# Appendix A

## RF Test Data for BT (Conducted Measurement)

**Product Name: Pocket Sound**

**Test Model: MF01S**

**Environmental Conditions**

| | |
|---|---|
| Temperature: | 23.8°C |
| Relative Humidity: | 52.1% |
| ATM Pressure: | 100.0 kPa |
| Test Engineer: | Jeson Zhou |
| Supervised by: | Taylor Hu |

# A.1 -20dB Bandwidth

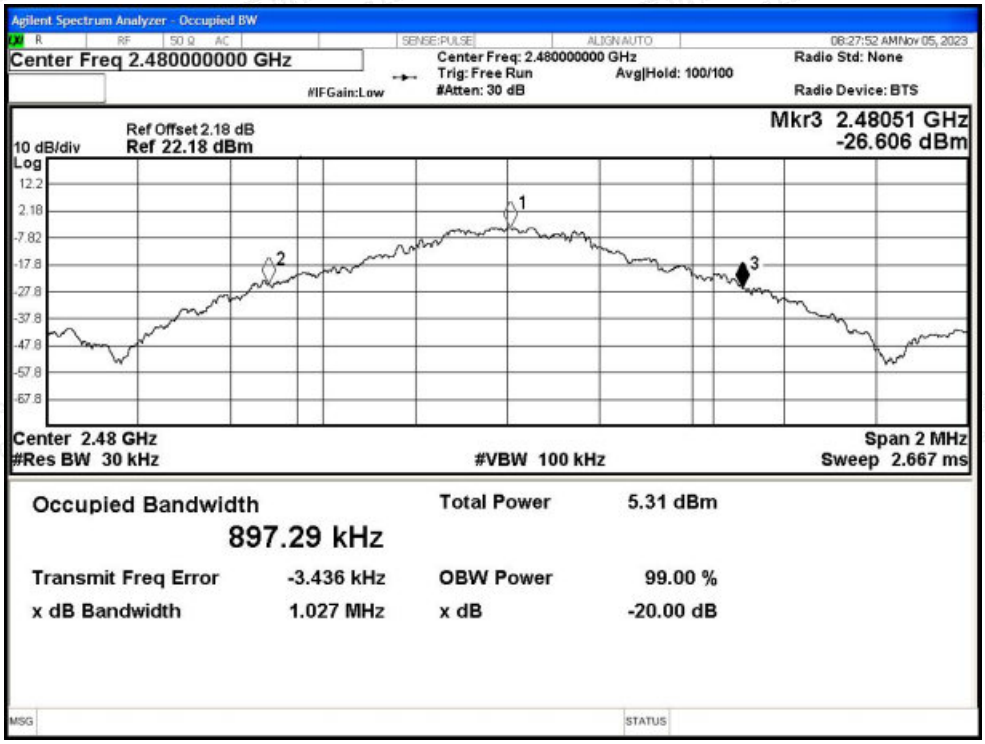
| Condition | Mode | Frequency (MHz) | Antenna | -20 dB Bandwidth (MHz) | Limit -20 dB Bandwidth (MHz) | Verdict |
|---|---|---|---|---|---|---|
| NVNT | 1-DH5 | 2402 | Ant1 | 0.998 | N/A | Pass |
| NVNT | 1-DH5 | 2441 | Ant1 | 1.005 | N/A | Pass |
| NVNT | 1-DH5 | 2480 | Ant1 | 1.027 | N/A | Pass |
| NVNT | 2-DH5 | 2402 | Ant1 | 1.317 | N/A | Pass |
| NVNT | 2-DH5 | 2441 | Ant1 | 1.29 | N/A | Pass |
| NVNT | 2-DH5 | 2480 | Ant1 | 1.307 | N/A | Pass |

Test Graphs

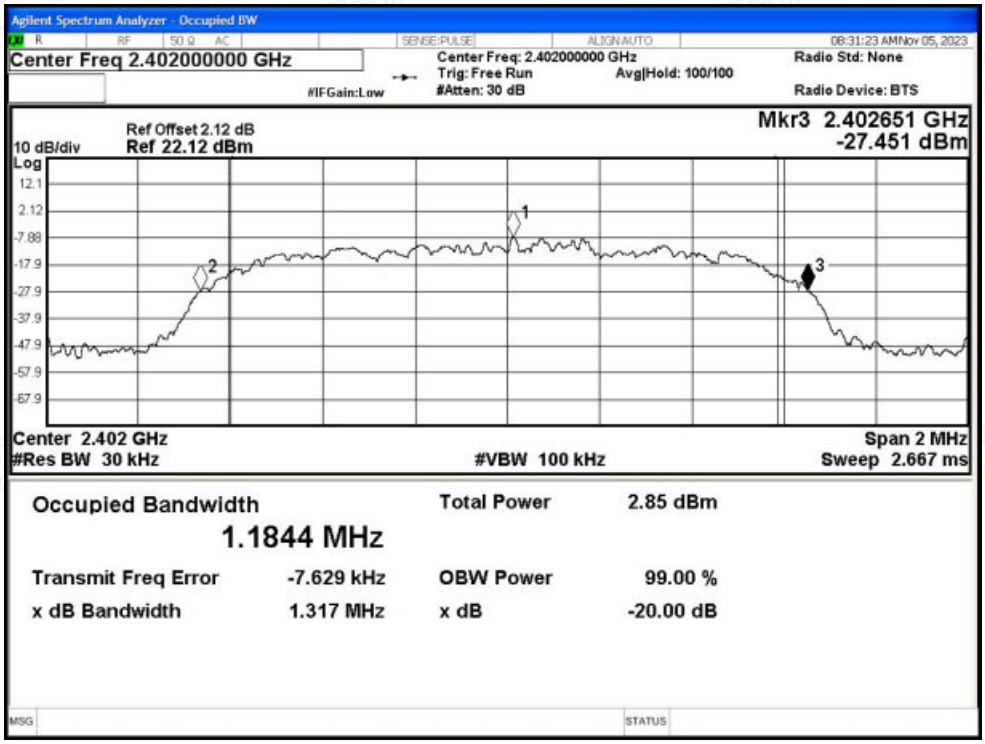
-20dB Bandwidth NVNT 1-DH5 2402MHz Ant1

-20dB Bandwidth NVNT 1-DH5 2441MHz Ant1

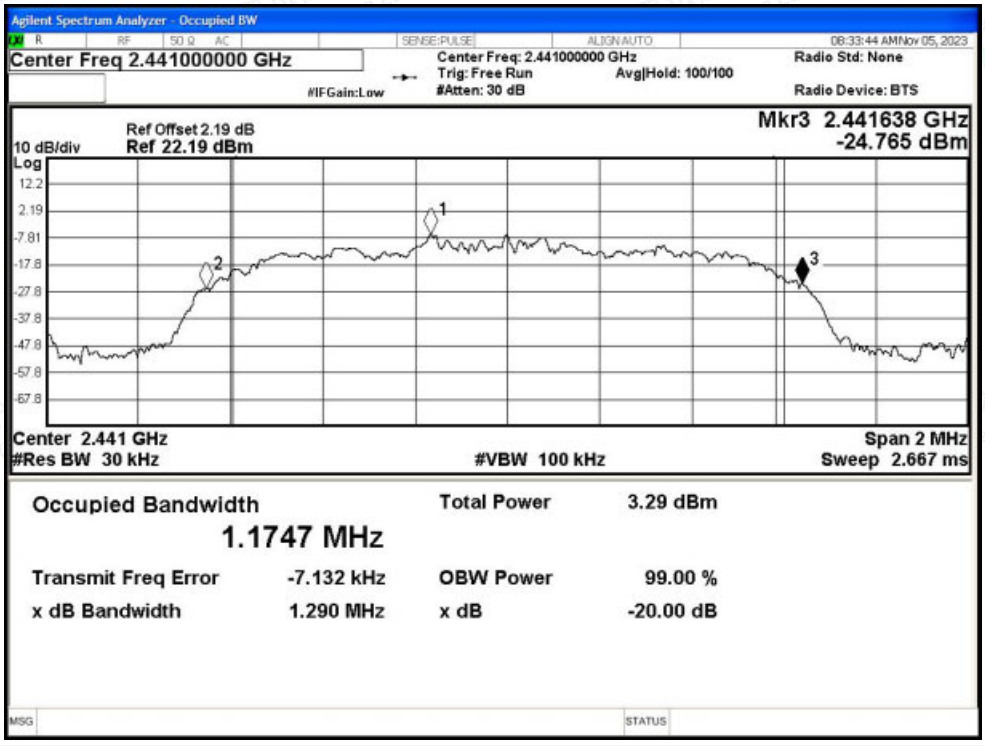
-20dB Bandwidth NVNT 1-DH5 2480MHz Ant1



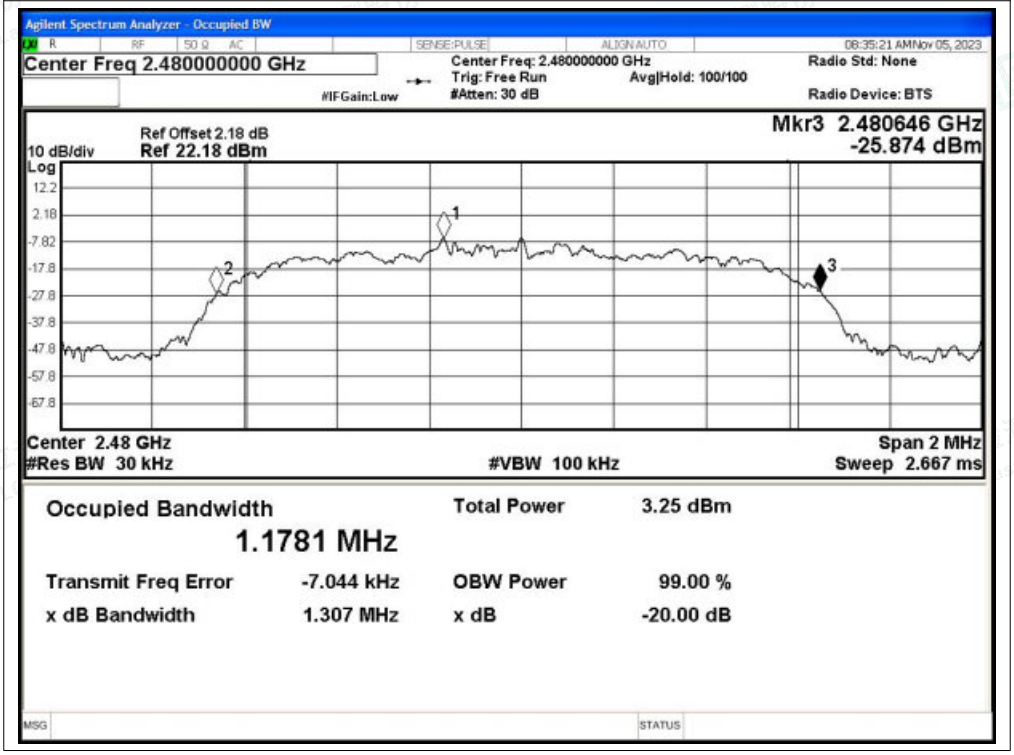

-20dB Bandwidth NVNT 2-DH5 2402MHz Ant1



-20dB Bandwidth NVNT 2-DH5 2441MHz Ant1




-20dB Bandwidth NVNT 2-DH5 2480MHz Ant1

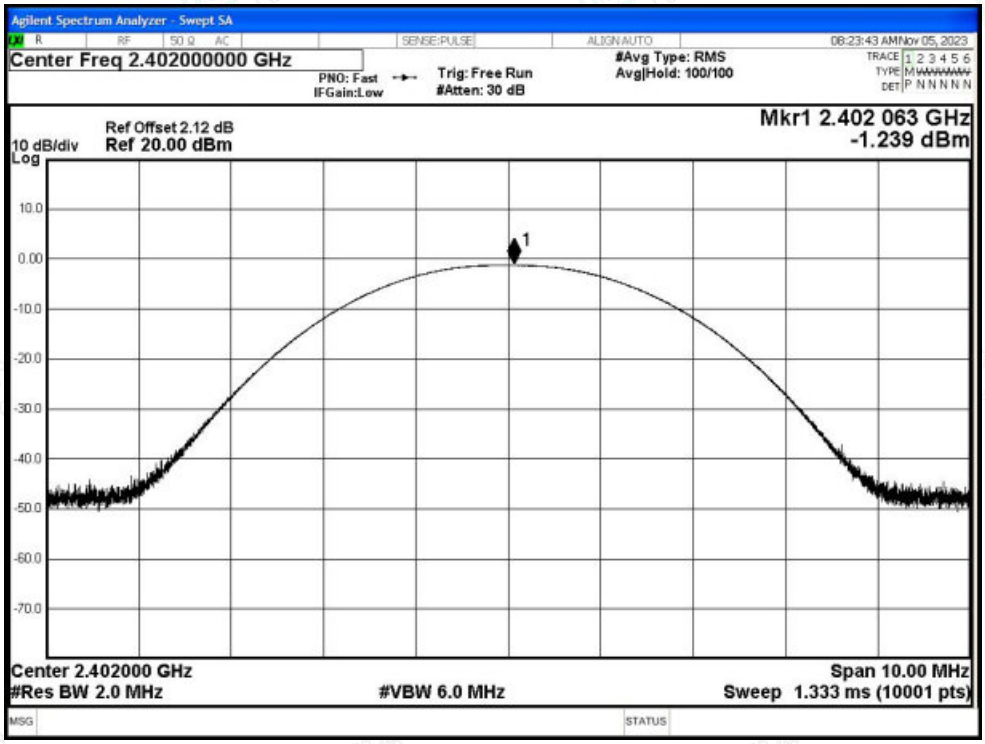


# A.2 Maximum Conducted Output Power

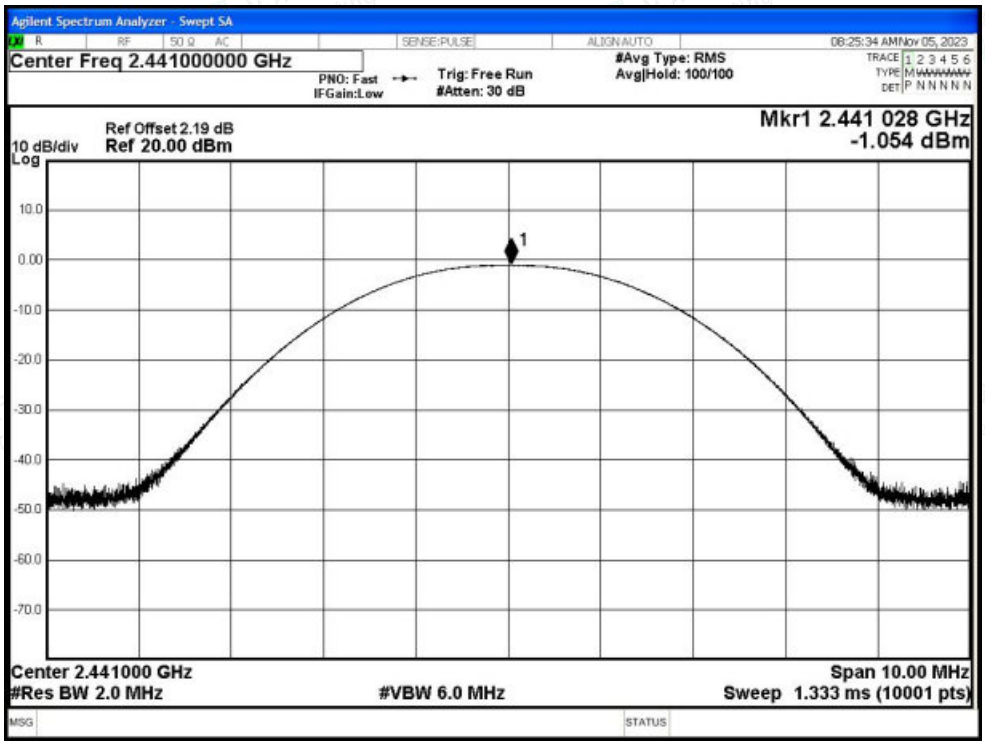
| Condition | Mode | Frequency (MHz) | Antenna | Conducted Power (dBm) | Limit (dBm) | Verdict |
|---|---|---|---|---|---|---|
| NVNT | 1-DH5 | 2402 | Ant1 | -1.24 | 21 | Pass |
| NVNT | 1-DH5 | 2441 | Ant1 | -1.05 | 21 | Pass |
| NVNT | 1-DH5 | 2480 | Ant1 | -1.04 | 21 | Pass |
| NVNT | 2-DH5 | 2402 | Ant1 | -1.36 | 21 | Pass |
| NVNT | 2-DH5 | 2441 | Ant1 | -1.24 | 21 | Pass |
| NVNT | 2-DH5 | 2480 | Ant1 | -1.22 | 21 | Pass |

