

Appendix A

RF Test Data for BT(Conducted Measurement)

Product Name: Projector

Test Model: Q5 Mate

Environmental Conditions

Temperature:	23.8° C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Suichao Lai
Supervised by:	Yan Chen

A.1 -20dB Bandwidth

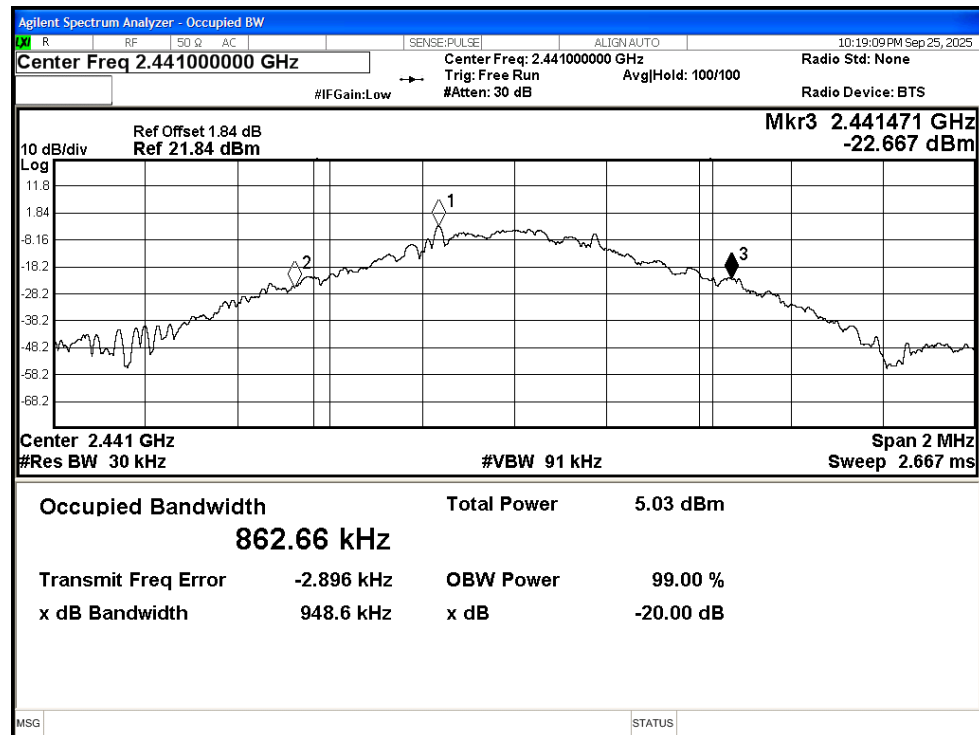
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH5	2402	Ant1	0.944	N/A	Pass
NVNT	1-DH5	2441	Ant1	0.949	N/A	Pass
NVNT	1-DH5	2480	Ant1	0.934	N/A	Pass
NVNT	2-DH5	2402	Ant1	1.285	N/A	Pass
NVNT	2-DH5	2441	Ant1	1.29	N/A	Pass
NVNT	2-DH5	2480	Ant1	1.287	N/A	Pass
NVNT	3-DH5	2402	Ant1	1.301	N/A	Pass
NVNT	3-DH5	2441	Ant1	1.286	N/A	Pass
NVNT	3-DH5	2480	Ant1	1.278	N/A	Pass

Test Graphs

-20dB Bandwidth NVNT 1-DH5 2402MHz Ant1



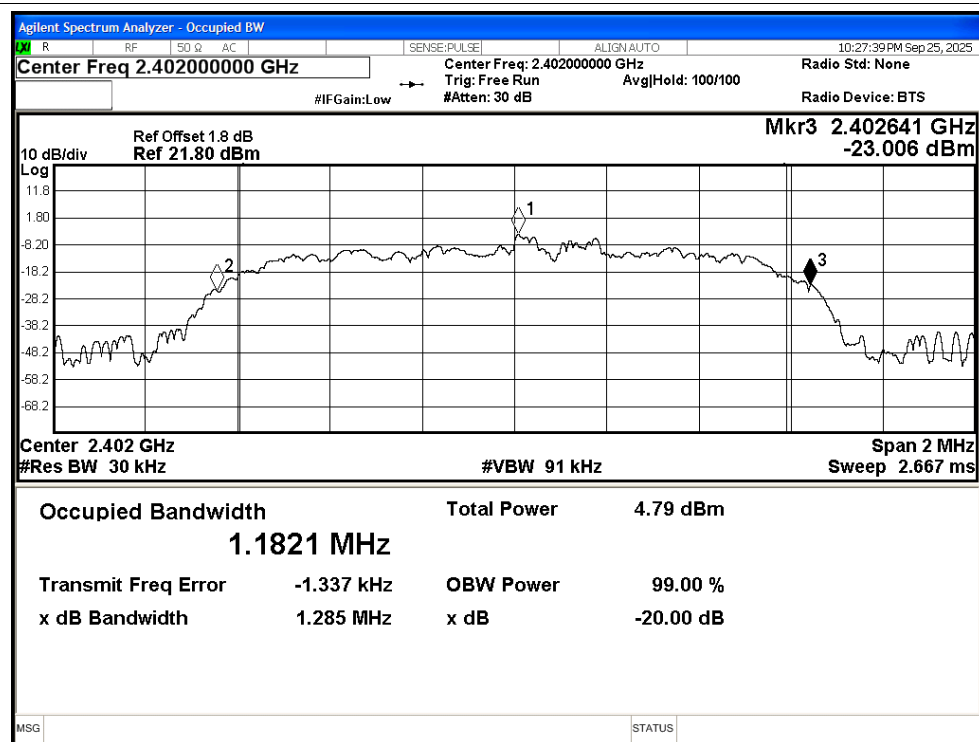
-20dB Bandwidth NVNT 1-DH5 2441MHz Ant1



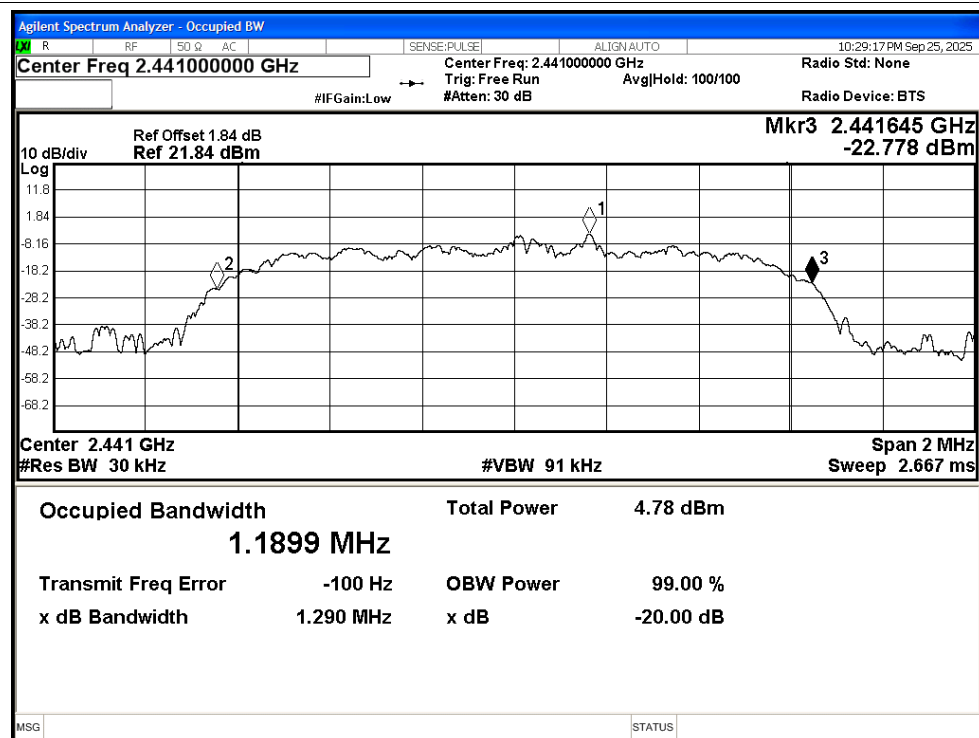
-20dB Bandwidth NVNT 1-DH5 2480MHz Ant1



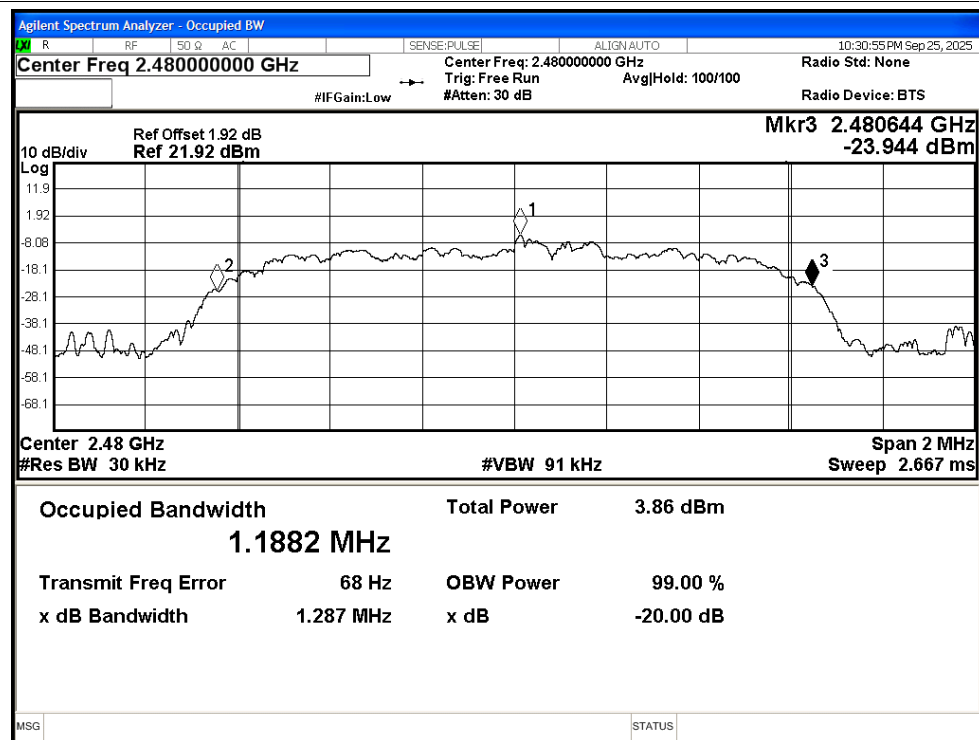
-20dB Bandwidth NVNT 2-DH5 2402MHz Ant1



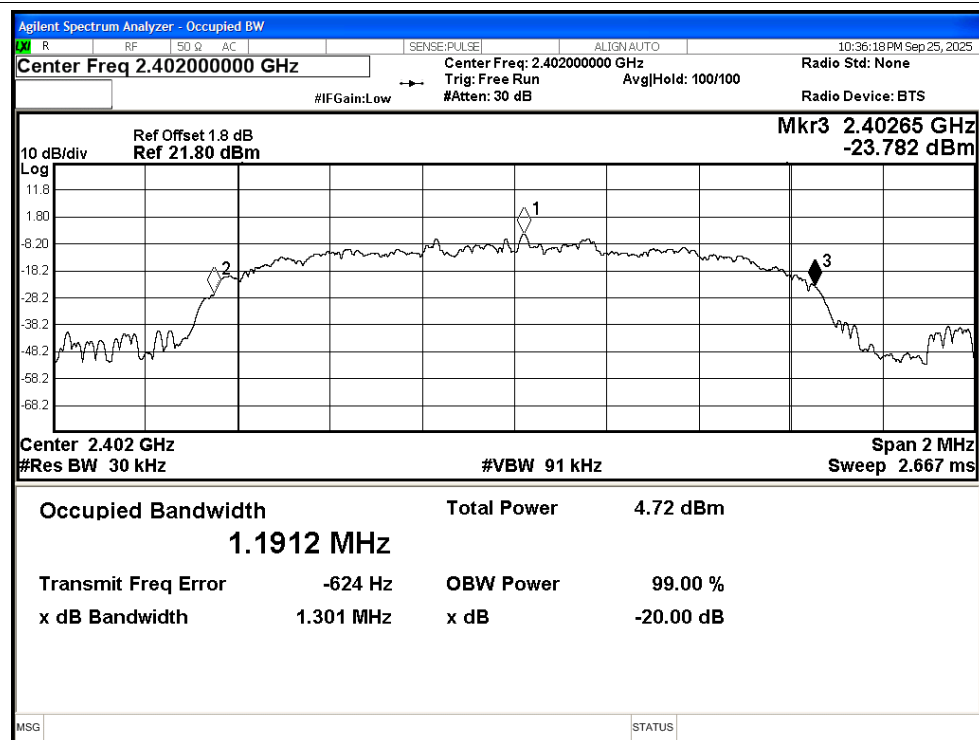
-20dB Bandwidth NVNT 2-DH5 2441MHz Ant1



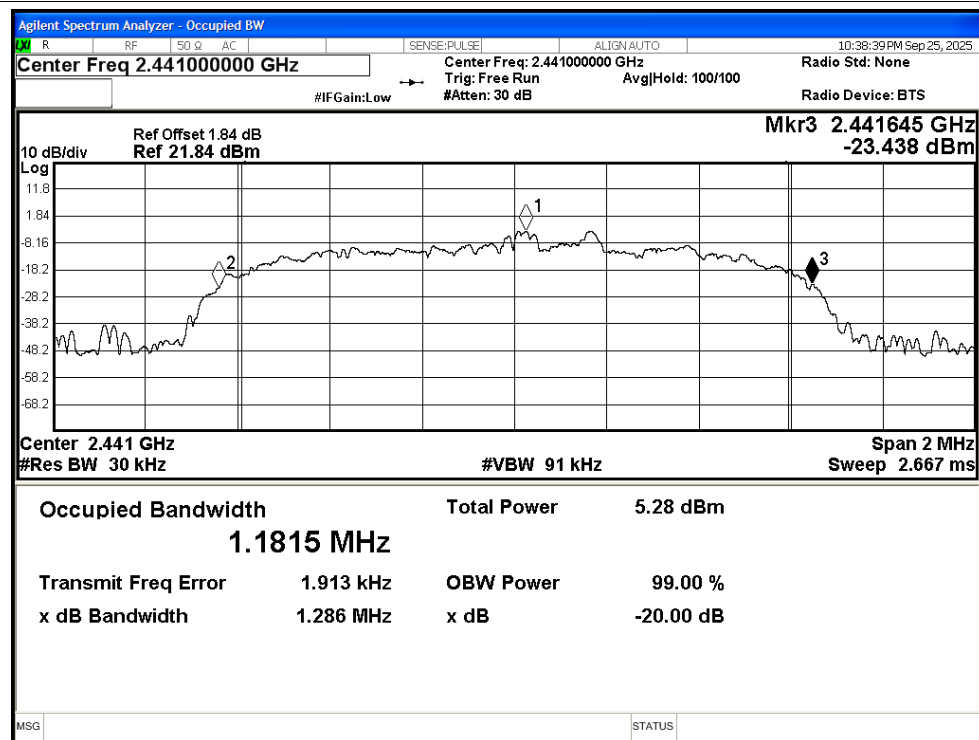
-20dB Bandwidth NVNT 2-DH5 2480MHz Ant1

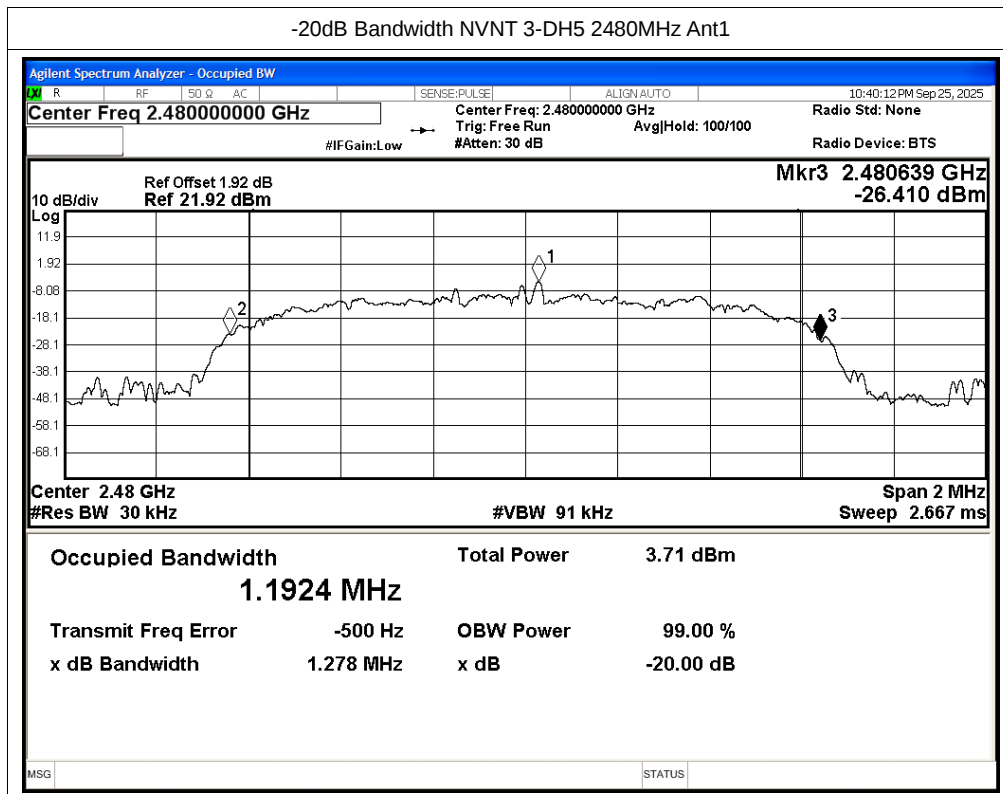


-20dB Bandwidth NVNT 3-DH5 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH5 2441MHz Ant1



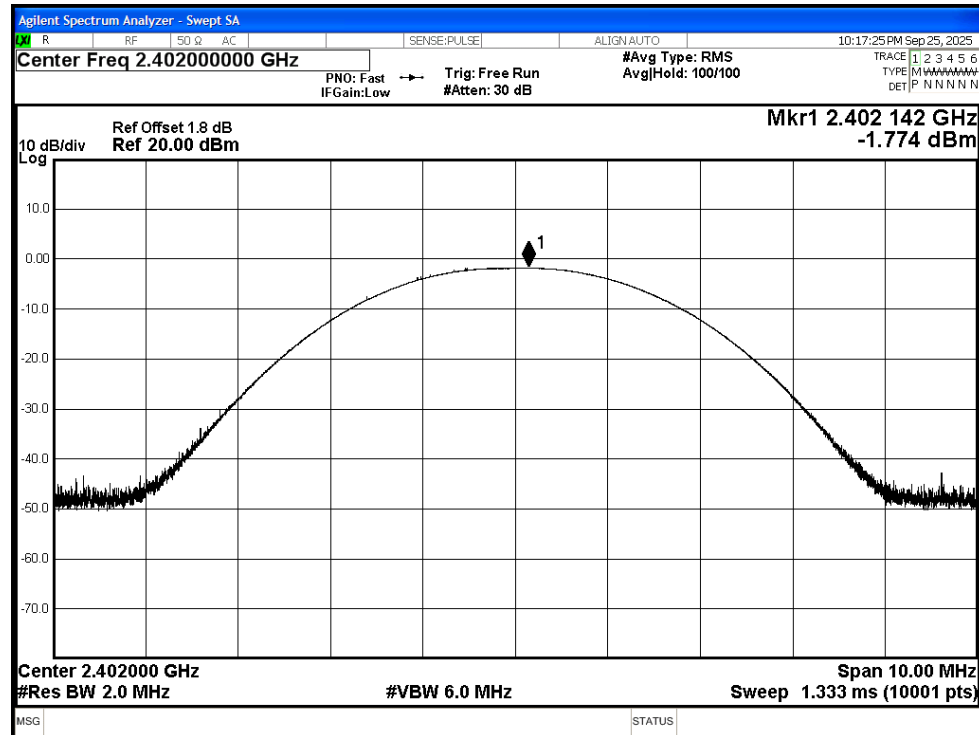


A.2 Maximum Peak Conducted Output Power

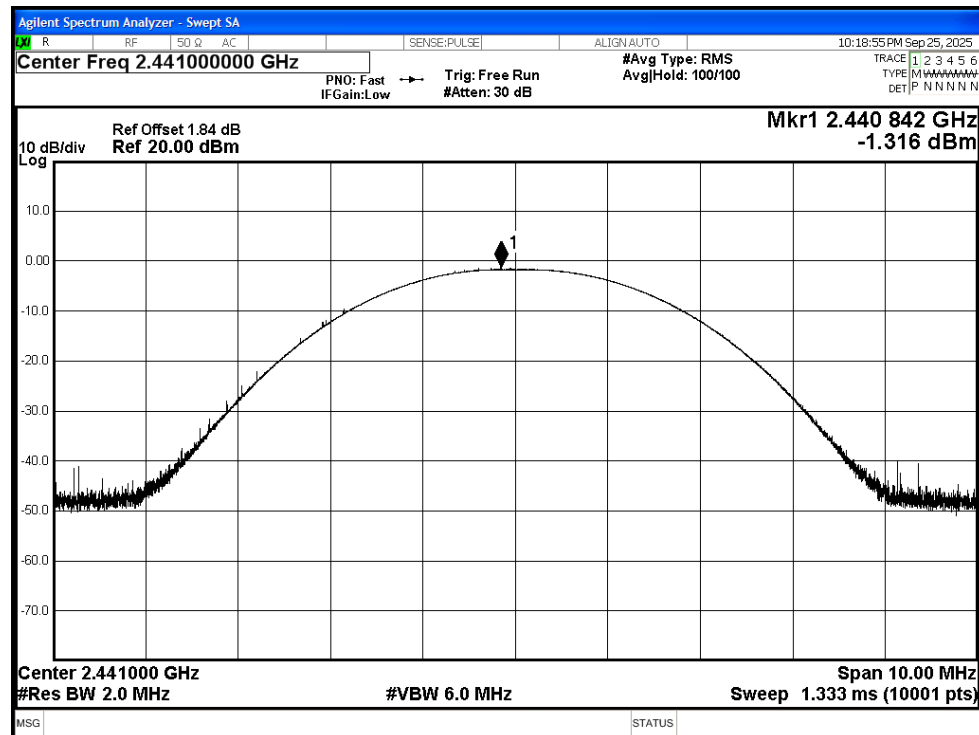
Condition	Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH5	2402	Ant1	-1.77	21	Pass
NVNT	1-DH5	2441	Ant1	-1.32	21	Pass
NVNT	1-DH5	2480	Ant1	-2.68	21	Pass
NVNT	2-DH5	2402	Ant1	0.39	21	Pass
NVNT	2-DH5	2441	Ant1	0.61	21	Pass
NVNT	2-DH5	2480	Ant1	-0.47	21	Pass
NVNT	3-DH5	2402	Ant1	0.87	21	Pass
NVNT	3-DH5	2441	Ant1	1.09	21	Pass
NVNT	3-DH5	2480	Ant1	-0.04	21	Pass

