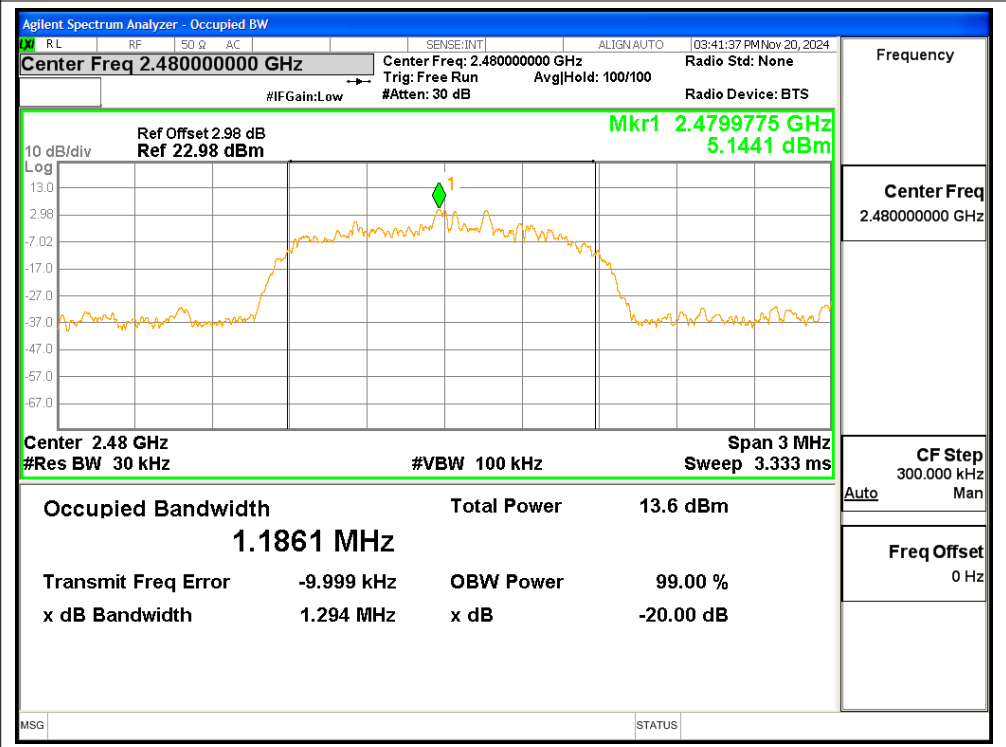
OBW NVNT 3-DH5 2402MHz Ant1



OBW NVNT 3-DH5 2441MHz Ant1



OBW NVNT 3-DH5 2480MHz Ant1



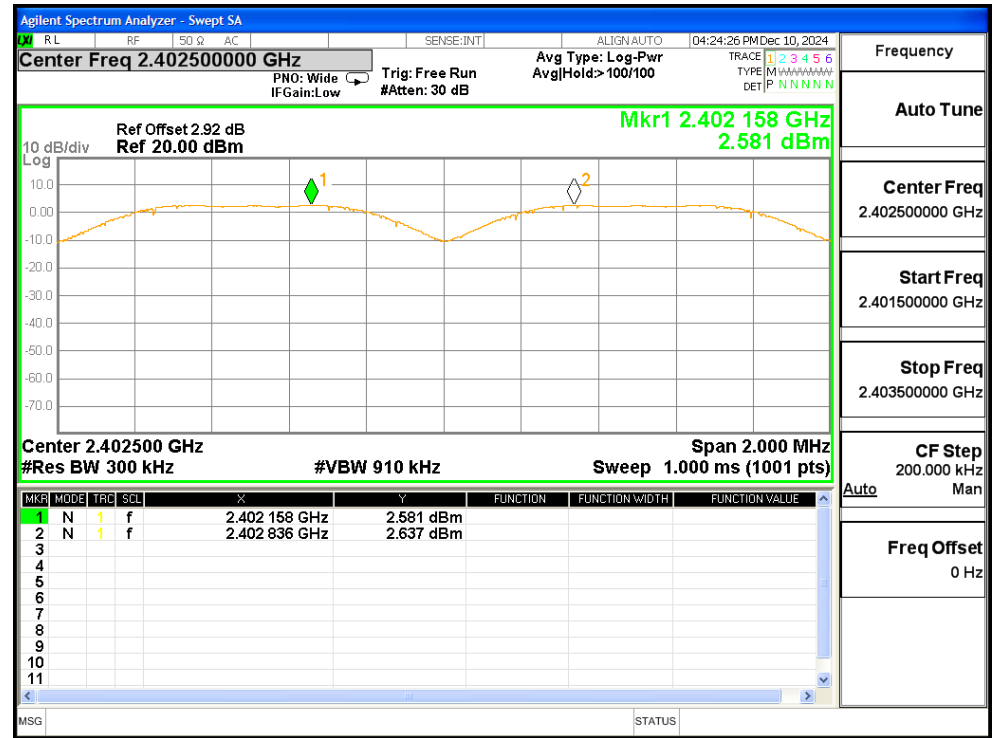
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## Carrier Frequencies Separation

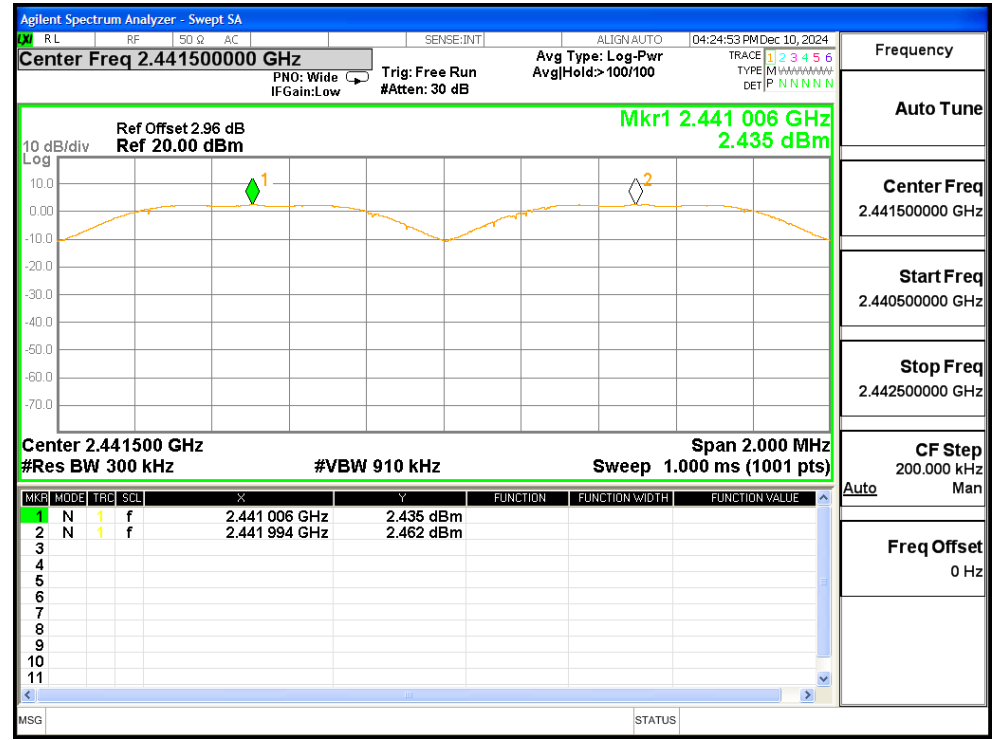
| Condition | Mode  | Antenna | Hopping Freq1 (MHz) | Hopping Freq2 (MHz) | HFS (MHz) | Limit (MHz) | Verdict |
|-----------|-------|---------|---------------------|---------------------|-----------|-------------|---------|
| NVNT      | 1-DH5 | Ant1    | 2402.158            | 2402.836            | 0.678     | 0.570       | Pass    |
|           |       |         | 2441.006            | 2441.994            | 0.988     | 0.574       | Pass    |
|           |       |         | 2479.022            | 2480.168            | 1.146     | 0.568       | Pass    |
|           | 2-DH5 |         | 2402.152            | 2403.152            | 1.00      | 0.779       | Pass    |
|           |       |         | 2441.154            | 2442.164            | 1.01      | 0.777       | Pass    |
|           |       |         | 2478.816            | 2480.19             | 1.374     | 0.780       | Pass    |
|           | 3-DH5 |         | 2402.148            | 2403.008            | 0.86      | 0.787       | Pass    |
|           |       |         | 2441.164            | 2441.814            | 0.65      | 0.774       | Pass    |
|           |       |         | 2479.156            | 2480.16             | 1.004     | 0.791       | Pass    |

