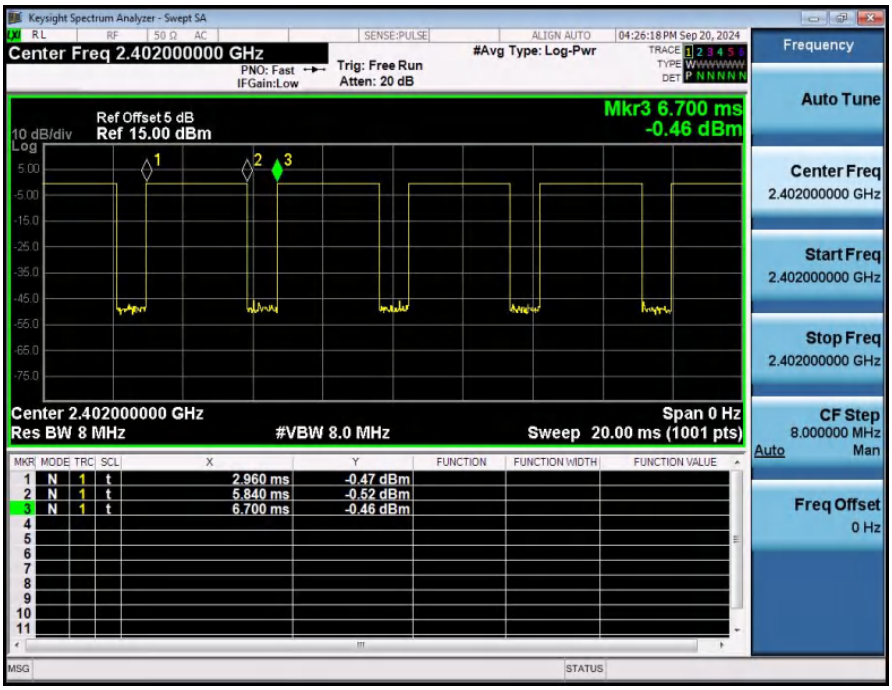
Appendix Test Data

Report No.:	1819C40035312501	Test Sample No.:	1-2-2
Start Test Date:	2024.9.20	Finish Test Date:	2024.9.25
Test Engineer:	Joker Huang	Auditor:	Justin Feng
Temperature:	25.5℃	Relative Humidity:	47%
Pressure:	101kPa		

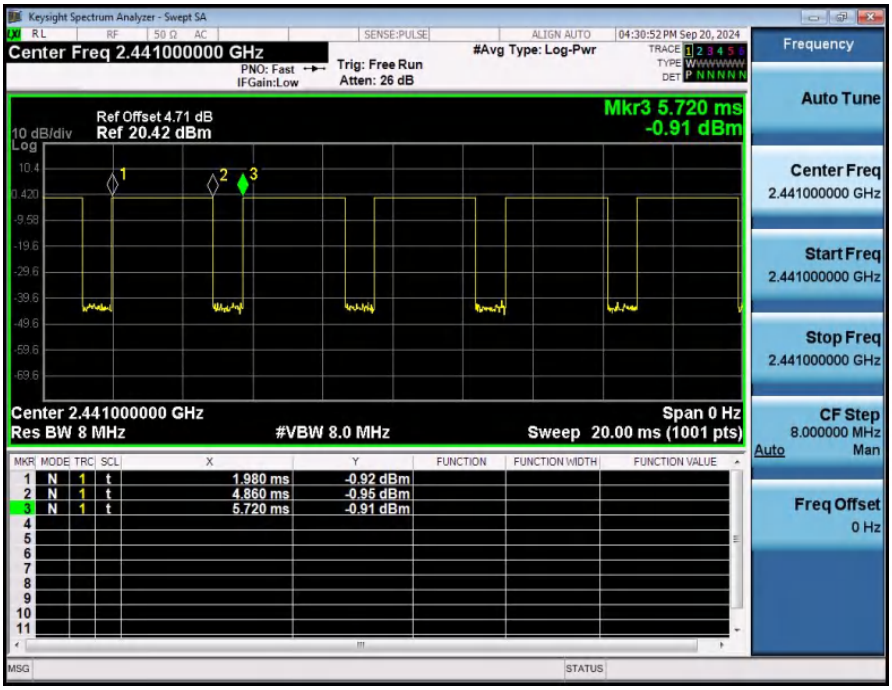
Appendix A: Duty Cycle

Condition	Antenna	Rate	Frequency (MHz)	Dutycycle(%)	Duty_factor
NVNT	ANT1	1-DH5	2402.00	77.54	1.10
NVNT	ANT1	1-DH5	2441.00	77.54	1.10
NVNT	ANT1	1-DH5	2480.00	77.66	1.10
NVNT	ANT1	2-DH5	2402.00	78.07	1.07
NVNT	ANT1	2-DH5	2441.00	77.66	1.10
NVNT	ANT1	2-DH5	2480.00	78.07	1.07
NVNT	ANT1	3-DH5	2402.00	77.66	1.10
NVNT	ANT1	3-DH5	2441.00	77.54	1.10
NVNT	ANT1	3-DH5	2480.00	77.66	1.10

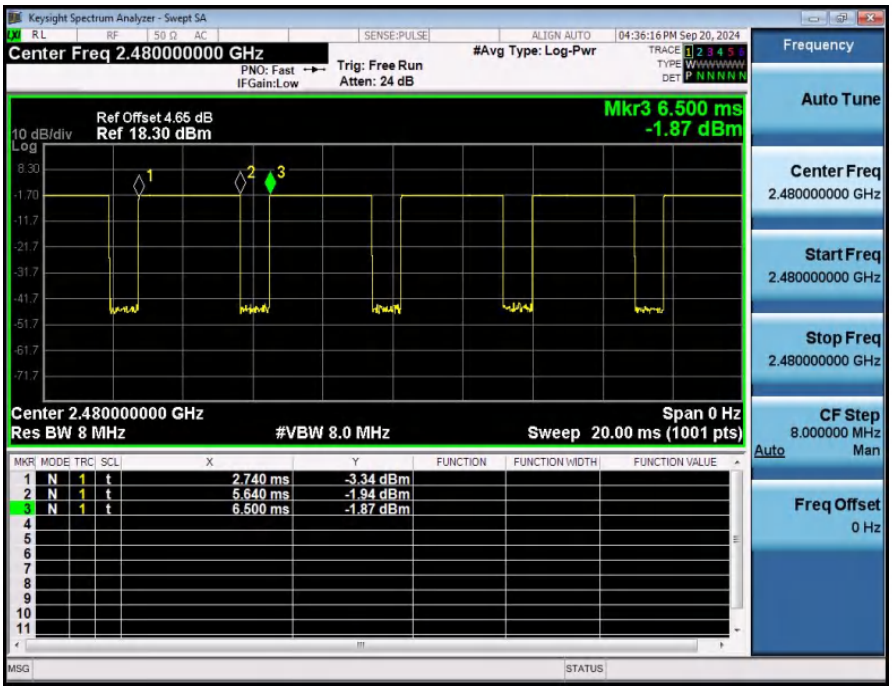
Duty_Cycle_NVNT_ANT1_1-DH5_2402



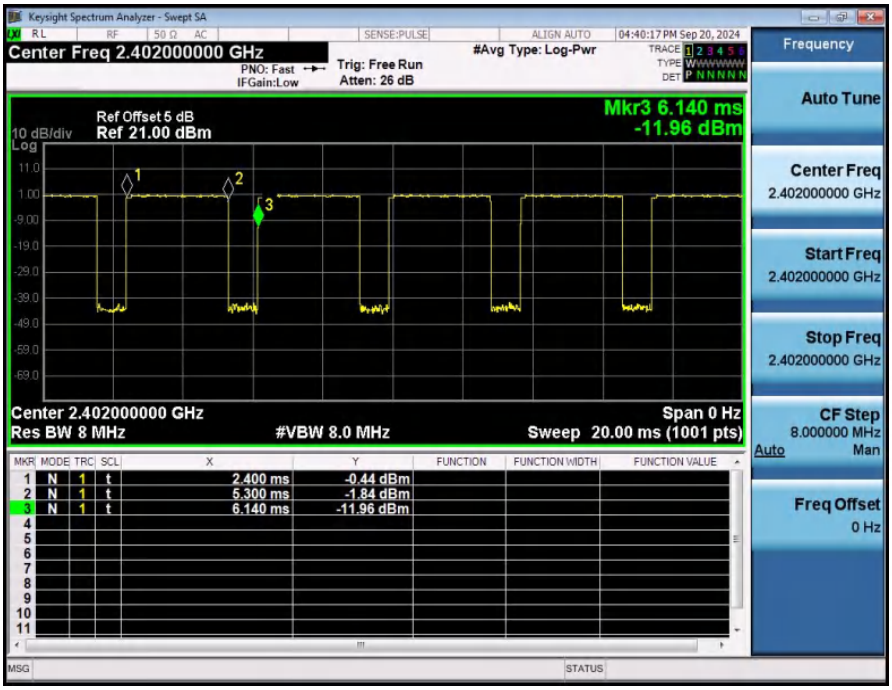
Duty_Cycle_NVNT_ANT1_1-DH5_2441



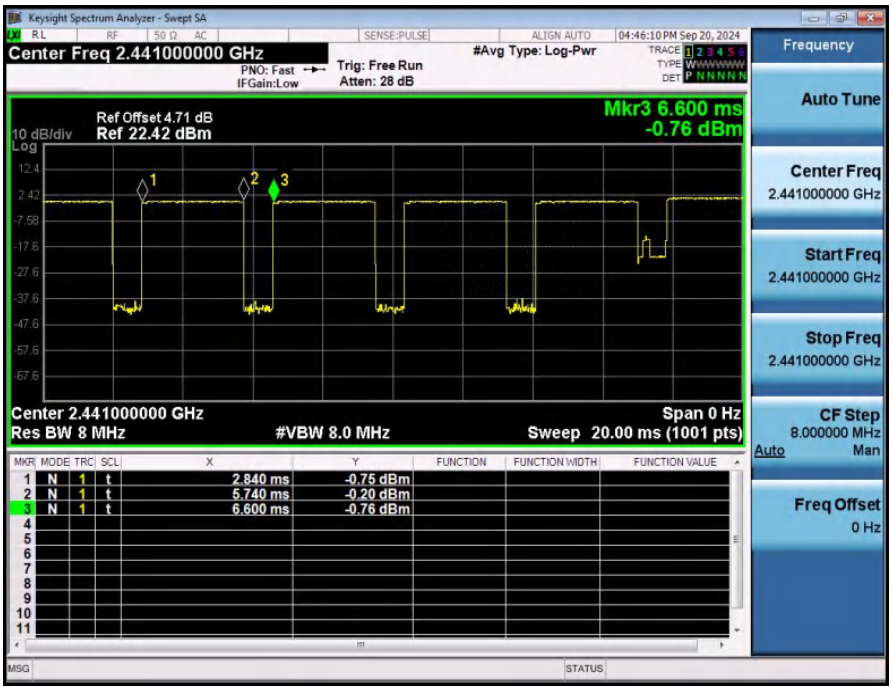
Duty_Cycle_NVNT_ANT1_1-DH5_2480



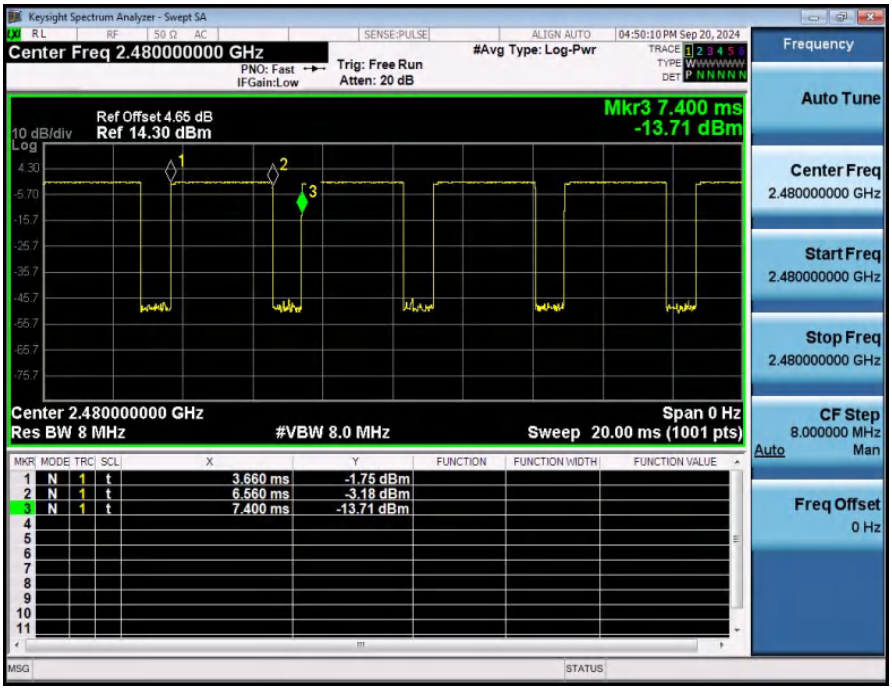
Duty_Cycle_NVNT_ANT1_2-DH5_2402



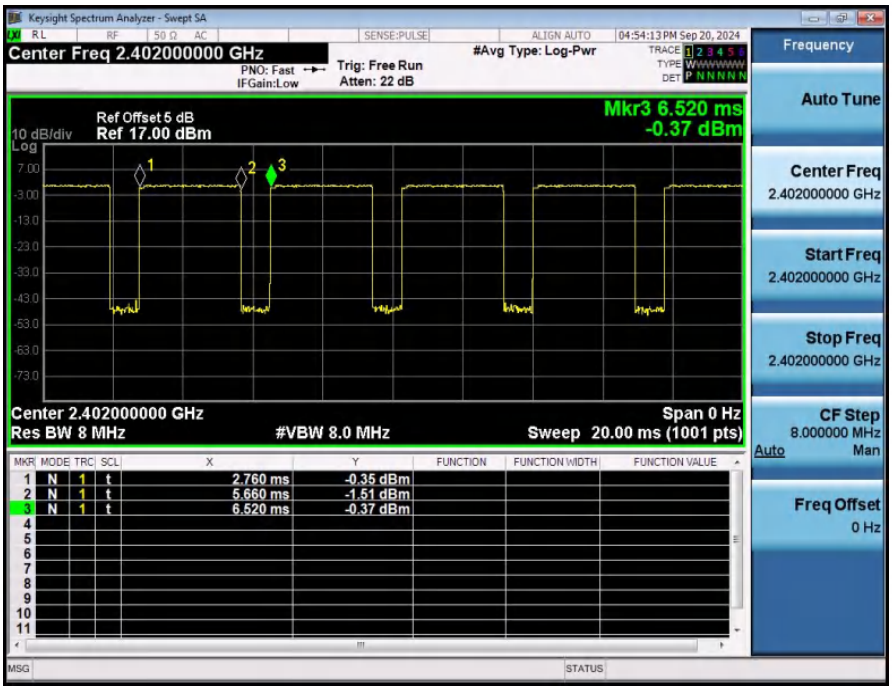
Duty_Cycle_NVNT_ANT1_2-DH5_2441



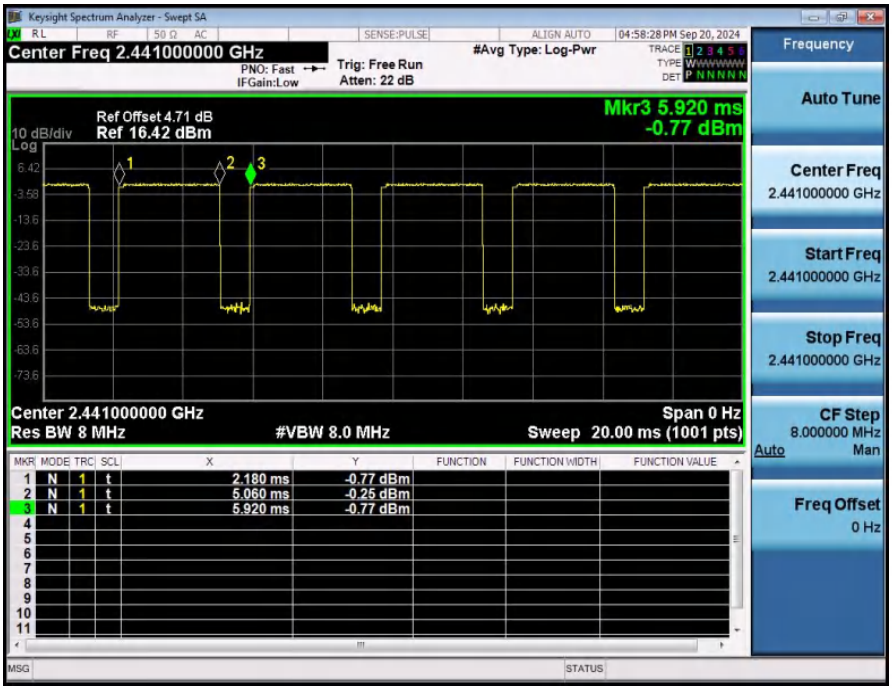
Duty_Cycle_NVNT_ANT1_2-DH5_2480



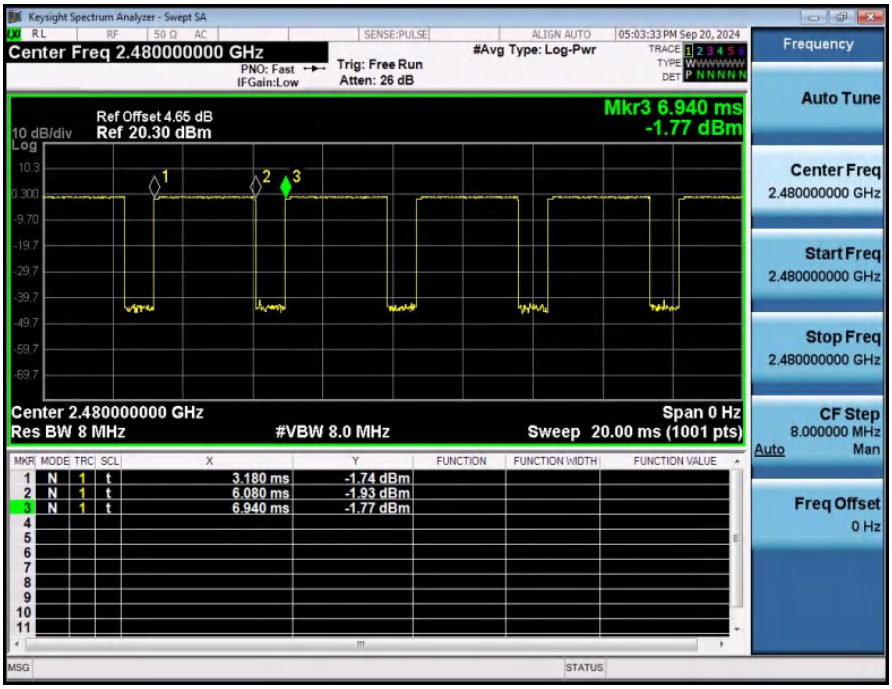
Duty_Cycle_NVNT_ANT1_3-DH5_2402



Duty_Cycle_NVNT_ANT1_3-DH5_2441



Duty_Cycle_NVNT_ANT1_3-DH5_2480


Keysight Spectrum Analyzer - Swept SA
Center Freq 2.480000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 26 dB
#Avg Type: Log-Pwr
05:03:33 PM Sep 20, 2024
Ref Offset 4.65 dB
10 dB/div
Ref 20.30 dBm
Mkr3 6.940 ms
-1.77 dBm
Center 2.480000000 GHz
Res BW 8 MHz
#VBW 8.0 MHz
Span 0 Hz
Sweep 20.00 ms (1001 pts)
1 N 1 t 3.180 ms -1.74 dBm
2 N 1 t 6.080 ms -1.93 dBm
3 N 1 t 6.940 ms -1.77 dBm
Frequency
Auto Tune
Center Freq
2.480000000 GHz
Start Freq
2.480000000 GHz
Stop Freq
2.480000000 GHz
CF Step
8.000000 MHz
Auto
Man
Freq Offset
0 Hz

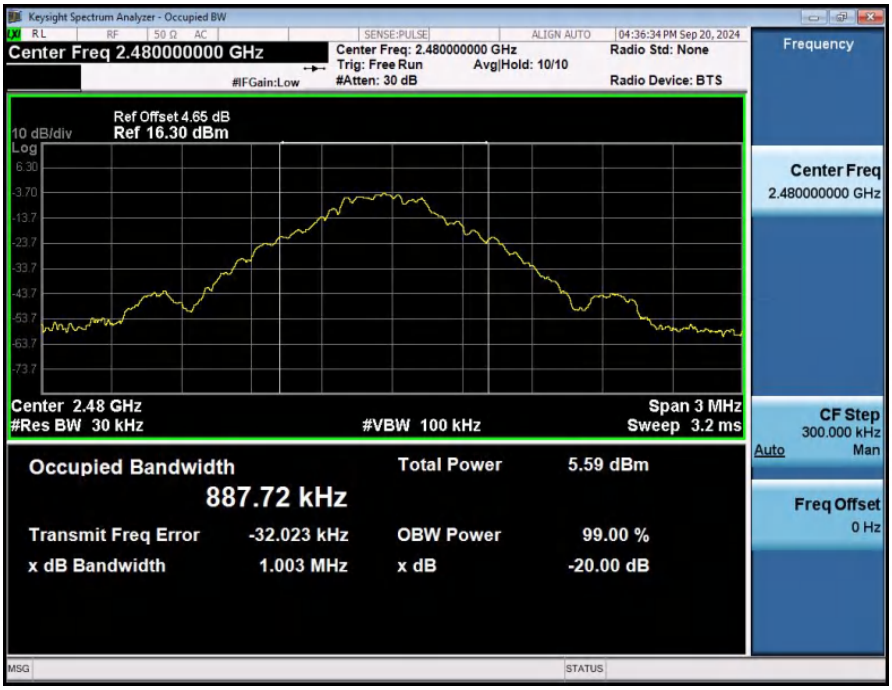
Appendix B: -20dB Bandwidth

Condition	Antenna	Modulation	Frequency (MHz)	-20dB BW(MHz)	if larger than CFS
NVNT	ANT1	1-DH5	2402.00	0.959	No
NVNT	ANT1	1-DH5	2441.00	1.017	Yes
NVNT	ANT1	1-DH5	2480.00	1.003	Yes
NVNT	ANT1	2-DH5	2402.00	1.287	Yes
NVNT	ANT1	2-DH5	2441.00	1.288	Yes
NVNT	ANT1	2-DH5	2480.00	1.290	Yes
NVNT	ANT1	3-DH5	2402.00	1.292	Yes
NVNT	ANT1	3-DH5	2441.00	1.298	Yes
NVNT	ANT1	3-DH5	2480.00	1.301	Yes

