Table of Contents

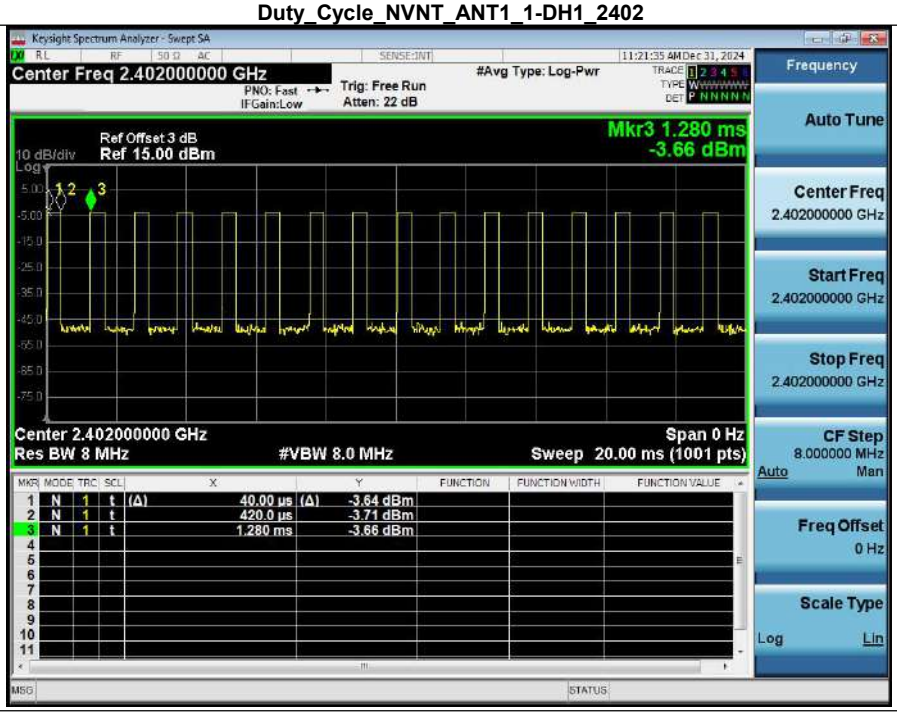
1. Duty Cycle 2
2. -20dB Bandwidth 7
3. 99% Occupied Bandwidth 12
4. Peak Output Power 17
5. Spurious Emissions 22
6. Bandedge 31
7. Carrier Frequencies Separation (Hopping) 44
8. Number of Hopping Channel (Hopping) 49
9. Dwell Time (Hopping) 51

FCC ID EDR
FCC_BT (Part15.247) Test Data

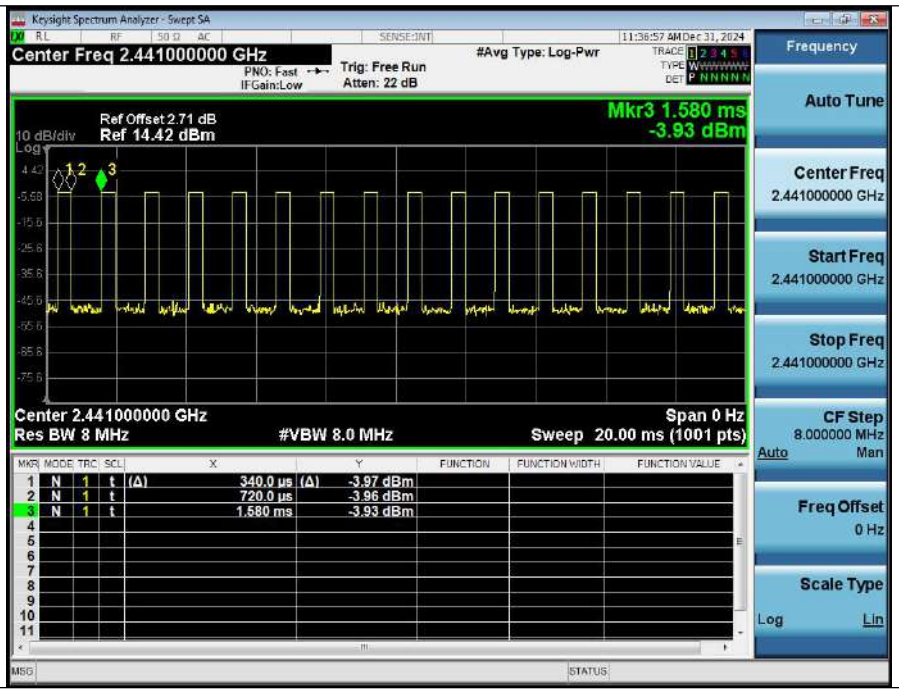
1. Duty Cycle

Condition	Antenna	Rate	Frequency (MHz)	Dutycycle(%)	Duty_factor
NVNT	ANT1	1-DH1	2402.00	30.65	5.14
NVNT	ANT1	1-DH1	2441.00	30.65	5.14
NVNT	ANT1	1-DH1	2480.00	30.65	5.14
NVNT	ANT1	2-DH1	2402.00	32.26	4.91
NVNT	ANT1	2-DH1	2441.00	33.87	4.70
NVNT	ANT1	2-DH1	2480.00	30.65	5.14
NVNT	ANT1	3-DH1	2402.00	31.75	4.98
NVNT	ANT1	3-DH1	2441.00	30.65	5.14
NVNT	ANT1	3-DH1	2480.00	30.65	5.14

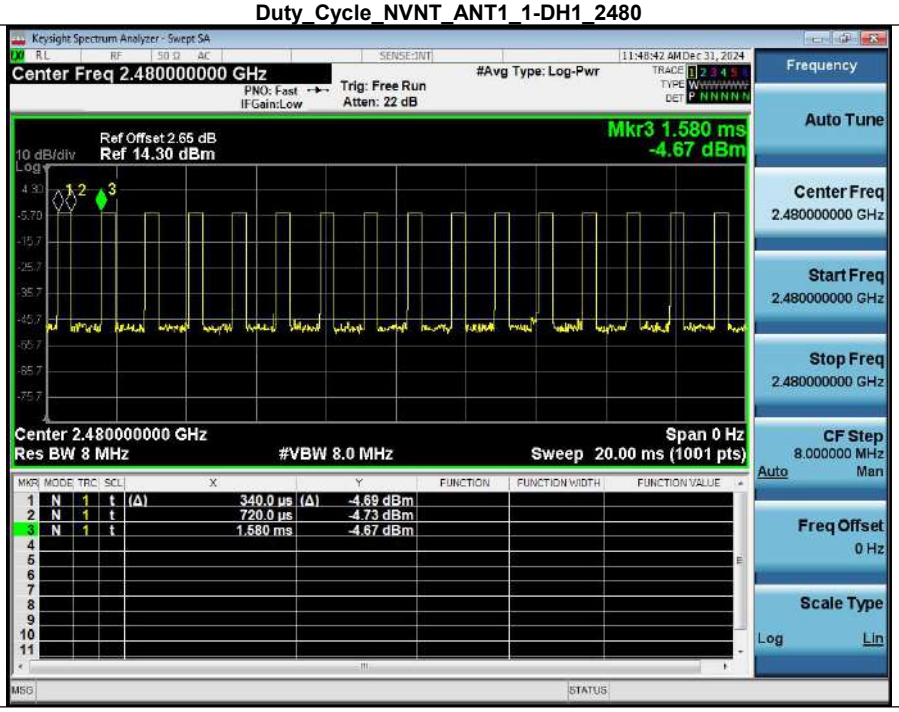
Duty_Cycle_NVNT_ANT1_1-DH1_2402



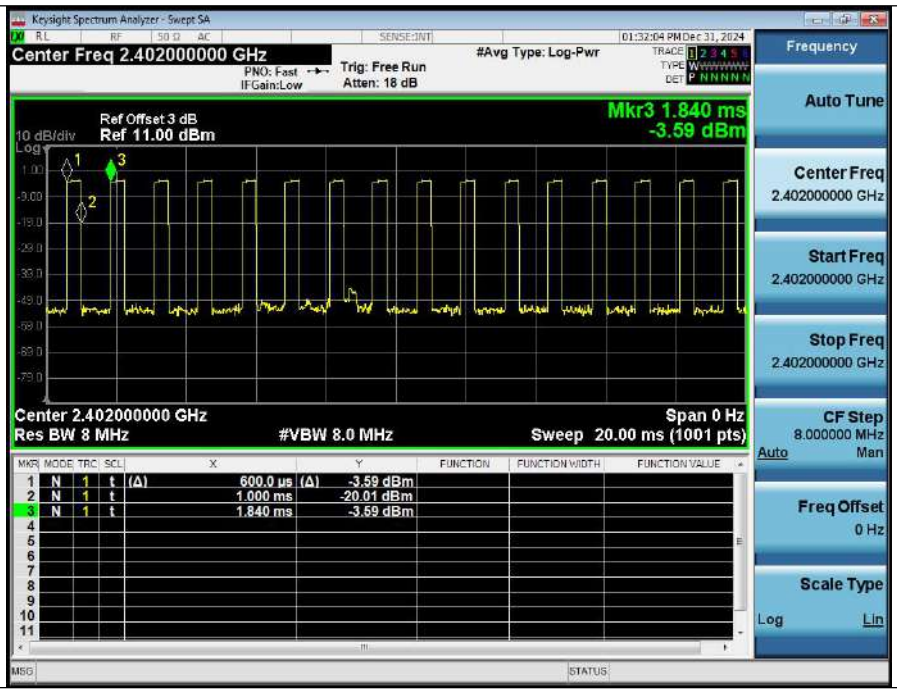
Duty_Cycle_NVNT_ANT1_1-DH1_2441



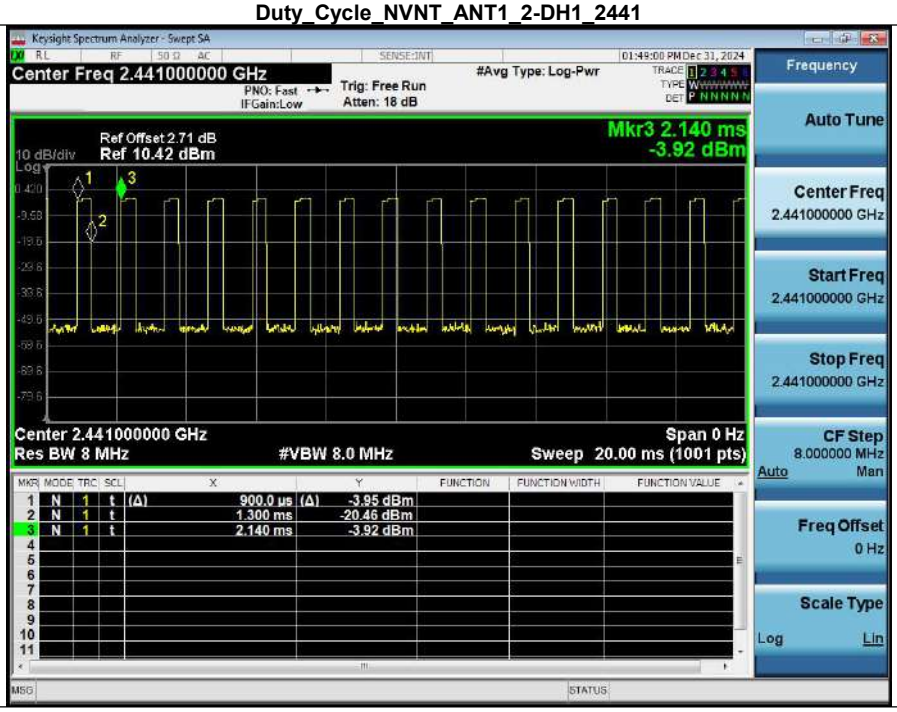
Duty_Cycle_NVNT_ANT1_1-DH1_2480



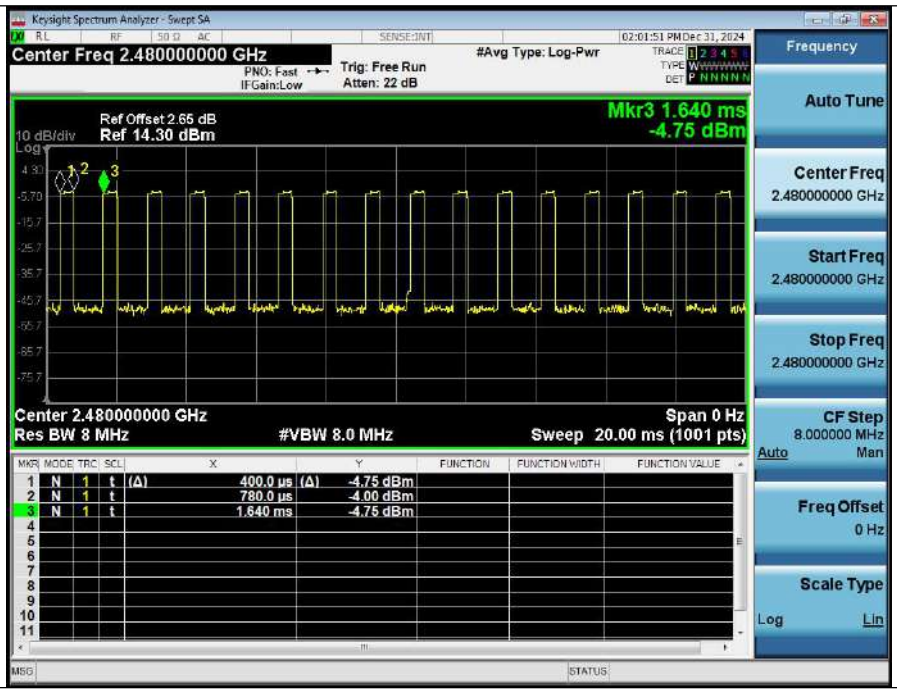
Duty_Cycle_NVNT_ANT1_2-DH1_2402



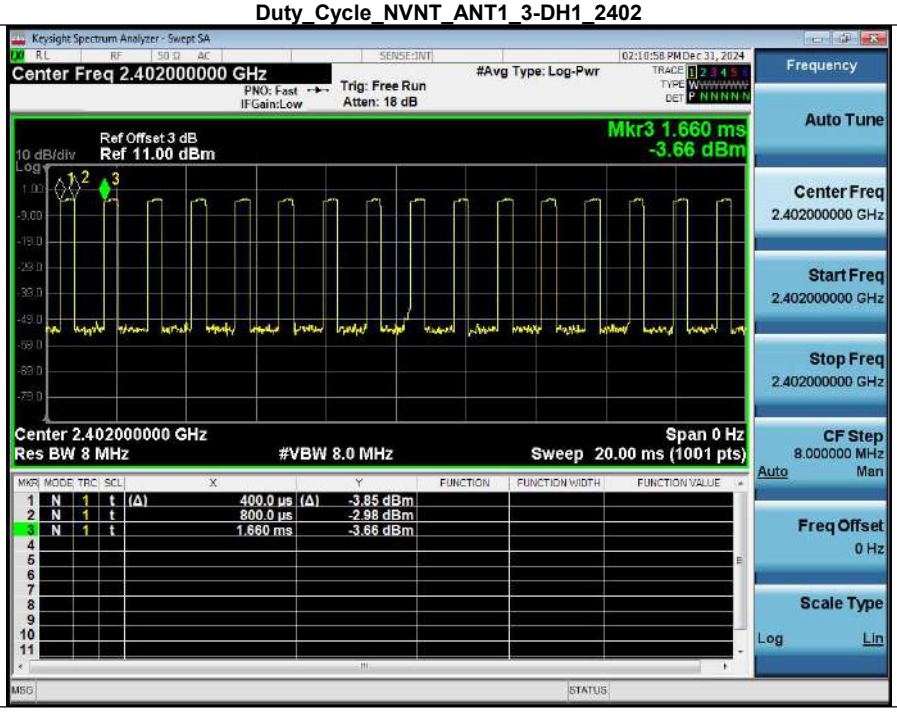
Duty_Cycle_NVNT_ANT1_2-DH1_2441



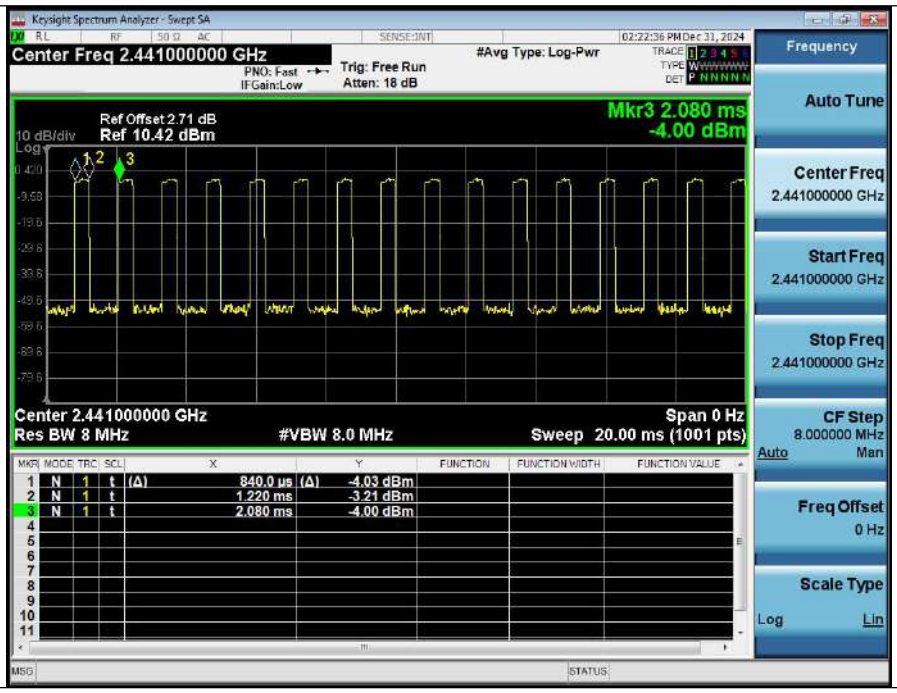
Duty_Cycle_NVNT_ANT1_2-DH1_2480



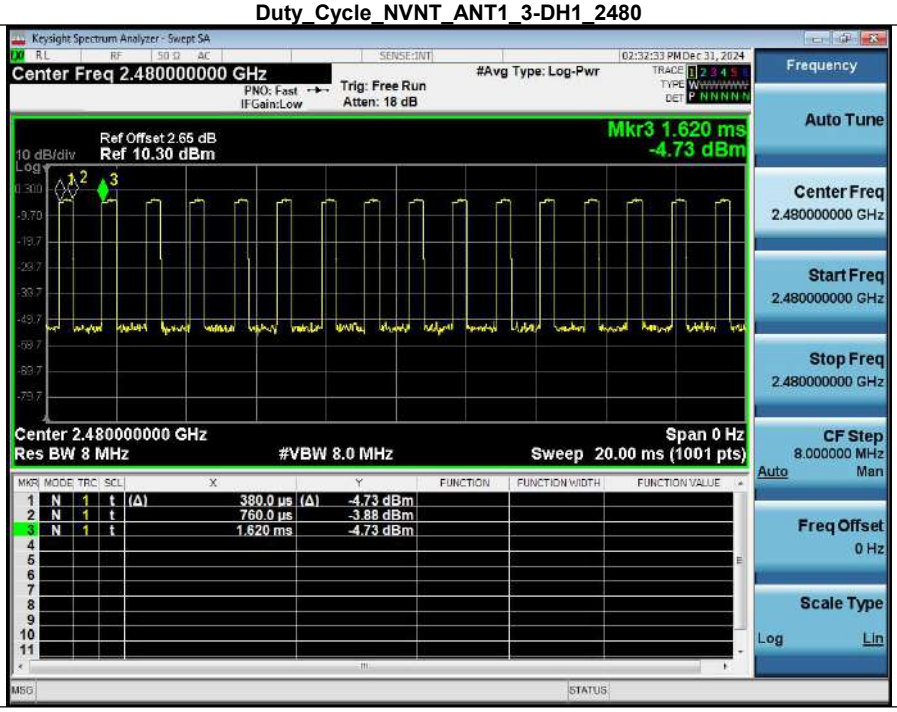
Duty_Cycle_NVNT_ANT1_3-DH1_2402



Duty_Cycle_NVNT_ANT1_3-DH1_2441



Duty_Cycle_NVNT_ANT1_3-DH1_2480



2. -20dB Bandwidth

Condition	Antenna	Modulation	Frequency (MHz)	-20dB BW(MHz)	if larger than CFS
NVNT	ANT1	1-DH1	2402.00	0.877	No
NVNT	ANT1	1-DH1	2441.00	0.918	No
NVNT	ANT1	1-DH1	2480.00	0.924	No
NVNT	ANT1	2-DH1	2402.00	1.269	Yes
NVNT	ANT1	2-DH1	2441.00	1.276	Yes
NVNT	ANT1	2-DH1	2480.00	1.273	Yes
NVNT	ANT1	3-DH1	2402.00	1.226	Yes
NVNT	ANT1	3-DH1	2441.00	1.226	Yes
NVNT	ANT1	3-DH1	2480.00	1.254	Yes

