

Appendix B: Test Results of Bluetooth BR & EDR (Module B)

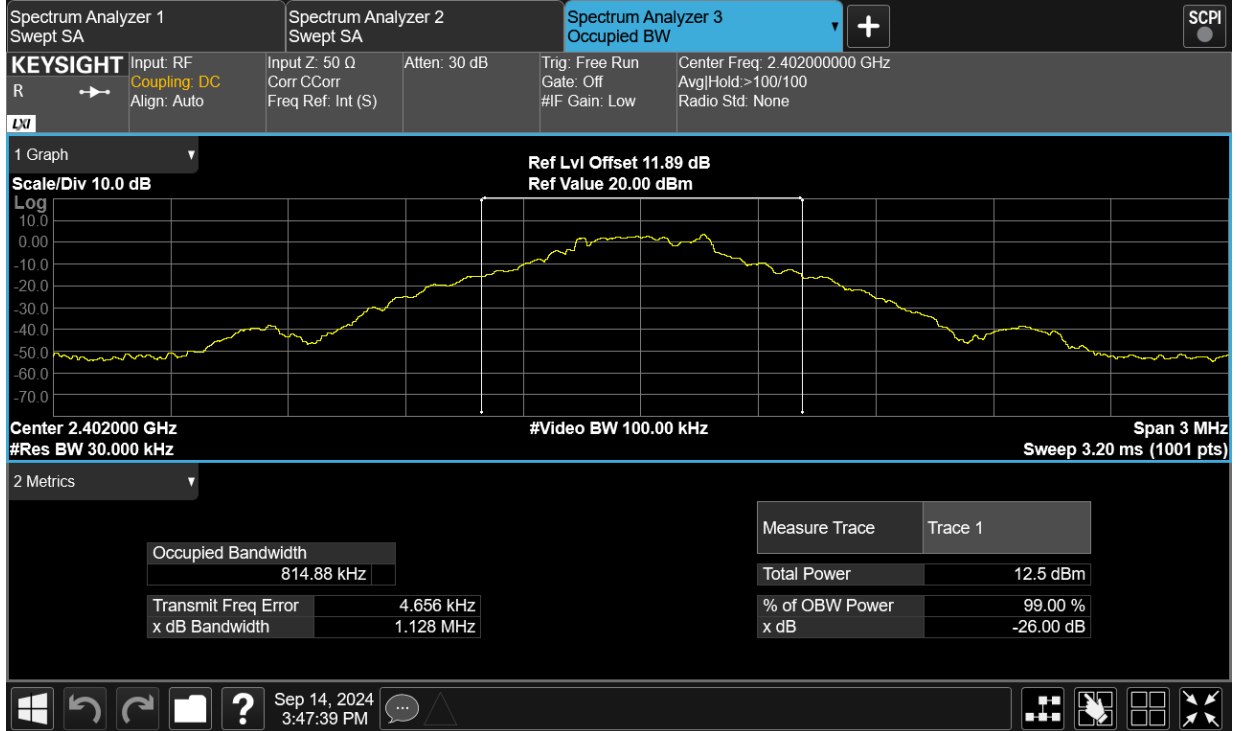
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Appendix B.1: Test Results of 99% Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH5	2402	Ant1	0.81488
NVNT	1-DH5	2441	Ant1	0.81387
NVNT	1-DH5	2480	Ant1	0.83282
NVNT	2-DH5	2402	Ant1	1.1661
NVNT	2-DH5	2441	Ant1	1.1669
NVNT	2-DH5	2480	Ant1	1.1662
NVNT	3-DH5	2402	Ant1	1.1764
NVNT	3-DH5	2441	Ant1	1.1726
NVNT	3-DH5	2480	Ant1	1.1716

Test Graphs

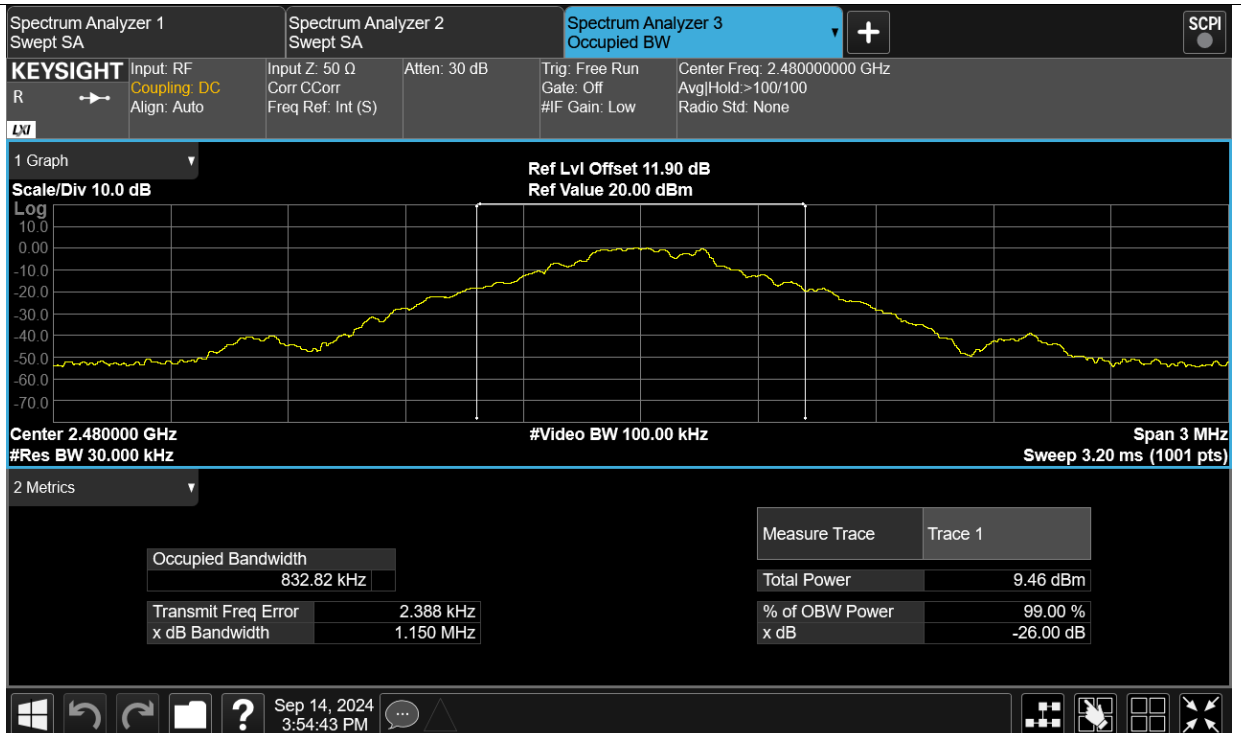
OBW NVNT 1-DH5 2402MHz Ant1



OBW NVNT 1-DH5 2441MHz Ant1



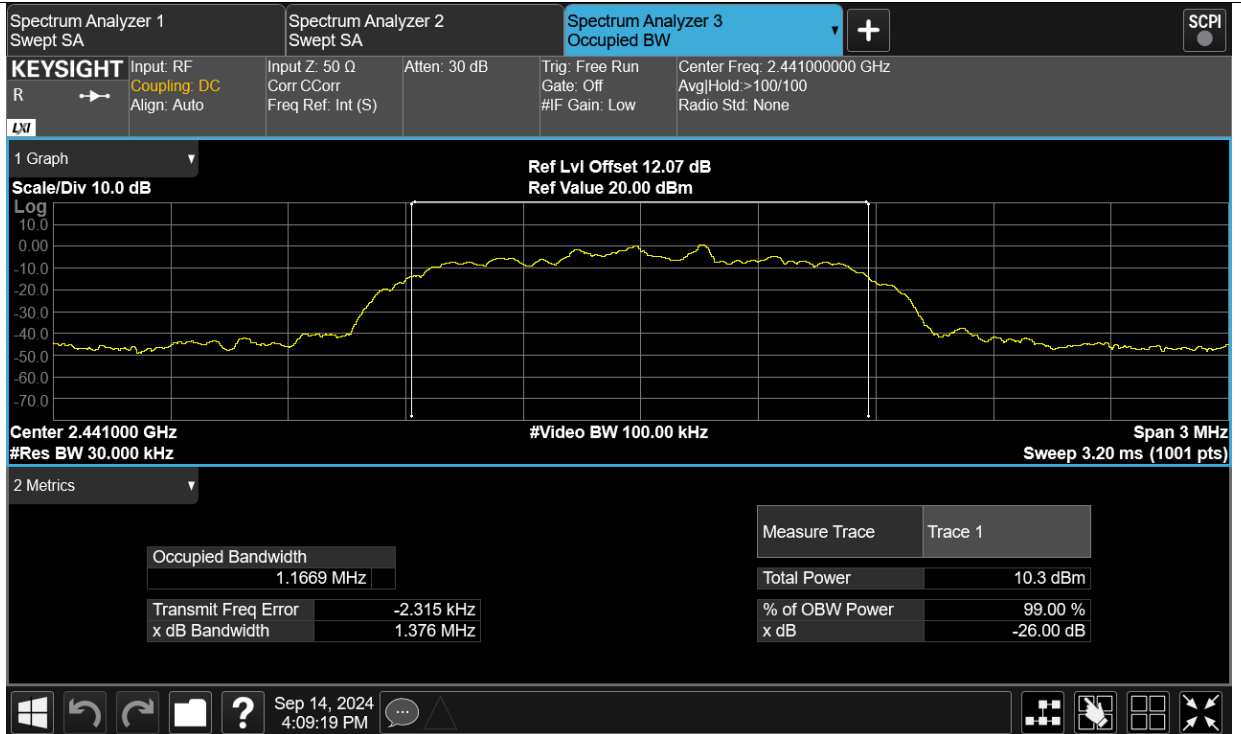
OBW NVNT 1-DH5 2480MHz Ant1



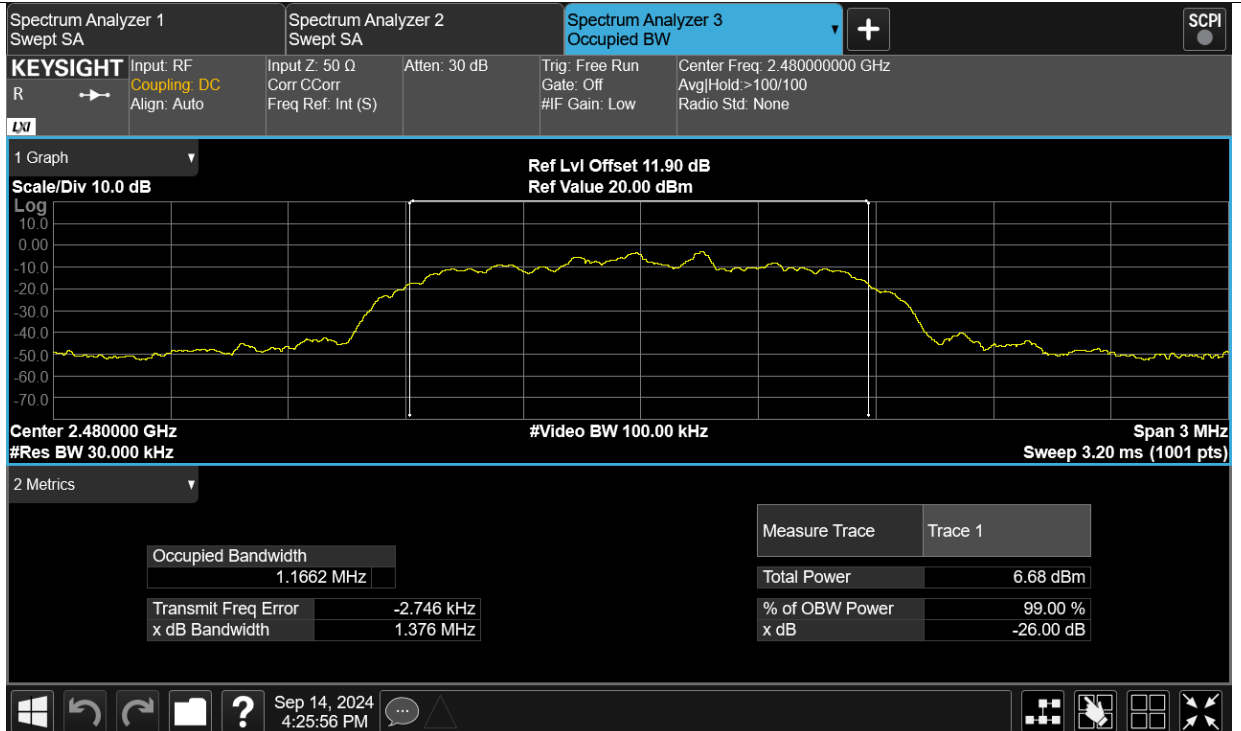
OBW NVNT 2-DH5 2402MHz Ant1

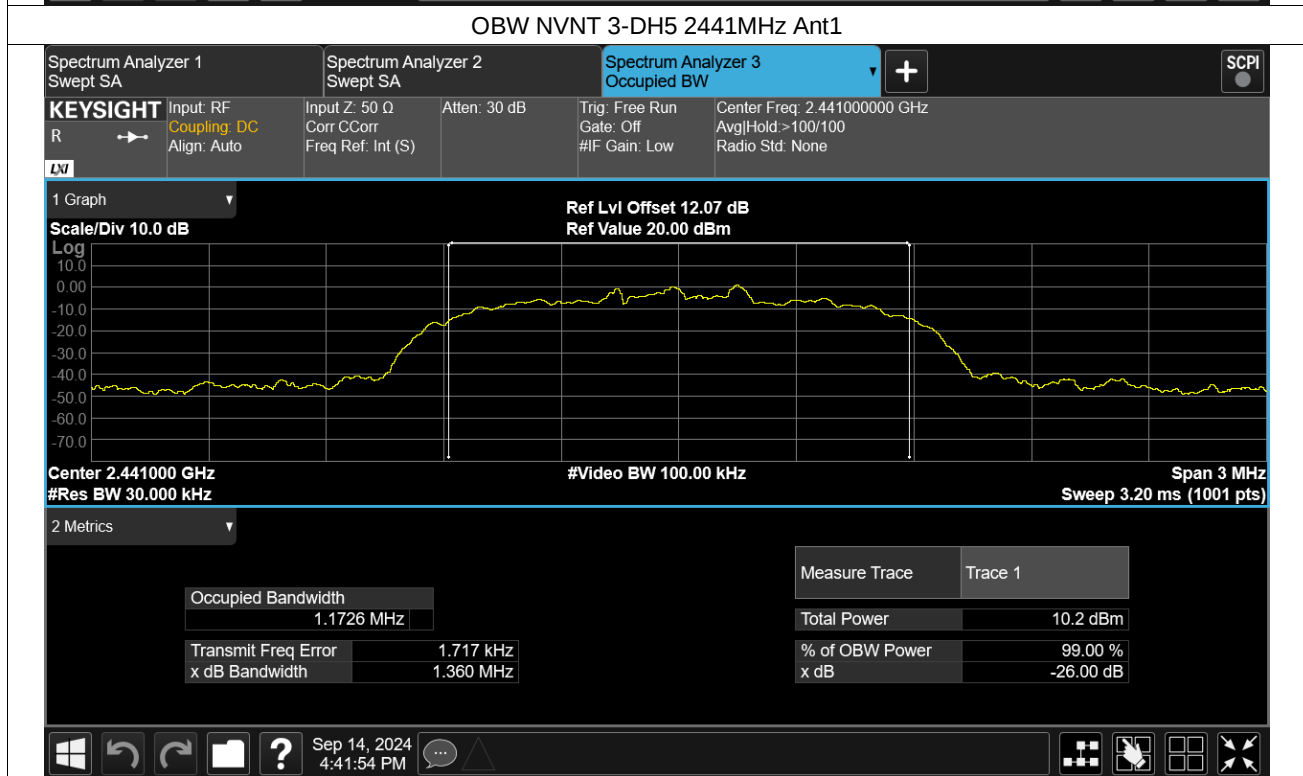
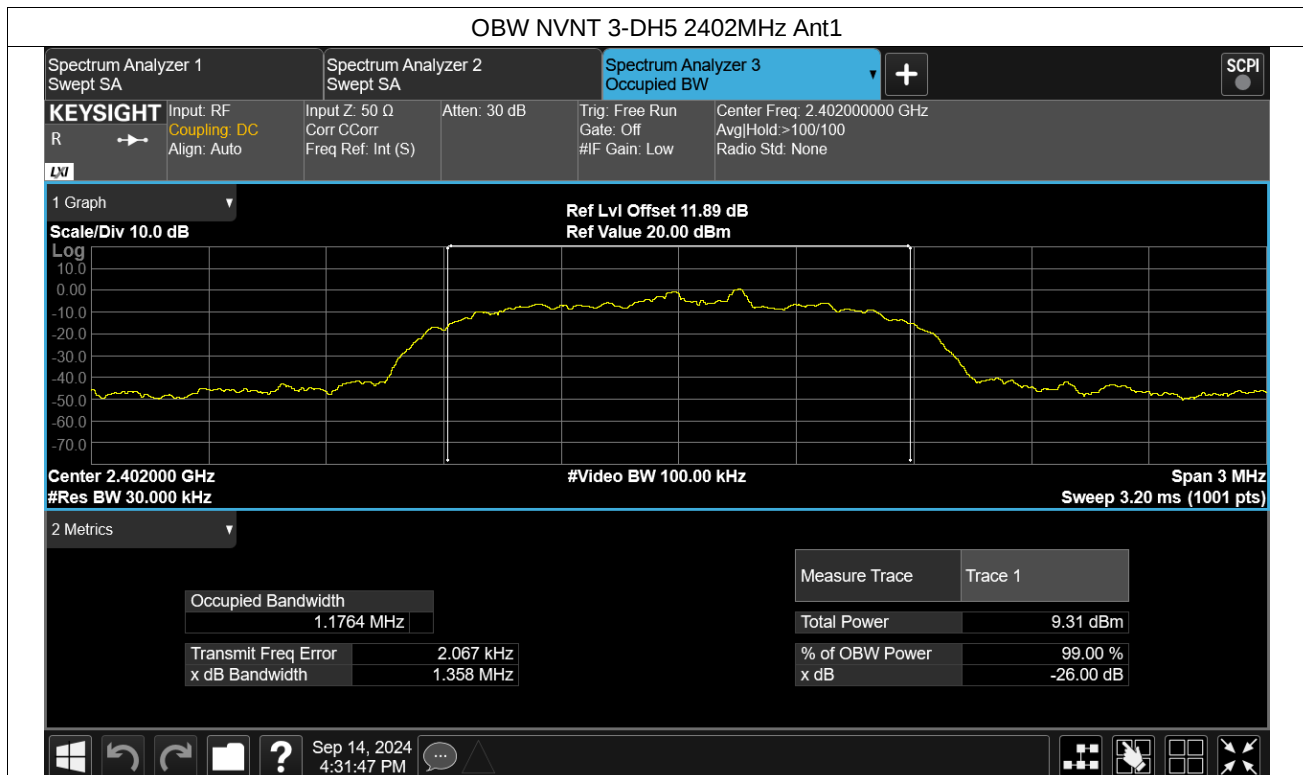


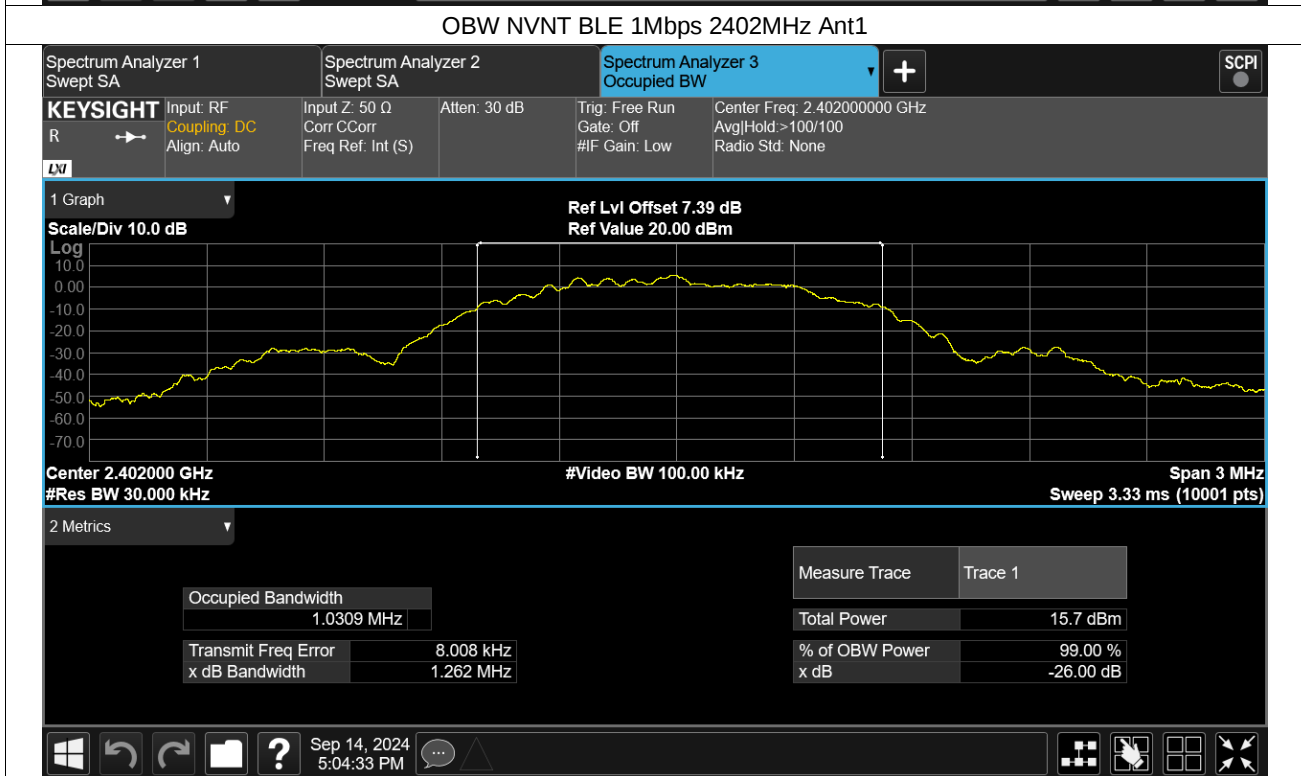
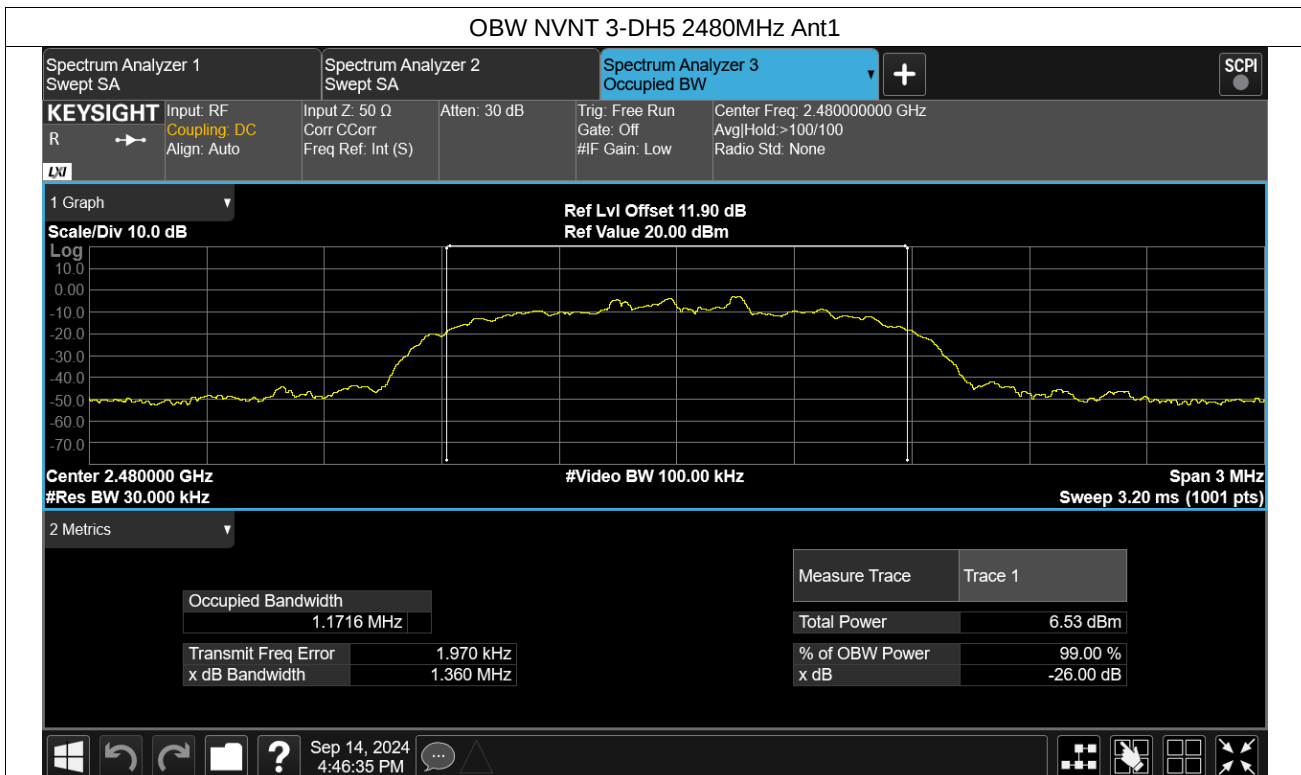
OBW NVNT 2-DH5 2441MHz Ant1



