

Appendix C

RF Test Data for 2.4GWIFI(Conducted Measurement)

Product Name: TABLET PC

Test Model: RubensTab T14

Environmental Conditions

|                    |             |
|--------------------|-------------|
| Temperature:       | 23.2°C      |
| Relative Humidity: | 54.4%       |
| ATM Pressure:      | 100.0 kPa   |
| Test Engineer:     | Suichao Lai |
| Supervised by:     | Yan Chen    |

## C.1 -6dB Bandwidth

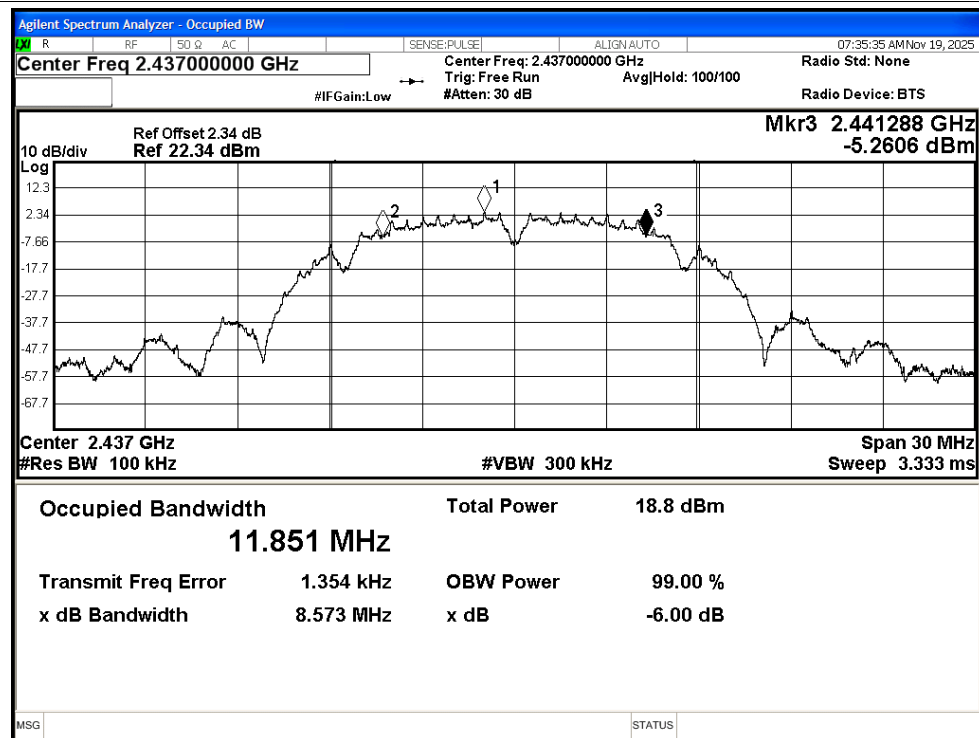
| Condition | Mode | Frequency (MHz) | Antenna | -6 dB Bandwidth (MHz) | Limit -6 dB Bandwidth (MHz) | Verdict |
|-----------|------|-----------------|---------|-----------------------|-----------------------------|---------|
| NVNT      | b    | 2412            | Ant1    | 8.075                 | $\geq 0.5$                  | Pass    |
| NVNT      | b    | 2437            | Ant1    | 8.573                 | $\geq 0.5$                  | Pass    |
| NVNT      | b    | 2462            | Ant1    | 8.112                 | $\geq 0.5$                  | Pass    |
| NVNT      | g    | 2412            | Ant1    | 16.067                | $\geq 0.5$                  | Pass    |
| NVNT      | g    | 2437            | Ant1    | 16.333                | $\geq 0.5$                  | Pass    |
| NVNT      | g    | 2462            | Ant1    | 16.277                | $\geq 0.5$                  | Pass    |
| NVNT      | n20  | 2412            | Ant1    | 16.985                | $\geq 0.5$                  | Pass    |
| NVNT      | n20  | 2437            | Ant1    | 17.11                 | $\geq 0.5$                  | Pass    |
| NVNT      | n20  | 2462            | Ant1    | 17.13                 | $\geq 0.5$                  | Pass    |
| NVNT      | n40  | 2422            | Ant1    | 34.497                | $\geq 0.5$                  | Pass    |
| NVNT      | n40  | 2437            | Ant1    | 35.625                | $\geq 0.5$                  | Pass    |
| NVNT      | n40  | 2452            | Ant1    | 35.518                | $\geq 0.5$                  | Pass    |

