

FCC TEST DATA

FCC ID: 2AYGN-M22

Product : Wireless speakers
Model Name : M22
Brand : N/A
Report No. : NCT24034887XE1-1

Prepared for

Dongguan Harmony Electronic Technology Co., Ltd.

Hongyun Road, Shuibei Industrial Zone, Shipai Town, Dongguan, Guangdong, China

Prepared by

Shenzhen NCT Testing Technology Co., Ltd.

**A101&2F B2, Fuqiao 6th Area, Xintian Community, Fuhai Street, Baoan District, Shenzhen,
People's Republic of China**

TEL: 400-8868-419

FAX: 86-755-27790922

Table of Contents

1. -20dB Bandwidth	3
2. 99% Occupied Bandwidth	8
3. Peak Output Power	13
4. Spurious Emissions	18
5. Bandedge	27
6. Carrier Frequencies Separation (Hopping)	40
7. Number of Hopping Channel (Hopping)	45
8. Dwell Time (Hopping)	47

FCC ID EDR

FCC_BT (Part15.247) Test Data

1. -20dB Bandwidth

Condition	Antenna	Modulation	Frequency (MHz)	-20dB BW(MHz)	if larger than CFS
NVNT	ANT1	1-DH1	2402.00	1.025	Yes
NVNT	ANT1	1-DH1	2441.00	1.036	Yes
NVNT	ANT1	1-DH1	2480.00	1.036	Yes
NVNT	ANT1	2-DH1	2402.00	1.296	Yes
NVNT	ANT1	2-DH1	2441.00	1.291	Yes
NVNT	ANT1	2-DH1	2480.00	1.287	Yes
NVNT	ANT1	3-DH1	2402.00	1.259	Yes
NVNT	ANT1	3-DH1	2441.00	1.253	Yes
NVNT	ANT1	3-DH1	2480.00	1.265	Yes



-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

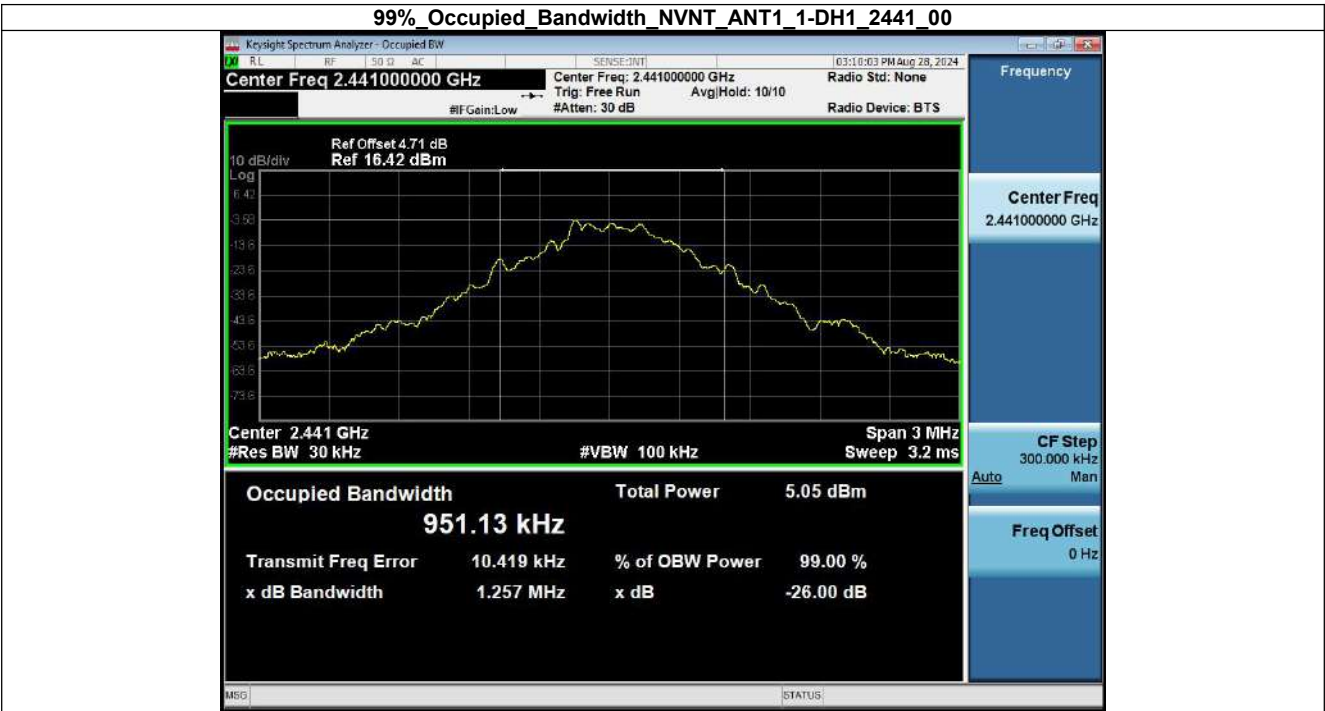


-20dB Bandwidth NVNT_ANT1_3-DH1_2480_00



2. 99% Occupied Bandwidth

Condition	Antenna	Modulation	Frequency (MHz)	99% BW (MHz)
NVNT	ANT1	1-DH1	2402.00	0.916
NVNT	ANT1	1-DH1	2441.00	0.951
NVNT	ANT1	1-DH1	2480.00	0.969
NVNT	ANT1	2-DH1	2402.00	1.199
NVNT	ANT1	2-DH1	2441.00	1.210
NVNT	ANT1	2-DH1	2480.00	1.211
NVNT	ANT1	3-DH1	2402.00	1.181
NVNT	ANT1	3-DH1	2441.00	1.190
NVNT	ANT1	3-DH1	2480.00	1.191



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



3. Peak Output Power

Condition	Antenna	Modulation	Frequency (MHz)	Max. Conducted Power(dBm)	Max. Conducted Power(mW)	Limit(mW)	Result
NVNT	ANT1	1-DH1	2402.00	-1.70	0.68	125	Pass
NVNT	ANT1	1-DH1	2441.00	-1.86	0.65	125	Pass
NVNT	ANT1	1-DH1	2480.00	-2.17	0.61	125	Pass
NVNT	ANT1	2-DH1	2402.00	-0.85	0.82	125	Pass
NVNT	ANT1	2-DH1	2441.00	-0.98	0.80	125	Pass
NVNT	ANT1	2-DH1	2480.00	-1.32	0.74	125	Pass
NVNT	ANT1	3-DH1	2402.00	-0.30	0.93	125	Pass
NVNT	ANT1	3-DH1	2441.00	-0.43	0.91	125	Pass
NVNT	ANT1	3-DH1	2480.00	-0.72	0.85	125	Pass



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

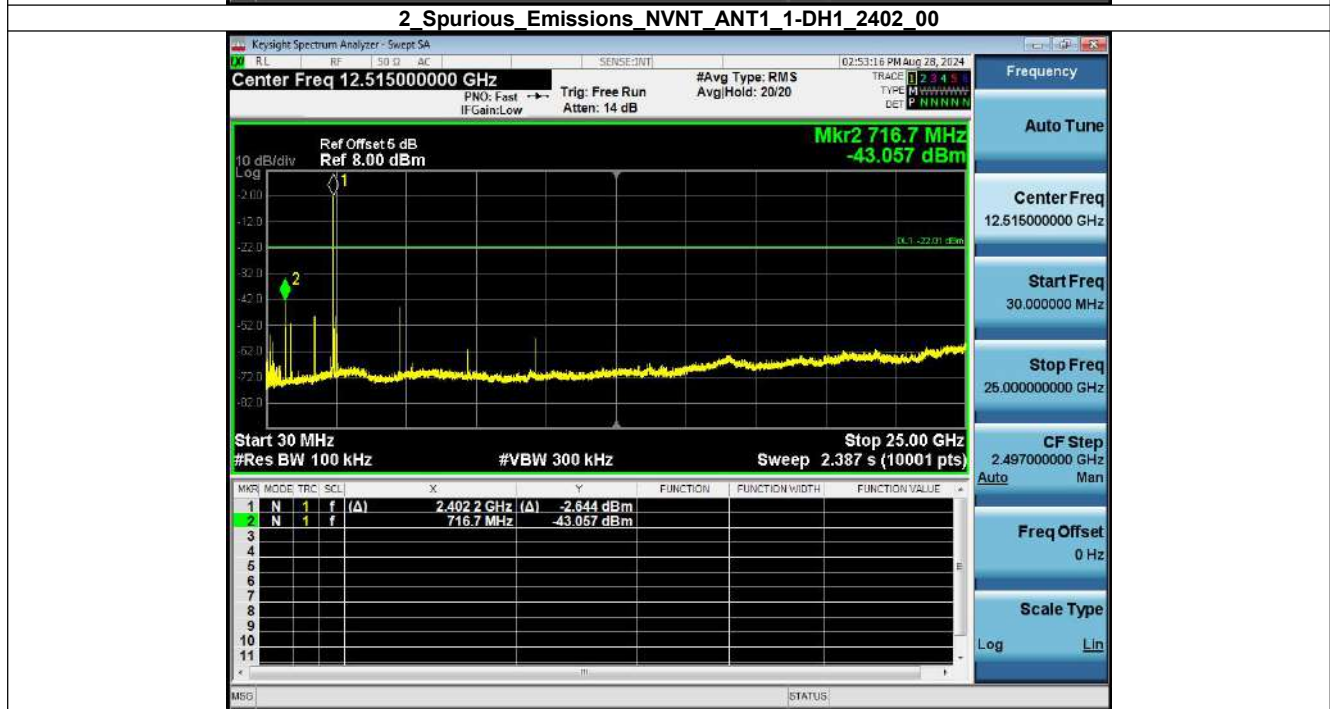


Peak Output Power NVNT_ANT1_3-DH1_2480_00

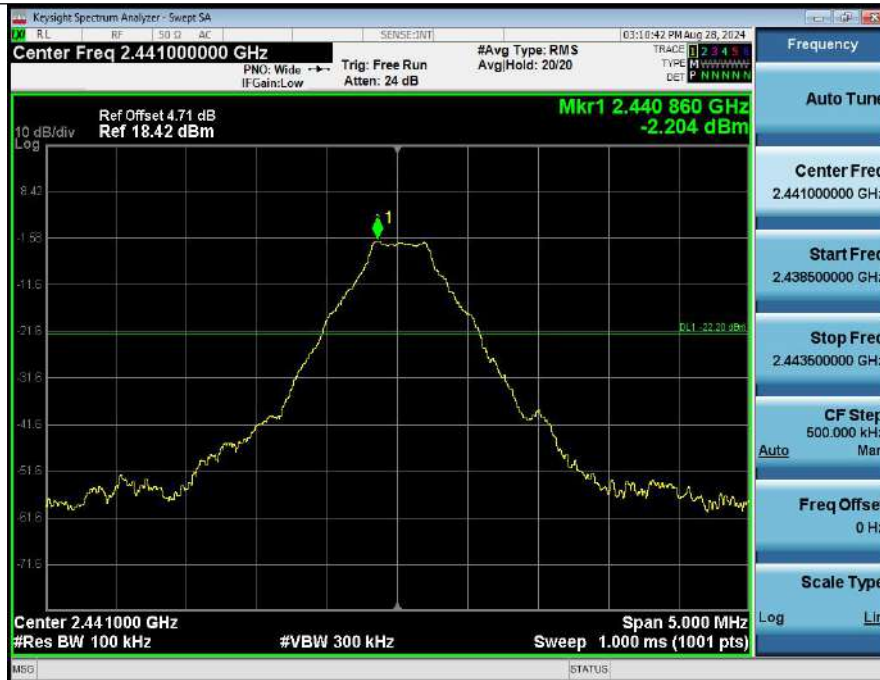


4. Spurious Emissions

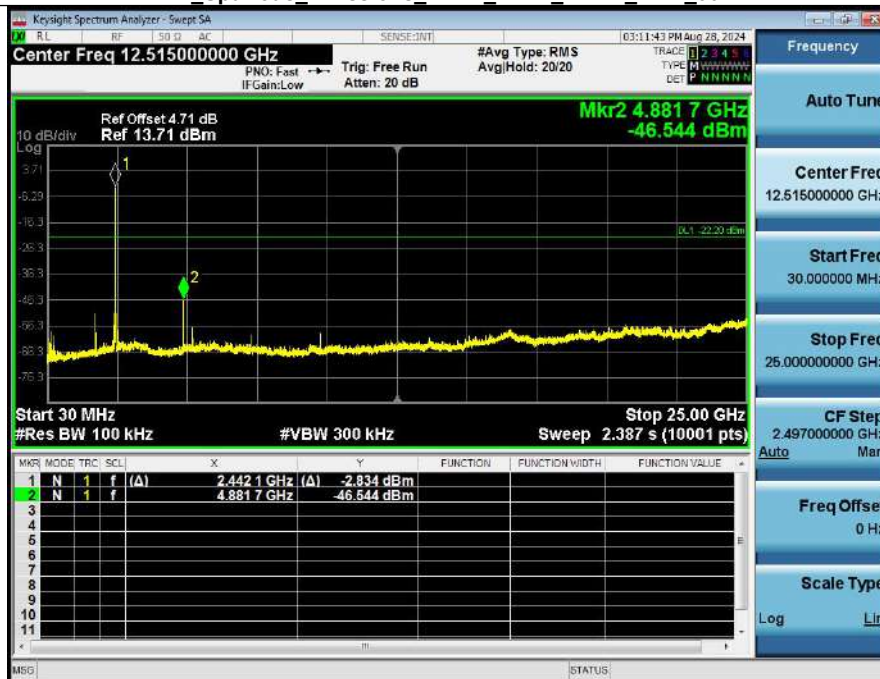
Condition	Antenna	Modulation	TX Mode	Spurious MAX.Value(dBm)	Limit	Result
NVNT	ANT1	1-DH1	2402.00	-43.057	-22.012	Pass
NVNT	ANT1	1-DH1	2441.00	-46.544	-22.204	Pass
NVNT	ANT1	1-DH1	2480.00	-48.863	-22.566	Pass
NVNT	ANT1	2-DH1	2402.00	-46.023	-21.981	Pass
NVNT	ANT1	2-DH1	2441.00	-46.245	-22.097	Pass
NVNT	ANT1	2-DH1	2480.00	-38.935	-22.524	Pass
NVNT	ANT1	3-DH1	2402.00	-46.719	-21.948	Pass
NVNT	ANT1	3-DH1	2441.00	-46.417	-22.084	Pass
NVNT	ANT1	3-DH1	2480.00	-47.684	-22.541	Pass



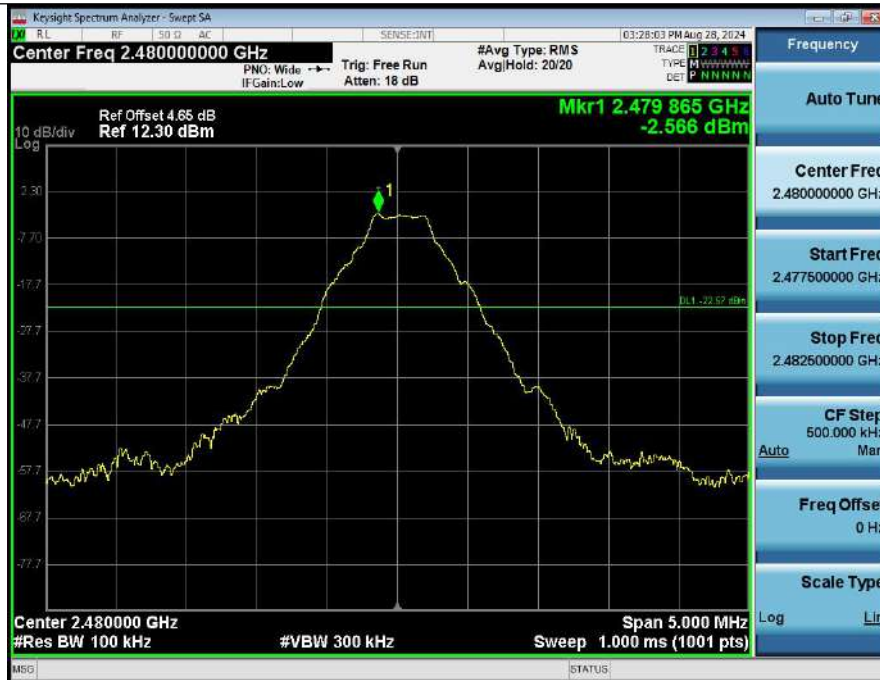
1 Reference Level NVNT ANT1 1-DH1 2441 00



