Table of Contents

1. -20dB Bandwidth 2
2. 99% Occupied Bandwidth 7
3. Peak Output Power 12
4. Spurious Emissions 17
5. Bandedge 26
6. Carrier Frequencies Separation (Hopping) 39
7. Number of Hopping Channel (Hopping) 44
8. Dwell Time (Hopping) 46

FCC ID EDR
FCC_BT (Part15.247) Test Data

1. -20dB Bandwidth

Condition	Antenna	Modulation	Frequency (MHz)	-20dB BW(MHz)	if larger than CFS
NVNT	ANT1	1-DH1	2402.00	0.990	No
NVNT	ANT1	1-DH1	2441.00	0.939	No
NVNT	ANT1	1-DH1	2480.00	1.019	Yes
NVNT	ANT1	2-DH1	2402.00	1.289	Yes
NVNT	ANT1	2-DH1	2441.00	1.288	Yes
NVNT	ANT1	2-DH1	2480.00	1.285	Yes
NVNT	ANT1	3-DH1	2402.00	1.256	Yes
NVNT	ANT1	3-DH1	2441.00	1.254	Yes
NVNT	ANT1	3-DH1	2480.00	1.252	Yes

-20dB_Bandwidth_NVNT_ANT1_1-DH1_2402

-20dB_Bandwidth_NVNT_ANT1_1-DH1_2441

-20dB_Bandwidth_NVNT_ANT1_1-DH1_2480

-20dB_Bandwidth_NVNT_ANT1_2-DH1_2402

-20dB_Bandwidth_NVNT_ANT1_2-DH1_2441

-20dB_Bandwidth_NVNT_ANT1_2-DH1_2480

-20dB_Bandwidth_NVNT_ANT1_3-DH1_2402

-20dB_Bandwidth_NVNT_ANT1_3-DH1_2441

-20dB_Bandwidth_NVNT_ANT1_3-DH1_2480

2. 99% Occupied Bandwidth

Condition	Antenna	Modulation	Frequency (MHz)	99%%BW(MHz)
NVNT	ANT1	1-DH1	2402.00	0.869
NVNT	ANT1	1-DH1	2441.00	0.885
NVNT	ANT1	1-DH1	2480.00	0.891
NVNT	ANT1	2-DH1	2402.00	1.179
NVNT	ANT1	2-DH1	2441.00	1.190
NVNT	ANT1	2-DH1	2480.00	1.193
NVNT	ANT1	3-DH1	2402.00	1.171
NVNT	ANT1	3-DH1	2441.00	1.176
NVNT	ANT1	3-DH1	2480.00	1.177

99%_Occupied_Bandwidth_NVNT_ANT1_1-DH1_2402

99%_Occupied_Bandwidth_NVNT_ANT1_1-DH1_2441

99%_Occupied_Bandwidth_NVNT_ANT1_1-DH1_2480

99%_Occupied_Bandwidth_NVNT_ANT1_2-DH1_2402

99%_Occupied_Bandwidth_NVNT_ANT1_2-DH1_2441

99%_Occupied_Bandwidth_NVNT_ANT1_2-DH1_2480

99%_Occupied_Bandwidth_NVNT_ANT1_3-DH1_2402

99%_Occupied_Bandwidth_NVNT_ANT1_3-DH1_2441

99%_Occupied_Bandwidth_NVNT_ANT1_3-DH1_2480

Keysight Spectrum Analyzer - Occupied BW
Center Freq 2.480000000 GHz
Center Freq: 2.480000000 GHz
Trig: Free Run
Avg|Hold: 10/10
#Atten: 30 dB
Radio Std: None
Radio Device: BTS
04:58:52 PM Oct 31, 2023
Frequency
Ref Offset 4.65 dB
10 dB/div
Ref 12.30 dBm
Center Freq
2.480000000 GHz
Center 2.48 GHz
#Res BW 30 kHz
#VBW 100 kHz
Span 3 MHz
Sweep 3.2 ms
CF Step
300.000 kHz
Auto
Man
Occupied Bandwidth
1.1774 MHz
Total Power 5.09 dBm
Transmit Freq Error 41.527 kHz
% of OBW Power 99.00 %
x dB Bandwidth 1.370 MHz
x dB -26.00 dB
Freq Offset
0 Hz
MSG
STATUS

3. Peak Output Power

Condition	Antenna	Modulation	Frequency (MHz)	Max. Conducted Power(dBm)	Max. Conducted Power(mW)	Limit(mW)	Result
NVNT	ANT1	1-DH1	2402.00	-1.29	0.74	1000	Pass
NVNT	ANT1	1-DH1	2441.00	-1.52	0.71	1000	Pass
NVNT	ANT1	1-DH1	2480.00	-1.44	0.72	125	Pass
NVNT	ANT1	2-DH1	2402.00	-0.49	0.89	125	Pass
NVNT	ANT1	2-DH1	2441.00	-0.68	0.85	125	Pass
NVNT	ANT1	2-DH1	2480.00	-0.63	0.87	125	Pass
NVNT	ANT1	3-DH1	2402.00	0.06	1.01	125	Pass
NVNT	ANT1	3-DH1	2441.00	-0.15	0.97	125	Pass
NVNT	ANT1	3-DH1	2480.00	-0.06	0.99	125	Pass

Peak_Output_Power_NVNT_ANT1_1-DH1_2402

Peak_Output_Power_NVNT_ANT1_1-DH1_2441

Peak_Output_Power_NVNT_ANT1_1-DH1_2480

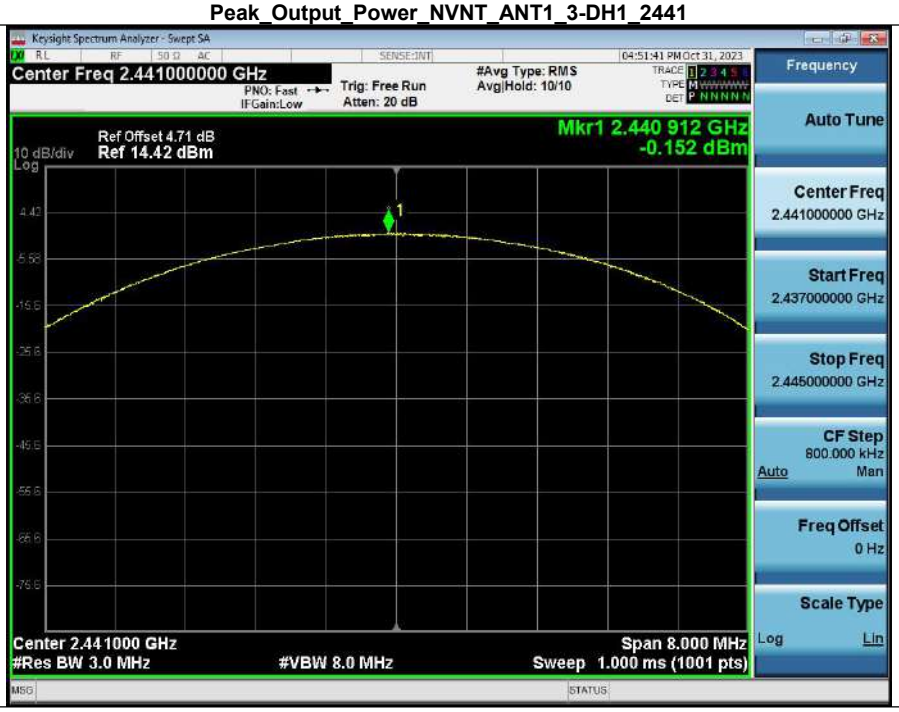
Peak_Output_Power_NVNT_ANT1_2-DH1_2402

Peak_Output_Power_NVNT_ANT1_2-DH1_2441

Peak_Output_Power_NVNT_ANT1_2-DH1_2480

Peak_Output_Power_NVNT_ANT1_3-DH1_2402

Peak_Output_Power_NVNT_ANT1_3-DH1_2441



Peak_Output_Power_NVNT_ANT1_3-DH1_2480

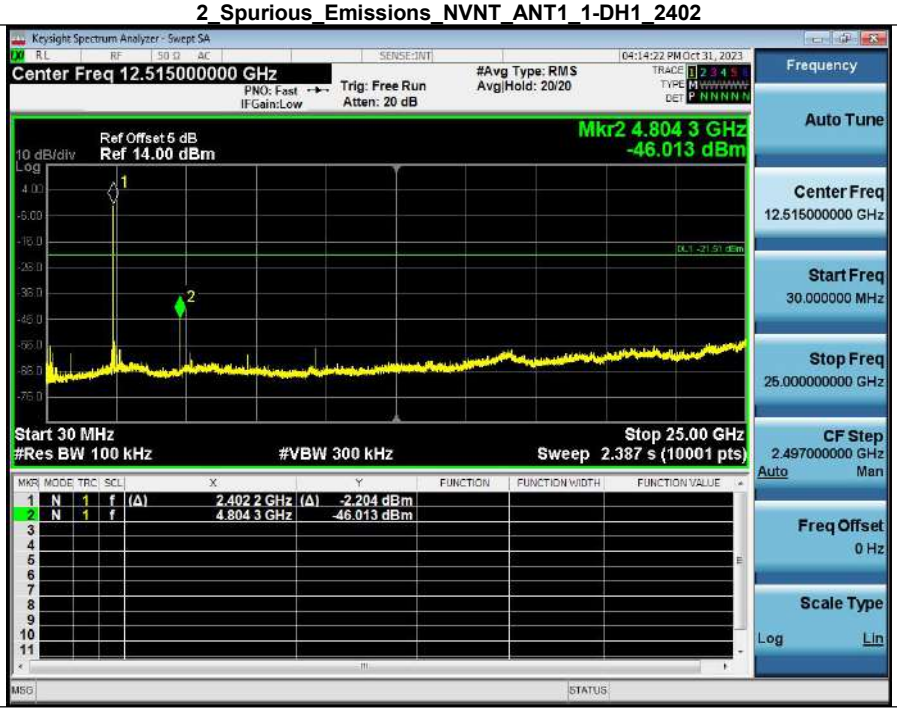
Keysight Spectrum Analyzer - Swept SA
Center Freq 2.480000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 20 dB
#Avg Type: RMS
Avg|Hold: 10/10
04:59:10 PM Oct 31, 2023
Ref Offset 4.65 dB
10 dB/div
Ref 14.30 dBm
Log
Mkr1 2.480 064 GHz
-0.062 dBm
Center 2.480000 GHz
#Res BW 3.0 MHz
#VBW 8.0 MHz
Span 8.000 MHz
Sweep 1.000 ms (1001 pts)
Frequency
Auto Tune
Center Freq
2.480000000 GHz
Start Freq
2.476000000 GHz
Stop Freq
2.484000000 GHz
CF Step
800.000 kHz
Auto
Man
Freq Offset
0 Hz
Scale Type
Log
Lin

4. Spurious Emissions

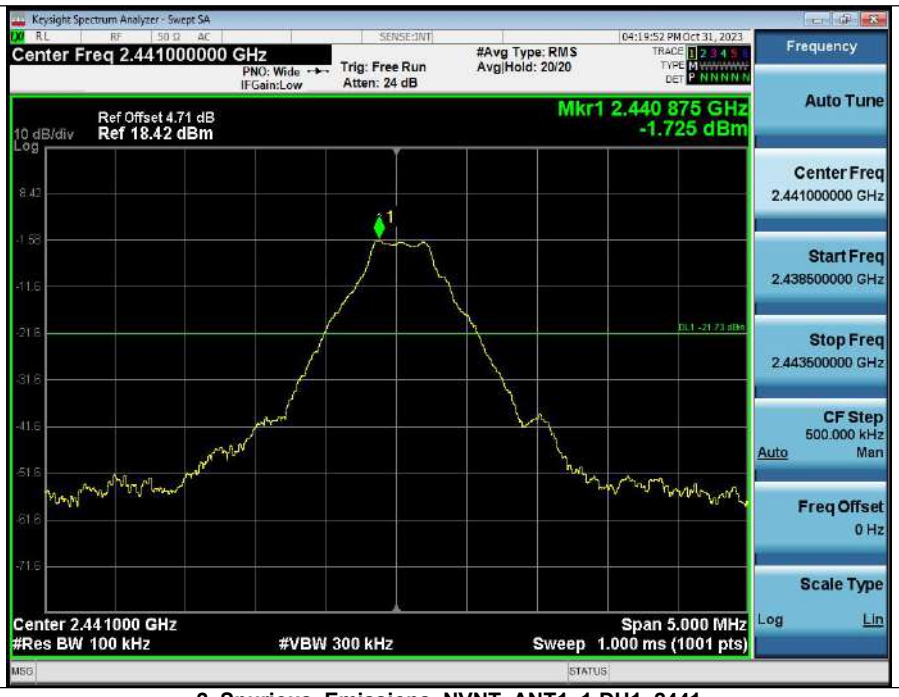
Condition	Antenna	Modulation	TX Mode	Spurious MAX.Value(dBm)	Limit	Result
NVNT	ANT1	1-DH1	2402.00	-46.013	-21.510	Pass
NVNT	ANT1	1-DH1	2441.00	-46.767	-21.725	Pass
NVNT	ANT1	1-DH1	2480.00	-44.010	-21.718	Pass
NVNT	ANT1	2-DH1	2402.00	-39.548	-21.515	Pass
NVNT	ANT1	2-DH1	2441.00	-47.959	-21.760	Pass
NVNT	ANT1	2-DH1	2480.00	-51.549	-21.716	Pass
NVNT	ANT1	3-DH1	2402.00	-47.876	-21.515	Pass
NVNT	ANT1	3-DH1	2441.00	-45.587	-21.700	Pass
NVNT	ANT1	3-DH1	2480.00	-50.627	-21.698	Pass

1_Reference_Level_NVNT_ANT1_1-DH1_2402

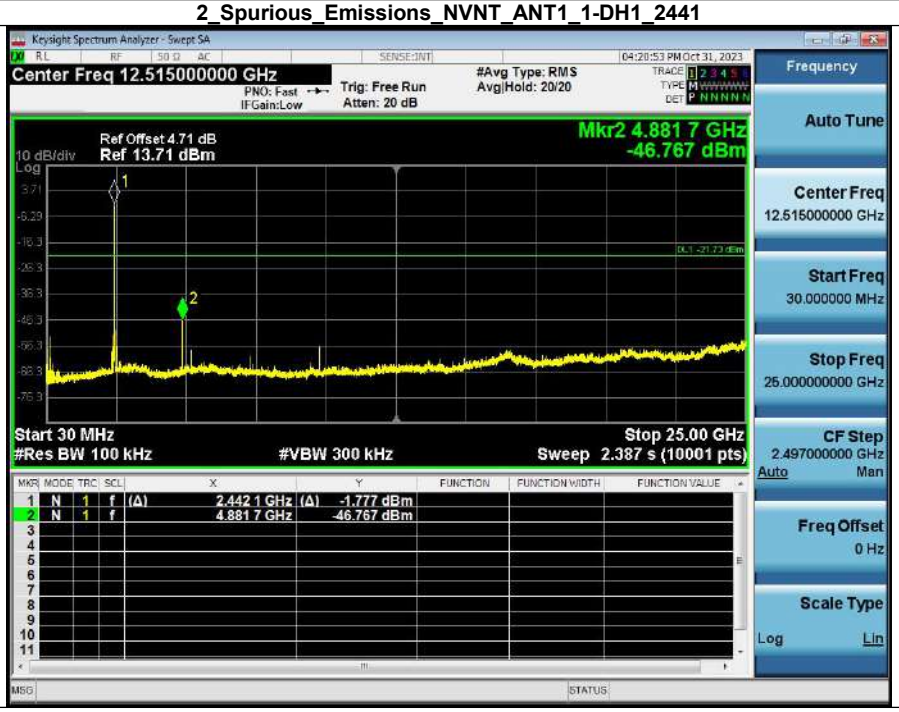
2_Spurious_Emissions_NVNT_ANT1_1-DH1_2402



