

Appendix

Test Data

for BTEK241111036A01E02

Start date	2024/12/16	Finish date	2024/12/16
Temperature	18.1℃	Humidity	29%
RF specifications	BT	Test Engineer	Zora



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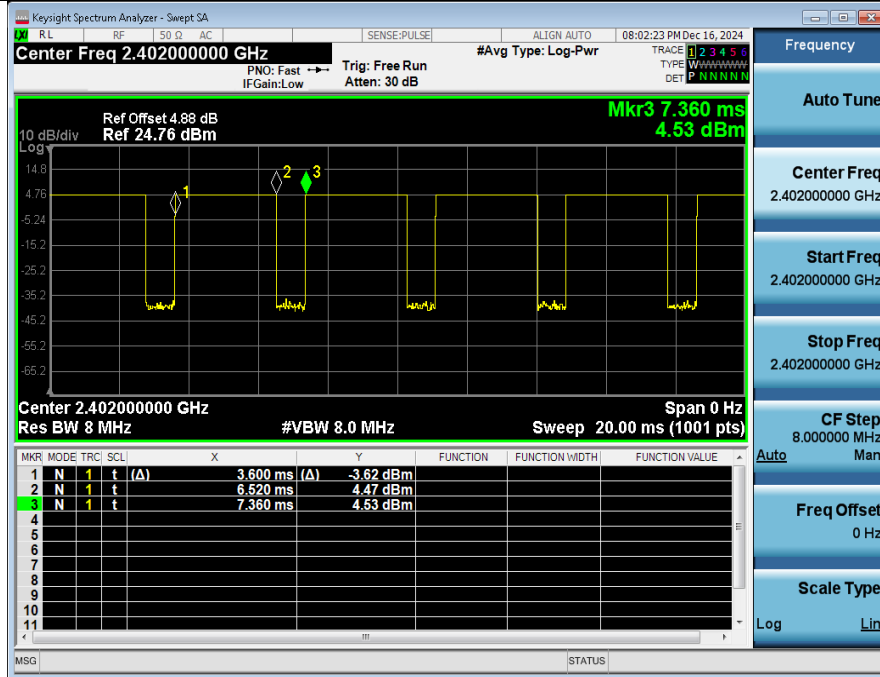
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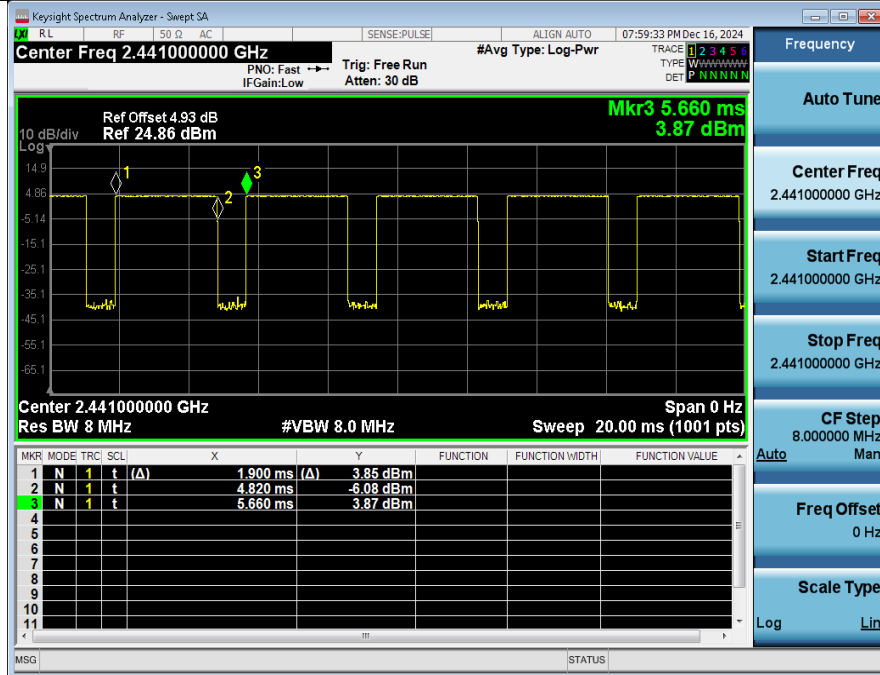
1. Duty Cycle

Condition	Antenna	Rate	Frequency (MHz)	Dutycycle(%)	Duty_factor
NVNT	ANT1	1-DH5	2402.00	78.19	1.07
NVNT	ANT1	1-DH5	2441.00	78.19	1.07
NVNT	ANT1	1-DH5	2480.00	78.07	1.07
NVNT	ANT1	2-DH5	2402.00	78.07	1.07
NVNT	ANT1	2-DH5	2441.00	78.19	1.07
NVNT	ANT1	2-DH5	2480.00	77.54	1.10
NVNT	ANT1	3-DH5	2402.00	78.19	1.07
NVNT	ANT1	3-DH5	2441.00	78.19	1.07
NVNT	ANT1	3-DH5	2480.00	78.07	1.07

Duty Cycle_NVNT_ANT1_1-DH5_2402

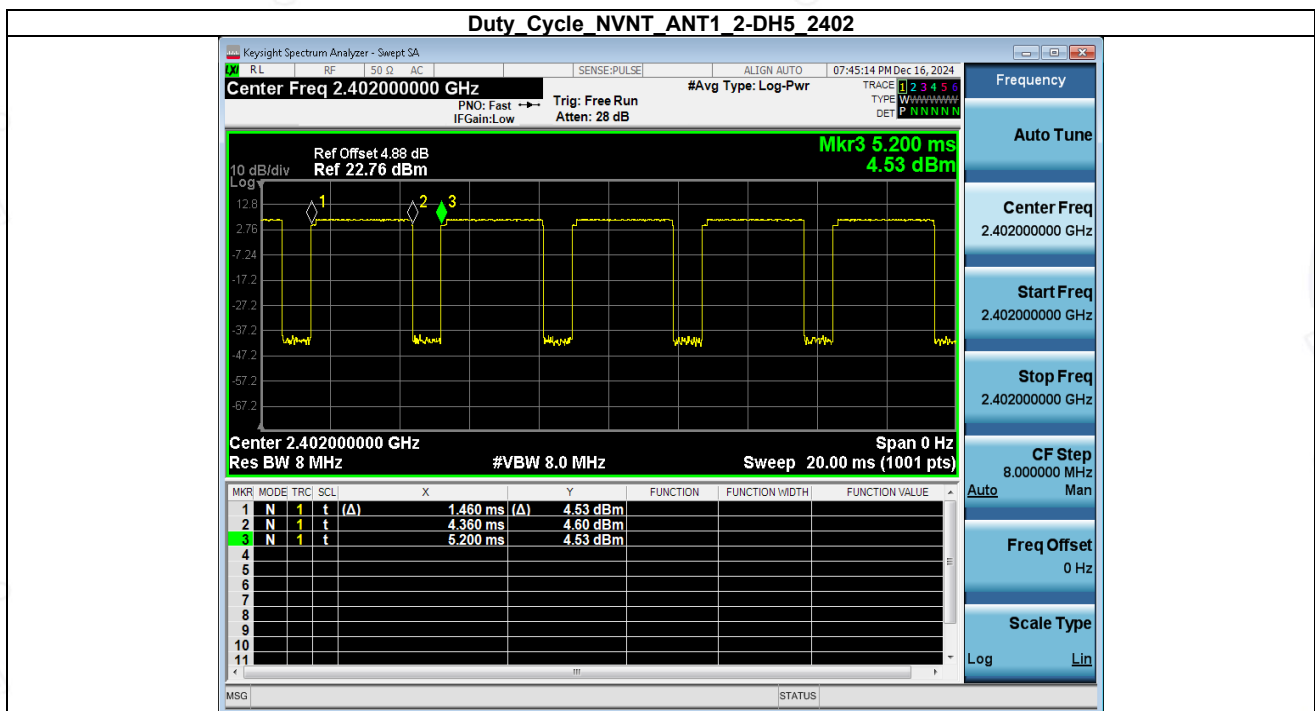
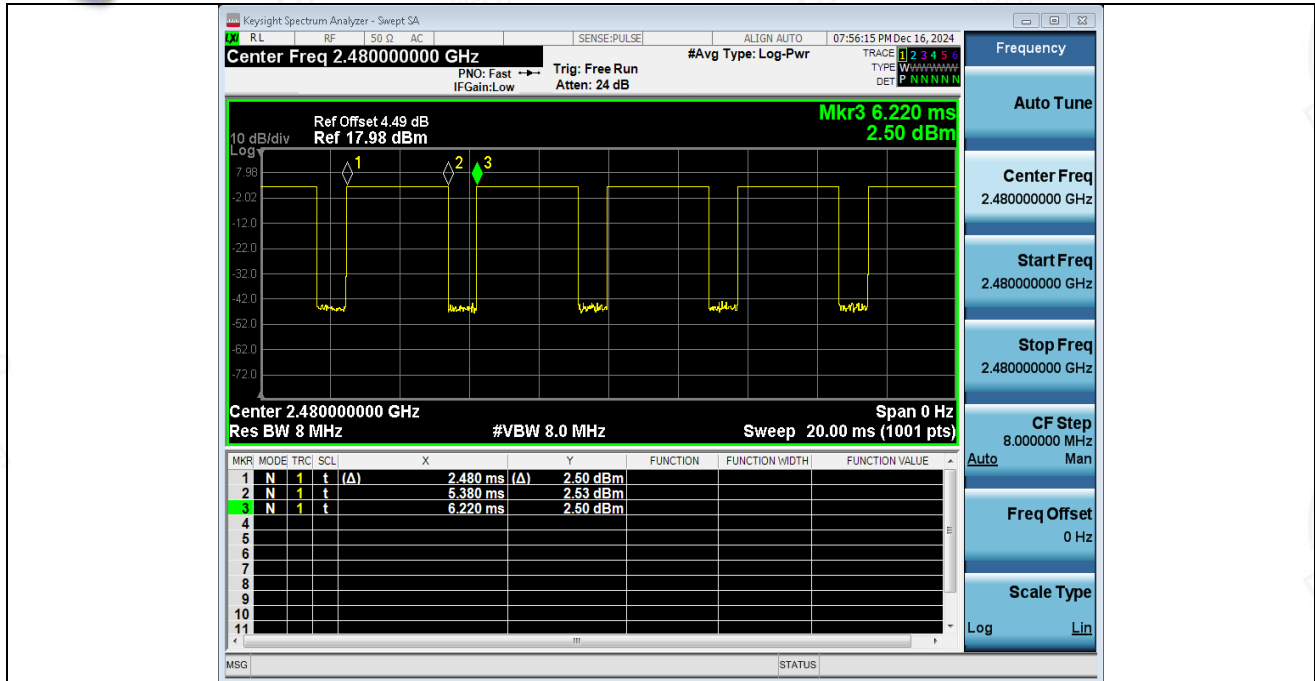


Duty Cycle_NVNT_ANT1_1-DH5_2441



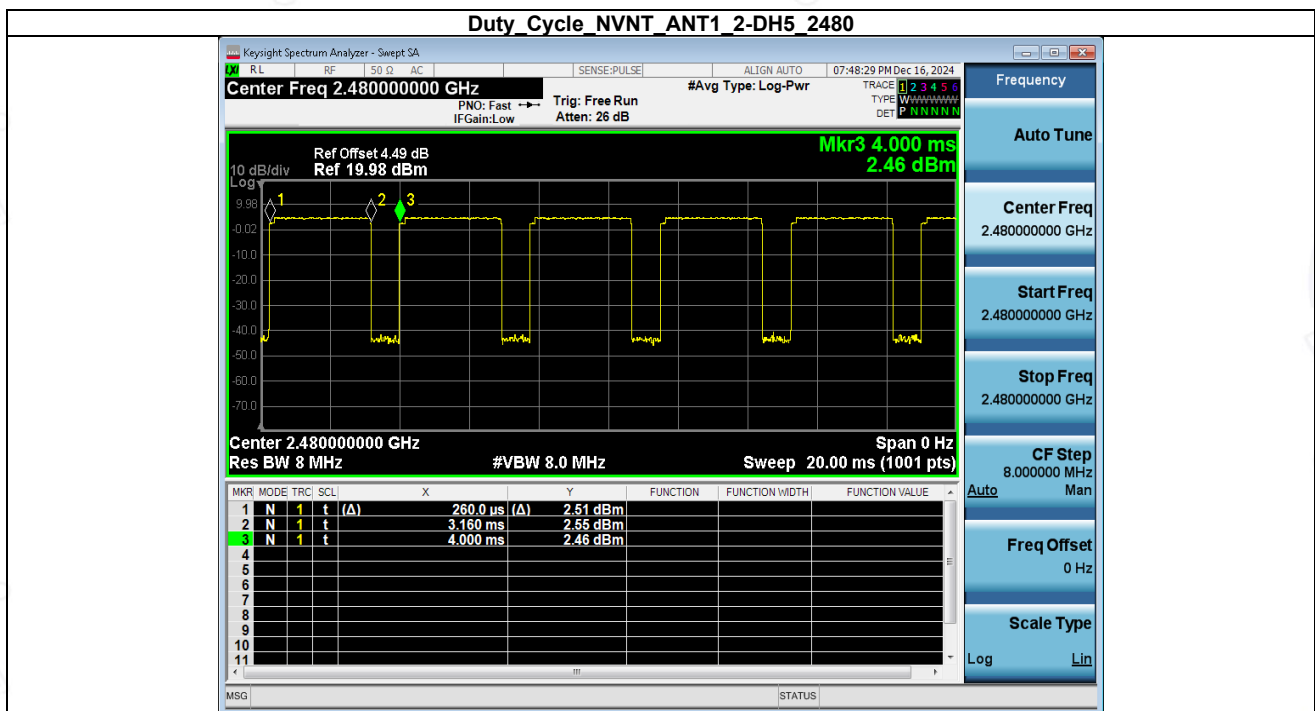
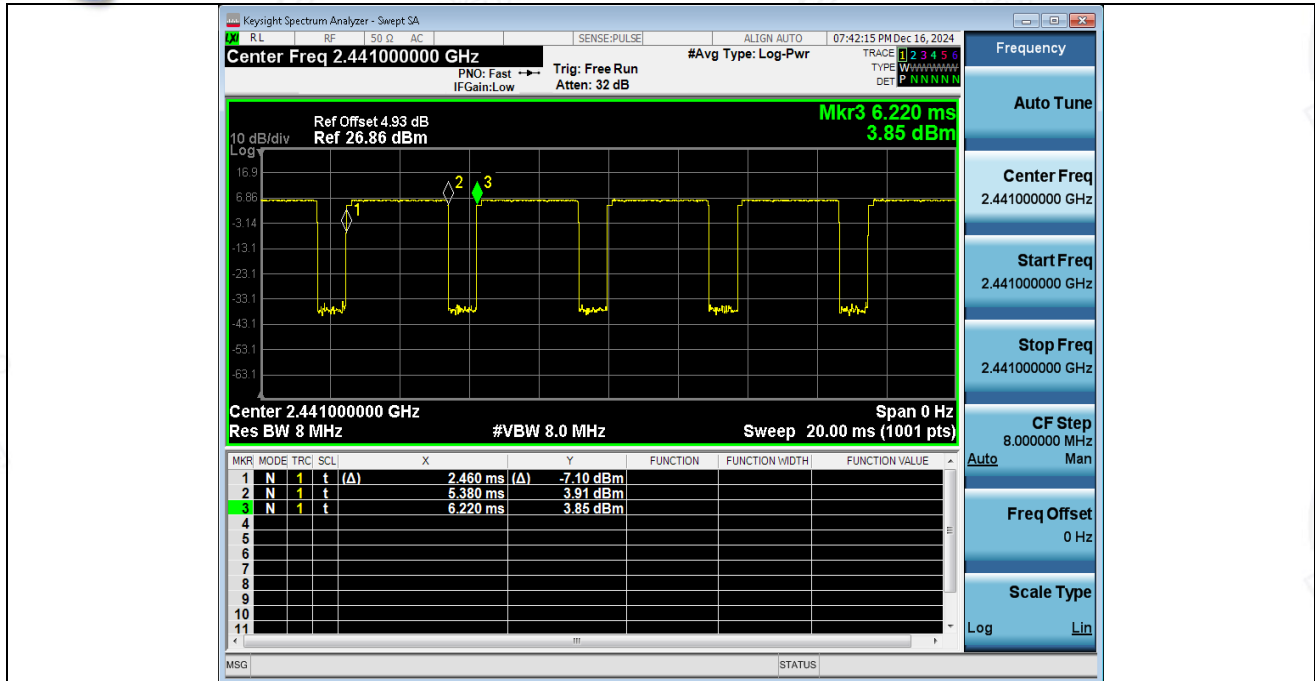
Duty Cycle_NVNT_ANT1_1-DH5_2480





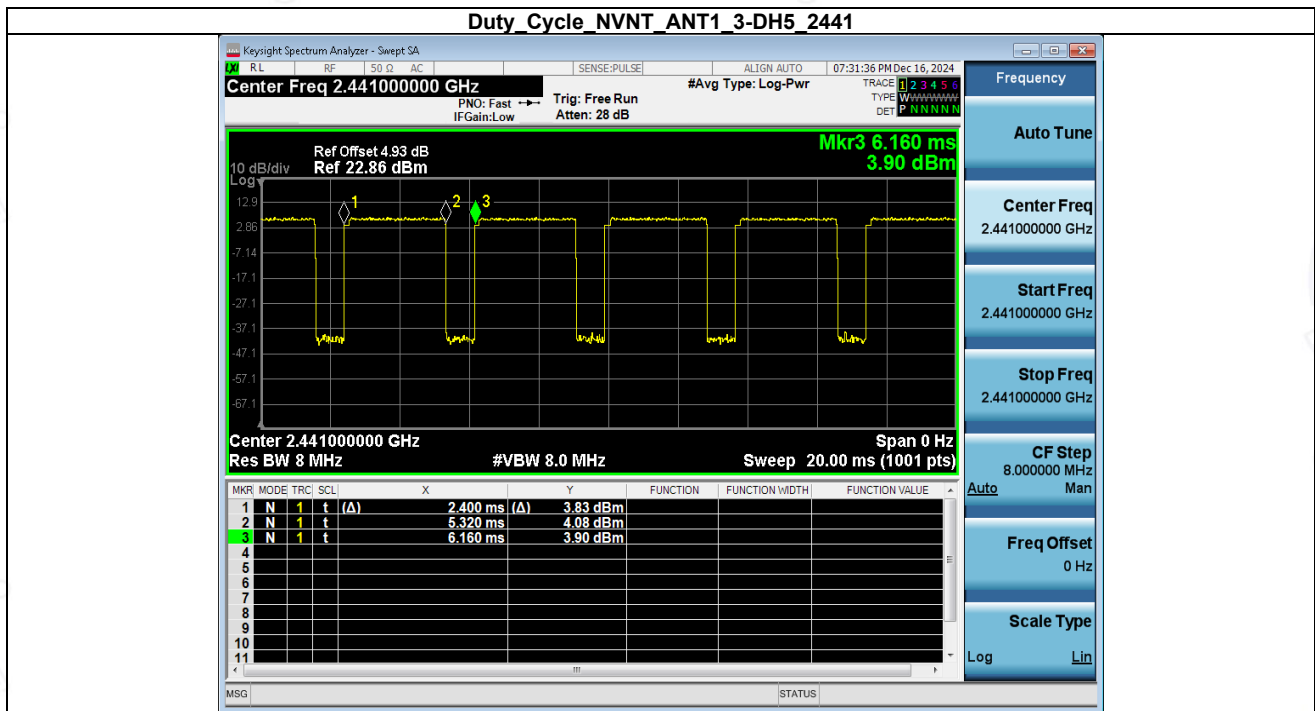
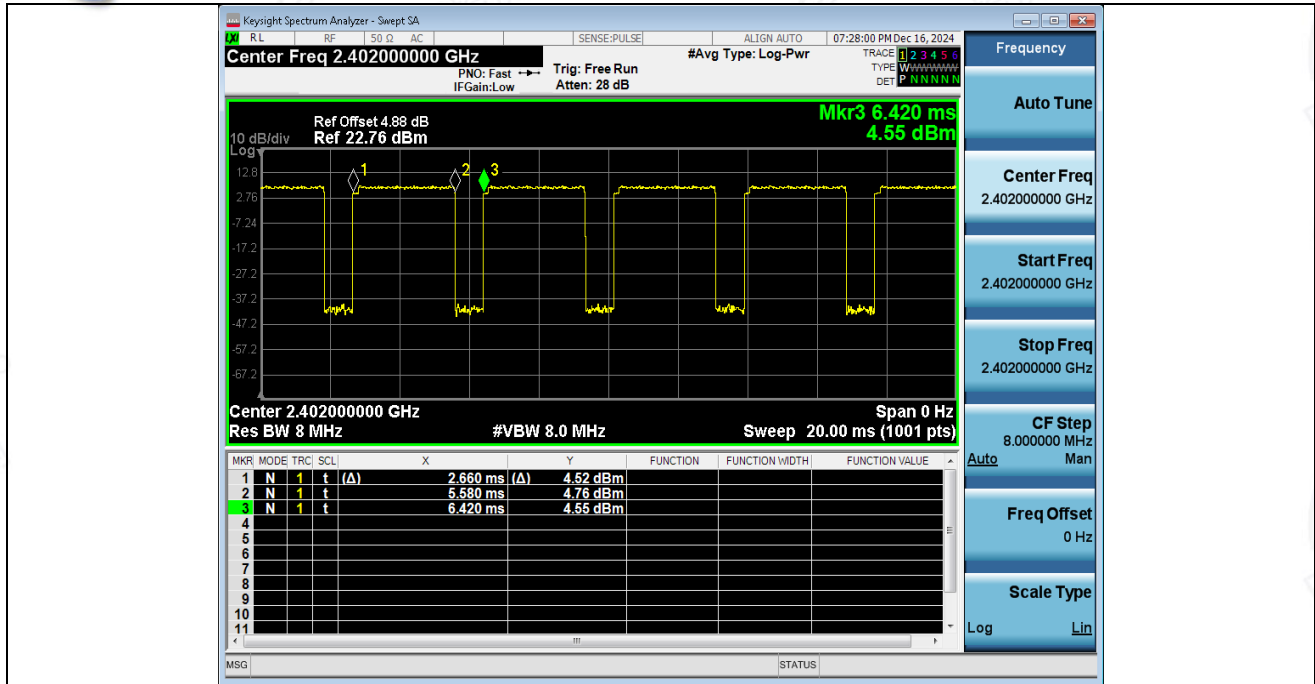
Duty Cycle_NVNT_ANT1_2-DH5_2441