OBW NVNT 2-DH5 2480MHz Ant1





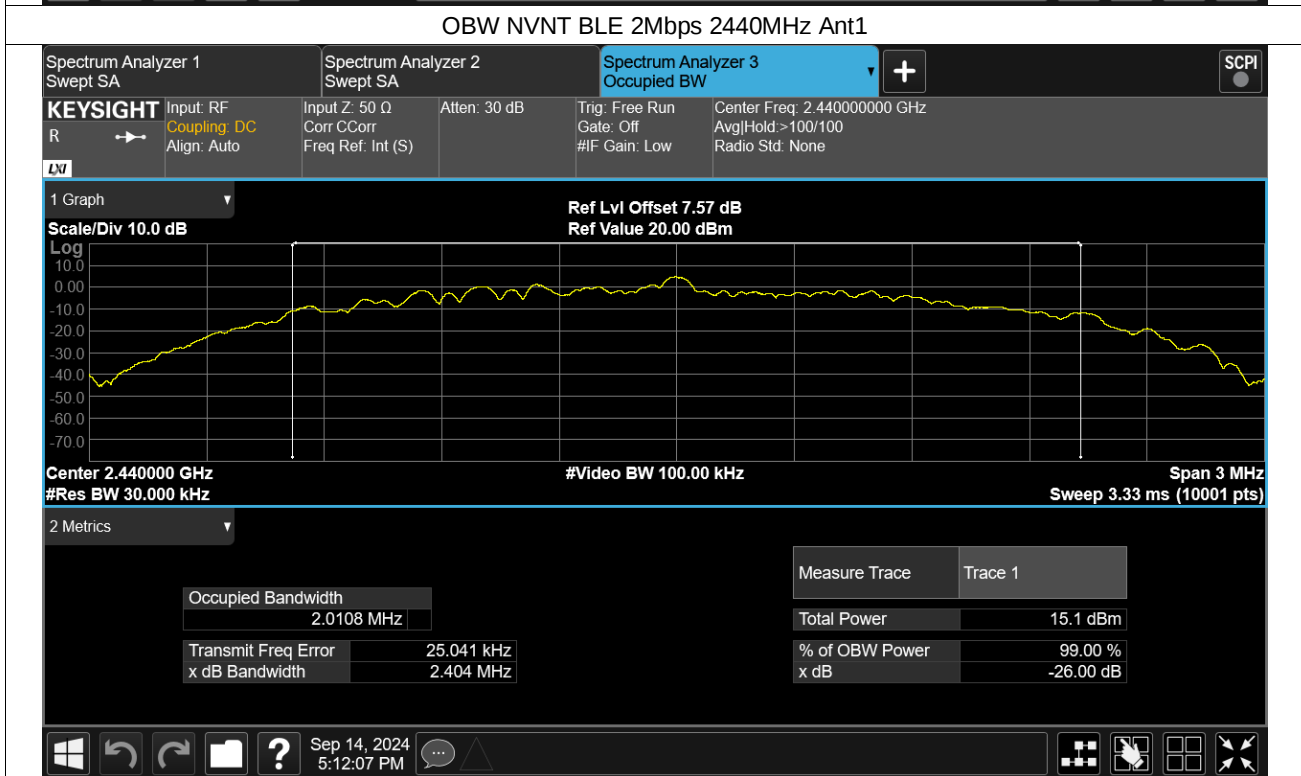
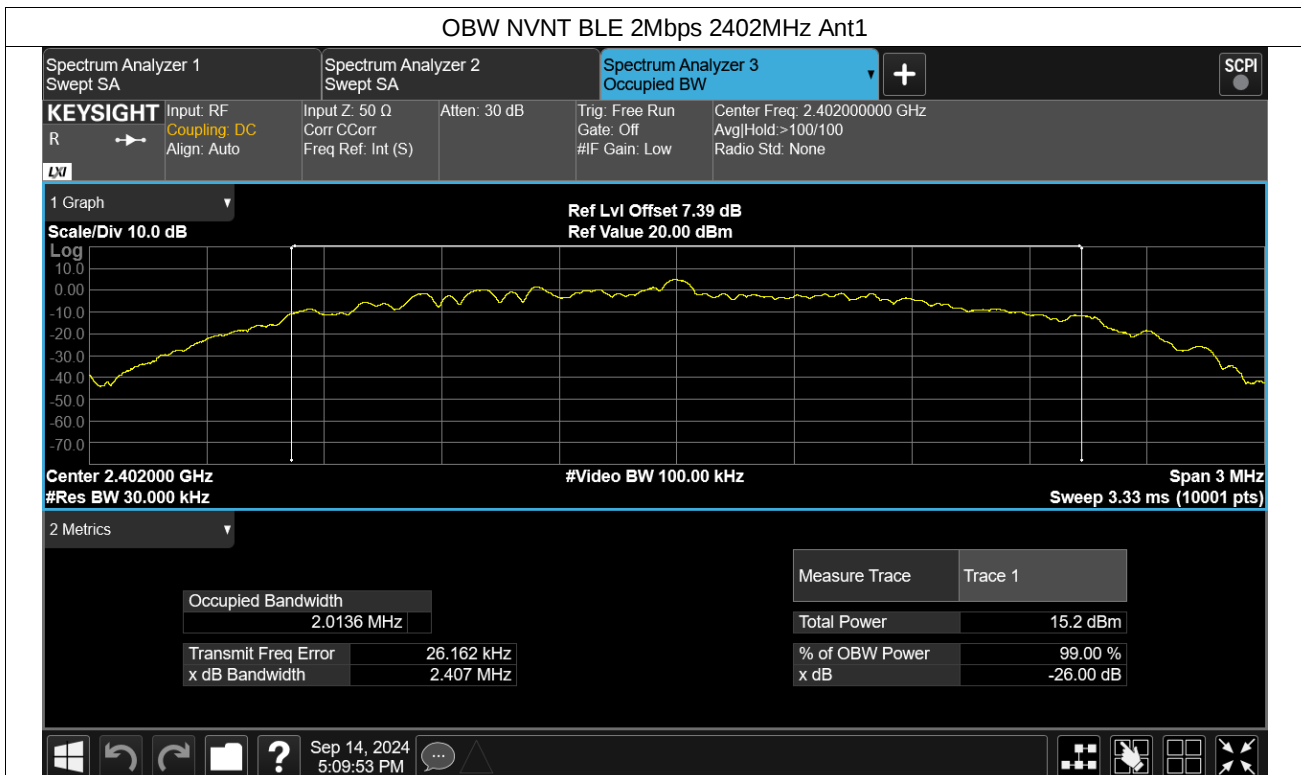


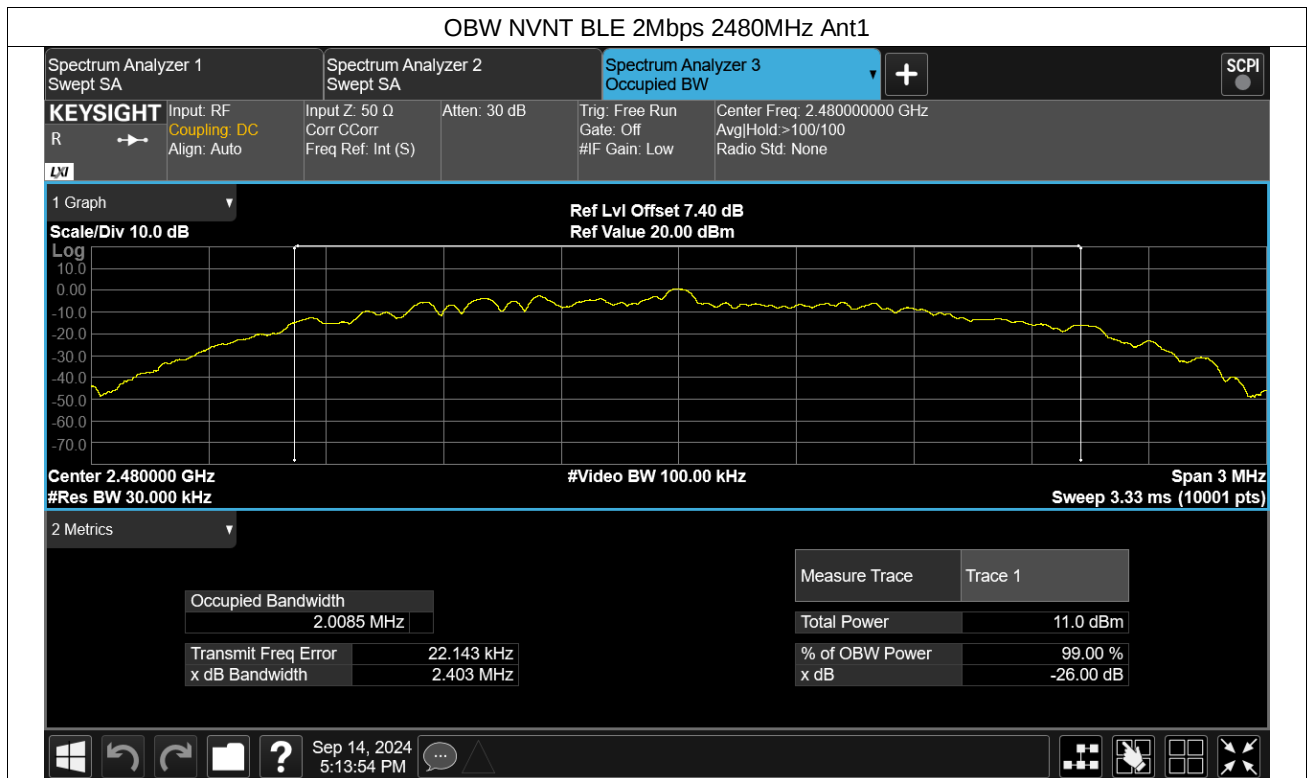
OBW NVNT BLE 1Mbps 2440MHz Ant1



OBW NVNT BLE 1Mbps 2480MHz Ant1





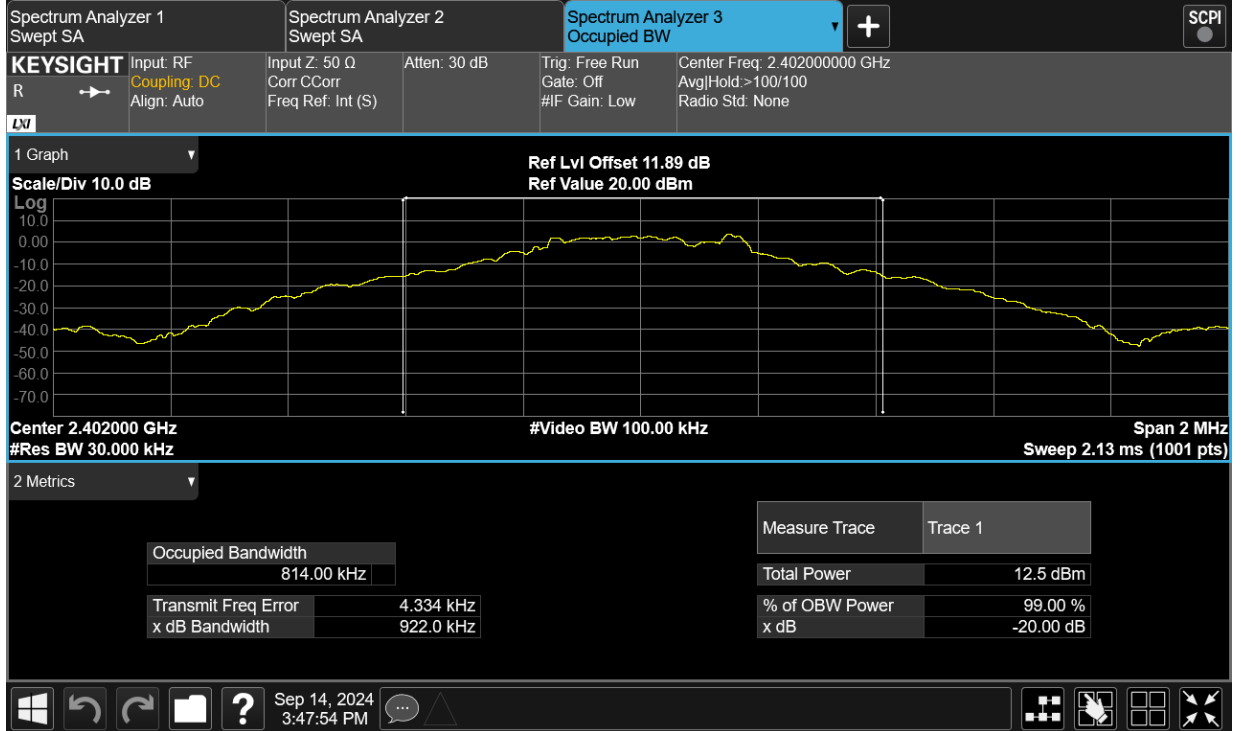


Appendix B.2: Test Results of 20dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH5	2402	Ant1	0.922	0	Pass
NVNT	1-DH5	2441	Ant1	0.923	0	Pass
NVNT	1-DH5	2480	Ant1	0.929	0	Pass
NVNT	2-DH5	2402	Ant1	1.283	0	Pass
NVNT	2-DH5	2441	Ant1	1.316	0	Pass
NVNT	2-DH5	2480	Ant1	1.285	0	Pass
NVNT	3-DH5	2402	Ant1	1.291	0	Pass
NVNT	3-DH5	2441	Ant1	1.292	0	Pass
NVNT	3-DH5	2480	Ant1	1.293	0	Pass

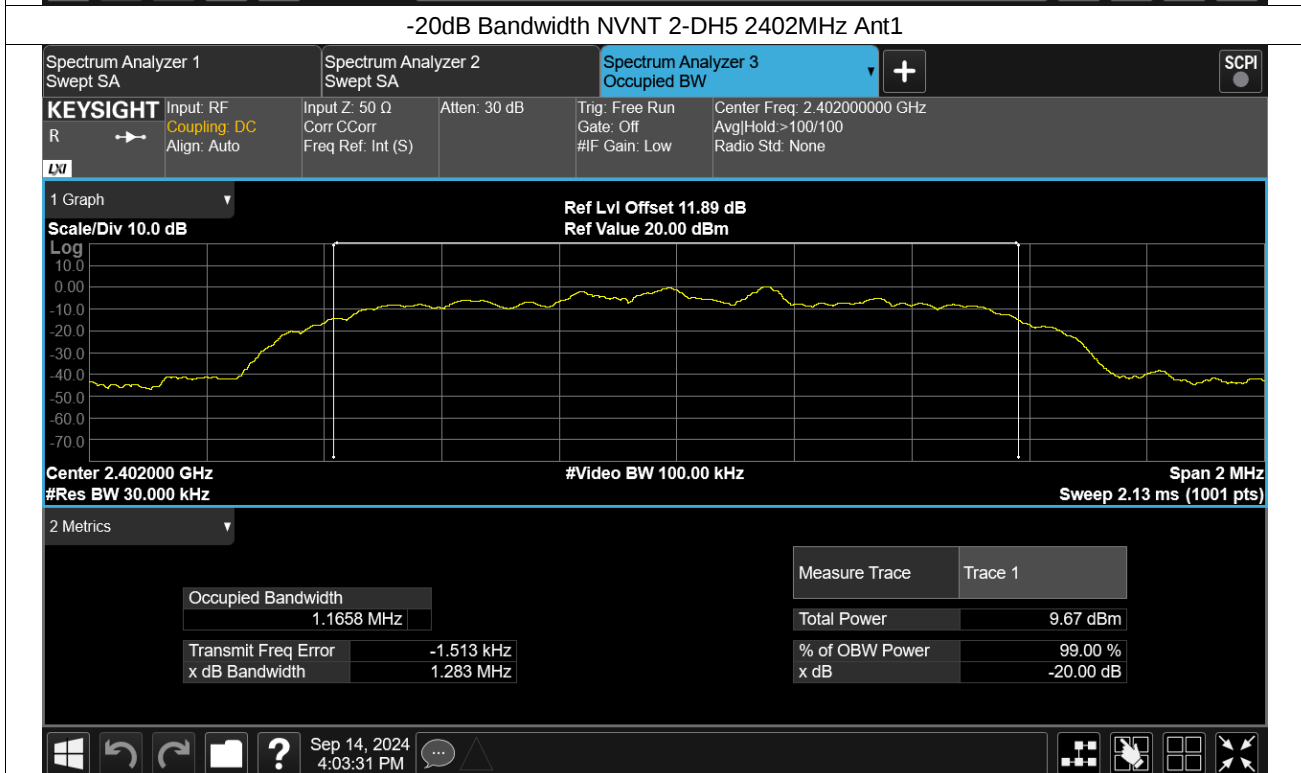
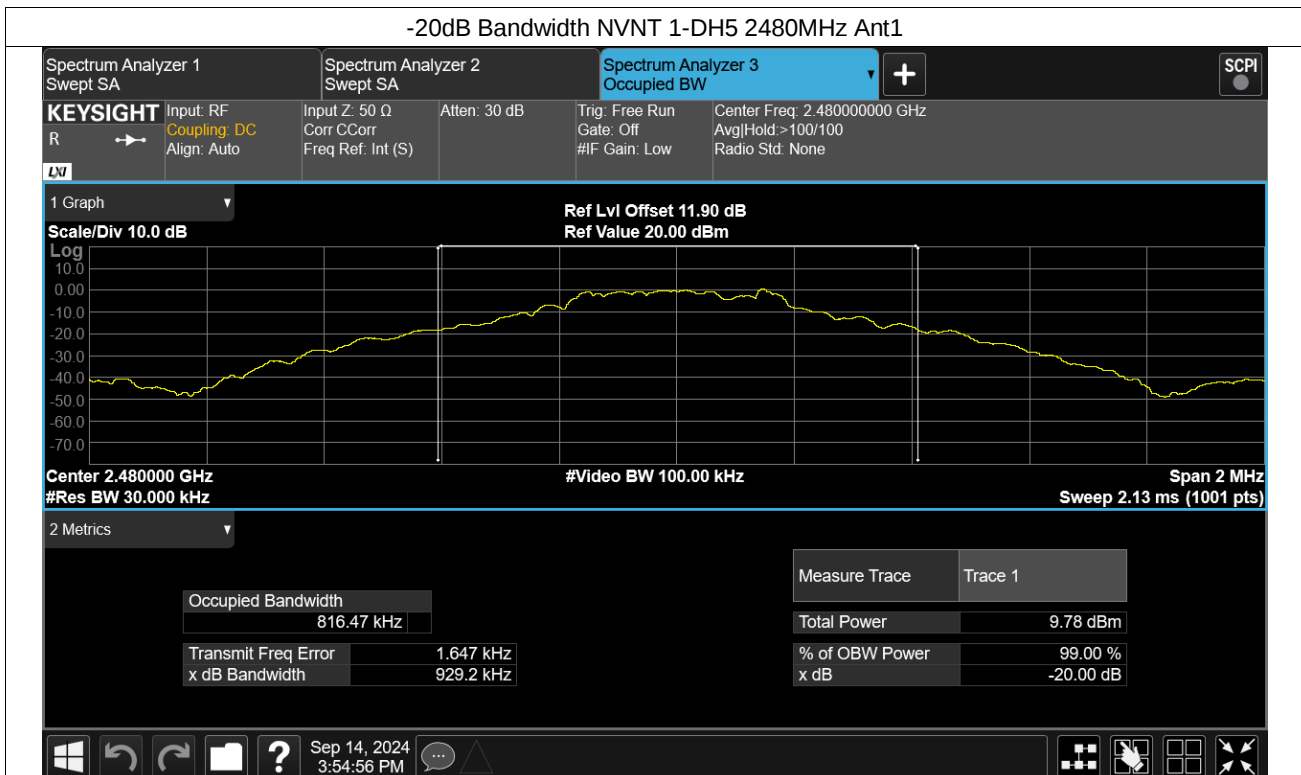
Test Graphs

-20dB Bandwidth NVNT 1-DH5 2402MHz Ant1



-20dB Bandwidth NVNT 1-DH5 2441MHz Ant1





-20dB Bandwidth NVNT 2-DH5 2441MHz Ant1



-20dB Bandwidth NVNT 2-DH5 2480MHz Ant1

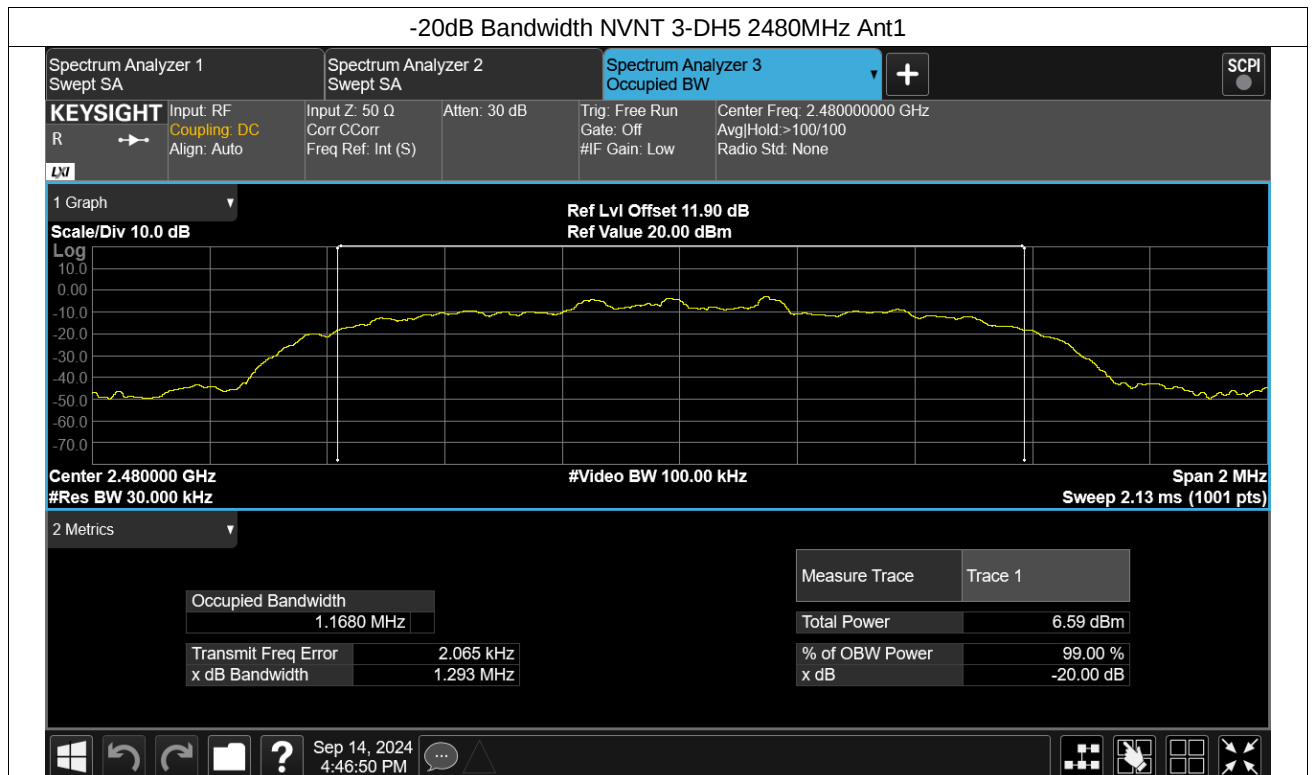


-20dB Bandwidth NVNT 3-DH5 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH5 2441MHz Ant1



