

Appendix A

RF Test Data for BT(Conducted Measurement)

Product Name: Nightstands

Test Model: ELQ551

Environmental Conditions

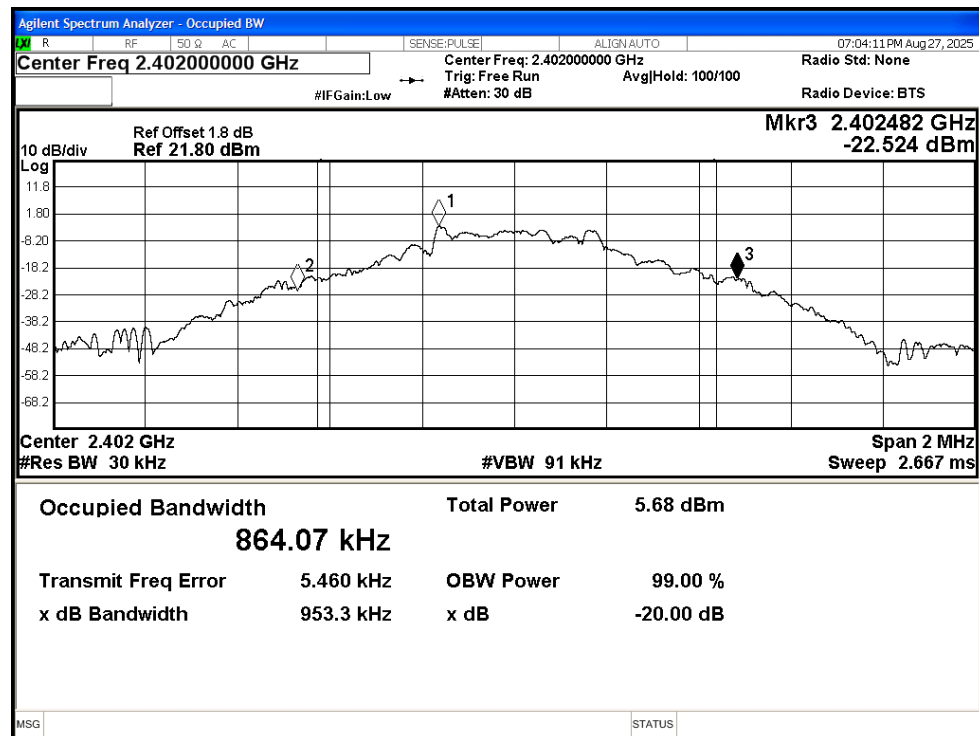
Temperature:	23.8°C
Relative Humidity:	52.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Jone.Lee
Supervised by:	Yan Chen

A.1 -20dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH5	2402	Ant1	0.953	N/A	Pass
NVNT	1-DH5	2441	Ant1	0.956	N/A	Pass
NVNT	1-DH5	2480	Ant1	0.998	N/A	Pass
NVNT	2-DH5	2402	Ant1	1.282	N/A	Pass
NVNT	2-DH5	2441	Ant1	1.312	N/A	Pass
NVNT	2-DH5	2480	Ant1	1.314	N/A	Pass
NVNT	3-DH5	2402	Ant1	1.295	N/A	Pass
NVNT	3-DH5	2441	Ant1	1.29	N/A	Pass
NVNT	3-DH5	2480	Ant1	1.297	N/A	Pass

Test Graphs

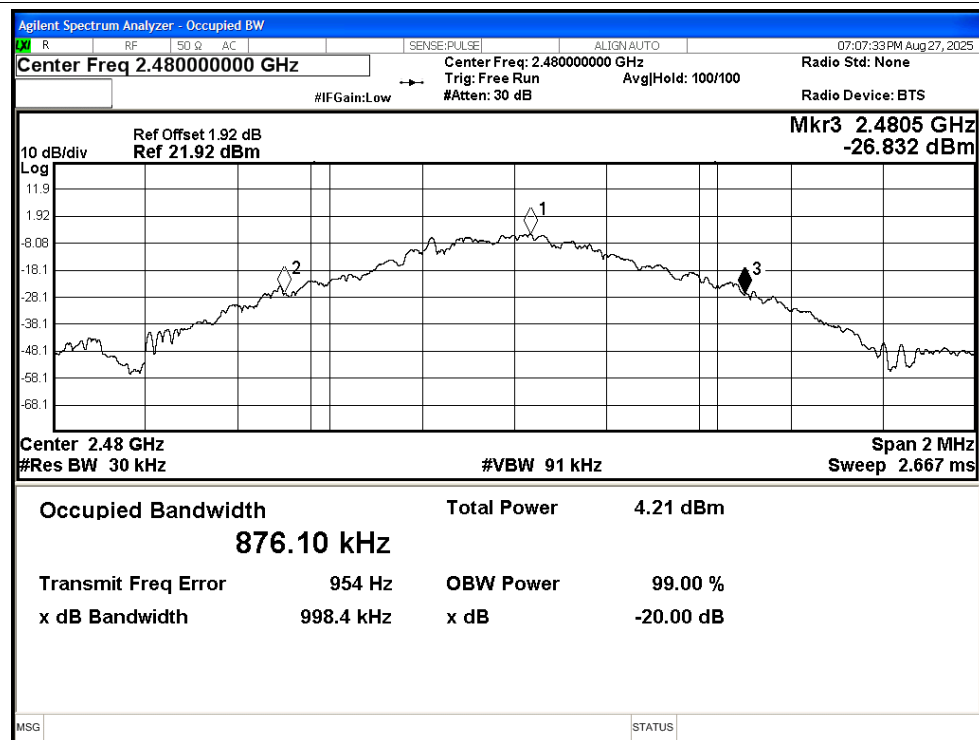
-20dB Bandwidth NVNT 1-DH5 2402MHz Ant1



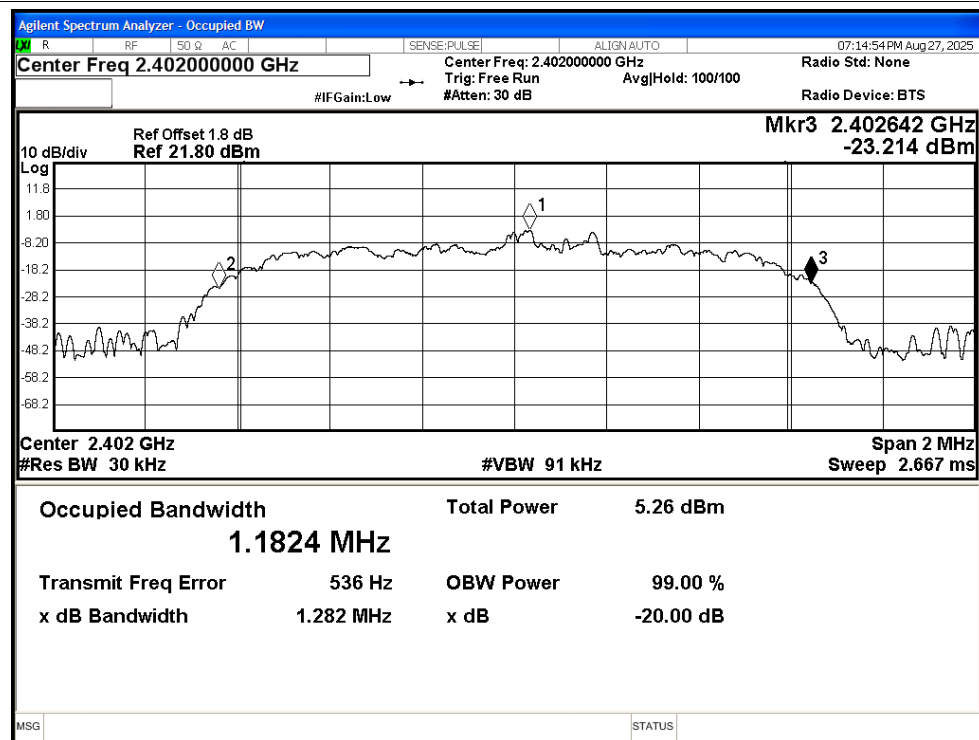
-20dB Bandwidth NVNT 1-DH5 2441MHz Ant1



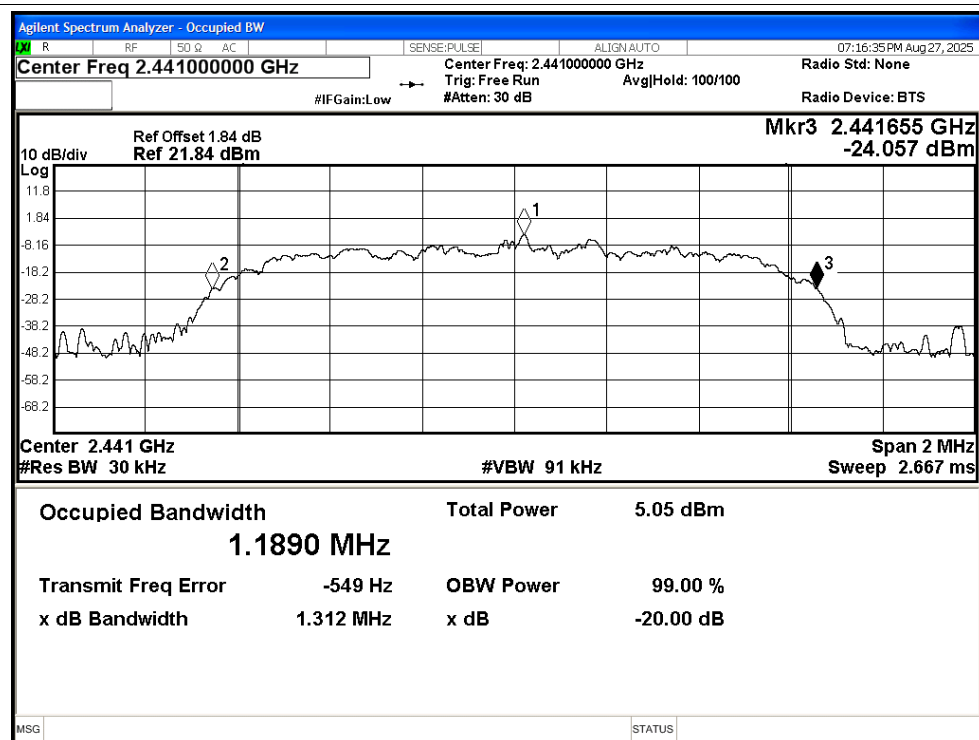
-20dB Bandwidth NVNT 1-DH5 2480MHz Ant1



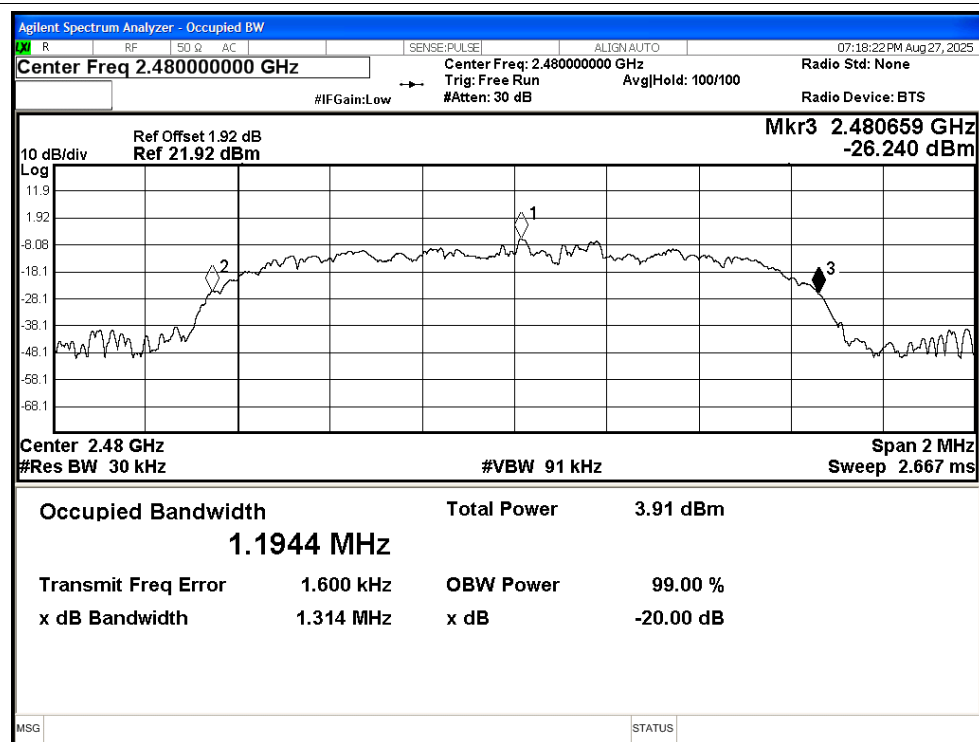
-20dB Bandwidth NVNT 2-DH5 2402MHz Ant1



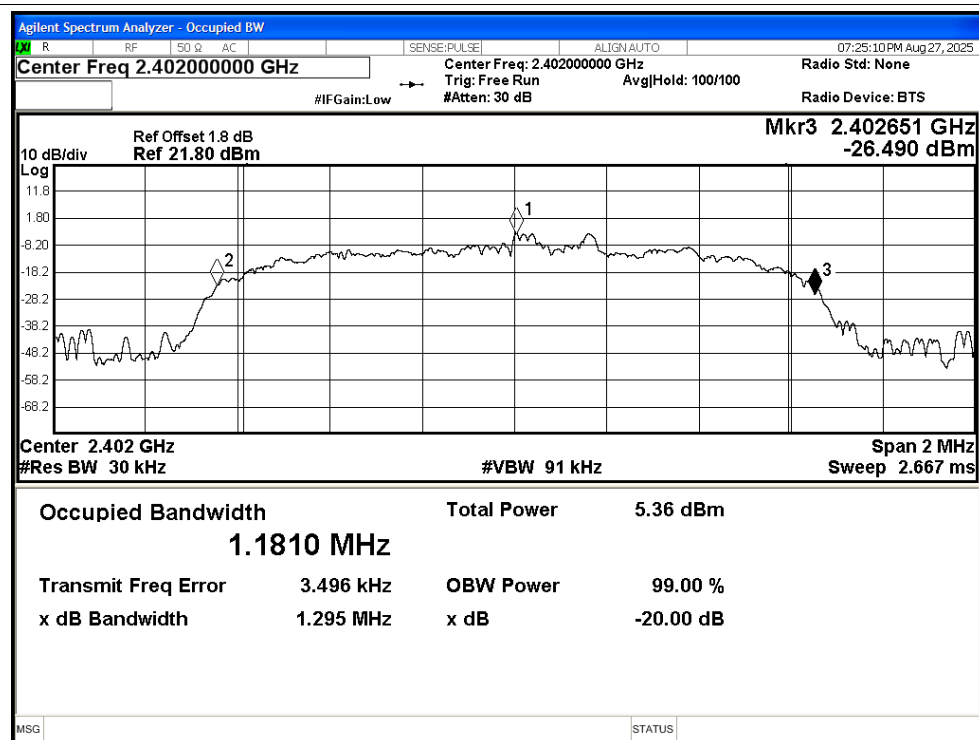
-20dB Bandwidth NVNT 2-DH5 2441MHz Ant1



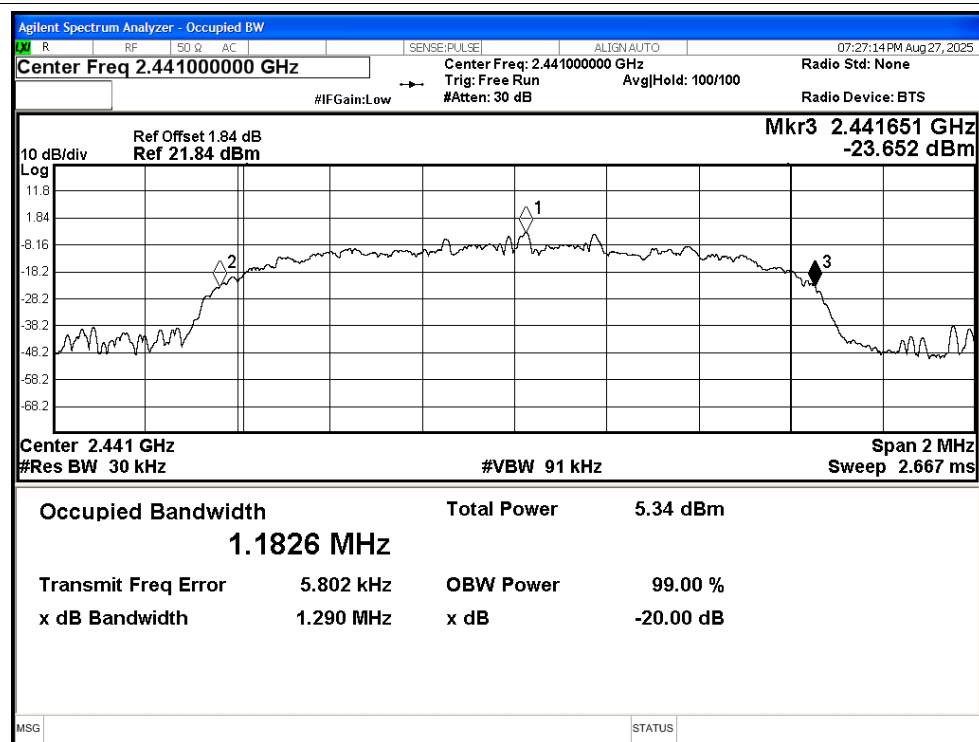
-20dB Bandwidth NVNT 2-DH5 2480MHz Ant1

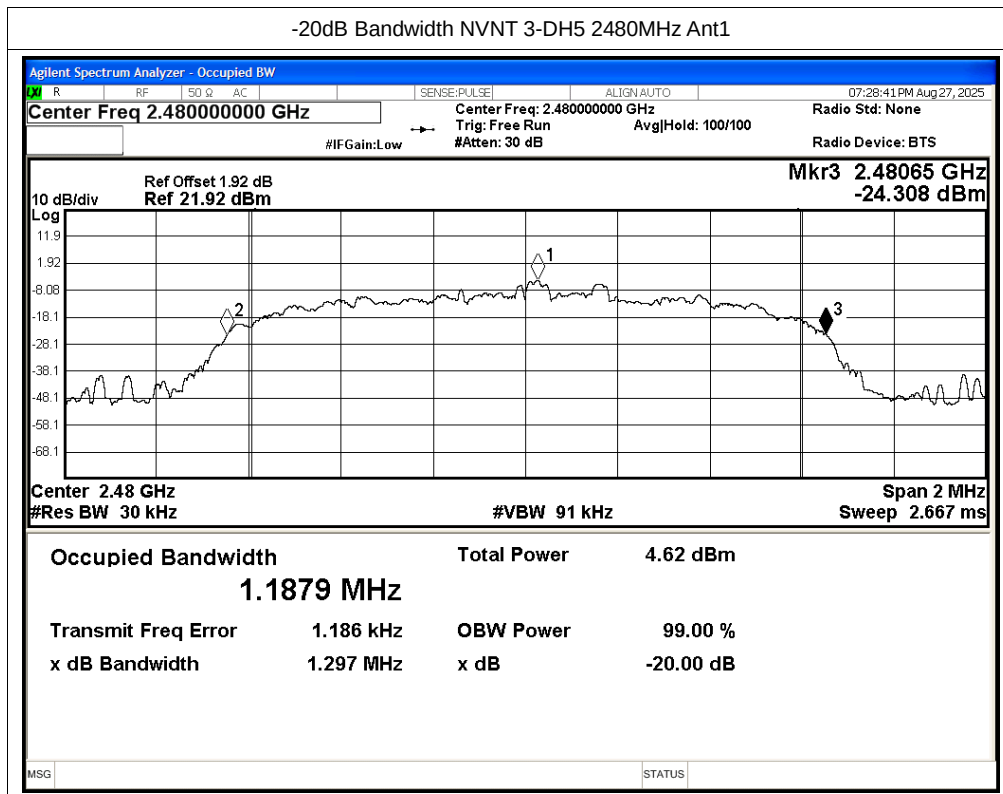


-20dB Bandwidth NVNT 3-DH5 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH5 2441MHz Ant1



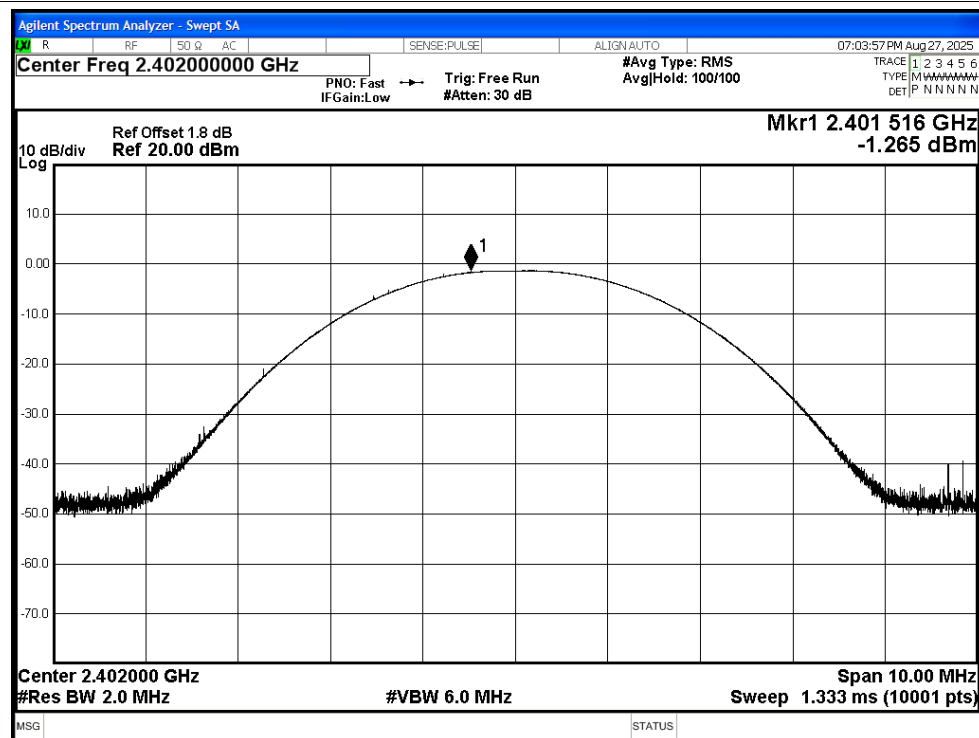


A.2 Maximum Peak Conducted Output Power

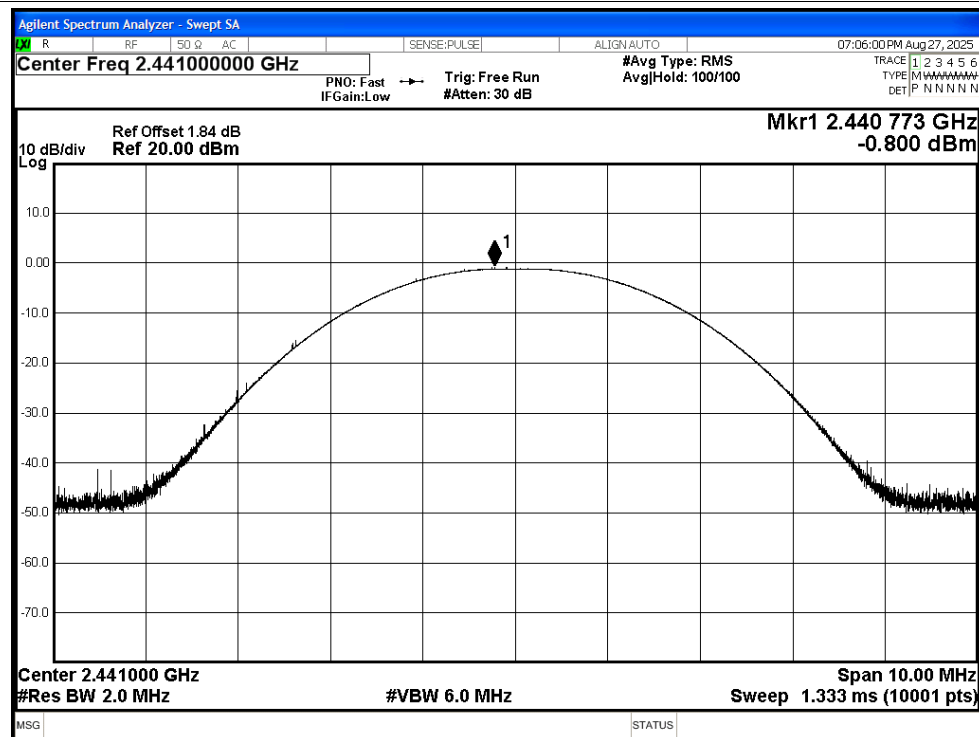
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH5	2402	Ant1	-1.26	21	Pass
NVNT	1-DH5	2441	Ant1	-0.8	21	Pass
NVNT	1-DH5	2480	Ant1	-1.87	21	Pass
NVNT	2-DH5	2402	Ant1	0.71	21	Pass
NVNT	2-DH5	2441	Ant1	0.94	21	Pass
NVNT	2-DH5	2480	Ant1	-0.12	21	Pass
NVNT	3-DH5	2402	Ant1	1.17	21	Pass
NVNT	3-DH5	2441	Ant1	1.41	21	Pass
NVNT	3-DH5	2480	Ant1	0.28	21	Pass

