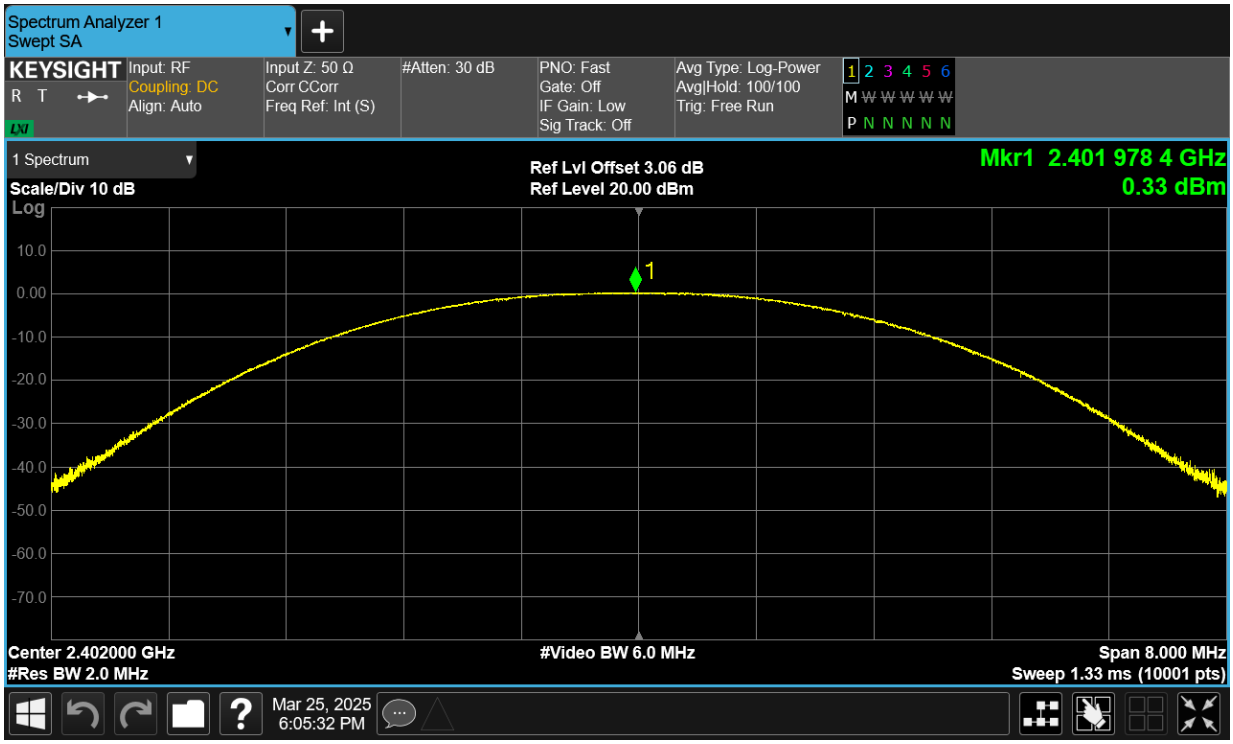
# Test Data

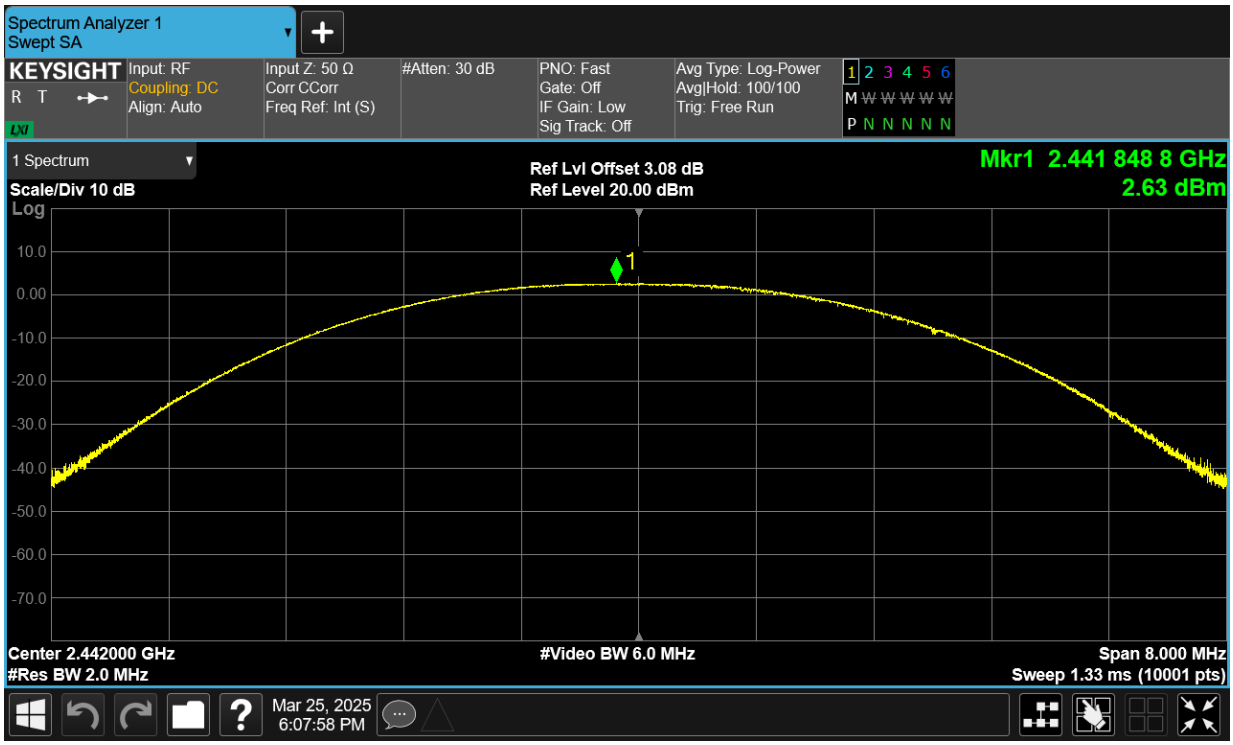
## Maximum Conducted Output Power

| Condition | Mode | Frequency (MHz) | Antenna | Conducted Power (dBm) | Limit (dBm) | Verdict |
|---|---|---|---|---|---|---|
| NVNT | BLE | 2402 | Ant1 | 0.329 | 30 | Pass |
| NVNT | BLE | 2442 | Ant1 | 2.631 | 30 | Pass |
| NVNT | BLE | 2480 | Ant1 | 1.695 | 30 | Pass |

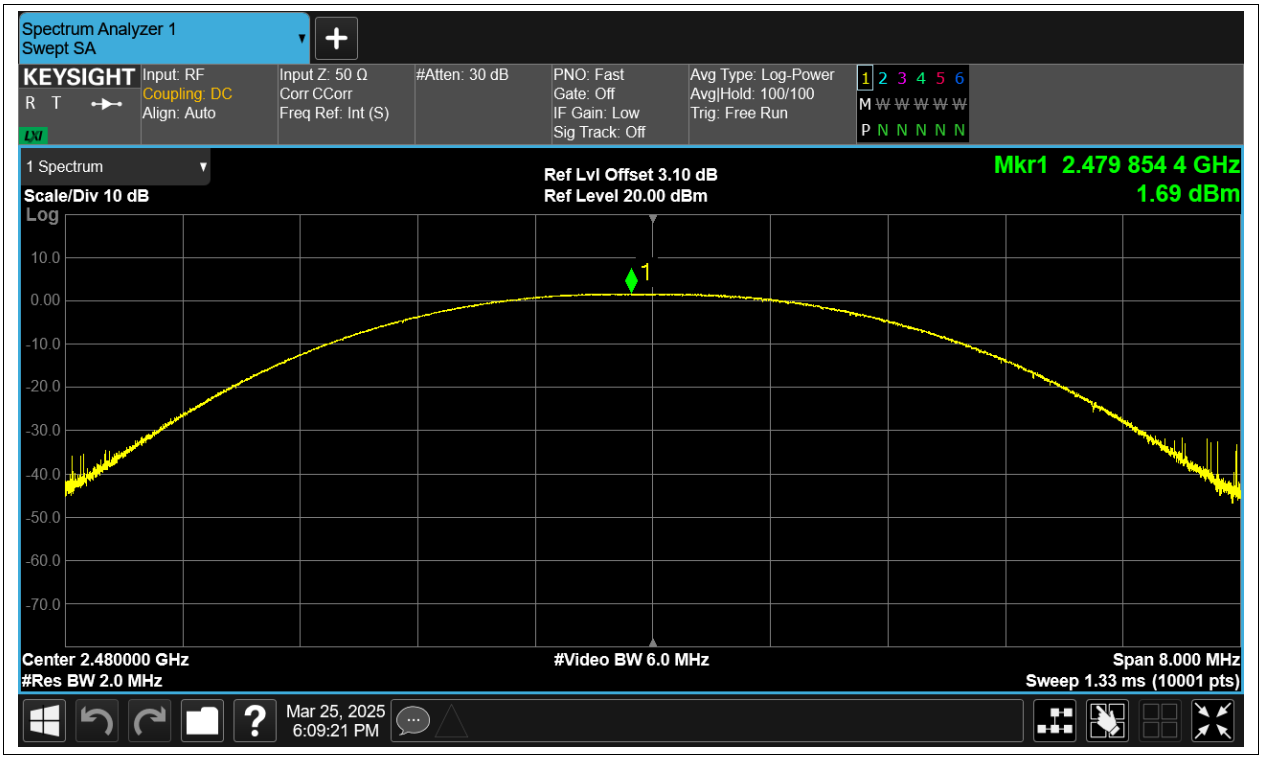
| Test Graphs |
| --- |
| Power NVNT BLE 2402MHz Ant1 |