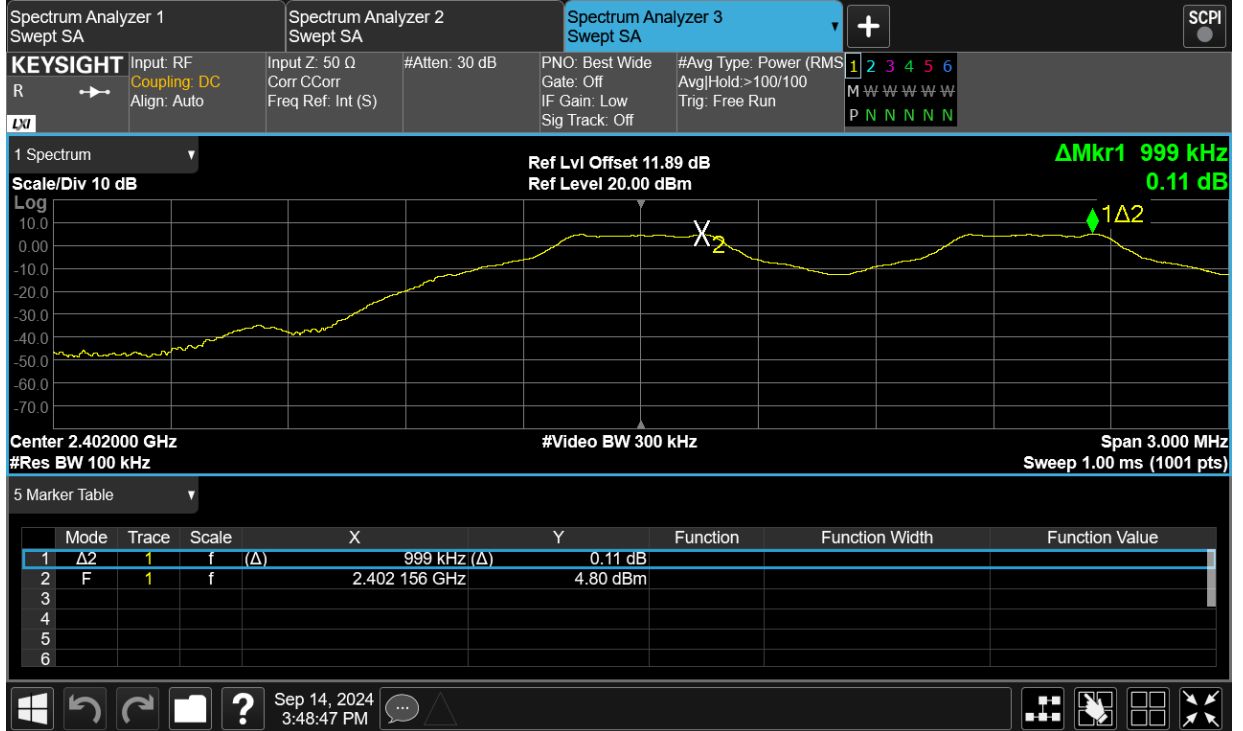


Appendix B.3: Test Results of Carrier Frequency Separation

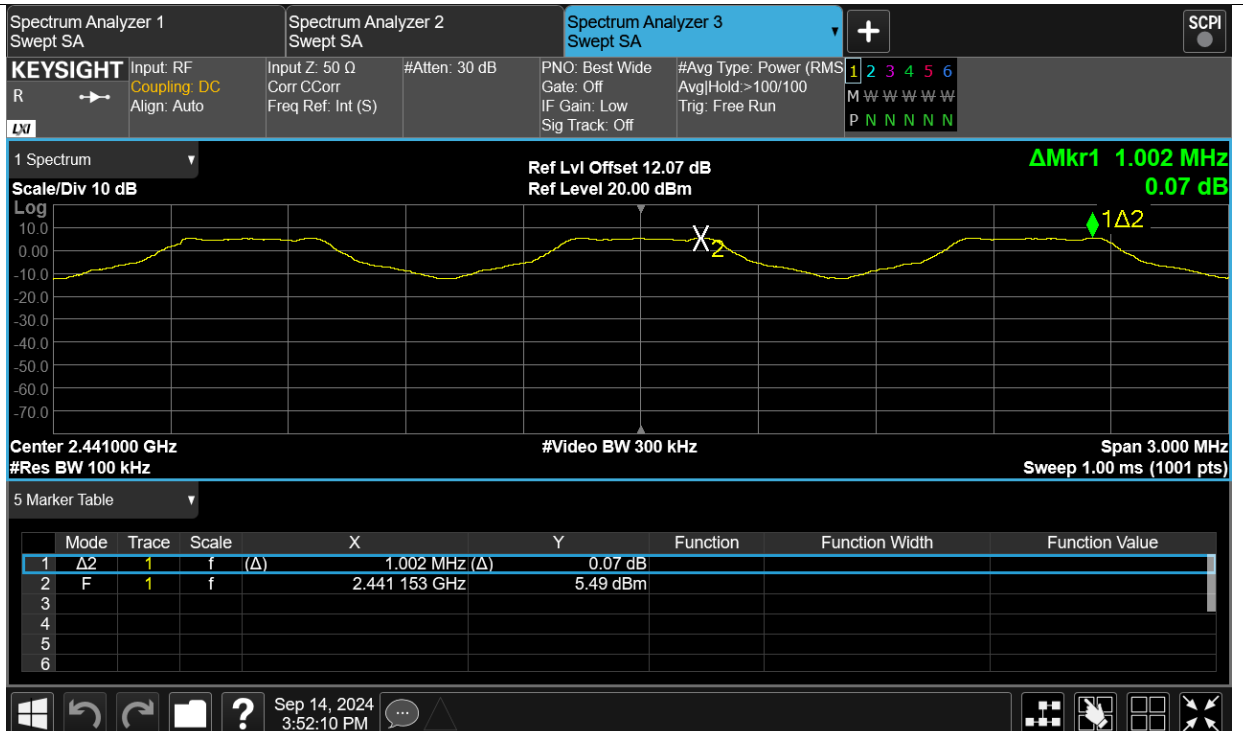
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH5	Ant1	2402.156	2403.155	0.999	0.615	Pass
NVNT	1-DH5	Ant1	2441.153	2442.155	1.002	0.615	Pass
NVNT	1-DH5	Ant1	2479.154	2480.156	1.002	0.619	Pass
NVNT	2-DH5	Ant1	2402.156	2403.152	0.996	0.855	Pass
NVNT	2-DH5	Ant1	2441.153	2442.155	1.002	0.877	Pass
NVNT	2-DH5	Ant1	2479.154	2480.153	0.999	0.857	Pass
NVNT	3-DH5	Ant1	2402.153	2403.152	0.999	0.861	Pass
NVNT	3-DH5	Ant1	2441.153	2442.152	0.999	0.861	Pass
NVNT	3-DH5	Ant1	2479.154	2480.153	0.999	0.862	Pass

