

Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: Smart watch

Test Model: L8

Environmental Conditions

Temperature:	23.8°C
Relative Humidity:	52.5%
ATM Pressure:	100.0 kPa
Test Engineer:	Suichao Lai
Supervised by:	Yan Chen

A.1 -20dB Bandwidth

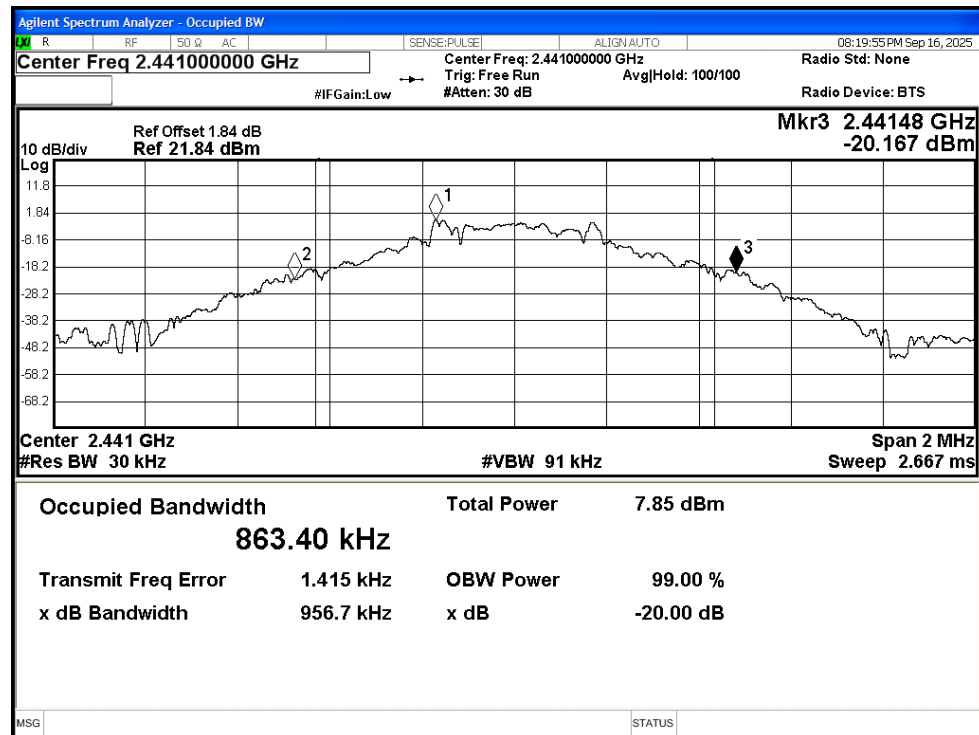
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH5	2402	Ant	0.963	N/A	Pass
NVNT	1-DH5	2441	Ant	0.957	N/A	Pass
NVNT	1-DH5	2480	Ant	0.969	N/A	Pass
NVNT	2-DH5	2402	Ant	1.309	N/A	Pass
NVNT	2-DH5	2441	Ant	1.283	N/A	Pass
NVNT	2-DH5	2480	Ant	1.317	N/A	Pass
NVNT	3-DH5	2402	Ant	1.3	N/A	Pass
NVNT	3-DH5	2441	Ant	1.289	N/A	Pass
NVNT	3-DH5	2480	Ant	1.29	N/A	Pass