-20dB_Bandwidth_NVNT_ANT1_1-DH1_2402_00

-20dB_Bandwidth_NVNT_ANT1_1-DH1_2441_00

-20dB_Bandwidth_NVNT_ANT1_1-DH1_2480_00

-20dB_Bandwidth_NVNT_ANT1_2-DH1_2402_00

-20dB_Bandwidth_NVNT_ANT1_2-DH1_2441_00

-20dB_Bandwidth_NVNT_ANT1_2-DH1_2480_00

-20dB_Bandwidth_NVNT_ANT1_3-DH1_2402_00

-20dB_Bandwidth_NVNT_ANT1_3-DH1_2441_00

-20dB_Bandwidth_NVNT_ANT1_3-DH1_2480_00

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
02:32:53 PM Dec 31, 2024
Frequency
Ref Offset 2.65 dB
10 dB/div
Ref 6.30 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
1.1571 MHz
Total Power 2.20 dBm
Transmit Freq Error 44.823 kHz
% of OBW Power 99.00 %
x dB Bandwidth 1.254 MHz
x dB -20.00 dB
Freq Offset
0 Hz
MSG
STATUS

3. 99% Occupied Bandwidth

Condition	Antenna	Modulation	Frequency (MHz)	99%%BW(MHz)
NVNT	ANT1	1-DH1	2402.00	0.836
NVNT	ANT1	1-DH1	2441.00	0.847
NVNT	ANT1	1-DH1	2480.00	0.852
NVNT	ANT1	2-DH1	2402.00	1.173
NVNT	ANT1	2-DH1	2441.00	1.174
NVNT	ANT1	2-DH1	2480.00	1.175
NVNT	ANT1	3-DH1	2402.00	1.150
NVNT	ANT1	3-DH1	2441.00	1.156
NVNT	ANT1	3-DH1	2480.00	1.157

99%_Occupied_Bandwidth_NVNT_ANT1_1-DH1_2402_00

99%_Occupied_Bandwidth_NVNT_ANT1_1-DH1_2441_00

99%_Occupied_Bandwidth_NVNT_ANT1_1-DH1_2480_00

99%_Occupied_Bandwidth_NVNT_ANT1_2-DH1_2402_00

99%_Occupied_Bandwidth_NVNT_ANT1_2-DH1_2441_00

99%_Occupied_Bandwidth_NVNT_ANT1_2-DH1_2480_00

99%_Occupied_Bandwidth_NVNT_ANT1_3-DH1_2402_00

99%_Occupied_Bandwidth_NVNT_ANT1_3-DH1_2441_00

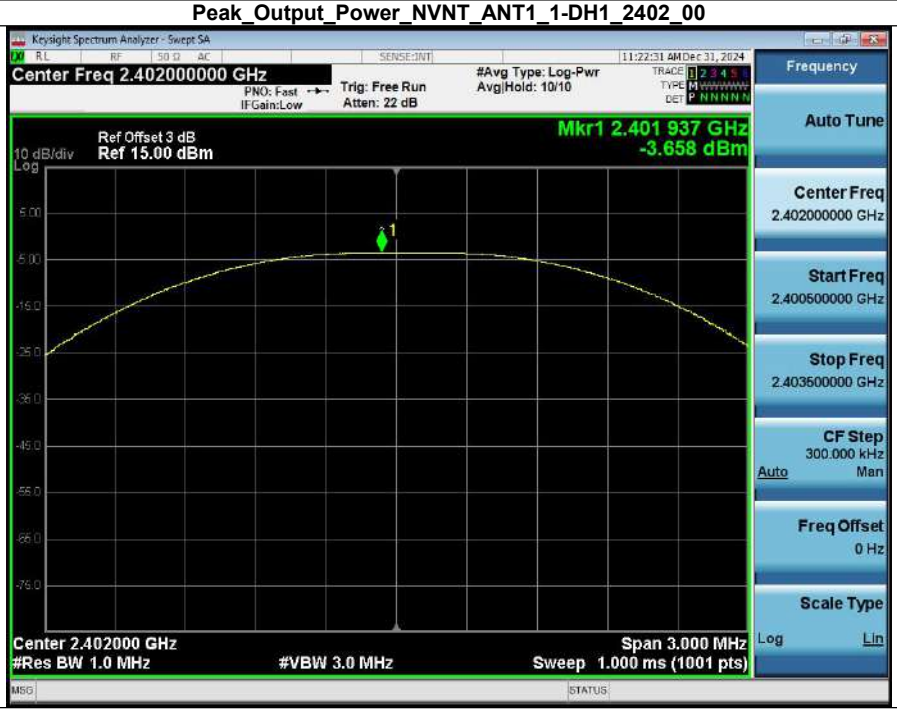
99%_Occupied_Bandwidth_NVNT_ANT1_3-DH1_2480_00

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
02:33:11 PM Dec 31, 2024
Frequency
Ref Offset 2.65 dB
10 dB/div
Ref 6.30 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
1.1571 MHz
Total Power
2.22 dBm
Transmit Freq Error
45.124 kHz
% of OBW Power
99.00 %
x dB Bandwidth
1.371 MHz
x dB
-26.00 dB
Freq Offset
0 Hz
MSG
STATUS

4. 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	-3.66	0.43	1000	Pass
NVNT	ANT1	1-DH1	2441.00	-3.92	0.41	1000	Pass
NVNT	ANT1	1-DH1	2480.00	-4.62	0.35	1000	Pass
NVNT	ANT1	2-DH1	2402.00	-2.91	0.51	125	Pass
NVNT	ANT1	2-DH1	2441.00	-3.14	0.49	125	Pass
NVNT	ANT1	2-DH1	2480.00	-3.93	0.40	125	Pass
NVNT	ANT1	3-DH1	2402.00	-2.42	0.57	125	Pass
NVNT	ANT1	3-DH1	2441.00	-2.63	0.55	125	Pass
NVNT	ANT1	3-DH1	2480.00	-3.31	0.47	125	Pass

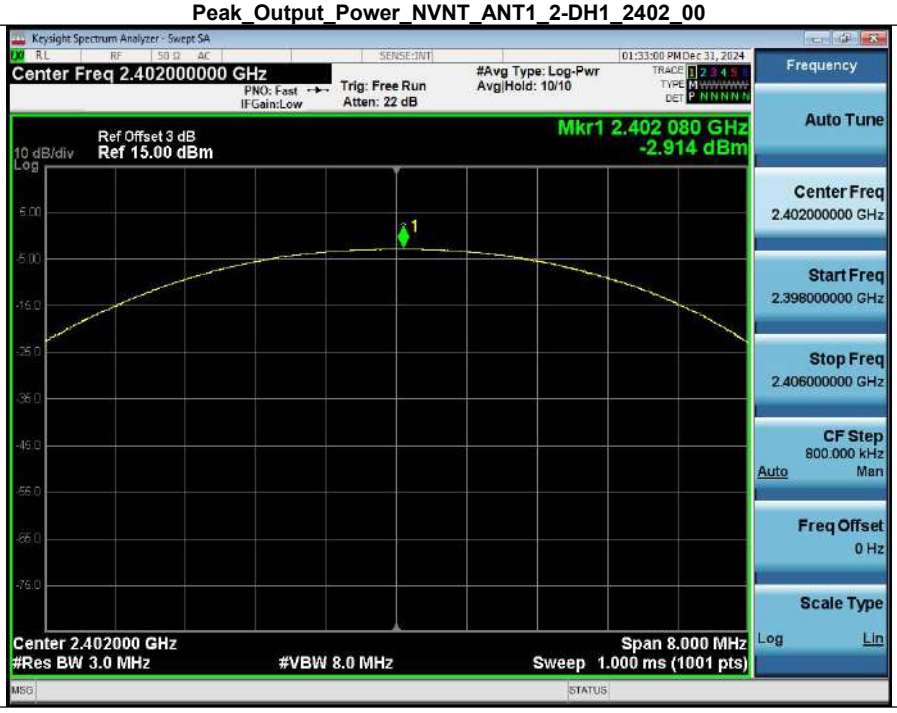
Peak_Output_Power_NVNT_ANT1_1-DH1_2402_00



Peak_Output_Power_NVNT_ANT1_1-DH1_2441_00

Peak_Output_Power_NVNT_ANT1_1-DH1_2480_00

Peak_Output_Power_NVNT_ANT1_2-DH1_2402_00



Peak_Output_Power_NVNT_ANT1_2-DH1_2441_00

Peak_Output_Power_NVNT_ANT1_2-DH1_2480_00

Peak_Output_Power_NVNT_ANT1_3-DH1_2402_00

Peak_Output_Power_NVNT_ANT1_3-DH1_2441_00

Peak_Output_Power_NVNT_ANT1_3-DH1_2480_00

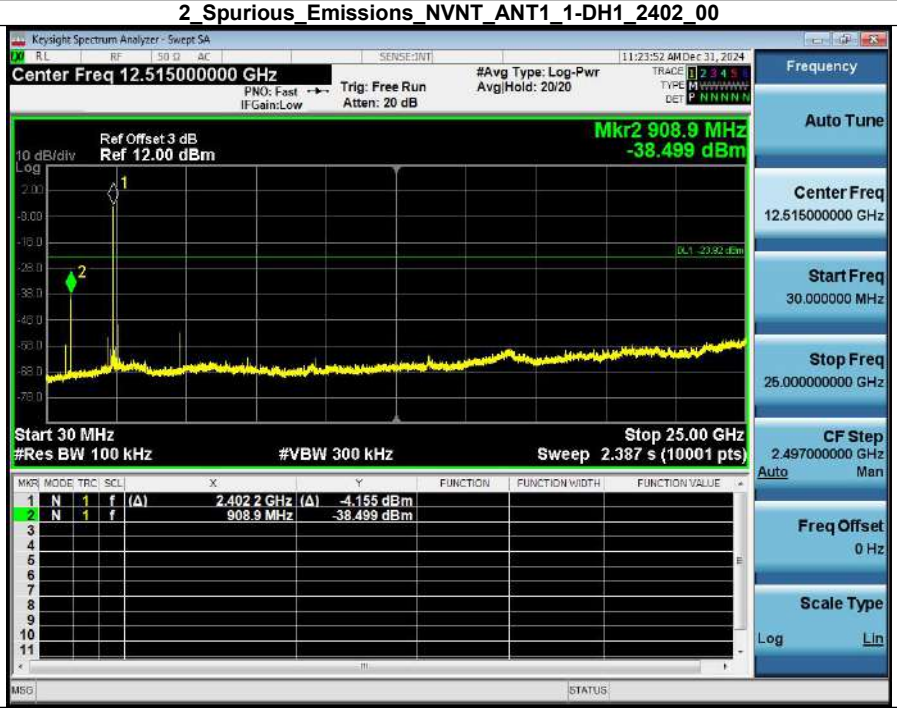
Keysight Spectrum Analyzer - Swept SA
Center Freq 2.480000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 22 dB
#Avg Type: Log-Pwr
Avg|Hold: 10/10
02:33:30 PM Dec 31, 2024
Ref Offset 2.65 dB
10 dB/div
Ref 14.30 dBm
Log
Mkr1 2.480 000 GHz
-3.311 dBm
Center 2.480000 GHz
#Res BW 3.0 MHz
#VBW 8.0 MHz
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

5. Spurious Emissions

Condition	Antenna	Modulation	TX Mode	Ref_level(dBm)	Spurious MAX.Value(dBm)	Limit	Result
NVNT	ANT1	1-DH1	2402.00	-3.923	-38.499	-23.923	Pass
NVNT	ANT1	1-DH1	2441.00	-4.037	-42.461	-24.037	Pass
NVNT	ANT1	1-DH1	2480.00	-4.764	-50.476	-24.764	Pass
NVNT	ANT1	2-DH1	2402.00	-3.772	-51.752	-23.772	Pass
NVNT	ANT1	2-DH1	2441.00	-4.057	-51.760	-24.057	Pass
NVNT	ANT1	2-DH1	2480.00	-4.807	-50.117	-24.807	Pass
NVNT	ANT1	3-DH1	2402.00	-3.818	-51.463	-23.818	Pass
NVNT	ANT1	3-DH1	2441.00	-4.089	-52.980	-24.089	Pass
NVNT	ANT1	3-DH1	2480.00	-4.841	-52.012	-24.841	Pass

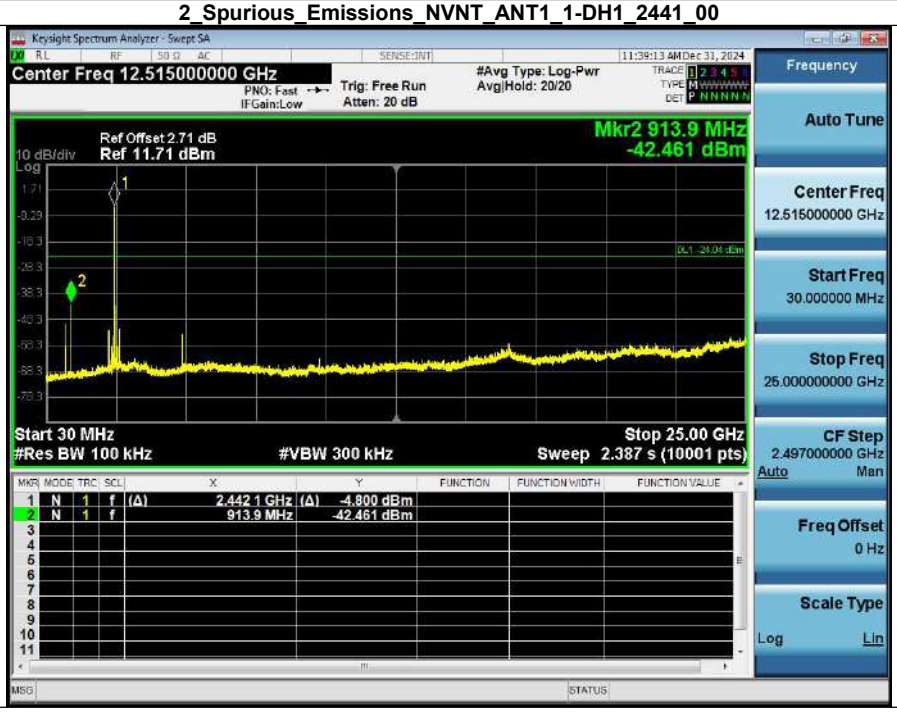
1_Reference_Level_NVNT_ANT1_1-DH1_2402_00