Test Graphs

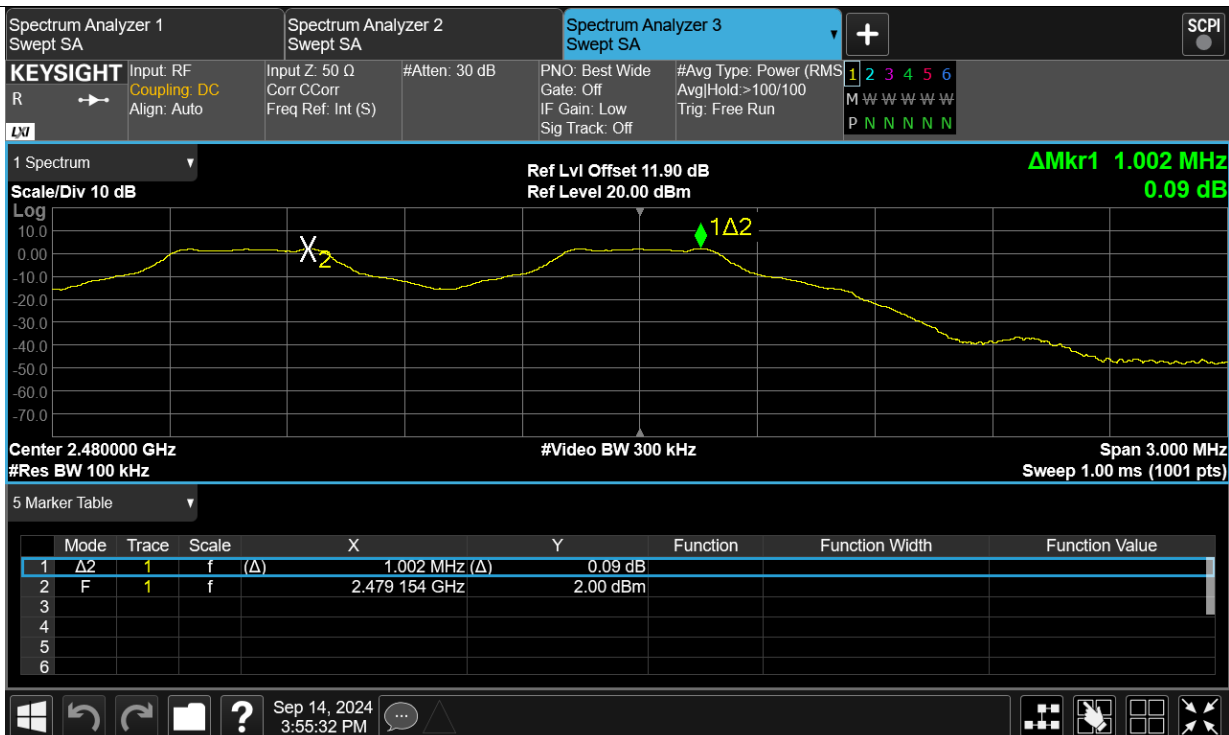
CFS NVNT 1-DH5 2402MHz Ant1



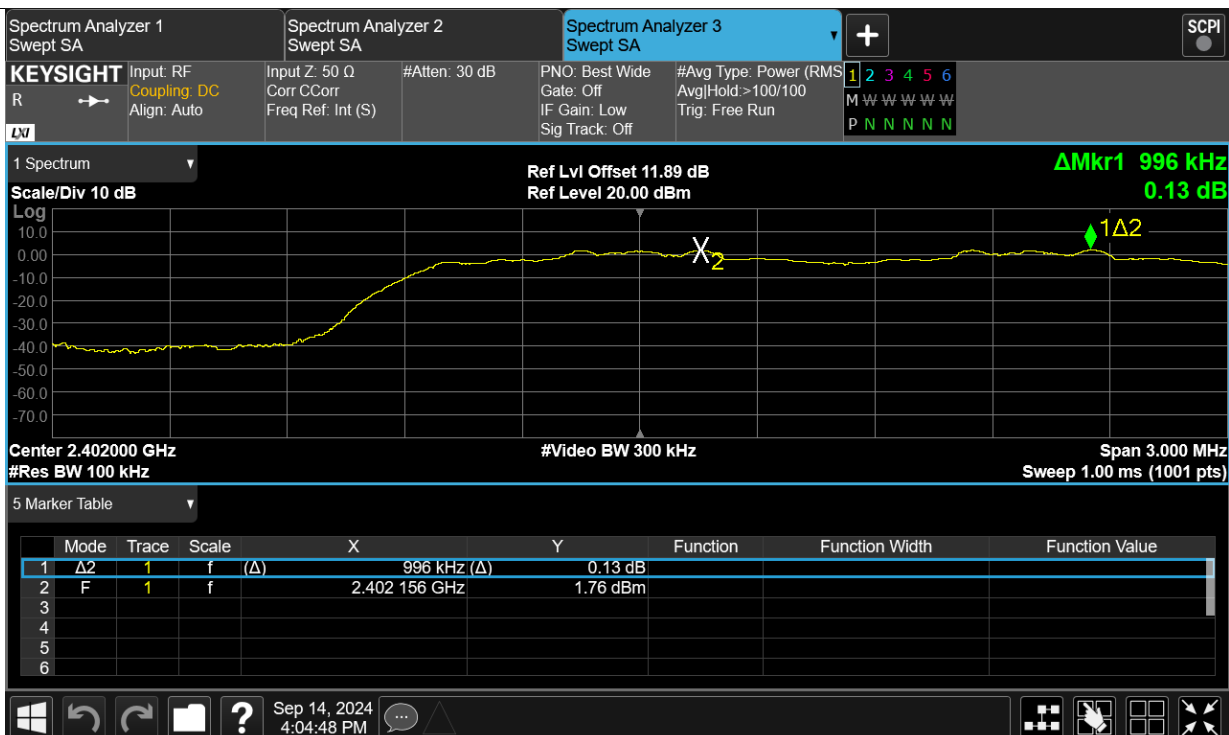
CFS NVNT 1-DH5 2441MHz Ant1



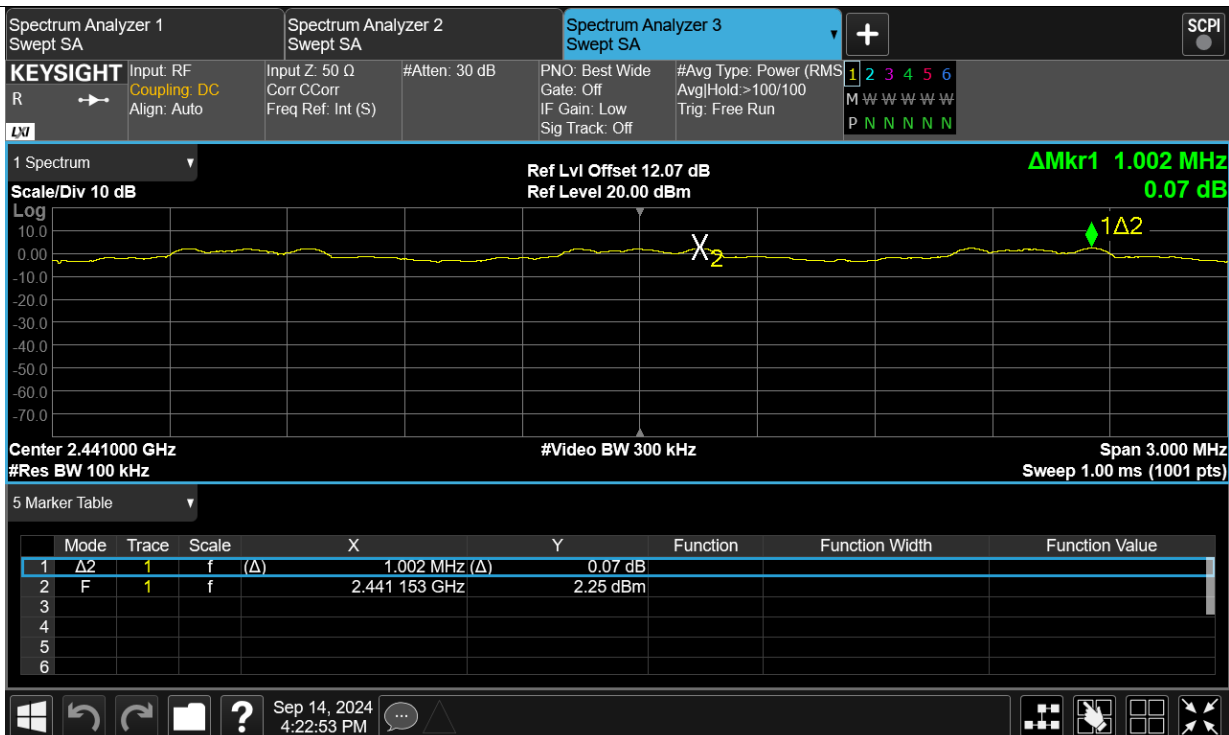
CFS NVNT 1-DH5 2480MHz Ant1



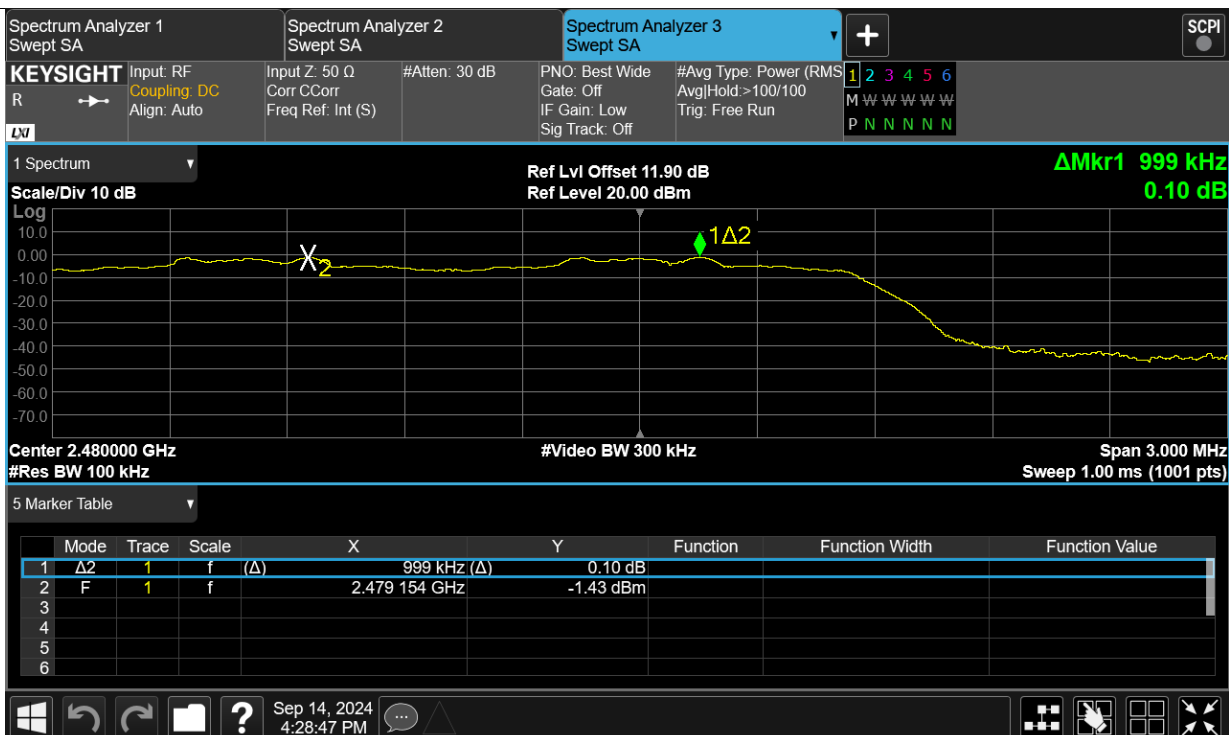
CFS NVNT 2-DH5 2402MHz Ant1



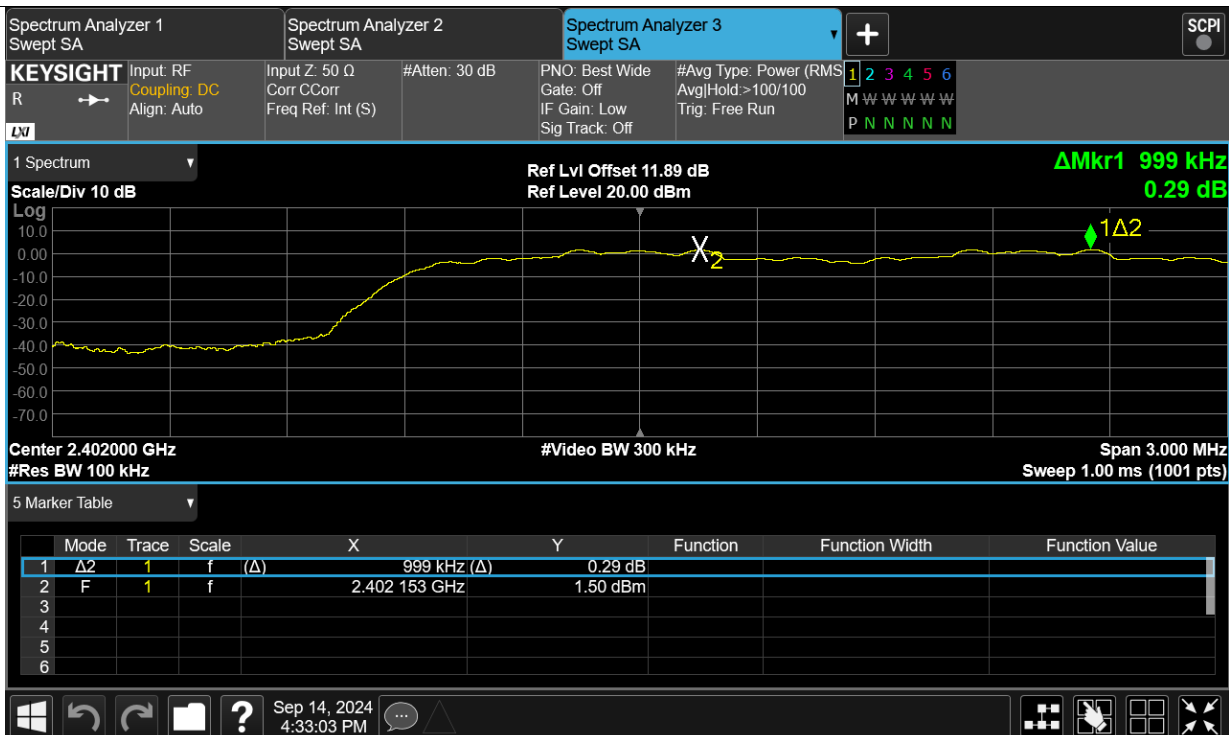
CFS NVNT 2-DH5 2441MHz Ant1



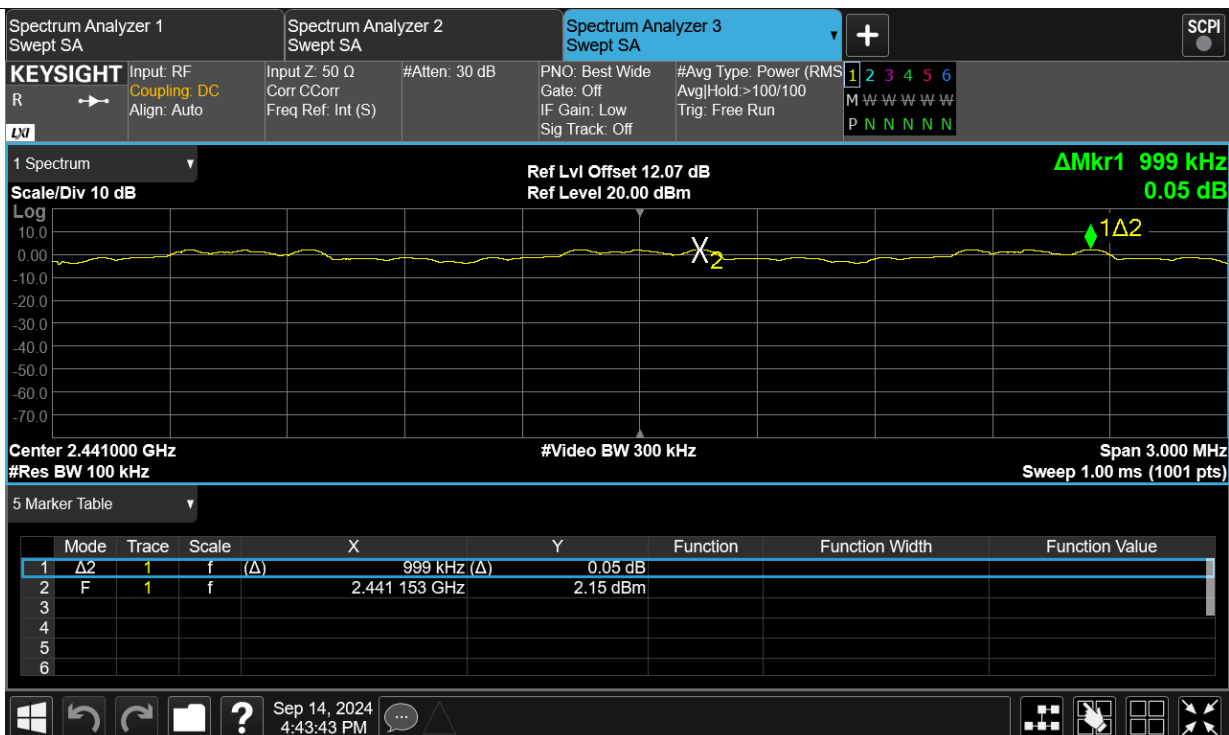
CFS NVNT 2-DH5 2480MHz Ant1

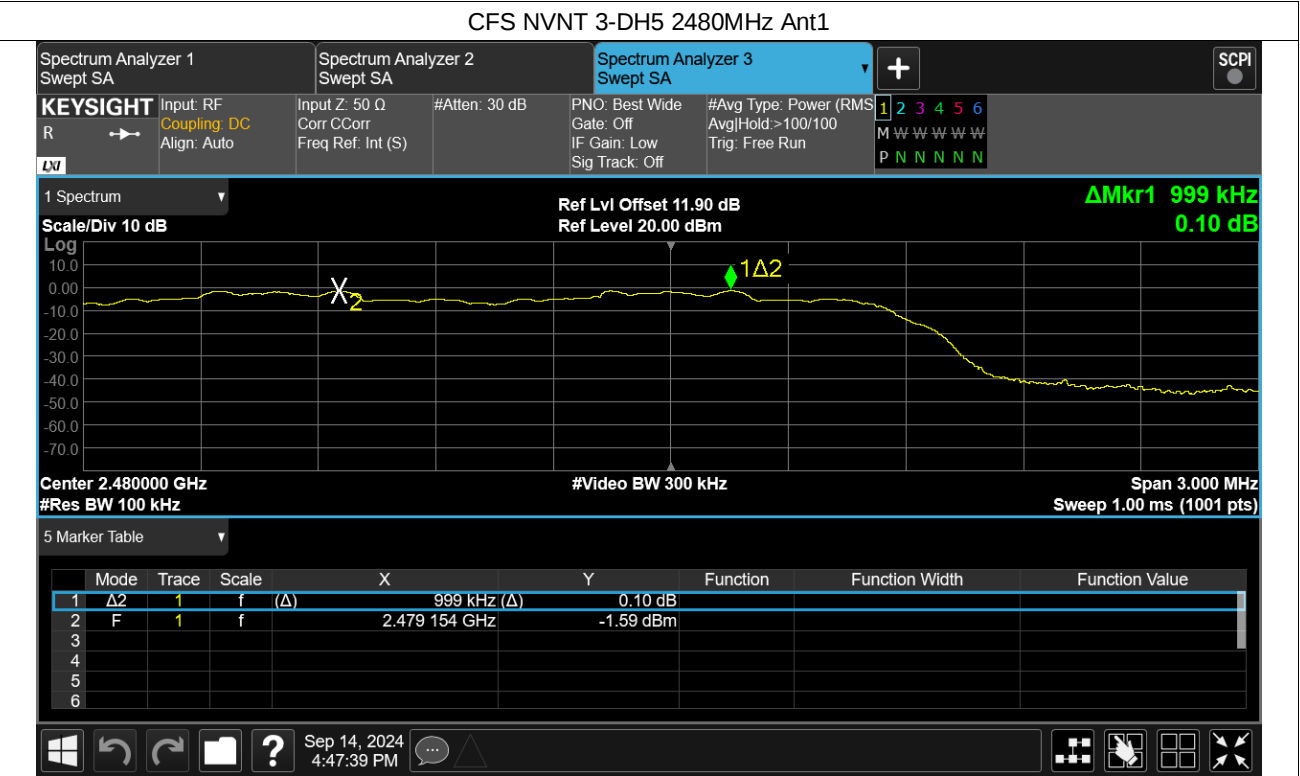


CFS NVNT 3-DH5 2402MHz Ant1



CFS NVNT 3-DH5 2441MHz Ant1



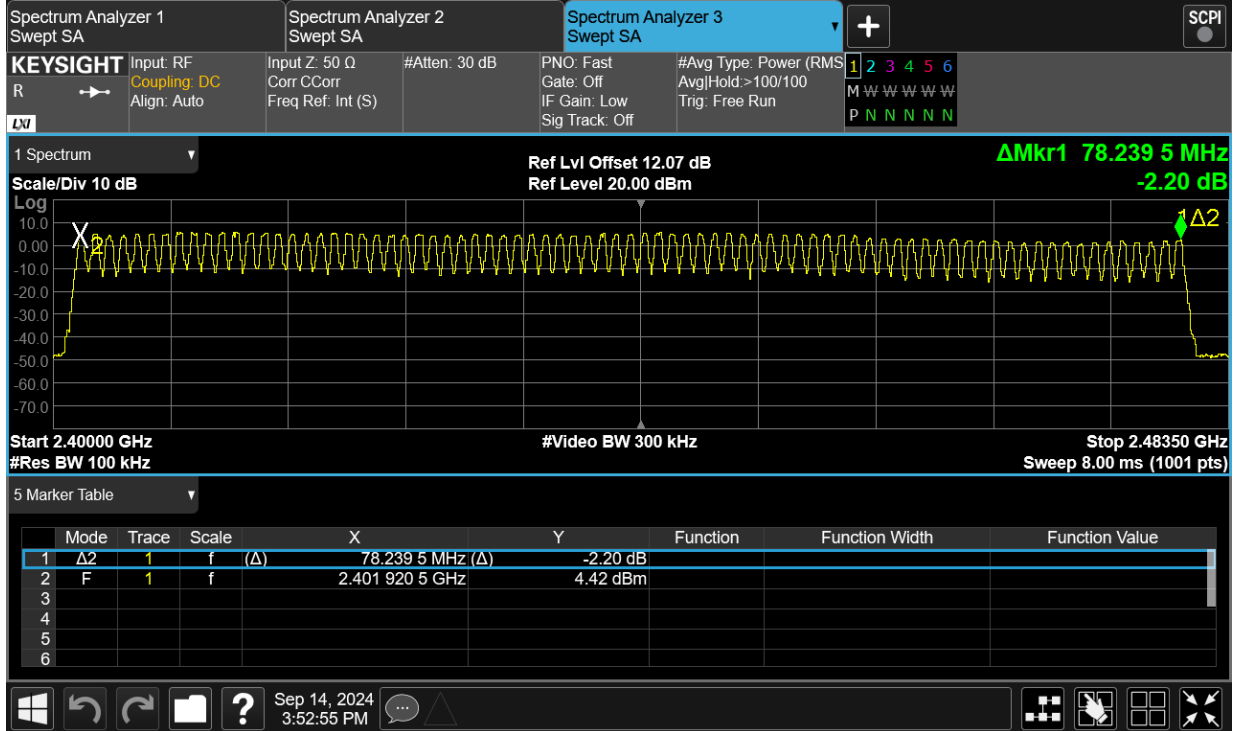


Appendix B.4: Test Results of Number of Hopping Frequency

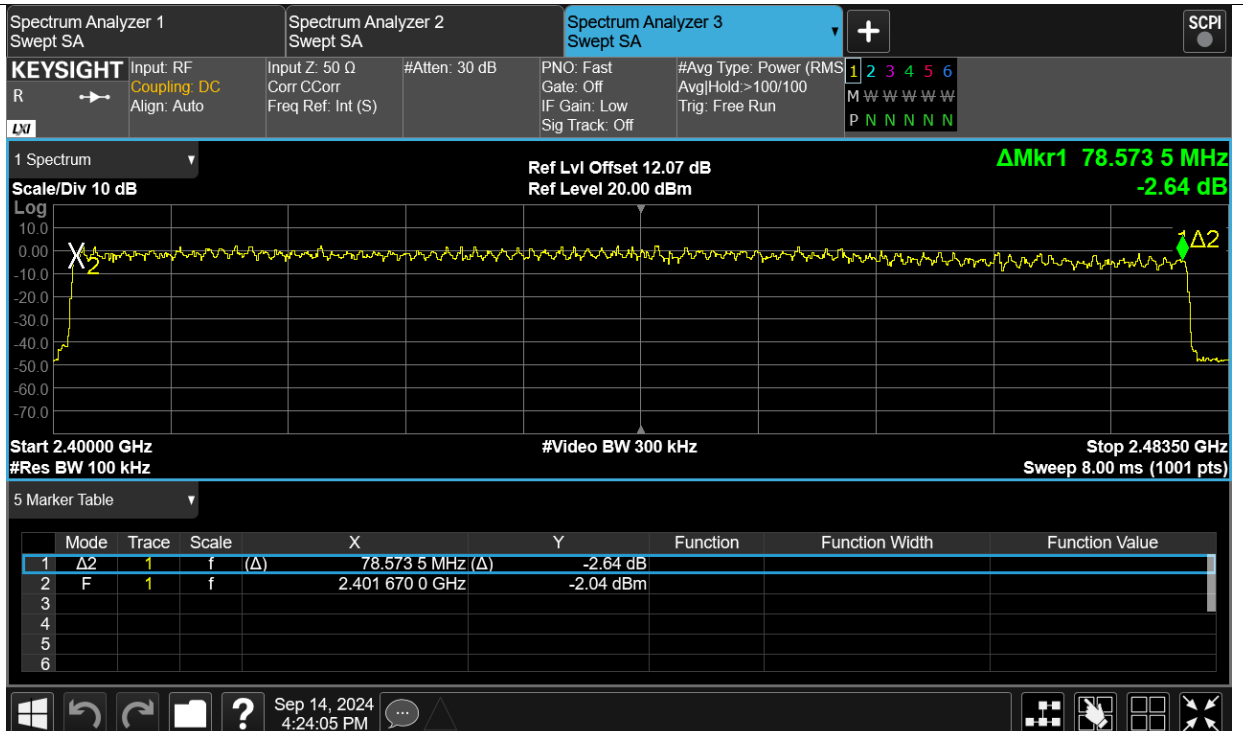
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH5	Ant1	79	15	Pass
NVNT	2-DH5	Ant1	79	15	Pass
NVNT	3-DH5	Ant1	79	15	Pass

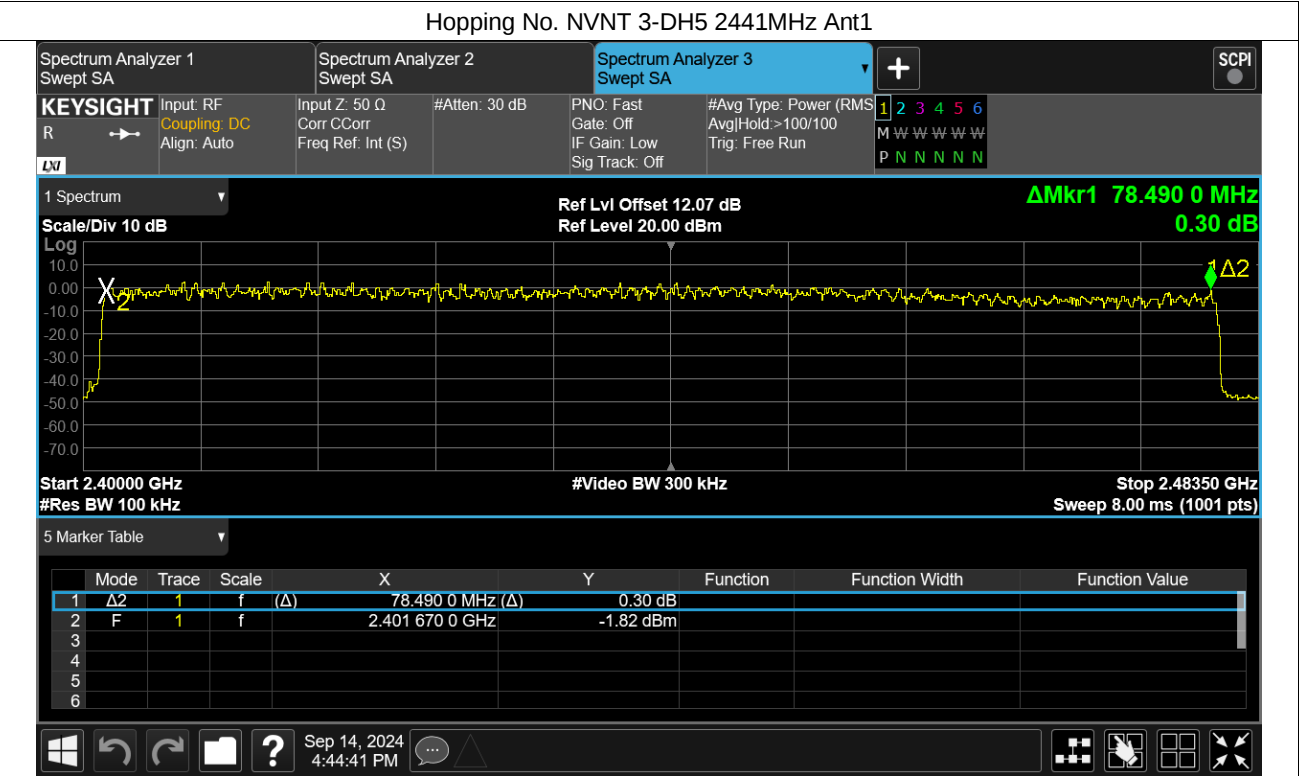
Test Graphs

Hopping No. NVNT 1-DH5 2441MHz Ant1



Hopping No. NVNT 2-DH5 2441MHz Ant1





Appendix B.5: Test Results of Time of Occupancy

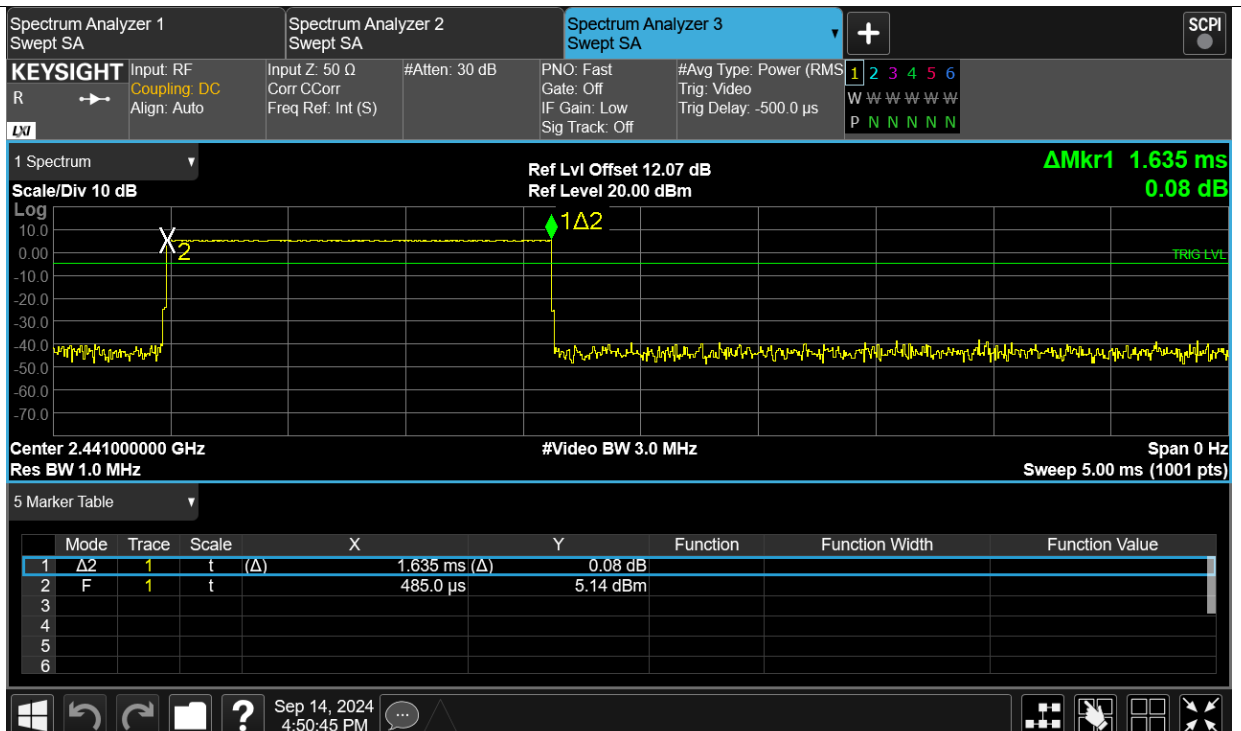
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	Ant1	0.377	120.64	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.635	261.6	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.878	306.987	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.385	123.2	31600	400	Pass
NVNT	2-DH3	2441	Ant1	1.635	261.6	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.885	307.733	31600	400	Pass
NVNT	3-DH1	2441	Ant1	0.383	122.56	31600	400	Pass
NVNT	3-DH3	2441	Ant1	1.635	261.6	31600	400	Pass
NVNT	3-DH5	2441	Ant1	2.885	307.733	31600	400	Pass

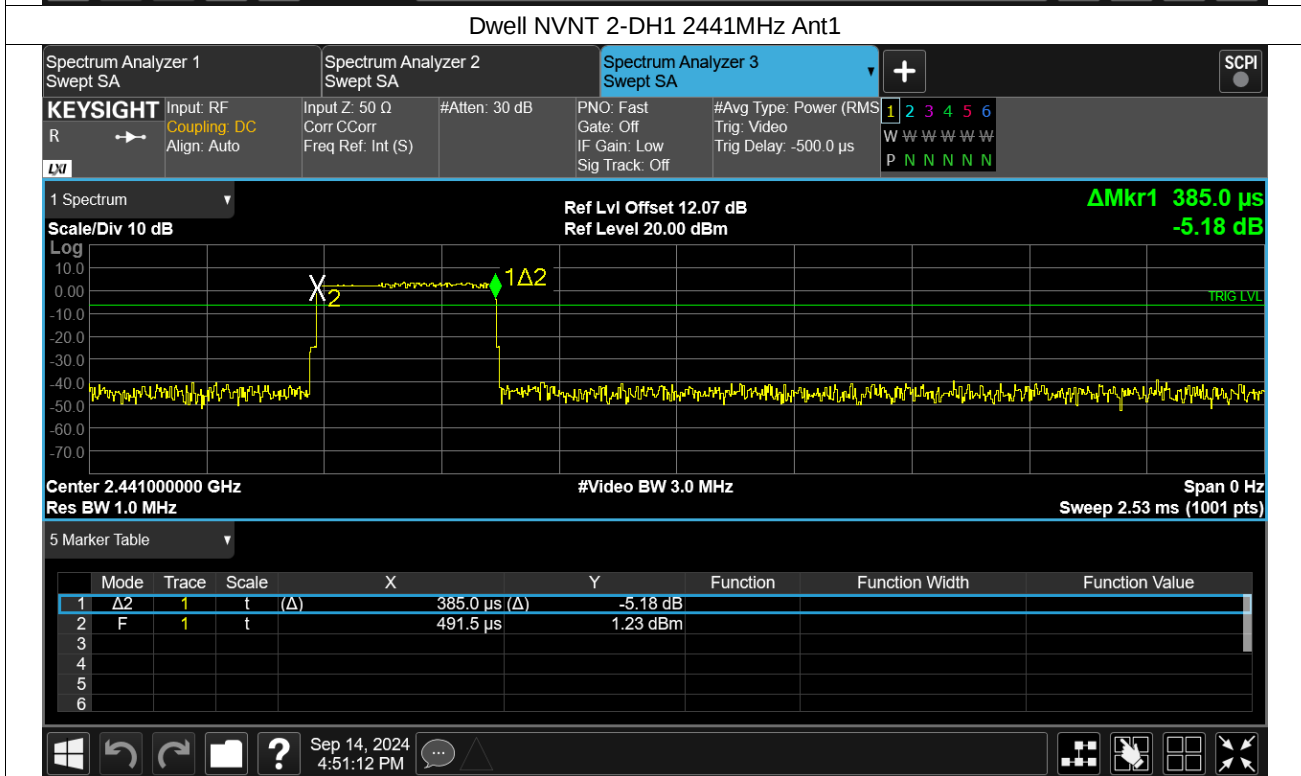
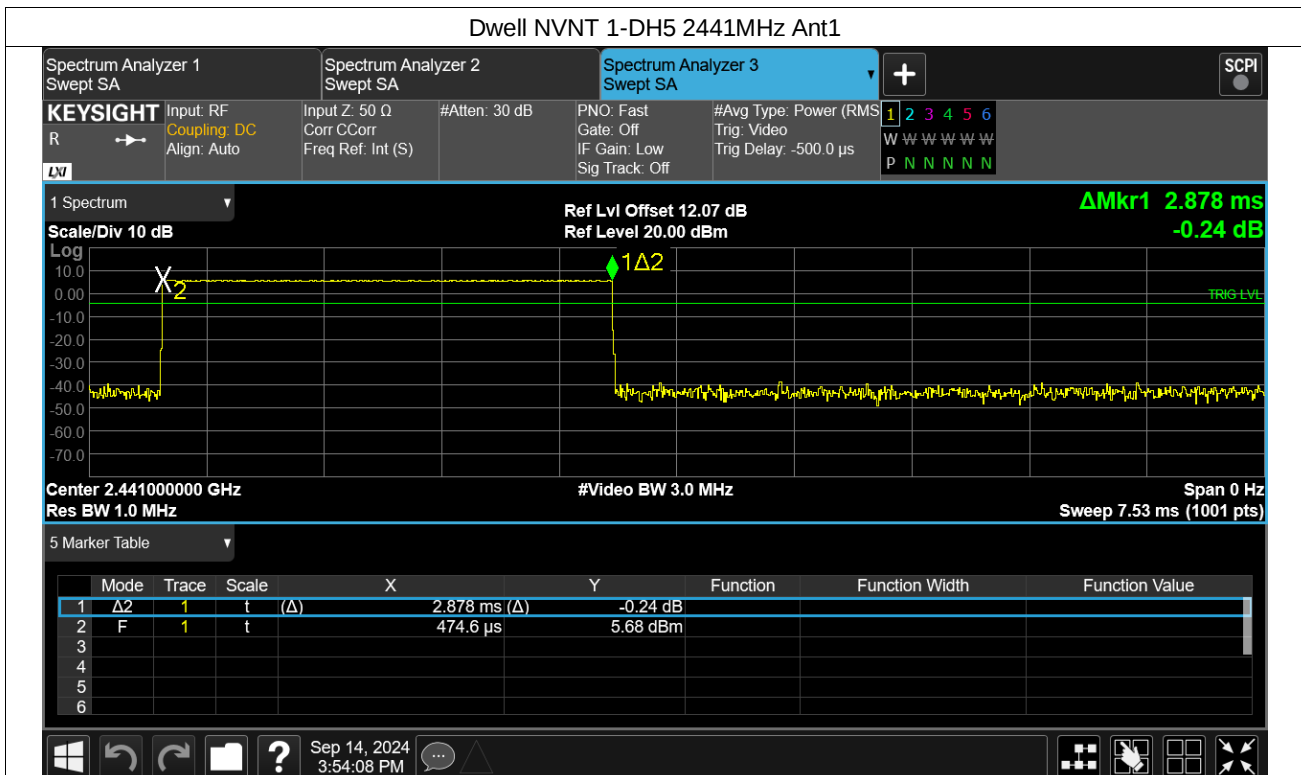
Test Graphs

