

Appendix

Test Data

for BTEK241111036A01E01

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



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1. -6dB Bandwidth

Condition	Antenna	Rate	Frequency (MHz)	-6dB BW(kHz)	limit(kHz)	Result
NVNT	ANT1	1Mbps	2402.00	673.85	500	Pass
NVNT	ANT1	1Mbps	2440.00	678.93	500	Pass
NVNT	ANT1	1Mbps	2480.00	673.07	500	Pass
NVNT	ANT1	2Mbps	2402.00	1164.05	500	Pass
NVNT	ANT1	2Mbps	2440.00	1159.73	500	Pass
NVNT	ANT1	2Mbps	2480.00	1164.67	500	Pass

-6dB_Bandwidth_NVNT_ANT1_1Mbps_2402

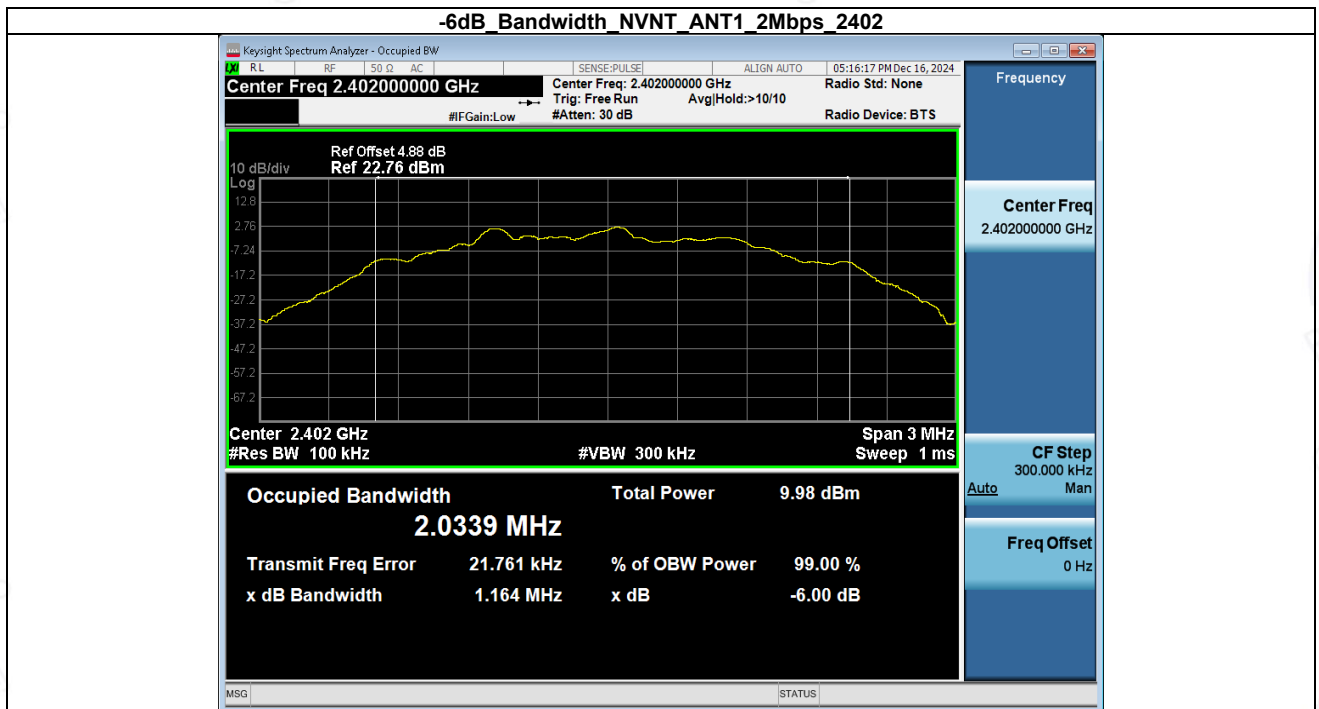


-6dB_Bandwidth_NVNT_ANT1_1Mbps_2440



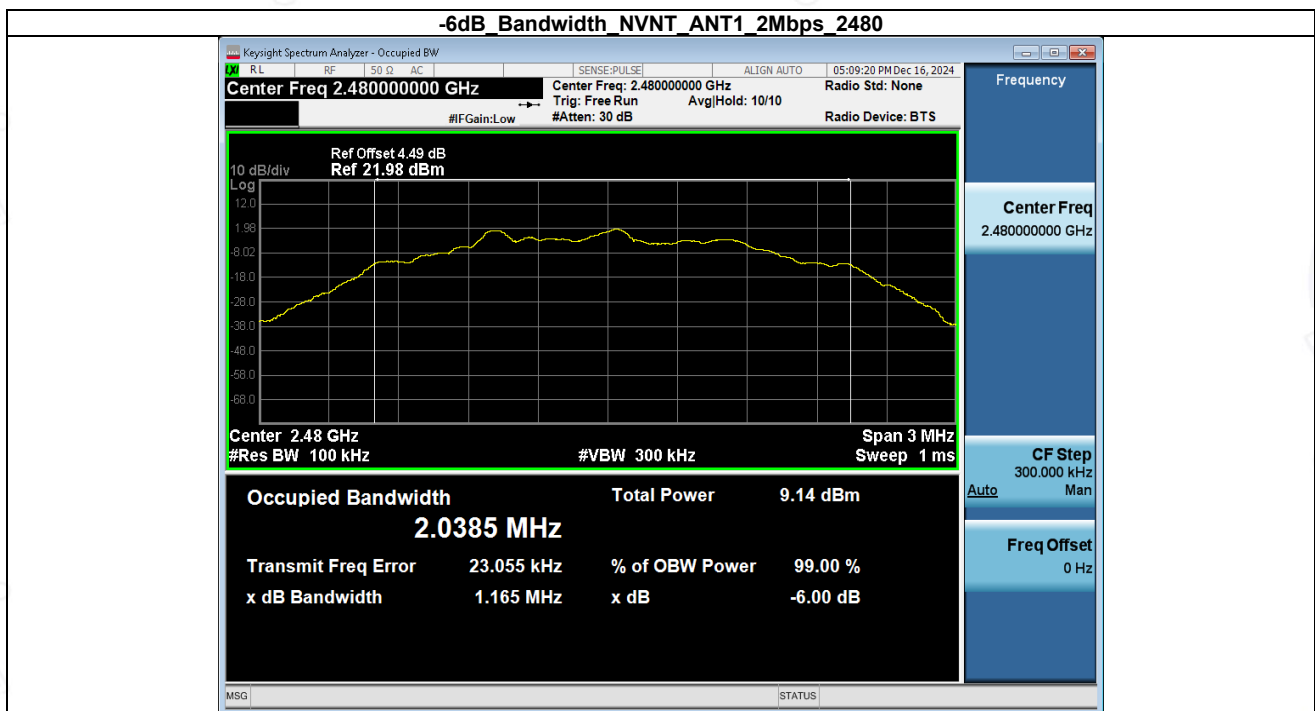
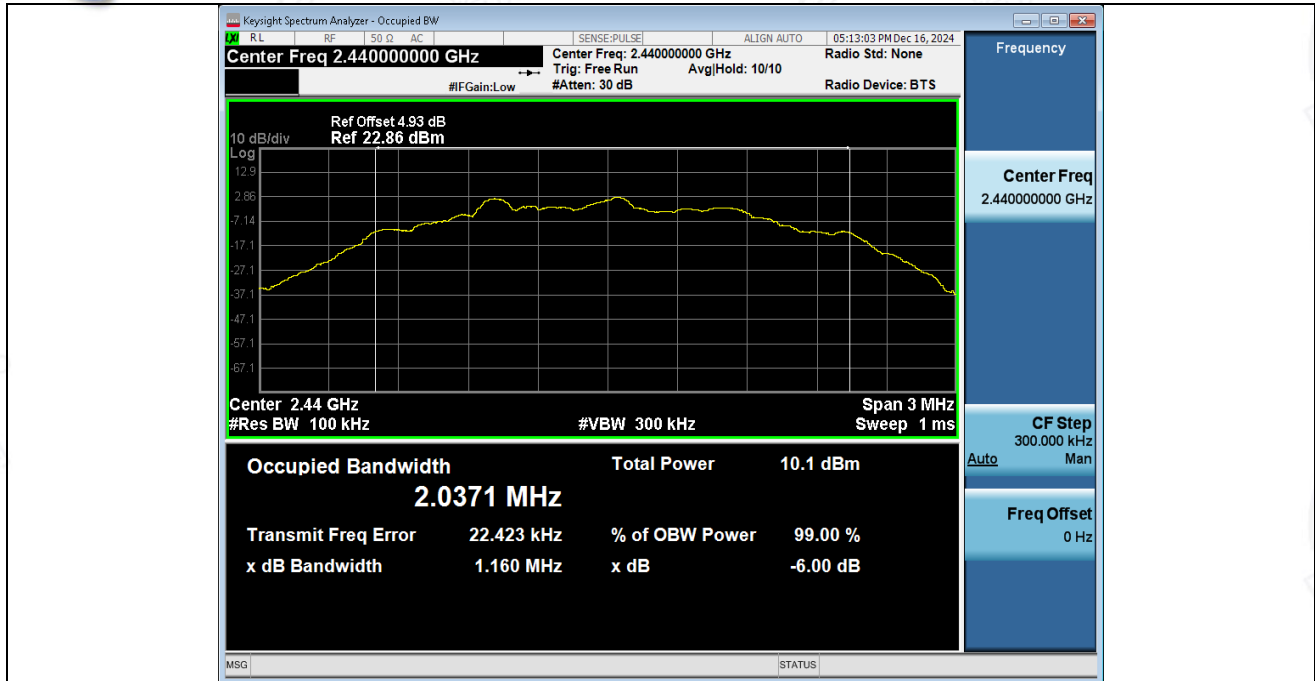
-6dB_Bandwidth_NVNT_ANT1_1Mbps_2480





-6dB Bandwidth NVNT_ANT1_2Mbps_2440





2. 99% Occupied Bandwidth

Condition	Antenna	Rate	Frequency (MHz)	99% BW(MHz)
NVNT	ANT1	1Mbps	2402.00	1.036
NVNT	ANT1	1Mbps	2440.00	1.035
NVNT	ANT1	1Mbps	2480.00	1.034
NVNT	ANT1	2Mbps	2402.00	2.030
NVNT	ANT1	2Mbps	2440.00	2.030
NVNT	ANT1	2Mbps	2480.00	2.029