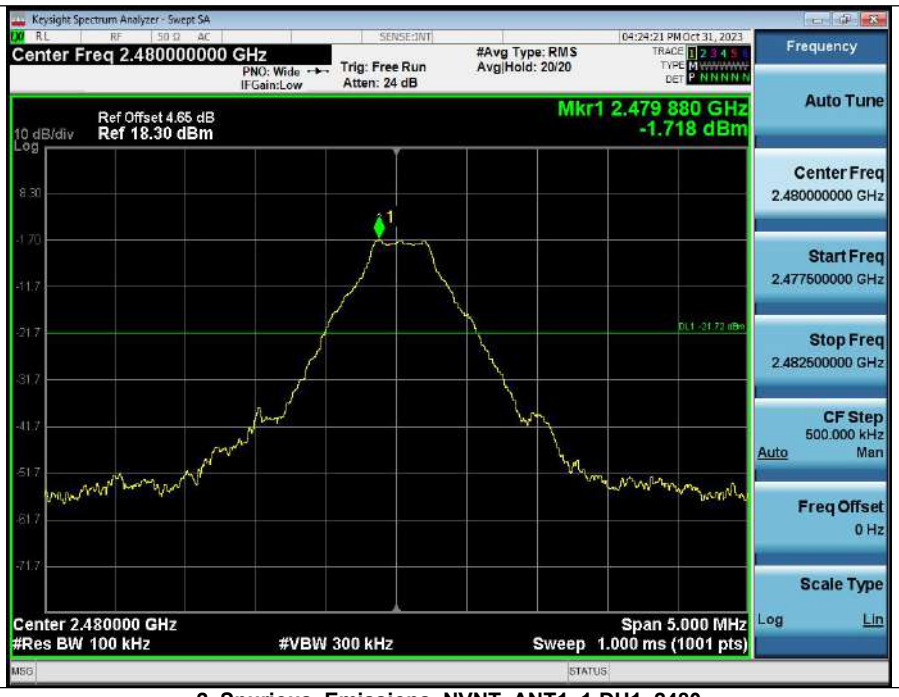
1_Reference_Level_NVNT_ANT1_1-DH1_2441



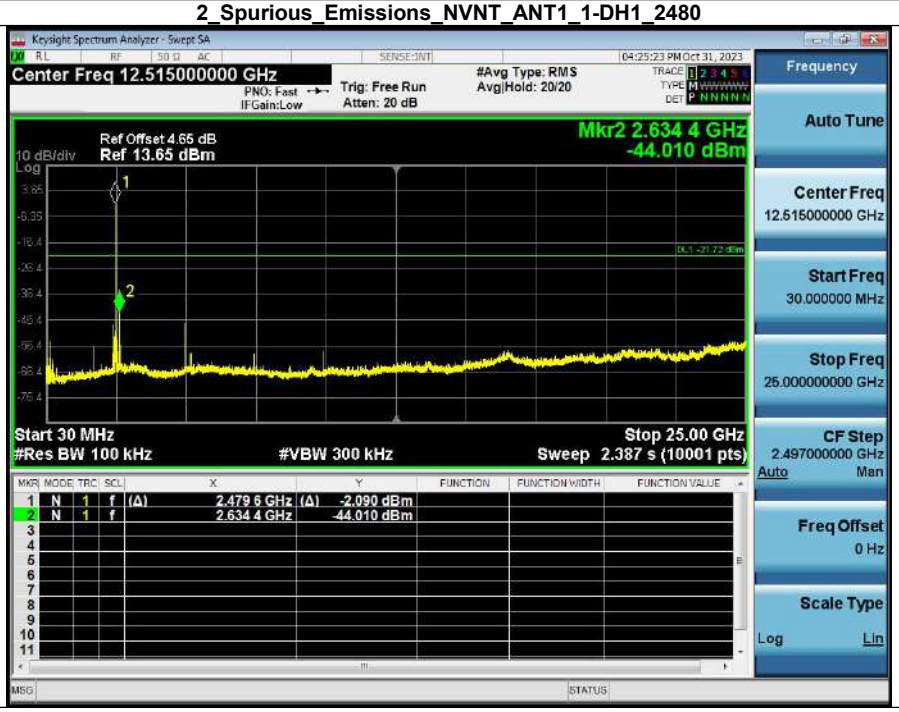
2_Spurious_Emissions_NVNT_ANT1_1-DH1_2441



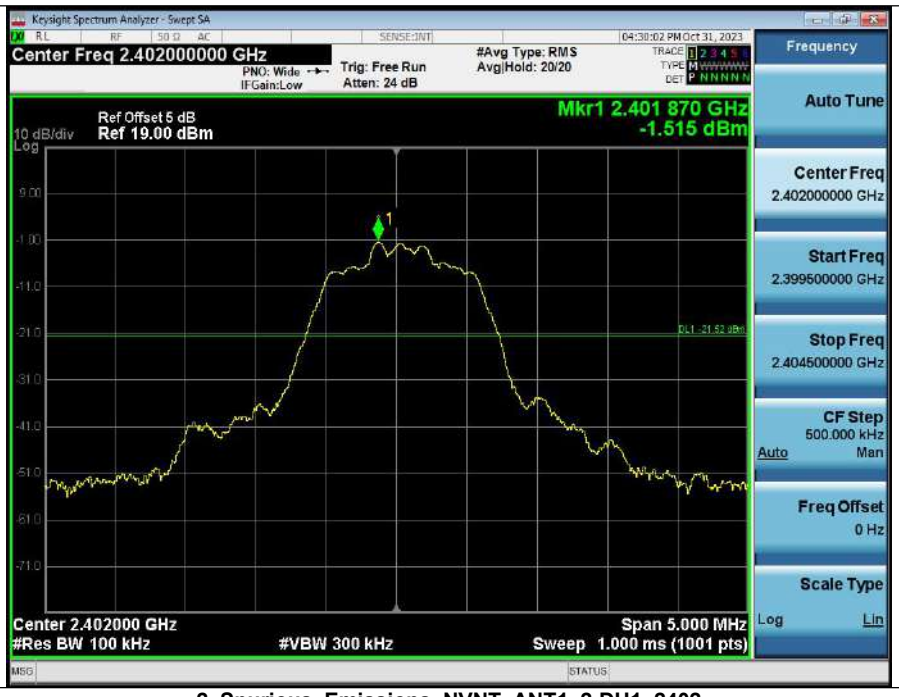
1_Reference_Level_NVNT_ANT1_1-DH1_2480



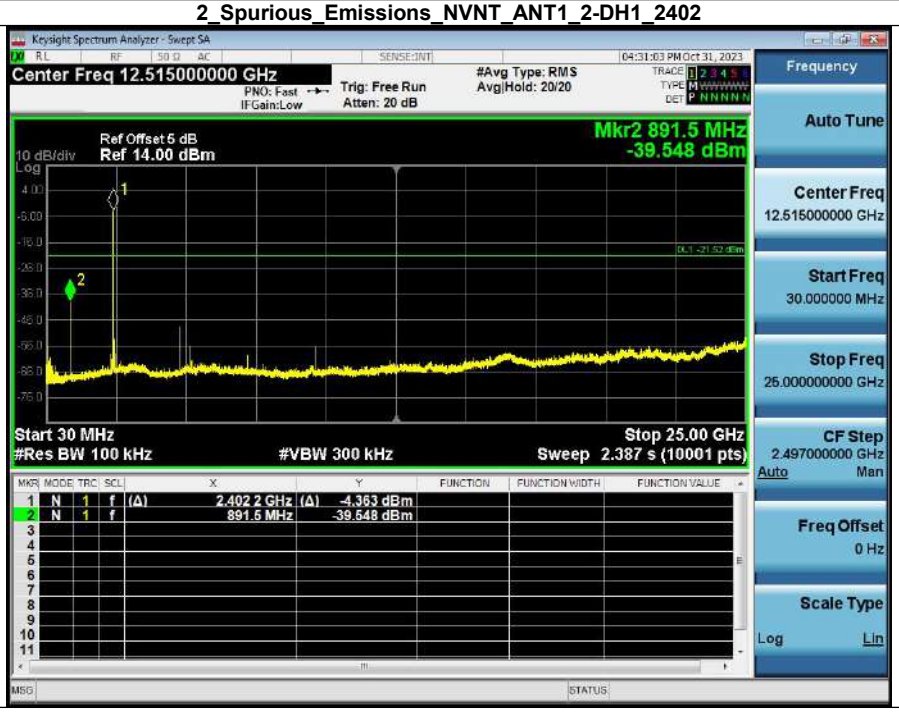
2_Spurious_Emissions_NVNT_ANT1_1-DH1_2480



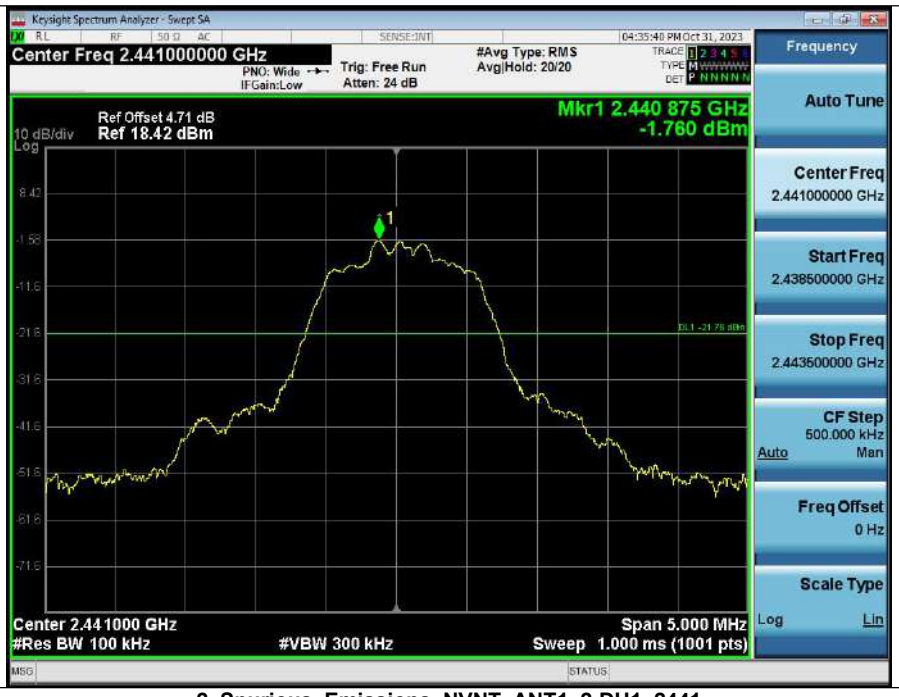
1_Reference_Level_NVNT_ANT1_2-DH1_2402



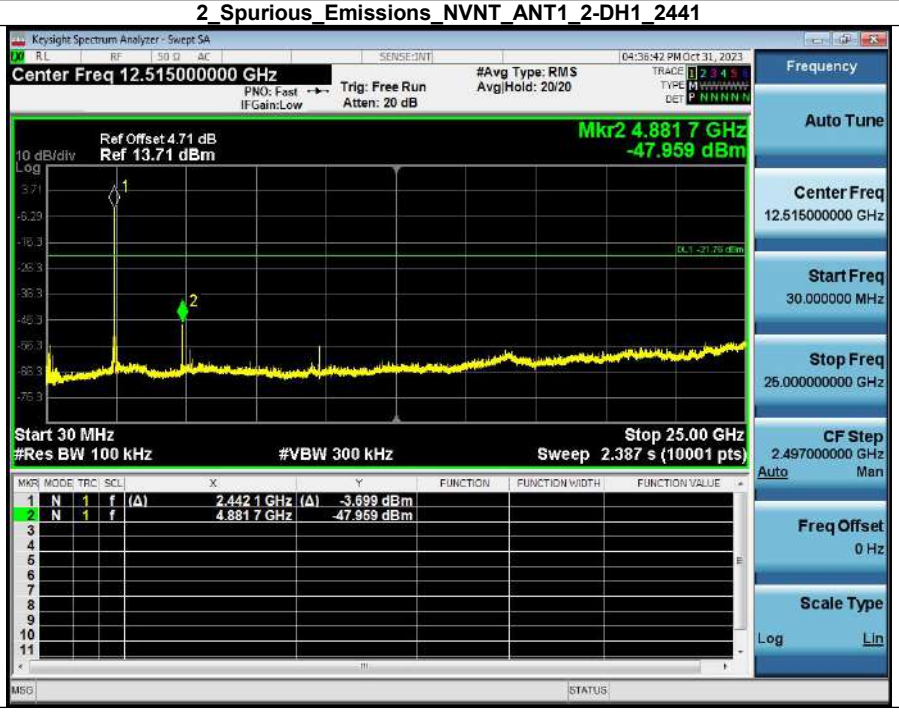
2_Spurious_Emissions_NVNT_ANT1_2-DH1_2402



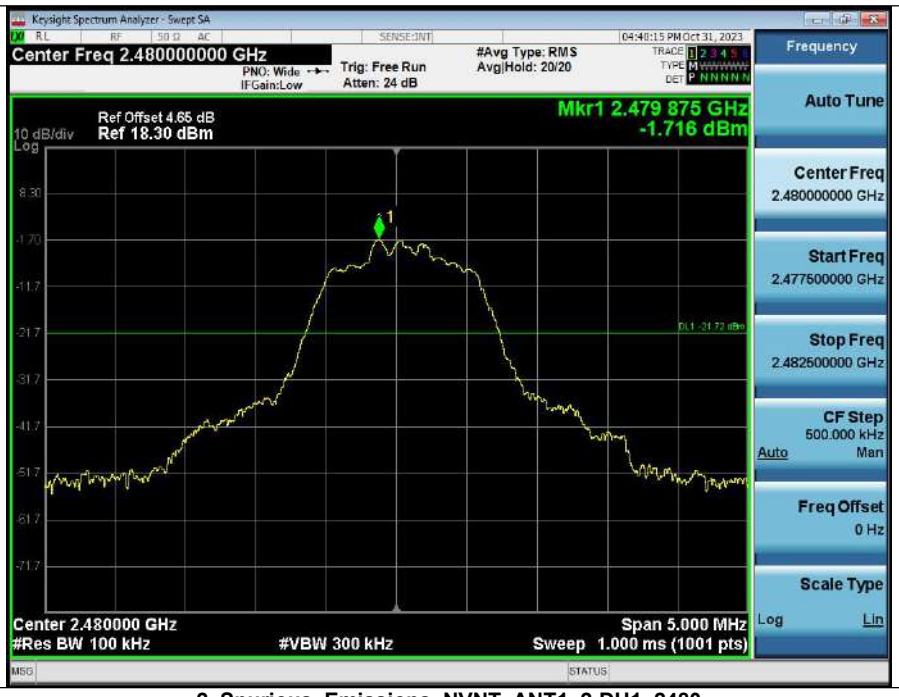
1_Reference_Level_NVNT_ANT1_2-DH1_2441



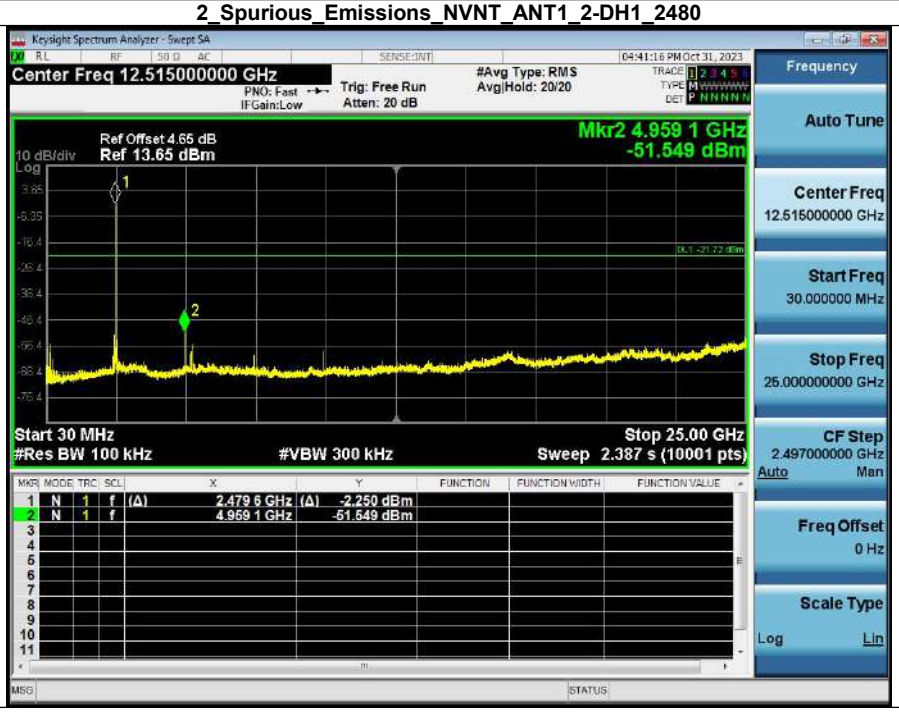
2_Spurious_Emissions_NVNT_ANT1_2-DH1_2441



