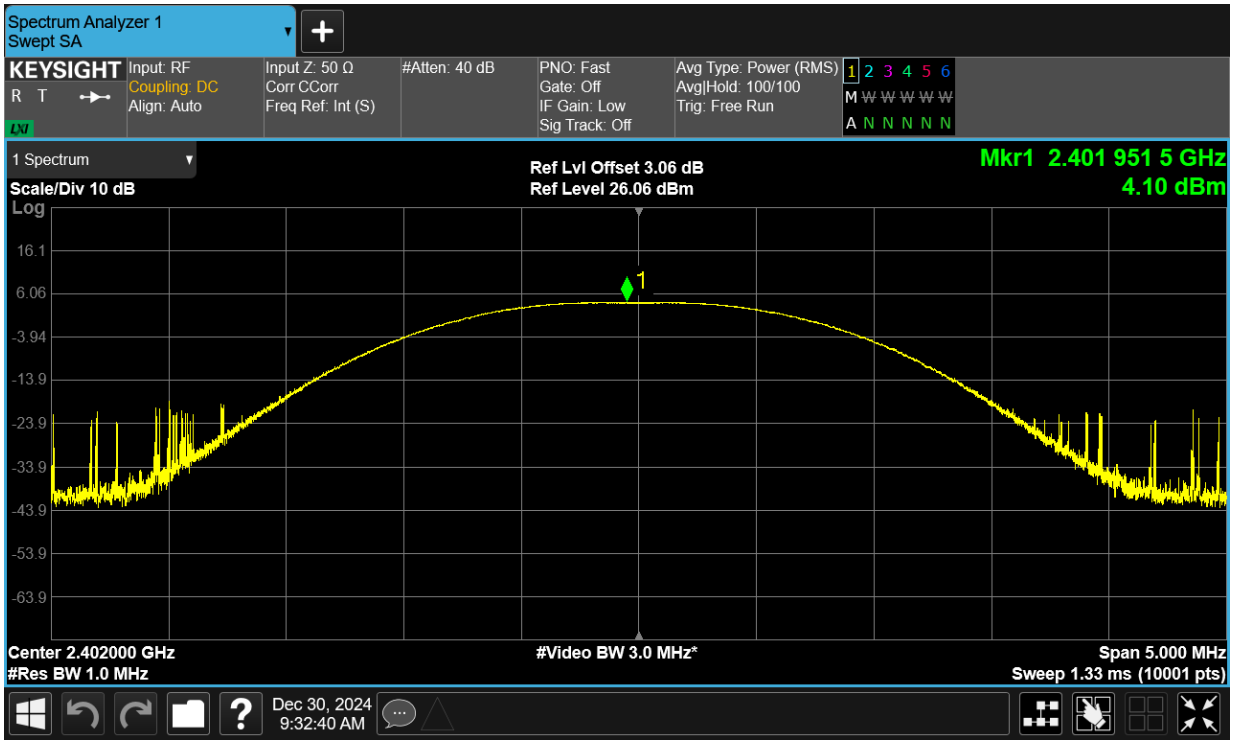
Test Data

Maximum Conducted Output Power

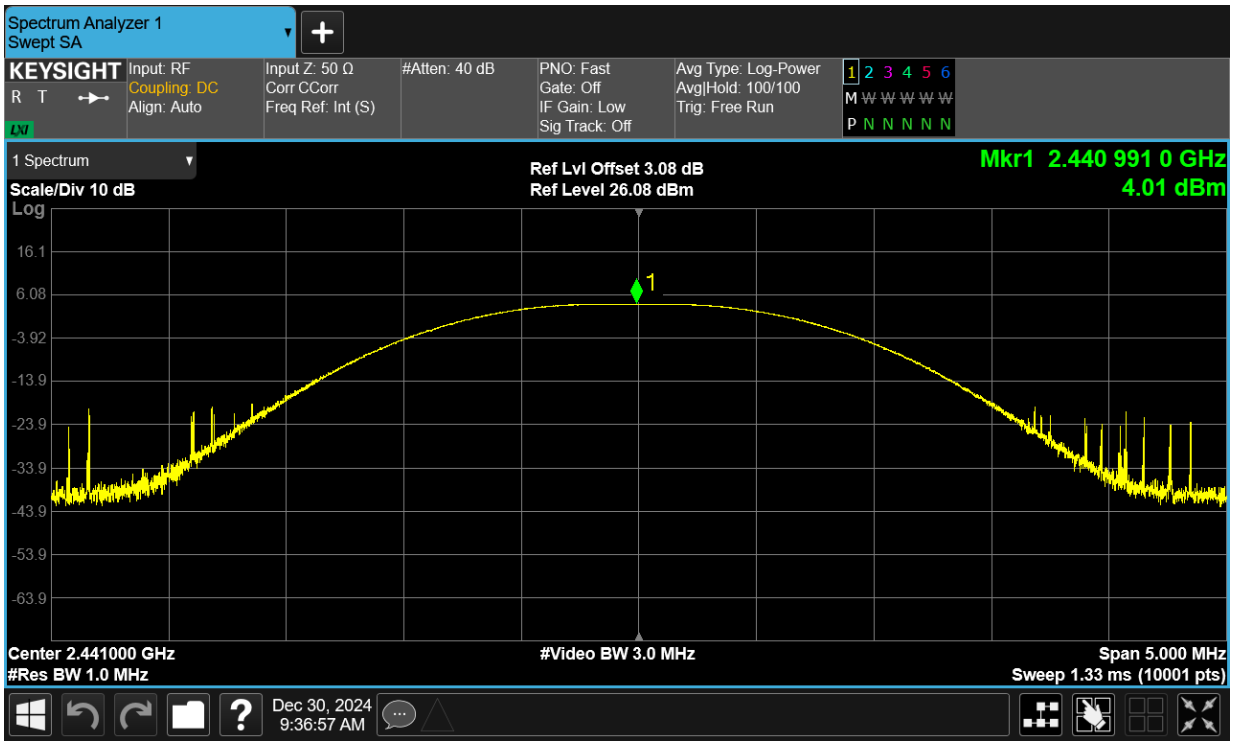
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	4.099	30	Pass
NVNT	1-DH1	2441	Ant1	4.01	30	Pass
NVNT	1-DH1	2480	Ant1	3.731	30	Pass
NVNT	2-DH1	2402	Ant1	3.315	21	Pass
NVNT	2-DH1	2441	Ant1	3.253	21	Pass
NVNT	2-DH1	2480	Ant1	2.936	21	Pass
NVNT	3-DH1	2402	Ant1	3.852	21	Pass
NVNT	3-DH1	2441	Ant1	3.685	21	Pass
NVNT	3-DH1	2480	Ant1	3.366	21	Pass

Test Graphs

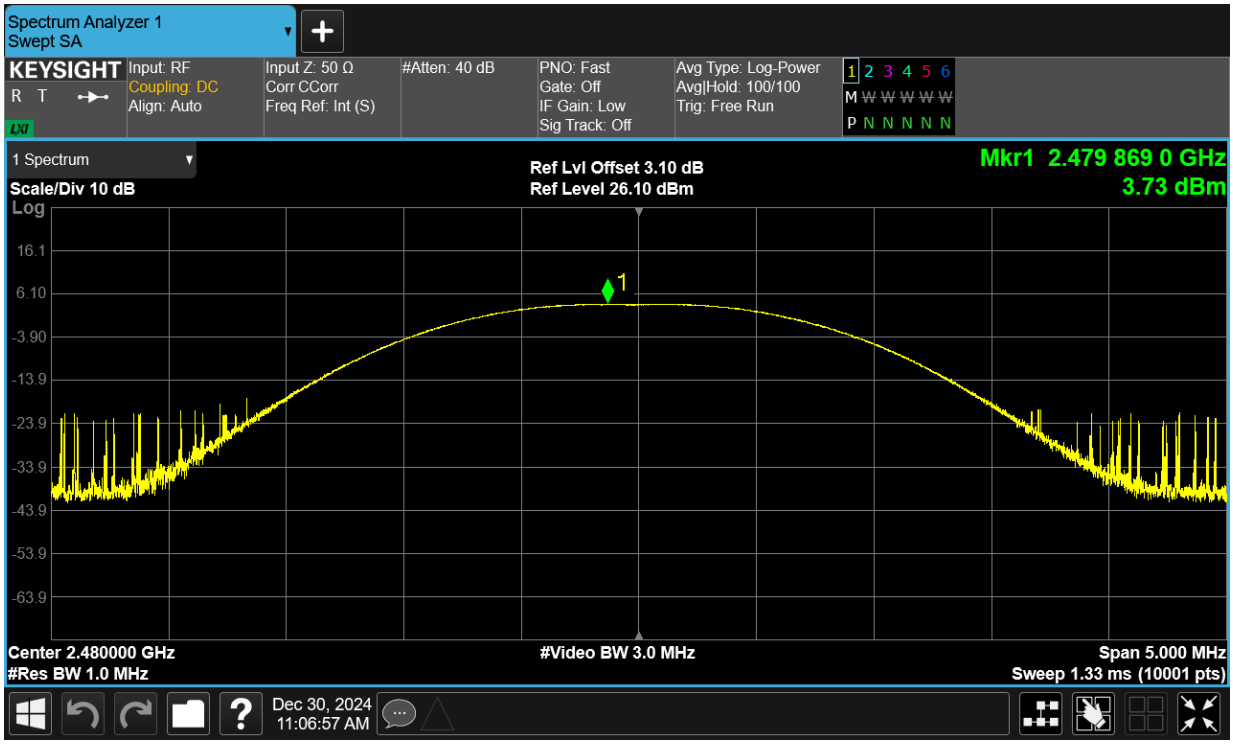
Power NVNT 1-DH1 2402MHz Ant1



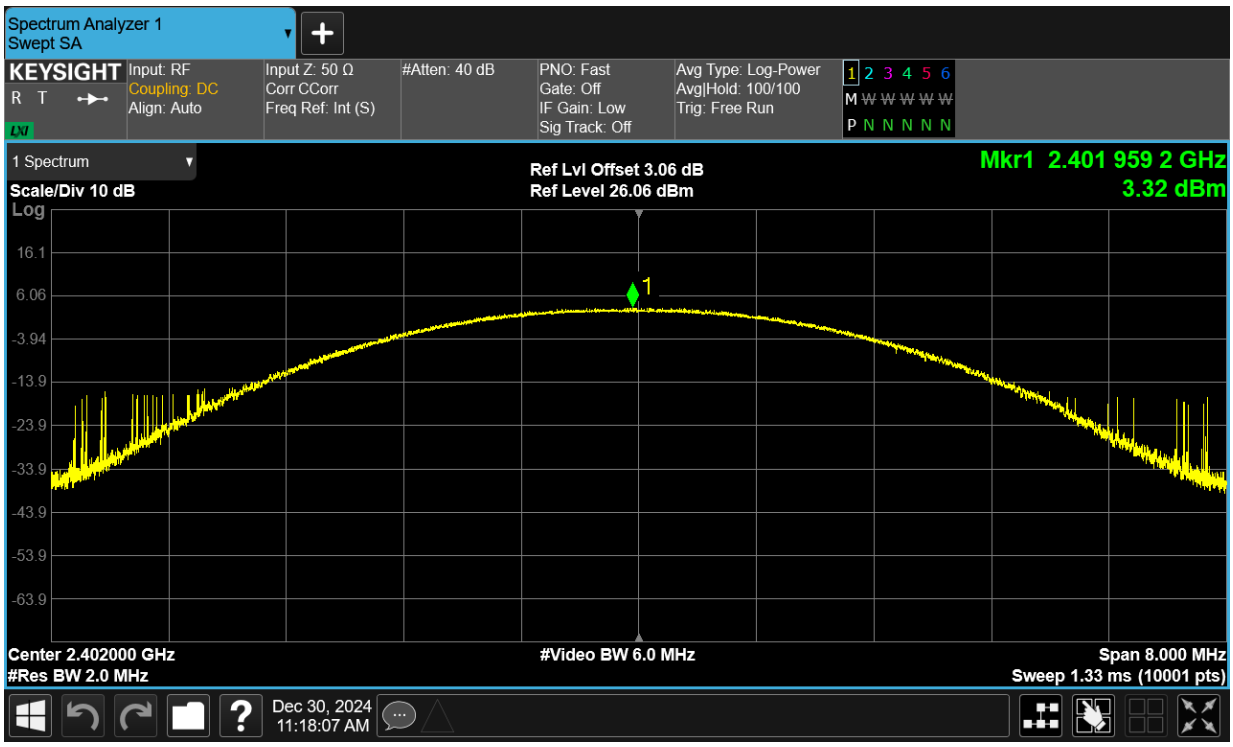
Power NVNT 1-DH1 2441MHz Ant1



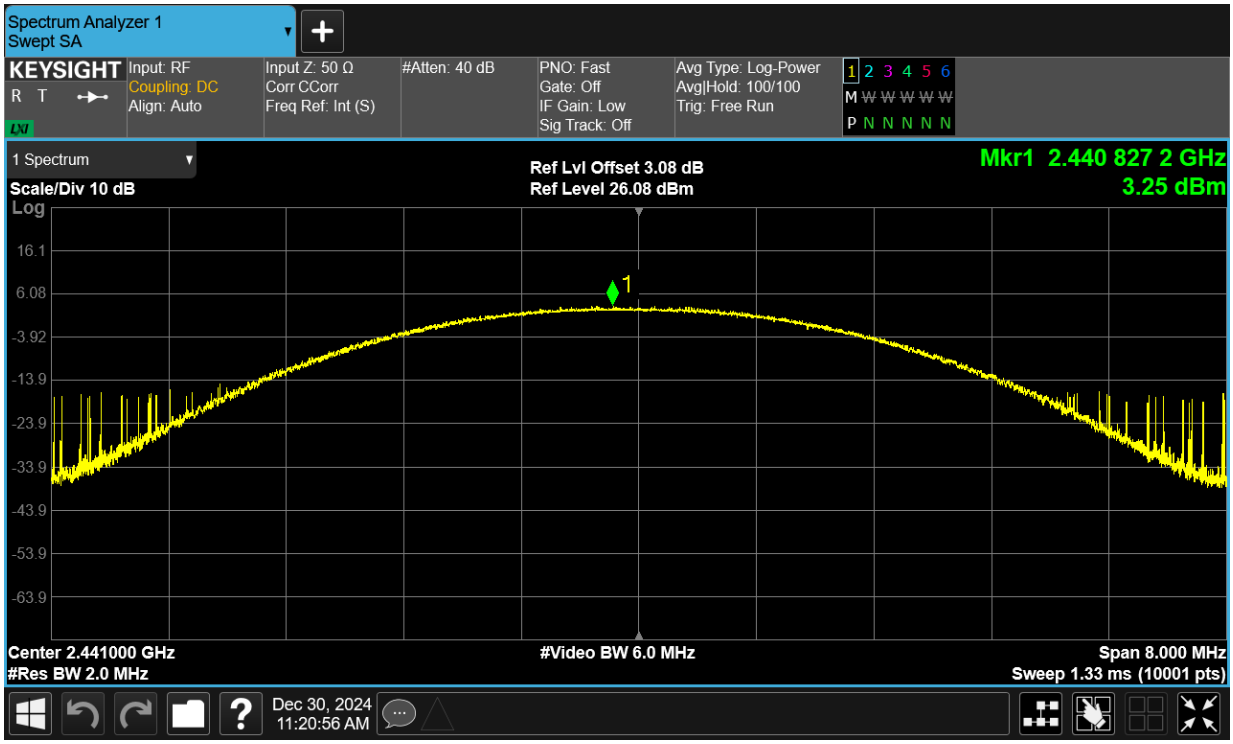
Power NVNT 1-DH1 2480MHz Ant1



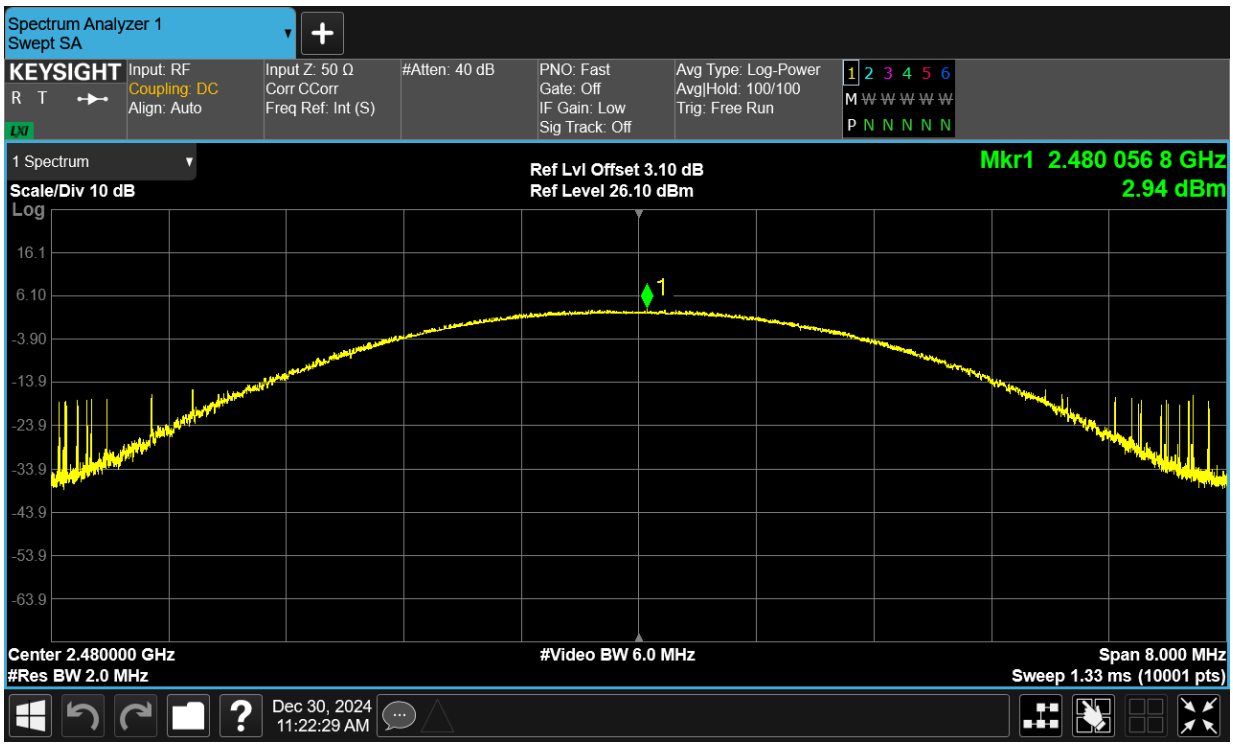
Power NVNT 2-DH1 2402MHz Ant1



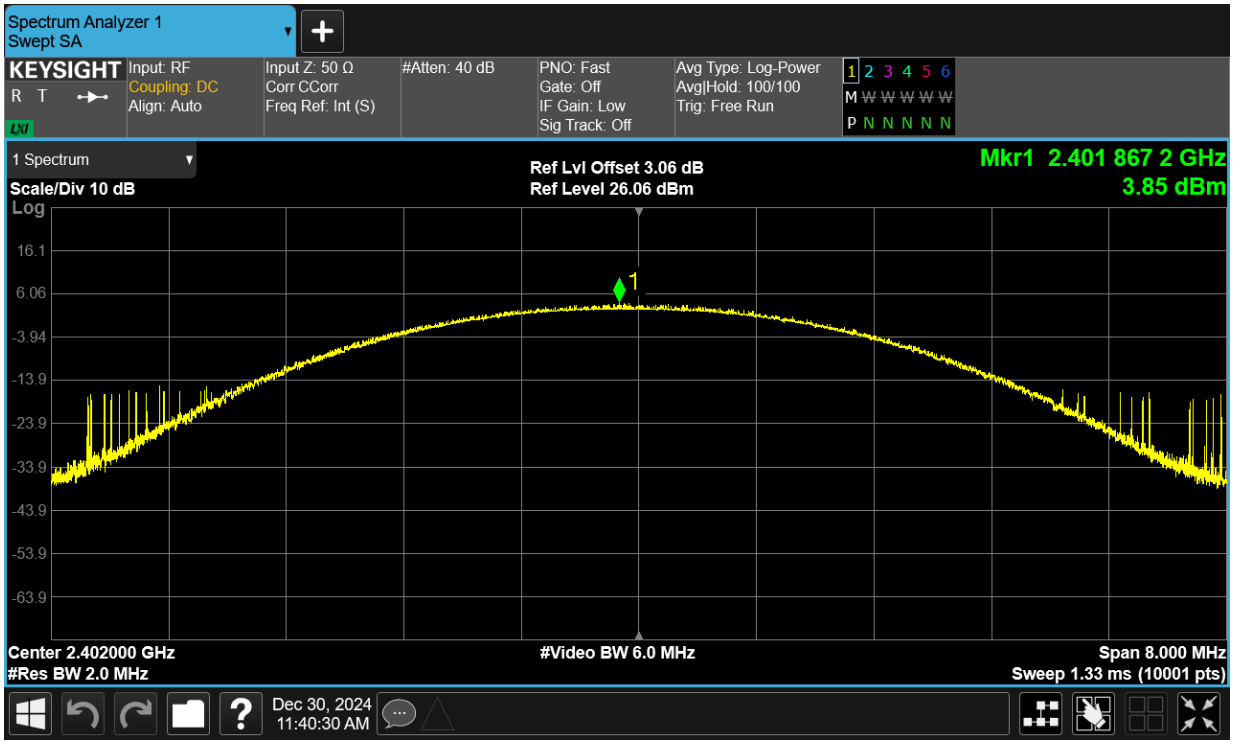
Power NVNT 2-DH1 2441MHz Ant1



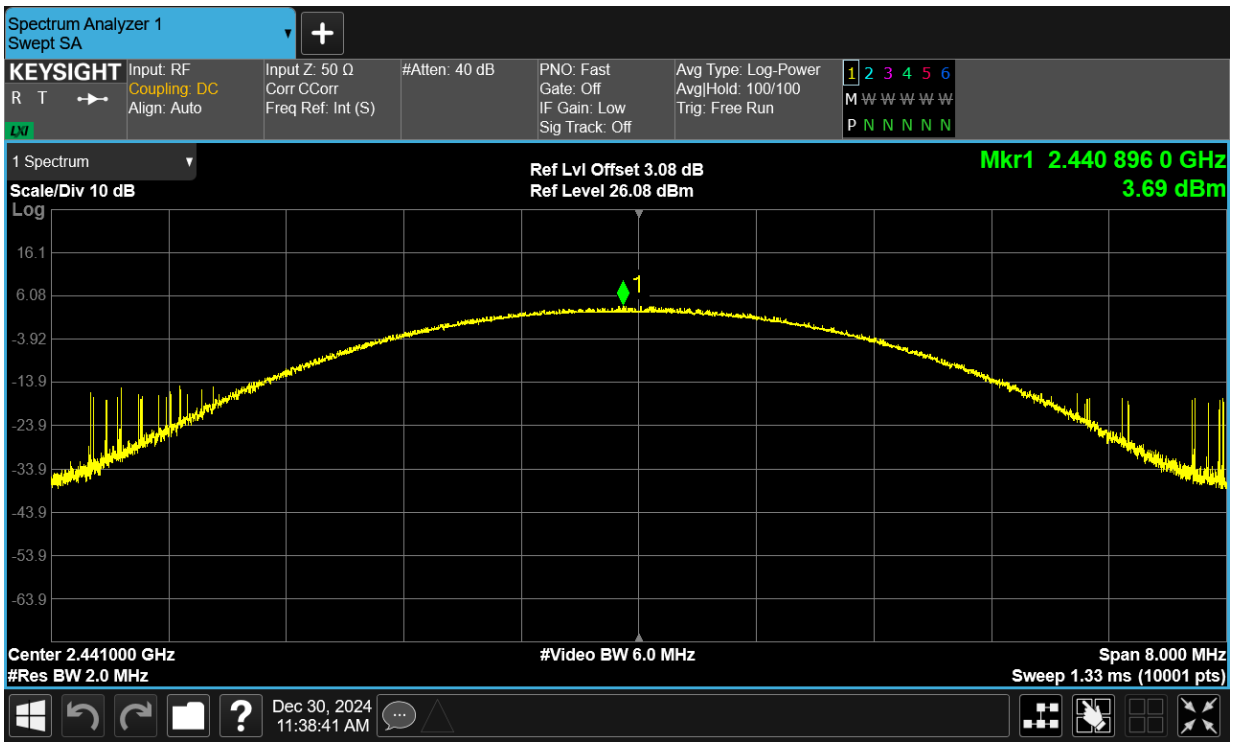
Power NVNT 2-DH1 2480MHz Ant1



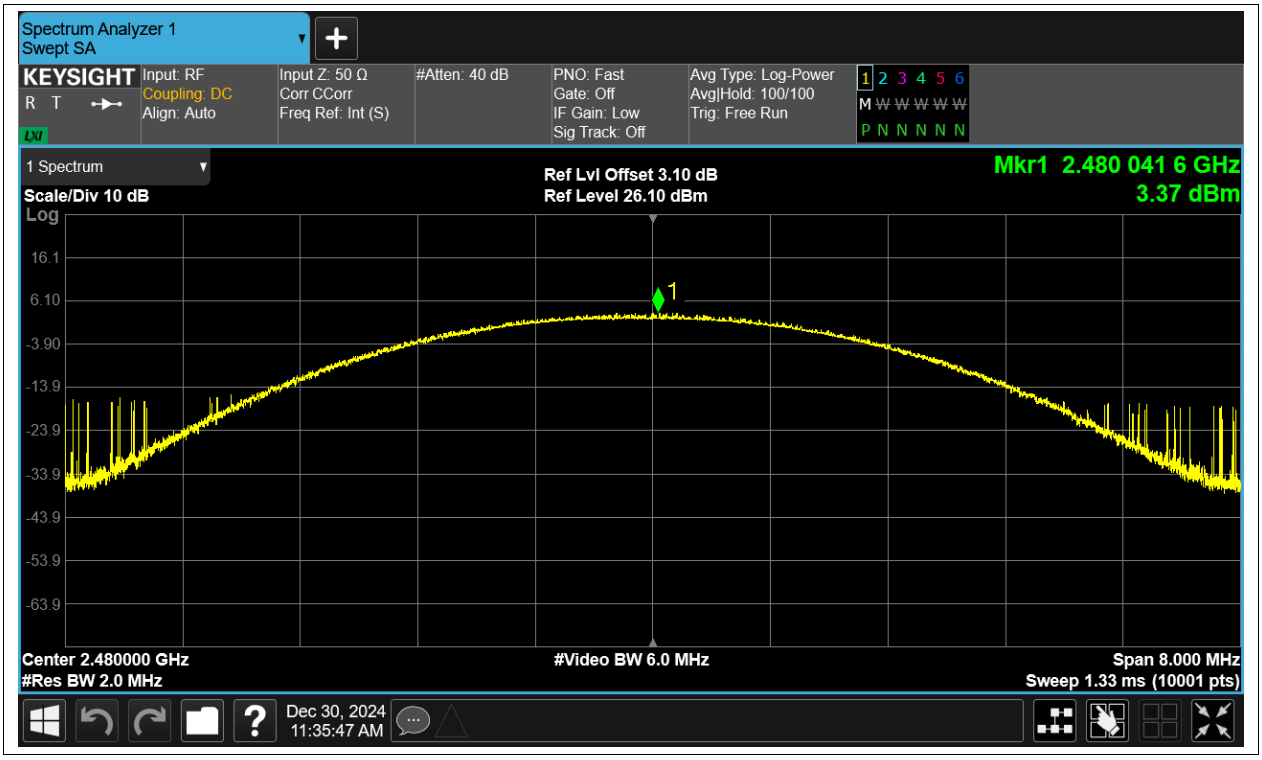
Power NVNT 3-DH1 2402MHz Ant1



Power NVNT 3-DH1 2441MHz Ant1



Power NVNT 3-DH1 2480MHz Ant1

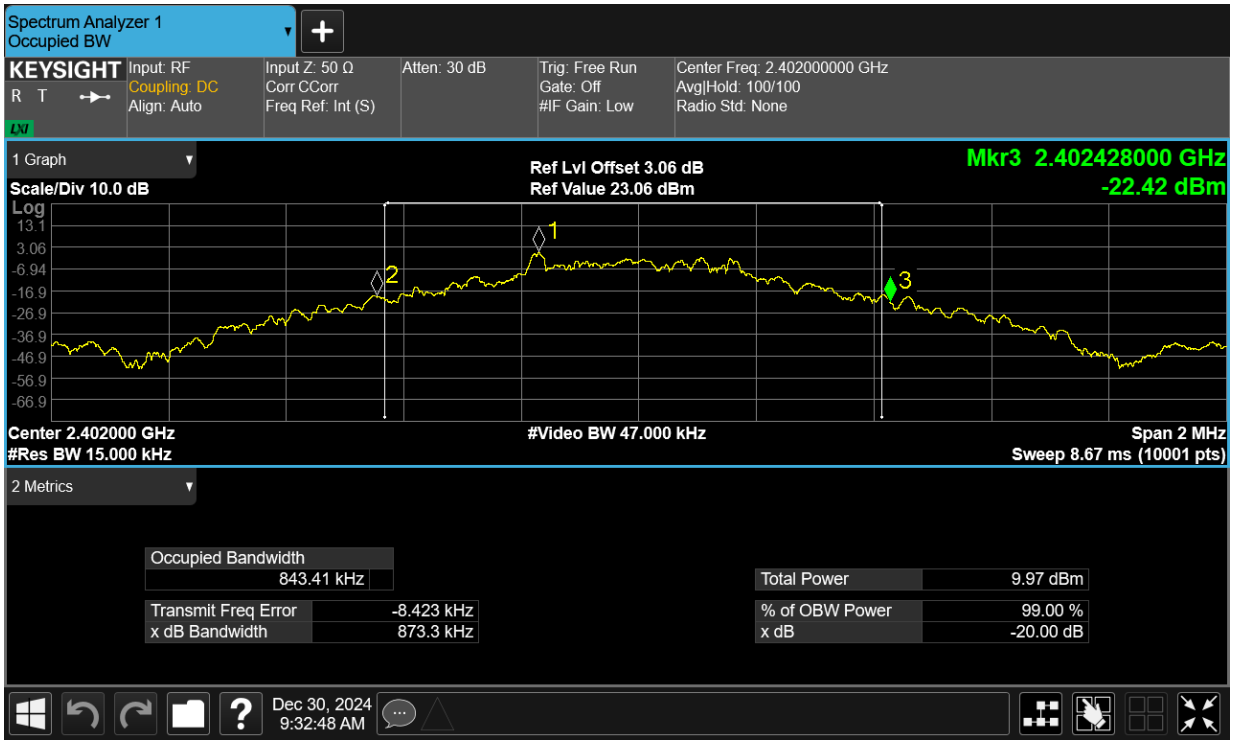

Spectrum Analyzer 1
Swept SA
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto
Input Z: 50 Ω
Corr CCorr
Freq Ref: Int (S)
#Atten: 40 dB
PNO: Fast
Gate: Off
IF Gain: Low
Sig Track: Off
Avg Type: Log-Power
Avg|Hold: 100/100
Trig: Free Run
1 Spectrum
Scale/Div 10 dB
Log
Ref Lvl Offset 3.10 dB
Ref Level 26.10 dBm
Mkr1 2.480 041 6 GHz
3.37 dBm
16.1
6.10
-3.90
-13.9
-23.9
-33.9
-43.9
-53.9
-63.9
Center 2.480000 GHz
#Res BW 2.0 MHz
#Video BW 6.0 MHz
Span 8.000 MHz
Sweep 1.33 ms (10001 pts)
Dec 30, 2024
11:35:47 AM