Test Graphs

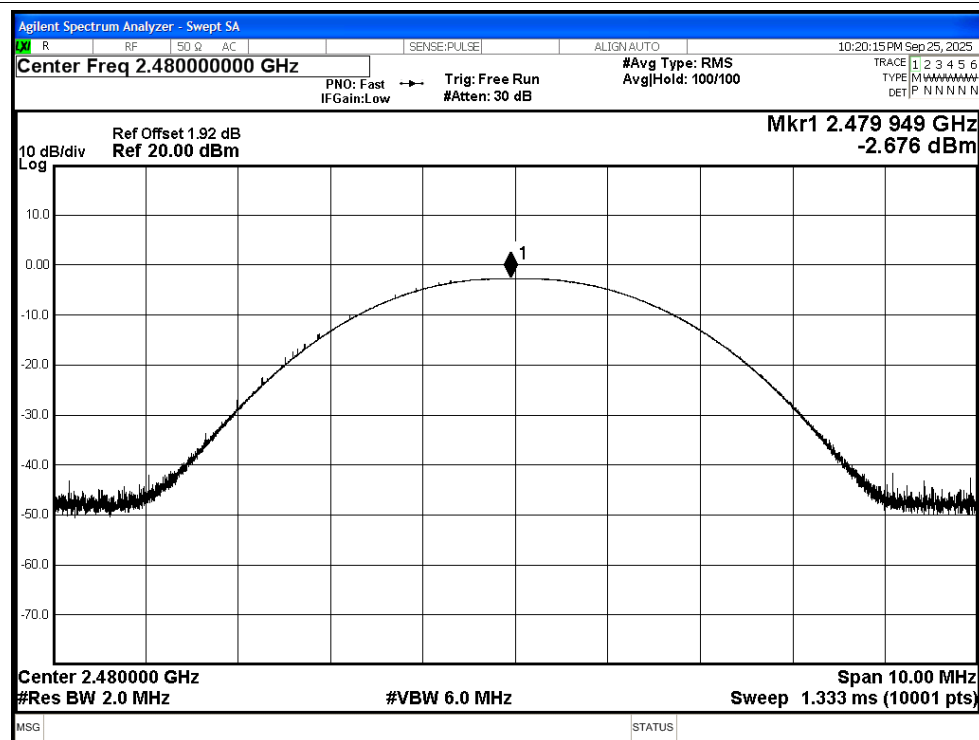
Power NVNT 1-DH5 2402MHz Ant1



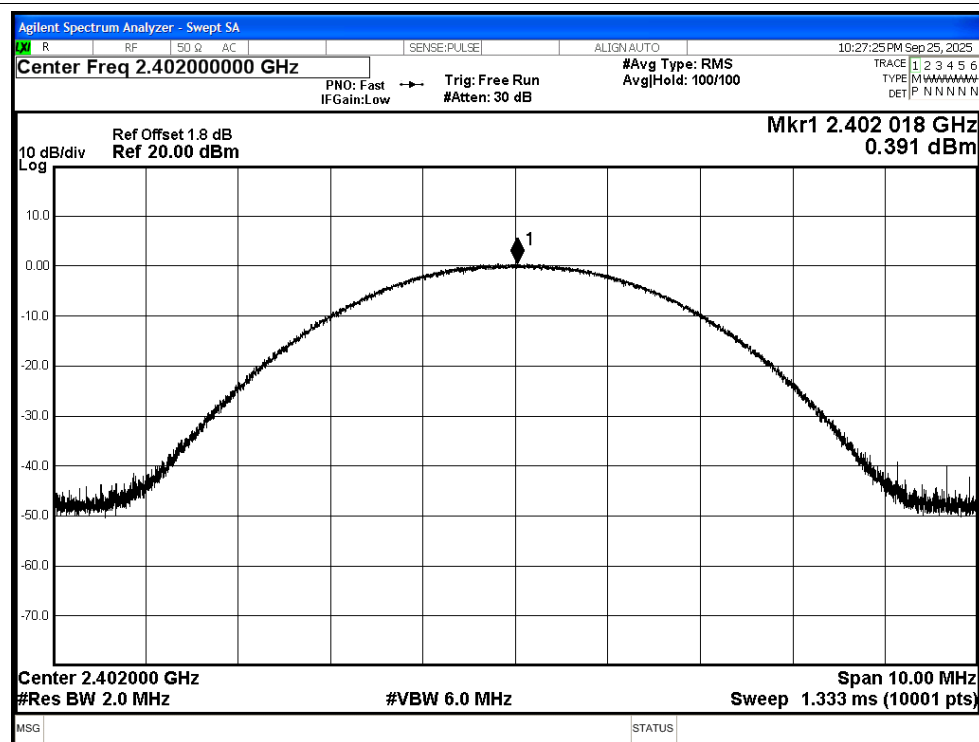
Power NVNT 1-DH5 2441MHz Ant1



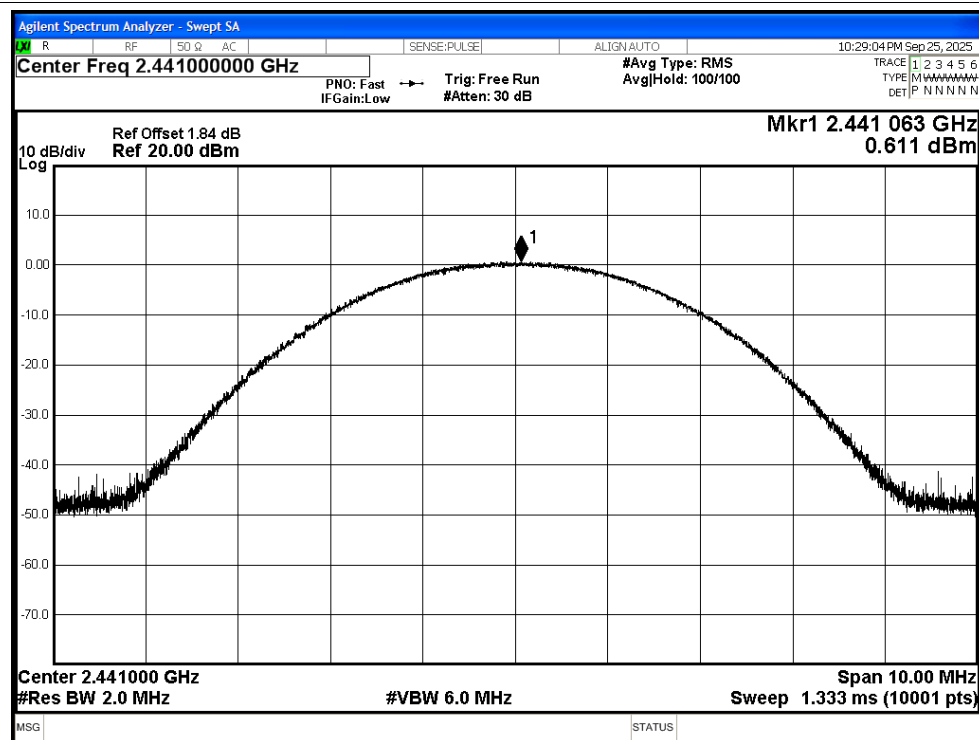
Power NVNT 1-DH5 2480MHz Ant1



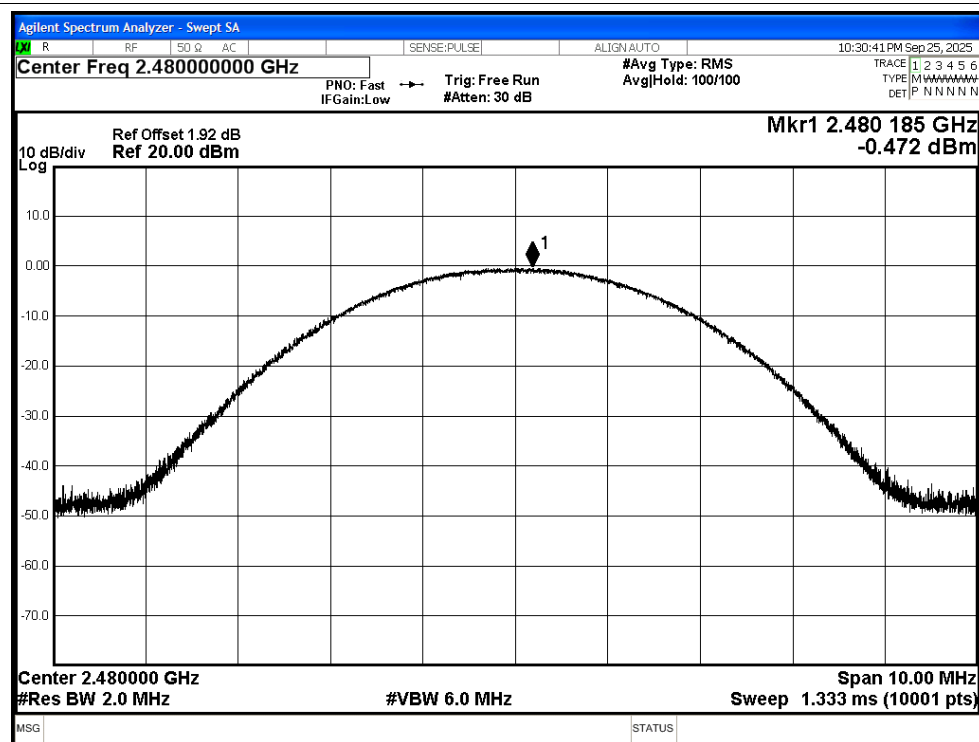
Power NVNT 2-DH5 2402MHz Ant1



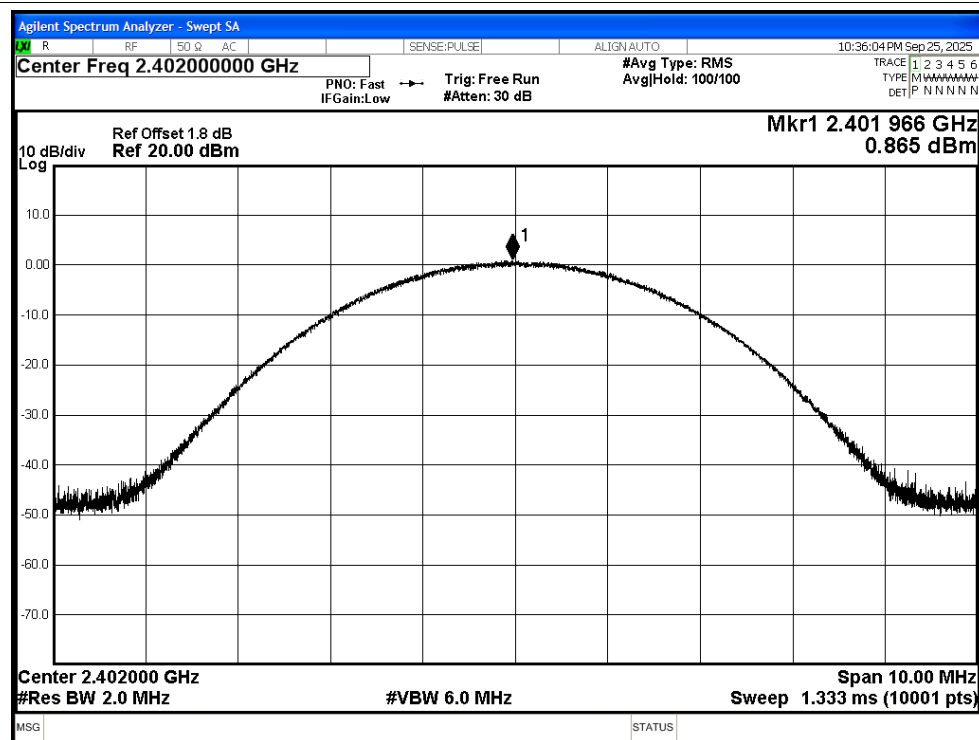
Power NVNT 2-DH5 2441MHz Ant1



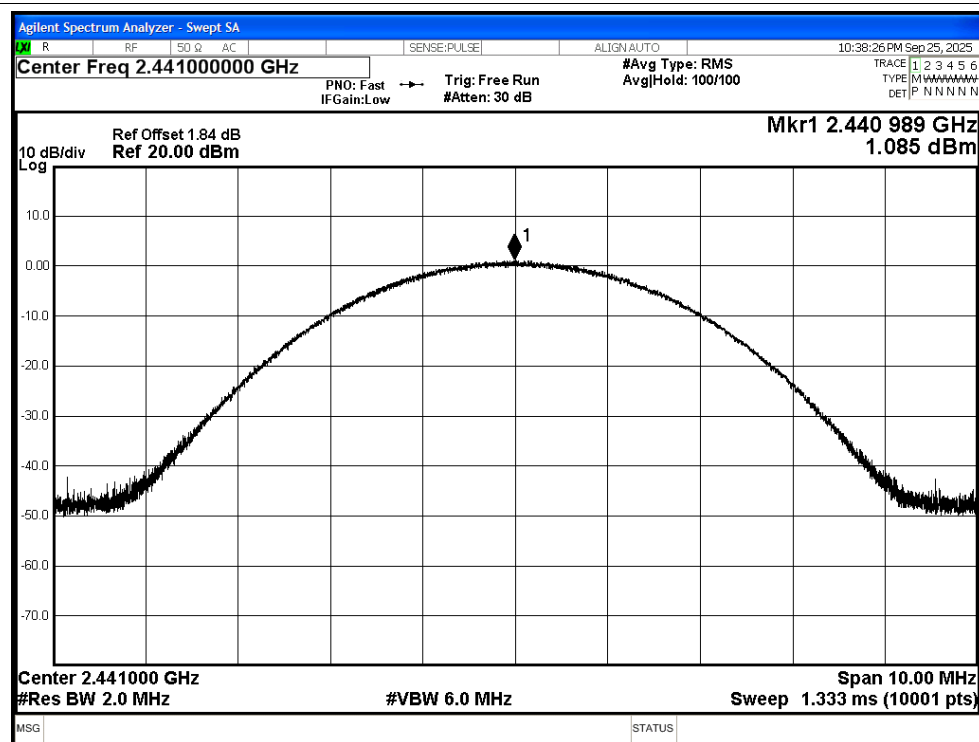
Power NVNT 2-DH5 2480MHz Ant1

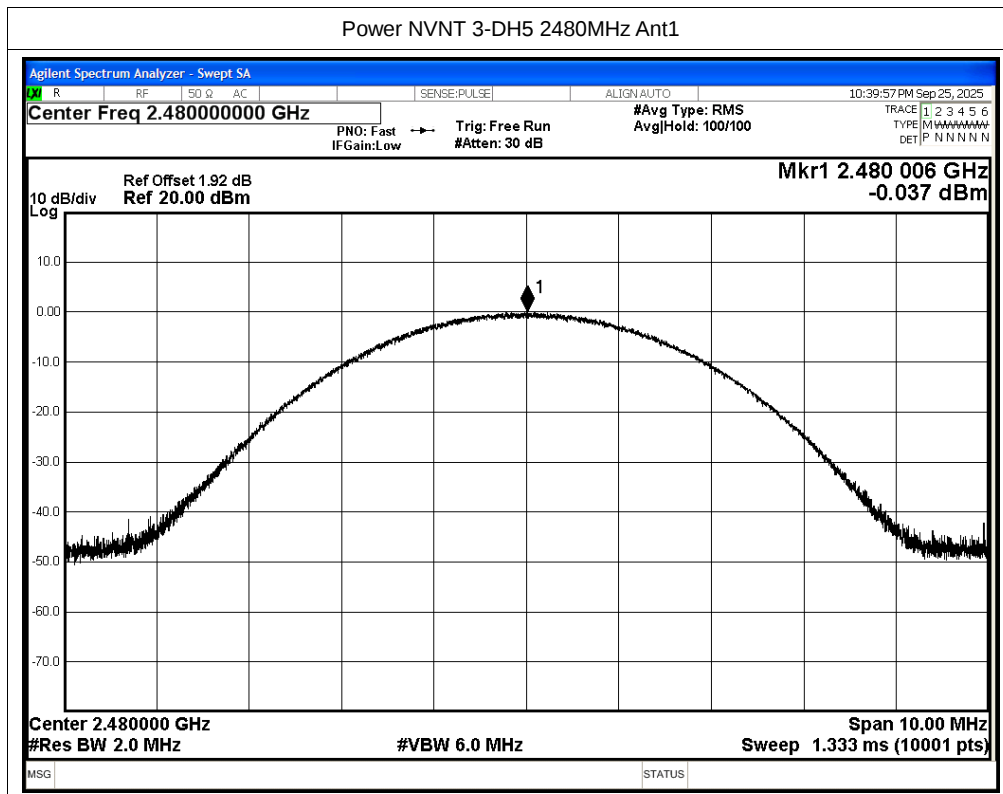


Power NVNT 3-DH5 2402MHz Ant1



Power NVNT 3-DH5 2441MHz Ant1



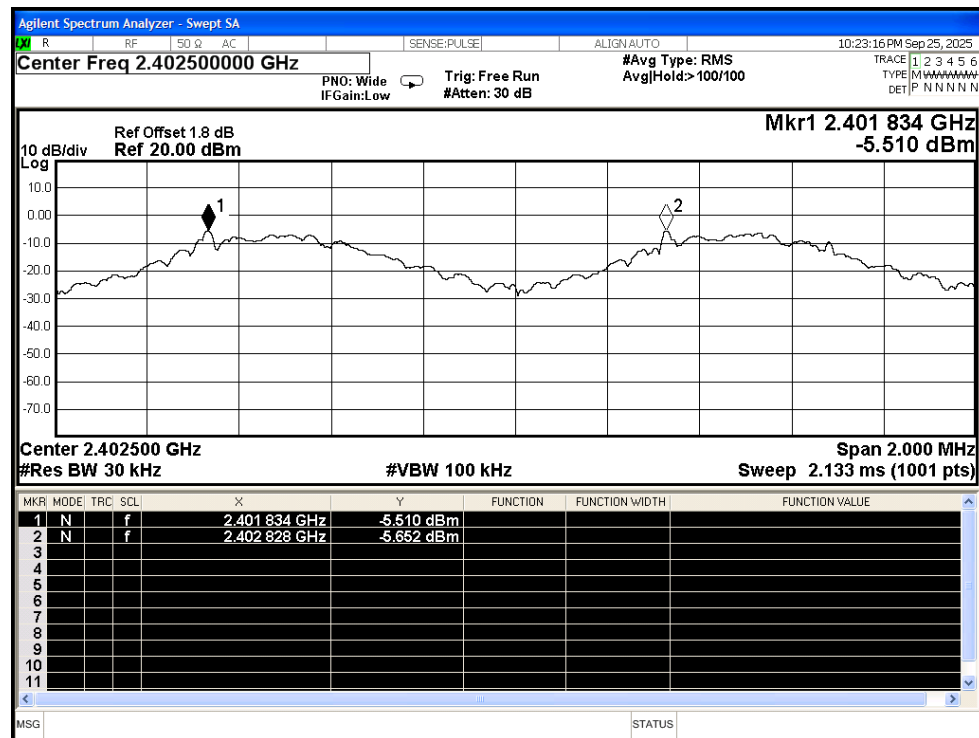


A.3 Carrier Frequencies Separation

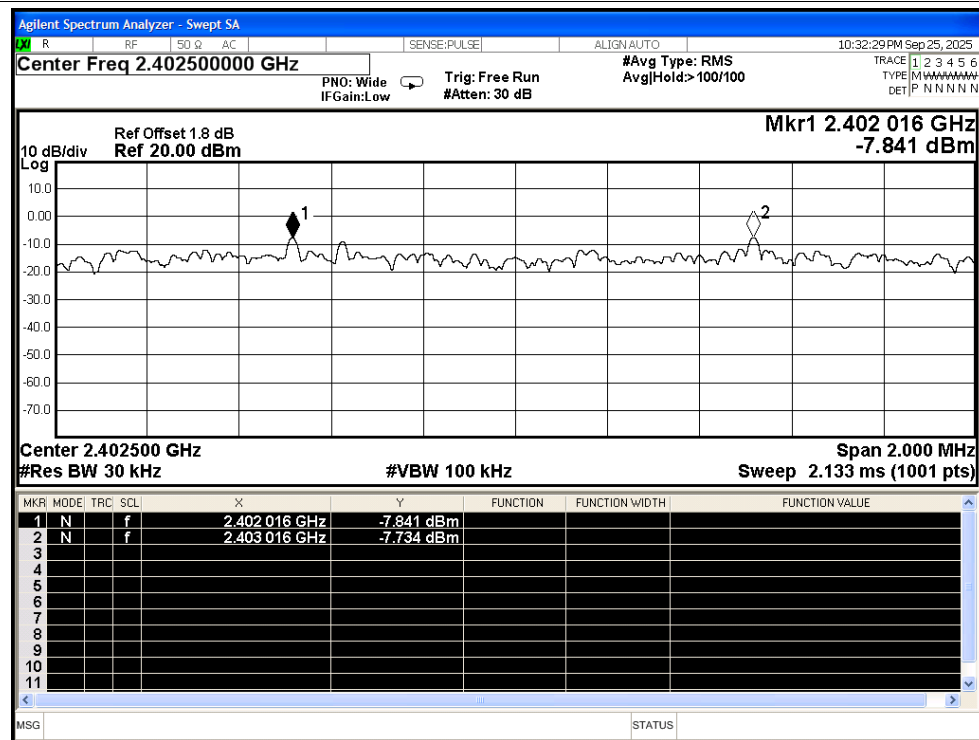
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH5	Ant1	2401.834	2402.828	0.994	0.633	Pass
NVNT	2-DH5	Ant1	2402.016	2403.016	1	0.860	Pass
NVNT	3-DH5	Ant1	2402.01	2403.02	1.01	0.867	Pass

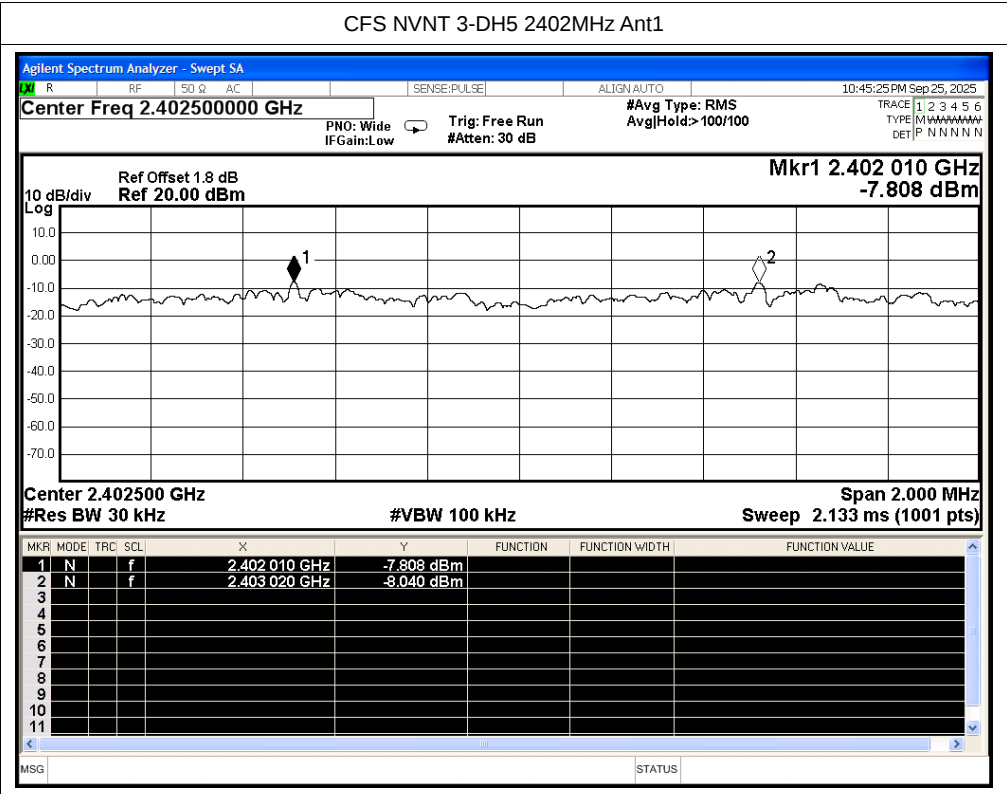
Test Graphs

CFS NVNT 1-DH5 2402MHz Ant1



CFS NVNT 2-DH5 2402MHz Ant1



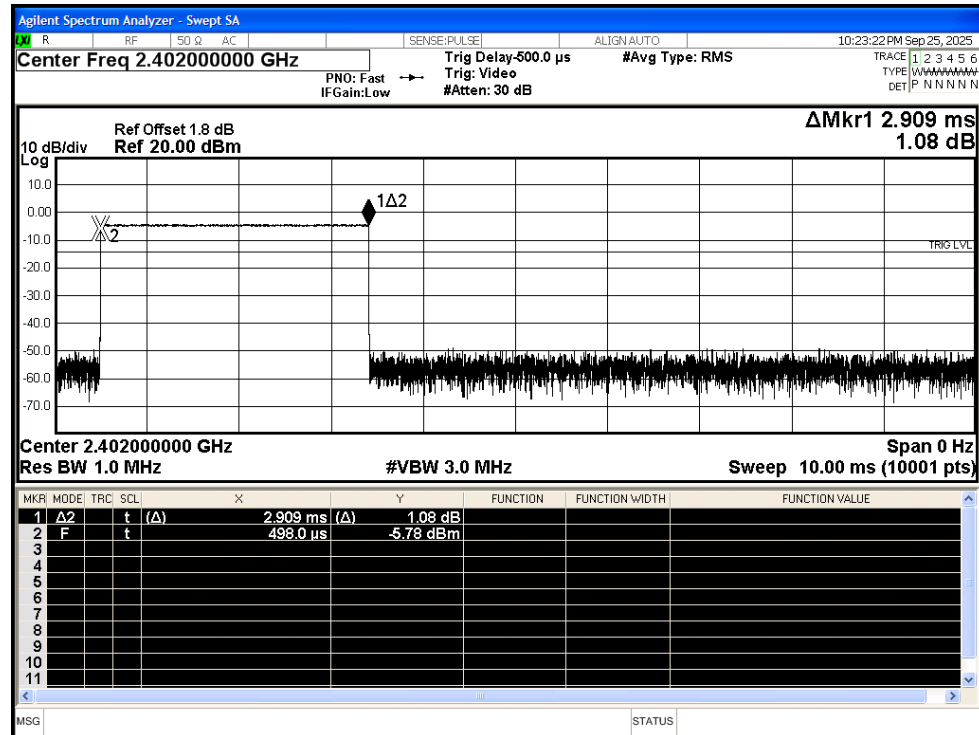


A.4 Dwell Time

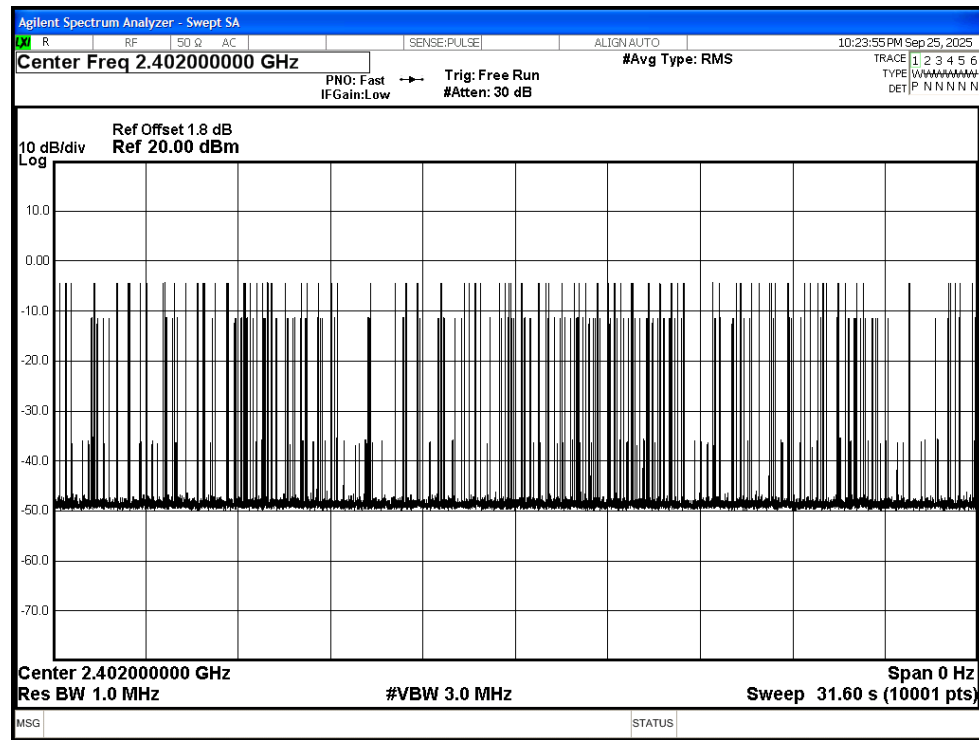
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH5	2402	Ant1	2.909	308.354	106	31600	400	Pass
NVNT	2-DH5	2402	Ant1	2.898	286.902	99	31600	400	Pass
NVNT	3-DH5	2402	Ant1	2.897	315.773	109	31600	400	Pass

