Appendix Test Data

Report No.:	1812C40026312501	Test Sample No.:	1-2-2
Start Test Date:	2024.8.20	Finish Test Date:	2024.9.5
Test Engineer:	Jokes Wang	Auditor:	Justin Feng
Temperature:	22.8℃	Relative Humidity:	56%
Pressure:	101kPa		

Appendix A: -20dB Bandwidth

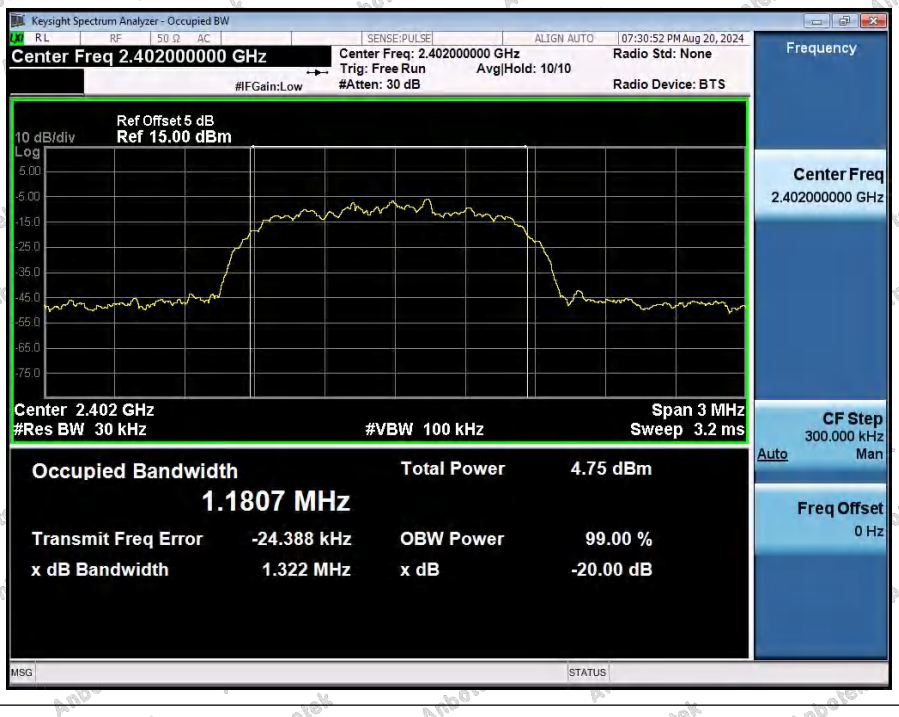
Condition	Antenna	Modulation	Frequency (MHz)	-20dB BW(MHz)	if larger than CFS
NVNT	ANT1	1-DH5	2402.00	0.847	No
NVNT	ANT1	1-DH5	2441.00	0.845	No
NVNT	ANT1	1-DH5	2480.00	0.855	No
NVNT	ANT1	2-DH5	2402.00	1.322	Yes
NVNT	ANT1	2-DH5	2441.00	1.328	Yes
NVNT	ANT1	2-DH5	2480.00	1.317	Yes
NVNT	ANT1	3-DH5	2402.00	1.309	Yes
NVNT	ANT1	3-DH5	2441.00	1.310	Yes
NVNT	ANT1	3-DH5	2480.00	1.309	Yes

-20dB_Bandwidth_NVNT_ANT1_1-DH5_2402_00

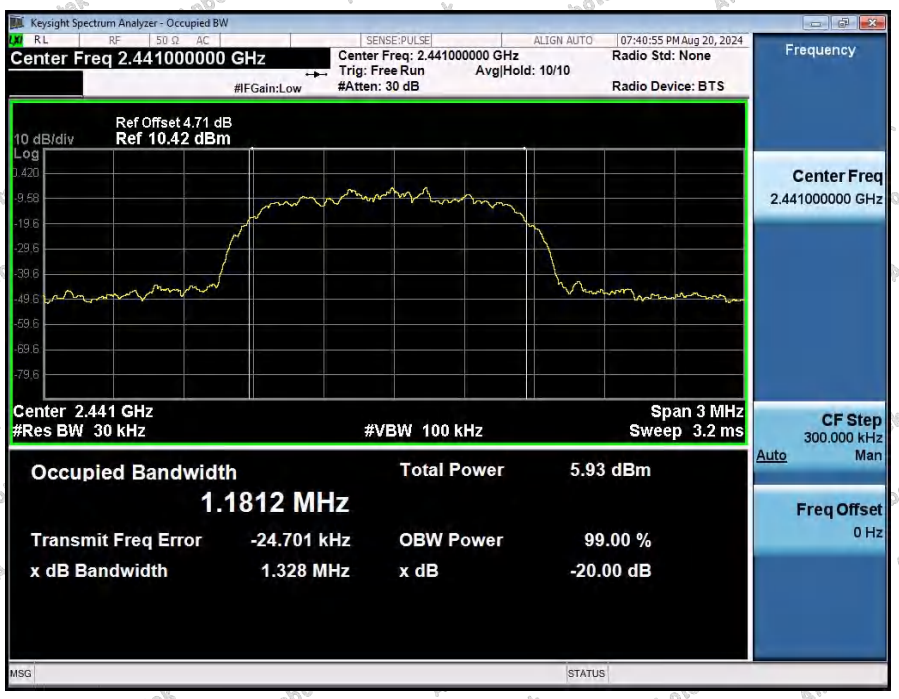
-20dB_Bandwidth_NVNT_ANT1_1-DH5_2441_00

-20dB_Bandwidth_NVNT_ANT1_1-DH5_2480_00

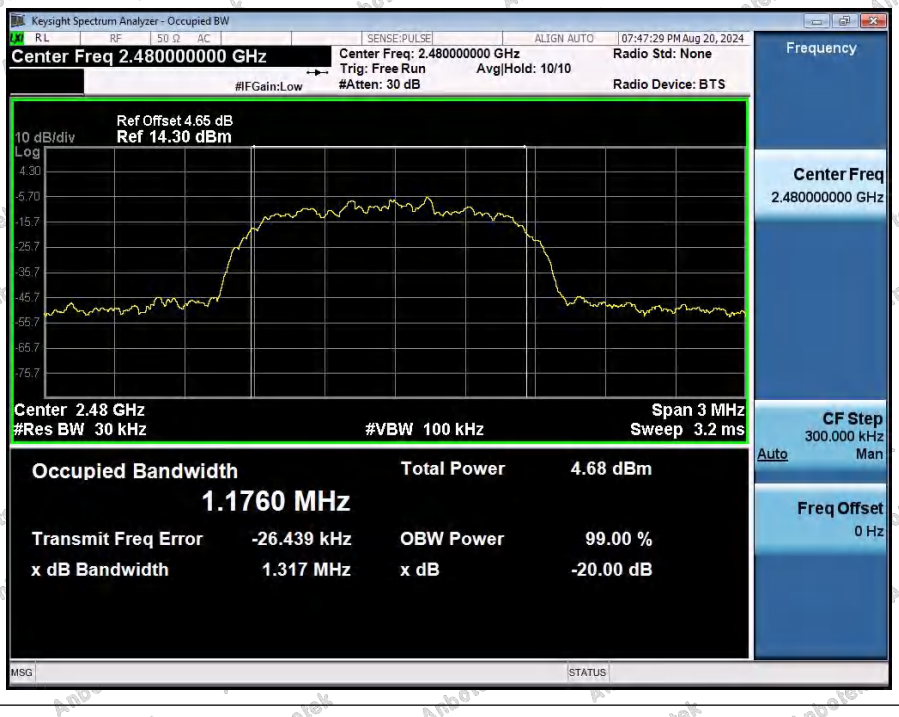
-20dB_Bandwidth_NVNT_ANT1_2-DH5_2402_00



-20dB_Bandwidth_NVNT_ANT1_2-DH5_2441_00

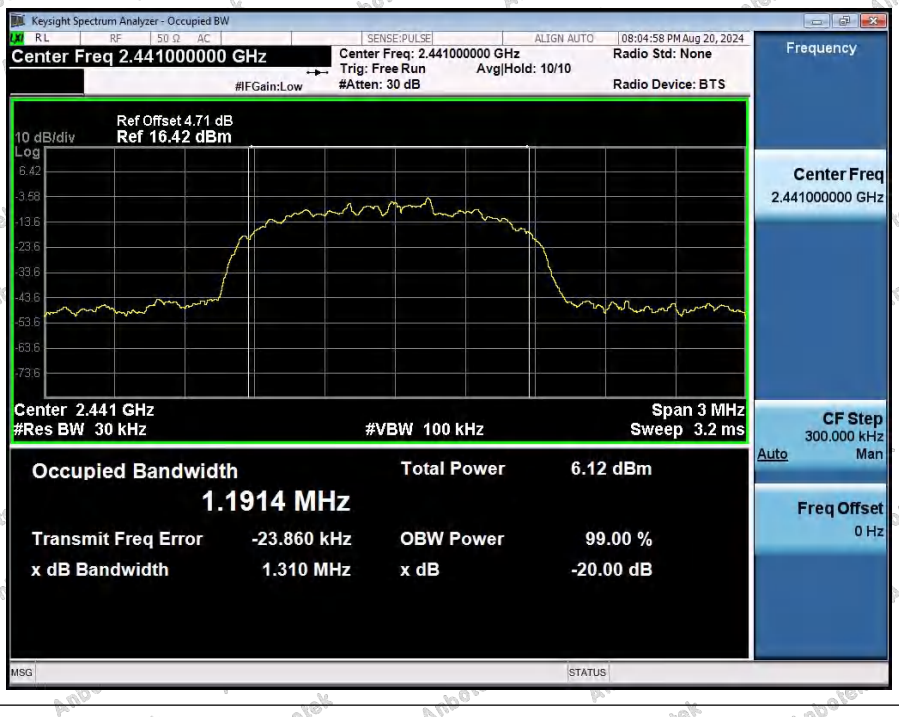


-20dB_Bandwidth_NVNT_ANT1_2-DH5_2480_00



-20dB_Bandwidth_NVNT_ANT1_3-DH5_2402_00

-20dB_Bandwidth_NVNT_ANT1_3-DH5_2441_00



-20dB_Bandwidth_NVNT_ANT1_3-DH5_2480_00

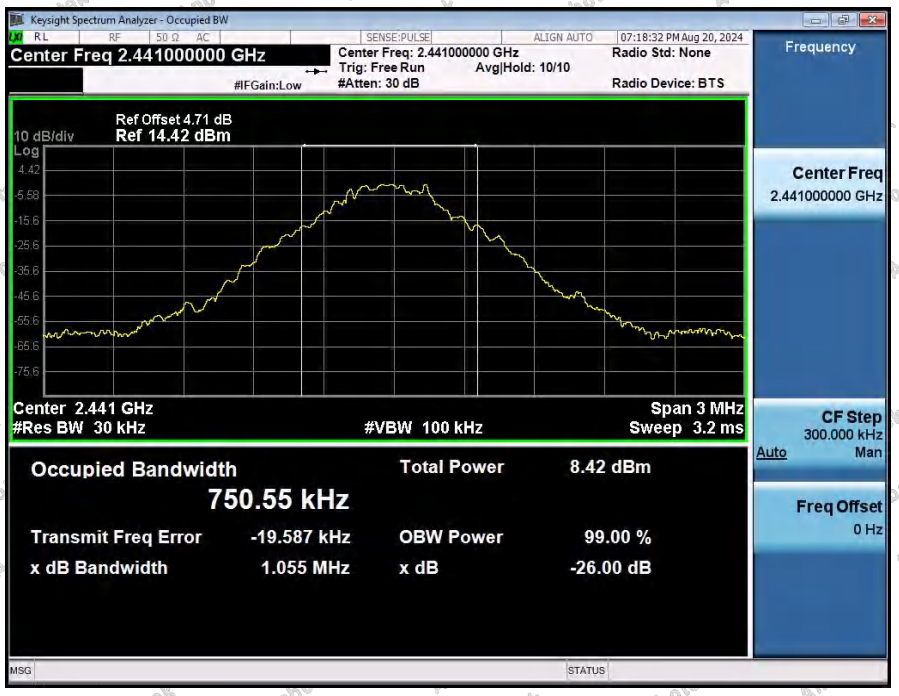

Keysight Spectrum Analyzer - Occupied BW
RL
RF
50 Ω AC
SENSE:PULSE
ALIGN AUTO
08:23:36 PM Aug 20, 2024
Center Freq 2.480000000 GHz
Center Freq: 2.480000000 GHz
Trig: Free Run
Avg|Hold: 10/10
#Atten: 30 dB
#IFGain:Low
Radio Std: None
Radio Device: BTS
Ref Offset 4.65 dB
10 dB/div
Ref 14.30 dBm
Log
4.30
-5.70
-15.7
-25.7
-35.7
-45.7
-55.7
-65.7
-75.7
Center 2.48 GHz
#Res BW 30 kHz
#VBW 100 kHz
Span 3 MHz
Sweep 3.2 ms
Occupied Bandwidth
1.1921 MHz
Total Power
4.63 dBm
Transmit Freq Error
-24.675 kHz
OBW Power
99.00 %
x dB Bandwidth
1.309 MHz
x dB
-20.00 dB
MSG
STATUS
Frequency
Center Freq
2.480000000 GHz
CF Step
300.000 kHz
Auto
Man
Freq Offset
0 Hz

Appendix B: 99% Occupied Bandwidth

Condition	Antenna	Modulation	Frequency (MHz)	99%%BW(MHz)
NVNT	ANT1	1-DH5	2402.00	0.757
NVNT	ANT1	1-DH5	2441.00	0.751
NVNT	ANT1	1-DH5	2480.00	0.752
NVNT	ANT1	2-DH5	2402.00	1.186
NVNT	ANT1	2-DH5	2441.00	1.183
NVNT	ANT1	2-DH5	2480.00	1.182
NVNT	ANT1	3-DH5	2402.00	1.189
NVNT	ANT1	3-DH5	2441.00	1.196
NVNT	ANT1	3-DH5	2480.00	1.195

99%_Occupied_Bandwidth_NVNT_ANT1_1-DH5_2402_00

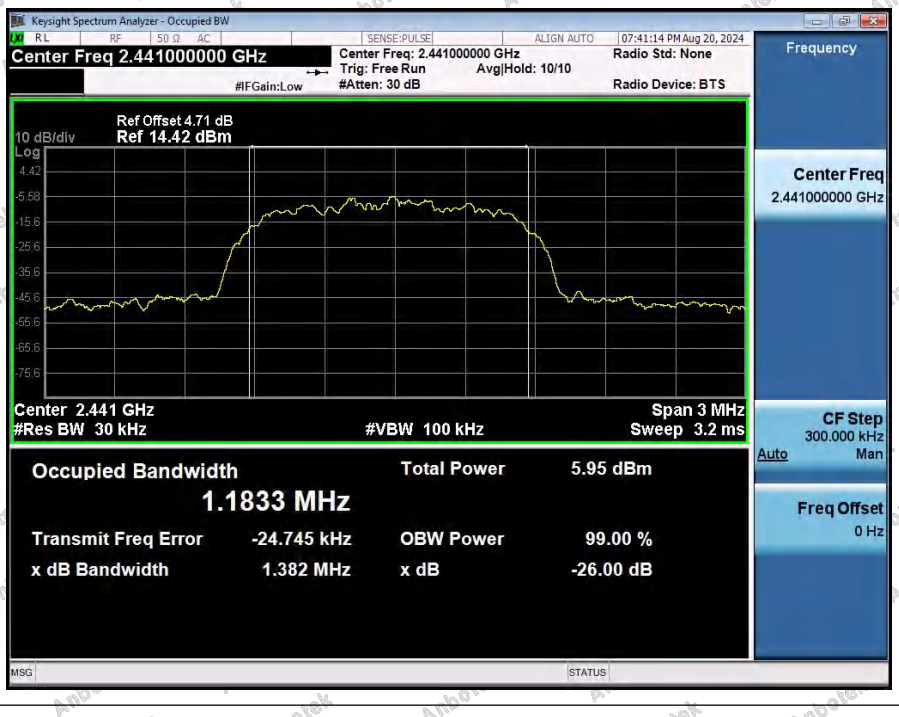
99%_Occupied_Bandwidth_NVNT_ANT1_1-DH5_2441_00



99%_Occupied_Bandwidth_NVNT_ANT1_1-DH5_2480_00

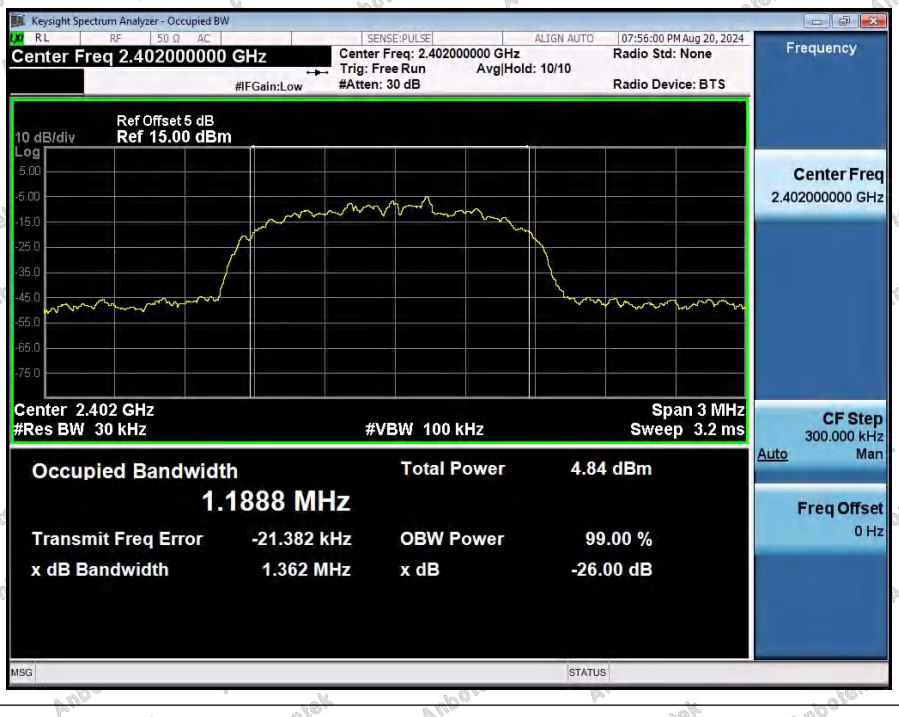
99%_Occupied_Bandwidth_NVNT_ANT1_2-DH5_2402_00