99% Occupied Bandwidth NVNT ANT1 1Mbps 2402

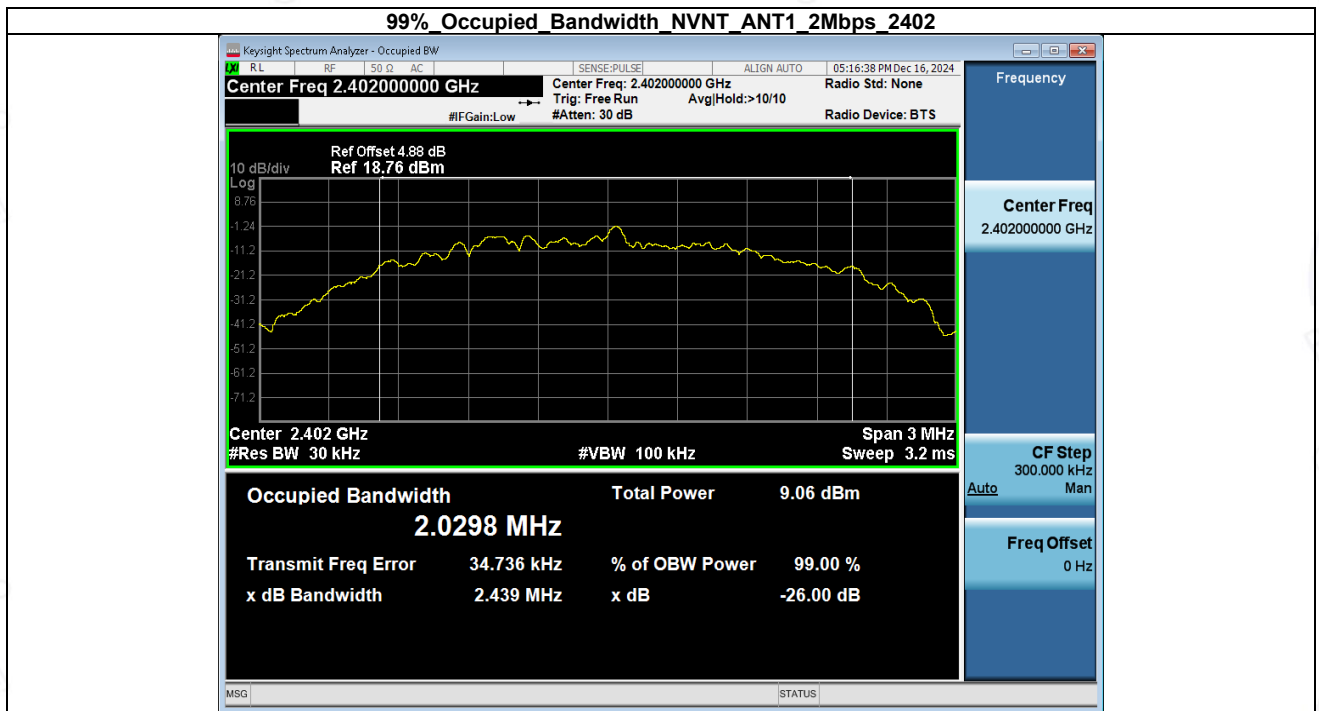


99% Occupied Bandwidth NVNT ANT1 1Mbps 2440



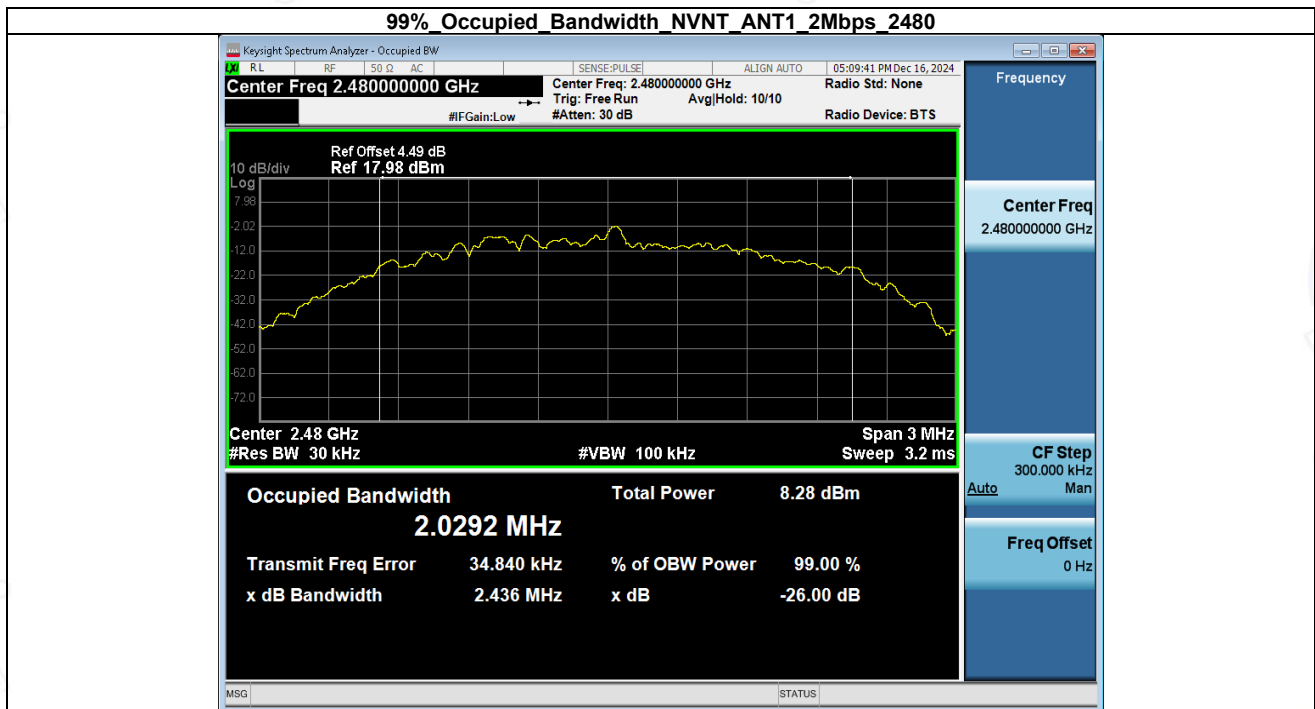
99% Occupied Bandwidth NVNT ANT1 1Mbps 2480





99% Occupied Bandwidth NVNT_ANT1_2Mbps_2440

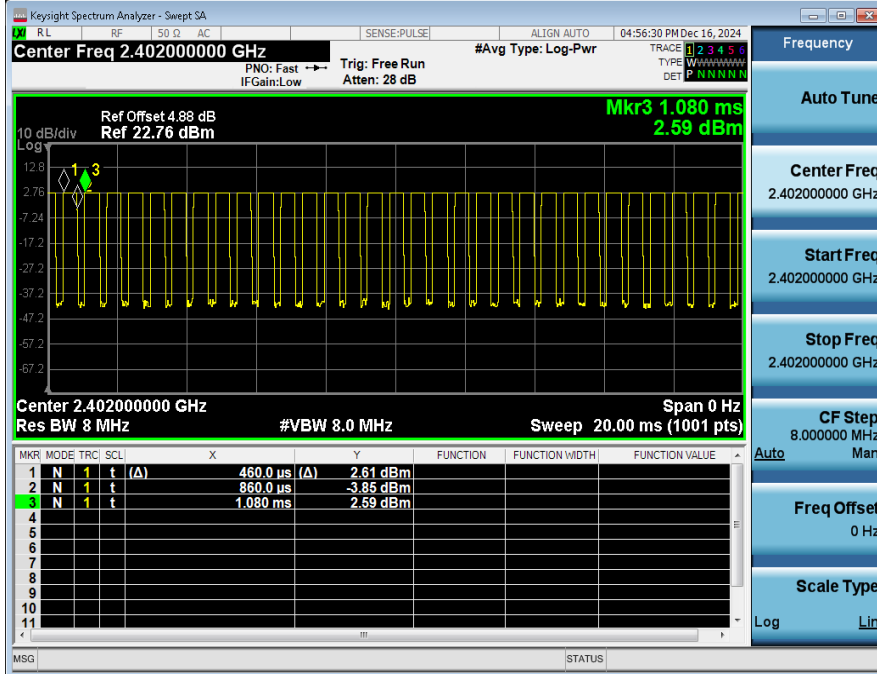




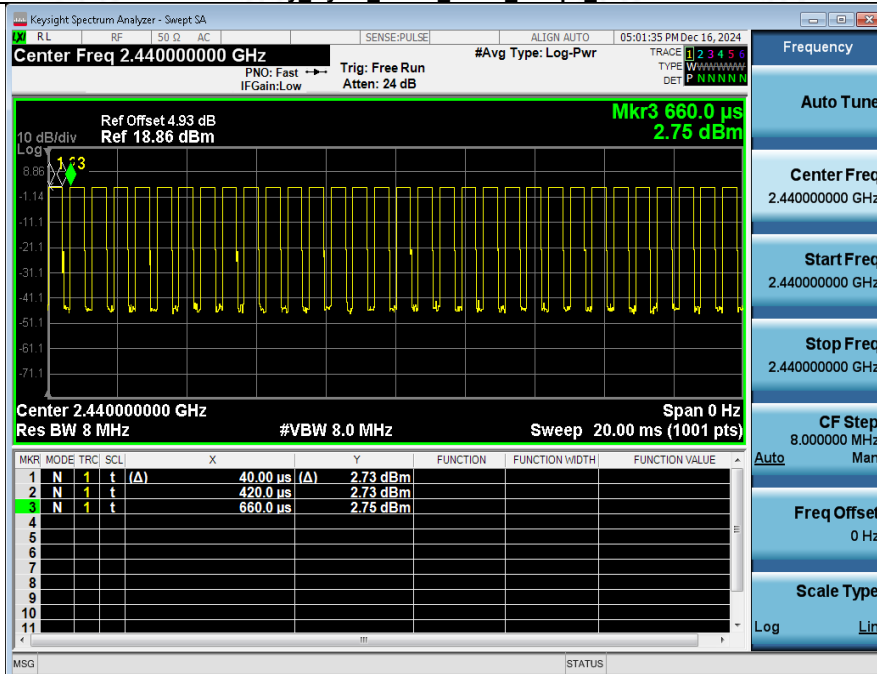
3. Duty Cycle

Condition	Antenna	Rate	Frequency (MHz)	Dutycycle(%)	Duty_factor
NVNT	ANT1	1Mbps	2402.00	67.74	1.69
NVNT	ANT1	1Mbps	2440.00	61.29	2.13
NVNT	ANT1	1Mbps	2480.00	65.63	1.83
NVNT	ANT1	2Mbps	2402.00	35.48	4.50
NVNT	ANT1	2Mbps	2440.00	35.48	4.50
NVNT	ANT1	2Mbps	2480.00	34.38	4.64