2_Spurious_Emissions_NVNT_ANT1_1-DH1_2402_00

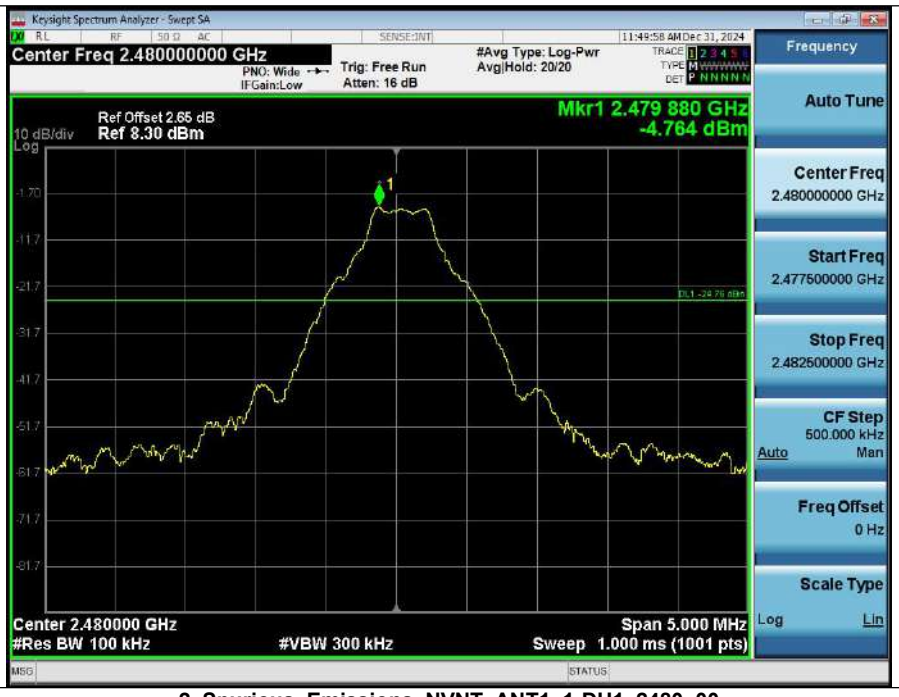


1_Reference_Level_NVNT_ANT1_1-DH1_2441_00

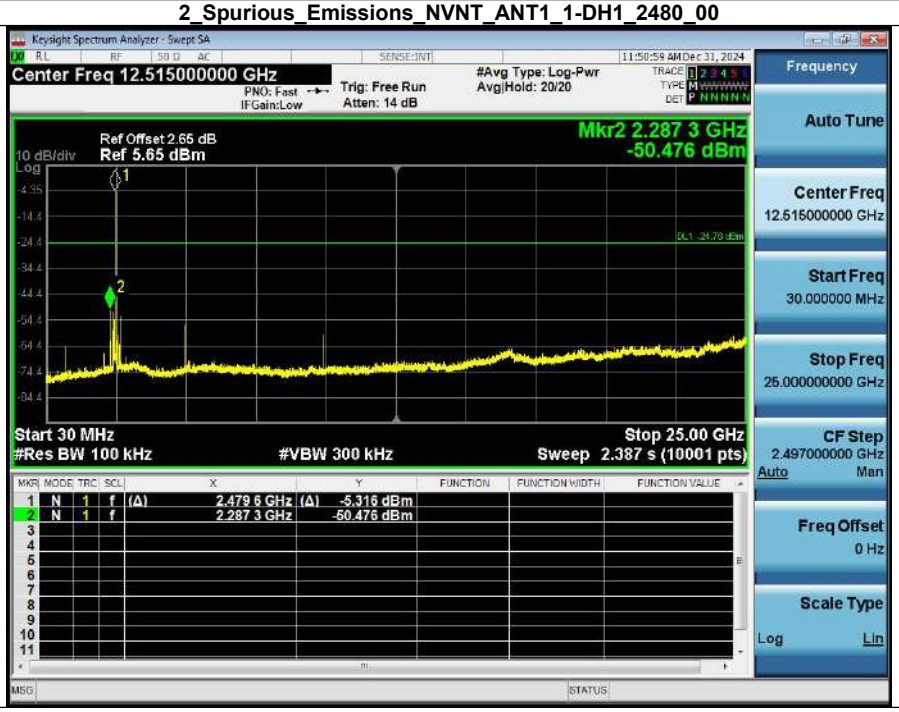
2_Spurious_Emissions_NVNT_ANT1_1-DH1_2441_00



1_Reference_Level_NVNT_ANT1_1-DH1_2480_00

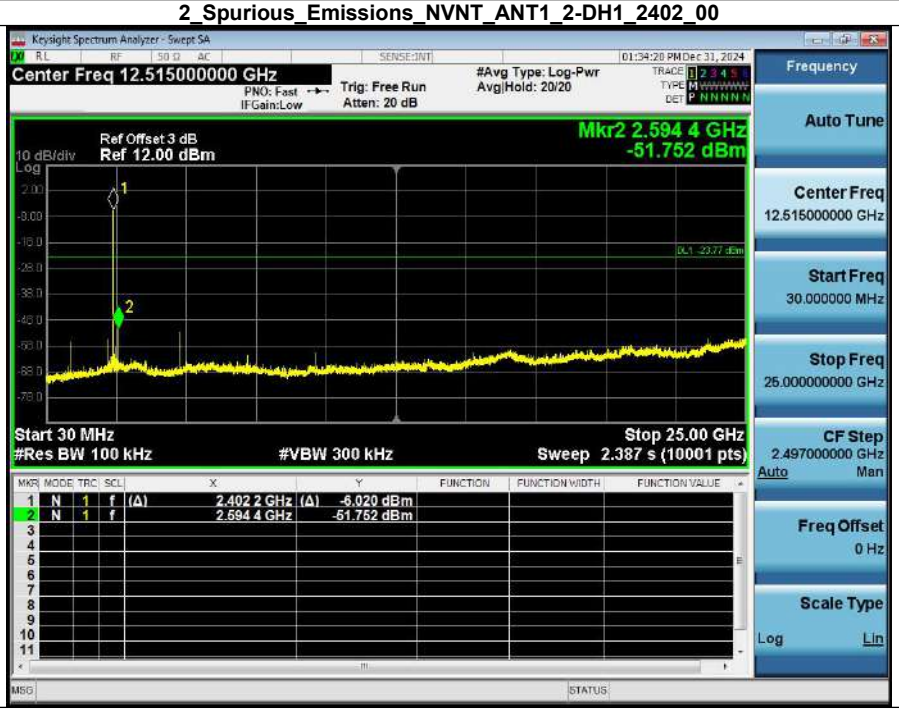


2_Spurious_Emissions_NVNT_ANT1_1-DH1_2480_00



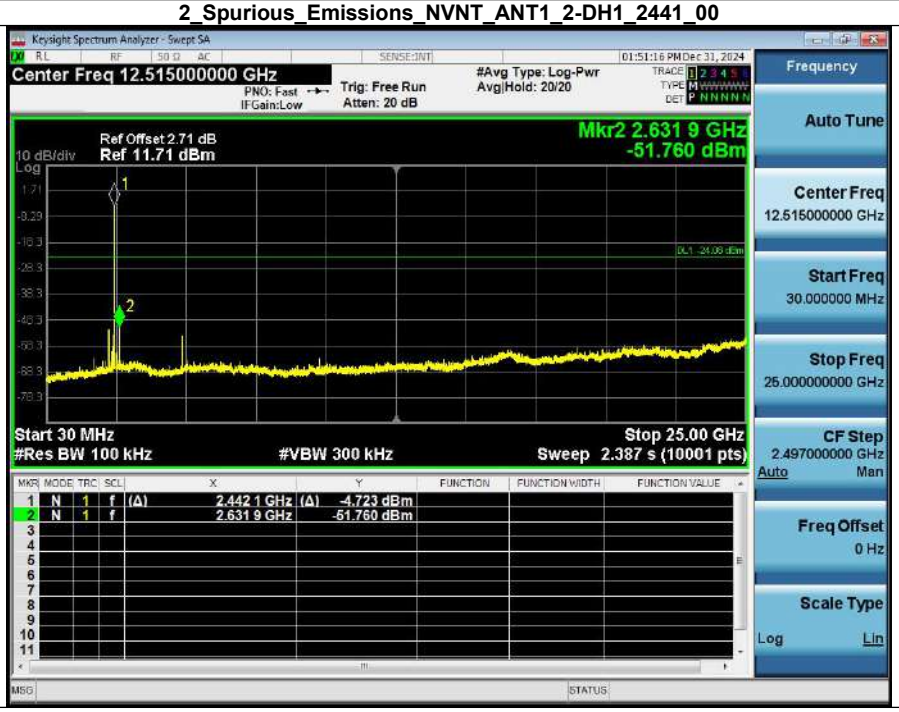
1_Reference_Level_NVNT_ANT1_2-DH1_2402_00

2_Spurious_Emissions_NVNT_ANT1_2-DH1_2402_00

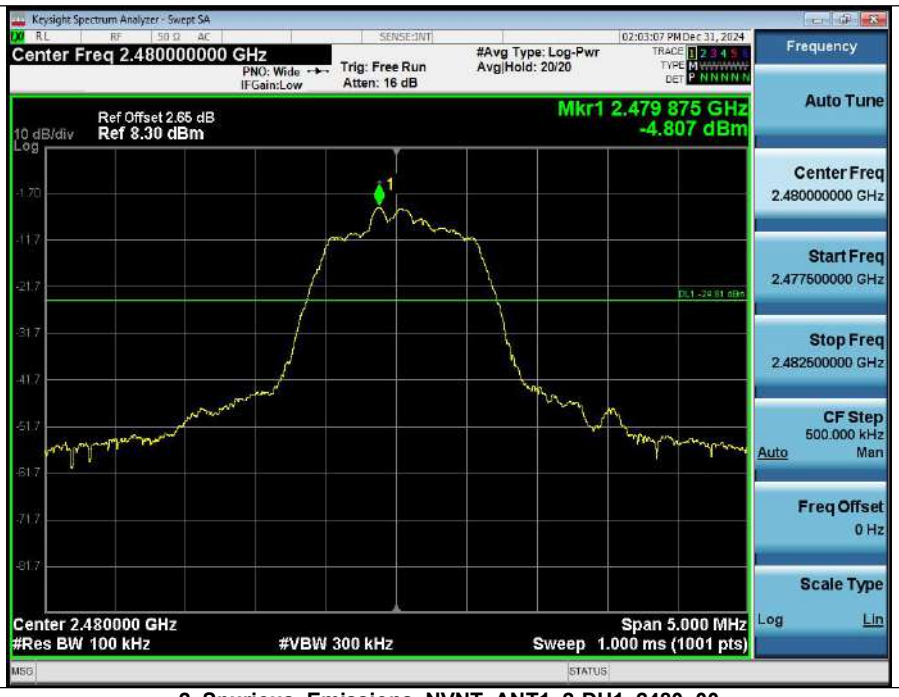


1_Reference_Level_NVNT_ANT1_2-DH1_2441_00

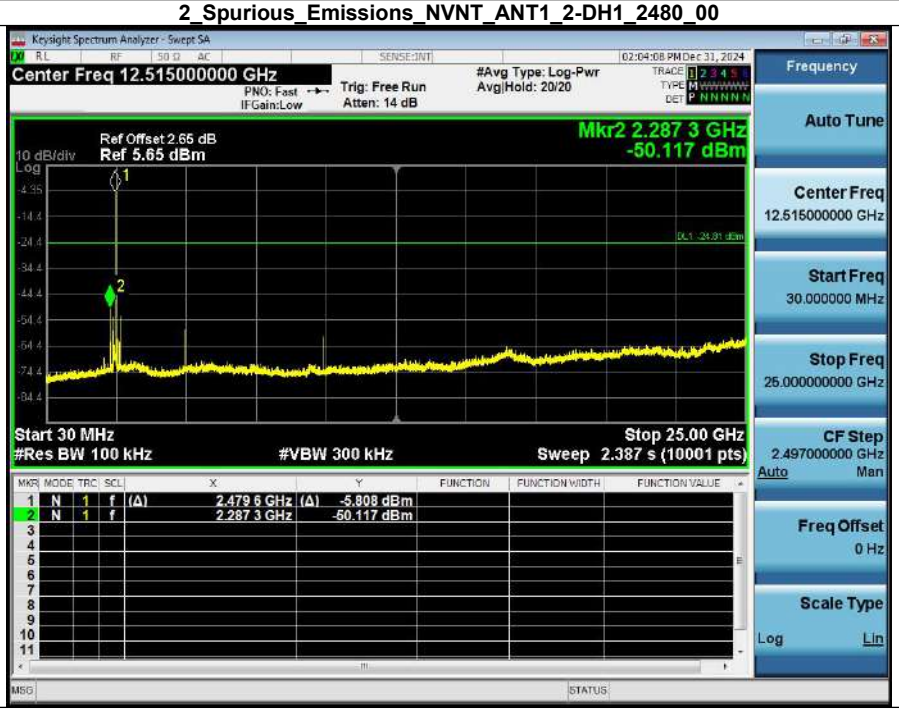
2_Spurious_Emissions_NVNT_ANT1_2-DH1_2441_00



1_Reference_Level_NVNT_ANT1_2-DH1_2480_00

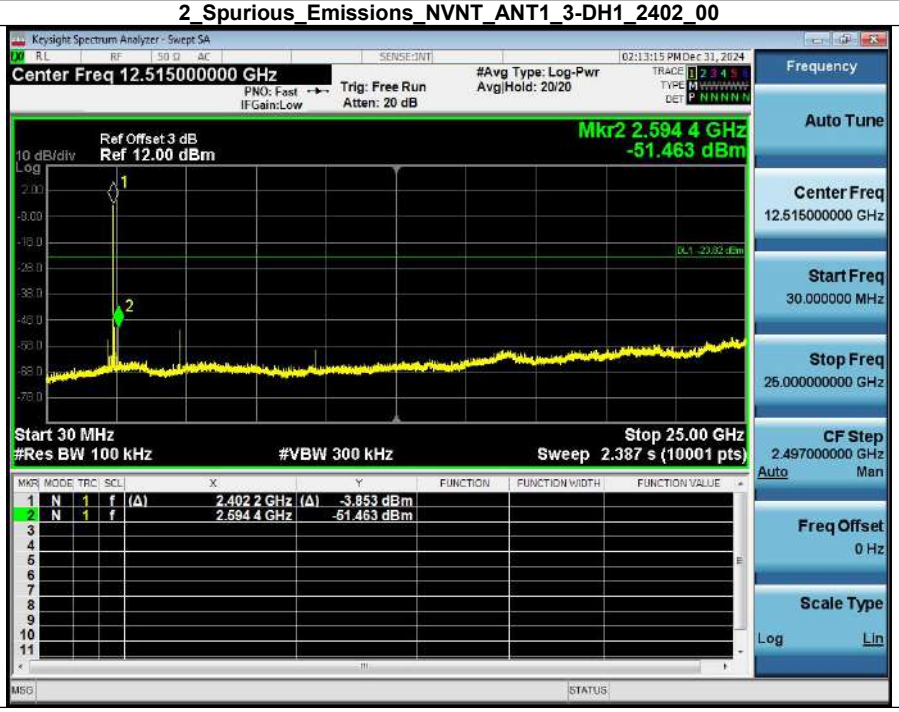


2_Spurious_Emissions_NVNT_ANT1_2-DH1_2480_00

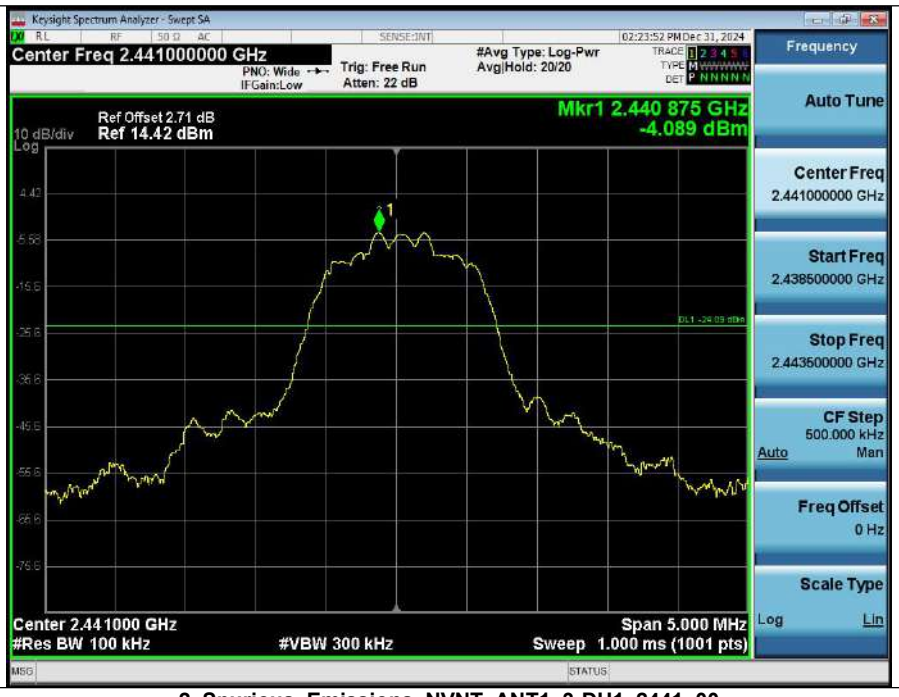


1_Reference_Level_NVNT_ANT1_3-DH1_2402_00

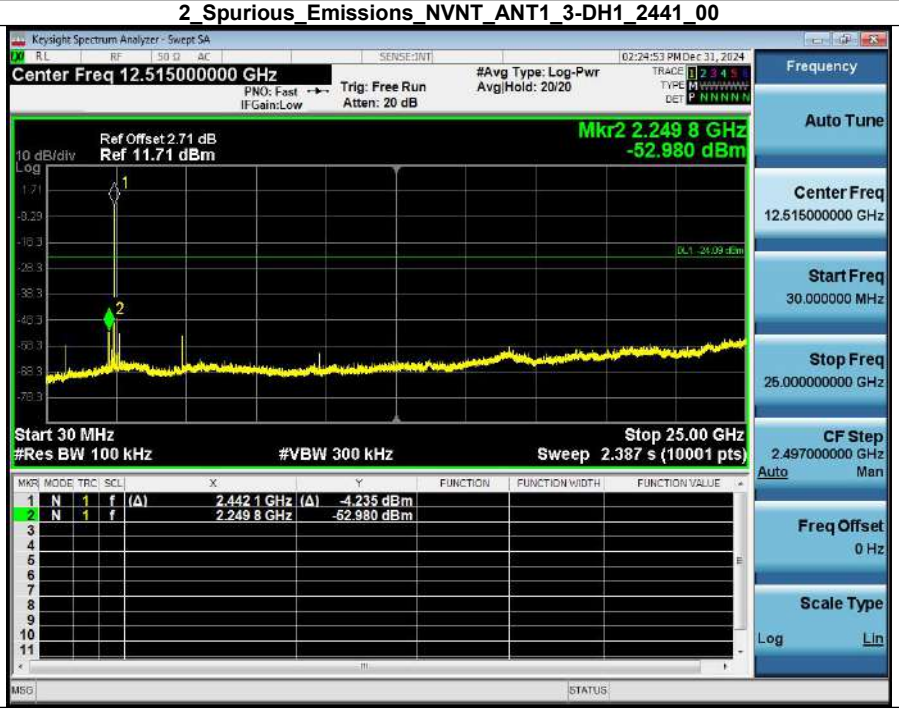
2_Spurious_Emissions_NVNT_ANT1_3-DH1_2402_00



