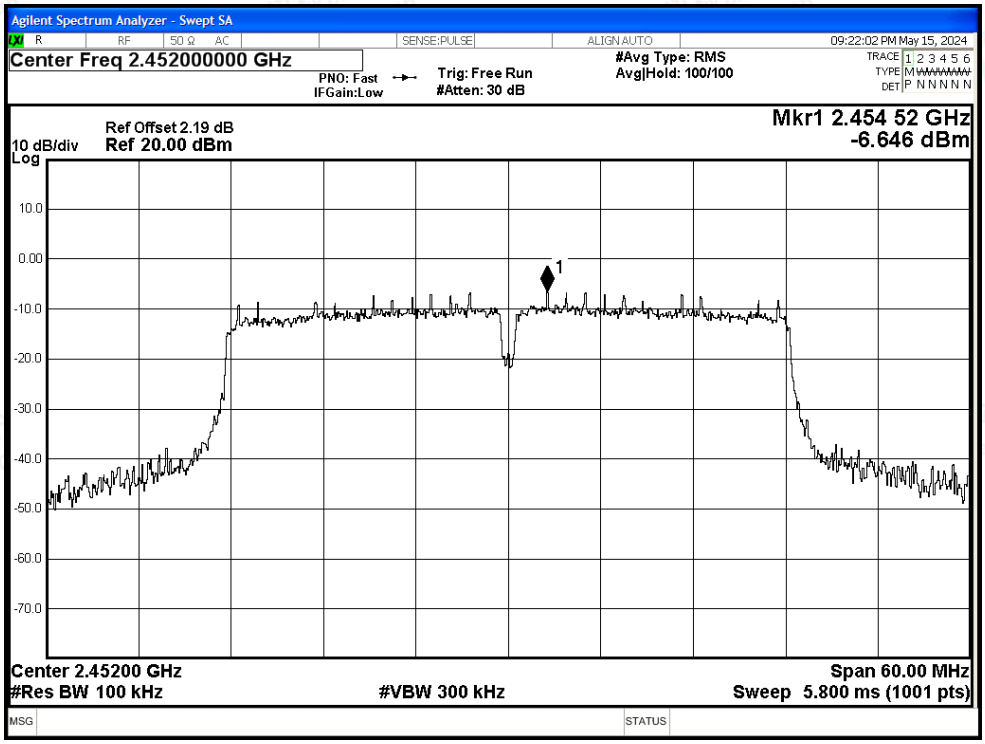
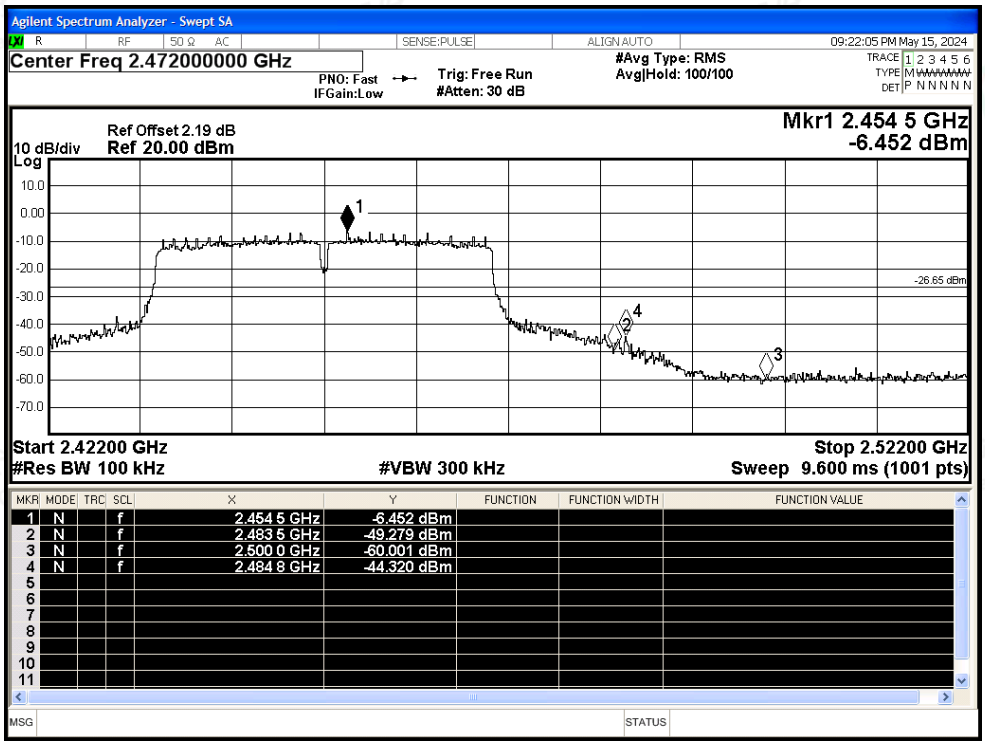
Band Edge NVNT n40 2452MHz Ant1 Ref



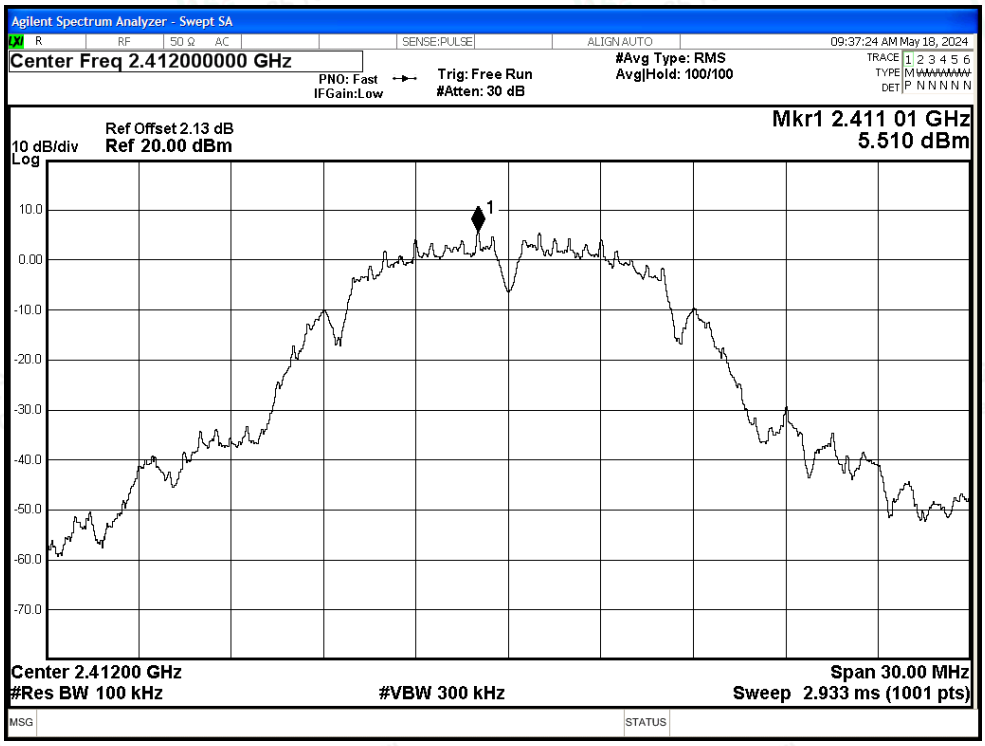

Band Edge NVNT n40 2452MHz Ant1 Emission



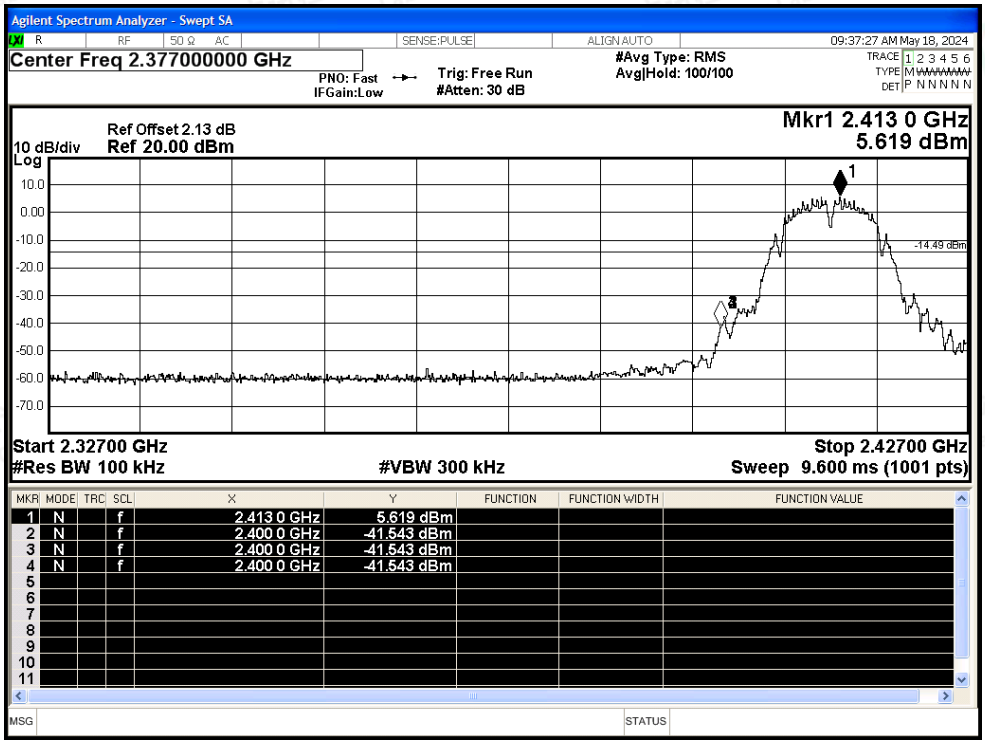
| Condition | Mode | Frequency (MHz) | Antenna | Max Value (dBc) | Limit (dBc) | Verdict |
|---|---|---|---|---|---|---|
| NVNT | b | 2412 | Ant2 | -47.05 | -20 | Pass |
| NVNT | b | 2462 | Ant2 | -60.53 | -20 | Pass |
| NVNT | g | 2412 | Ant2 | -33.59 | -20 | Pass |
| NVNT | g | 2462 | Ant2 | -41.99 | -20 | Pass |
| NVNT | n20 | 2412 | Ant2 | -31.22 | -20 | Pass |
| NVNT | n20 | 2462 | Ant2 | -38.86 | -20 | Pass |
| NVNT | n40 | 2422 | Ant2 | -36.41 | -20 | Pass |
| NVNT | n40 | 2452 | Ant2 | -35.29 | -20 | Pass |