Duty Cycle_NVNT_ANT1_1Mbps_2402

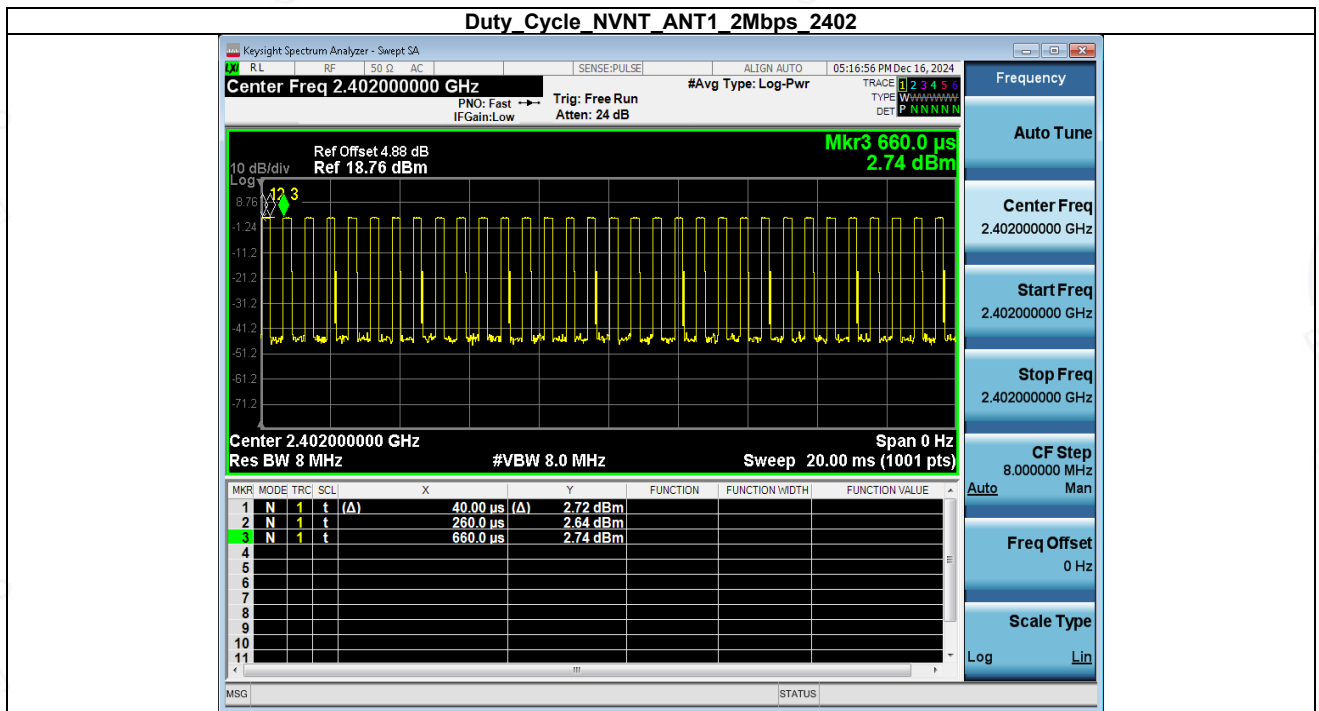
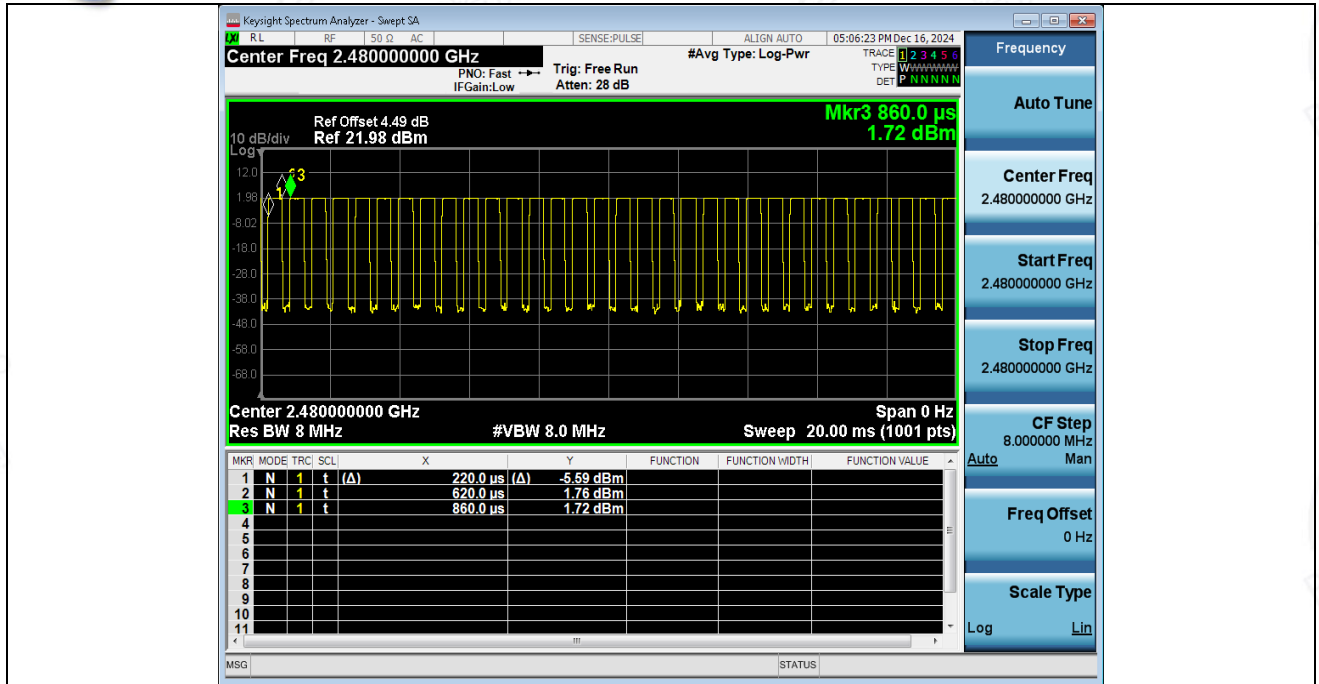


Duty Cycle_NVNT_ANT1_1Mbps_2440



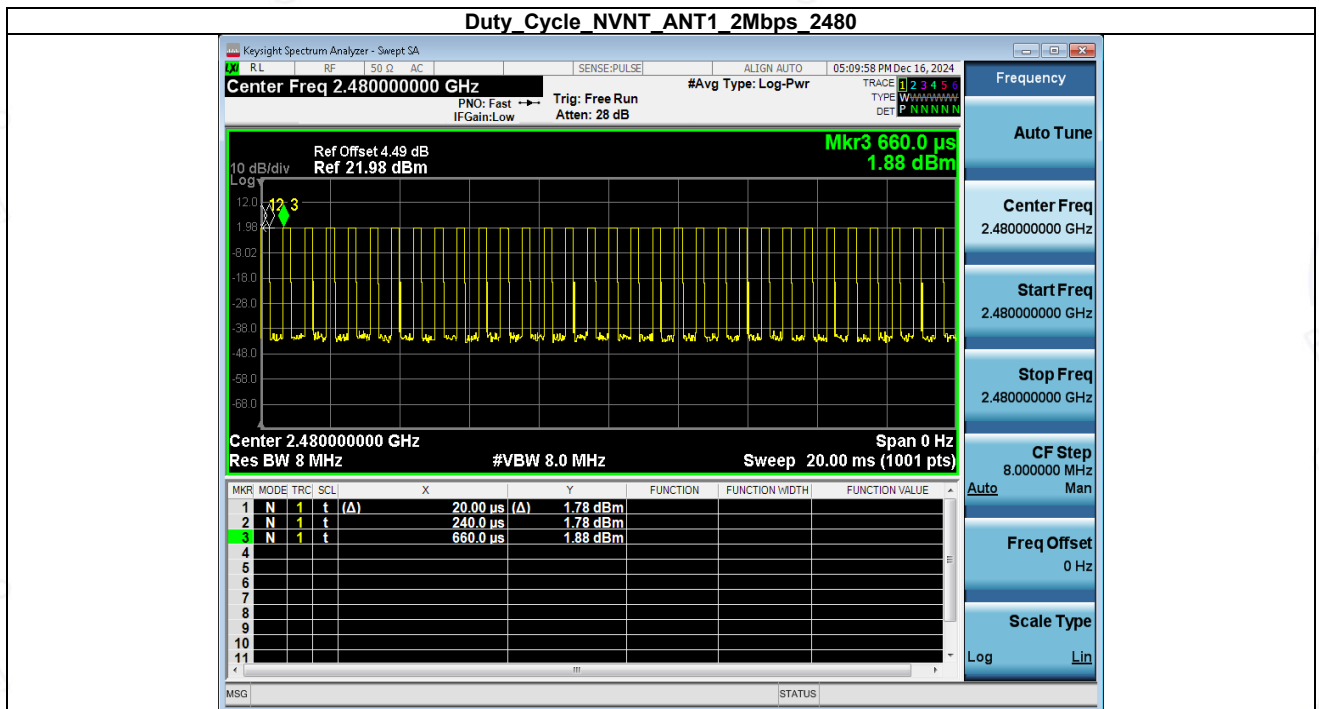
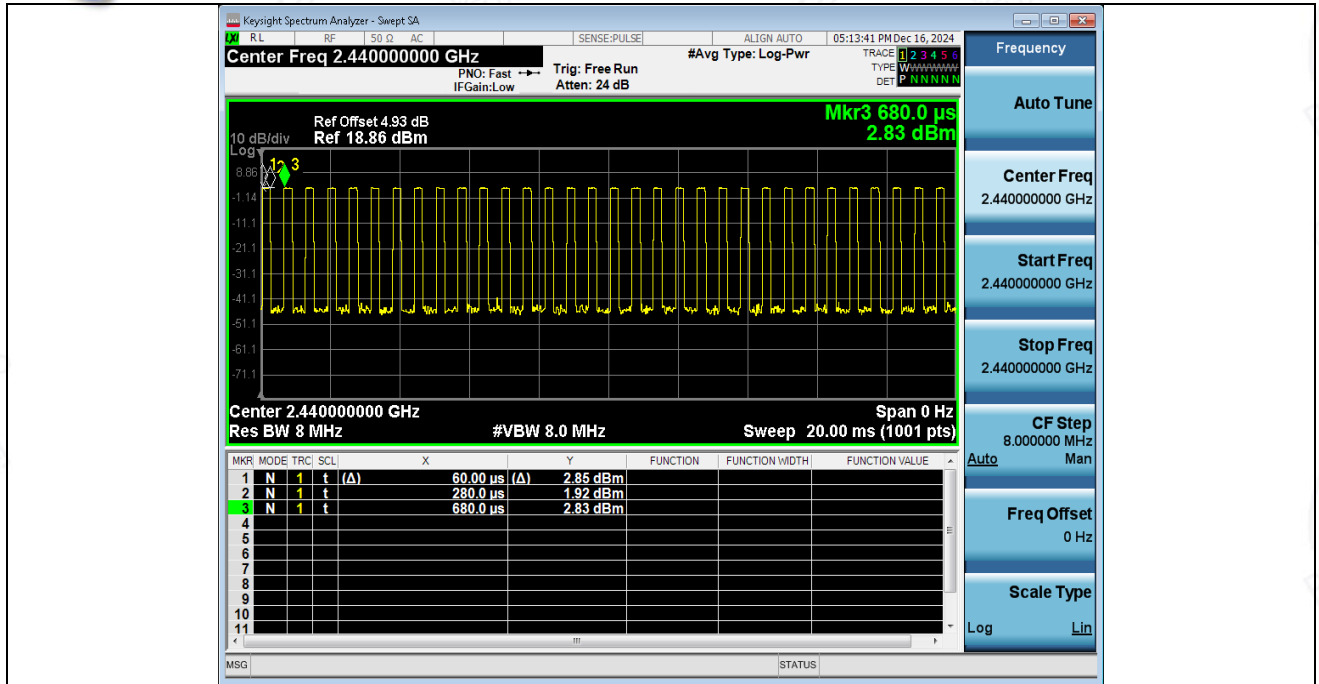
Duty Cycle_NVNT_ANT1_1Mbps_2480





