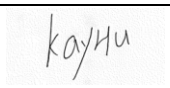
# Appendix A

## RF Test Data for 2.4G WIFI (Conducted Measurement)

**Product Name: WiFi Range Extender**

**Test Model: RE1800**

**Environmental Conditions**

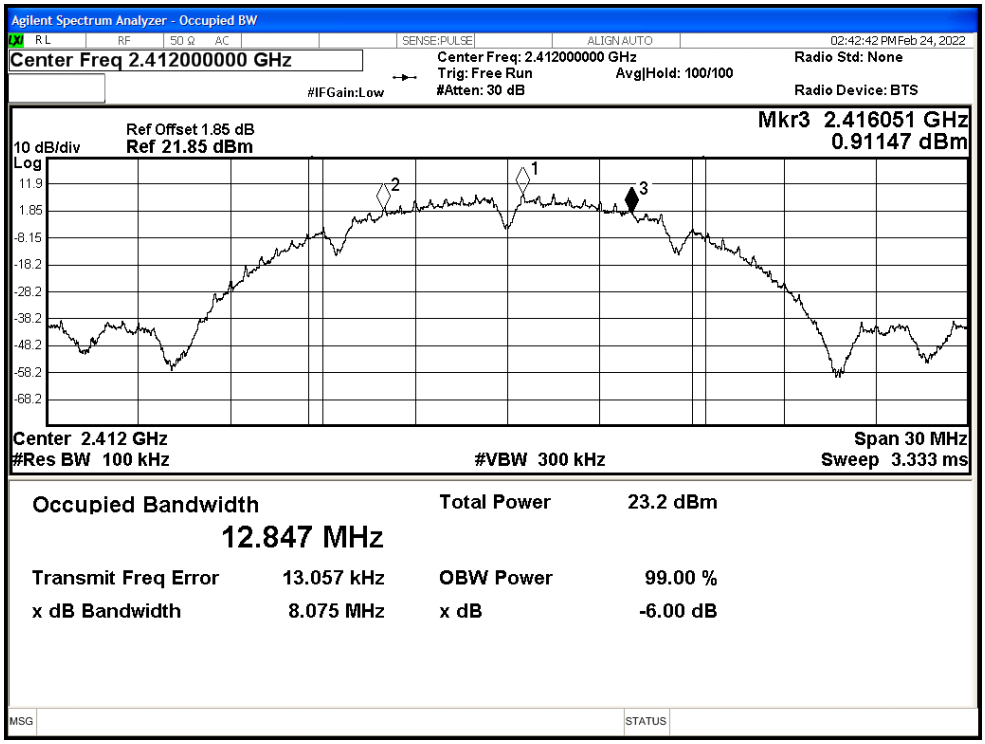
| | |
|---|---|
| Temperature: | 23.5 ° C |
| Relative Humidity: | 52.2% |
| ATM Pressure: | 100.0 kPa |
| Test Engineer: |  Kay Hu |
| Supervised by: | Li Huan |

# A.1 -6dB Bandwidth

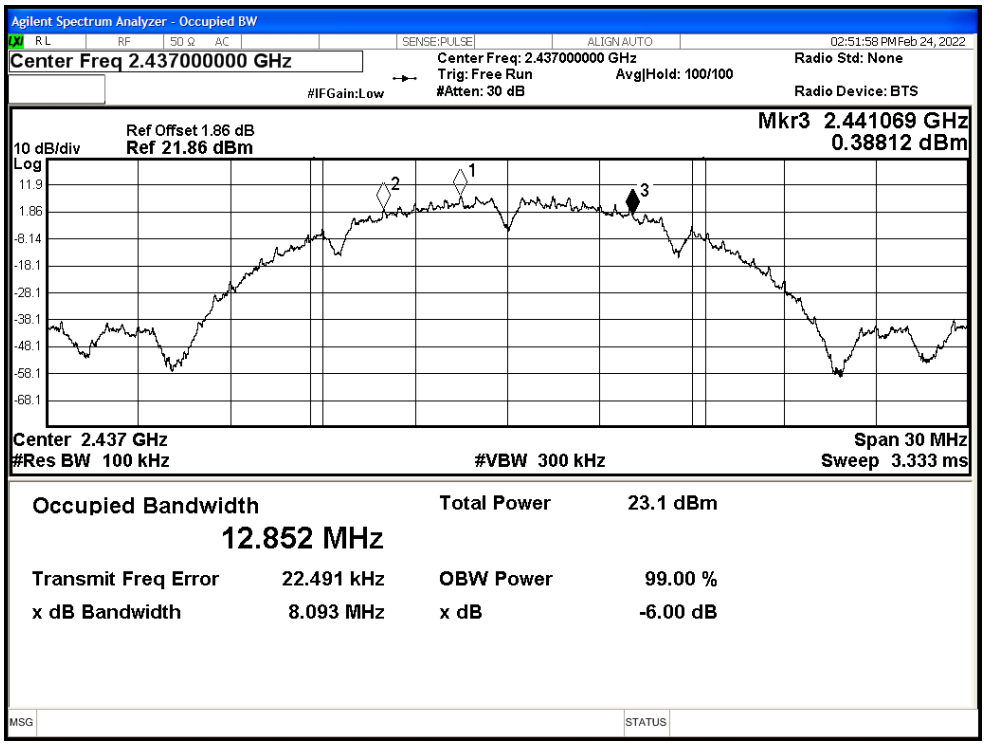
| Condition | Mode | Frequency (MHz) | Antenna | -6 dB Bandwidth (MHz) | Limit -6 dB Bandwidth (MHz) | Verdict |
|---|---|---|---|---|---|---|
| NVNT | b | 2412 | Ant0 | 8.075 | 0.5 | Pass |
| NVNT | b | 2437 | Ant0 | 8.093 | 0.5 | Pass |
| NVNT | b | 2462 | Ant0 | 8.078 | 0.5 | Pass |
| NVNT | g | 2412 | Ant0 | 15.915 | 0.5 | Pass |
| NVNT | g | 2437 | Ant0 | 15.049 | 0.5 | Pass |
| NVNT | g | 2462 | Ant0 | 15.083 | 0.5 | Pass |
| NVNT | n20 | 2412 | Ant0 | 13.814 | 0.5 | Pass |
| NVNT | n20 | 2437 | Ant0 | 14.958 | 0.5 | Pass |
| NVNT | n20 | 2462 | Ant0 | 16.916 | 0.5 | Pass |
| NVNT | n40 | 2422 | Ant0 | 36.07 | 0.5 | Pass |
| NVNT | n40 | 2437 | Ant0 | 36.388 | 0.5 | Pass |
| NVNT | n40 | 2452 | Ant0 | 36.256 | 0.5 | Pass |
| NVNT | ax20 | 2412 | Ant0 | 18.063 | 0.5 | Pass |
| NVNT | ax20 | 2437 | Ant0 | 18.773 | 0.5 | Pass |
| NVNT | ax20 | 2462 | Ant0 | 17.742 | 0.5 | Pass |
| NVNT | ax40 | 2422 | Ant0 | 36.142 | 0.5 | Pass |
| NVNT | ax40 | 2437 | Ant0 | 36.763 | 0.5 | Pass |
| NVNT | ax40 | 2452 | Ant0 | 35.087 | 0.5 | Pass |

Test Graphs

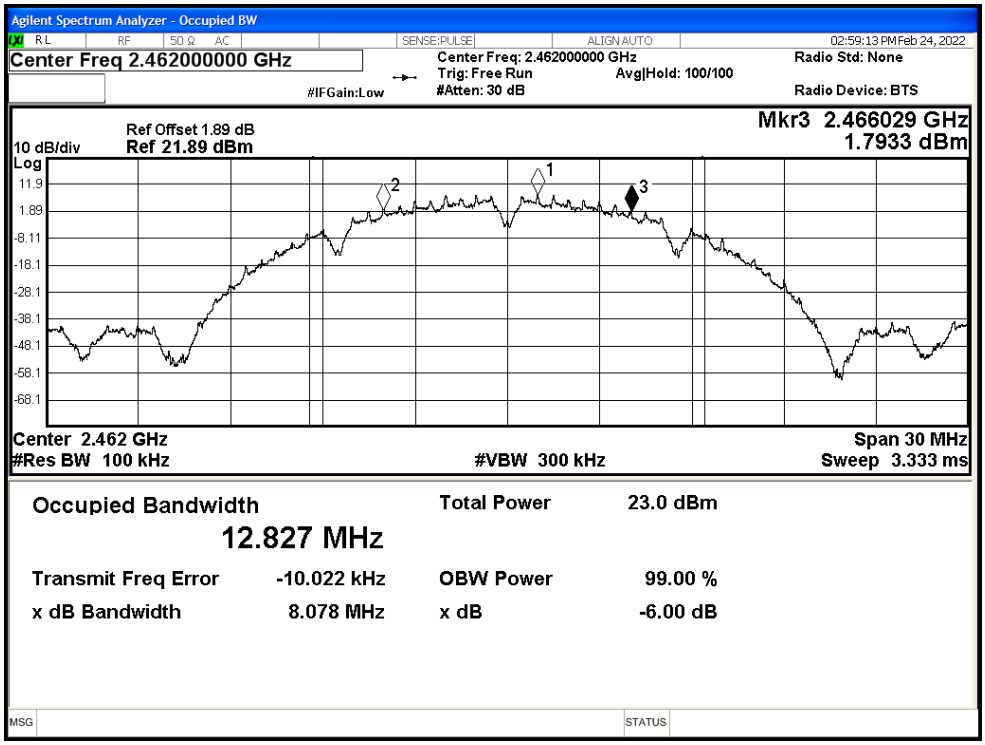
-6dB Bandwidth NVNT b 2412MHz Ant0



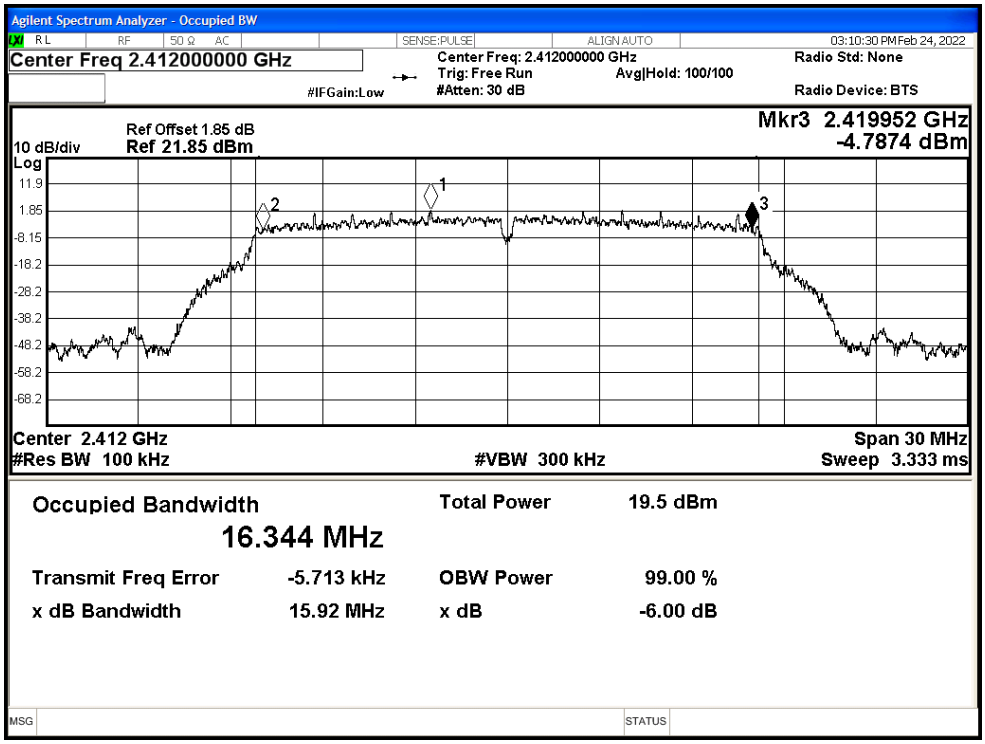

-6dB Bandwidth NVNT b 2437MHz Ant0



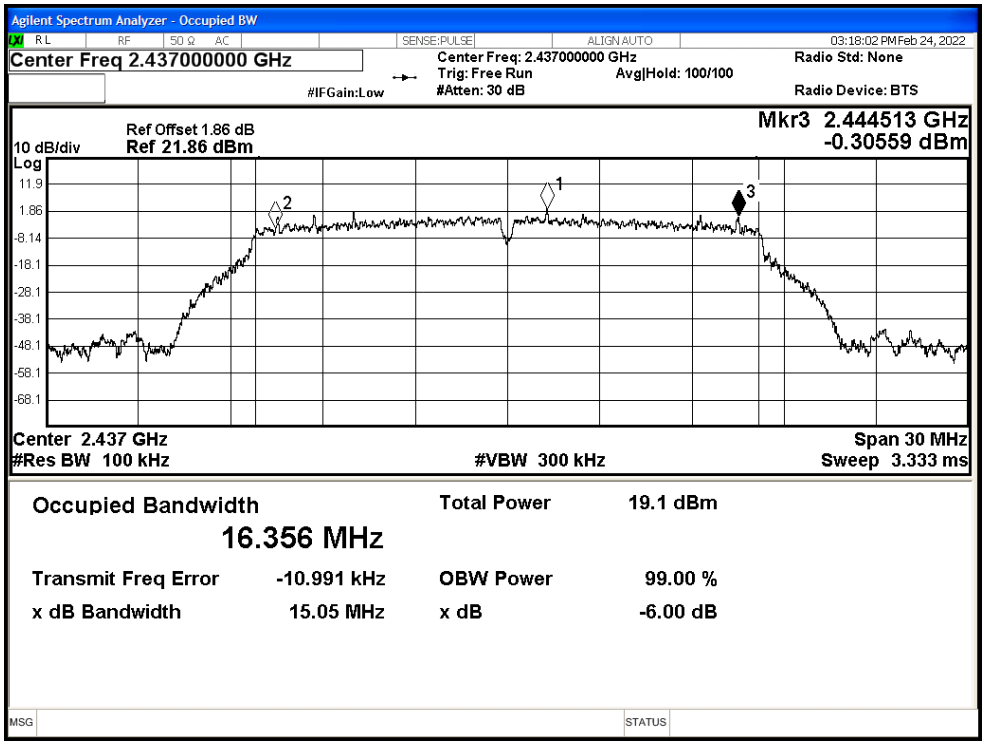
-6dB Bandwidth NVNT b 2462MHz Ant0



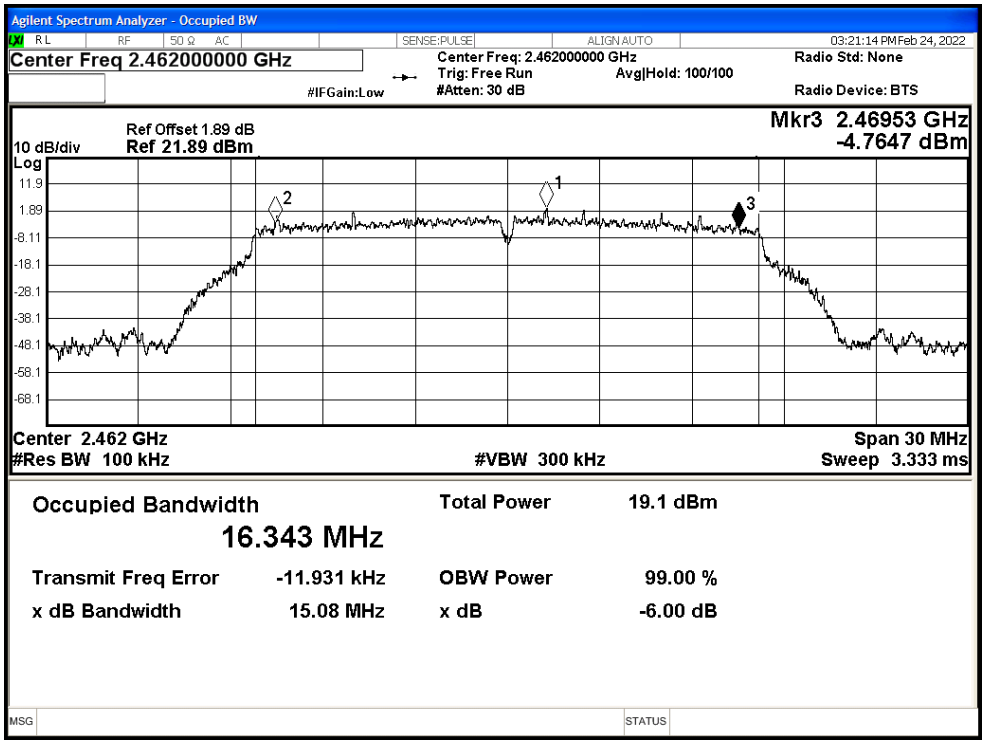

-6dB Bandwidth NVNT g 2412MHz Ant0



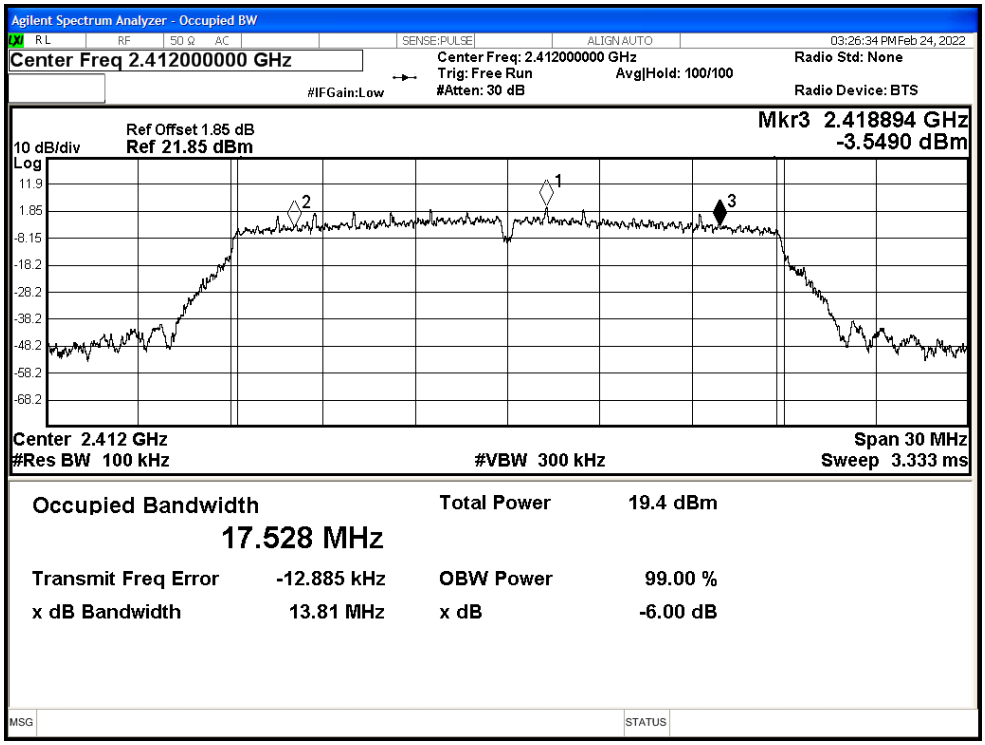
-6dB Bandwidth NVNT g 2437MHz Ant0



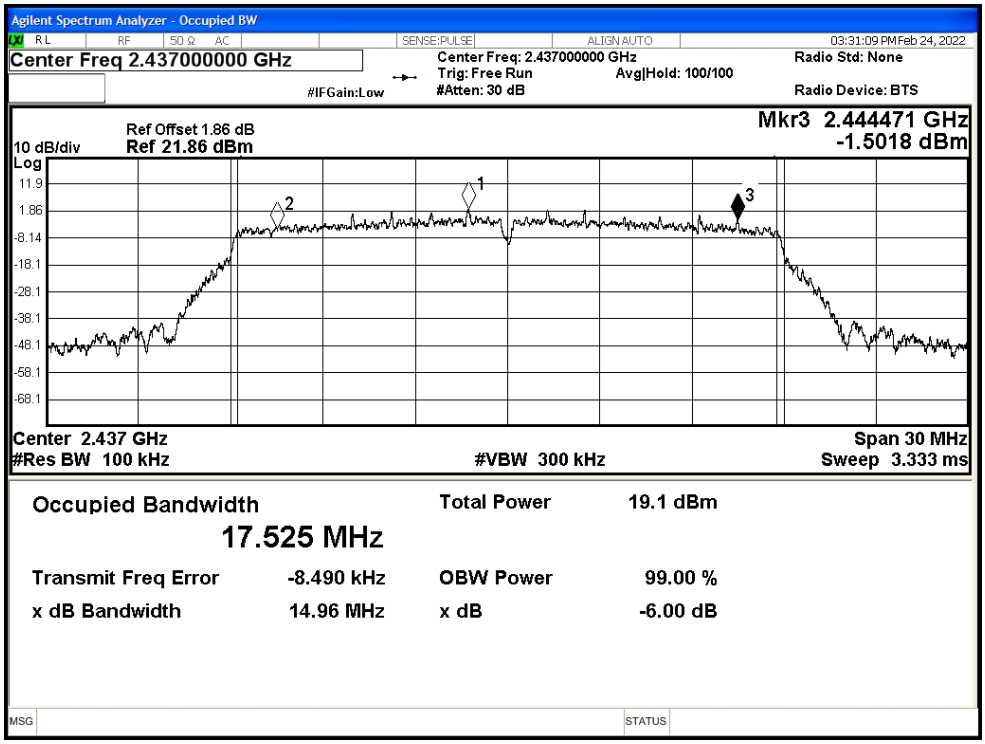

-6dB Bandwidth NVNT g 2462MHz Ant0



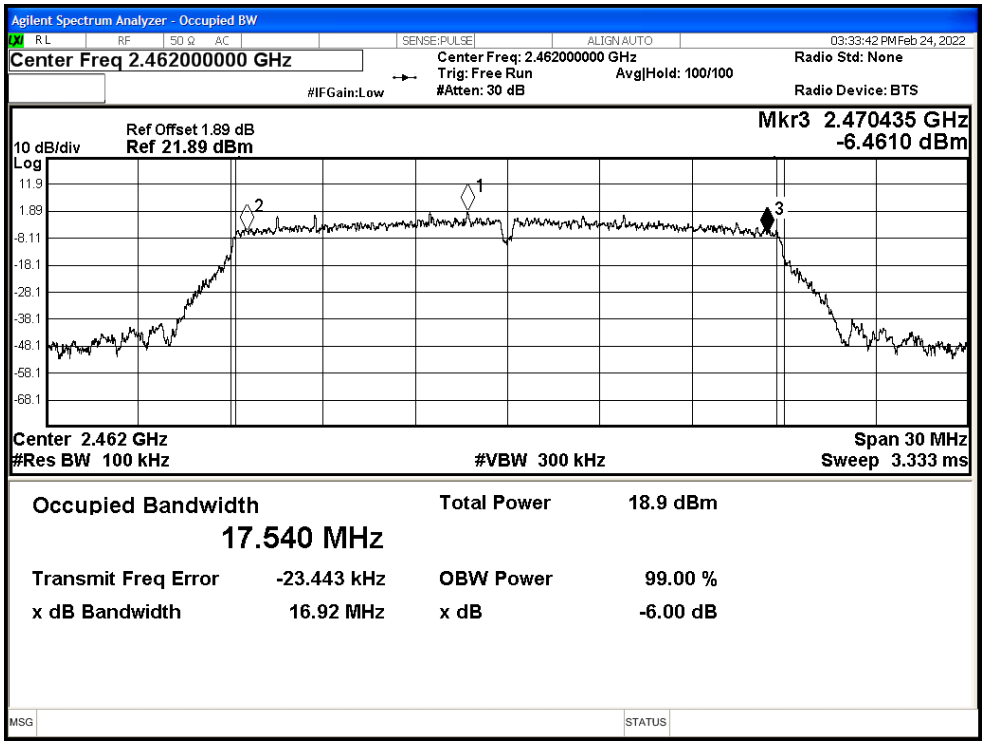
-6dB Bandwidth NVNT n20 2412MHz Ant0



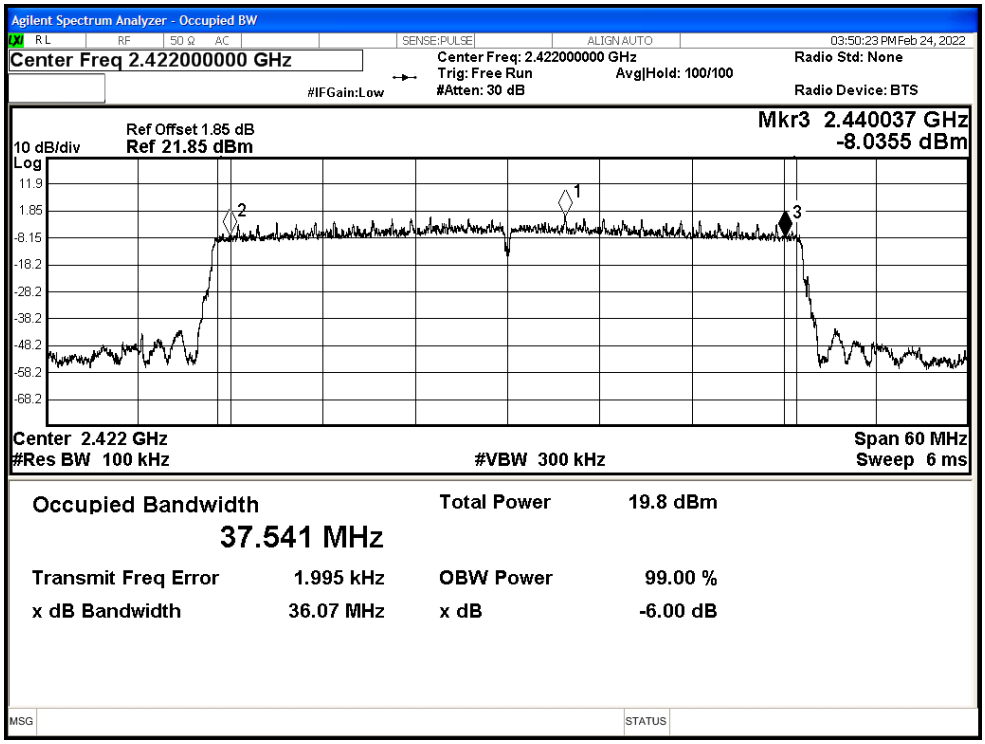

-6dB Bandwidth NVNT n20 2437MHz Ant0



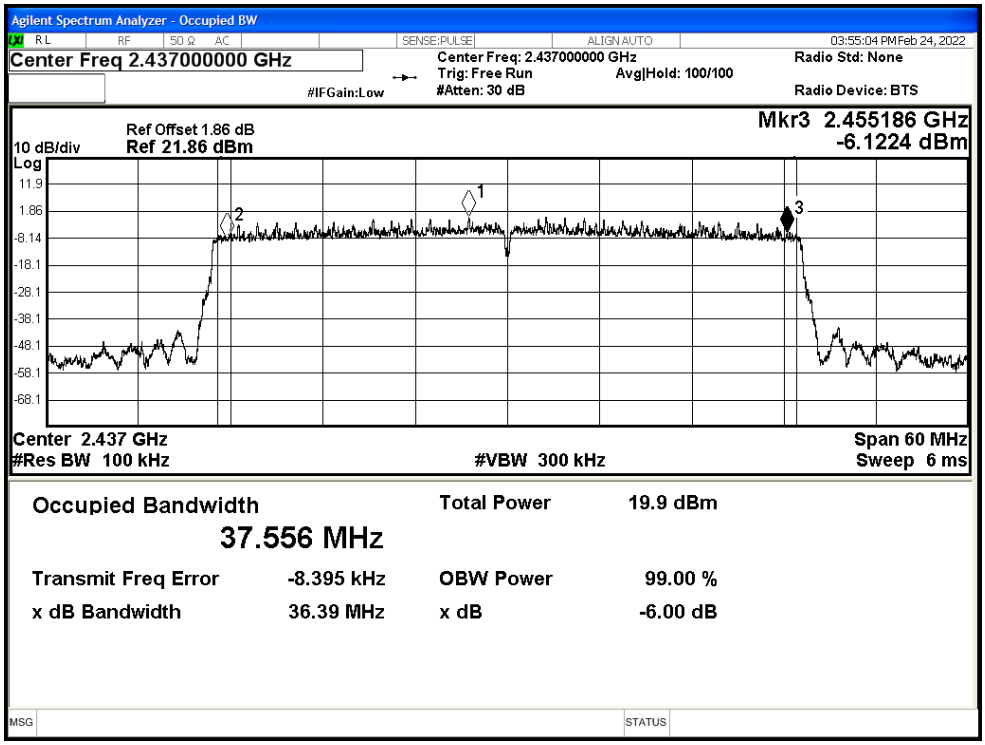
-6dB Bandwidth NVNT n20 2462MHz Ant0



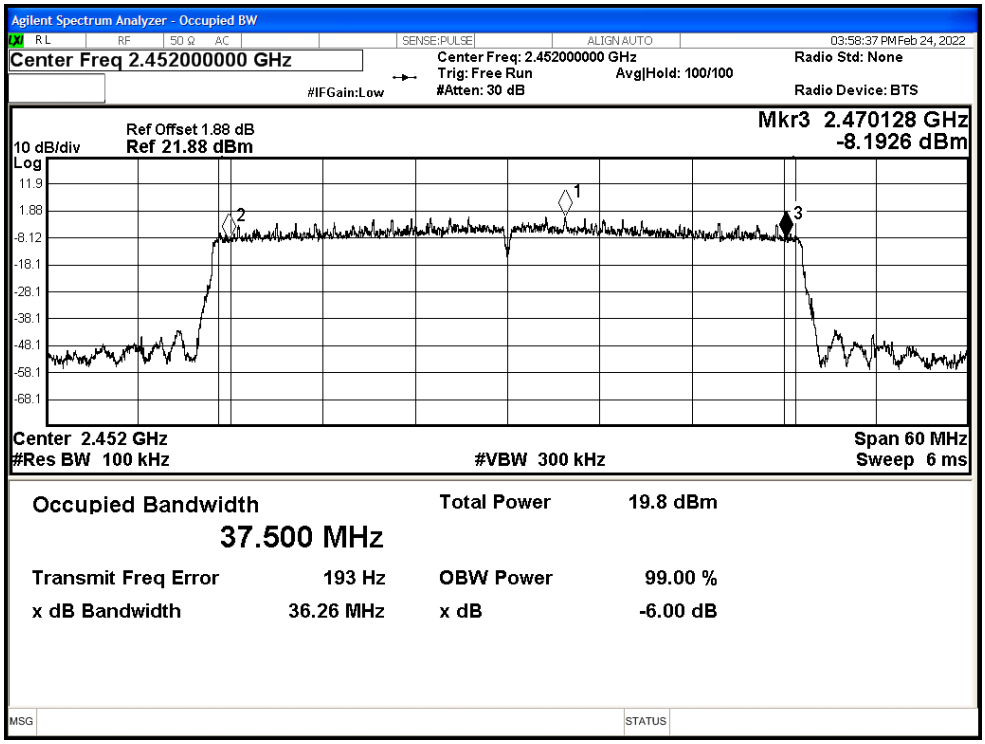

-6dB Bandwidth NVNT n40 2422MHz Ant0



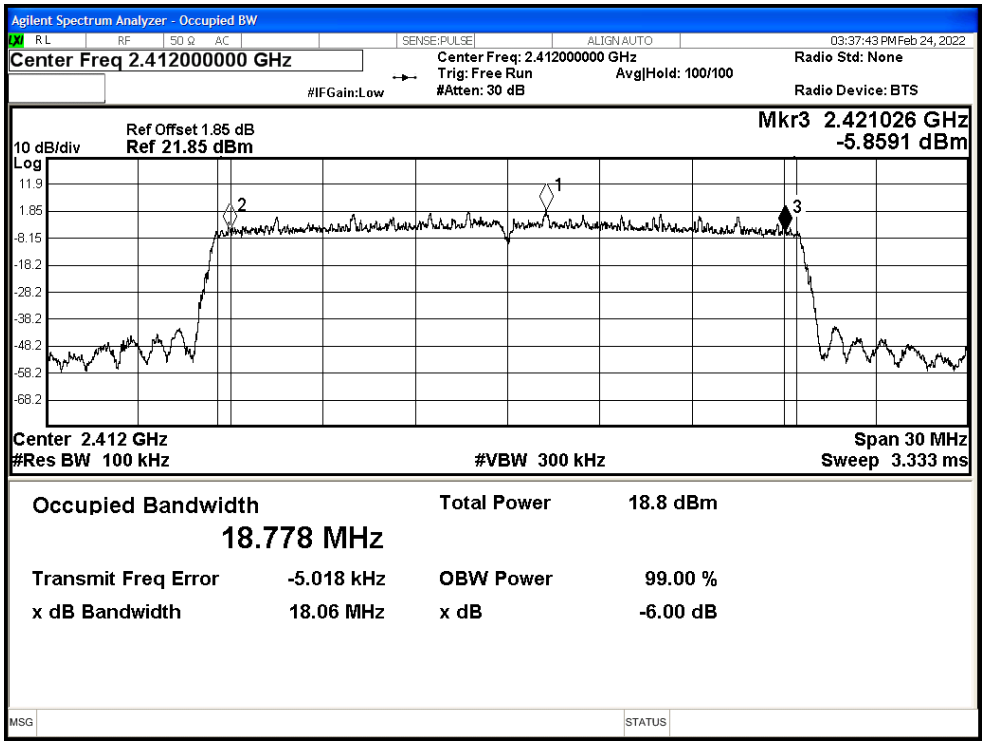
-6dB Bandwidth NVNT n40 2437MHz Ant0



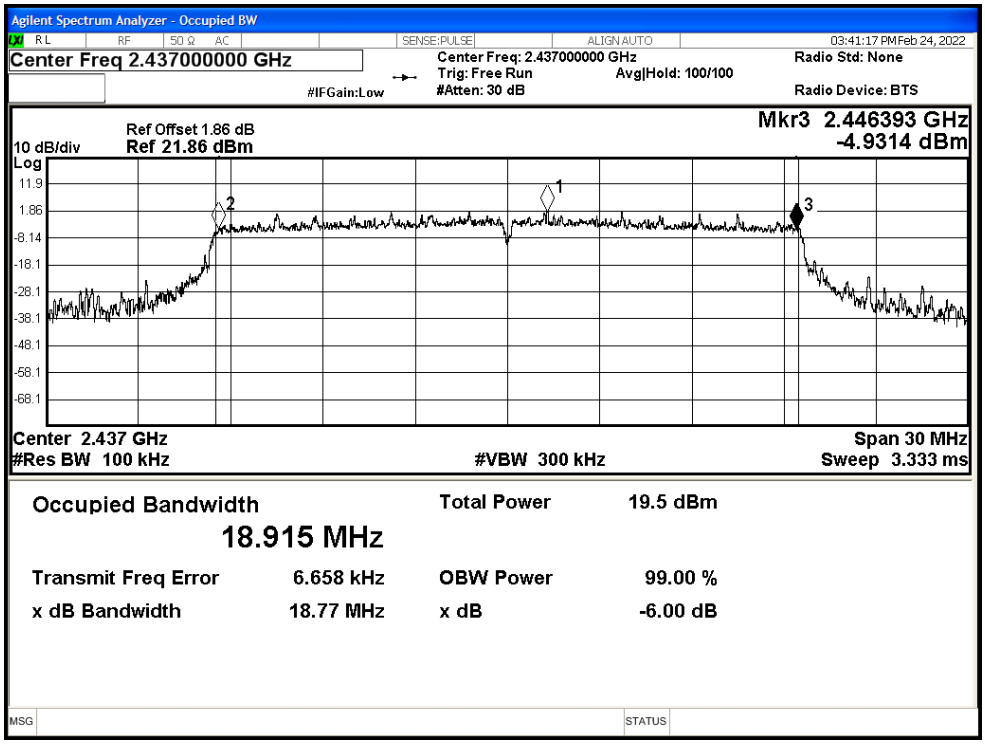

-6dB Bandwidth NVNT n40 2452MHz Ant0



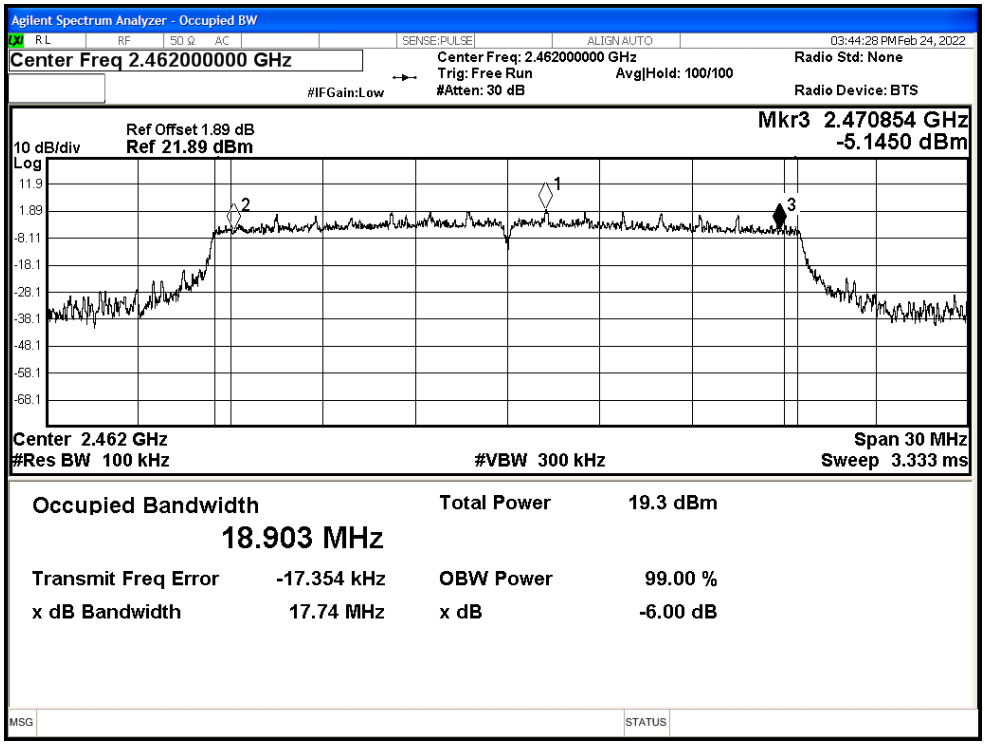
-6dB Bandwidth NVNT ax20 2412MHz Ant0



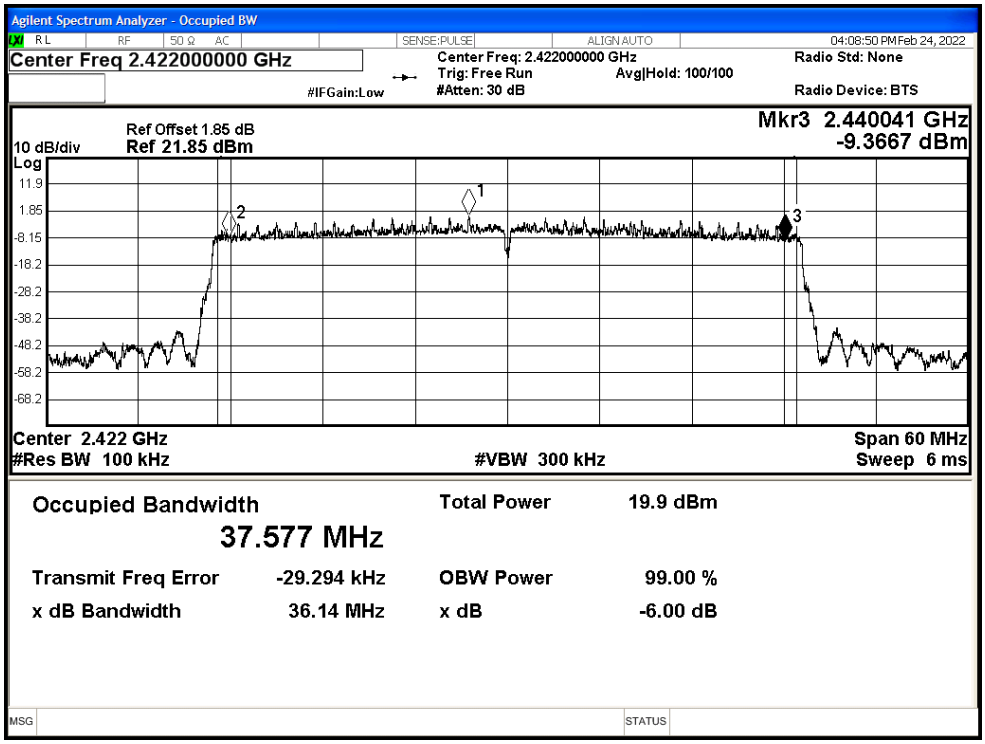

-6dB Bandwidth NVNT ax20 2437MHz Ant0



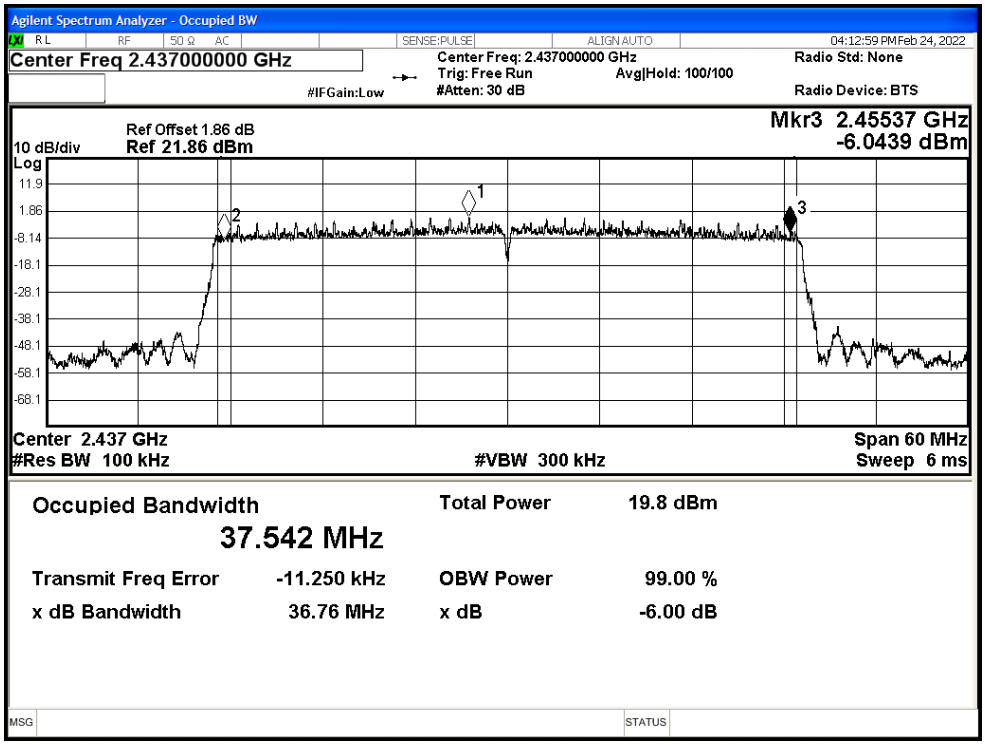
-6dB Bandwidth NVNT ax20 2462MHz Ant0



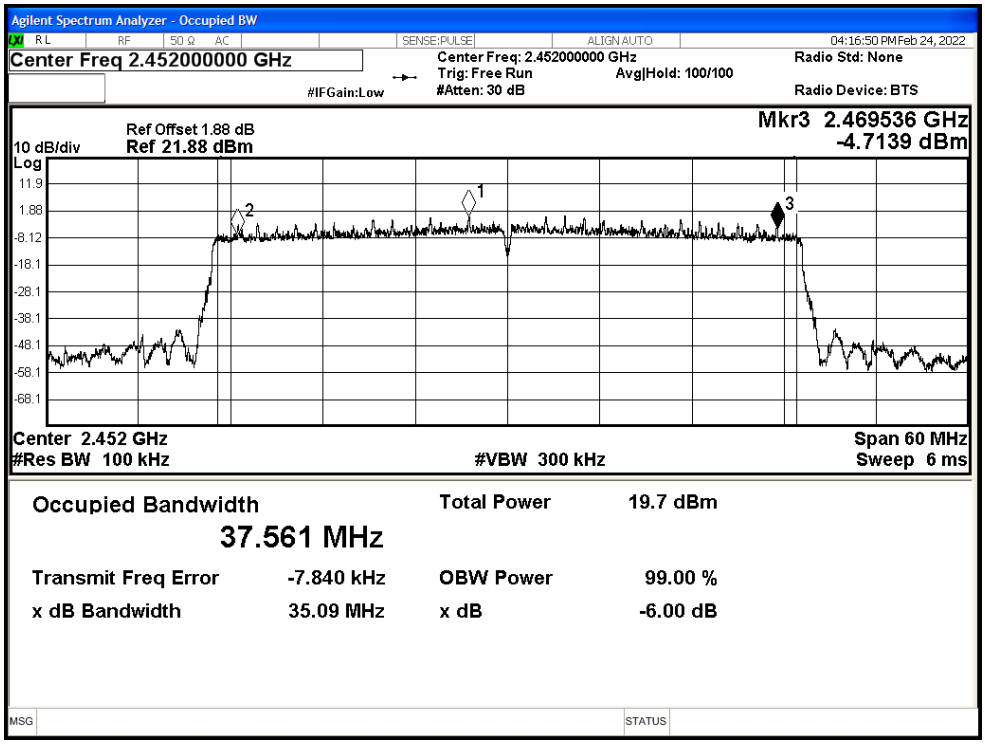

-6dB Bandwidth NVNT ax40 2422MHz Ant0



-6dB Bandwidth NVNT ax40 2437MHz Ant0



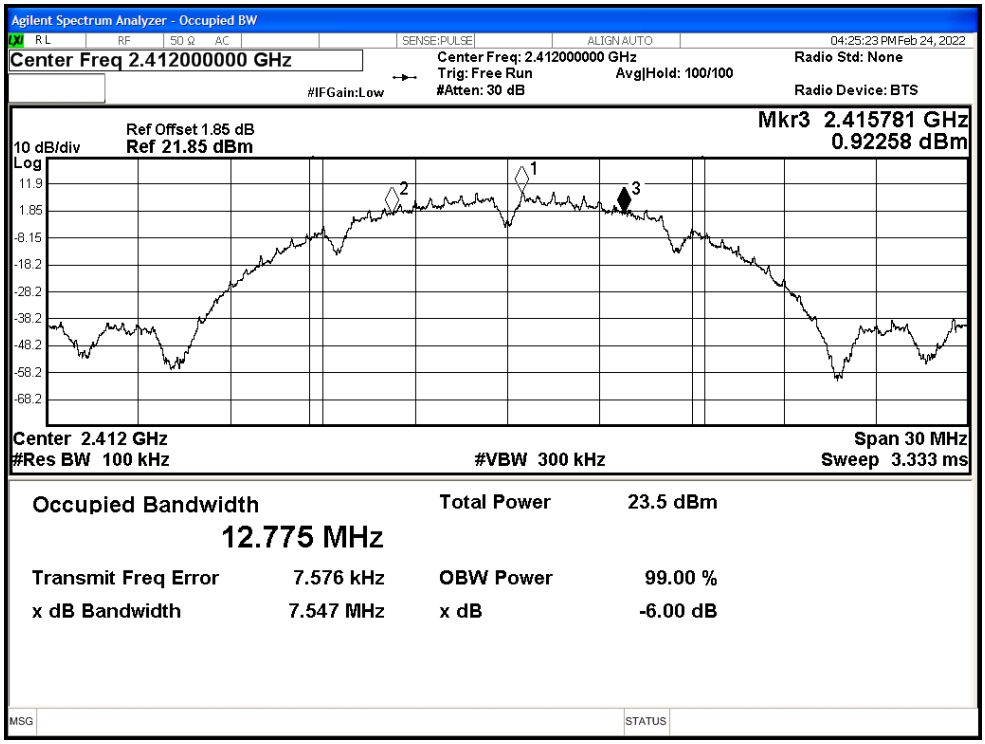

-6dB Bandwidth NVNT ax40 2452MHz Ant0



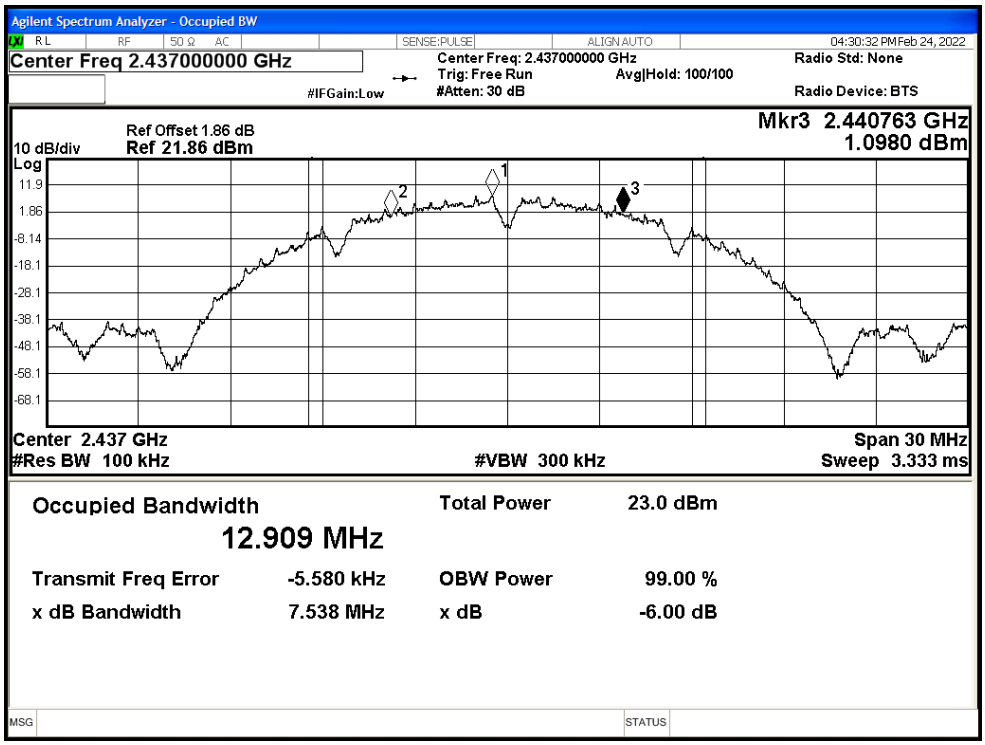
| Condition | Mode | Frequency (MHz) | Antenna | -6 dB Bandwidth (MHz) | Limit -6 dB Bandwidth (MHz) | Verdict |
|---|---|---|---|---|---|---|
| NVNT | b | 2412 | Ant1 | 7.547 | 0.5 | Pass |
| NVNT | b | 2437 | Ant1 | 7.538 | 0.5 | Pass |
| NVNT | b | 2462 | Ant1 | 8.02 | 0.5 | Pass |
| NVNT | g | 2412 | Ant1 | 15.076 | 0.5 | Pass |
| NVNT | g | 2437 | Ant1 | 15.749 | 0.5 | Pass |
| NVNT | g | 2462 | Ant1 | 14.264 | 0.5 | Pass |
| NVNT | n20 | 2412 | Ant1 | 14.768 | 0.5 | Pass |
| NVNT | n20 | 2437 | Ant1 | 15.12 | 0.5 | Pass |
| NVNT | n20 | 2462 | Ant1 | 13.863 | 0.5 | Pass |
| NVNT | n40 | 2422 | Ant1 | 35.117 | 0.5 | Pass |
| NVNT | n40 | 2437 | Ant1 | 33.877 | 0.5 | Pass |
| NVNT | n40 | 2452 | Ant1 | 35.024 | 0.5 | Pass |
| NVNT | ax20 | 2412 | Ant1 | 17.587 | 0.5 | Pass |
| NVNT | ax20 | 2437 | Ant1 | 17.953 | 0.5 | Pass |
| NVNT | ax20 | 2462 | Ant1 | 18.015 | 0.5 | Pass |
| NVNT | ax40 | 2422 | Ant1 | 35.133 | 0.5 | Pass |
| NVNT | ax40 | 2437 | Ant1 | 37.302 | 0.5 | Pass |
| NVNT | ax40 | 2452 | Ant1 | 35.25 | 0.5 | Pass |