Test Graphs

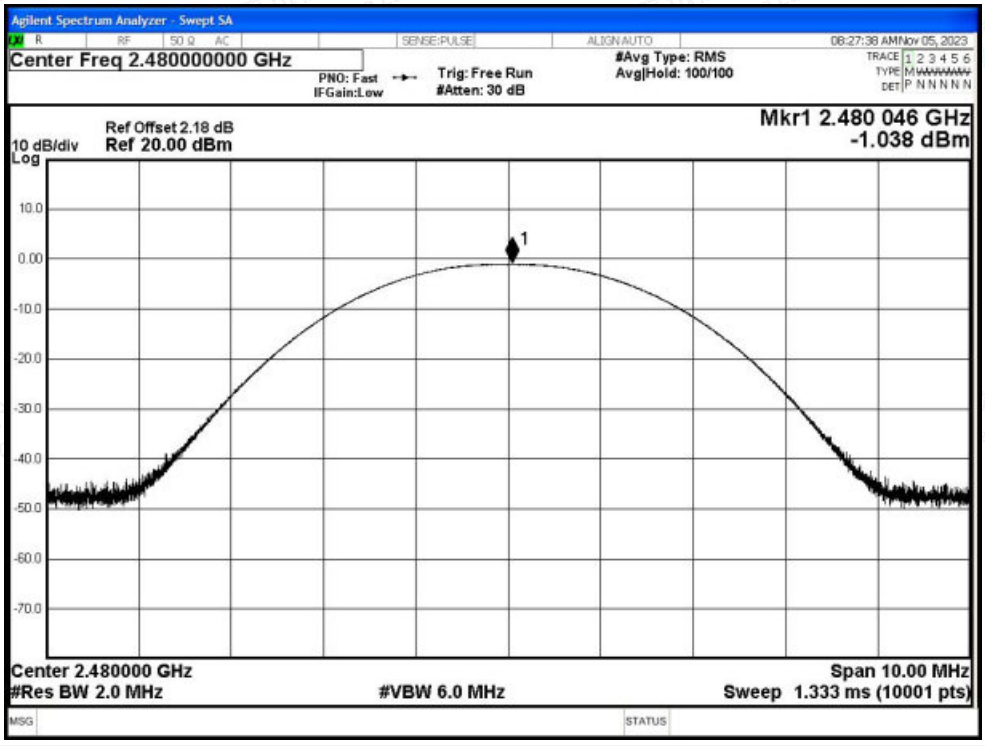
Power NVNT 1-DH5 2402MHz Ant1



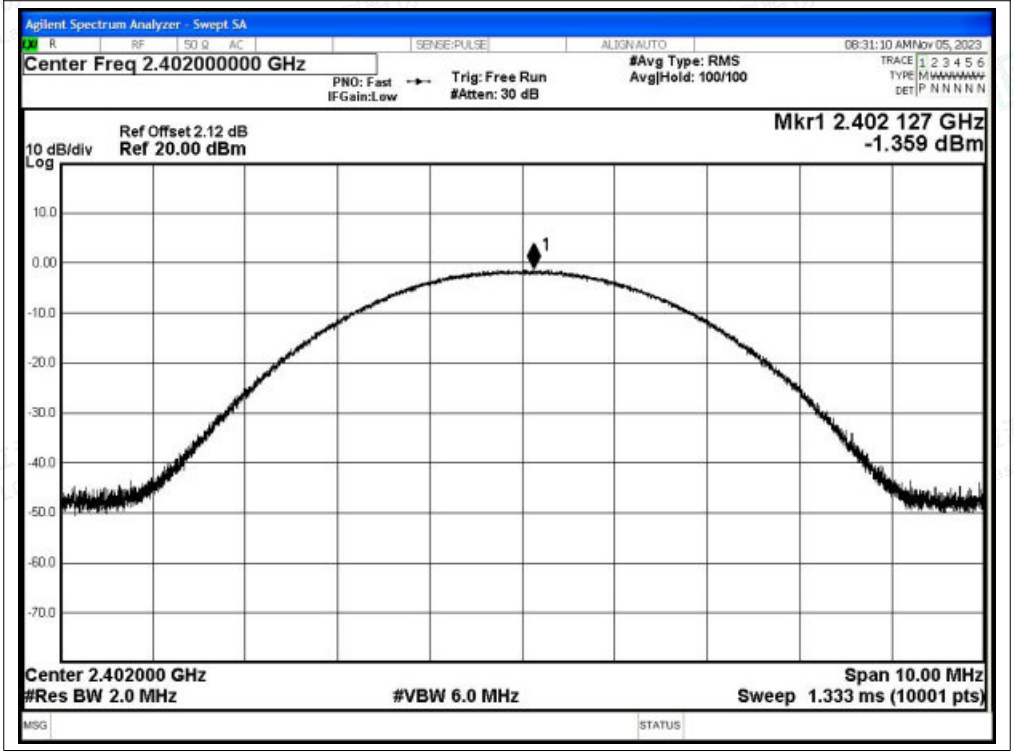

Power NVNT 1-DH5 2441MHz Ant1



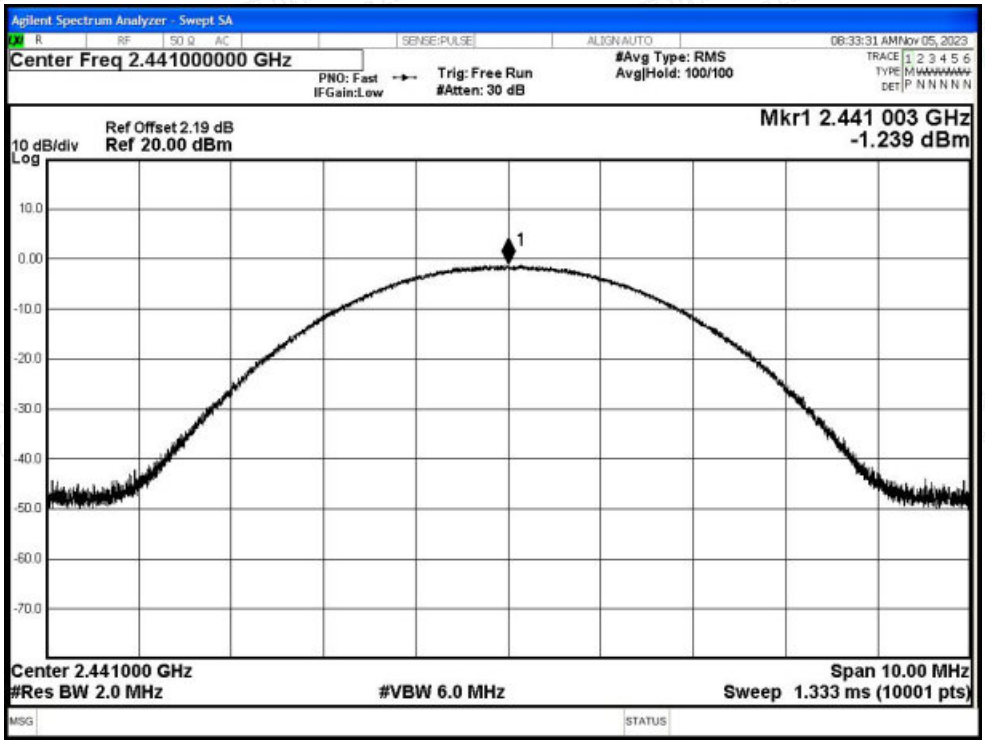
Power NVNT 1-DH5 2480MHz Ant1



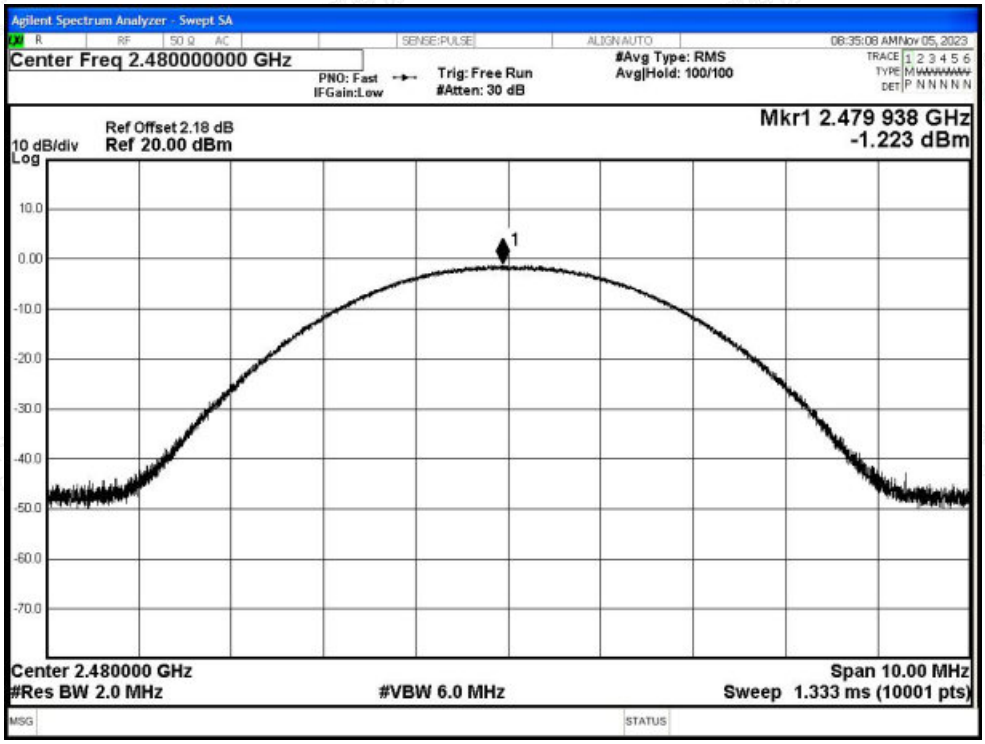

Power NVNT 2-DH5 2402MHz Ant1



Power NVNT 2-DH5 2441MHz Ant1




Power NVNT 2-DH5 2480MHz Ant1

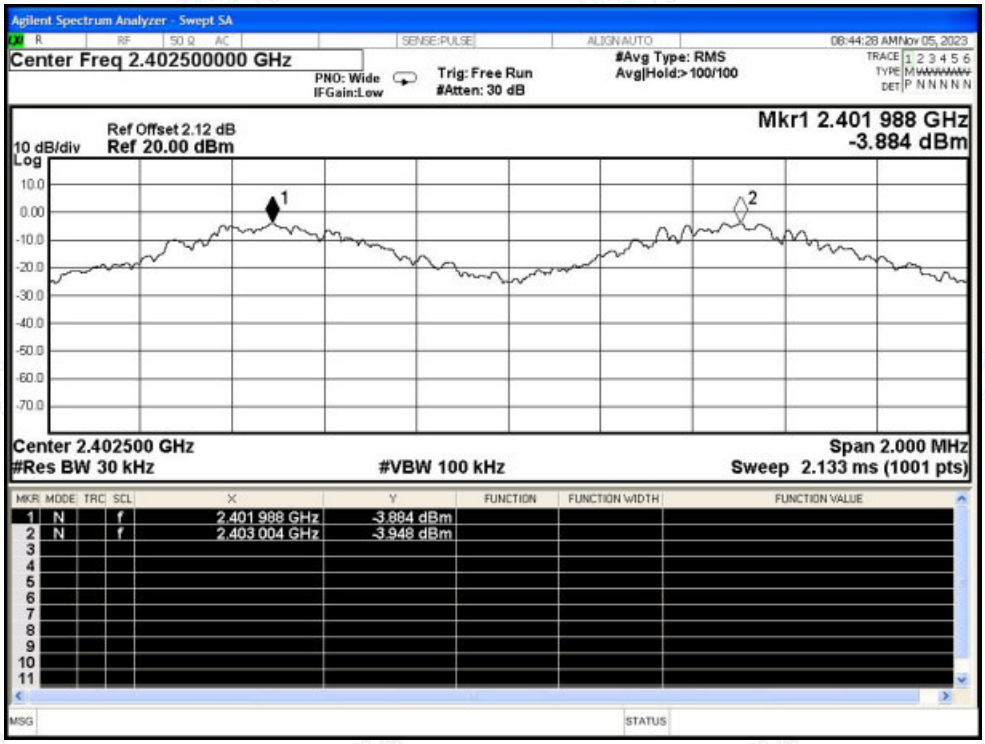


# A.3 Carrier Frequencies Separation

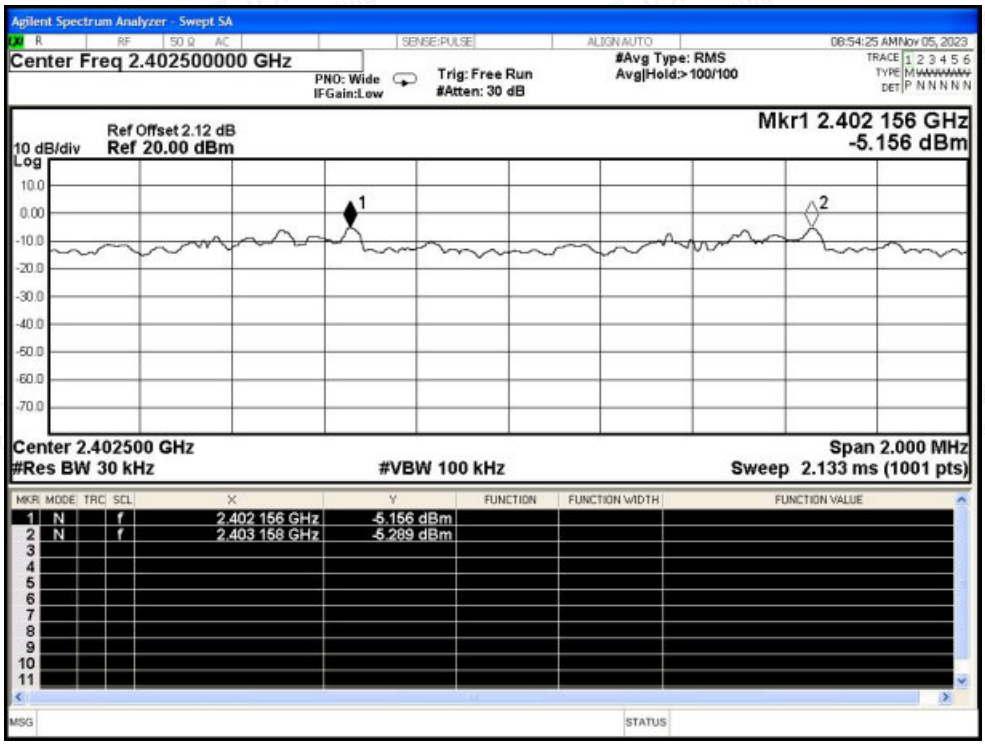
| Condition | Mode | Antenna | Hopping Freq1 (MHz) | Hopping Freq2 (MHz) | HFS (MHz) | Limit (MHz) | Verdict |
|---|---|---|---|---|---|---|---|
| NVNT | 1-DH5 | Ant1 | 2401.988 | 2403.004 | 1.016 | 0.685 | Pass |
| NVNT | 2-DH5 | Ant1 | 2402.156 | 2403.158 | 1.002 | 0.878 | Pass |

Test Graphs

CFS NVNT 1-DH5 2402MHz Ant1




CFS NVNT 2-DH5 2402MHz Ant1

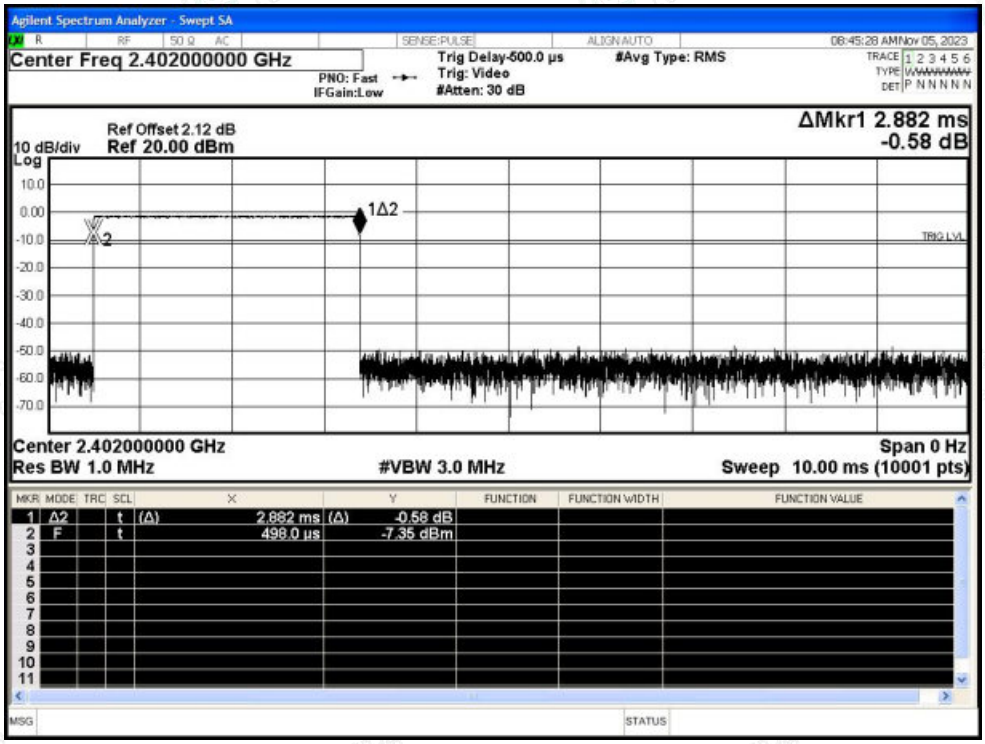


# A.4 Dwell Time

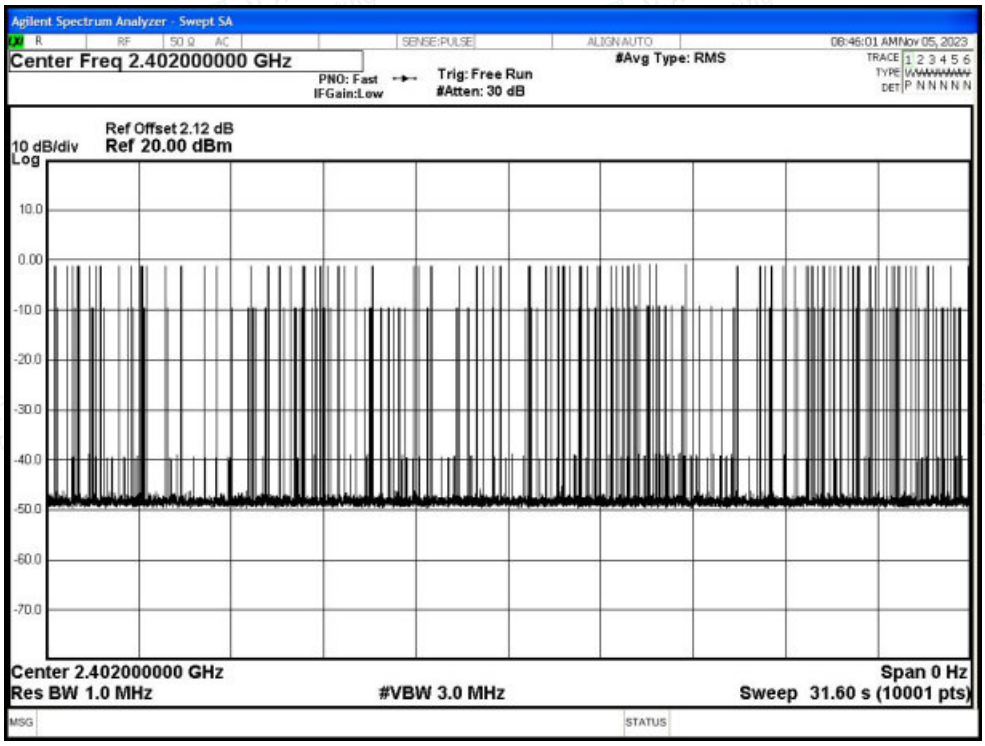
| Condition | Mode | Frequency (MHz) | Antenna | Pulse Time (ms) | Total Dwell Time (ms) | Burst Count | Period Time (ms) | Limit (ms) | Verdict |
|---|---|---|---|---|---|---|---|---|---|
| NVNT | 1-DH5 | 2402 | Ant1 | 2.882 | 299.728 | 104 | 31600 | 400 | Pass |
| NVNT | 2-DH5 | 2402 | Ant1 | 2.885 | 279.845 | 97 | 31600 | 400 | Pass |