## Test Graphs

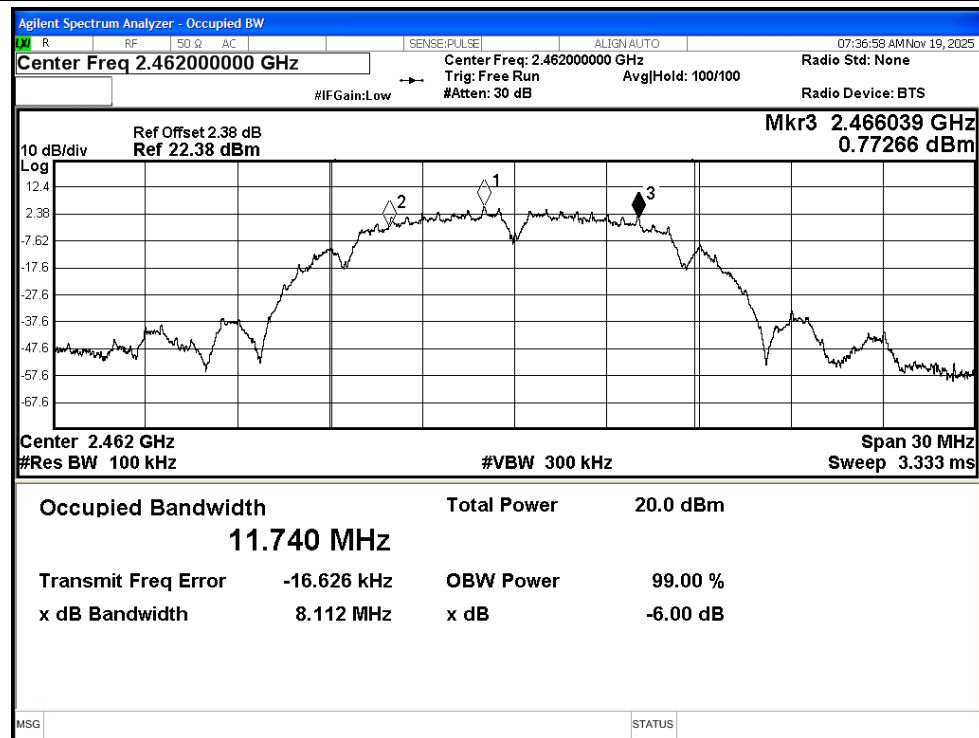
-6dB Bandwidth NVNT b 2412MHz Ant1



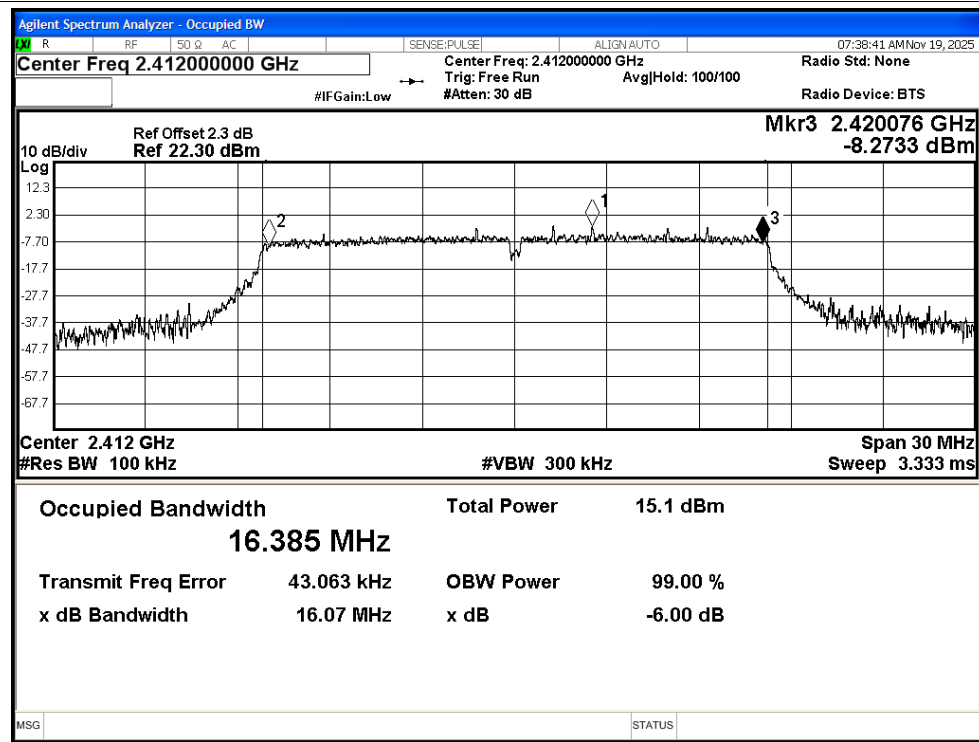
-6dB Bandwidth NVNT b 2437MHz Ant1



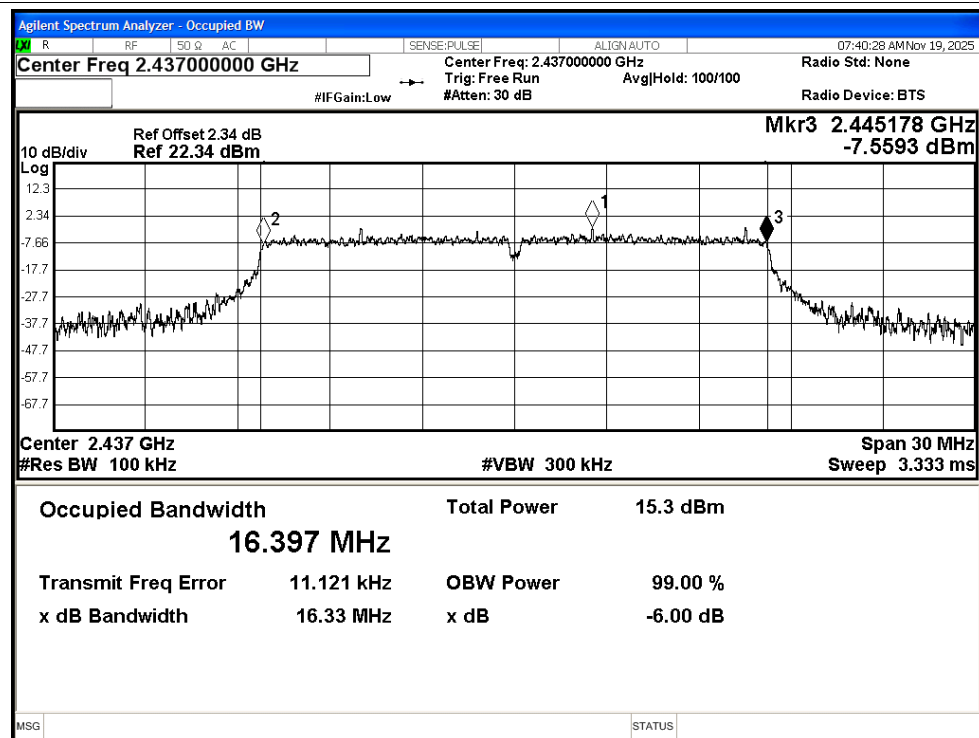
## -6dB Bandwidth NVNT b 2462MHz Ant1



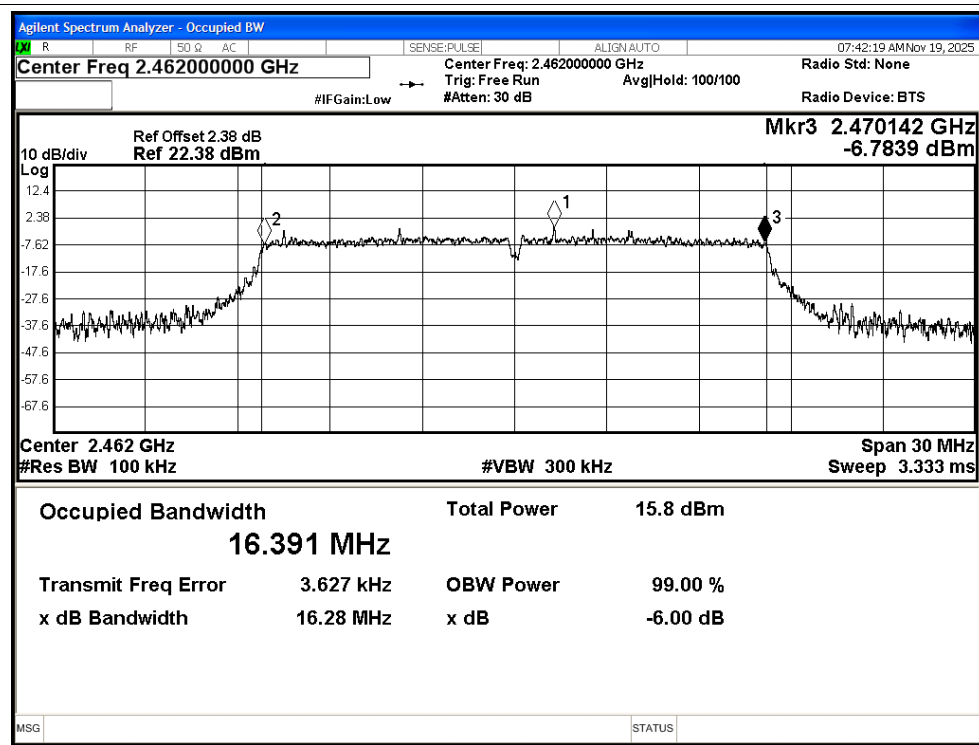
## -6dB Bandwidth NVNT g 2412MHz Ant1



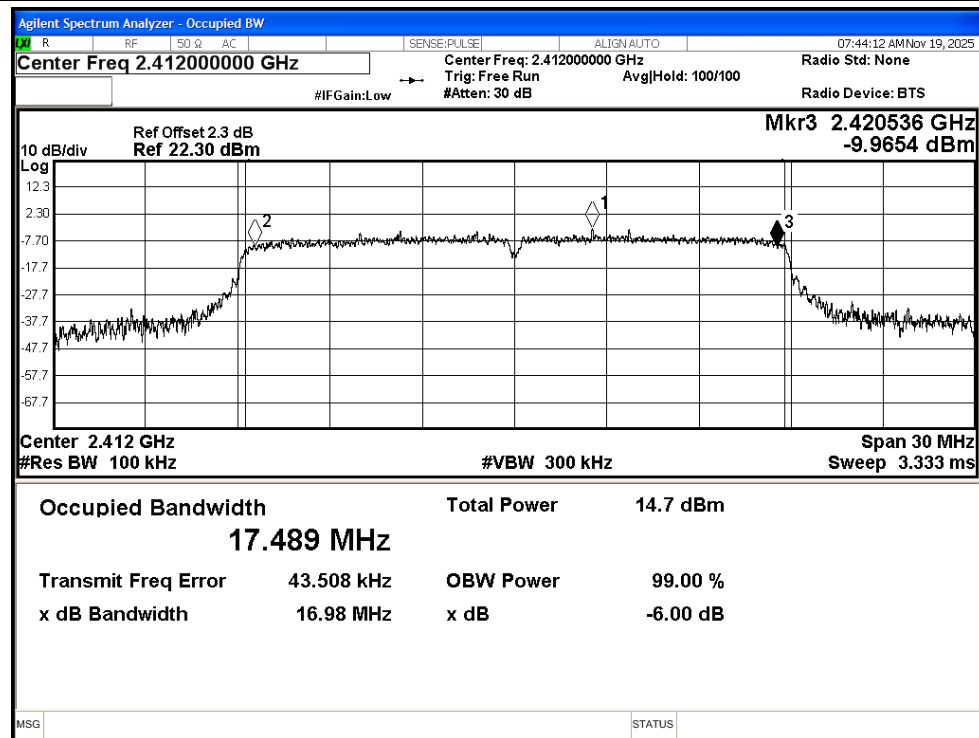
## -6dB Bandwidth NVNT g 2437MHz Ant1



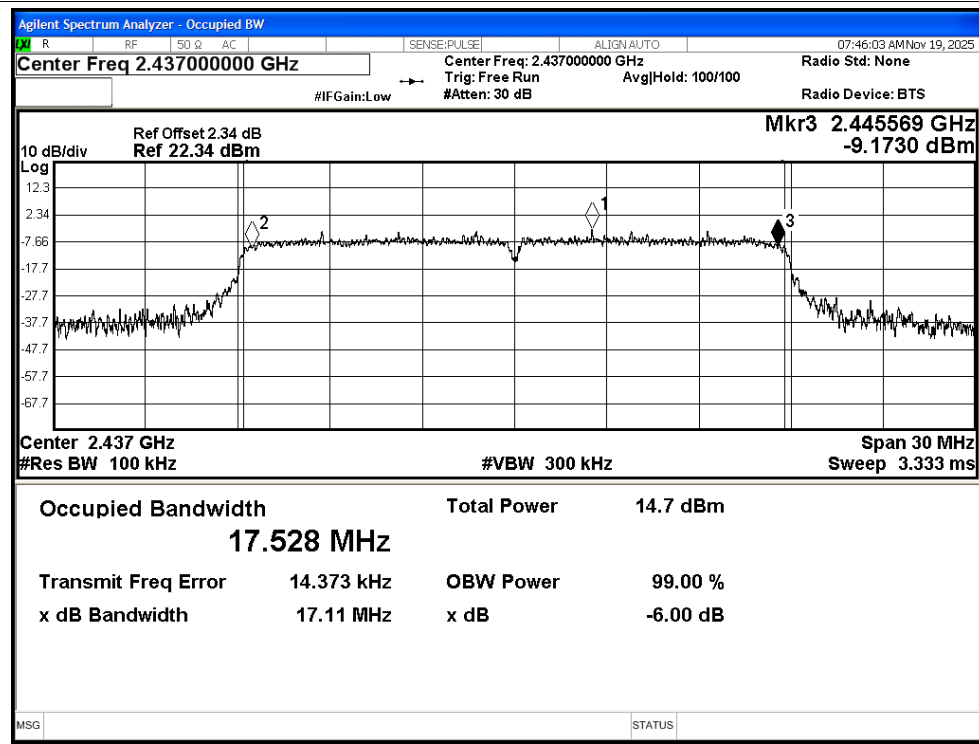
## -6dB Bandwidth NVNT g 2462MHz Ant1



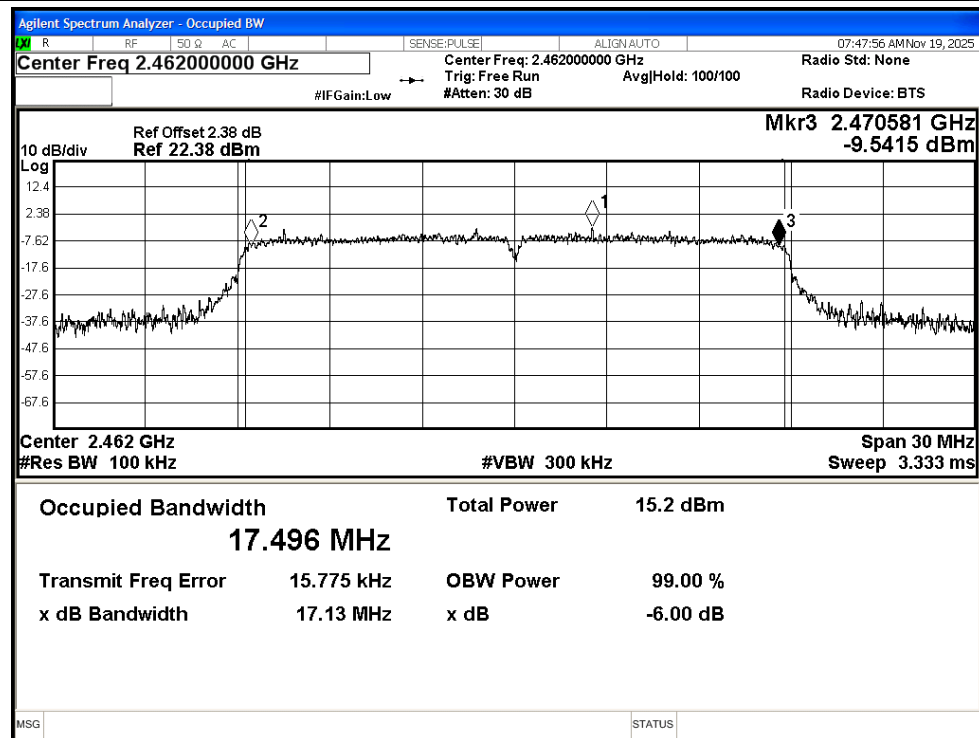
## -6dB Bandwidth NVNT n20 2412MHz Ant1



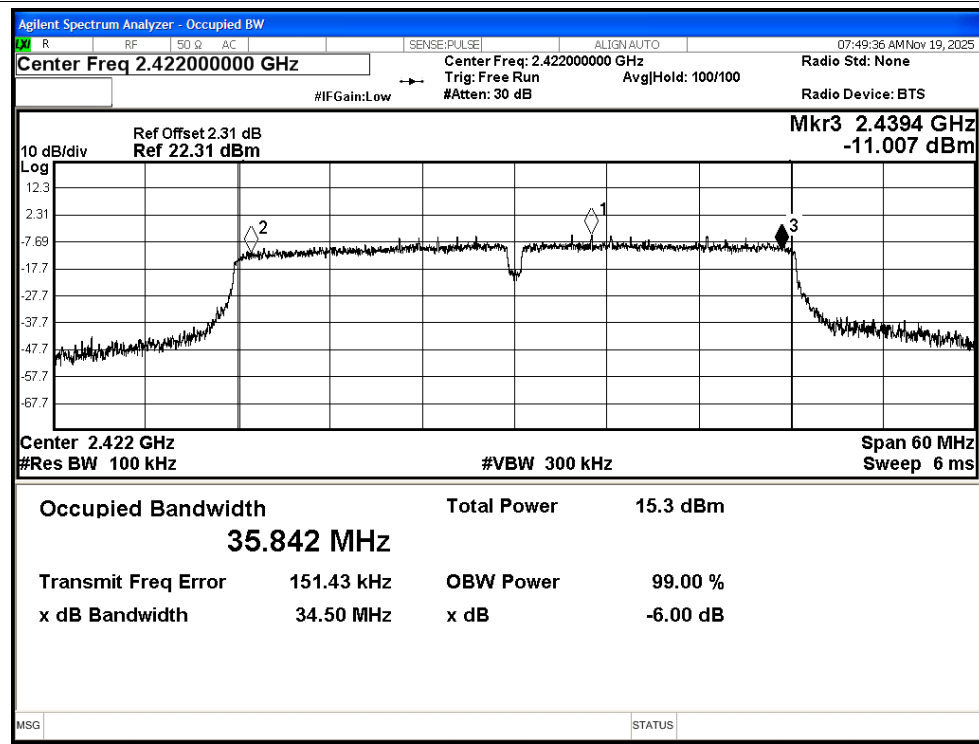
## -6dB Bandwidth NVNT n20 2437MHz Ant1



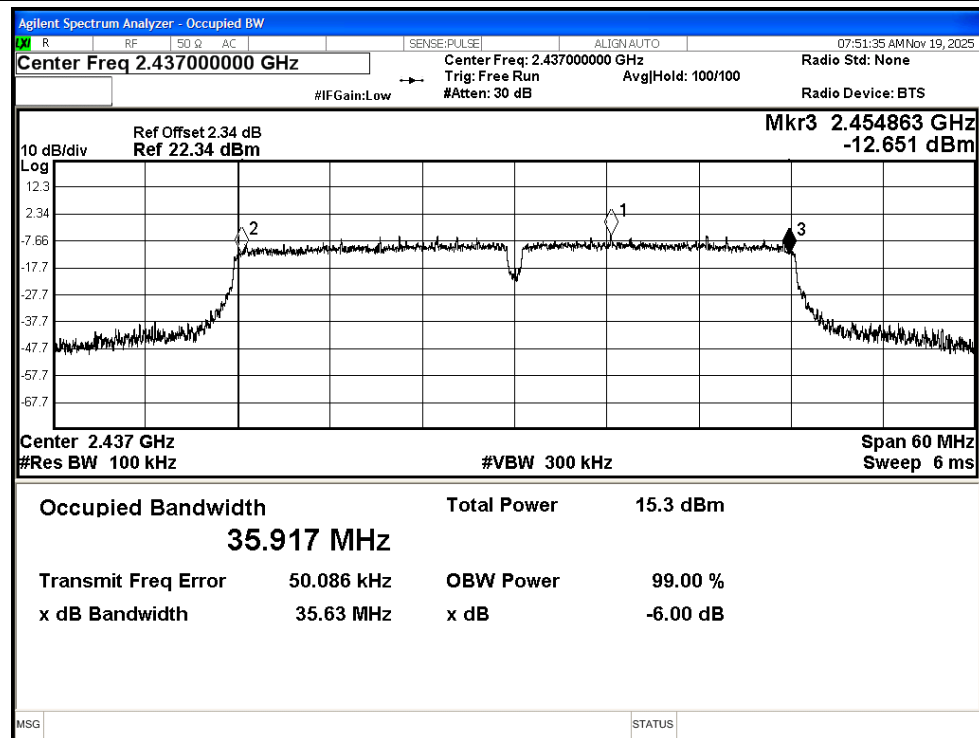
## -6dB Bandwidth NVNT n20 2462MHz Ant1



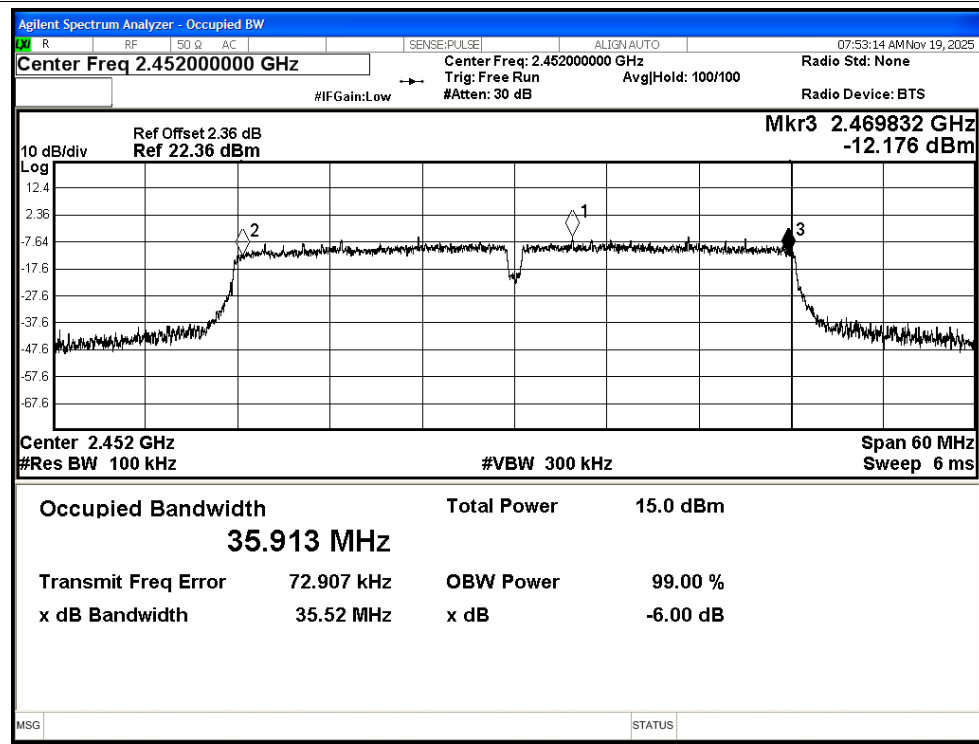
## -6dB Bandwidth NVNT n40 2422MHz Ant1



## -6dB Bandwidth NVNT n40 2437MHz Ant1



## -6dB Bandwidth NVNT n40 2452MHz Ant1





## C.2 Maximum Peak Conducted Output Power

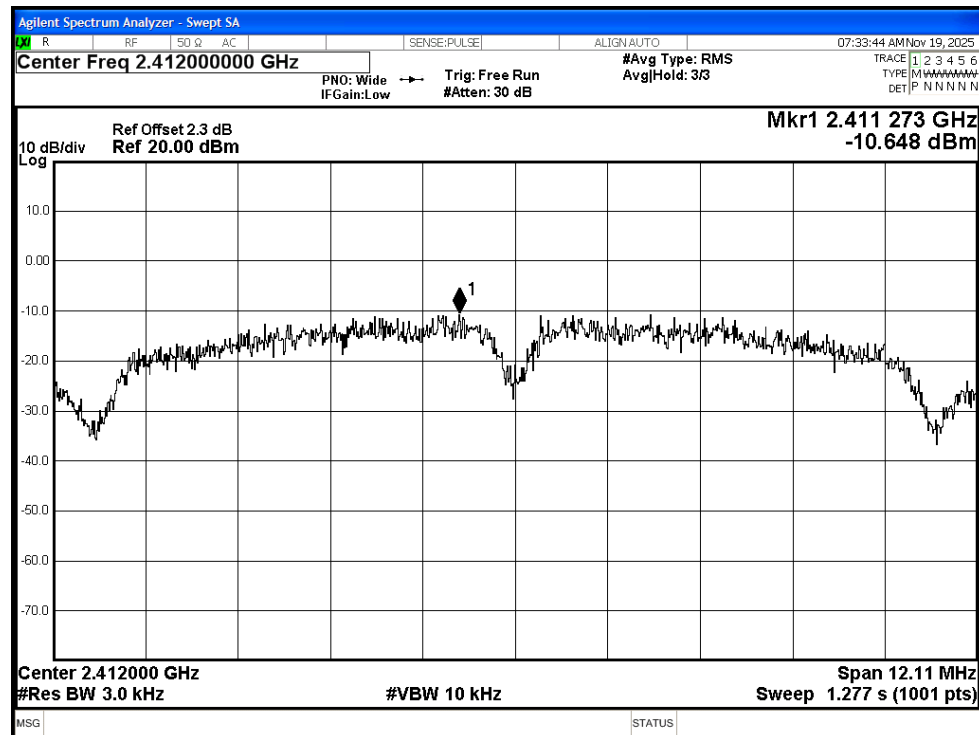
| Condition | Mode | Frequency (MHz) | Antenna | Conducted Power (dBm) | Limit (dBm) | Verdict |
|-----------|------|-----------------|---------|-----------------------|-------------|---------|
| NVNT      | b    | 2412            | Ant1    | 14.26                 | 30          | Pass    |
| NVNT      | b    | 2437            | Ant1    | 14.7                  | 30          | Pass    |
| NVNT      | b    | 2462            | Ant1    | 15.06                 | 30          | Pass    |
| NVNT      | g    | 2412            | Ant1    | 13.92                 | 30          | Pass    |
| NVNT      | g    | 2437            | Ant1    | 14.21                 | 30          | Pass    |
| NVNT      | g    | 2462            | Ant1    | 14.61                 | 30          | Pass    |
| NVNT      | n20  | 2412            | Ant1    | 13.34                 | 30          | Pass    |
| NVNT      | n20  | 2437            | Ant1    | 13.38                 | 30          | Pass    |
| NVNT      | n20  | 2462            | Ant1    | 13.77                 | 30          | Pass    |
| NVNT      | n40  | 2422            | Ant1    | 13.75                 | 30          | Pass    |
| NVNT      | n40  | 2437            | Ant1    | 13.77                 | 30          | Pass    |
| NVNT      | n40  | 2452            | Ant1    | 13.45                 | 30          | Pass    |

### C.3 Maximum Power Spectral Density Level

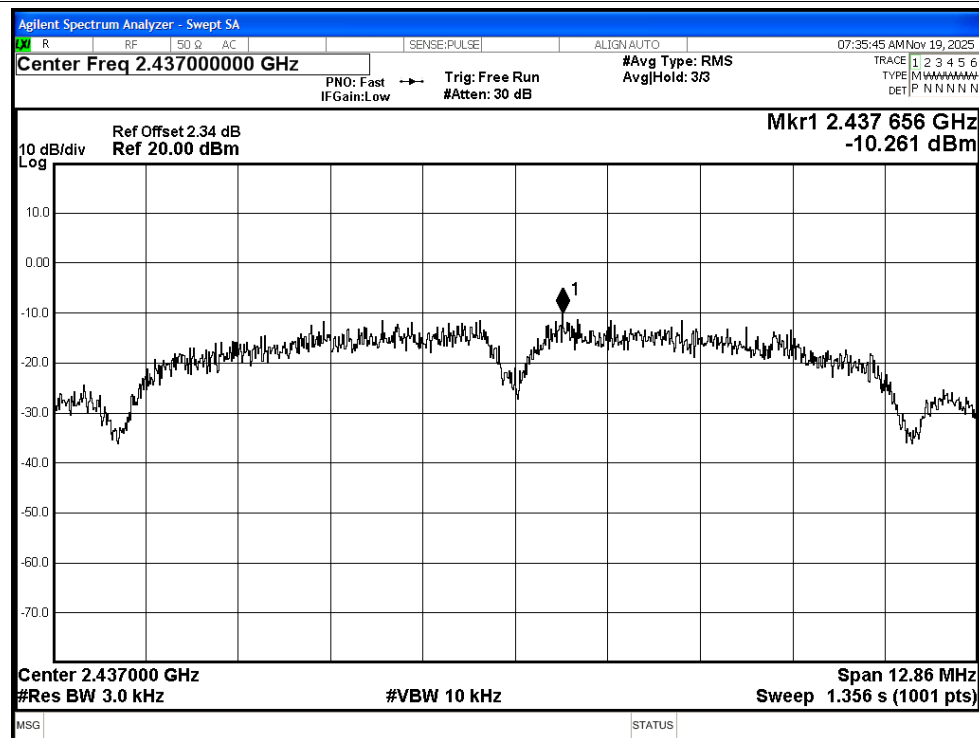
| Condition | Mode | Frequency (MHz) | Antenna | Conducted PSD (dBm/3kHz) | Limit (dBm/3kHz) | Verdict |
|-----------|------|-----------------|---------|--------------------------|------------------|---------|
| NVNT      | b    | 2412            | Ant1    | -10.65                   | 8                | Pass    |
| NVNT      | b    | 2437            | Ant1    | -10.26                   | 8                | Pass    |
| NVNT      | b    | 2462            | Ant1    | -8.88                    | 8                | Pass    |
| NVNT      | g    | 2412            | Ant1    | -16.36                   | 8                | Pass    |
| NVNT      | g    | 2437            | Ant1    | -16.54                   | 8                | Pass    |
| NVNT      | g    | 2462            | Ant1    | -16.07                   | 8                | Pass    |
| NVNT      | n20  | 2412            | Ant1    | -17.24                   | 8                | Pass    |
| NVNT      | n20  | 2437            | Ant1    | -17.24                   | 8                | Pass    |
| NVNT      | n20  | 2462            | Ant1    | -17.48                   | 8                | Pass    |
| NVNT      | n40  | 2422            | Ant1    | -19.92                   | 8                | Pass    |
| NVNT      | n40  | 2437            | Ant1    | -19.65                   | 8                | Pass    |
| NVNT      | n40  | 2452            | Ant1    | -20.48                   | 8                | Pass    |

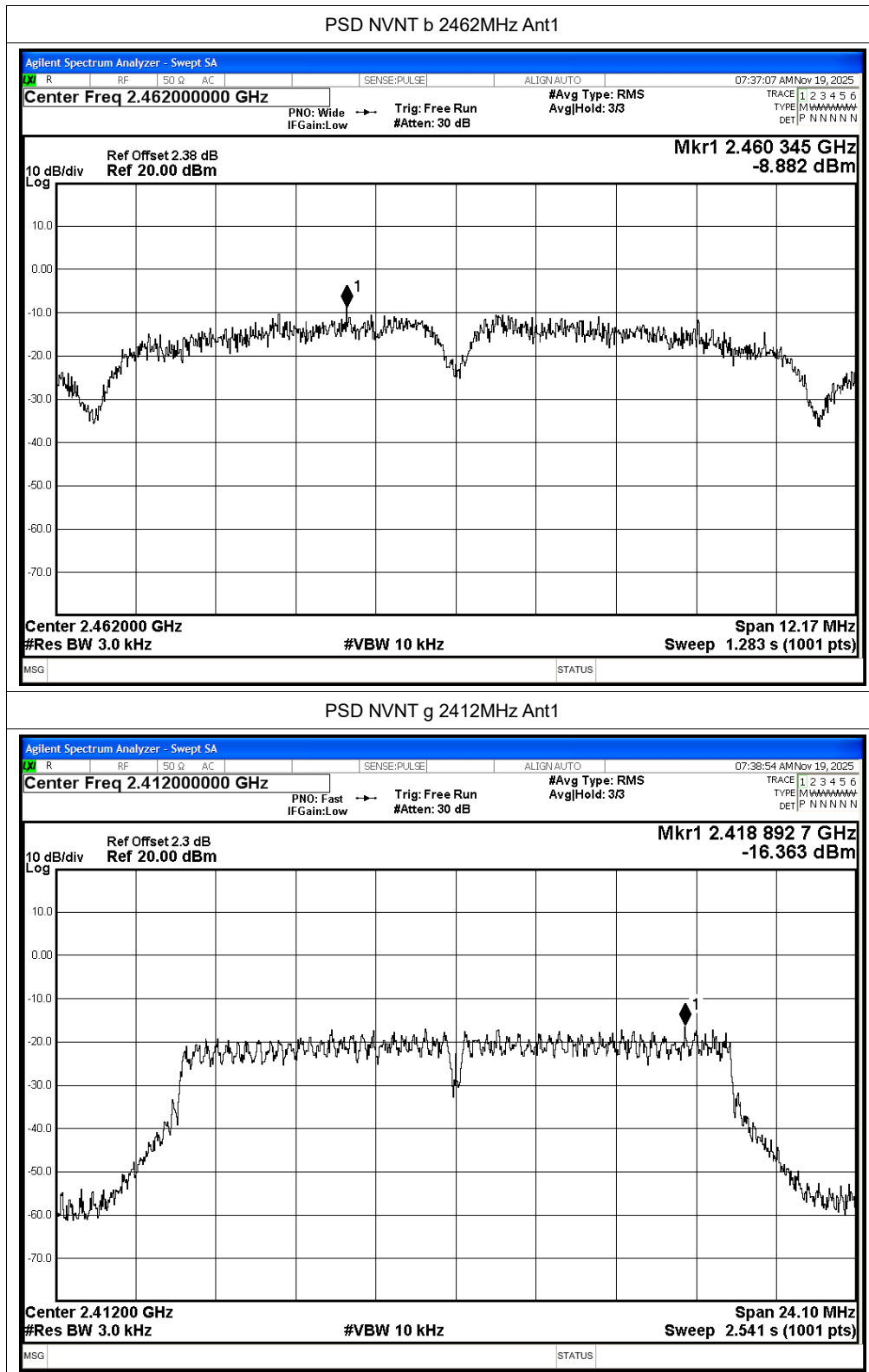
## Test Graphs

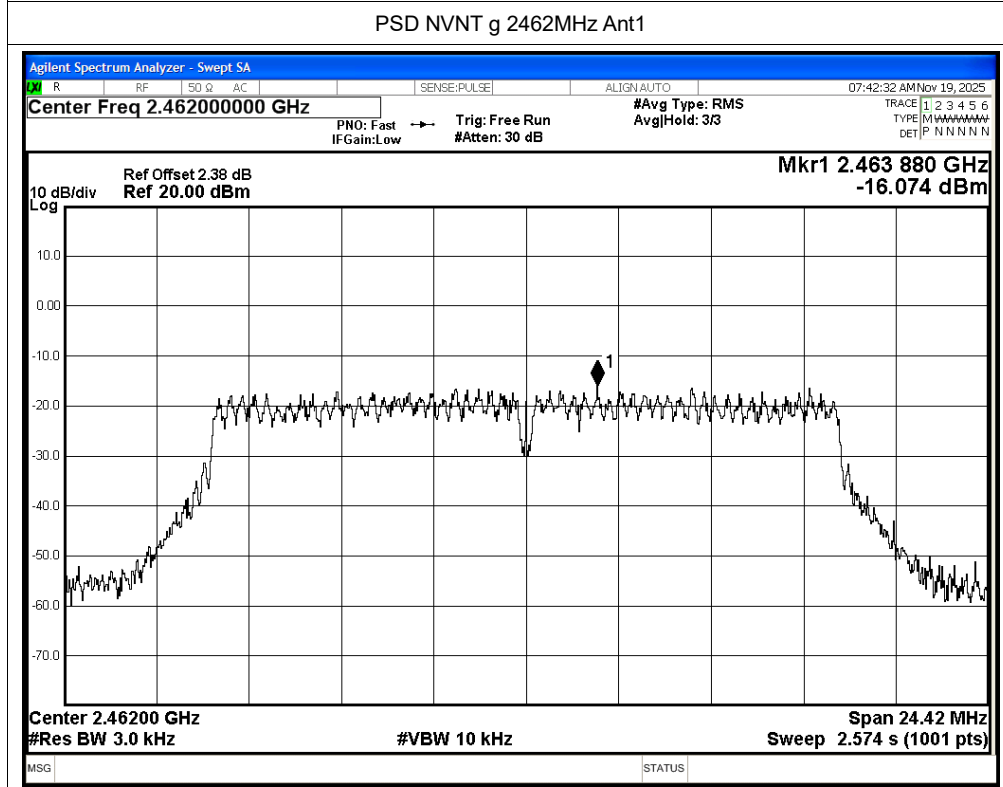
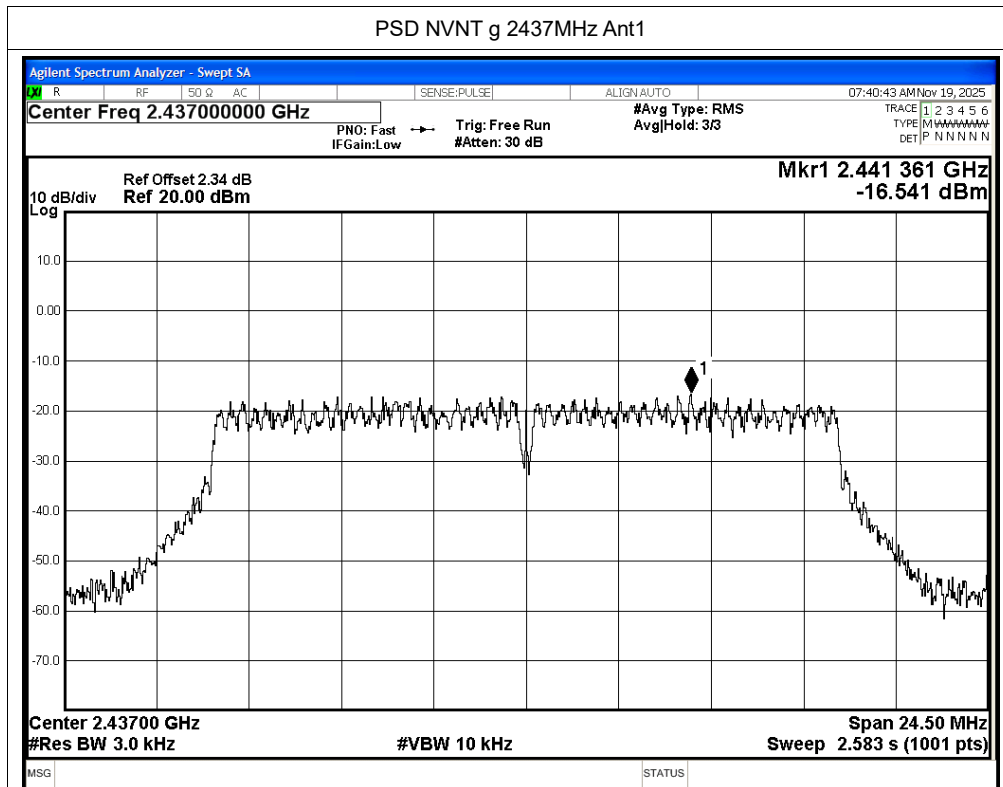
## PSD NVNT b 2412MHz Ant1

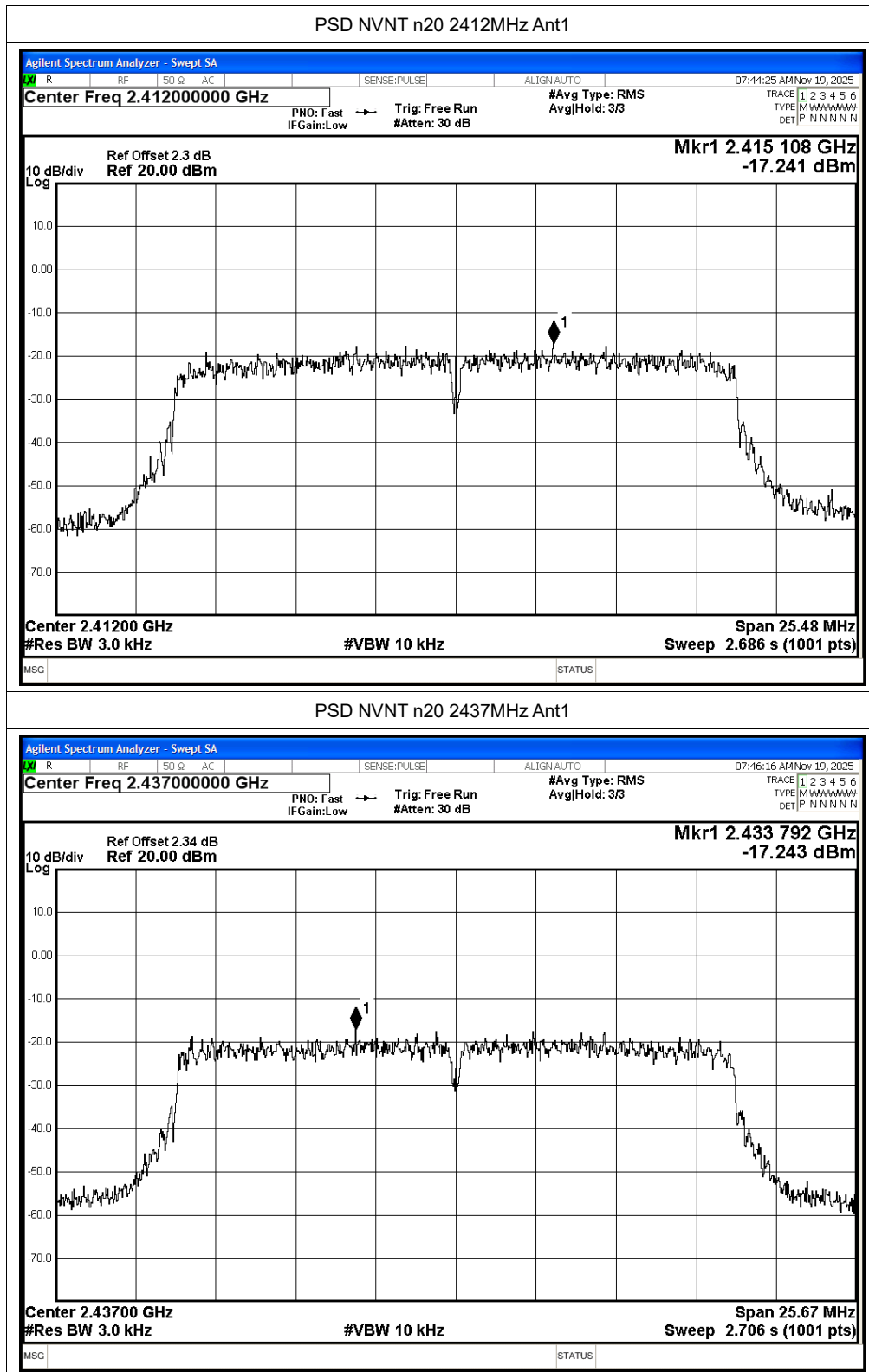


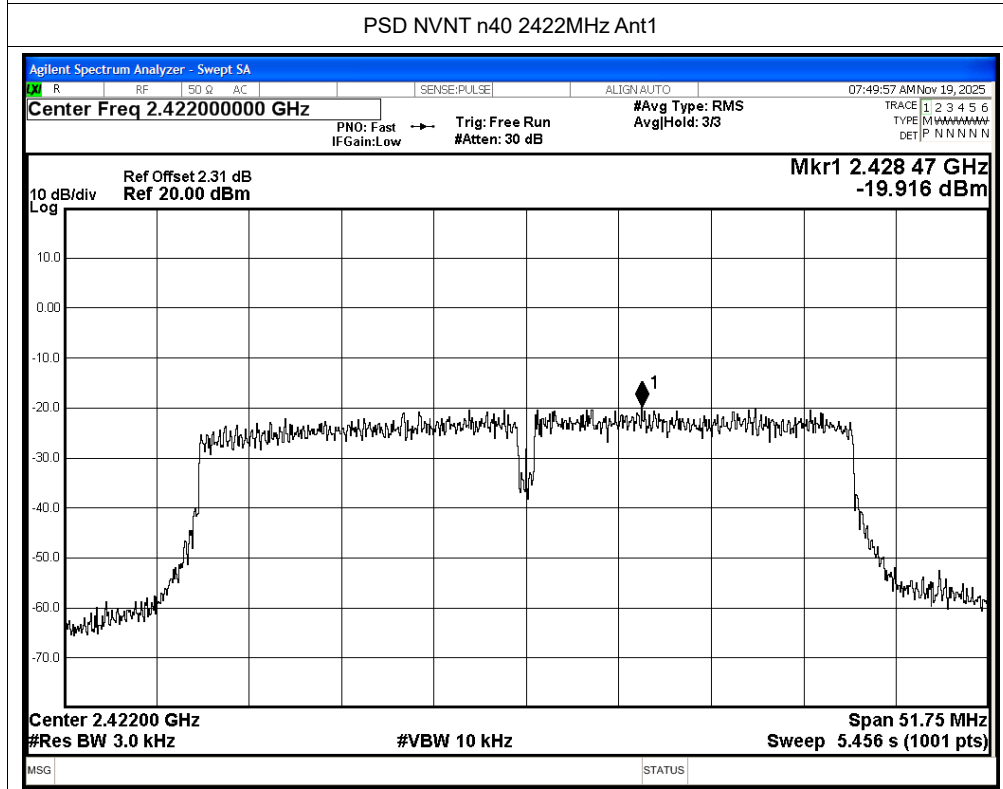
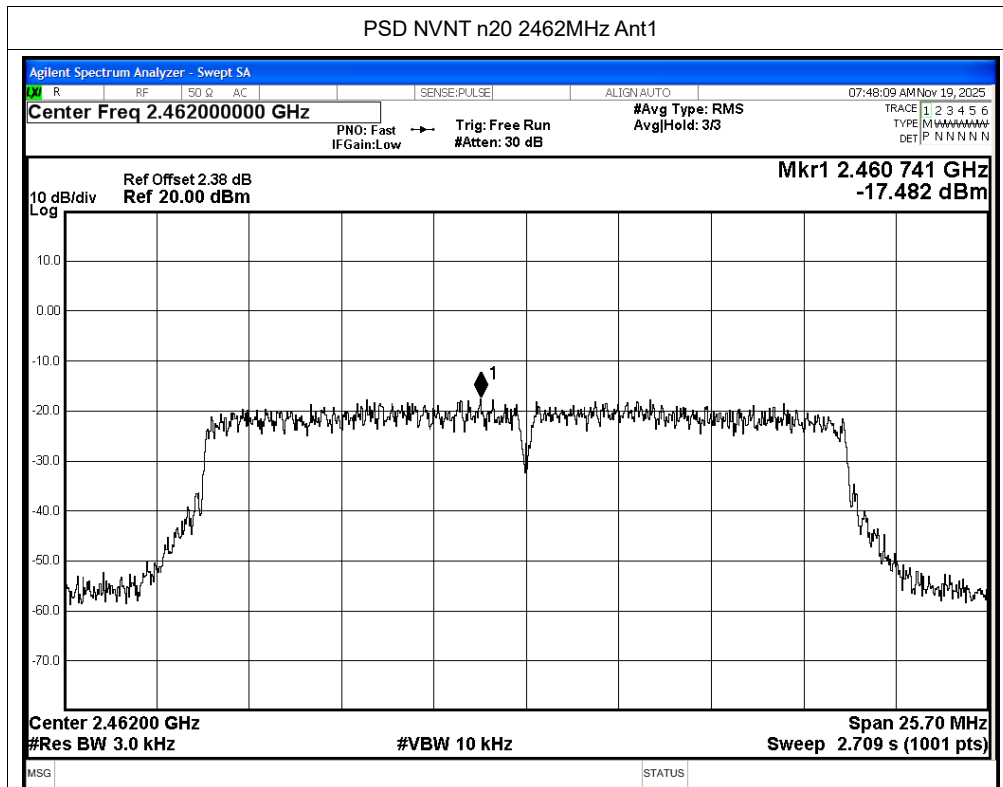
## PSD NVNT b 2437MHz Ant1