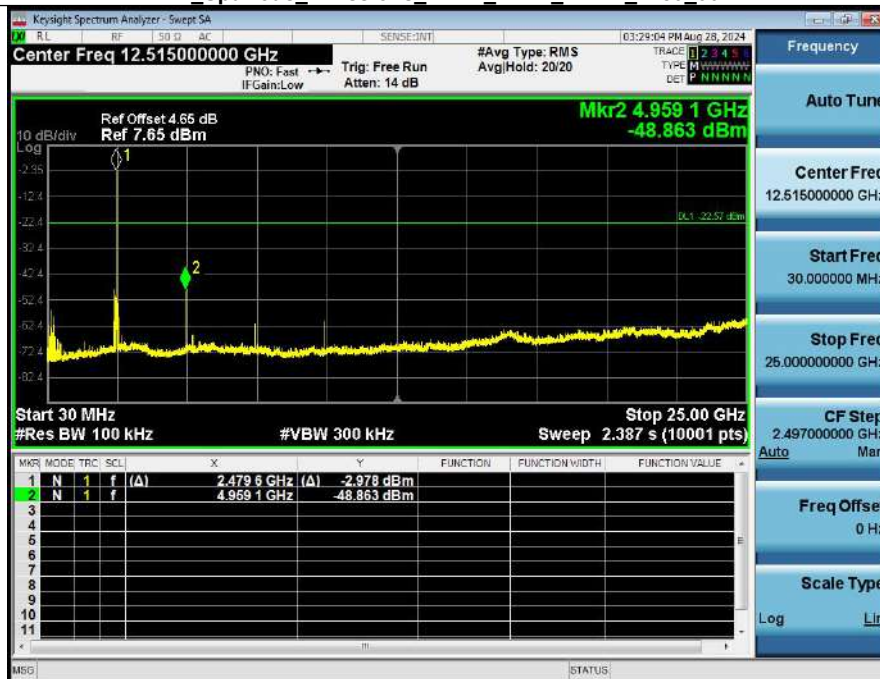
2 Spurious Emissions NVNT_ANT1_1-DH1_2441_00



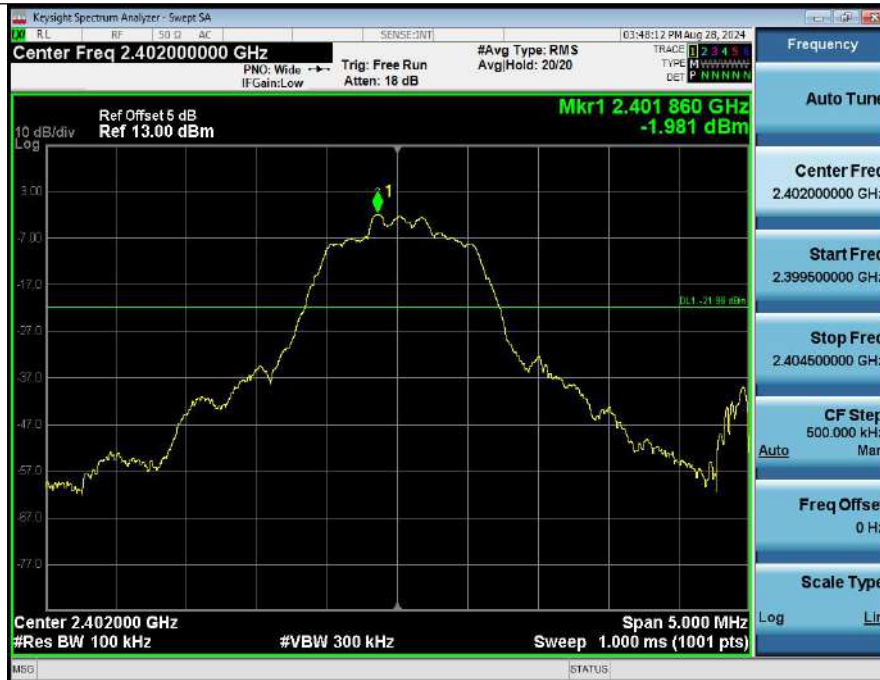
1 Reference Level NVNT_ANT1_1-DH1_2480_00



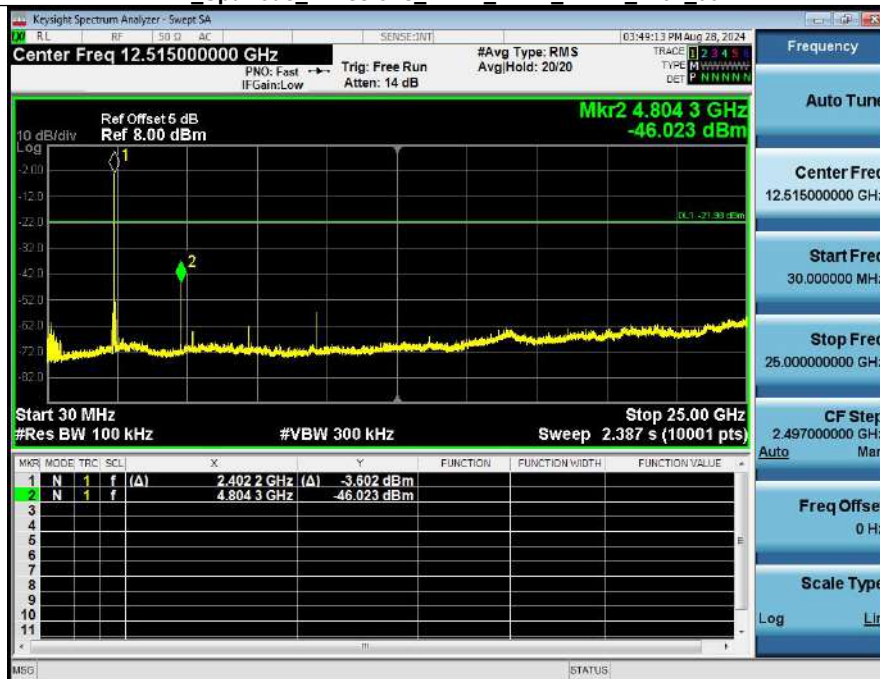
2 Spurious Emissions_NVNT_ANT1_1-DH1_2480_00



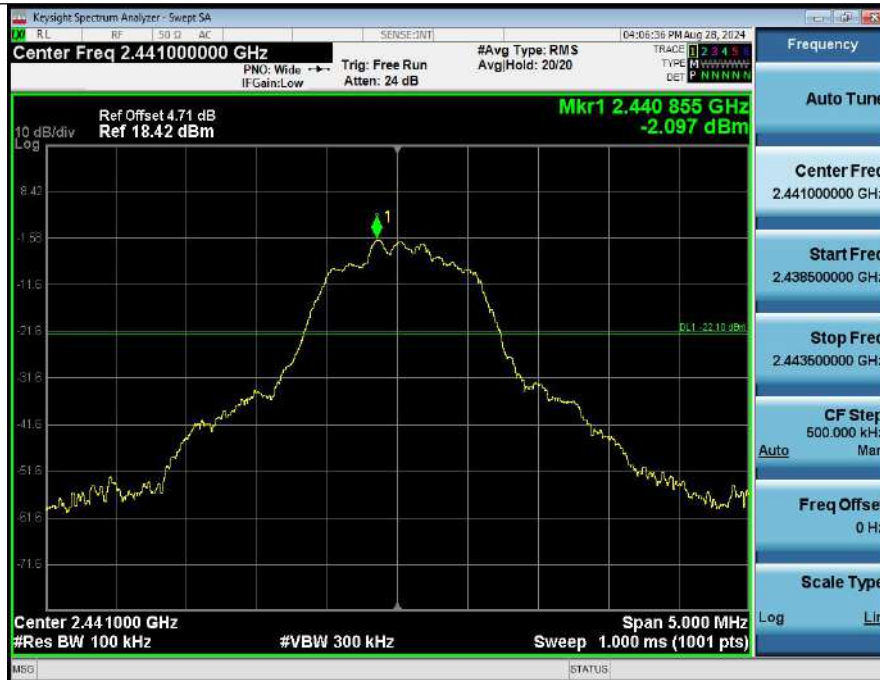
1 Reference_Level_NVNT_ANT1_2-DH1_2402_00



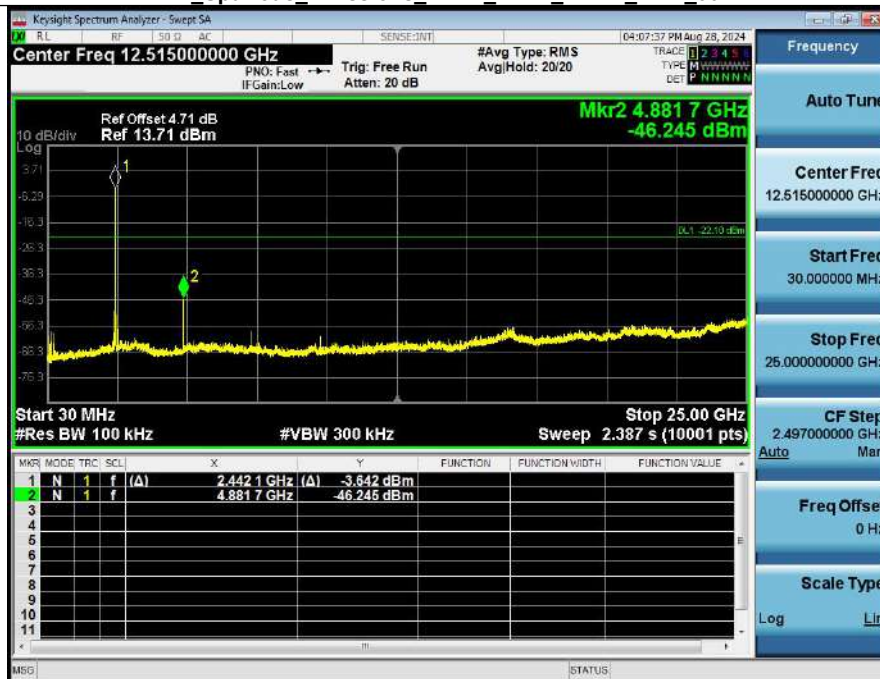
2 Spurious Emissions_NVNT_ANT1_2-DH1_2402_00



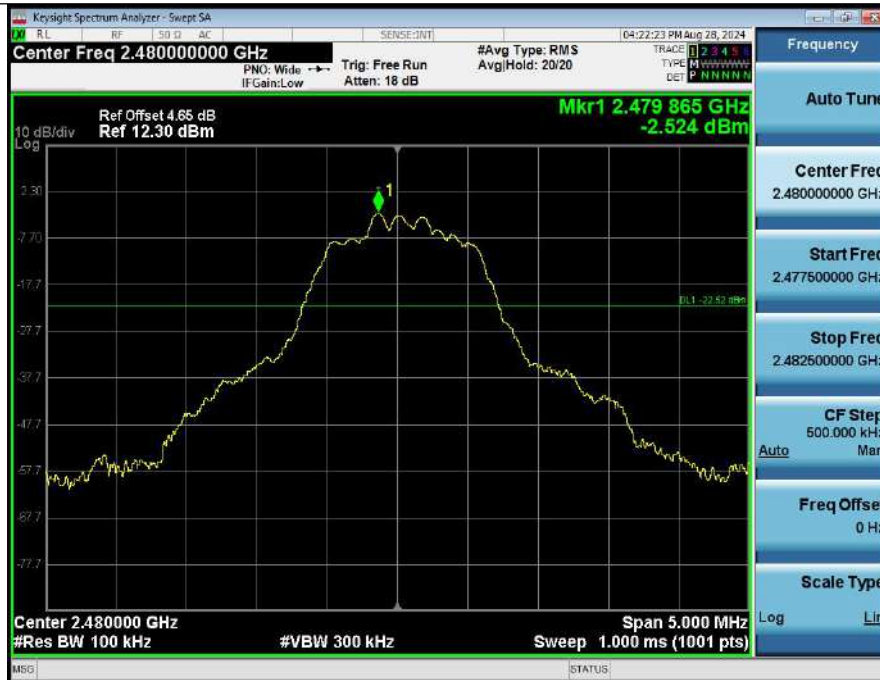
1 Reference_Level_NVNT_ANT1_2-DH1_2441_00



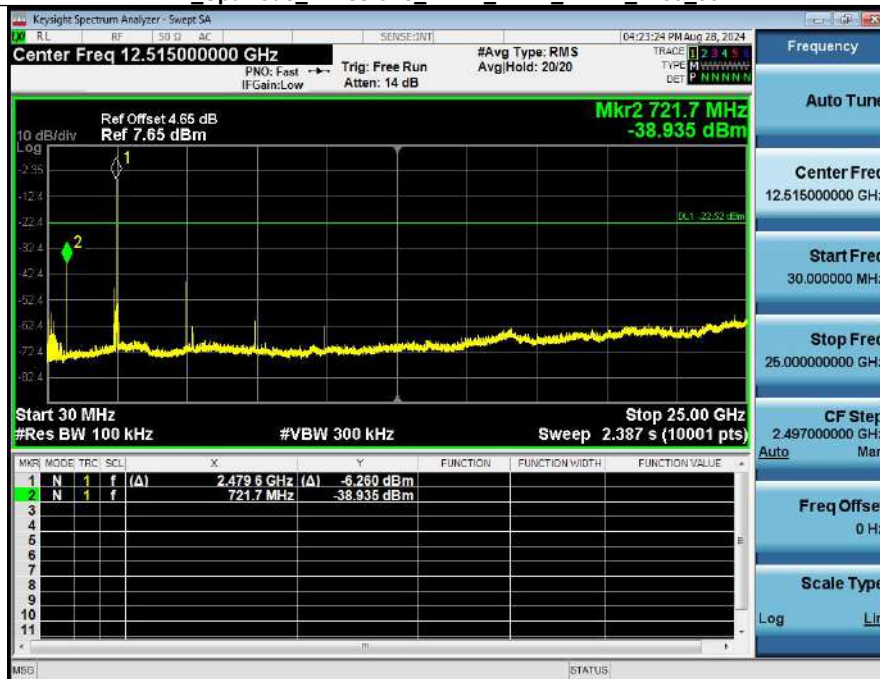
2 Spurious Emissions_NVNT_ANT1_2-DH1_2441_00



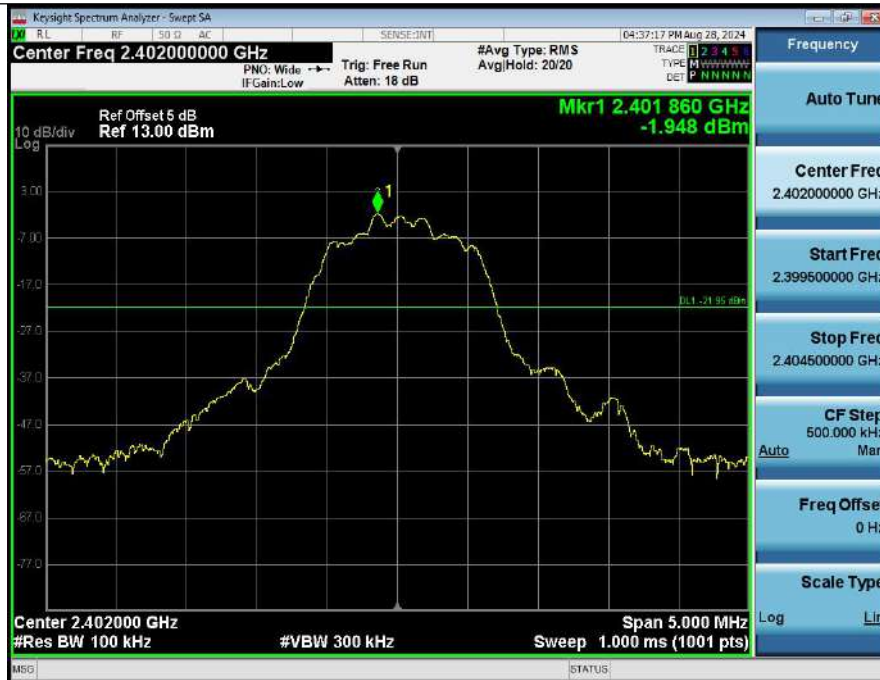
1 Reference_Level_NVNT_ANT1_2-DH1_2480_00