Test Graphs

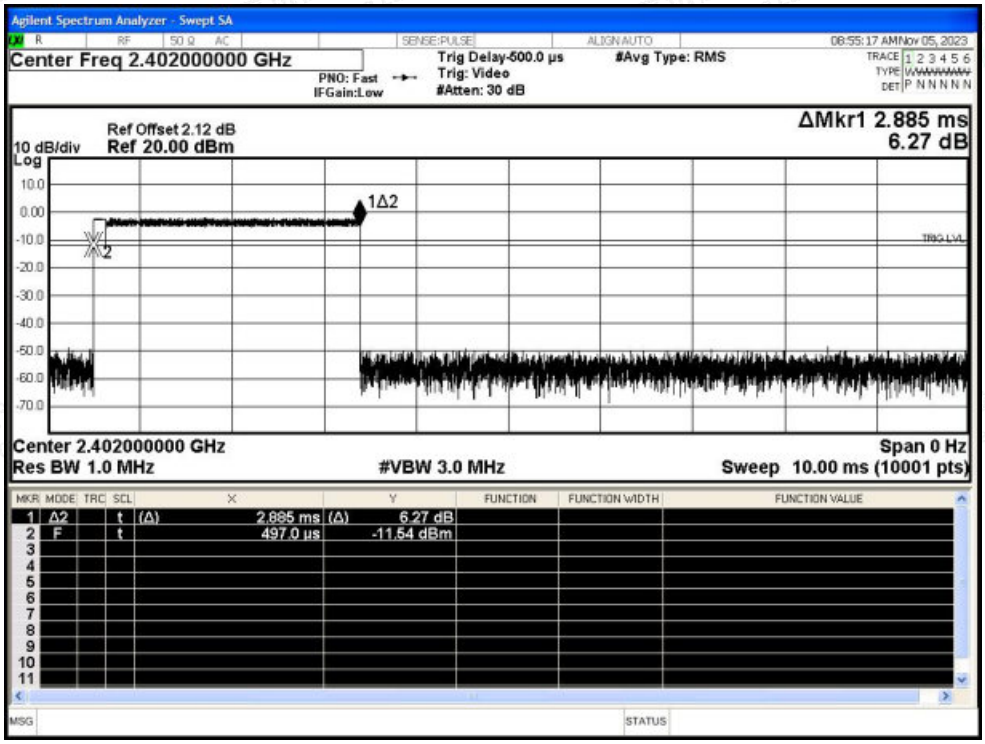
Dwell NVNT 1-DH5 2402MHz Ant1 One Burst



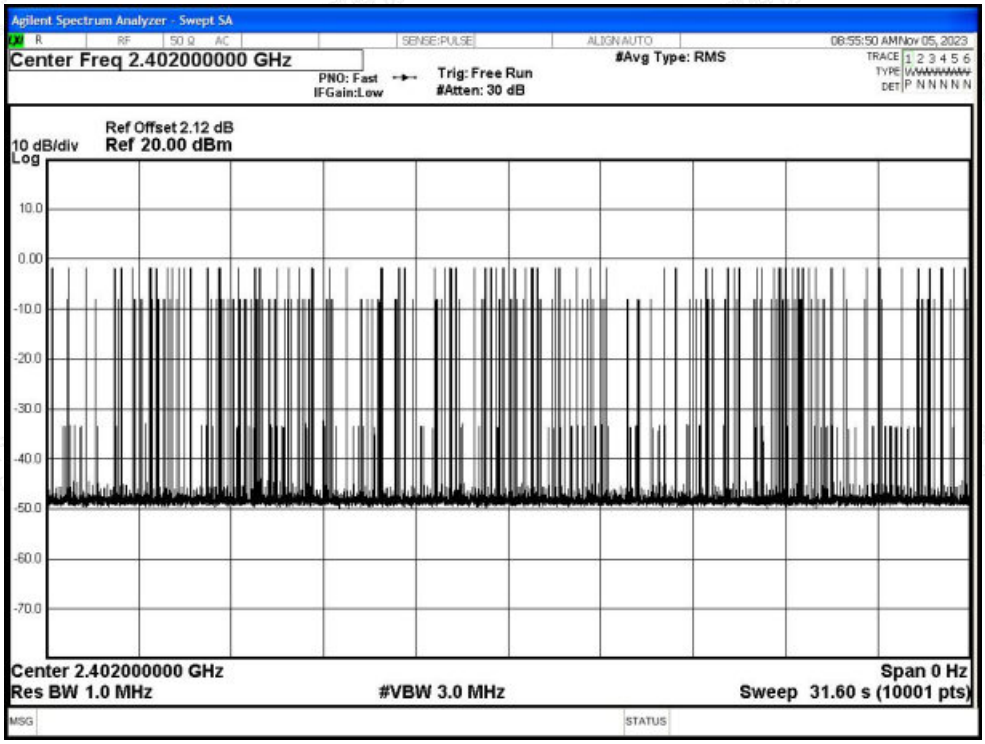

Dwell NVNT 1-DH5 2402MHz Ant1 Accumulated



Dwell NVNT 2-DH5 2402MHz Ant1 One Burst




Dwell NVNT 2-DH5 2402MHz Ant1 Accumulated

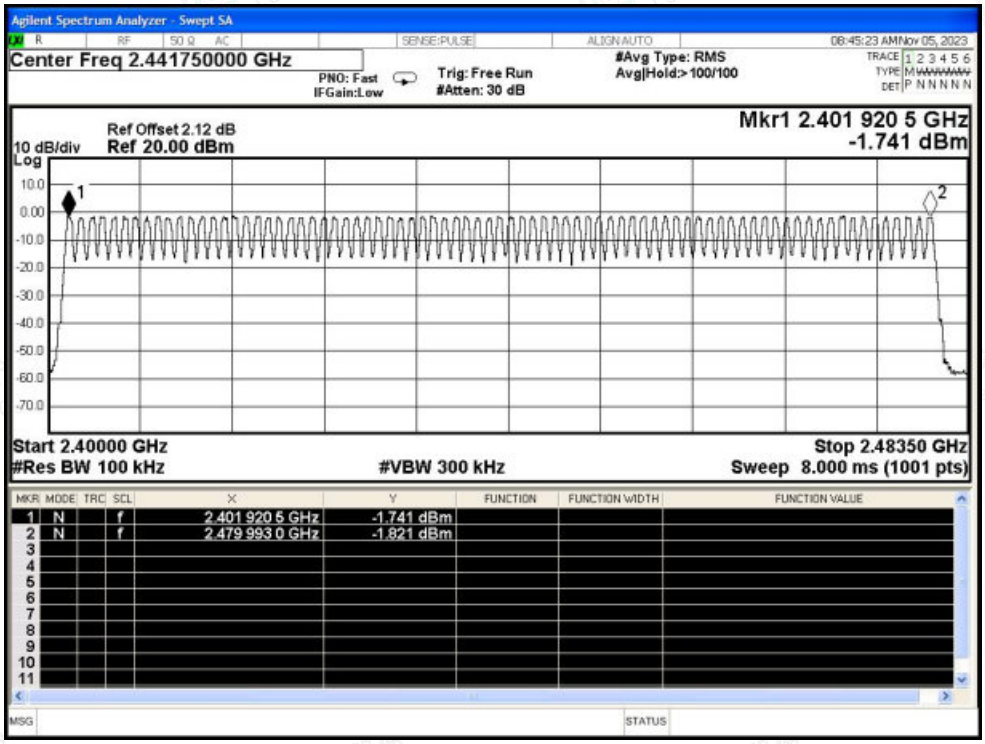


# A.5 Number of Hopping Channel

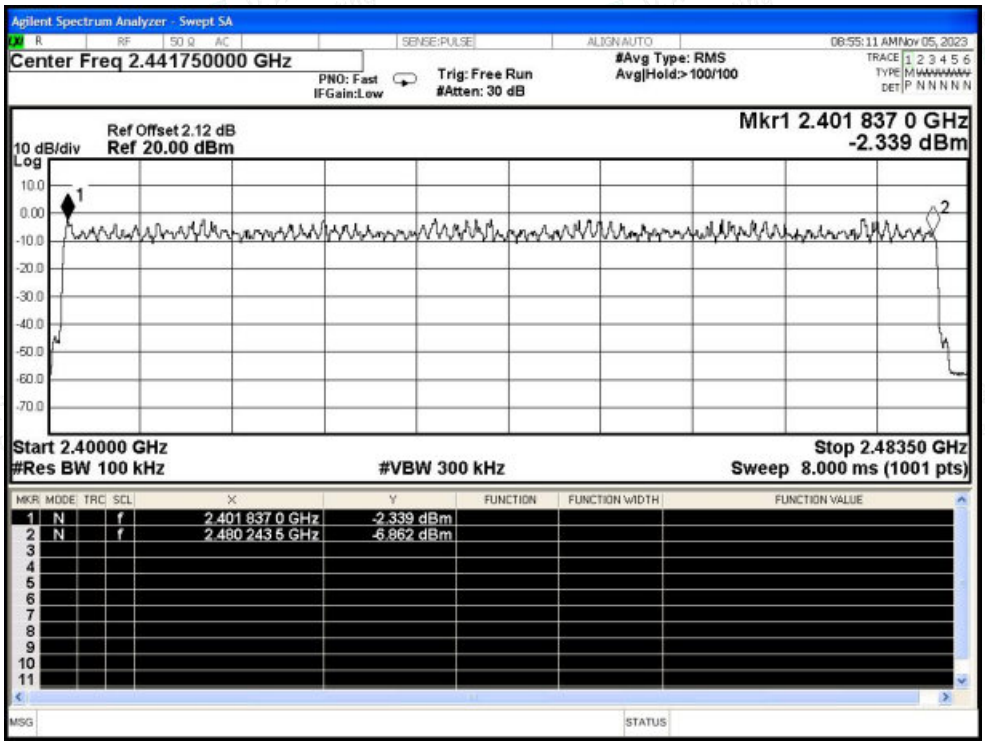
| Condition | Mode | Antenna | Hopping Number | Limit | Verdict |
|---|---|---|---|---|---|
| NVNT | 1-DH5 | Ant1 | 79 | 15 | Pass |
| NVNT | 2-DH5 | Ant1 | 79 | 15 | Pass |

Test Graphs

Hopping No. NVNT 1-DH5 2402MHz Ant1




Hopping No. NVNT 2-DH5 2402MHz Ant1

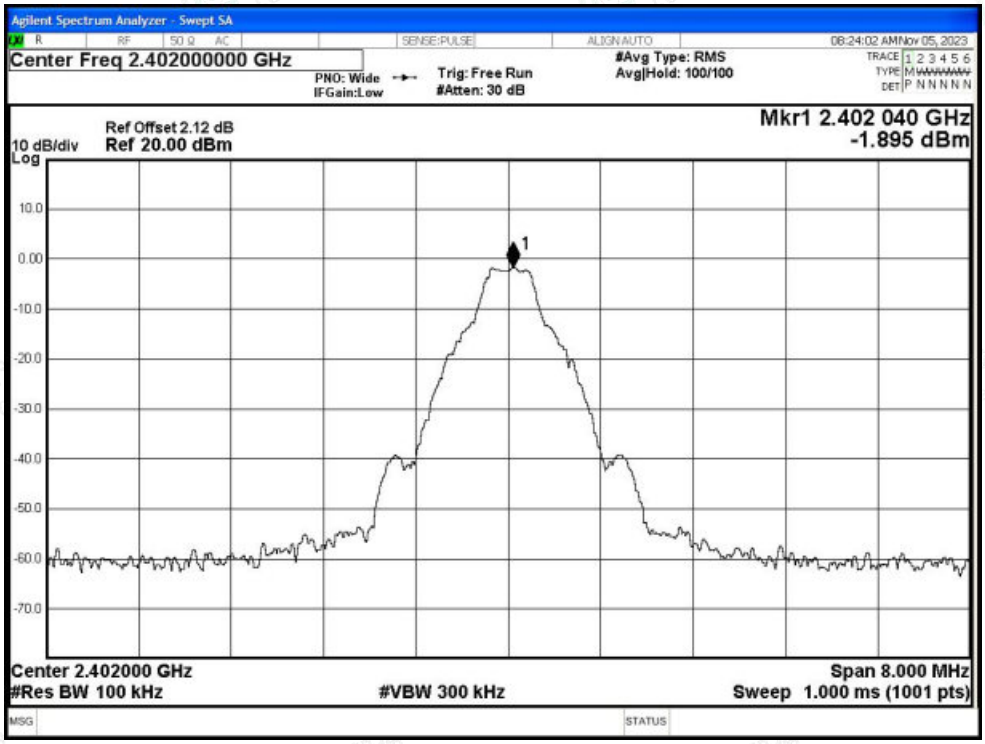


# A.6 Band Edge

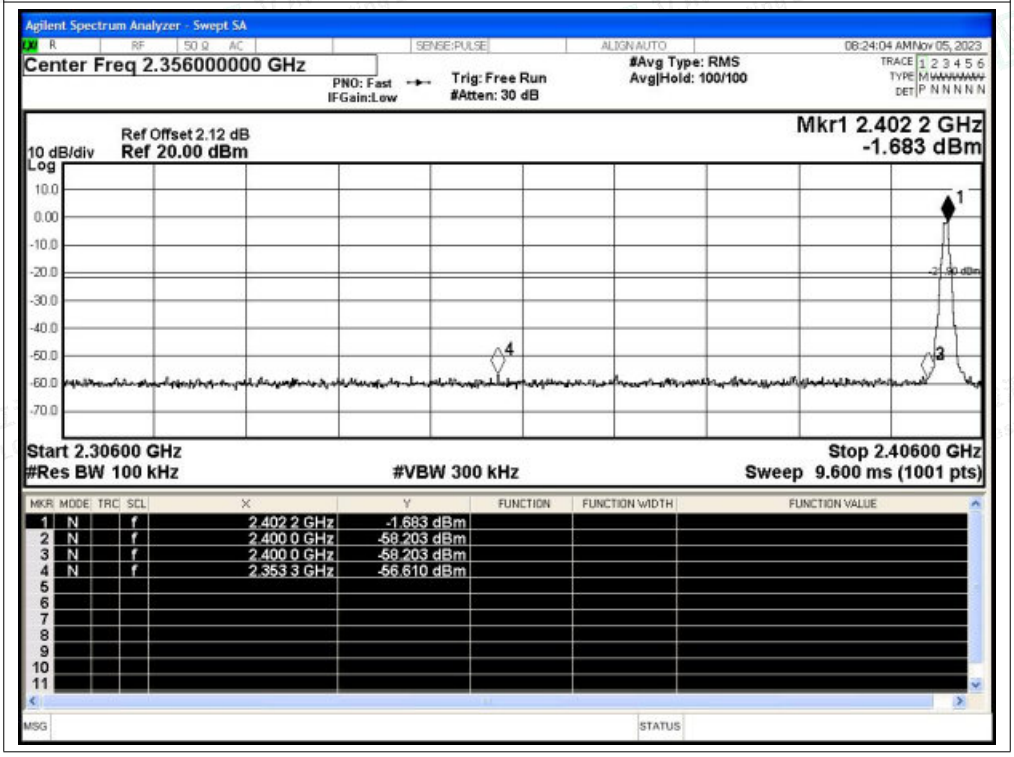
| Condition | Mode | Frequency (MHz) | Antenna | Hopping Mode | Max Value (dBc) | Limit (dBc) | Verdict |
|---|---|---|---|---|---|---|---|
| NVNT | 1-DH5 | 2402 | Ant1 | No-Hopping | -54.72 | -20 | Pass |
| NVNT | 1-DH5 | 2480 | Ant1 | No-Hopping | -56.05 | -20 | Pass |
| NVNT | 2-DH5 | 2402 | Ant1 | No-Hopping | -52.96 | -20 | Pass |
| NVNT | 2-DH5 | 2480 | Ant1 | No-Hopping | -52.36 | -20 | Pass |