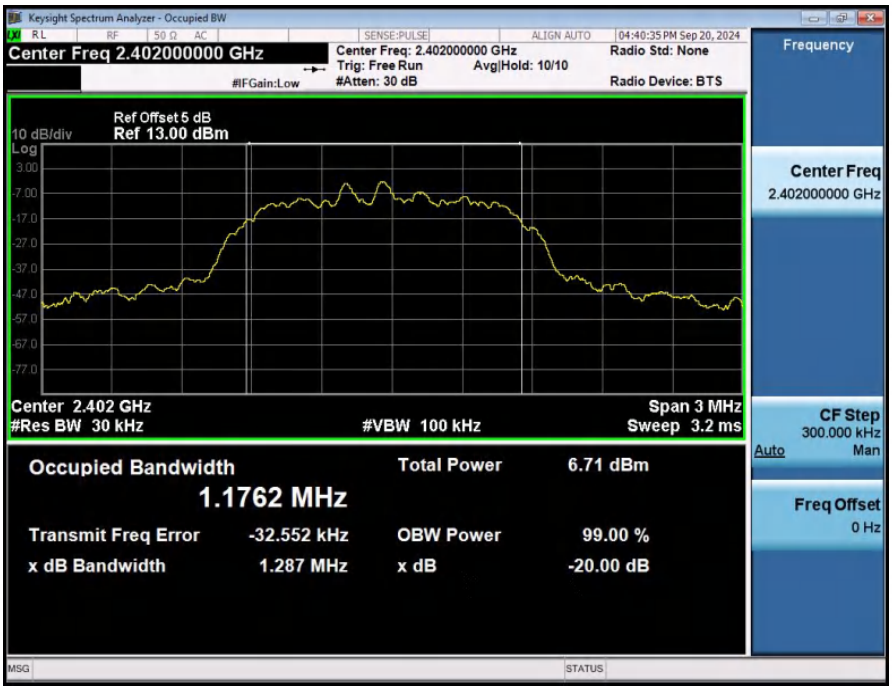
-20dB_Bandwidth_NVNT_ANT1_1-DH5_2402_00

-20dB_Bandwidth_NVNT_ANT1_1-DH5_2441_00

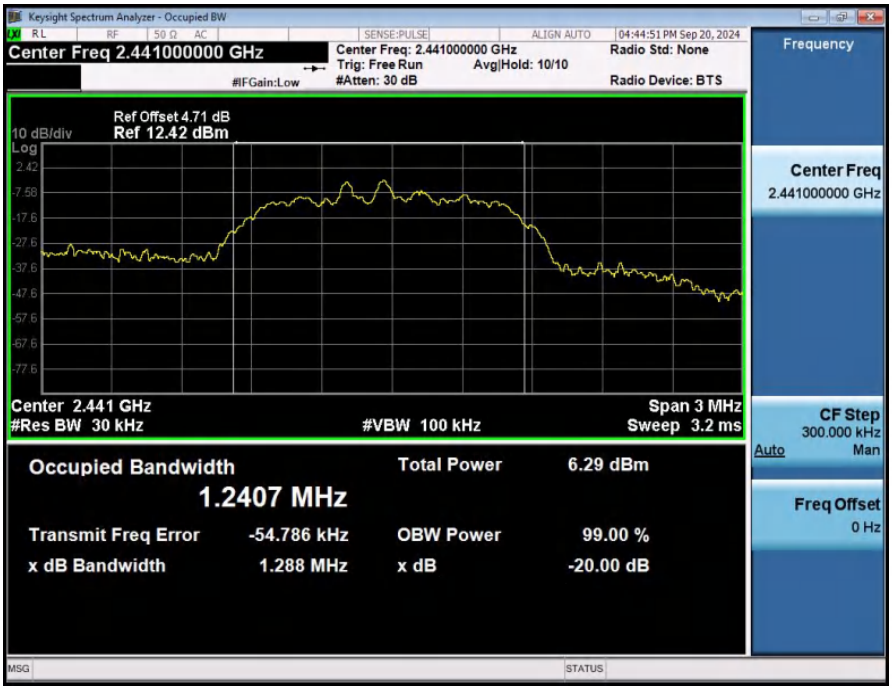
-20dB_Bandwidth_NVNT_ANT1_1-DH5_2480_00



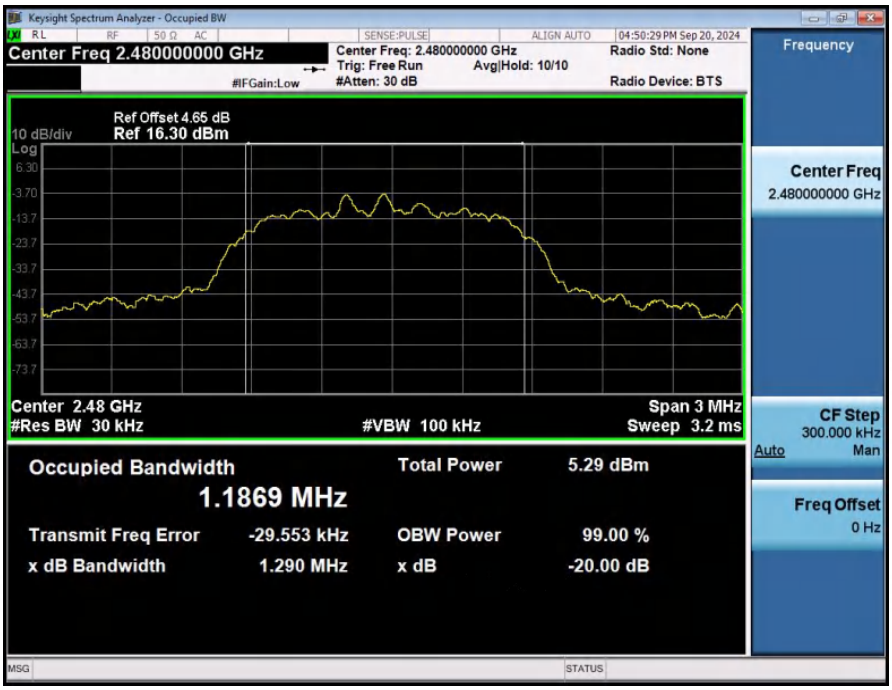
-20dB_Bandwidth_NVNT_ANT1_2-DH5_2402_00



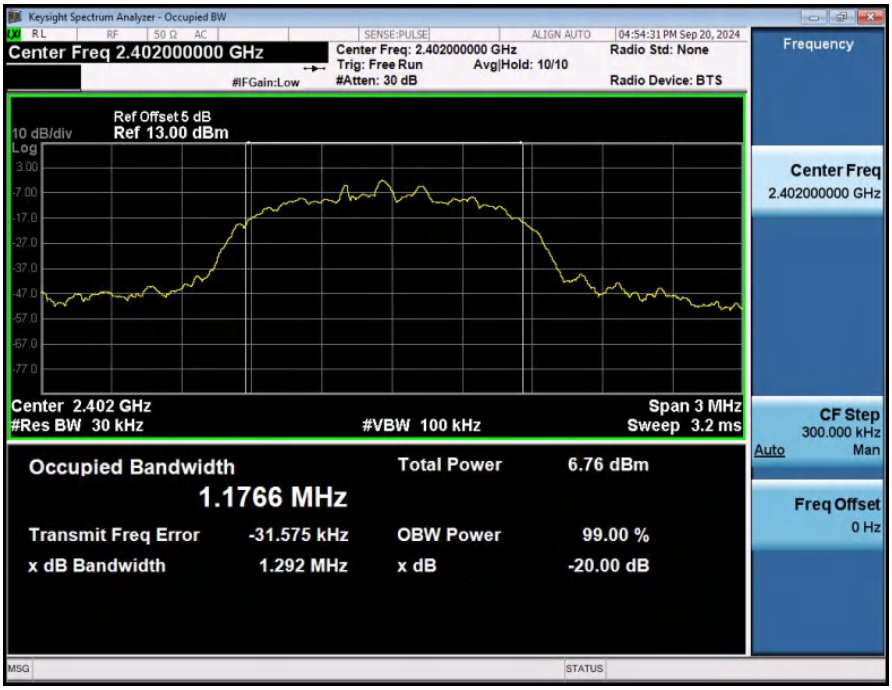
-20dB_Bandwidth_NVNT_ANT1_2-DH5_2441_00



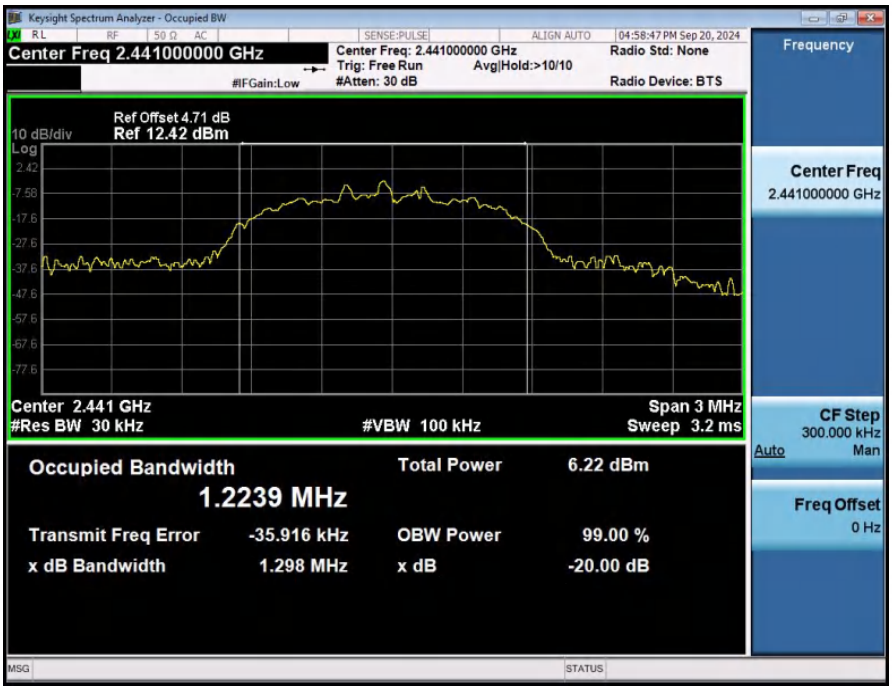
-20dB_Bandwidth_NVNT_ANT1_2-DH5_2480_00



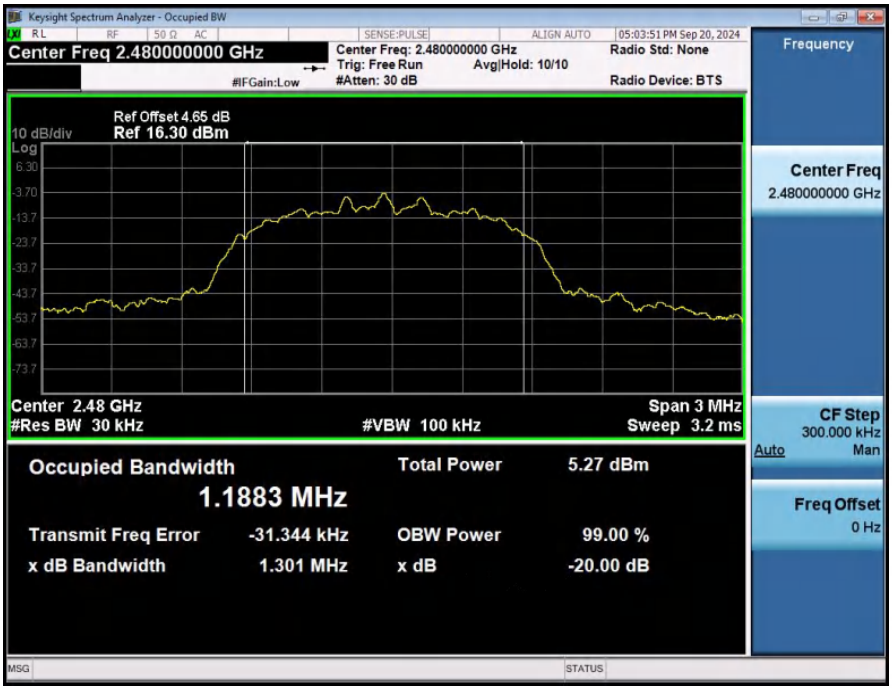
-20dB_Bandwidth_NVNT_ANT1_3-DH5_2402_00



-20dB_Bandwidth_NVNT_ANT1_3-DH5_2441_00



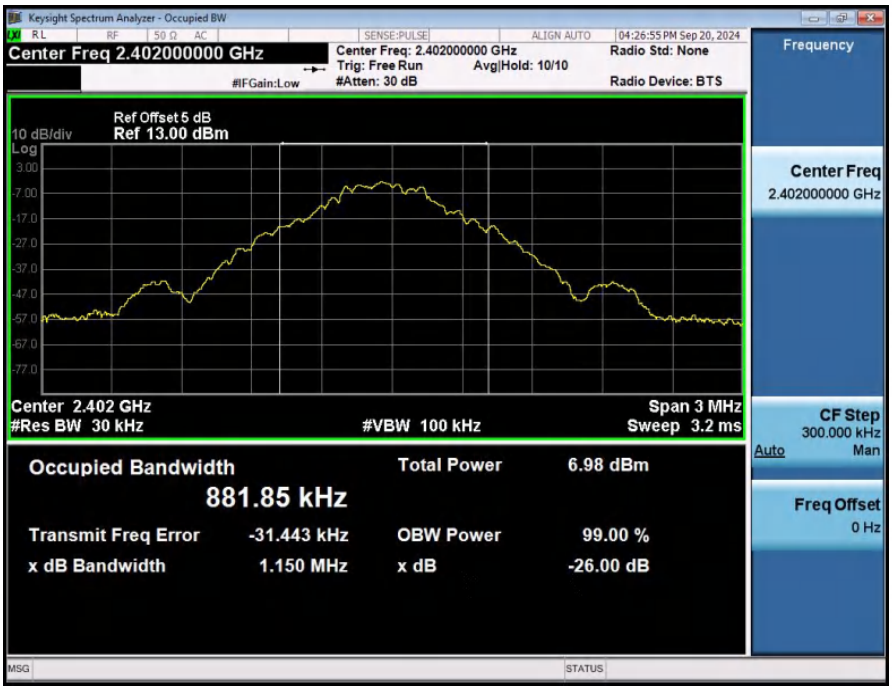
-20dB_Bandwidth_NVNT_ANT1_3-DH5_2480_00



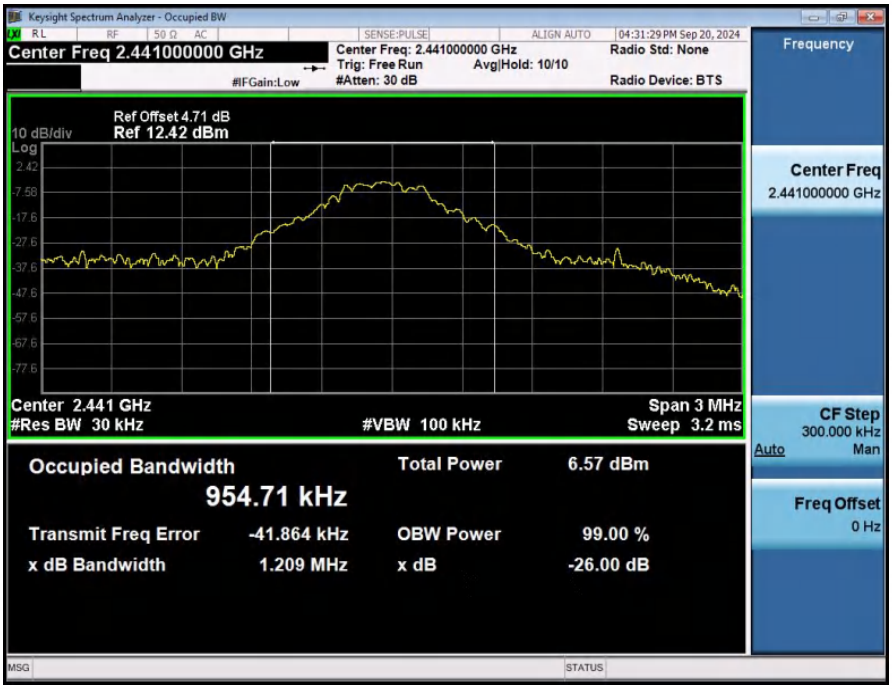
Appendix C: 99% Occupied Bandwidth

Condition	Antenna	Modulation	Frequency (MHz)	99%%BW(MHz)
NVNT	ANT1	1-DH5	2402.00	0.882
NVNT	ANT1	1-DH5	2441.00	0.955
NVNT	ANT1	1-DH5	2480.00	0.892
NVNT	ANT1	2-DH5	2402.00	1.179
NVNT	ANT1	2-DH5	2441.00	1.218
NVNT	ANT1	2-DH5	2480.00	1.186
NVNT	ANT1	3-DH5	2402.00	1.175
NVNT	ANT1	3-DH5	2441.00	1.240
NVNT	ANT1	3-DH5	2480.00	1.191

99%_Occupied_Bandwidth_NVNT_ANT1_1-DH5_2402_00

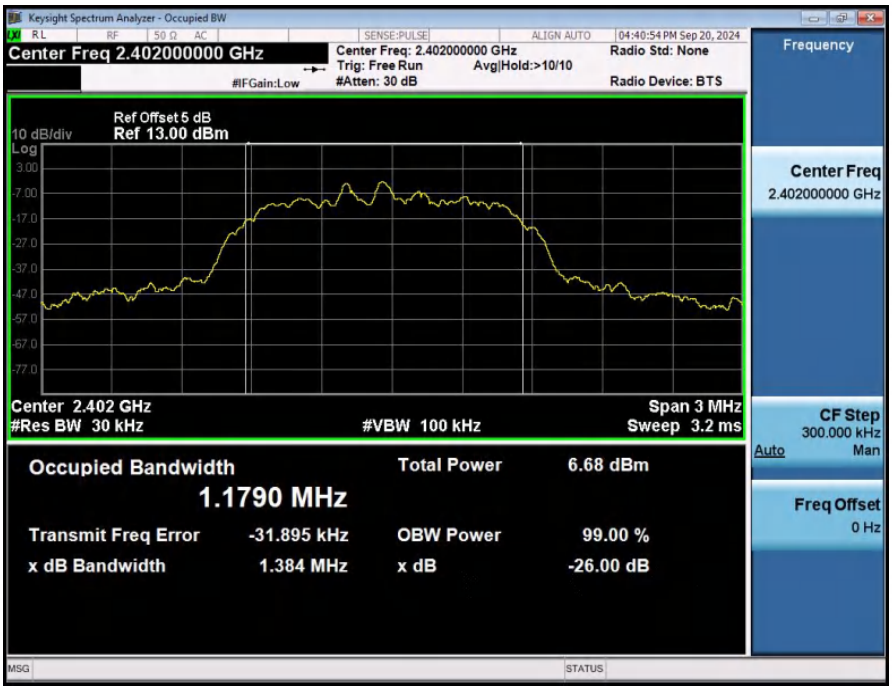


99%_Occupied_Bandwidth_NVNT_ANT1_1-DH5_2441_00

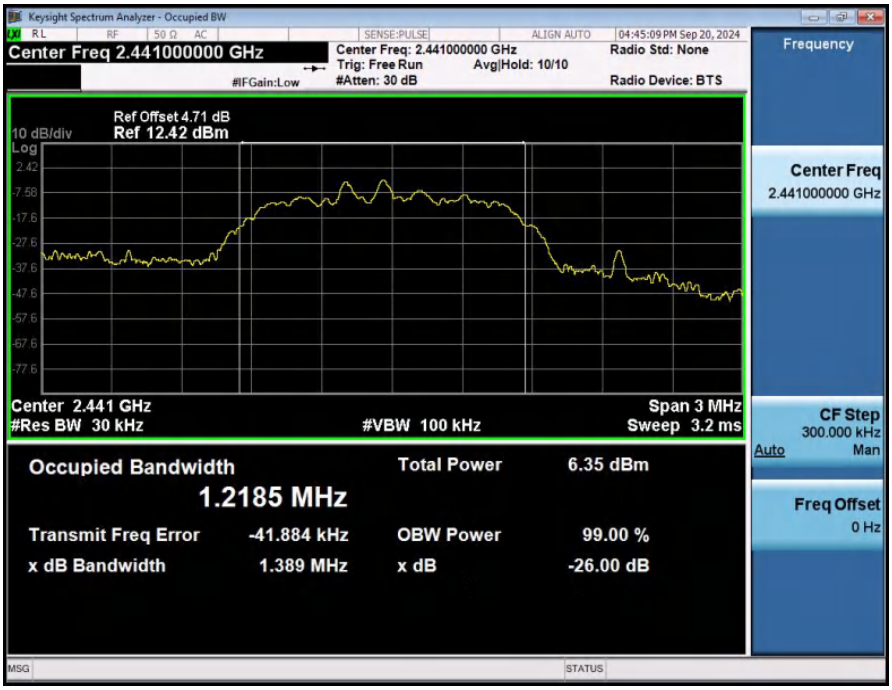


99%_Occupied_Bandwidth_NVNT_ANT1_1-DH5_2480_00

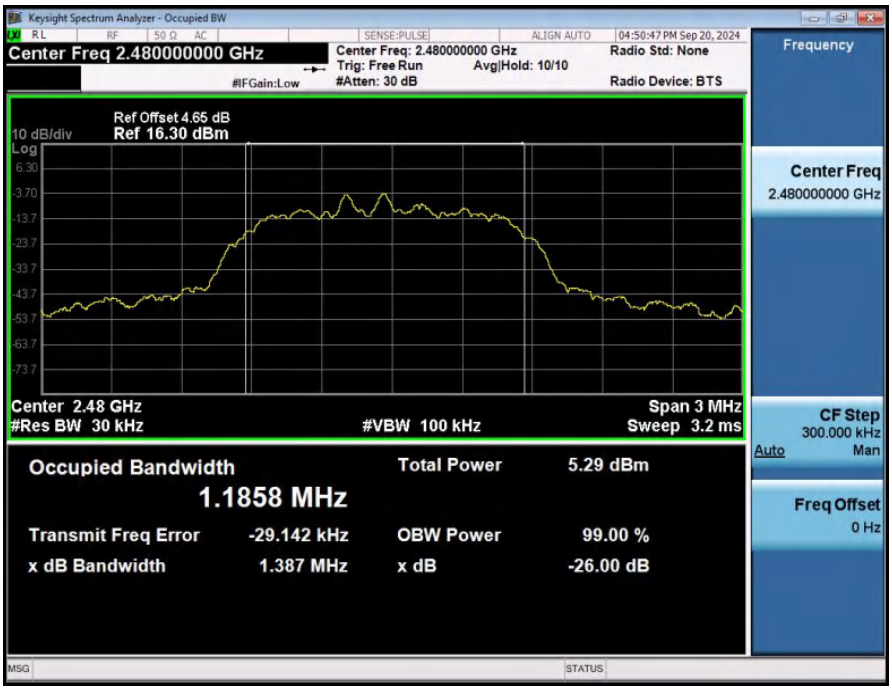
99%_Occupied_Bandwidth_NVNT_ANT1_2-DH5_2402_00



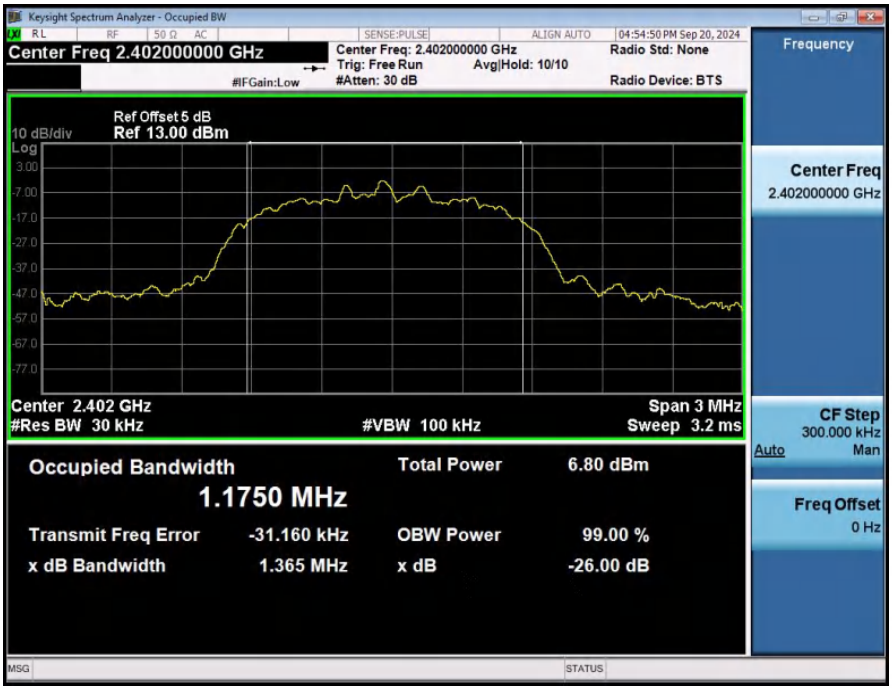
99%_Occupied_Bandwidth_NVNT_ANT1_2-DH5_2441_00



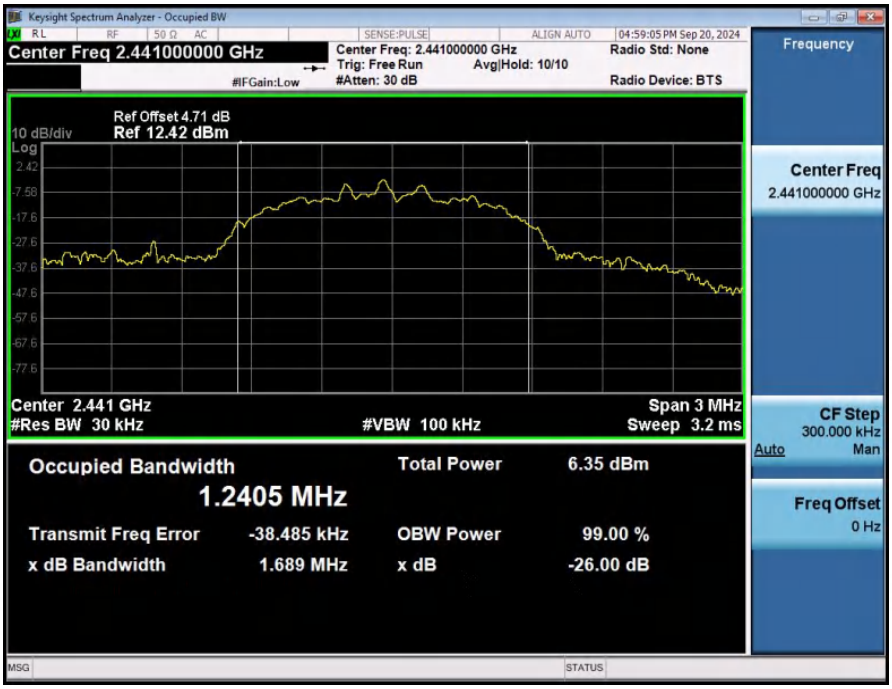
99%_Occupied_Bandwidth_NVNT_ANT1_2-DH5_2480_00