-20dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)
NVNT	1-DH1	2402	Ant1	0.873
NVNT	1-DH1	2441	Ant1	0.827
NVNT	1-DH1	2480	Ant1	0.826
NVNT	2-DH1	2402	Ant1	1.177
NVNT	2-DH1	2441	Ant1	1.231
NVNT	2-DH1	2480	Ant1	1.24
NVNT	3-DH1	2402	Ant1	1.201
NVNT	3-DH1	2441	Ant1	1.25
NVNT	3-DH1	2480	Ant1	1.213

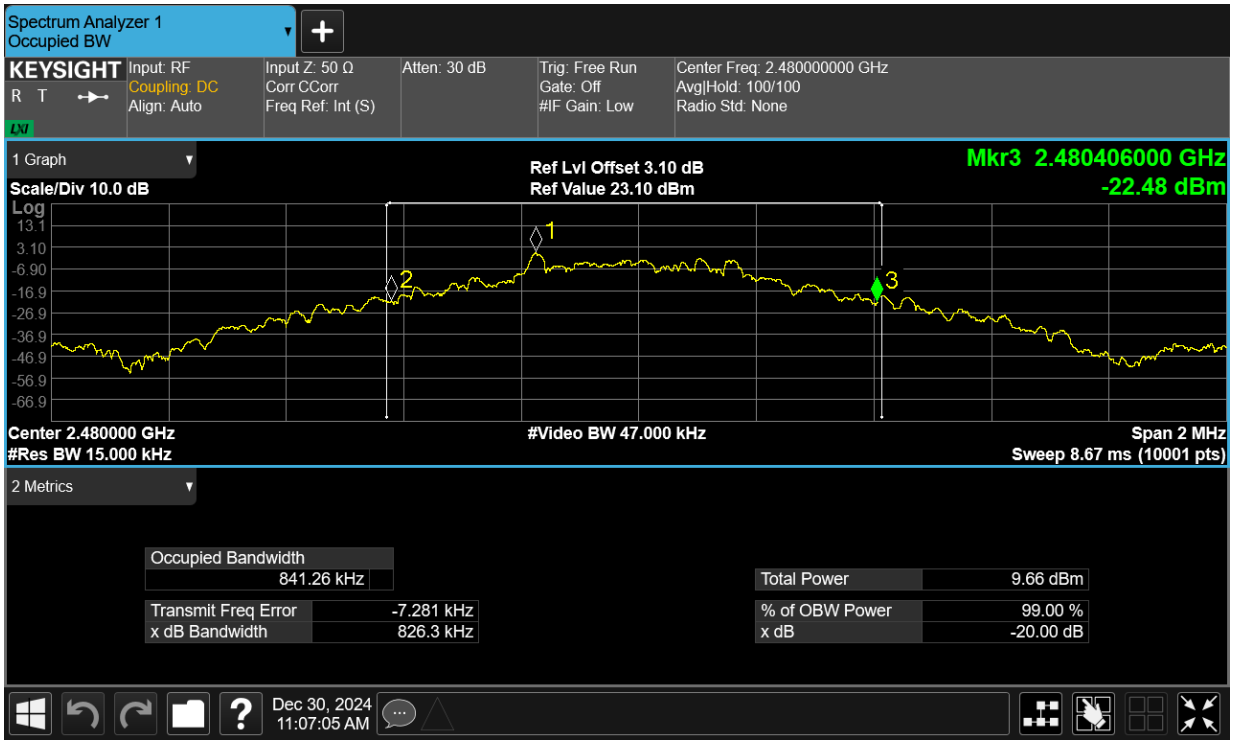
Test Graphs

-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1

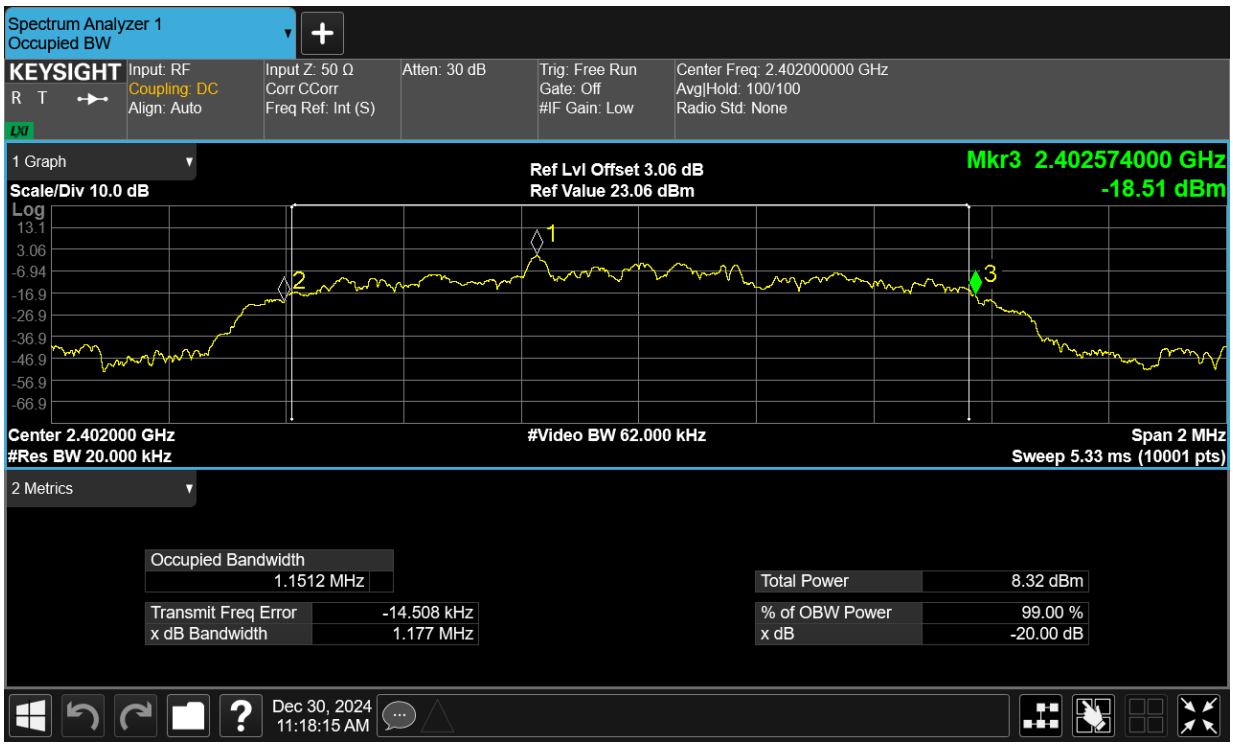


-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1

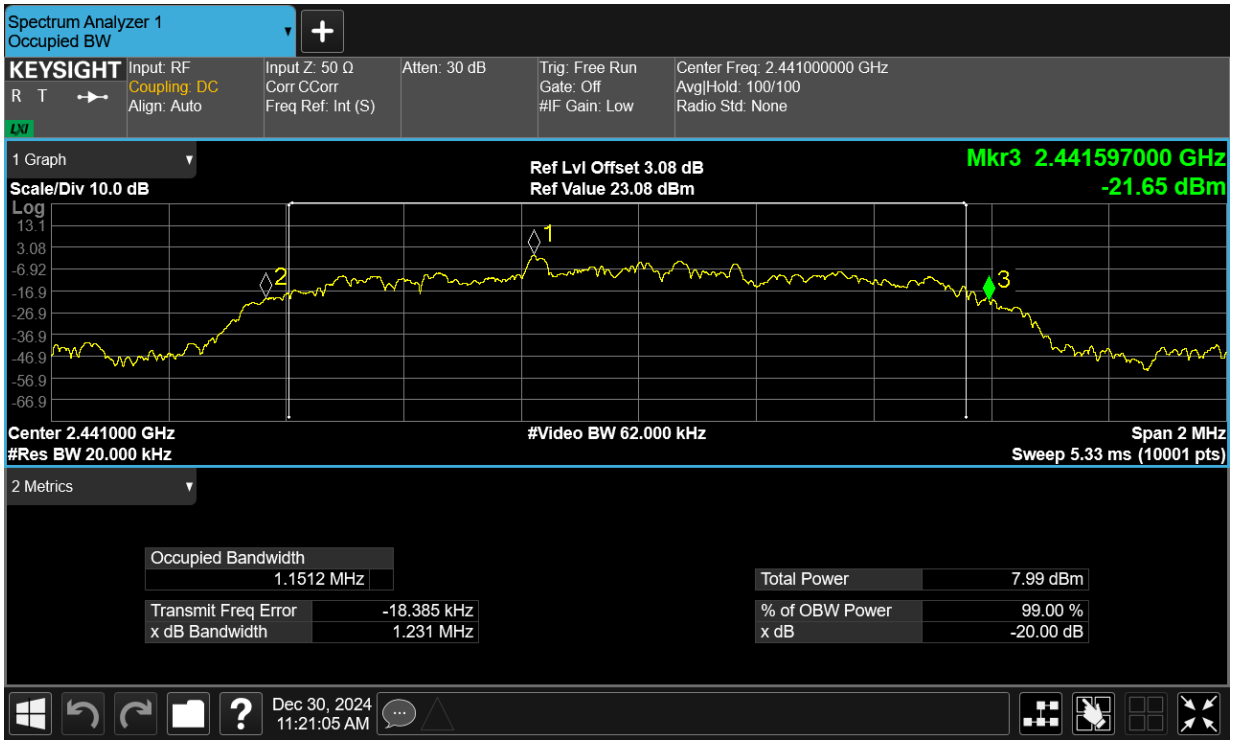
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



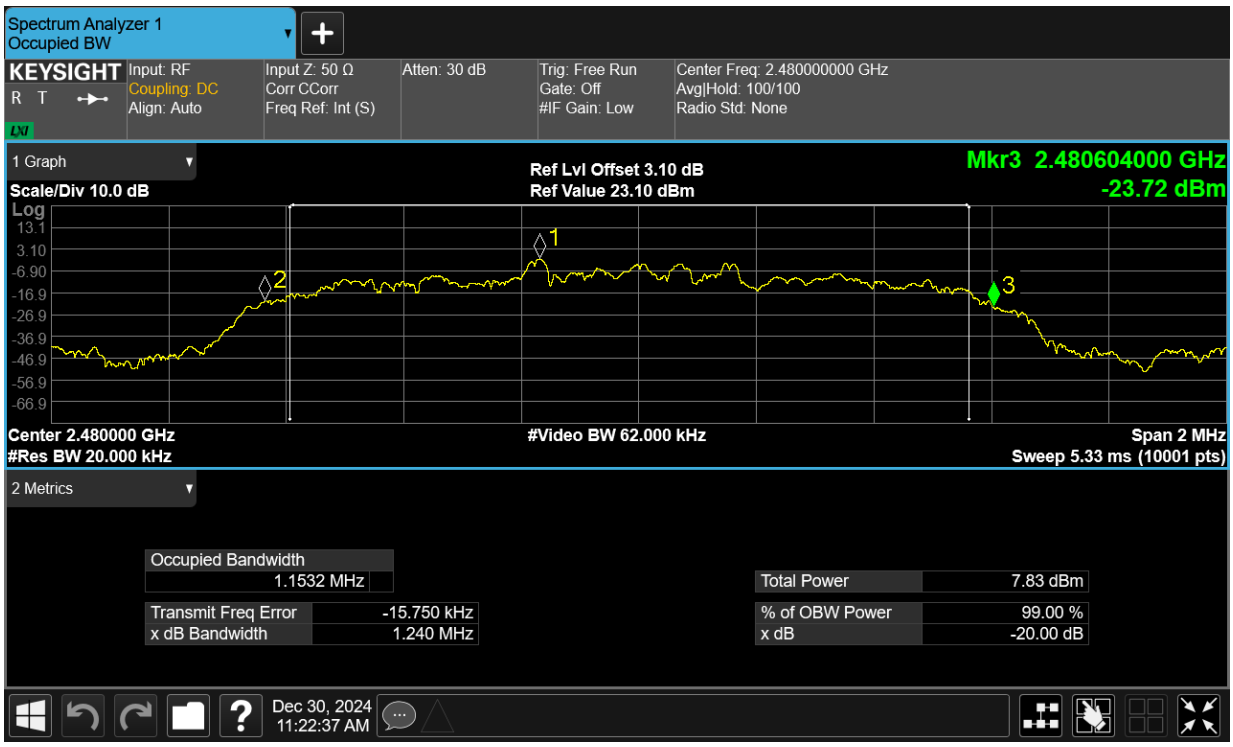
-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



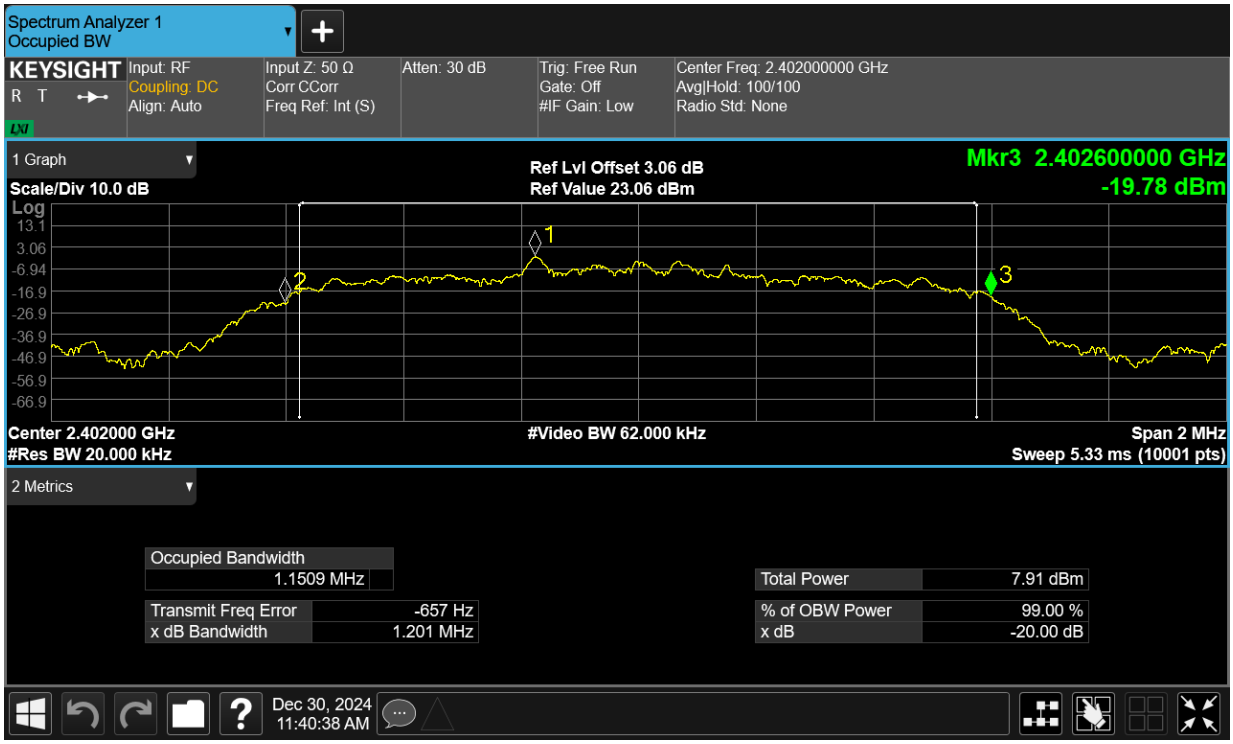
-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



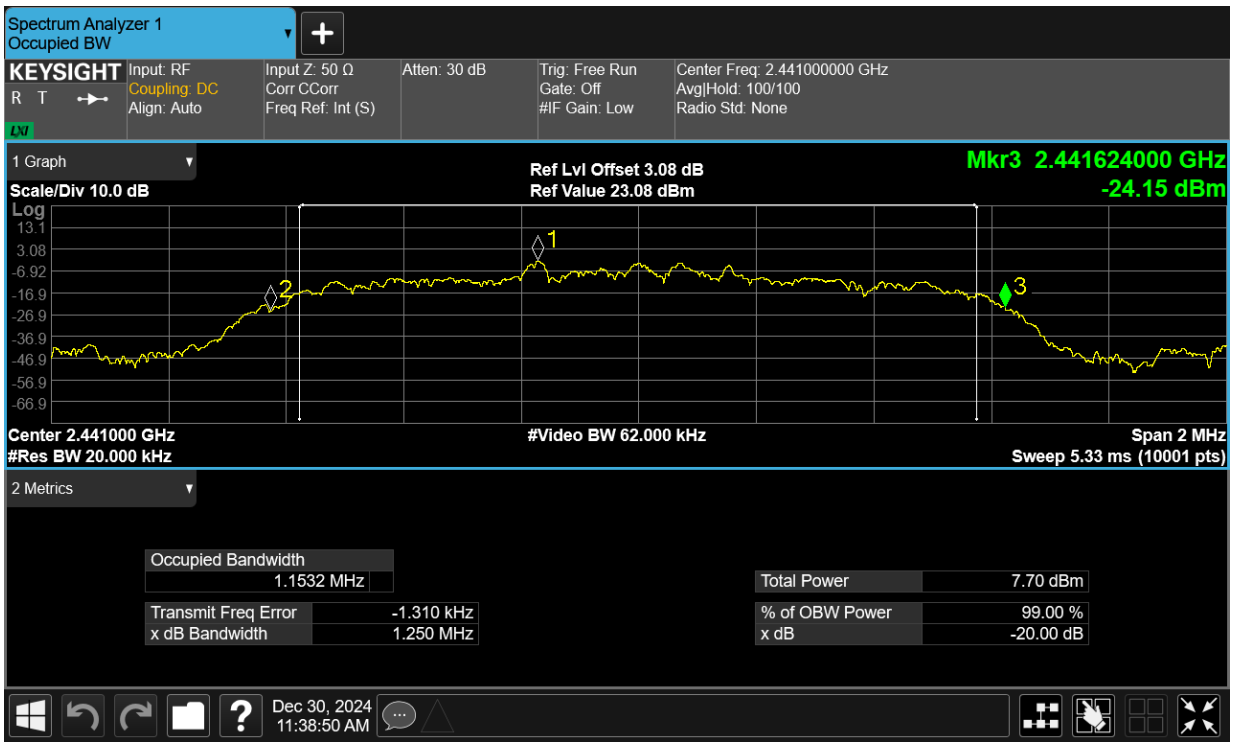
-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1



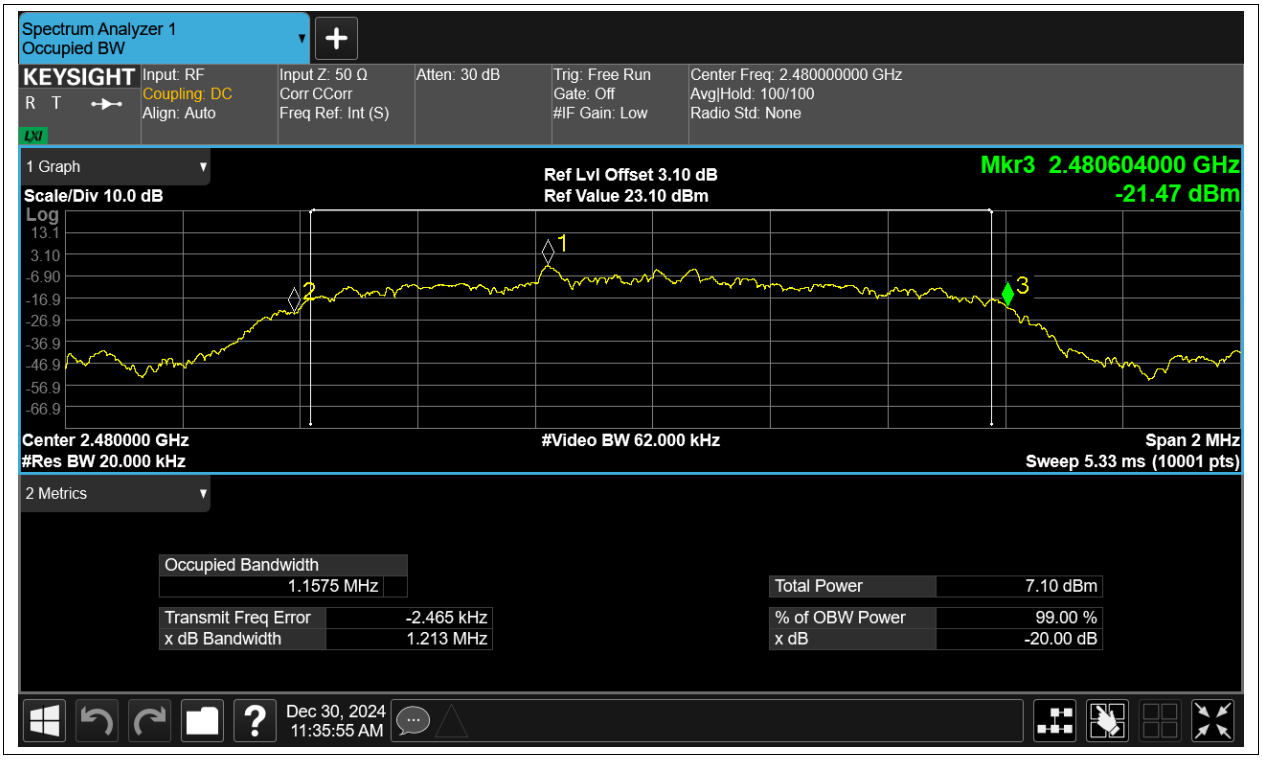
-20dB Bandwidth NVNT 3-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2441MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2480MHz Ant1

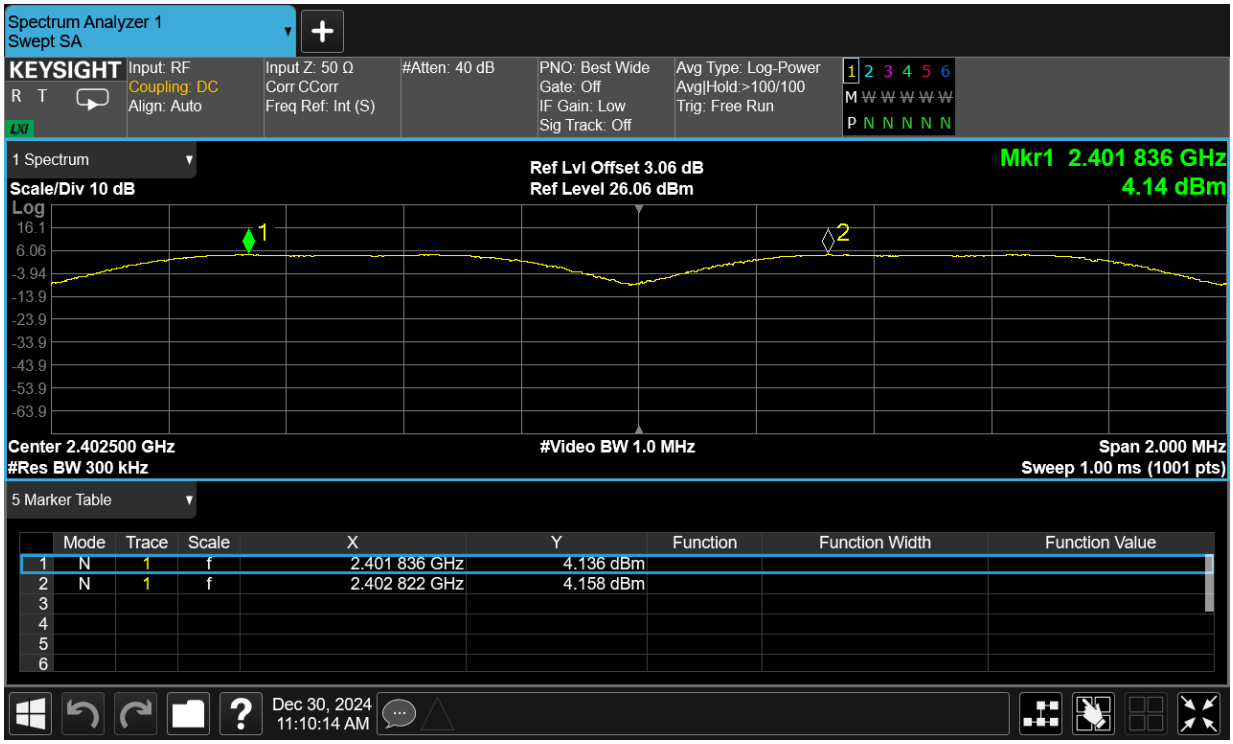

Spectrum Analyzer 1
Occupied BW
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto
Input Z: 50 Ω
Corr CCorr
Freq Ref: Int (S)
Atten: 30 dB
Trig: Free Run
Gate: Off
#IF Gain: Low
Center Freq: 2.480000000 GHz
Avg|Hold: 100/100
Radio Std: None
1 Graph
Scale/Div 10.0 dB
Ref Lvl Offset 3.10 dB
Ref Value 23.10 dBm
Mkr3 2.480604000 GHz
-21.47 dBm
Center 2.480000 GHz
#Res BW 20.000 kHz
#Video BW 62.000 kHz
Span 2 MHz
Sweep 5.33 ms (10001 pts)
2 Metrics
Occupied Bandwidth
1.1575 MHz
Transmit Freq Error -2.465 kHz
x dB Bandwidth 1.213 MHz
Total Power 7.10 dBm
% of OBW Power 99.00 %
x dB -20.00 dB
Dec 30, 2024
11:35:55 AM

Carrier Frequencies Separation

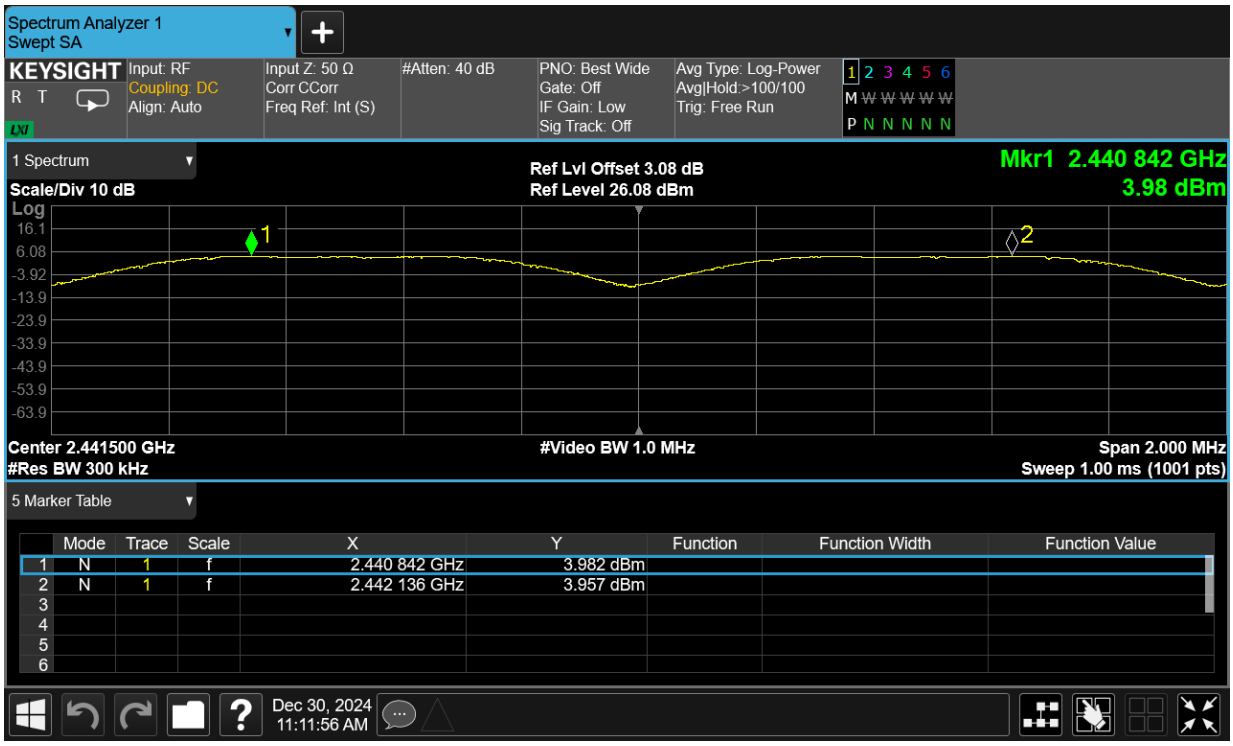
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH1	Ant1	2401.836	2402.822	0.986	0.873	Pass
NVNT	1-DH1	Ant1	2440.842	2442.136	1.294	0.827	Pass
NVNT	1-DH1	Ant1	2478.822	2479.83	1.008	0.826	Pass
NVNT	2-DH1	Ant1	2401.828	2402.812	0.984	0.785	Pass
NVNT	2-DH1	Ant1	2440.822	2441.826	1.004	0.821	Pass
NVNT	2-DH1	Ant1	2478.83	2479.842	1.012	0.827	Pass
NVNT	3-DH1	Ant1	2401.816	2403.13	1.314	0.801	Pass
NVNT	3-DH1	Ant1	2440.82	2441.818	0.998	0.833	Pass
NVNT	3-DH1	Ant1	2478.83	2480.138	1.308	0.809	Pass