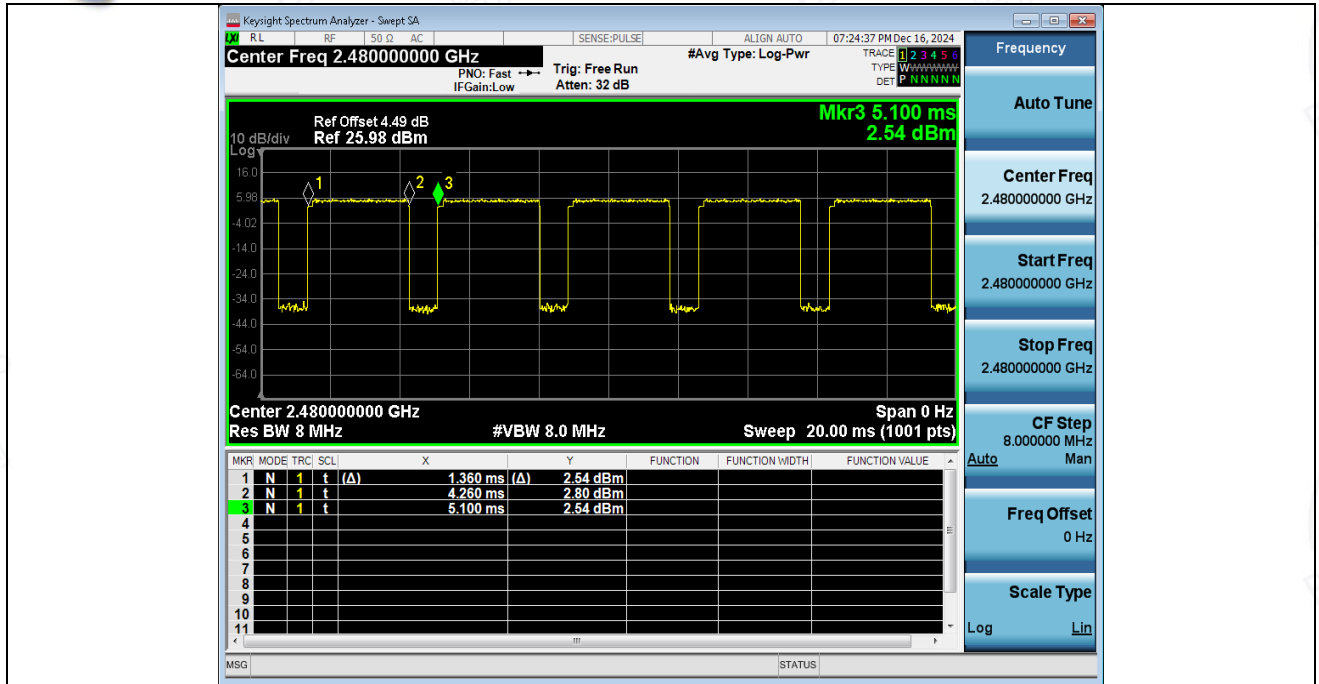
Duty Cycle_NVNT_ANT1_3-DH5_2402





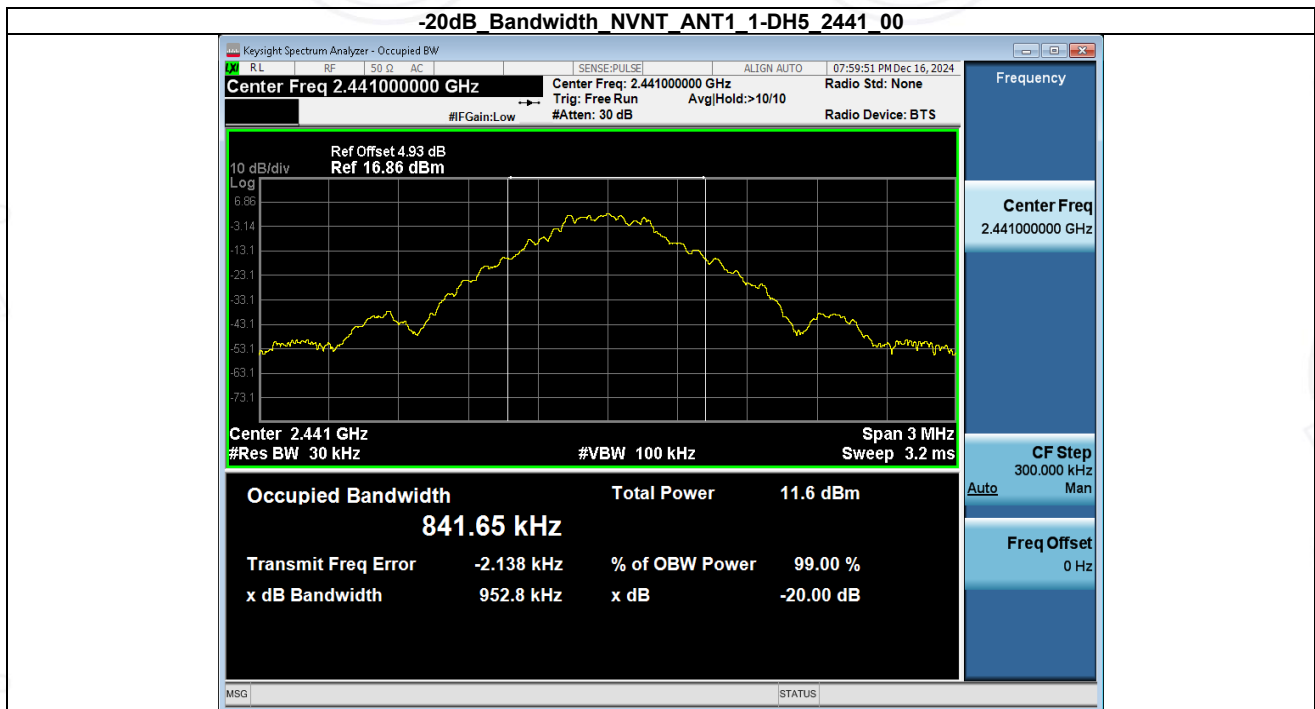
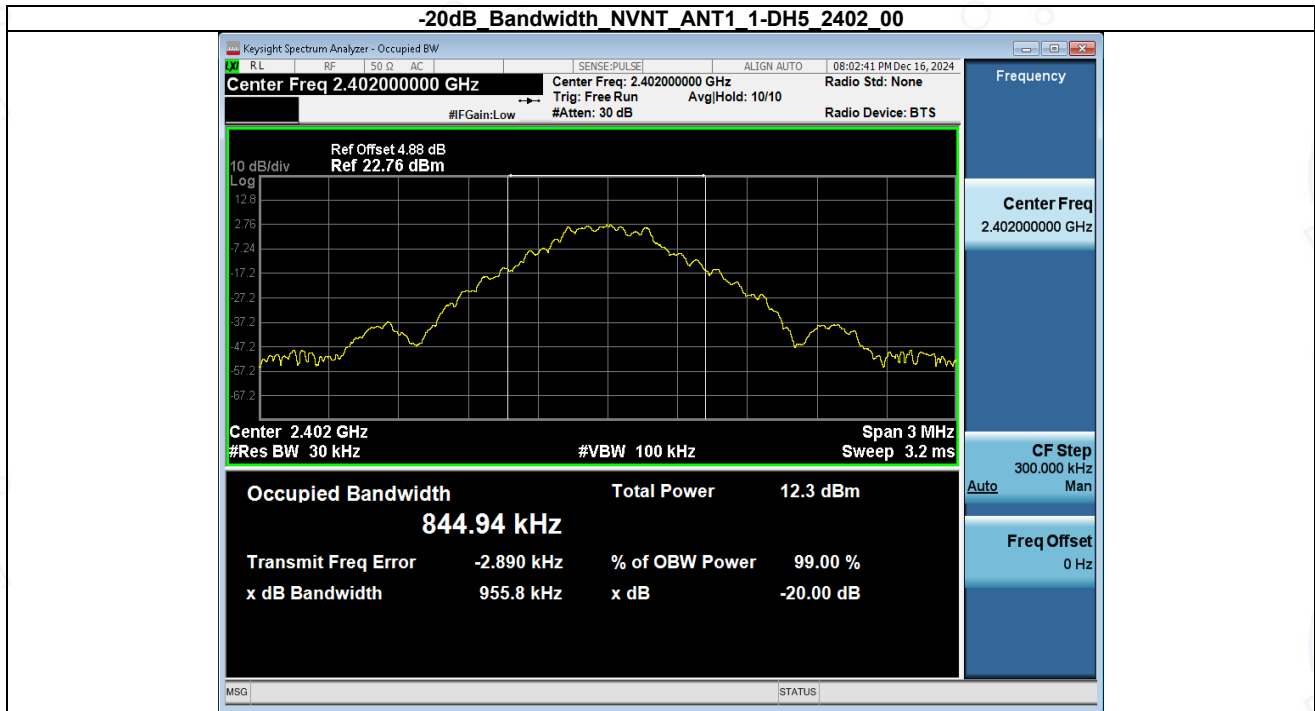
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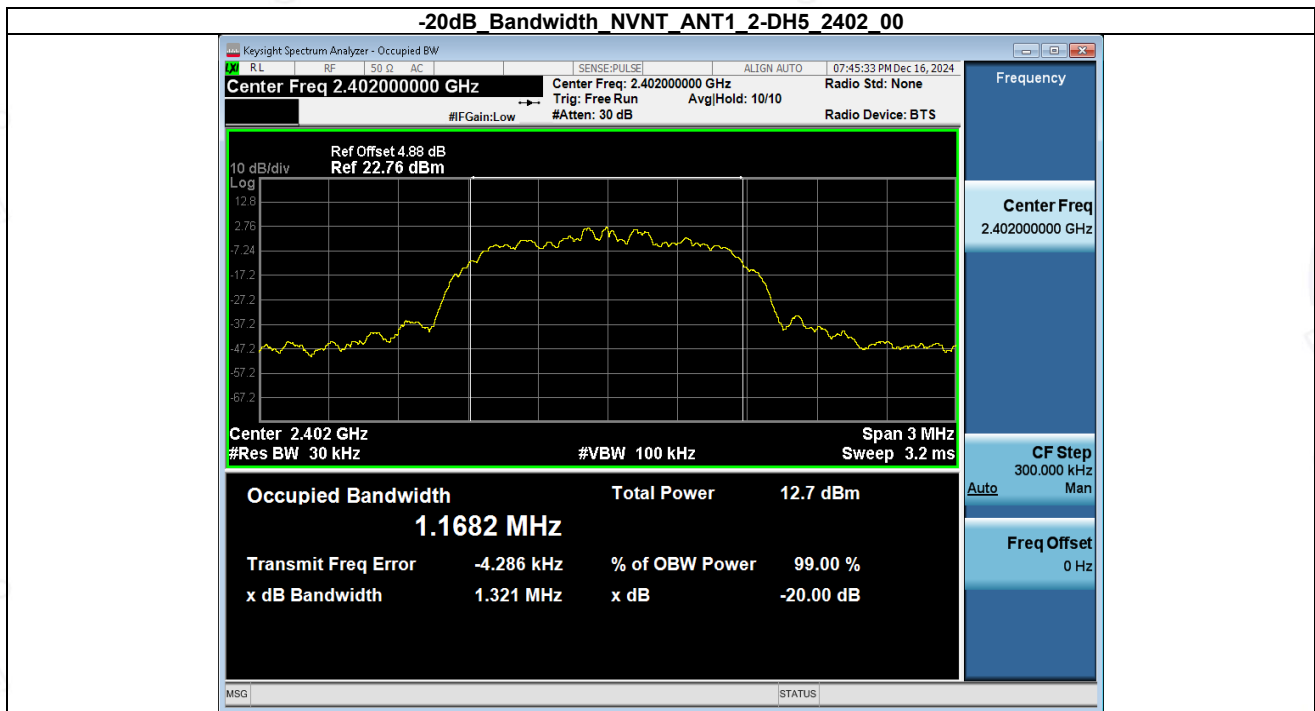
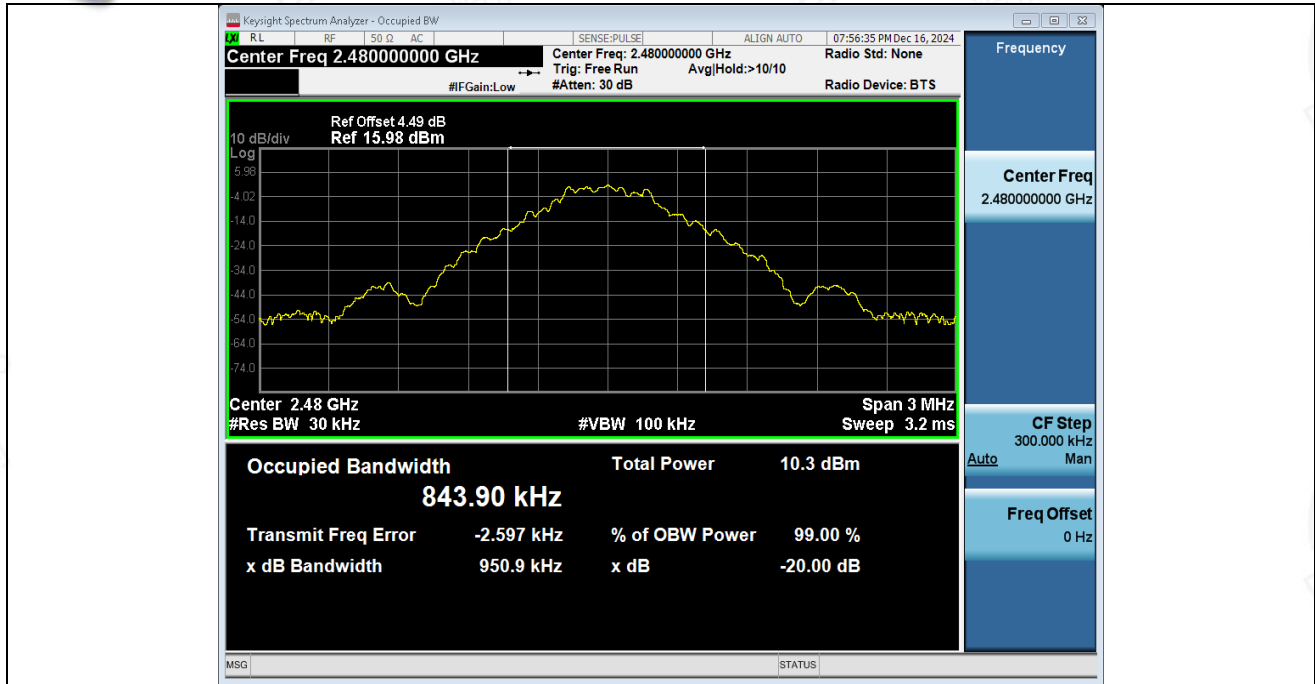




2. -20dB Bandwidth

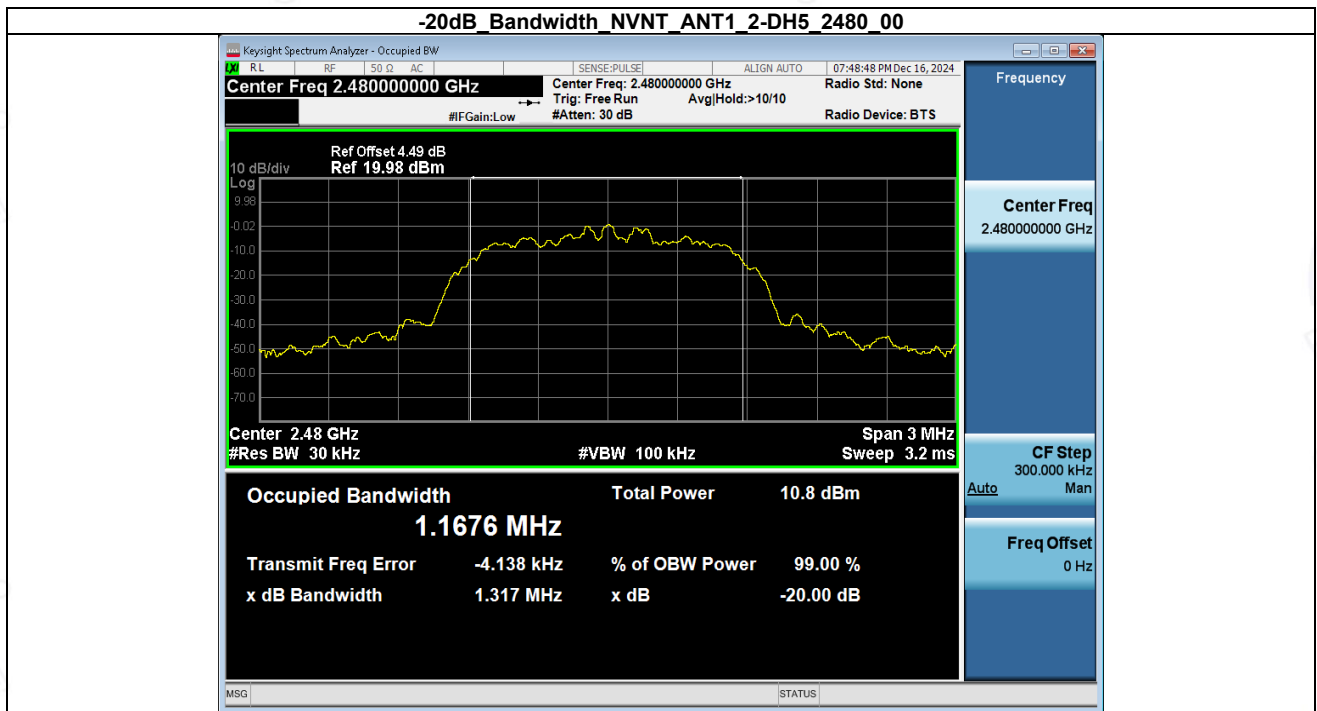
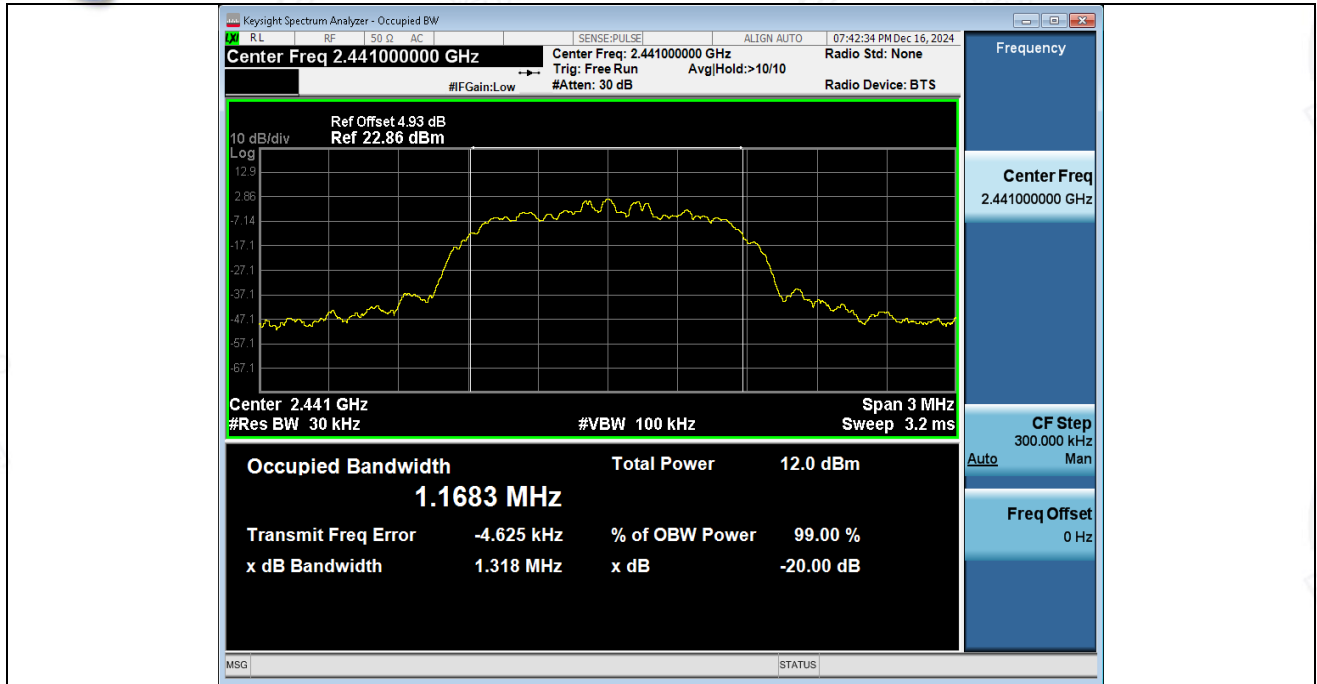
Condition	Antenna	Modulation	Frequency (MHz)	-20dB BW(MHz)	if larger than CFS
NVNT	ANT1	1-DH5	2402.00	0.956	No
NVNT	ANT1	1-DH5	2441.00	0.953	No
NVNT	ANT1	1-DH5	2480.00	0.951	No
NVNT	ANT1	2-DH5	2402.00	1.321	Yes
NVNT	ANT1	2-DH5	2441.00	1.318	Yes
NVNT	ANT1	2-DH5	2480.00	1.317	Yes
NVNT	ANT1	3-DH5	2402.00	1.307	Yes
NVNT	ANT1	3-DH5	2441.00	1.308	Yes
NVNT	ANT1	3-DH5	2480.00	1.304	Yes