Test Graphs

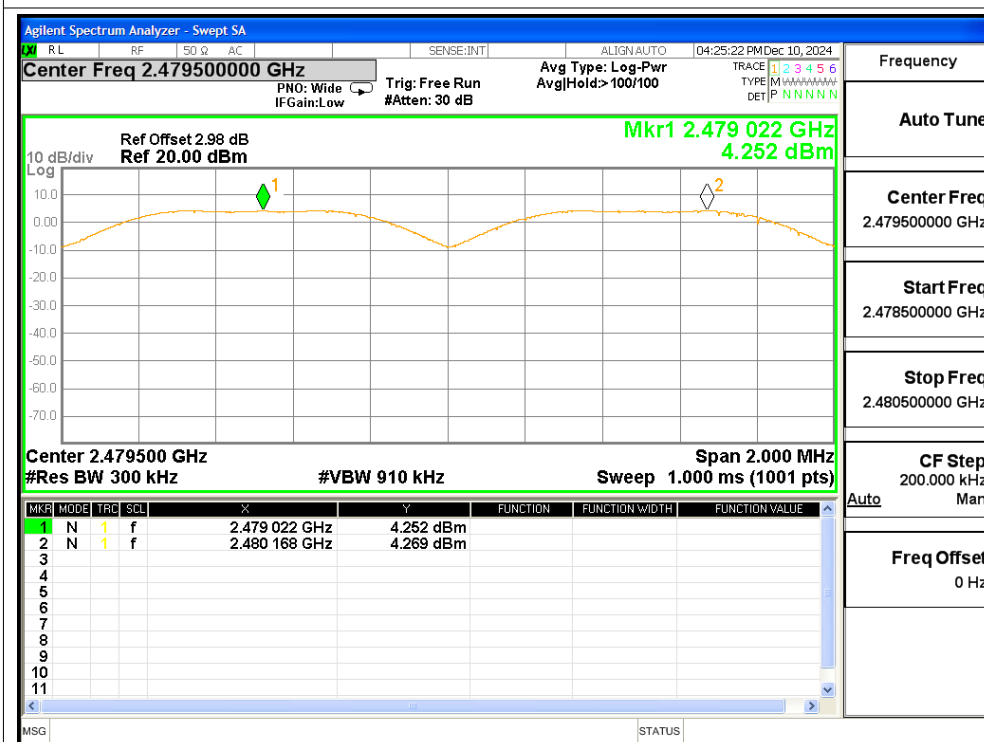
CFS NVNT 1-DH5 2402MHz Ant1



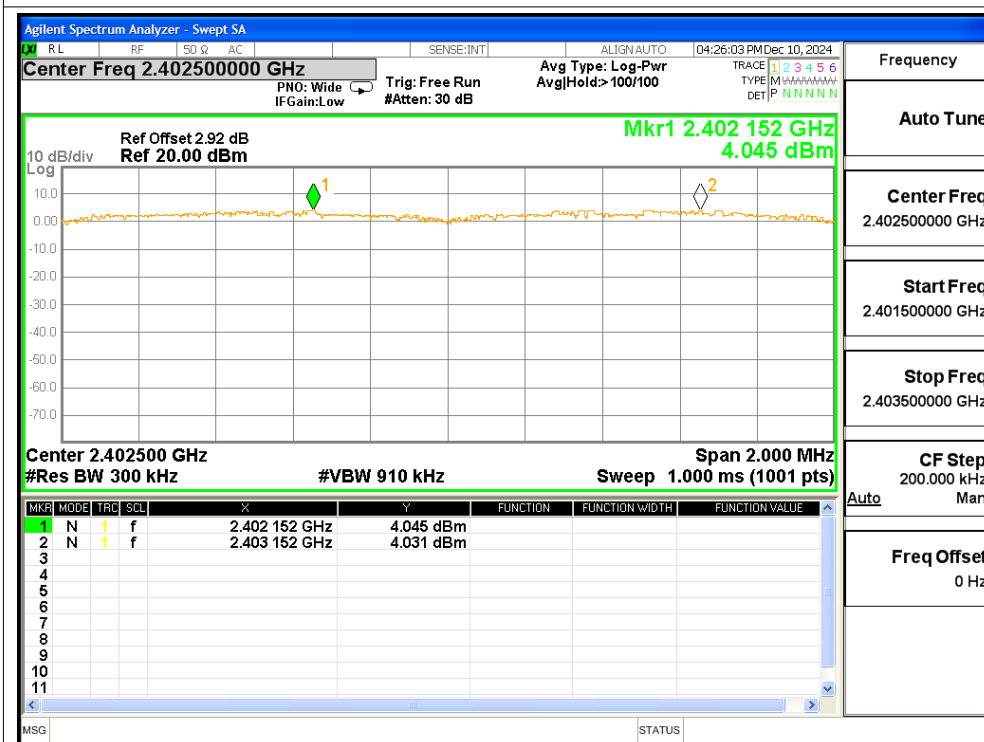
CFS NVNT 1-DH5 2441MHz Ant1



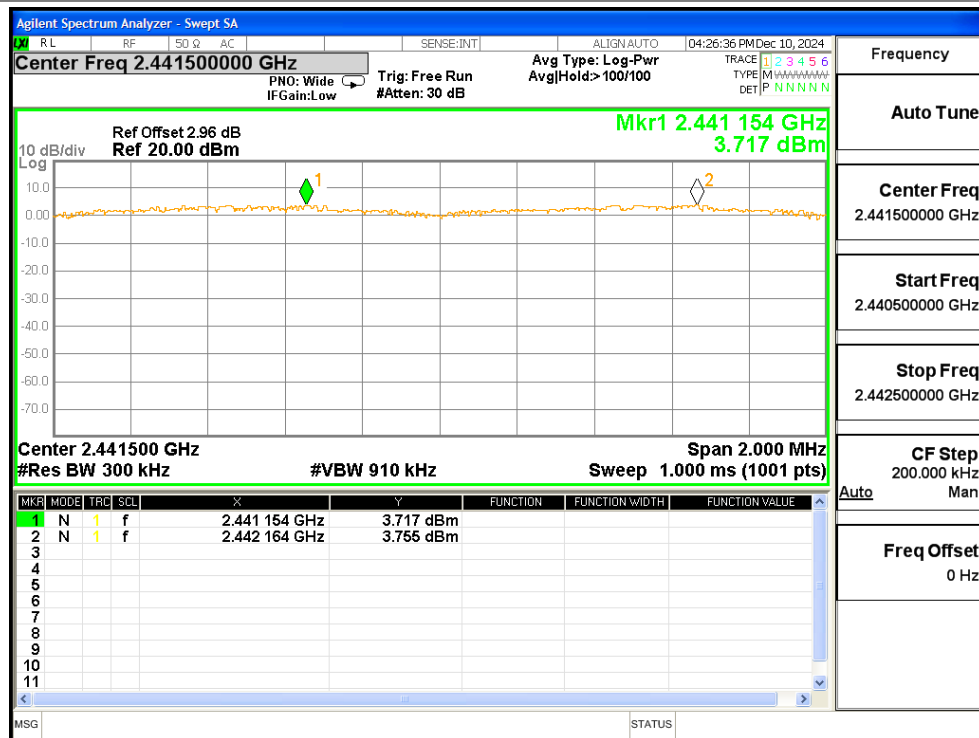
## CFS NVNT 1-DH5 2480MHz Ant1



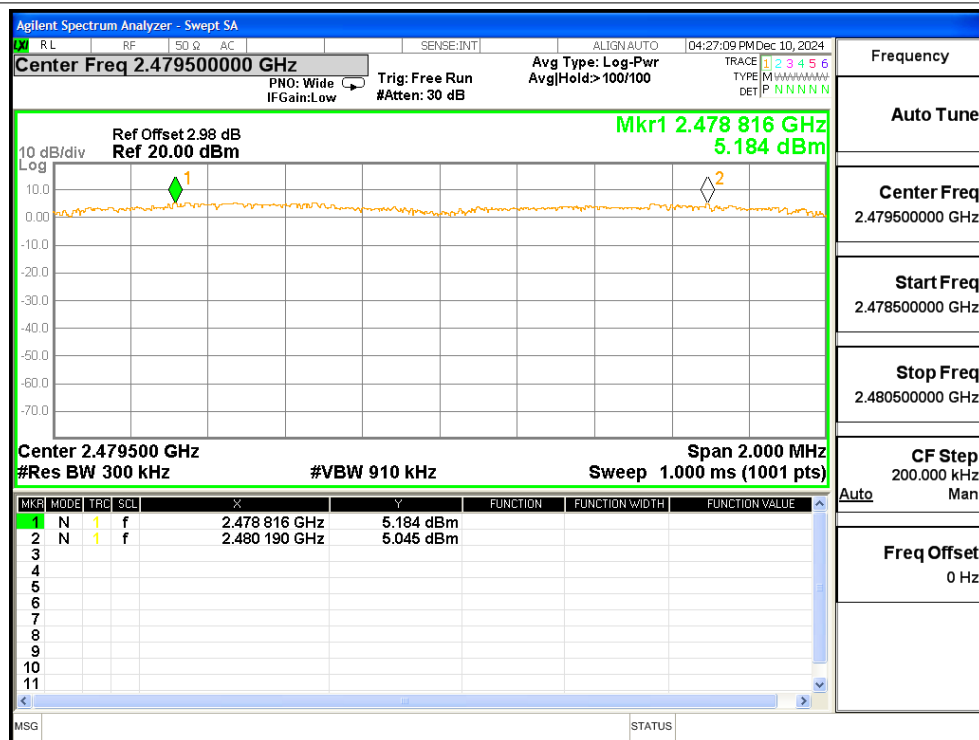
## CFS NVNT 2-DH5 2402MHz Ant1



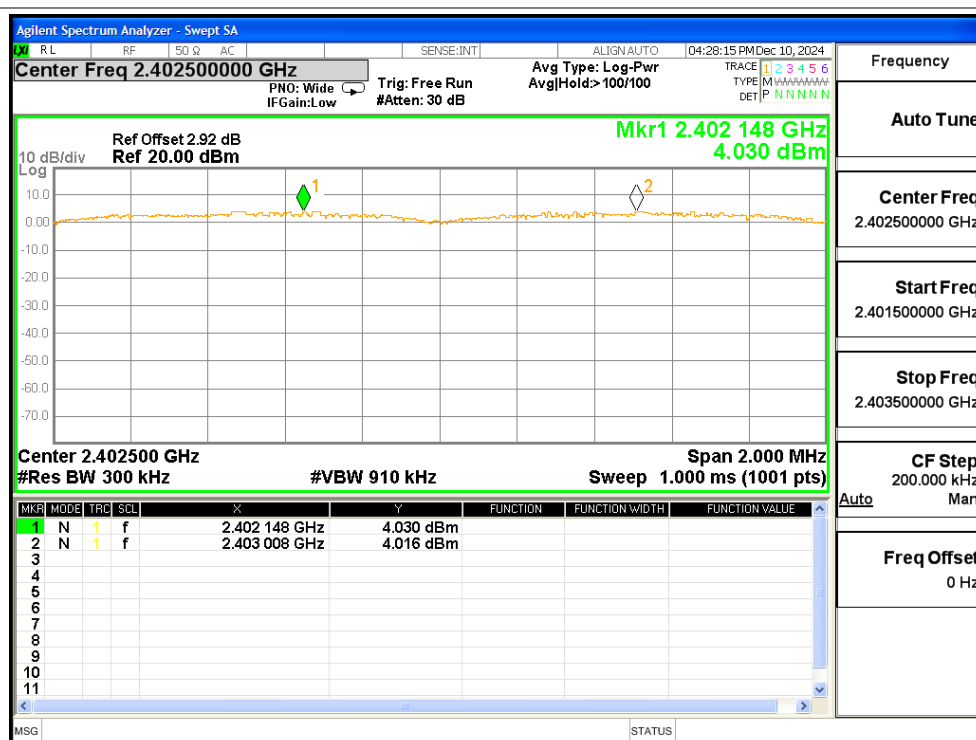
## CFS NVNT 2-DH5 2441MHz Ant1



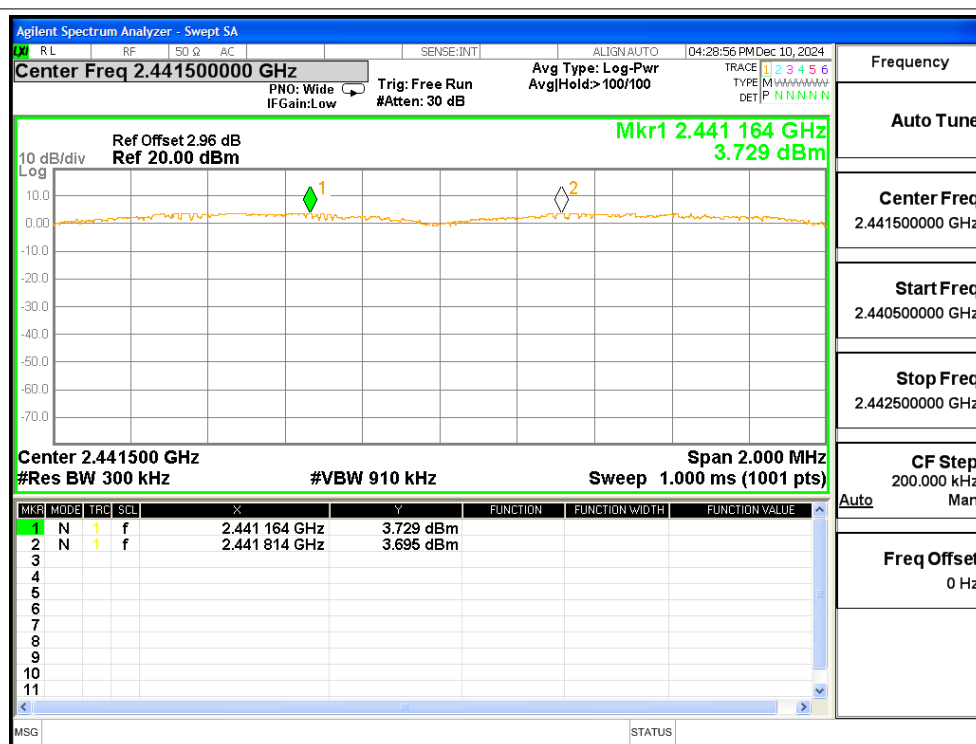
## CFS NVNT 2-DH5 2480MHz Ant1

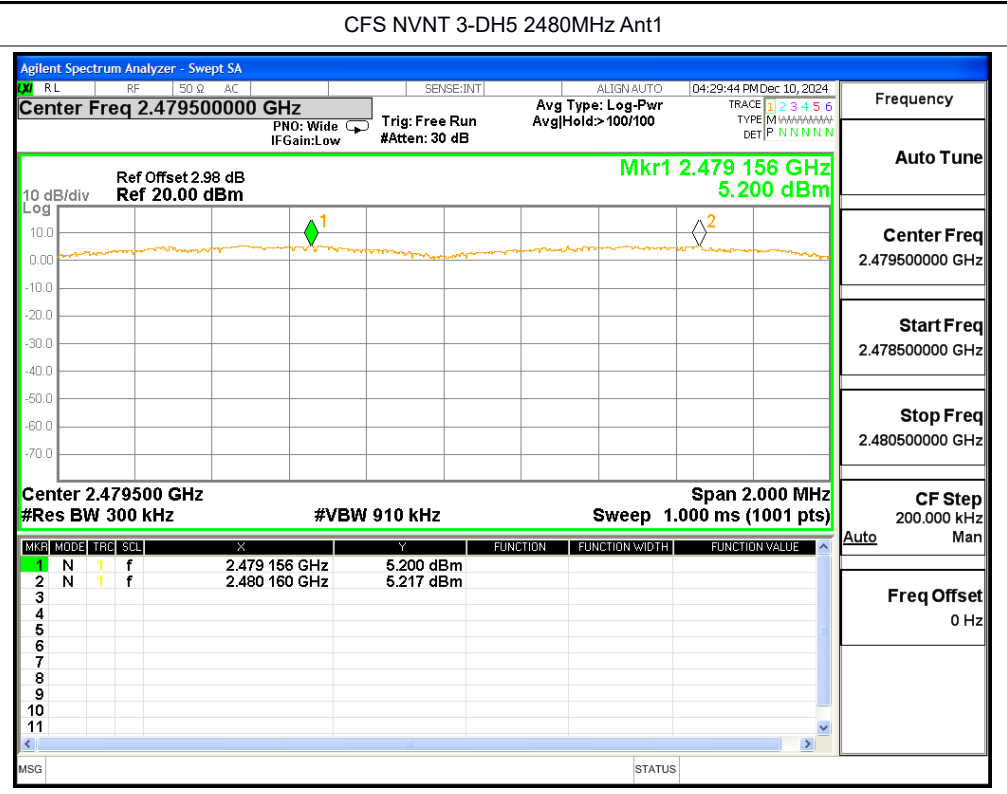


## CFS NVNT 3-DH5 2402MHz Ant1



## CFS NVNT 3-DH5 2441MHz Ant1





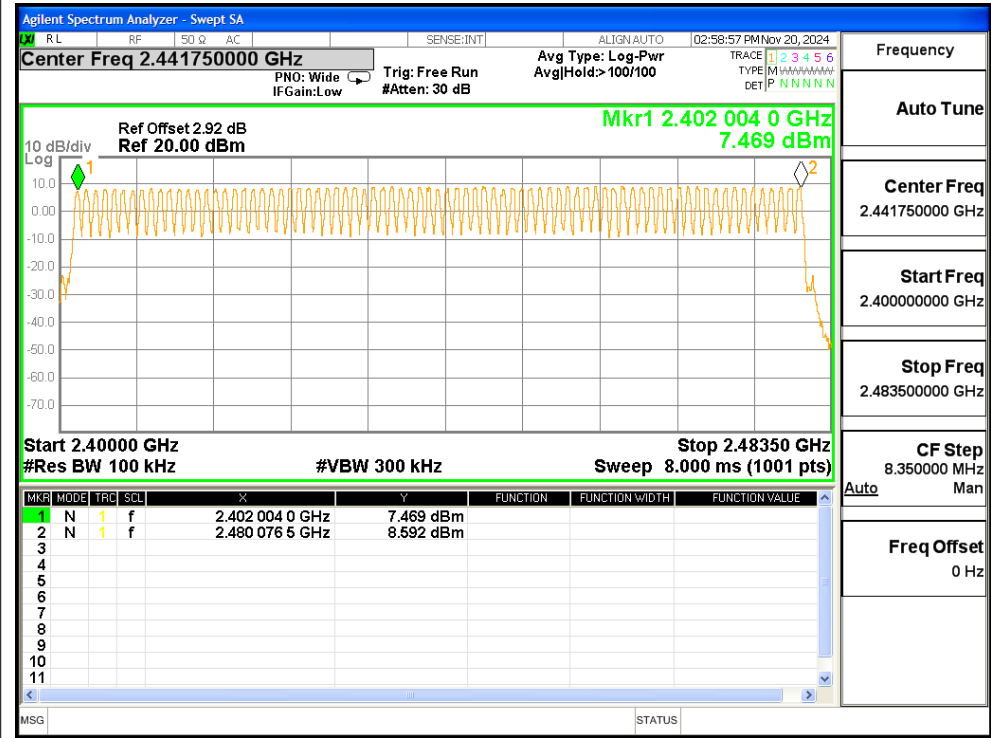
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## Number of Hopping Channel

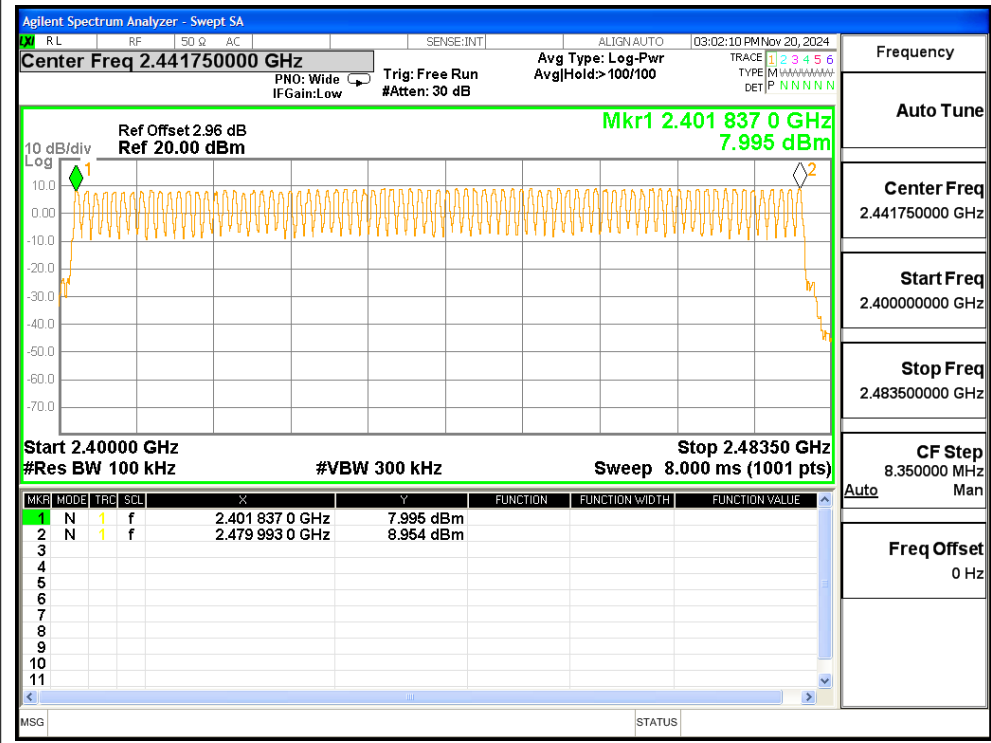
| Condition | Mode  | Antenna | Hopping Number | Limit | Verdict |
|-----------|-------|---------|----------------|-------|---------|
| NVNT      | 1-DH5 | Ant1    | 79             | 15    | Pass    |
|           | 2-DH5 |         |                | 15    | Pass    |
|           | 3-DH5 |         | 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

Test Graphs

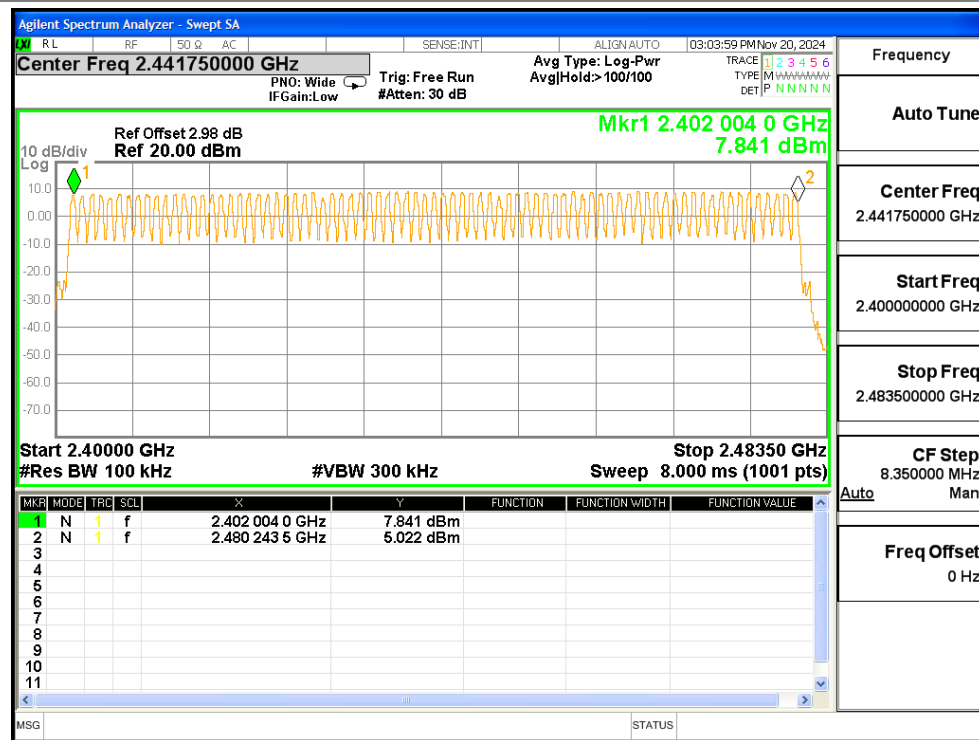
Hopping No. NVNT 1-DH5 2402MHz Ant1



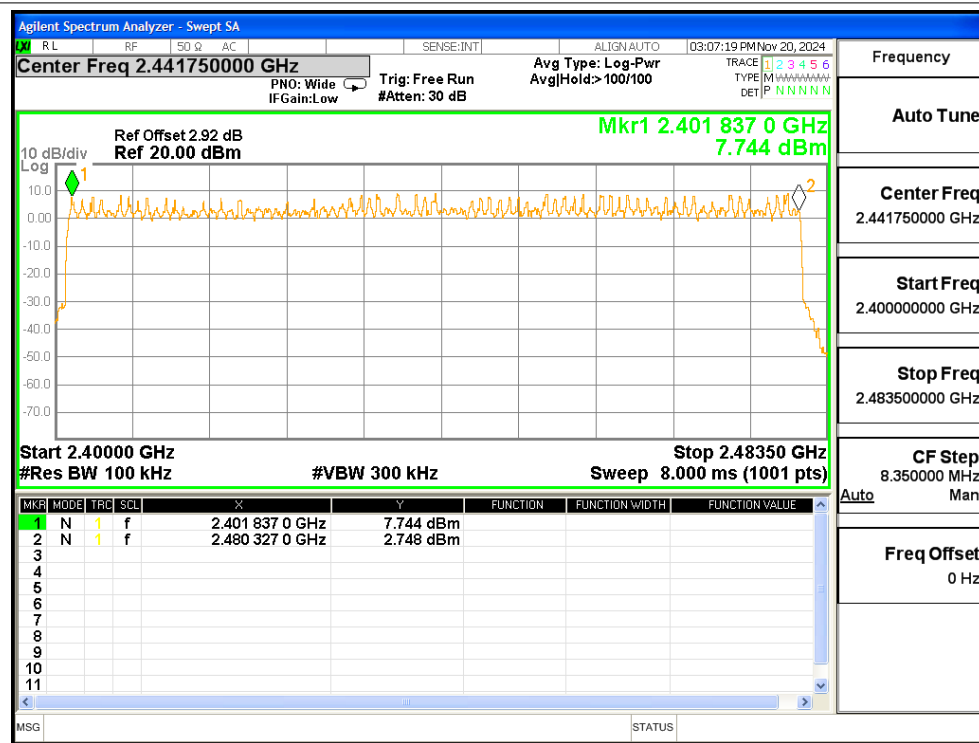
Hopping No. NVNT 1-DH5 2441MHz Ant1



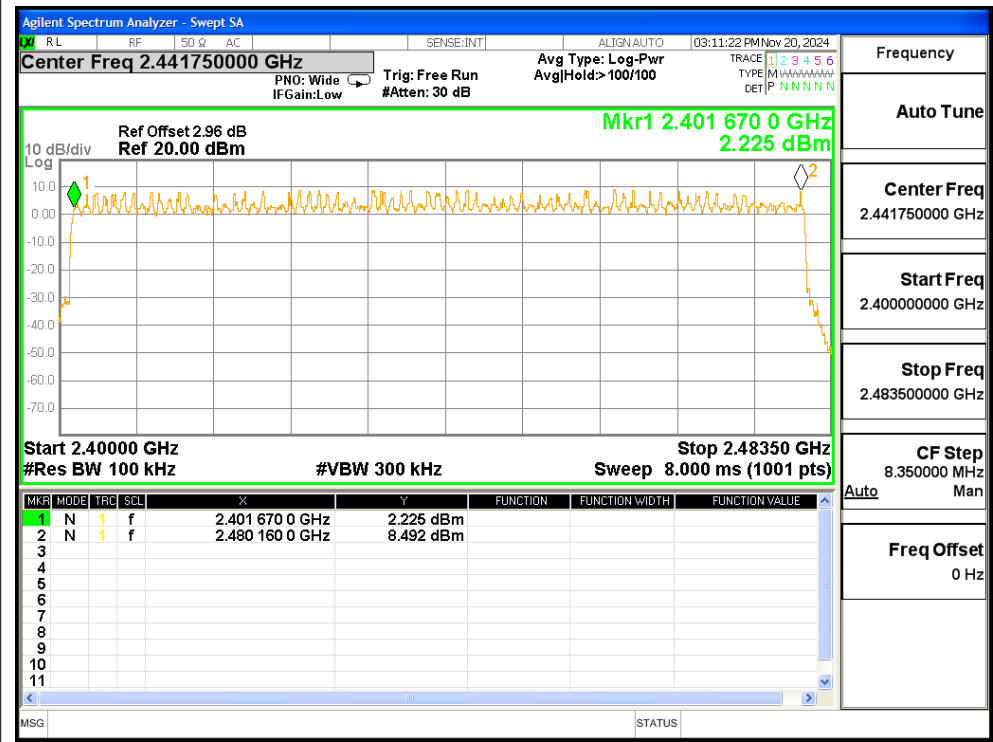
## Hopping No. NVNT 1-DH5 2480MHz Ant1



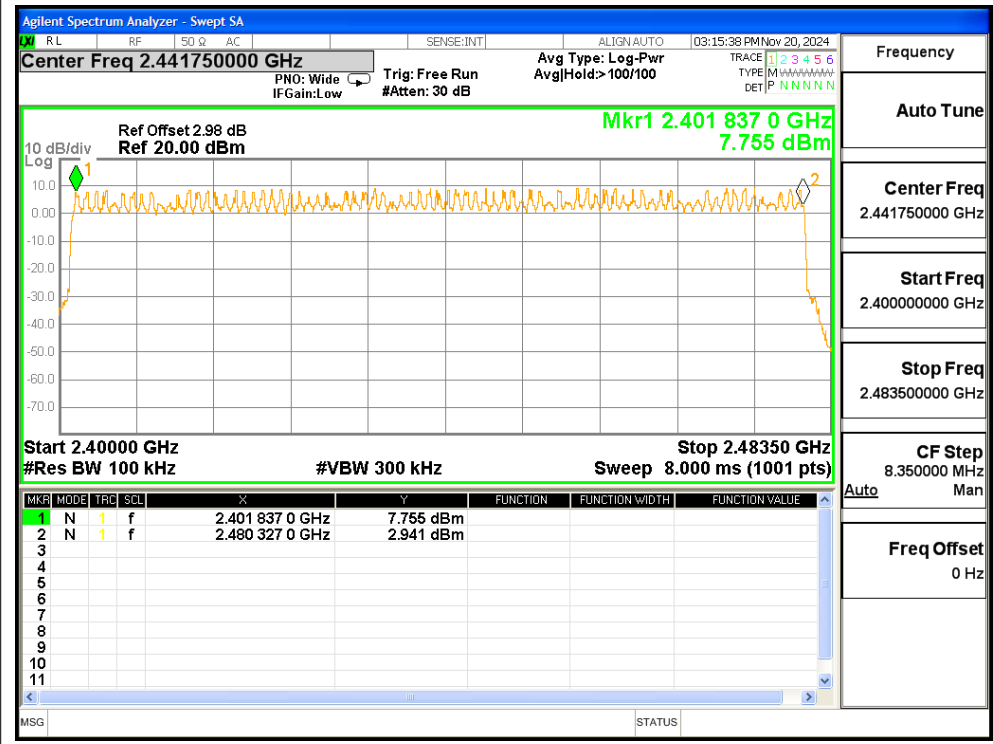
## Hopping No. NVNT 2-DH5 2402MHz Ant1



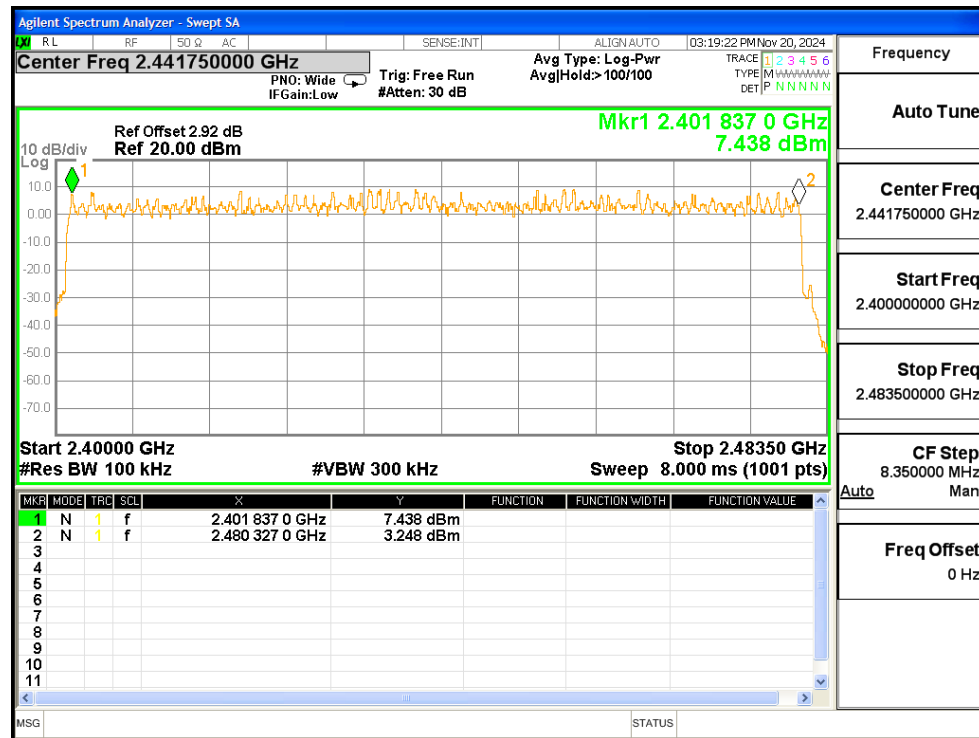
Hopping No. NVNT 2-DH5 2441MHz Ant1



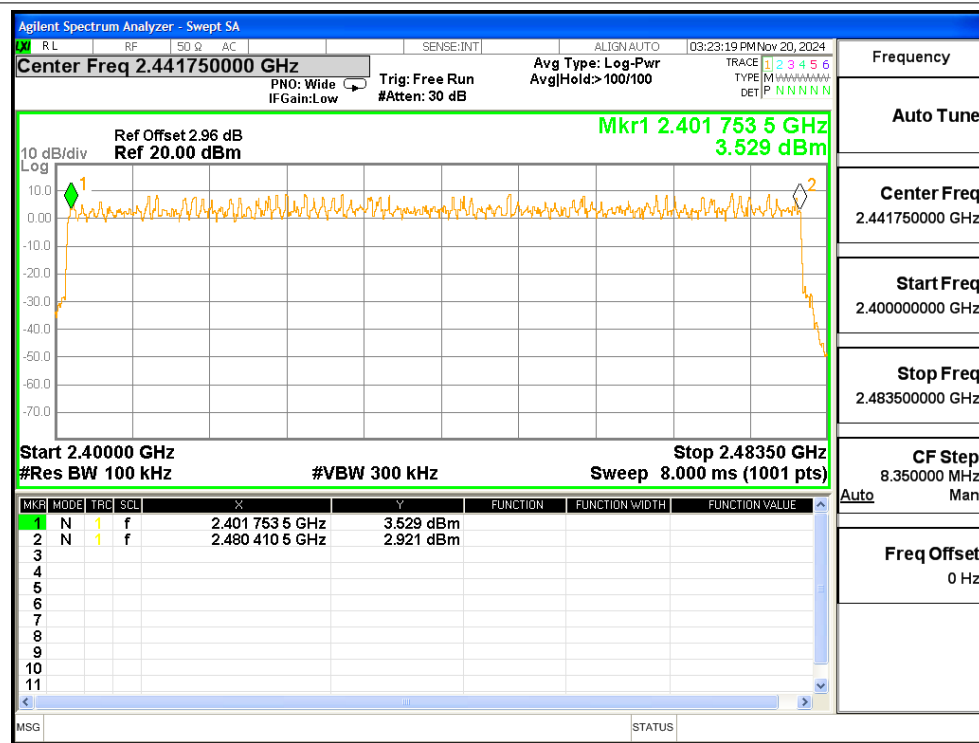
Hopping No. NVNT 2-DH5 2480MHz Ant1



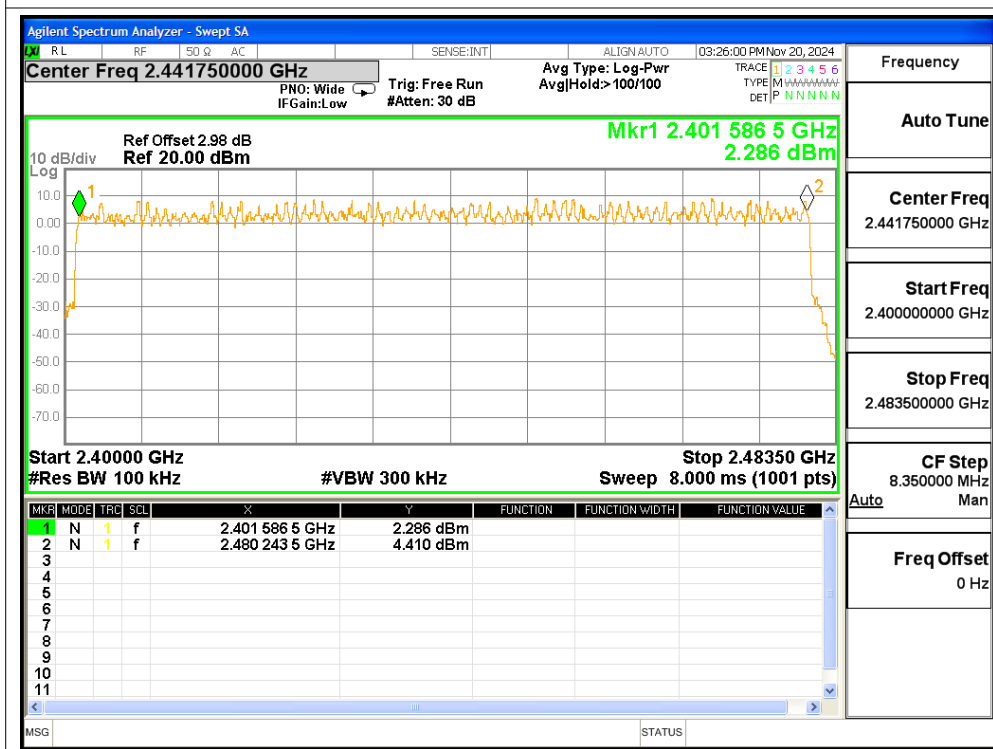
## Hopping No. NVNT 3-DH5 2402MHz Ant1



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



## Hopping No. NVNT 3-DH5 2480MHz Ant1



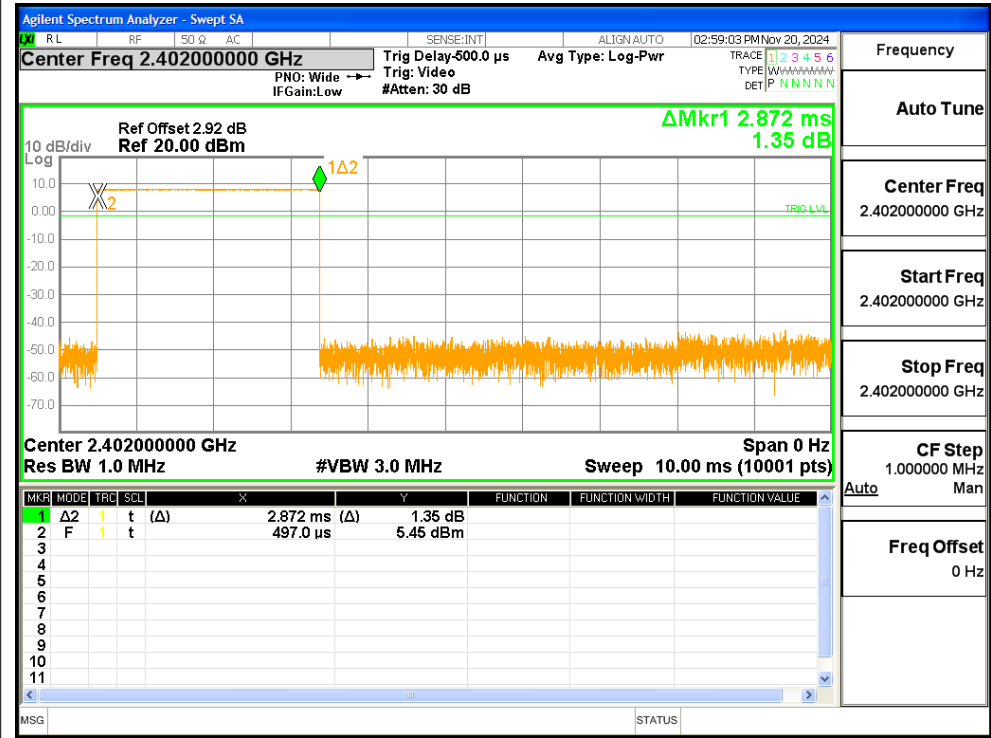
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## Dwell Time