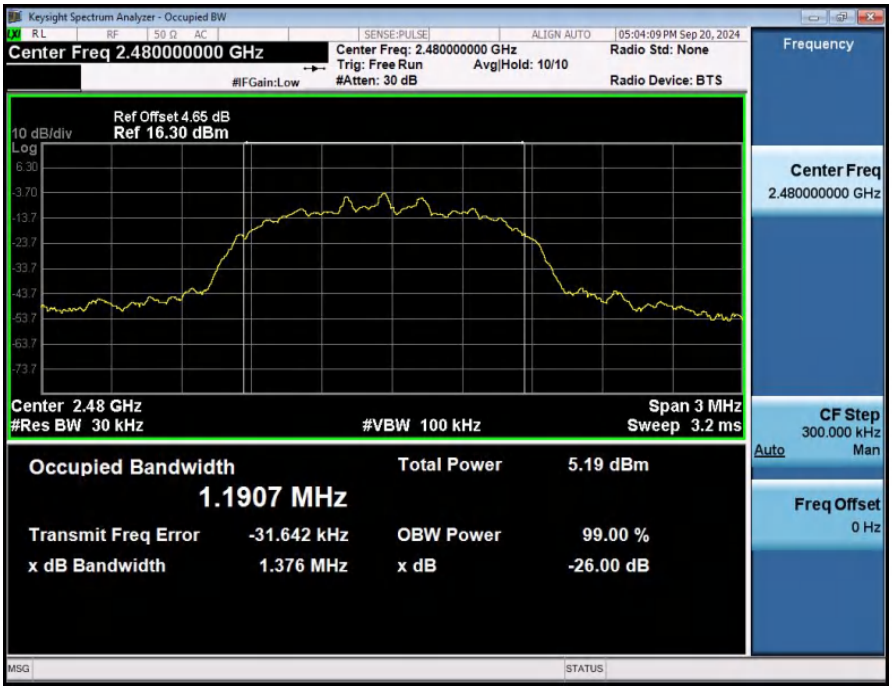
99%_Occupied_Bandwidth_NVNT_ANT1_3-DH5_2402_00



99%_Occupied_Bandwidth_NVNT_ANT1_3-DH5_2441_00



99%_Occupied_Bandwidth_NVNT_ANT1_3-DH5_2480_00

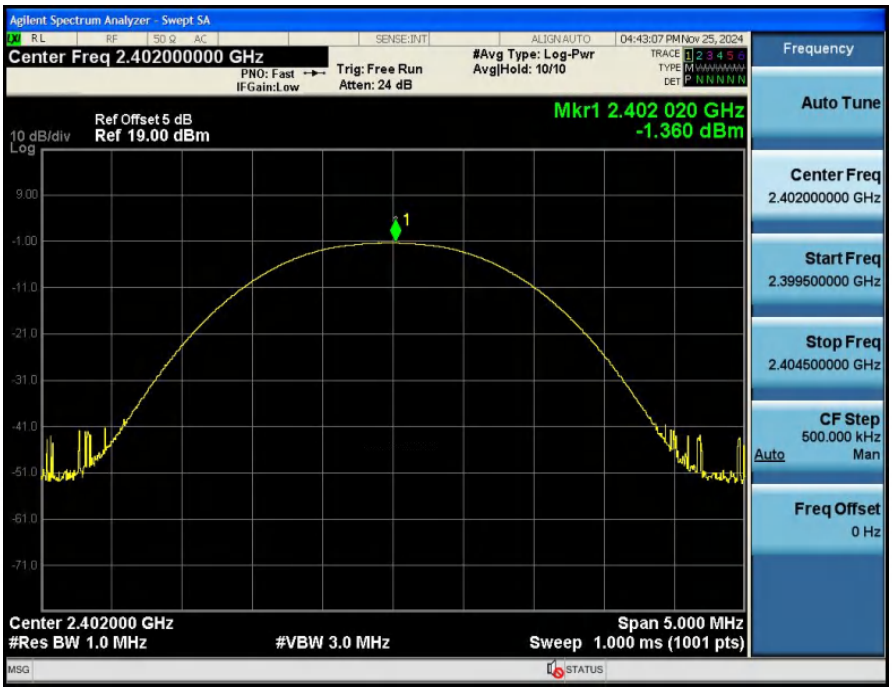


Appendix D:

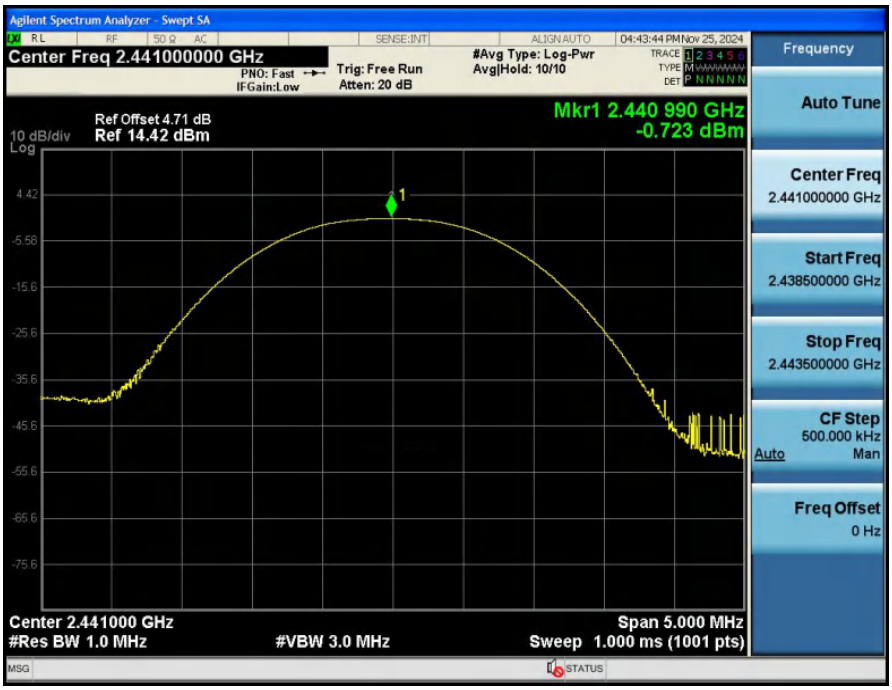
Peak Output Power-Left Earphone

Condition	Antenna	Modulation	Frequency (MHz)	Max. Conducted Power(dBm)	Max. Conducted Power(mW)	Limit(mW)	Result
NVNT	ANT1	1-DH5	2402.00	-1.36	0.73	125	Pass
NVNT	ANT1	1-DH5	2441.00	-0.72	0.85	125	Pass
NVNT	ANT1	1-DH5	2480.00	-1.23	0.75	125	Pass
NVNT	ANT1	2-DH5	2402.00	-2.26	0.59	125	Pass
NVNT	ANT1	2-DH5	2441.00	-1.46	0.72	125	Pass
NVNT	ANT1	2-DH5	2480.00	-2.12	0.61	125	Pass
NVNT	ANT1	3-DH5	2402.00	-1.94	0.64	125	Pass
NVNT	ANT1	3-DH5	2441.00	-1.07	0.78	125	Pass
NVNT	ANT1	3-DH5	2480.00	-1.60	0.69	125	Pass

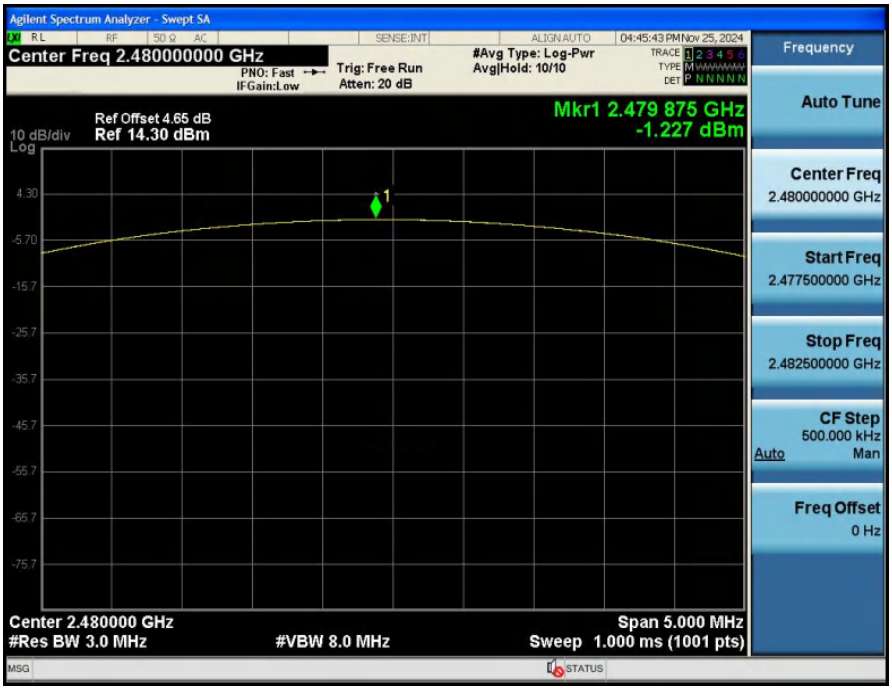
Peak_Output_Power_NVNT_ANT1_1-DH5_2402_00



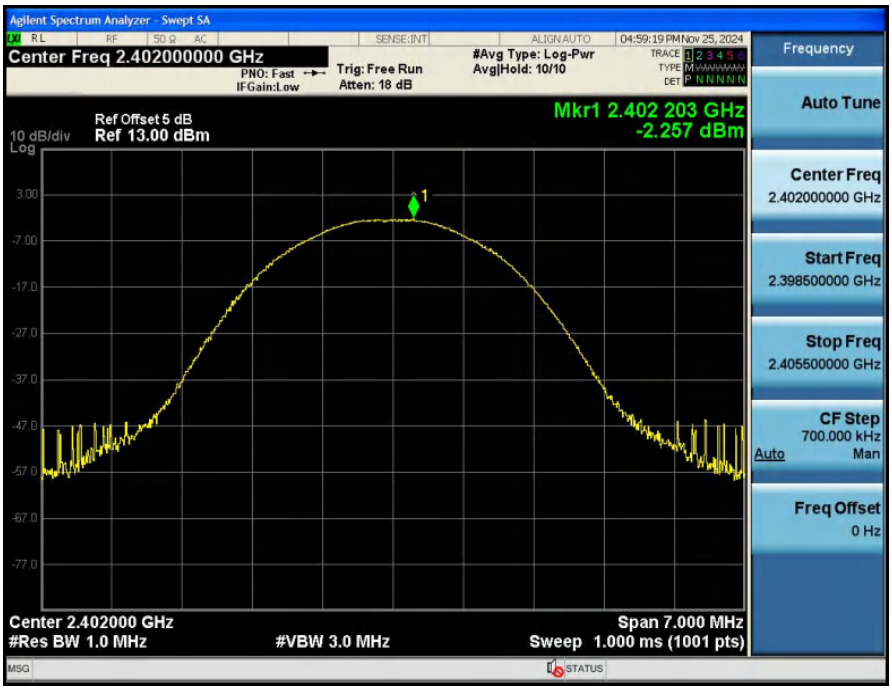
Peak_Output_Power_NVNT_ANT1_1-DH5_2441_00



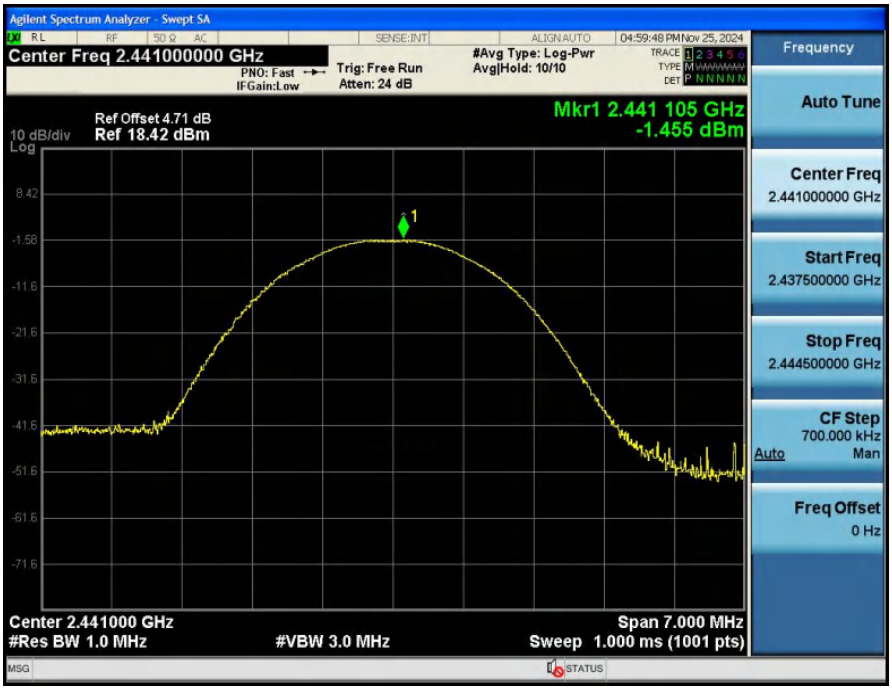
Peak_Output_Power_NVNT_ANT1_1-DH5_2480_00



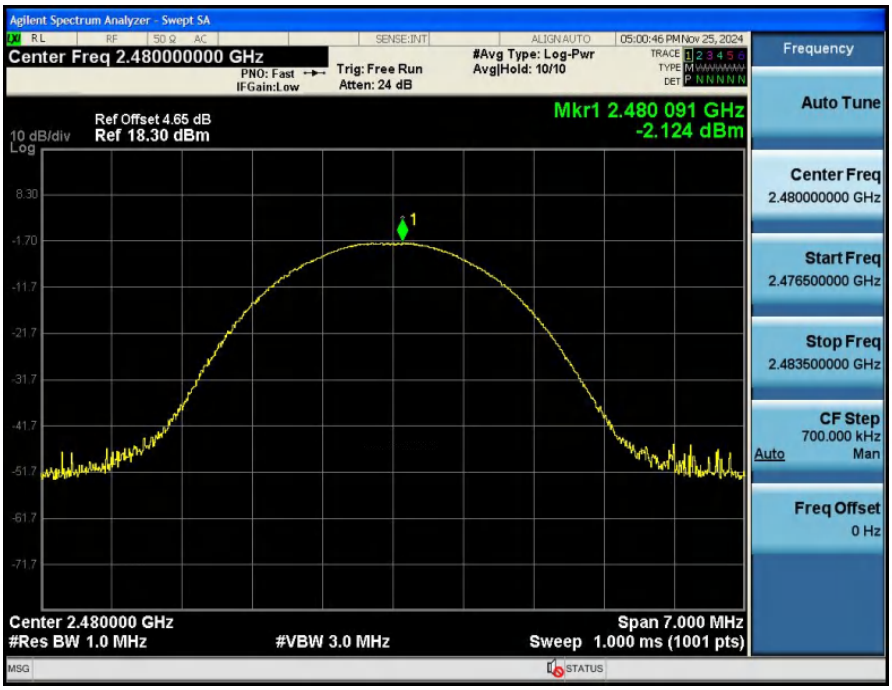
Peak_Output_Power_NVNT_ANT1_2-DH5_2402_00



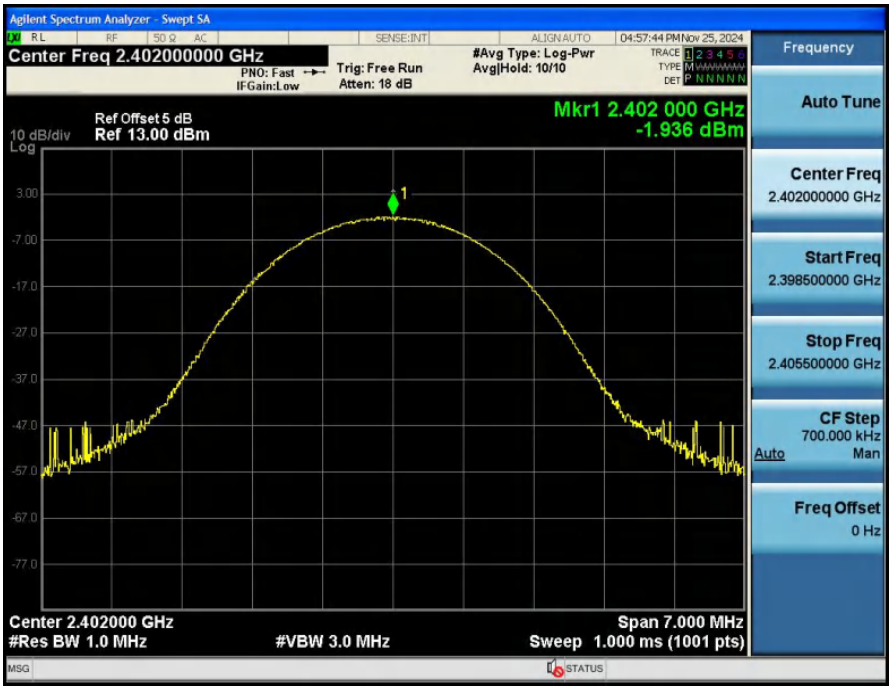
Peak_Output_Power_NVNT_ANT1_2-DH5_2441_00



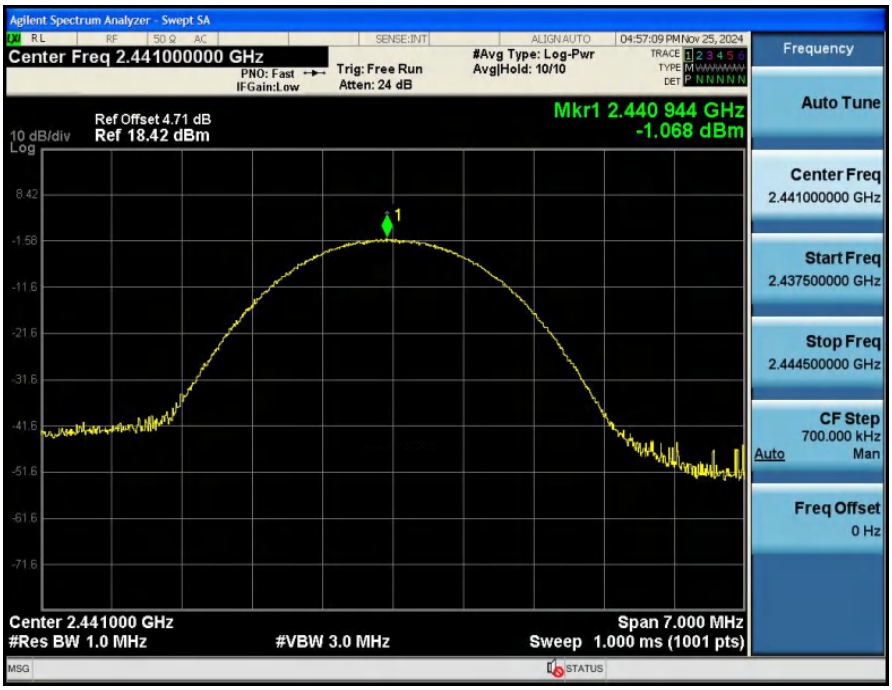
Peak_Output_Power_NVNT_ANT1_2-DH5_2480_00



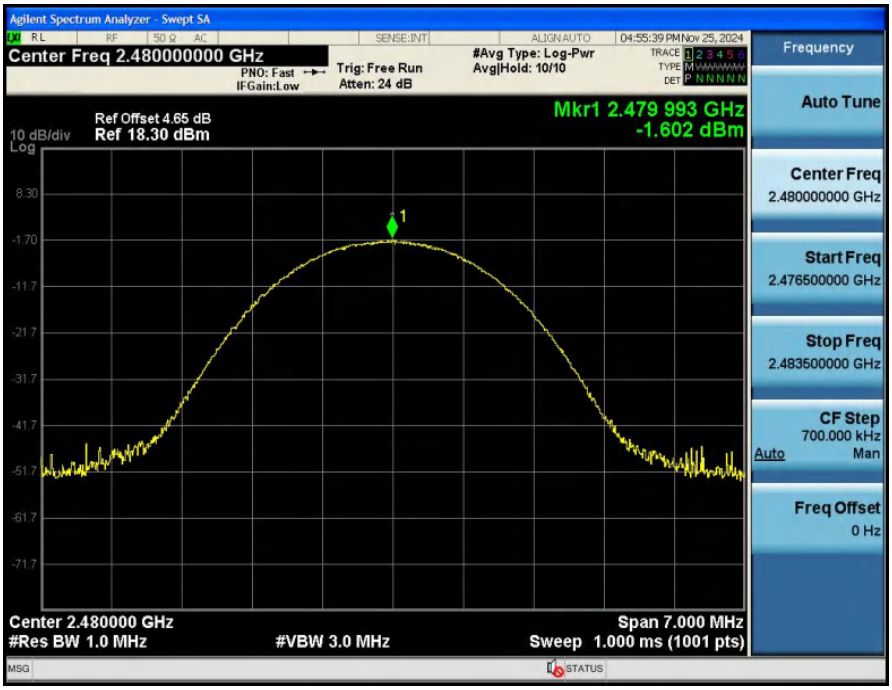
Peak_Output_Power_NVNT_ANT1_3-DH5_2402_00



Peak_Output_Power_NVNT_ANT1_3-DH5_2441_00



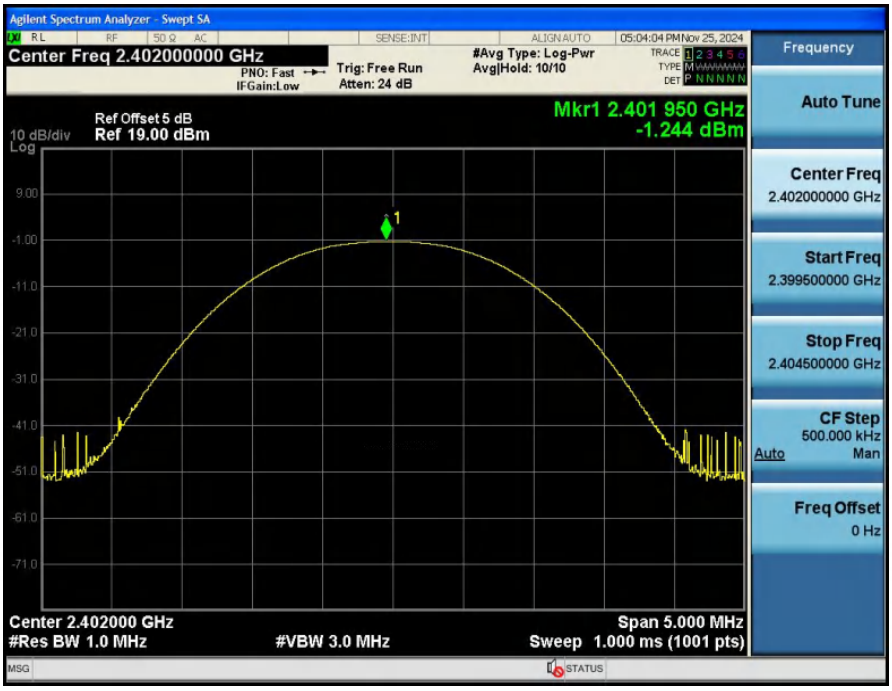
Peak_Output_Power_NVNT_ANT1_3-DH5_2480_00