99%_Occupied_Bandwidth_NVNT_ANT1_2-DH5_2441_00

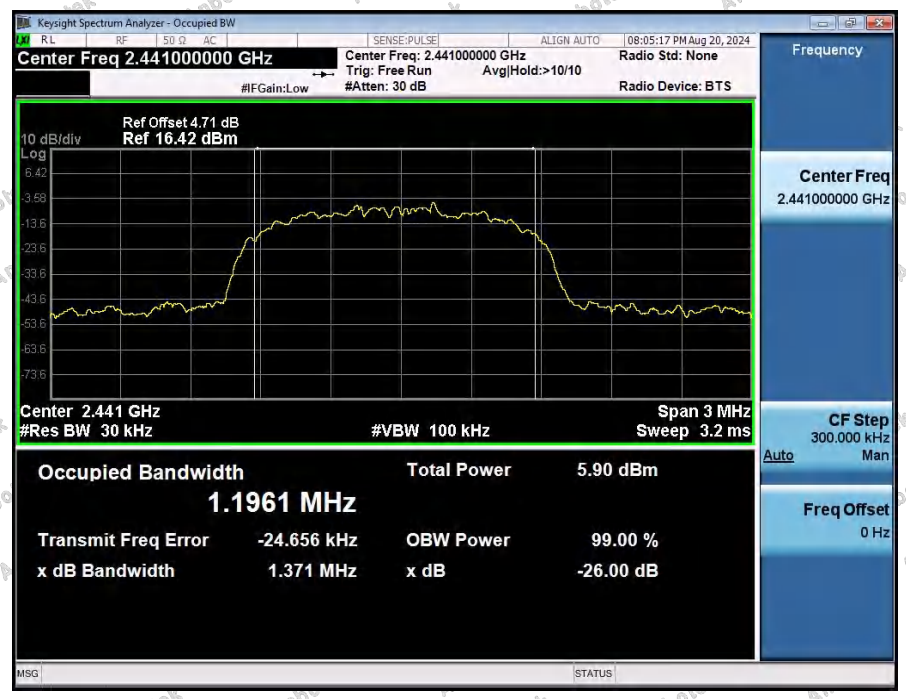


99%_Occupied_Bandwidth_NVNT_ANT1_2-DH5_2480_00

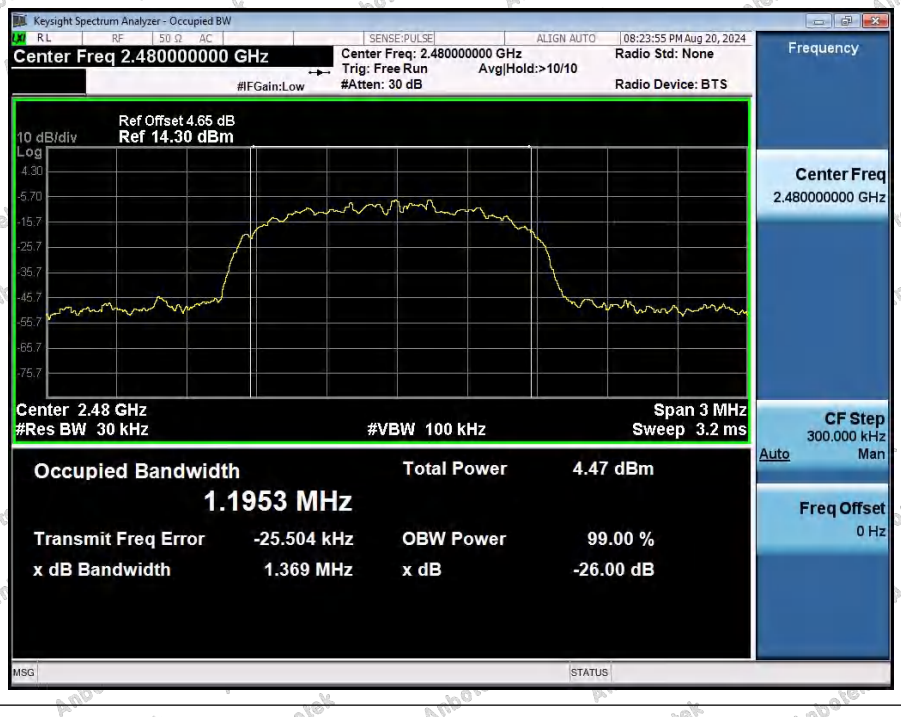
99%_Occupied_Bandwidth_NVNT_ANT1_3-DH5_2402_00



99%_Occupied_Bandwidth_NVNT_ANT1_3-DH5_2441_00



99%_Occupied_Bandwidth_NVNT_ANT1_3-DH5_2480_00

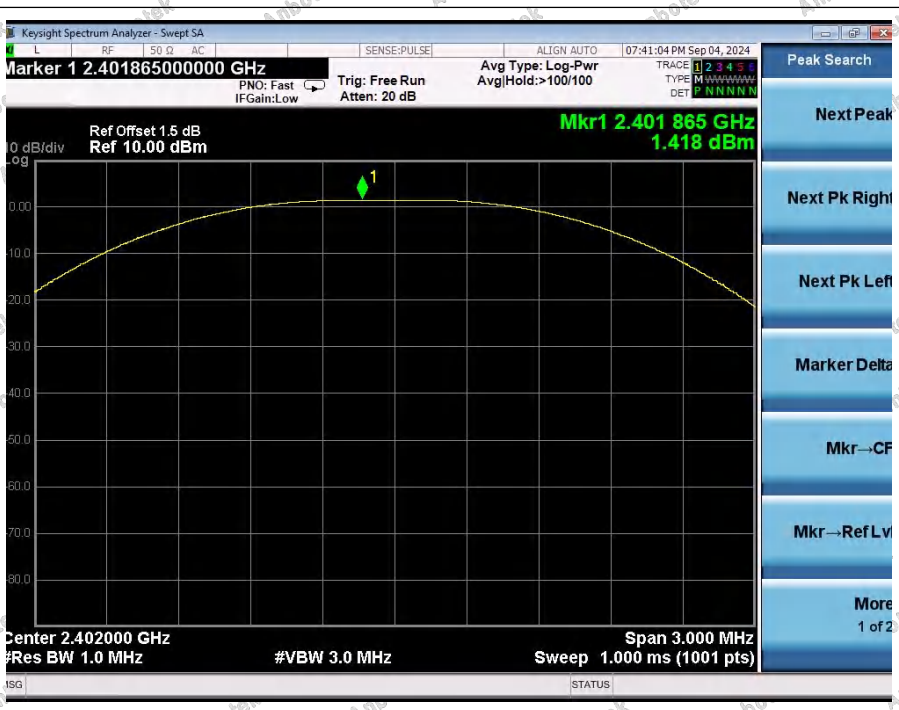


Appendix C:

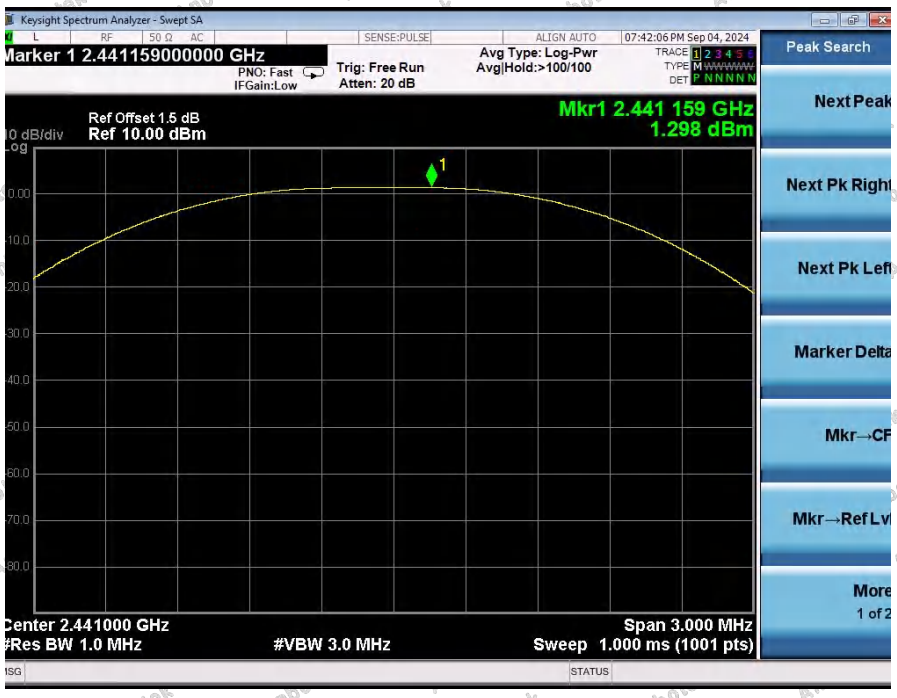
Peak Output Power-Left earphone

Condition	Antenna	Modulation	Frequency (MHz)	Max. Conducted Power(dBm)	Max. Conducted Power(mW)	Limit(mW)	Result
NVNT	ANT1	1-DH5	2402.00	1.42	0.96	1000	Pass
NVNT	ANT1	1-DH5	2441.00	1.30	1.39	1000	Pass
NVNT	ANT1	1-DH5	2480.00	0.73	0.92	1000	Pass
NVNT	ANT1	2-DH5	2402.00	2.01	0.97	125	Pass
NVNT	ANT1	2-DH5	2441.00	1.87	1.32	125	Pass
NVNT	ANT1	2-DH5	2480.00	1.30	0.85	125	Pass
NVNT	ANT1	3-DH5	2402.00	2.28	1.41	125	Pass
NVNT	ANT1	3-DH5	2441.00	2.16	1.35	125	Pass
NVNT	ANT1	3-DH5	2480.00	1.68	0.94	125	Pass

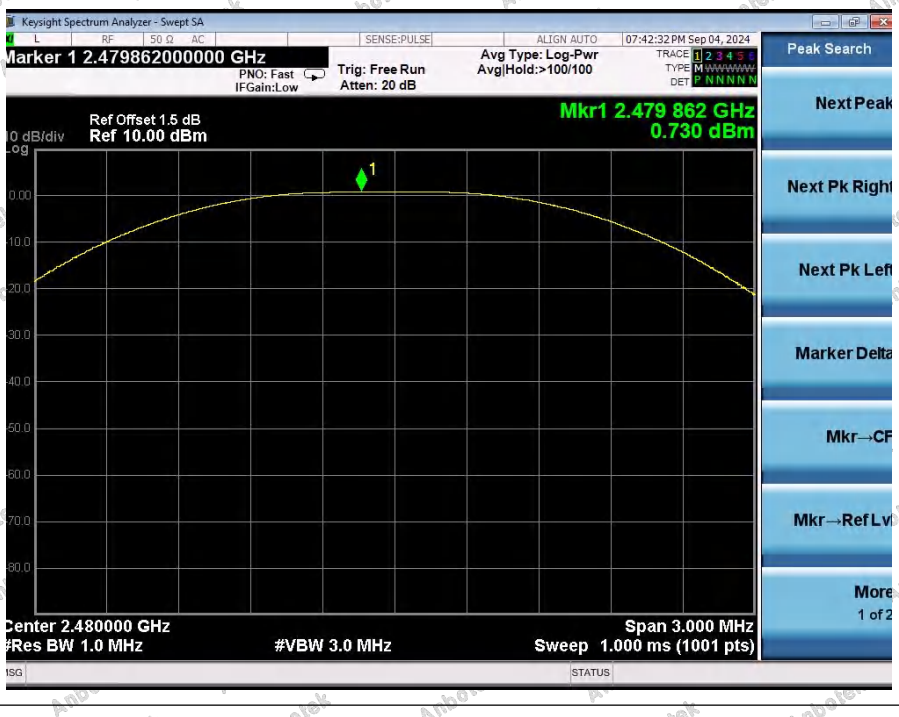
Peak_Output_Power_NVNT_ANT1_1-DH5_2402_00



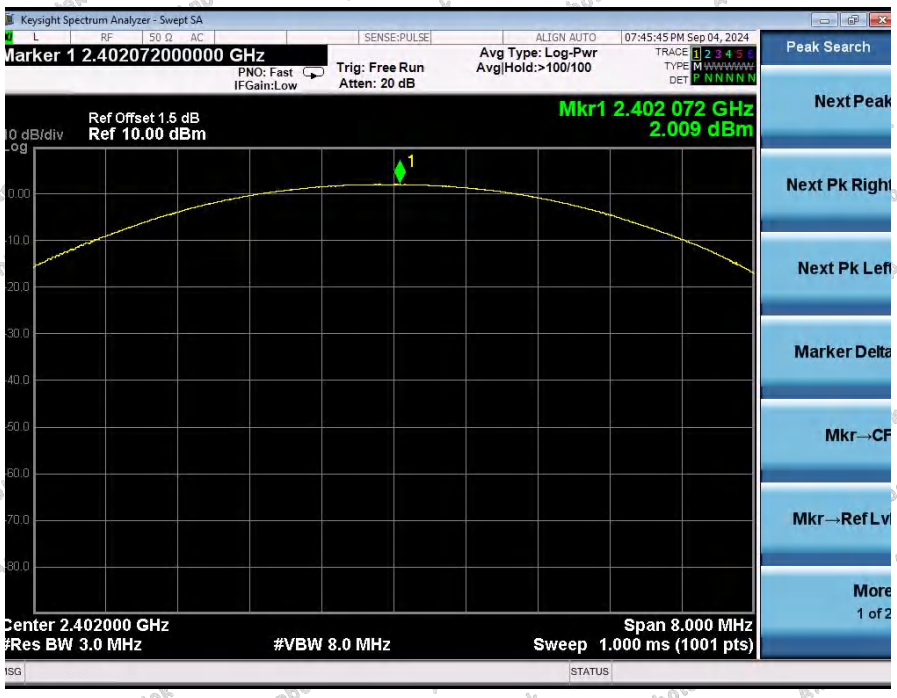
Peak_Output_Power_NVNT_ANT1_1-DH5_2441_00



Peak_Output_Power_NVNT_ANT1_1-DH5_2480_00



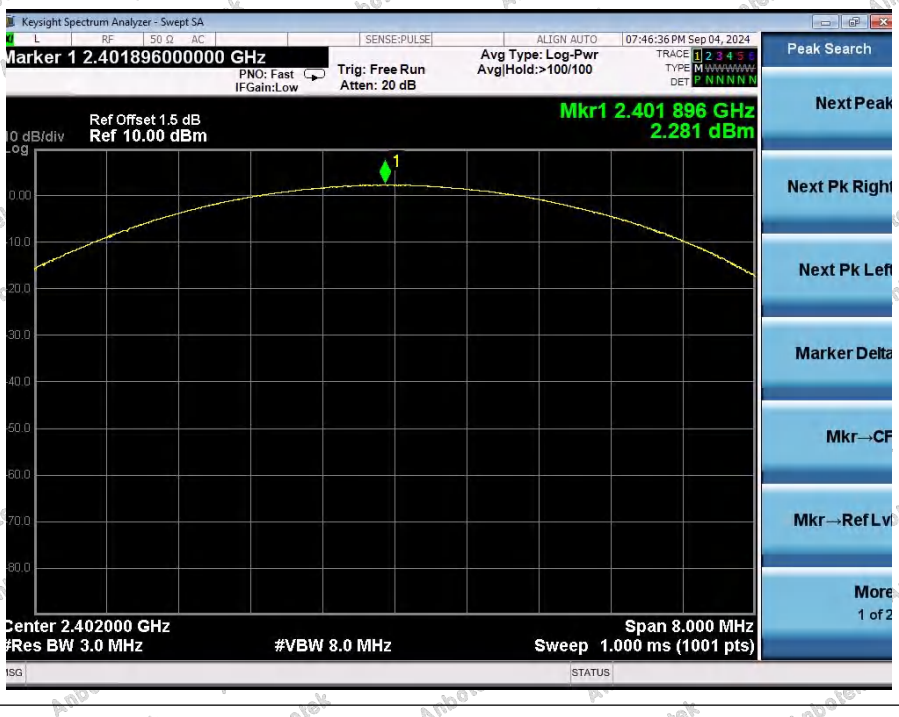
Peak_Output_Power_NVNT_ANT1_2-DH5_2402_00



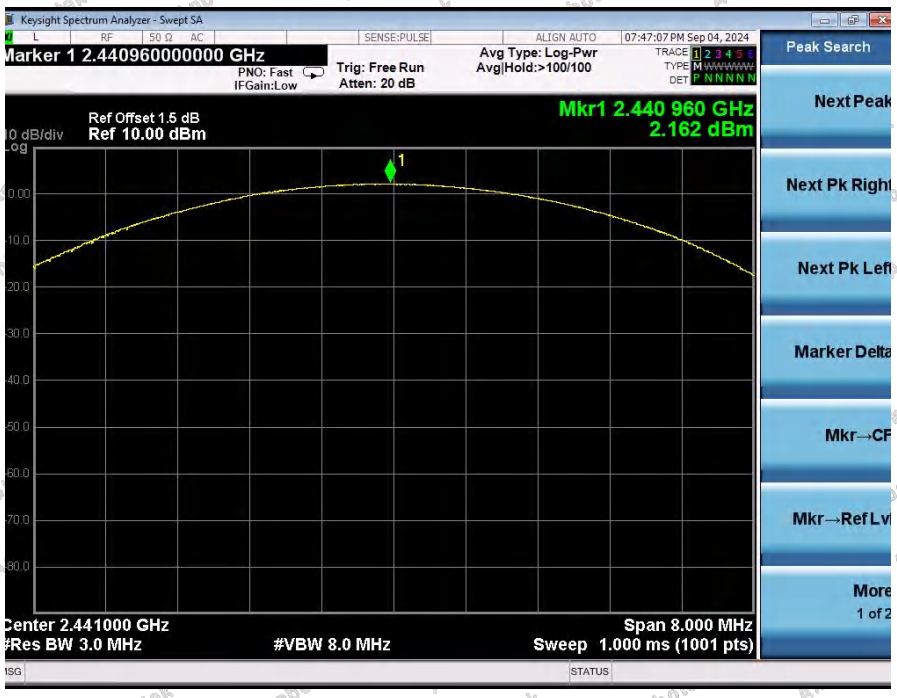
Peak_Output_Power_NVNT_ANT1_2-DH5_2441_00