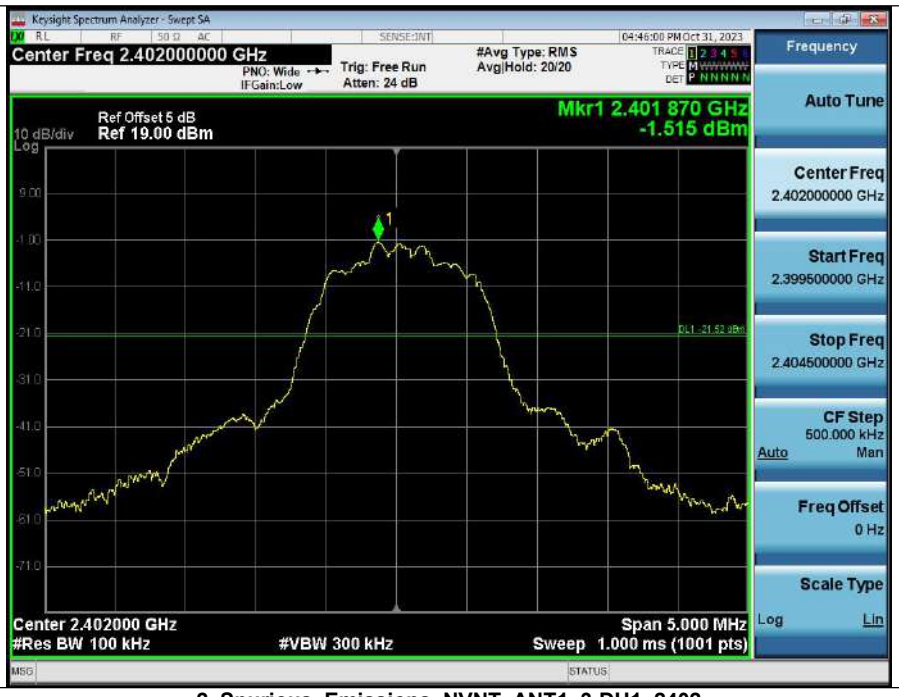
1_Reference_Level_NVNT_ANT1_2-DH1_2480



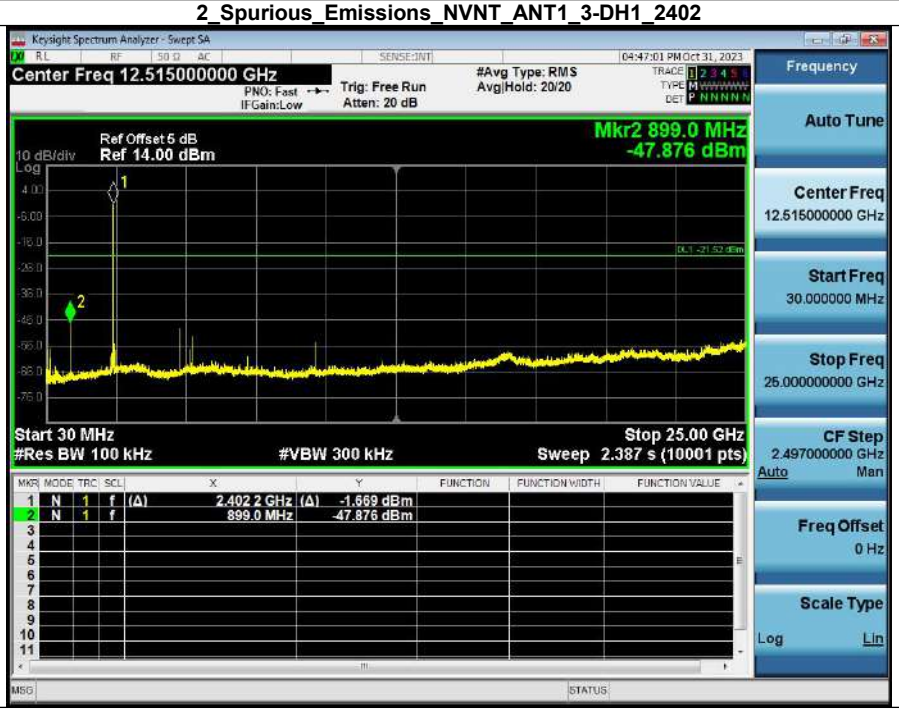
2_Spurious_Emissions_NVNT_ANT1_2-DH1_2480



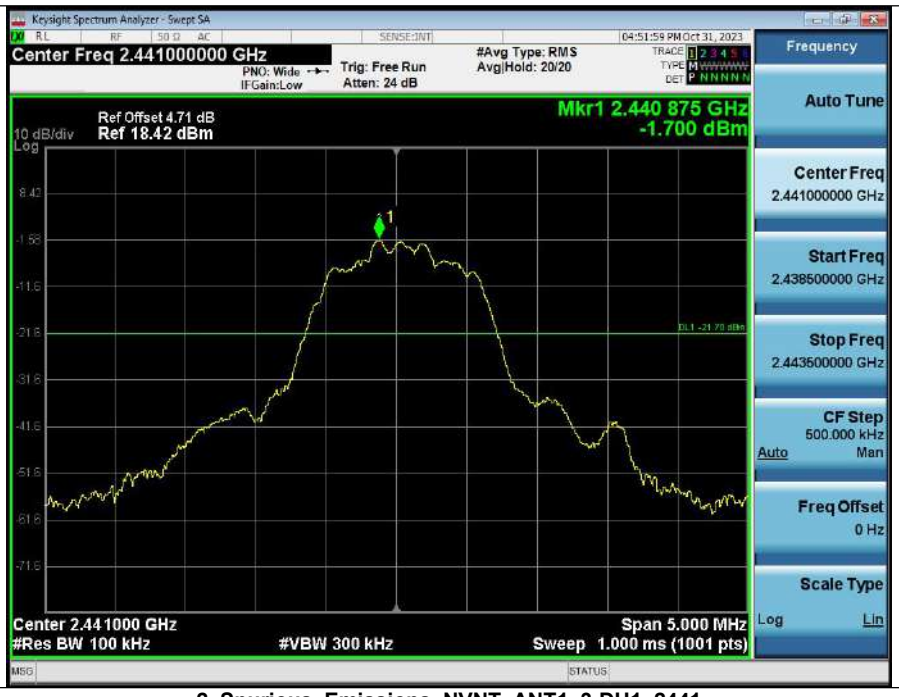
1_Reference_Level_NVNT_ANT1_3-DH1_2402



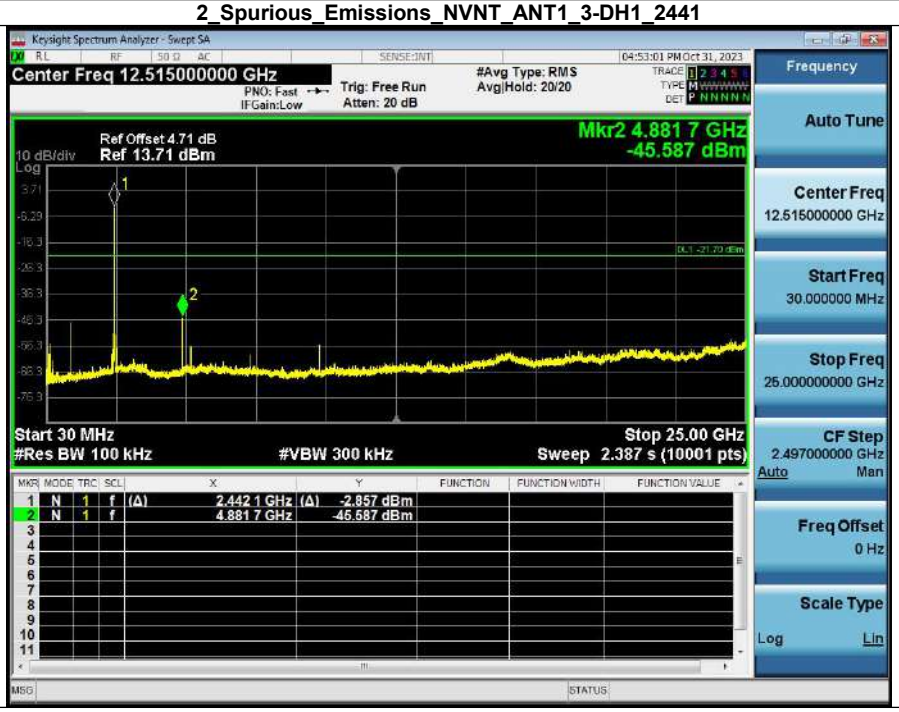
2_Spurious_Emissions_NVNT_ANT1_3-DH1_2402



1_Reference_Level_NVNT_ANT1_3-DH1_2441

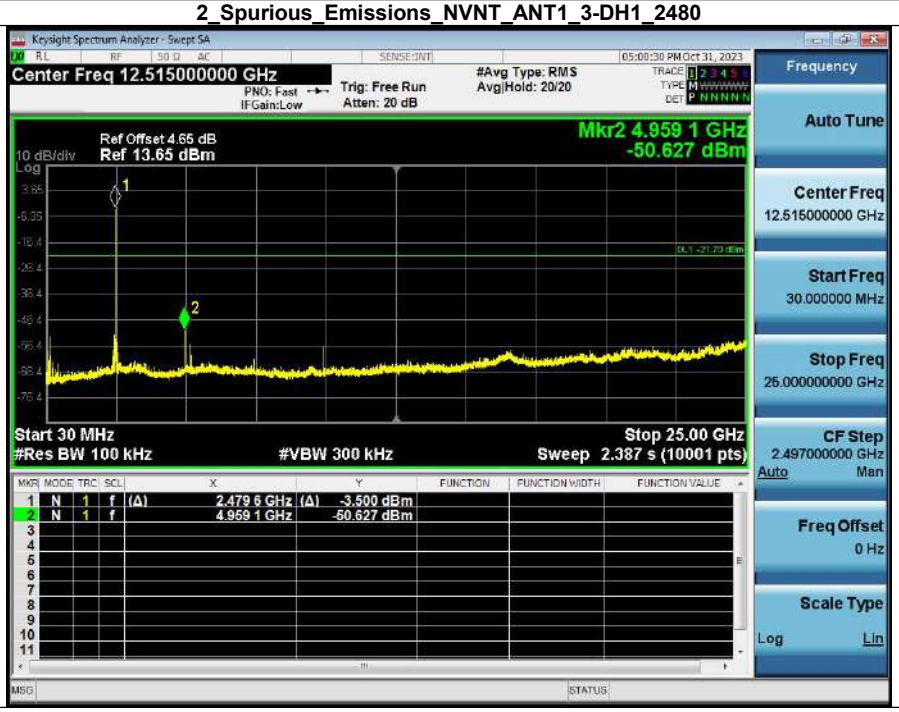


2_Spurious_Emissions_NVNT_ANT1_3-DH1_2441



1_Reference_Level_NVNT_ANT1_3-DH1_2480

2_Spurious_Emissions_NVNT_ANT1_3-DH1_2480

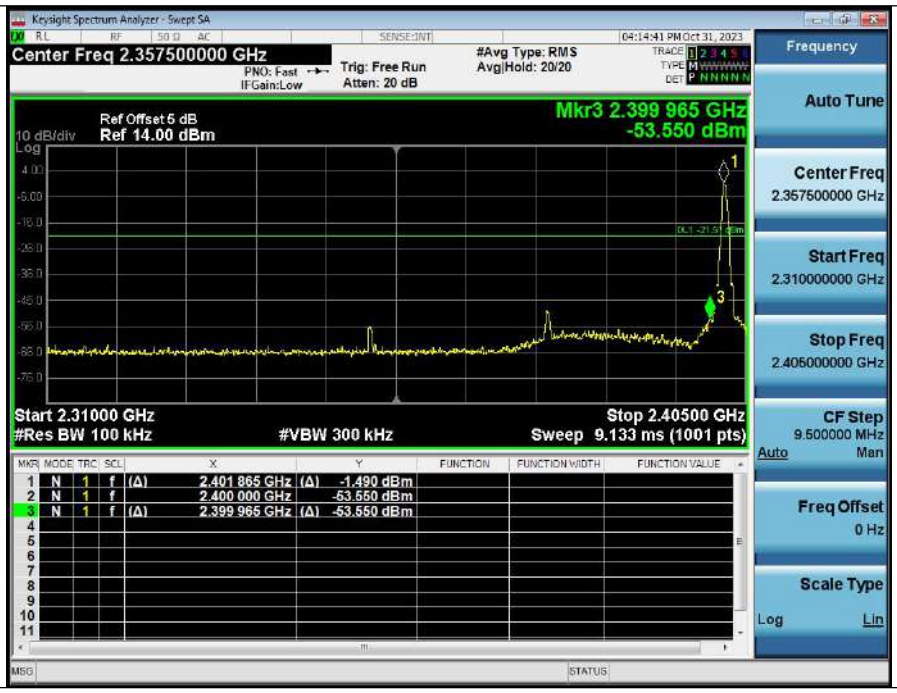


5. Bandedge

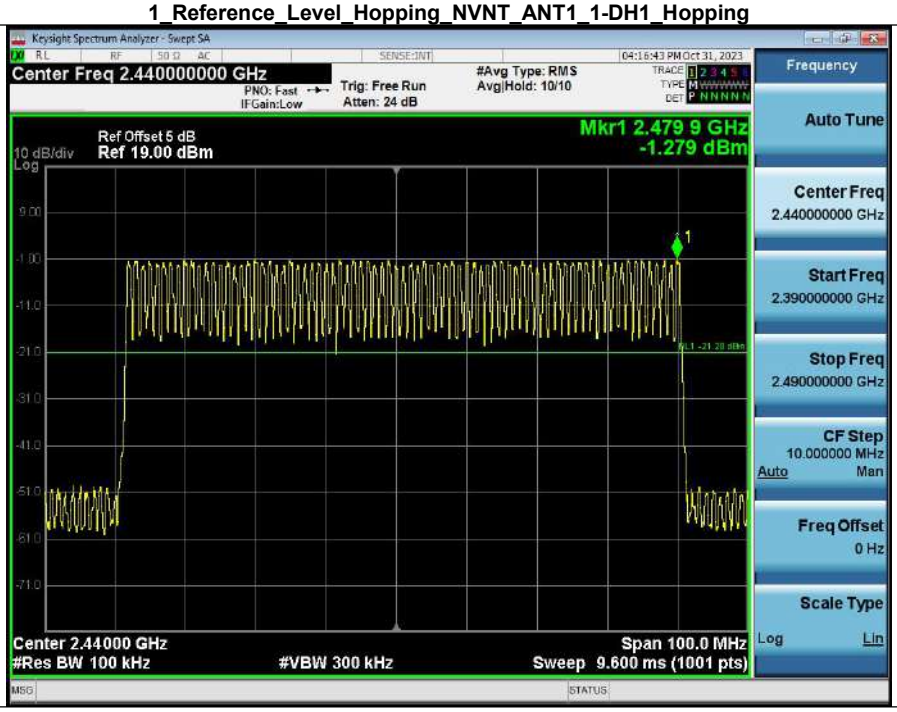
Condition	Antenna	Modulation	TX Mode	Bandedge MAX.Value	Limit	Result
NVNT	ANT1	1-DH1	2402.00	-53.550	-21.510	Pass
NVNT	ANT1	1-DH1	Hopping_LCH	-50.192	-21.279	Pass
NVNT	ANT1	1-DH1	2480.00	-57.054	-21.718	Pass
NVNT	ANT1	1-DH1	Hopping_HCH	-49.729	-21.648	Pass
NVNT	ANT1	2-DH1	2402.00	-51.878	-21.515	Pass
NVNT	ANT1	2-DH1	Hopping_LCH	-50.280	-21.240	Pass
NVNT	ANT1	2-DH1	2480.00	-56.945	-21.716	Pass
NVNT	ANT1	2-DH1	Hopping_HCH	-50.429	-21.617	Pass
NVNT	ANT1	3-DH1	2402.00	-55.318	-21.515	Pass
NVNT	ANT1	3-DH1	Hopping_LCH	-50.284	-21.277	Pass
NVNT	ANT1	3-DH1	2480.00	-57.256	-21.698	Pass
NVNT	ANT1	3-DH1	Hopping_HCH	-50.158	-21.601	Pass