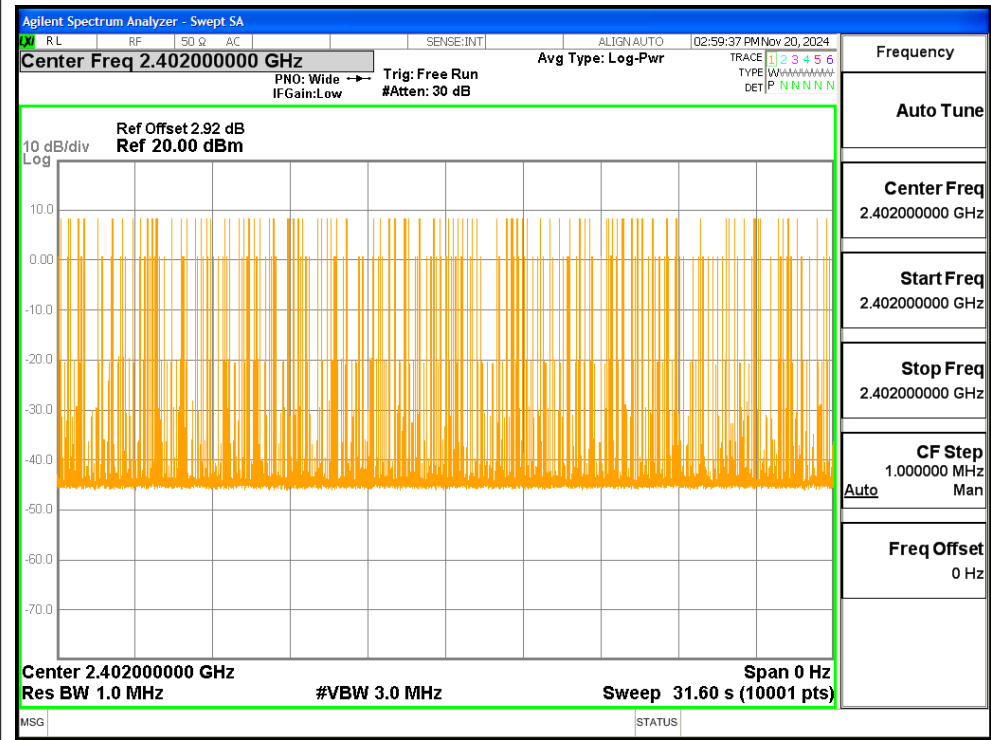
| Condition | Mode  | Frequency (MHz) | Antenna | Pulse Time (ms) | Total Dwell Time (ms) | Burst Count | Period Time (ms) | Limit (ms) | Verdict |
|-----------|-------|-----------------|---------|-----------------|-----------------------|-------------|------------------|------------|---------|
| NVNT      | 1-DH5 | 2402            | Ant1    | 2.872           | 310.176               | 108         | 31600            | 400        | Pass    |
|           |       | 2441            |         | 2.873           | 370.617               | 129         | 31600            | 400        | Pass    |
|           |       | 2480            |         | 2.873           | 290.173               | 101         | 31600            | 400        | Pass    |
|           | 2-DH5 | 2402            |         | 2.874           | 298.896               | 104         | 31600            | 400        | Pass    |
|           |       | 2441            |         | 2.874           | 287.4                 | 100         | 31600            | 400        | Pass    |
|           |       | 2480            |         | 2.879           | 299.416               | 104         | 31600            | 400        | Pass    |
|           | 3-DH5 | 2402            |         | 2.88            | 276.48                | 96          | 31600            | 400        | Pass    |
|           |       | 2441            |         | 2.88            | 305.28                | 106         | 31600            | 400        | Pass    |
|           |       | 2480            |         | 2.88            | 299.52                | 104         | 31600            | 400        | Pass    |

Test Graphs

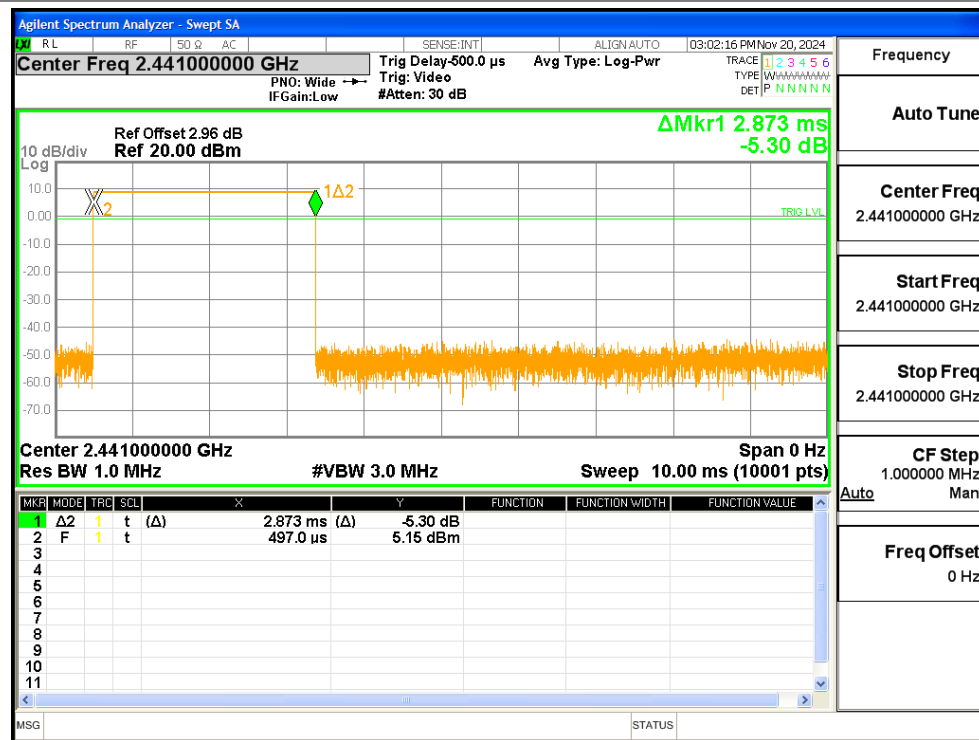
Dwell NVNT 1-DH5 2402MHz Ant1 One Burst



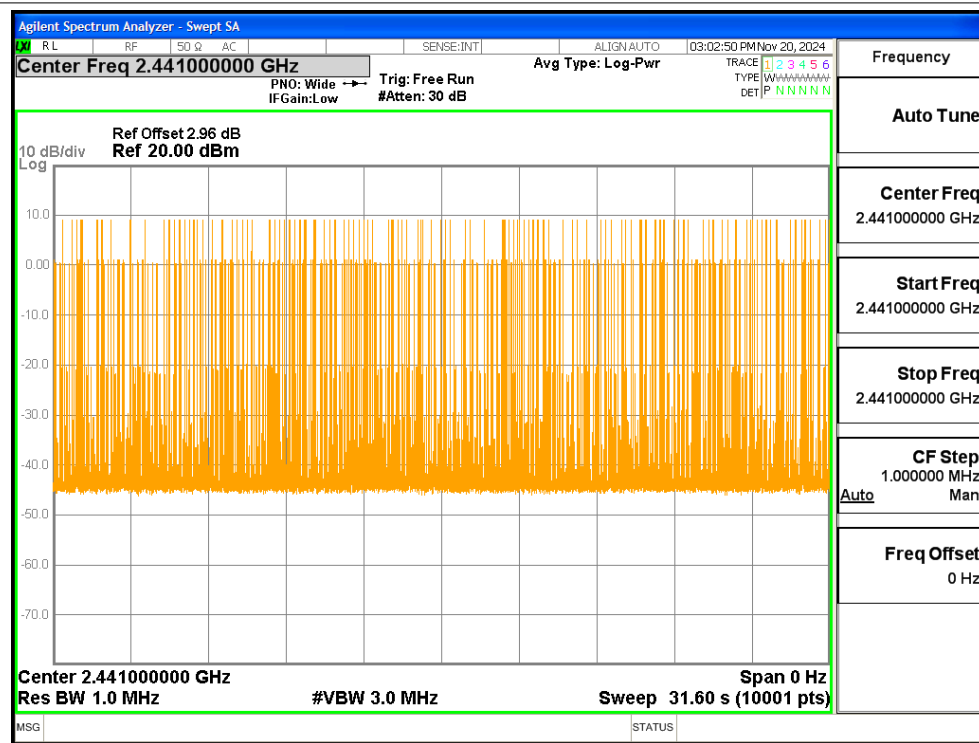
Dwell NVNT 1-DH5 2402MHz Ant1 Accumulated



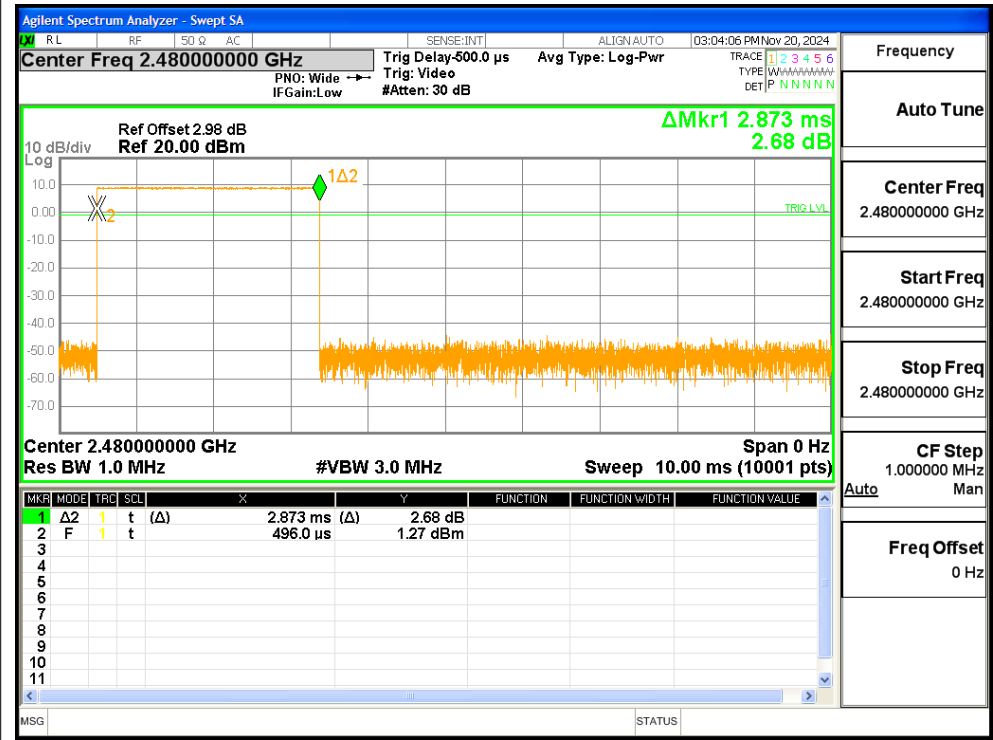
## Dwell NVNT 1-DH5 2441MHz Ant1 One Burst



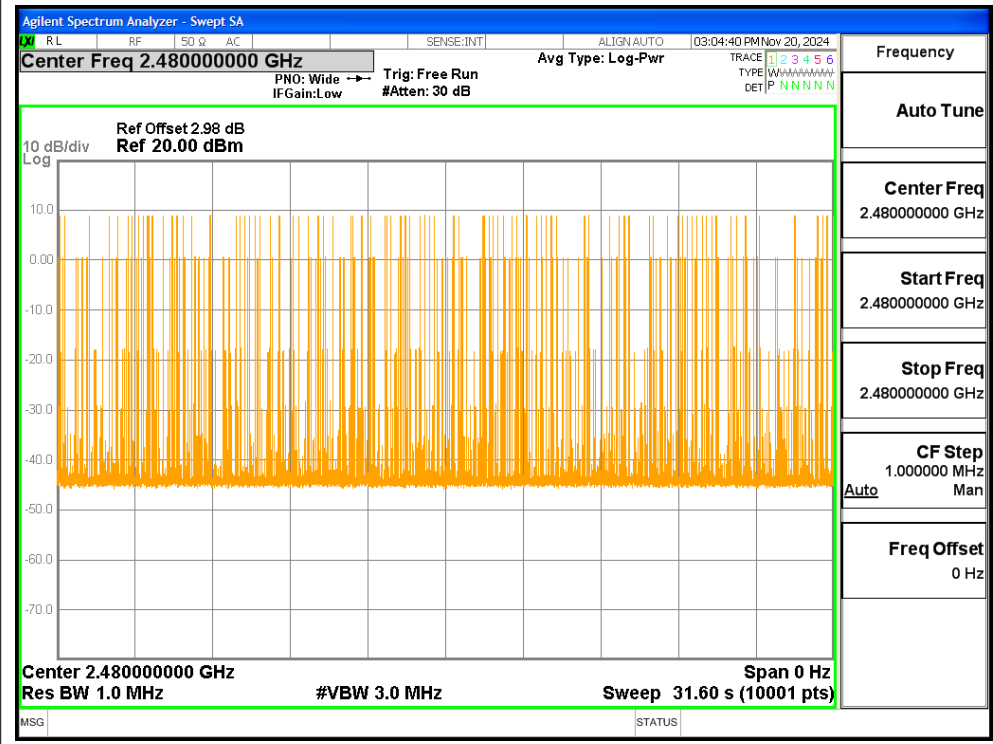
## Dwell NVNT 1-DH5 2441MHz Ant1 Accumulated



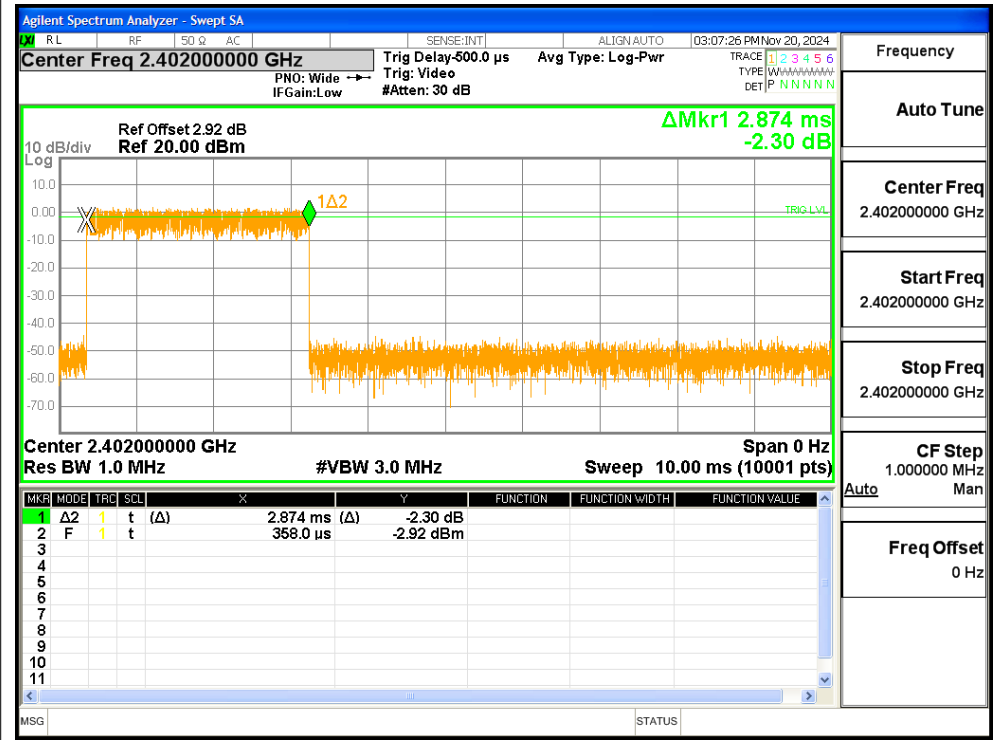
Dwell NVNT 1-DH5 2480MHz Ant1 One Burst



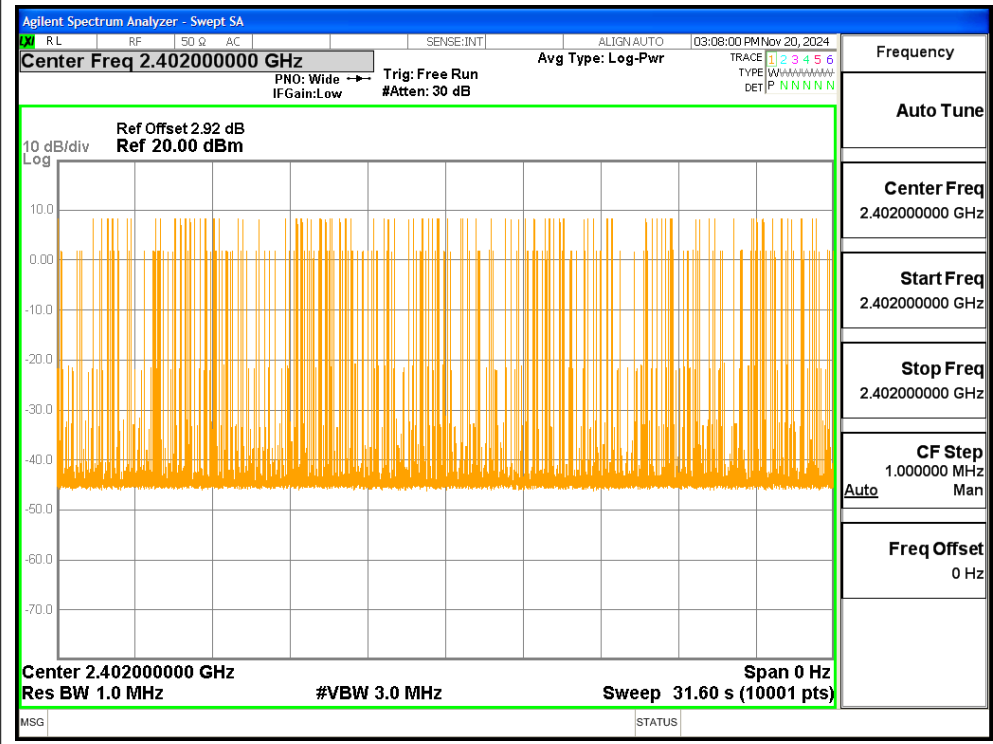
Dwell NVNT 1-DH5 2480MHz Ant1 Accumulated



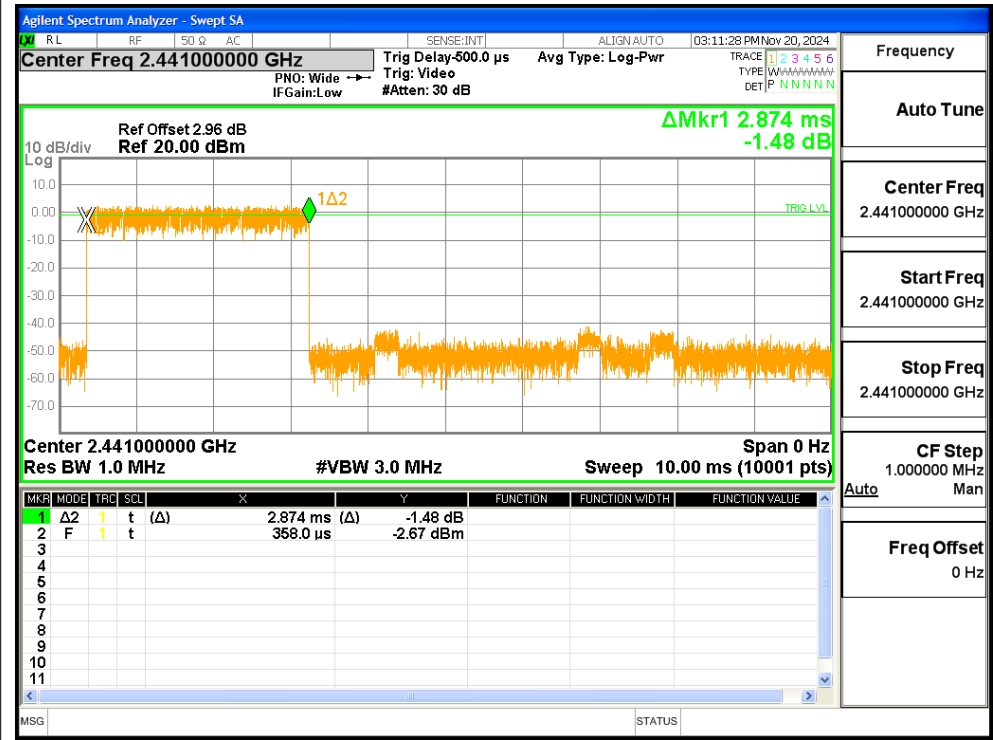
Dwell NVNT 2-DH5 2402MHz Ant1 One Burst



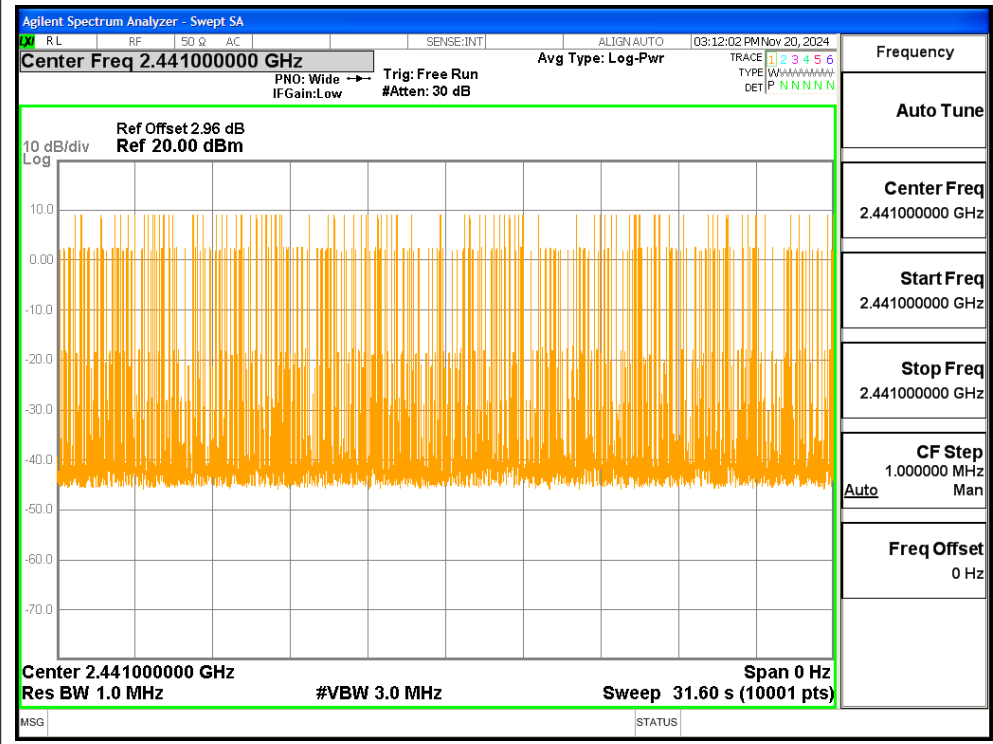
Dwell NVNT 2-DH5 2402MHz Ant1 Accumulated



