

Appendix A: Test Results of Bluetooth BLE

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Appendix A.1: Test Results of Conducted Power Spectral Density

Condition	Antenna	Rate	Frequency (MHz)	Power Spectral Density(dBm)	Limit(dBm/3kHz)	Result
NVNT	ANT1	125K	2402.00	-1.83	8	Pass
NVNT	ANT1	125K	2440.00	-1.23	8	Pass
NVNT	ANT1	125K	2480.00	-1.11	8	Pass
NVNT	ANT1	500K	2402.00	-2.09	8	Pass
NVNT	ANT1	500K	2440.00	-1.45	8	Pass
NVNT	ANT1	500K	2480.00	-1.49	8	Pass
NVNT	ANT1	1Mbps	2402.00	-11.24	8	Pass
NVNT	ANT1	1Mbps	2440.00	-10.98	8	Pass
NVNT	ANT1	1Mbps	2480.00	-10.31	8	Pass
NVNT	ANT1	2Mbps	2402.00	-13.82	8	Pass
NVNT	ANT1	2Mbps	2440.00	-13.33	8	Pass
NVNT	ANT1	2Mbps	2480.00	-13.11	8	Pass

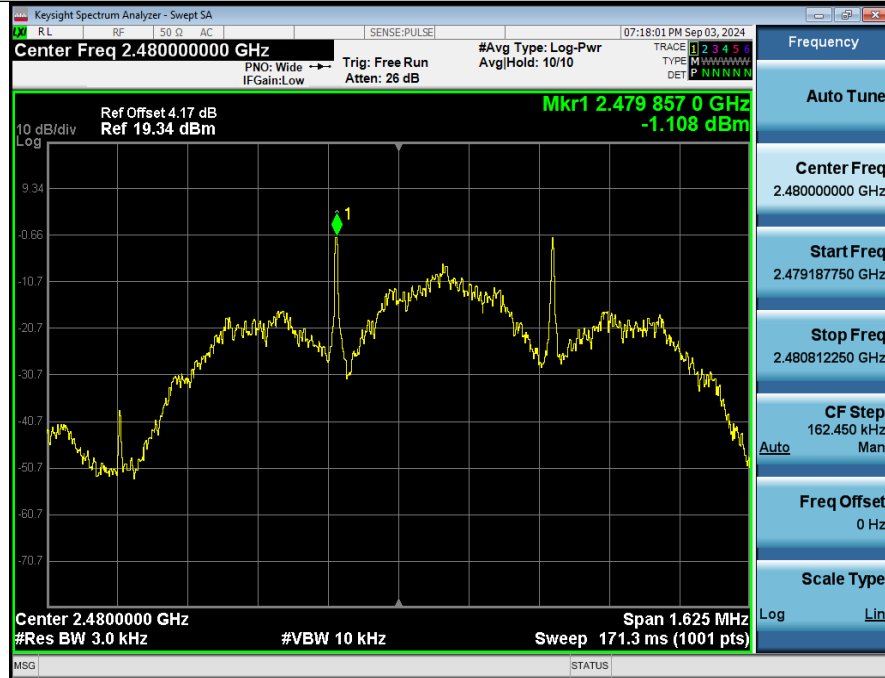
Power_Spectral_Density_NVNT_ANT1_125K_2402



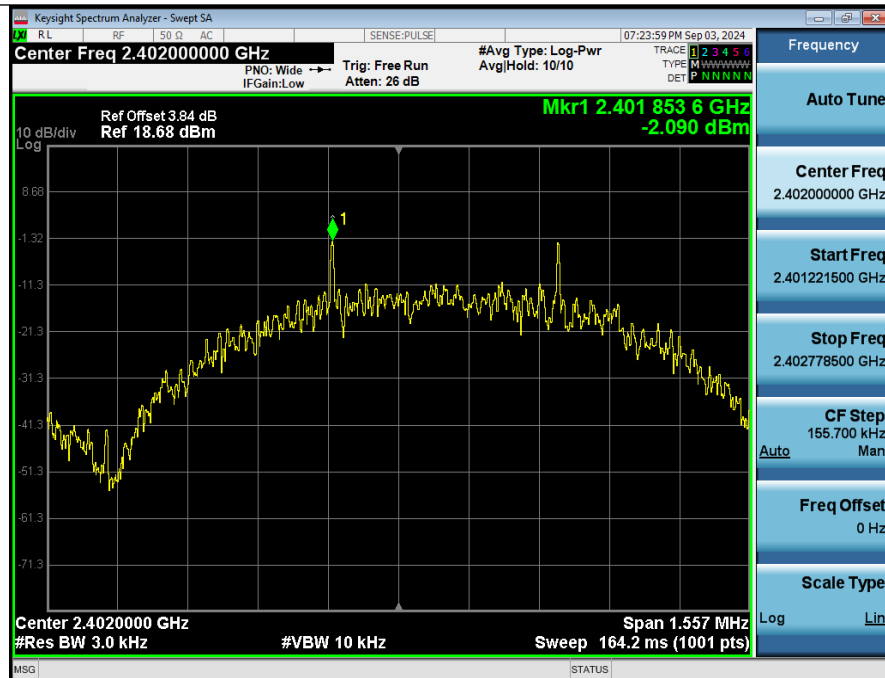
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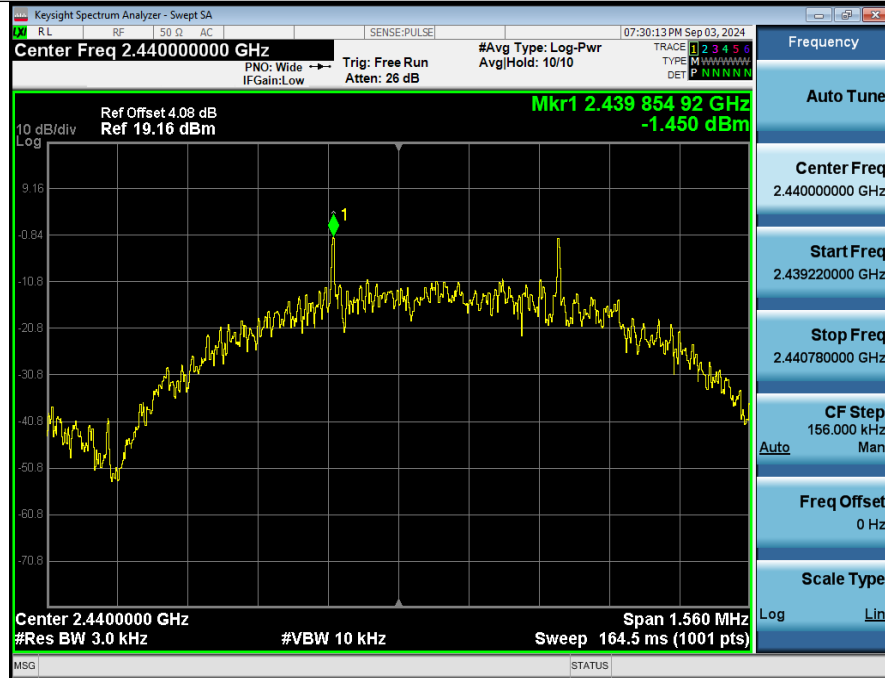
Power_Spectral_Density_NVNT_ANT1_125K_2480



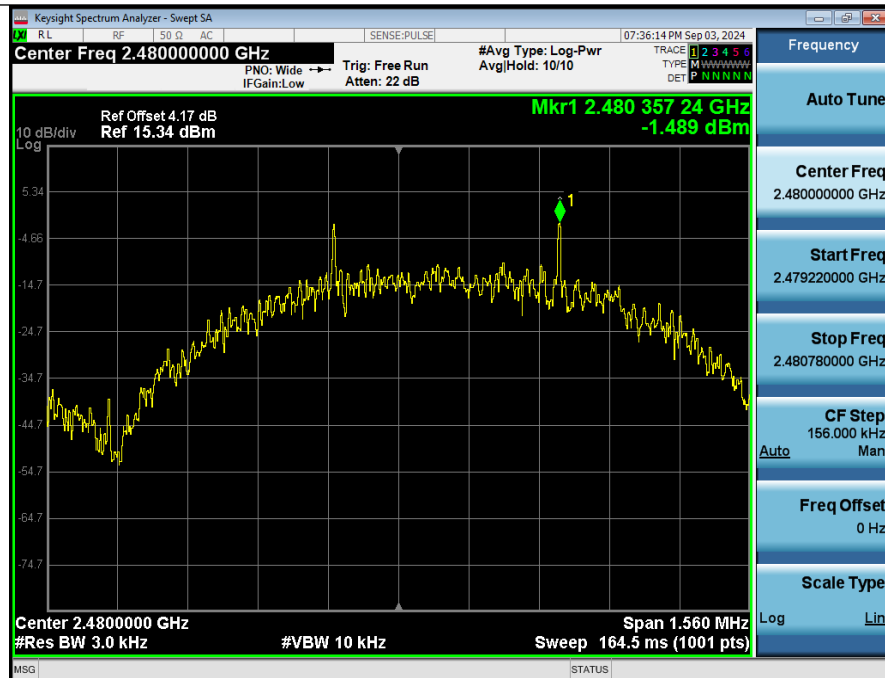
Power_Spectral_Density_NVNT_ANT1_500K_2402



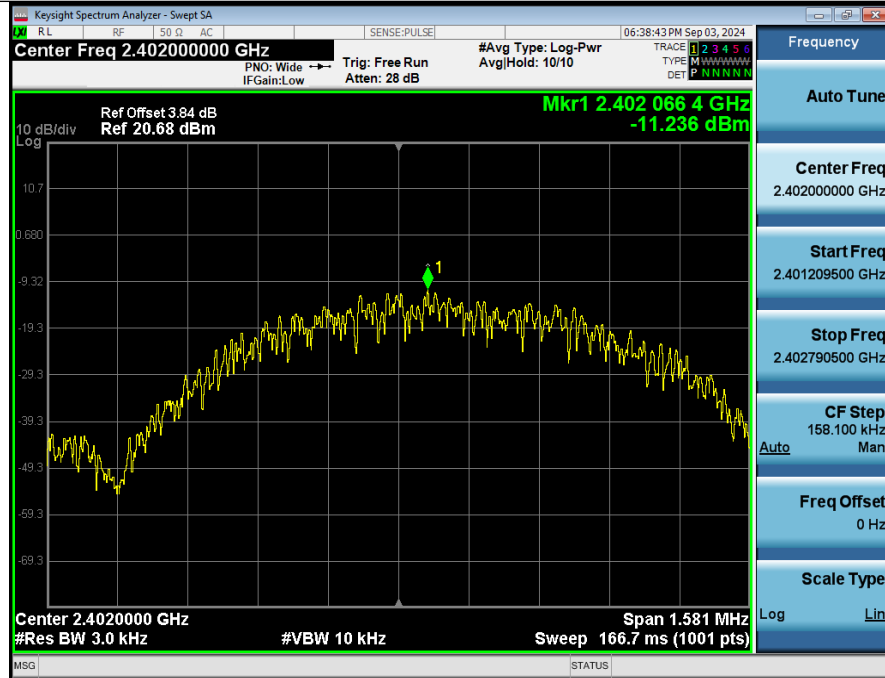
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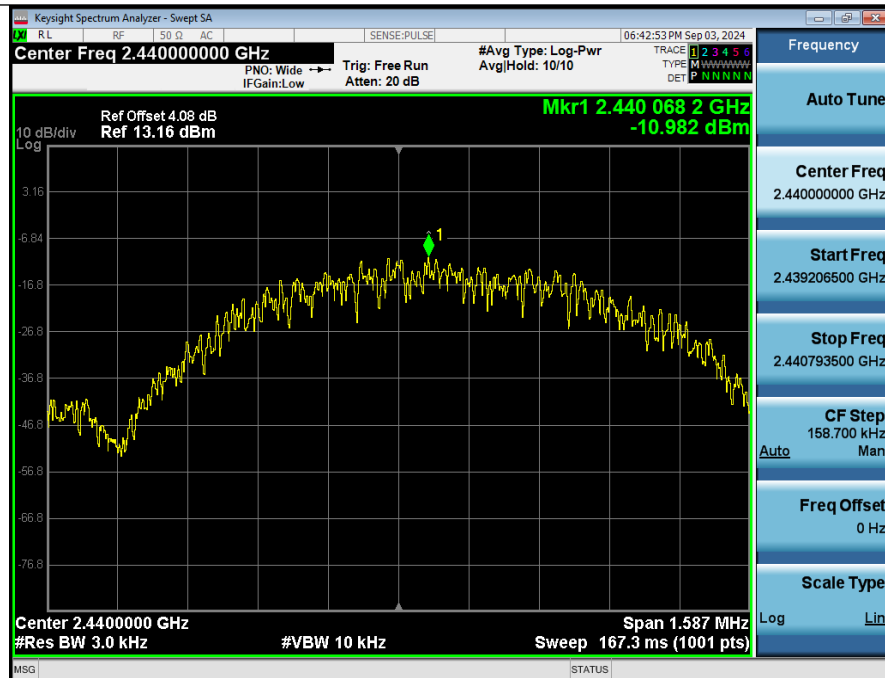
Power_Spectral_Density_NVNT_ANT1_500K_2480