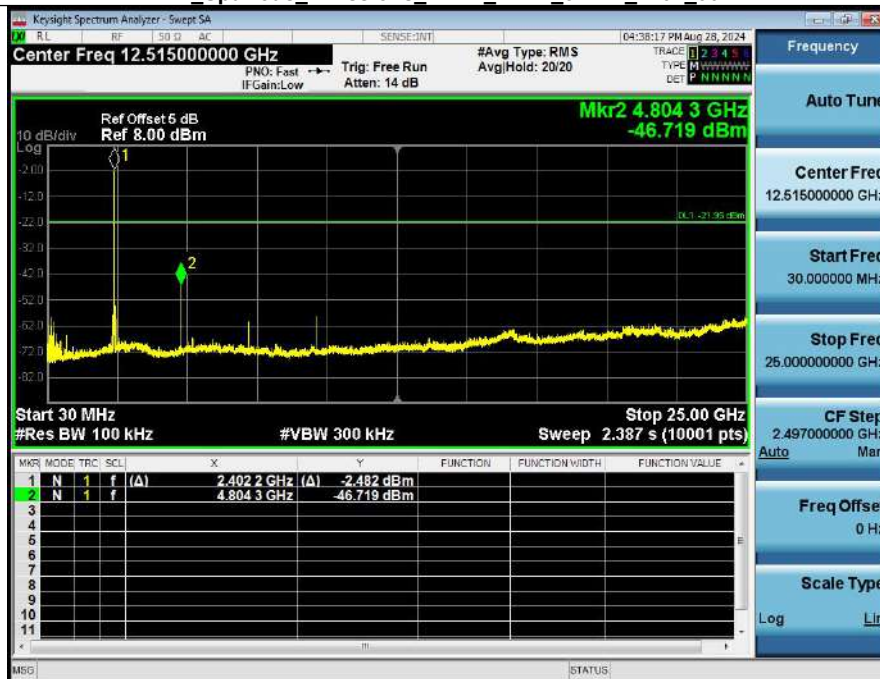
2_Spurious_Emissions_NVNT_ANT1_2-DH1_2480_00



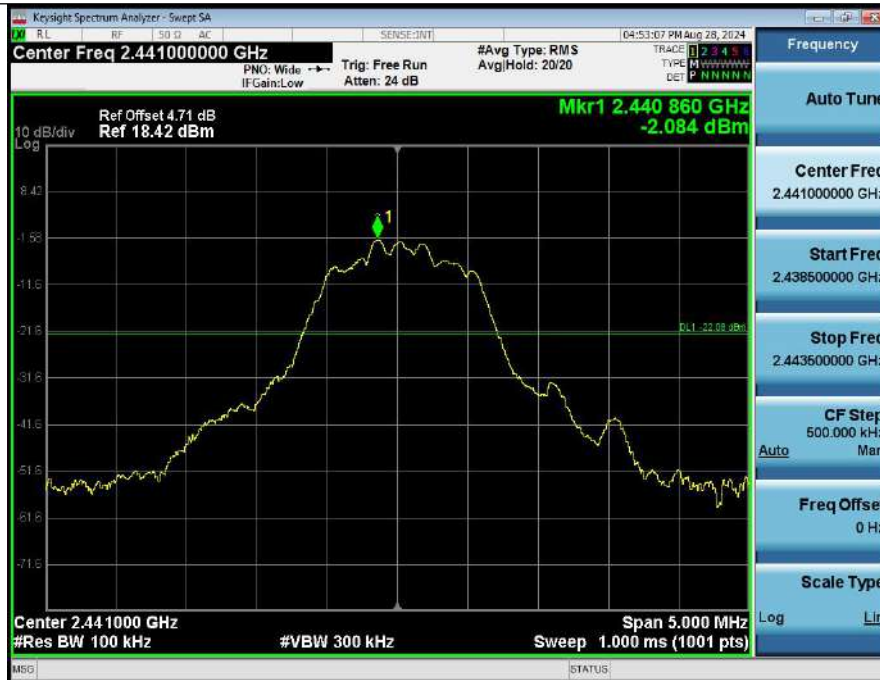
1_Reference_Level_NVNT_ANT1_3-DH1_2402_00



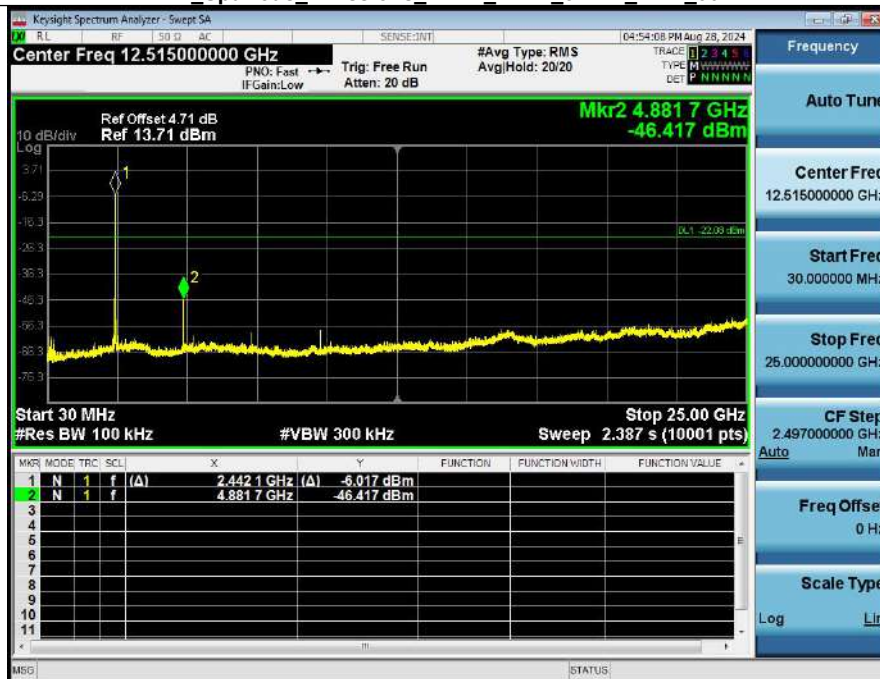
2 Spurious Emissions_NVNT_ANT1_3-DH1_2402_00



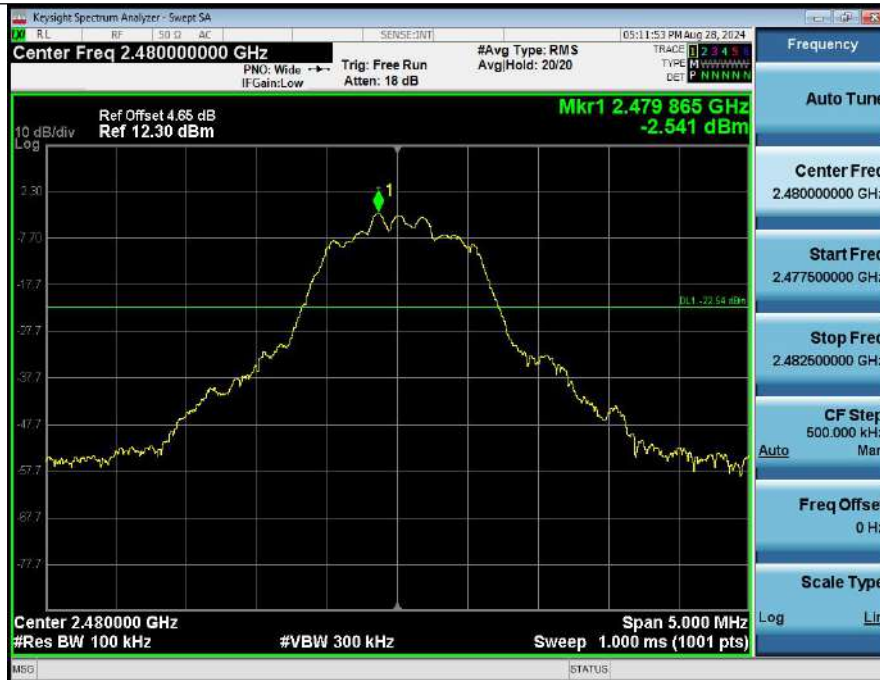
1 Reference_Level_NVNT_ANT1_3-DH1_2441_00



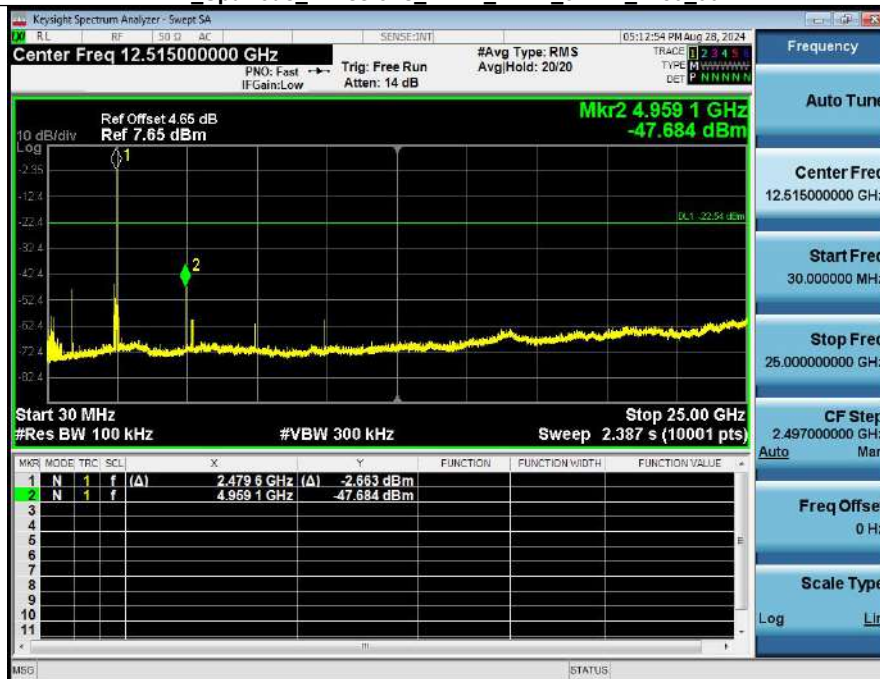
2 Spurious Emissions NVNT_ANT1_3-DH1_2441_00



1 Reference Level NVNT_ANT1_3-DH1_2480_00



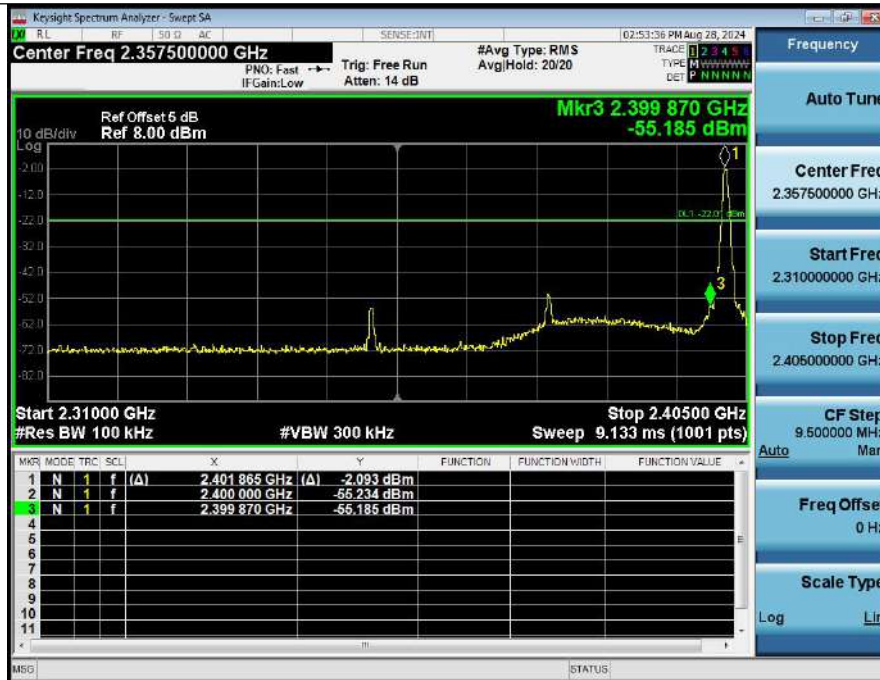
2 Spurious Emissions_NVNT_ANT1_3-DH1_2480_00



5. Bandedge

Condition	Antenna	Modulation	TX Mode	Bandedge MAX.Value	Limit	Result
NVNT	ANT1	1-DH1	2402.00	-55.185	-22.012	Pass
NVNT	ANT1	1-DH1	Hopping_LCH	-50.315	-21.779	Pass
NVNT	ANT1	1-DH1	2480.00	-58.943	-22.566	Pass
NVNT	ANT1	1-DH1	Hopping_HCH	-50.411	-22.102	Pass
NVNT	ANT1	2-DH1	2402.00	-53.983	-21.981	Pass
NVNT	ANT1	2-DH1	Hopping_LCH	-50.021	-21.725	Pass
NVNT	ANT1	2-DH1	2480.00	-57.766	-22.524	Pass
NVNT	ANT1	2-DH1	Hopping_HCH	-50.061	-22.020	Pass
NVNT	ANT1	3-DH1	2402.00	-53.422	-21.948	Pass
NVNT	ANT1	3-DH1	Hopping_LCH	-50.260	-21.699	Pass
NVNT	ANT1	3-DH1	2480.00	-58.650	-22.541	Pass
NVNT	ANT1	3-DH1	Hopping_HCH	-51.015	-22.061	Pass