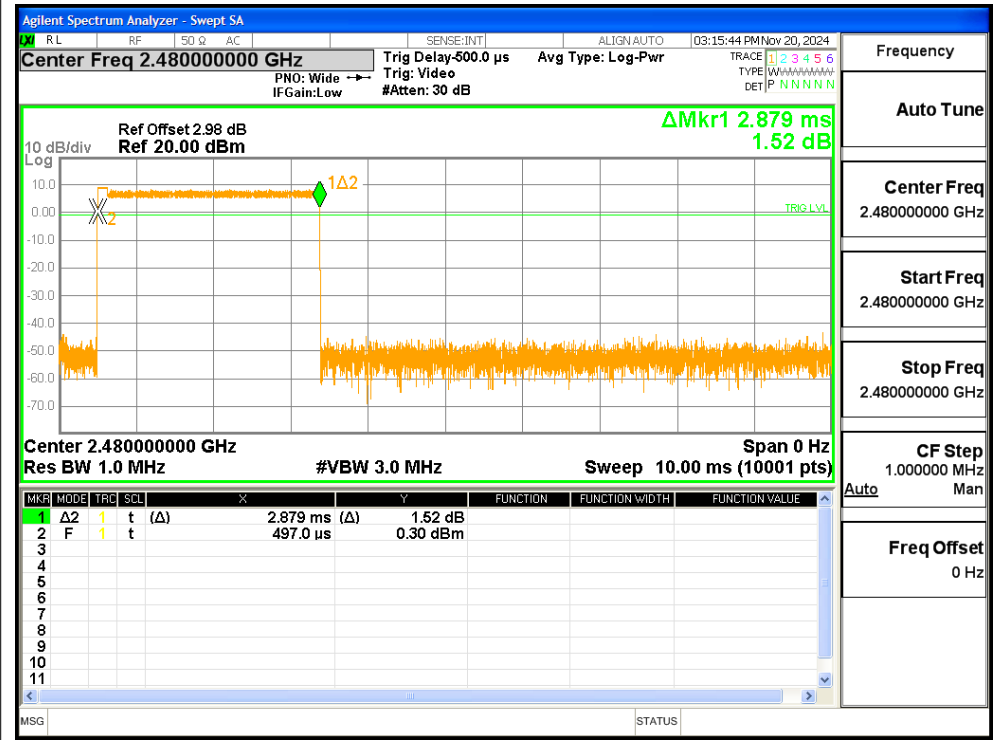
Dwell NVNT 2-DH5 2441MHz Ant1 One Burst



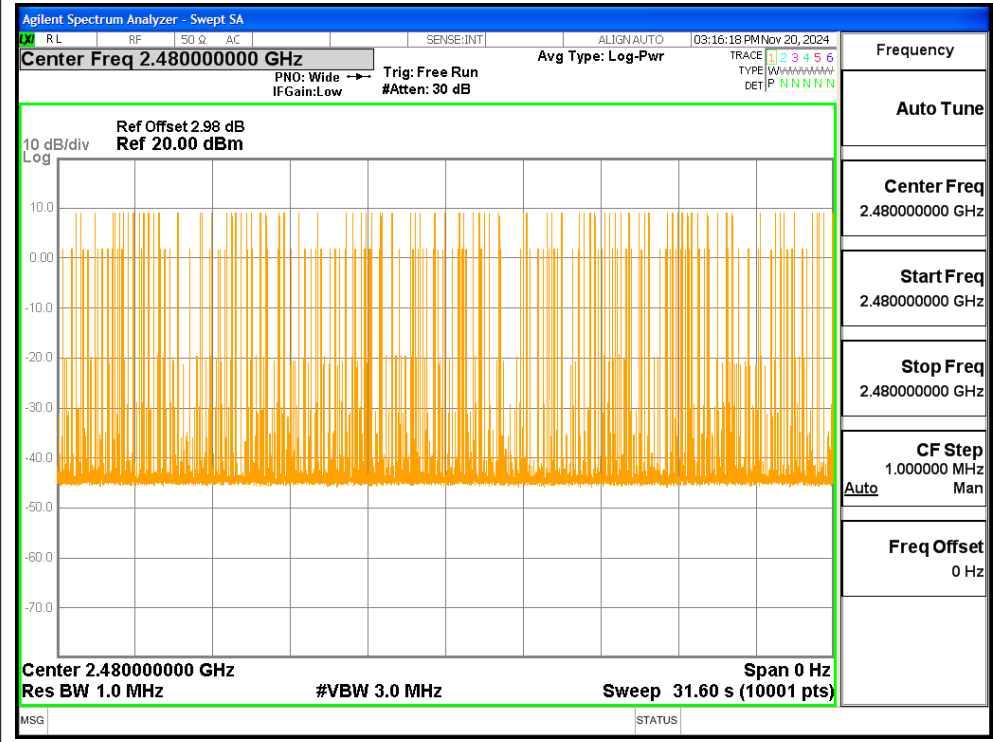
Dwell NVNT 2-DH5 2441MHz Ant1 Accumulated



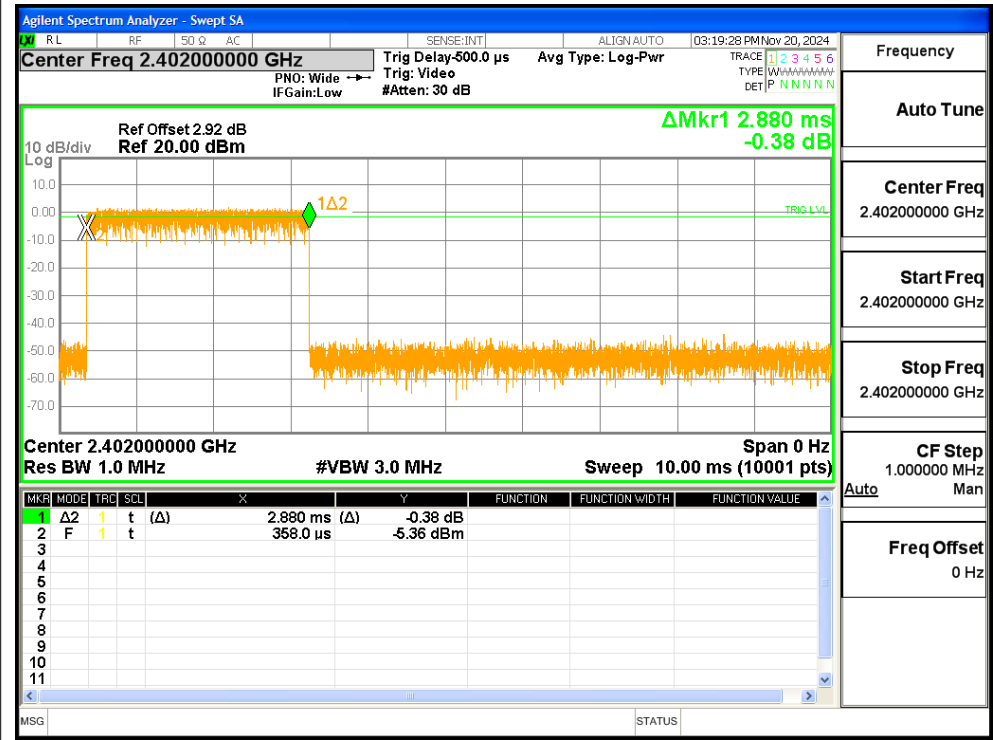
Dwell NVNT 2-DH5 2480MHz Ant1 One Burst



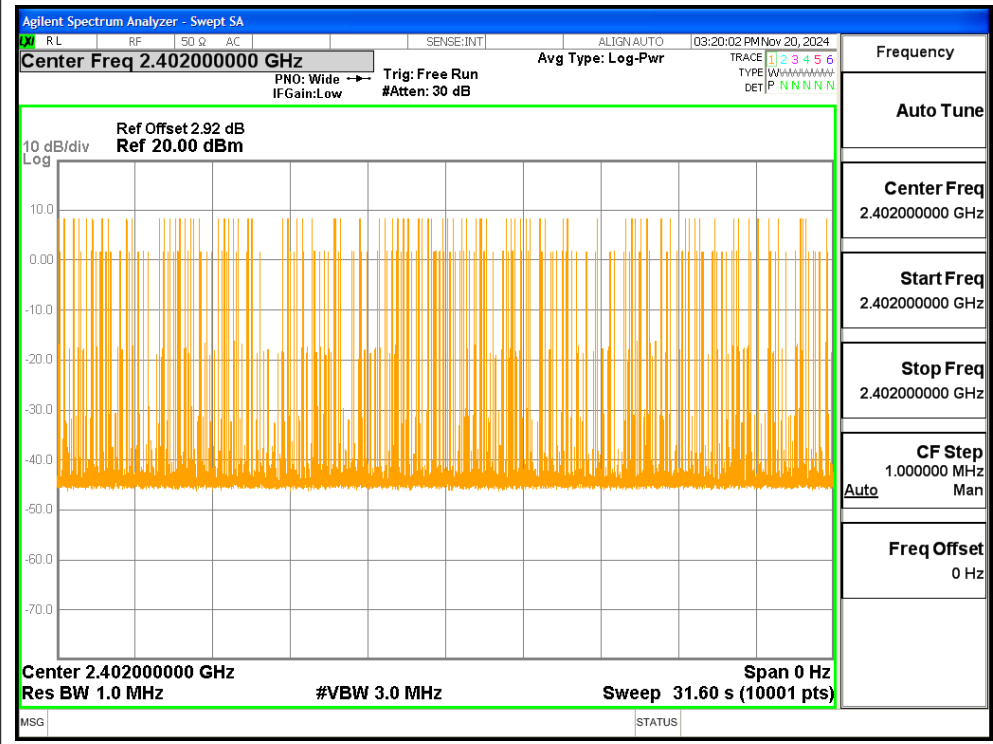
Dwell NVNT 2-DH5 2480MHz Ant1 Accumulated



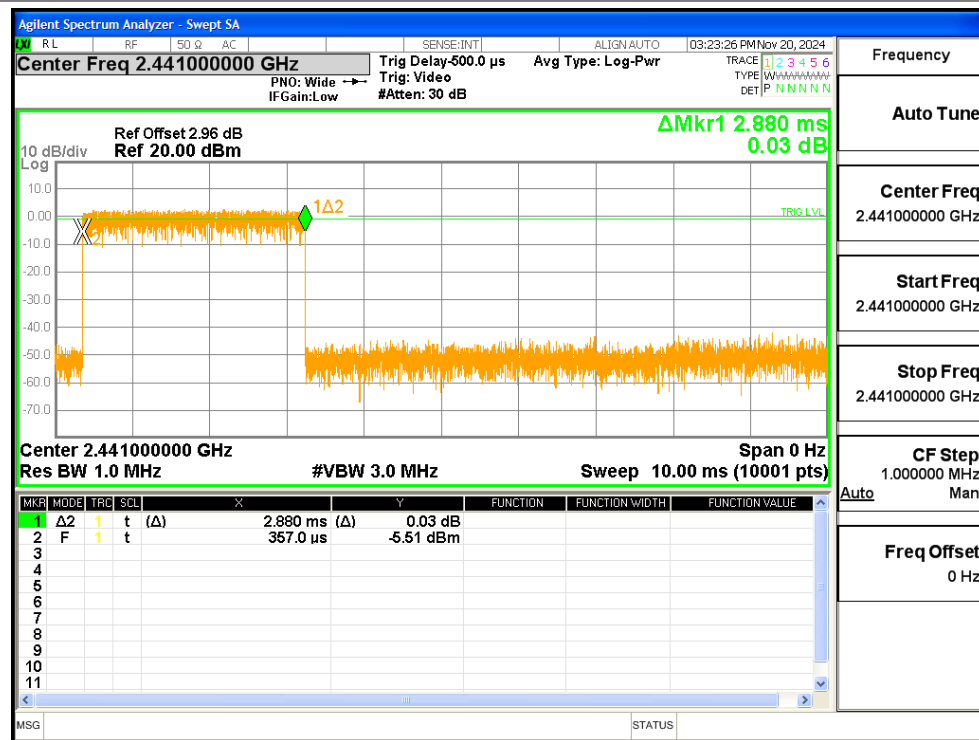
Dwell NVNT 3-DH5 2402MHz Ant1 One Burst



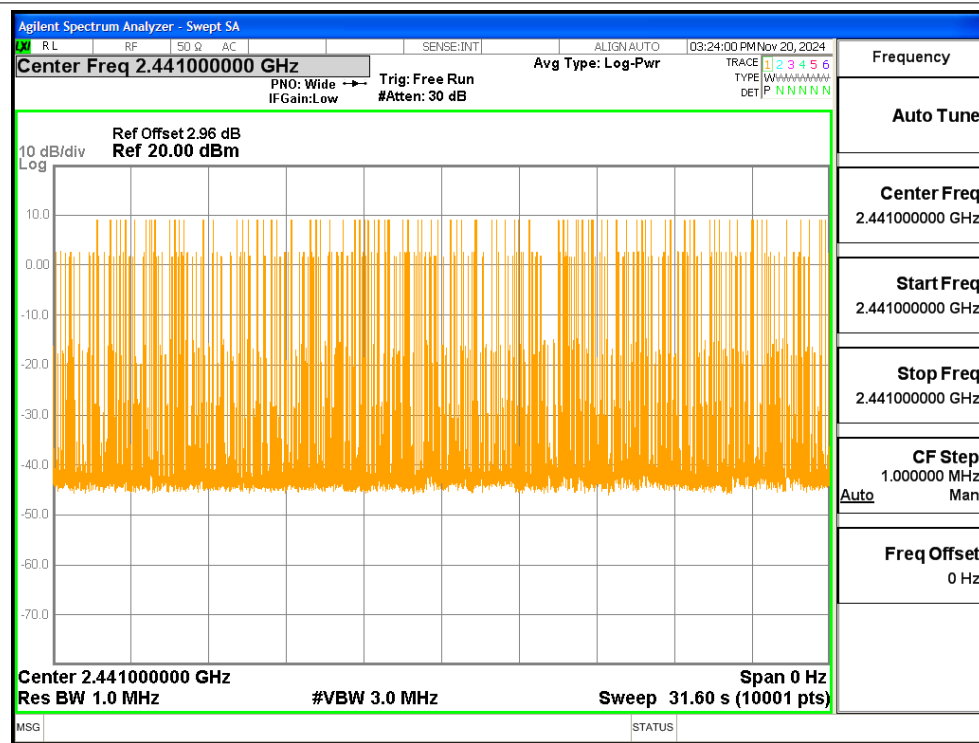
Dwell NVNT 3-DH5 2402MHz Ant1 Accumulated



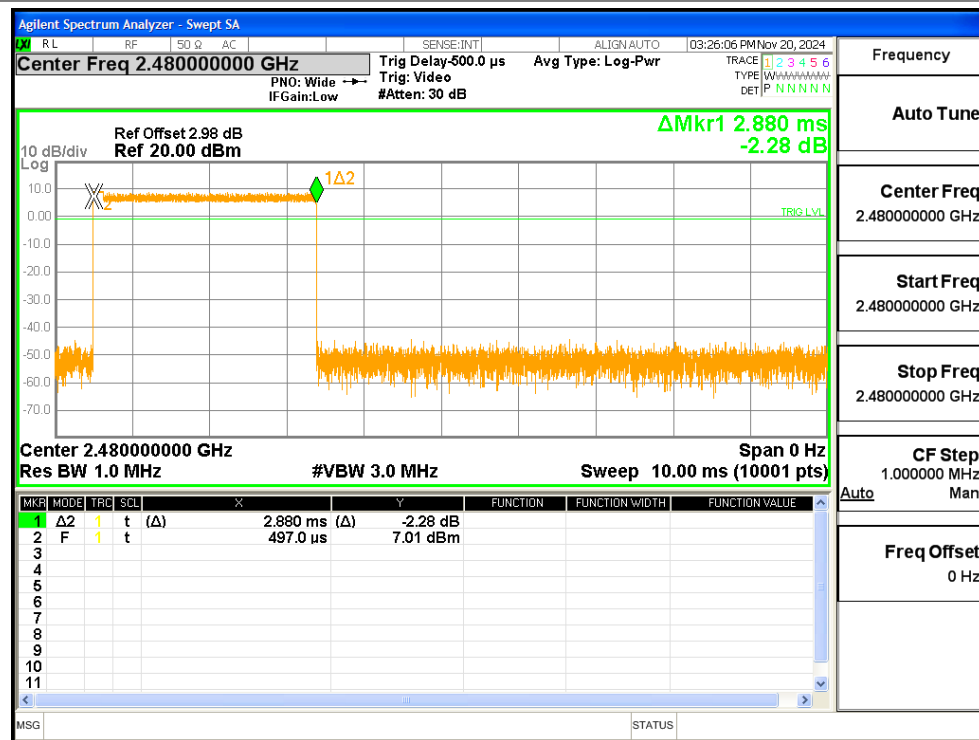
## Dwell NVNT 3-DH5 2441MHz Ant1 One Burst



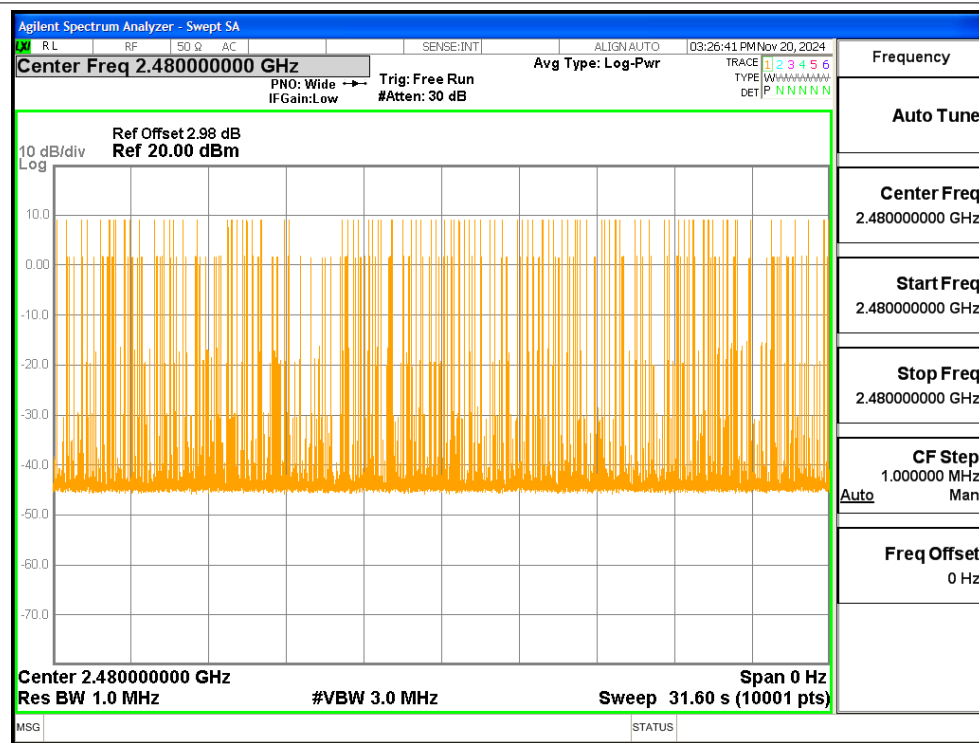
## Dwell NVNT 3-DH5 2441MHz Ant1 Accumulated



## Dwell NVNT 3-DH5 2480MHz Ant1 One Burst



## Dwell NVNT 3-DH5 2480MHz Ant1 Accumulated



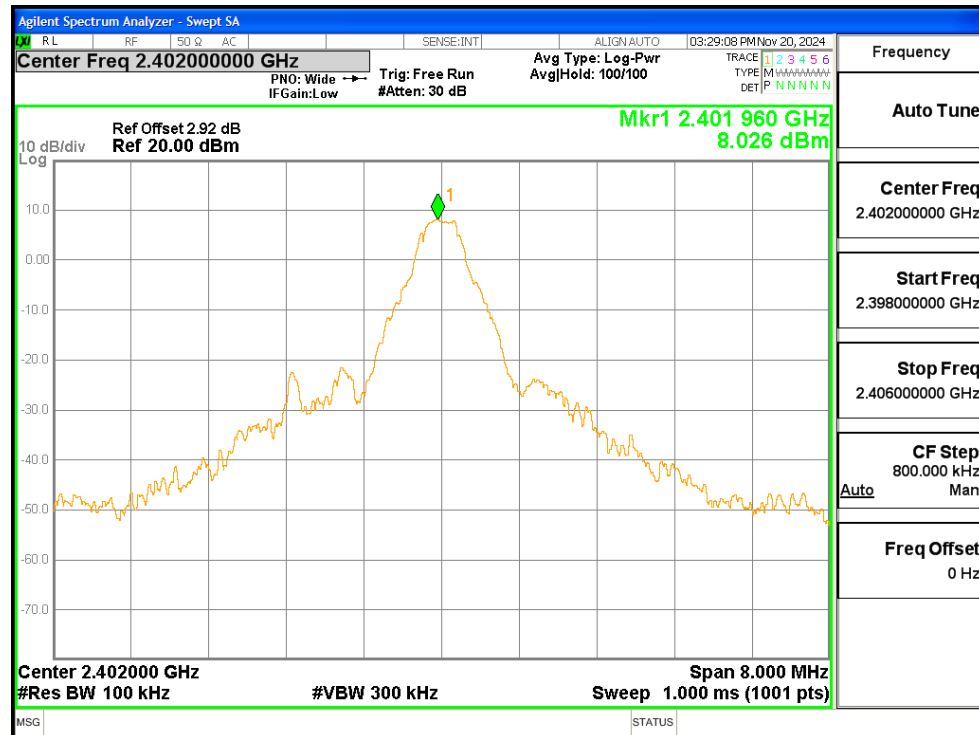
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## Band Edge