Test Graphs

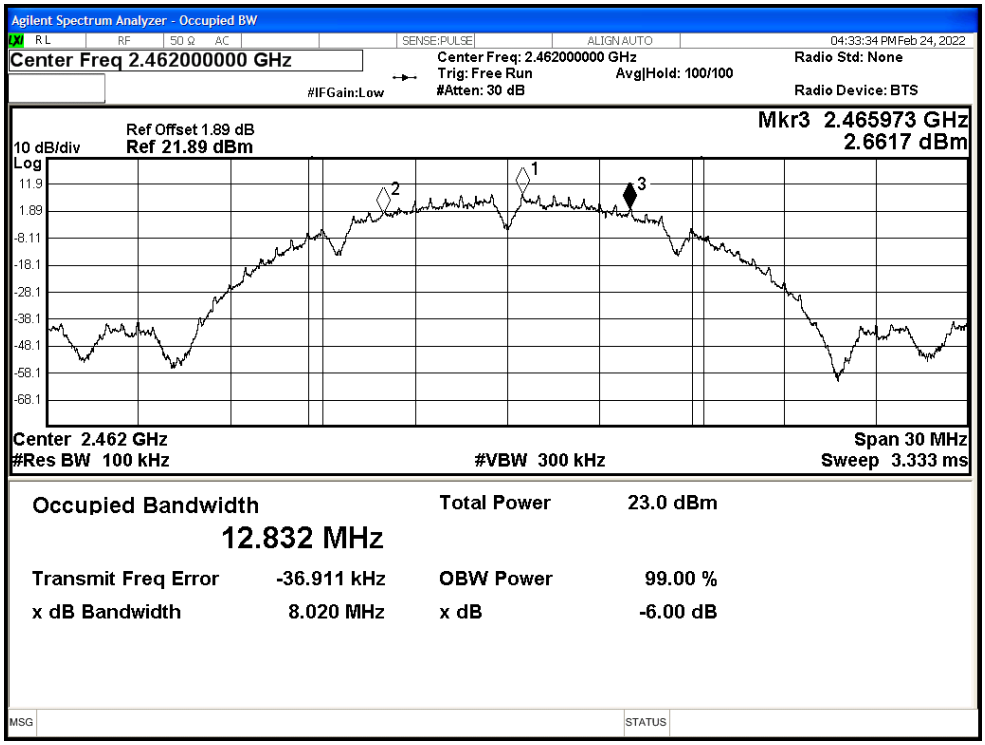
-6dB Bandwidth NVNT b 2412MHz Ant1



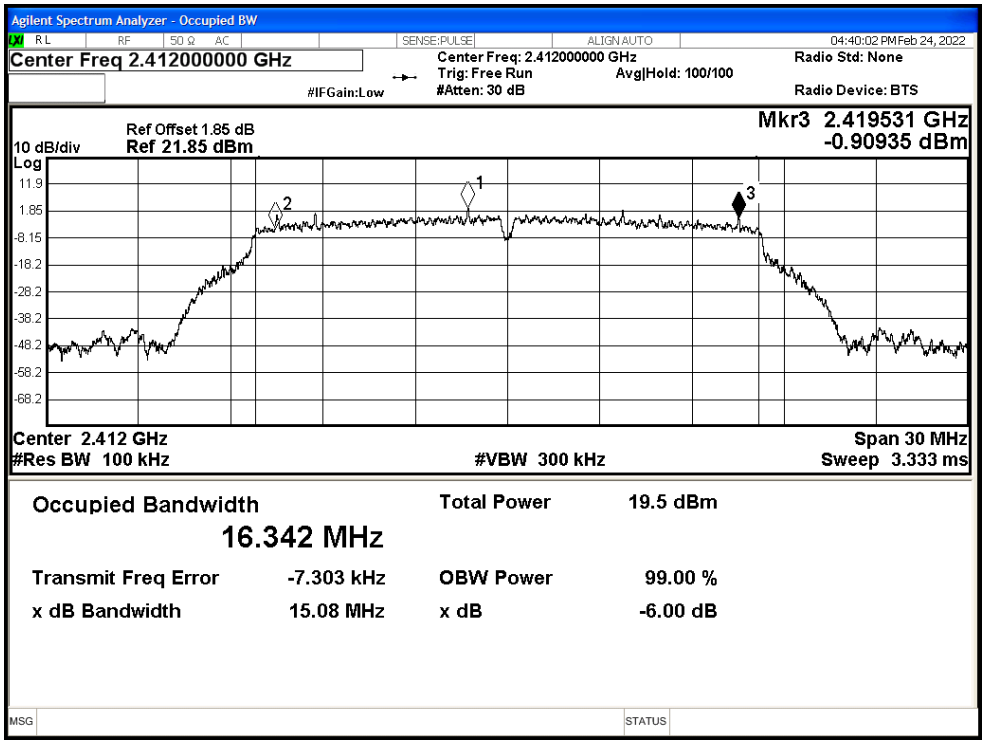

-6dB Bandwidth NVNT b 2437MHz Ant1



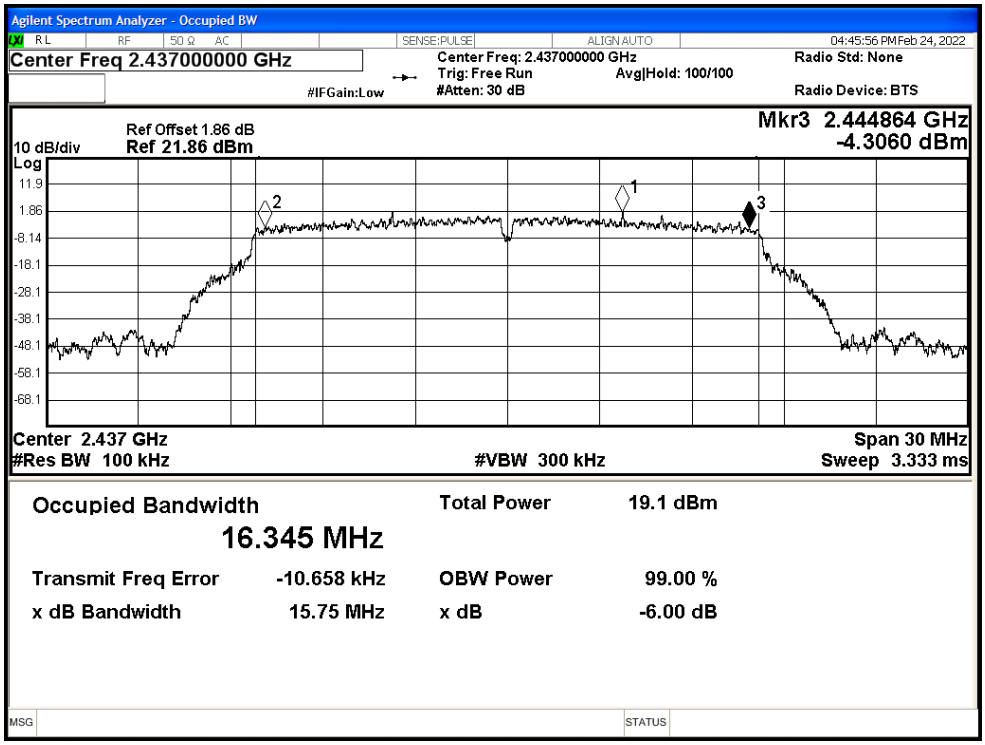
-6dB Bandwidth NVNT b 2462MHz Ant1



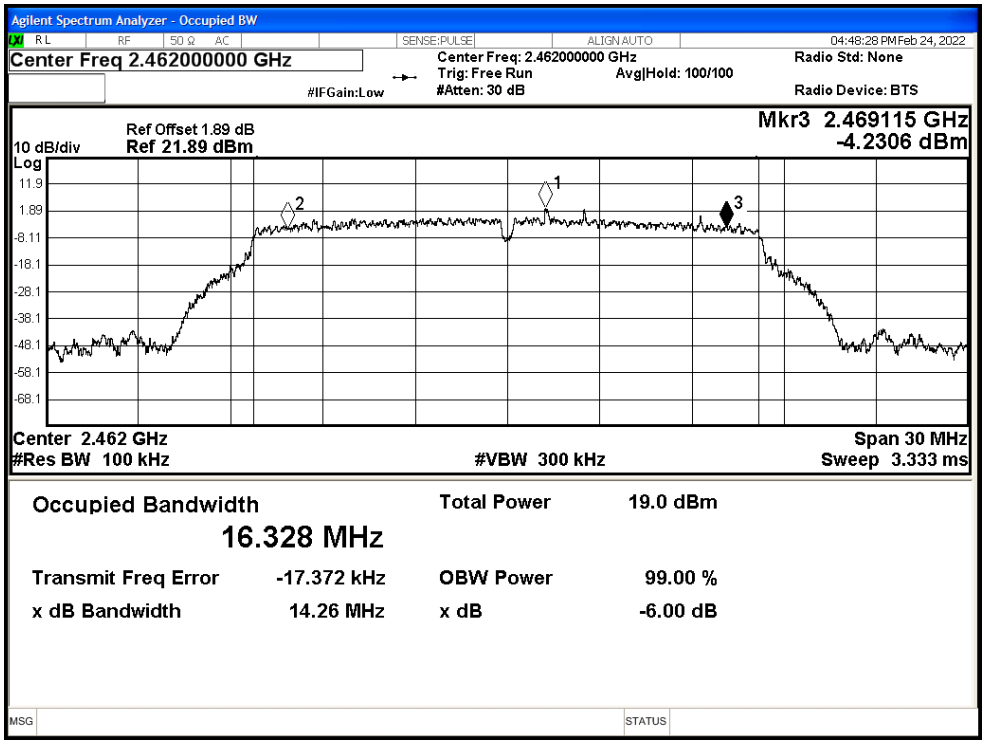

-6dB Bandwidth NVNT g 2412MHz Ant1



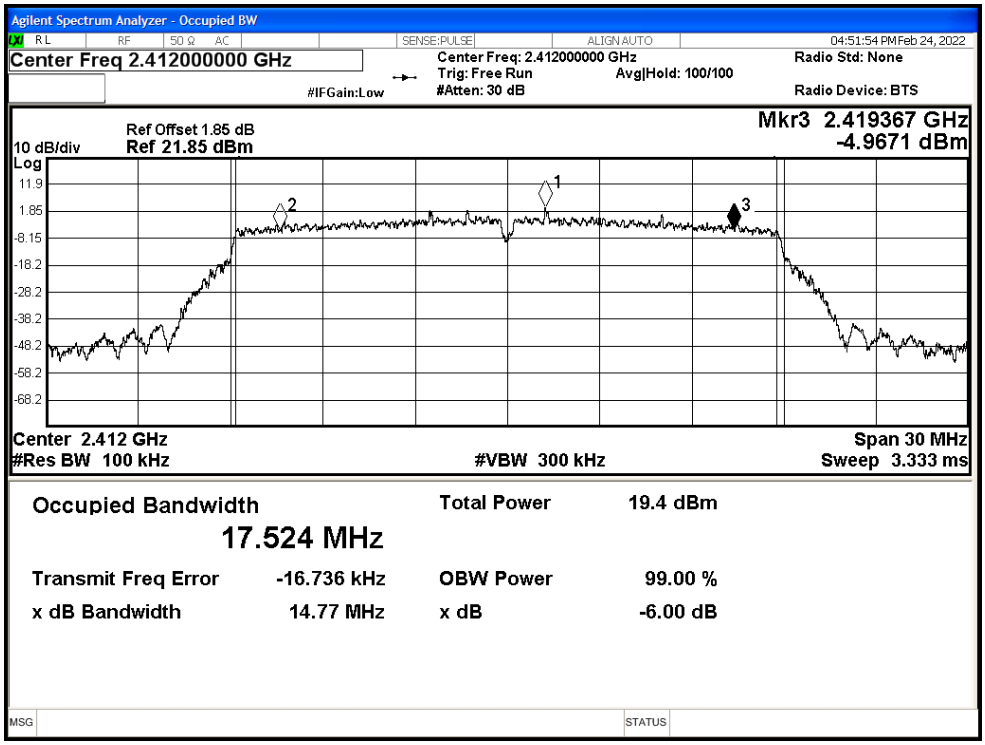
-6dB Bandwidth NVNT g 2437MHz Ant1



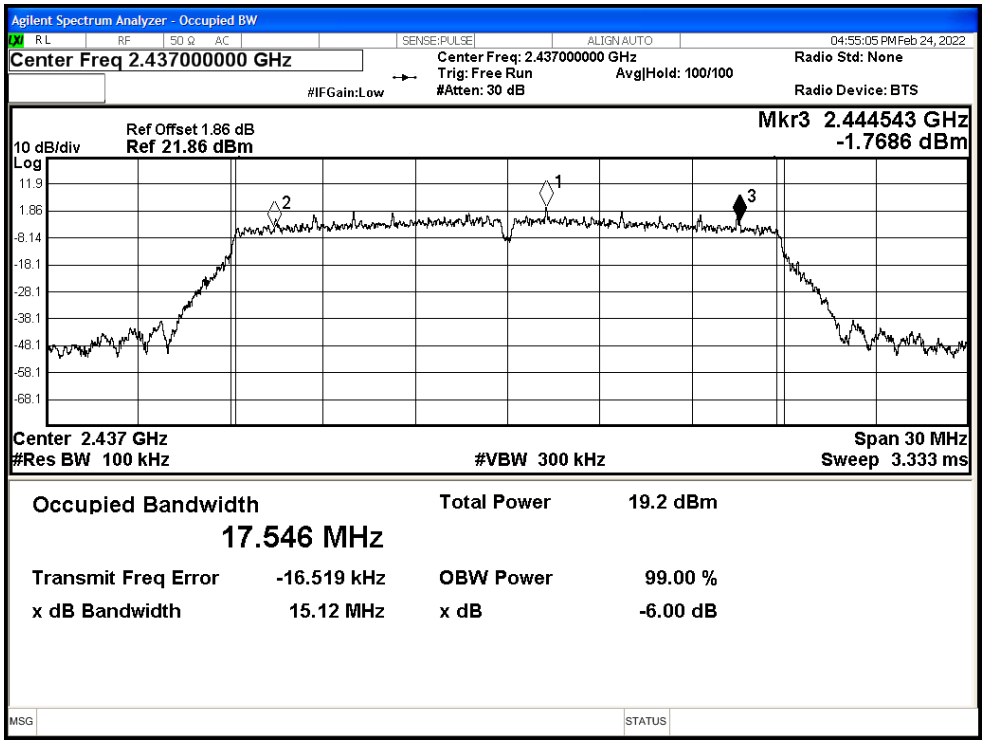

-6dB Bandwidth NVNT g 2462MHz Ant1



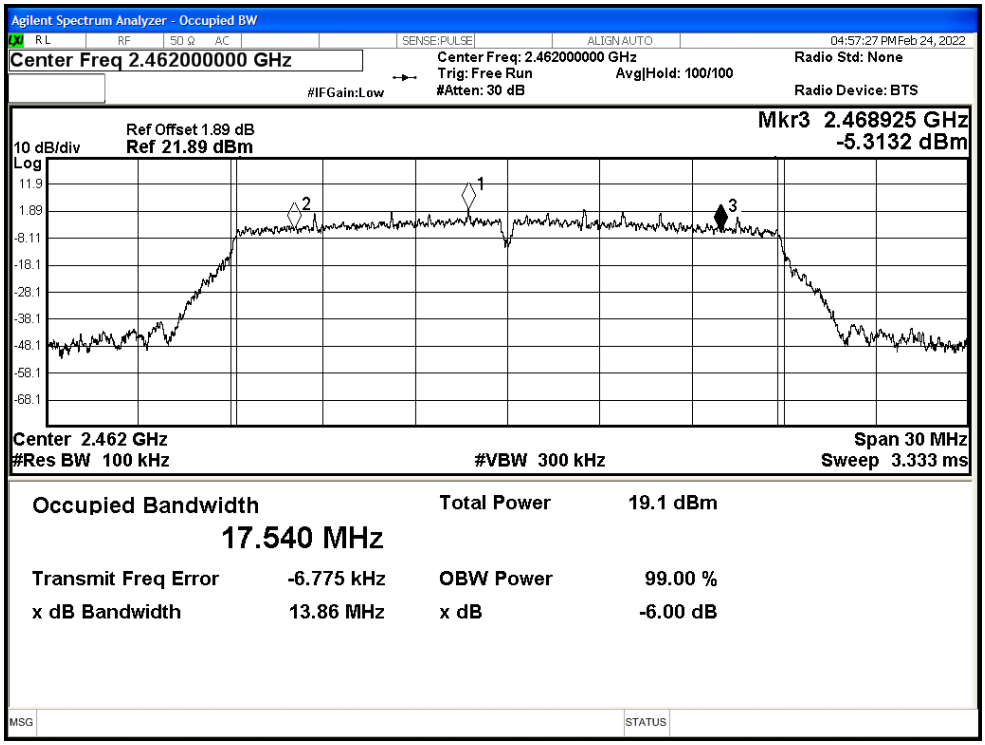
-6dB Bandwidth NVNT n20 2412MHz Ant1



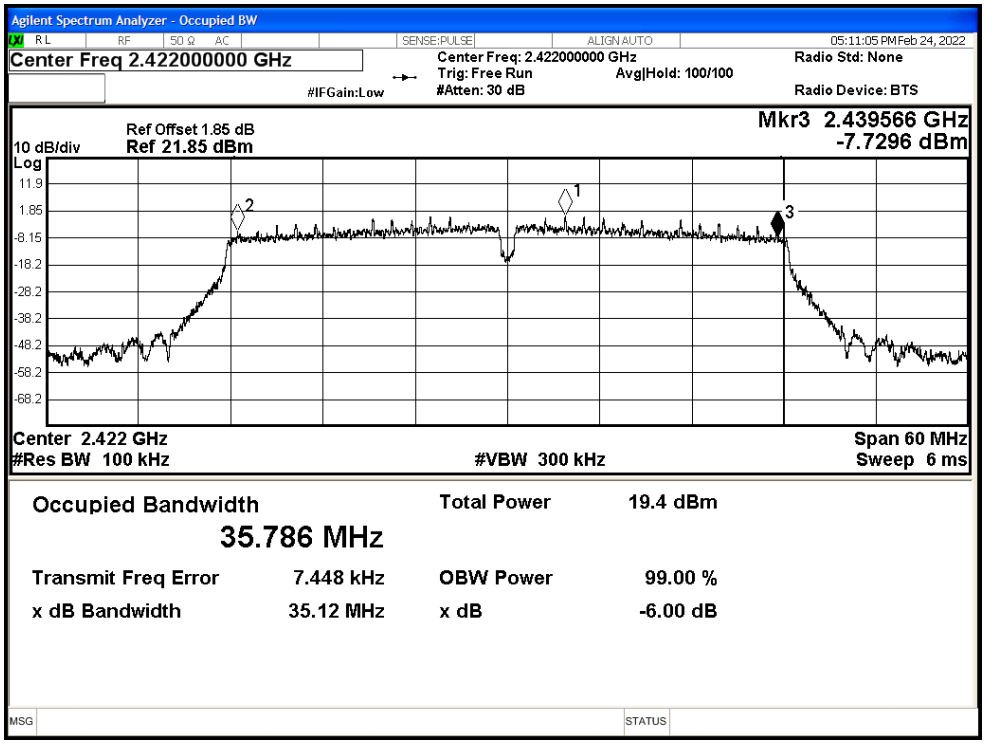

-6dB Bandwidth NVNT n20 2437MHz Ant1



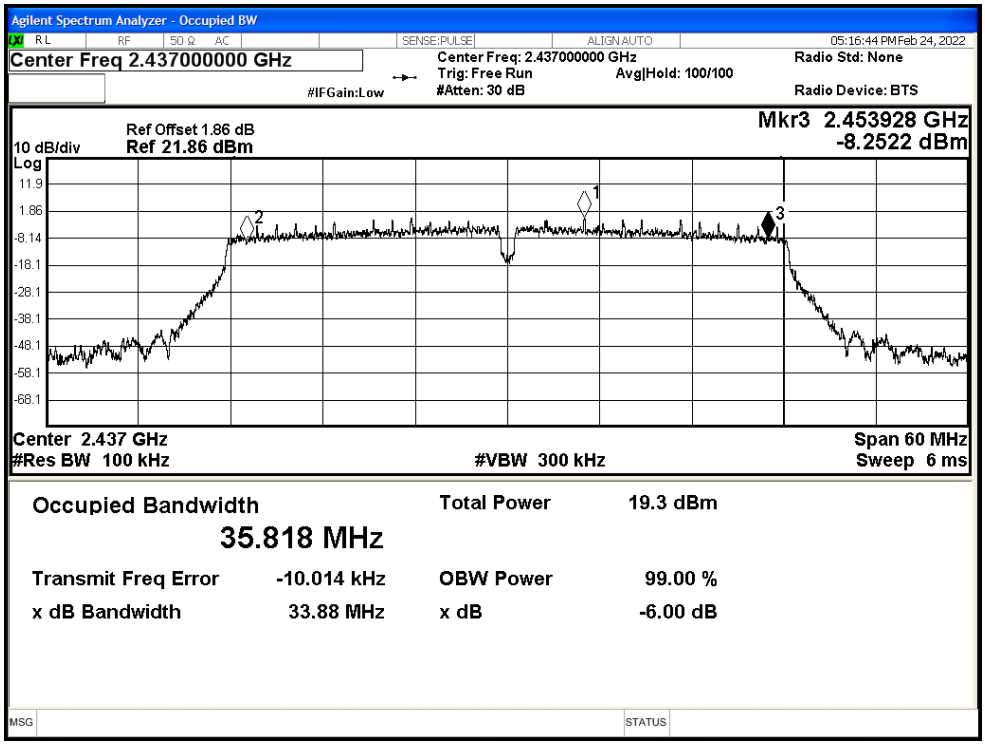
-6dB Bandwidth NVNT n20 2462MHz Ant1



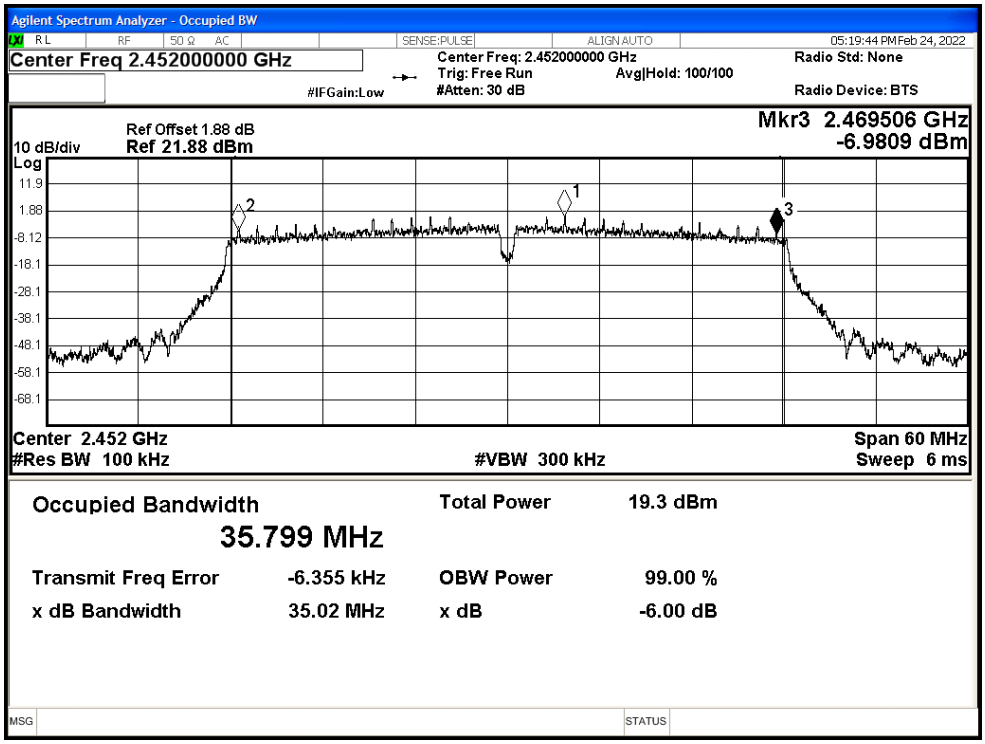

-6dB Bandwidth NVNT n40 2422MHz Ant1



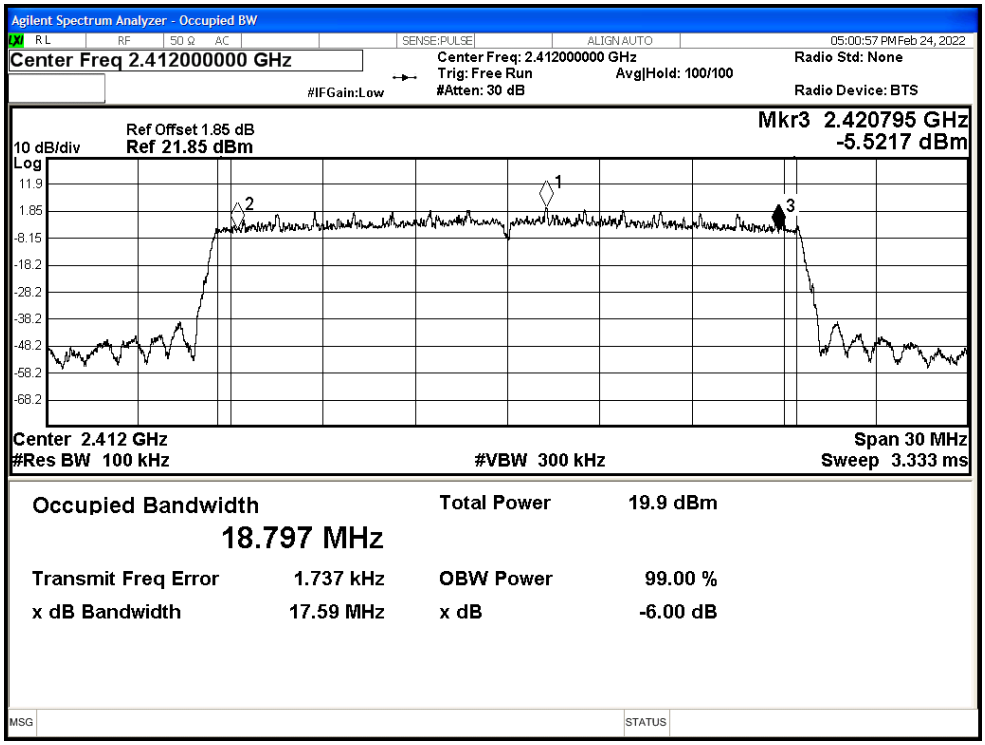
-6dB Bandwidth NVNT n40 2437MHz Ant1



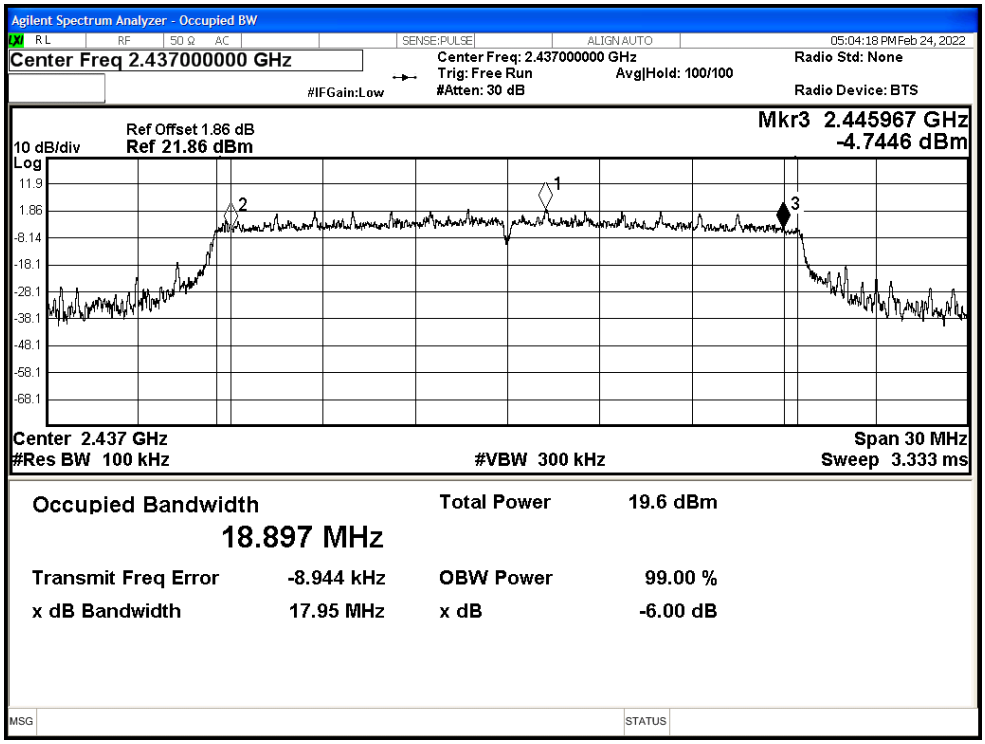

-6dB Bandwidth NVNT n40 2452MHz Ant1



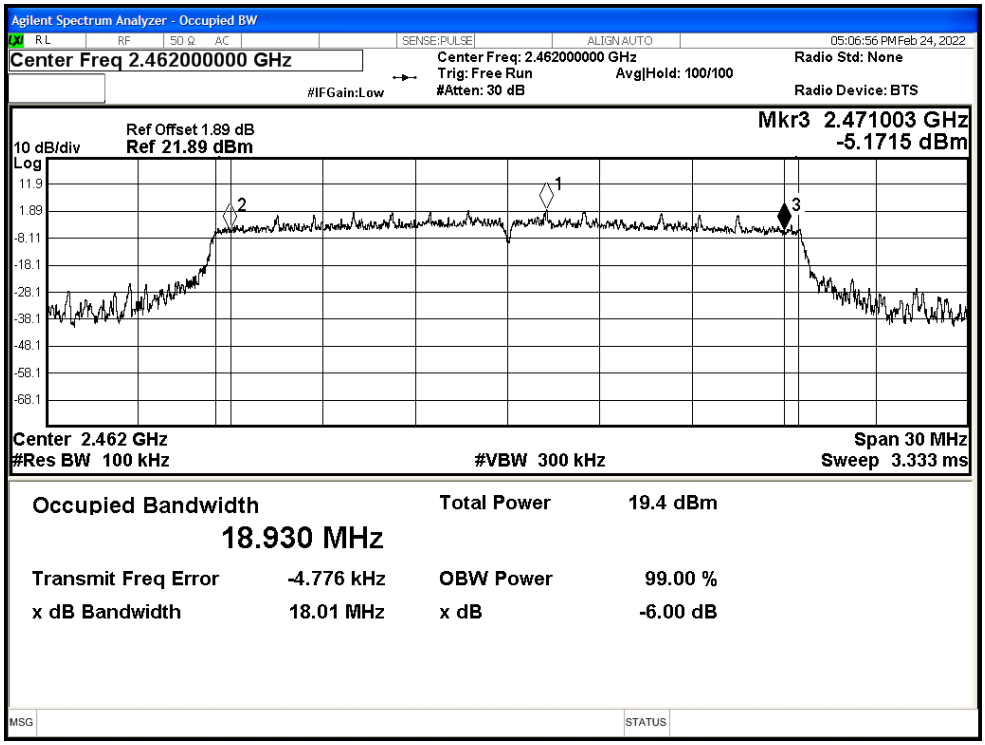
-6dB Bandwidth NVNT ax20 2412MHz Ant1



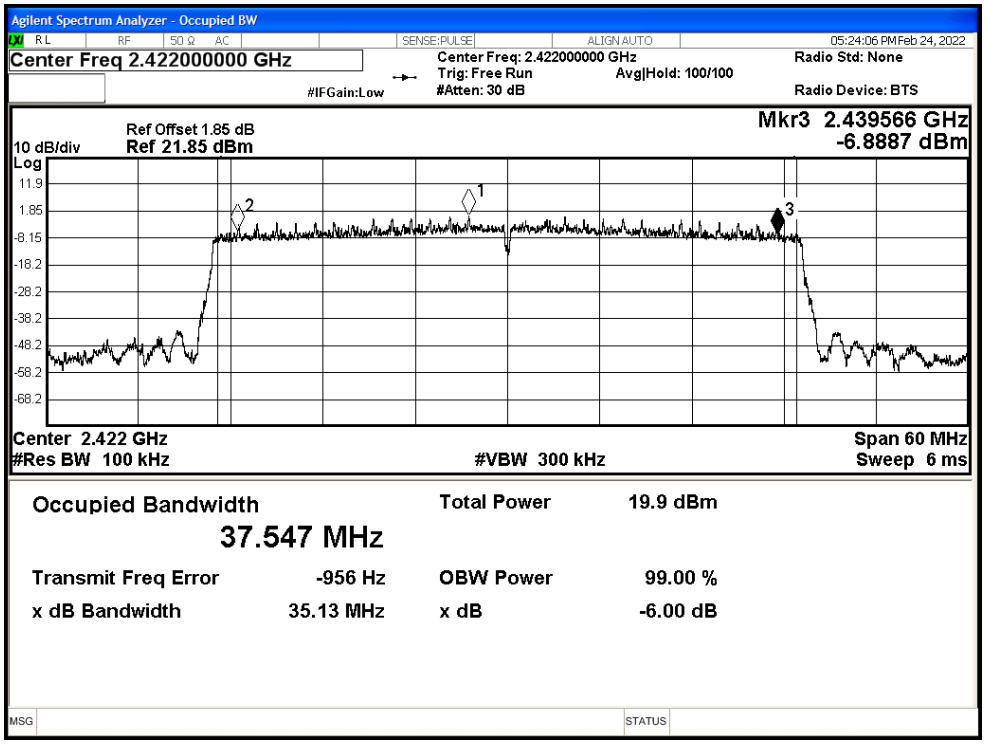

-6dB Bandwidth NVNT ax20 2437MHz Ant1



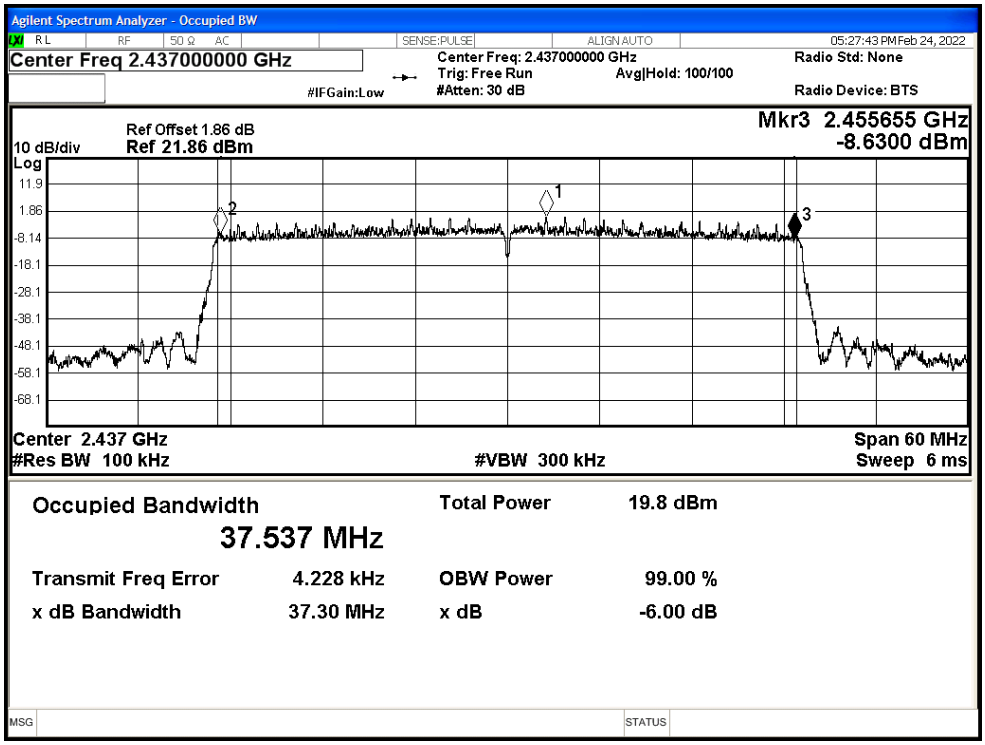
-6dB Bandwidth NVNT ax20 2462MHz Ant1



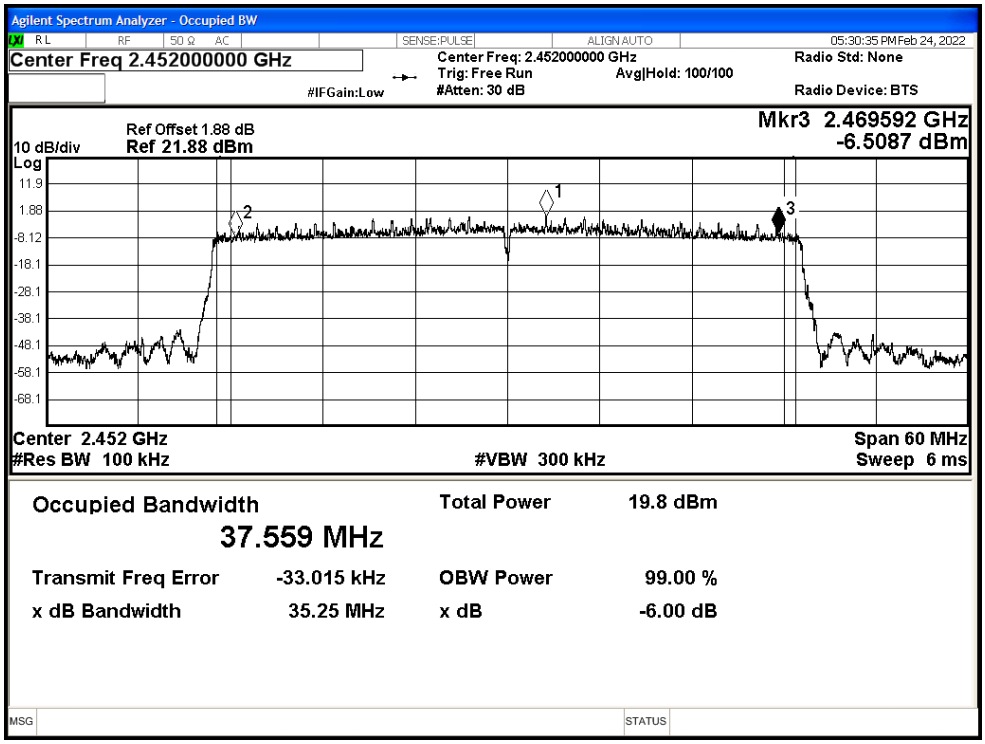

-6dB Bandwidth NVNT ax40 2422MHz Ant1



-6dB Bandwidth NVNT ax40 2437MHz Ant1




-6dB Bandwidth NVNT ax40 2452MHz Ant1



# A.2 Maximum Peak Conducted Output Power

| Condition | Mode | Frequency (MHz) | Antenna | Conducted Power (dBm) | Duty Factor (dB) | Total Power (dBm) | Limit (dBm) | Verdict |
|---|---|---|---|---|---|---|---|---|
| NVNT | b | 2412 | Ant0 | 18.26 | 0 | 18.26 | 30 | Pass |
| NVNT | b | 2437 | Ant0 | 17.94 | 0 | 17.94 | 30 | Pass |
| NVNT | b | 2462 | Ant0 | 17.99 | 0 | 17.99 | 30 | Pass |
| NVNT | g | 2412 | Ant0 | 18.15 | 0 | 18.15 | 30 | Pass |
| NVNT | g | 2437 | Ant0 | 17.9 | 0 | 17.9 | 30 | Pass |
| NVNT | g | 2462 | Ant0 | 17.75 | 0 | 17.75 | 30 | Pass |
| NVNT | n20 | 2412 | Ant0 | 18.11 | 0 | 18.11 | 30 | Pass |
| NVNT | n20 | 2437 | Ant0 | 17.69 | 0 | 17.69 | 30 | Pass |
| NVNT | n20 | 2462 | Ant0 | 17.52 | 0 | 17.52 | 30 | Pass |
| NVNT | n40 | 2422 | Ant0 | 18.72 | 0 | 18.72 | 30 | Pass |
| NVNT | n40 | 2437 | Ant0 | 18.57 | 0 | 18.57 | 30 | Pass |
| NVNT | n40 | 2452 | Ant0 | 18.66 | 0 | 18.66 | 30 | Pass |
| NVNT | ax20 | 2412 | Ant0 | 18.04 | 0 | 18.04 | 30 | Pass |
| NVNT | ax20 | 2437 | Ant0 | 18.76 | 0 | 18.76 | 30 | Pass |
| NVNT | ax20 | 2462 | Ant0 | 18.75 | 0 | 18.75 | 30 | Pass |
| NVNT | ax40 | 2422 | Ant0 | 18.79 | 0 | 18.79 | 30 | Pass |
| NVNT | ax40 | 2437 | Ant0 | 18.57 | 0 | 18.57 | 30 | Pass |
| NVNT | ax40 | 2452 | Ant0 | 18.6 | 0 | 18.6 | 30 | Pass |

| Condition | Mode | Frequency (MHz) | Antenna | Conducted Power (dBm) | Duty Factor (dB) | Total Power (dBm) | Limit (dBm) | Verdict |
|---|---|---|---|---|---|---|---|---|
| NVNT | b | 2412 | Ant1 | 18.41 | 0 | 18.41 | 30 | Pass |
| NVNT | b | 2437 | Ant1 | 18.07 | 0 | 18.07 | 30 | Pass |
| NVNT | b | 2462 | Ant1 | 18 | 0 | 18 | 30 | Pass |
| NVNT | g | 2412 | Ant1 | 18.3 | 0 | 18.3 | 30 | Pass |
| NVNT | g | 2437 | Ant1 | 17.9 | 0 | 17.9 | 30 | Pass |
| NVNT | g | 2462 | Ant1 | 17.82 | 0 | 17.82 | 30 | Pass |
| NVNT | n20 | 2412 | Ant1 | 18.03 | 0 | 18.03 | 30 | Pass |
| NVNT | n20 | 2437 | Ant1 | 17.77 | 0 | 17.77 | 30 | Pass |
| NVNT | n20 | 2462 | Ant1 | 17.64 | 0 | 17.64 | 30 | Pass |
| NVNT | n40 | 2422 | Ant1 | 17.82 | 0 | 17.82 | 30 | Pass |
| NVNT | n40 | 2437 | Ant1 | 17.81 | 0 | 17.81 | 30 | Pass |
| NVNT | n40 | 2452 | Ant1 | 17.74 | 0 | 17.74 | 30 | Pass |
| NVNT | ax20 | 2412 | Ant1 | 19.21 | 0 | 19.21 | 30 | Pass |
| NVNT | ax20 | 2437 | Ant1 | 18.84 | 0 | 18.84 | 30 | Pass |
| NVNT | ax20 | 2462 | Ant1 | 18.84 | 0 | 18.84 | 30 | Pass |
| NVNT | ax40 | 2422 | Ant1 | 18.7 | 0 | 18.7 | 30 | Pass |
| NVNT | ax40 | 2437 | Ant1 | 18.76 | 0 | 18.76 | 30 | Pass |
| NVNT | ax40 | 2452 | Ant1 | 18.64 | 0 | 18.64 | 30 | Pass |

MIMO

| Condition | Mode | Frequency (MHz) | Total Power (dBm) | | | Limit (dBm) | Verdict |
|---|---|---|---|---|---|---|---|
| | | | Ant 0 | Ant 1 | MIMO | | |
| NVNT | n20 | 2412 | 18.11 | 18.03 | 21.08 | 30 | Pass |
| NVNT | n20 | 2437 | 17.69 | 17.77 | 20.74 | 30 | Pass |
| NVNT | n20 | 2462 | 17.52 | 17.64 | 20.59 | 30 | Pass |
| NVNT | n40 | 2422 | 18.72 | 17.82 | 21.30 | 30 | Pass |
| NVNT | n40 | 2437 | 18.57 | 17.81 | 21.22 | 30 | Pass |
| NVNT | n40 | 2452 | 18.66 | 17.74 | 21.23 | 30 | Pass |
| NVNT | ax20 | 2412 | 18.04 | 19.21 | 21.67 | 30 | Pass |
| NVNT | ax20 | 2437 | 18.76 | 18.84 | 21.81 | 30 | Pass |
| NVNT | ax20 | 2462 | 18.75 | 18.84 | 21.81 | 30 | Pass |
| NVNT | ax40 | 2422 | 18.79 | 18.7 | 21.76 | 30 | Pass |
| NVNT | ax40 | 2437 | 18.57 | 18.76 | 21.68 | 30 | Pass |
| NVNT | ax40 | 2452 | 18.6 | 18.64 | 21.63 | 30 | Pass |