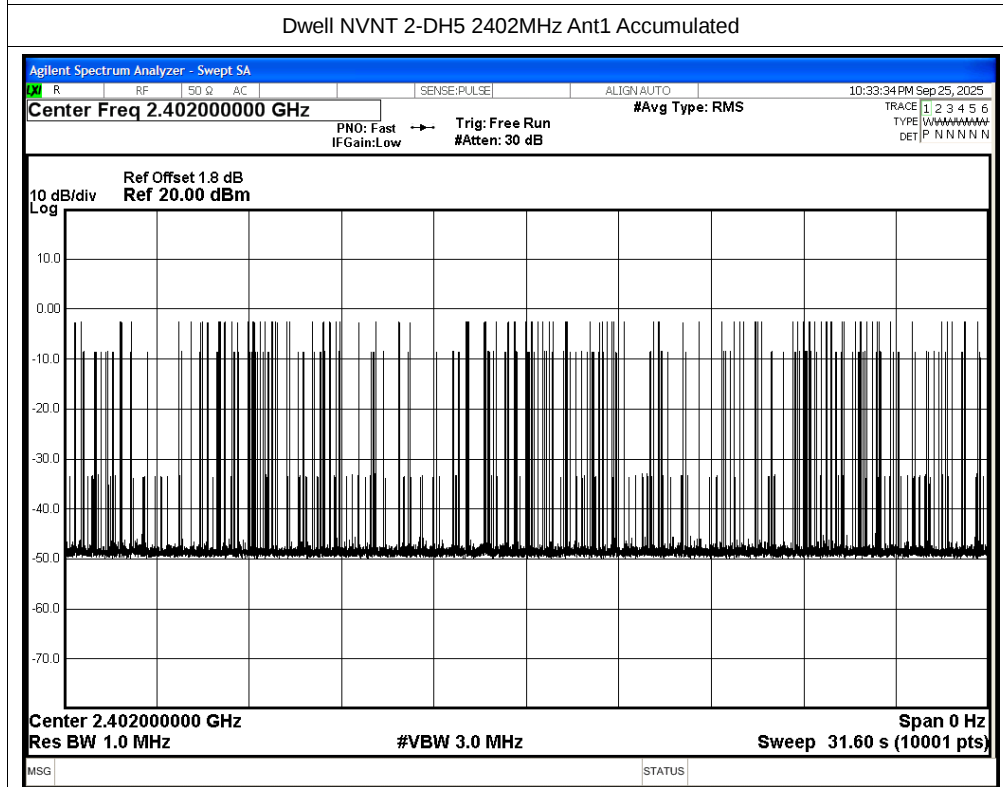
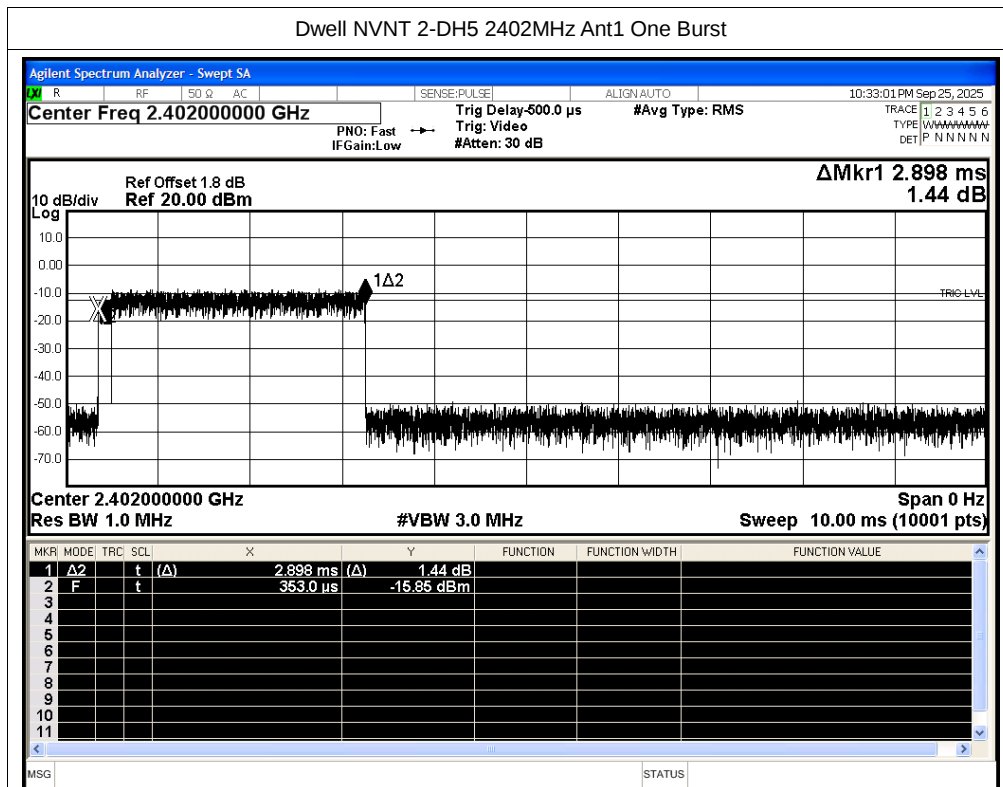
Test Graphs

Dwell NVNT 1-DH5 2402MHz Ant1 One Burst

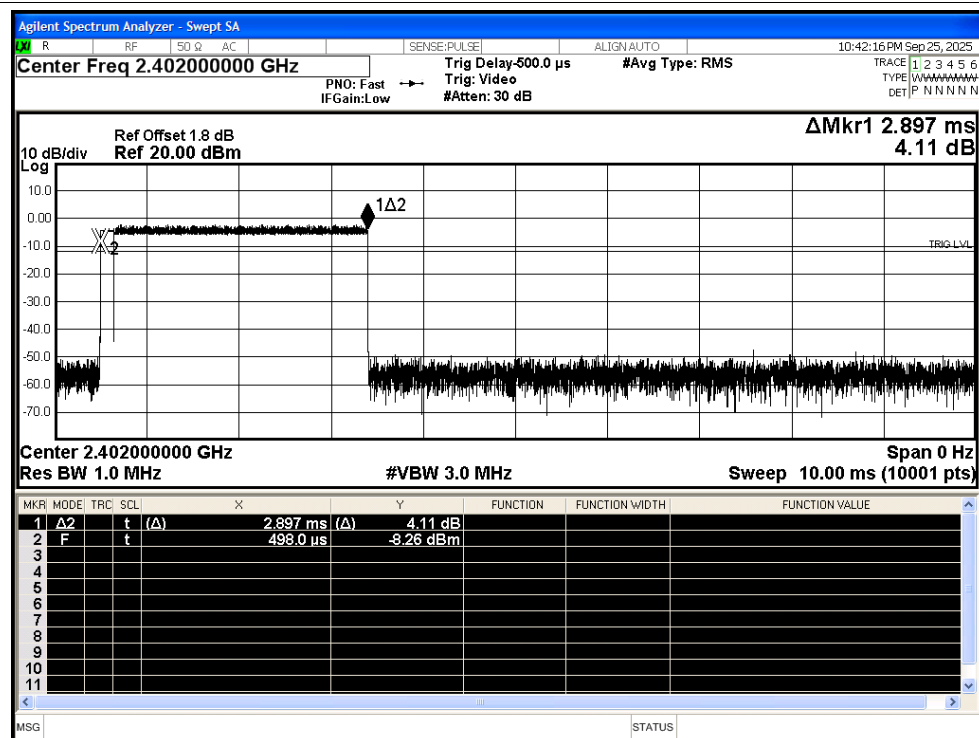


Dwell NVNT 1-DH5 2402MHz Ant1 Accumulated

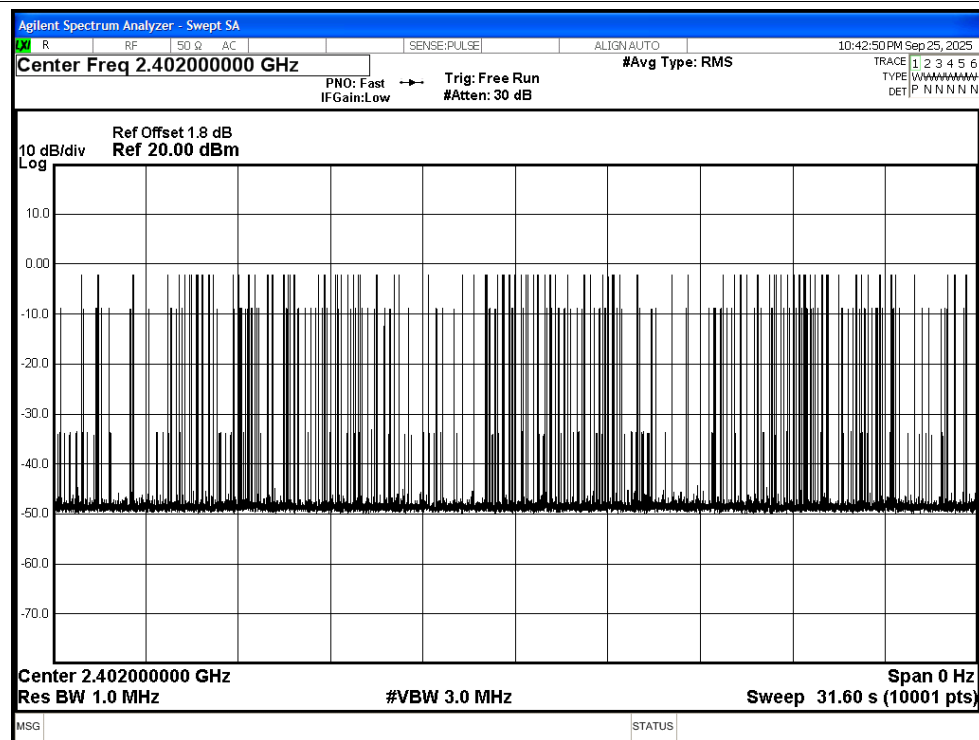




Dwell NVNT 3-DH5 2402MHz Ant1 One Burst



Dwell NVNT 3-DH5 2402MHz Ant1 Accumulated

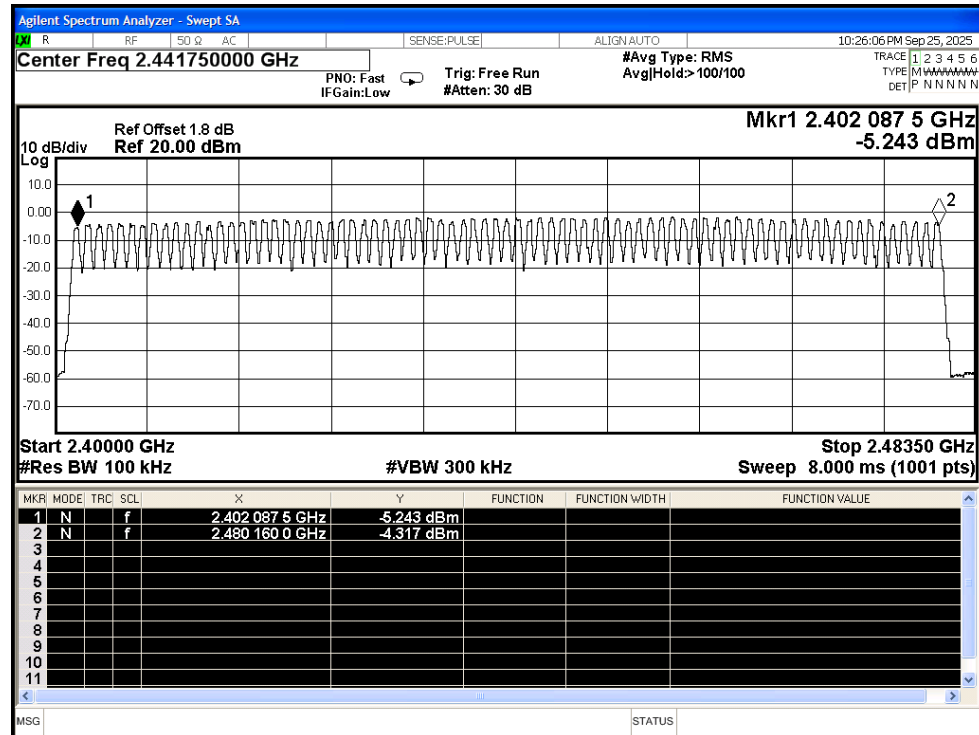


A.5 Number of Hopping Channel

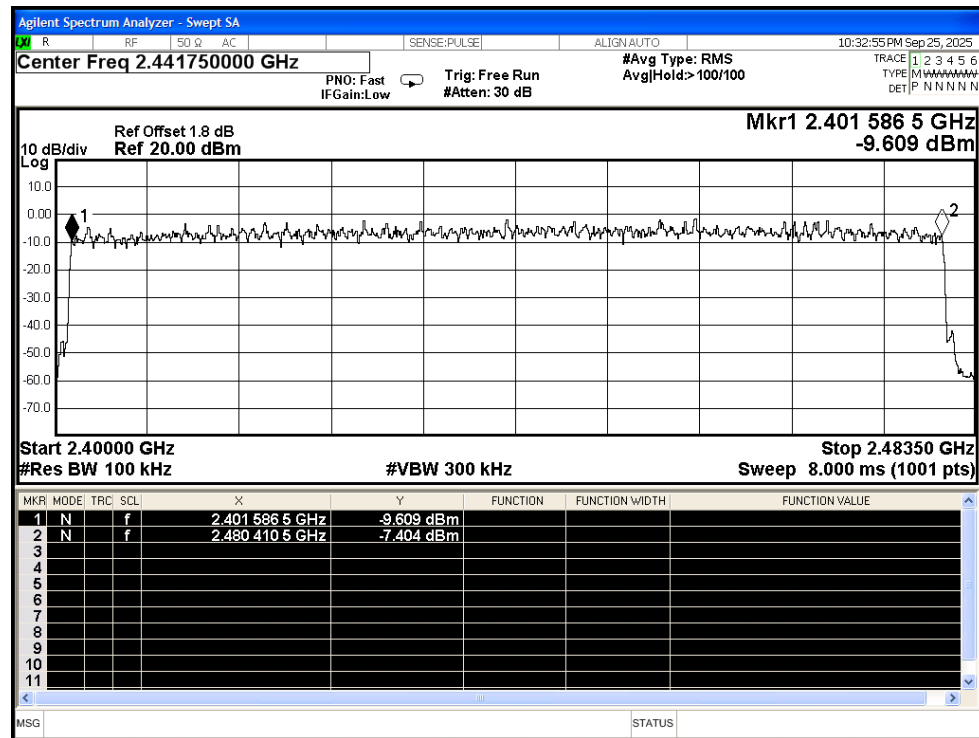
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH5	Ant1	79	15	Pass
NVNT	2-DH5	Ant1	79	15	Pass
NVNT	3-DH5	Ant1	79	15	Pass

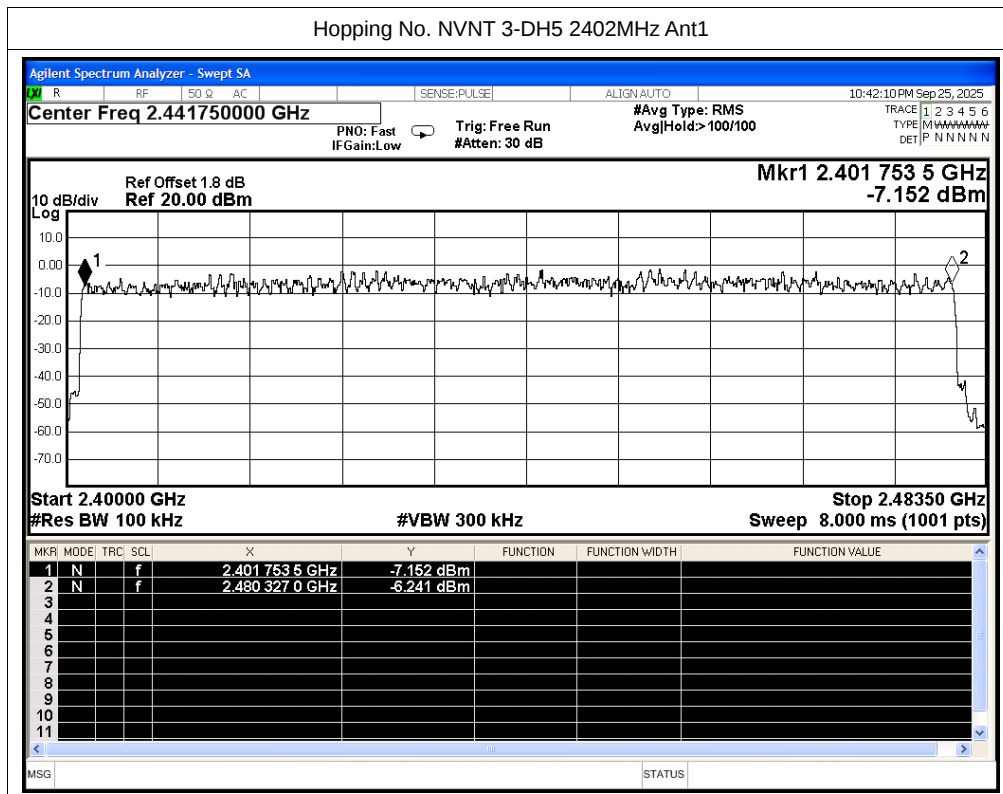
Test Graphs

Hopping No. NVNT 1-DH5 2402MHz Ant1



Hopping No. NVNT 2-DH5 2402MHz Ant1



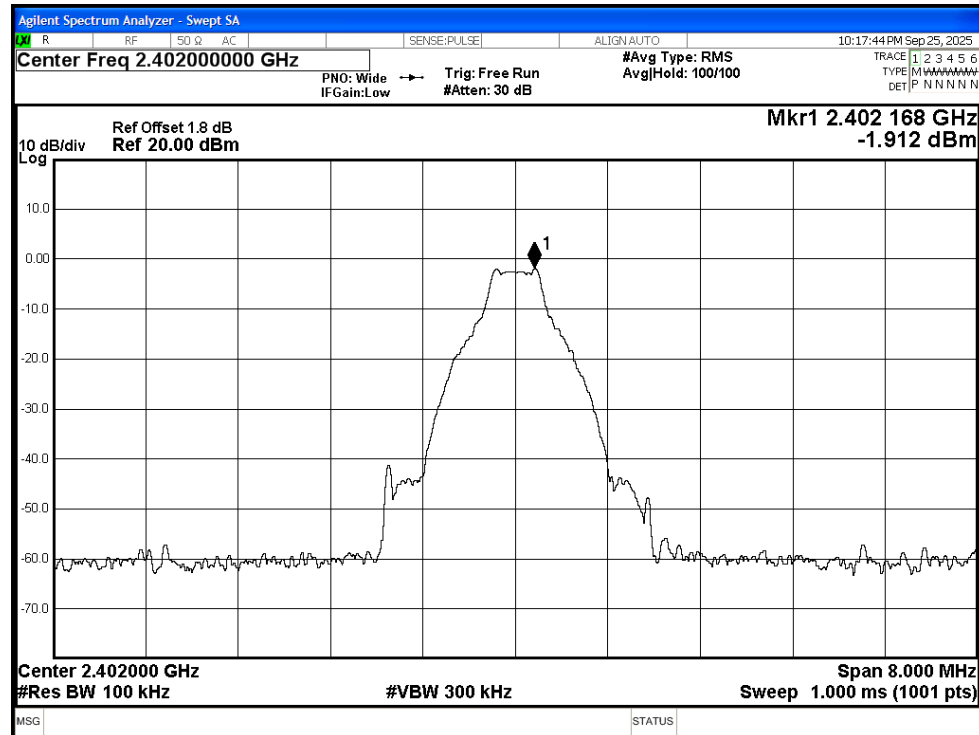


A.6 Band Edge

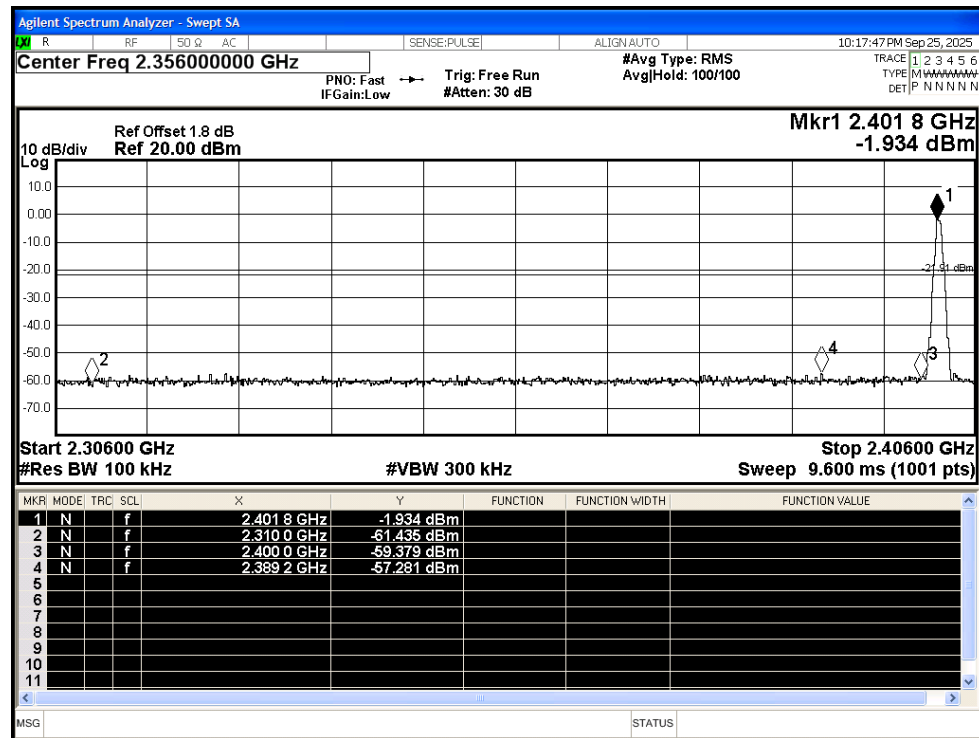
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	-55.37	-20	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	-53.45	-20	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	-51.72	-20	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	-54.61	-20	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	-51.69	-20	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	-53.98	-20	Pass

Test Graphs

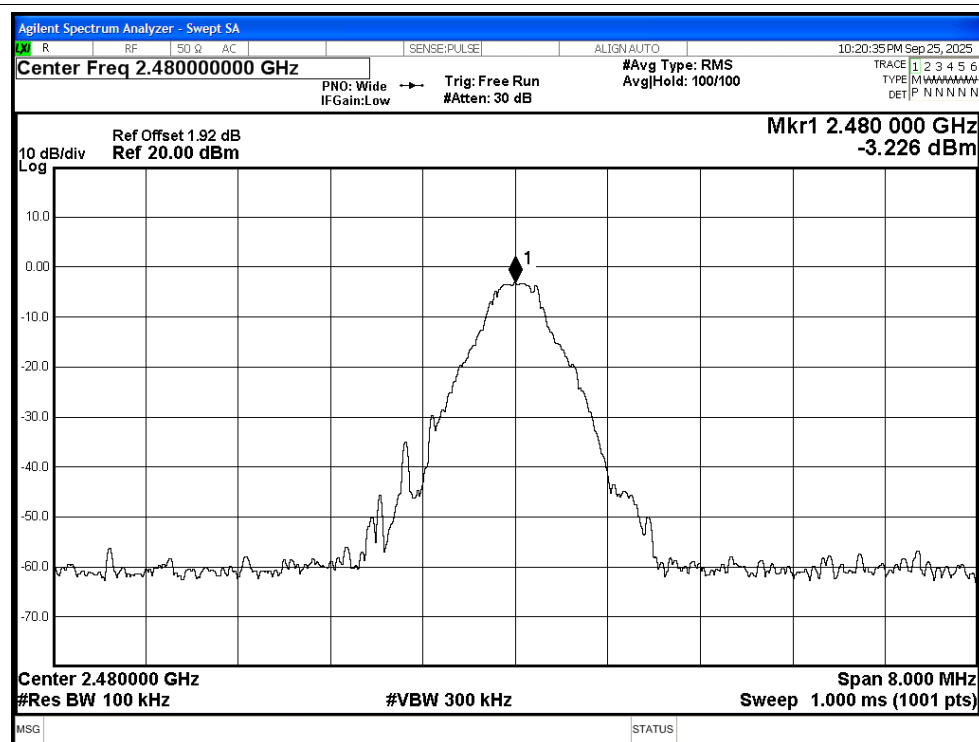
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Ref