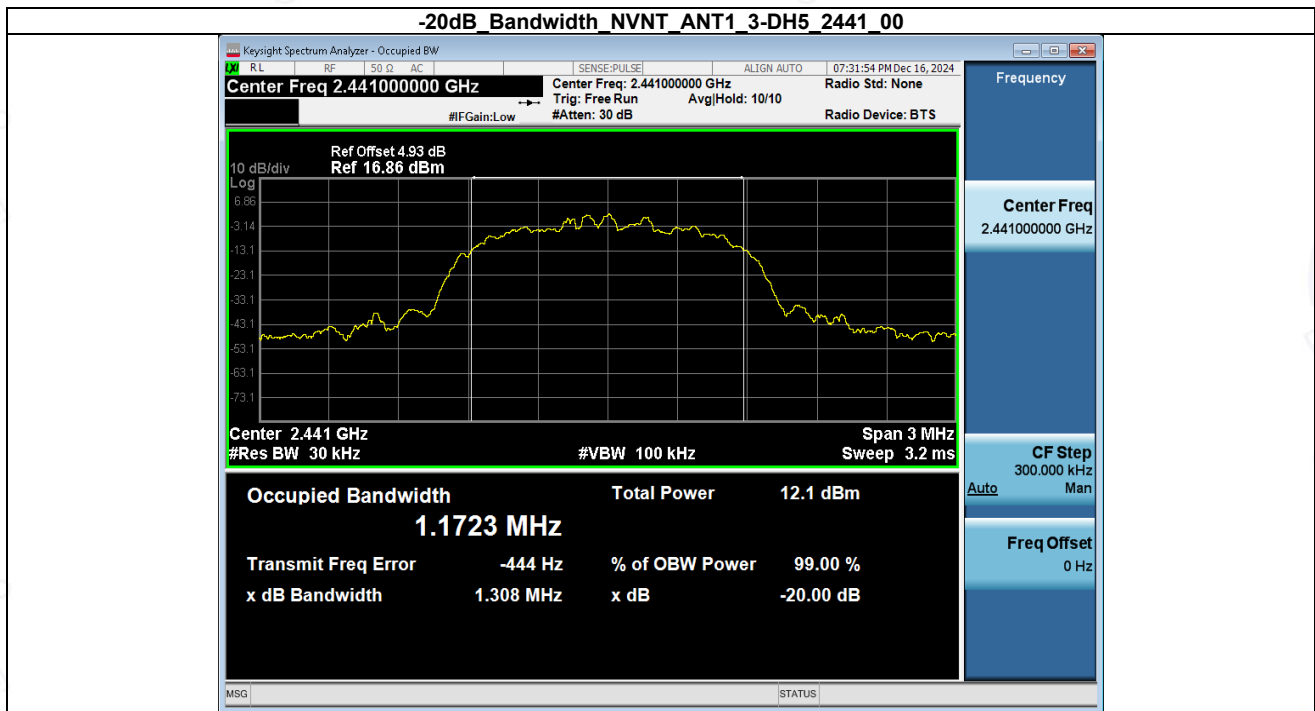
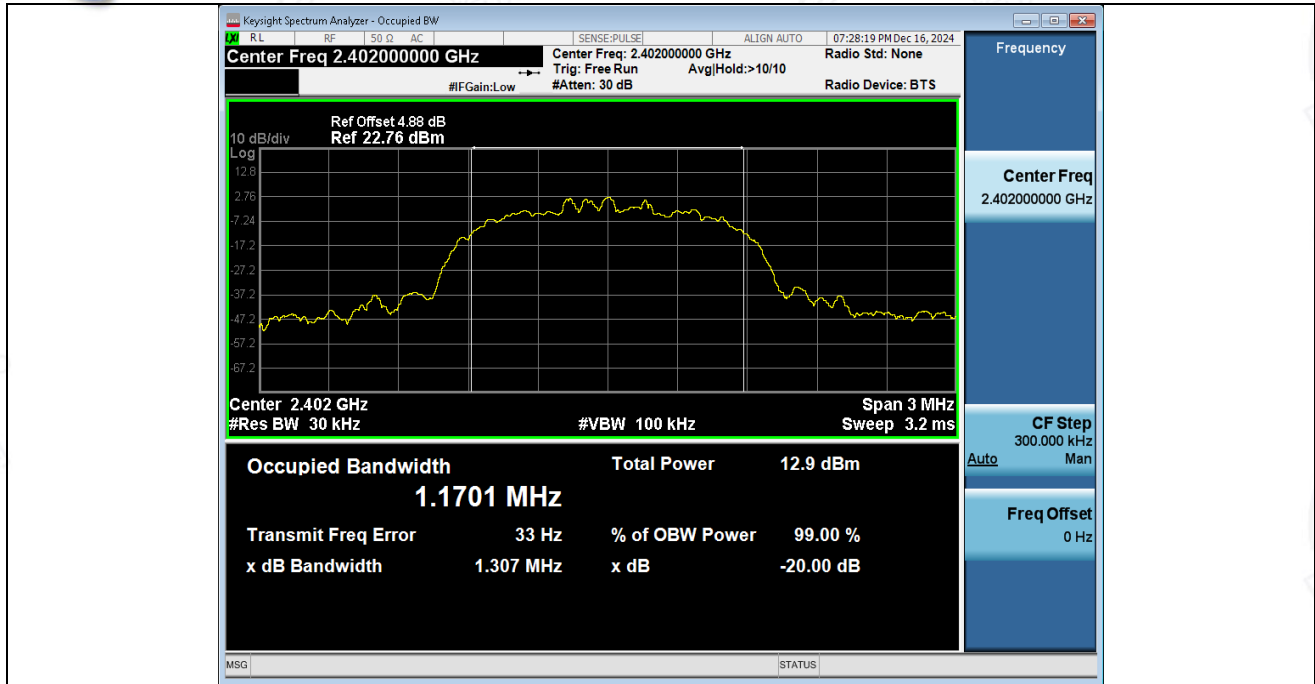
-20dB Bandwidth_NVNT_ANT1_2-DH5_2441_00





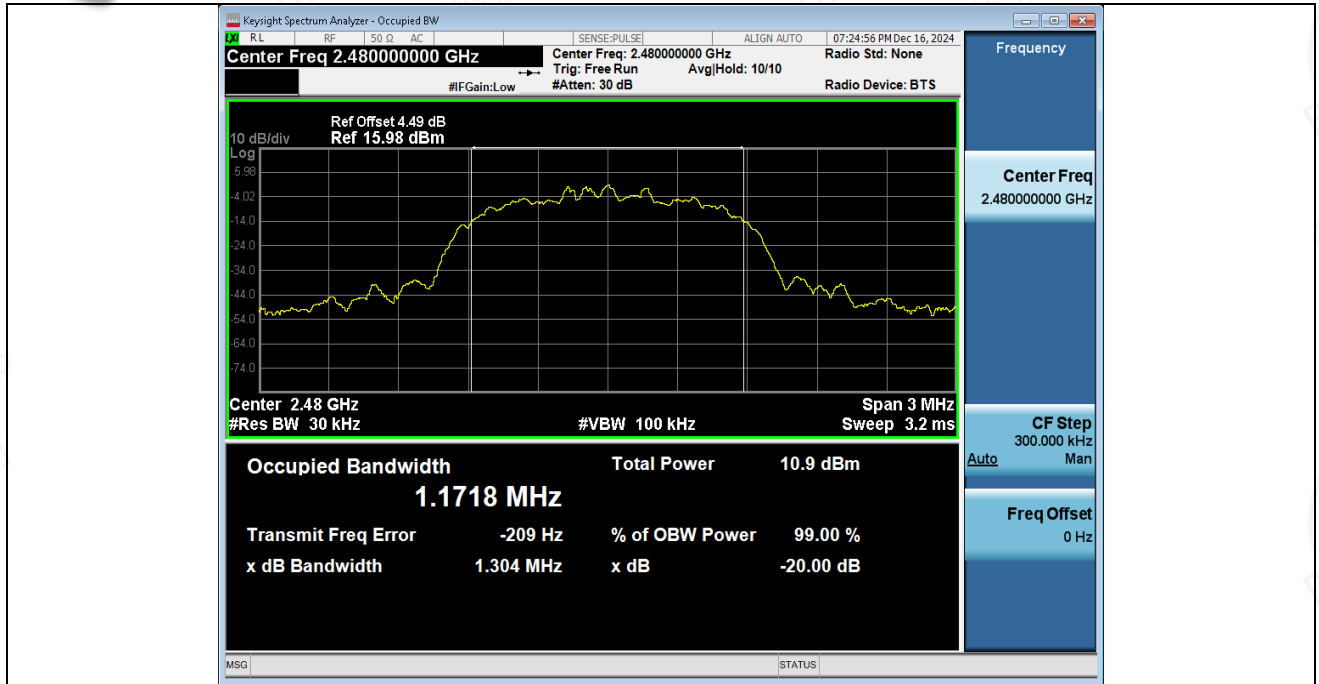
-20dB Bandwidth NVNT_ANT1_3-DH5_2402_00





-20dB_Bandwidth_NVNT_ANT1_3-DH5_2480_00





3. 99% Occupied Bandwidth

Condition	Antenna	Modulation	Frequency (MHz)	99% BW (MHz)
NVNT	ANT1	1-DH5	2402.00	0.844
NVNT	ANT1	1-DH5	2441.00	0.843
NVNT	ANT1	1-DH5	2480.00	0.844
NVNT	ANT1	2-DH5	2402.00	1.168
NVNT	ANT1	2-DH5	2441.00	1.170
NVNT	ANT1	2-DH5	2480.00	1.166
NVNT	ANT1	3-DH5	2402.00	1.169
NVNT	ANT1	3-DH5	2441.00	1.174
NVNT	ANT1	3-DH5	2480.00	1.172

99% Occupied Bandwidth NVNT ANT1 1-DH5 2402 00

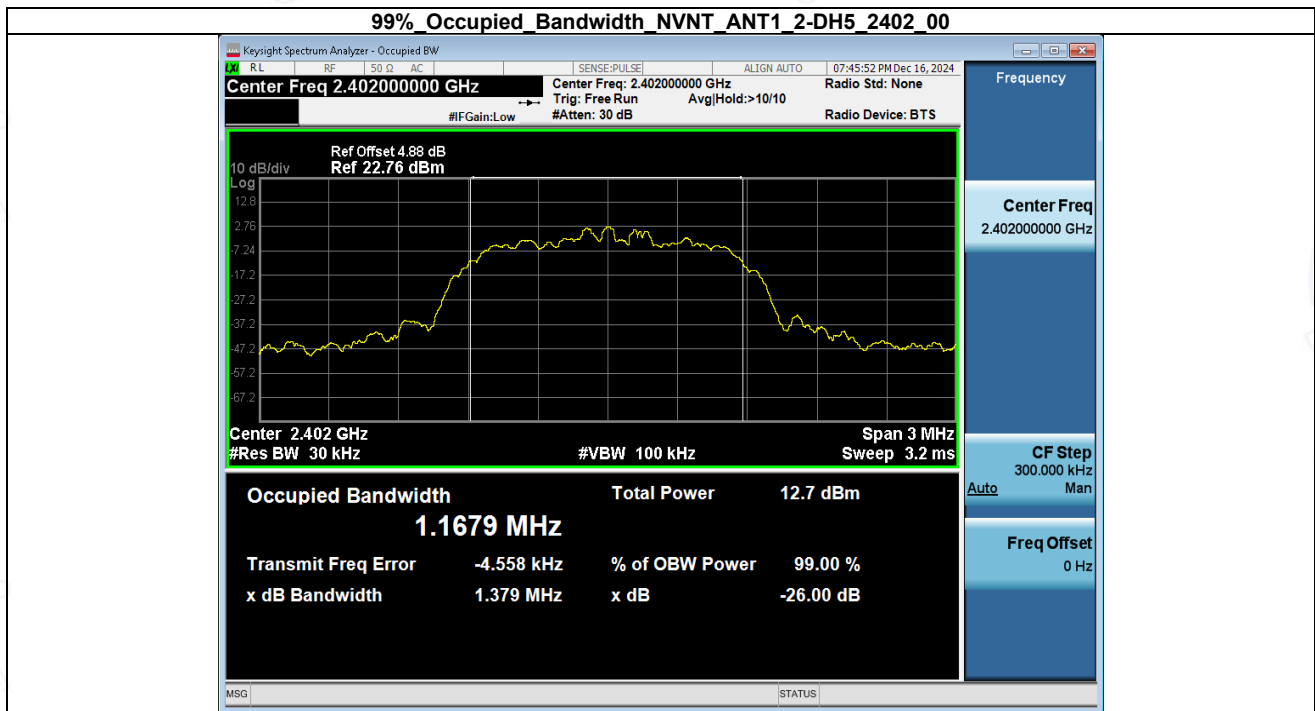


99% Occupied Bandwidth NVNT ANT1 1-DH5 2441 00



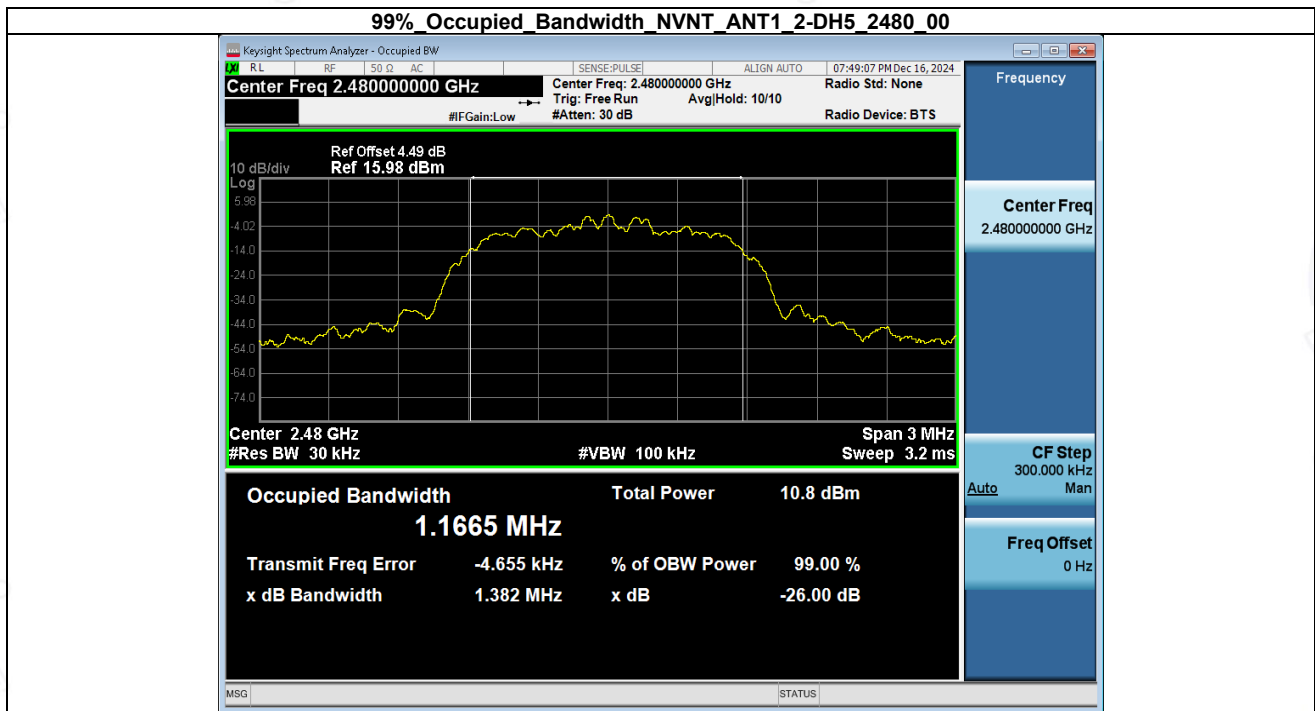
99% Occupied Bandwidth NVNT ANT1 1-DH5 2480 00





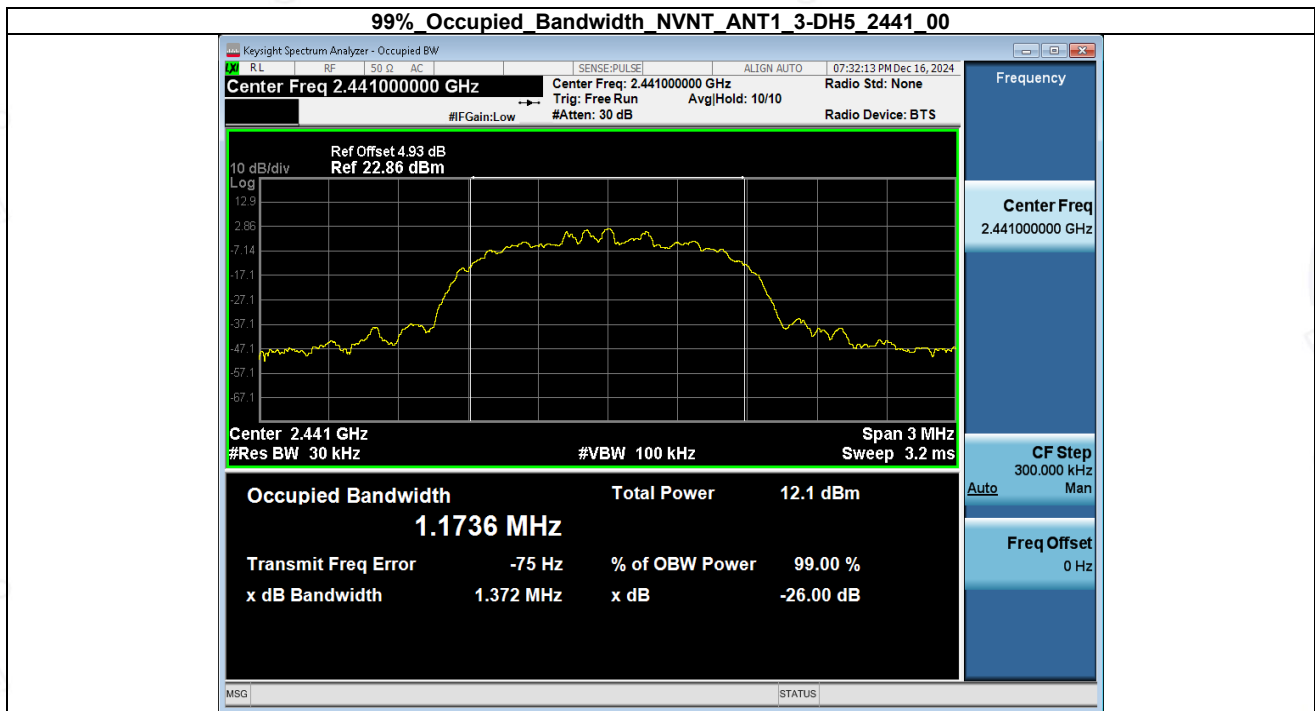
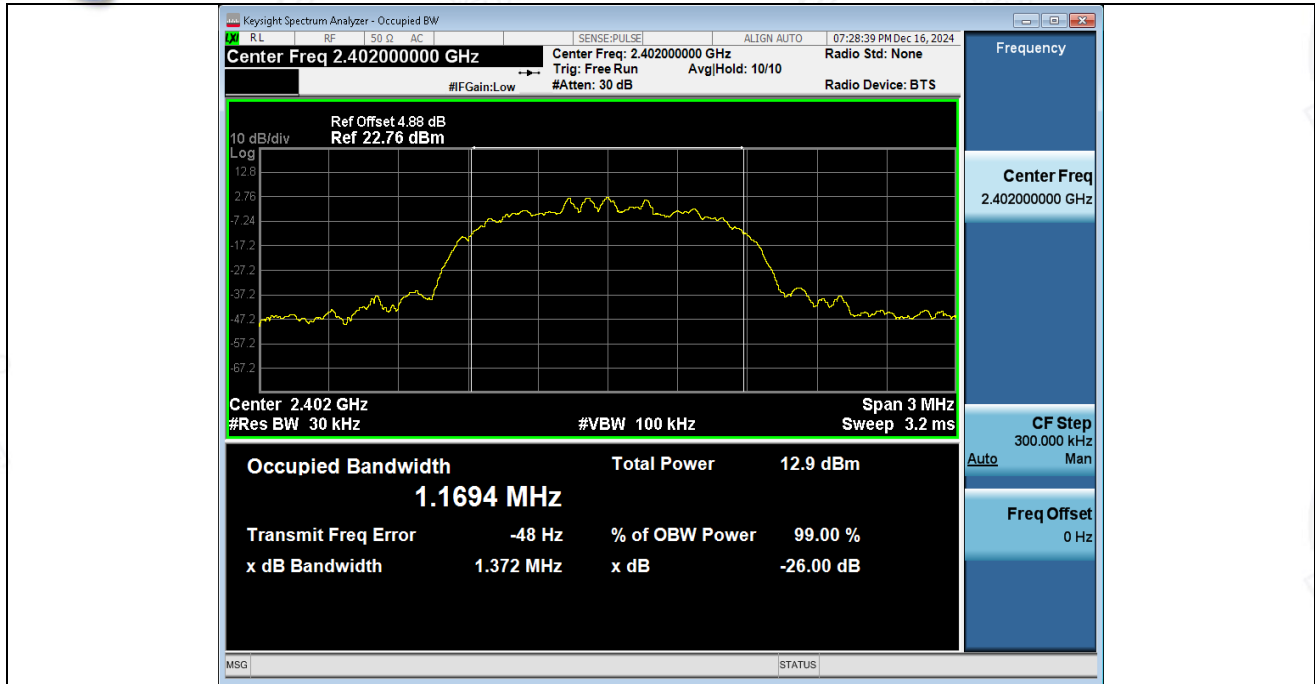
99% Occupied Bandwidth NVNT_ANT1_2-DH5_2441_00





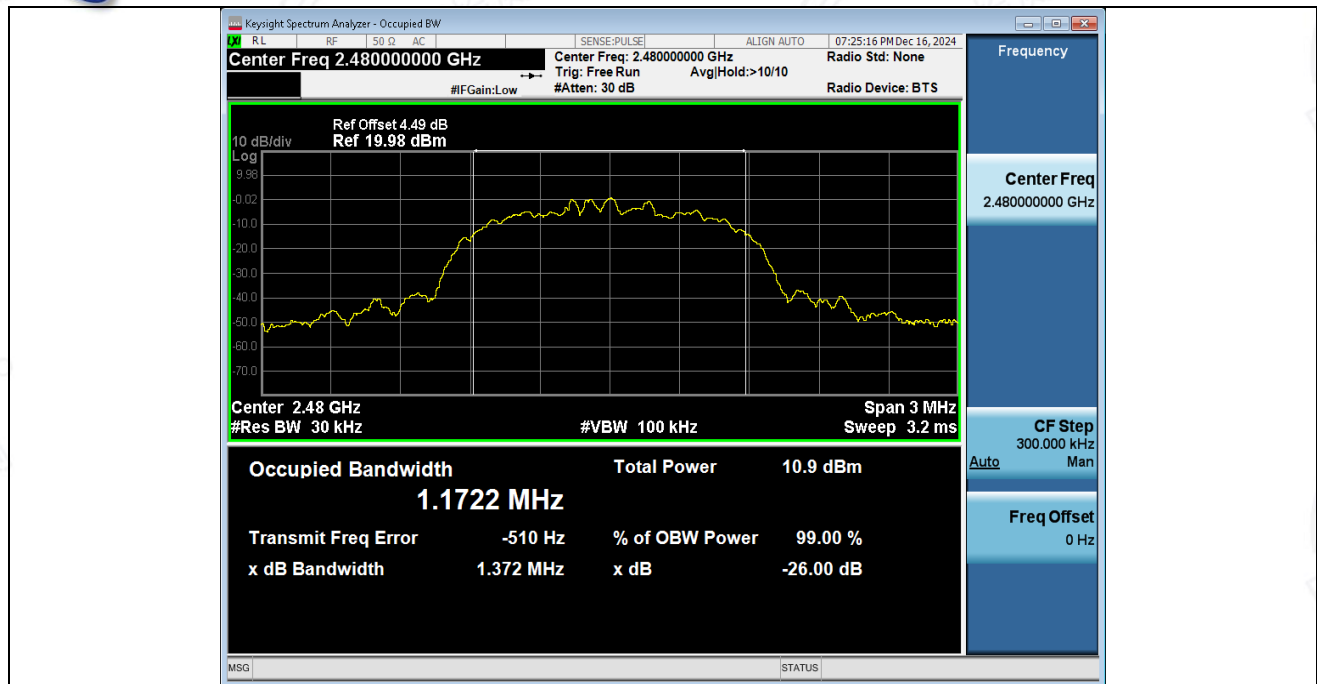
99% Occupied Bandwidth NVNT_ANT1_3-DH5_2402_00





99% Occupied Bandwidth NVNT_ANT1_3-DH5_2480_00





4. Peak Output Power

Condition	Antenna	Modulation	Frequency (MHz)	Max. Conducted Power(dBm)	Max. Conducted Power(mW)	Limit(mW)	Result
NVNT	ANT1	1-DH5	2402.00	4.60	2.88	1000	Pass
NVNT	ANT1	1-DH5	2441.00	3.94	2.48	1000	Pass
NVNT	ANT1	1-DH5	2480.00	2.56	1.80	1000	Pass
NVNT	ANT1	2-DH5	2402.00	6.97	4.98	125	Pass
NVNT	ANT1	2-DH5	2441.00	6.35	4.31	125	Pass
NVNT	ANT1	2-DH5	2480.00	4.94	3.12	125	Pass
NVNT	ANT1	3-DH5	2402.00	7.56	5.70	125	Pass
NVNT	ANT1	3-DH5	2441.00	6.82	4.81	125	Pass
NVNT	ANT1	3-DH5	2480.00	5.47	3.53	125	Pass