Test Graphs

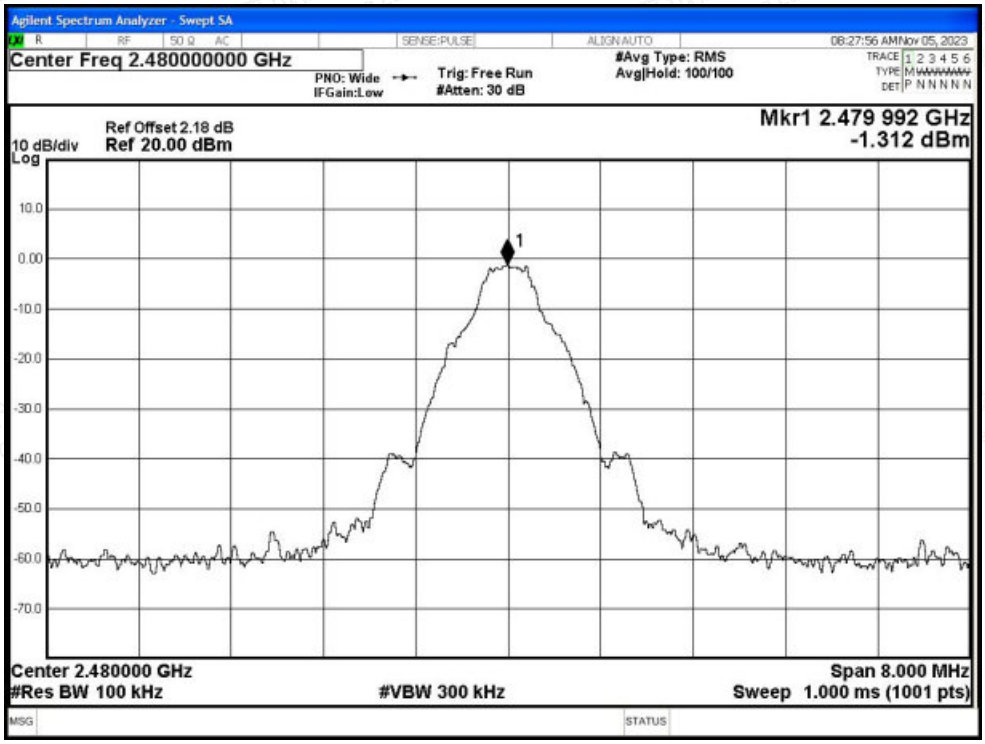
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Ref



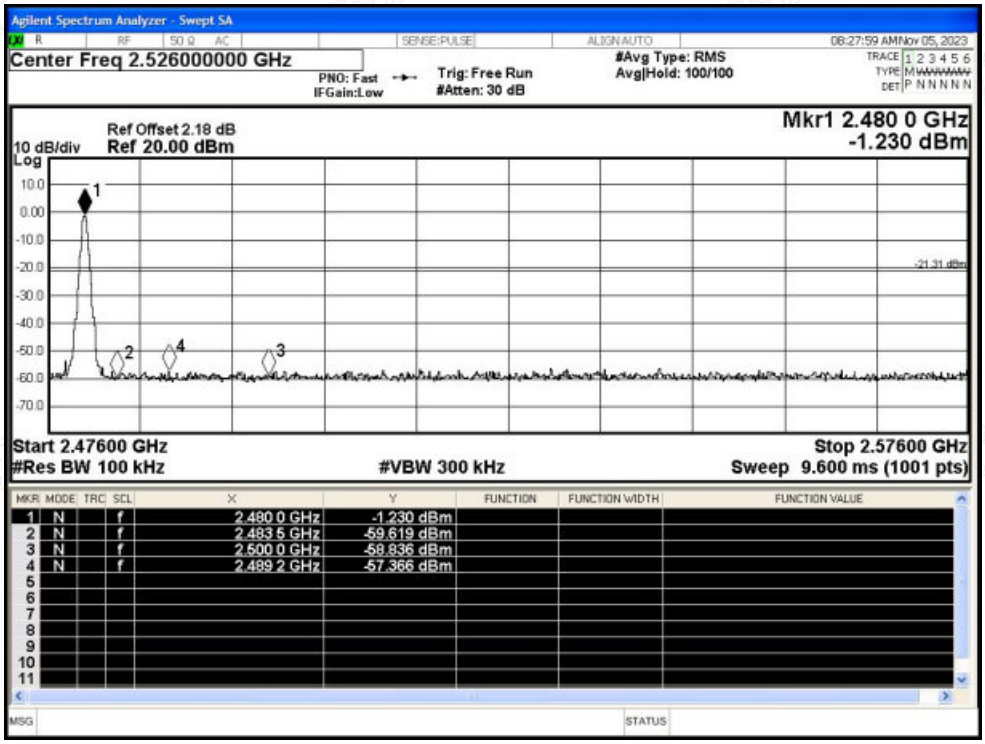

Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Emission



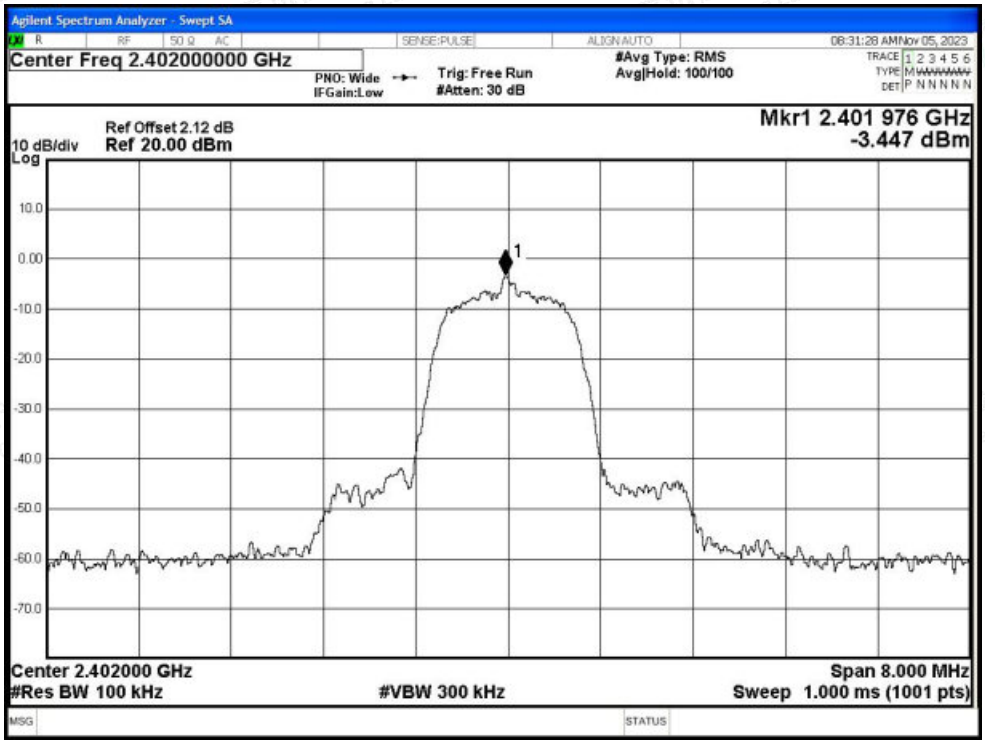
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref



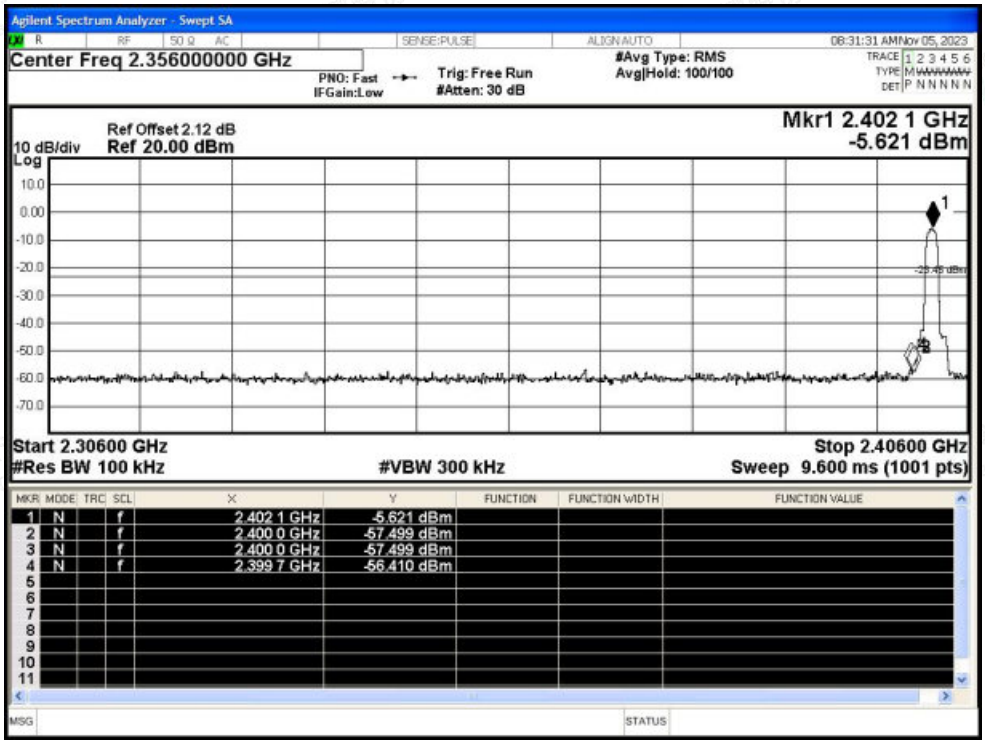

Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Emission



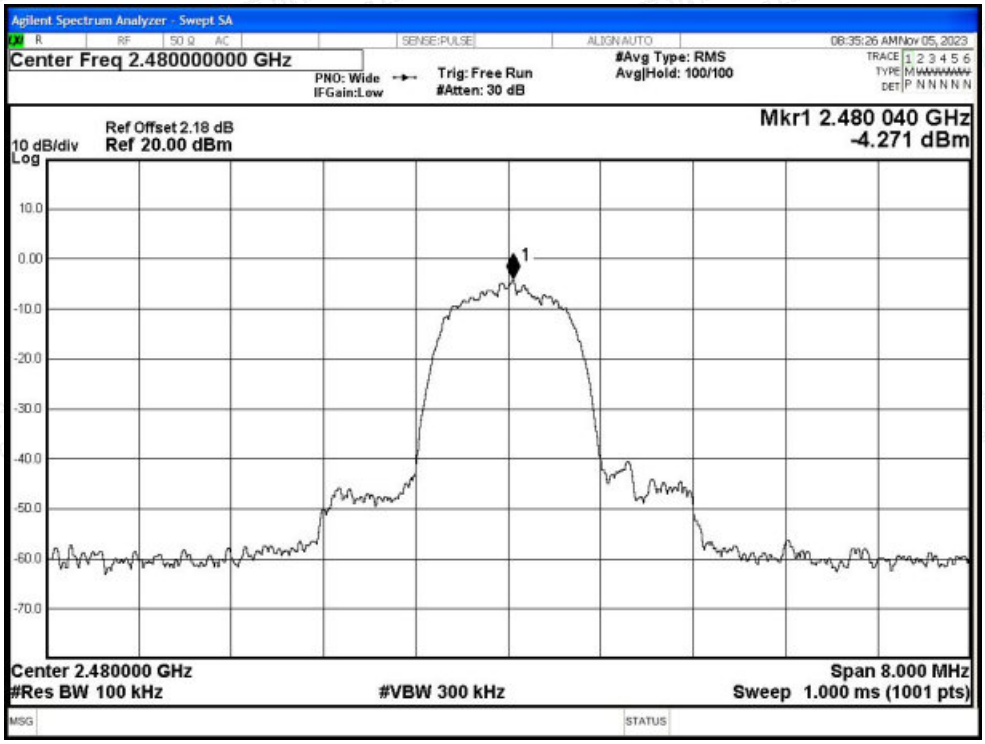
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Ref