Duty Cycle_NVNT_ANT1_2Mbps_2440

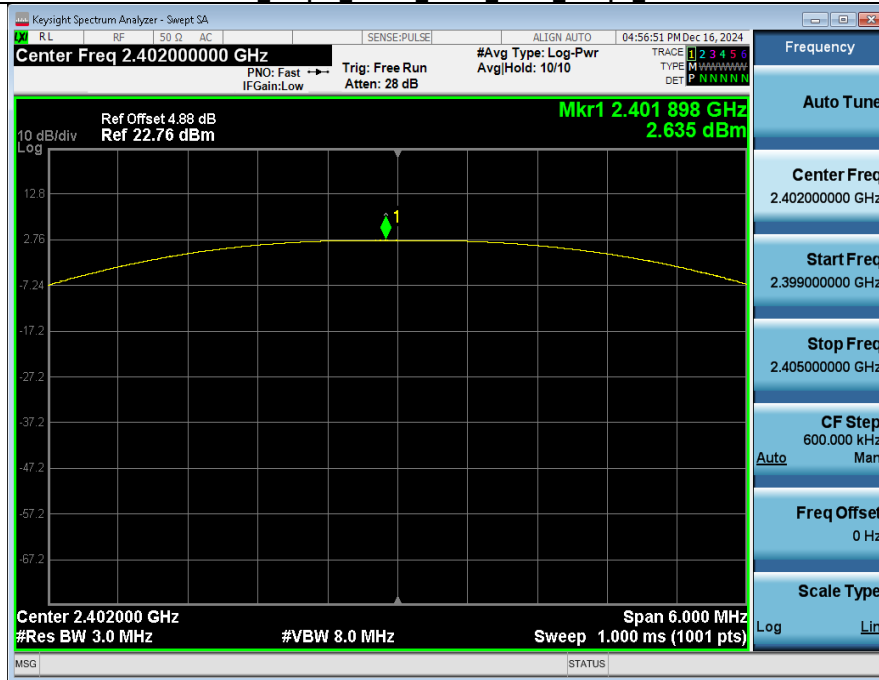




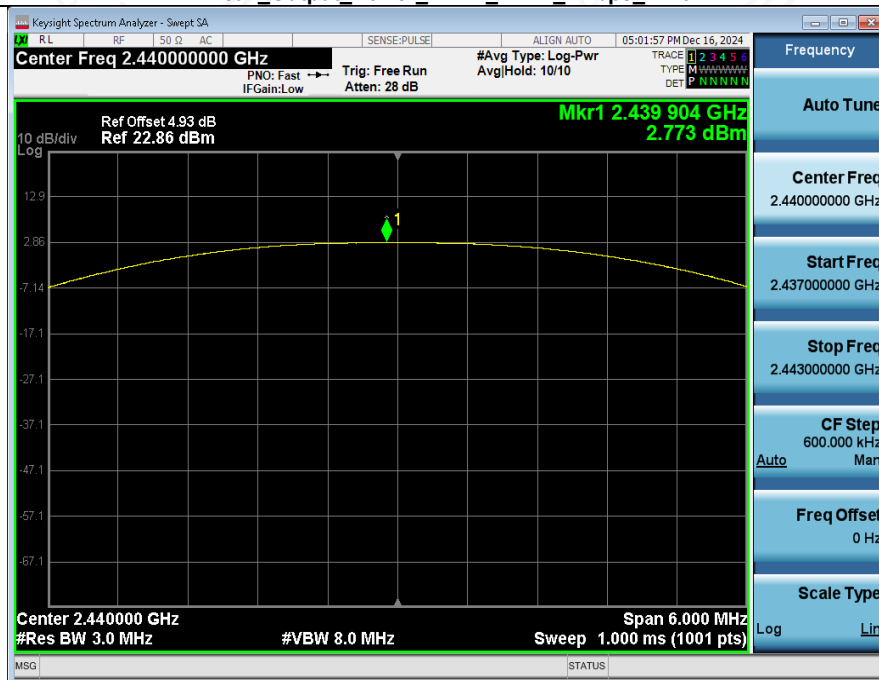
4. Peak Output Power

Condition	Antenna	Rate	Frequency (MHz)	Max. Conducted Power(dBm)	Max. Conducted Power(mW)	Limit(mW)	Result
NVNT	ANT1	1Mbps	2402.00	2.63	1.83	1000	Pass
NVNT	ANT1	1Mbps	2440.00	2.77	1.89	1000	Pass
NVNT	ANT1	1Mbps	2480.00	1.78	1.51	1000	Pass
NVNT	ANT1	2Mbps	2402.00	2.71	1.87	1000	Pass
NVNT	ANT1	2Mbps	2440.00	2.82	1.92	1000	Pass
NVNT	ANT1	2Mbps	2480.00	1.86	1.53	1000	Pass