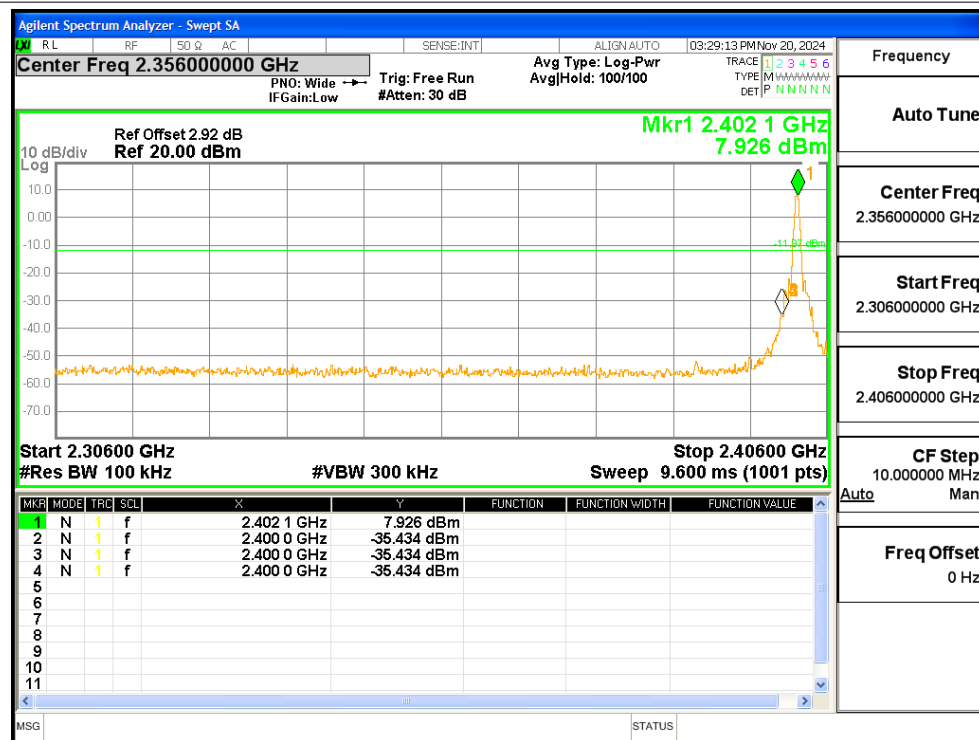
| Condition | Mode  | Frequency (MHz) | Antenna | Hopping Mode | Max Value (dBc) | Limit (dBc) | Verdict |
|-----------|-------|-----------------|---------|--------------|-----------------|-------------|---------|
| NVNT      | 1-DH5 | 2402            | Ant1    | No-Hopping   | -43.46          | -20         | Pass    |
|           |       | 2480            |         | No-Hopping   | -55.32          | -20         | Pass    |
|           | 2-DH5 | 2402            |         | No-Hopping   | -42.52          | -20         | Pass    |
|           |       | 2480            |         | No-Hopping   | -55.73          | -20         | Pass    |
|           | 3-DH5 | 2402            |         | No-Hopping   | -44.07          | -20         | Pass    |
|           |       | 2480            |         | No-Hopping   | -55.29          | -20         | Pass    |

## Test Graphs

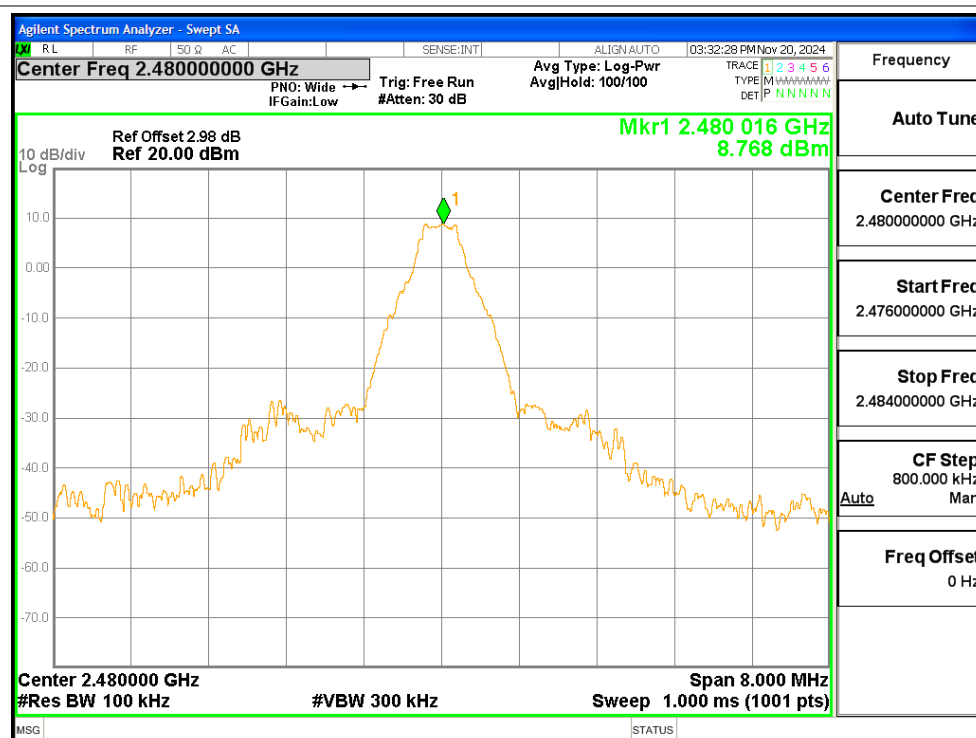
## Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Ref



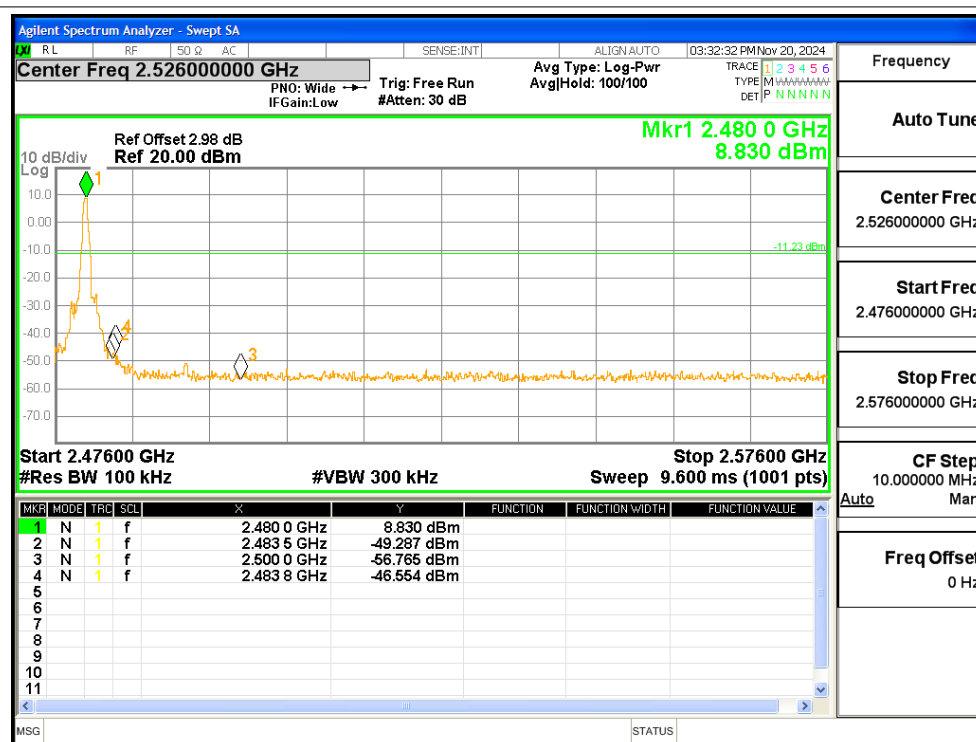
## Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Emission



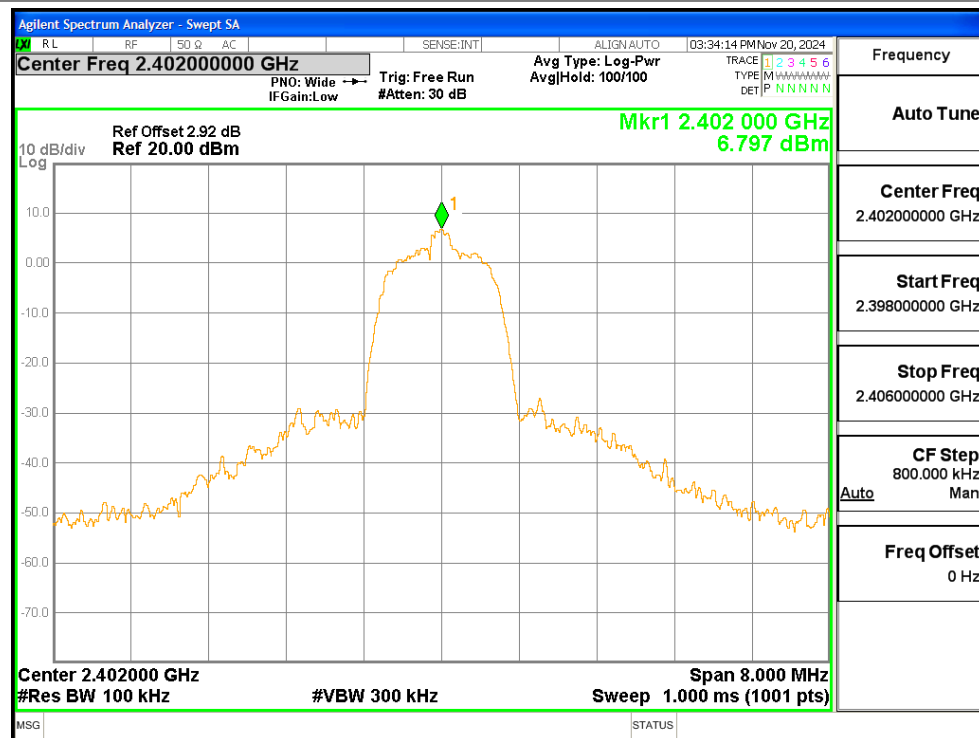
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref



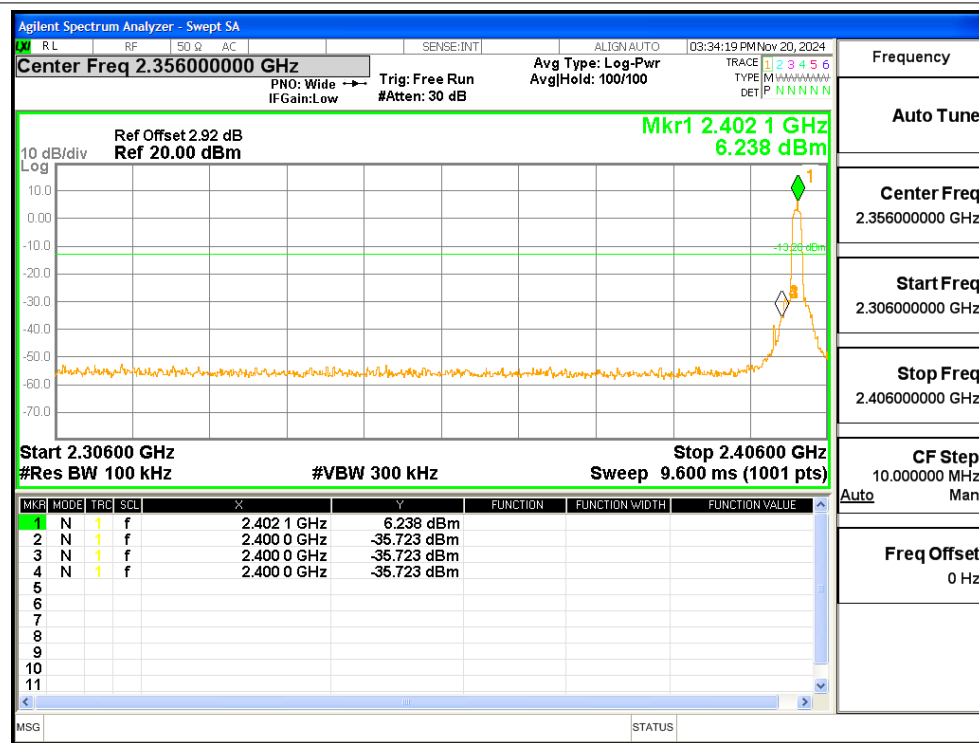
## Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Emission



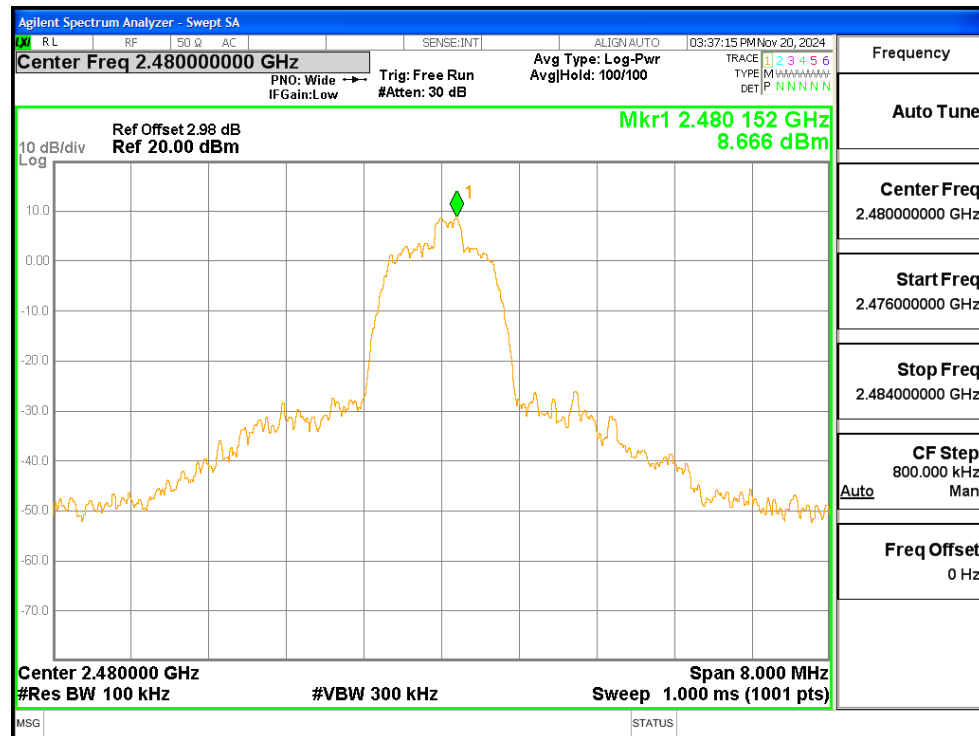
## Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Ref



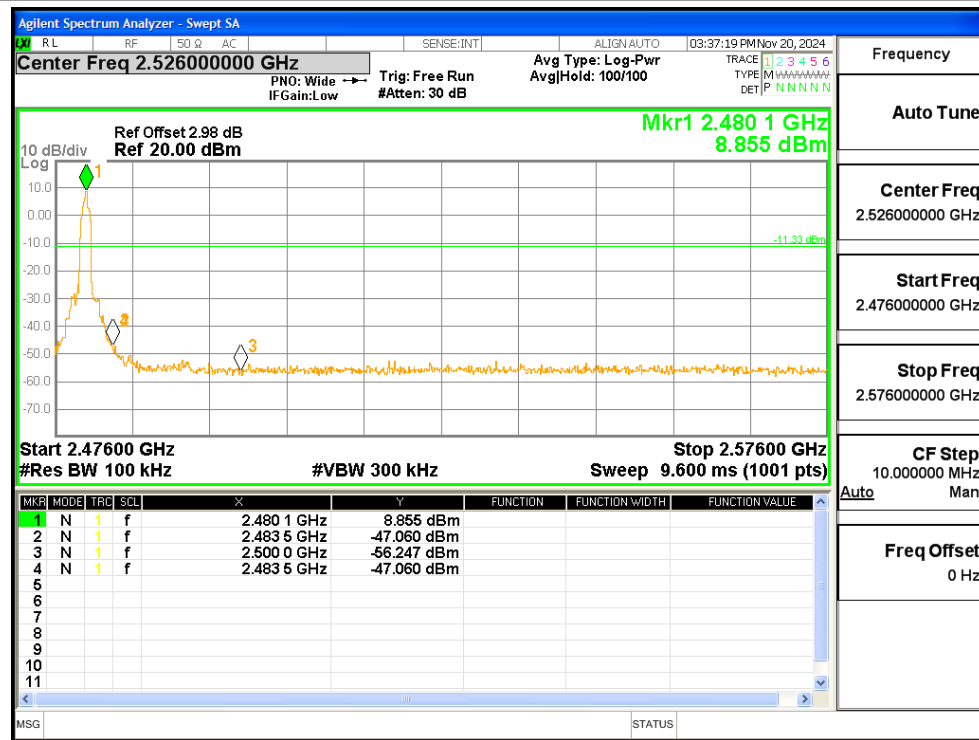
## Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Emission



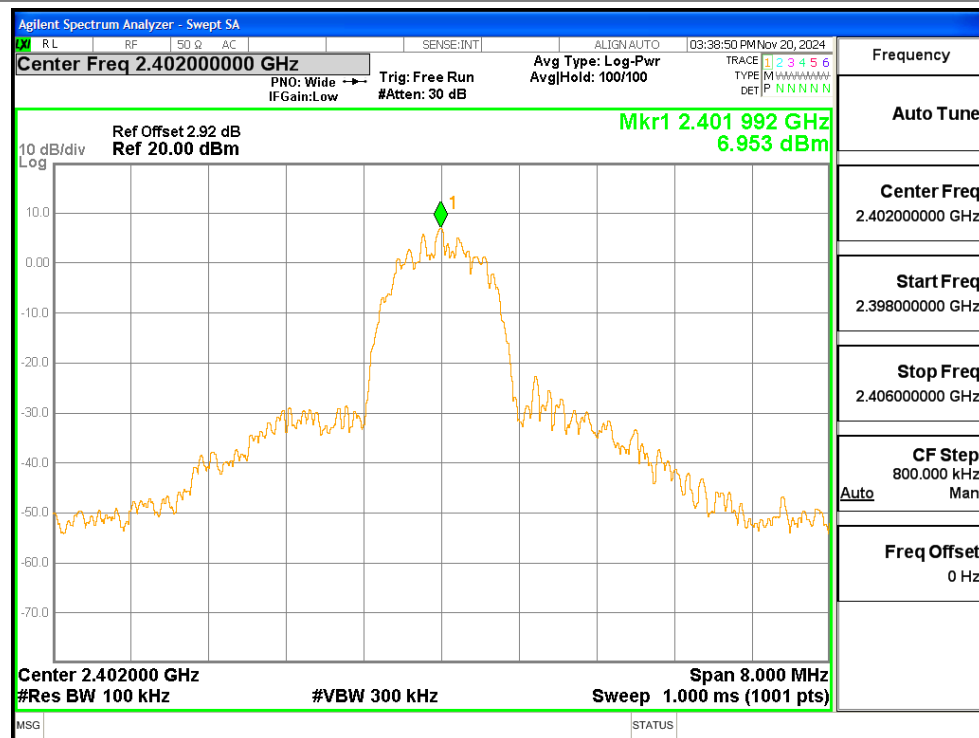
## Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Ref



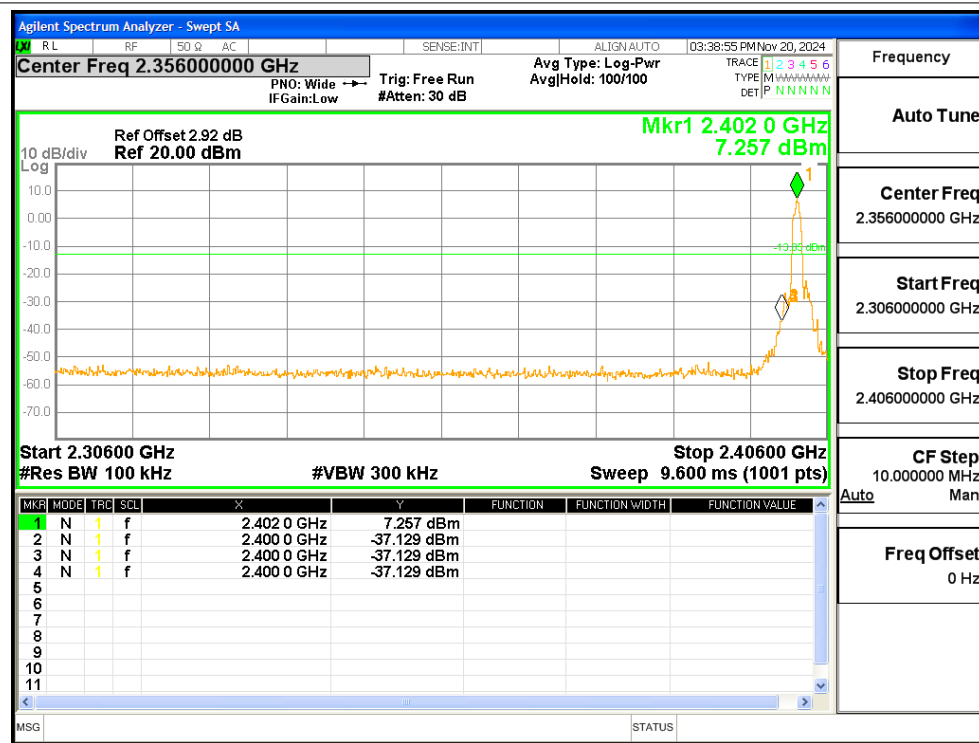
## Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Emission



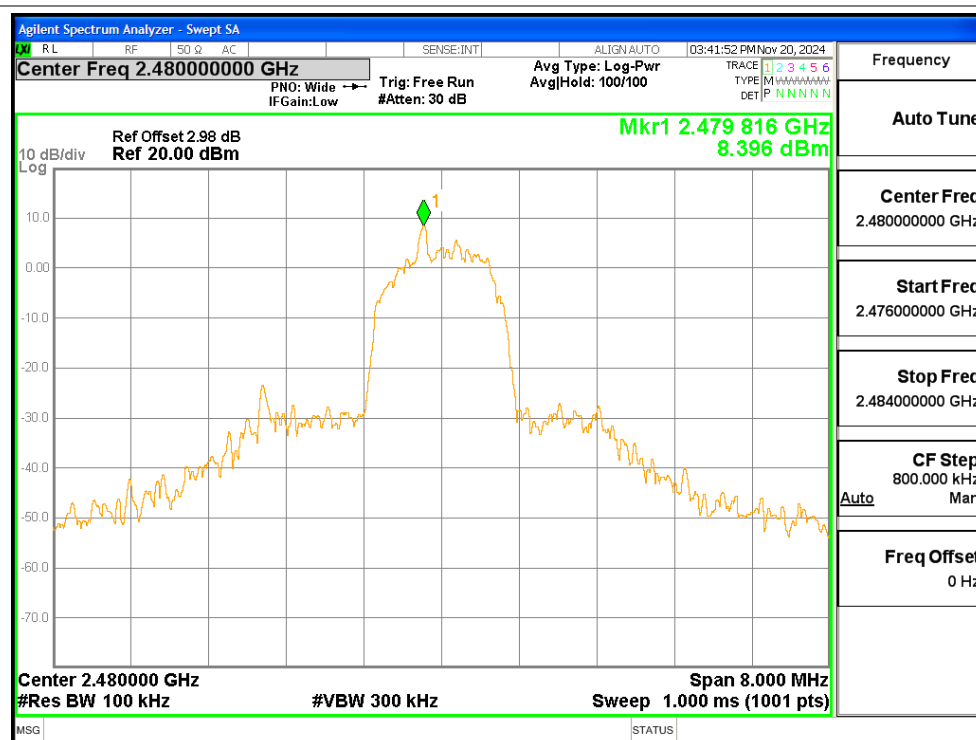
## Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Ref