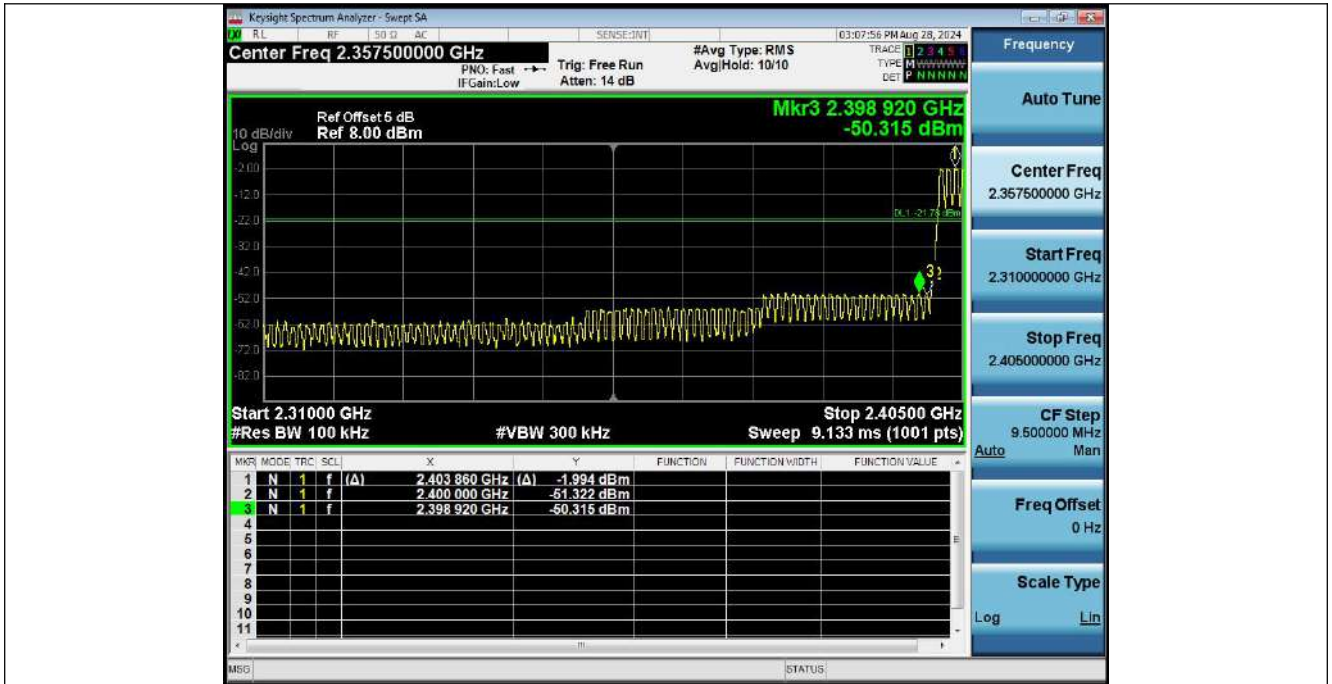




1 Reference_Level_Hopping_NVNT_ANT1_1-DH1_Hopping



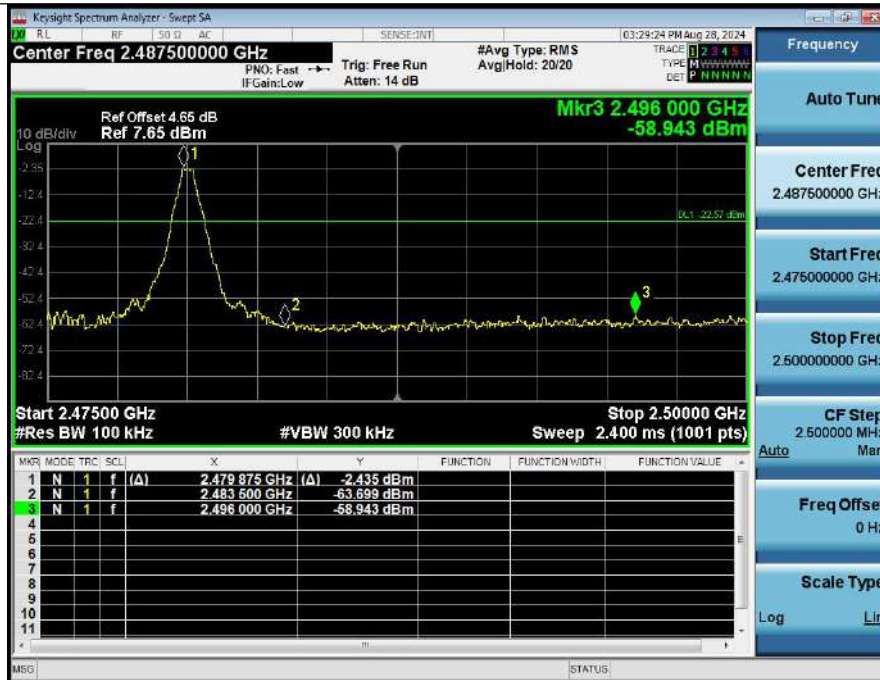
2_Band_Edge_(Hopping)_NVNT_ANT1_1-DH1_Hopping



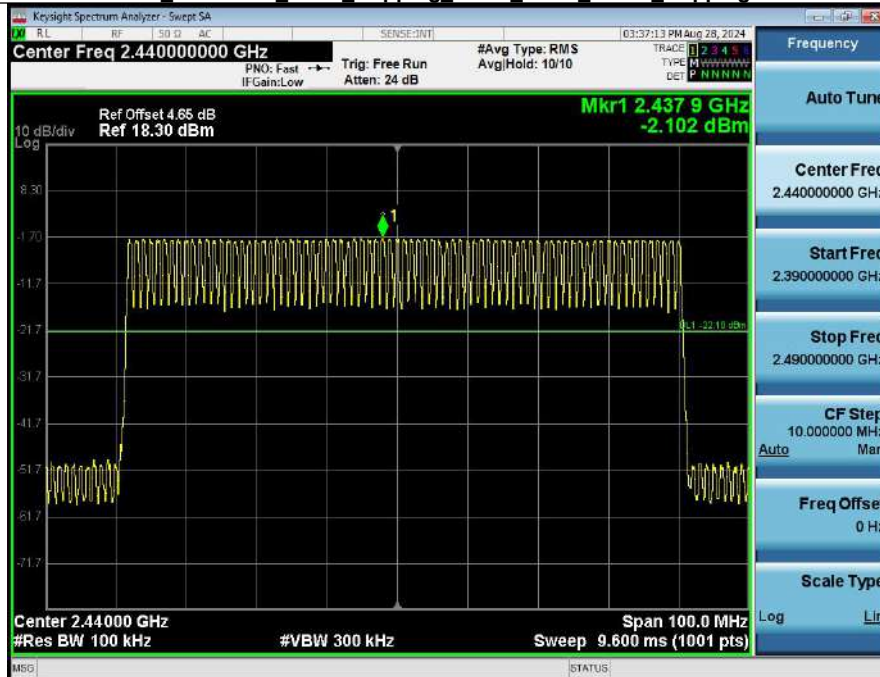
1 Reference_Level_NVNT_ANT1_1-DH1_2480_00



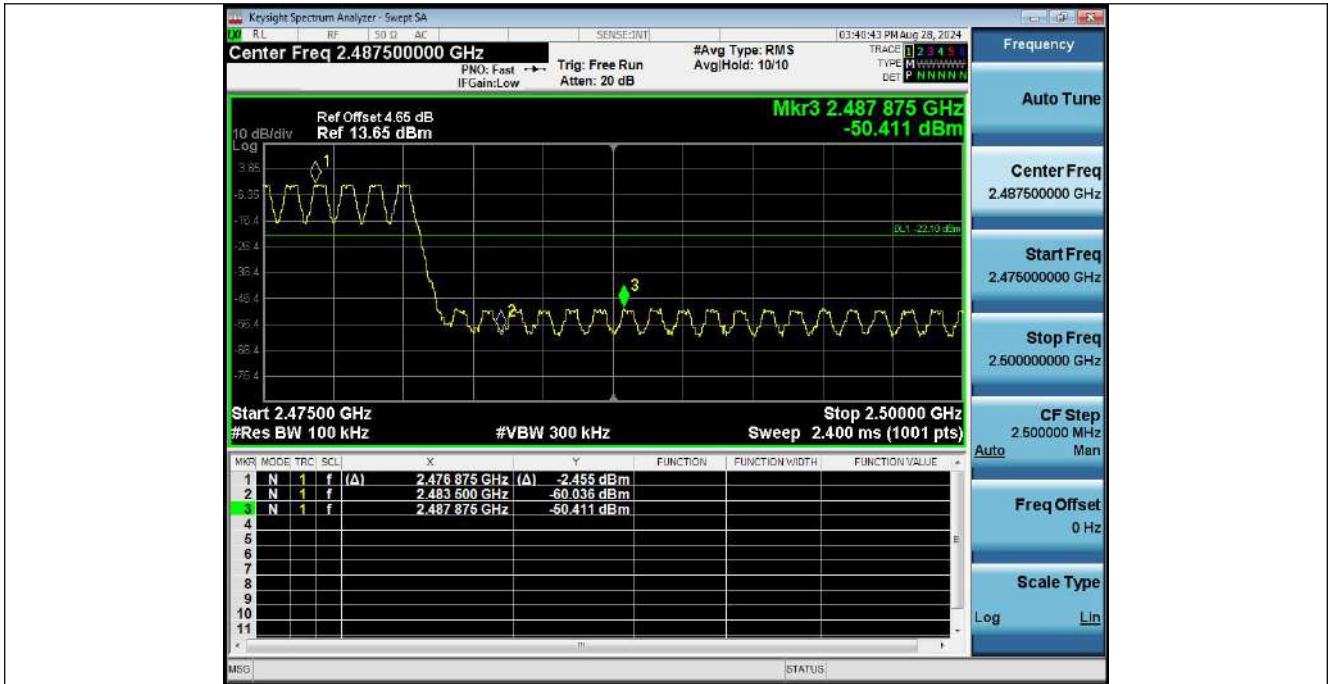
2 Bandedge_NVNT_ANT1_1-DH1_2480_00



1 Reference_Level_Hopping_NVNT_ANT1_1-DH1_Hopping



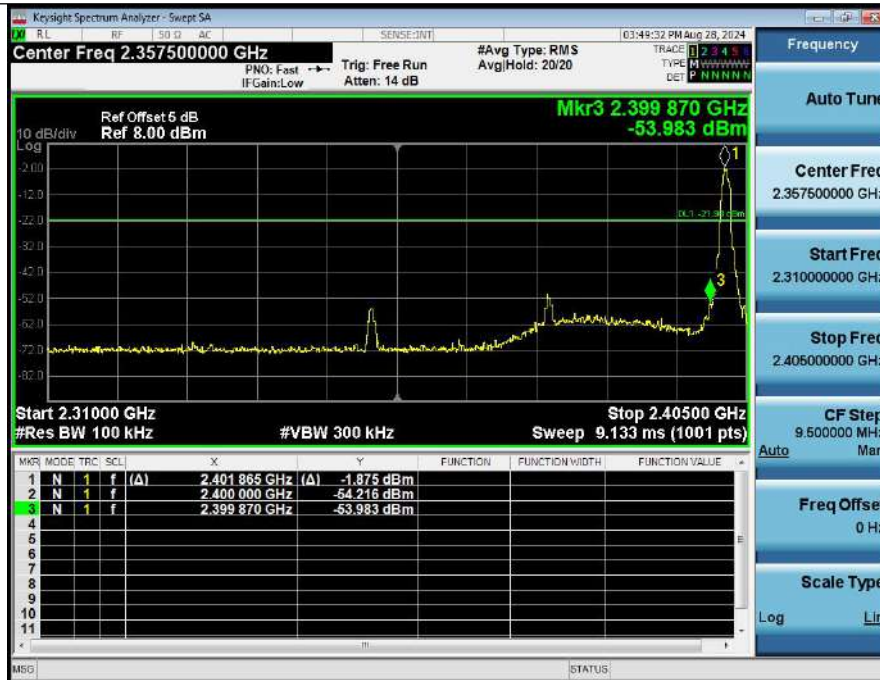
2_Band_Edge_(Hopping)_NVNT_ANT1_1-DH1_Hopping



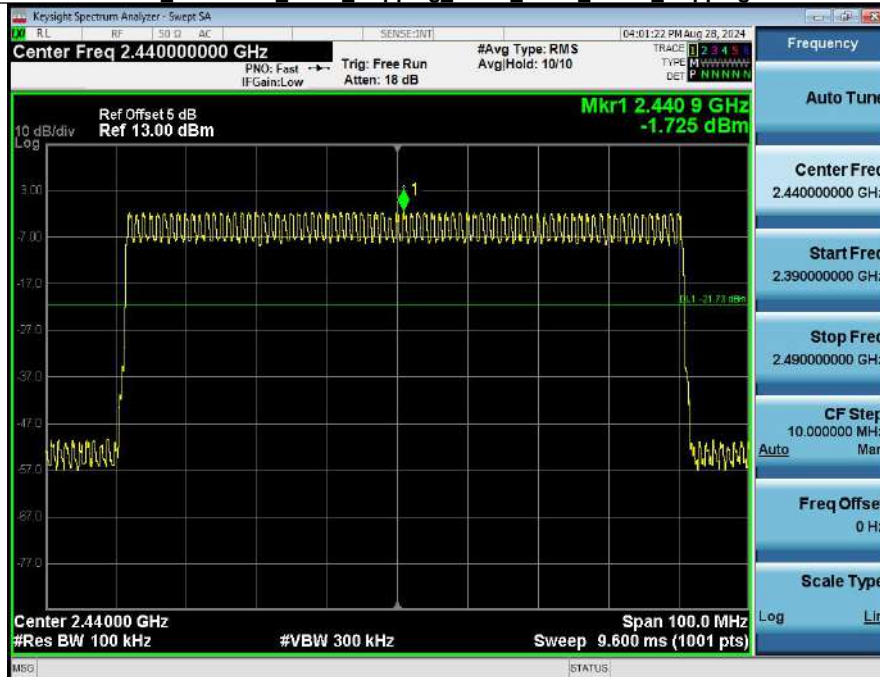
1 Reference Level NVNT ANT1 2-DH1 2402 00



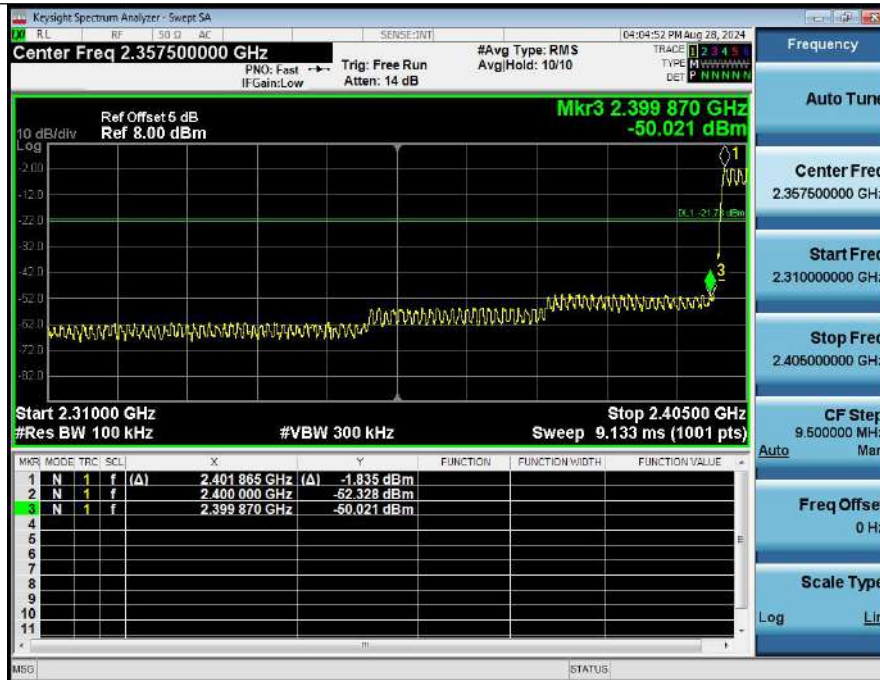
2 Bandedge NVNT ANT1 2-DH1 2402 00



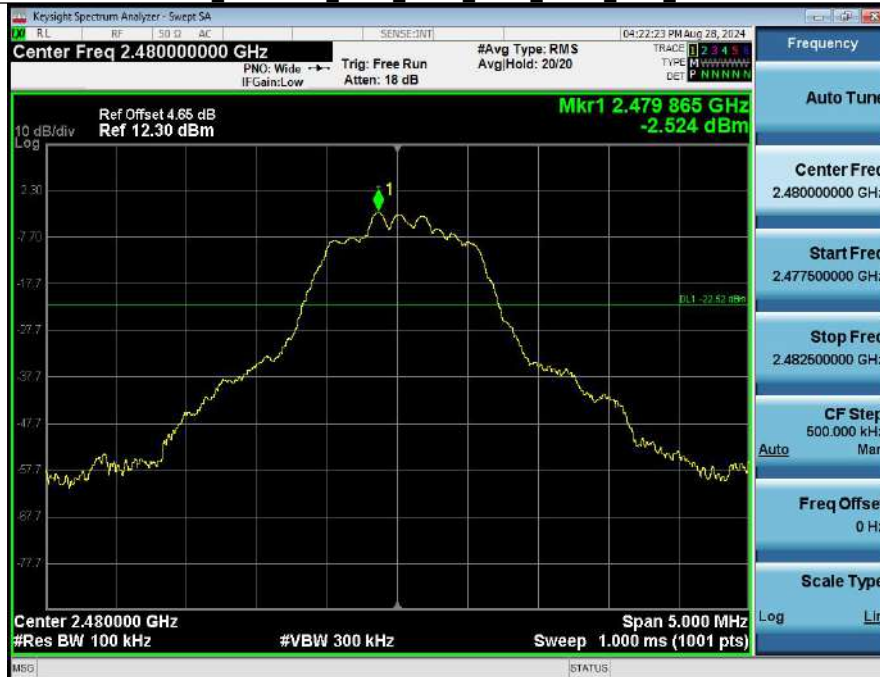
1 Reference_Level_Hopping_NVNT_ANT1_2-DH1_Hopping