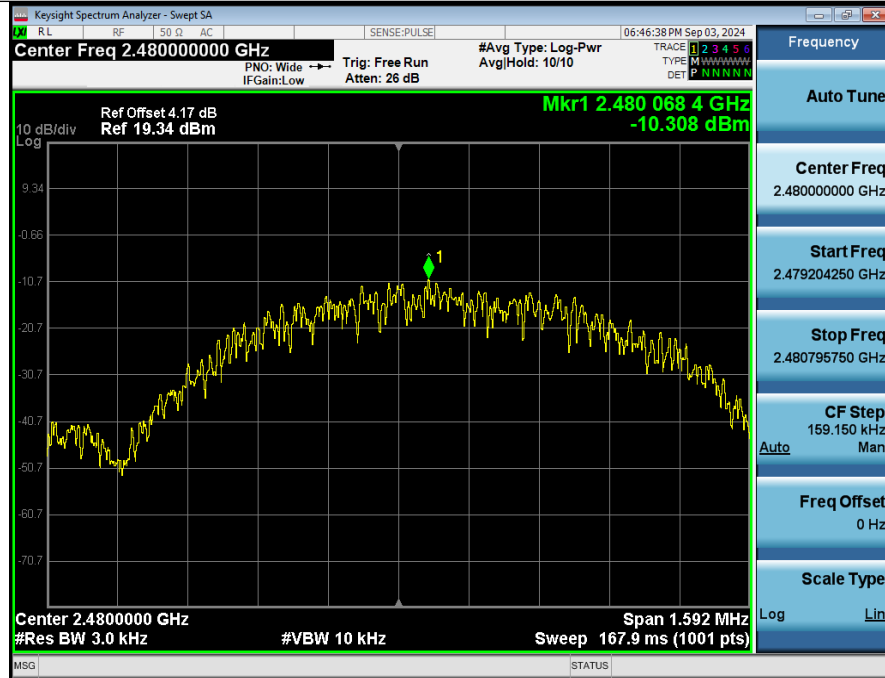
Power_Spectral_Density_NVNT_ANT1_1Mbps_2402



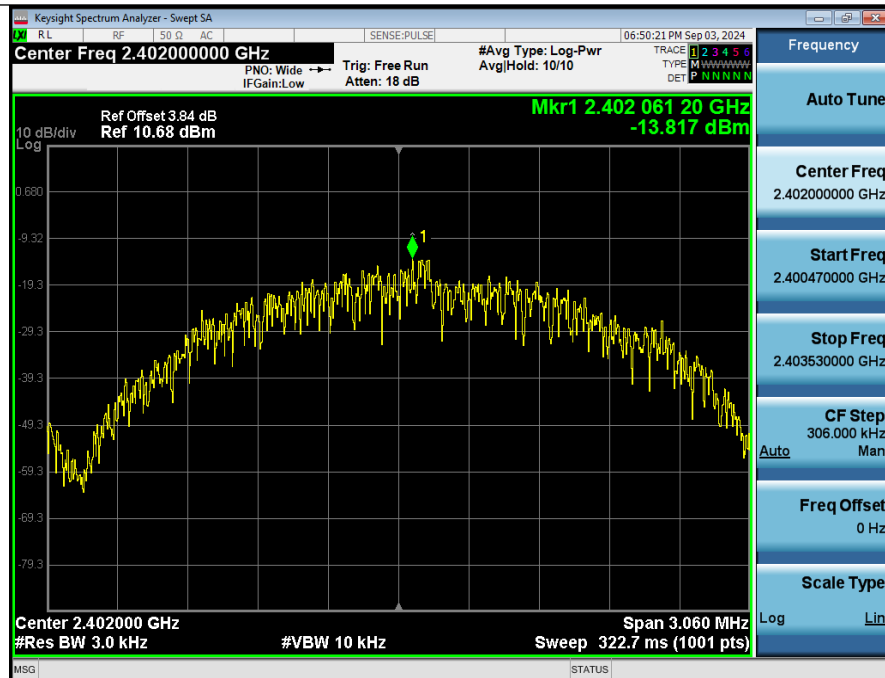
Power_Spectral_Density_NVNT_ANT1_1Mbps_2440



Power_Spectral_Density_NVNT_ANT1_1Mbps_2480



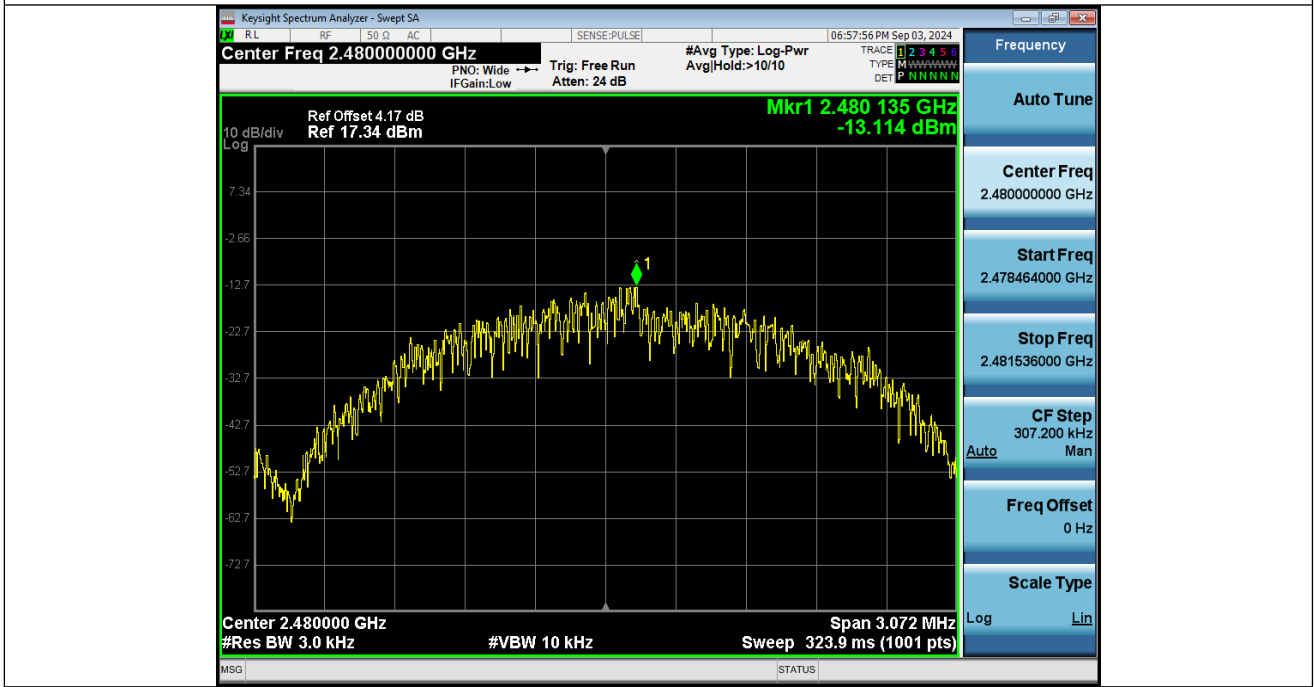
Power_Spectral_Density_NVNT_ANT1_2Mbps_2402



Power_Spectral_Density_NVNT_ANT1_2Mbps_2440



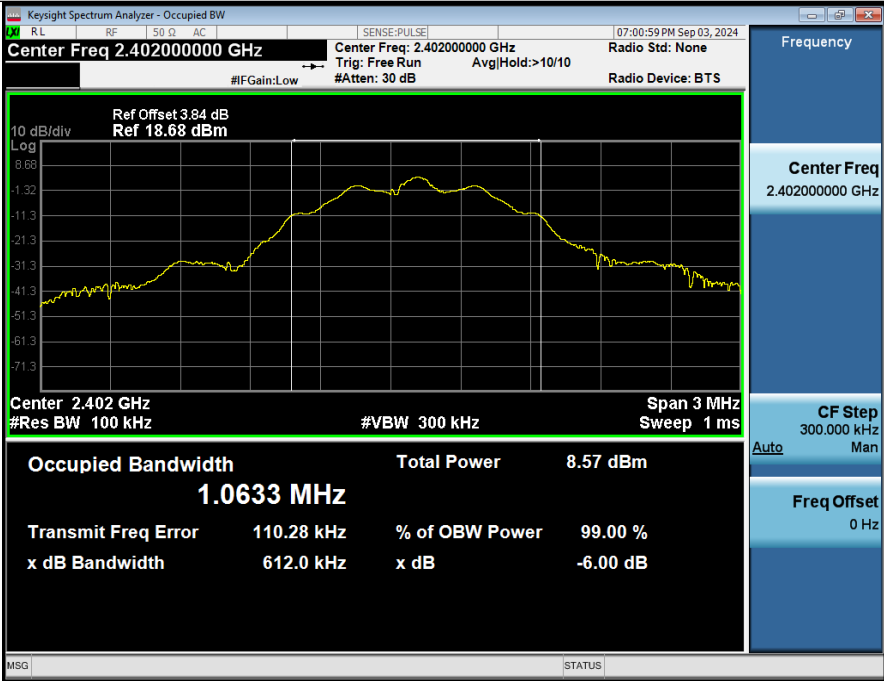
Power_Spectral_Density_NVNT_ANT1_2Mbps_2480



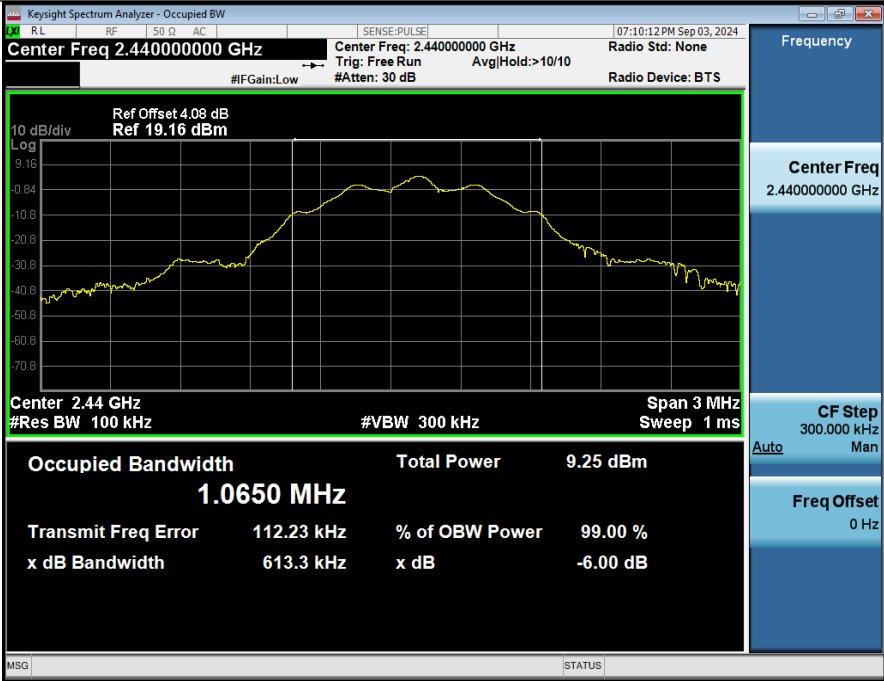
Appendix A.2: Test Results of 6dB Bandwidth

Condition	Antenna	Rate	Frequency (MHz)	-6dB BW(kHz)	limit(kHz)	Result
NVNT	ANT1	125K	2402.00	611.97	500	Pass
NVNT	ANT1	125K	2440.00	613.28	500	Pass
NVNT	ANT1	125K	2480.00	614.86	500	Pass
NVNT	ANT1	500K	2402.00	692.53	500	Pass
NVNT	ANT1	500K	2440.00	689.78	500	Pass
NVNT	ANT1	500K	2480.00	690.71	500	Pass
NVNT	ANT1	1Mbps	2402.00	686.92	500	Pass
NVNT	ANT1	1Mbps	2440.00	692.96	500	Pass
NVNT	ANT1	1Mbps	2480.00	699.10	500	Pass
NVNT	ANT1	2Mbps	2402.00	1132.64	500	Pass
NVNT	ANT1	2Mbps	2440.00	1134.00	500	Pass
NVNT	ANT1	2Mbps	2480.00	1135.21	500	Pass