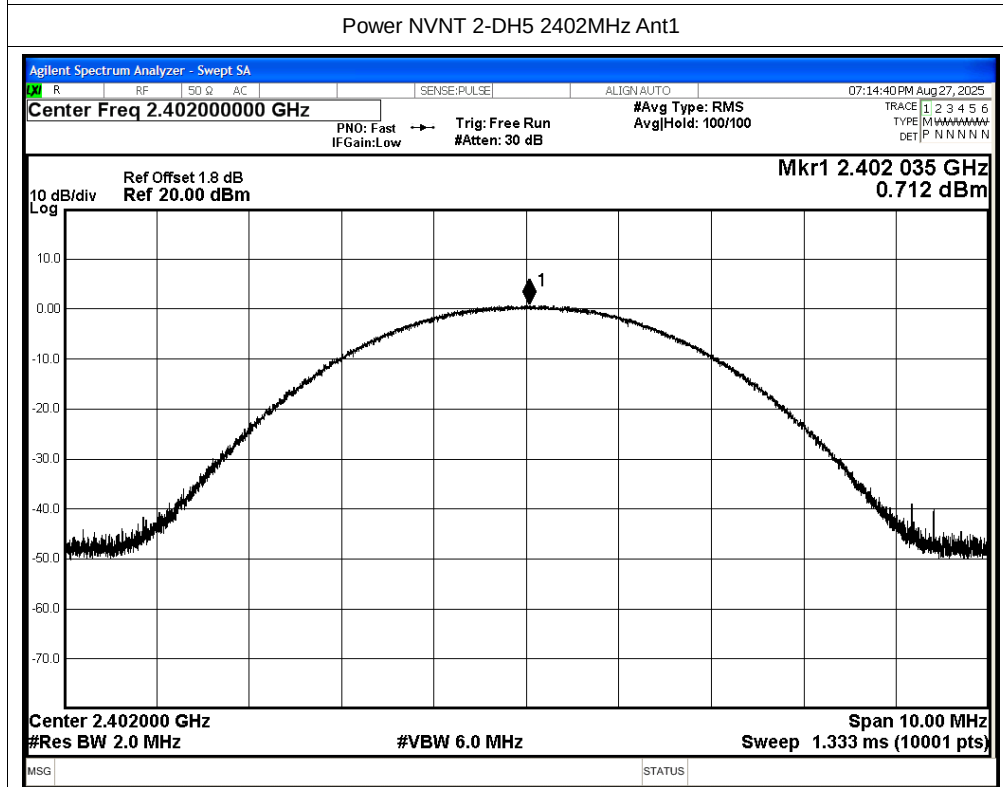
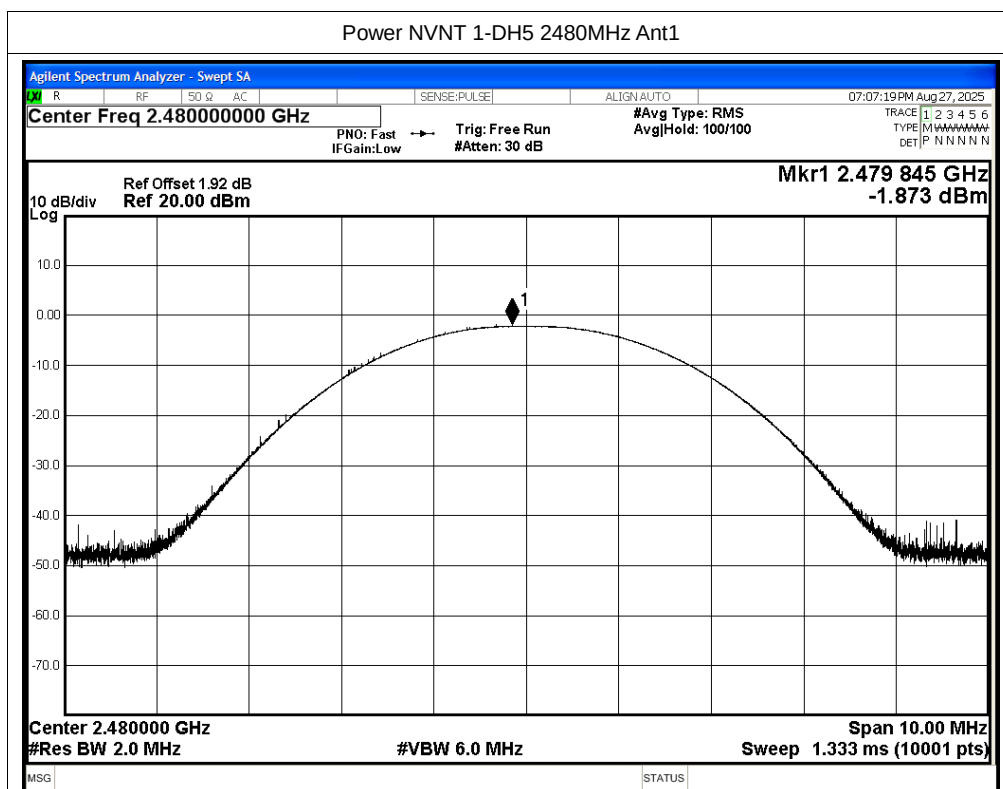
Test Graphs

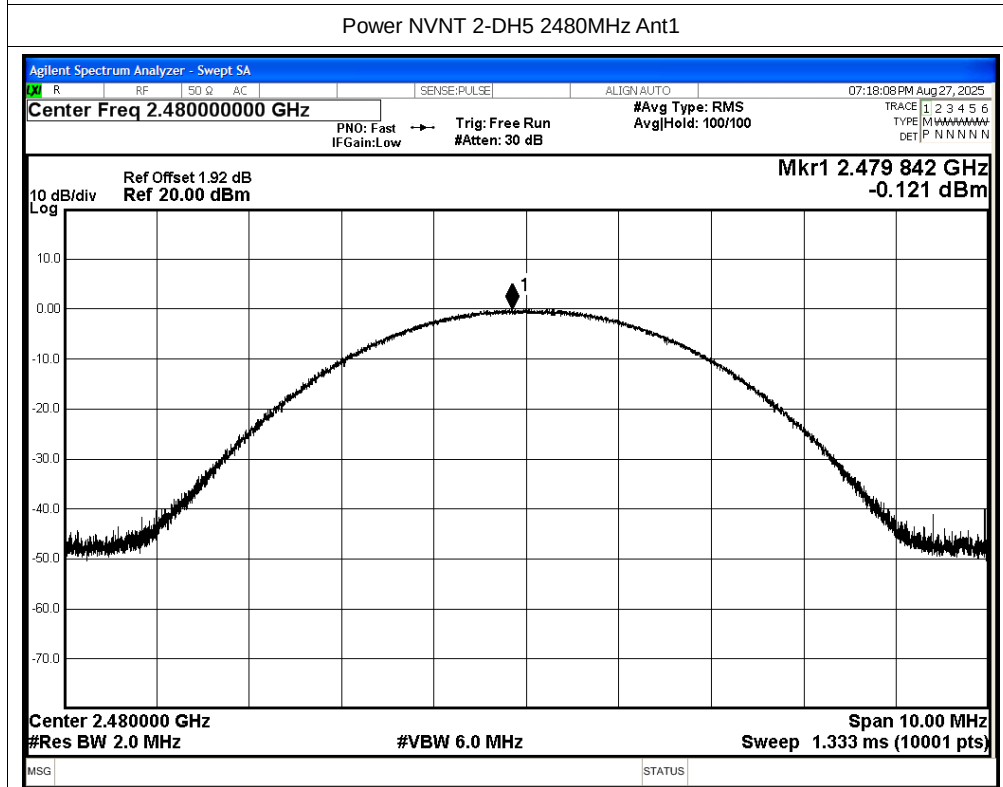
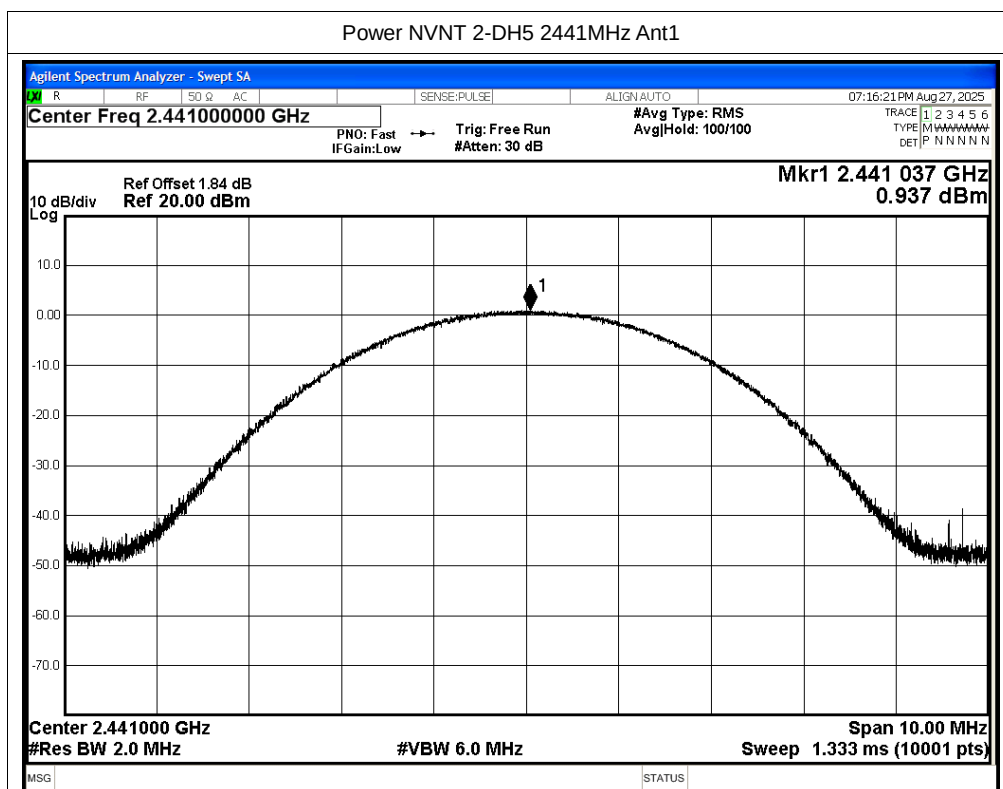
Power NVNT 1-DH5 2402MHz Ant1

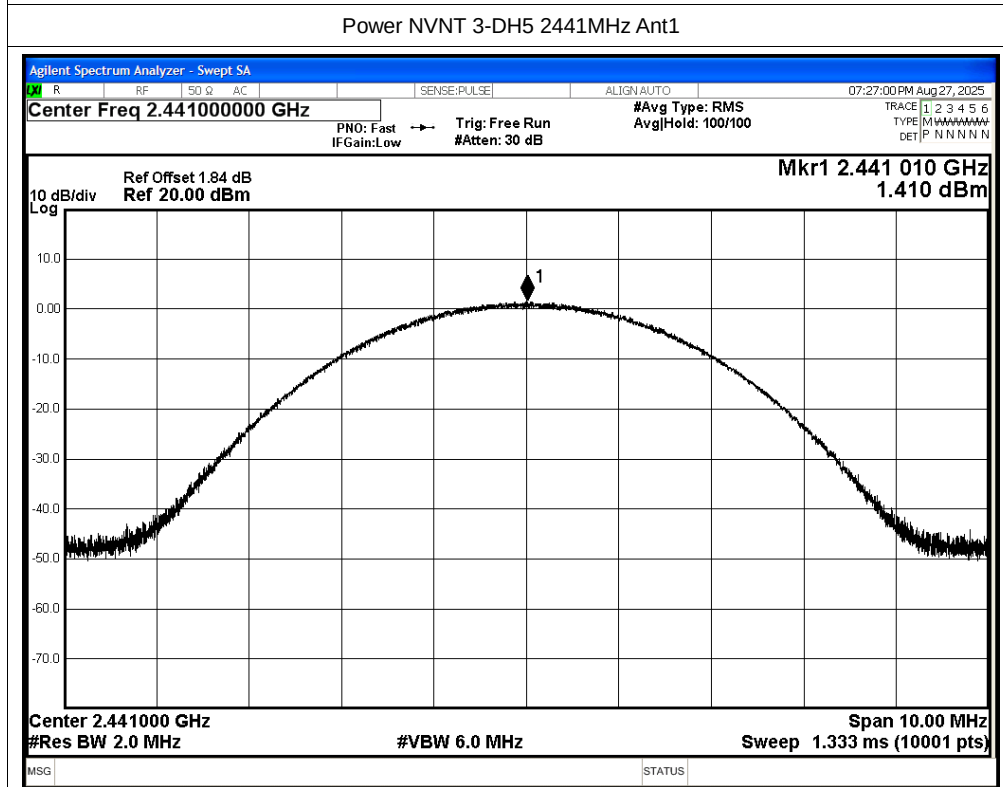
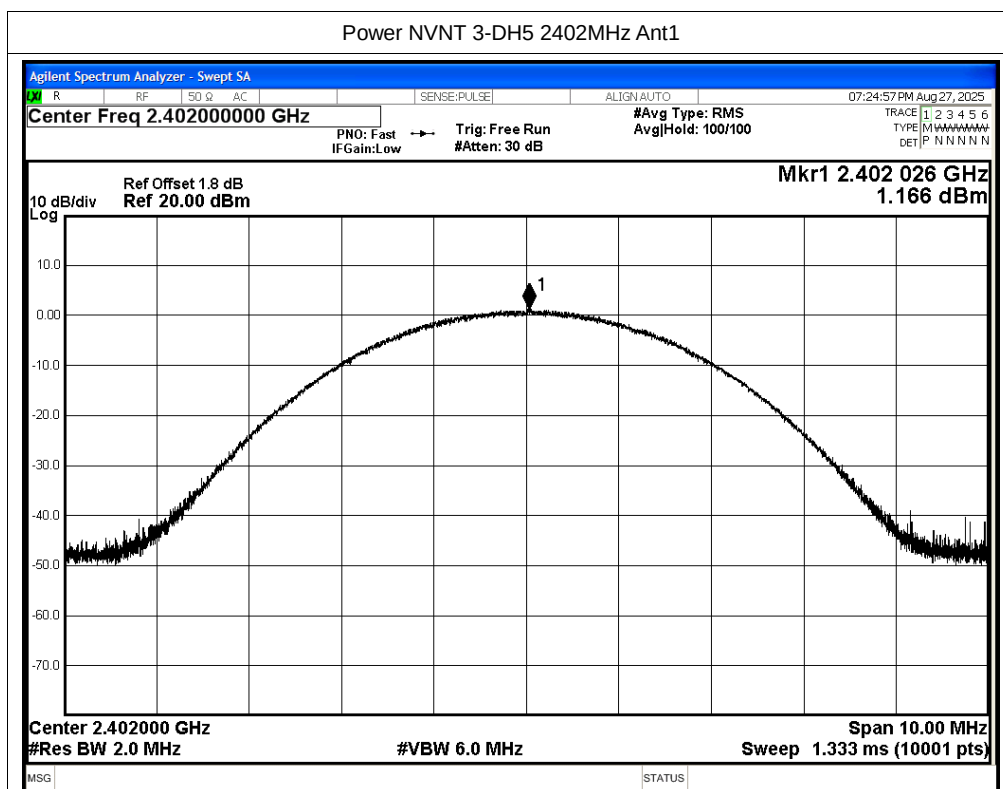


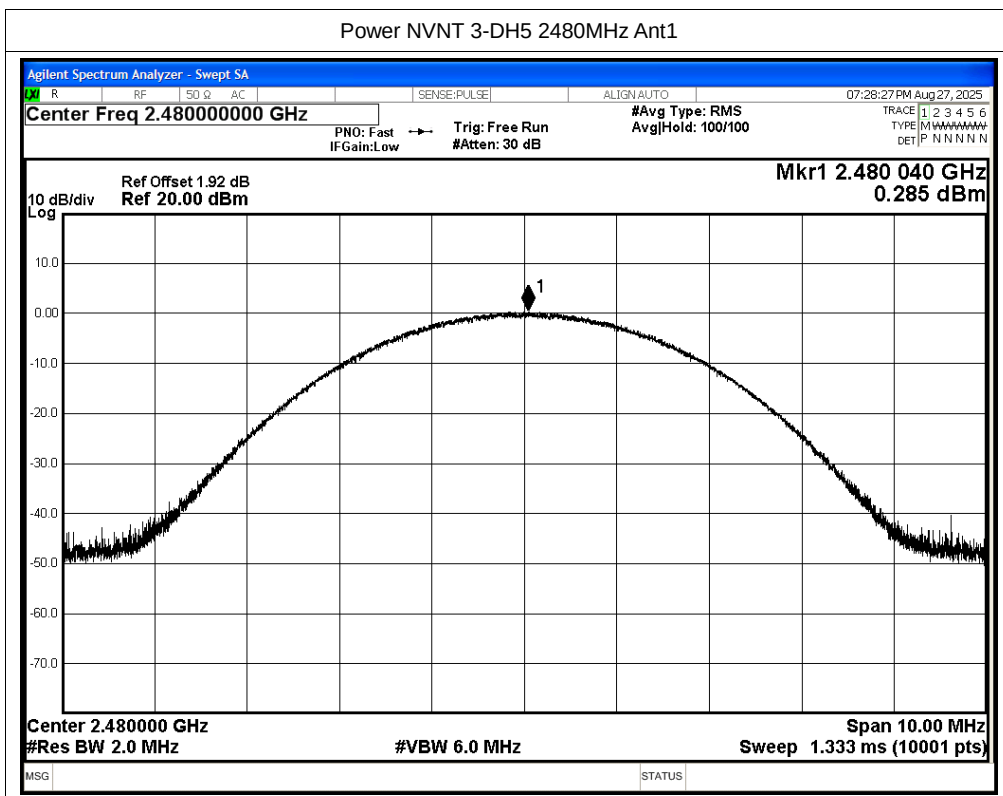
Power NVNT 1-DH5 2441MHz Ant1









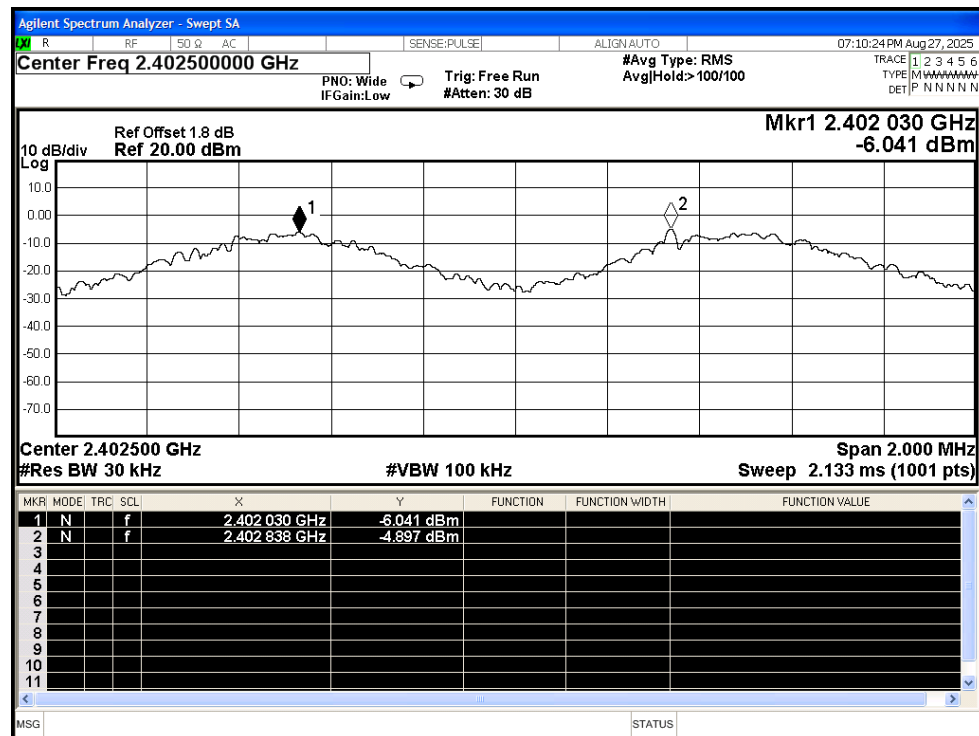


A.3 Carrier Frequencies Separation

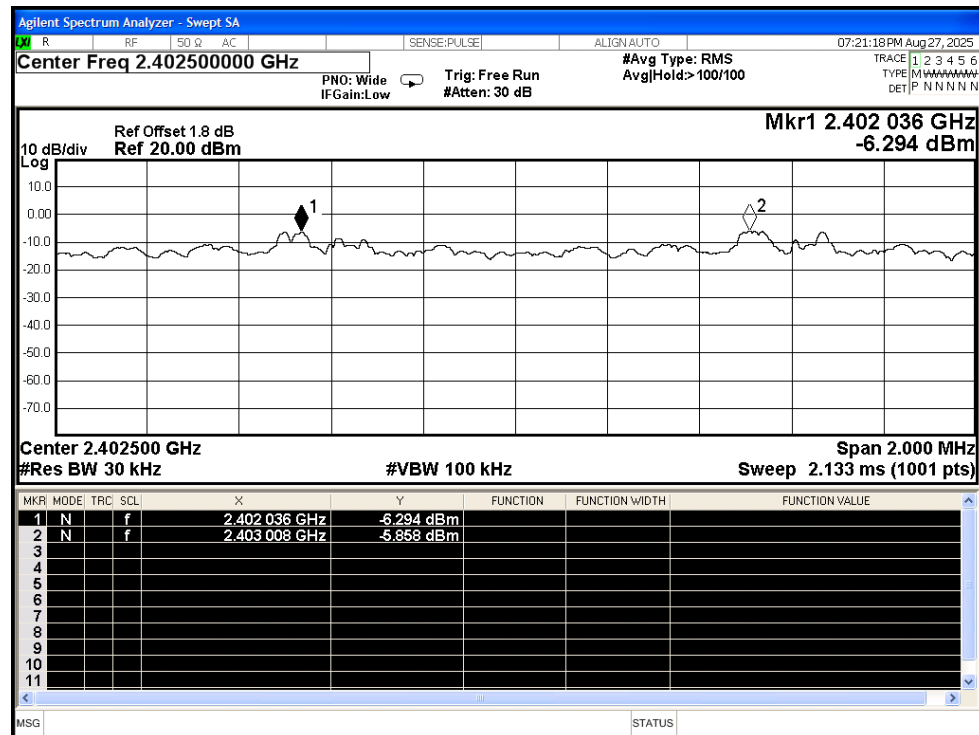
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH5	Ant1	2402.03	2402.838	0.808	0.665	Pass
NVNT	2-DH5	Ant1	2402.036	2403.008	0.972	0.876	Pass
NVNT	3-DH5	Ant1	2402.004	2403.018	1.014	0.865	Pass

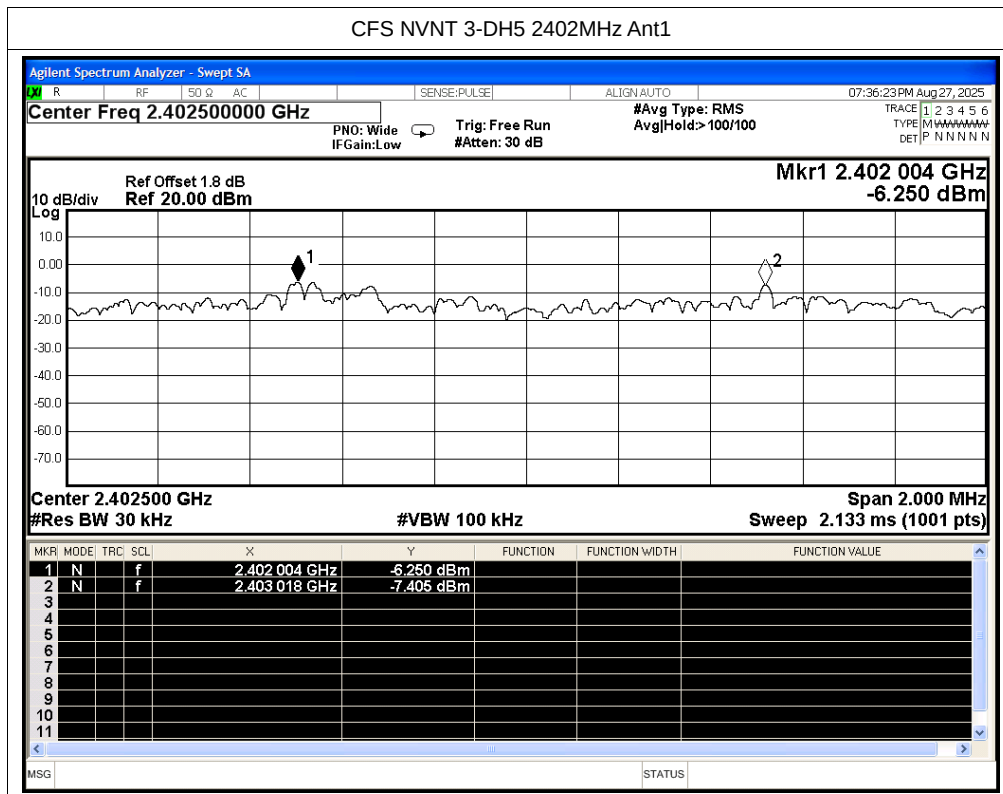
Test Graphs

CFS NVNT 1-DH5 2402MHz Ant1



CFS NVNT 2-DH5 2402MHz Ant1



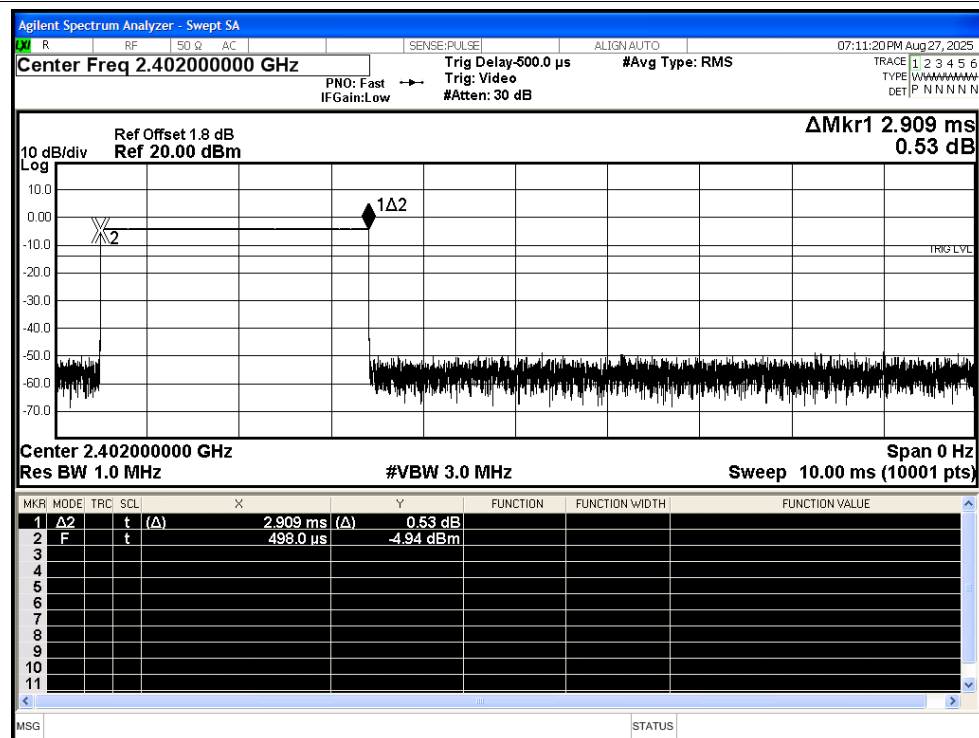


A.4 Dwell Time

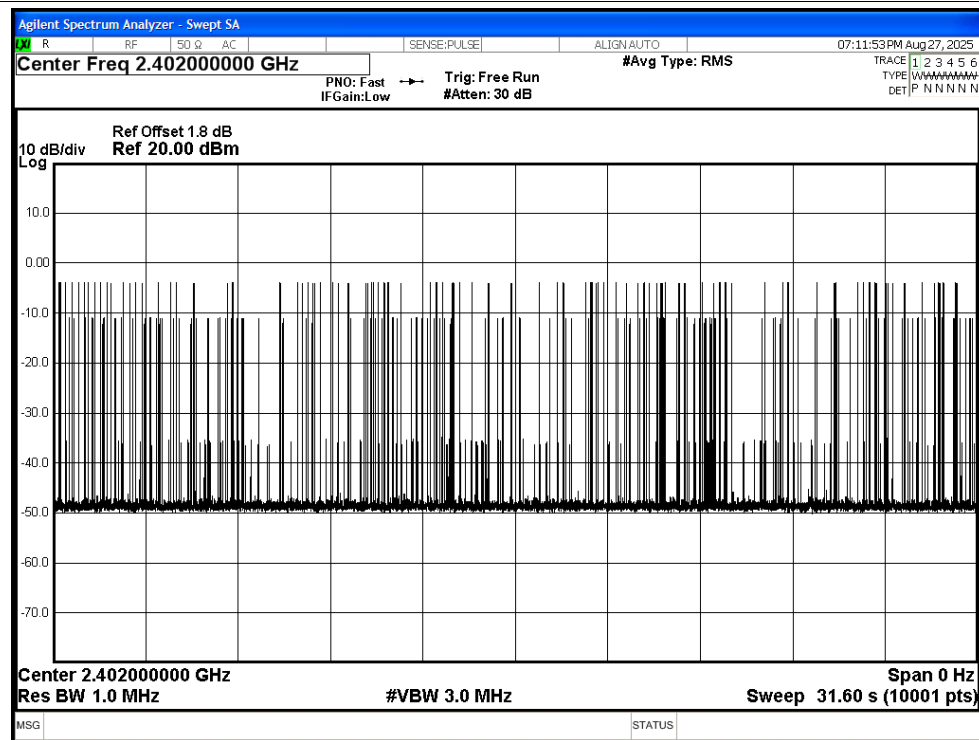
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH5	2402	Ant1	2.909	314.172	108	31600	400	Pass
NVNT	2-DH5	2402	Ant1	2.898	286.902	99	31600	400	Pass
NVNT	3-DH5	2402	Ant1	2.897	307.082	106	31600	400	Pass