1_Reference_Level_NVNT_ANT1_1-DH1_2402

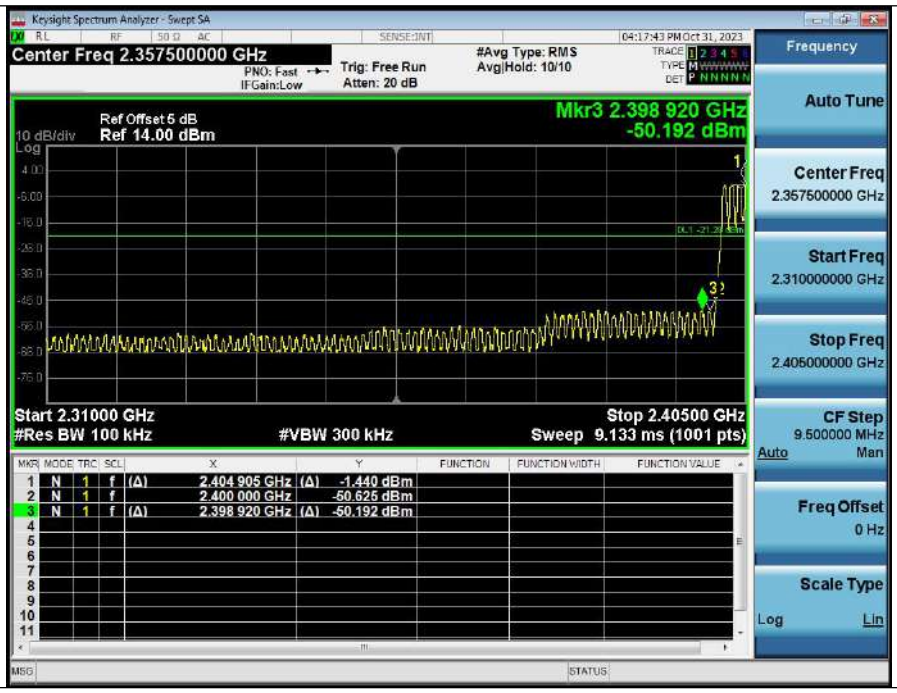
2_Bandedge_NVNT_ANT1_1-DH1_2402



1_Reference_Level_Hopping_NVNT_ANT1_1-DH1_Hopping

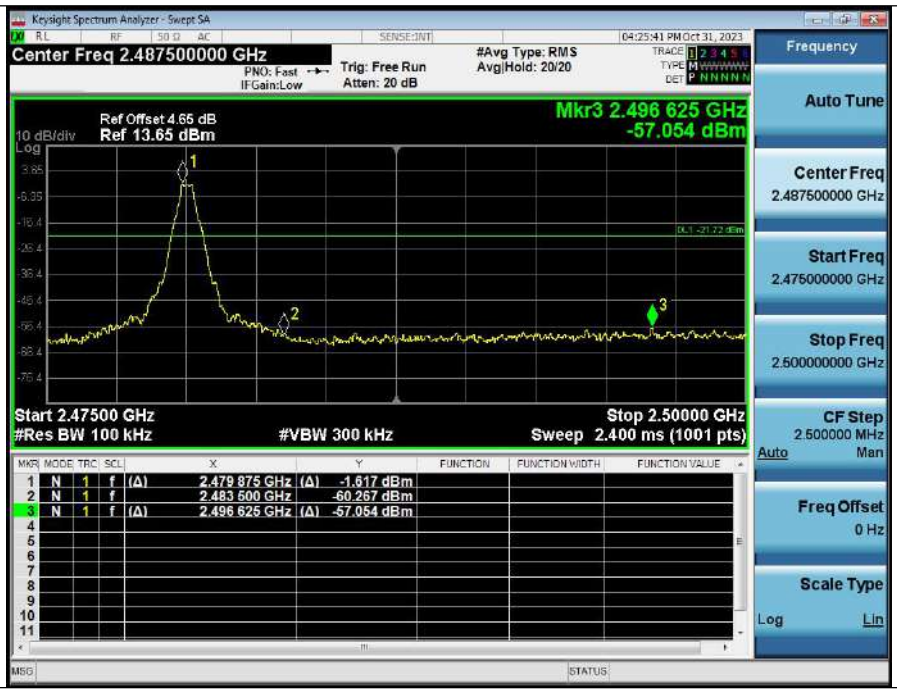


2_Band_Edge_(Hopping)_NVNT_ANT1_1-DH1_Hopping

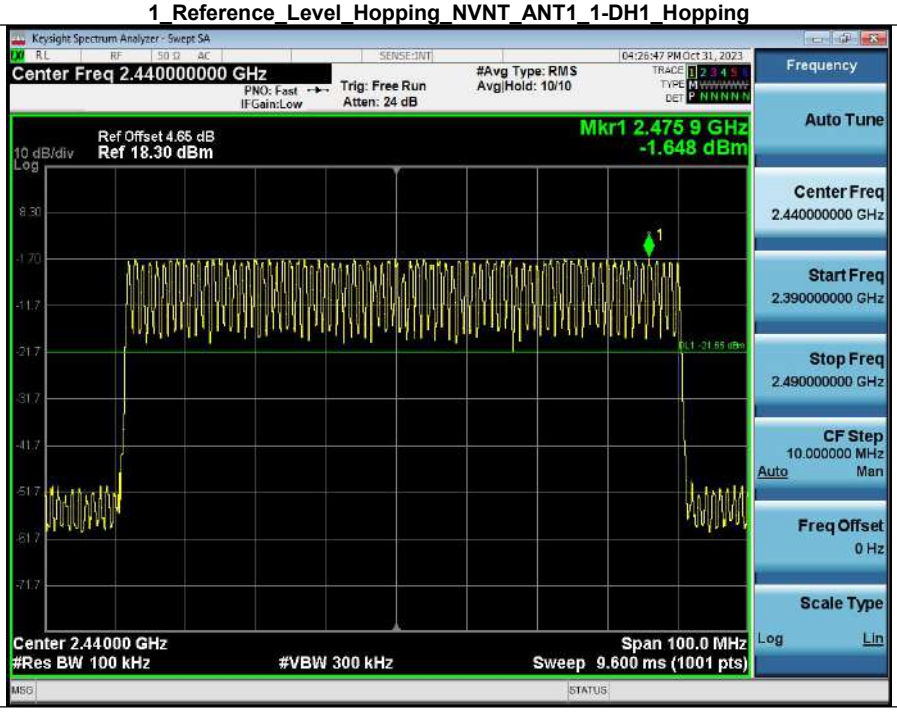


1_Reference_Level_NVNT_ANT1_1-DH1_2480

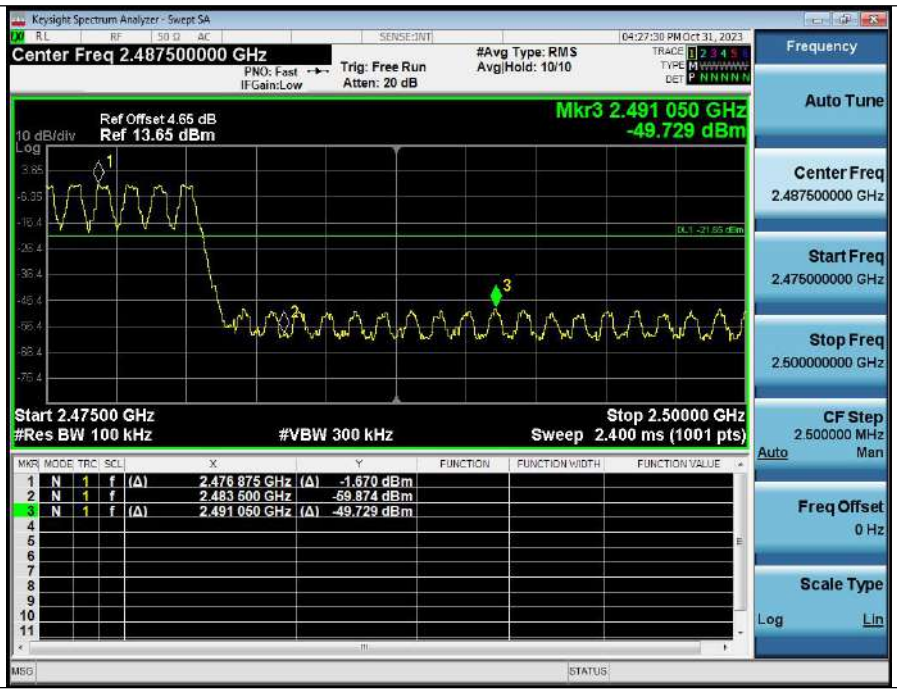
2_Bandedge_NVNT_ANT1_1-DH1_2480



1_Reference_Level_Hopping_NVNT_ANT1_1-DH1_Hopping

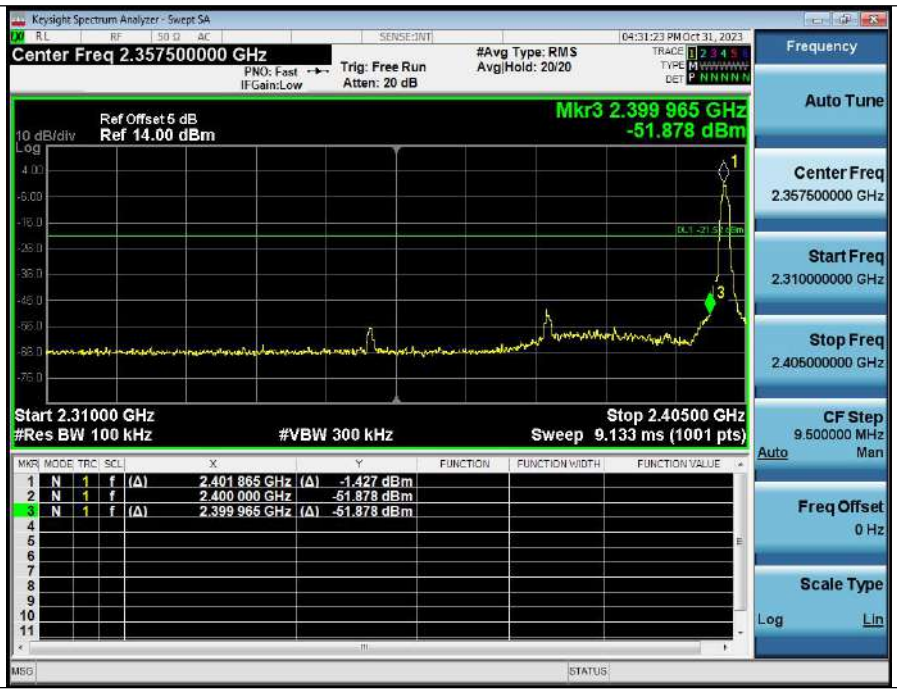


2_Band_Edge_(Hopping)_NVNT_ANT1_1-DH1_Hopping

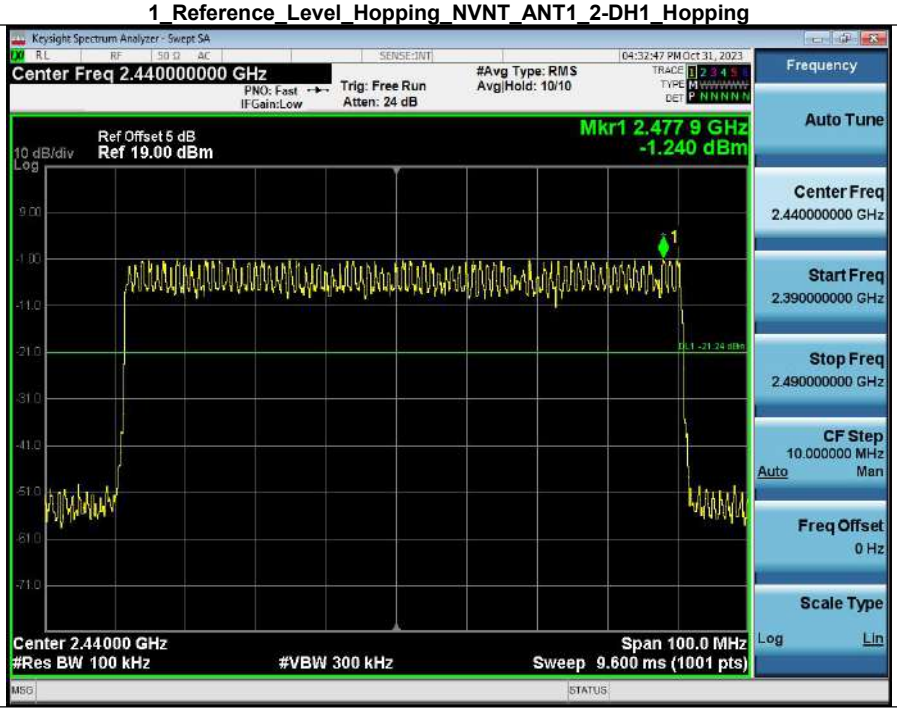


1_Reference_Level_NVNT_ANT1_2-DH1_2402

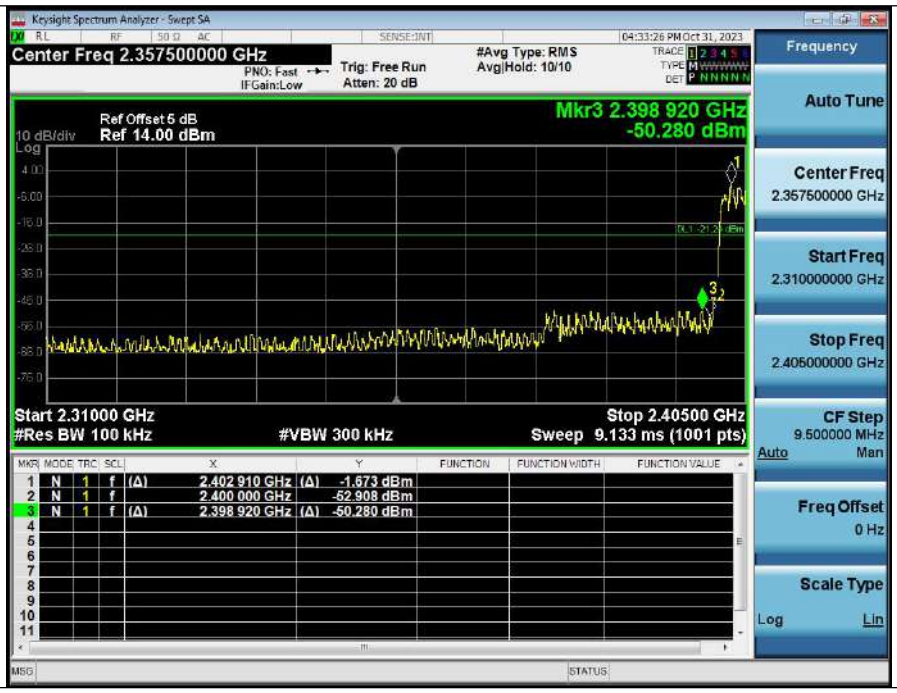
2_Bandedge_NVNT_ANT1_2-DH1_2402



1_Reference_Level_Hopping_NVNT_ANT1_2-DH1_Hopping

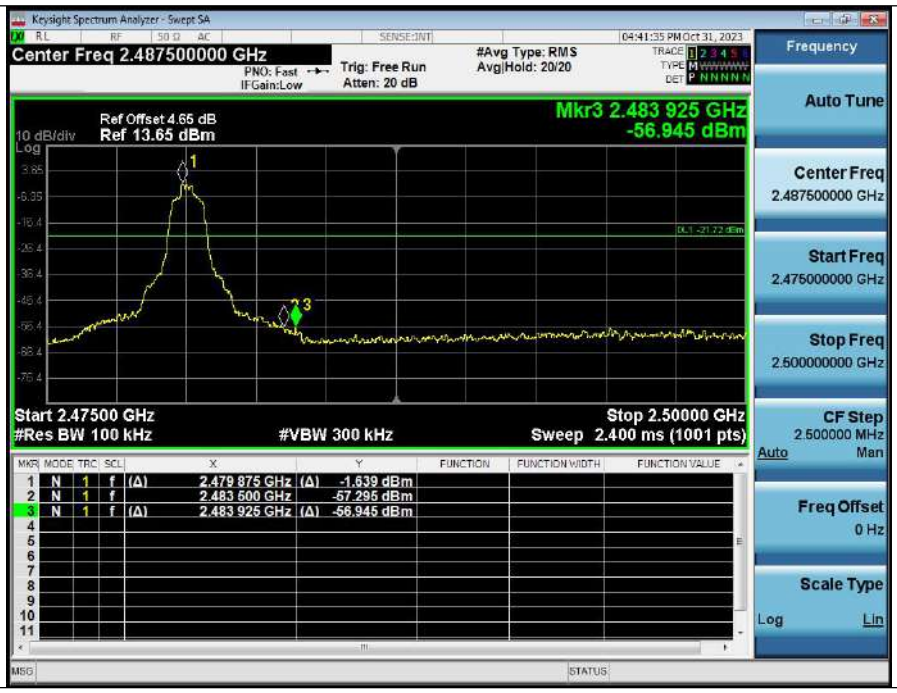


2_Band_Edge_(Hopping)_NVNT_ANT1_2-DH1_Hopping

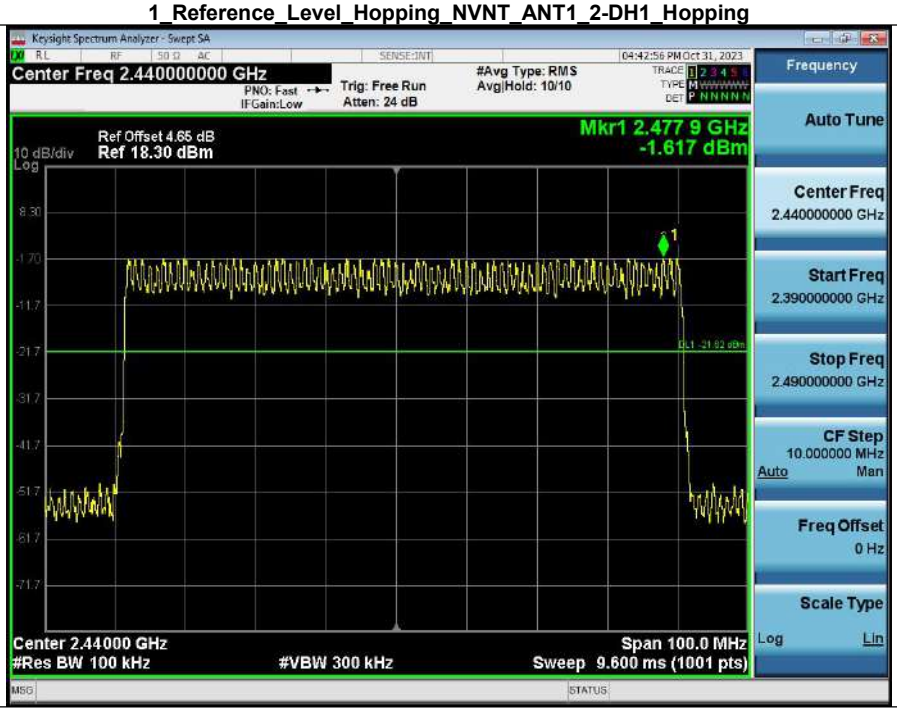


1_Reference_Level_NVNT_ANT1_2-DH1_2480

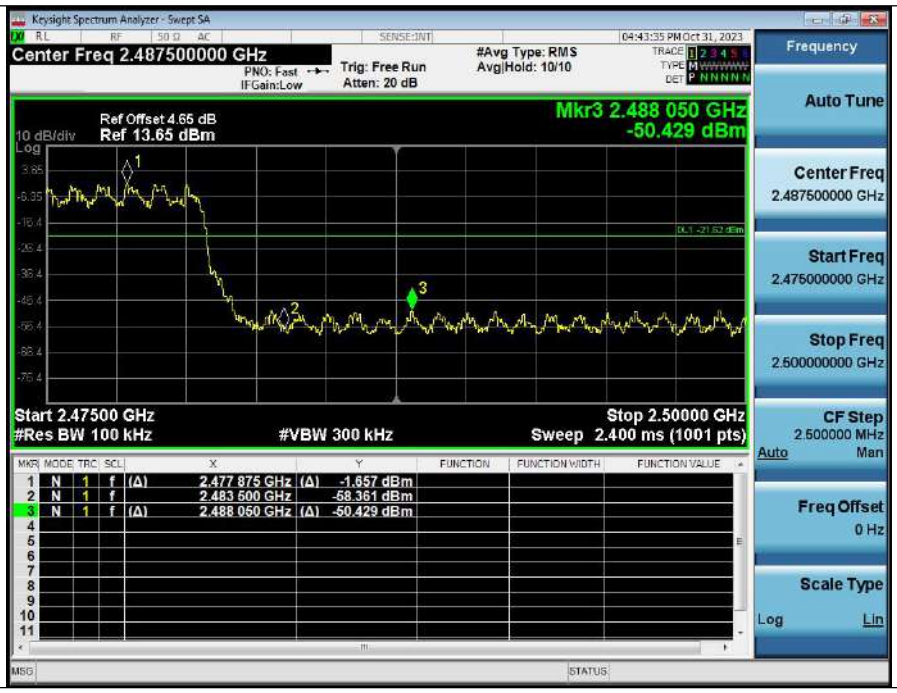
2_Bandedge_NVNT_ANT1_2-DH1_2480



1_Reference_Level_Hopping_NVNT_ANT1_2-DH1_Hopping

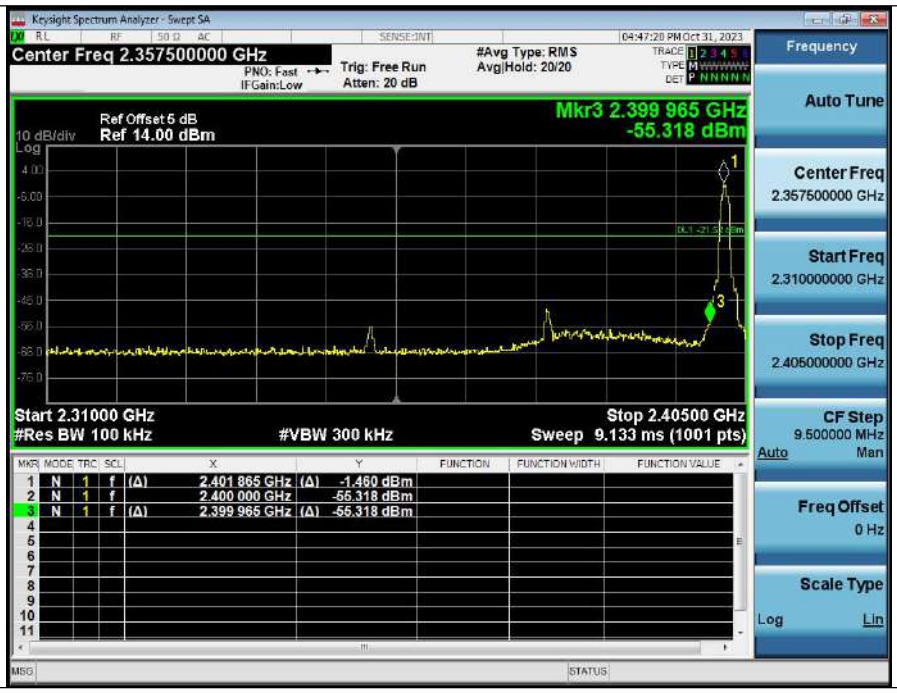


2_Band_Edge_(Hopping)_NVNT_ANT1_2-DH1_Hopping

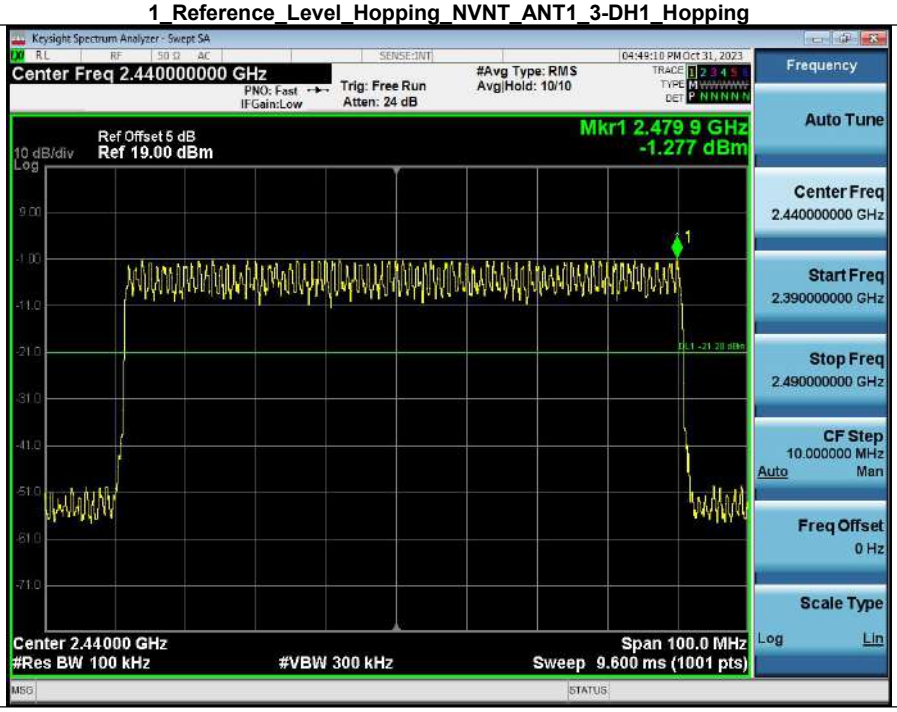