Test Graphs

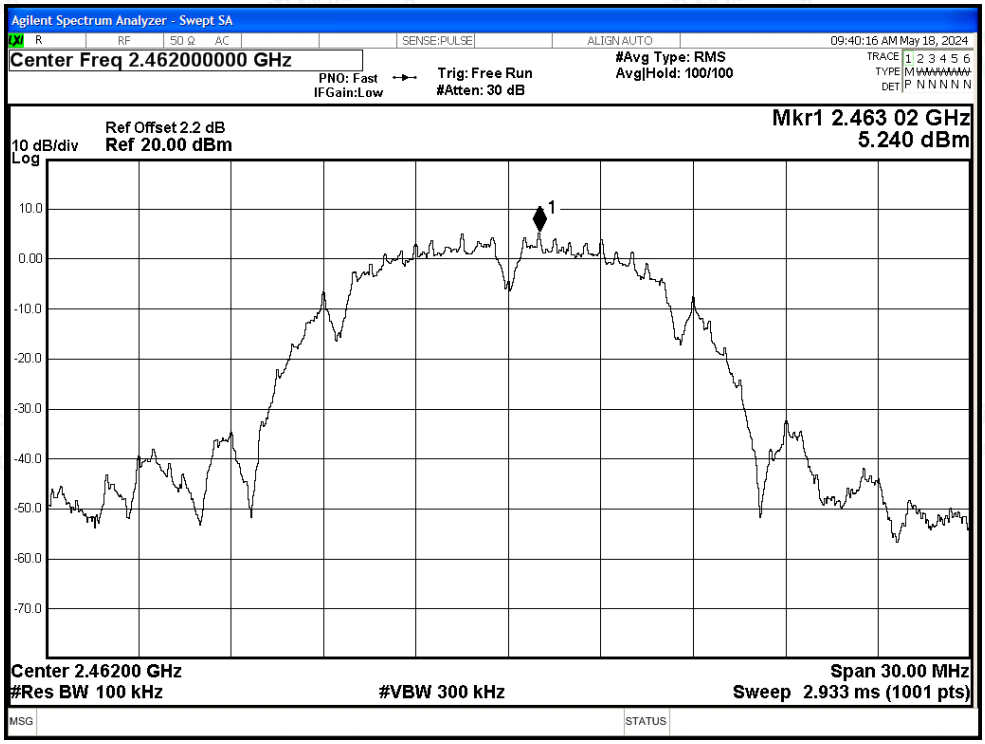
Band Edge NVNT b 2412MHz Ant2 Ref



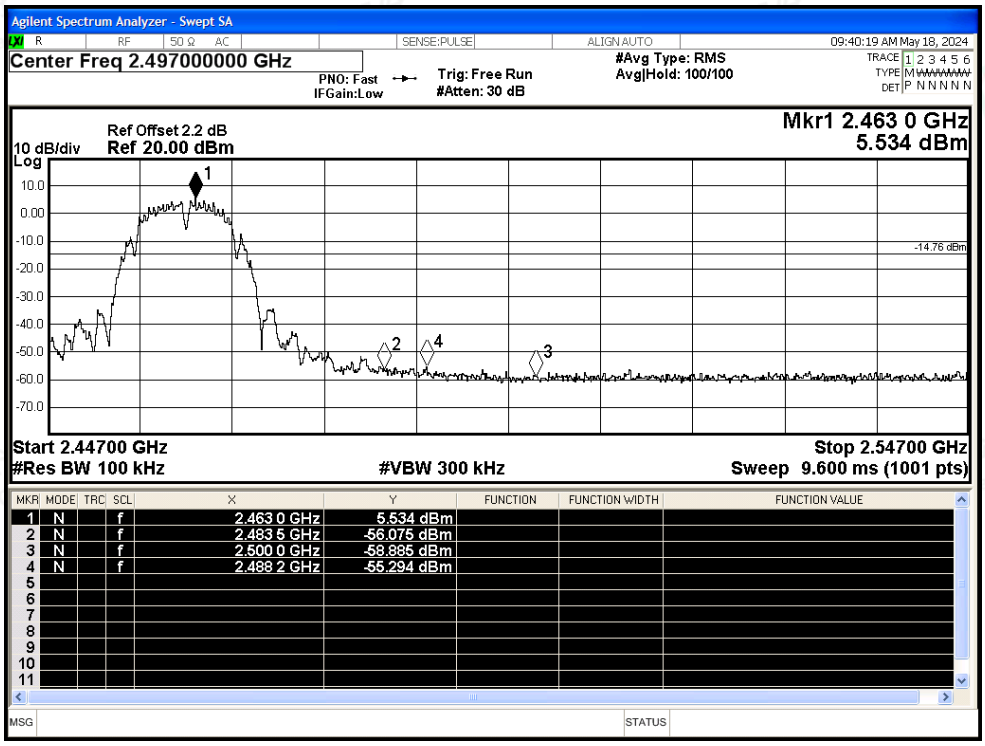

Band Edge NVNT b 2412MHz Ant2 Emission



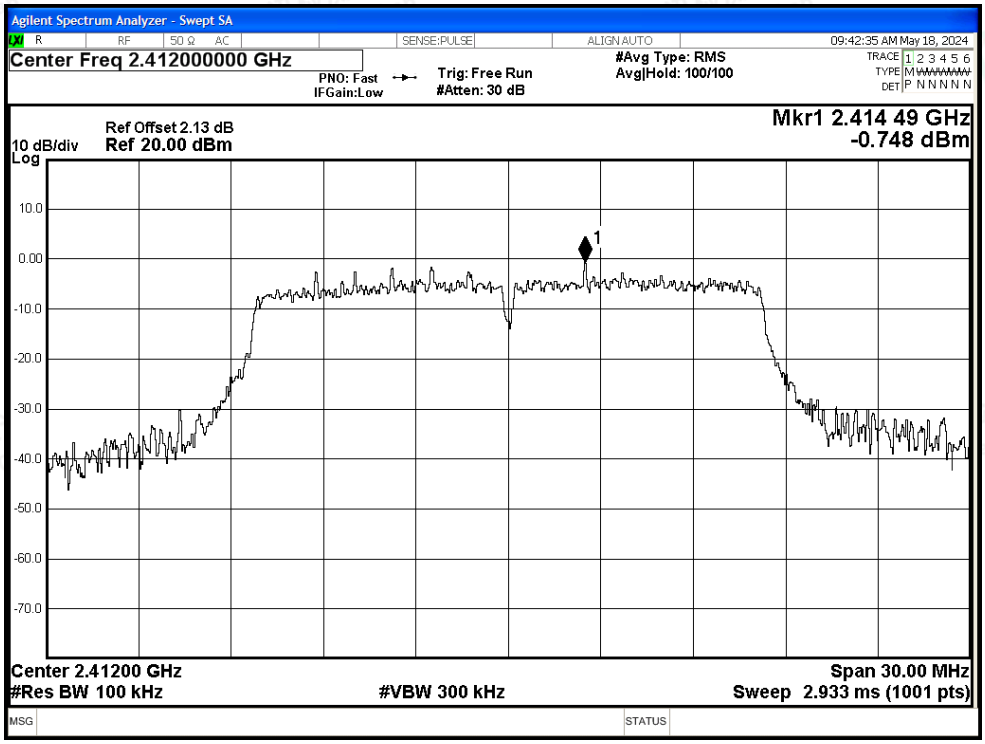
Band Edge NVNT b 2462MHz Ant2 Ref



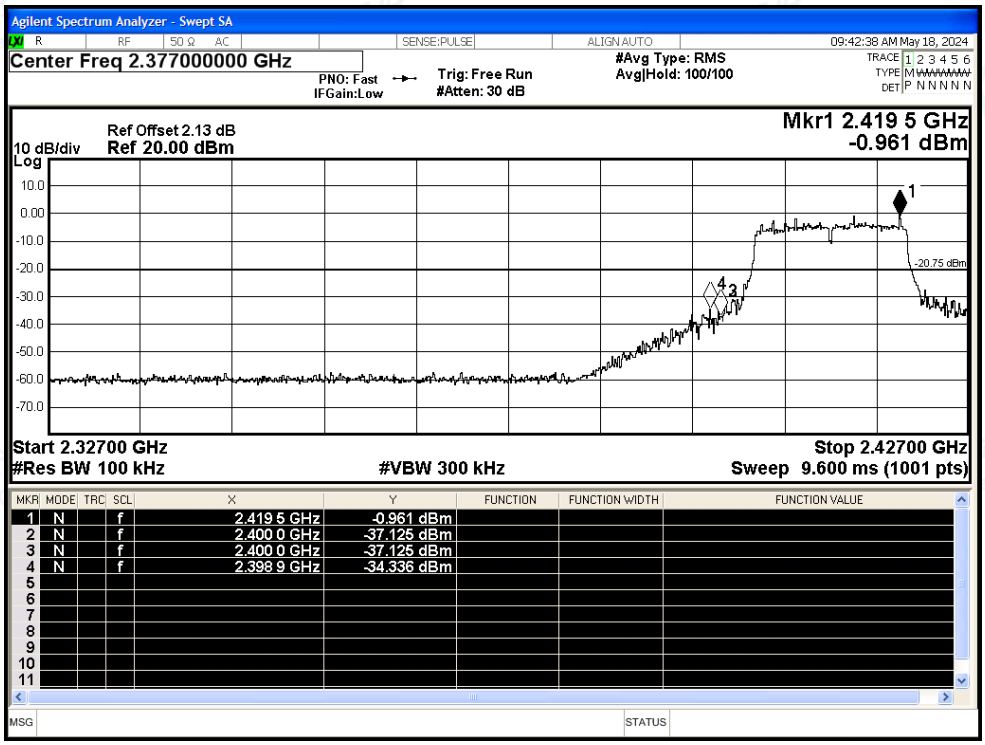

Band Edge NVNT b 2462MHz Ant2 Emission



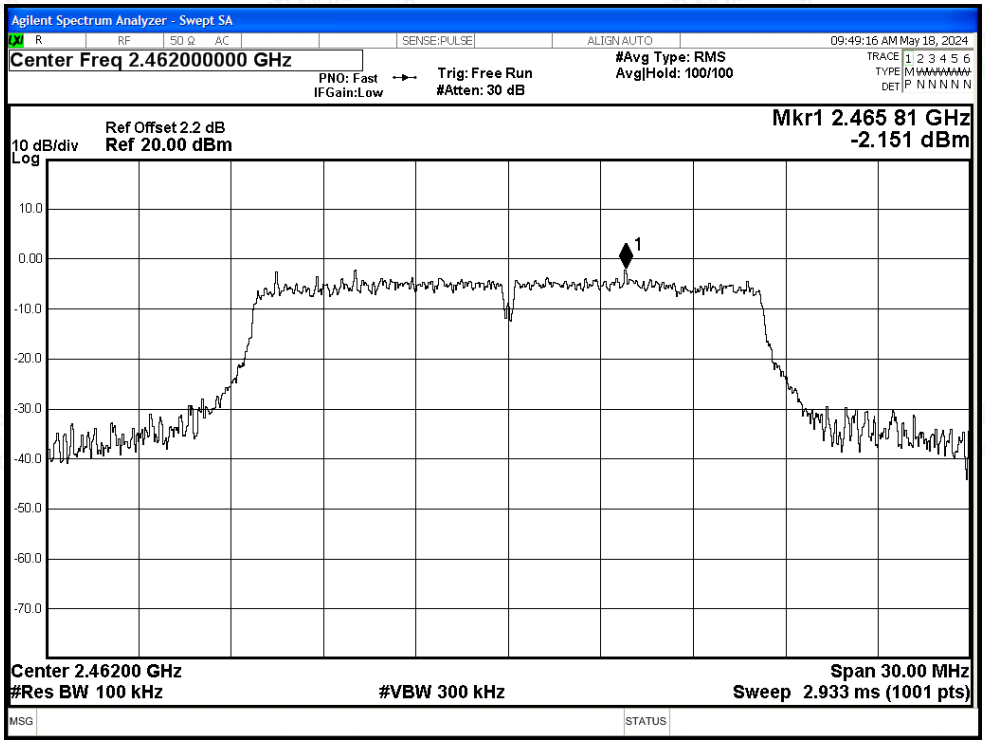
Band Edge NVNT g 2412MHz Ant2 Ref



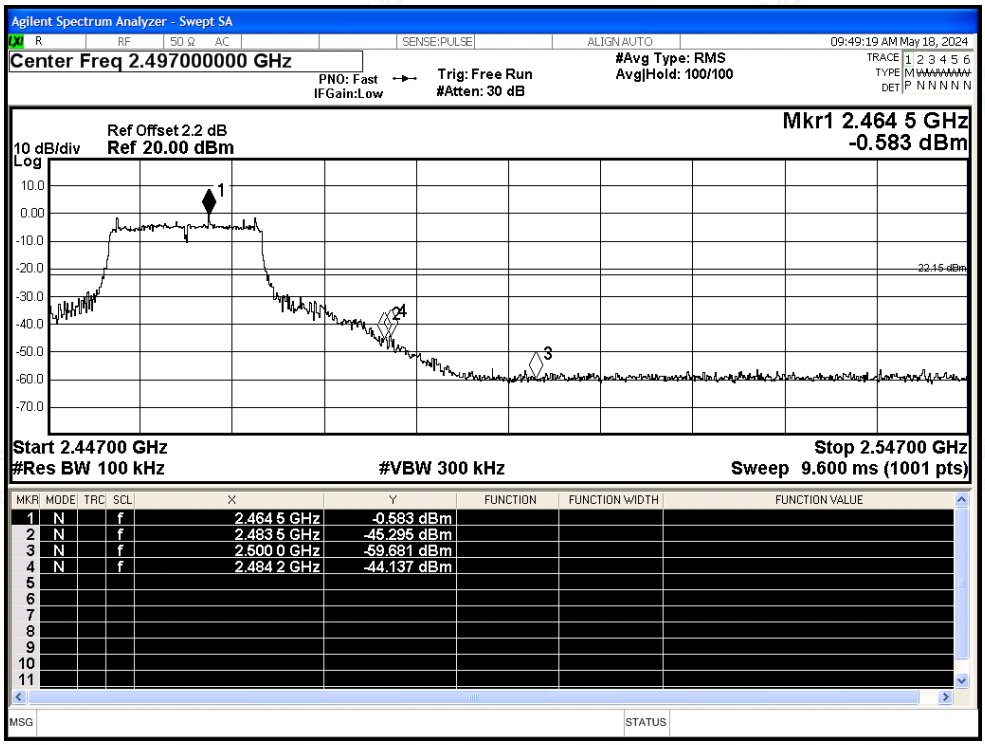

Band Edge NVNT g 2412MHz Ant2 Emission



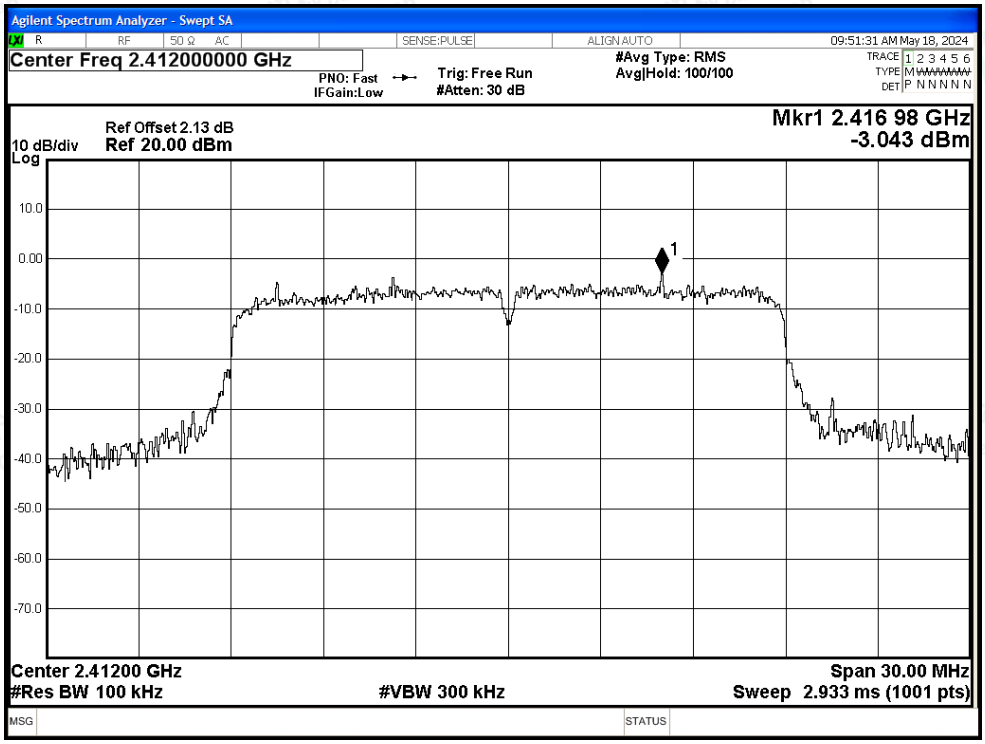
Band Edge NVNT g 2462MHz Ant2 Ref



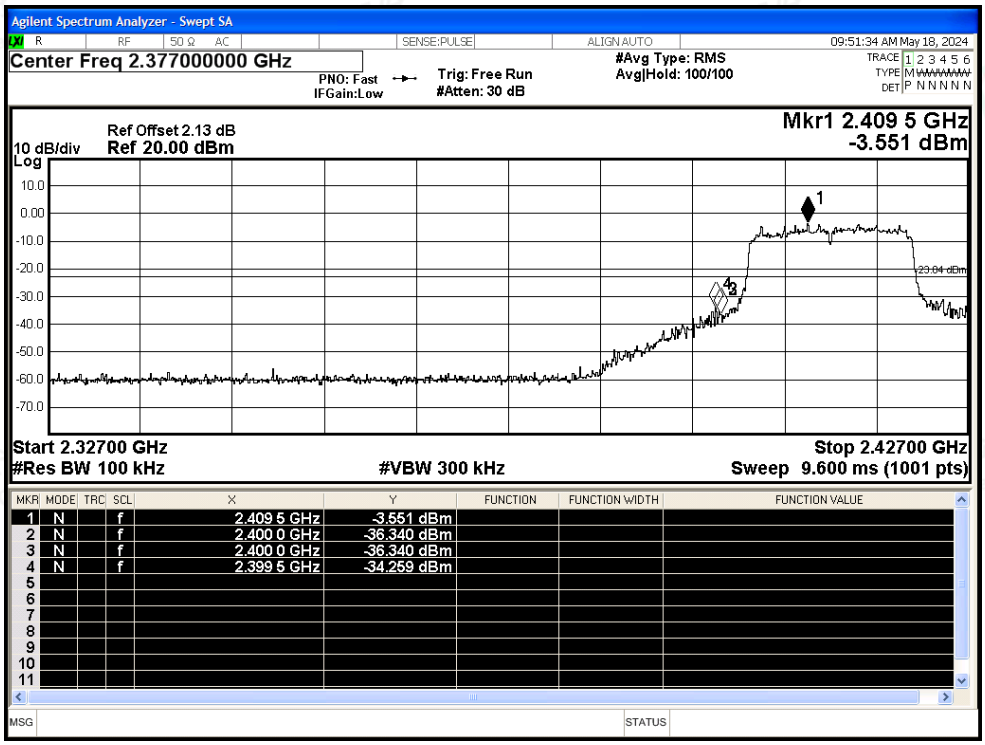

Band Edge NVNT g 2462MHz Ant2 Emission



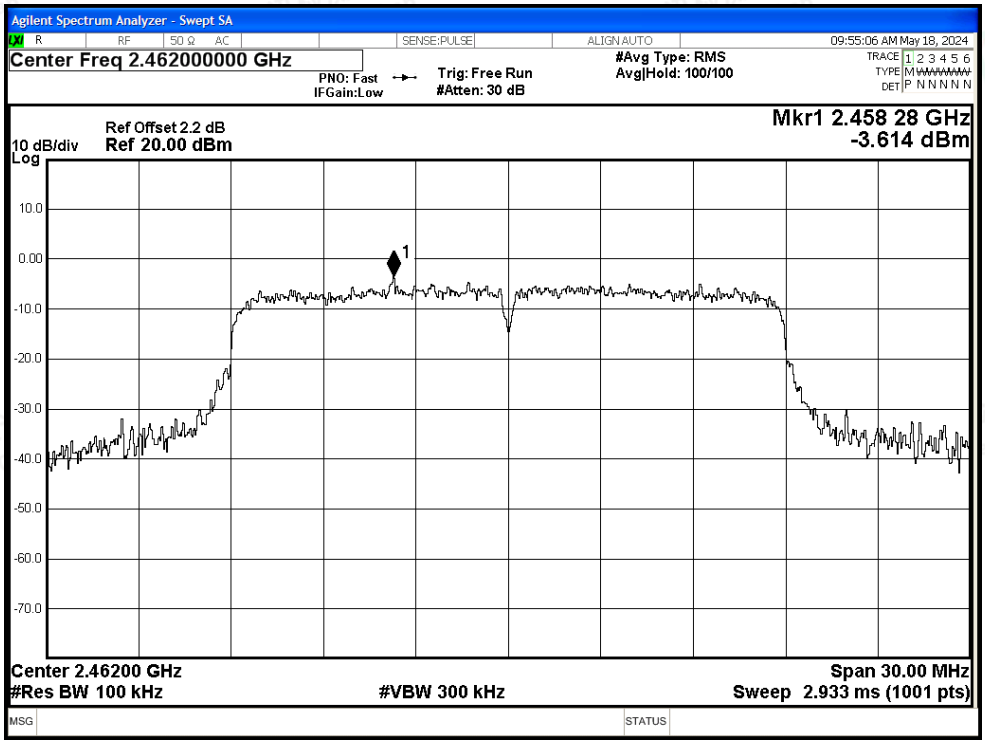
Band Edge NVNT n20 2412MHz Ant2 Ref



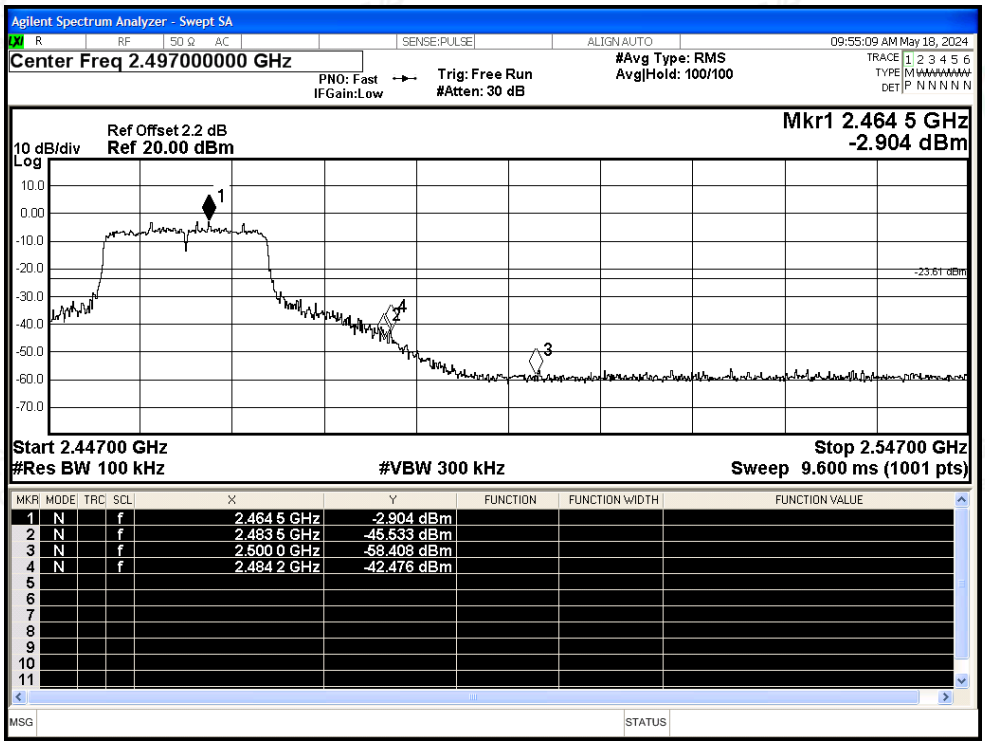

Band Edge NVNT n20 2412MHz Ant2 Emission



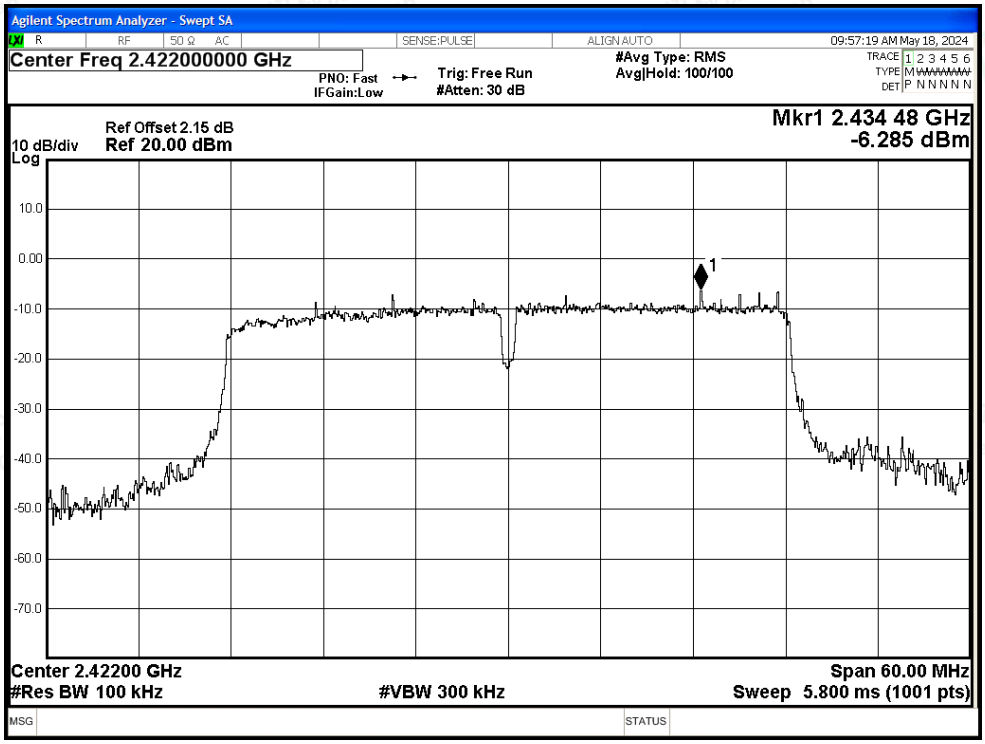
Band Edge NVNT n20 2462MHz Ant2 Ref



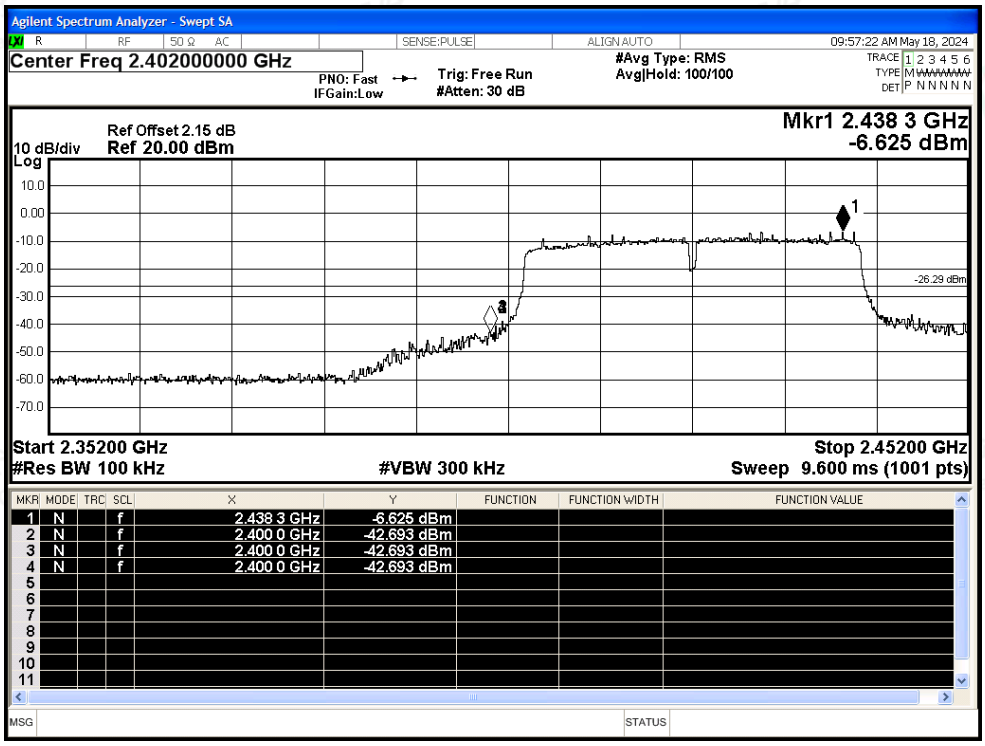

Band Edge NVNT n20 2462MHz Ant2 Emission



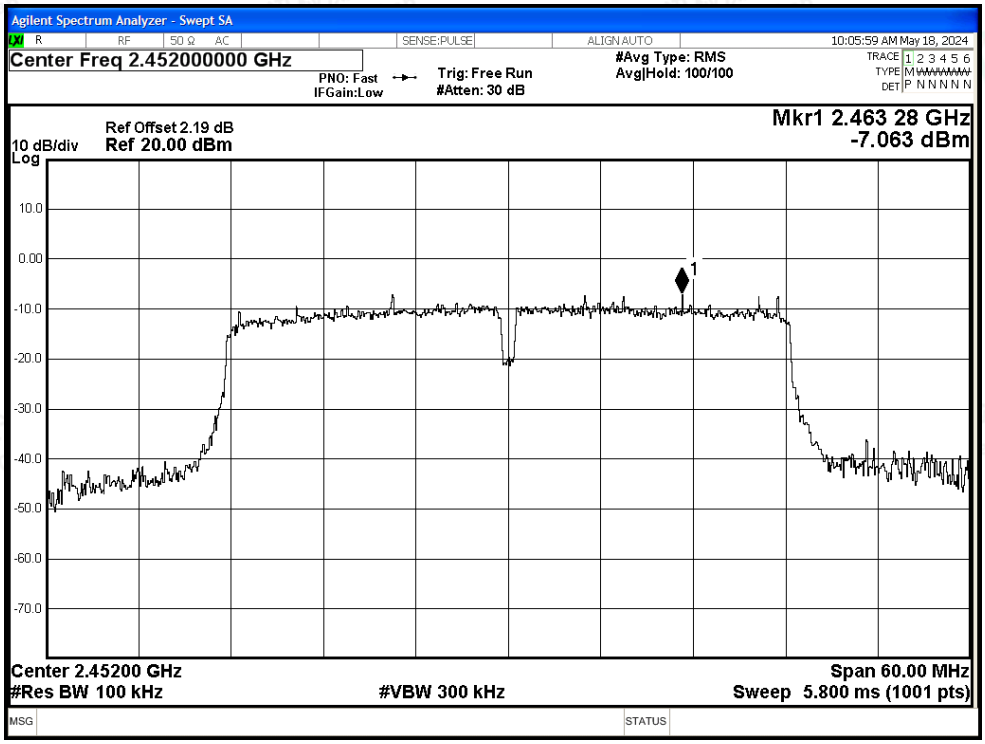
Band Edge NVNT n40 2422MHz Ant2 Ref



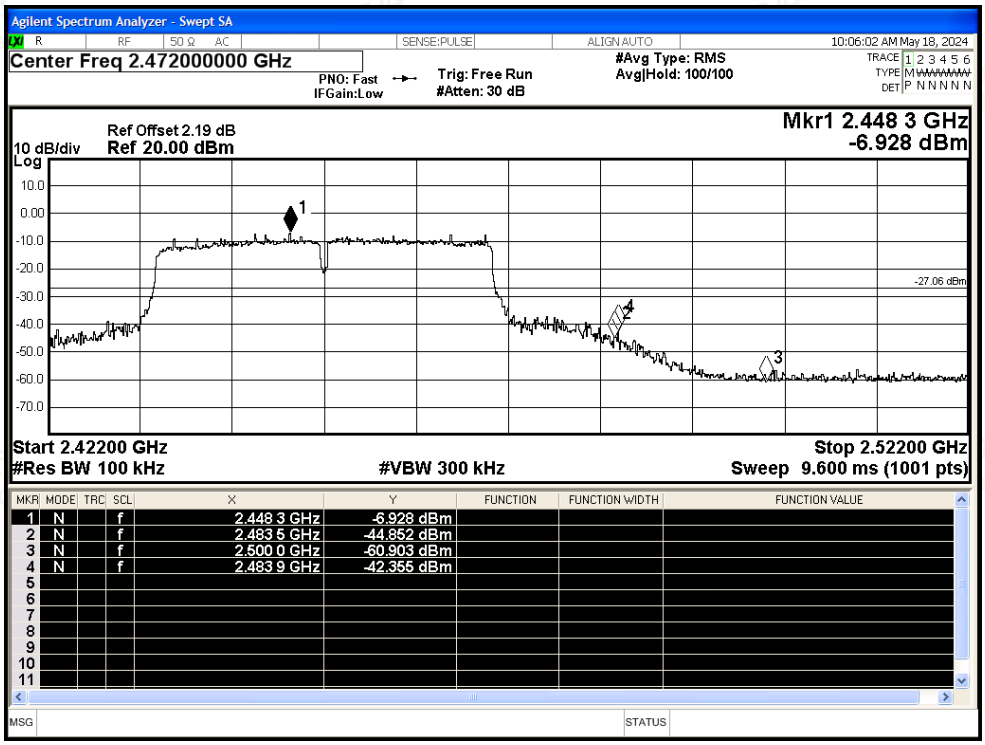

Band Edge NVNT n40 2422MHz Ant2 Emission



Band Edge NVNT n40 2452MHz Ant2 Ref




Band Edge NVNT n40 2452MHz Ant2 Emission

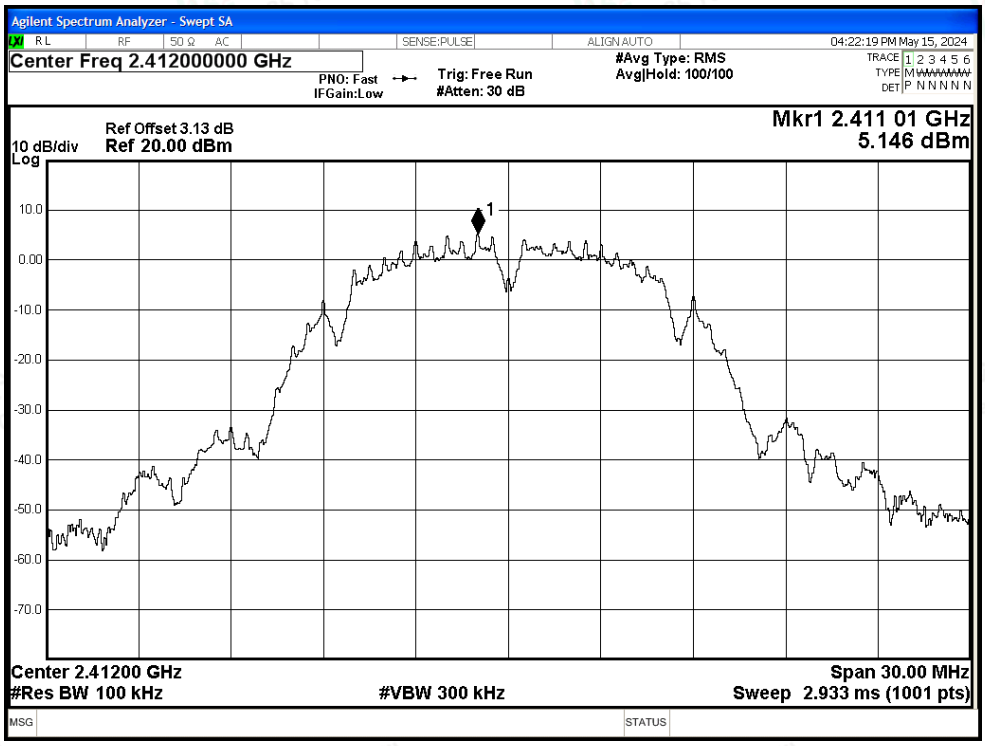


# C.5 Conducted RF Spurious Emission

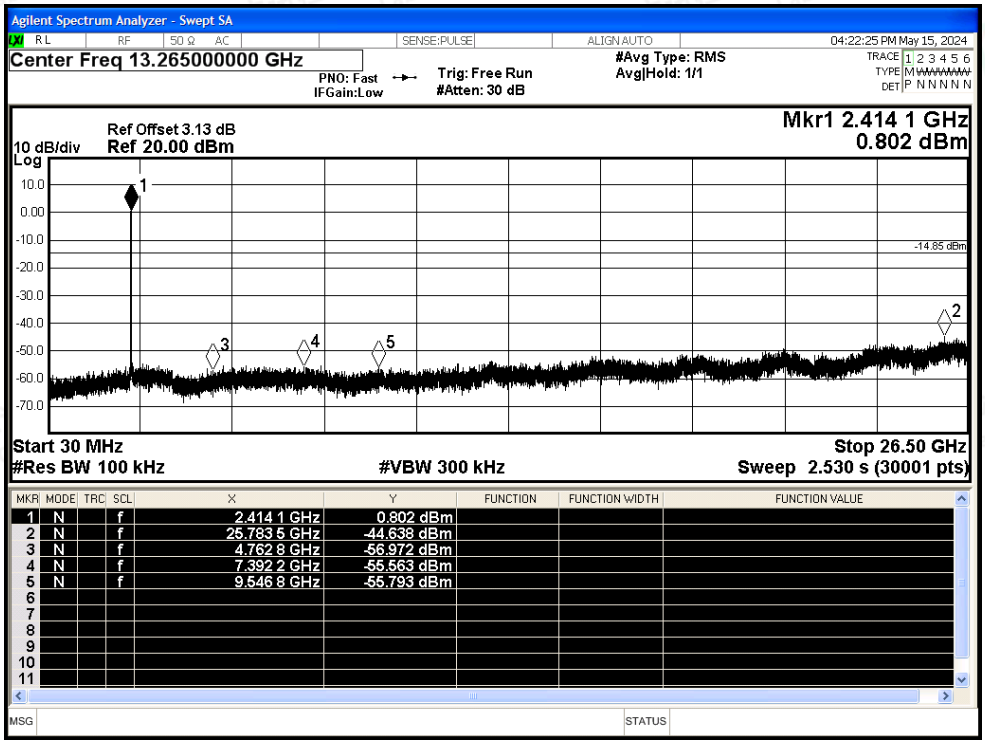
| Condition | Mode | Frequency (MHz) | Antenna | Max Value (dBc) | Limit (dBc) | Verdict |
|---|---|---|---|---|---|---|
| NVNT | b | 2412 | Ant1 | -49.78 | -20 | Pass |
| NVNT | b | 2437 | Ant1 | -50.67 | -20 | Pass |
| NVNT | b | 2462 | Ant1 | -49.7 | -20 | Pass |
| NVNT | g | 2412 | Ant1 | -42.87 | -20 | Pass |
| NVNT | g | 2437 | Ant1 | -44.18 | -20 | Pass |
| NVNT | g | 2462 | Ant1 | -43.74 | -20 | Pass |
| NVNT | n20 | 2412 | Ant1 | -41.01 | -20 | Pass |
| NVNT | n20 | 2437 | Ant1 | -41.87 | -20 | Pass |
| NVNT | n20 | 2462 | Ant1 | -42.55 | -20 | Pass |
| NVNT | n40 | 2422 | Ant1 | -40.59 | -20 | Pass |
| NVNT | n40 | 2437 | Ant1 | -39.84 | -20 | Pass |
| NVNT | n40 | 2452 | Ant1 | -38.46 | -20 | Pass |

Test Graphs

Tx. Spurious NVNT b 2412MHz Ant1 Ref

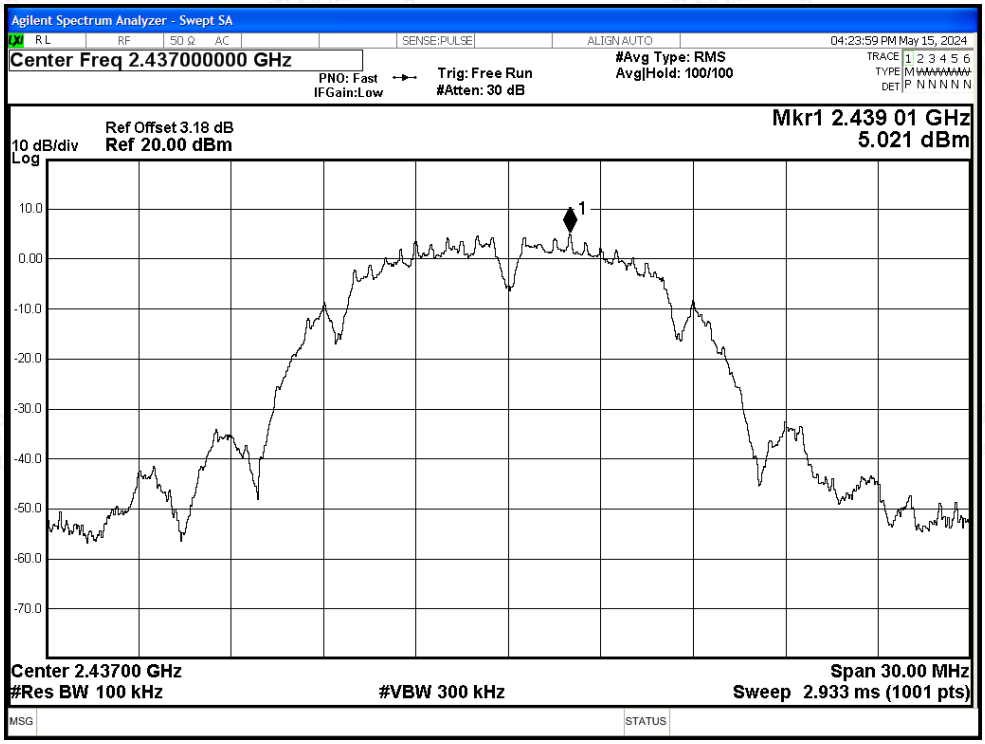



Tx. Spurious NVNT b 2412MHz Ant1 Emission

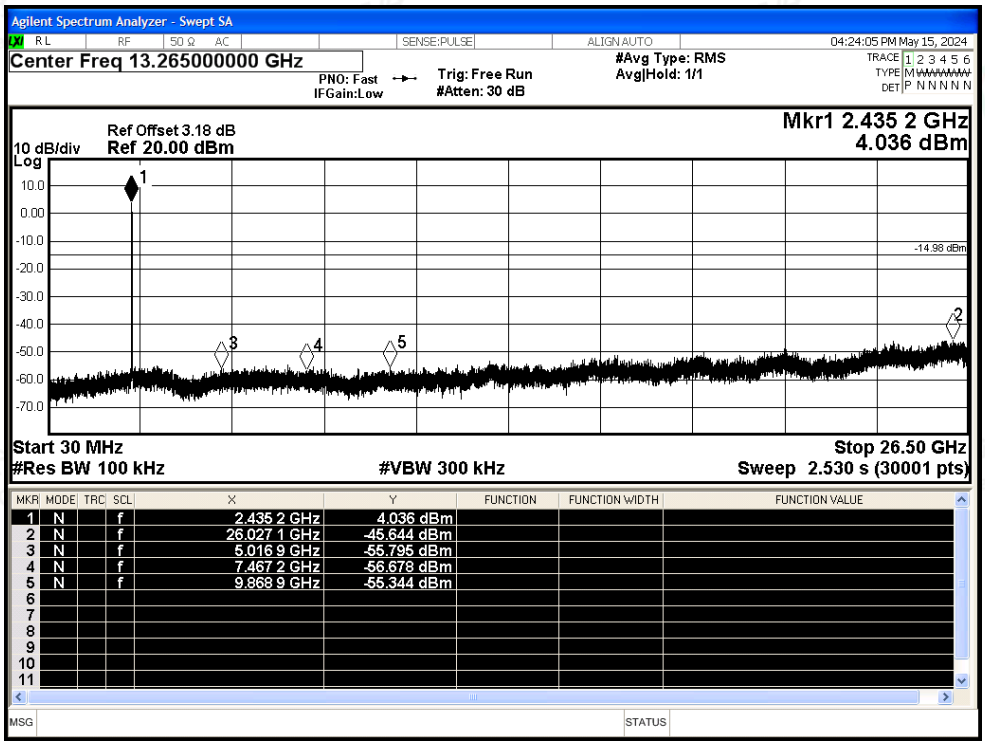



| MKR | MODE | TRC | SCL | X | Y | FUNCTION | FUNCTION WIDTH | FUNCTION VALUE |
|---|---|---|---|---|---|---|---|---|
| 1 | N | | f | 2.414 1 GHz | 0.802 dBm | | | |
| 2 | N | | f | 25.783 5 GHz | -44.638 dBm | | | |
| 3 | N | | f | 4.762 8 GHz | -56.972 dBm | | | |
| 4 | N | | f | 7.392 2 GHz | -55.563 dBm | | | |
| 5 | N | | f | 9.546 8 GHz | -55.793 dBm | | | |
| 6 | | | | | | | | |
| 7 | | | | | | | | |
| 8 | | | | | | | | |
| 9 | | | | | | | | |
| 10 | | | | | | | | |
| 11 | | | | | | | | |