Peak_Output_Power_NVNT_ANT1_2-DH5_2480_00

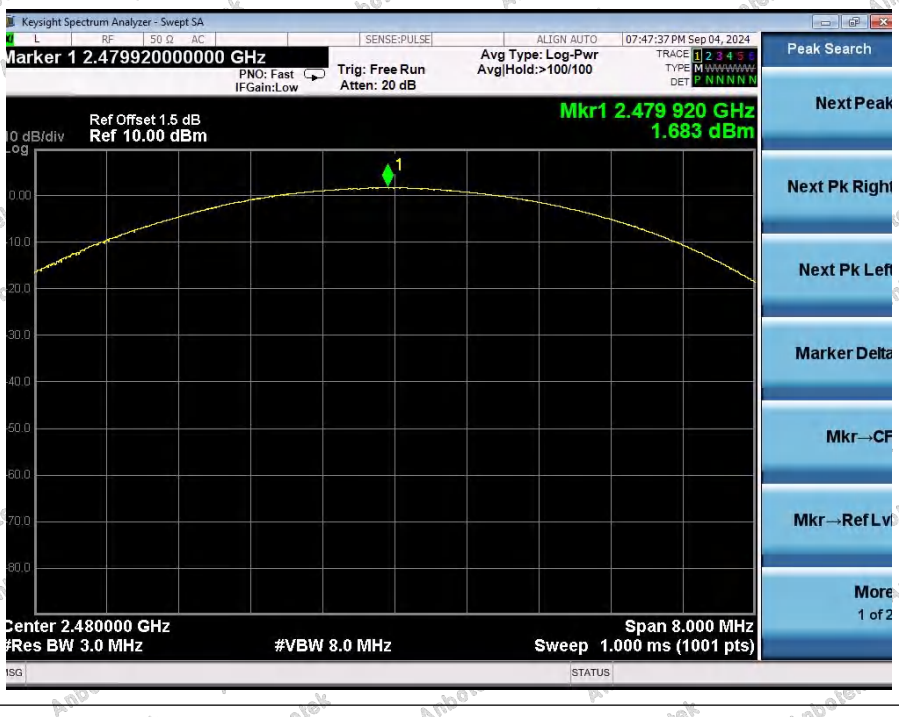
Peak_Output_Power_NVNT_ANT1_3-DH5_2402_00



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	-0.04	0.99	1000	Pass
NVNT	ANT1	1-DH5	2441.00	1.34	1.36	1000	Pass
NVNT	ANT1	1-DH5	2480.00	-0.28	0.94	1000	Pass

NVNT	ANT1	2-DH5	2402.00	-0.29	0.94	125	Pass
NVNT	ANT1	2-DH5	2441.00	0.93	1.24	125	Pass
NVNT	ANT1	2-DH5	2480.00	-0.52	0.89	125	Pass
NVNT	ANT1	3-DH5	2402.00	0.04	1.01	125	Pass
NVNT	ANT1	3-DH5	2441.00	1.31	1.35	125	Pass
NVNT	ANT1	3-DH5	2480.00	-0.13	0.97	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

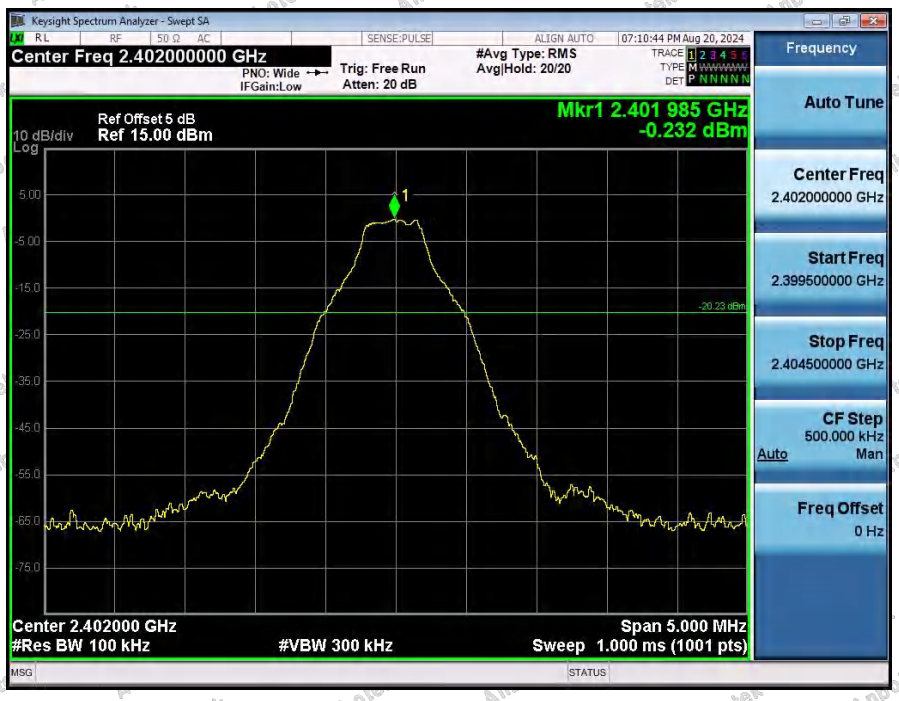
Peak_Output_Power_NVNT_ANT1_3-DH5_2441_00

Peak_Output_Power_NVNT_ANT1_3-DH5_2480_00

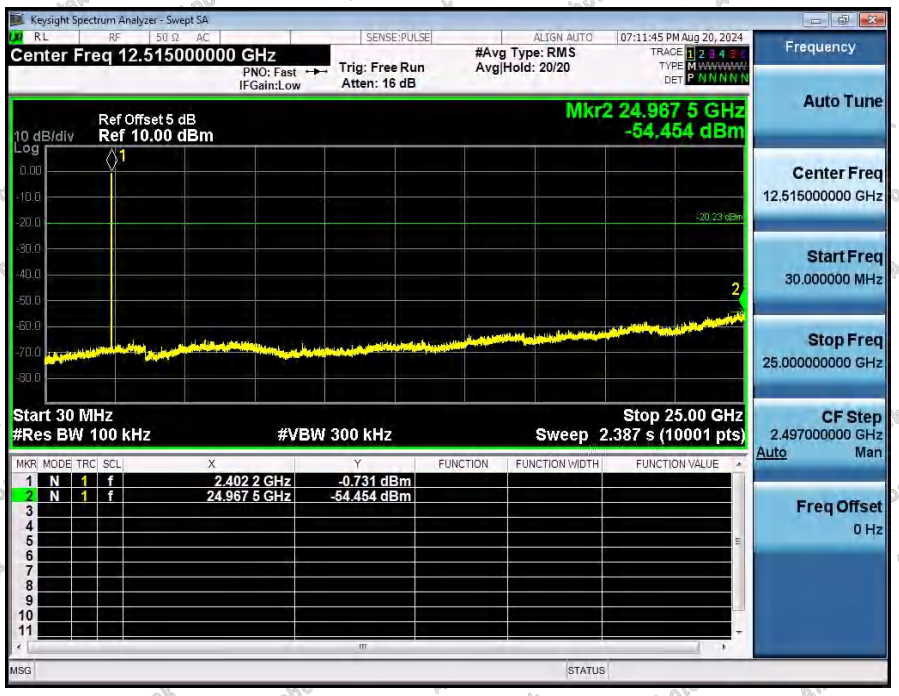
Appendix D: Spurious Emissions

Condition	Antenna	Modulation	TX Mode	Spurious MAX.Value(dBm)	Limit	Result
NVNT	ANT1	1-DH5	2402.00	-54.454	-20.232	Pass
NVNT	ANT1	1-DH5	2441.00	-52.021	-19.027	Pass
NVNT	ANT1	1-DH5	2480.00	-53.285	-20.675	Pass
NVNT	ANT1	2-DH5	2402.00	-52.306	-23.073	Pass
NVNT	ANT1	2-DH5	2441.00	-51.091	-21.842	Pass
NVNT	ANT1	2-DH5	2480.00	-56.460	-23.562	Pass
NVNT	ANT1	3-DH5	2402.00	-51.903	-23.040	Pass
NVNT	ANT1	3-DH5	2441.00	-50.485	-21.911	Pass
NVNT	ANT1	3-DH5	2480.00	-52.591	-23.459	Pass

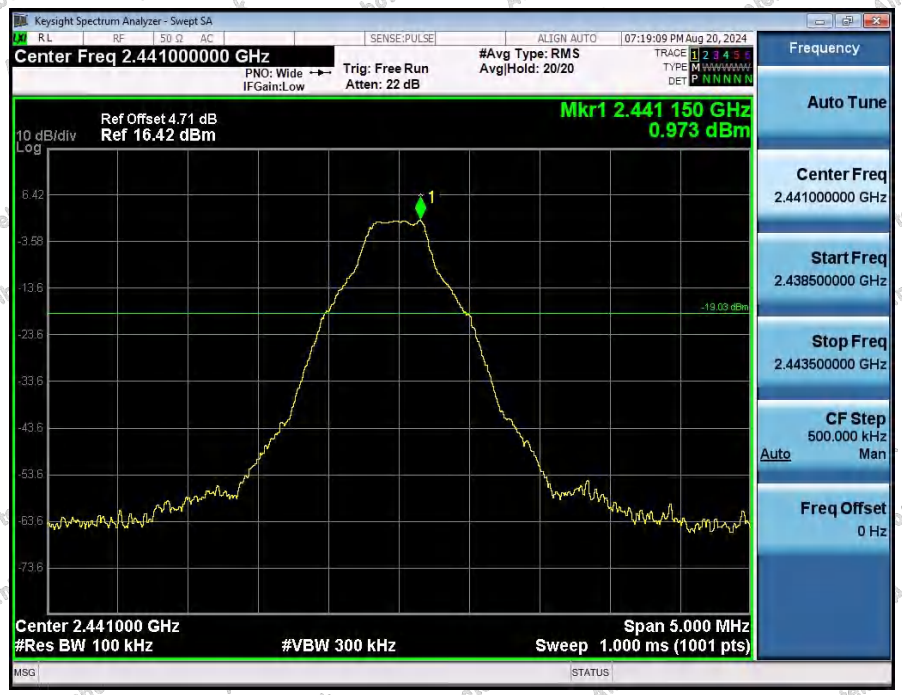
1_Reference_Level_NVNT_ANT1_1-DH5_2402_00



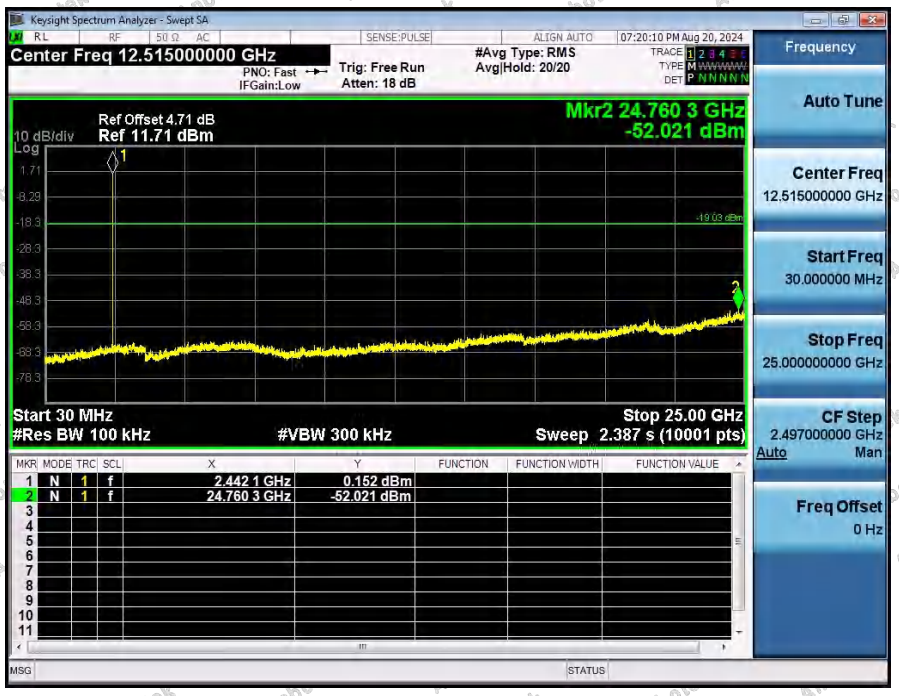
2_Spurious_Emissions_NVNT_ANT1_1-DH5_2402_00



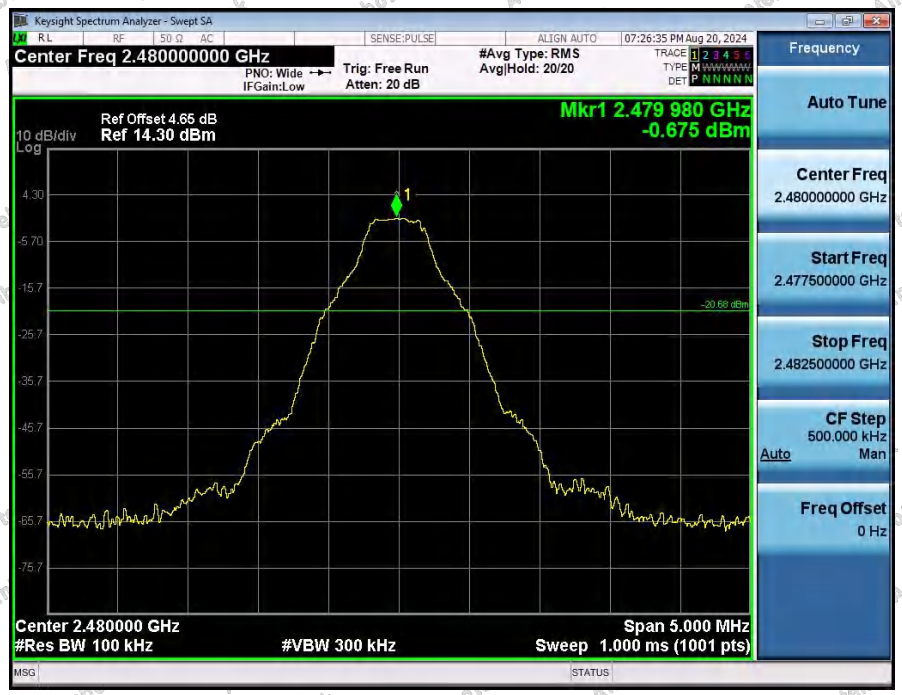
1_Reference_Level_NVNT_ANT1_1-DH5_2441_00



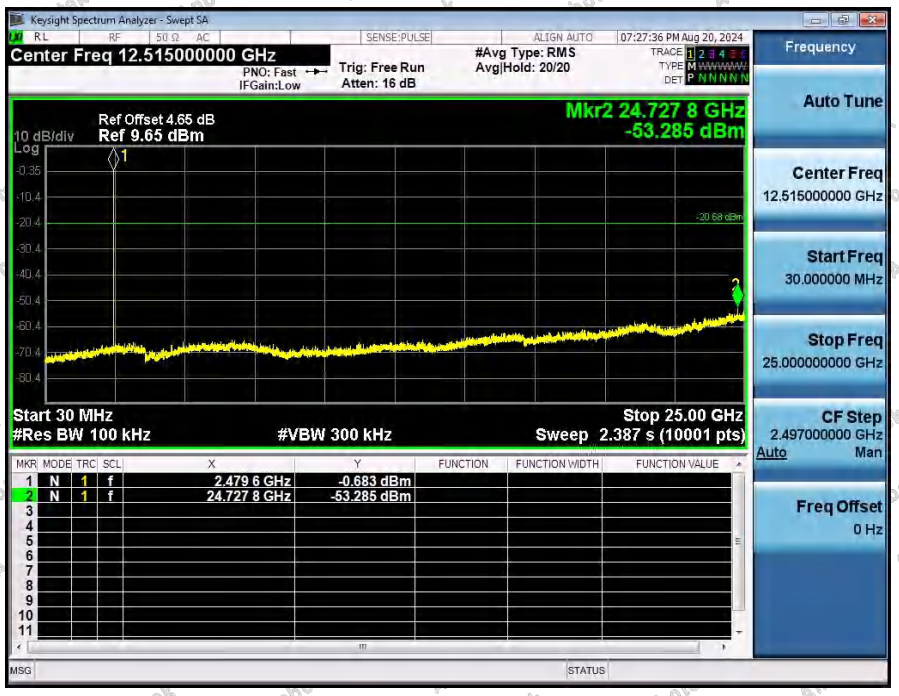
2_Spurious_Emissions_NVNT_ANT1_1-DH5_2441_00