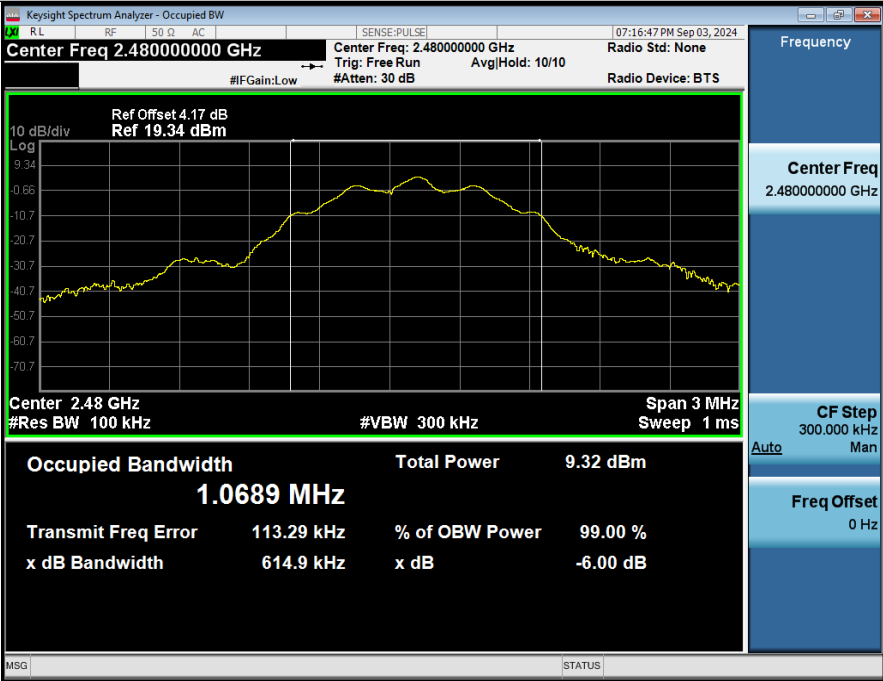
-6dB_Bandwidth_NVNT_ANT1_125K_2402



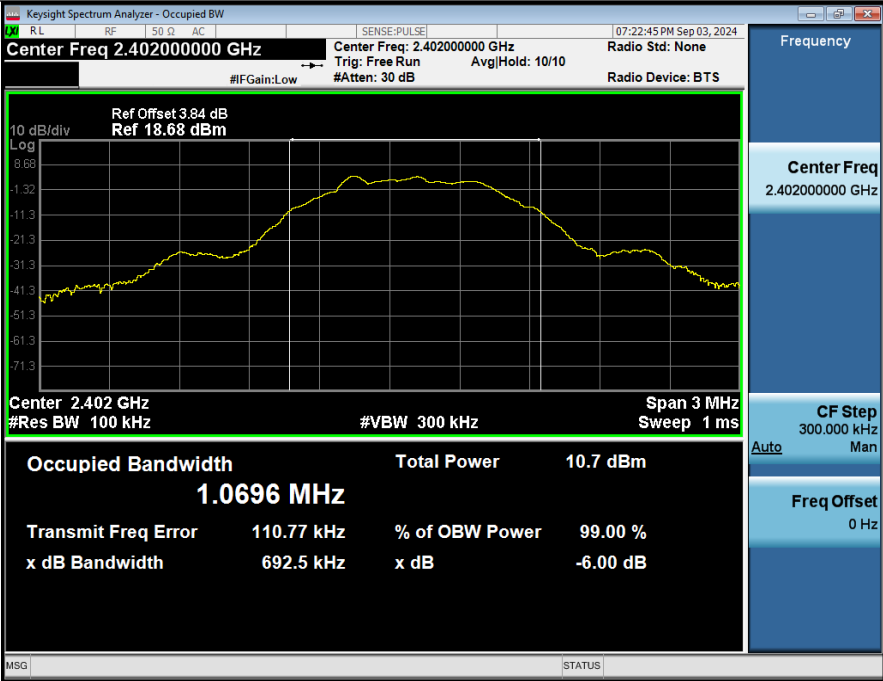
-6dB_Bandwidth_NVNT_ANT1_125K_2440



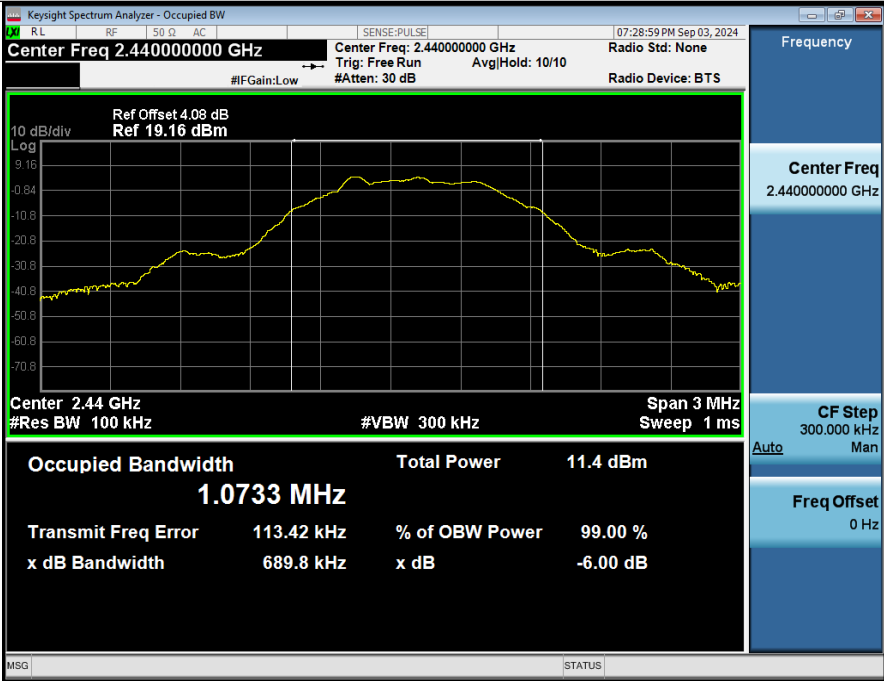
-6dB_Bandwidth_NVNT_ANT1_125K_2480



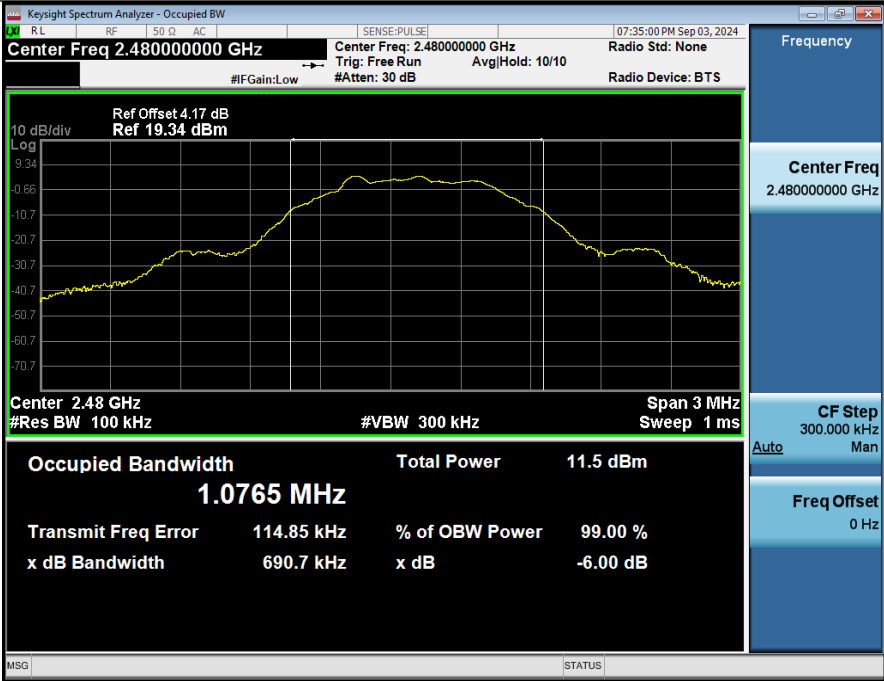
-6dB_Bandwidth_NVNT_ANT1_500K_2402



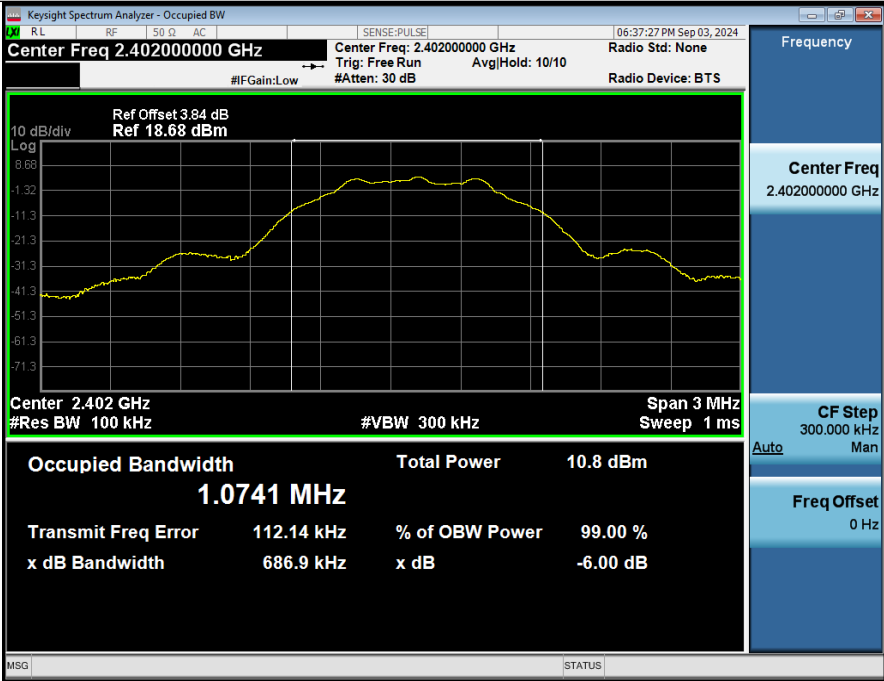
-6dB_Bandwidth_NVNT_ANT1_500K_2440



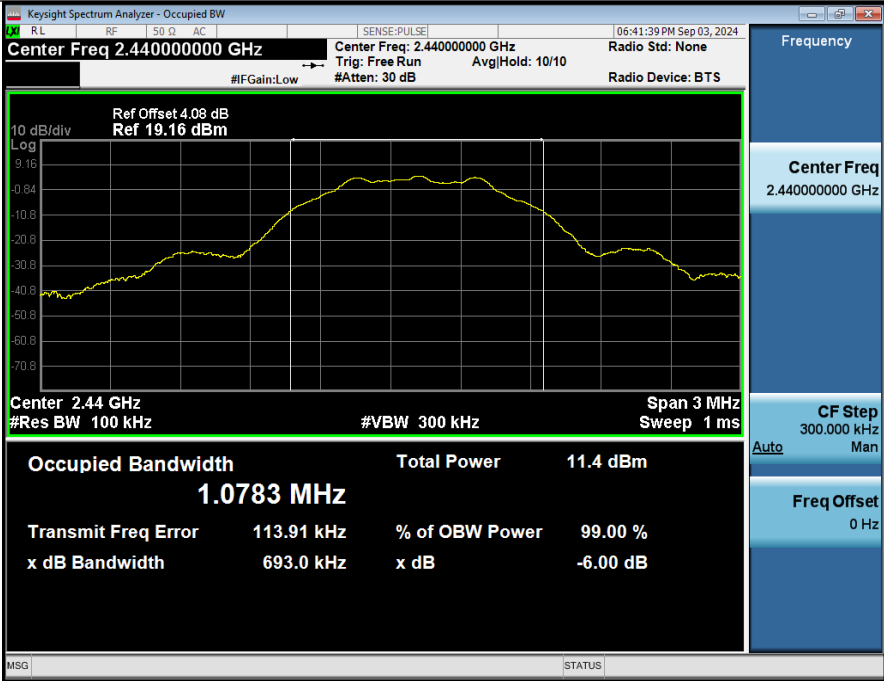
-6dB_Bandwidth_NVNT_ANT1_500K_2480



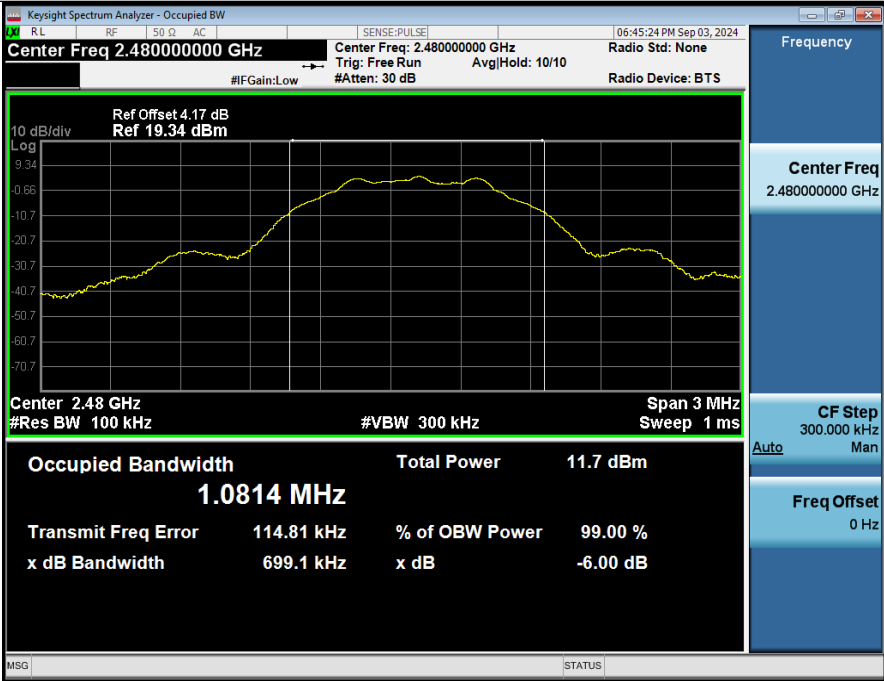
-6dB_Bandwidth_NVNT_ANT1_1Mbps_2402



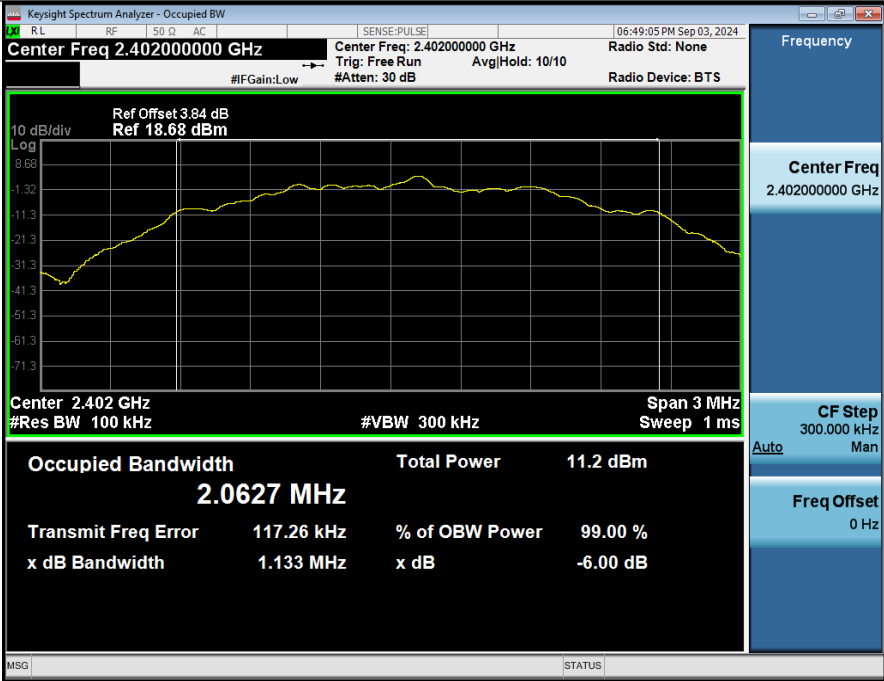
-6dB_Bandwidth_NVNT_ANT1_1Mbps_2440



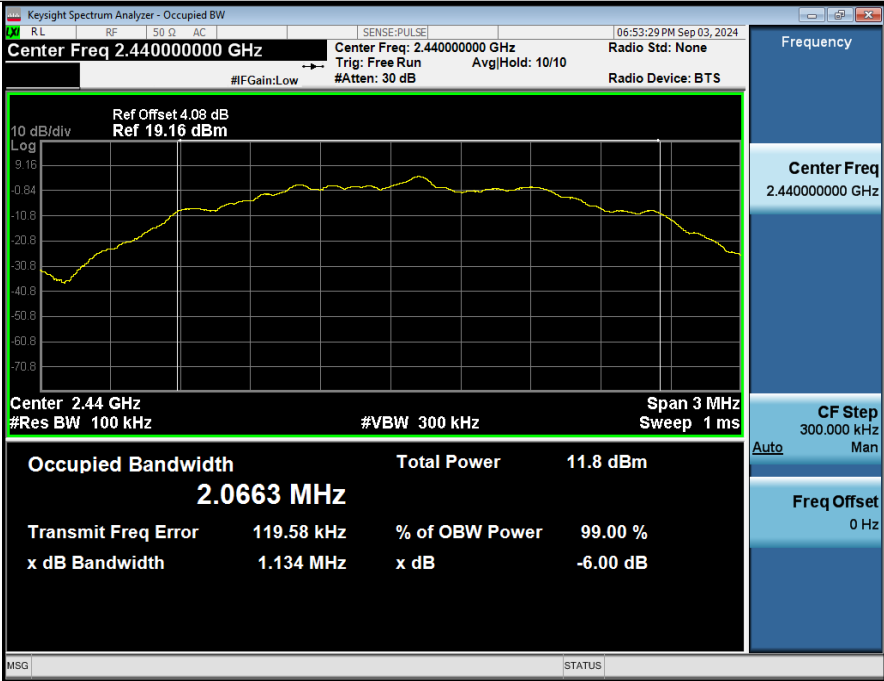
-6dB_Bandwidth_NVNT_ANT1_1Mbps_2480



