

**APPENDIX 1-TEST DATA****Appendix A – BLE 1M PHY**

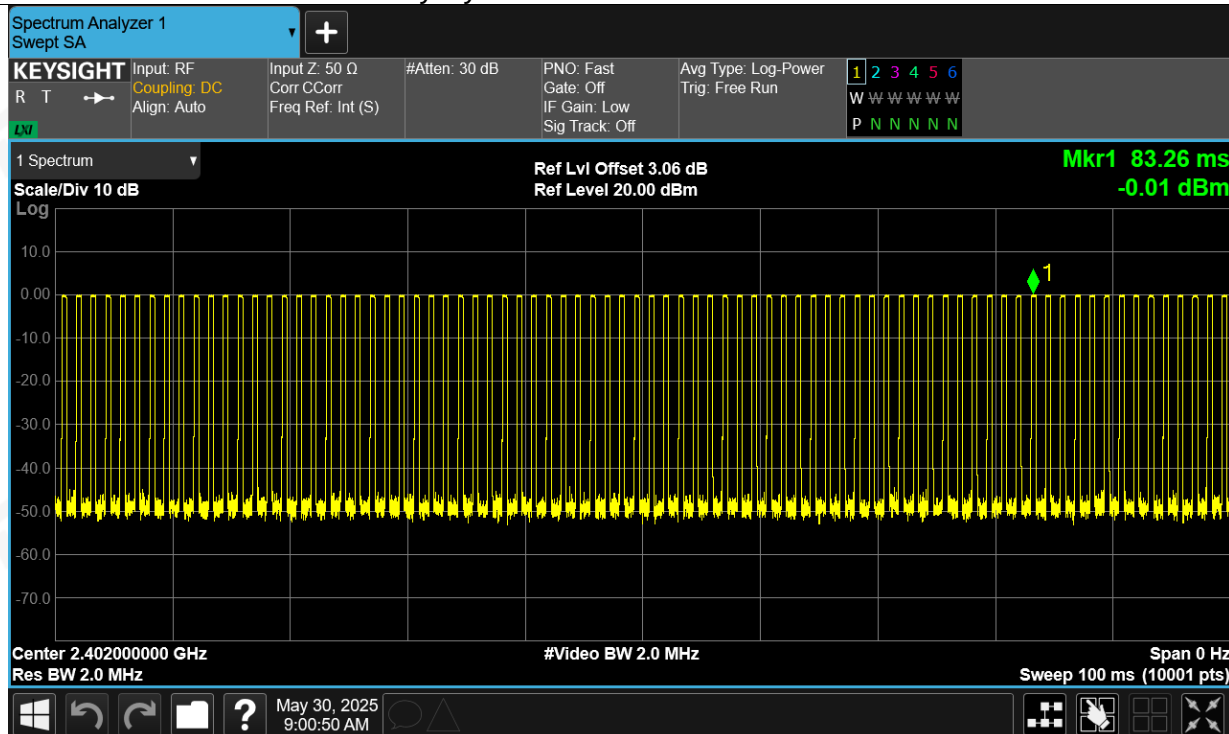
Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)
NVNT	BLE	2402	Ant1	35.4	4.51
NVNT	BLE	2442	Ant1	35.21	4.53
NVNT	BLE	2480	Ant1	35.2	4.54

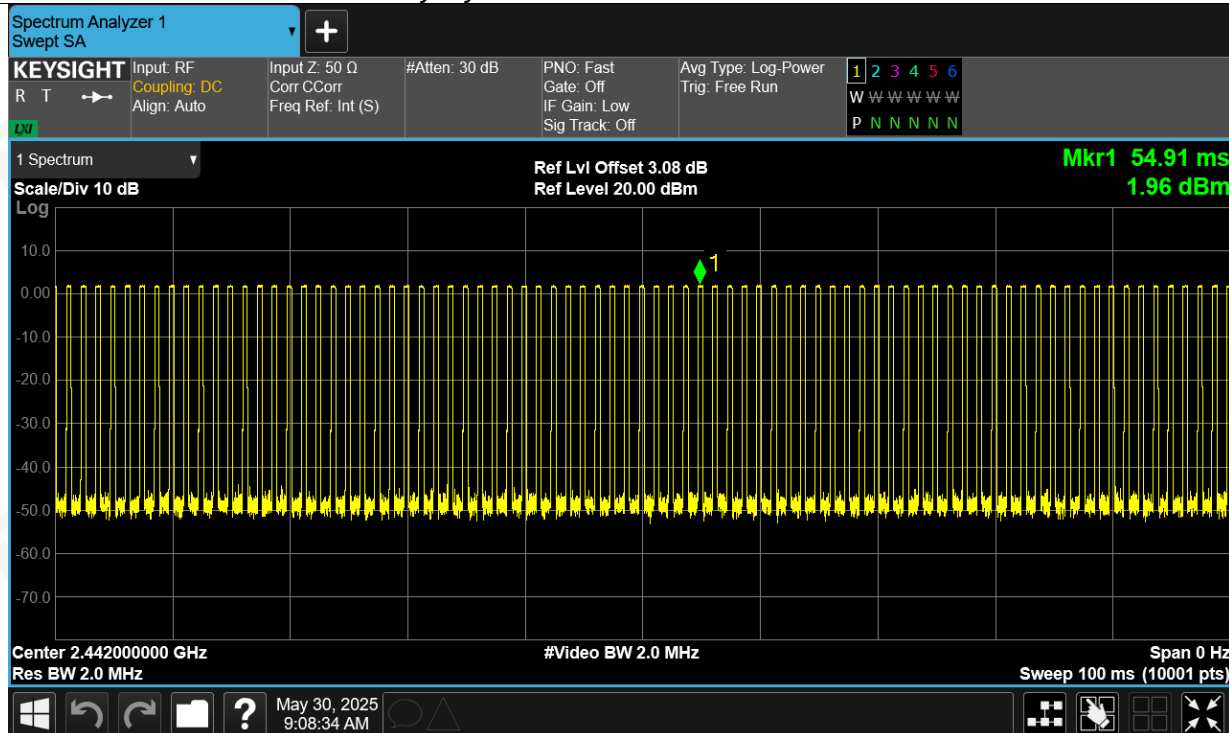


Test Graphs

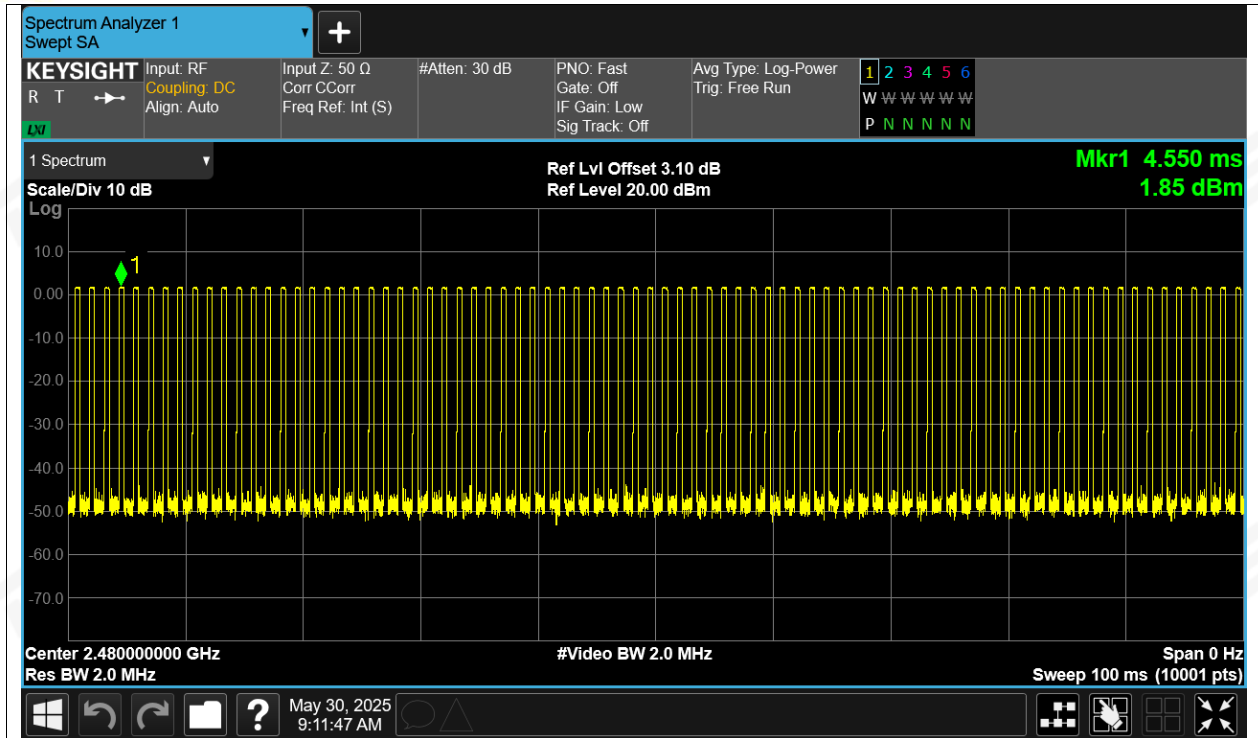
Duty Cycle NVNT BLE 2402MHz Ant1



Duty Cycle NVNT BLE 2442MHz Ant1



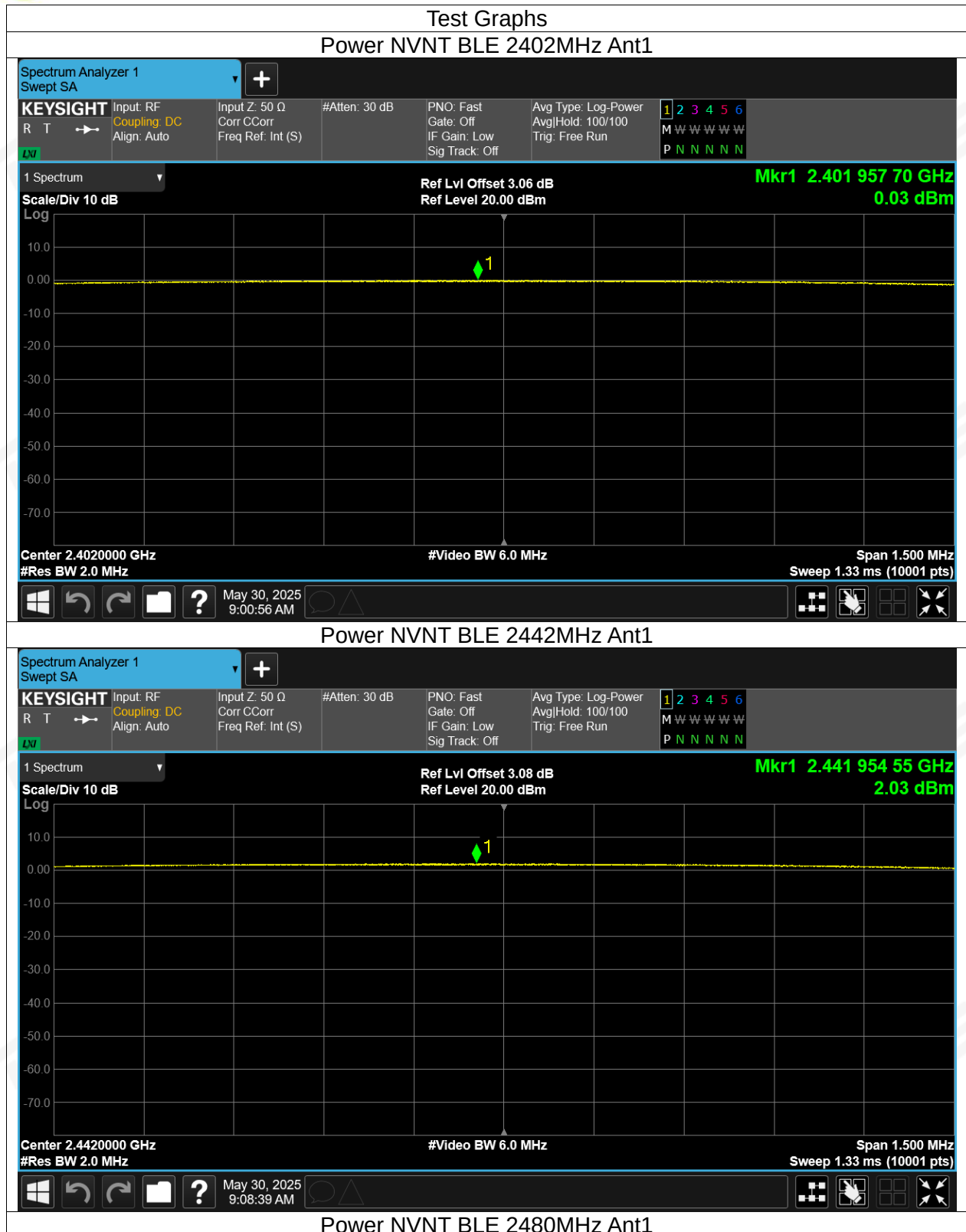
Duty Cycle NVNT BLE 2480MHz Ant1

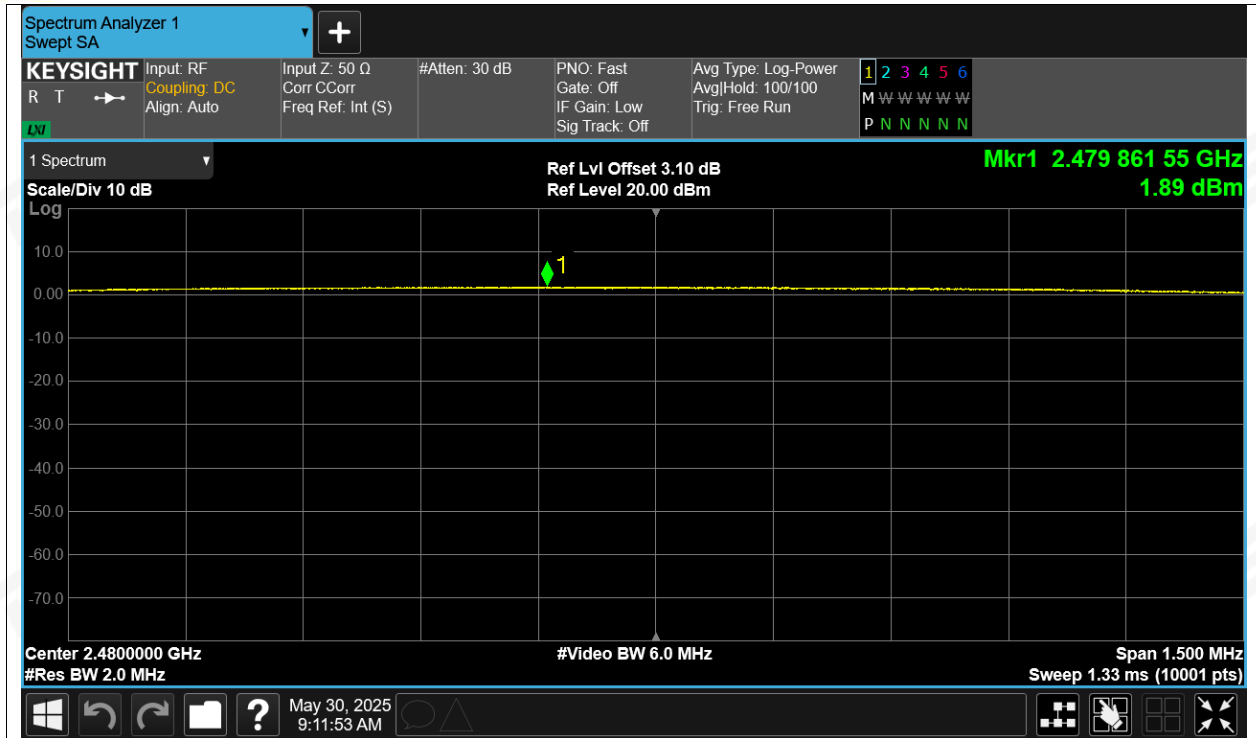




Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	BLE	2402	Ant1	0.025	30	Pass
NVNT	BLE	2442	Ant1	2.029	30	Pass
NVNT	BLE	2480	Ant1	1.888	30	Pass