# A.3 Maximum Power Spectral Density Level

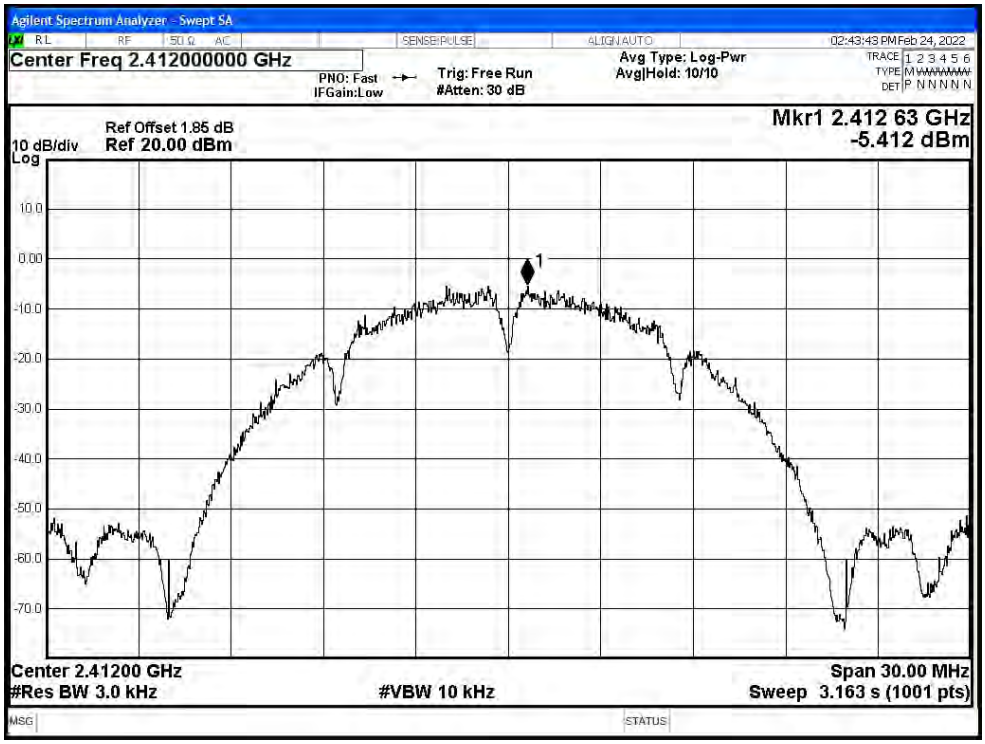
| Condition | Mode | Frequency (MHz) | Antenna | Conducted PSD (dBm/3kHz) | Duty Factor (dB) | Total PSD (dBm/3kHz) | Limit (dBm/3kHz) | Verdict |
|---|---|---|---|---|---|---|---|---|
| NVNT | b | 2412 | Ant0 | -5.41 | 0 | -5.41 | 8 | Pass |
| NVNT | b | 2437 | Ant0 | -5.89 | 0 | -5.89 | 8 | Pass |
| NVNT | b | 2462 | Ant0 | -5.55 | 0 | -5.55 | 8 | Pass |
| NVNT | g | 2412 | Ant0 | -10.91 | 0 | -10.91 | 8 | Pass |
| NVNT | g | 2437 | Ant0 | -10.15 | 0 | -10.15 | 8 | Pass |
| NVNT | g | 2462 | Ant0 | -11.14 | 0 | -11.14 | 8 | Pass |
| NVNT | n20 | 2412 | Ant0 | -10.89 | 0 | -10.89 | 8 | Pass |
| NVNT | n20 | 2437 | Ant0 | -10.69 | 0 | -10.69 | 8 | Pass |
| NVNT | n20 | 2462 | Ant0 | -10.39 | 0 | -10.39 | 8 | Pass |
| NVNT | n40 | 2422 | Ant0 | -14.52 | 0 | -14.52 | 8 | Pass |
| NVNT | n40 | 2437 | Ant0 | -15.32 | 0 | -15.32 | 8 | Pass |
| NVNT | n40 | 2452 | Ant0 | -14.41 | 0 | -14.41 | 8 | Pass |
| NVNT | ax20 | 2412 | Ant0 | -11.35 | 0 | -11.35 | 8 | Pass |
| NVNT | ax20 | 2437 | Ant0 | -10.52 | 0 | -10.52 | 8 | Pass |
| NVNT | ax20 | 2462 | Ant0 | -10.64 | 0 | -10.64 | 8 | Pass |
| NVNT | ax40 | 2422 | Ant0 | -14.5 | 0 | -14.5 | 8 | Pass |
| NVNT | ax40 | 2437 | Ant0 | -14.86 | 0 | -14.86 | 8 | Pass |
| NVNT | ax40 | 2452 | Ant0 | -15.19 | 0 | -15.19 | 8 | Pass |

| Condition | Mode | Frequency (MHz) | Antenna | Conducted PSD (dBm/3kHz) | Duty Factor (dB) | Total PSD (dBm/3kHz) | Limit (dBm/3kHz) | Verdict |
|---|---|---|---|---|---|---|---|---|
| NVNT | b | 2412 | Ant1 | -4.16 | 0 | -4.16 | 8 | Pass |
| NVNT | b | 2437 | Ant1 | -5.77 | 0 | -5.77 | 8 | Pass |
| NVNT | b | 2462 | Ant1 | -5.55 | 0 | -5.55 | 8 | Pass |
| NVNT | g | 2412 | Ant1 | -11.24 | 0 | -11.24 | 8 | Pass |
| NVNT | g | 2437 | Ant1 | -11.06 | 0 | -11.06 | 8 | Pass |
| NVNT | g | 2462 | Ant1 | -10.19 | 0 | -10.19 | 8 | Pass |
| NVNT | n20 | 2412 | Ant1 | -9.98 | 0 | -9.98 | 8 | Pass |
| NVNT | n20 | 2437 | Ant1 | -11.06 | 0 | -11.06 | 8 | Pass |
| NVNT | n20 | 2462 | Ant1 | -11.66 | 0 | -11.66 | 8 | Pass |
| NVNT | n40 | 2422 | Ant1 | -13.59 | 0 | -13.59 | 8 | Pass |
| NVNT | n40 | 2437 | Ant1 | -13.12 | 0 | -13.12 | 8 | Pass |
| NVNT | n40 | 2452 | Ant1 | -13.59 | 0 | -13.59 | 8 | Pass |
| NVNT | ax20 | 2412 | Ant1 | -11.04 | 0 | -11.04 | 8 | Pass |
| NVNT | ax20 | 2437 | Ant1 | -12.42 | 0 | -12.42 | 8 | Pass |
| NVNT | ax20 | 2462 | Ant1 | -12.74 | 0 | -12.74 | 8 | Pass |
| NVNT | ax40 | 2422 | Ant1 | -14.32 | 0 | -14.32 | 8 | Pass |
| NVNT | ax40 | 2437 | Ant1 | -15.58 | 0 | -15.58 | 8 | Pass |
| NVNT | ax40 | 2452 | Ant1 | -14.19 | 0 | -14.19 | 8 | Pass |

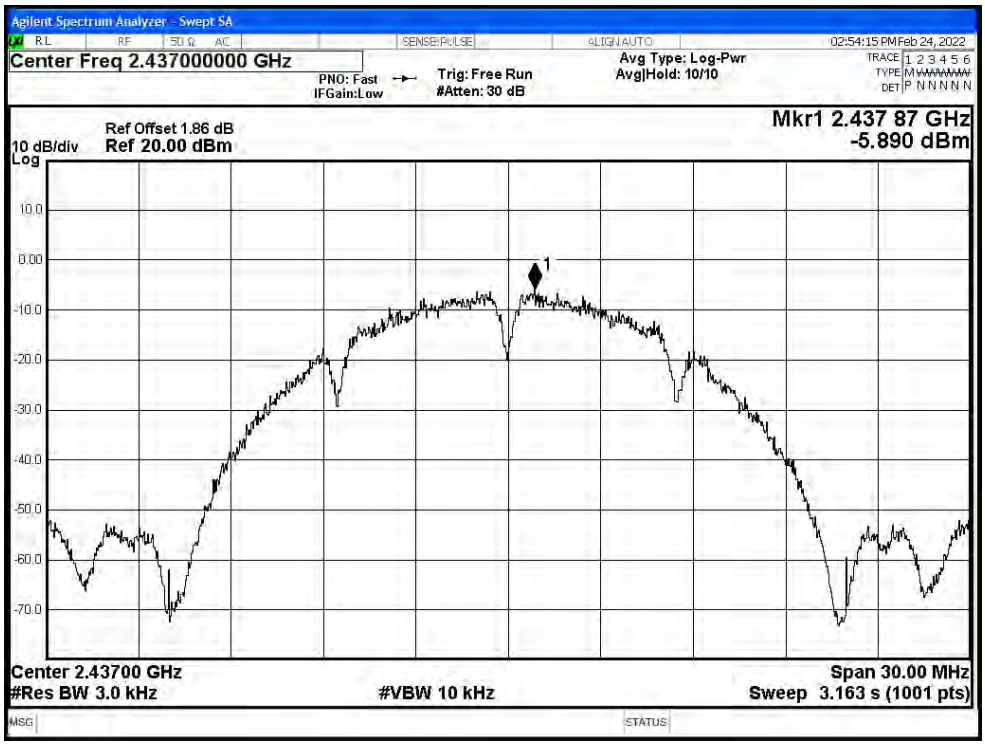
MIMO

| Condition | Mode | Frequency (MHz) | Total PSD (dBm/3kHz) | | | Limit (dBm/3kHz) | Verdict |
|---|---|---|---|---|---|---|---|
| | | | Ant 0 | Ant 1 | MIMO | | |
| NVNT | n20 | 2412 | -10.89 | -9.98 | -7.40 | 8 | Pass |
| NVNT | n20 | 2437 | -10.69 | -11.06 | -7.86 | 8 | Pass |
| NVNT | n20 | 2462 | -10.39 | -11.66 | -7.97 | 8 | Pass |
| NVNT | n40 | 2422 | -14.52 | -13.59 | -11.02 | 8 | Pass |
| NVNT | n40 | 2437 | -15.32 | -13.12 | -11.07 | 8 | Pass |
| NVNT | n40 | 2452 | -14.41 | -13.59 | -10.97 | 8 | Pass |
| NVNT | ax20 | 2412 | -11.35 | -11.04 | -8.18 | 8 | Pass |
| NVNT | ax20 | 2437 | -10.52 | -12.42 | -8.36 | 8 | Pass |
| NVNT | ax20 | 2462 | -10.64 | -12.74 | -8.55 | 8 | Pass |
| NVNT | ax40 | 2422 | -14.5 | -14.32 | -11.40 | 8 | Pass |
| NVNT | ax40 | 2437 | -14.86 | -15.58 | -12.19 | 8 | Pass |
| NVNT | ax40 | 2452 | -15.19 | -14.19 | -11.65 | 8 | Pass |

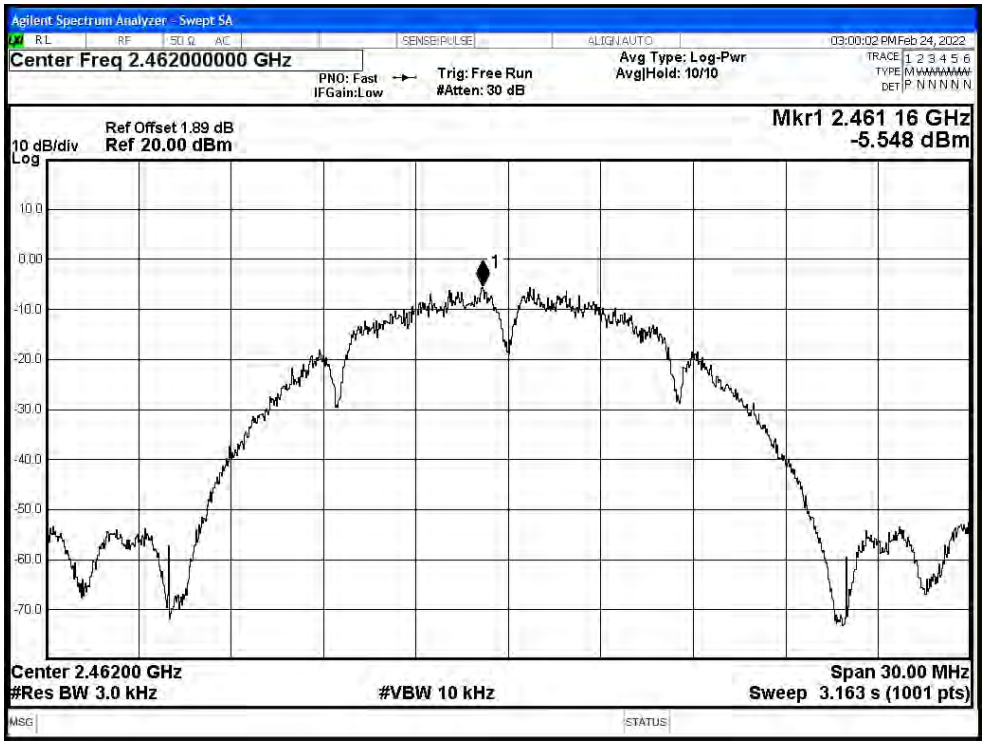
| Test Graphs |
| --- |
| PSD NVNT b 2412MHz Ant0 |



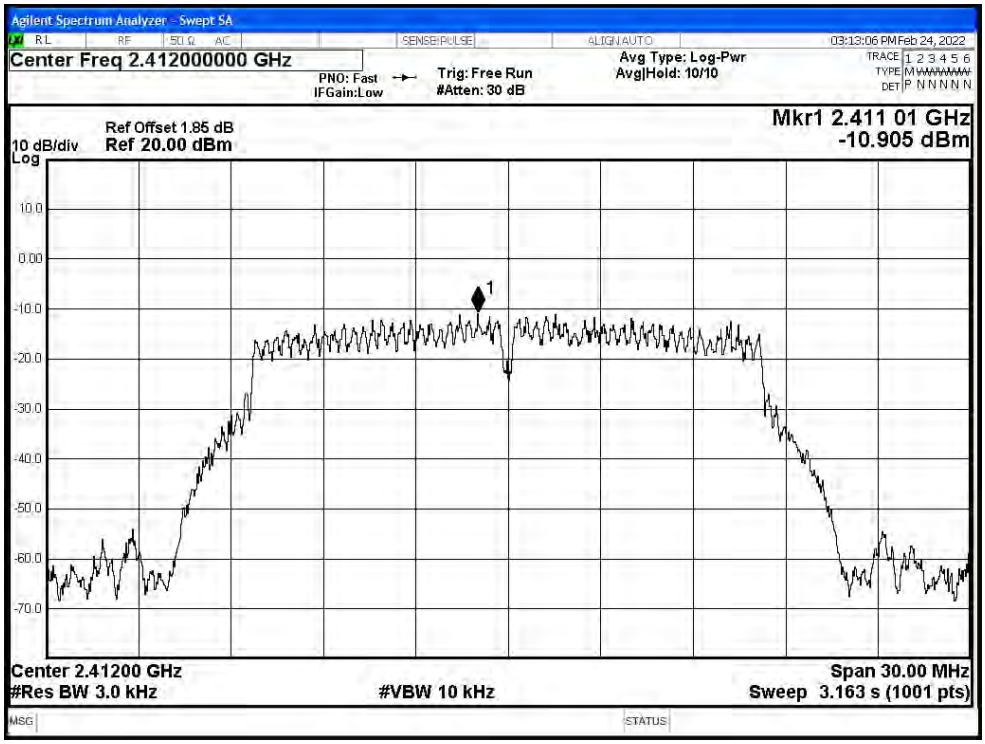

| PSD NVNT b 2437MHz Ant0 |
| --- |



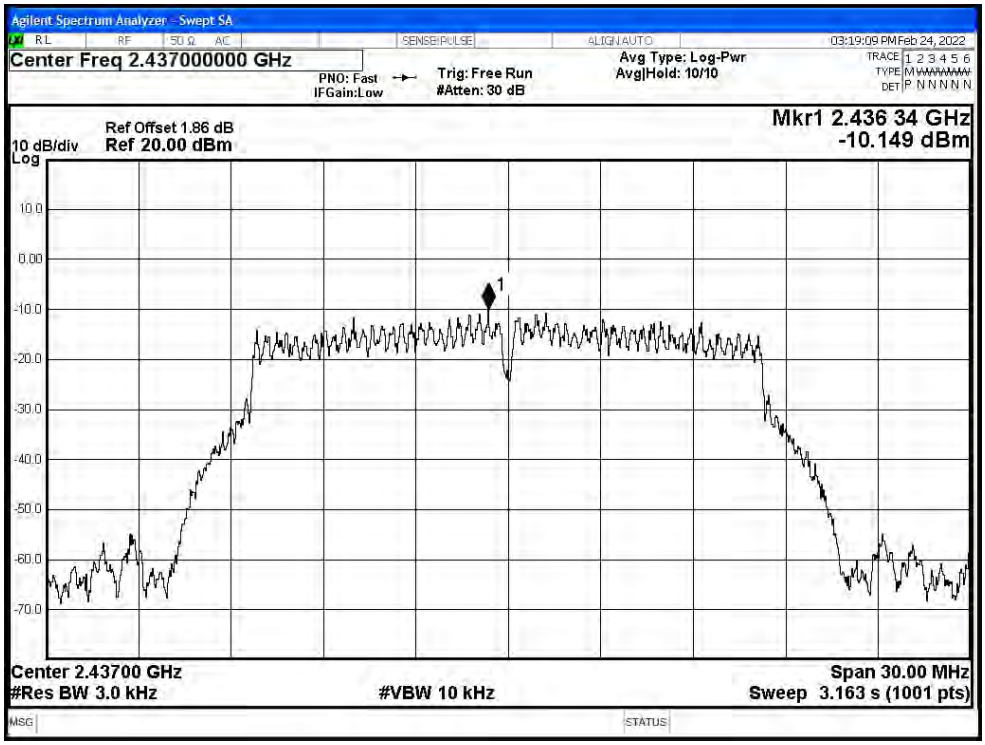
PSD NVNT b 2462MHz Ant0



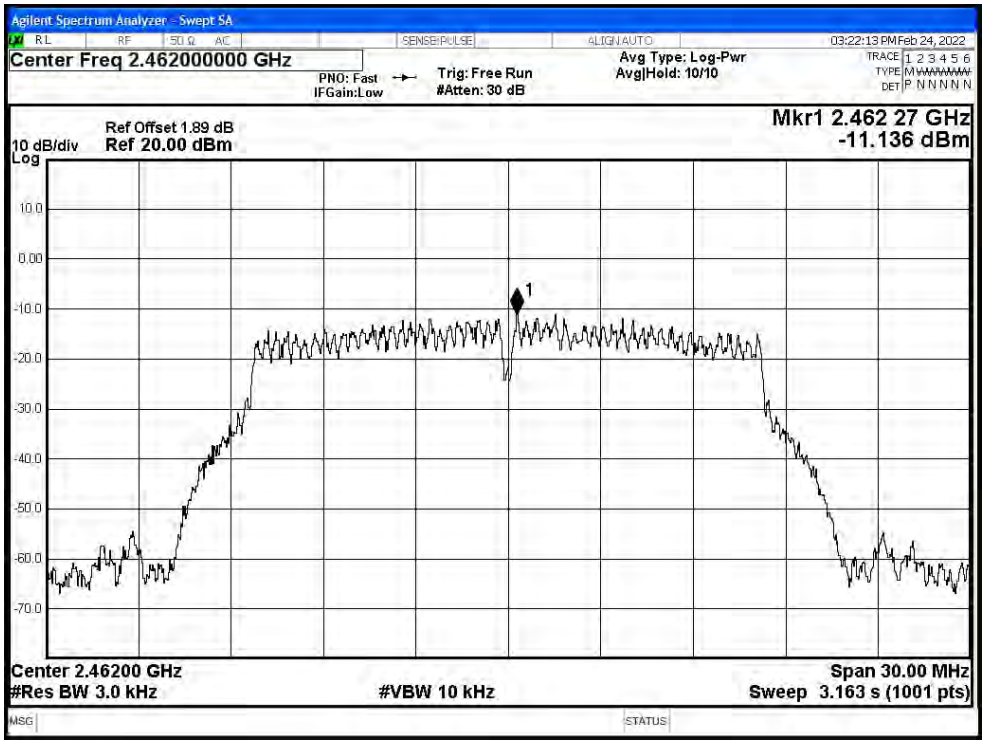

PSD NVNT g 2412MHz Ant0



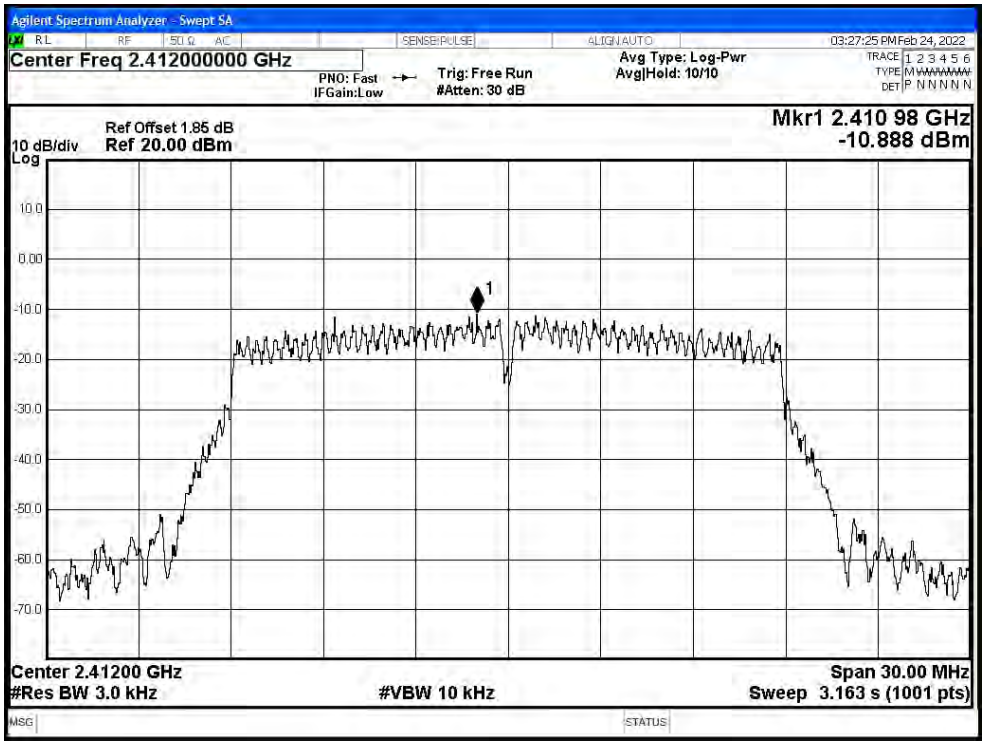
PSD NVNT g 2437MHz Ant0



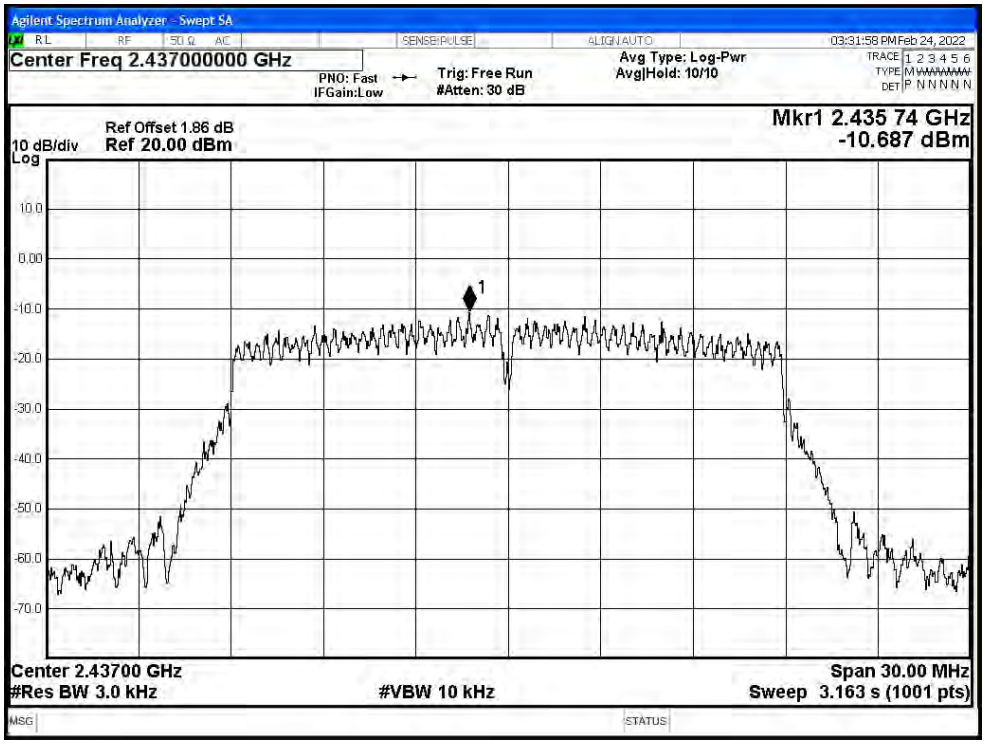

PSD NVNT g 2462MHz Ant0



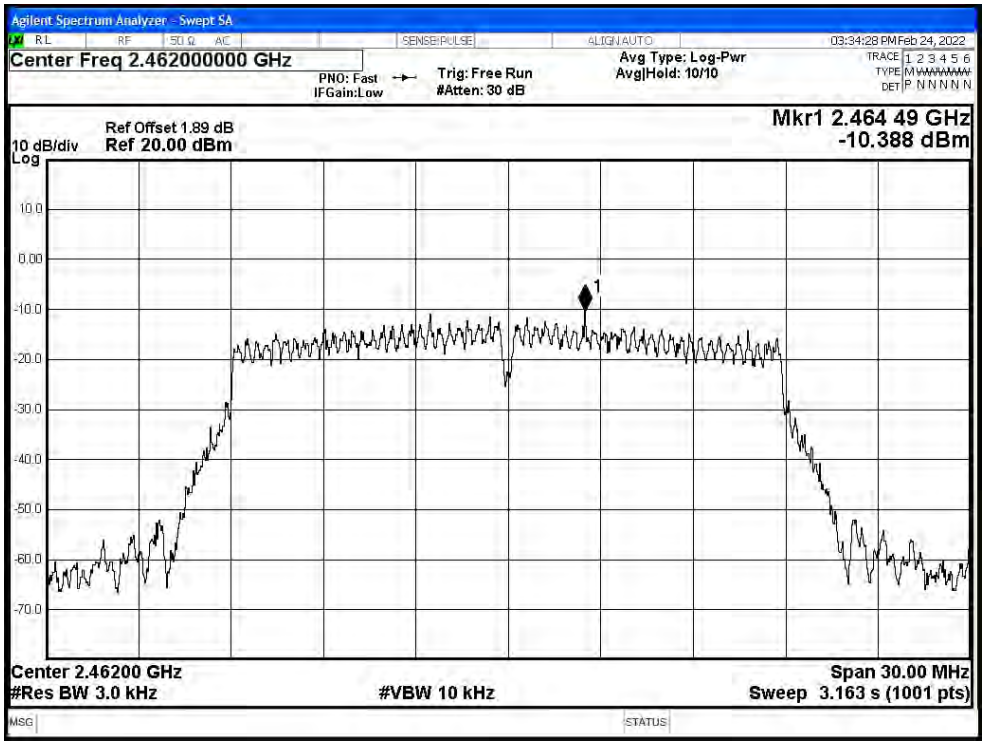
PSD NVNT n20 2412MHz Ant0



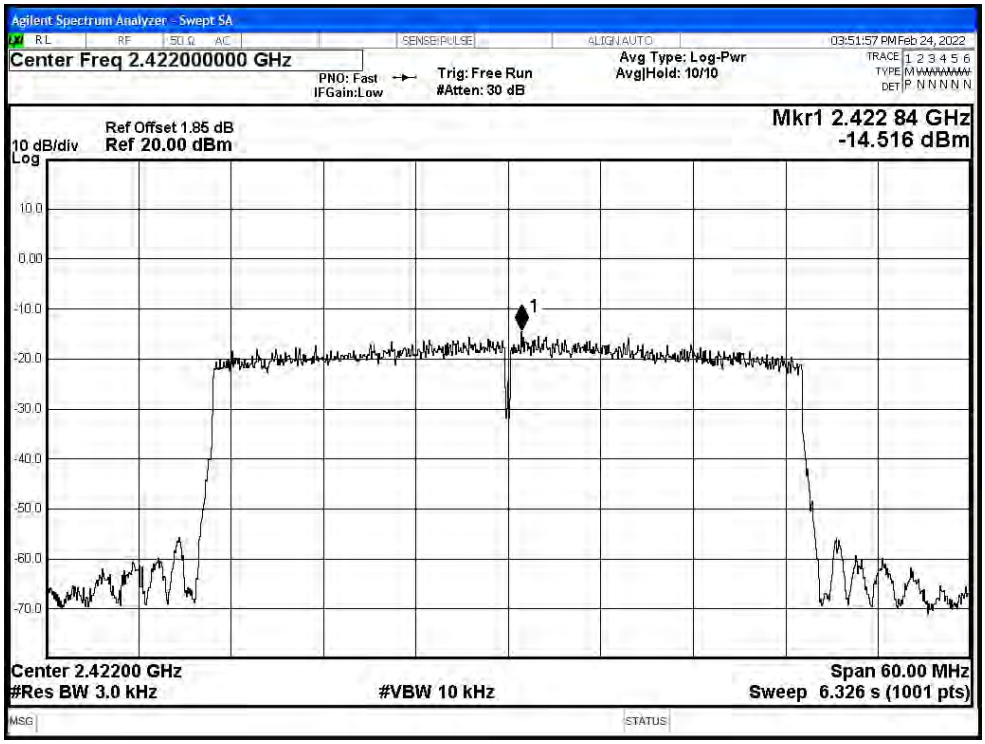

PSD NVNT n20 2437MHz Ant0



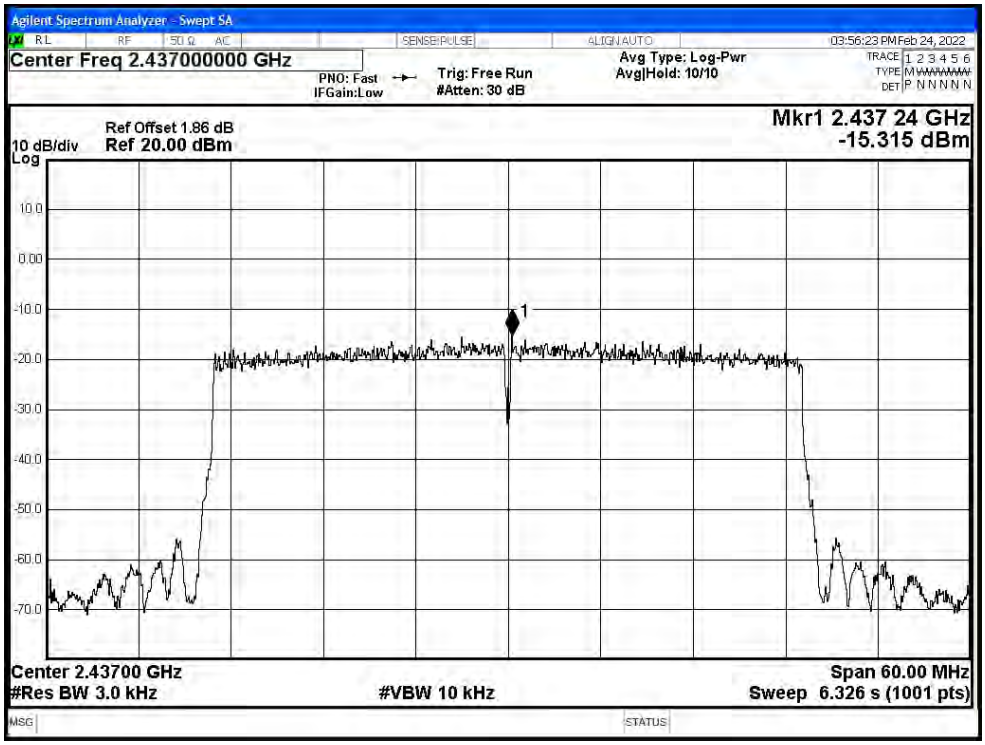
PSD NVNT n20 2462MHz Ant0



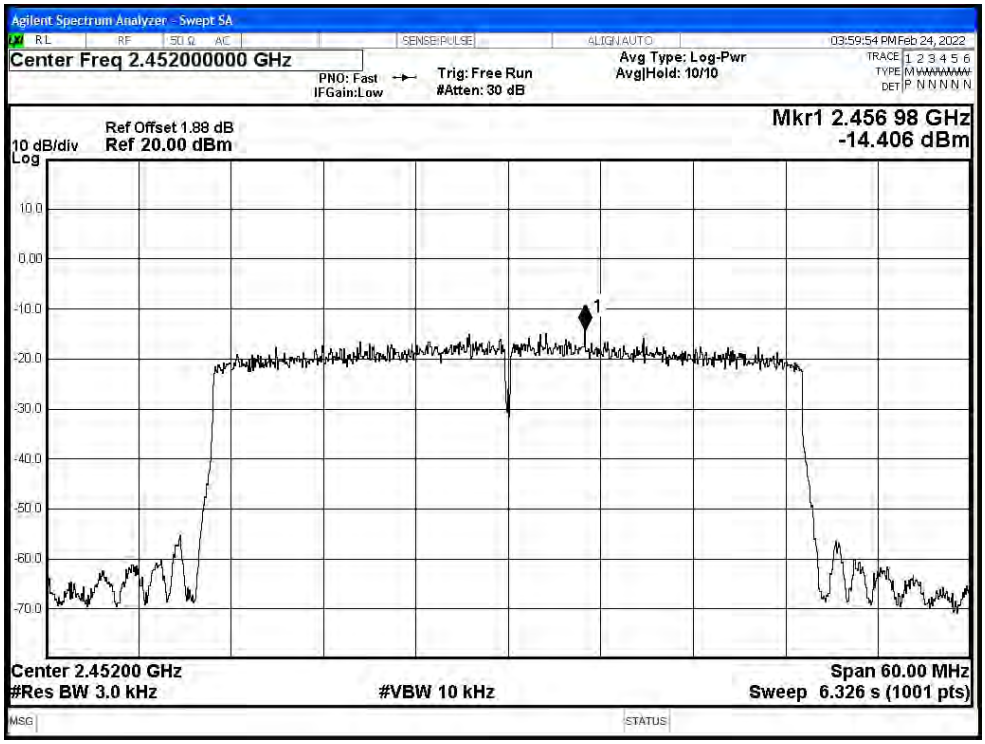

PSD NVNT n40 2422MHz Ant0



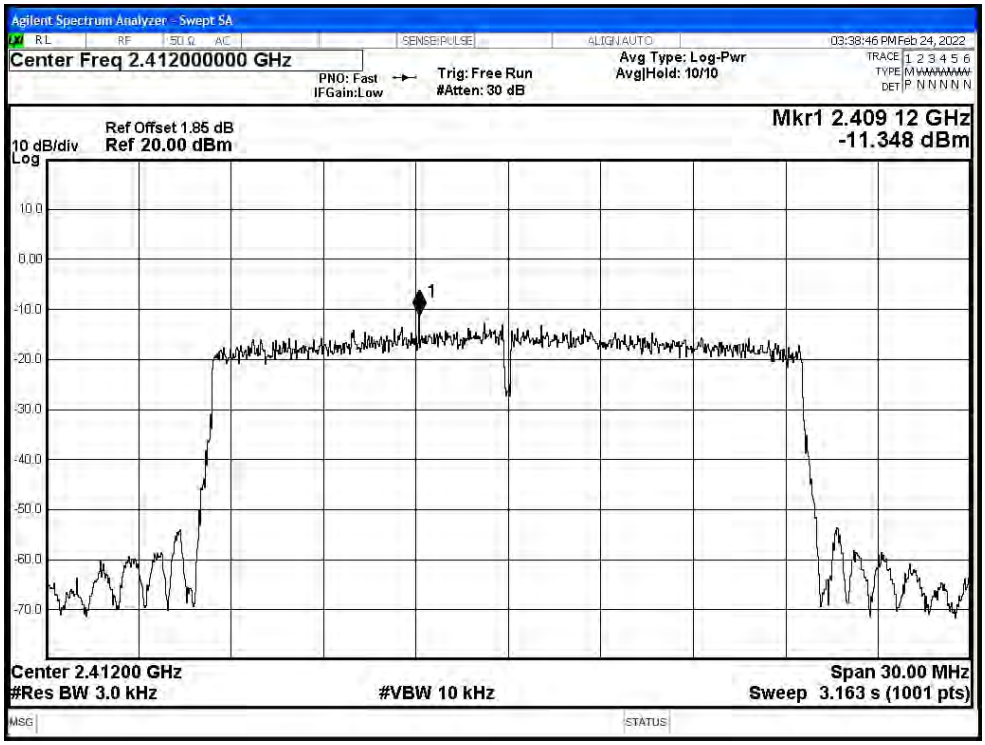
PSD NVNT n40 2437MHz Ant0



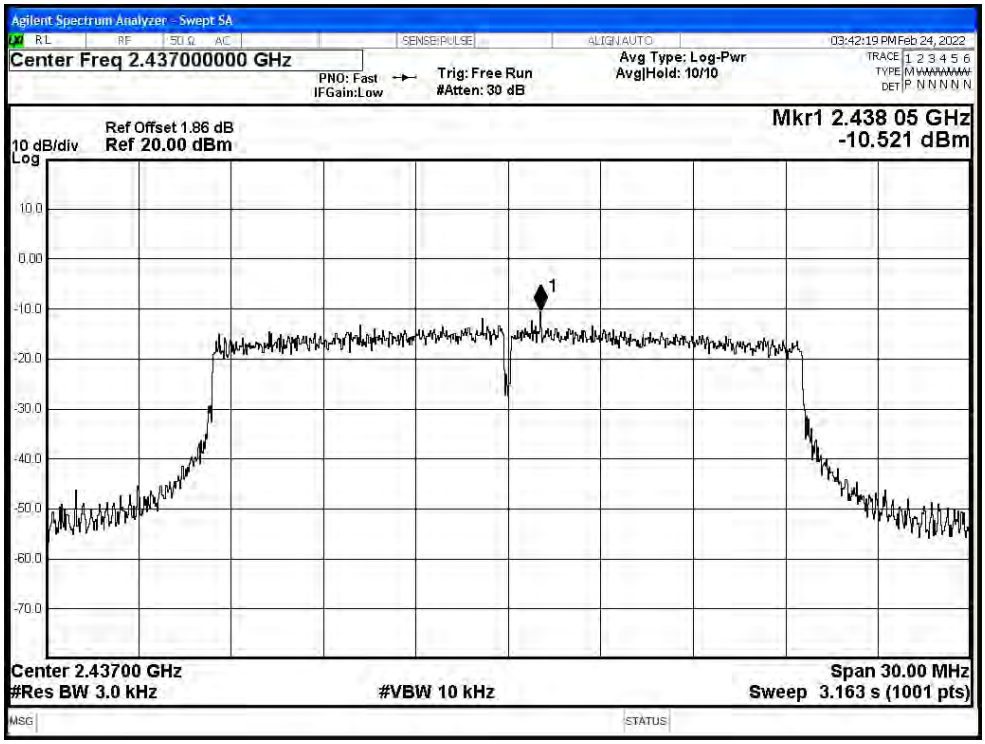

PSD NVNT n40 2452MHz Ant0



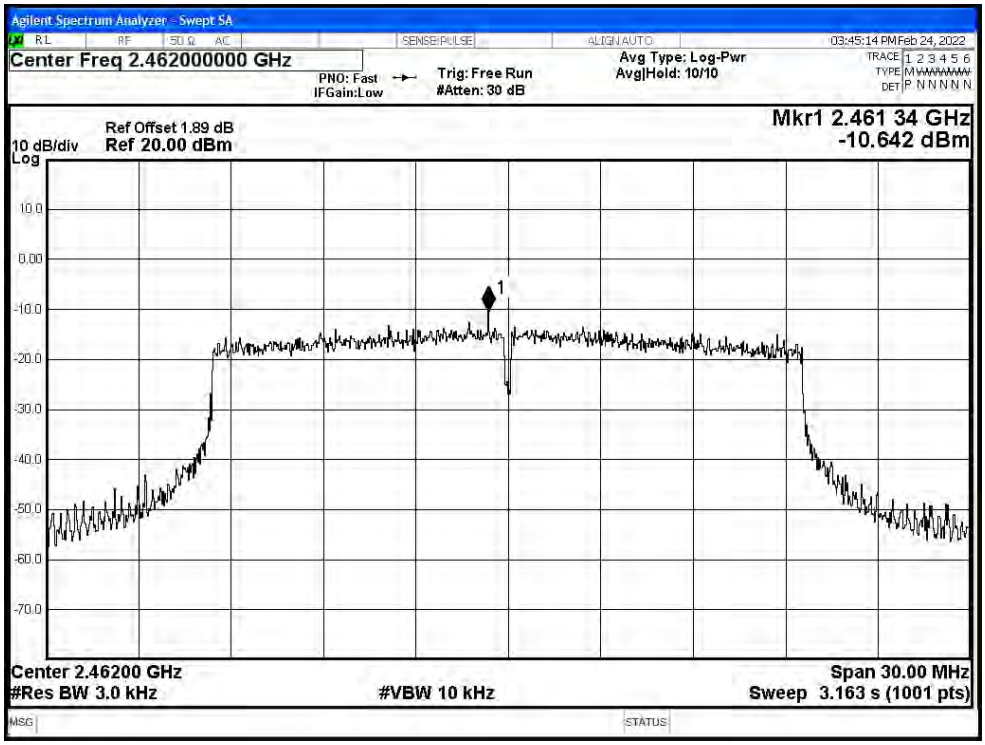
PSD NVNT ax20 2412MHz Ant0



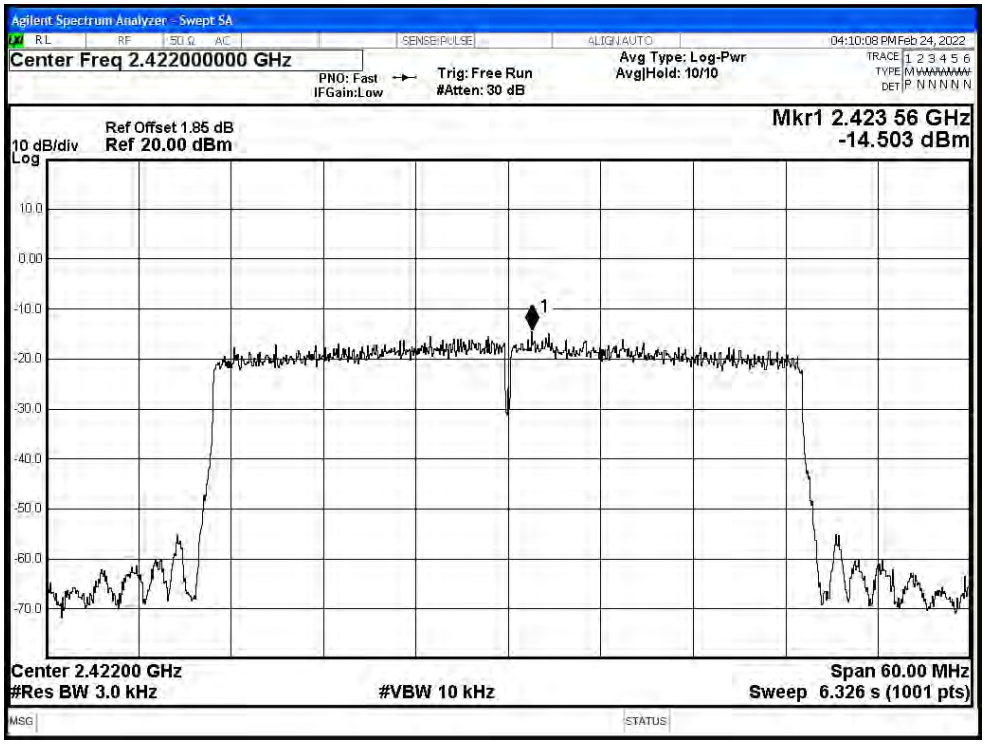

PSD NVNT ax20 2437MHz Ant0



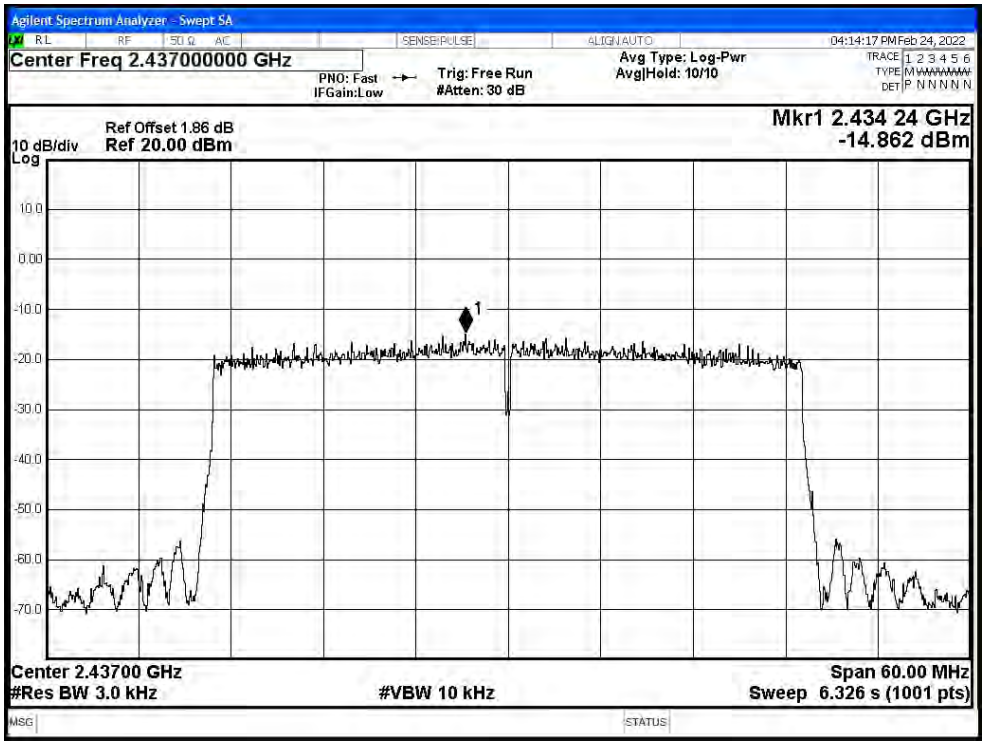
PSD NVNT ax20 2462MHz Ant0



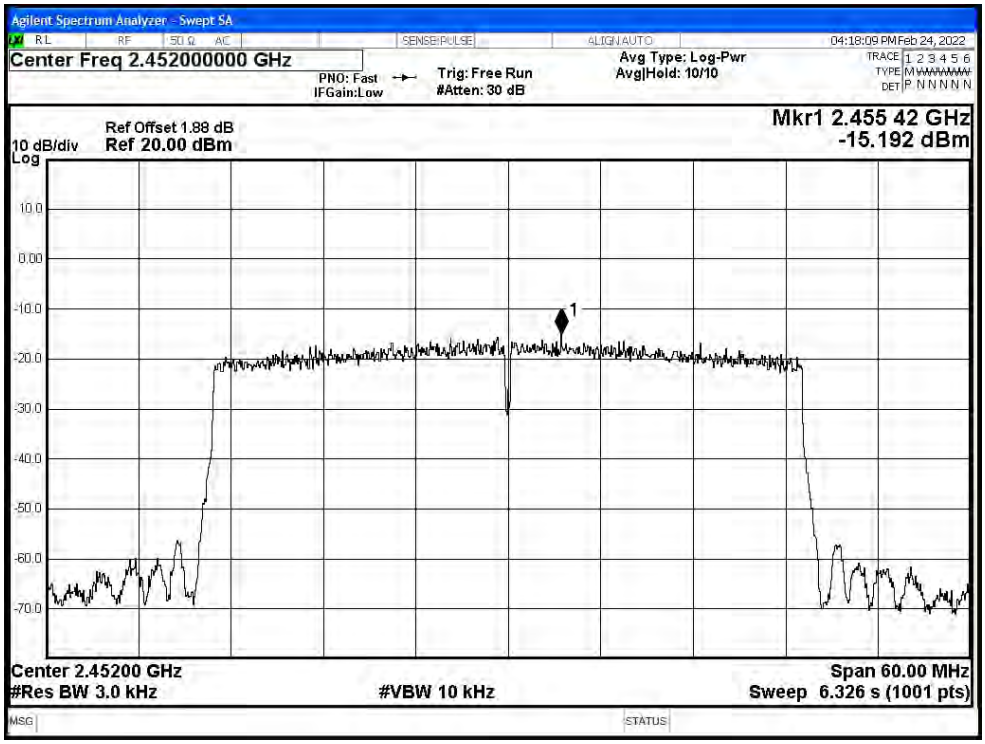

PSD NVNT ax40 2422MHz Ant0



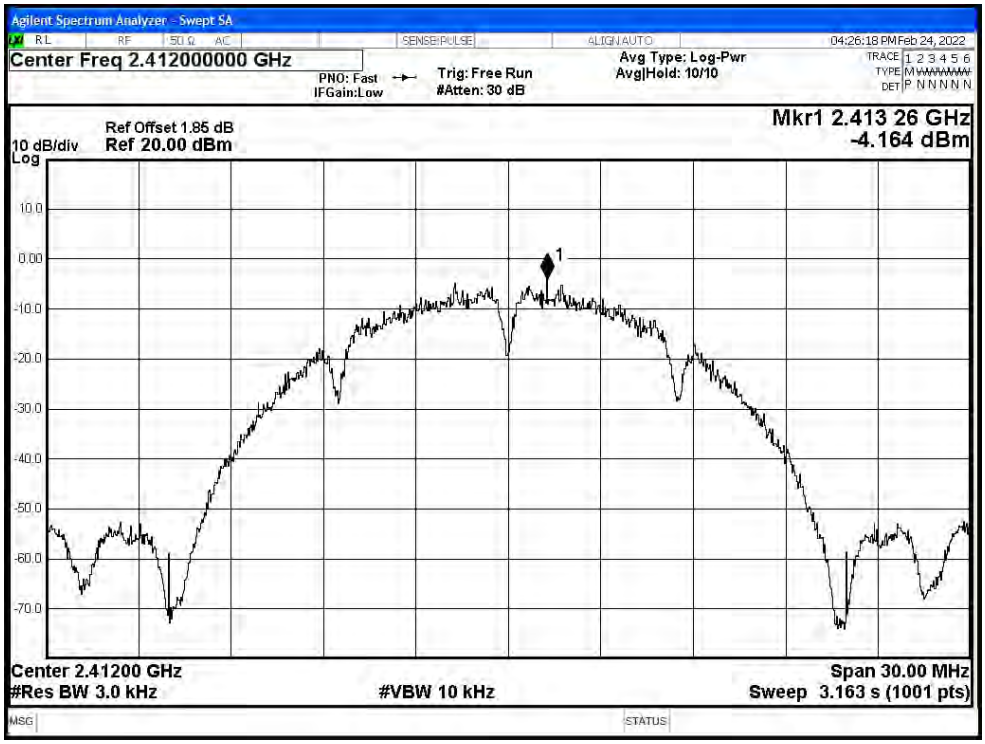
PSD NVNT ax40 2437MHz Ant0



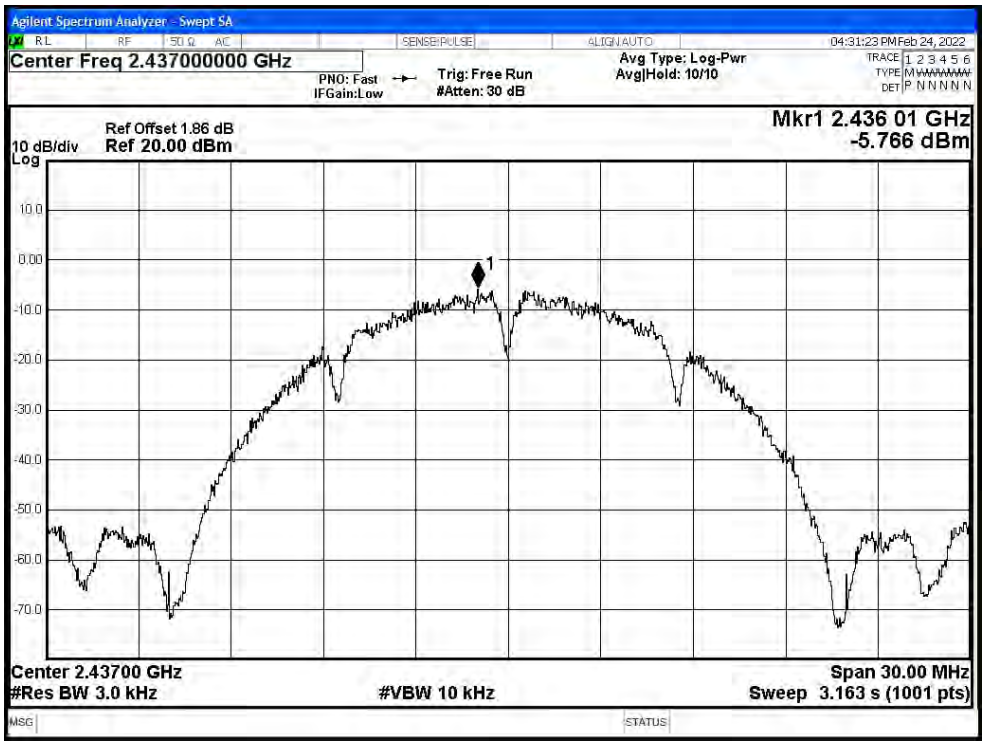

PSD NVNT ax40 2452MHz Ant0



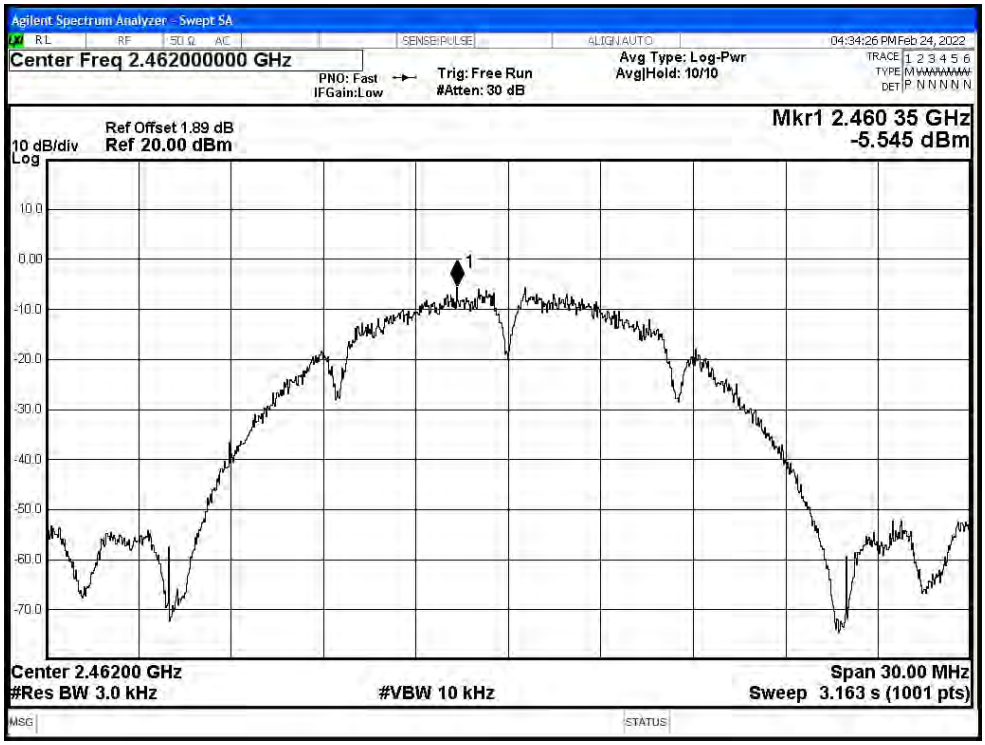
| Test Graphs |
| --- |
| PSD NVNT b 2412MHz Ant1 |