1_Reference_Level_NVNT_ANT1_3-DH1_2402

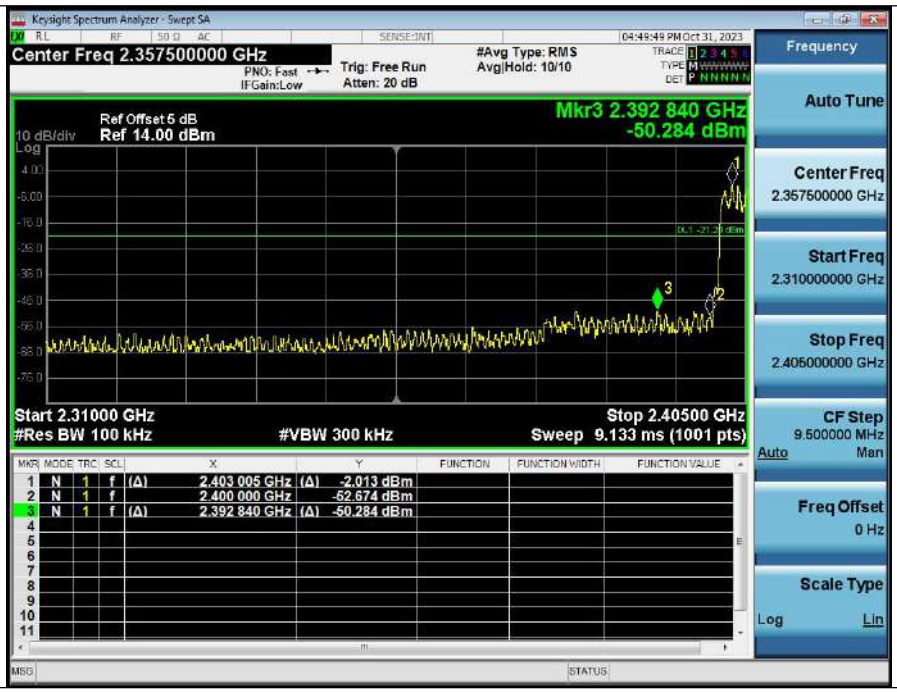
2_Bandedge_NVNT_ANT1_3-DH1_2402



1_Reference_Level_Hopping_NVNT_ANT1_3-DH1_Hopping

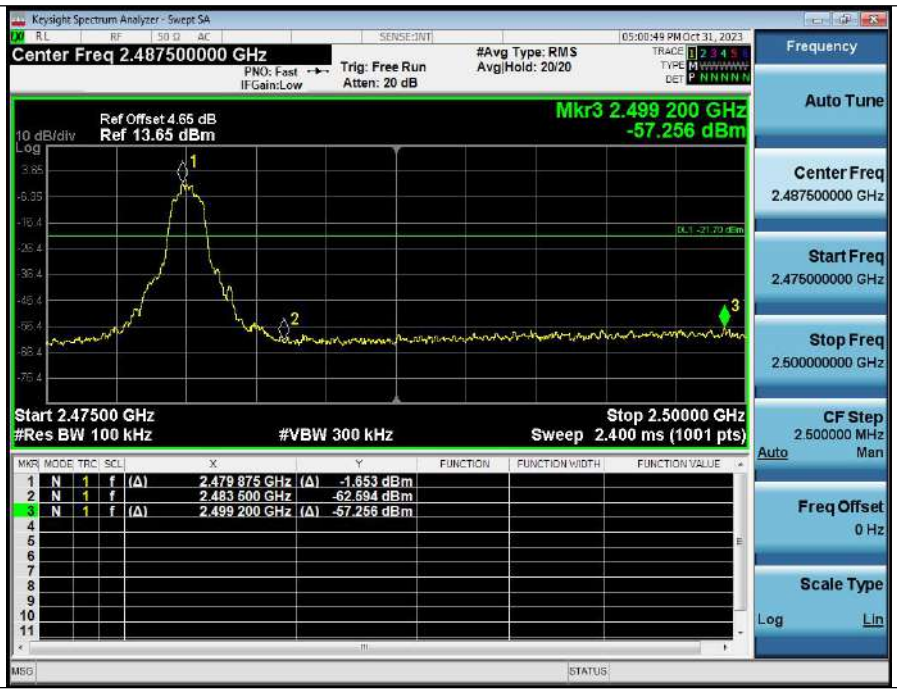


2_Band_Edge_(Hopping)_NVNT_ANT1_3-DH1_Hopping

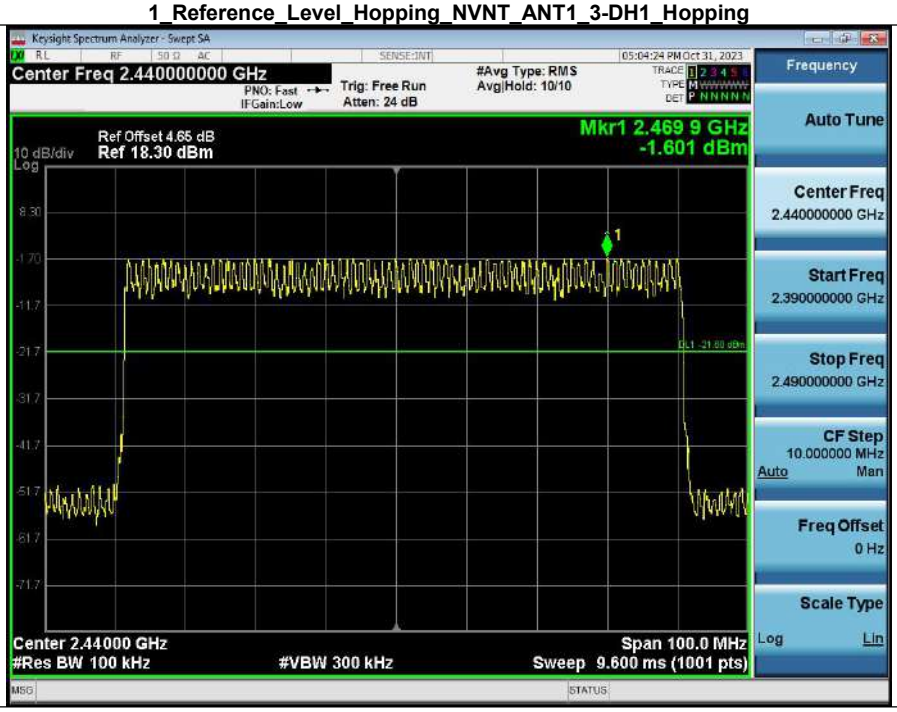


1_Reference_Level_NVNT_ANT1_3-DH1_2480

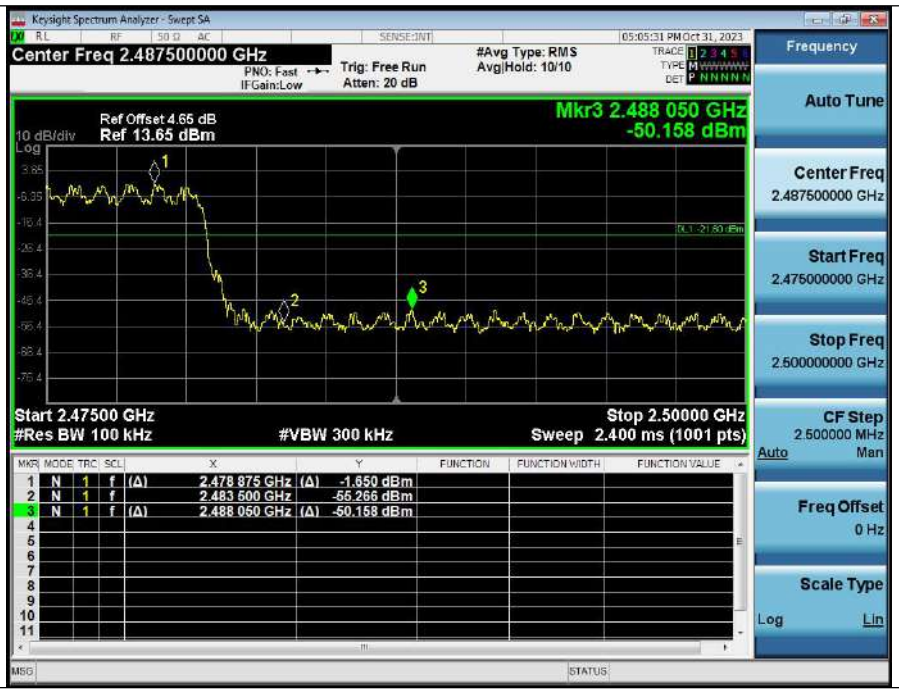
2_Bandedge_NVNT_ANT1_3-DH1_2480



1_Reference_Level_Hopping_NVNT_ANT1_3-DH1_Hopping



2_Band_Edge_(Hopping)_NVNT_ANT1_3-DH1_Hopping


Keysight Spectrum Analyzer - Swept SA
Center Freq 2.487500000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 20 dB
#Avg Type: RMS
Avg|Hold: 10/10
05:05:31 PM Oct 31, 2023
Ref Offset 4.65 dB
10 dB/div
Ref 13.65 dBm
Mkr3 2.488 050 GHz
-50.158 dBm
Start 2.47500 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 2.50000 GHz
Sweep 2.400 ms (1001 pts)
1 N 1 f (Δ) 2.478 875 GHz (Δ) -1.650 dBm
2 N 1 f 2.483 500 GHz -55.266 dBm
3 N 1 f (Δ) 2.488 050 GHz (Δ) -50.158 dBm
Frequency
Auto Tune
Center Freq
2.487500000 GHz
Start Freq
2.475000000 GHz
Stop Freq
2.500000000 GHz
CF Step
2.500000 MHz
Auto
Man
Freq Offset
0 Hz
Scale Type
Log
Lin