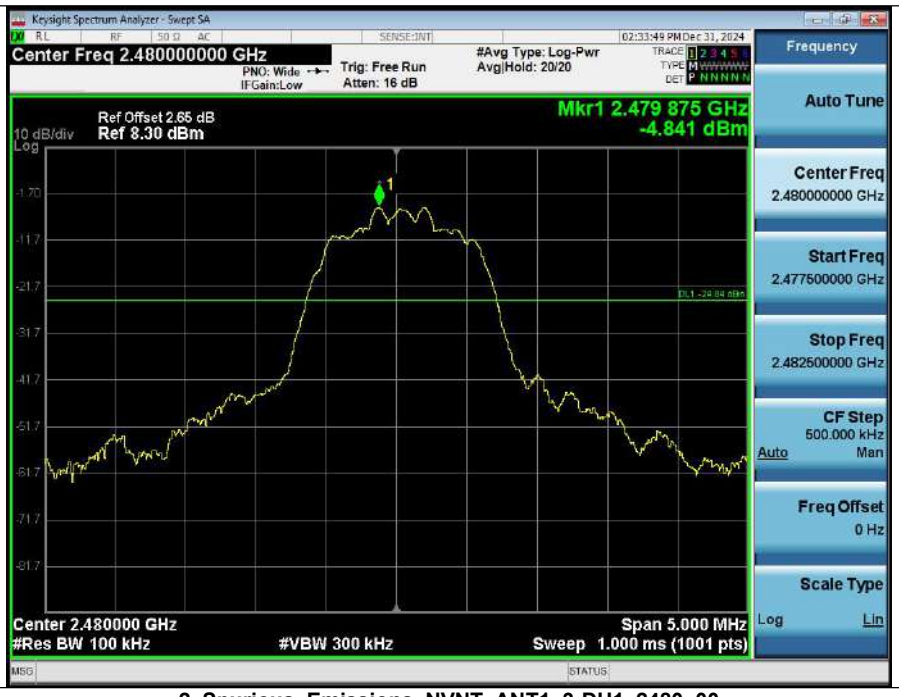
1_Reference_Level_NVNT_ANT1_3-DH1_2441_00



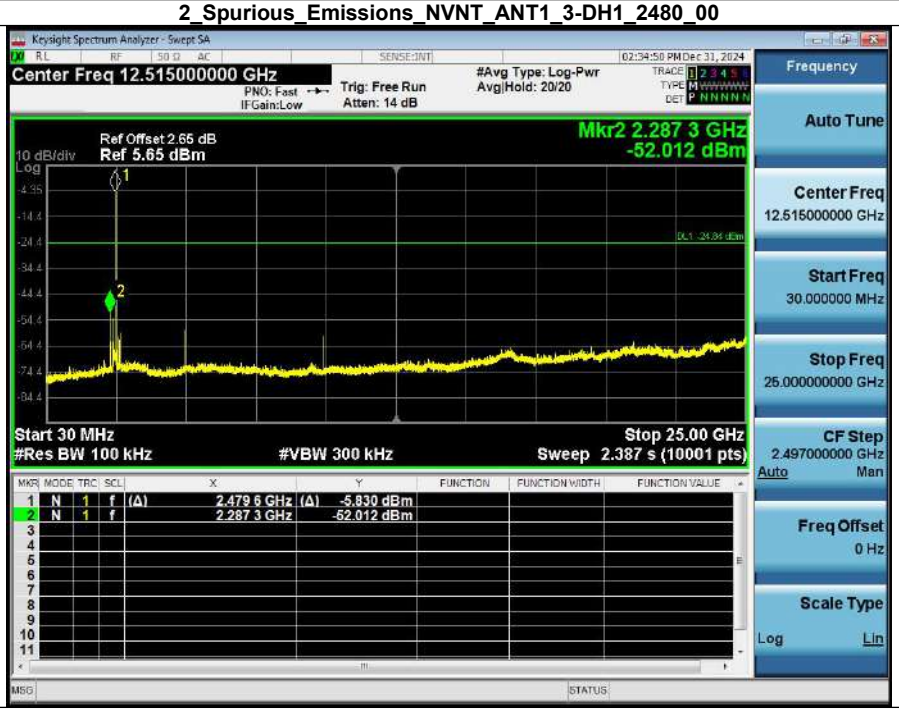
2_Spurious_Emissions_NVNT_ANT1_3-DH1_2441_00



1_Reference_Level_NVNT_ANT1_3-DH1_2480_00



2_Spurious_Emissions_NVNT_ANT1_3-DH1_2480_00

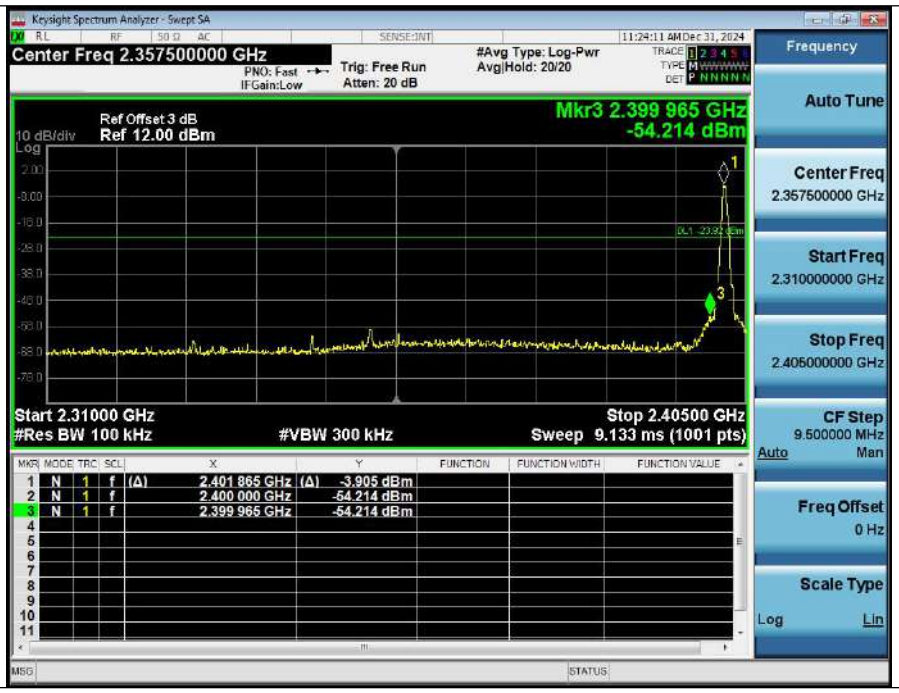


6. Bandedge

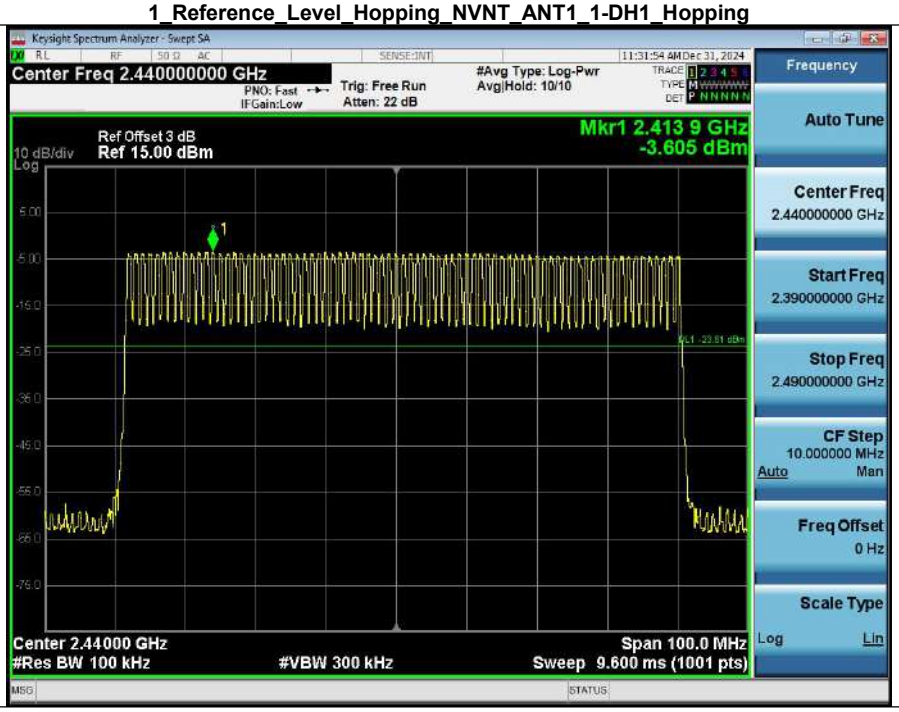
Condition	Antenna	Modulation	TX Mode	Ref_level(dBm)	Bandedge MAX.Value	Limit	Result
NVNT	ANT1	1-DH1	2402.00	-3.923	-54.214	-23.923	Pass
NVNT	ANT1	1-DH1	Hopping_LCH	-3.605	-58.288	-23.605	Pass
NVNT	ANT1	1-DH1	2480.00	-4.764	-64.623	-24.764	Pass
NVNT	ANT1	1-DH1	Hopping_HCH	-3.816	-56.960	-23.816	Pass
NVNT	ANT1	2-DH1	2402.00	-3.772	-52.551	-23.772	Pass
NVNT	ANT1	2-DH1	Hopping_LCH	-3.428	-54.565	-23.428	Pass
NVNT	ANT1	2-DH1	2480.00	-4.807	-61.921	-24.807	Pass
NVNT	ANT1	2-DH1	Hopping_HCH	-3.848	-57.440	-23.848	Pass
NVNT	ANT1	3-DH1	2402.00	-3.818	-53.484	-23.818	Pass
NVNT	ANT1	3-DH1	Hopping_LCH	-3.473	-54.575	-23.473	Pass
NVNT	ANT1	3-DH1	2480.00	-4.841	-65.516	-24.841	Pass
NVNT	ANT1	3-DH1	Hopping_HCH	-3.840	-57.991	-23.840	Pass