| Power NVNT BLE 2442MHz Ant1 |
| --- |



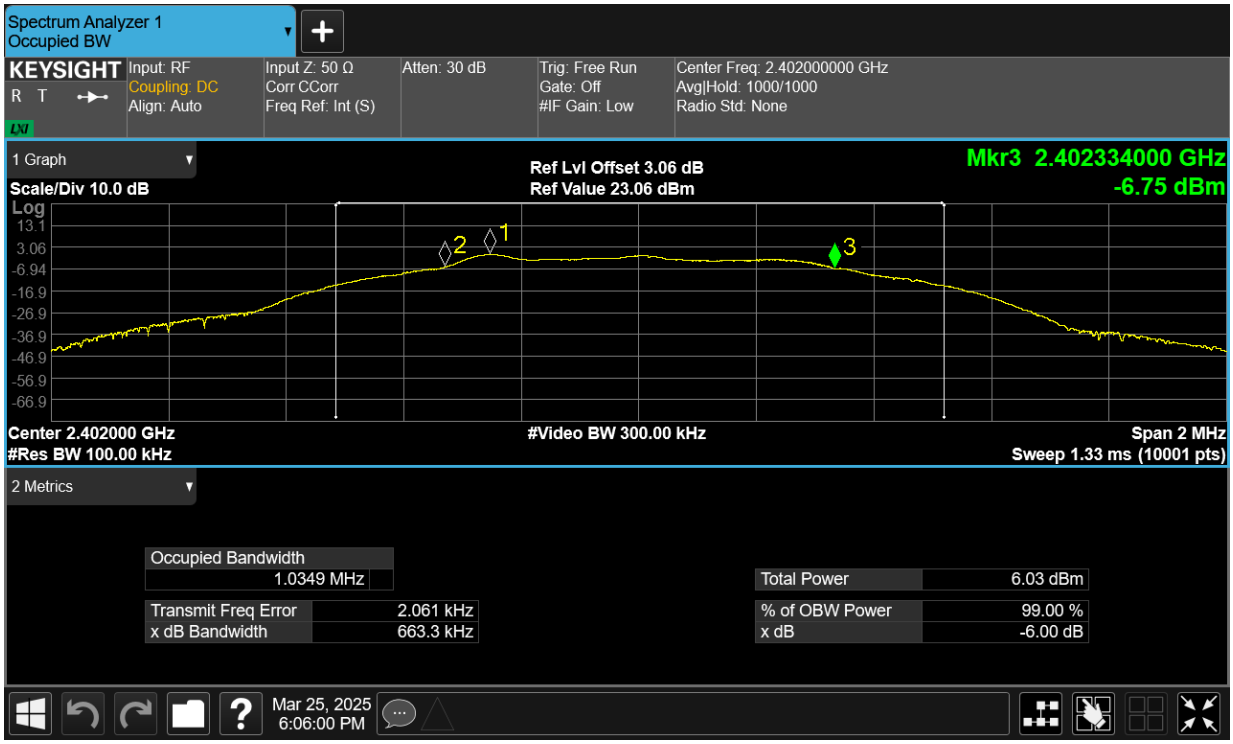

| Power NVNT BLE 2480MHz Ant1 |
| --- |


Spectrum Analyzer 1
Swept SA
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto
Input Z: 50 Ω
Corr CCorr
Freq Ref: Int (S)
#Atten: 30 dB
PNO: Fast
Gate: Off
IF Gain: Low
Sig Track: Off
Avg Type: Log-Power
Avg|Hold: 100/100
Trig: Free Run
1 Spectrum
Scale/Div 10 dB
Ref Lvl Offset 3.10 dB
Ref Level 20.00 dBm
Mkr1 2.479 854 4 GHz
1.69 dBm
Log
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
Center 2.480000 GHz
#Res BW 2.0 MHz
#Video BW 6.0 MHz
Span 8.000 MHz
Sweep 1.33 ms (10001 pts)
Mar 25, 2025
6:09:21 PM

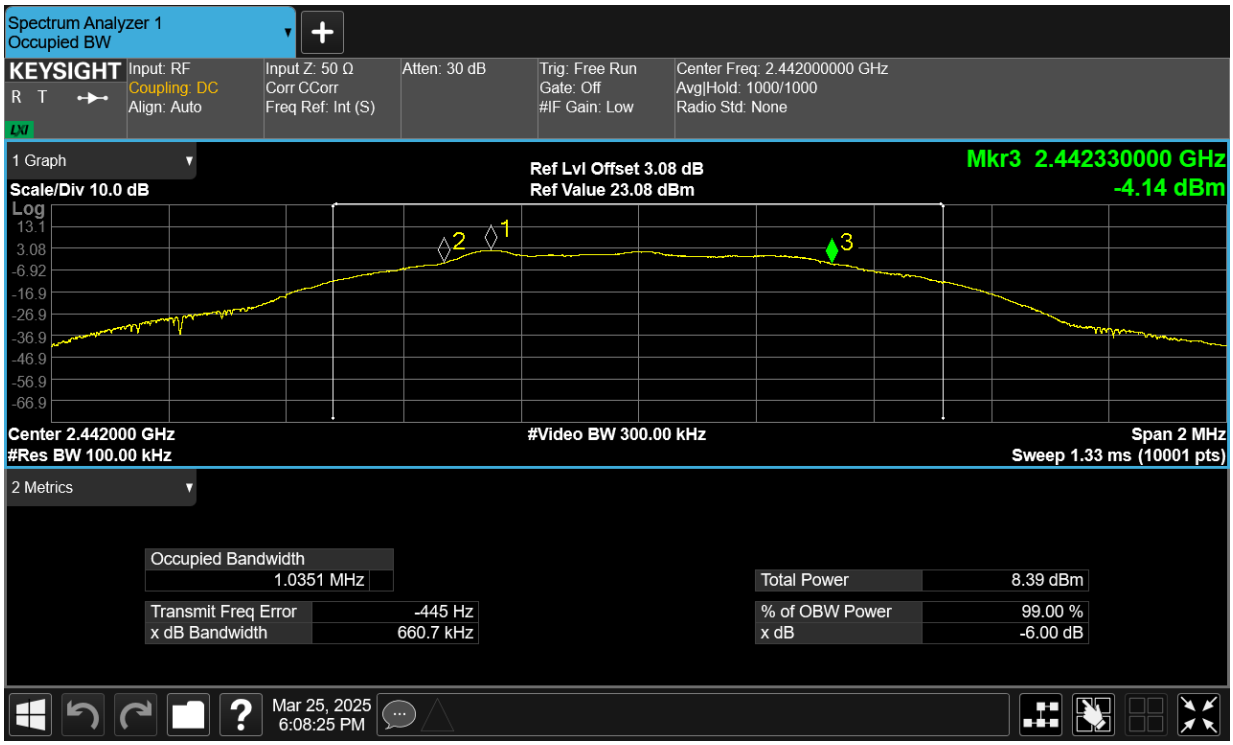
# -6dB Bandwidth

| Condition | Mode | Frequency (MHz) | Antenna | -6 dB Bandwidth (MHz) | limit | Verdic |
|---|---|---|---|---|---|---|
| NVNT | BLE | 2402 | Ant1 | 0.663 | 0.5 | Pass |
| NVNT | BLE | 2442 | Ant1 | 0.661 | 0.5 | Pass |
| NVNT | BLE | 2480 | Ant1 | 0.664 | 0.5 | Pass |