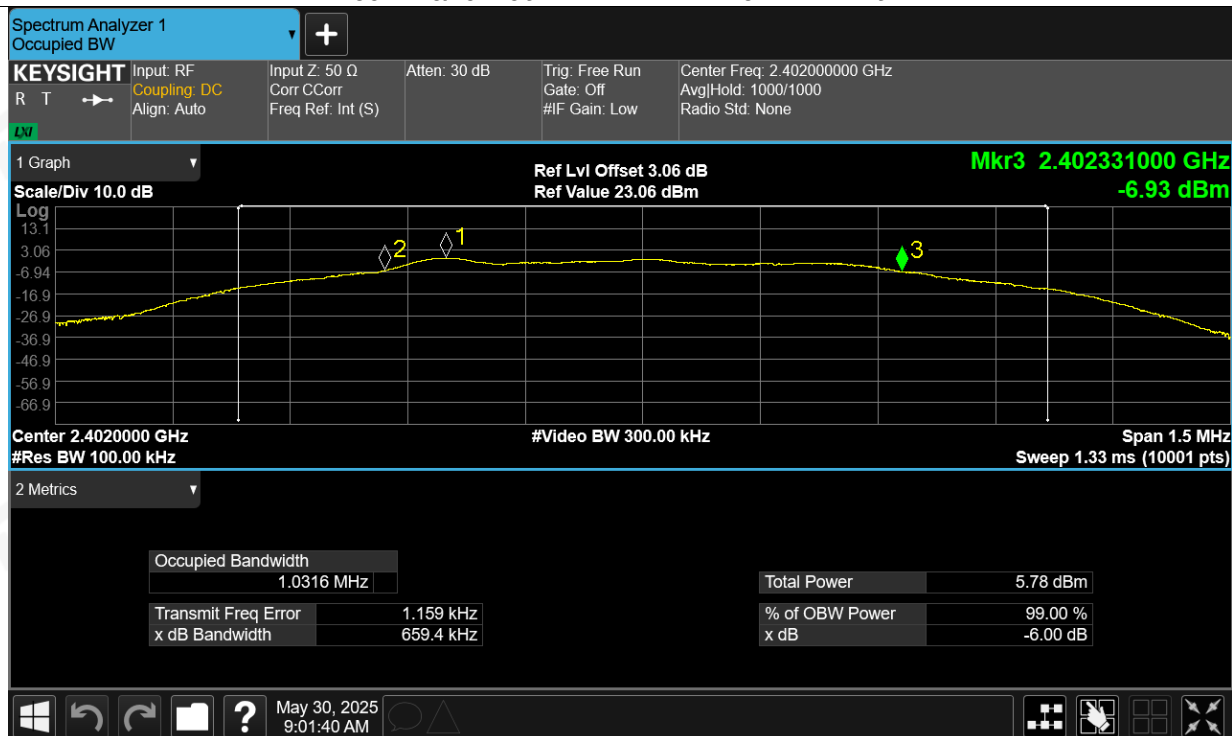
-6dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	limit (MHz)	Verdic
NVNT	BLE	2402	Ant1	0.659	0.5	Pass
NVNT	BLE	2442	Ant1	0.658	0.5	Pass
NVNT	BLE	2480	Ant1	0.658	0.5	Pass

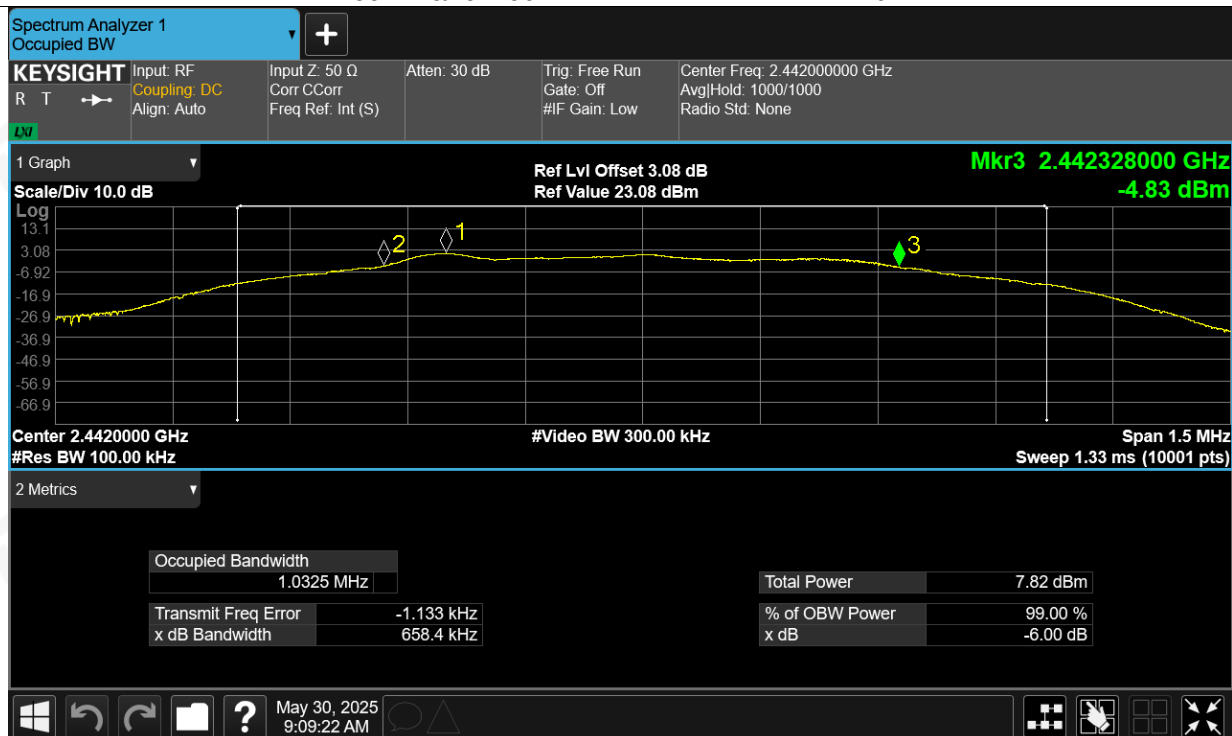


Test Graphs

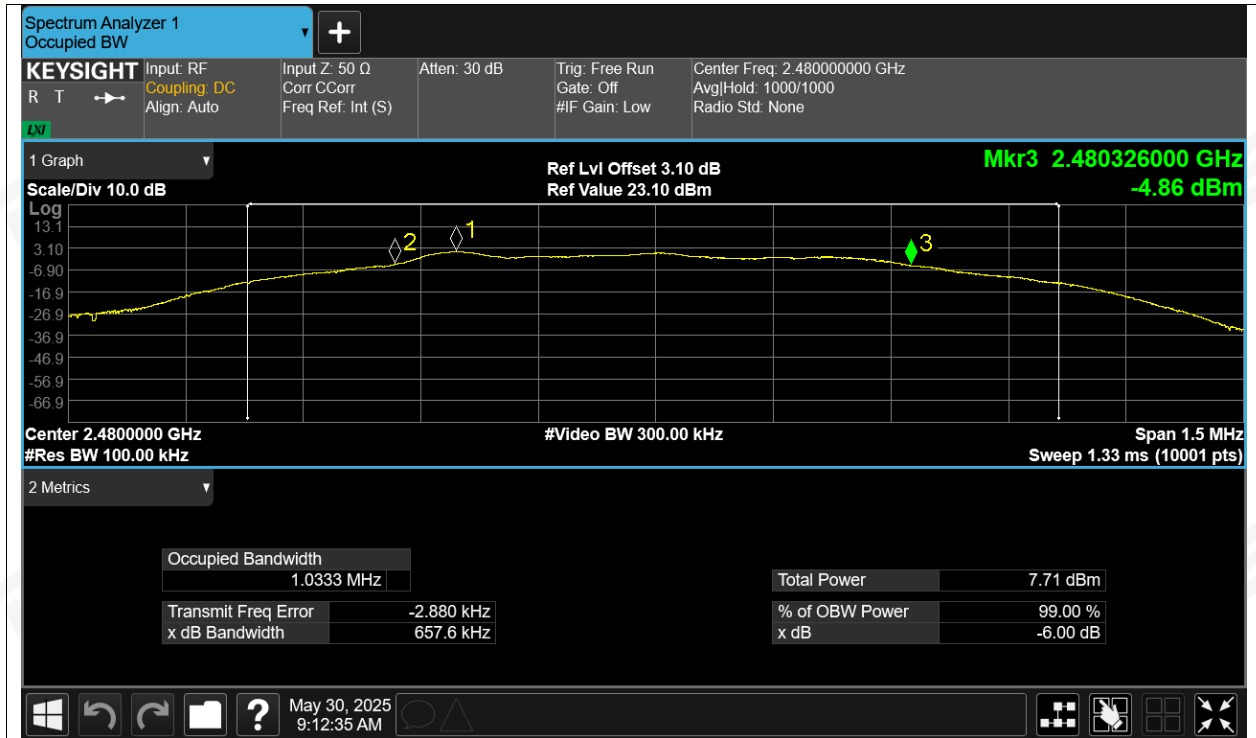
-6dB Bandwidth NVNT BLE 2402MHz Ant1



-6dB Bandwidth NVNT BLE 2442MHz Ant1



-6dB Bandwidth NVNT BLE 2480MHz Ant1

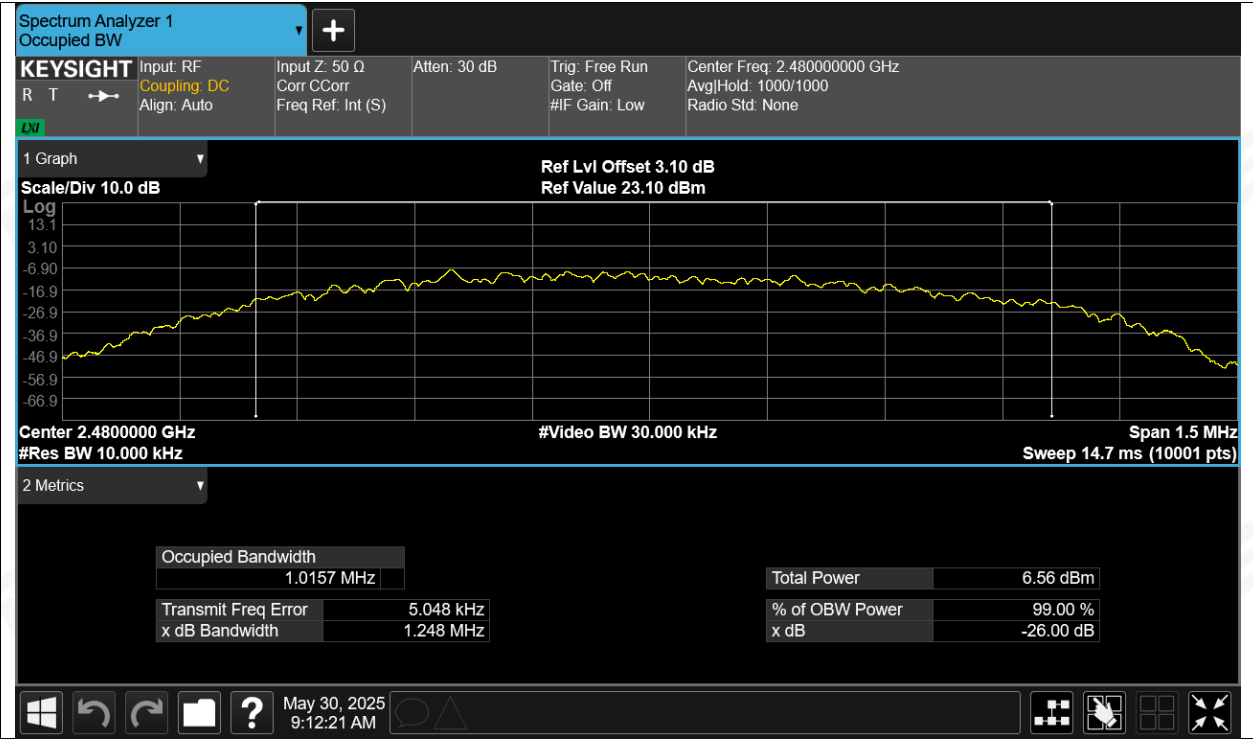




Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	BLE	2402	Ant1	1.015
NVNT	BLE	2442	Ant1	1.015
NVNT	BLE	2480	Ant1	1.016







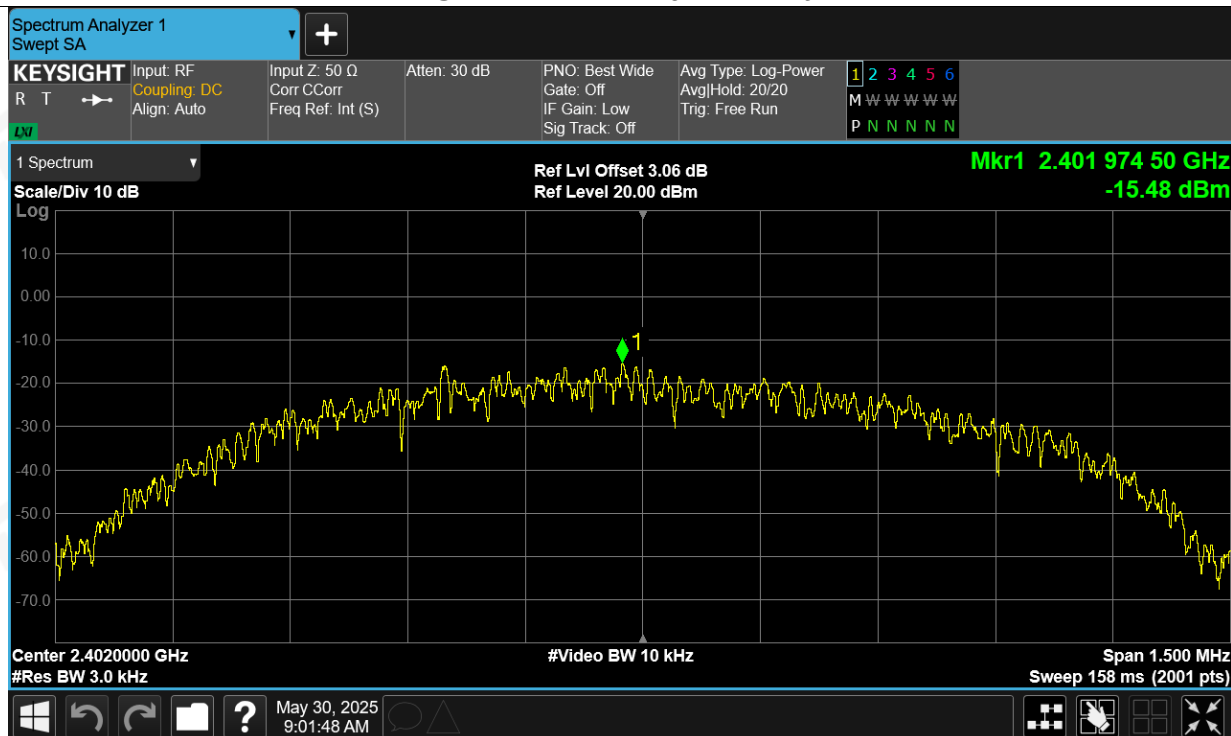
Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm/3KHz)	Limit(dBm/3KHz)	Verdict
NVNT	BLE	2402	Ant1	-15.479	8	Pass
NVNT	BLE	2442	Ant1	-13.275	8	Pass
NVNT	BLE	2480	Ant1	-13.415	8	Pass