Peak_Output_Power_NVNT_ANT1_1Mbps_2402

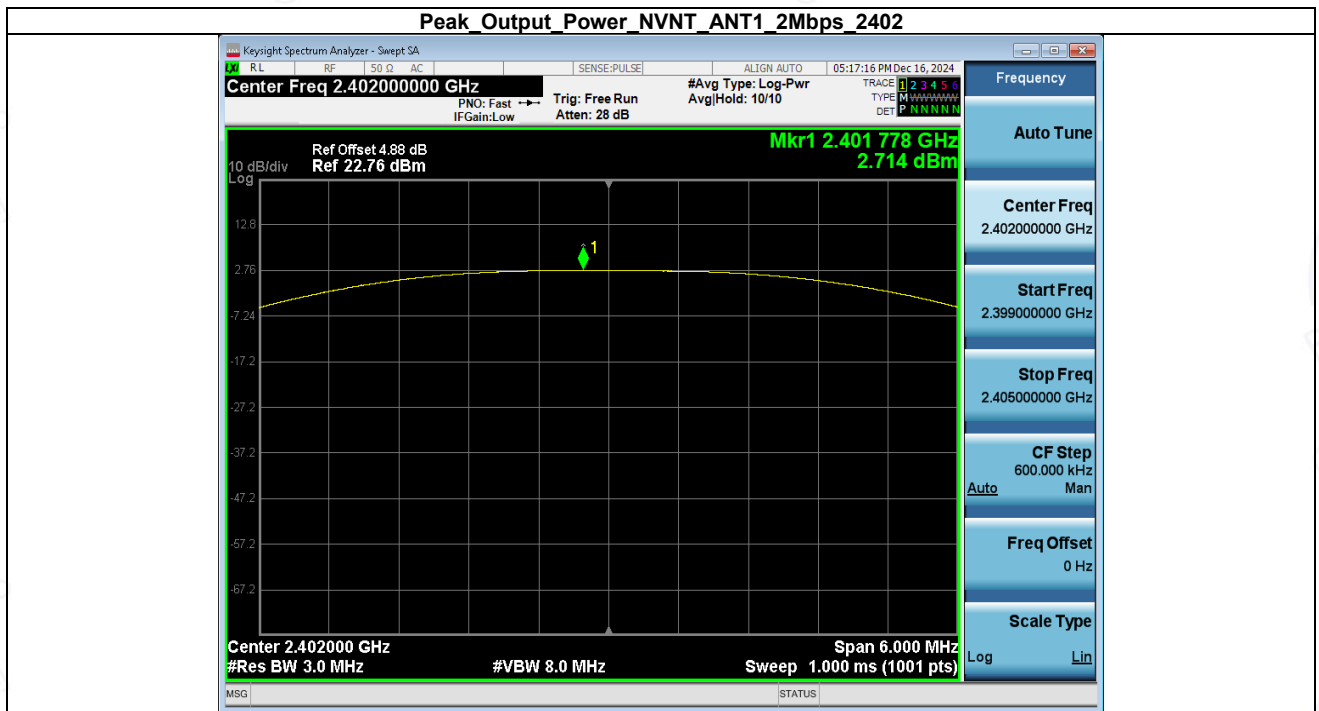


Peak_Output_Power_NVNT_ANT1_1Mbps_2440



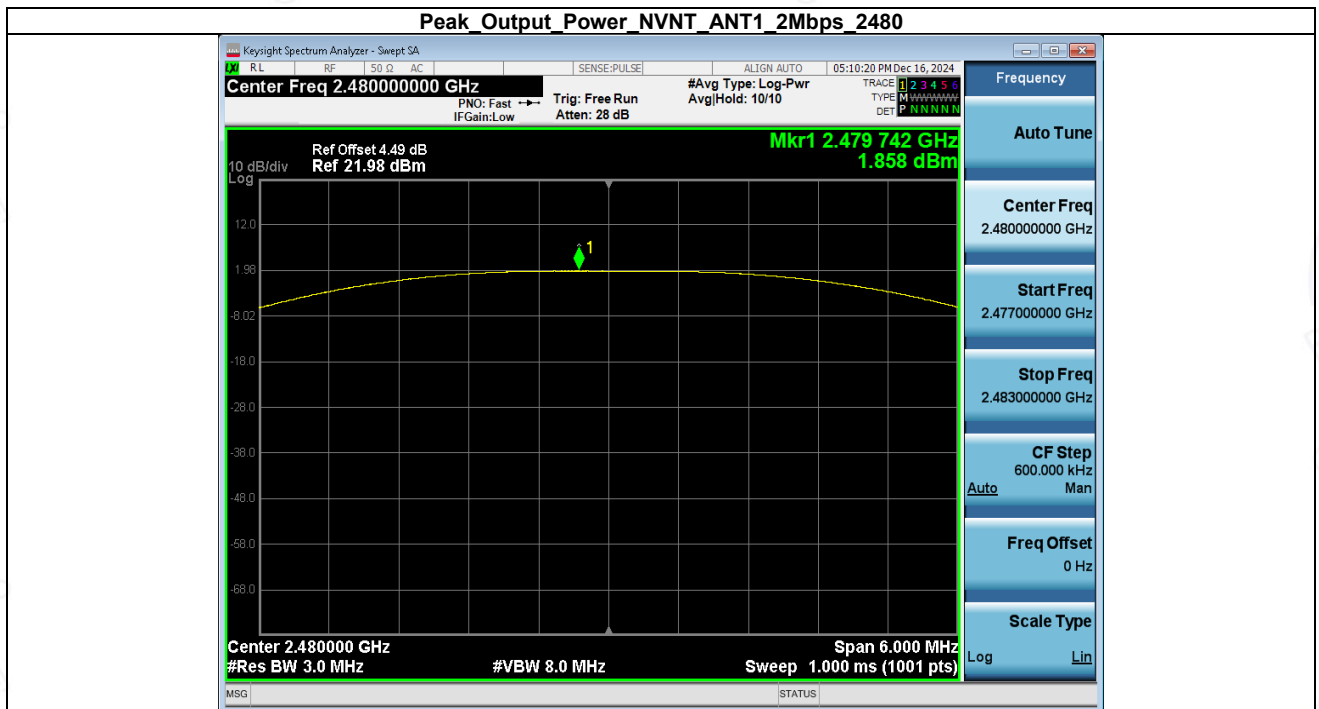
Peak_Output_Power_NVNT_ANT1_1Mbps_2480





Peak Output Power_NVNT_ANT1_2Mbps_2440

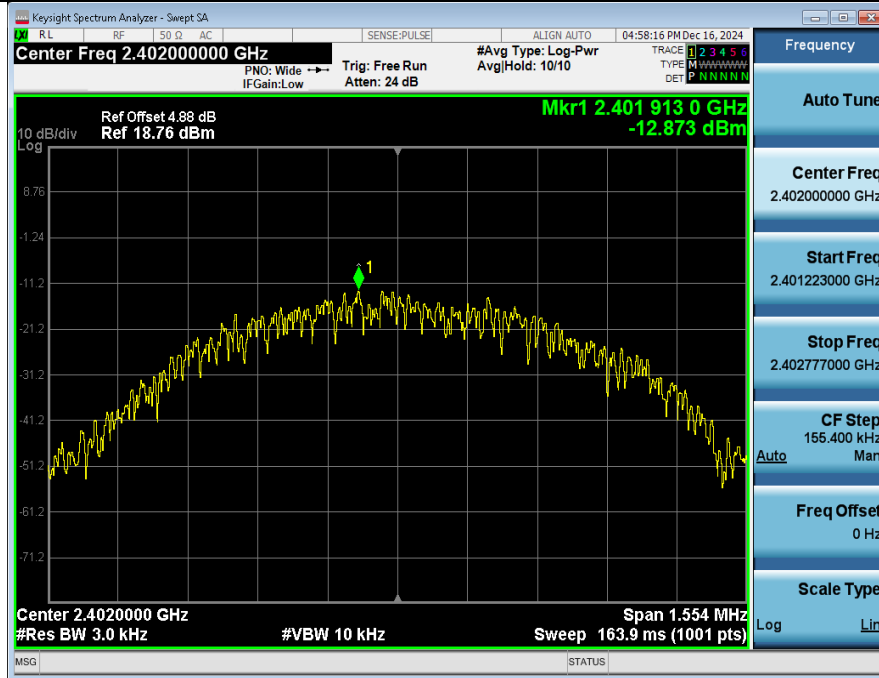




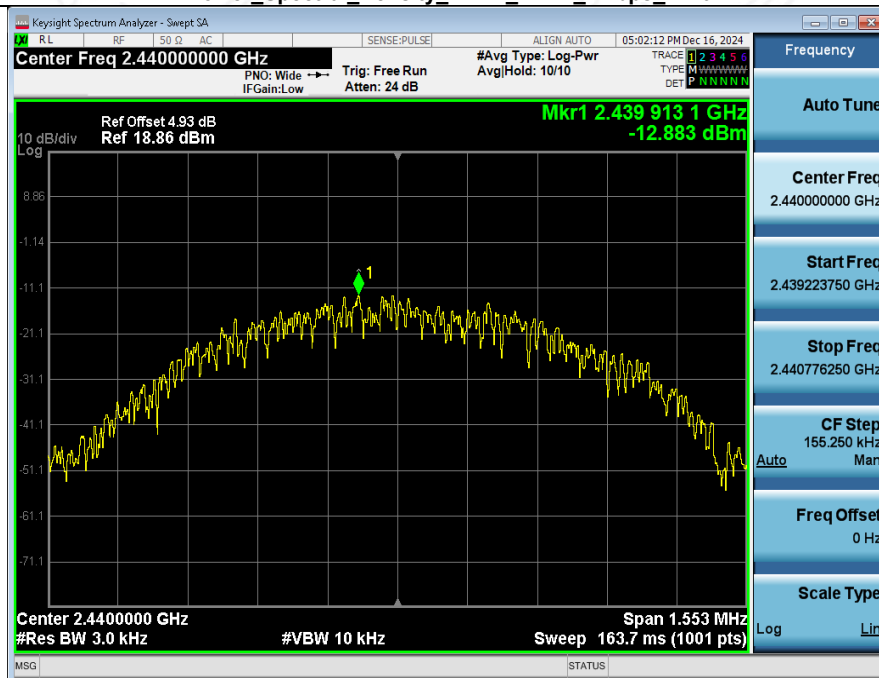
5. Power Spectral Density

Condition	Antenna	Rate	Frequency (MHz)	Power Spectral Density(dBm/3kHz)	Limit(dBm/3kHz)	Result
NVNT	ANT1	1Mbps	2402.00	-12.87	8	Pass
NVNT	ANT1	1Mbps	2440.00	-12.88	8	Pass
NVNT	ANT1	1Mbps	2480.00	-13.86	8	Pass
NVNT	ANT1	2Mbps	2402.00	-15.54	8	Pass
NVNT	ANT1	2Mbps	2440.00	-15.11	8	Pass
NVNT	ANT1	2Mbps	2480.00	-16.51	8	Pass