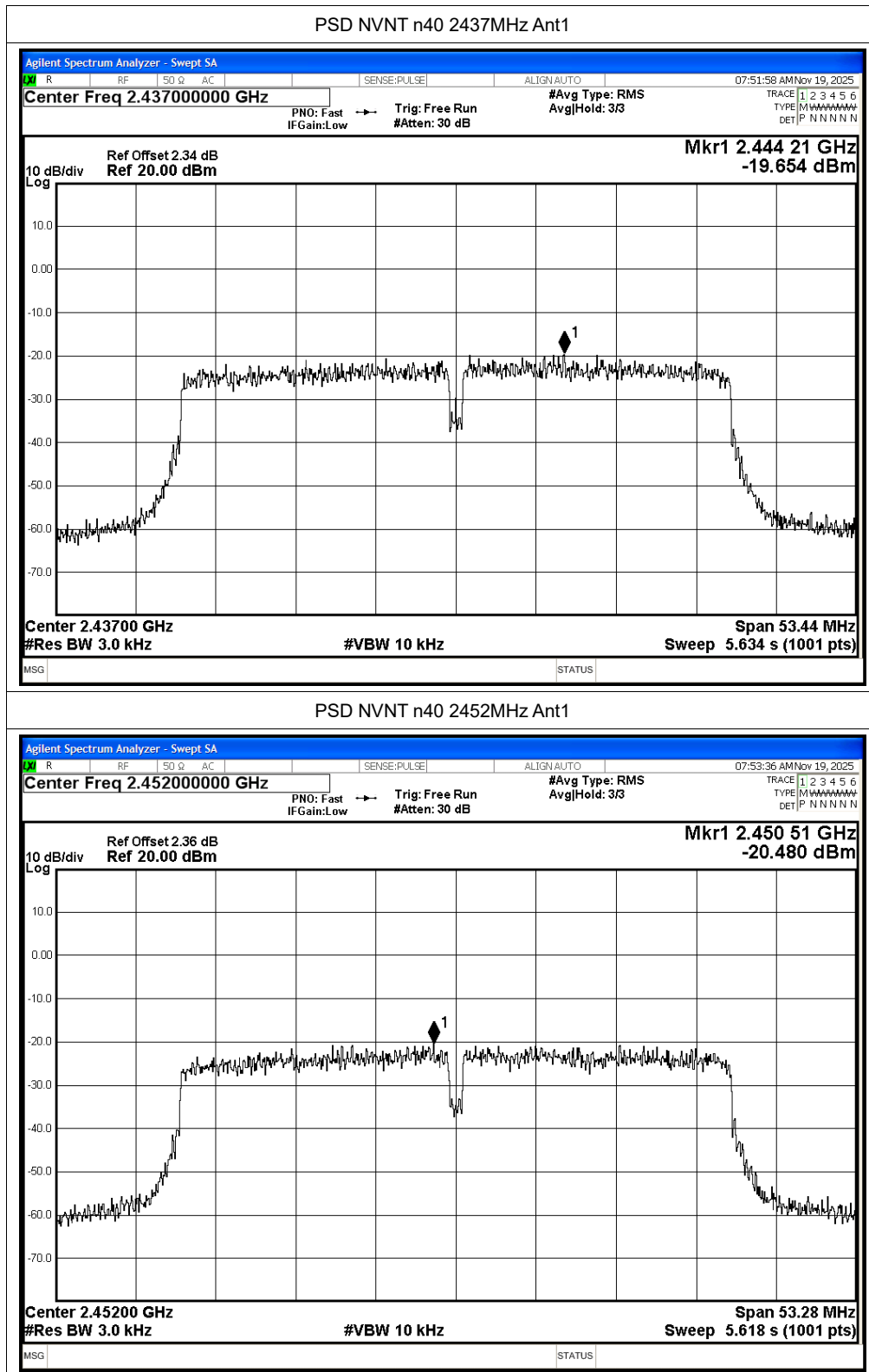














## C.4 Band Edge

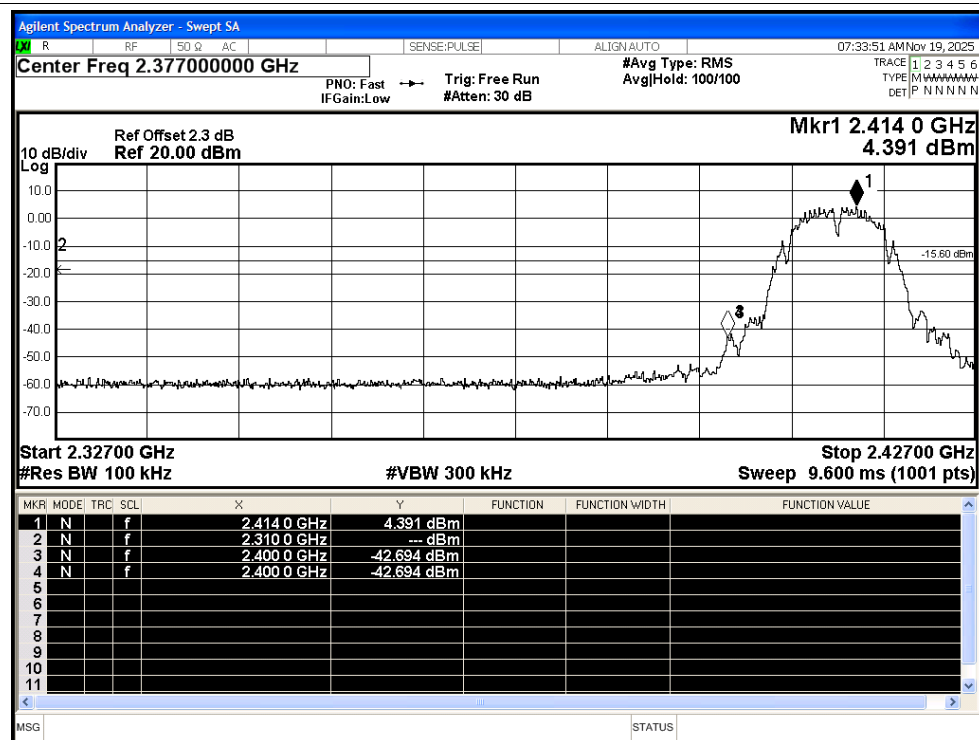
| Condition | Mode | Frequency (MHz) | Antenna | Max Value (dBc) | Limit (dBc) | Verdict |
|-----------|------|-----------------|---------|-----------------|-------------|---------|
| NVNT      | b    | 2412            | Ant1    | -47.1           | -20         | Pass    |
| NVNT      | b    | 2462            | Ant1    | -59.94          | -20         | Pass    |
| NVNT      | g    | 2412            | Ant1    | -33.68          | -20         | Pass    |
| NVNT      | g    | 2462            | Ant1    | -44.02          | -20         | Pass    |
| NVNT      | n20  | 2412            | Ant1    | -32.89          | -20         | Pass    |
| NVNT      | n20  | 2462            | Ant1    | -41.74          | -20         | Pass    |
| NVNT      | n40  | 2422            | Ant1    | -34.11          | -20         | Pass    |
| NVNT      | n40  | 2452            | Ant1    | -36.67          | -20         | Pass    |

## Test Graphs

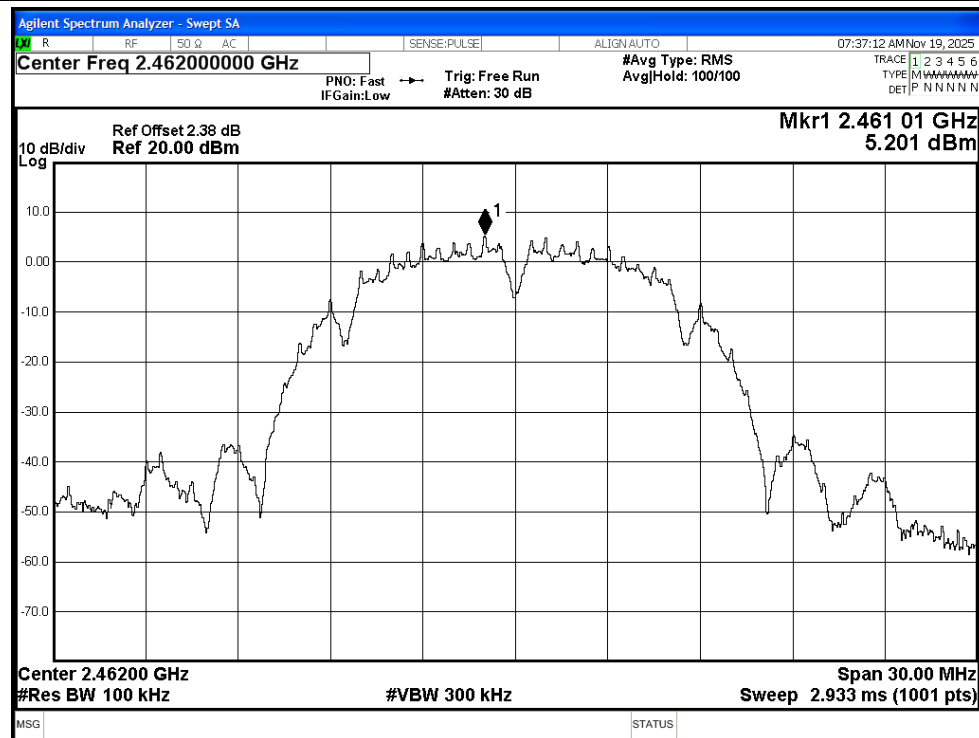
## Band Edge NVNT b 2412MHz Ant1 Ref



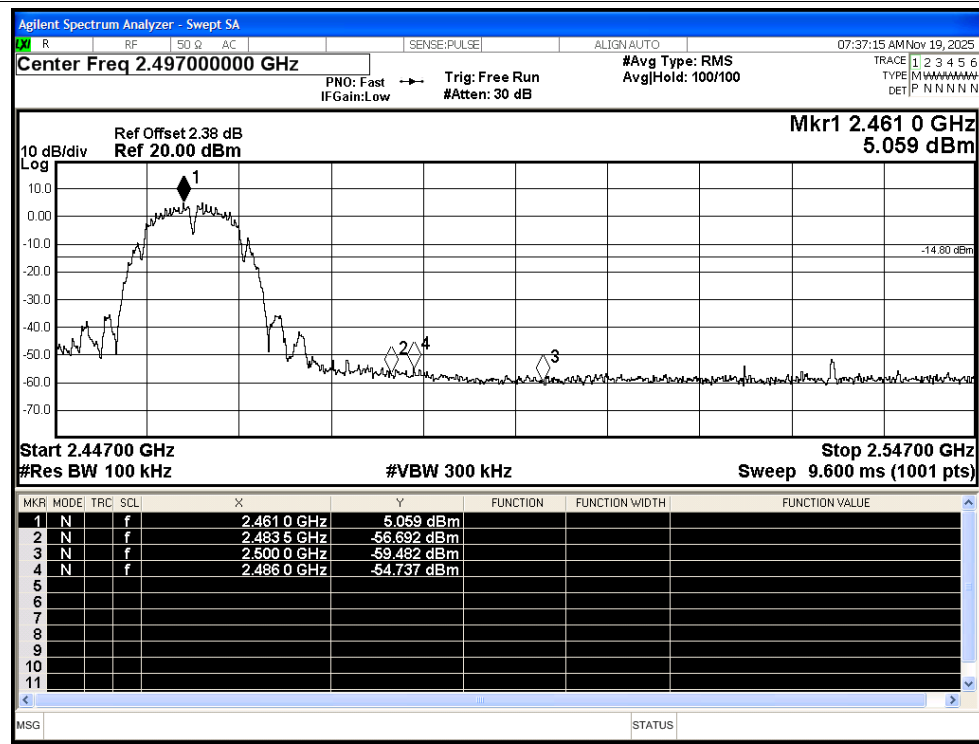
## Band Edge NVNT b 2412MHz Ant1 Emission



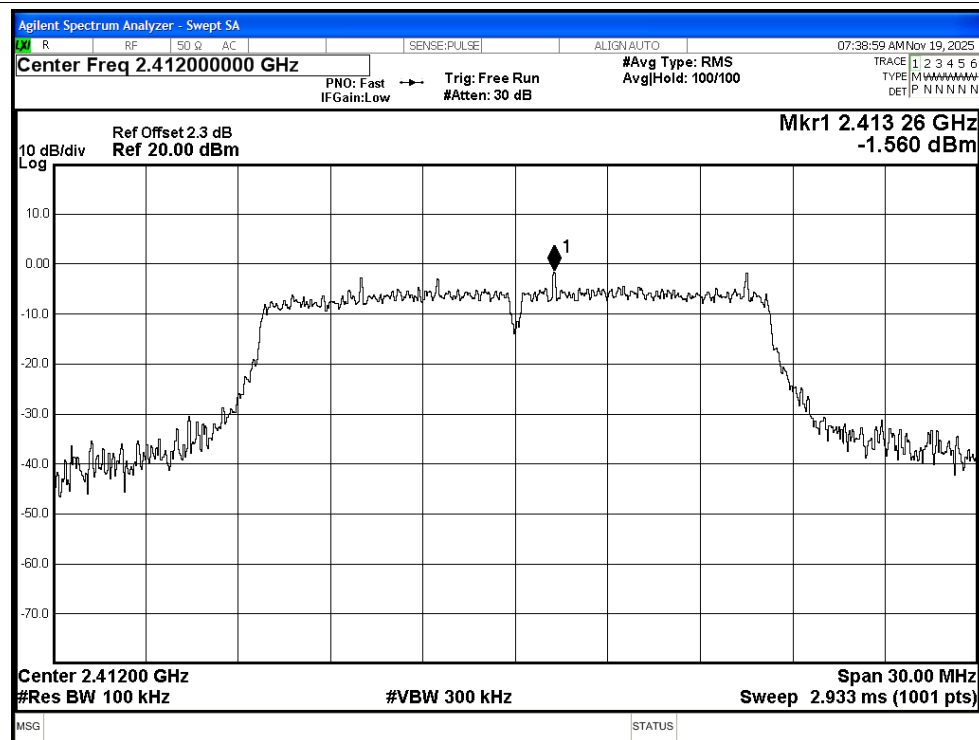
## Band Edge NVNT b 2462MHz Ant1 Ref



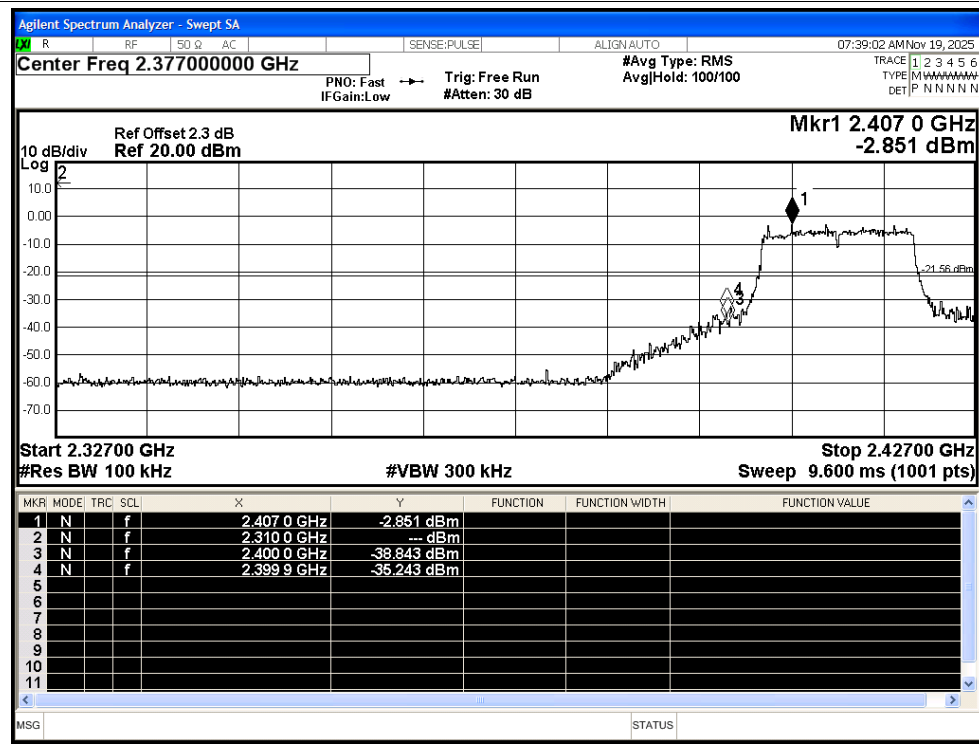
## Band Edge NVNT b 2462MHz Ant1 Emission



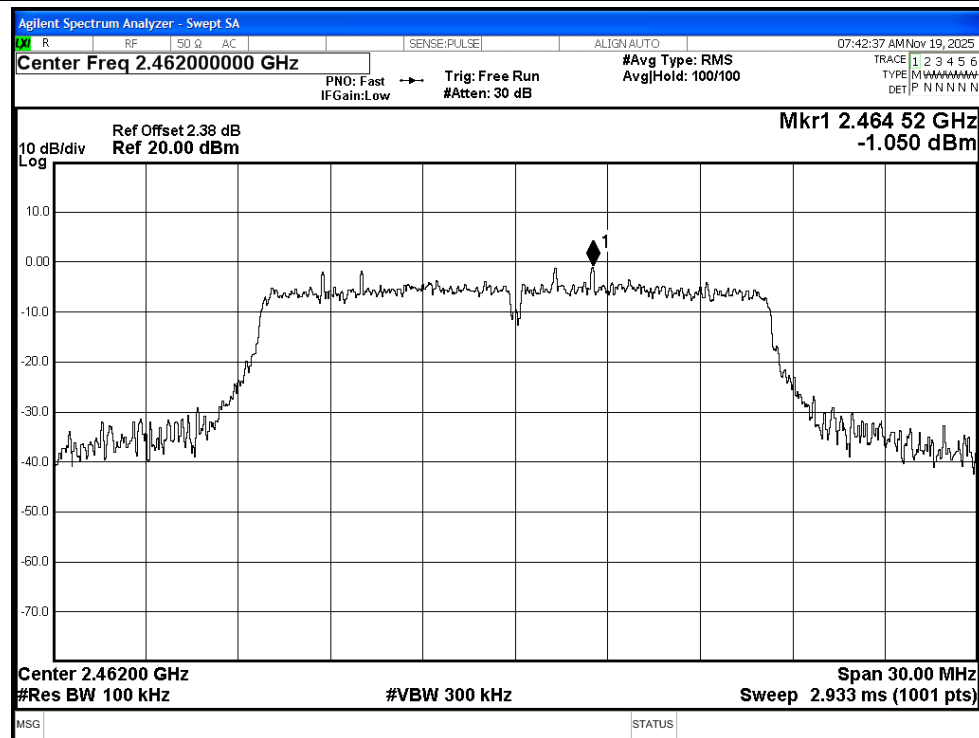
## Band Edge NVNT g 2412MHz Ant1 Ref



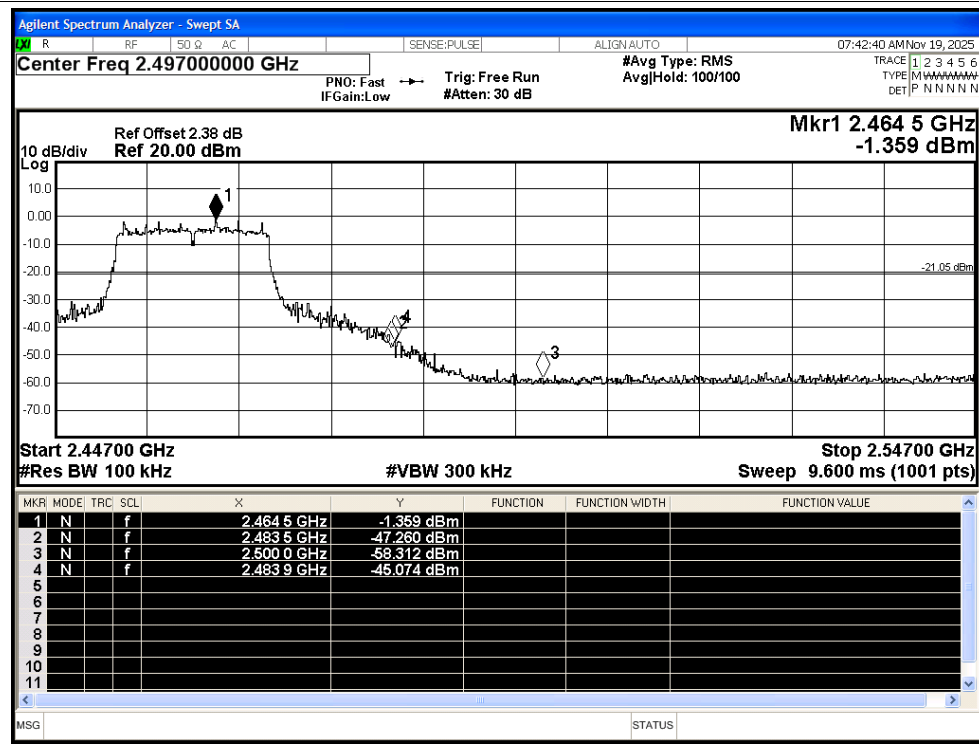
## Band Edge NVNT g 2412MHz Ant1 Emission



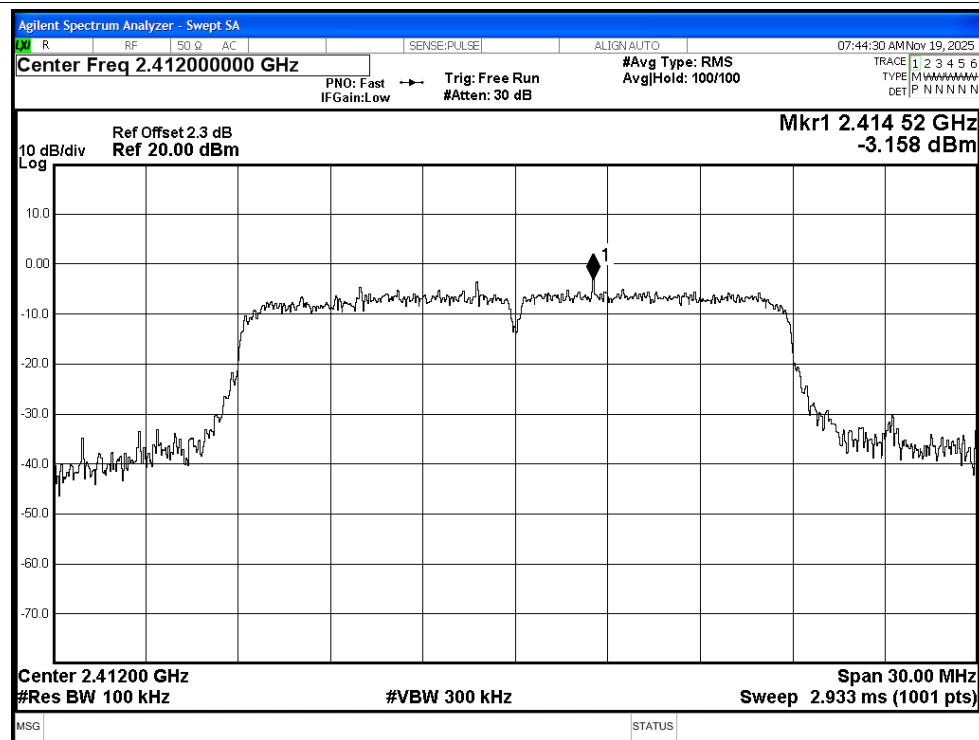
## Band Edge NVNT g 2462MHz Ant1 Ref



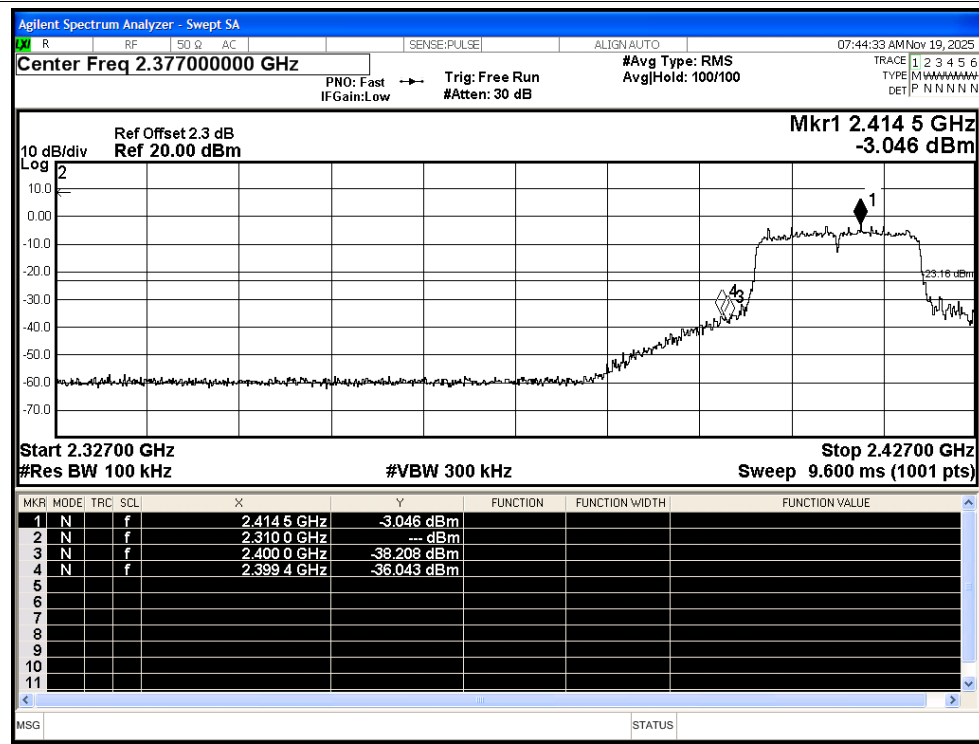
## Band Edge NVNT g 2462MHz Ant1 Emission



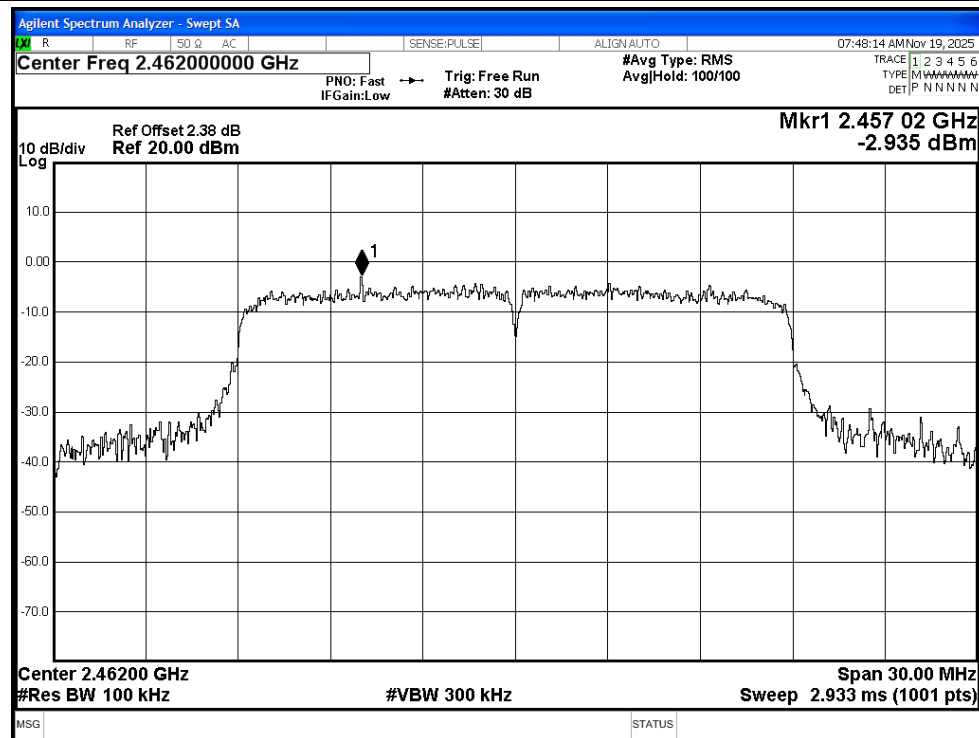
## Band Edge NVNT n20 2412MHz Ant1 Ref



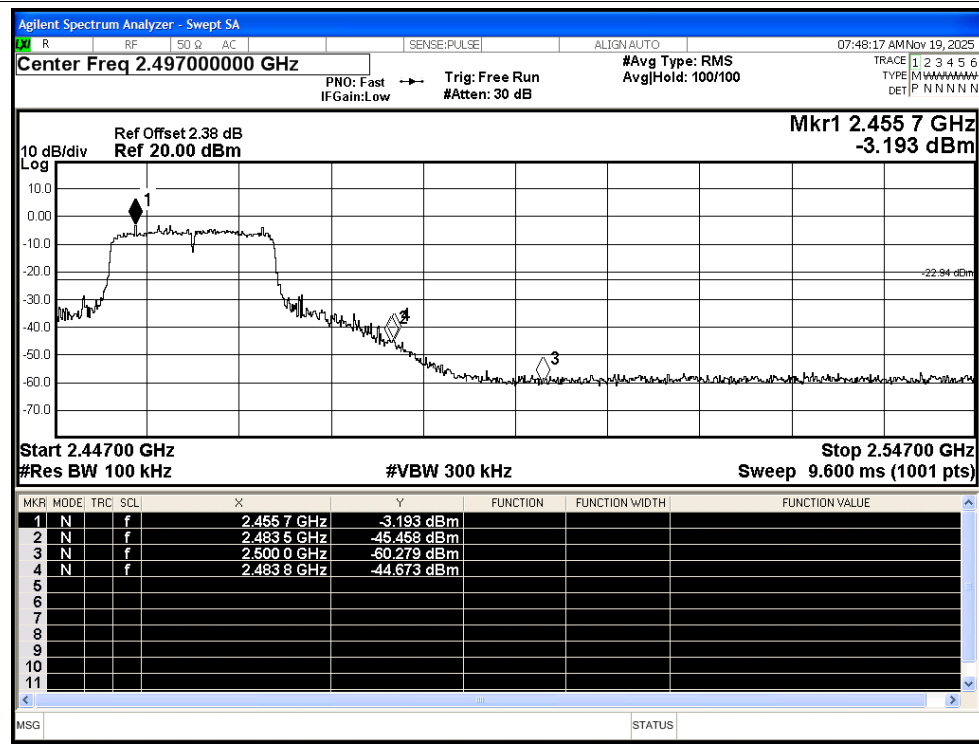
## Band Edge NVNT n20 2412MHz Ant1 Emission