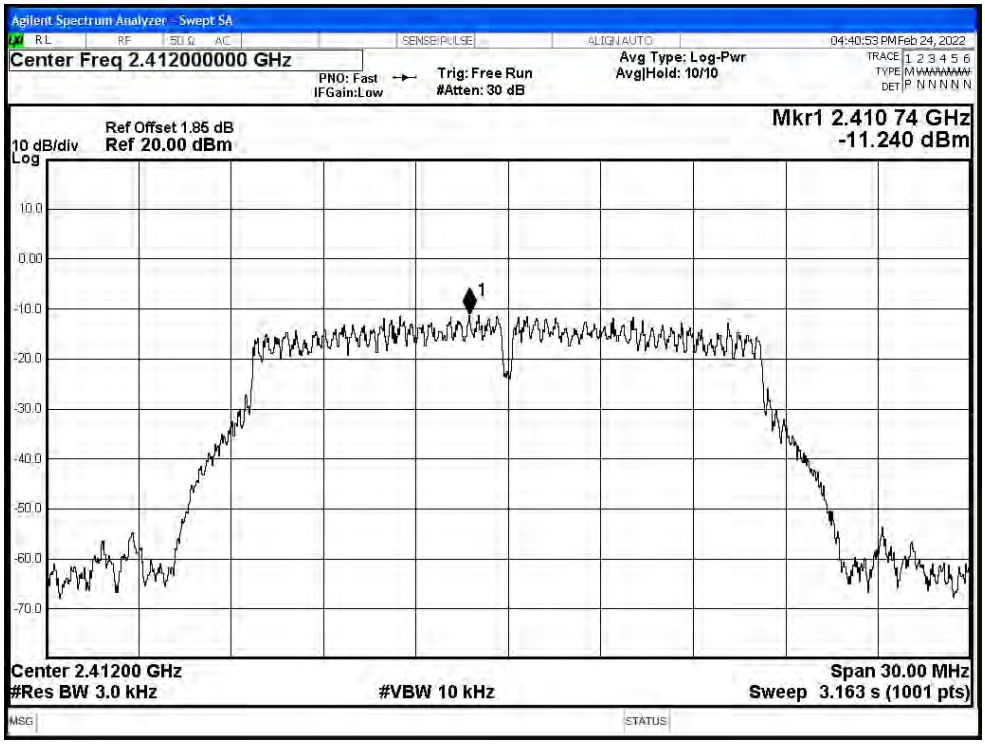

| PSD NVNT b 2437MHz Ant1 |
| --- |



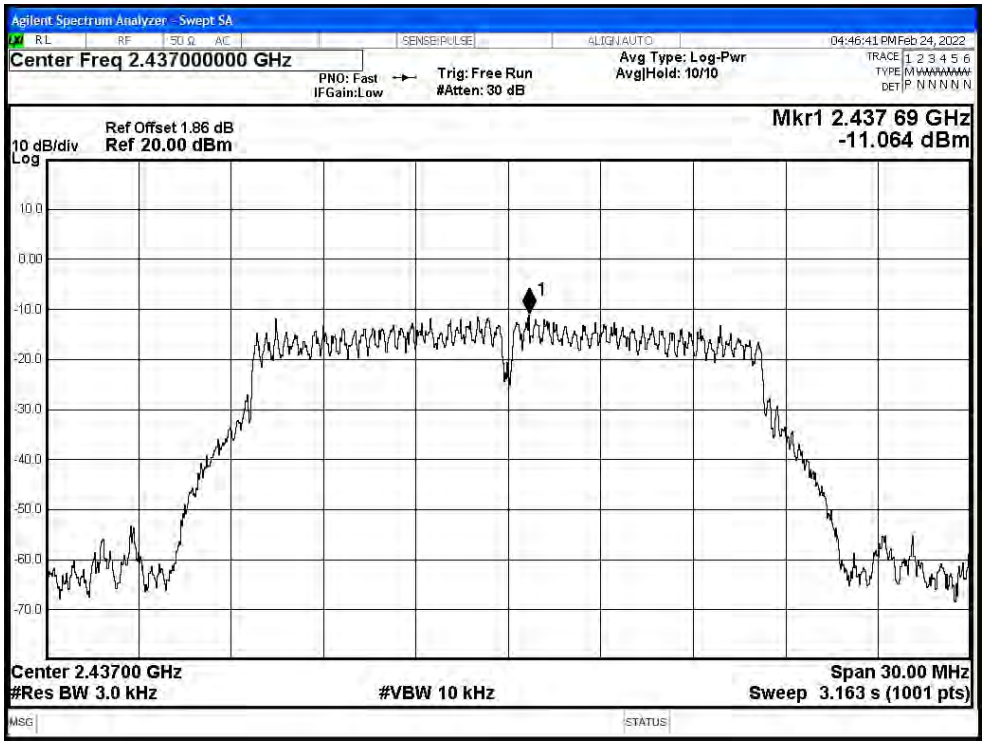
PSD NVNT b 2462MHz Ant1



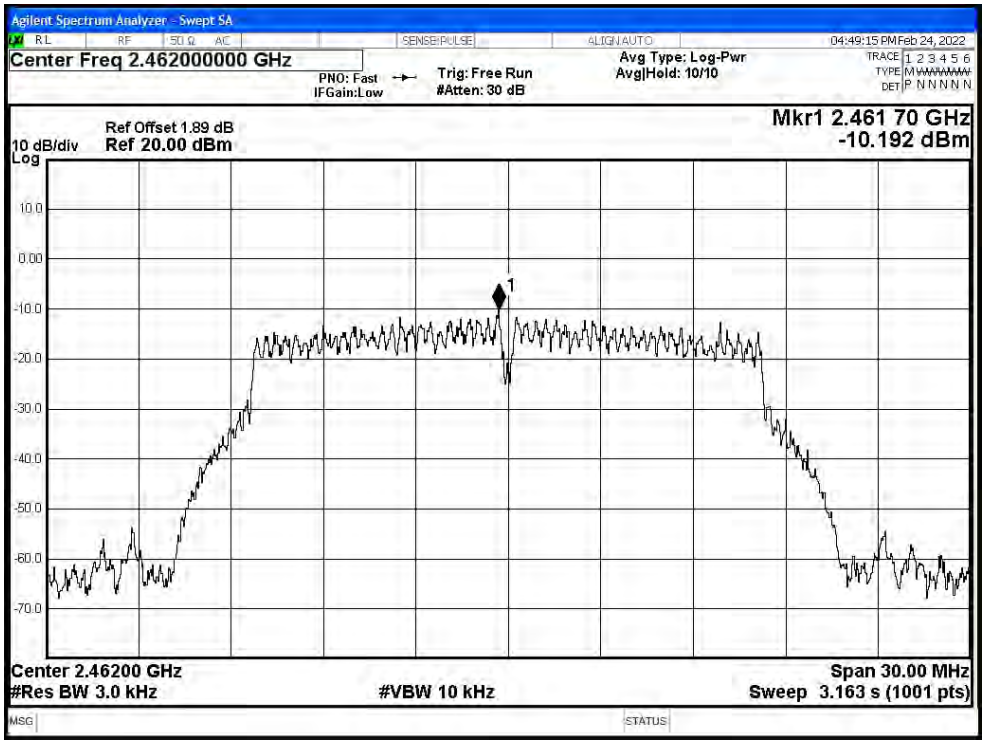

PSD NVNT g 2412MHz Ant1



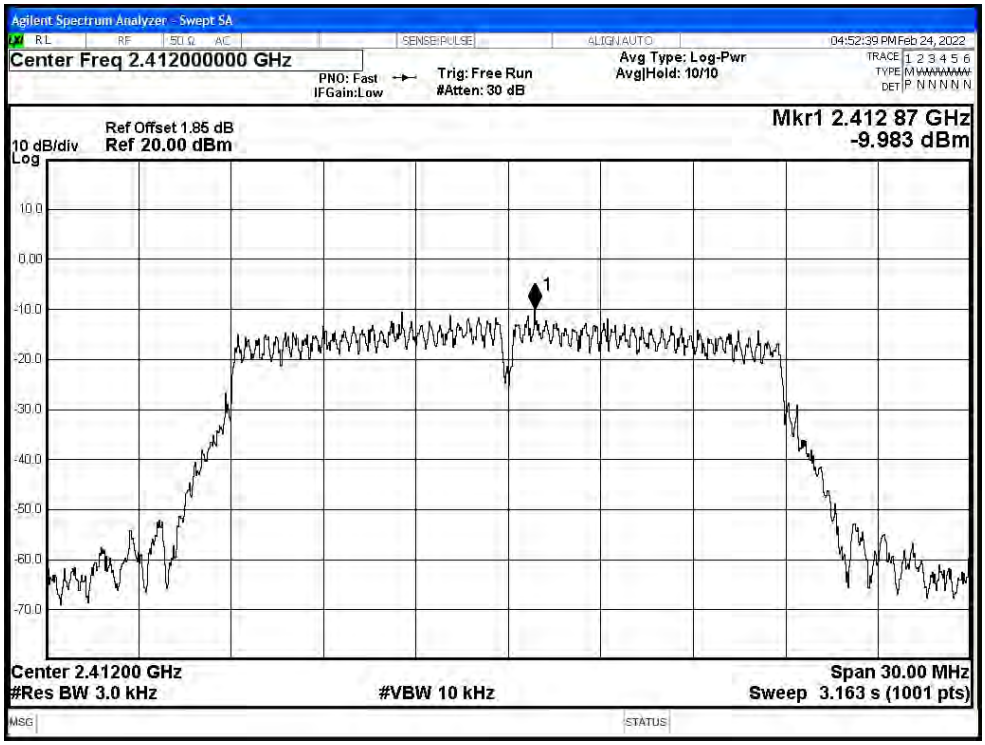
PSD NVNT g 2437MHz Ant1



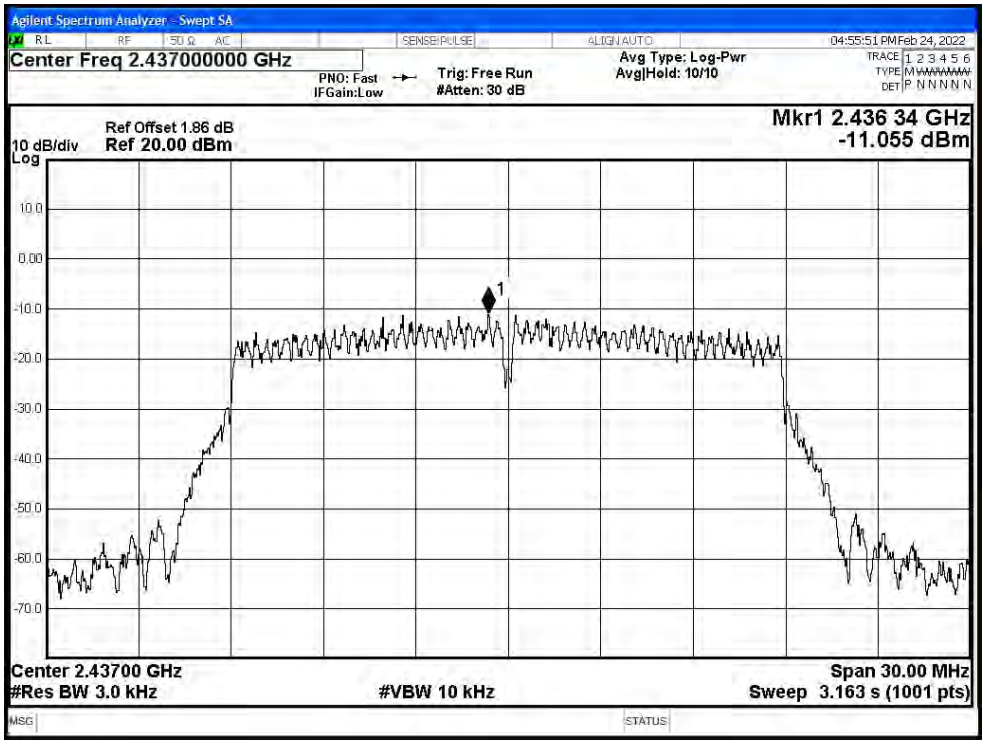

PSD NVNT g 2462MHz Ant1



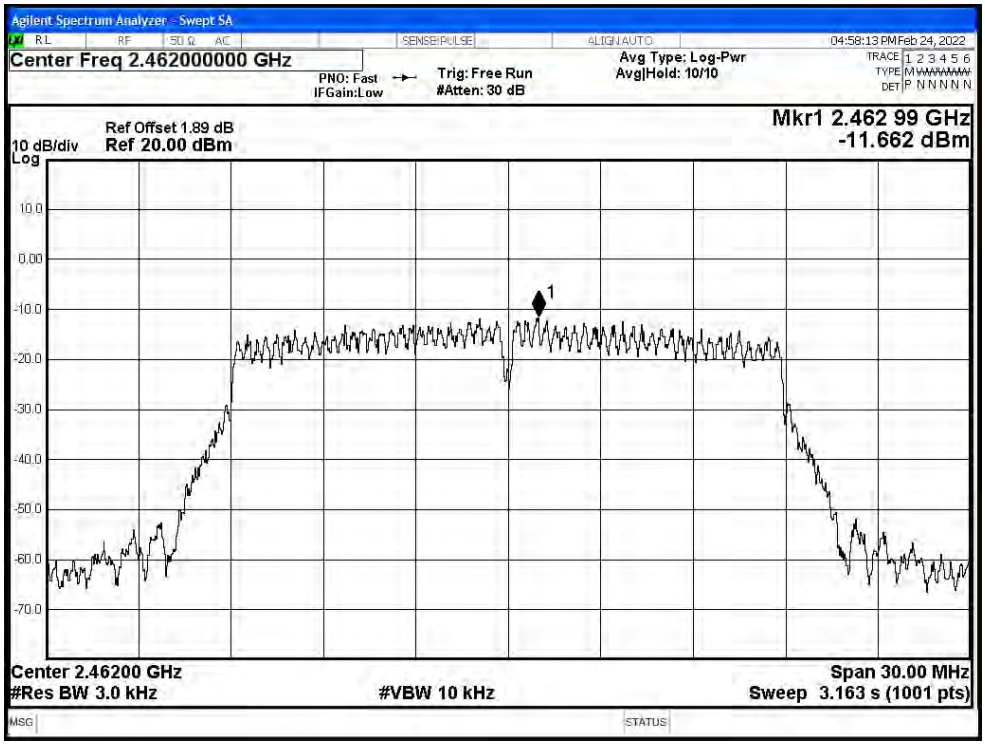
PSD NVNT n20 2412MHz Ant1



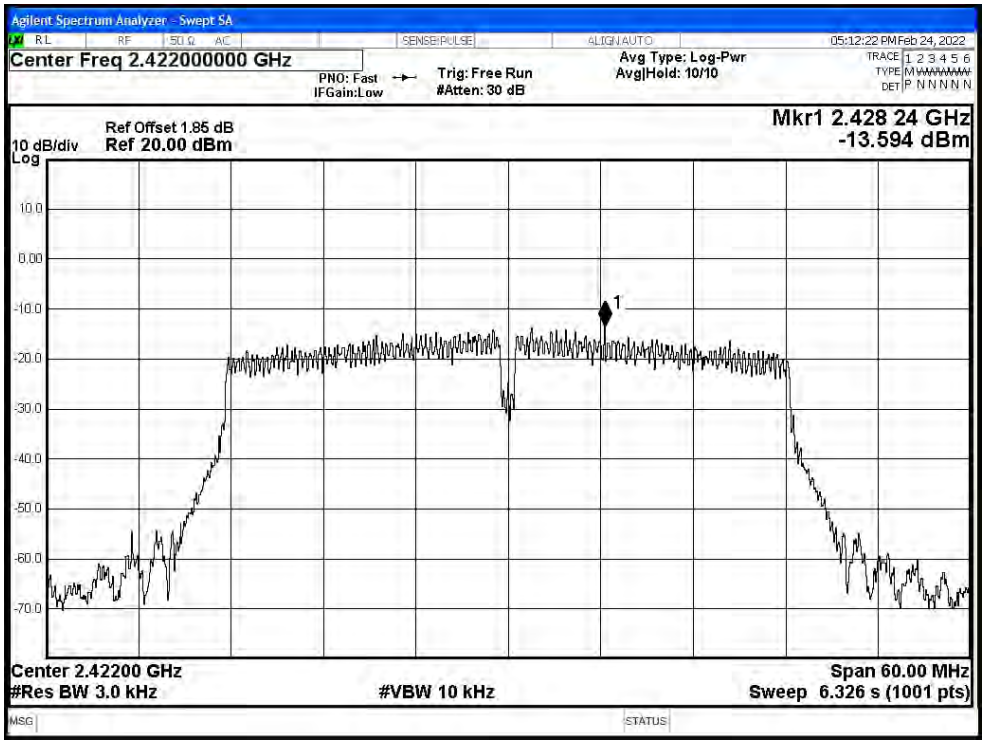

PSD NVNT n20 2437MHz Ant1



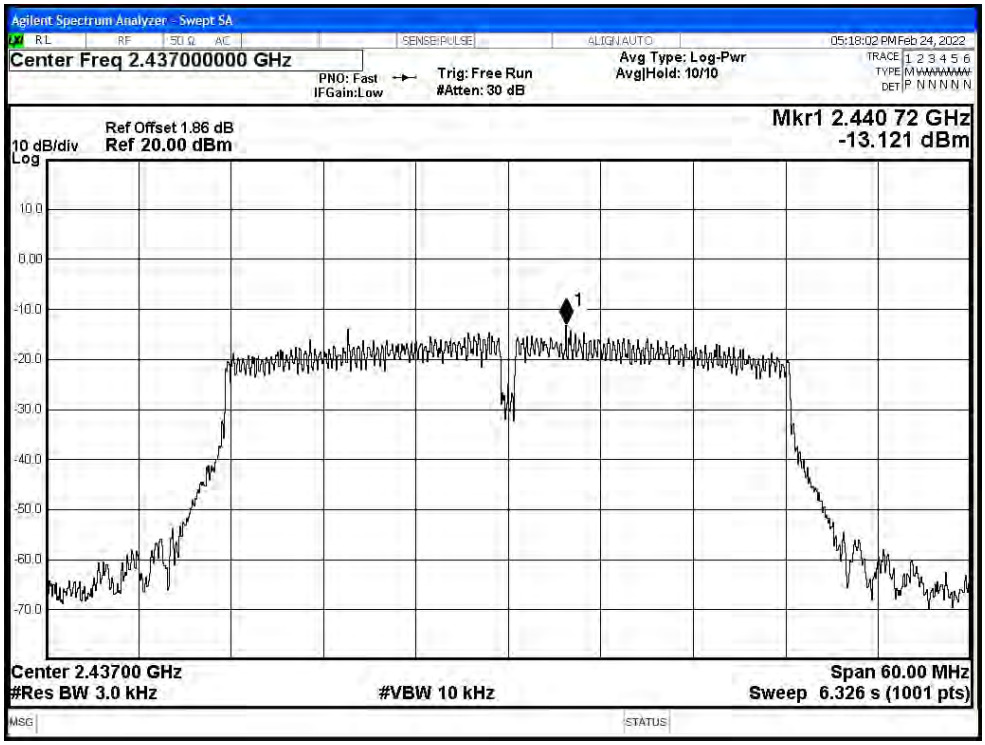
PSD NVNT n20 2462MHz Ant1



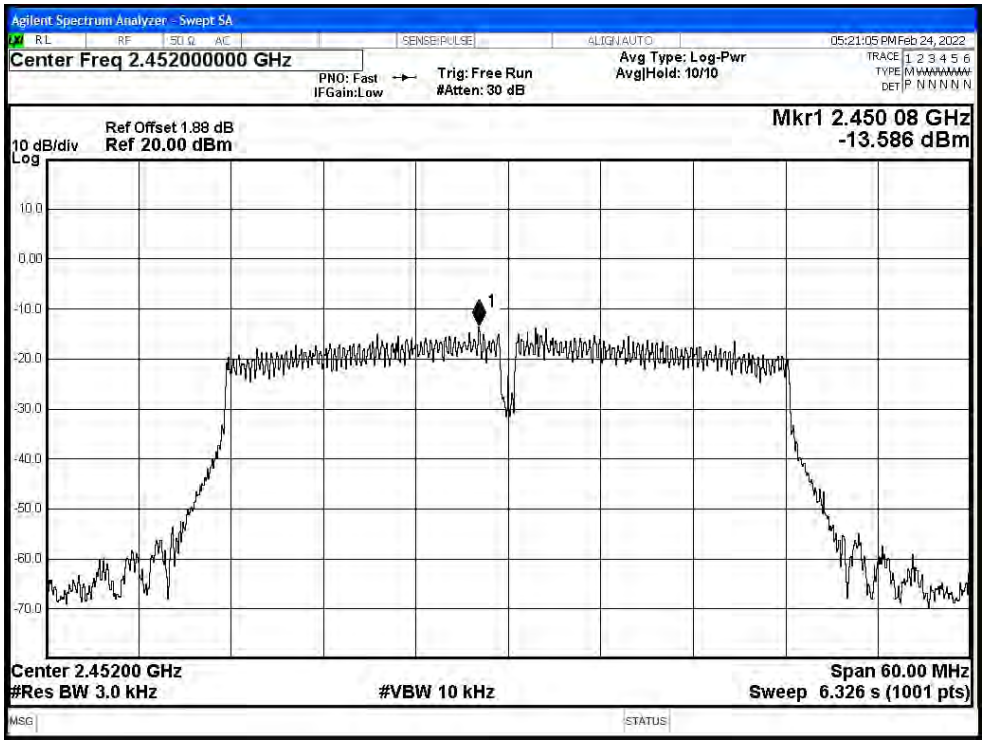

PSD NVNT n40 2422MHz Ant1



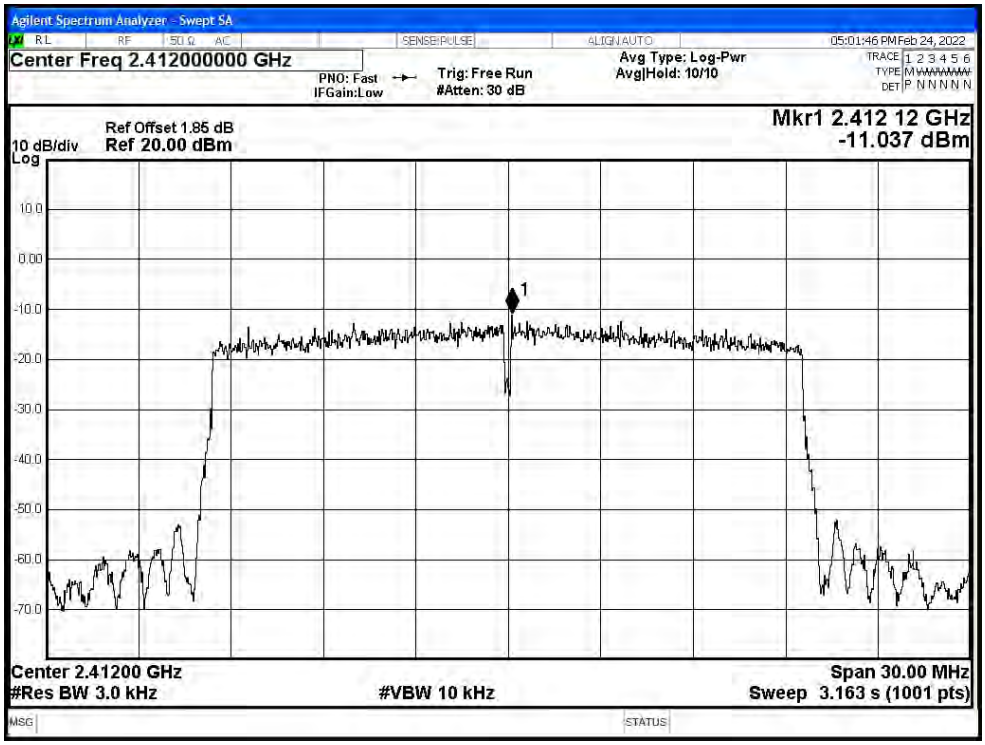
PSD NVNT n40 2437MHz Ant1



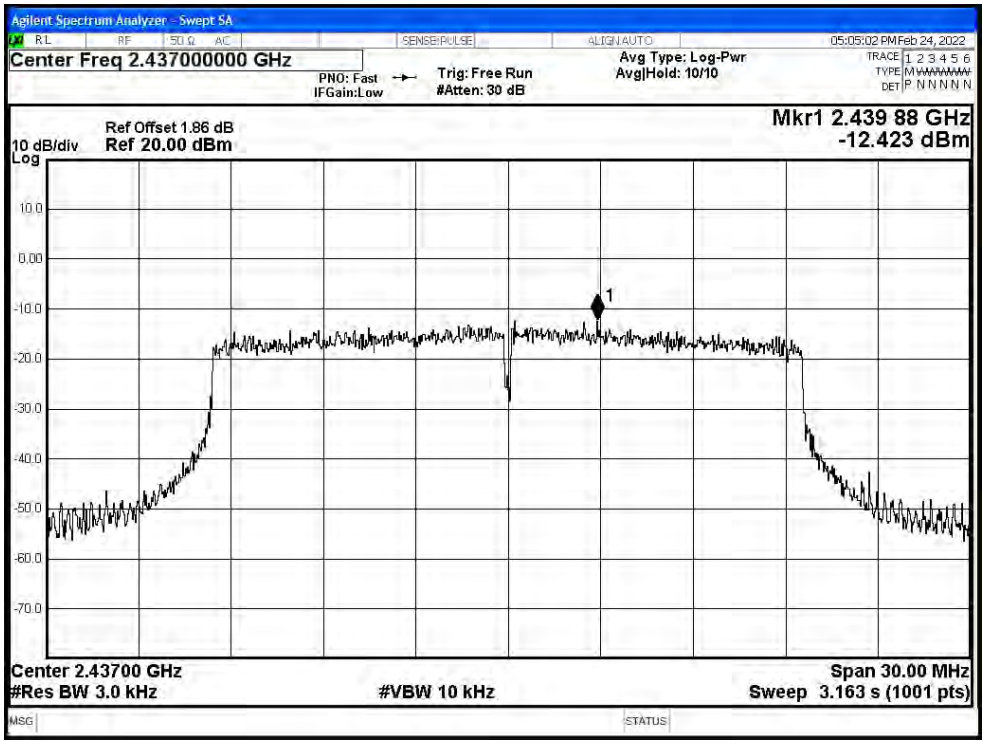

PSD NVNT n40 2452MHz Ant1



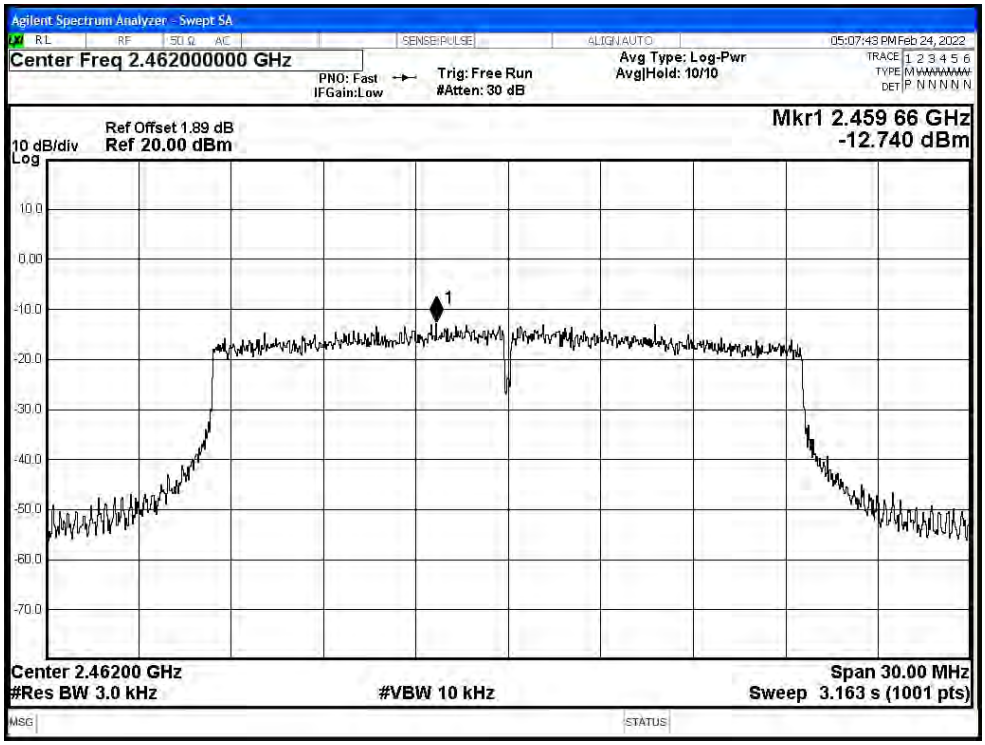
PSD NVNT ax20 2412MHz Ant1



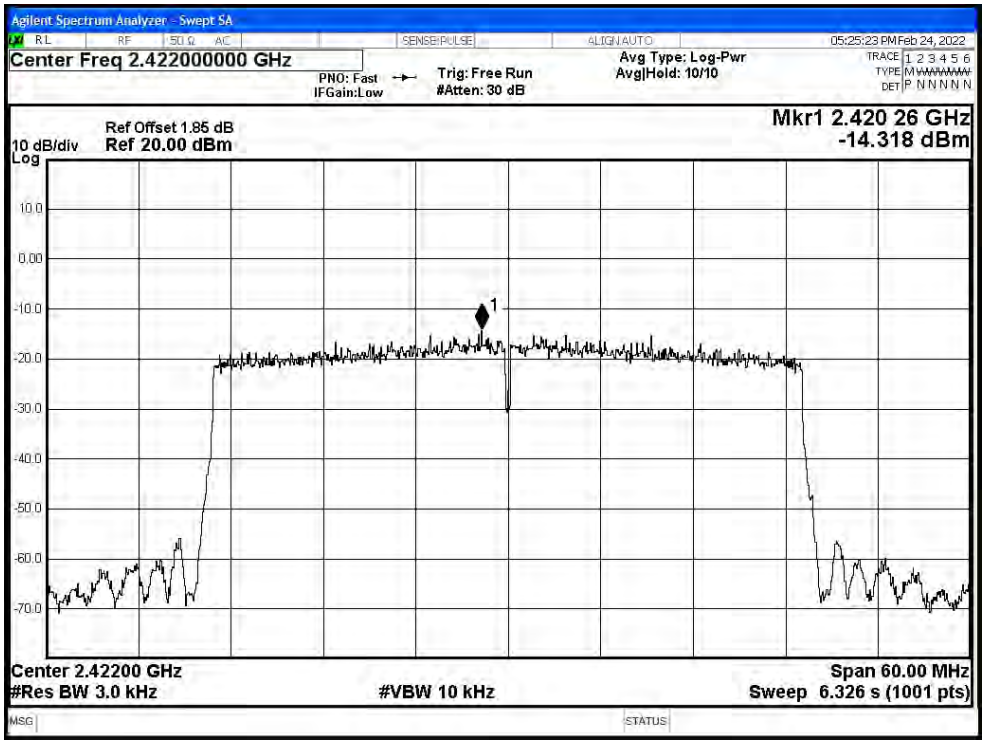

PSD NVNT ax20 2437MHz Ant1



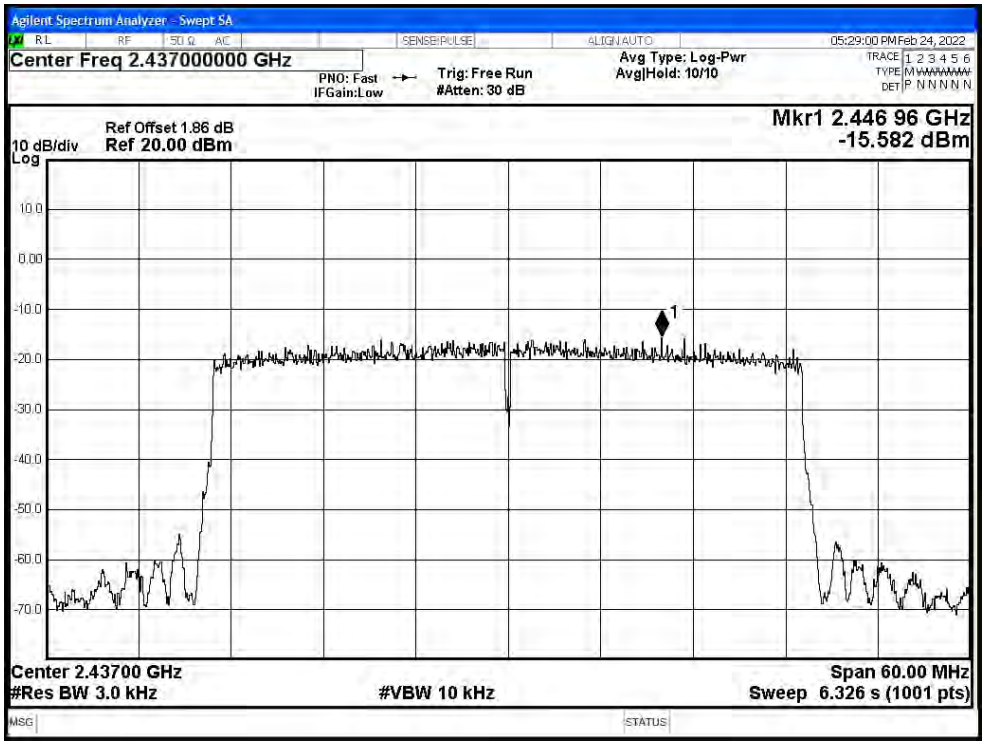
PSD NVNT ax20 2462MHz Ant1



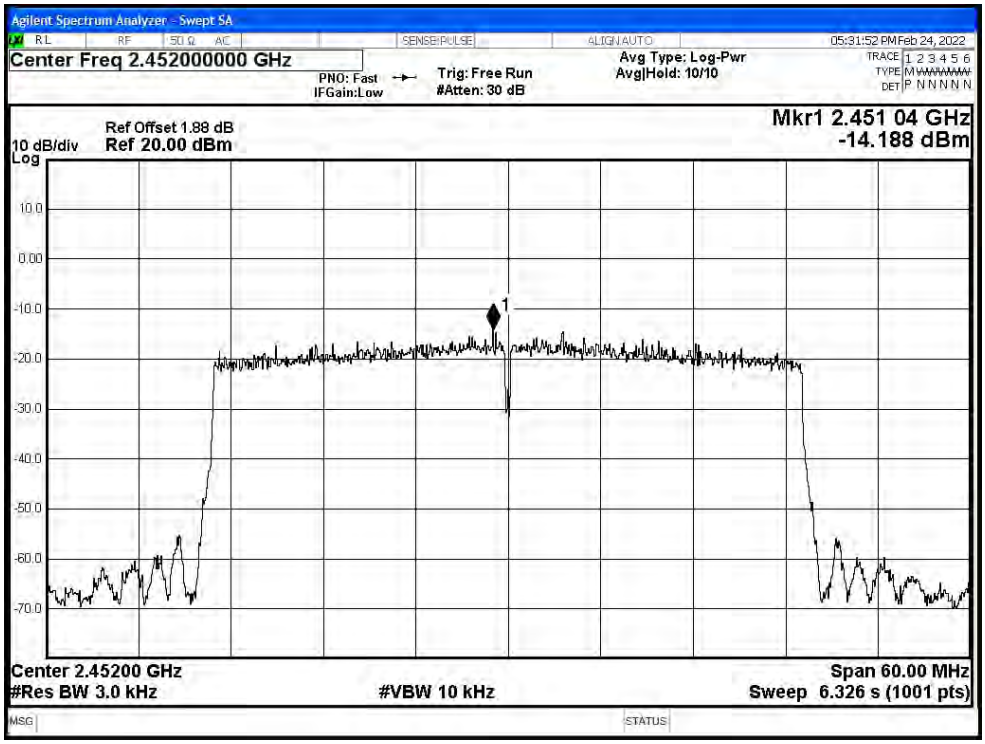

PSD NVNT ax40 2422MHz Ant1



PSD NVNT ax40 2437MHz Ant1




PSD NVNT ax40 2452MHz Ant1

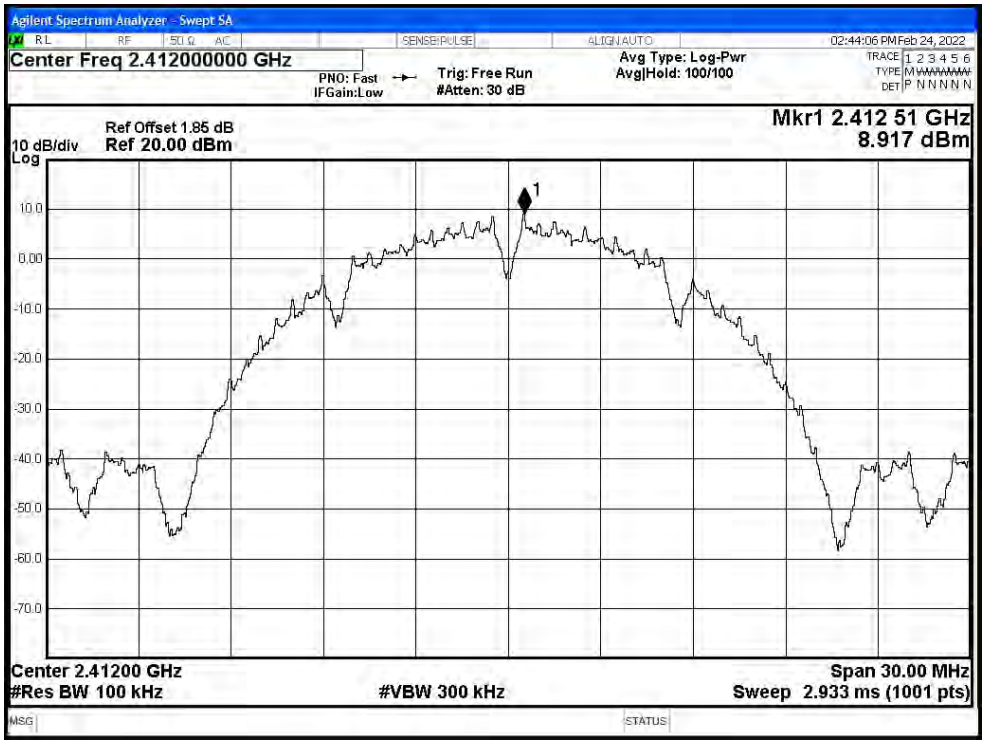


# A.4 Band Edge

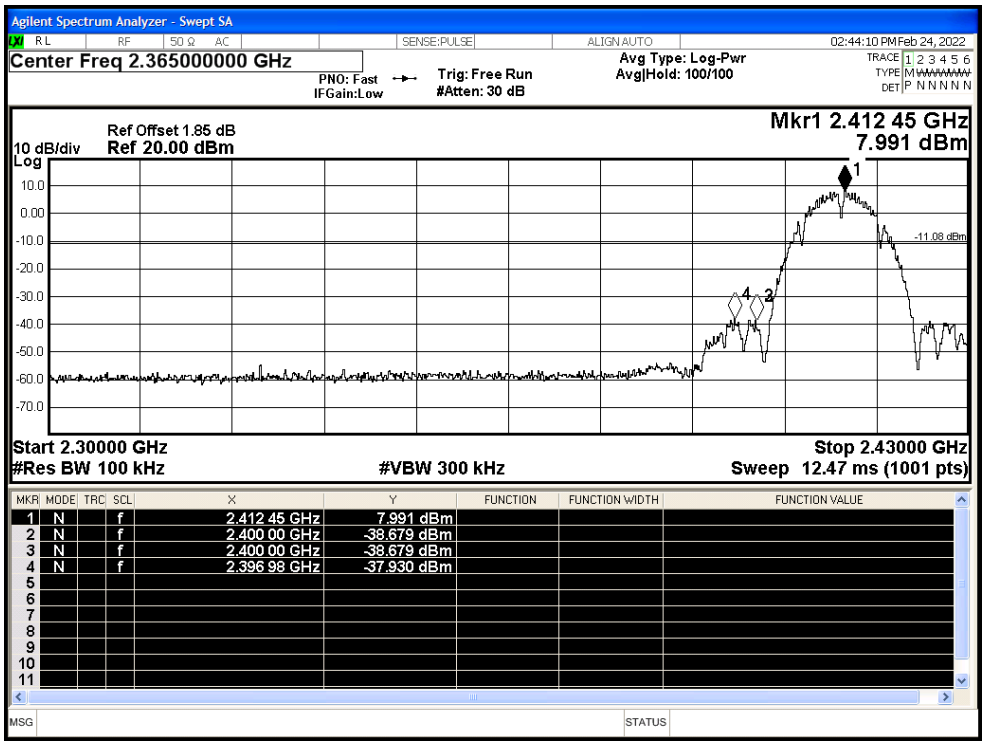
| Condition | Mode | Frequency (MHz) | Antenna | Max Value (dBc) | Limit (dBc) | Verdict |
|---|---|---|---|---|---|---|
| NVNT | b | 2412 | Ant0 | -46.85 | -20 | Pass |
| NVNT | b | 2462 | Ant0 | -63.15 | -20 | Pass |
| NVNT | g | 2412 | Ant0 | -44.66 | -20 | Pass |
| NVNT | g | 2462 | Ant0 | -53.82 | -20 | Pass |
| NVNT | n20 | 2412 | Ant0 | -45.27 | -20 | Pass |
| NVNT | n20 | 2462 | Ant0 | -54.27 | -20 | Pass |
| NVNT | n40 | 2422 | Ant0 | -44.25 | -20 | Pass |
| NVNT | n40 | 2452 | Ant0 | -47.3 | -20 | Pass |
| NVNT | ax20 | 2412 | Ant0 | -48.19 | -20 | Pass |
| NVNT | ax20 | 2462 | Ant0 | -54.72 | -20 | Pass |
| NVNT | ax40 | 2422 | Ant0 | -45.83 | -20 | Pass |
| NVNT | ax40 | 2452 | Ant0 | -51.16 | -20 | Pass |