Power Spectral Density_NVNT_ANT1_1Mbps_2402

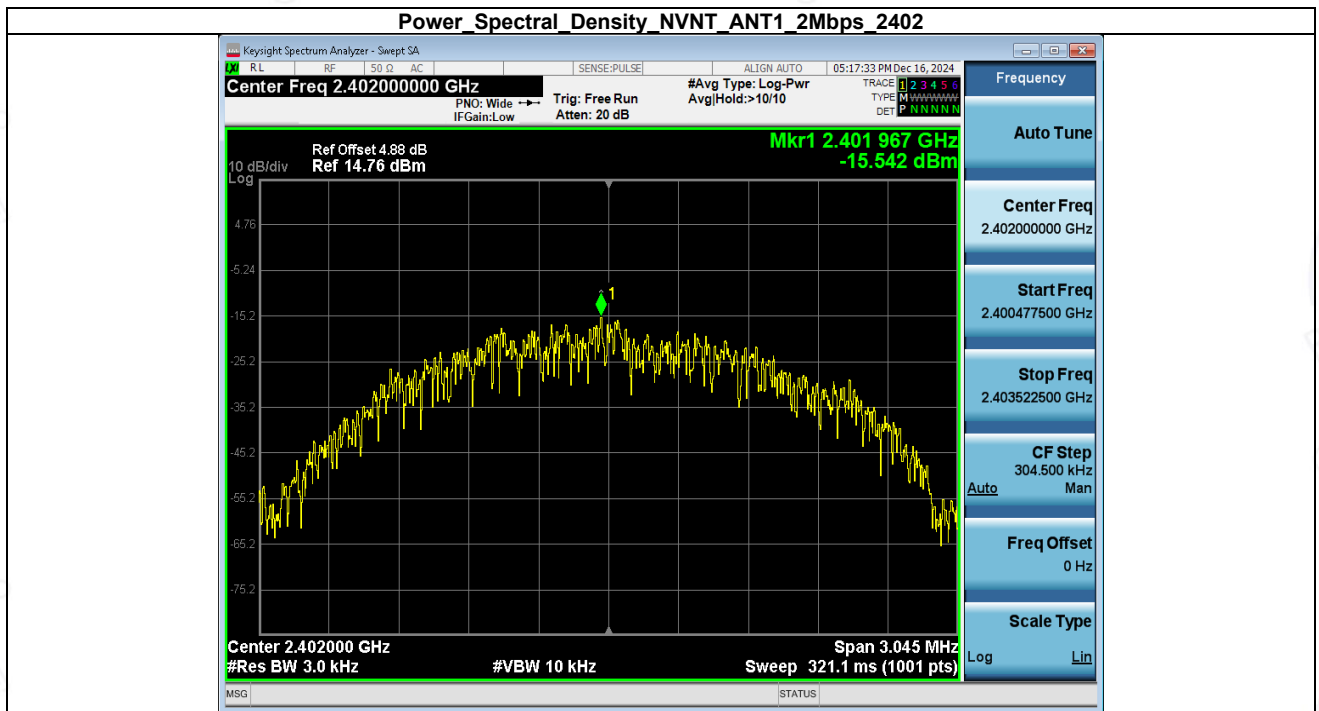
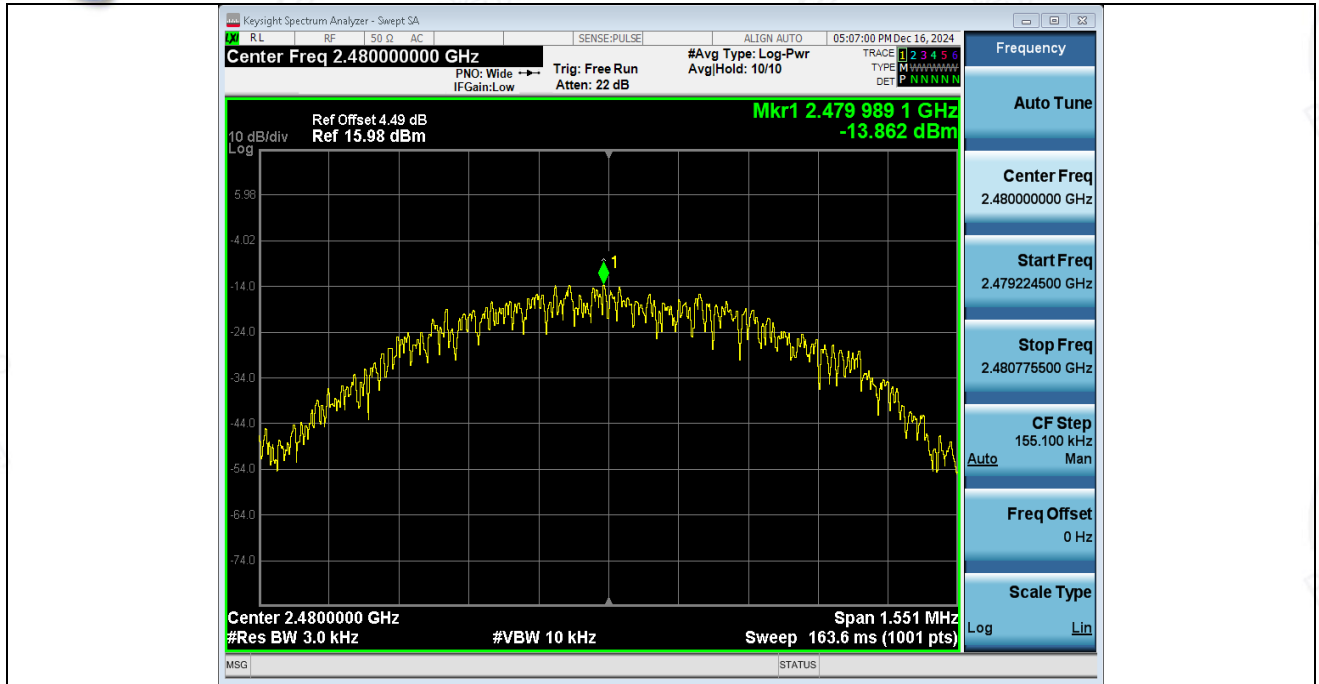


Power Spectral Density_NVNT_ANT1_1Mbps_2440



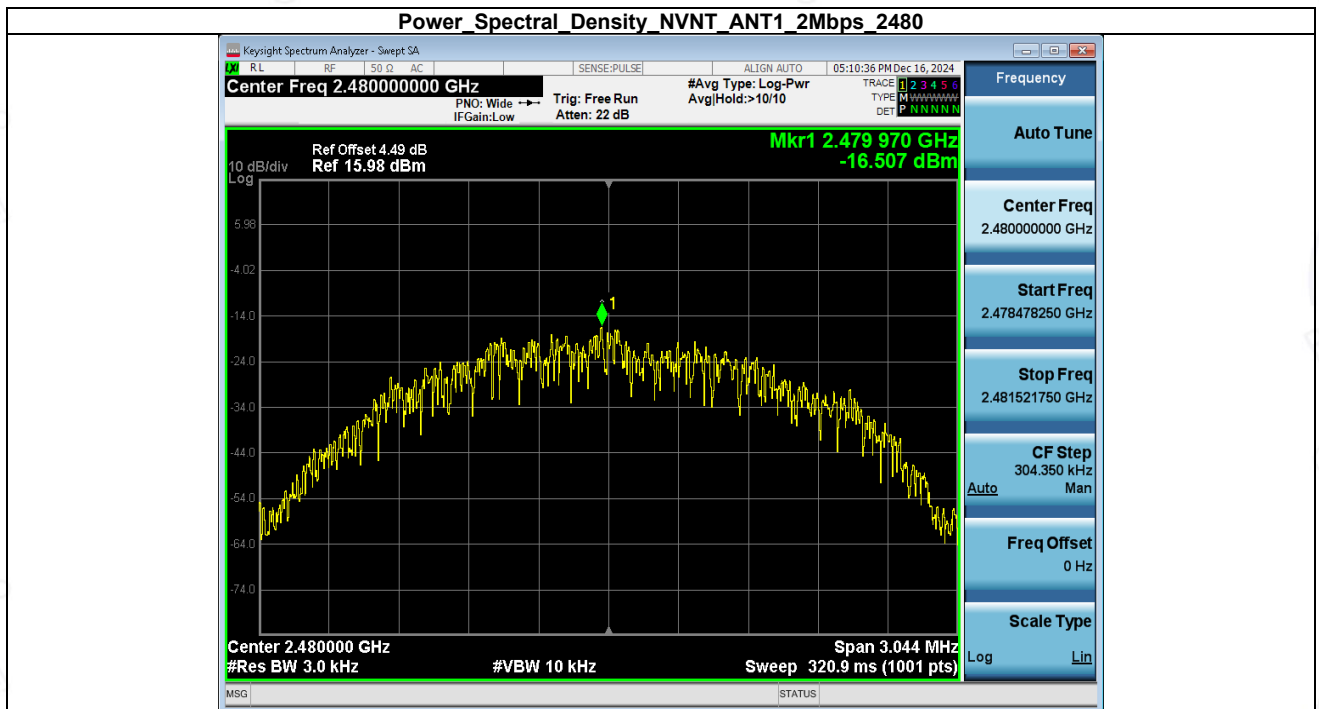
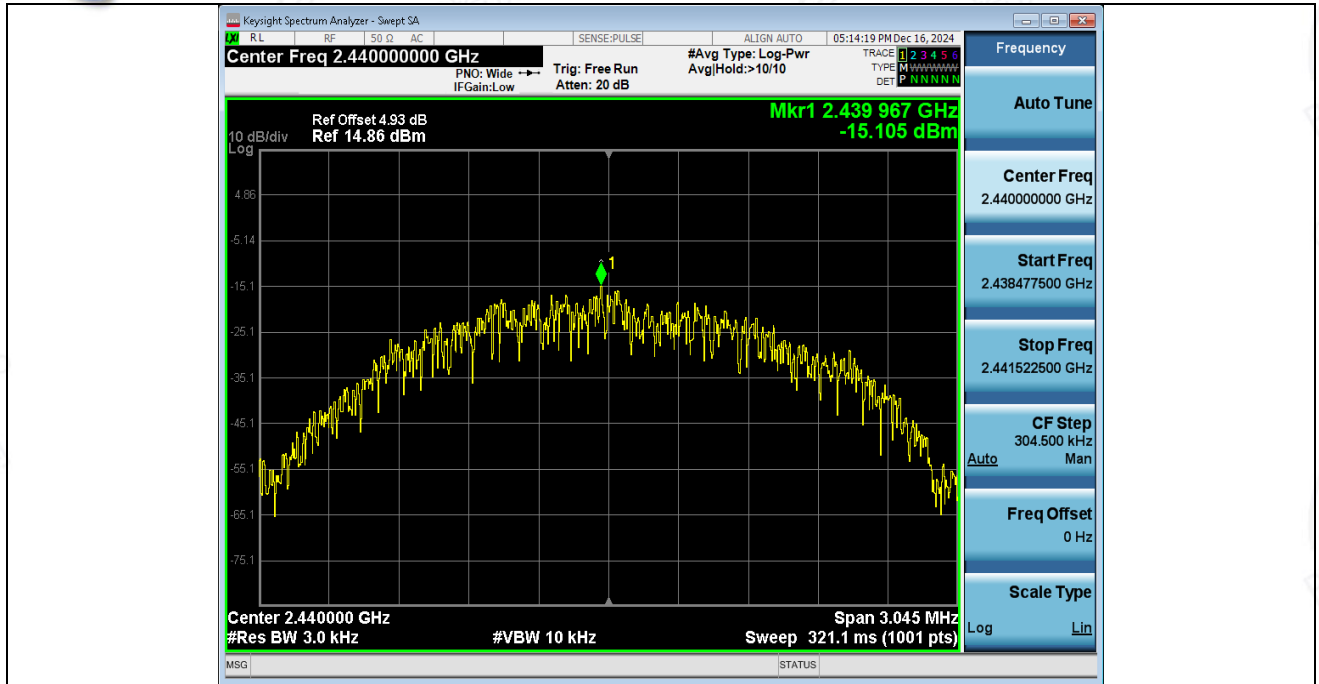
Power Spectral Density_NVNT_ANT1_1Mbps_2480