Test Graphs

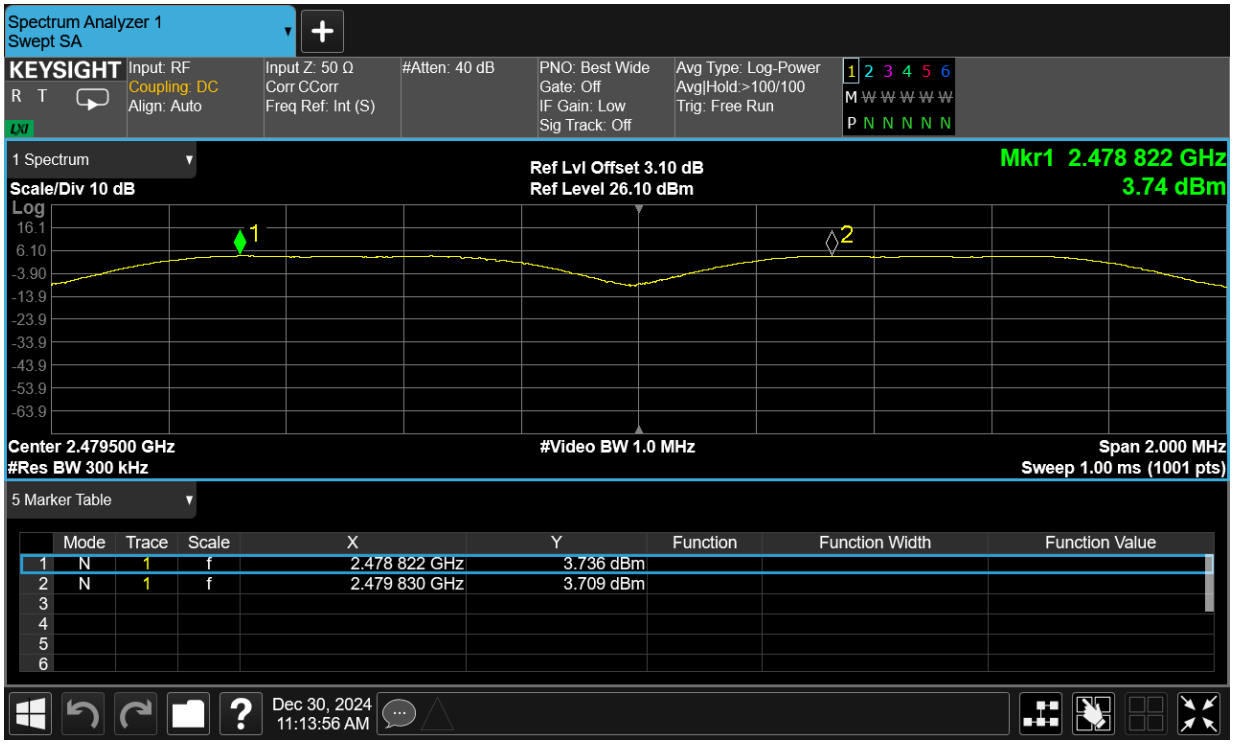
CFS NVNT 1-DH1 2402MHz Ant1



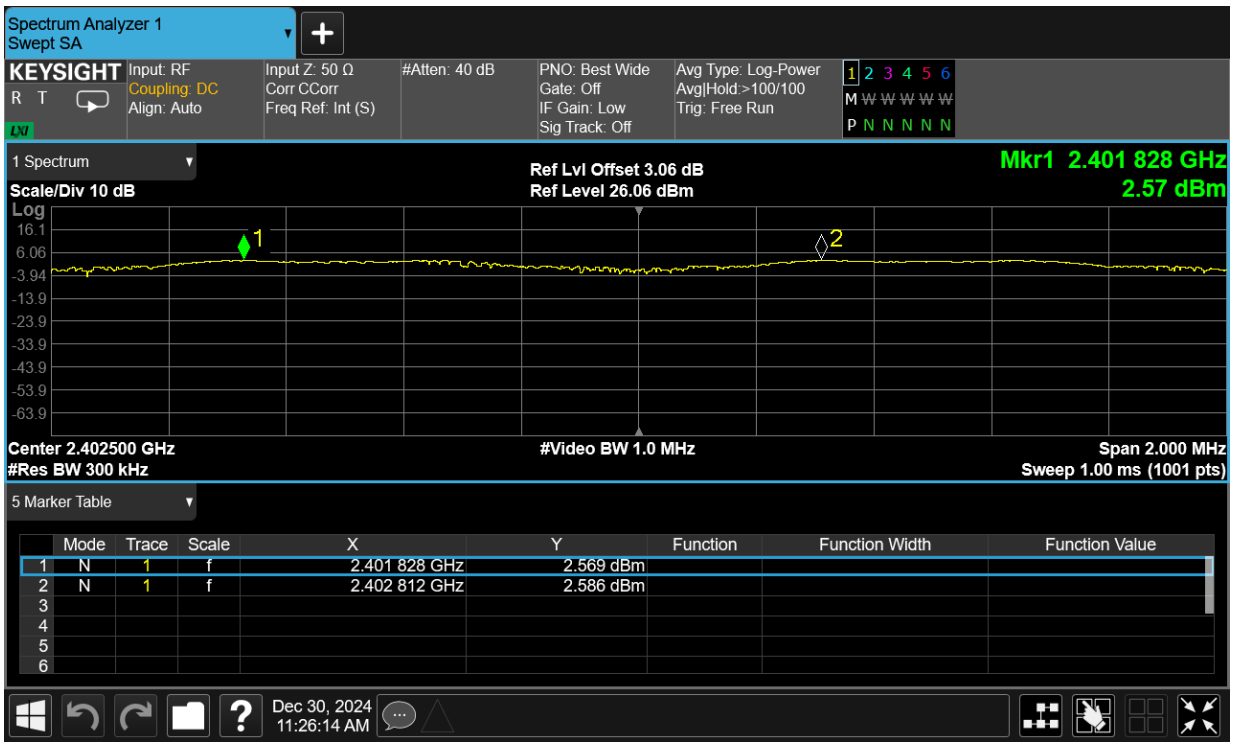
CFS NVNT 1-DH1 2441MHz Ant1



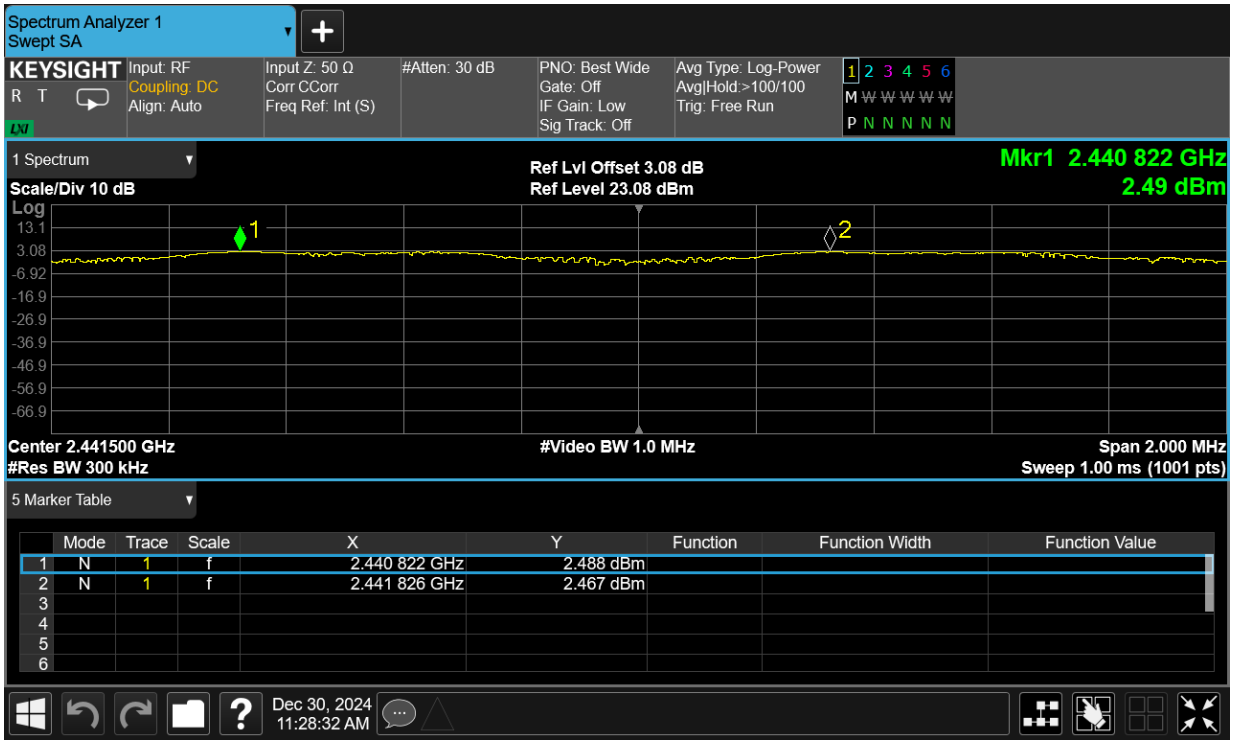
CFS NVNT 1-DH1 2480MHz Ant1



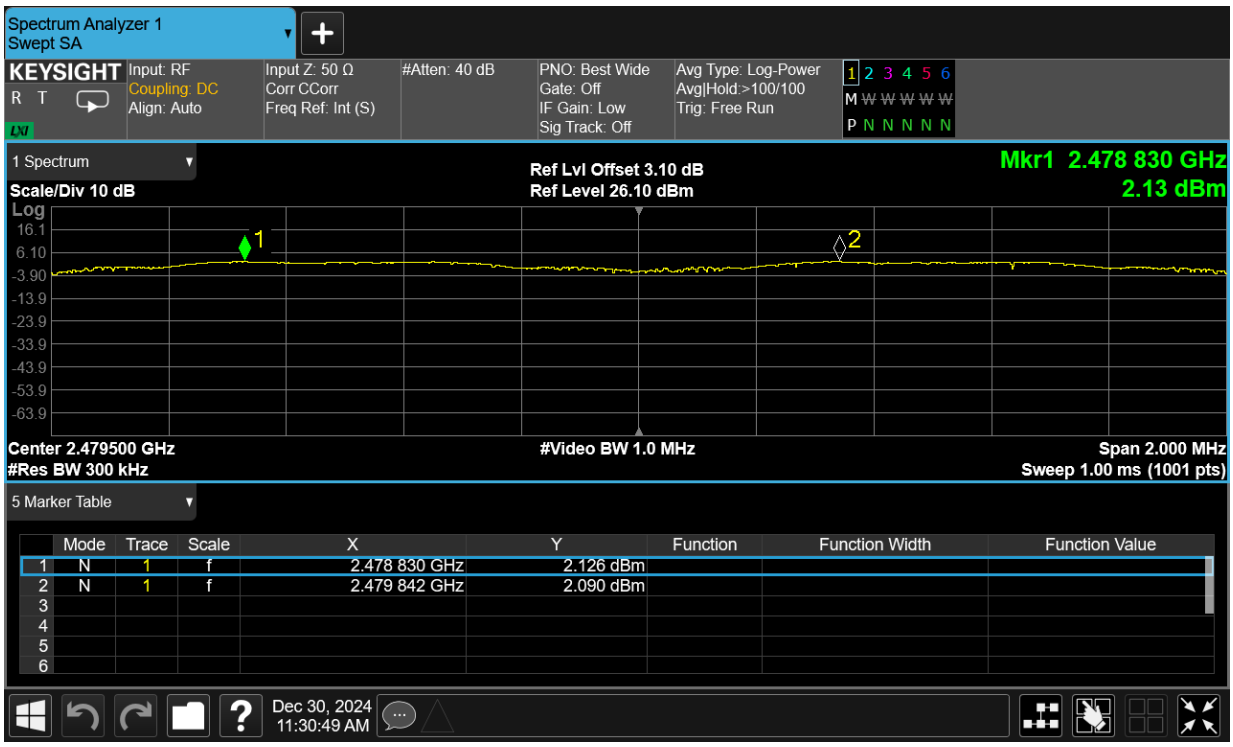
CFS NVNT 2-DH1 2402MHz Ant1



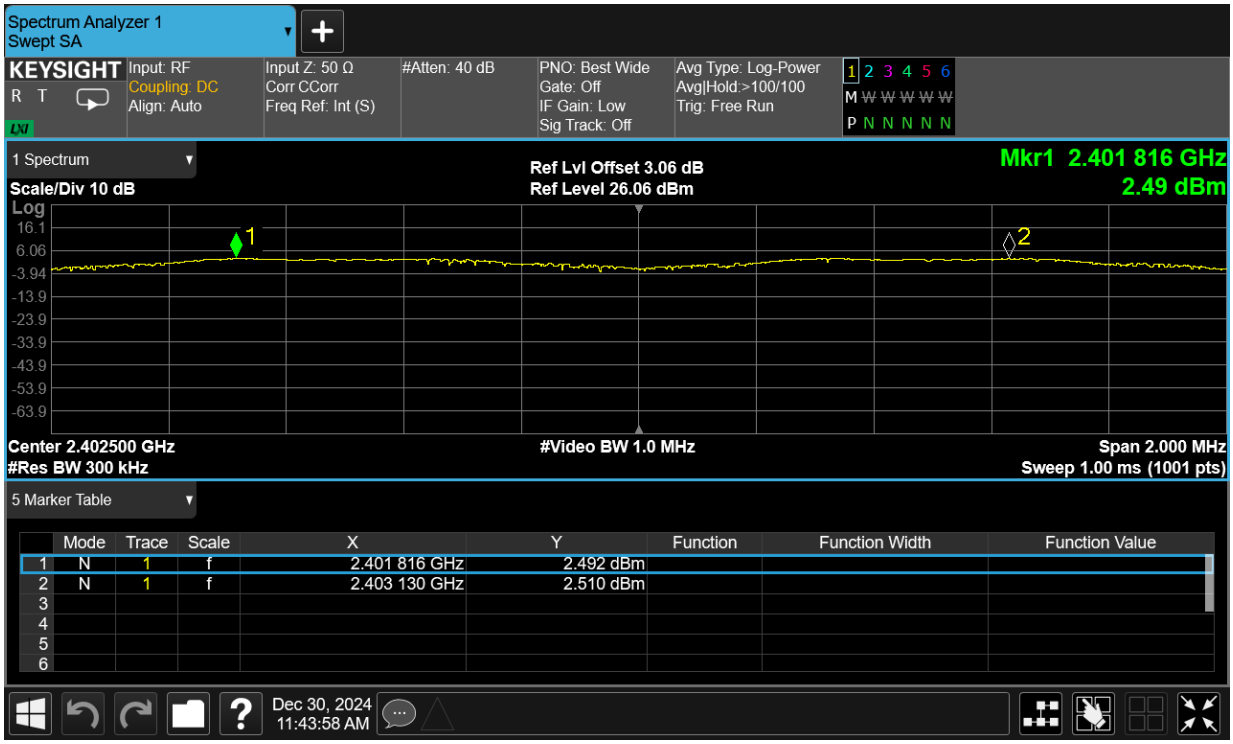
CFS NVNT 2-DH1 2441MHz Ant1



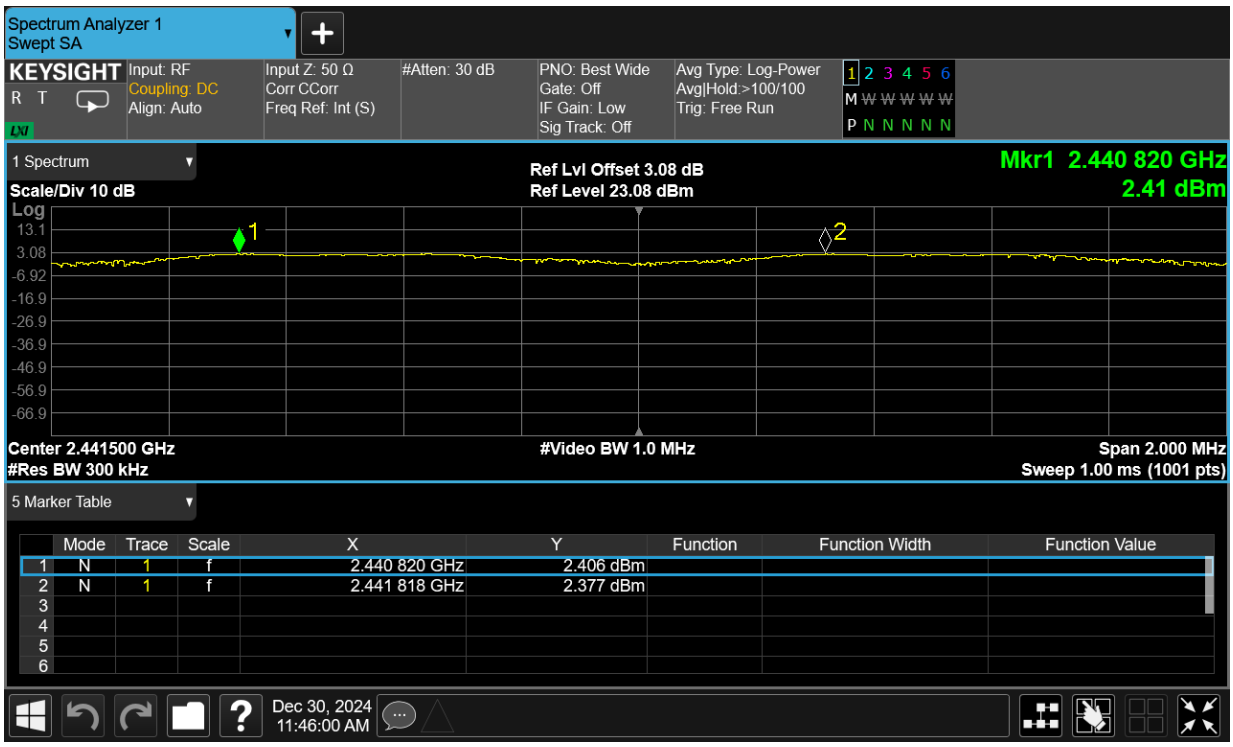
CFS NVNT 2-DH1 2480MHz Ant1



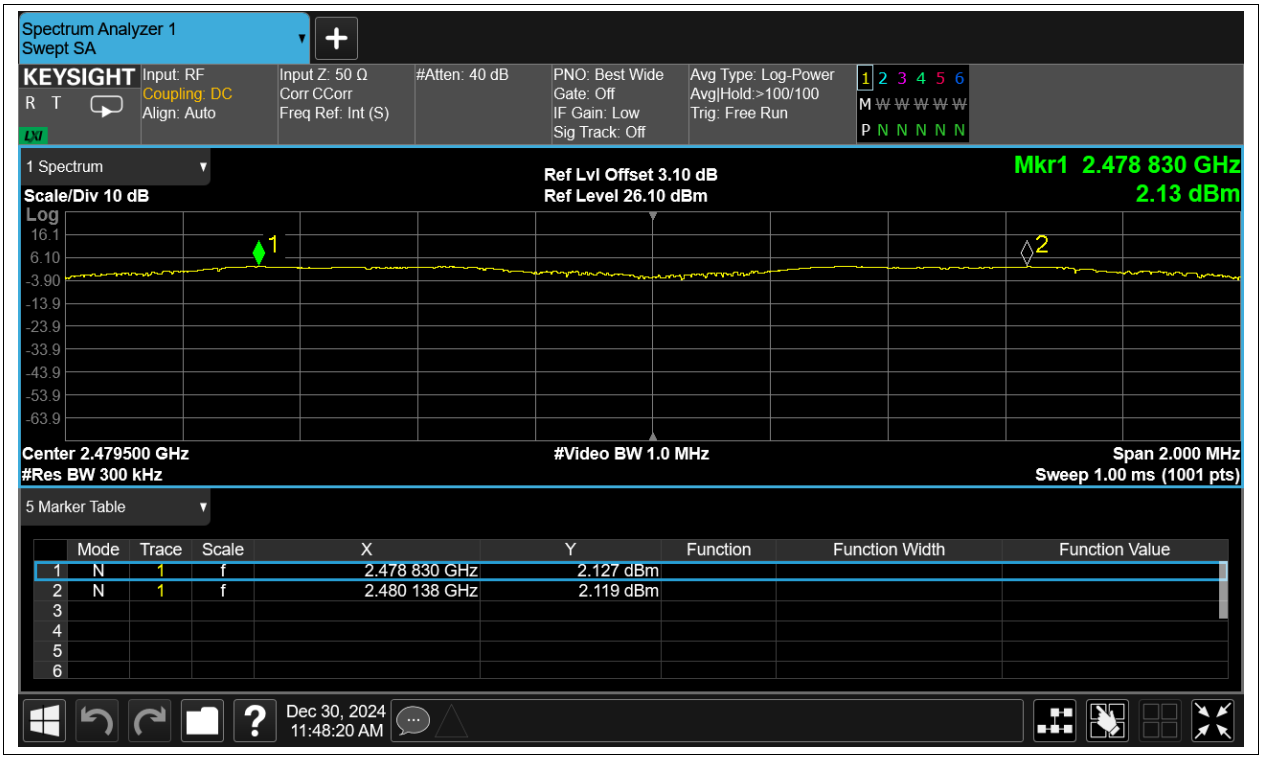
CFS NVNT 3-DH1 2402MHz Ant1



CFS NVNT 3-DH1 2441MHz Ant1



CFS NVNT 3-DH1 2480MHz Ant1

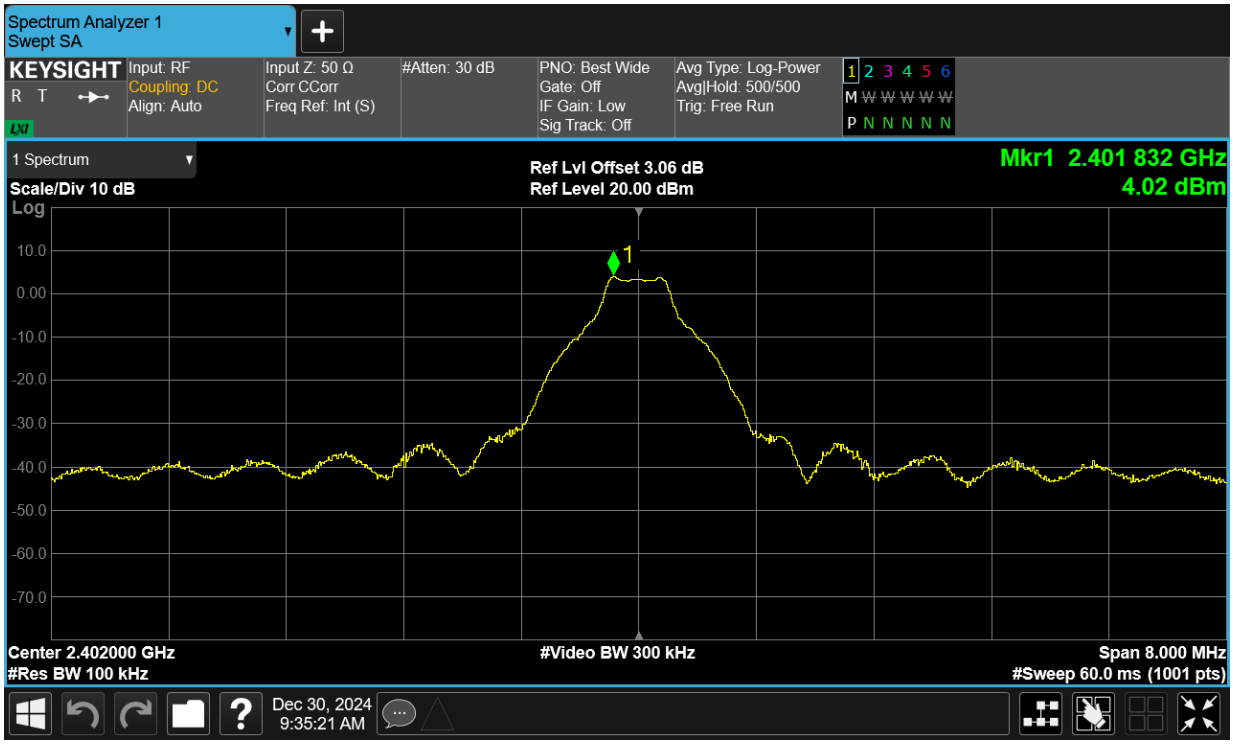

Spectrum Analyzer 1
Swept SA
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto
Input Z: 50 Ω
Corr CCorr
Freq Ref: Int (S)
#Atten: 40 dB
PNO: Best Wide
Gate: Off
IF Gain: Low
Sig Track: Off
Avg Type: Log-Power
Avg|Hold:>100/100
Trig: Free Run
1 Spectrum
Scale/Div 10 dB
Ref Lvl Offset 3.10 dB
Ref Level 26.10 dBm
Mkr1 2.478 830 GHz
2.13 dBm
Center 2.479500 GHz
#Res BW 300 kHz
#Video BW 1.0 MHz
Span 2.000 MHz
Sweep 1.00 ms (1001 pts)
5 Marker Table
Mode Trace Scale X Y Function Function Width Function Value
1 N 1 f 2.478 830 GHz 2.127 dBm
2 N 1 f 2.480 138 GHz 2.119 dBm
Dec 30, 2024
11:48:20 AM

Band Edge

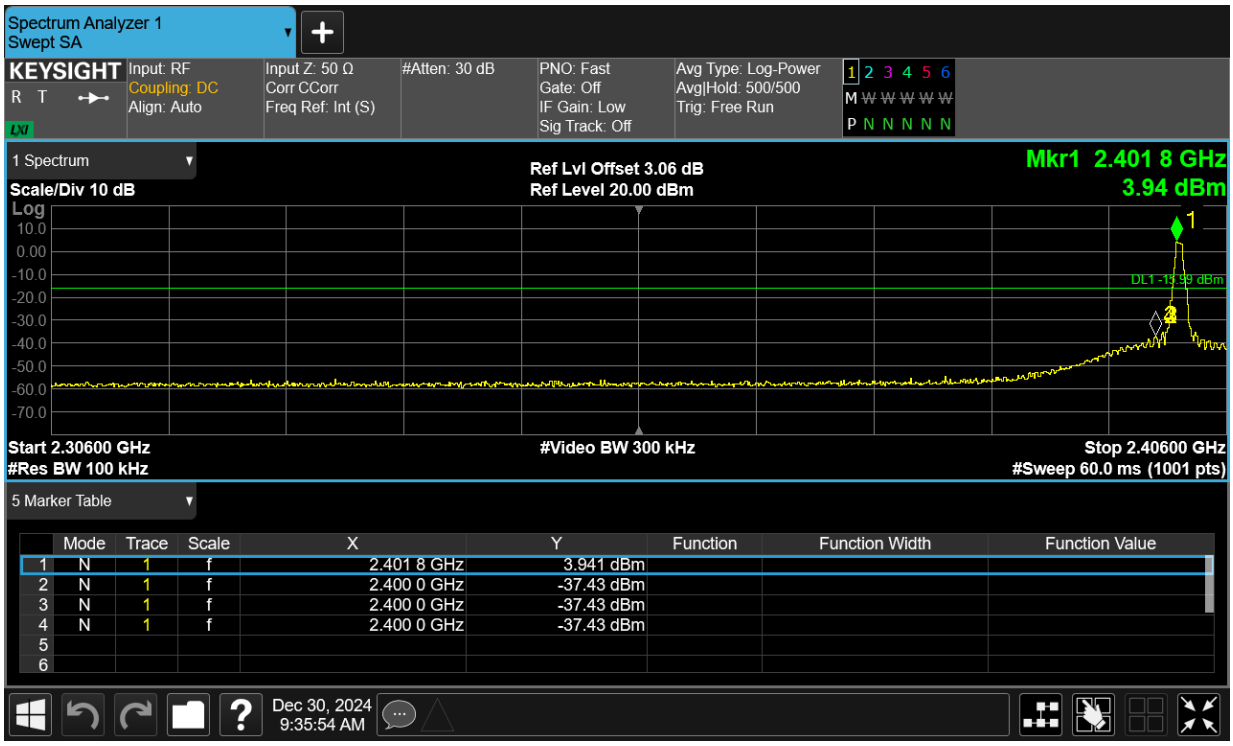
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-41.45	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-43.63	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-40.58	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-43.99	-20	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	-40.41	-20	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	-44.13	-20	Pass

Test Graphs

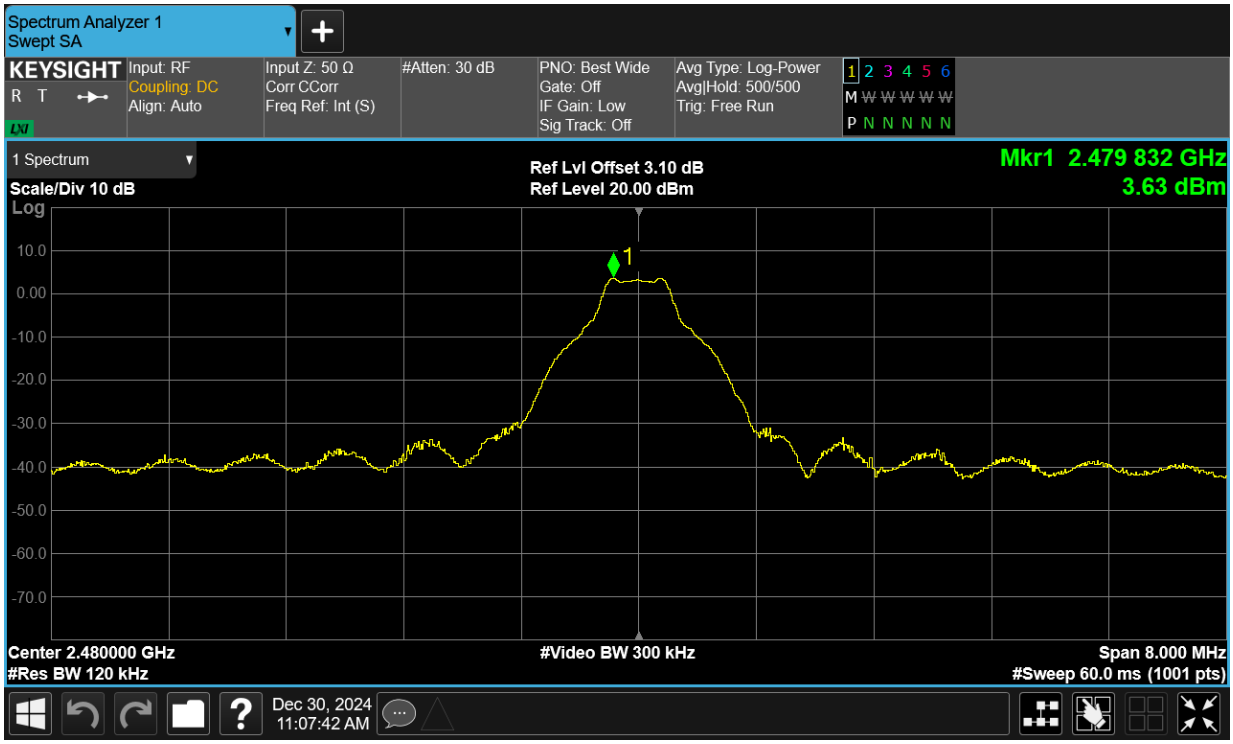
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Ref