Test Graphs

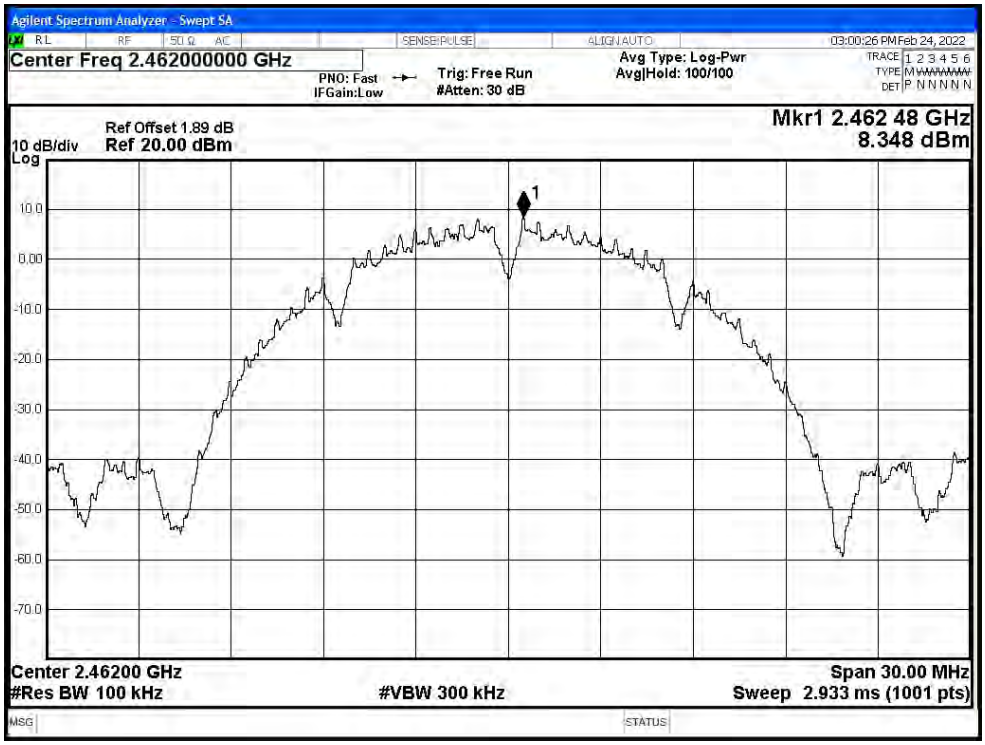
Band Edge NVNT b 2412MHz Ant0 Ref



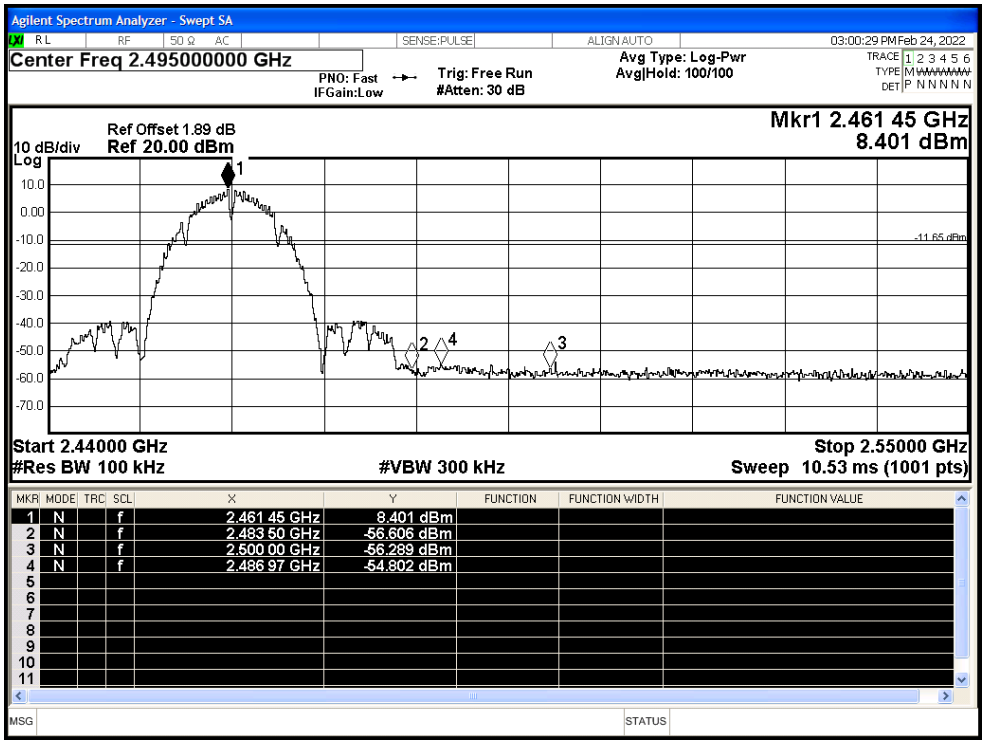

Band Edge NVNT b 2412MHz Ant0 Emission



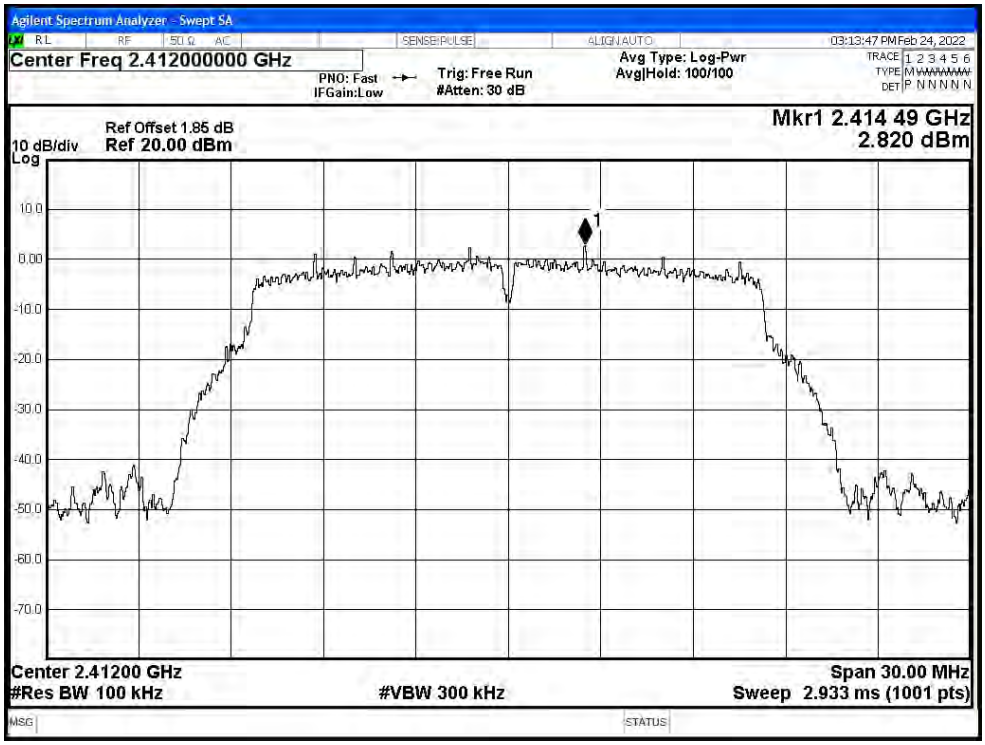
Band Edge NVNT b 2462MHz Ant0 Ref



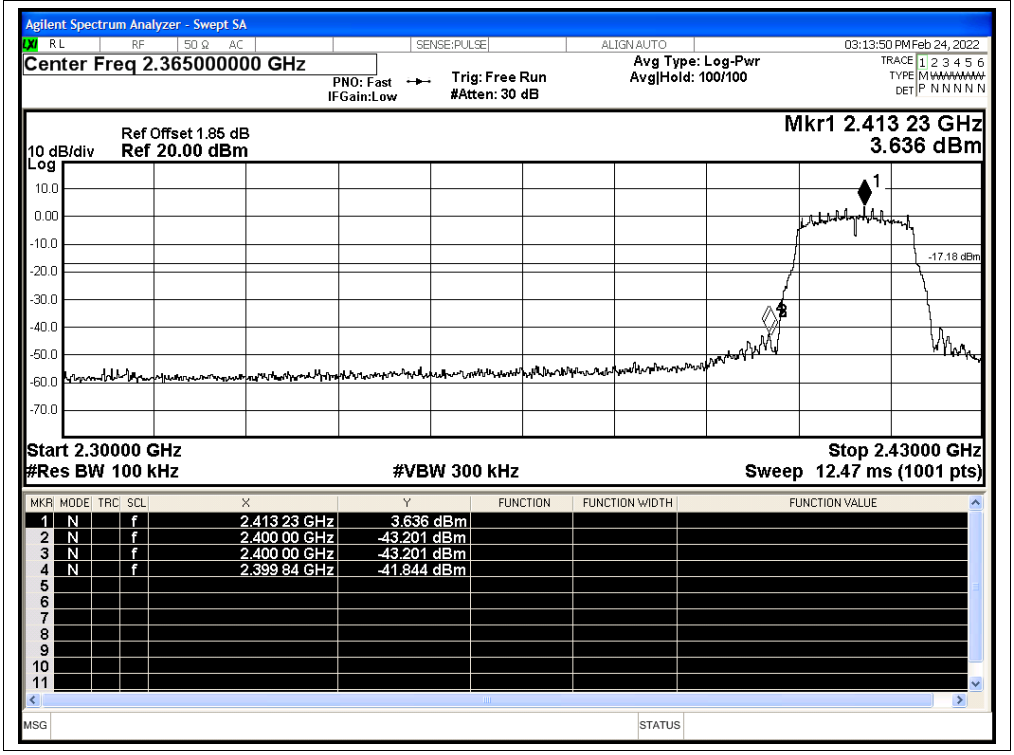

Band Edge NVNT b 2462MHz Ant0 Emission



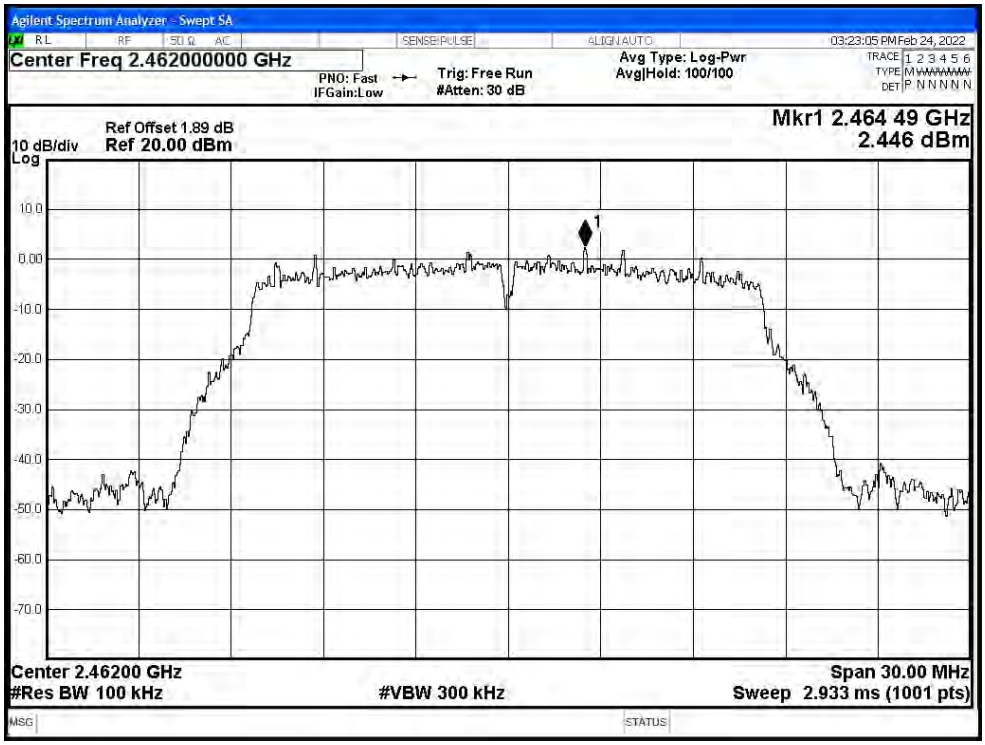
Band Edge NVNT g 2412MHz Ant0 Ref



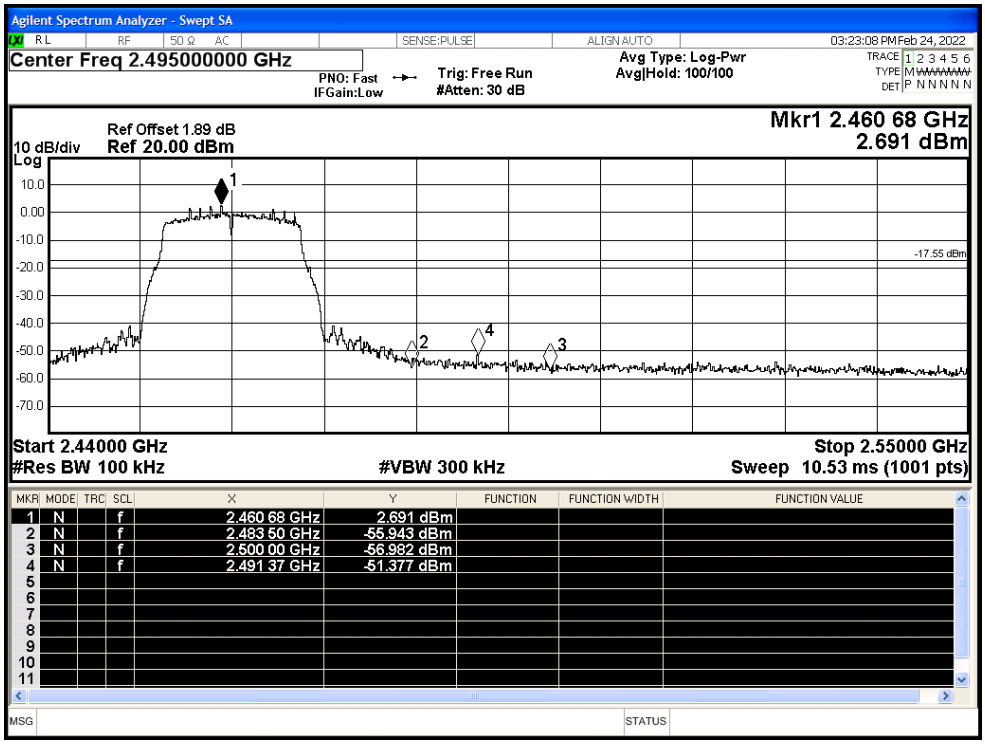

Band Edge NVNT g 2412MHz Ant0 Emission



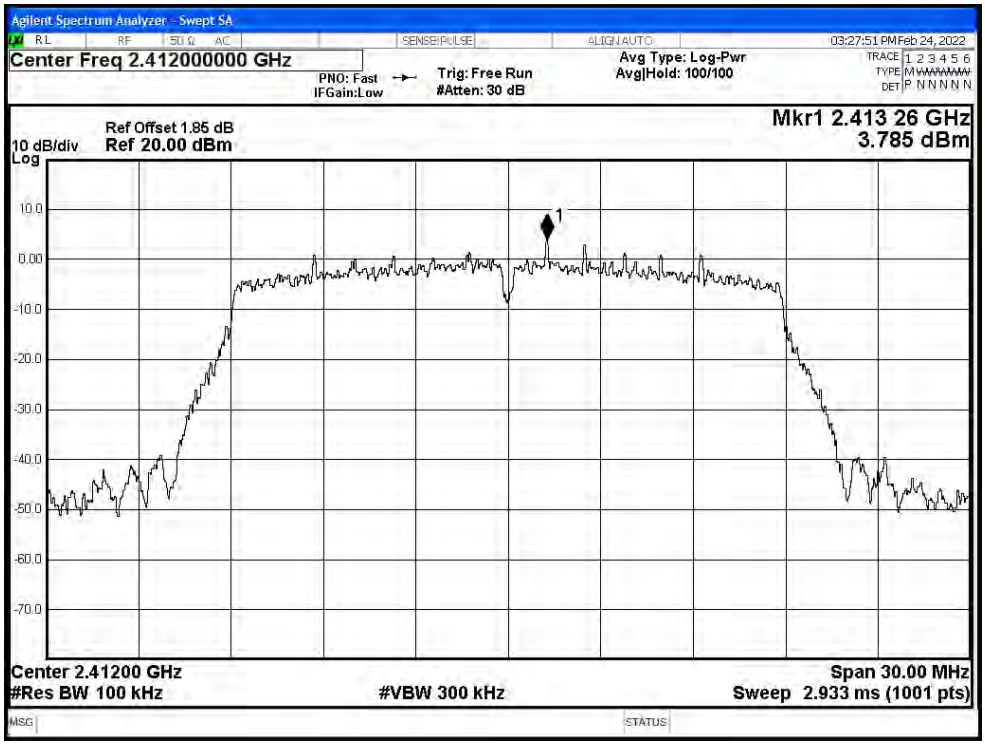
Band Edge NVNT g 2462MHz Ant0 Ref



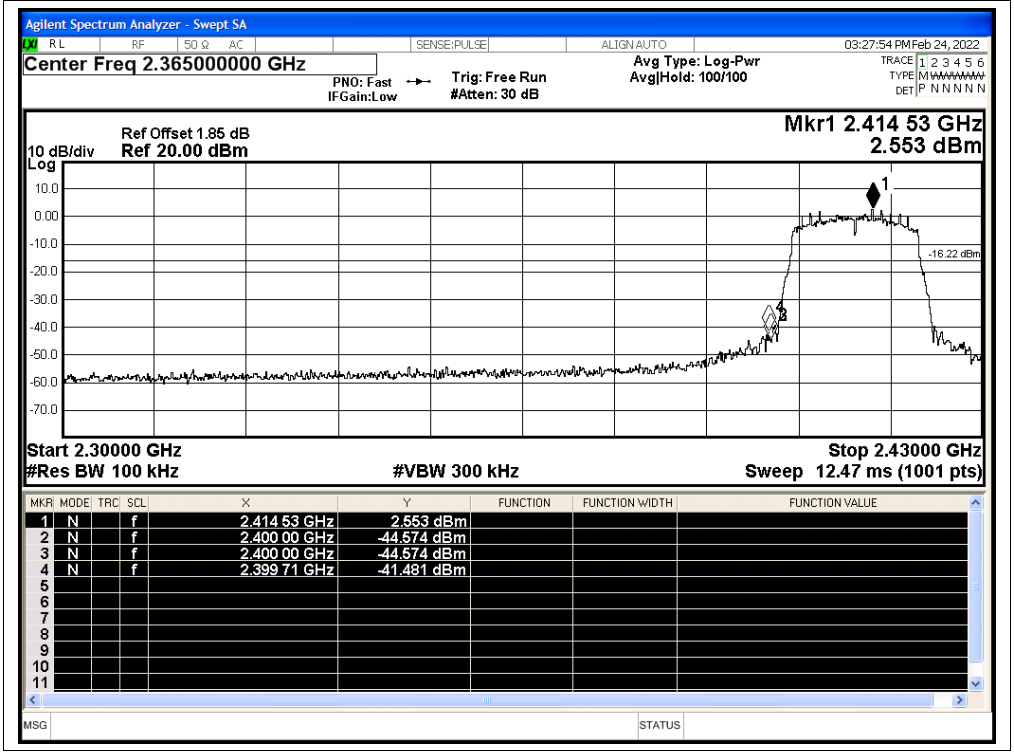

Band Edge NVNT g 2462MHz Ant0 Emission



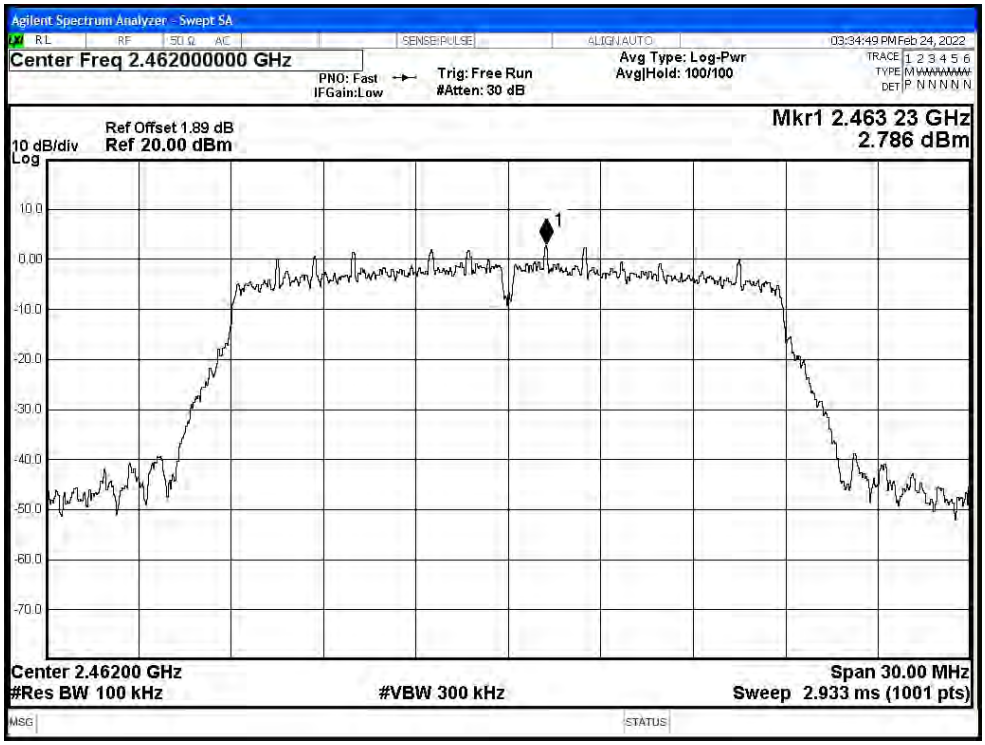
Band Edge NVNT n20 2412MHz Ant0 Ref



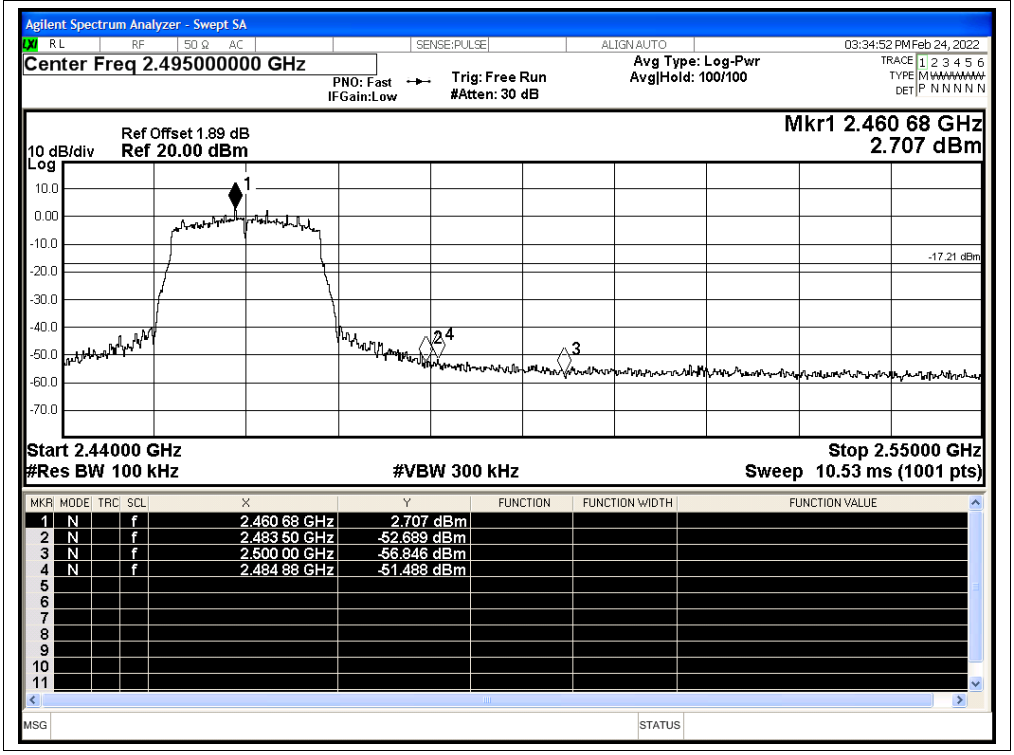

Band Edge NVNT n20 2412MHz Ant0 Emission



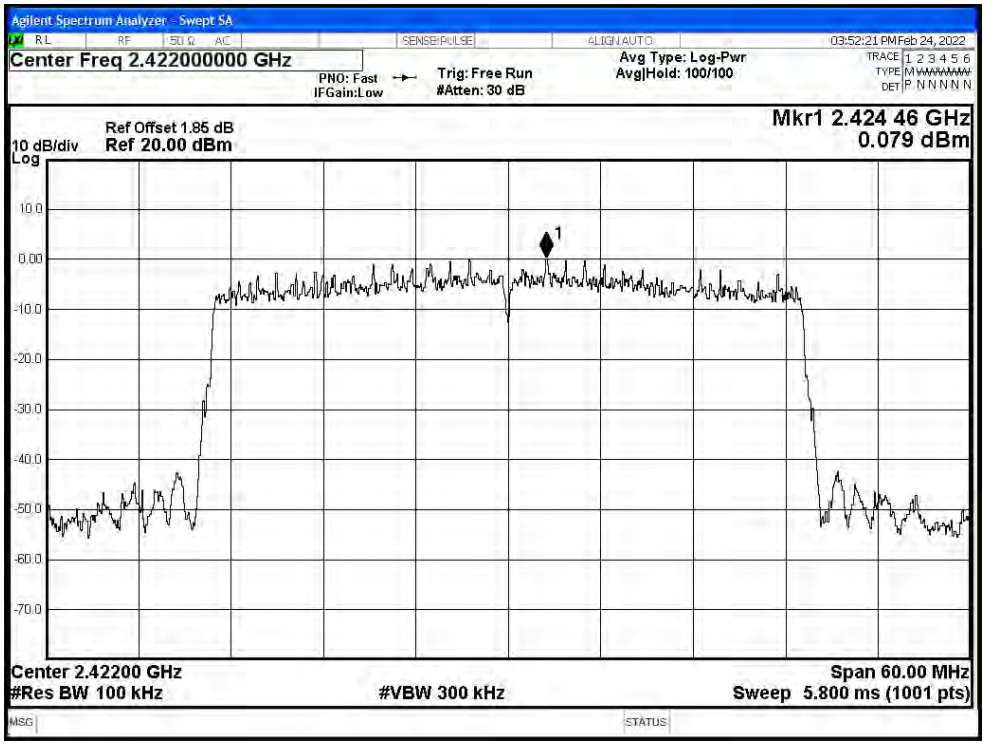
Band Edge NVNT n20 2462MHz Ant0 Ref



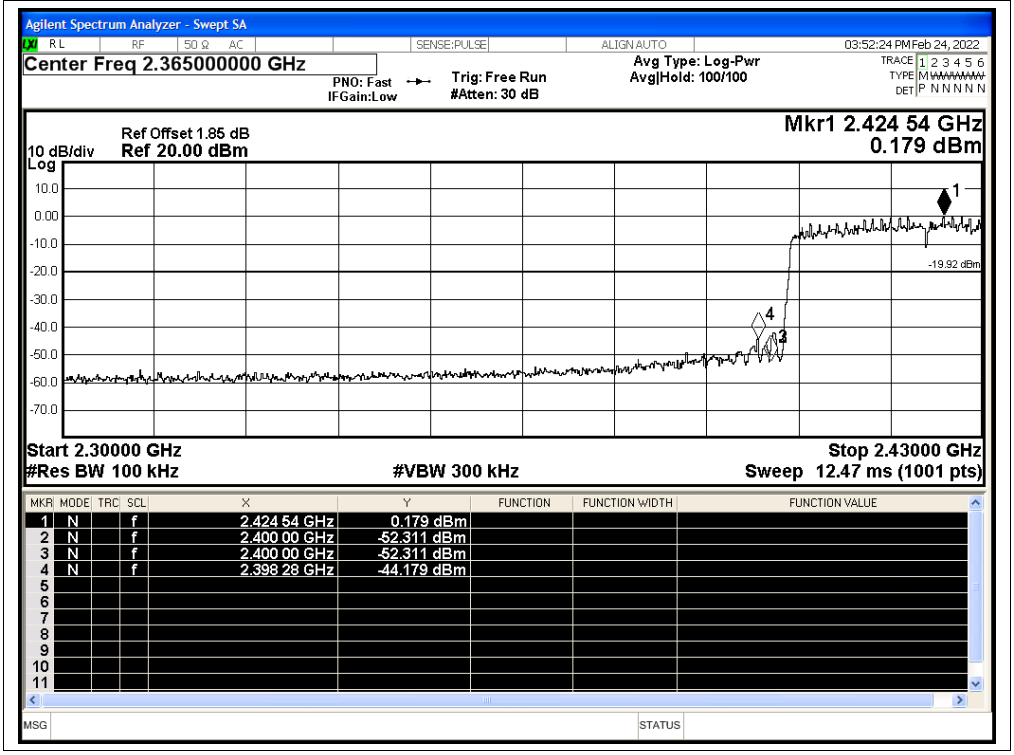

Band Edge NVNT n20 2462MHz Ant0 Emission



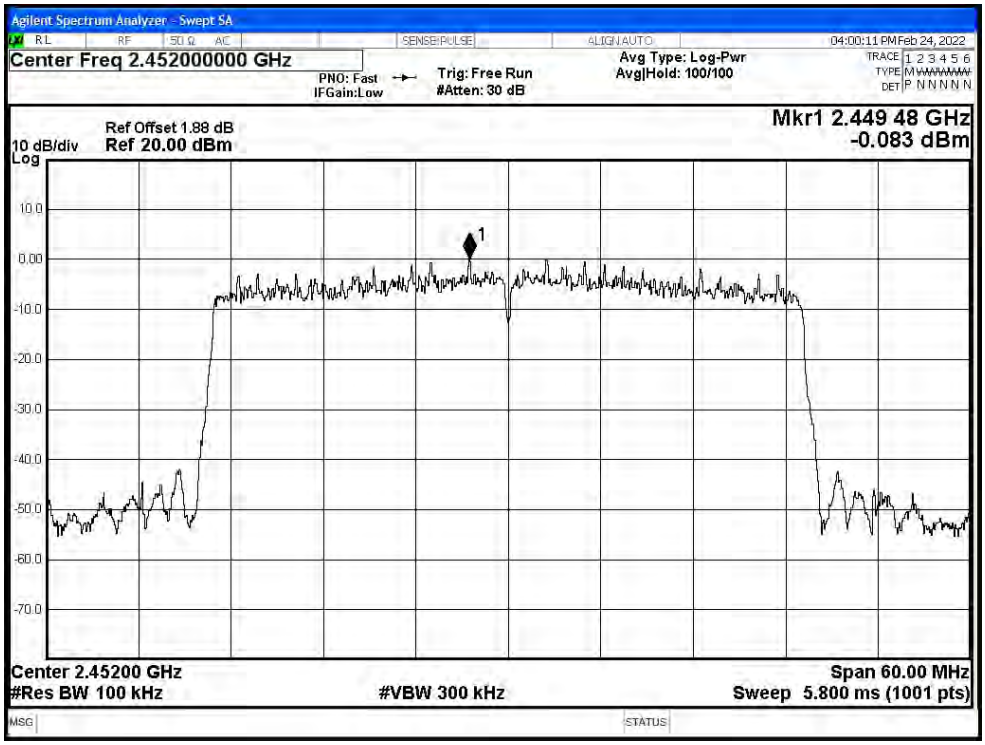
Band Edge NVNT n40 2422MHz Ant0 Ref



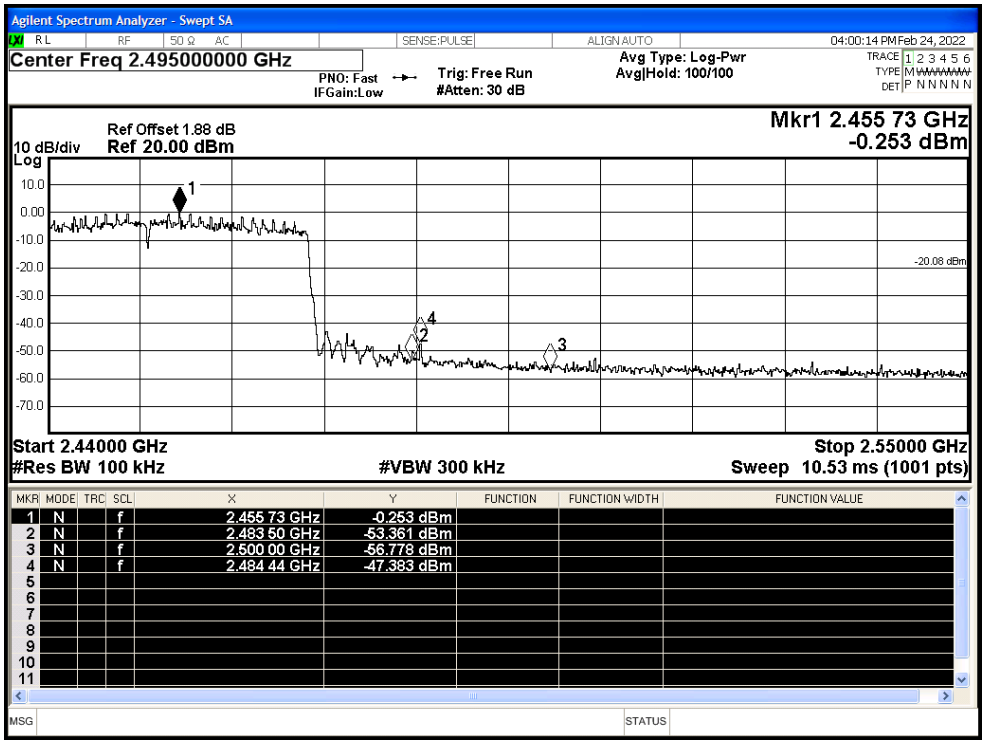

Band Edge NVNT n40 2422MHz Ant0 Emission



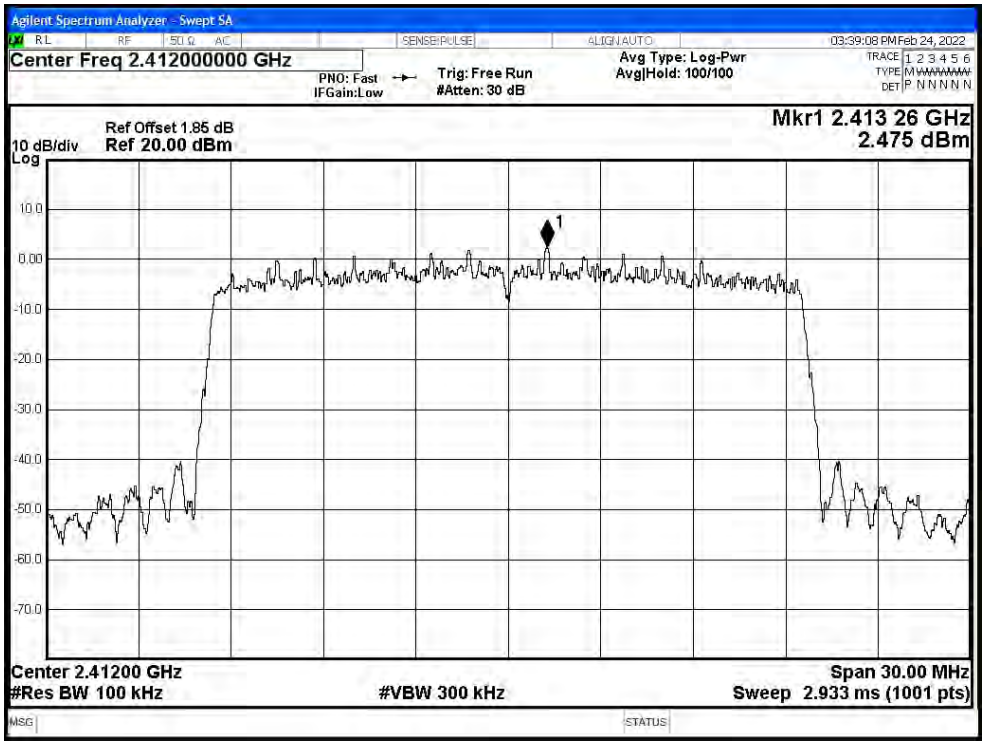
Band Edge NVNT n40 2452MHz Ant0 Ref



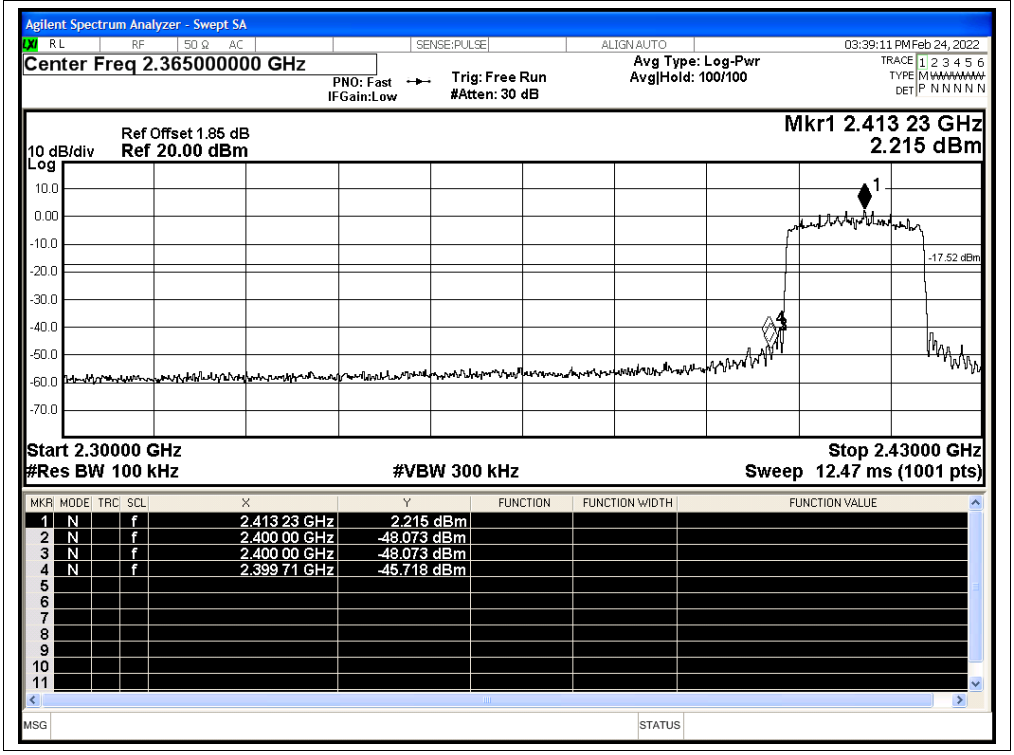

Band Edge NVNT n40 2452MHz Ant0 Emission



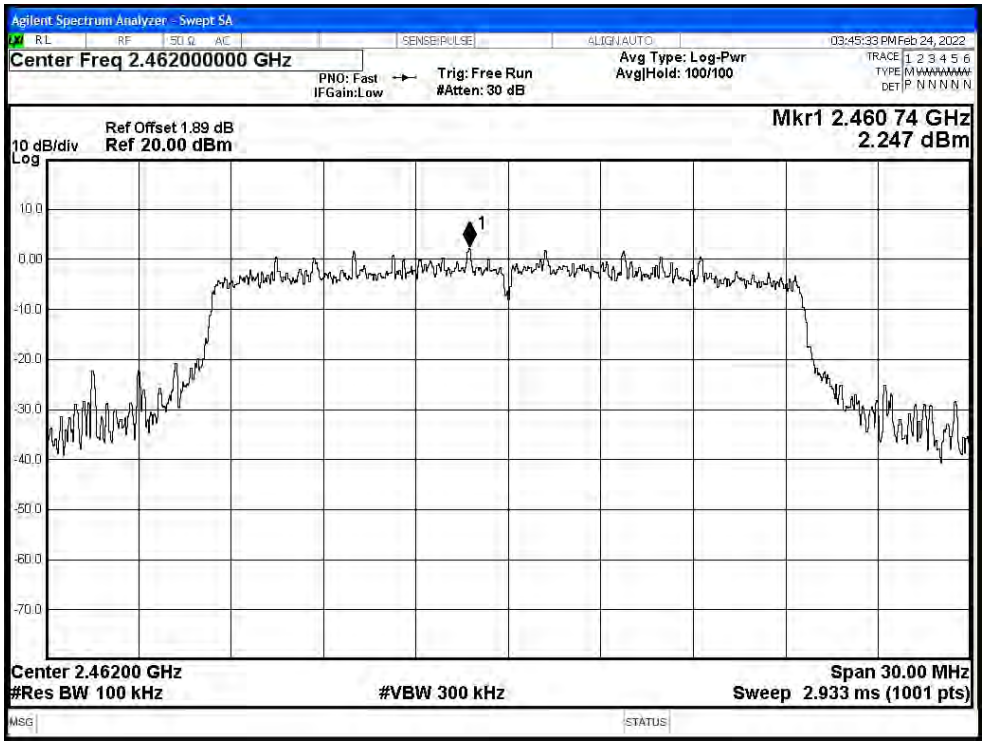
Band Edge NVNT ax20 2412MHz Ant0 Ref



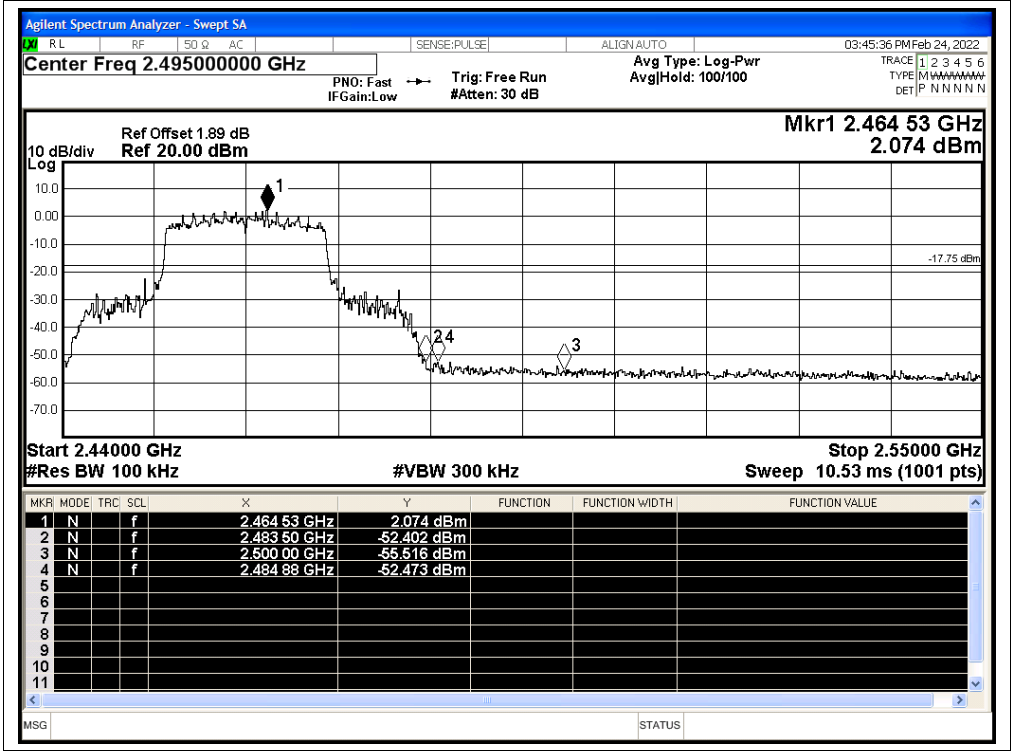

Band Edge NVNT ax20 2412MHz Ant0 Emission



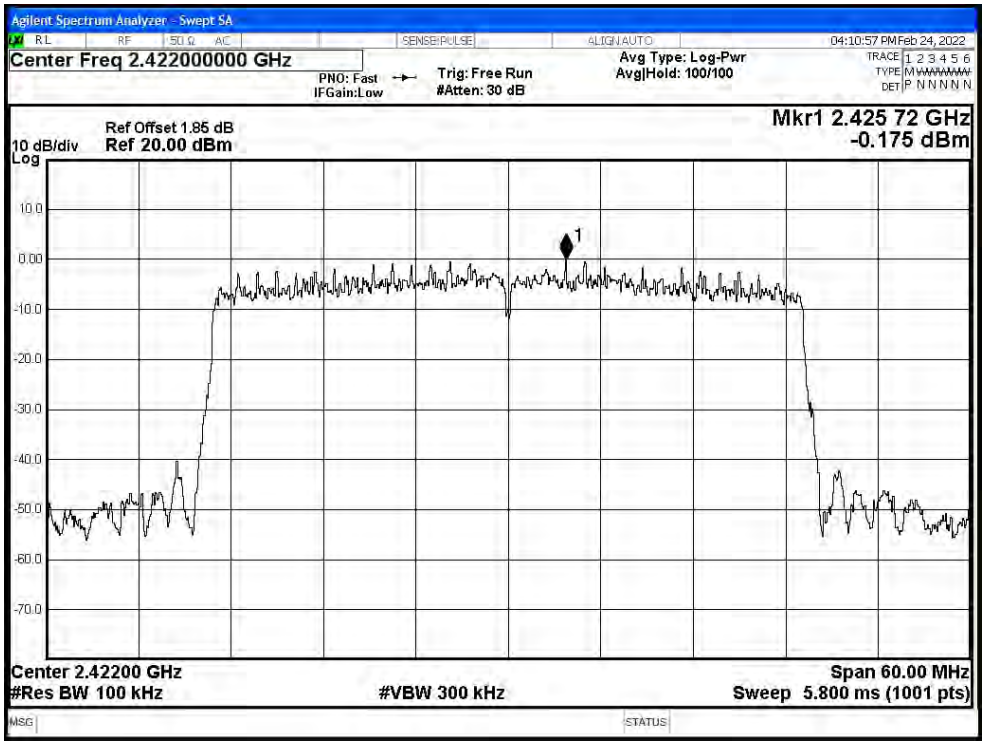
Band Edge NVNT ax20 2462MHz Ant0 Ref



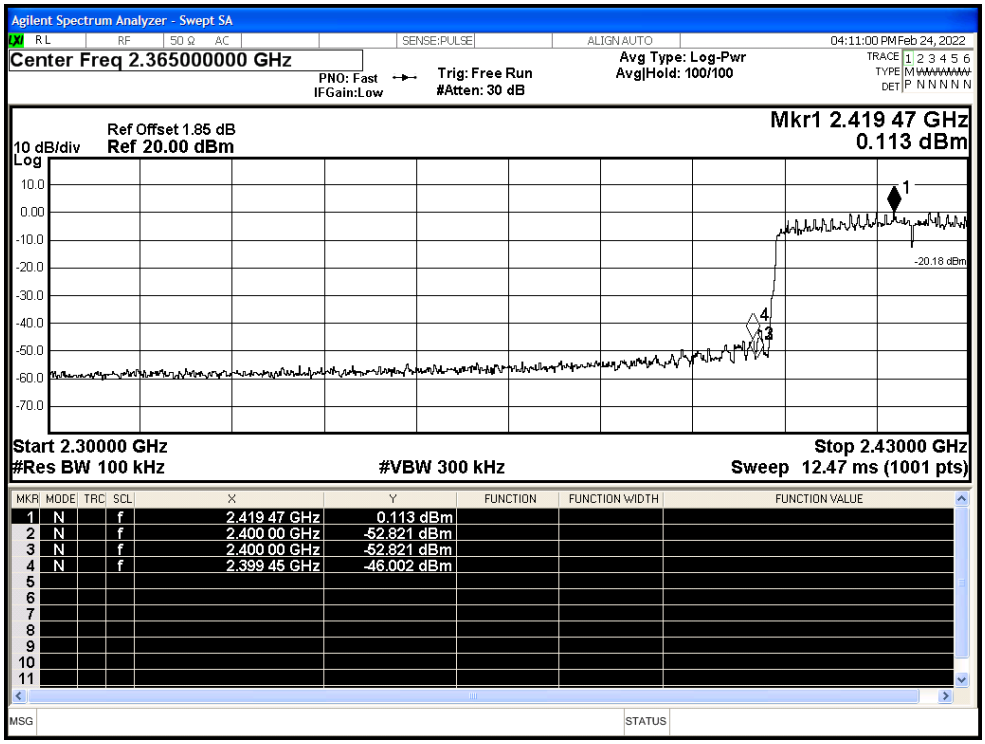

Band Edge NVNT ax20 2462MHz Ant0 Emission



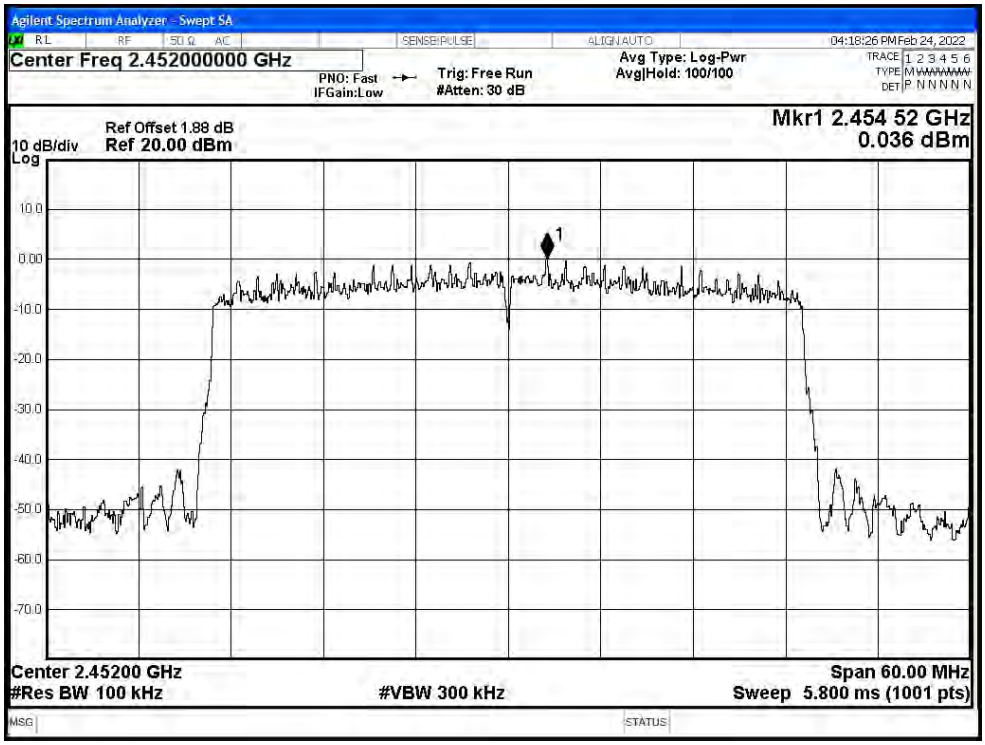
Band Edge NVNT ax40 2422MHz Ant0 Ref



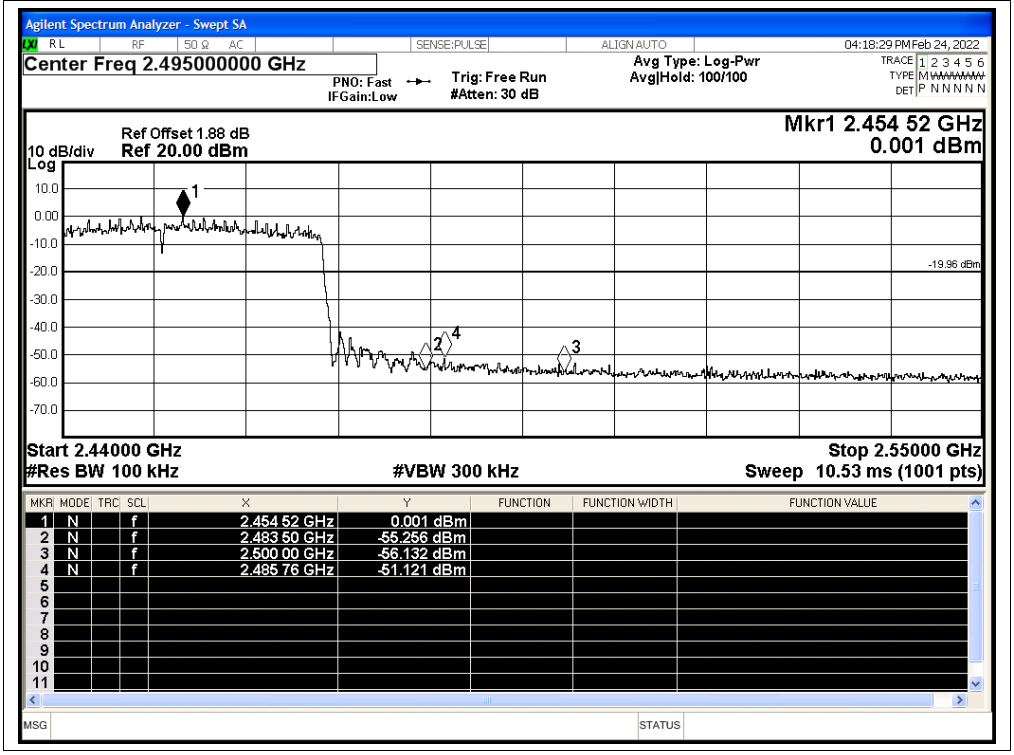

Band Edge NVNT ax40 2422MHz Ant0 Emission



Band Edge NVNT ax40 2452MHz Ant0 Ref



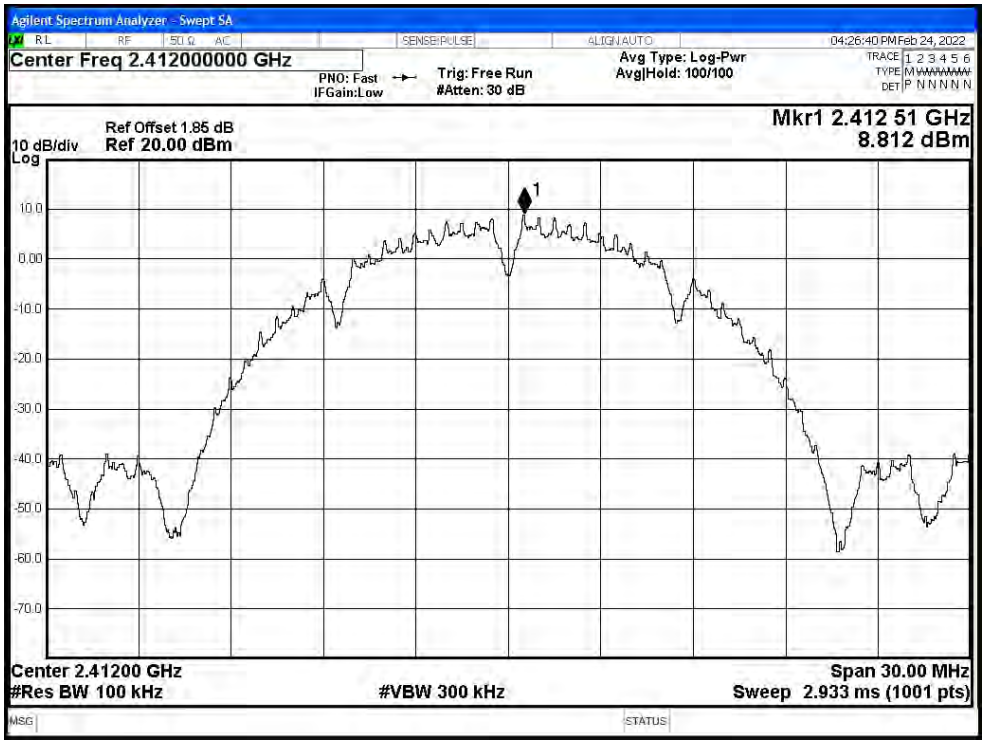

Band Edge NVNT ax40 2452MHz Ant0 Emission



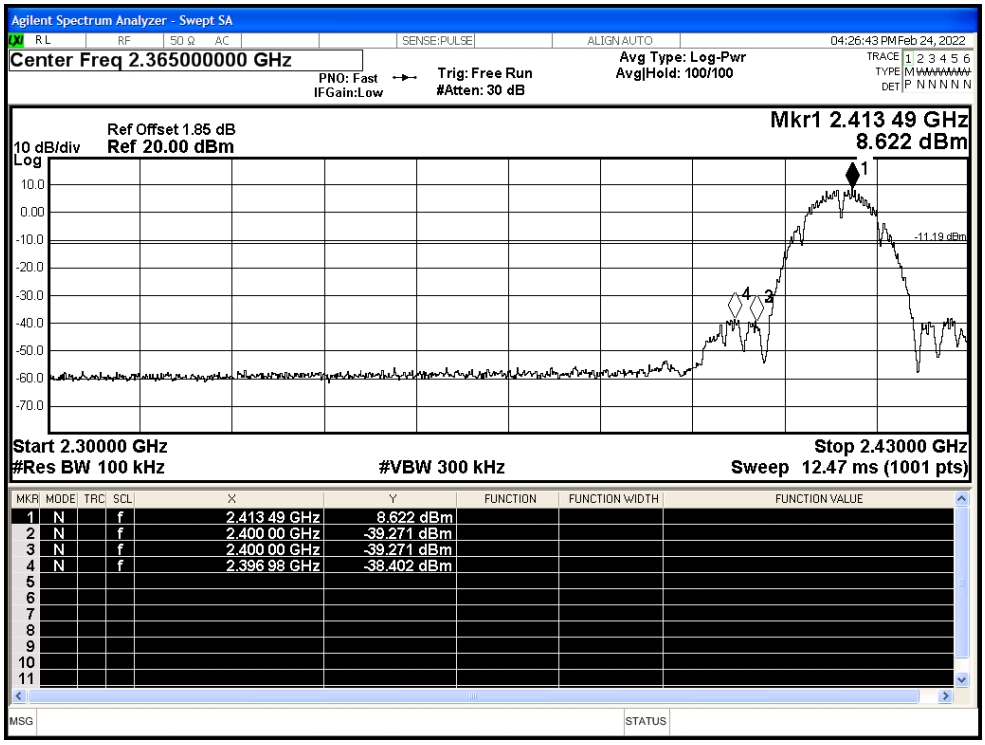
| Condition | Mode | Frequency (MHz) | Antenna | Max Value (dBc) | Limit (dBc) | Verdict |
|---|---|---|---|---|---|---|
| NVNT | b | 2412 | Ant1 | -47.21 | -20 | Pass |
| NVNT | b | 2462 | Ant1 | -62.02 | -20 | Pass |
| NVNT | g | 2412 | Ant1 | -43.37 | -20 | Pass |
| NVNT | g | 2462 | Ant1 | -53.99 | -20 | Pass |
| NVNT | n20 | 2412 | Ant1 | -43.43 | -20 | Pass |
| NVNT | n20 | 2462 | Ant1 | -53.46 | -20 | Pass |
| NVNT | n40 | 2422 | Ant1 | -43.4 | -20 | Pass |
| NVNT | n40 | 2452 | Ant1 | -49.13 | -20 | Pass |
| NVNT | ax20 | 2412 | Ant1 | -48.06 | -20 | Pass |
| NVNT | ax20 | 2462 | Ant1 | -55.01 | -20 | Pass |
| NVNT | ax40 | 2422 | Ant1 | -46.07 | -20 | Pass |
| NVNT | ax40 | 2452 | Ant1 | -50.07 | -20 | Pass |