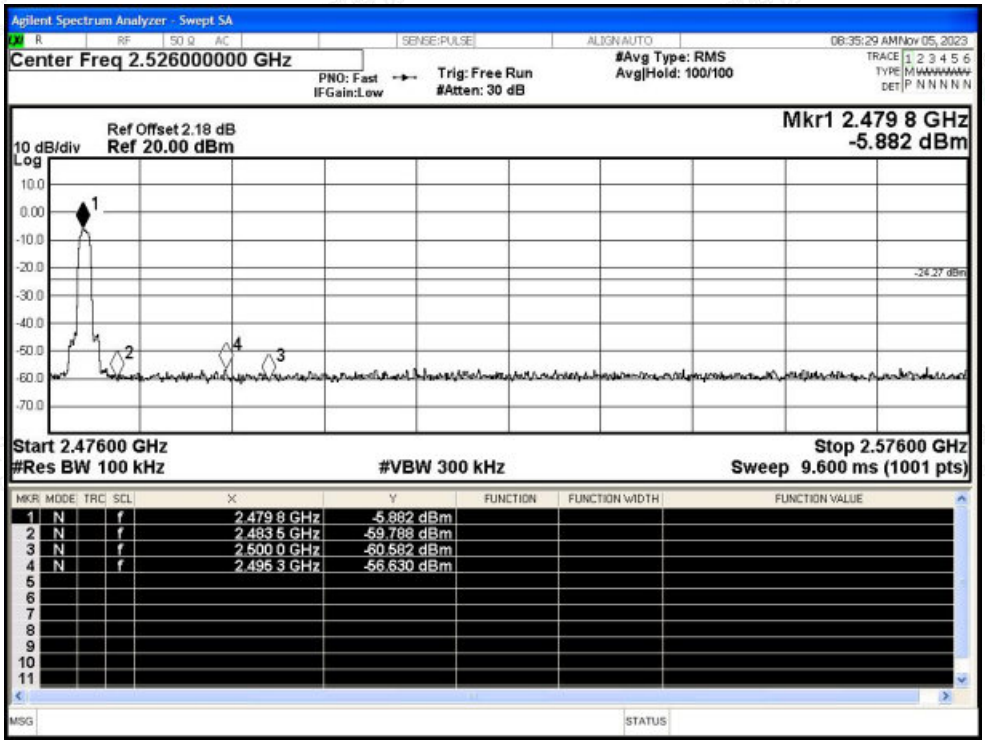

Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Emission



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




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

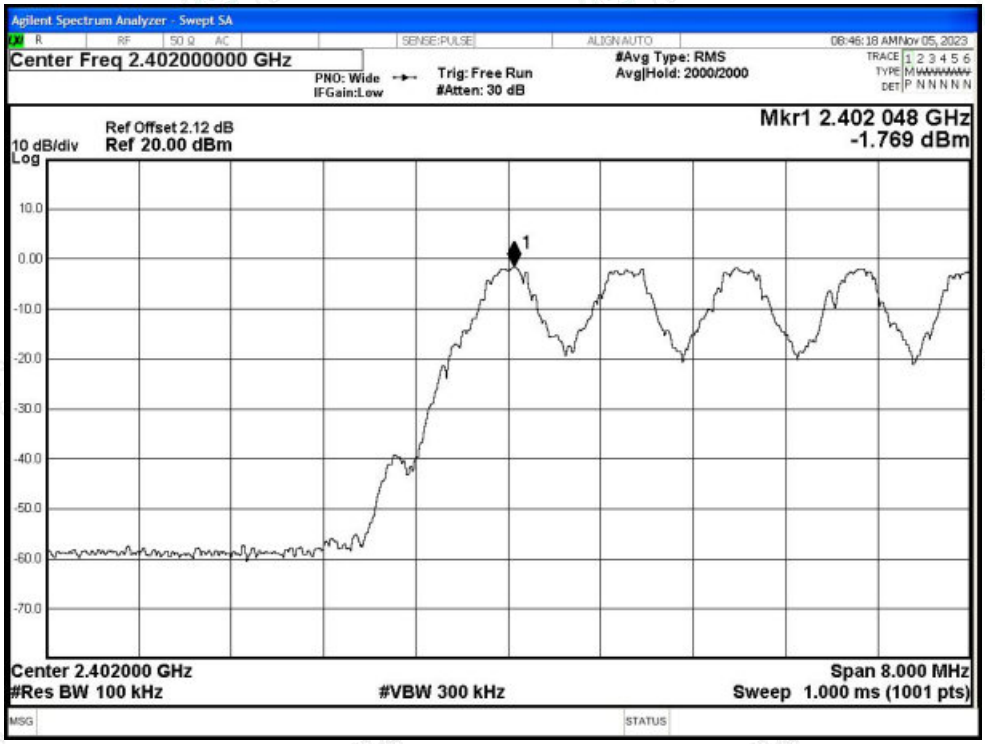


## (Hopping)

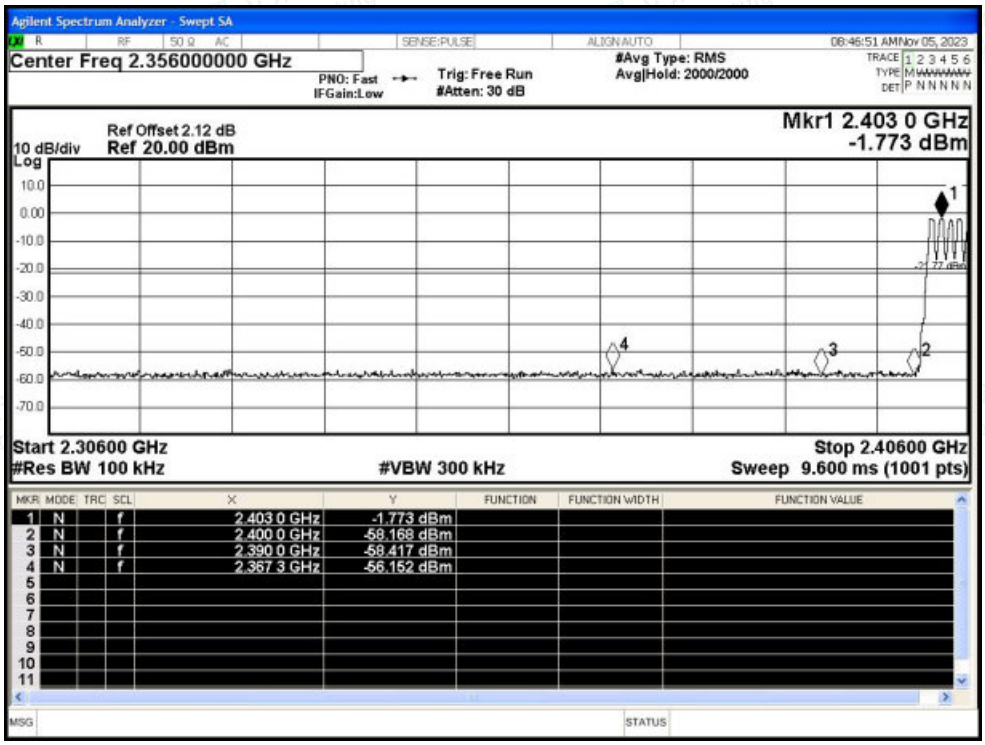
| Condition | Mode | Frequency (MHz) | Antenna | Hopping Mode | Max Value (dBc) | Limit (dBc) | Verdict |
|---|---|---|---|---|---|---|---|
| NVNT | 1-DH5 | 2402 | Ant1 | Hopping | -54.38 | -20 | Pass |
| NVNT | 1-DH5 | 2480 | Ant1 | Hopping | -54.24 | -20 | Pass |
| NVNT | 2-DH5 | 2402 | Ant1 | Hopping | -53.72 | -20 | Pass |
| NVNT | 2-DH5 | 2480 | Ant1 | Hopping | -53.59 | -20 | Pass |

Test Graphs

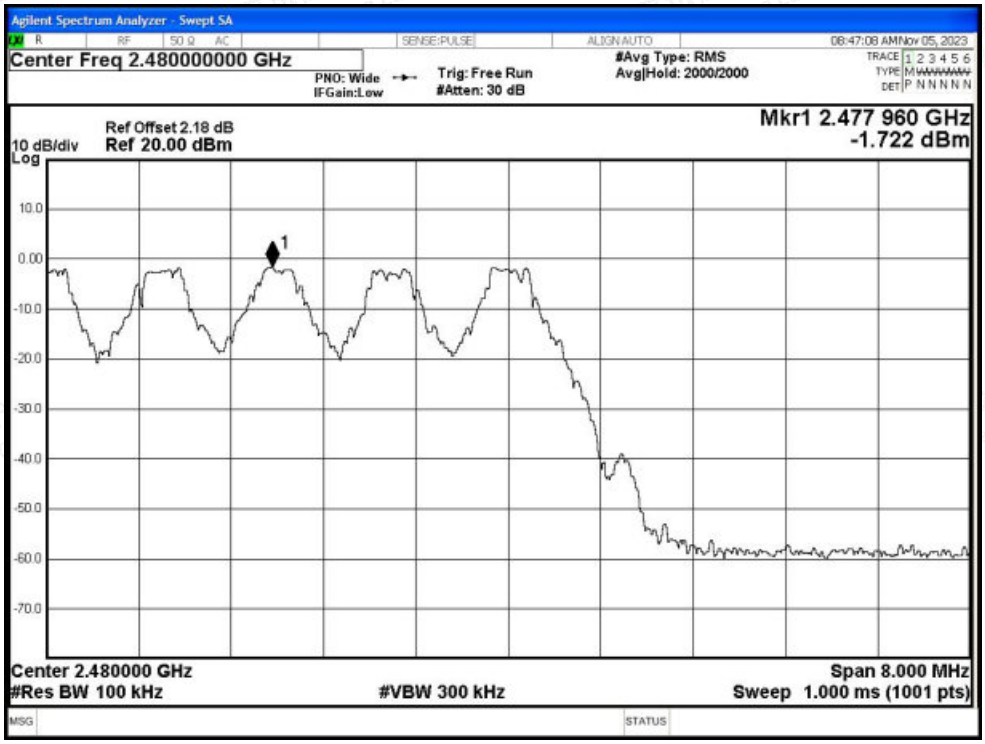
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Ref



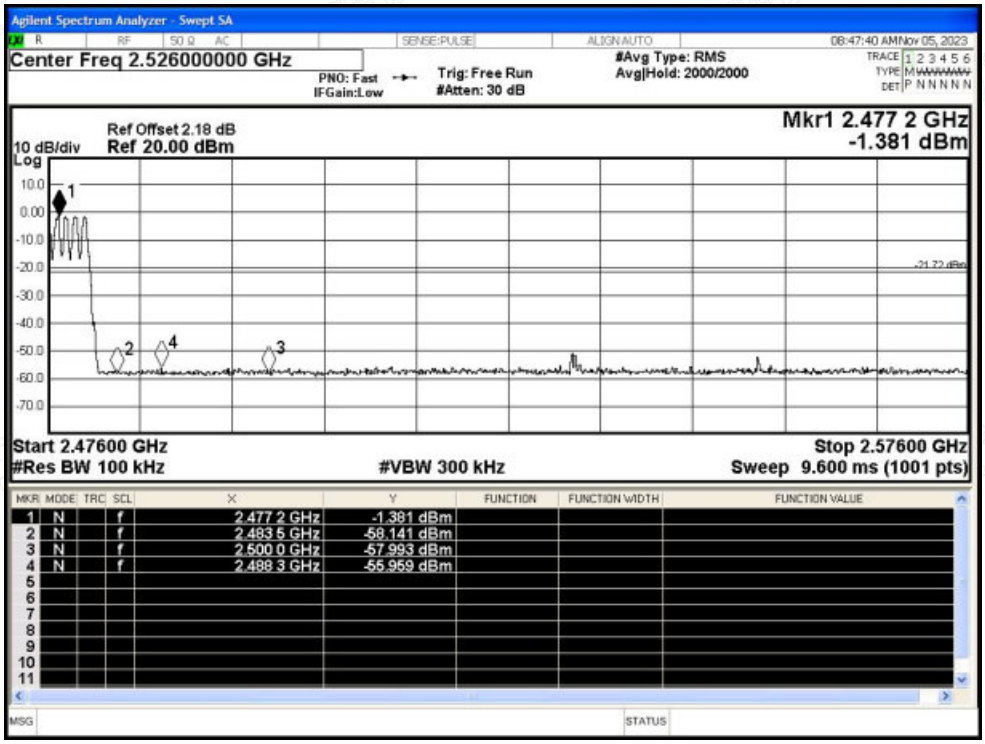

Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission



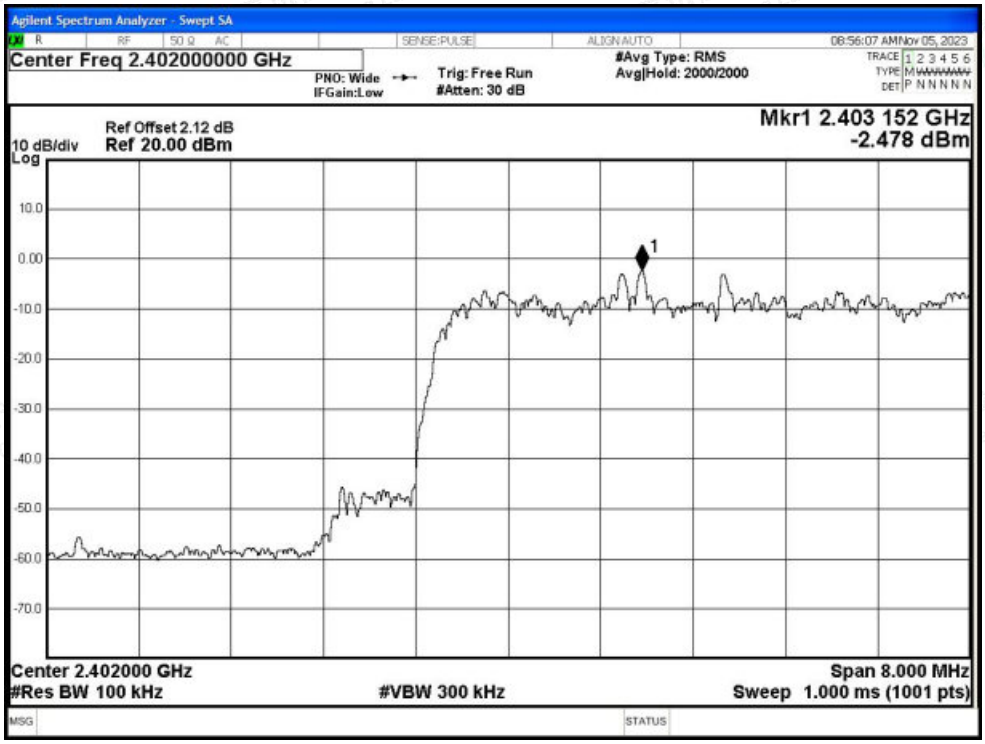
Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Ref



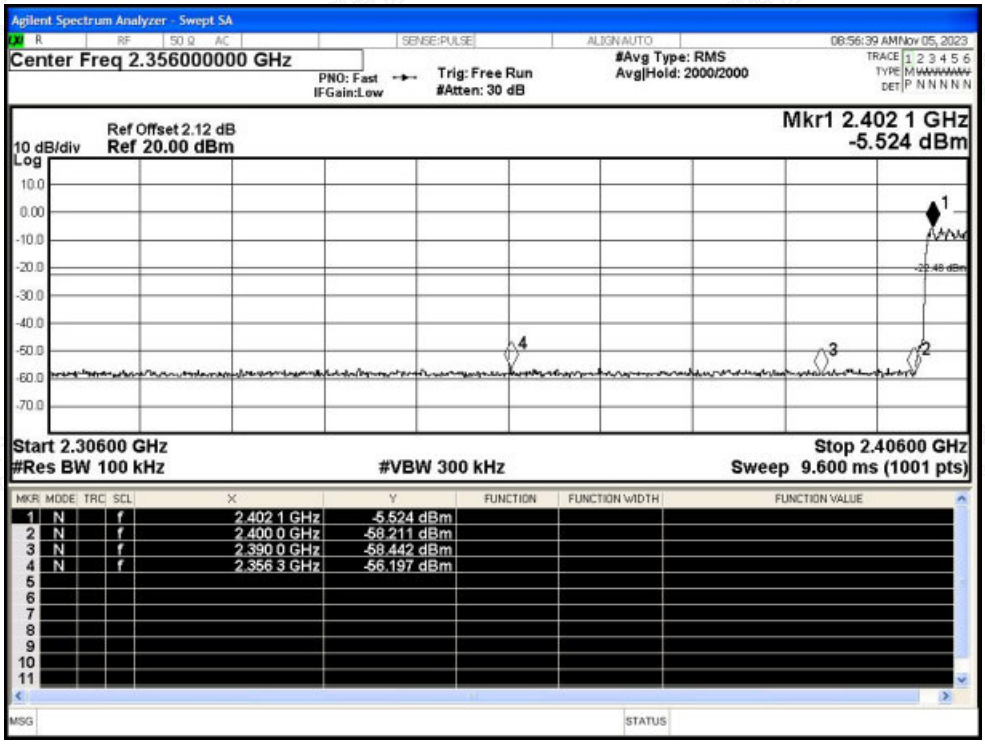

Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Emission



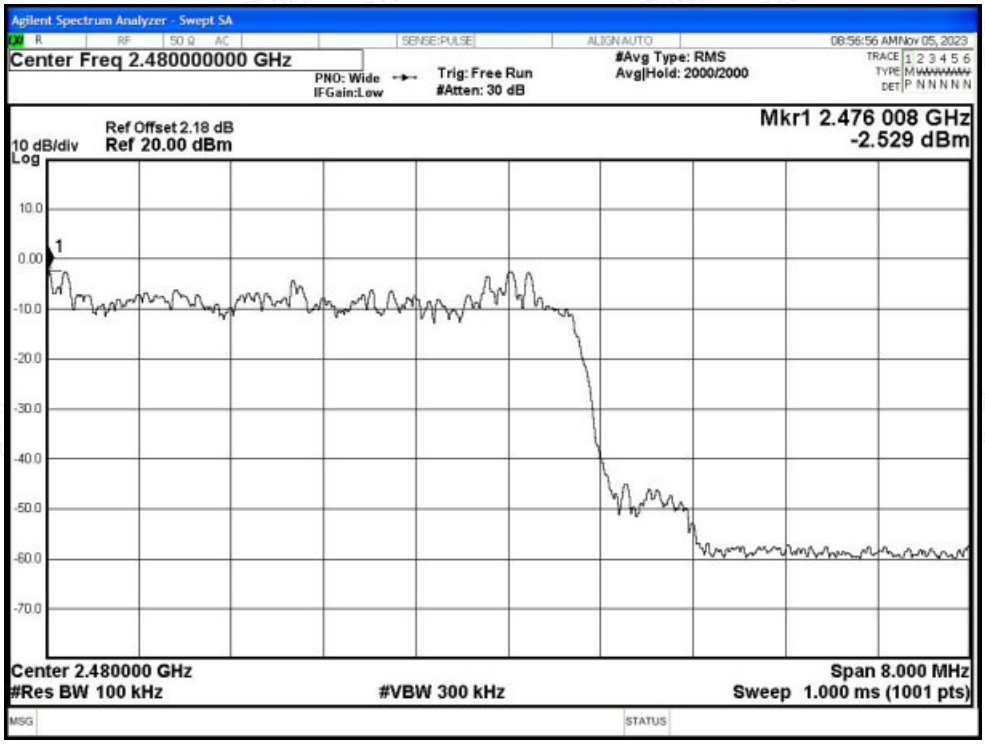
Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Ref