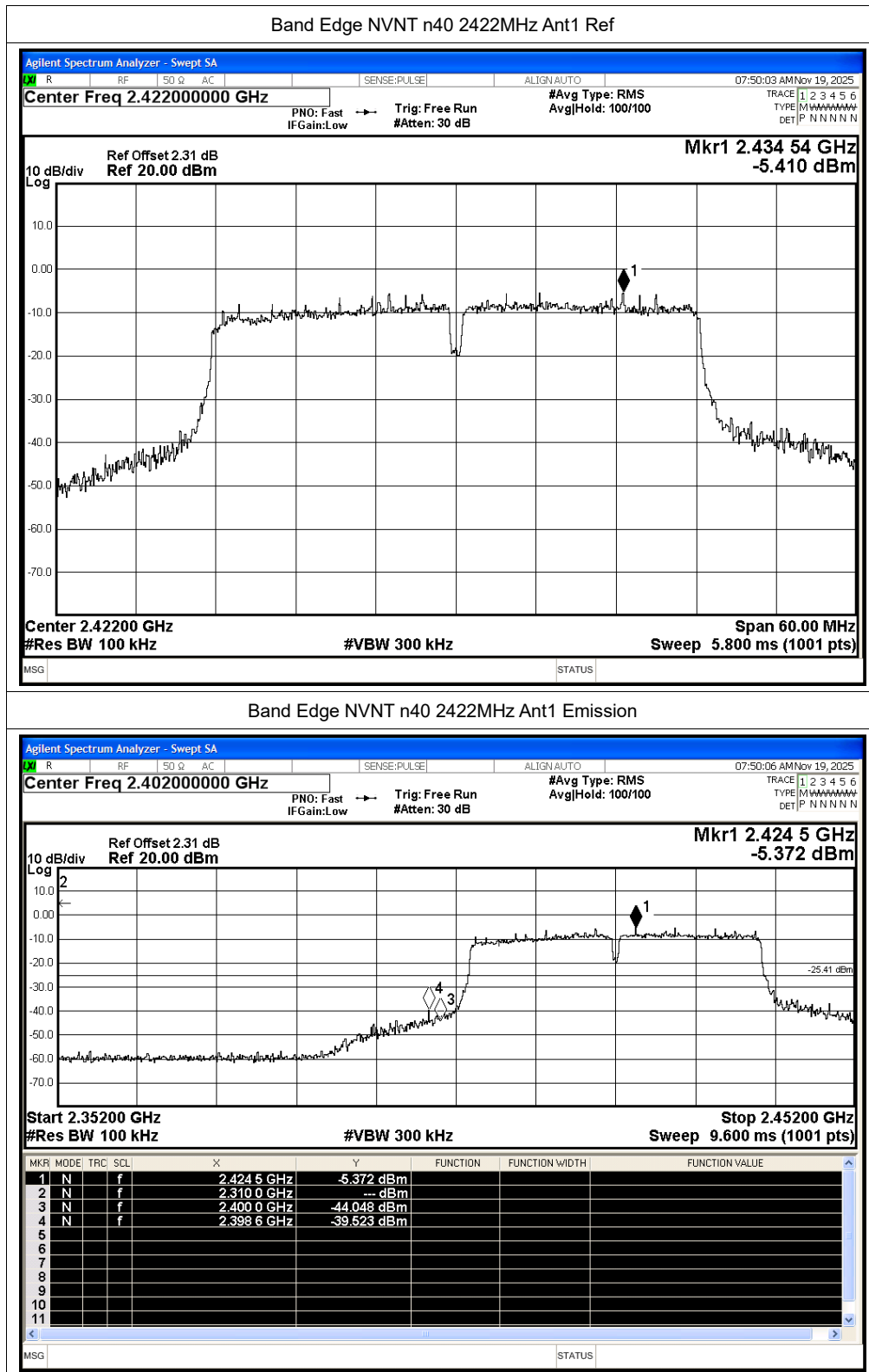


## Band Edge NVNT n20 2462MHz Ant1 Ref



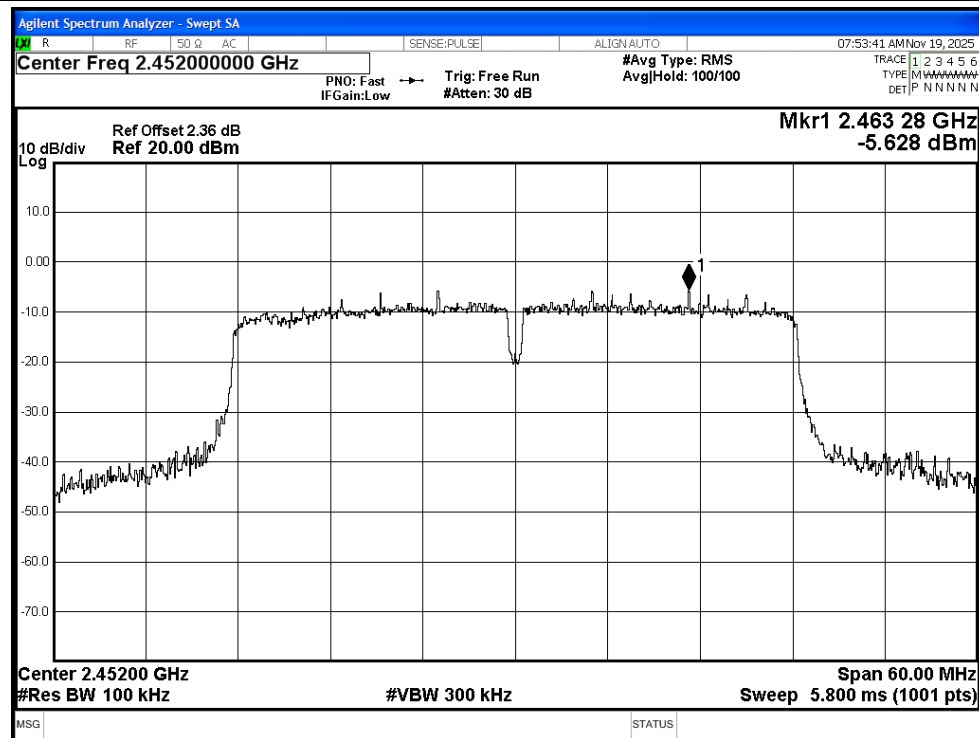
## Band Edge NVNT n20 2462MHz Ant1 Emission



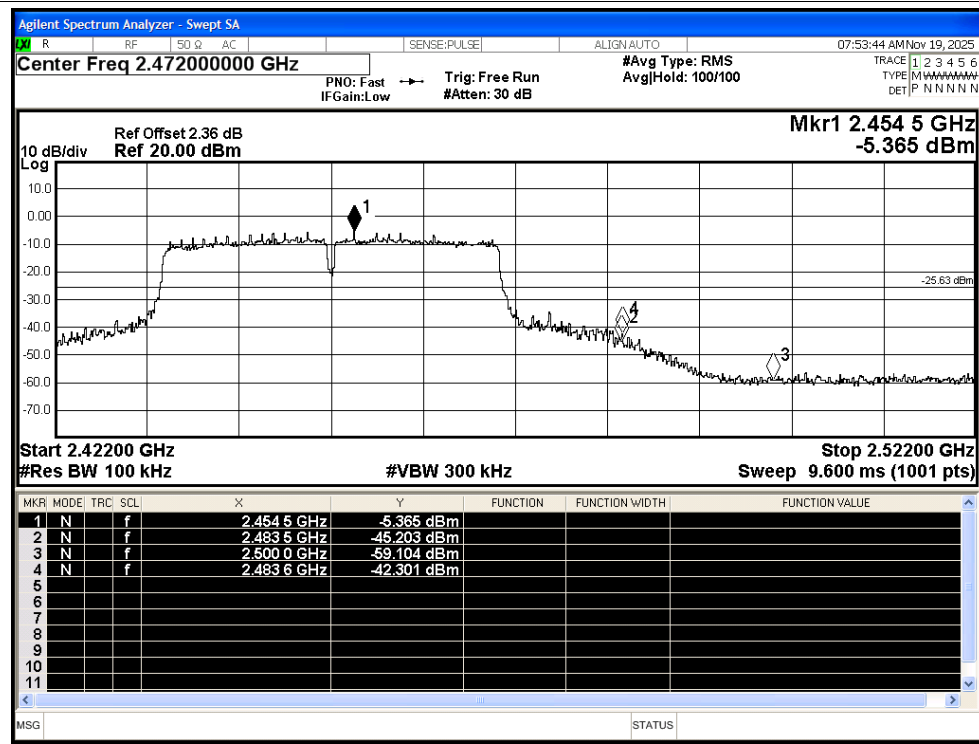




## Band Edge NVNT n40 2452MHz Ant1 Ref



## Band Edge NVNT n40 2452MHz Ant1 Emission

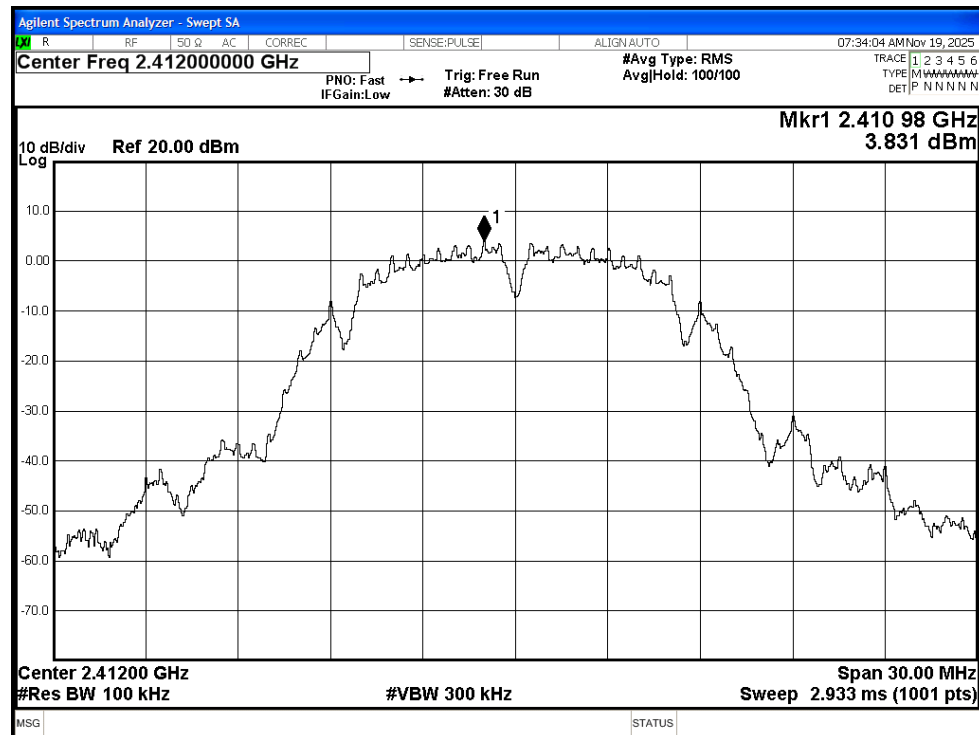


## C.5 Conducted RF Spurious Emission

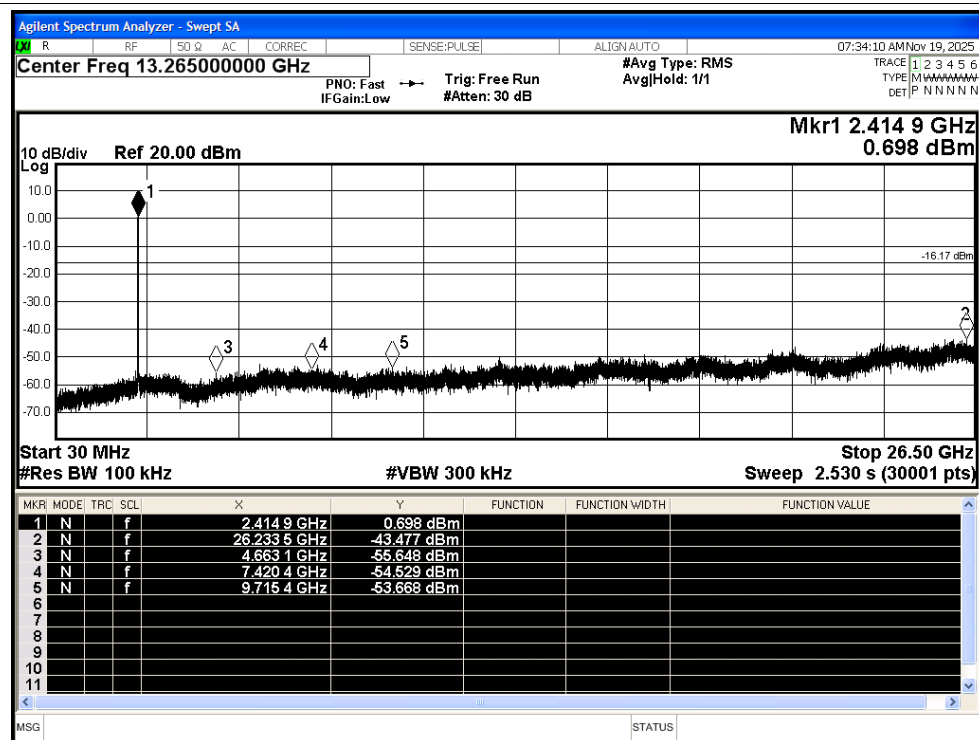
| Condition | Mode | Frequency (MHz) | Antenna | Max Value (dBc) | Limit (dBc) | Verdict |
|-----------|------|-----------------|---------|-----------------|-------------|---------|
| NVNT      | b    | 2412            | Ant1    | -47.31          | -20         | Pass    |
| NVNT      | b    | 2437            | Ant1    | -47.36          | -20         | Pass    |
| NVNT      | b    | 2462            | Ant1    | -47.59          | -20         | Pass    |
| NVNT      | g    | 2412            | Ant1    | -41.37          | -20         | Pass    |
| NVNT      | g    | 2437            | Ant1    | -41.22          | -20         | Pass    |
| NVNT      | g    | 2462            | Ant1    | -41.91          | -20         | Pass    |
| NVNT      | n20  | 2412            | Ant1    | -41.11          | -20         | Pass    |
| NVNT      | n20  | 2437            | Ant1    | -40.43          | -20         | Pass    |
| NVNT      | n20  | 2462            | Ant1    | -40.65          | -20         | Pass    |
| NVNT      | n40  | 2422            | Ant1    | -37.31          | -20         | Pass    |
| NVNT      | n40  | 2437            | Ant1    | -37.36          | -20         | Pass    |
| NVNT      | n40  | 2452            | Ant1    | -36.98          | -20         | Pass    |

## Test Graphs

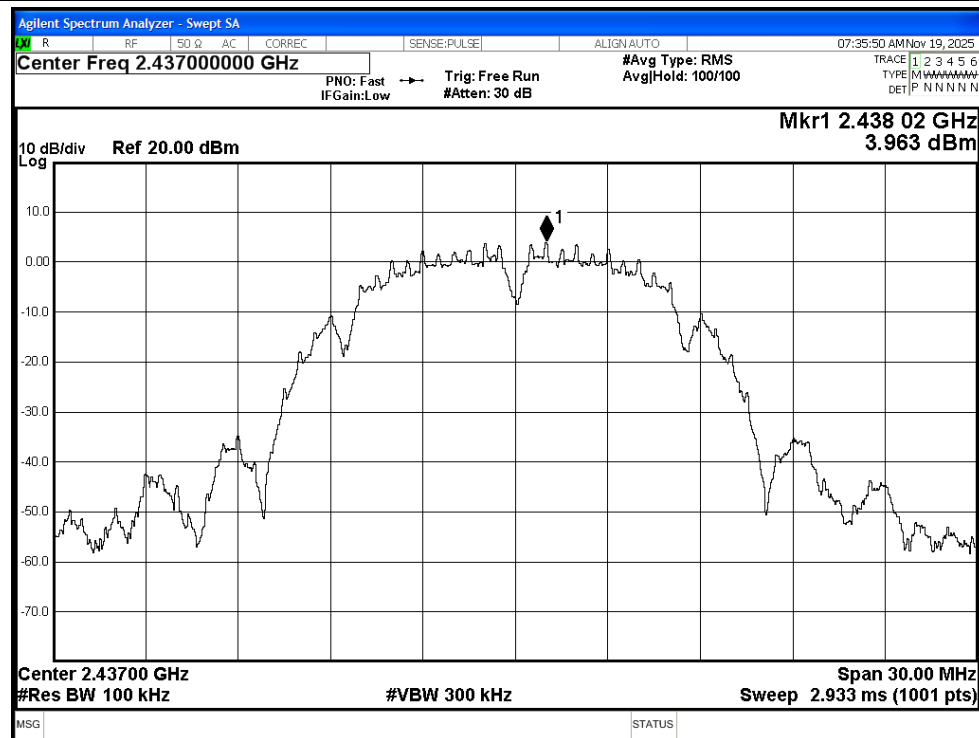
## Tx. Spurious NVNT b 2412MHz Ant1 Ref



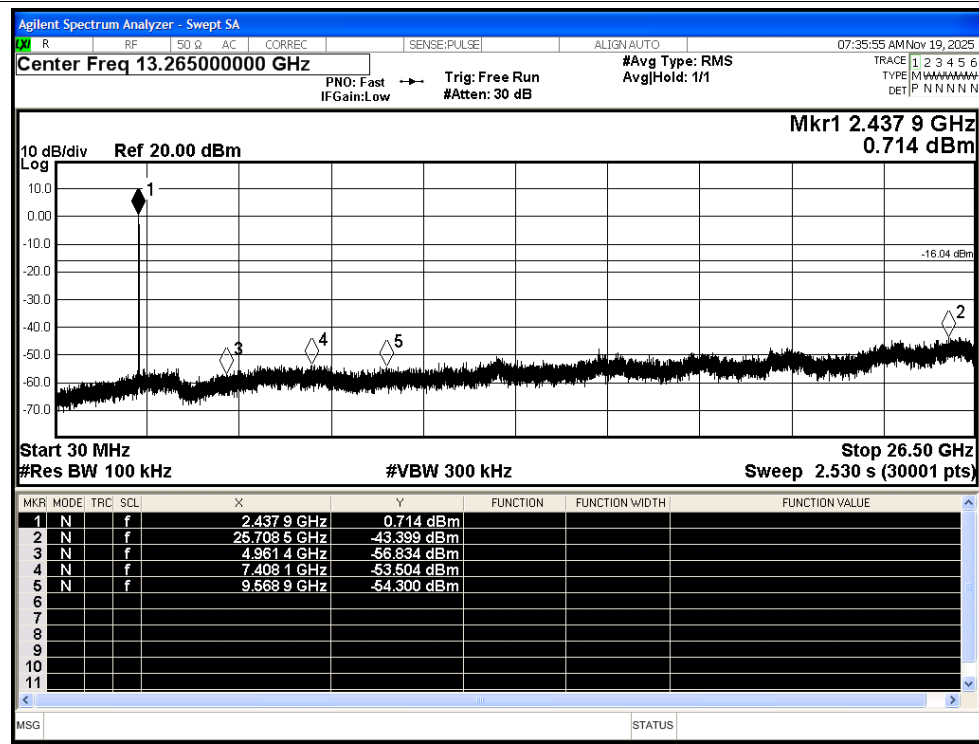
## Tx. Spurious NVNT b 2412MHz Ant1 Emission



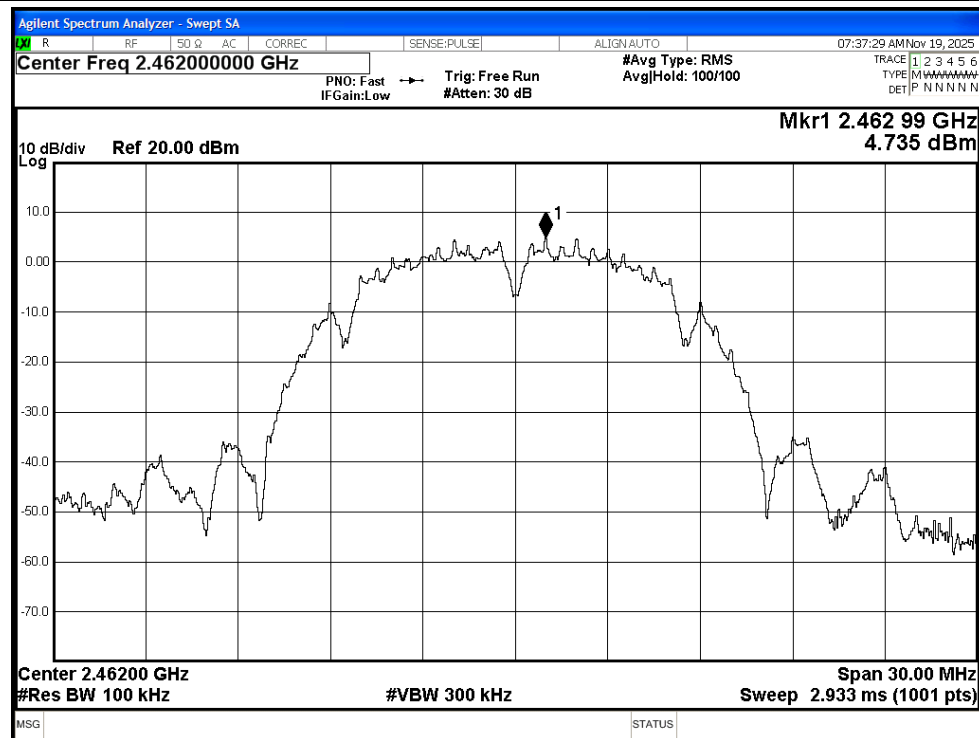
## Tx. Spurious NVNT b 2437MHz Ant1 Ref



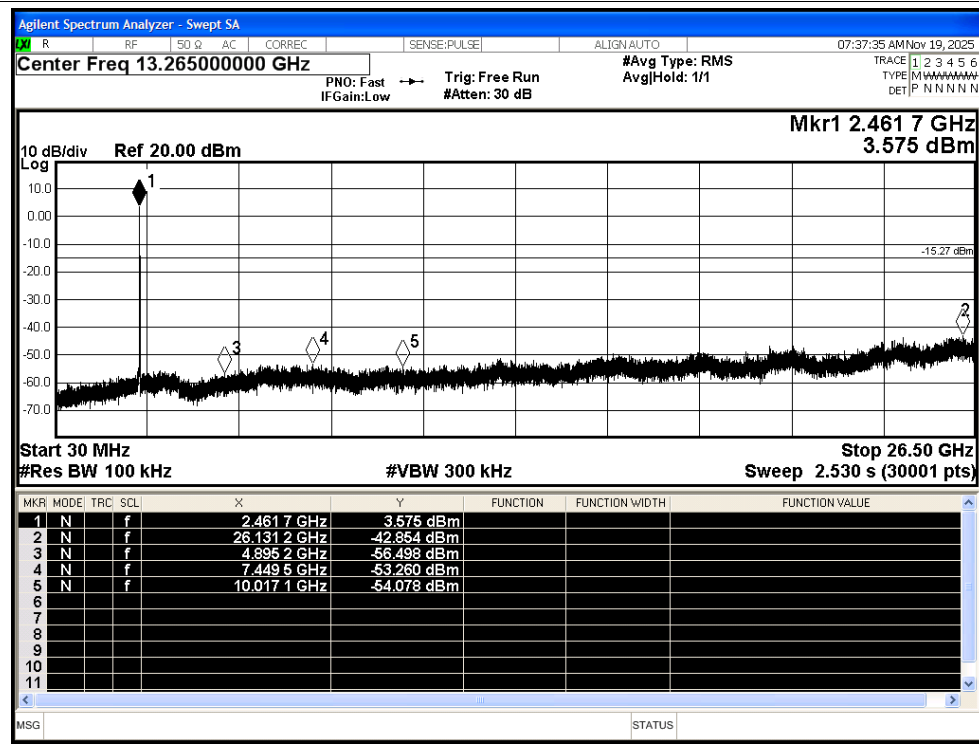
## Tx. Spurious NVNT b 2437MHz Ant1 Emission



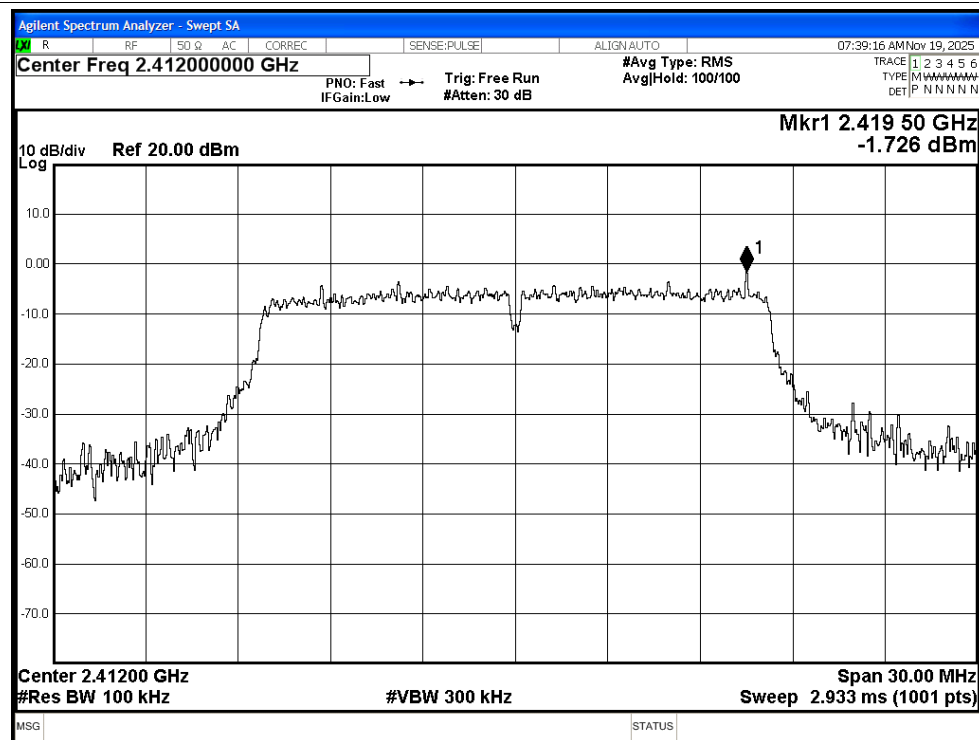
## Tx. Spurious NVNT b 2462MHz Ant1 Ref



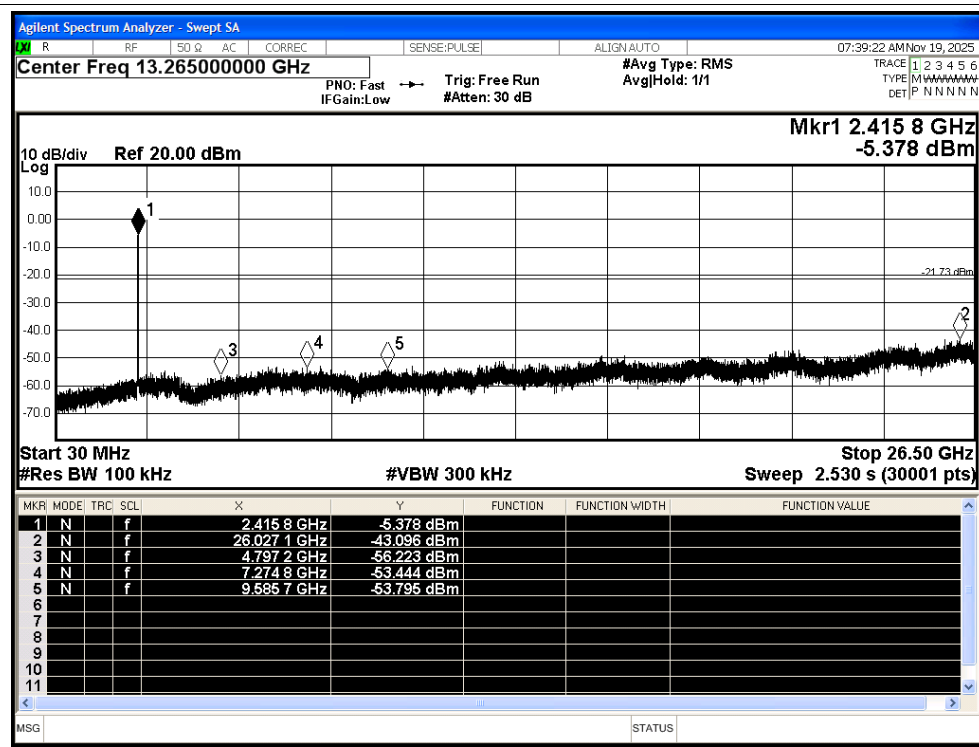
## Tx. Spurious NVNT b 2462MHz Ant1 Emission