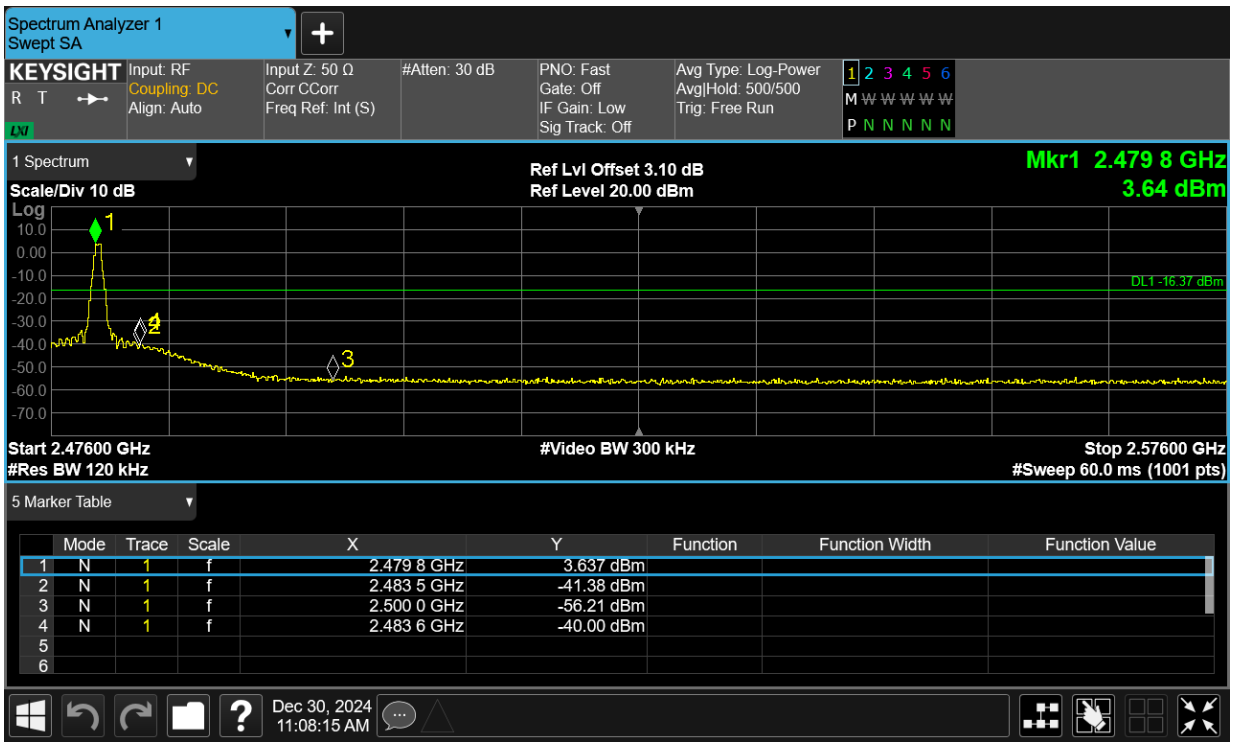
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission



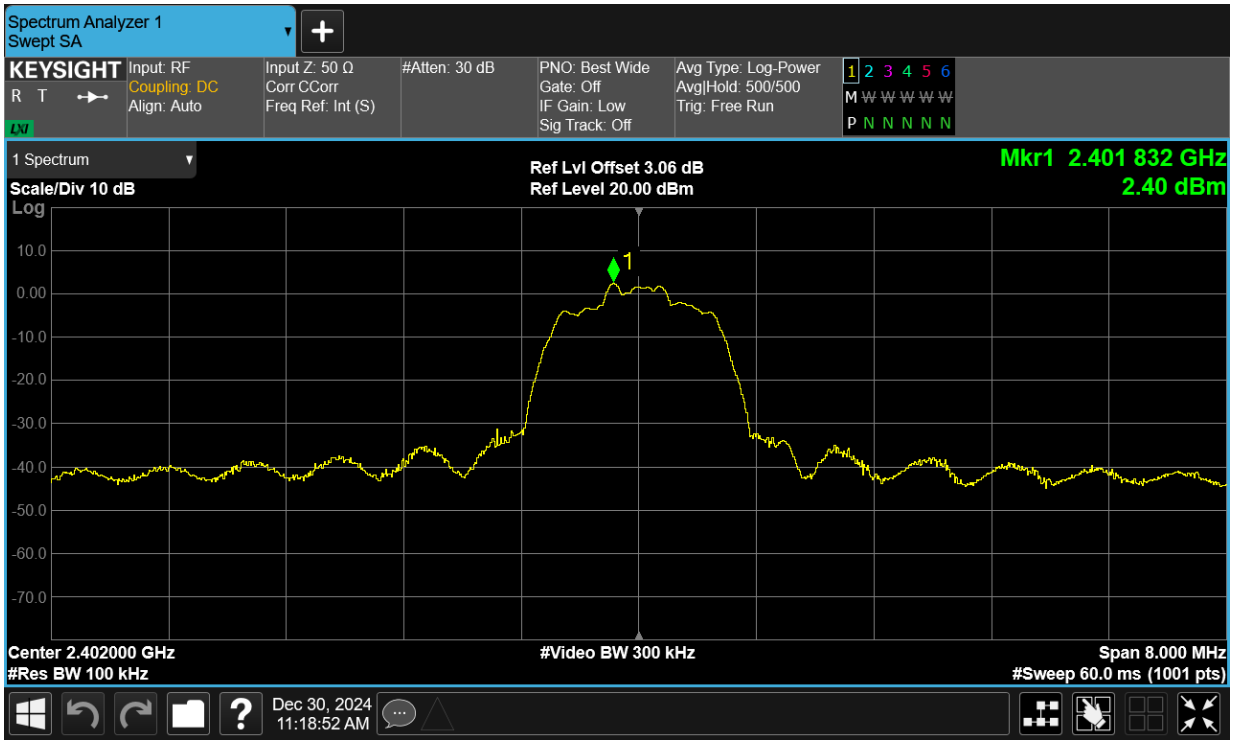
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Ref



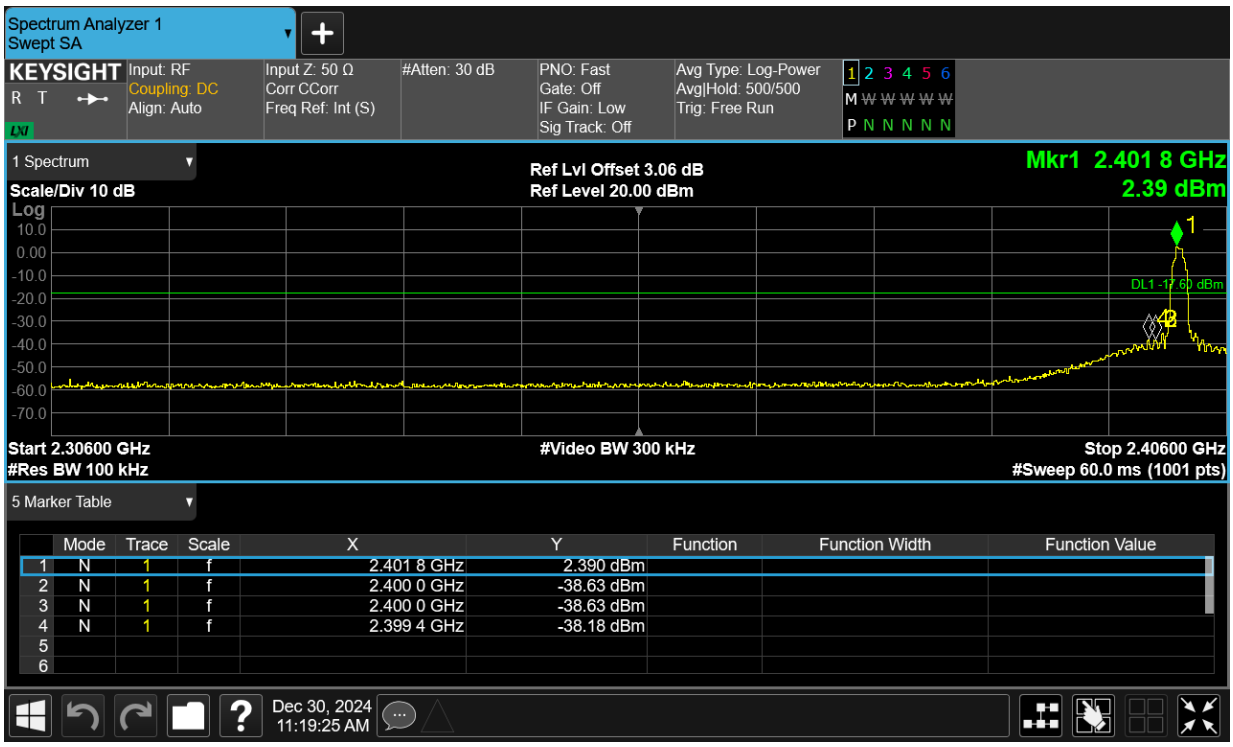
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Emission



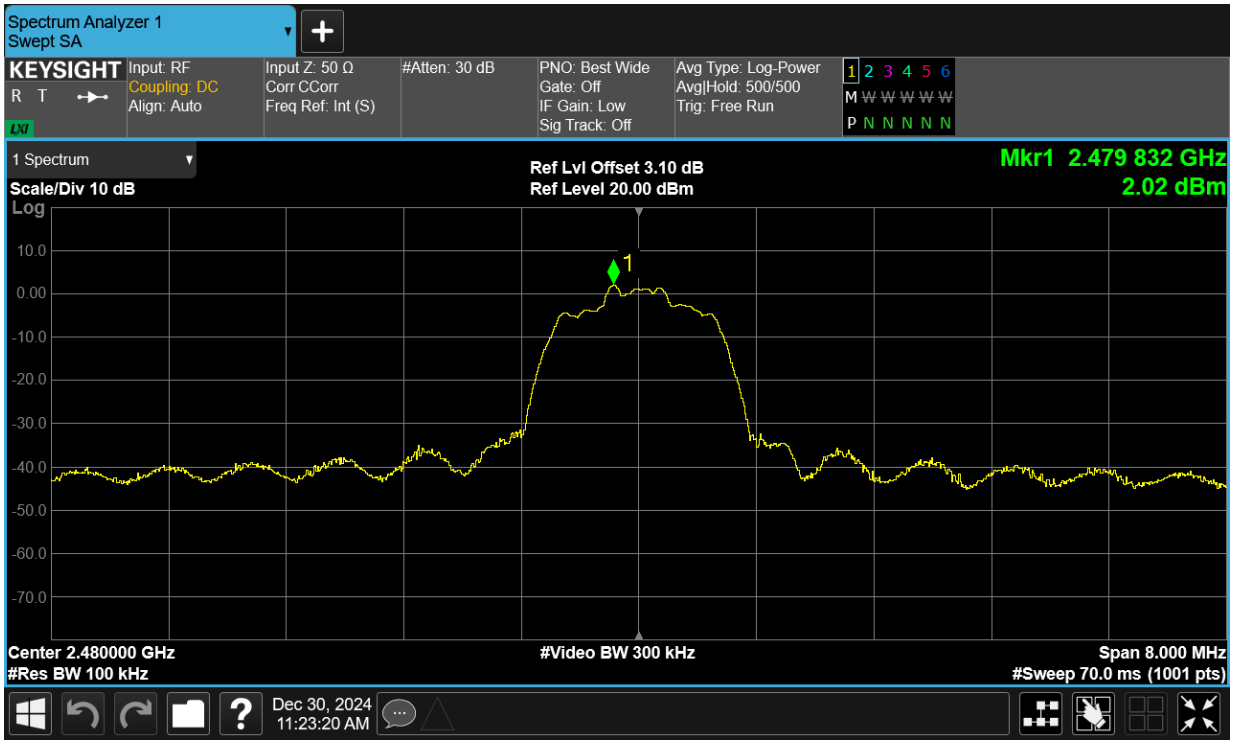
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Ref



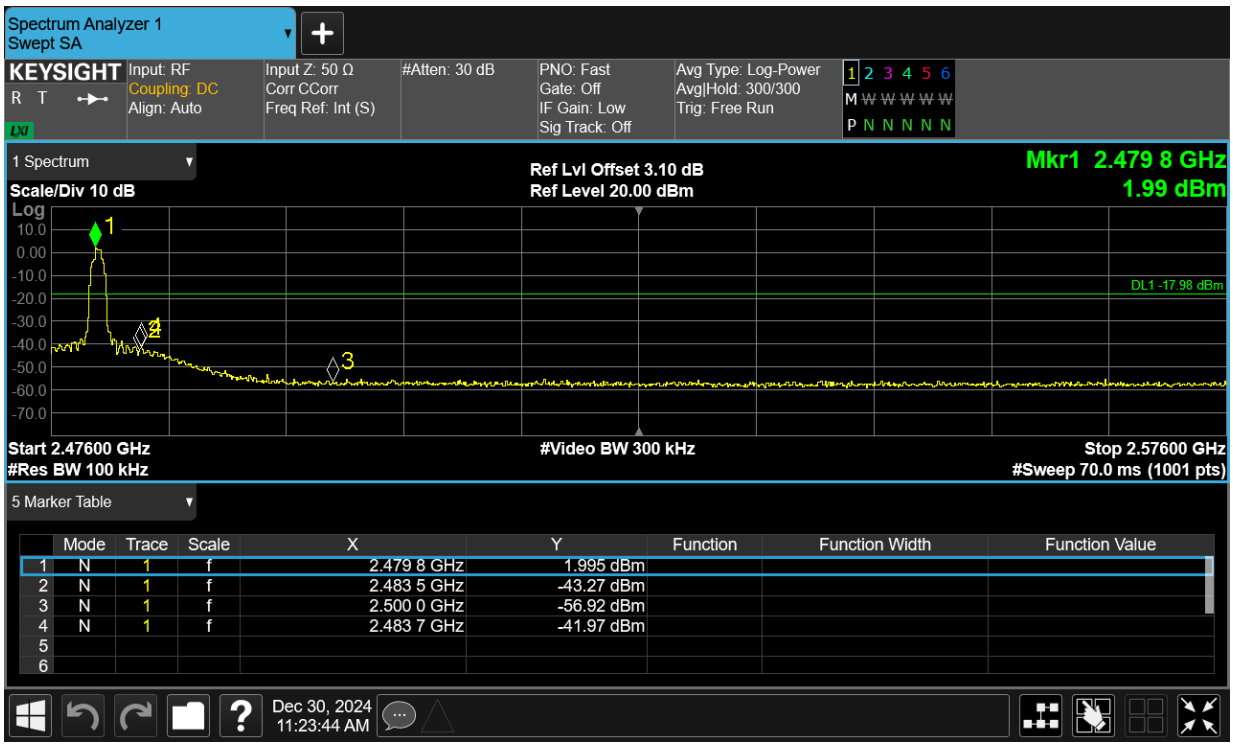
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Emission



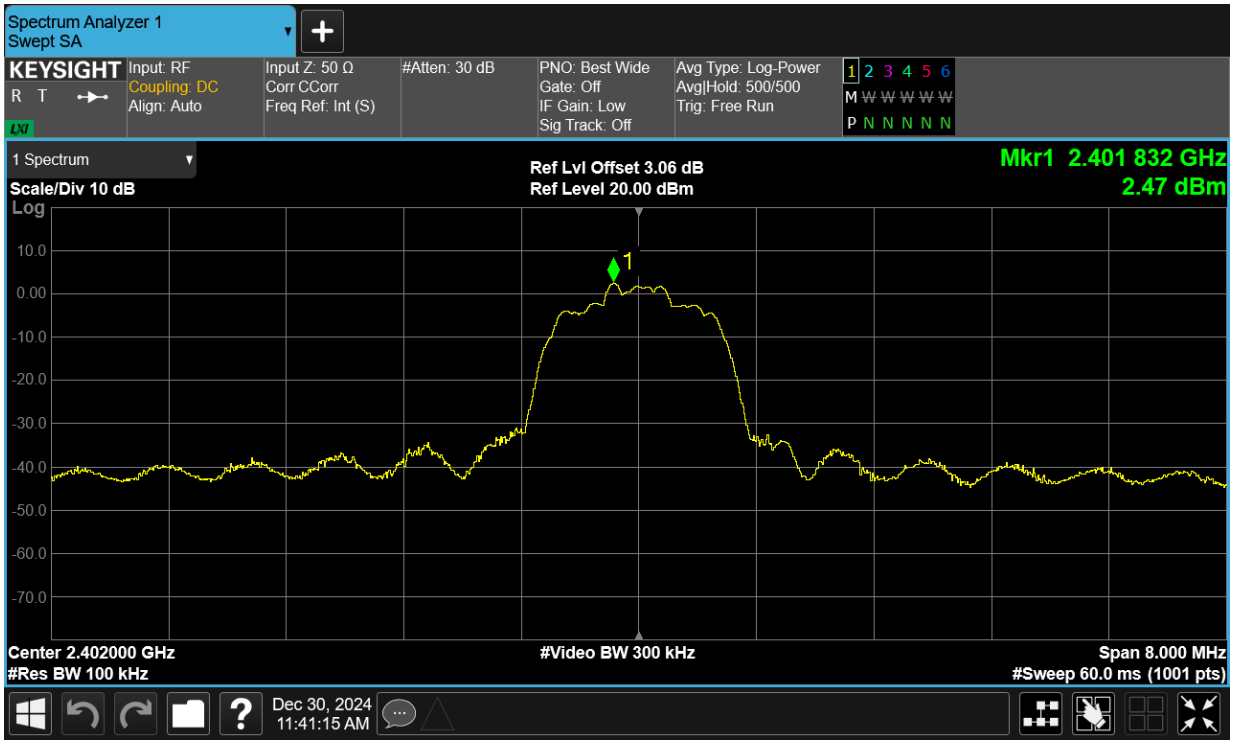
Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Ref



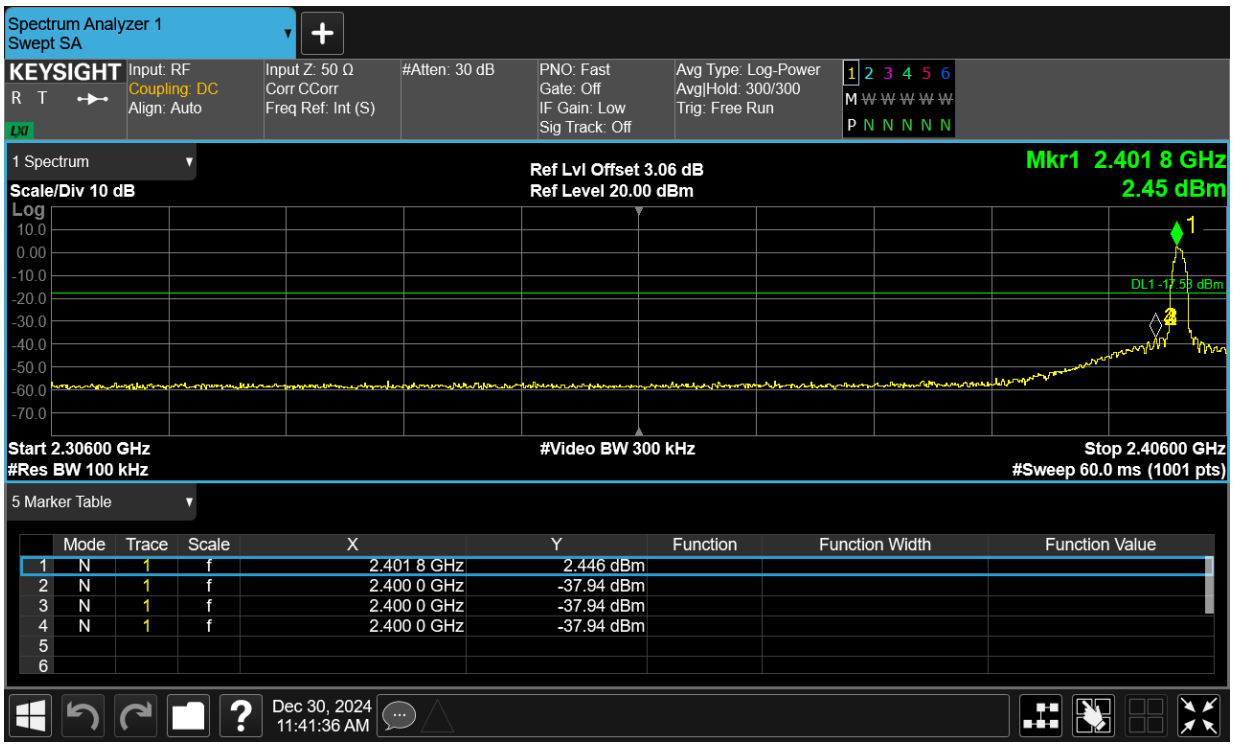
Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Emission



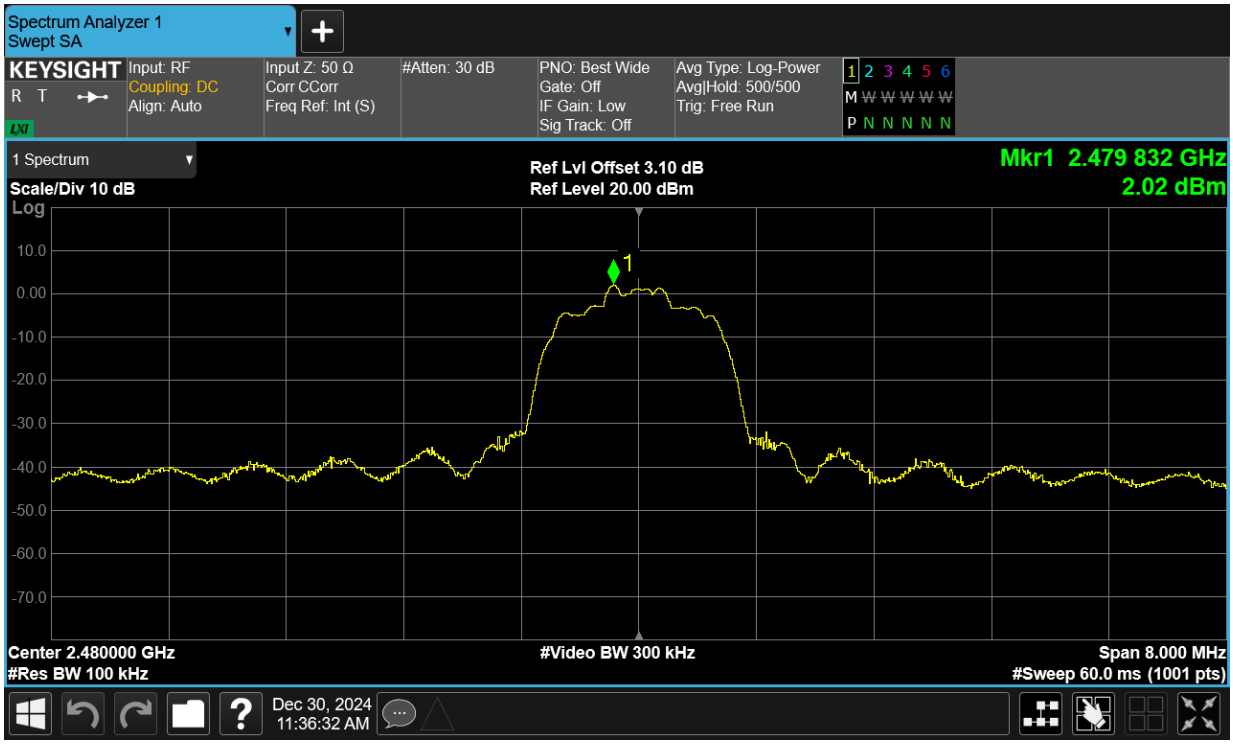
Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Ref



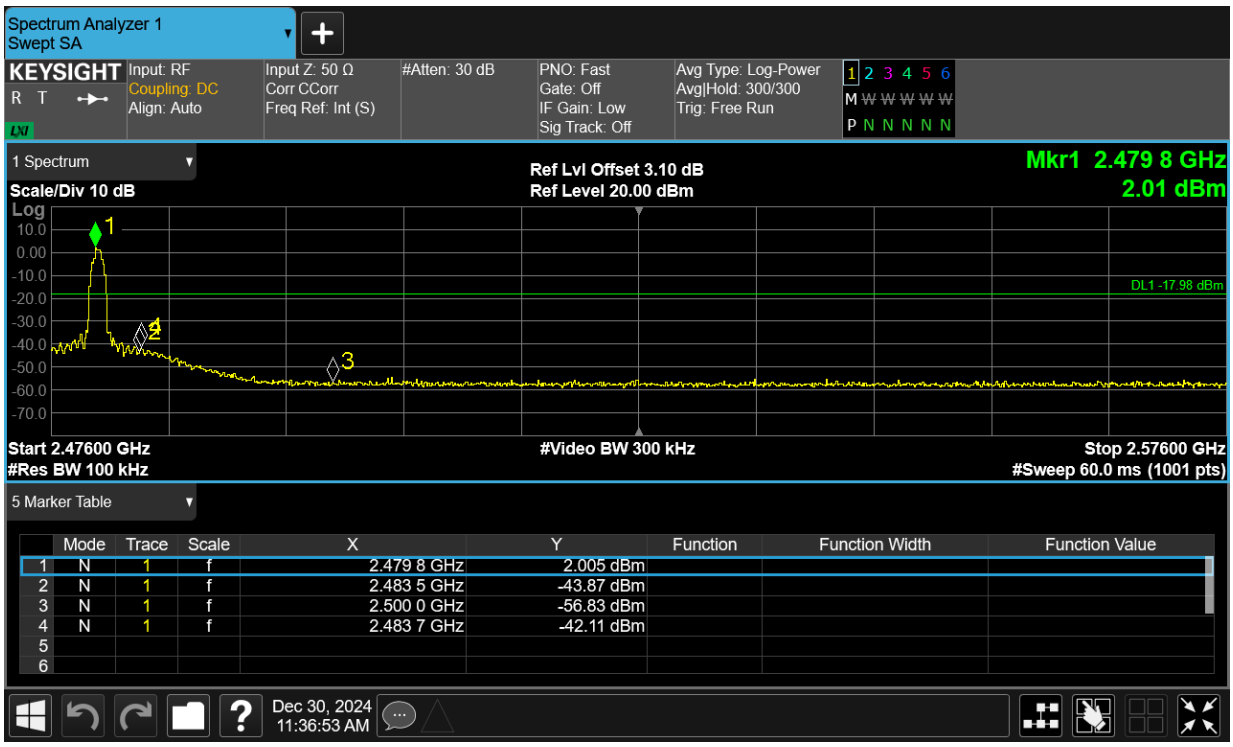
Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Emission



Band Edge NVNT 3-DH1 2480MHz Ant1 No-Hopping Ref



Band Edge NVNT 3-DH1 2480MHz Ant1 No-Hopping Emission

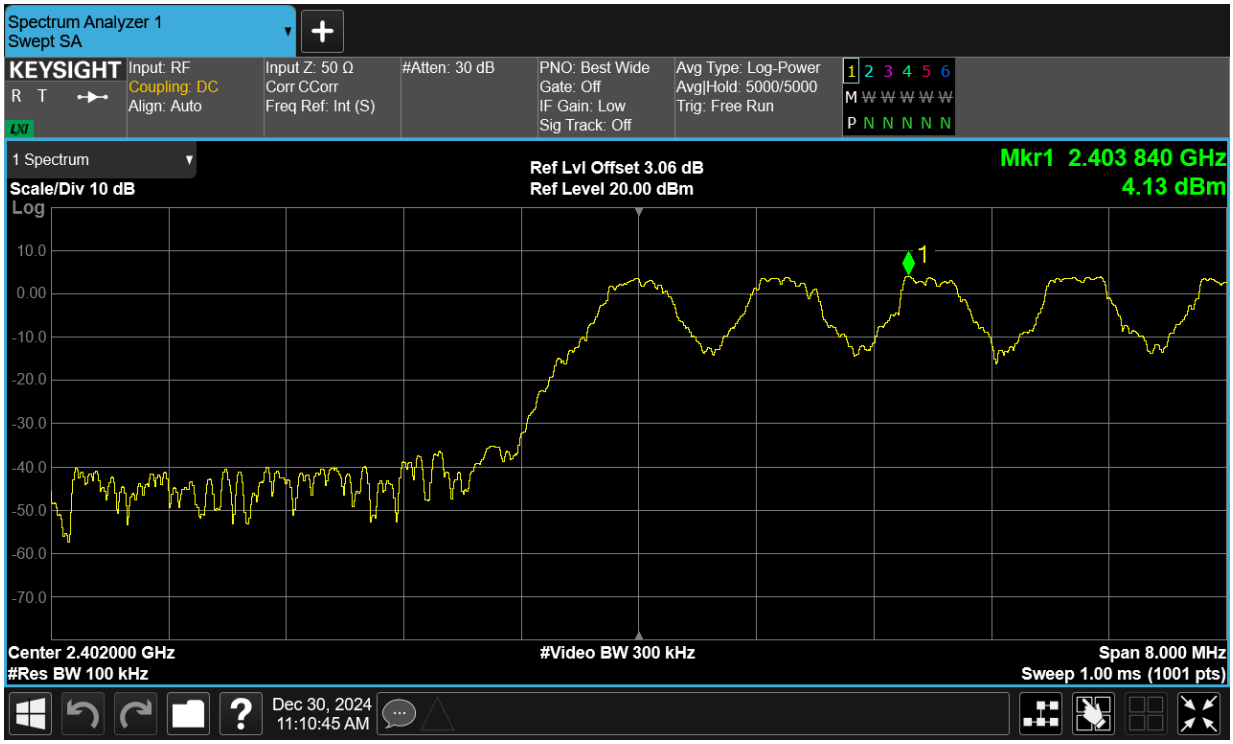


Band Edge(Hopping)

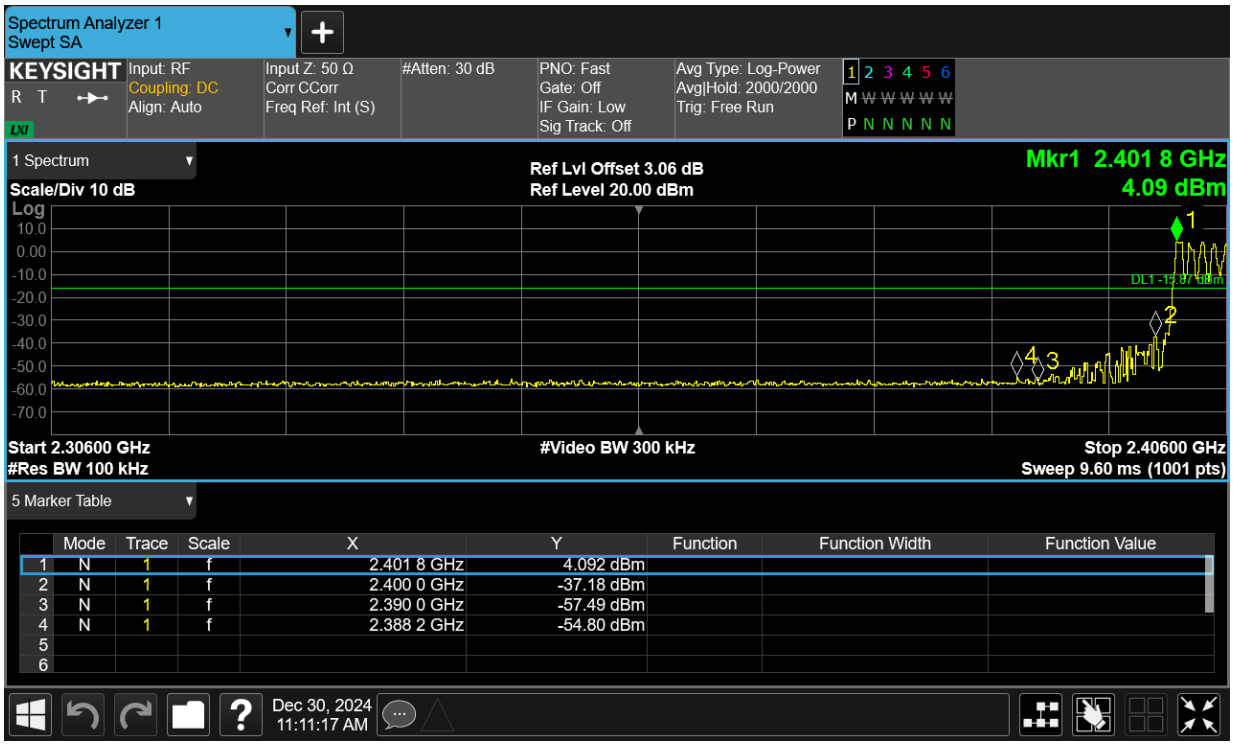
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-58.93	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-47.49	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-57.68	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-44.56	-20	Pass
NVNT	3-DH1	2402	Ant1	Hopping	-57.27	-20	Pass
NVNT	3-DH1	2480	Ant1	Hopping	-44.01	-20	Pass