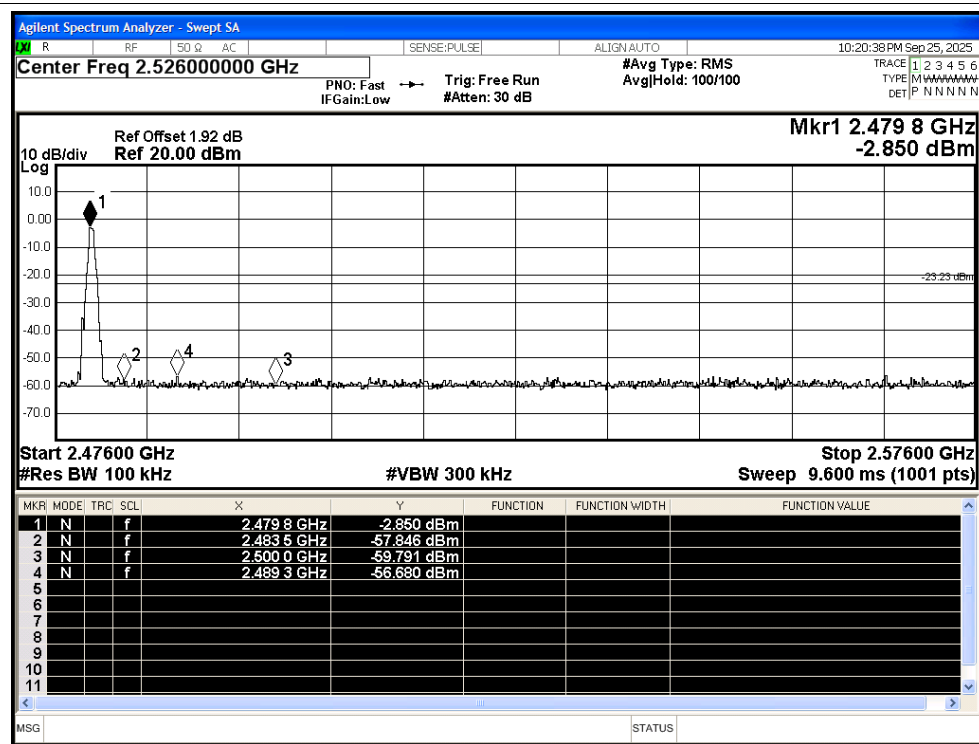
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Emission



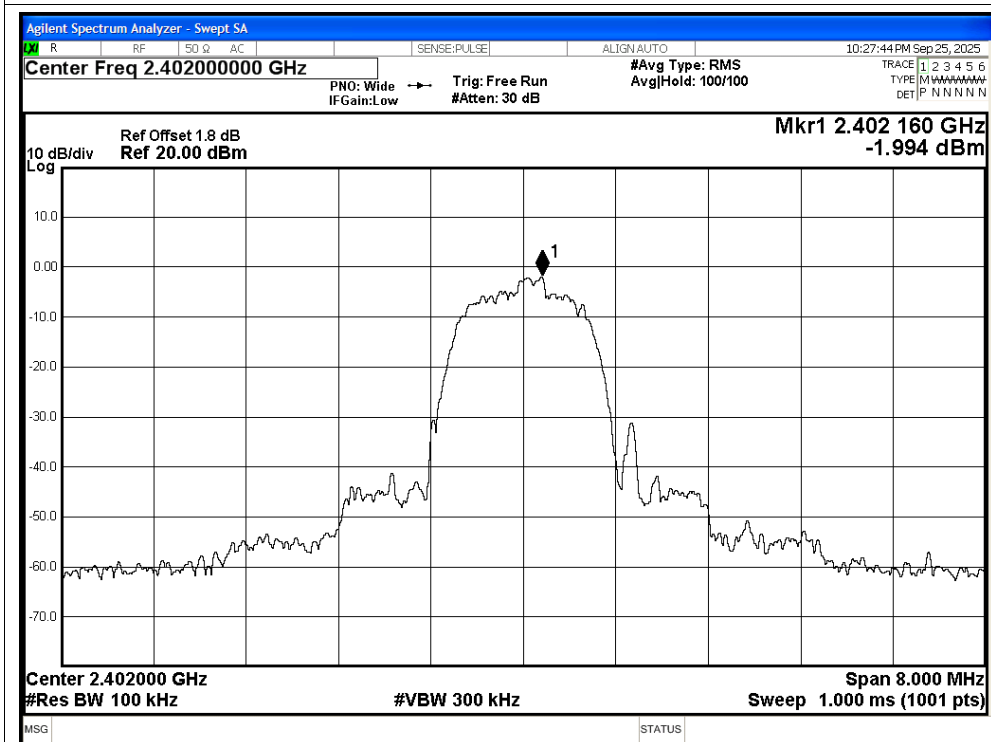
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref



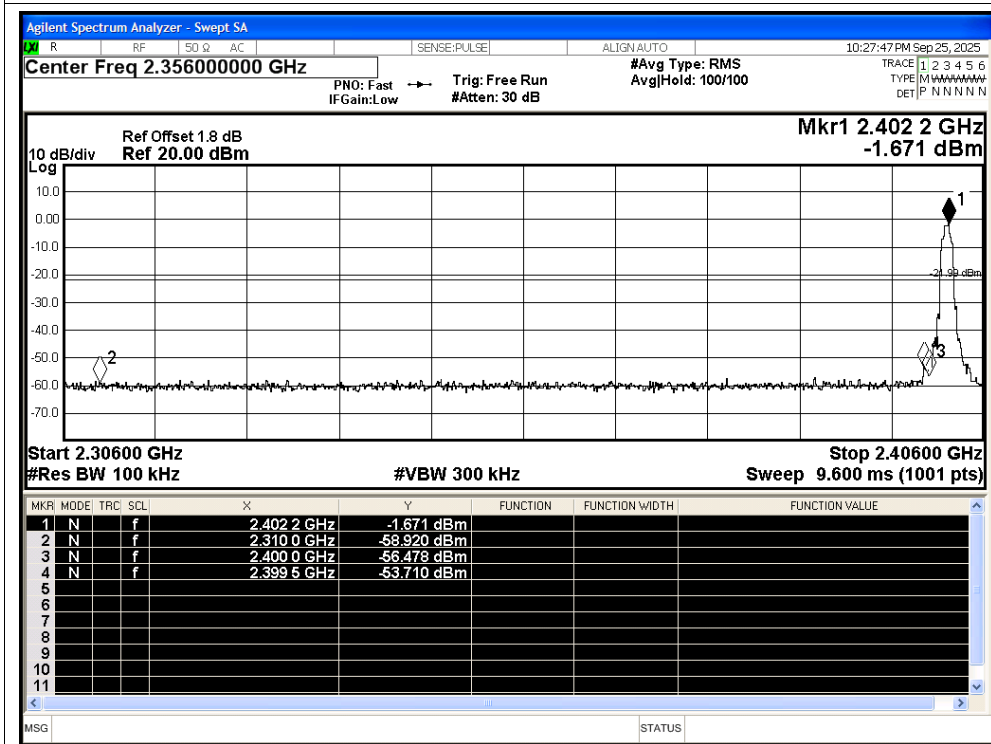
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Emission



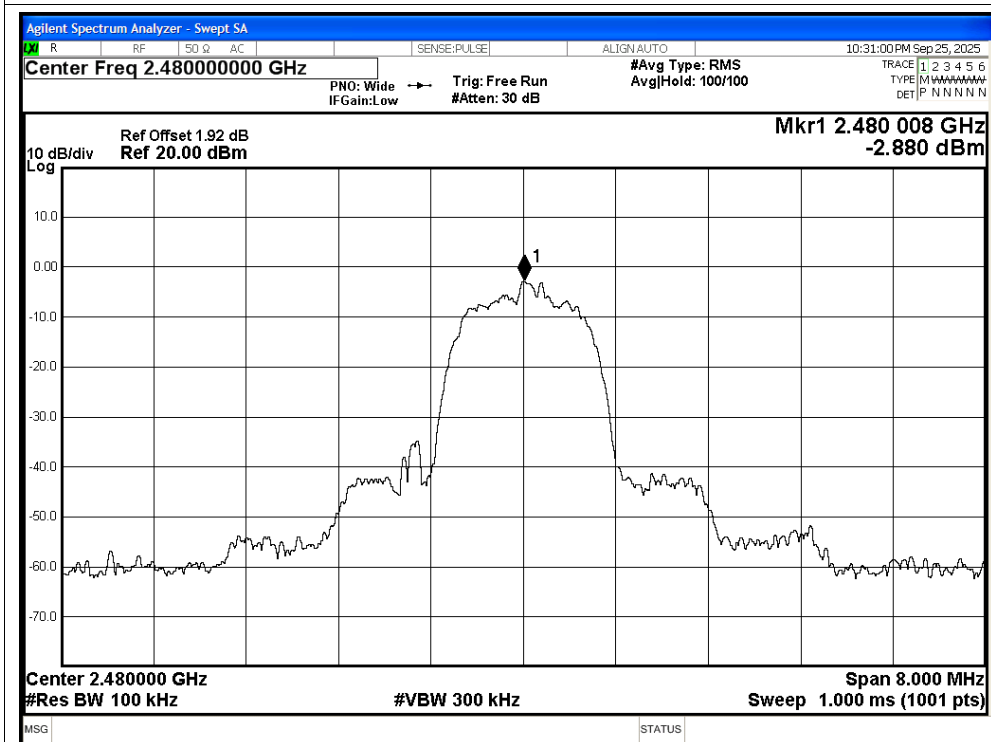
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Ref



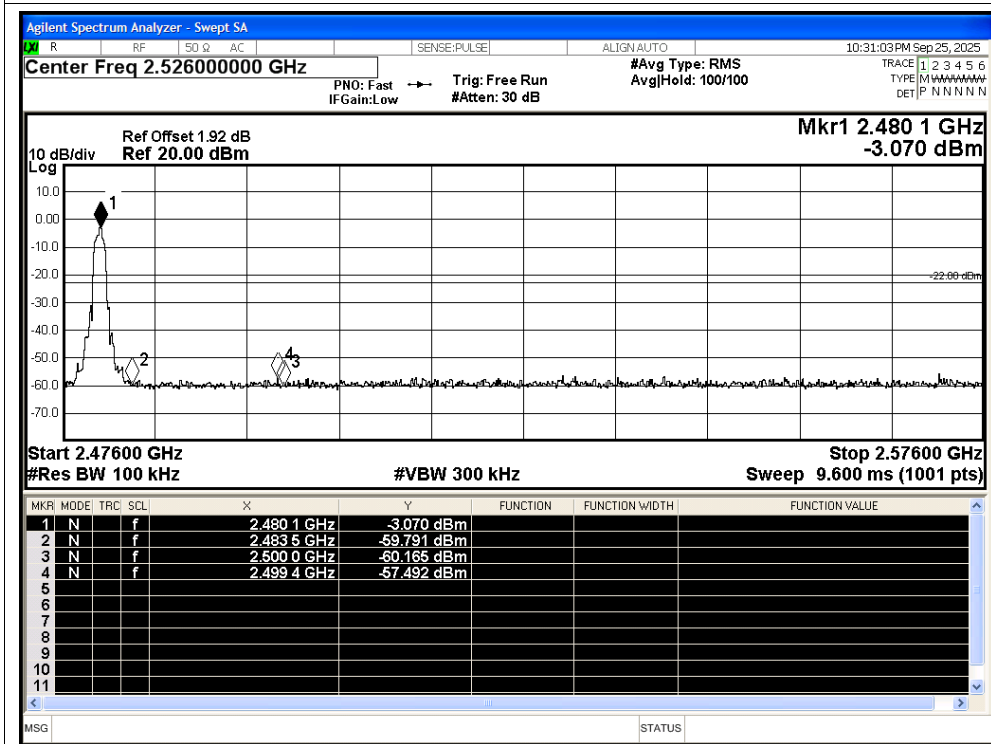
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Emission



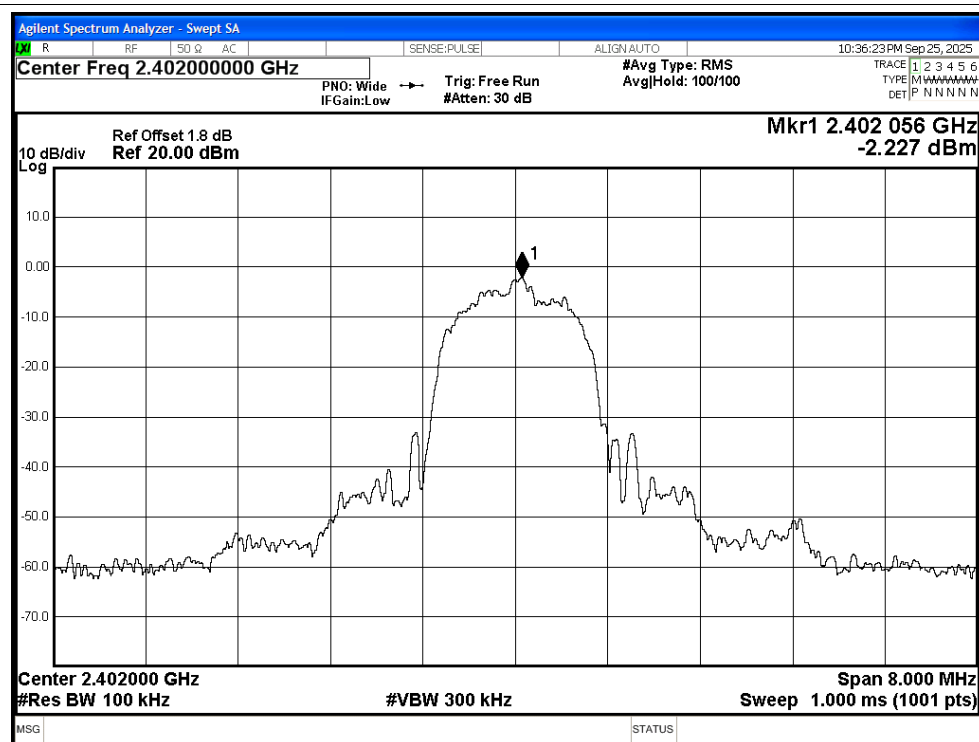
Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Ref



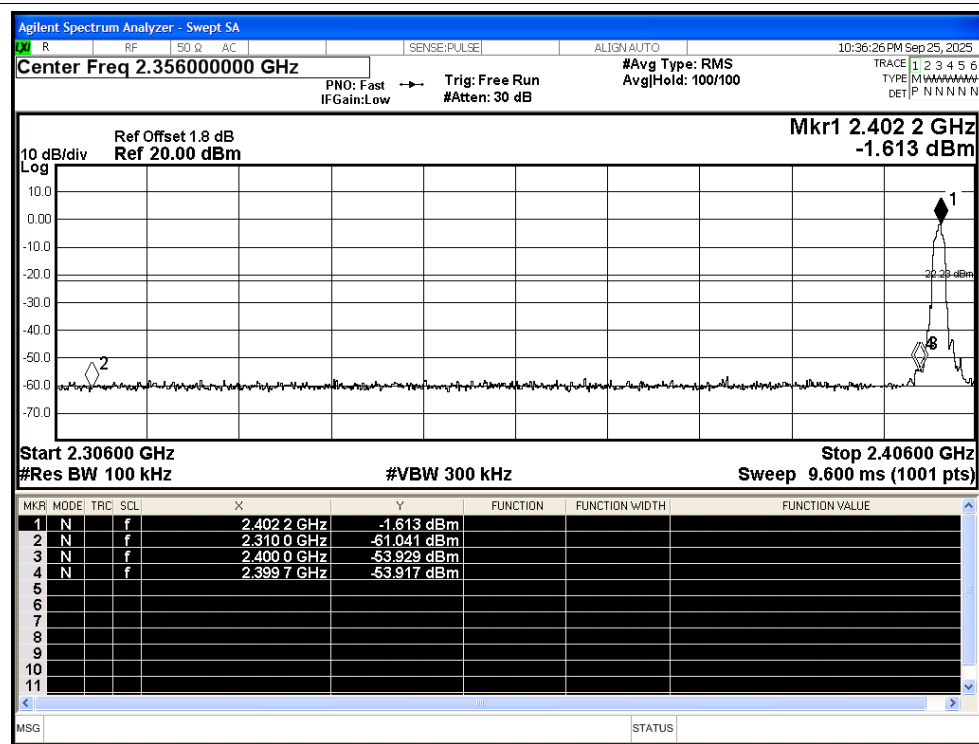
Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Emission



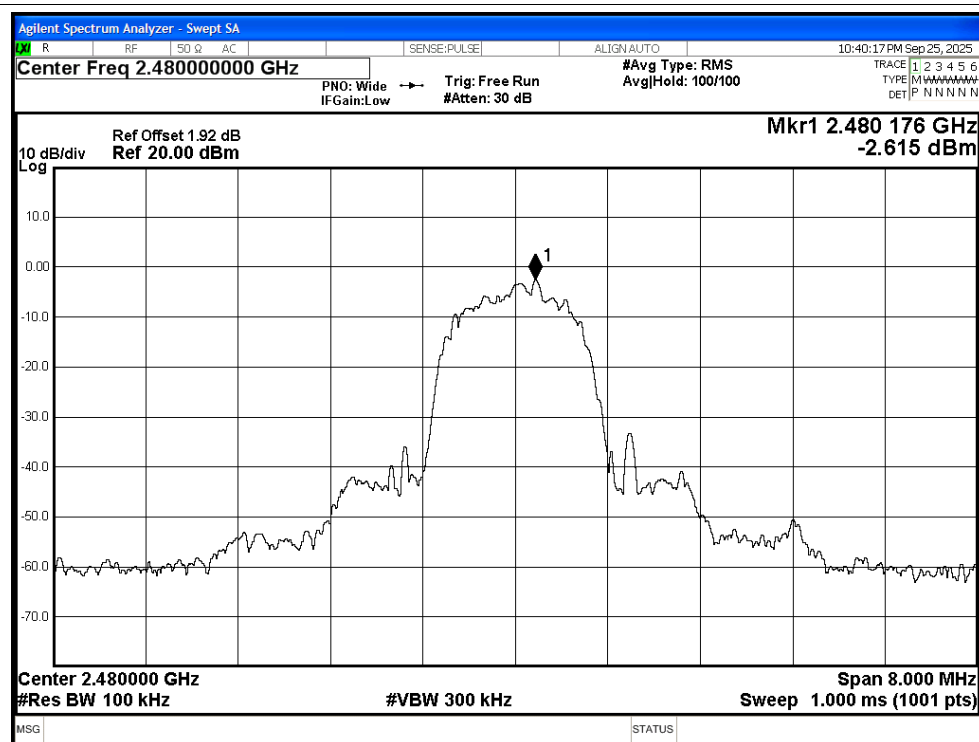
Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Ref



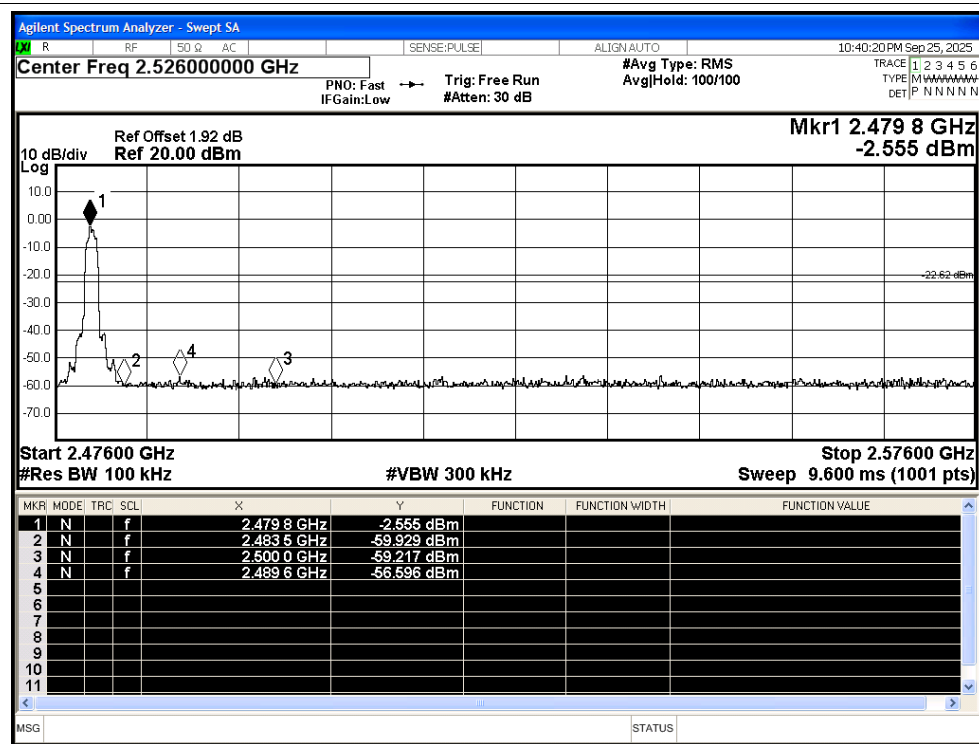
Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Emission



Band Edge NVNT 3-DH5 2480MHz Ant1 No-Hopping Ref

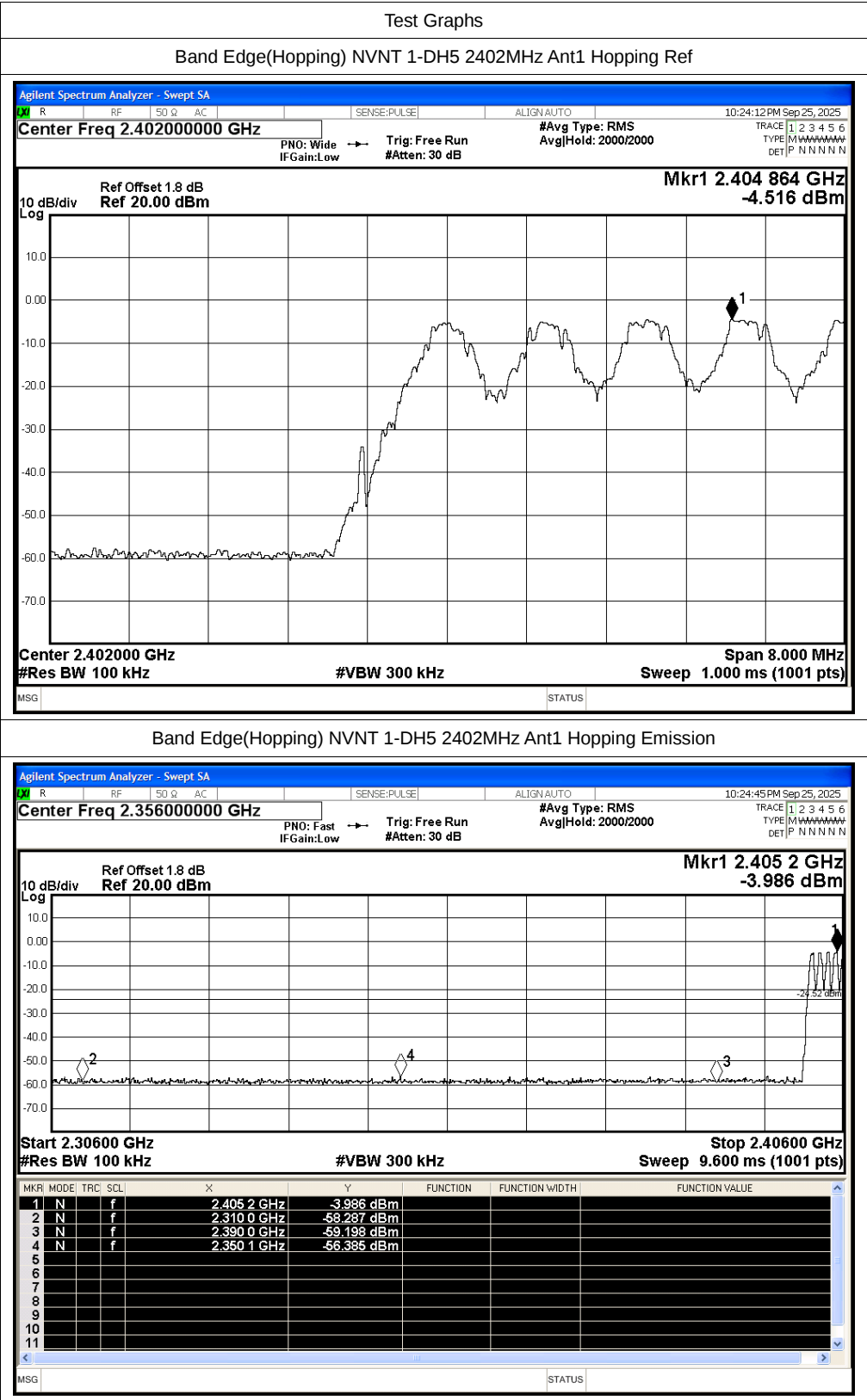


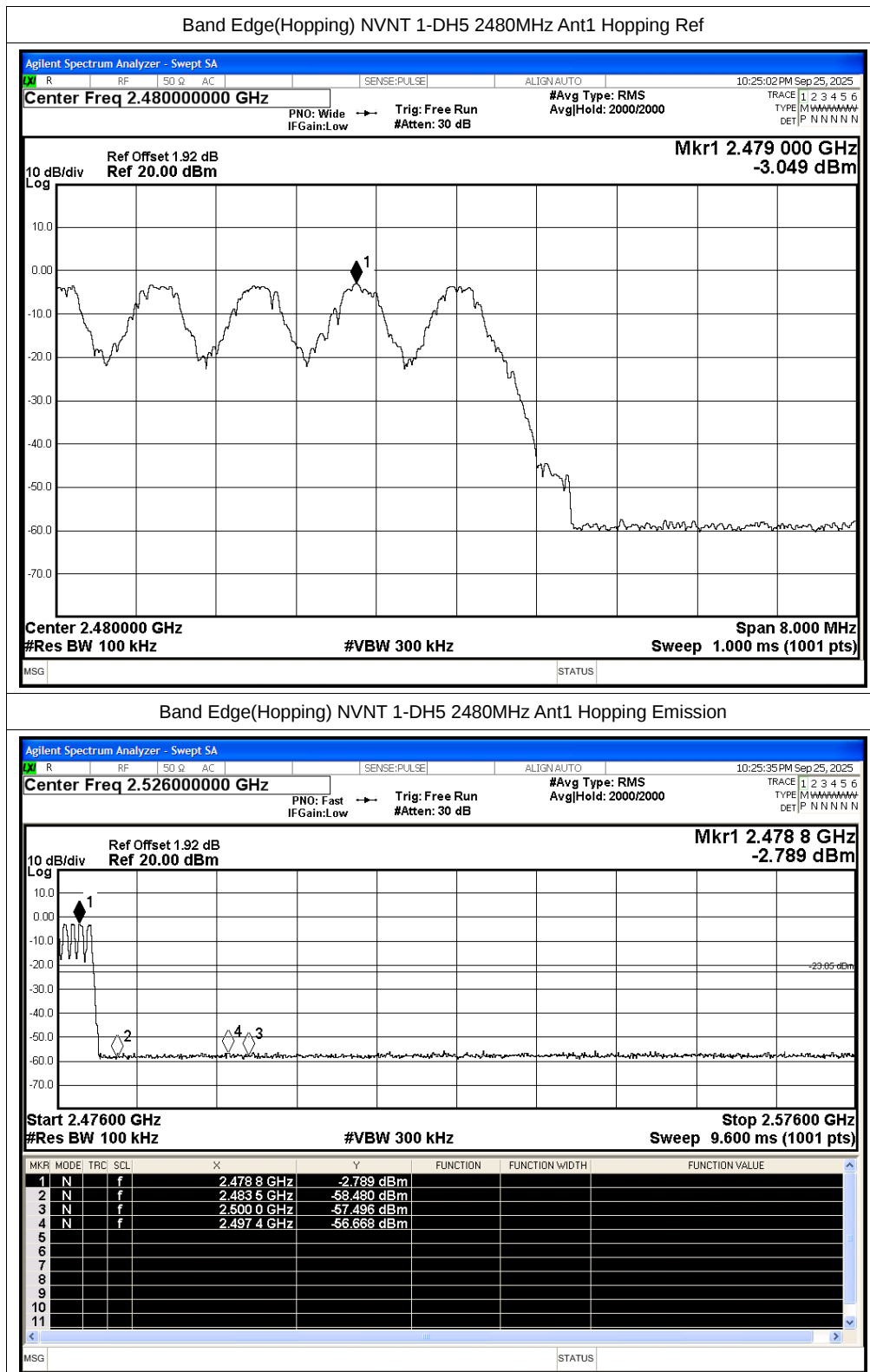
Band Edge NVNT 3-DH5 2480MHz Ant1 No-Hopping Emission