6. Carrier Frequencies Separation (Hopping)

Condition	Antenna	Modulation	Frequency(MHz)	Hopping NO.0 (MHz)	Hopping NO.1 (MHz)	Carrier Frequencies Separation(MHz)	Limit(MHz)	Result
NVNT	ANT1	1-DH1	2402.00	2401.870	2402.869	1.00	0.990	Pass
NVNT	ANT1	1-DH1	2441.00	2440.870	2441.872	1.00	0.939	Pass
NVNT	ANT1	1-DH1	2480.00	2478.873	2479.872	1.00	0.679	Pass
NVNT	ANT1	2-DH1	2402.00	2401.870	2402.878	1.01	0.859	Pass
NVNT	ANT1	2-DH1	2441.00	2440.870	2441.869	1.00	0.859	Pass
NVNT	ANT1	2-DH1	2480.00	2478.873	2479.872	1.00	0.857	Pass
NVNT	ANT1	3-DH1	2402.00	2401.870	2402.869	1.00	0.837	Pass
NVNT	ANT1	3-DH1	2441.00	2440.873	2441.869	1.00	0.836	Pass
NVNT	ANT1	3-DH1	2480.00	2478.867	2479.872	1.00	0.835	Pass

Carrier_Frequencies_Separation_(Hopping)_NVNT_ANT1_1-DH1_Hopping

Carrier_Frequencies_Separation_(Hopping)_NVNT_ANT1_1-DH1_Hopping

Carrier_Frequencies_Separation_(Hopping)_NVNT_ANT1_1-DH1_Hopping

Carrier_Frequencies_Separation_(Hopping)_NVNT_ANT1_2-DH1_Hopping

Carrier_Frequencies_Separation_(Hopping)_NVNT_ANT1_2-DH1_Hopping

Carrier_Frequencies_Separation_(Hopping)_NVNT_ANT1_2-DH1_Hopping

Carrier_Frequencies_Separation_(Hopping)_NVNT_ANT1_3-DH1_Hopping

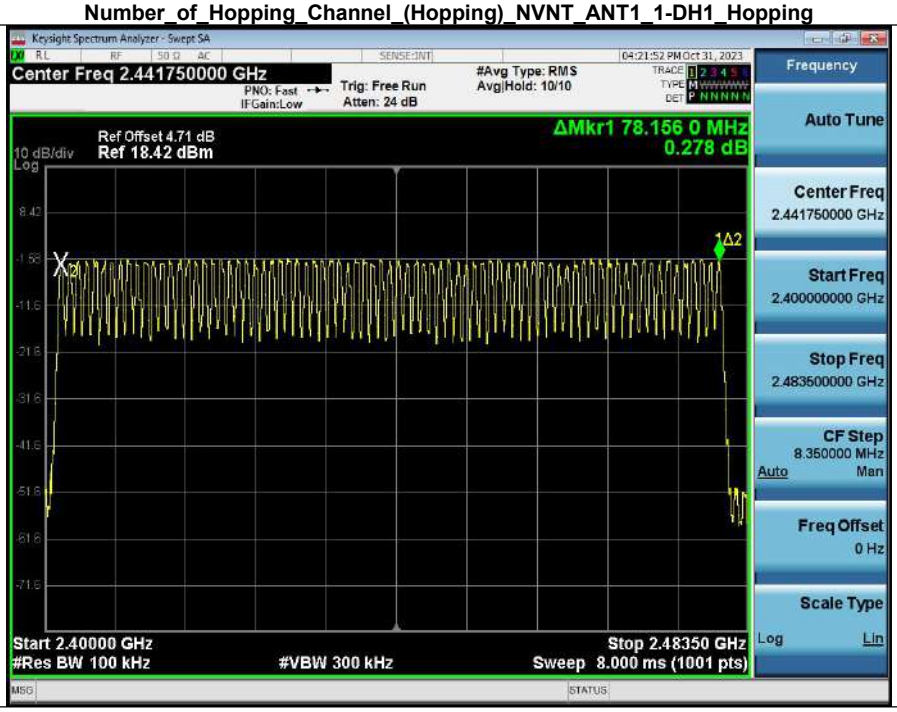
Carrier_Frequencies_Separation_(Hopping)_NVNT_ANT1_3-DH1_Hopping

Carrier_Frequencies_Separation_(Hopping)_NVNT_ANT1_3-DH1_Hopping

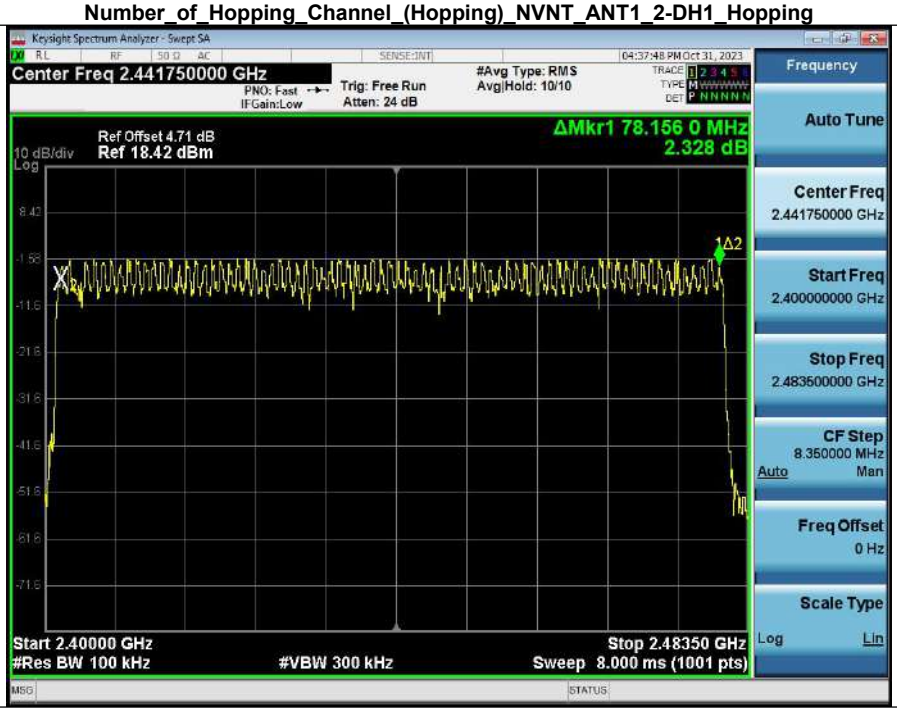
7. Number of Hopping Channel (Hopping)

Condition	Antenna	Modulation	Hopping Num	Limit	Result
NVNT	ANT1	1-DH1	79	15	Pass
NVNT	ANT1	2-DH1	79	15	Pass
NVNT	ANT1	3-DH1	79	15	Pass

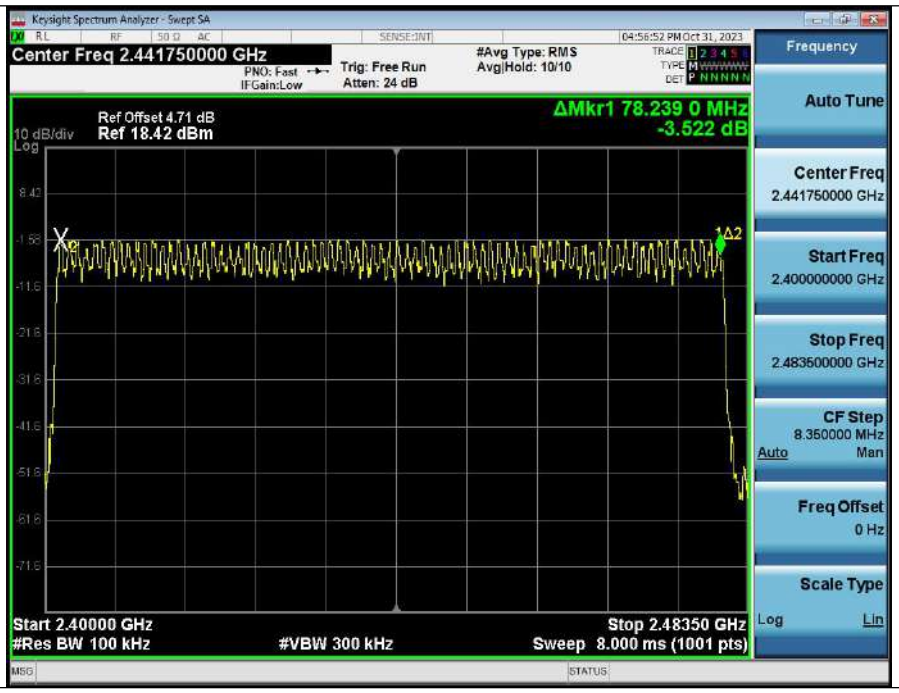
Number_of_Hopping_Channel_(Hopping)_NVNT_ANT1_1-DH1_Hopping



Number_of_Hopping_Channel_(Hopping)_NVNT_ANT1_2-DH1_Hopping



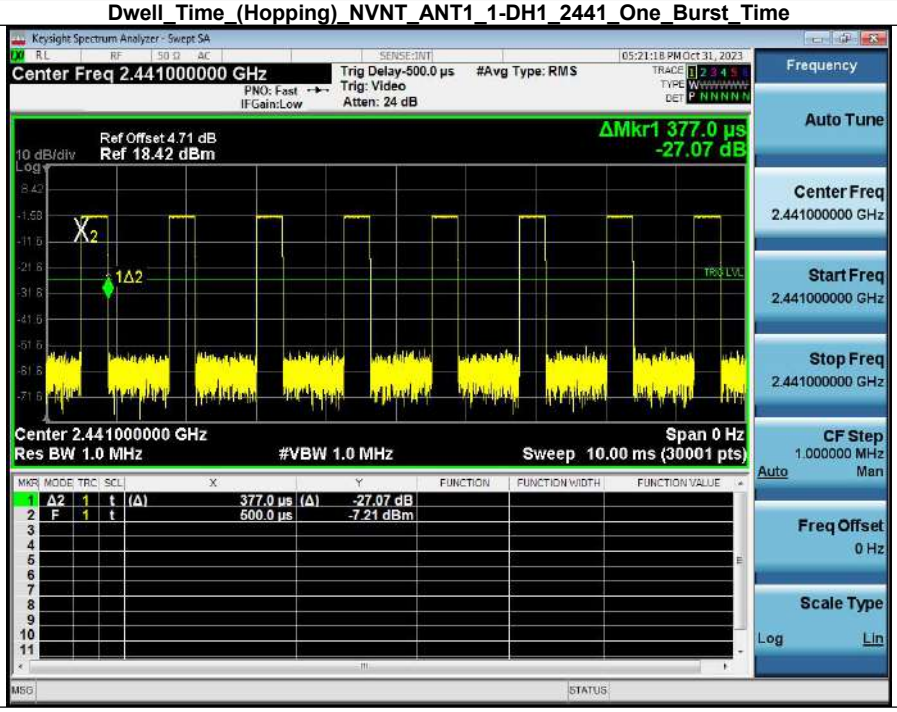
Number_of_Hopping_Channel_(Hopping)_NVNT_ANT1_3-DH1_Hopping


Keysight Spectrum Analyzer - Swept SA
Center Freq 2.441750000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 24 dB
#Avg Type: RMS
Avg|Hold: 10/10
Ref Offset 4.71 dB
10 dB/div
Ref 18.42 dBm
ΔMkr1 78.239 0 MHz
-3.522 dB
Start 2.40000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 2.48350 GHz
Sweep 8.000 ms (1001 pts)
Frequency
Auto Tune
Center Freq
2.441750000 GHz
Start Freq
2.400000000 GHz
Stop Freq
2.483500000 GHz
CF Step
8.350000 MHz
Auto
Man
Freq Offset
0 Hz
Scale Type
Log
Lin

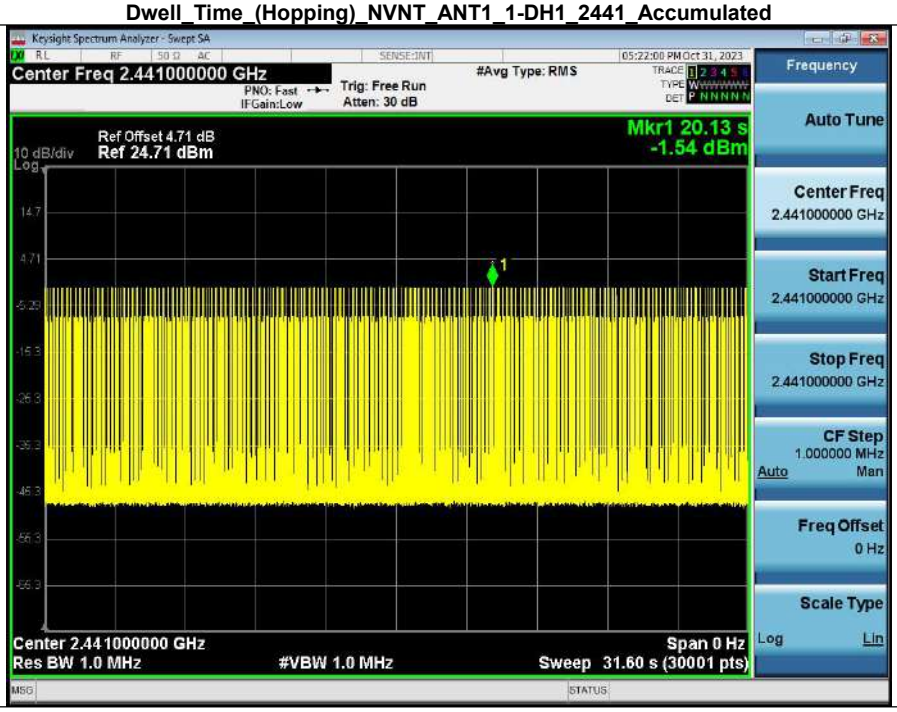
8. Dwell Time (Hopping)

Condition	Antenna	Packet Type	Pulse Time(ms)	Hops	Dwell Time(ms)	Limit(s)	Result
NVNT	ANT1	1-DH1	0.377	319.00	120.263	0.40	Pass
NVNT	ANT1	2-DH1	0.387	320.00	123.840	0.40	Pass
NVNT	ANT1	3-DH1	0.388	319.00	123.772	0.40	Pass
NVNT	ANT1	1-DH3	1.633	165.00	269.445	0.40	Pass
NVNT	ANT1	1-DH5	2.881	95.00	273.695	0.40	Pass
NVNT	ANT1	2-DH3	1.639	161.00	263.879	0.40	Pass
NVNT	ANT1	2-DH5	2.887	113.00	326.231	0.40	Pass
NVNT	ANT1	3-DH3	1.638	152.00	248.976	0.40	Pass
NVNT	ANT1	3-DH5	2.889	124.00	358.236	0.40	Pass

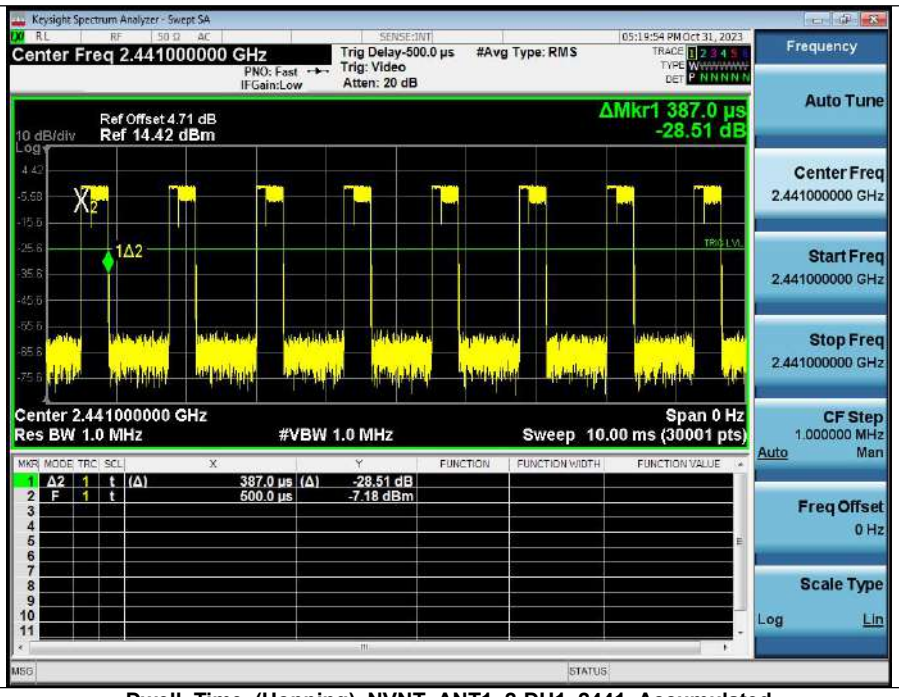
Dwell_Time_(Hopping)_NVNT_ANT1_1-DH1_2441_One_Burst_Time