Test Graphs

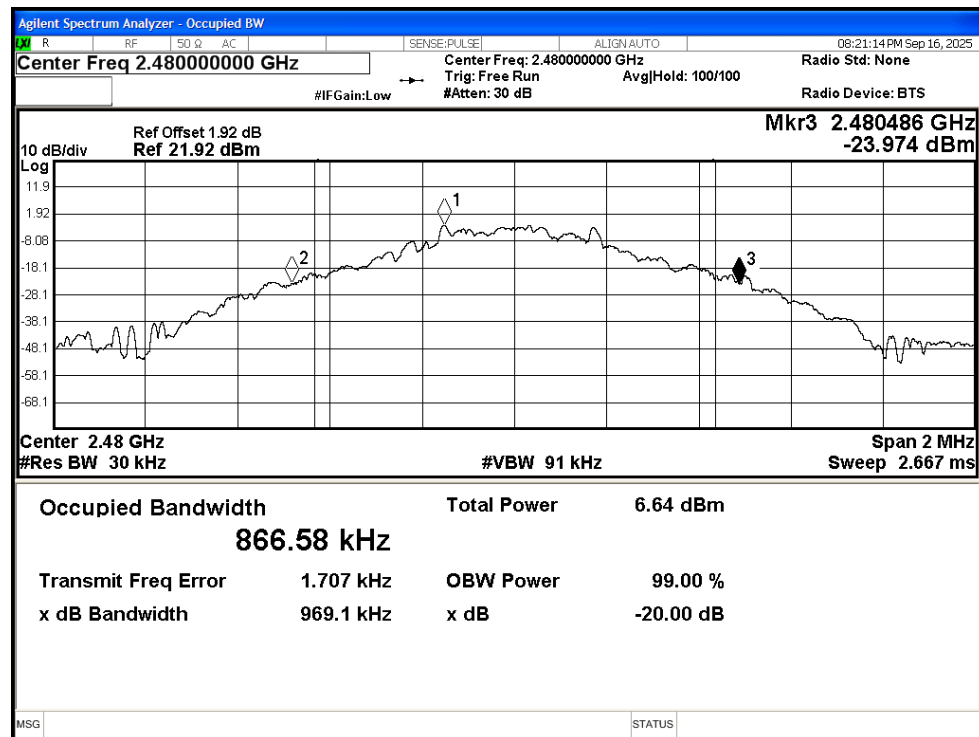
-20dB Bandwidth NVNT 1-DH5 2402MHz Ant



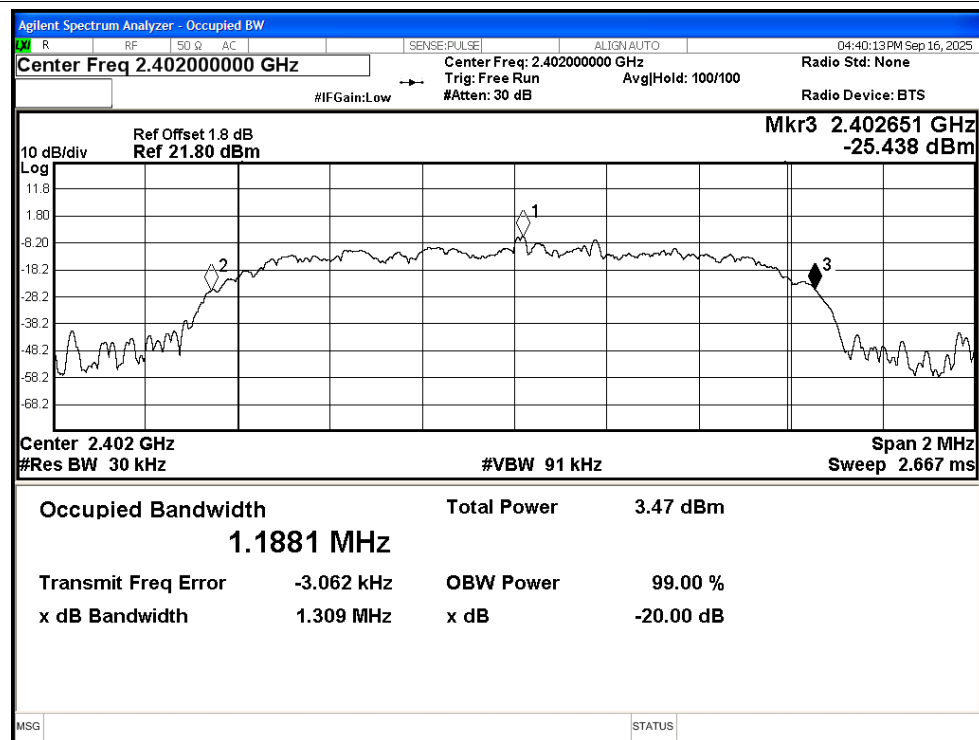
-20dB Bandwidth NVNT 1-DH5 2441MHz Ant



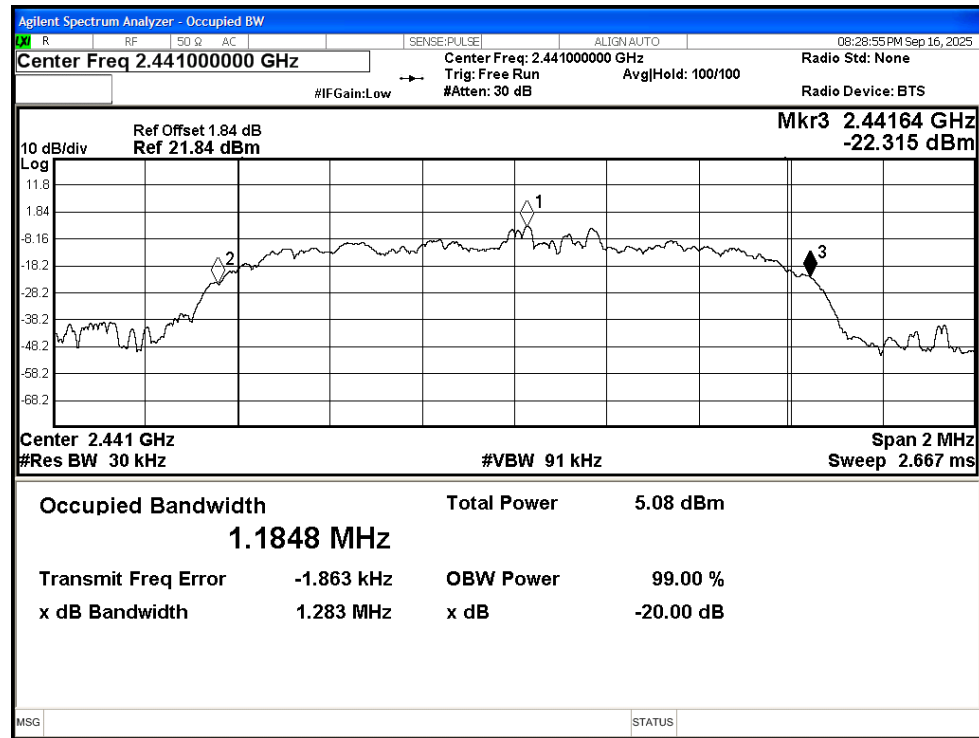
-20dB Bandwidth NVNT 1-DH5 2480MHz Ant