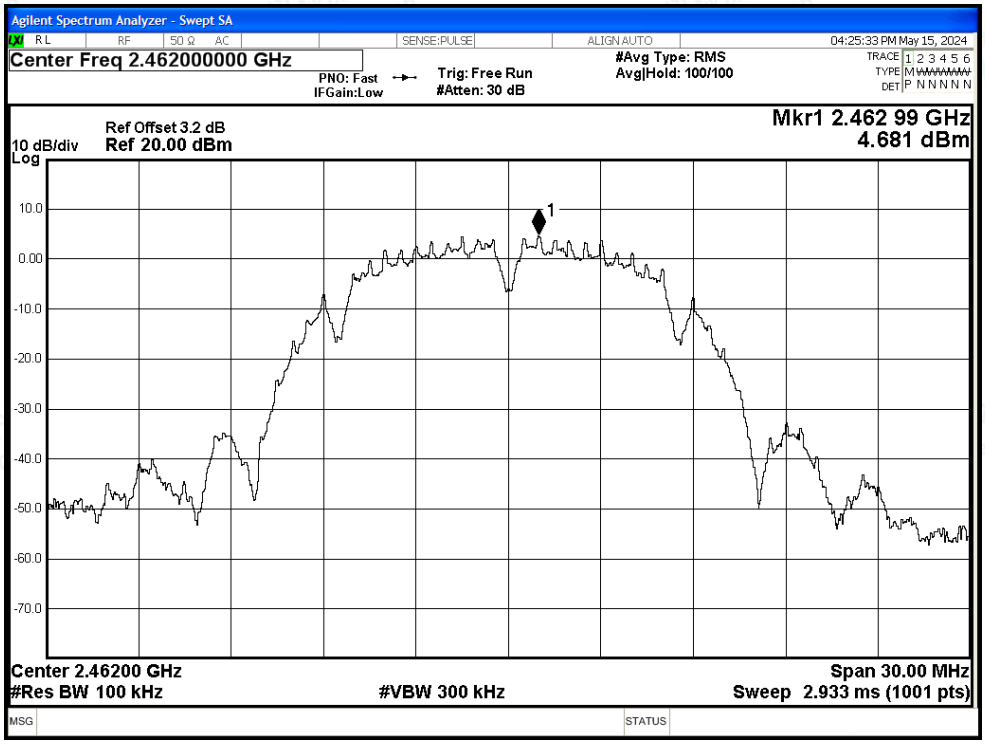
Tx. Spurious NVNT b 2437MHz Ant1 Ref



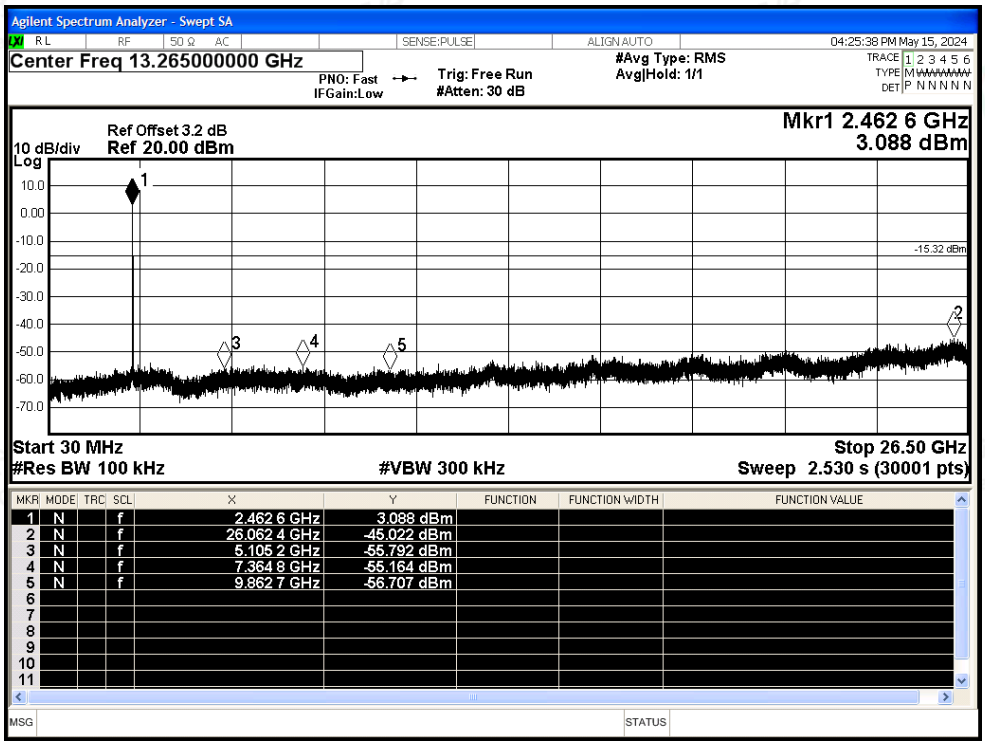

Tx. Spurious NVNT b 2437MHz Ant1 Emission



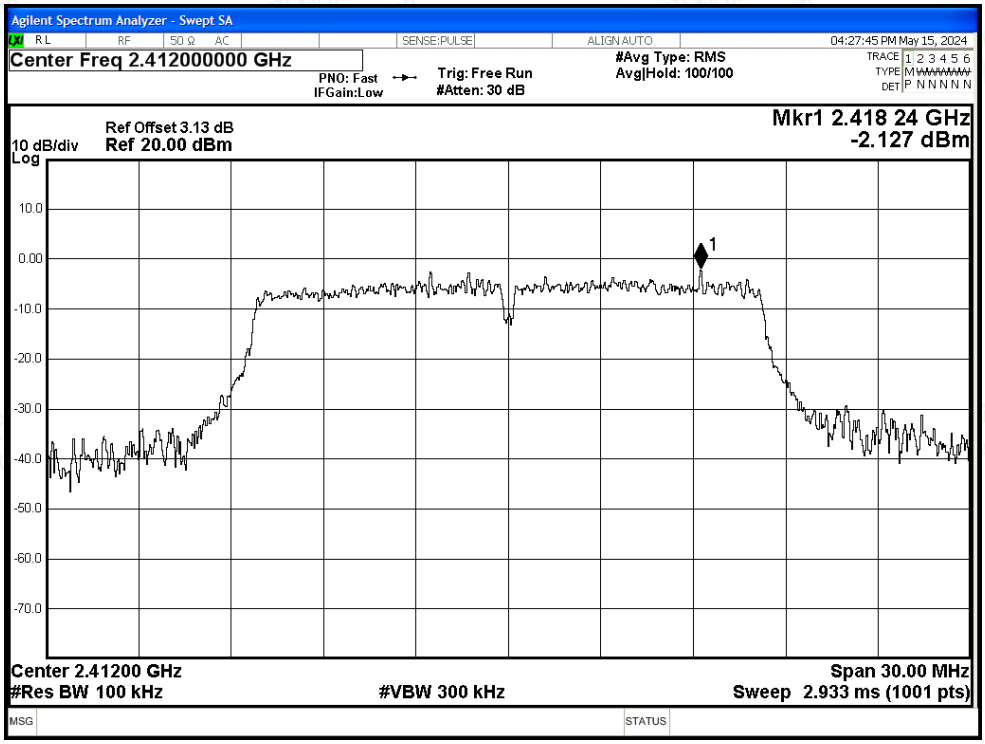
Tx. Spurious NVNT b 2462MHz Ant1 Ref



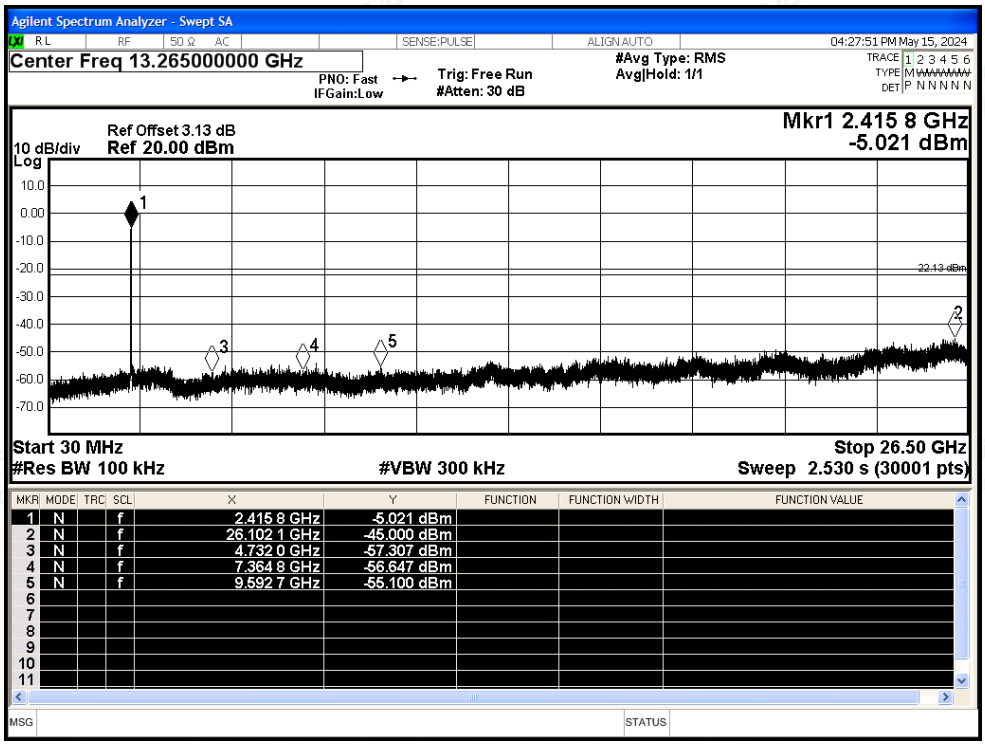

Tx. Spurious NVNT b 2462MHz Ant1 Emission



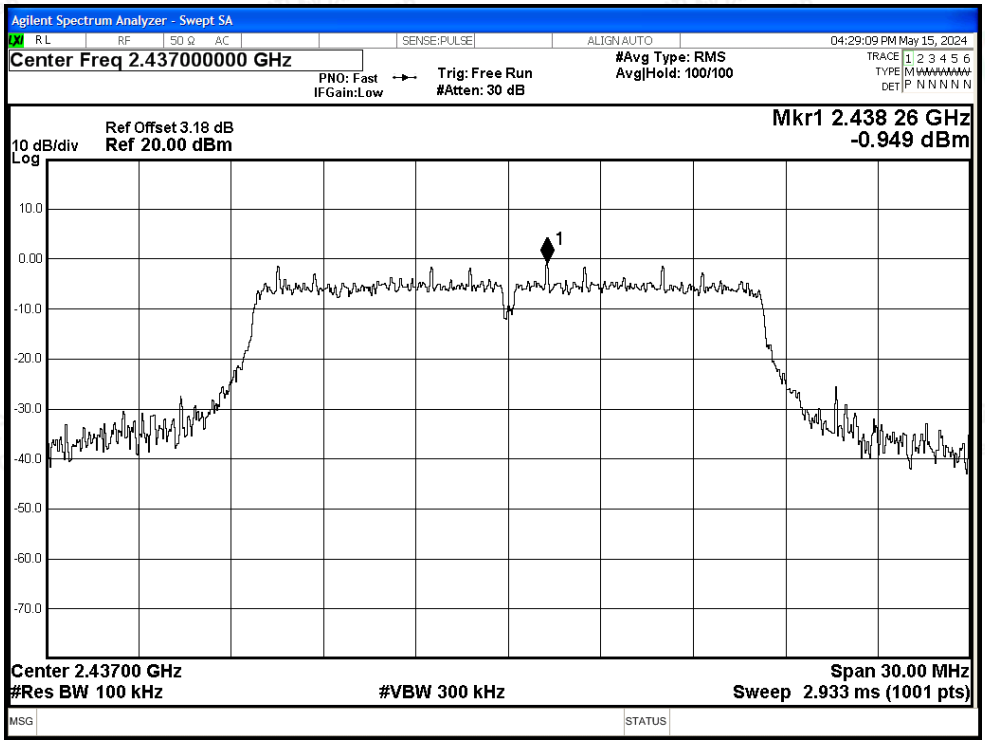
Tx. Spurious NVNT g 2412MHz Ant1 Ref



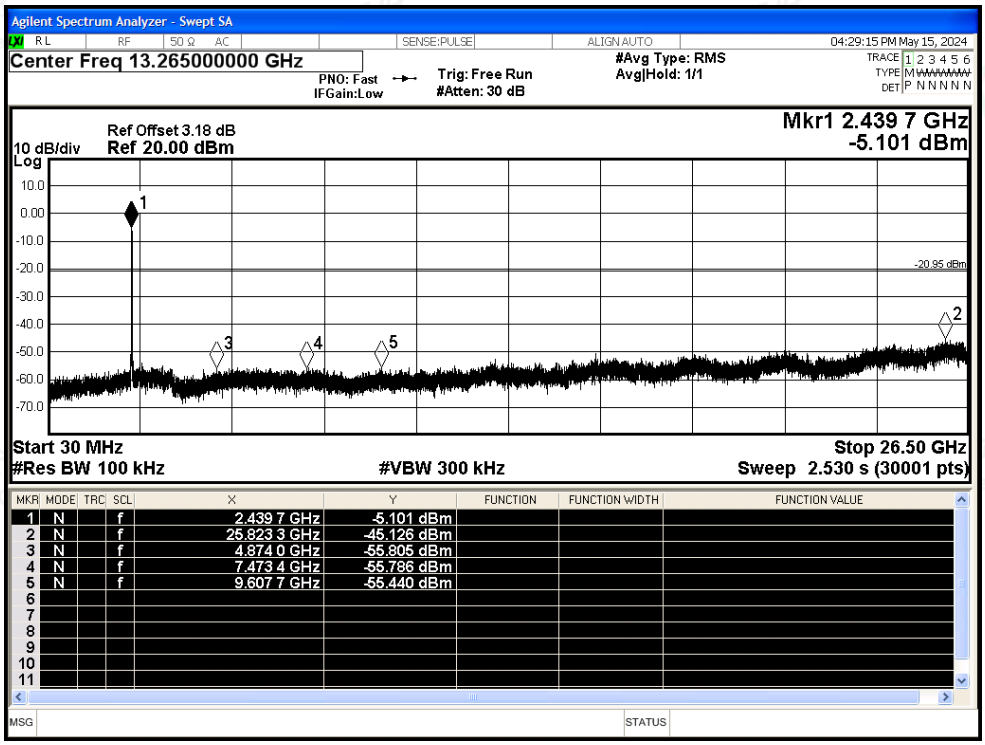

Tx. Spurious NVNT g 2412MHz Ant1 Emission



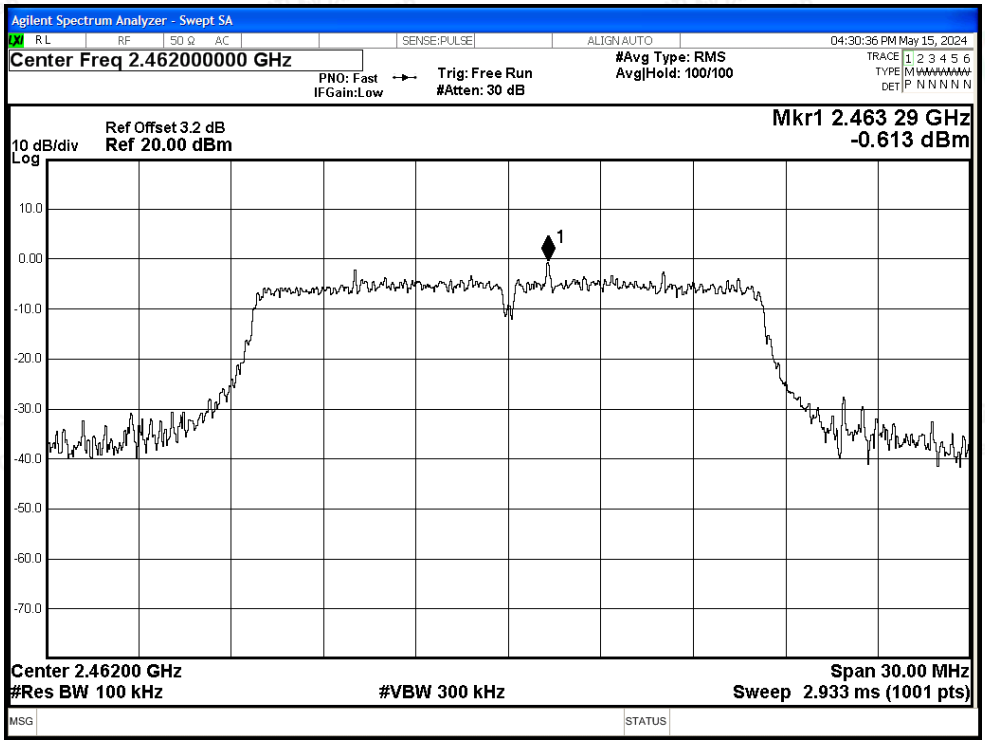
Tx. Spurious NVNT g 2437MHz Ant1 Ref



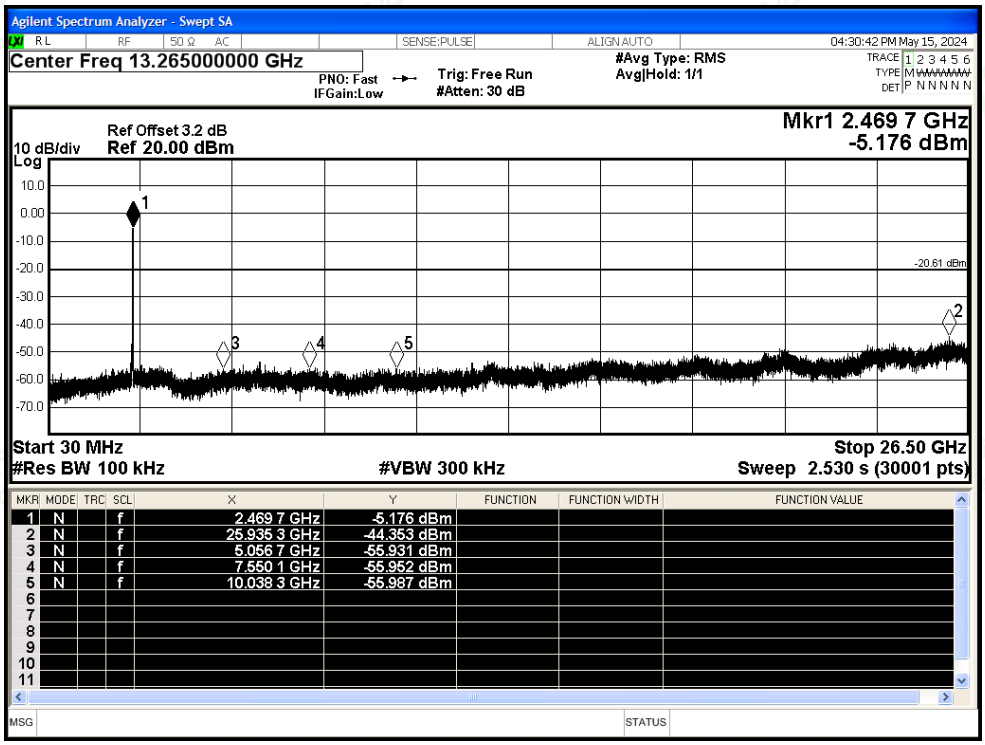

Tx. Spurious NVNT g 2437MHz Ant1 Emission



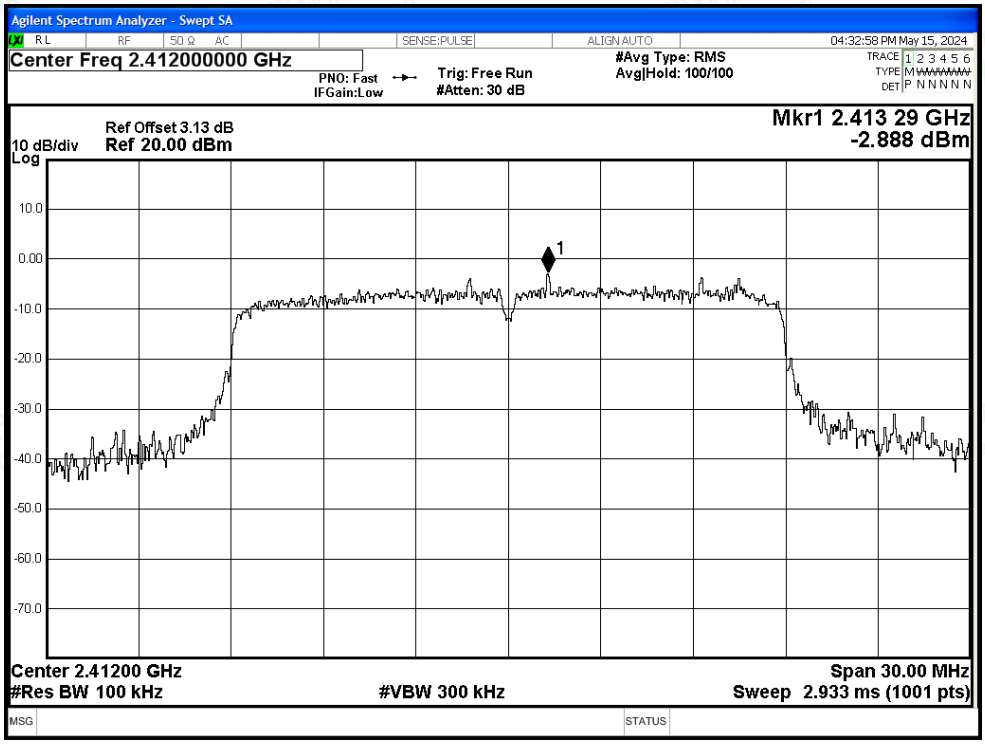
Tx. Spurious NVNT g 2462MHz Ant1 Ref



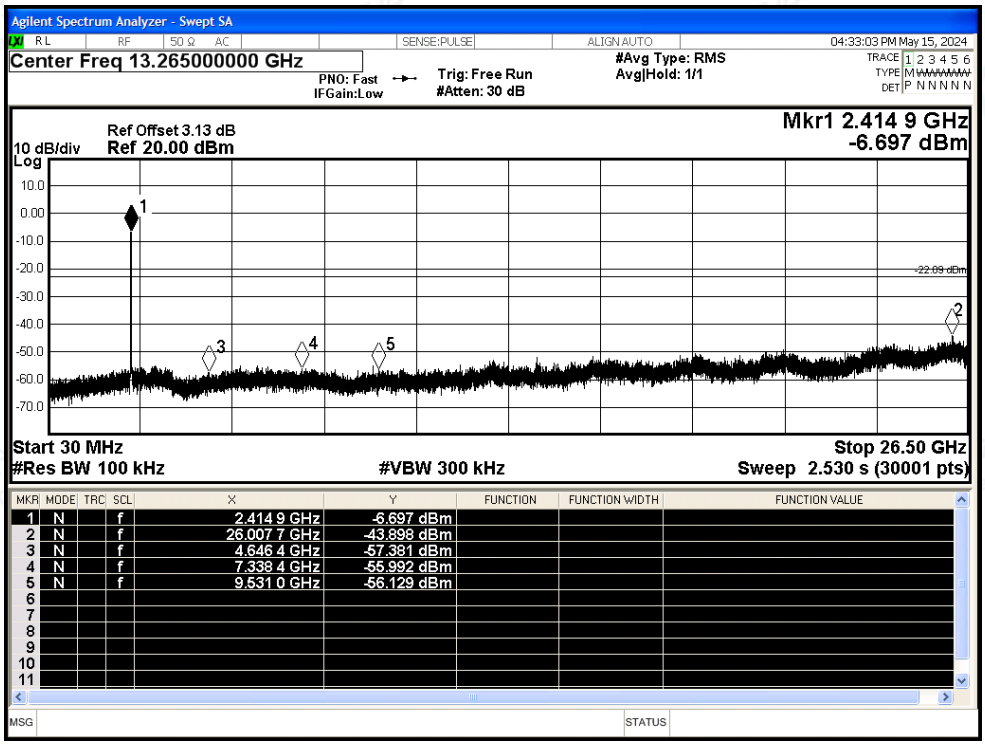

Tx. Spurious NVNT g 2462MHz Ant1 Emission



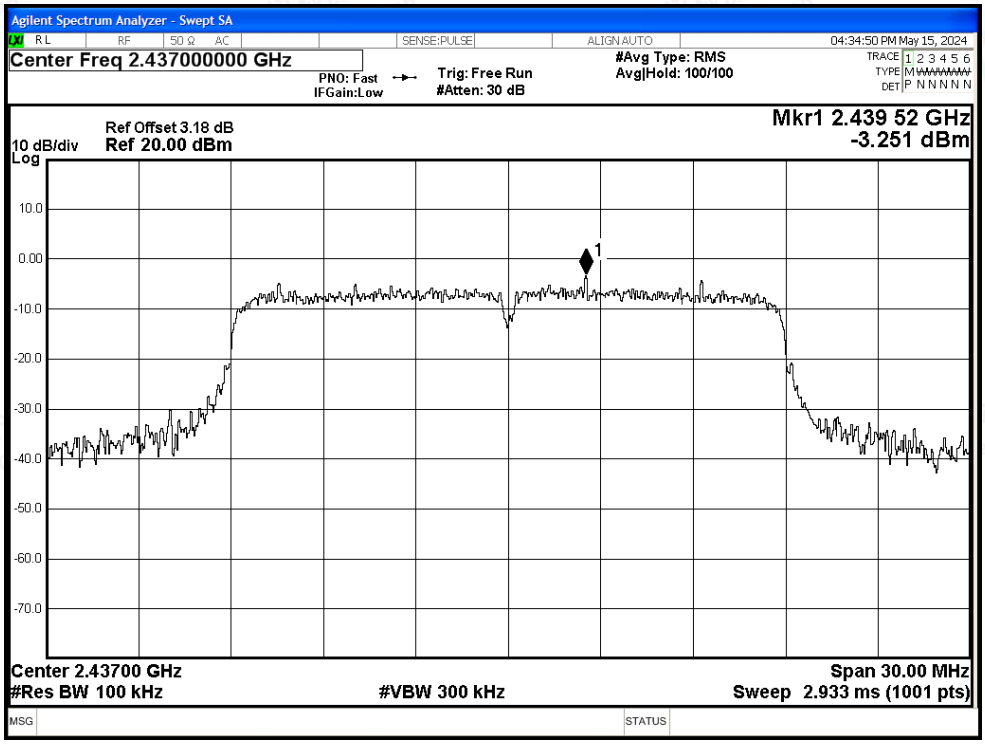
Tx. Spurious NVNT n20 2412MHz Ant1 Ref



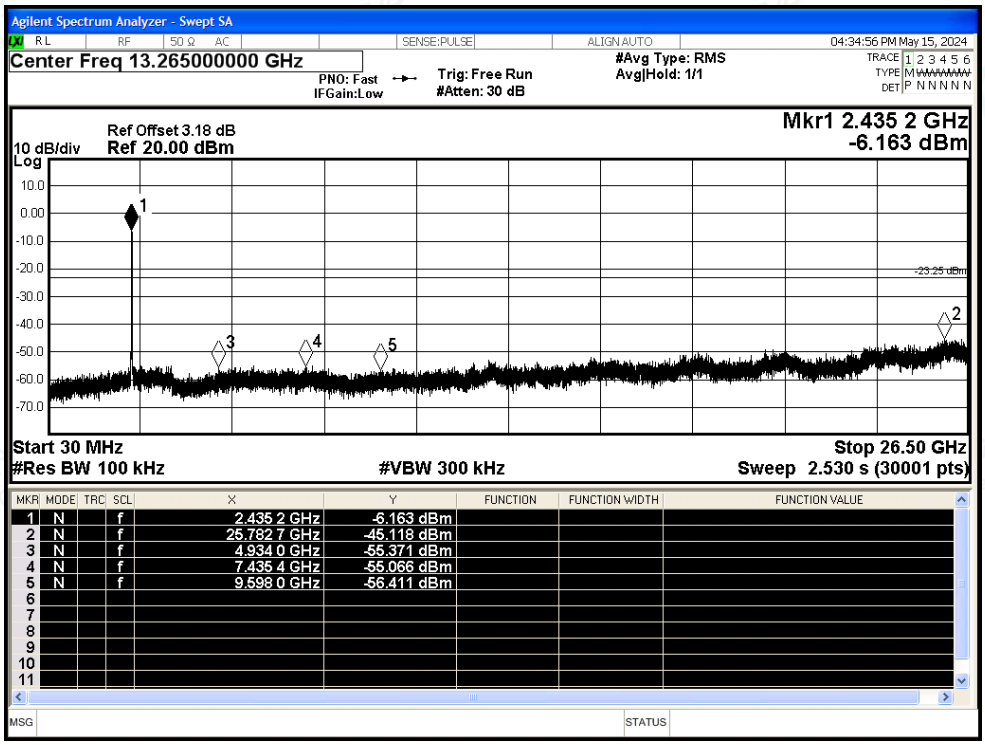

Tx. Spurious NVNT n20 2412MHz Ant1 Emission



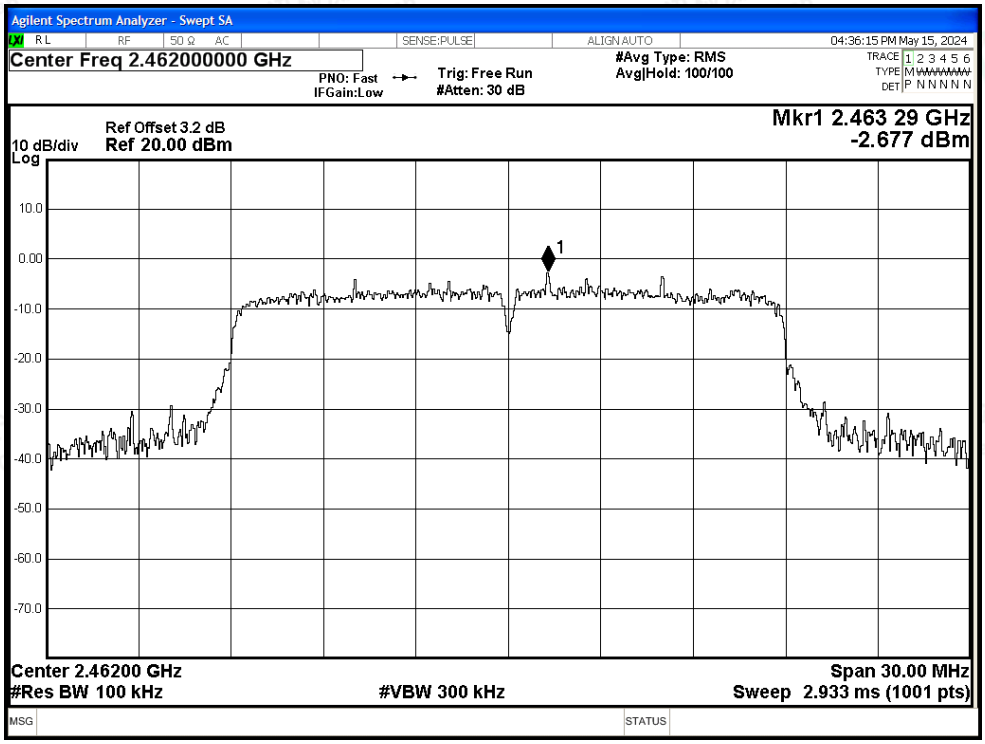
Tx. Spurious NVNT n20 2437MHz Ant1 Ref



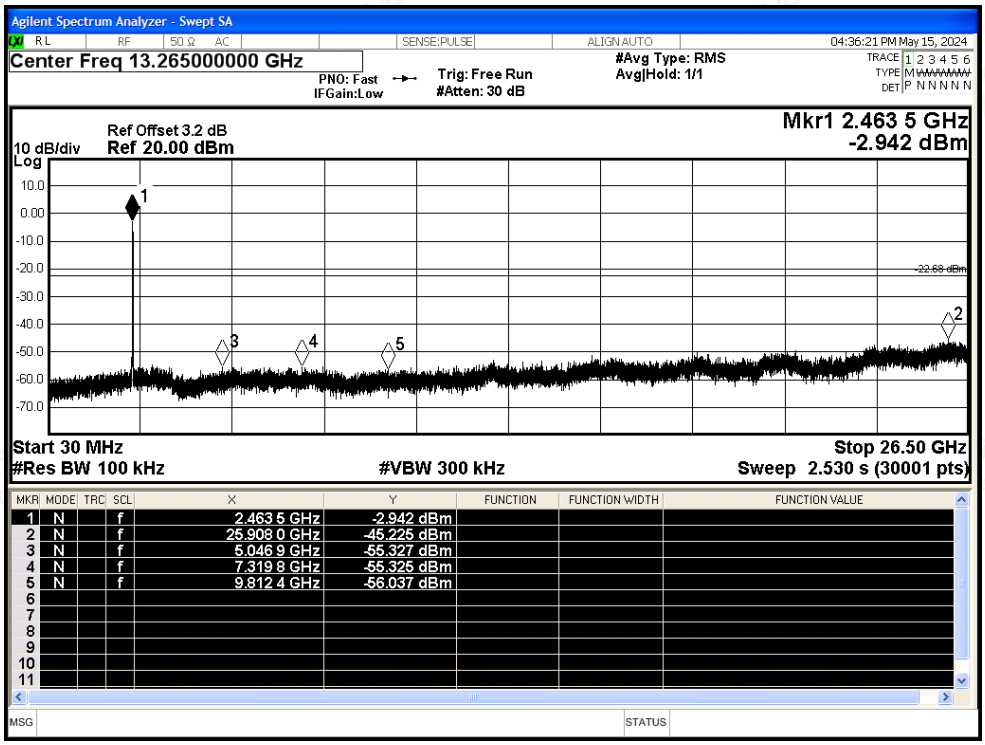

Tx. Spurious NVNT n20 2437MHz Ant1 Emission



Tx. Spurious NVNT n20 2462MHz Ant1 Ref

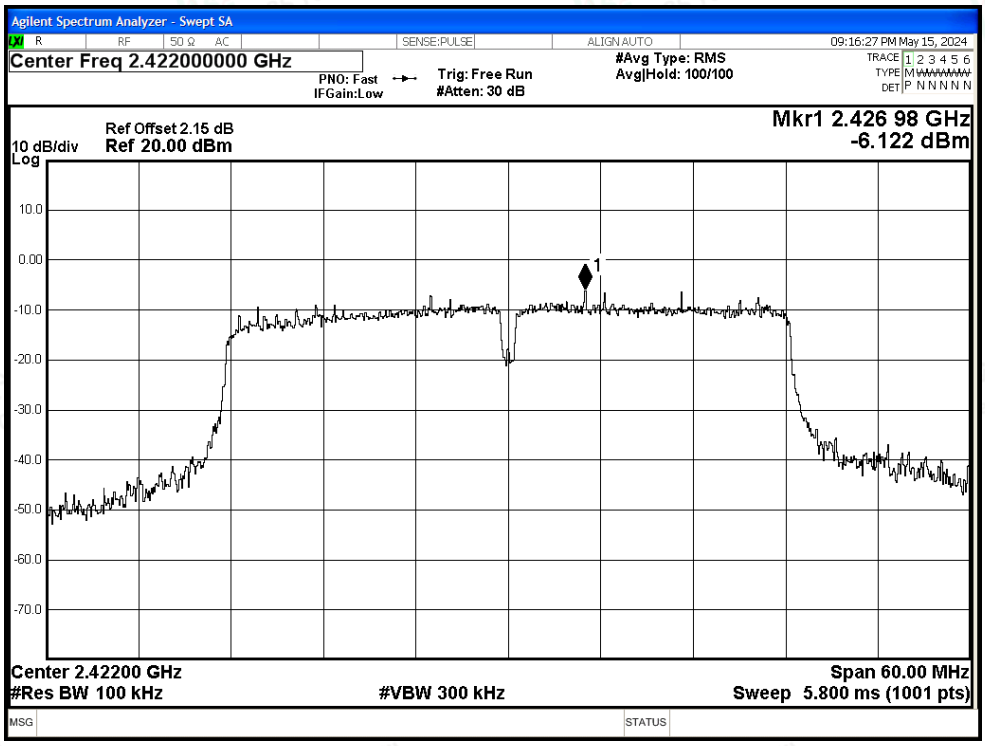



Tx. Spurious NVNT n20 2462MHz Ant1 Emission

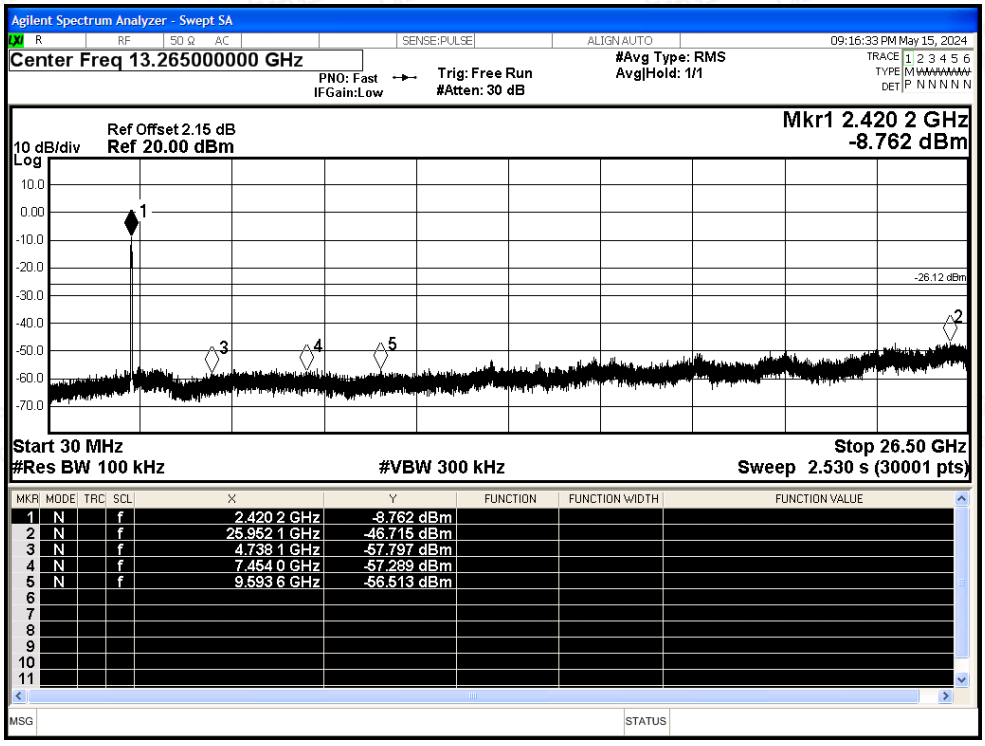


Test Graphs

Tx. Spurious NVNT n40 2422MHz Ant1 Ref

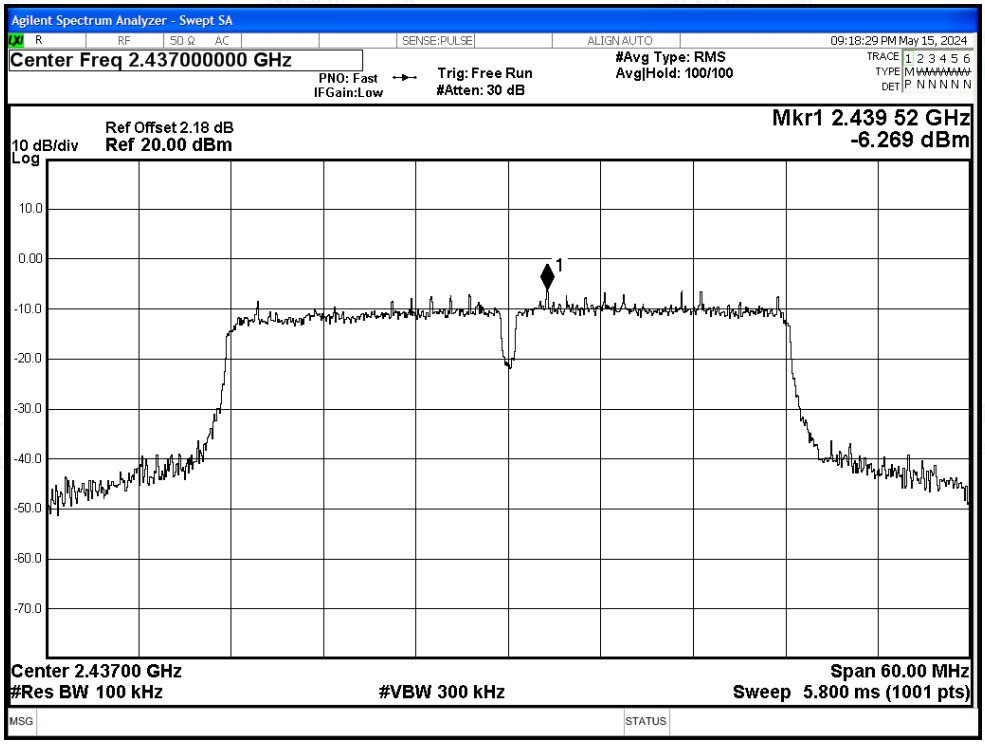



Tx. Spurious NVNT n40 2422MHz Ant1 Emission

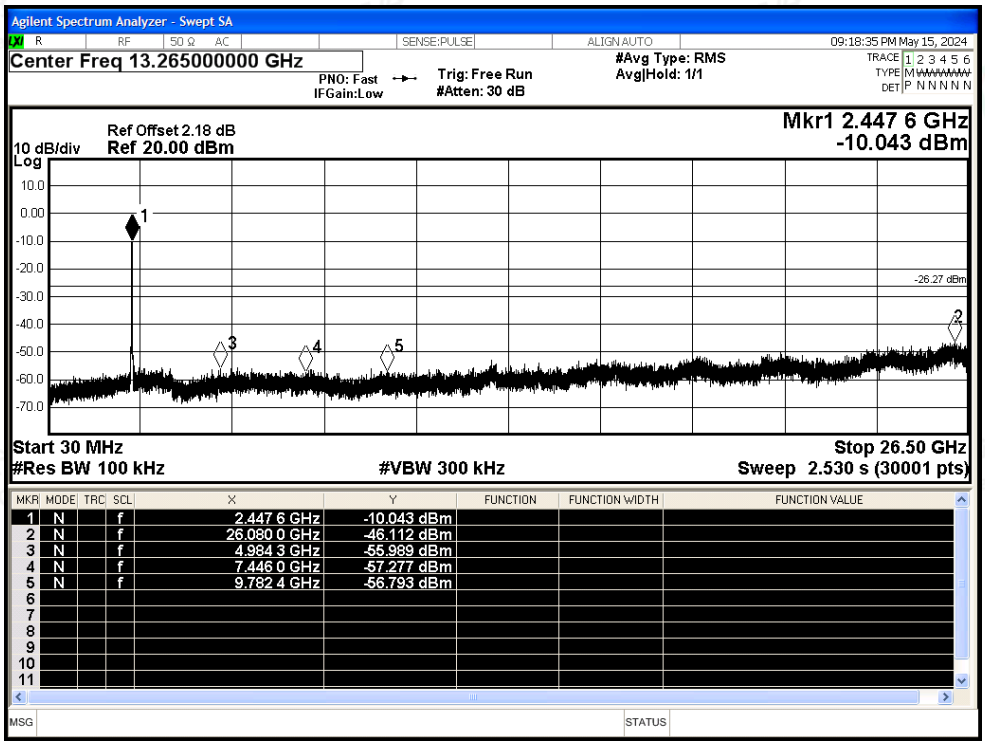



| MKR | MODE | TRC | SCL | X | Y | FUNCTION | FUNCTION WIDTH | FUNCTION VALUE |
|---|---|---|---|---|---|---|---|---|
| 1 | N | | f | 2.420 2 GHz | -8.762 dBm | | | |
| 2 | N | | f | 25.952 1 GHz | -46.715 dBm | | | |
| 3 | N | | f | 4.738 1 GHz | -57.797 dBm | | | |
| 4 | N | | f | 7.454 0 GHz | -57.289 dBm | | | |
| 5 | N | | f | 9.593 6 GHz | -56.513 dBm | | | |
| 6 | | | | | | | | |
| 7 | | | | | | | | |
| 8 | | | | | | | | |
| 9 | | | | | | | | |
| 10 | | | | | | | | |
| 11 | | | | | | | | |