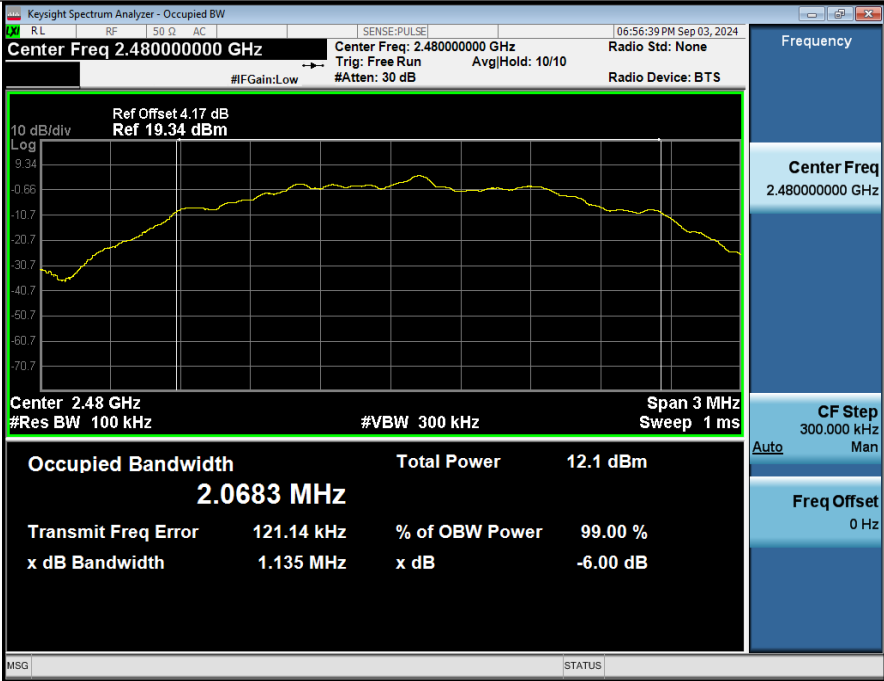
-6dB_Bandwidth_NVNT_ANT1_2Mbps_2402



-6dB_Bandwidth_NVNT_ANT1_2Mbps_2440



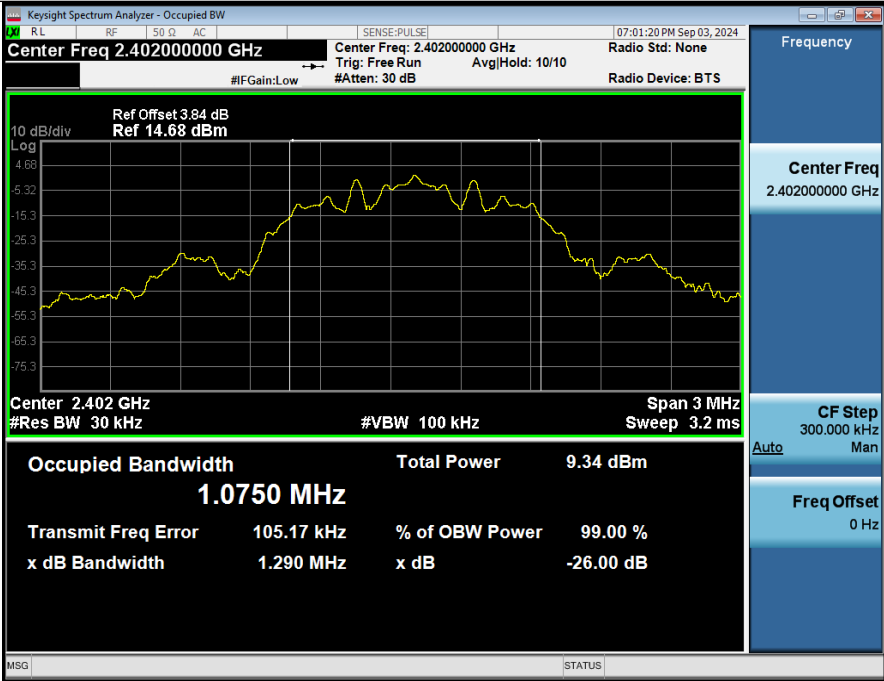
-6dB_Bandwidth_NVNT_ANT1_2Mbps_2480



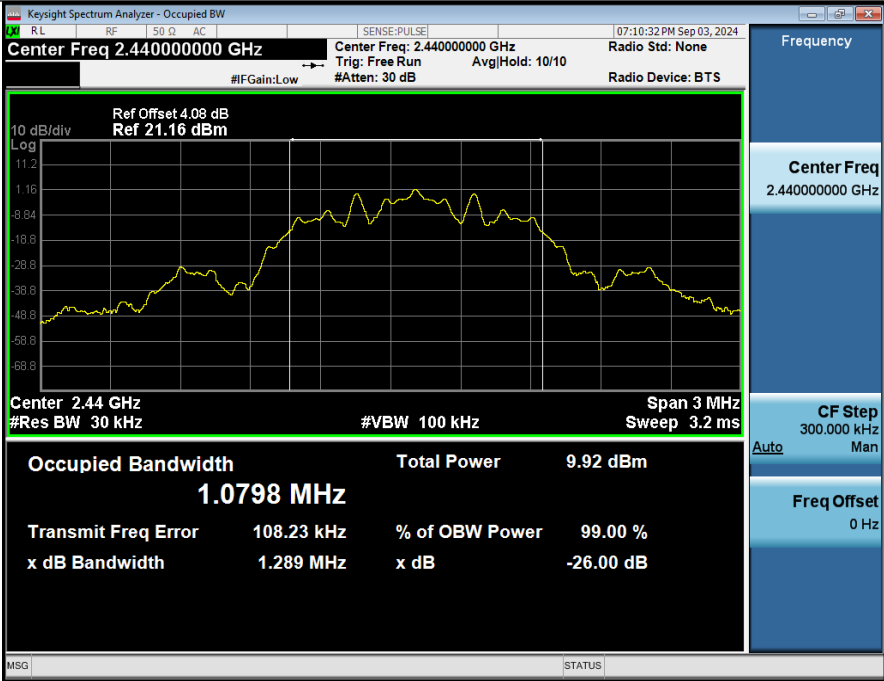
Appendix A.3: Test Results of 99% Bandwidth

Condition	Antenna	Rate	Frequency (MHz)	99%%BW(MHz)
NVNT	ANT1	125K	2402.00	1.075
NVNT	ANT1	125K	2440.00	1.080
NVNT	ANT1	125K	2480.00	1.083
NVNT	ANT1	500K	2402.00	1.038
NVNT	ANT1	500K	2440.00	1.040
NVNT	ANT1	500K	2480.00	1.040
NVNT	ANT1	1Mbps	2402.00	1.054
NVNT	ANT1	1Mbps	2440.00	1.058
NVNT	ANT1	1Mbps	2480.00	1.061
NVNT	ANT1	2Mbps	2402.00	2.040
NVNT	ANT1	2Mbps	2440.00	2.045
NVNT	ANT1	2Mbps	2480.00	2.048