Test Graphs

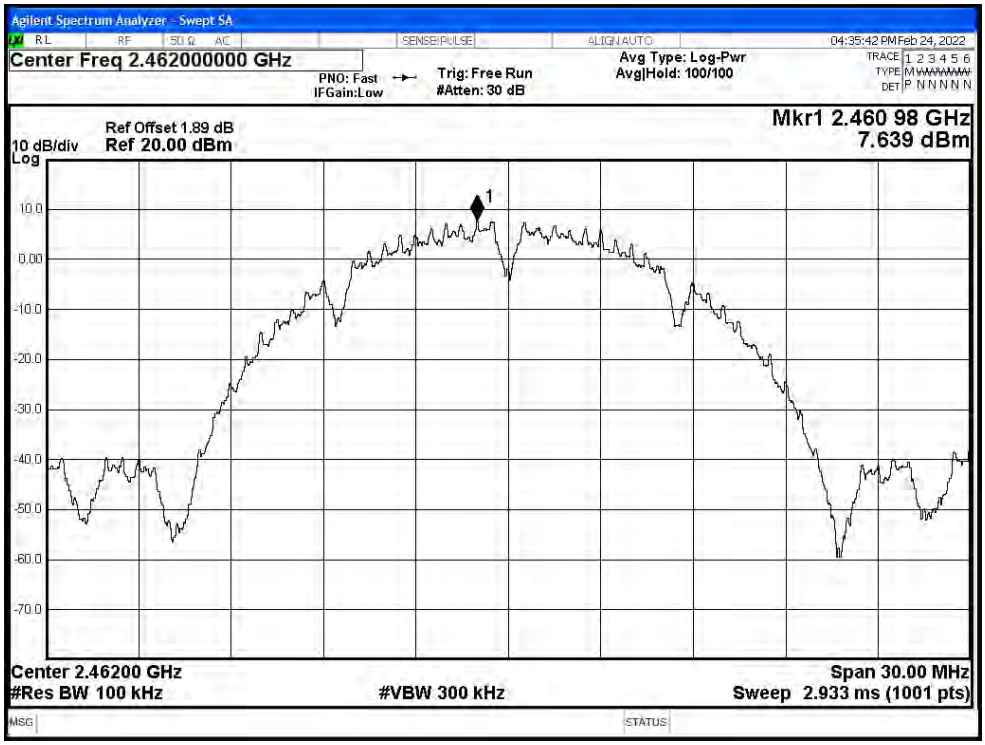
Band Edge NVNT b 2412MHz Ant1 Ref



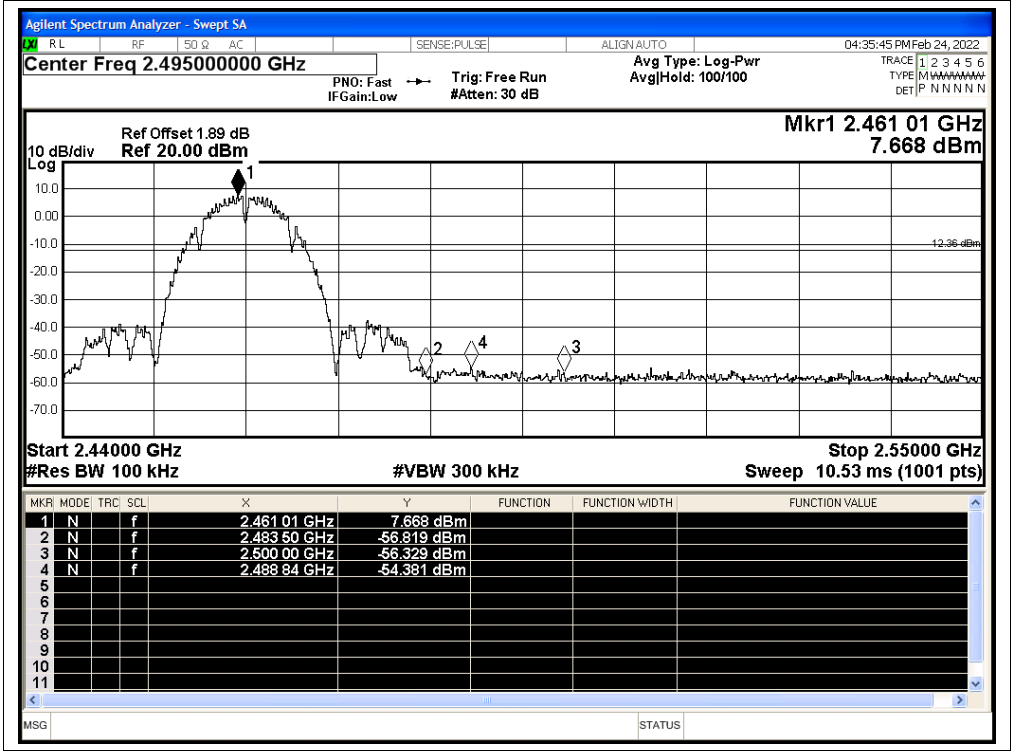

Band Edge NVNT b 2412MHz Ant1 Emission



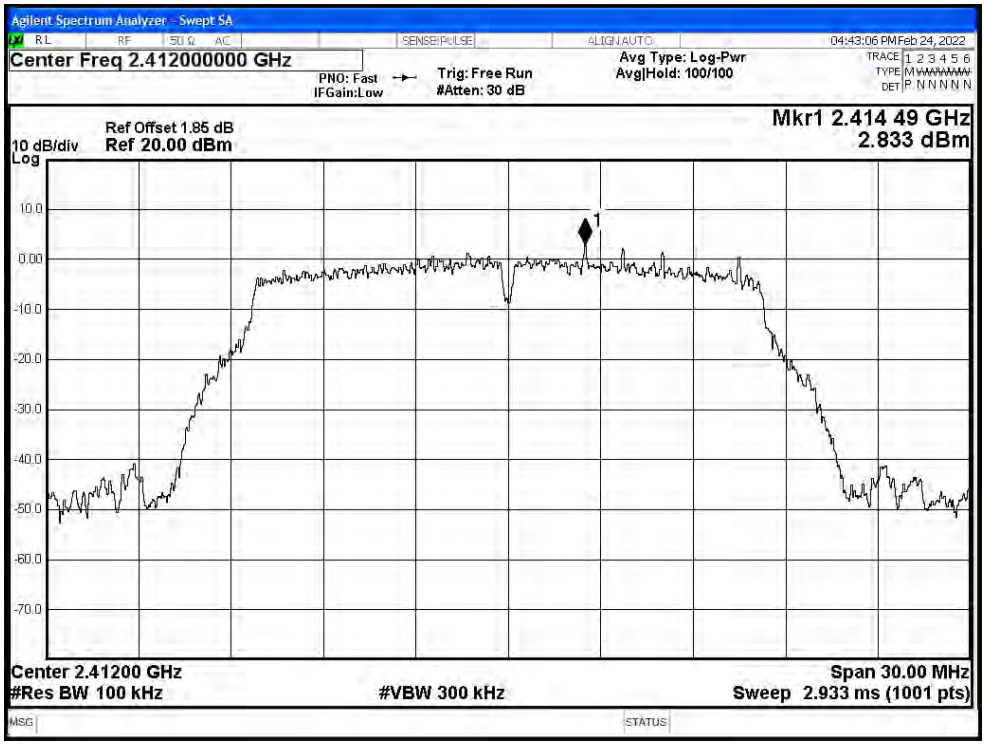
Band Edge NVNT b 2462MHz Ant1 Ref



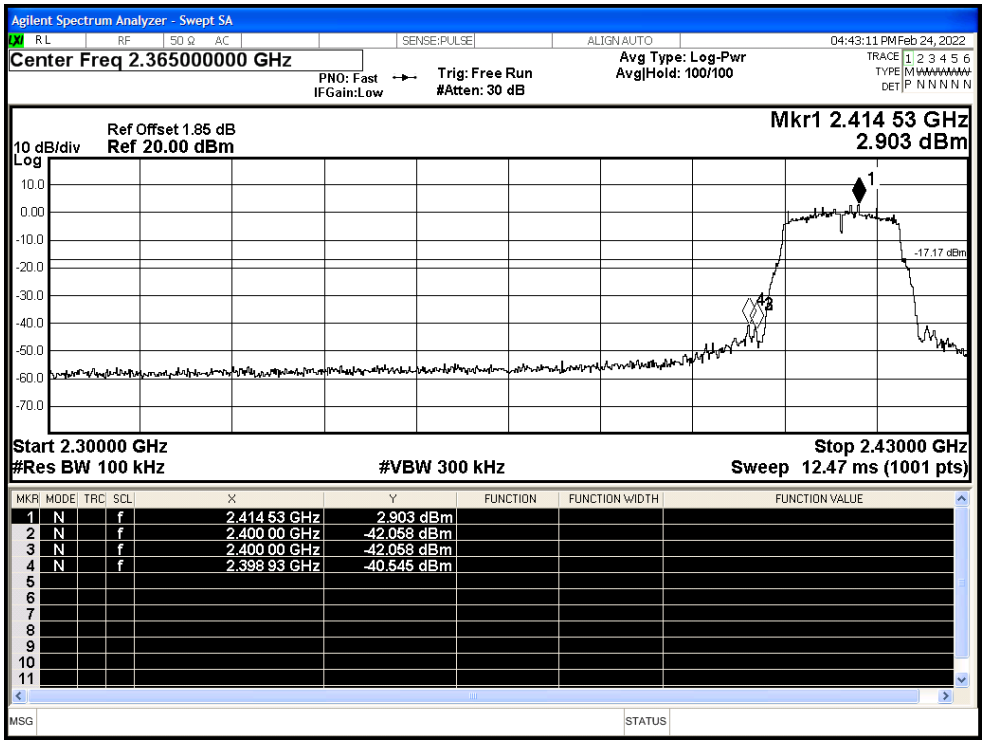

Band Edge NVNT b 2462MHz Ant1 Emission



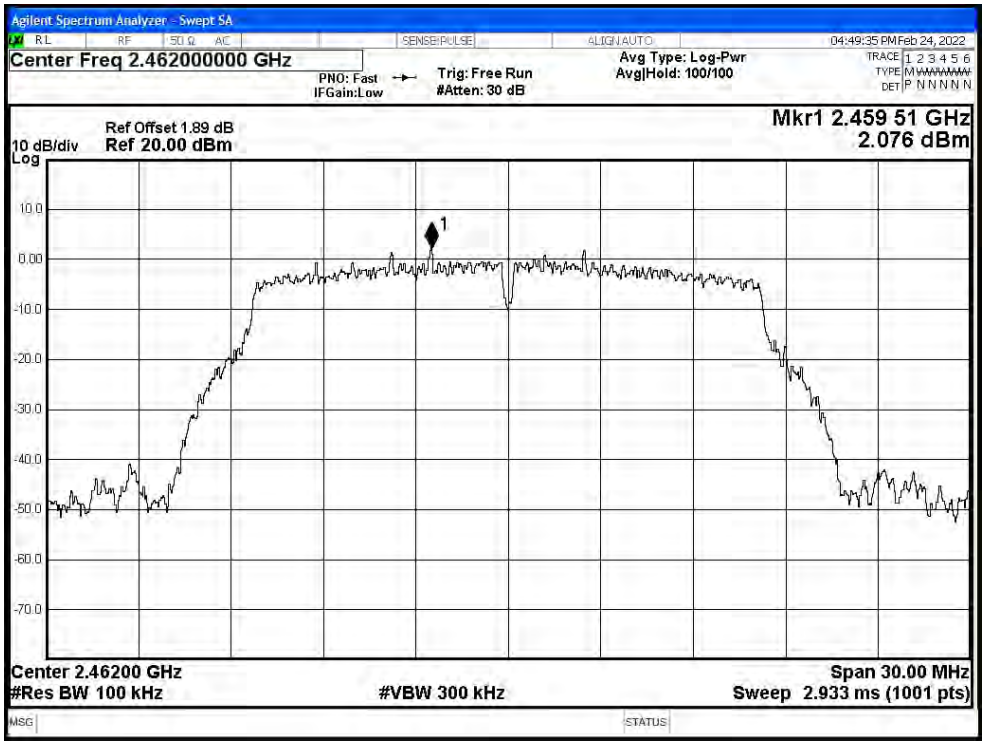
Band Edge NVNT g 2412MHz Ant1 Ref



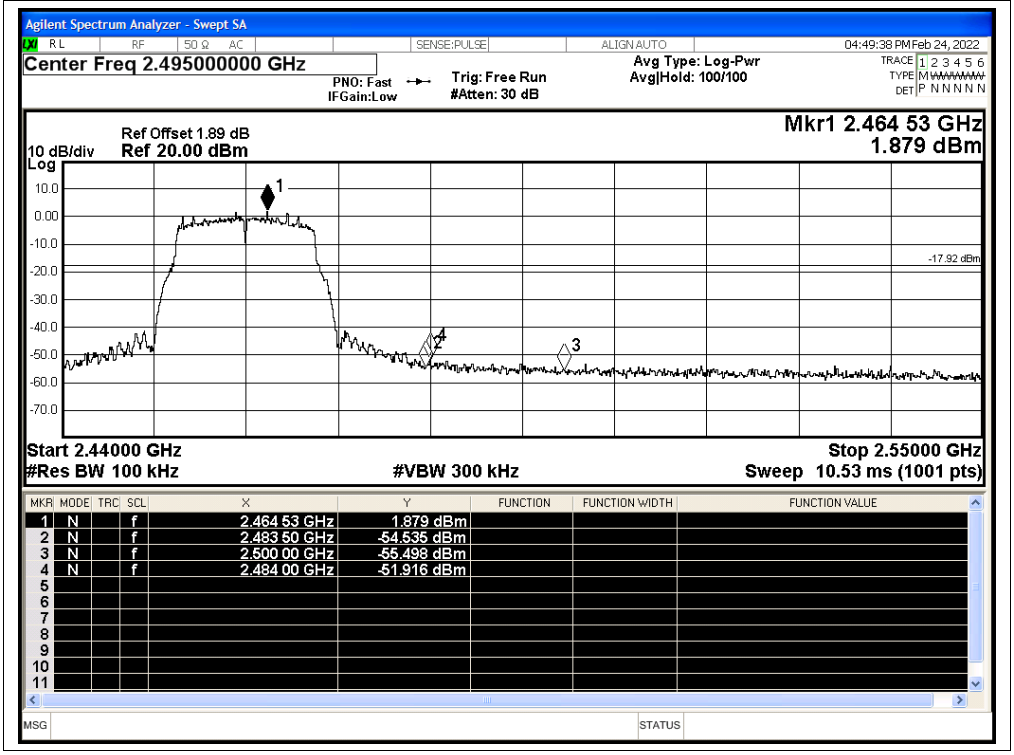

Band Edge NVNT g 2412MHz Ant1 Emission



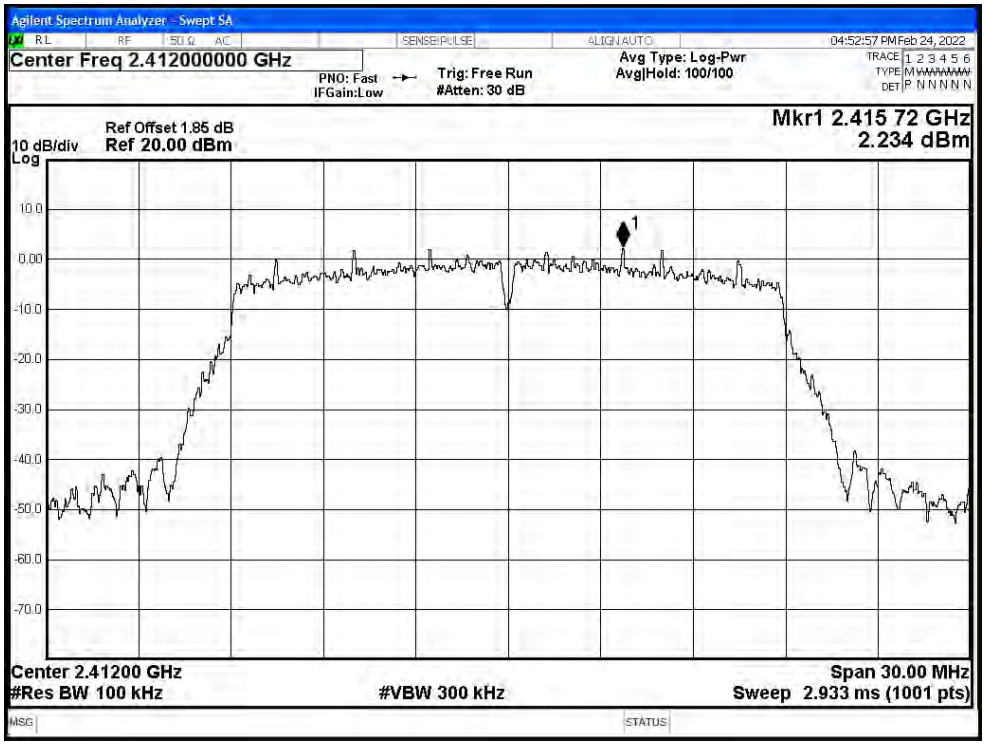
Band Edge NVNT g 2462MHz Ant1 Ref



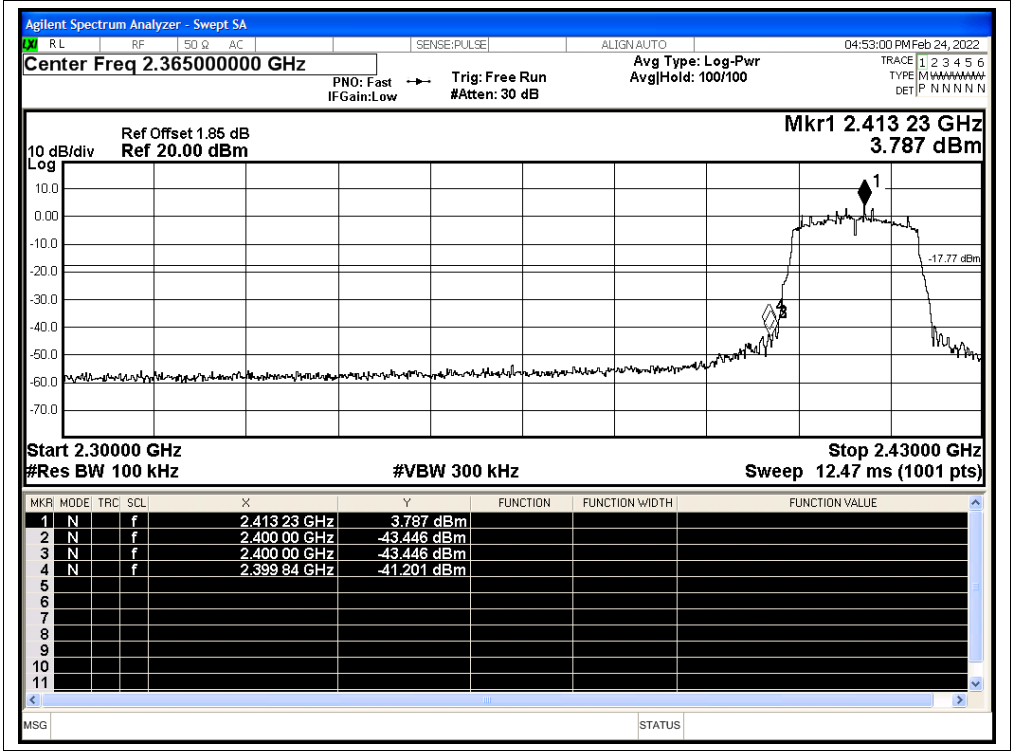

Band Edge NVNT g 2462MHz Ant1 Emission



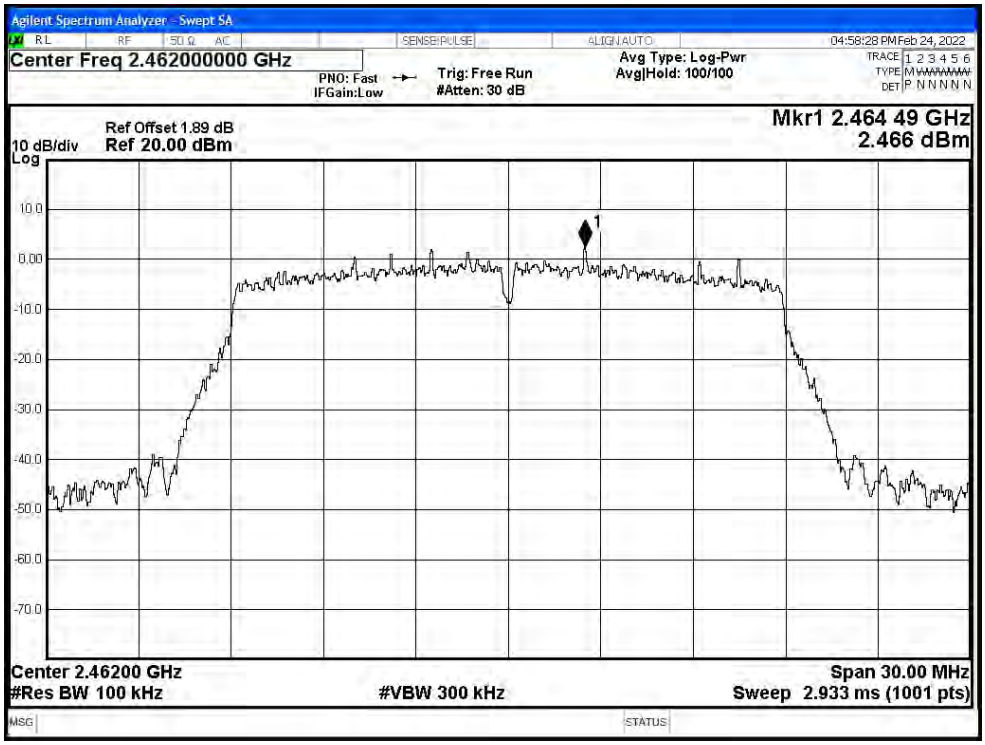
Band Edge NVNT n20 2412MHz Ant1 Ref



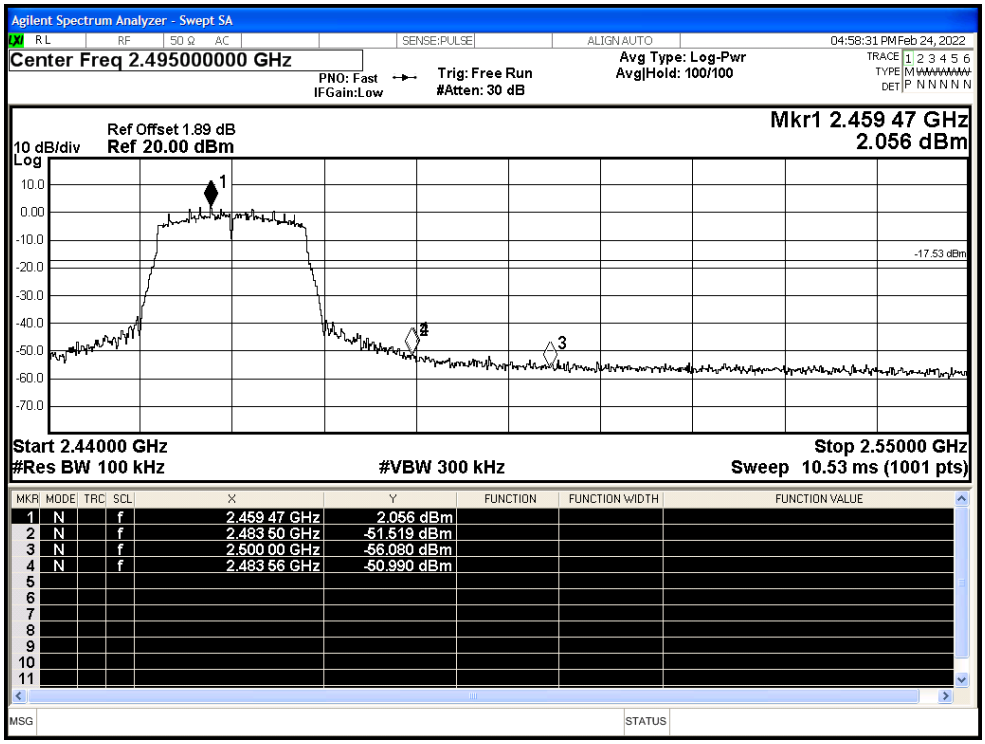

Band Edge NVNT n20 2412MHz Ant1 Emission



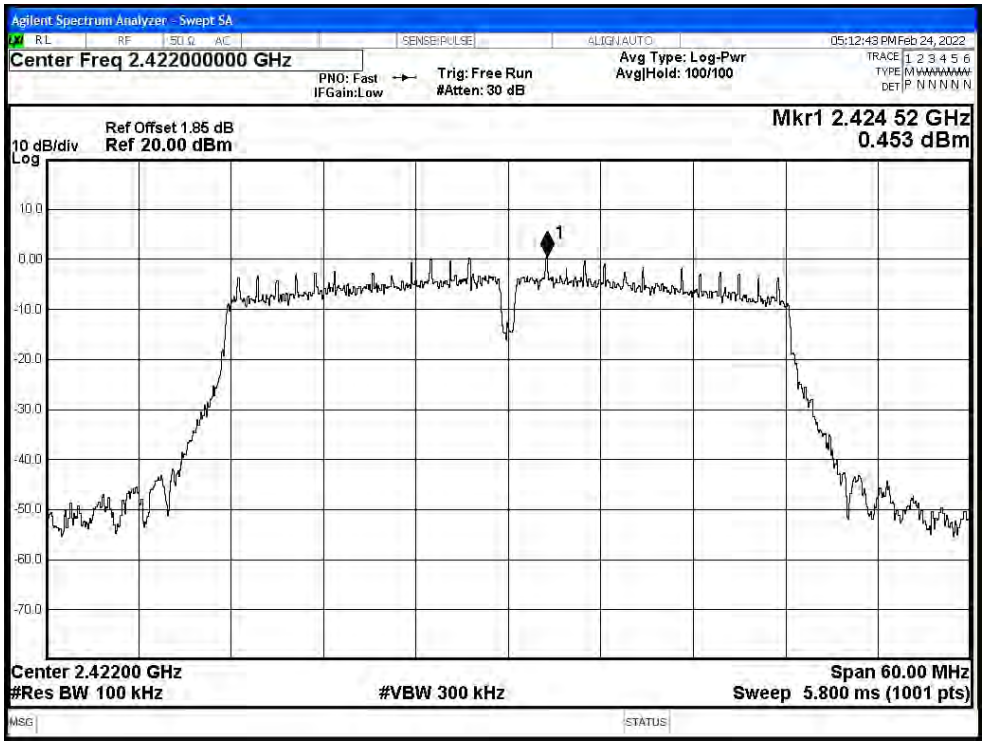
Band Edge NVNT n20 2462MHz Ant1 Ref



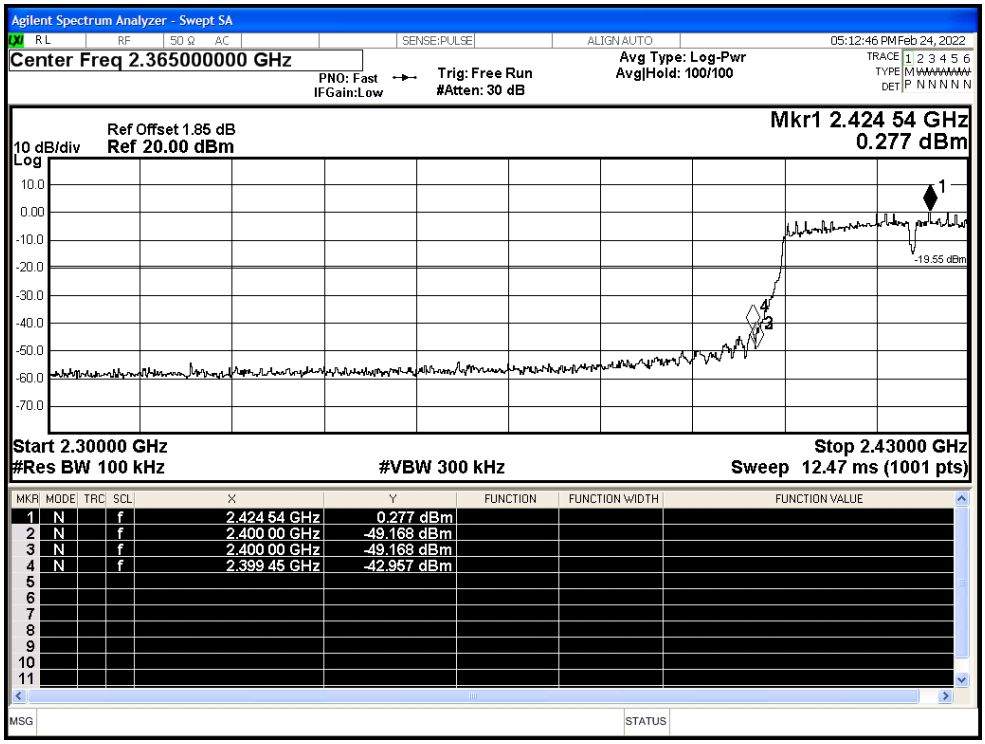

Band Edge NVNT n20 2462MHz Ant1 Emission



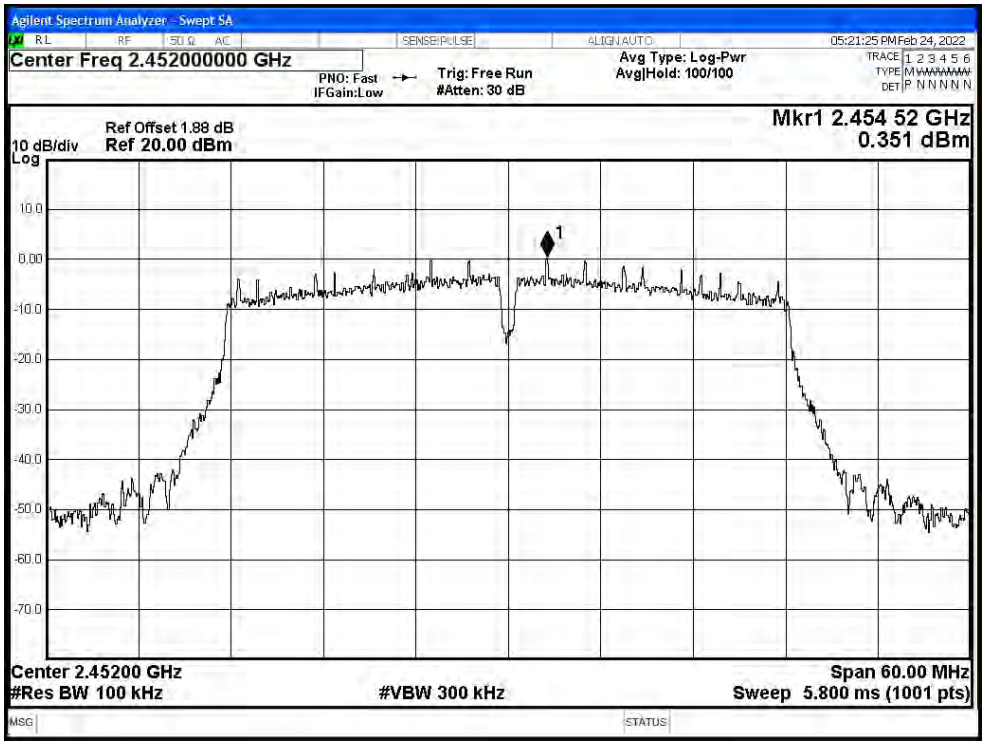
Band Edge NVNT n40 2422MHz Ant1 Ref



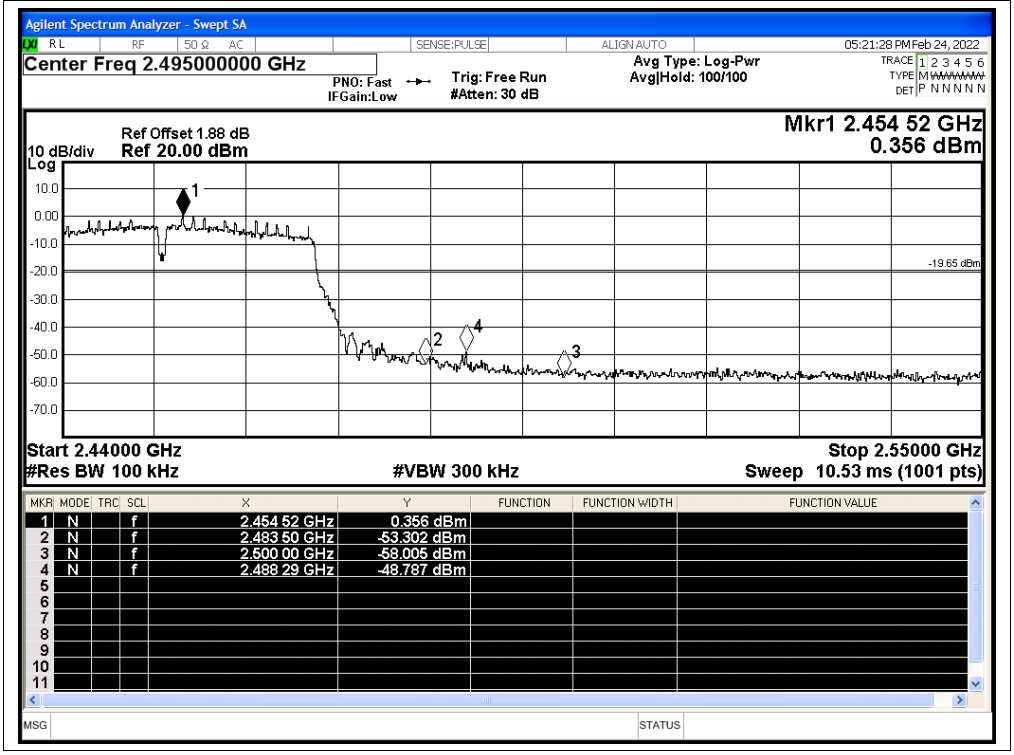

Band Edge NVNT n40 2422MHz Ant1 Emission



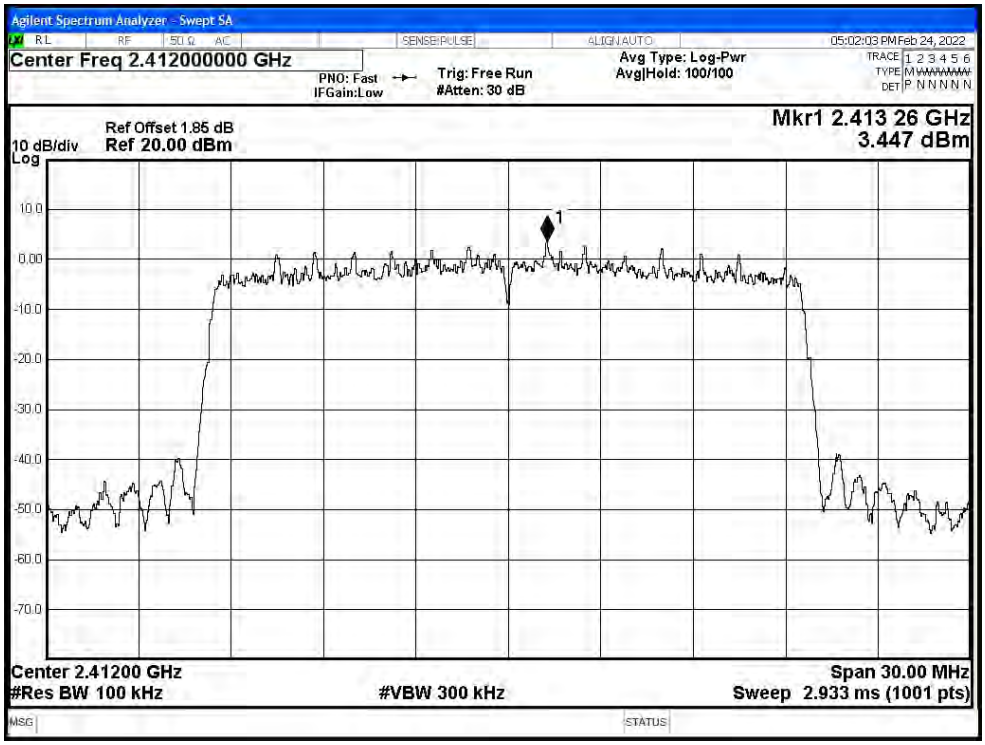
Band Edge NVNT n40 2452MHz Ant1 Ref



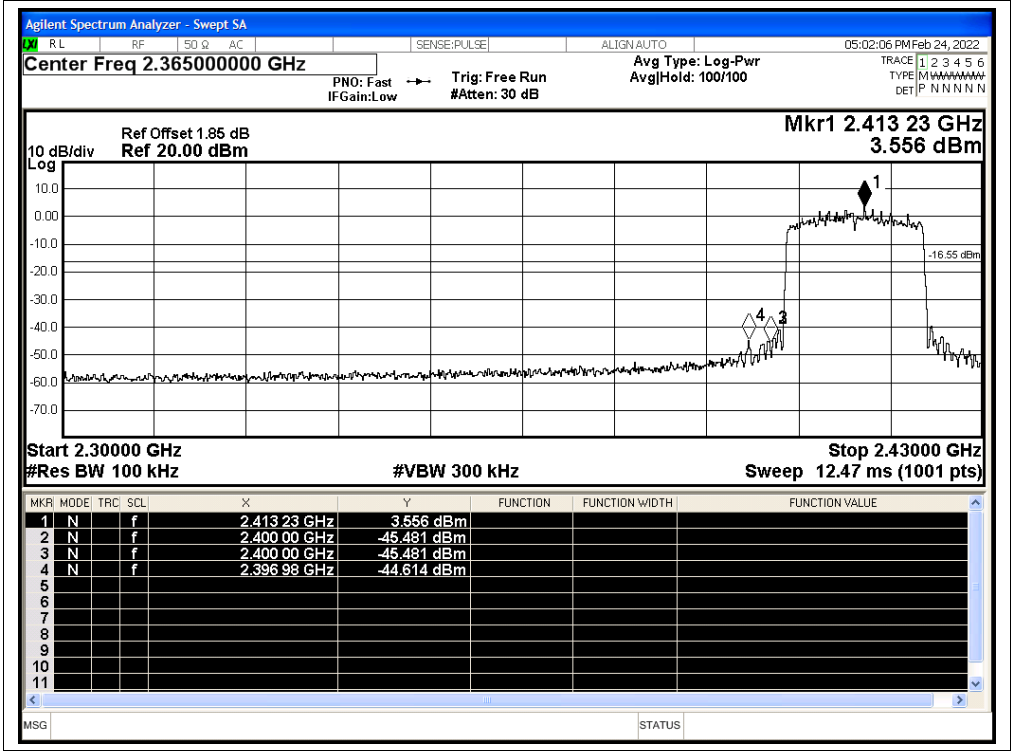

Band Edge NVNT n40 2452MHz Ant1 Emission



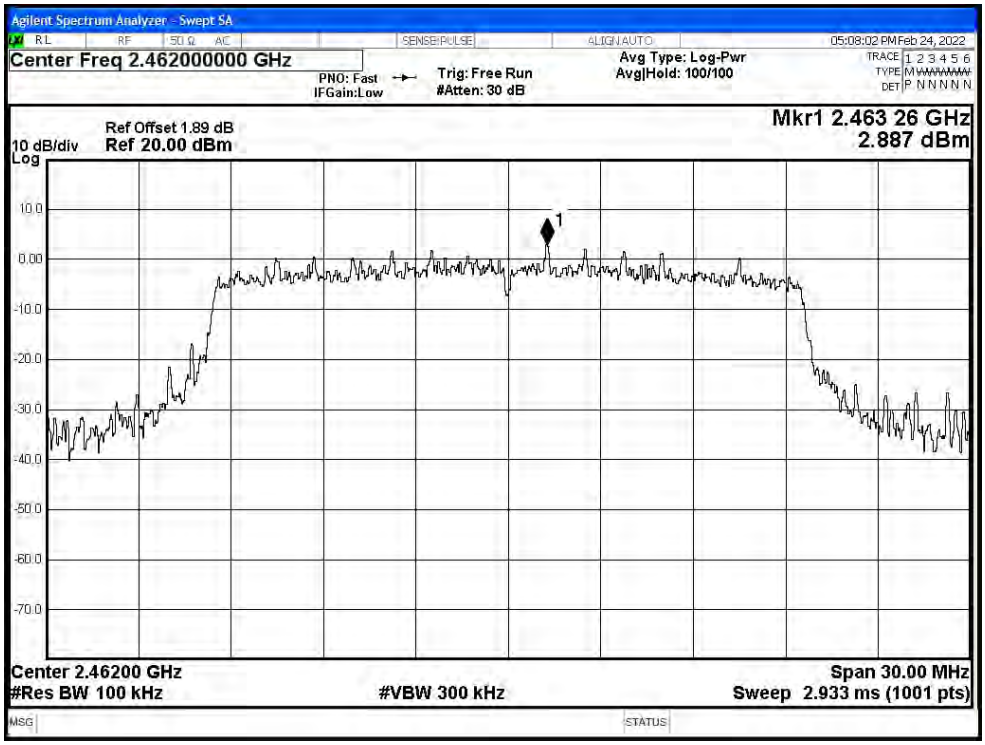
Band Edge NVNT ax20 2412MHz Ant1 Ref



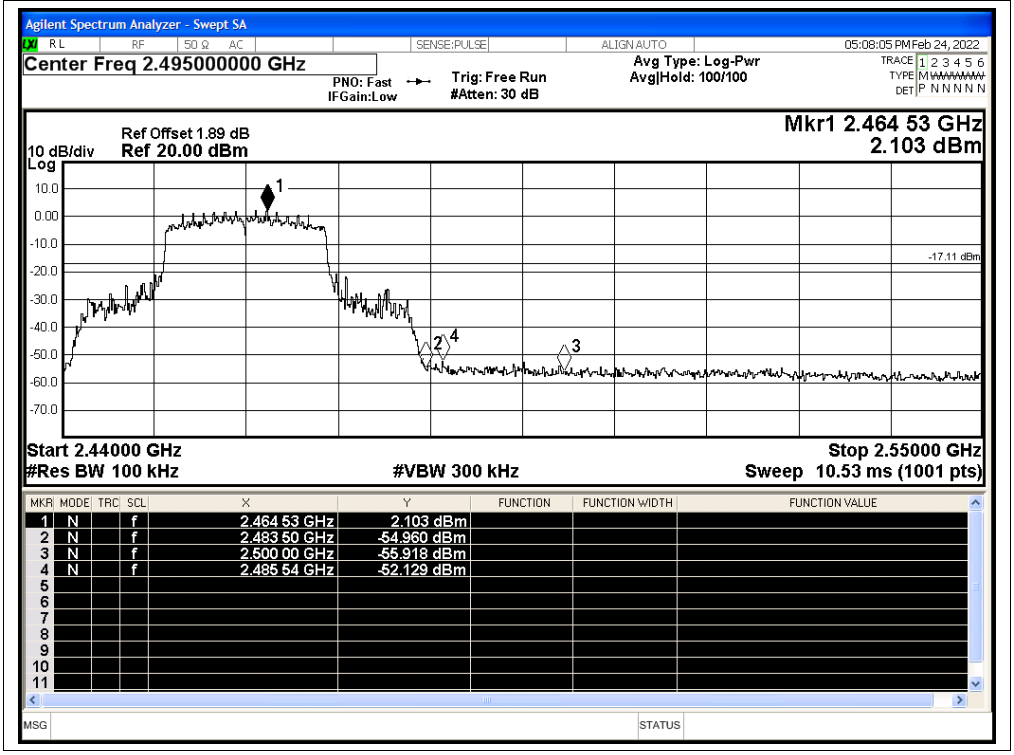

Band Edge NVNT ax20 2412MHz Ant1 Emission



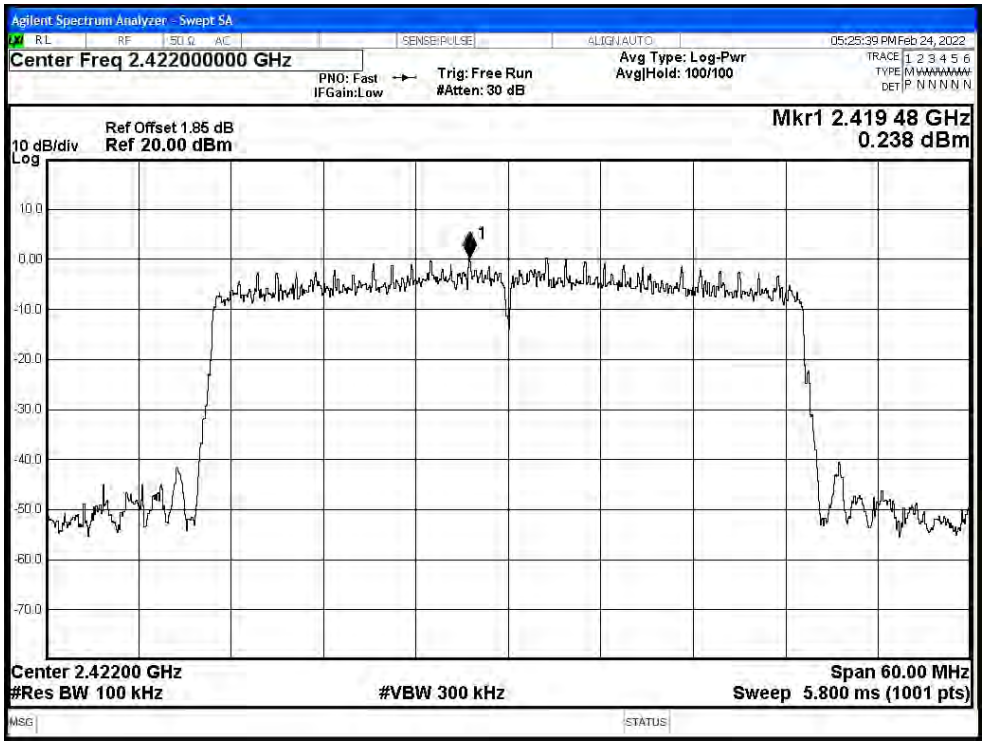
Band Edge NVNT ax20 2462MHz Ant1 Ref



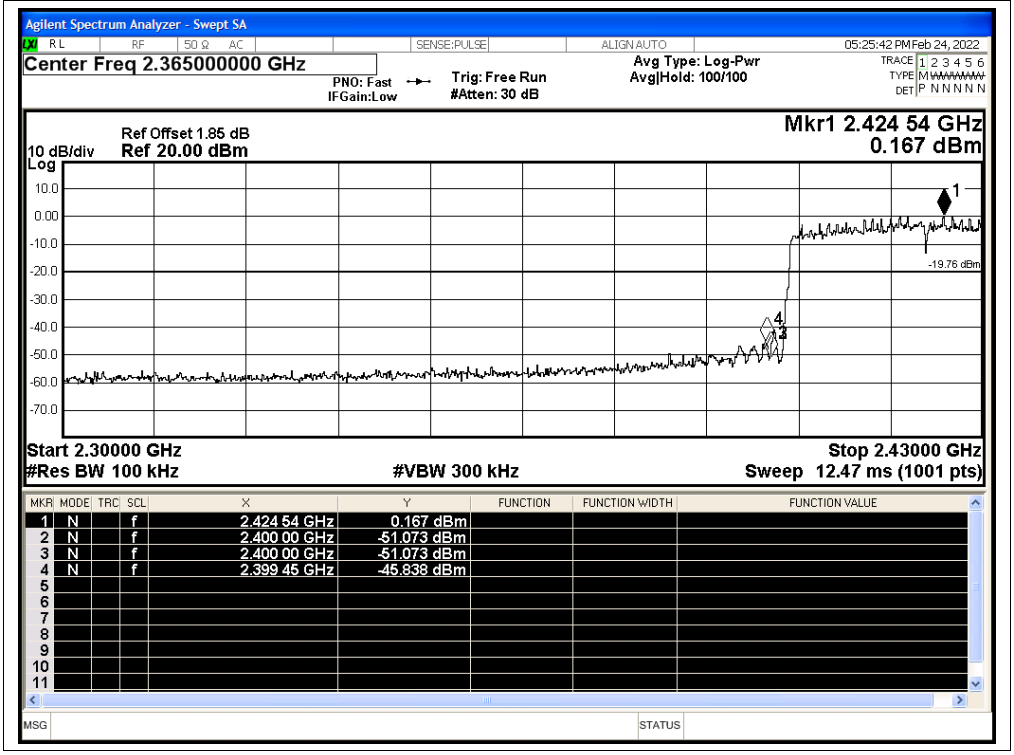

Band Edge NVNT ax20 2462MHz Ant1 Emission



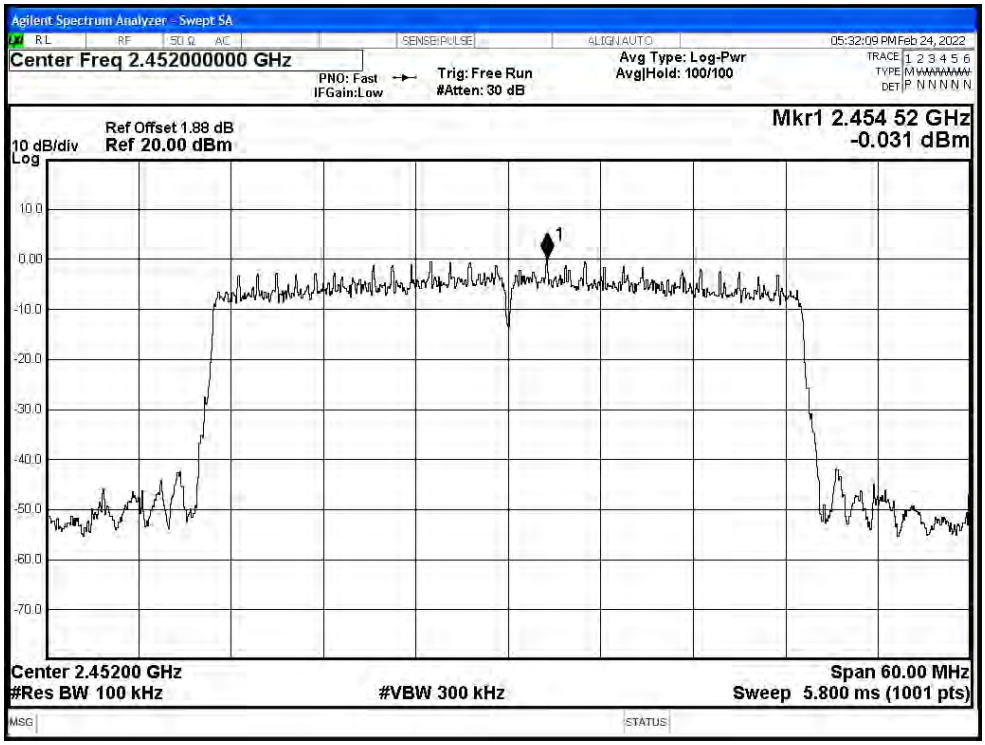
Band Edge NVNT ax40 2422MHz Ant1 Ref



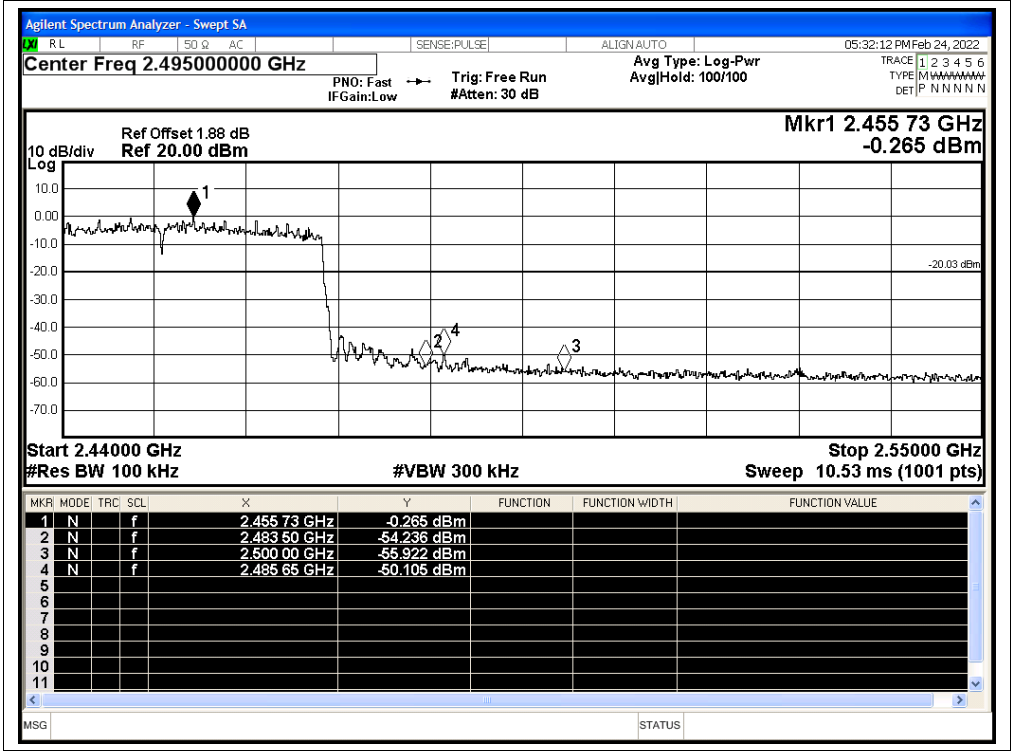

Band Edge NVNT ax40 2422MHz Ant1 Emission



Band Edge NVNT ax40 2452MHz Ant1 Ref



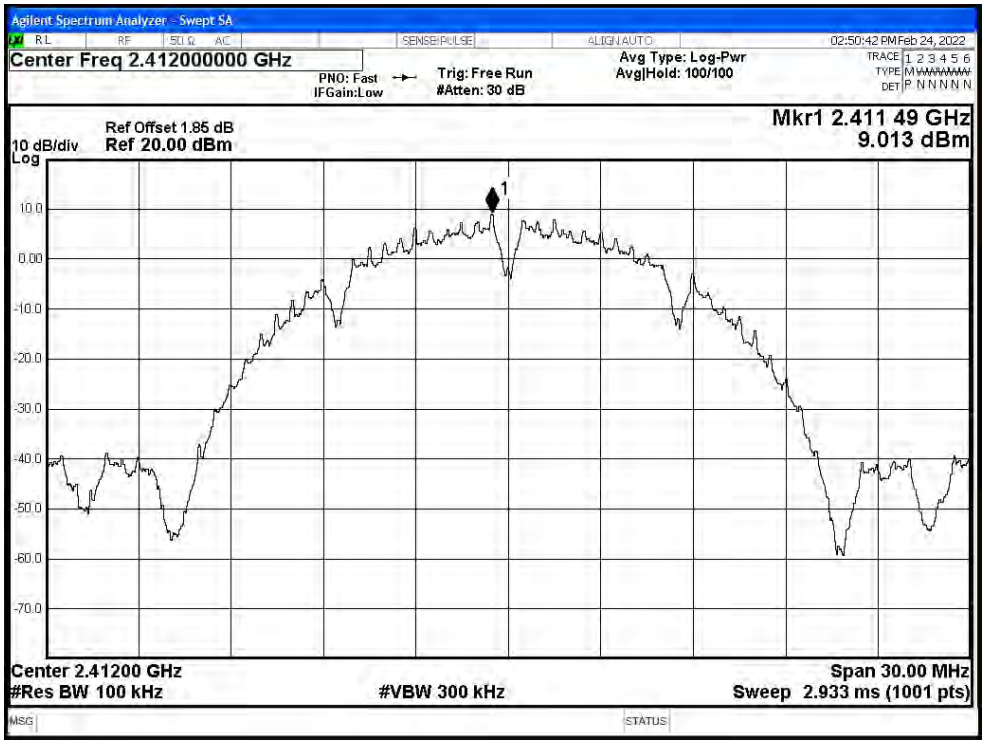

Band Edge NVNT ax40 2452MHz Ant1 Emission



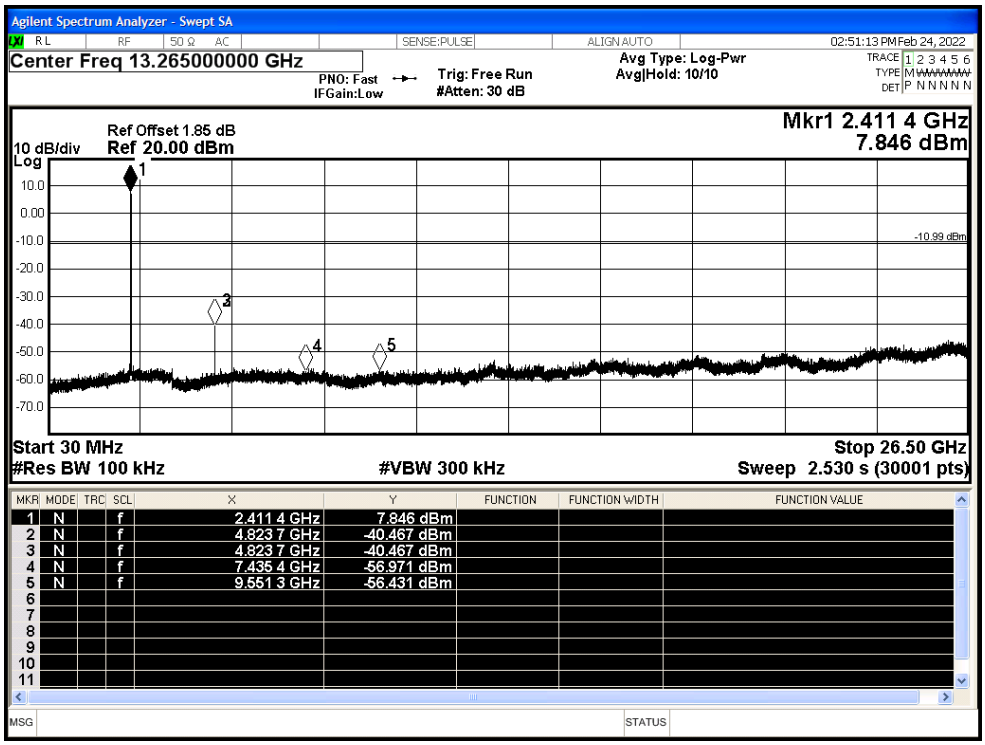
# A.5 Conducted RF Spurious Emission

| Condition | Mode | Frequency (MHz) | Antenna | Max Value (dBc) | Limit (dBc) | Verdict |
|---|---|---|---|---|---|---|
| NVNT | b | 2412 | Ant0 | -49.47 | -20 | Pass |
| NVNT | b | 2437 | Ant0 | -47.77 | -20 | Pass |
| NVNT | b | 2462 | Ant0 | -48.55 | -20 | Pass |
| NVNT | g | 2412 | Ant0 | -48.92 | -20 | Pass |
| NVNT | g | 2437 | Ant0 | -47.38 | -20 | Pass |
| NVNT | g | 2462 | Ant0 | -47.6 | -20 | Pass |
| NVNT | n20 | 2412 | Ant0 | -47.48 | -20 | Pass |
| NVNT | n20 | 2437 | Ant0 | -48.86 | -20 | Pass |
| NVNT | n20 | 2462 | Ant0 | -48.73 | -20 | Pass |
| NVNT | n40 | 2422 | Ant0 | -46.32 | -20 | Pass |
| NVNT | n40 | 2437 | Ant0 | -45.93 | -20 | Pass |
| NVNT | n40 | 2452 | Ant0 | -45.85 | -20 | Pass |
| NVNT | ax20 | 2412 | Ant0 | -48.72 | -20 | Pass |
| NVNT | ax20 | 2437 | Ant0 | -48.04 | -20 | Pass |
| NVNT | ax20 | 2462 | Ant0 | -48.39 | -20 | Pass |
| NVNT | ax40 | 2422 | Ant0 | -45.54 | -20 | Pass |
| NVNT | ax40 | 2437 | Ant0 | -44.89 | -20 | Pass |
| NVNT | ax40 | 2452 | Ant0 | -46.09 | -20 | Pass |

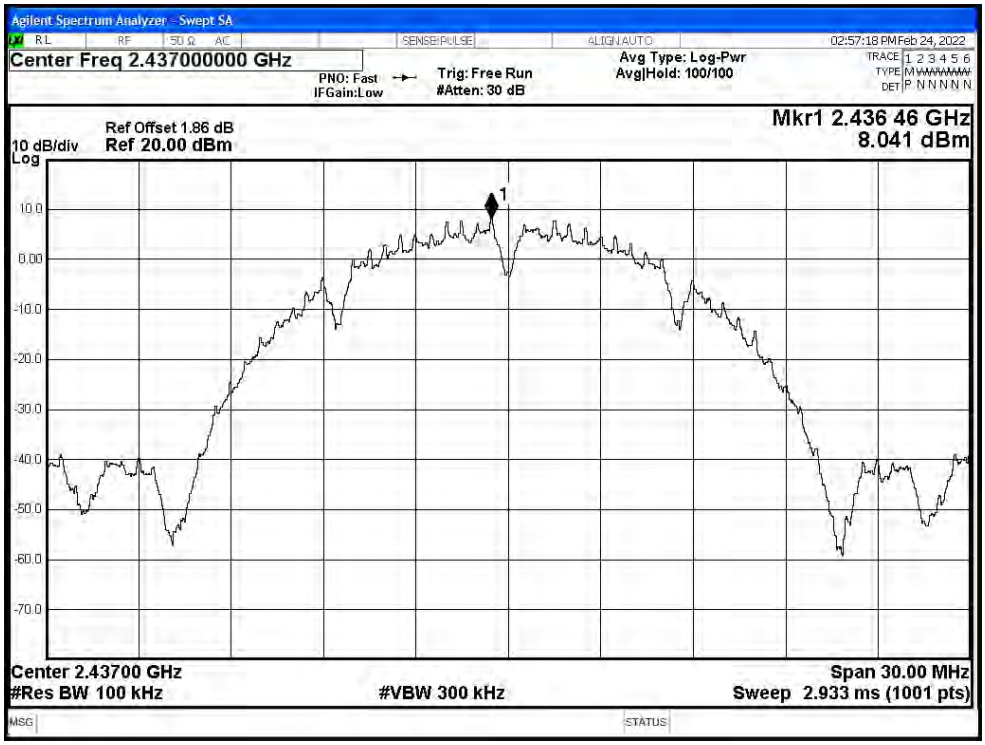
| Test Graphs |
| --- |
| Tx. Spurious NVNT b 2412MHz Ant0 Ref |