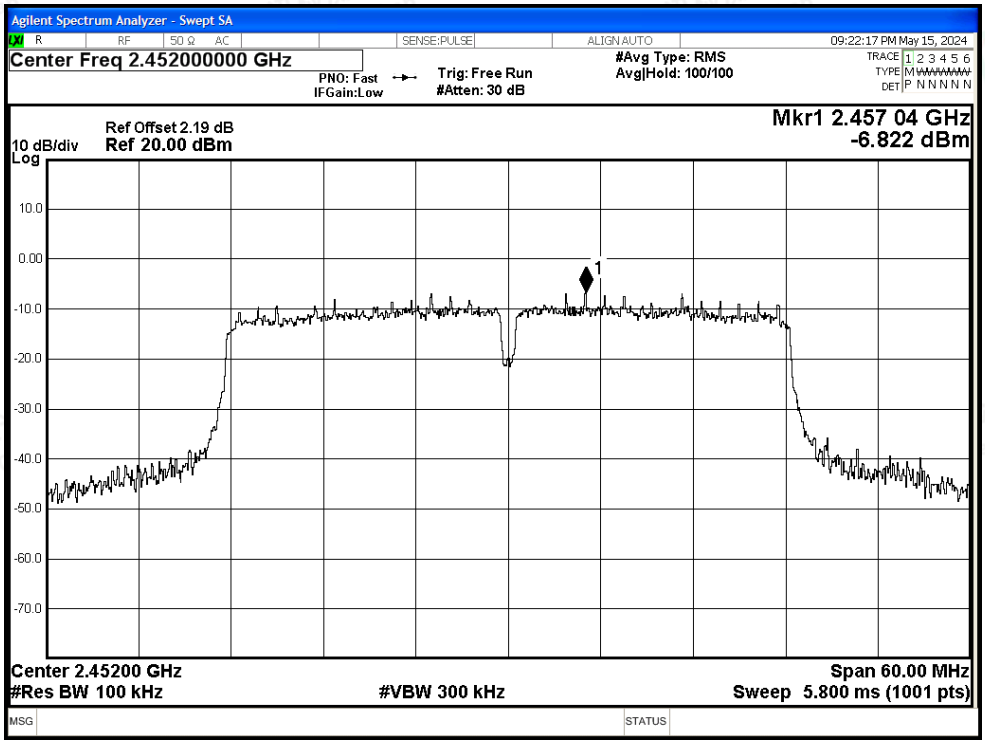
Tx. Spurious NVNT n40 2437MHz Ant1 Ref



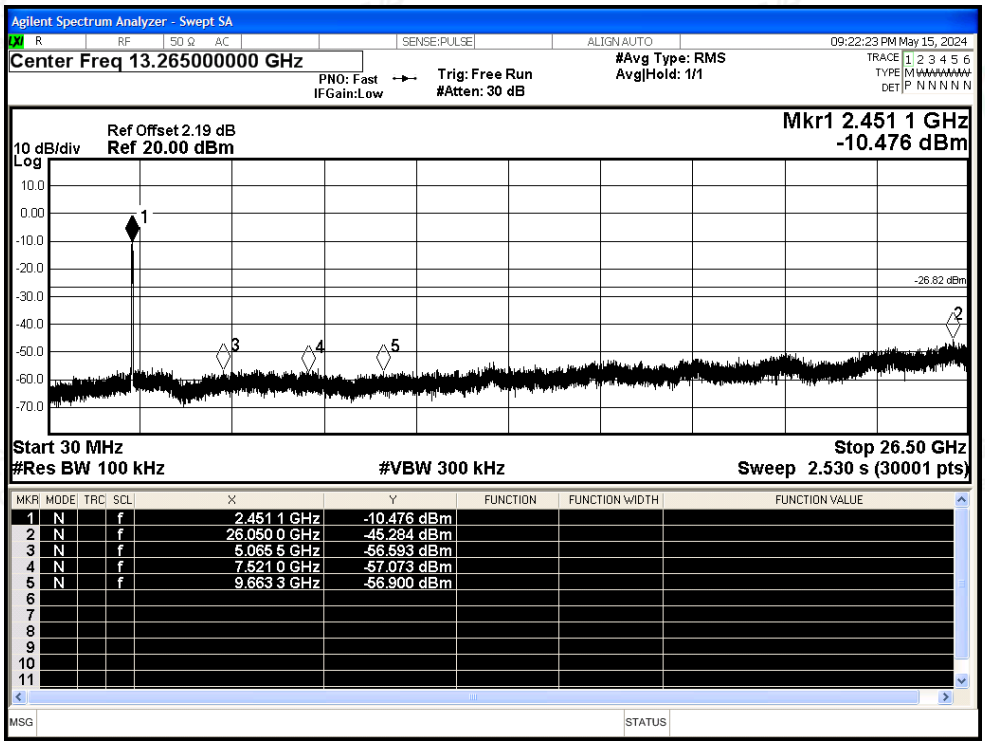

Tx. Spurious NVNT n40 2437MHz Ant1 Emission



Tx. Spurious NVNT n40 2452MHz Ant1 Ref



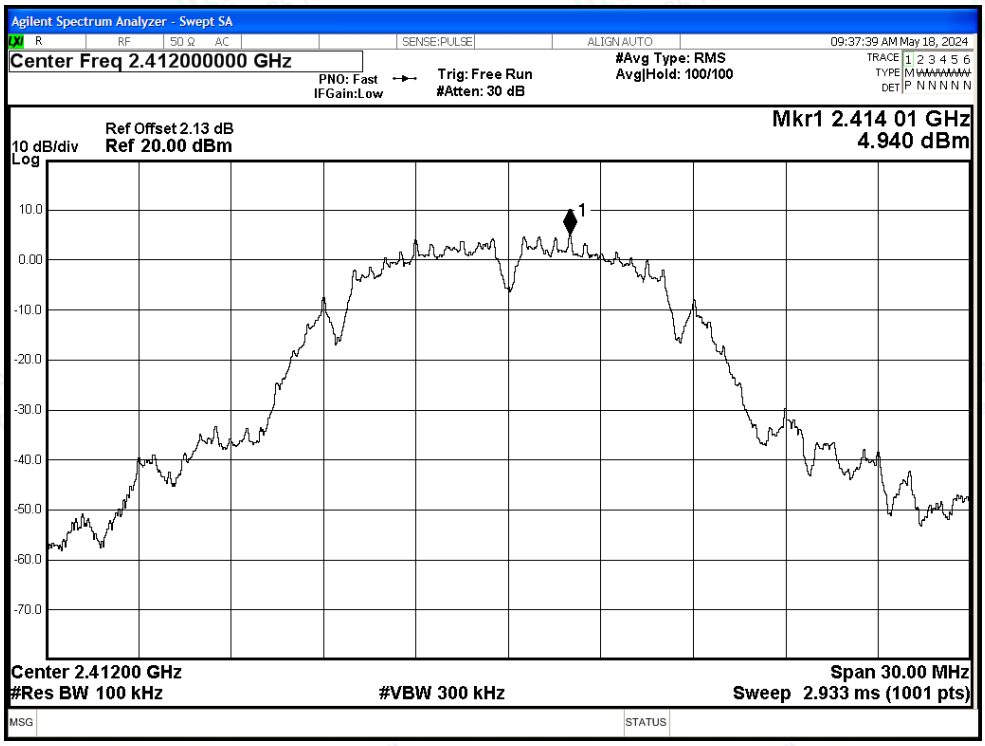

Tx. Spurious NVNT n40 2452MHz Ant1 Emission



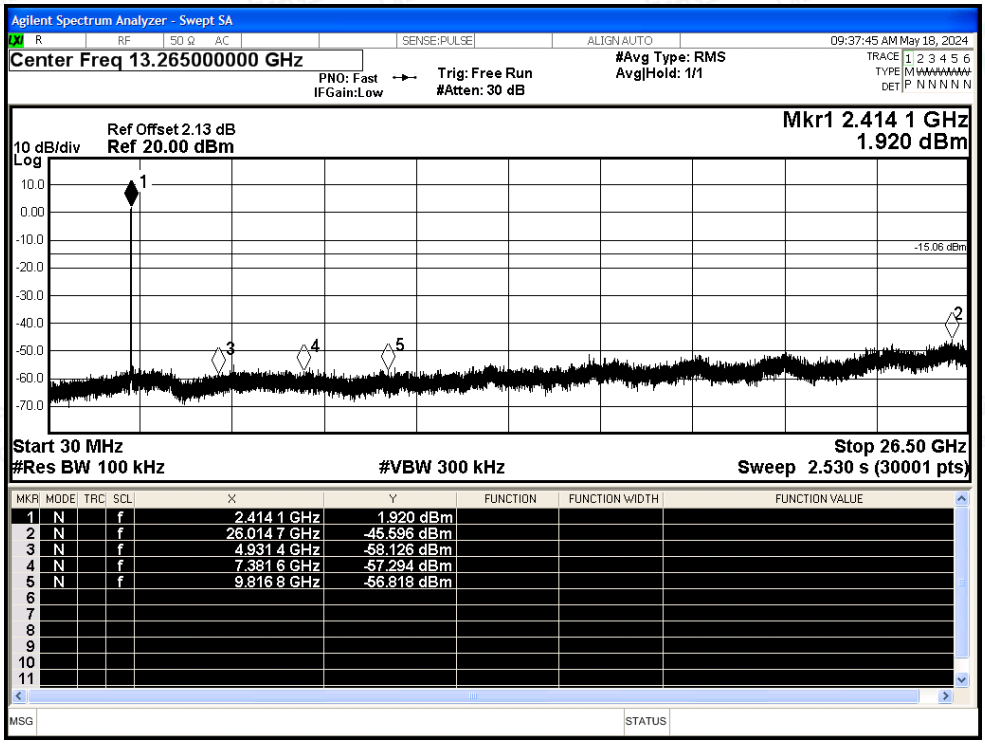
| Condition | Mode | Frequency (MHz) | Antenna | Max Value (dBc) | Limit (dBc) | Verdict |
|---|---|---|---|---|---|---|
| NVNT | b | 2412 | Ant2 | -50.54 | -20 | Pass |
| NVNT | b | 2437 | Ant2 | -51.59 | -20 | Pass |
| NVNT | b | 2462 | Ant2 | -51.89 | -20 | Pass |
| NVNT | g | 2412 | Ant2 | -45.11 | -20 | Pass |
| NVNT | g | 2437 | Ant2 | -44.97 | -20 | Pass |
| NVNT | g | 2462 | Ant2 | -45.14 | -20 | Pass |
| NVNT | n20 | 2412 | Ant2 | -43.44 | -20 | Pass |
| NVNT | n20 | 2437 | Ant2 | -41.88 | -20 | Pass |
| NVNT | n20 | 2462 | Ant2 | -41.8 | -20 | Pass |
| NVNT | n40 | 2422 | Ant2 | -40.47 | -20 | Pass |
| NVNT | n40 | 2437 | Ant2 | -40.4 | -20 | Pass |
| NVNT | n40 | 2452 | Ant2 | -39.88 | -20 | Pass |

Test Graphs

Tx. Spurious NVNT b 2412MHz Ant2 Ref

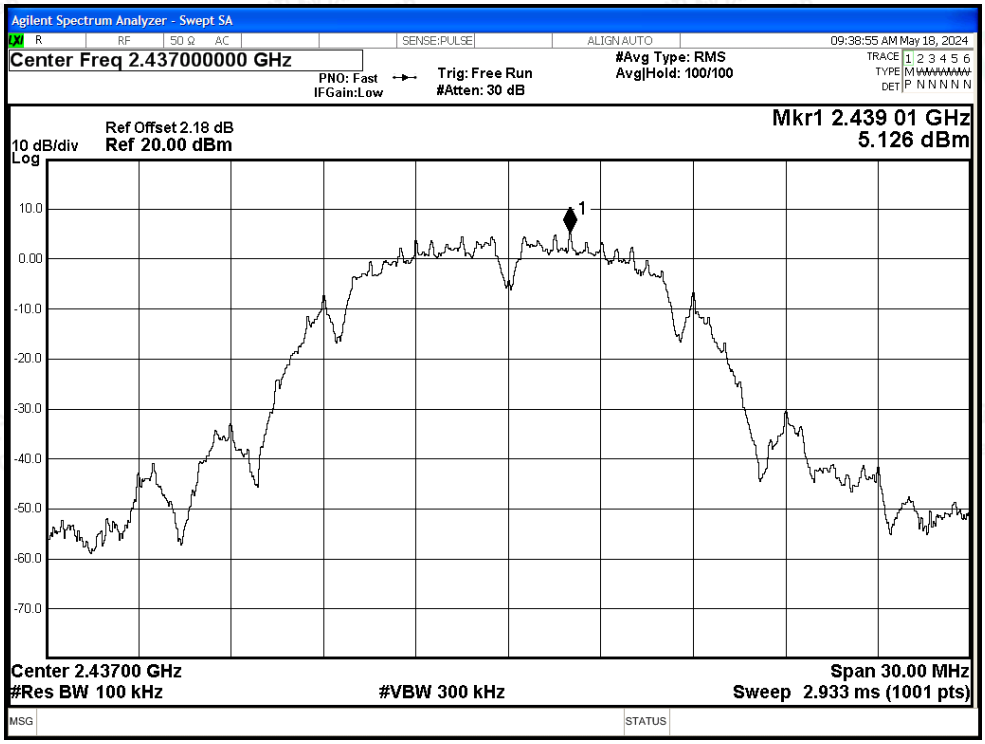



Tx. Spurious NVNT b 2412MHz Ant2 Emission

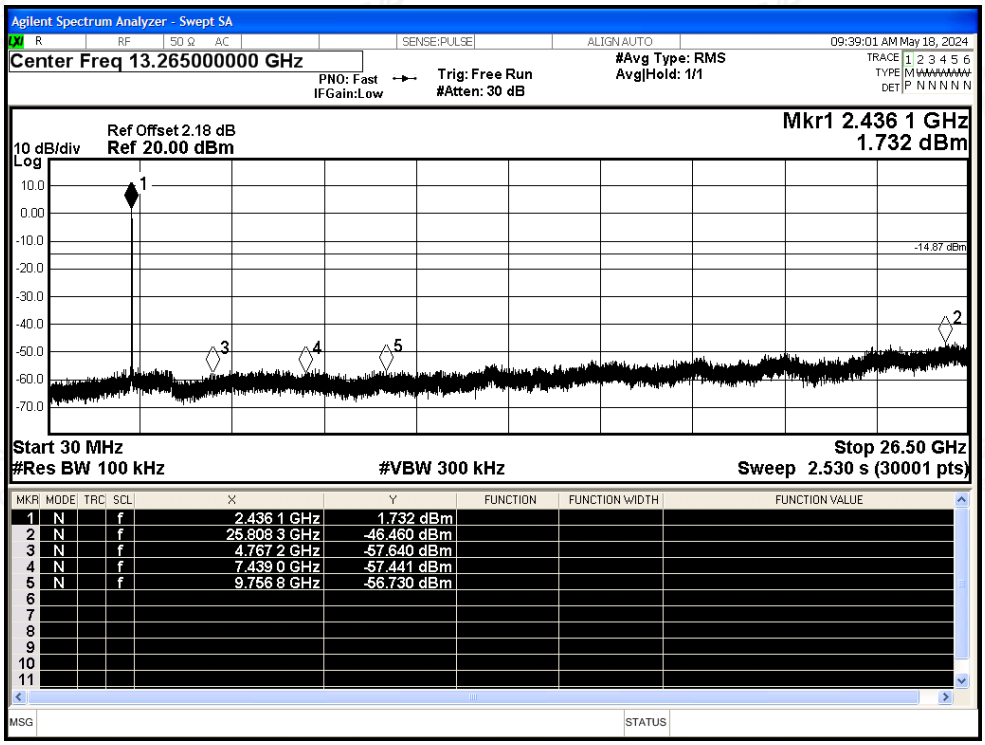



| MKR | MODE | TRC | SCL | X | Y | FUNCTION | FUNCTION WIDTH | FUNCTION VALUE |
|---|---|---|---|---|---|---|---|---|
| 1 | N | | f | 2.414 1 GHz | 1.920 dBm | | | |
| 2 | N | | f | 26.014 7 GHz | -45.596 dBm | | | |
| 3 | N | | f | 4.931 4 GHz | -58.126 dBm | | | |
| 4 | N | | f | 7.381 6 GHz | -57.294 dBm | | | |
| 5 | N | | f | 9.816 8 GHz | -56.818 dBm | | | |
| 6 | | | | | | | | |
| 7 | | | | | | | | |
| 8 | | | | | | | | |
| 9 | | | | | | | | |
| 10 | | | | | | | | |
| 11 | | | | | | | | |

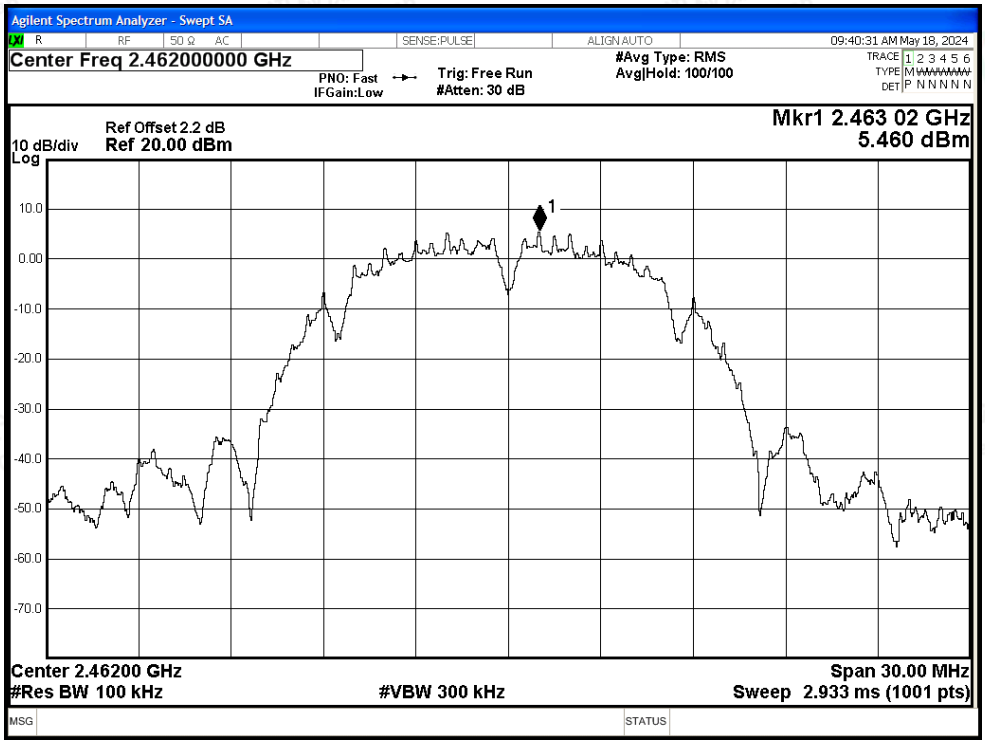
Tx. Spurious NVNT b 2437MHz Ant2 Ref



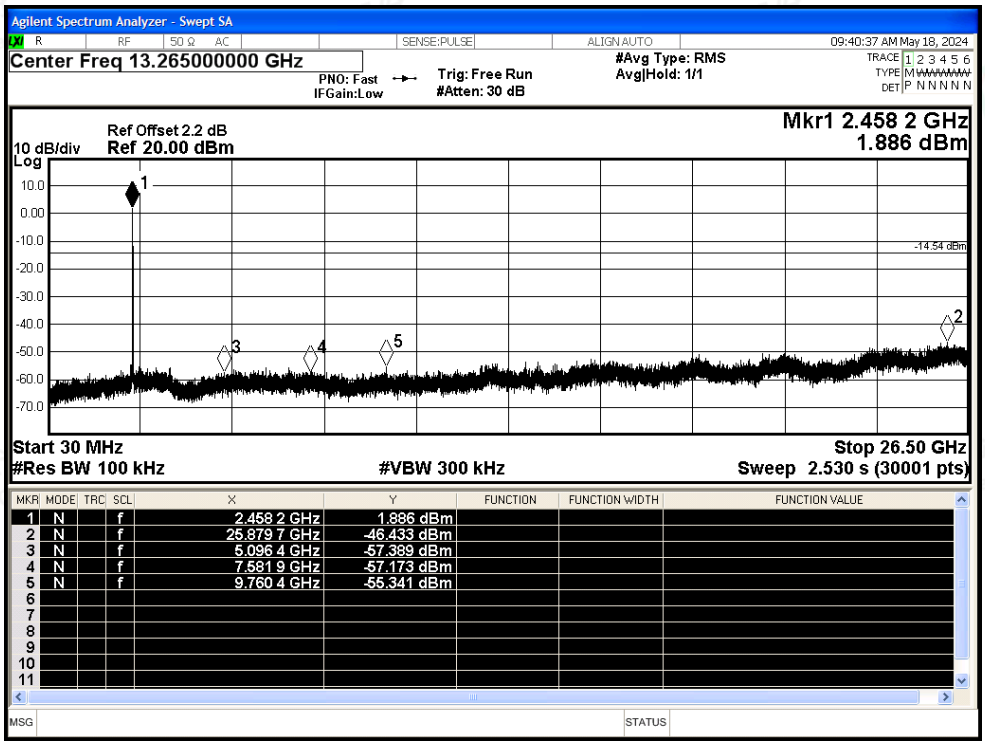

Tx. Spurious NVNT b 2437MHz Ant2 Emission



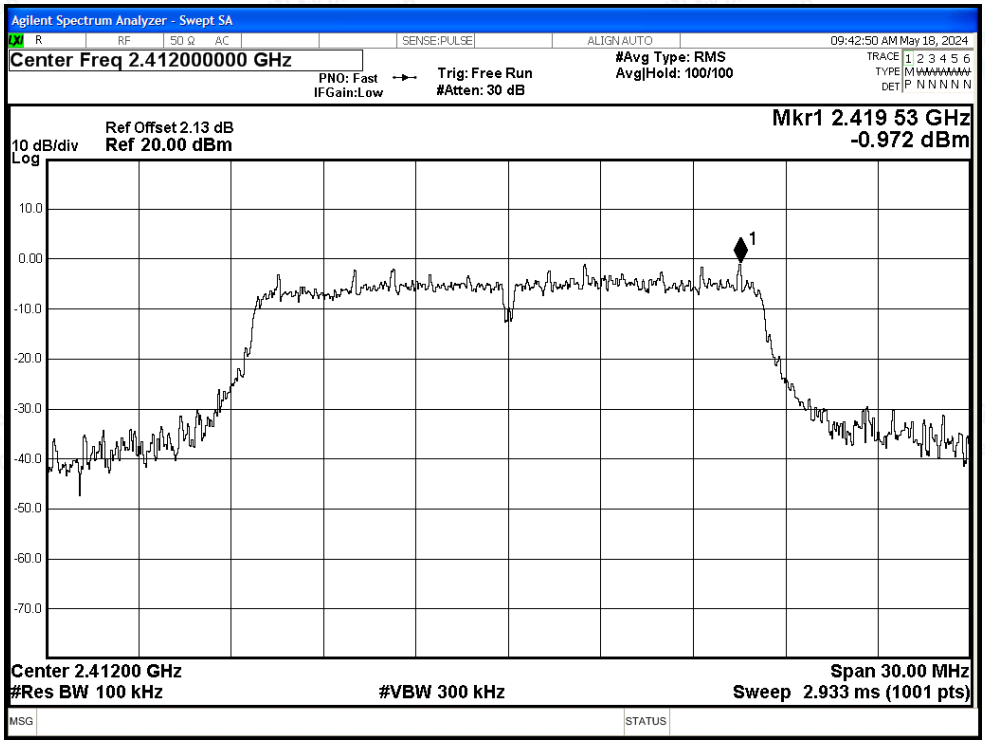
Tx. Spurious NVNT b 2462MHz Ant2 Ref



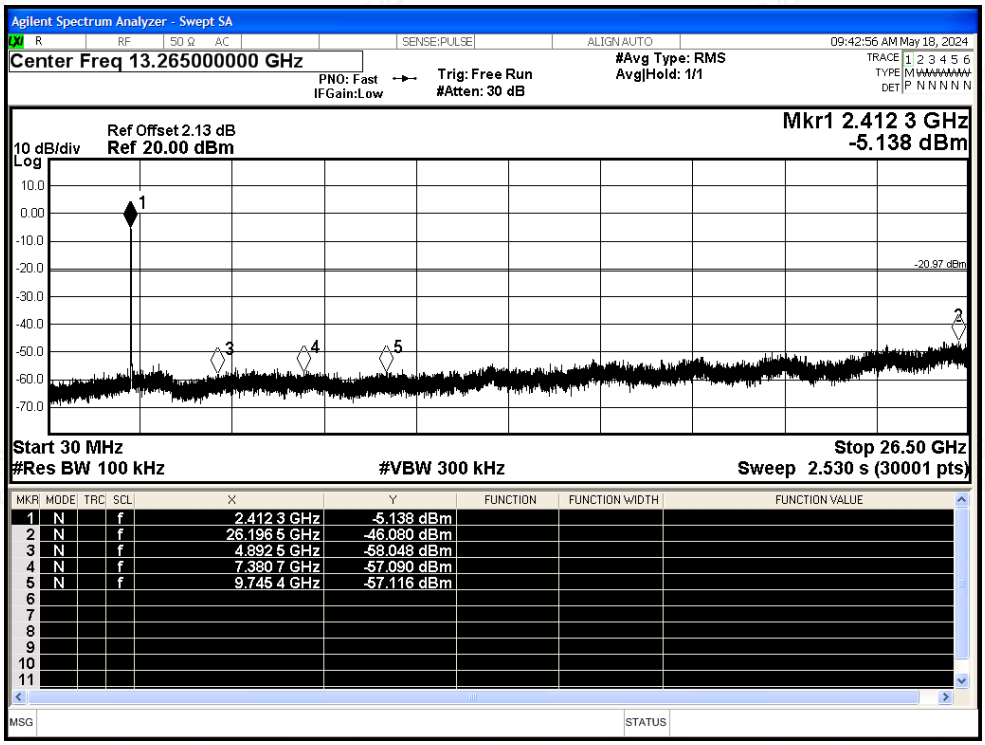

Tx. Spurious NVNT b 2462MHz Ant2 Emission



Tx. Spurious NVNT g 2412MHz Ant2 Ref

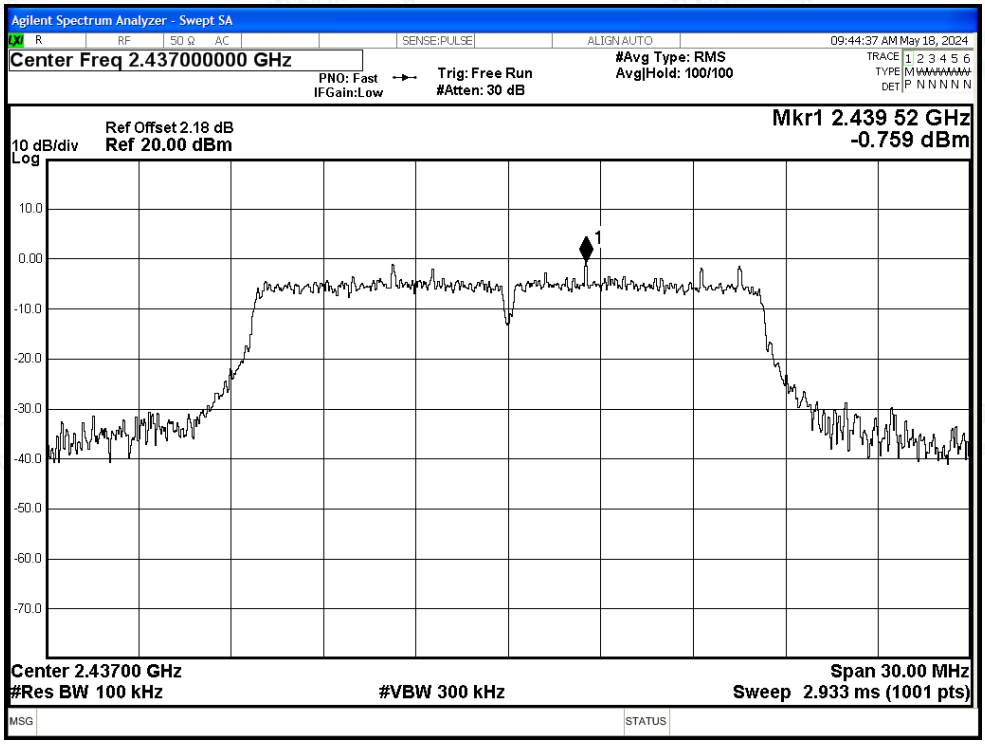



Tx. Spurious NVNT g 2412MHz Ant2 Emission

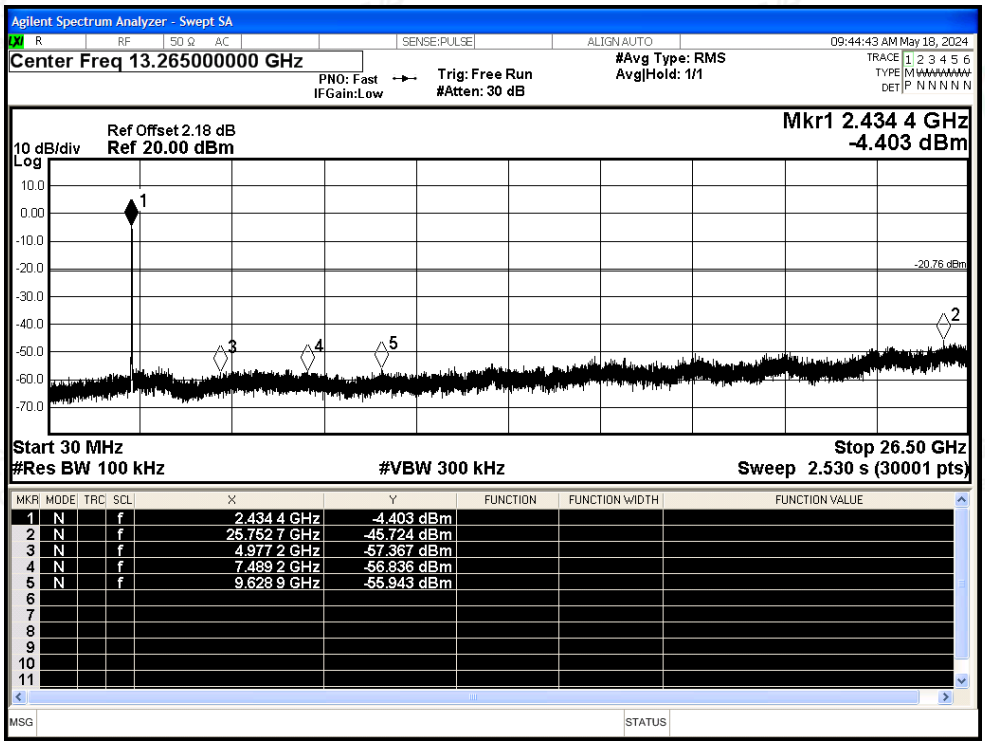



| MKR | MODE | TRC | SCL | X | Y | FUNCTION | FUNCTION WIDTH | FUNCTION VALUE |
|---|---|---|---|---|---|---|---|---|
| 1 | N | | f | 2.412 3 GHz | -5.138 dBm | | | |
| 2 | N | | f | 26.196 5 GHz | -46.080 dBm | | | |
| 3 | N | | f | 4.892 5 GHz | -58.048 dBm | | | |
| 4 | N | | f | 7.380 7 GHz | -57.090 dBm | | | |
| 5 | N | | f | 9.745 4 GHz | -57.116 dBm | | | |