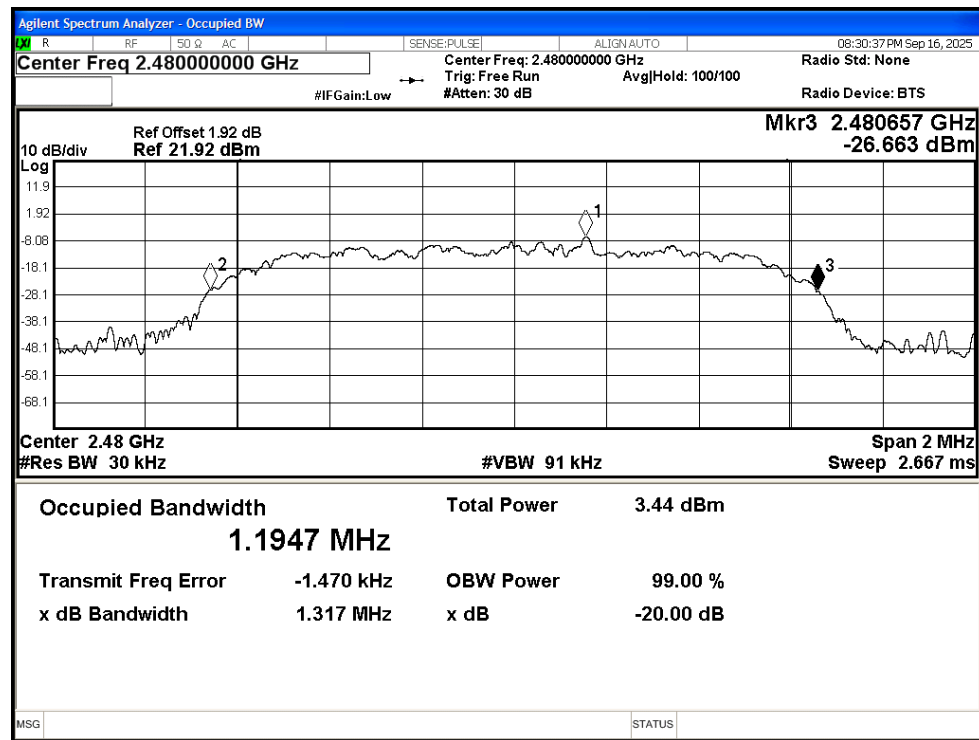
-20dB Bandwidth NVNT 2-DH5 2402MHz Ant



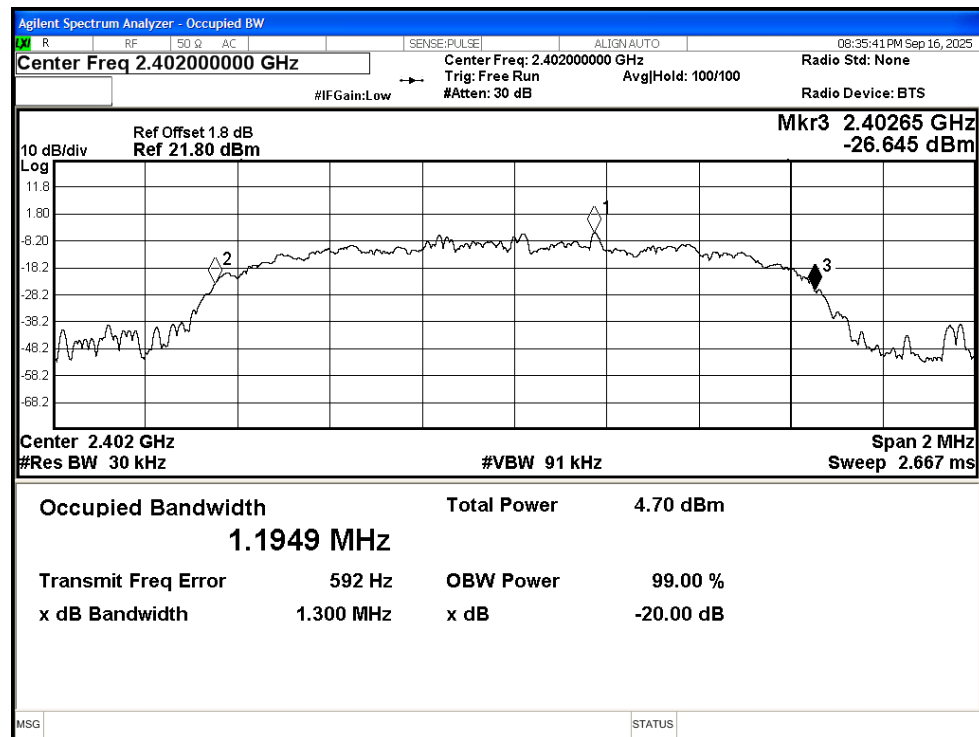
-20dB Bandwidth NVNT 2-DH5 2441MHz Ant



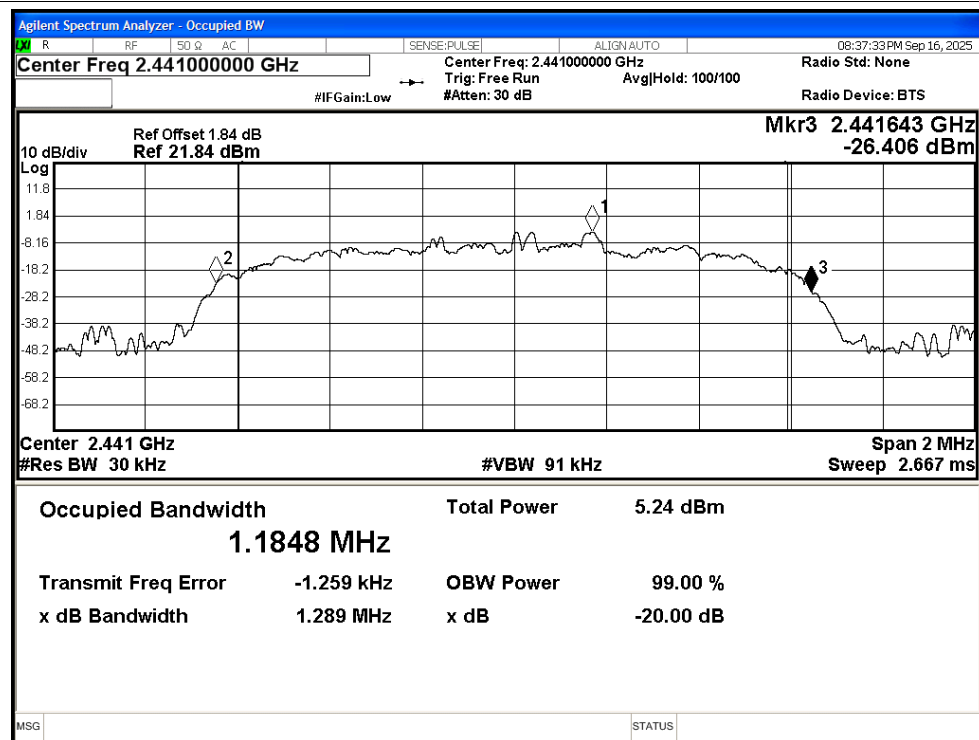
-20dB Bandwidth NVNT 2-DH5 2480MHz Ant

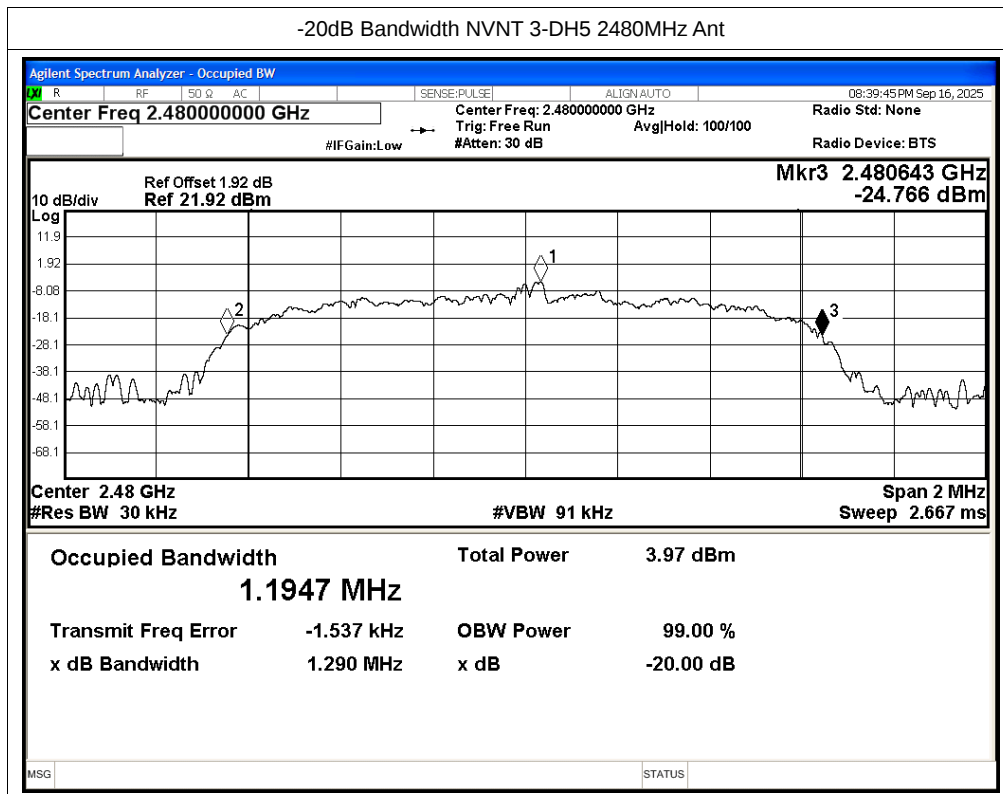