Test Graphs

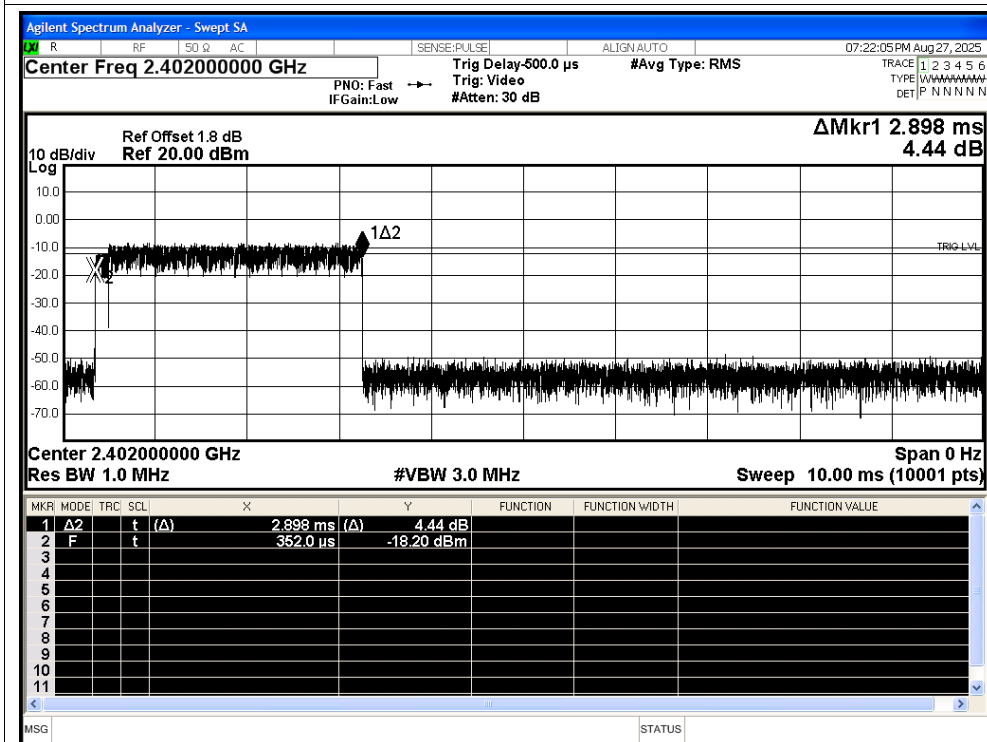
Dwell NVNT 1-DH5 2402MHz Ant1 One Burst



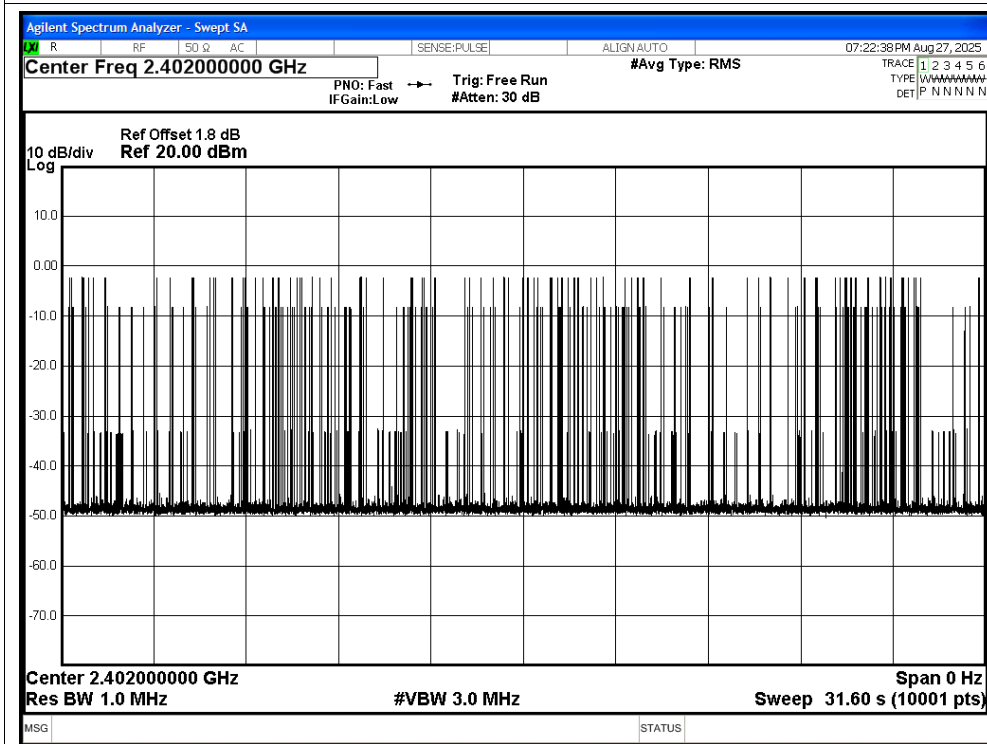
Dwell NVNT 1-DH5 2402MHz Ant1 Accumulated



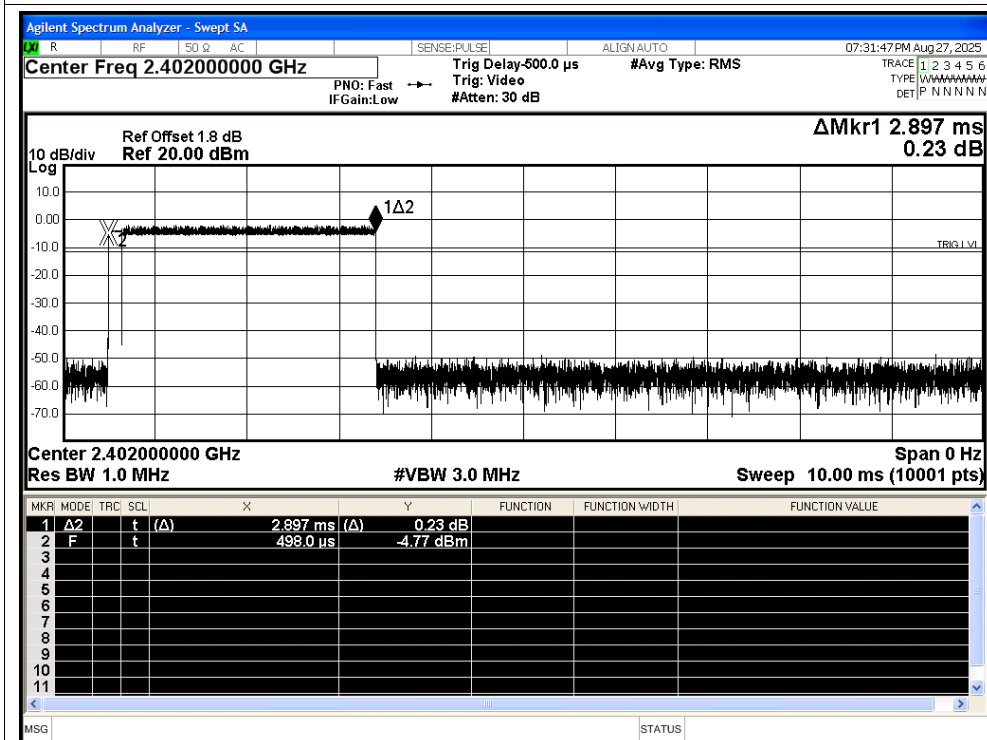
Dwell NVNT 2-DH5 2402MHz Ant1 One Burst



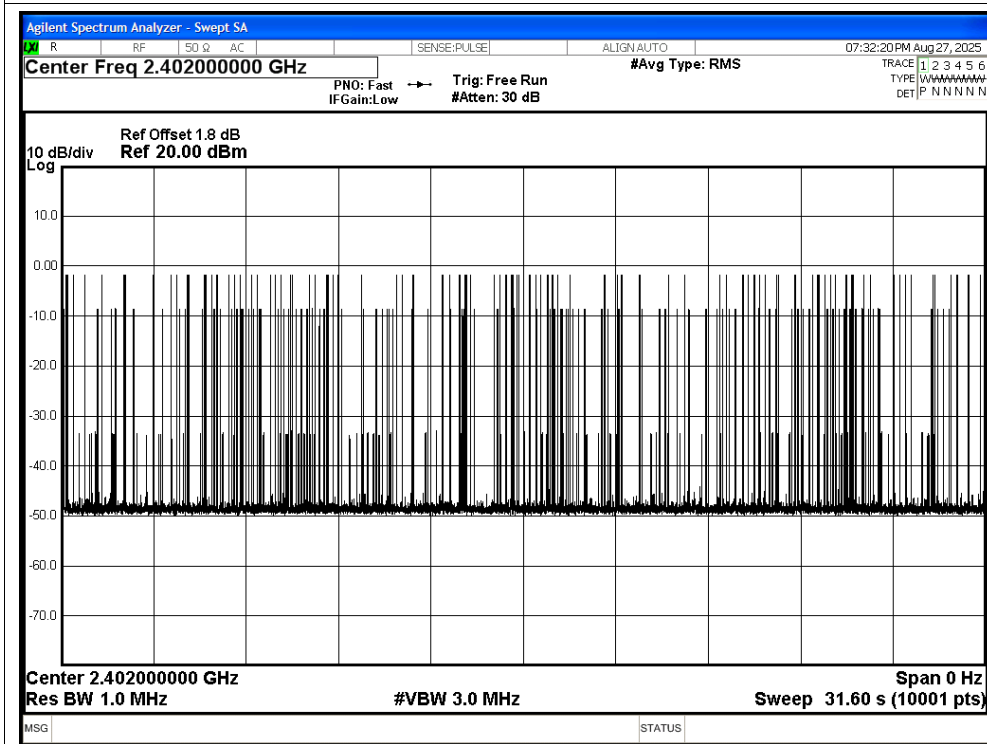
Dwell NVNT 2-DH5 2402MHz Ant1 Accumulated



Dwell NVNT 3-DH5 2402MHz Ant1 One Burst



Dwell NVNT 3-DH5 2402MHz Ant1 Accumulated

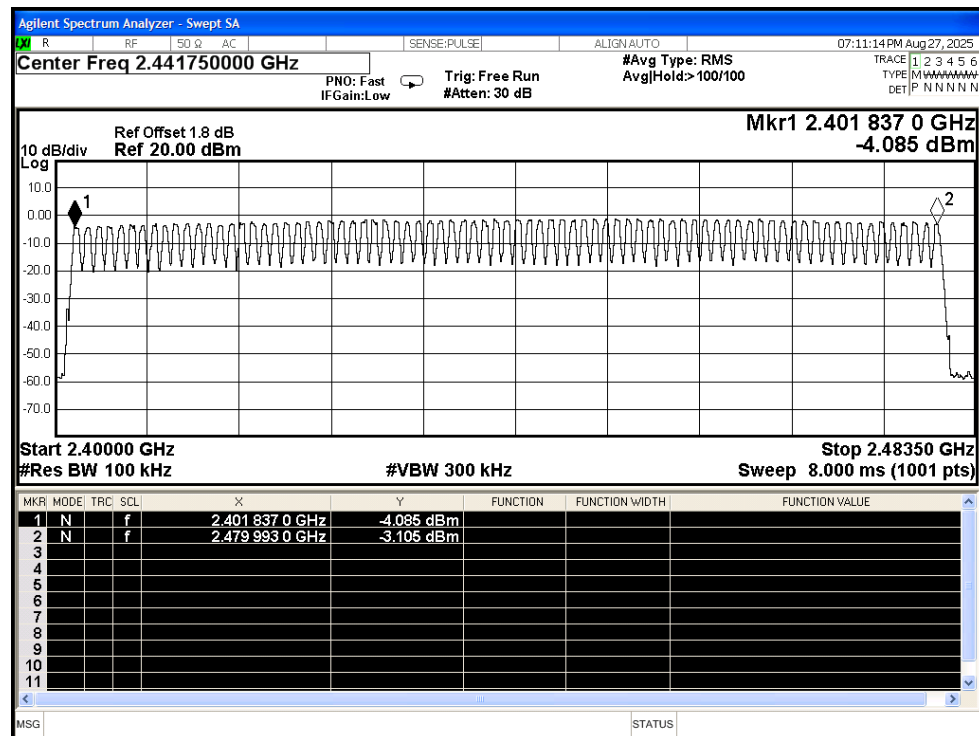


A.5 Number of Hopping Channel

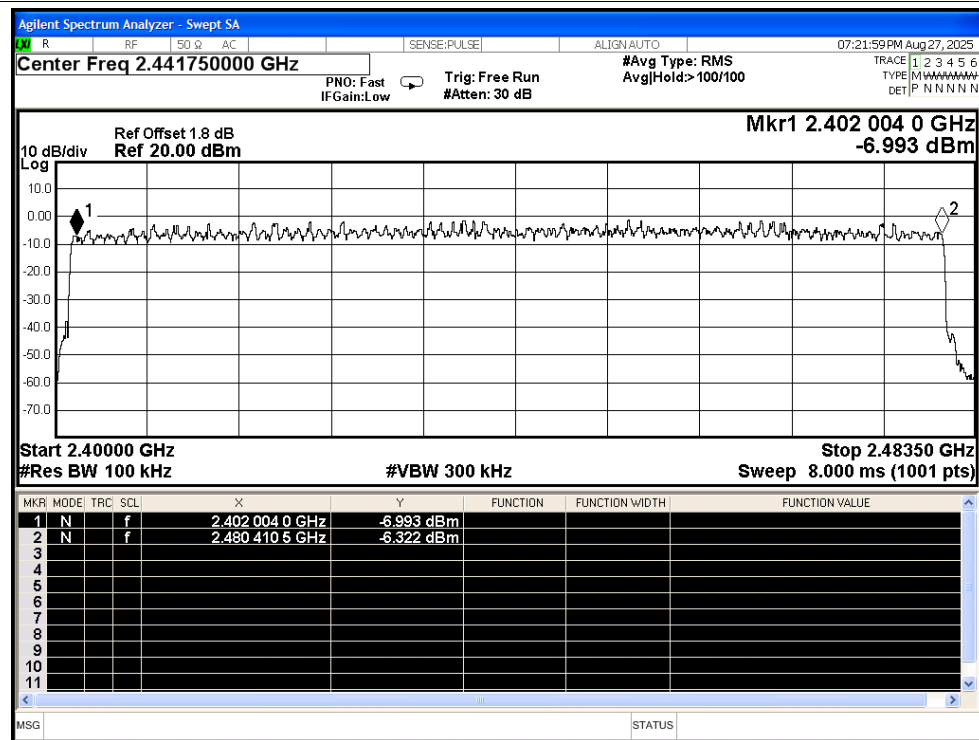
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH5	Ant1	79	15	Pass
NVNT	2-DH5	Ant1	79	15	Pass
NVNT	3-DH5	Ant1	79	15	Pass

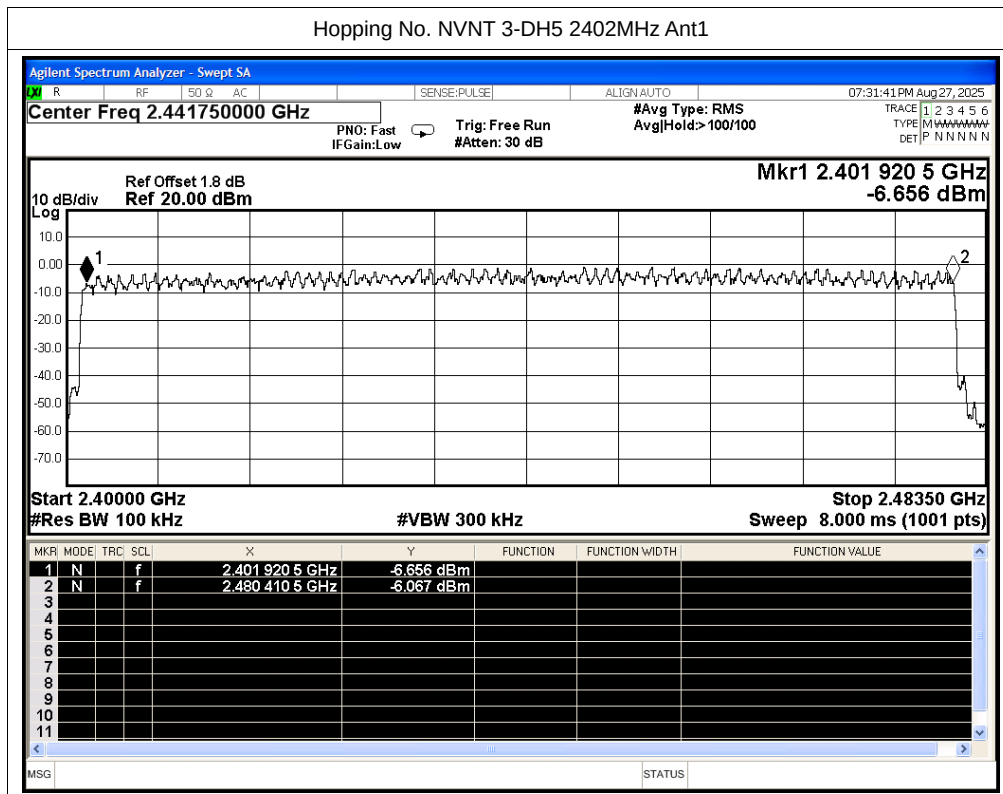
Test Graphs

Hopping No. NVNT 1-DH5 2402MHz Ant1



Hopping No. NVNT 2-DH5 2402MHz Ant1



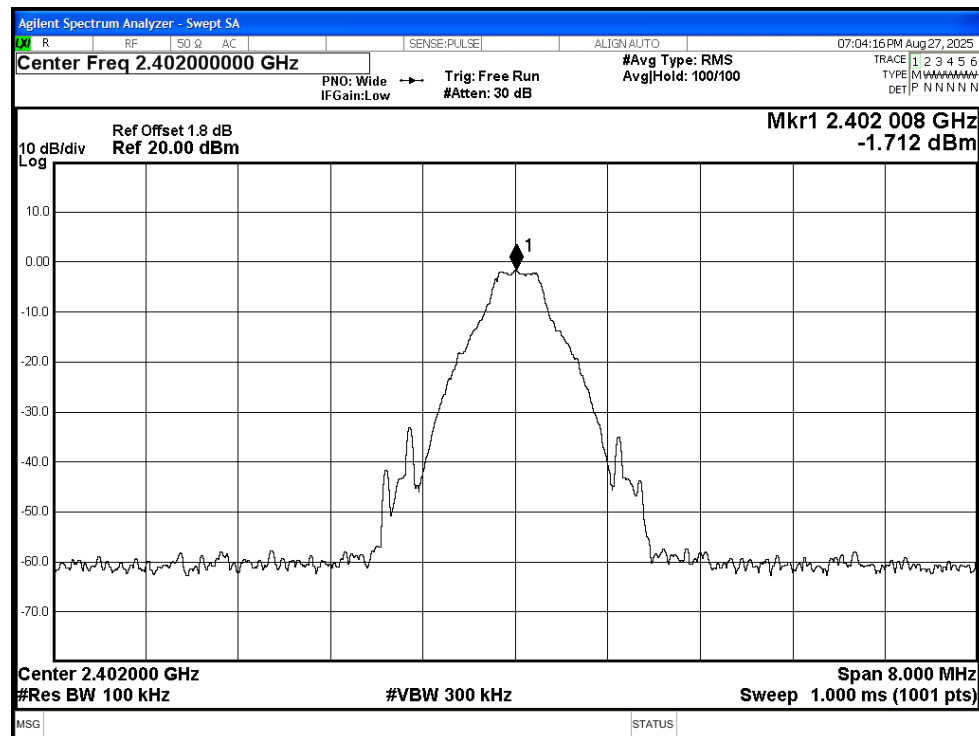


A.6 Band Edge

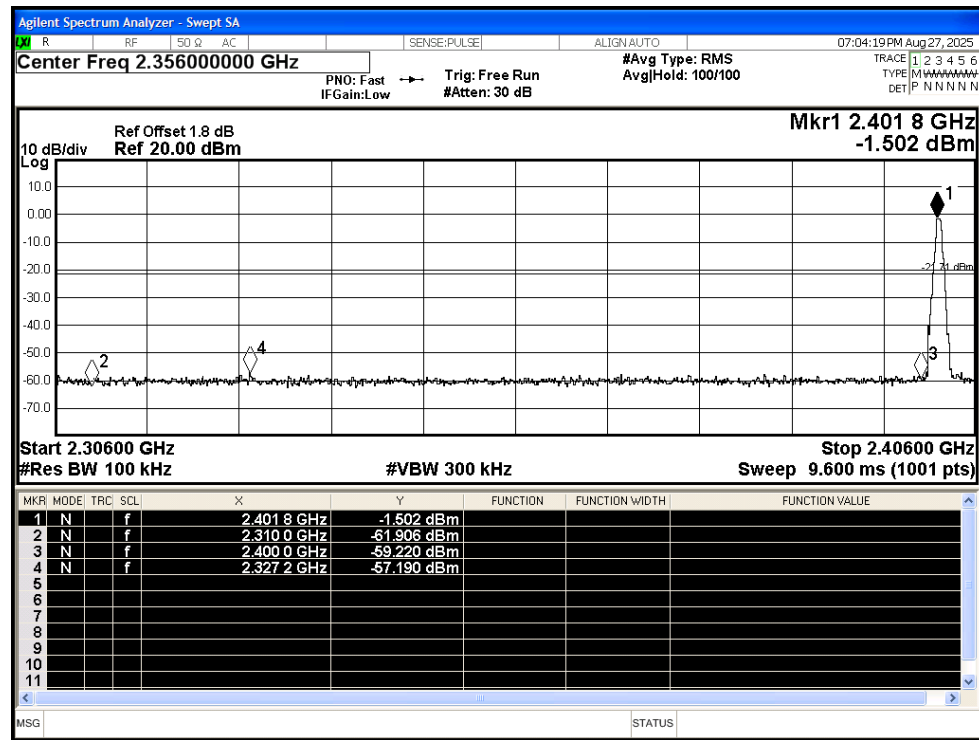
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	-55.48	-20	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	-55.01	-20	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	-50.77	-20	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	-54.27	-20	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	-51.77	-20	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	-52.8	-20	Pass

Test Graphs

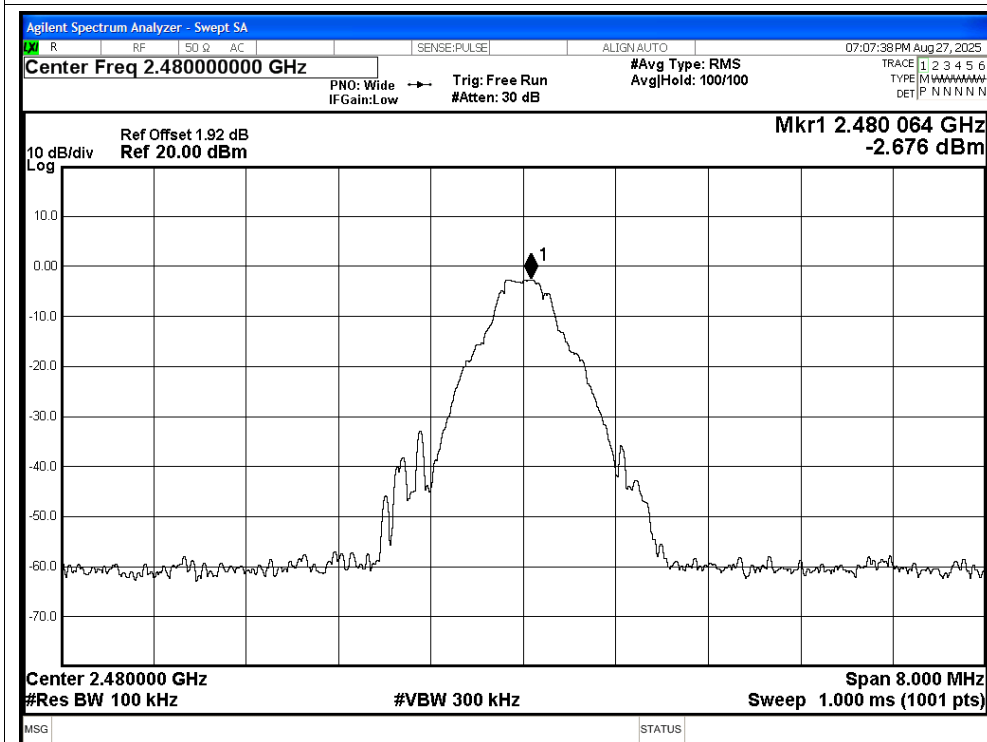
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Ref



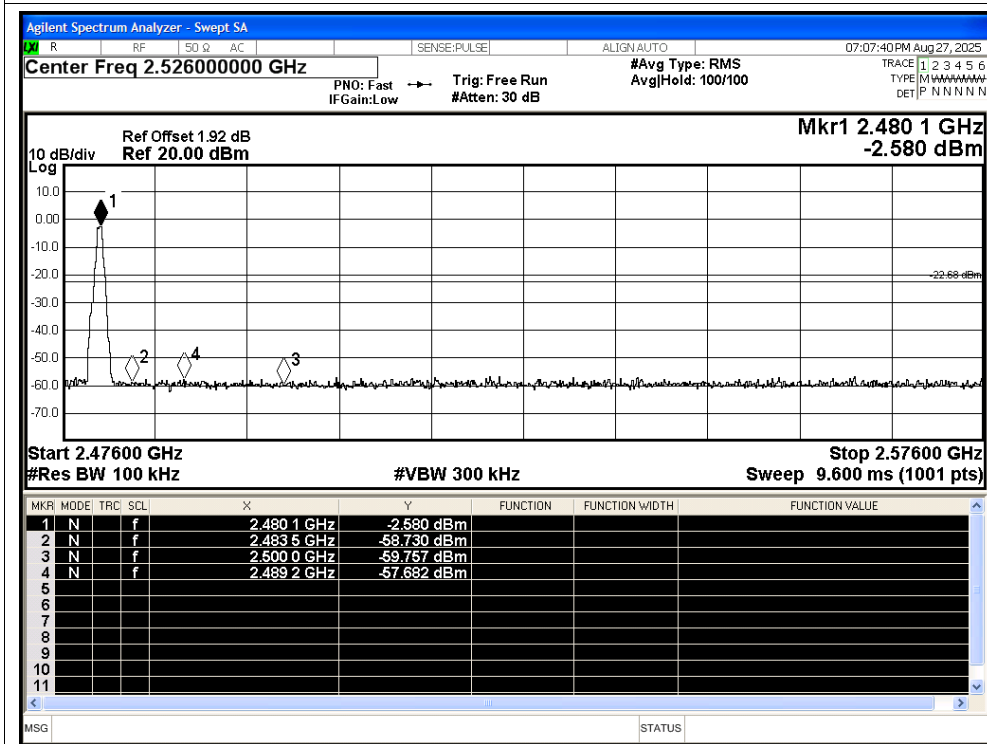
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Emission