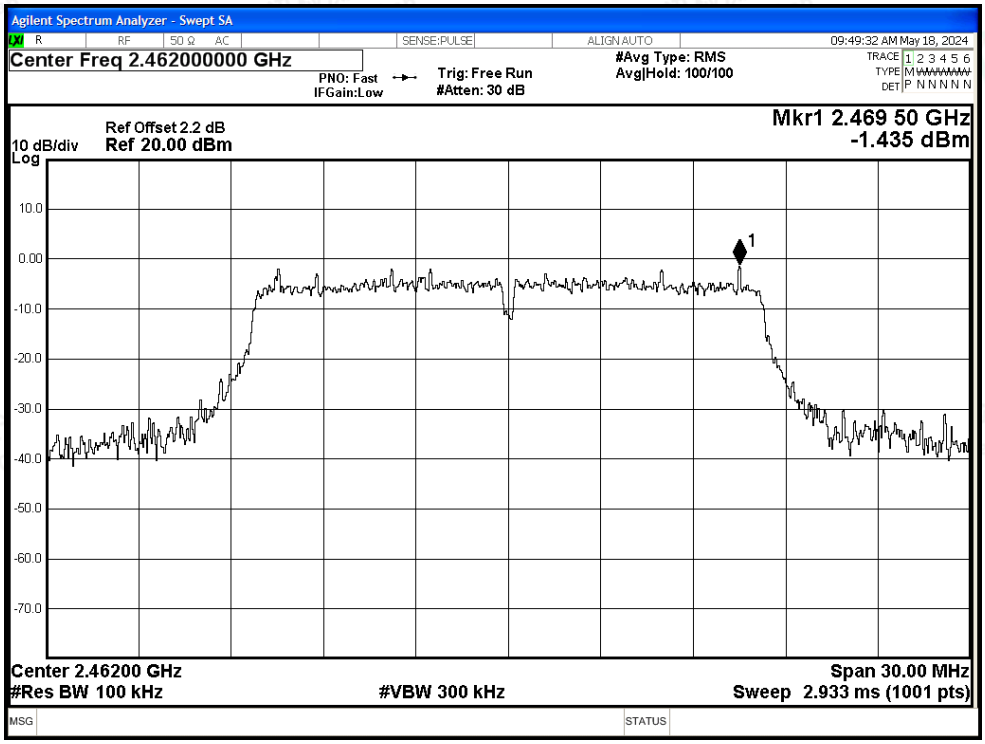
Tx. Spurious NVNT g 2437MHz Ant2 Ref



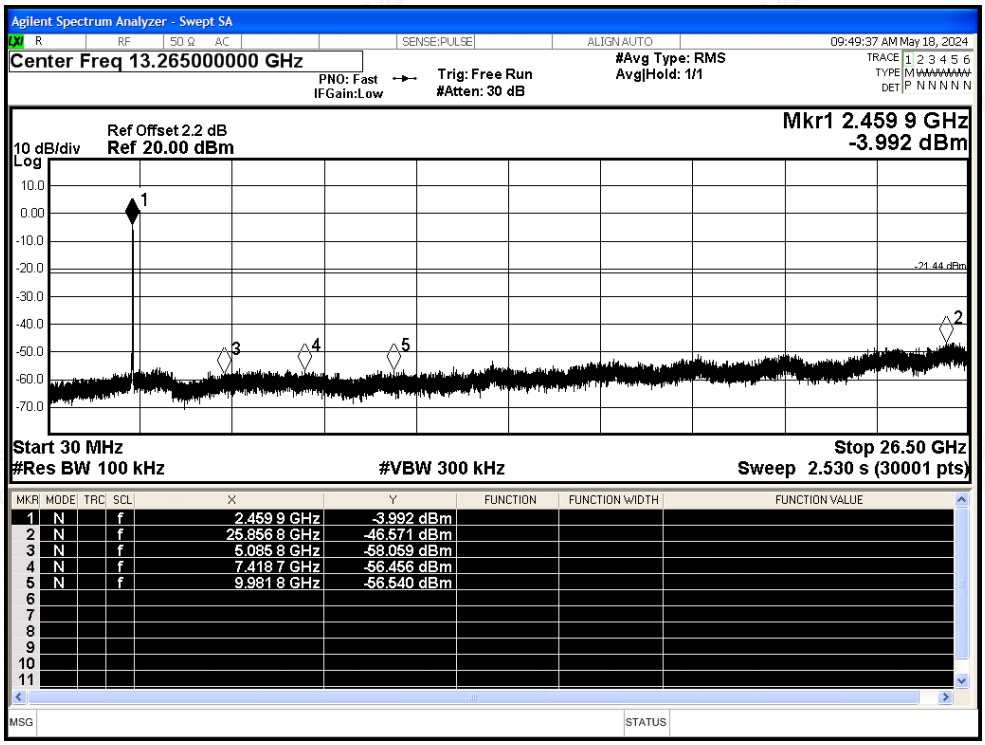

Tx. Spurious NVNT g 2437MHz Ant2 Emission



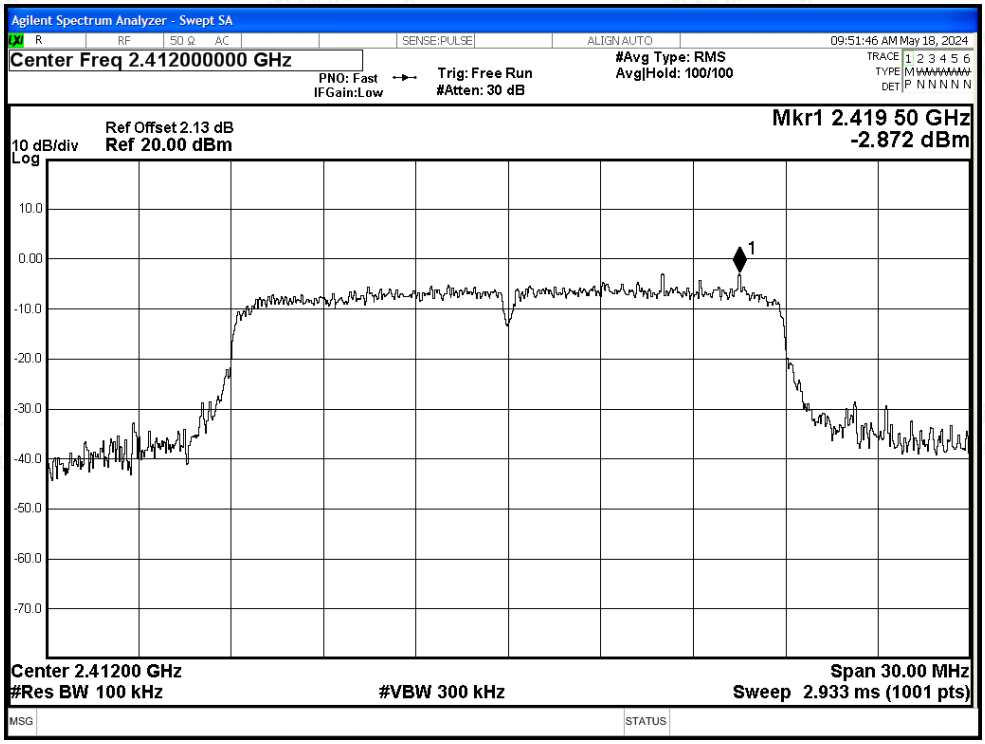
Tx. Spurious NVNT g 2462MHz Ant2 Ref



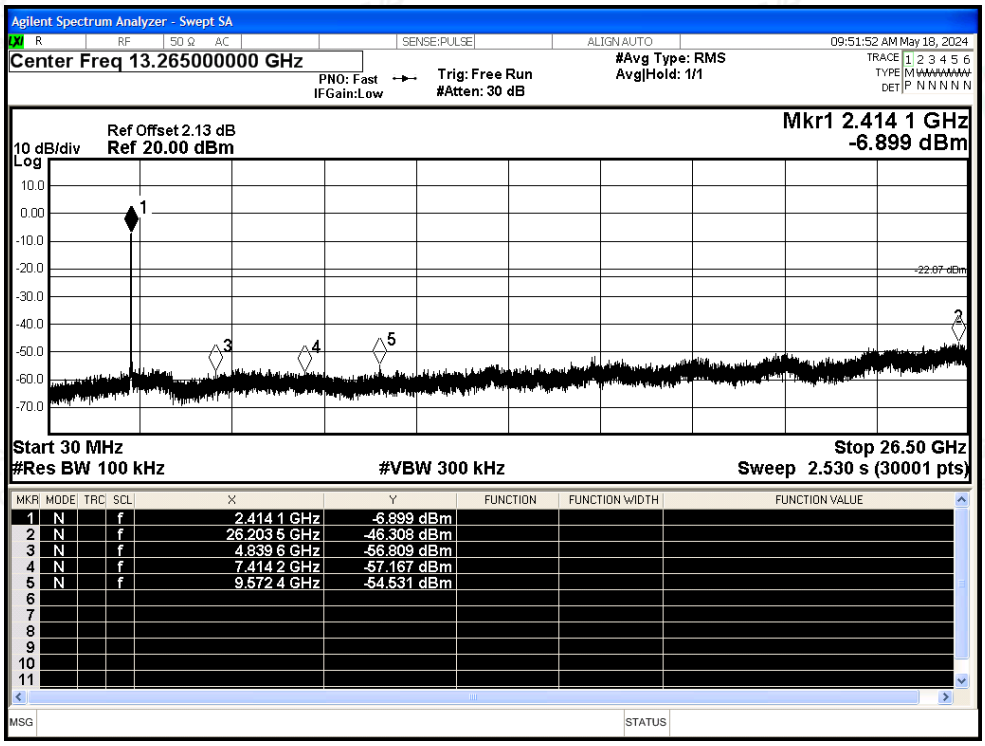

Tx. Spurious NVNT g 2462MHz Ant2 Emission



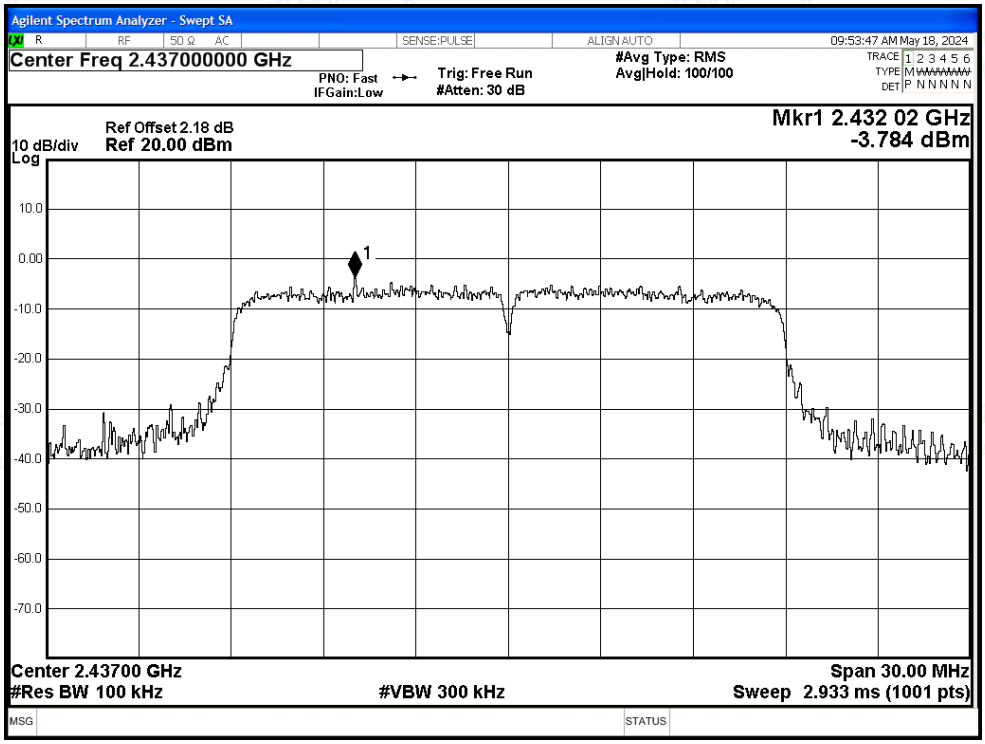
Tx. Spurious NVNT n20 2412MHz Ant2 Ref



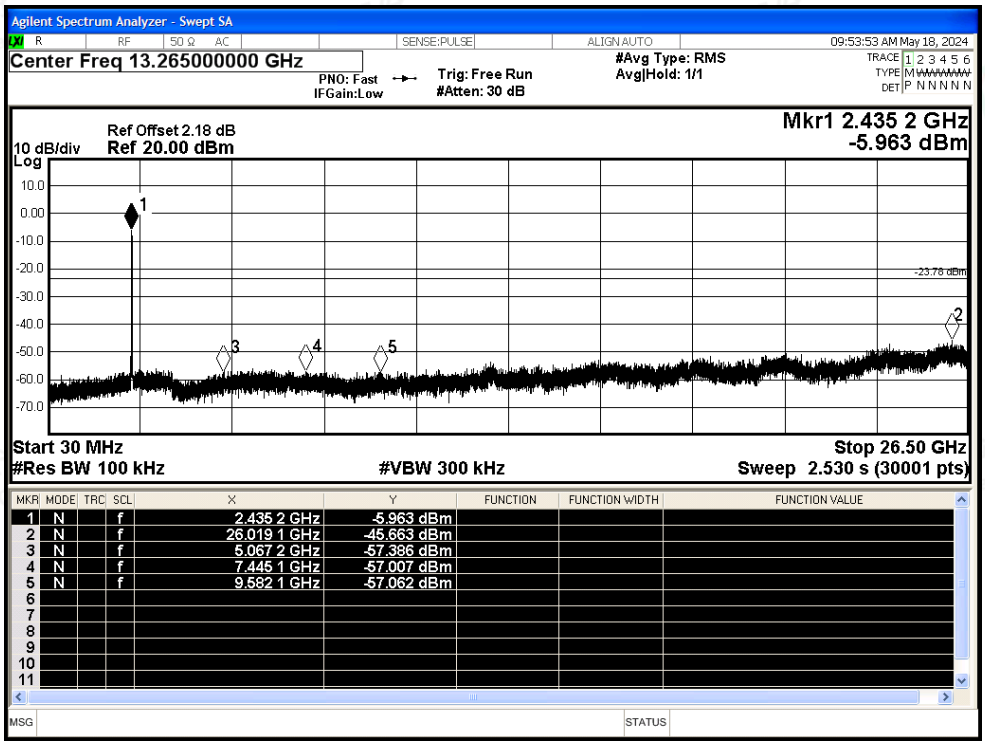

Tx. Spurious NVNT n20 2412MHz Ant2 Emission



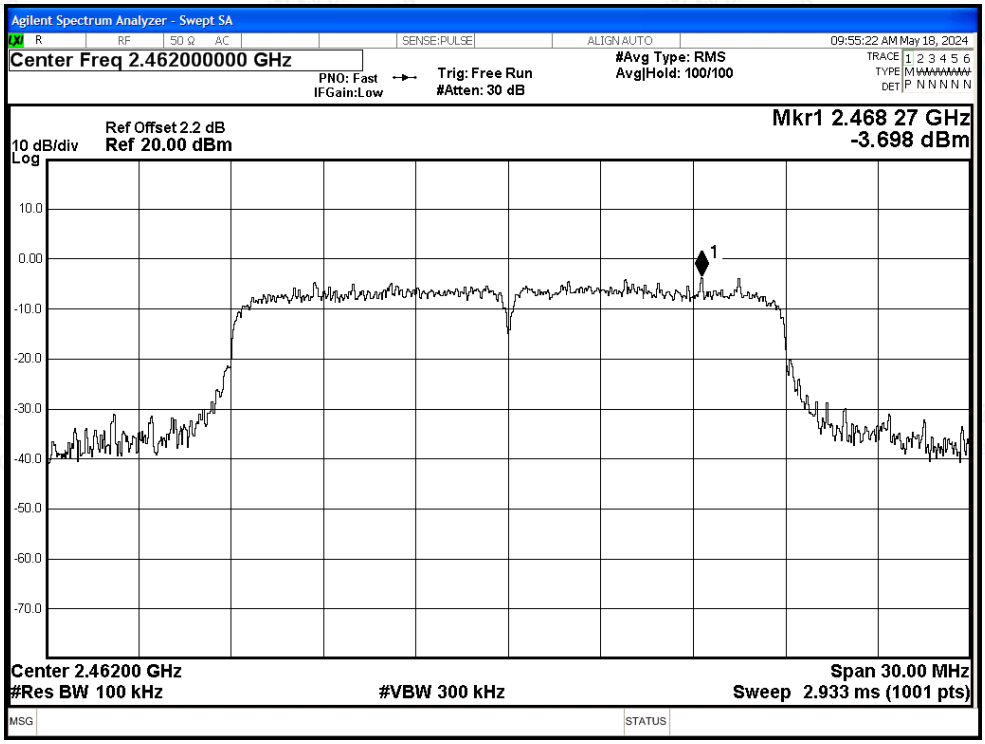
Tx. Spurious NVNT n20 2437MHz Ant2 Ref



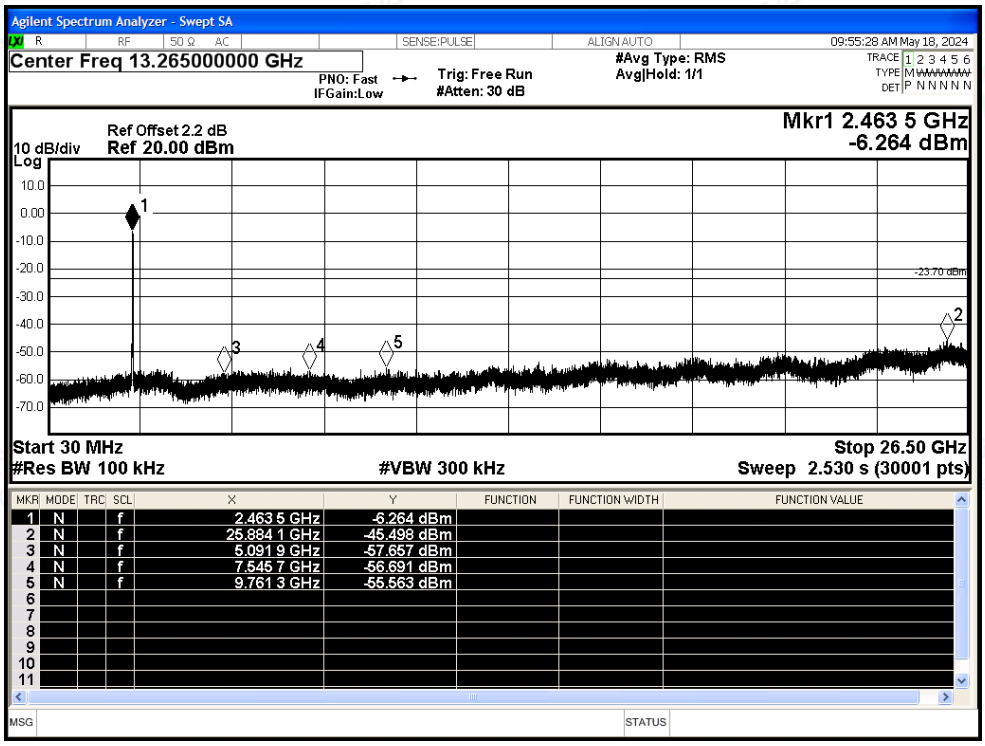

Tx. Spurious NVNT n20 2437MHz Ant2 Emission



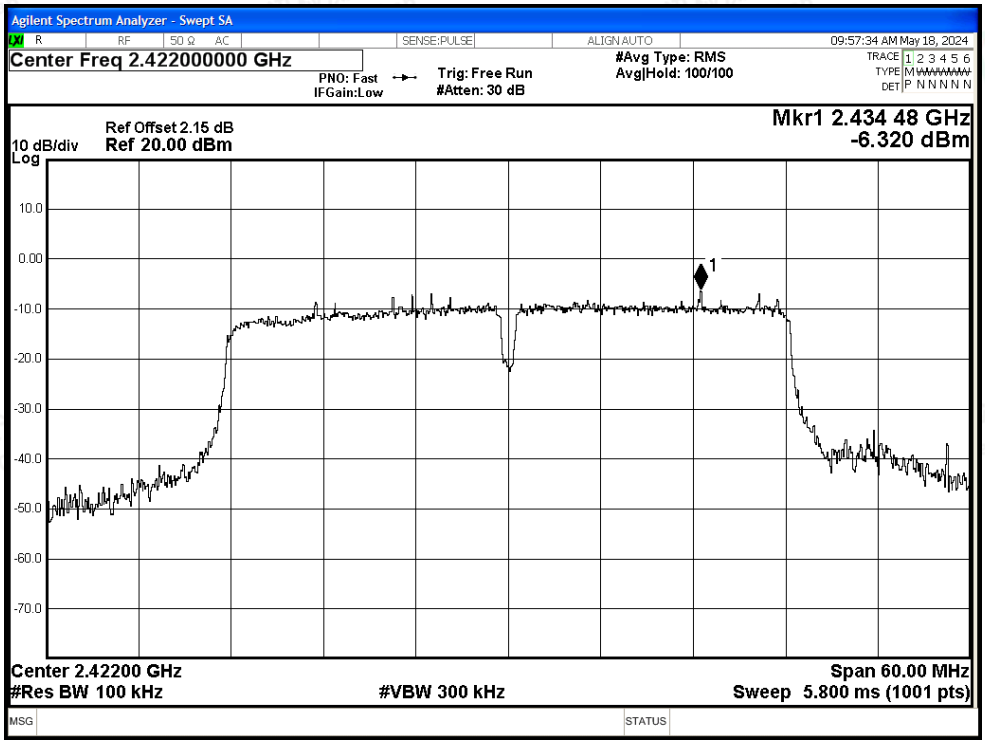
Tx. Spurious NVNT n20 2462MHz Ant2 Ref



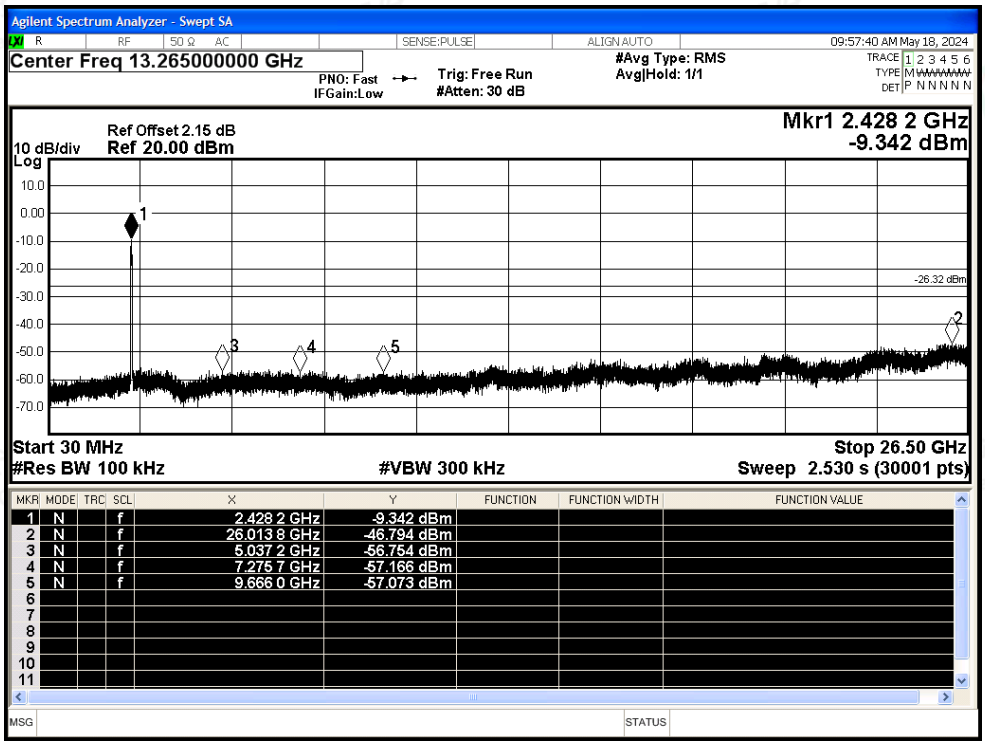

Tx. Spurious NVNT n20 2462MHz Ant2 Emission



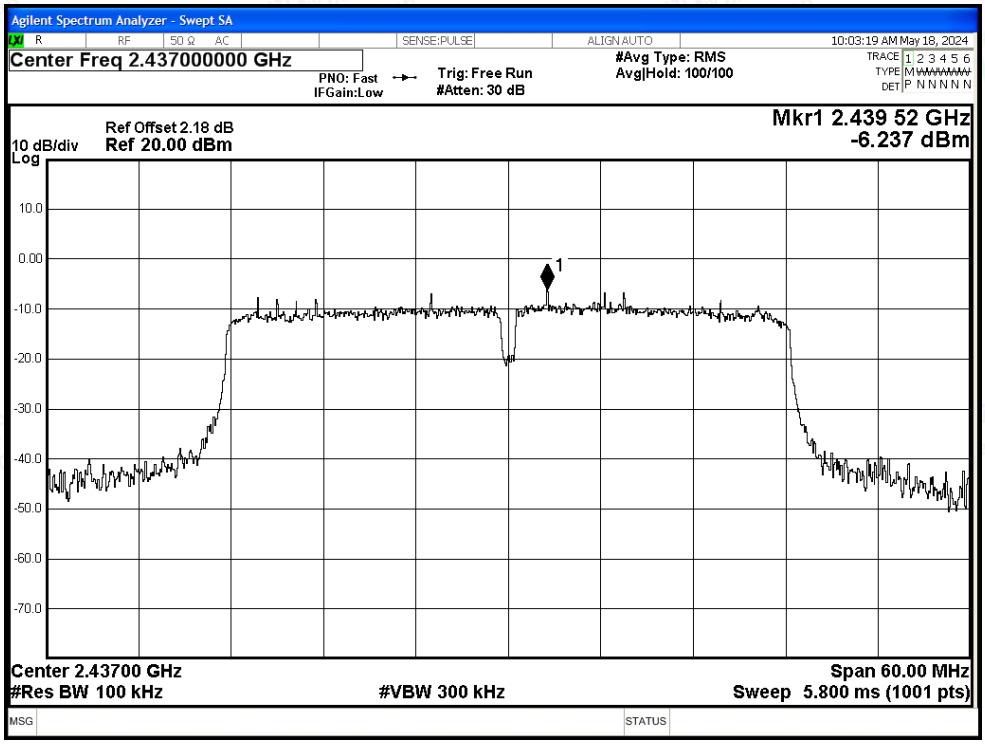
Tx. Spurious NVNT n40 2422MHz Ant2 Ref



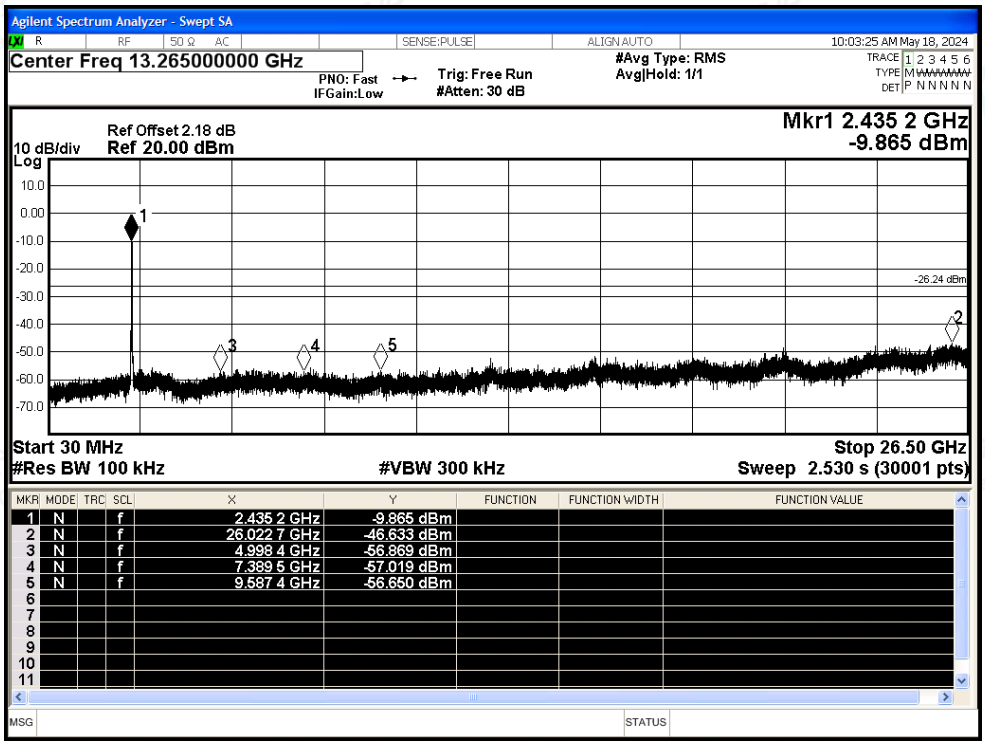

Tx. Spurious NVNT n40 2422MHz Ant2 Emission



Tx. Spurious NVNT n40 2437MHz Ant2 Ref

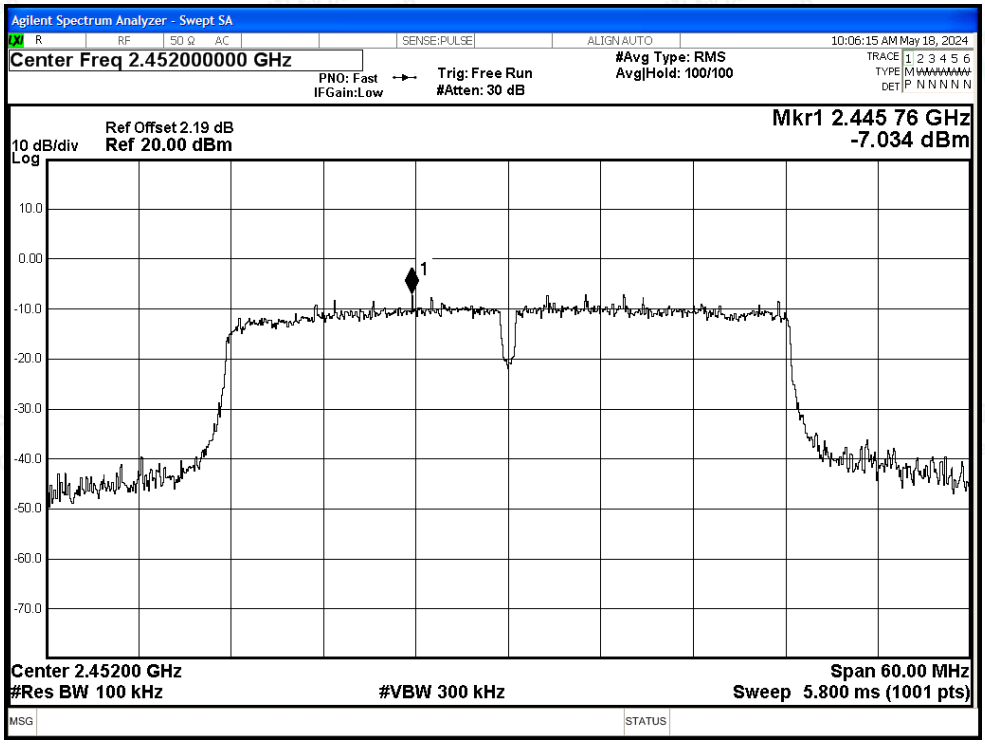



Tx. Spurious NVNT n40 2437MHz Ant2 Emission

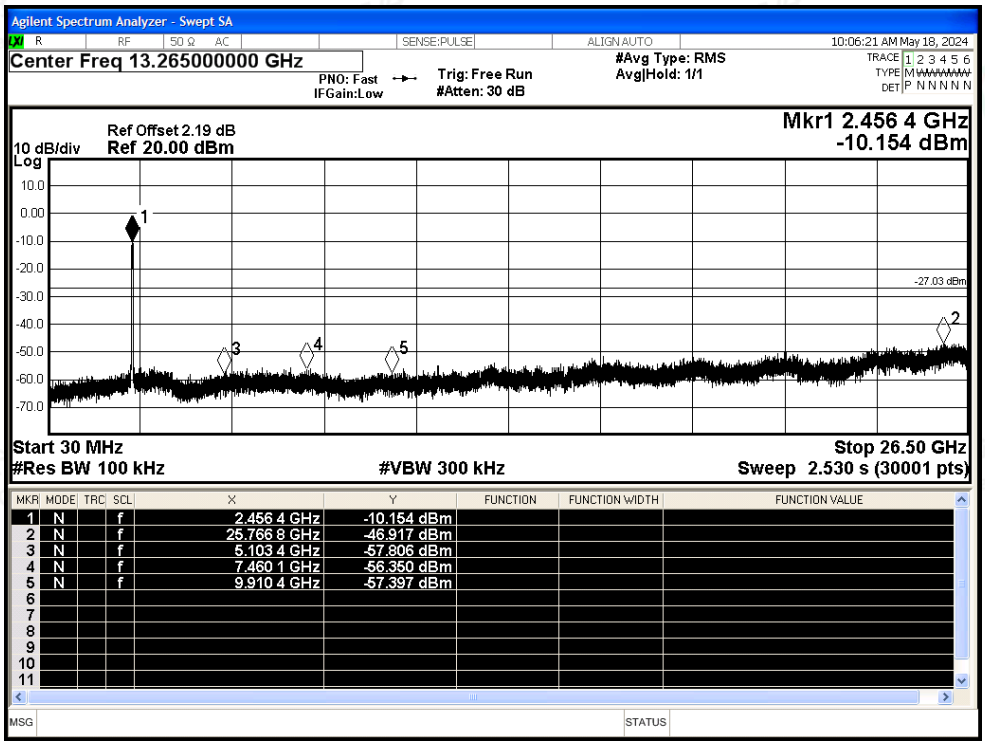



| MKR | MODE | TRC | SCL | X | Y | FUNCTION | FUNCTION WIDTH | FUNCTION VALUE |
|---|---|---|---|---|---|---|---|---|
| 1 | N | | f | 2.435 2 GHz | -9.865 dBm | | | |
| 2 | N | | f | 26.022 7 GHz | -46.633 dBm | | | |
| 3 | N | | f | 4.998 4 GHz | -56.869 dBm | | | |
| 4 | N | | f | 7.389 5 GHz | -57.019 dBm | | | |
| 5 | N | | f | 9.587 4 GHz | -56.650 dBm | | | |
| 6 | | | | | | | | |
| 7 | | | | | | | | |
| 8 | | | | | | | | |
| 9 | | | | | | | | |
| 10 | | | | | | | | |
| 11 | | | | | | | | |

Tx. Spurious NVNT n40 2452MHz Ant2 Ref




Tx. Spurious NVNT n40 2452MHz Ant2 Emission



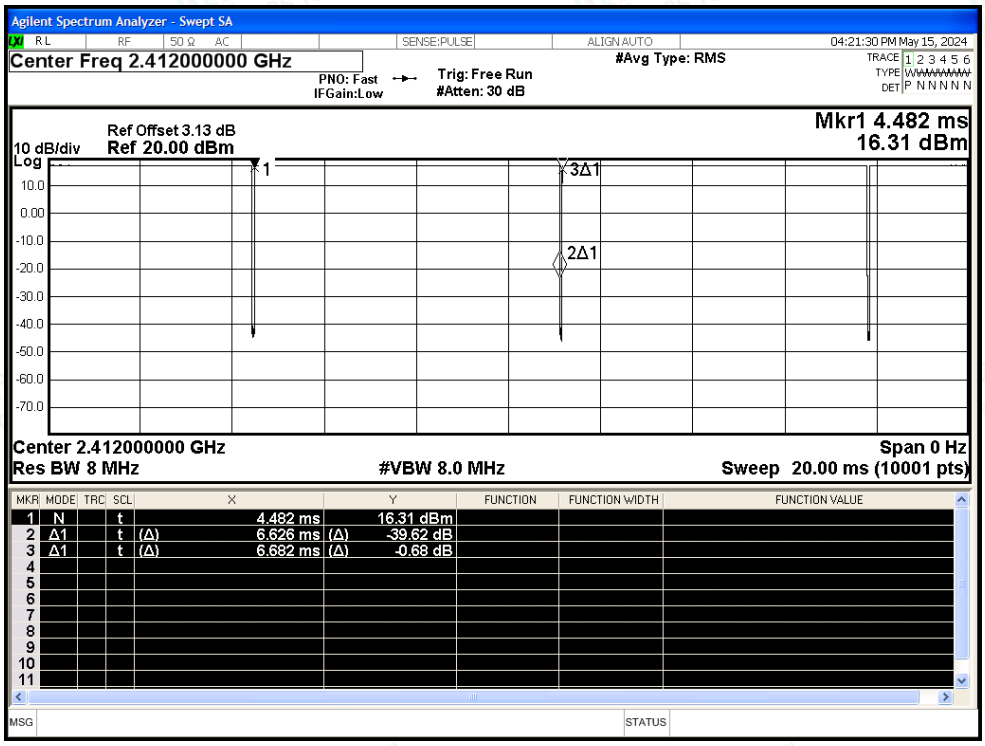

| MKR | MODE | TRC | SCL | X | Y | FUNCTION | FUNCTION WIDTH | FUNCTION VALUE |
|---|---|---|---|---|---|---|---|---|
| 1 | N | | f | 2.456 4 GHz | -10.154 dBm | | | |
| 2 | N | | f | 25.766 8 GHz | -46.917 dBm | | | |
| 3 | N | | f | 5.103 4 GHz | -57.806 dBm | | | |
| 4 | N | | f | 7.460 1 GHz | -56.350 dBm | | | |
| 5 | N | | f | 9.910 4 GHz | -57.397 dBm | | | |