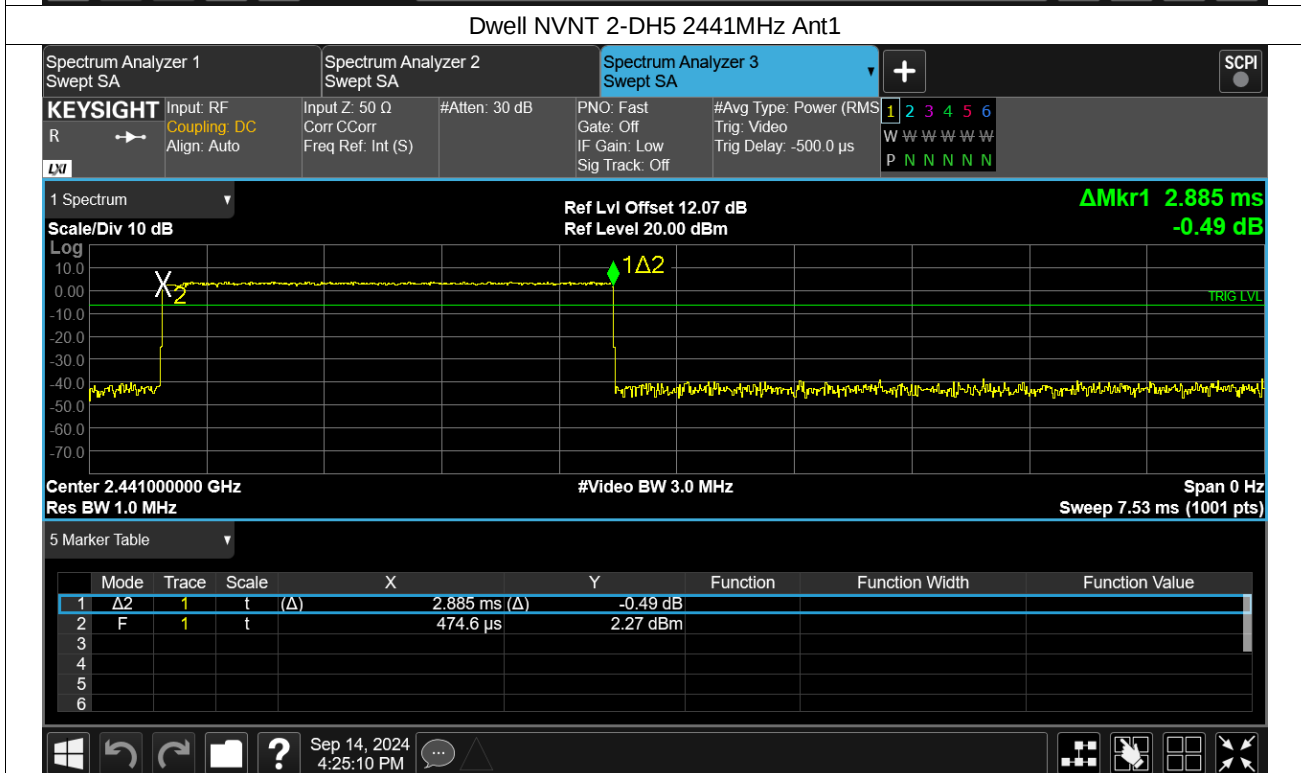
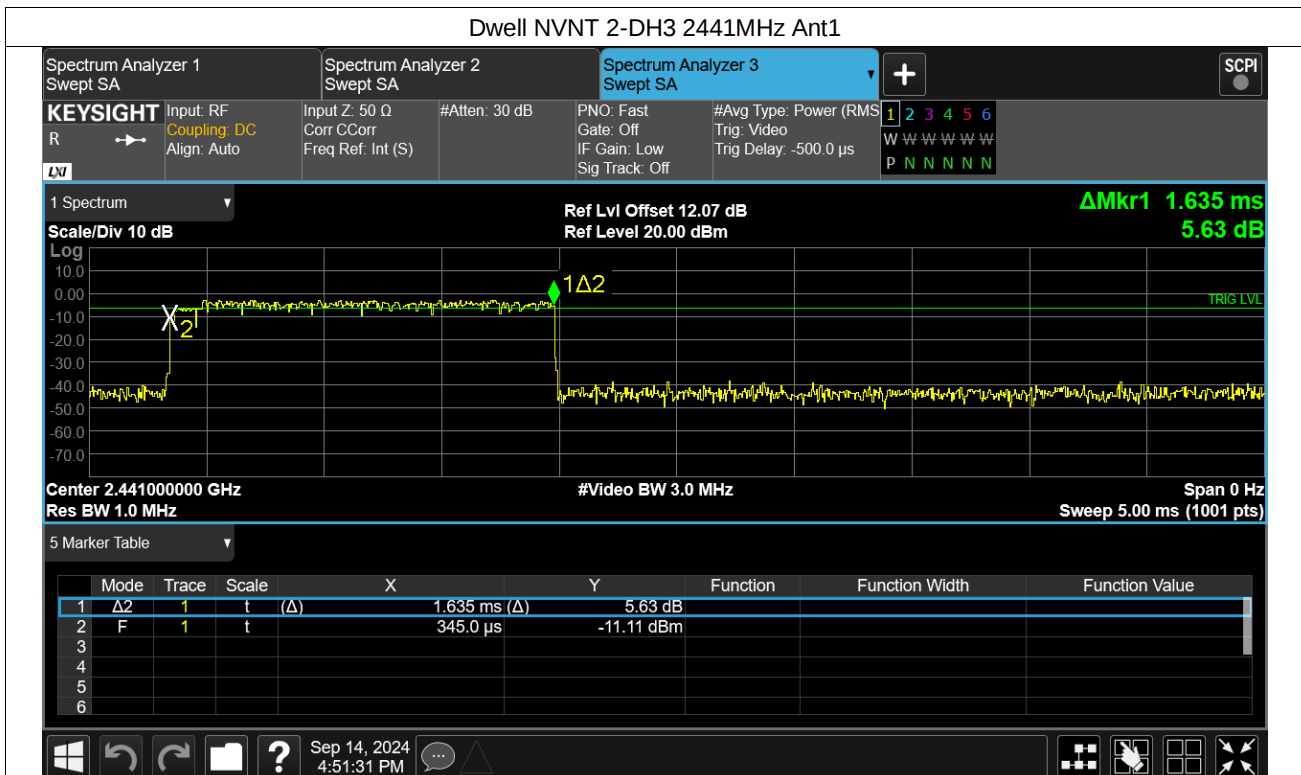
Dwell NVNT 1-DH1 2441MHz Ant1



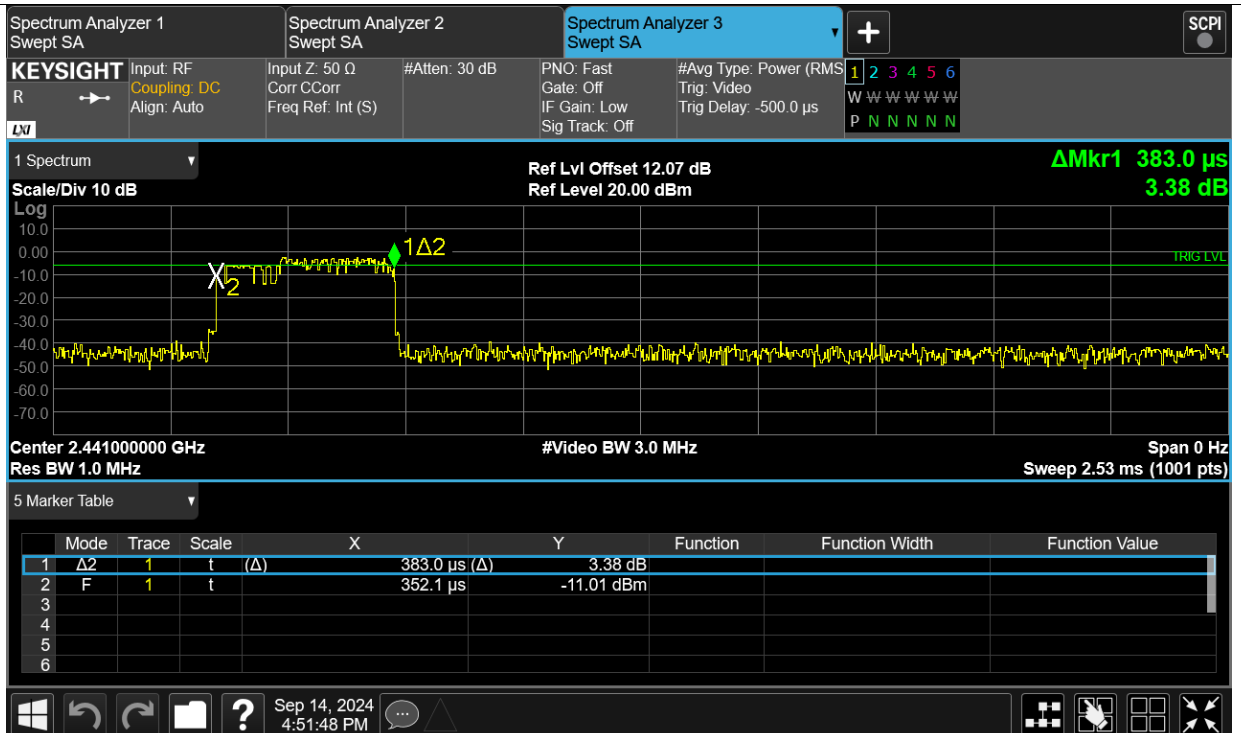
Dwell NVNT 1-DH3 2441MHz Ant1



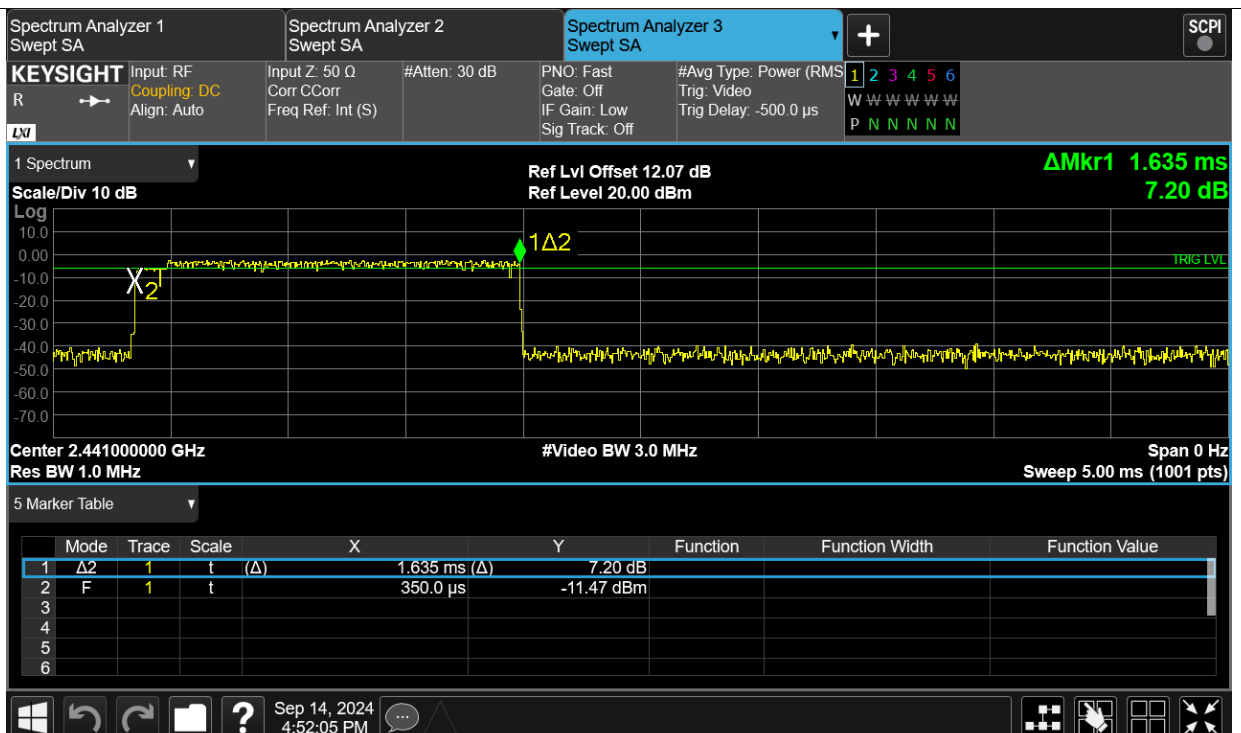


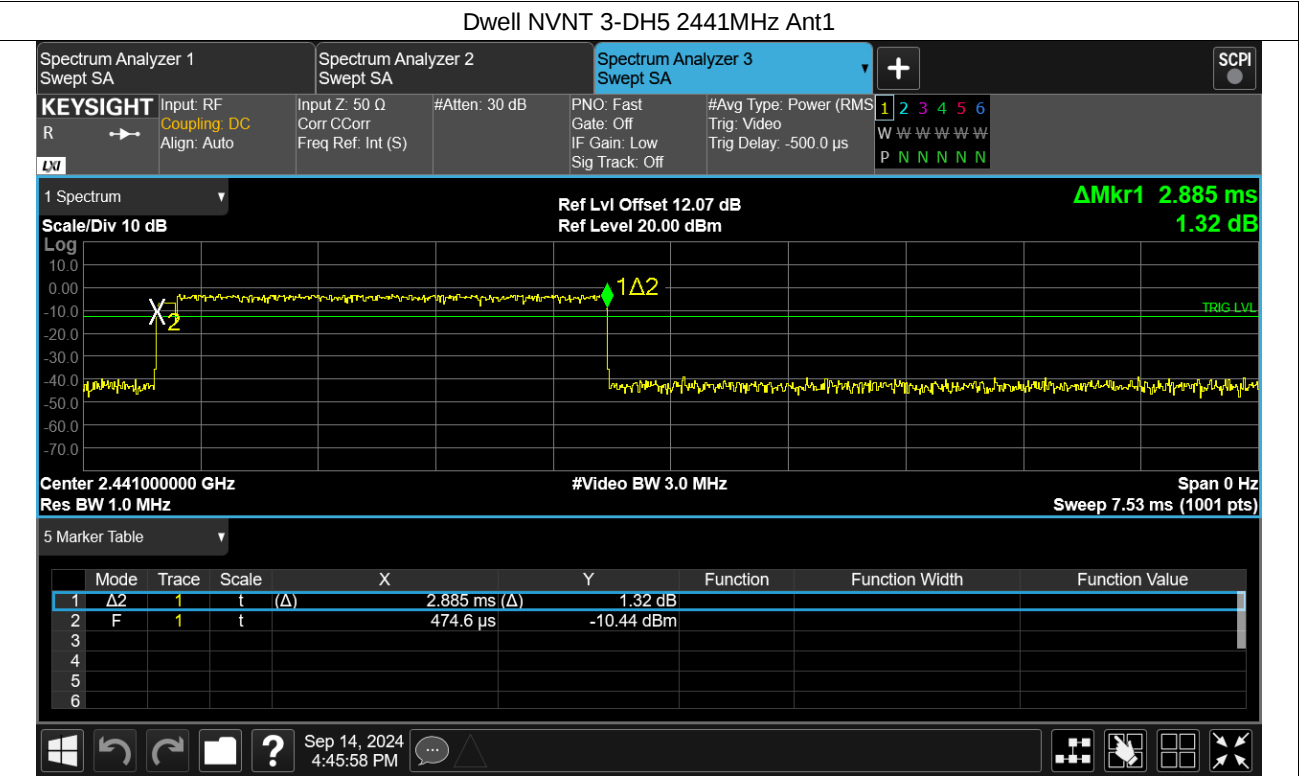


Dwell NVNT 3-DH1 2441MHz Ant1



Dwell NVNT 3-DH3 2441MHz Ant1





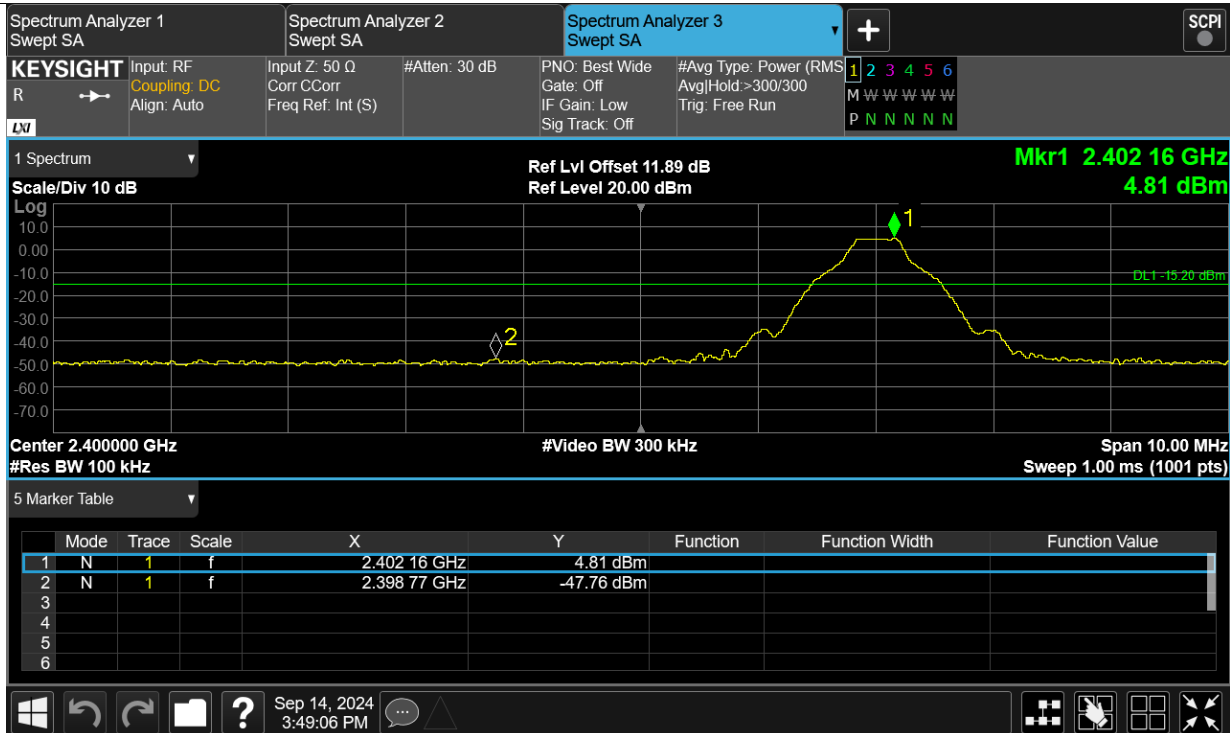
Appendix B.6: Test Results of Conducted Spurious Emissions Measured in 100 kHz Bandwidth

Band Edge (Fixed mode)

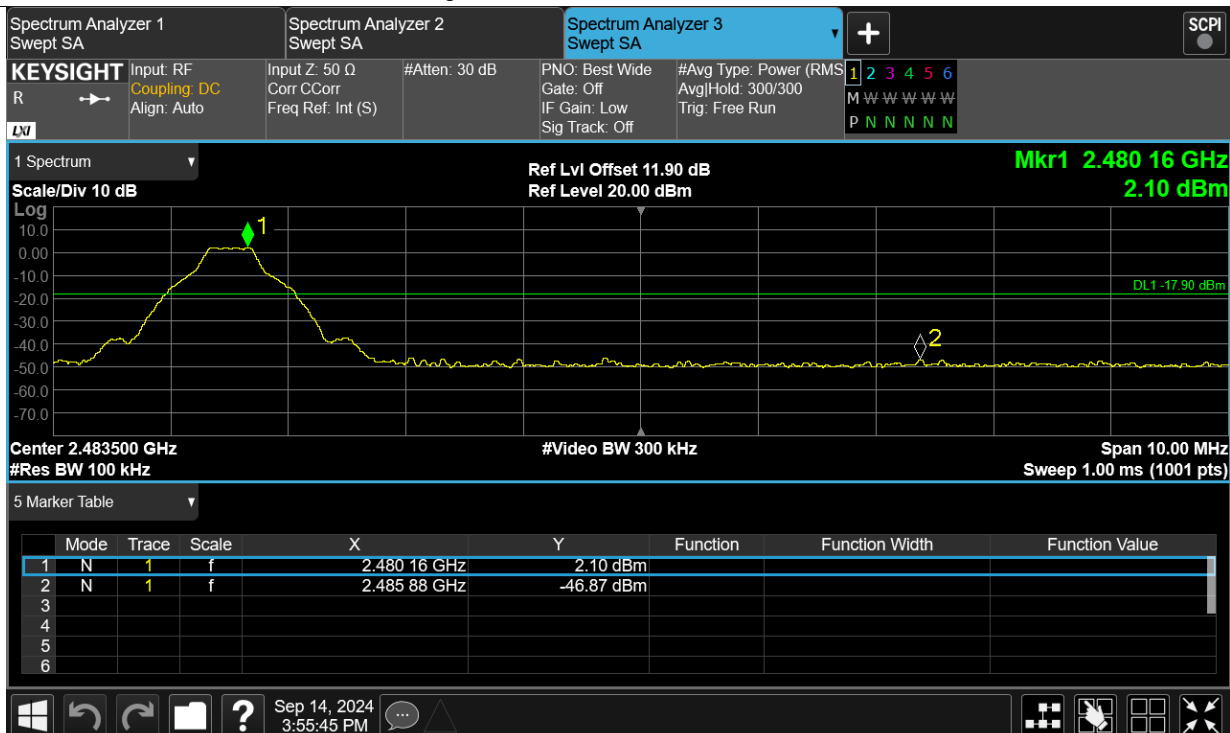
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	-52.57	-20	Pass
NVNT	1-DH5	2480	Ant1	-48.97	-20	Pass
NVNT	2-DH5	2402	Ant1	-48.8	-20	Pass
NVNT	2-DH5	2480	Ant1	-45.44	-20	Pass
NVNT	3-DH5	2402	Ant1	-48.2	-20	Pass
NVNT	3-DH5	2480	Ant1	-45.5	-20	Pass

Test Graphs

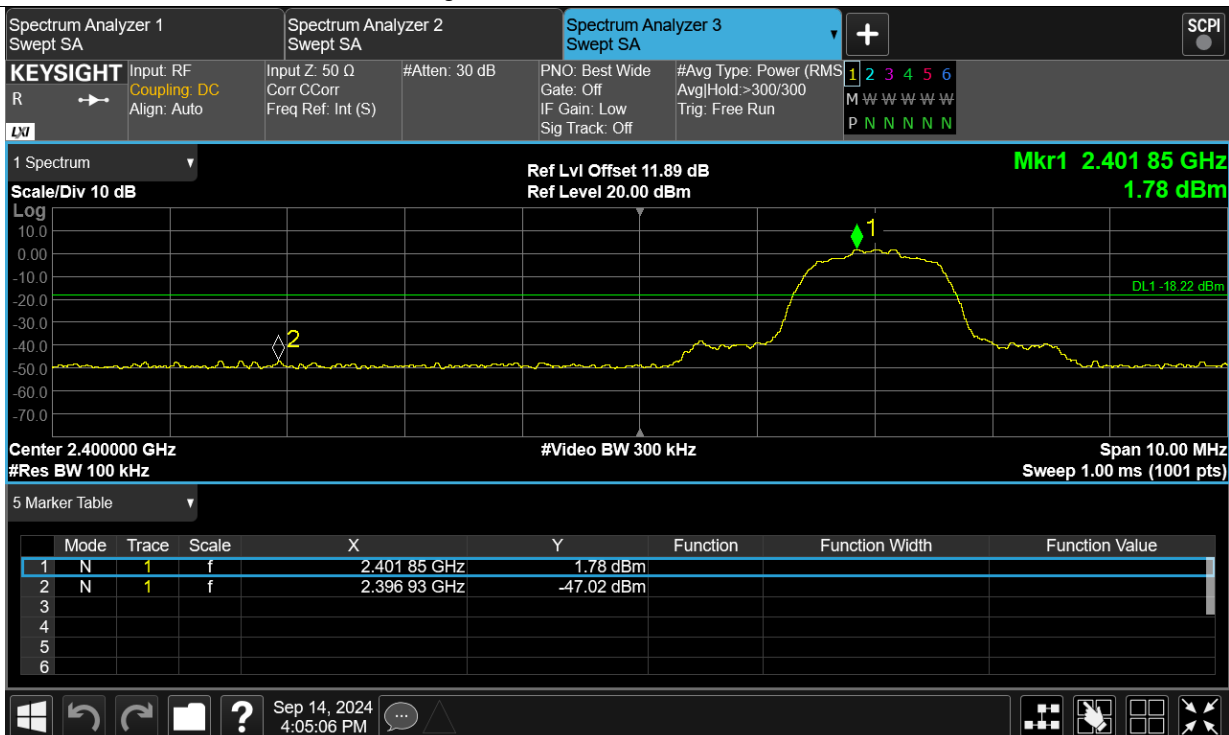
Band Edge NVNT 1-DH5 2402MHz Ant1 Emission