Peak Output Power NVNT_ANT1_1-DH5_2402_00

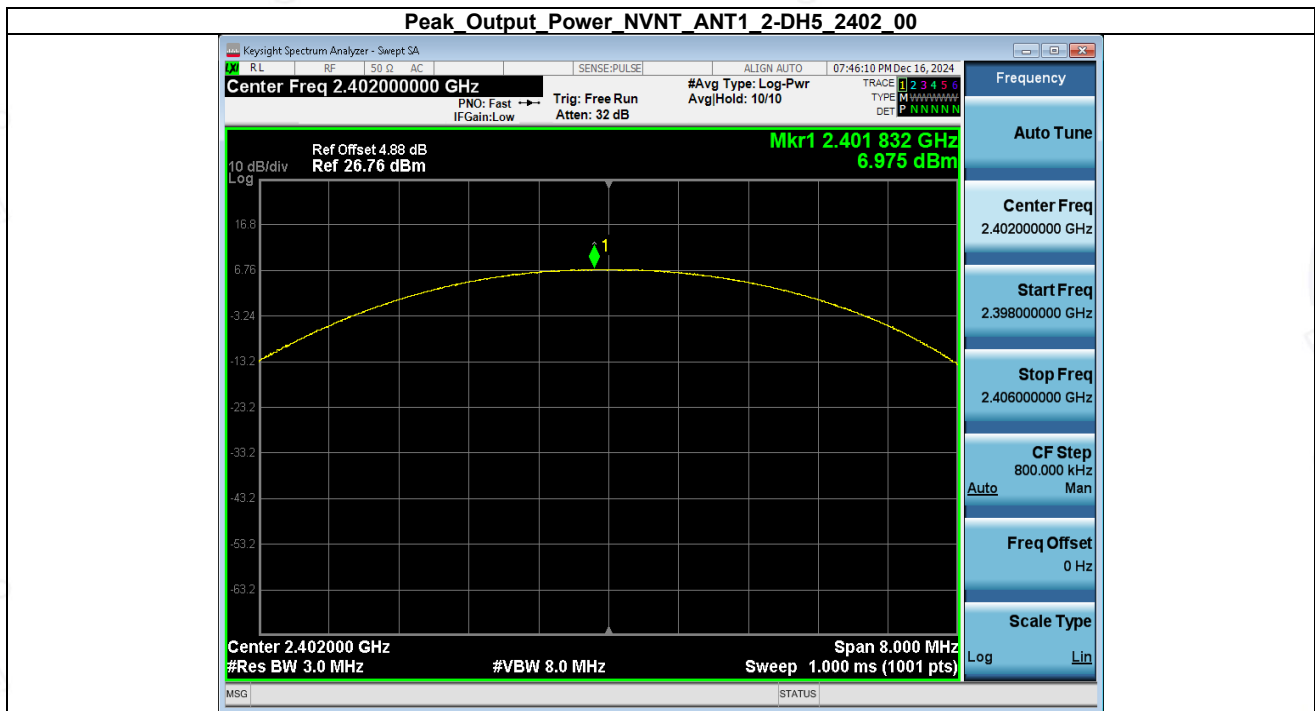


Peak Output Power NVNT_ANT1_1-DH5_2441_00



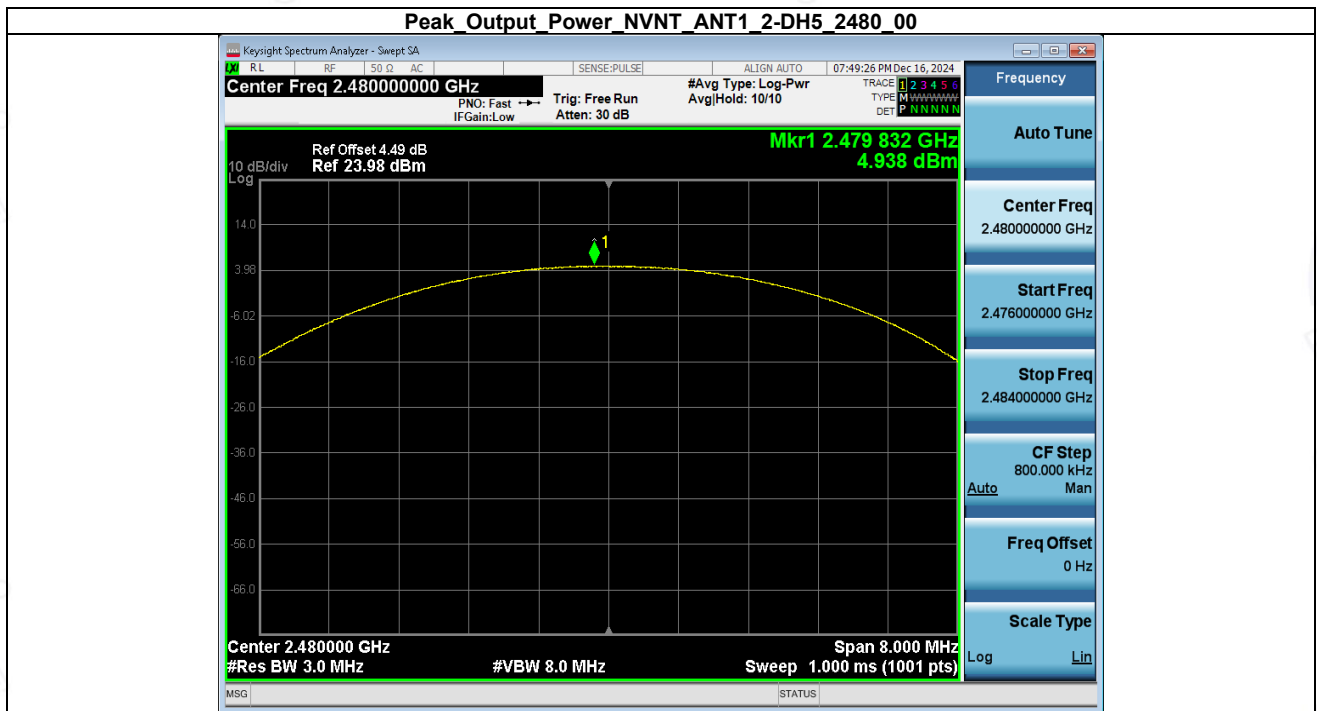
Peak Output Power NVNT_ANT1_1-DH5_2480_00





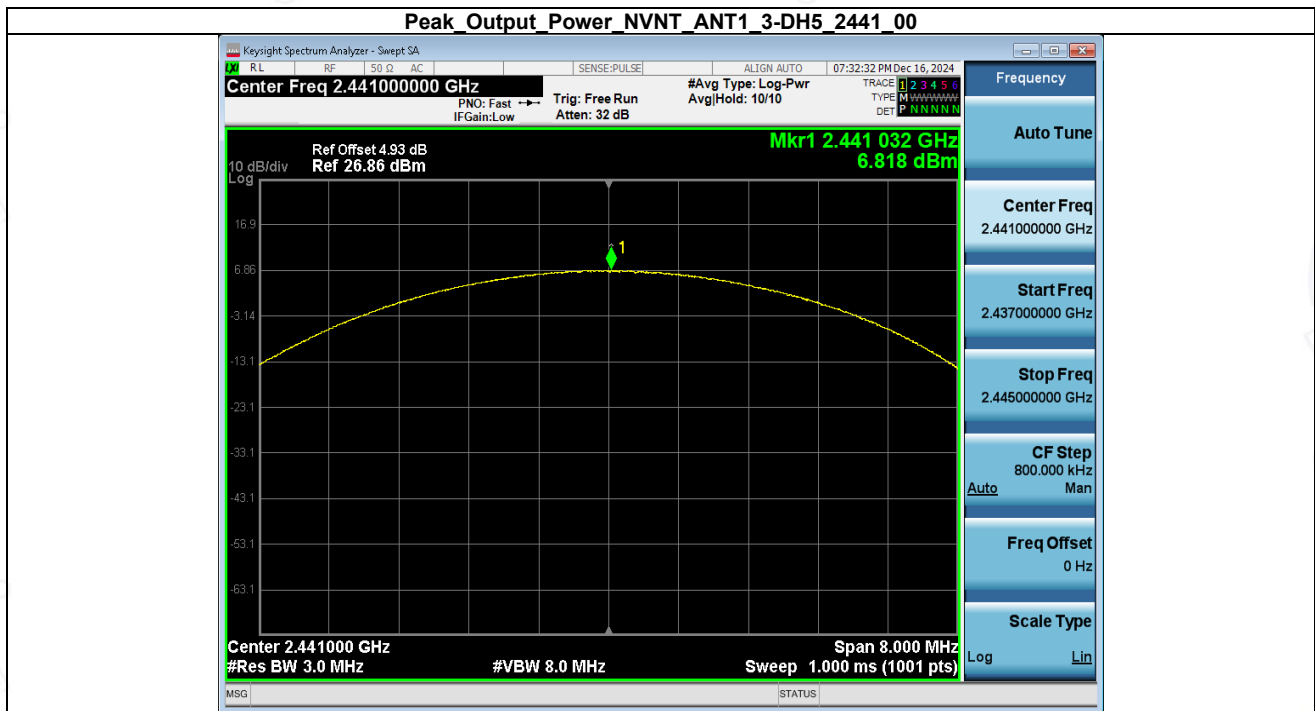
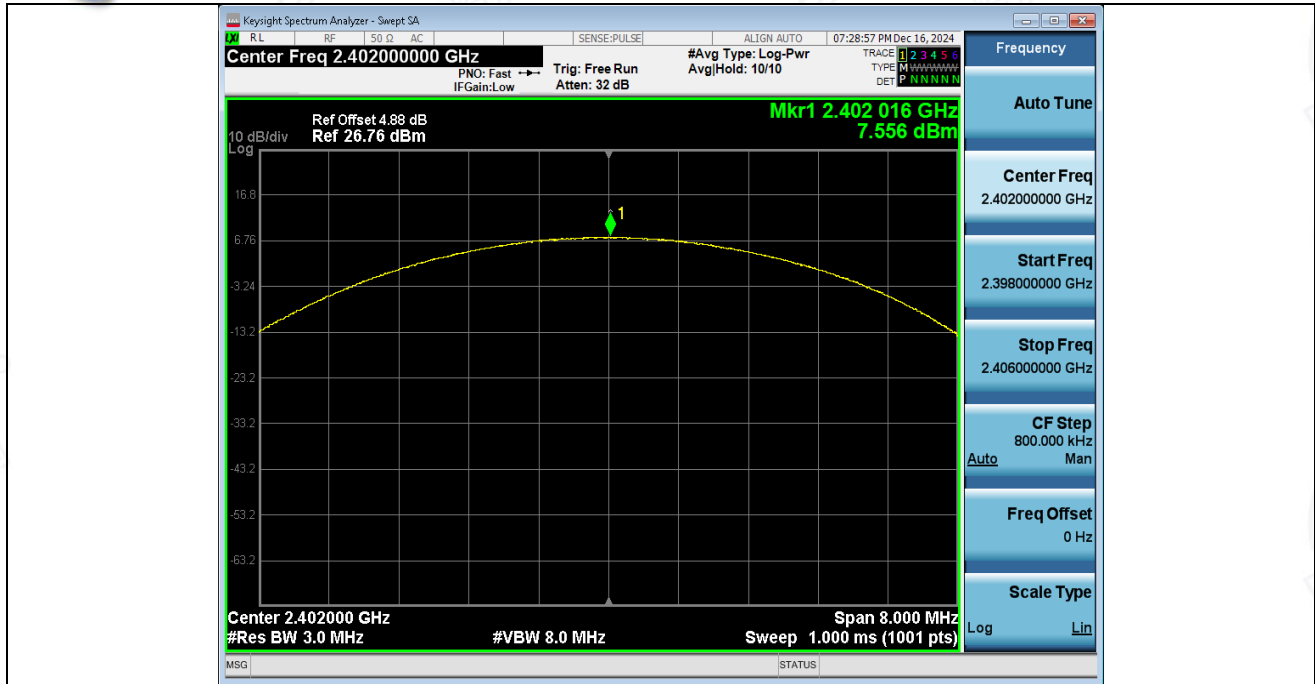
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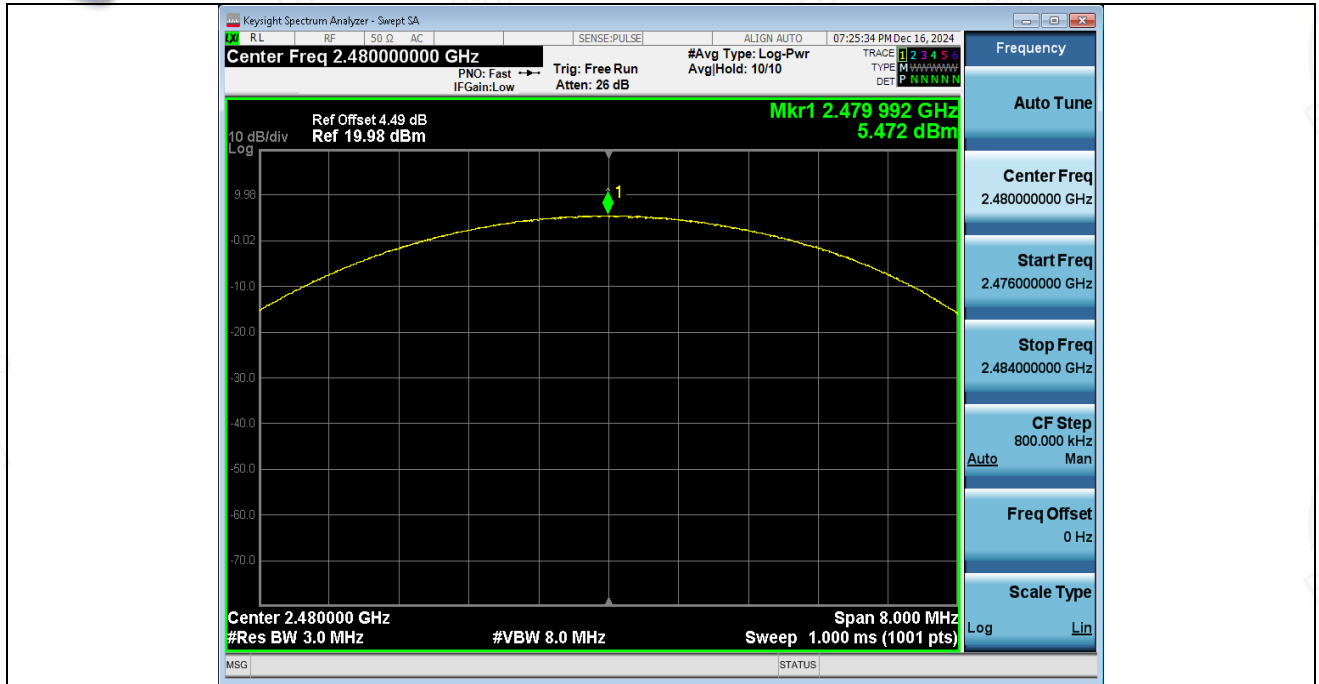
Peak Output Power_NVNT_ANT1_3-DH5_2402_00





Peak Output Power_NVNT_ANT1_3-DH5_2480_00

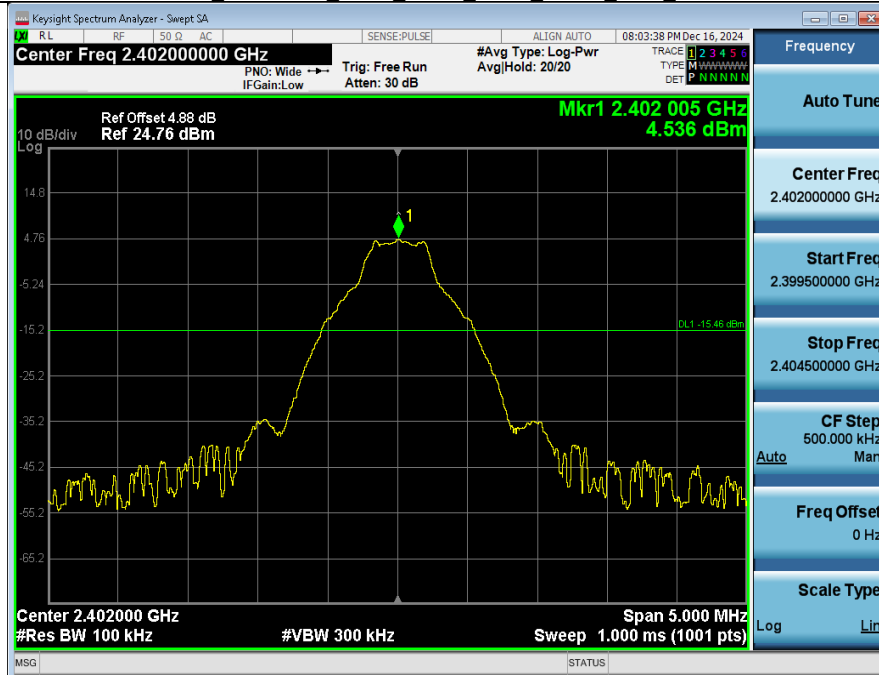




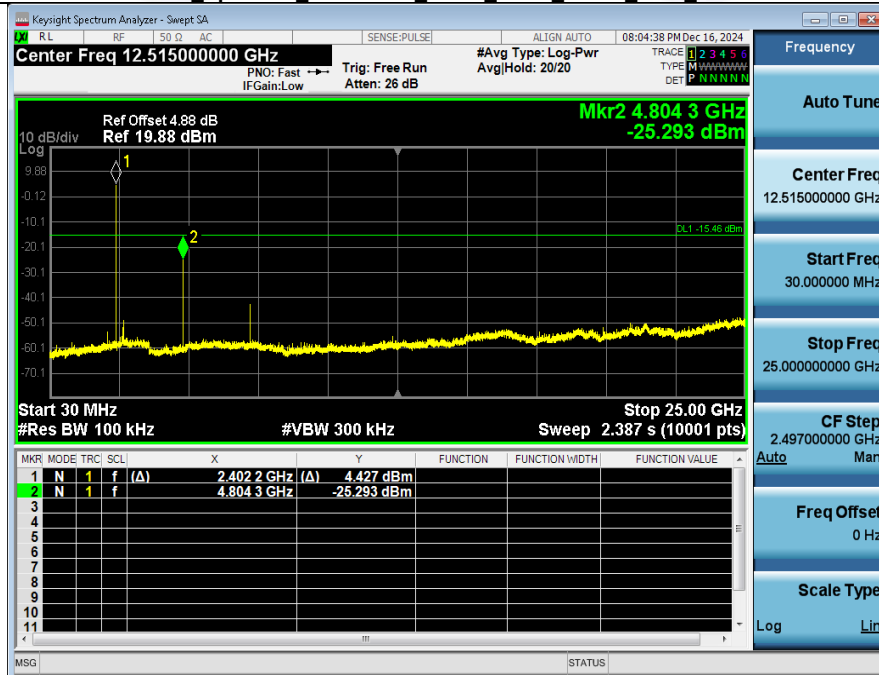
5. Spurious Emissions

Condition	Antenna	Modulation	TX Mode	Ref_level(dBm)	Spurious MAX.Value(dBm)	Limit	Result
NVNT	ANT1	1-DH5	2402.00	4.536	-25.293	-15.464	Pass
NVNT	ANT1	1-DH5	2441.00	3.876	-29.791	-16.124	Pass
NVNT	ANT1	1-DH5	2480.00	2.480	-32.273	-17.520	Pass
NVNT	ANT1	2-DH5	2402.00	4.507	-25.283	-15.493	Pass
NVNT	ANT1	2-DH5	2441.00	3.528	-30.903	-16.472	Pass
NVNT	ANT1	2-DH5	2480.00	2.550	-33.871	-17.450	Pass
NVNT	ANT1	3-DH5	2402.00	4.572	-25.710	-15.428	Pass
NVNT	ANT1	3-DH5	2441.00	3.764	-26.957	-16.236	Pass
NVNT	ANT1	3-DH5	2480.00	2.438	-33.487	-17.562	Pass