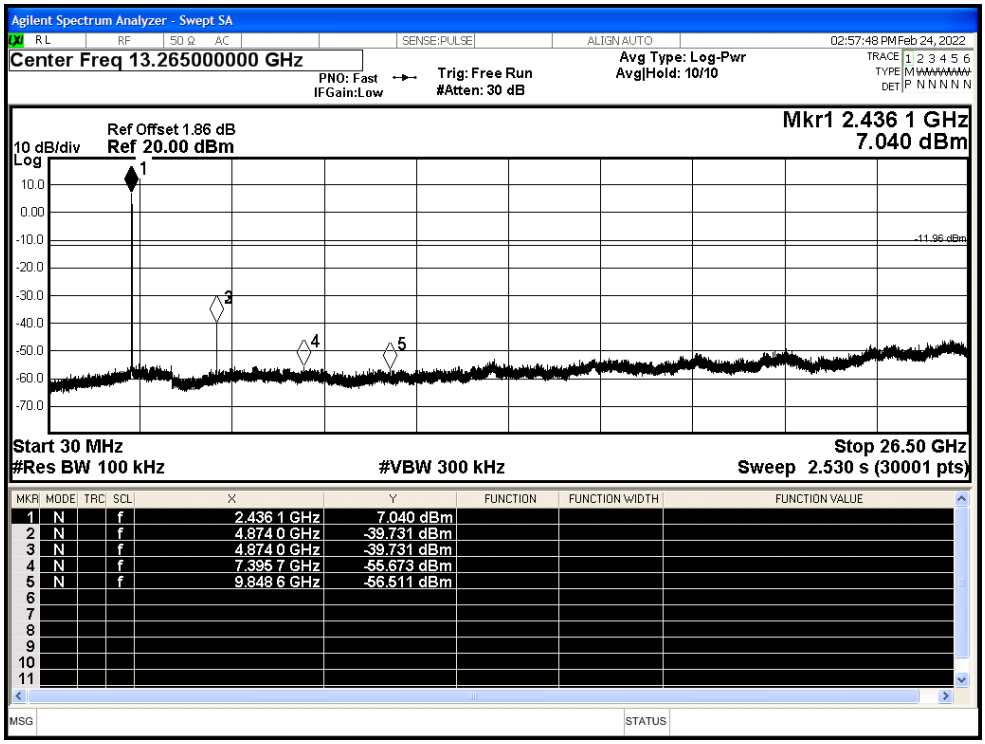

| Tx. Spurious NVNT b 2412MHz Ant0 Emission |
| --- |



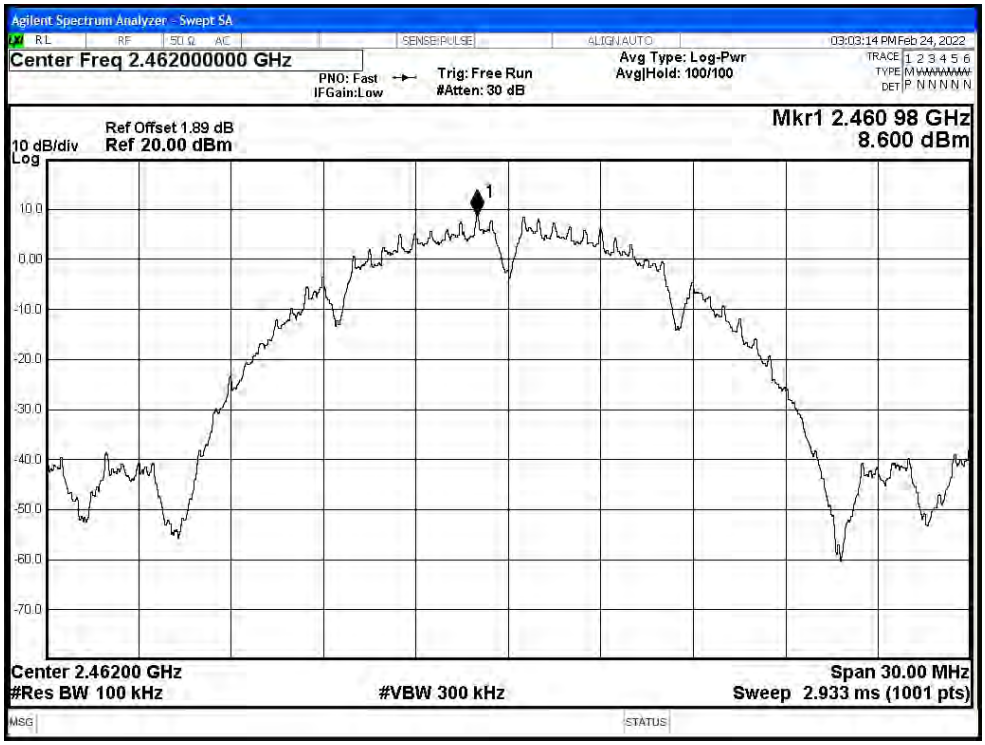
Tx. Spurious NVNT b 2437MHz Ant0 Ref



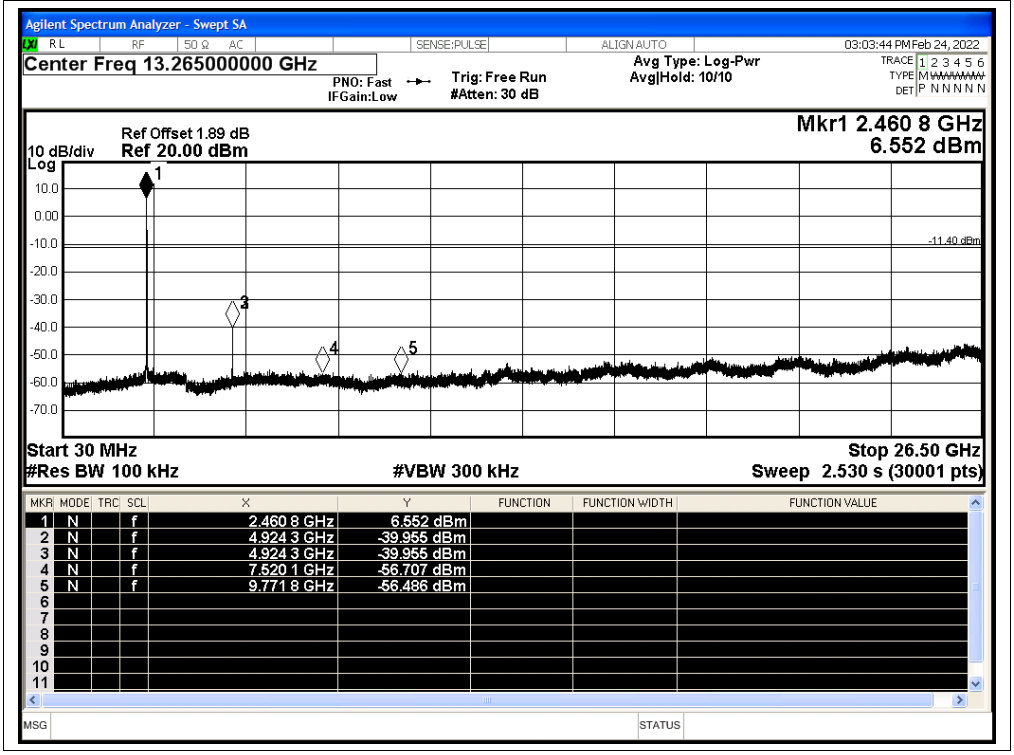

Tx. Spurious NVNT b 2437MHz Ant0 Emission



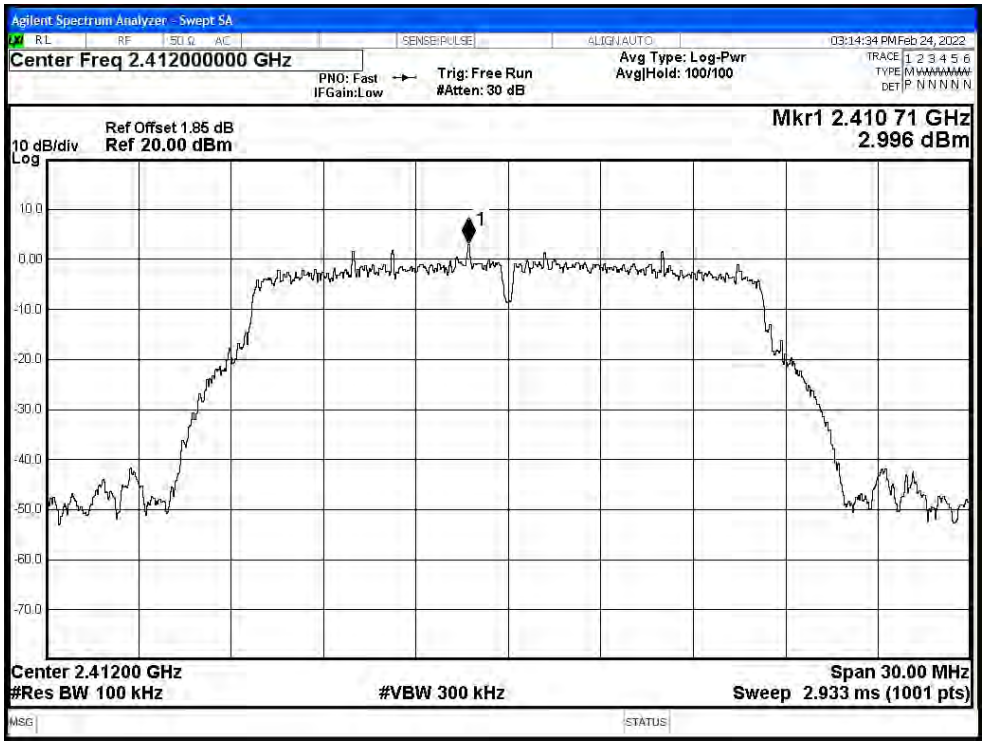
Tx. Spurious NVNT b 2462MHz Ant0 Ref



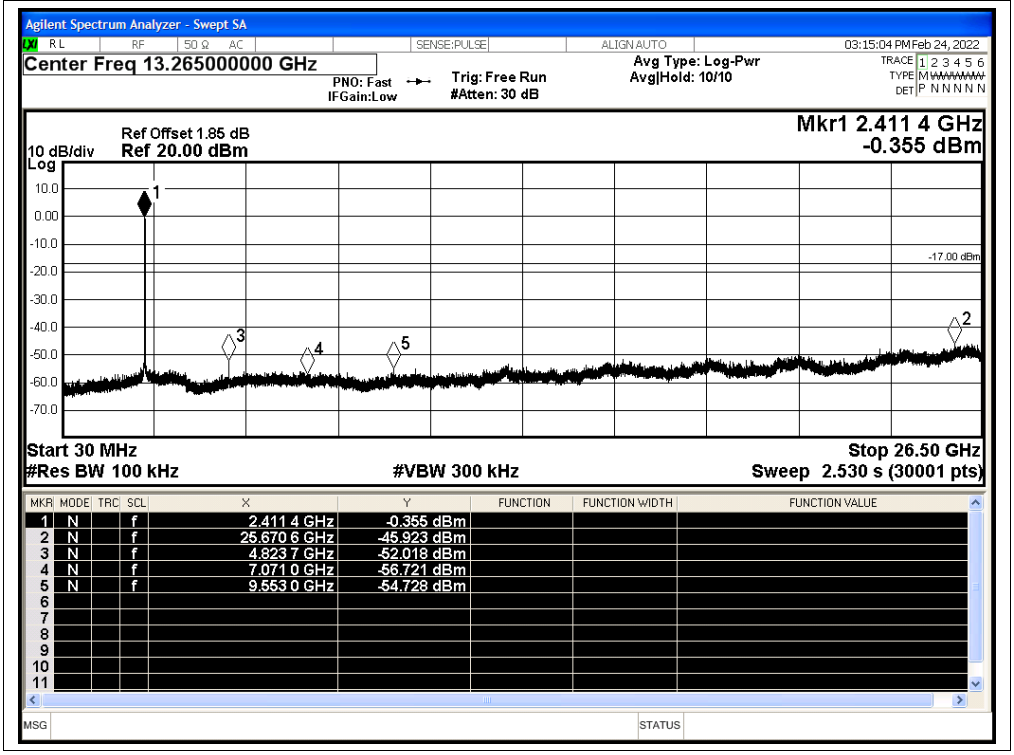

Tx. Spurious NVNT b 2462MHz Ant0 Emission



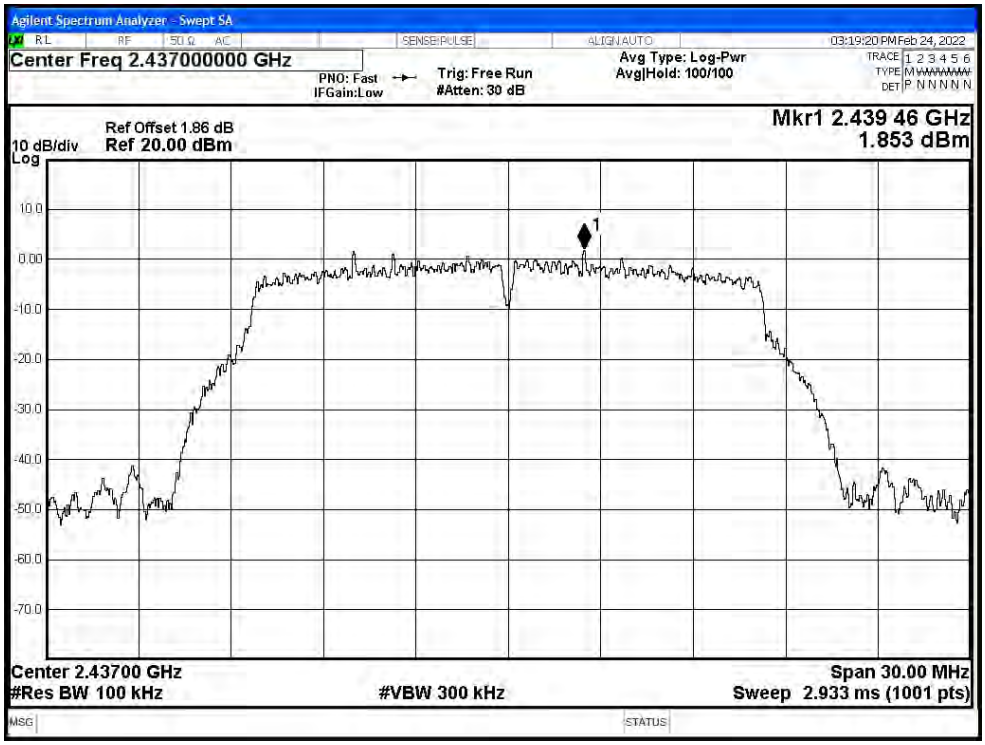
Tx. Spurious NVNT g 2412MHz Ant0 Ref



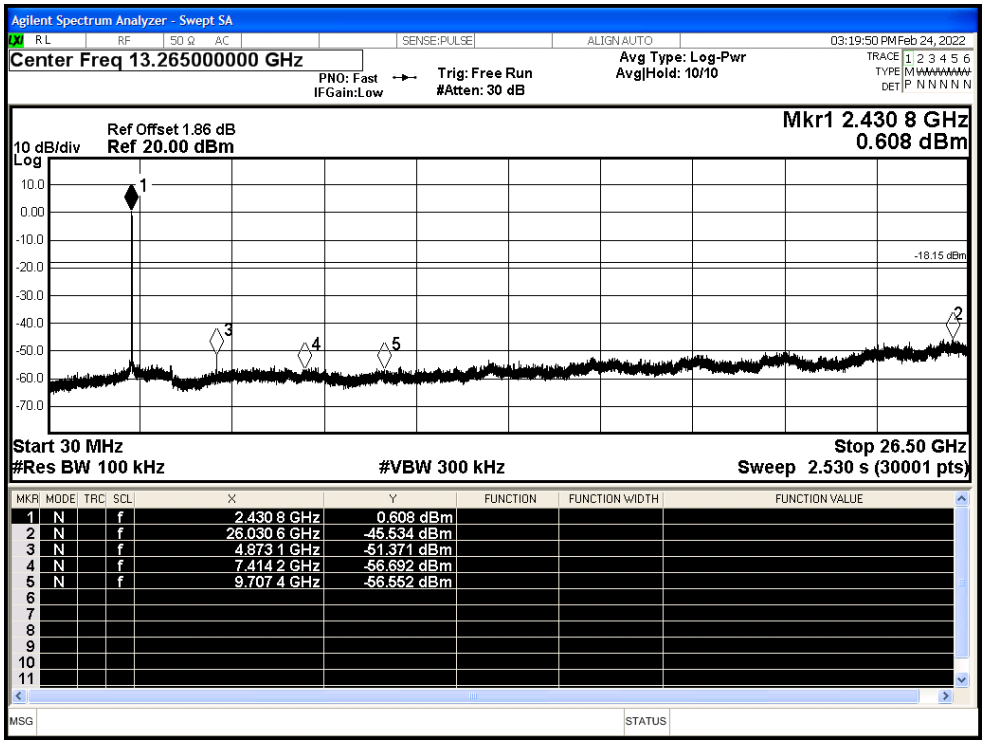

Tx. Spurious NVNT g 2412MHz Ant0 Emission



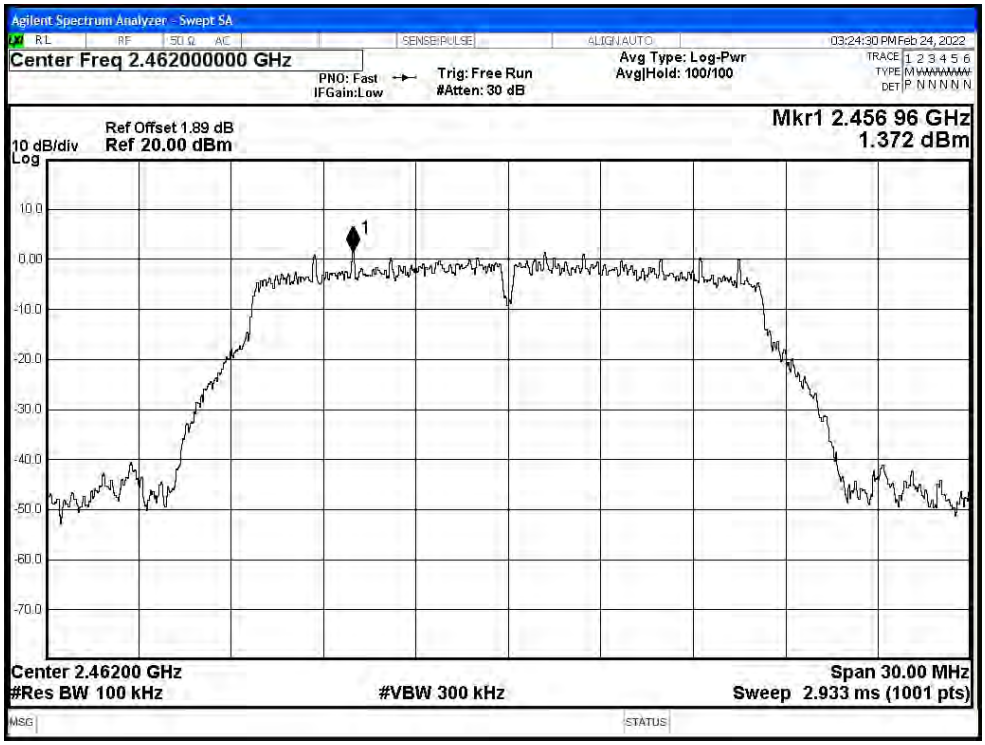
Tx. Spurious NVNT g 2437MHz Ant0 Ref



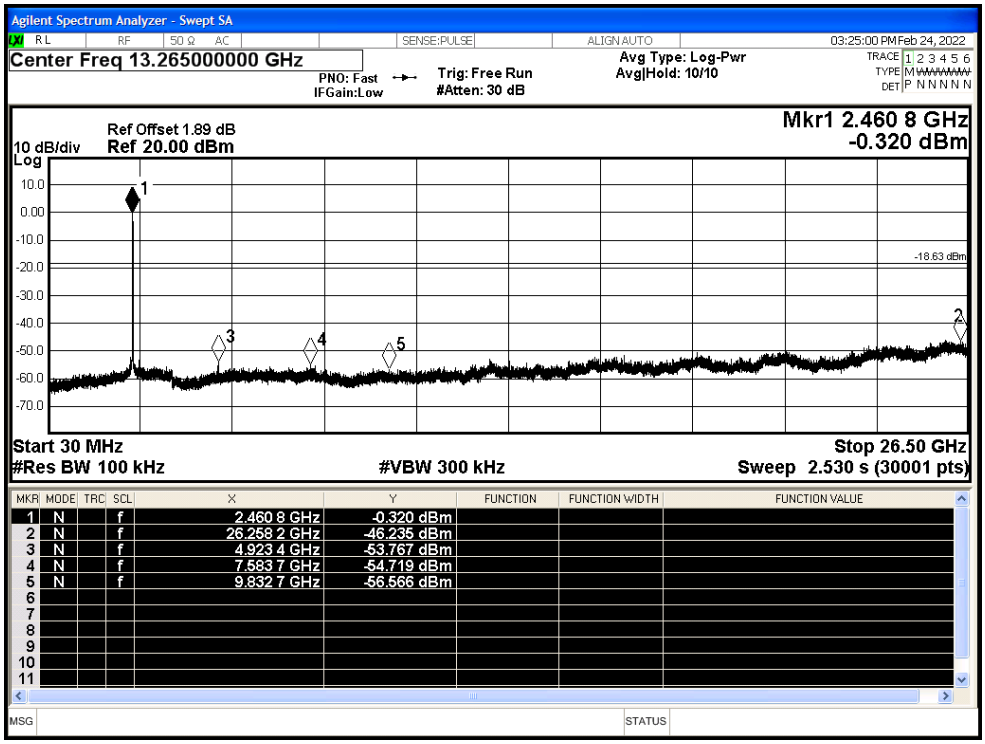

Tx. Spurious NVNT g 2437MHz Ant0 Emission



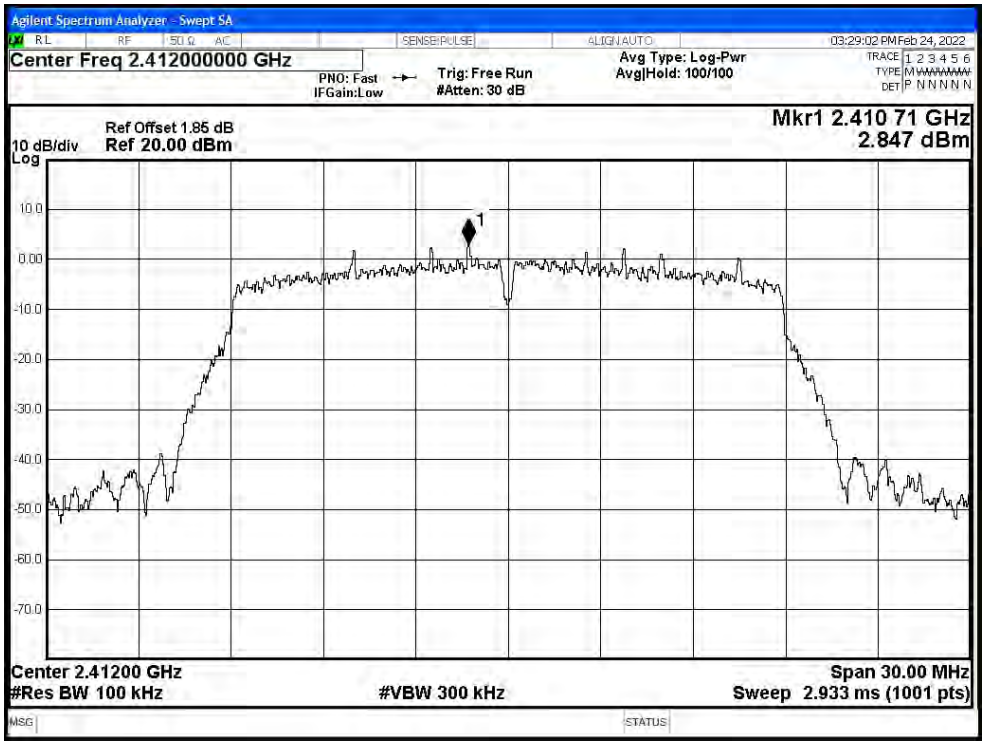
Tx. Spurious NVNT g 2462MHz Ant0 Ref



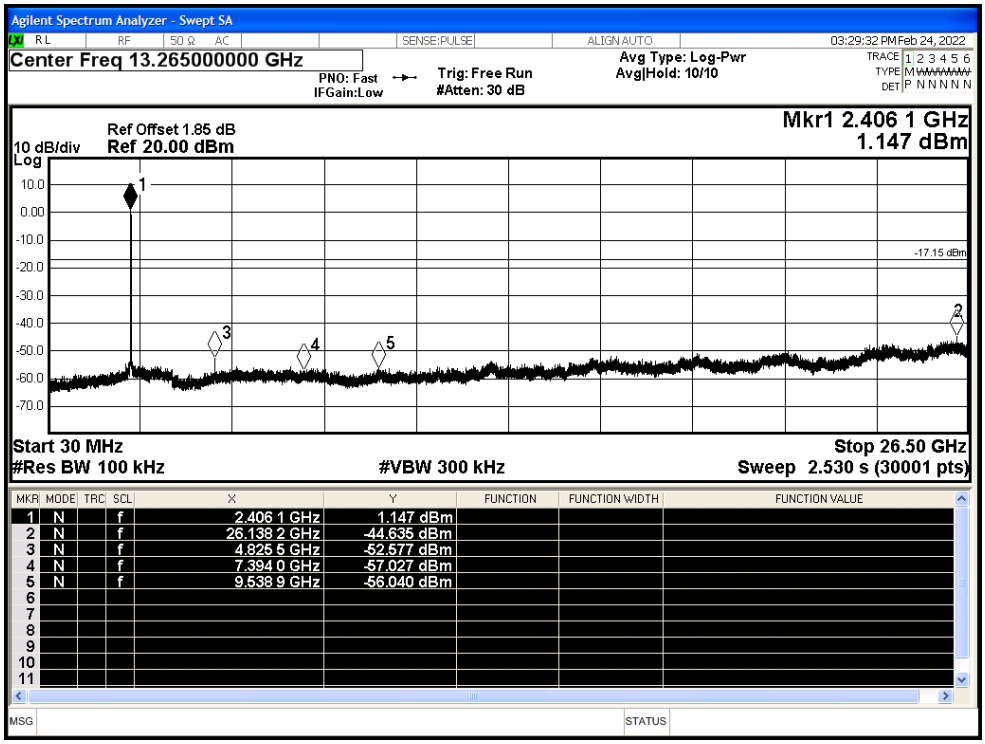

Tx. Spurious NVNT g 2462MHz Ant0 Emission



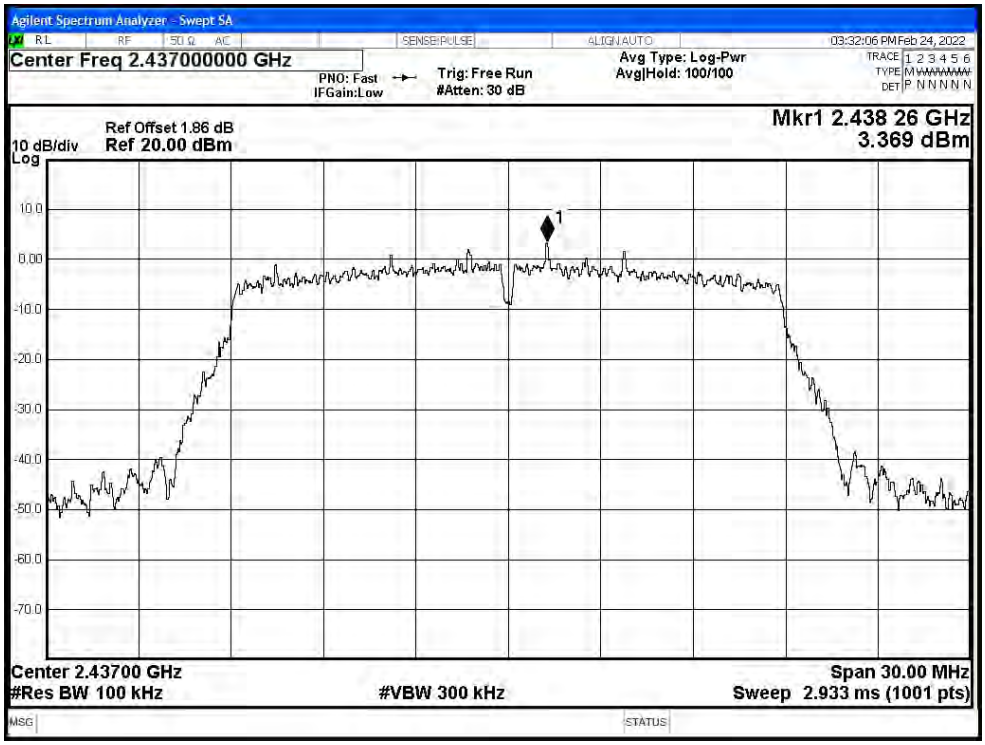
Tx. Spurious NVNT n20 2412MHz Ant0 Ref



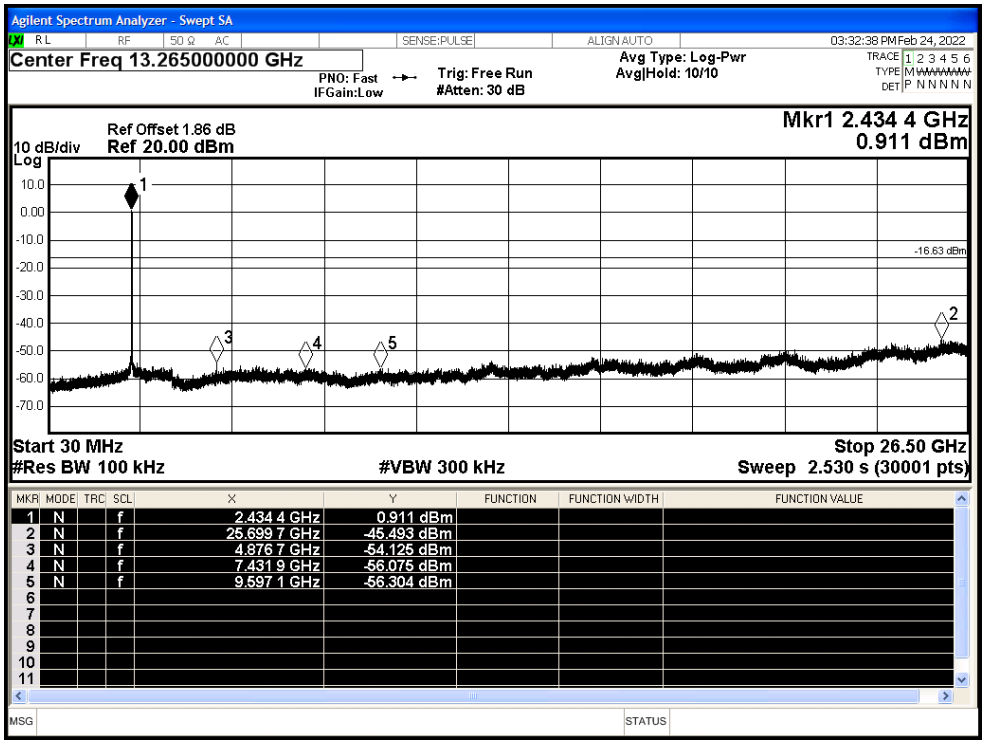

Tx. Spurious NVNT n20 2412MHz Ant0 Emission



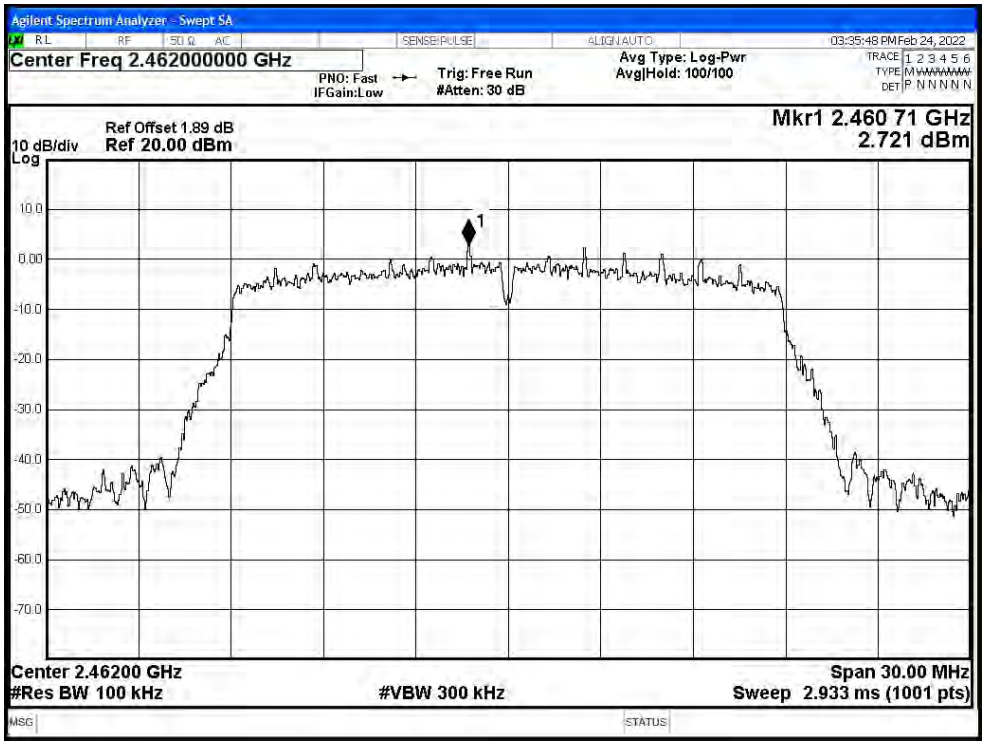
Tx. Spurious NVNT n20 2437MHz Ant0 Ref



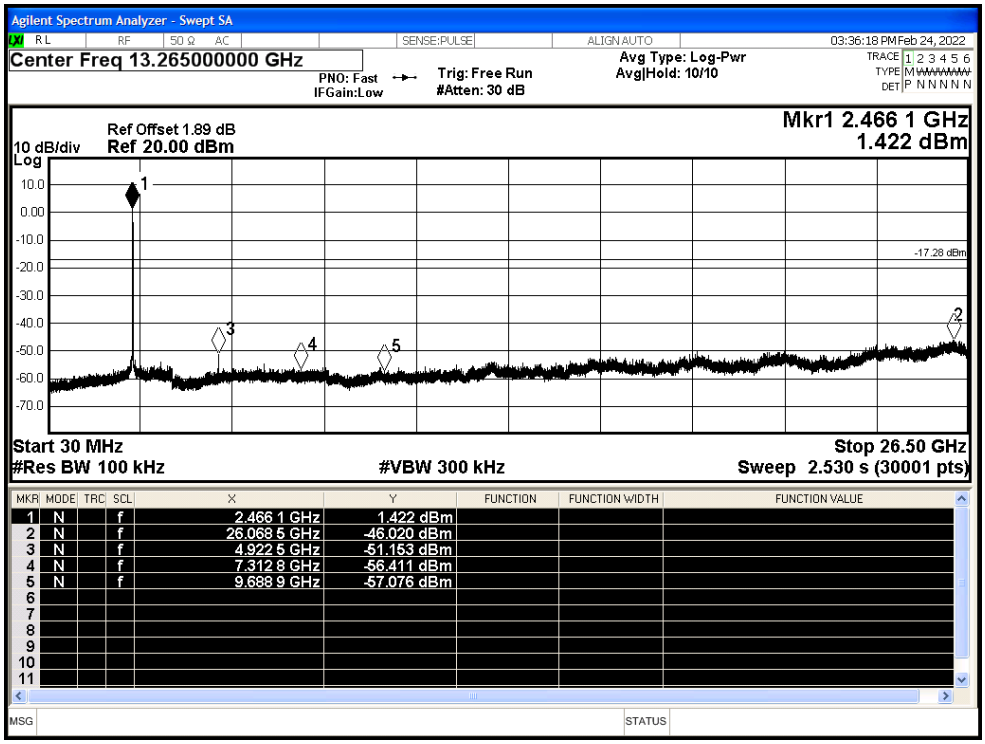

Tx. Spurious NVNT n20 2437MHz Ant0 Emission



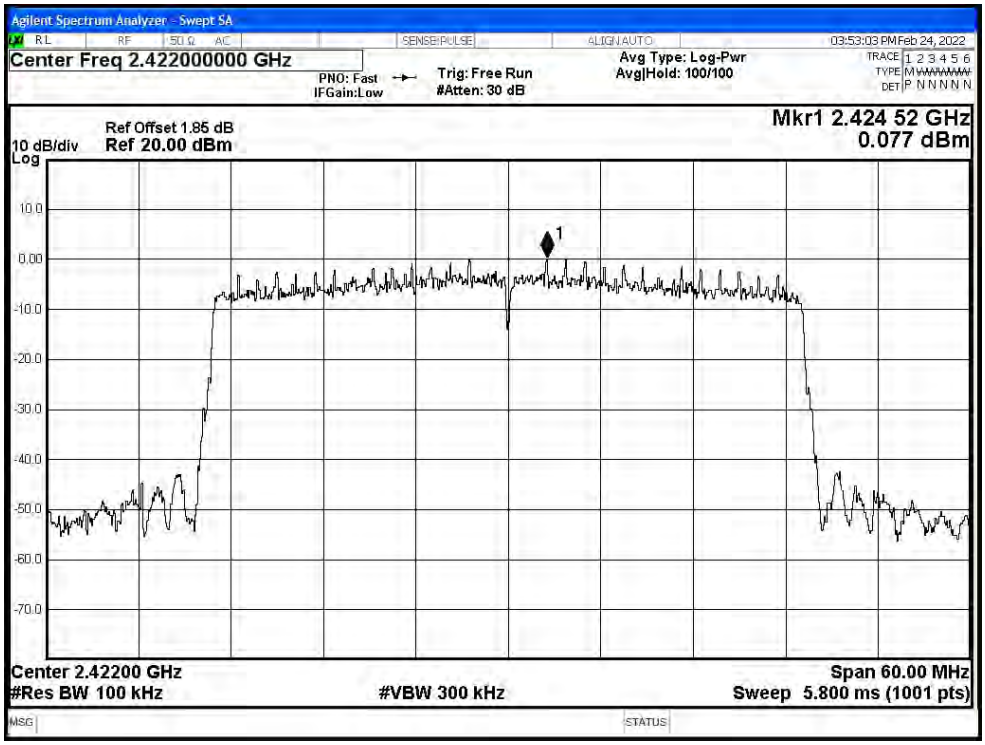
Tx. Spurious NVNT n20 2462MHz Ant0 Ref



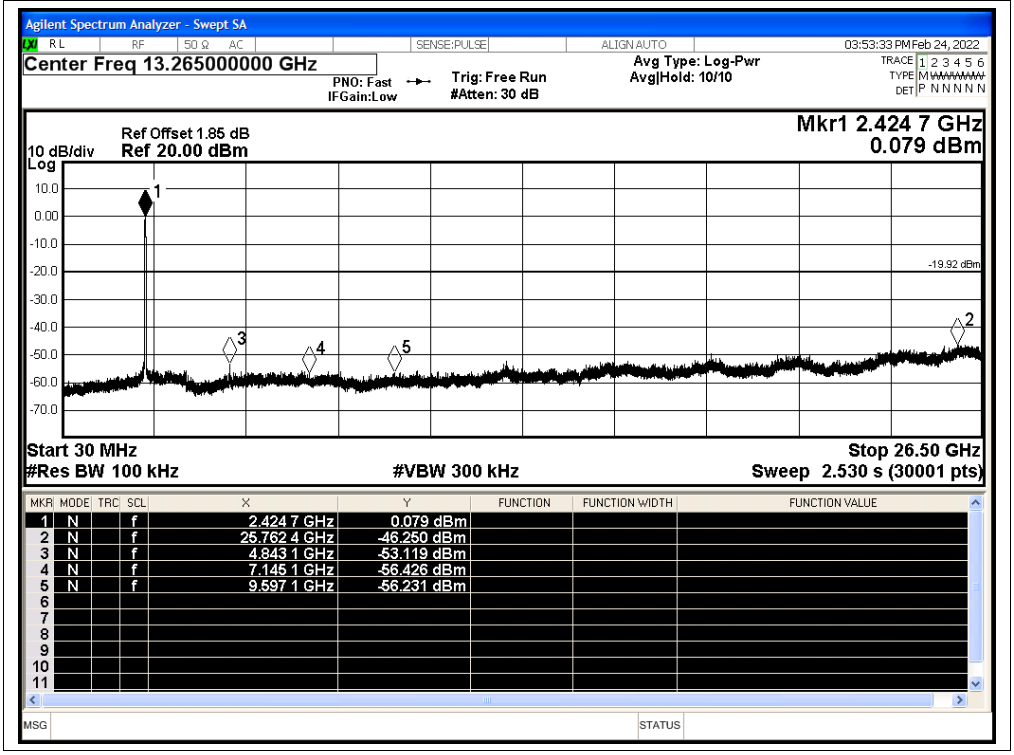

Tx. Spurious NVNT n20 2462MHz Ant0 Emission



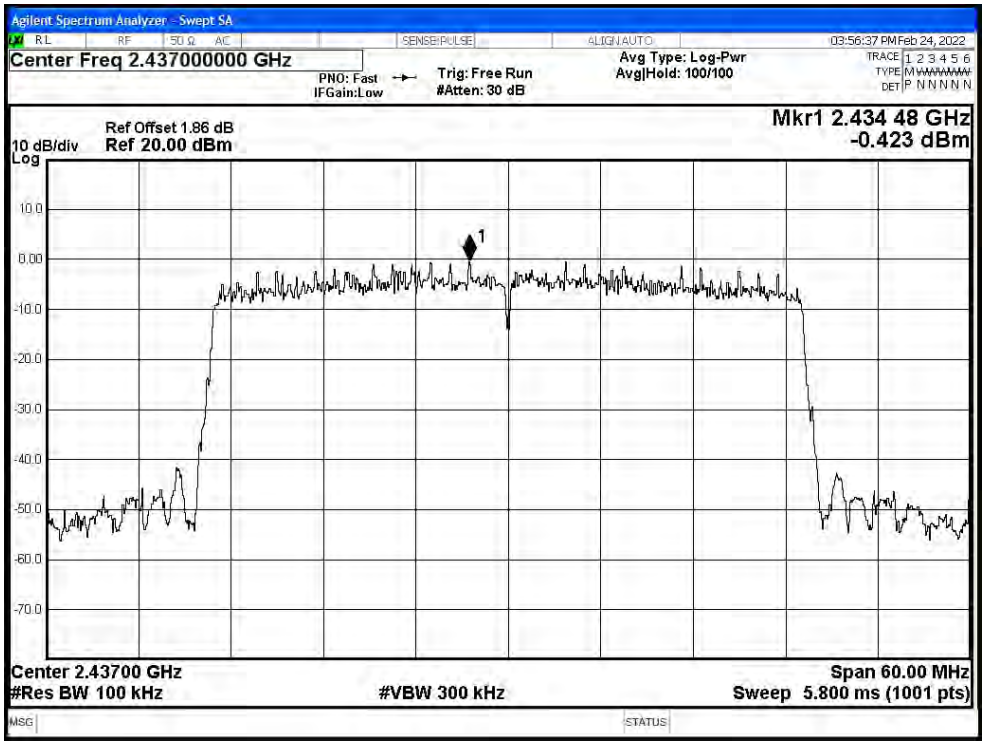
Tx. Spurious NVNT n40 2422MHz Ant0 Ref



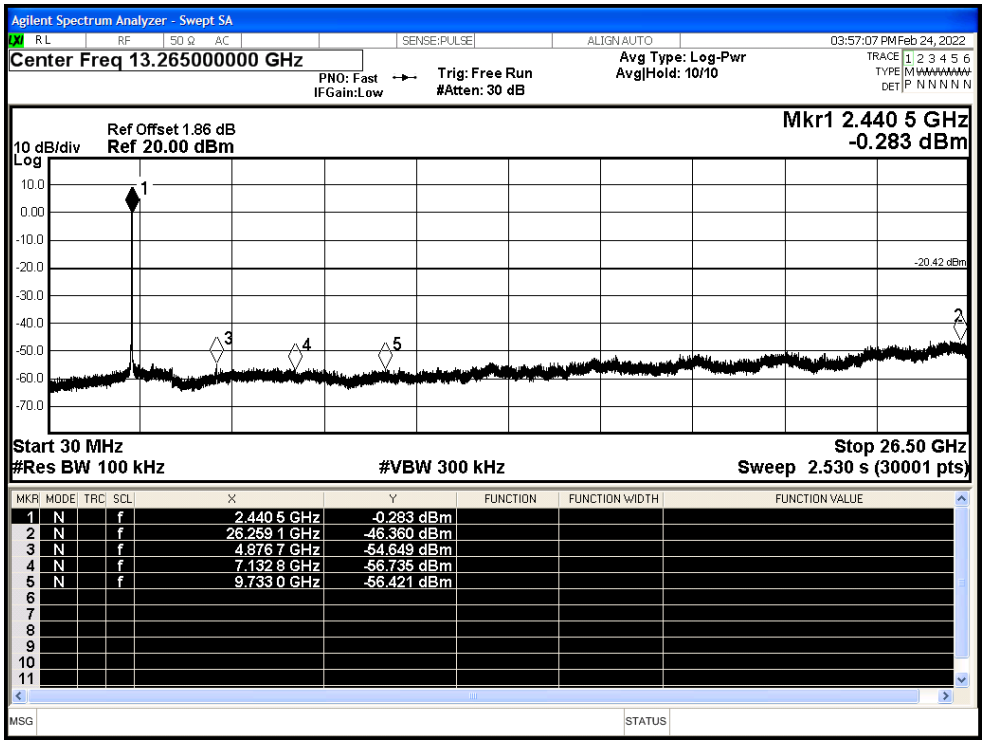

Tx. Spurious NVNT n40 2422MHz Ant0 Emission



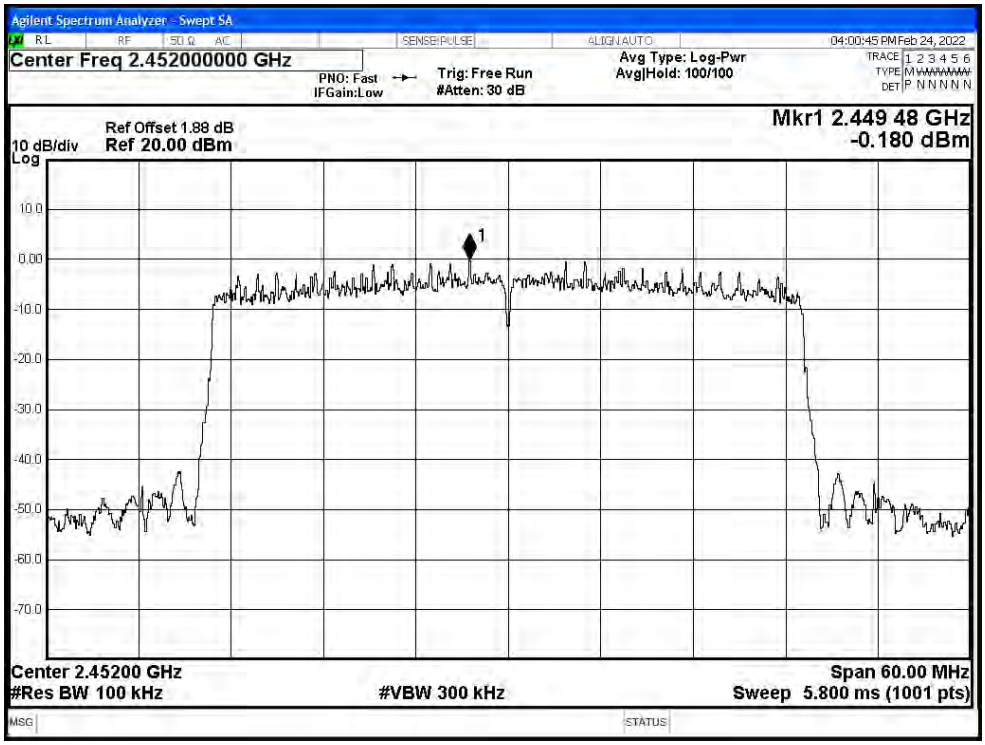
Tx. Spurious NVNT n40 2437MHz Ant0 Ref



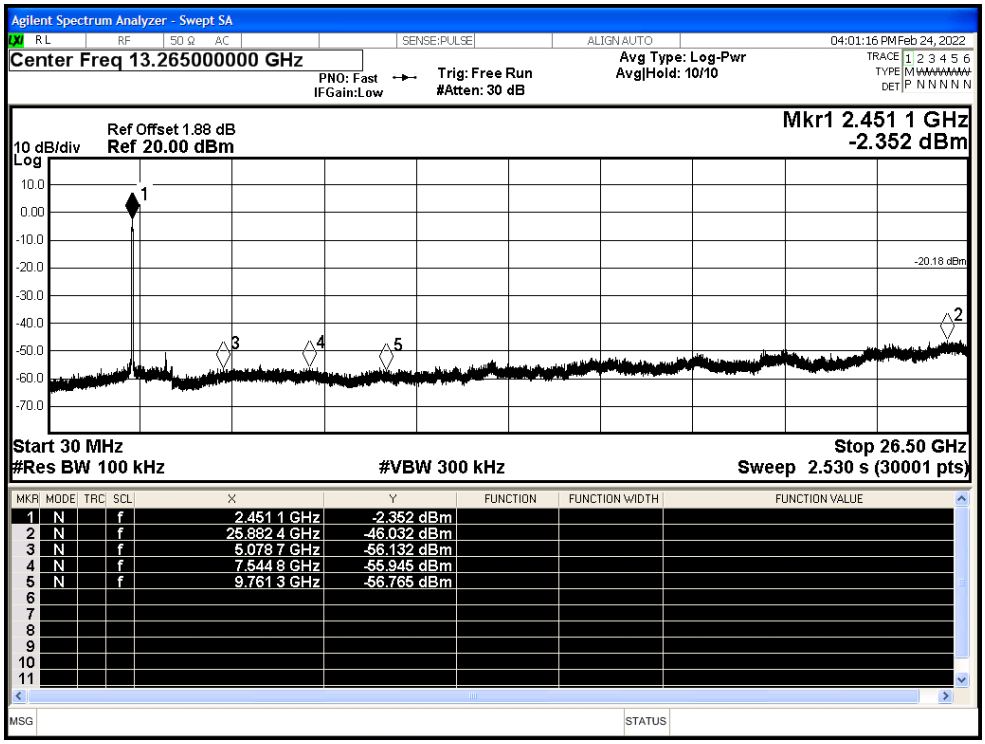

Tx. Spurious NVNT n40 2437MHz Ant0 Emission



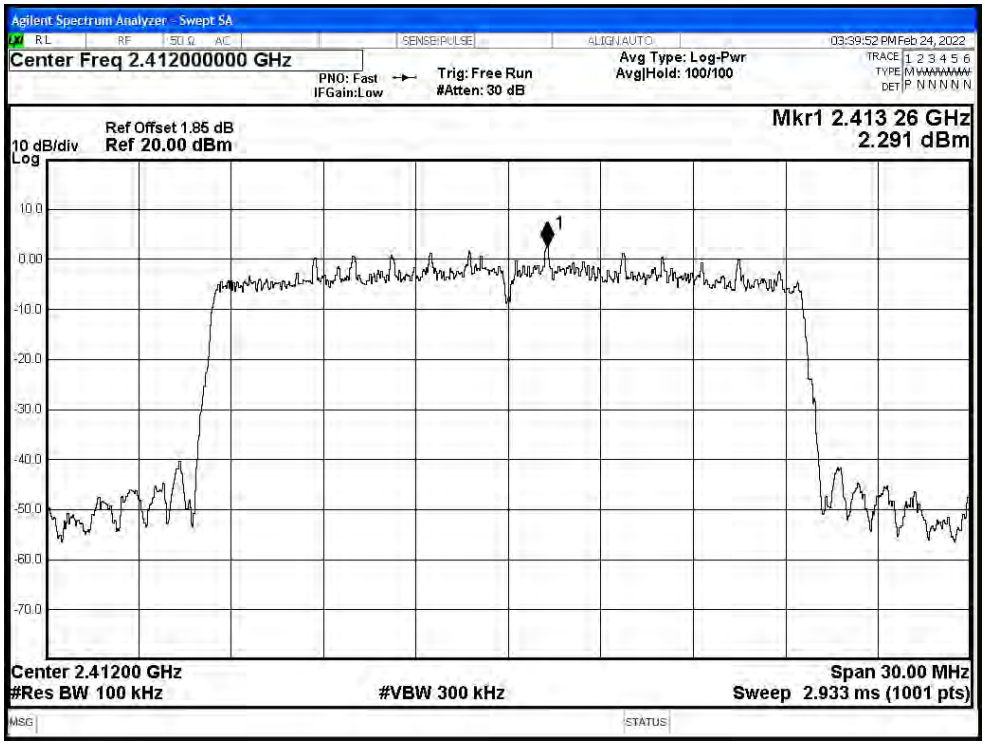
Tx. Spurious NVNT n40 2452MHz Ant0 Ref



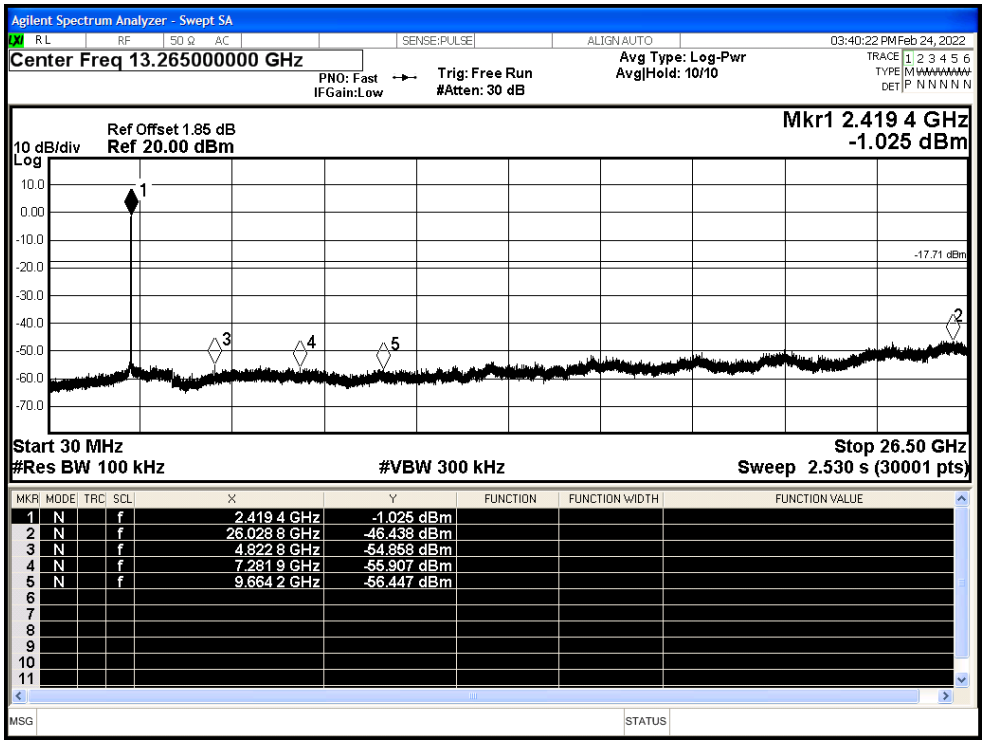

Tx. Spurious NVNT n40 2452MHz Ant0 Emission



Tx. Spurious NVNT ax20 2412MHz Ant0 Ref

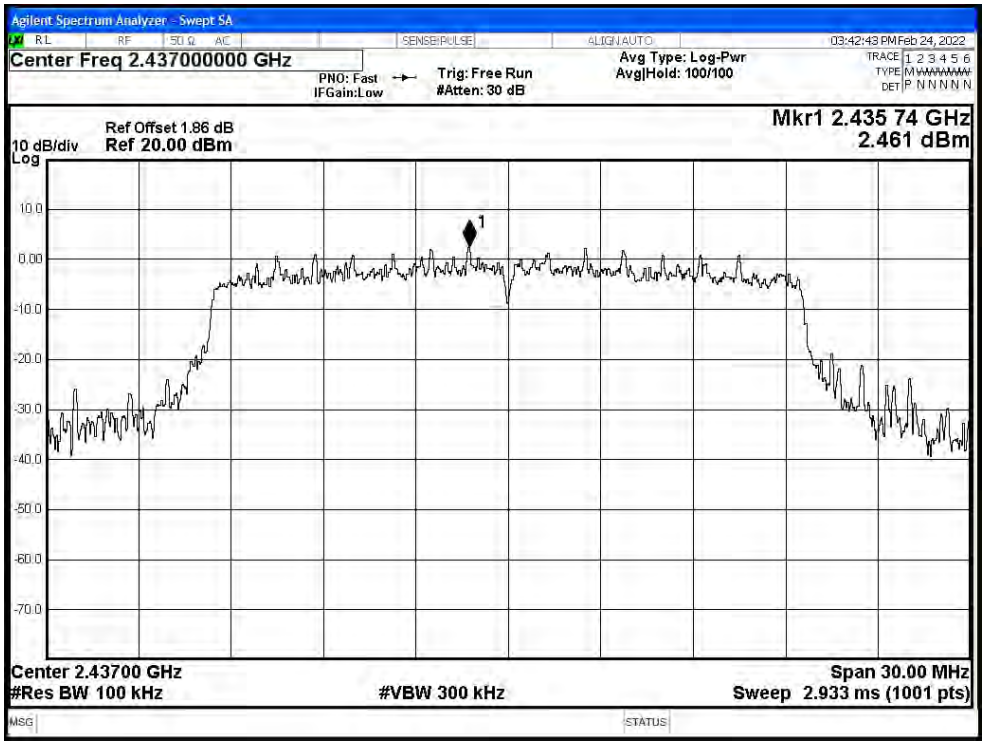



Tx. Spurious NVNT ax20 2412MHz Ant0 Emission

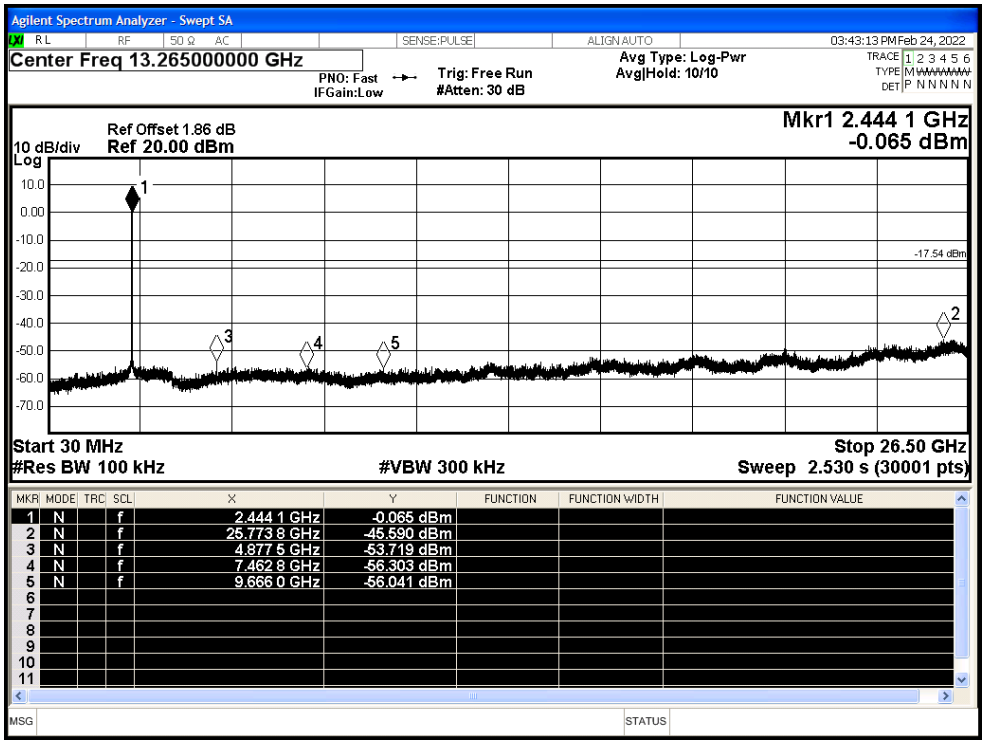



| MKR | MODE | TRC | SCL | X | Y | FUNCTION | FUNCTION WIDTH | FUNCTION VALUE |