1_Reference_Level_NVNT_ANT1_1-DH5_2480_00

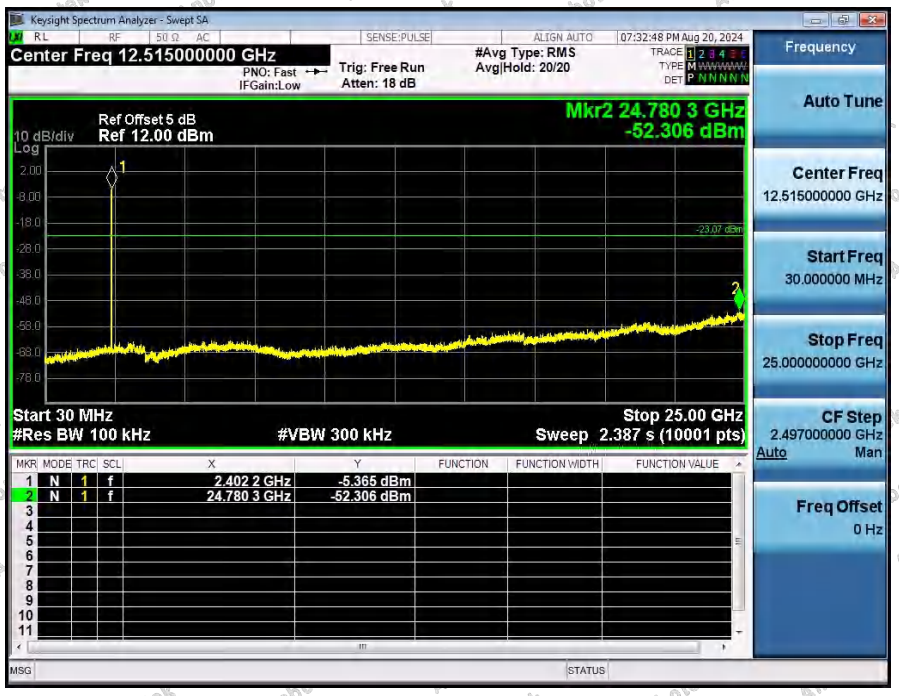


2_Spurious_Emissions_NVNT_ANT1_1-DH5_2480_00



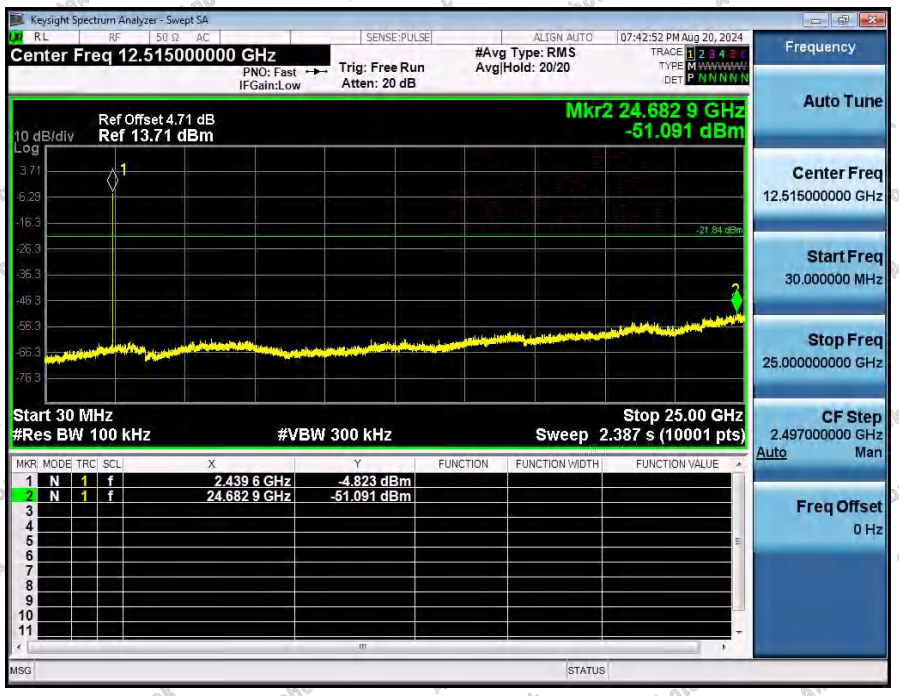
1_Reference_Level_NVNT_ANT1_2-DH5_2402_00

2_Spurious_Emissions_NVNT_ANT1_2-DH5_2402_00



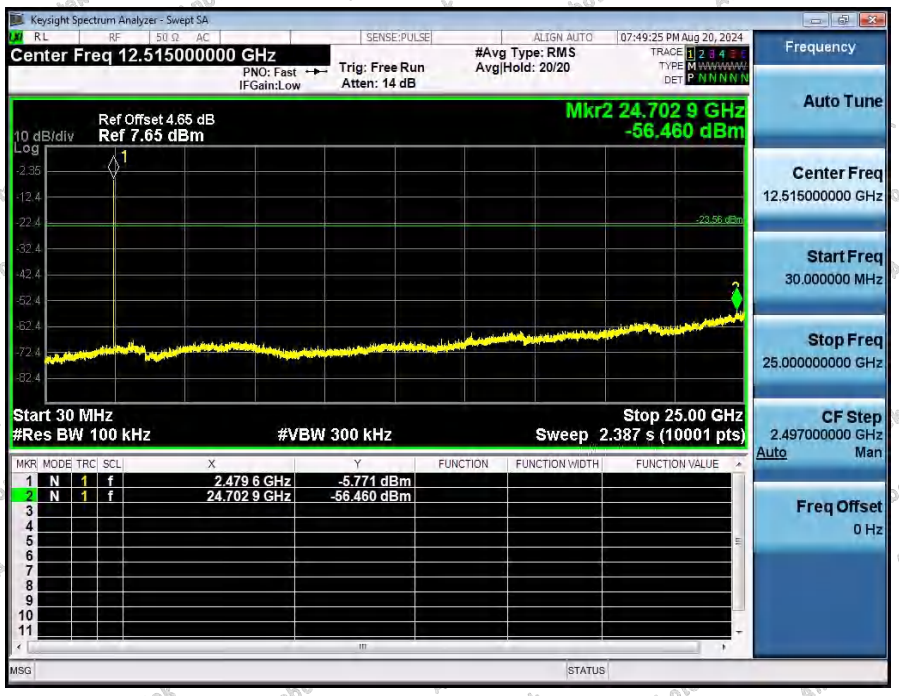
1_Reference_Level_NVNT_ANT1_2-DH5_2441_00

2_Spurious_Emissions_NVNT_ANT1_2-DH5_2441_00



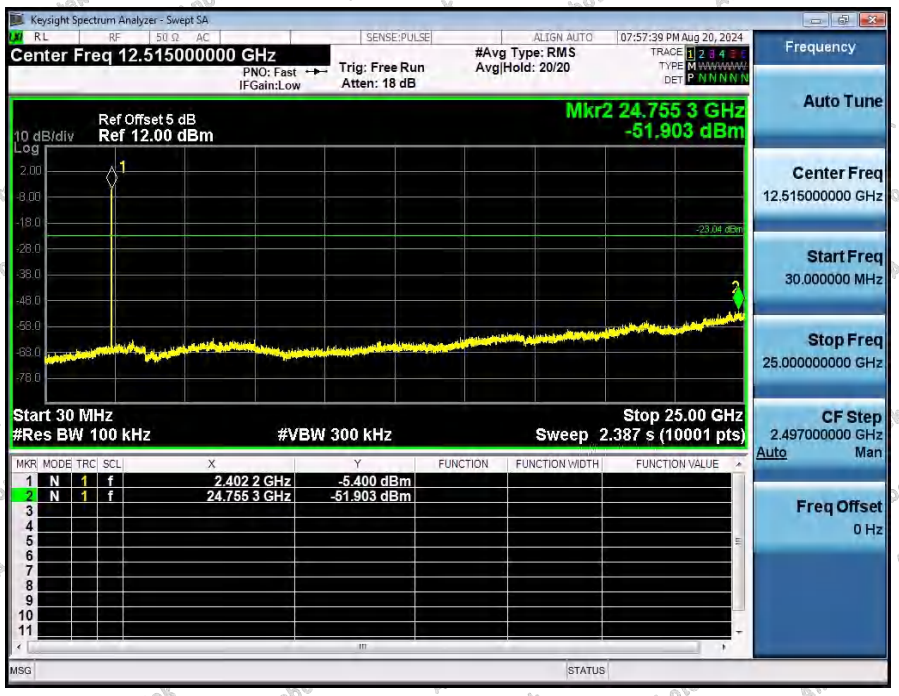
1_Reference_Level_NVNT_ANT1_2-DH5_2480_00

2_Spurious_Emissions_NVNT_ANT1_2-DH5_2480_00



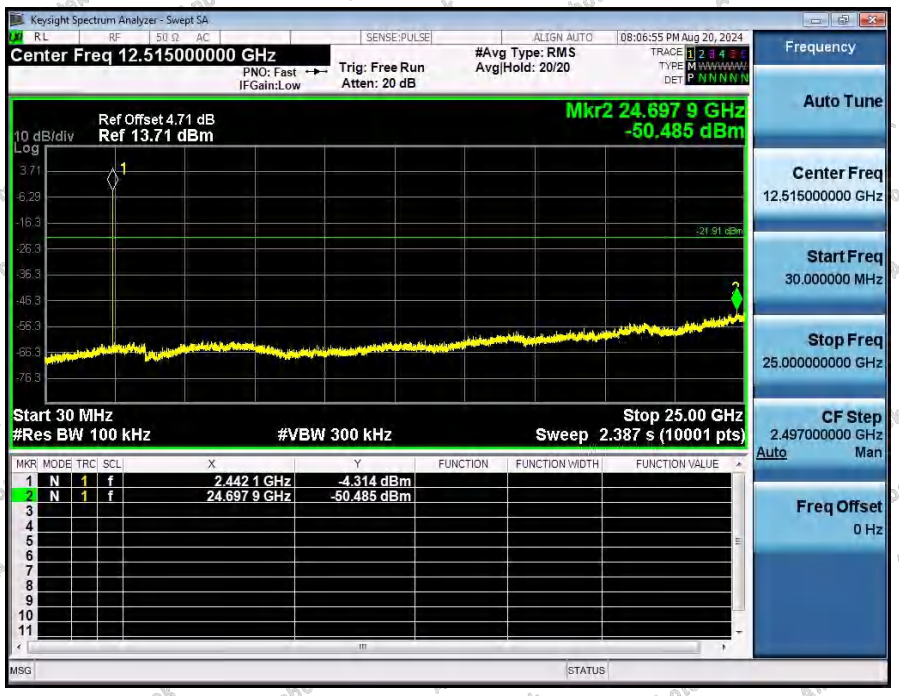
1_Reference_Level_NVNT_ANT1_3-DH5_2402_00

2_Spurious_Emissions_NVNT_ANT1_3-DH5_2402_00



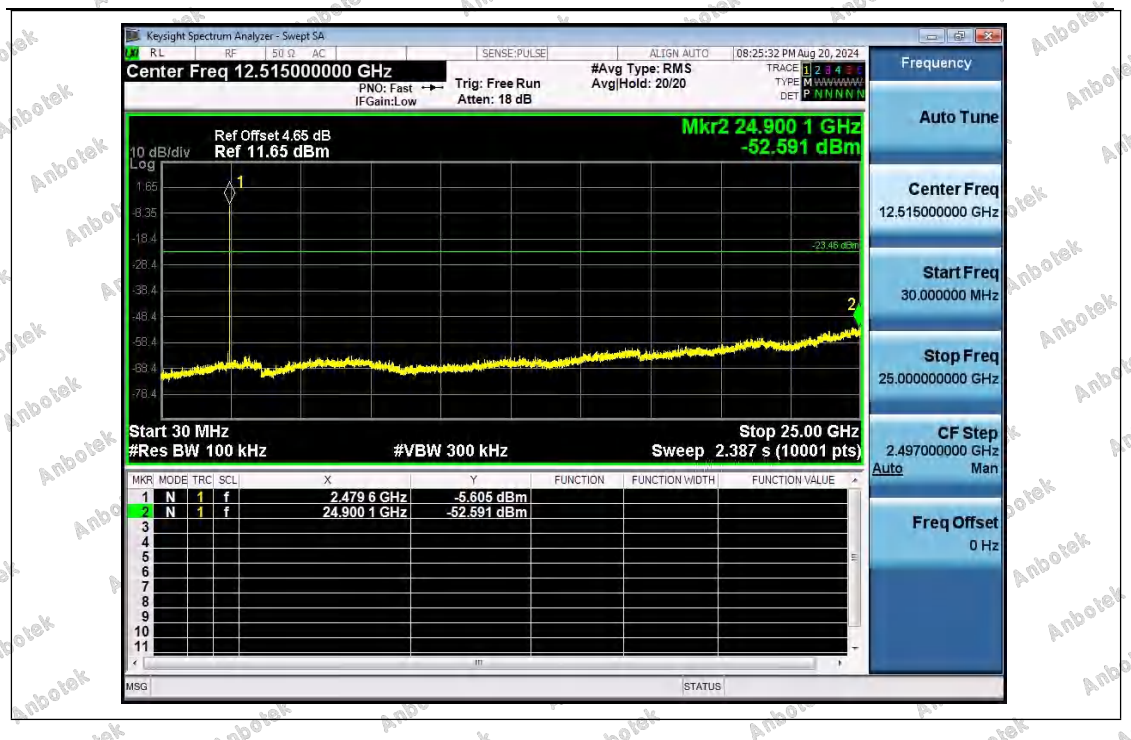
1_Reference_Level_NVNT_ANT1_3-DH5_2441_00

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

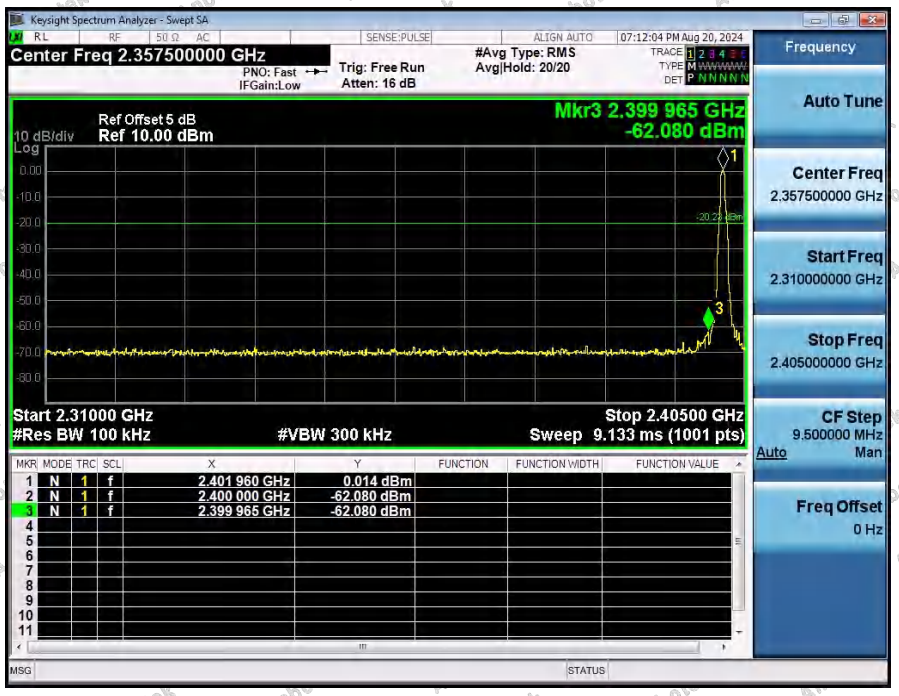

Keysight Spectrum Analyzer - Swept SA
Center Freq 12.515000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 18 dB
#Avg Type: RMS
Avg|Hold: 20/20
08:25:32 PM Aug 20, 2024
Ref Offset 4.65 dB
10 dB/div
Log
Ref 11.65 dBm
Mkr2 24.900 1 GHz
-52.591 dBm
-23.46 dBm
Start 30 MHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25.00 GHz
Sweep 2.387 s (10001 pts)
1 N 1 f 2.479 6 GHz -5.605 dBm
2 N 1 f 24.900 1 GHz -52.591 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
MSG
STATUS

Appendix E: Bandedge

Condition	Antenna	Modulation	TX Mode	Bandedge MAX.Value	Limit	Result
NVNT	ANT1	1-DH5	2402.00	-62.080	-20.232	Pass
NVNT	ANT1	1-DH5	Hopping_LCH	-66.327	-18.305	Pass
NVNT	ANT1	1-DH5	2480.00	-47.272	-20.675	Pass
NVNT	ANT1	1-DH5	Hopping_HCH	-65.842	-18.465	Pass
NVNT	ANT1	2-DH5	2402.00	-53.620	-23.073	Pass
NVNT	ANT1	2-DH5	Hopping_LCH	-57.705	-21.290	Pass
NVNT	ANT1	2-DH5	2480.00	-66.855	-23.562	Pass
NVNT	ANT1	2-DH5	Hopping_HCH	-52.825	-21.729	Pass
NVNT	ANT1	3-DH5	2402.00	-56.501	-23.040	Pass
NVNT	ANT1	3-DH5	Hopping_LCH	-56.328	-20.812	Pass
NVNT	ANT1	3-DH5	2480.00	-65.954	-23.459	Pass
NVNT	ANT1	3-DH5	Hopping_HCH	-61.506	-21.339	Pass