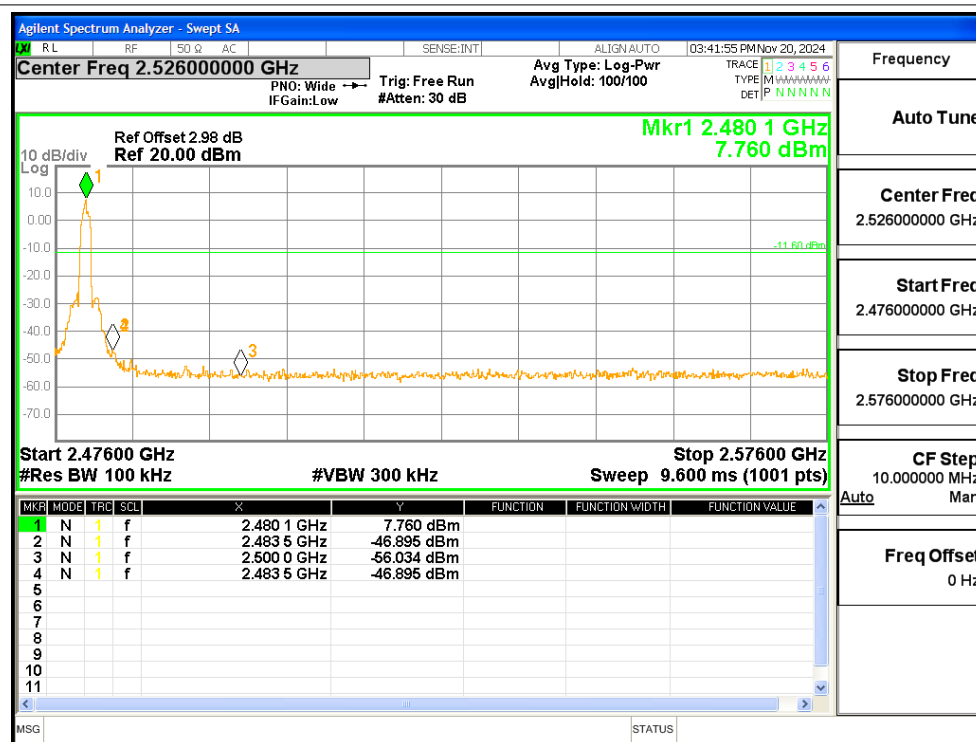
## Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Emission



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



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



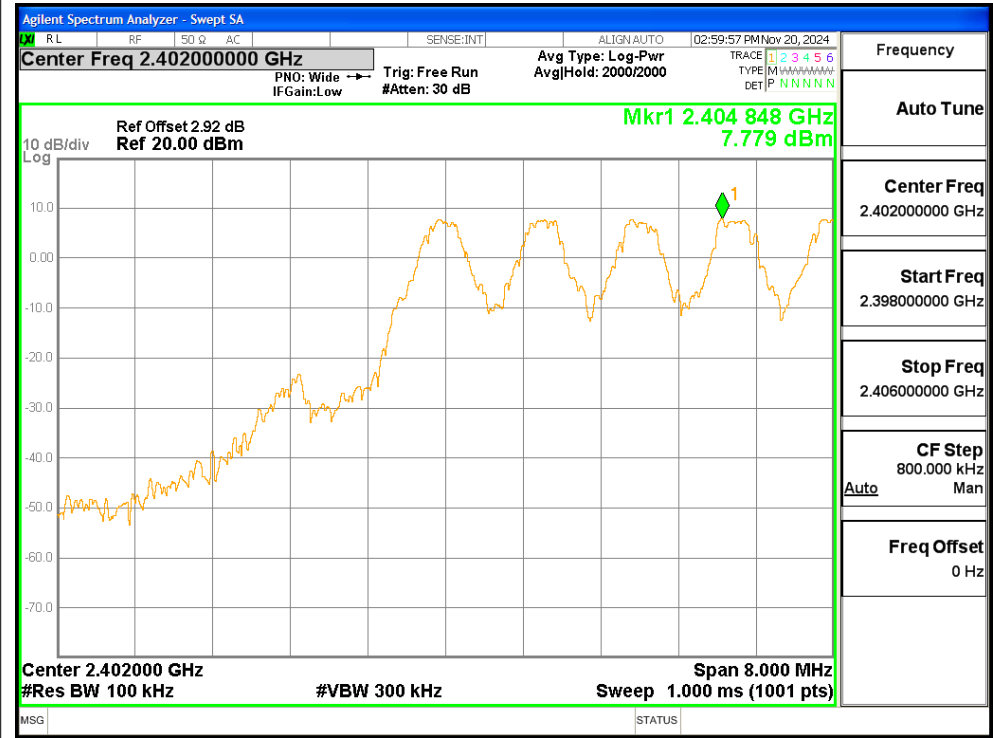
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## Band Edge(Hopping)

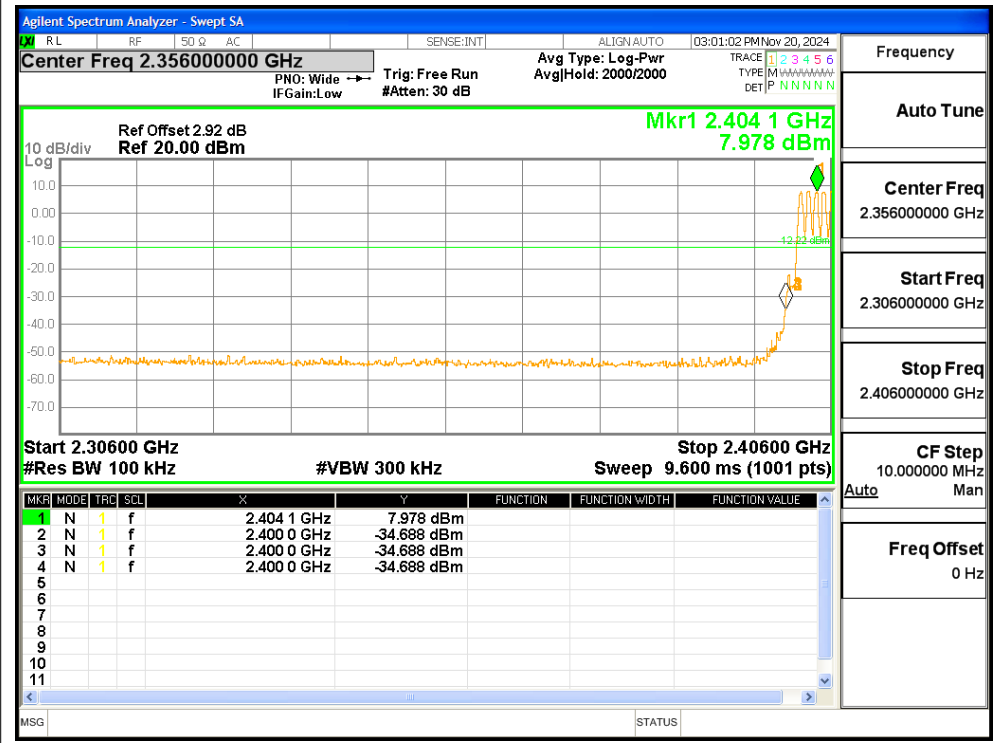
| Condition | Mode  | Frequency (MHz) | Antenna | Hopping Mode | Max Value (dBc) | Limit (dBc) | Verdict |
|-----------|-------|-----------------|---------|--------------|-----------------|-------------|---------|
| NVNT      | 1-DH5 | 2402            | Ant1    | Hopping      | -42.46          | -20         | Pass    |
|           |       | 2480            |         | Hopping      | -54.53          | -20         | Pass    |
|           | 2-DH5 | 2402            |         | Hopping      | -45.71          | -20         | Pass    |
|           |       | 2480            |         | Hopping      | -55.68          | -20         | Pass    |
|           | 3-DH5 | 2402            |         | Hopping      | -43.24          | -20         | Pass    |
|           |       | 2480            |         | Hopping      | -57.56          | -20         | Pass    |

Test Graphs

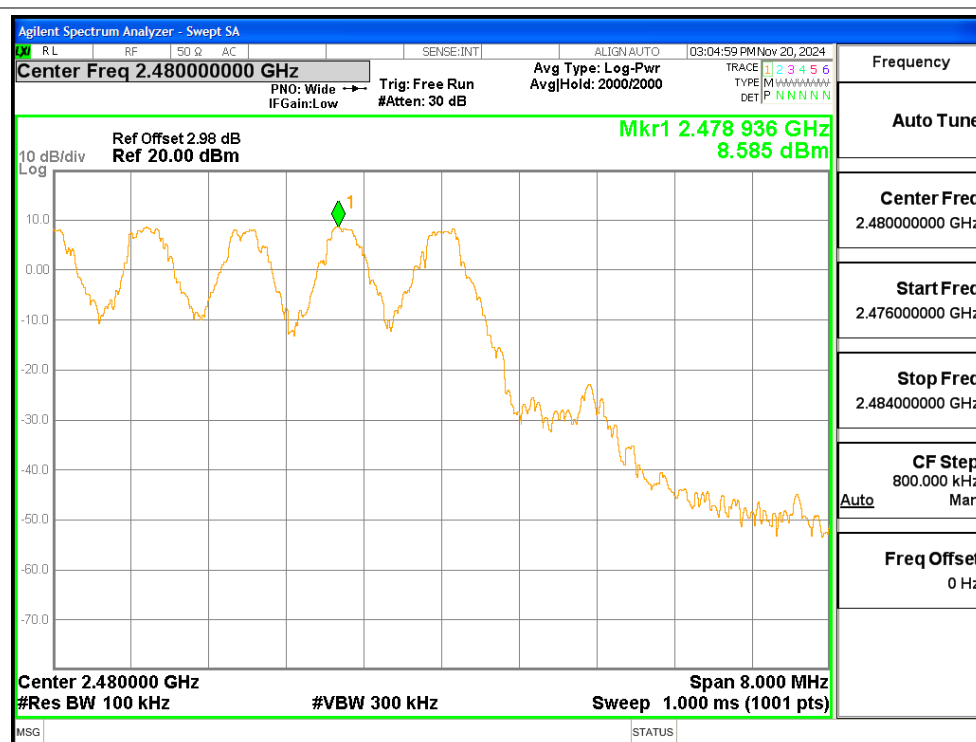
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Ref



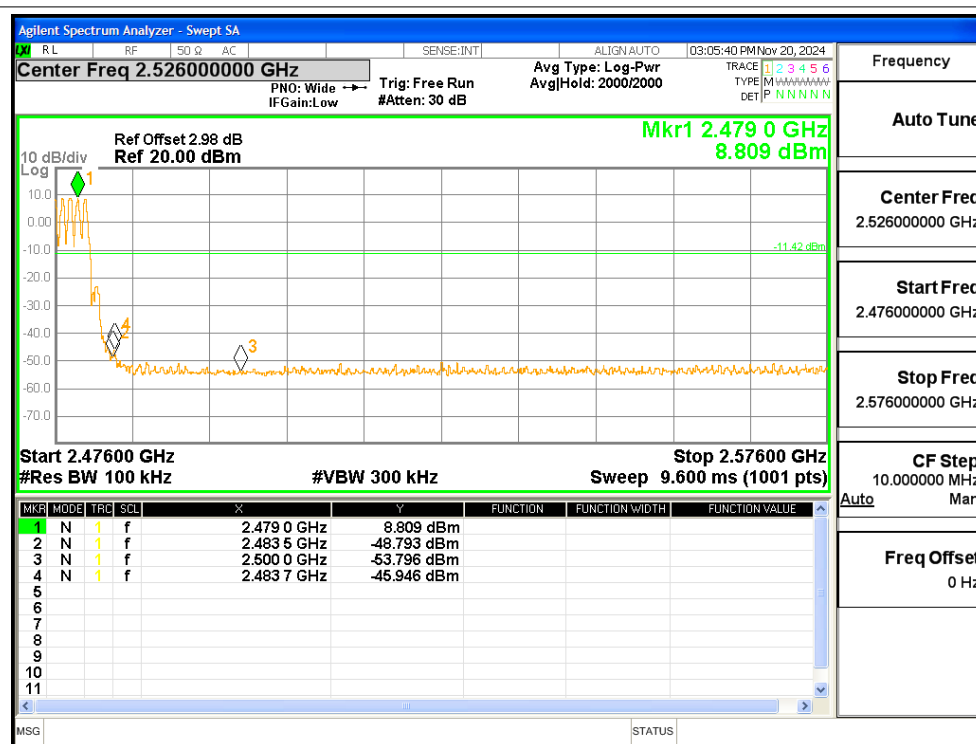
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission



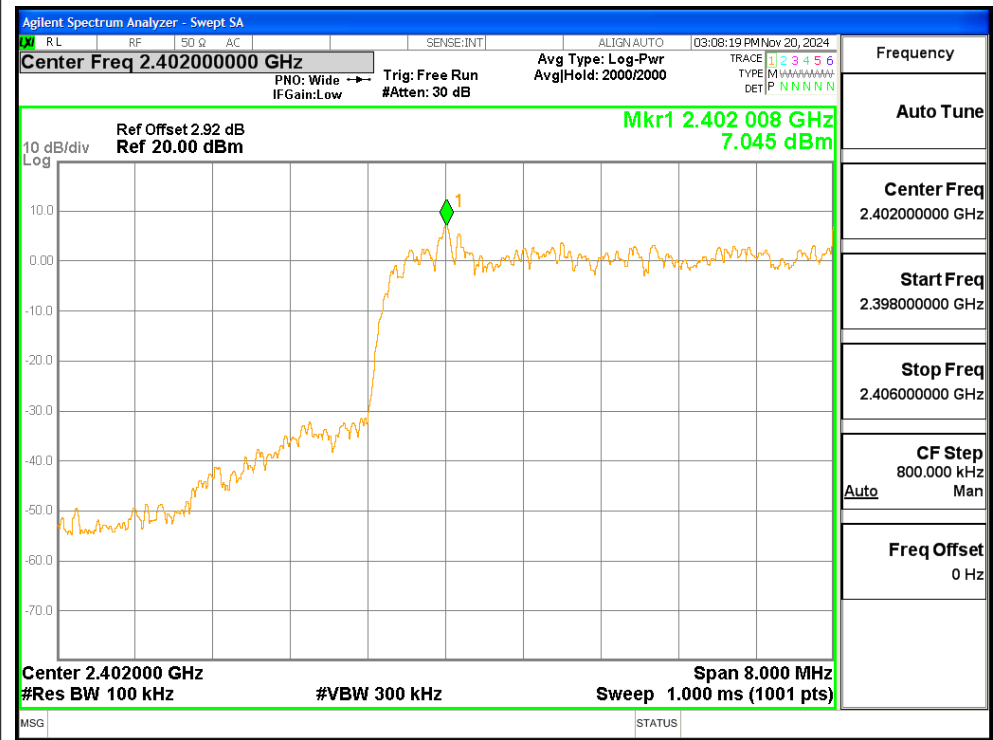
## Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Ref



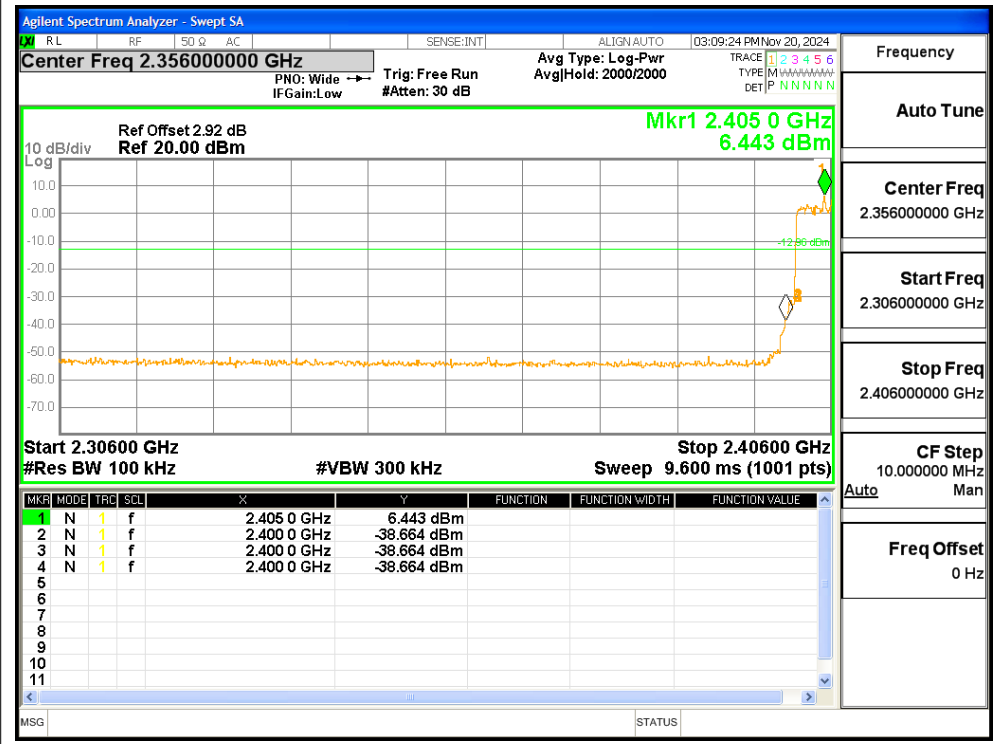
## Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Emission



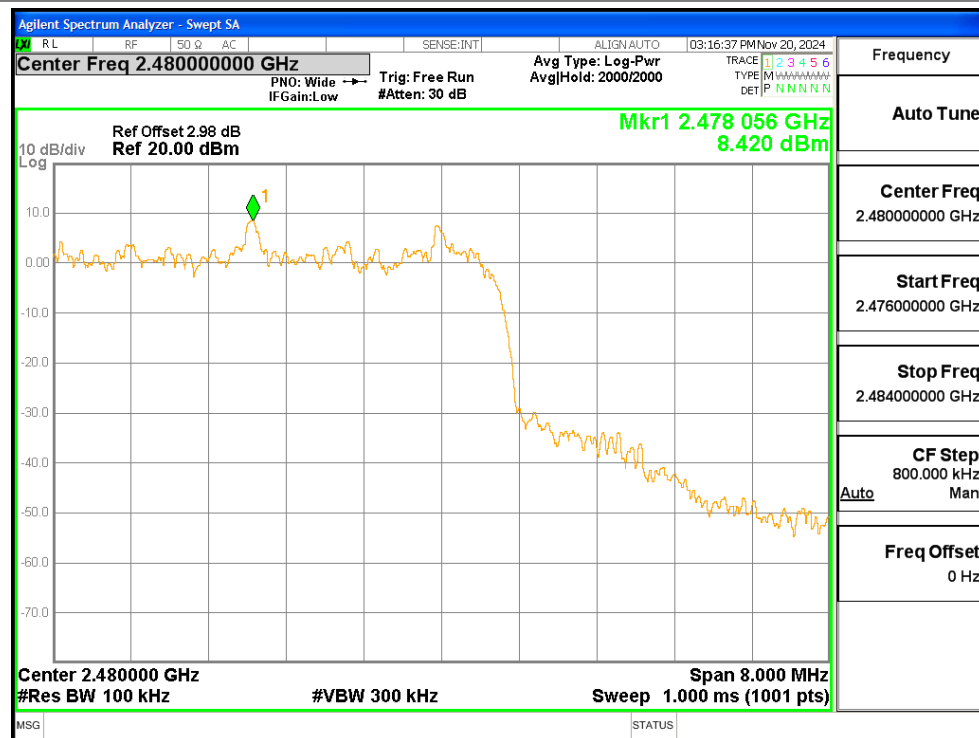
Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Ref



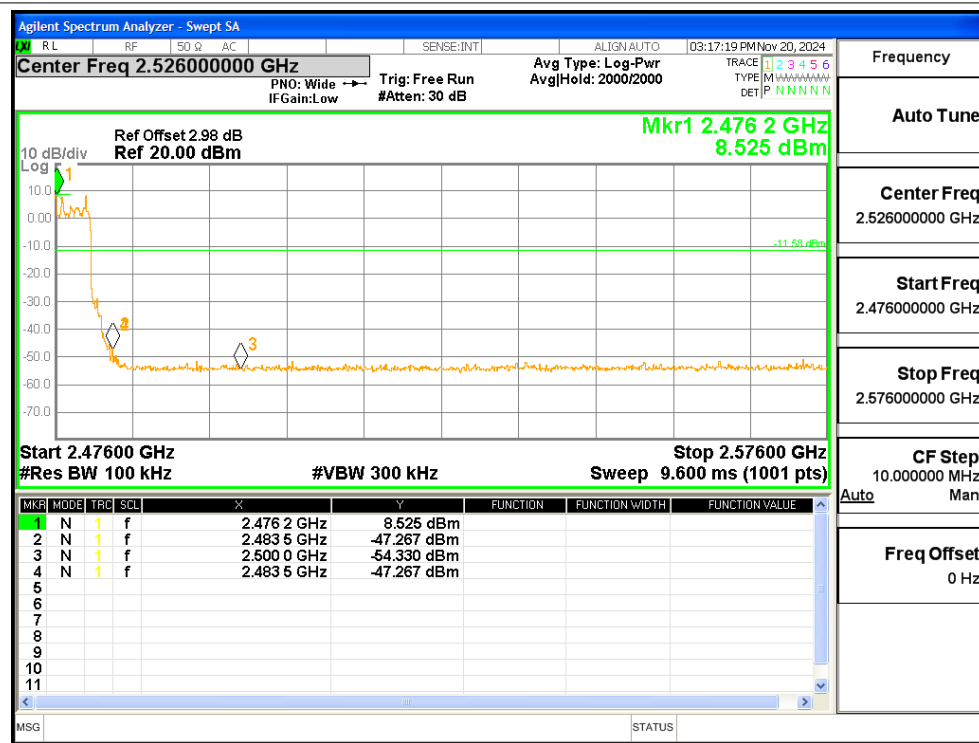
Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Emission



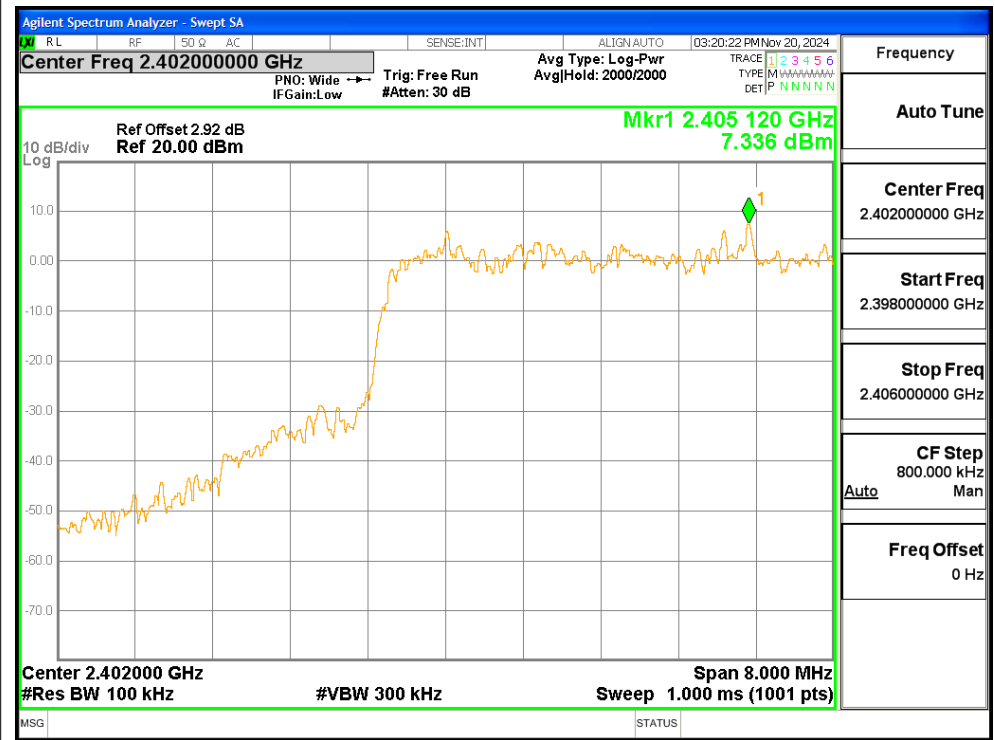
## Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Ref