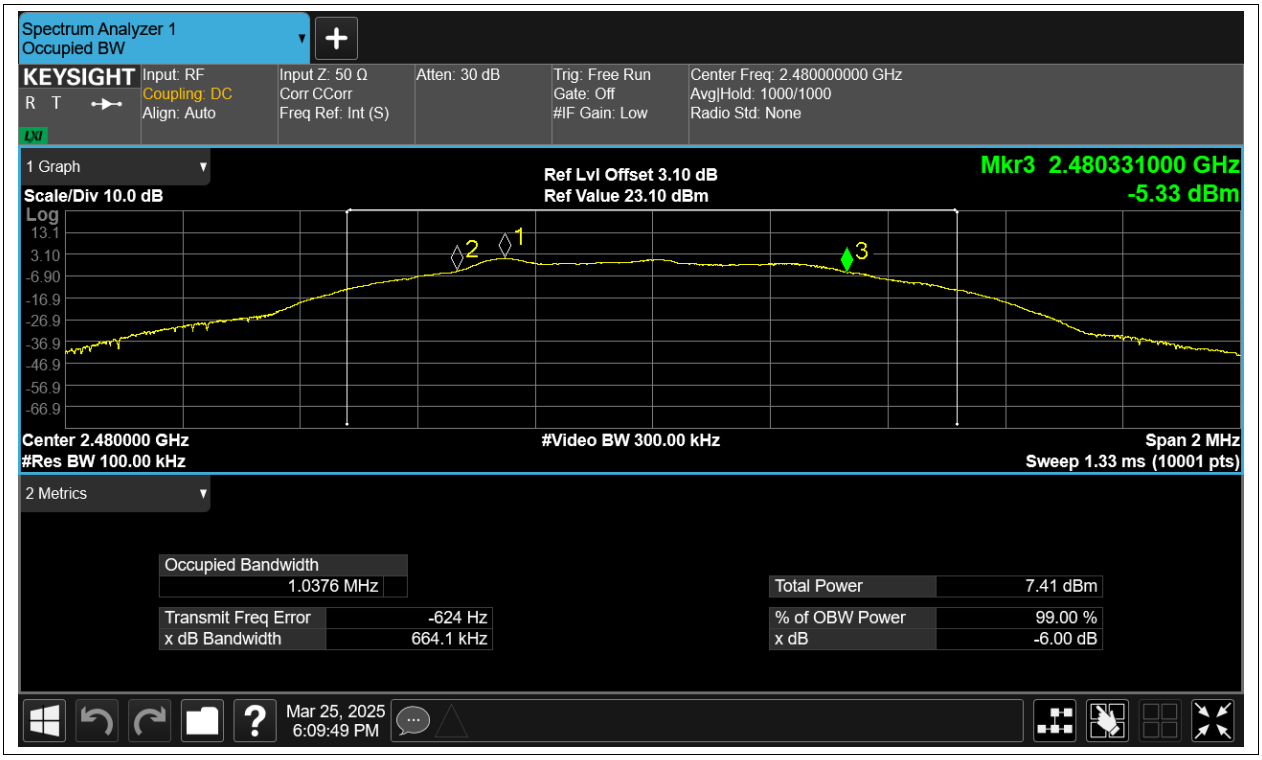
| Test Graphs |
| --- |
| -6dB Bandwidth NVNT BLE 2402MHz Ant1 |




| -6dB Bandwidth NVNT BLE 2442MHz Ant1 |
| --- |




| -6dB Bandwidth NVNT BLE 2480MHz Ant1 |
| --- |

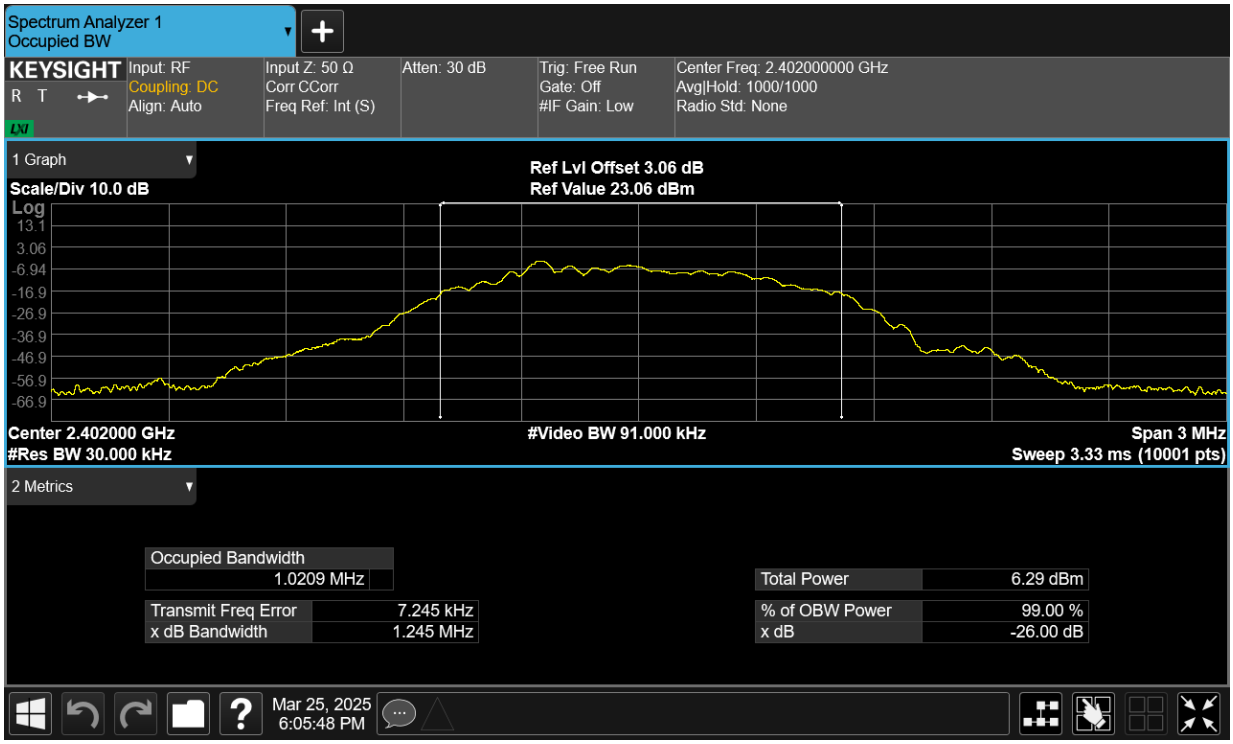

Spectrum Analyzer 1
Occupied BW
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto
Input Z: 50 Ω
Corr CCorr
Freq Ref: Int (S)
Atten: 30 dB
Trig: Free Run
Gate: Off
#IF Gain: Low
Center Freq: 2.480000000 GHz
Avg|Hold: 1000/1000
Radio Std: None
1 Graph
Ref Lvl Offset 3.10 dB
Ref Value 23.10 dBm
Mkr3 2.480331000 GHz
-5.33 dBm
Scale/Div 10.0 dB
Log
13.1
3.10
-6.90
-16.9
-26.9
-36.9
-46.9
-56.9
-66.9
Center 2.480000 GHz
#Res BW 100.00 kHz
#Video BW 300.00 kHz
Span 2 MHz
Sweep 1.33 ms (10001 pts)
2 Metrics
Occupied Bandwidth
1.0376 MHz
Total Power
7.41 dBm
Transmit Freq Error
-624 Hz
% of OBW Power
99.00 %
x dB Bandwidth
664.1 kHz
x dB
-6.00 dB
Mar 25, 2025
6:09:49 PM