Test Graphs

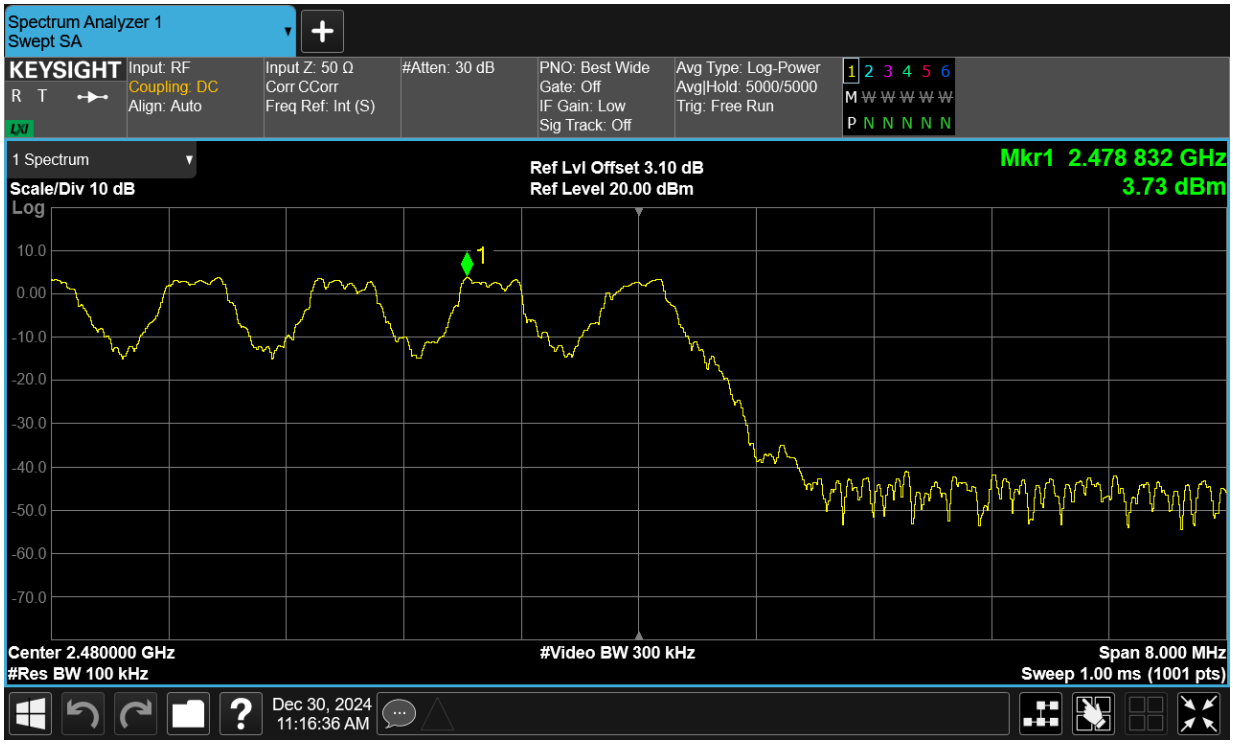
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Ref



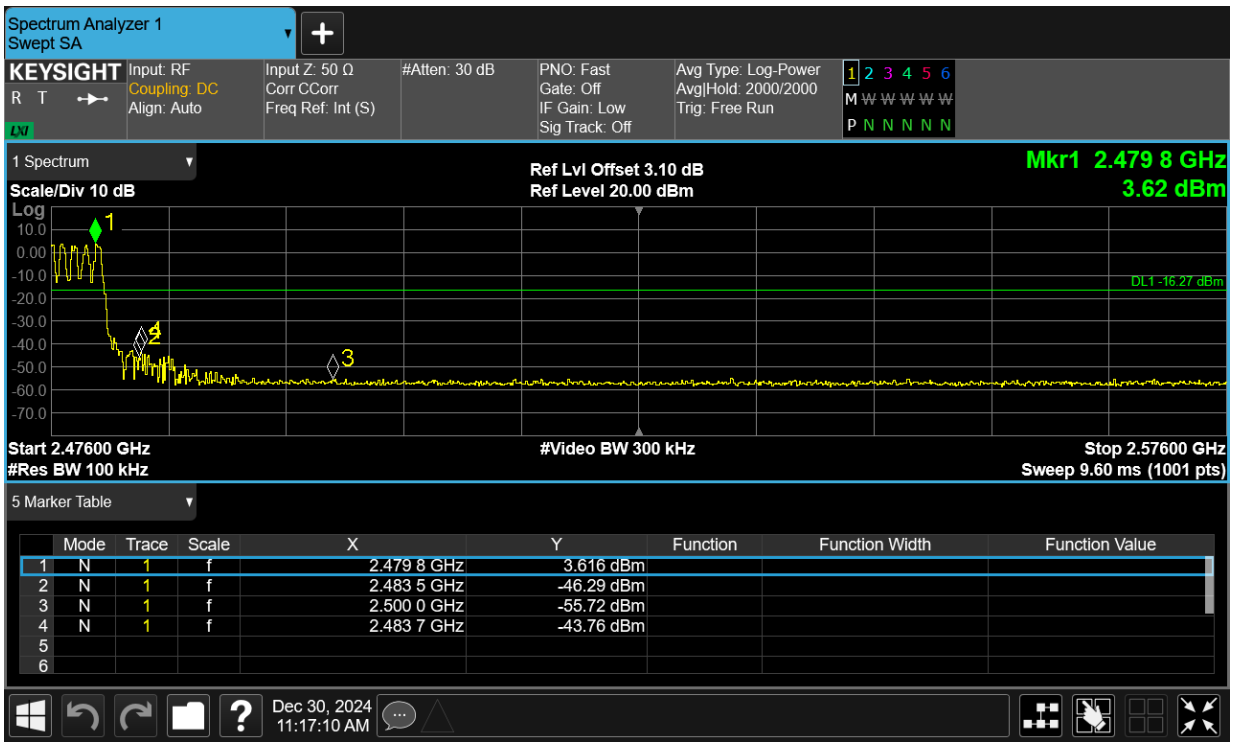
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Emission



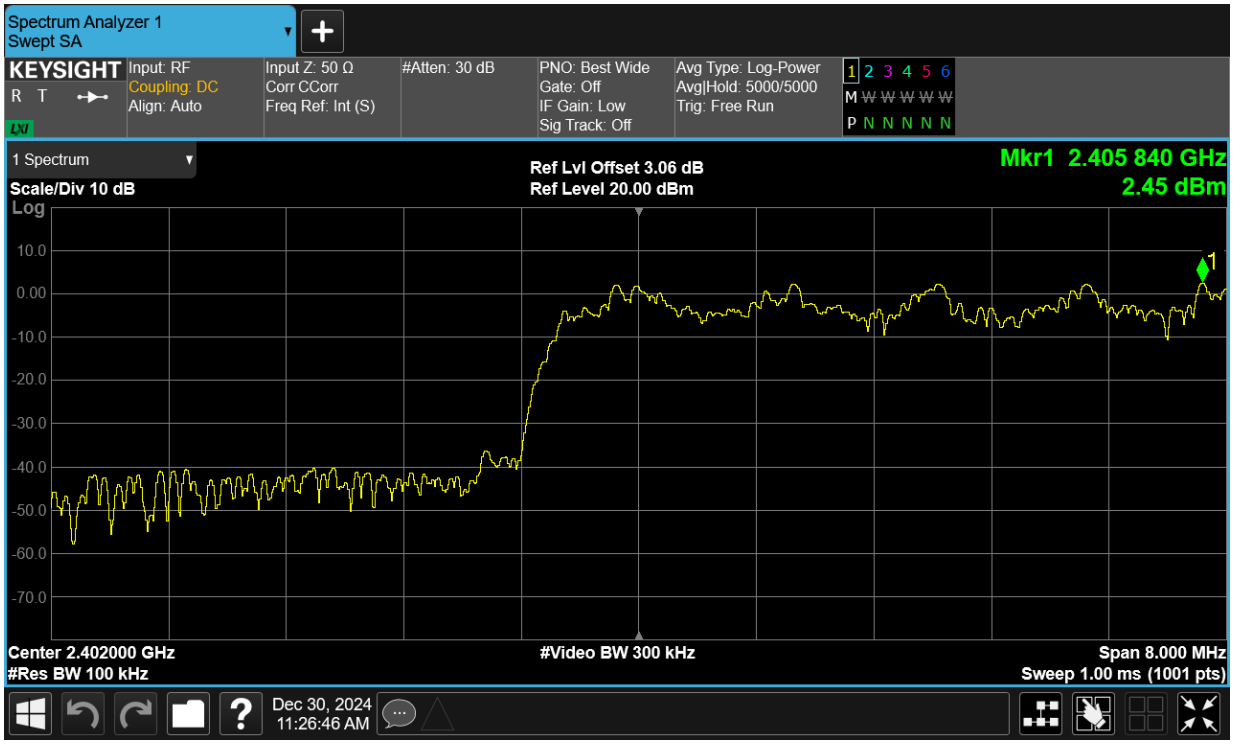
Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Ref



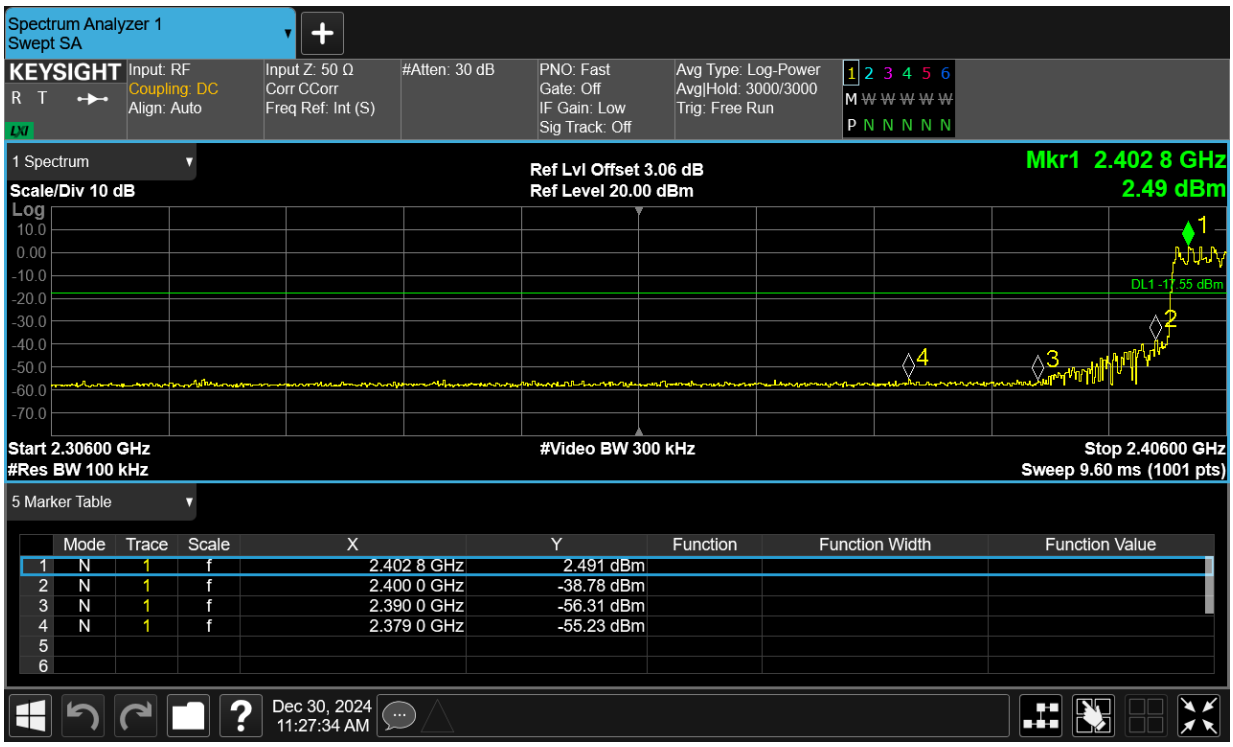
Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Emission



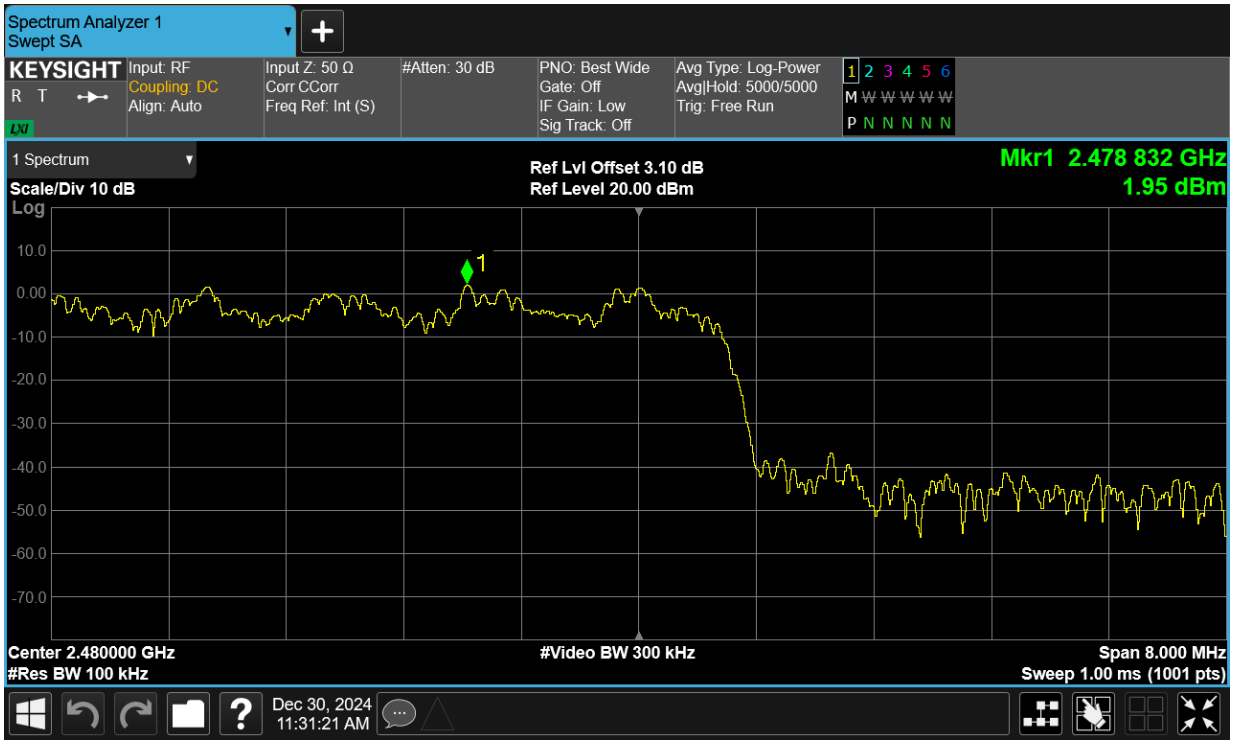
Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Ref



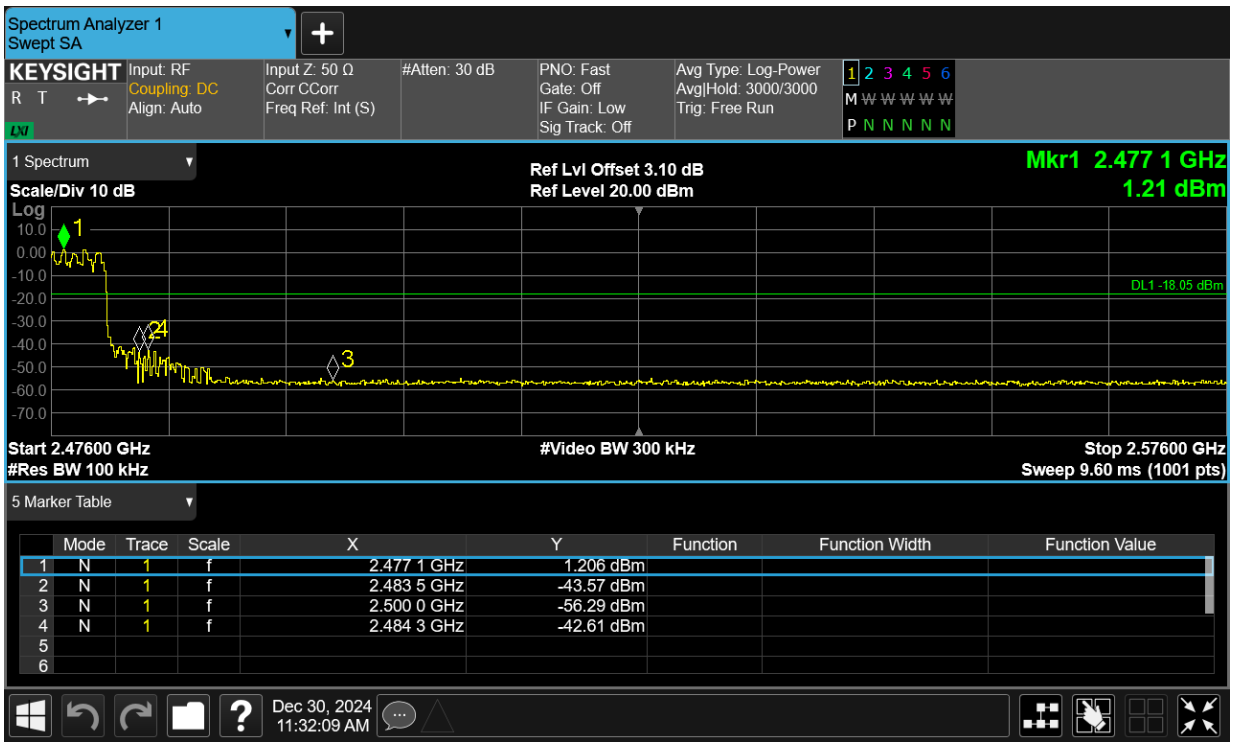
Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Emission



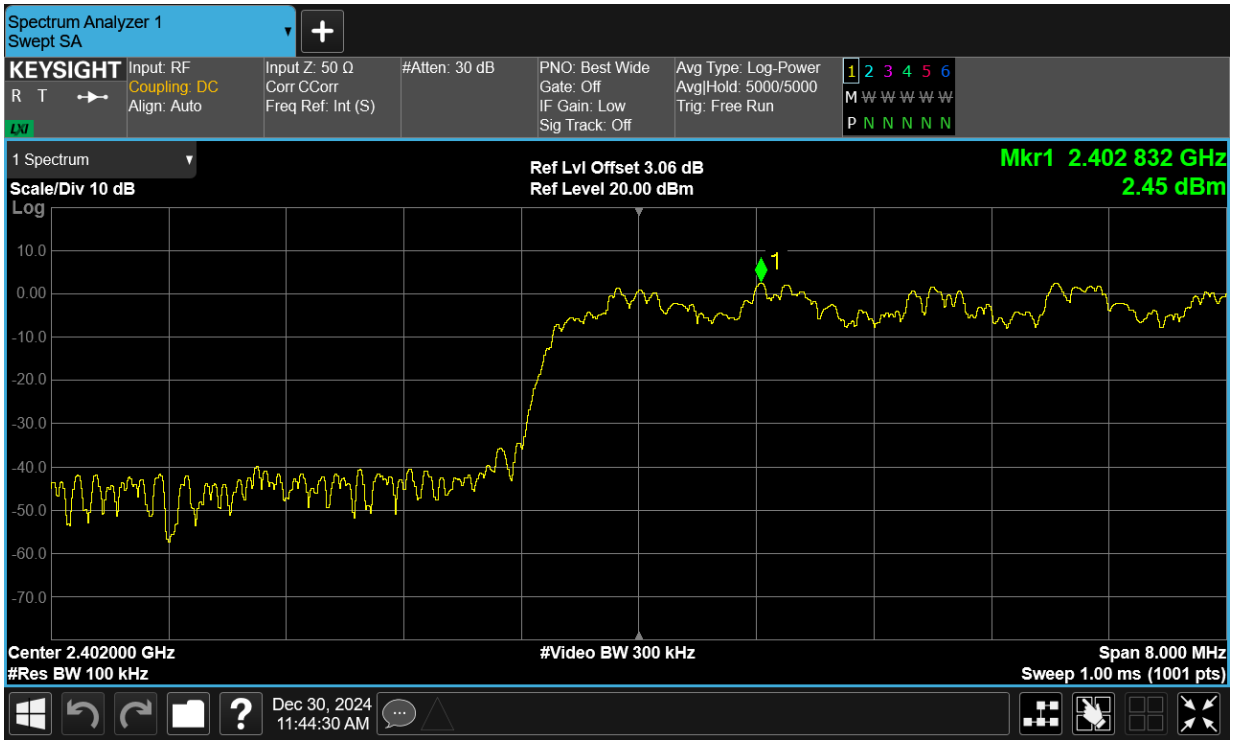
Band Edge(Hopping) NVNT 2-DH1 2480MHz Ant1 Hopping Ref



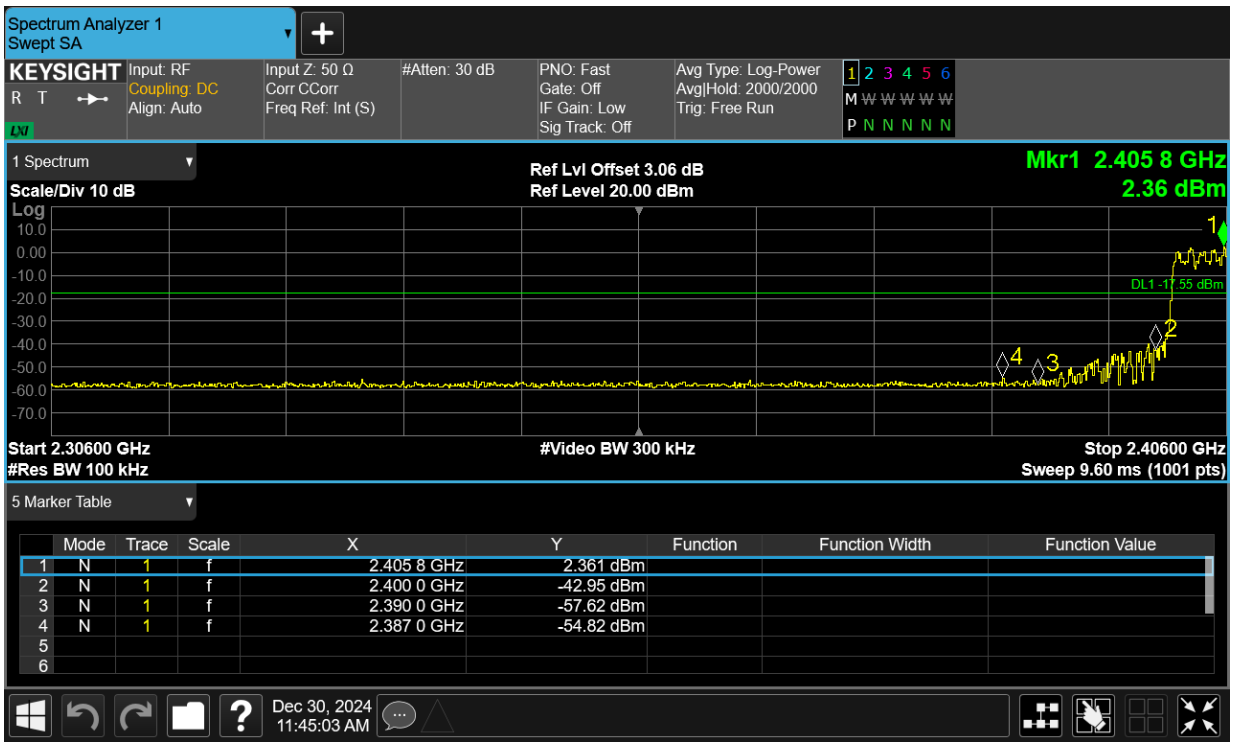
Band Edge(Hopping) NVNT 2-DH1 2480MHz Ant1 Hopping Emission



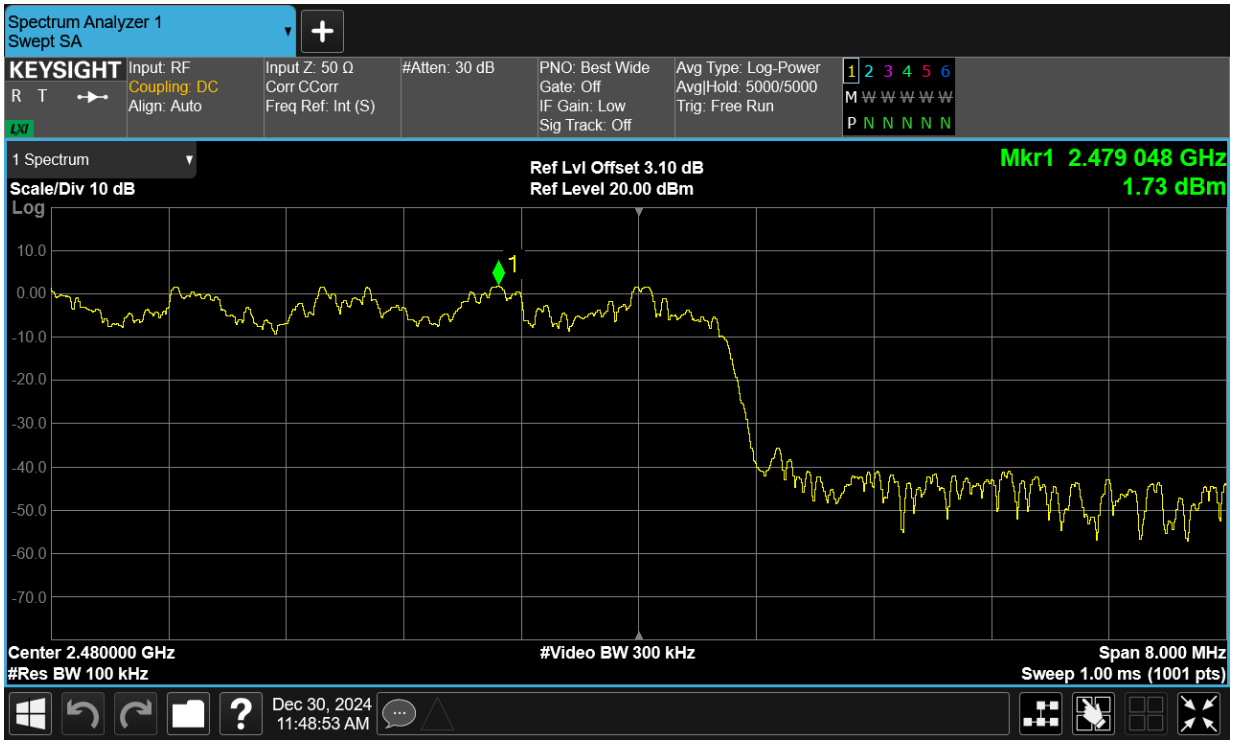
Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Ref



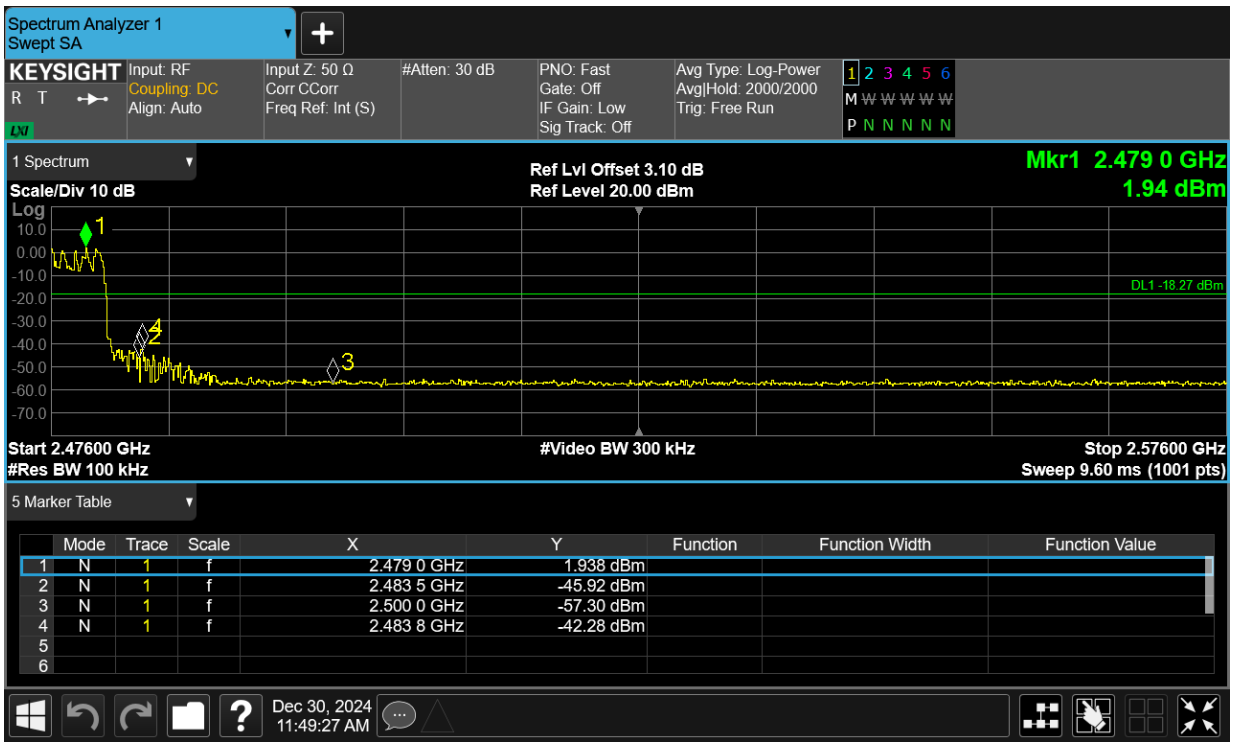
Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Emission



