

Appendix

Test Data

for BTEK241014003AE

Start date	2024/10/21	Finish date	2024/10/21
Temperature	25.0℃	Humidity	57%
RF specifications	BLE 500kbps	Test Engineer	Zora



Table of Contents

1. -6dB Bandwidth	3
2. 99% Occupied Bandwidth	5
3. Duty Cycle	7
4. Peak Output Power	9
5. Power Spectral Density	11
6. Bandedge	13
7. Spurious Emission	15



1. -6dB Bandwidth

Condition	Antenna	Rate	Frequency (MHz)	-6dB BW(kHz)	limit(kHz)	Result
NVNT	ANT1	500kbps	2402.00	615.47	500	Pass
NVNT	ANT1	500kbps	2440.00	616.74	500	Pass
NVNT	ANT1	500kbps	2480.00	619.04	500	Pass

-6dB_Bandwidth_NVNT_ANT1_500kbps_2402



-6dB_Bandwidth_NVNT_ANT1_500kbps_2440



-6dB_Bandwidth_NVNT_ANT1_500kbps_2480





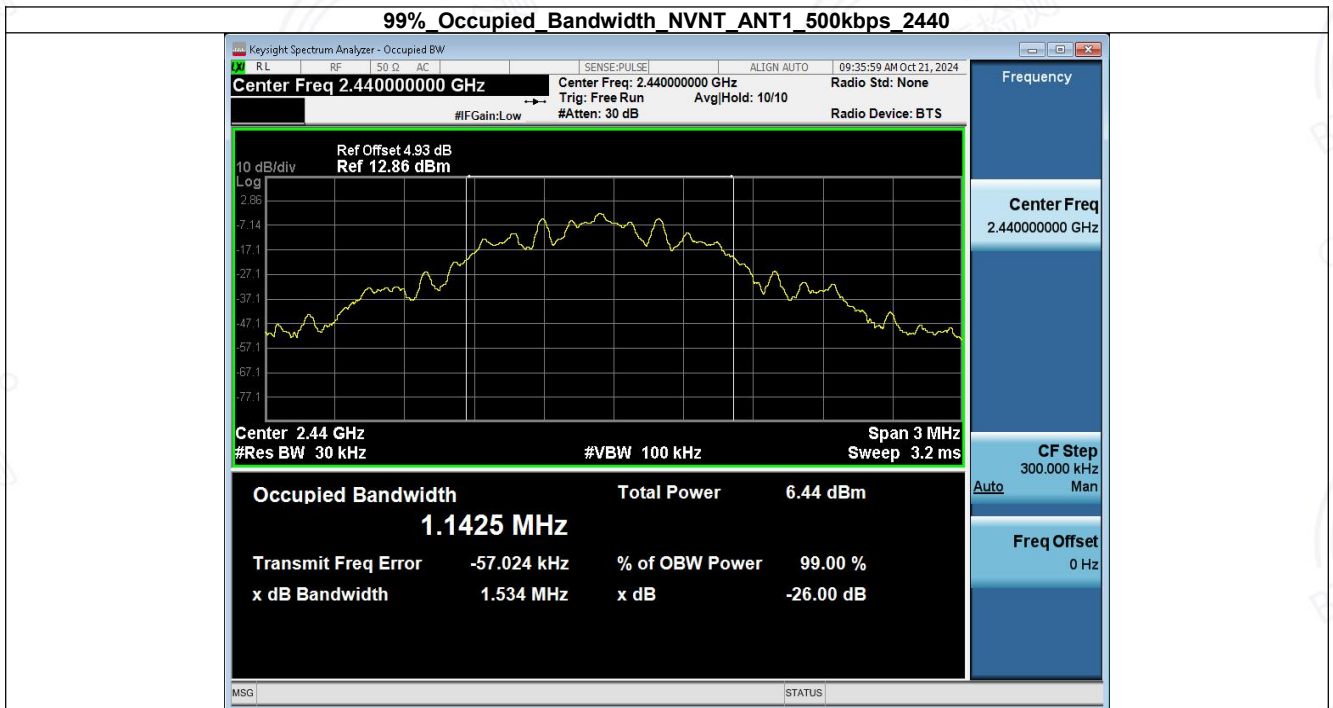
2. 99% Occupied Bandwidth

Condition	Antenna	Rate	Frequency (MHz)	99% BW (MHz)
NVNT	ANT1	500kbps	2402.00	1.133
NVNT	ANT1	500kbps	2440.00	1.142
NVNT	ANT1	500kbps	2480.00	1.152