# C.6 Duty Cycle

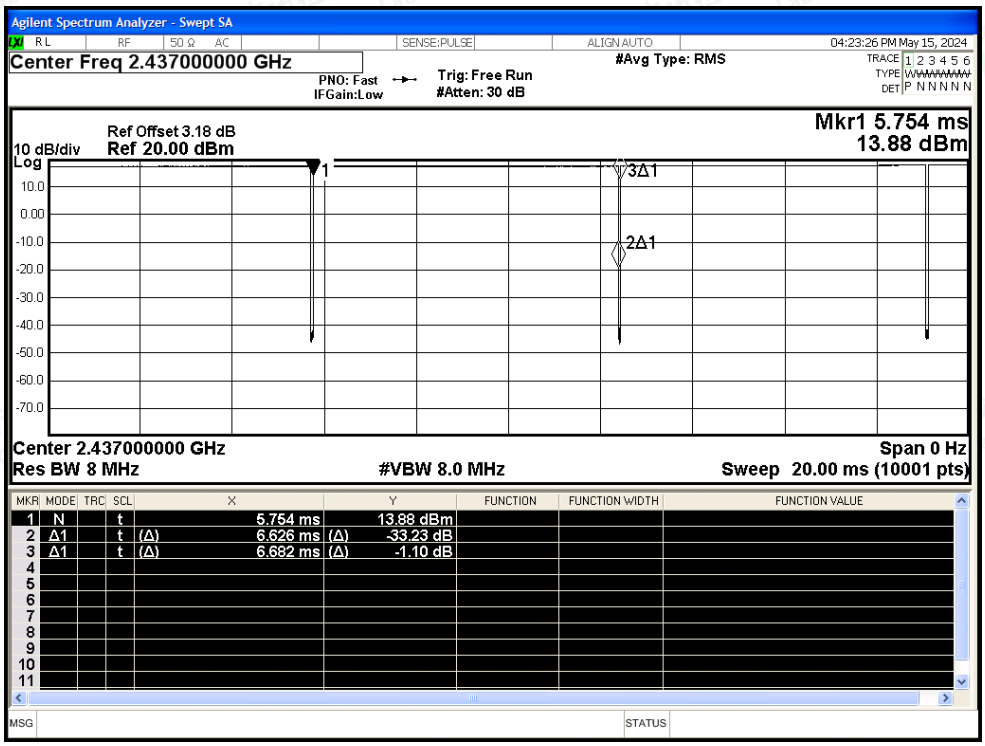
| Condition | Mode | Frequency (MHz) | Antenna | Duty Cycle (%) | Correction Factor (dB) | 1/T (kHz) |
|---|---|---|---|---|---|---|
| NVNT | b | 2412 | Ant1 | 99.16 | 0 | 0.15 |
| NVNT | b | 2437 | Ant1 | 99.16 | 0 | 0.15 |
| NVNT | b | 2462 | Ant1 | 99.16 | 0 | 0.15 |
| NVNT | g | 2412 | Ant1 | 97.04 | 0.13 | 0.49 |
| NVNT | g | 2437 | Ant1 | 97.04 | 0.13 | 0.49 |
| NVNT | g | 2462 | Ant1 | 97.04 | 0.13 | 0.49 |
| NVNT | n20 | 2412 | Ant1 | 97.05 | 0.13 | 0.49 |
| NVNT | n20 | 2437 | Ant1 | 96.96 | 0.13 | 0.49 |
| NVNT | n20 | 2462 | Ant1 | 96.96 | 0.13 | 0.49 |
| NVNT | n40 | 2422 | Ant1 | 94.17 | 0.26 | 1 |
| NVNT | n40 | 2437 | Ant1 | 94.16 | 0.26 | 1 |
| NVNT | n40 | 2452 | Ant1 | 90.3 | 0.44 | 1.73 |

Test Graphs

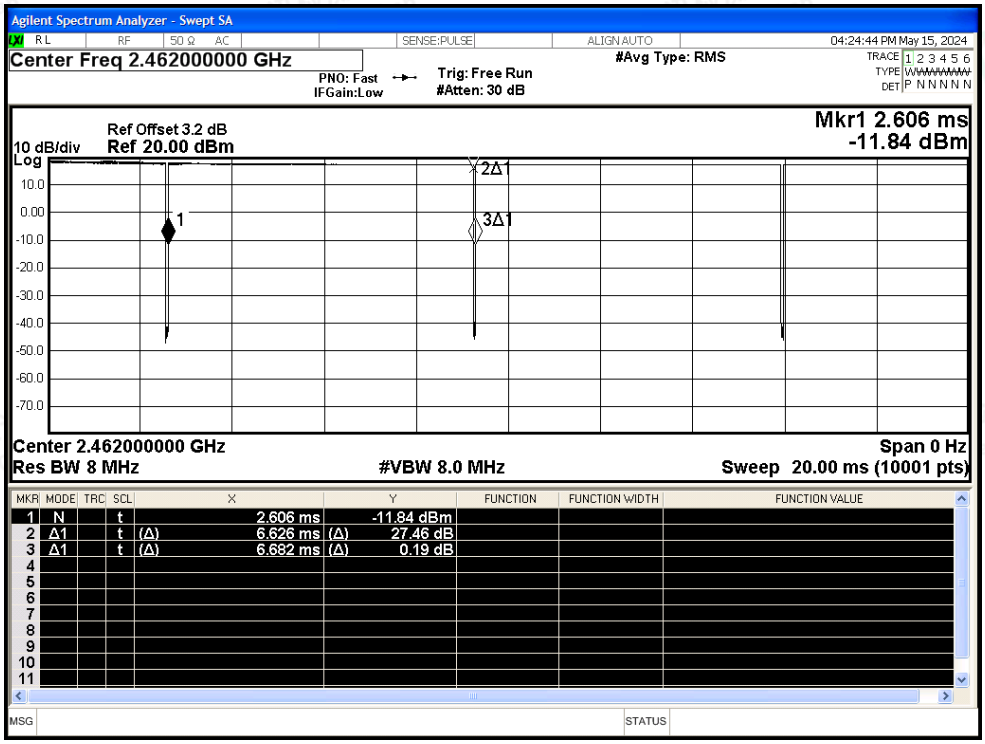
Duty Cycle NVNT b 2412MHz Ant1



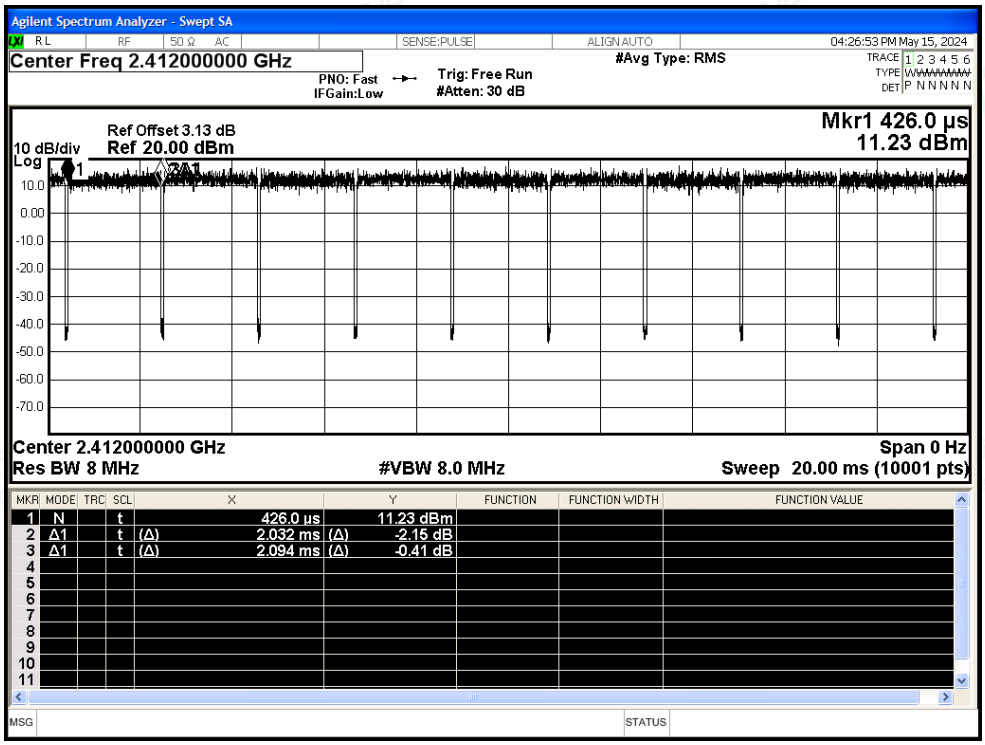

Duty Cycle NVNT b 2437MHz Ant1



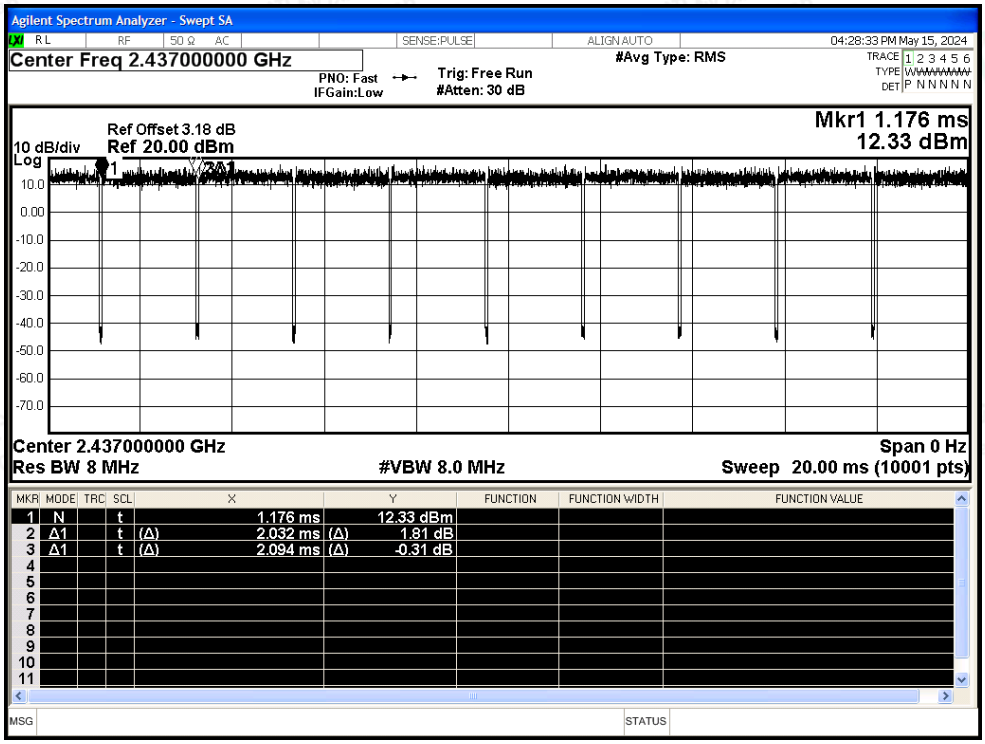
Duty Cycle NVNT b 2462MHz Ant1



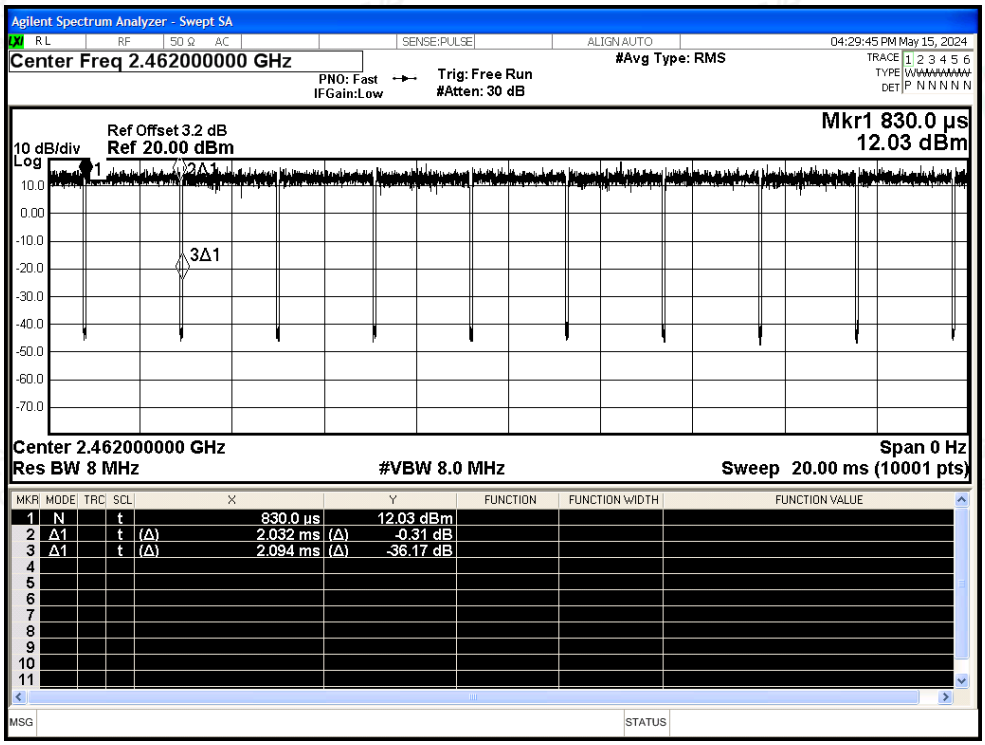

Duty Cycle NVNT g 2412MHz Ant1



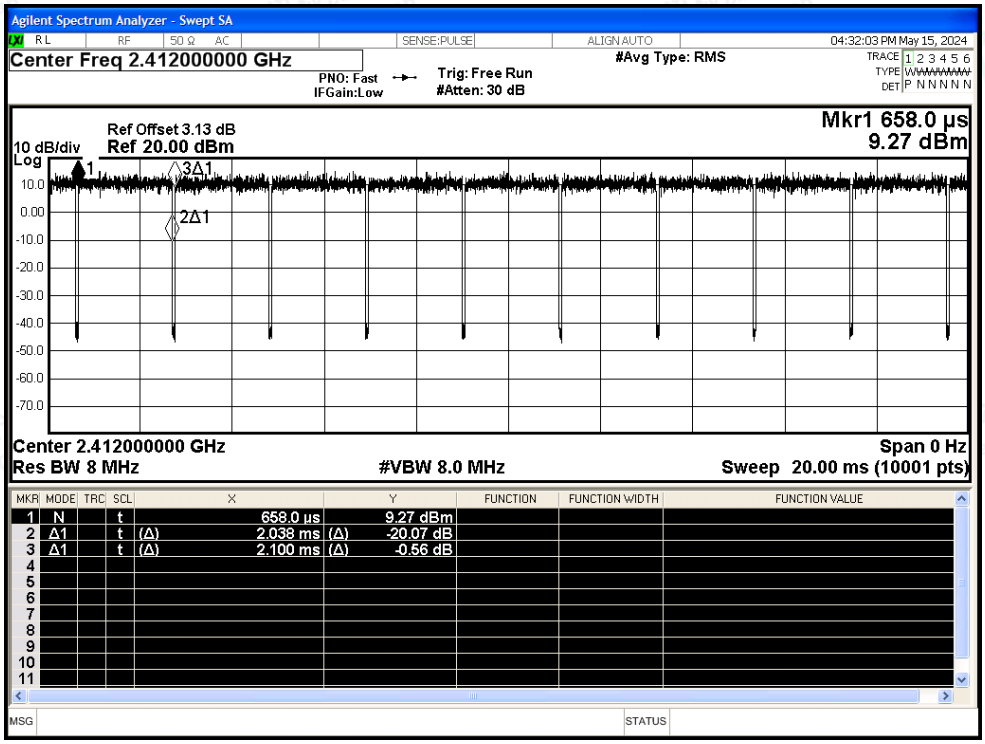
Duty Cycle NVNT g 2437MHz Ant1



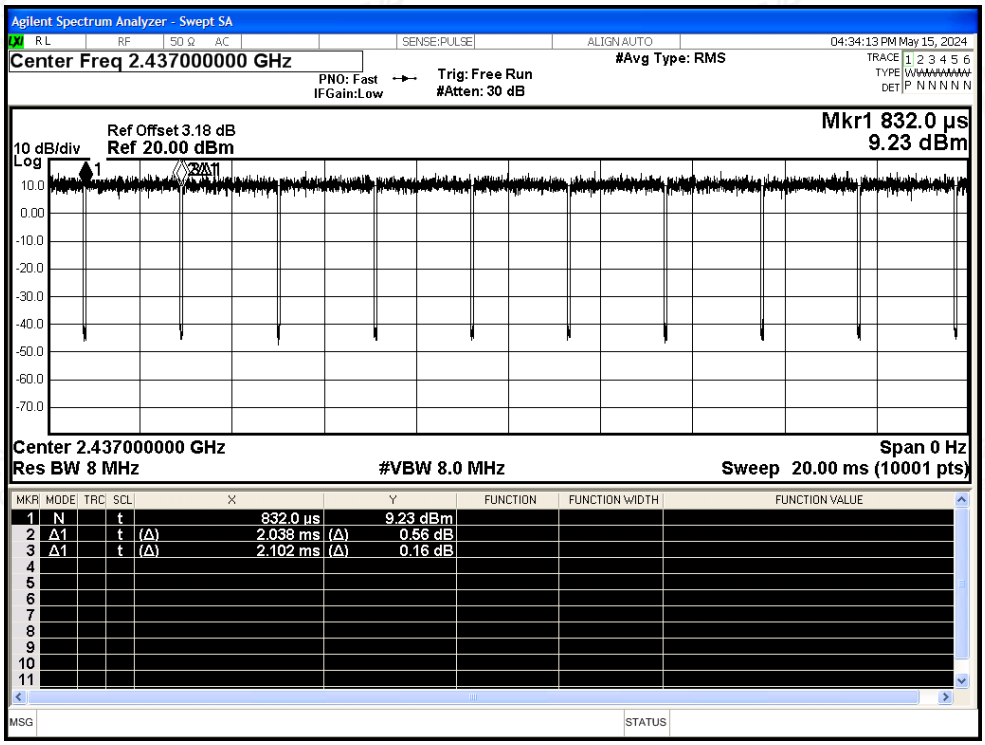

Duty Cycle NVNT g 2462MHz Ant1



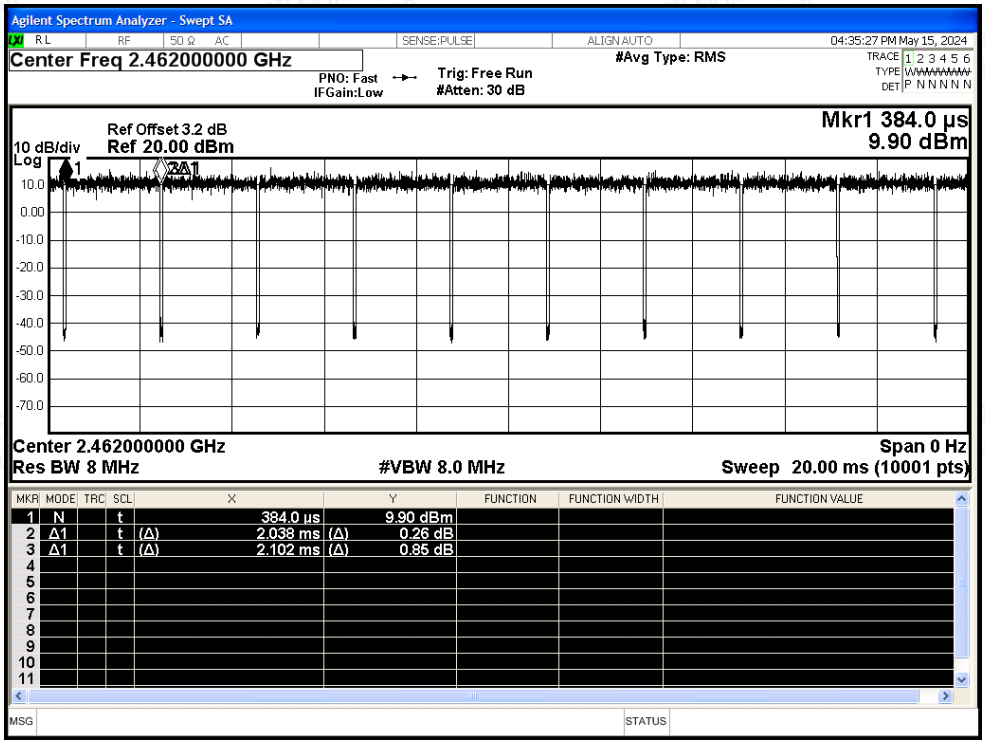
Duty Cycle NVNT n20 2412MHz Ant1




Duty Cycle NVNT n20 2437MHz Ant1

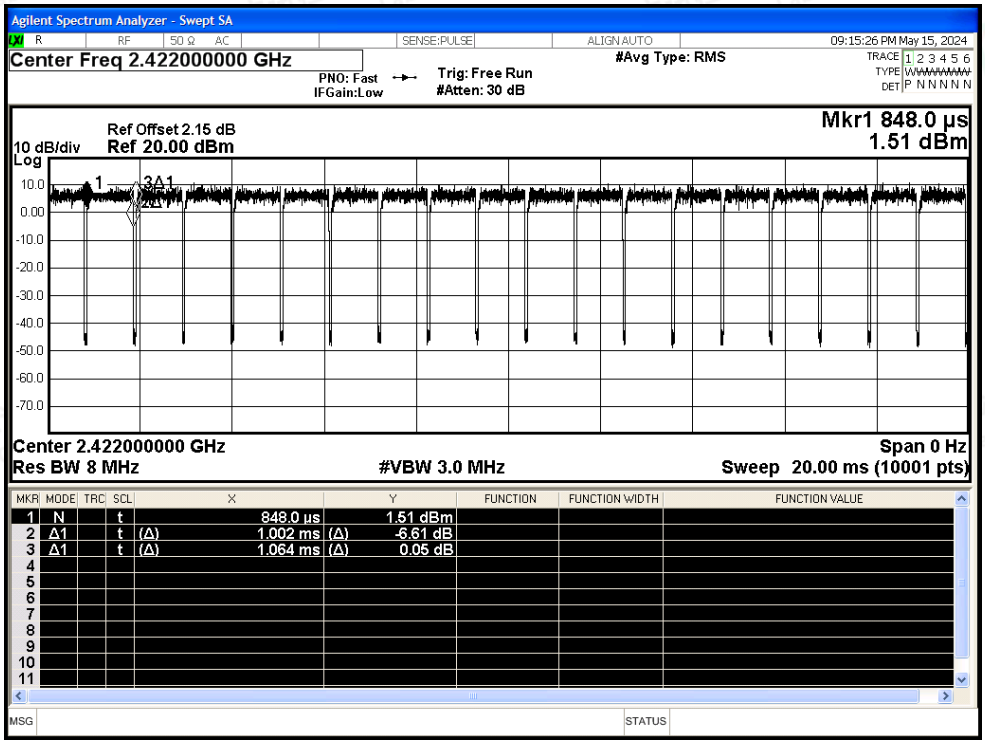


Duty Cycle NVNT n20 2462MHz Ant1

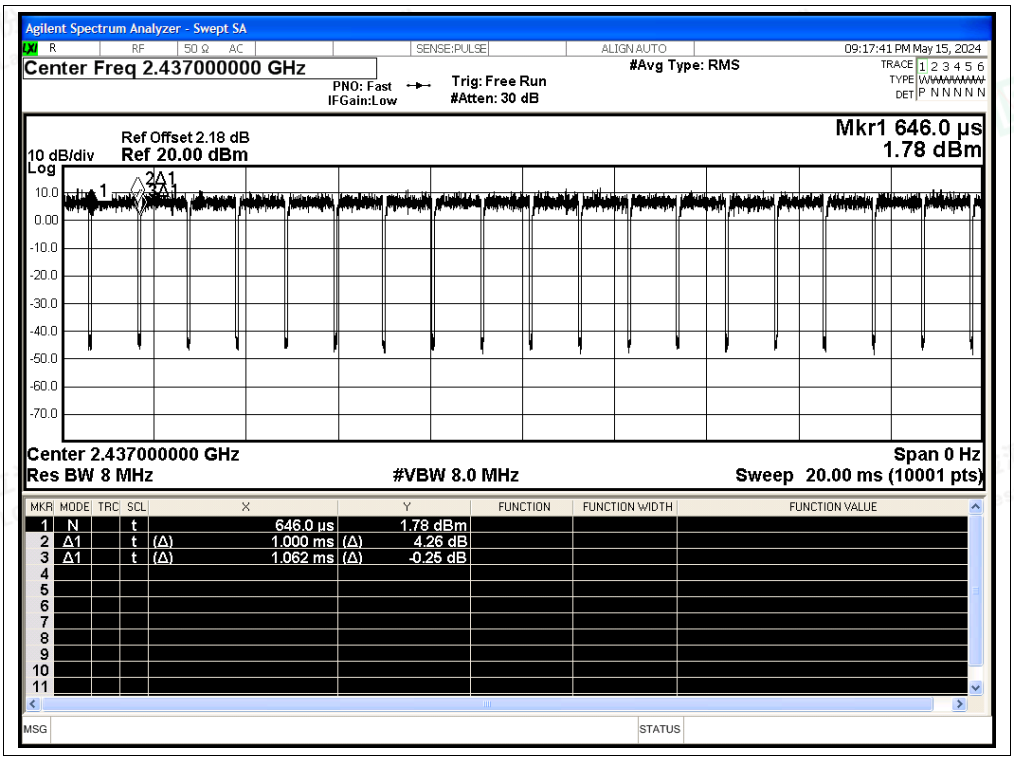



Test Graphs

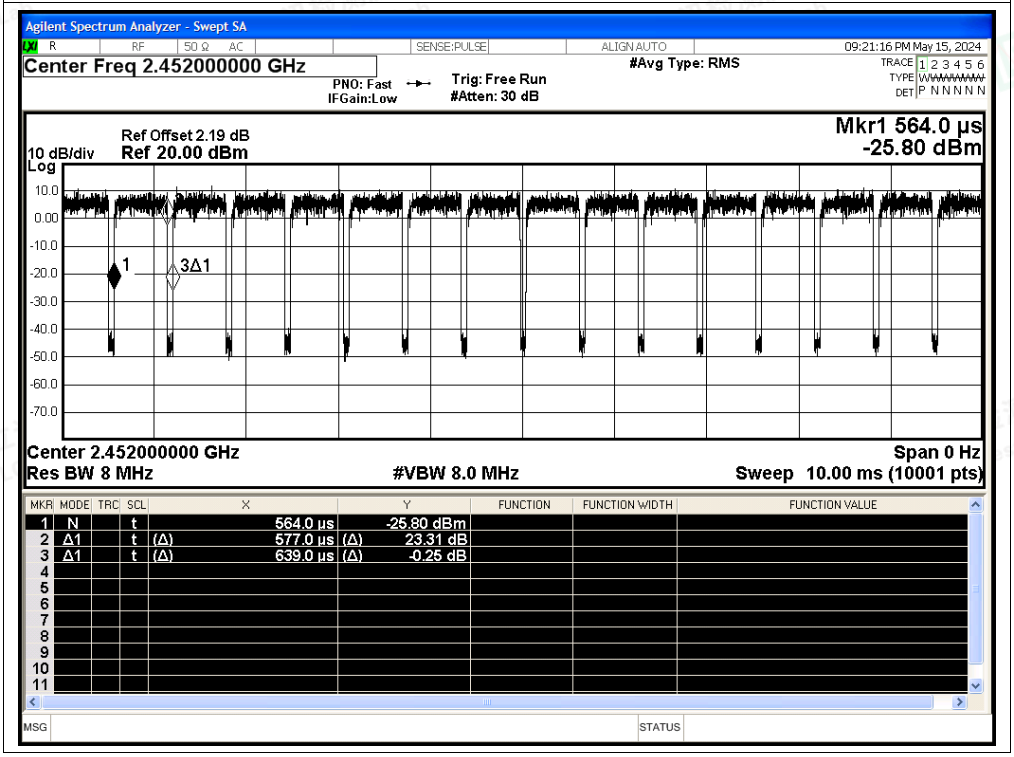
Duty Cycle NVNT n40 2422MHz Ant1




Duty Cycle NVNT n40 2437MHz Ant1


Agilent Spectrum Analyzer - Swept SA
Center Freq 2.437000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
#Avg Type: RMS
09:17:41 PM May 15, 2024
Ref Offset 2.18 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr1 646.0 µs
1.78 dBm
Center 2.437000000 GHz
Res BW 8 MHz
#VBW 8.0 MHz
Span 0 Hz
Sweep 20.00 ms (10001 pts)
1 N 1 t 646.0 µs 1.78 dBm
2 Δ1 1 t (Δ) 1.000 ms (Δ) 4.26 dB
3 Δ1 1 t (Δ) 1.062 ms (Δ) -0.25 dB

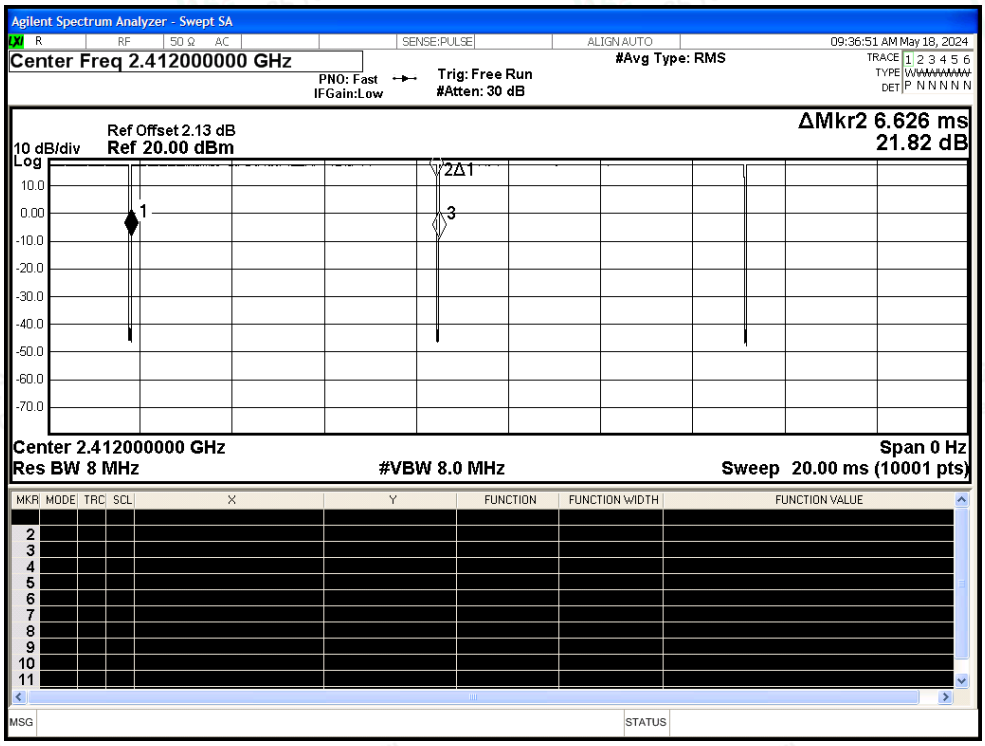
Duty Cycle NVNT n40 2452MHz Ant1



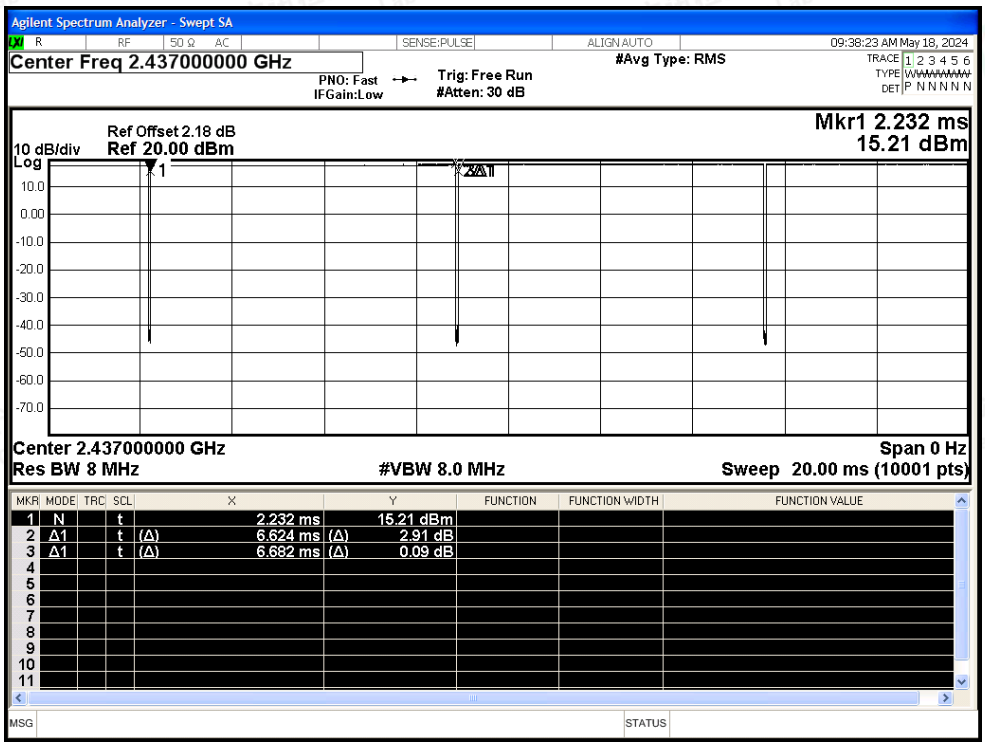

| Condition | Mode | Frequency (MHz) | Antenna | Duty Cycle (%) | Correction Factor (dB) | 1/T (kHz) |
|---|---|---|---|---|---|---|
| NVNT | b | 2412 | Ant2 | 99.16 | 0 | 0.15 |
| NVNT | b | 2437 | Ant2 | 99.13 | 0 | 0.15 |
| NVNT | b | 2462 | Ant2 | 99.16 | 0 | 0.15 |
| NVNT | g | 2412 | Ant2 | 97.75 | 0.1 | 0.37 |
| NVNT | g | 2437 | Ant2 | 97.68 | 0.1 | 0.37 |
| NVNT | g | 2462 | Ant2 | 97.75 | 0.1 | 0.37 |
| NVNT | n20 | 2412 | Ant2 | 97.25 | 0.12 | 0.44 |
| NVNT | n20 | 2437 | Ant2 | 97.33 | 0.12 | 0.44 |
| NVNT | n20 | 2462 | Ant2 | 97.25 | 0.12 | 0.44 |
| NVNT | n40 | 2422 | Ant2 | 97.23 | 0.12 | 0.46 |
| NVNT | n40 | 2437 | Ant2 | 97.23 | 0.12 | 0.46 |
| NVNT | n40 | 2452 | Ant2 | 97.23 | 0.12 | 0.46 |