# Occupied Channel Bandwidth

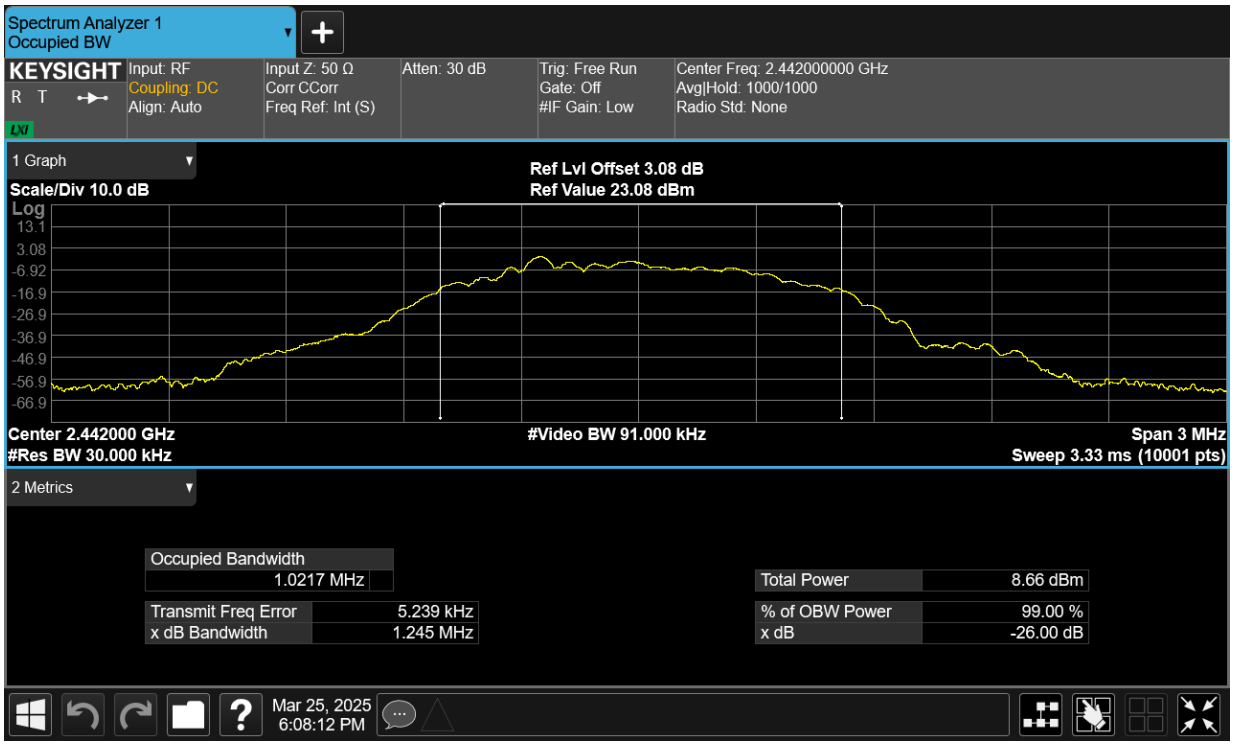
| Condition | Mode | Frequency (MHz) | Antenna | 99% OBW (MHz) |
|---|---|---|---|---|
| NVNT | BLE | 2402 | Ant1 | 1.021 |
| NVNT | BLE | 2442 | Ant1 | 1.022 |
| NVNT | BLE | 2480 | Ant1 | 1.022 |

Test Graphs

OBW NVNT BLE 2402MHz Ant1




OBW NVNT BLE 2442MHz Ant1



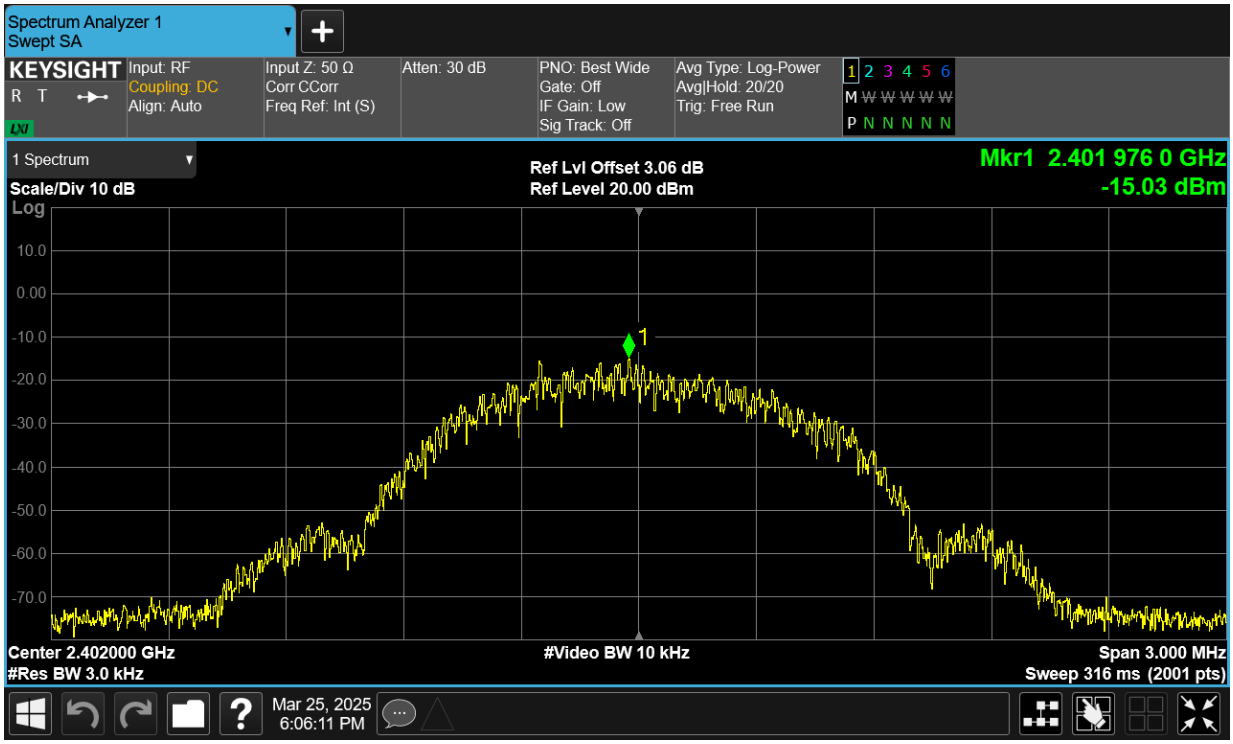

OBW NVNT BLE 2480MHz Ant1


Spectrum Analyzer 1
Occupied BW
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto
Input Z: 50 Ω
Corr CCorr
Freq Ref: Int (S)
Atten: 30 dB
Trig: Free Run
Gate: Off
#IF Gain: Low
Center Freq: 2.480000000 GHz
Avg|Hold: 1000/1000
Radio Std: None
1 Graph
Ref Lvl Offset 3.10 dB
Ref Value 23.10 dBm
Scale/Div 10.0 dB
Log
13.1
3.10
-6.90
-16.9
-26.9
-36.9
-46.9
-56.9
-66.9
Center 2.480000 GHz
#Res BW 30.000 kHz
#Video BW 91.000 kHz
Span 3 MHz
Sweep 3.33 ms (10001 pts)
2 Metrics
Occupied Bandwidth
1.0224 MHz
Transmit Freq Error 4.845 kHz
x dB Bandwidth 1.247 MHz
Total Power 7.70 dBm
% of OBW Power 99.00 %
x dB -26.00 dB
Mar 25, 2025
6:09:36 PM