Peak Output Power-Right Earphone

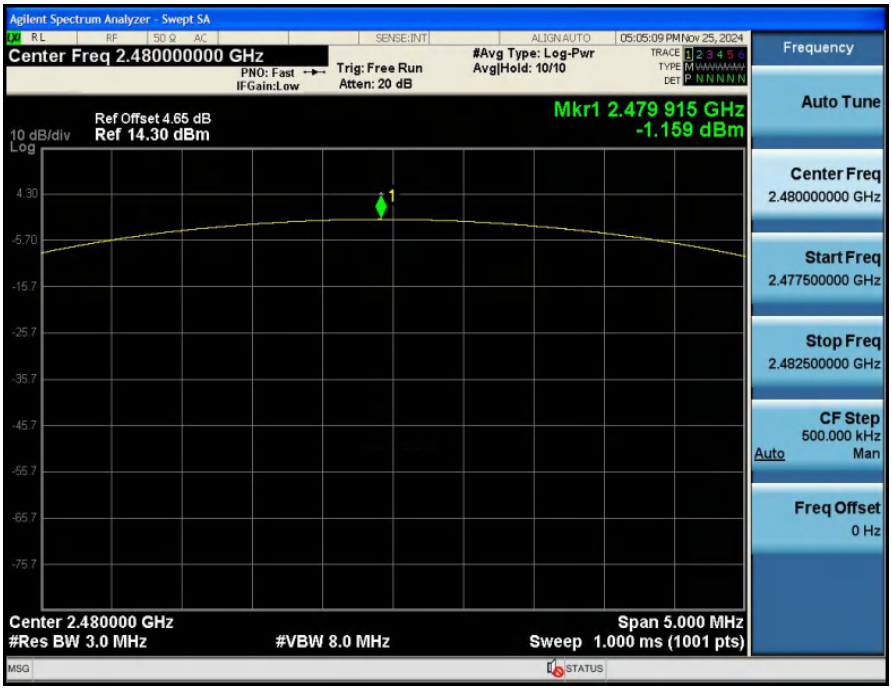
Condition	Antenna	Modulation	Frequency (MHz)	Max. Conducted Power(dBm)	Max. Conducted Power(mW)	Limit(mW)	Result
NVNT	ANT1	1-DH5	2402.00	-1.24	0.75	125	Pass
NVNT	ANT1	1-DH5	2441.00	-0.67	0.86	125	Pass
NVNT	ANT1	1-DH5	2480.00	-1.16	0.77	125	Pass
NVNT	ANT1	2-DH5	2402.00	-2.16	0.61	125	Pass
NVNT	ANT1	2-DH5	2441.00	-1.53	0.70	125	Pass
NVNT	ANT1	2-DH5	2480.00	-2.21	0.60	125	Pass
NVNT	ANT1	3-DH5	2402.00	-1.76	0.67	125	Pass
NVNT	ANT1	3-DH5	2441.00	-1.13	0.77	125	Pass
NVNT	ANT1	3-DH5	2480.00	-1.81	0.66	125	Pass

Peak_Output_Power_NVNT_ANT1_1-DH5_2402_00

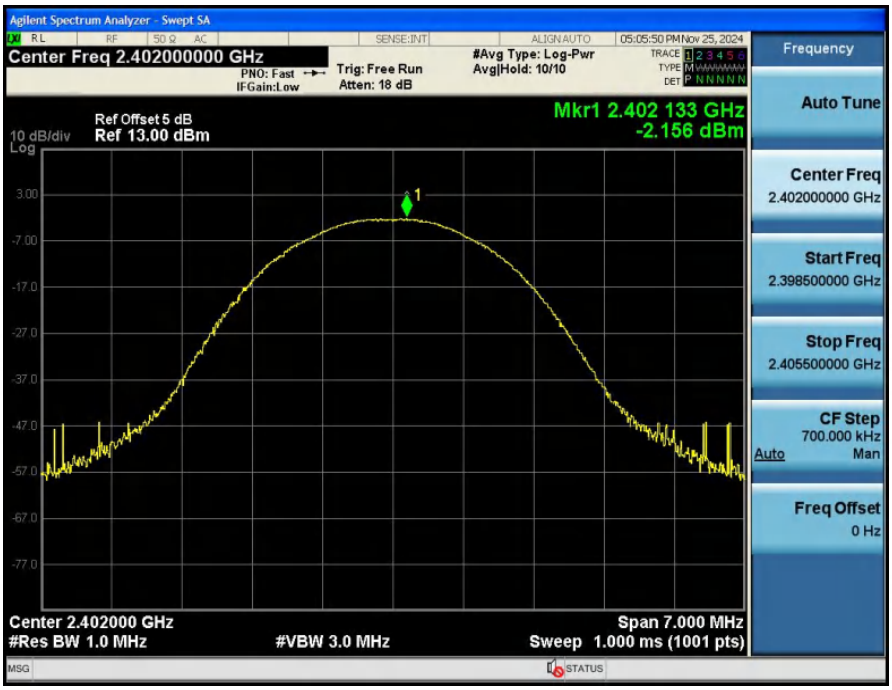


Peak_Output_Power_NVNT_ANT1_1-DH5_2441_00

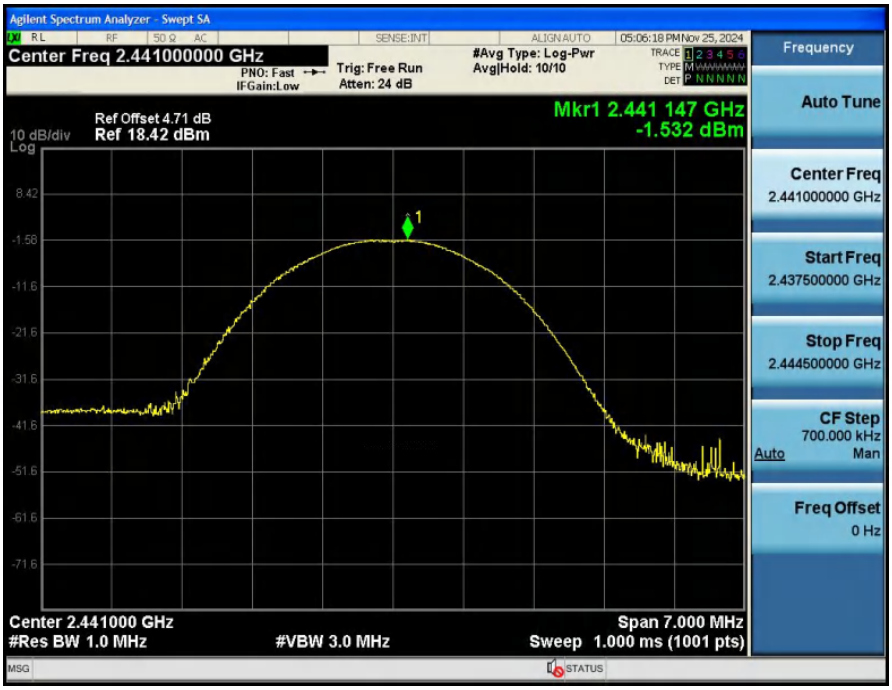
Peak_Output_Power_NVNT_ANT1_1-DH5_2480_00



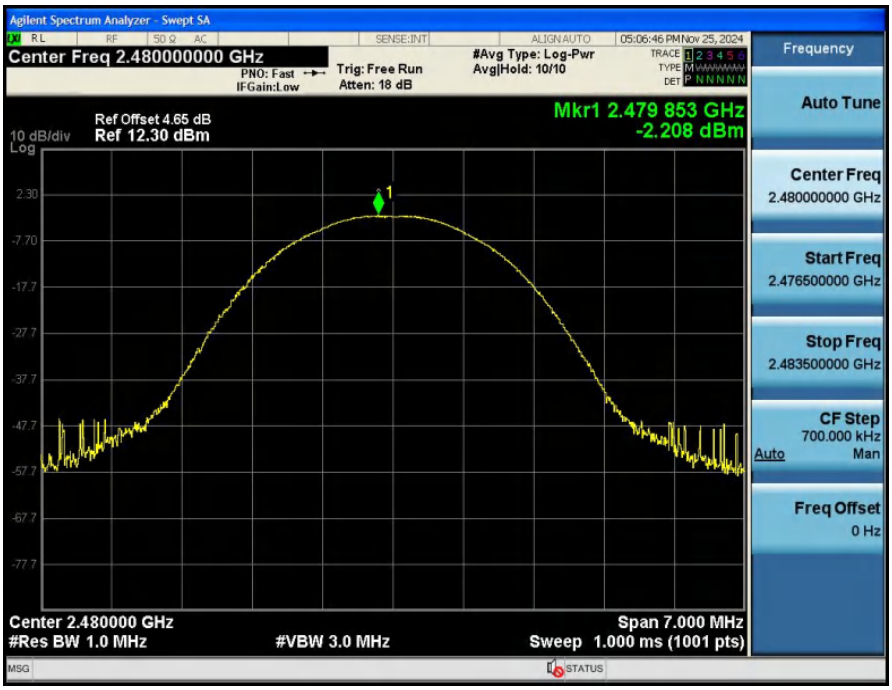
Peak_Output_Power_NVNT_ANT1_2-DH5_2402_00



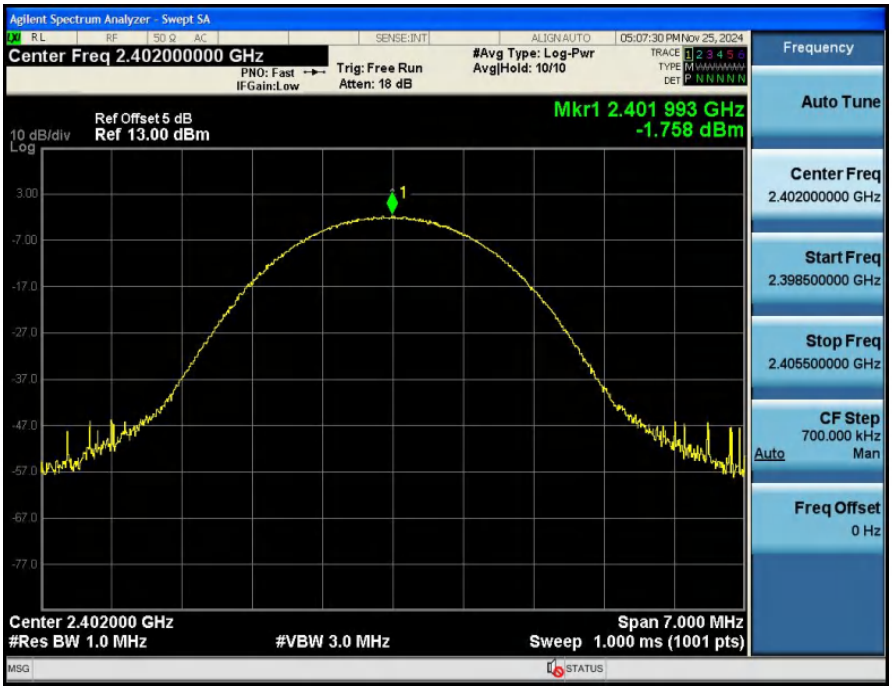
Peak_Output_Power_NVNT_ANT1_2-DH5_2441_00



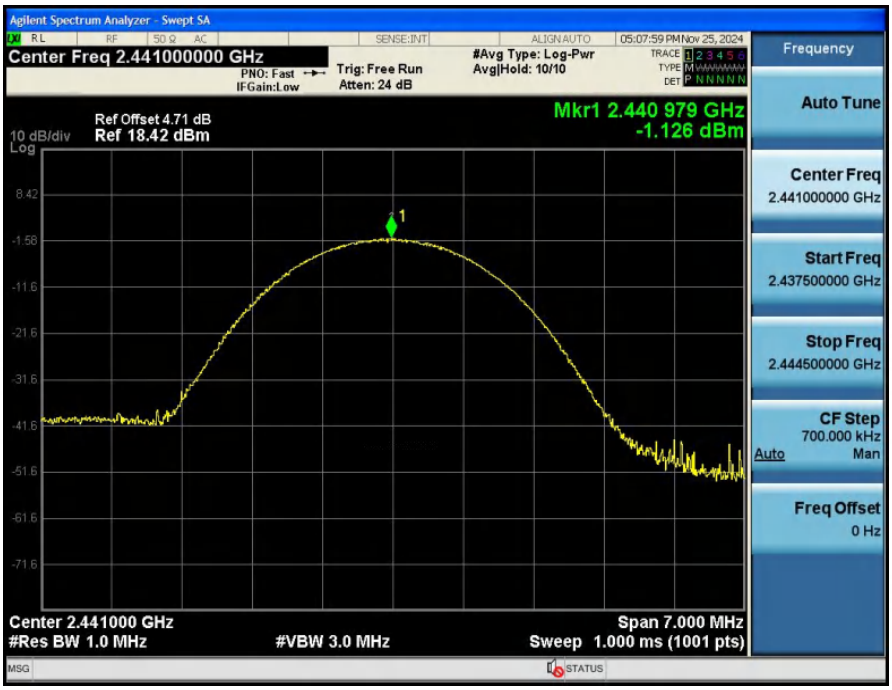
Peak_Output_Power_NVNT_ANT1_2-DH5_2480_00



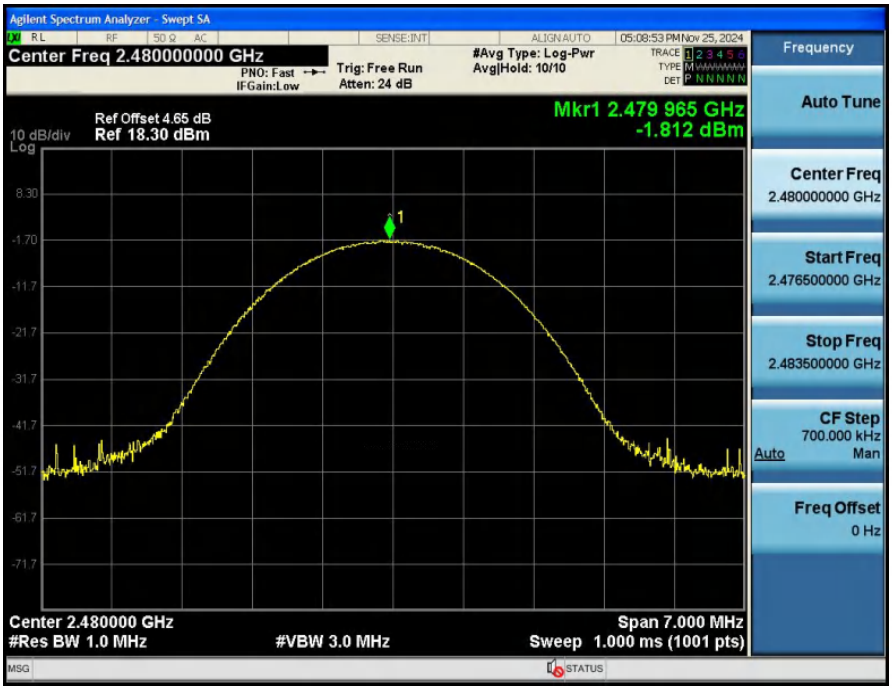
Peak_Output_Power_NVNT_ANT1_3-DH5_2402_00



Peak_Output_Power_NVNT_ANT1_3-DH5_2441_00



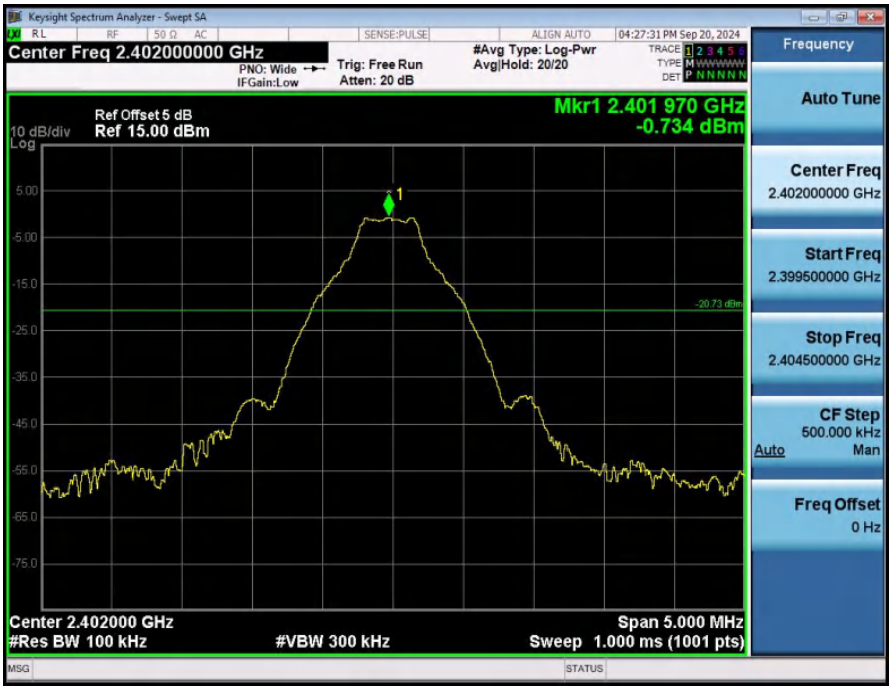
Peak_Output_Power_NVNT_ANT1_3-DH5_2480_00



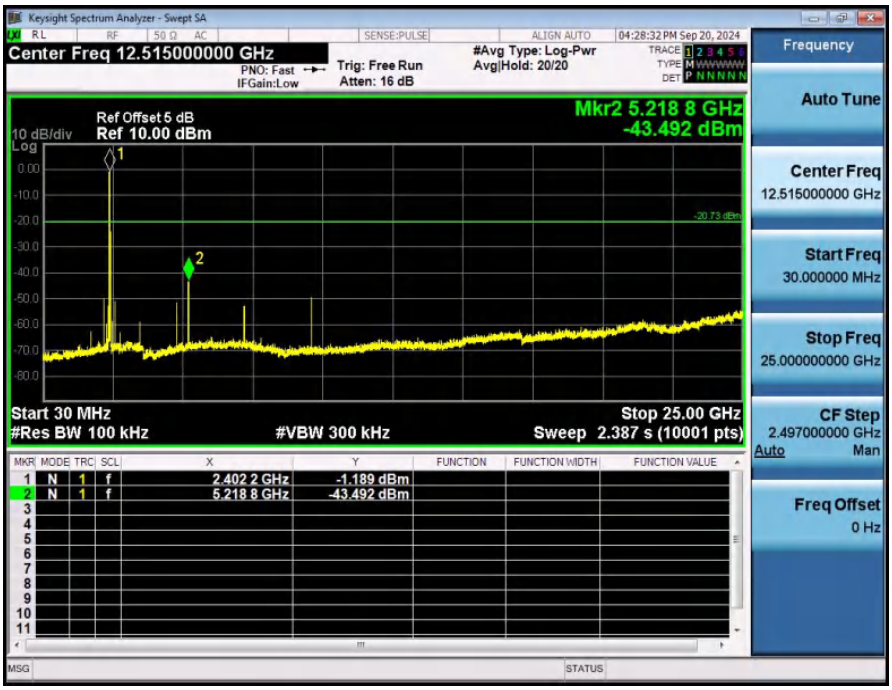
Appendix E: Spurious Emissions

Condition	Antenna	Modulation	TX Mode	Spurious MAX.Value(dBm)	Limit	Result
NVNT	ANT1	1-DH5	2402.00	-43.492	-20.734	Pass
NVNT	ANT1	1-DH5	2441.00	-48.948	-21.096	Pass
NVNT	ANT1	1-DH5	2480.00	-47.417	-22.127	Pass
NVNT	ANT1	2-DH5	2402.00	-43.835	-20.642	Pass
NVNT	ANT1	2-DH5	2441.00	-33.155	-21.000	Pass
NVNT	ANT1	2-DH5	2480.00	-46.623	-21.923	Pass
NVNT	ANT1	3-DH5	2402.00	-49.095	-20.558	Pass
NVNT	ANT1	3-DH5	2441.00	-33.448	-20.979	Pass
NVNT	ANT1	3-DH5	2480.00	-47.022	-22.013	Pass

1_Reference_Level_NVNT_ANT1_1-DH5_2402_00

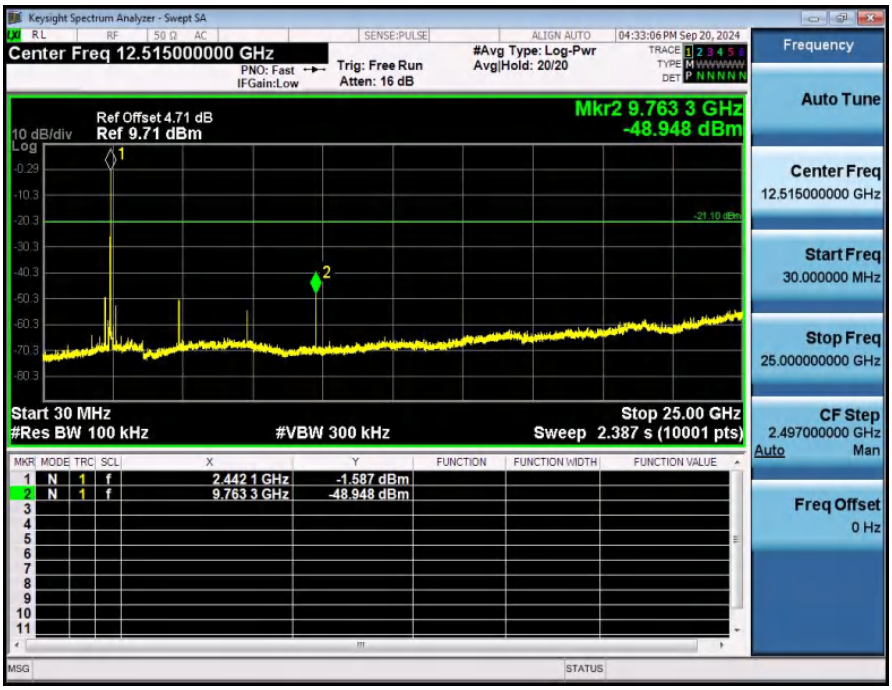


2_Spurious_Emissions_NVNT_ANT1_1-DH5_2402_00



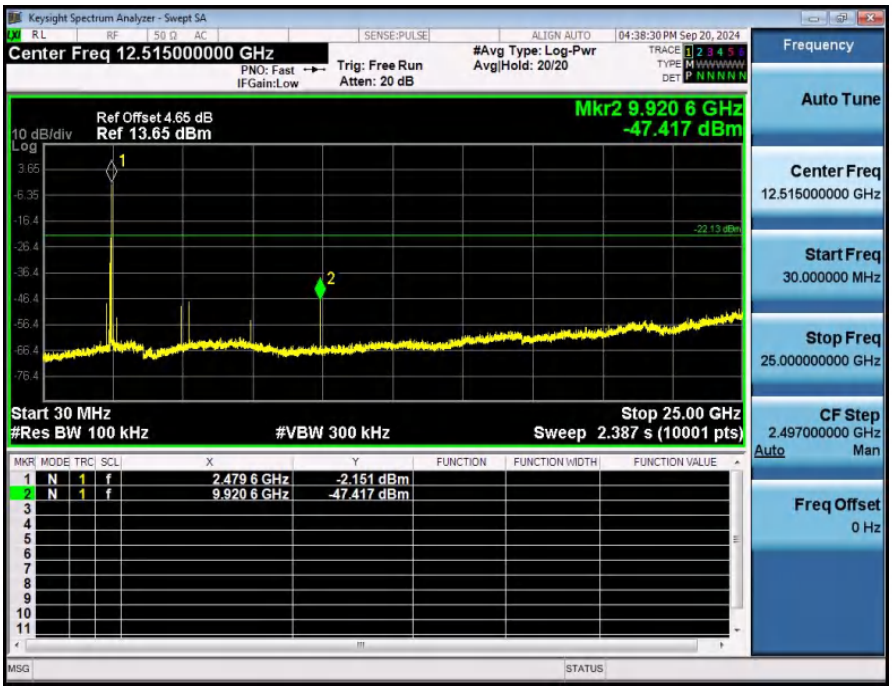
1_Reference_Level_NVNT_ANT1_1-DH5_2441_00