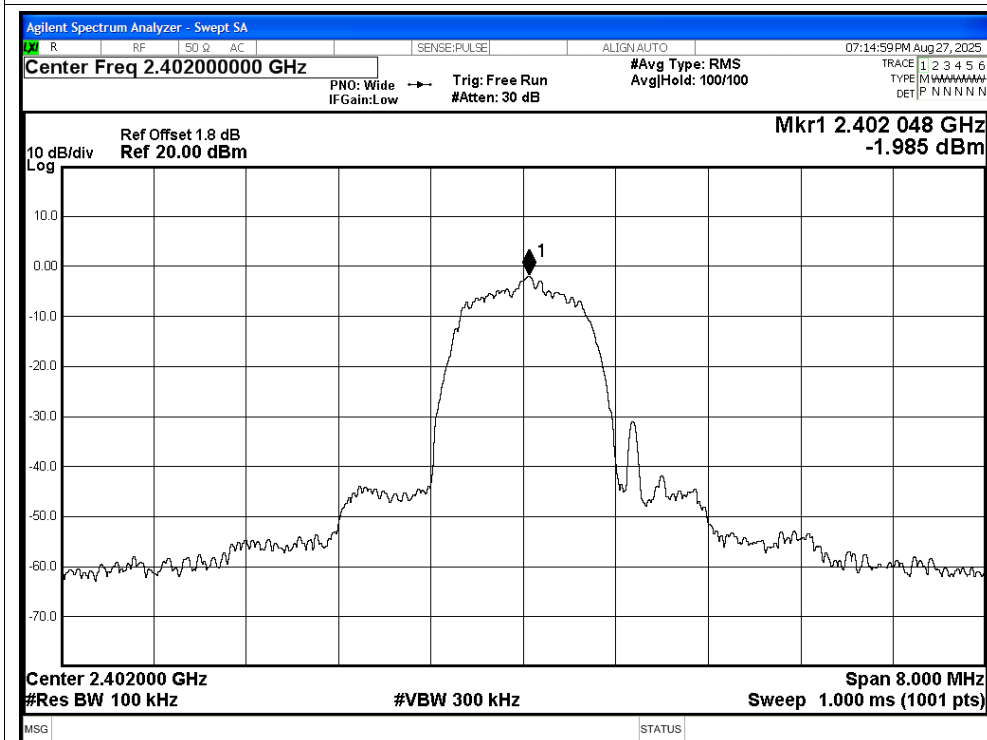
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref



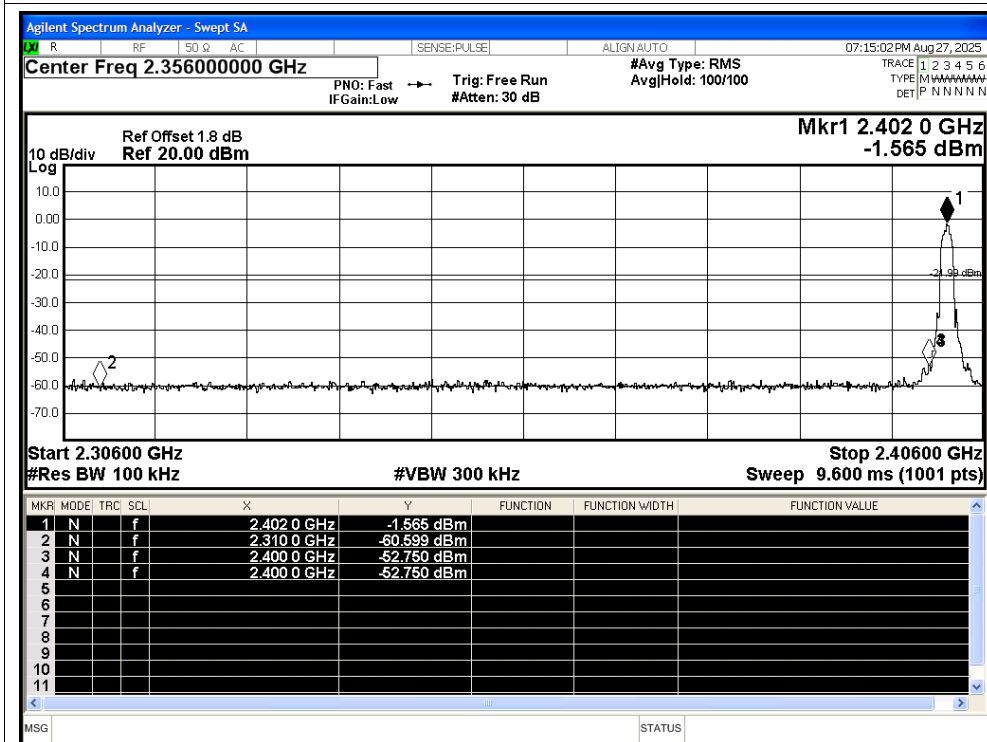
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Emission

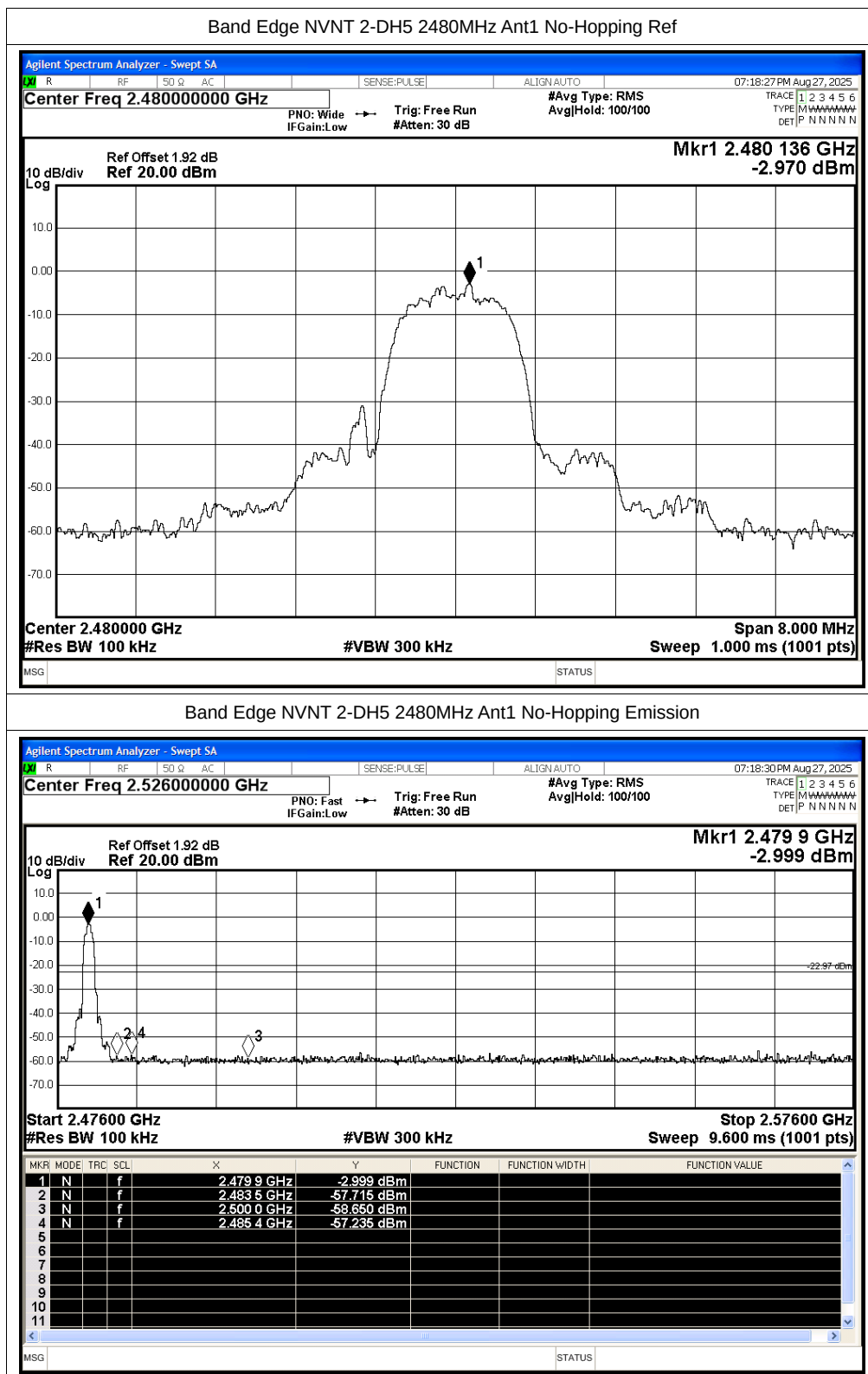


Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Ref

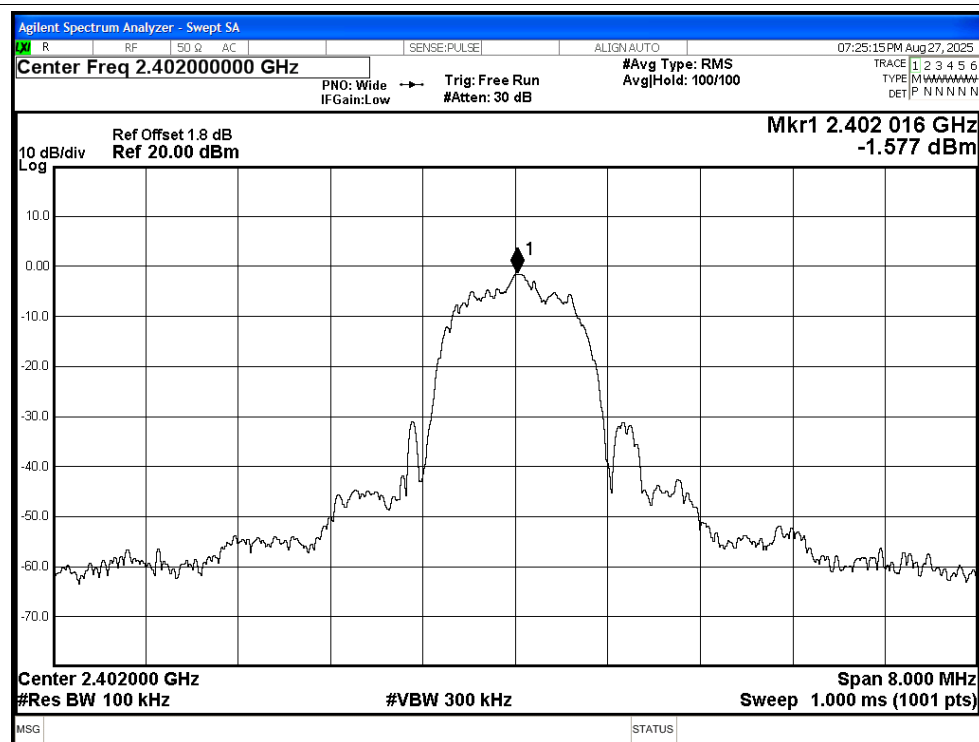


Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Emission

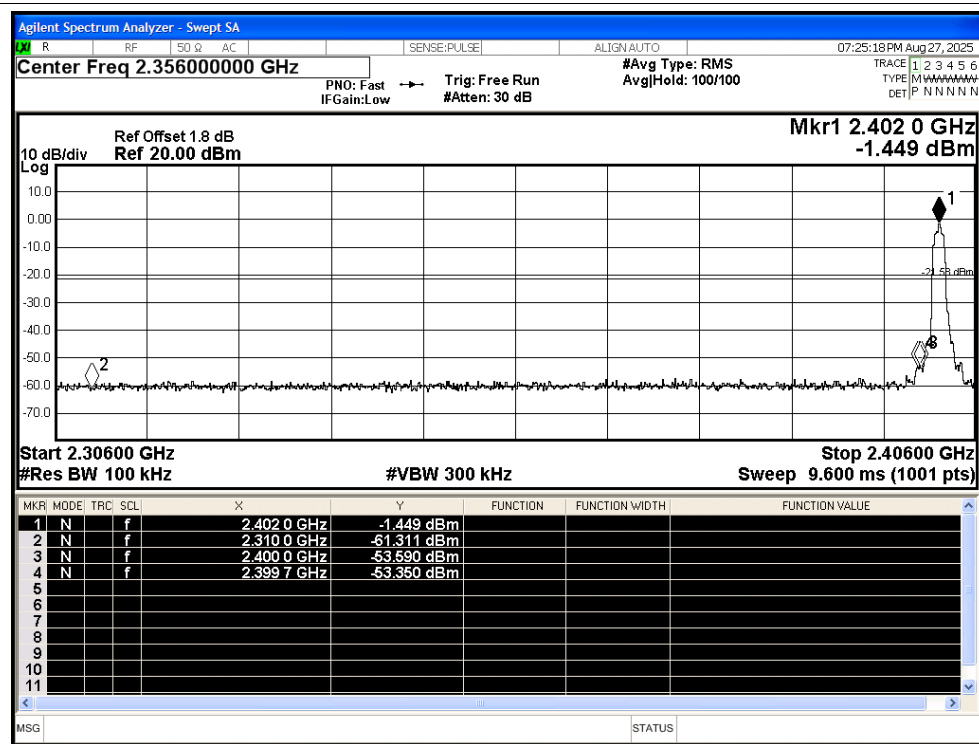


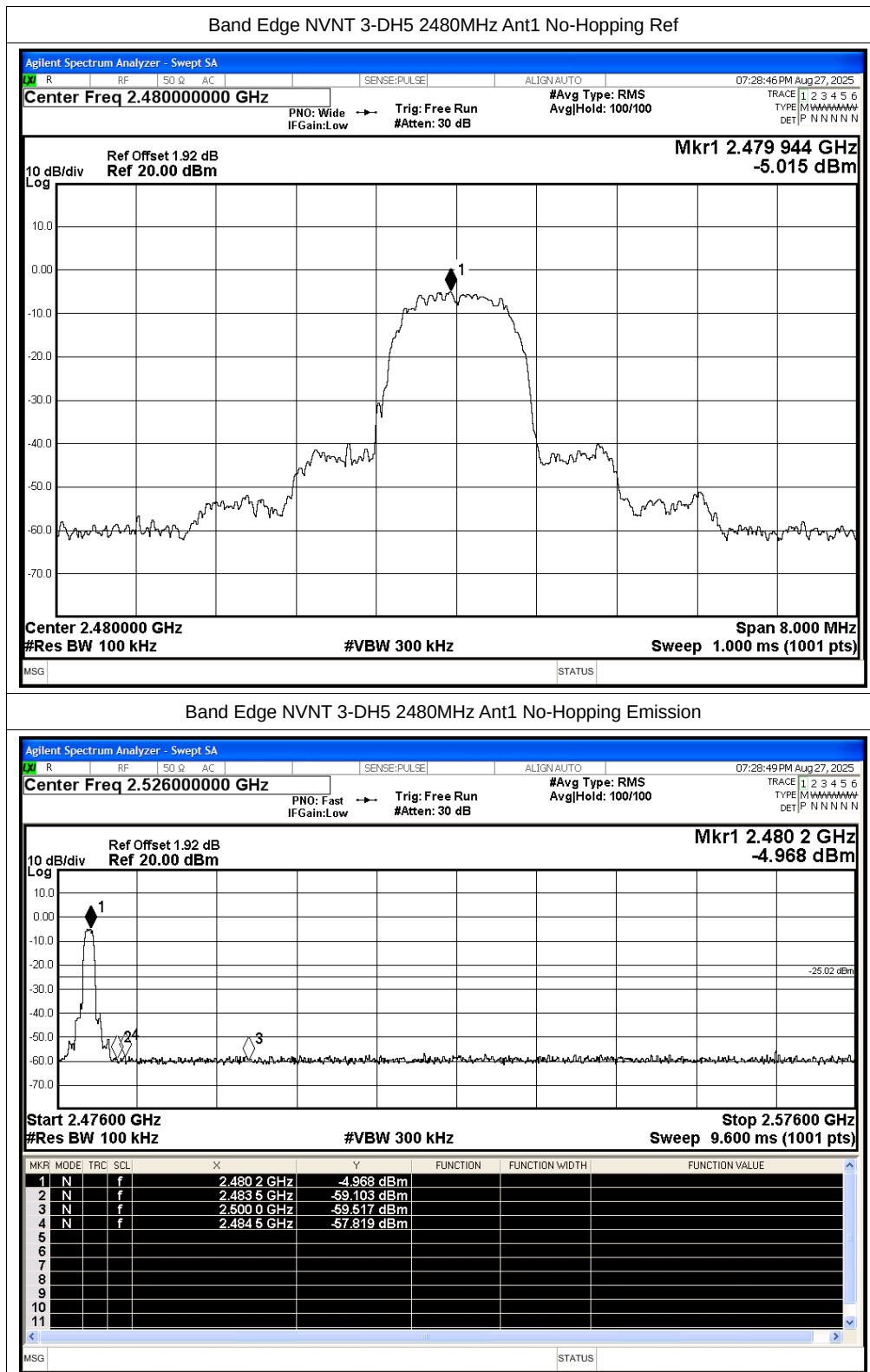


Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Ref



Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Emission



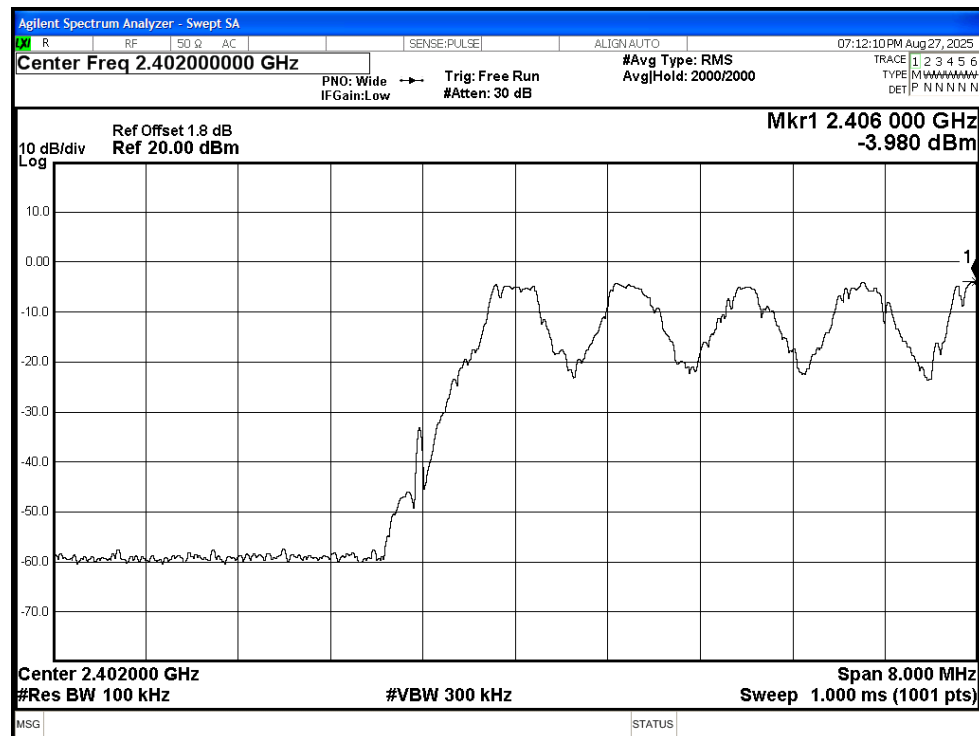


(Hopping)

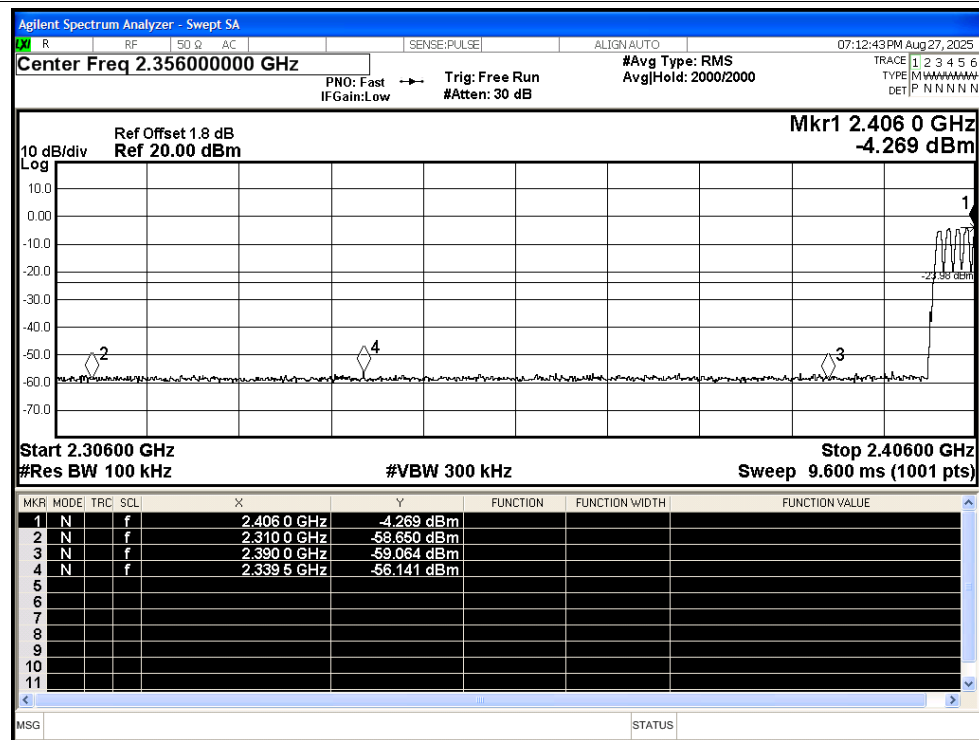
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	Hopping	-52.16	-20	Pass
NVNT	1-DH5	2480	Ant1	Hopping	-53.64	-20	Pass
NVNT	2-DH5	2402	Ant1	Hopping	-51.43	-20	Pass
NVNT	2-DH5	2480	Ant1	Hopping	-53.77	-20	Pass
NVNT	3-DH5	2402	Ant1	Hopping	-52.88	-20	Pass
NVNT	3-DH5	2480	Ant1	Hopping	-54.03	-20	Pass

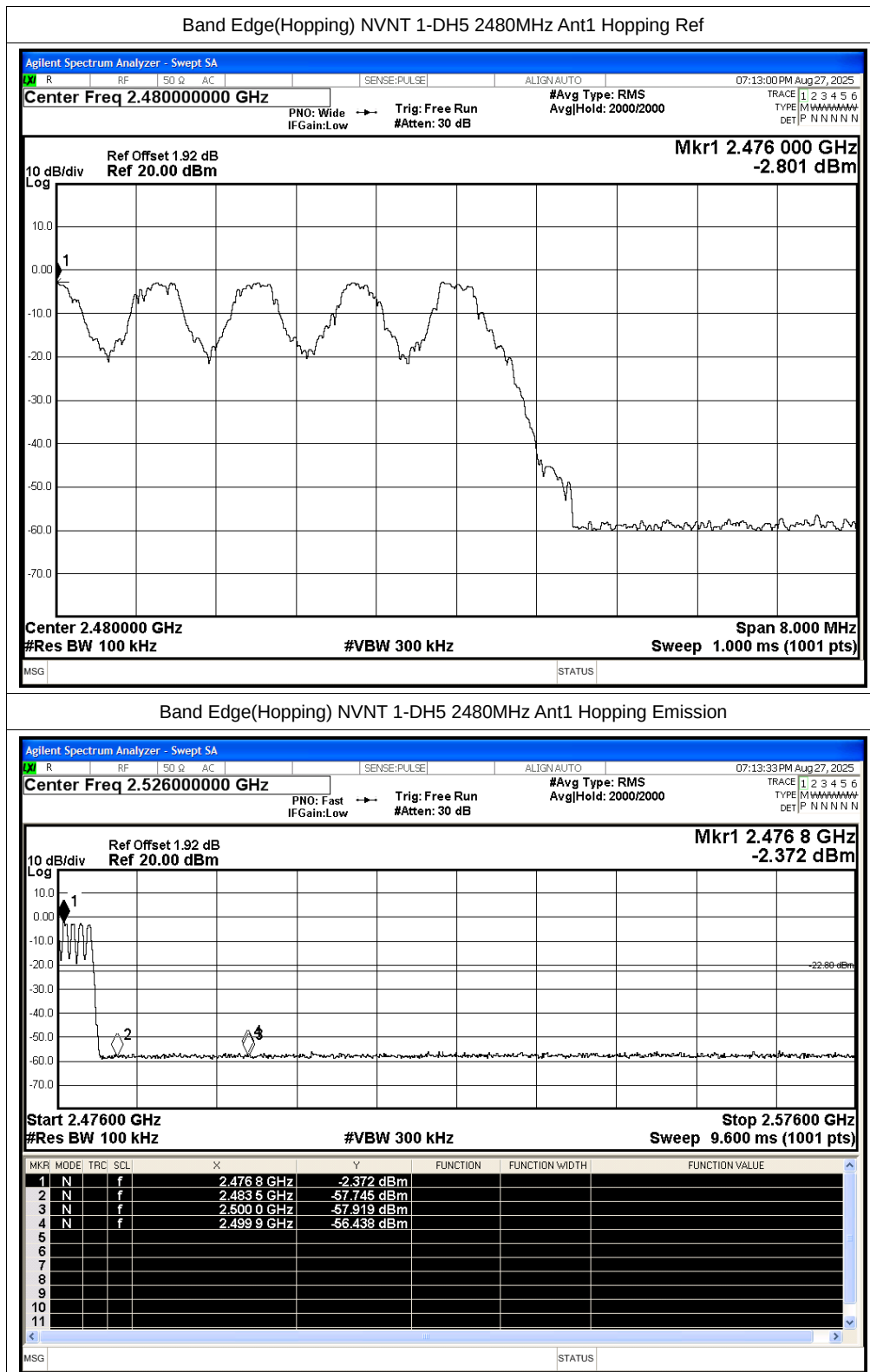
Test Graphs

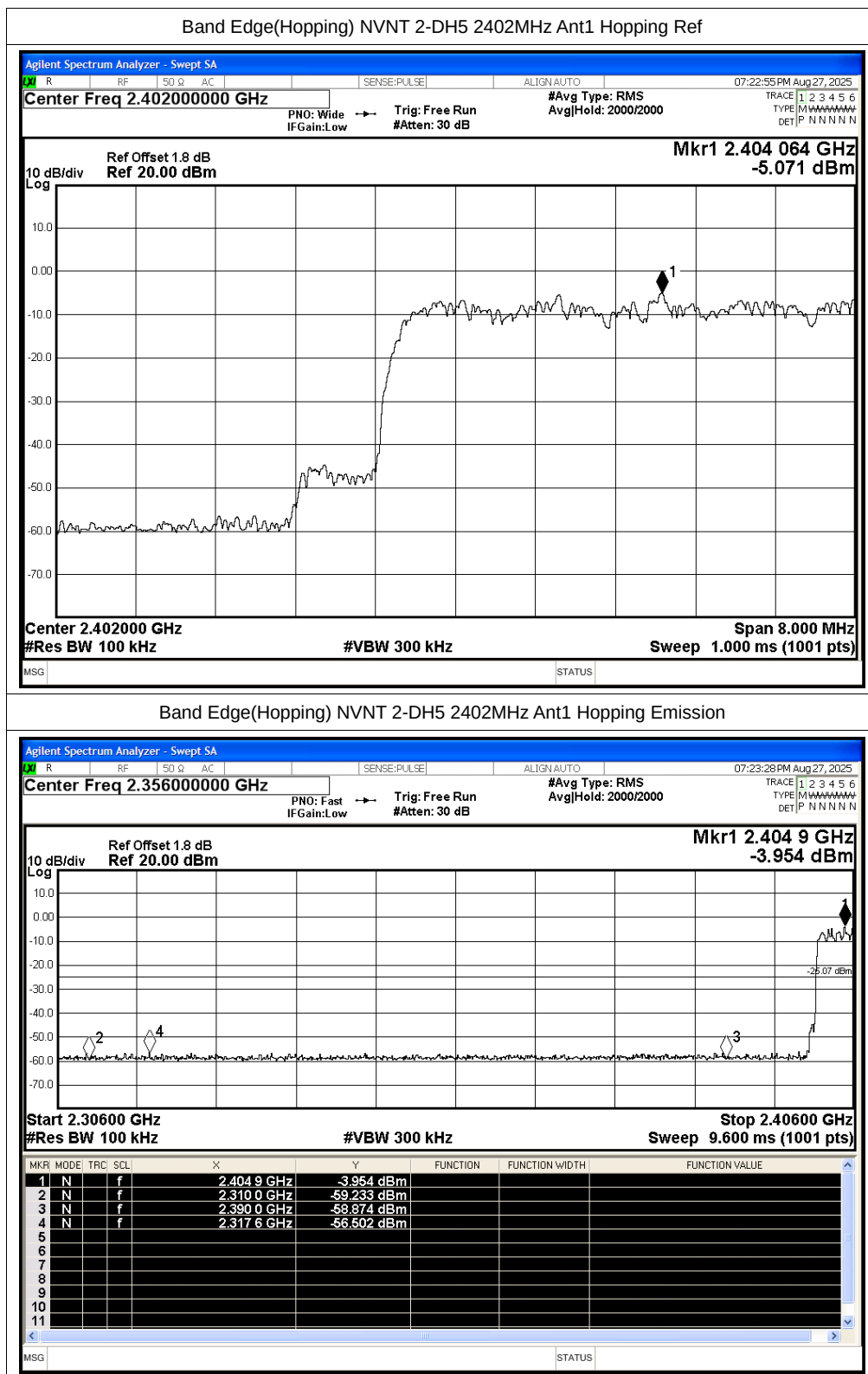
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Ref