99%_Occupied_Bandwidth_NVNT_ANT1_500kbps_2402



99%_Occupied_Bandwidth_NVNT_ANT1_500kbps_2440



99%_Occupied_Bandwidth_NVNT_ANT1_500kbps_2480

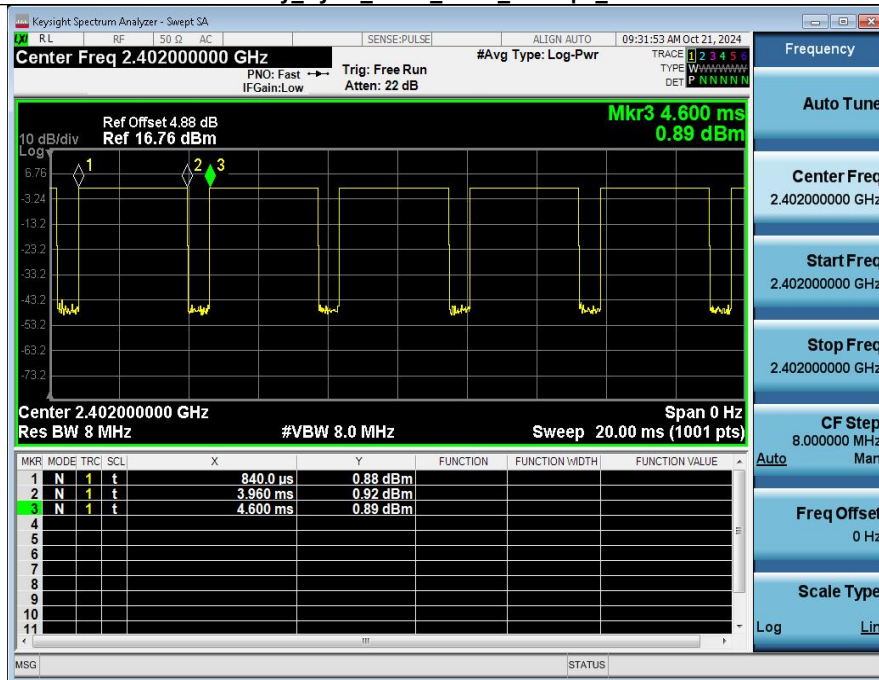




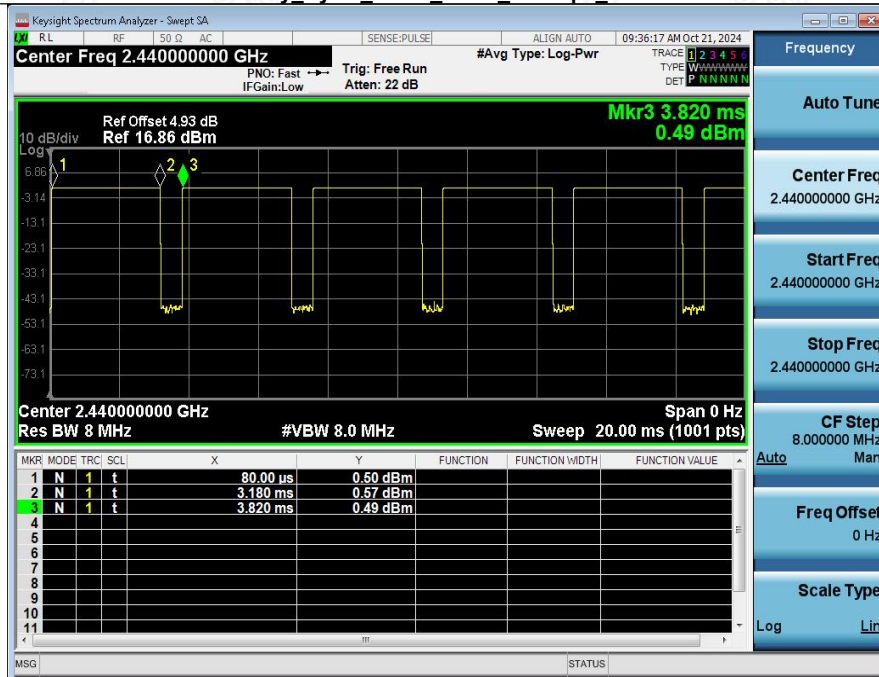
3. Duty Cycle

Condition	Antenna	Rate	Frequency (MHz)	Dutycycle(%)	Duty_factor
NVNT	ANT1	500kbps	2402.00	83.51	0.78
NVNT	ANT1	500kbps	2440.00	82.89	0.82
NVNT	ANT1	500kbps	2480.00	83.96	0.76