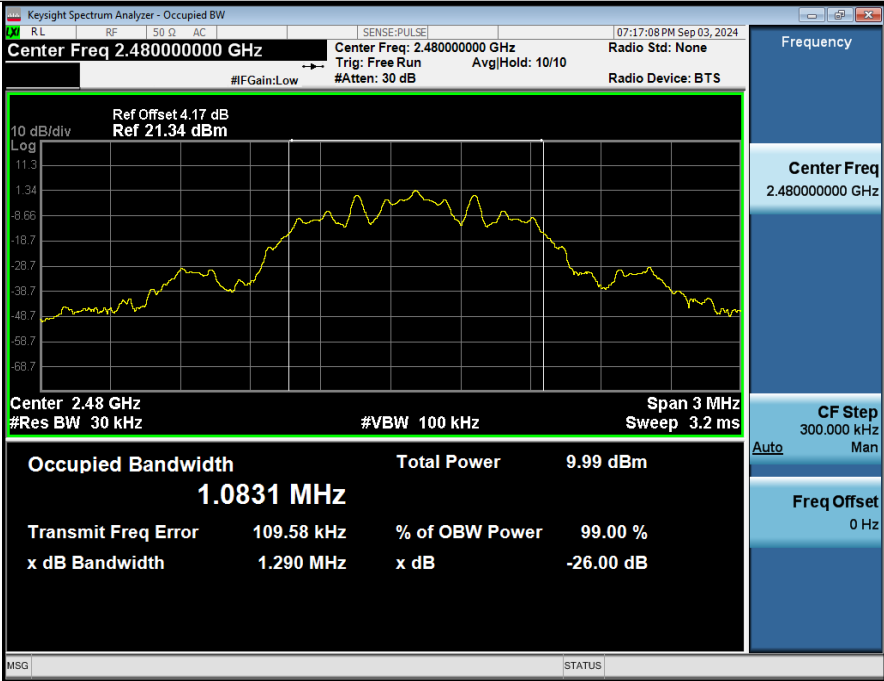
99%_Occupied_Bandwidth_NVNT_ANT1_125K_2402



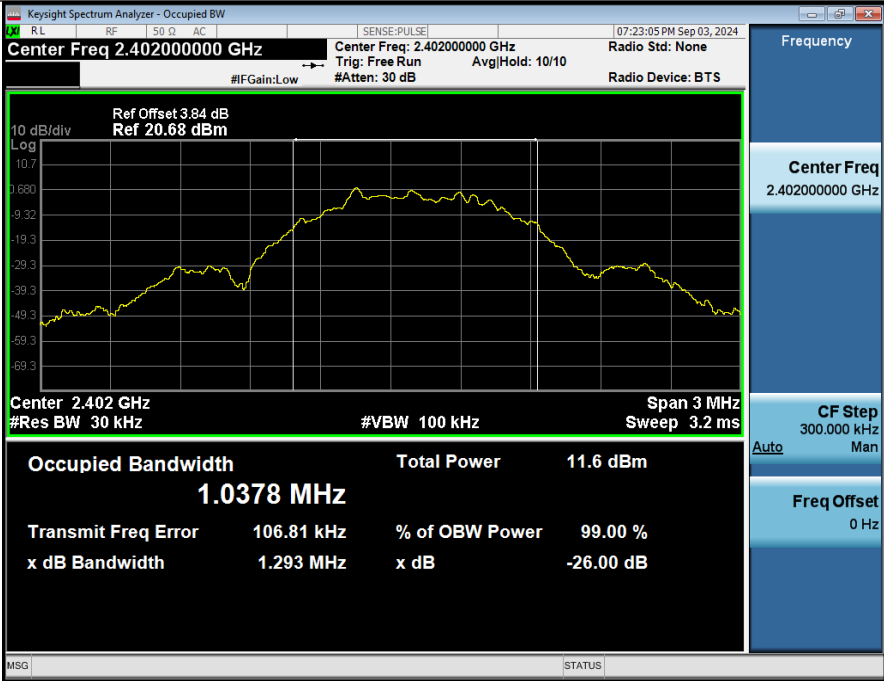
99%_Occupied_Bandwidth_NVNT_ANT1_125K_2440



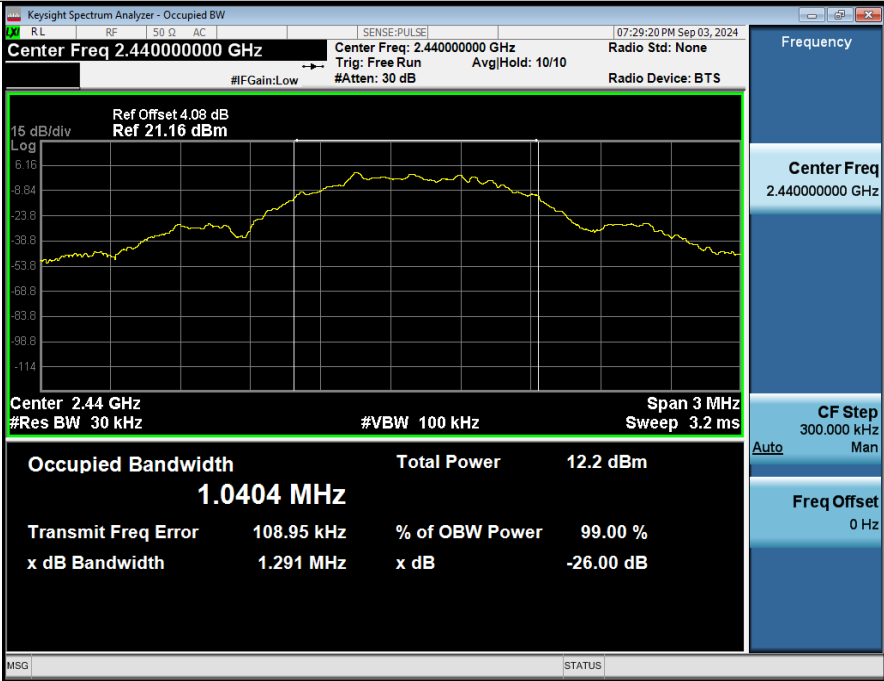
99%_Occupied_Bandwidth_NVNT_ANT1_125K_2480



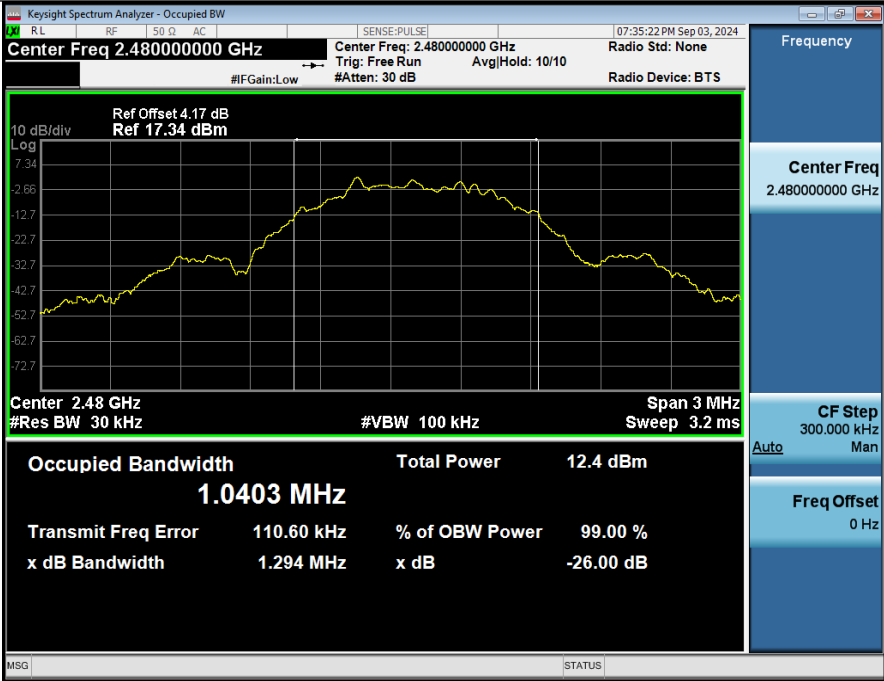
99%_Occupied_Bandwidth_NVNT_ANT1_500K_2402



99%_Occupied_Bandwidth_NVNT_ANT1_500K_2440



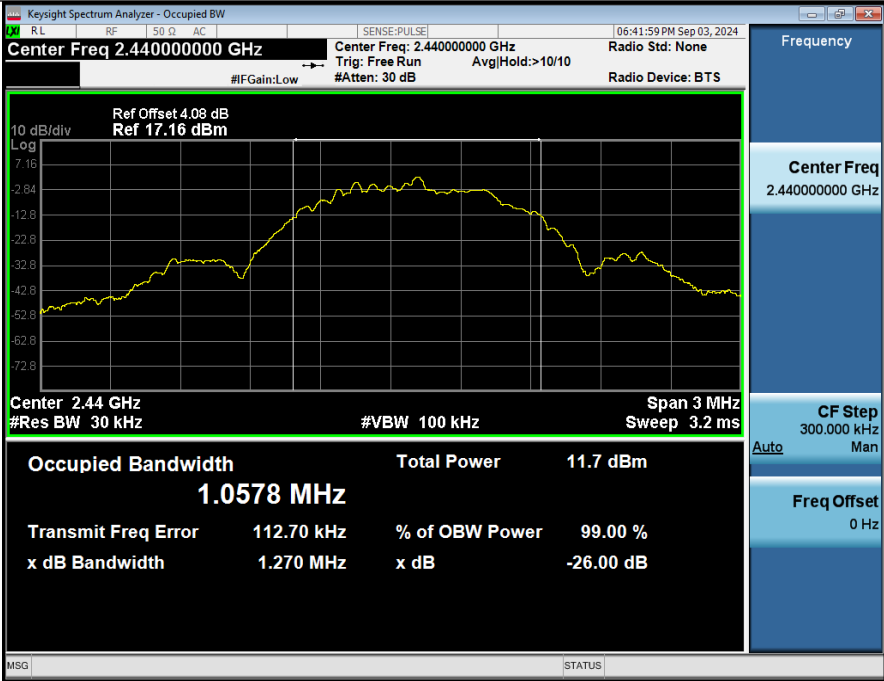
99%_Occupied_Bandwidth_NVNT_ANT1_500K_2480



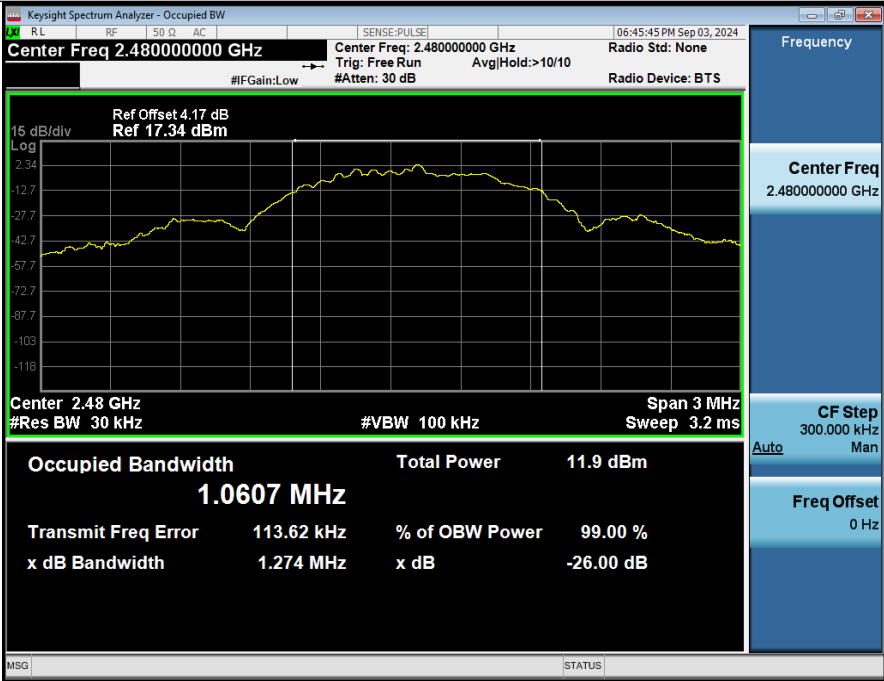
99%_Occupied_Bandwidth_NVNT_ANT1_1Mbps_2402