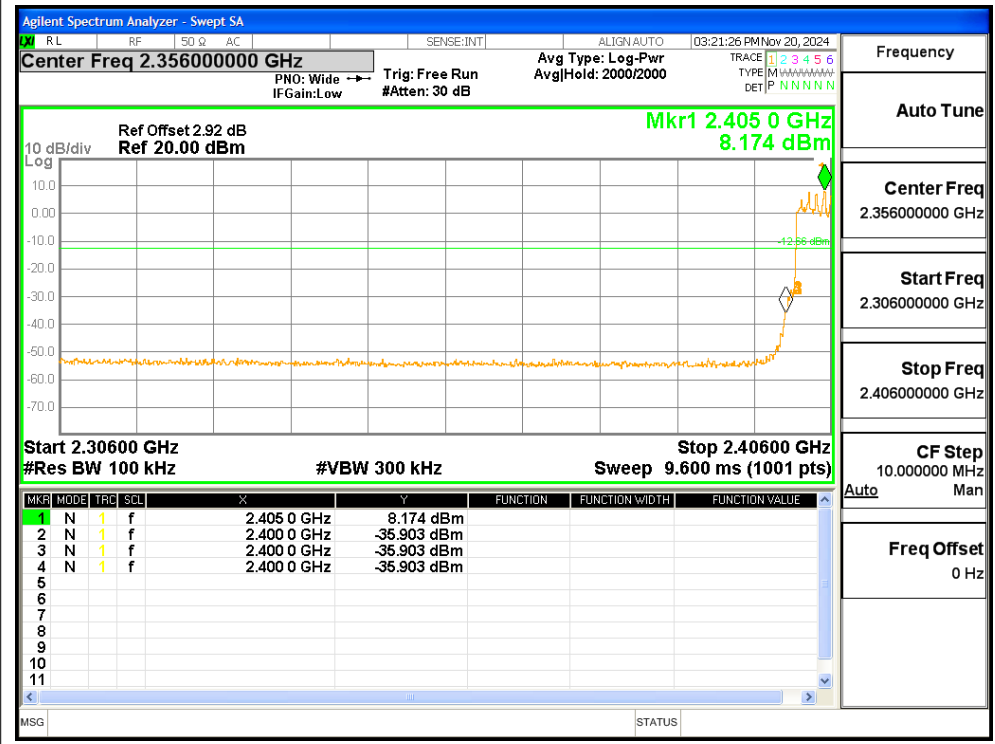
## Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Emission



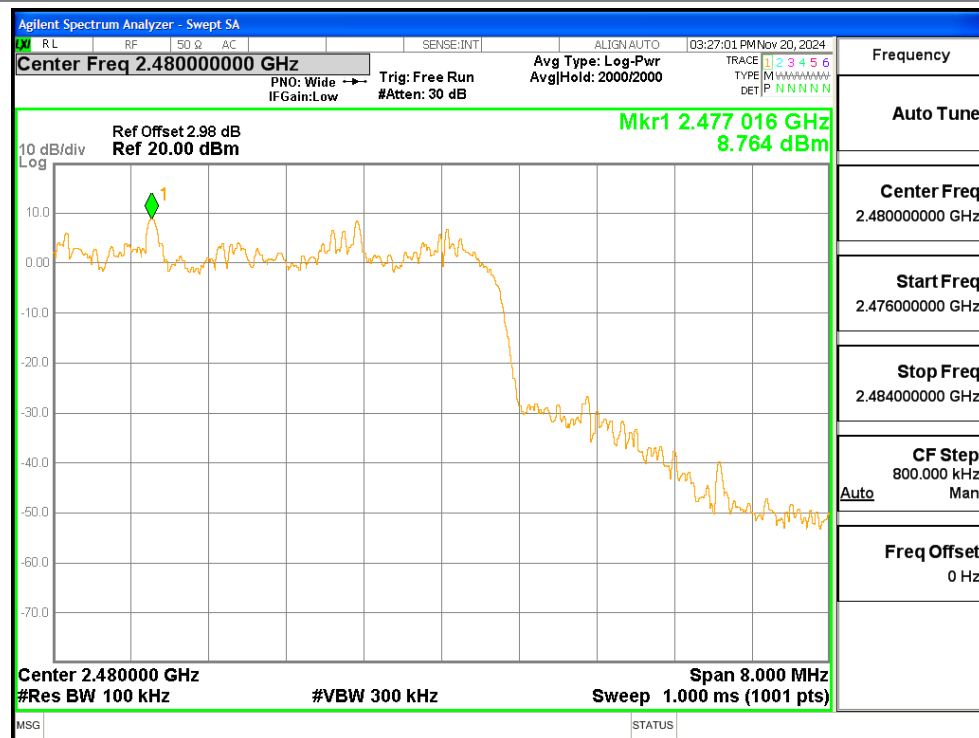
Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Ref



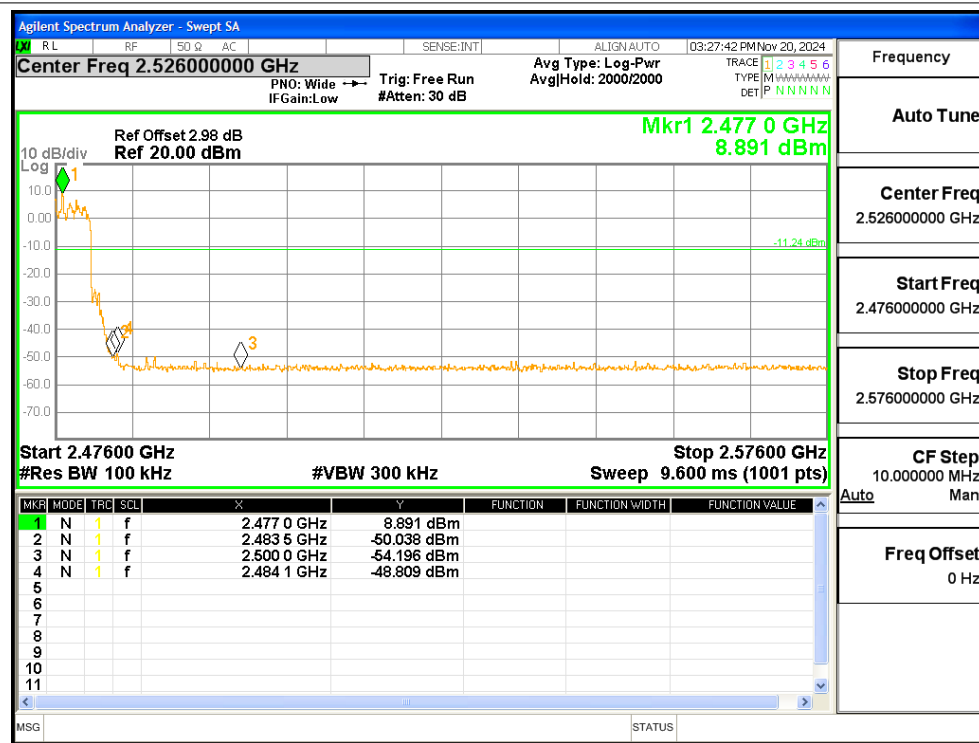
Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Emission



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



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

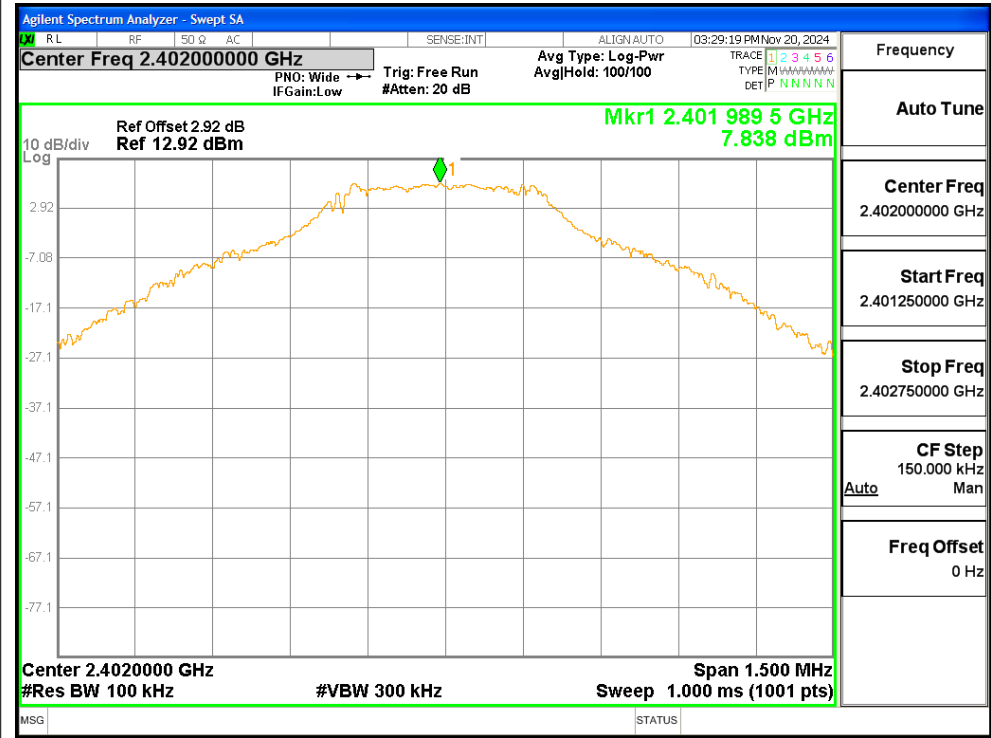


## Conducted RF Spurious Emission

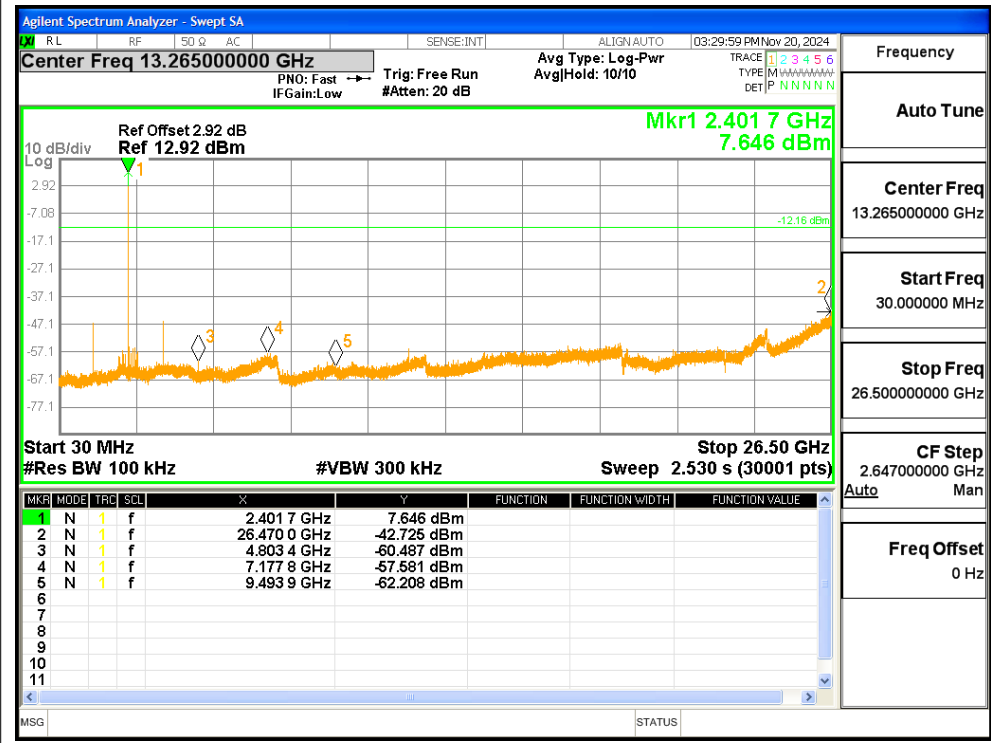
| Condition | Mode  | Frequency (MHz) | Antenna | Max Value (dBc) | Limit (dBc) | Verdict |
|-----------|-------|-----------------|---------|-----------------|-------------|---------|
| NVNT      | 1-DH5 | 2402            | Ant1    | -50.56          | -20         | Pass    |
|           |       | 2441            |         | -51.84          | -20         | Pass    |
|           |       | 2480            |         | -52.3           | -20         | Pass    |
|           | 2-DH5 | 2402            |         | -50.68          | -20         | Pass    |
|           |       | 2441            |         | -52.02          | -20         | Pass    |
|           |       | 2480            |         | -52.12          | -20         | Pass    |
|           | 3-DH5 | 2402            |         | -50.29          | -20         | Pass    |
|           |       | 2441            |         | -51.75          | -20         | Pass    |
|           |       | 2480            |         | -51.77          | -20         | Pass    |

Test Graphs

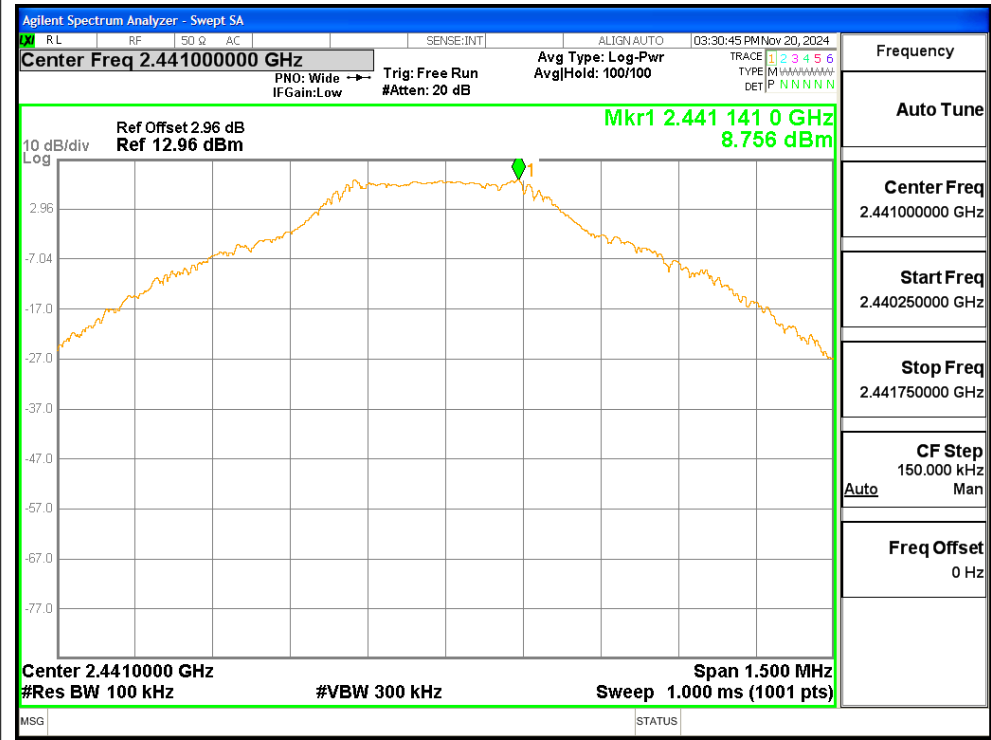
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref



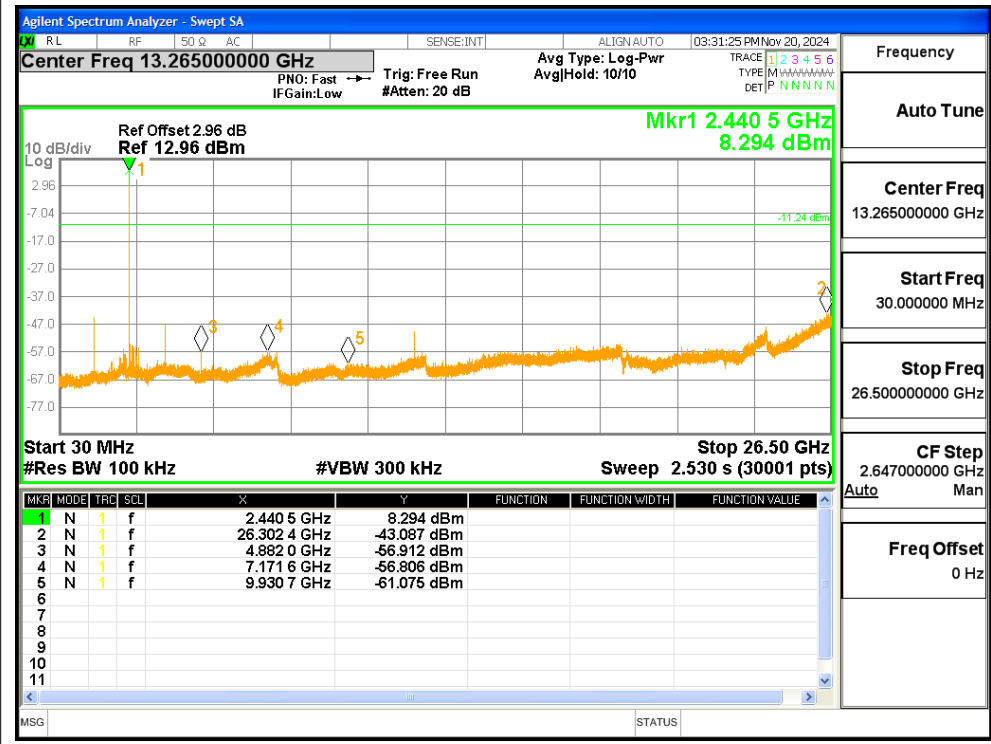
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission



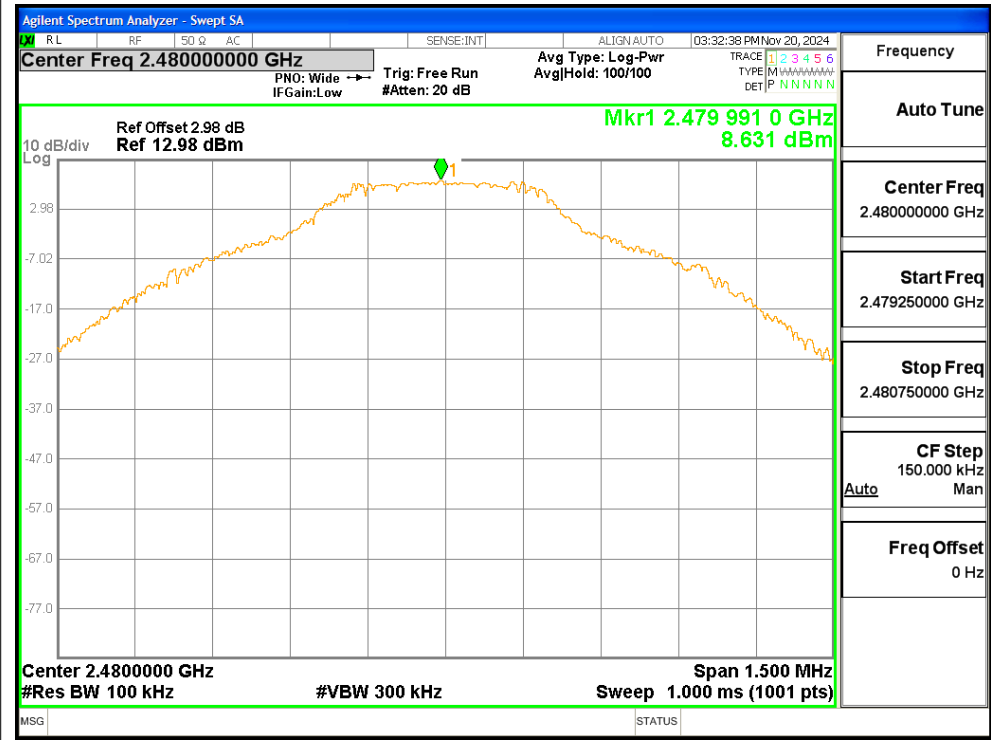
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref



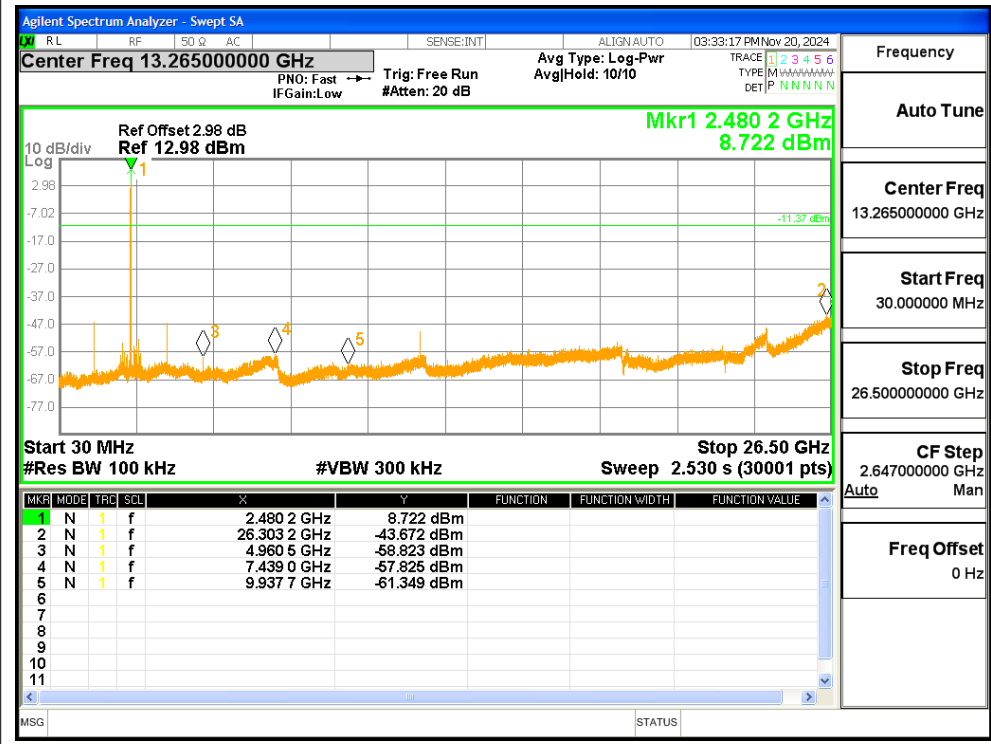
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission



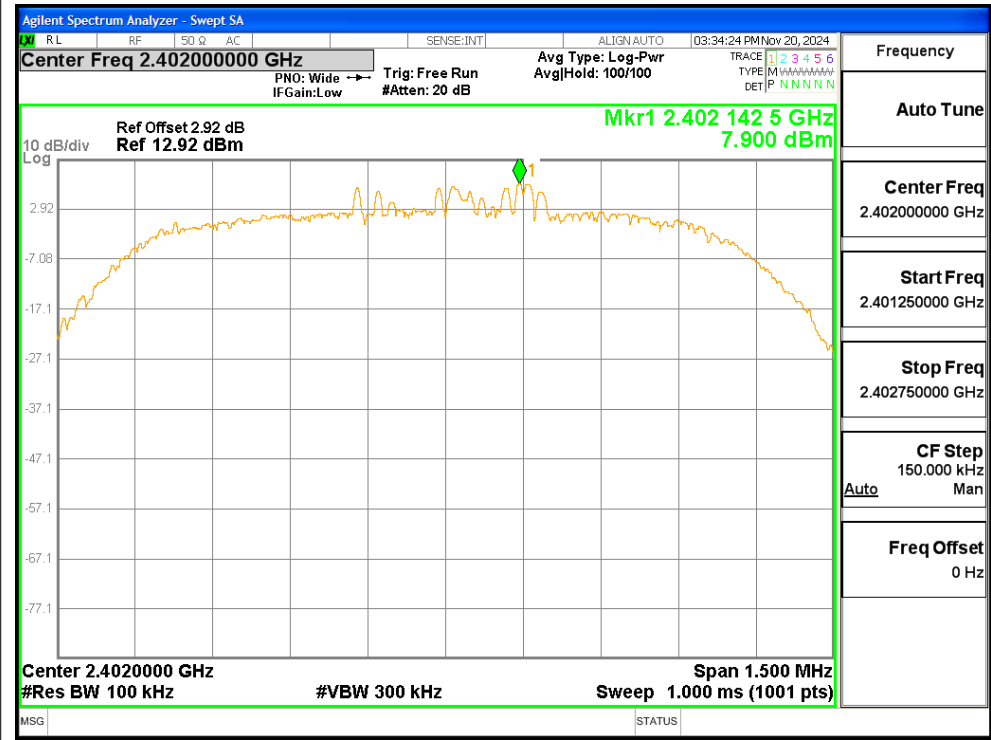
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref



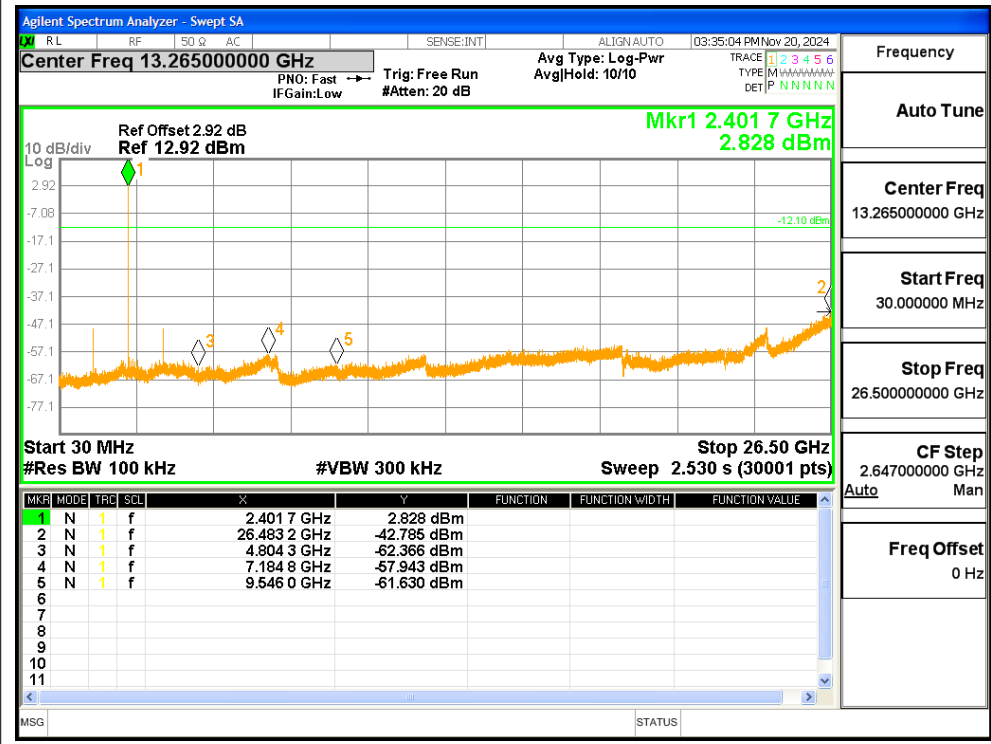
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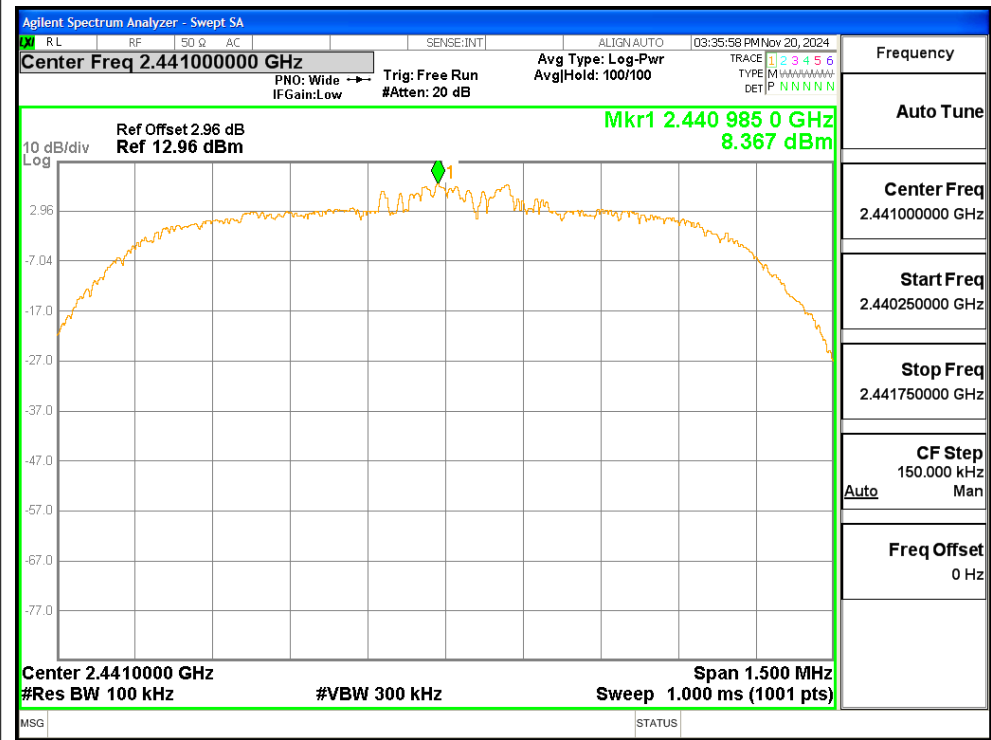
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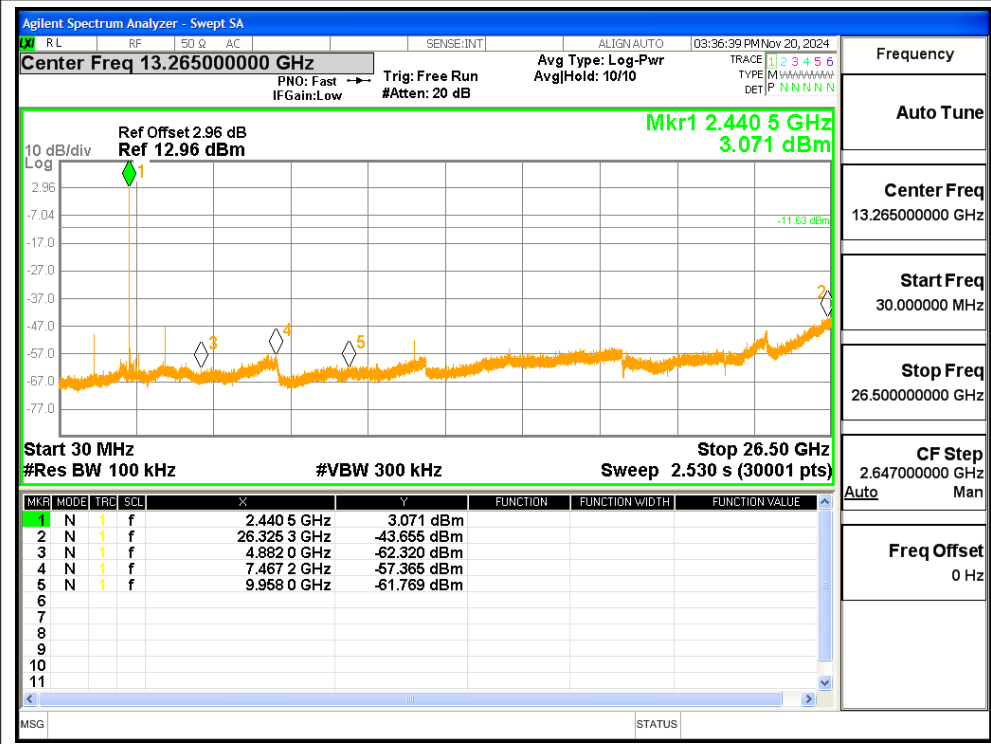
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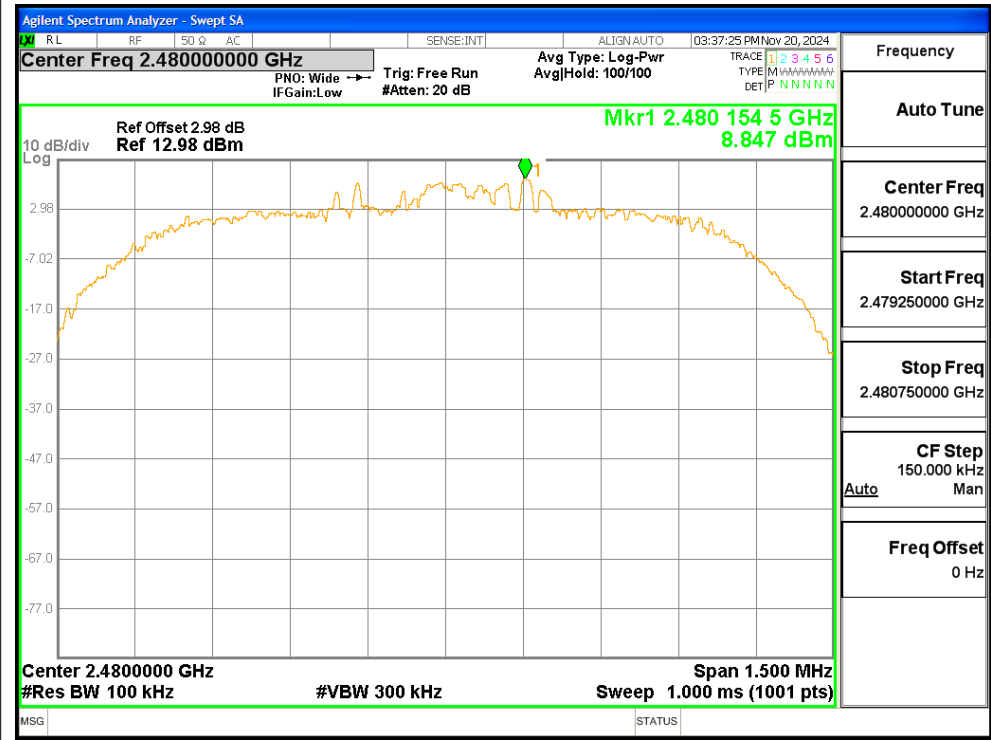
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Ref



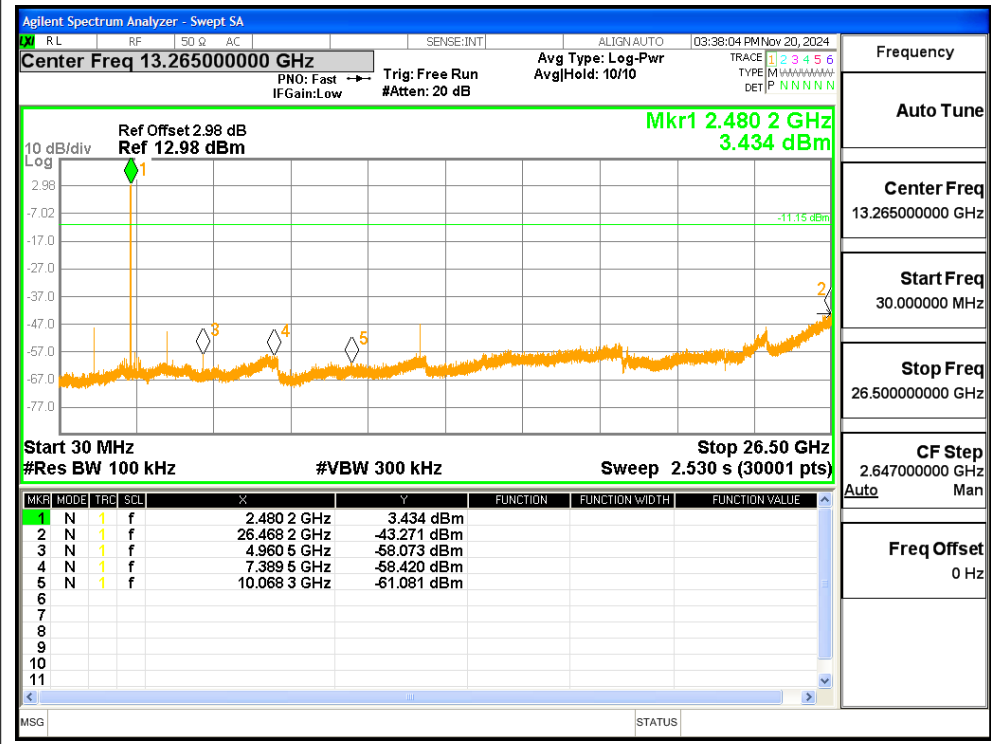
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Emission



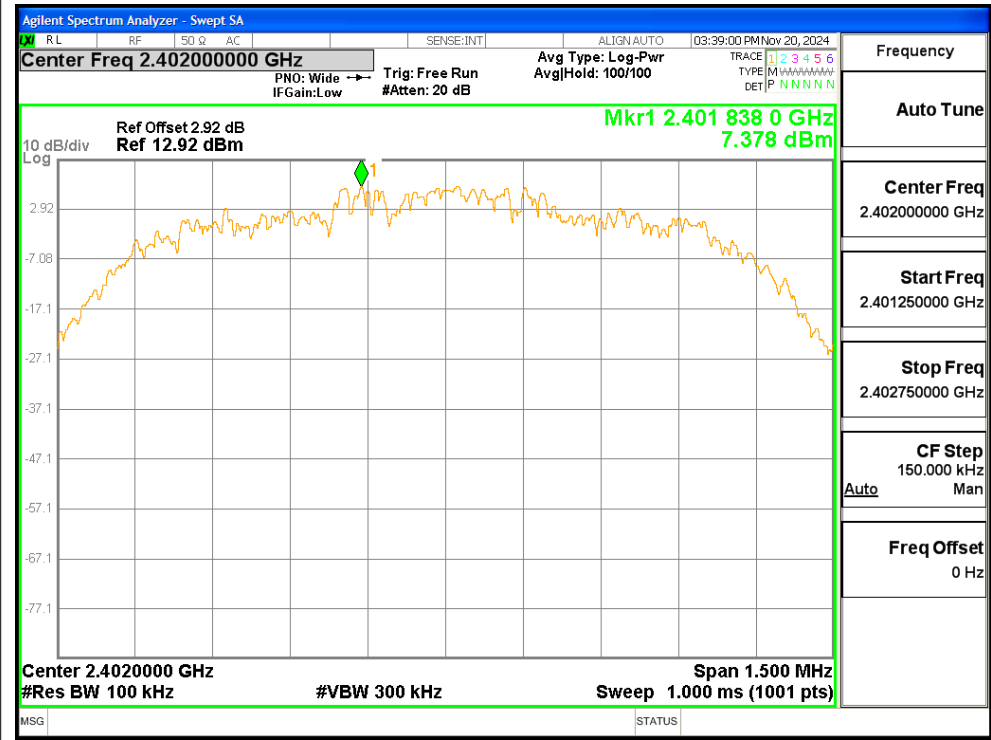
Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Ref



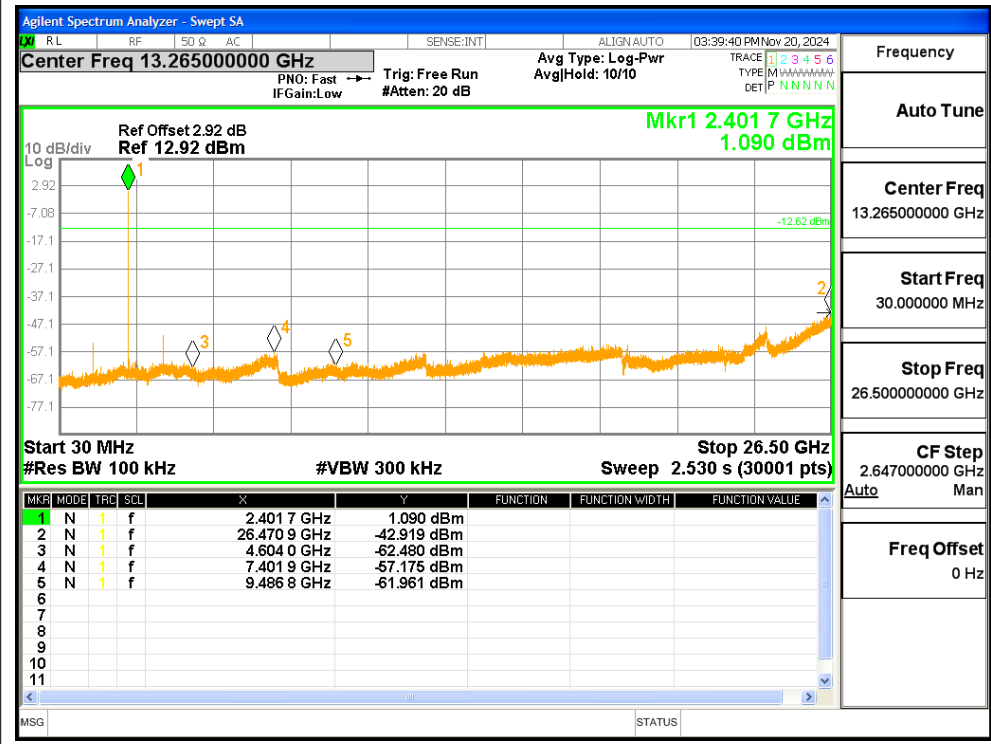
Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Emission



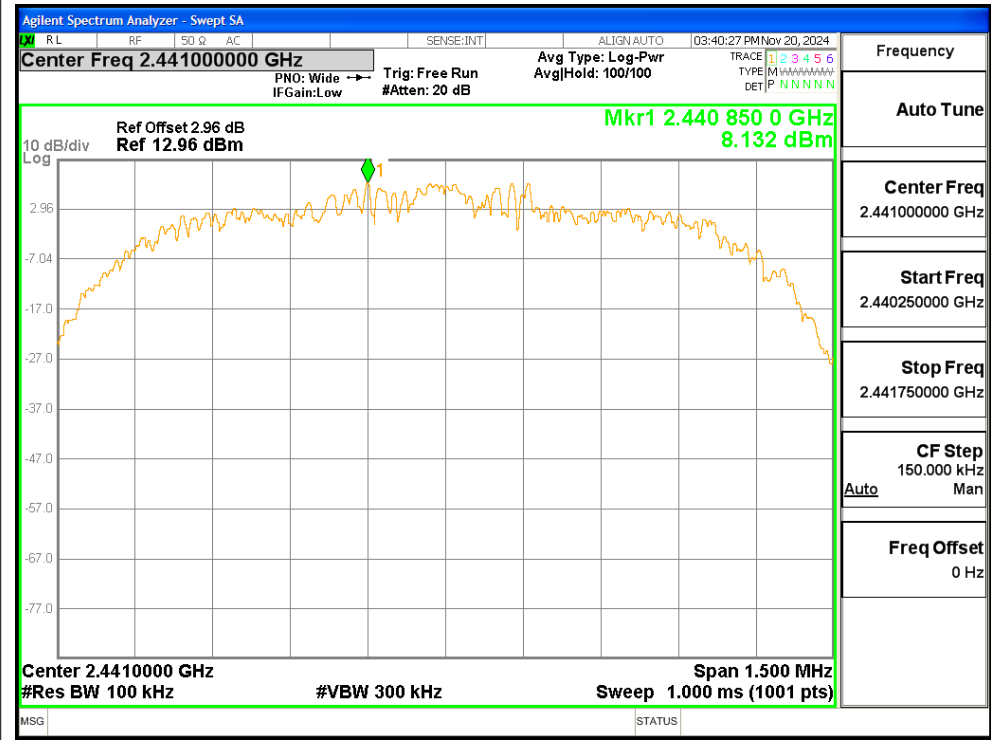
Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Ref



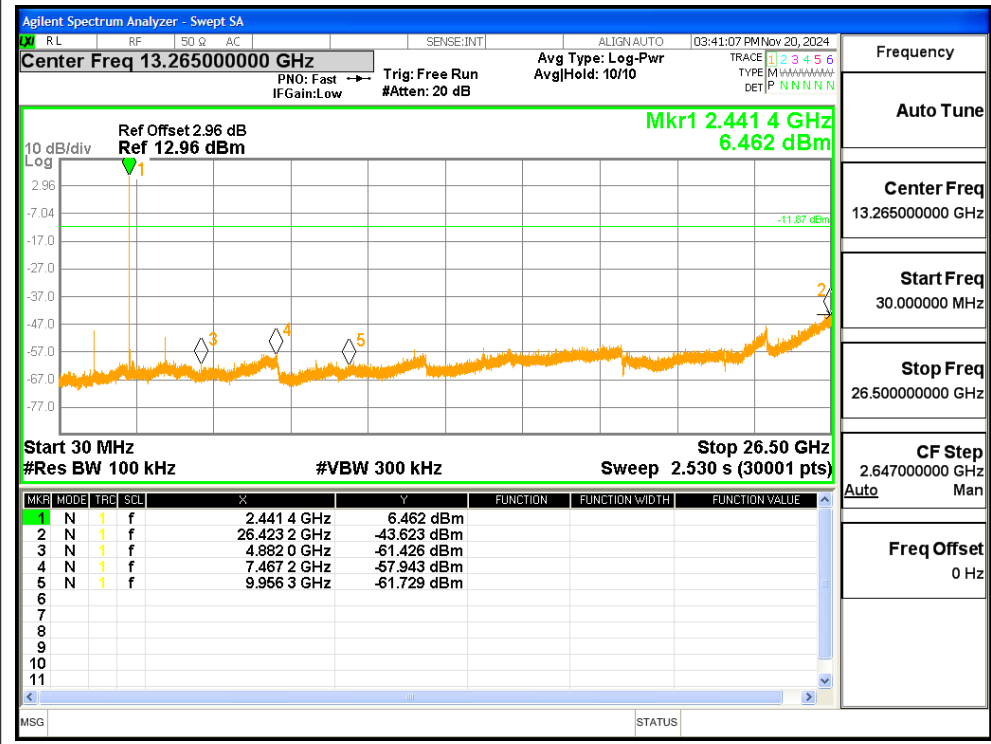
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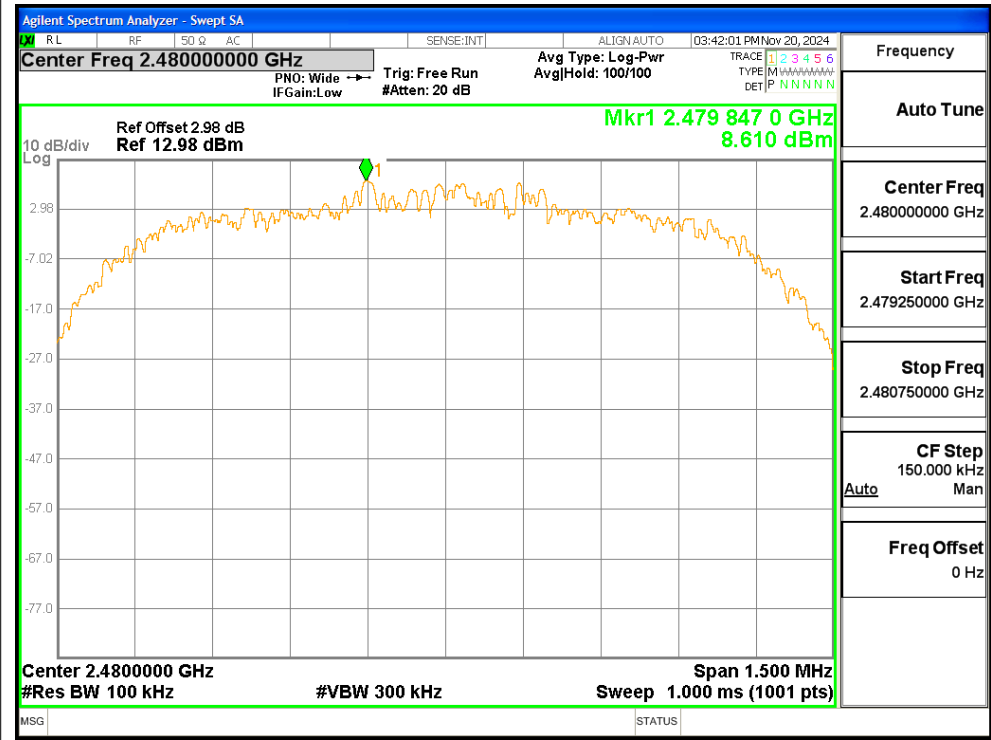
Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Ref



Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Emission