1 Reference Level NVNT ANT1 1-DH5 2402_00



2 Spurious Emissions NVNT ANT1 1-DH5 2402_00

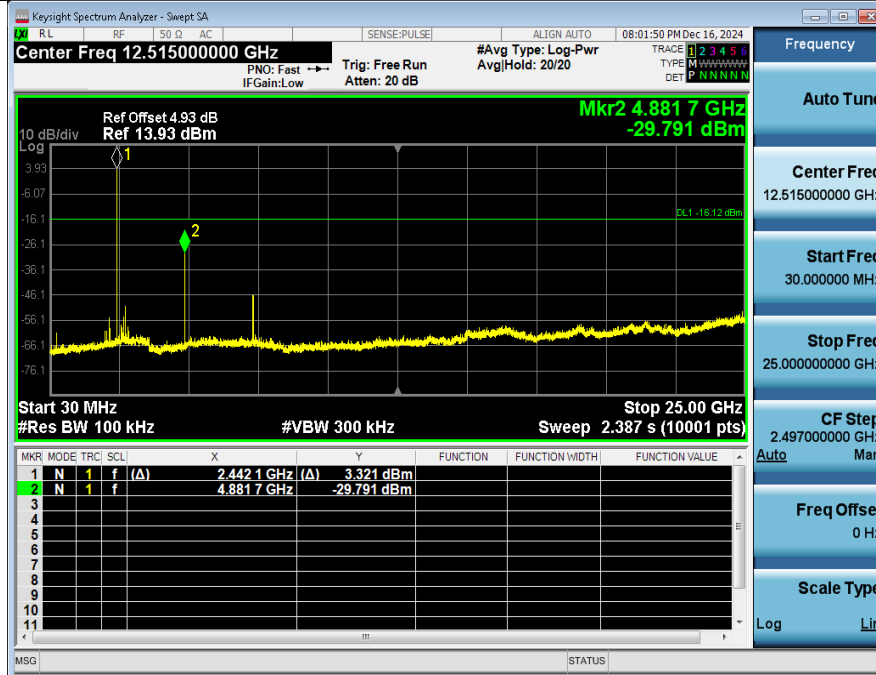


1 Reference Level NVNT ANT1 1-DH5 2441_00



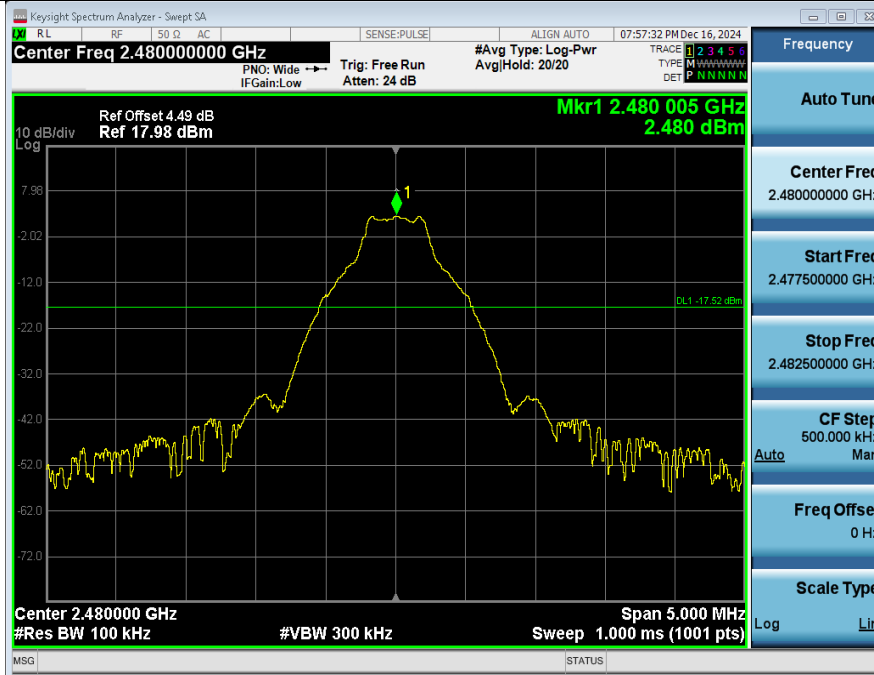


2 Spurious Emissions NVNT_ANT1_1-DH5_2441_00

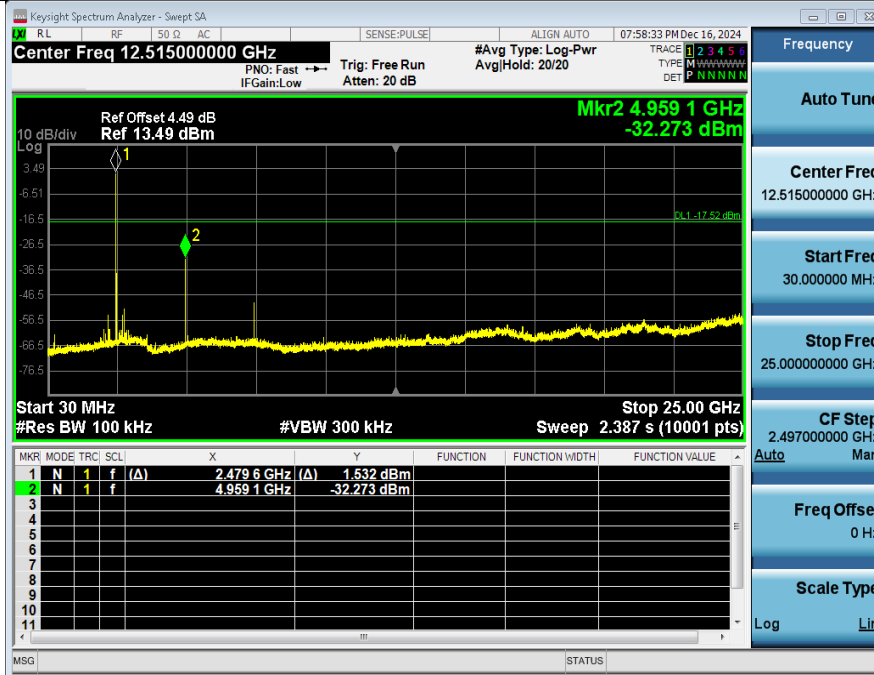


1 Reference_Level_NVNT_ANT1_1-DH5_2480_00



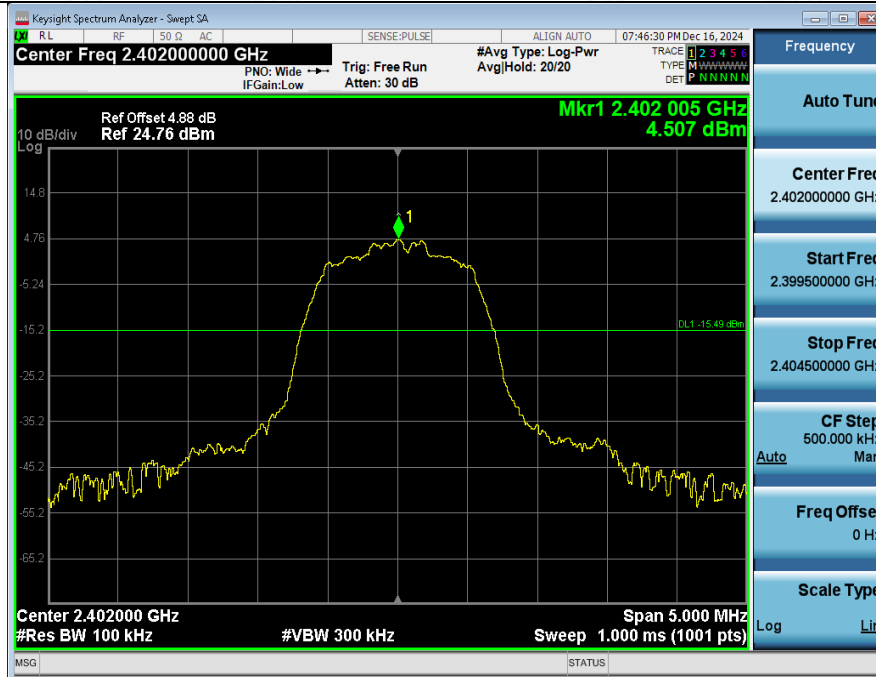


2 Spurious Emissions NVNT_ANT1_1-DH5_2480_00

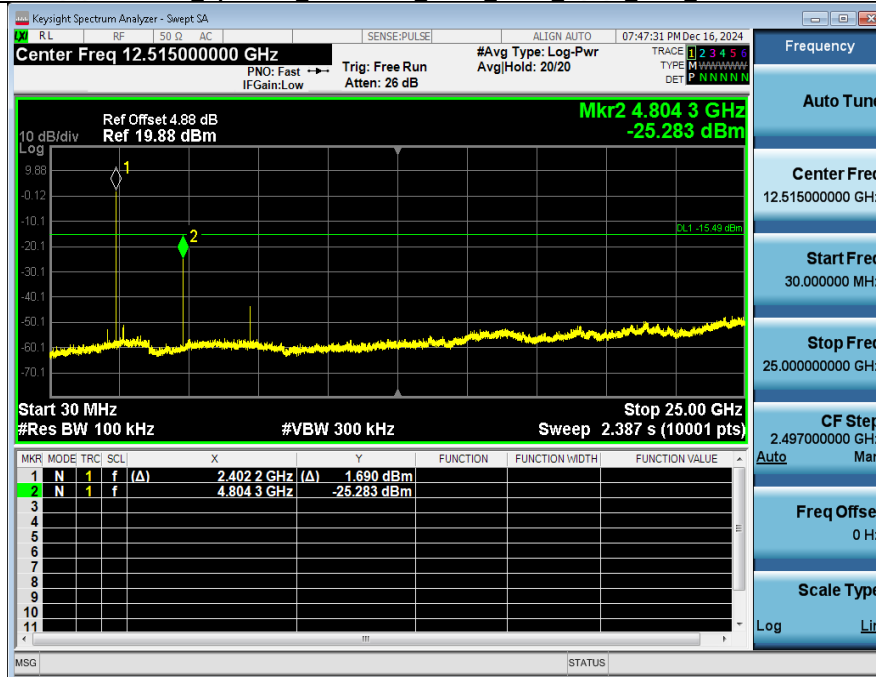


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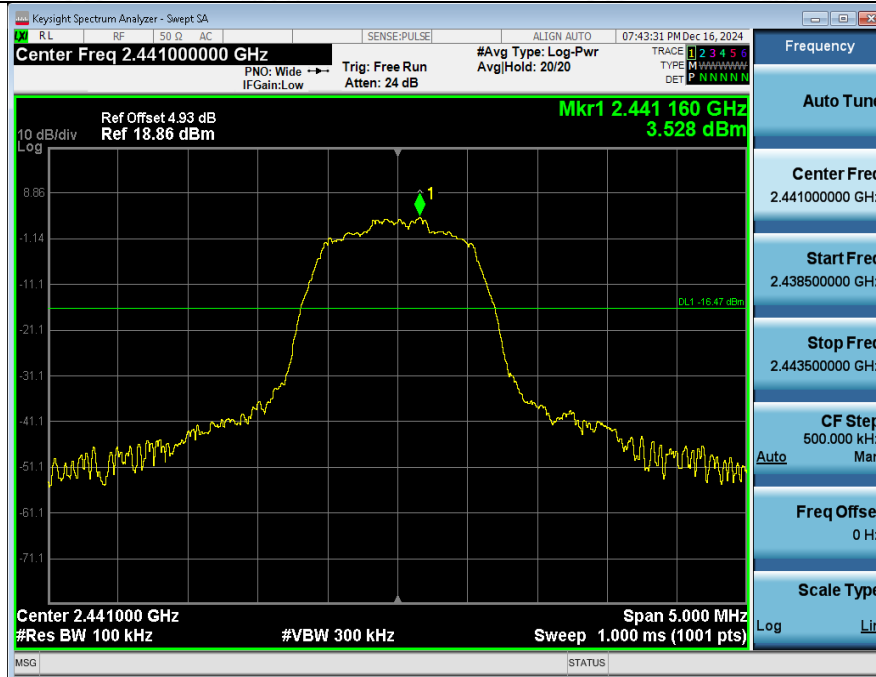


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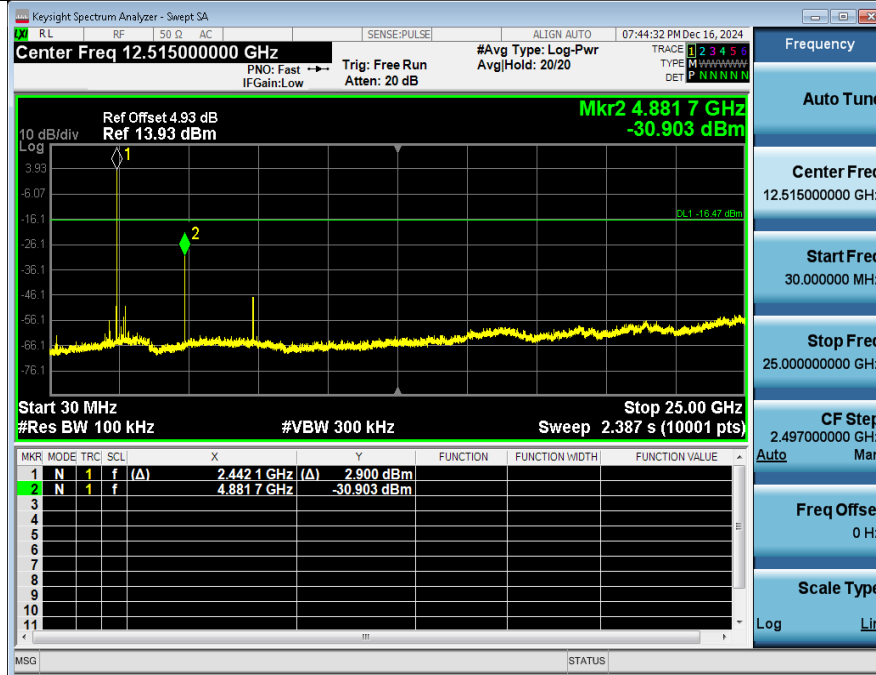


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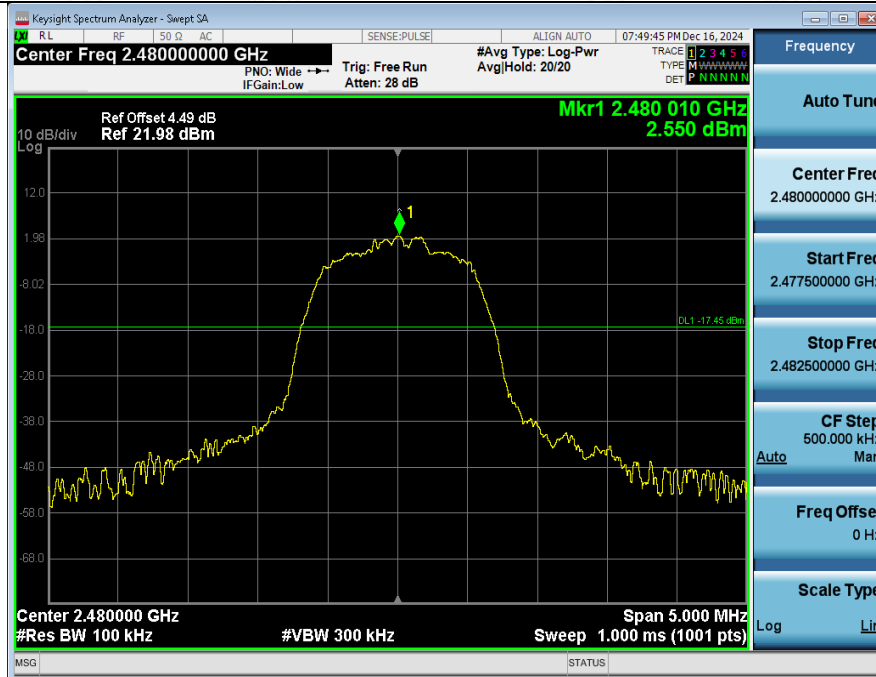


2_Spurious_Emissions_NVNT_ANT1_2-DH5_2441_00

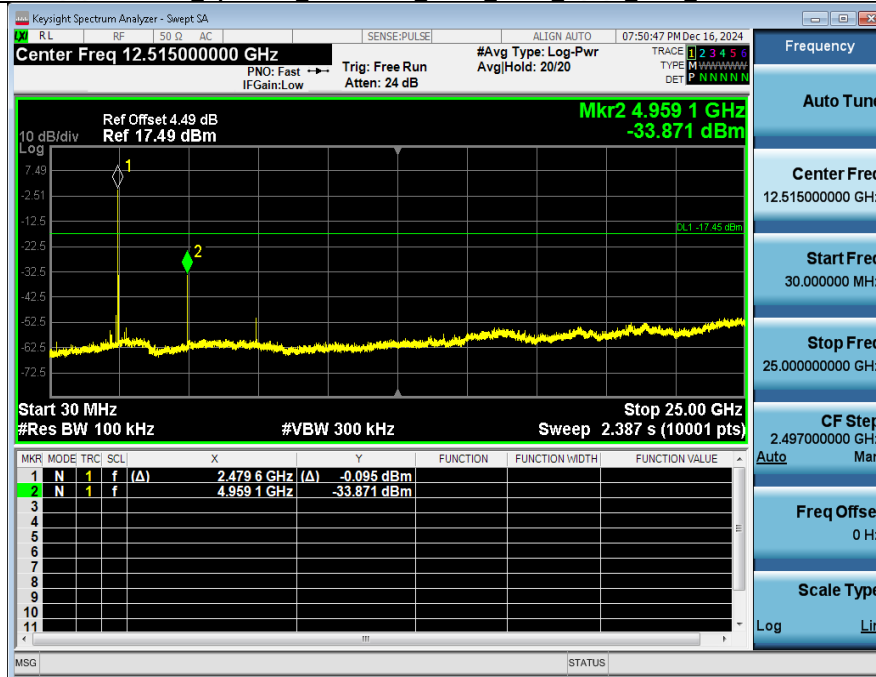


1_Reference_Level_NVNT_ANT1_2-DH5_2480_00





2 Spurious Emissions NVNT_ANT1_2-DH5_2480_00

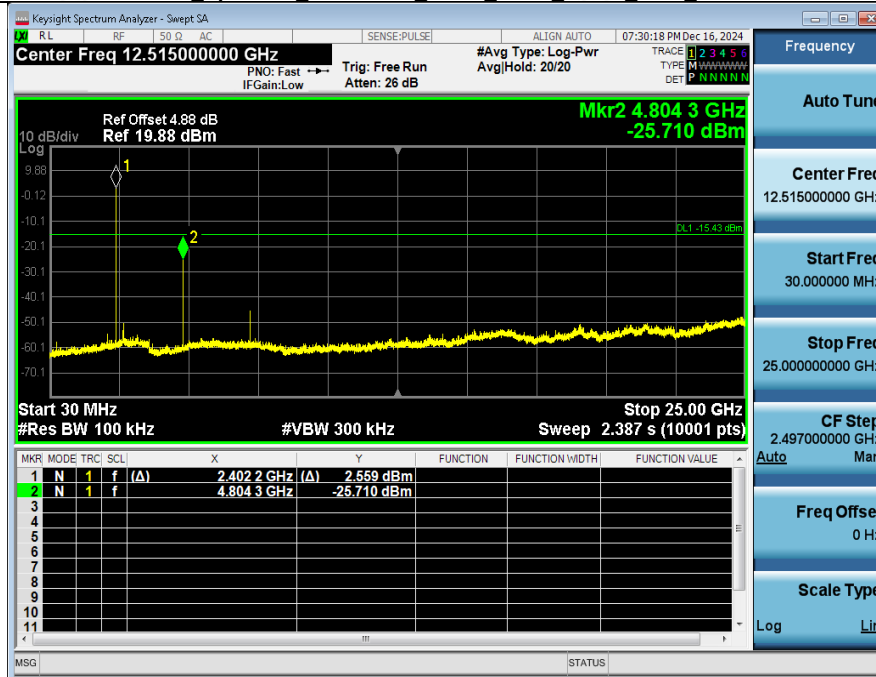


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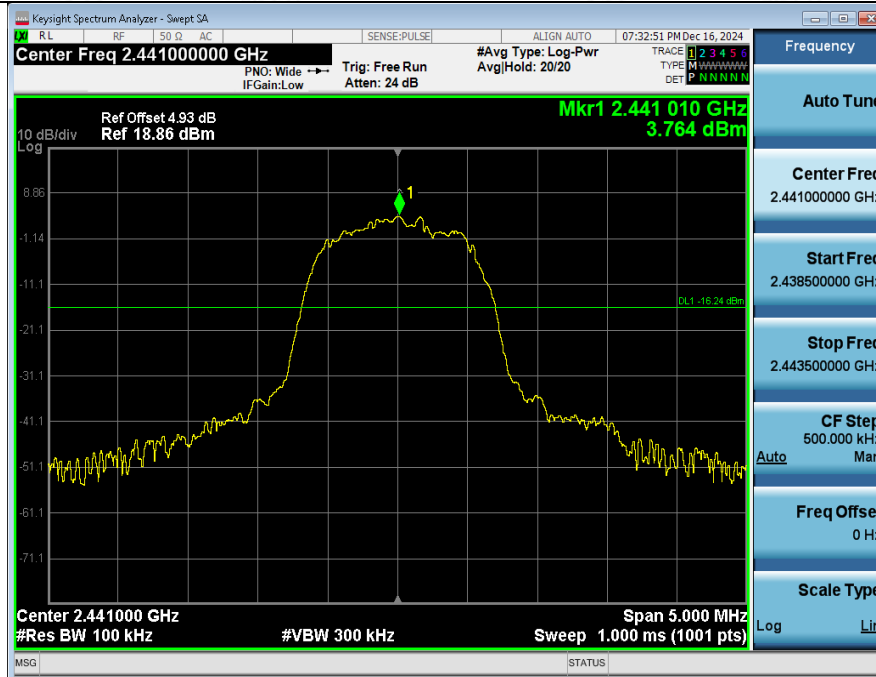


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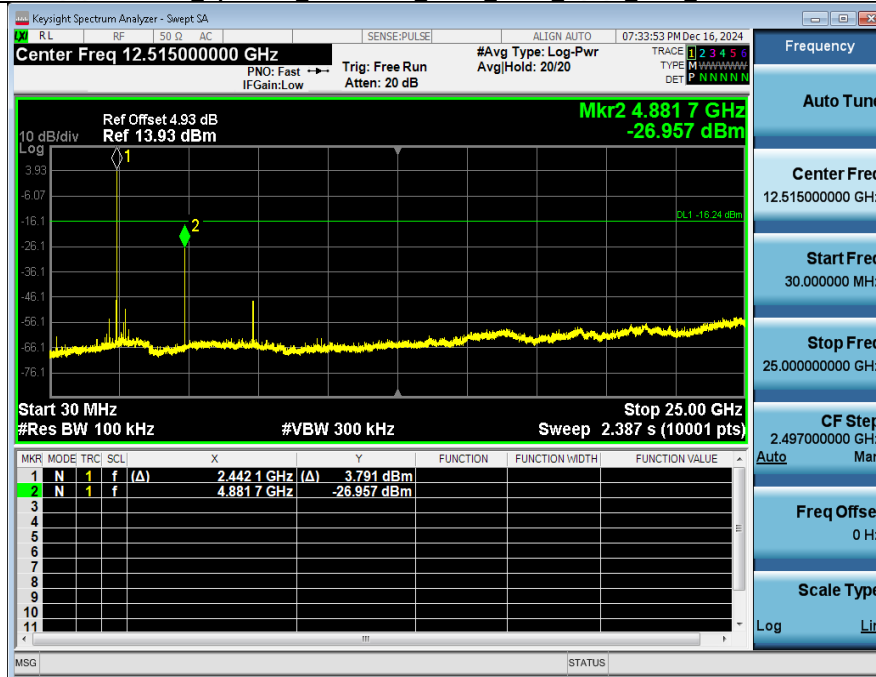


1_Reference_Level_NVNT_ANT1_3-DH5_2441_00





2 Spurious Emissions NVNT_ANT1_3-DH5_2441_00

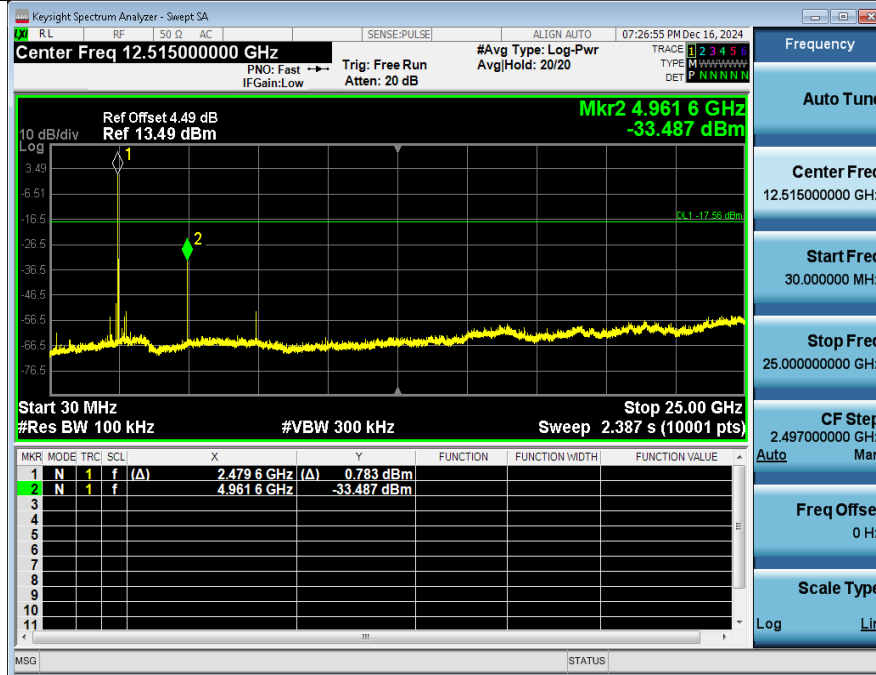


1 Reference_Level_NVNT_ANT1_3-DH5_2480_00





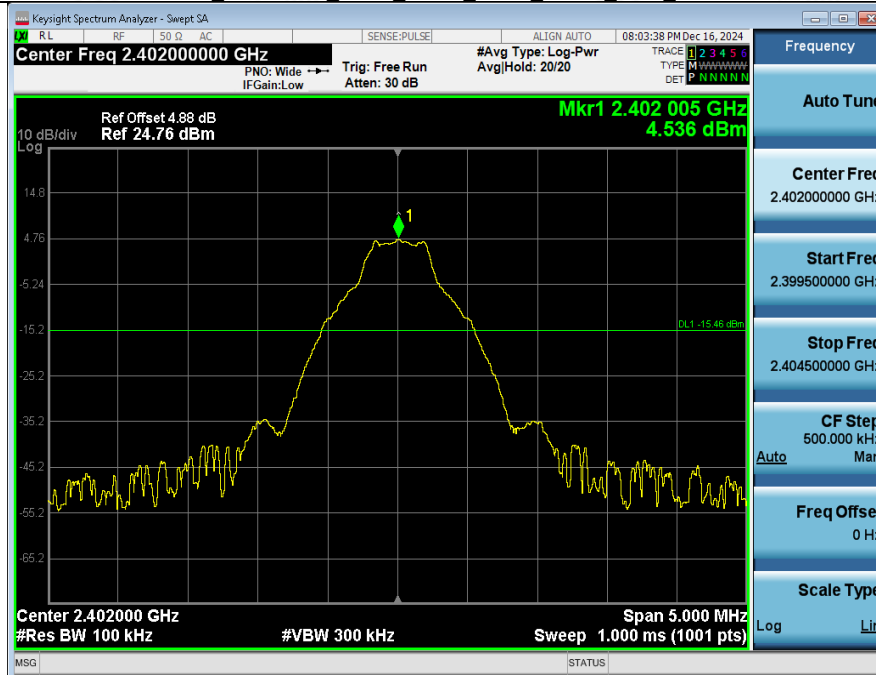
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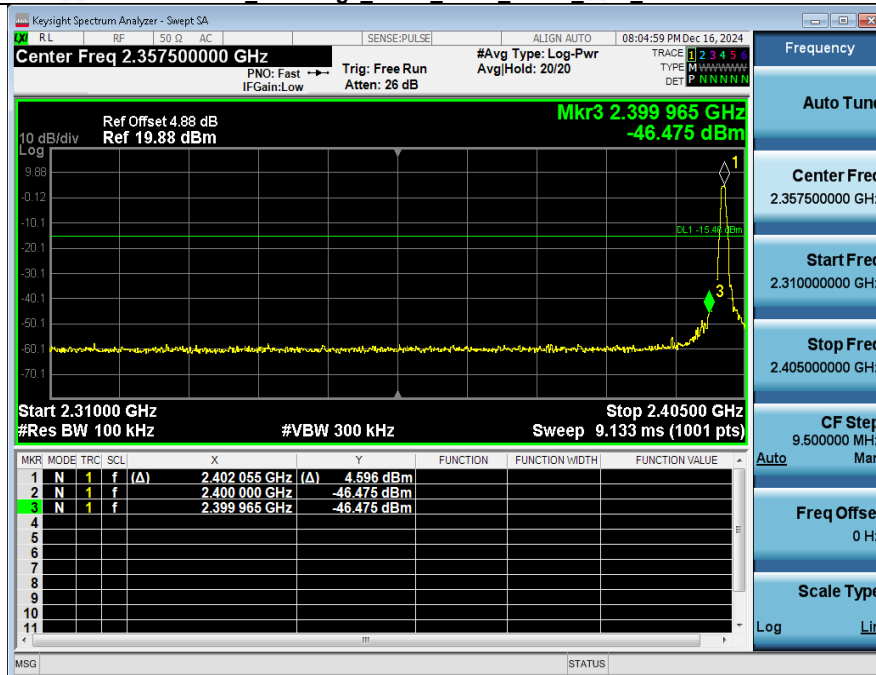
6. Bandedge