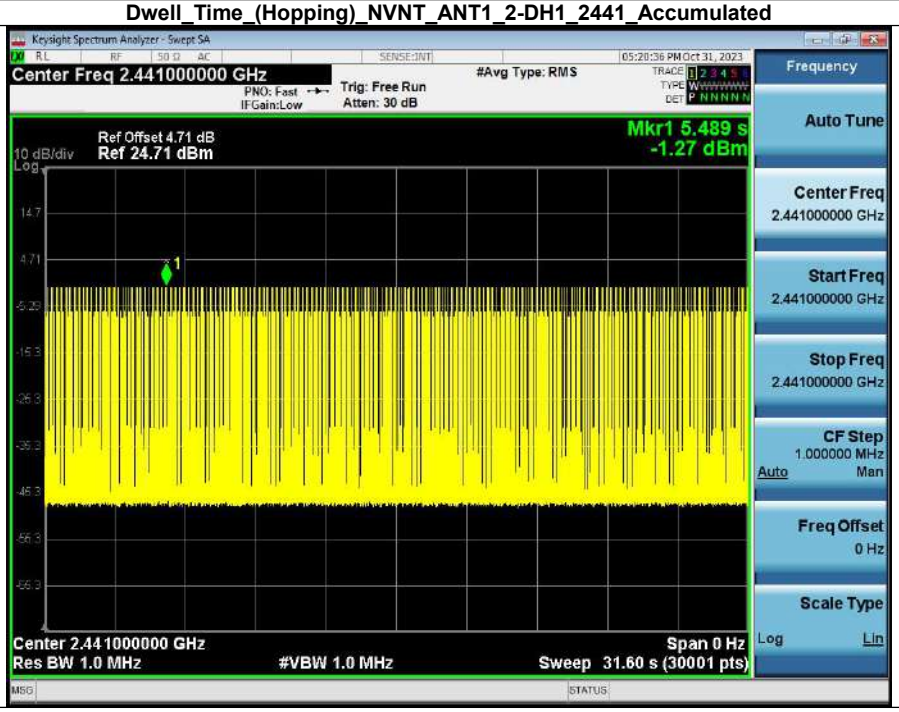
Dwell_Time_(Hopping)_NVNT_ANT1_1-DH1_2441_Accumulated



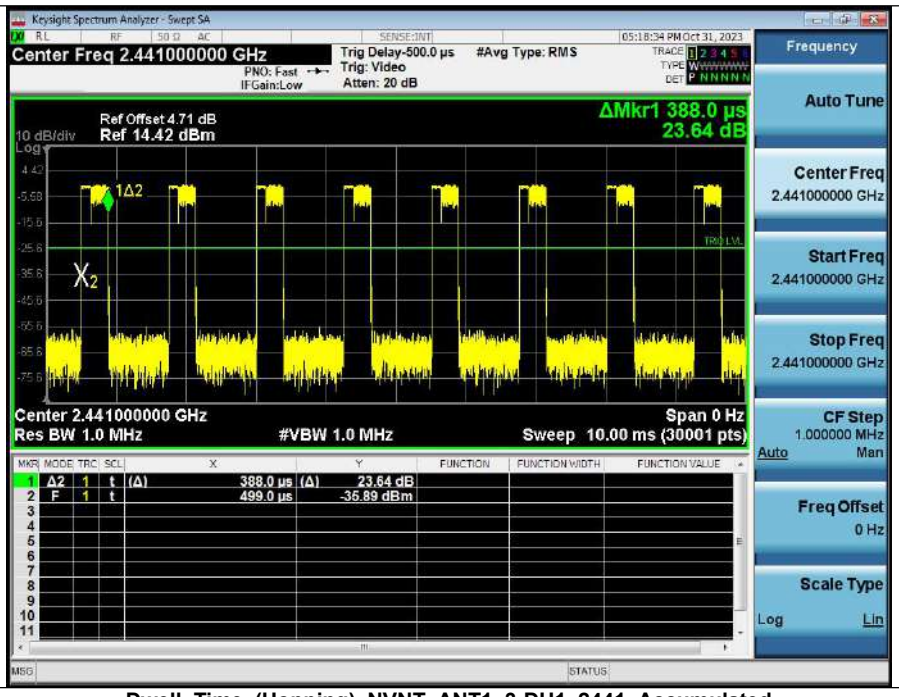
Dwell_Time_(Hopping)_NVNT_ANT1_2-DH1_2441_One_Burst_Time



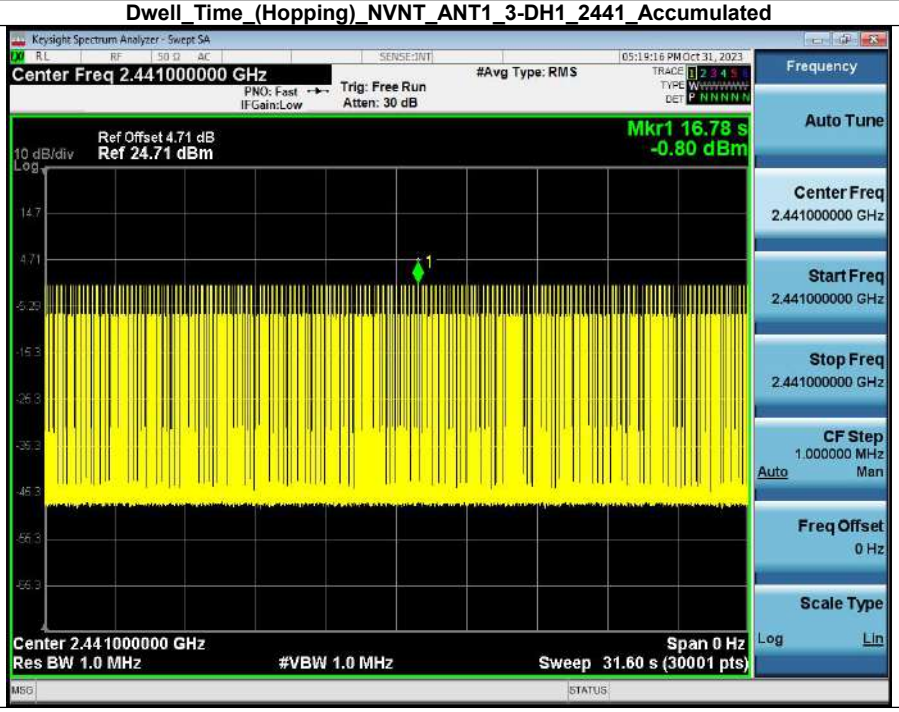
Dwell_Time_(Hopping)_NVNT_ANT1_2-DH1_2441_Accumulated



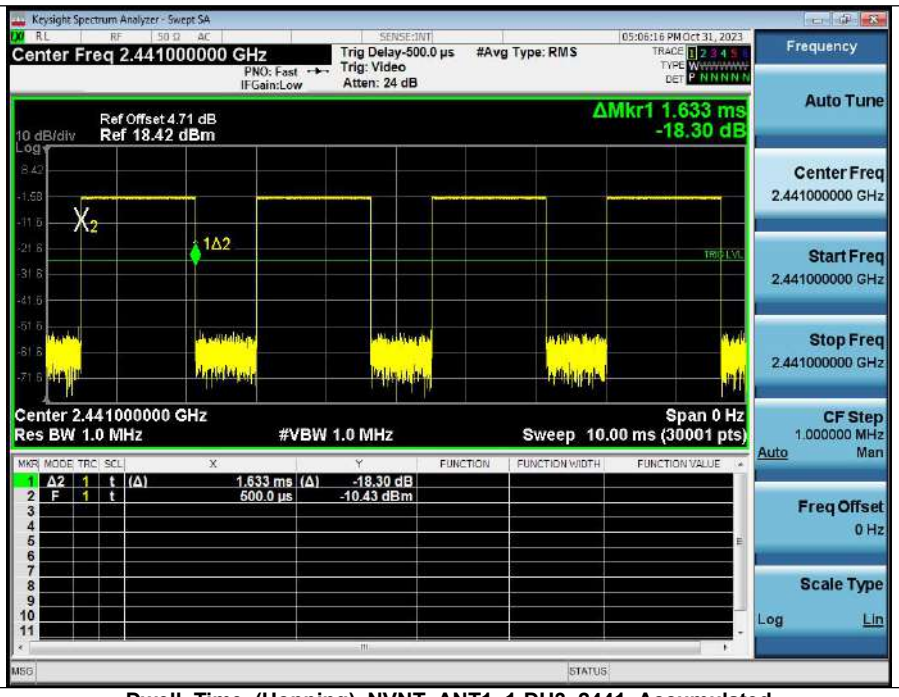
Dwell_Time_(Hopping)_NVNT_ANT1_3-DH1_2441_One_Burst_Time



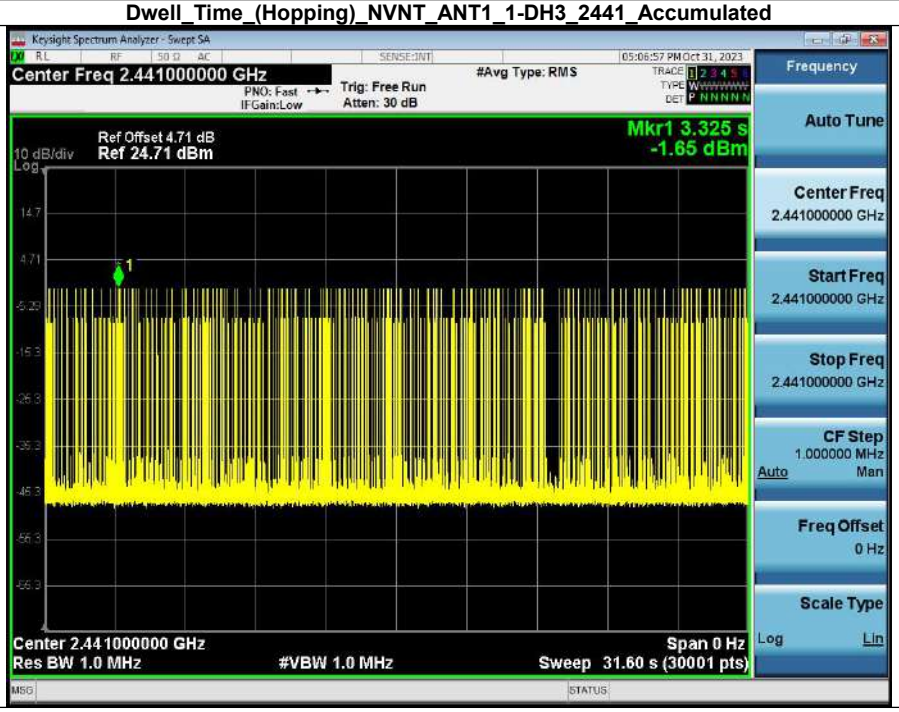
Dwell_Time_(Hopping)_NVNT_ANT1_3-DH1_2441_Accumulated



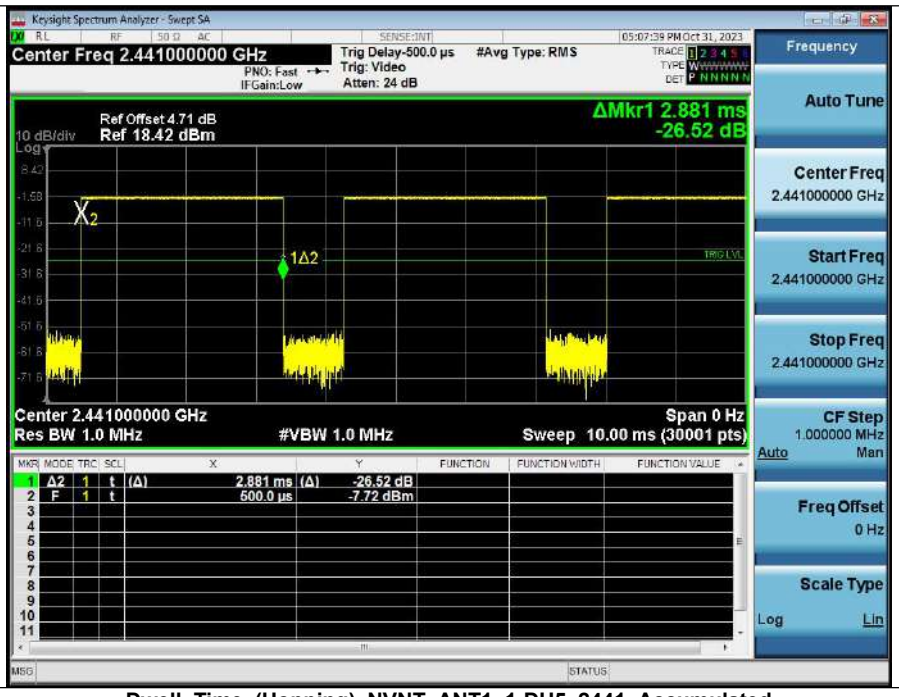
Dwell_Time_(Hopping)_NVNT_ANT1_1-DH3_2441_One_Burst_Time



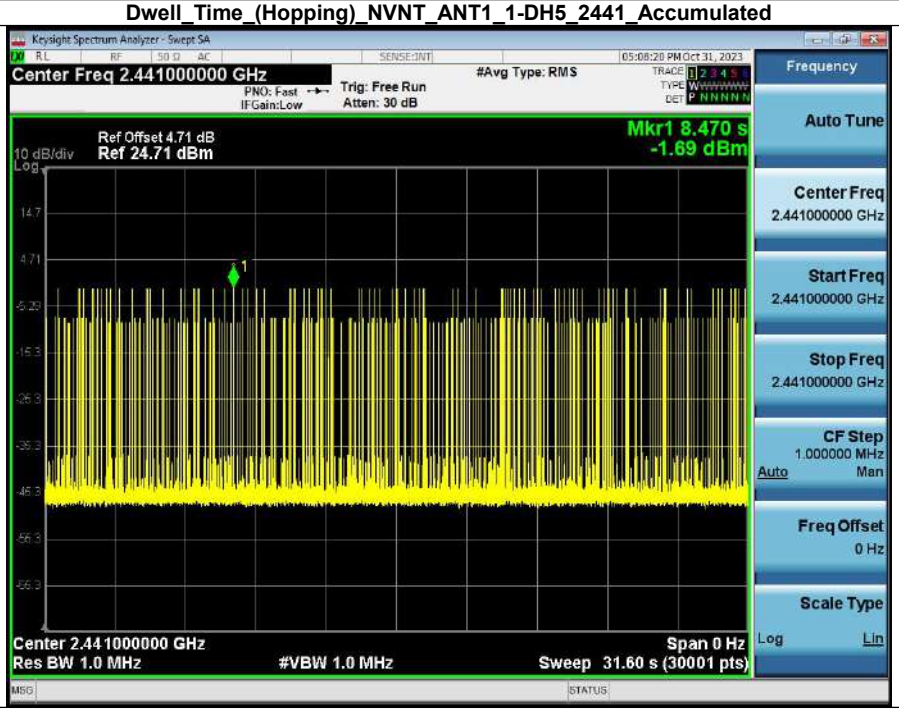
Dwell_Time_(Hopping)_NVNT_ANT1_1-DH3_2441_Accumulated