Power Spectral Density NVNT ANT1 2Mbps 2440





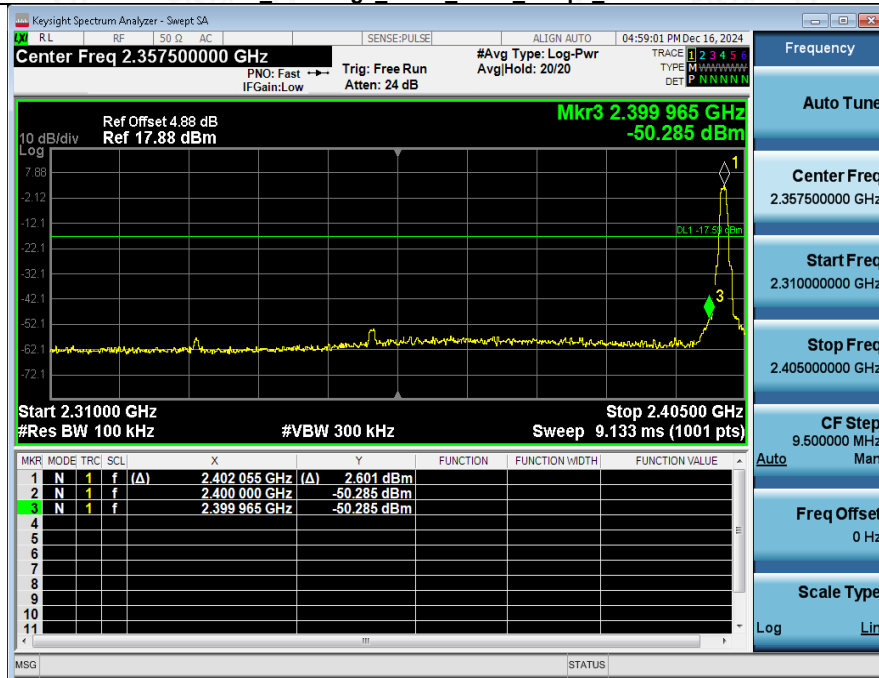
6. Bandedge

Condition	Antenna	Modulation	TX_Frequency (MHz)	Max. Mark_freq(MHz)	Ref_level(dBm)	Spurious level(dBm)	limit(dBm)	Result
NVNT	ANT1	1Mbps	2402.00	2399.965	2.408	-50.285	-17.592	Pass
NVNT	ANT1	1Mbps	2480.00	2483.575	1.540	-57.113	-18.460	Pass
NVNT	ANT1	2Mbps	2402.00	2399.965	2.468	-31.006	-17.532	Pass
NVNT	ANT1	2Mbps	2480.00	2485.500	1.581	-47.988	-18.419	Pass

1_Reference_Level_NVNT_ANT1_1Mbps_2402



2_Bandedge_NVNT_ANT1_1Mbps_2402

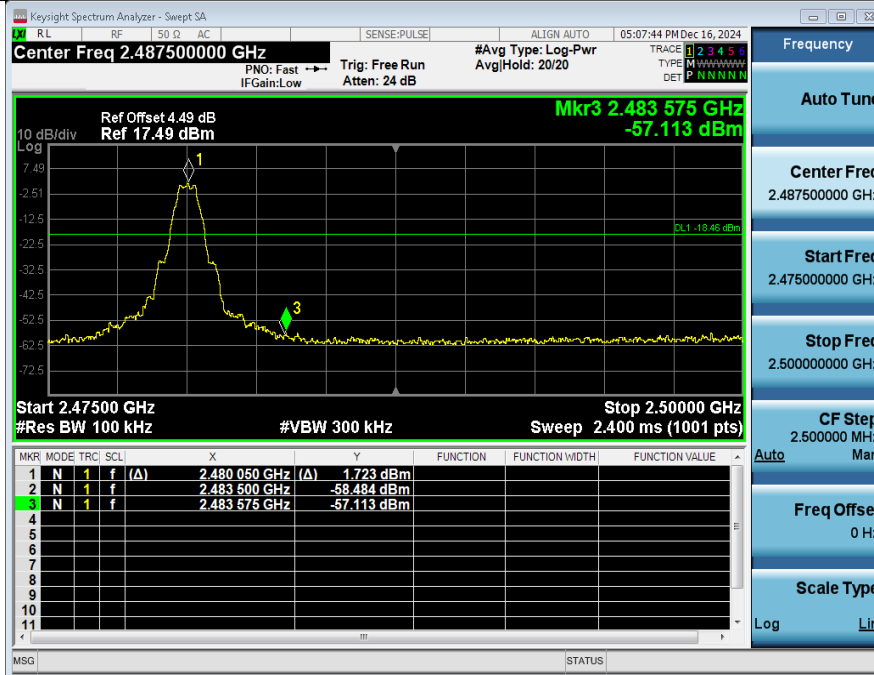


1_Reference_Level_NVNT_ANT1_1Mbps_2480





2_Bandedge_NVNT_ANT1_1Mbps_2480

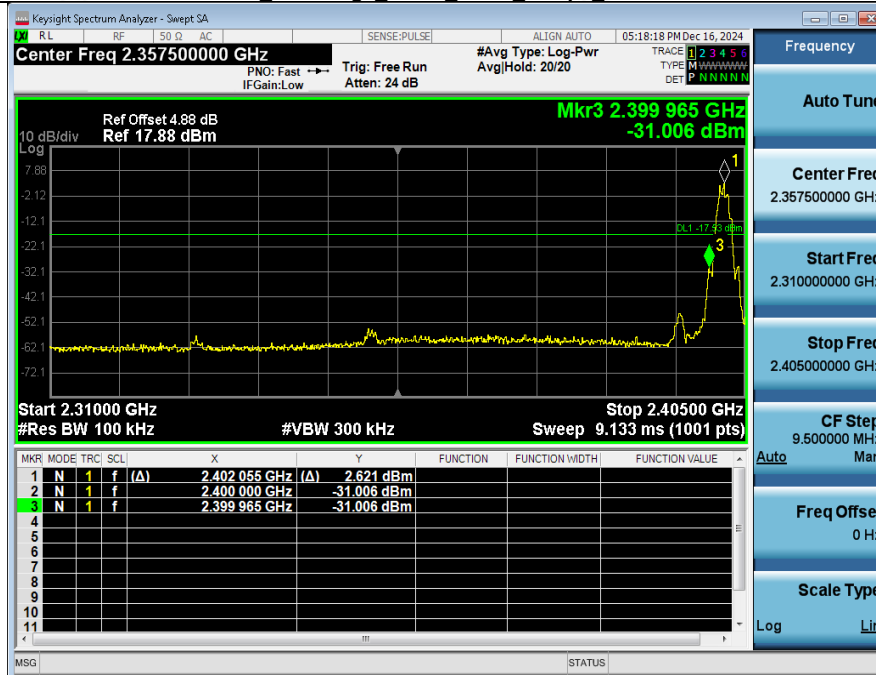


1_Reference_Level_NVNT_ANT1_2Mbps_2402





2_Bandedge_NVNT_ANT1_2Mbps_2402

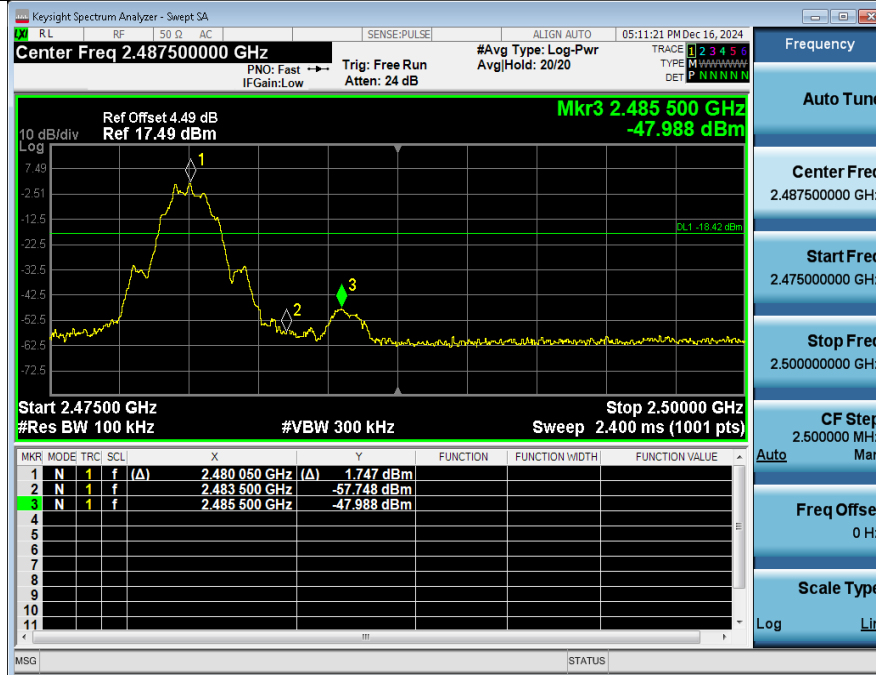


1_Reference_Level_NVNT_ANT1_2Mbps_2480





2_Bandedge_NVNT_ANT1_2Mbps_2480



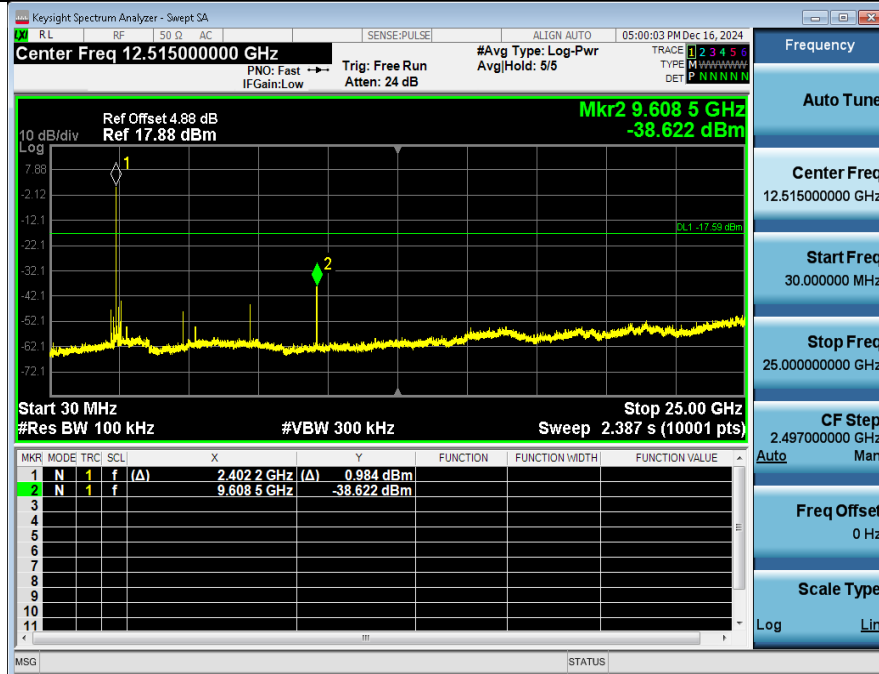
7. Spurious Emission

Condition	Antenna	Modulation	TX_Frequency (MHz)	Ref_level(dBm)	Spurious level(dBm)	limit(dBm)	Result
NVNT	ANT1	1Mbps	2402.00	2.408	-38.622	-17.592	Pass
NVNT	ANT1	1Mbps	2440.00	2.439	-40.207	-17.561	Pass
NVNT	ANT1	1Mbps	2480.00	1.540	-41.104	-18.460	Pass
NVNT	ANT1	2Mbps	2402.00	2.468	-38.617	-17.532	Pass
NVNT	ANT1	2Mbps	2440.00	2.571	-40.140	-17.429	Pass
NVNT	ANT1	2Mbps	2480.00	1.581	-41.044	-18.419	Pass