1_Reference_Level_NVNT_ANT1_1-DH1_2402_00

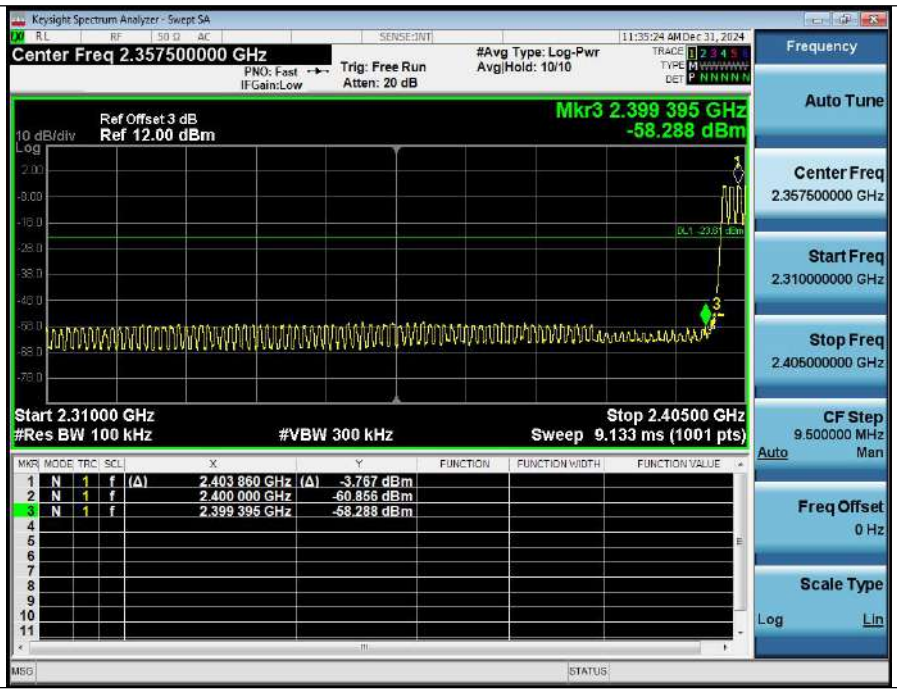
2_Bandedge_NVNT_ANT1_1-DH1_2402_00



1_Reference_Level_Hopping_NVNT_ANT1_1-DH1_Hopping

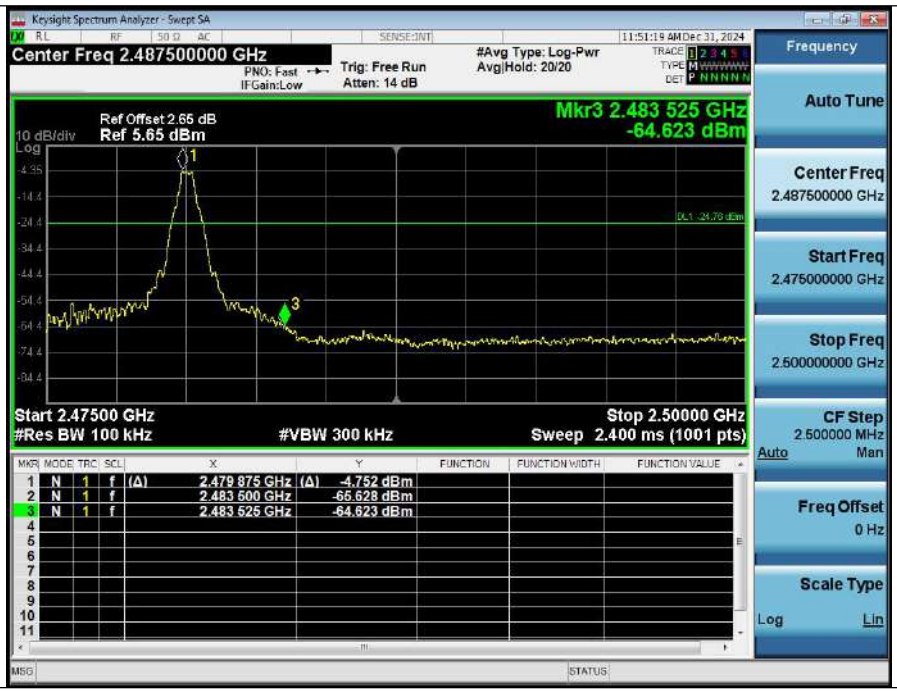


2_Band_Edge_(Hopping)_NVNT_ANT1_1-DH1_Hopping

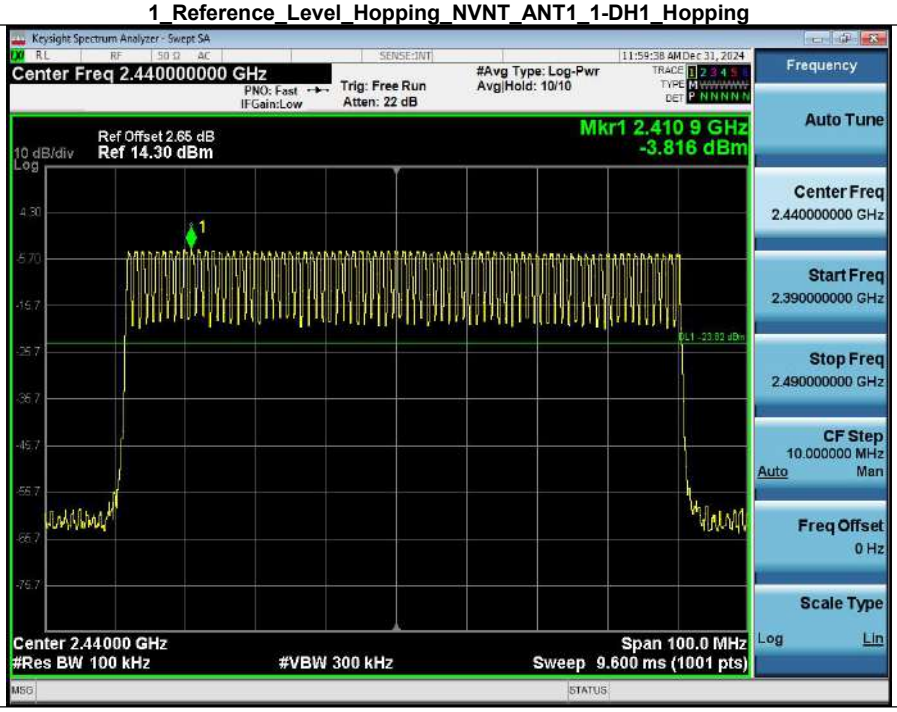


1_Reference_Level_NVNT_ANT1_1-DH1_2480_00

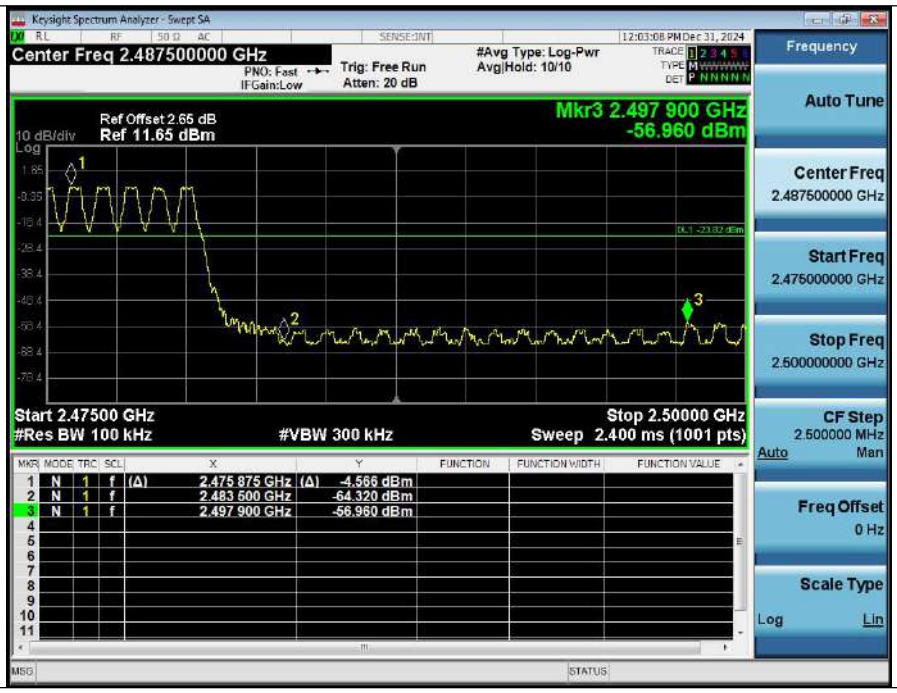
2_Bandedge_NVNT_ANT1_1-DH1_2480_00



1_Reference_Level_Hopping_NVNT_ANT1_1-DH1_Hopping

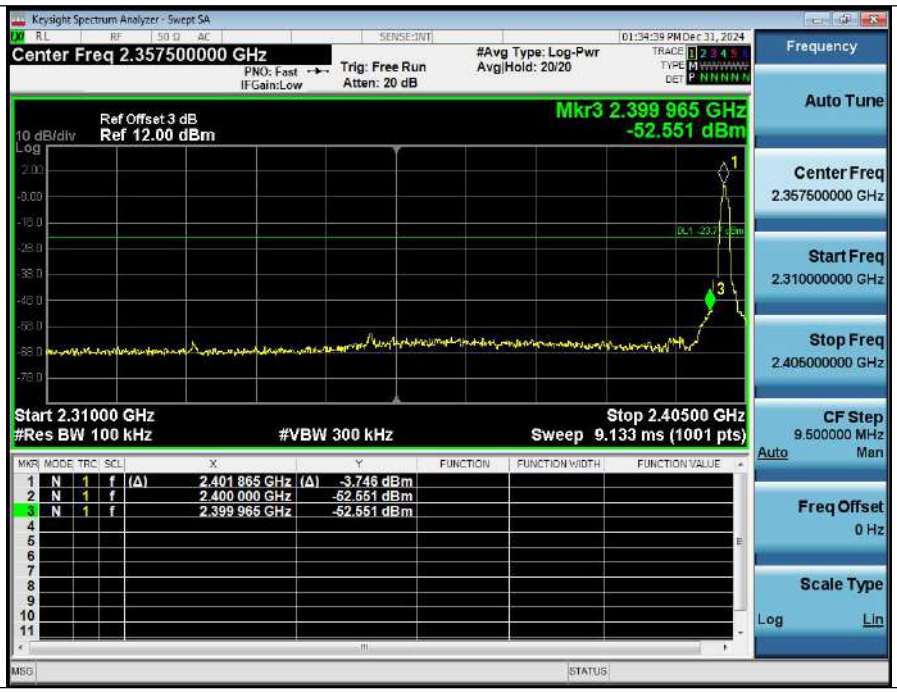


2_Band_Edge_(Hopping)_NVNT_ANT1_1-DH1_Hopping

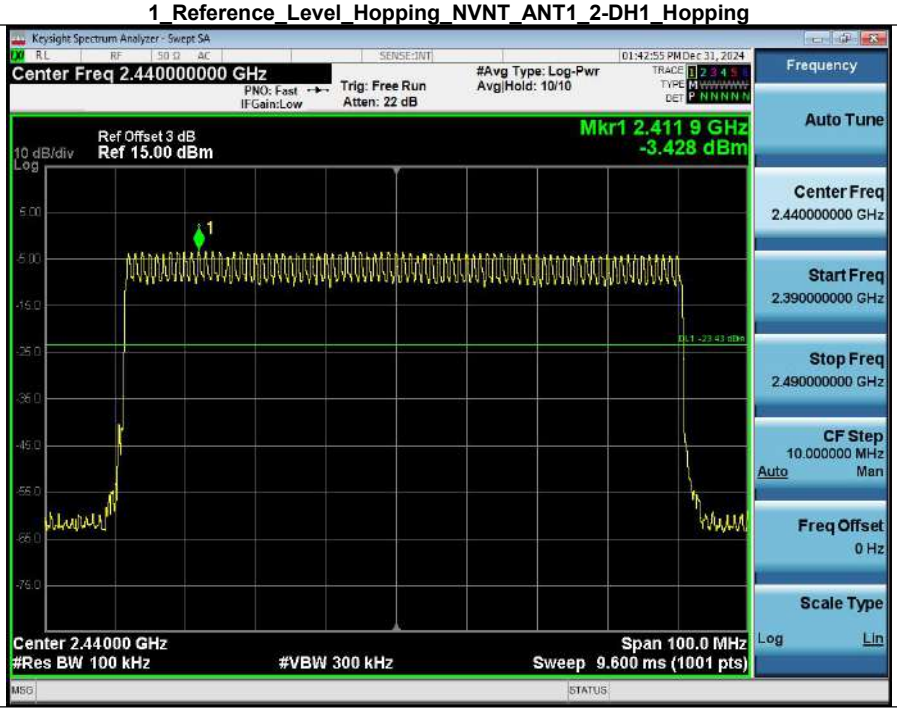


1_Reference_Level_NVNT_ANT1_2-DH1_2402_00

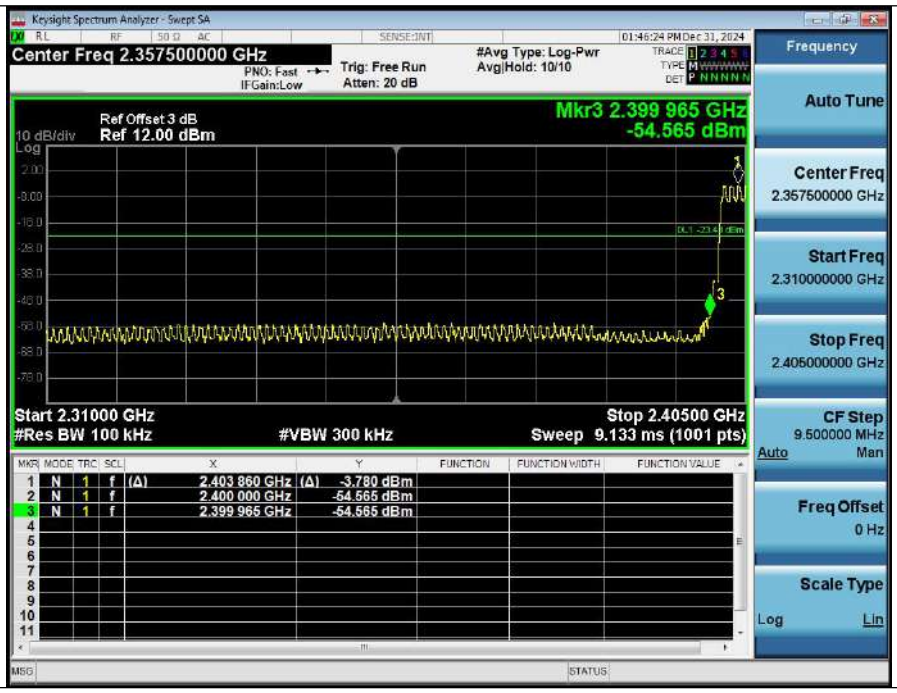
2_Bandedge_NVNT_ANT1_2-DH1_2402_00



1_Reference_Level_Hopping_NVNT_ANT1_2-DH1_Hopping

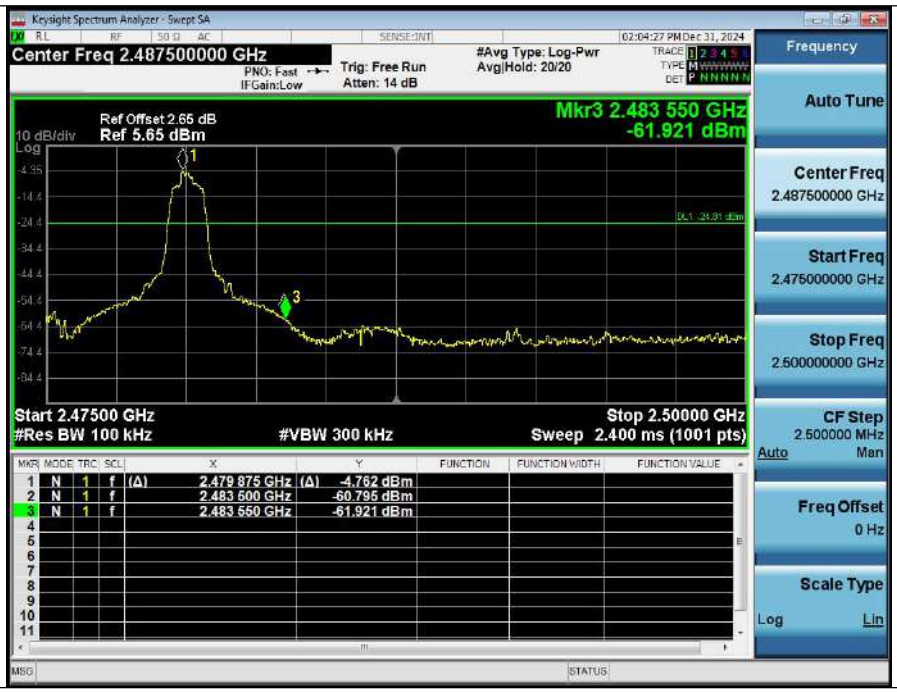


2_Band_Edge_(Hopping)_NVNT_ANT1_2-DH1_Hopping

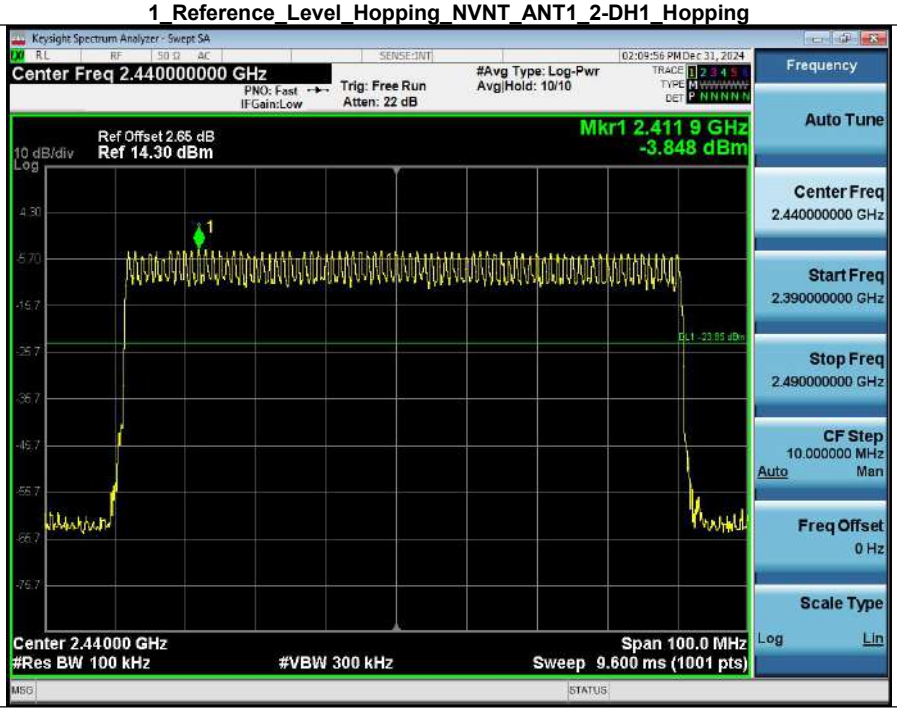


1_Reference_Level_NVNT_ANT1_2-DH1_2480_00

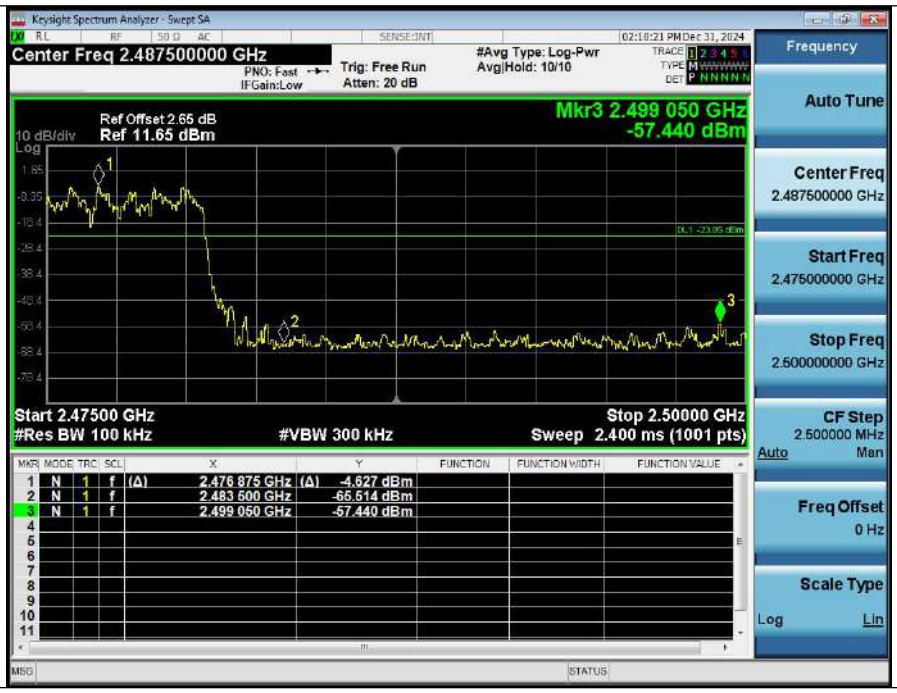
2_Bandedge_NVNT_ANT1_2-DH1_2480_00



1_Reference_Level_Hopping_NVNT_ANT1_2-DH1_Hopping

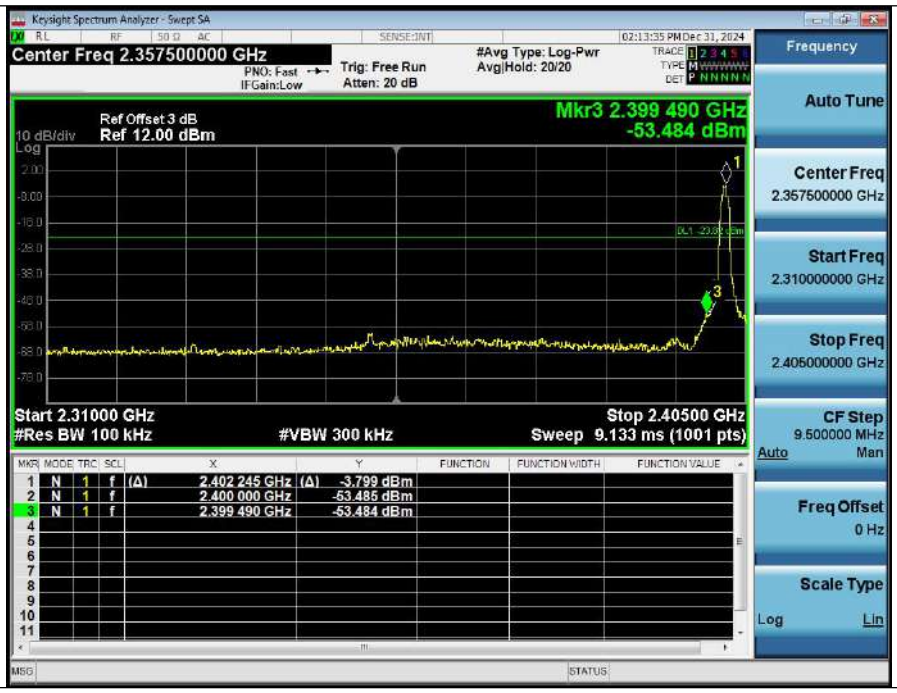


2_Band_Edge_(Hopping)_NVNT_ANT1_2-DH1_Hopping

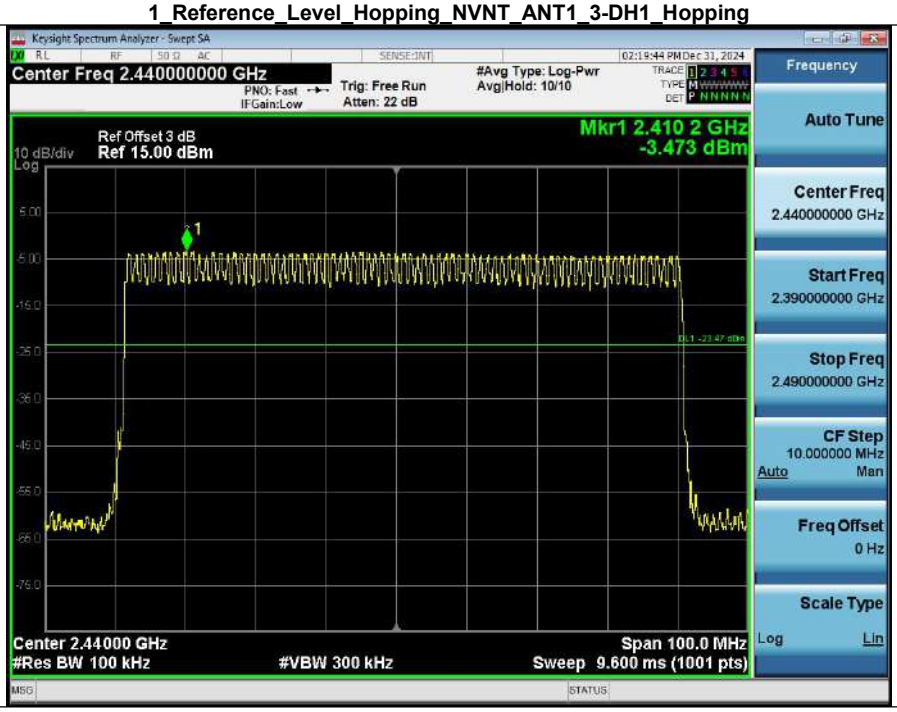


1_Reference_Level_NVNT_ANT1_3-DH1_2402_00

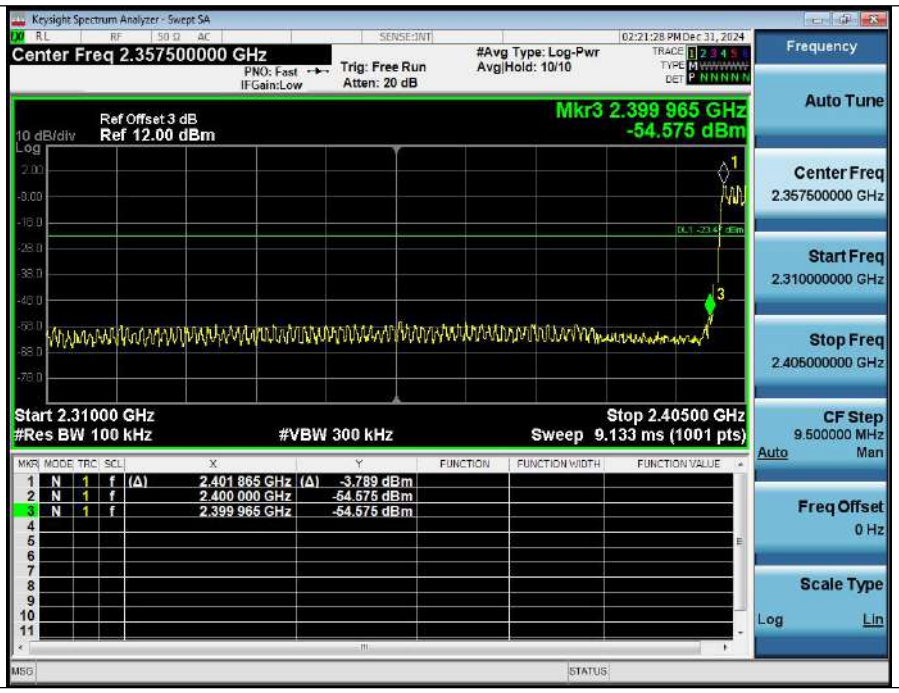
2_Bandedge_NVNT_ANT1_3-DH1_2402_00



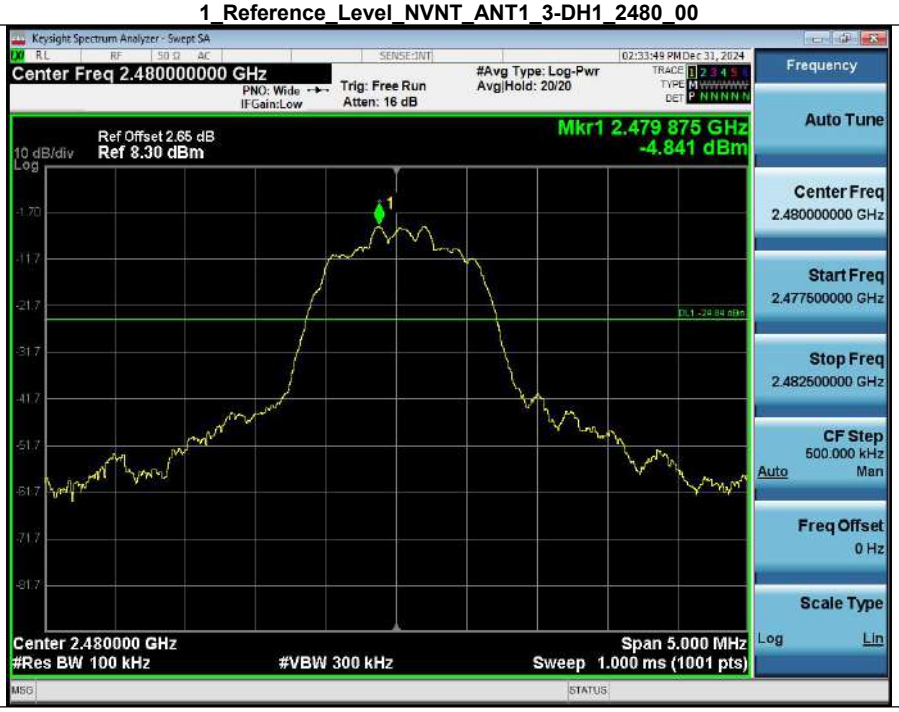
1_Reference_Level_Hopping_NVNT_ANT1_3-DH1_Hopping