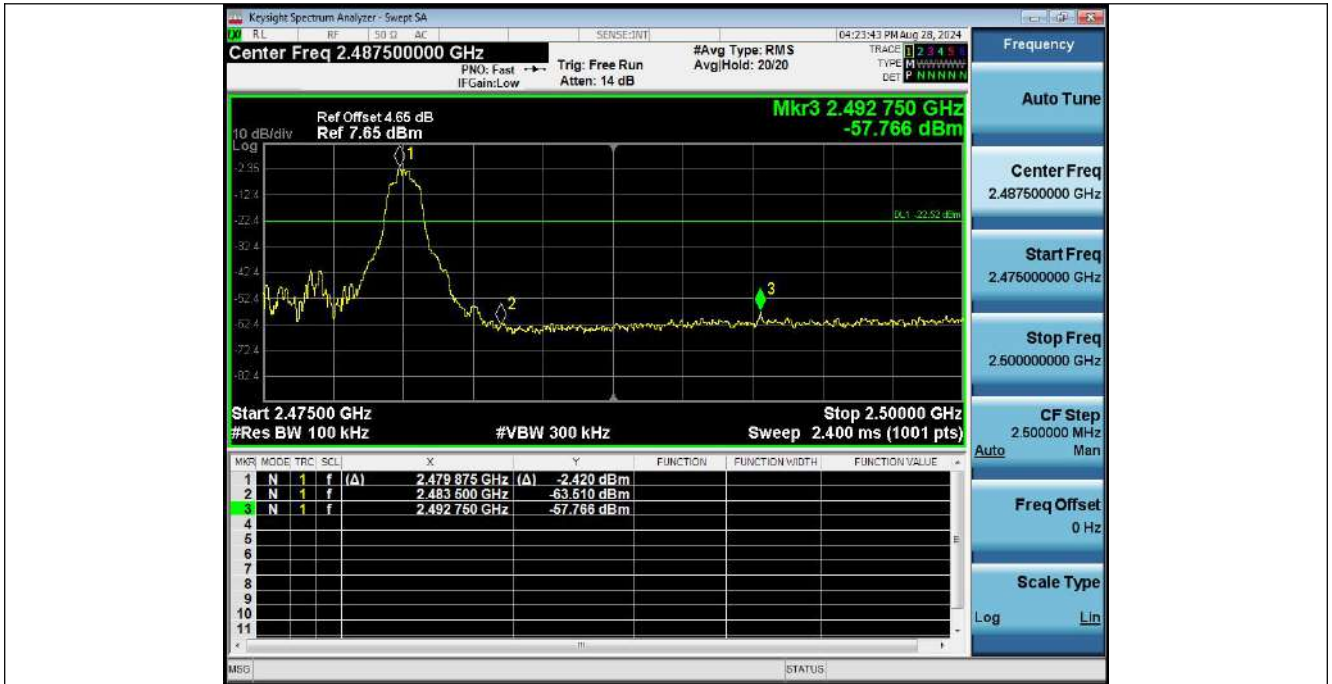
2_Band_Edge_(Hopping)_NVNT_ANT1_2-DH1_Hopping



1 Reference Level NVNT ANT1 2-DH1 2480 00



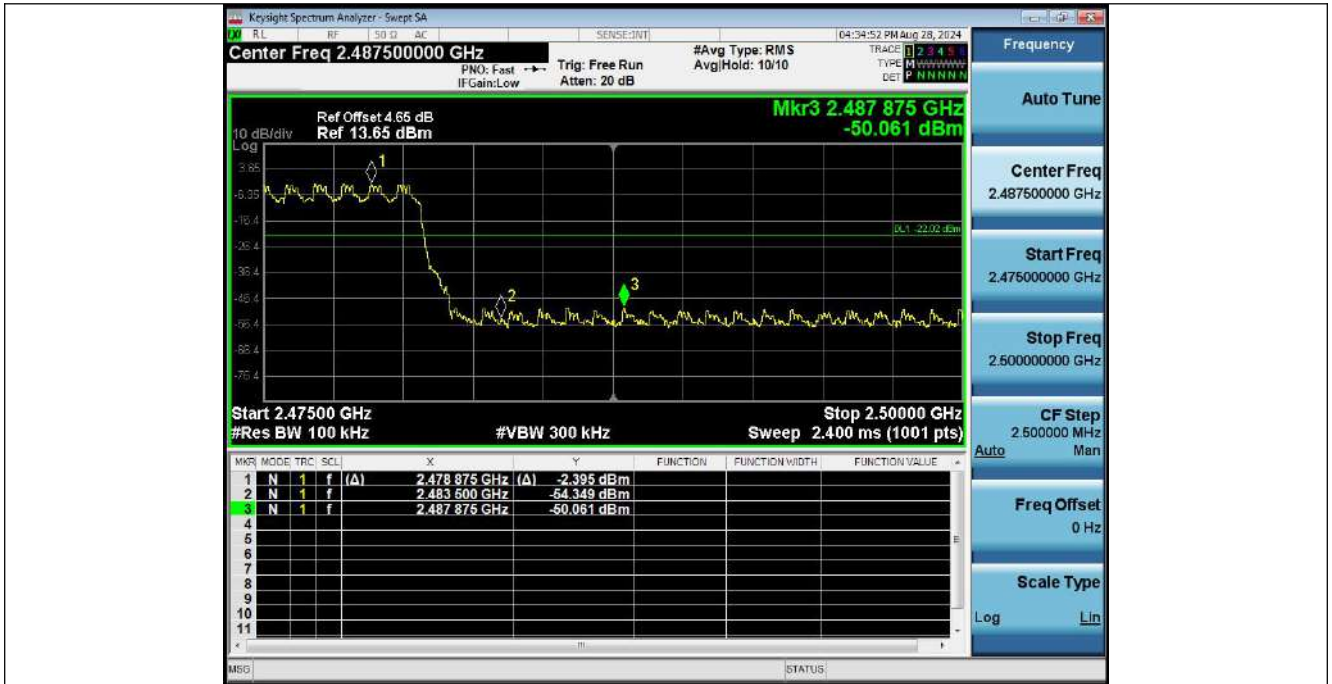
2 Bandedge NVNT ANT1 2-DH1 2480 00



1 Reference_Level_Hopping_NVNT_ANT1_2-DH1_Hopping



2_Band_Edge_(Hopping)_NVNT_ANT1_2-DH1_Hopping



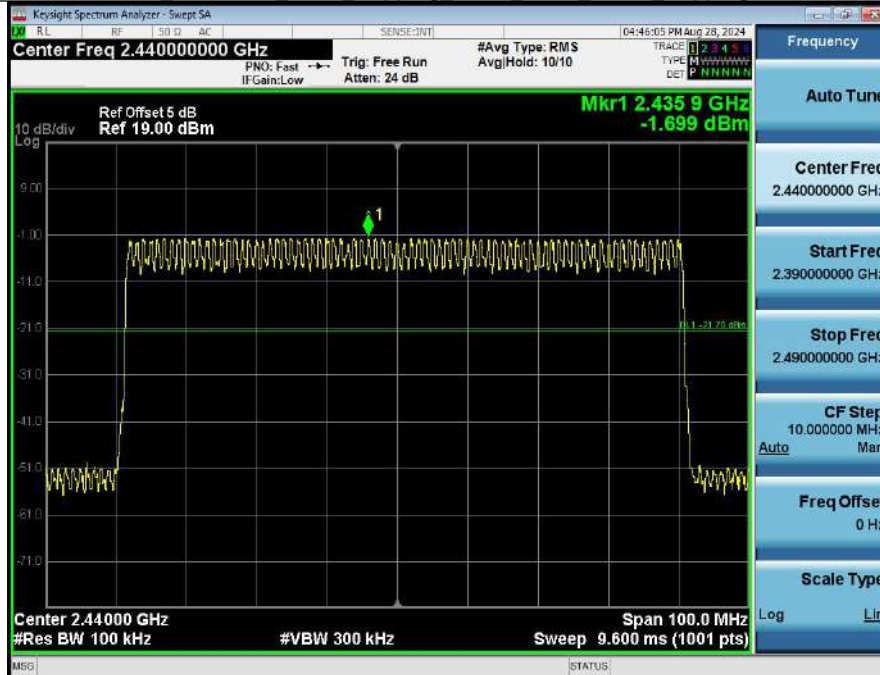
1 Reference Level NVNT ANT1 3-DH1 2402_00



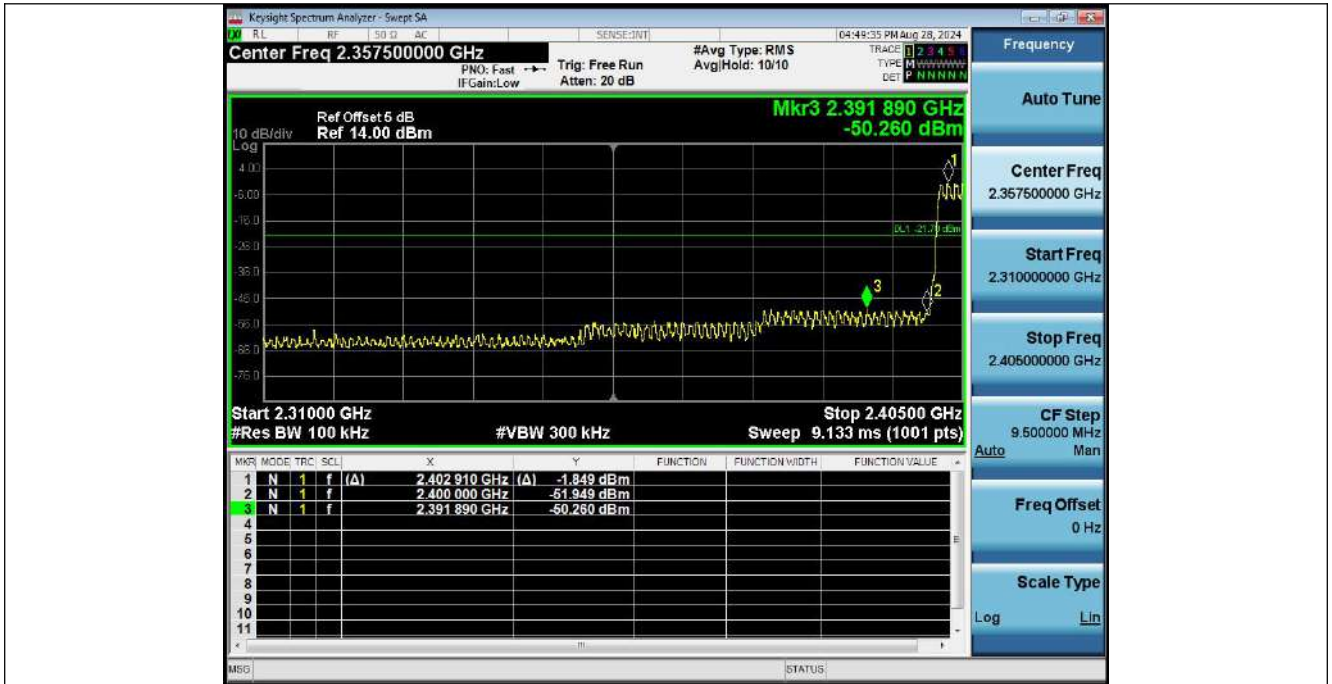
2 Bandedge NVNT ANT1 3-DH1 2402_00



1 Reference_Level_Hopping_NVNT_ANT1_3-DH1_Hopping



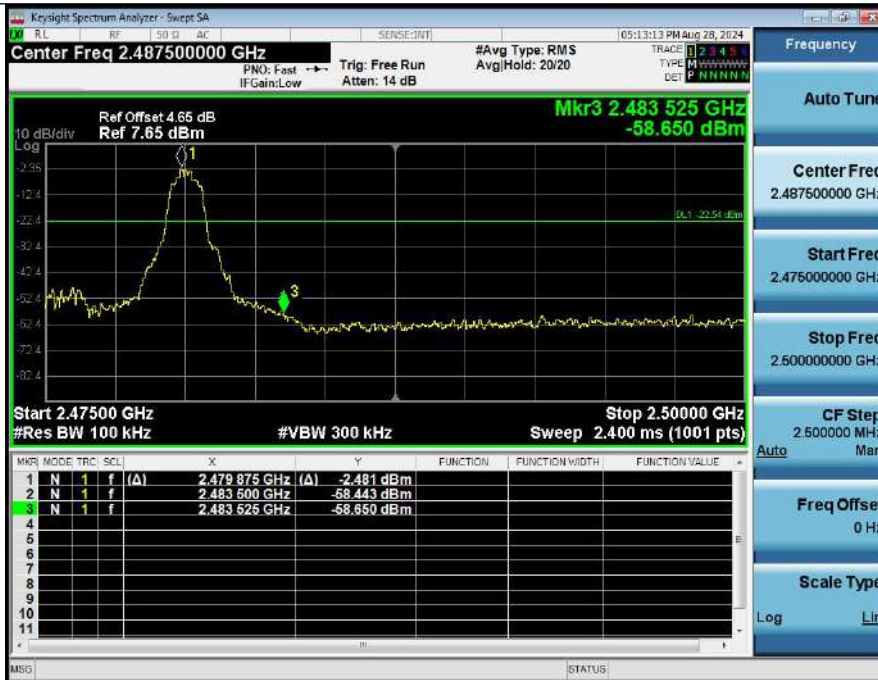
2_Band_Edge_(Hopping)_NVNT_ANT1_3-DH1_Hopping



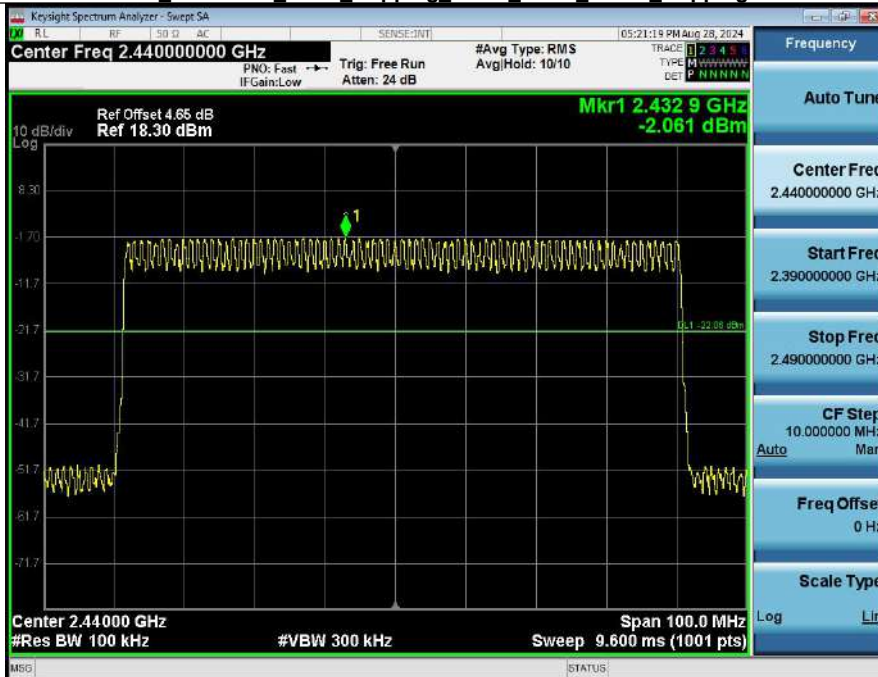
1 Reference Level NVNT ANT1 3-DH1 2480 00