2_Spurious_Emissions_NVNT_ANT1_1-DH5_2441_00

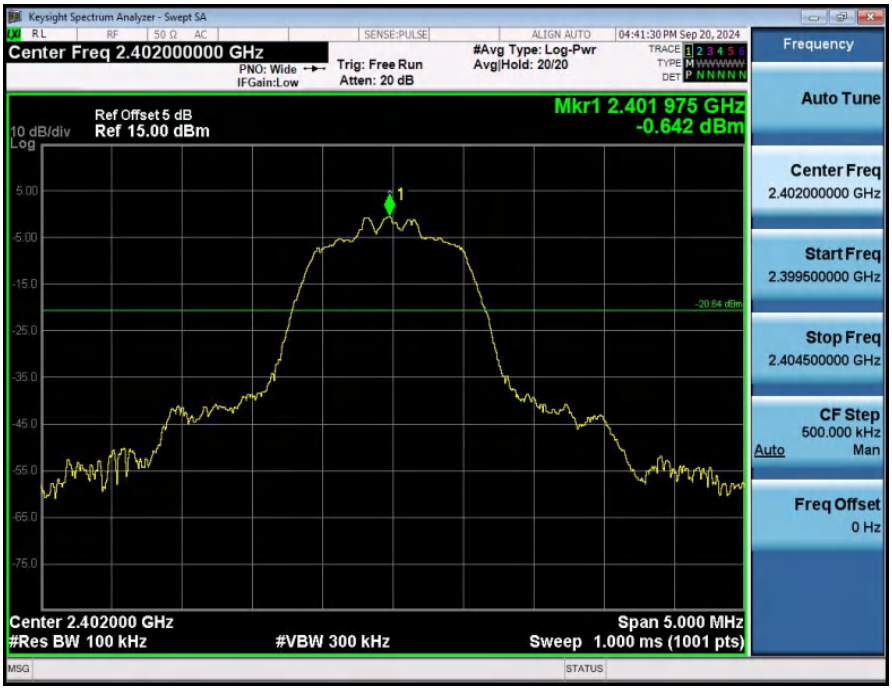


1_Reference_Level_NVNT_ANT1_1-DH5_2480_00

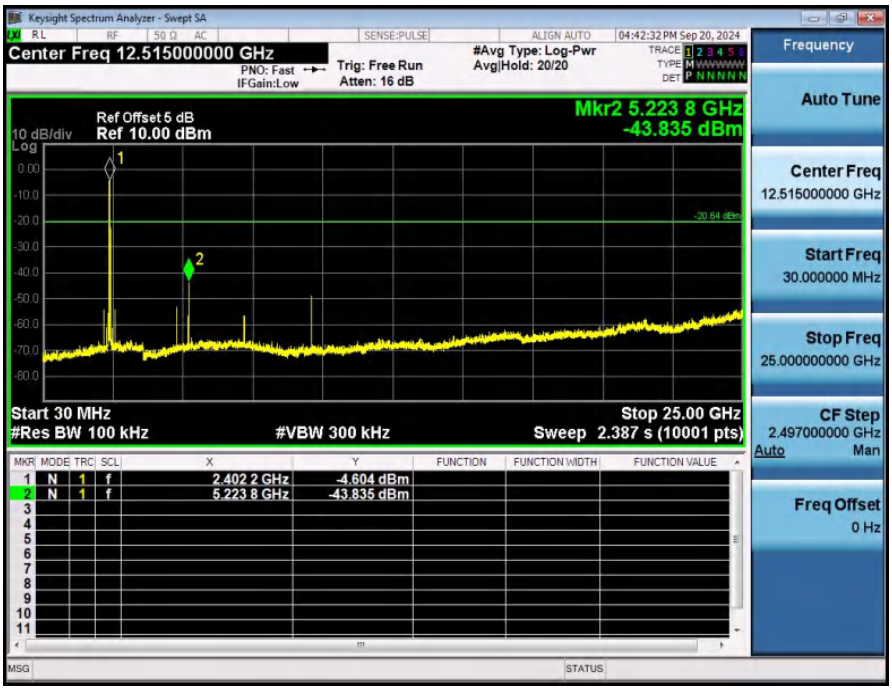
2_Spurious_Emissions_NVNT_ANT1_1-DH5_2480_00



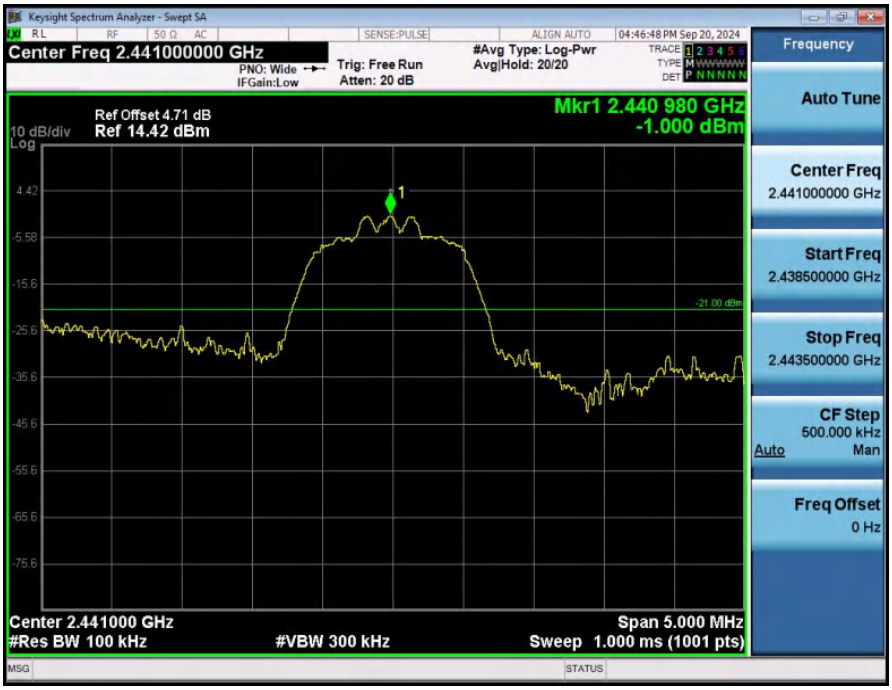
1_Reference_Level_NVNT_ANT1_2-DH5_2402_00



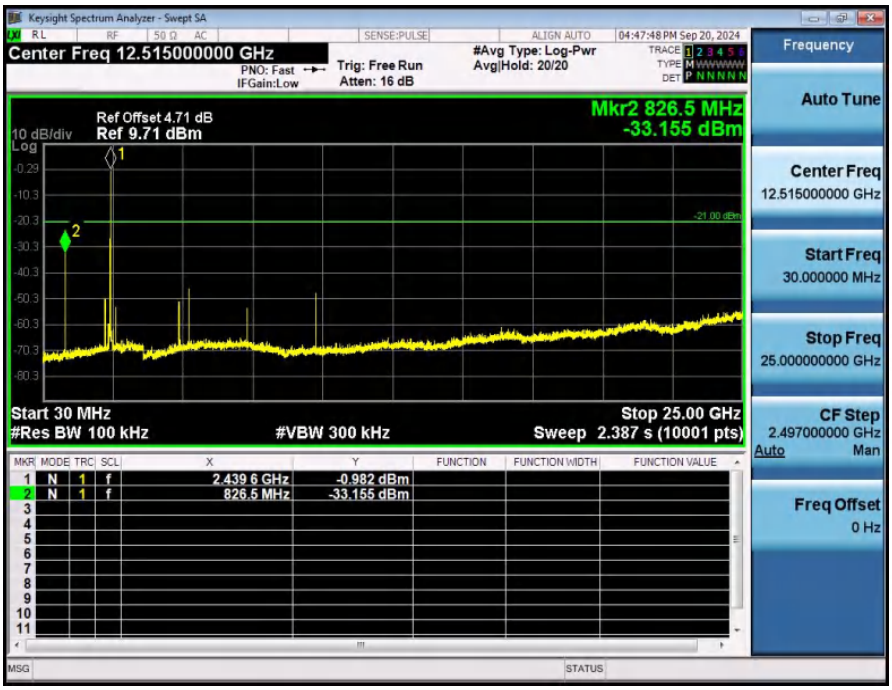
2_Spurious_Emissions_NVNT_ANT1_2-DH5_2402_00



1_Reference_Level_NVNT_ANT1_2-DH5_2441_00

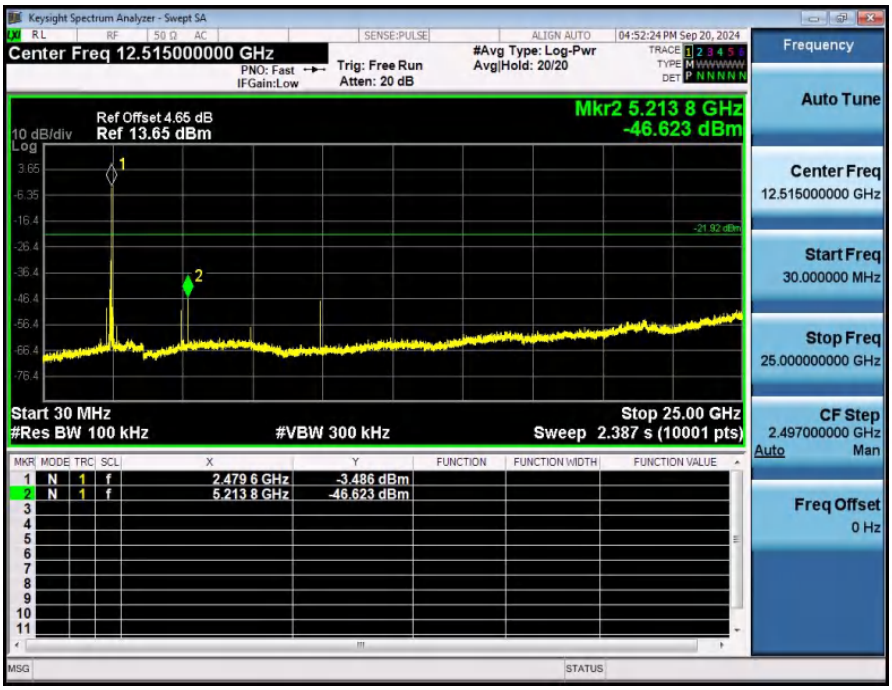


2_Spurious_Emissions_NVNT_ANT1_2-DH5_2441_00

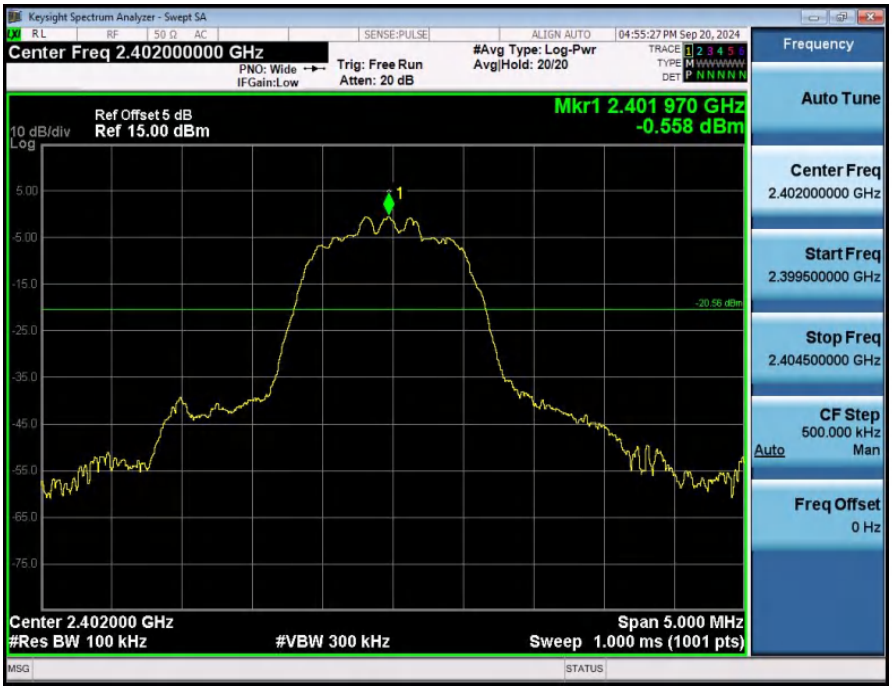


1_Reference_Level_NVNT_ANT1_2-DH5_2480_00

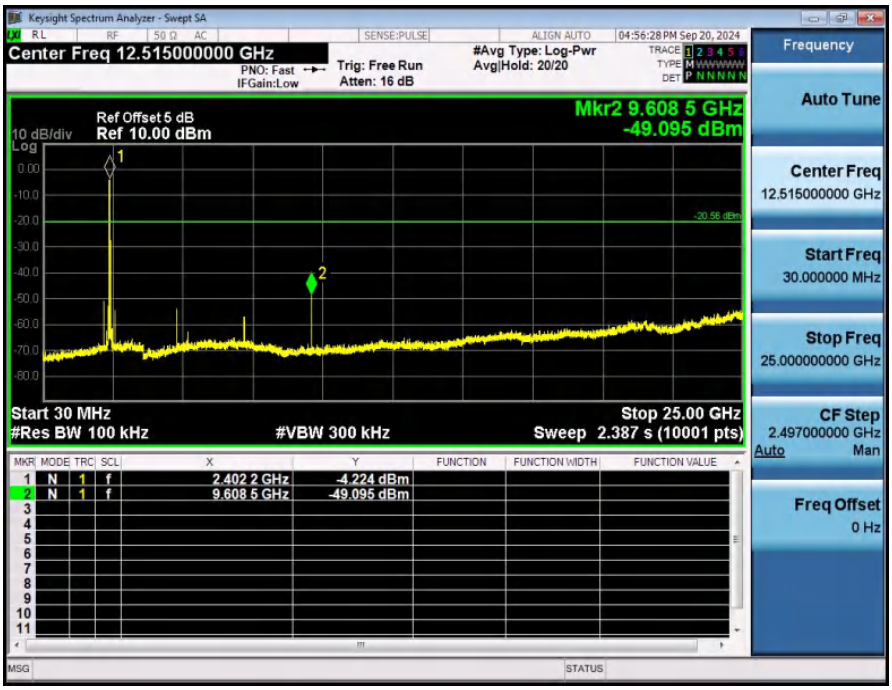
2_Spurious_Emissions_NVNT_ANT1_2-DH5_2480_00



1_Reference_Level_NVNT_ANT1_3-DH5_2402_00

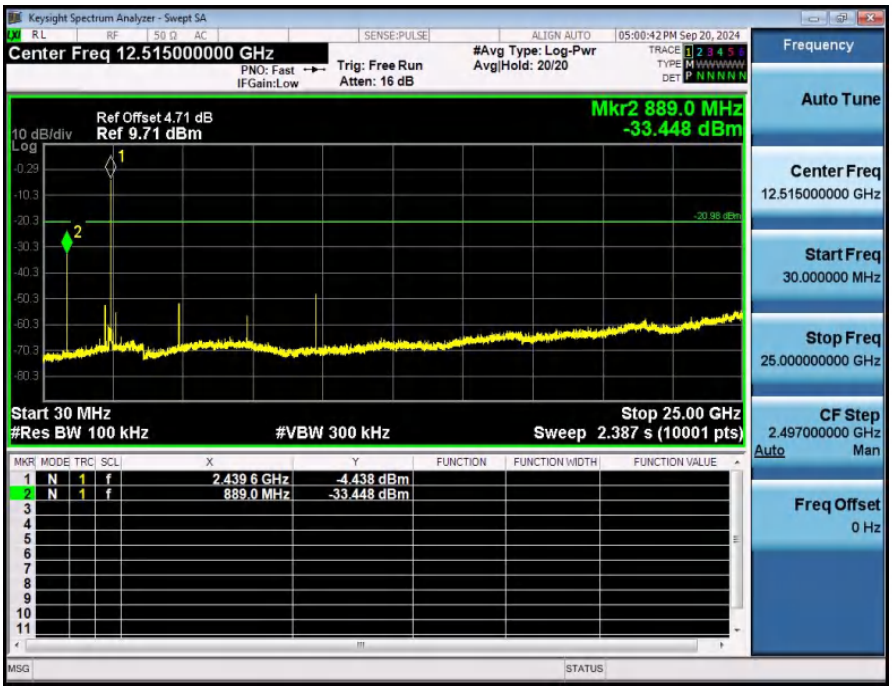


2_Spurious_Emissions_NVNT_ANT1_3-DH5_2402_00



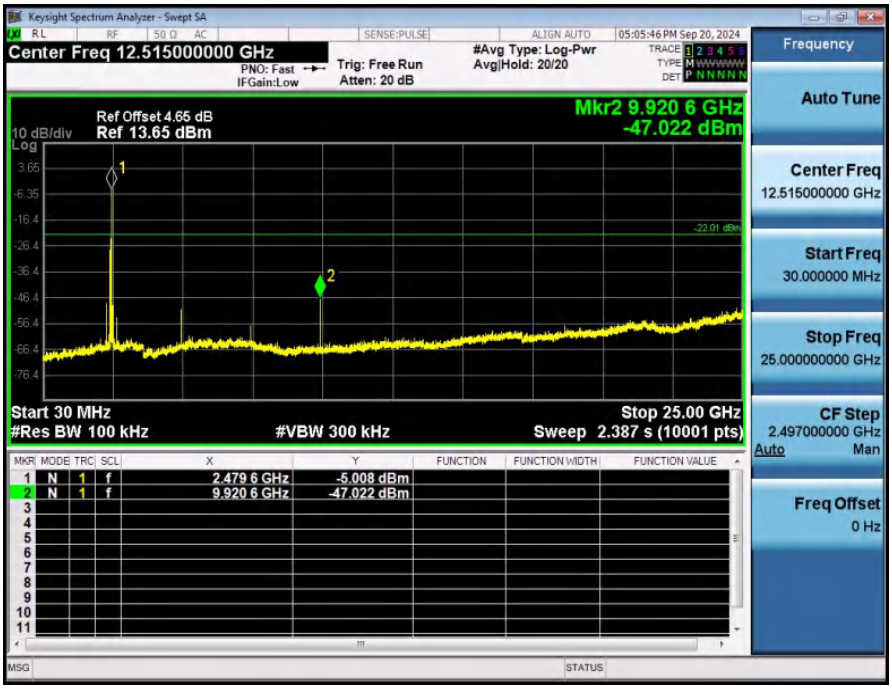
1_Reference_Level_NVNT_ANT1_3-DH5_2441_00

2_Spurious_Emissions_NVNT_ANT1_3-DH5_2441_00



1_Reference_Level_NVNT_ANT1_3-DH5_2480_00

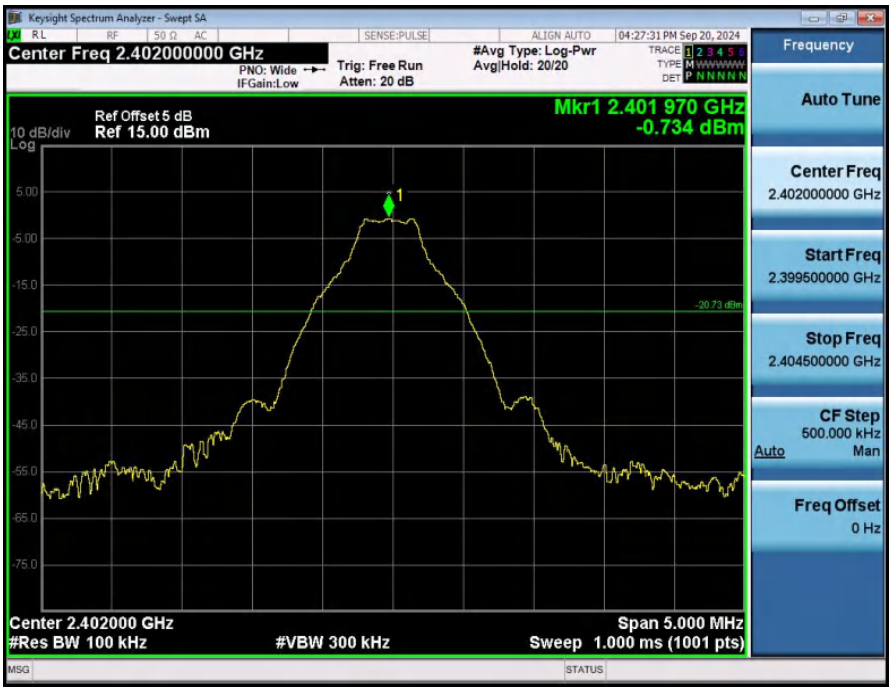
2_Spurious_Emissions_NVNT_ANT1_3-DH5_2480_00


Keysight Spectrum Analyzer - Swept SA
Center Freq 12.515000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 20 dB
#Avg Type: Log-Pwr
Avg|Hold: 20/20
05:05:46 PM Sep 20, 2024
Ref Offset 4.65 dB
10 dB/div
Ref 13.65 dBm
Mkr2 9.920 6 GHz
-47.022 dBm
Start 30 MHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25.00 GHz
Sweep 2.387 s (10001 pts)
1 N 1 f 2.479 6 GHz -5.008 dBm
2 N 1 f 9.920 6 GHz -47.022 dBm
Frequency
Auto Tune
Center Freq
12.515000000 GHz
Start Freq
30.000000 MHz
Stop Freq
25.000000000 GHz
CF Step
2.497000000 GHz
Auto
Man
Freq Offset
0 Hz

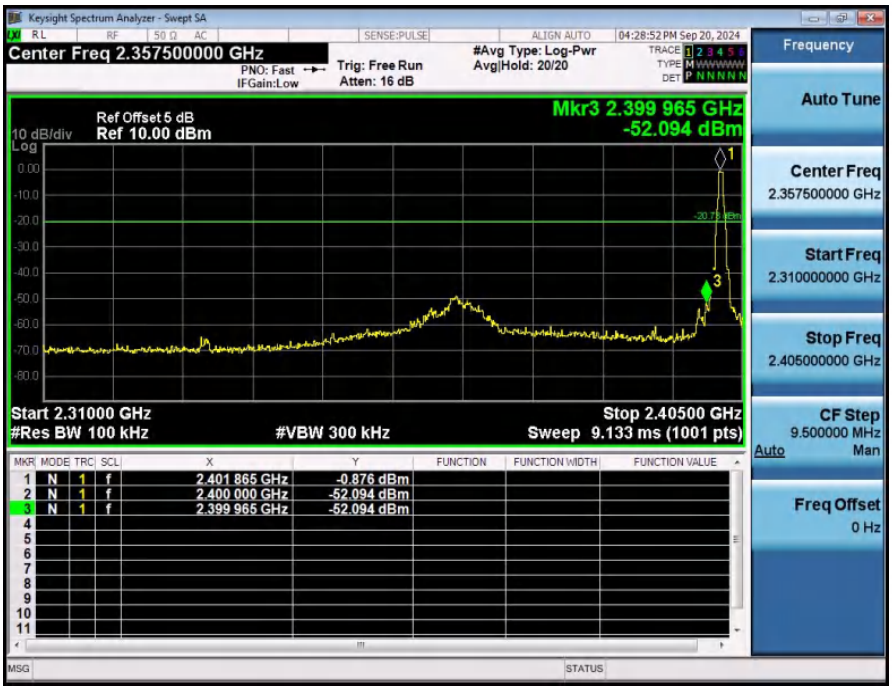
Appendix F: Bandedge

Condition	Antenna	Modulation	TX Mode	Bandedge MAX.Value	Limit	Result
NVNT	ANT1	1-DH5	2402.00	-52.094	-20.734	Pass
NVNT	ANT1	1-DH5	Hopping_LCH	-50.510	-20.690	Pass
NVNT	ANT1	1-DH5	2480.00	-60.309	-22.127	Pass
NVNT	ANT1	1-DH5	Hopping_HCH	-49.330	-20.994	Pass
NVNT	ANT1	2-DH5	2402.00	-50.838	-20.642	Pass
NVNT	ANT1	2-DH5	Hopping_LCH	-53.112	-20.522	Pass
NVNT	ANT1	2-DH5	2480.00	-60.350	-21.923	Pass
NVNT	ANT1	2-DH5	Hopping_HCH	-50.360	-20.903	Pass
NVNT	ANT1	3-DH5	2402.00	-51.023	-20.558	Pass
NVNT	ANT1	3-DH5	Hopping_LCH	-53.496	-20.760	Pass
NVNT	ANT1	3-DH5	2480.00	-61.563	-22.013	Pass
NVNT	ANT1	3-DH5	Hopping_HCH	-50.020	-21.508	Pass

1_Reference_Level_NVNT_ANT1_1-DH5_2402_00

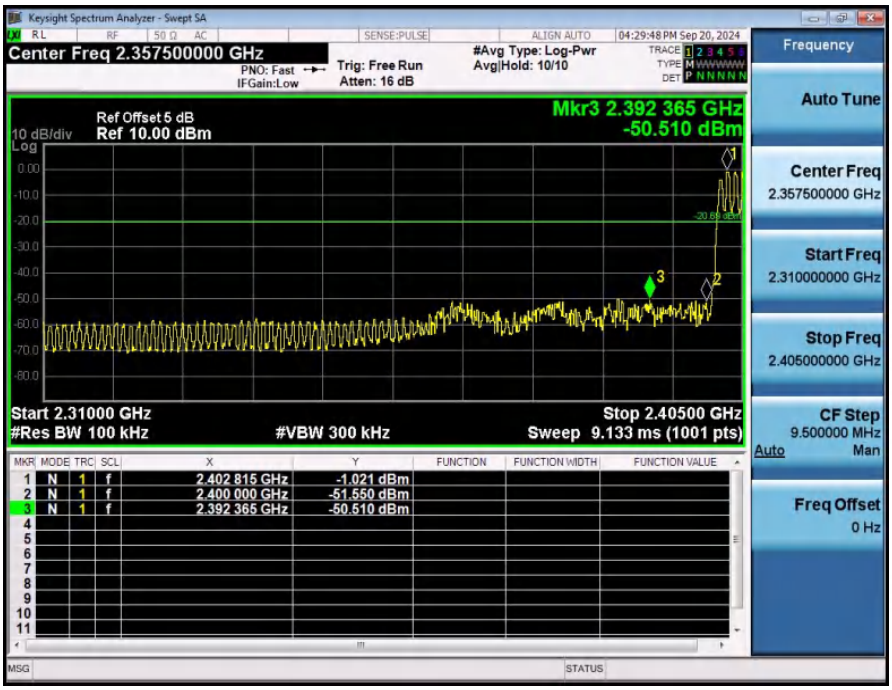


2_Bandedge_NVNT_ANT1_1-DH5_2402_00



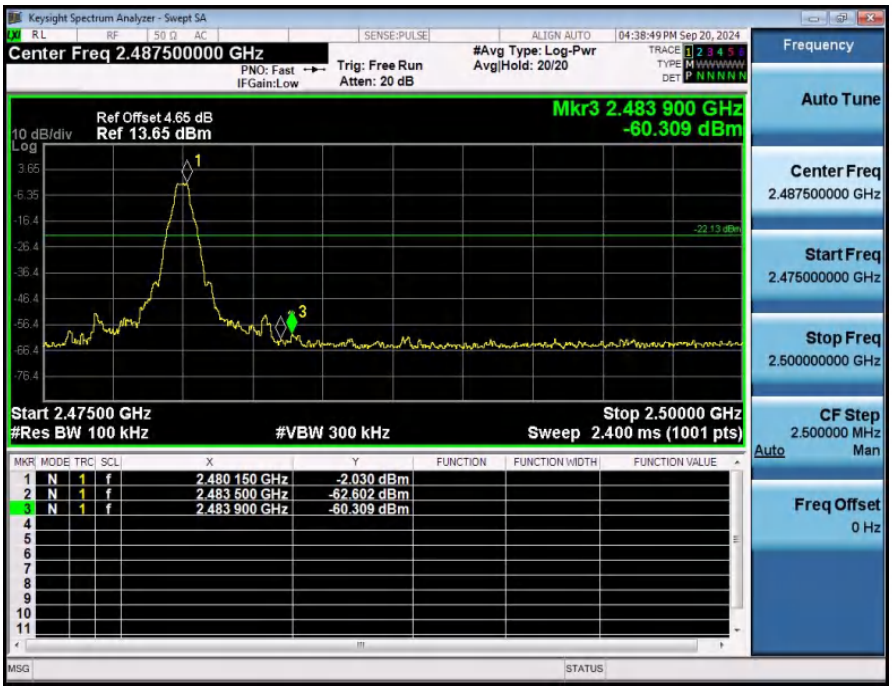
1_Reference_Level_Hopping_NVNT_ANT1_1-DH5_Hopping