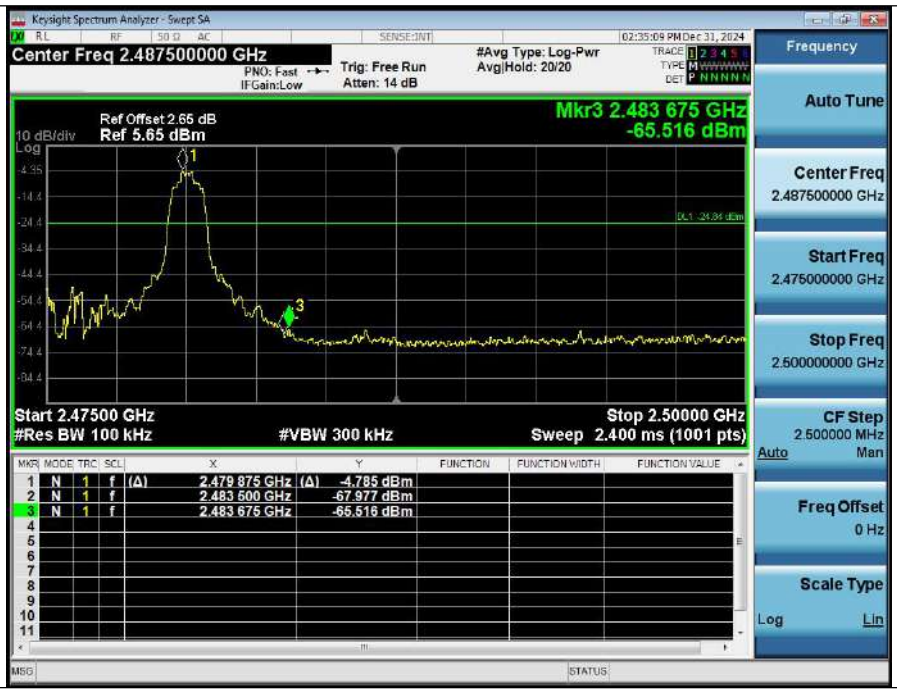
2_Band_Edge_(Hopping)_NVNT_ANT1_3-DH1_Hopping



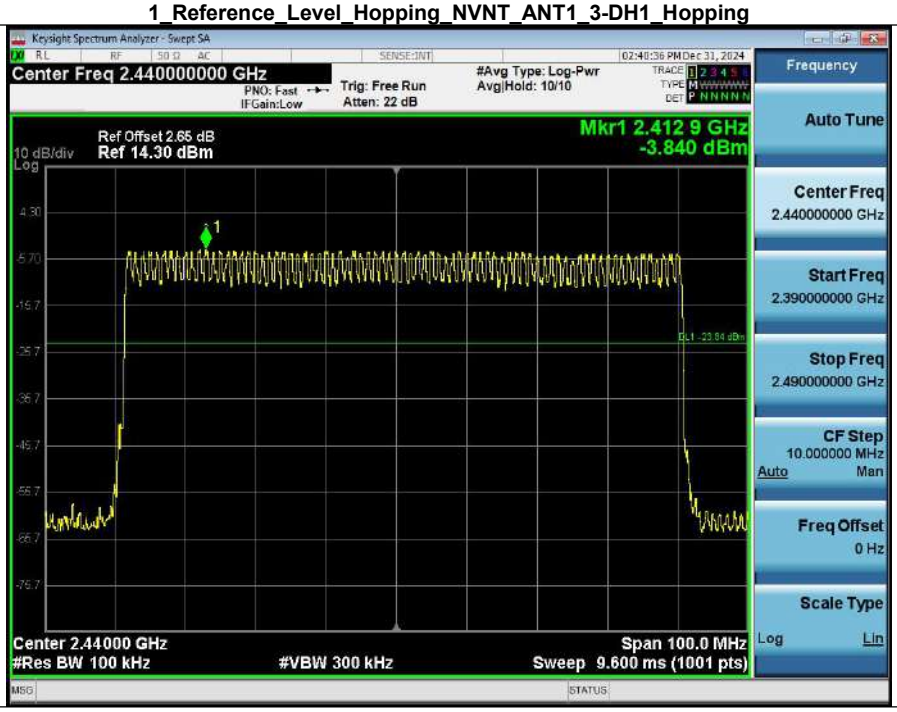
1_Reference_Level_NVNT_ANT1_3-DH1_2480_00



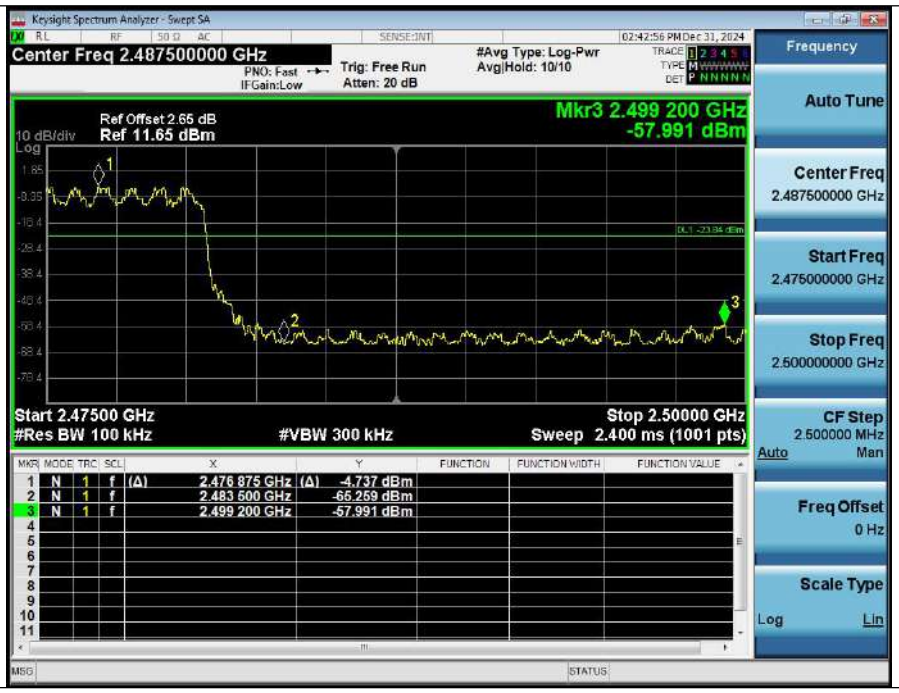
2_Bandedge_NVNT_ANT1_3-DH1_2480_00



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: Log-Pwr
Avg|Hold: 10/10
02:42:56 PM Dec 31, 2024
Ref Offset 2.65 dB
10 dB/div
Ref 11.65 dBm
Mkr3 2.499 200 GHz
-57.991 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) 2.476 875 GHz (Δ) -4.737 dBm
2 N 1 f 2.483 500 GHz -65.259 dBm
3 N 1 f 2.499 200 GHz -57.991 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

7. 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	2402.008	2403.175	1.17	0.877	Pass
NVNT	ANT1	1-DH1	2441.00	2440.870	2441.887	1.02	0.918	Pass
NVNT	ANT1	1-DH1	2480.00	2478.879	2479.881	1.00	0.924	Pass
NVNT	ANT1	2-DH1	2402.00	2401.888	2402.869	0.98	0.846	Pass
NVNT	ANT1	2-DH1	2441.00	2440.888	2441.872	0.98	0.851	Pass
NVNT	ANT1	2-DH1	2480.00	2478.879	2479.878	1.00	0.849	Pass
NVNT	ANT1	3-DH1	2402.00	2402.047	2403.178	1.13	0.817	Pass
NVNT	ANT1	3-DH1	2441.00	2440.876	2441.872	1.00	0.817	Pass
NVNT	ANT1	3-DH1	2480.00	2478.864	2479.884	1.02	0.836	Pass

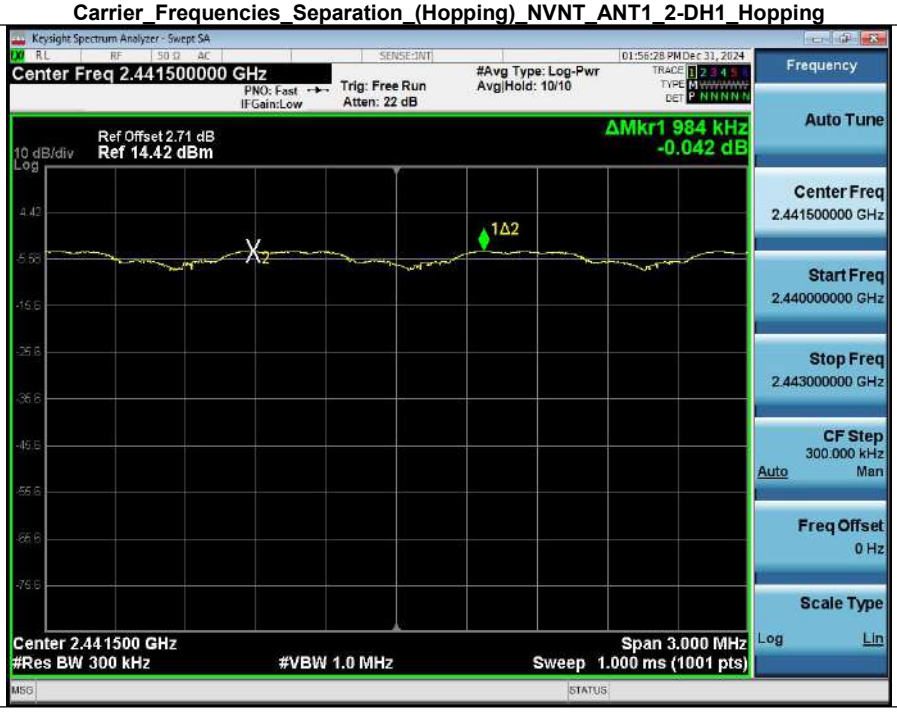
Carrier_Frequencies_Separation_(Hopping)_NVNT_ANT1_1-DH1_Hopping

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

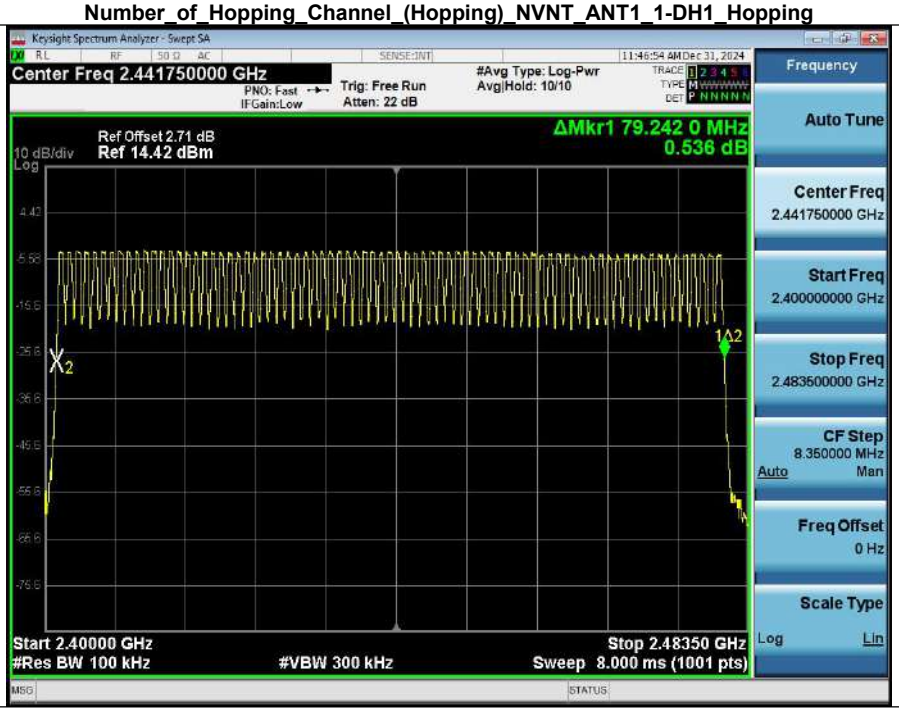
Carrier_Frequencies_Separation_(Hopping)_NVNT_ANT1_3-DH1_Hopping

Carrier_Frequencies_Separation_(Hopping)_NVNT_ANT1_3-DH1_Hopping

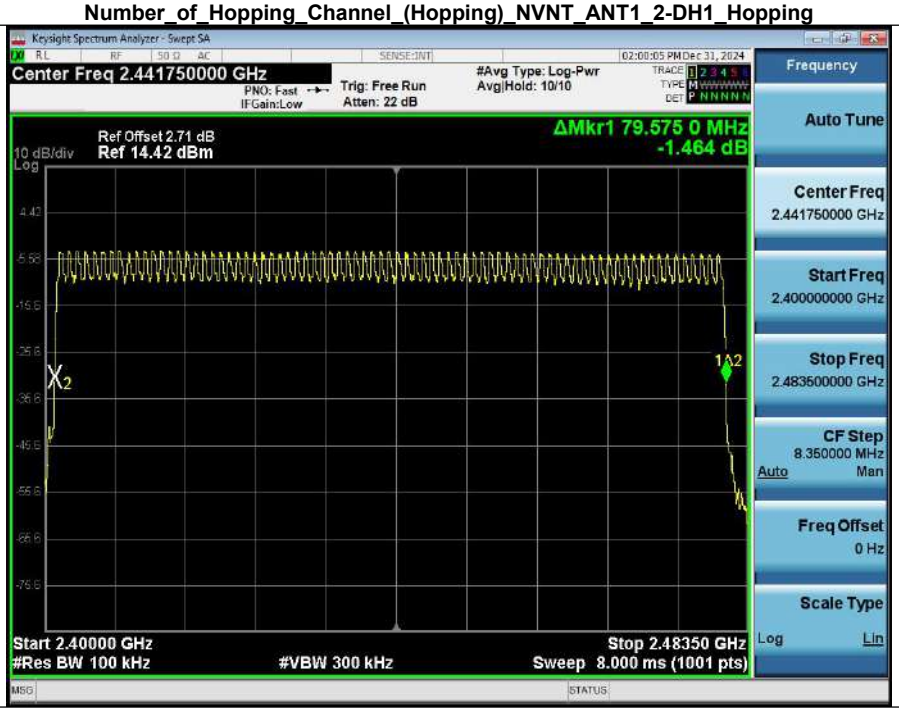
8. Number of Hopping Channel (Hopping)

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

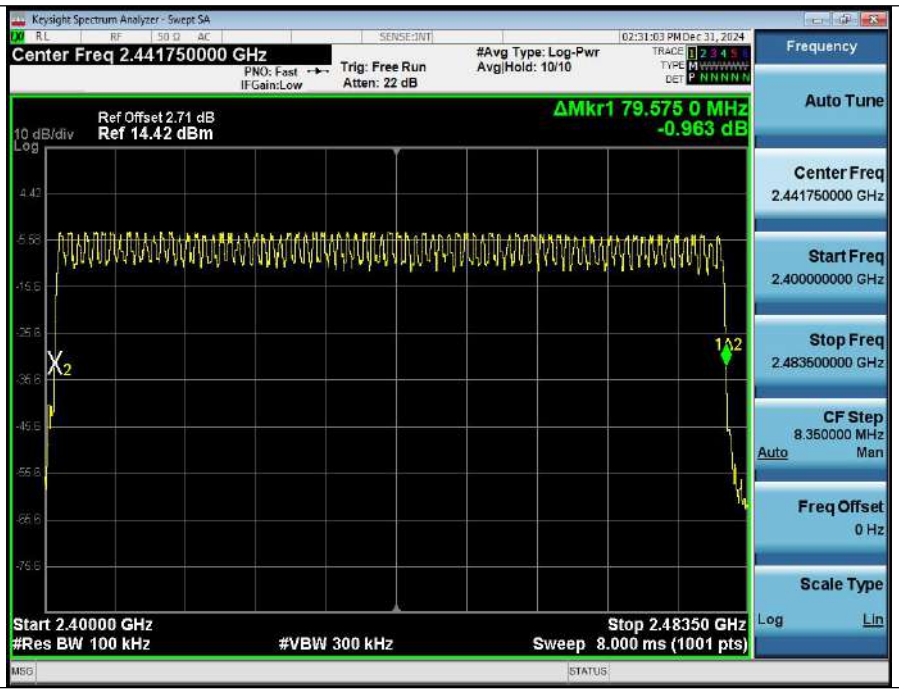
Number_of_Hopping_Channel_(Hopping)_NVNT_ANT1_1-DH1_Hopping