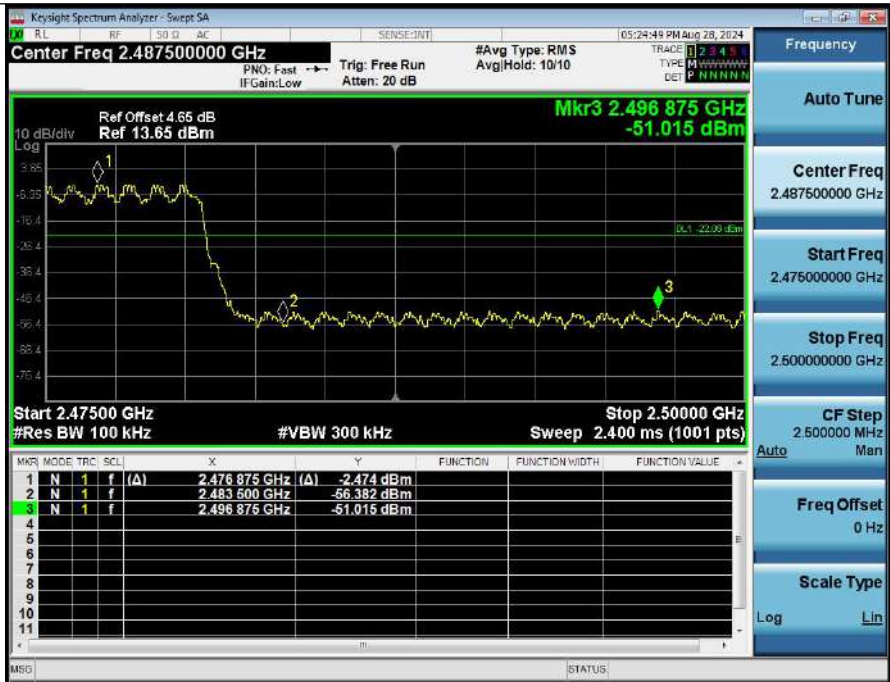
2 Bandedge NVNT ANT1 3-DH1 2480 00



1 Reference_Level_Hopping_NVNT_ANT1_3-DH1_Hopping



2_Band_Edge_(Hopping)_NVNT_ANT1_3-DH1_Hopping



6. Carrier Frequencies Separation (Hopping)

Condition	Antenna	Modulation	Frequency(MHz)	Hopping NO.0 (MHz)	Hopping NO.1 (MHz)	Carrier Frequencies Separation(MHz)	Limit(MHz)	Result
NVNT	ANT1	1-DH1	2402.00	2401.858	2402.854	1.00	0.683	Pass
NVNT	ANT1	1-DH1	2441.00	2440.861	2441.860	1.00	0.691	Pass
NVNT	ANT1	1-DH1	2480.00	2478.864	2479.854	0.99	0.691	Pass
NVNT	ANT1	2-DH1	2402.00	2401.855	2402.854	1.00	0.864	Pass
NVNT	ANT1	2-DH1	2441.00	2440.855	2441.860	1.00	0.861	Pass
NVNT	ANT1	2-DH1	2480.00	2478.867	2479.866	1.00	0.858	Pass
NVNT	ANT1	3-DH1	2402.00	2401.858	2402.857	1.00	0.839	Pass
NVNT	ANT1	3-DH1	2441.00	2440.858	2441.857	1.00	0.835	Pass
NVNT	ANT1	3-DH1	2480.00	2478.858	2479.860	1.00	0.843	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_2-DH1_Hopping



Carrier_Frequencies_Separation_(Hopping)_NVNT_ANT1_2-DH1_Hopping



Carrier_Frequencies_Separation_(Hopping)_NVNT_ANT1_2-DH1_Hopping



Carrier_Frequencies_Separation_(Hopping)_NVNT_ANT1_3-DH1_Hopping



Carrier_Frequencies_Separation_(Hopping)_NVNT_ANT1_3-DH1_Hopping

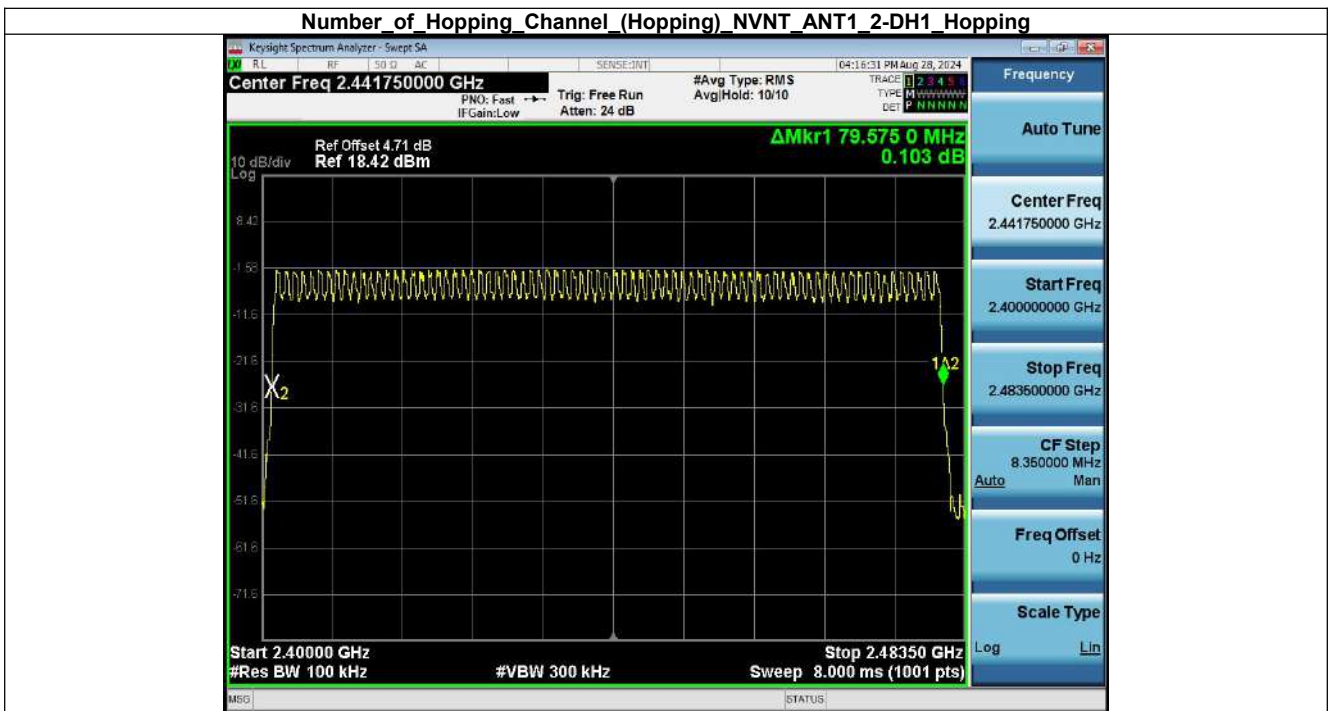
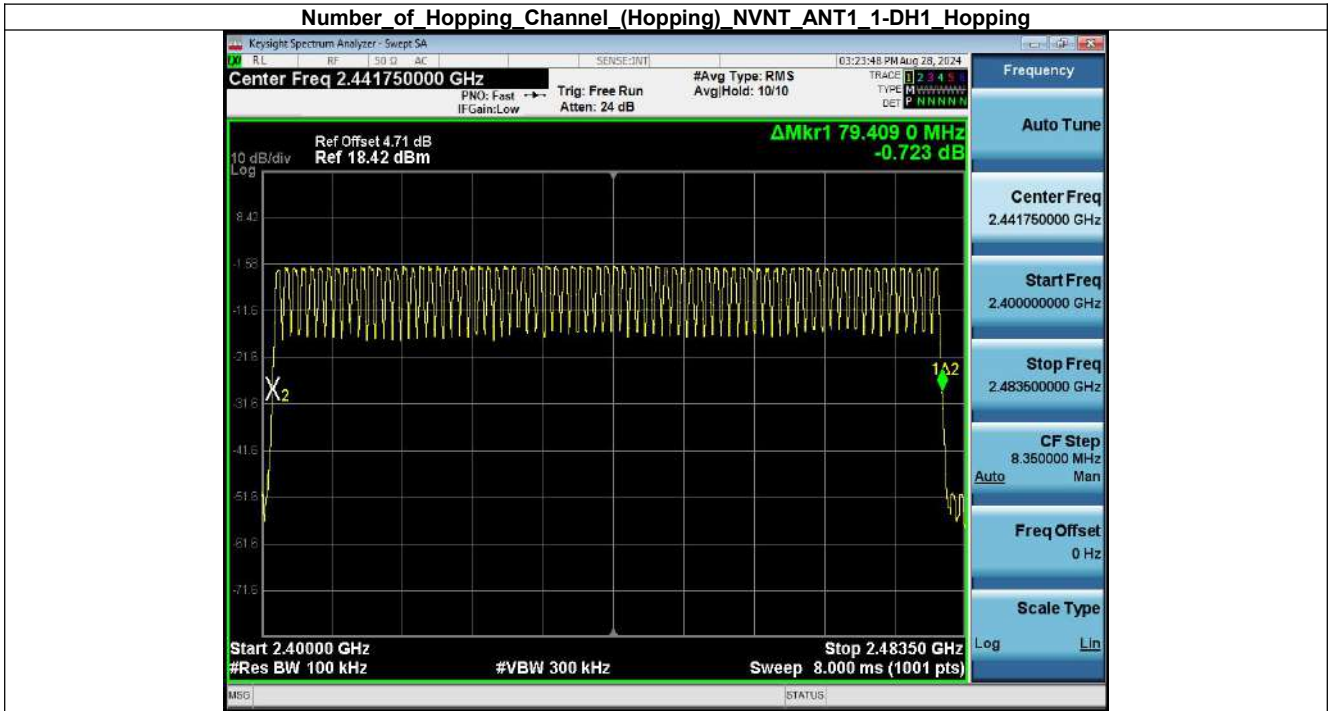


Carrier Frequencies Separation (Hopping) NVNT ANT1 3-DH1 Hopping



7. Number of Hopping Channel (Hopping)

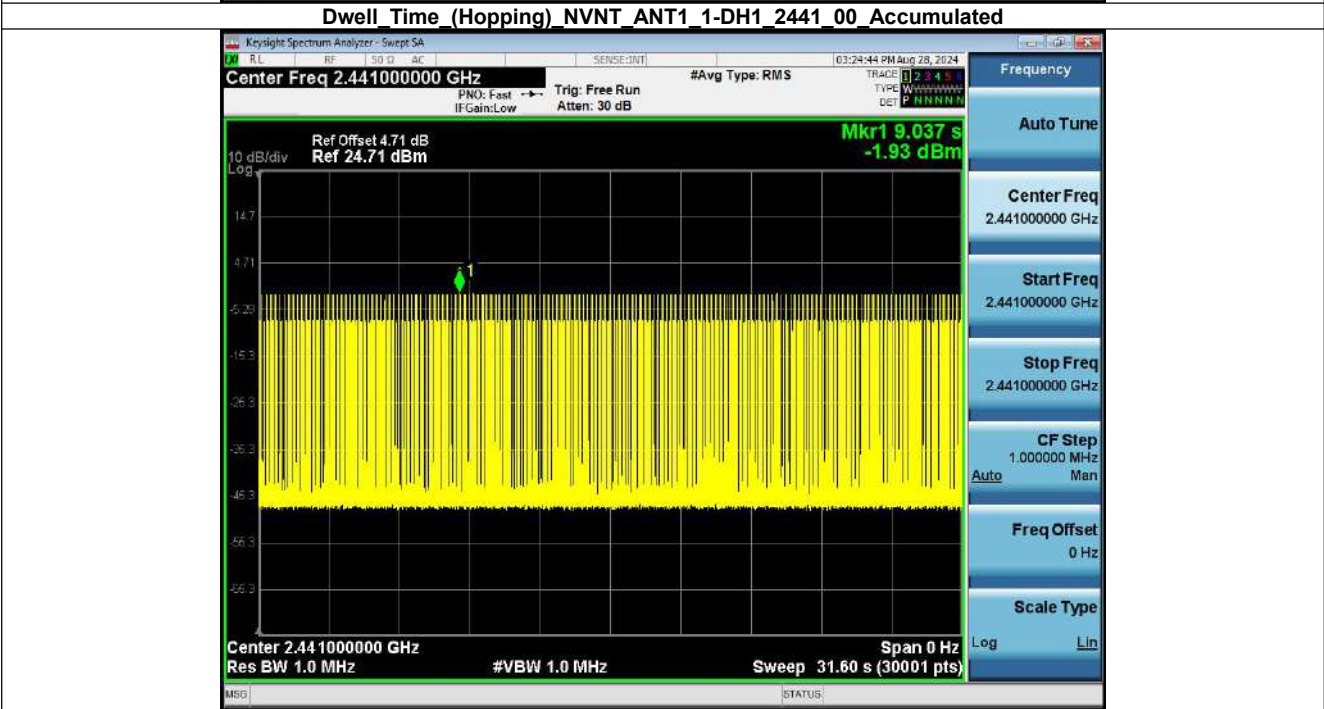
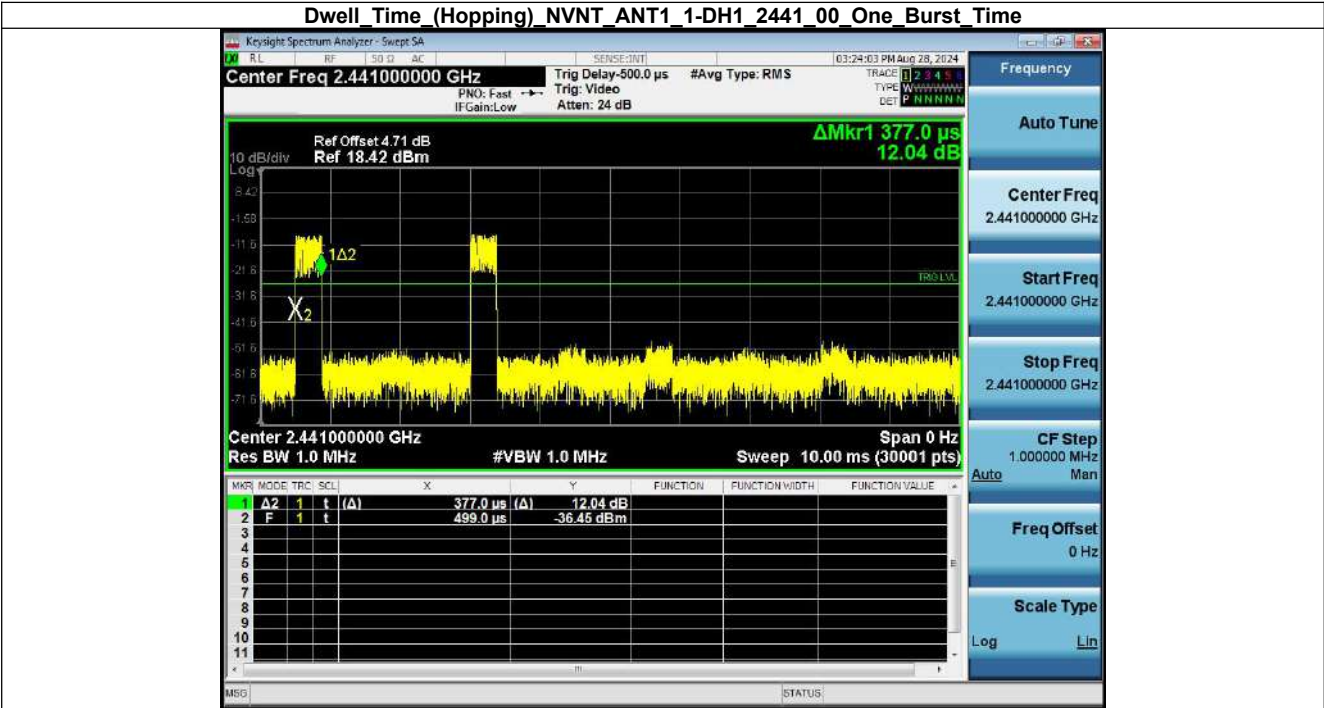
Condition	Antenna	Modulation	Hopping Num	Limit	Result
NVNT	ANT1	1-DH1	79	15	Pass
NVNT	ANT1	2-DH1	79	15	Pass
NVNT	ANT1	3-DH1	79	15	Pass