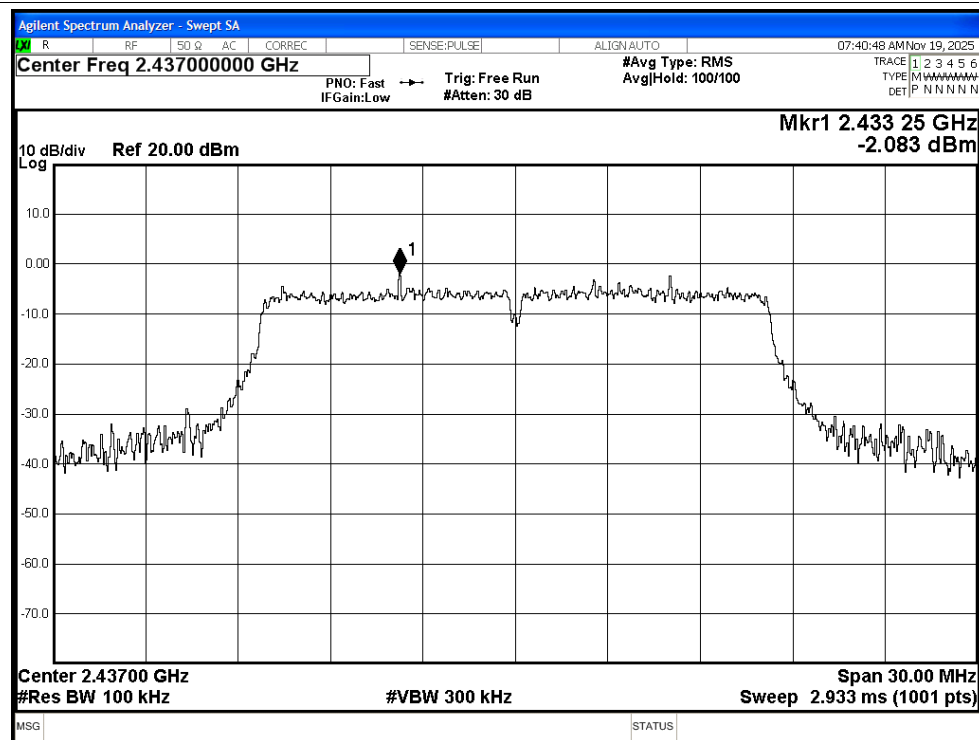
## Tx. Spurious NVNT g 2412MHz Ant1 Ref



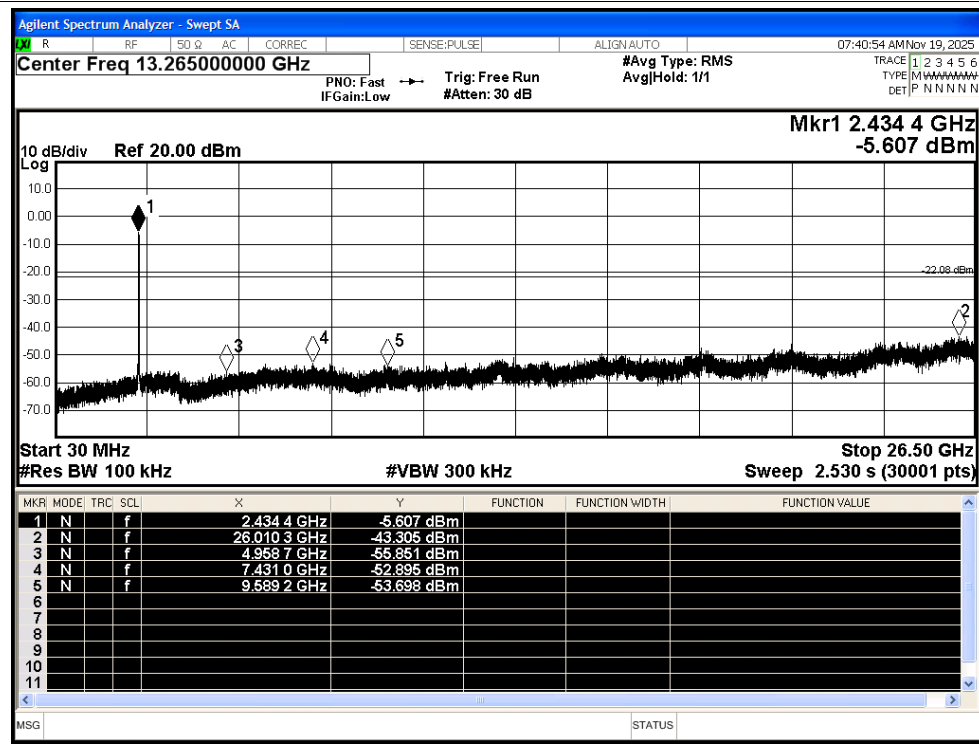
## Tx. Spurious NVNT g 2412MHz Ant1 Emission



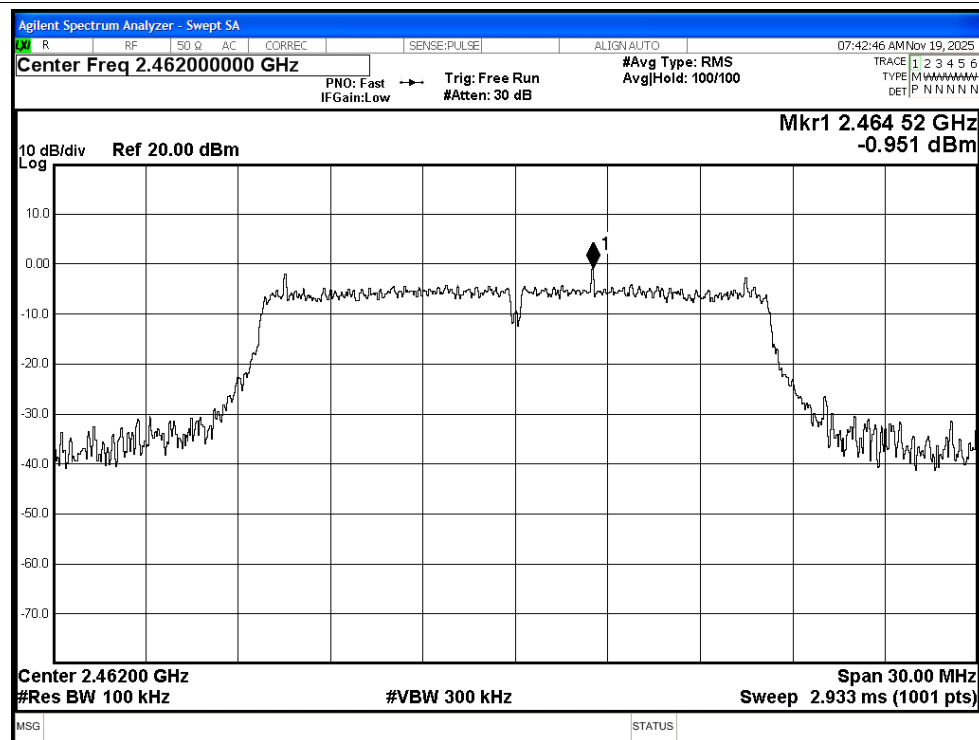
## Tx. Spurious NVNT g 2437MHz Ant1 Ref



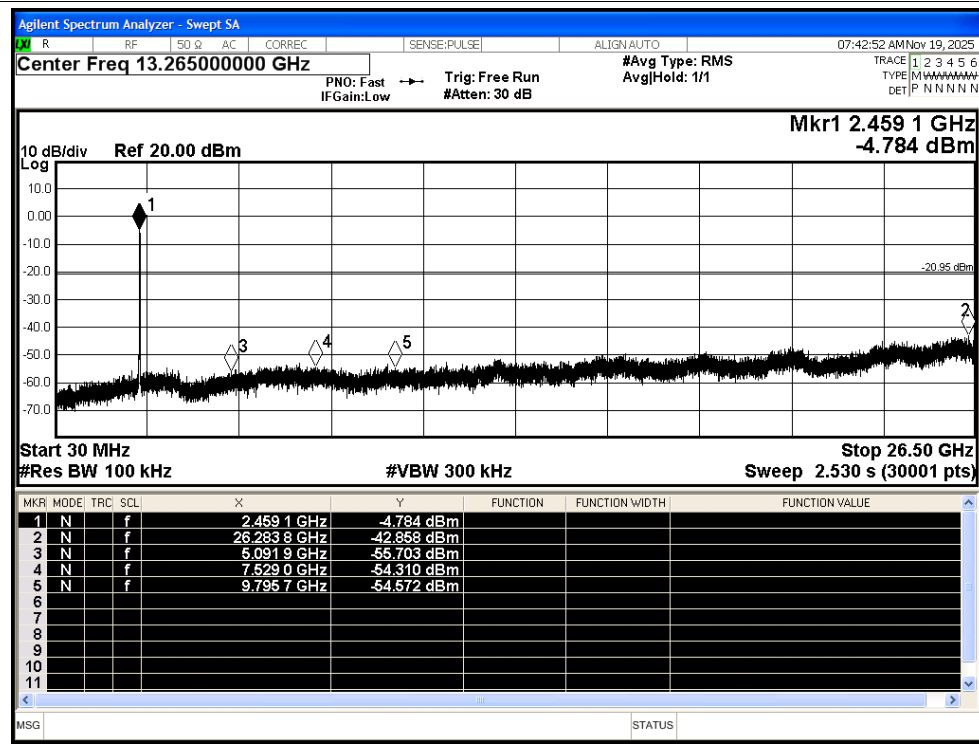
## Tx. Spurious NVNT g 2437MHz Ant1 Emission



## Tx. Spurious NVNT g 2462MHz Ant1 Ref

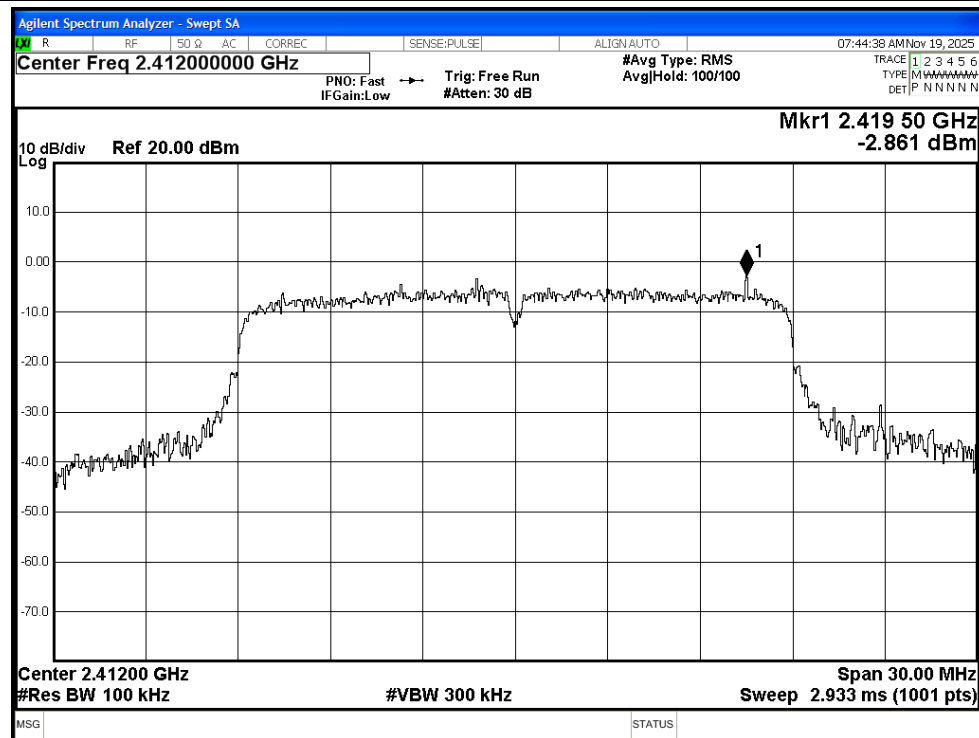


## Tx. Spurious NVNT g 2462MHz Ant1 Emission

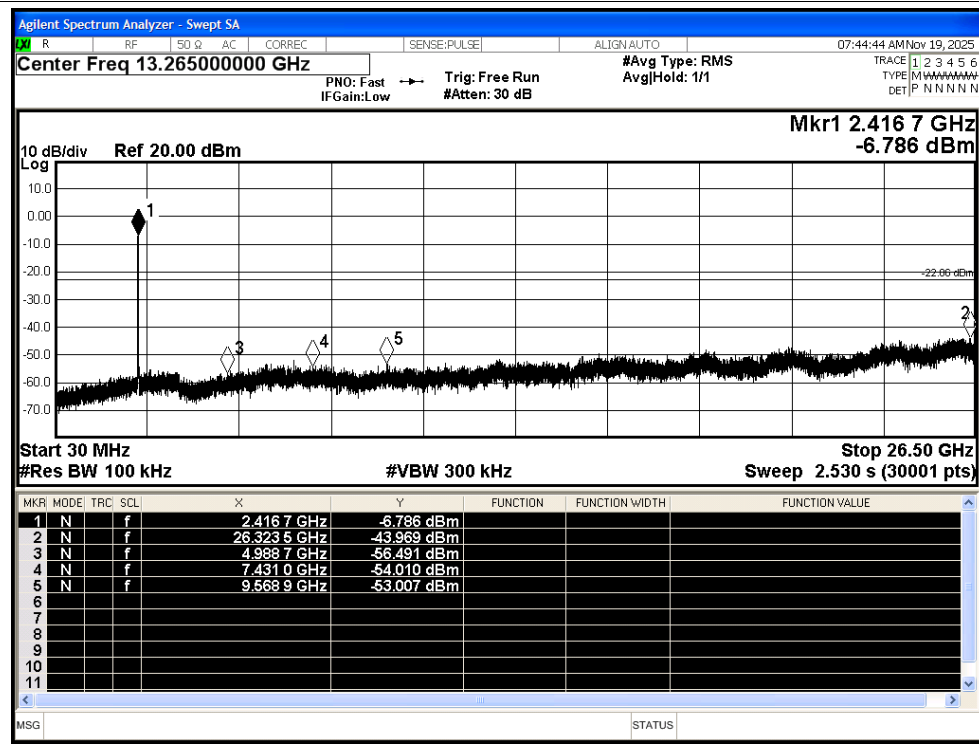




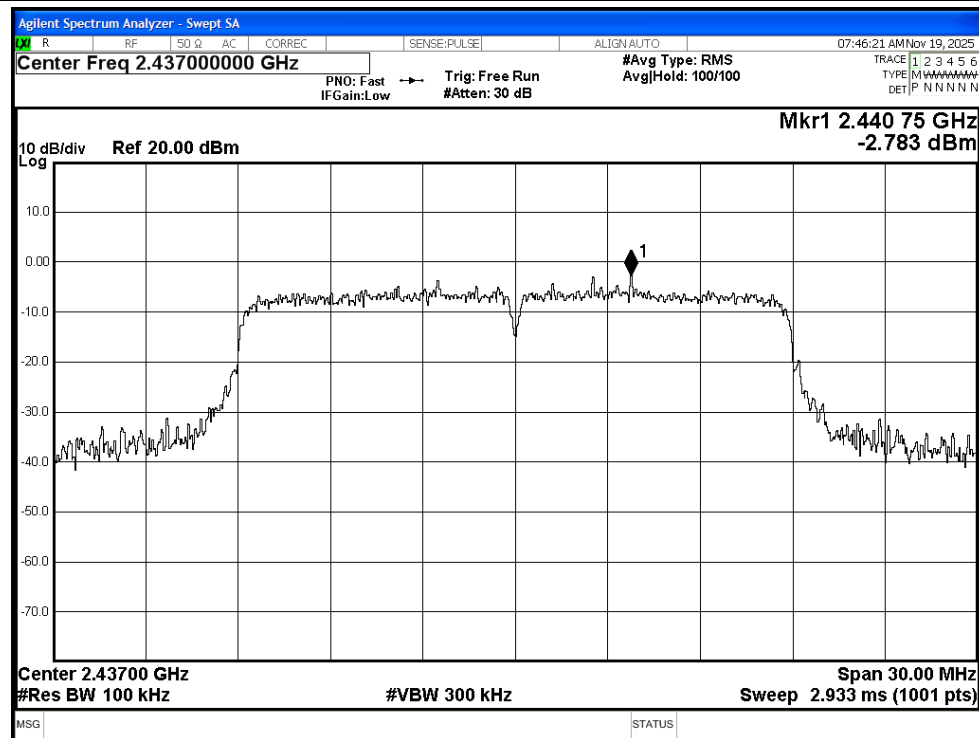
## Tx. Spurious NVNT n20 2412MHz Ant1 Ref



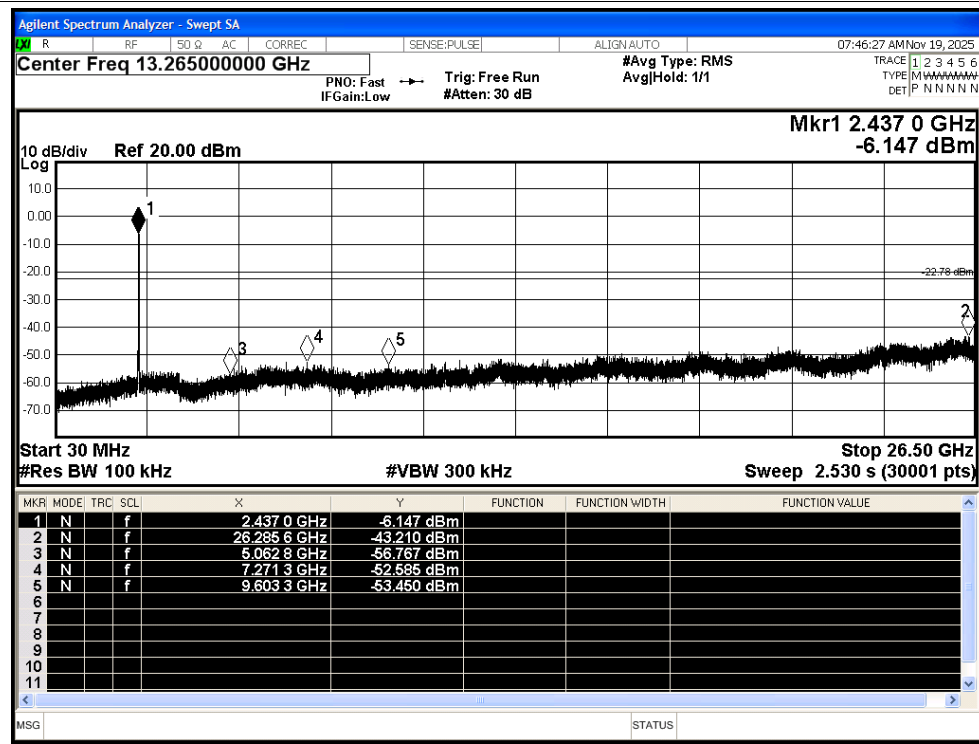
## Tx. Spurious NVNT n20 2412MHz Ant1 Emission



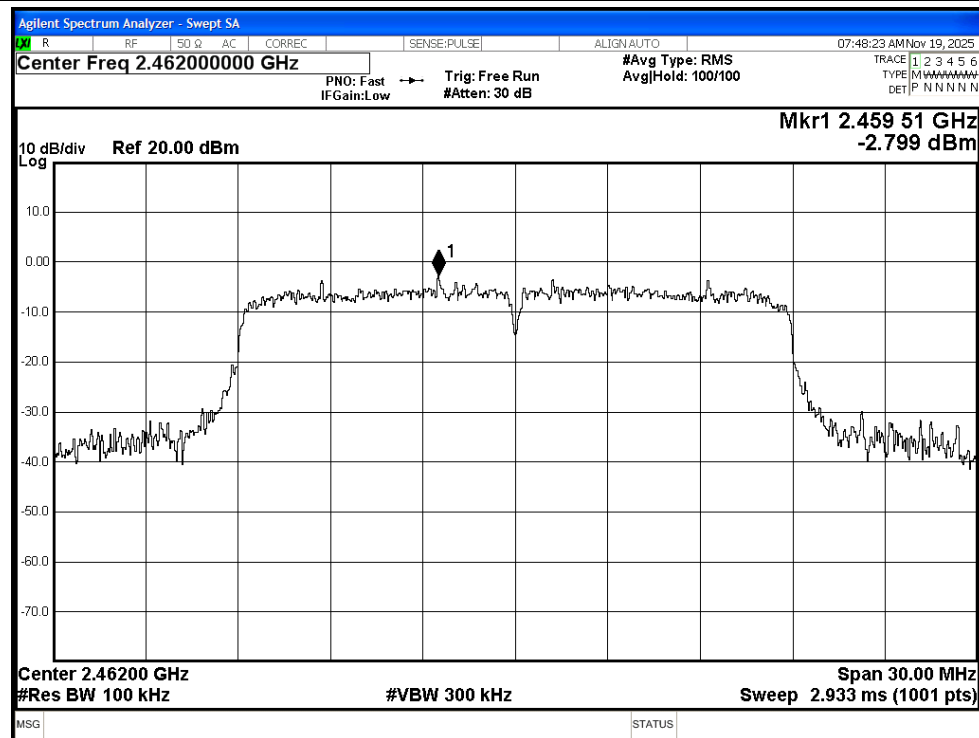
## Tx. Spurious NVNT n20 2437MHz Ant1 Ref



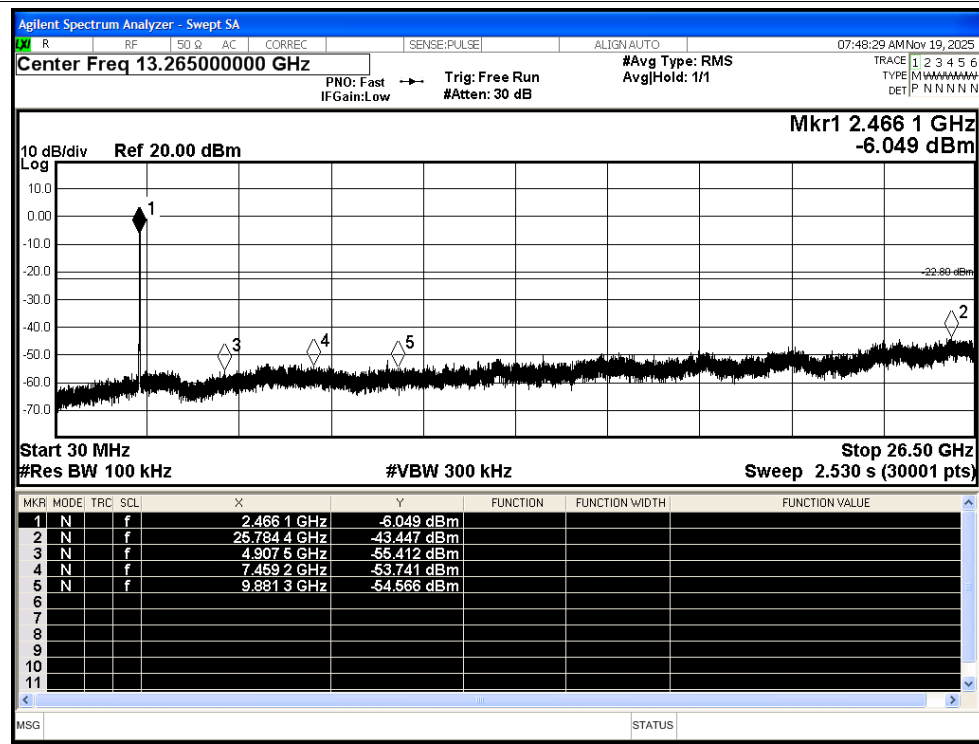
## Tx. Spurious NVNT n20 2437MHz Ant1 Emission



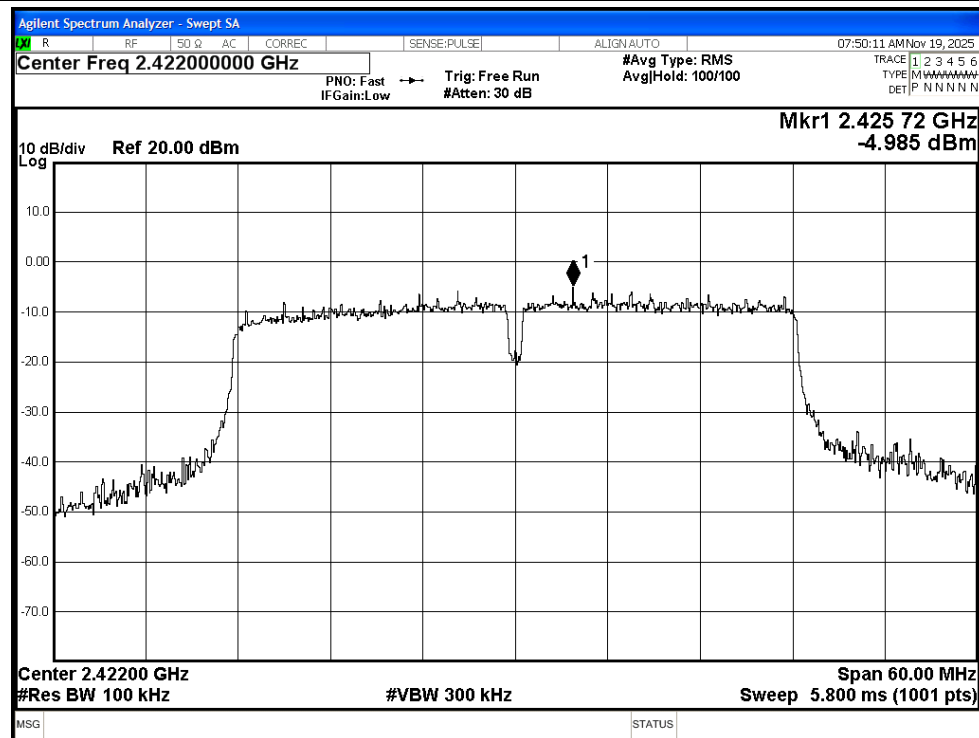
## Tx. Spurious NVNT n20 2462MHz Ant1 Ref