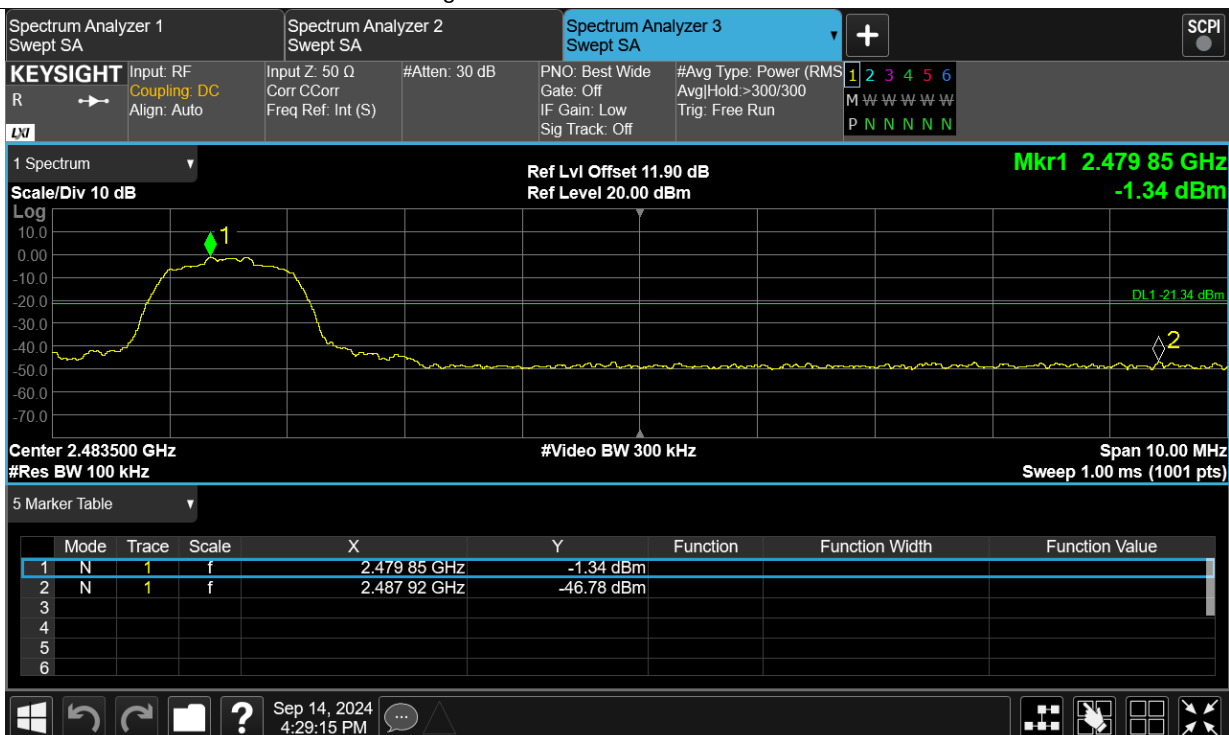
Band Edge NVNT 1-DH5 2480MHz Ant1 Emission



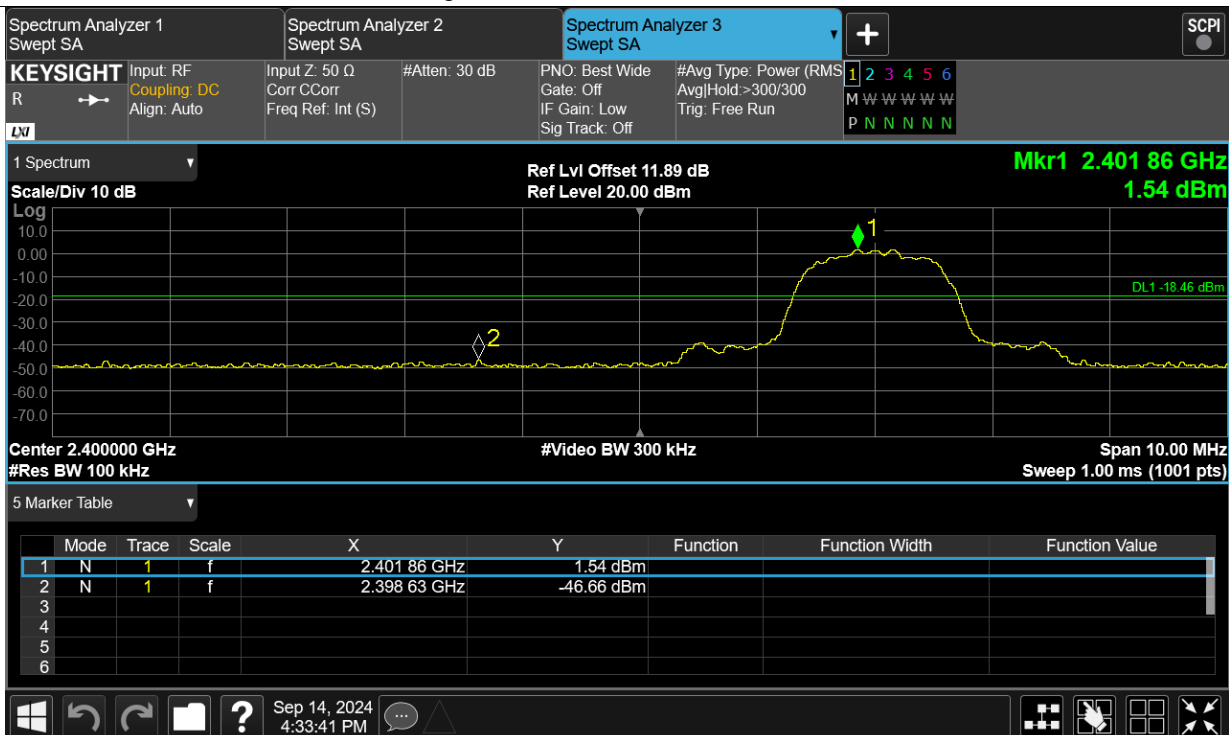
Band Edge NVNT 2-DH5 2402MHz Ant1 Emission



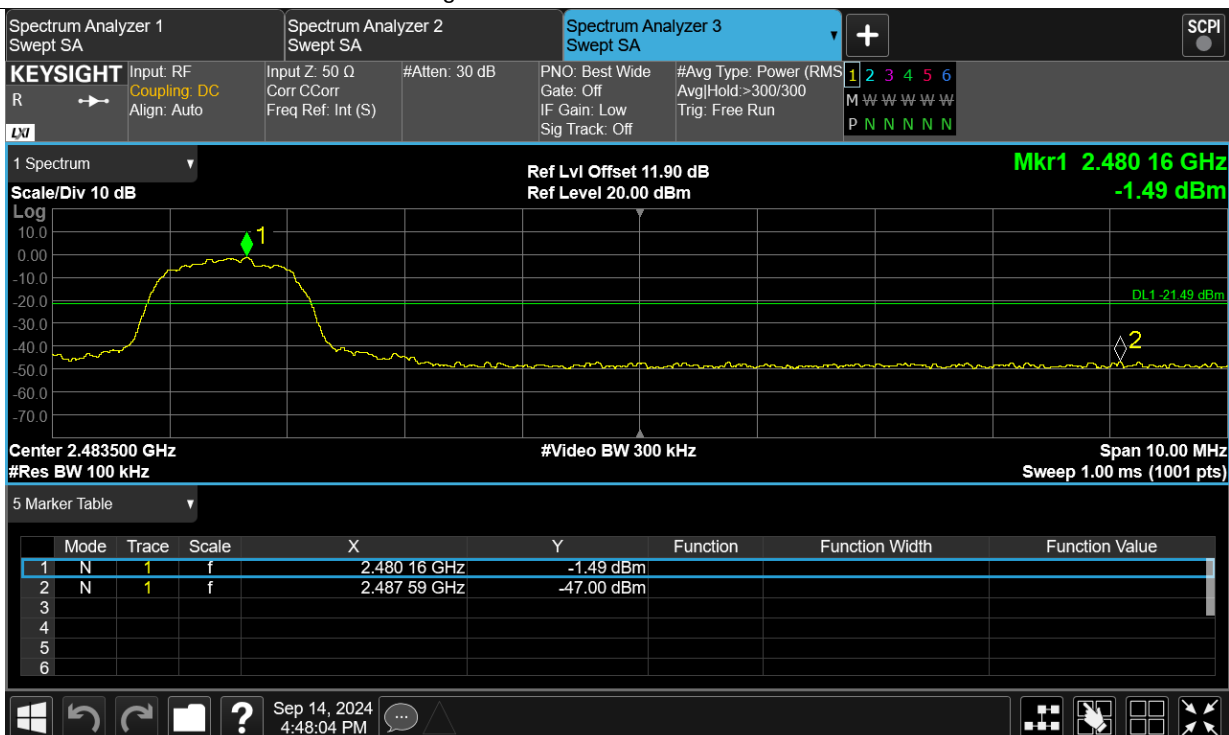
Band Edge NVNT 2-DH5 2480MHz Ant1 Emission



Band Edge NVNT 3-DH5 2402MHz Ant1 Emission



Band Edge NVNT 3-DH5 2480MHz Ant1 Emission

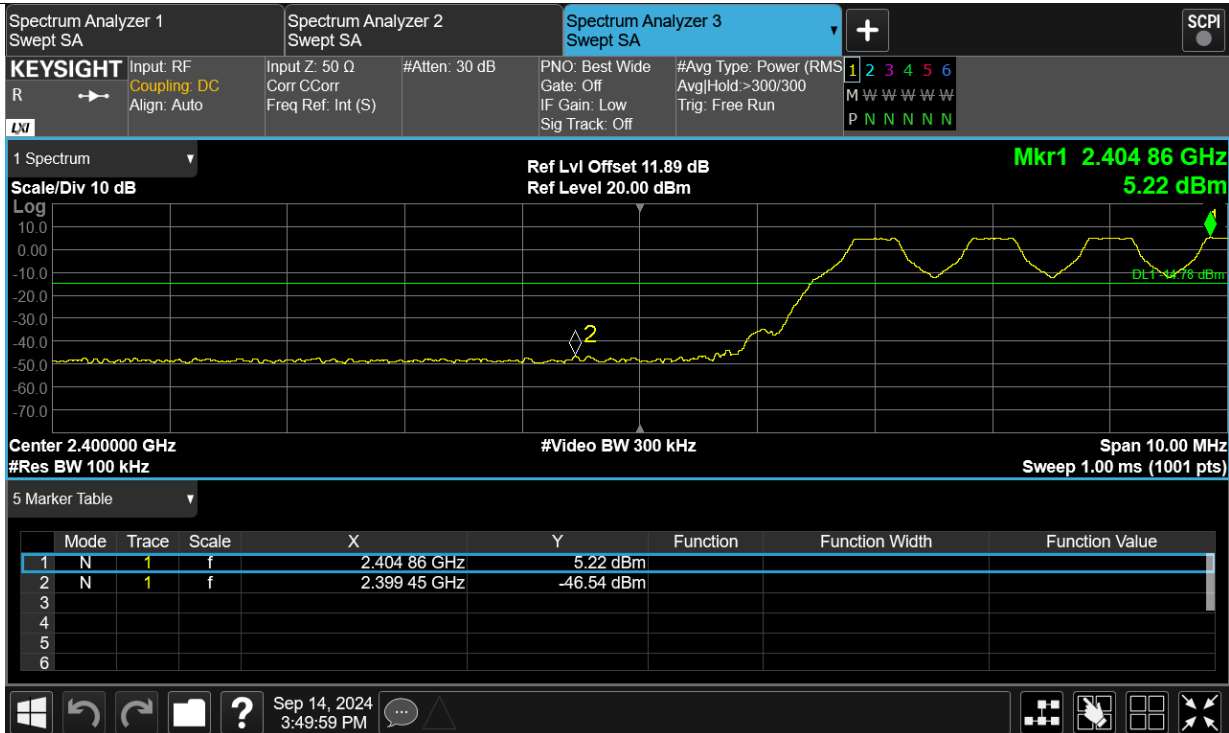


Band Edge (Hopping mode)

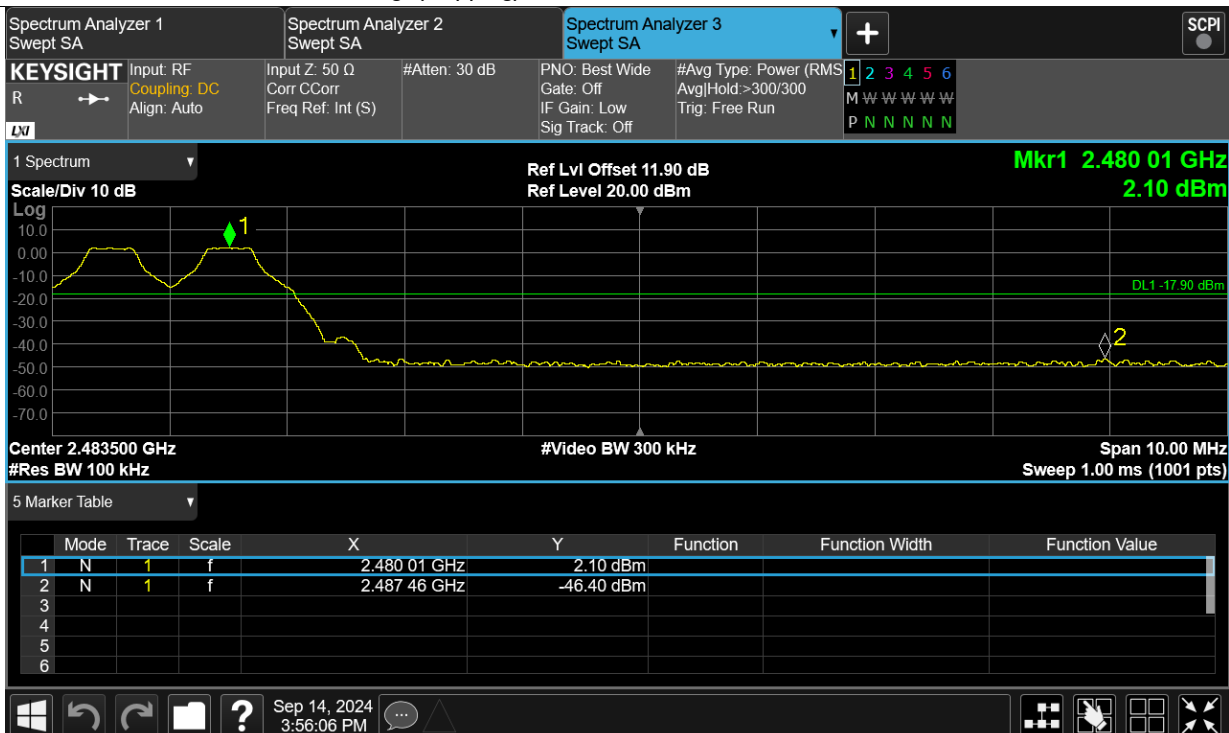
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	-51.75	-20	Pass
NVNT	1-DH5	2480	Ant1	-48.5	-20	Pass
NVNT	2-DH5	2402	Ant1	-48.98	-20	Pass
NVNT	2-DH5	2480	Ant1	-44.98	-20	Pass
NVNT	3-DH5	2402	Ant1	-48.51	-20	Pass
NVNT	3-DH5	2480	Ant1	-44.9	-20	Pass

Test Graphs

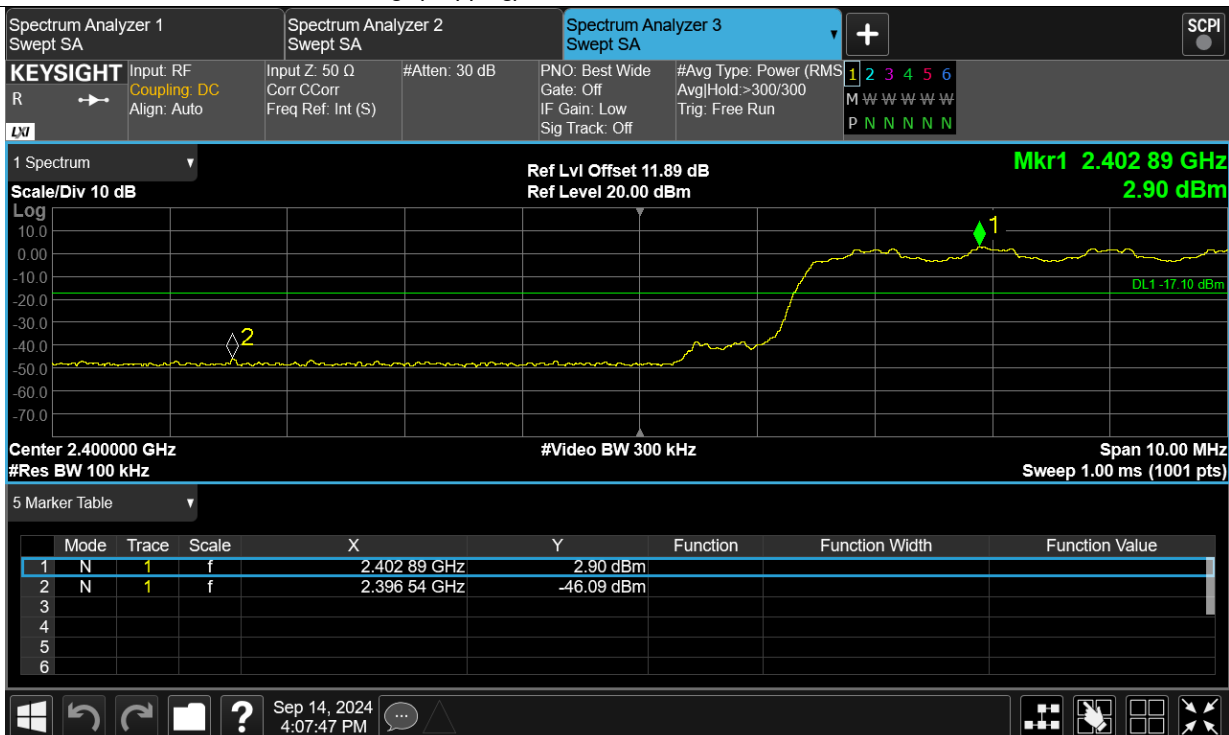
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Emission



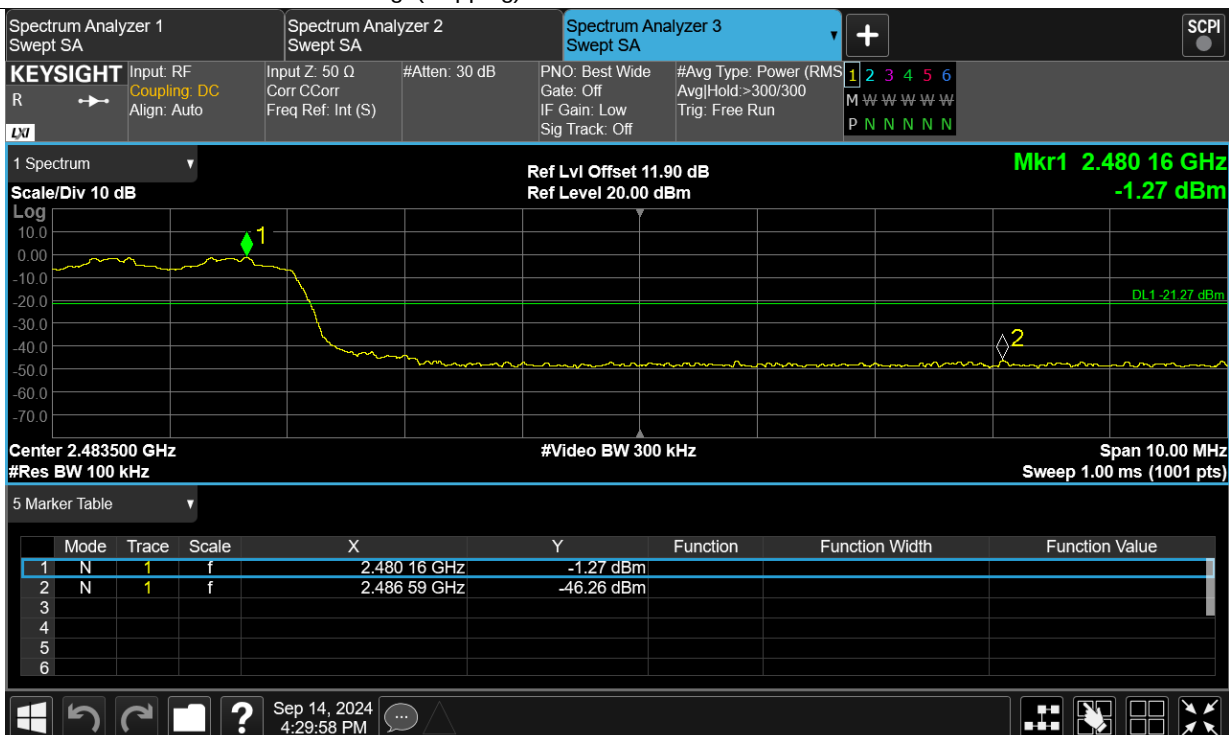
Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Emission



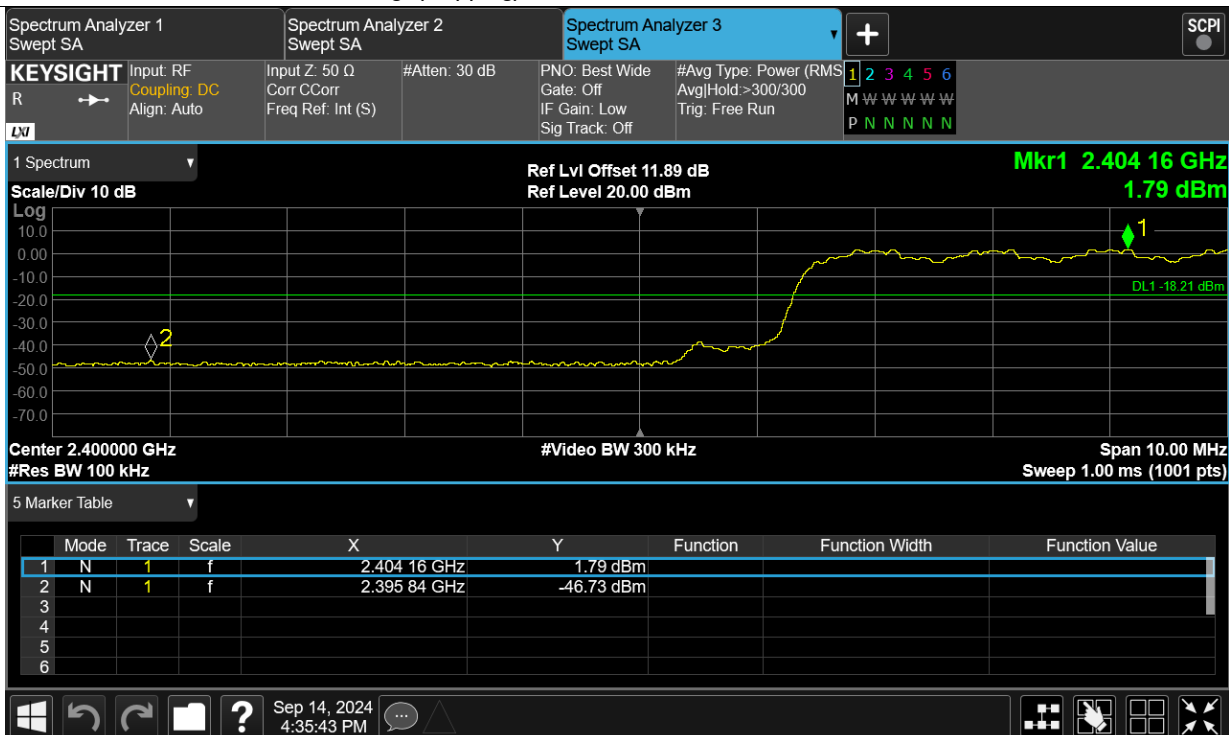
Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Emission



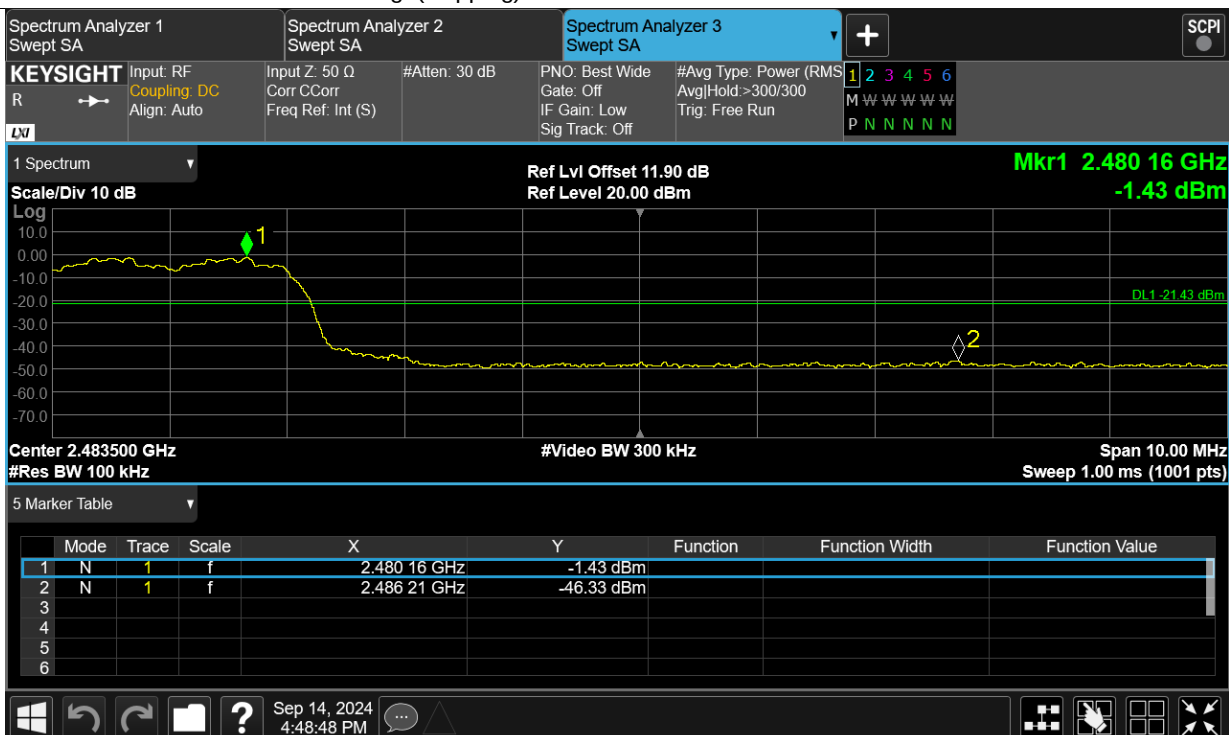
Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Emission



Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Emission



Band Edge(Hopping) NVNT 3-DH5 2480MHz Ant1 Emission

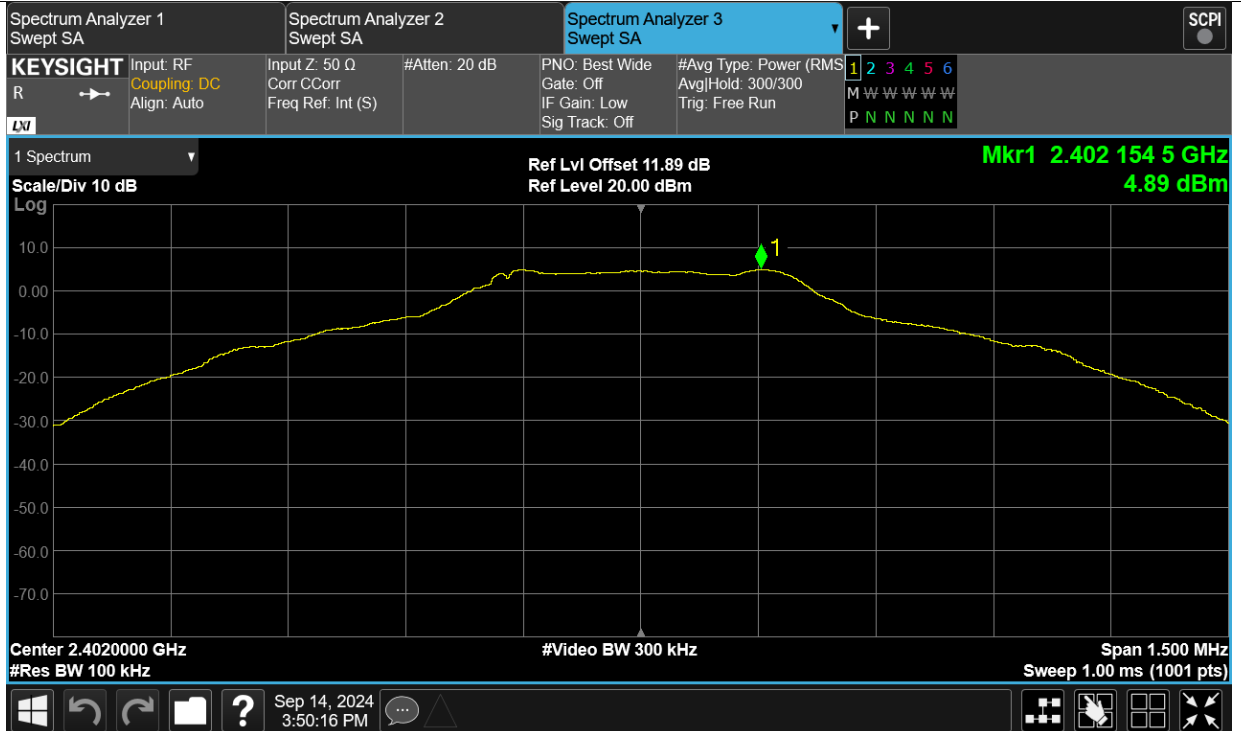


Conducted Spurious Emission

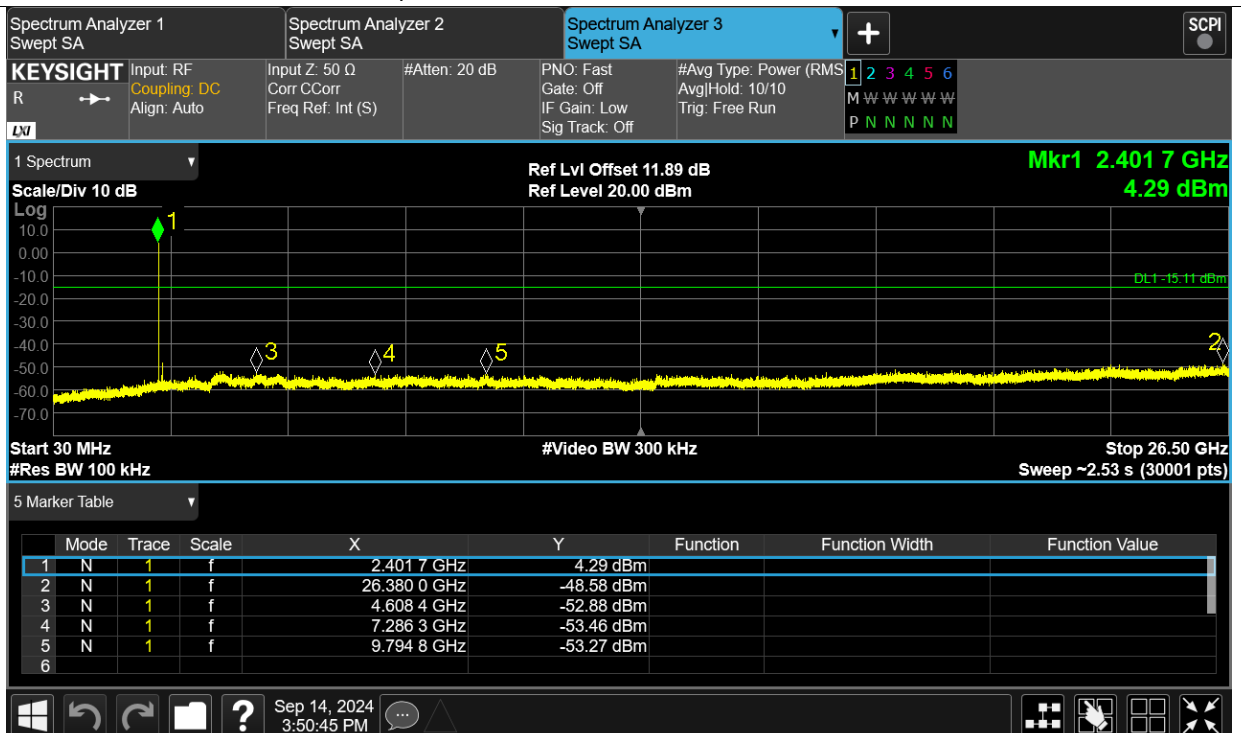
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	-53.46	-20	Pass
NVNT	1-DH5	2441	Ant1	-54.56	-20	Pass
NVNT	1-DH5	2480	Ant1	-50.93	-20	Pass
NVNT	2-DH5	2402	Ant1	-50.14	-20	Pass
NVNT	2-DH5	2441	Ant1	-50.13	-20	Pass
NVNT	2-DH5	2480	Ant1	-46.97	-20	Pass
NVNT	3-DH5	2402	Ant1	-49.93	-20	Pass
NVNT	3-DH5	2441	Ant1	-50.6	-20	Pass
NVNT	3-DH5	2480	Ant1	-47.66	-20	Pass

Test Graphs

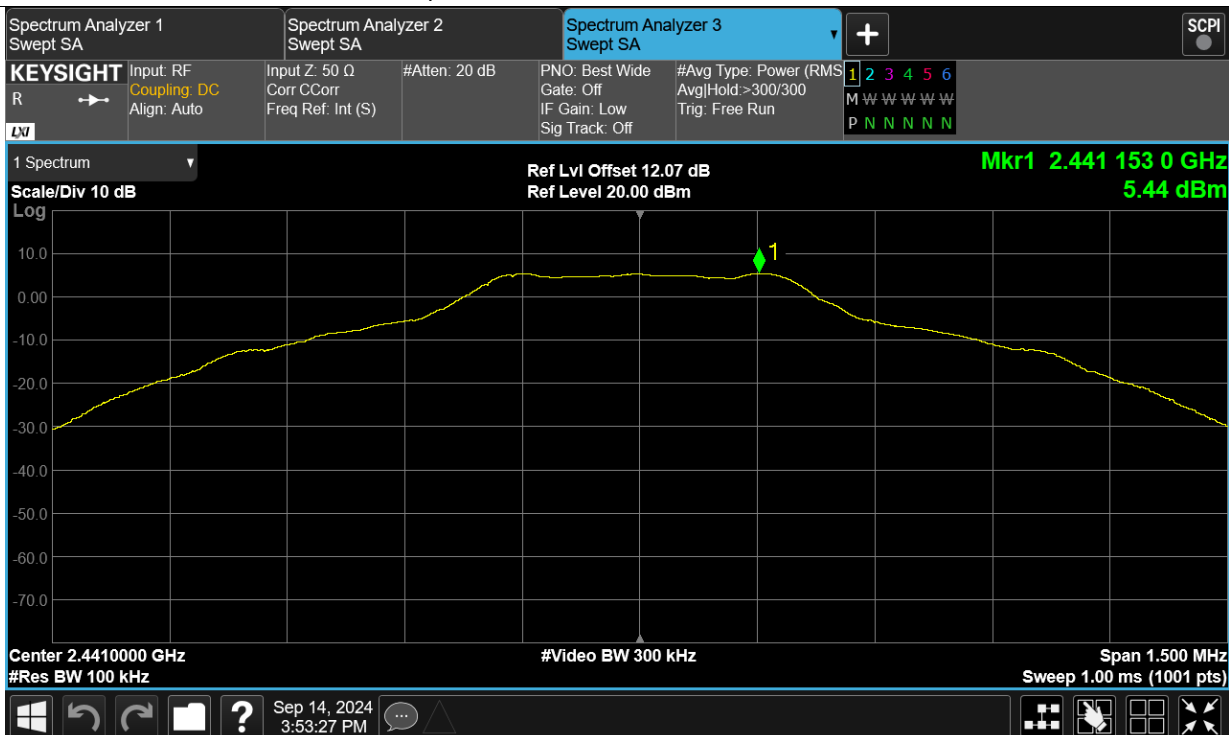
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref



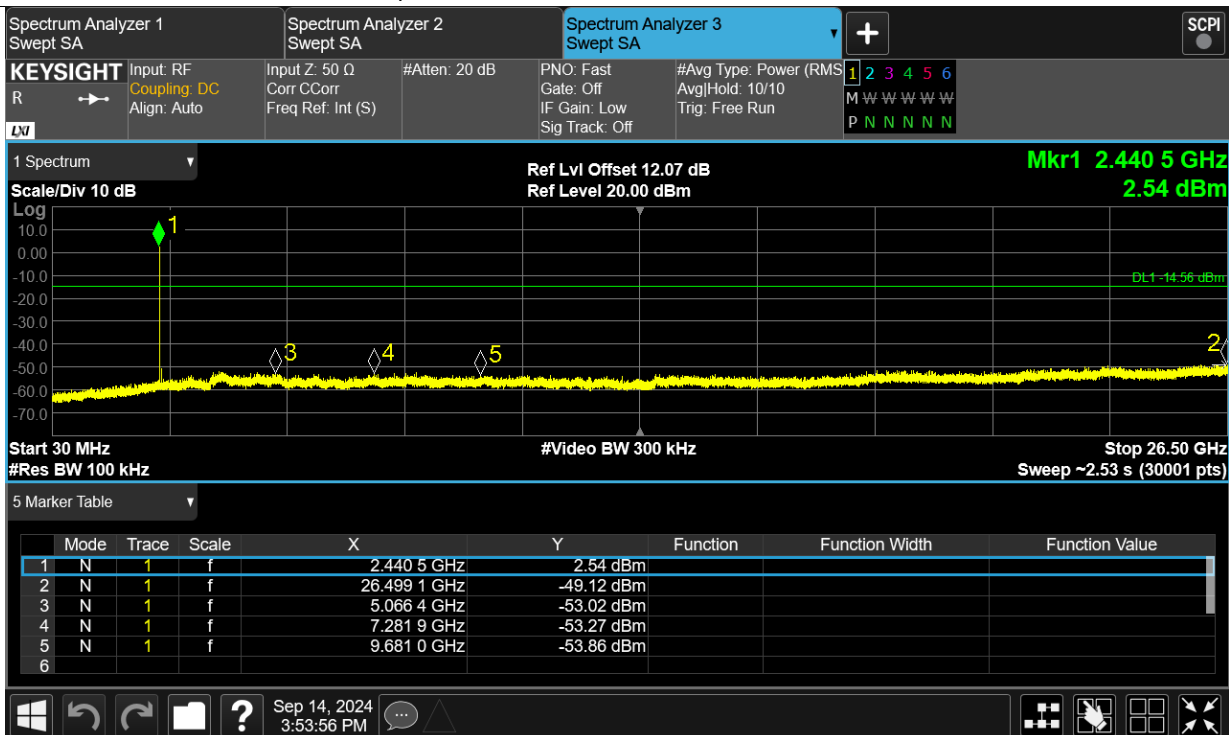
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission

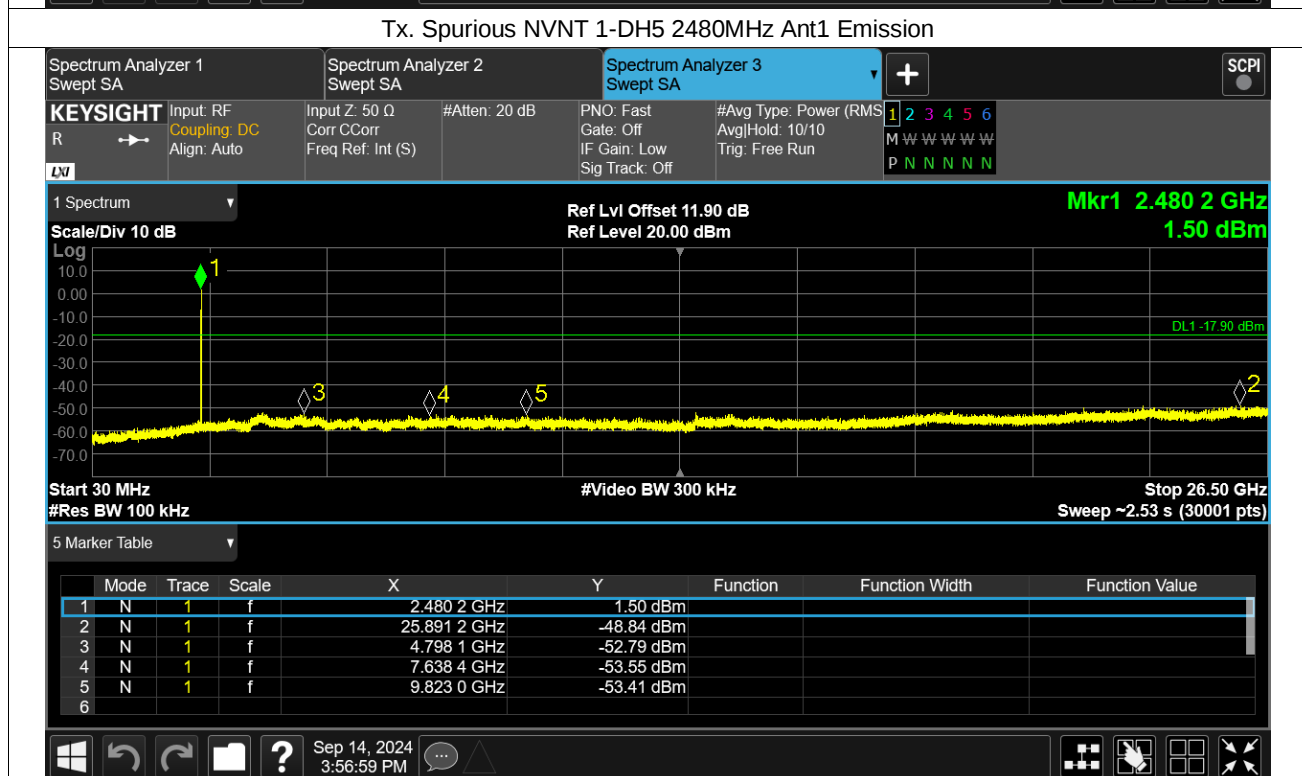
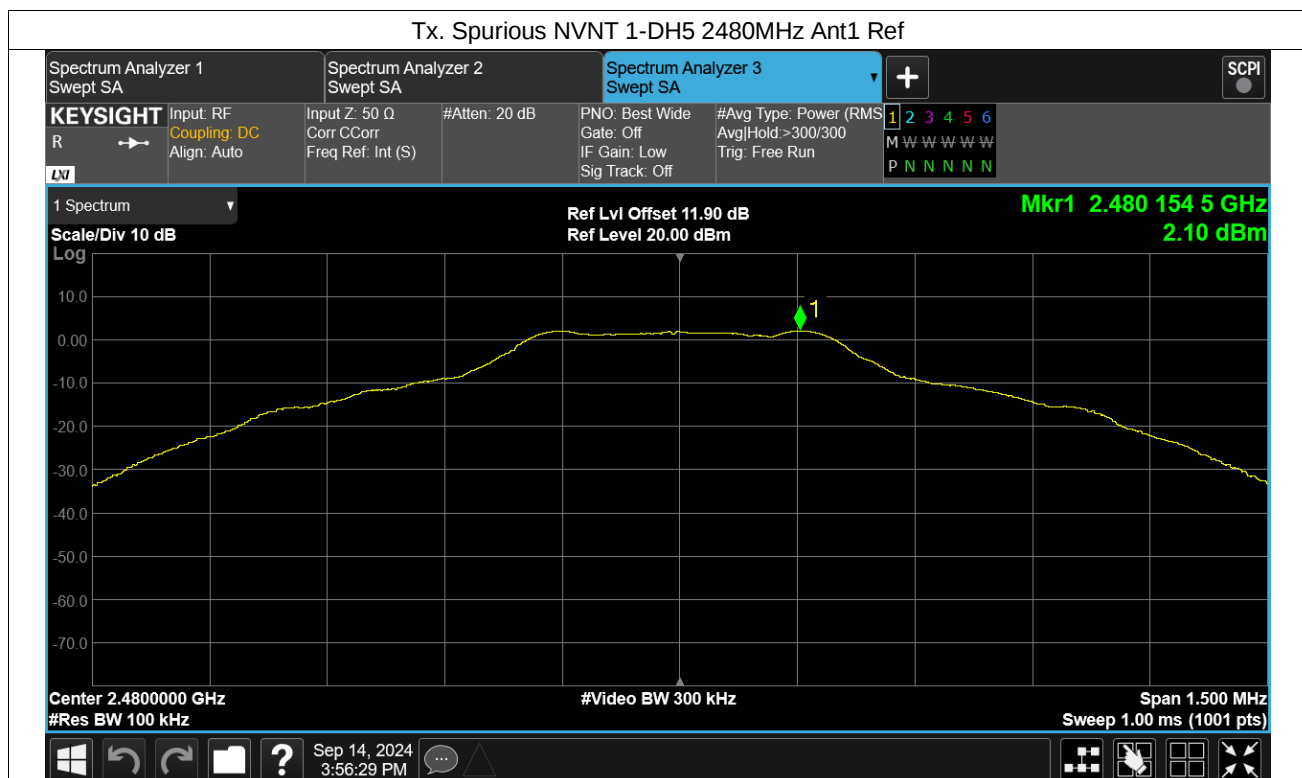


Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref

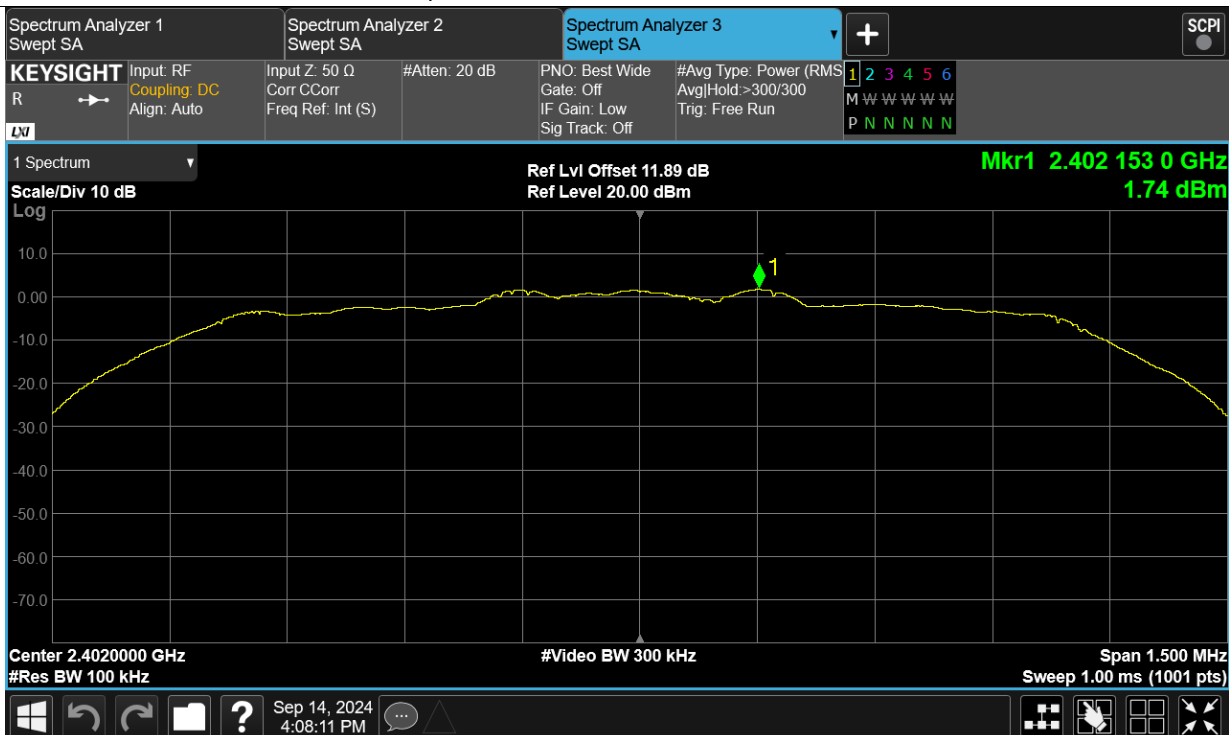


Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission

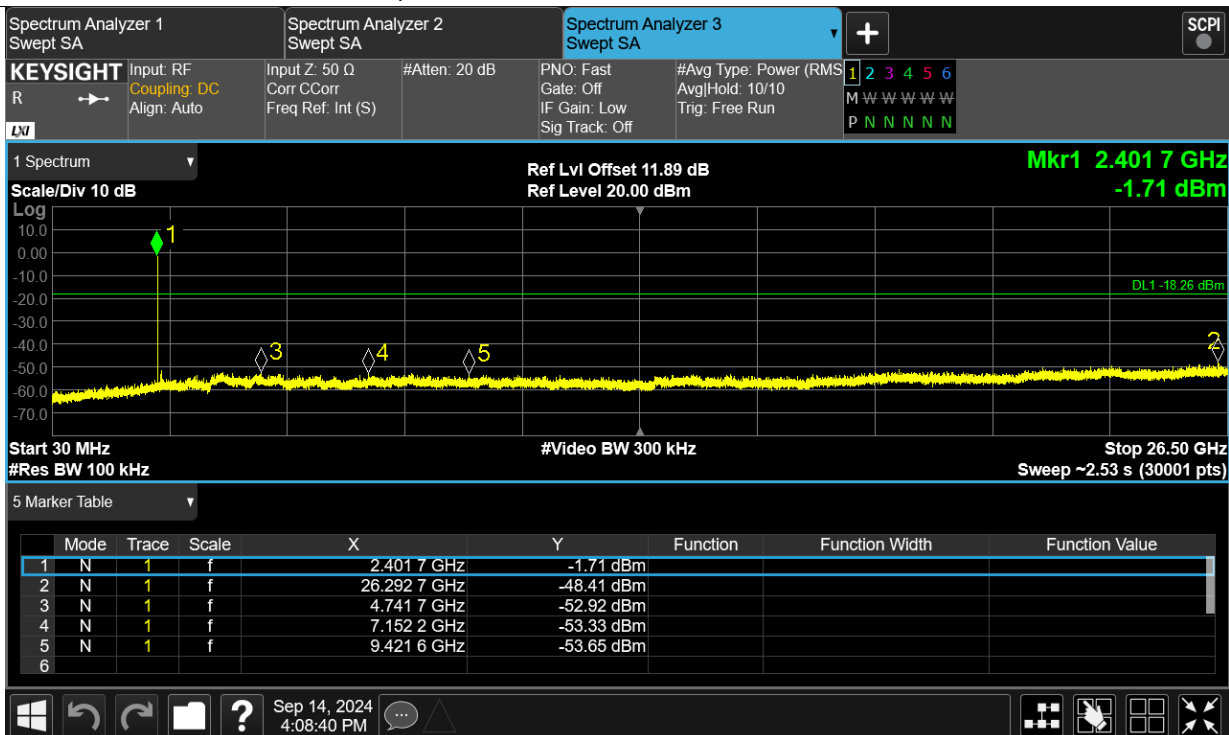




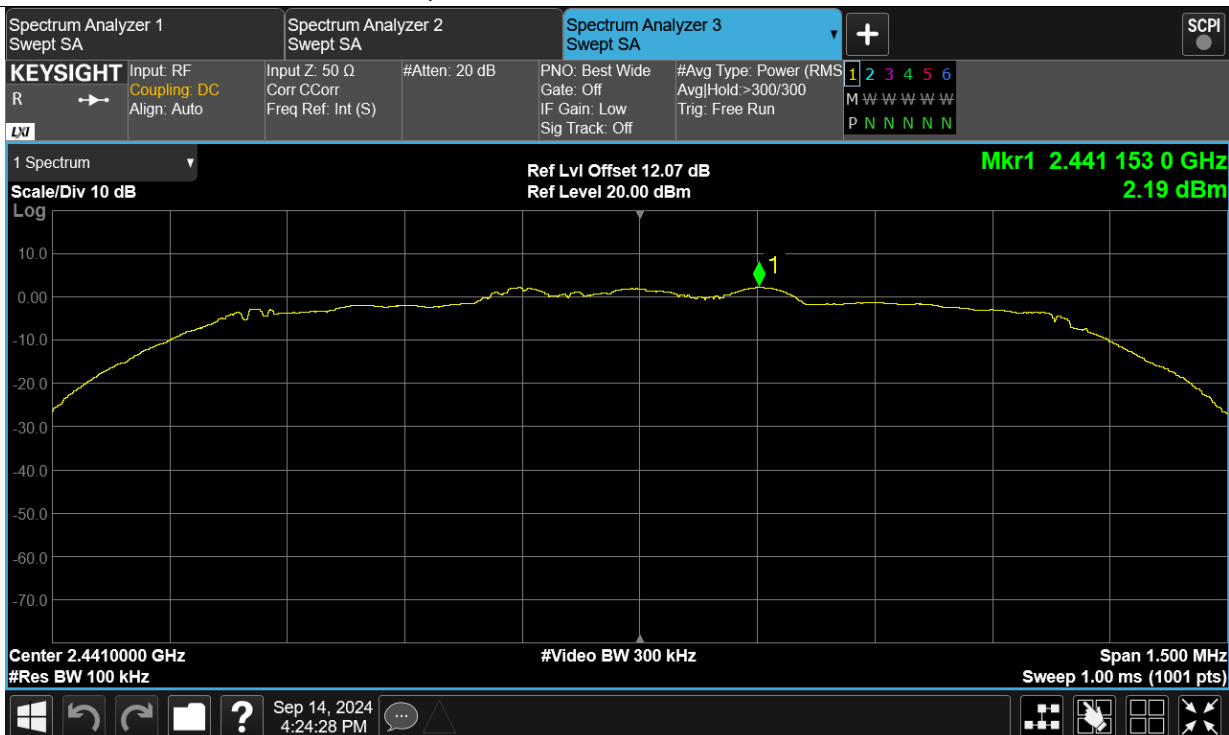
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Ref



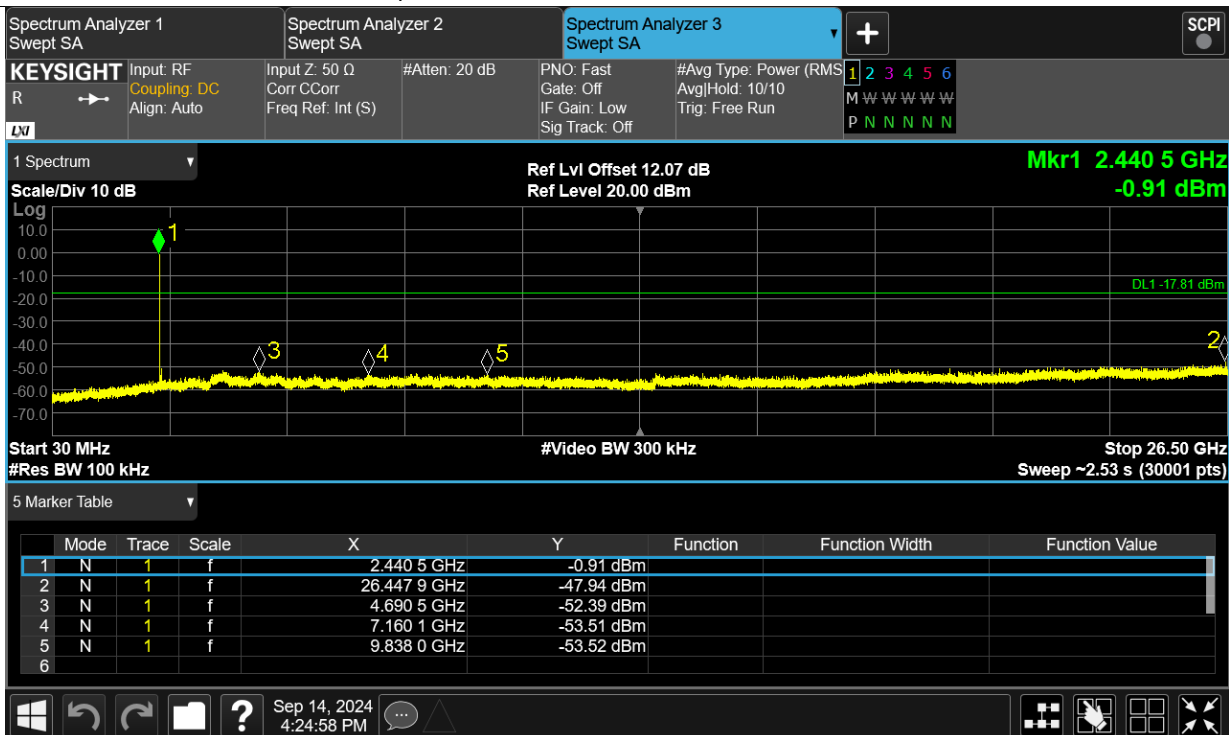
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Emission



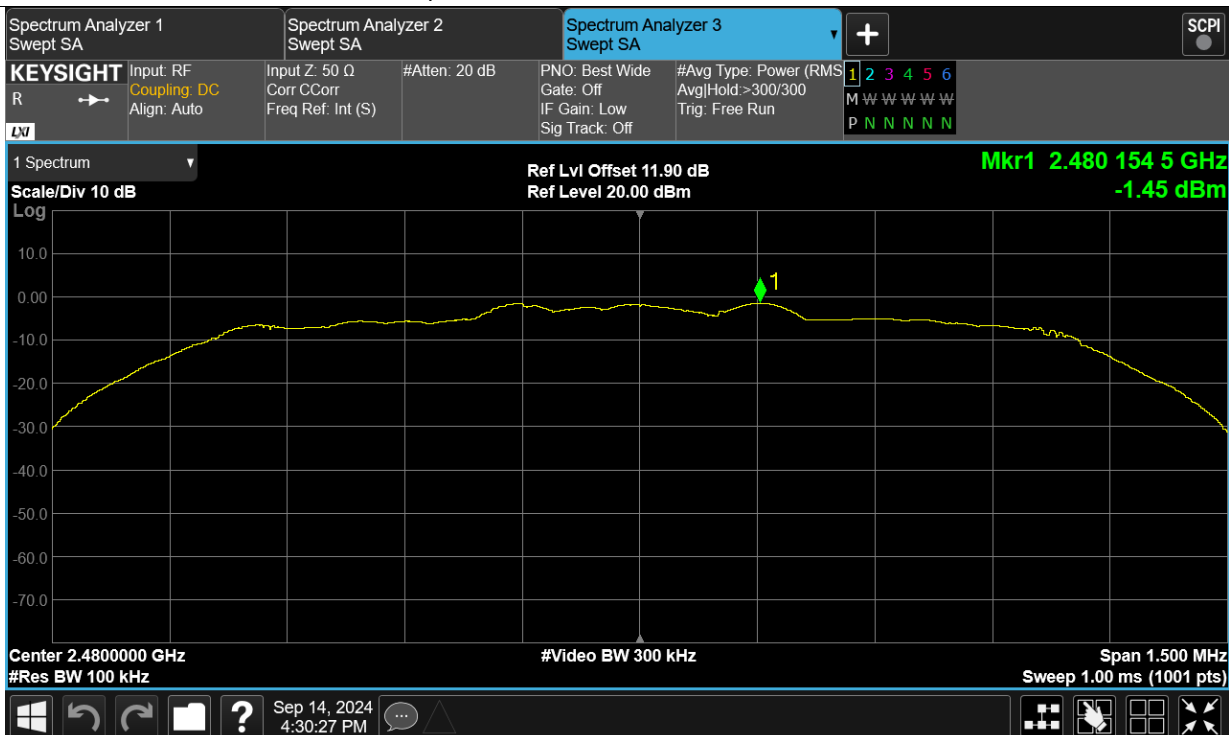
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Ref



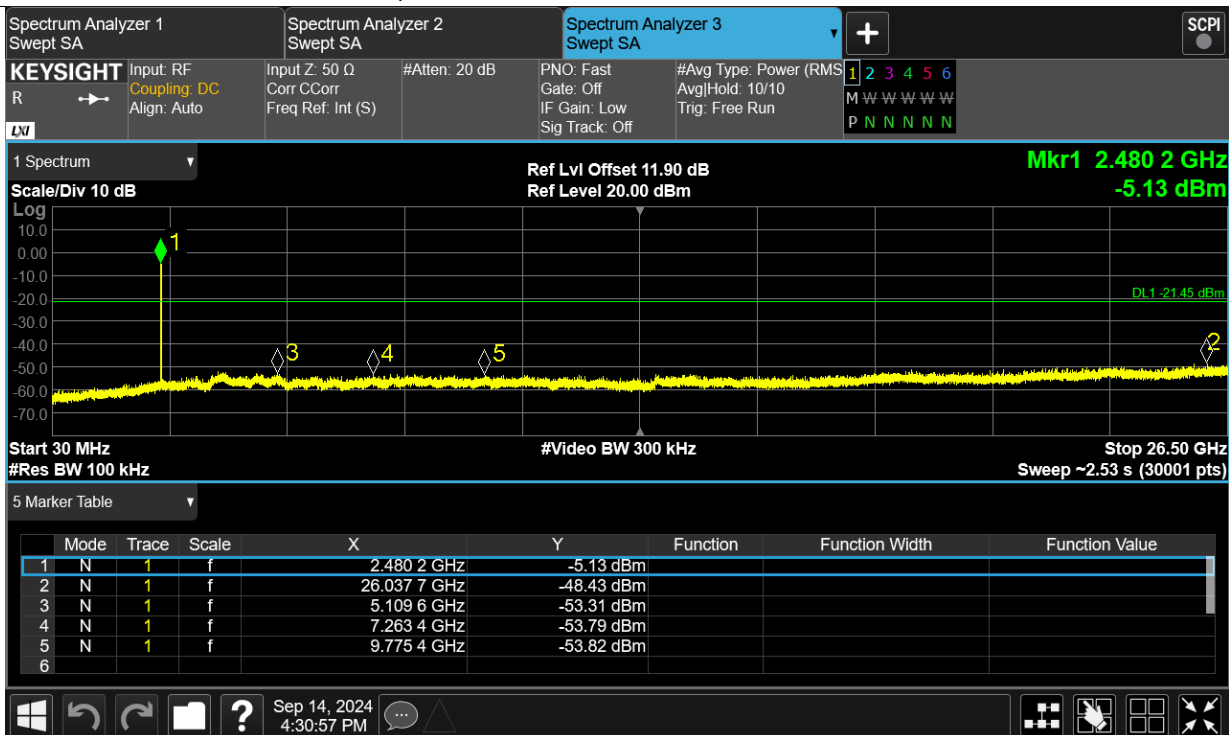
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Emission



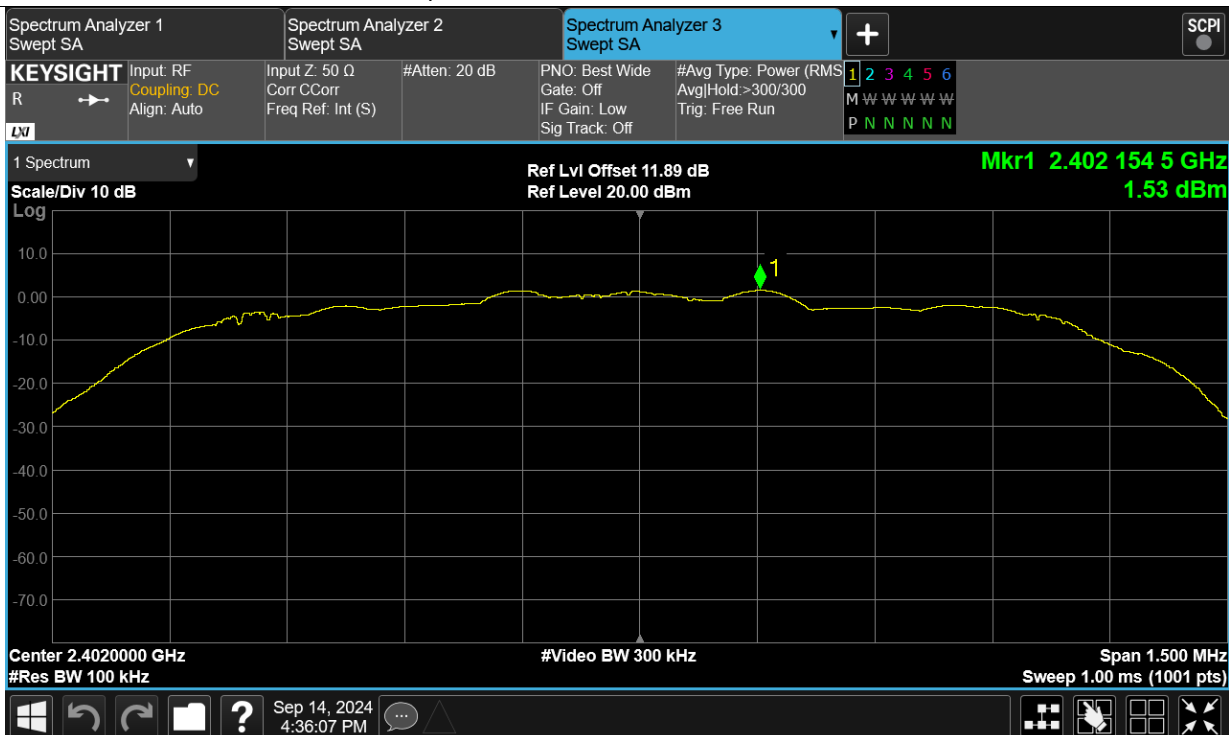
Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Ref



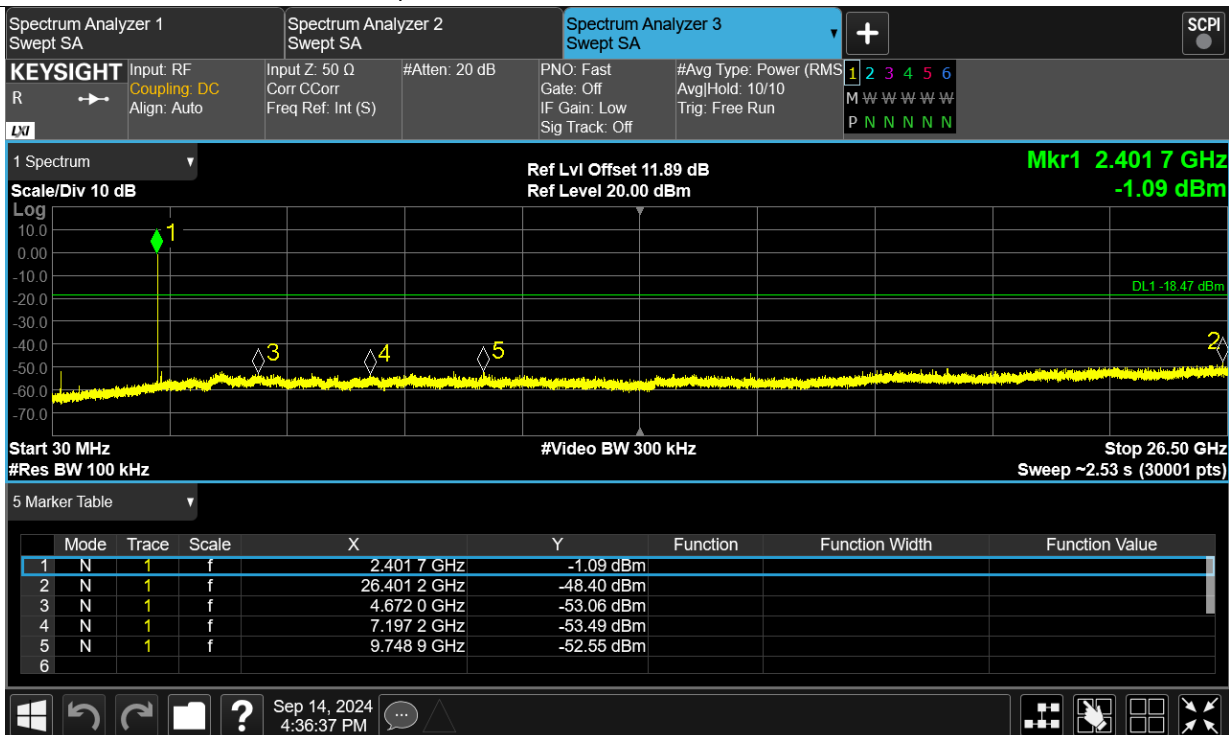
Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Emission



Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Ref



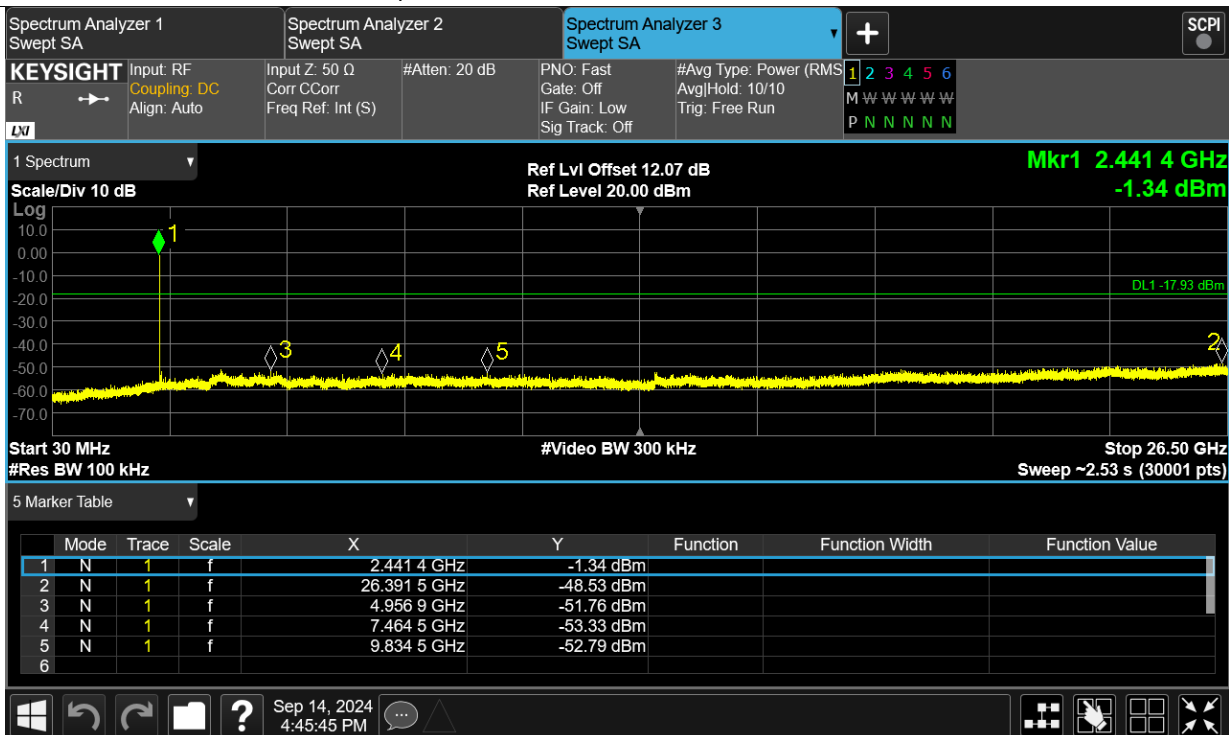
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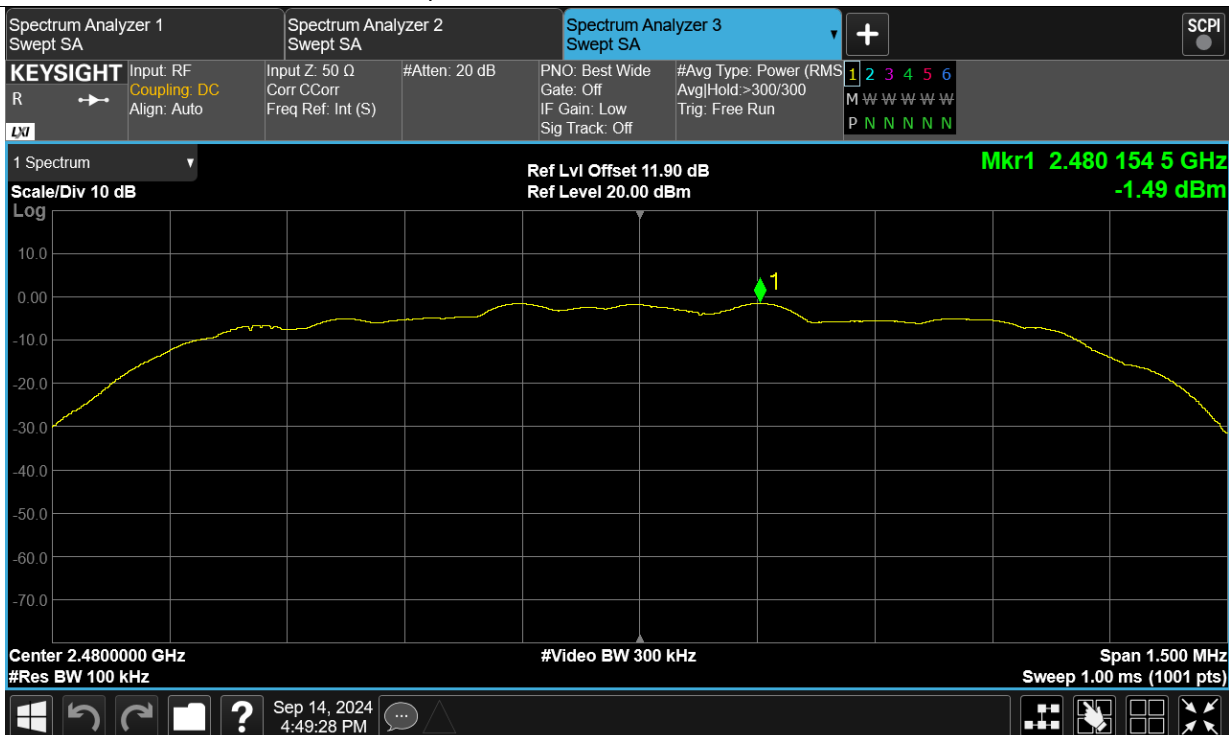
Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Ref



Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Emission