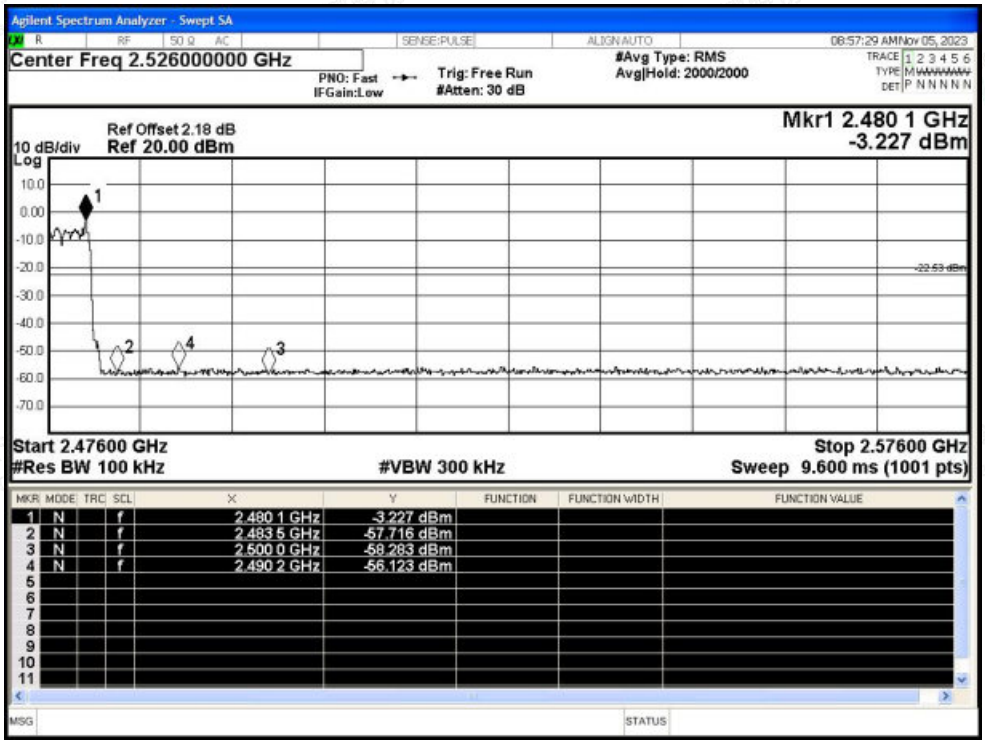

Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Emission



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




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

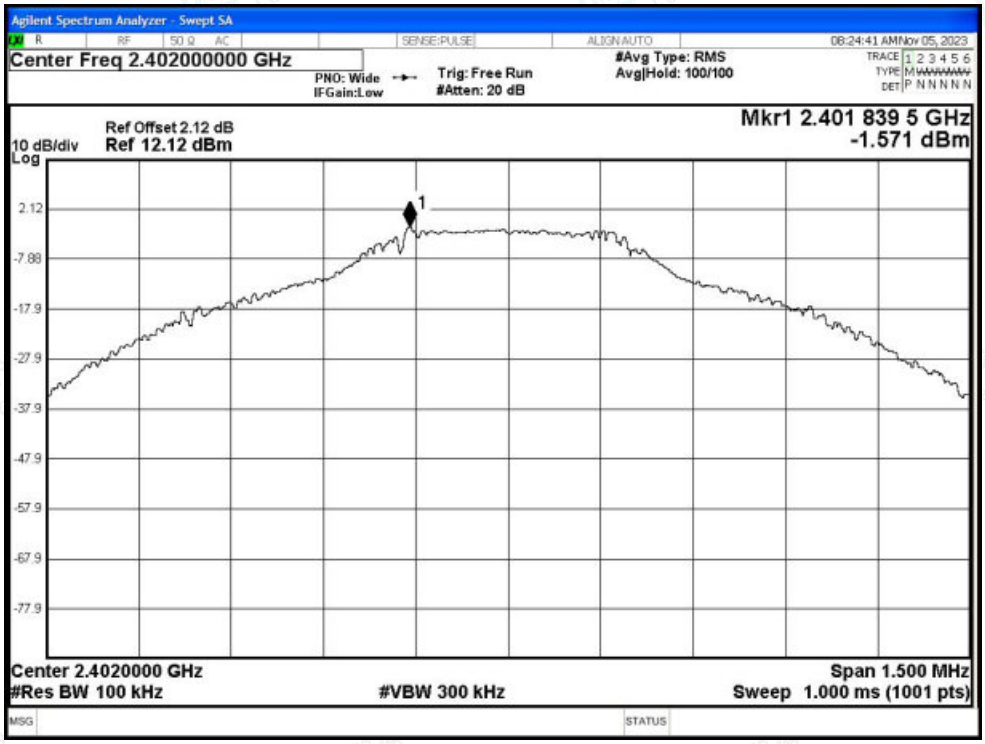


# A.7 Conducted RF Spurious Emission

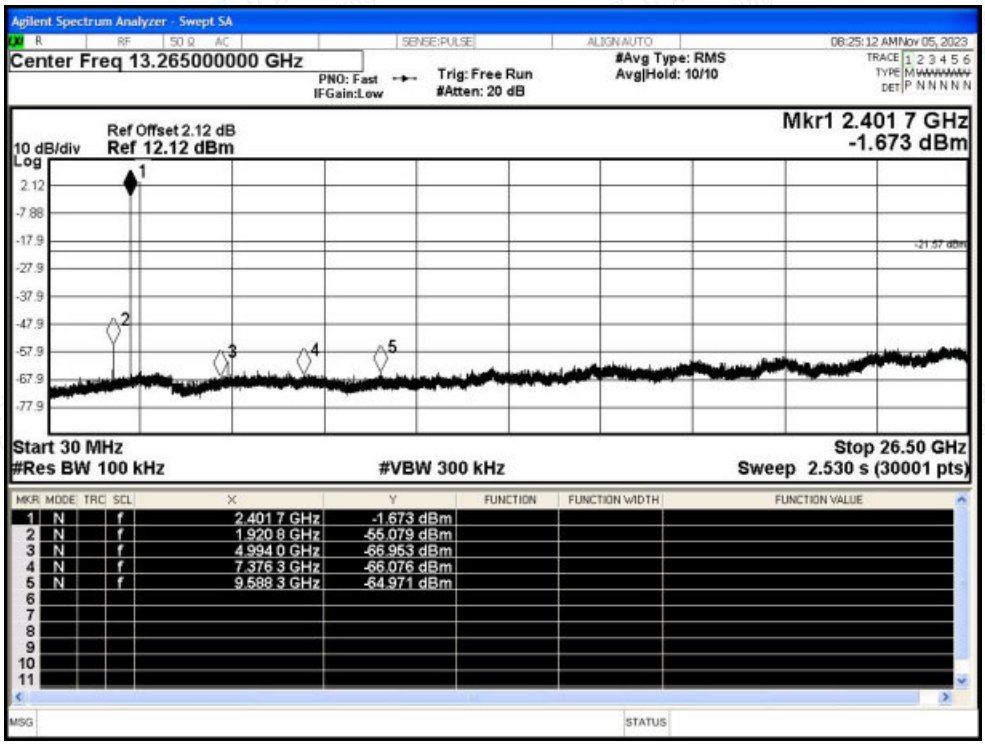
| Condition | Mode | Frequency (MHz) | Antenna | Max Value (dBc) | Limit (dBc) | Verdict |
|---|---|---|---|---|---|---|
| NVNT | 1-DH5 | 2402 | Ant1 | -53.51 | -20 | Pass |
| NVNT | 1-DH5 | 2441 | Ant1 | -53.07 | -20 | Pass |
| NVNT | 1-DH5 | 2480 | Ant1 | -53.34 | -20 | Pass |
| NVNT | 2-DH5 | 2402 | Ant1 | -52.55 | -20 | Pass |
| NVNT | 2-DH5 | 2441 | Ant1 | -52.66 | -20 | Pass |
| NVNT | 2-DH5 | 2480 | Ant1 | -52.07 | -20 | Pass |

Test Graphs

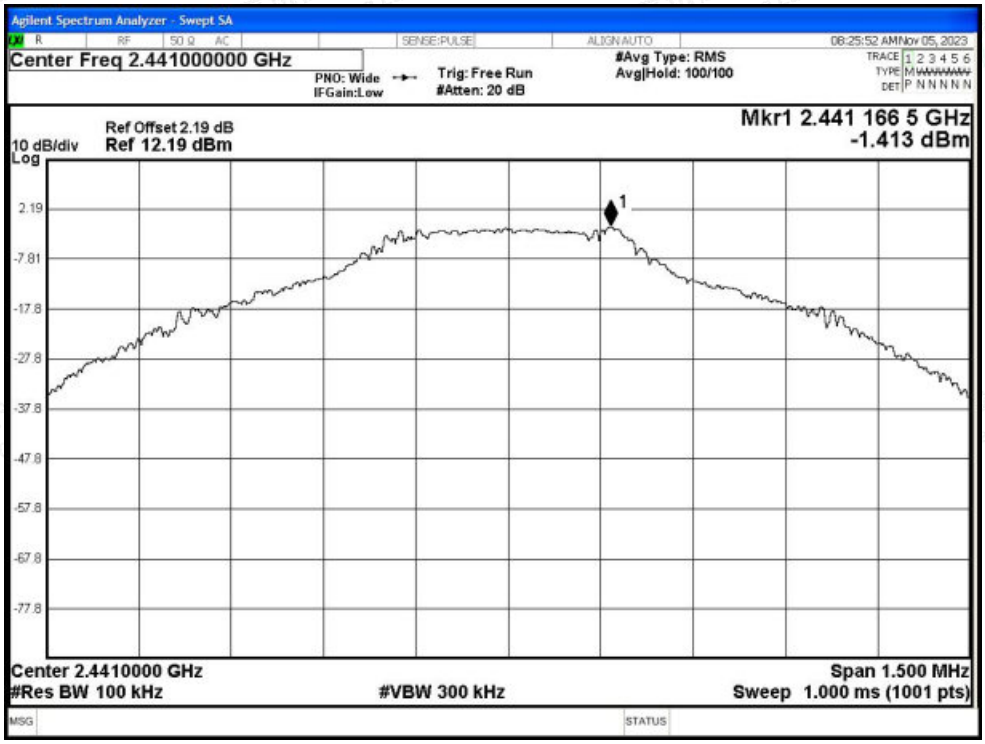
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref



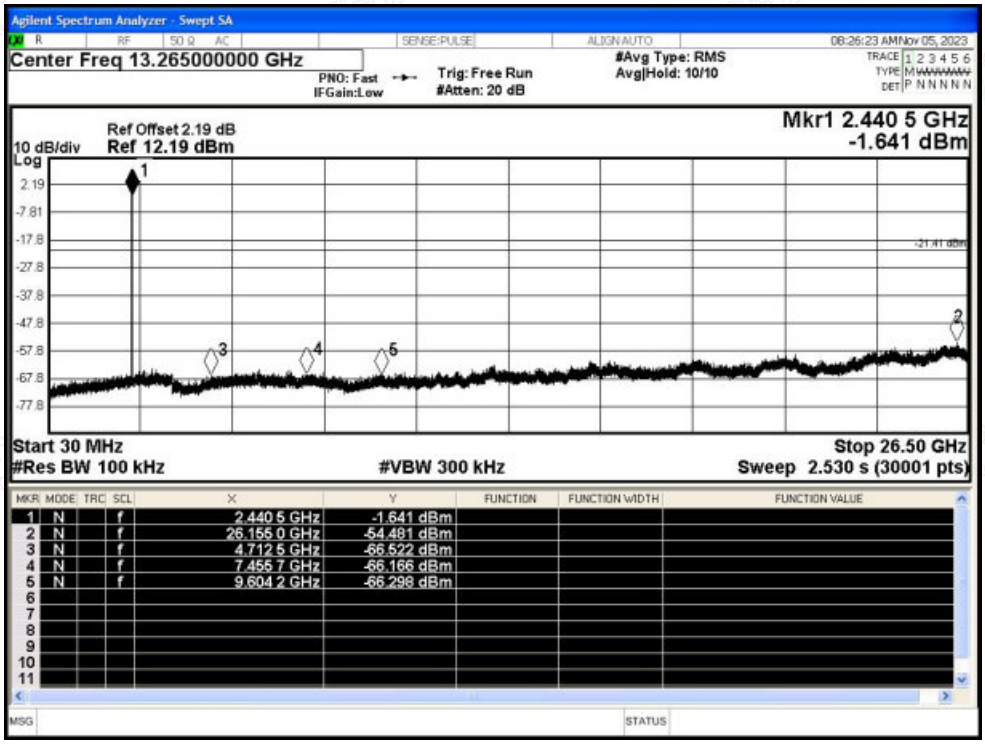

Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission



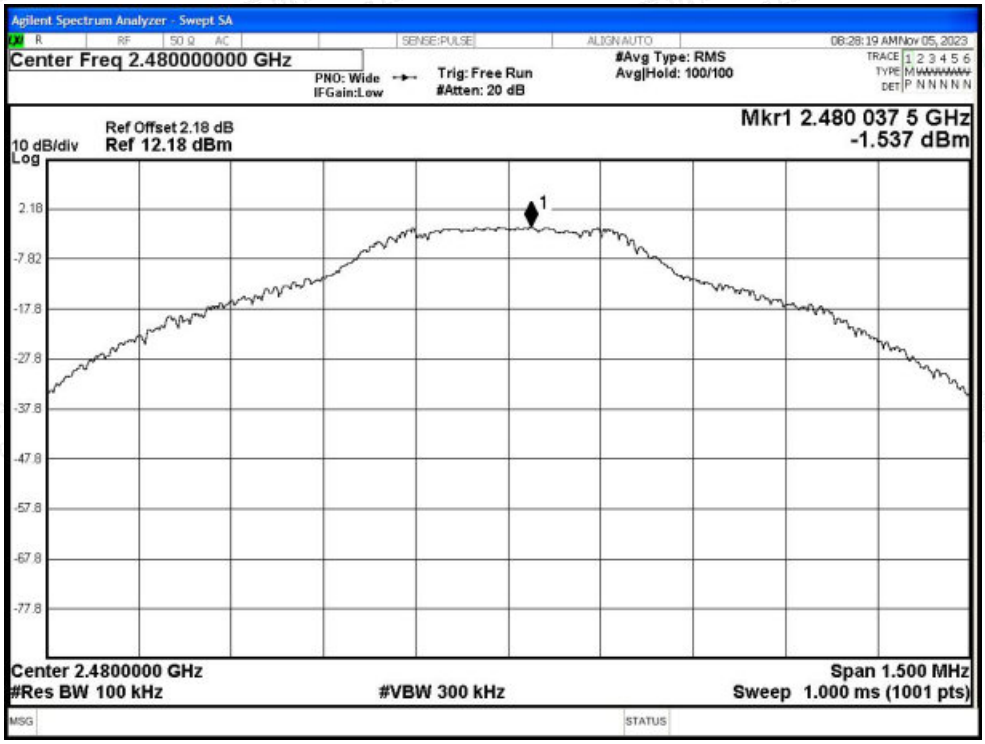
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref



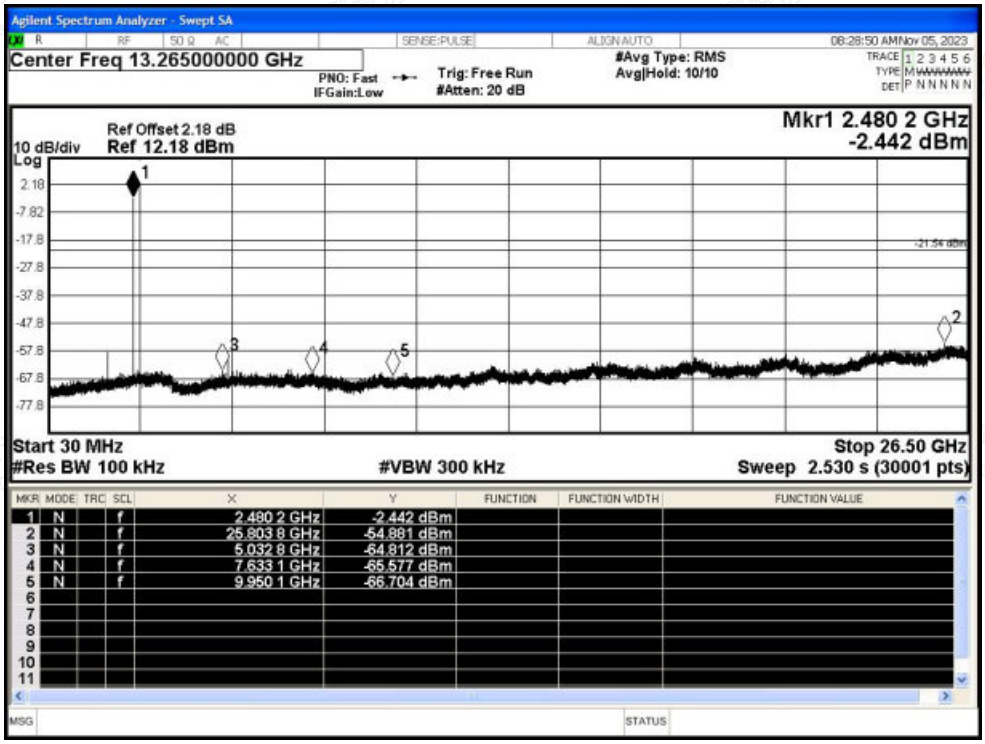

Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission



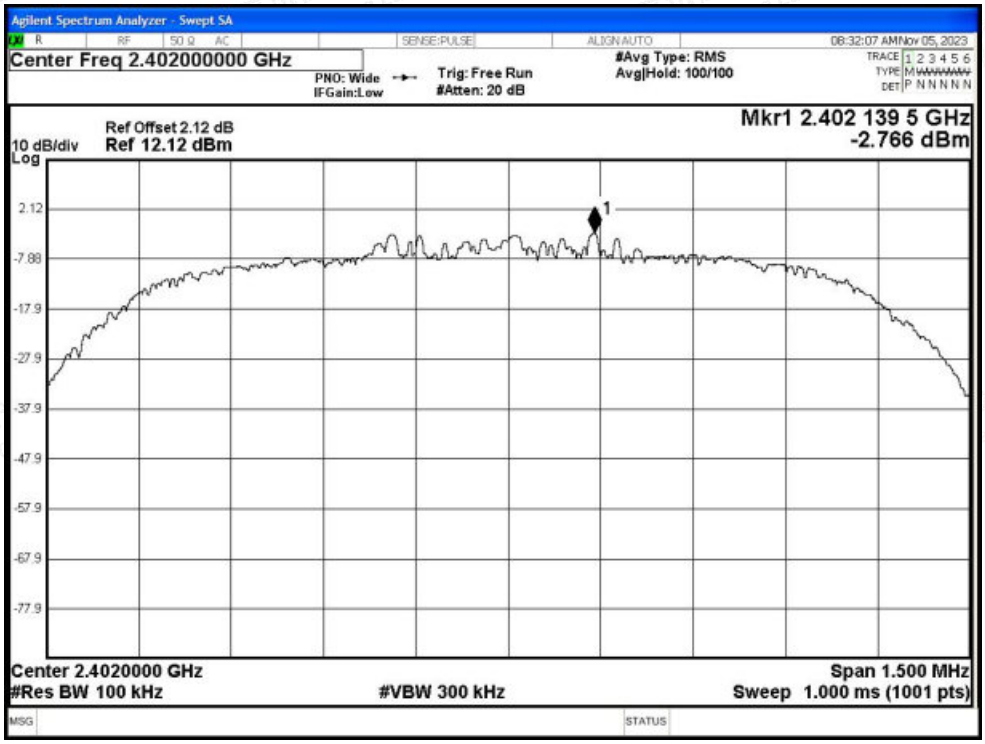
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref