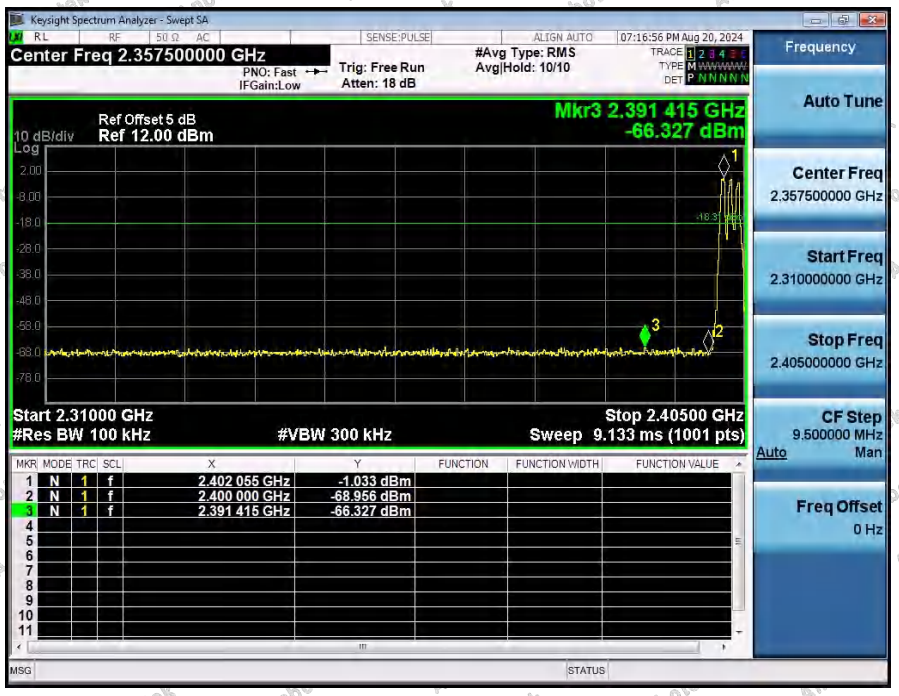
1_Reference_Level_NVNT_ANT1_1-DH5_2402_00

2_Bandedge_NVNT_ANT1_1-DH5_2402_00



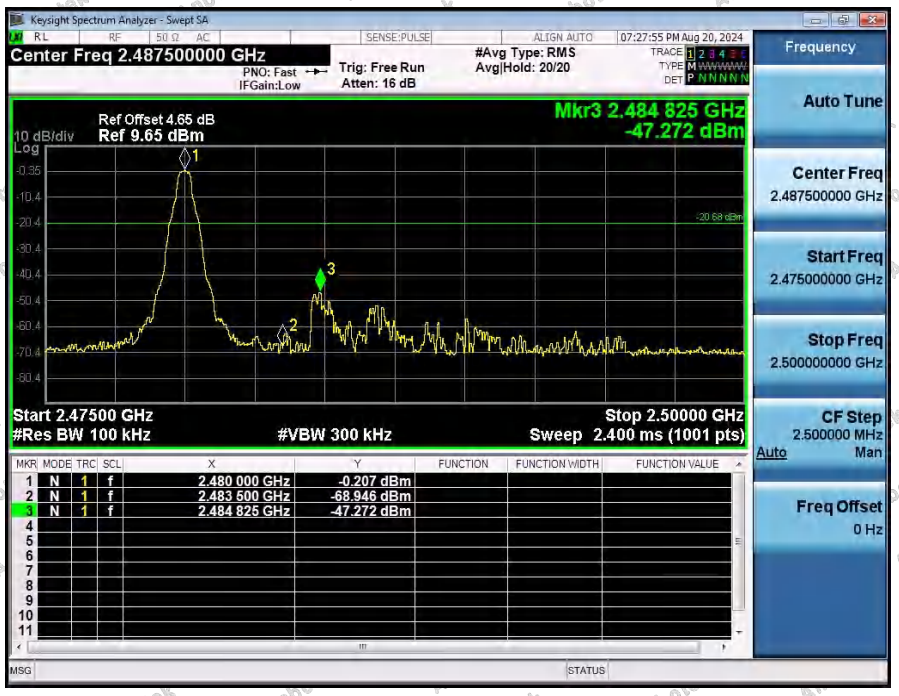
1_Reference_Level_Hopping_NVNT_ANT1_1-DH5_Hopping

2_Band_Edge_(Hopping)_NVNT_ANT1_1-DH5_Hopping



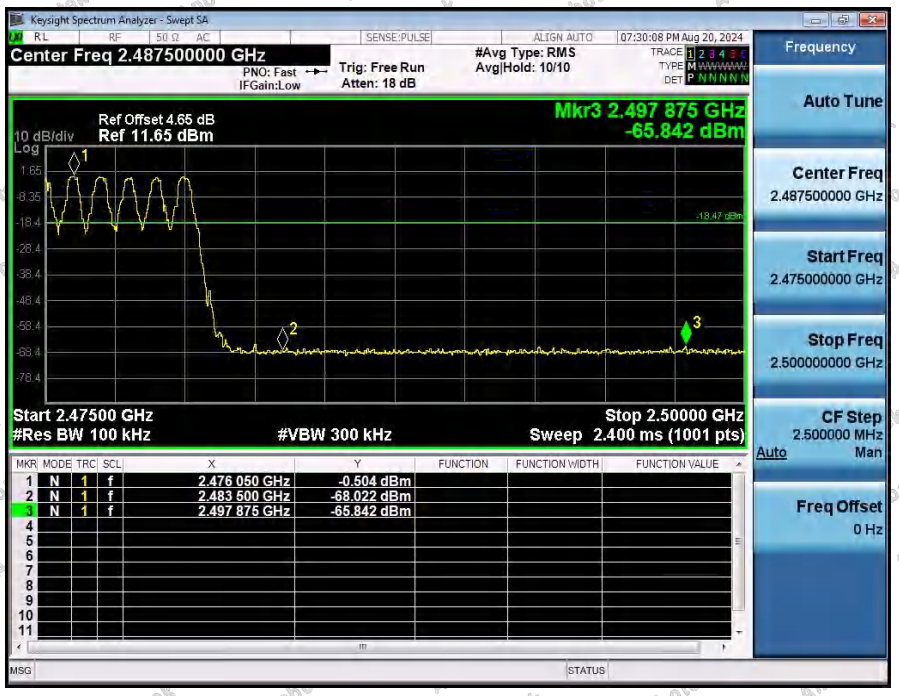
1_Reference_Level_NVNT_ANT1_1-DH5_2480_00

2_Bandedge_NVNT_ANT1_1-DH5_2480_00



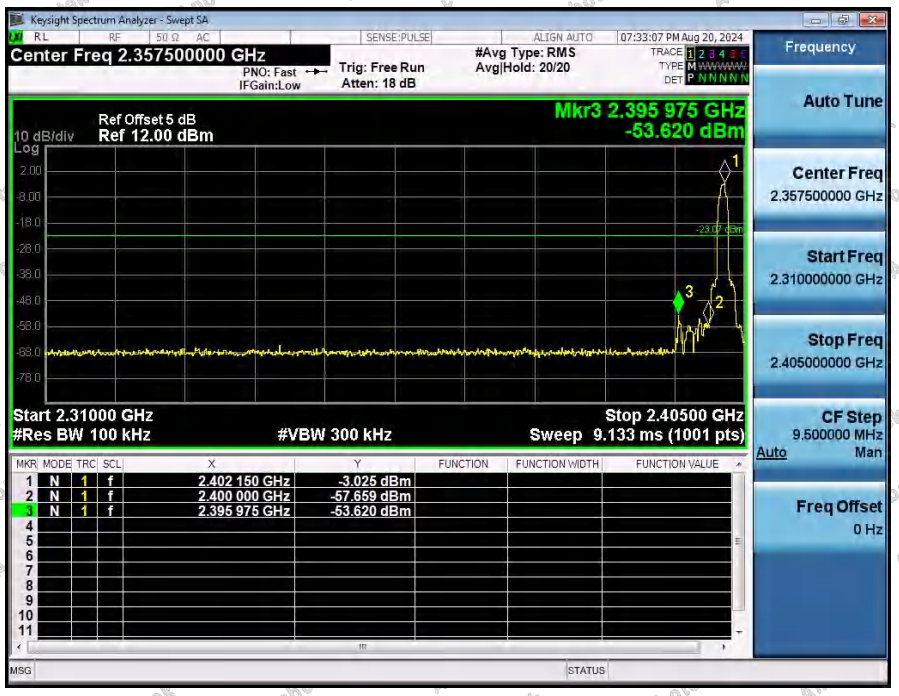
1_Reference_Level_Hopping_NVNT_ANT1_1-DH5_Hopping

2_Band_Edge_(Hopping)_NVNT_ANT1_1-DH5_Hopping

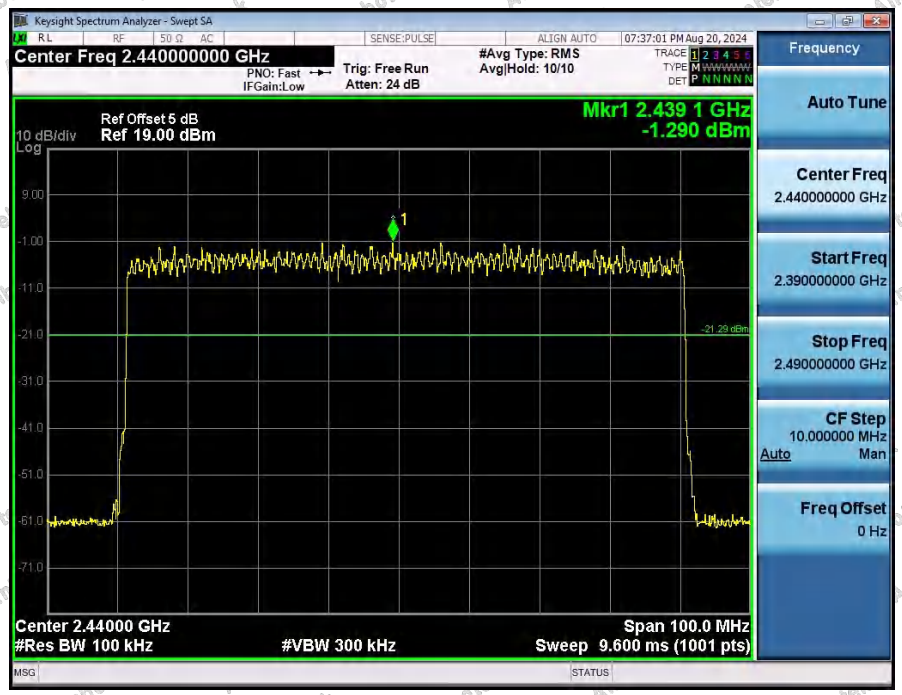


1_Reference_Level_NVNT_ANT1_2-DH5_2402_00

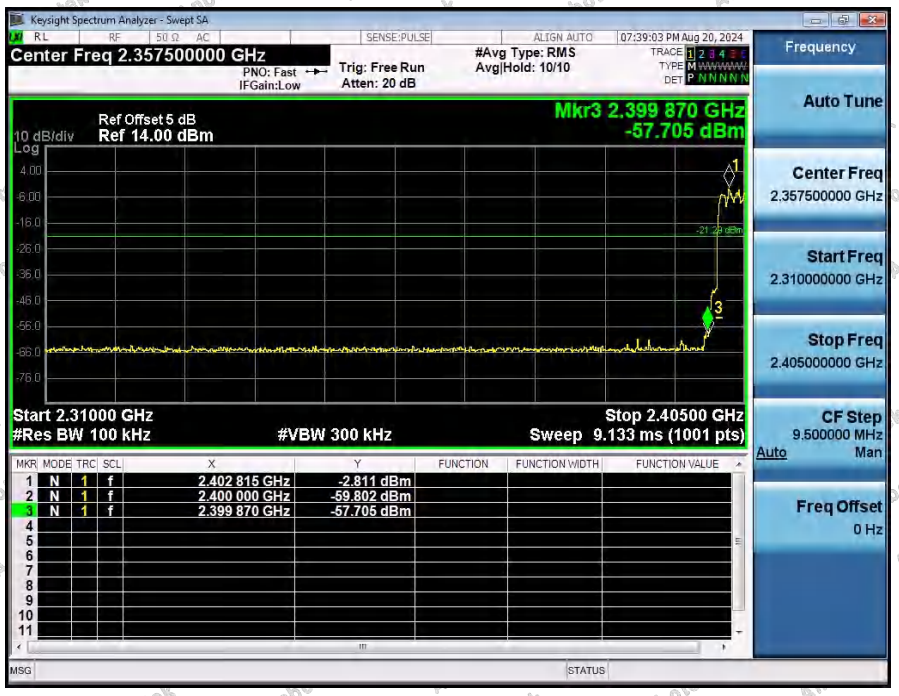
2_Bandedge_NVNT_ANT1_2-DH5_2402_00



1_Reference_Level_Hopping_NVNT_ANT1_2-DH5_Hopping

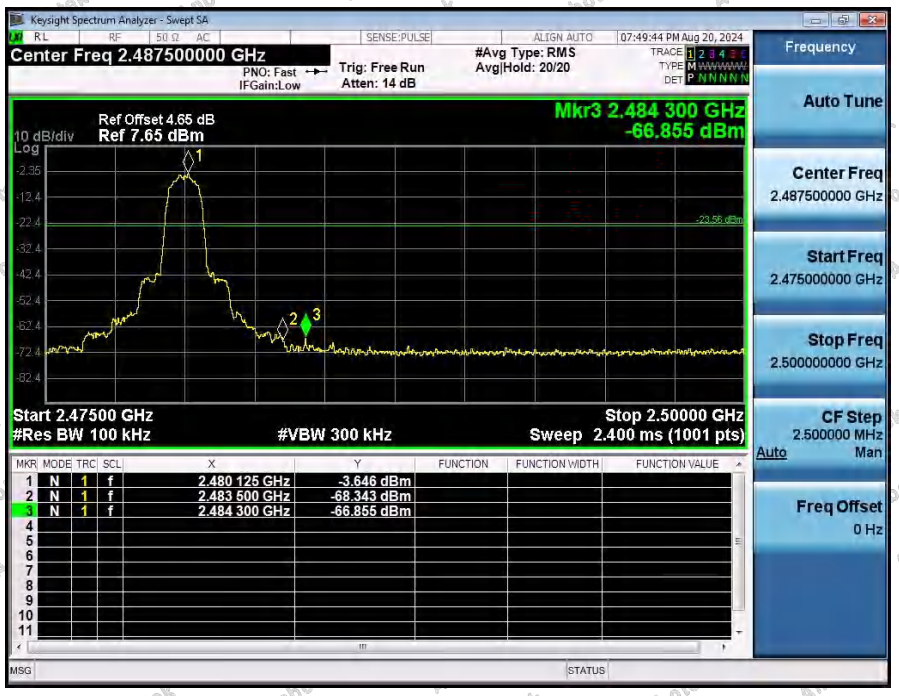


2_Band_Edge_(Hopping)_NVNT_ANT1_2-DH5_Hopping



1_Reference_Level_NVNT_ANT1_2-DH5_2480_00

2_Bandedge_NVNT_ANT1_2-DH5_2480_00

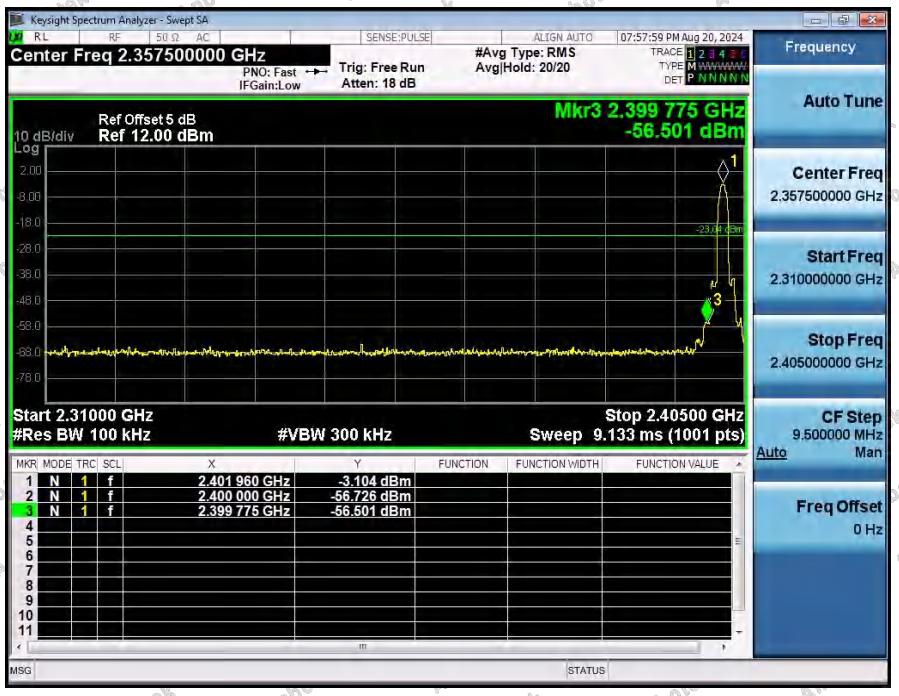


1_Reference_Level_Hopping_NVNT_ANT1_2-DH5_Hopping

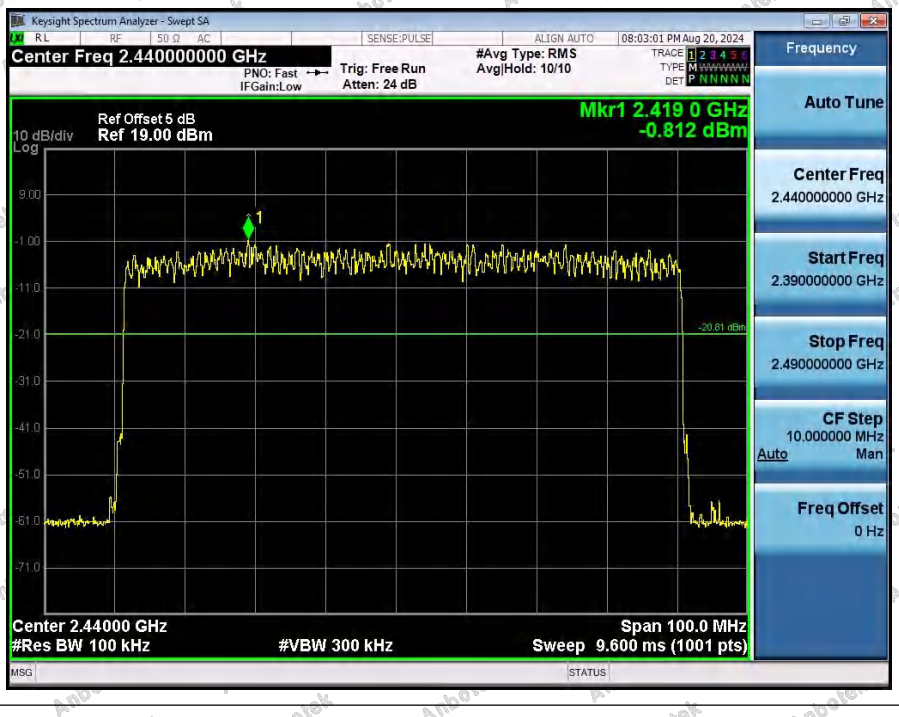
2_Band_Edge_(Hopping)_NVNT_ANT1_2-DH5_Hopping