Duty_Cycle_NVNT_ANT1_500kbps_2402

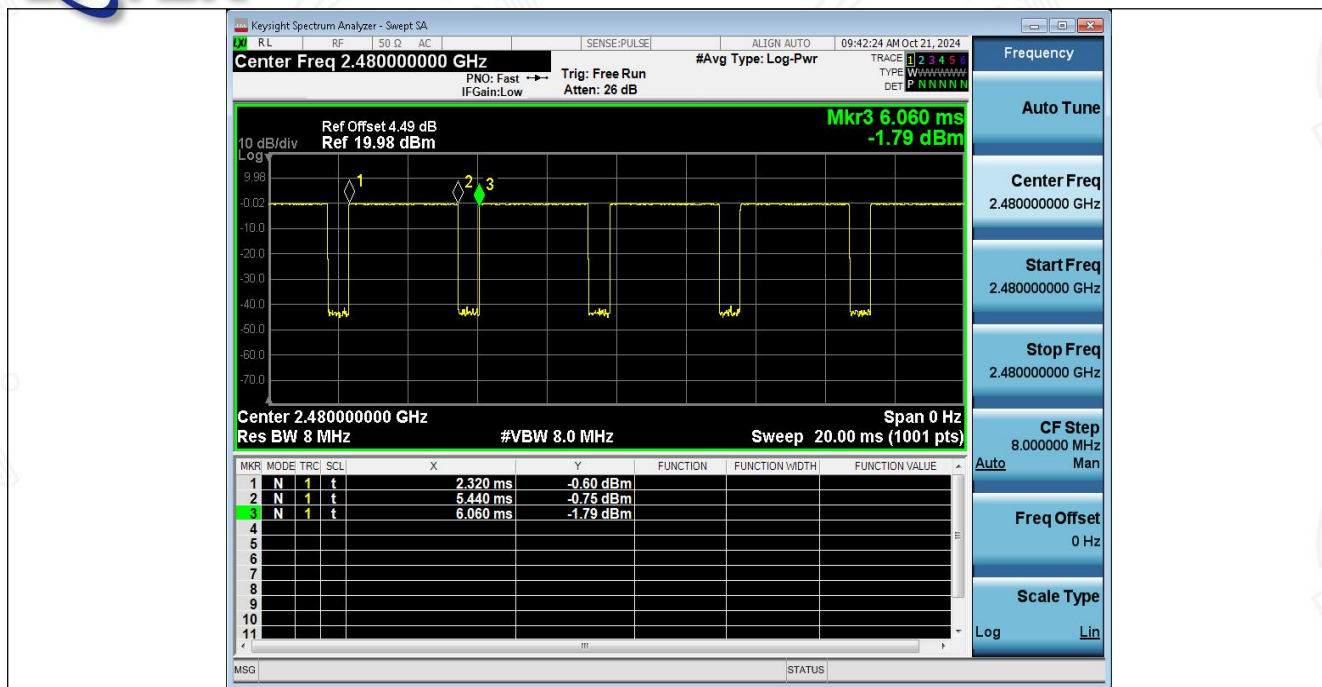


Duty_Cycle_NVNT_ANT1_500kbps_2440



Duty_Cycle_NVNT_ANT1_500kbps_2480





4. Peak Output Power

Condition	Antenna	Rate	Frequency (MHz)	Max. Conducted Power(dBm)	Max. Conducted Power(mW)	Limit(mW)	Result
NVNT	ANT1	500kbps	2402.00	1.12	1.29	1000	Pass
NVNT	ANT1	500kbps	2440.00	0.61	1.15	1000	Pass
NVNT	ANT1	500kbps	2480.00	-0.57	0.88	1000	Pass

Peak_Output_Power_NVNT_ANT1_500kbps_2402



Peak_Output_Power_NVNT_ANT1_500kbps_2440



Peak_Output_Power_NVNT_ANT1_500kbps_2480





5. Power Spectral Density

Condition	Antenna	Rate	Frequency (MHz)	Power Spectral Density(dBm/3kHz)	Limit(dBm/3kHz)	Result
NVNT	ANT1	500kbps	2402.00	-5.06	8	Pass
NVNT	ANT1	500kbps	2440.00	-5.35	8	Pass
NVNT	ANT1	500kbps	2480.00	-6.41	8	Pass