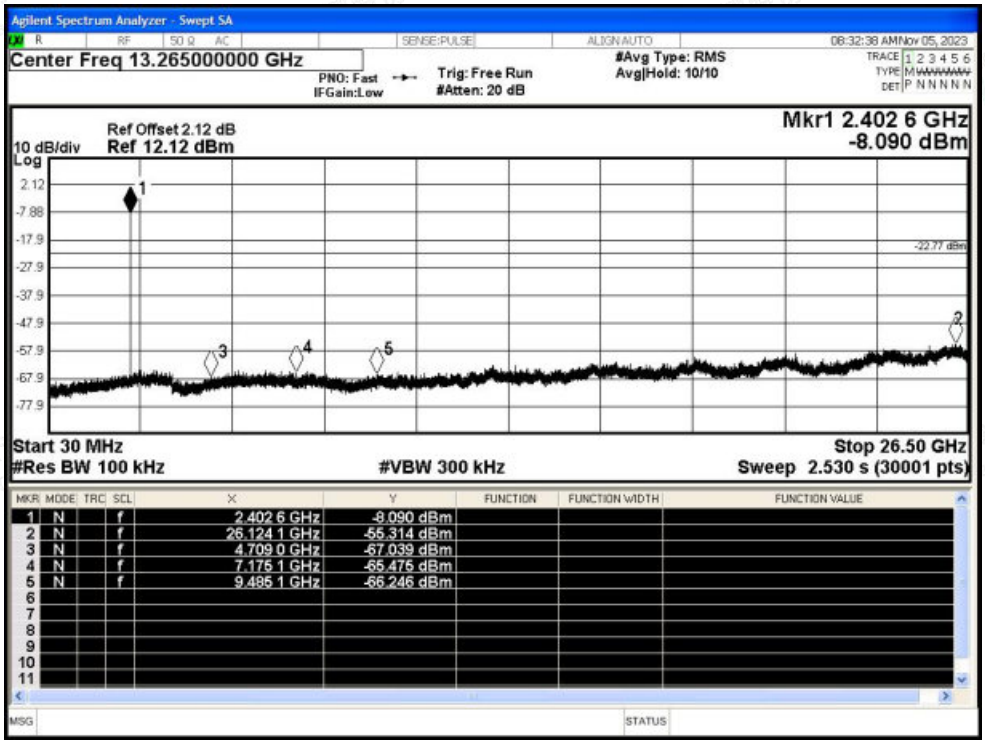

Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Emission



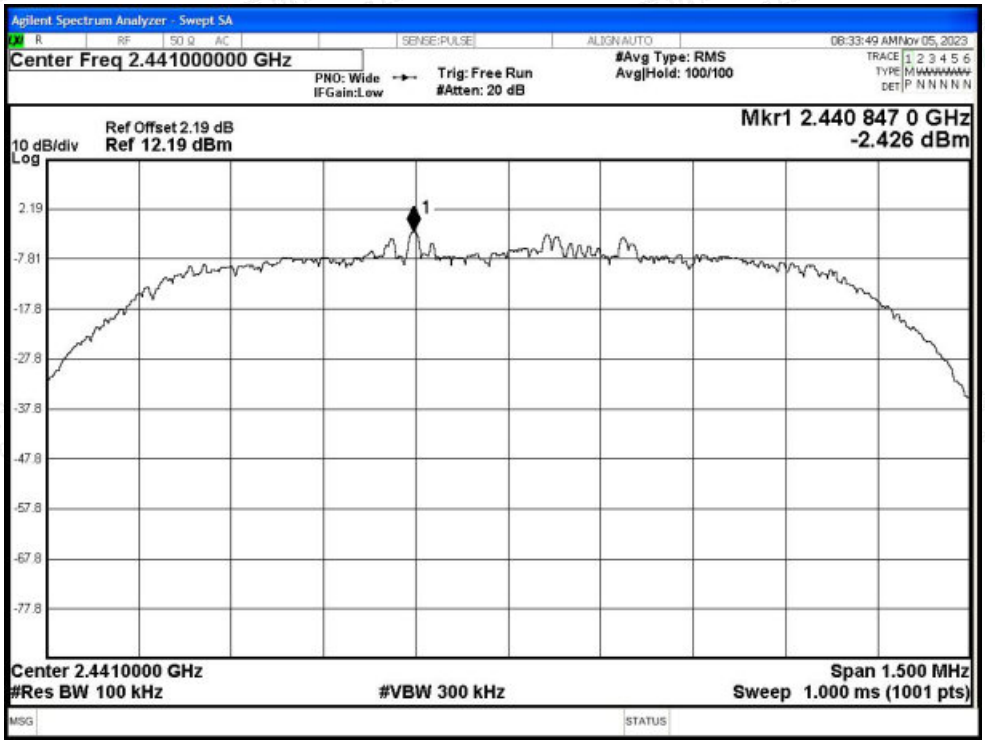
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Ref



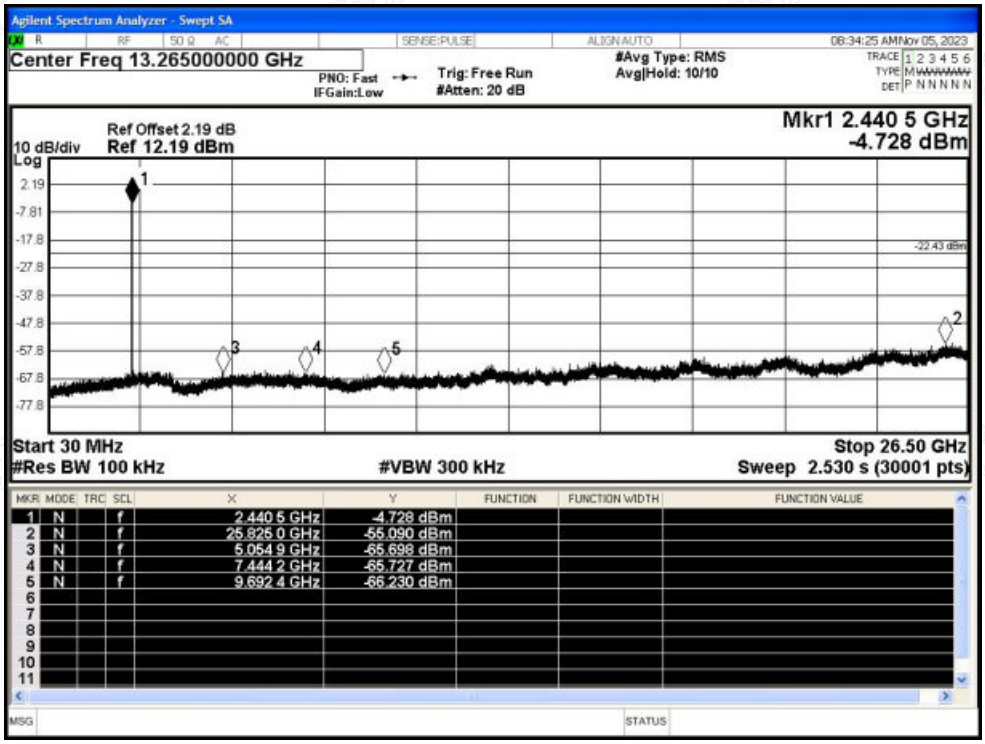

Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Emission



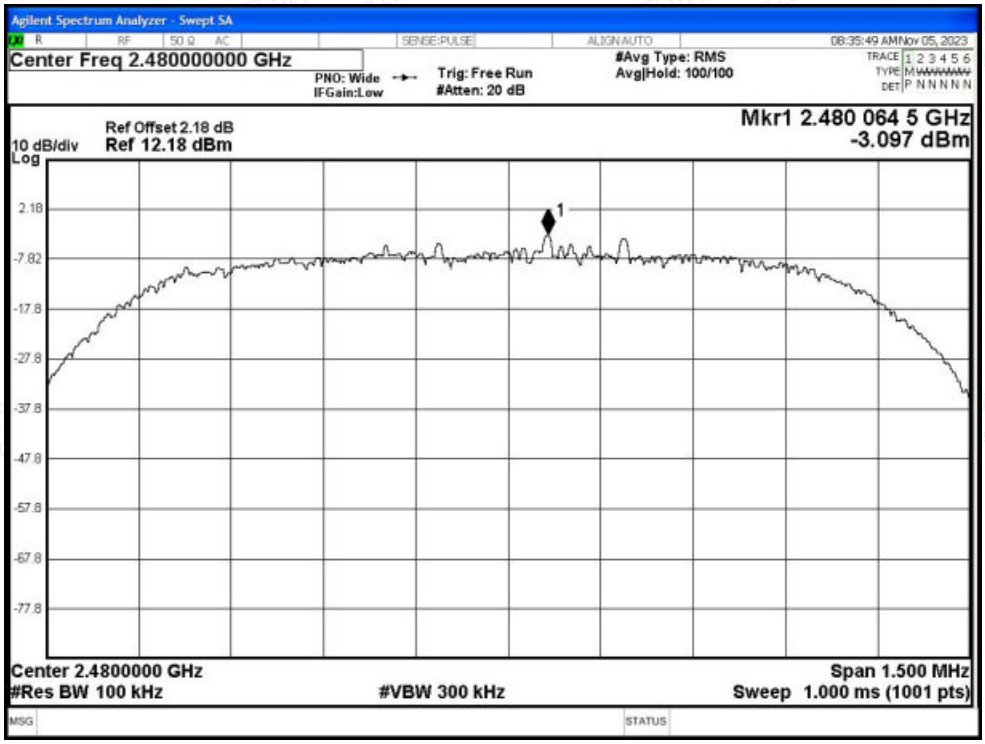
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Ref



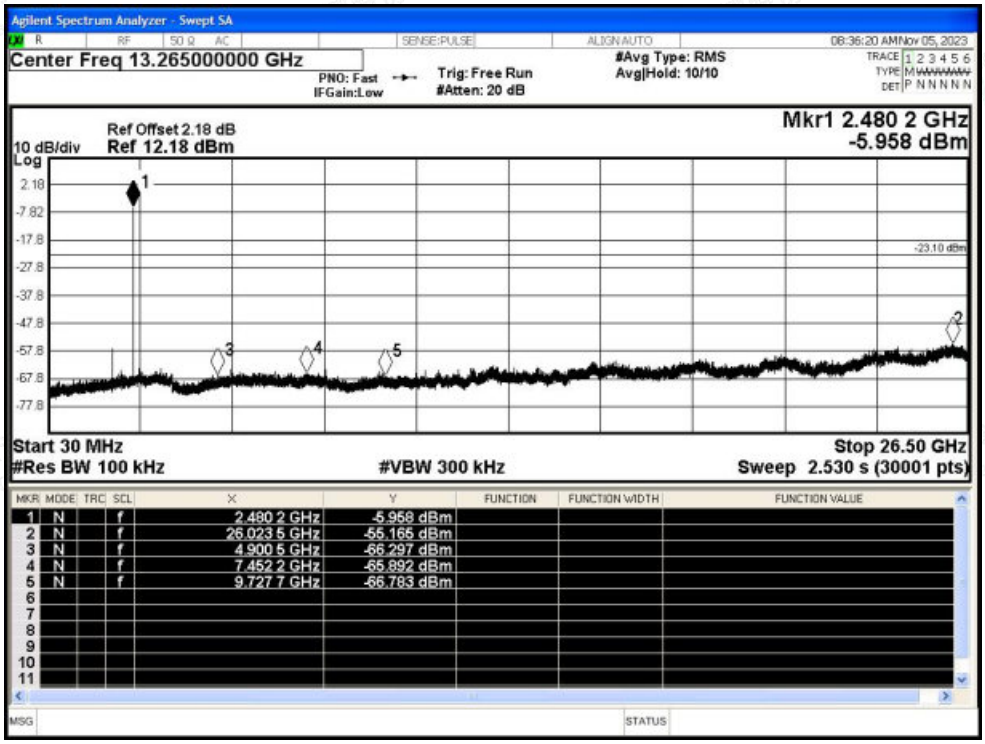

Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Emission



Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Ref




Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Emission

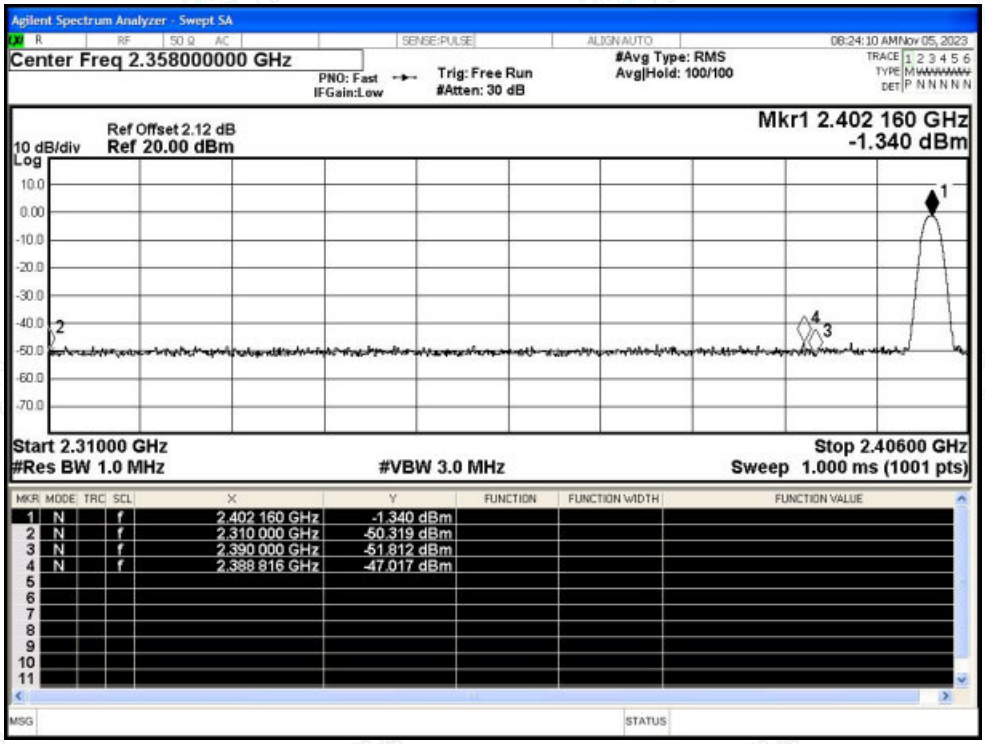


# A.8 Restrict Band

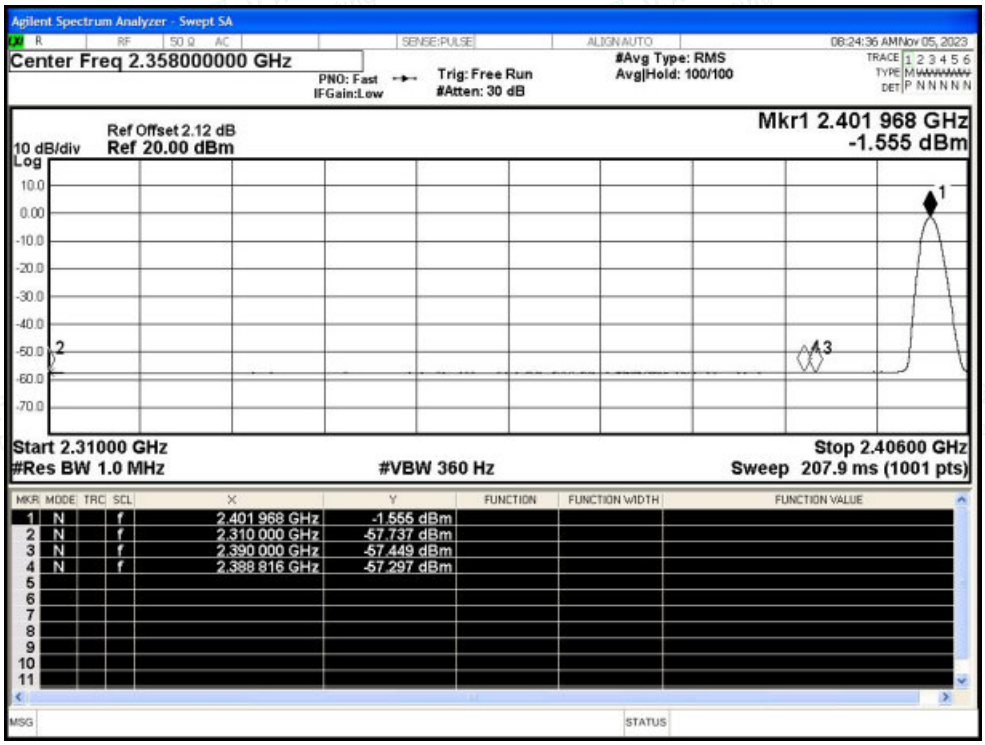
| Condition | Mode | Frequency (MHz) | Antenna | Hopping Mode | Spur Freq (MHz) | Power (dBm) | Gain (dBi) | E (dBuV/m) | Detector | Limit (dBuV/m) | Verdict |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NVNT | 1-DH5 | 2402 | Ant1 | No-Hopping | 2310 | -50.32 | 2 | 46.94 | Peak | 74 | Pass |
| NVNT | 1-DH5 | 2402 | Ant1 | No-Hopping | 2310 | -57.74 | 2 | 39.52 | Average | 54 | Pass |
| NVNT | 1-DH5 | 2402 | Ant1 | No-Hopping | 2388.816 | -47.02 | 2 | 50.24 | Peak | 74 | Pass |
| NVNT | 1-DH5 | 2402 | Ant1 | No-Hopping | 2388.816 | -57.3 | 2 | 39.96 | Average | 54 | Pass |
| NVNT | 1-DH5 | 2402 | Ant1 | No-Hopping | 2390 | -51.81 | 2 | 45.45 | Peak | 74 | Pass |
| NVNT | 1-DH5 | 2402 | Ant1 | No-Hopping | 2390 | -57.45 | 2 | 39.81 | Average | 54 | Pass |
| NVNT | 1-DH5 | 2480 | Ant1 | No-Hopping | 2483.5 | -50.65 | 2 | 46.61 | Peak | 74 | Pass |
| NVNT | 1-DH5 | 2480 | Ant1 | No-Hopping | 2483.5 | -56.06 | 2 | 41.2 | Average | 54 | Pass |
| NVNT | 1-DH5 | 2480 | Ant1 | No-Hopping | 2498.464 | -47.03 | 2 | 50.23 | Peak | 74 | Pass |
| NVNT | 1-DH5 | 2480 | Ant1 | No-Hopping | 2483.512 | -56.06 | 2 | 41.2 | Average | 54 | Pass |
| NVNT | 1-DH5 | 2480 | Ant1 | No-Hopping | 2500 | -50.79 | 2 | 46.47 | Peak | 74 | Pass |
| NVNT | 1-DH5 | 2480 | Ant1 | No-Hopping | 2500 | -57.05 | 2 | 40.21 | Average | 54 | Pass |
| NVNT | 2-DH5 | 2402 | Ant1 | No-Hopping | 2310 | -49.63 | 2 | 47.63 | Peak | 74 | Pass |
| NVNT | 2-DH5 | 2402 | Ant1 | No-Hopping | 2310 | -57.75 | 2 | 39.51 | Average | 54 | Pass |
| NVNT | 2-DH5 | 2402 | Ant1 | No-Hopping | 2376.144 | -46.89 | 2 | 50.37 | Peak | 74 | Pass |
| NVNT | 2-DH5 | 2402 | Ant1 | No-Hopping | 2387.568 | -57.26 | 2 | 40 | Average | 54 | Pass |
| NVNT | 2-DH5 | 2402 | Ant1 | No-Hopping | 2390 | -48.57 | 2 | 48.69 | Peak | 74 | Pass |
| NVNT | 2-DH5 | 2402 | Ant1 | No-Hopping | 2390 | -57.38 | 2 | 39.88 | Average | 54 | Pass |
| NVNT | 2-DH5 | 2480 | Ant1 | No-Hopping | 2483.5 | -49.52 | 2 | 47.74 | Peak | 74 | Pass |
| NVNT | 2-DH5 | 2480 | Ant1 | No-Hopping | 2483.5 | -55.92 | 2 | 41.34 | Average | 54 | Pass |
| NVNT | 2-DH5 | 2480 | Ant1 | No-Hopping | 2497.744 | -47.26 | 2 | 50 | Peak | 74 | Pass |
| NVNT | 2-DH5 | 2480 | Ant1 | No-Hopping | 2483.512 | -55.92 | 2 | 41.34 | Average | 54 | Pass |
| NVNT | 2-DH5 | 2480 | Ant1 | No-Hopping | 2500 | -48.94 | 2 | 48.32 | Peak | 74 | Pass |
| NVNT | 2-DH5 | 2480 | Ant1 | No-Hopping | 2500 | -57.11 | 2 | 40.15 | Average | 54 | Pass |