99%_Occupied_Bandwidth_NVNT_ANT1_1Mbps_2440



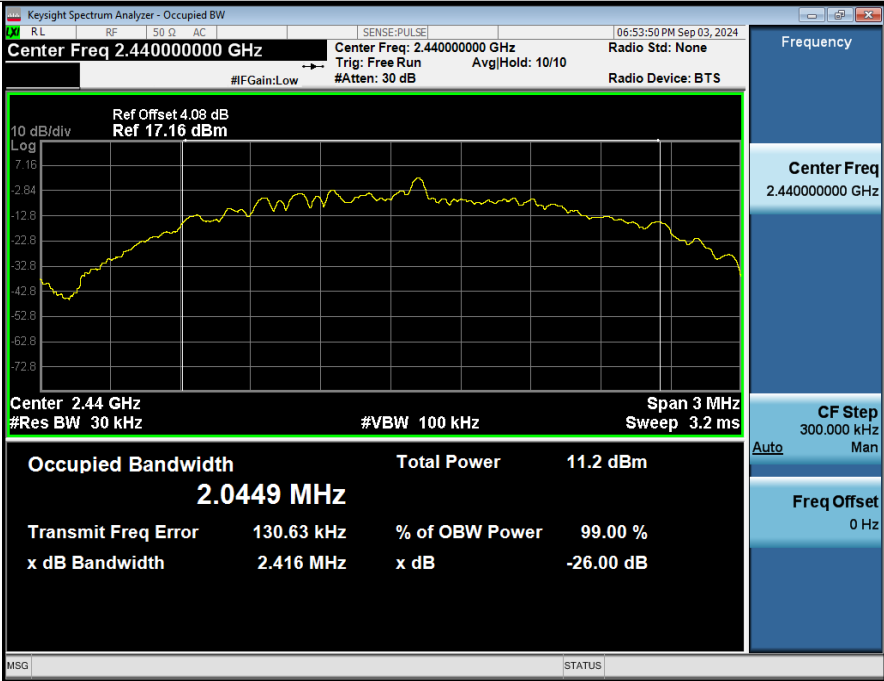
99%_Occupied_Bandwidth_NVNT_ANT1_1Mbps_2480



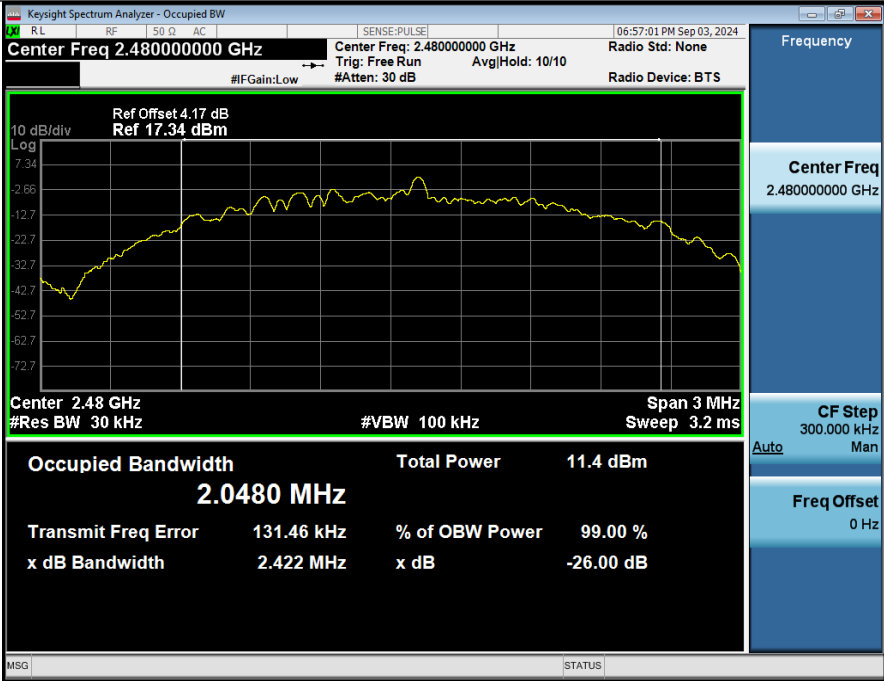
99%_Occupied_Bandwidth_NVNT_ANT1_2Mbps_2402



99%_Occupied_Bandwidth_NVNT_ANT1_2Mbps_2440



99%_Occupied_Bandwidth_NVNT_ANT1_2Mbps_2480



Appendix A.4: Test Results of Conducted Spurious Emissions Measured in 100 kHz Bandwidth

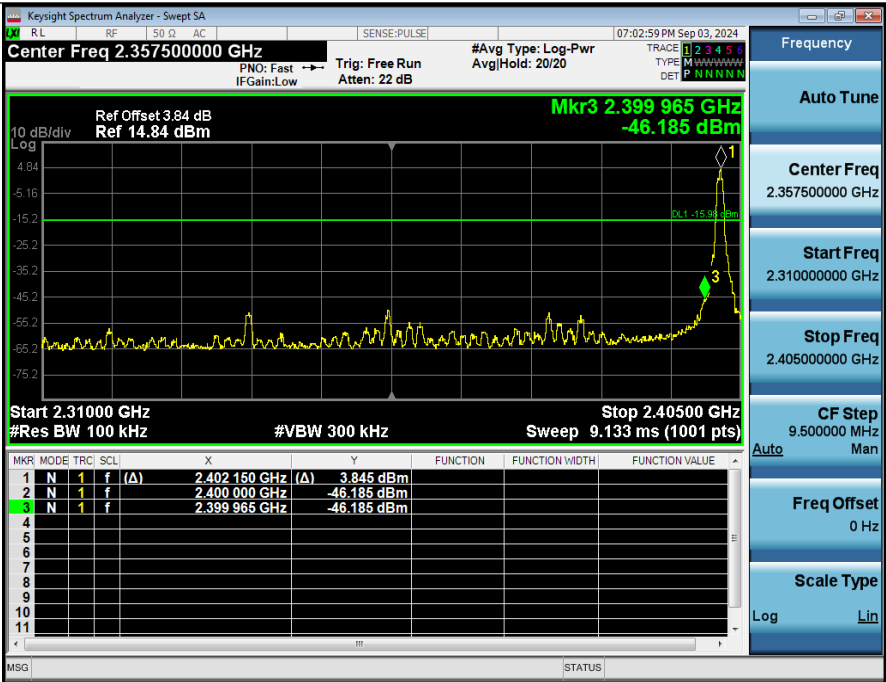
Band Edge

Condition	Antenna	Rate	TX_Frequency (MHz)	Max. Mark Frequency (MHz)	Spurious level(dBm)	limit(dBm)	Result
NVNT	ANT1	125K	2402.00	2399.965	-46.185	-15.981	Pass
NVNT	ANT1	125K	2480.00	2499.050	-51.138	-15.347	Pass
NVNT	ANT1	500K	2402.00	2399.965	-48.421	-15.893	Pass
NVNT	ANT1	500K	2480.00	2498.775	-50.537	-15.096	Pass
NVNT	ANT1	1Mbps	2402.00	2399.965	-46.016	-15.833	Pass
NVNT	ANT1	1Mbps	2480.00	2499.050	-50.786	-15.023	Pass
NVNT	ANT1	2Mbps	2402.00	2399.965	-32.742	-15.833	Pass
NVNT	ANT1	2Mbps	2480.00	2499.050	-50.322	-15.007	Pass