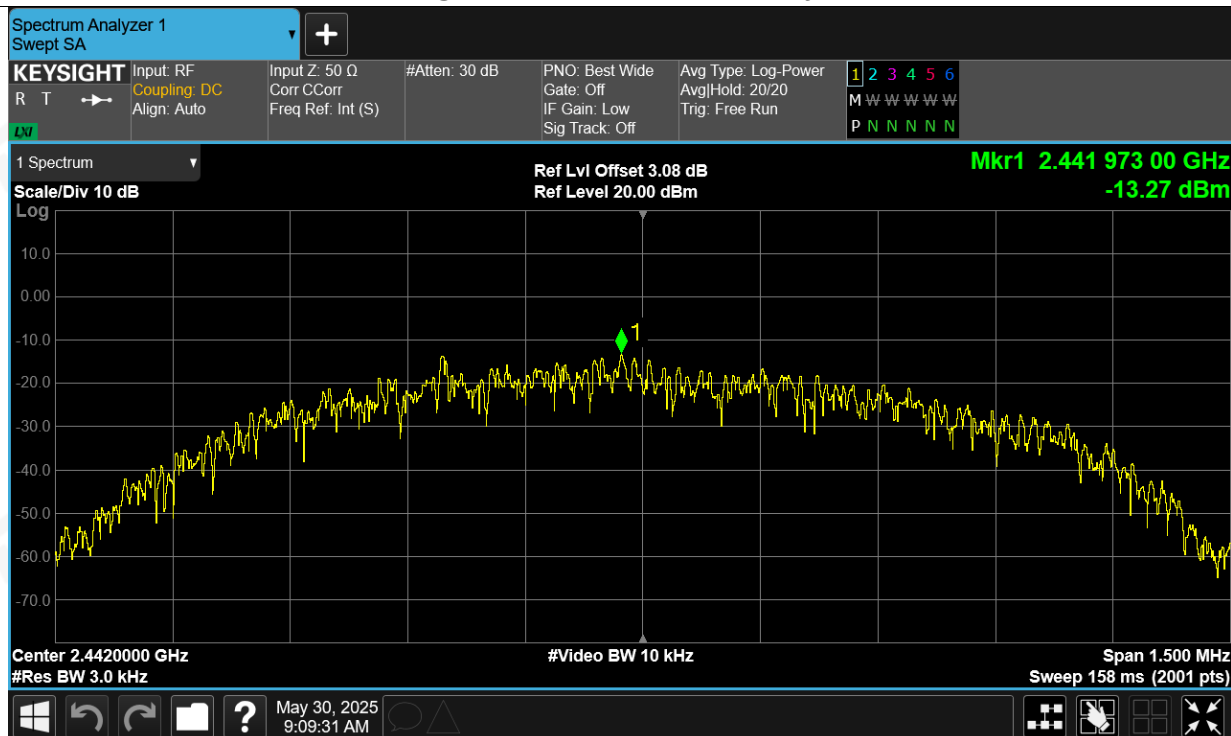


Test Graphs

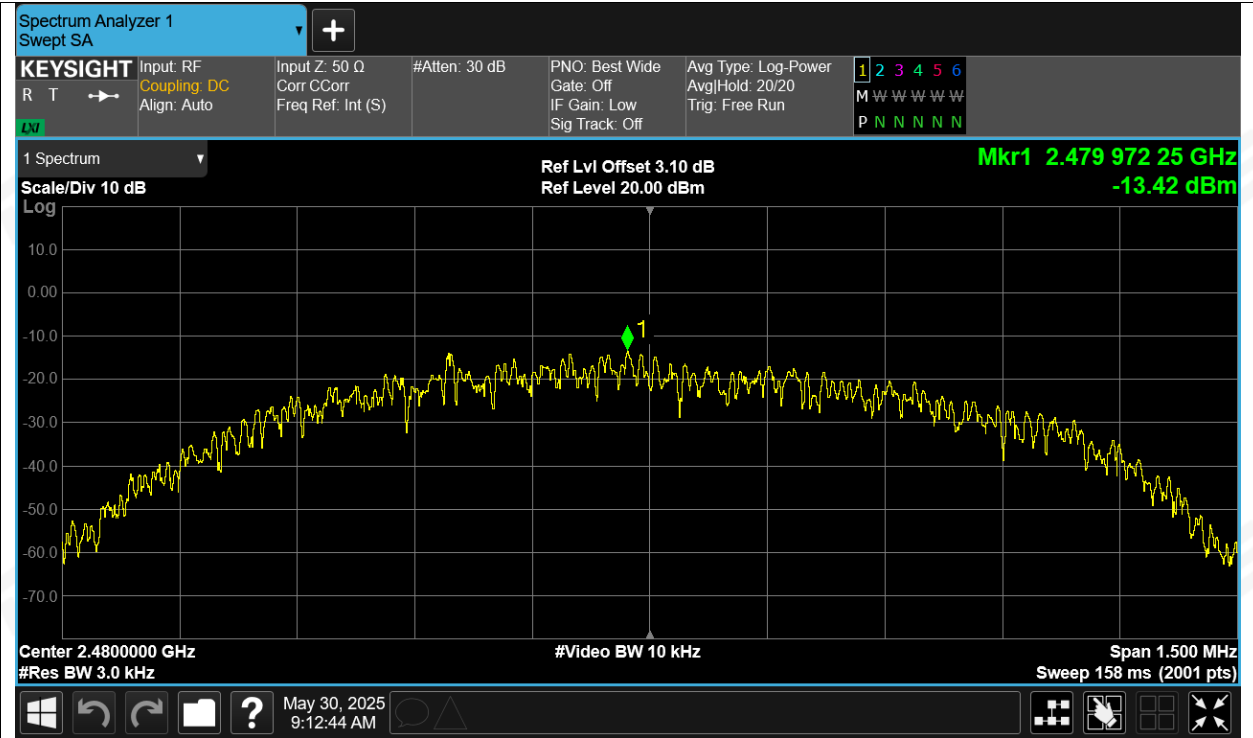
PSD NVNT BLE 2402MHz Ant1



PSD NVNT BLE 2442MHz Ant1



PSD NVNT BLE 2480MHz Ant1





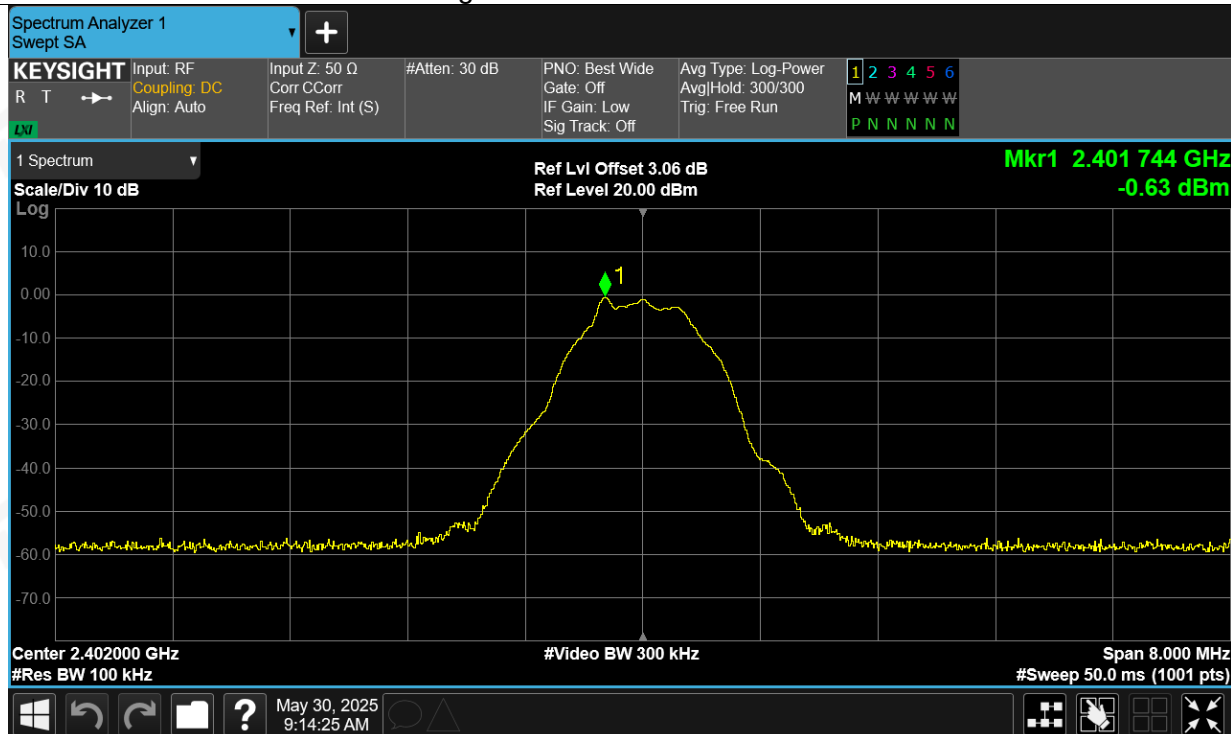
Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE	2402	Ant1	-55.32	-20	Pass
NVNT	BLE	2480	Ant1	-57.63	-20	Pass

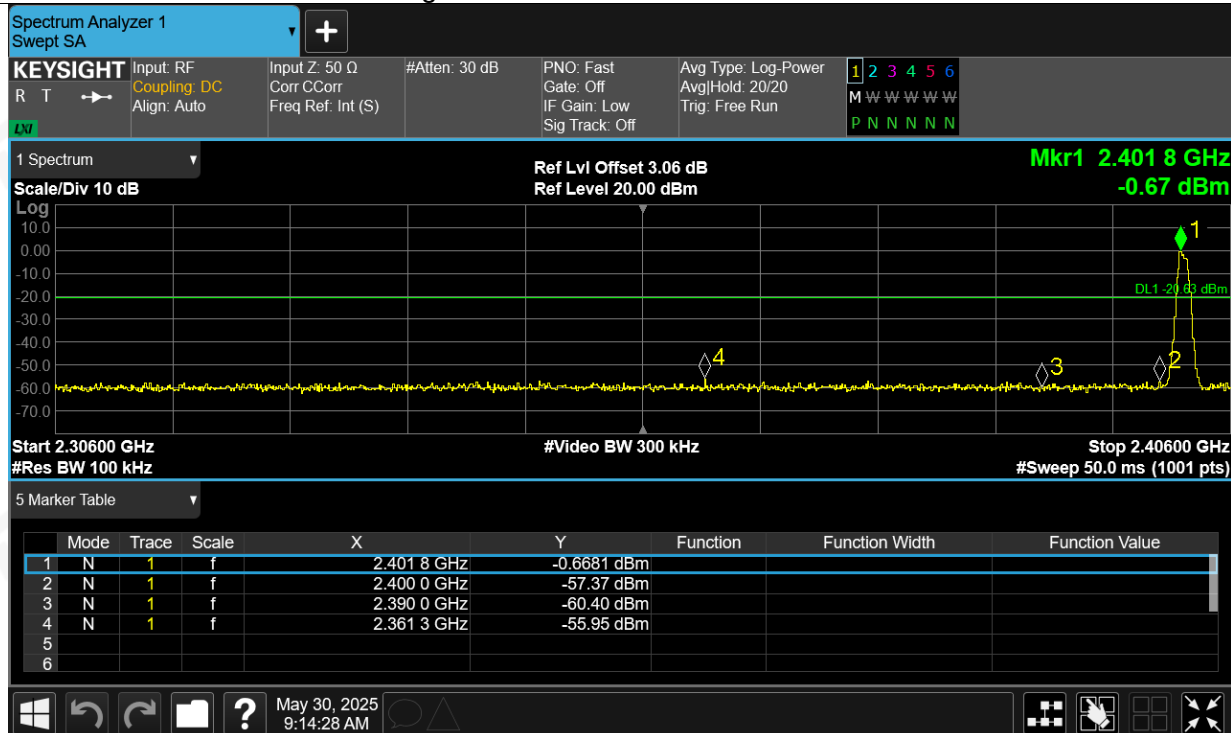


Test Graphs

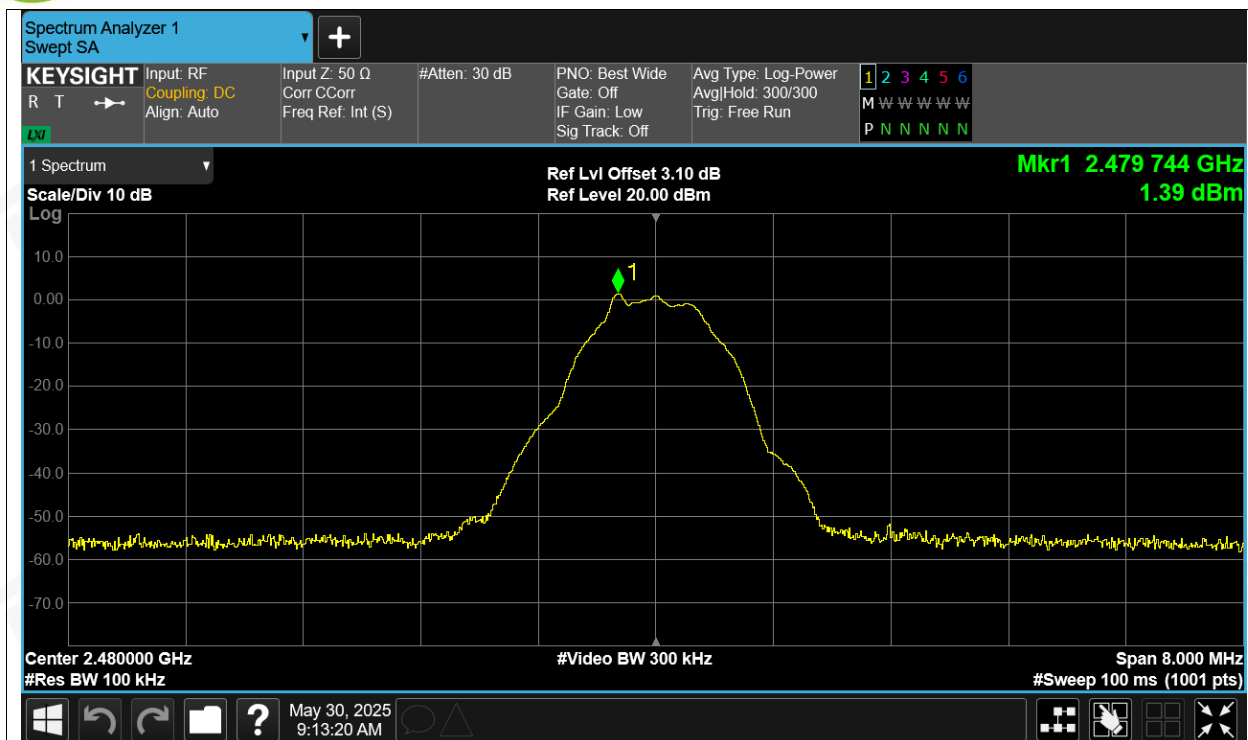
Band Edge NVNT BLE 2402MHz Ant1 Ref



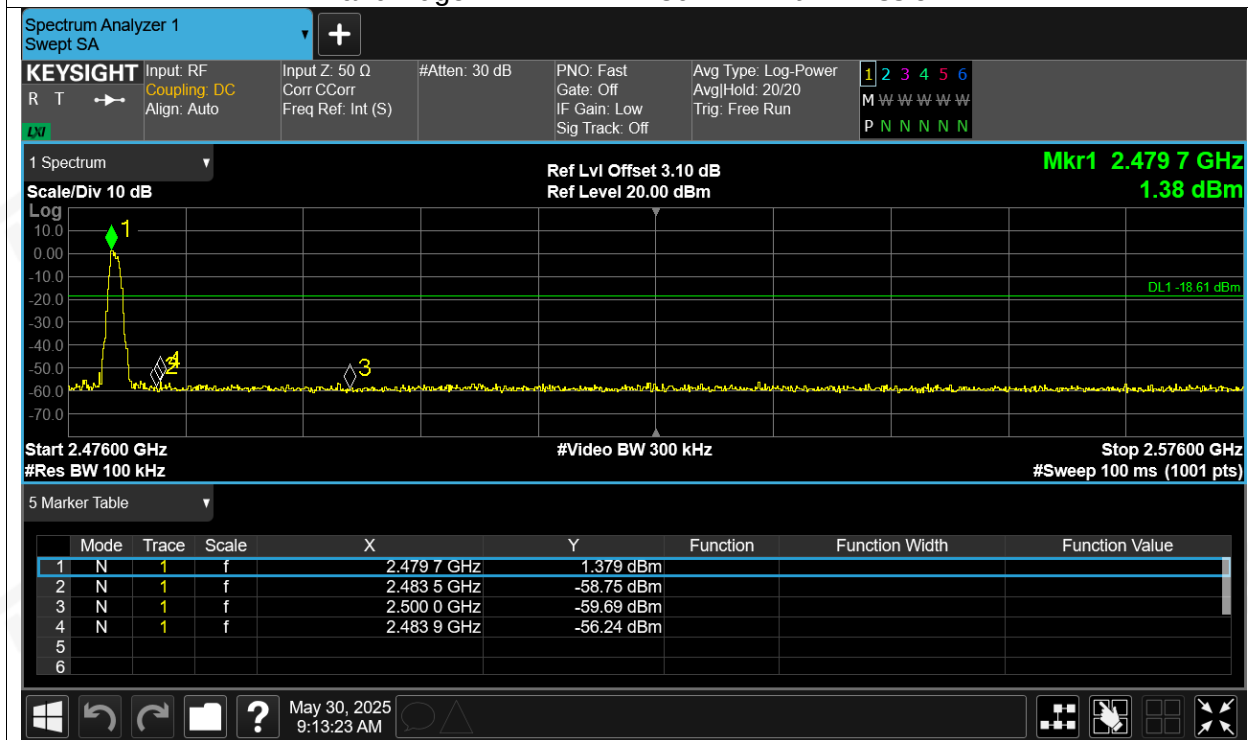
Band Edge NVNT BLE 2402MHz Ant1 Emission