Power_Spectral_Density_NVNT_ANT1_500kbps_2402



Power_Spectral_Density_NVNT_ANT1_500kbps_2440



Power_Spectral_Density_NVNT_ANT1_500kbps_2480

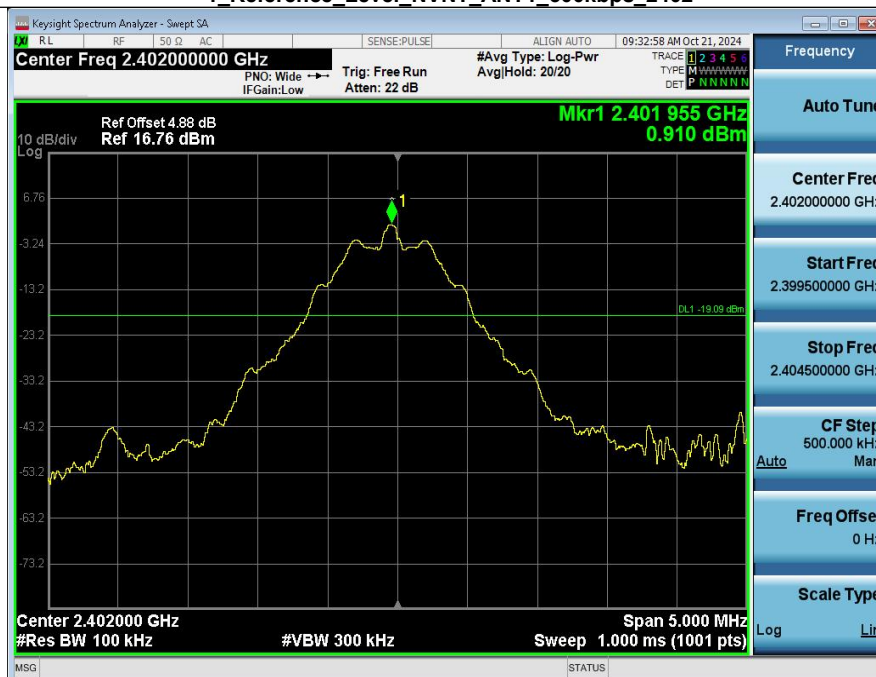




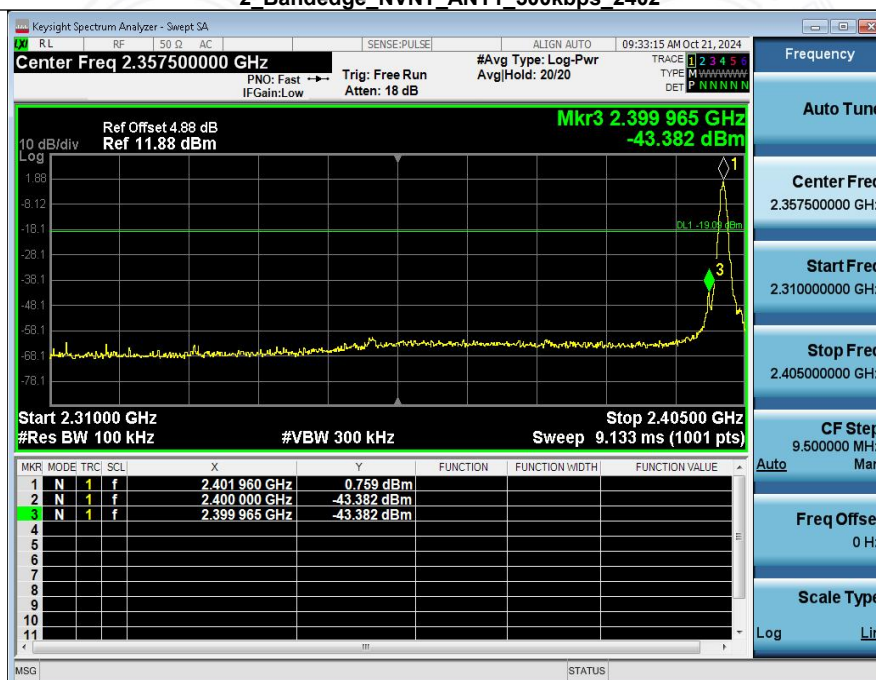
6. Bandedge

Condition	Antenna	Rate	TX_Frequency (MHz)	Max. Mark Frequency (MHz)	Spurious level(dBm)	limit(dBm)	Result
NVNT	ANT1	500kbps	2402.00	2399.965	-43.382	-19.090	Pass
NVNT	ANT1	500kbps	2480.00	2483.550	-59.793	-20.709	Pass