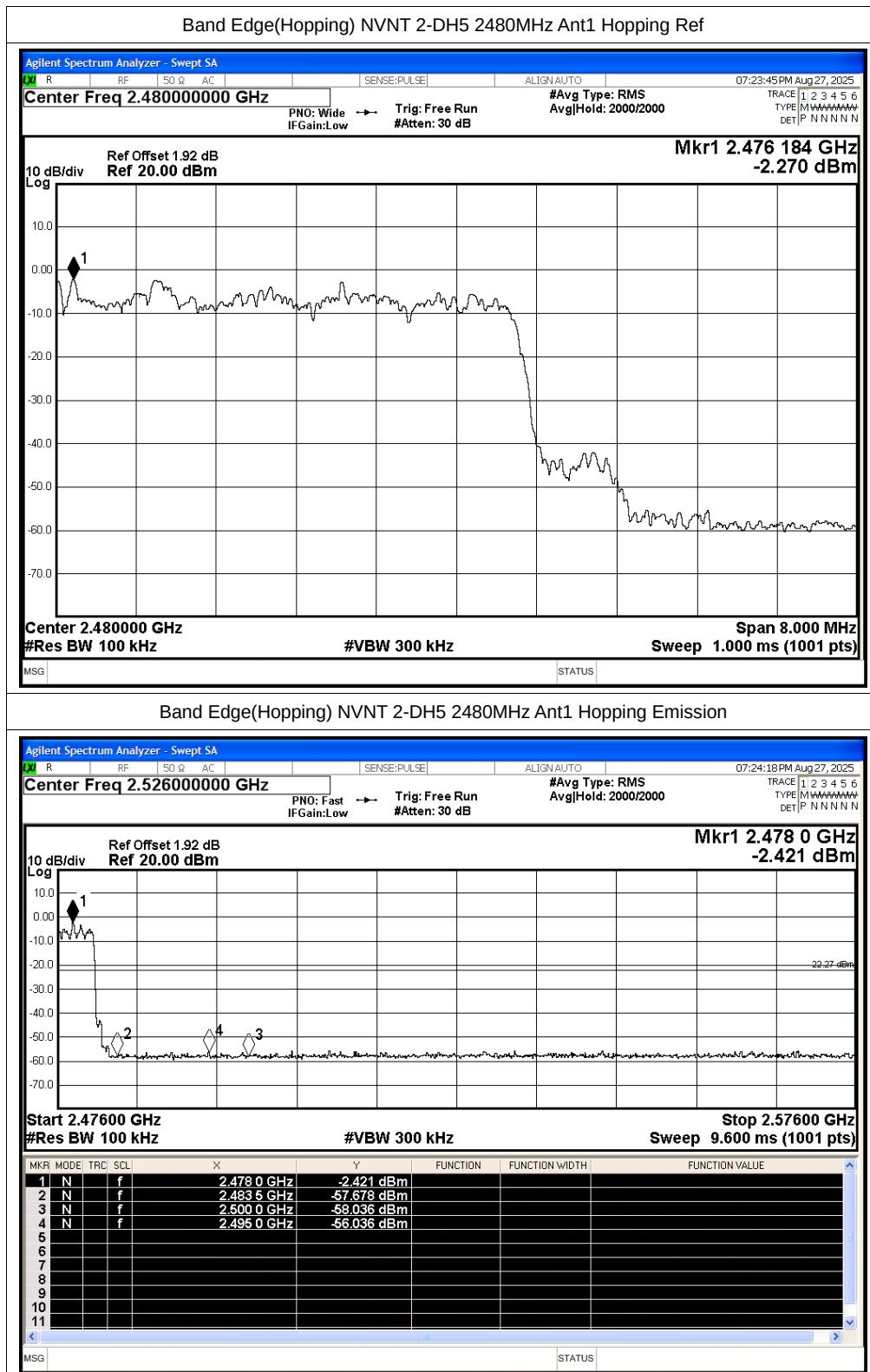


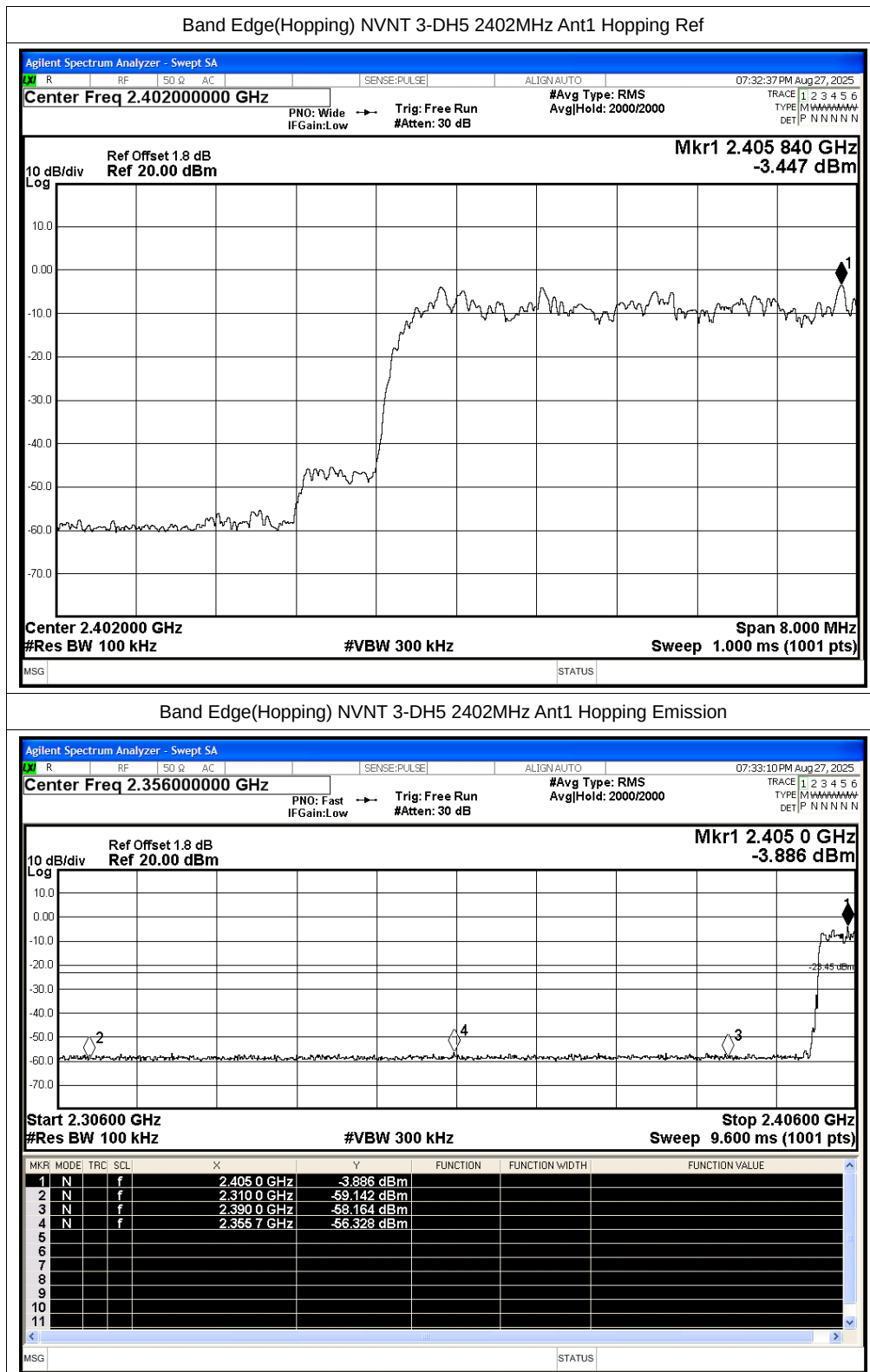
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission

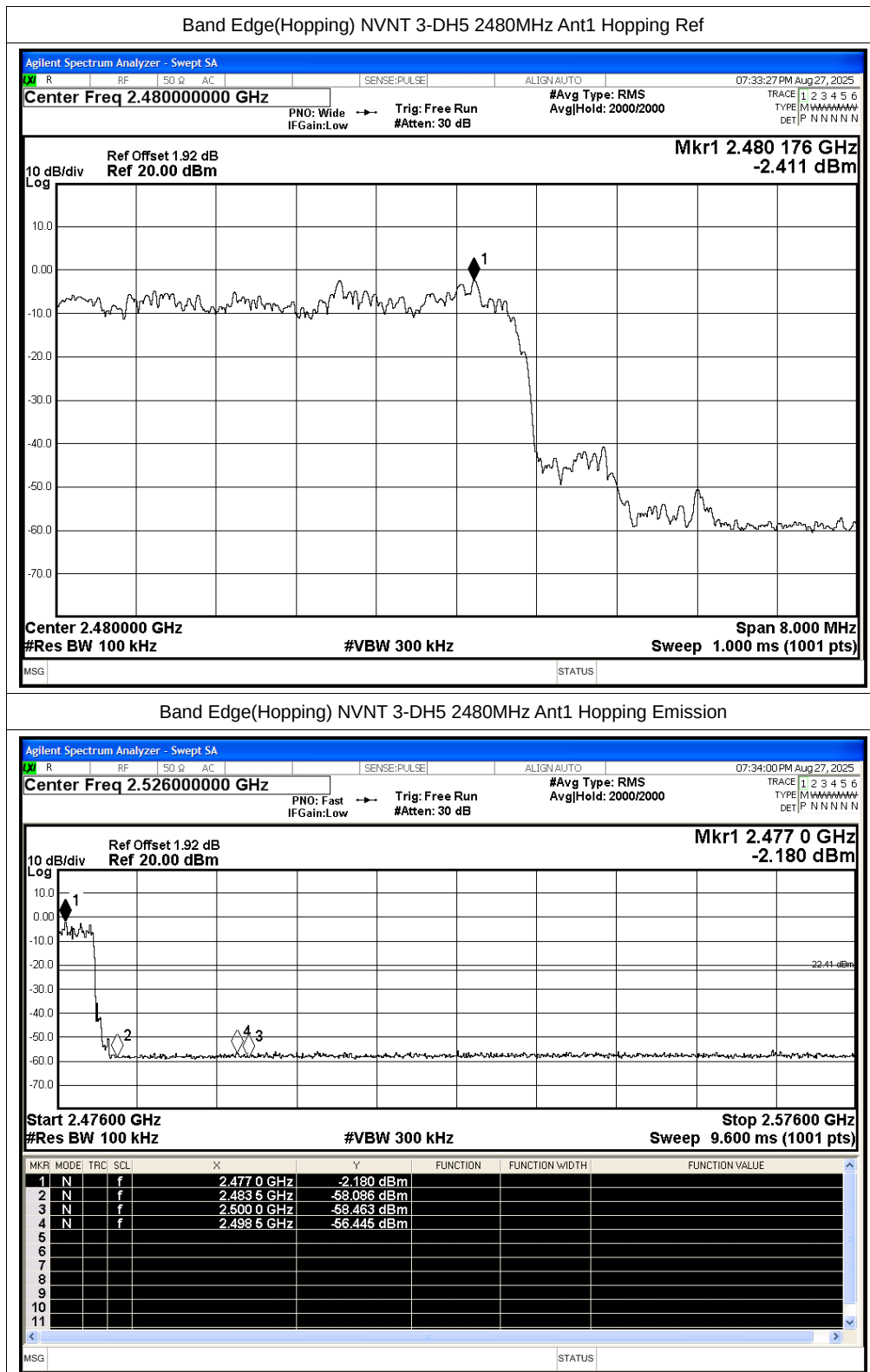










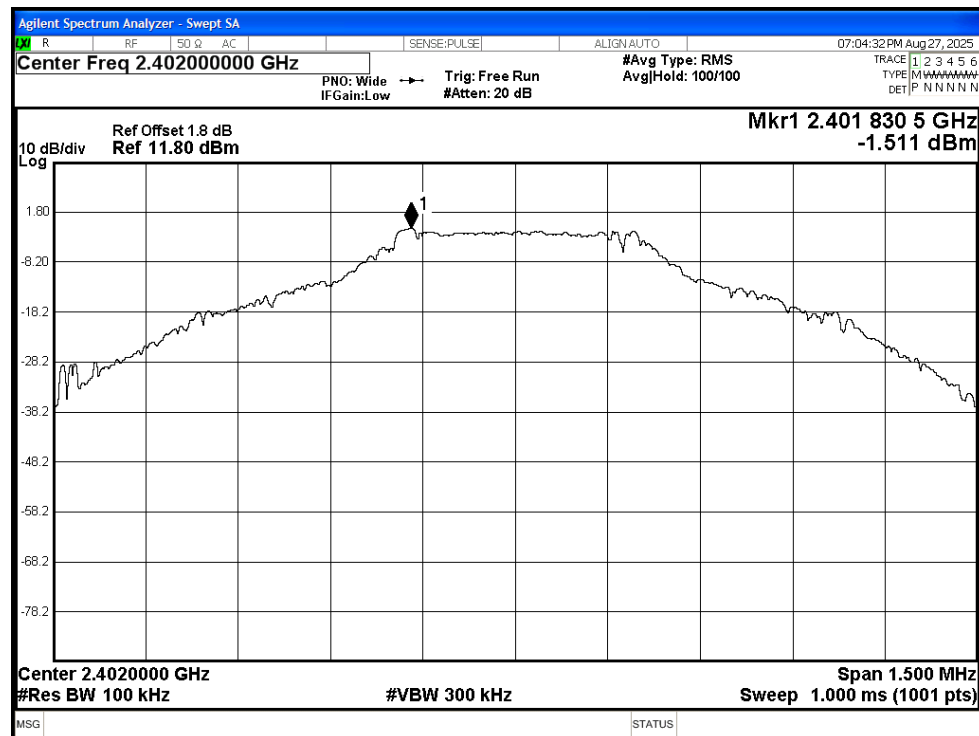


A.7 Conducted RF Spurious Emission

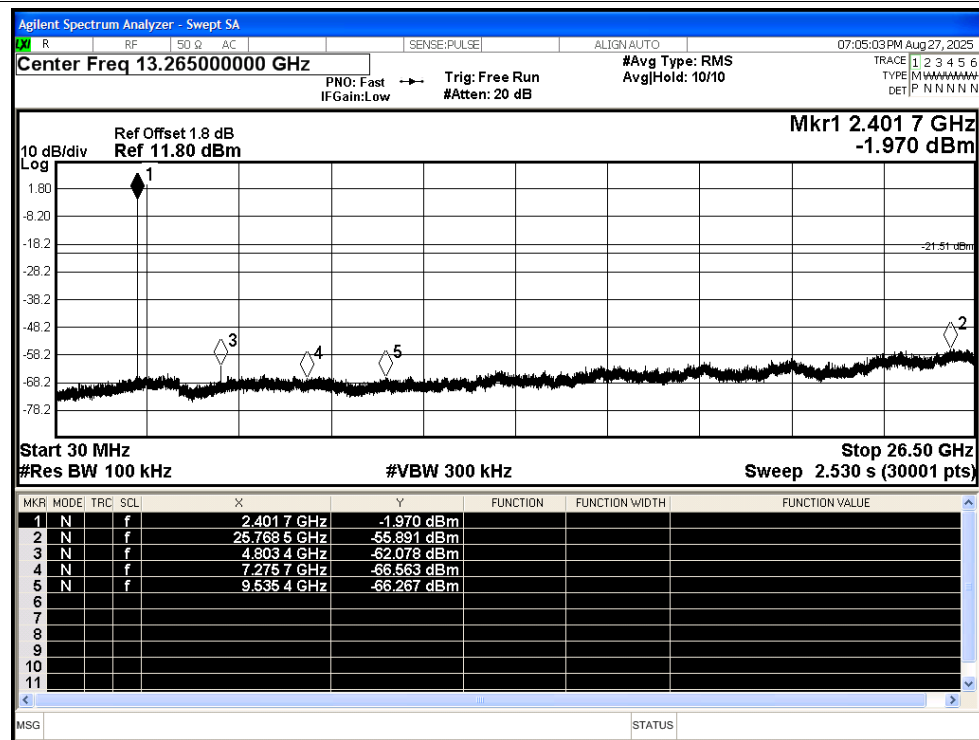
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	-54.38	-20	Pass
NVNT	1-DH5	2441	Ant1	-54.27	-20	Pass
NVNT	1-DH5	2480	Ant1	-52.92	-20	Pass
NVNT	2-DH5	2402	Ant1	-42.43	-20	Pass
NVNT	2-DH5	2441	Ant1	-41.4	-20	Pass
NVNT	2-DH5	2480	Ant1	-41.82	-20	Pass
NVNT	3-DH5	2402	Ant1	-52.97	-20	Pass
NVNT	3-DH5	2441	Ant1	-53.39	-20	Pass
NVNT	3-DH5	2480	Ant1	-53.1	-20	Pass

Test Graphs

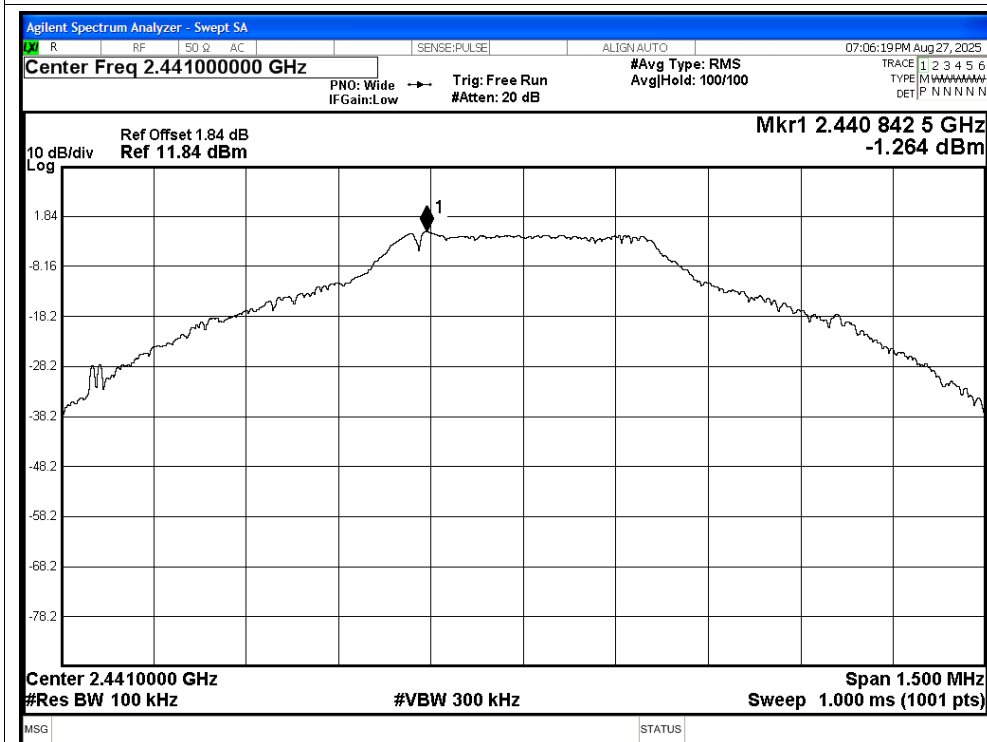
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref



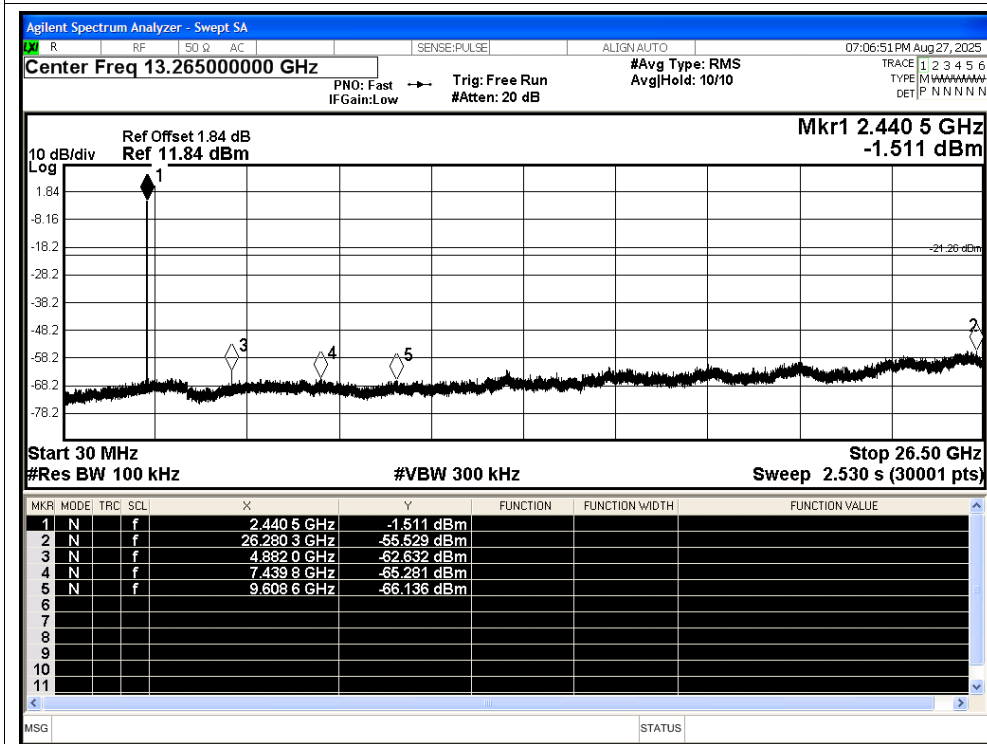
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission



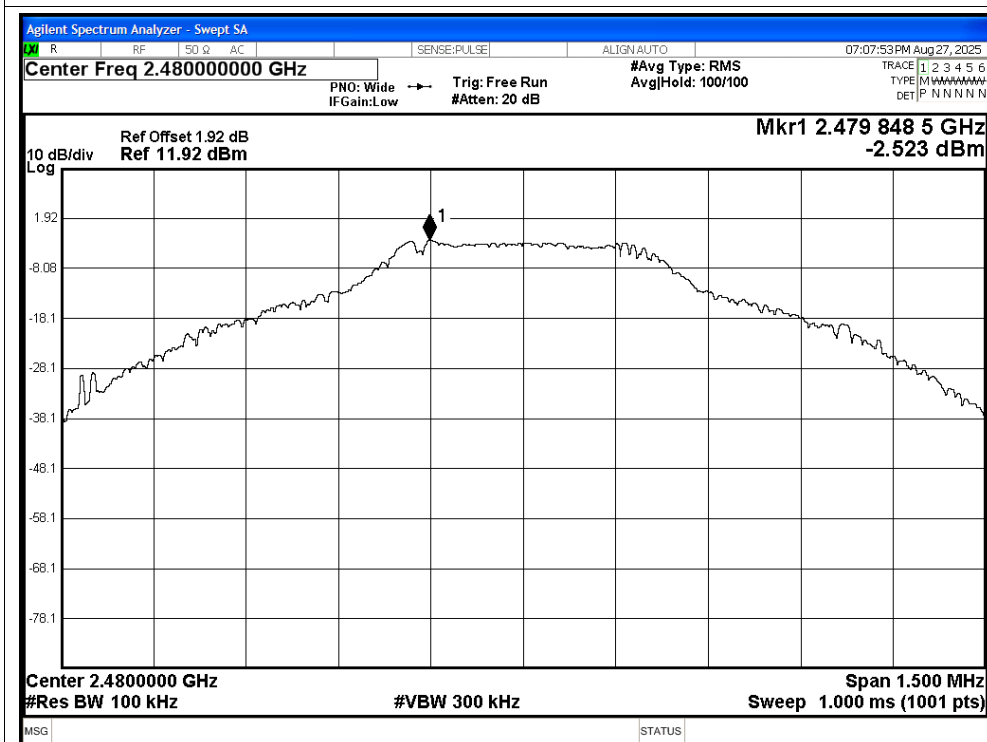
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref



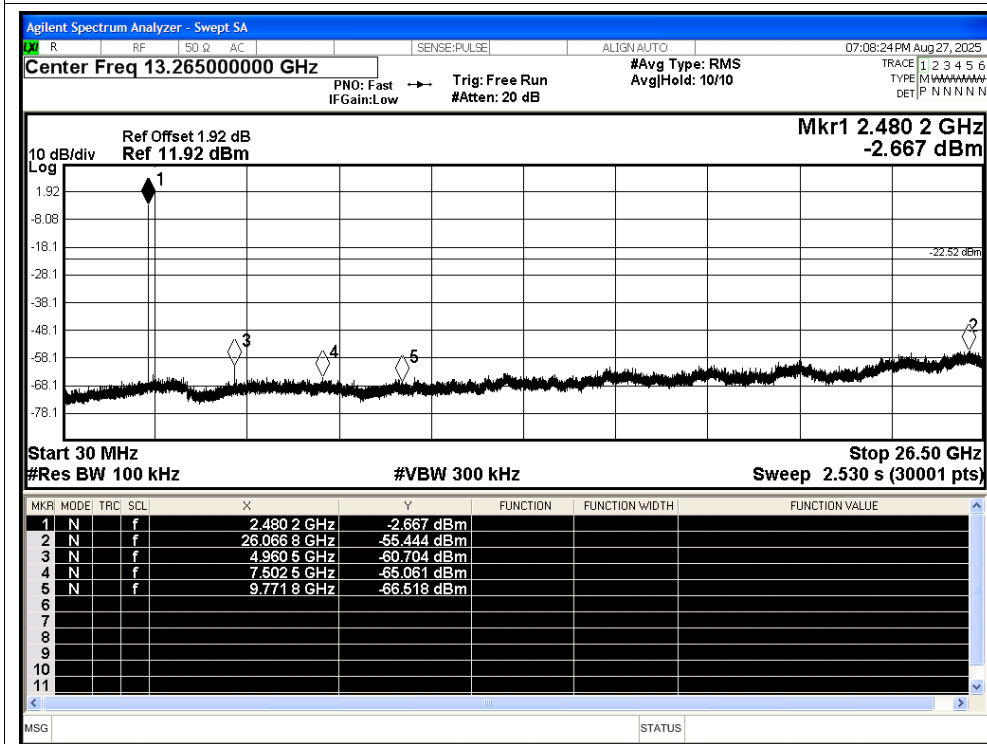
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission



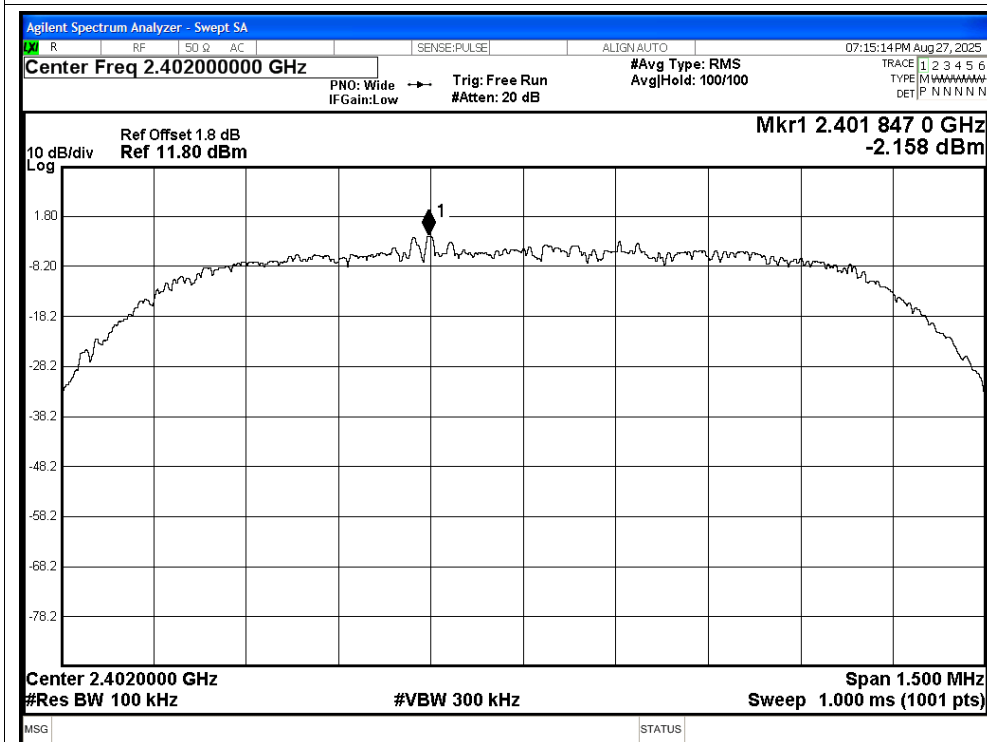
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref



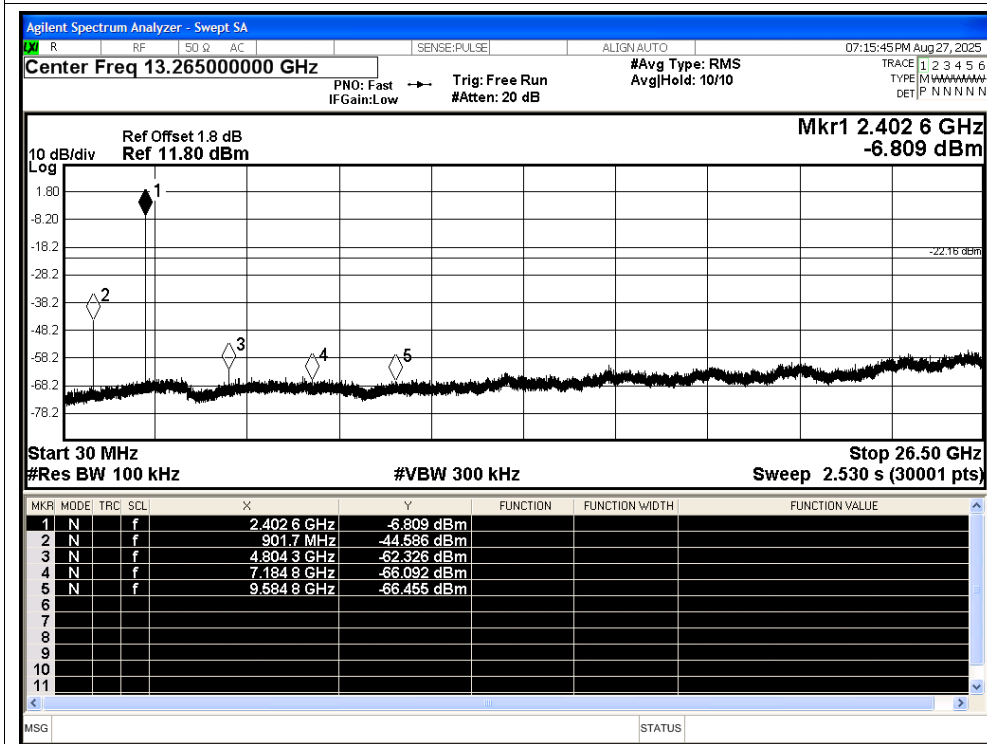
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Emission



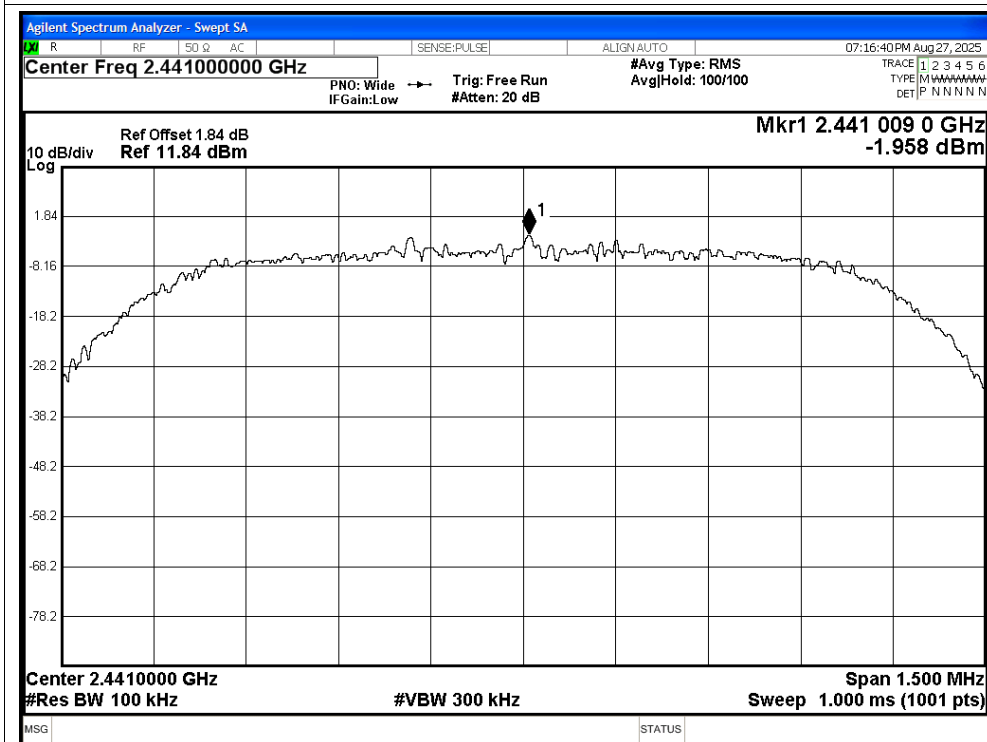
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Ref



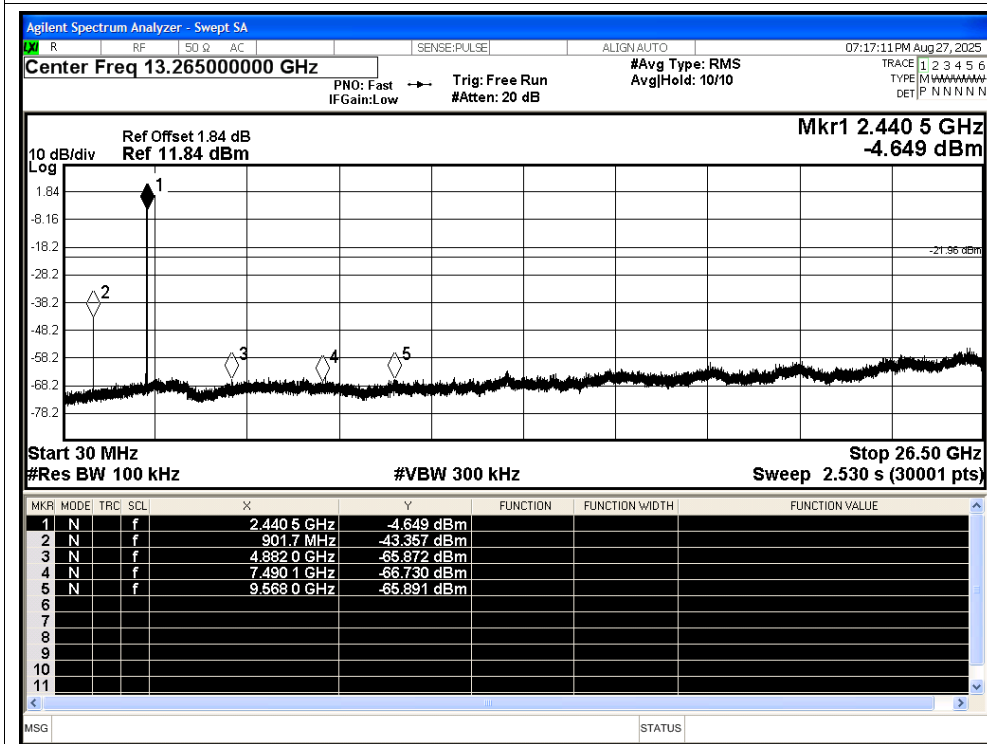
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Emission



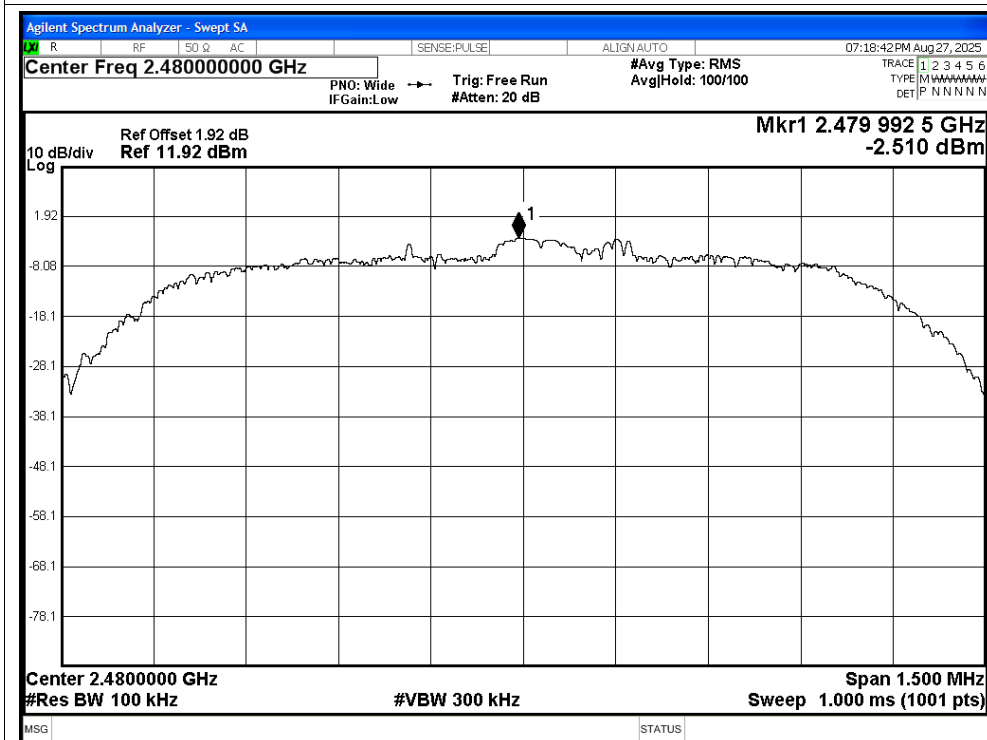
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Ref



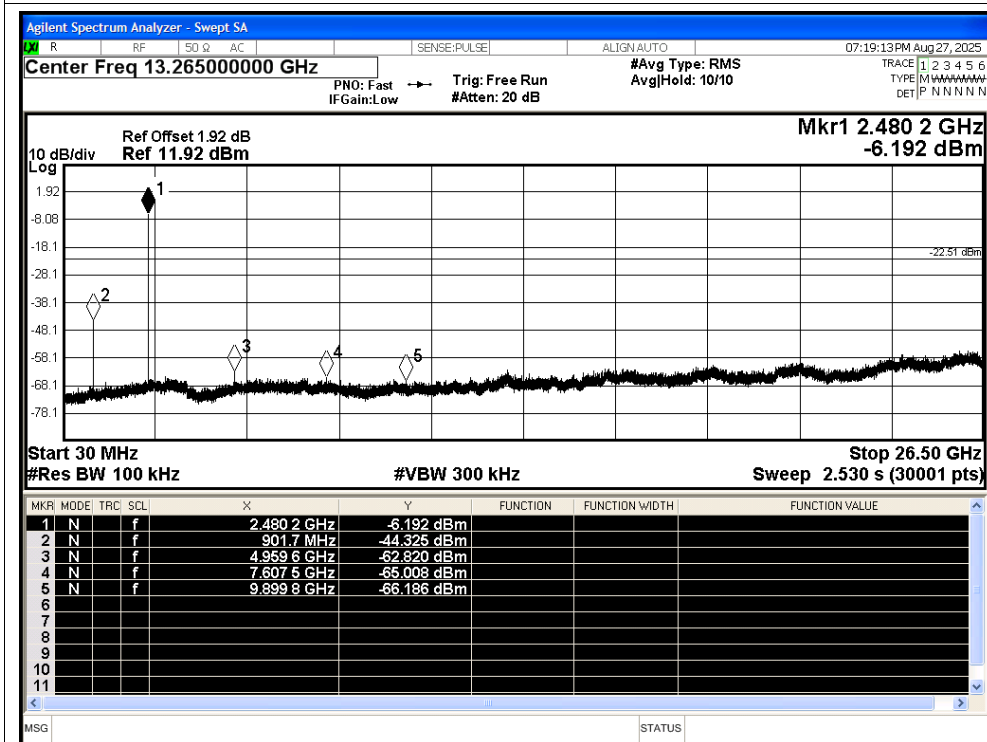
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Emission



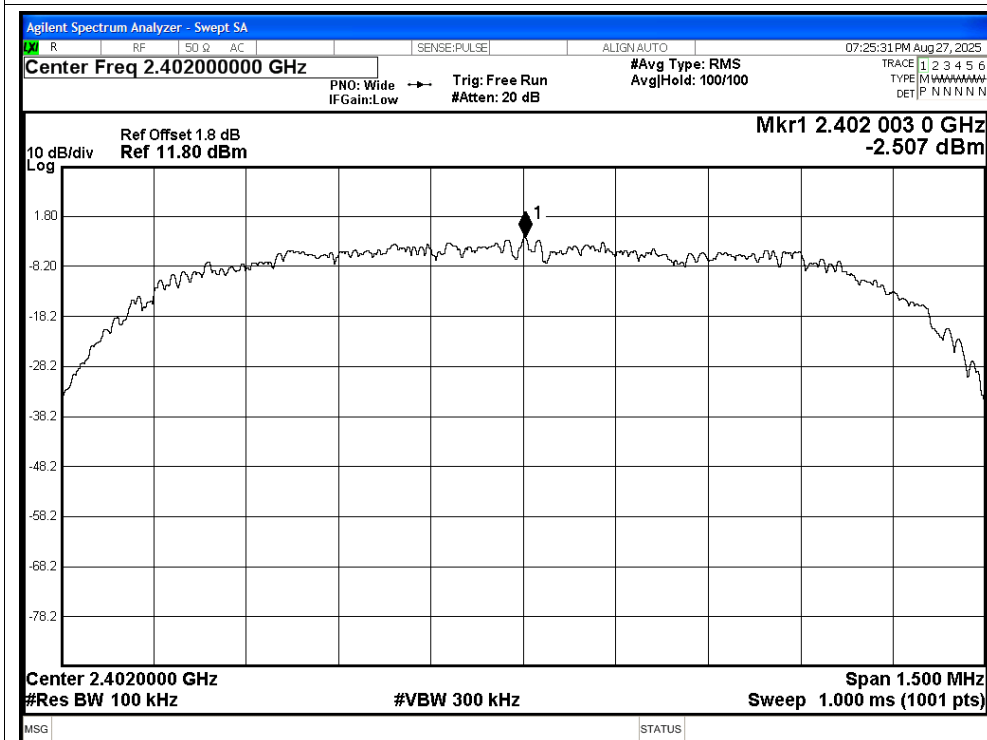
Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Ref



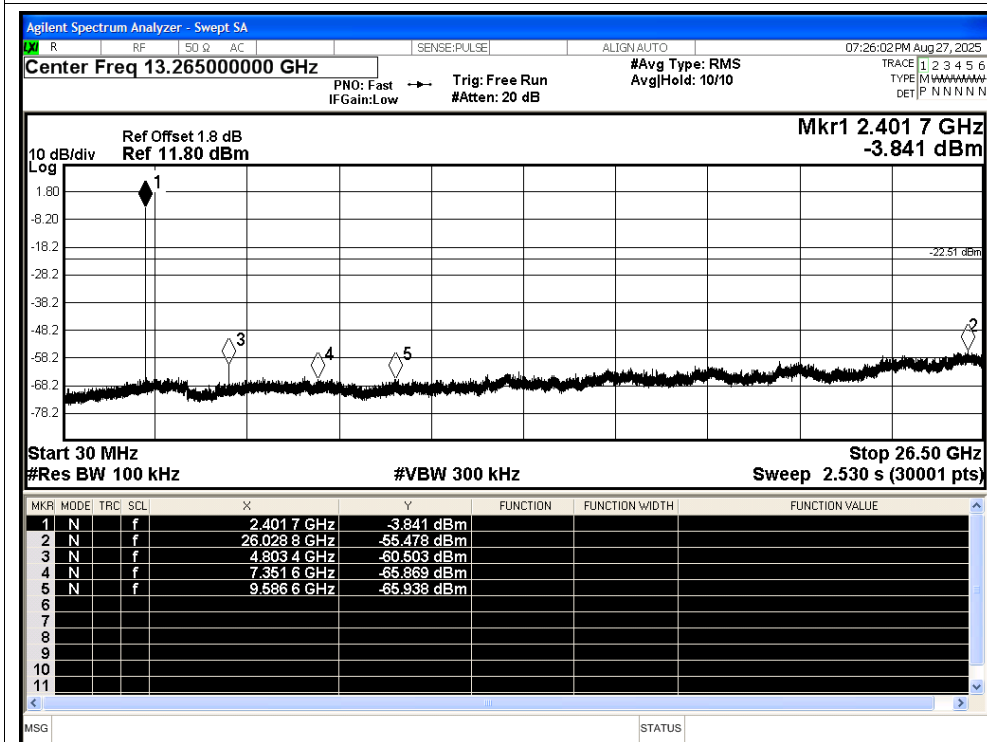
Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Emission



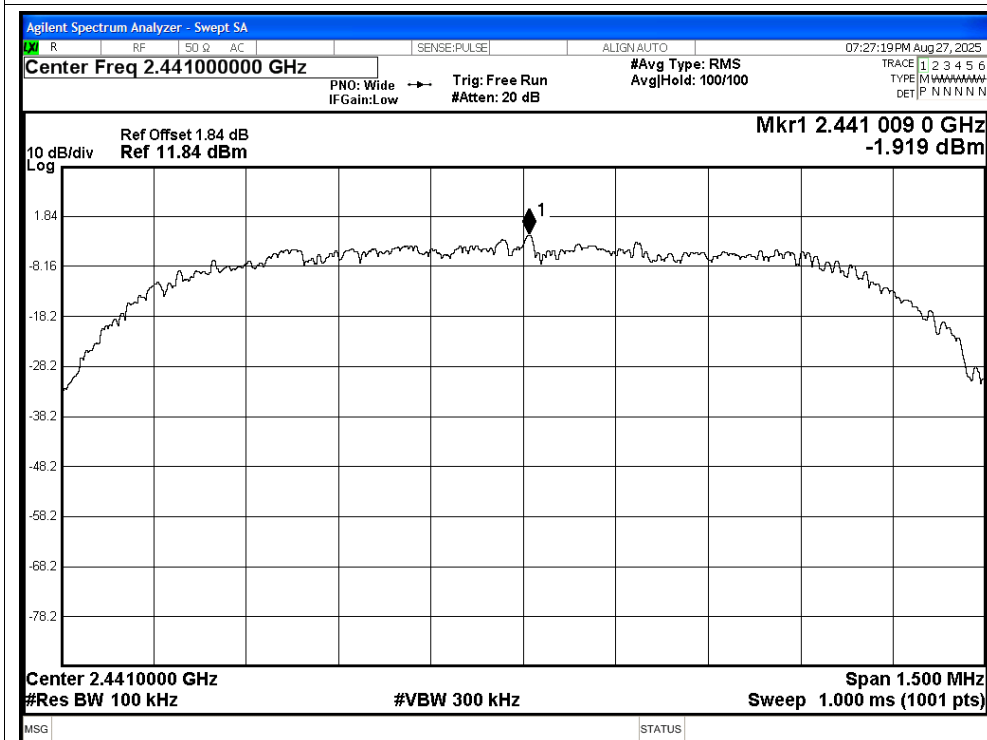
Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Ref



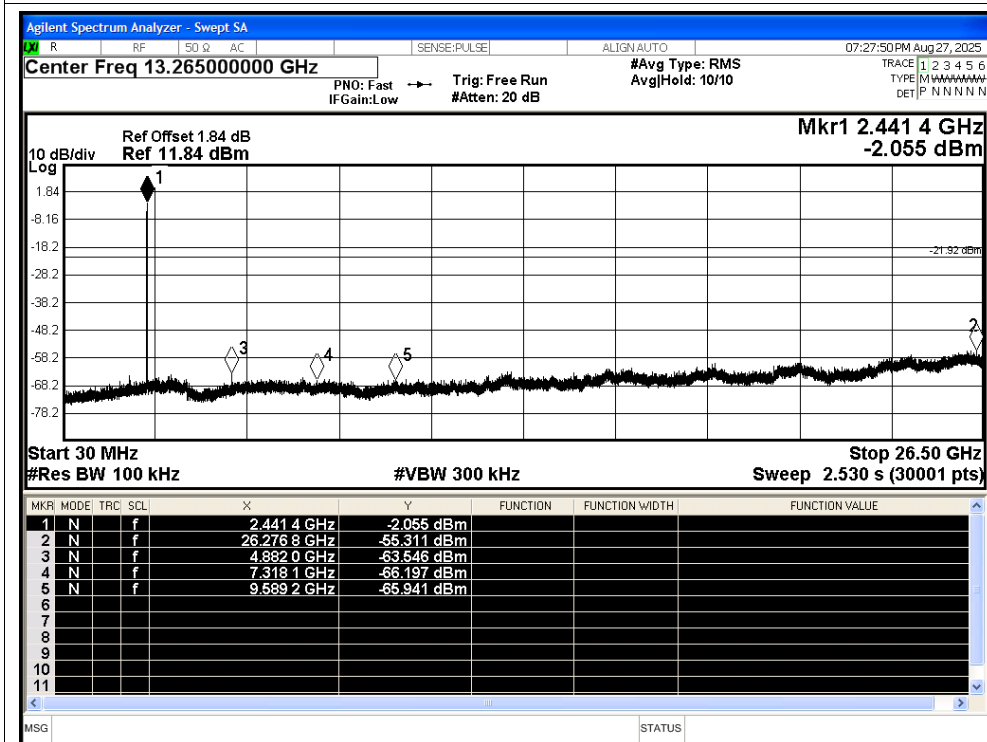
Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Emission