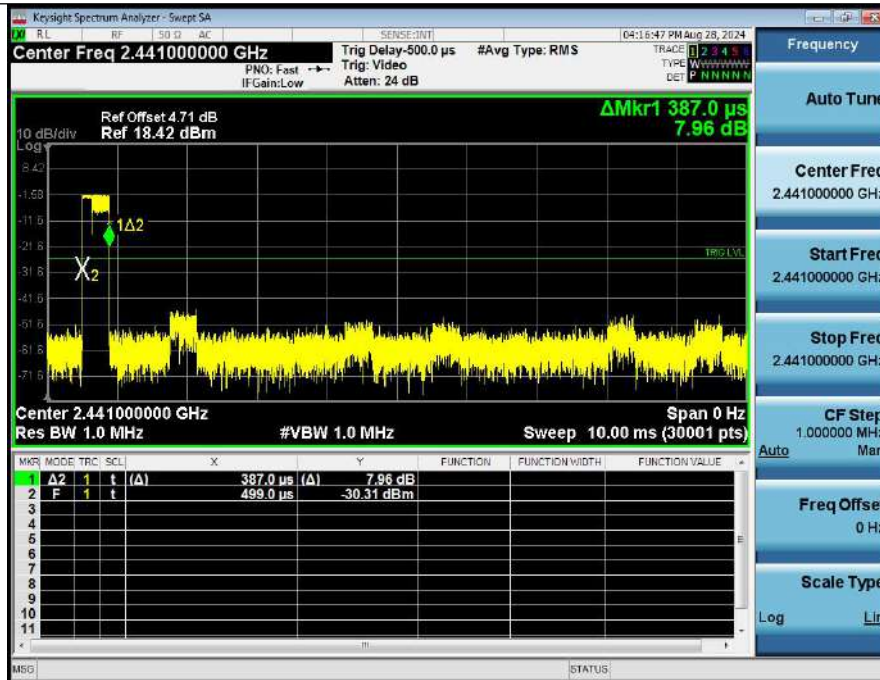
Number_of_Hopping_Channel (Hopping) NVNT_ANT1_3-DH1_Hopping

8. Dwell Time (Hopping)

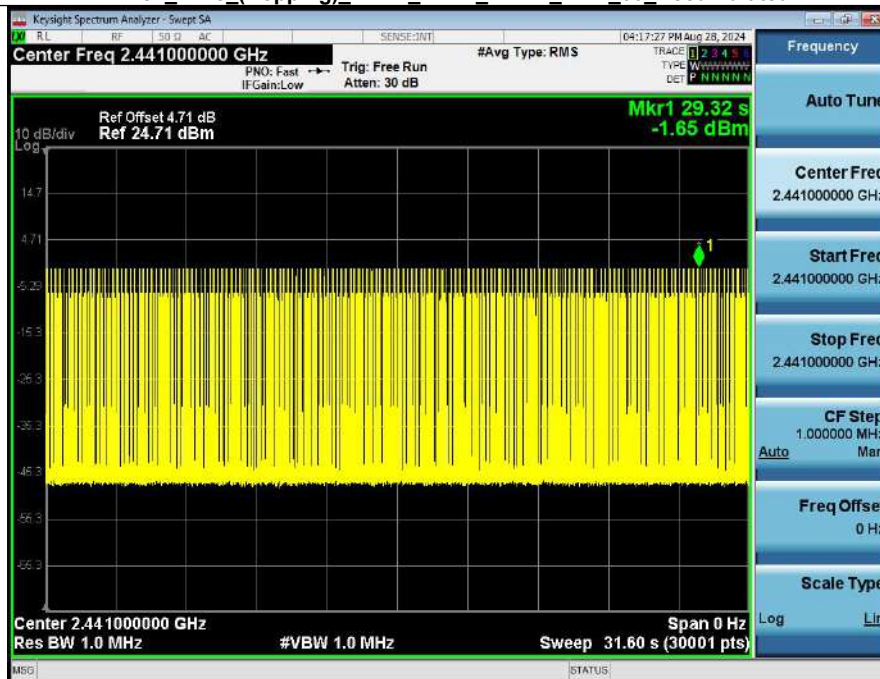
Condition	Antenna	Packet Type	Pulse Time(ms)	Hops	Dwell Time(ms)	Limit(s)	Result
NVNT	ANT1	1-DH1	0.377	320.00	120.640	0.40	Pass
NVNT	ANT1	2-DH1	0.387	320.00	123.840	0.40	Pass
NVNT	ANT1	3-DH1	0.388	319.00	123.772	0.40	Pass
NVNT	ANT1	1-DH3	1.633	158.00	258.014	0.40	Pass
NVNT	ANT1	1-DH5	2.881	115.00	331.315	0.40	Pass
NVNT	ANT1	2-DH3	1.639	161.00	263.879	0.40	Pass
NVNT	ANT1	2-DH5	2.887	103.00	297.361	0.40	Pass
NVNT	ANT1	3-DH3	1.638	164.00	268.632	0.40	Pass
NVNT	ANT1	3-DH5	2.889	108.00	312.012	0.40	Pass



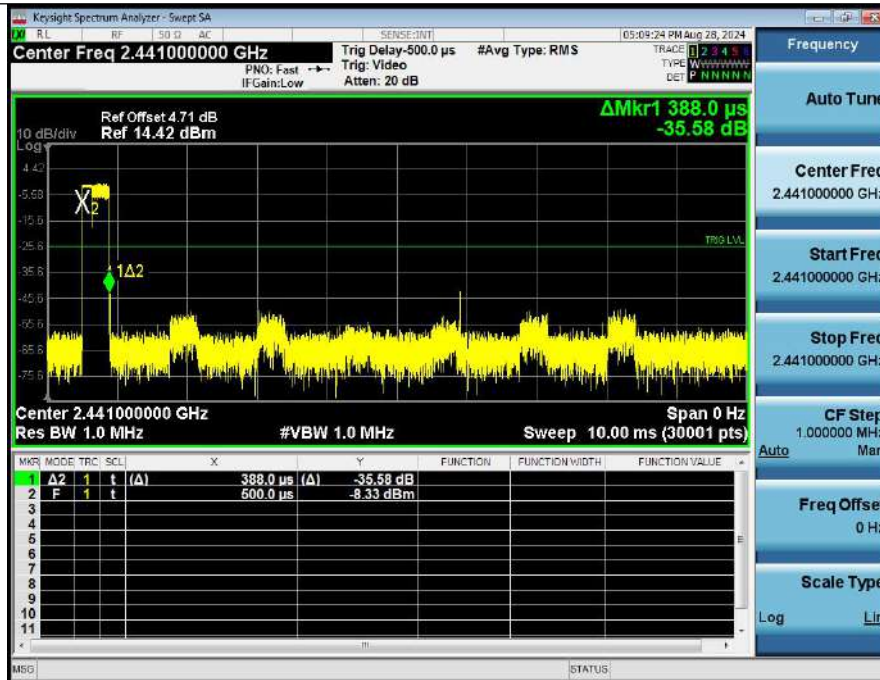
Dwell Time (Hopping) NVNT ANT1 2-DH1 2441 00 One Burst Time



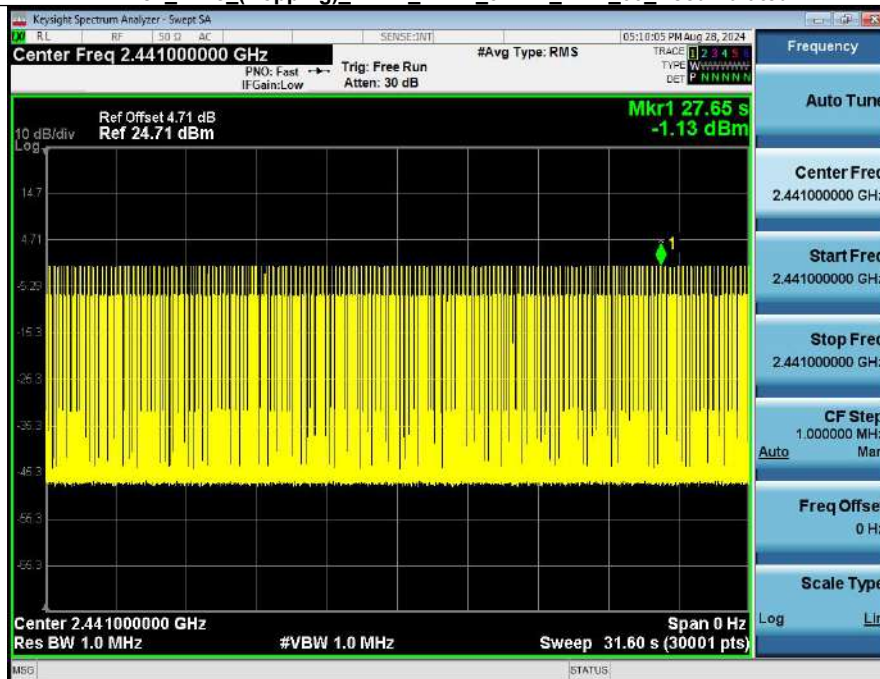
Dwell Time (Hopping) NVNT_ANT1_2-DH1_2441_00_Accumulated



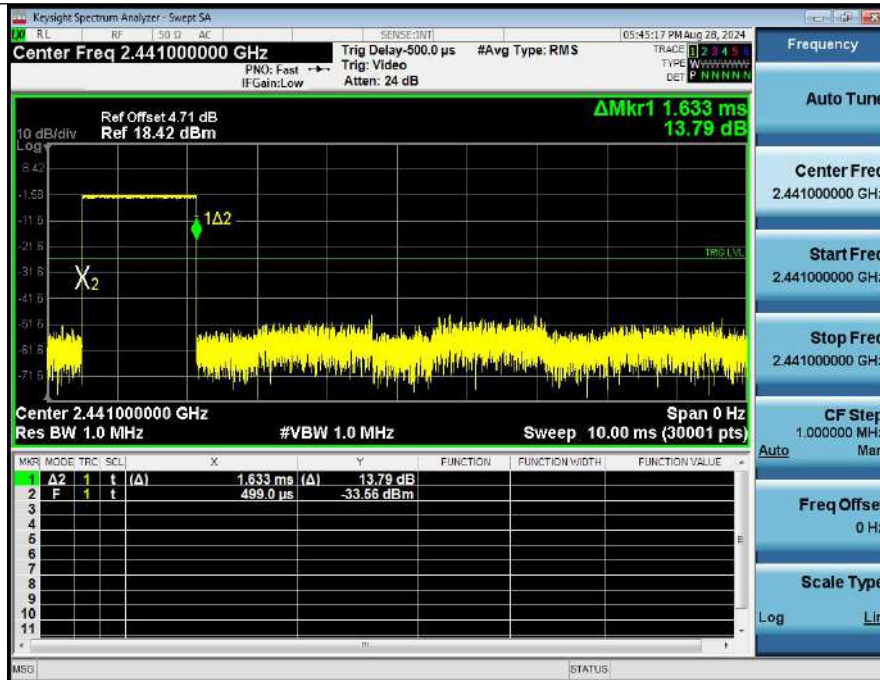
Dwell Time (Hopping) NVNT_ANT1_3-DH1_2441_00_One Burst Time



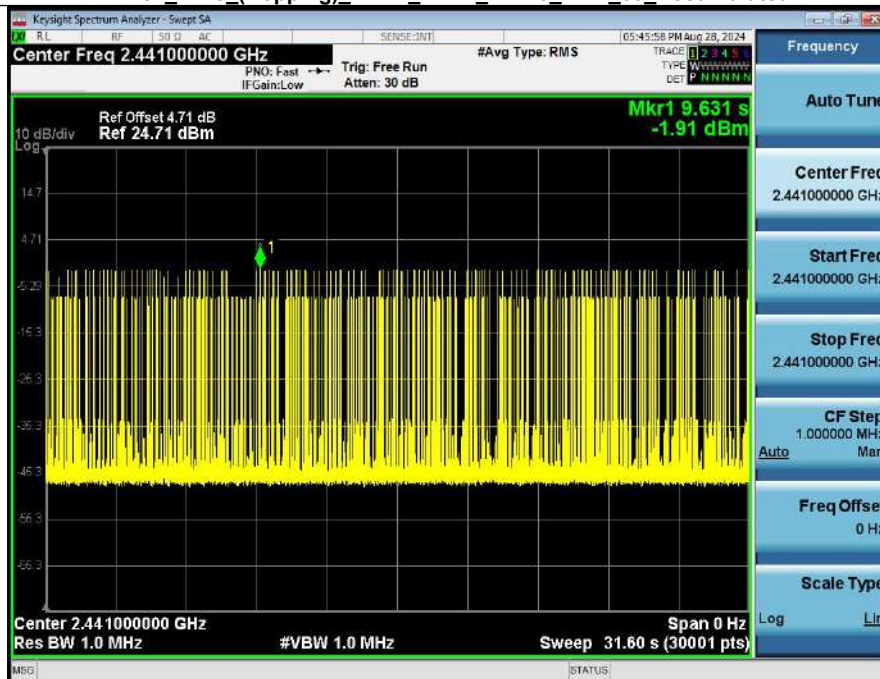
Dwell Time (Hopping) NVNT_ANT1_3-DH1_2441_00_Accumulated



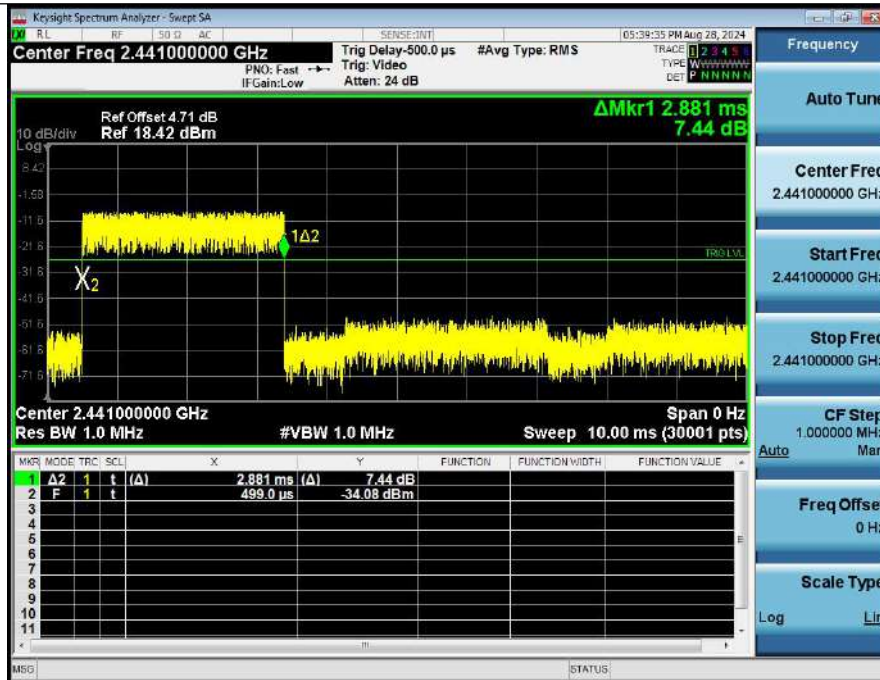
Dwell Time (Hopping) NVNT_ANT1_1-DH3_2441_00_One Burst Time