1 Reference_Level NVNT_ANT1_500kbps_2402



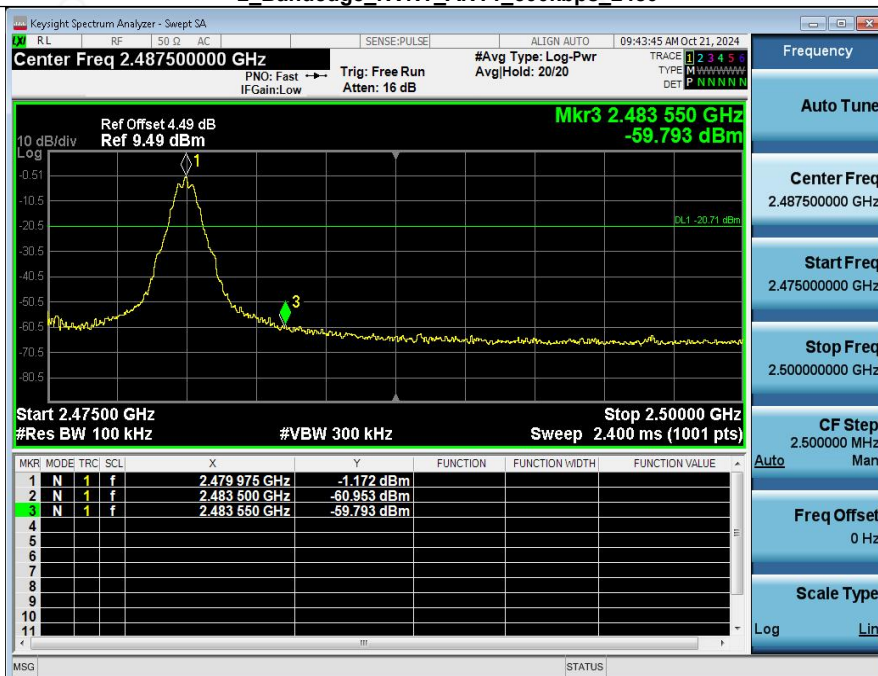
2_Bandedge_NVNT_ANT1_500kbps_2402



1_Reference_Level_NVNT_ANT1_500kbps_2480



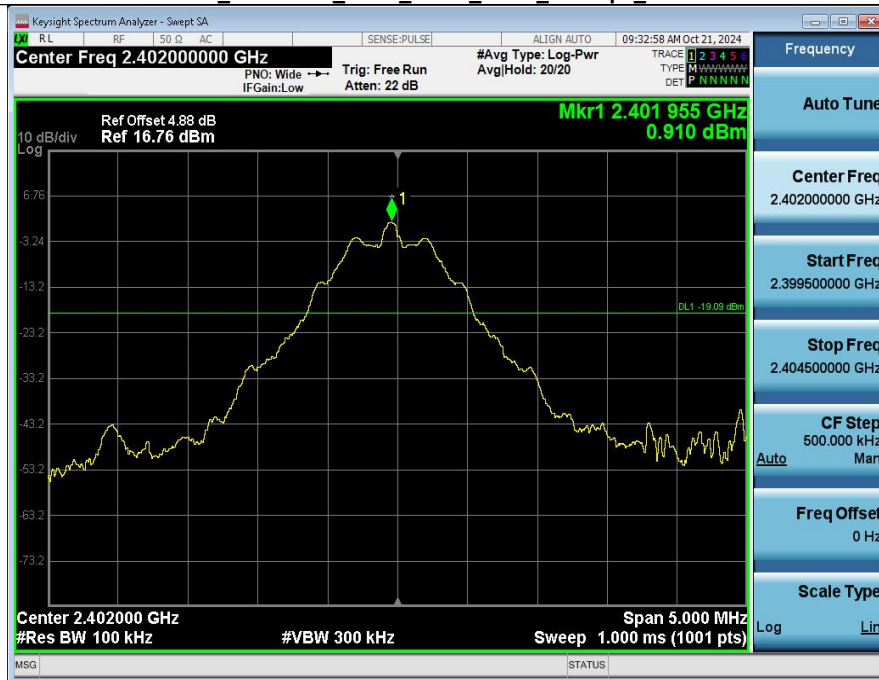
2_Bandedge_NVNT_ANT1_500kbps_2480



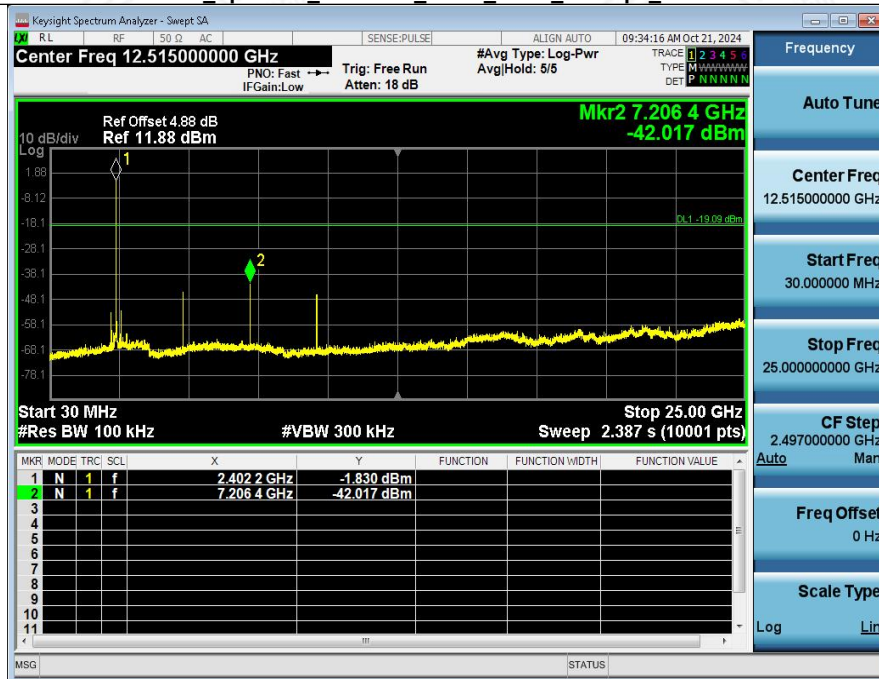