2_Band_Edge_(Hopping)_NVNT_ANT1_1-DH5_Hopping



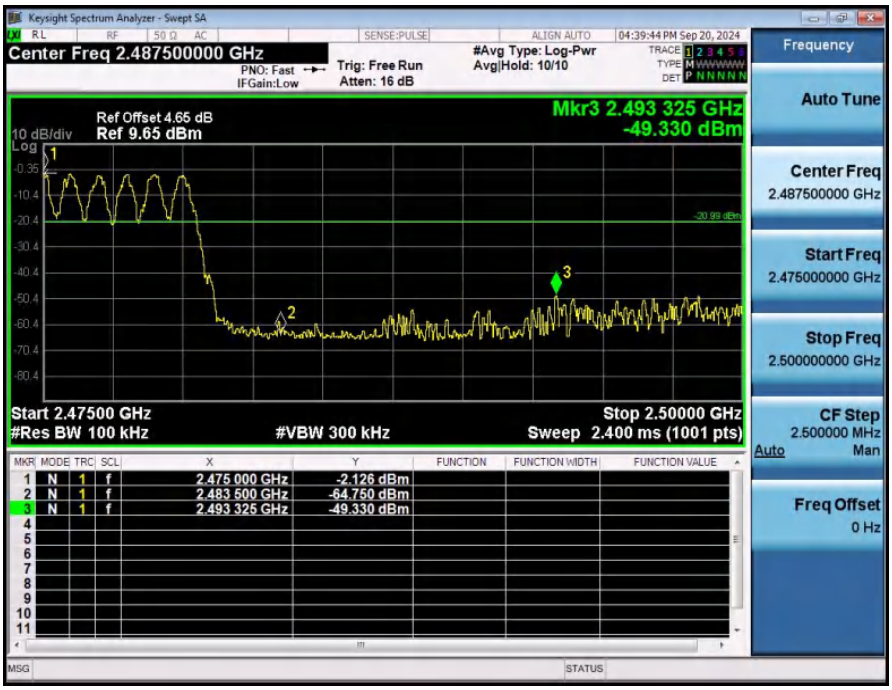
1_Reference_Level_NVNT_ANT1_1-DH5_2480_00

2_Bandedge_NVNT_ANT1_1-DH5_2480_00

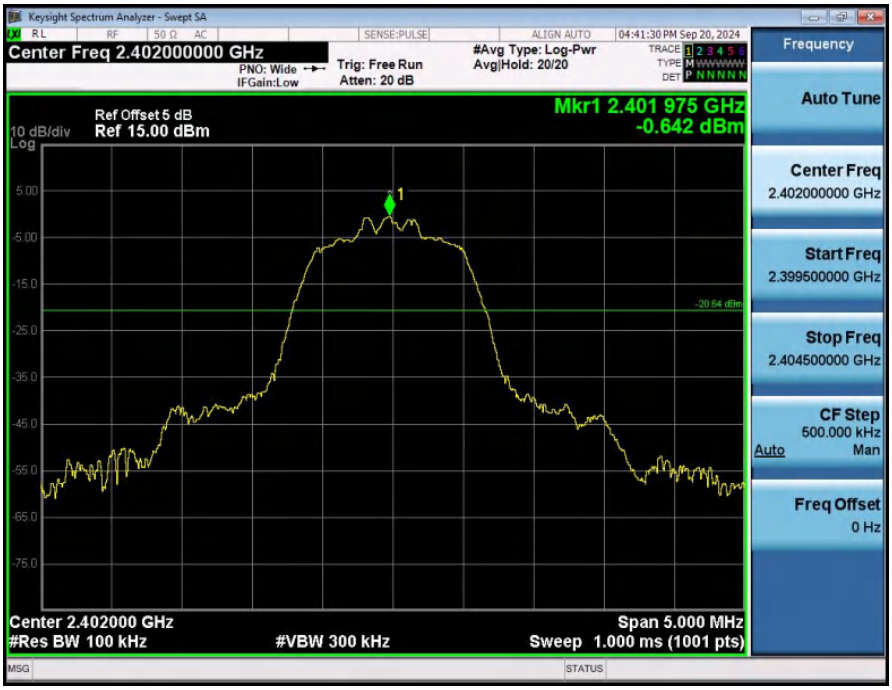


1_Reference_Level_Hopping_NVNT_ANT1_1-DH5_Hopping

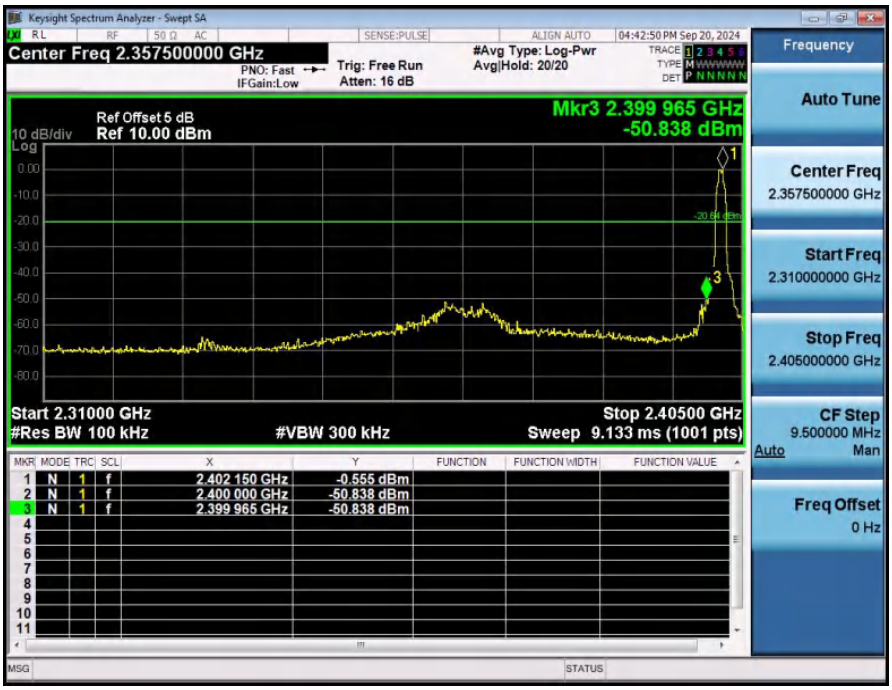
2_Band_Edge_(Hopping)_NVNT_ANT1_1-DH5_Hopping



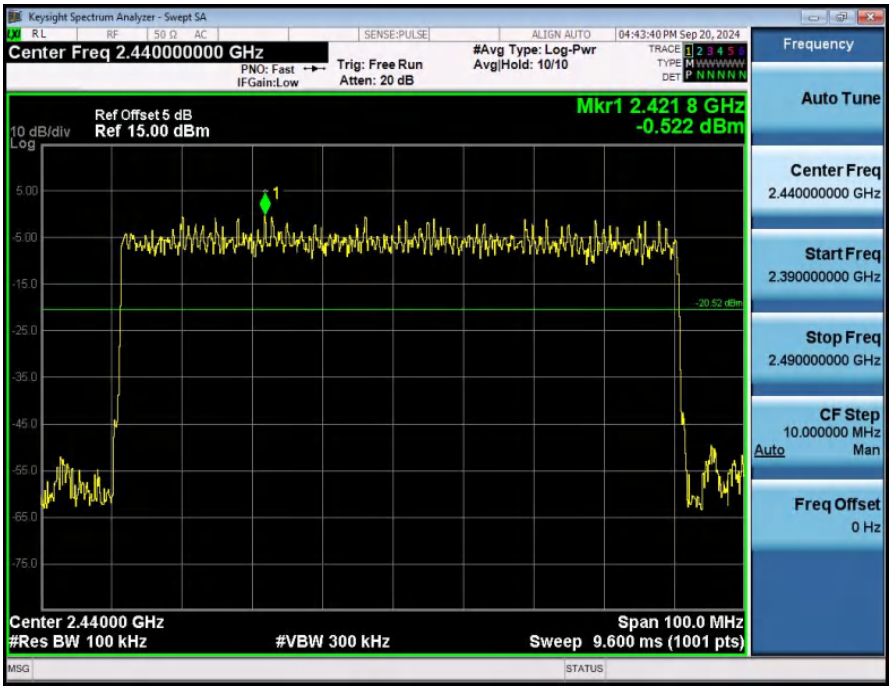
1_Reference_Level_NVNT_ANT1_2-DH5_2402_00



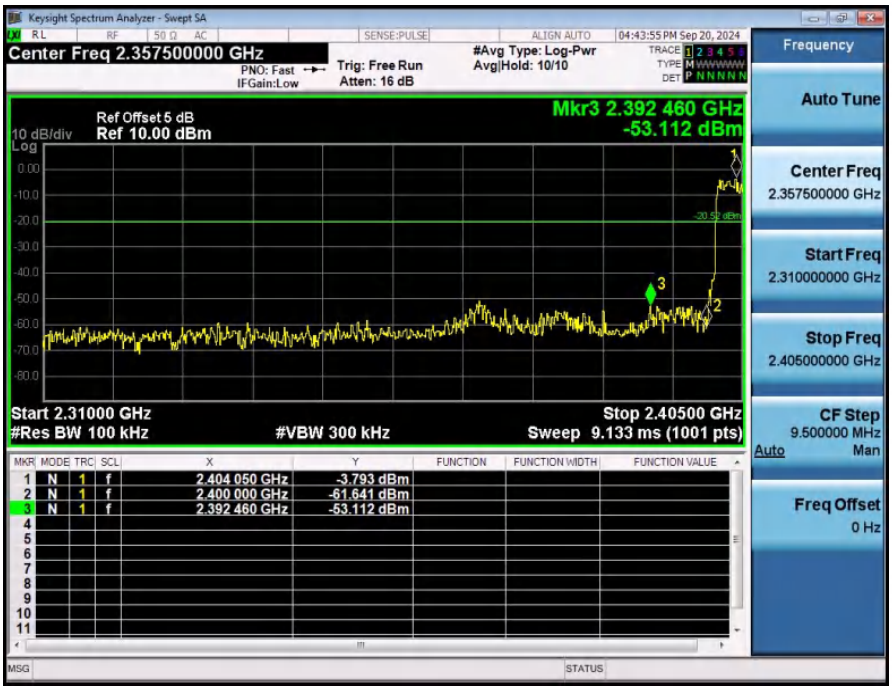
2_Bandedge_NVNT_ANT1_2-DH5_2402_00



1_Reference_Level_Hopping_NVNT_ANT1_2-DH5_Hopping

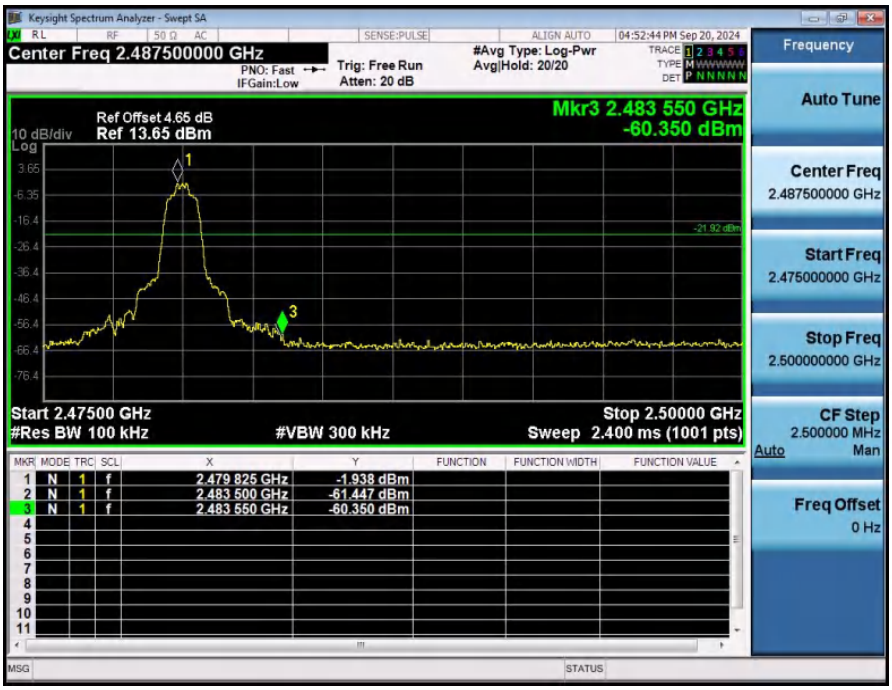


2_Band_Edge_(Hopping)_NVNT_ANT1_2-DH5_Hopping



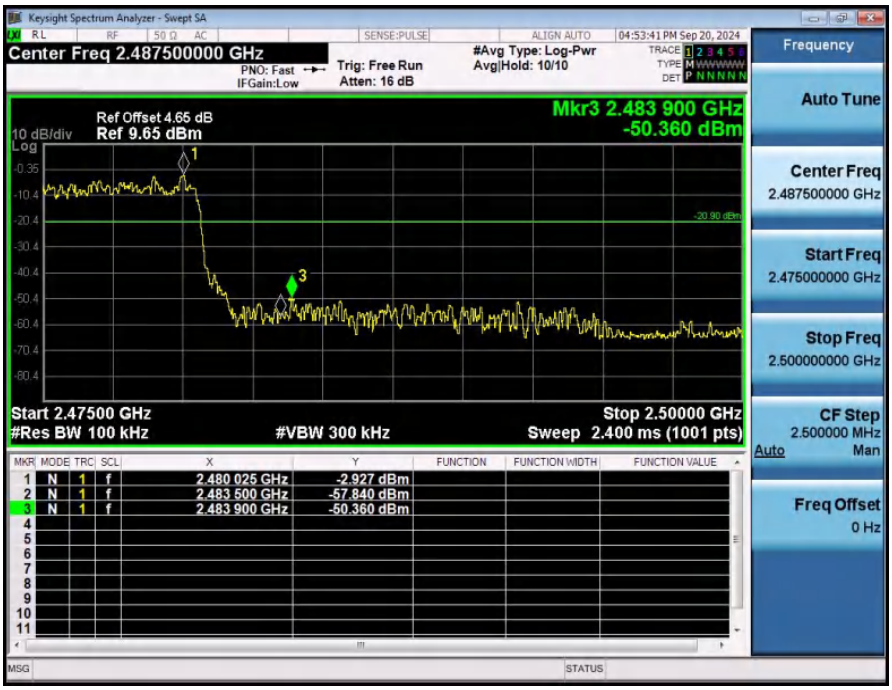
1_Reference_Level_NVNT_ANT1_2-DH5_2480_00