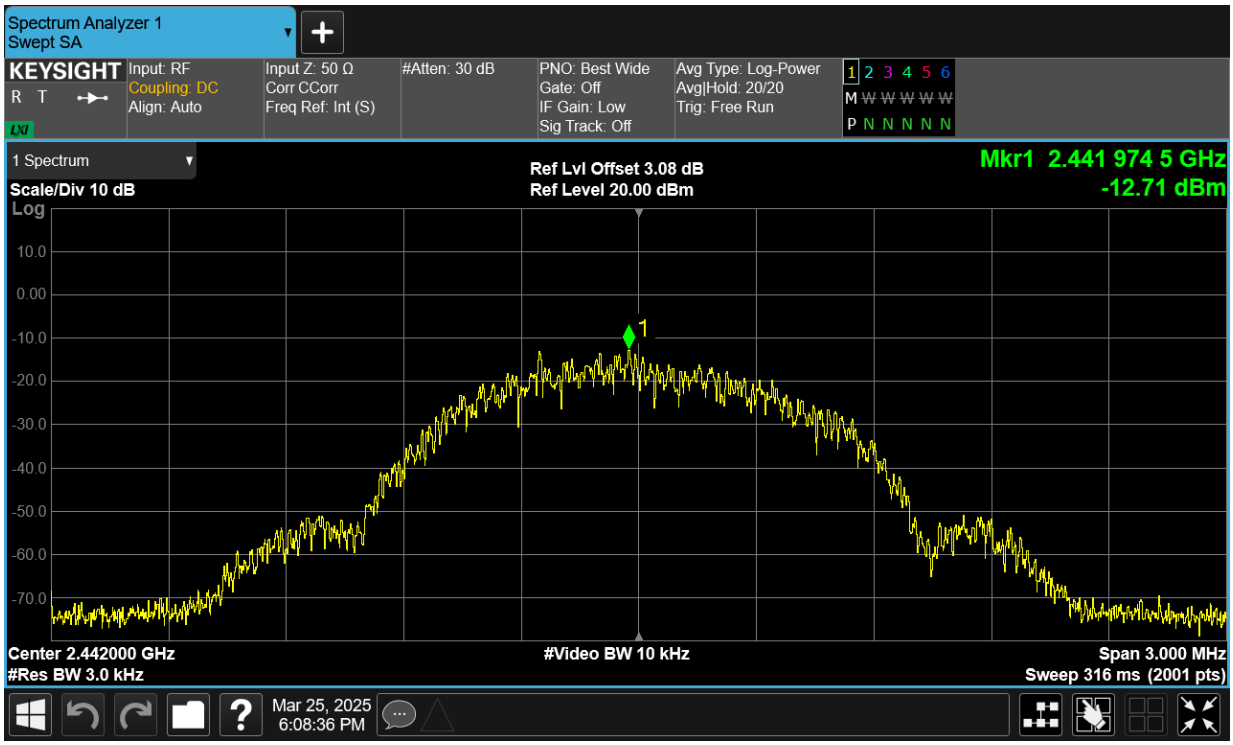
# Maximum Power Spectral Density Level

| Condition | Mode | Frequency (MHz) | Antenna | Max PSD (dBm) | Limit (dBm) | Verdict |
|---|---|---|---|---|---|---|
| NVNT | BLE | 2402 | Ant1 | -15.027 | 8 | Pass |
| NVNT | BLE | 2442 | Ant1 | -12.709 | 8 | Pass |
| NVNT | BLE | 2480 | Ant1 | -13.663 | 8 | Pass |

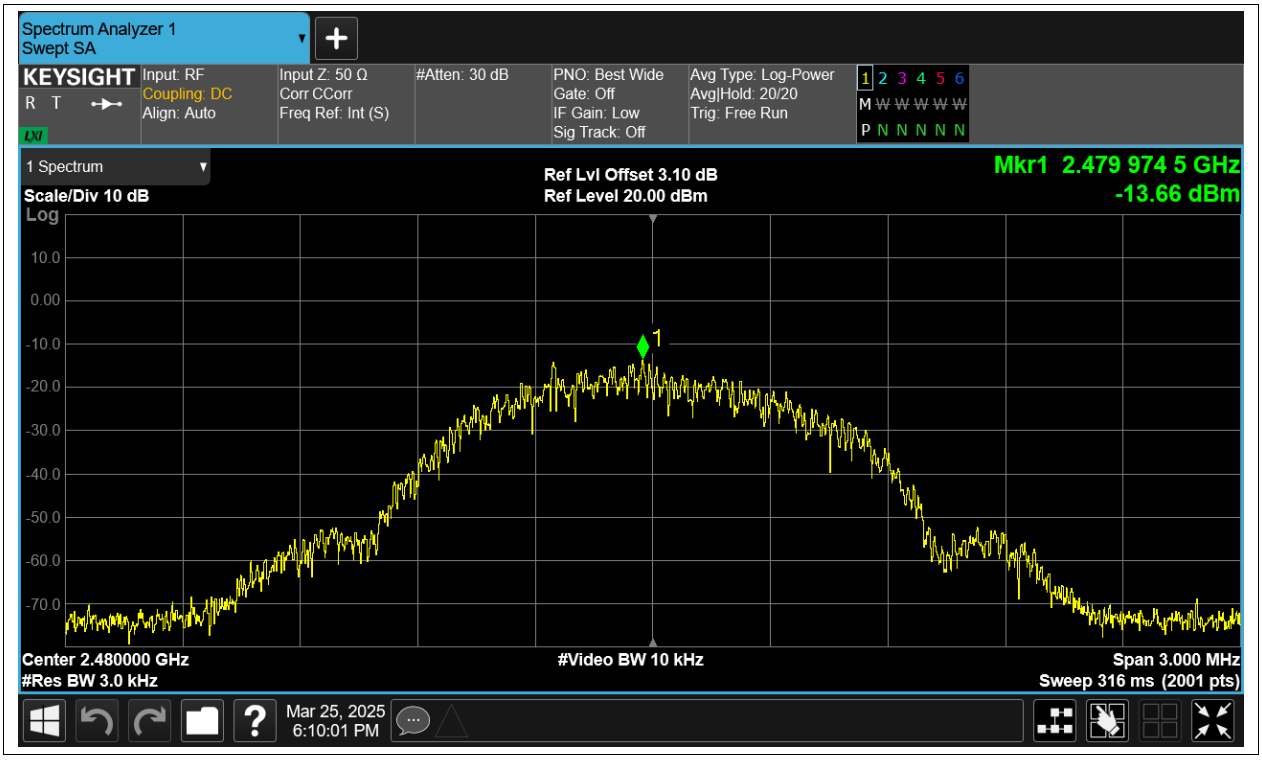
| Test Graphs |
| --- |
| PSD NVNT BLE 2402MHz Ant1 |




| PSD NVNT BLE 2442MHz Ant1 |
| --- |




| PSD NVNT BLE 2480MHz Ant1 |
| --- |

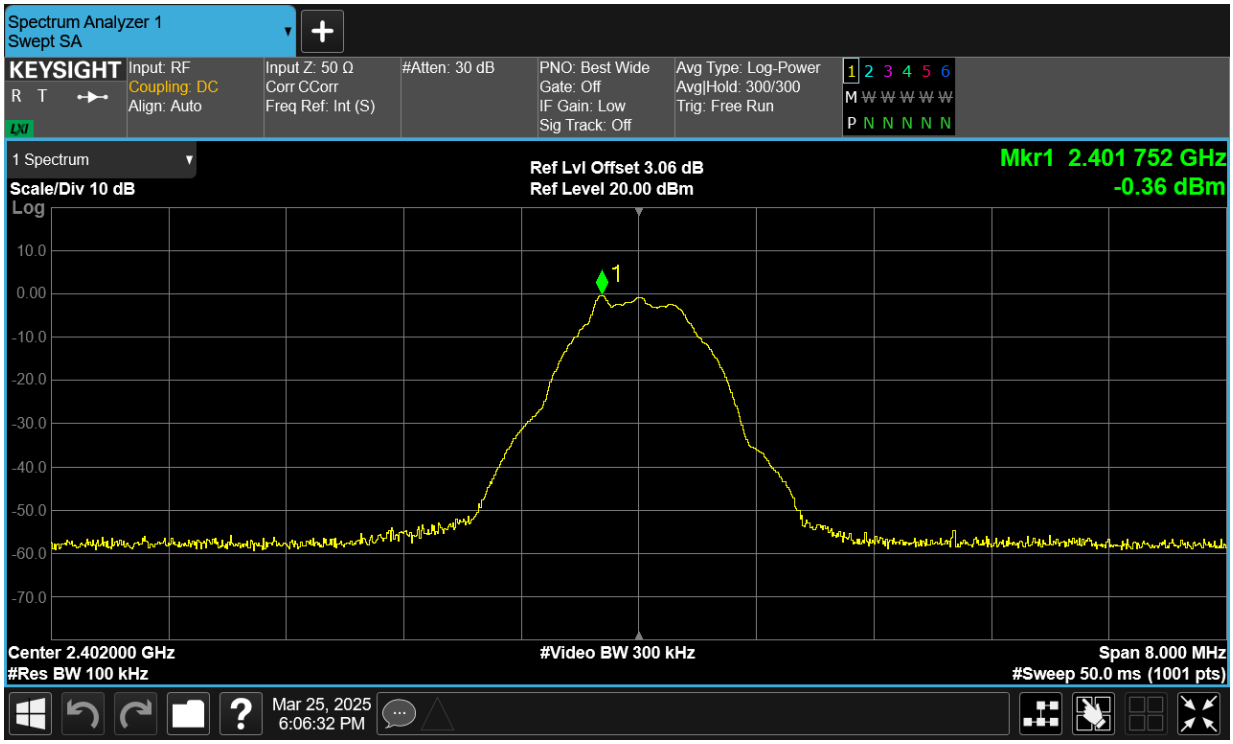

Spectrum Analyzer 1
Swept SA
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto
Input Z: 50 Ω
Corr CCorr
Freq Ref: Int (S)
#Atten: 30 dB
PNO: Best Wide
Gate: Off
IF Gain: Low
Sig Track: Off
Avg Type: Log-Power
Avg|Hold: 20/20
Trig: Free Run
1 Spectrum
Scale/Div 10 dB
Log
Ref Lvl Offset 3.10 dB
Ref Level 20.00 dBm
Mkr1 2.479 974 5 GHz
-13.66 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
Center 2.480000 GHz
#Res BW 3.0 kHz
#Video BW 10 kHz
Span 3.000 MHz
Sweep 316 ms (2001 pts)
Mar 25, 2025
6:10:01 PM