Condition	Antenna	Modulation	TX Mode	Ref_level(dBm)	Bandedge MAX.Value	Limit	Result
NVNT	ANT1	1-DH5	2402.00	4.536	-46.475	-15.464	Pass
NVNT	ANT1	1-DH5	Hopping_LCH	4.419	-48.946	-15.581	Pass
NVNT	ANT1	1-DH5	2480.00	2.480	-55.940	-17.520	Pass
NVNT	ANT1	1-DH5	Hopping_HCH	4.072	-58.025	-15.928	Pass
NVNT	ANT1	2-DH5	2402.00	4.507	-45.815	-15.493	Pass
NVNT	ANT1	2-DH5	Hopping_LCH	4.353	-54.809	-15.647	Pass
NVNT	ANT1	2-DH5	2480.00	2.550	-54.575	-17.450	Pass
NVNT	ANT1	2-DH5	Hopping_HCH	3.661	-58.347	-16.339	Pass
NVNT	ANT1	3-DH5	2402.00	4.572	-46.187	-15.428	Pass
NVNT	ANT1	3-DH5	Hopping_LCH	4.484	-54.484	-15.516	Pass
NVNT	ANT1	3-DH5	2480.00	2.438	-55.820	-17.562	Pass
NVNT	ANT1	3-DH5	Hopping_HCH	4.033	-55.773	-15.967	Pass

1 Reference Level NVNT ANT1 1-DH5 2402_00

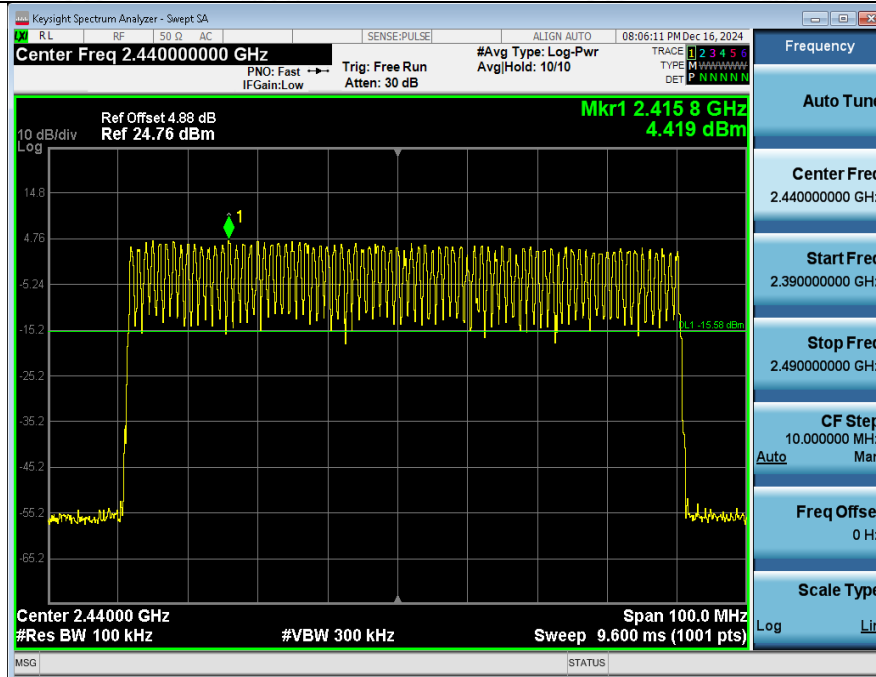


2 Bandedge NVNT ANT1 1-DH5 2402_00

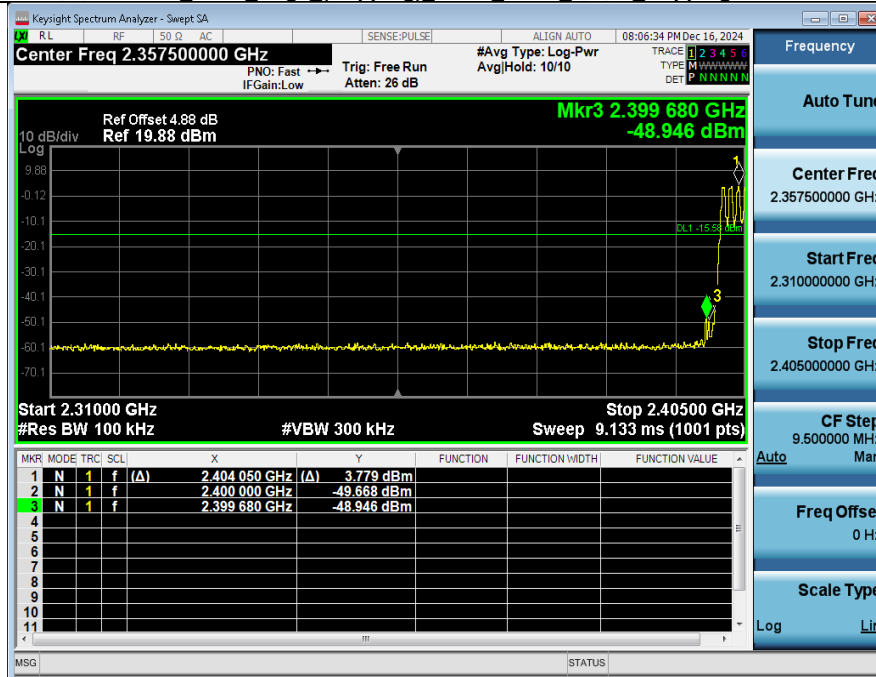


1 Reference Level Hopping NVNT ANT1 1-DH5 Hopping



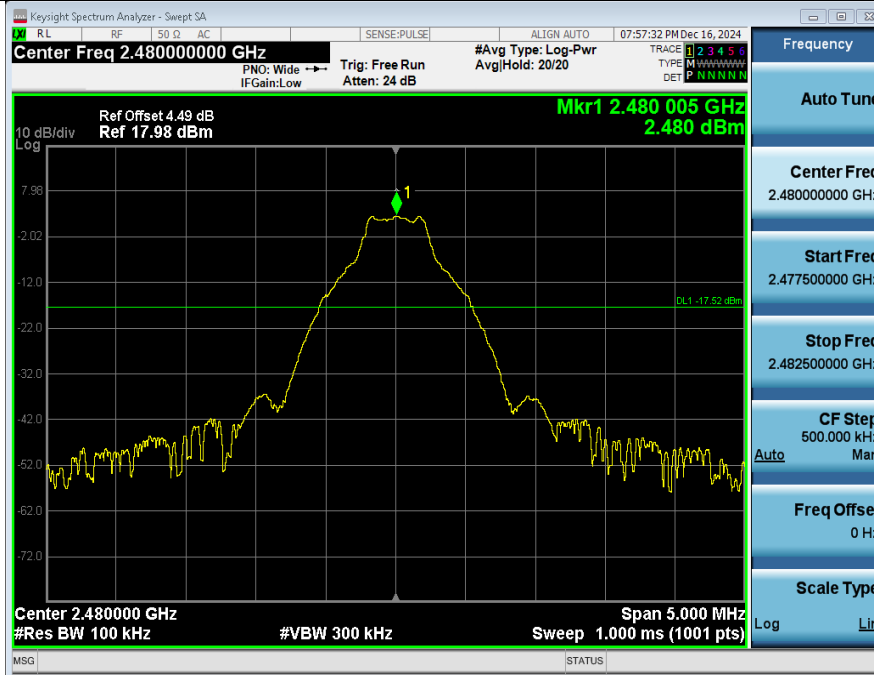


2_Band_Edge_(Hopping)_NVNT_ANT1_1-DH5_Hopping

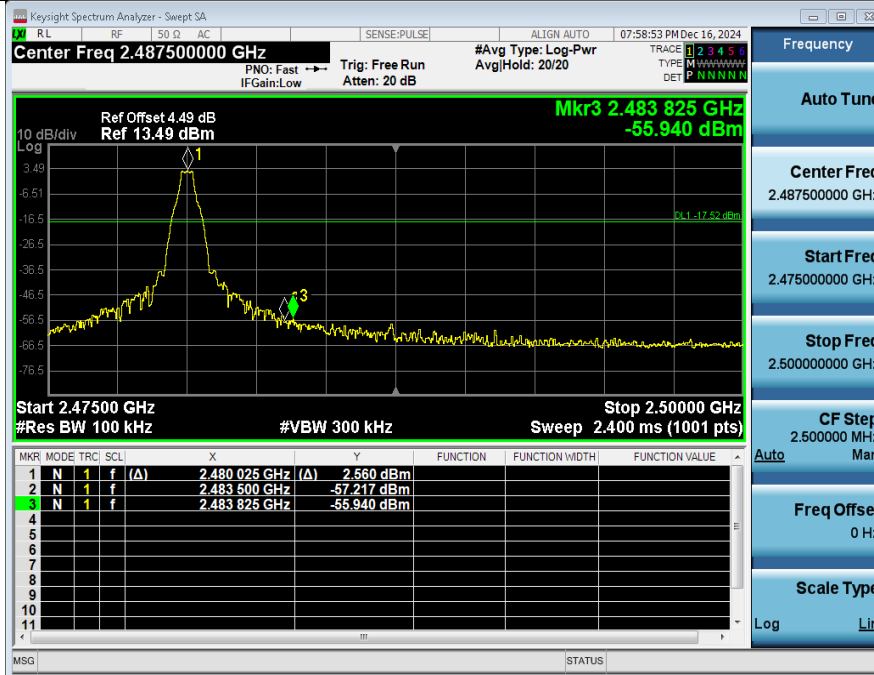


1_Reference_Level_NVNT_ANT1_1-DH5_2480_00





2_Bandedge_NVNT_ANT1_1-DH5_2480_00

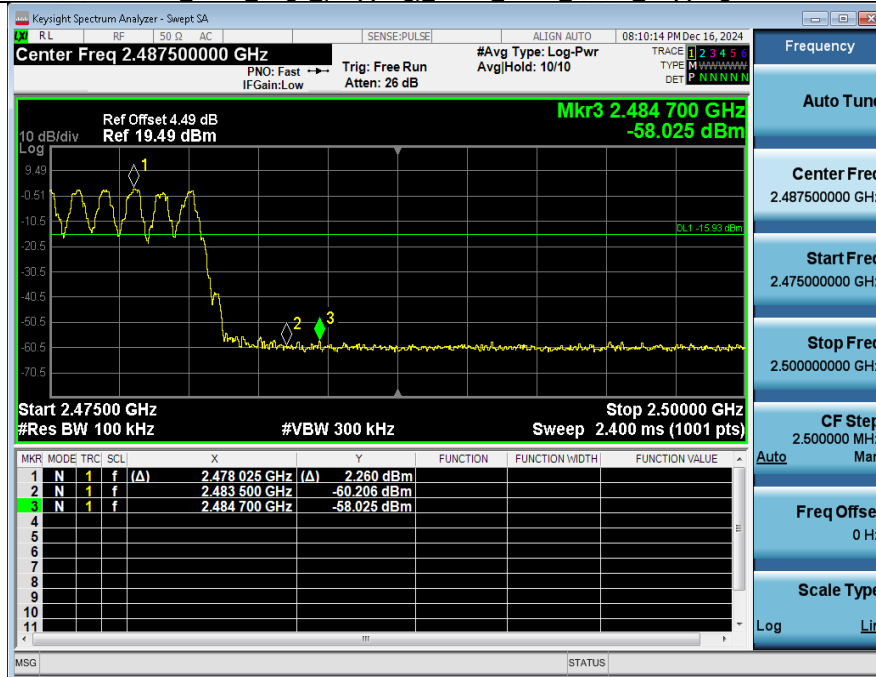


1_Reference_Level_Hopping_NVNT_ANT1_1-DH5_Hopping



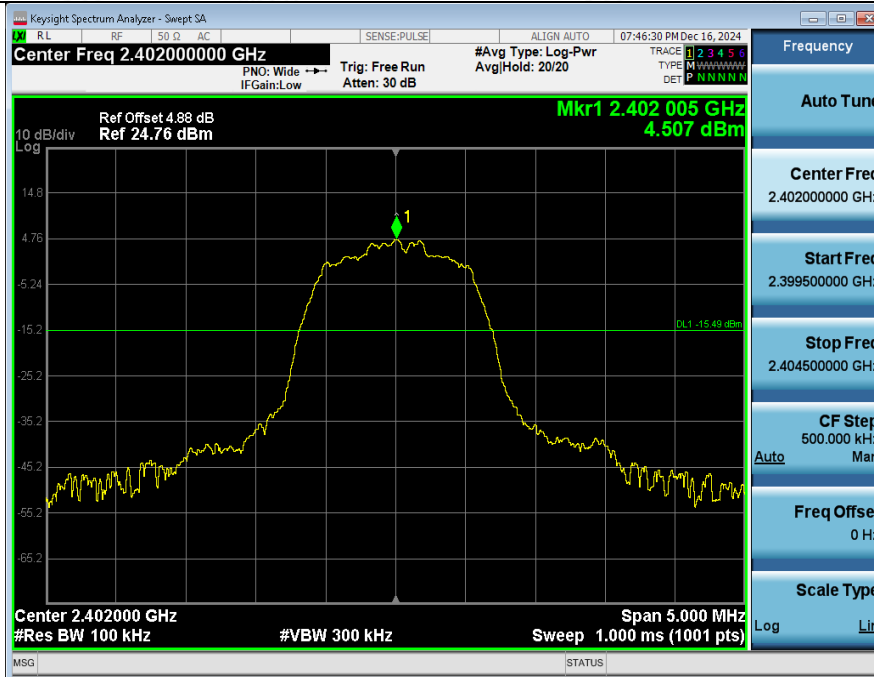


2_Band_Edge_(Hopping)_NVNT_ANT1_1-DH5_Hopping

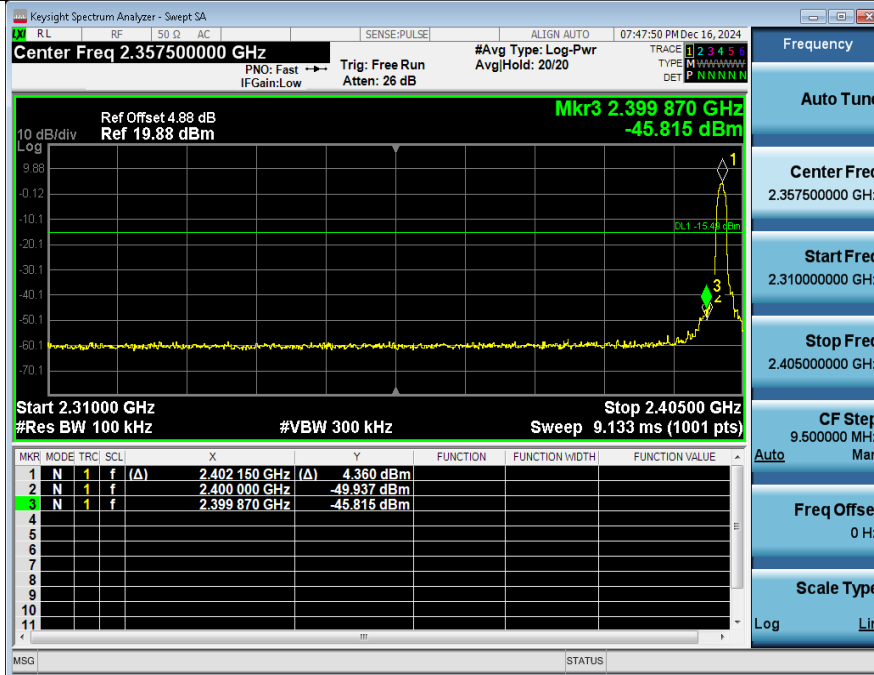


1_Reference_Level_NVNT_ANT1_2-DH5_2402_00



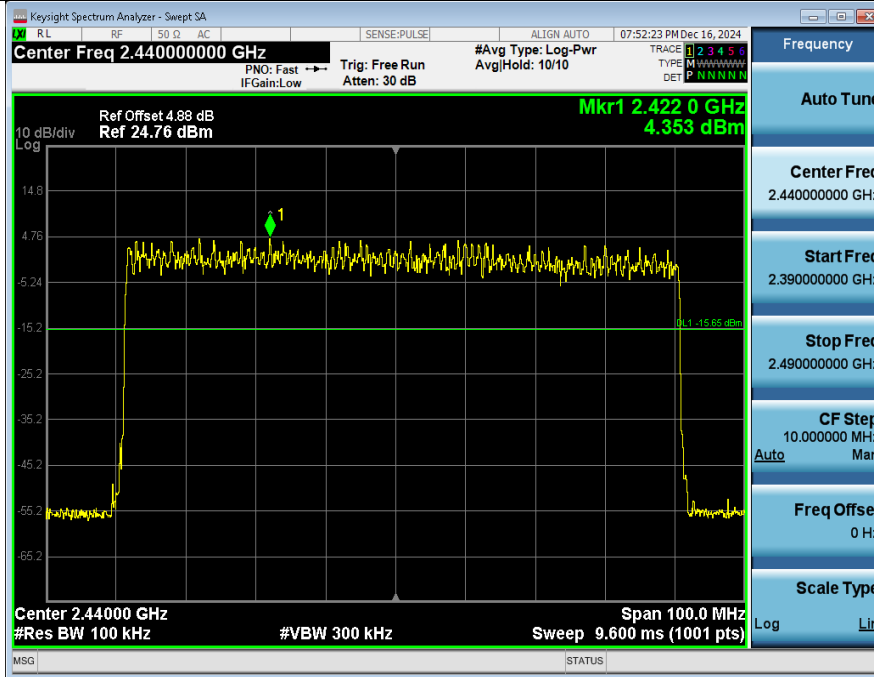


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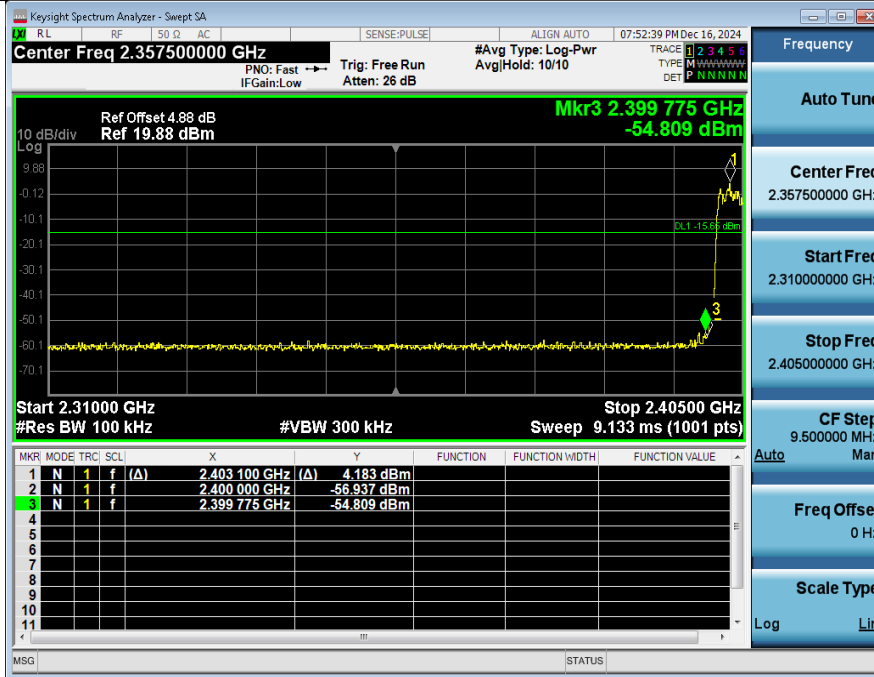