Band Edge NVNT BLE 2480MHz Ant1 Ref



Band Edge NVNT BLE 2480MHz Ant1 Emission





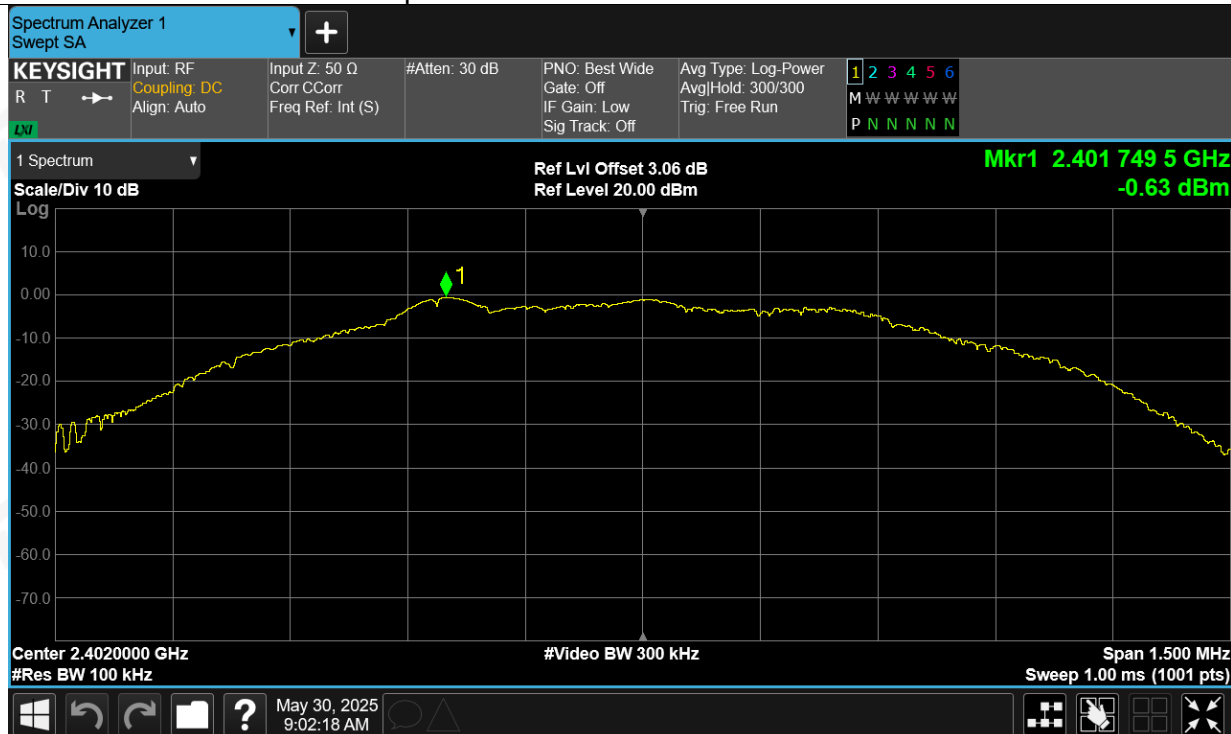
Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE	2402	Ant1	-48.35	-20	Pass
NVNT	BLE	2442	Ant1	-51.15	-20	Pass
NVNT	BLE	2480	Ant1	-51.01	-20	Pass

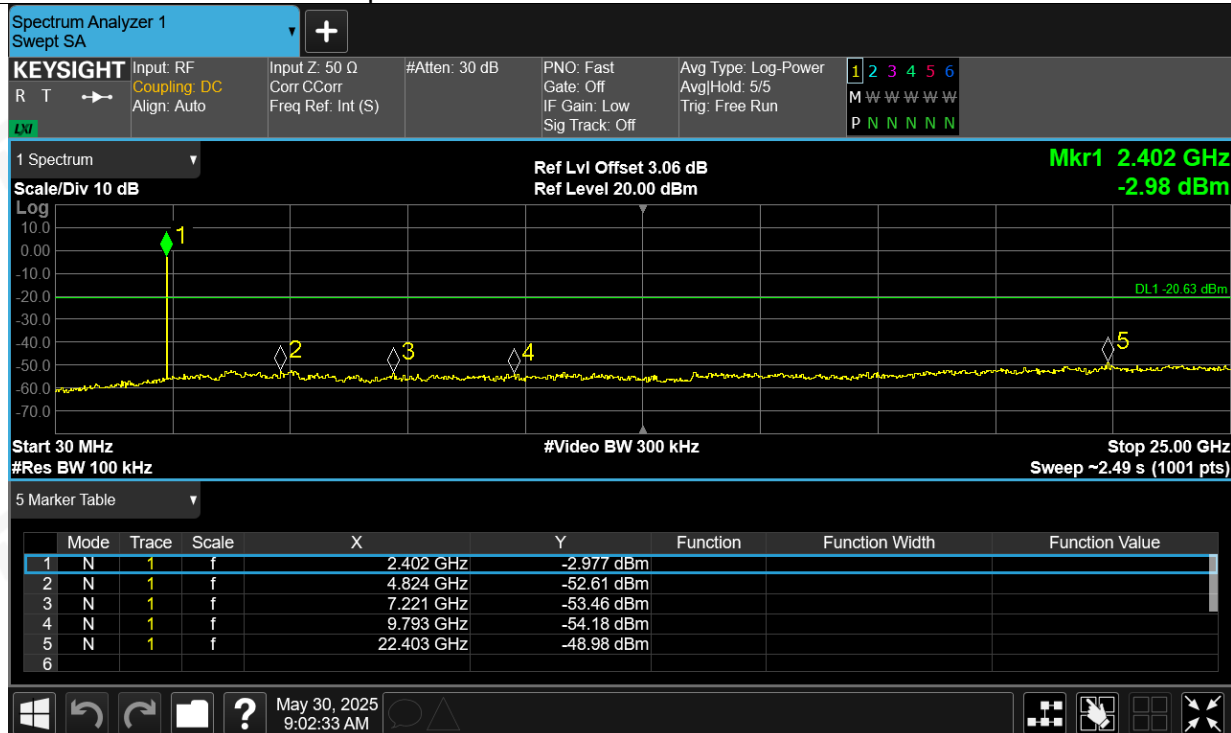


Test Graphs

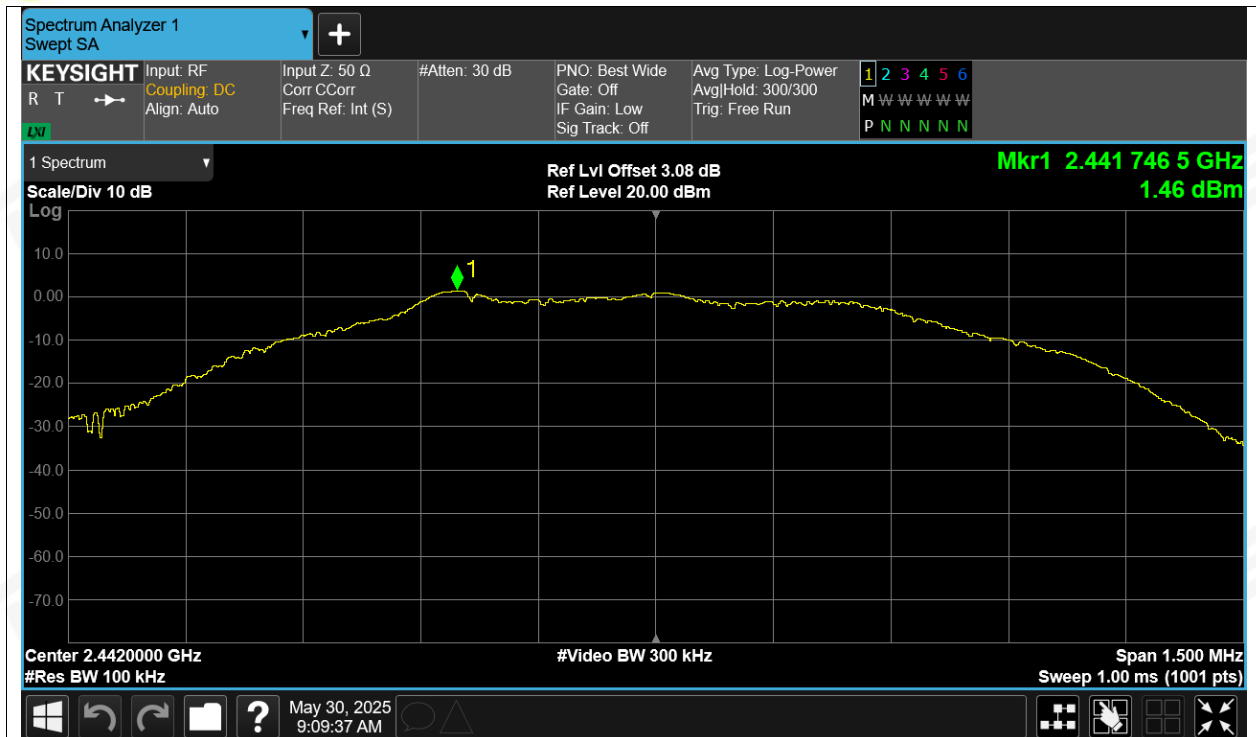
Tx. Spurious NVNT BLE 2402MHz Ant1 Ref



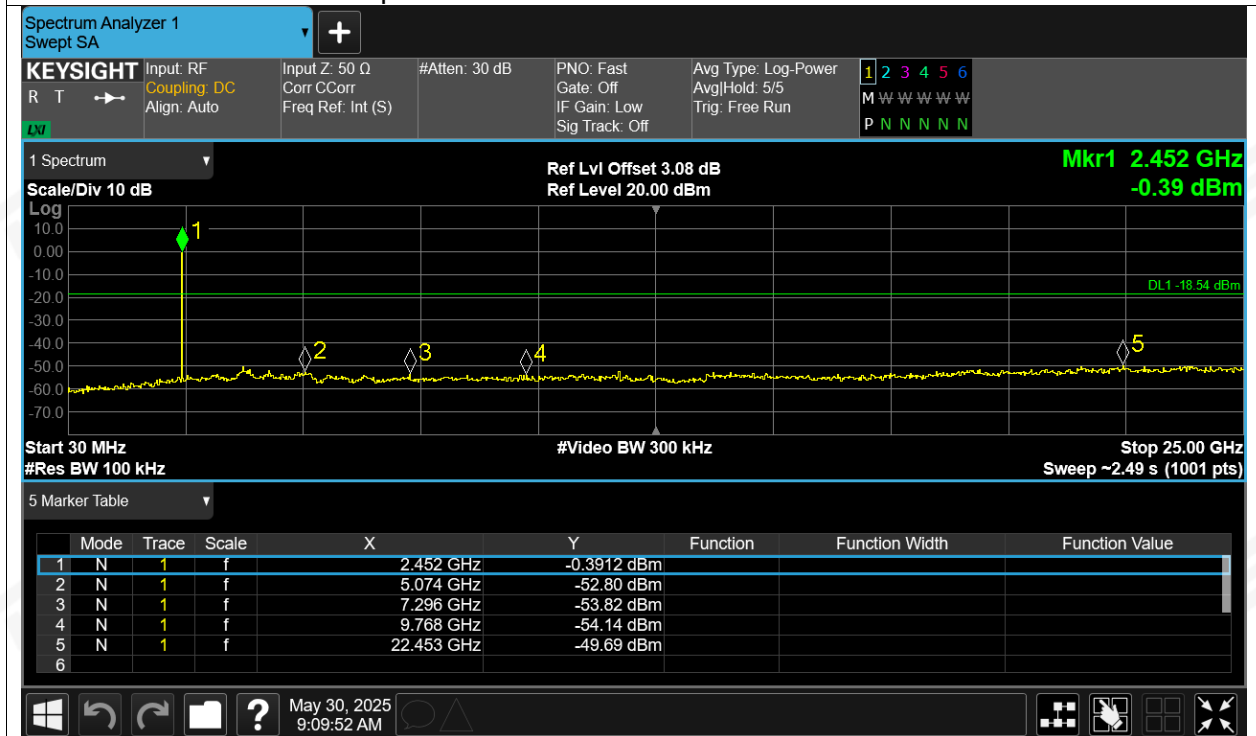
Tx. Spurious NVNT BLE 2402MHz Ant1 Emission



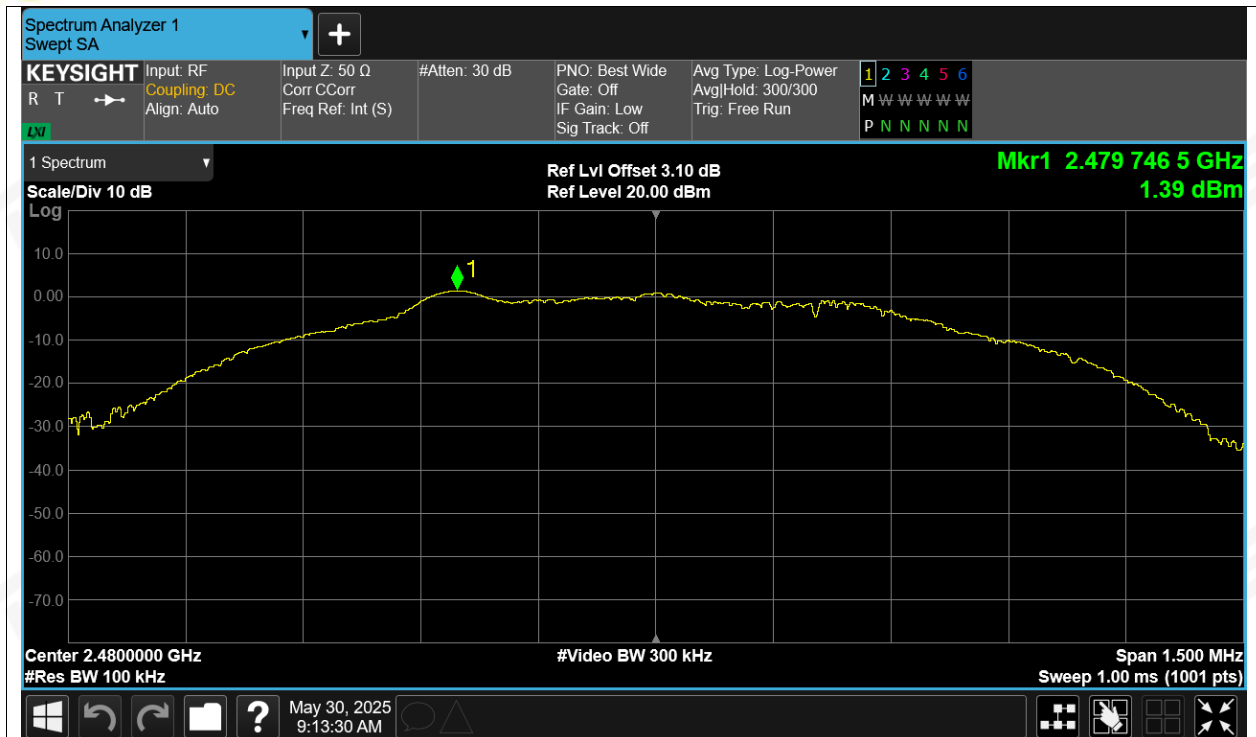
Tx. Spurious NVNT BLE 2442MHz Ant1 Ref



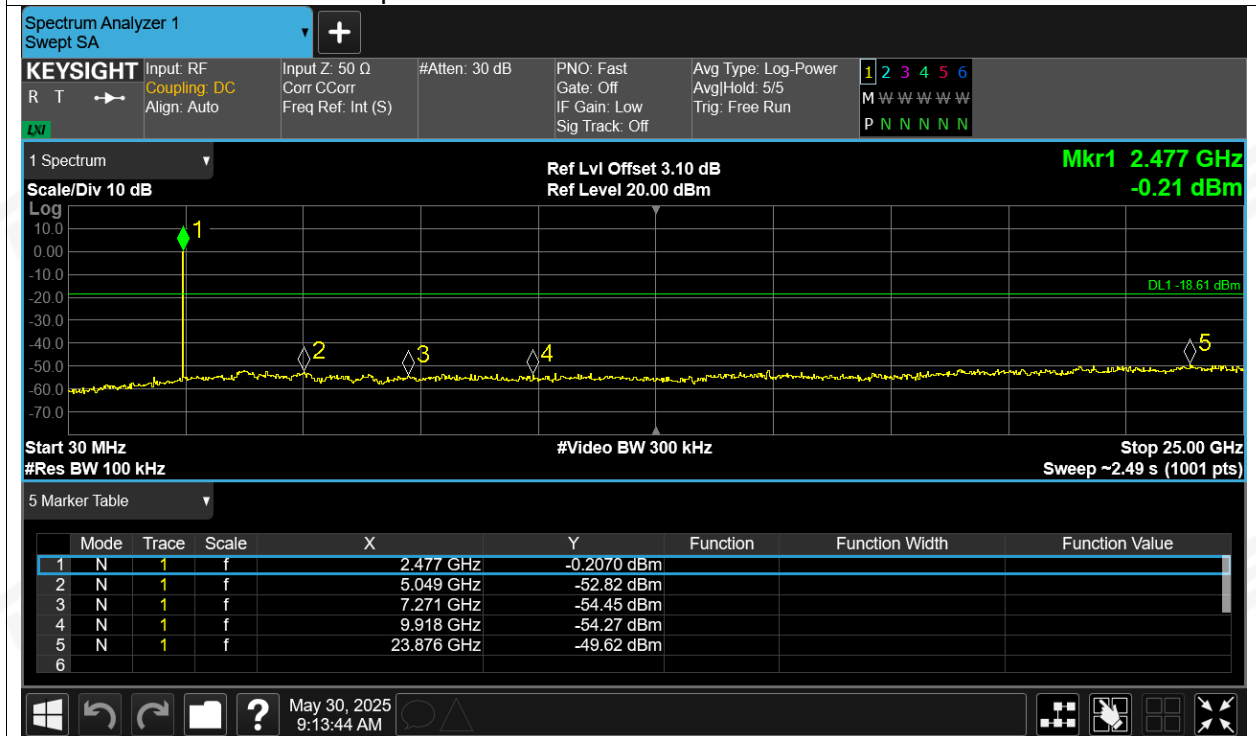
Tx. Spurious NVNT BLE 2442MHz Ant1 Emission