Band Edge(Hopping) NVNT 3-DH1 2480MHz Ant1 Hopping Ref



Band Edge(Hopping) NVNT 3-DH1 2480MHz Ant1 Hopping Emission

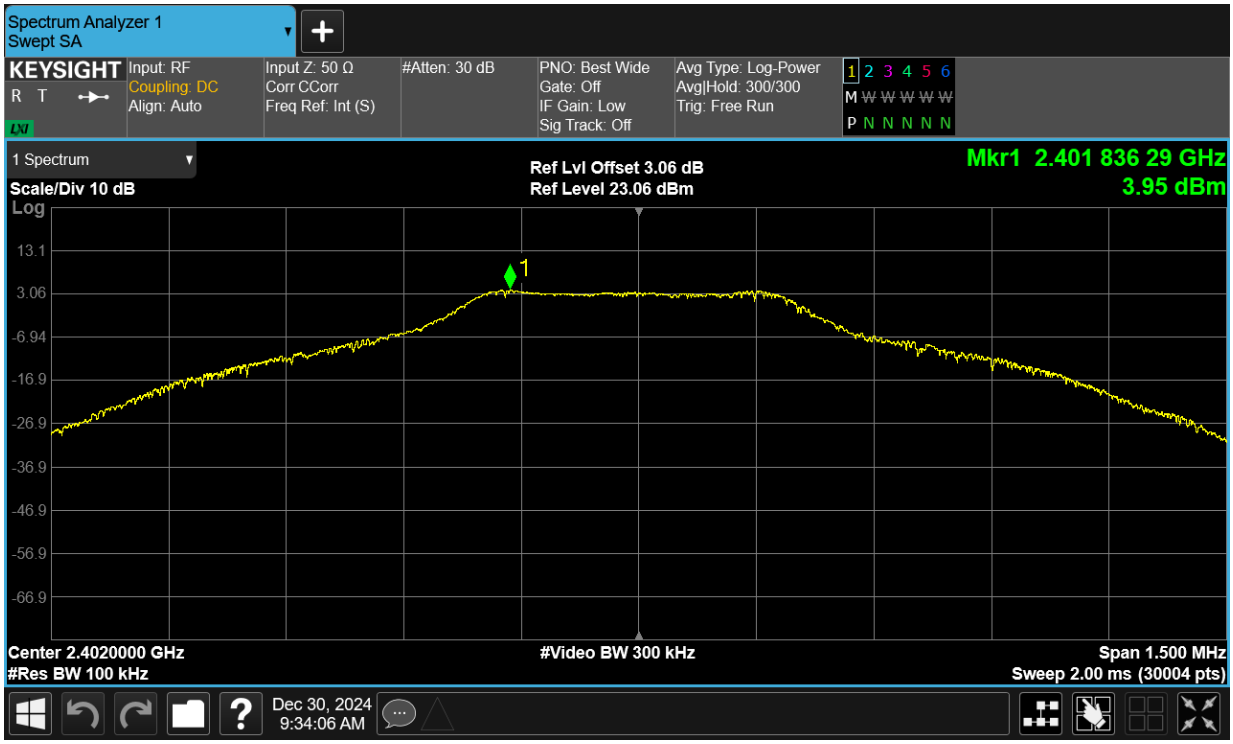


Conducted RF Spurious Emission

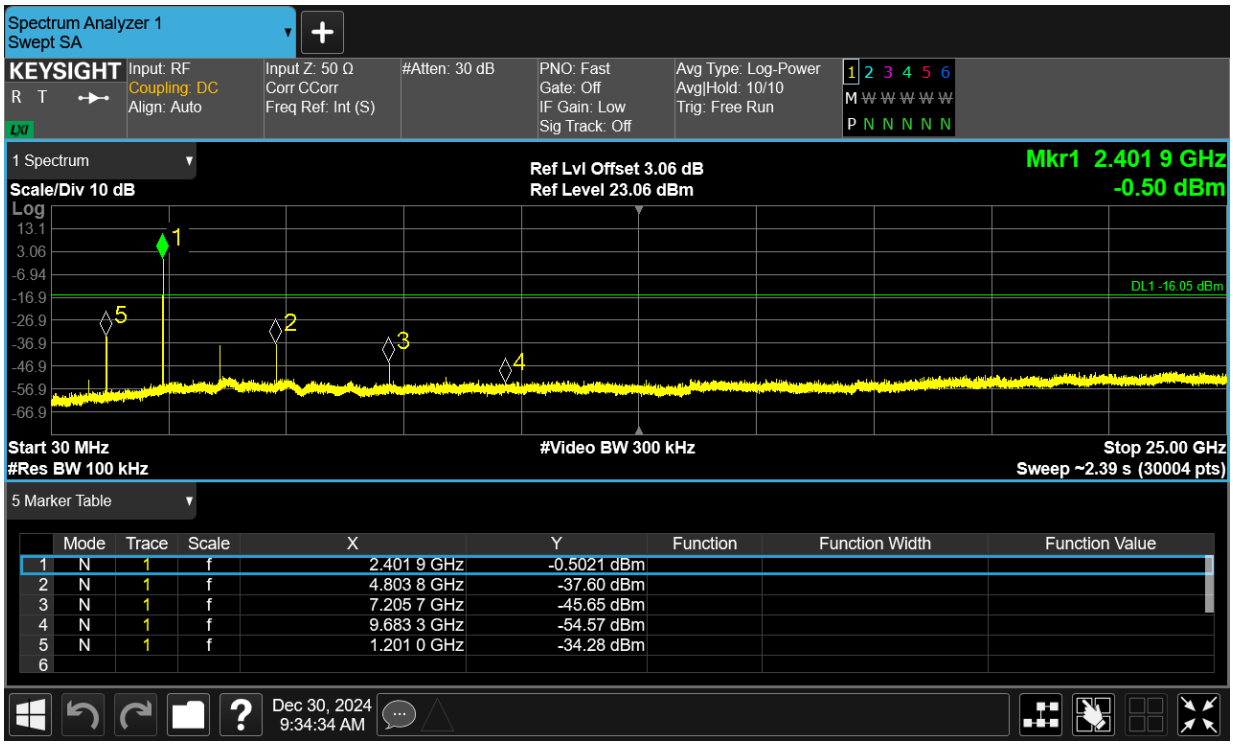
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	-38.23	-20	Pass
NVNT	1-DH1	2441	Ant1	-39.94	-20	Pass
NVNT	1-DH1	2480	Ant1	-36.25	-20	Pass
NVNT	2-DH1	2402	Ant1	-42.44	-20	Pass
NVNT	2-DH1	2441	Ant1	-40.71	-20	Pass
NVNT	2-DH1	2480	Ant1	-38.83	-20	Pass
NVNT	3-DH1	2402	Ant1	-39.49	-20	Pass
NVNT	3-DH1	2441	Ant1	-39.38	-20	Pass
NVNT	3-DH1	2480	Ant1	-40.24	-20	Pass

Test Graphs

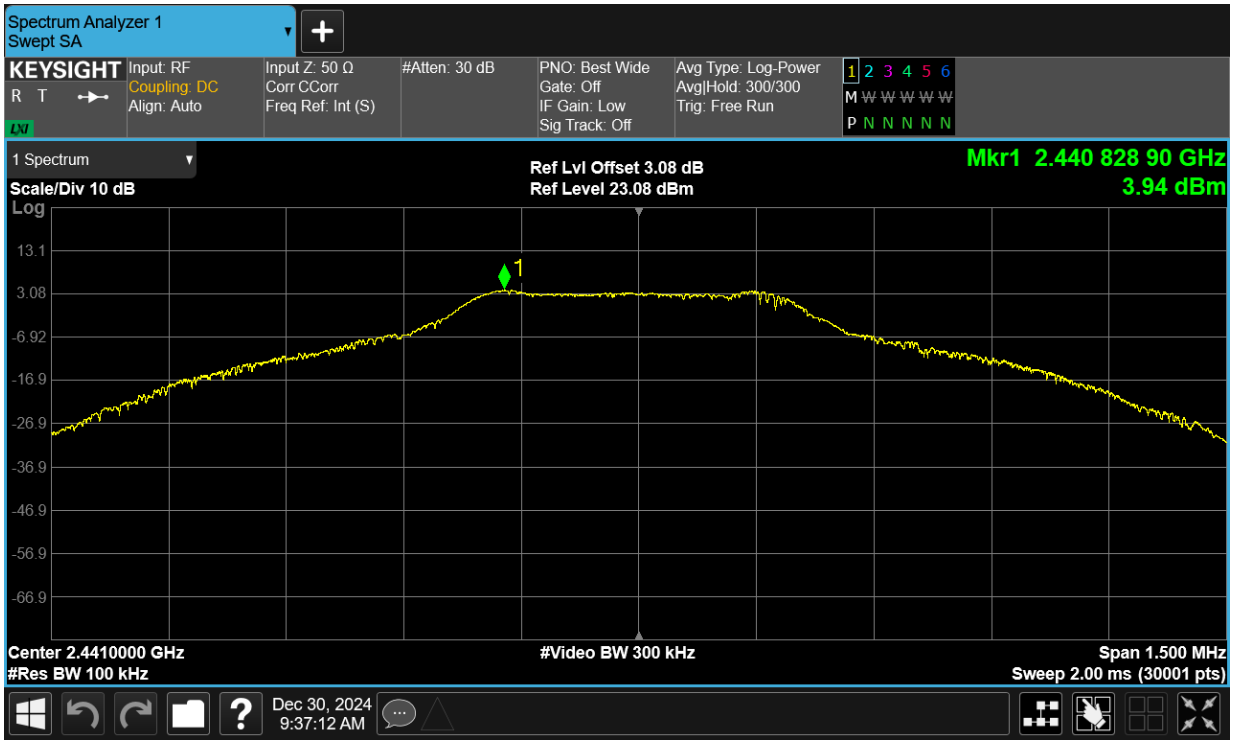
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Ref



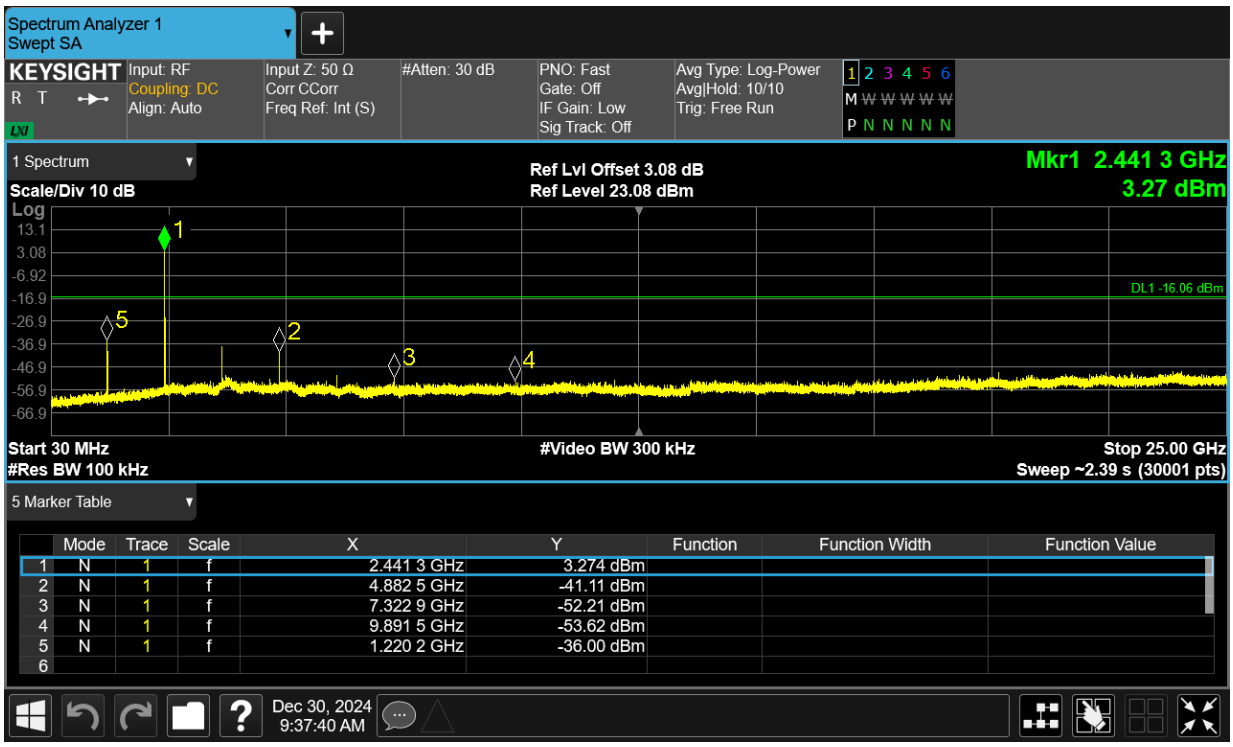
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Emission



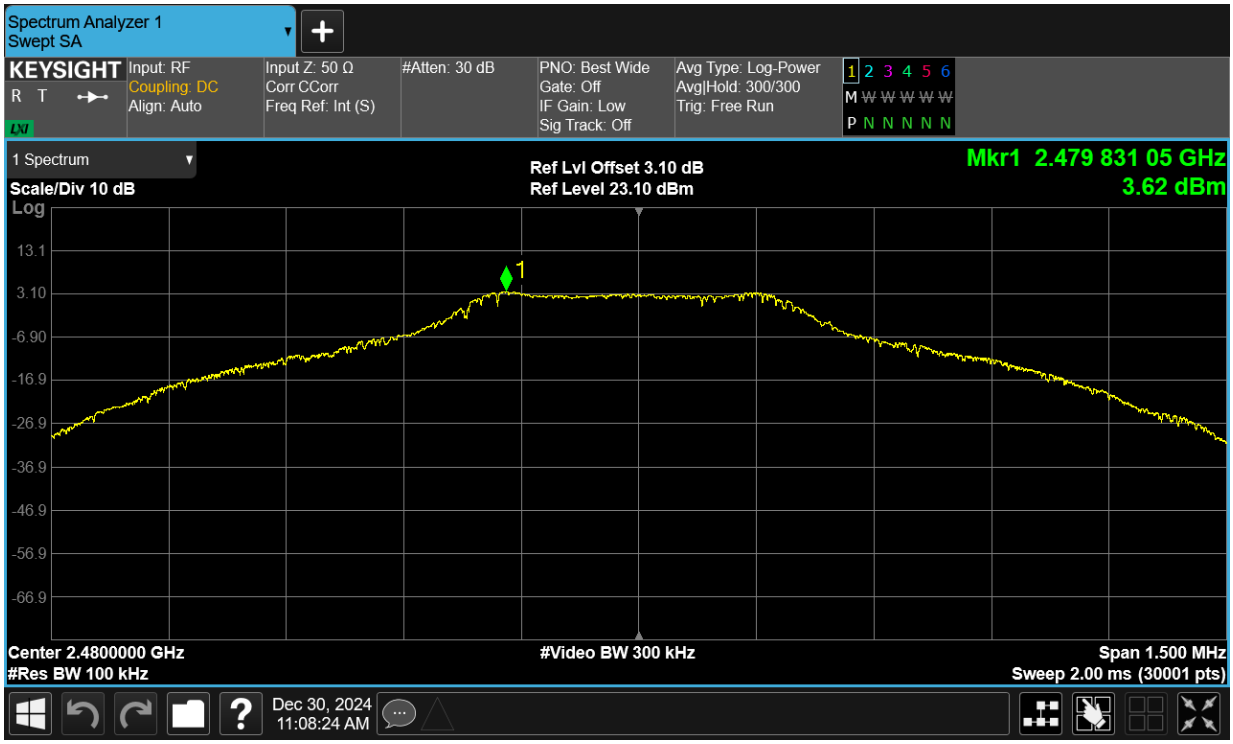
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Ref



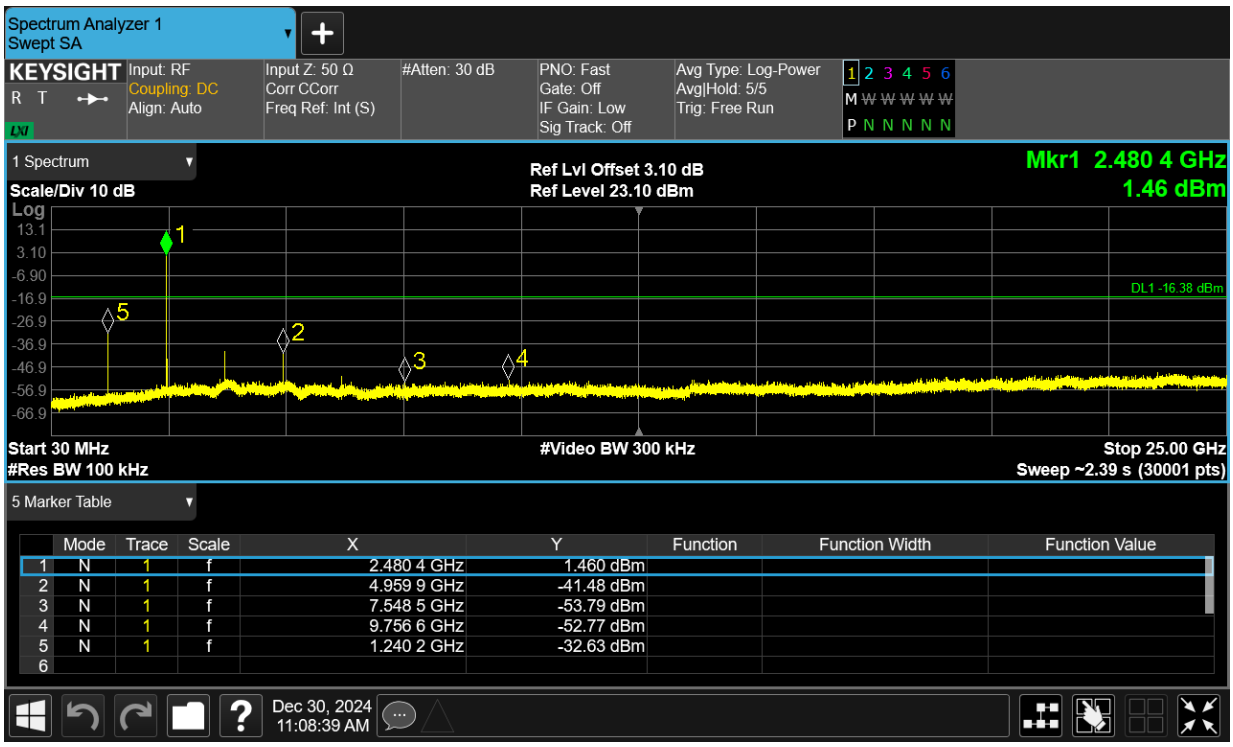
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Emission



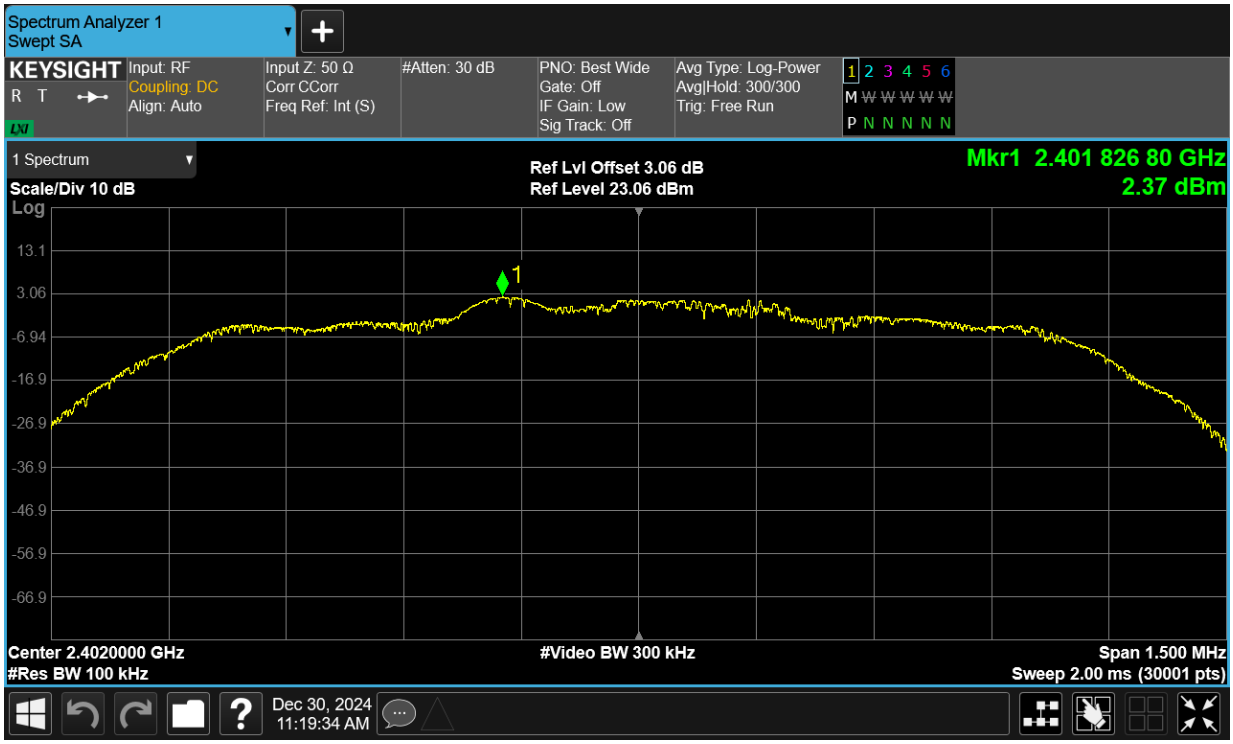
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Ref



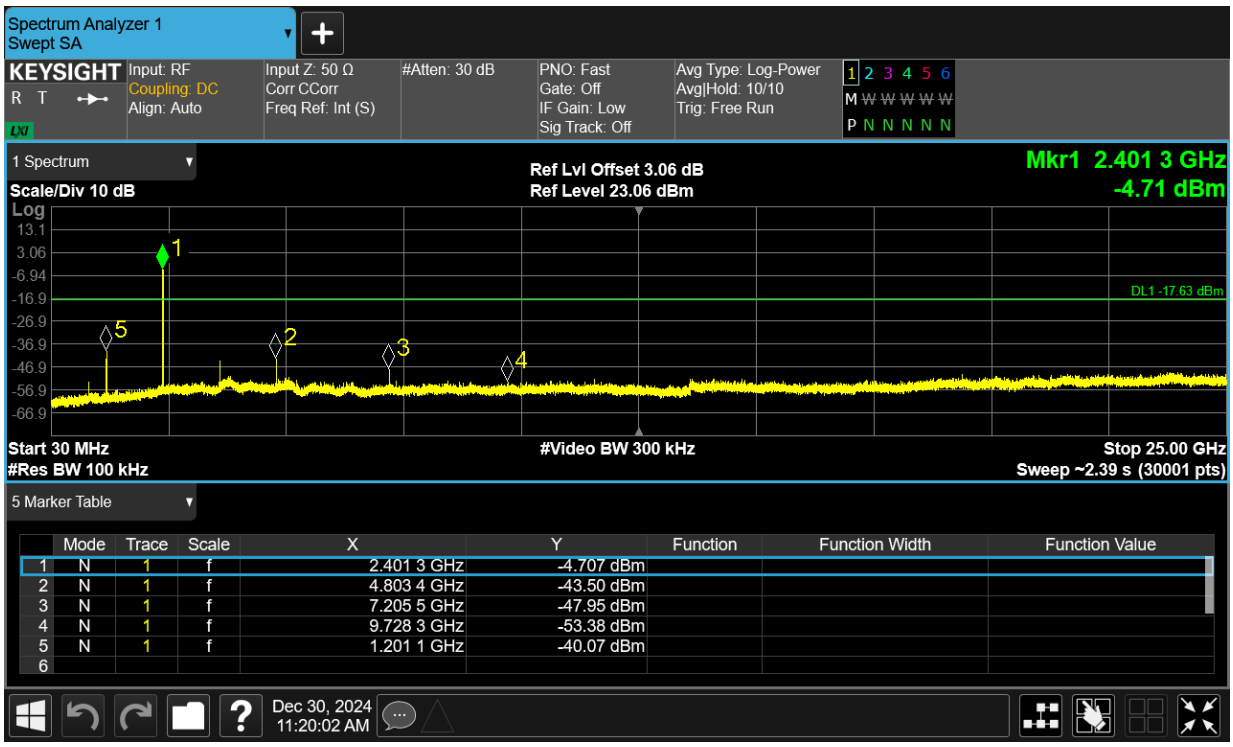
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Emission



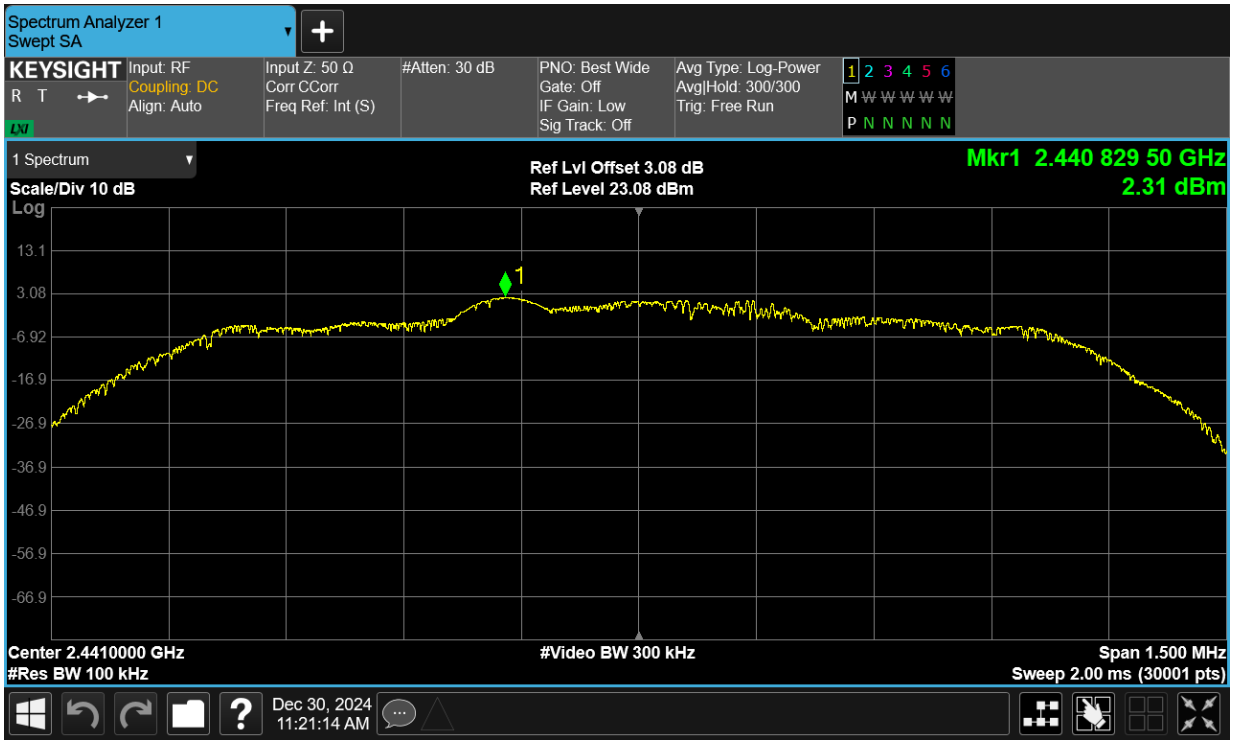
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Ref



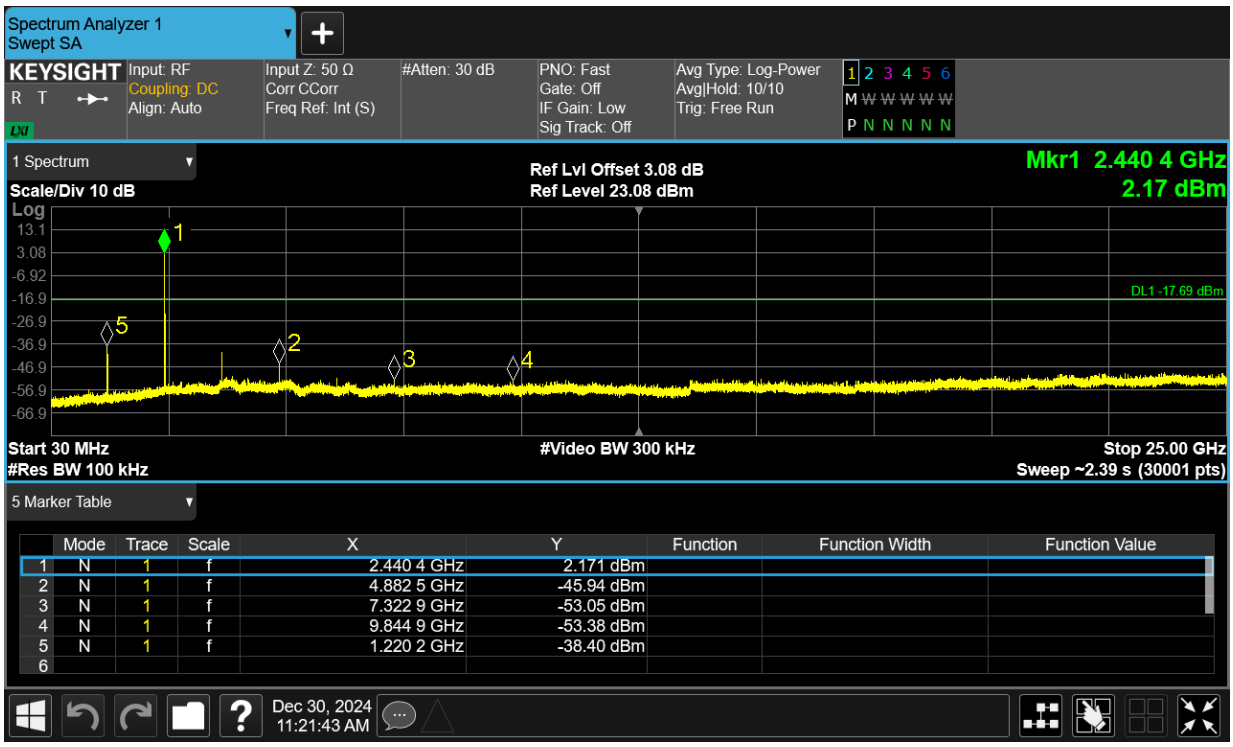
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Emission