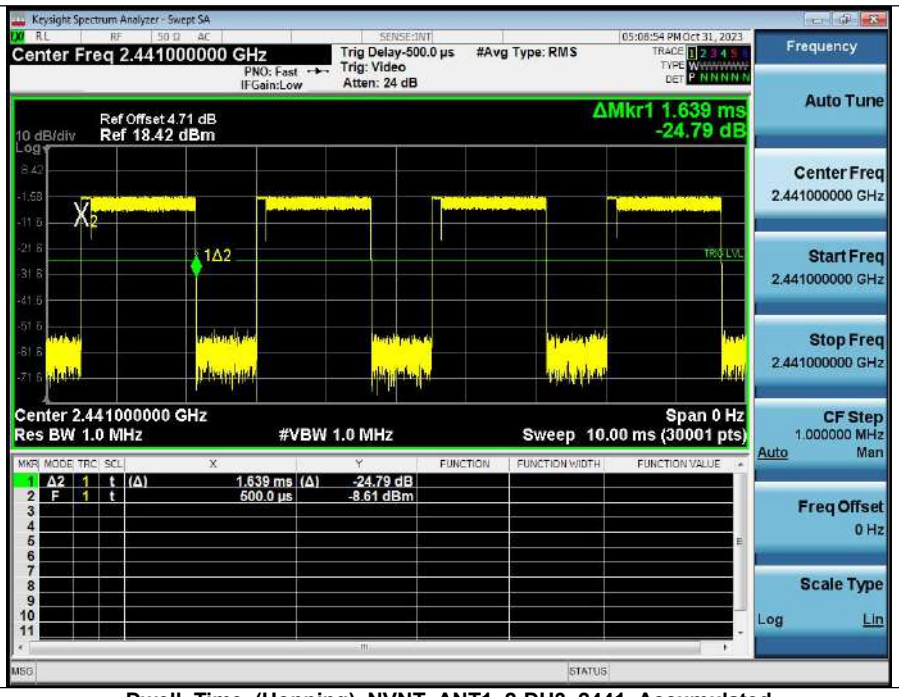
Dwell_Time_(Hopping)_NVNT_ANT1_1-DH5_2441_One_Burst_Time



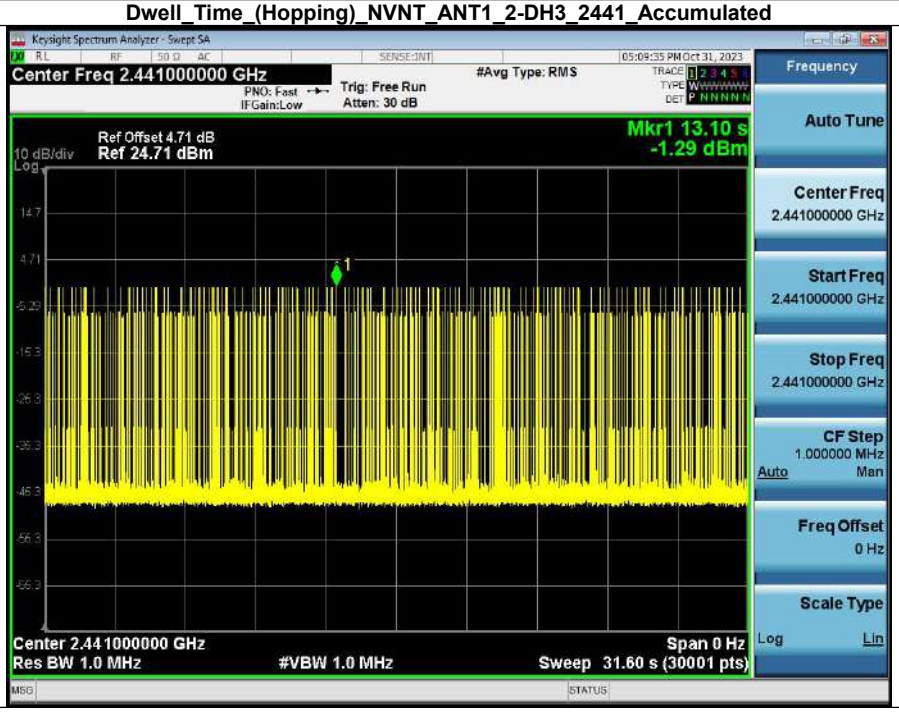
Dwell_Time_(Hopping)_NVNT_ANT1_1-DH5_2441_Accumulated



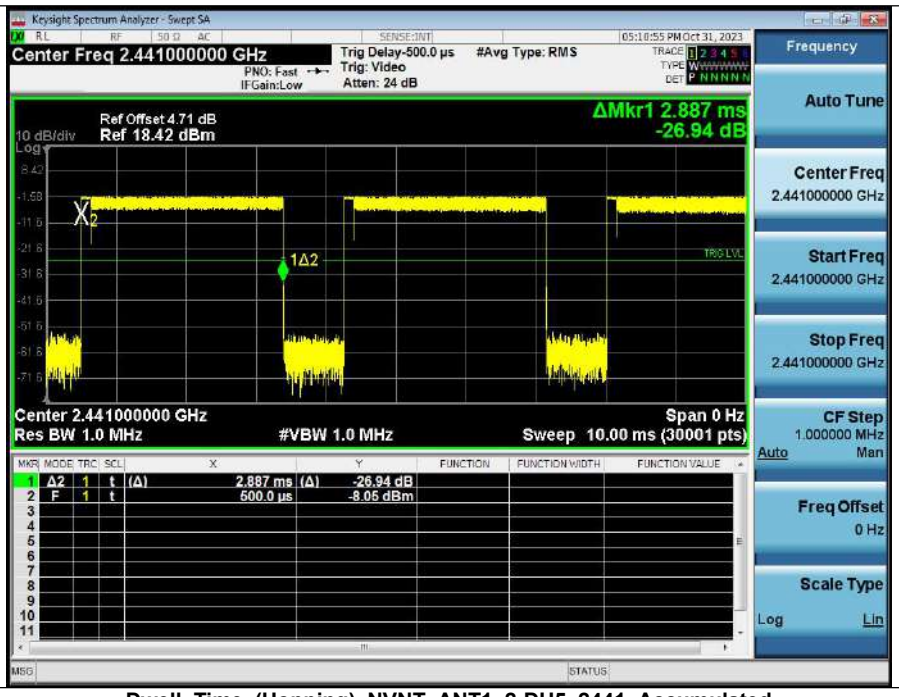
Dwell_Time_(Hopping)_NVNT_ANT1_2-DH3_2441_One_Burst_Time



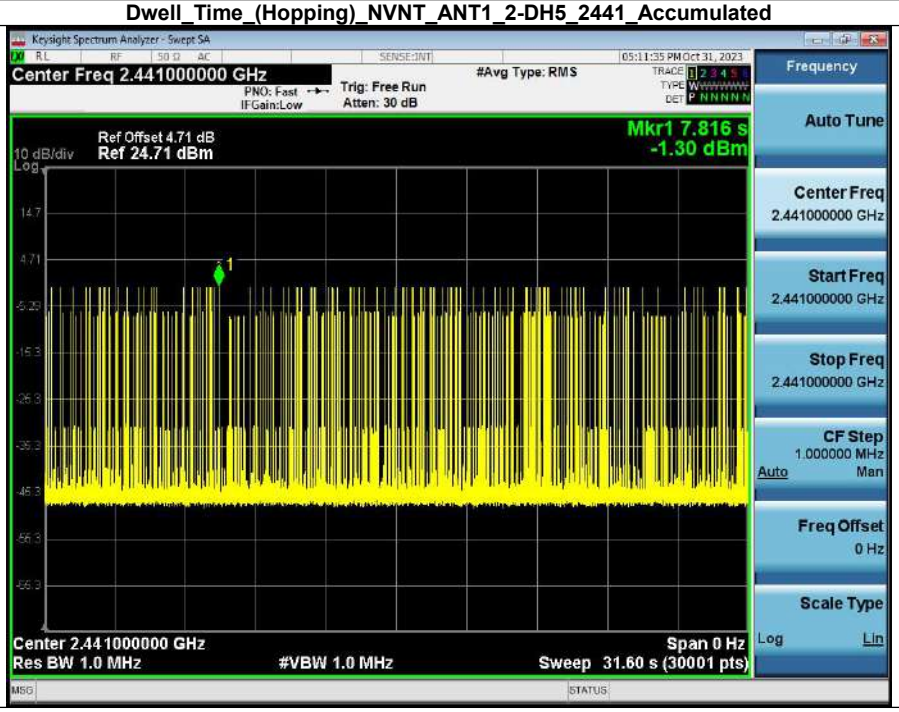
Dwell_Time_(Hopping)_NVNT_ANT1_2-DH3_2441_Accumulated



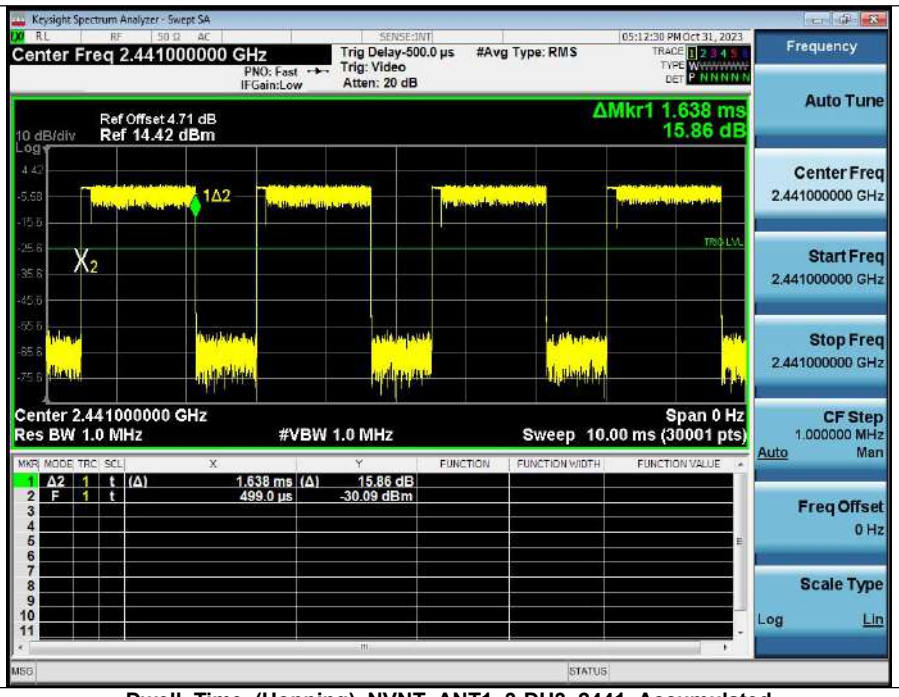
Dwell_Time_(Hopping)_NVNT_ANT1_2-DH5_2441_One_Burst_Time



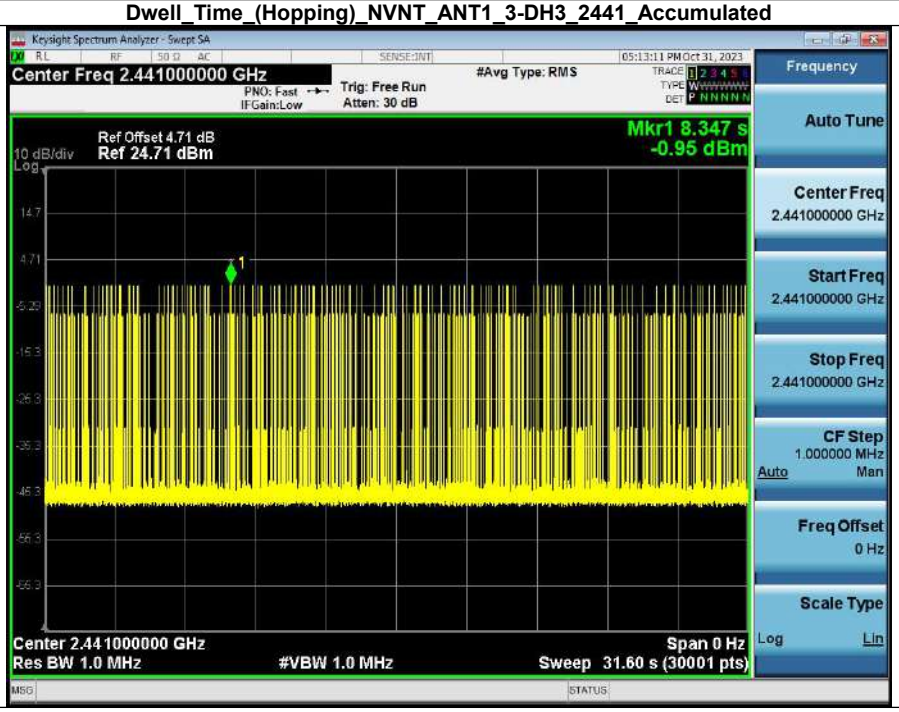
Dwell_Time_(Hopping)_NVNT_ANT1_2-DH5_2441_Accumulated



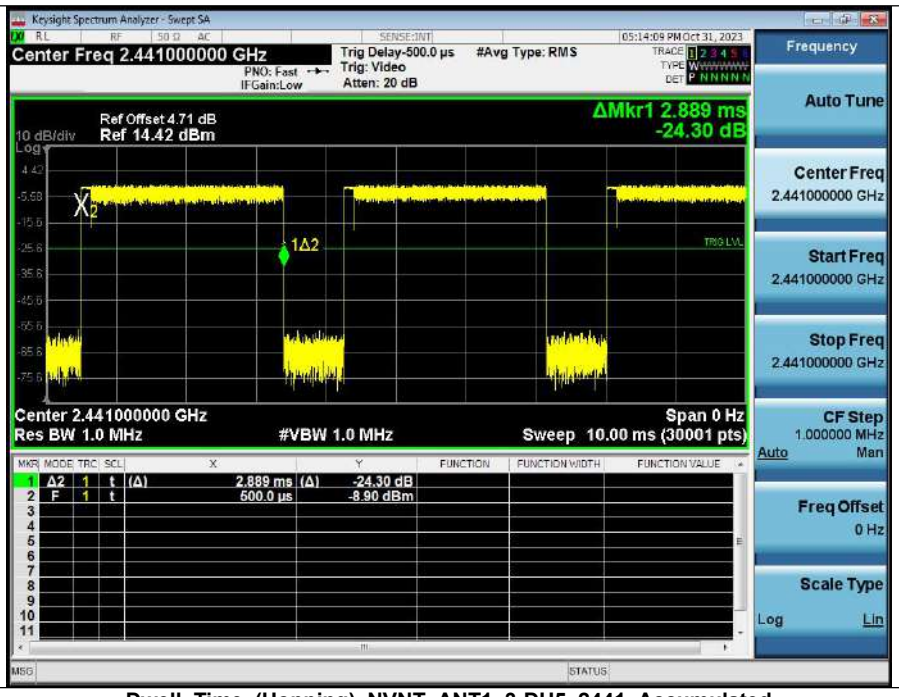
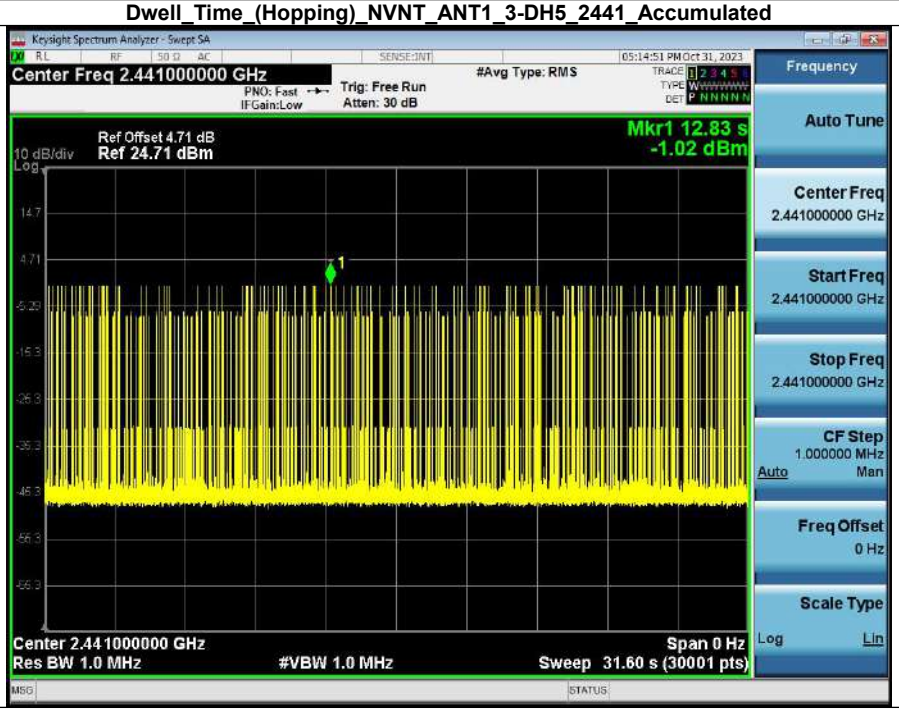
Dwell_Time_(Hopping)_NVNT_ANT1_3-DH3_2441_One_Burst_Time



Dwell_Time_(Hopping)_NVNT_ANT1_3-DH3_2441_Accumulated



Dwell_Time_(Hopping)_NVNT_ANT1_3-DH5_2441_One_Burst_Time



Dwell_Time_(Hopping)_NVNT_ANT1_3-DH5_2441_Accumulated