Test Graphs

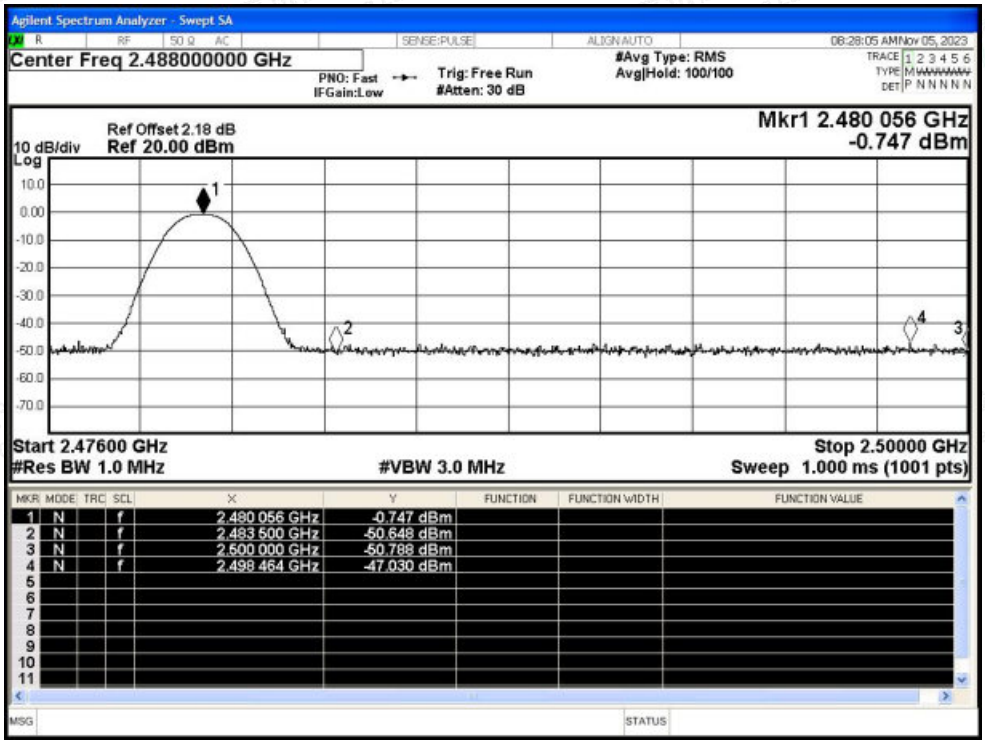
Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Peak



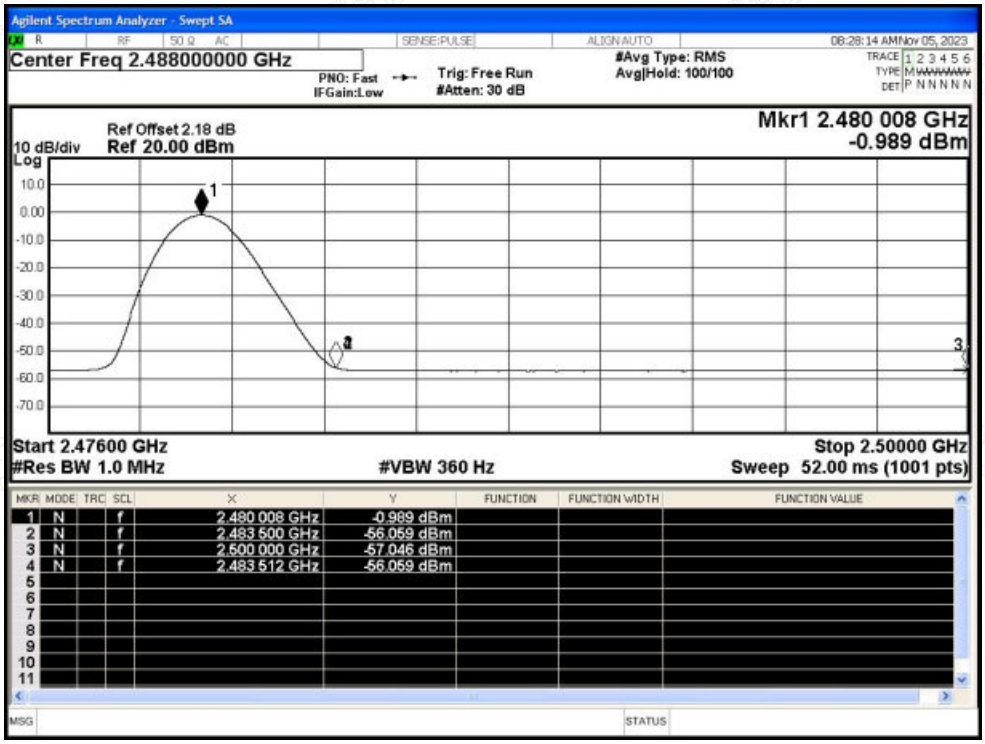

Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Average



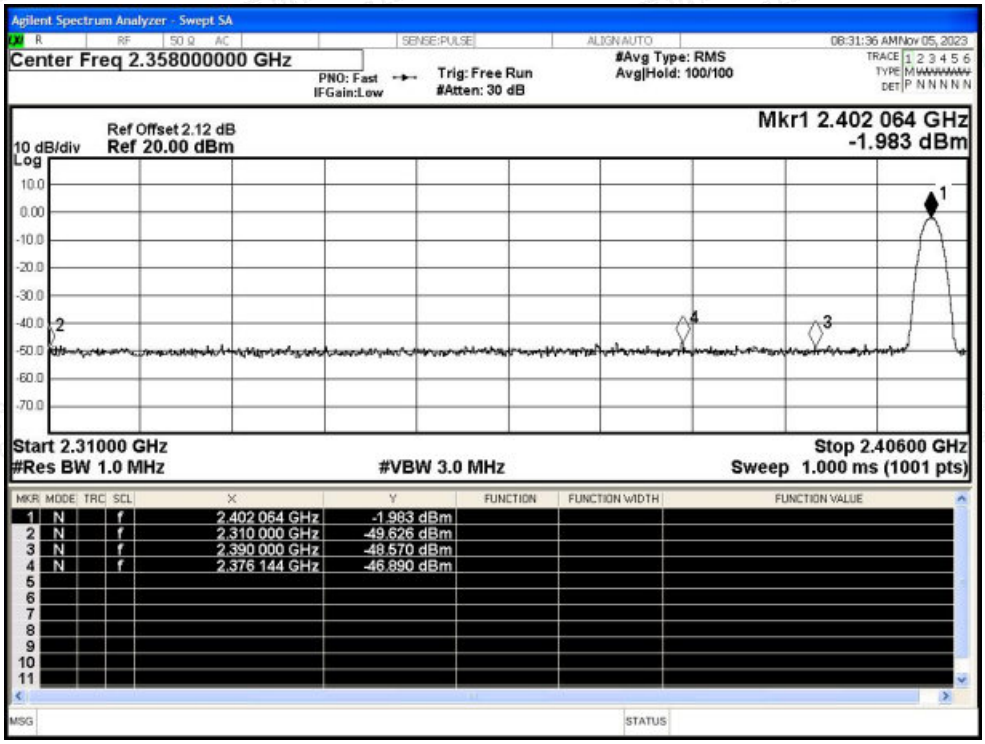
Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Peak



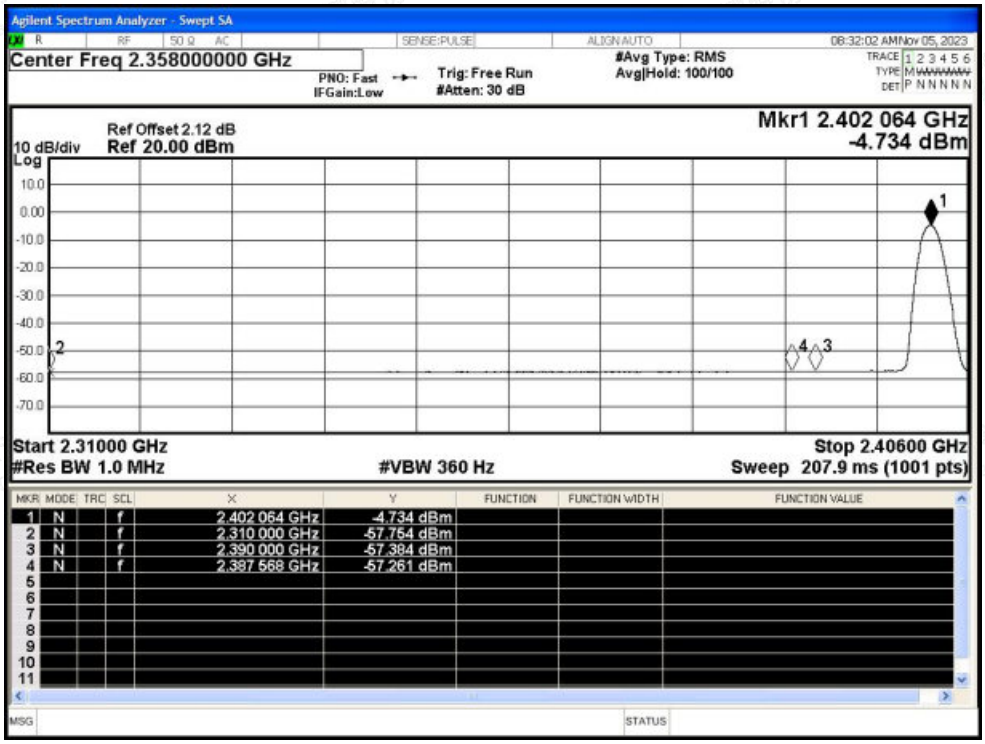

Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Average



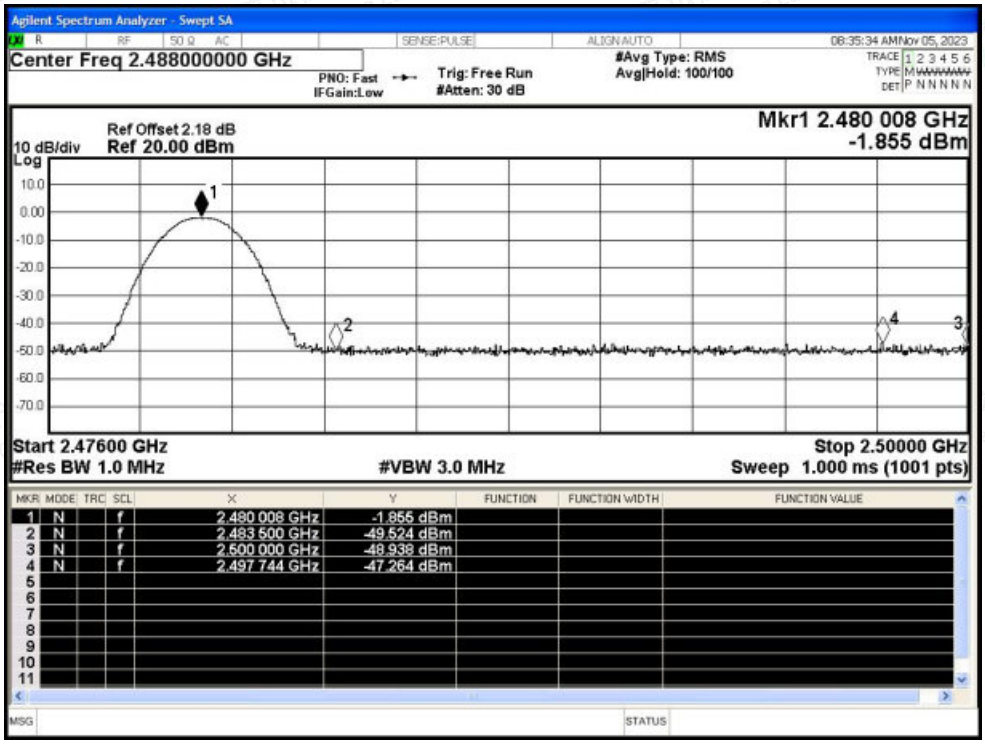
Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Peak

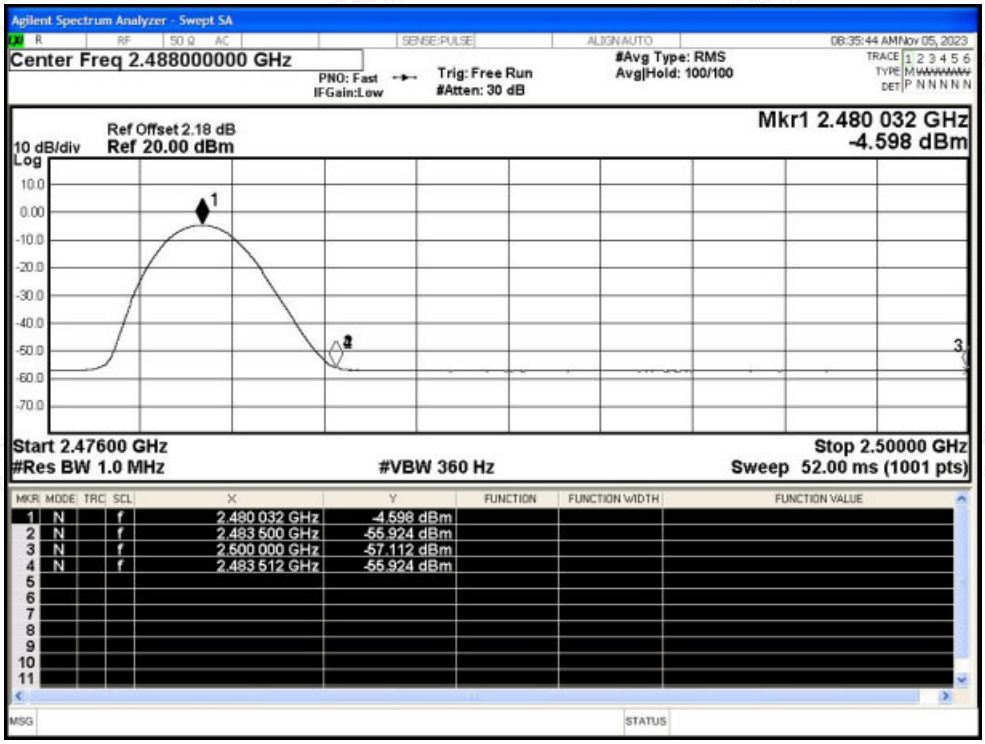



Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Average



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




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