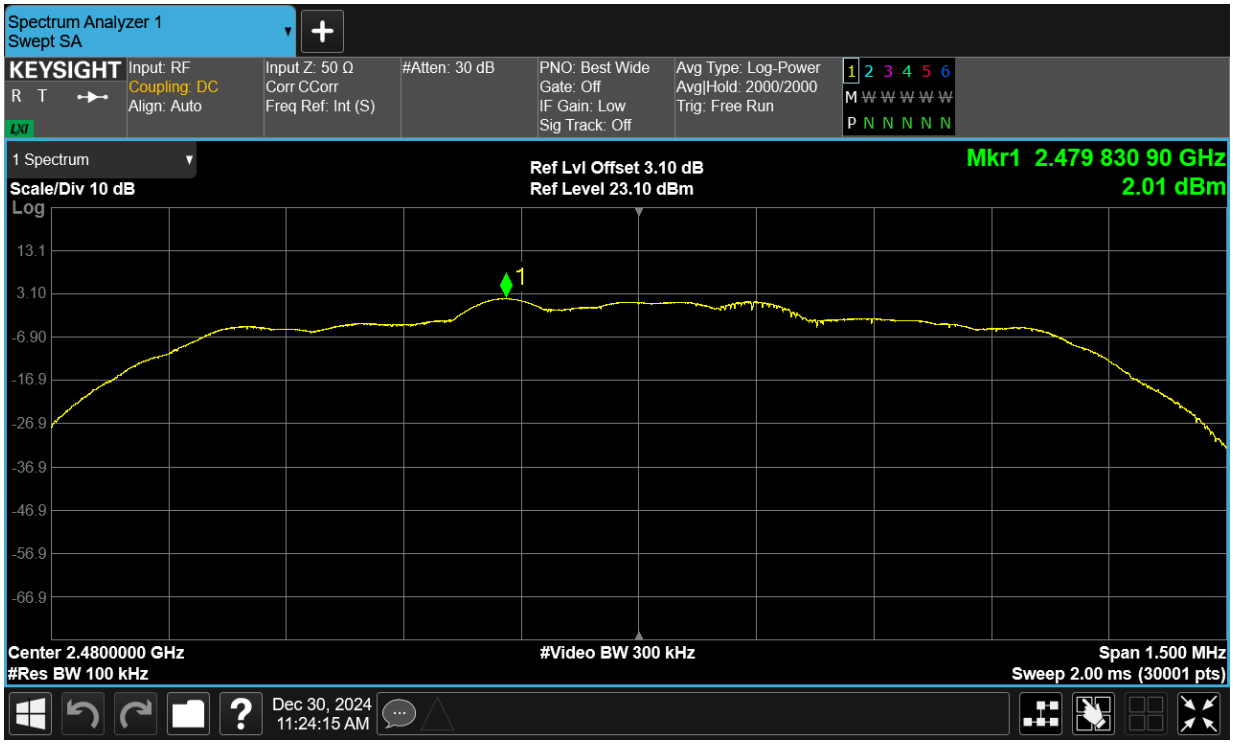
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Ref



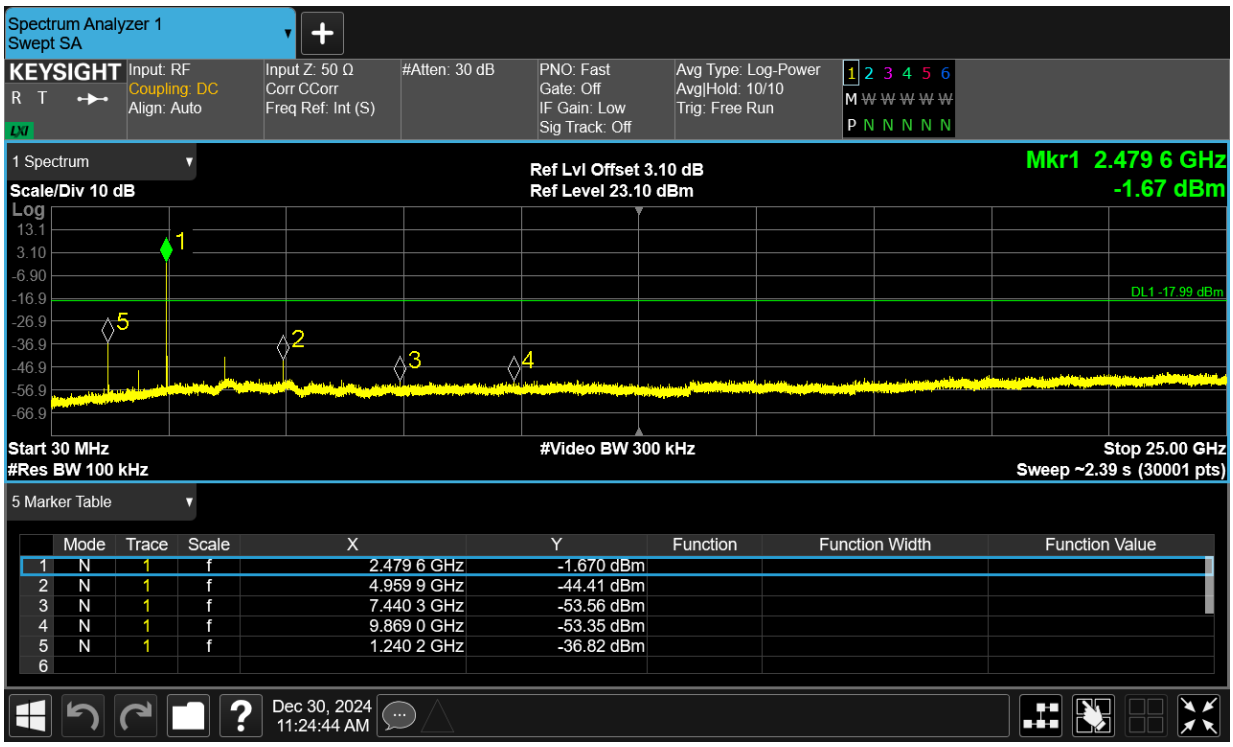
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Emission



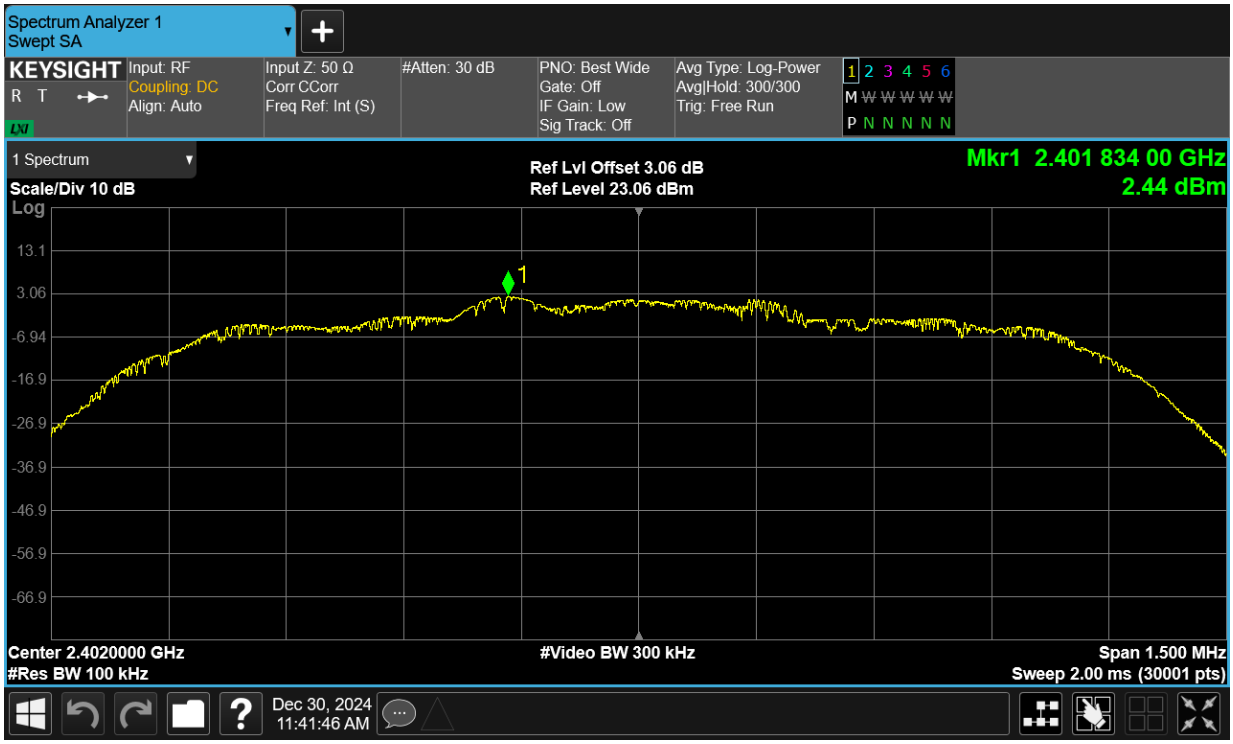
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Ref



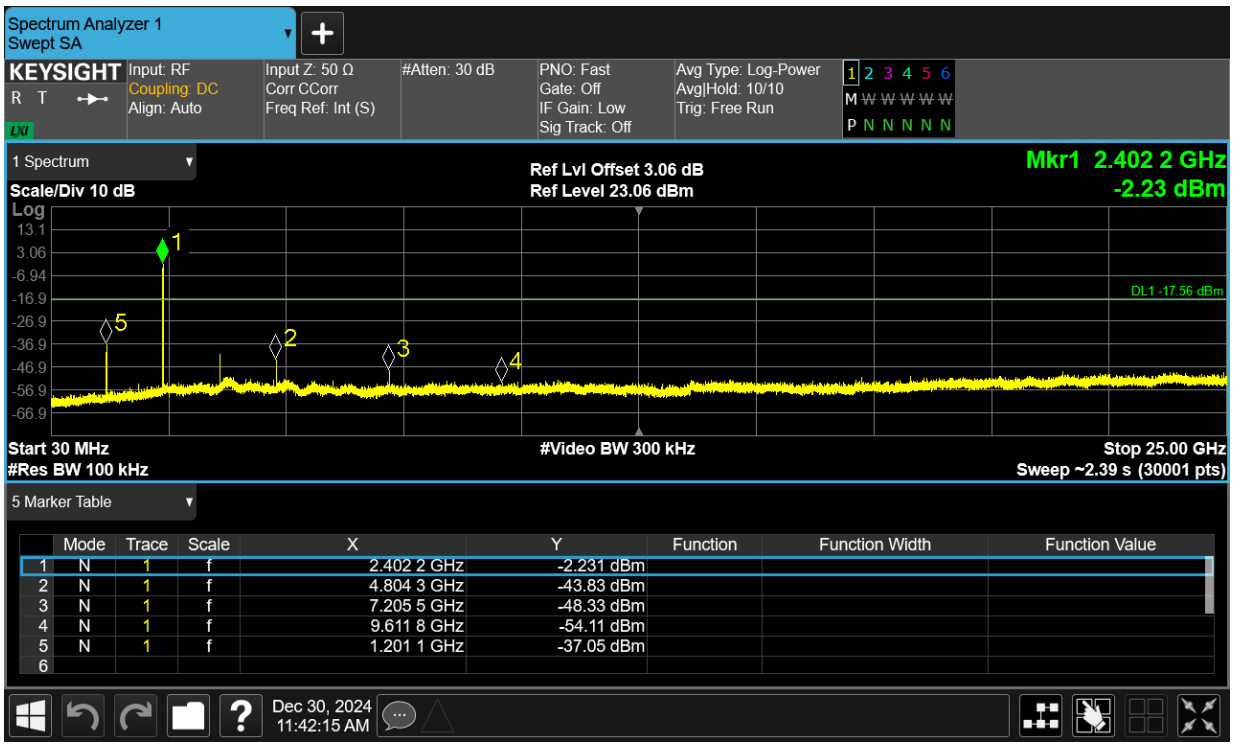
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Emission



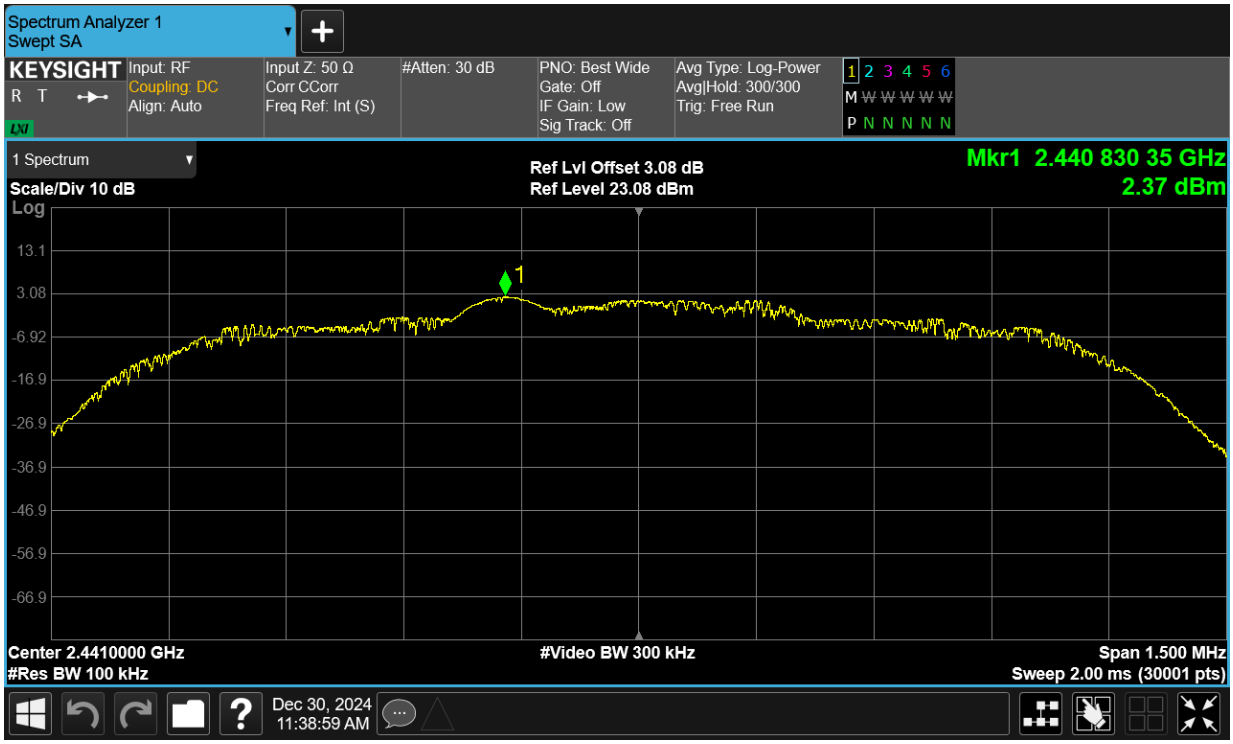
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Ref



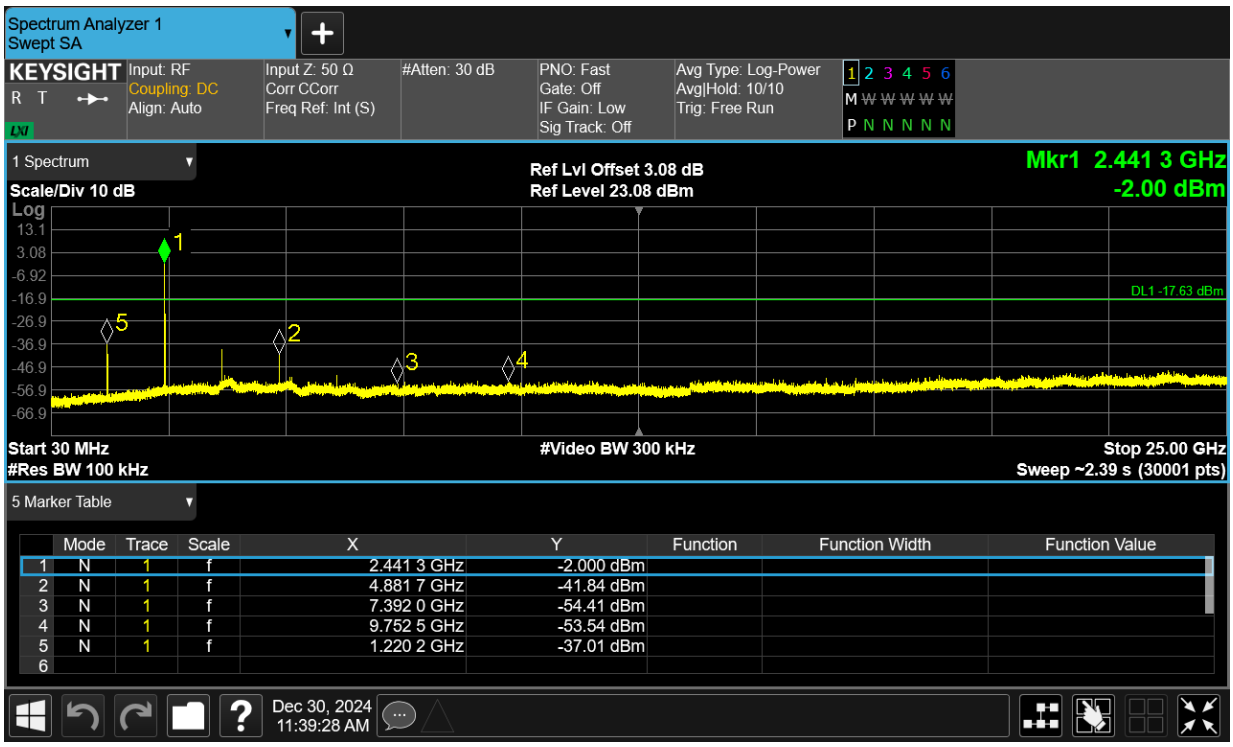
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Emission



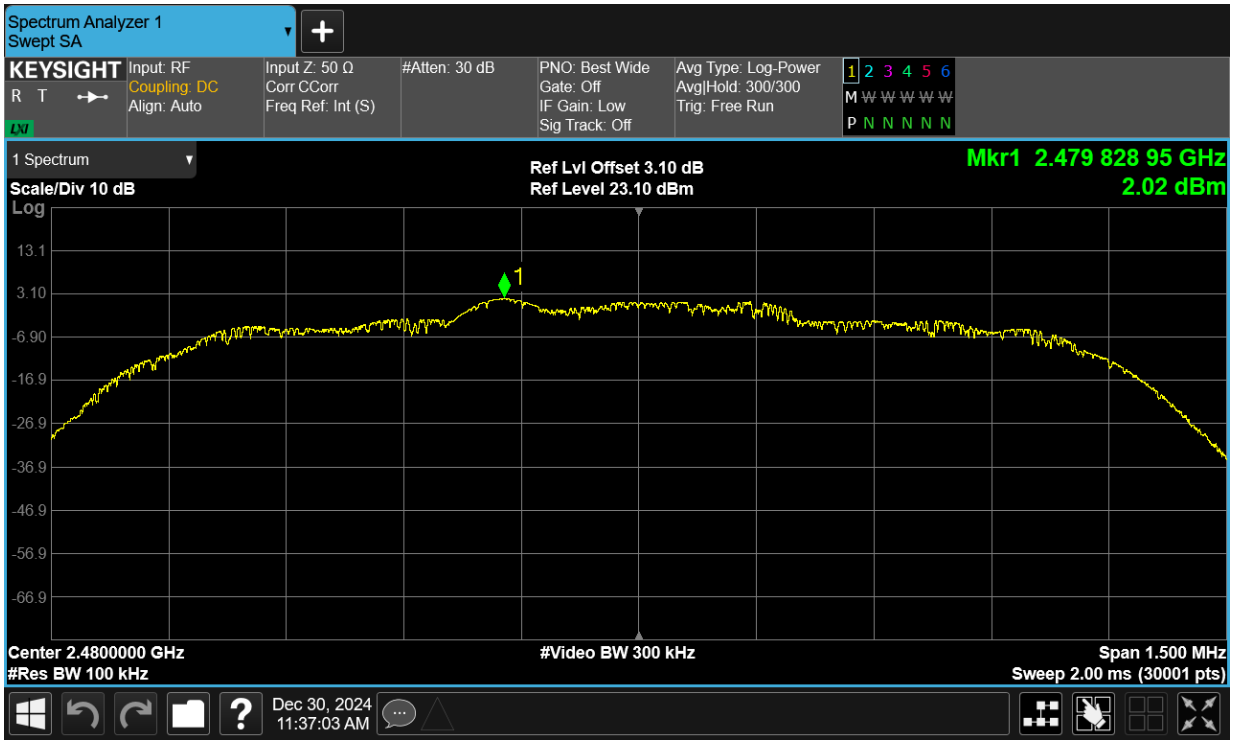
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Ref



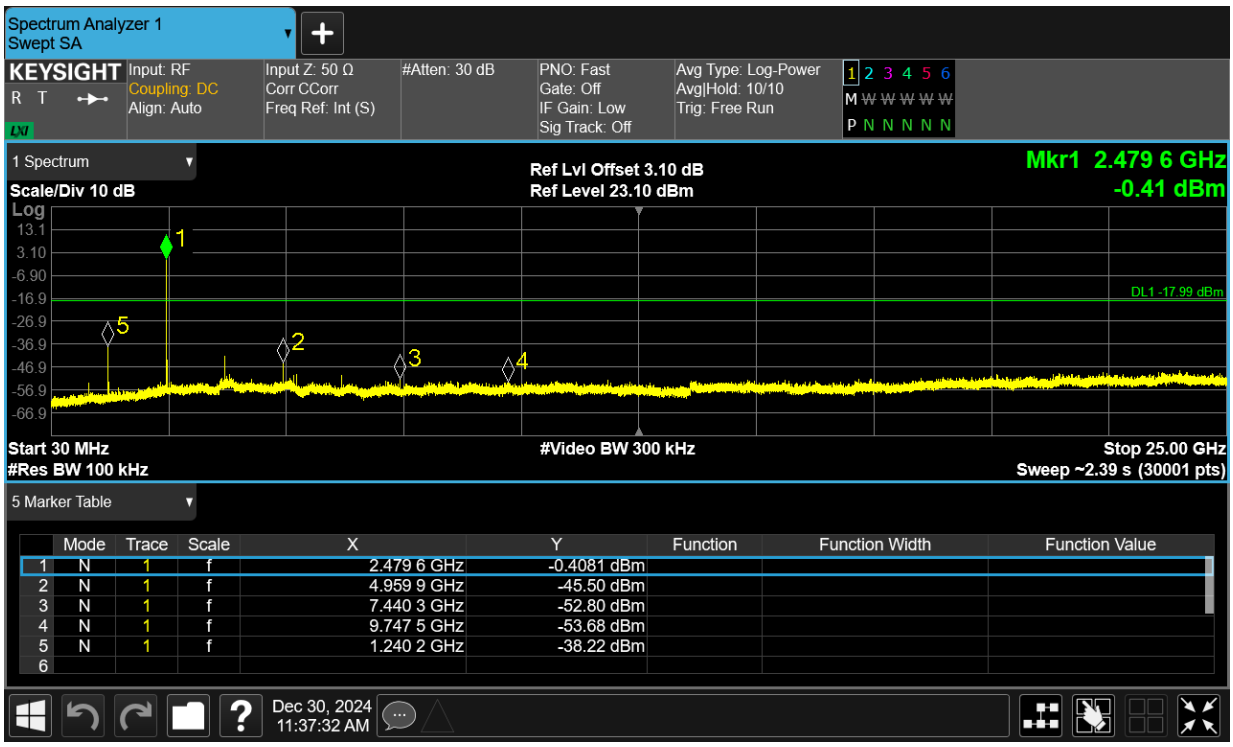
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Emission

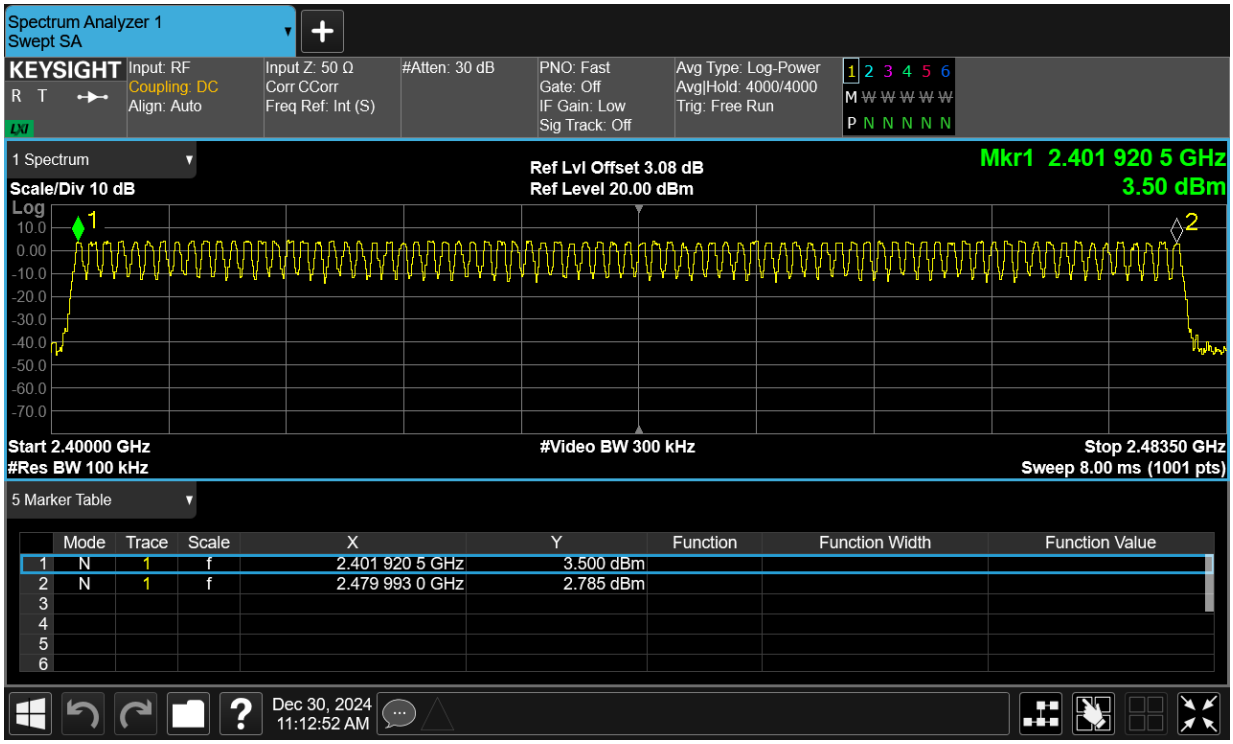


Number of Hopping Channel

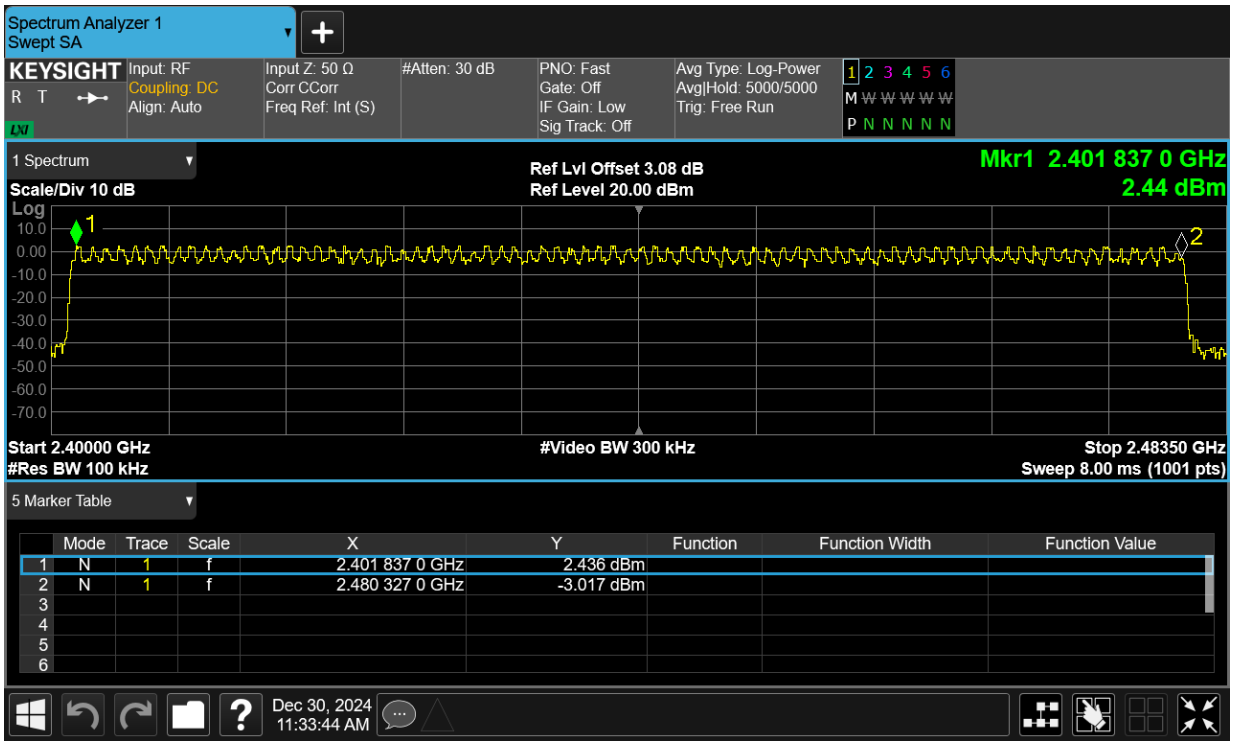
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH1	Ant1	79	15	Pass
NVNT	2-DH1	Ant1	79	15	Pass
NVNT	3-DH1	Ant1	79	15	Pass