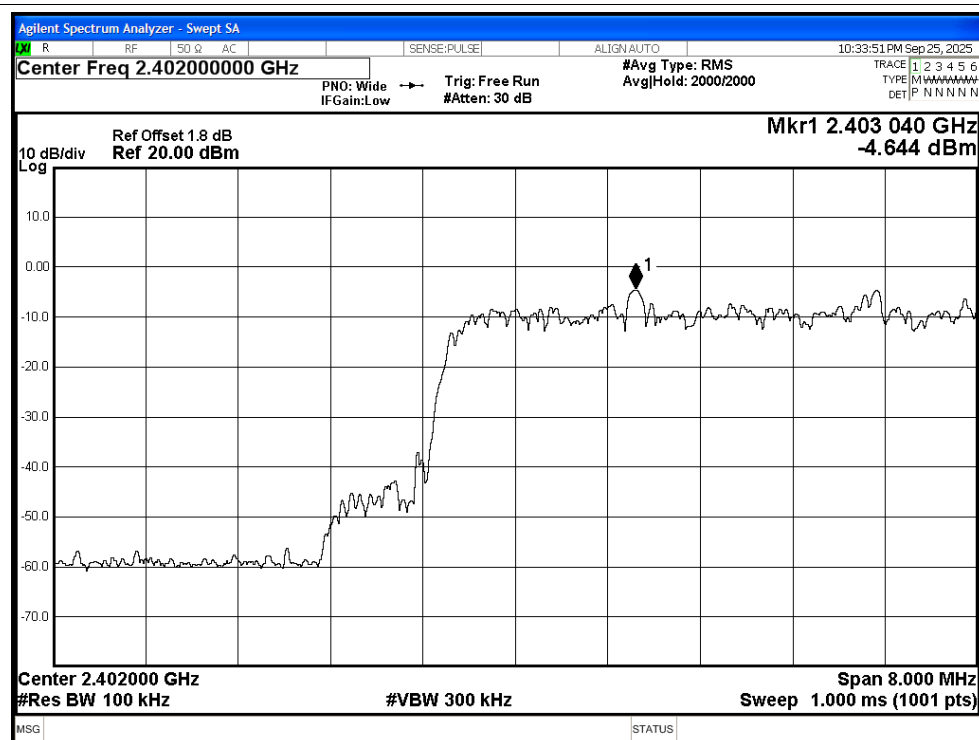
(Hopping)

Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	Hopping	-51.87	-20	Pass
NVNT	1-DH5	2480	Ant1	Hopping	-53.62	-20	Pass
NVNT	2-DH5	2402	Ant1	Hopping	-51.66	-20	Pass
NVNT	2-DH5	2480	Ant1	Hopping	-52.6	-20	Pass
NVNT	3-DH5	2402	Ant1	Hopping	-52.36	-20	Pass
NVNT	3-DH5	2480	Ant1	Hopping	-53.29	-20	Pass

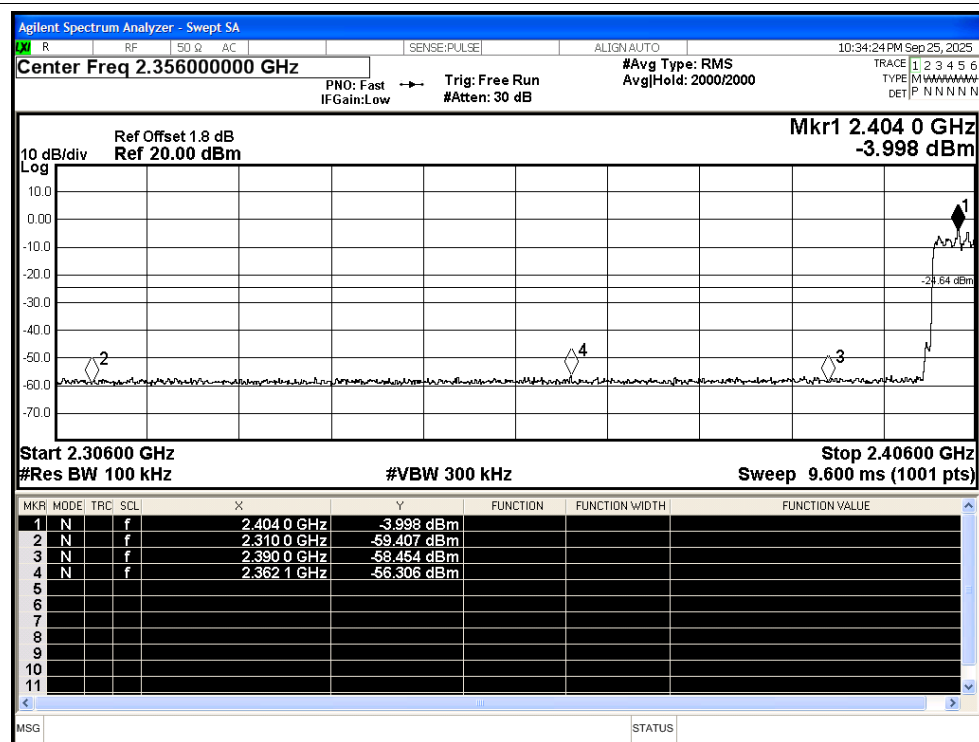




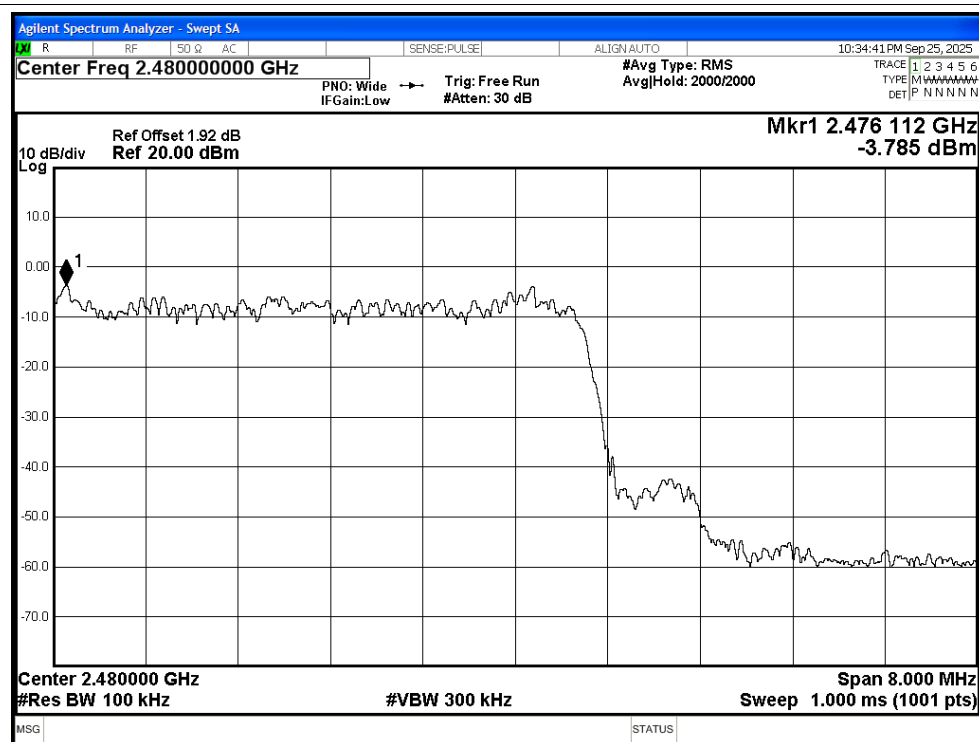
Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Ref



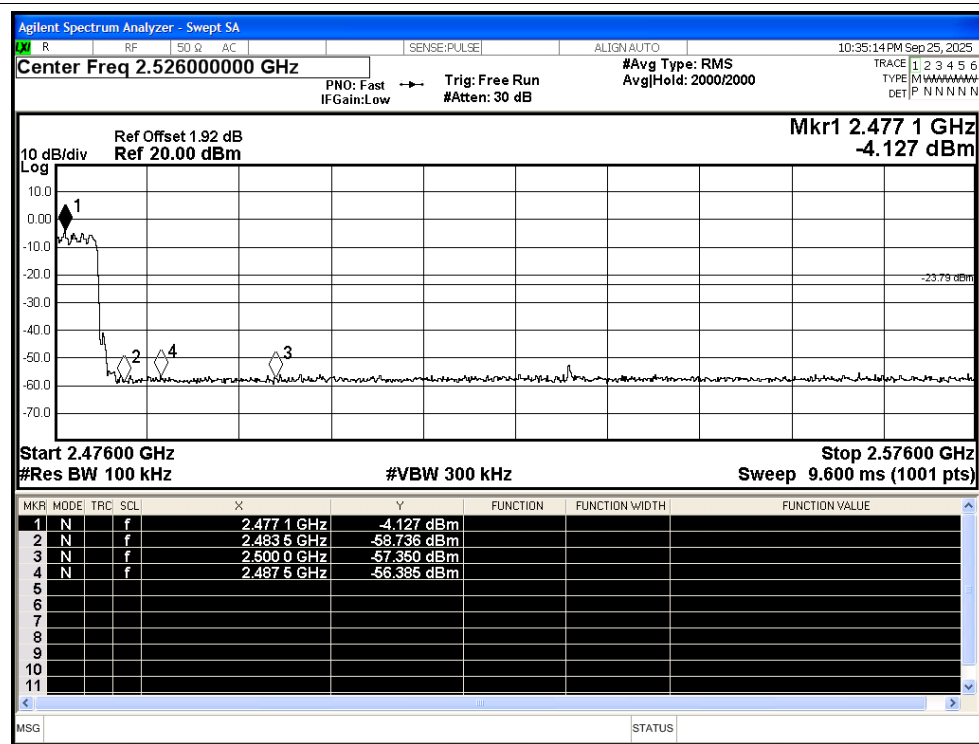
Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Emission

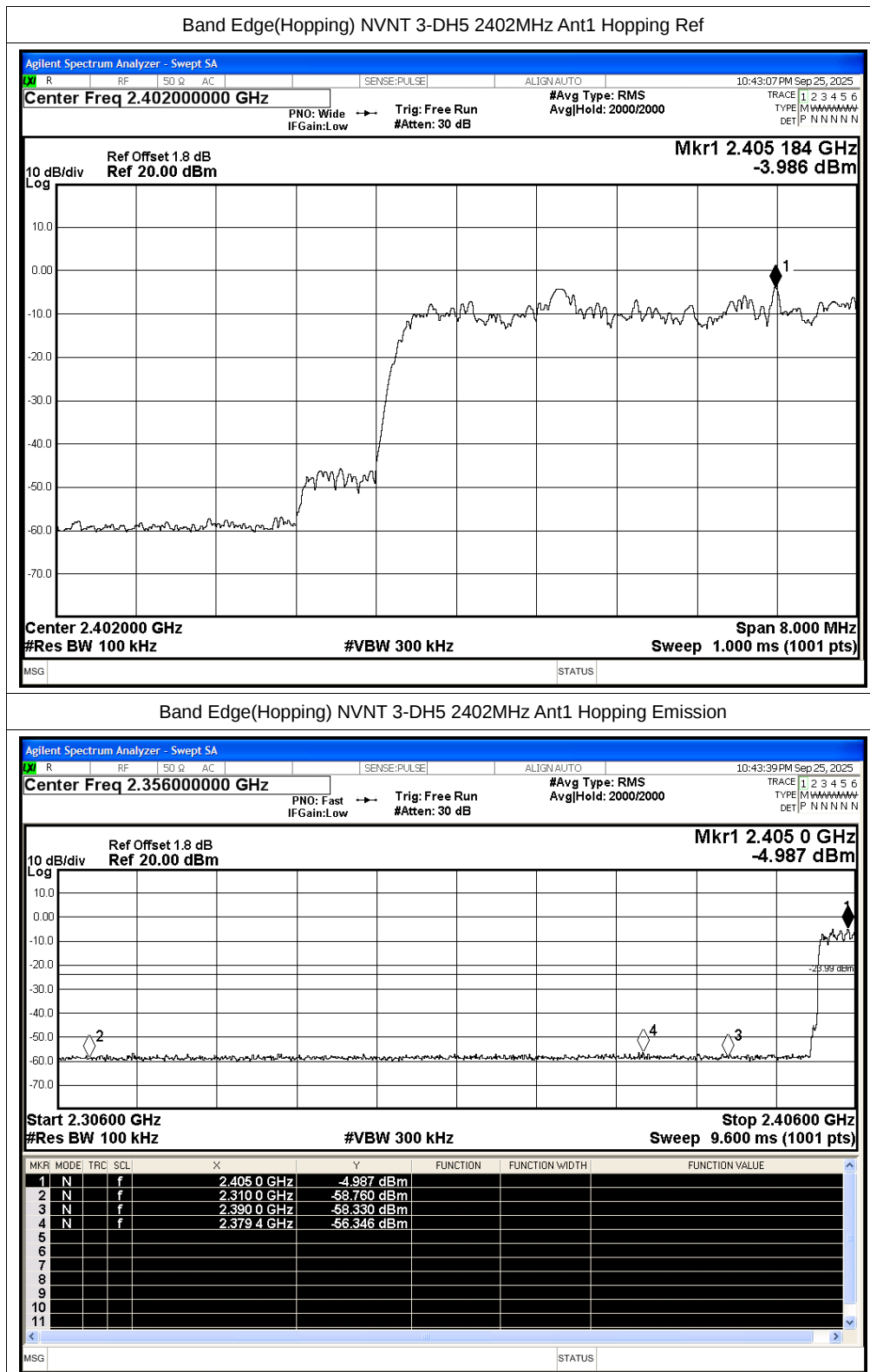


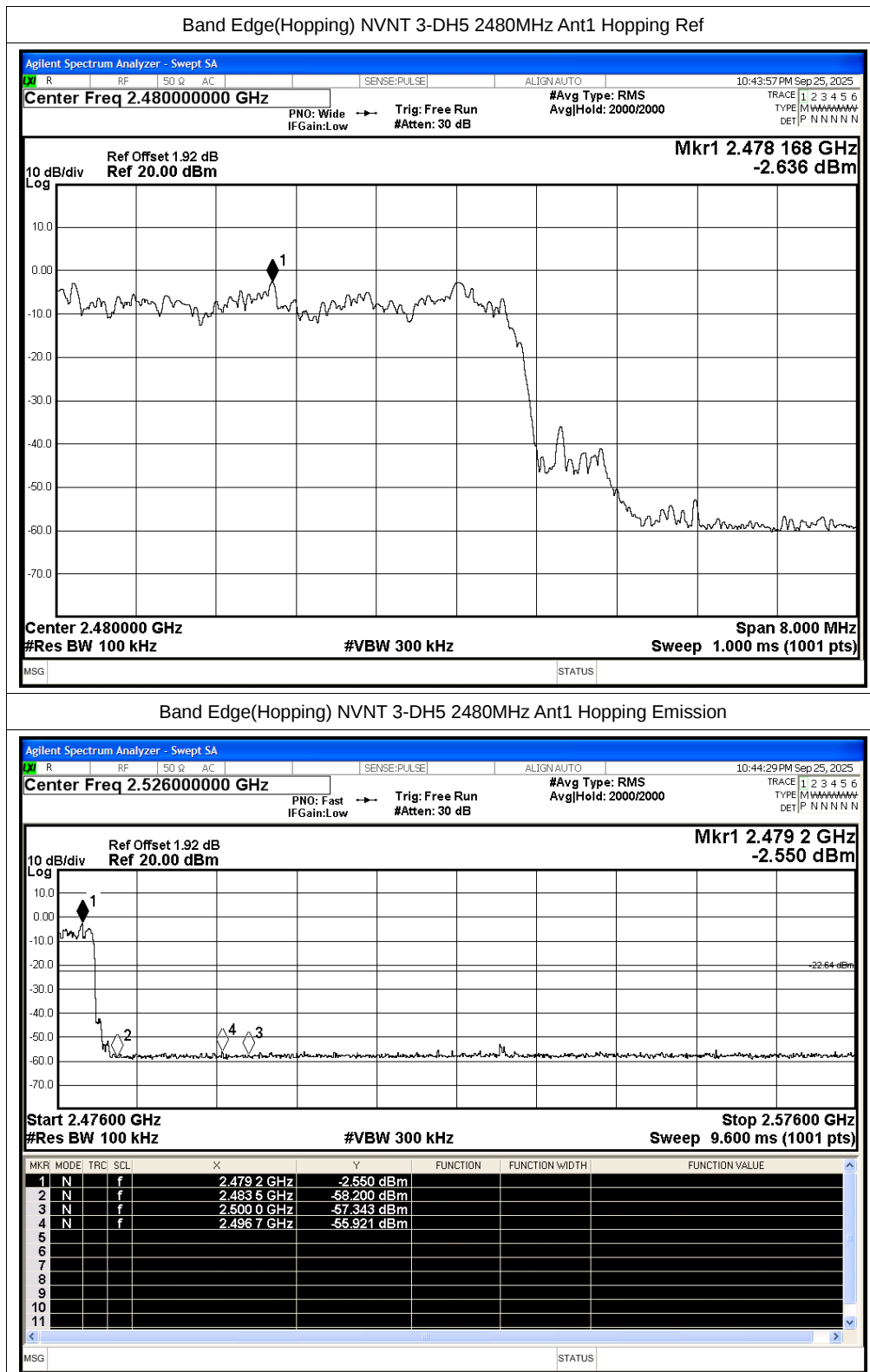
Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Ref



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





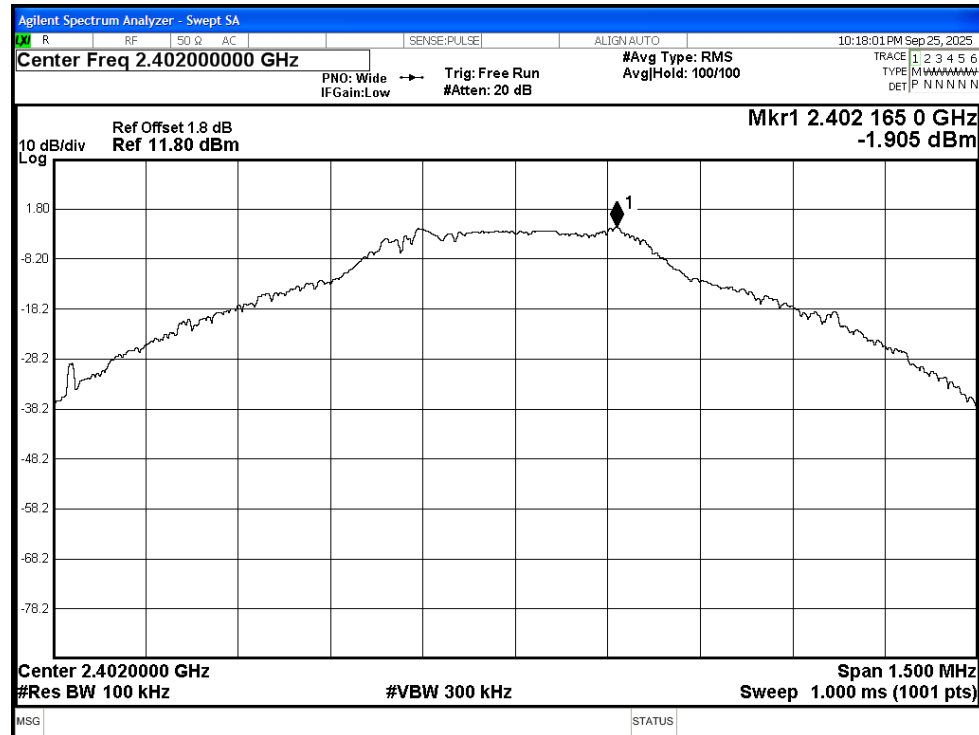


A.7 Conducted RF Spurious Emission

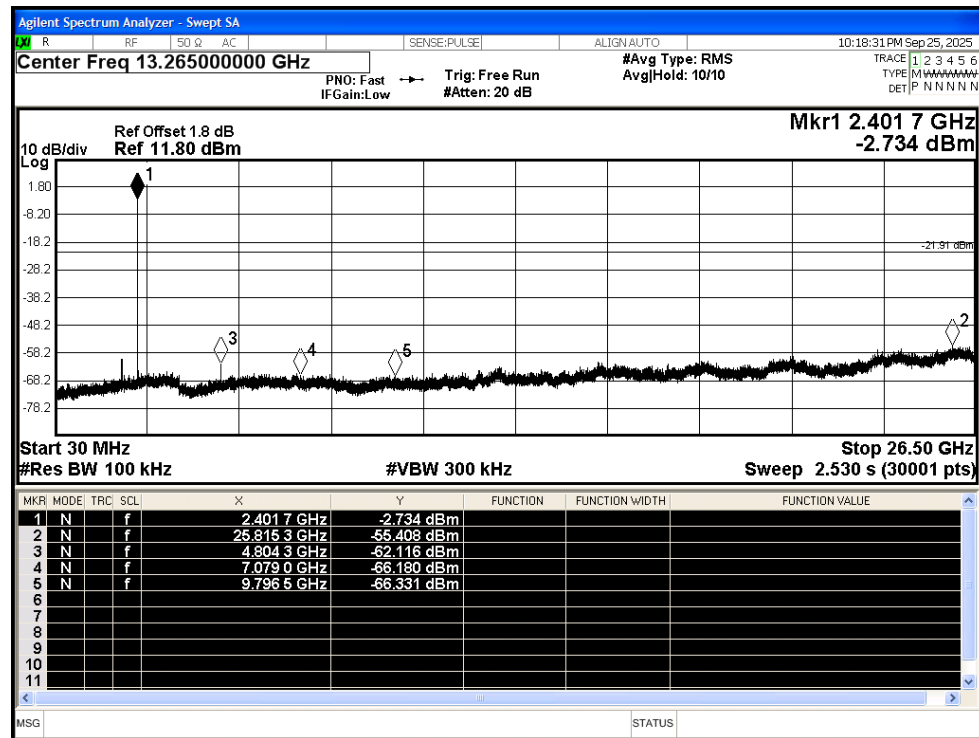
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	-53.5	-20	Pass
NVNT	1-DH5	2441	Ant1	-53.93	-20	Pass
NVNT	1-DH5	2480	Ant1	-51.77	-20	Pass
NVNT	2-DH5	2402	Ant1	-53.11	-20	Pass
NVNT	2-DH5	2441	Ant1	-51.06	-20	Pass
NVNT	2-DH5	2480	Ant1	-51.83	-20	Pass
NVNT	3-DH5	2402	Ant1	-53.53	-20	Pass
NVNT	3-DH5	2441	Ant1	-49.56	-20	Pass
NVNT	3-DH5	2480	Ant1	-50.84	-20	Pass