-20dB Bandwidth NVNT 3-DH5 2402MHz Ant



-20dB Bandwidth NVNT 3-DH5 2441MHz Ant



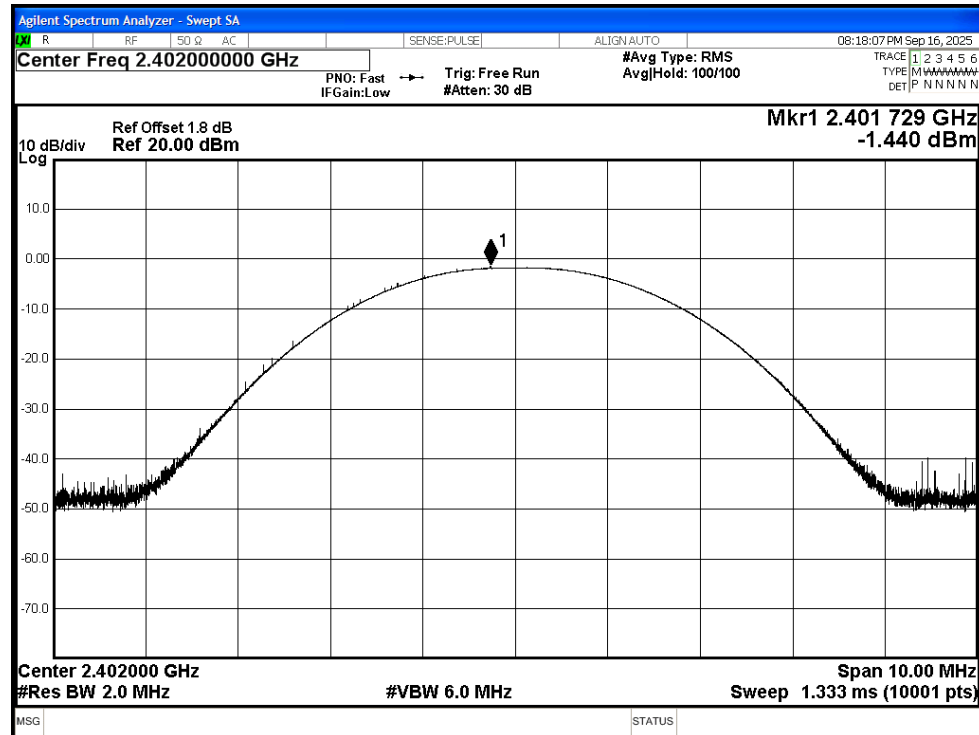


A.2 Maximum Peak Conducted Output Power

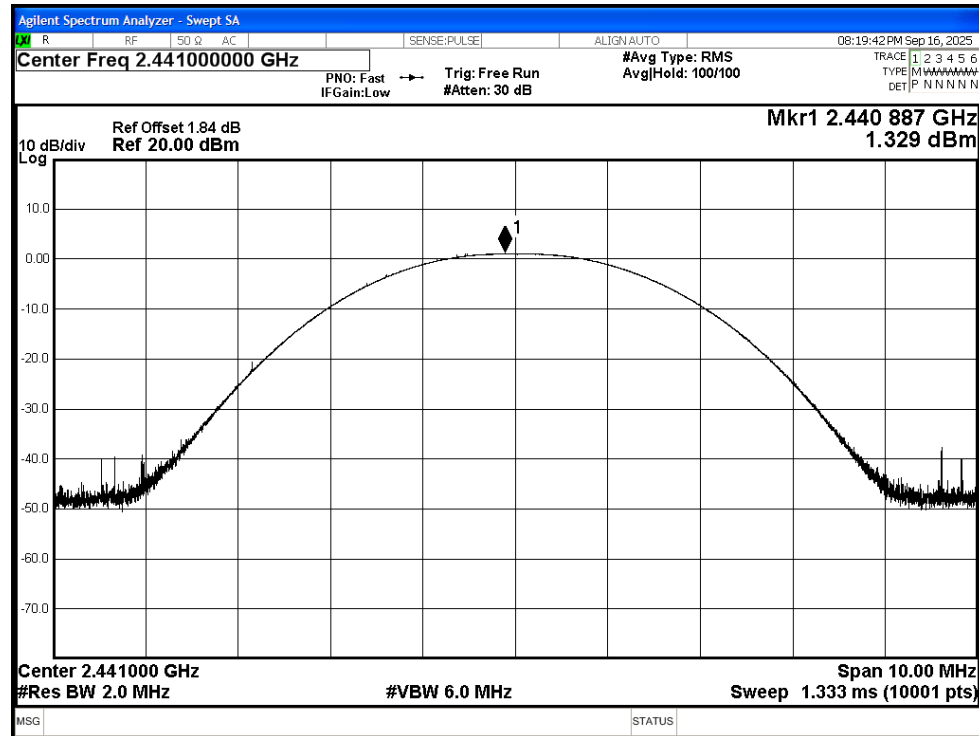
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH5	2402	Ant	-1.44	21	Pass
NVNT	1-DH5	2441	Ant	1.33	21	Pass
NVNT	1-DH5	2480	Ant	0.16	21	Pass
NVNT	2-DH5	2402	Ant	0.38	21	Pass
NVNT	2-DH5	2441	Ant	0.62	21	Pass
NVNT	2-DH5	2480	Ant	-0.38	21	Pass
NVNT	3-DH5	2402	Ant	0.85	21	Pass
NVNT	3-DH5	2441	Ant	1.1	21	Pass
NVNT	3-DH5	2480	Ant	0.02	21	Pass