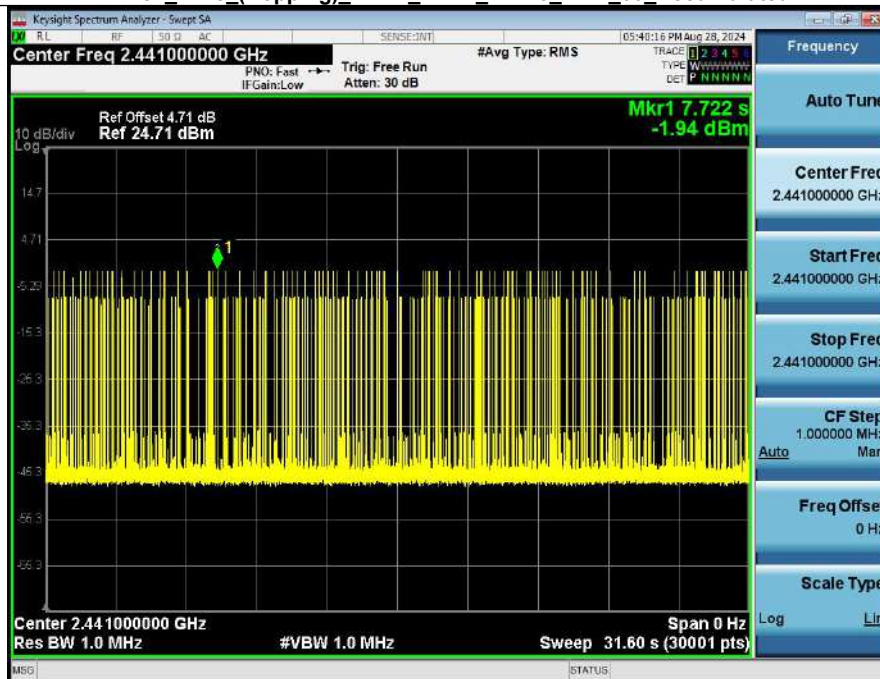
Dwell Time (Hopping) NVNT_ANT1_1-DH3_2441_00_Accumulated



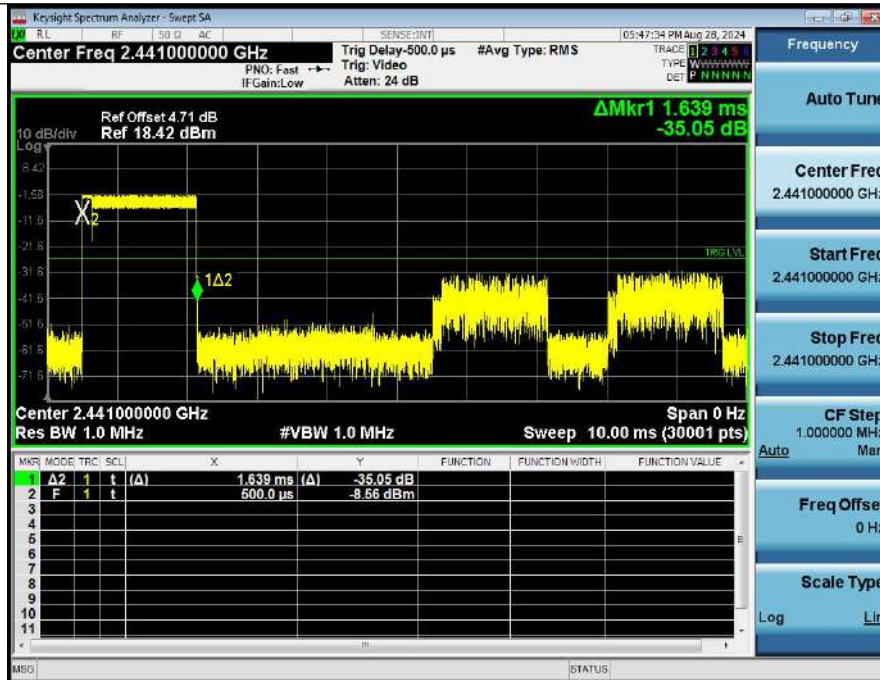
Dwell Time (Hopping) NVNT_ANT1_1-DH5_2441_00_One Burst Time



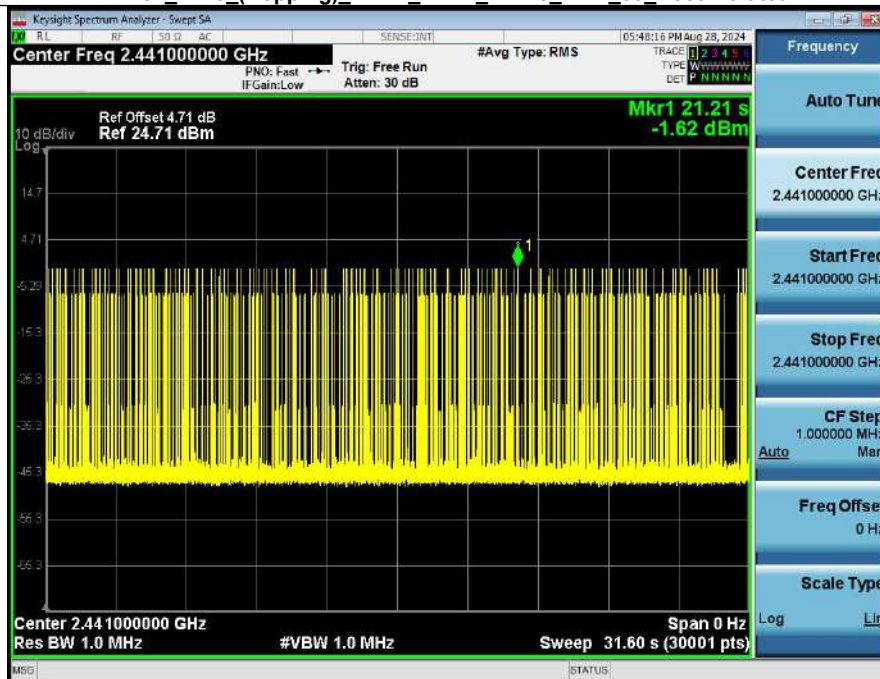
Dwell Time (Hopping) NVNT_ANT1_1-DH5_2441_00_Accumulated



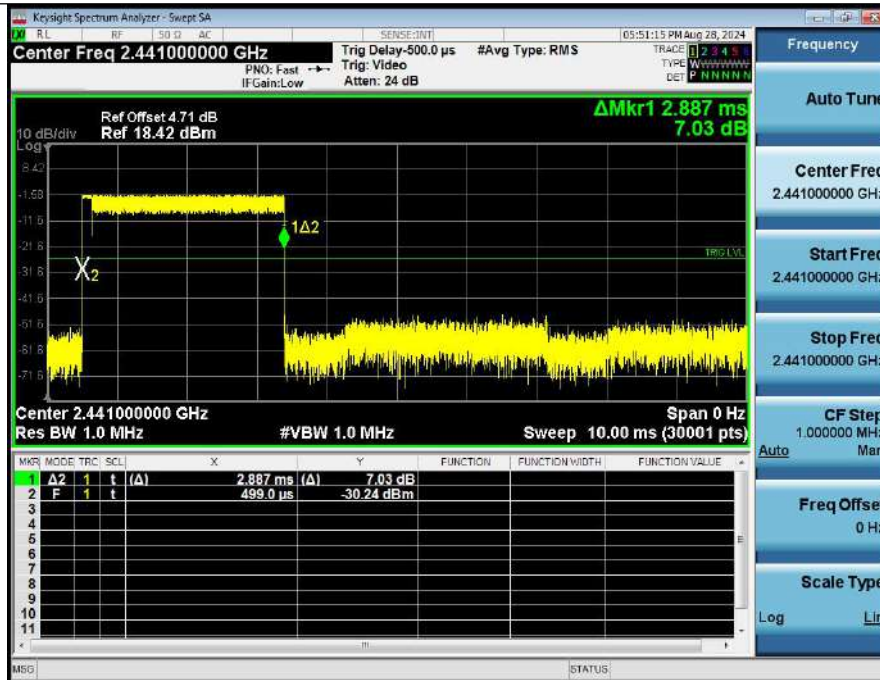
Dwell Time (Hopping) NVNT_ANT1_2-DH3_2441_00_One Burst Time



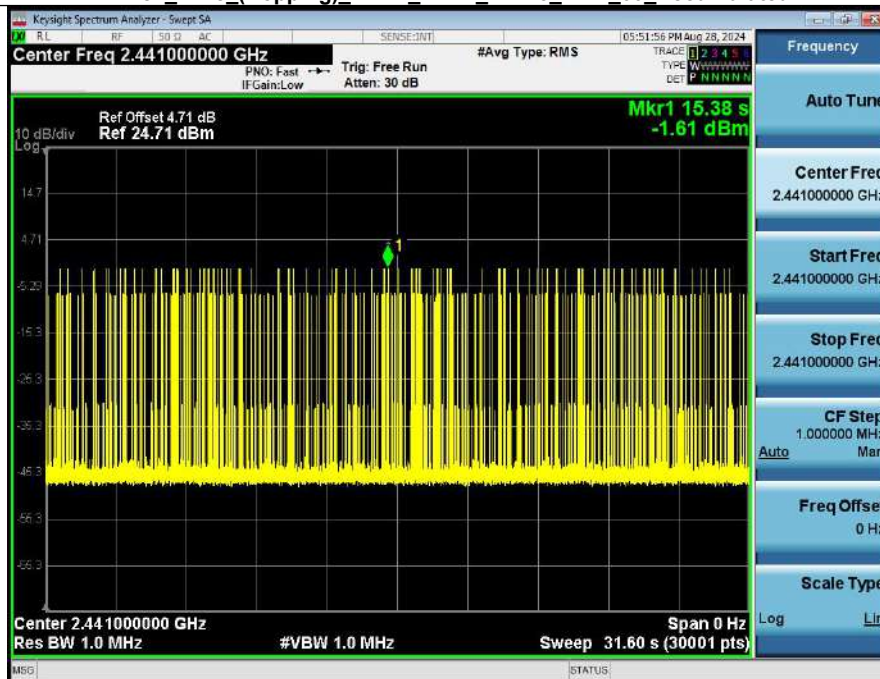
Dwell Time (Hopping) NVNT_ANT1_2-DH3_2441_00_Accumulated



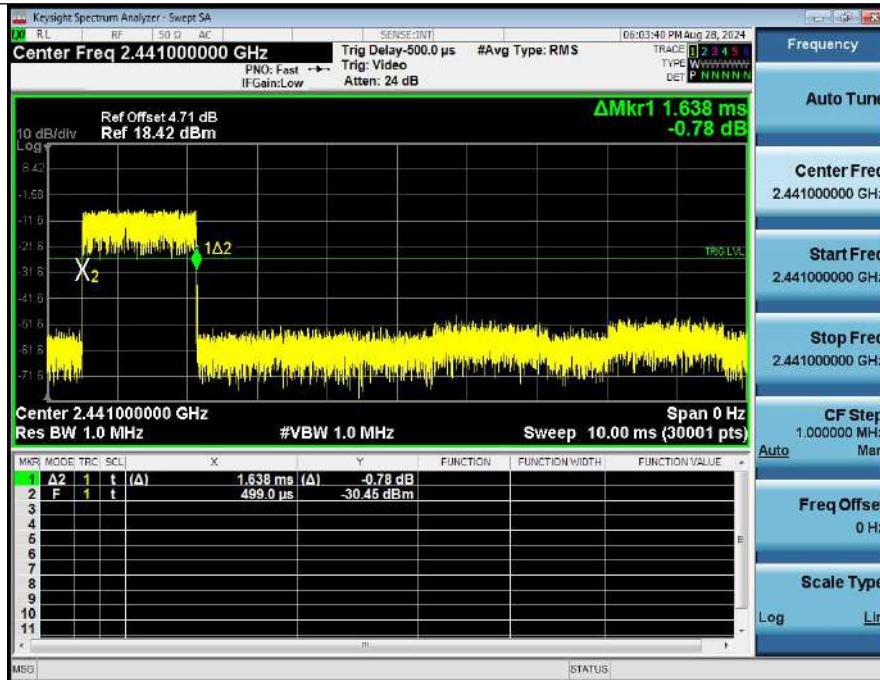
Dwell Time (Hopping) NVNT_ANT1_2-DH5_2441_00_One Burst Time



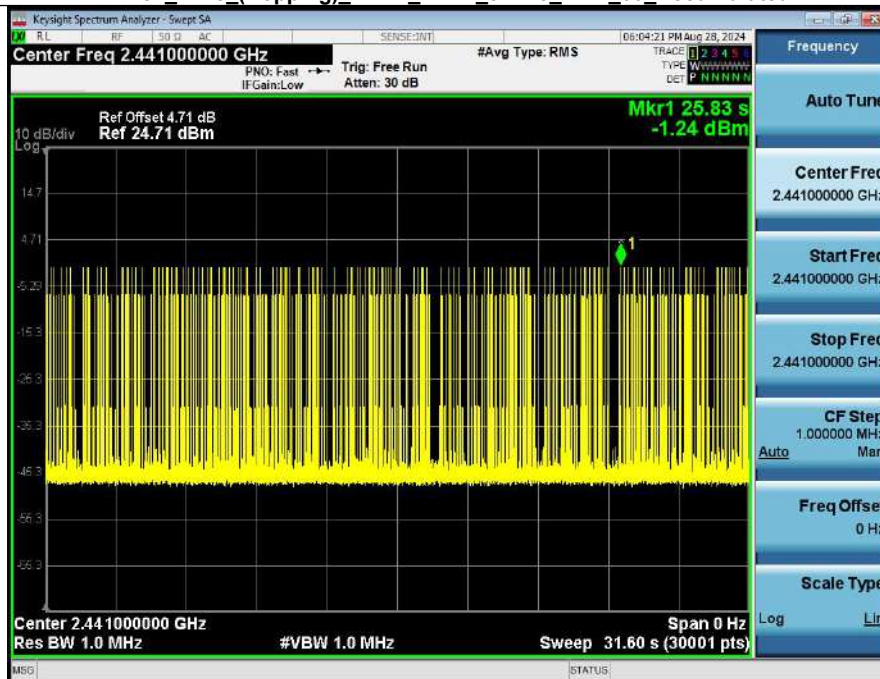
Dwell Time (Hopping) NVNT_ANT1_2-DH5_2441_00_Accumulated



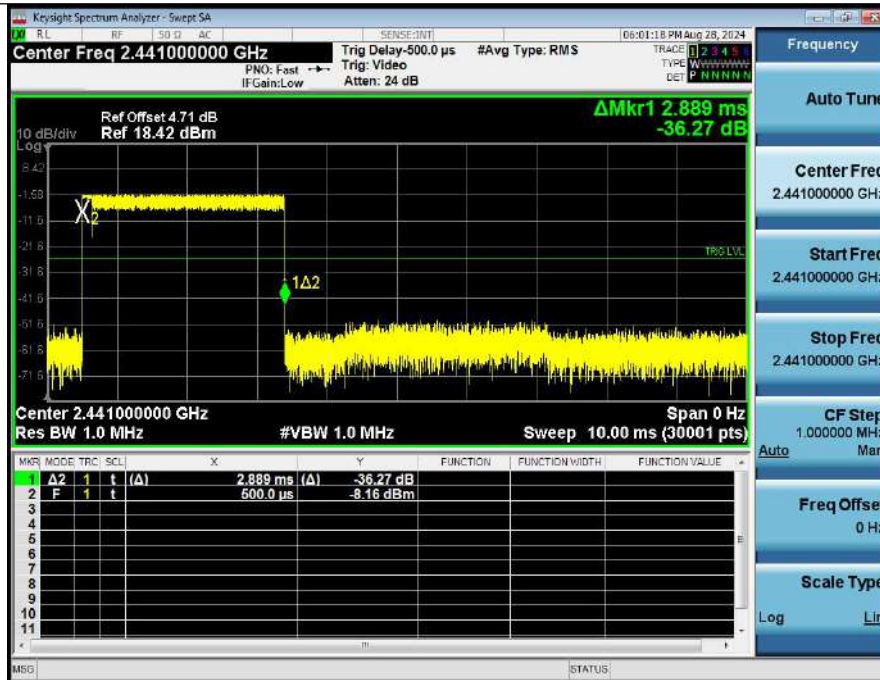
Dwell Time (Hopping) NVNT_ANT1_3-DH3_2441_00_One Burst Time



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