Number_of_Hopping_Channel_(Hopping)_NVNT_ANT1_2-DH1_Hopping



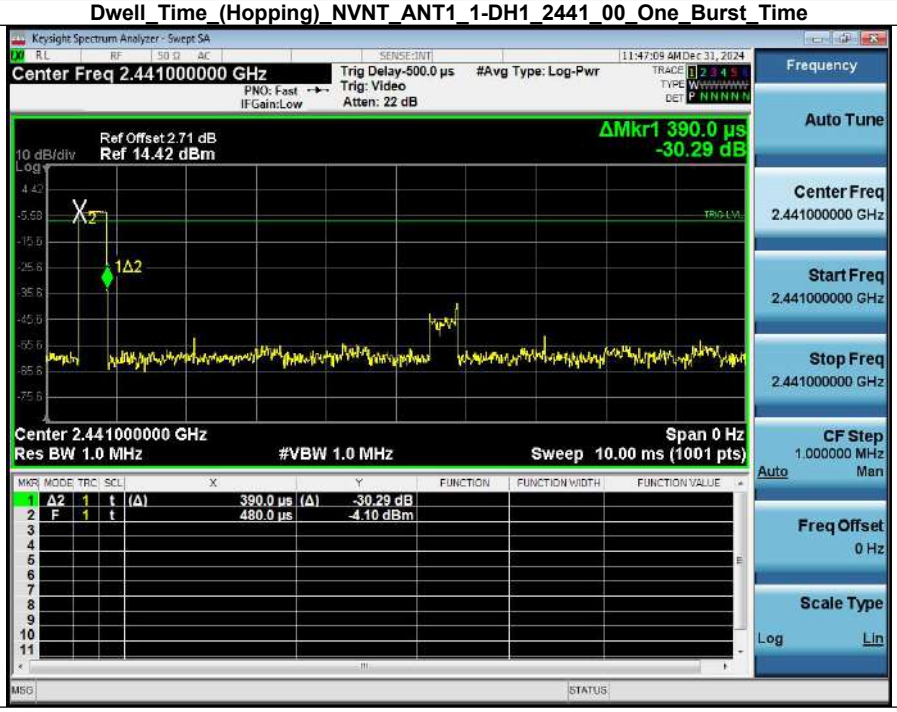
Number_of_Hopping_Channel_(Hopping)_NVNT_ANT1_3-DH1_Hopping


Keysight Spectrum Analyzer - Swept SA
Center Freq 2.441750000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 22 dB
#Avg Type: Log-Pwr
Avg|Hold: 10/10
02:31:03 PM Dec 31, 2024
Ref Offset 2.71 dB
10 dB/div
Ref 14.42 dBm
ΔMkr1 79.575 0 MHz
-0.963 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

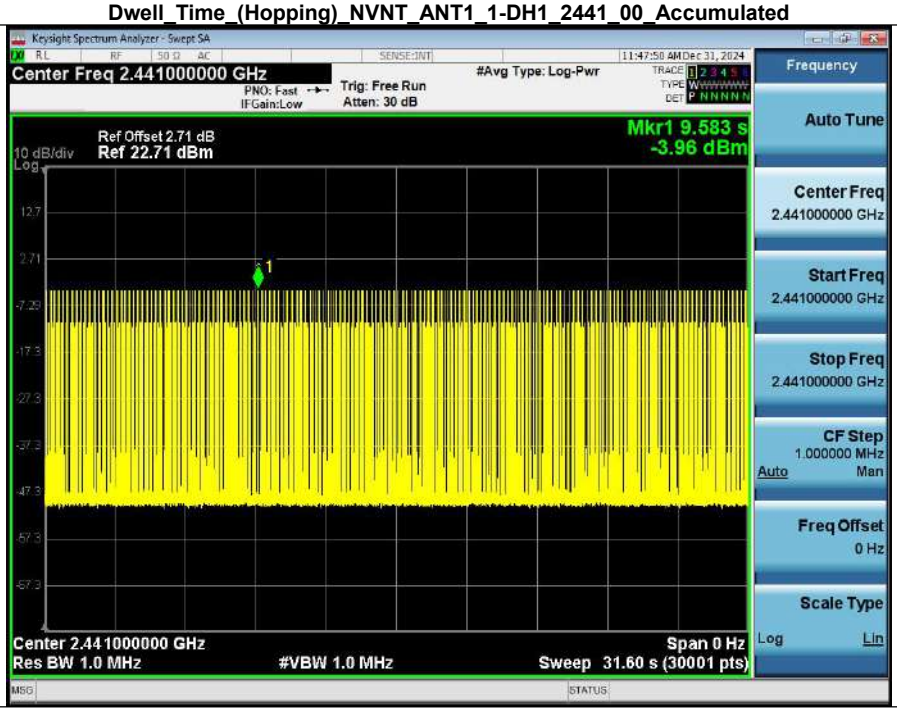
9. Dwell Time (Hopping)

Condition	Antenna	Packet Type	Pulse Time(ms)	Hops	Dwell Time(ms)	Limit(s)	Result
NVNT	ANT1	1-DH1	0.390	320.00	124.800	0.40	Pass
NVNT	ANT1	2-DH1	0.410	320.00	131.200	0.40	Pass
NVNT	ANT1	3-DH1	0.400	320.00	128.000	0.40	Pass
NVNT	ANT1	1-DH3	1.650	163.00	268.950	0.40	Pass
NVNT	ANT1	1-DH5	2.890	110.00	317.900	0.40	Pass
NVNT	ANT1	2-DH3	1.660	158.00	262.280	0.40	Pass
NVNT	ANT1	2-DH5	2.900	116.00	336.400	0.40	Pass
NVNT	ANT1	3-DH3	1.650	153.00	252.450	0.40	Pass
NVNT	ANT1	3-DH5	2.910	106.00	308.460	0.40	Pass

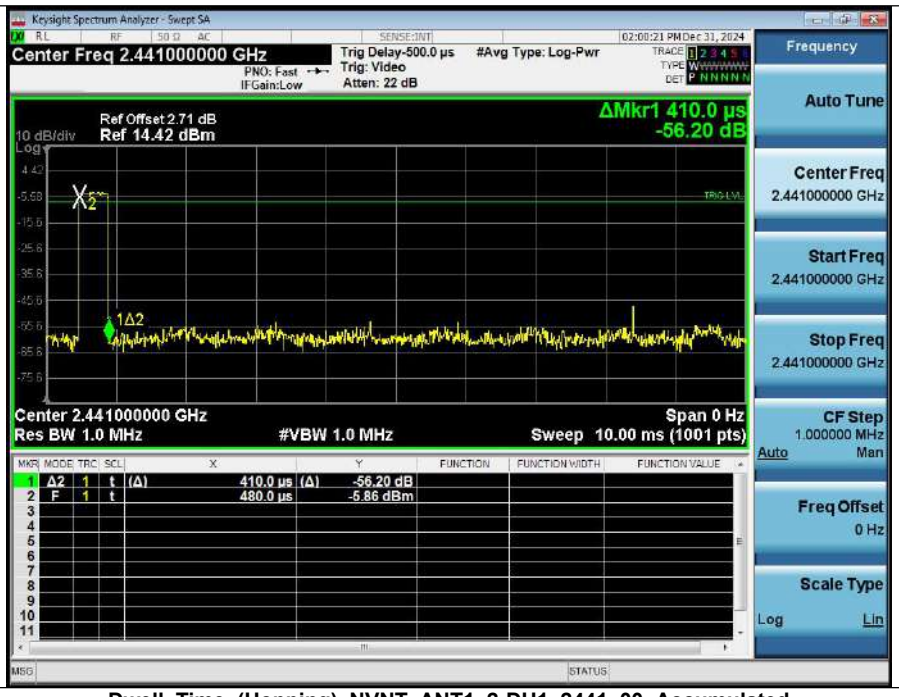
Dwell_Time_(Hopping)_NVNT_ANT1_1-DH1_2441_00_One_Burst_Time



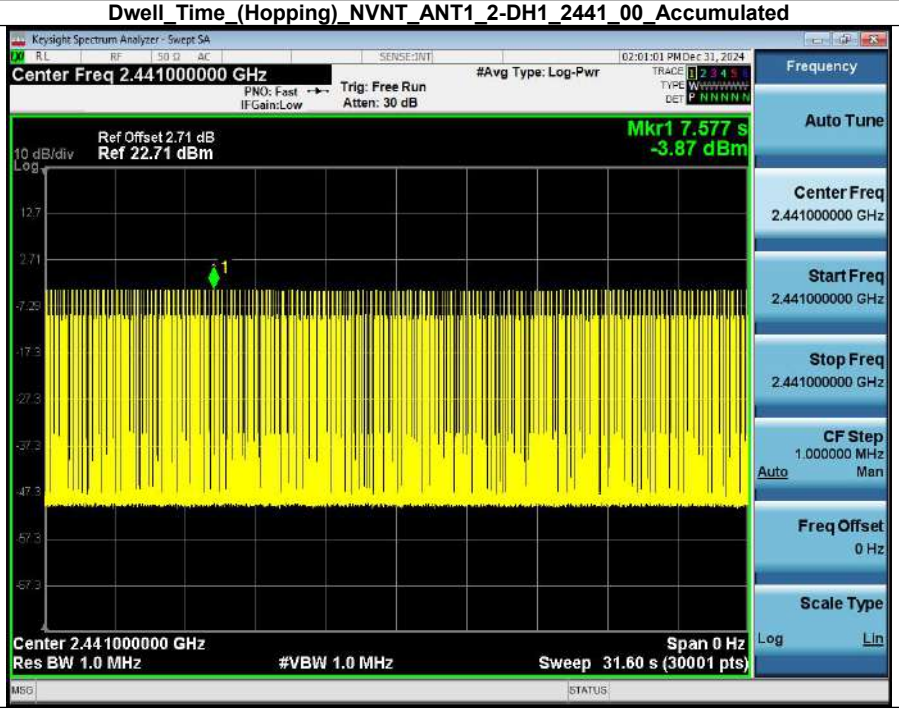
Dwell_Time_(Hopping)_NVNT_ANT1_1-DH1_2441_00_Accumulated



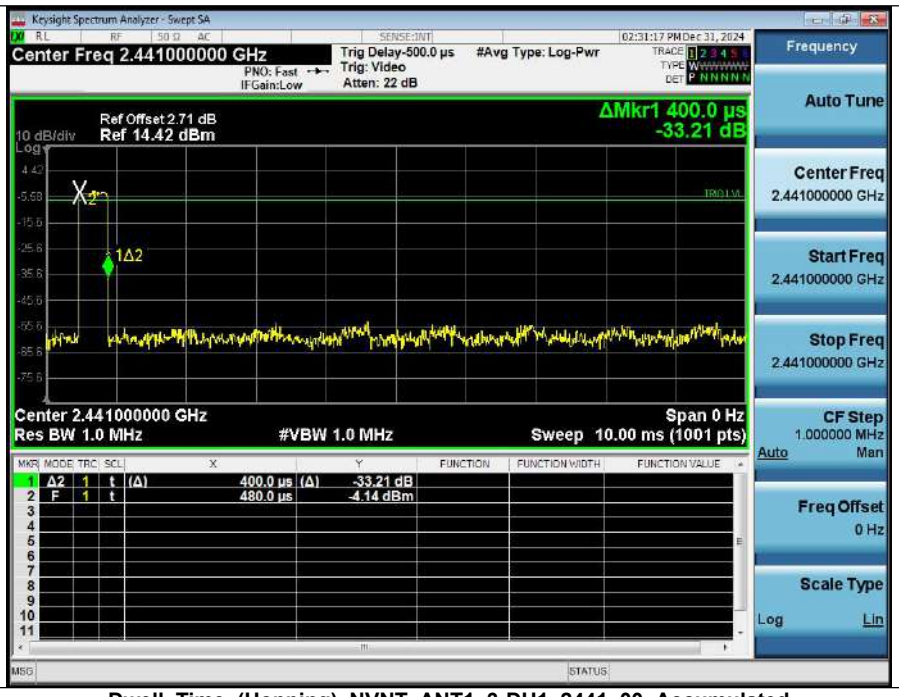
Dwell_Time_(Hopping)_NVNT_ANT1_2-DH1_2441_00_One_Burst_Time



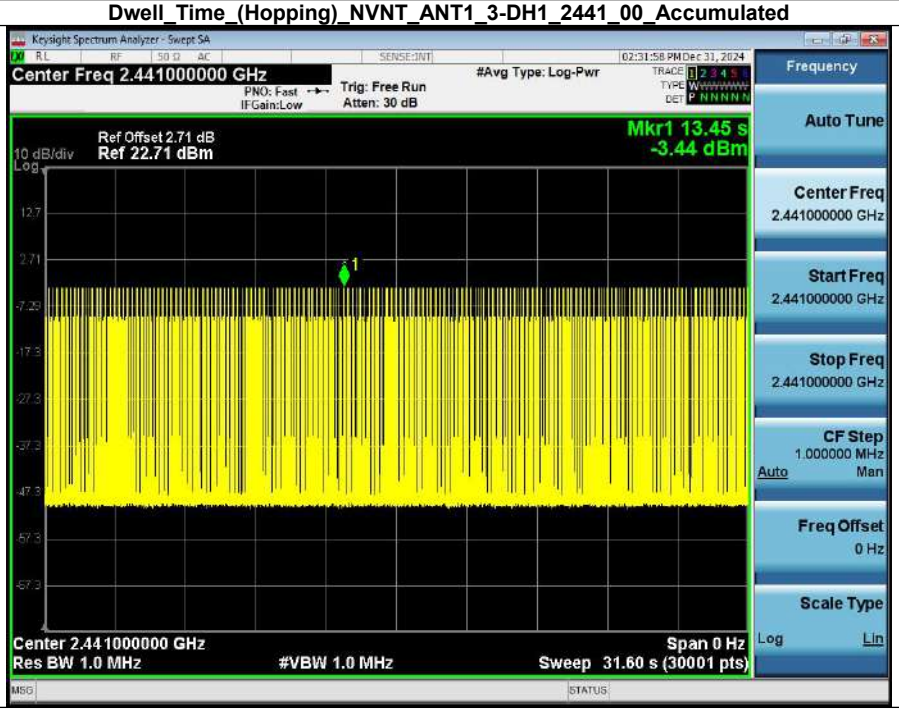
Dwell_Time_(Hopping)_NVNT_ANT1_2-DH1_2441_00_Accumulated



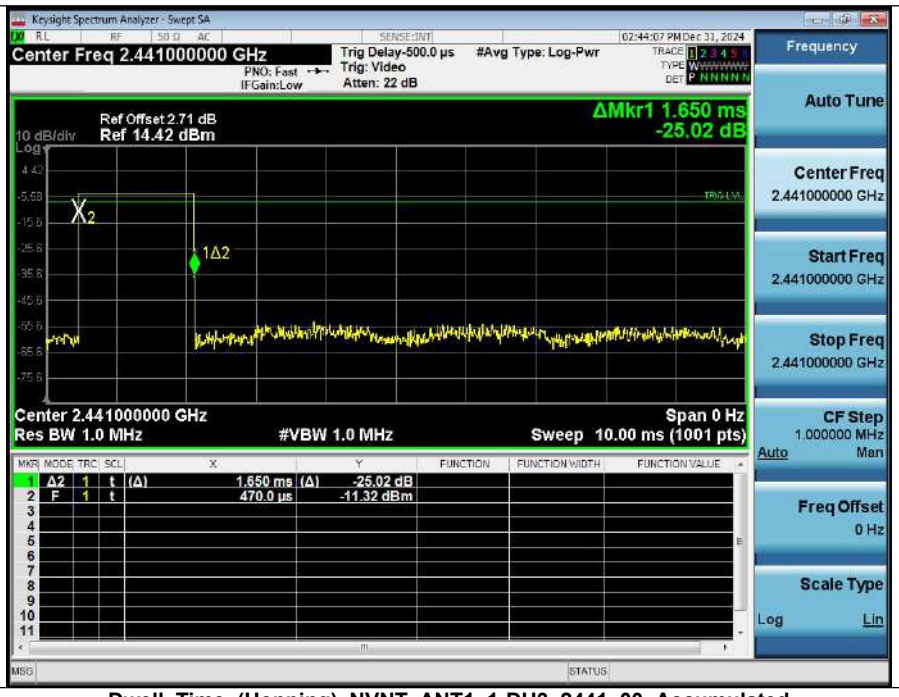
Dwell_Time_(Hopping)_NVNT_ANT1_3-DH1_2441_00_One_Burst_Time



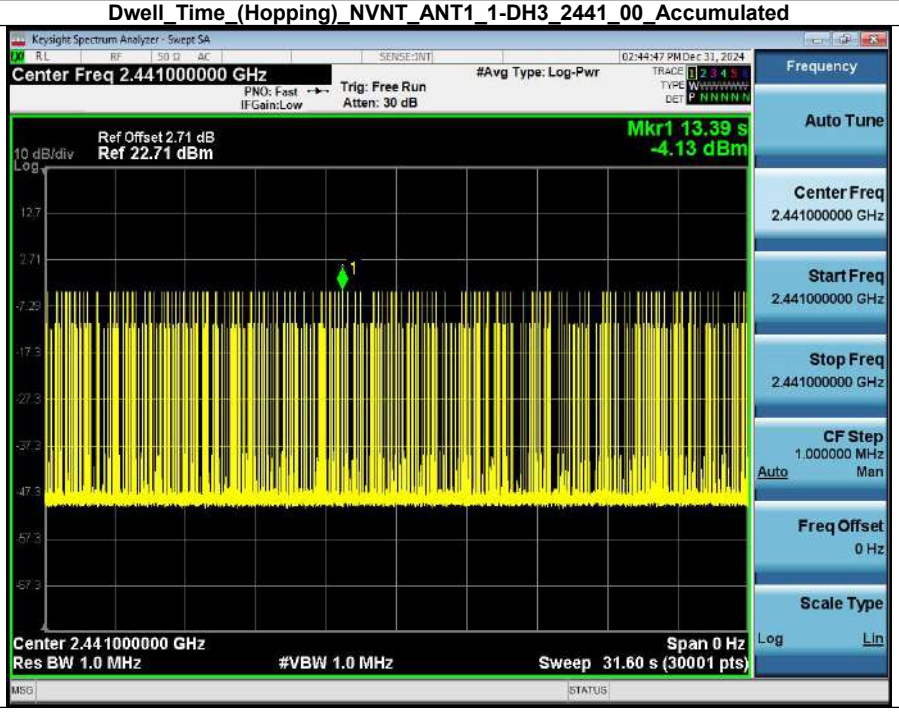
Dwell_Time_(Hopping)_NVNT_ANT1_3-DH1_2441_00_Accumulated