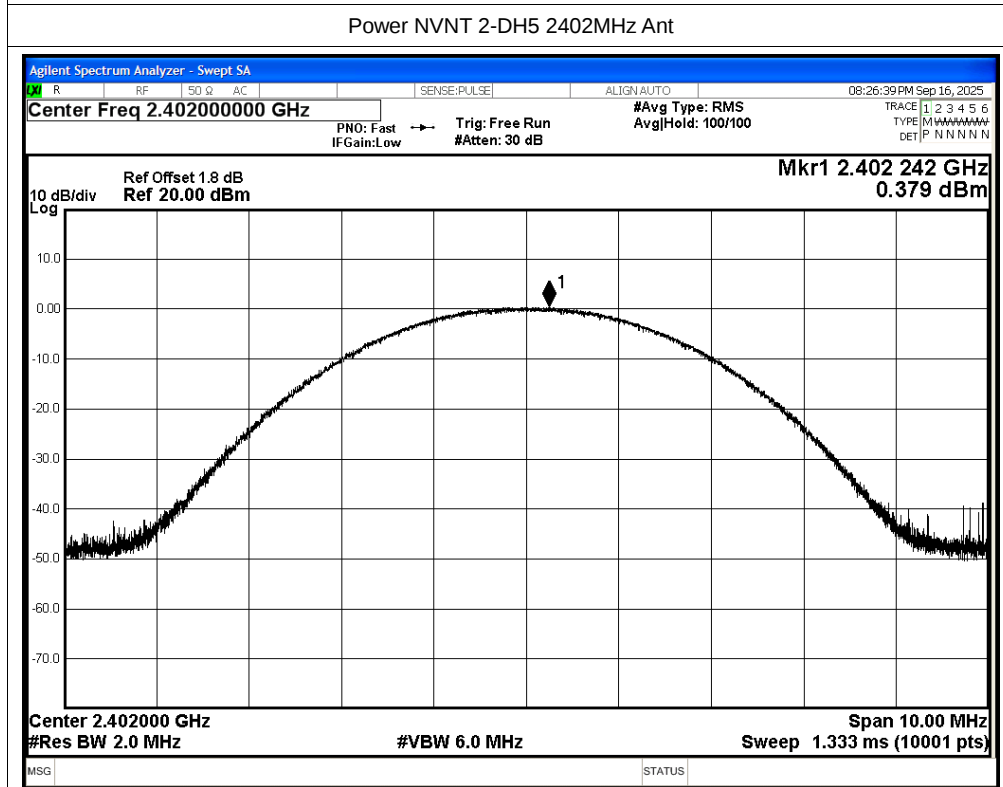
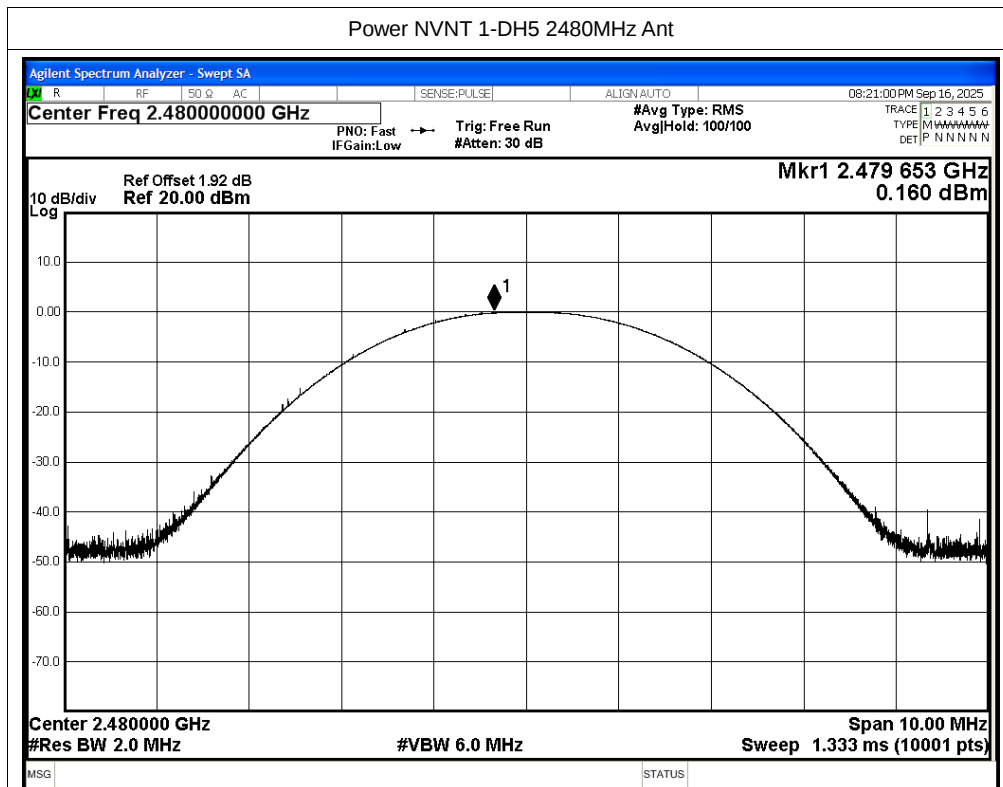
Test Graphs