Tx. Spurious NVNT BLE 2480MHz Ant1 Ref



Tx. Spurious NVNT BLE 2480MHz Ant1 Emission



**Appendix B – BLE 2M PHY**

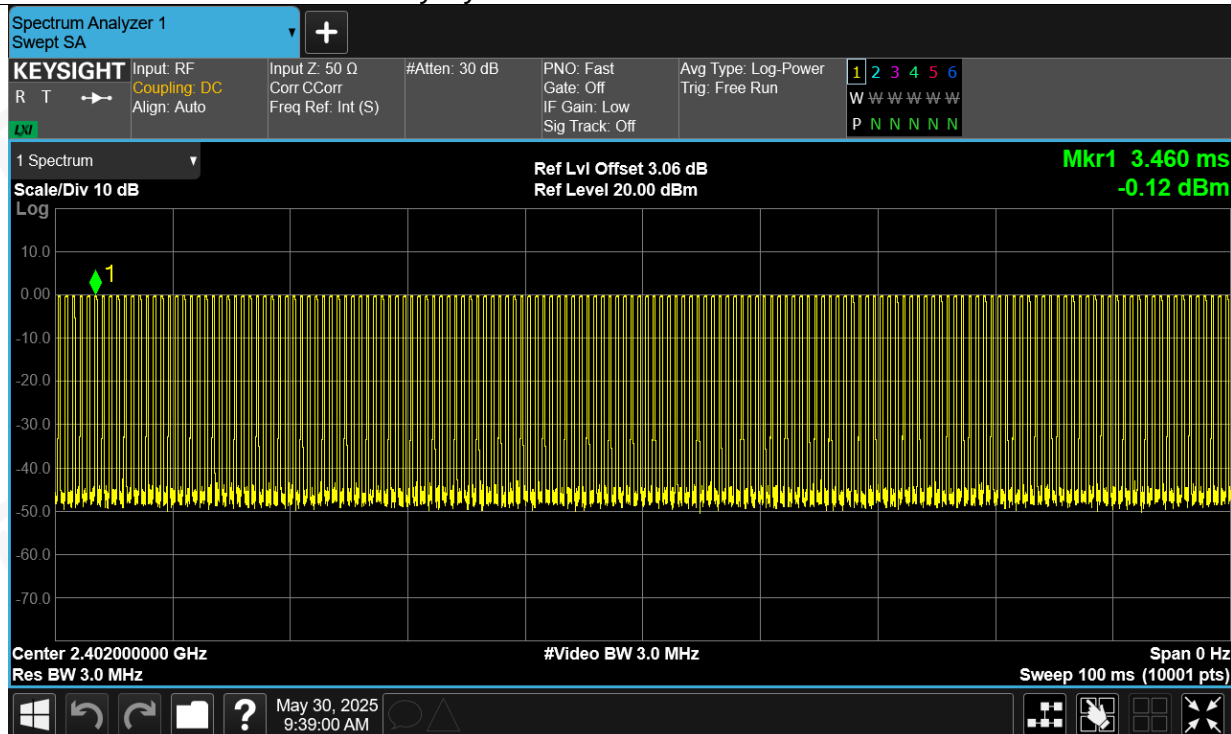
Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)
NVNT	BLE	2402	Ant1	40.63	3.91
NVNT	BLE	2442	Ant1	39.61	4.02
NVNT	BLE	2480	Ant1	40.78	3.9

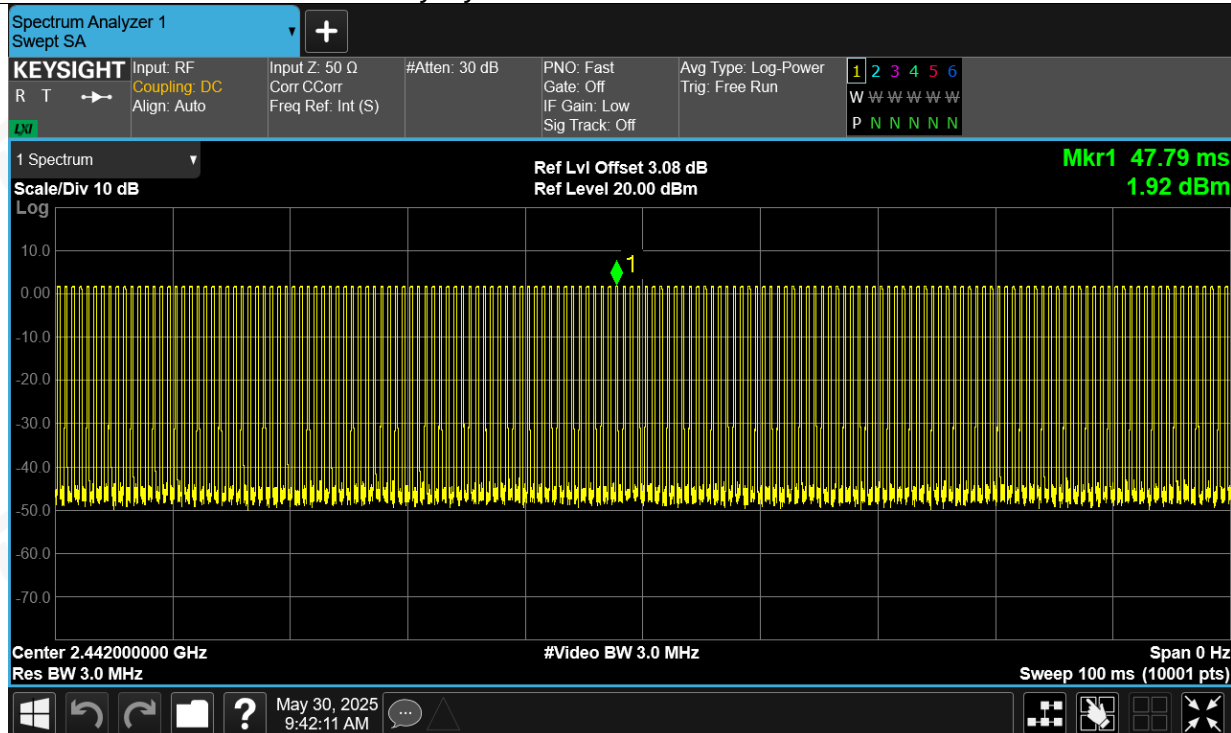


Test Graphs

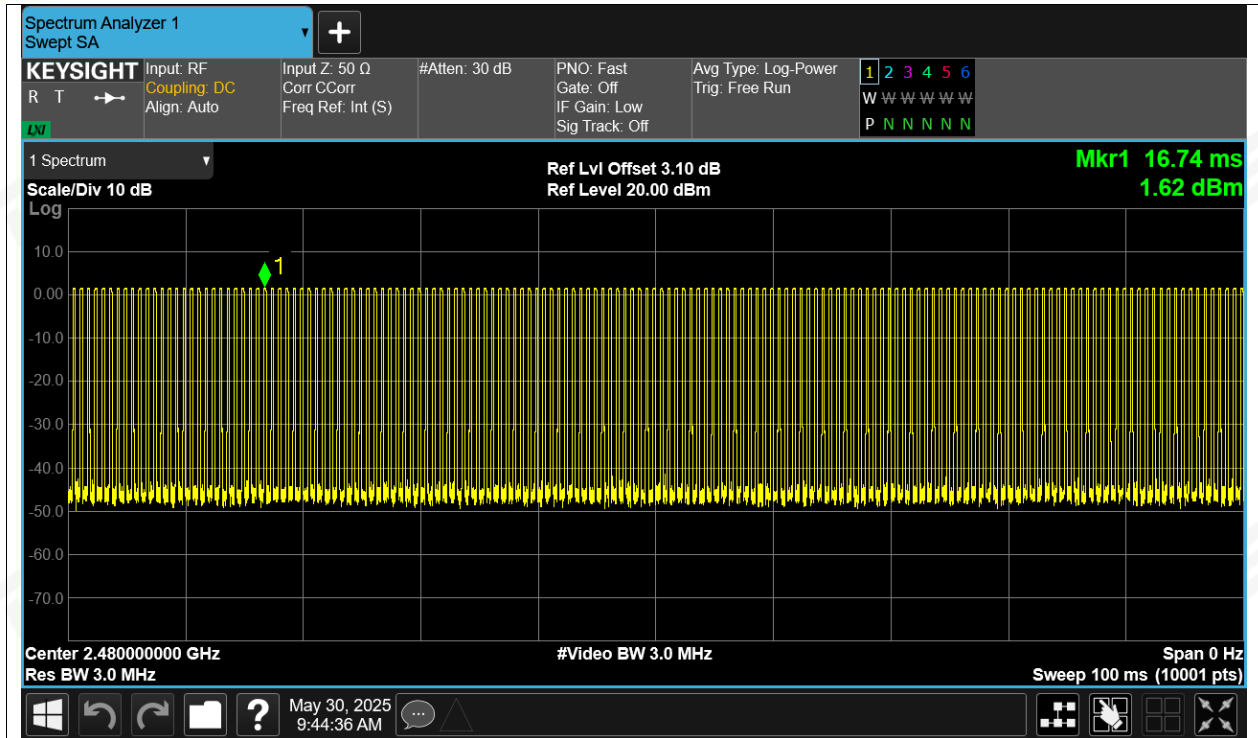
Duty Cycle NVNT BLE 2402MHz Ant1



Duty Cycle NVNT BLE 2442MHz Ant1



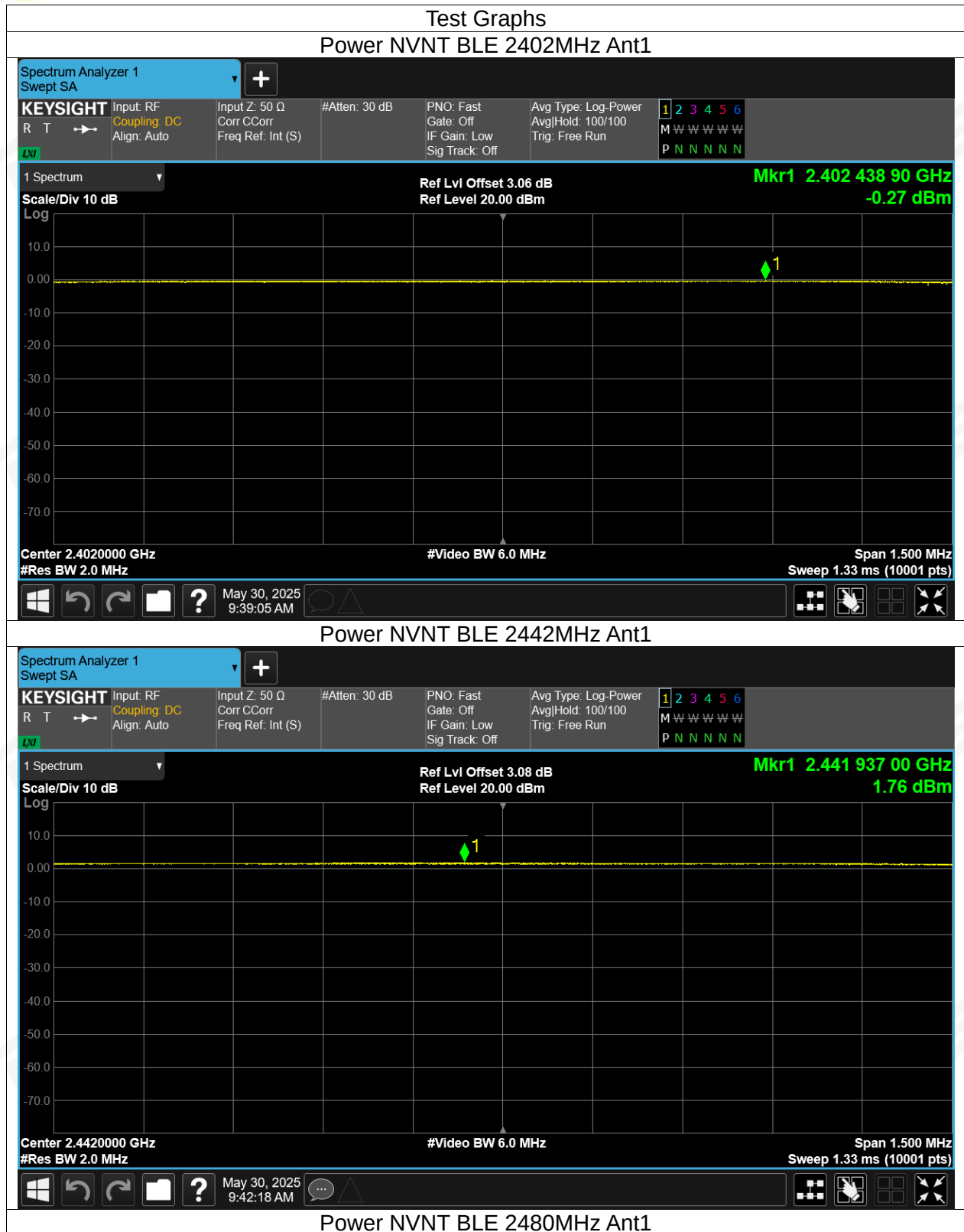
Duty Cycle NVNT BLE 2480MHz Ant1

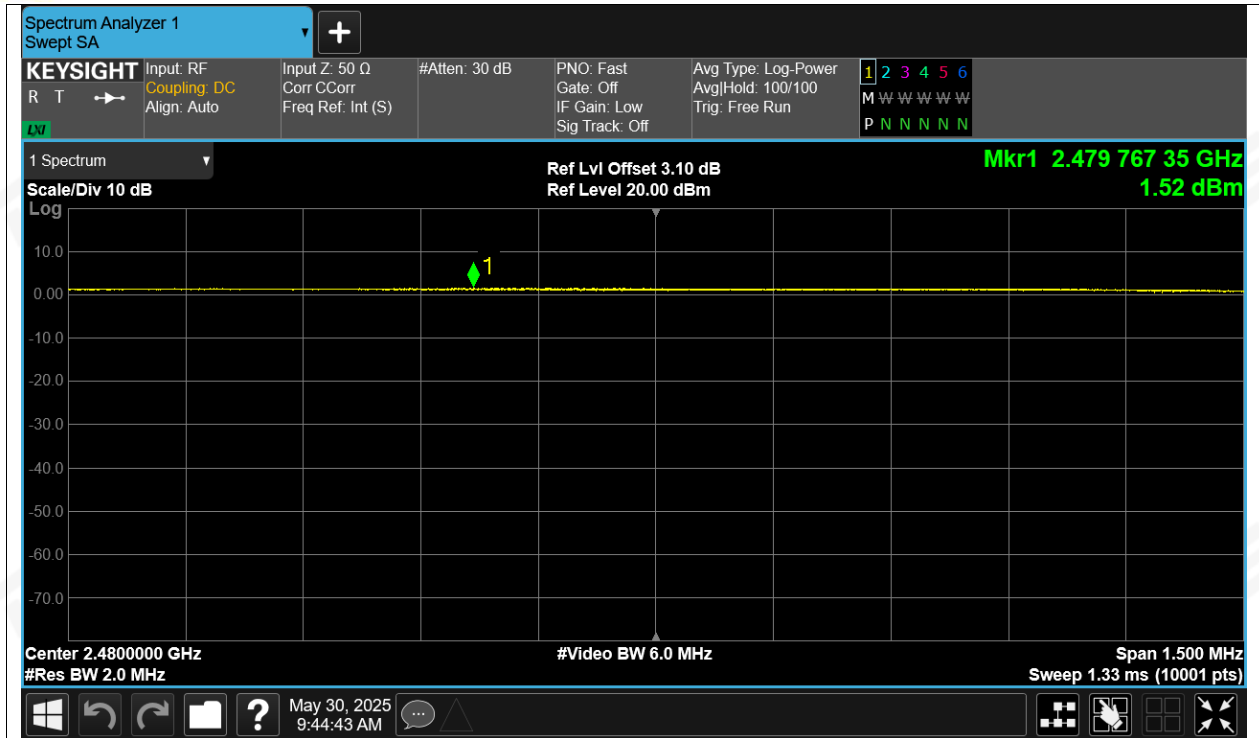




Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	BLE	2402	Ant1	-0.271	30	Pass
NVNT	BLE	2442	Ant1	1.762	30	Pass
NVNT	BLE	2480	Ant1	1.517	30	Pass