# Band Edge

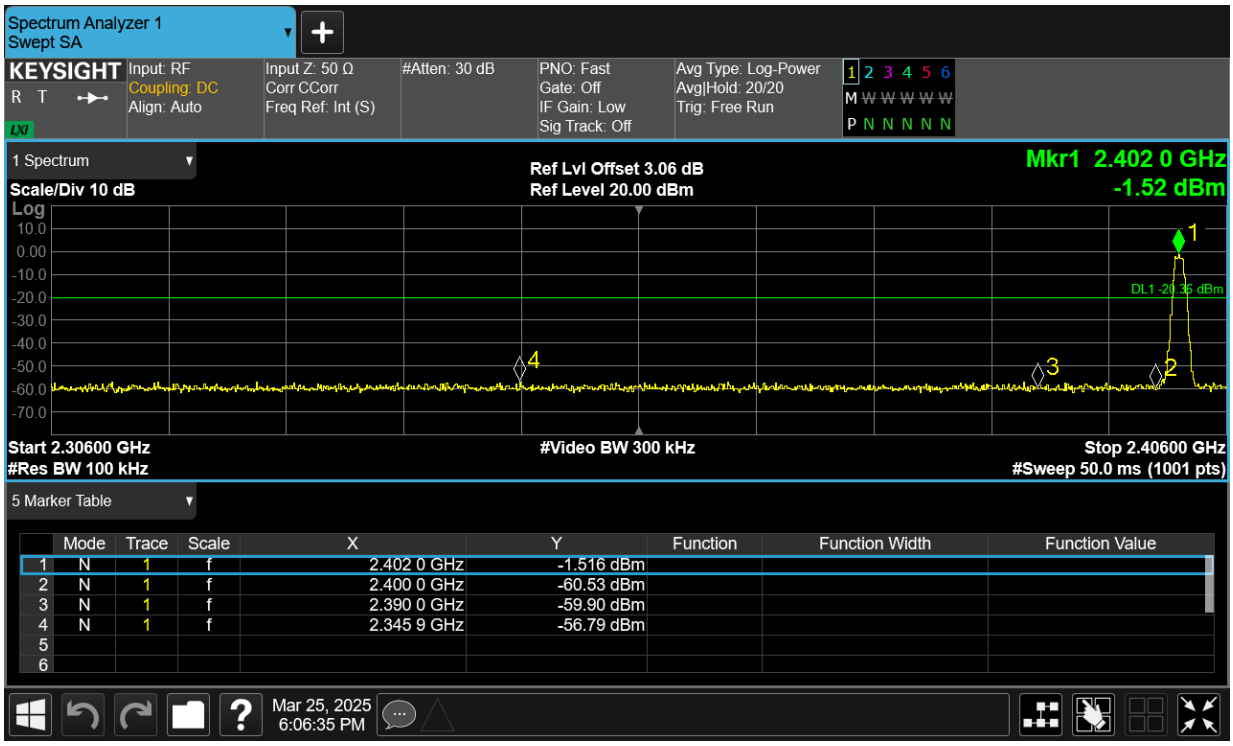
| Condition | Mode | Frequency (MHz) | Antenna | Max Value (dBc) | Limit (dBc) | Verdict |
|---|---|---|---|---|---|---|
| NVNT | BLE | 2402 | Ant1 | -56.43 | -20 | Pass |
| NVNT | BLE | 2480 | Ant1 | -56.54 | -20 | Pass |