1 Reference_Level_NVNT_ANT1_1Mbps_2402



2 Spurious Emission_NVNT_ANT1_1Mbps_2402

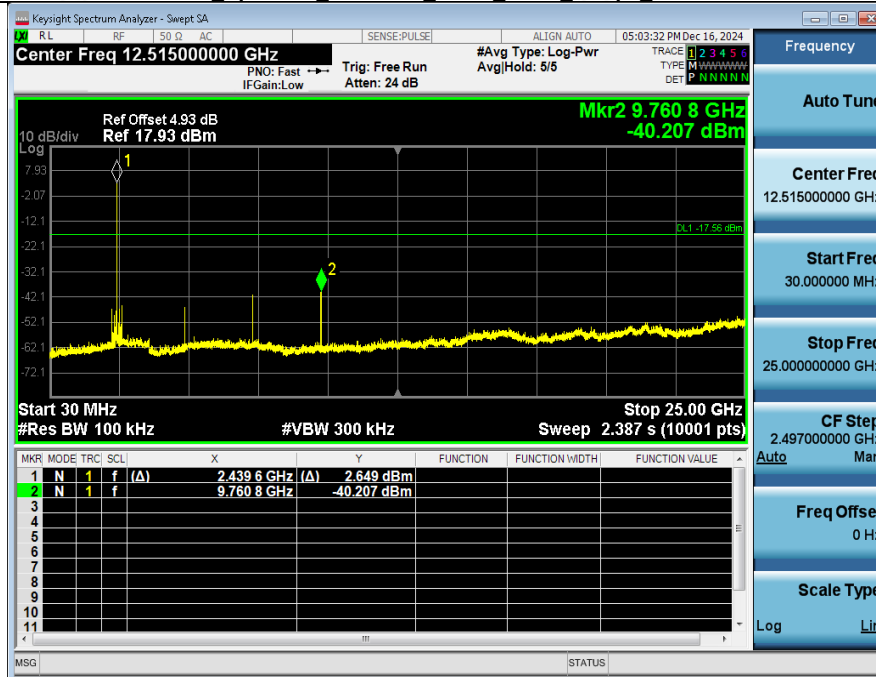


1 Reference_Level_NVNT_ANT1_1Mbps_2440





2_Spurious Emission_NVNT_ANT1_1Mbps_2440

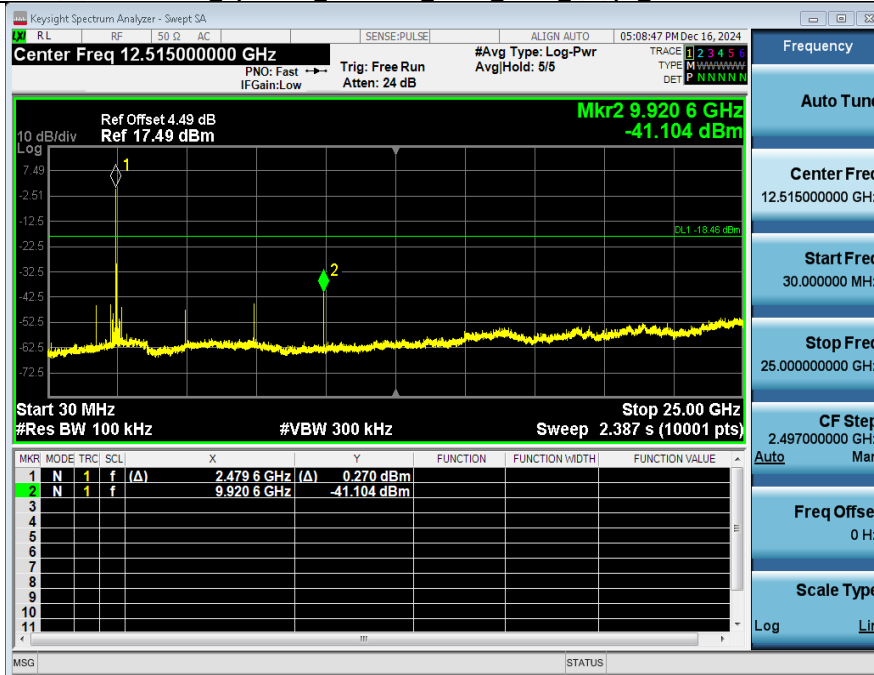


1_Reference_Level_NVNT_ANT1_1Mbps_2480





2_Spurious Emission_NVNT_ANT1_1Mbps_2480

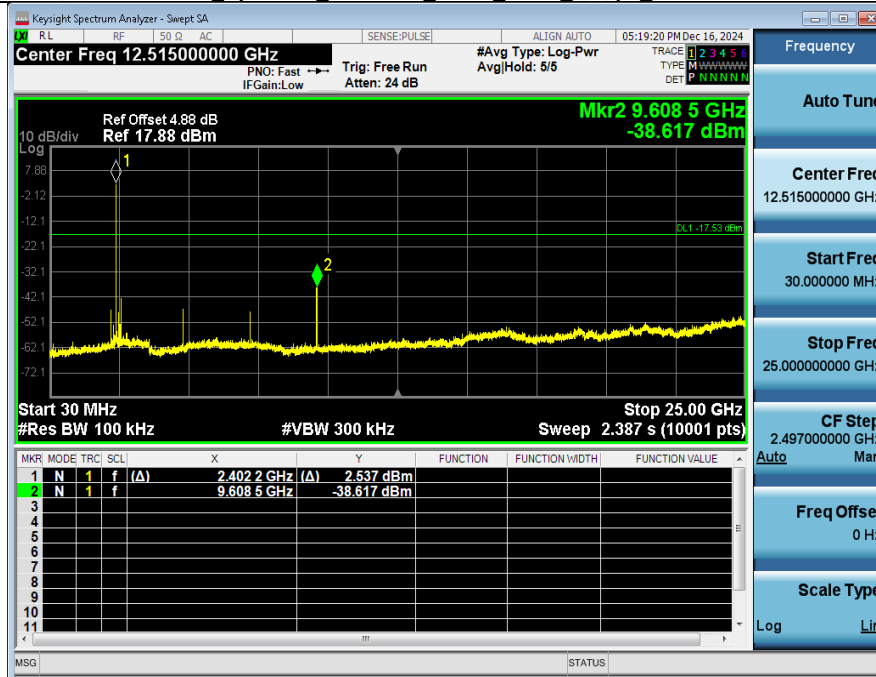


1_Reference_Level_NVNT_ANT1_2Mbps_2402





2_Spurious Emission_NVNT_ANT1_2Mbps_2402

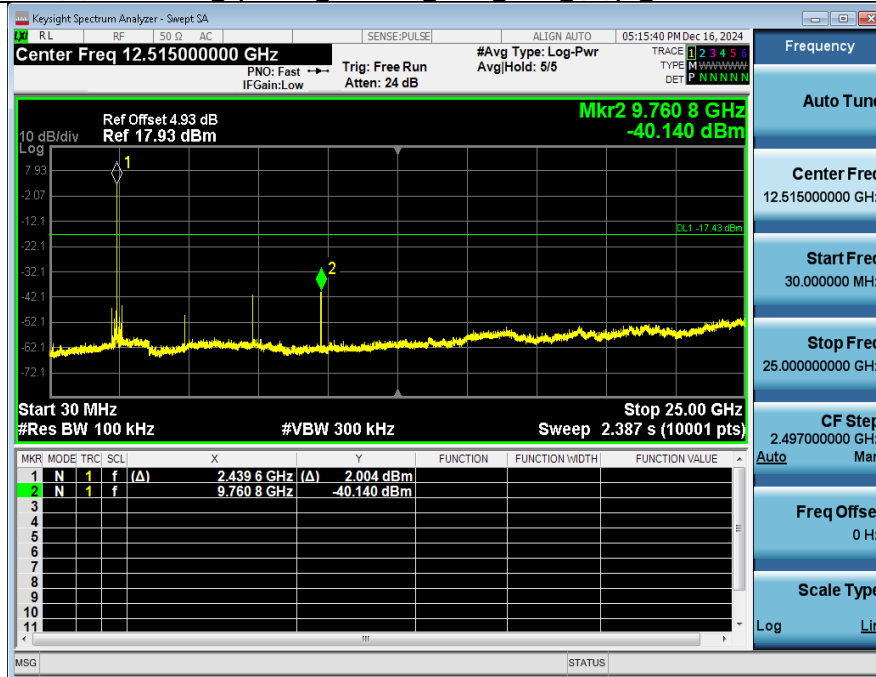


1_Reference_Level_NVNT_ANT1_2Mbps_2440





2_Spurious Emission_NVNT_ANT1_2Mbps_2440



1_Reference_Level_NVNT_ANT1_2Mbps_2480





2_Spurious Emission_NVNT_ANT1_2Mbps_2480