Test Graphs

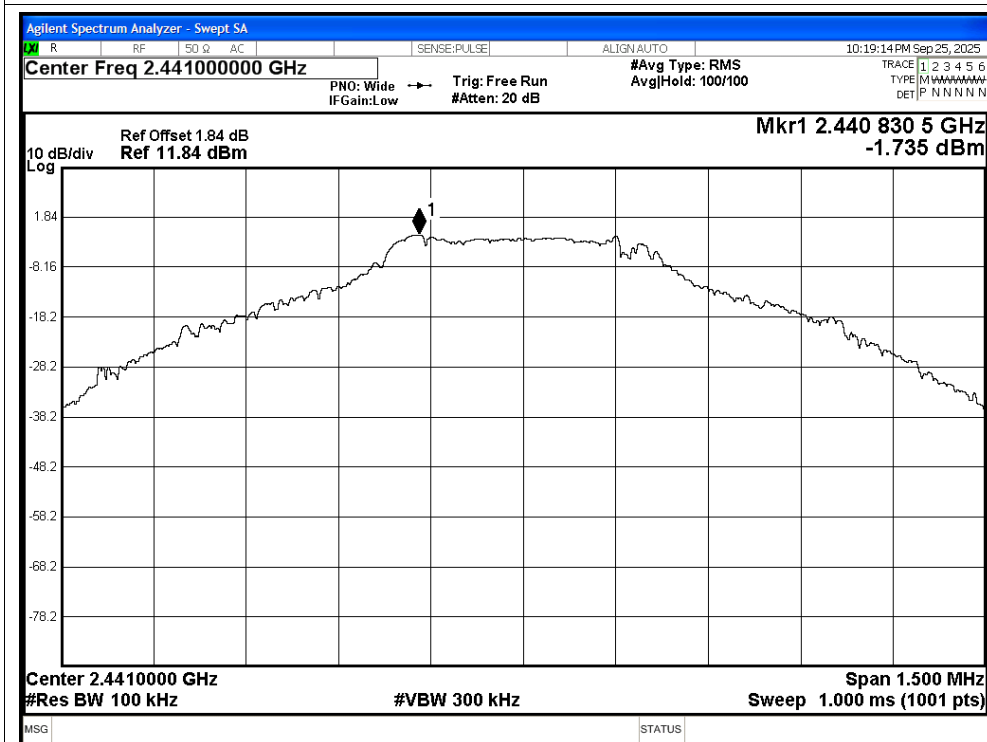
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref



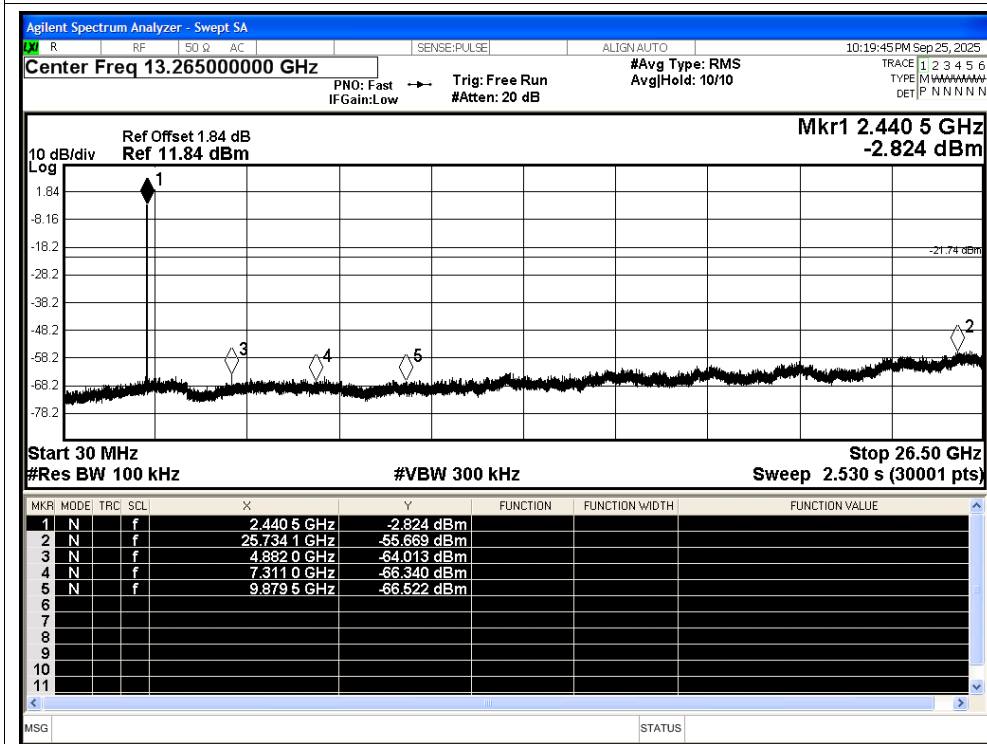
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission



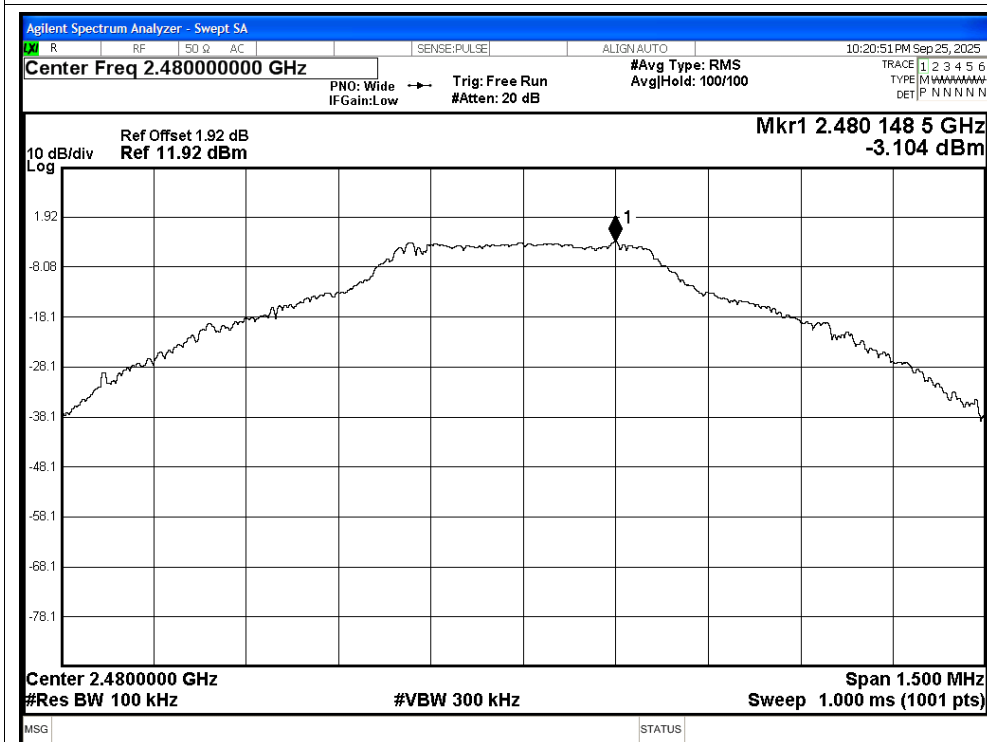
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref



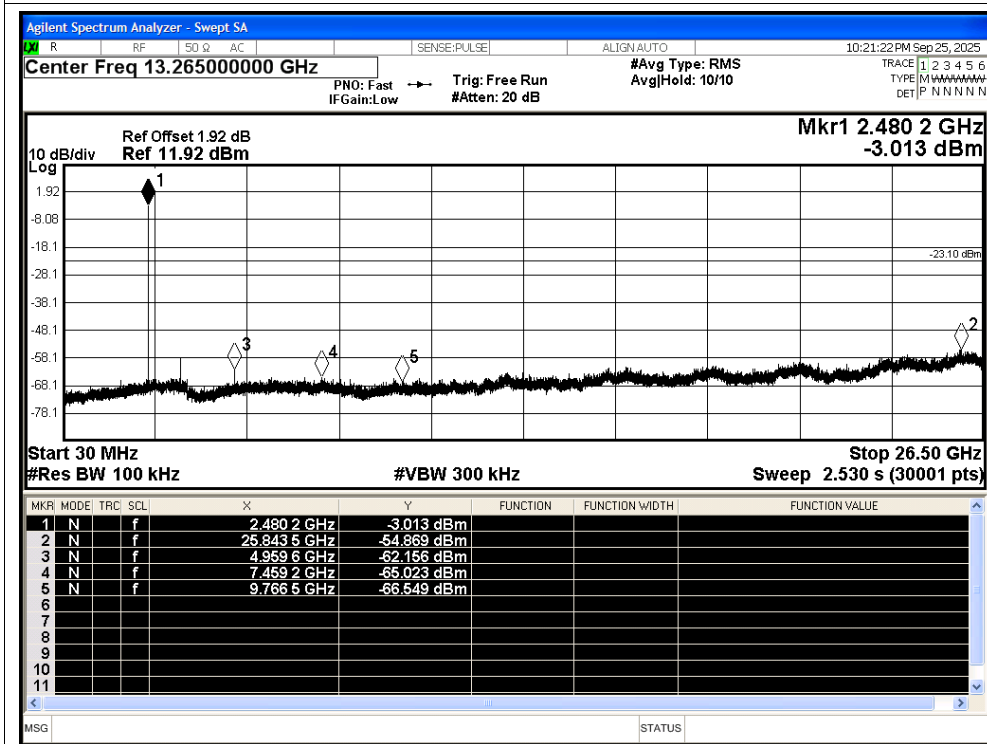
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission



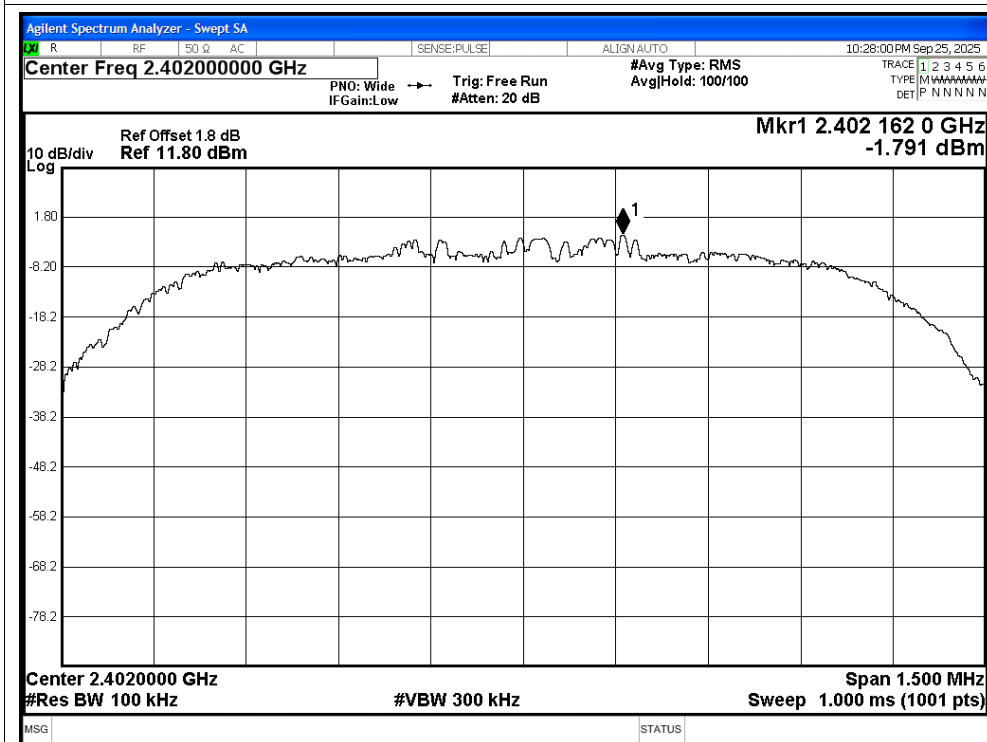
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref



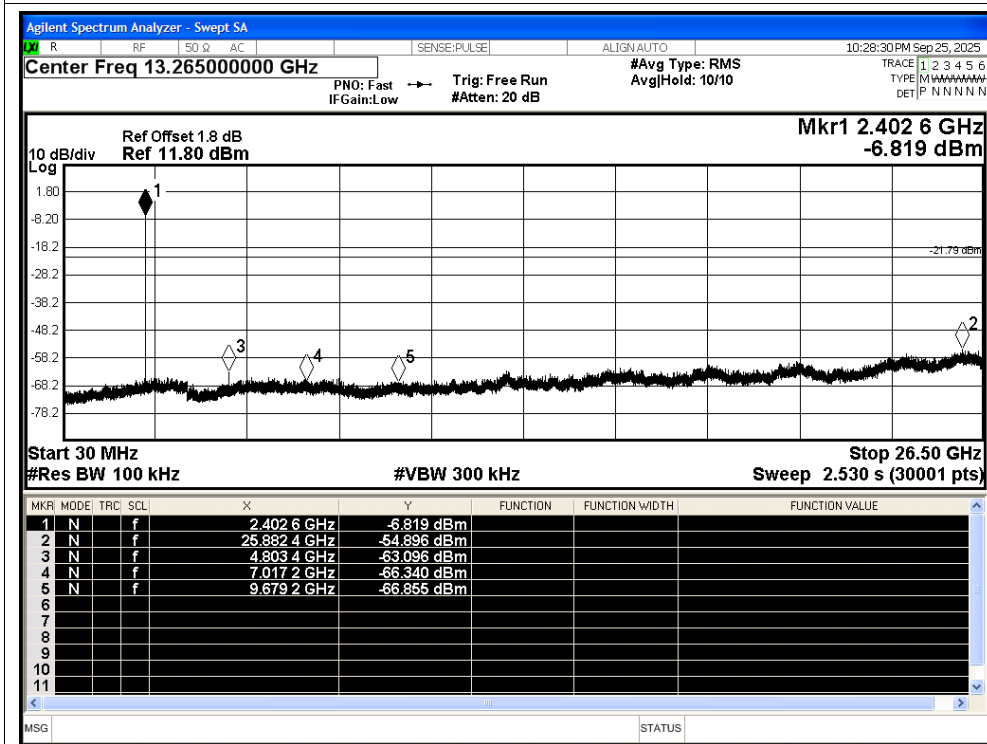
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Emission



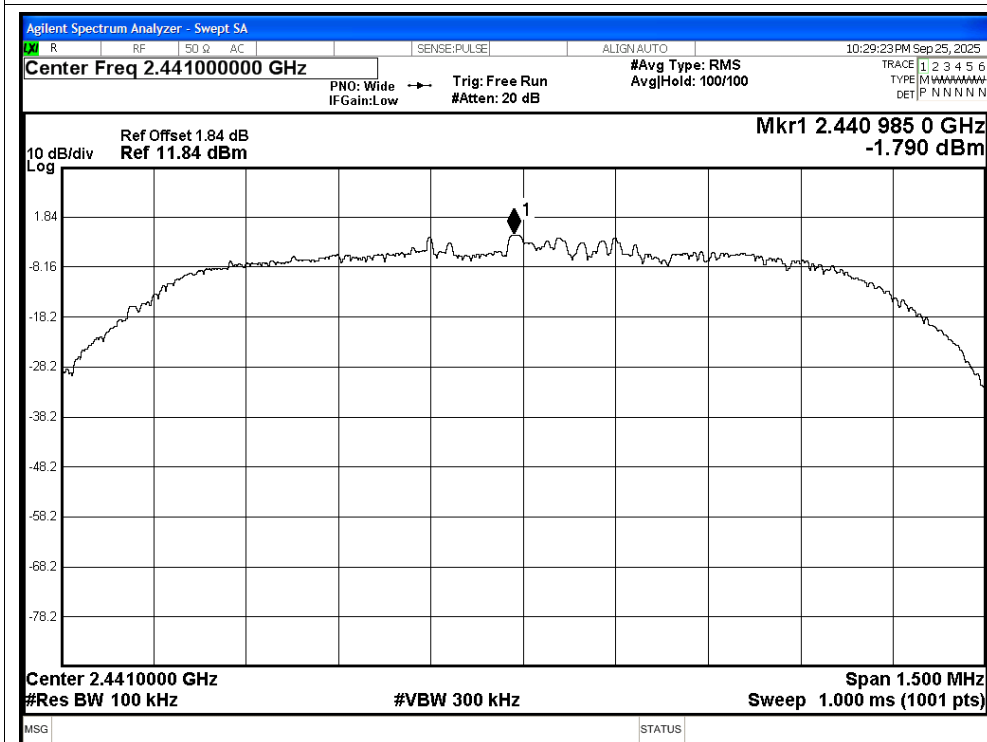
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Ref



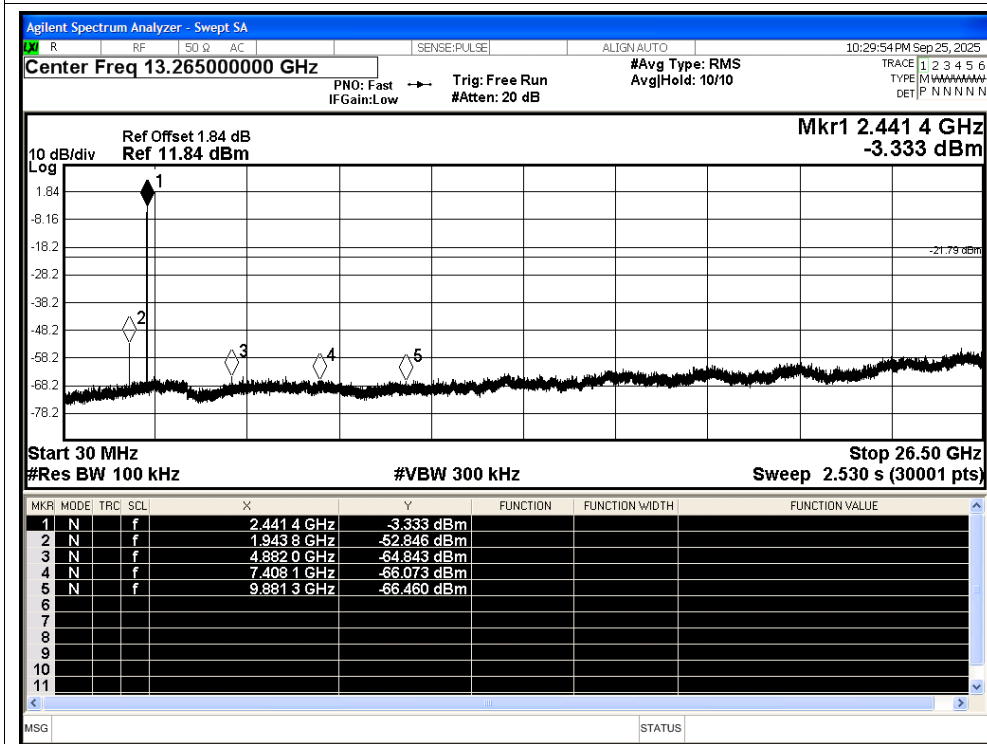
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Emission



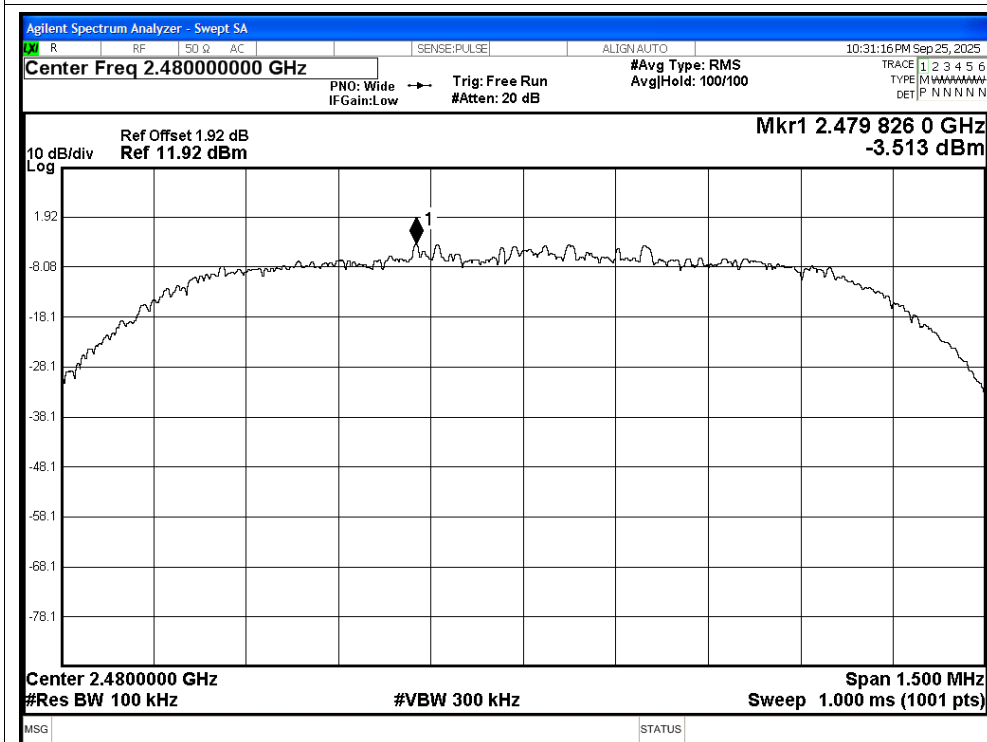
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Ref



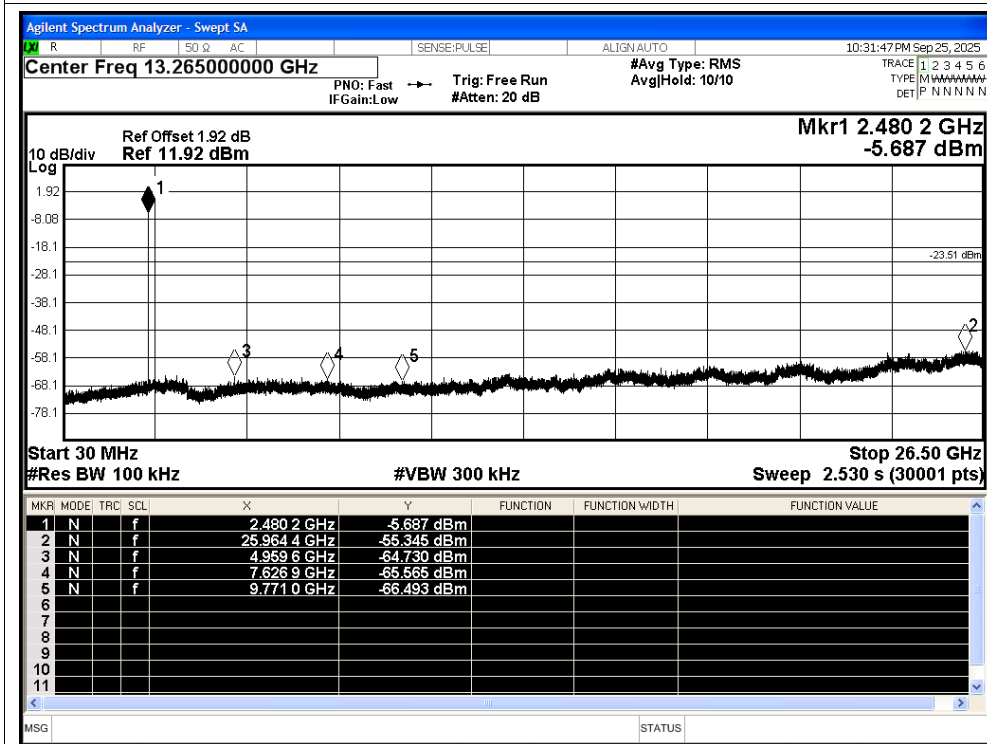
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Emission



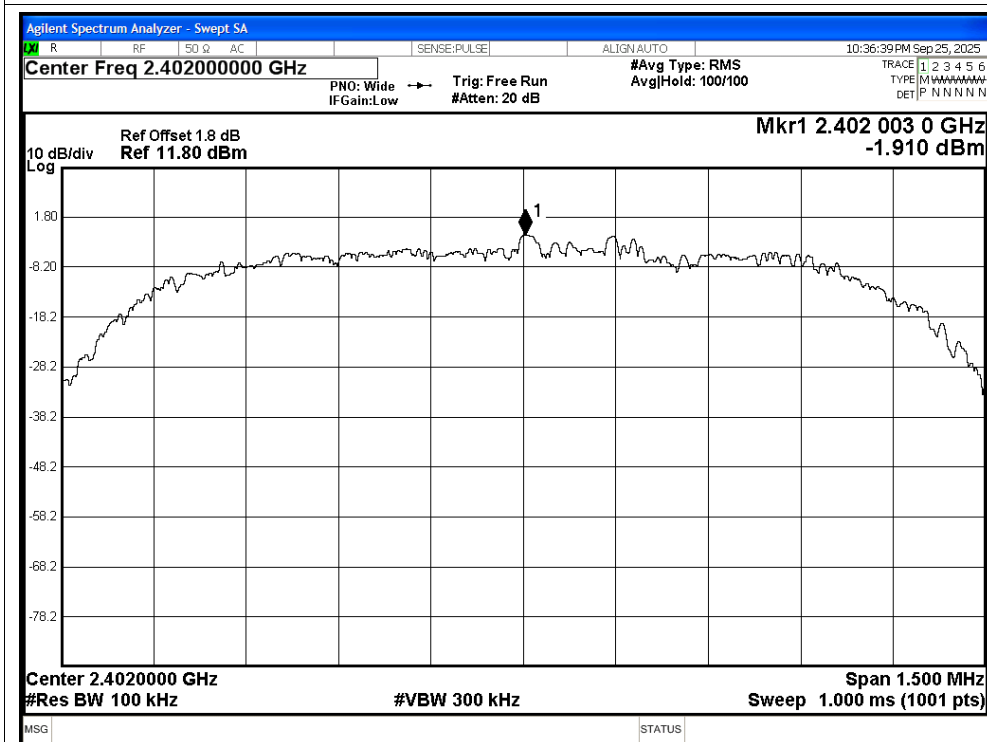
Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Ref