1_Reference_Level_NVNT_ANT1_3-DH5_2402_00

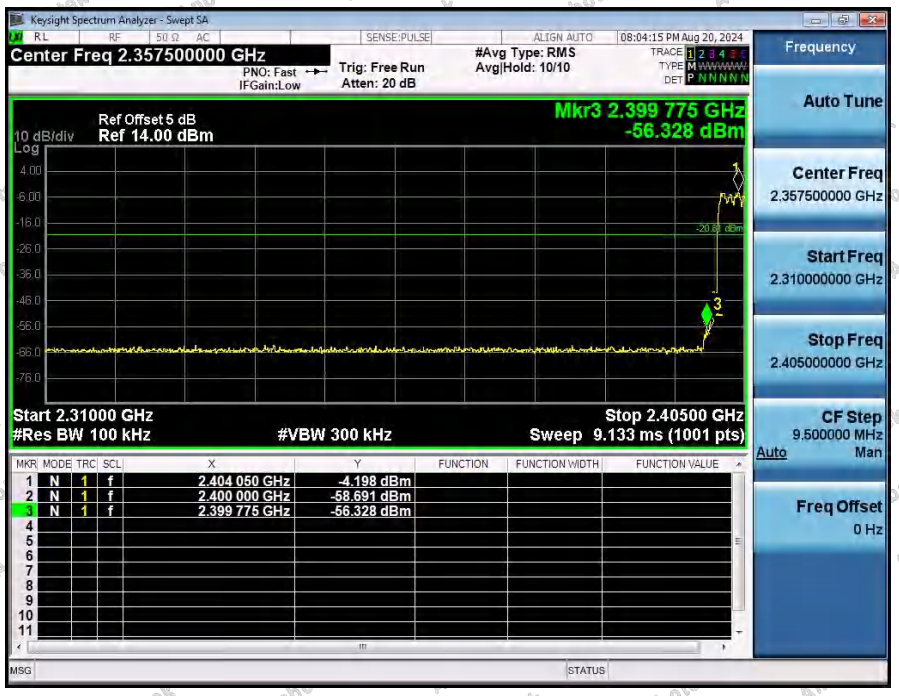
2_Bandedge_NVNT_ANT1_3-DH5_2402_00



1_Reference_Level_Hopping_NVNT_ANT1_3-DH5_Hopping

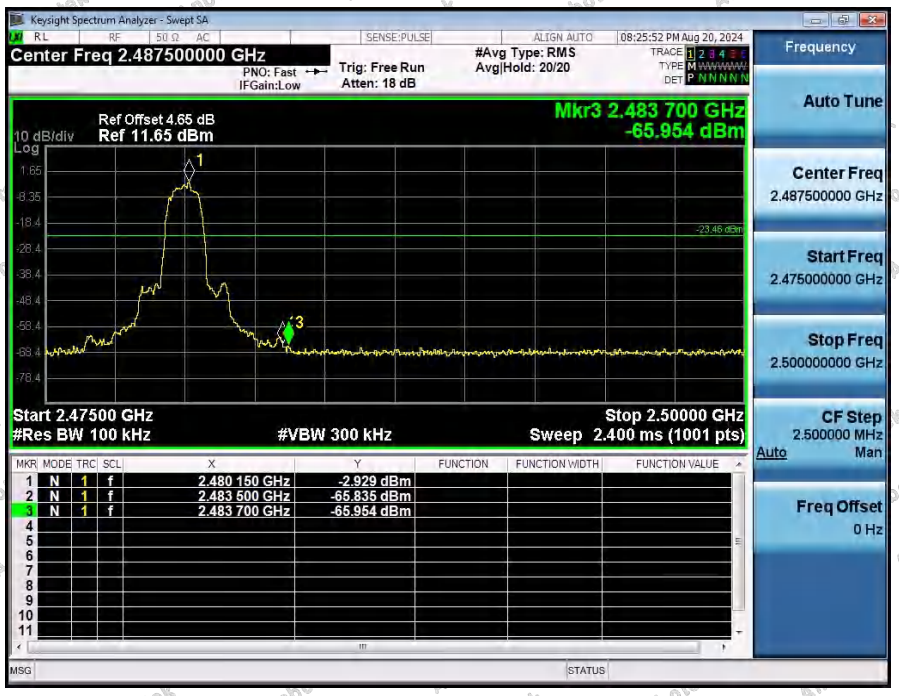


2_Band_Edge_(Hopping)_NVNT_ANT1_3-DH5_Hopping

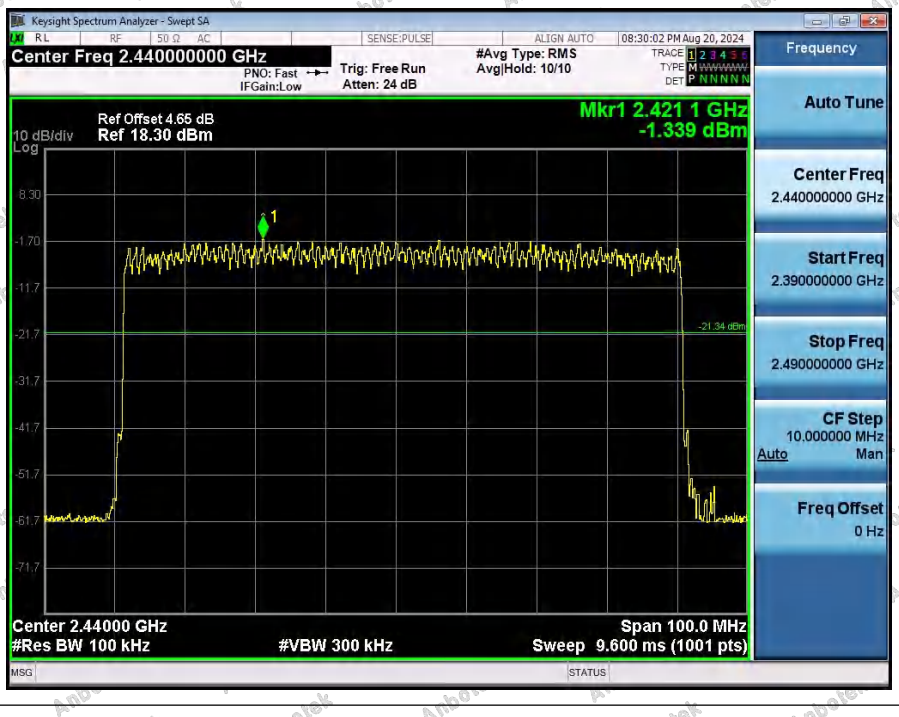


1_Reference_Level_NVNT_ANT1_3-DH5_2480_00

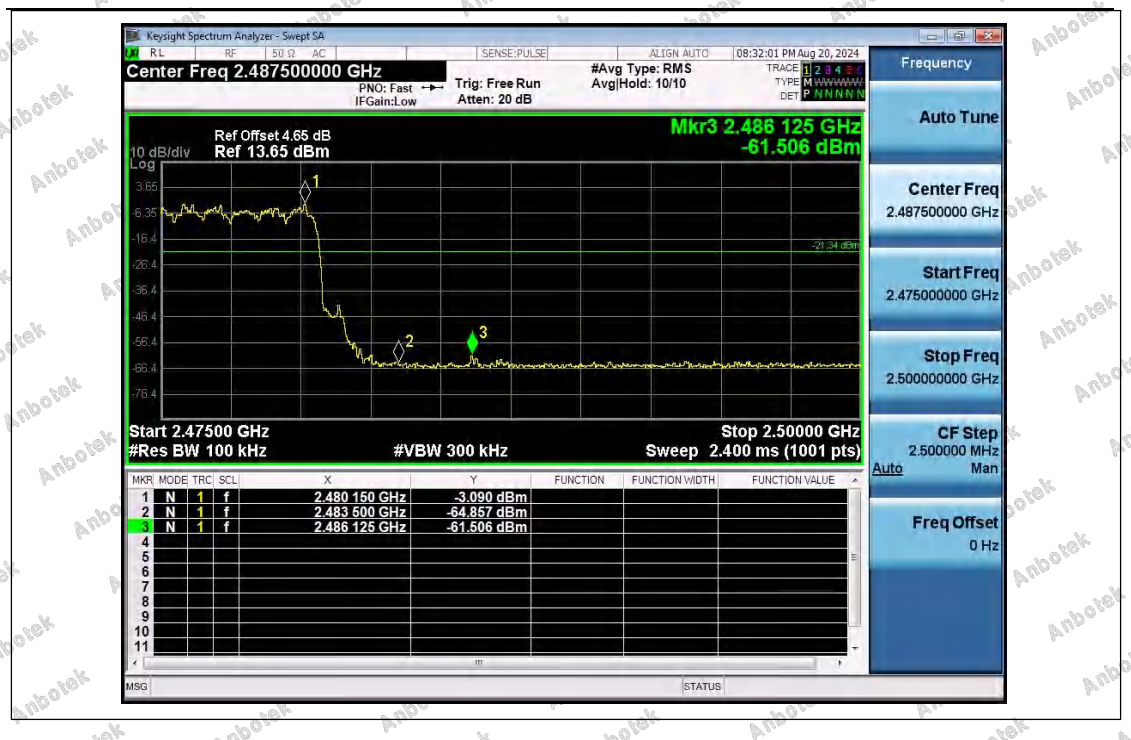
2_Bandedge_NVNT_ANT1_3-DH5_2480_00



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: RMS
Avg|Hold: 10/10
08:32:01 PM Aug 20, 2024
Ref Offset 4.65 dB
10 dB/div
Log
Ref 13.65 dBm
Mkr3 2.486 125 GHz
-61.506 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 2.480 150 GHz -3.090 dBm
2 N 1 f 2.483 500 GHz -64.857 dBm
3 N 1 f 2.486 125 GHz -61.506 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
MSG
STATUS

Appendix F: 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	2440.810	2442.007	1.20	0.845	Pass
NVNT	ANT1	2-DH5	2441.00	2441.035	2441.980	0.94	0.885	Pass
NVNT	ANT1	3-DH5	2441.00	2440.972	2442.037	1.06	0.873	Pass

Carrier_Frequencies_Separation_(Hopping)_NVNT_ANT1_1-DH5_Hopping

Carrier_Frequencies_Separation_(Hopping)_NVNT_ANT1_2-DH5_Hopping

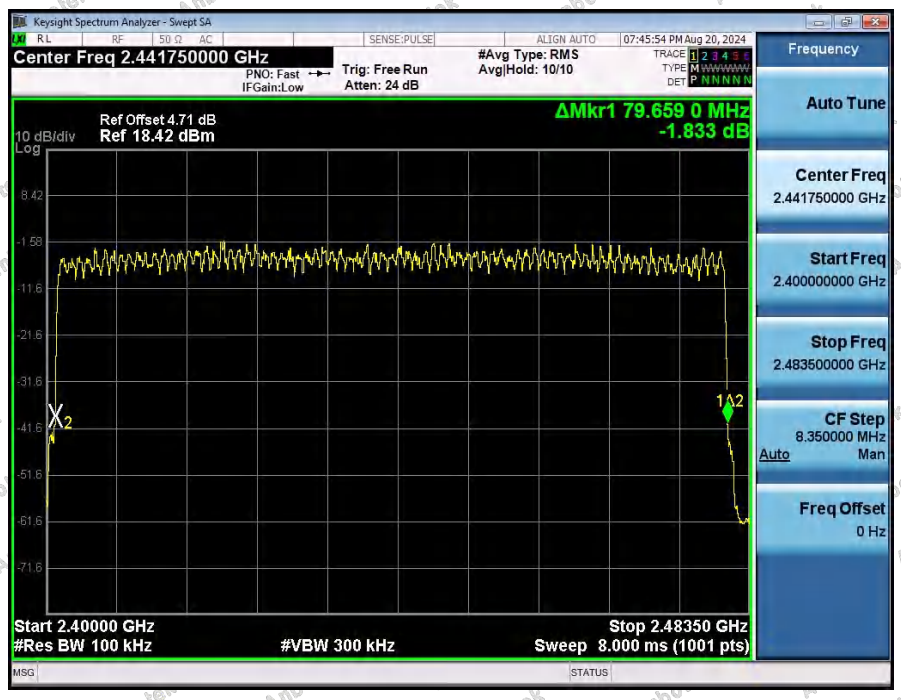
Carrier_Frequencies_Separation_(Hopping)_NVNT_ANT1_3-DH5_Hopping

Appendix G: Number of Hopping Channel (Hopping)

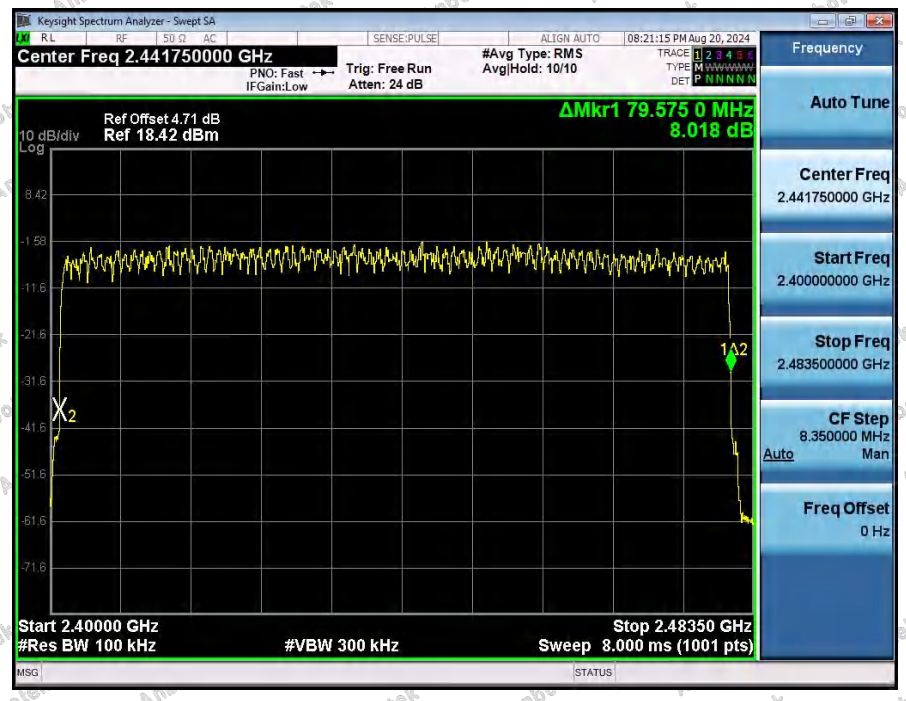
Condition	Antenna	Modulation	Hopping Num	Limit	Result
NVNT	ANT1	1-DH5	79	75	Pass
NVNT	ANT1	2-DH5	79	15	Pass
NVNT	ANT1	3-DH5	79	15	Pass

Number_of_Hopping_Channel_(Hopping)_NVNT_ANT1_1-DH5_Hopping

Number_of_Hopping_Channel_(Hopping)_NVNT_ANT1_2-DH5_Hopping



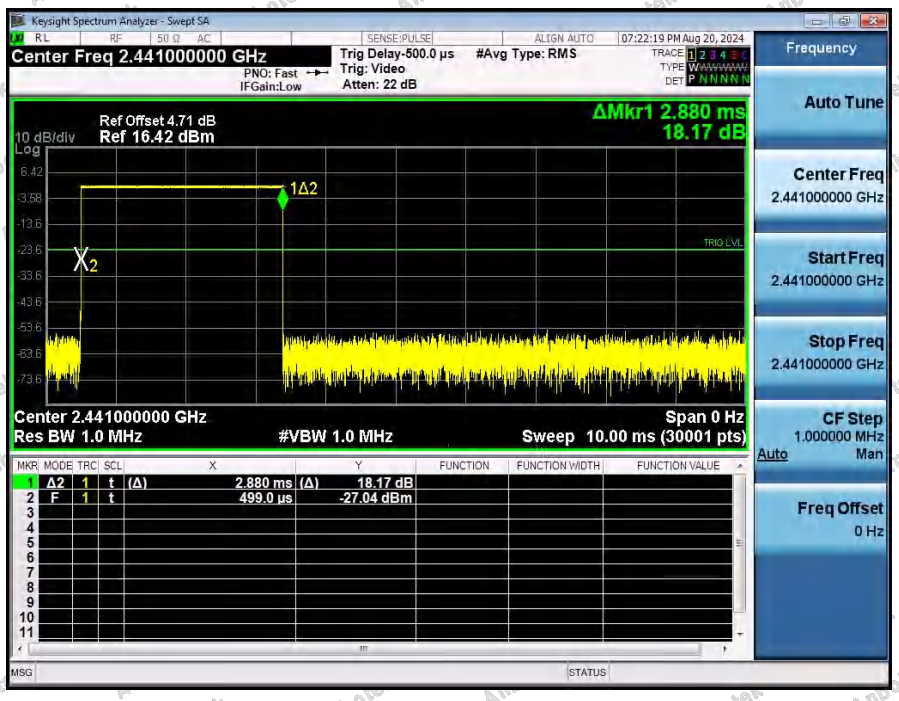
Number_of_Hopping_Channel_(Hopping)_NVNT_ANT1_3-DH5_Hopping