1_Reference_Level_Hopping_NVNT_ANT1_2-DH5_Hopping



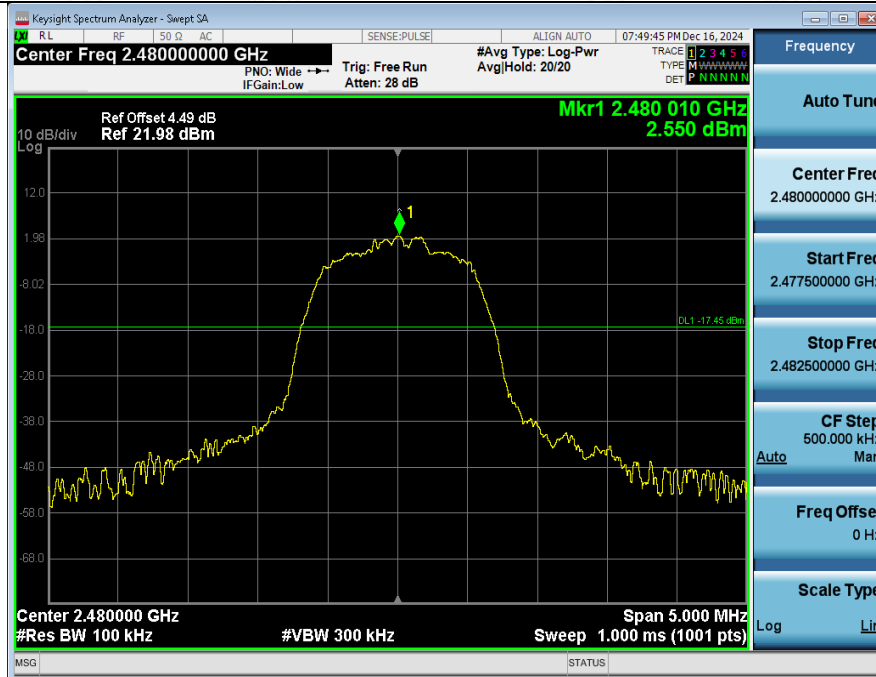


2_Band_Edge_(Hopping)_NVNT_ANT1_2-DH5_Hopping

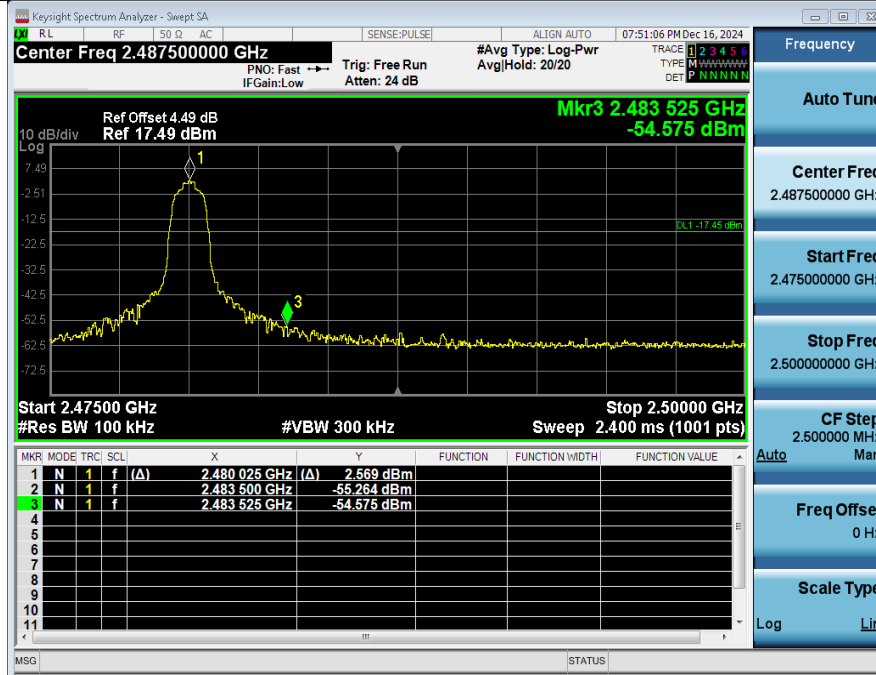


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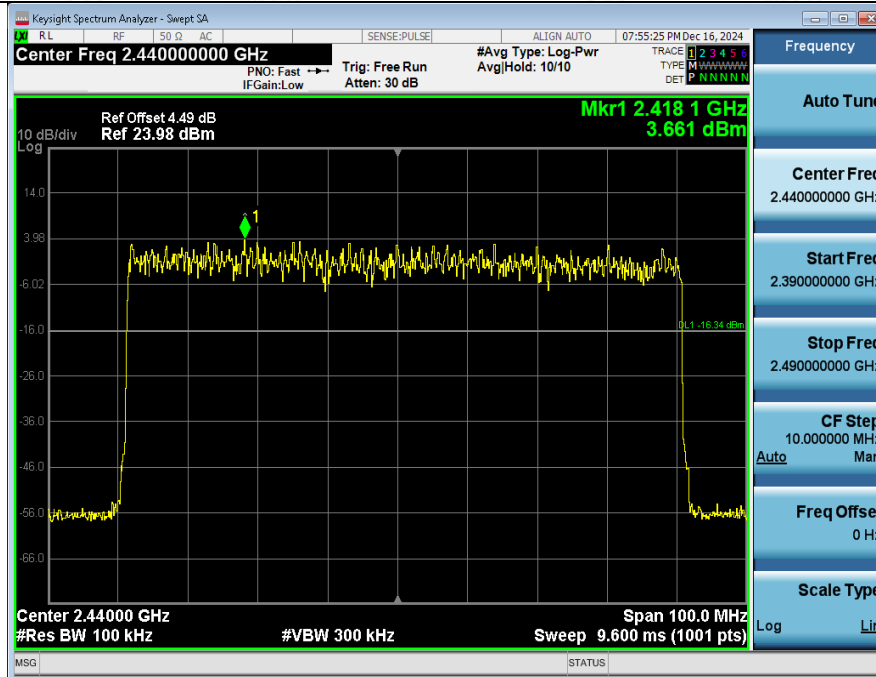


2_Bandedge_NVNT_ANT1_2-DH5_2480_00

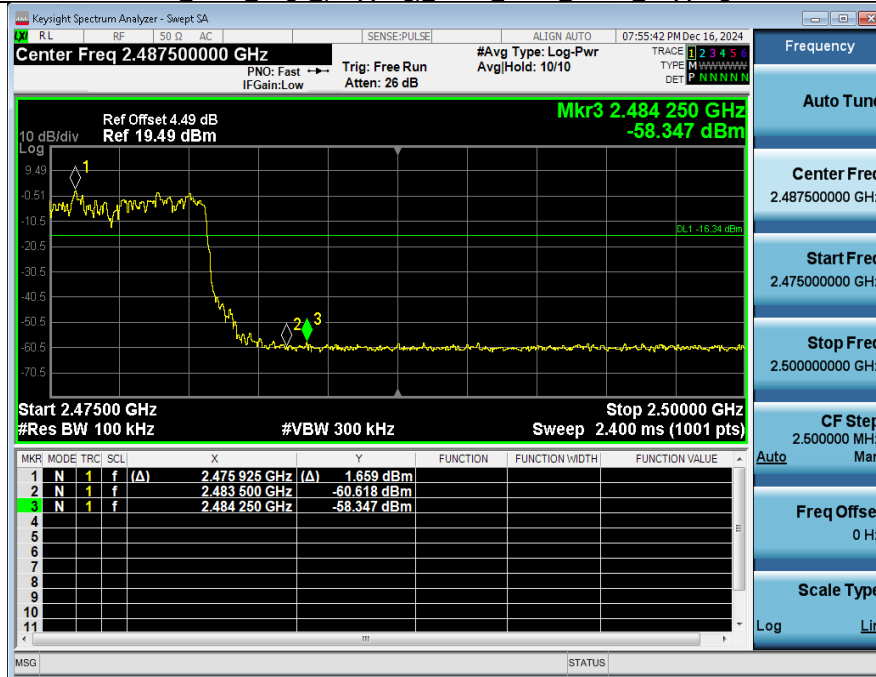


1_Reference_Level_Hopping_NVNT_ANT1_2-DH5_Hopping





2_Band_Edge_(Hopping)_NVNT_ANT1_2-DH5_Hopping

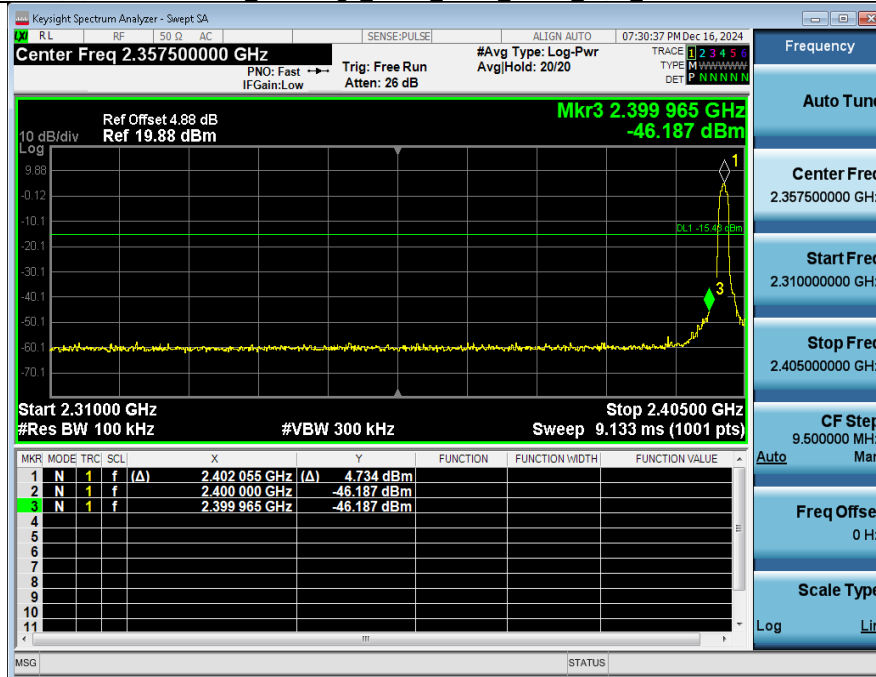


1_Reference_Level_NVNT_ANT1_3-DH5_2402_00



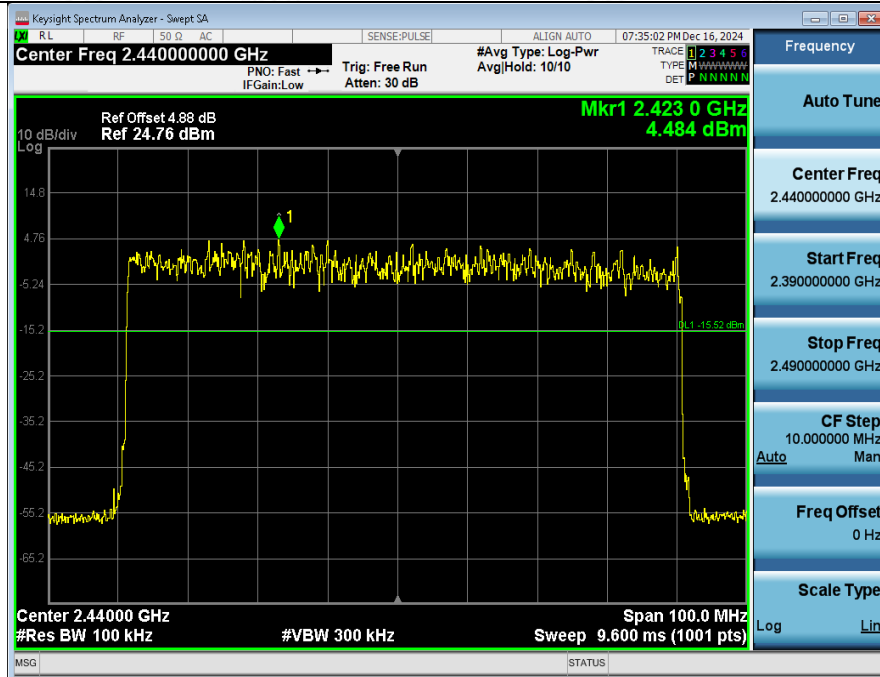


2_Bandedge_NVNT_ANT1_3-DH5_2402_00

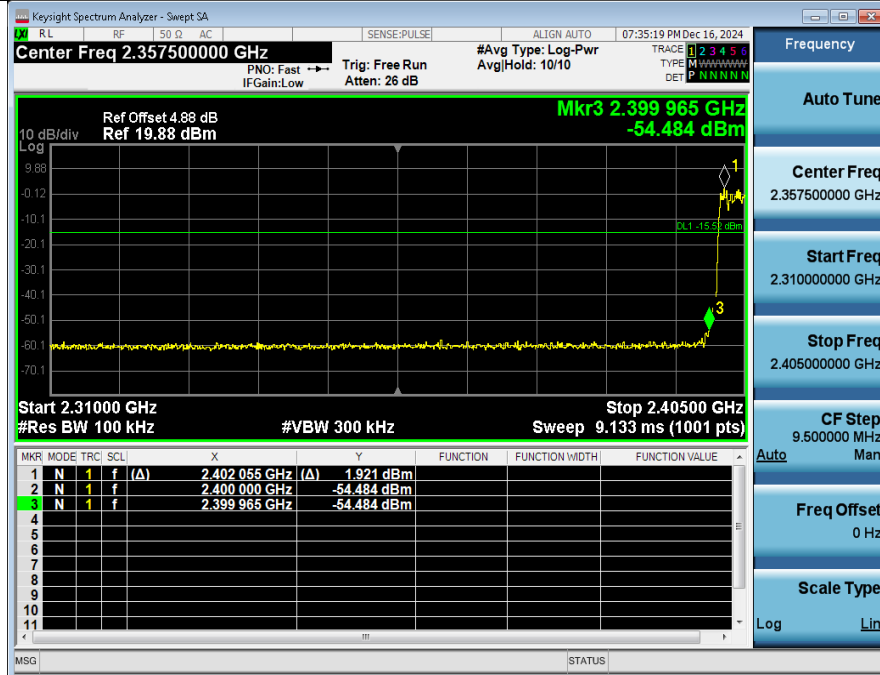


1_Reference_Level_Hopping_NVNT_ANT1_3-DH5_Hopping





2_Band_Edge_(Hopping)_NVNT_ANT1_3-DH5_Hopping

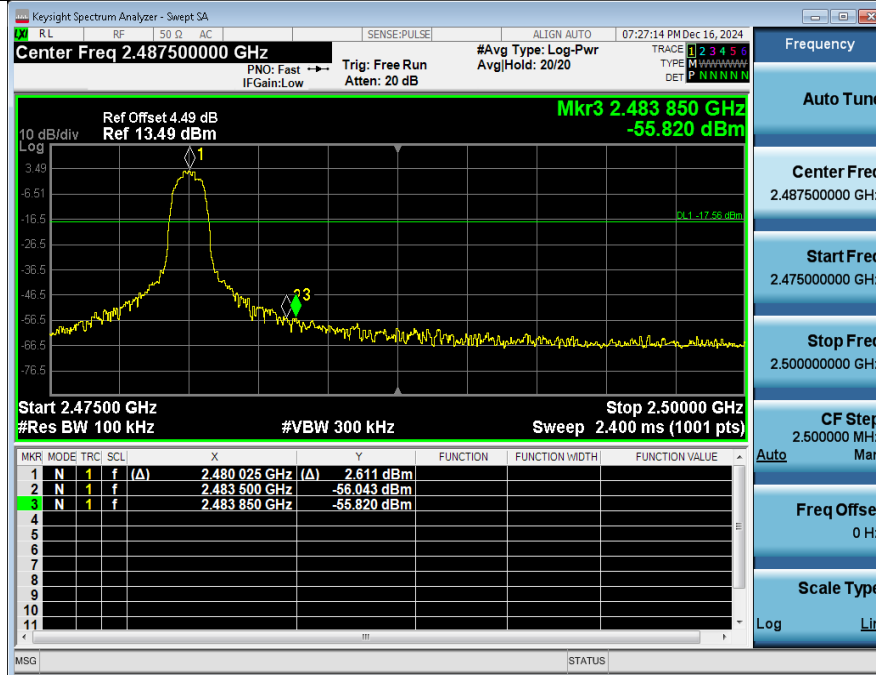


1_Reference_Level_NVNT_ANT1_3-DH5_2480_00



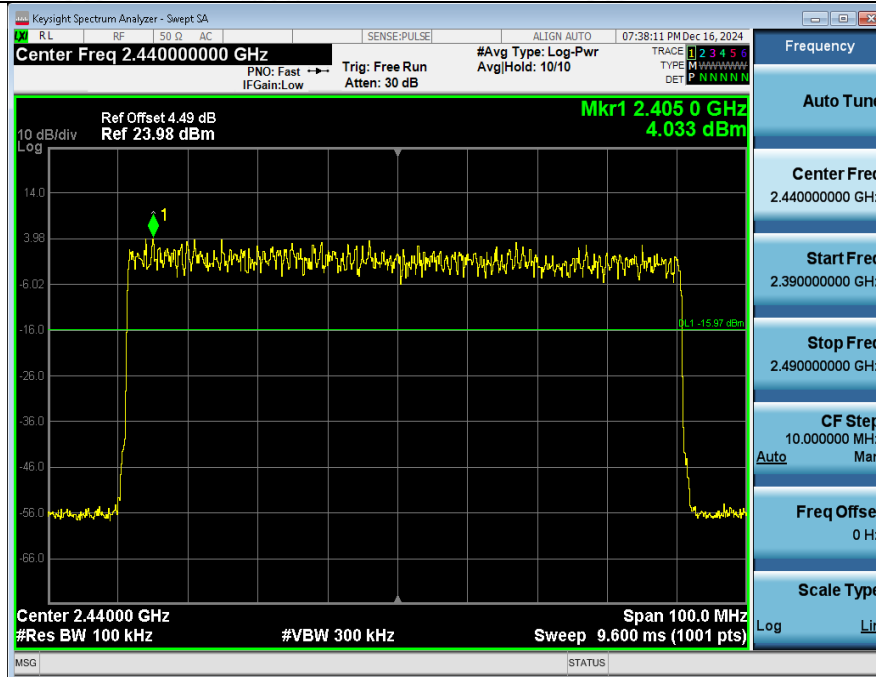


2_Bandedge_NVNT_ANT1_3-DH5_2480_00

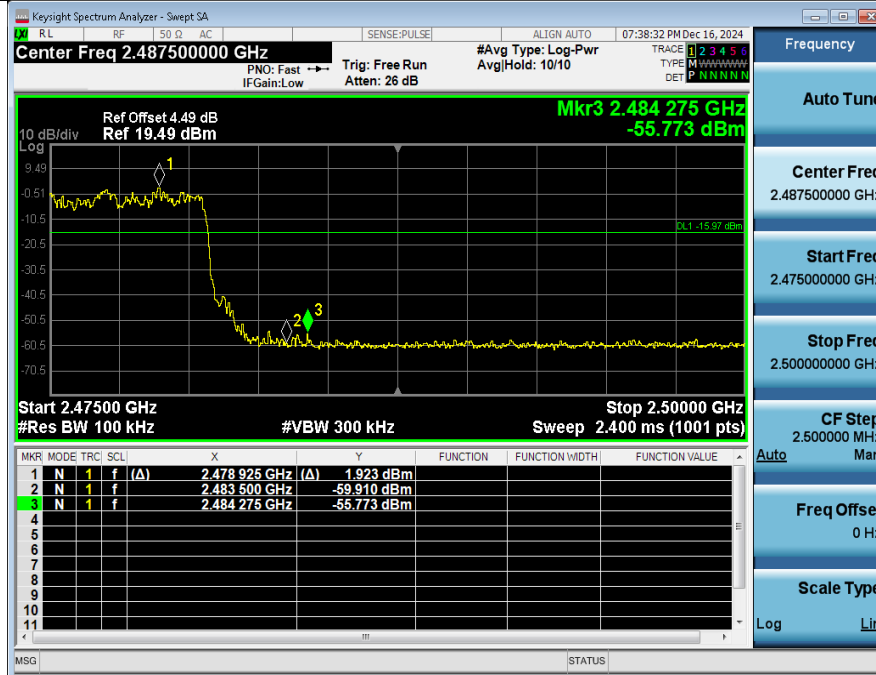


1_Reference_Level_Hopping_NVNT_ANT1_3-DH5_Hopping





2_Band_Edge_(Hopping)_NVNT_ANT1_3-DH5_Hopping



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-DH5	2402.00	2402.155	2403.172	1.02	0.956	Pass
NVNT	ANT1	1-DH5	2441.00	2440.840	2442.163	1.32	0.953	Pass
NVNT	ANT1	1-DH5	2480.00	2478.828	2479.839	1.01	0.951	Pass
NVNT	ANT1	2-DH5	2402.00	2401.888	2403.193	1.30	0.881	Pass
NVNT	ANT1	2-DH5	2441.00	2440.873	2441.836	0.96	0.879	Pass
NVNT	ANT1	2-DH5	2480.00	2478.882	2479.899	1.02	0.878	Pass
NVNT	ANT1	3-DH5	2402.00	2401.966	2402.842	0.88	0.871	Pass
NVNT	ANT1	3-DH5	2441.00	2440.849	2441.983	1.13	0.872	Pass
NVNT	ANT1	3-DH5	2480.00	2478.996	2480.160	1.16	0.869	Pass