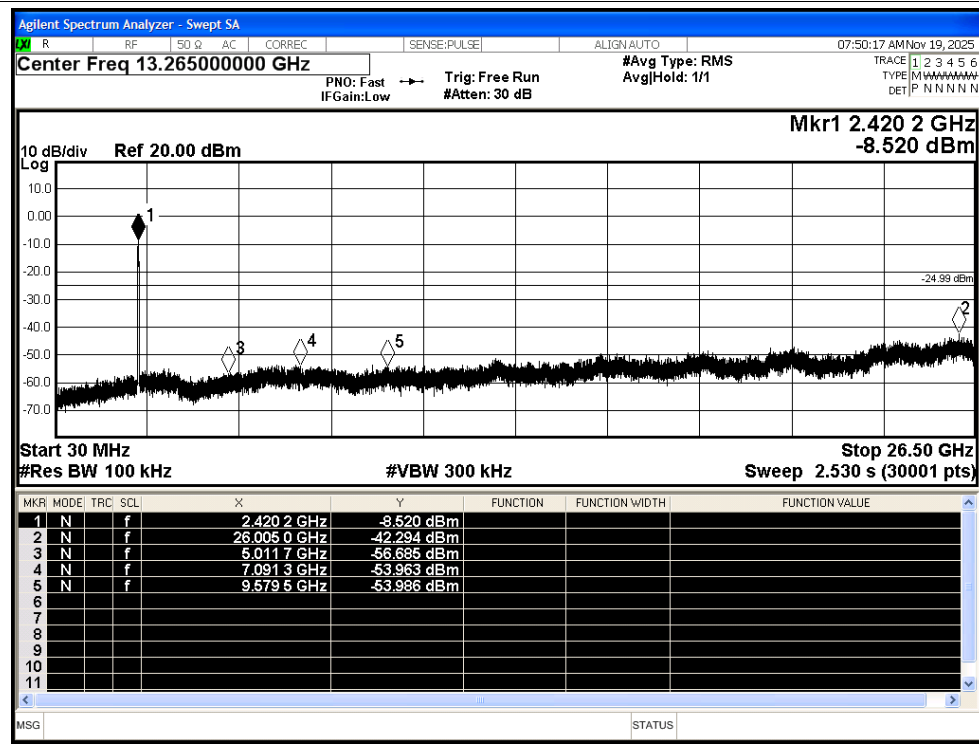
## Tx. Spurious NVNT n20 2462MHz Ant1 Emission



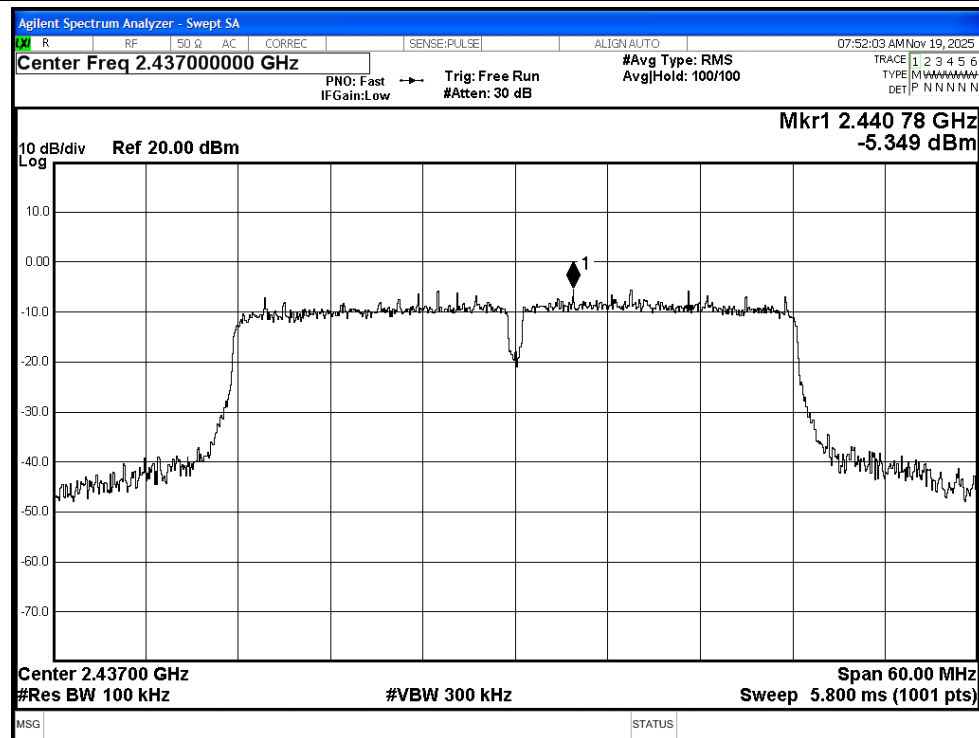
## Tx. Spurious NVNT n40 2422MHz Ant1 Ref



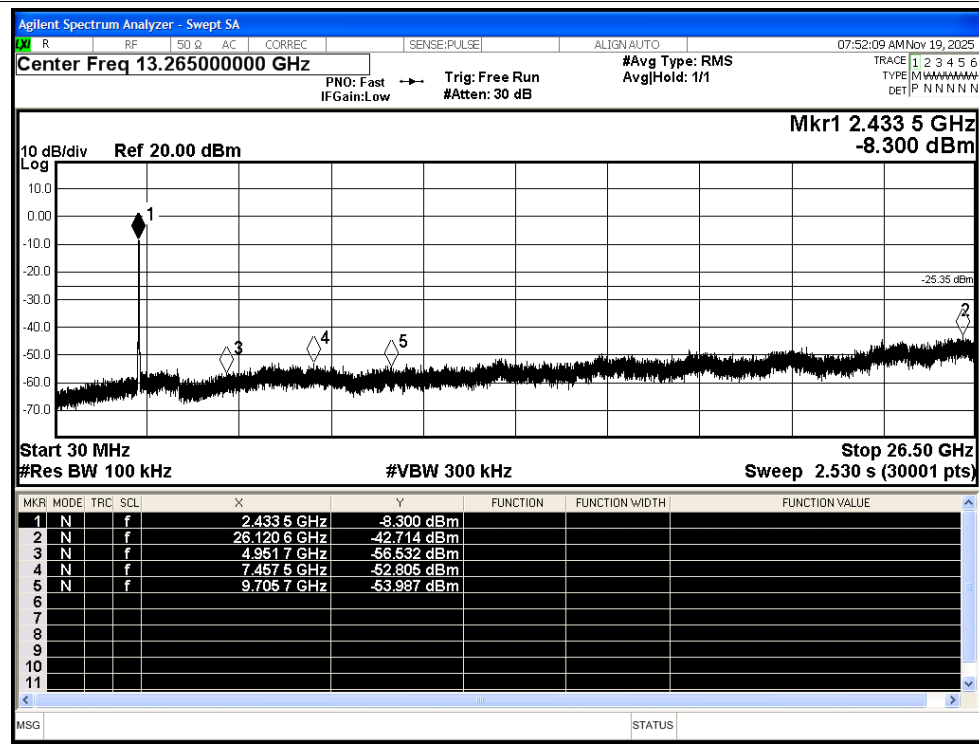
## Tx. Spurious NVNT n40 2422MHz Ant1 Emission



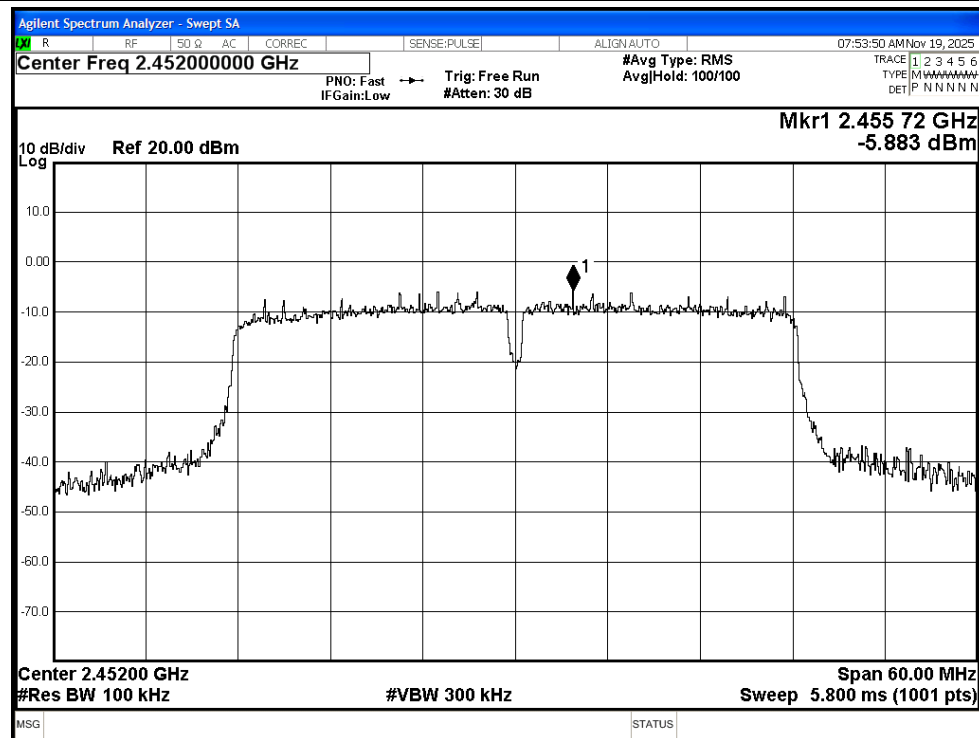
## Tx. Spurious NVNT n40 2437MHz Ant1 Ref



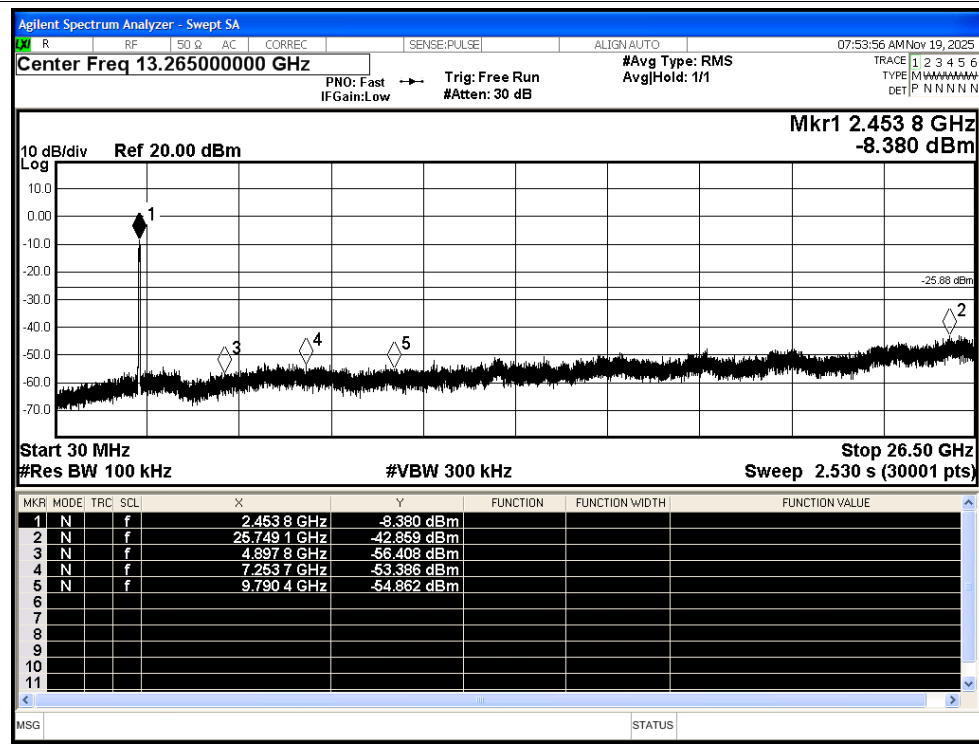
## Tx. Spurious NVNT n40 2437MHz Ant1 Emission



## Tx. Spurious NVNT n40 2452MHz Ant1 Ref



## Tx. Spurious NVNT n40 2452MHz Ant1 Emission

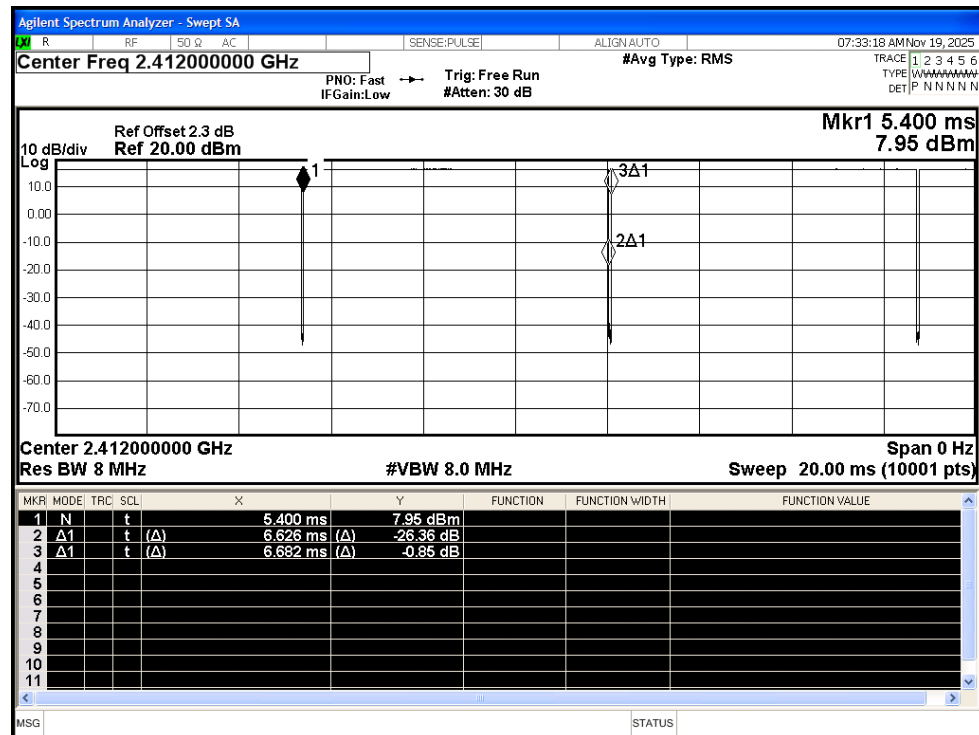


## C.6 Duty Cycle

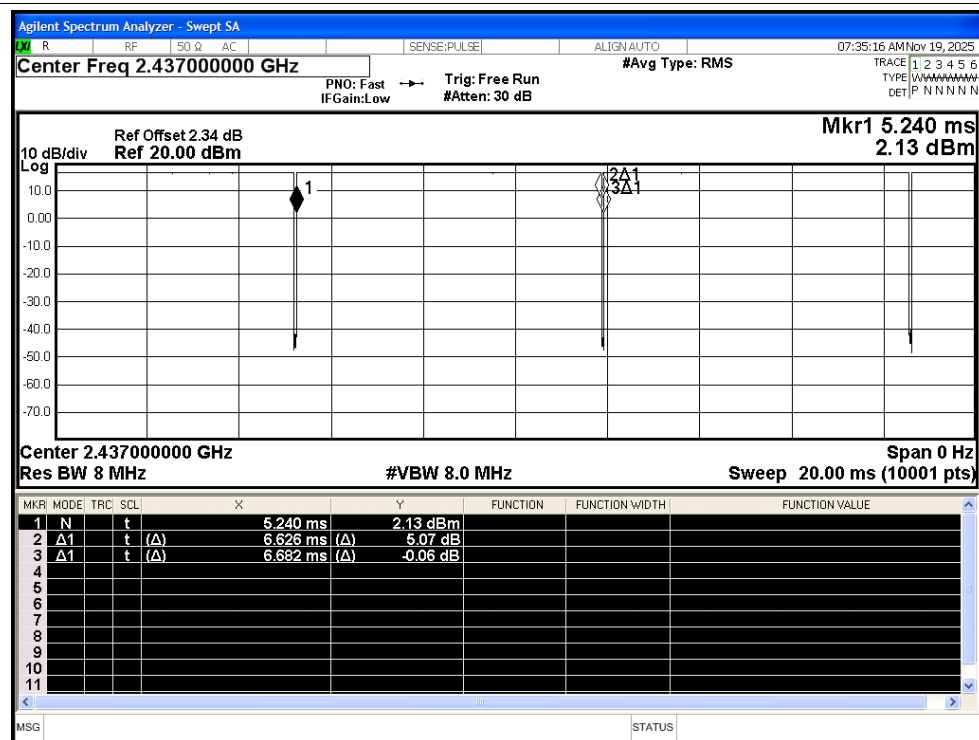
| Condition | Mode | Frequency (MHz) | Antenna | Duty Cycle (%) | Correction Factor (dB) | 1/T (kHz) |
|-----------|------|-----------------|---------|----------------|------------------------|-----------|
| NVNT      | b    | 2412            | Ant1    | 99.16          | 0                      | 0.15      |
| NVNT      | b    | 2437            | Ant1    | 99.16          | 0                      | 0.15      |
| NVNT      | b    | 2462            | Ant1    | 99.13          | 0                      | 0.15      |
| NVNT      | g    | 2412            | Ant1    | 97.68          | 0.1                    | 0.37      |
| NVNT      | g    | 2437            | Ant1    | 97.68          | 0.1                    | 0.37      |
| NVNT      | g    | 2462            | Ant1    | 97.75          | 0.1                    | 0.37      |
| NVNT      | n20  | 2412            | Ant1    | 97.33          | 0.12                   | 0.44      |
| NVNT      | n20  | 2437            | Ant1    | 97.25          | 0.12                   | 0.44      |
| NVNT      | n20  | 2462            | Ant1    | 97.25          | 0.12                   | 0.44      |
| NVNT      | n40  | 2422            | Ant1    | 94.71          | 0.24                   | 0.9       |
| NVNT      | n40  | 2437            | Ant1    | 94.71          | 0.24                   | 0.9       |
| NVNT      | n40  | 2452            | Ant1    | 94.7           | 0.24                   | 0.9       |