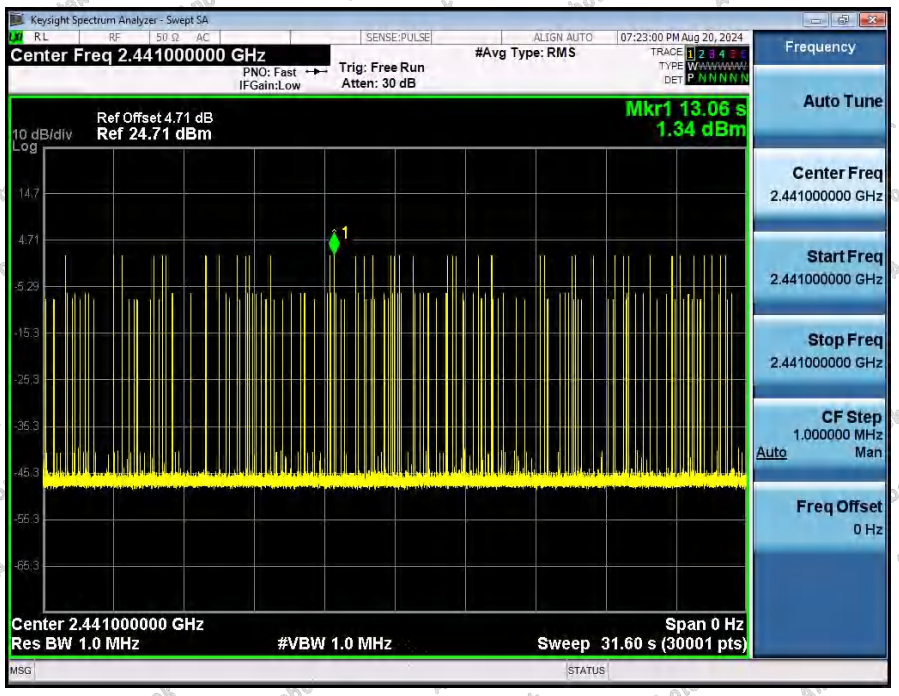
Appendix H: Dwell Time (Hopping)

Condition	Antenna	Packet Type	Pulse Time(ms)	Hops	Dwell Time(ms)	Limit(s)	Result
NVNT	ANT1	1-DH5	2.880	44.00	126.720	0.40	Pass
NVNT	ANT1	2-DH5	2.884	57.00	164.388	0.40	Pass
NVNT	ANT1	3-DH5	2.907	111.00	322.677	0.40	Pass
NVNT	ANT1	1-DH1	0.376	115.00	43.240	0.40	Pass
NVNT	ANT1	1-DH3	1.632	48.00	78.336	0.40	Pass
NVNT	ANT1	2-DH1	0.385	120.00	46.200	0.40	Pass
NVNT	ANT1	2-DH3	1.636	54.00	88.344	0.40	Pass
NVNT	ANT1	3-DH1	0.384	119.00	45.696	0.40	Pass
NVNT	ANT1	3-DH3	1.635	71.00	116.085	0.40	Pass

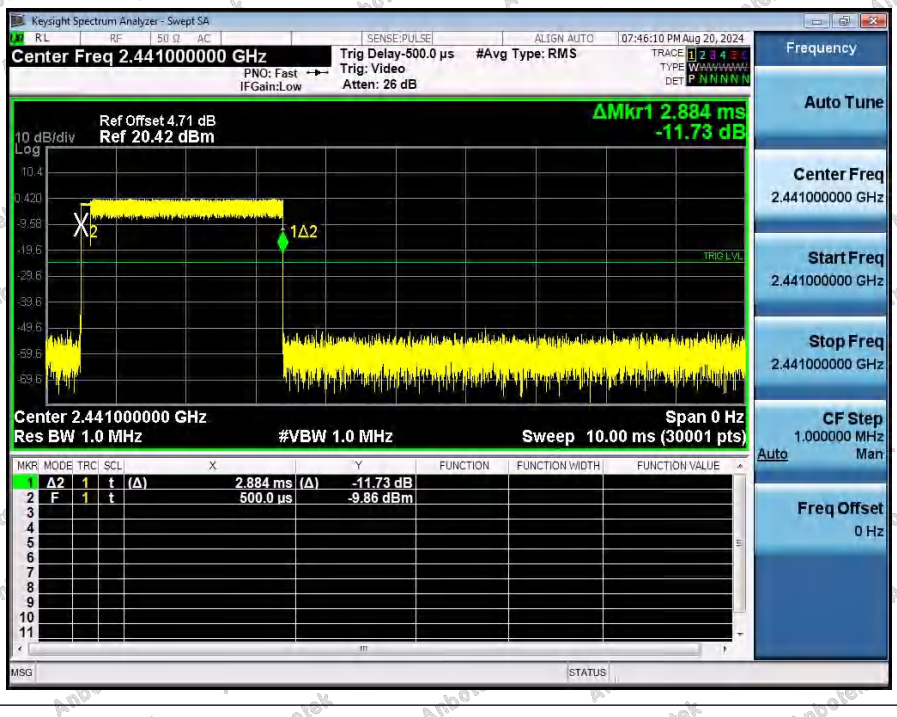
Dwell_Time_(Hopping)_NVNT_ANT1_1-DH5_2441_00_One_Burst_Time



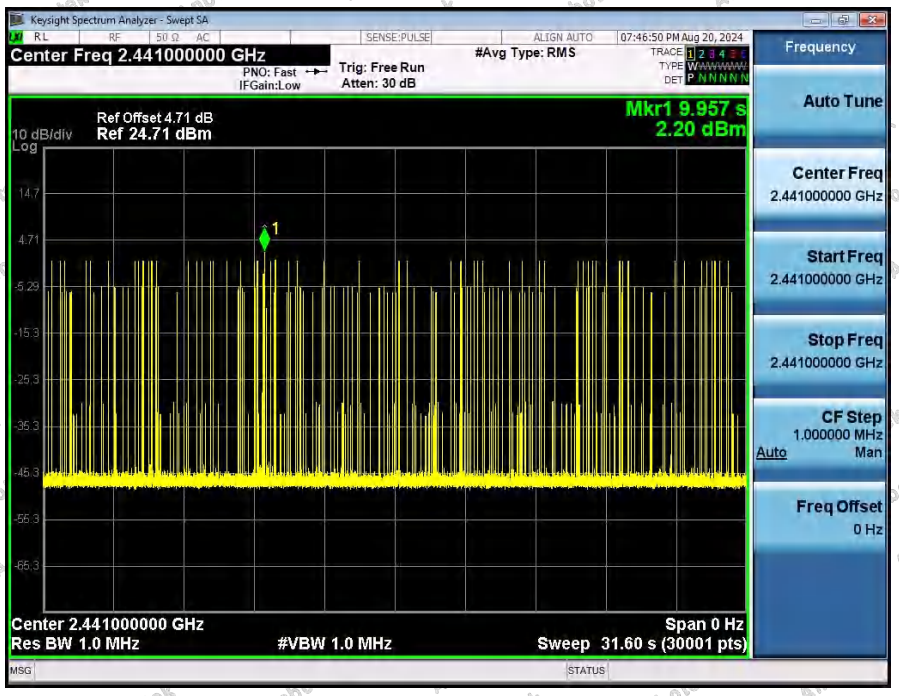
Dwell_Time_(Hopping)_NVNT_ANT1_1-DH5_2441_00_Accumulated



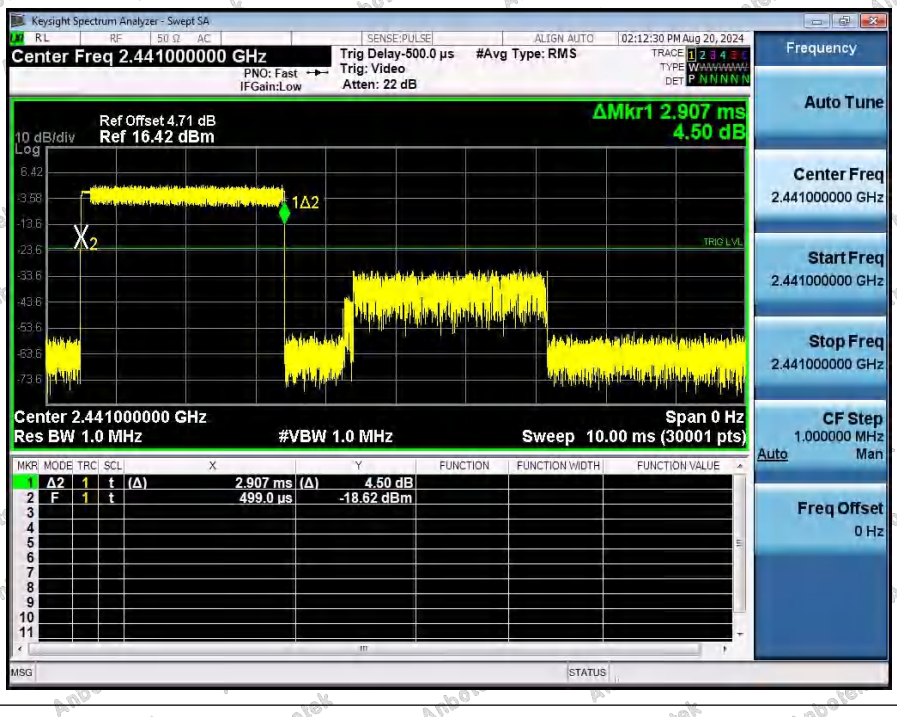
Dwell_Time_(Hopping)_NVNT_ANT1_2-DH5_2441_00_One_Burst_Time



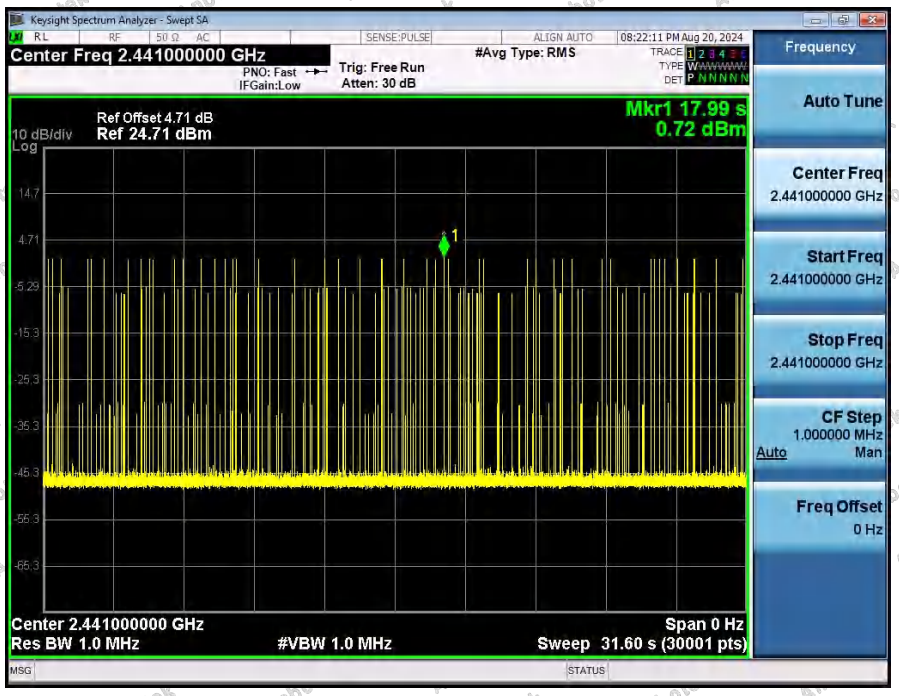
Dwell_Time_(Hopping)_NVNT_ANT1_2-DH5_2441_00_Accumulated



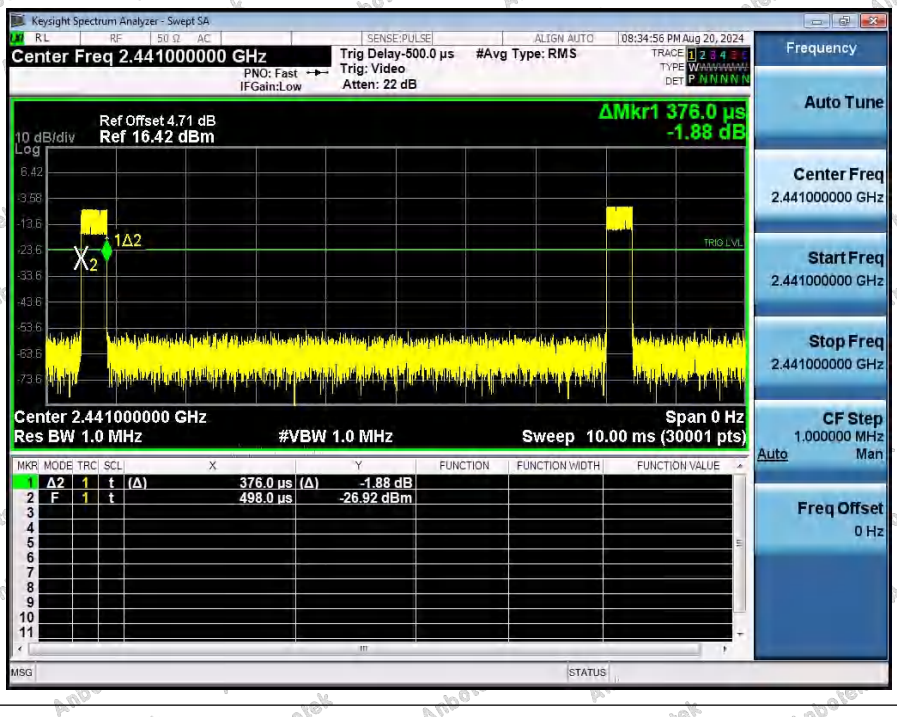
Dwell_Time_(Hopping)_NVNT_ANT1_3-DH5_2441_00_One_Burst_Time



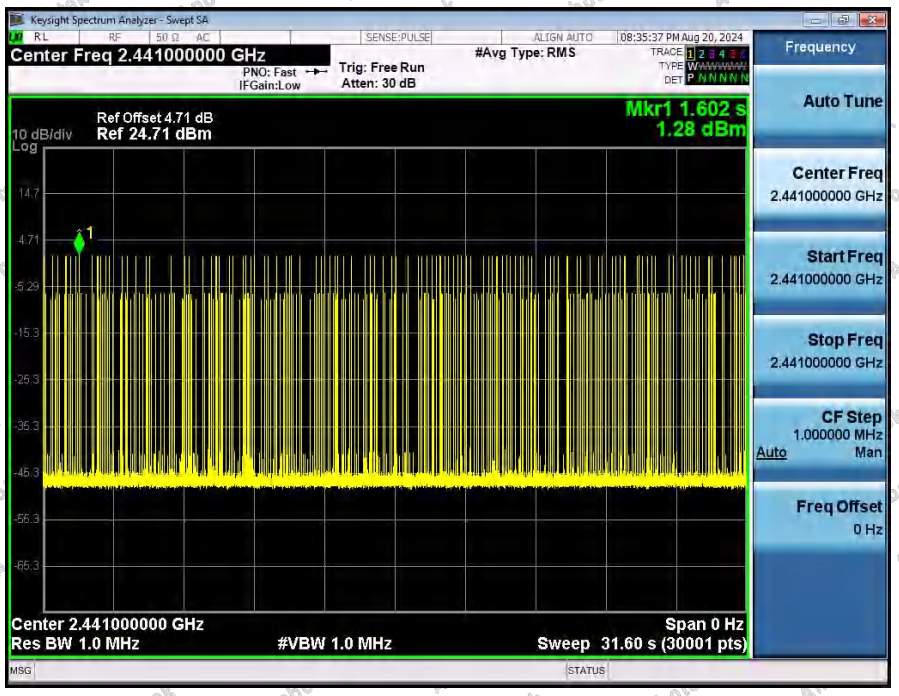
Dwell_Time_(Hopping)_NVNT_ANT1_3-DH5_2441_00_Accumulated



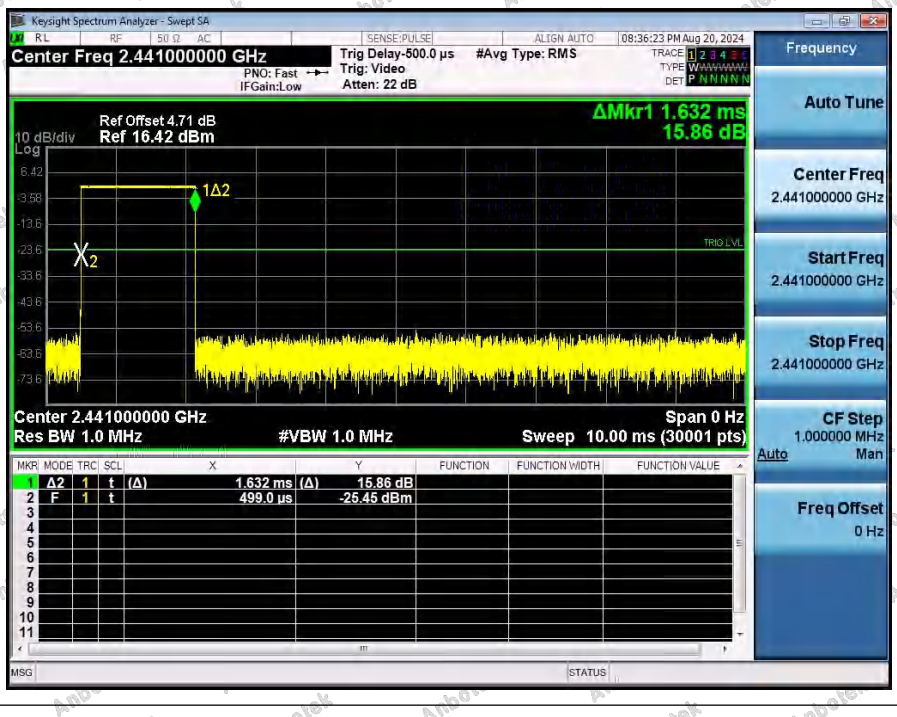
Dwell_Time_(Hopping)_NVNT_ANT1_1-DH1_2441_00_One_Burst_Time