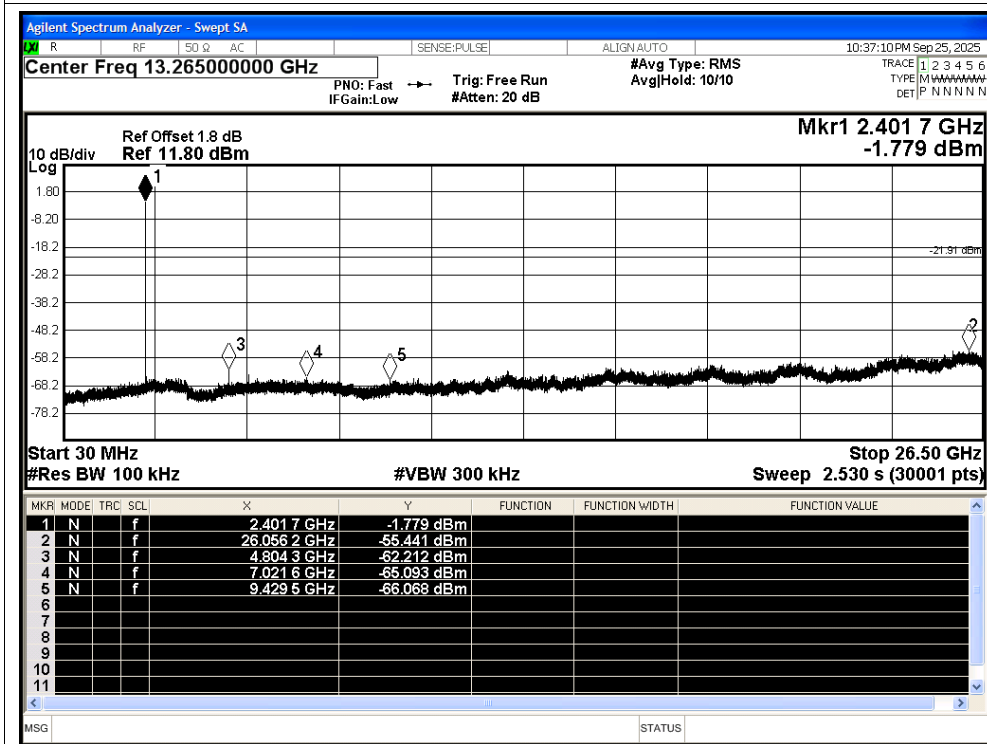
Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Emission



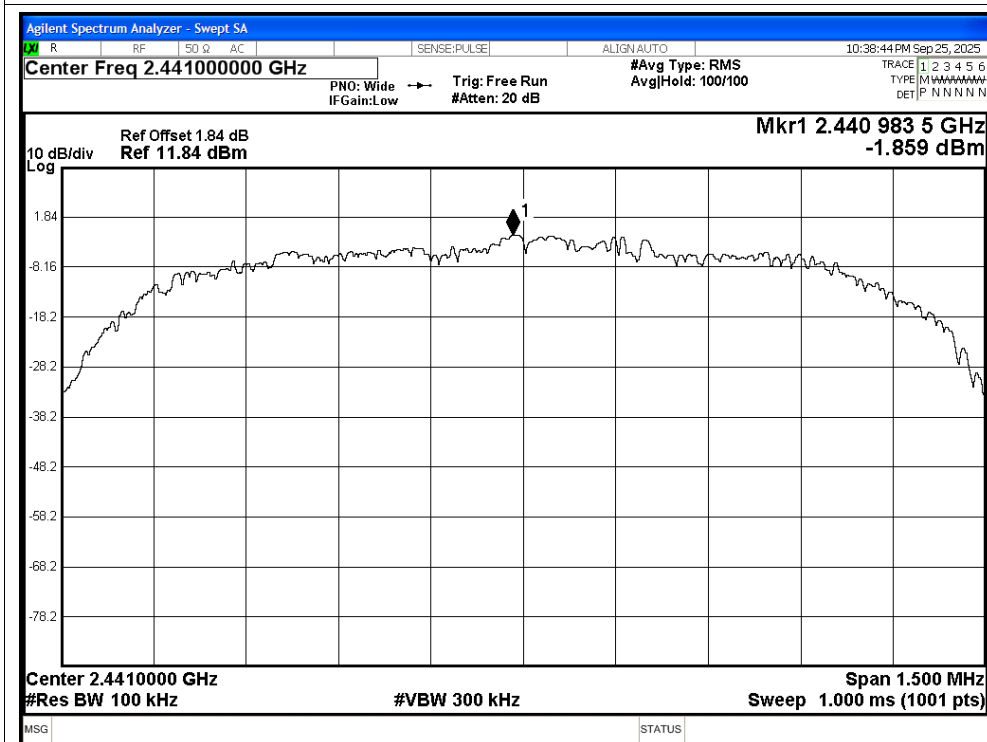
Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Ref



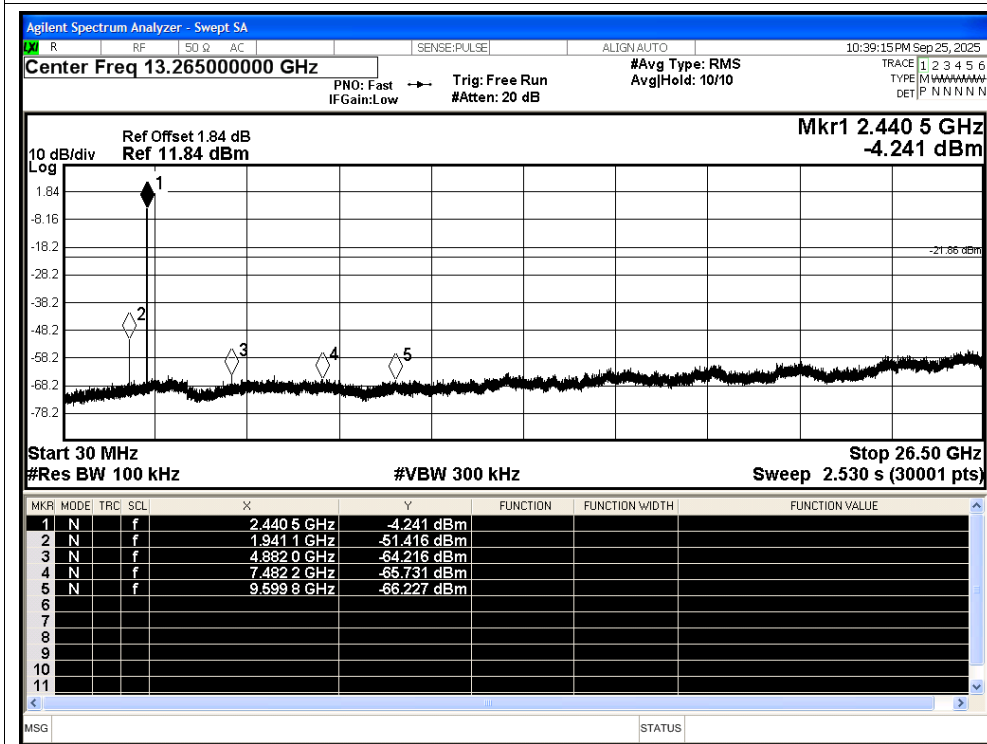
Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Emission



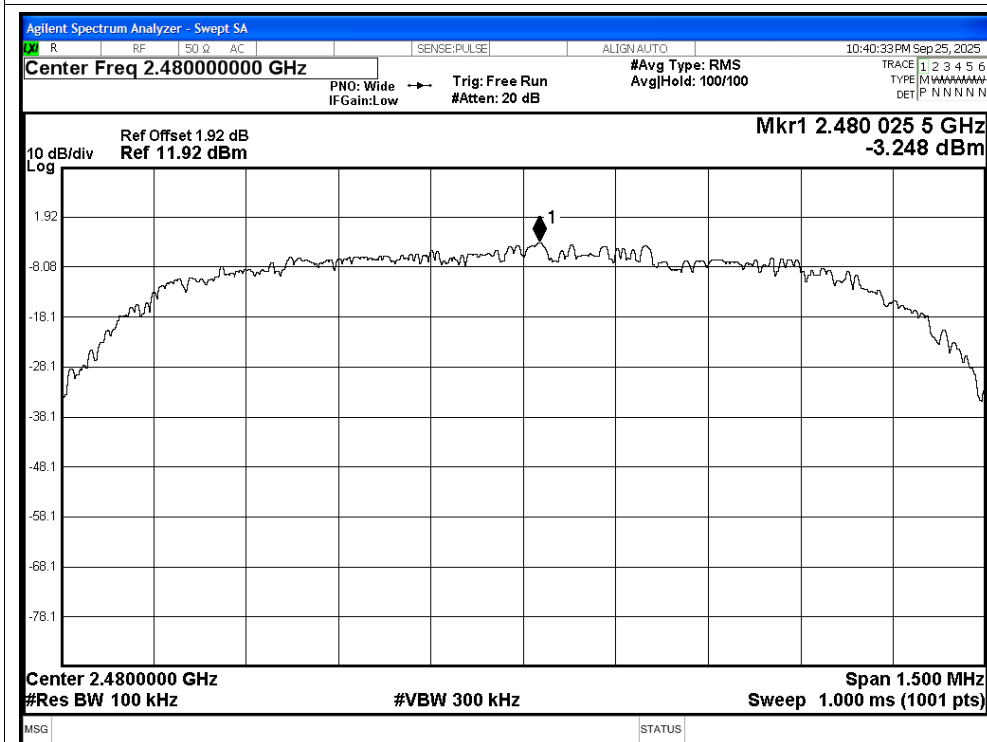
Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Ref



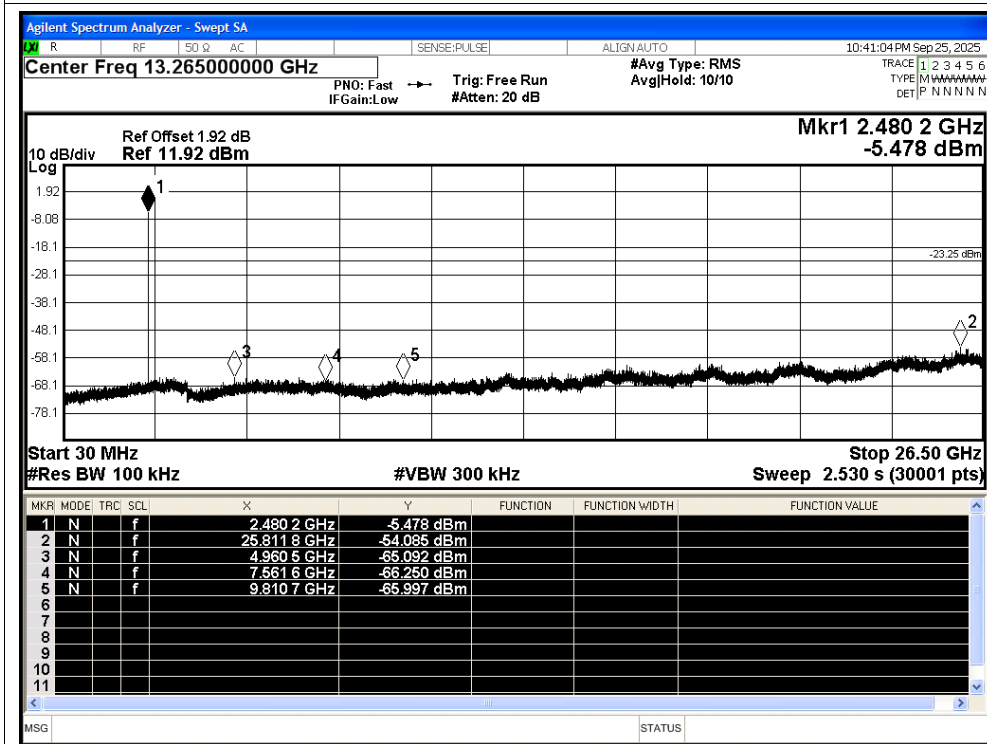
Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Emission

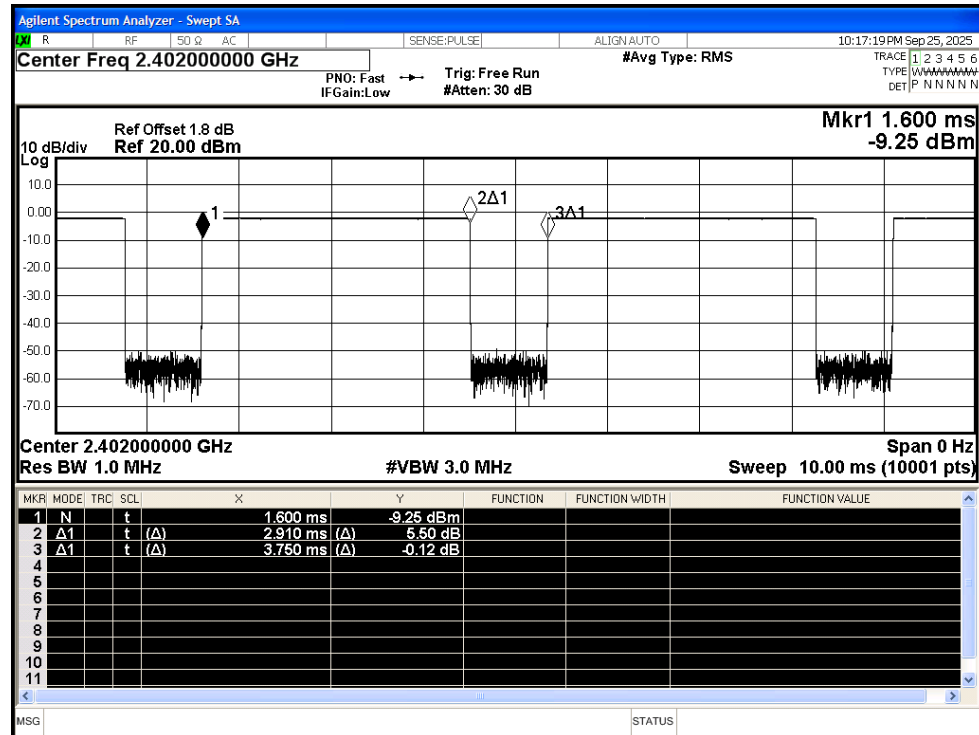


A.8 Duty Cycle

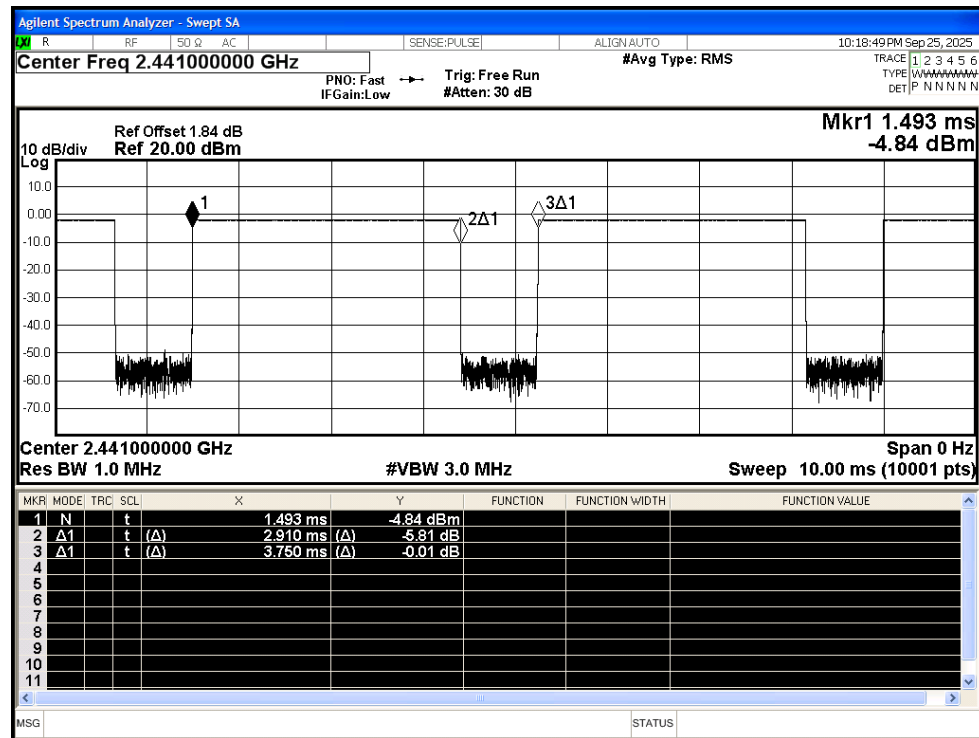
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH5	2402	Ant1	77.6	1.1	0.34
NVNT	1-DH5	2441	Ant1	77.6	1.1	0.34
NVNT	1-DH5	2480	Ant1	77.6	1.1	0.34
NVNT	2-DH5	2402	Ant1	77.28	1.12	0.35
NVNT	2-DH5	2441	Ant1	77.28	1.12	0.35
NVNT	2-DH5	2480	Ant1	77.28	1.12	0.35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