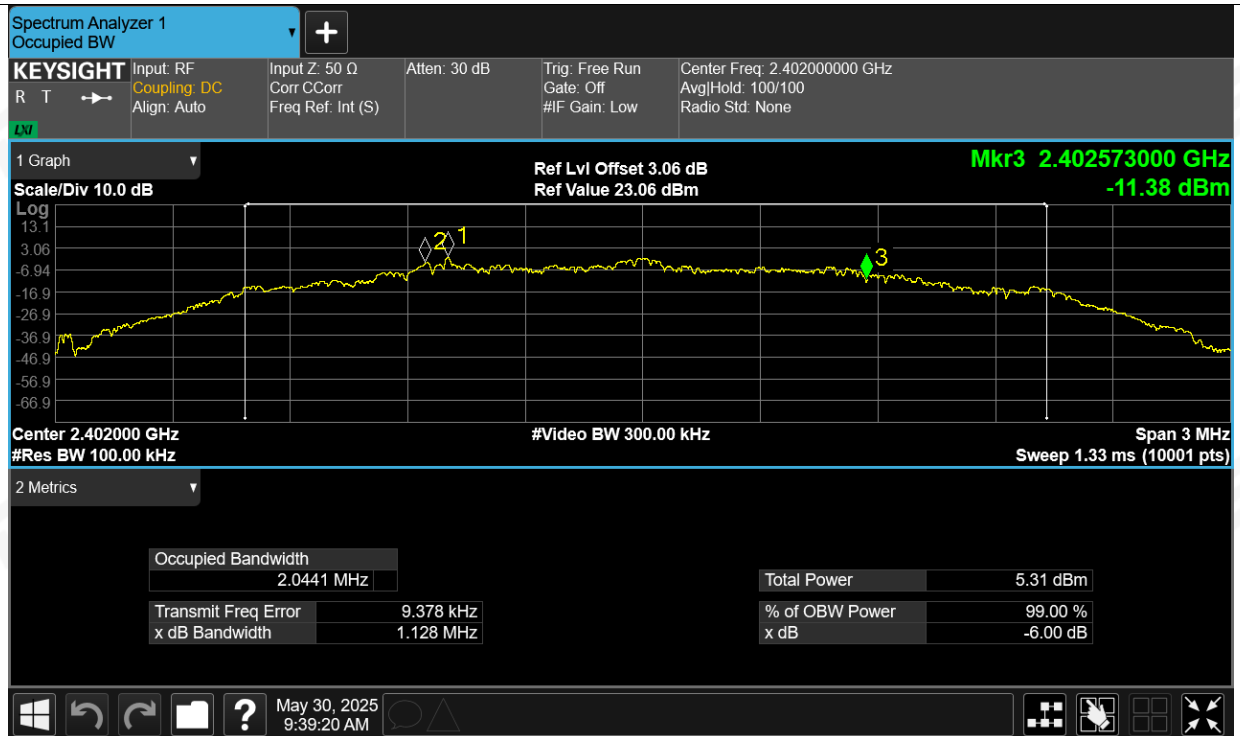
-6dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	limit (MHz)	Verdic
NVNT	BLE	2402	Ant1	1.128	0.5	Pass
NVNT	BLE	2442	Ant1	1.126	0.5	Pass
NVNT	BLE	2480	Ant1	1.123	0.5	Pass

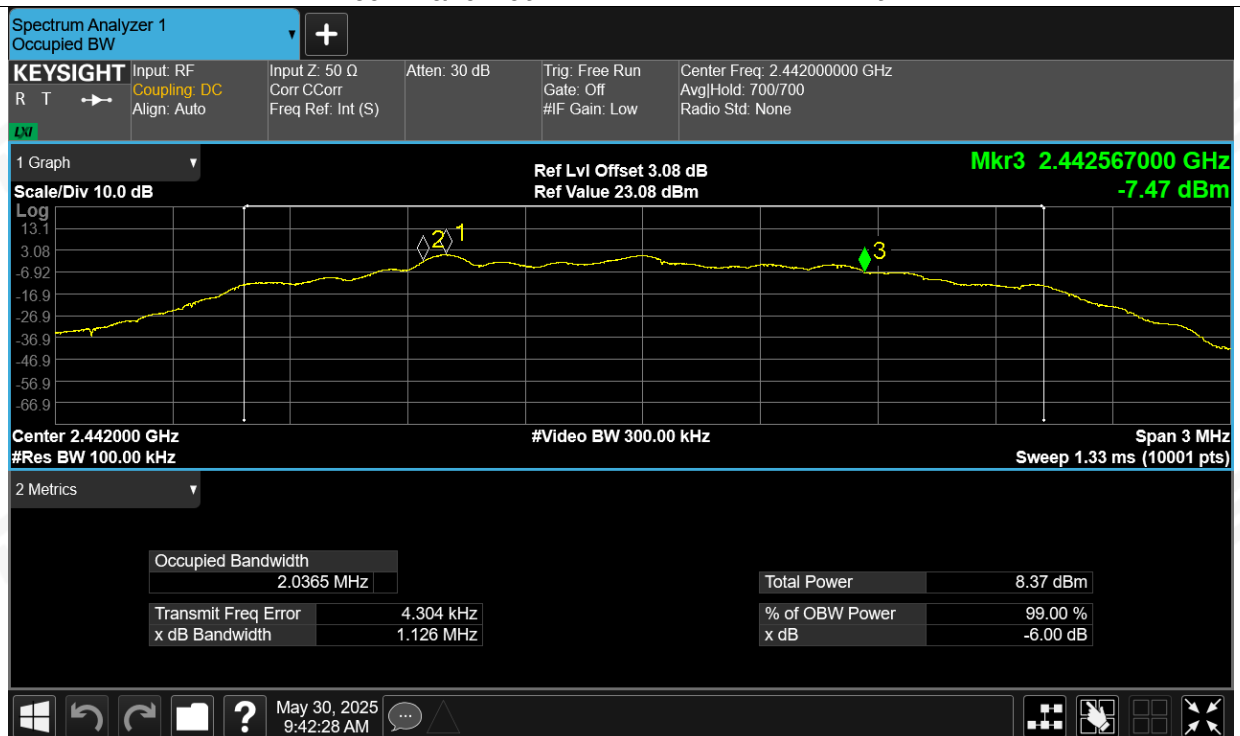


Test Graphs

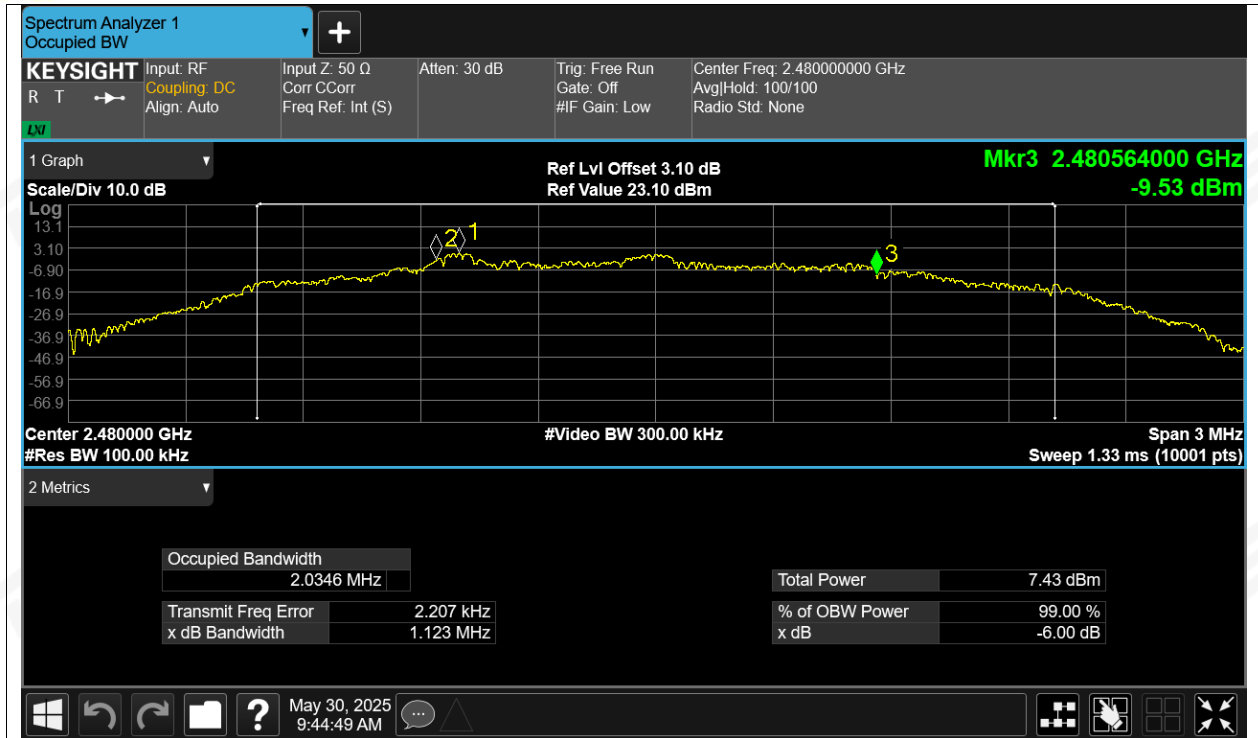
-6dB Bandwidth NVNT BLE 2402MHz Ant1



-6dB Bandwidth NVNT BLE 2442MHz Ant1



-6dB Bandwidth NVNT BLE 2480MHz Ant1

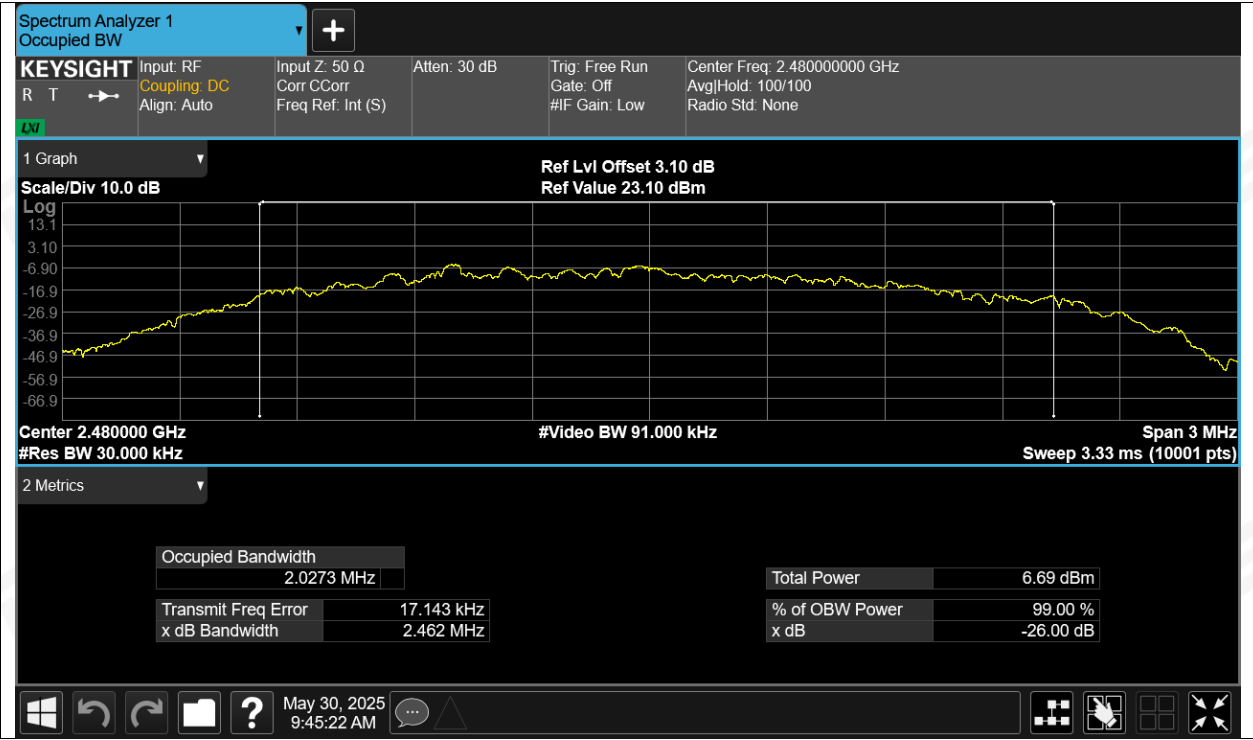




Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	BLE	2402	Ant1	2.028
NVNT	BLE	2442	Ant1	2.031
NVNT	BLE	2480	Ant1	2.027







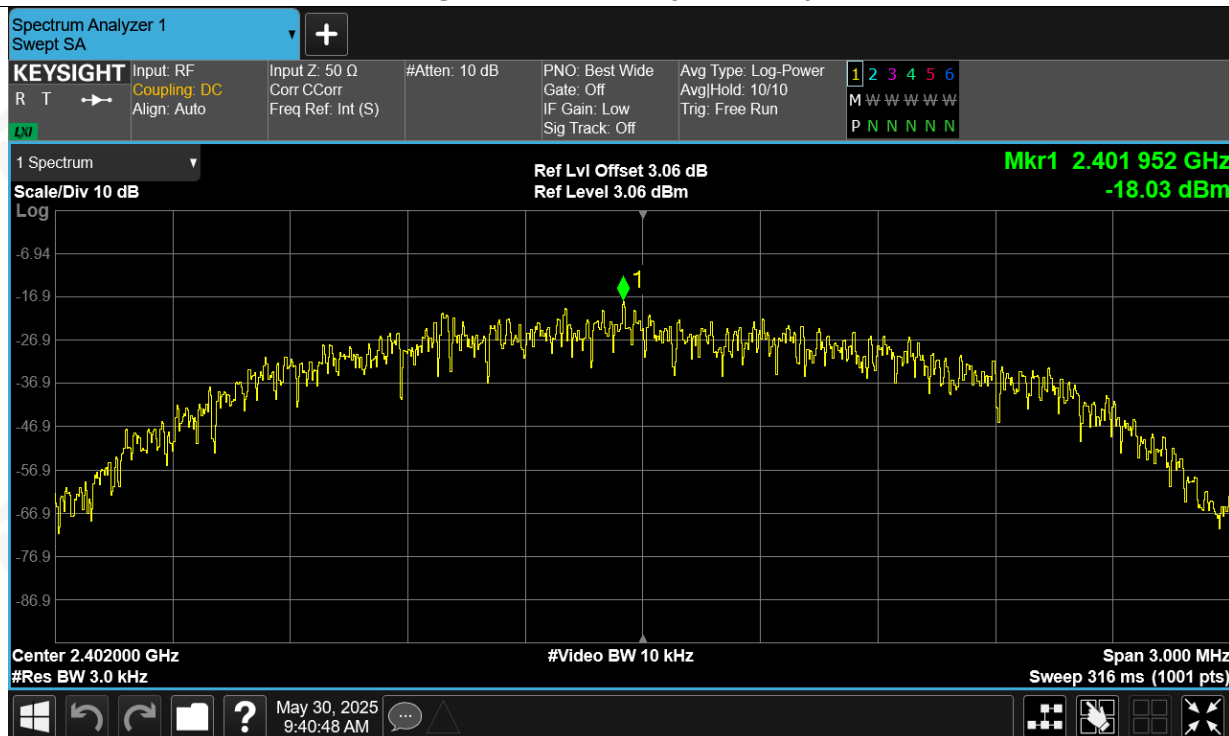
Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm/3KHz)	Limit(dBm/3KHz)	Verdict
NVNT	BLE	2402	Ant1	-18.032	8	Pass
NVNT	BLE	2442	Ant1	-16.382	8	Pass
NVNT	BLE	2480	Ant1	-16.183	8	Pass