Carrier_Frequencies_Separation_(Hopping)_NVNT_ANT1_1-DH5_Hopping

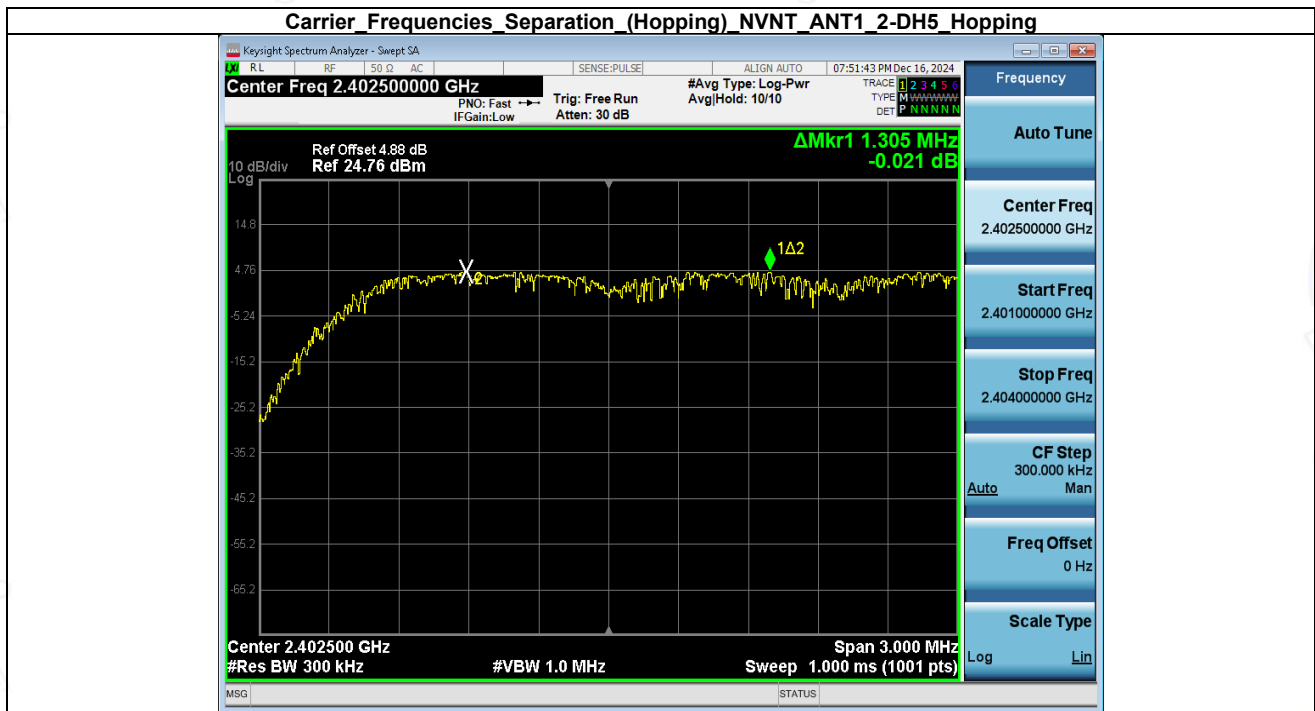


Carrier_Frequencies_Separation_(Hopping)_NVNT_ANT1_1-DH5_Hopping



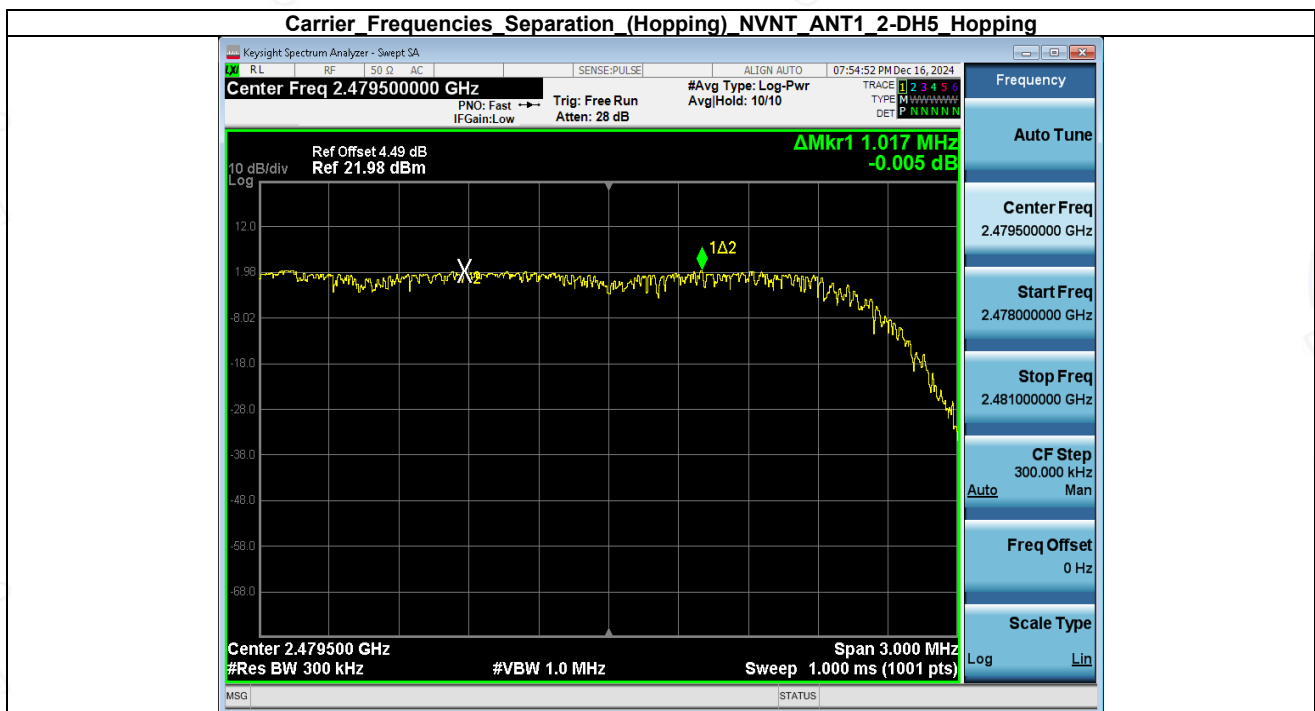
Carrier_Frequencies_Separation_(Hopping)_NVNT_ANT1_1-DH5_Hopping





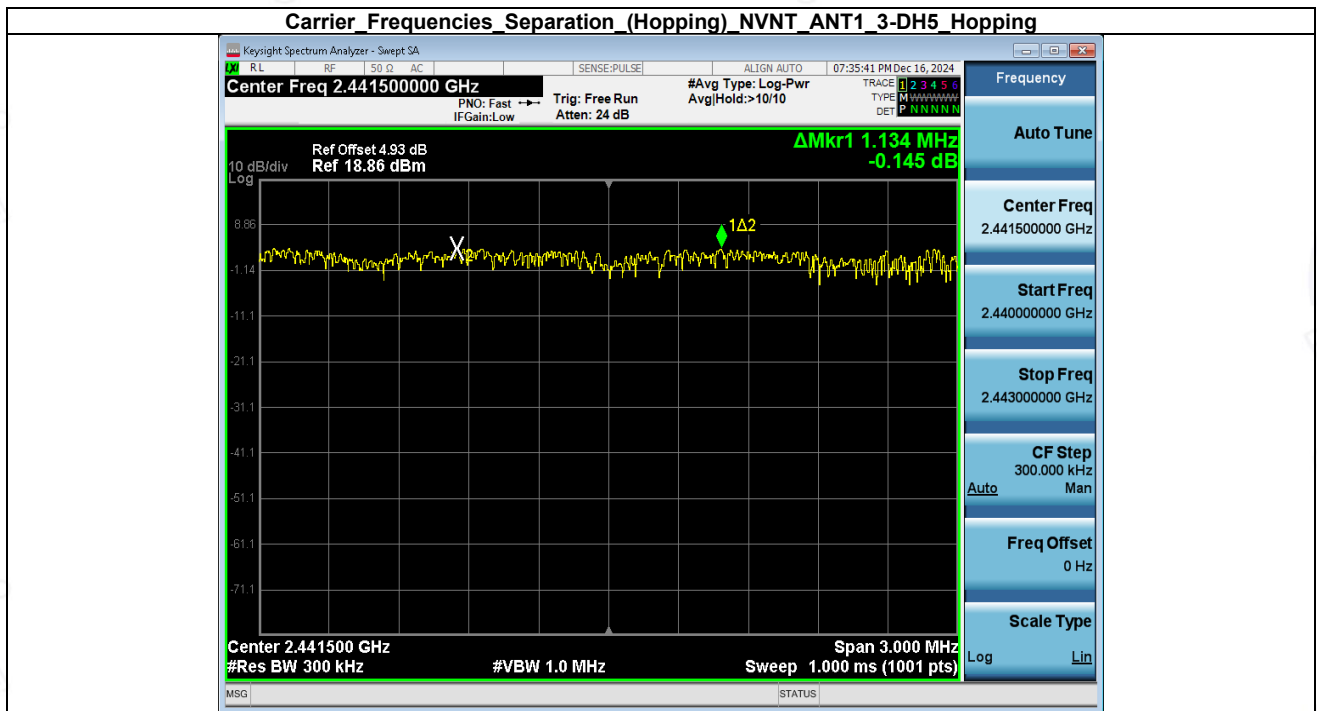
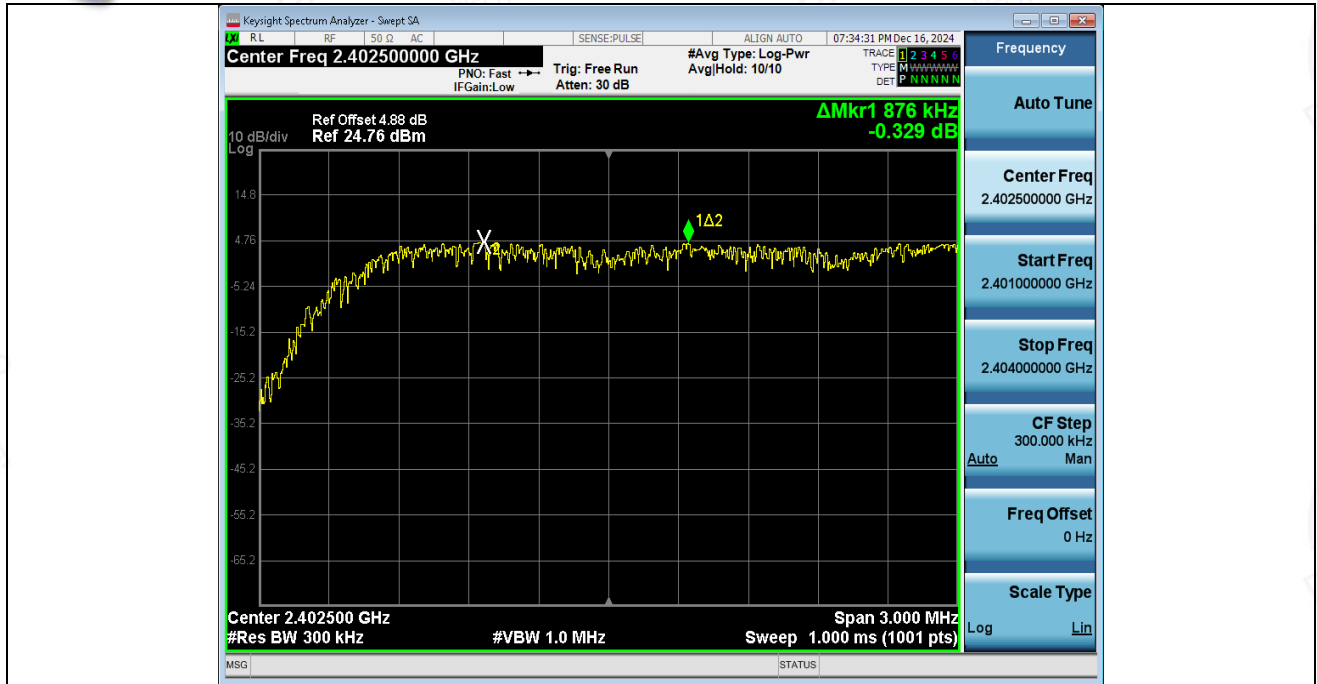
Carrier_Frequencies_Separation_(Hopping)_NVNT_ANT1_2-DH5_Hopping





Carrier_Frequencies_Separation_(Hopping)_NVNT_ANT1_3-DH5_Hopping





Carrier_Frequencies_Separation_(Hopping)_NVNT_ANT1_3-DH5_Hopping

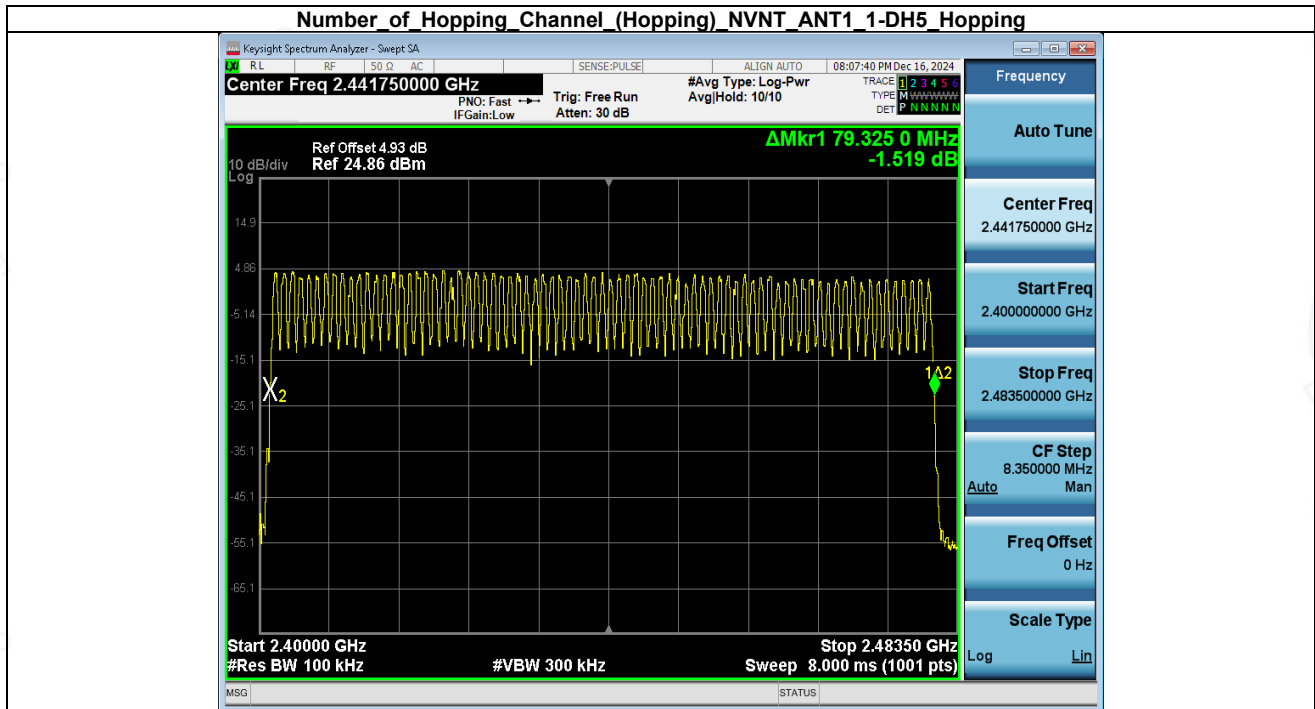




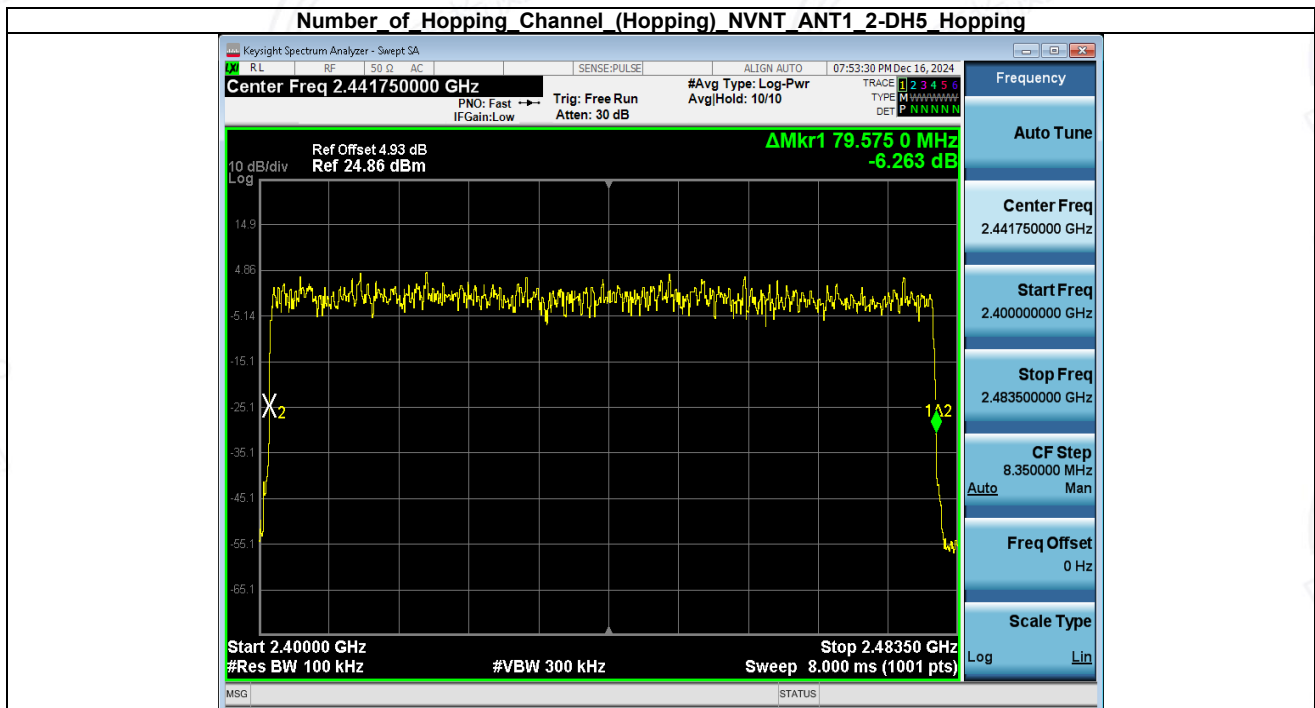
8. Number of Hopping Channel (Hopping)

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

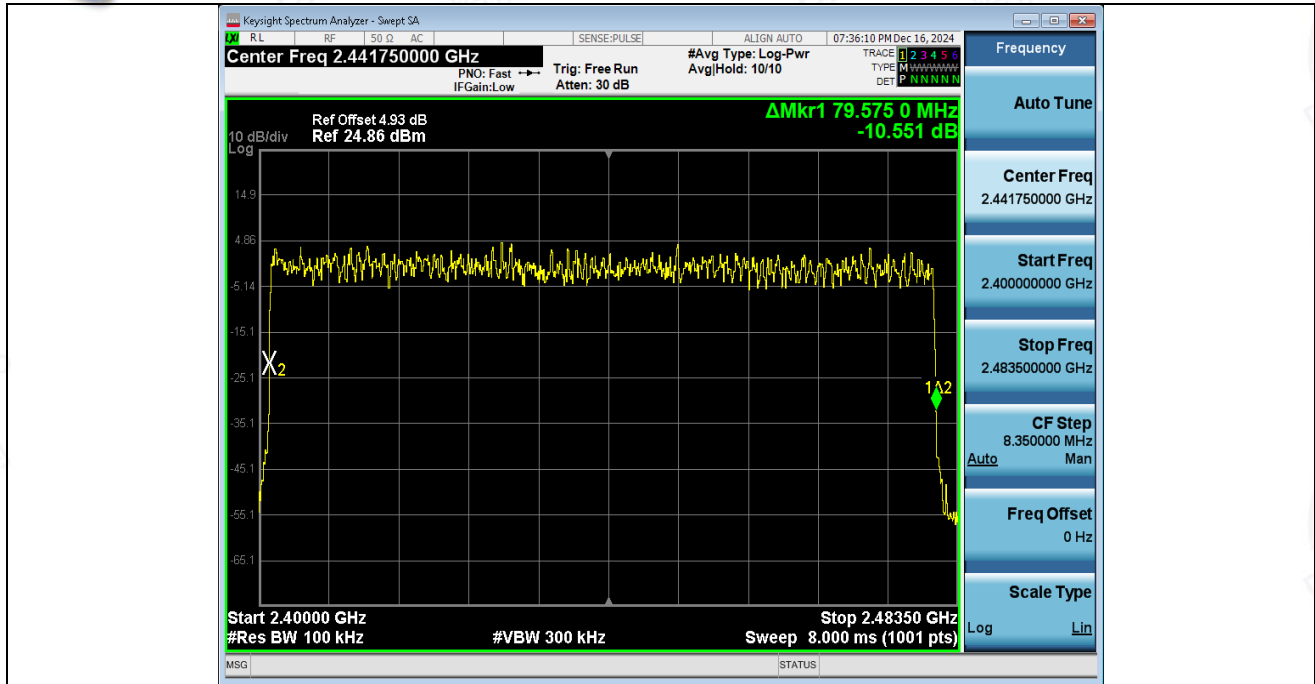


Number_of_Hopping_Channel_(Hopping)_NVNT_ANT1_2-DH5_Hopping

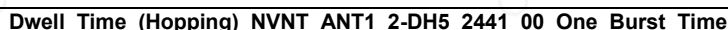


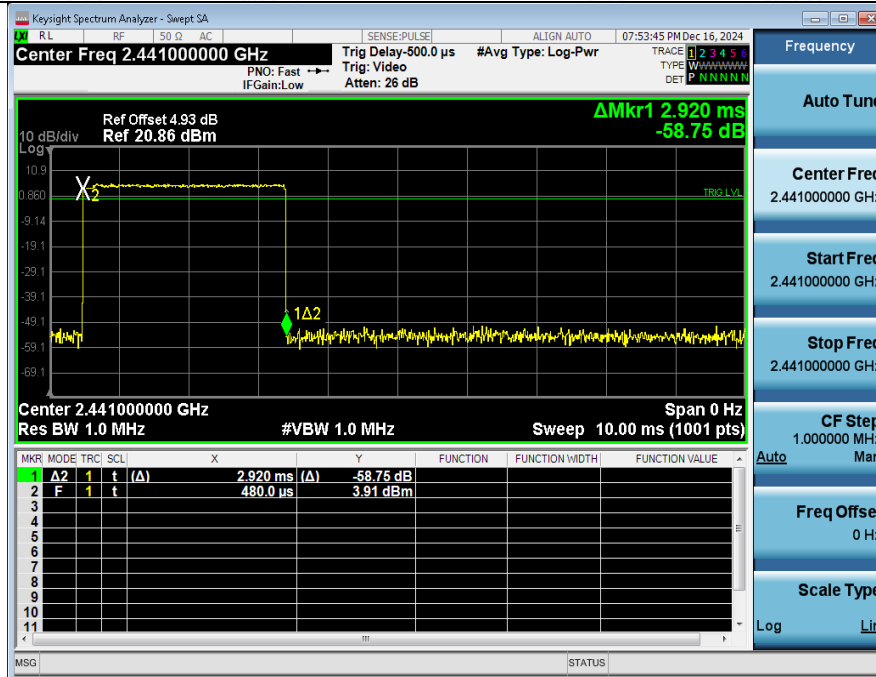
Number_of_Hopping_Channel_(Hopping)_NVNT_ANT1_3-DH5_Hopping



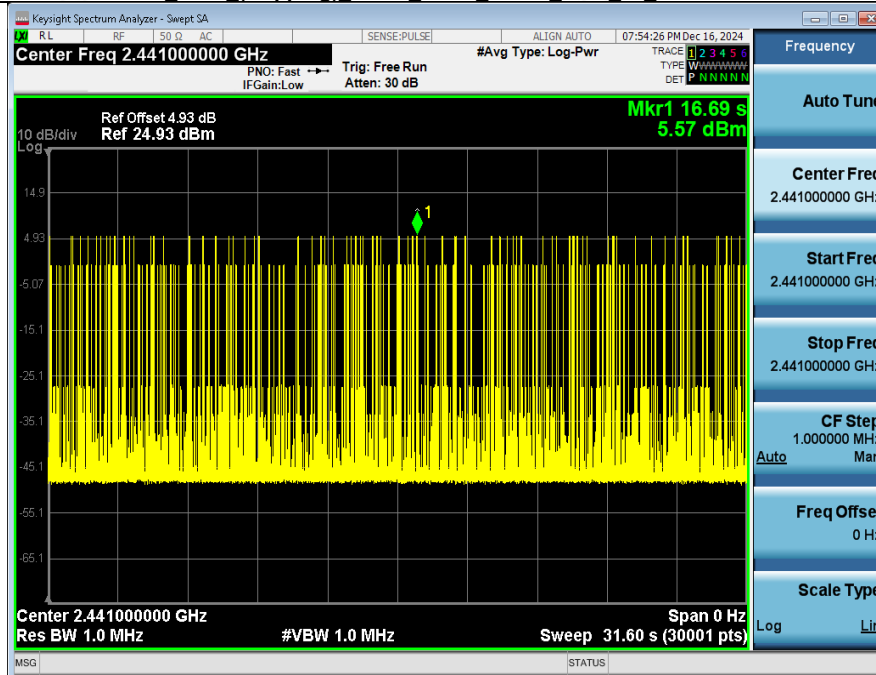


Condition	Antenna	Packet Type	Pulse Time(ms)	Hops	Dwell Time(ms)	Limit(s)	Result
NVNT	ANT1	1-DH5	2.920	109.00	318.280	0.40	Pass
NVNT	ANT1	2-DH5	2.920	98.00	286.160	0.40	Pass
NVNT	ANT1	3-DH5	2.920	102.00	297.840	0.40	Pass





Dwell Time (Hopping) NVNT_ANT1_2-DH5_2441_00_Accumulated



Dwell Time (Hopping) NVNT_ANT1_3-DH5_2441_00_One Burst Time