|---|---|---|---|---|---|---|---|---|
| 1 | N | | f | 2.419 4 GHz | -1.025 dBm | | | |
| 2 | N | | f | 26.028 8 GHz | -46.438 dBm | | | |
| 3 | N | | f | 4.822 8 GHz | -54.858 dBm | | | |
| 4 | N | | f | 7.281 9 GHz | -55.907 dBm | | | |
| 5 | N | | f | 9.664 2 GHz | -56.447 dBm | | | |
| 6 | | | | | | | | |
| 7 | | | | | | | | |
| 8 | | | | | | | | |
| 9 | | | | | | | | |
| 10 | | | | | | | | |
| 11 | | | | | | | | |

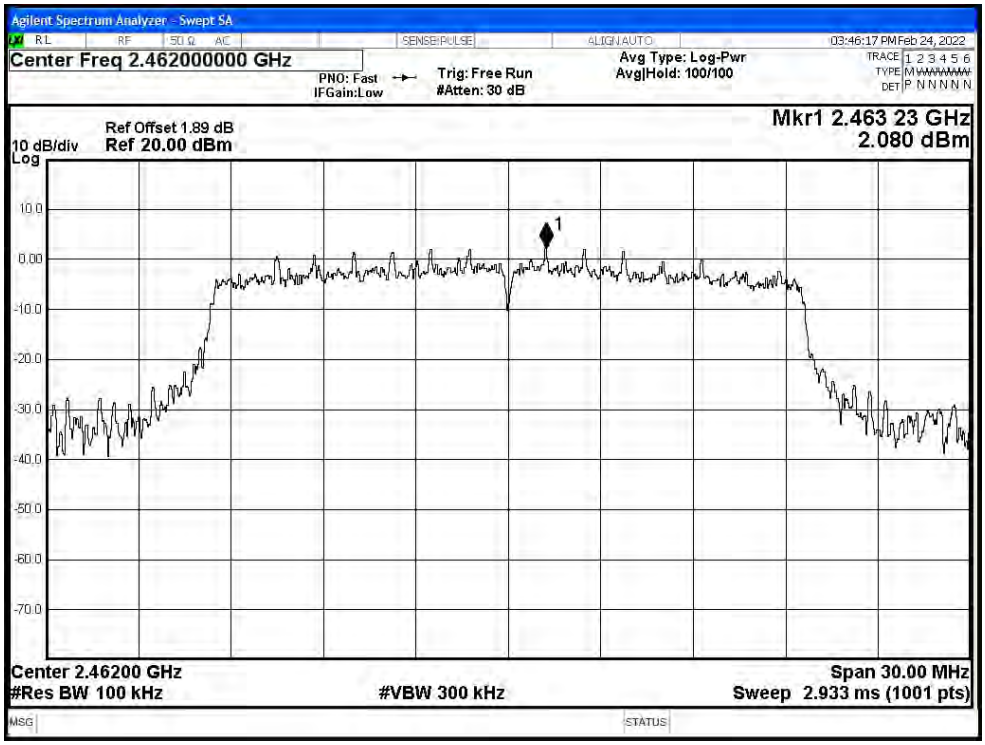
Tx. Spurious NVNT ax20 2437MHz Ant0 Ref



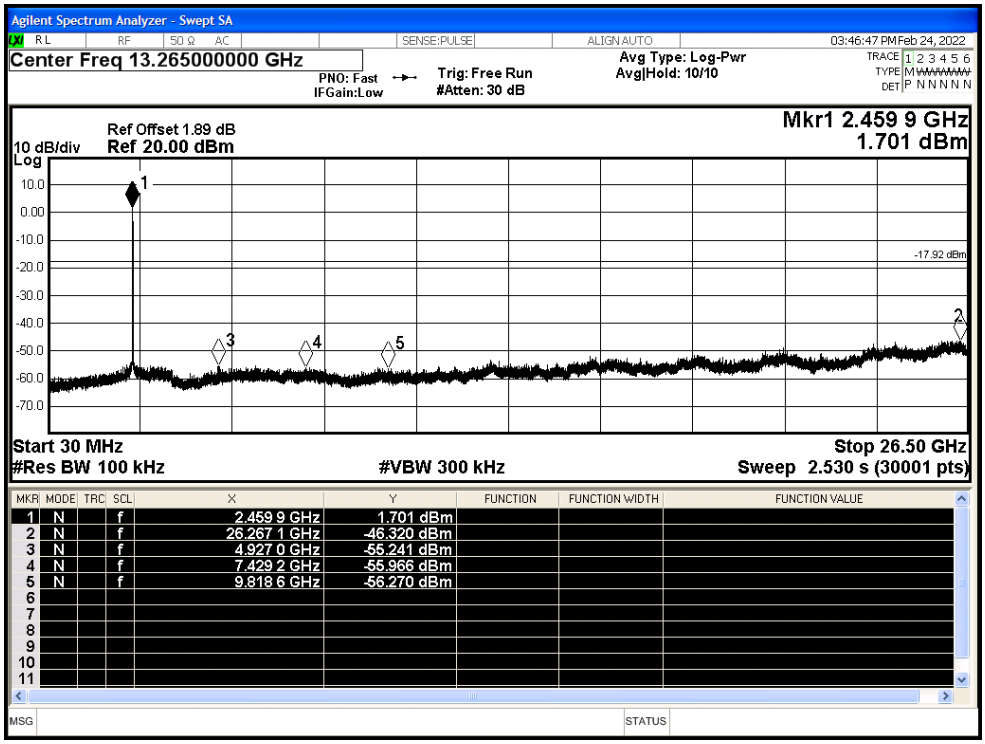

Tx. Spurious NVNT ax20 2437MHz Ant0 Emission



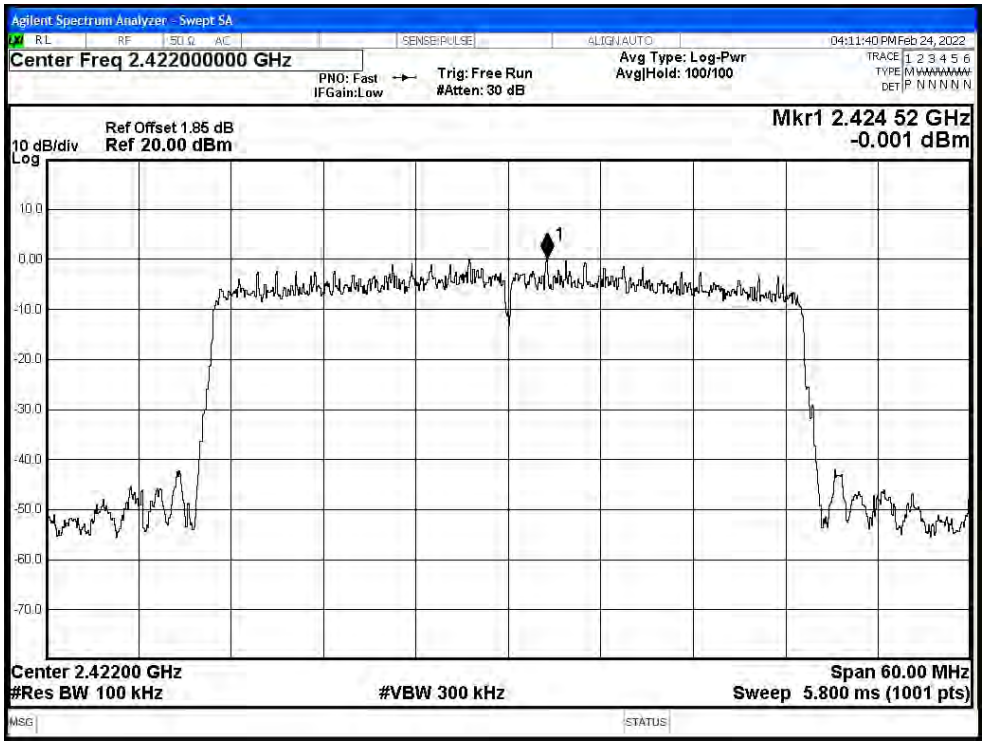
Tx. Spurious NVNT ax20 2462MHz Ant0 Ref



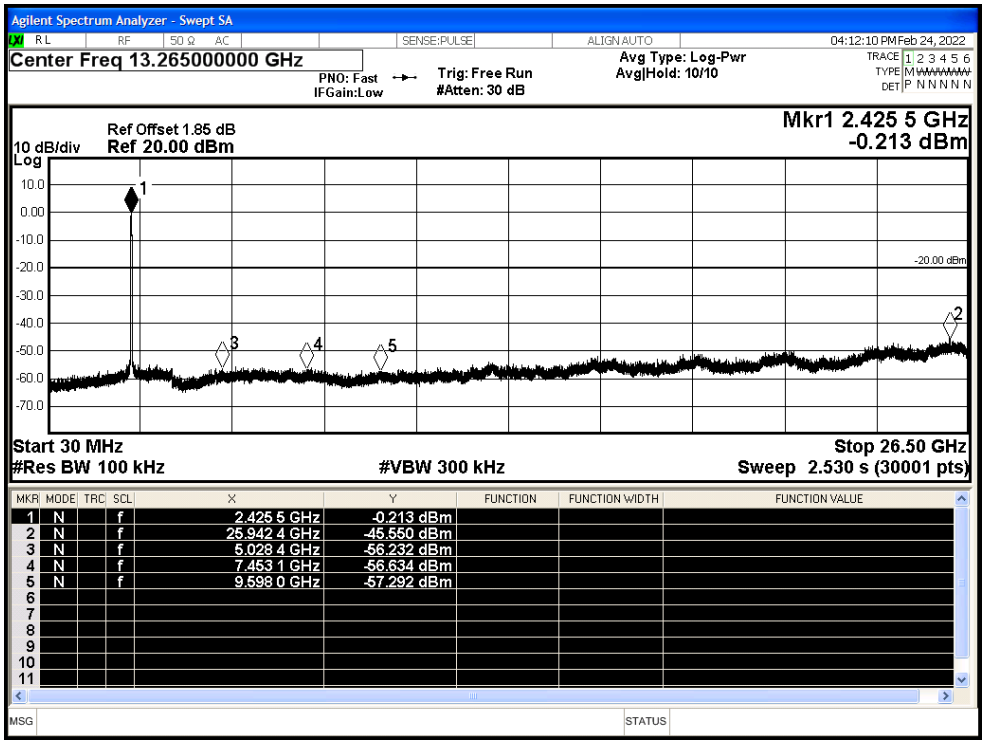

Tx. Spurious NVNT ax20 2462MHz Ant0 Emission



Tx. Spurious NVNT ax40 2422MHz Ant0 Ref




Tx. Spurious NVNT ax40 2422MHz Ant0 Emission



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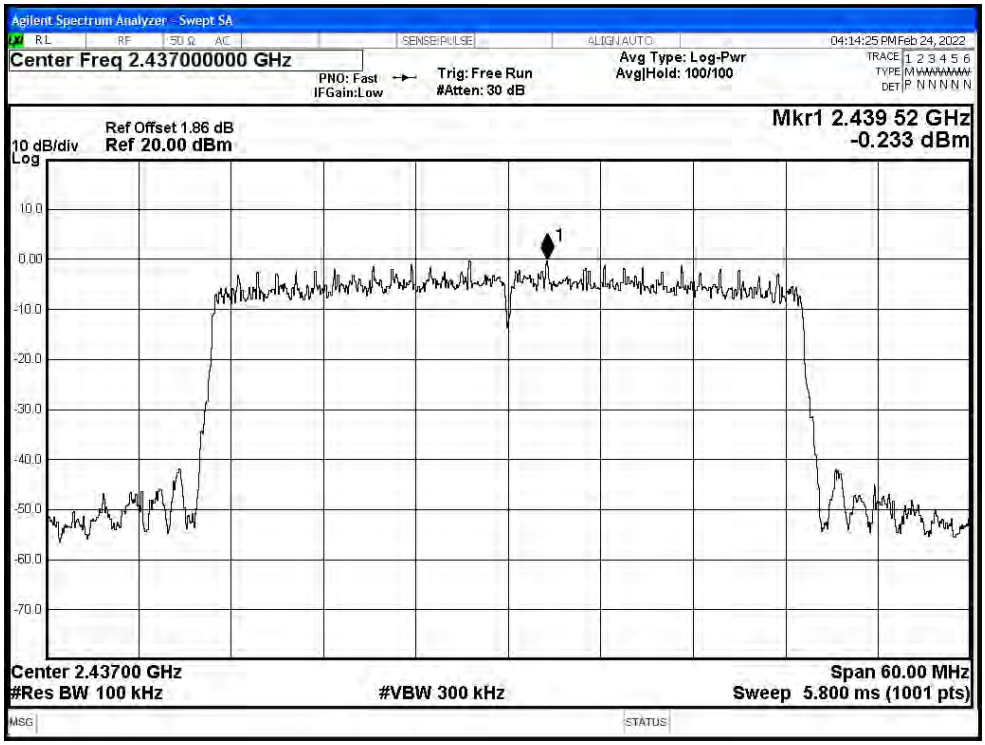
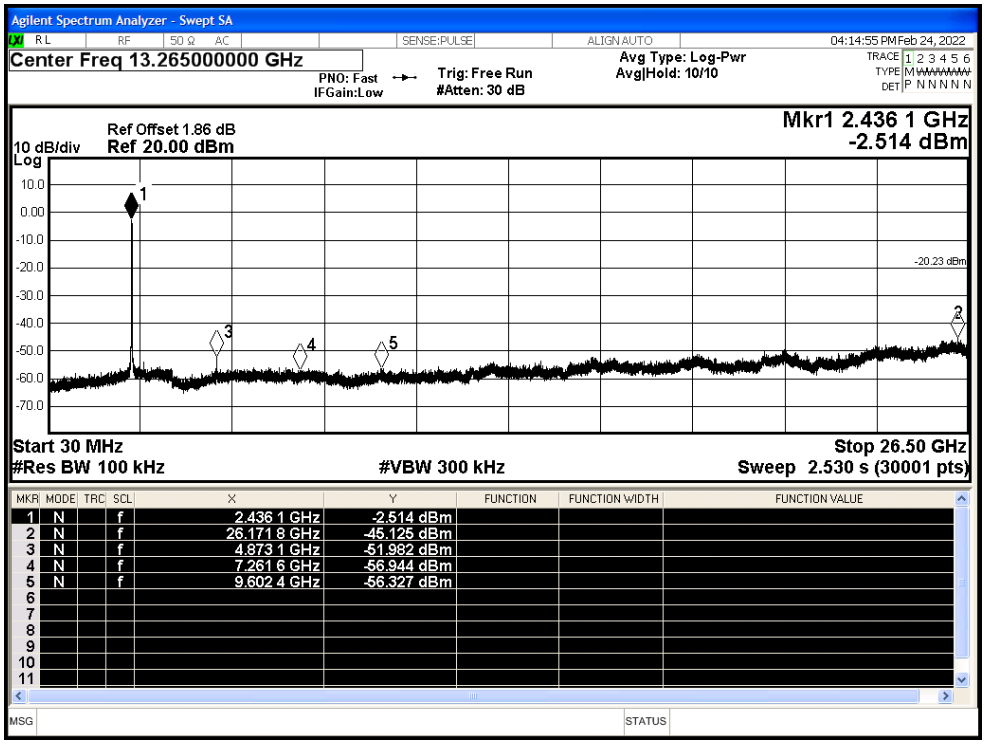
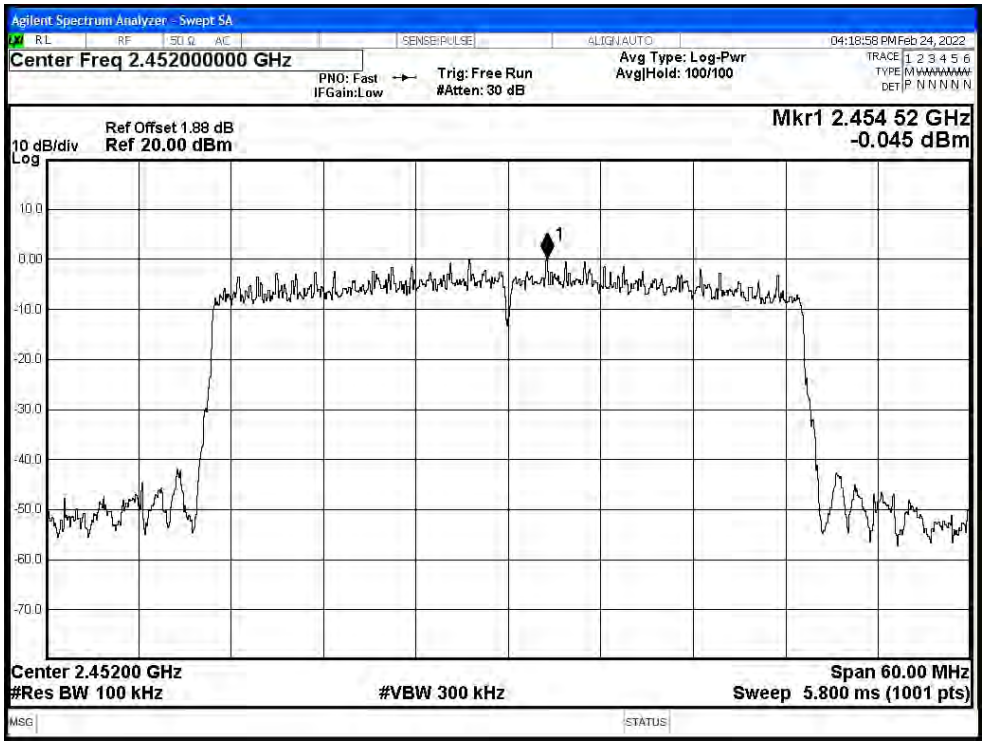


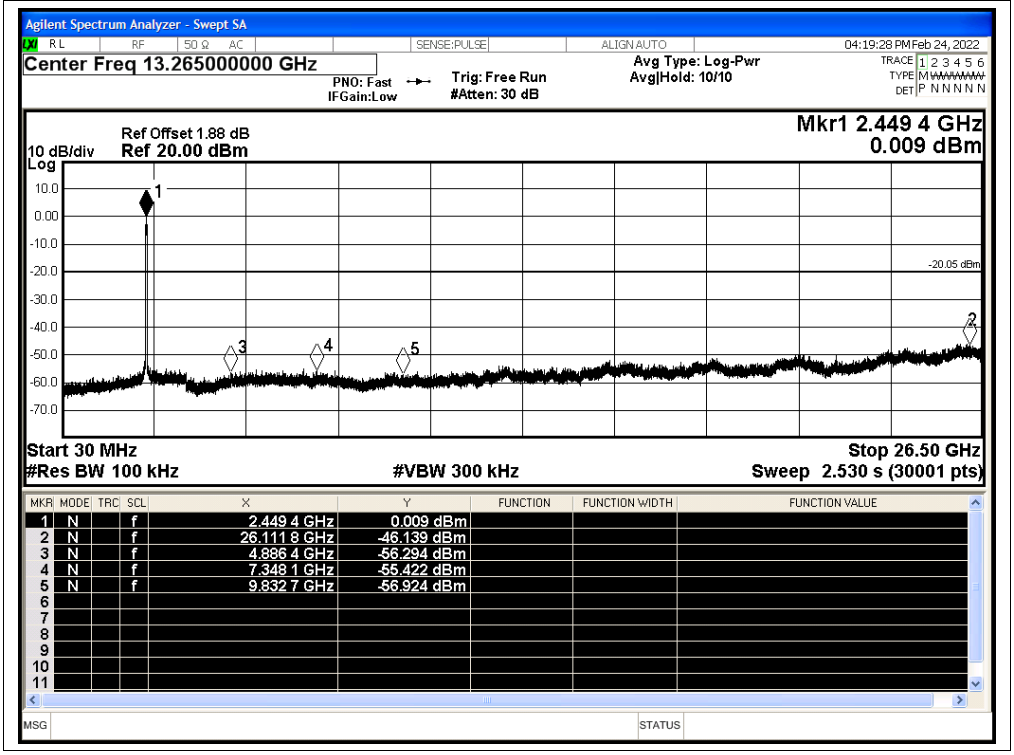

Tx. Spurious NVNT ax40 2437MHz Ant0 Emission



Tx. Spurious NVNT ax40 2452MHz Ant0 Ref




Tx. Spurious NVNT ax40 2452MHz Ant0 Emission



| Condition | Mode | Frequency (MHz) | Antenna | Max Value (dBc) | Limit (dBc) | Verdict |
|---|---|---|---|---|---|---|
| NVNT | b | 2412 | Ant1 | -49.23 | -20 | Pass |
| NVNT | b | 2437 | Ant1 | -48.91 | -20 | Pass |
| NVNT | b | 2462 | Ant1 | -48.81 | -20 | Pass |
| NVNT | g | 2412 | Ant1 | -48.17 | -20 | Pass |
| NVNT | g | 2437 | Ant1 | -48.51 | -20 | Pass |
| NVNT | g | 2462 | Ant1 | -47.03 | -20 | Pass |
| NVNT | n20 | 2412 | Ant1 | -49.75 | -20 | Pass |
| NVNT | n20 | 2437 | Ant1 | -47.8 | -20 | Pass |
| NVNT | n20 | 2462 | Ant1 | -47.27 | -20 | Pass |
| NVNT | n40 | 2422 | Ant1 | -46.28 | -20 | Pass |
| NVNT | n40 | 2437 | Ant1 | -46.22 | -20 | Pass |
| NVNT | n40 | 2452 | Ant1 | -46.47 | -20 | Pass |
| NVNT | ax20 | 2412 | Ant1 | -47.96 | -20 | Pass |
| NVNT | ax20 | 2437 | Ant1 | -49.16 | -20 | Pass |
| NVNT | ax20 | 2462 | Ant1 | -46.33 | -20 | Pass |
| NVNT | ax40 | 2422 | Ant1 | -46.2 | -20 | Pass |
| NVNT | ax40 | 2437 | Ant1 | -44.91 | -20 | Pass |
| NVNT | ax40 | 2452 | Ant1 | -46.02 | -20 | Pass |