1_Reference_Level_NVNT_ANT1_125K_2402



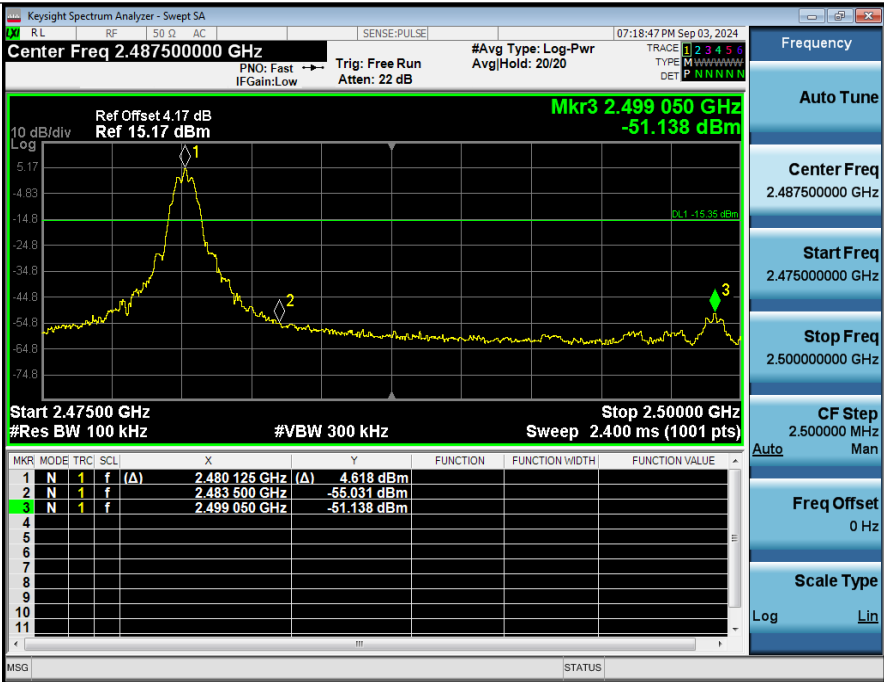
2_Bandedge_NVNT_ANT1_125K_2402



1_Reference_Level_NVNT_ANT1_125K_2480



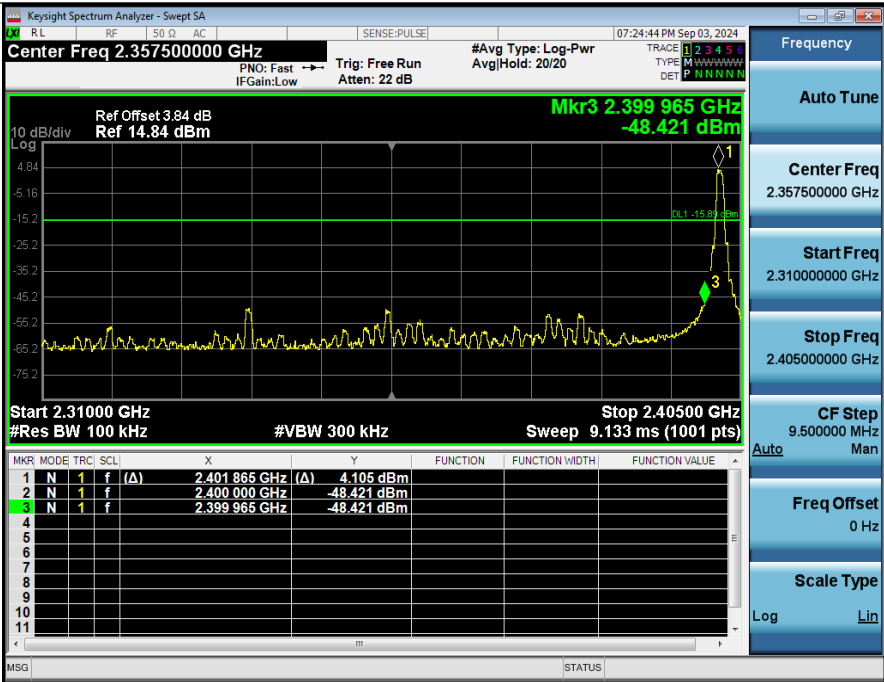
2_Bandedge_NVNT_ANT1_125K_2480



1_Reference_Level_NVNT_ANT1_500K_2402



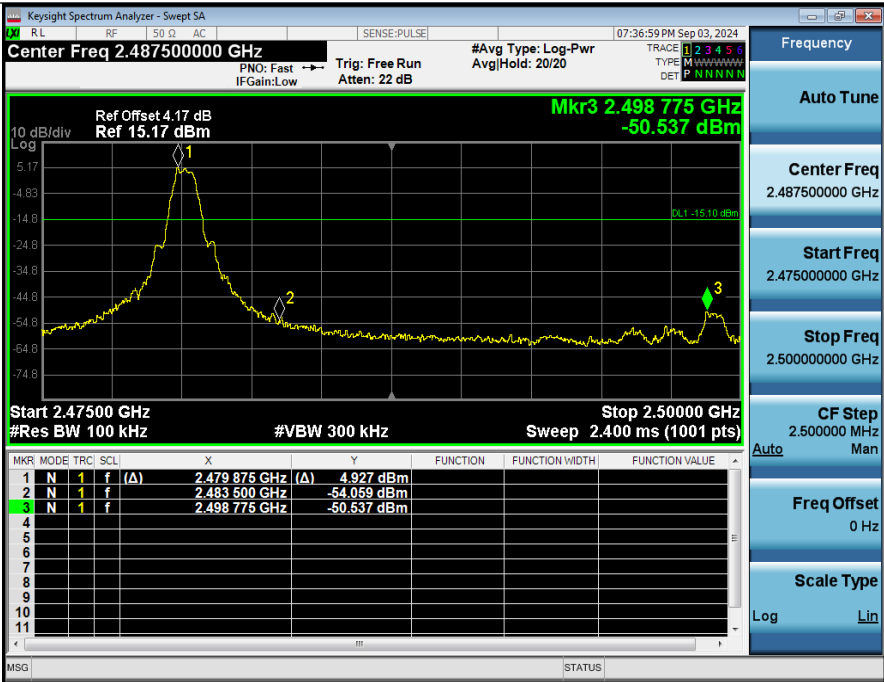
2_Bandedge_NVNT_ANT1_500K_2402



1_Reference_Level_NVNT_ANT1_500K_2480



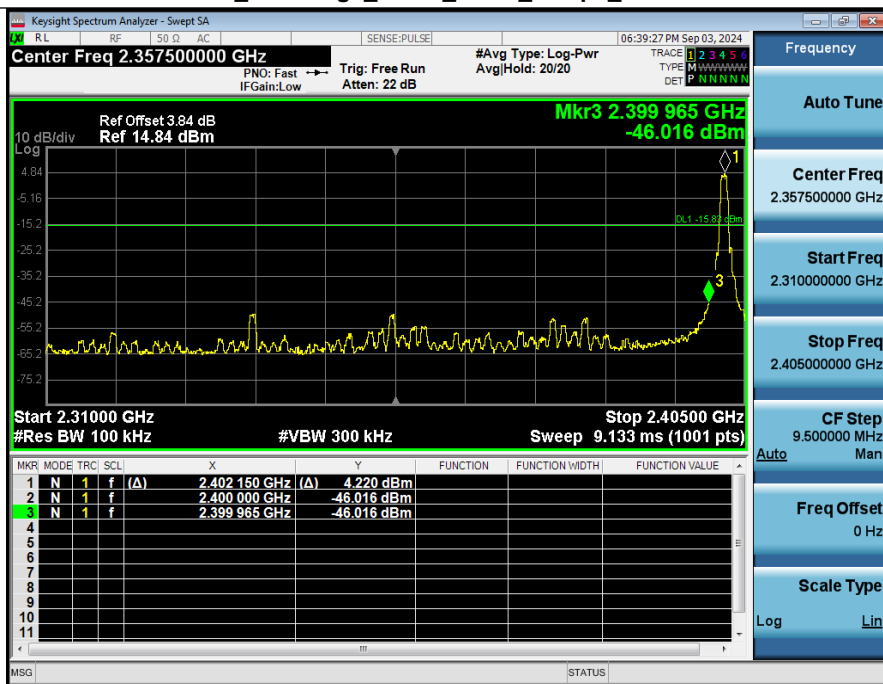
2_Bandedge_NVNT_ANT1_500K_2480



1_Reference_Level_NVNT_ANT1_1Mbps_2402



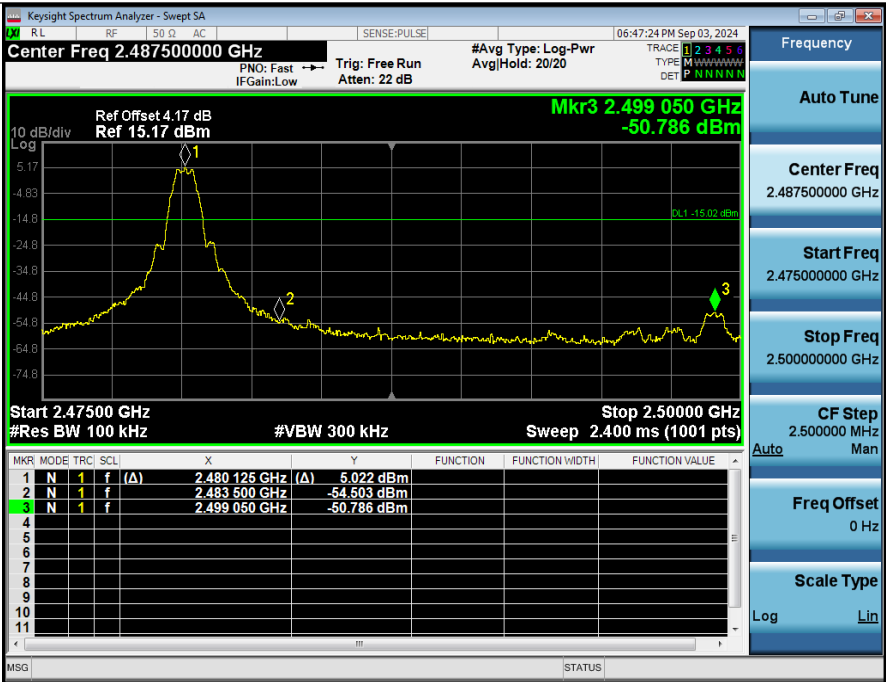
2_Bandedge_NVNT_ANT1_1Mbps_2402



1_Reference_Level_NVNT_ANT1_1Mbps_2480



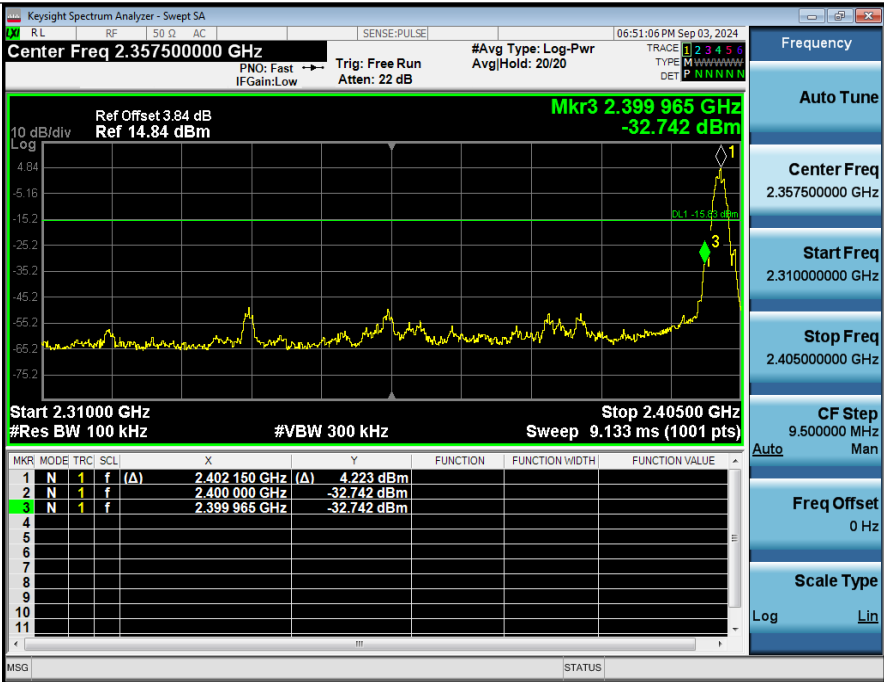
2_Bandedge_NVNT_ANT1_1Mbps_2480



1_Reference_Level_NVNT_ANT1_2Mbps_2402



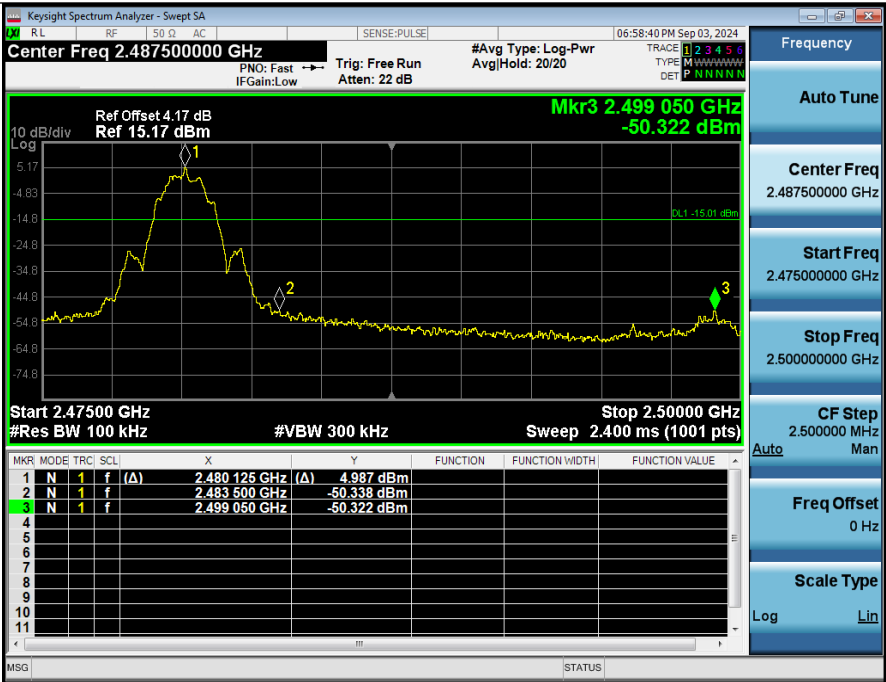
2_Bandedge_NVNT_ANT1_2Mbps_2402



1_Reference_Level_NVNT_ANT1_2Mbps_2480



2_Bandedge_NVNT_ANT1_2Mbps_2480



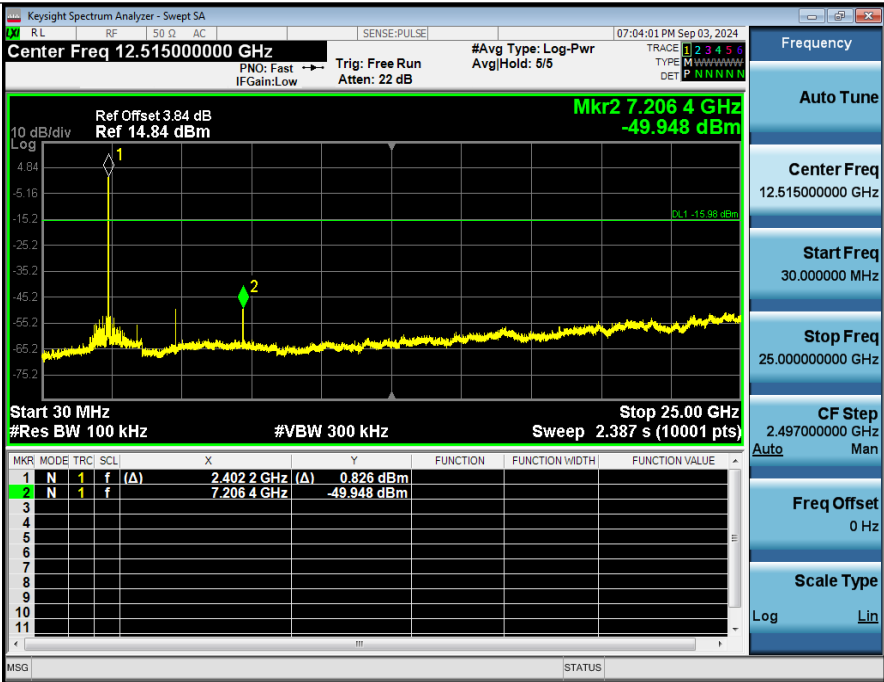
Conducted Spurious Emission

Condition	Antenna	Rate	TX_Frequency (MHz)	Spurious MAX.Value (dBm)	Limit	Result
NVNT	ANT1	125K	2402.00	-49.948	-15.981	Pass
NVNT	ANT1	125K	2440.00	-50.752	-15.491	Pass
NVNT	ANT1	125K	2480.00	-50.117	-15.347	Pass
NVNT	ANT1	500K	2402.00	-48.256	-15.893	Pass
NVNT	ANT1	500K	2440.00	-48.846	-15.341	Pass
NVNT	ANT1	500K	2480.00	-48.127	-15.096	Pass
NVNT	ANT1	1Mbps	2402.00	-47.234	-15.833	Pass
NVNT	ANT1	1Mbps	2440.00	-48.487	-15.294	Pass
NVNT	ANT1	1Mbps	2480.00	-49.300	-15.023	Pass
NVNT	ANT1	2Mbps	2402.00	-48.117	-15.833	Pass
NVNT	ANT1	2Mbps	2440.00	-49.826	-15.296	Pass
NVNT	ANT1	2Mbps	2480.00	-49.725	-15.007	Pass