Power NVNT 1-DH5 2402MHz Ant

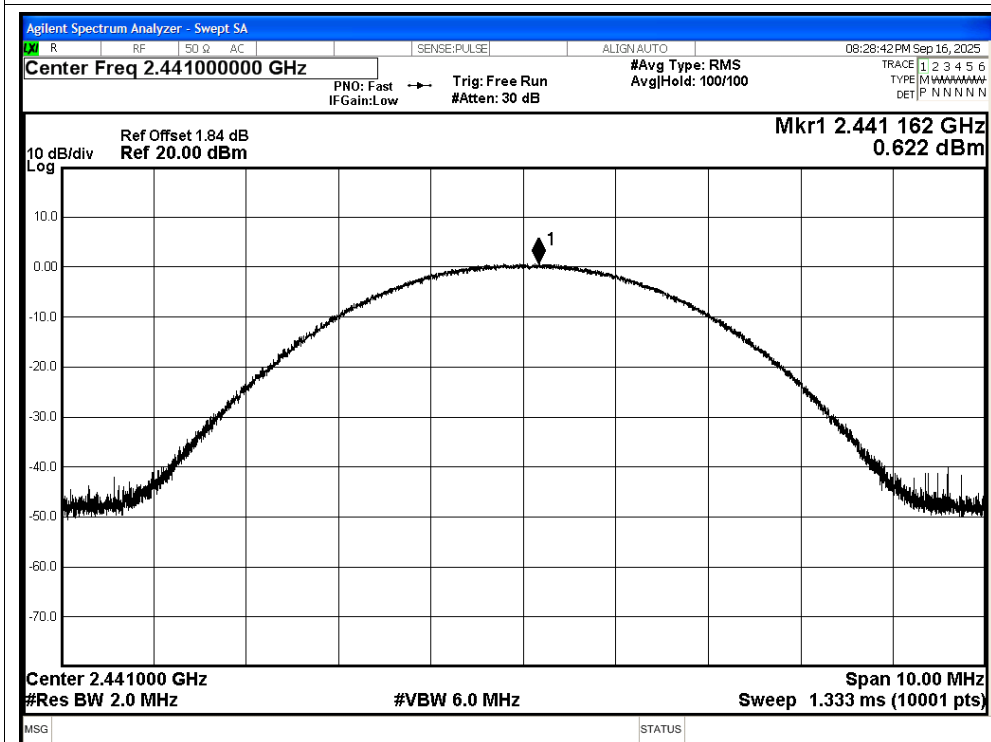


Power NVNT 1-DH5 2441MHz Ant

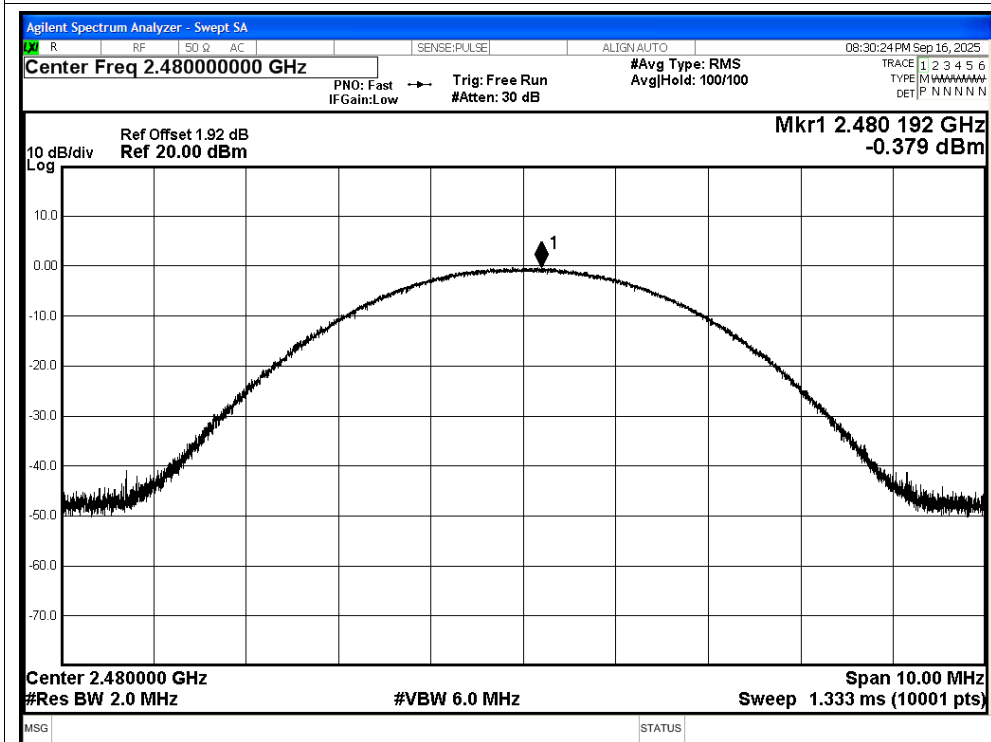




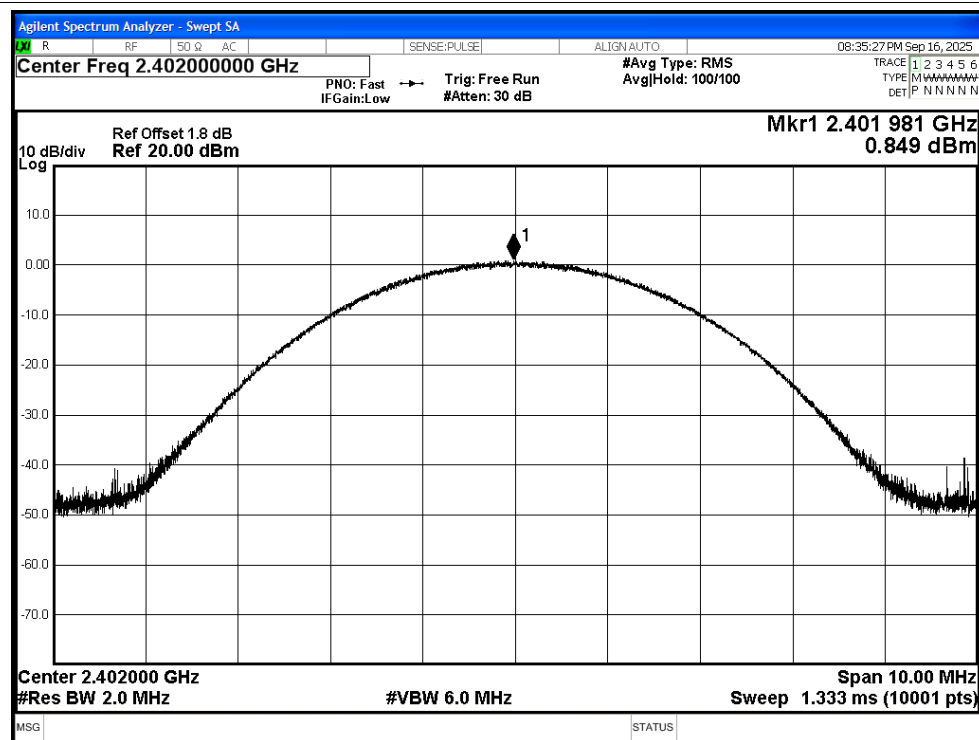