Test Graphs

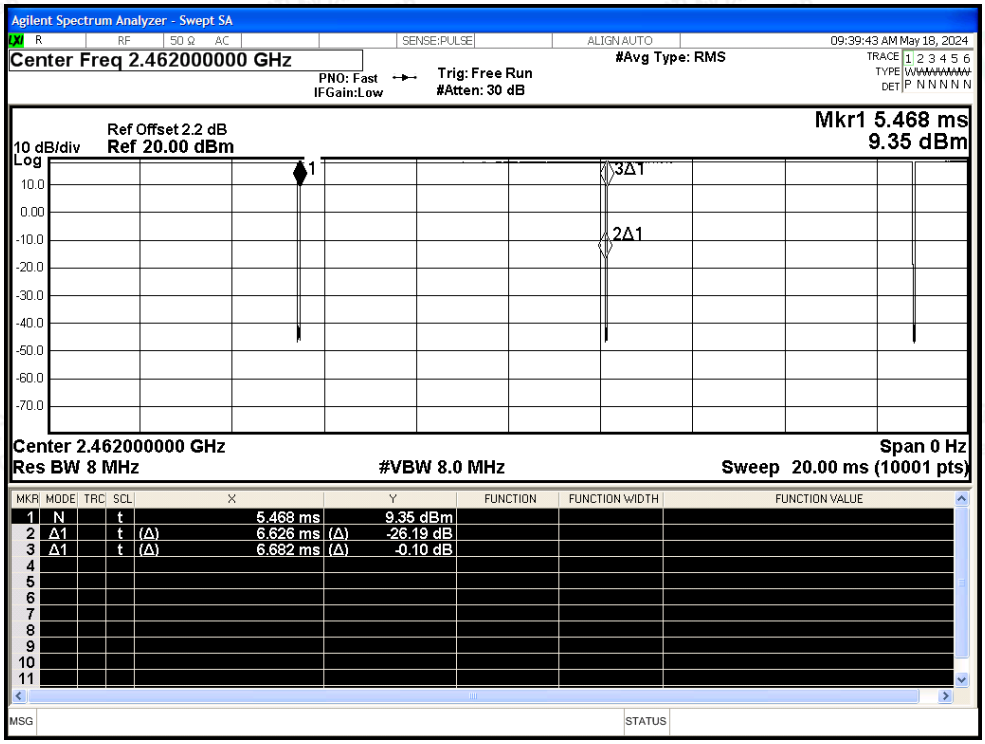
Duty Cycle NVNT b 2412MHz Ant2



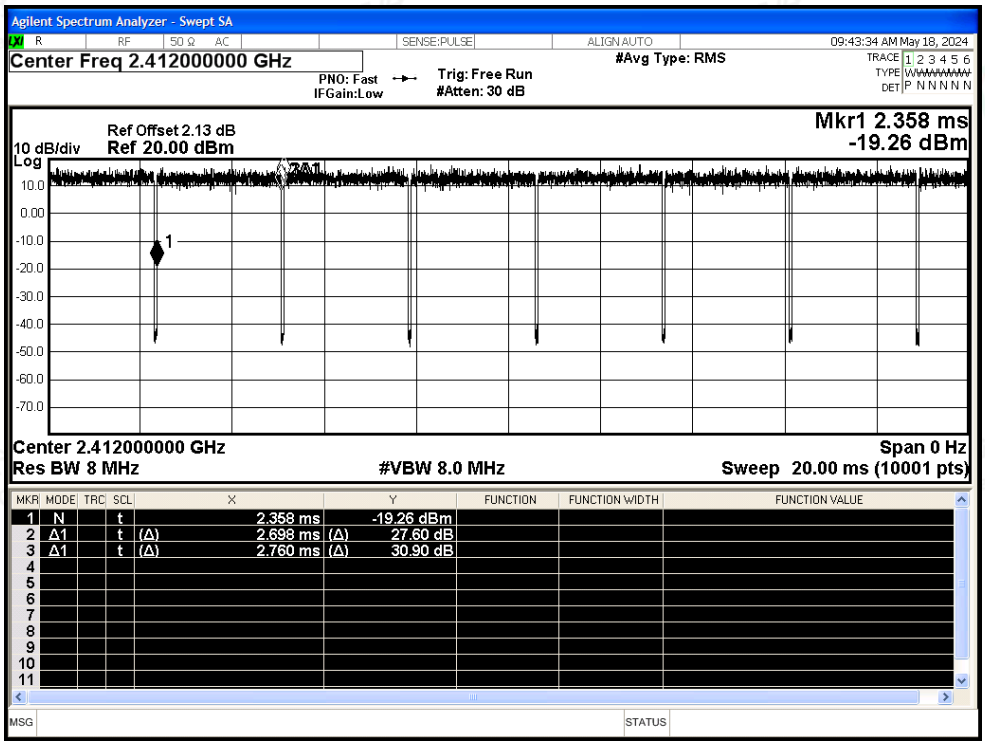

Duty Cycle NVNT b 2437MHz Ant2



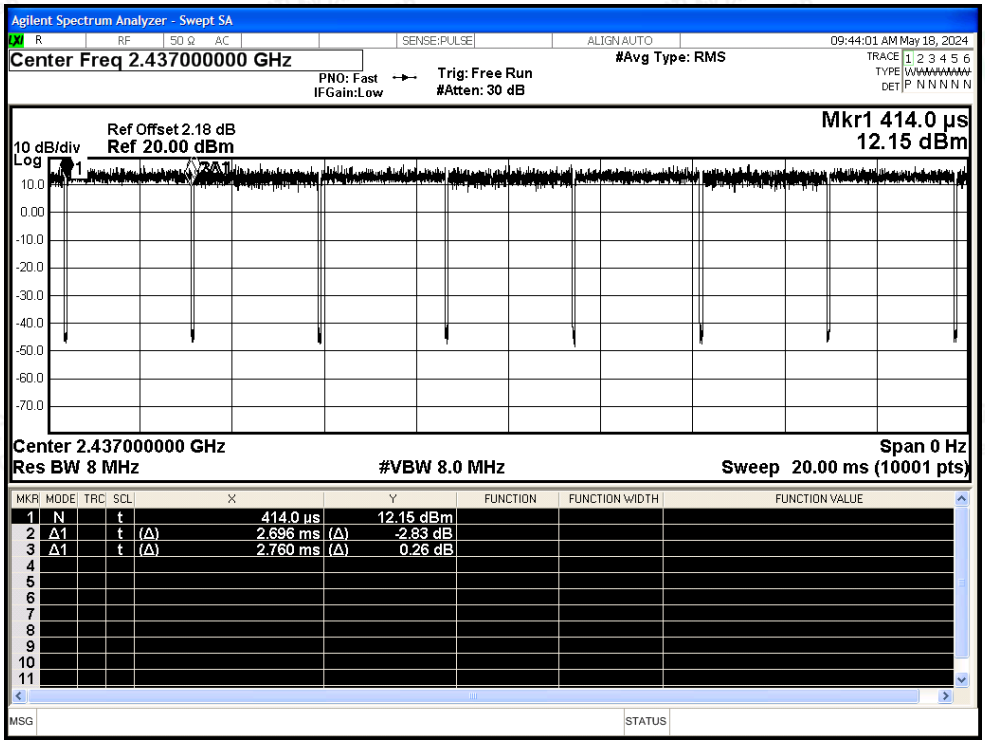
Duty Cycle NVNT b 2462MHz Ant2



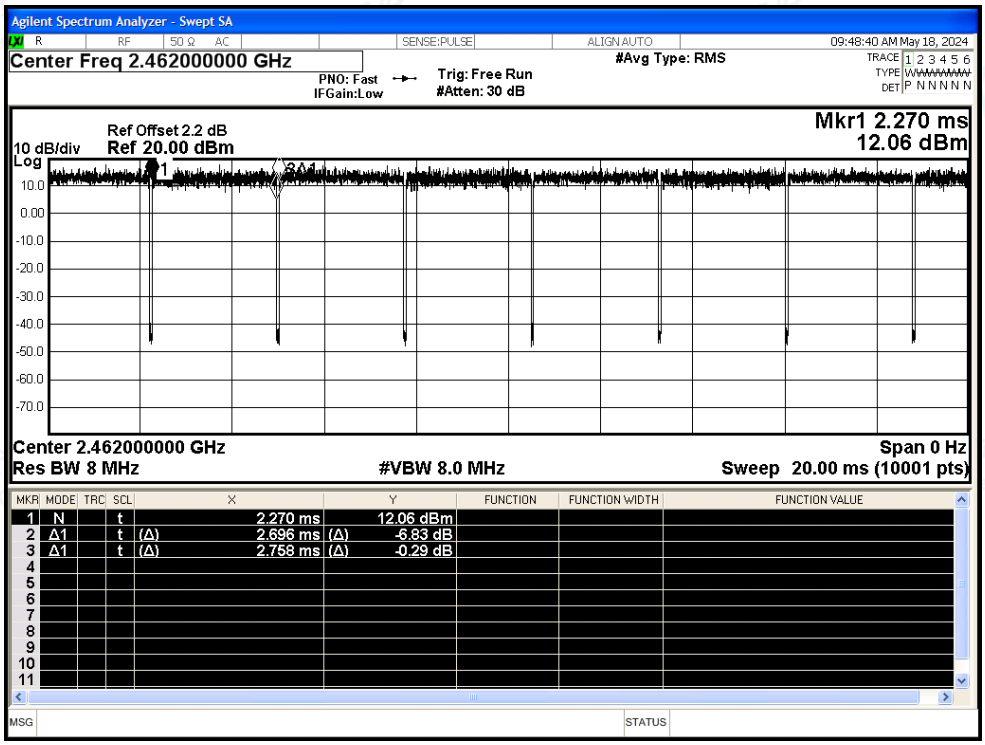

Duty Cycle NVNT g 2412MHz Ant2



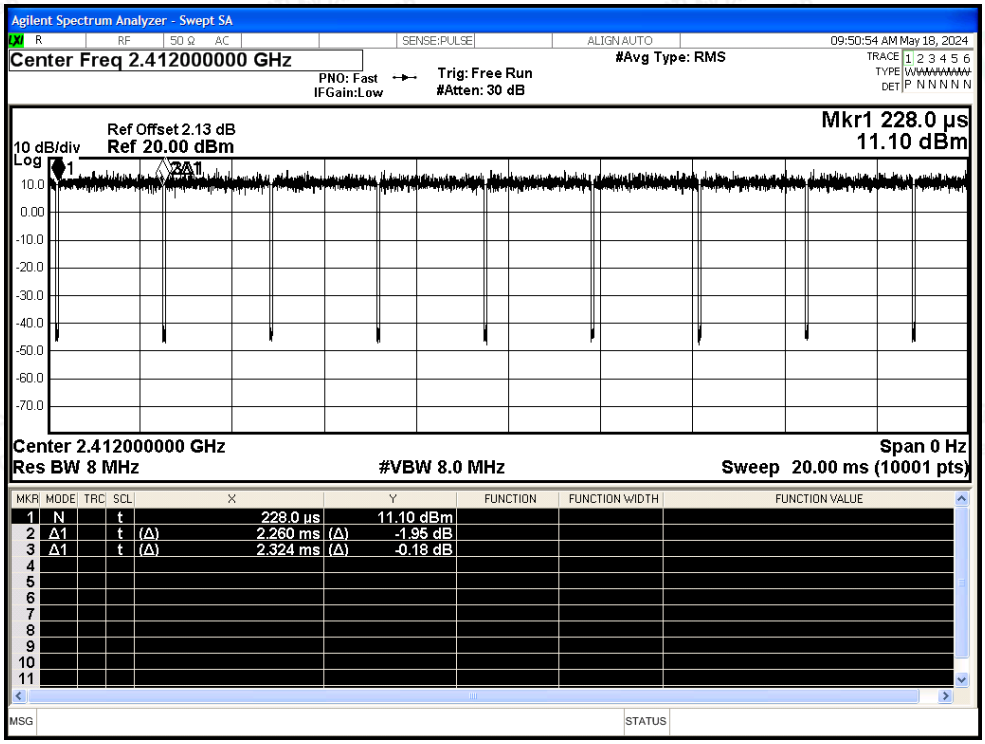
Duty Cycle NVNT g 2437MHz Ant2



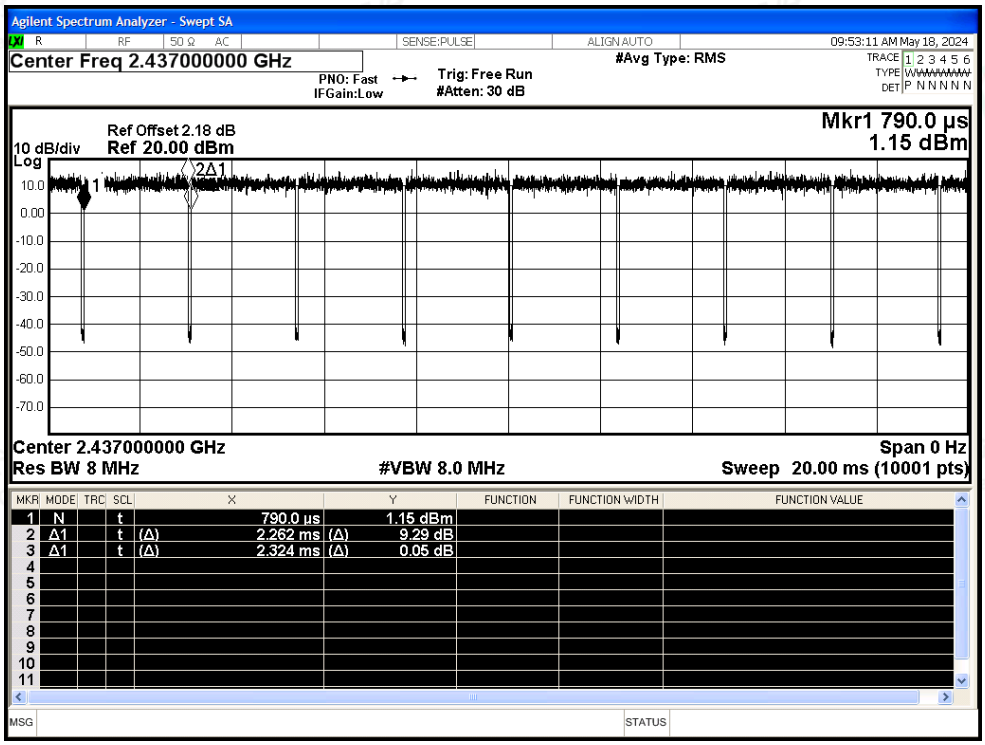

Duty Cycle NVNT g 2462MHz Ant2



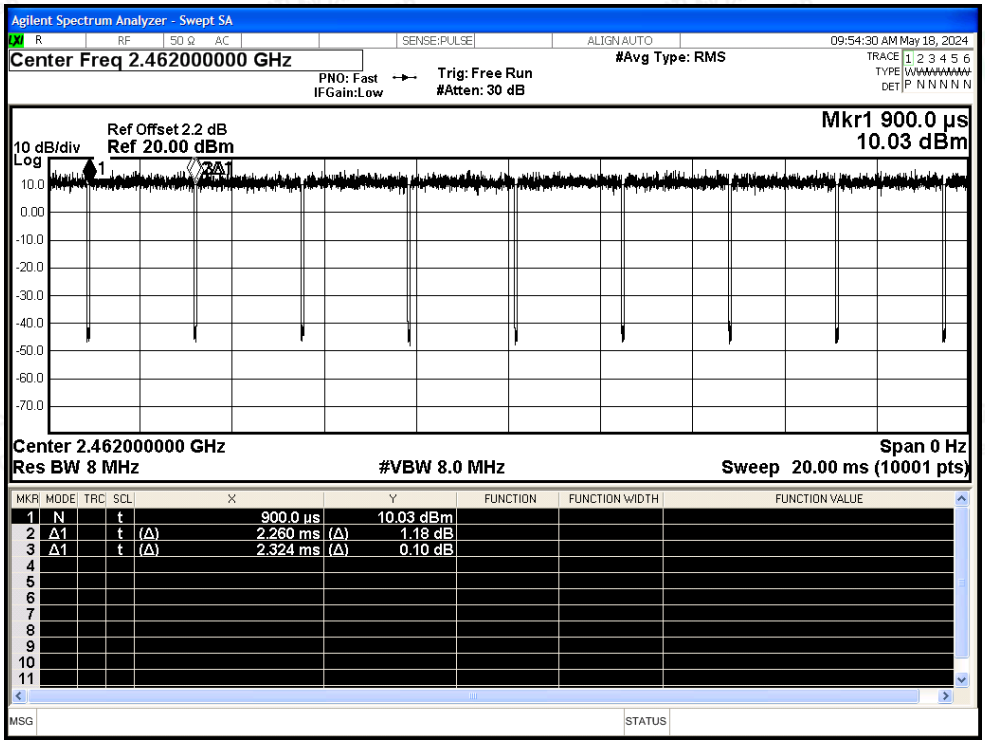
Duty Cycle NVNT n20 2412MHz Ant2



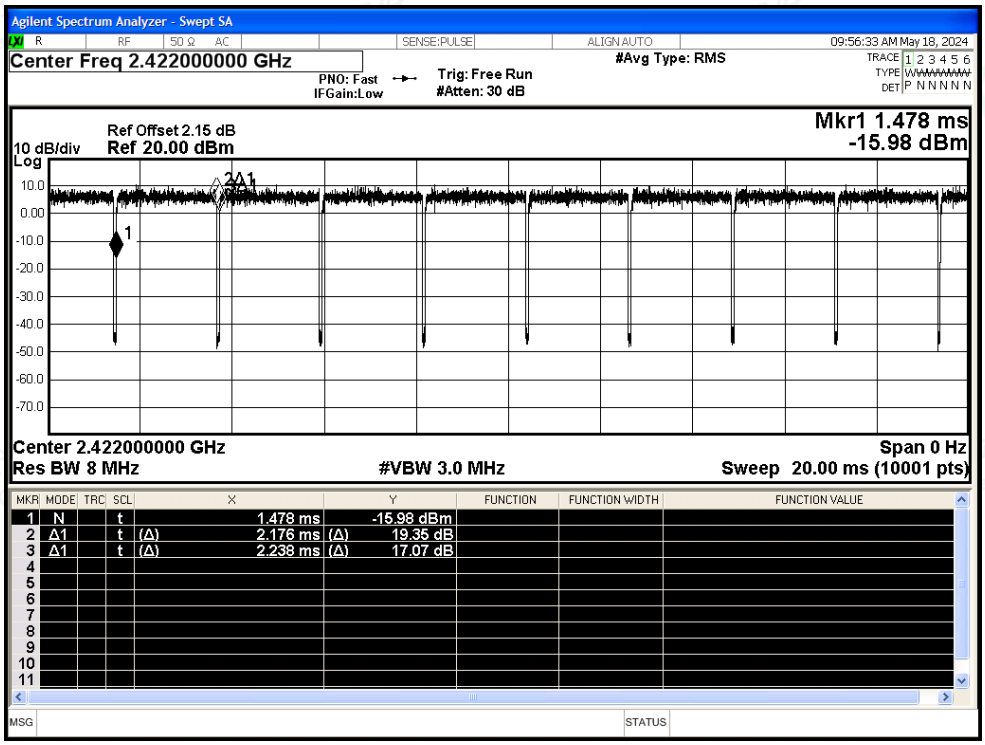

Duty Cycle NVNT n20 2437MHz Ant2



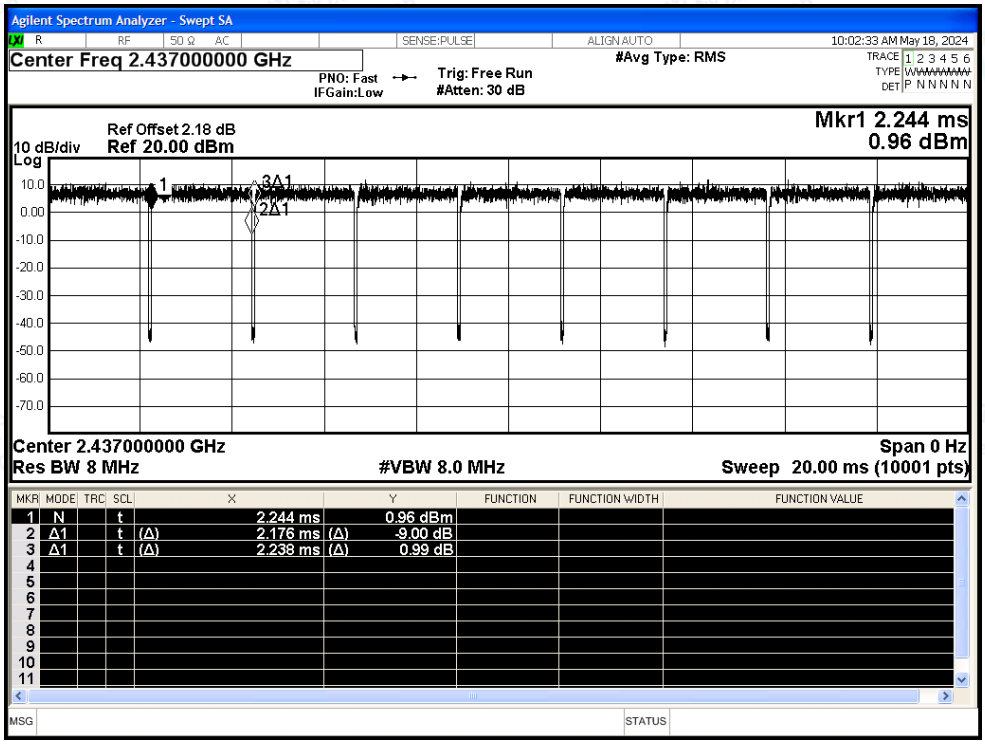
Duty Cycle NVNT n20 2462MHz Ant2



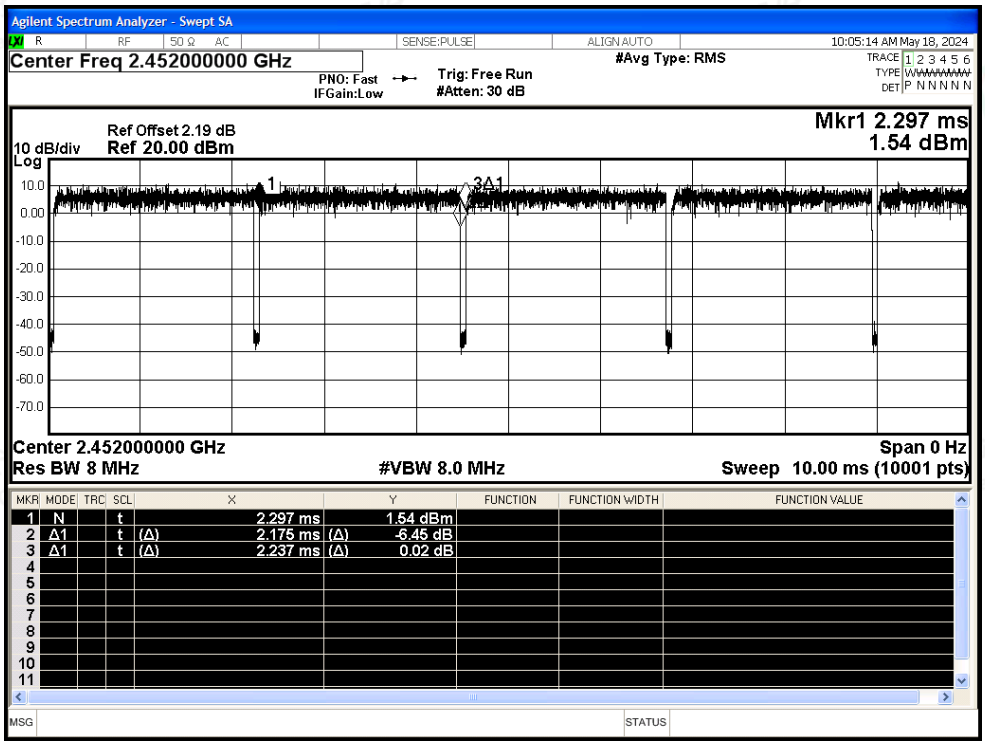

Duty Cycle NVNT n40 2422MHz Ant2



Duty Cycle NVNT n40 2437MHz Ant2




Duty Cycle NVNT n40 2452MHz Ant2



# C.7 Restrict Band

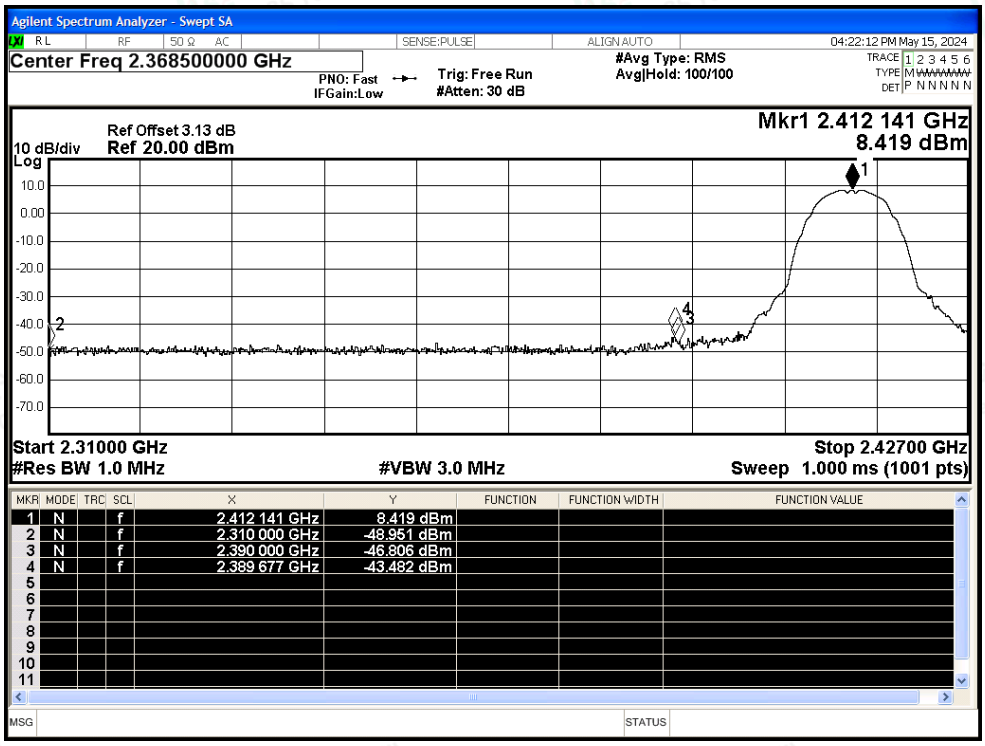
| Condition | Mode | Frequency (MHz) | Spur Freq (MHz) | Power (dBm) | Gain (dBi) | Duty Factor (dB) | E (dBuV/m) | Detector | Limit (dBuV/m) | Verdict |
|---|---|---|---|---|---|---|---|---|---|---|
| NVNT | b | 2412 | 2310 | -48.95 | 2 | - | 48.31 | Peak | 74 | Pass |
| NVNT | b | 2412 | 2310 | -57.62 | 2 | 0 | 39.64 | Average | 54 | Pass |
| NVNT | b | 2412 | 2389.677 | -43.48 | 2 | - | 53.78 | Peak | 74 | Pass |
| NVNT | b | 2412 | 2389.56 | -54.63 | 2 | 0 | 42.63 | Average | 54 | Pass |
| NVNT | b | 2412 | 2390 | -46.81 | 2 | - | 50.45 | Peak | 74 | Pass |
| NVNT | b | 2412 | 2390 | -55.46 | 2 | 0 | 41.8 | Average | 54 | Pass |
| NVNT | b | 2462 | 2483.5 | -47.52 | 2 | - | 49.74 | Peak | 74 | Pass |
| NVNT | b | 2462 | 2483.5 | -53.98 | 2 | 0 | 43.28 | Average | 54 | Pass |
| NVNT | b | 2462 | 2485.796 | -39.66 | 2 | - | 57.6 | Peak | 74 | Pass |
| NVNT | b | 2462 | 2483.57 | -53.79 | 2 | 0 | 43.47 | Average | 54 | Pass |
| NVNT | b | 2462 | 2500 | -48.72 | 2 | - | 48.54 | Peak | 74 | Pass |
| NVNT | b | 2462 | 2500 | -56.94 | 2 | 0 | 40.32 | Average | 54 | Pass |
| NVNT | g | 2412 | 2310 | -50.12 | 2 | - | 47.14 | Peak | 74 | Pass |
| NVNT | g | 2412 | 2310 | -58.23 | 2 | 0.13 | 39.16 | Average | 54 | Pass |
| NVNT | g | 2412 | 2388.624 | -37.06 | 2 | - | 60.2 | Peak | 74 | Pass |
| NVNT | g | 2412 | 2389.326 | -51.14 | 2 | 0.13 | 46.25 | Average | 54 | Pass |
| NVNT | g | 2412 | 2390 | -33.48 | 2 | - | 63.78 | Peak | 74 | Pass |
| NVNT | g | 2412 | 2390 | -52.36 | 2 | 0.13 | 45.03 | Average | 54 | Pass |
| NVNT | g | 2462 | 2483.5 | -34.1 | 2 | - | 63.16 | Peak | 74 | Pass |
| NVNT | g | 2462 | 2483.5 | -49.9 | 2 | 0.13 | 47.49 | Average | 54 | Pass |
| NVNT | g | 2462 | 2483.729 | -30.09 | 2 | - | 67.17 | Peak | 74 | Pass |
| NVNT | g | 2462 | 2483.517 | -49.9 | 2 | 0.13 | 47.49 | Average | 54 | Pass |
| NVNT | g | 2462 | 2500 | -49.58 | 2 | - | 47.68 | Peak | 74 | Pass |
| NVNT | g | 2462 | 2500 | -56.68 | 2 | 0.13 | 40.71 | Average | 54 | Pass |
| NVNT | n20mimo | 2412 | 2310 | -49.75 | 2 | - | 47.51 | Peak | 74 | Pass |
| NVNT | n20mimo | 2412 | 2310 | -57.4 | 2 | 0.13 | 39.99 | Average | 54 | Pass |
| NVNT | n20mimo | 2412 | 2389.209 | -34.52 | 2 | - | 62.74 | Peak | 74 | Pass |
| NVNT | n20mimo | 2412 | 2389.443 | -52.82 | 2 | 0.13 | 44.57 | Average | 54 | Pass |
| NVNT | n20mimo | 2412 | 2390 | -37.21 | 2 | - | 60.05 | Peak | 74 | Pass |
| NVNT | n20mimo | 2412 | 2390 | -52.9 | 2 | 0.13 | 44.49 | Average | 54 | Pass |
| NVNT | n20mimo | 2462 | 2483.5 | -32.9 | 2 | - | 64.36 | Peak | 74 | Pass |
| NVNT | n20mimo | 2462 | 2483.5 | -51.41 | 2 | 0.13 | 45.98 | Average | 54 | Pass |
| NVNT | n20mimo | 2462 | 2483.517 | -32.9 | 2 | - | 64.36 | Peak | 74 | Pass |
| NVNT | n20mimo | 2462 | 2483.729 | -50.18 | 2 | 0.13 | 47.21 | Average | 54 | Pass |
| NVNT | n20mimo | 2462 | 2500 | -48.61 | 2 | - | 48.65 | Peak | 74 | Pass |
| NVNT | n20mimo | 2462 | 2500 | -57.24 | 2 | 0.13 | 40.15 | Average | 54 | Pass |
| NVNT | n40mimo | 2422 | 2310 | -50.44 | 2 | - | 46.82 | Peak | 74 | Pass |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| NVNT | n40mimo | 2422 | 2310 | -58.76 | 2 | 0.26 | 38.76 | Average | 54 | Pass |
| NVNT | n40mimo | 2422 | 2388.81 | -35.97 | 2 | - | 61.29 | Peak | 74 | Pass |
| NVNT | n40mimo | 2422 | 2389.946 | -51.71 | 2 | 0.26 | 45.81 | Average | 54 | Pass |
| NVNT | n40mimo | 2422 | 2390 | -42.99 | 2 | - | 54.27 | Peak | 74 | Pass |
| NVNT | n40mimo | 2422 | 2390 | -51.71 | 2 | 0.26 | 45.81 | Average | 54 | Pass |
| NVNT | n40mimo | 2452 | 2483.5 | -40.8 | 2 | - | 56.46 | Peak | 74 | Pass |
| NVNT | n40mimo | 2452 | 2483.5 | -53.26 | 2 | 0.44 | 44.44 | Average | 54 | Pass |
| NVNT | n40mimo | 2452 | 2484.01 | -34.52 | 2 | - | 62.74 | Peak | 74 | Pass |
| NVNT | n40mimo | 2452 | 2483.62 | -52.36 | 2 | 0.44 | 45.34 | Average | 54 | Pass |
| NVNT | n40mimo | 2452 | 2500 | -49.48 | 2 | - | 47.78 | Peak | 74 | Pass |
| NVNT | n40mimo | 2452 | 2500 | -57.8 | 2 | 0.44 | 39.9 | Average | 54 | Pass |

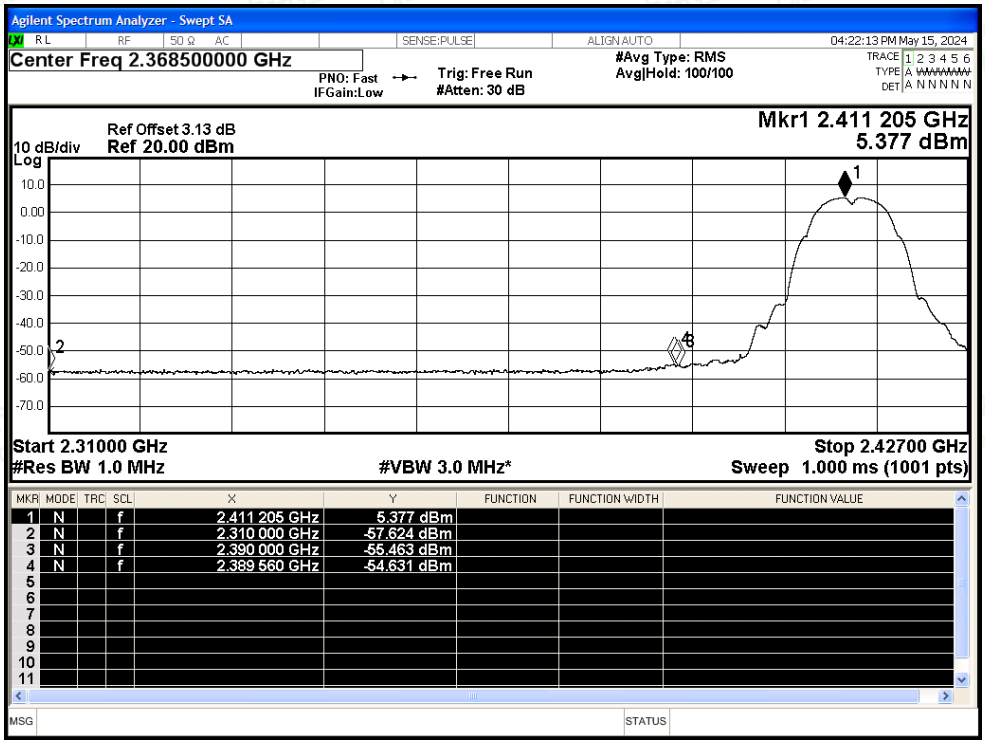
Note：802.11b and 802.11g mode, only show the worst set of antenna1 data.