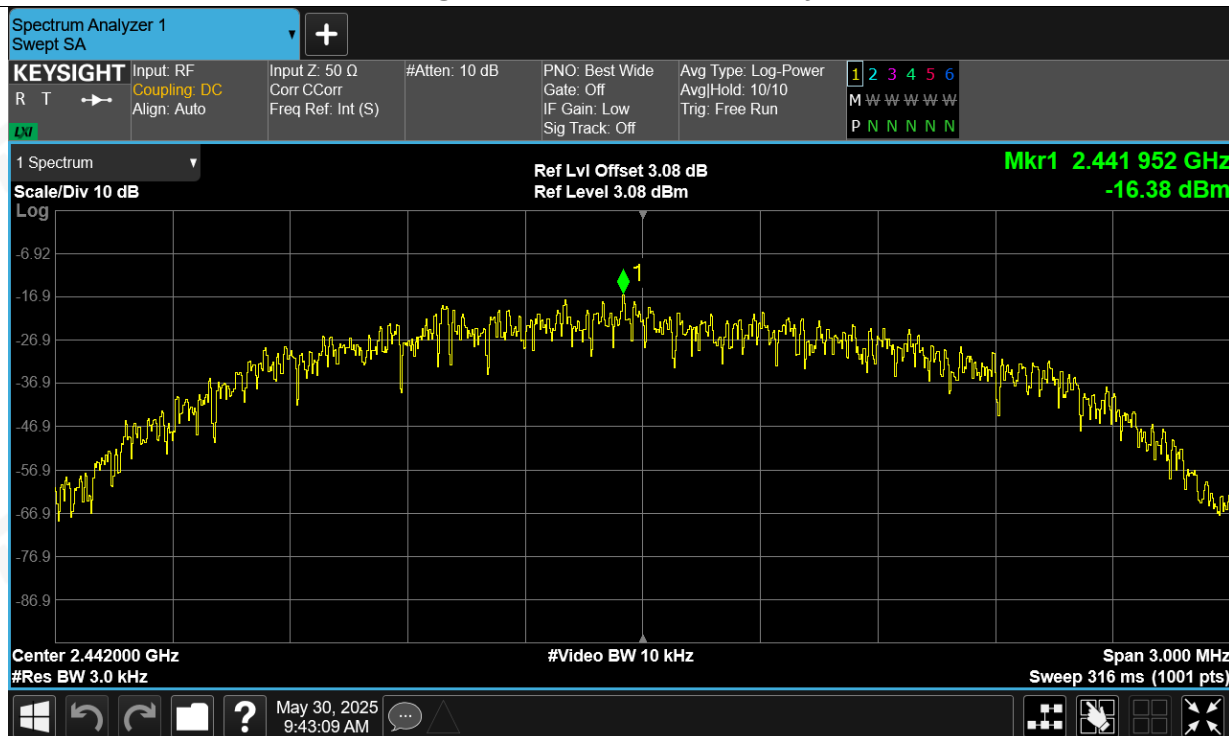


Test Graphs

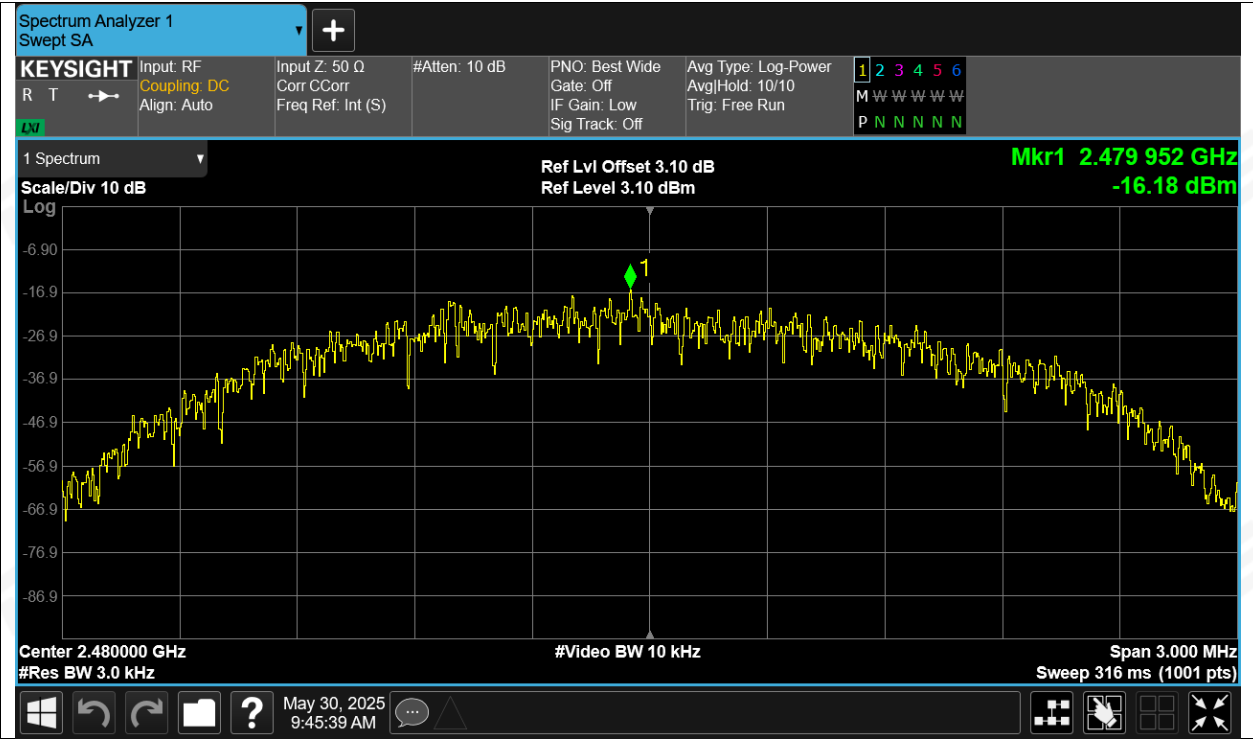
PSD NVNT BLE 2402MHz Ant1



PSD NVNT BLE 2442MHz Ant1



PSD NVNT BLE 2480MHz Ant1





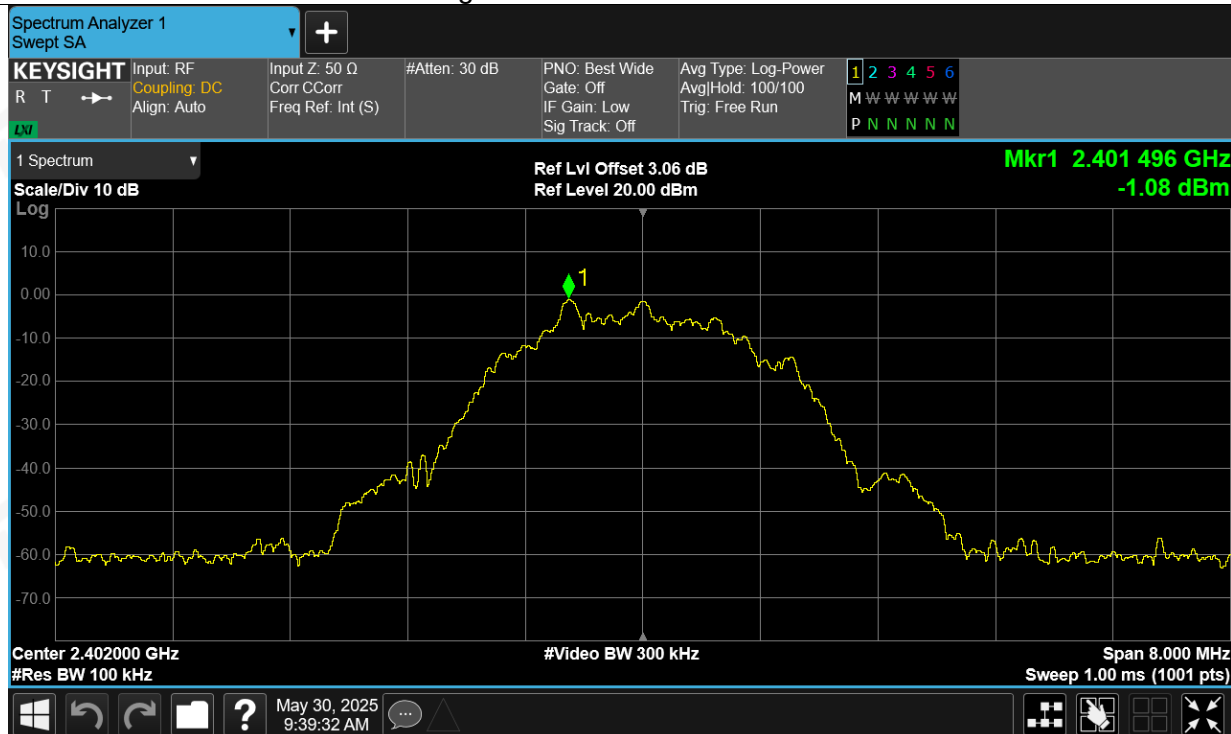
Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE	2402	Ant1	-55.43	-20	Pass
NVNT	BLE	2480	Ant1	-57.33	-20	Pass

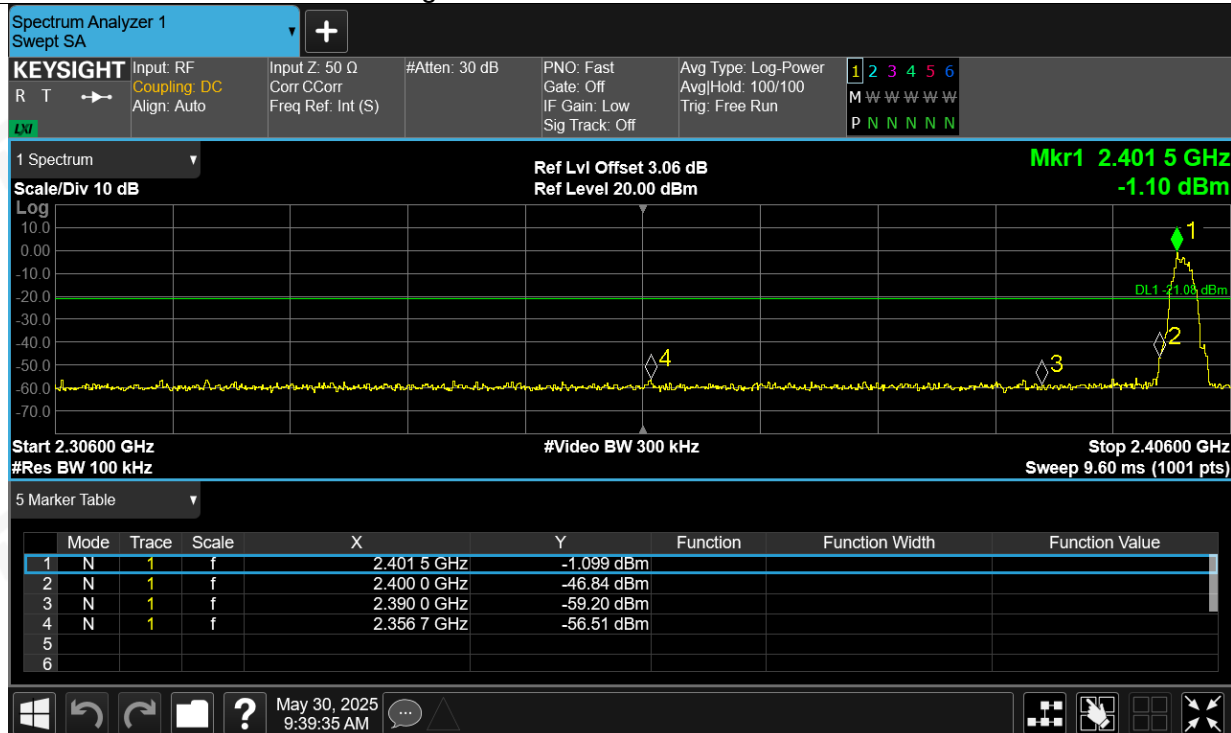


Test Graphs

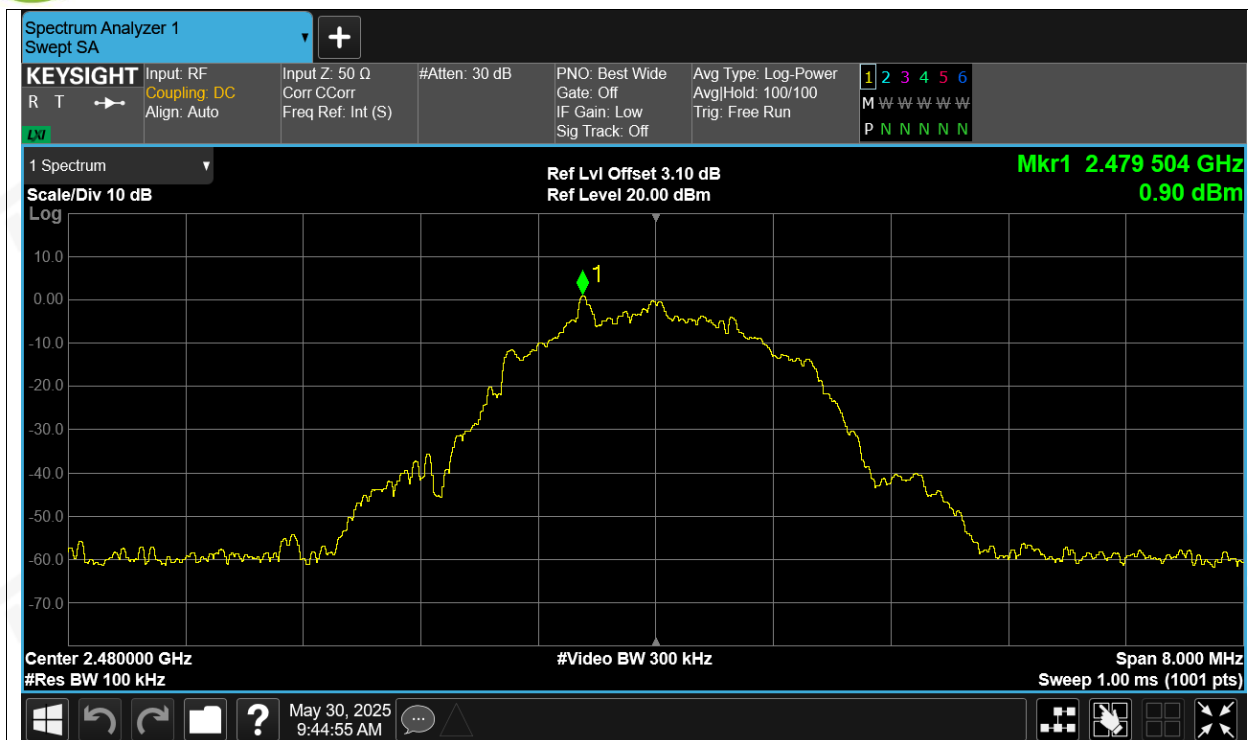
Band Edge NVNT BLE 2402MHz Ant1 Ref



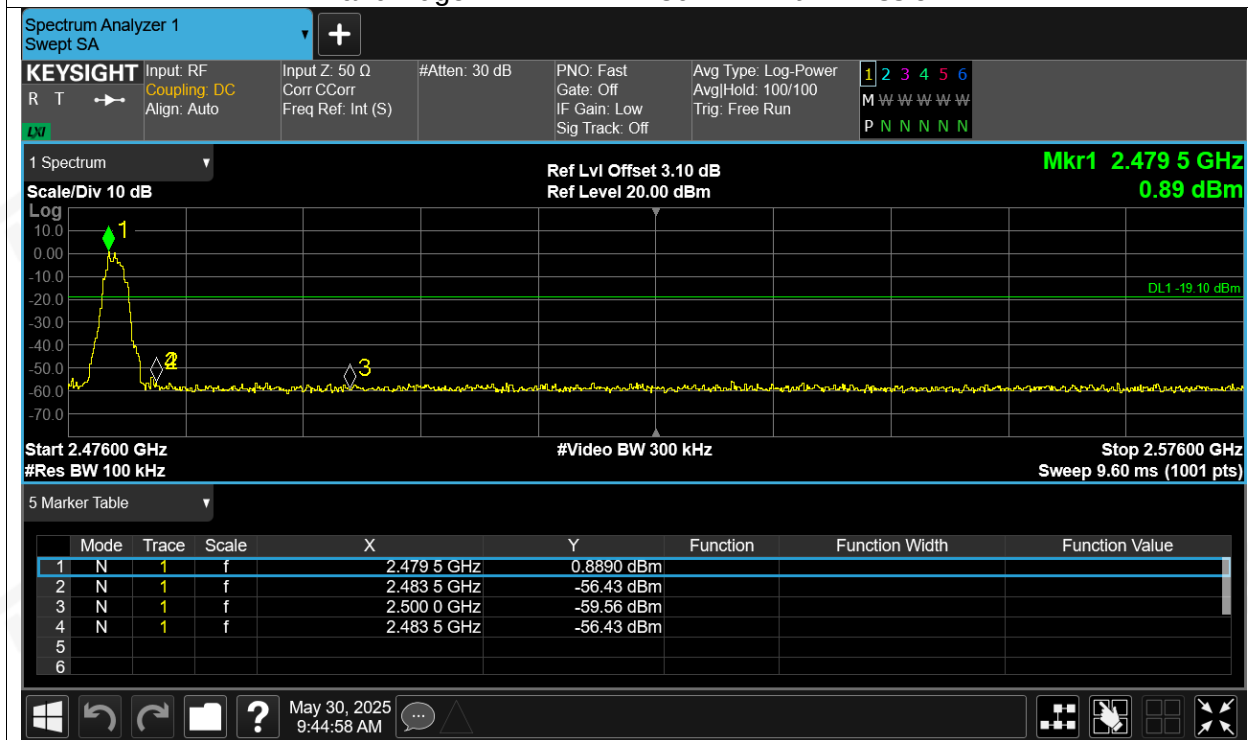
Band Edge NVNT BLE 2402MHz Ant1 Emission