2_Bandedge_NVNT_ANT1_2-DH5_2480_00

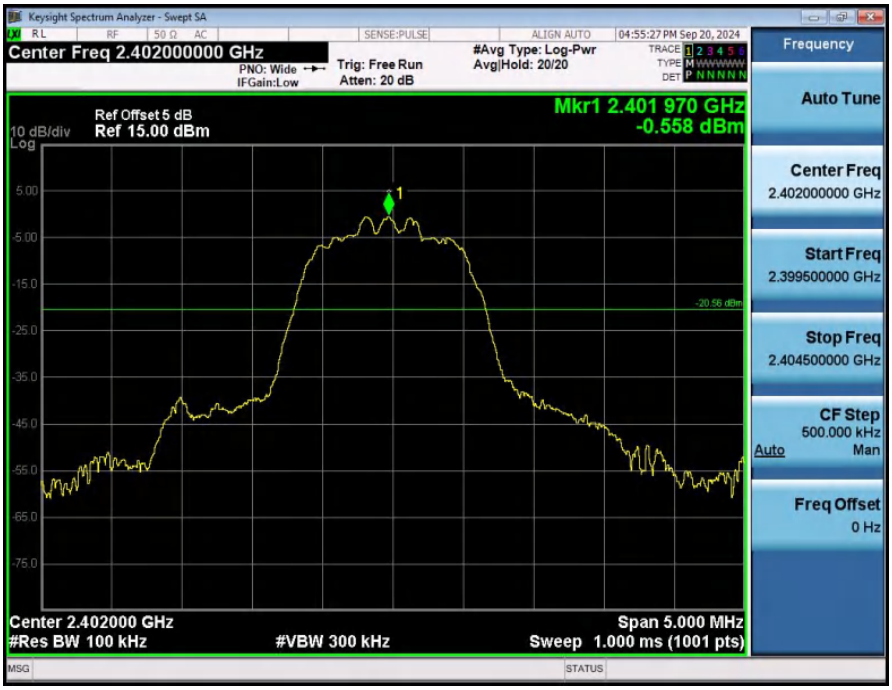


1_Reference_Level_Hopping_NVNT_ANT1_2-DH5_Hopping

2_Band_Edge_(Hopping)_NVNT_ANT1_2-DH5_Hopping

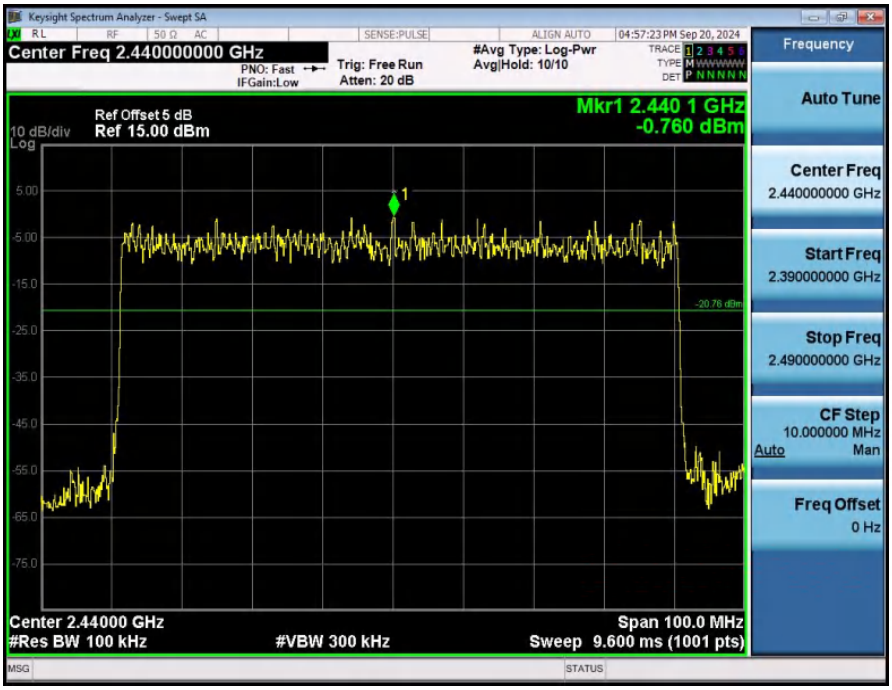


1_Reference_Level_NVNT_ANT1_3-DH5_2402_00

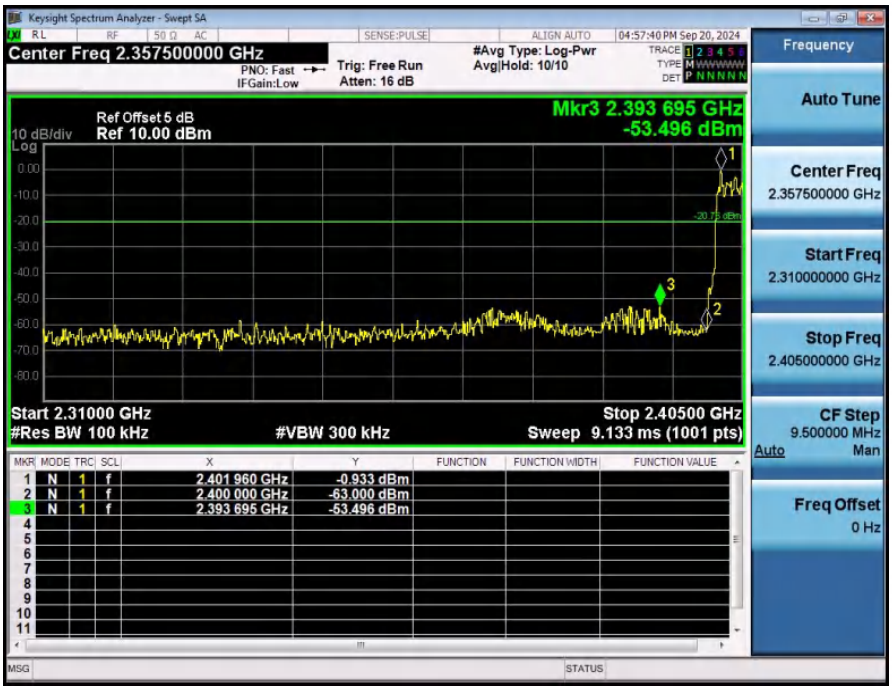


2_Bandedge_NVNT_ANT1_3-DH5_2402_00

1_Reference_Level_Hopping_NVNT_ANT1_3-DH5_Hopping

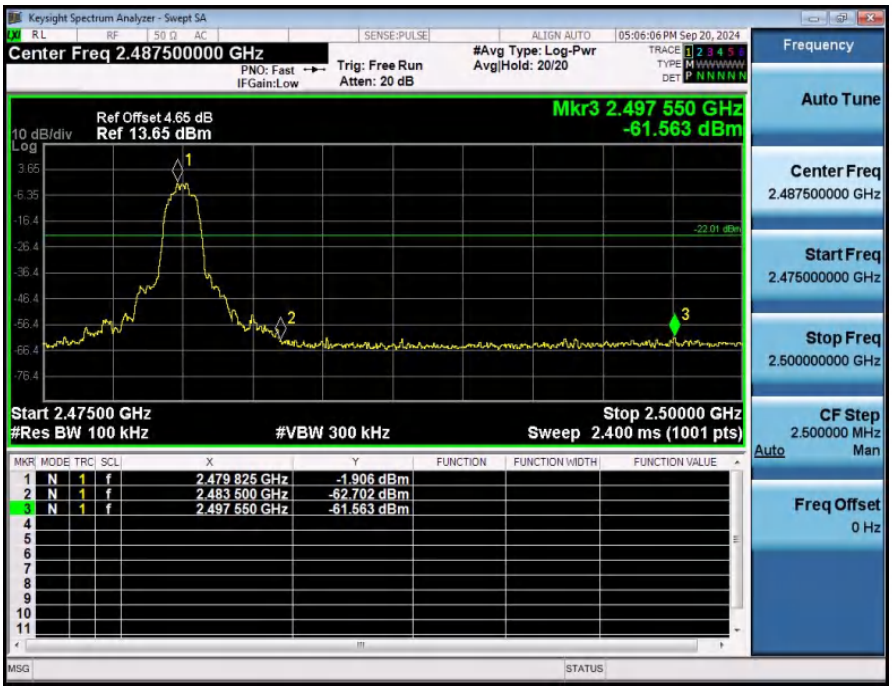


2_Band_Edge_(Hopping)_NVNT_ANT1_3-DH5_Hopping

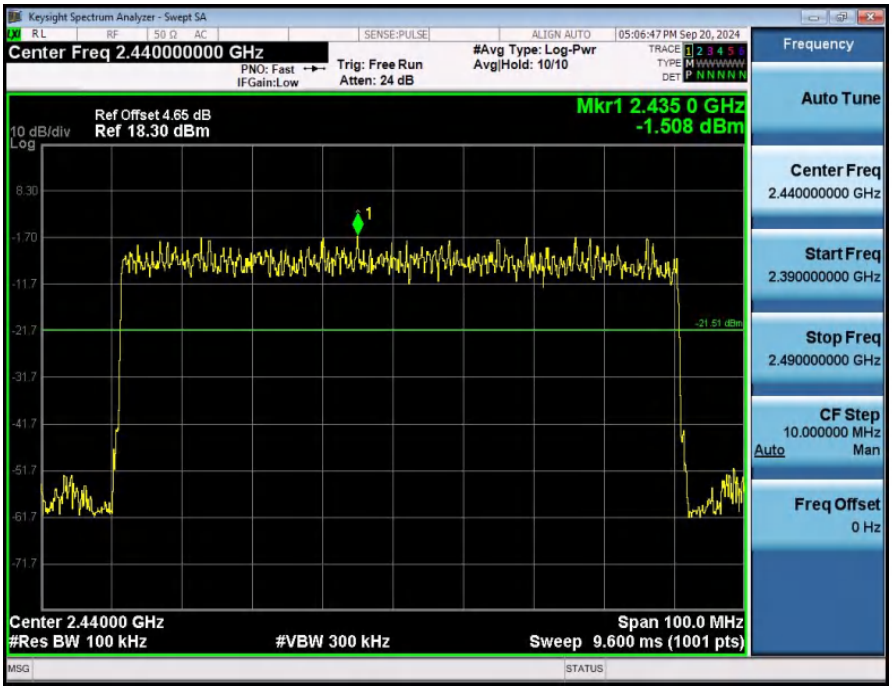


1_Reference_Level_NVNT_ANT1_3-DH5_2480_00

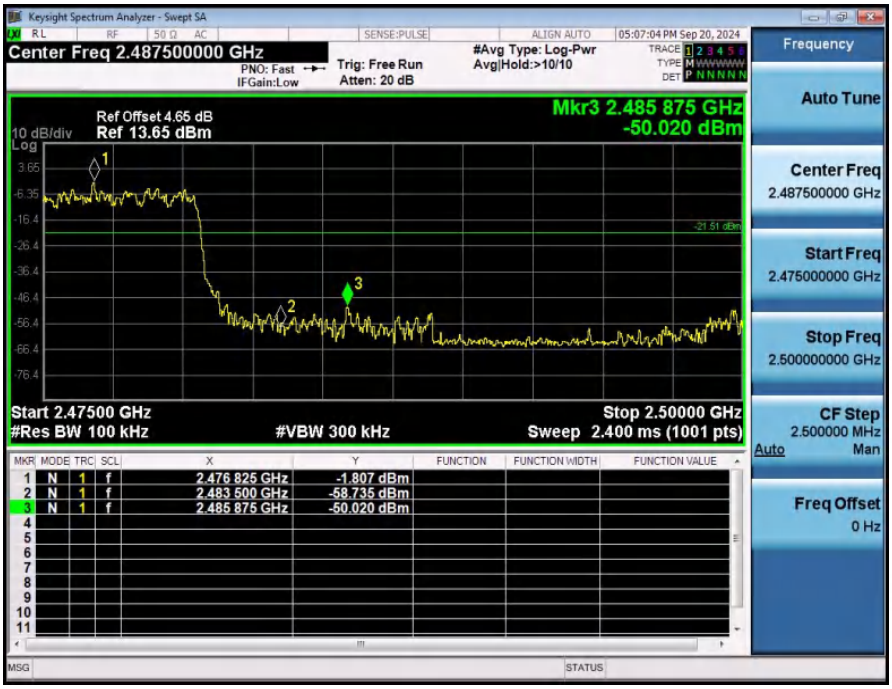
2_Bandedge_NVNT_ANT1_3-DH5_2480_00



1_Reference_Level_Hopping_NVNT_ANT1_3-DH5_Hopping



2_Band_Edge_(Hopping)_NVNT_ANT1_3-DH5_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
05:07:04 PM Sep 20, 2024
Ref Offset 4.65 dB
10 dB/div
Ref 13.65 dBm
Mkr3 2.485 875 GHz
-50.020 dBm
-21.51 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 2.476 825 GHz -1.807 dBm
2 N 1 f 2.483 500 GHz -58.735 dBm
3 N 1 f 2.485 875 GHz -50.020 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

Appendix G: 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-DH5	2441.00	2440.951	2442.007	1.06	0.678	Pass
NVNT	ANT1	2-DH5	2441.00	2440.810	2441.962	1.15	0.860	Pass
NVNT	ANT1	3-DH5	2441.00	2440.945	2442.010	1.06	0.867	Pass

Carrier_Frequencies_Separation_(Hopping)_NVNT_ANT1_1-DH5_Hopping

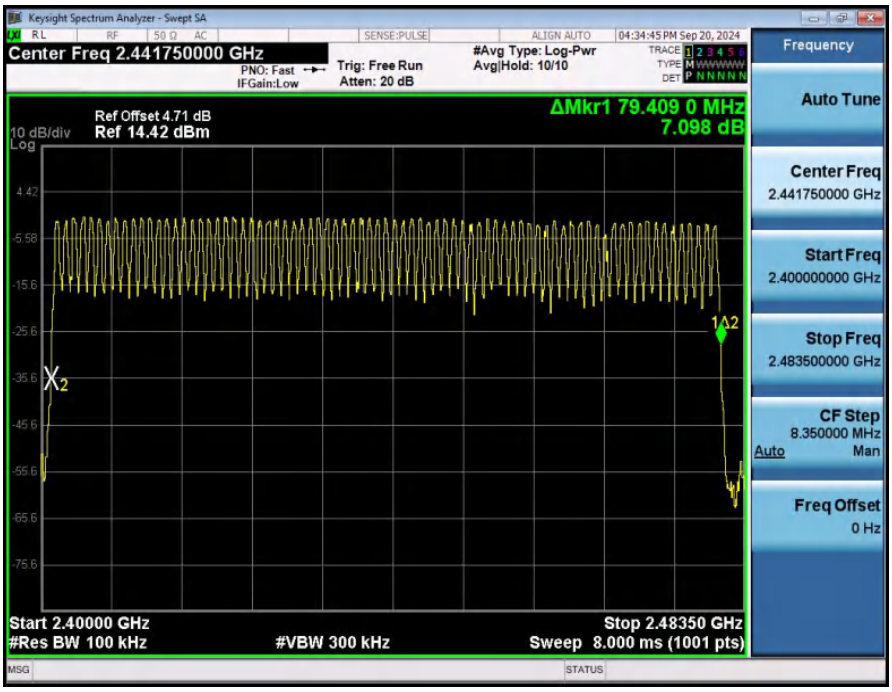
Carrier_Frequencies_Separation_(Hopping)_NVNT_ANT1_2-DH5_Hopping

Carrier_Frequencies_Separation_(Hopping)_NVNT_ANT1_3-DH5_Hopping

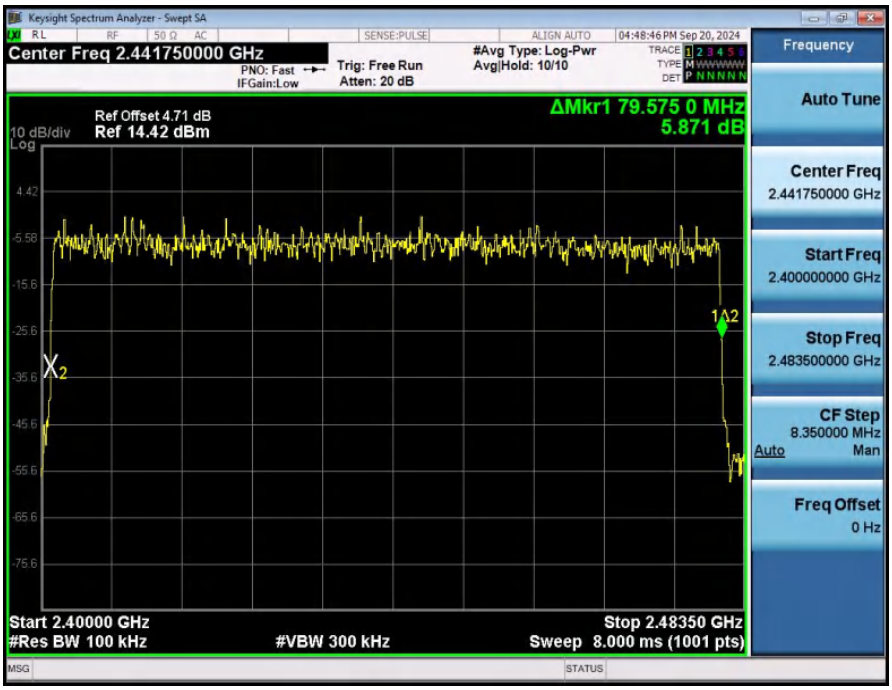
Appendix H: Number of Hopping Channel (Hopping)

Condition	Antenna	Modulation	Hopping Num	Limit	Result
NVNT	ANT1	1-DH5	79	15	Pass
NVNT	ANT1	2-DH5	79	15	Pass
NVNT	ANT1	3-DH5	79	15	Pass

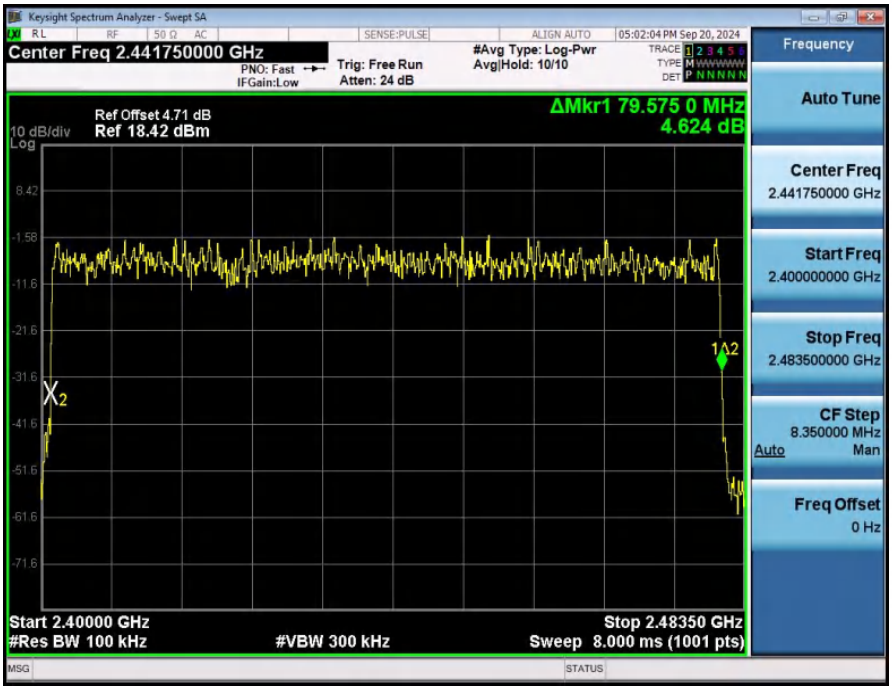
Number_of_Hopping_Channel_(Hopping)_NVNT_ANT1_1-DH5_Hopping



Number_of_Hopping_Channel_(Hopping)_NVNT_ANT1_2-DH5_Hopping



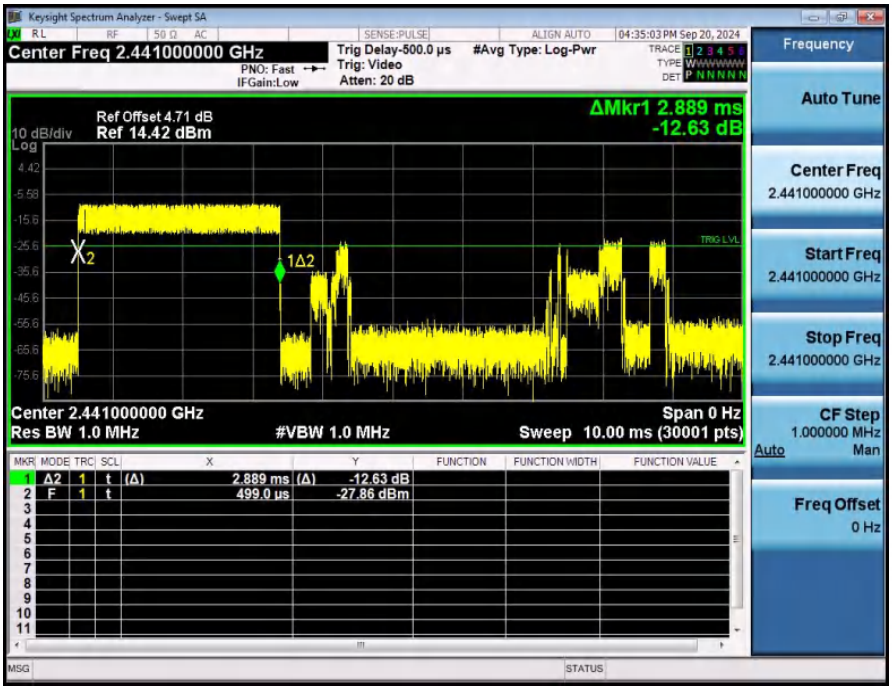
Number_of_Hopping_Channel_(Hopping)_NVNT_ANT1_3-DH5_Hopping



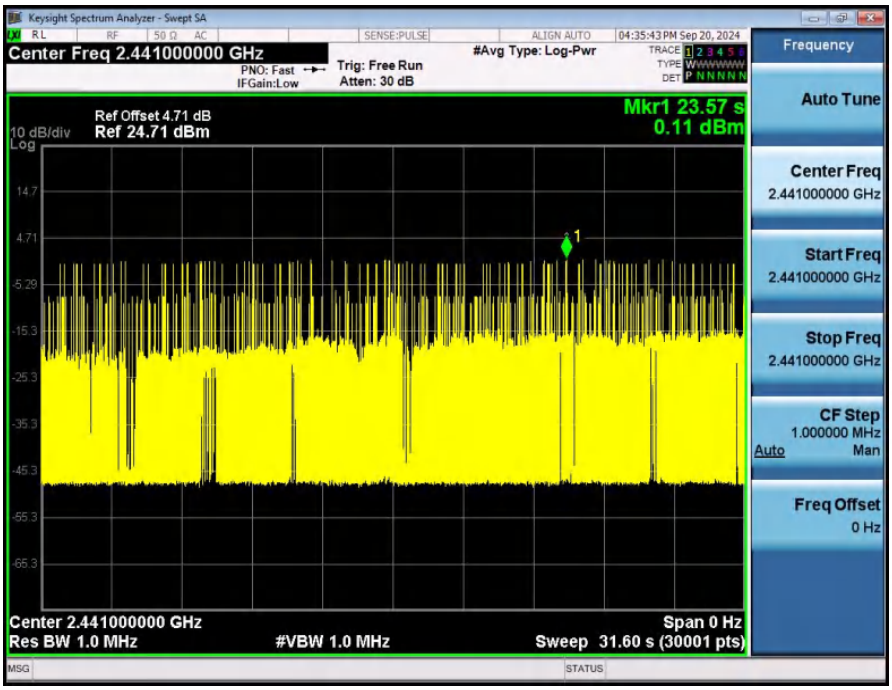
Appendix I: Dwell Time (Hopping)

Condition	Antenna	Packet Type	Pulse Time(ms)	Hops	Dwell Time(ms)	Limit(s)	Result
NVNT	ANT1	1-DH5	2.889	118.00	340.902	0.40	Pass
NVNT	ANT1	2-DH5	2.894	114.00	329.916	0.40	Pass
NVNT	ANT1	3-DH5	2.896	107.00	309.872	0.40	Pass
NVNT	ANT1	1-DH1	0.385	319.00	122.815	0.40	Pass
NVNT	ANT1	1-DH3	1.641	158.00	259.278	0.40	Pass
NVNT	ANT1	2-DH1	0.393	319.00	125.367	0.40	Pass
NVNT	ANT1	2-DH3	1.646	159.00	261.714	0.40	Pass
NVNT	ANT1	3-DH1	0.394	320.00	126.080	0.40	Pass
NVNT	ANT1	3-DH3	1.645	153.00	251.685	0.40	Pass

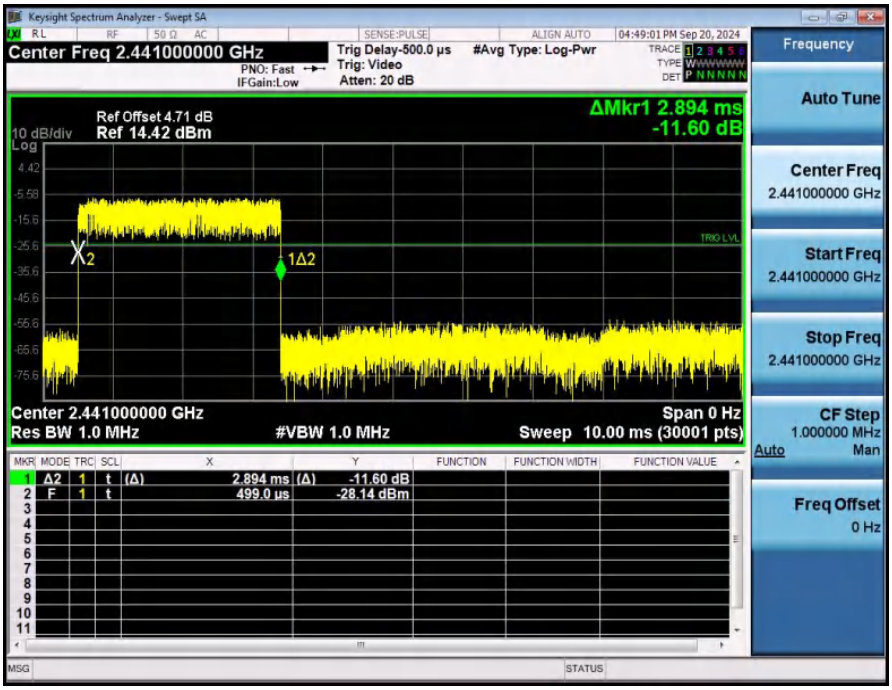
Dwell_Time_(Hopping)_NVNT_ANT1_1-DH5_2441_00_One_Burst_Time



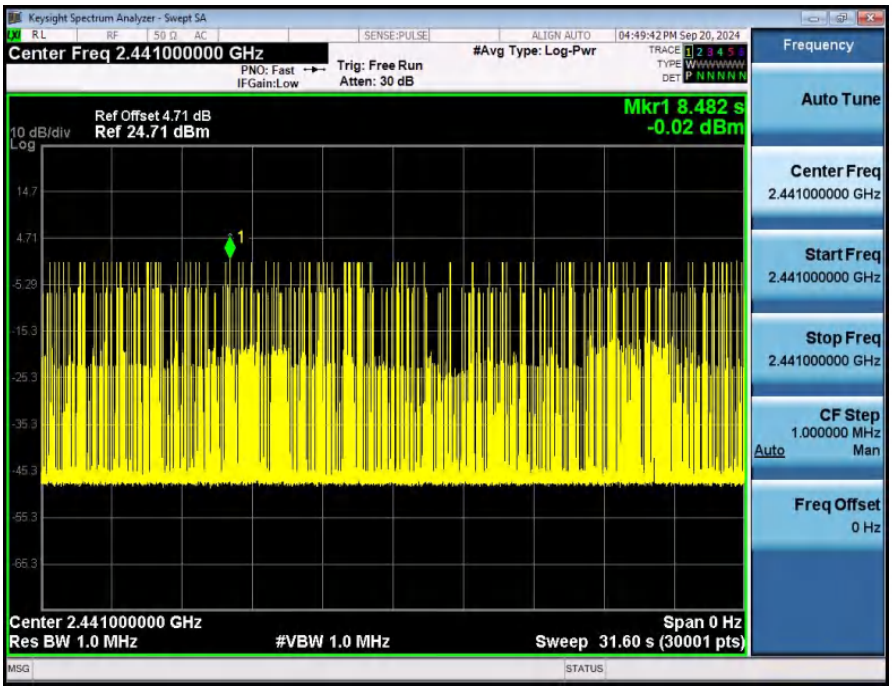
Dwell_Time_(Hopping)_NVNT_ANT1_1-DH5_2441_00_Accumulated



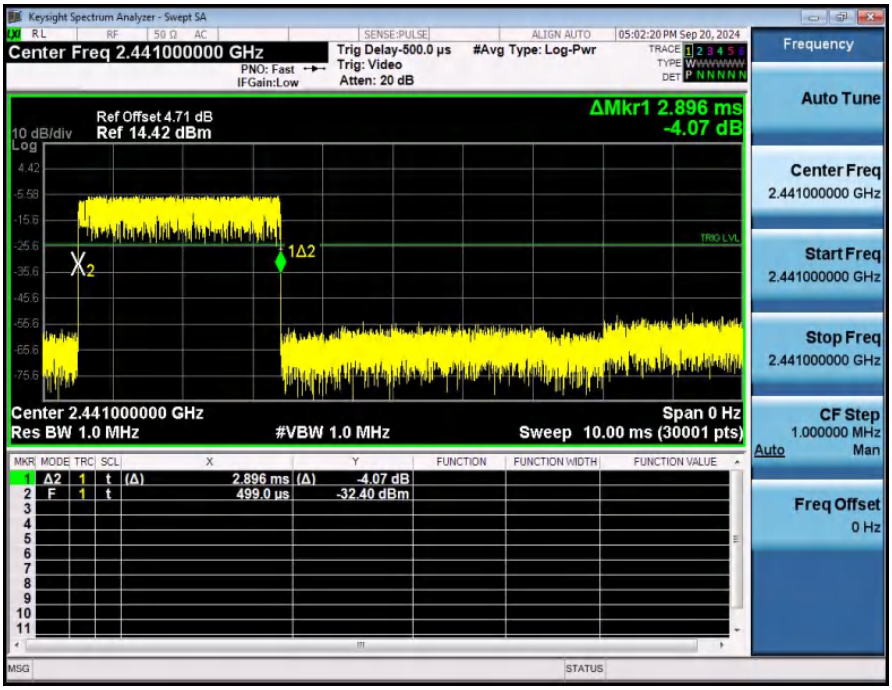
Dwell_Time_(Hopping)_NVNT_ANT1_2-DH5_2441_00_One_Burst_Time



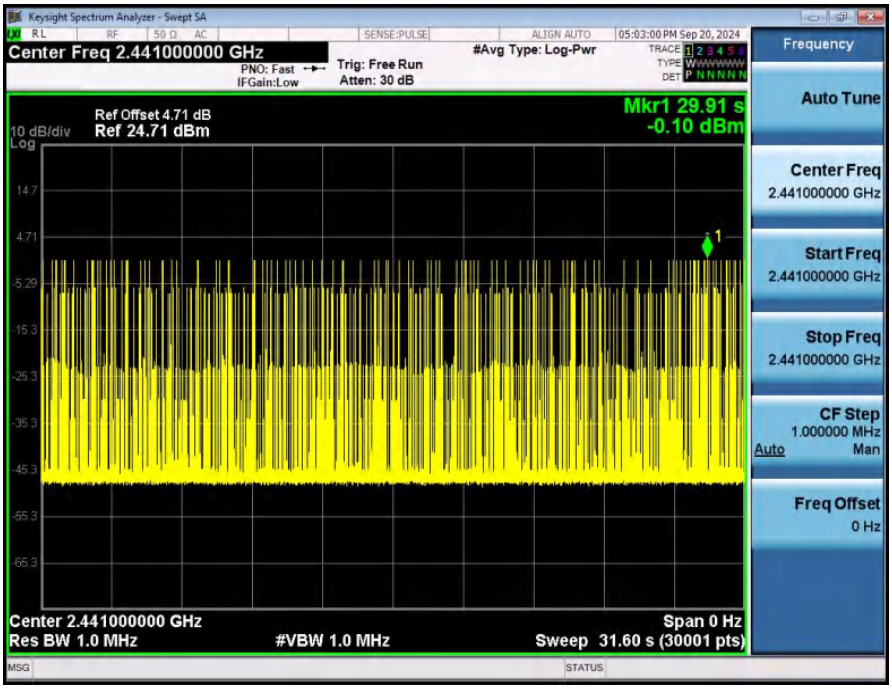
Dwell_Time_(Hopping)_NVNT_ANT1_2-DH5_2441_00_Accumulated