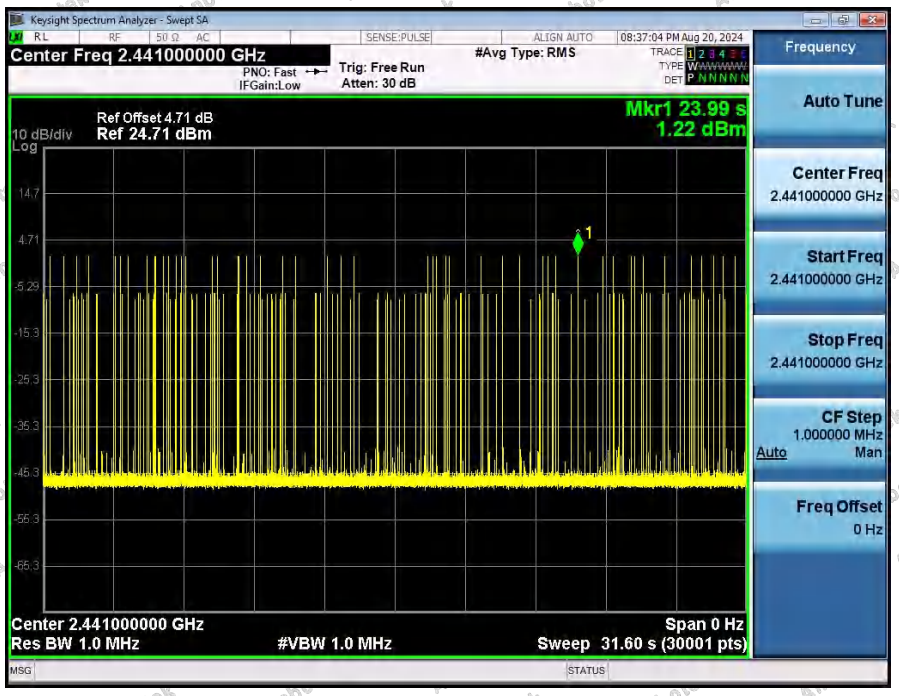
Dwell_Time_(Hopping)_NVNT_ANT1_1-DH1_2441_00_Accumulated



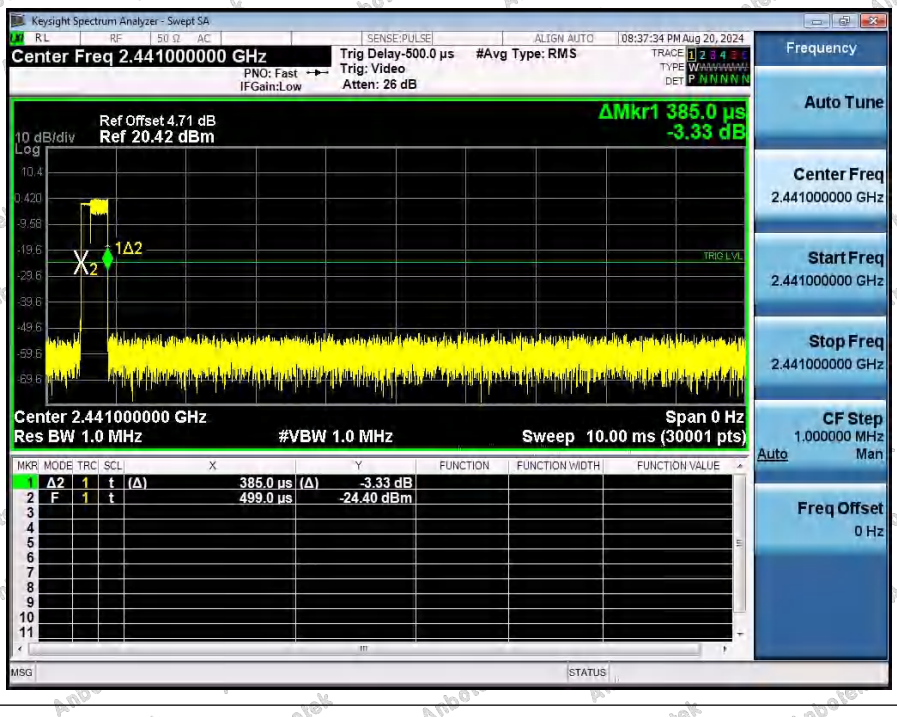
Dwell_Time_(Hopping)_NVNT_ANT1_1-DH3_2441_00_One_Burst_Time



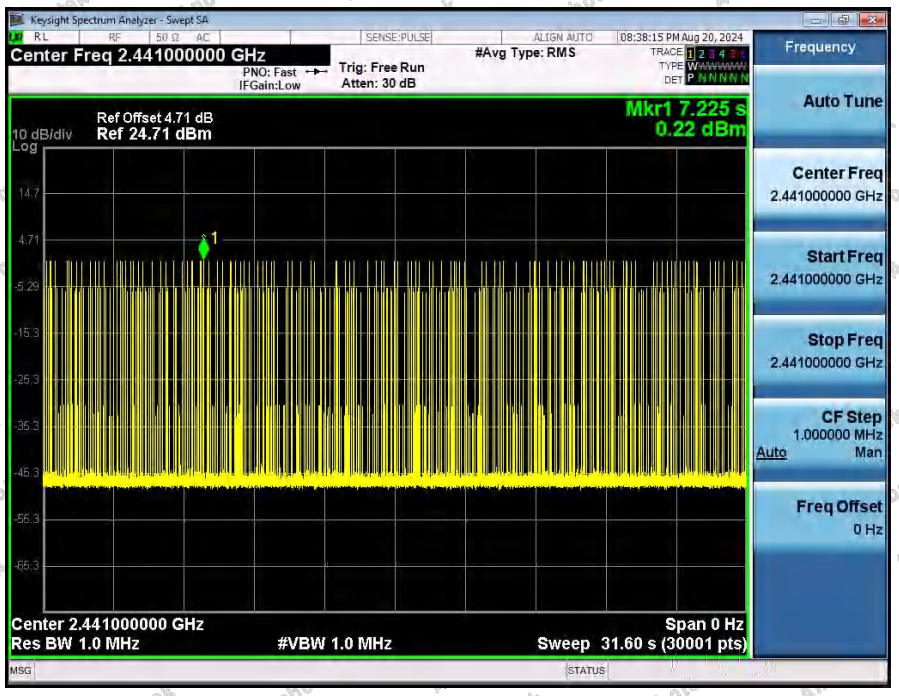
Dwell_Time_(Hopping)_NVNT_ANT1_1-DH3_2441_00_Accumulated



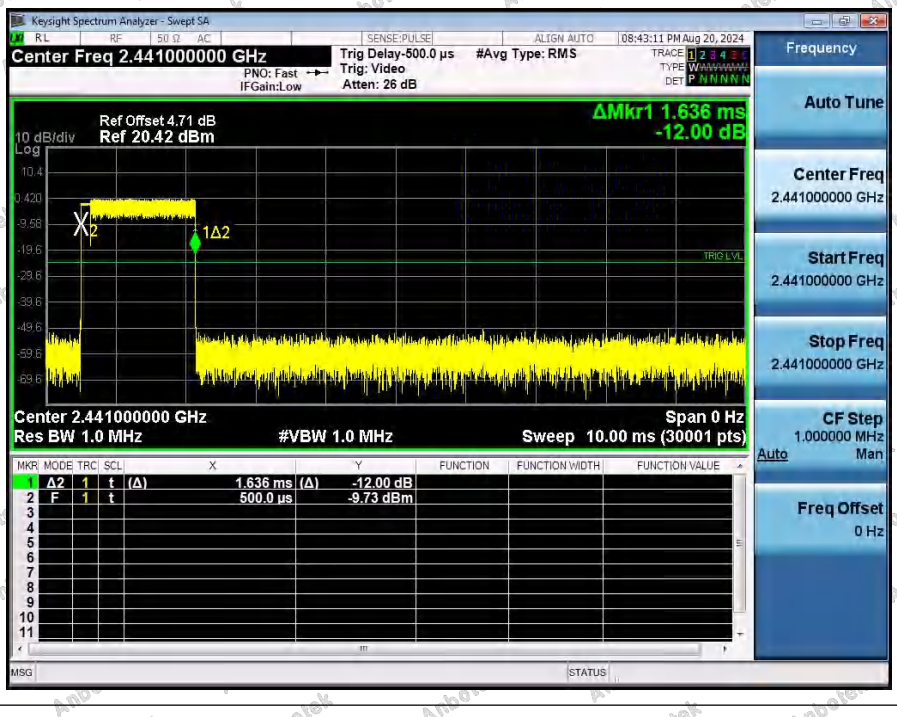
Dwell_Time_(Hopping)_NVNT_ANT1_2-DH1_2441_00_One_Burst_Time



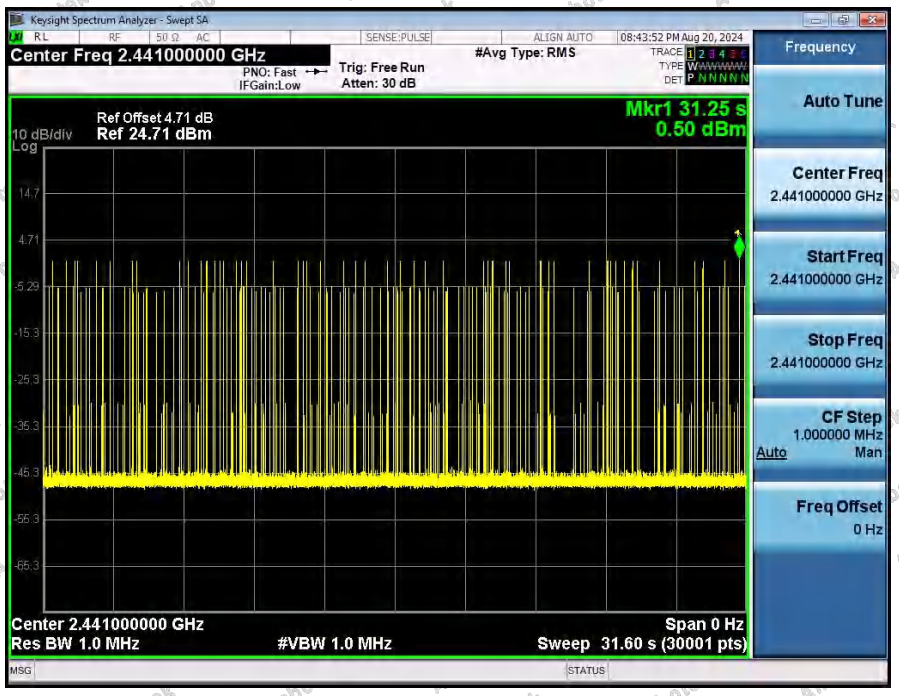
Dwell_Time_(Hopping)_NVNT_ANT1_2-DH1_2441_00_Accumulated



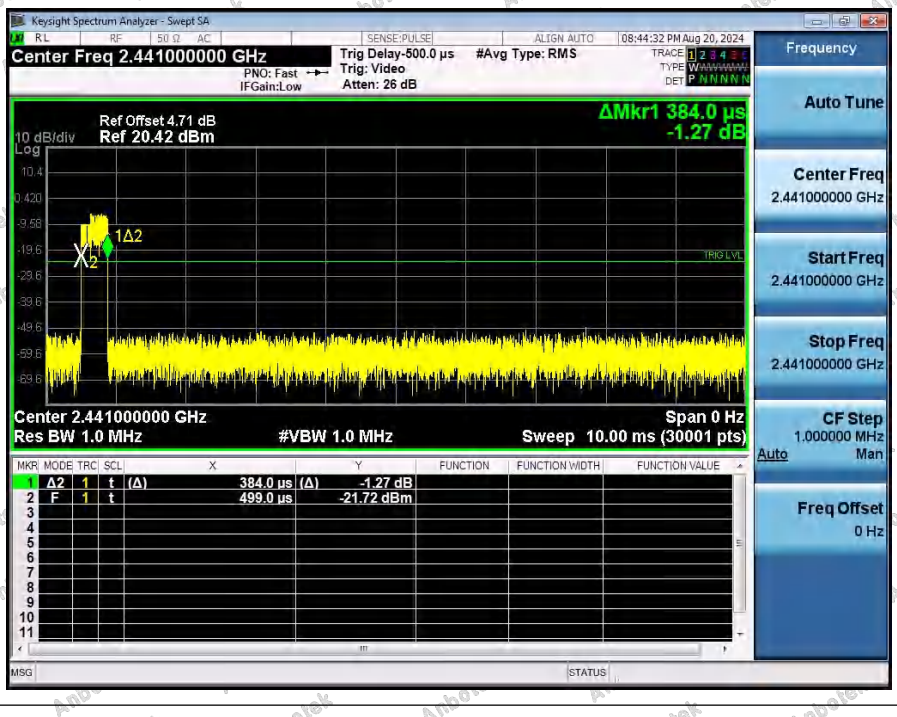
Dwell_Time_(Hopping)_NVNT_ANT1_2-DH3_2441_00_One_Burst_Time



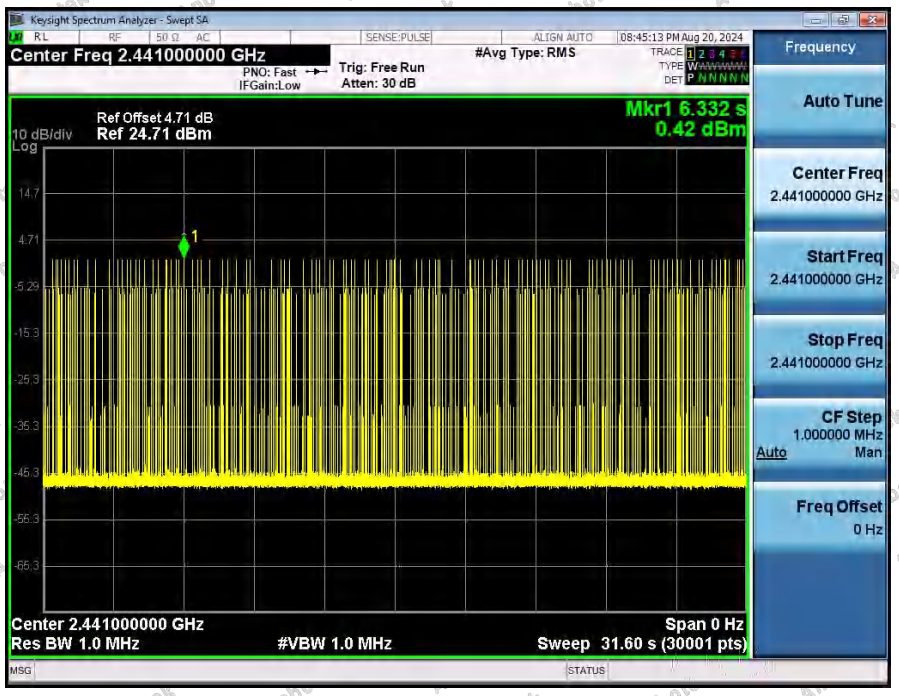
Dwell_Time_(Hopping)_NVNT_ANT1_2-DH3_2441_00_Accumulated



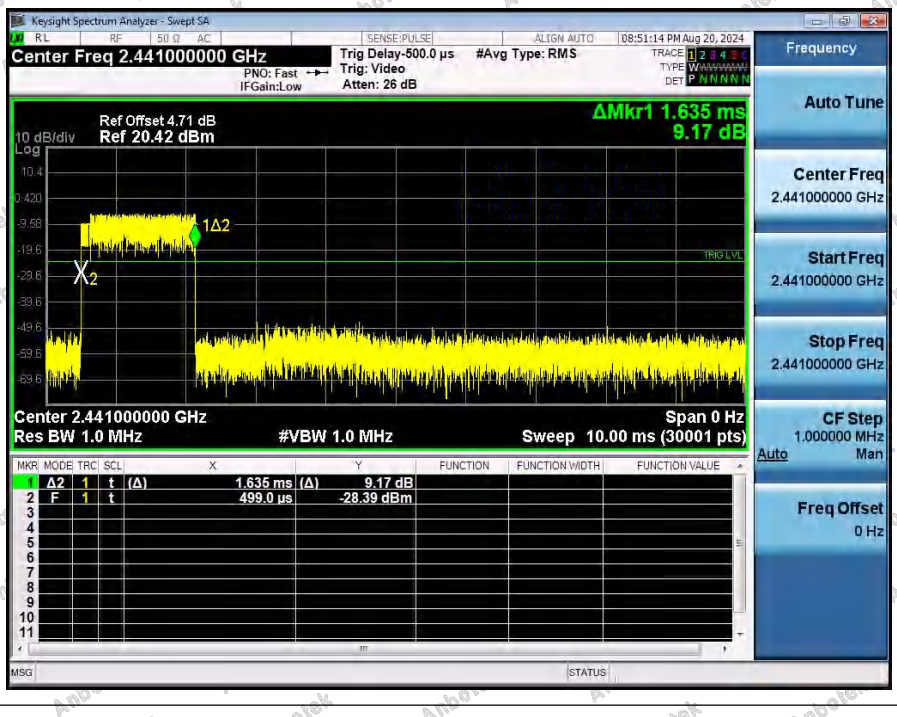
Dwell_Time_(Hopping)_NVNT_ANT1_3-DH1_2441_00_One_Burst_Time



Dwell_Time_(Hopping)_NVNT_ANT1_3-DH1_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


Keysight Spectrum Analyzer - Swept SA
Center Freq 2.441000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
#Avg Type: RMS
08:51:54 PM Aug 20, 2024
Ref Offset 4.71 dB
10 dB/div
Ref 24.71 dBm
Log
Mkr1 17.89 s
0.70 dBm
14.7
4.71
-5.29
-15.3
-25.3
-35.3
-45.3
-55.3
-65.3
Center 2.441000000 GHz
Res BW 1.0 MHz
#VBW 1.0 MHz
Span 0 Hz
Sweep 31.60 s (30001 pts)
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
MSG
STATUS

---END---