## Test Graphs

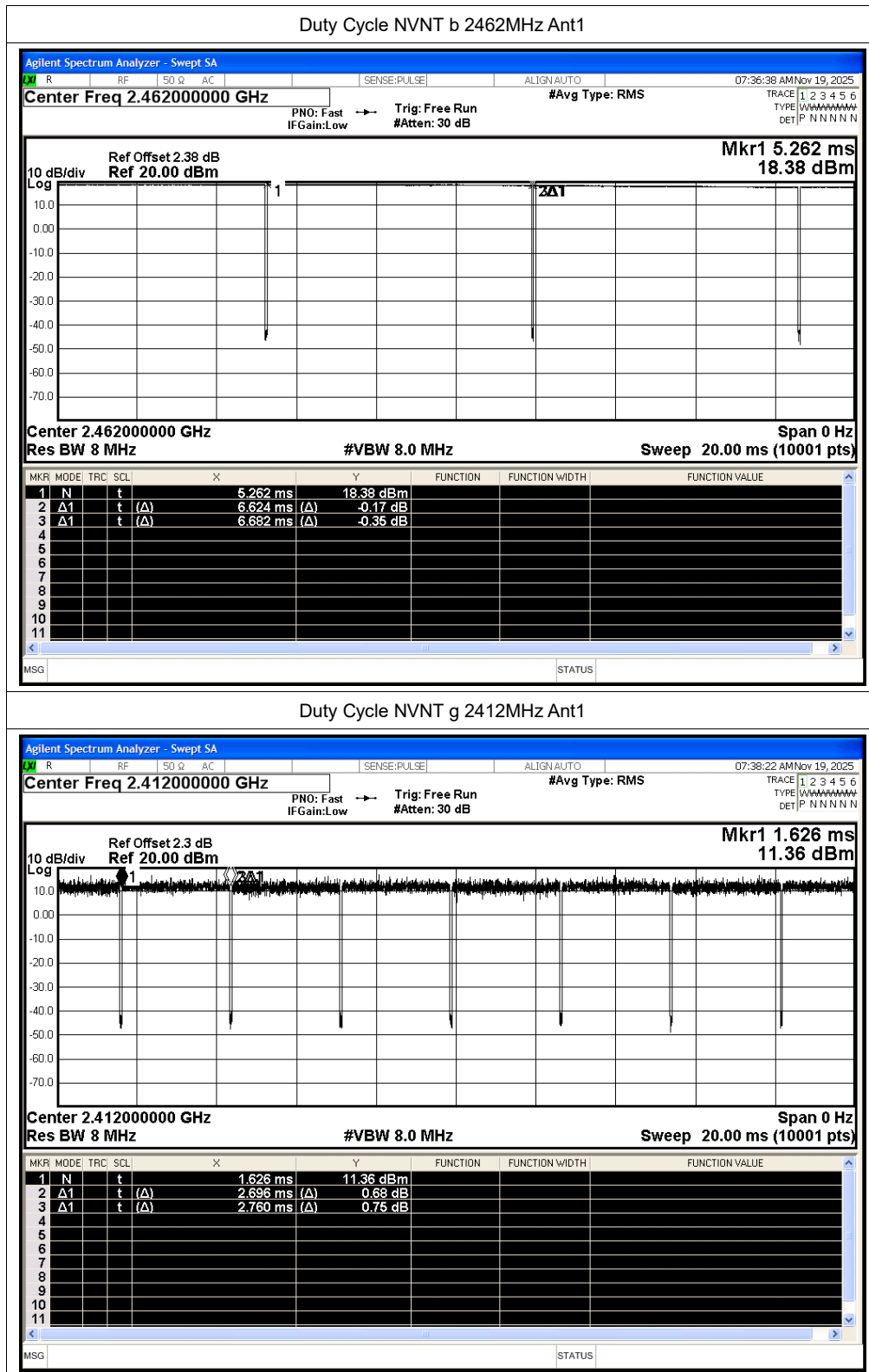
## Duty Cycle NVNT b 2412MHz Ant1

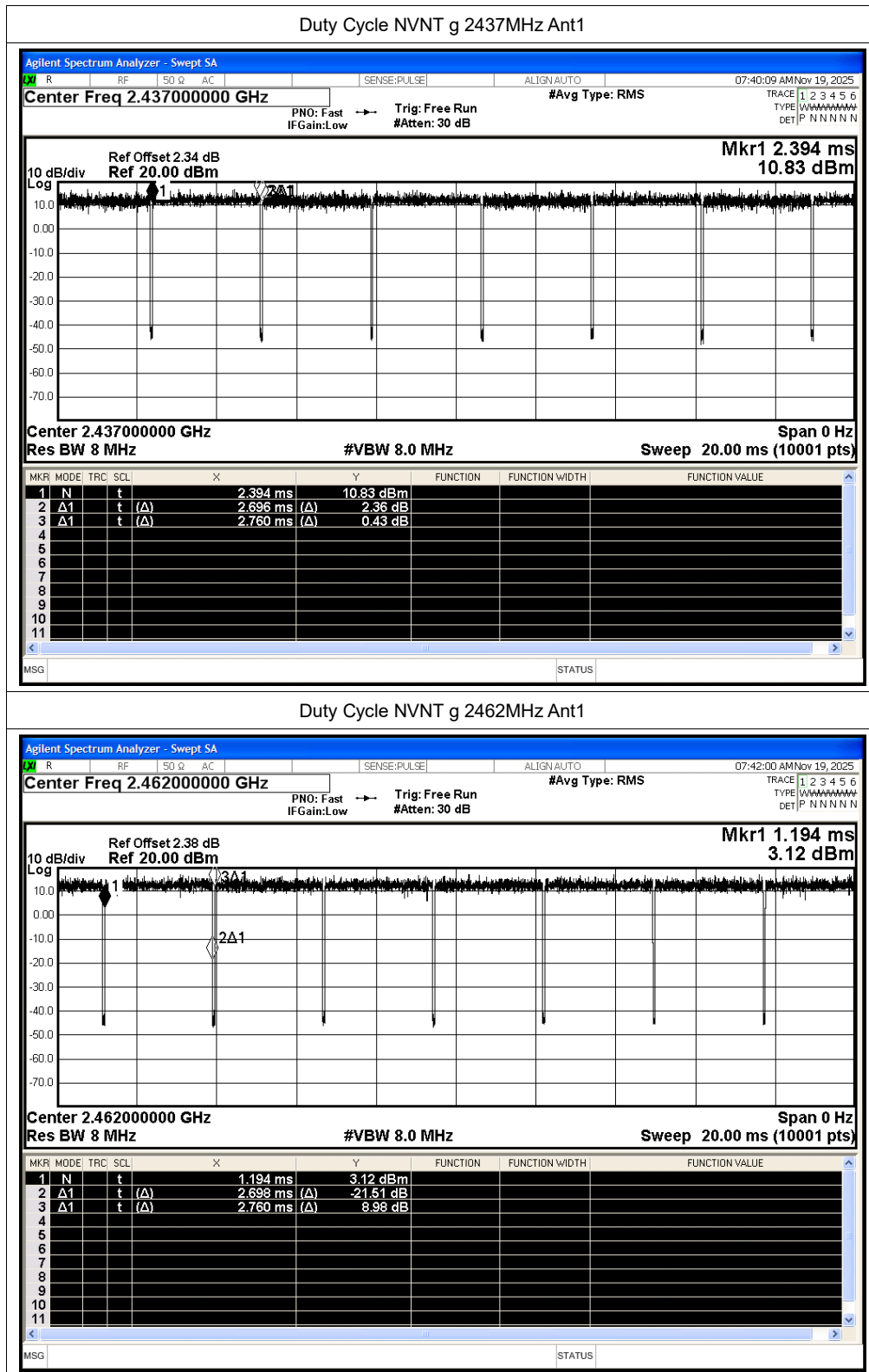


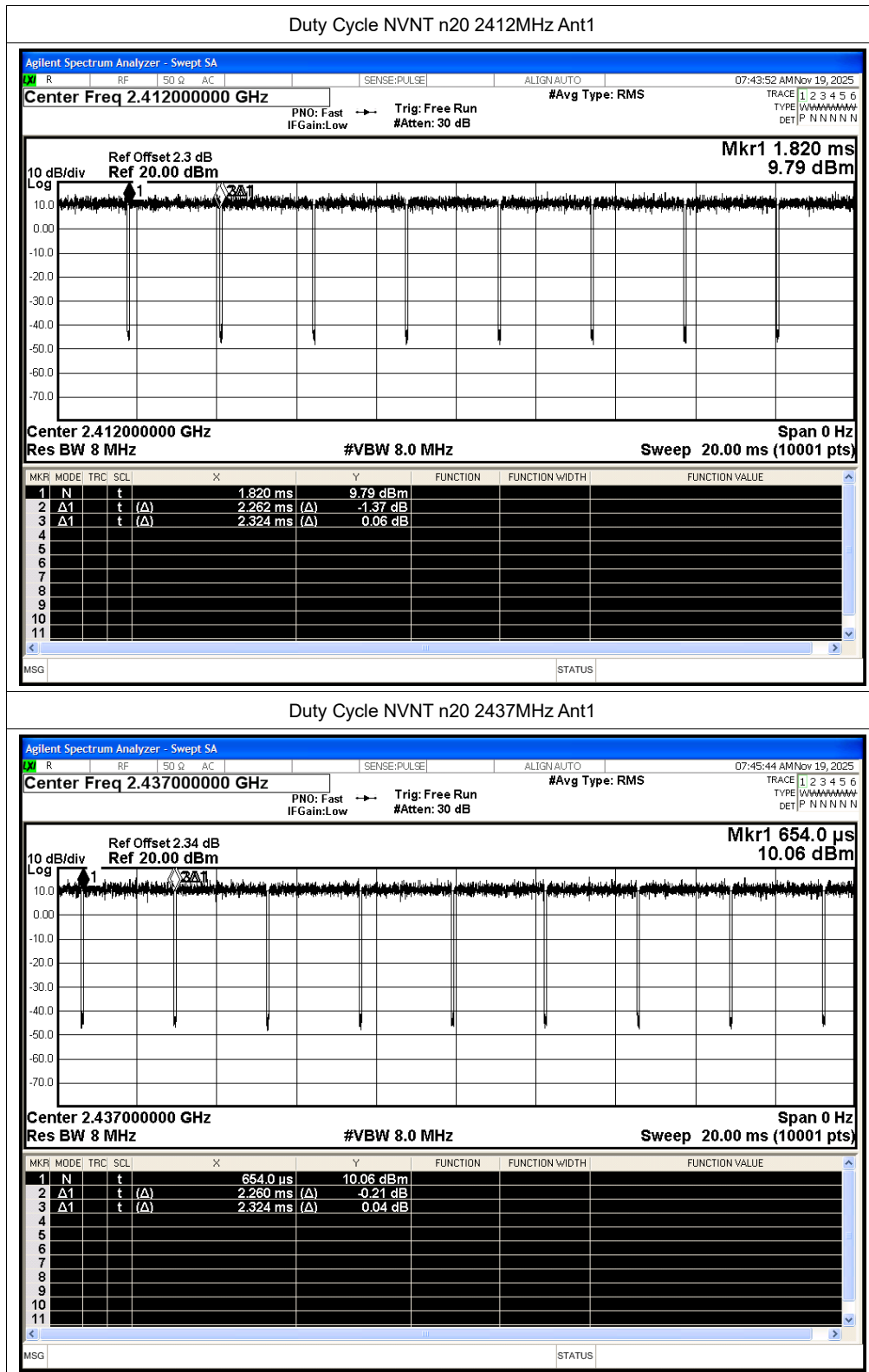
## Duty Cycle NVNT b 2437MHz Ant1

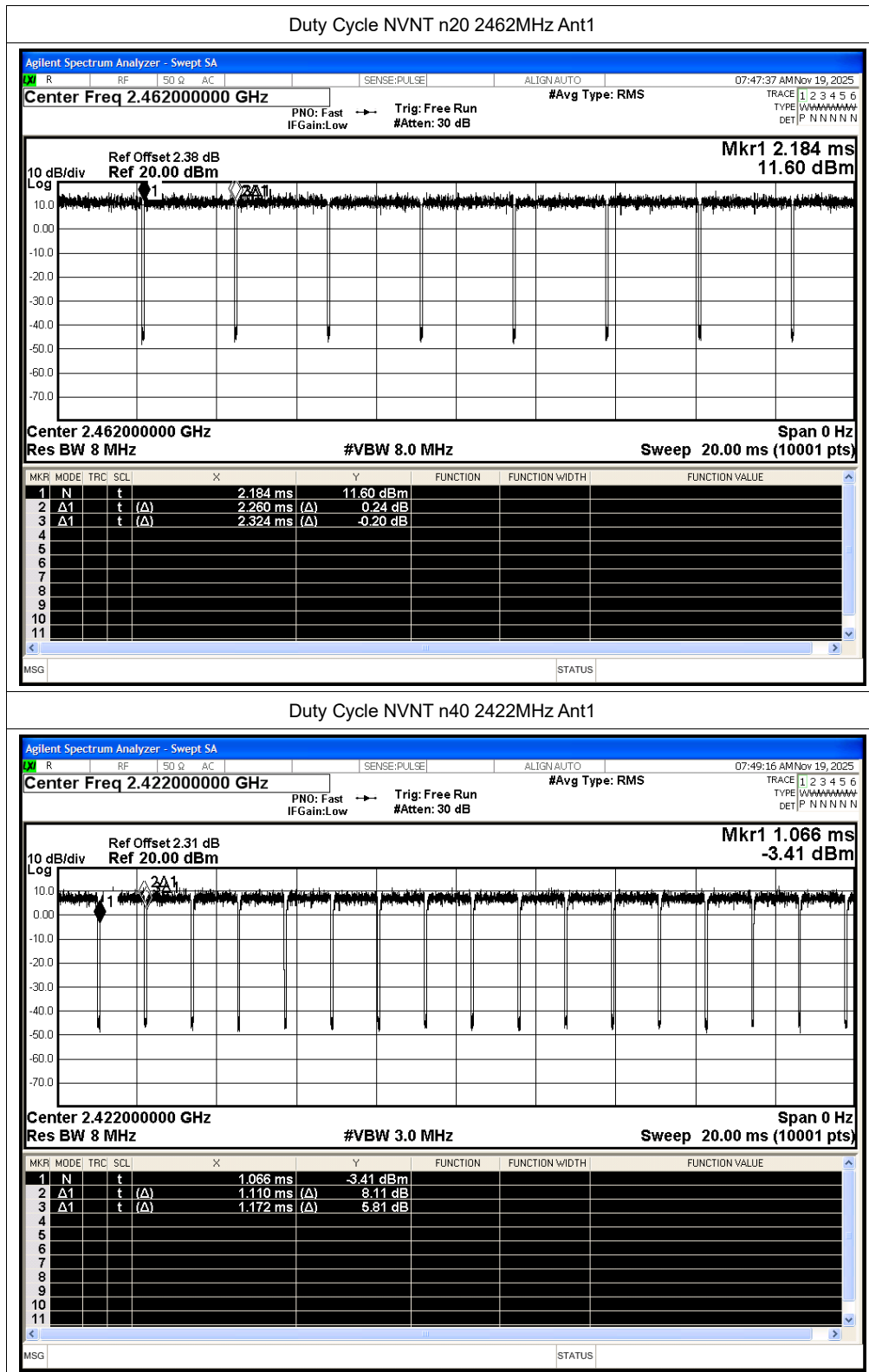


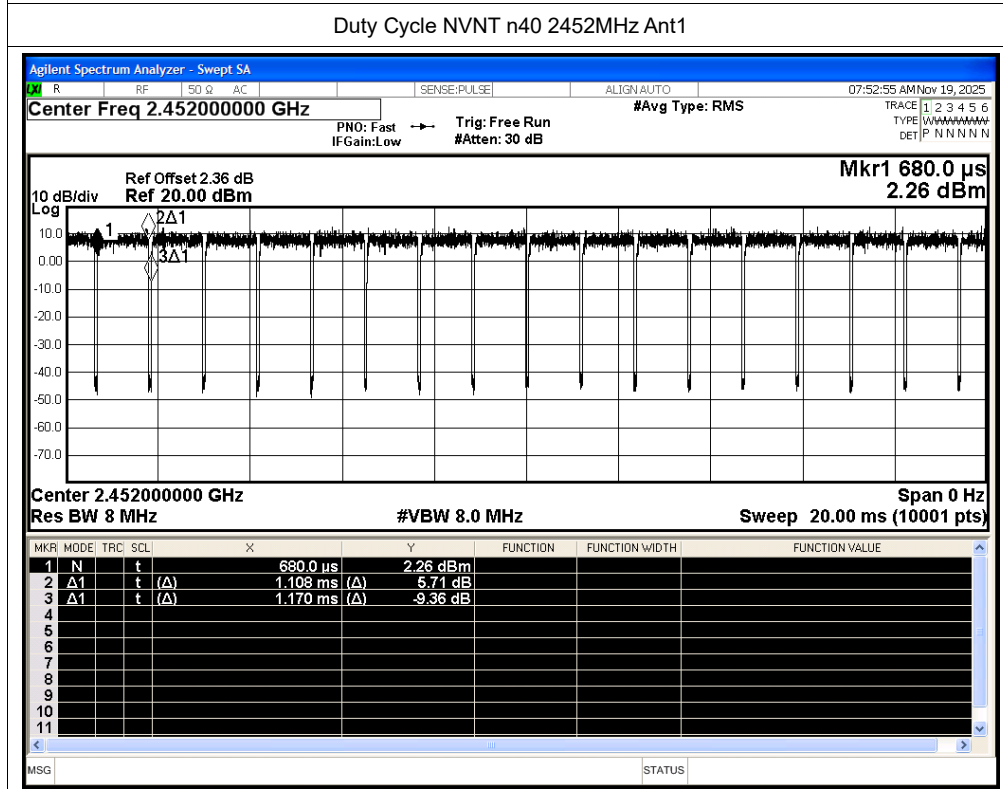
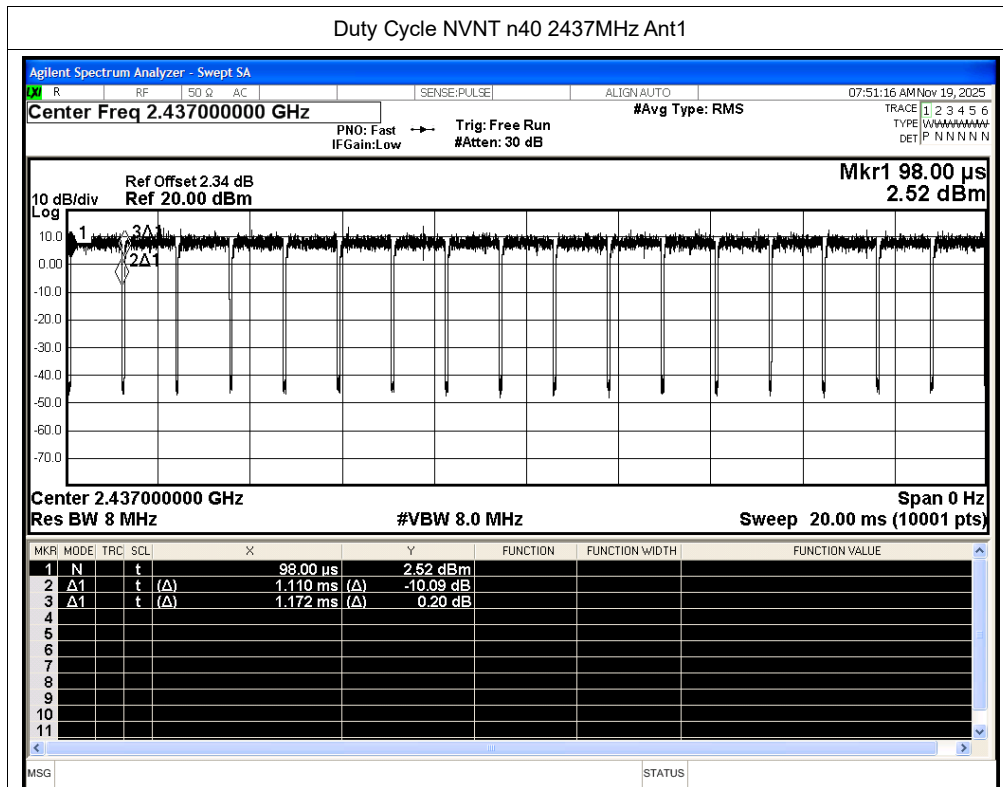












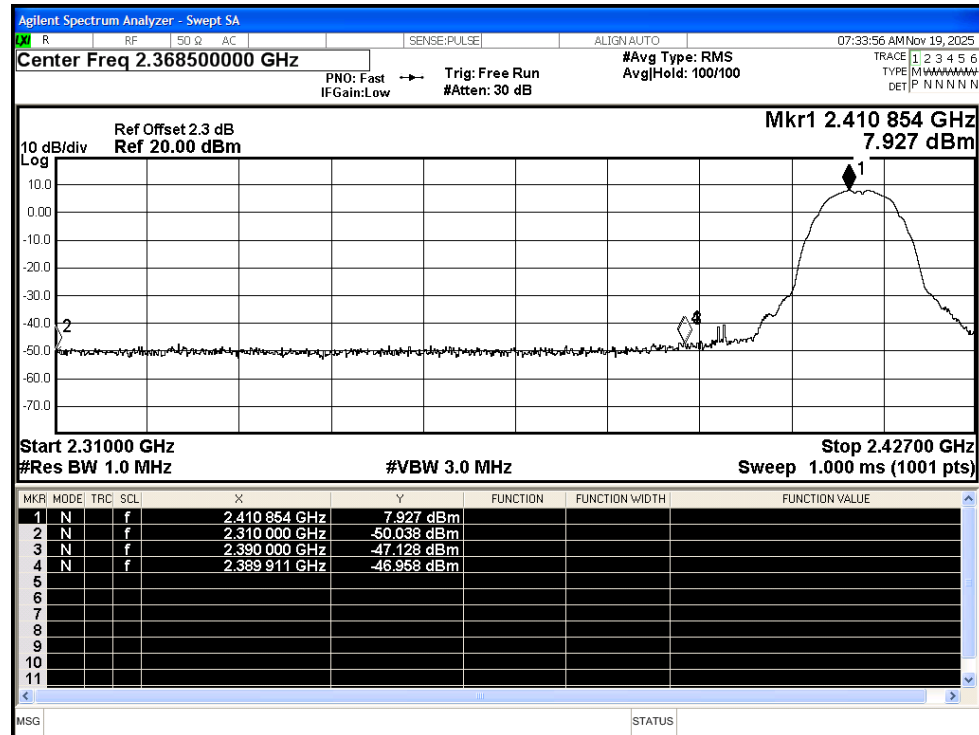
## C.7 Restrict Band

| Condition | Mode | Frequency (MHz) | Antenna | Spur Freq (MHz) | Power (dBm) | Gain (dBi) | Duty Factor (dB) | E (dBuV/m) | Detector | Limit (dBuV/m) | Verdict |
|-----------|------|-----------------|---------|-----------------|-------------|------------|------------------|------------|----------|----------------|---------|
| NVNT      | b    | 2412            | Ant1    | 2310            | -50.04      | 3.65       | -                | 48.87      | Peak     | 74             | Pass    |
| NVNT      | b    | 2412            | Ant1    | 2310            | -58.52      | 3.65       | 0                | 40.39      | Average  | 54             | Pass    |
| NVNT      | b    | 2412            | Ant1    | 2389.911        | -46.96      | 3.65       | -                | 51.95      | Peak     | 74             | Pass    |
| NVNT      | b    | 2412            | Ant1    | 2389.794        | -55.93      | 3.65       | 0                | 42.98      | Average  | 54             | Pass    |
| NVNT      | b    | 2412            | Ant1    | 2390            | -47.13      | 3.65       | -                | 51.78      | Peak     | 74             | Pass    |
| NVNT      | b    | 2412            | Ant1    | 2390            | -56.42      | 3.65       | 0                | 42.49      | Average  | 54             | Pass    |
| NVNT      | b    | 2462            | Ant1    | 2483.5          | -47.89      | 3.65       | -                | 51.02      | Peak     | 74             | Pass    |
| NVNT      | b    | 2462            | Ant1    | 2483.5          | -54.83      | 3.65       | 0                | 44.08      | Average  | 54             | Pass    |
| NVNT      | b    | 2462            | Ant1    | 2487.121        | -41.07      | 3.65       | -                | 57.84      | Peak     | 74             | Pass    |
| NVNT      | b    | 2462            | Ant1    | 2484.471        | -54.39      | 3.65       | 0                | 44.52      | Average  | 54             | Pass    |
| NVNT      | b    | 2462            | Ant1    | 2500            | -50.72      | 3.65       | -                | 48.19      | Peak     | 74             | Pass    |
| NVNT      | b    | 2462            | Ant1    | 2500            | -57.11      | 3.65       | 0                | 41.8       | Average  | 54             | Pass    |
| NVNT      | g    | 2412            | Ant1    | 2310            | -50.14      | 3.65       | -                | 48.77      | Peak     | 74             | Pass    |
| NVNT      | g    | 2412            | Ant1    | 2310            | -58.63      | 3.65       | 0.1              | 40.38      | Average  | 54             | Pass    |
| NVNT      | g    | 2412            | Ant1    | 2388.975        | -37.14      | 3.65       | -                | 61.77      | Peak     | 74             | Pass    |
| NVNT      | g    | 2412            | Ant1    | 2389.794        | -52.64      | 3.65       | 0.1              | 46.37      | Average  | 54             | Pass    |
| NVNT      | g    | 2412            | Ant1    | 2390            | -38.96      | 3.65       | -                | 59.95      | Peak     | 74             | Pass    |
| NVNT      | g    | 2412            | Ant1    | 2390            | -53.98      | 3.65       | 0.1              | 45.03      | Average  | 54             | Pass    |
| NVNT      | g    | 2462            | Ant1    | 2483.5          | -42.51      | 3.65       | -                | 56.4       | Peak     | 74             | Pass    |
| NVNT      | g    | 2462            | Ant1    | 2483.5          | -56.61      | 3.65       | 0.1              | 42.4       | Average  | 54             | Pass    |
| NVNT      | g    | 2462            | Ant1    | 2484.1          | -42.36      | 3.65       | -                | 56.55      | Peak     | 74             | Pass    |
| NVNT      | g    | 2462            | Ant1    | 2483.888        | -55.92      | 3.65       | 0.1              | 43.09      | Average  | 54             | Pass    |
| NVNT      | g    | 2462            | Ant1    | 2500            | -47.09      | 3.65       | -                | 51.82      | Peak     | 74             | Pass    |
| NVNT      | g    | 2462            | Ant1    | 2500            | -57.84      | 3.65       | 0.1              | 41.17      | Average  | 54             | Pass    |
| NVNT      | n20  | 2412            | Ant1    | 2310            | -51.89      | 3.65       | -                | 47.02      | Peak     | 74             | Pass    |
| NVNT      | n20  | 2412            | Ant1    | 2310            | -58.28      | 3.65       | 0.12             | 40.75      | Average  | 54             | Pass    |
| NVNT      | n20  | 2412            | Ant1    | 2389.911        | -44.13      | 3.65       | -                | 54.78      | Peak     | 74             | Pass    |
| NVNT      | n20  | 2412            | Ant1    | 2389.56         | -56.61      | 3.65       | 0.12             | 42.42      | Average  | 54             | Pass    |
| NVNT      | n20  | 2412            | Ant1    | 2390            | -44.32      | 3.65       | -                | 54.59      | Peak     | 74             | Pass    |
| NVNT      | n20  | 2412            | Ant1    | 2390            | -56.78      | 3.65       | 0.12             | 42.25      | Average  | 54             | Pass    |
| NVNT      | n20  | 2462            | Ant1    | 2483.5          | -44.82      | 3.65       | -                | 54.09      | Peak     | 74             | Pass    |
| NVNT      | n20  | 2462            | Ant1    | 2483.5          | -56.38      | 3.65       | 0.12             | 42.65      | Average  | 54             | Pass    |
| NVNT      | n20  | 2462            | Ant1    | 2483.888        | -39.06      | 3.65       | -                | 59.85      | Peak     | 74             | Pass    |
| NVNT      | n20  | 2462            | Ant1    | 2484.206        | -55.02      | 3.65       | 0.12             | 44.01      | Average  | 54             | Pass    |
| NVNT      | n20  | 2462            | Ant1    | 2500            | -49.88      | 3.65       | -                | 49.03      | Peak     | 74             | Pass    |
| NVNT      | n20  | 2462            | Ant1    | 2500            | -57.74      | 3.65       | 0.12             | 41.29      | Average  | 54             | Pass    |
| NVNT      | n40  | 2422            | Ant1    | 2310            | -49.18      | 3.65       | -                | 49.73      | Peak     | 74             | Pass    |

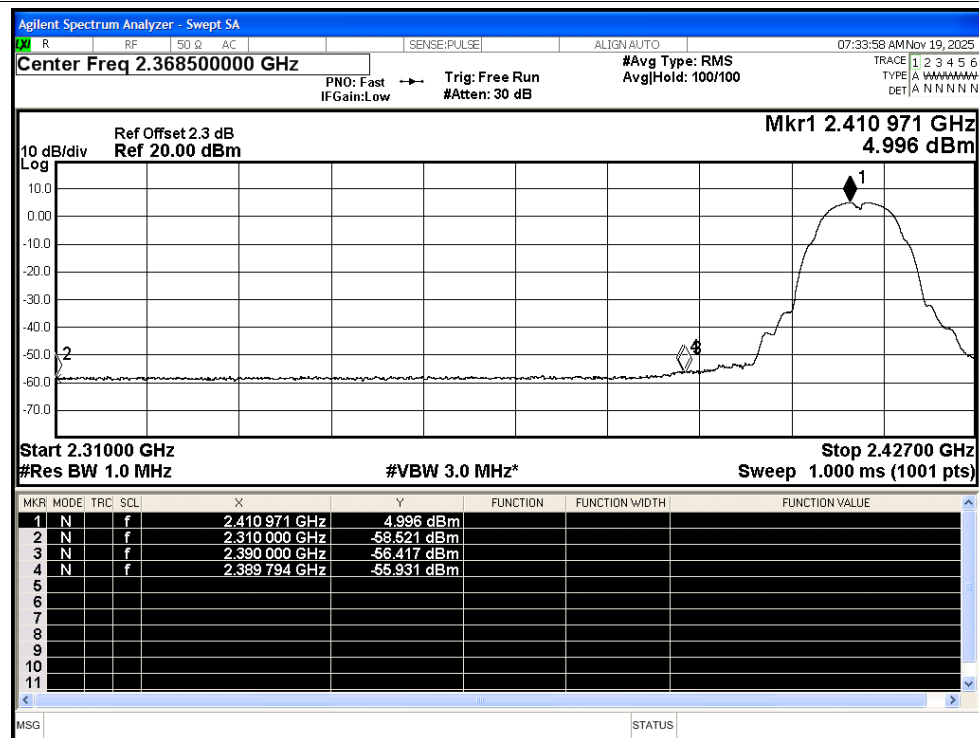
|      |     |      |      |          |        |      |      |       |         |    |      |
|------|-----|------|------|----------|--------|------|------|-------|---------|----|------|
| NVNT | n40 | 2422 | Ant1 | 2310     | -58.46 | 3.65 | 0.24 | 40.69 | Average | 54 | Pass |
| NVNT | n40 | 2422 | Ant1 | 2388.1   | -43.1  | 3.65 | -    | 55.81 | Peak    | 74 | Pass |
| NVNT | n40 | 2422 | Ant1 | 2389.378 | -55.51 | 3.65 | 0.24 | 43.64 | Average | 54 | Pass |
| NVNT | n40 | 2422 | Ant1 | 2390     | -44.46 | 3.65 | -    | 54.45 | Peak    | 74 | Pass |
| NVNT | n40 | 2422 | Ant1 | 2390     | -56.57 | 3.65 | 0.24 | 42.58 | Average | 54 | Pass |
| NVNT | n40 | 2452 | Ant1 | 2483.5   | -41.04 | 3.65 | -    | 57.87 | Peak    | 74 | Pass |
| NVNT | n40 | 2452 | Ant1 | 2483.5   | -55.48 | 3.65 | 0.24 | 43.67 | Average | 54 | Pass |
| NVNT | n40 | 2452 | Ant1 | 2485.18  | -37.86 | 3.65 | -    | 61.05 | Peak    | 74 | Pass |
| NVNT | n40 | 2452 | Ant1 | 2483.776 | -52.59 | 3.65 | 0.24 | 46.56 | Average | 54 | Pass |
| NVNT | n40 | 2452 | Ant1 | 2500     | -50.53 | 3.65 | -    | 48.38 | Peak    | 74 | Pass |
| NVNT | n40 | 2452 | Ant1 | 2500     | -57.98 | 3.65 | 0.24 | 41.17 | Average | 54 | Pass |