Test Graphs

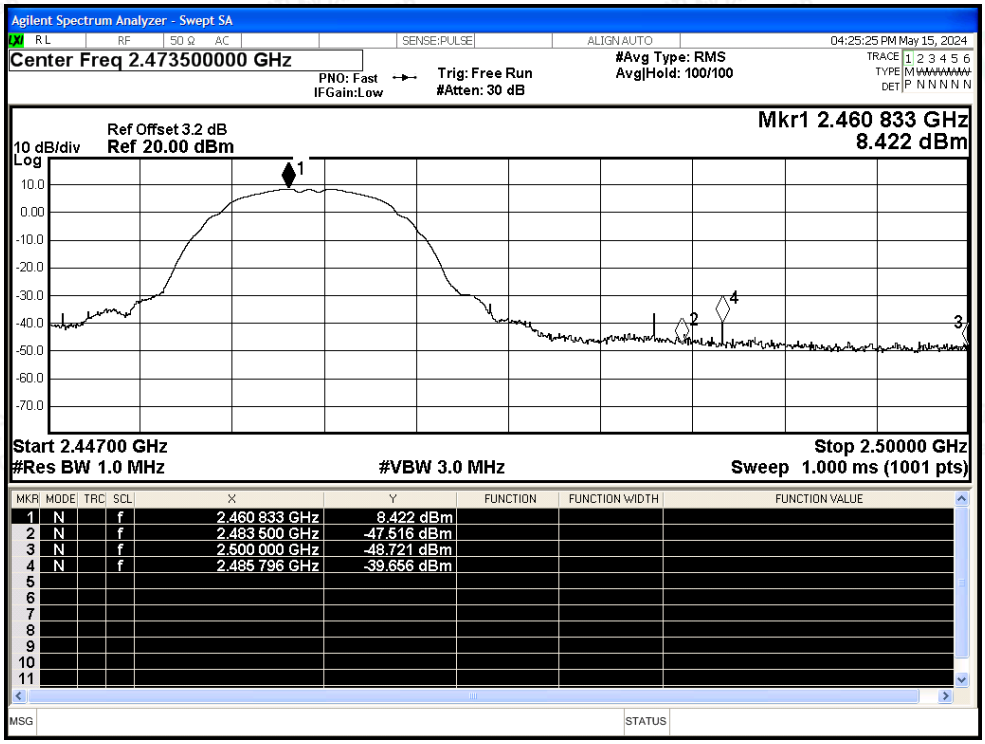
Restrict Band NVNT b 2412MHz Peak



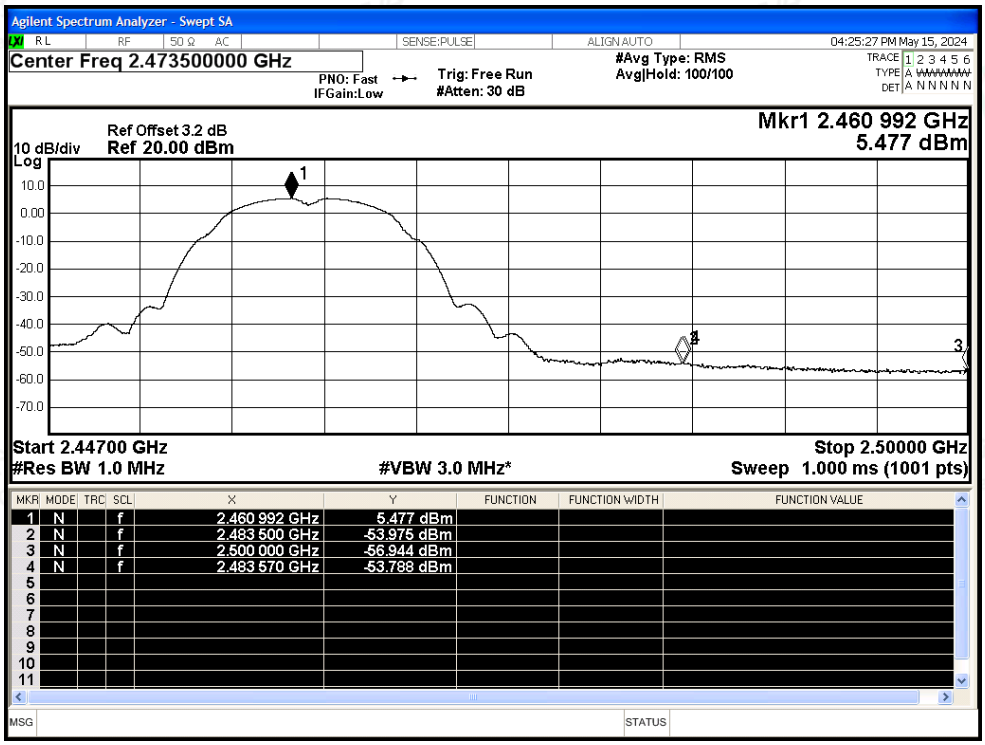

Restrict Band NVNT b 2412MHz Average



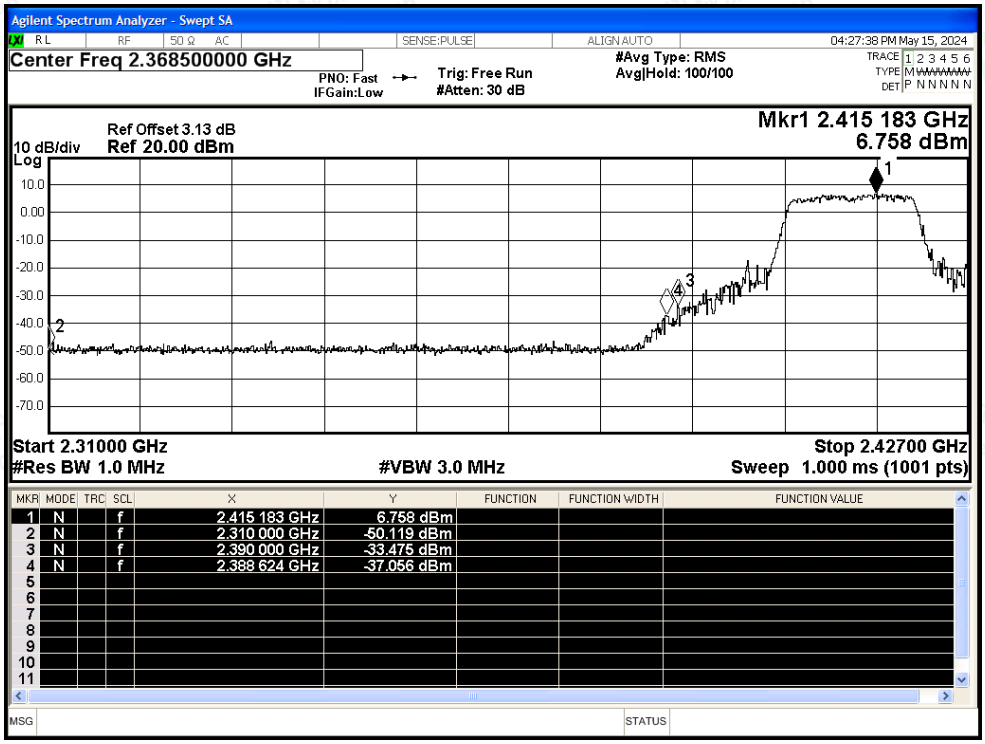
Restrict Band NVNT b 2462MHz Peak



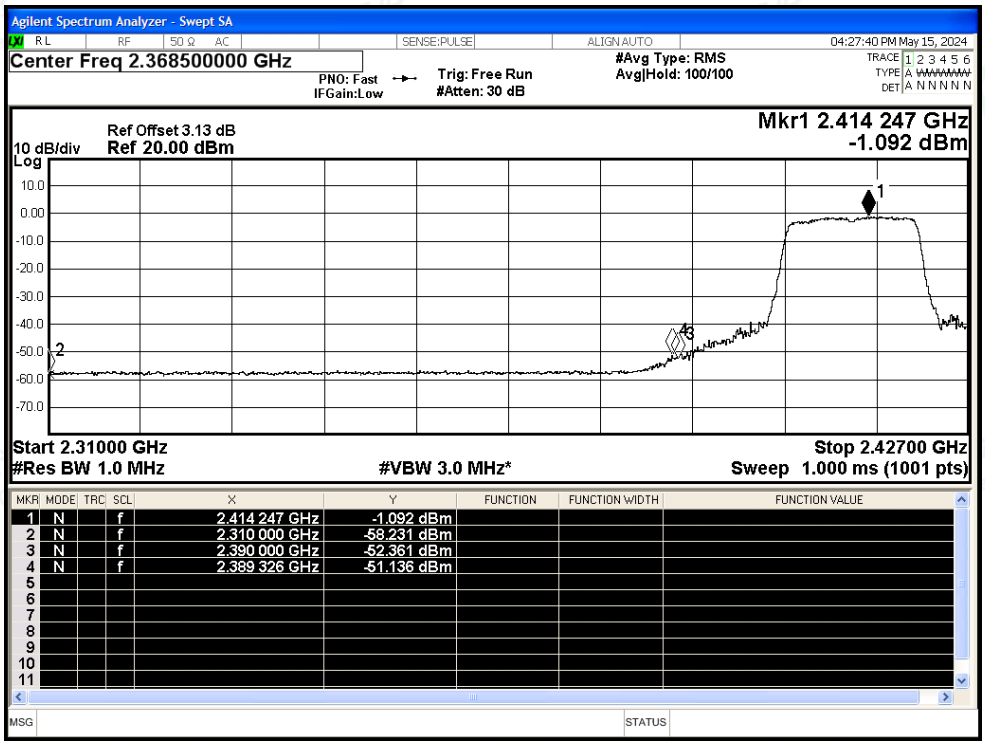

Restrict Band NVNT b 2462MHz Average



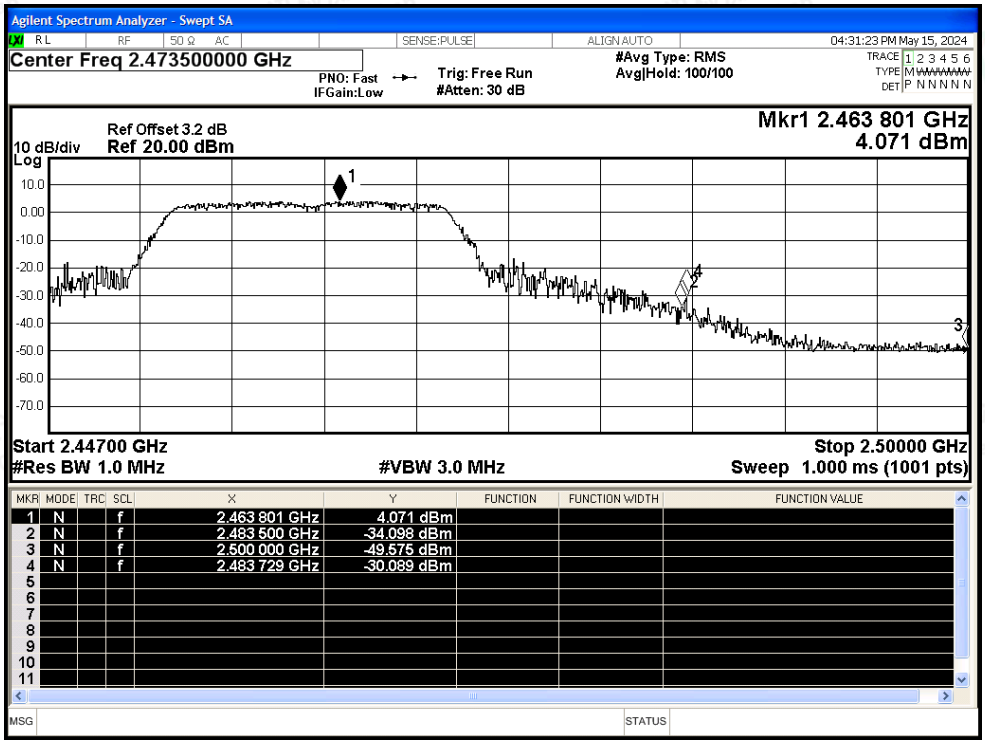
Restrict Band NVNT g 2412MHz Peak



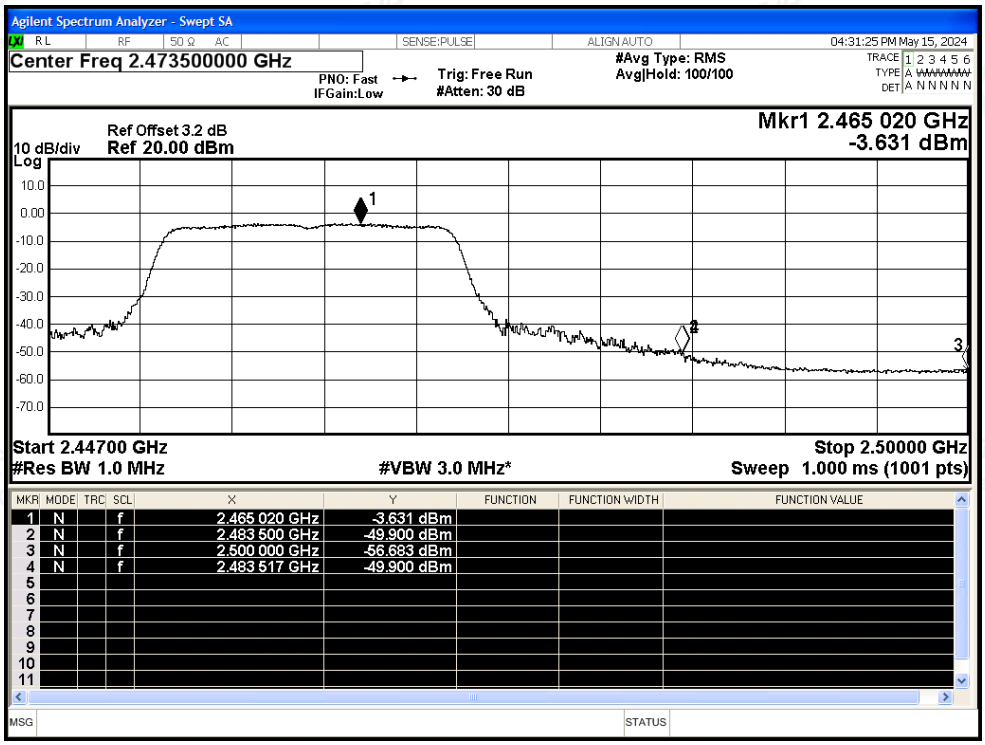

Restrict Band NVNT g 2412MHz Average



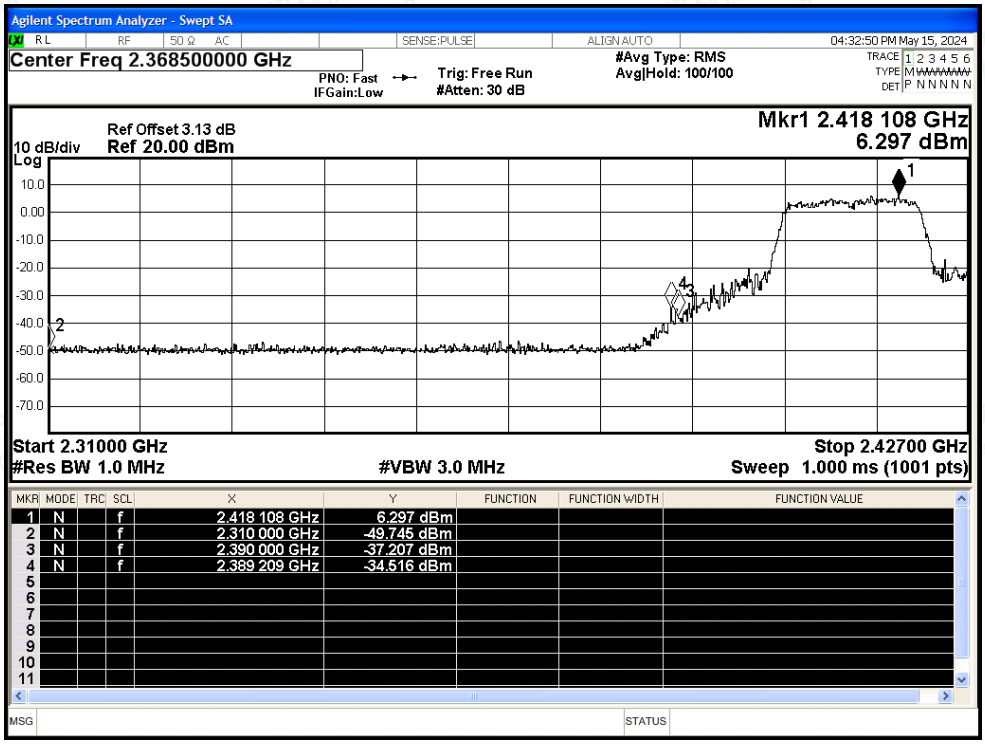
Restrict Band NVNT g 2462MHz Peak



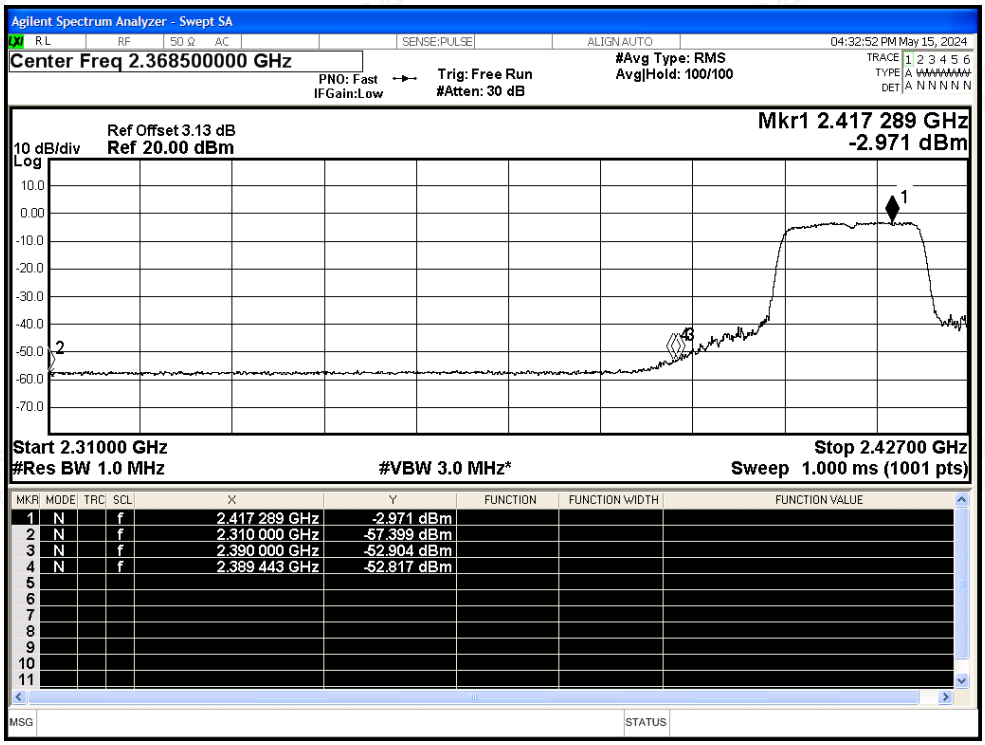

Restrict Band NVNT g 2462MHz Average



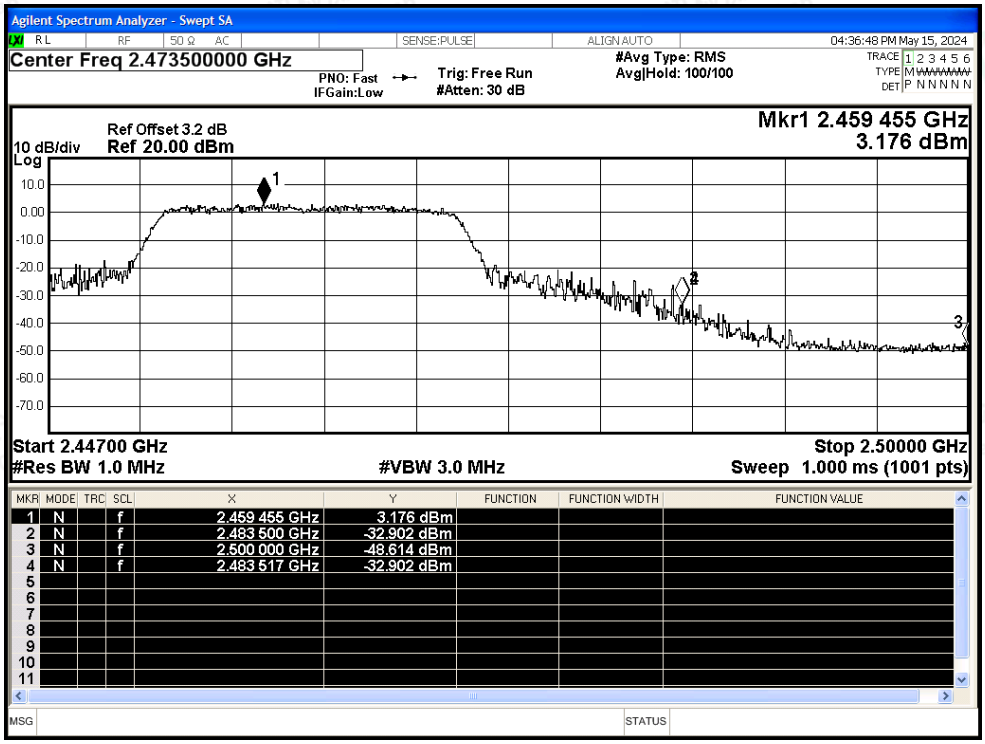
Restrict Band NVNT n20 2412MHz Peak



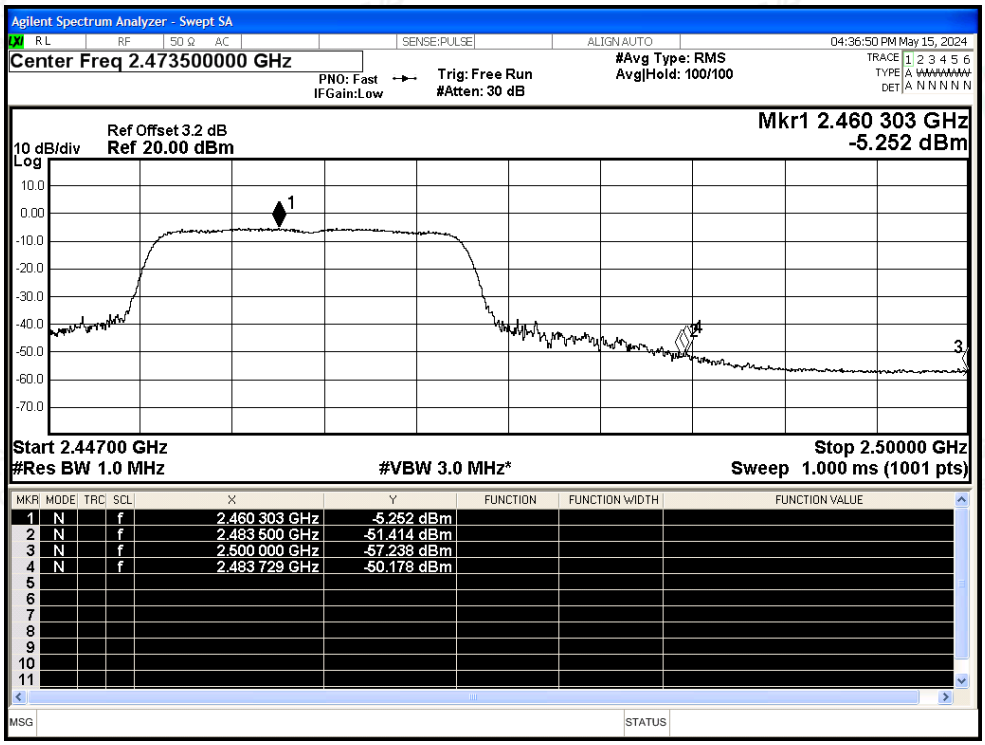

Restrict Band NVNT n20 2412MHz Average



Restrict Band NVNT n20 2462MHz Peak

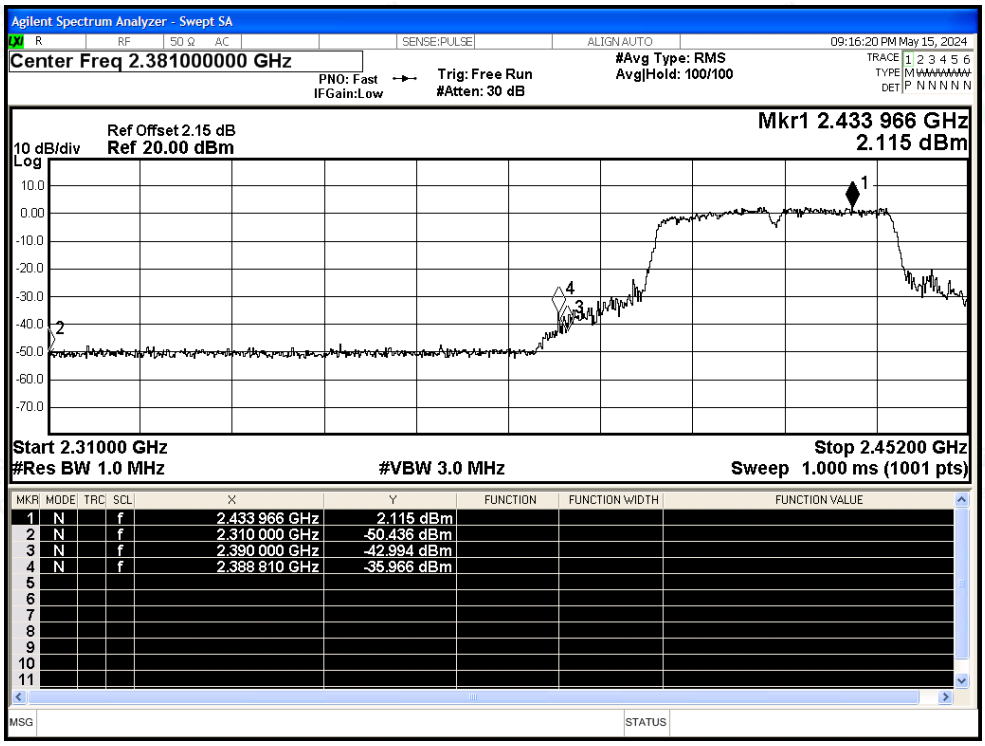



Restrict Band NVNT n20 2462MHz Average

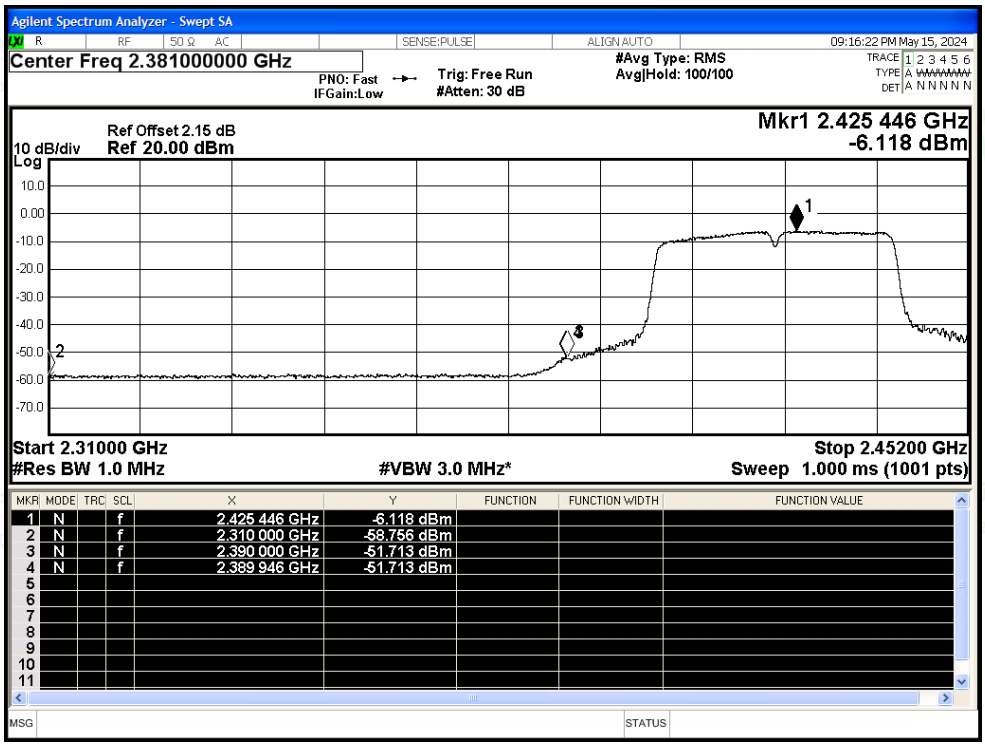



Test Graphs

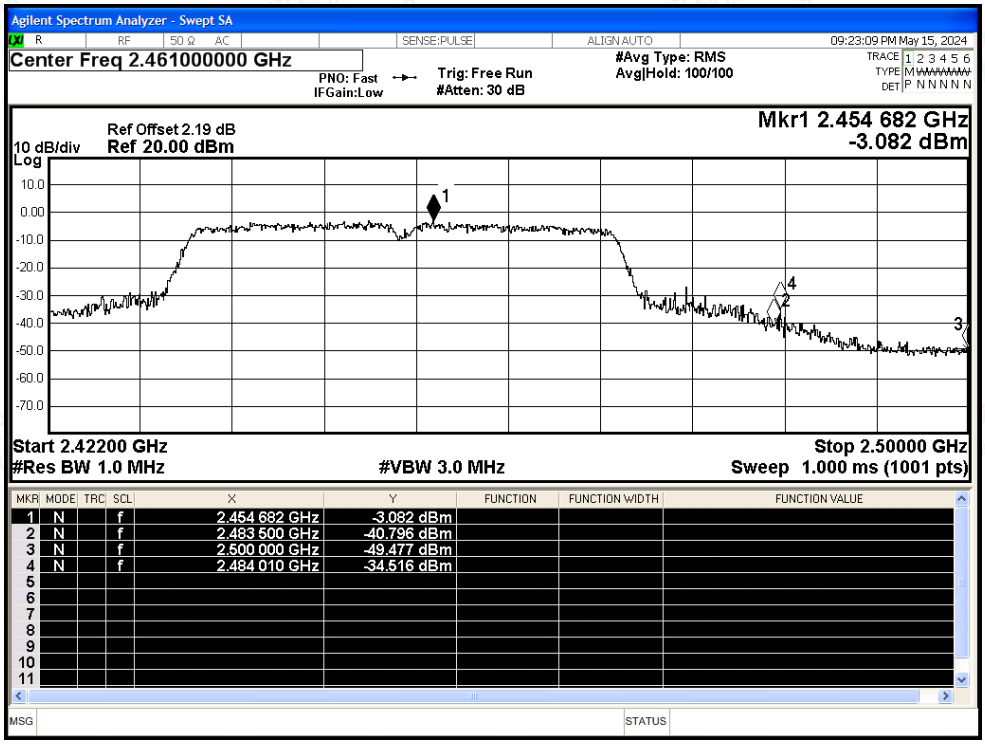
Restrict Band NVNT n40 2422MHz Peak




Restrict Band NVNT n40 2422MHz Average



Restrict Band NVNT n40 2452MHz Peak




Restrict Band NVNT n40 2452MHz Average