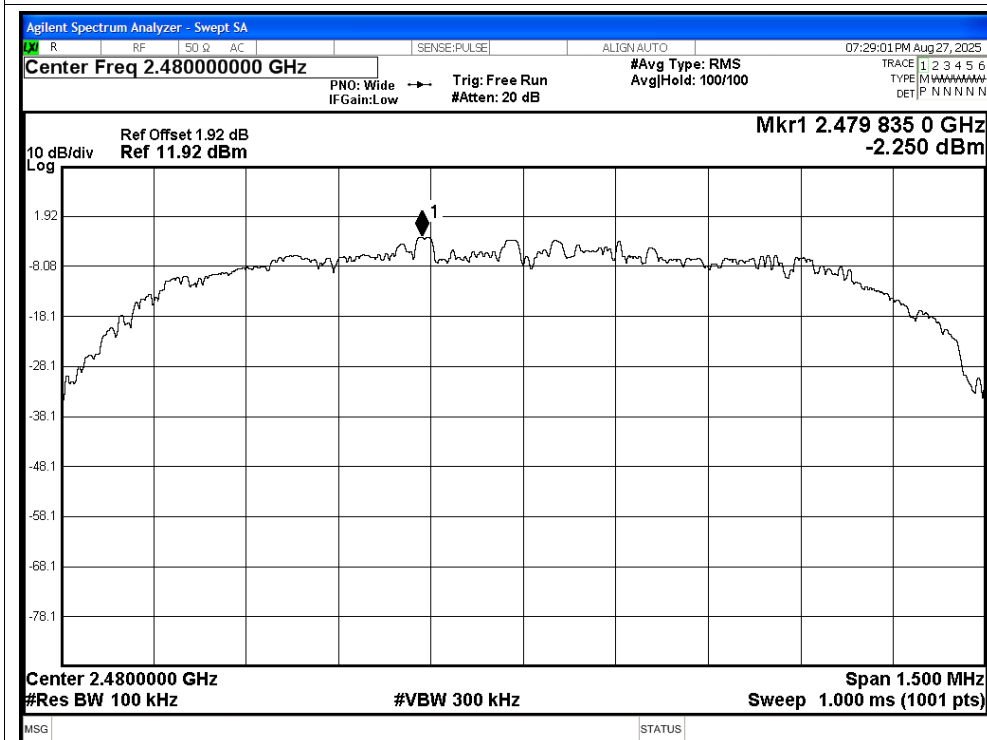
Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Ref



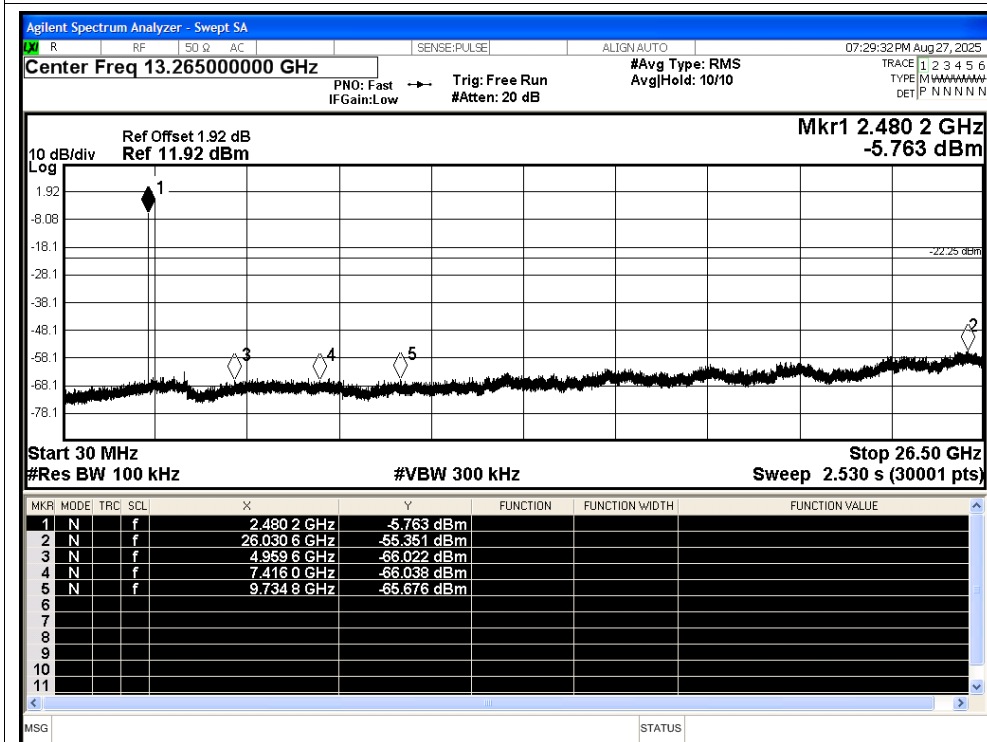
Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Emission

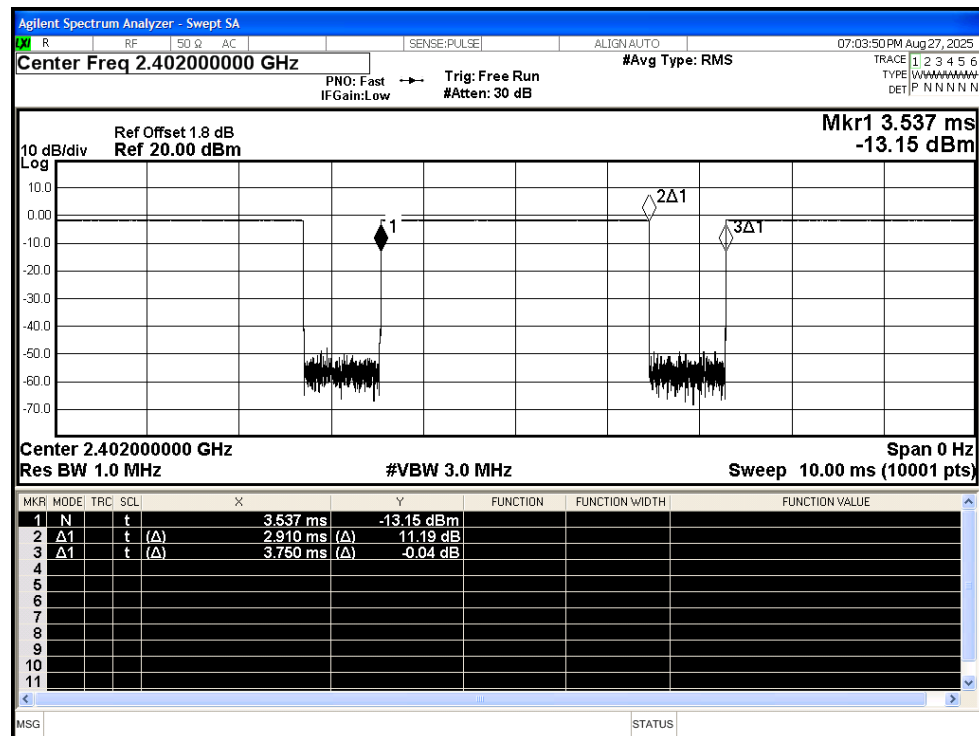


A.8 Duty Cycle

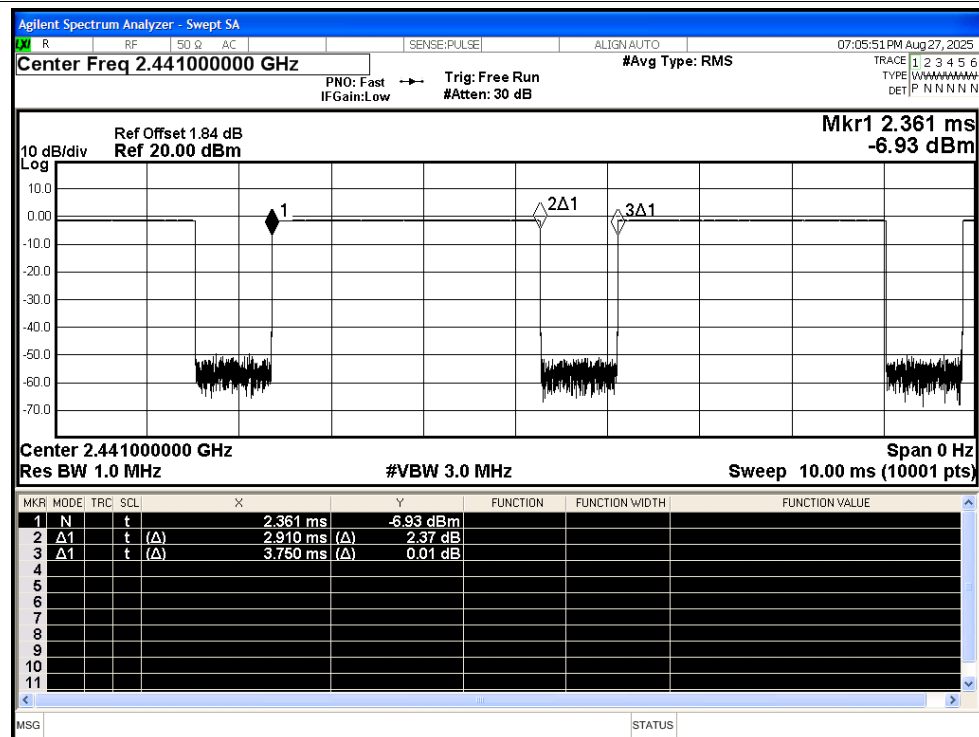
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH5	2402	Ant1	77.6	1.1	0.34
NVNT	1-DH5	2441	Ant1	77.6	1.1	0.34
NVNT	1-DH5	2480	Ant1	77.6	1.1	0.34
NVNT	2-DH5	2402	Ant1	77.33	1.12	0.34
NVNT	2-DH5	2441	Ant1	77.33	1.12	0.34
NVNT	2-DH5	2480	Ant1	77.28	1.12	0.35
NVNT	3-DH5	2402	Ant1	77.33	1.12	0.34
NVNT	3-DH5	2441	Ant1	77.28	1.12	0.35
NVNT	3-DH5	2480	Ant1	77.23	1.12	0.35