## Test Graphs

## Restrict Band NVNT b 2412MHz Ant1 Peak

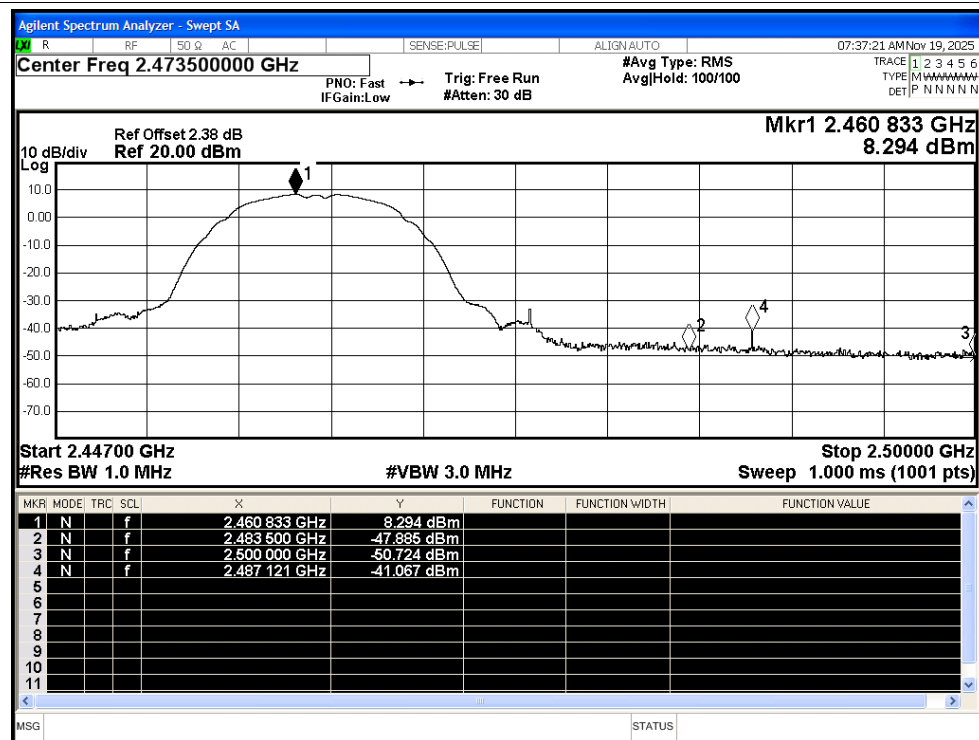


## Restrict Band NVNT b 2412MHz Ant1 Average

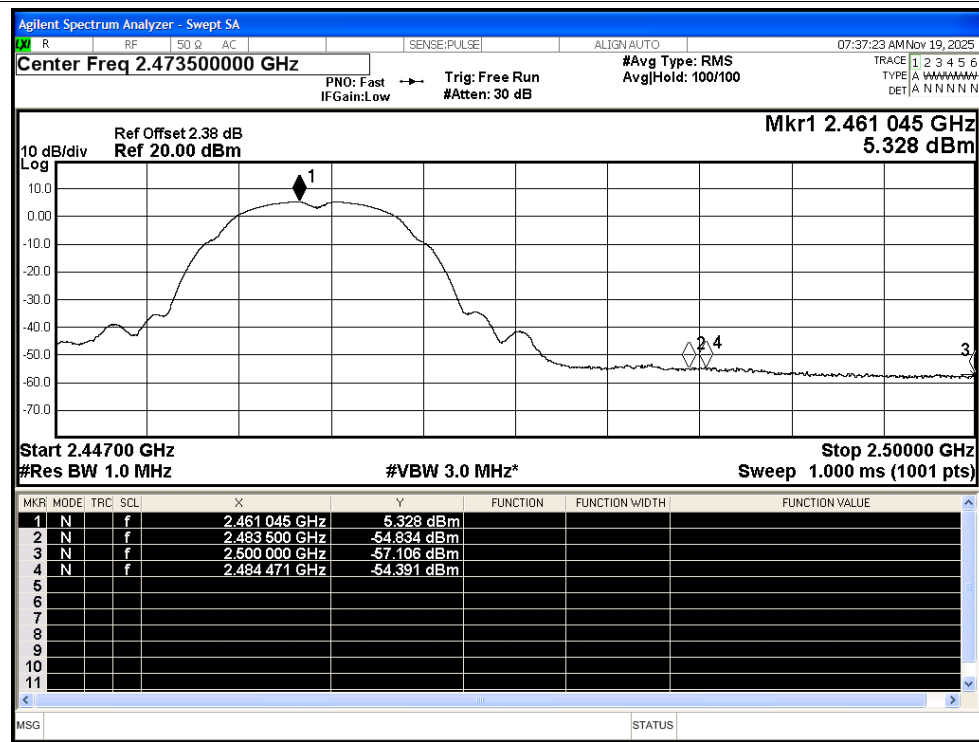




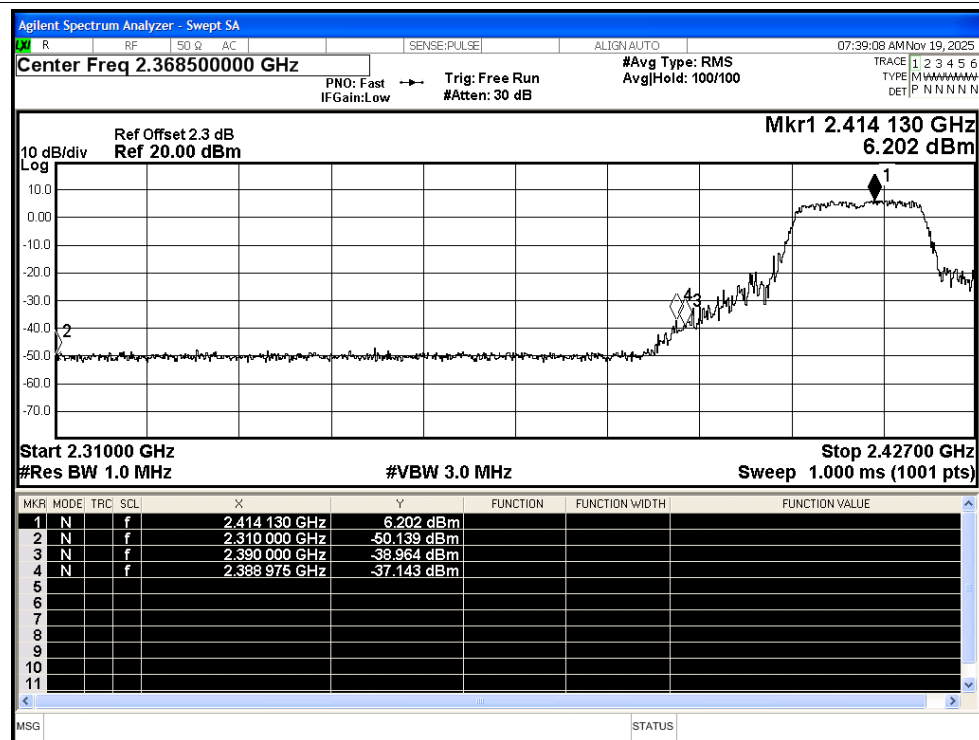
## Restrict Band NVNT b 2462MHz Ant1 Peak



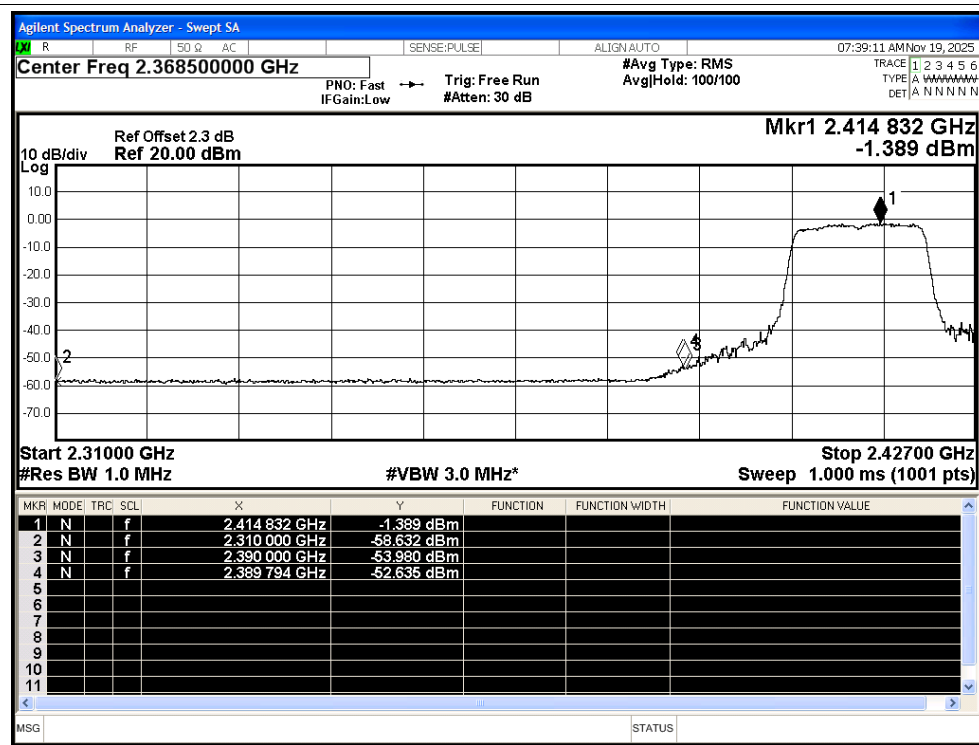
## Restrict Band NVNT b 2462MHz Ant1 Average



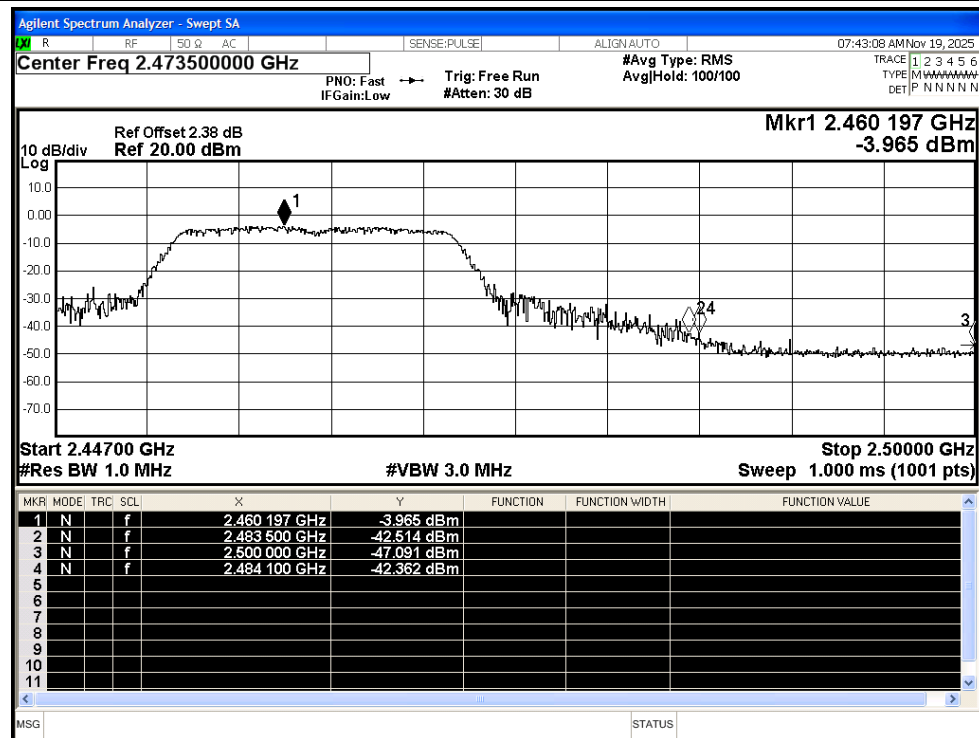
## Restrict Band NVNT g 2412MHz Ant1 Peak



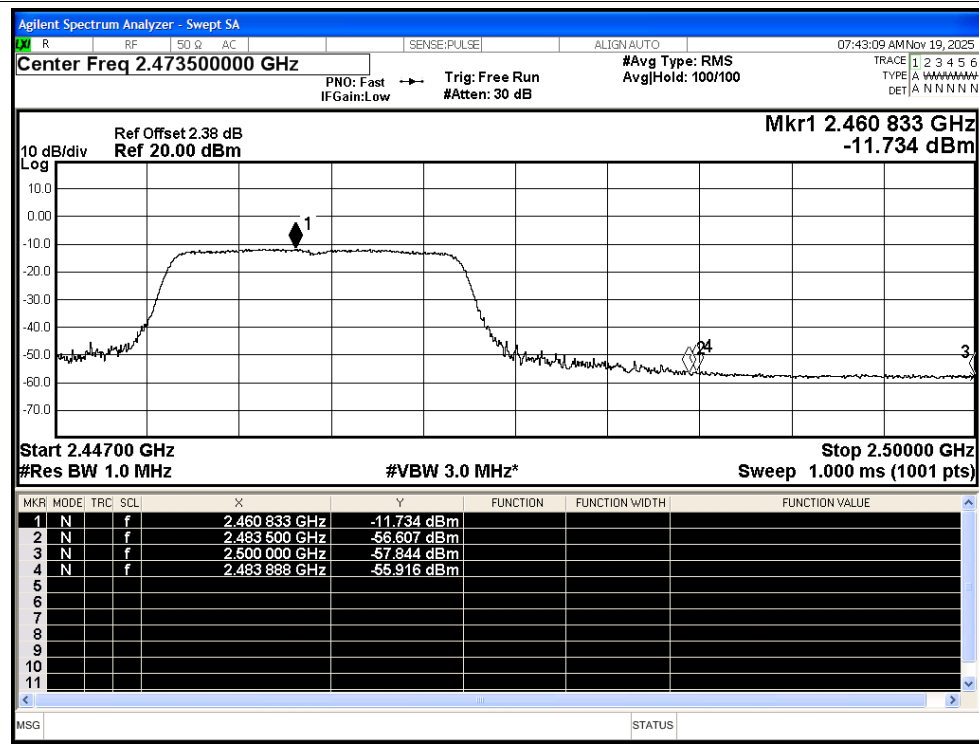
## Restrict Band NVNT g 2412MHz Ant1 Average

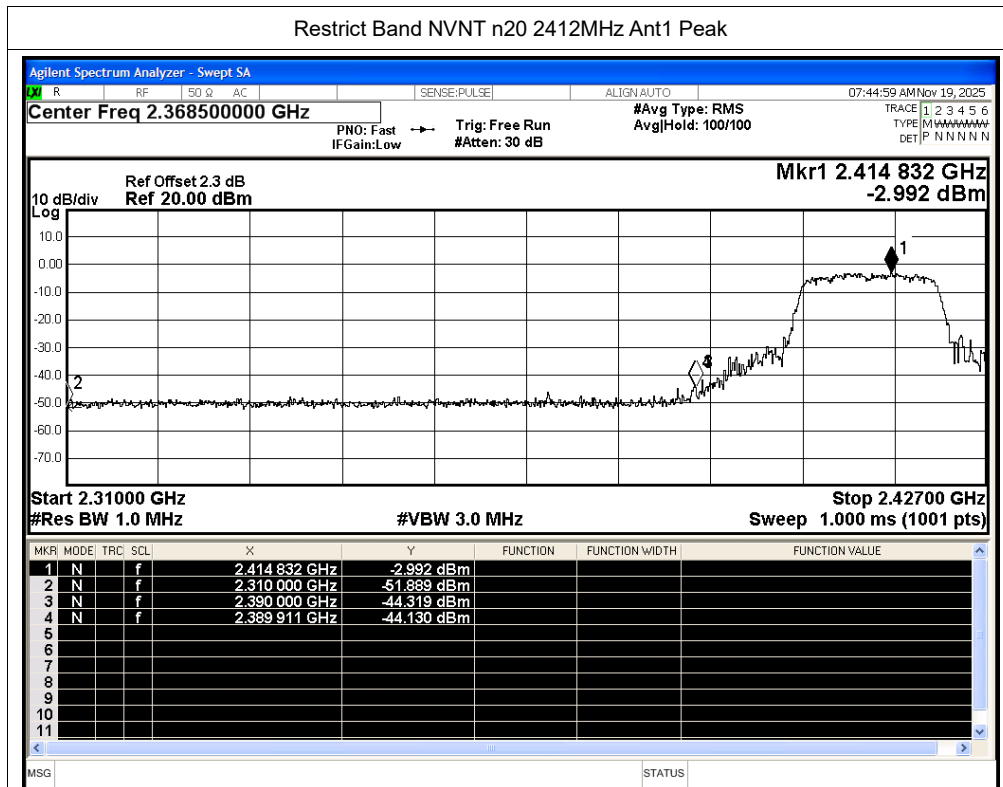


## Restrict Band NVNT g 2462MHz Ant1 Peak

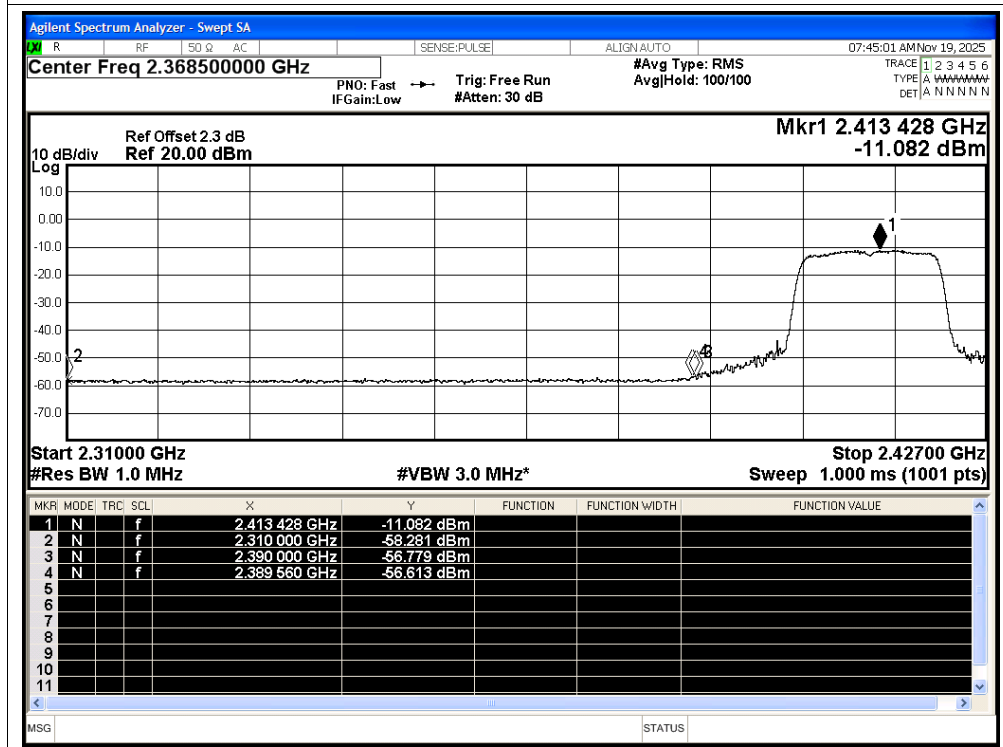


## Restrict Band NVNT g 2462MHz Ant1 Average

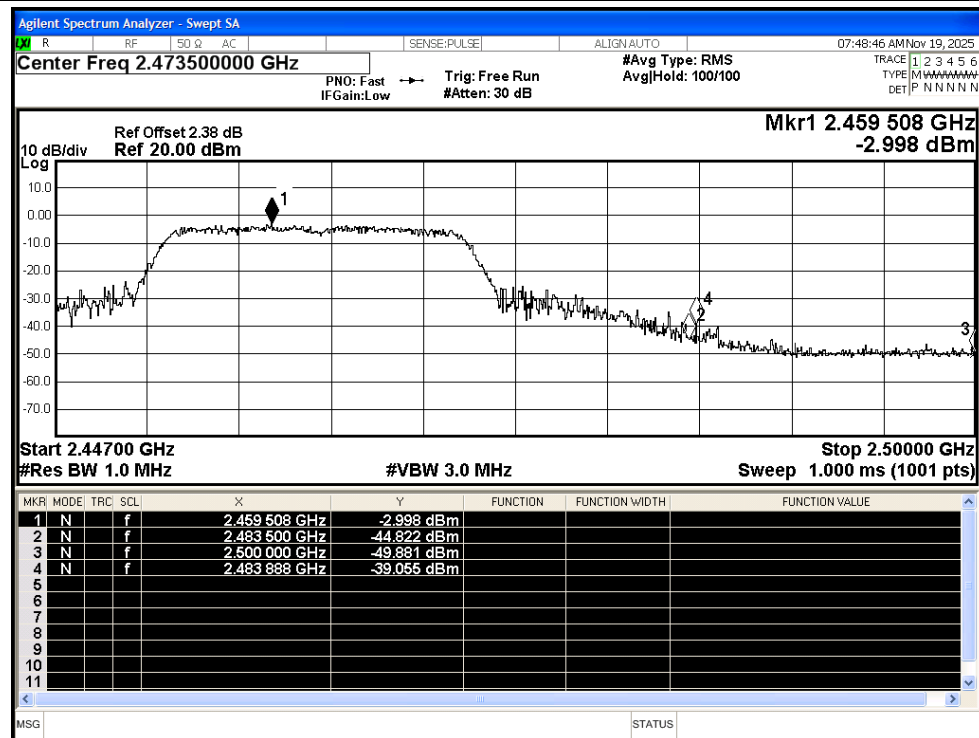




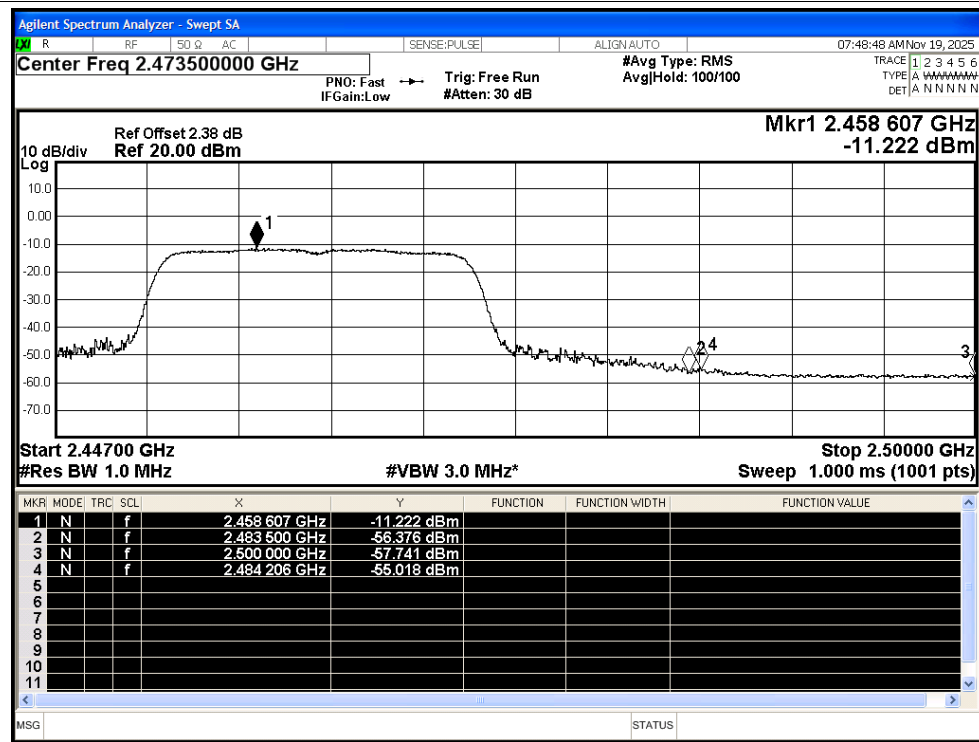
Restrict Band NVNT n20 2412MHz Ant1 Average



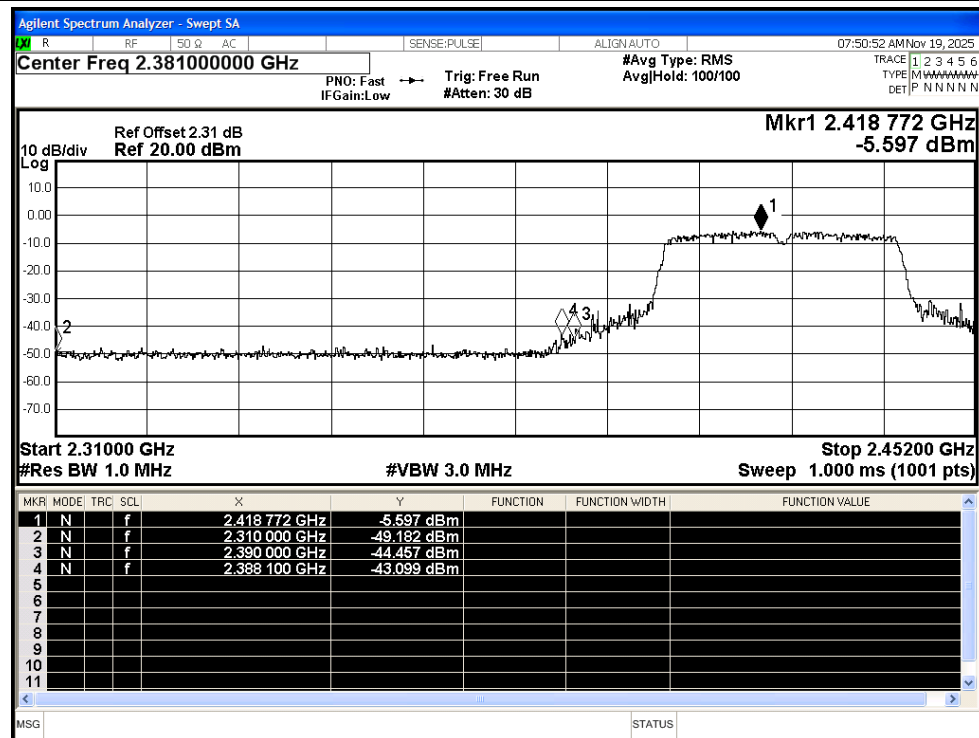
## Restrict Band NVNT n20 2462MHz Ant1 Peak



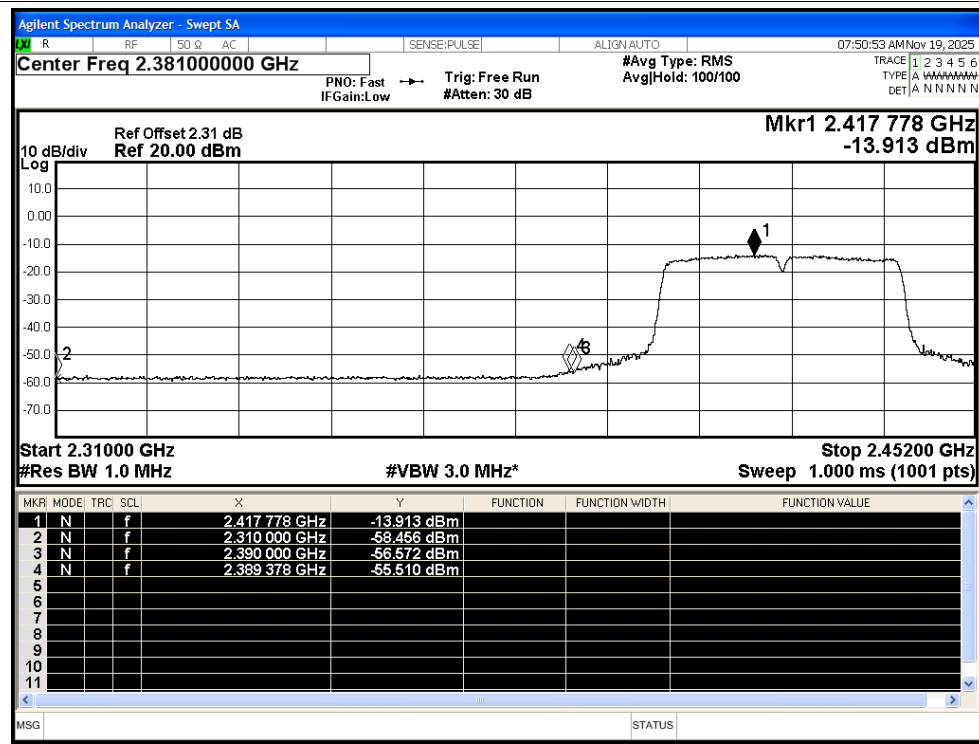
## Restrict Band NVNT n20 2462MHz Ant1 Average



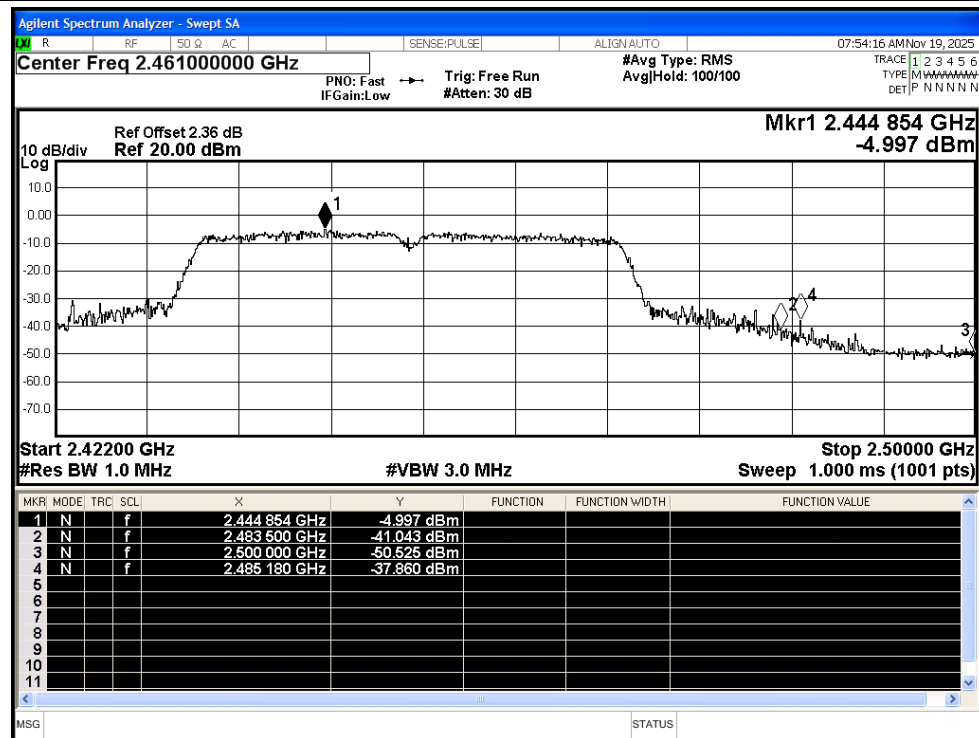
## Restrict Band NVNT n40 2422MHz Ant1 Peak



## Restrict Band NVNT n40 2422MHz Ant1 Average



## Restrict Band NVNT n40 2452MHz Ant1 Peak



## Restrict Band NVNT n40 2452MHz Ant1 Average