7. Spurious Emission

Condition	Antenna	Rate	TX_Frequency(MHz)	Spurious MAX.Value(dBm)	Limit	Result
NVNT	ANT1	500kbps	2402.00	-42.017	-19.090	Pass
NVNT	ANT1	500kbps	2440.00	-38.741	-19.606	Pass
NVNT	ANT1	500kbps	2480.00	-40.493	-20.709	Pass

1_Reference_Level_NVNT_ANT1_500kbps_2402



2_Spurious_Emission_NVNT_ANT1_500kbps_2402

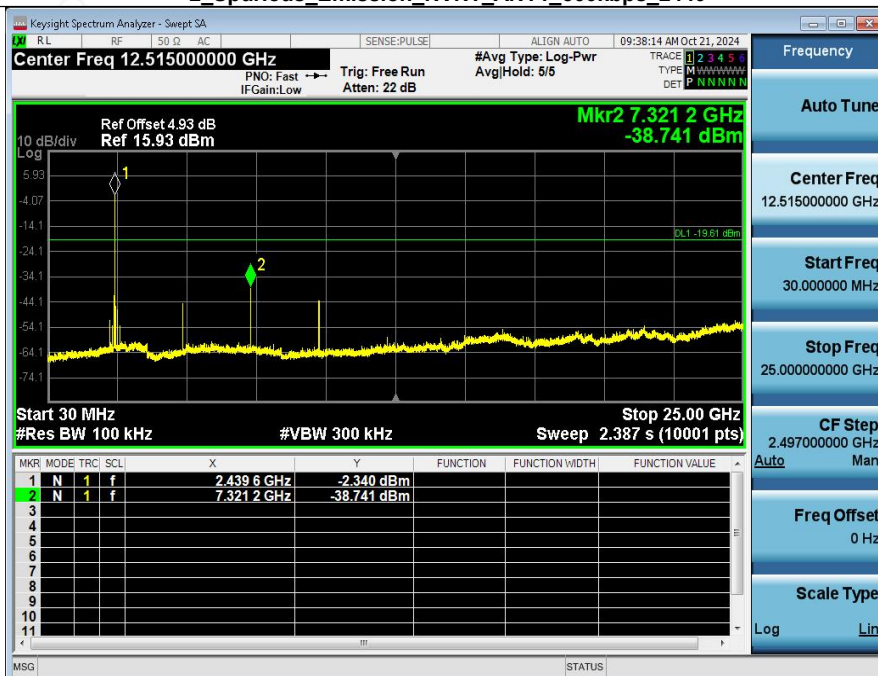


1_Reference_Level_NVNT_ANT1_500kbps_2440





2_Spurious Emission_NVNT_ANT1_500kbps_2440



1_Reference Level_NVNT_ANT1_500kbps_2480





2_Spurious Emission_NVNT_ANT1_500kbps_2480