Band Edge NVNT BLE 2480MHz Ant1 Ref



Band Edge NVNT BLE 2480MHz Ant1 Emission





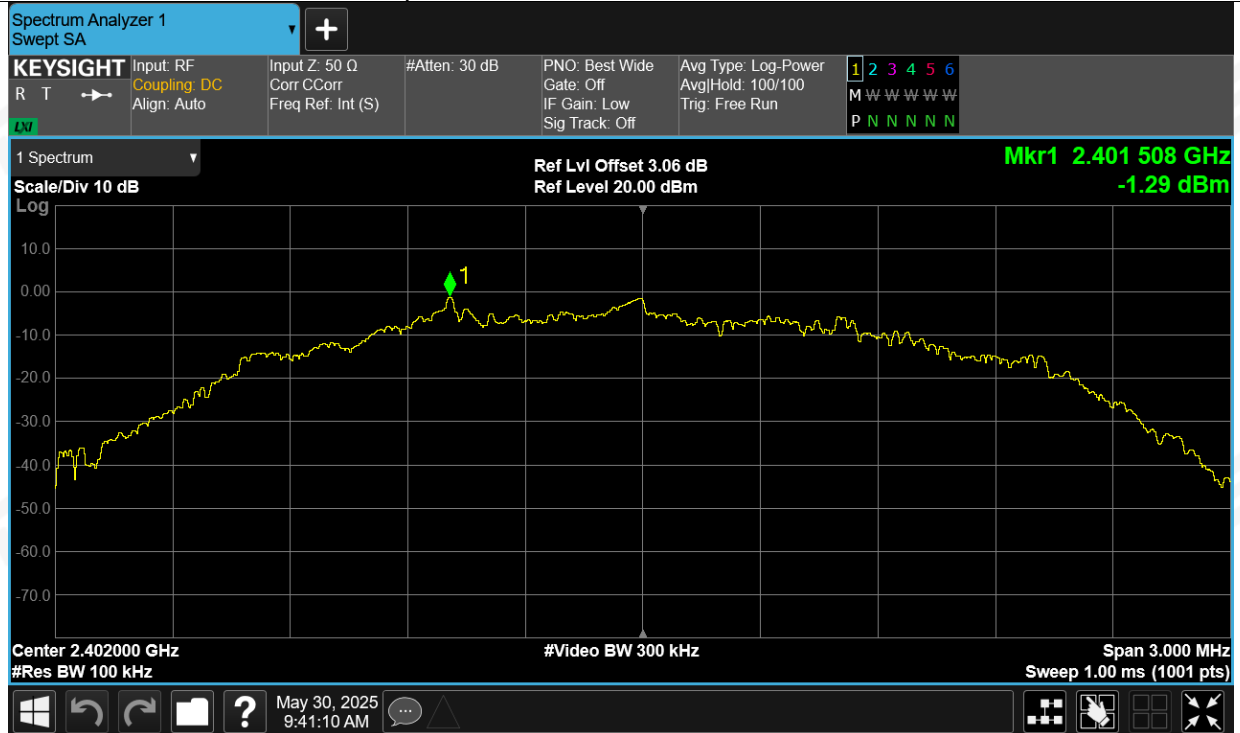
Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE	2402	Ant1	-46.89	-20	Pass
NVNT	BLE	2442	Ant1	-48.54	-20	Pass
NVNT	BLE	2480	Ant1	-48.86	-20	Pass

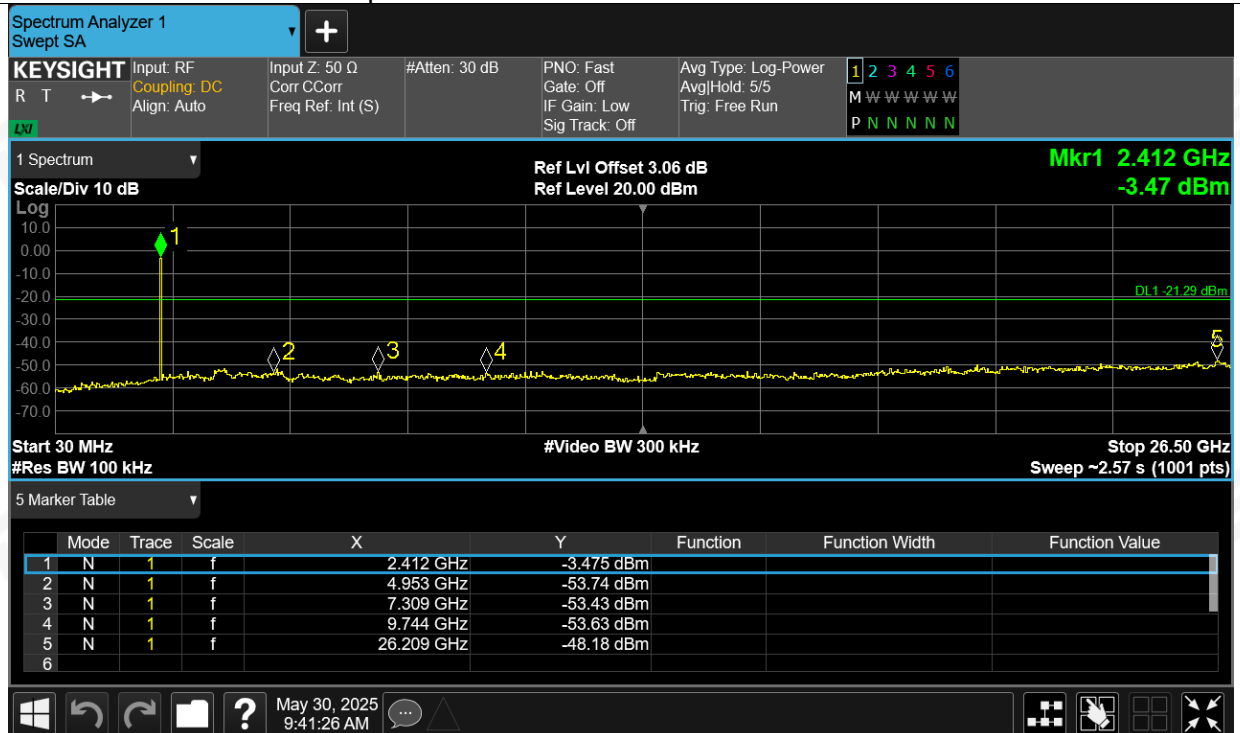


Test Graphs

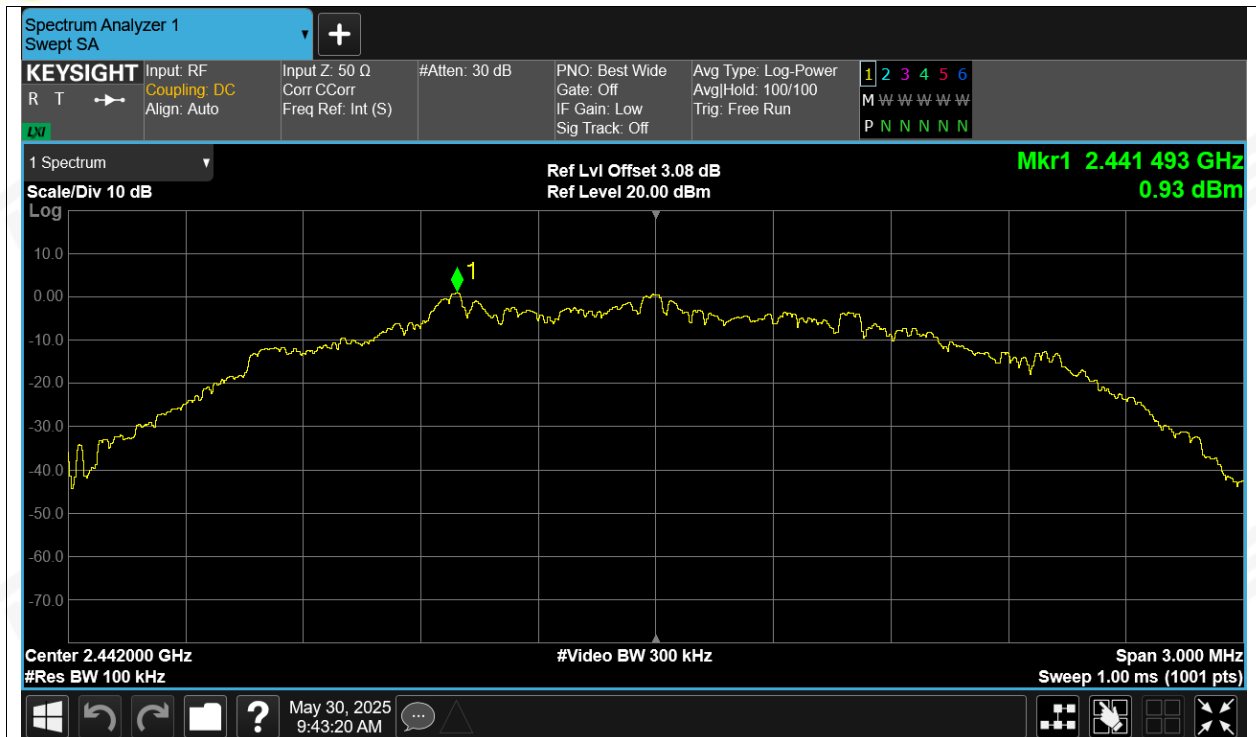
Tx. Spurious NVNT BLE 2402MHz Ant1 Ref



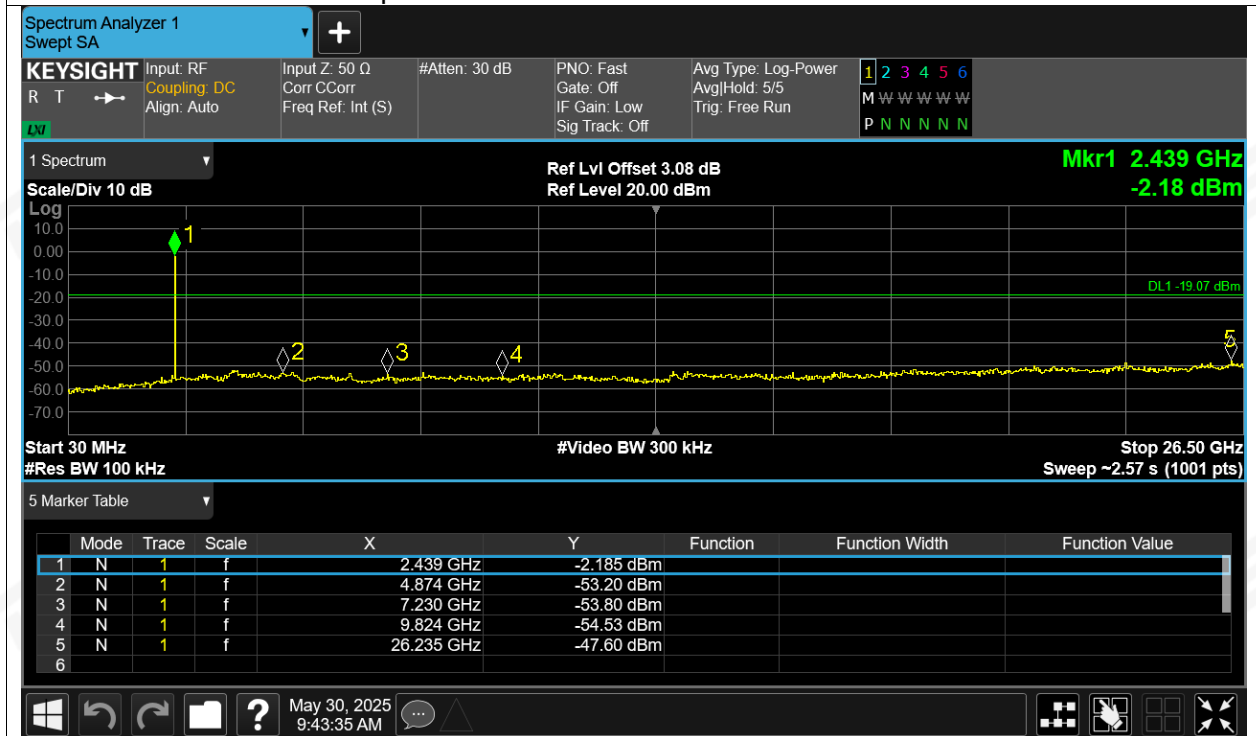
Tx. Spurious NVNT BLE 2402MHz Ant1 Emission



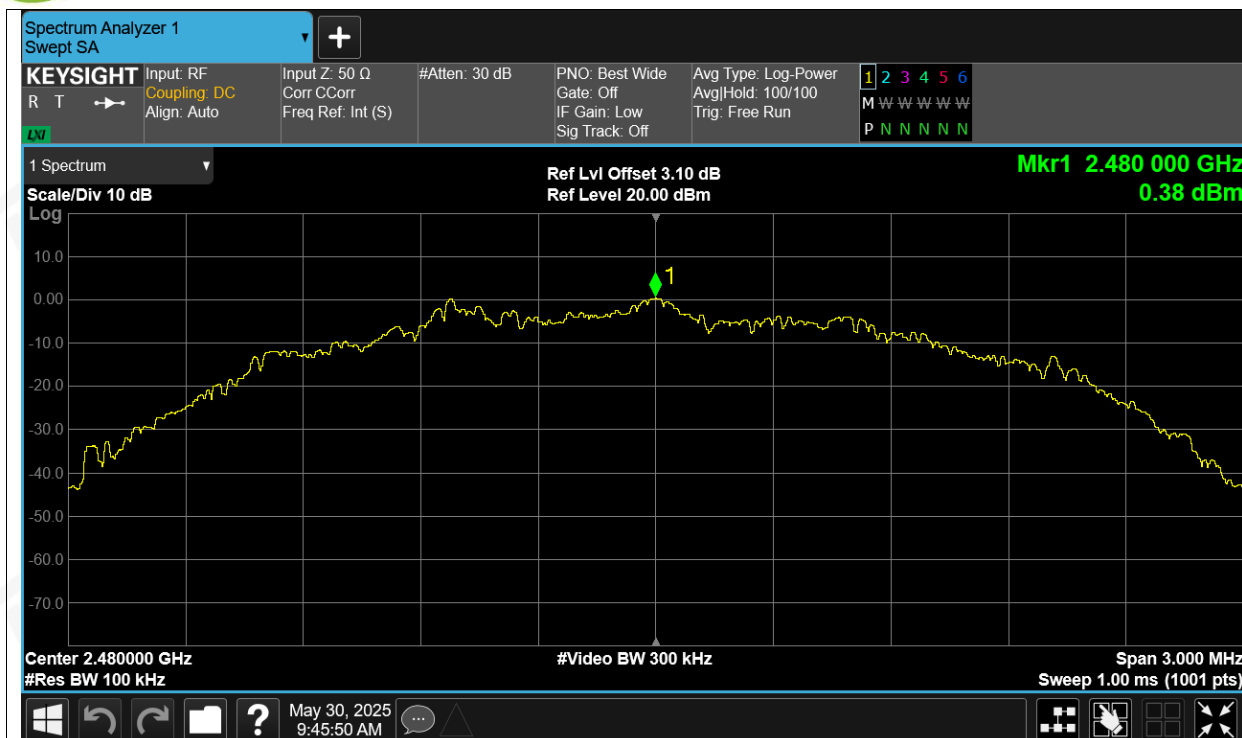
Tx. Spurious NVNT BLE 2442MHz Ant1 Ref



Tx. Spurious NVNT BLE 2442MHz Ant1 Emission



Tx. Spurious NVNT BLE 2480MHz Ant1 Ref



Tx. Spurious NVNT BLE 2480MHz Ant1 Emission