Test Graphs

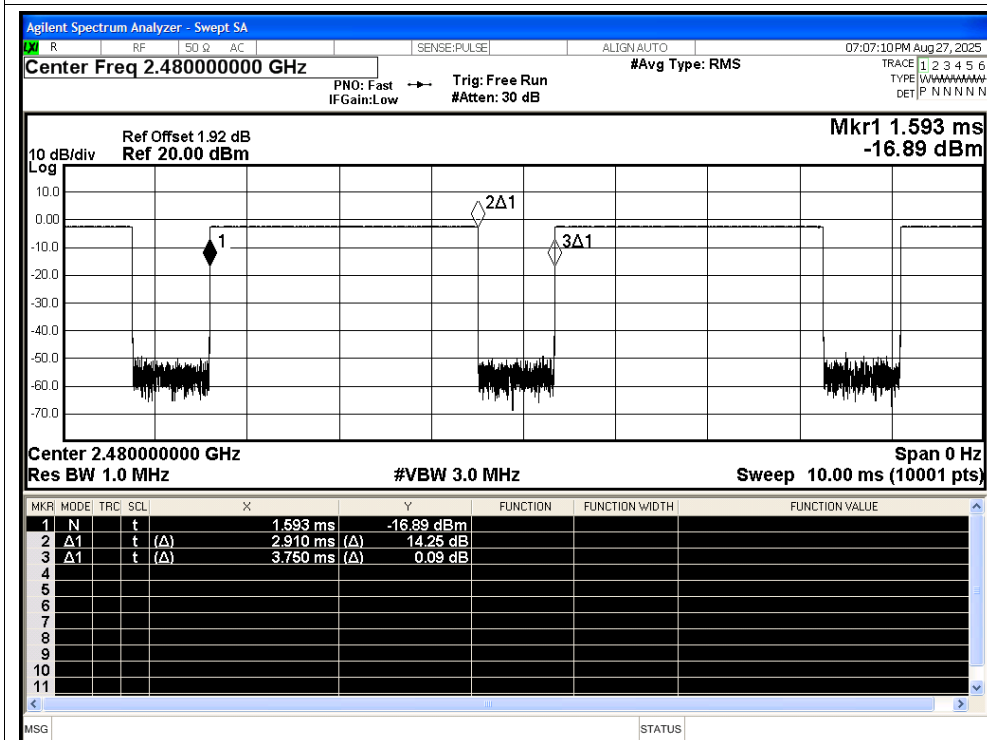
Duty Cycle NVNT 1-DH5 2402MHz Ant1



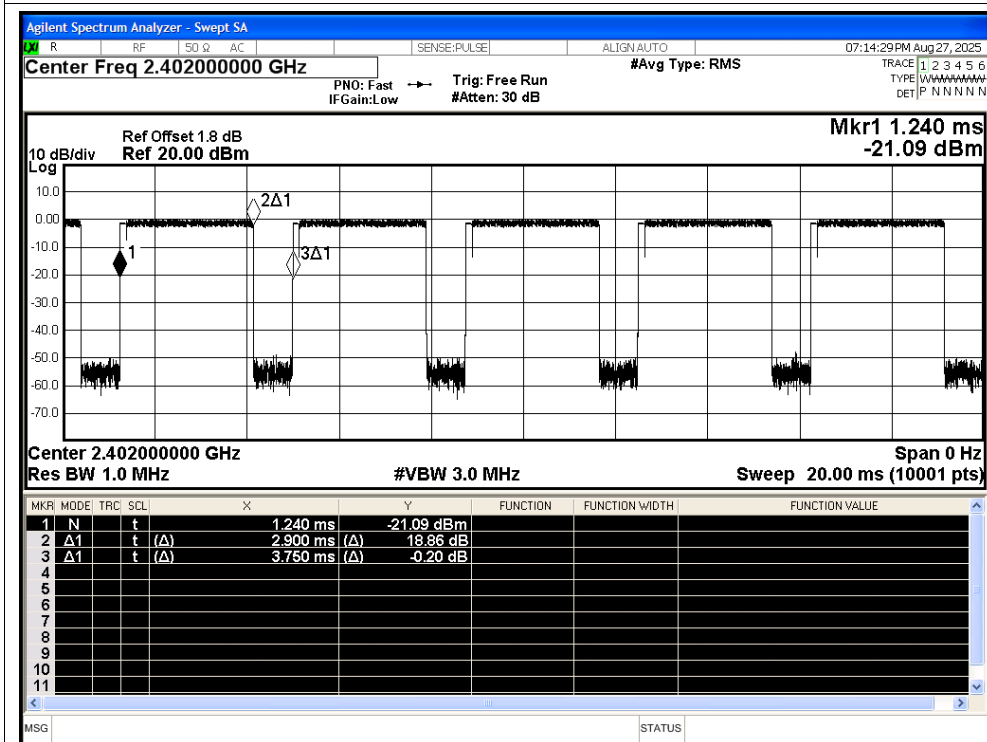
Duty Cycle NVNT 1-DH5 2441MHz Ant1



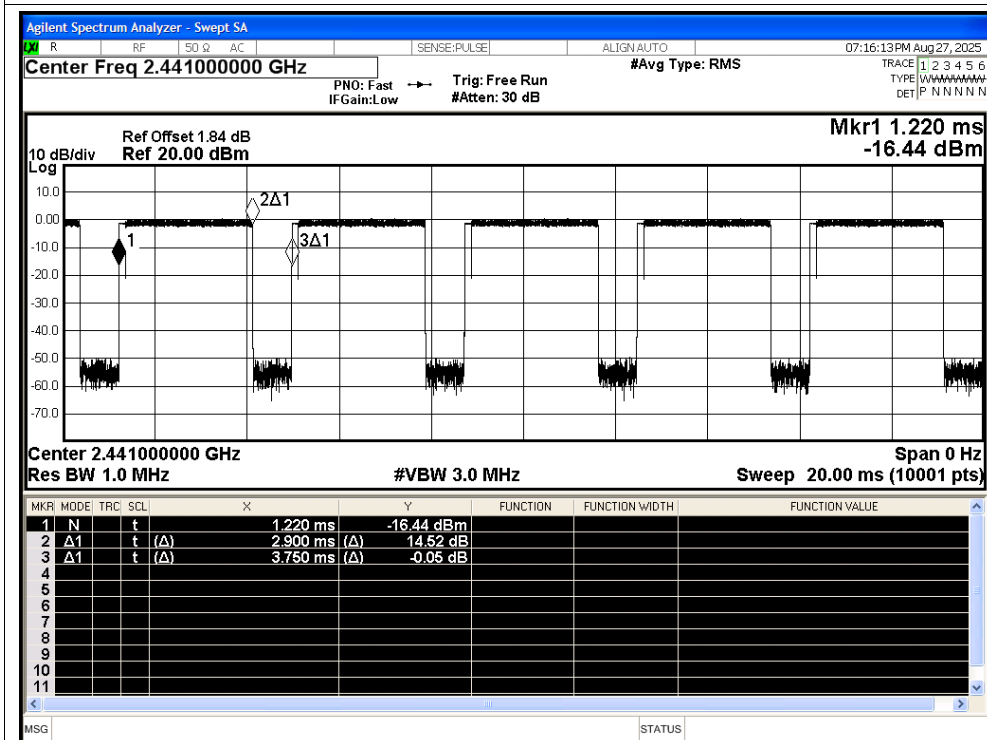
Duty Cycle NVNT 1-DH5 2480MHz Ant1



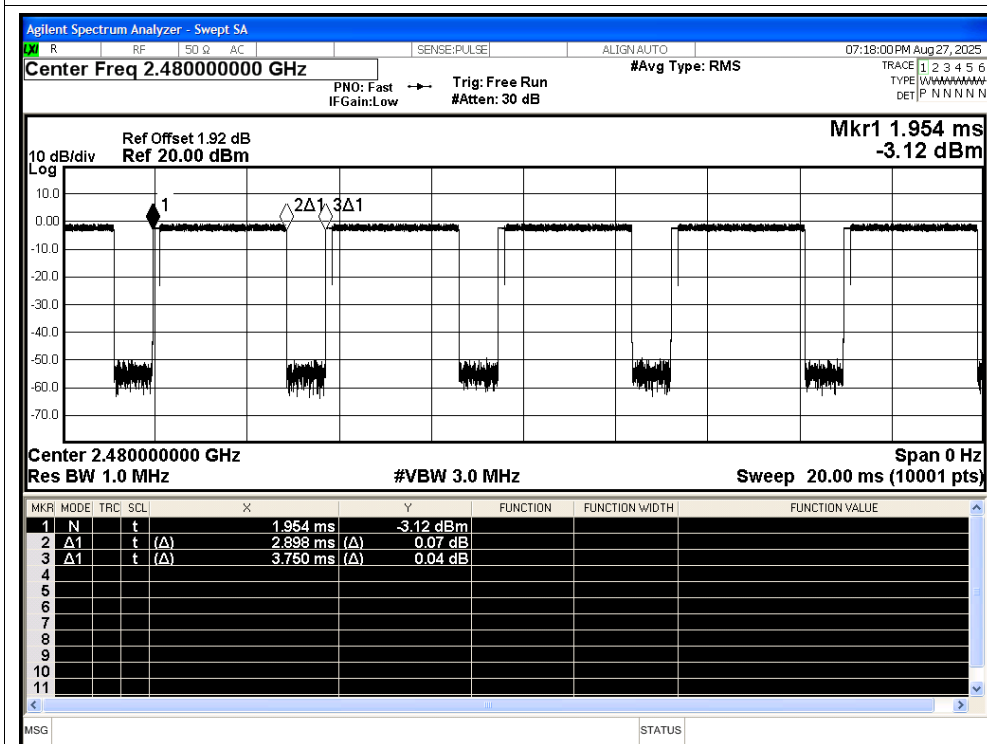
Duty Cycle NVNT 2-DH5 2402MHz Ant1



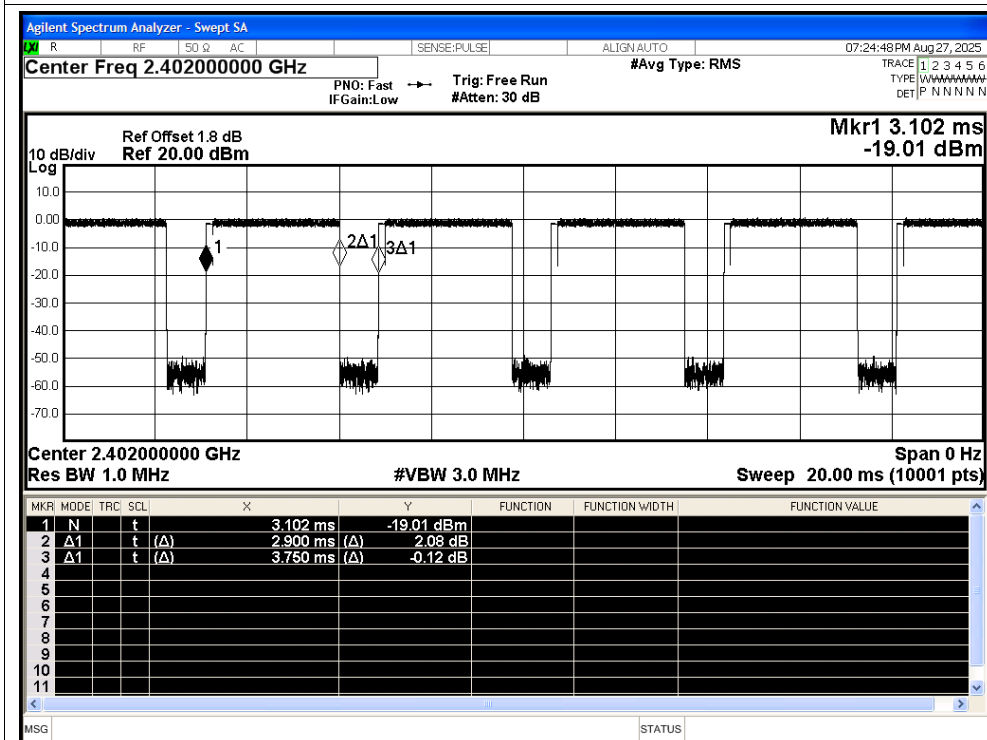
Duty Cycle NVNT 2-DH5 2441MHz Ant1



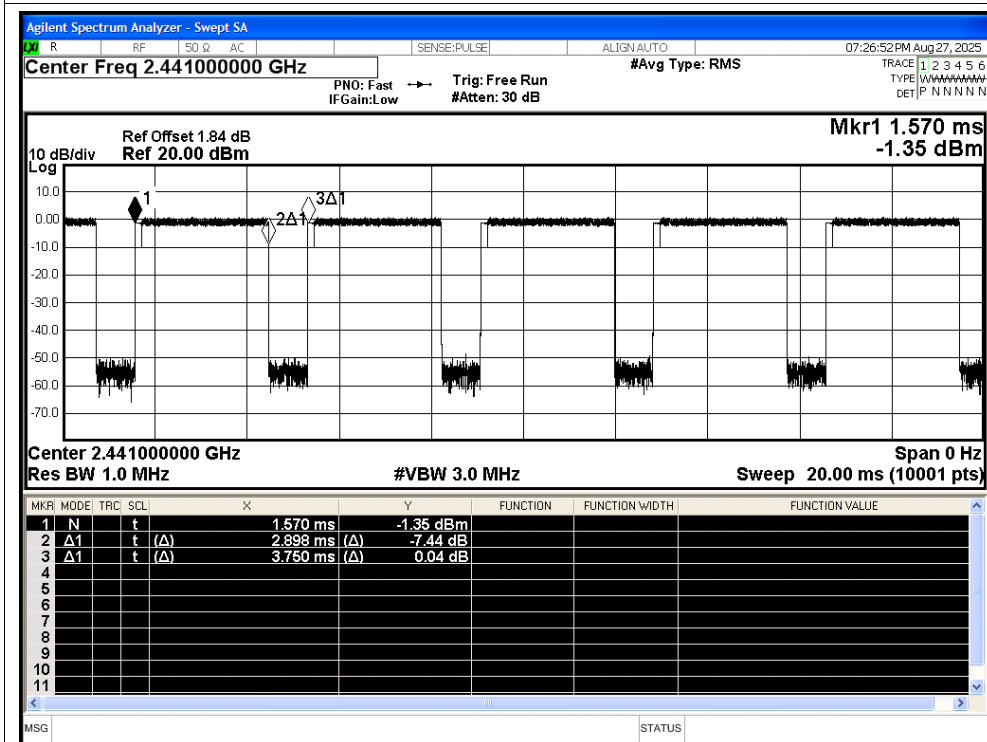
Duty Cycle NVNT 2-DH5 2480MHz Ant1

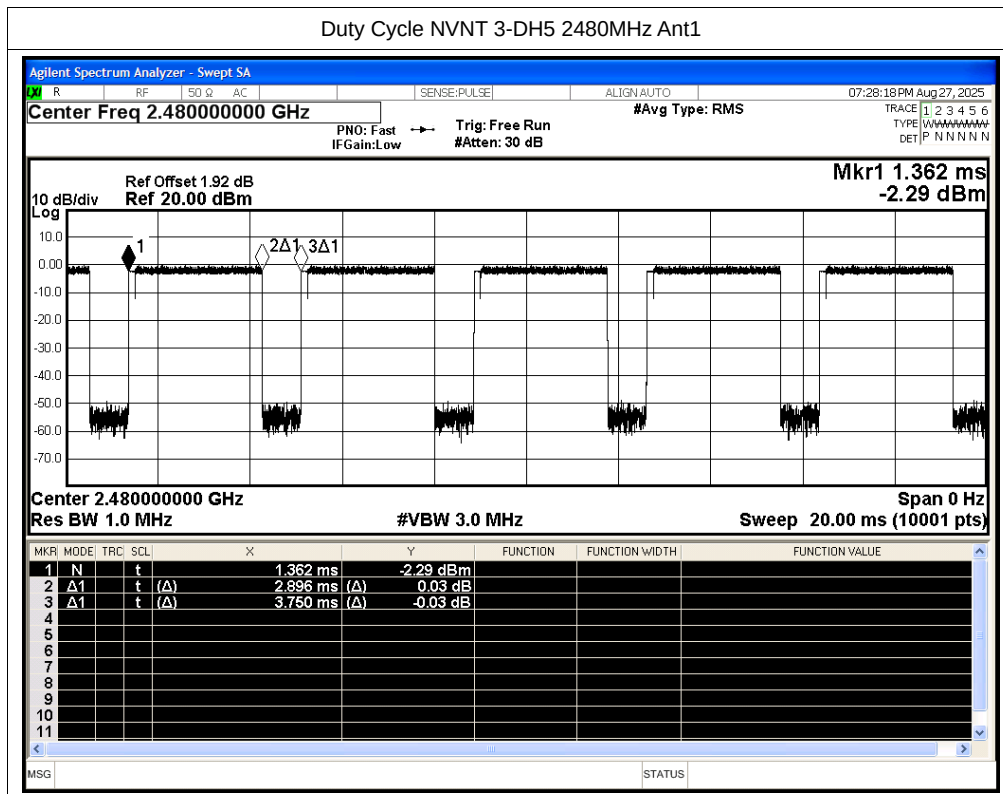


Duty Cycle NVNT 3-DH5 2402MHz Ant1



Duty Cycle NVNT 3-DH5 2441MHz Ant1



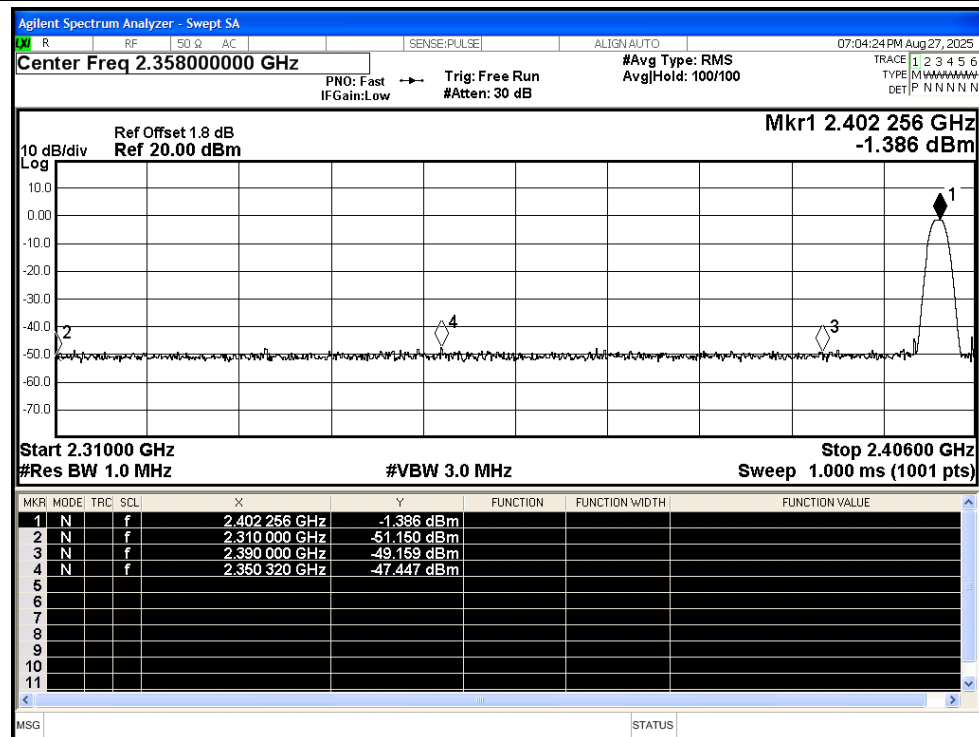


A.9 Restrict Band

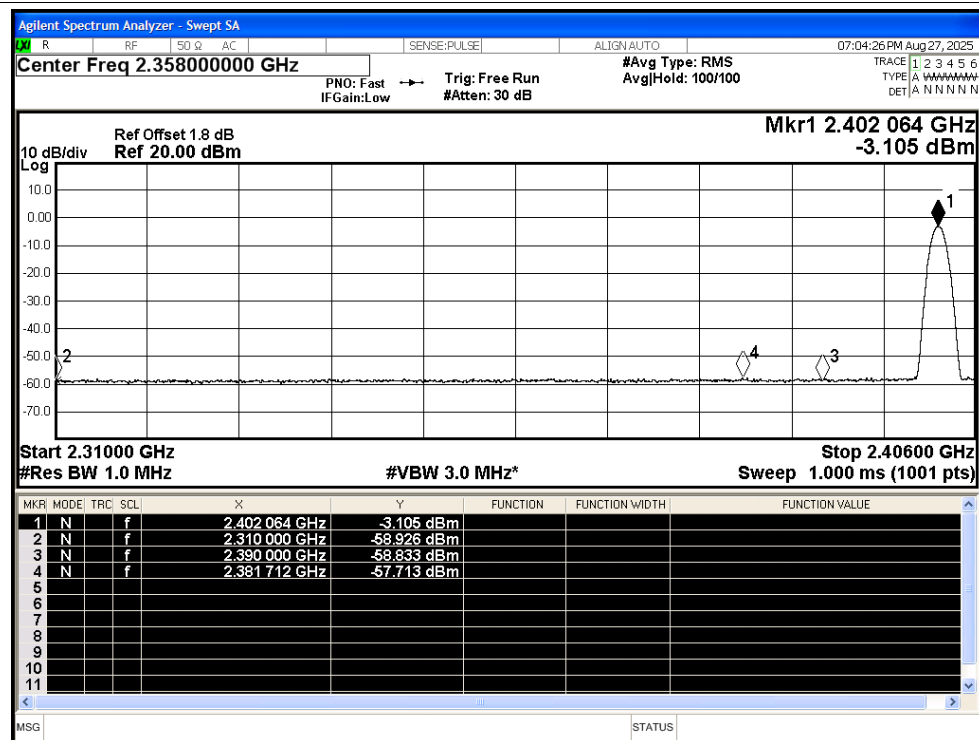
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-51.15	2	-	46.11	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-58.93	2	1.1	39.43	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2350.32	-47.45	2	-	49.81	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2381.712	-57.71	2	1.1	40.65	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-49.16	2	-	48.1	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-58.83	2	1.1	39.53	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-49.31	2	-	47.95	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-58.12	2	1.1	40.24	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2486.176	-44.47	2	-	52.79	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2489.656	-57.3	2	1.1	41.06	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-49.22	2	-	48.04	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-58.4	2	1.1	39.96	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-50.96	2	-	46.3	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-59.13	2	1.12	39.25	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2380.464	-47.95	2	-	49.31	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2383.632	-57.81	2	1.12	40.57	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-51.55	2	-	45.71	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-58.85	2	1.12	39.53	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-49.96	2	-	47.3	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-57.75	2	1.12	40.63	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2487.496	-47.26	2	-	50	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2488.36	-57.38	2	1.12	41	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-50.43	2	-	46.83	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-58.46	2	1.12	39.92	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-51.17	2	-	46.09	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-58.81	2	1.12	39.57	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2378.448	-47.85	2	-	49.41	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2329.872	-57.84	2	1.12	40.54	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-49.72	2	-	47.54	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-58.93	2	1.12	39.45	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-50.16	2	-	47.1	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-57.43	2	1.12	40.95	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2497.984	-46.81	2	-	50.45	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2494.072	-57.29	2	1.12	41.09	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-50.41	2	-	46.85	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-58.2	2	1.12	40.18	Average	54	Pass

Test Graphs

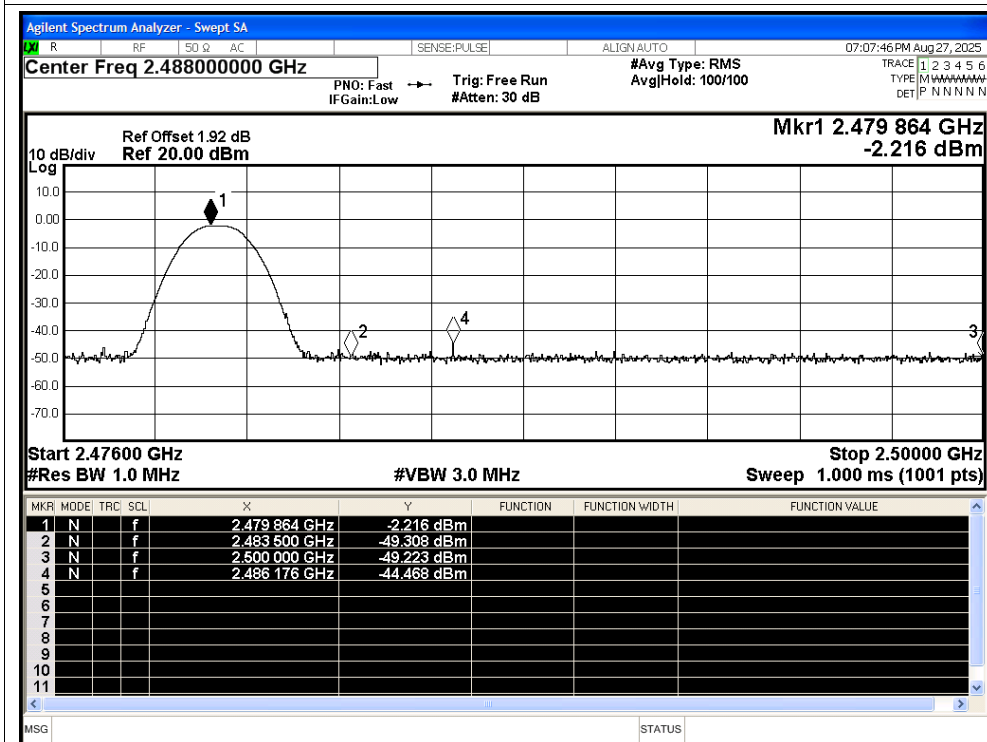
Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Peak



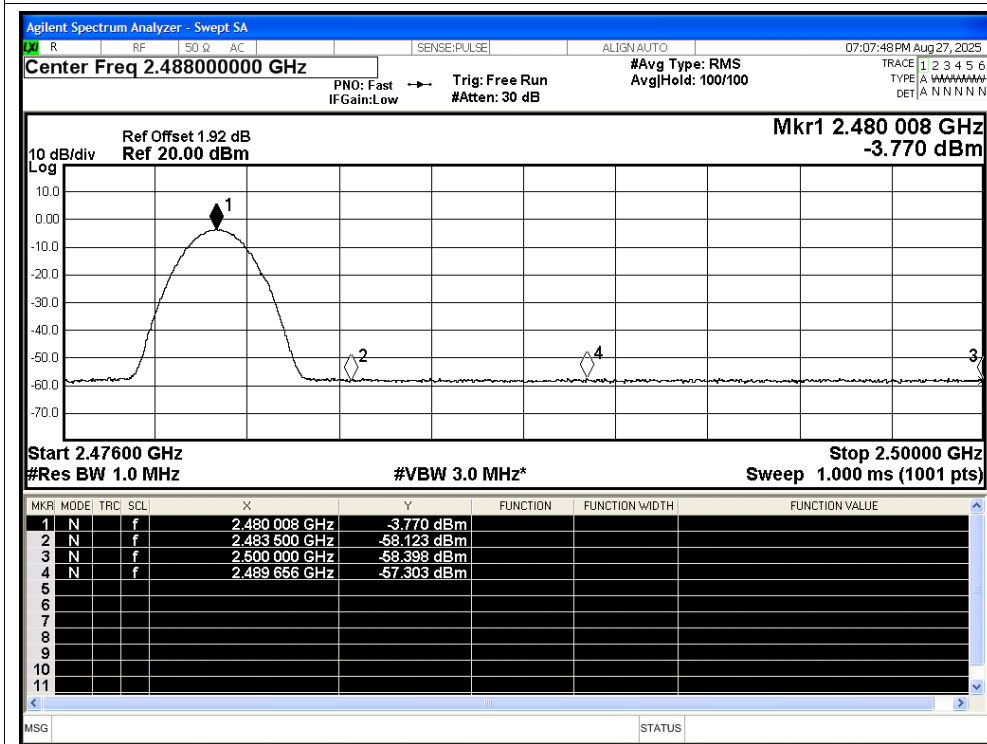
Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Average



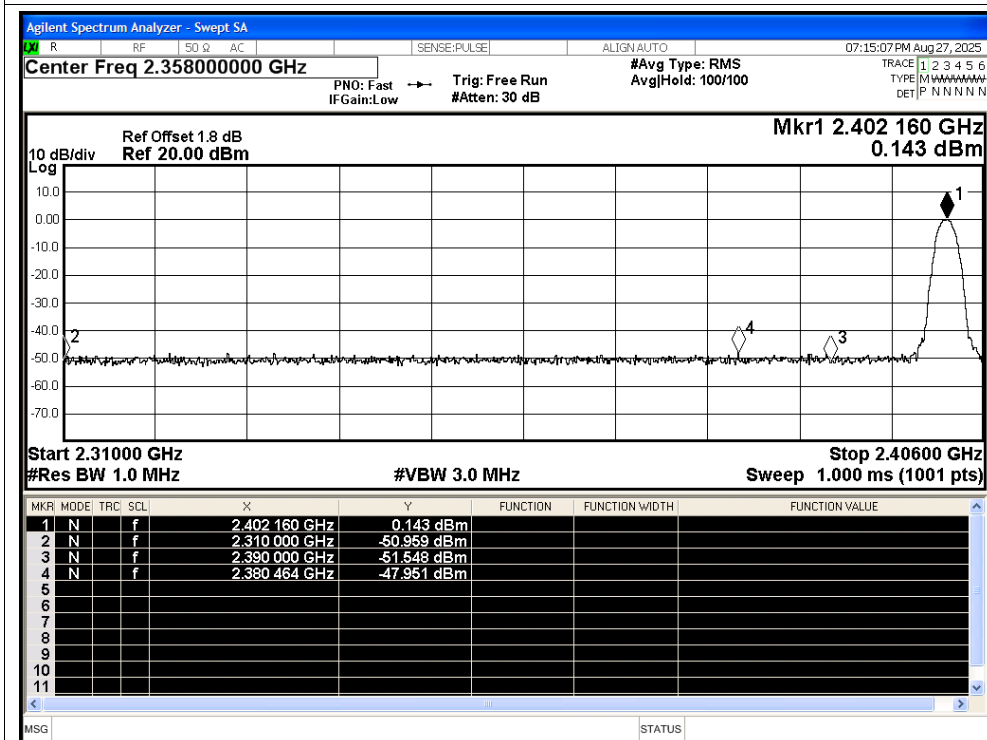
Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Peak



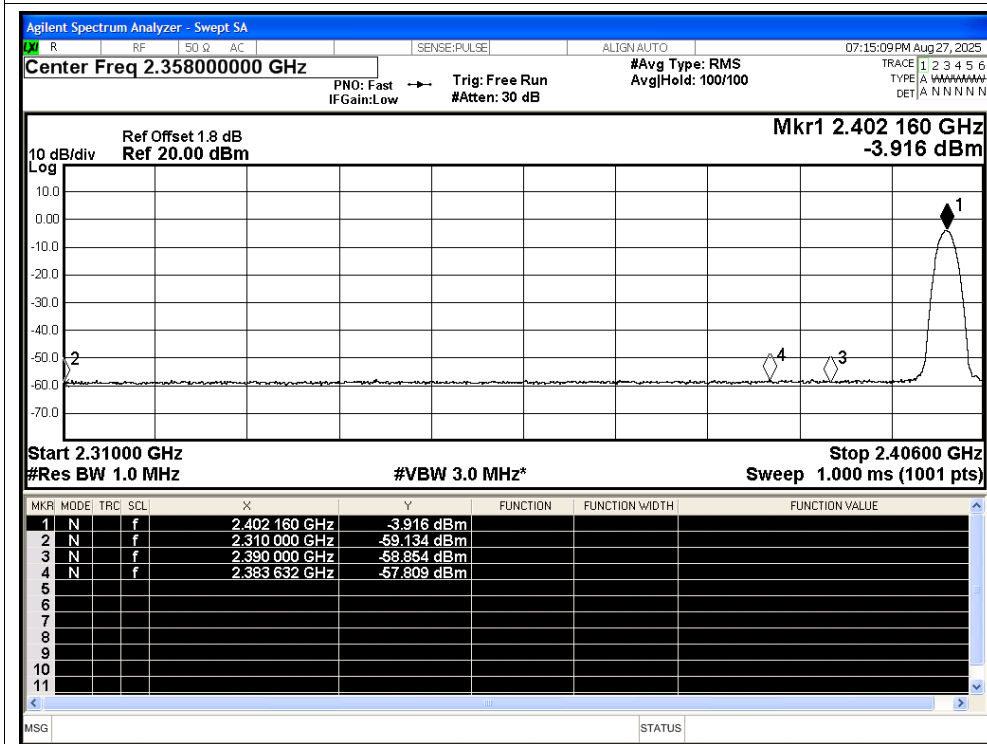
Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Average



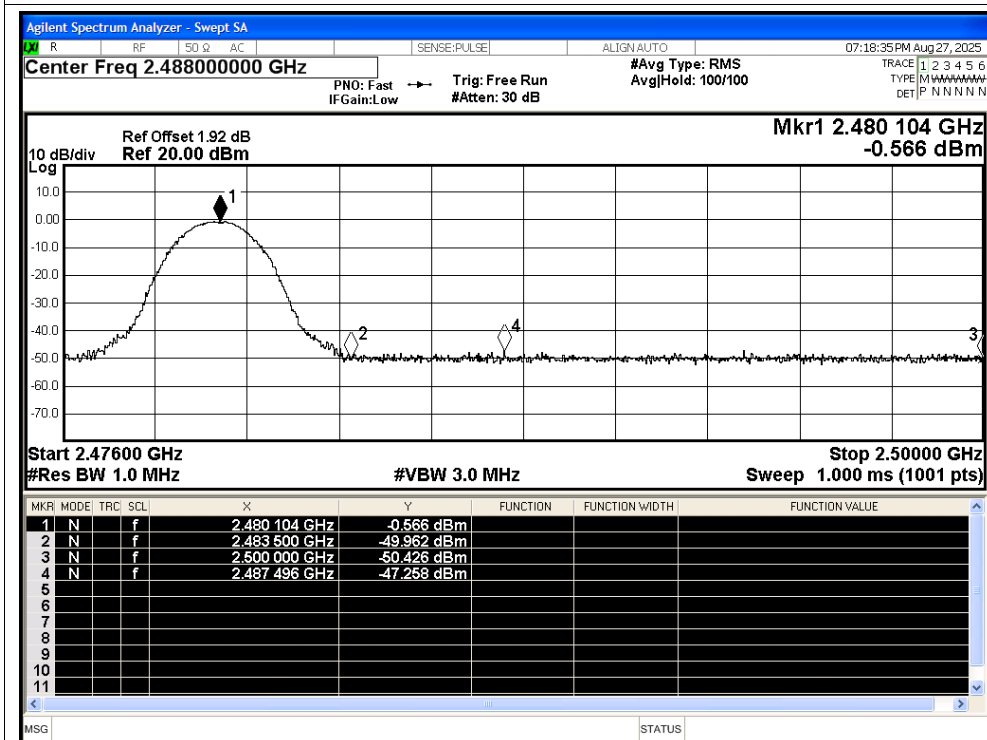
Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Peak



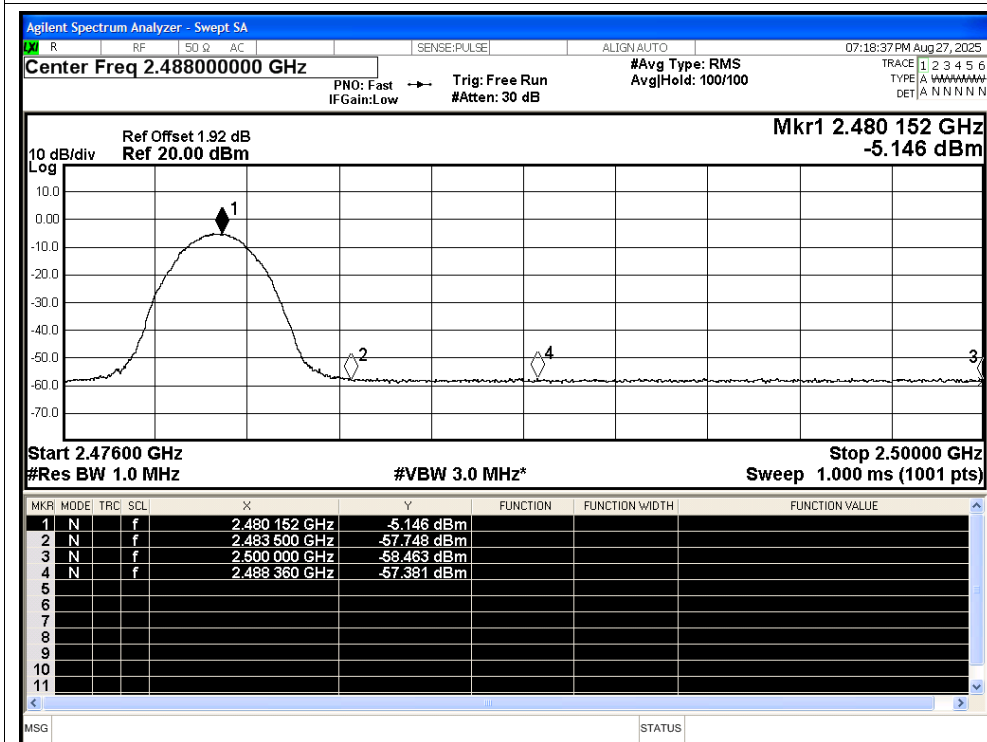
Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Average

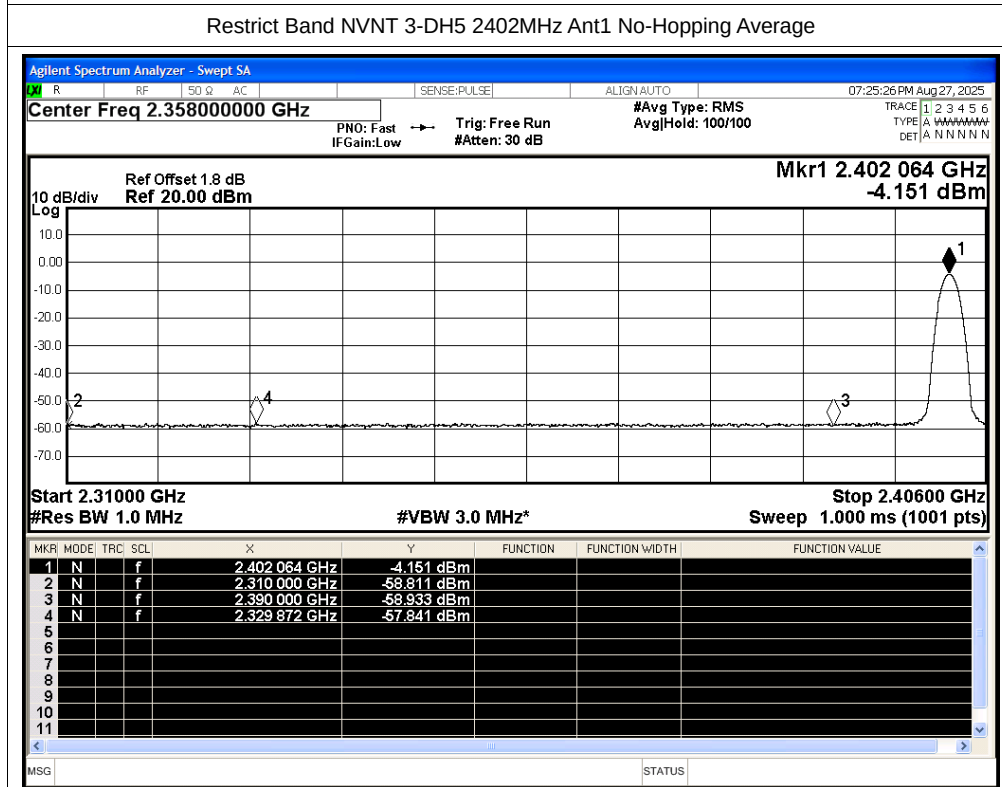
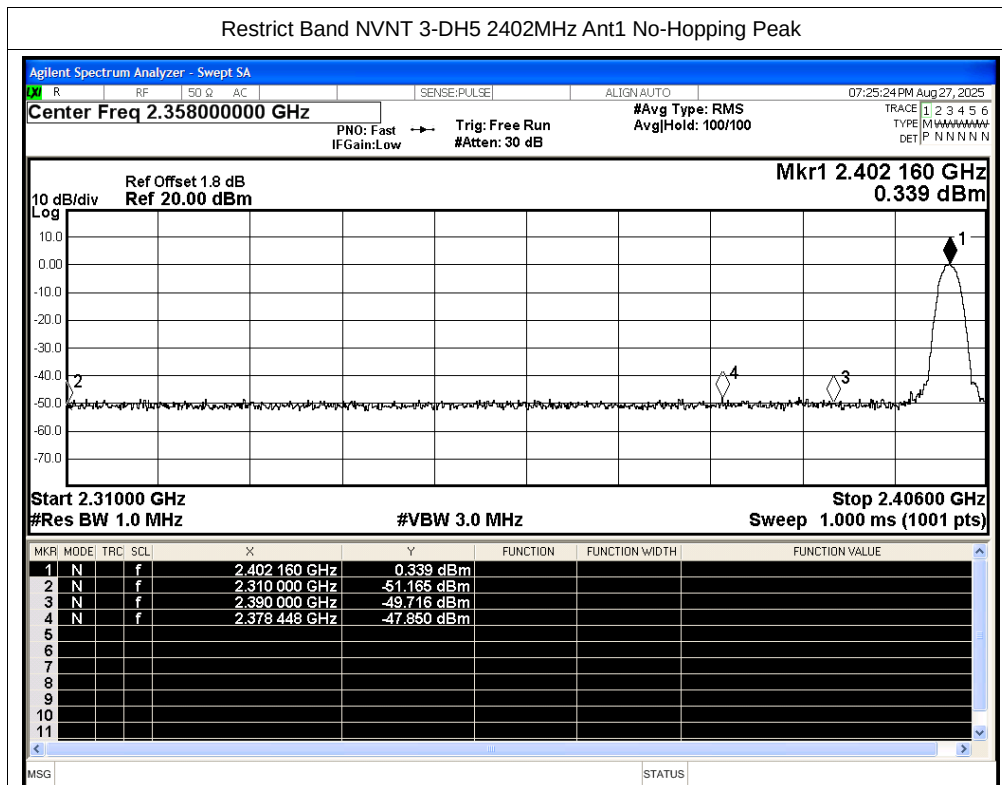


Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Peak

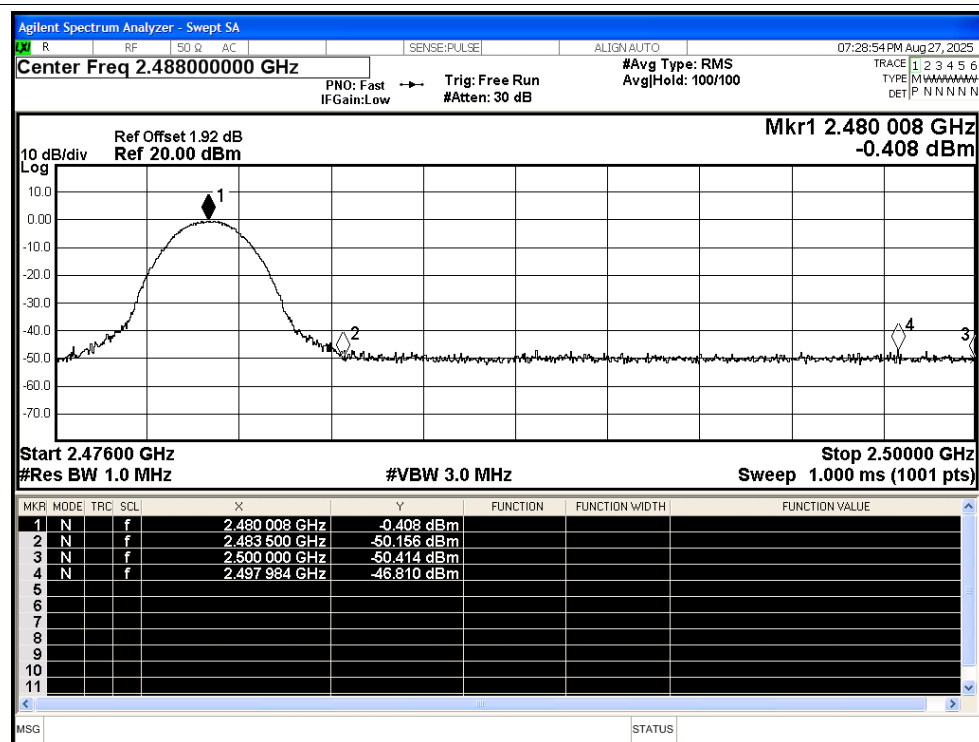


Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Average





Restrict Band NVNT 3-DH5 2480MHz Ant1 No-Hopping Peak



Restrict Band NVNT 3-DH5 2480MHz Ant1 No-Hopping Average