Test Graphs

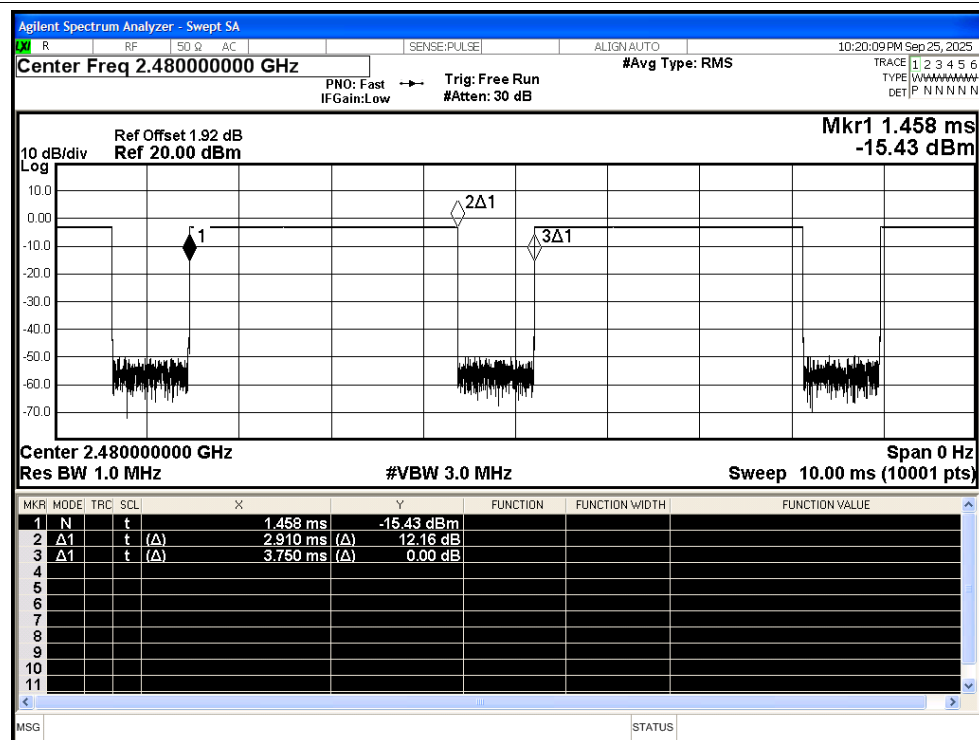
Duty Cycle NVNT 1-DH5 2402MHz Ant1



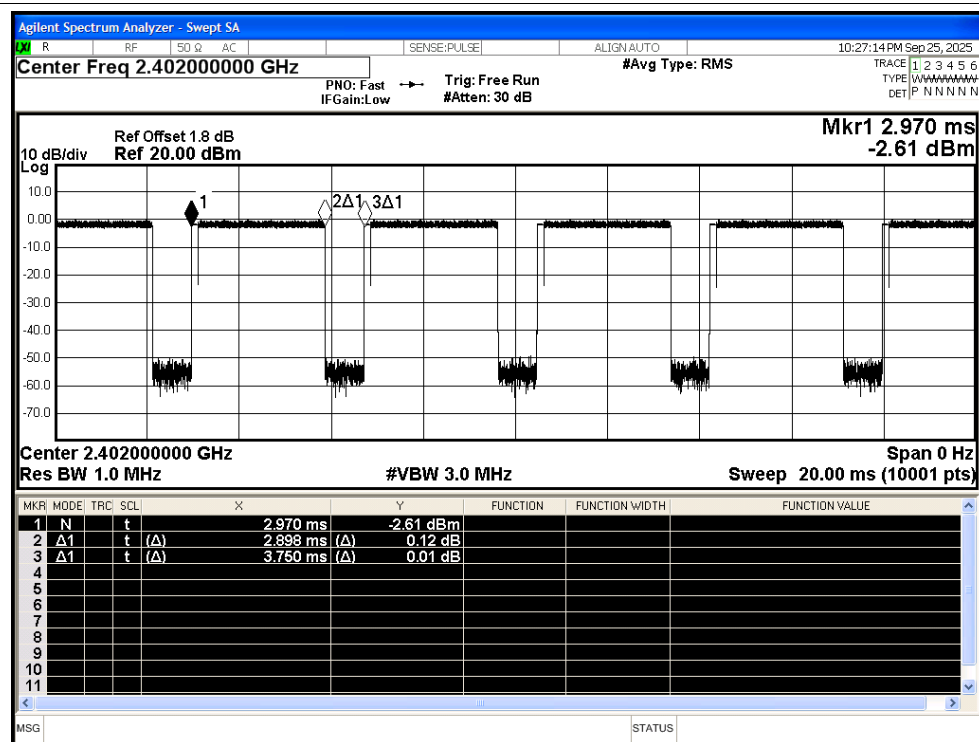
Duty Cycle NVNT 1-DH5 2441MHz Ant1



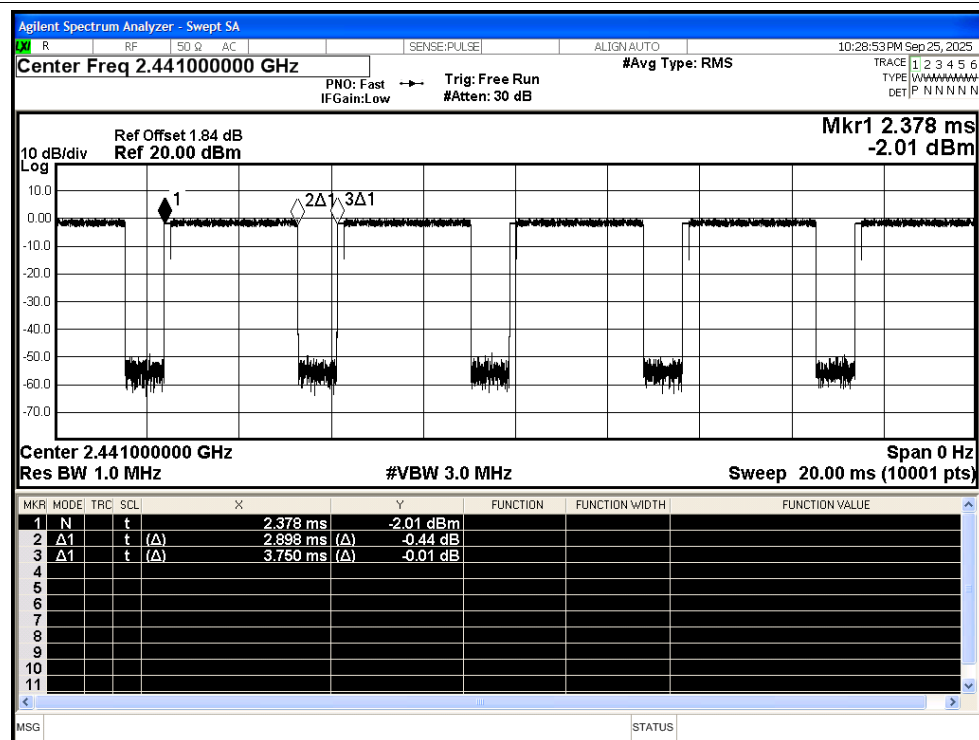
Duty Cycle NVNT 1-DH5 2480MHz Ant1



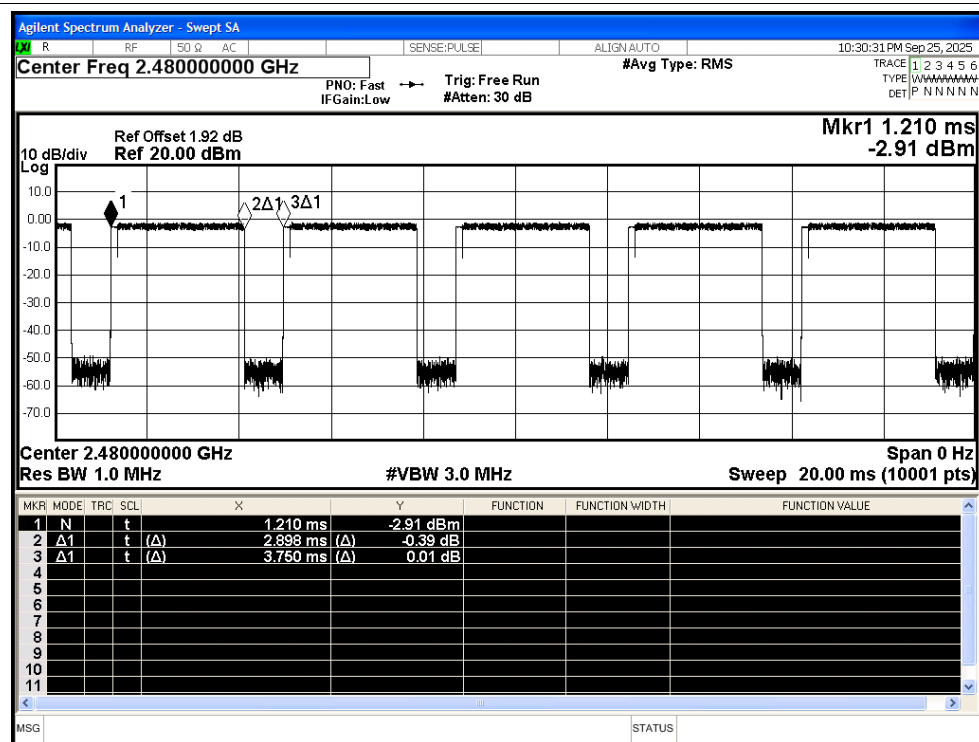
Duty Cycle NVNT 2-DH5 2402MHz Ant1



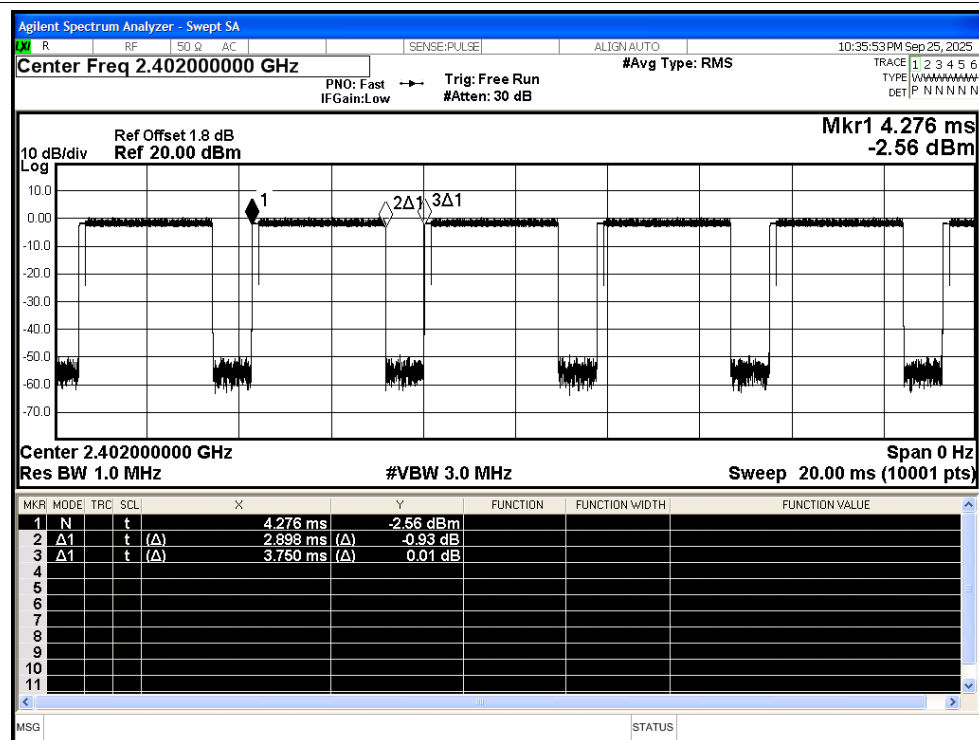
Duty Cycle NVNT 2-DH5 2441MHz Ant1



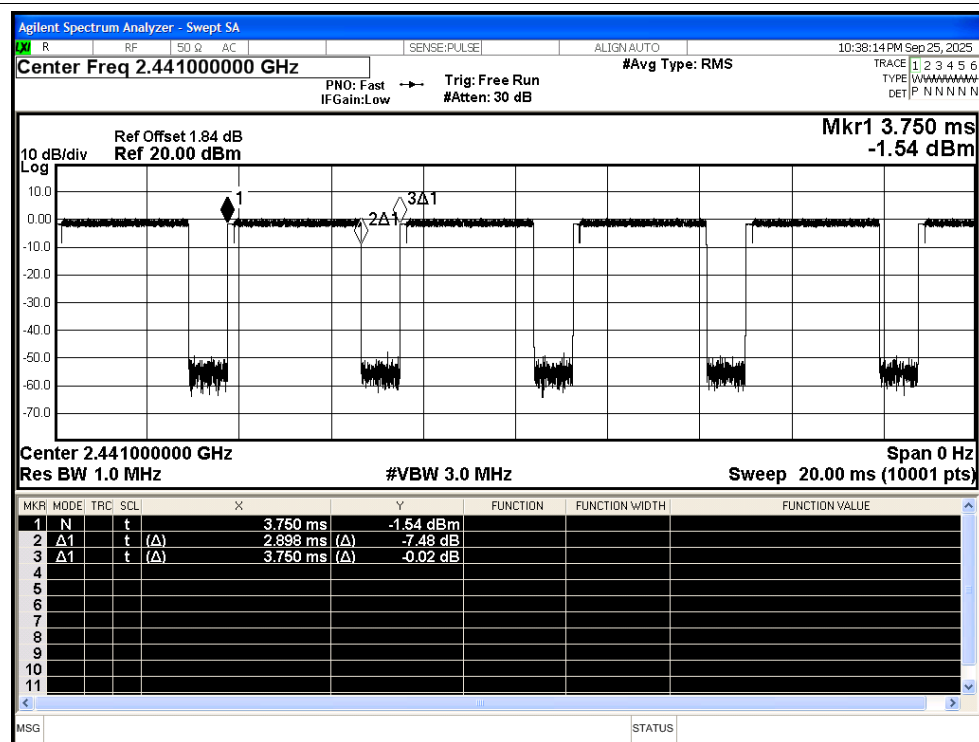
Duty Cycle NVNT 2-DH5 2480MHz Ant1

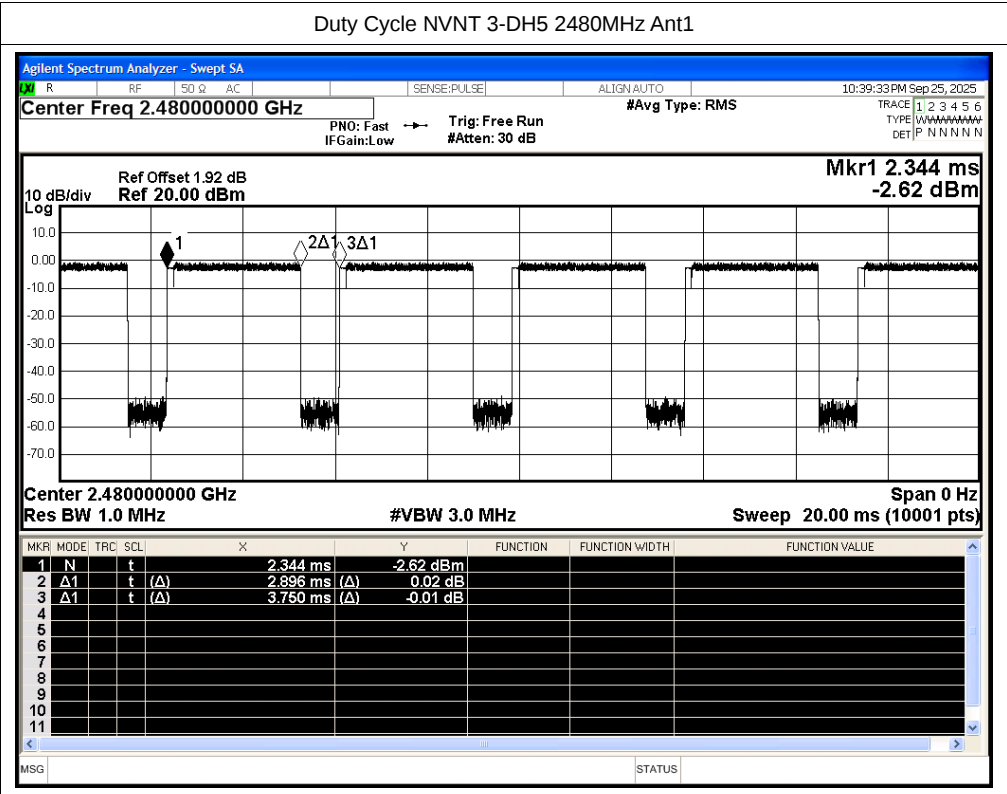


Duty Cycle NVNT 3-DH5 2402MHz Ant1



Duty Cycle NVNT 3-DH5 2441MHz Ant1



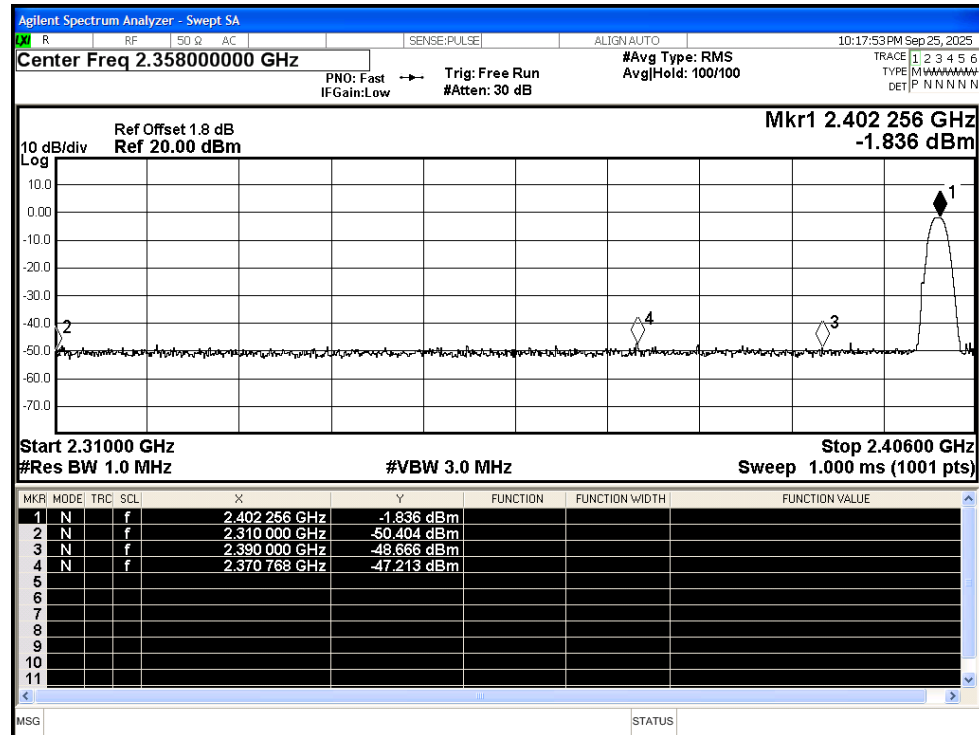


A.9 Restrict Band

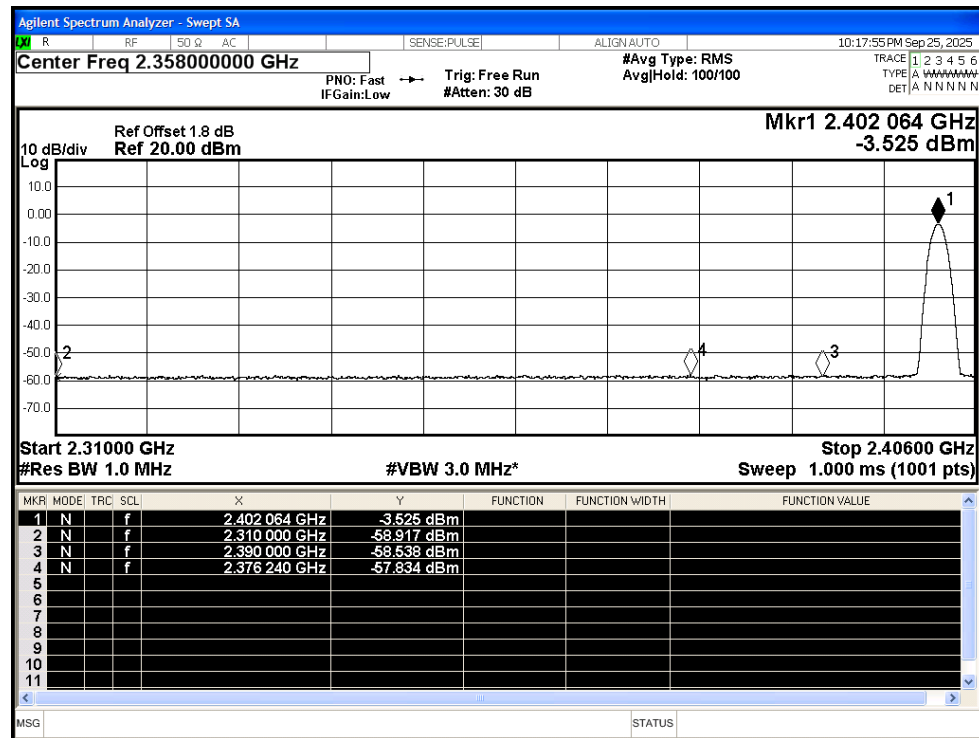
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-50.4	2.0	-	46.86	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-58.92	2.0	1.1	39.44	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2370.768	-47.21	2.0	-	50.05	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2376.24	-57.83	2.0	1.1	40.53	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-48.67	2.0	-	48.59	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-58.54	2.0	1.1	39.82	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-50.32	2.0	-	46.94	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-58.63	2.0	1.1	39.73	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.872	-47.29	2.0	-	49.97	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2499.472	-57.42	2.0	1.1	40.94	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-50.36	2.0	-	46.90	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-58.19	2.0	1.1	40.17	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-51.43	2.0	-	45.83	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-59.11	2.0	1.12	39.27	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2373.264	-47.79	2.0	-	49.47	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2374.8	-57.84	2.0	1.12	40.54	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-50.82	2.0	-	46.44	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-58.81	2.0	1.12	39.57	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-49.01	2.0	-	48.25	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-57.58	2.0	1.12	40.80	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2485.312	-45.87	2.0	-	51.39	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2495.152	-57.32	2.0	1.12	41.06	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-49.96	2.0	-	47.30	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-58.09	2.0	1.12	40.29	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-50.95	2.0	-	46.31	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-59.27	2.0	1.12	39.11	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2365.104	-47.98	2.0	-	49.28	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2388.336	-57.79	2.0	1.12	40.59	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-48.57	2.0	-	48.69	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-59.25	2.0	1.12	39.13	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-47.89	2.0	-	49.37	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-57.72	2.0	1.12	40.66	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2490.832	-47.56	2.0	-	49.70	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.704	-57.03	2.0	1.12	41.35	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-51.78	2.0	-	45.48	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-57.93	2.0	1.12	40.45	Average	54	Pass

Test Graphs

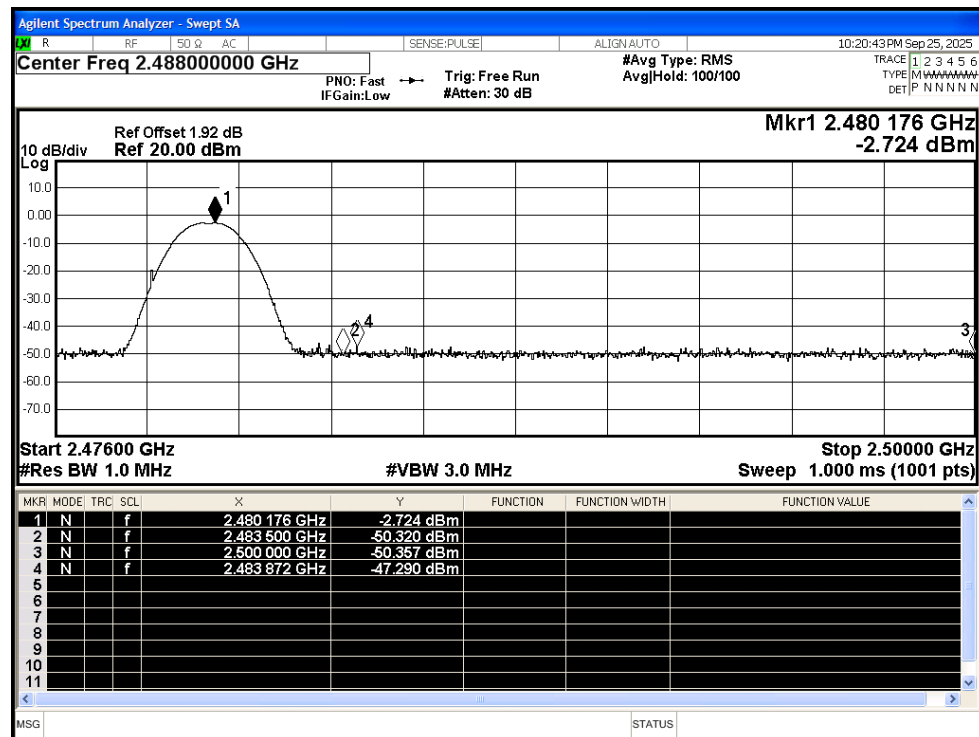
Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Peak



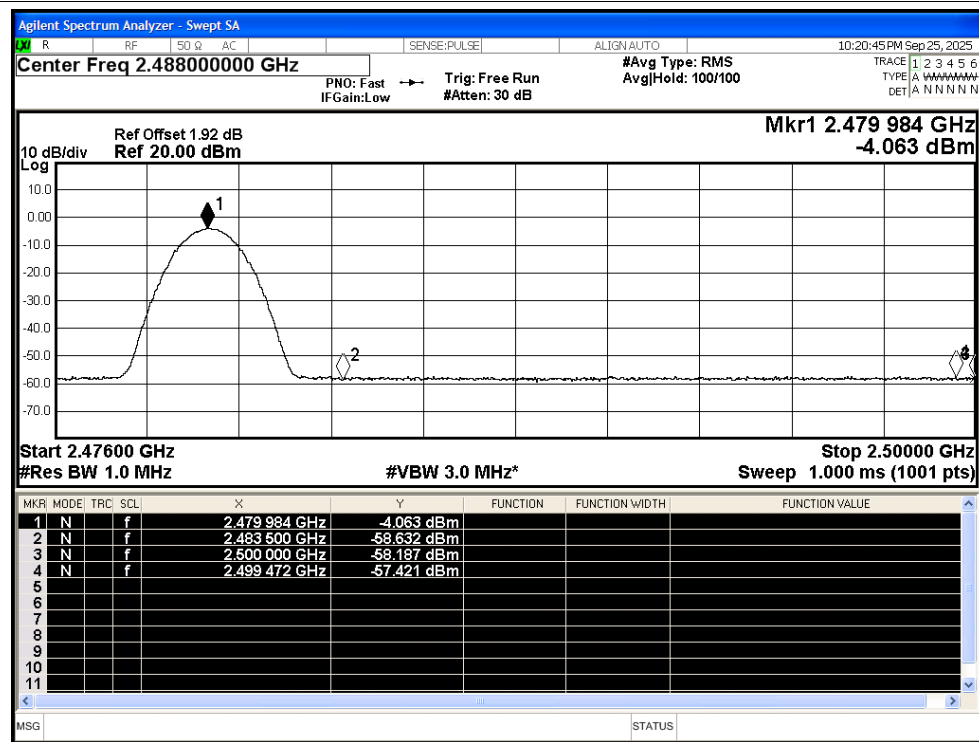
Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Average



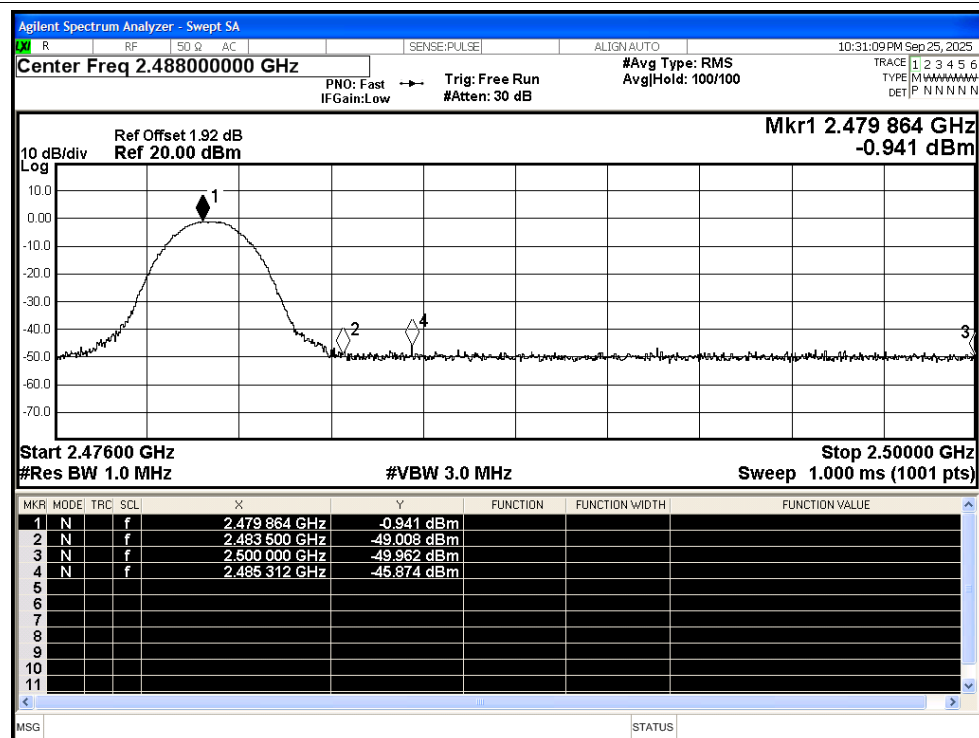
Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Peak



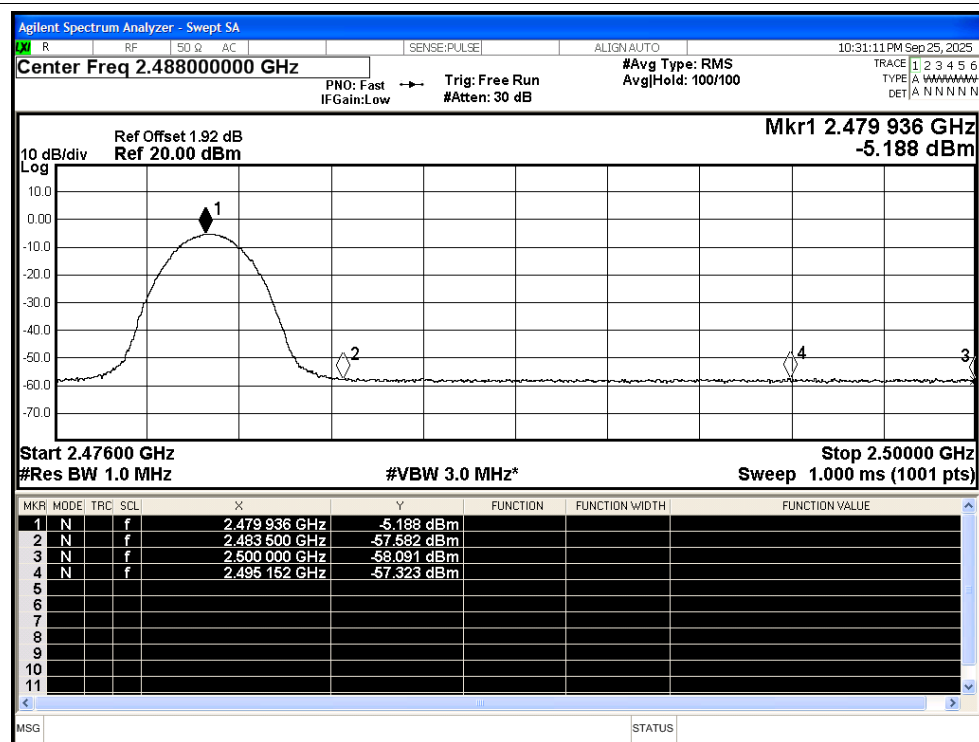
Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Average



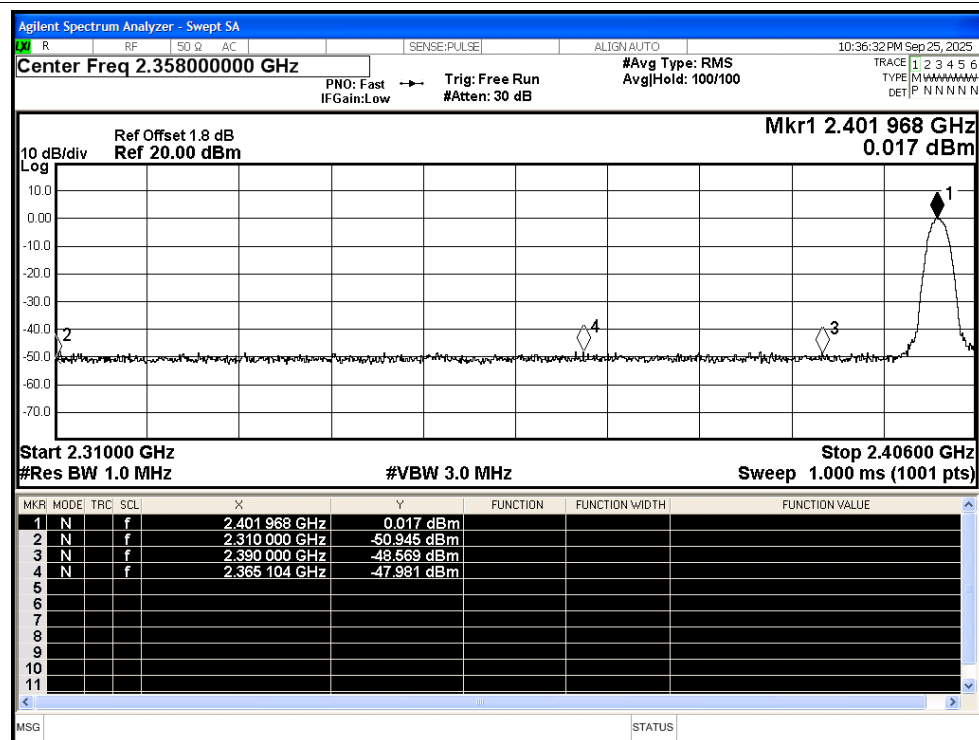
Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Peak



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



Restrict Band NVNT 3-DH5 2402MHz Ant1 No-Hopping Peak



Restrict Band NVNT 3-DH5 2402MHz Ant1 No-Hopping Average