1_Reference_Level_NVNT_ANT1_125K_2402



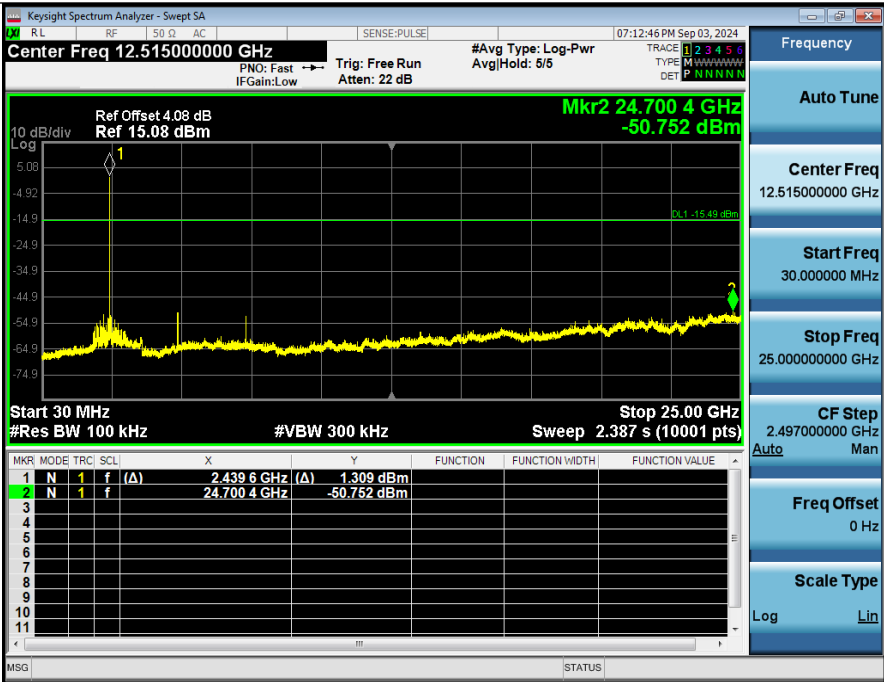
2_Spurious_Emission_NVNT_ANT1_125K_2402



1_Reference_Level_NVNT_ANT1_125K_2440



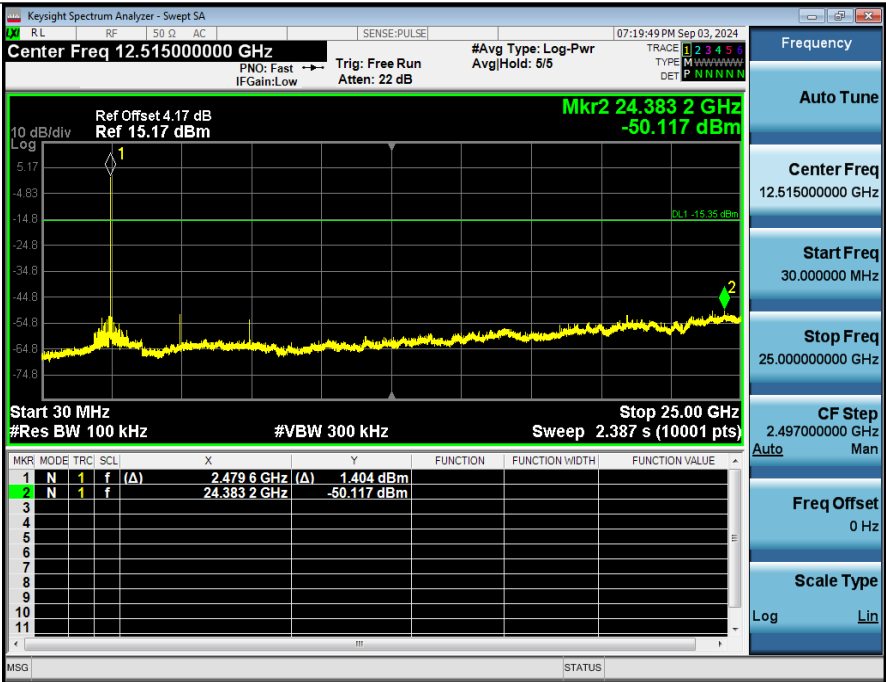
2_Spurious_Emission_NVNT_ANT1_125K_2440



1_Reference_Level_NVNT_ANT1_125K_2480



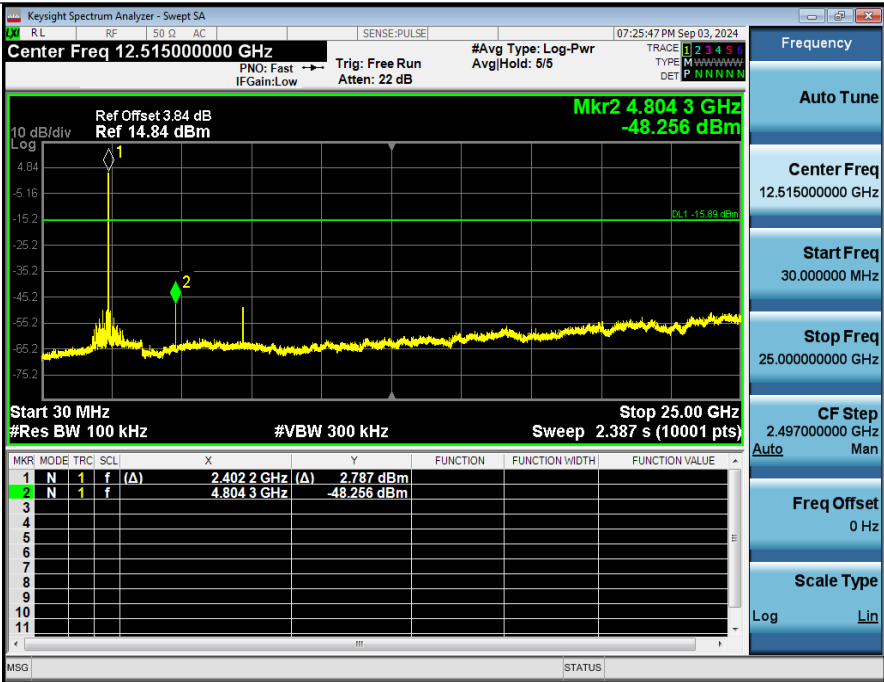
2_Spurious_Emission_NVNT_ANT1_125K_2480



1_Reference_Level_NVNT_ANT1_500K_2402



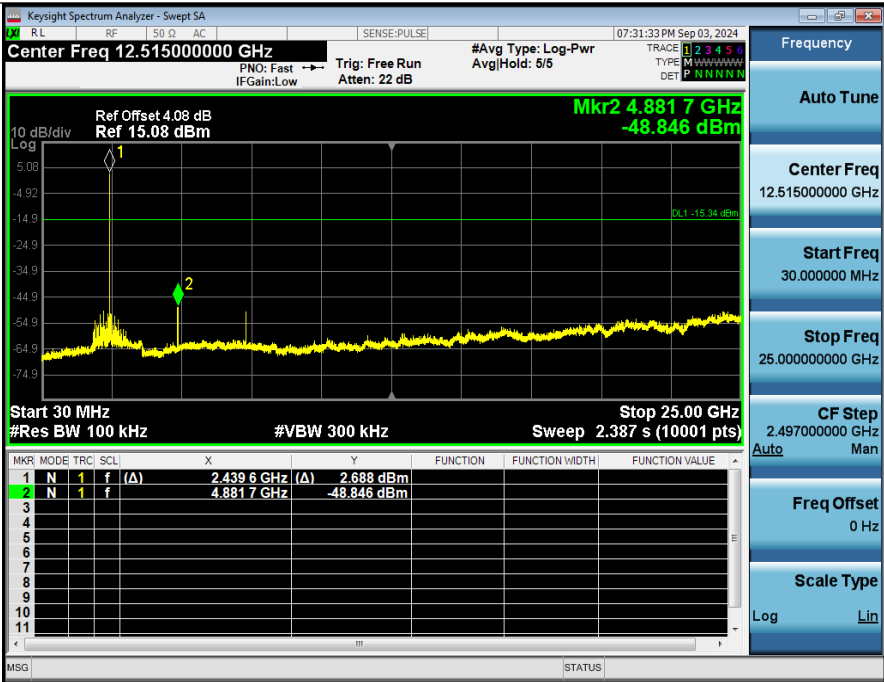
2_Spurious_Emission_NVNT_ANT1_500K_2402



1_Reference_Level_NVNT_ANT1_500K_2440



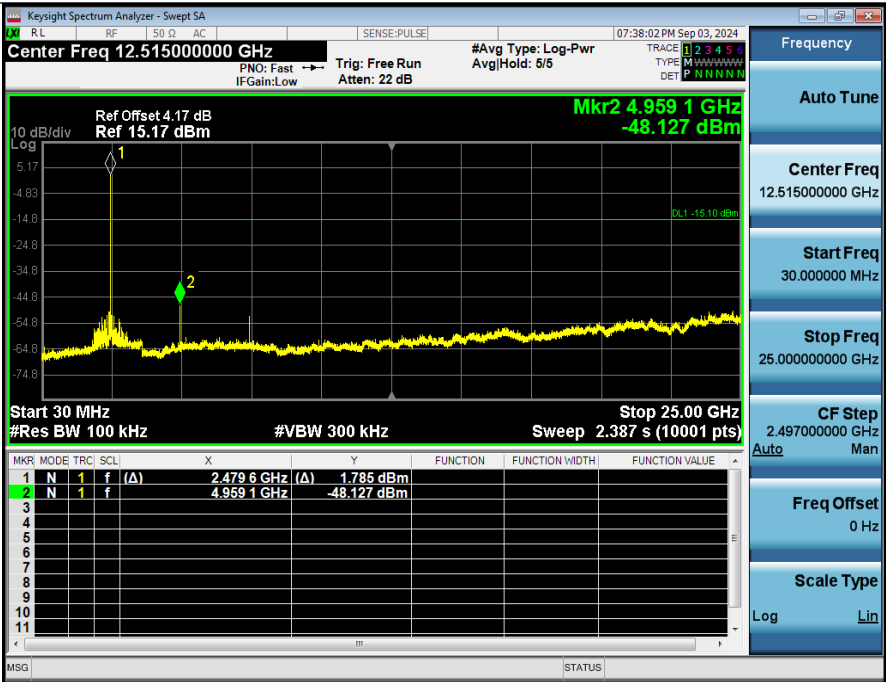
2_Spurious_Emission_NVNT_ANT1_500K_2440



1_Reference_Level_NVNT_ANT1_500K_2480



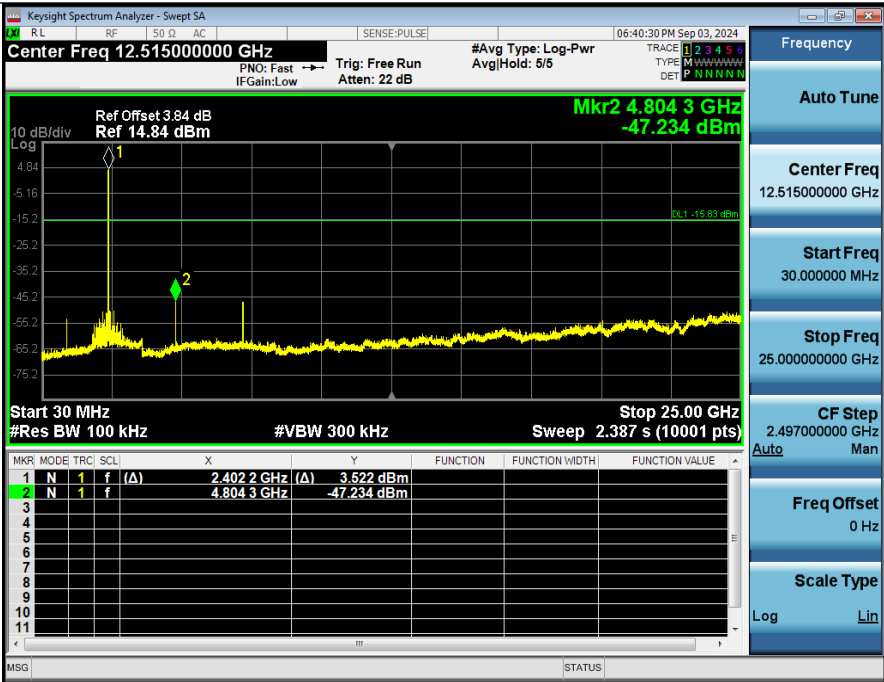
2_Spurious_Emission_NVNT_ANT1_500K_2480



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