Test Graphs

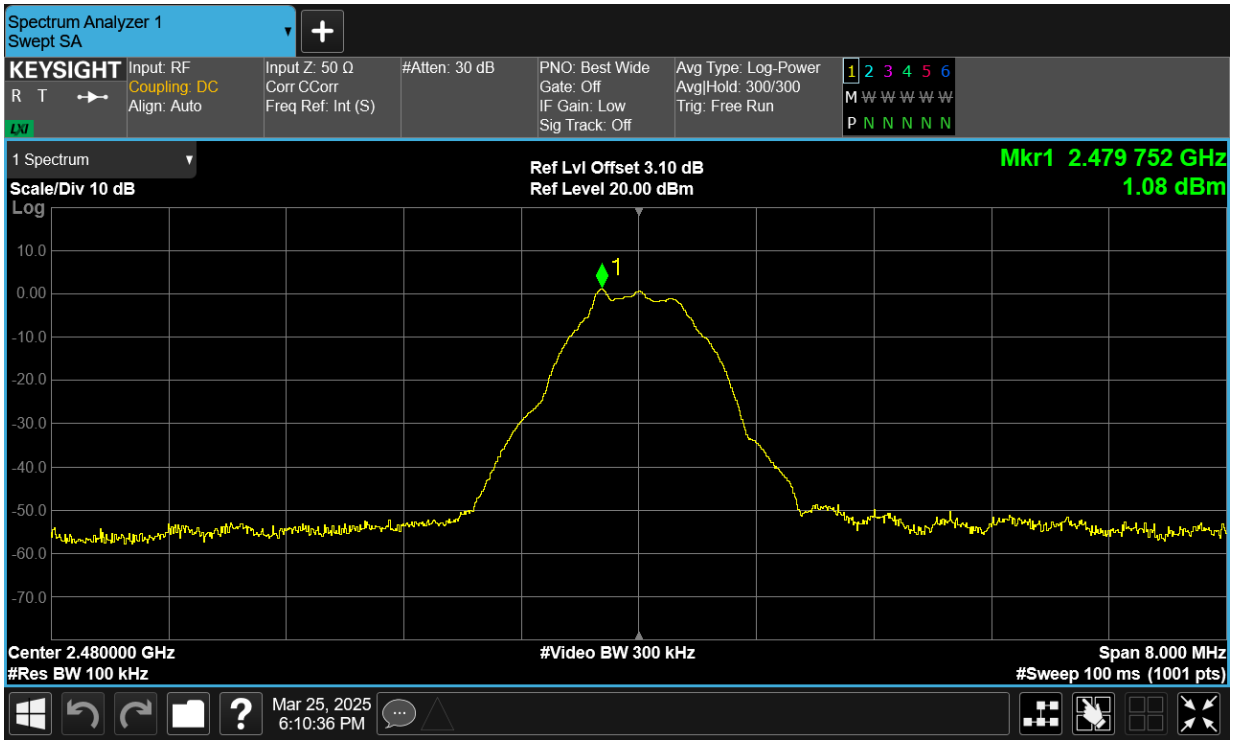
Band Edge NVNT BLE 2402MHz Ant1 Ref



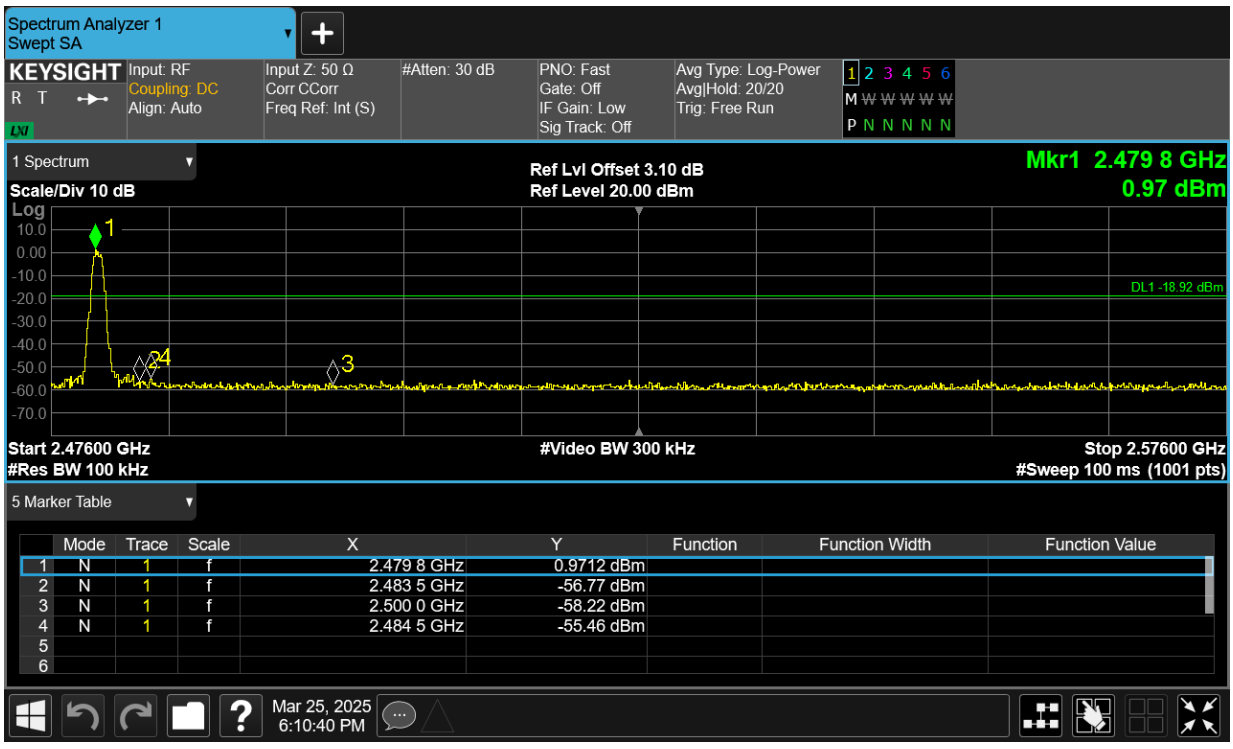

Band Edge NVNT BLE 2402MHz Ant1 Emission




Band Edge NVNT BLE 2480MHz Ant1 Ref



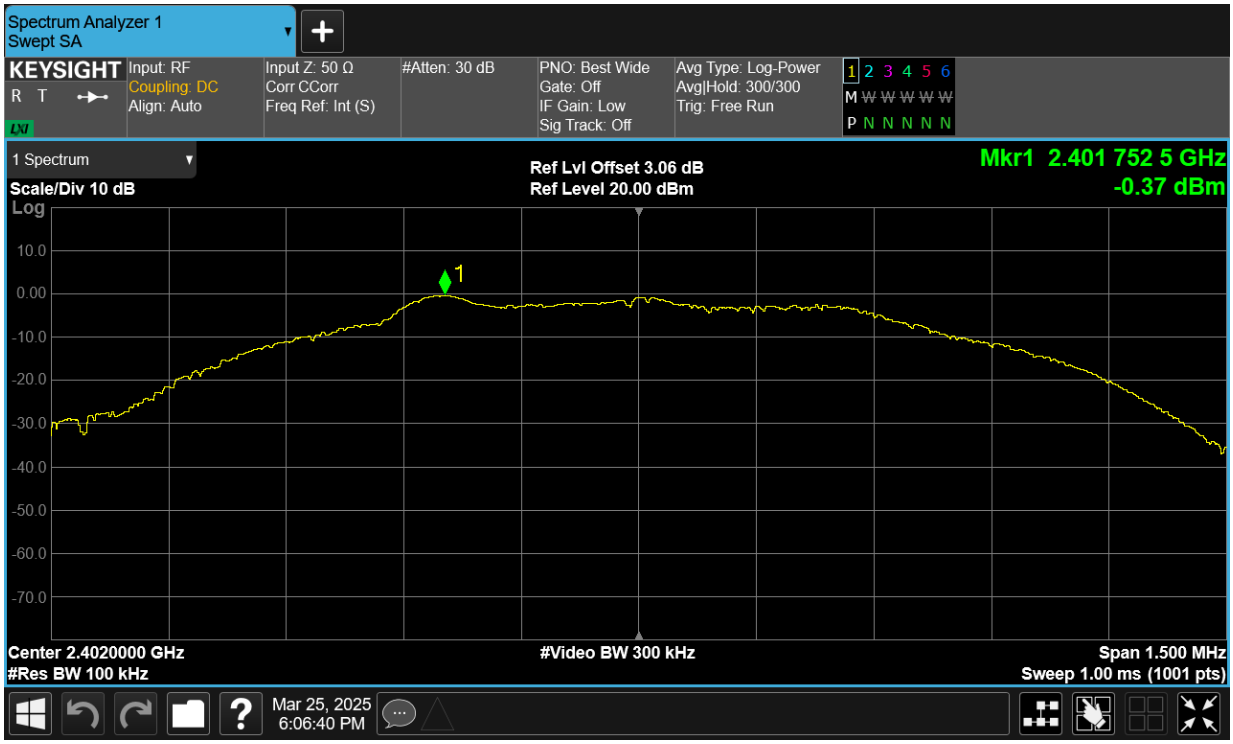

Band Edge NVNT BLE 2480MHz Ant1 Emission



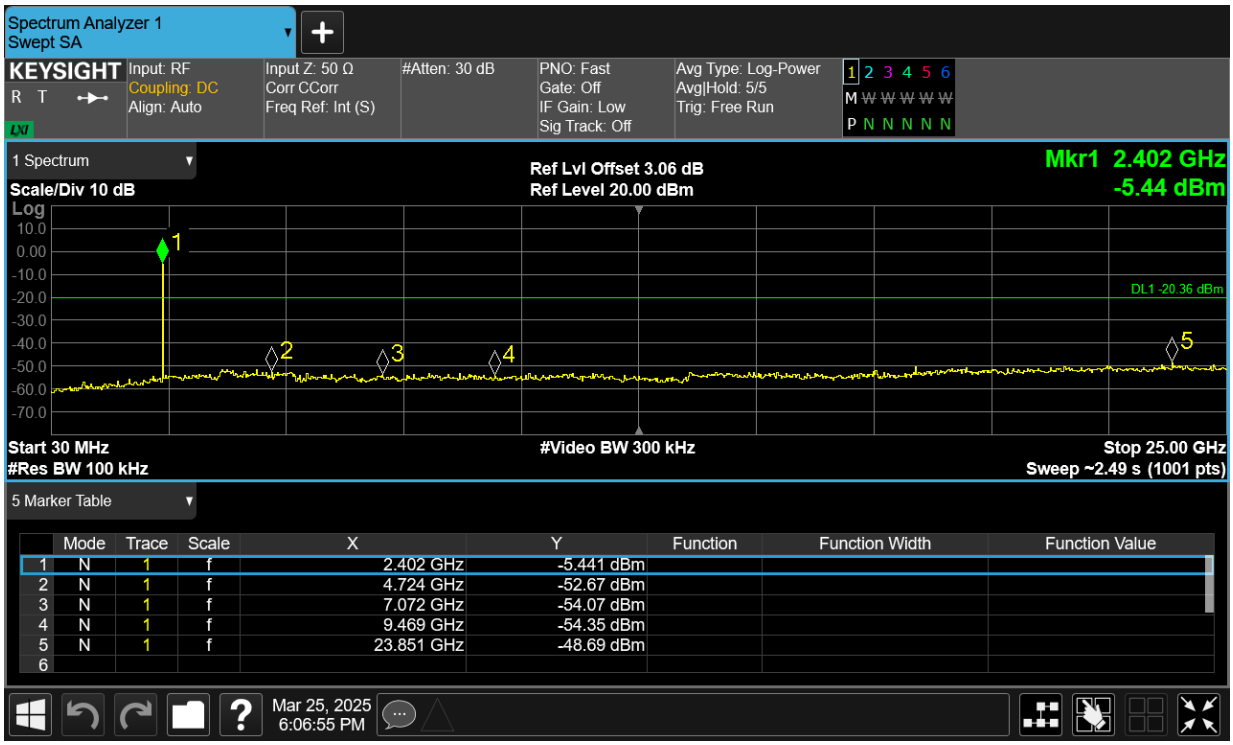
# Conducted RF Spurious Emission

| Condition | Mode | Frequency (MHz) | Antenna | Max Value (dBc) | Limit (dBc) | Verdict |
|---|---|---|---|---|---|---|
| NVNT | BLE | 2402 | Ant1 | -48.33 | -20 | Pass |
| NVNT | BLE | 2442 | Ant1 | -50.55 | -20 | Pass |
| NVNT | BLE | 2480 | Ant1 | -50.03 | -20 | Pass |