Dwell_Time_(Hopping)_NVNT_ANT1_1-DH3_2441_00_One_Burst_Time

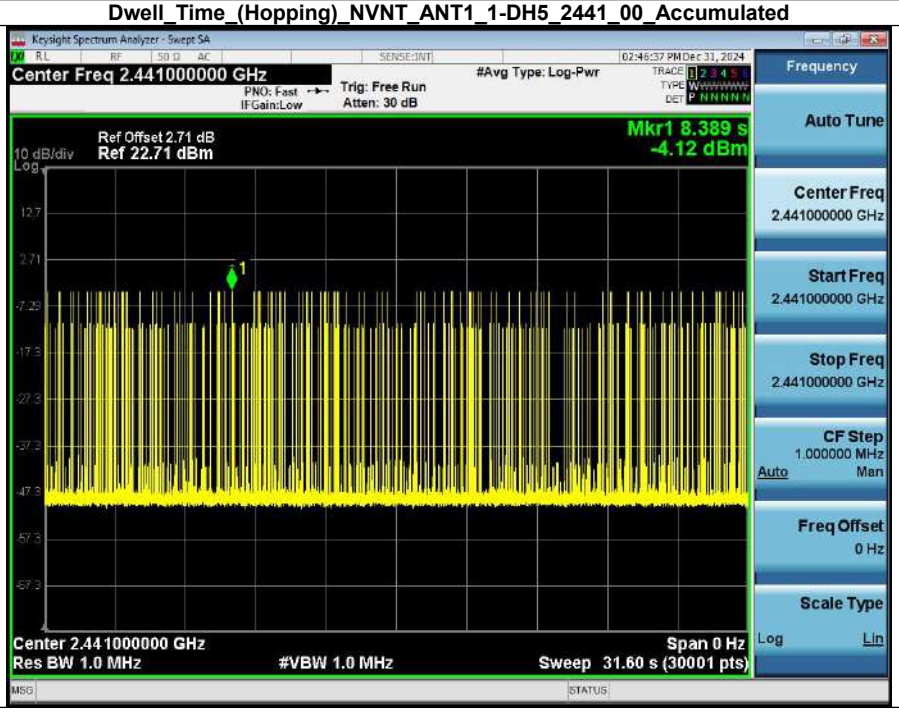


Dwell_Time_(Hopping)_NVNT_ANT1_1-DH3_2441_00_Accumulated

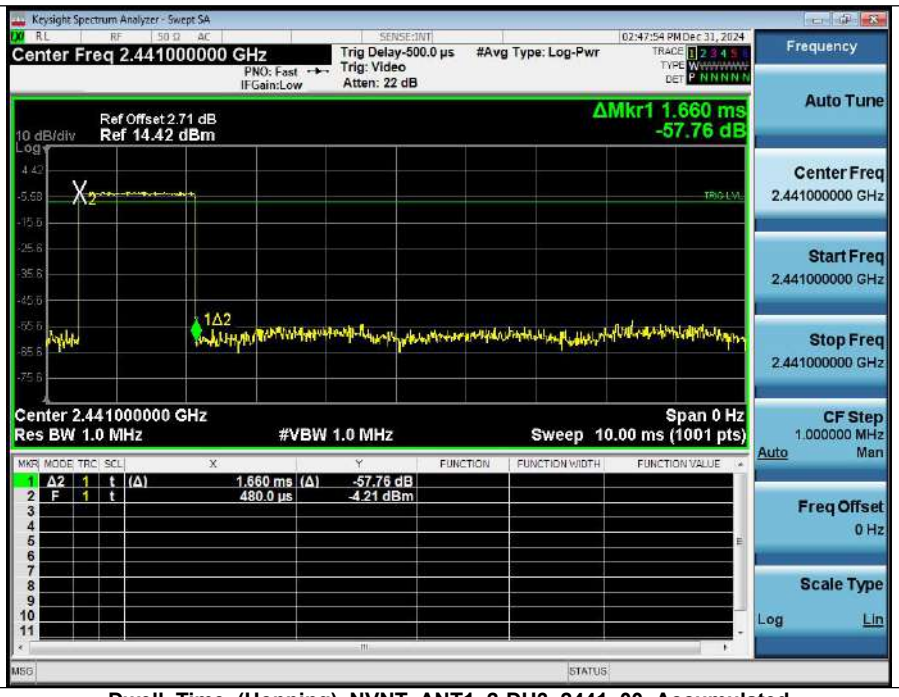


Dwell_Time_(Hopping)_NVNT_ANT1_1-DH5_2441_00_One_Burst_Time

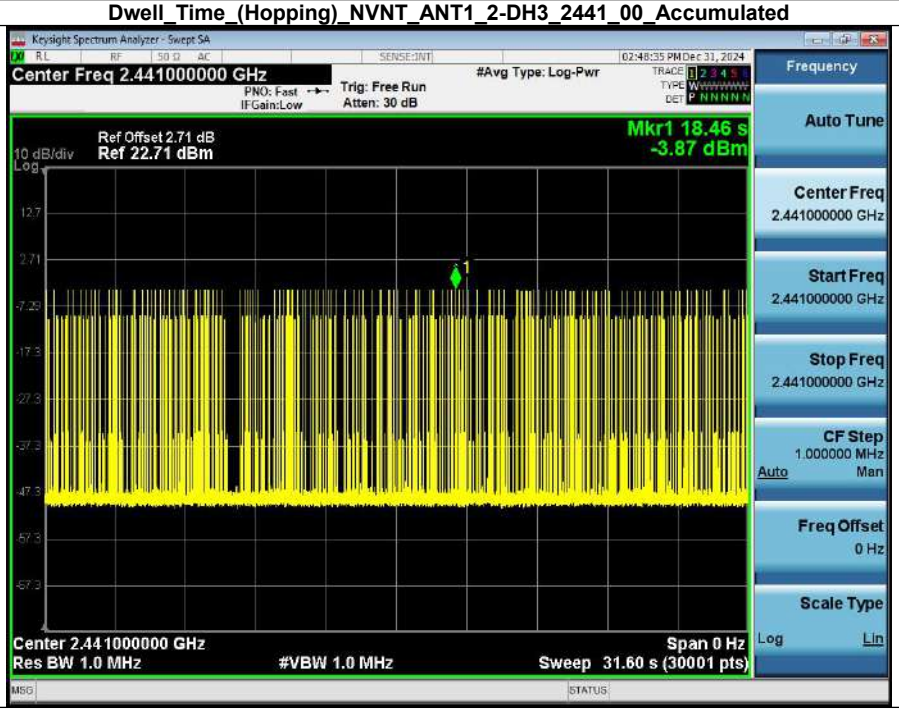
Dwell_Time_(Hopping)_NVNT_ANT1_1-DH5_2441_00_Accumulated



Dwell_Time_(Hopping)_NVNT_ANT1_2-DH3_2441_00_One_Burst_Time

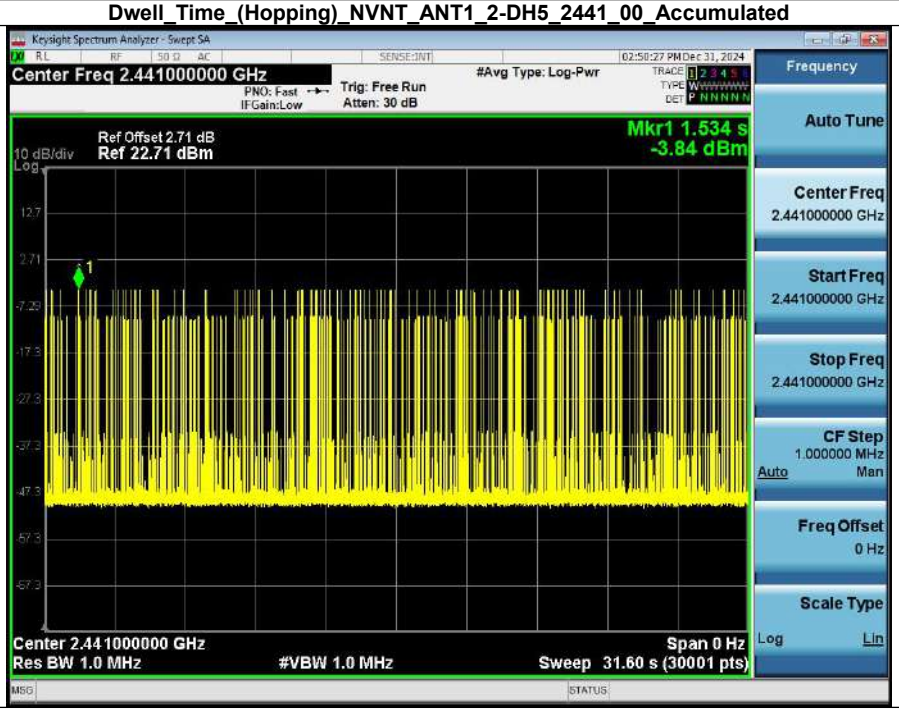


Dwell_Time_(Hopping)_NVNT_ANT1_2-DH3_2441_00_Accumulated

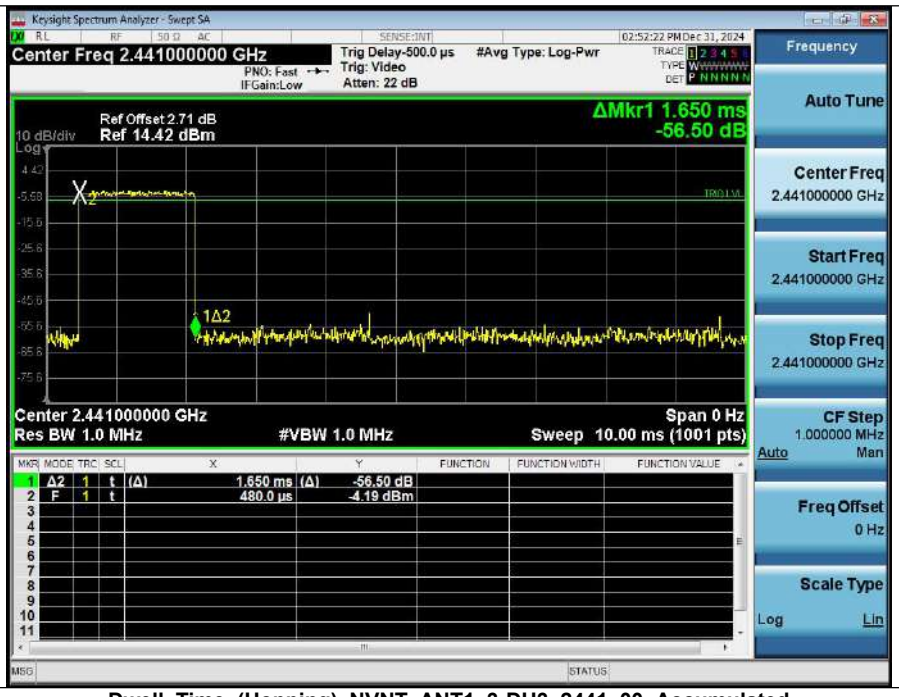


Dwell_Time_(Hopping)_NVNT_ANT1_2-DH5_2441_00_One_Burst_Time

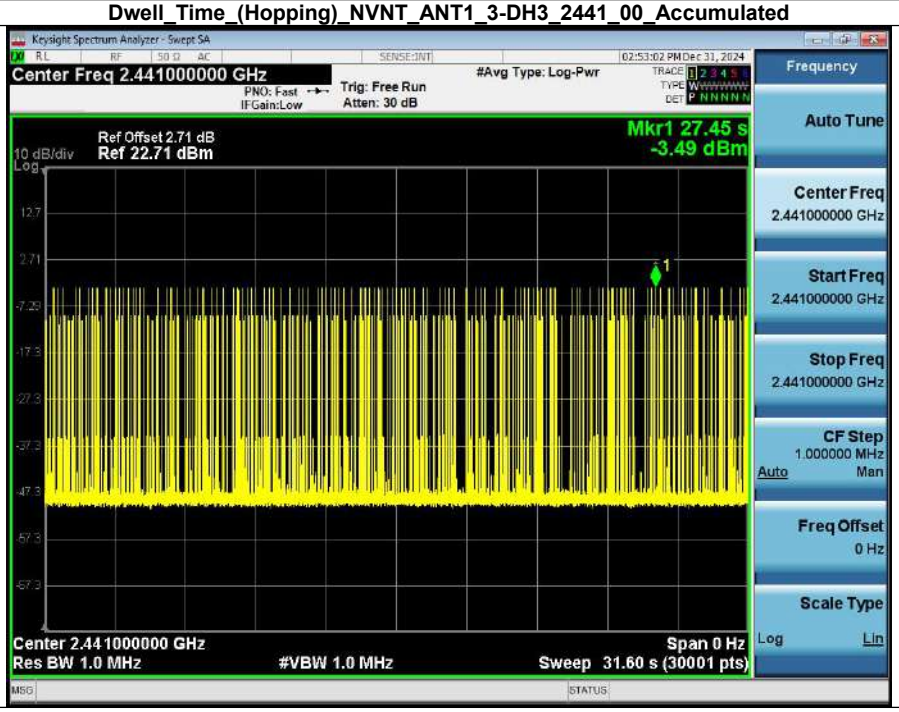
Dwell_Time_(Hopping)_NVNT_ANT1_2-DH5_2441_00_Accumulated



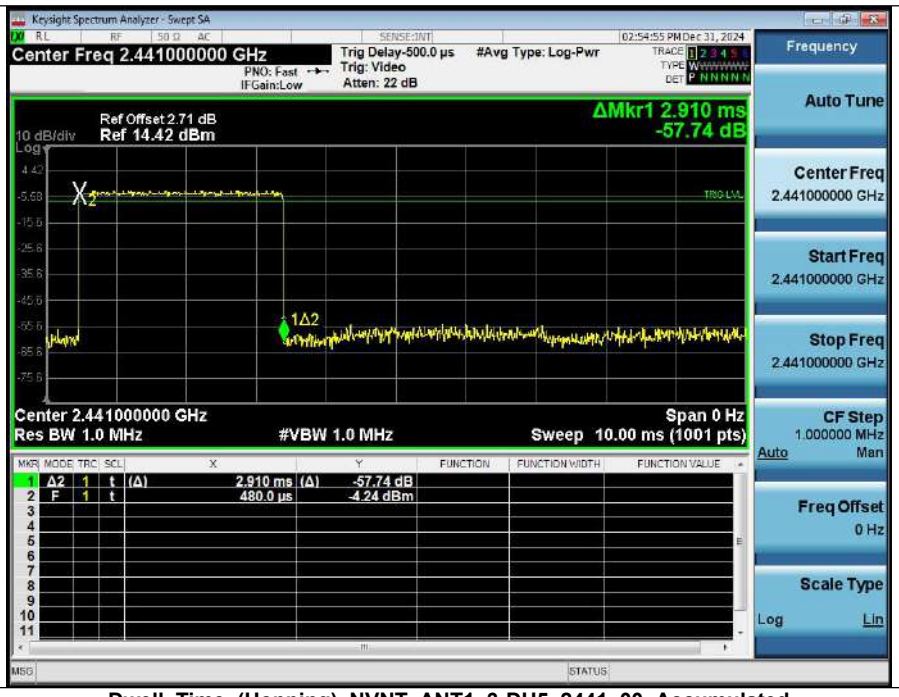
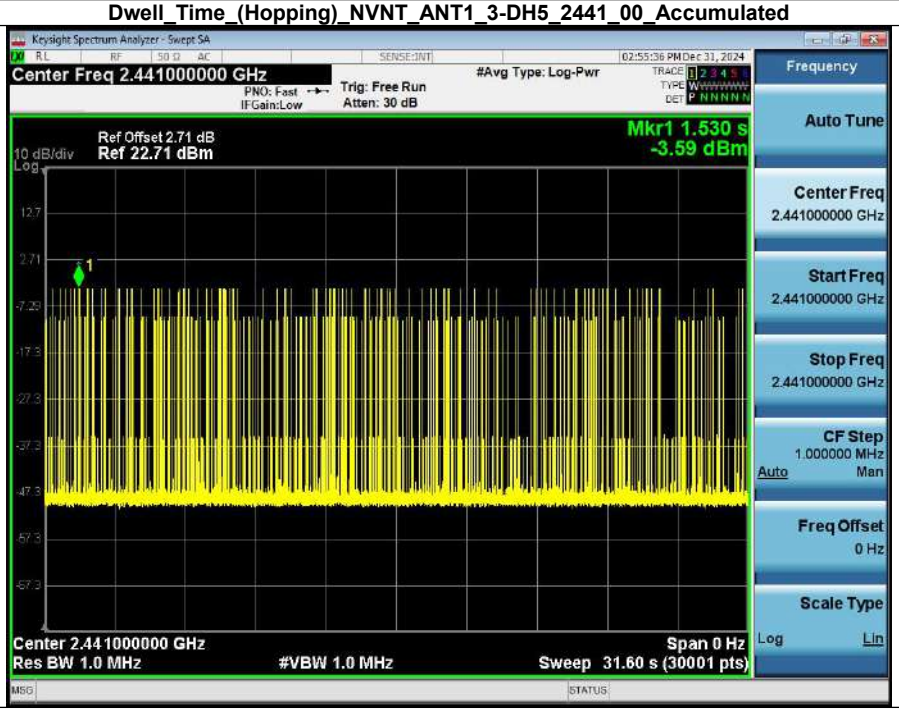
Dwell_Time_(Hopping)_NVNT_ANT1_3-DH3_2441_00_One_Burst_Time



Dwell_Time_(Hopping)_NVNT_ANT1_3-DH3_2441_00_Accumulated



Dwell_Time_(Hopping)_NVNT_ANT1_3-DH5_2441_00_One_Burst_Time



Dwell_Time_(Hopping)_NVNT_ANT1_3-DH5_2441_00_Accumulated