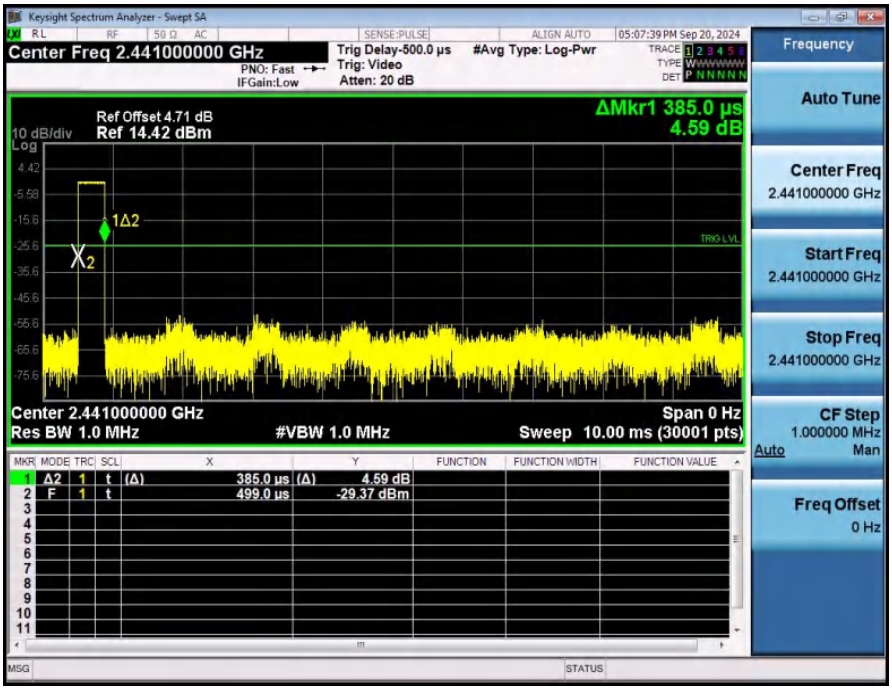
Dwell_Time_(Hopping)_NVNT_ANT1_3-DH5_2441_00_One_Burst_Time



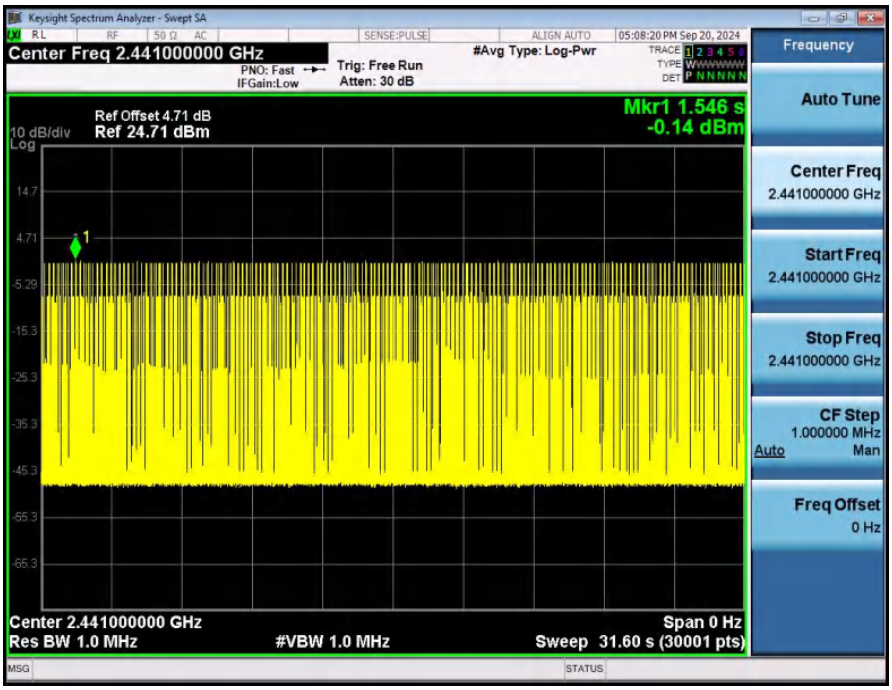
Dwell_Time_(Hopping)_NVNT_ANT1_3-DH5_2441_00_Accumulated



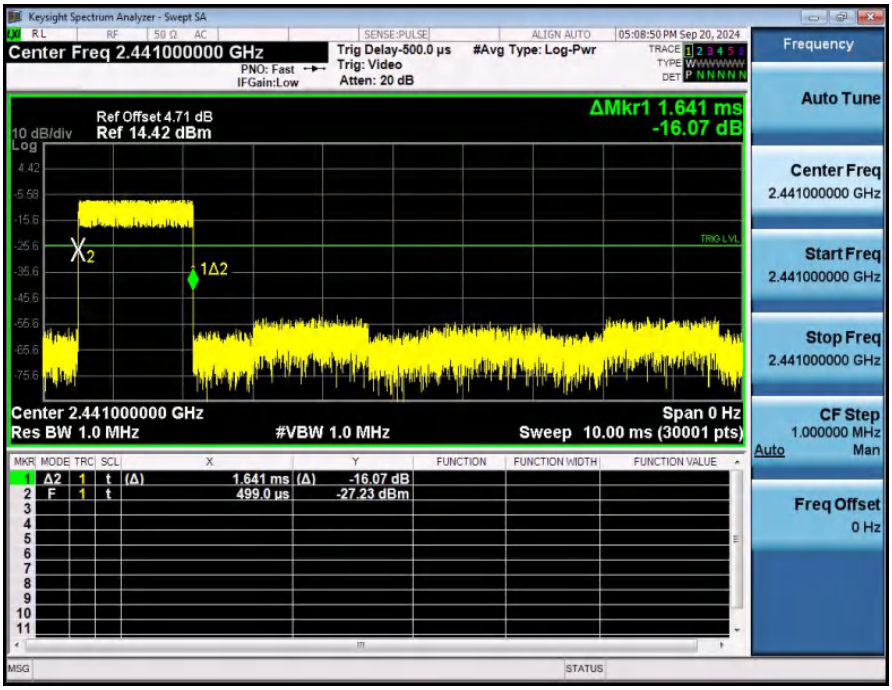
Dwell_Time_(Hopping)_NVNT_ANT1_1-DH1_2441_00_One_Burst_Time



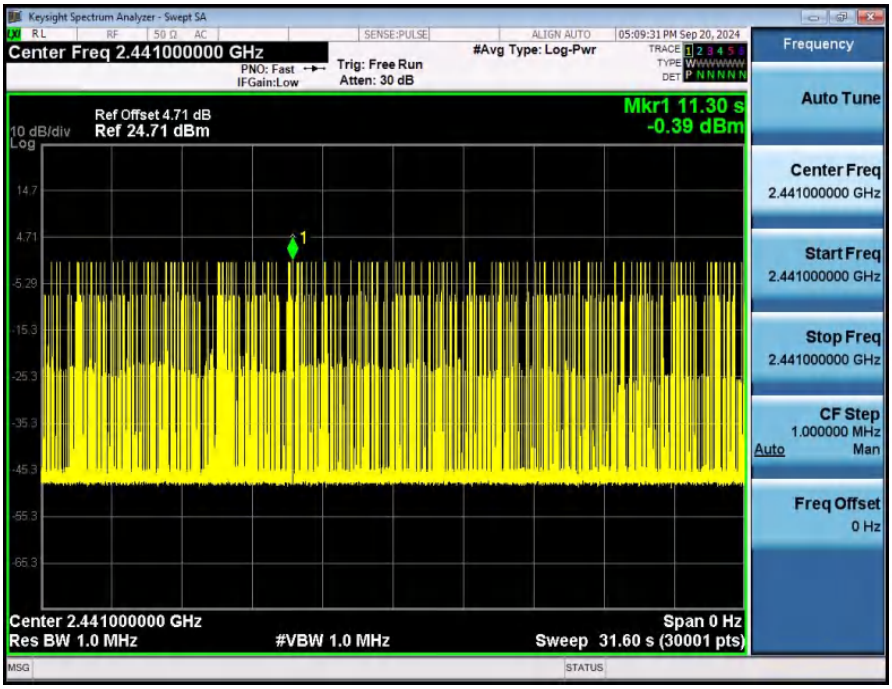
Dwell_Time_(Hopping)_NVNT_ANT1_1-DH1_2441_00_Accumulated



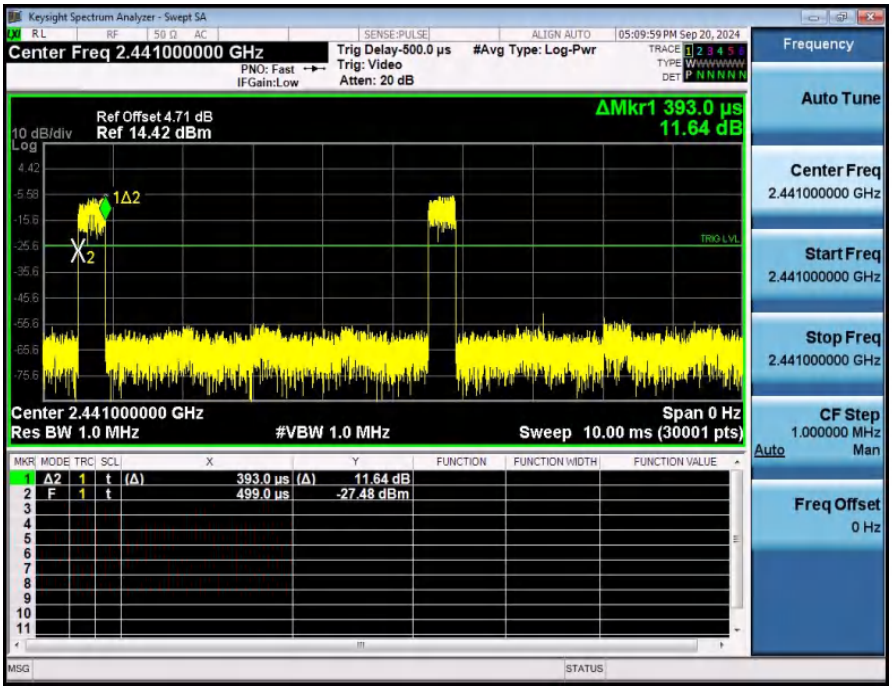
Dwell_Time_(Hopping)_NVNT_ANT1_1-DH3_2441_00_One_Burst_Time



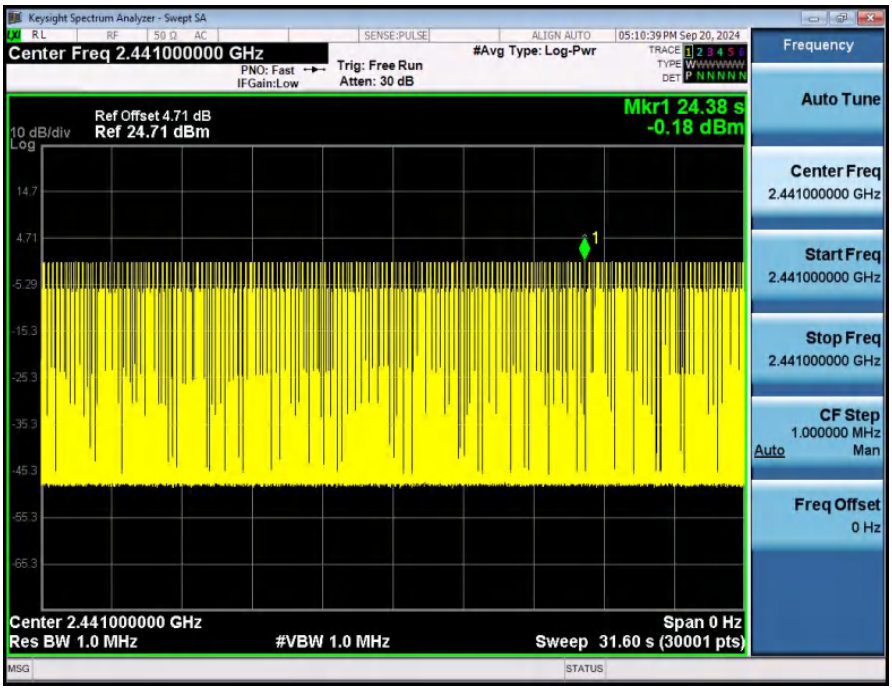
Dwell_Time_(Hopping)_NVNT_ANT1_1-DH3_2441_00_Accumulated



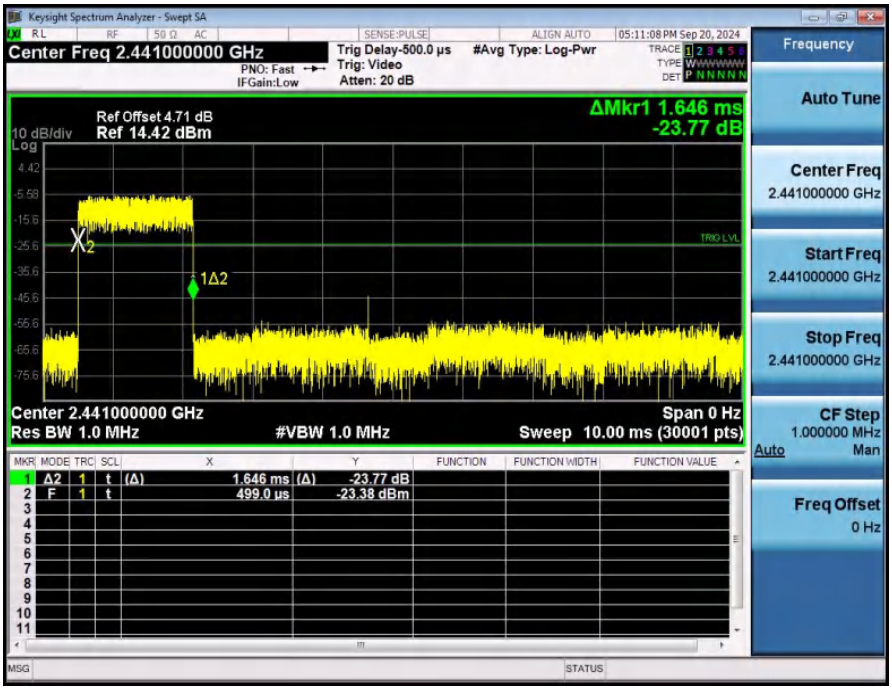
Dwell_Time_(Hopping)_NVNT_ANT1_2-DH1_2441_00_One_Burst_Time



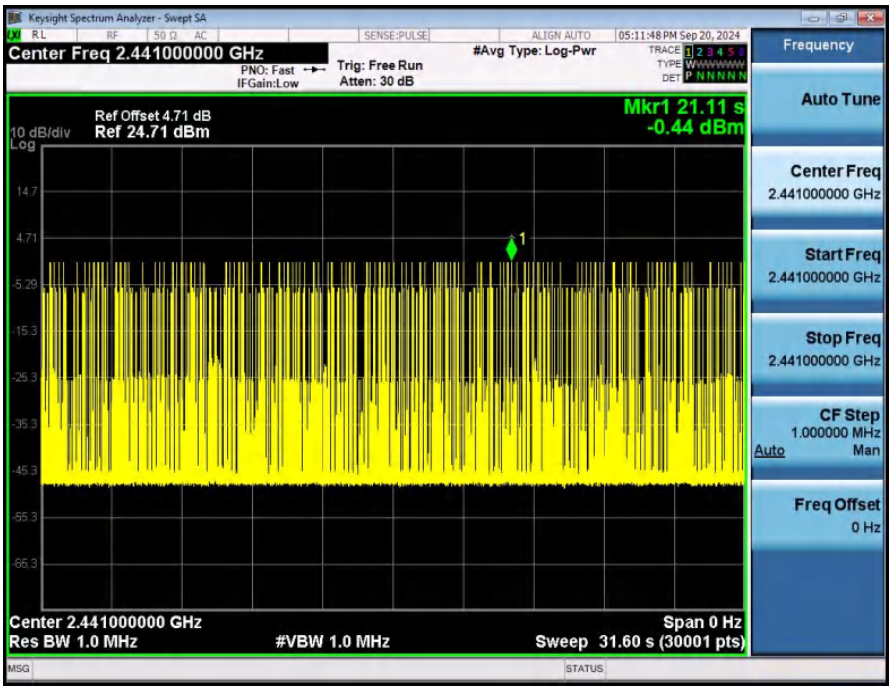
Dwell_Time_(Hopping)_NVNT_ANT1_2-DH1_2441_00_Accumulated



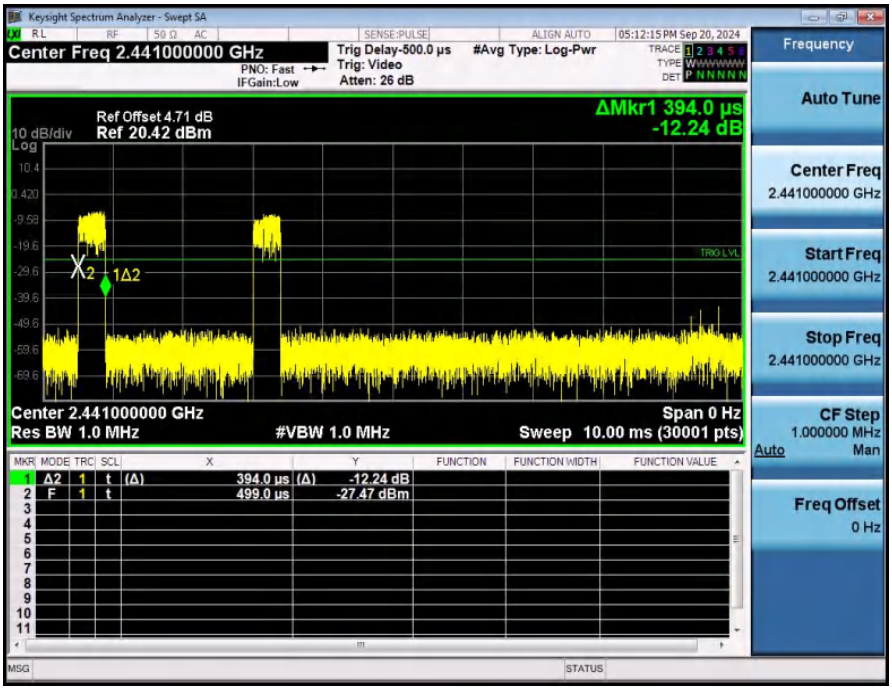
Dwell_Time_(Hopping)_NVNT_ANT1_2-DH3_2441_00_One_Burst_Time



Dwell_Time_(Hopping)_NVNT_ANT1_2-DH3_2441_00_Accumulated



Dwell_Time_(Hopping)_NVNT_ANT1_3-DH1_2441_00_One_Burst_Time



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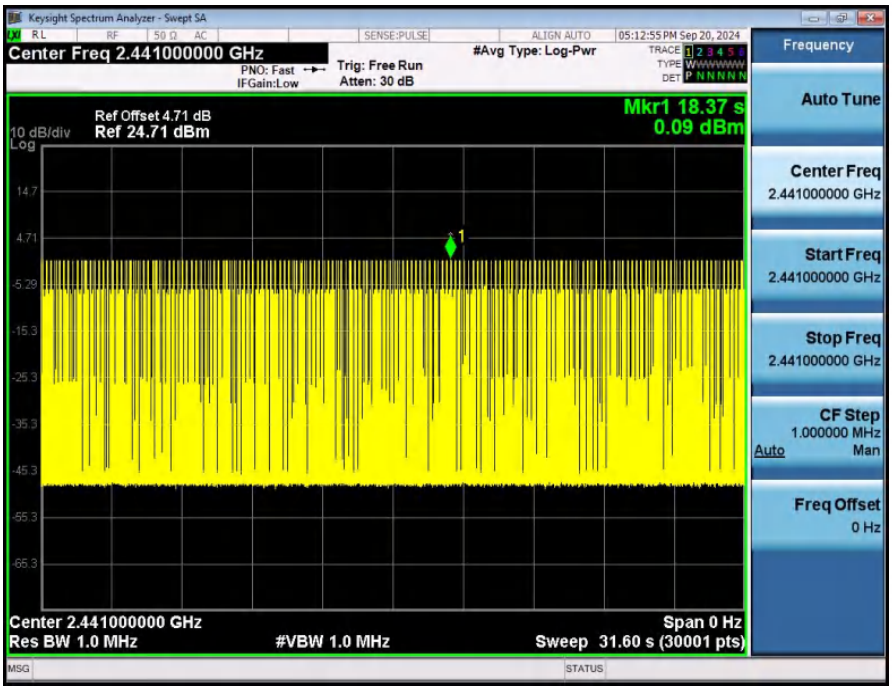
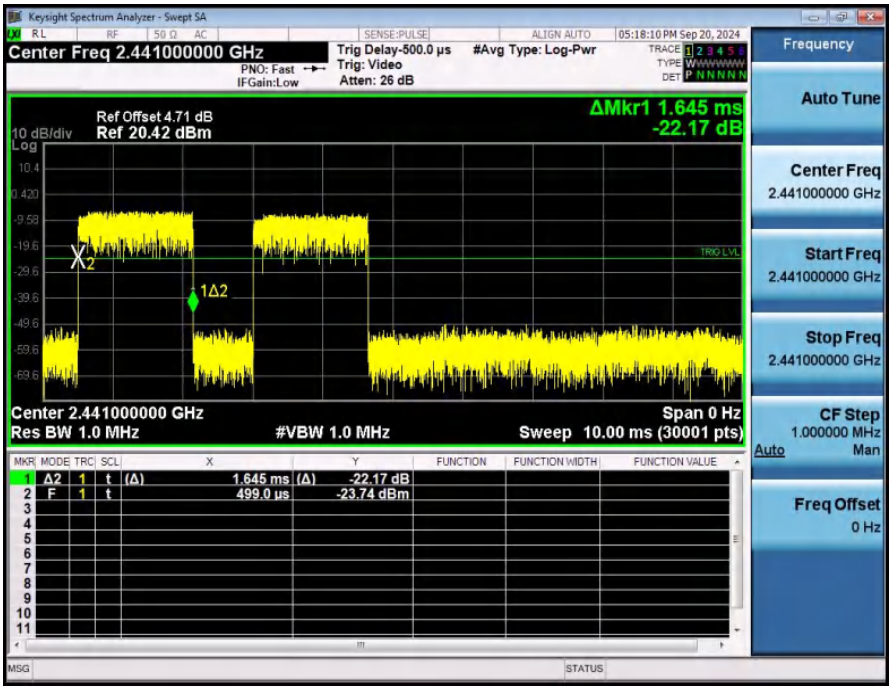
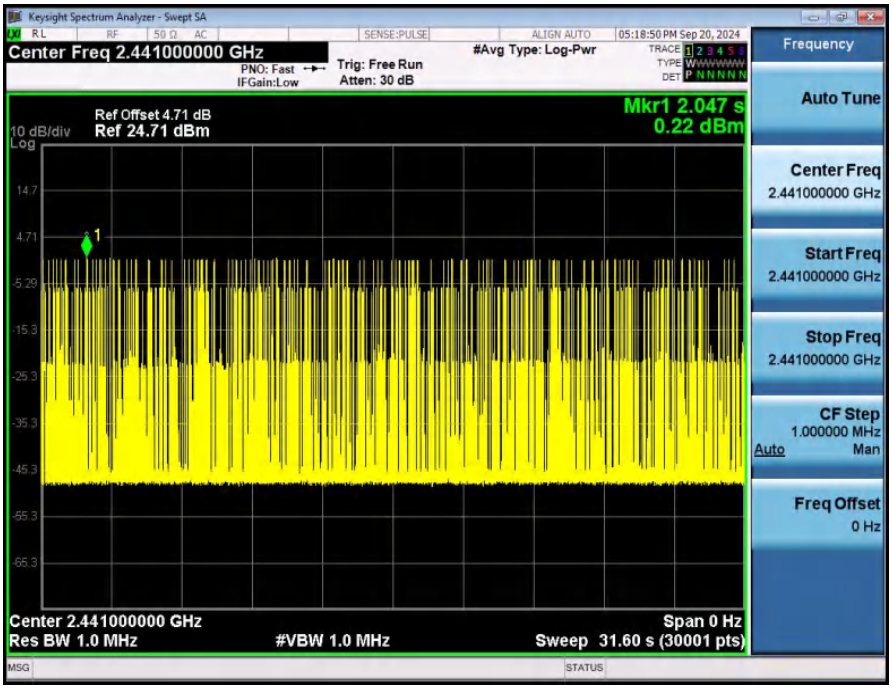


Dwell_Time_(Hopping)_NVNT_ANT1_3-DH3_2441_00_One_Burst_Time



Dwell_Time_(Hopping)_NVNT_ANT1_3-DH3_2441_00_Accumulated


Keysight Spectrum Analyzer - Swept SA
Center Freq 2.441000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
#Avg Type: Log-Pwr
05:18:50 PM Sep 20, 2024
Frequency
Auto Tune
Center Freq
2.441000000 GHz
Start Freq
2.441000000 GHz
Stop Freq
2.441000000 GHz
CF Step
1.000000 MHz
Auto
Man
Freq Offset
0 Hz
Ref Offset 4.71 dB
10 dB/div
Ref 24.71 dBm
Log
Mkr1 2.047 s
0.22 dBm
Center 2.441000000 GHz
Res BW 1.0 MHz
#VBW 1.0 MHz
Span 0 Hz
Sweep 31.60 s (30001 pts)

---END---