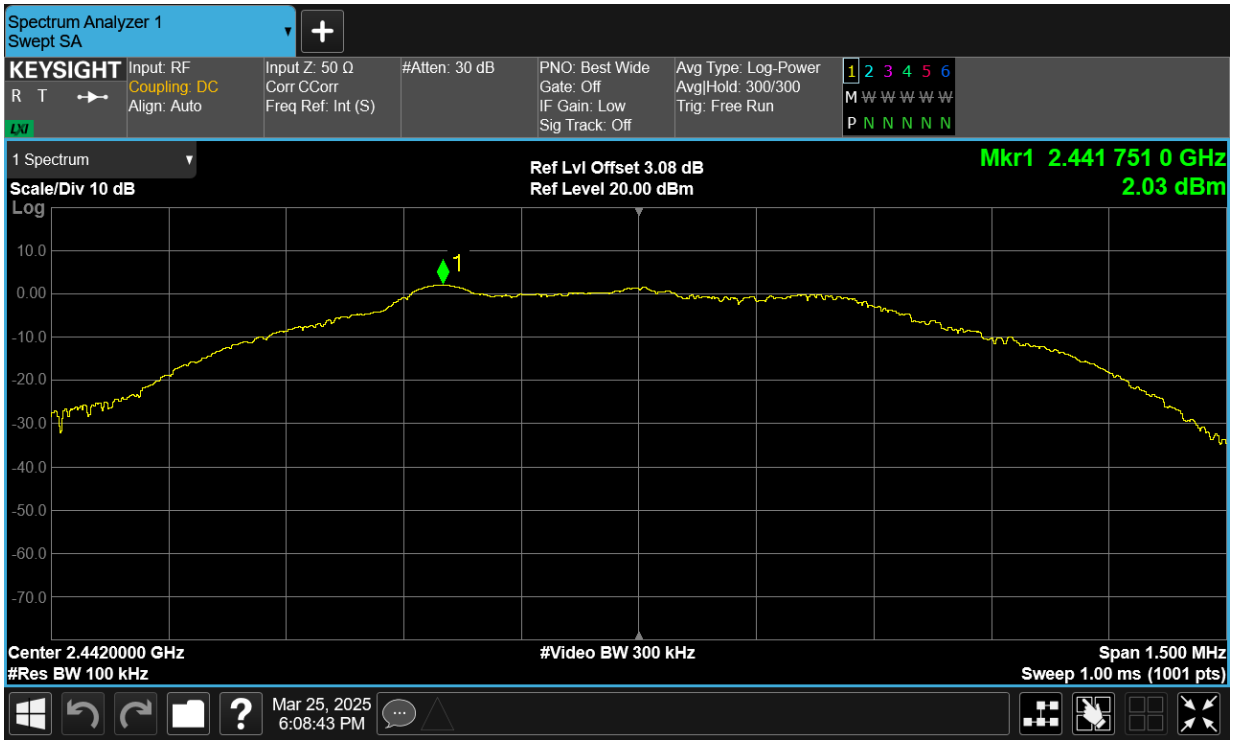
| Test Graphs |
| --- |
| Tx. Spurious NVNT BLE 2402MHz Ant1 Ref |



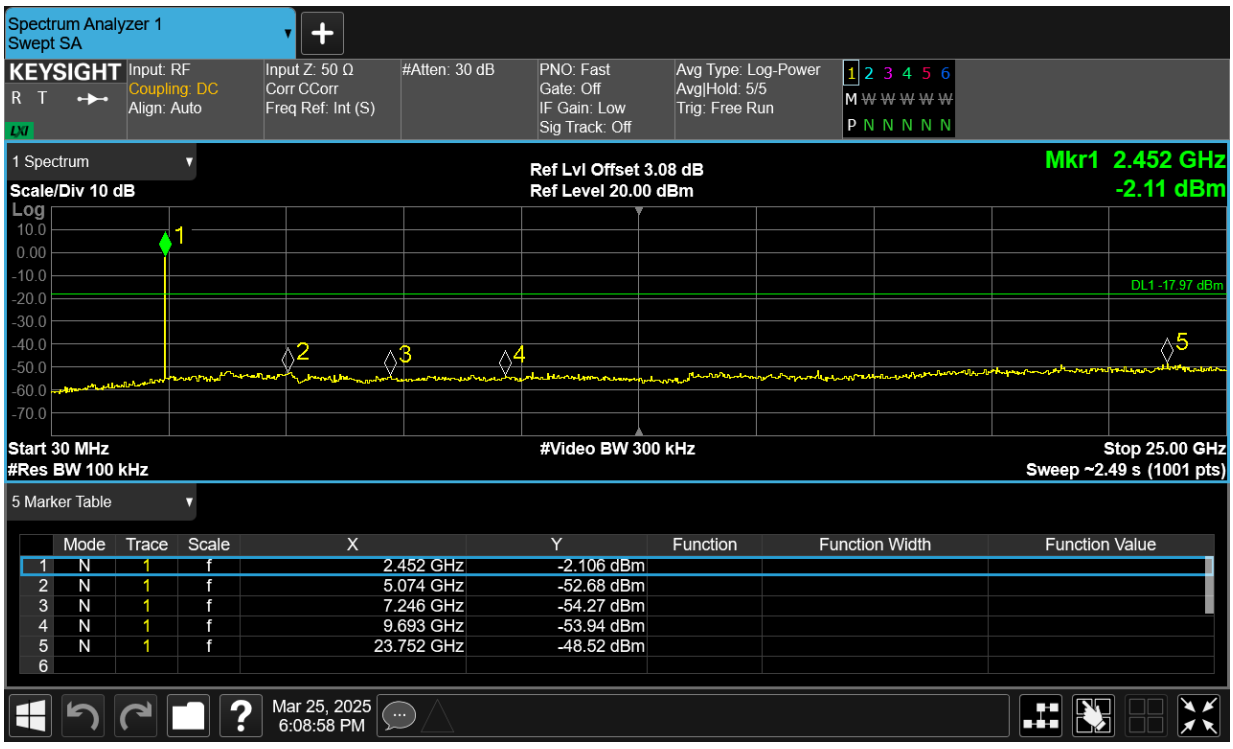

| Tx. Spurious NVNT BLE 2402MHz Ant1 Emission |
| --- |



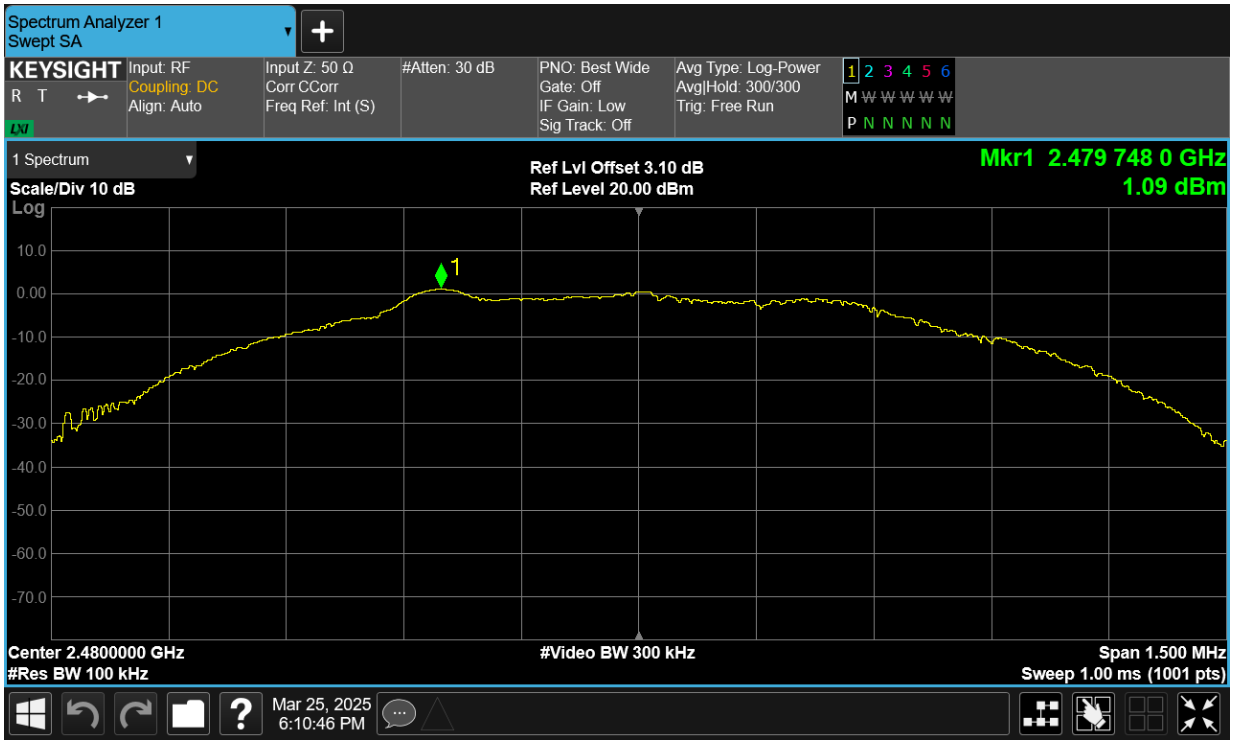

| Tx. Spurious NVNT BLE 2442MHz Ant1 Ref |
| --- |




Tx. Spurious NVNT BLE 2442MHz Ant1 Emission




Tx. Spurious NVNT BLE 2480MHz Ant1 Ref




Tx. Spurious NVNT BLE 2480MHz Ant1 Emission