Test Graphs

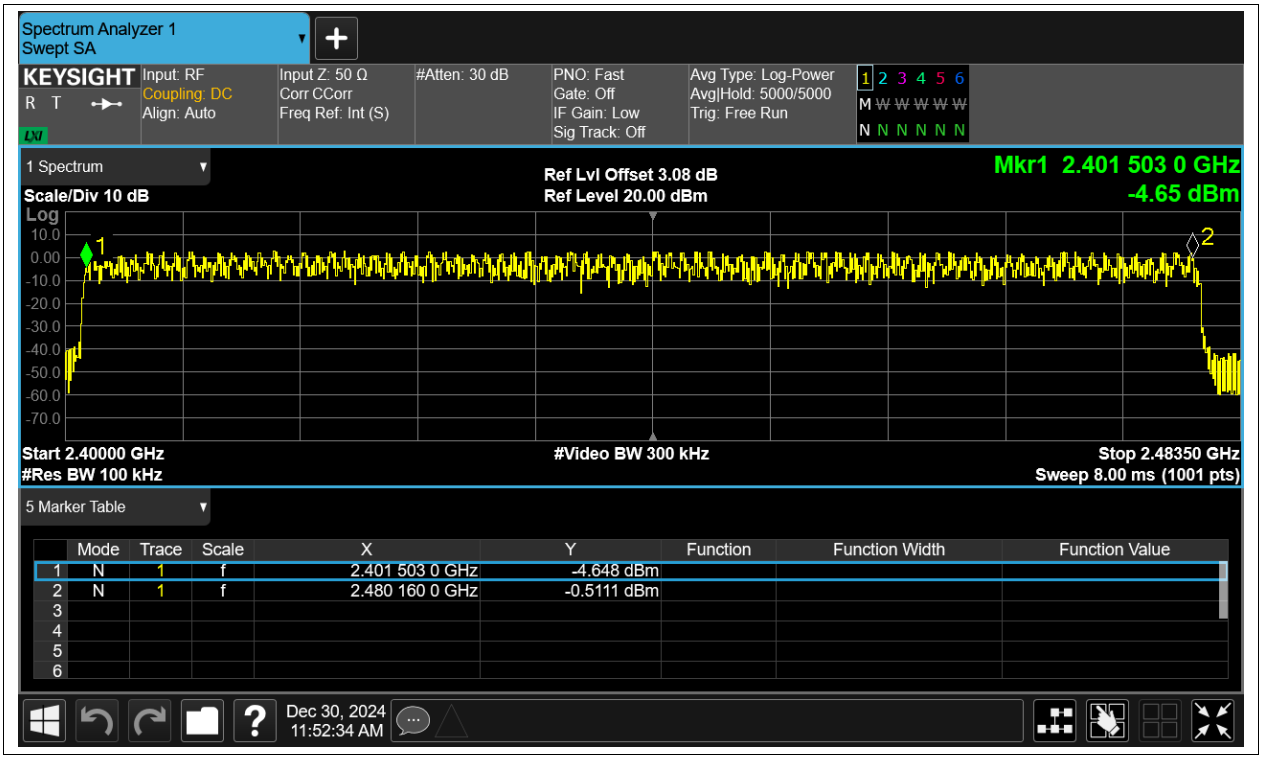
Hopping No. NVNT 1-DH1 2441MHz Ant1



Hopping No. NVNT 2-DH1 2441MHz Ant1



Hopping No. NVNT 3-DH1 2441MHz Ant1

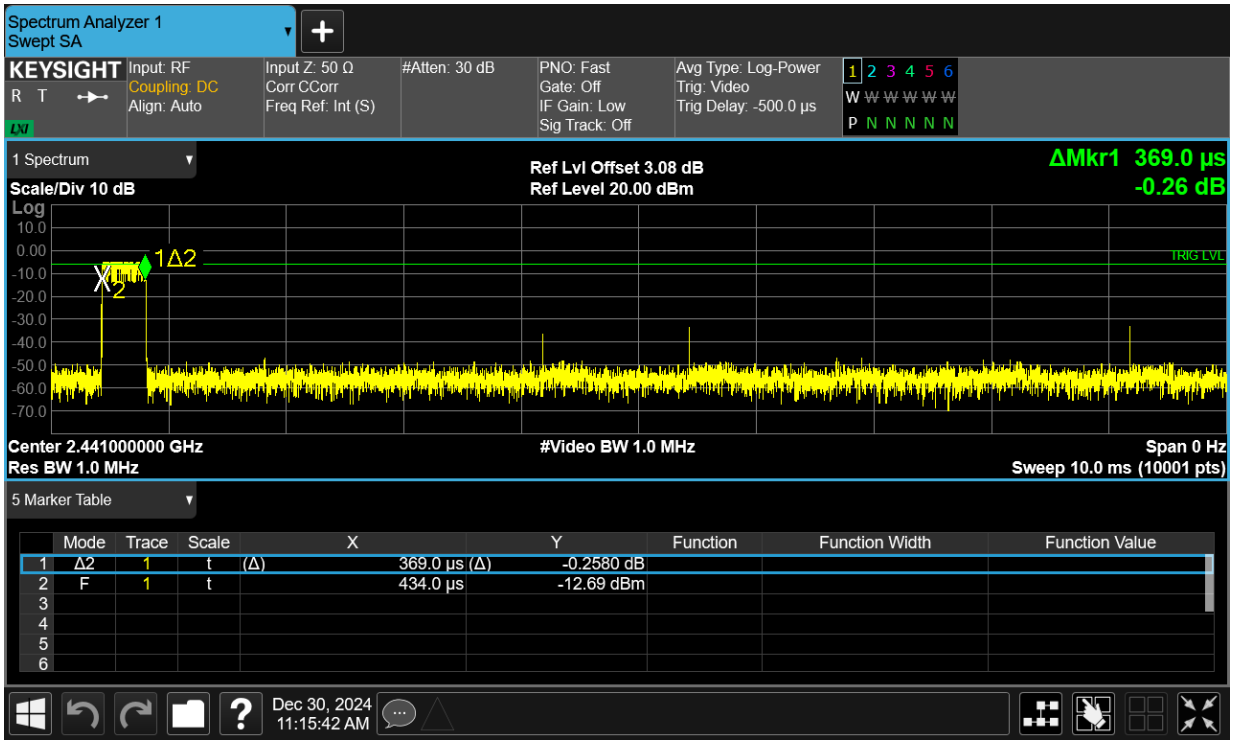

Spectrum Analyzer 1
Swept SA
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto
Input Z: 50 Ω
Corr CCorr
Freq Ref: Int (S)
#Atten: 30 dB
PNO: Fast
Gate: Off
IF Gain: Low
Sig Track: Off
Avg Type: Log-Power
Avg|Hold: 5000/5000
Trig: Free Run
1 Spectrum
Scale/Div 10 dB
Ref Lvl Offset 3.08 dB
Ref Level 20.00 dBm
Mkr1 2.401 503 0 GHz
-4.65 dBm
Start 2.40000 GHz
#Res BW 100 kHz
#Video BW 300 kHz
Stop 2.48350 GHz
Sweep 8.00 ms (1001 pts)
5 Marker Table
Mode Trace Scale X Y Function Function Width Function Value
1 N 1 f 2.401 503 0 GHz -4.648 dBm
2 N 1 f 2.480 160 0 GHz -0.5111 dBm
Dec 30, 2024
11:52:34 AM

Dwell Time

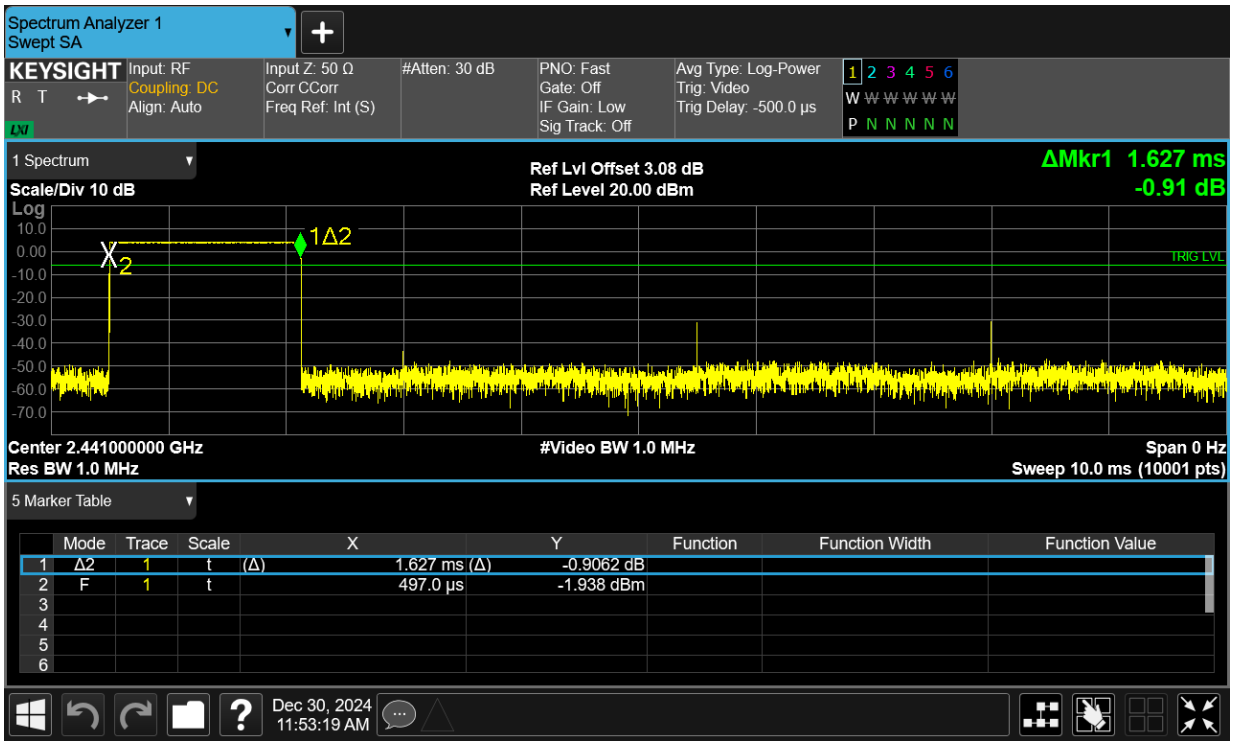
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	Ant1	0.369	118.08	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.627	260.32	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.875	306.667	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.379	121.28	31600	400	Pass
NVNT	2-DH3	2441	Ant1	1.629	260.64	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.876	306.773	31600	400	Pass
NVNT	3-DH1	2441	Ant1	0.379	121.28	31600	400	Pass
NVNT	3-DH3	2441	Ant1	1.627	260.32	31600	400	Pass
NVNT	3-DH5	2441	Ant1	2.878	306.987	31600	400	Pass

Test Graphs

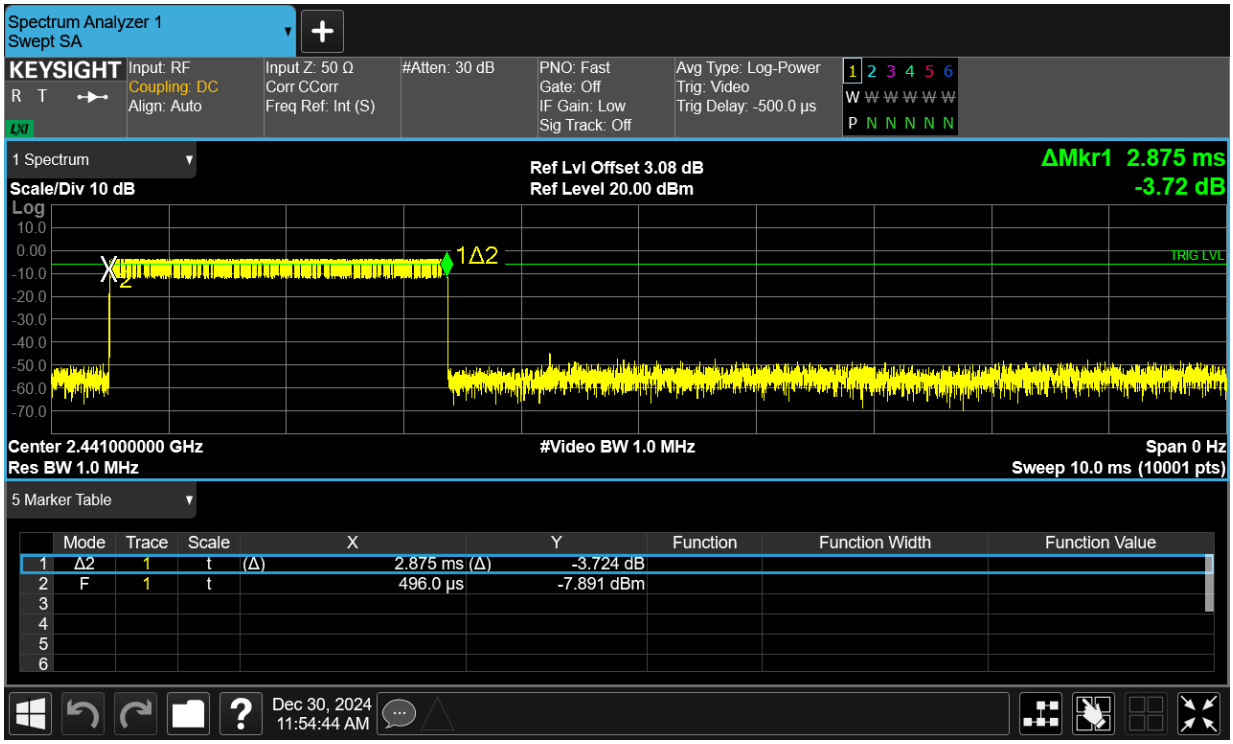
Dwell NVNT 1-DH1 2441MHz Ant1



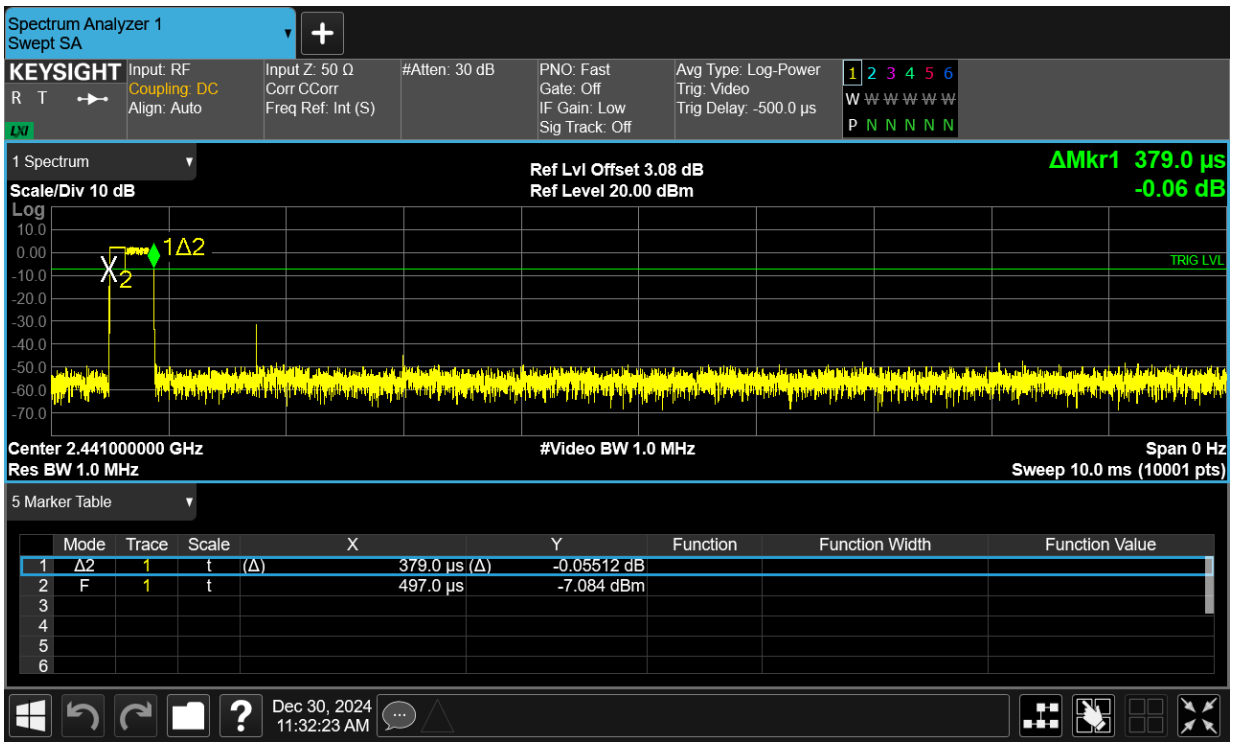
Dwell NVNT 1-DH3 2441MHz Ant1



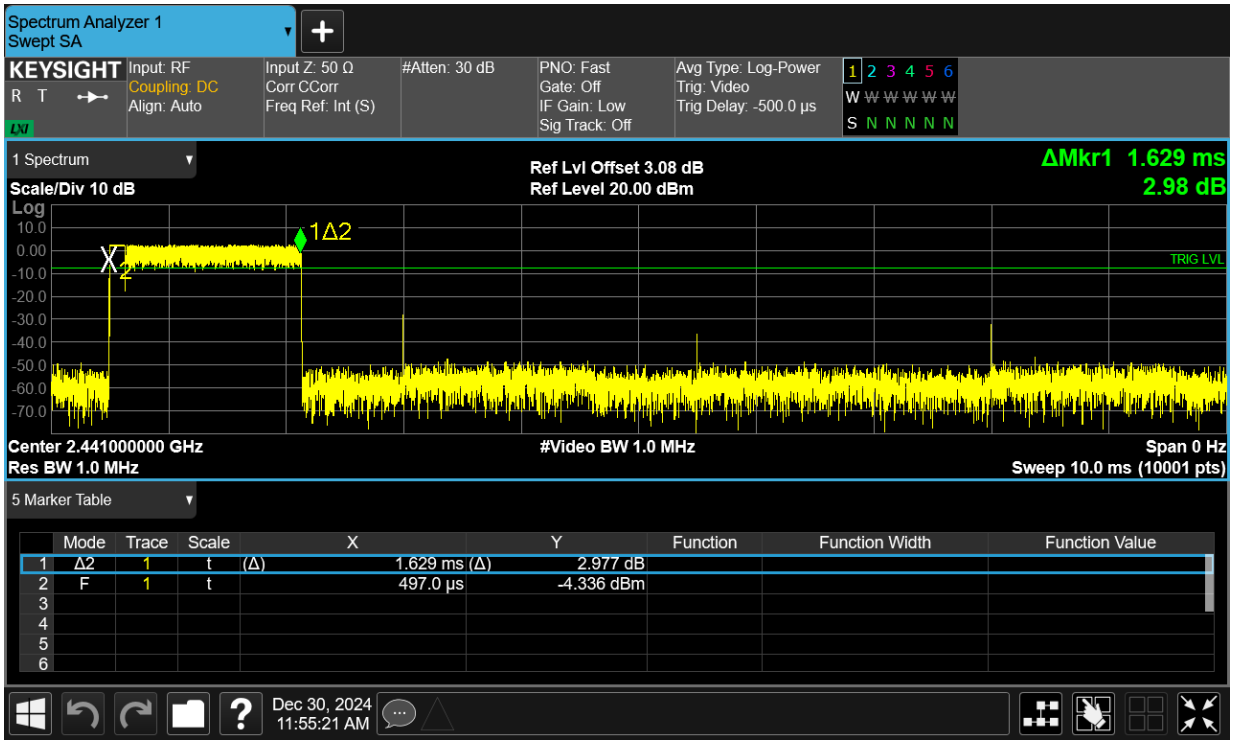
Dwell NVNT 1-DH5 2441MHz Ant1



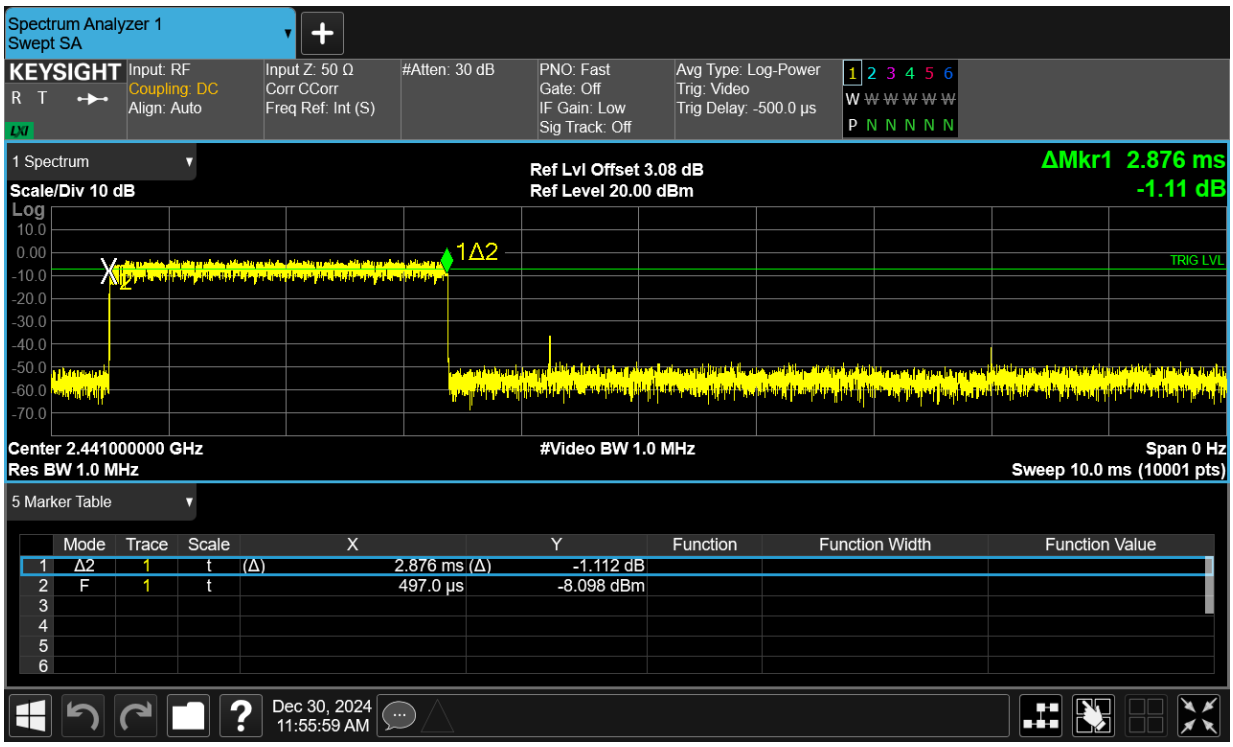
Dwell NVNT 2-DH1 2441MHz Ant1



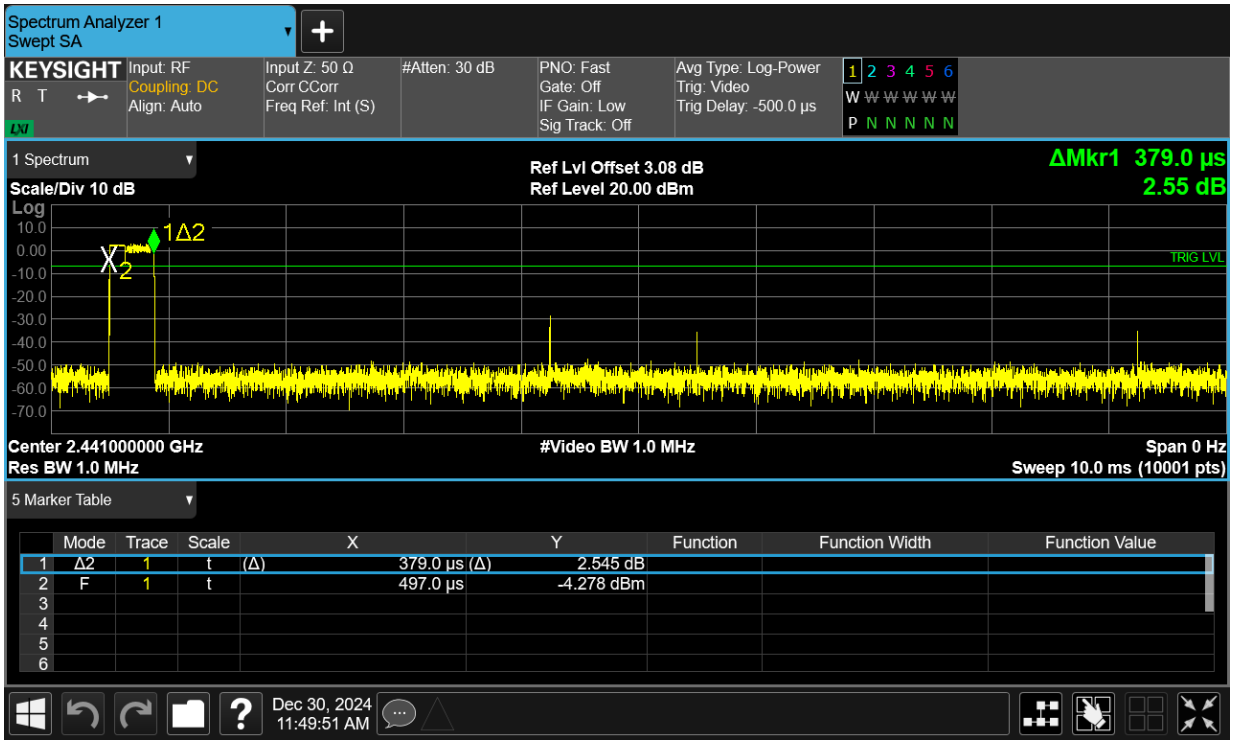
Dwell NVNT 2-DH3 2441MHz Ant1



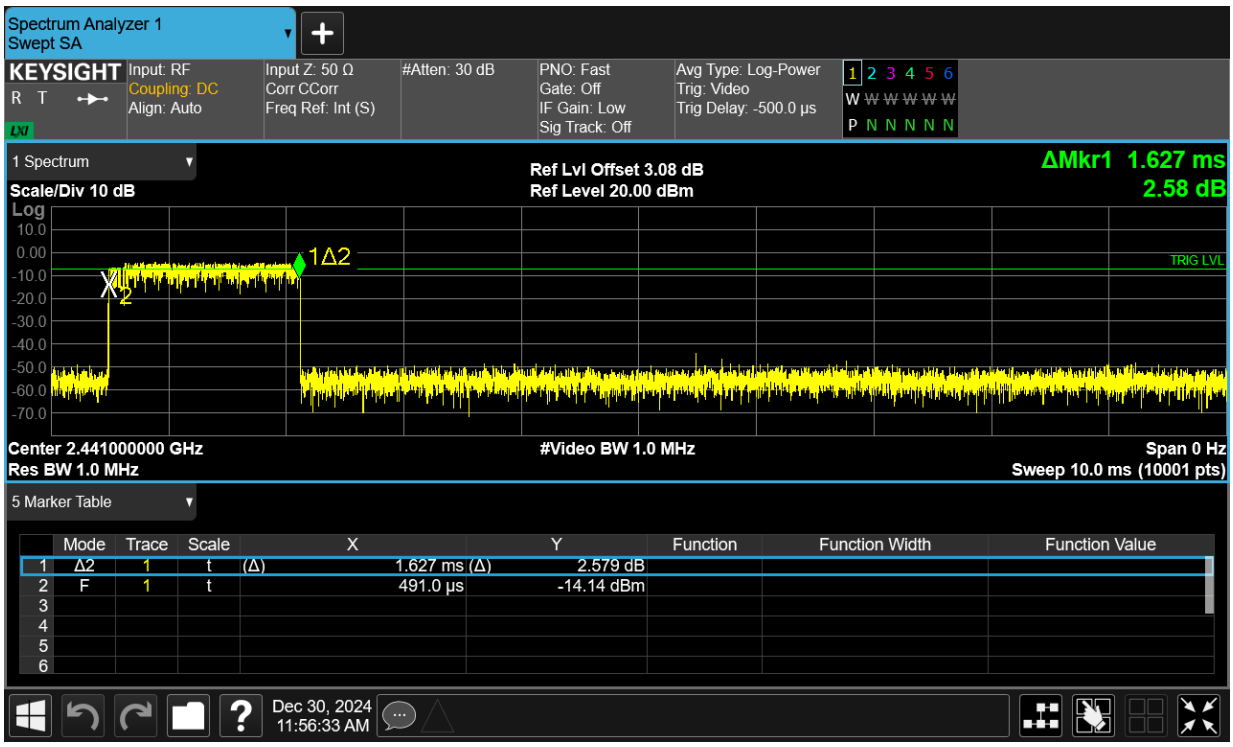
Dwell NVNT 2-DH5 2441MHz Ant1



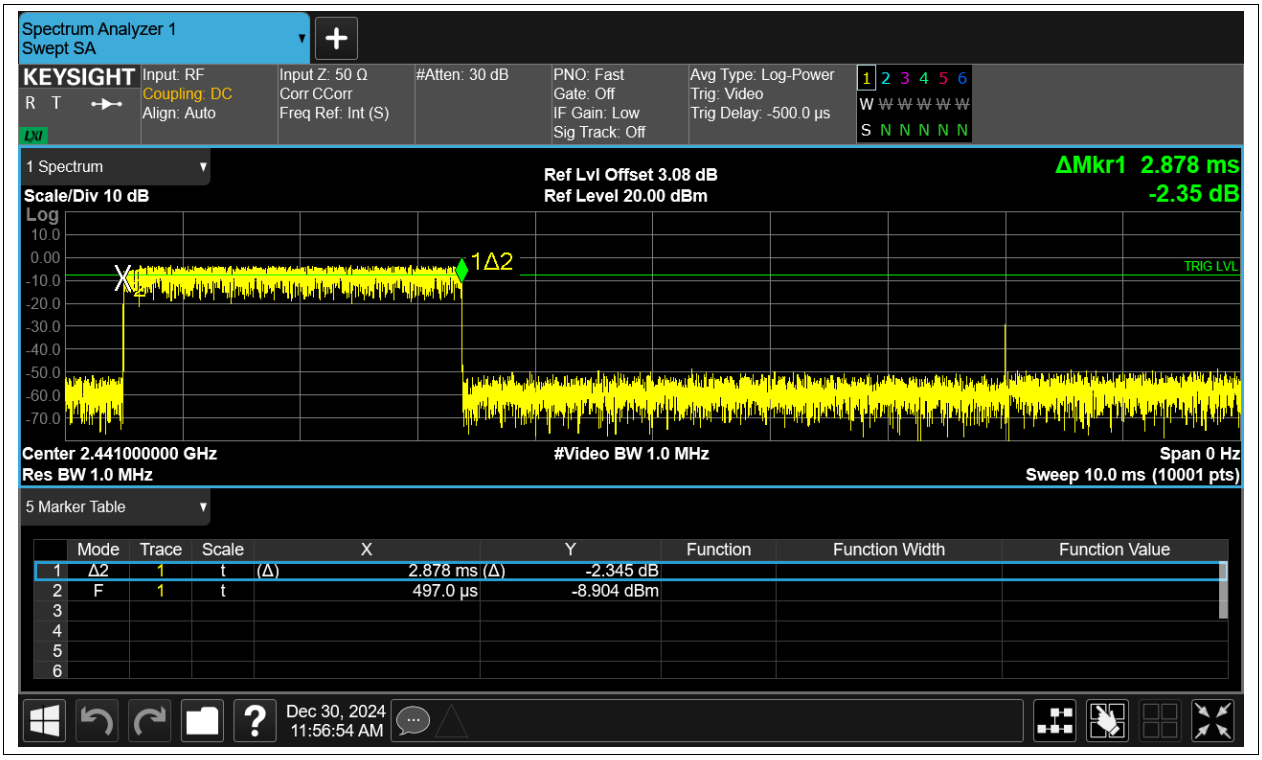
Dwell NVNT 3-DH1 2441MHz Ant1



Dwell NVNT 3-DH3 2441MHz Ant1



Dwell NVNT 3-DH5 2441MHz 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
Trig: Video
Trig Delay: -500.0 µs
1 Spectrum
Scale/Div 10 dB
Log
Ref Lvl Offset 3.08 dB
Ref Level 20.00 dBm
ΔMkr1 2.878 ms
-2.35 dB
1Δ2
TRIG LVL
Center 2.441000000 GHz
Res BW 1.0 MHz
#Video BW 1.0 MHz
Span 0 Hz
Sweep 10.0 ms (10001 pts)
5 Marker Table
Mode Trace Scale X Y Function Function Width Function Value
1 Δ2 1 t (Δ) 2.878 ms (Δ) -2.345 dB
2 F 1 t 497.0 µs -8.904 dBm
Dec 30, 2024
11:56:54 AM