Power NVNT 2-DH5 2441MHz Ant



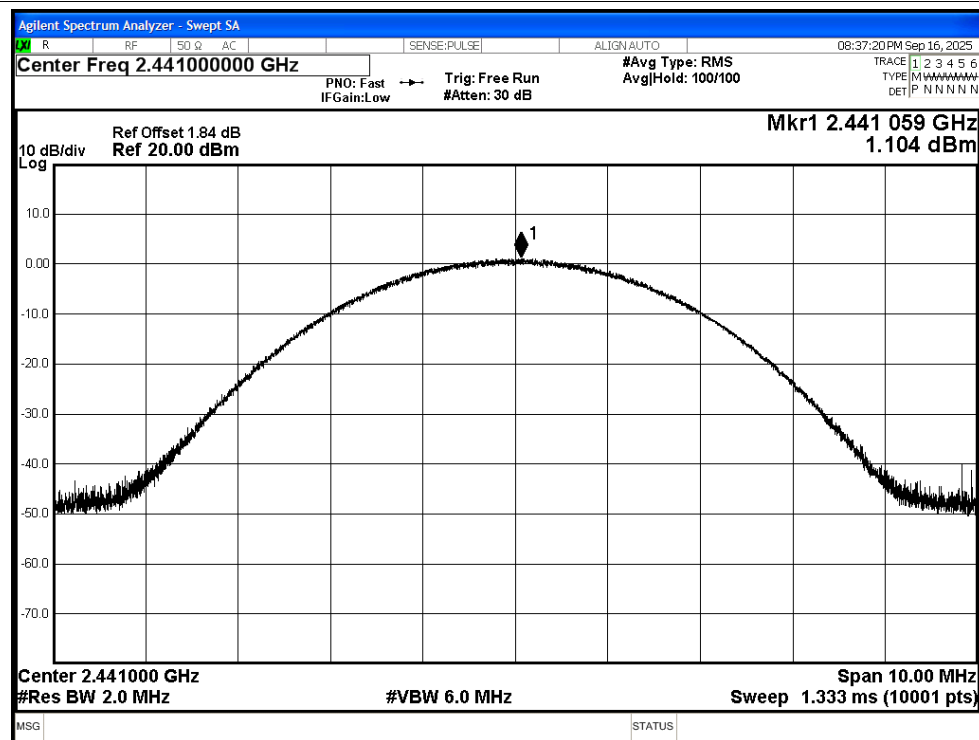
Power NVNT 2-DH5 2480MHz Ant

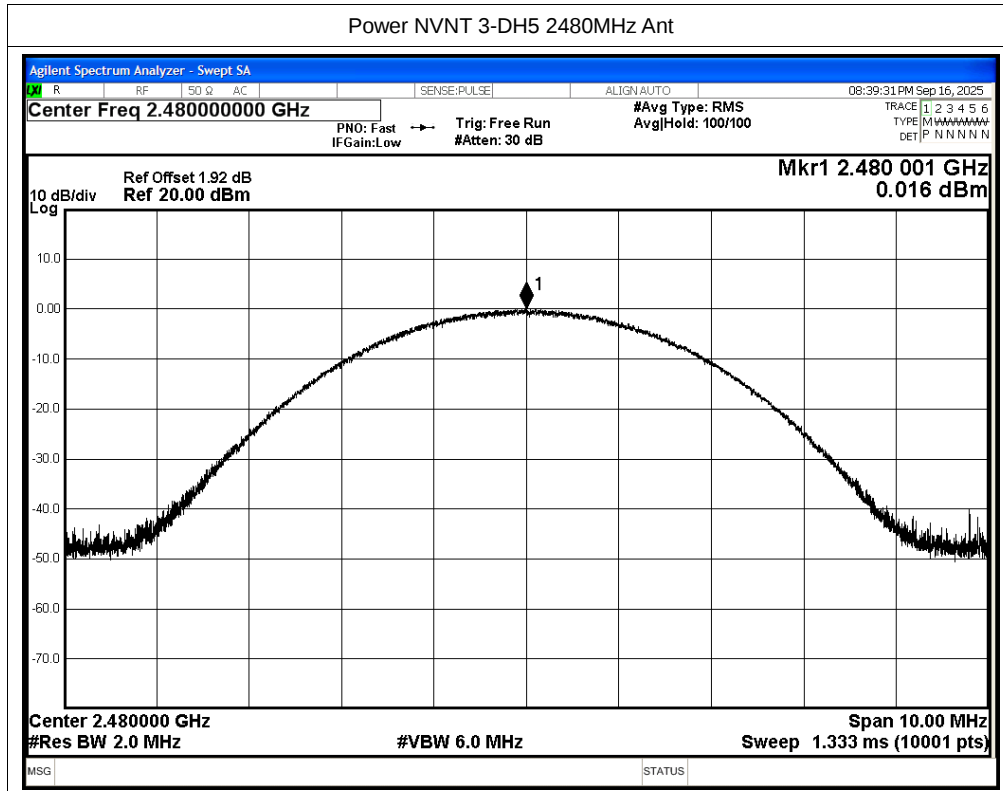


Power NVNT 3-DH5 2402MHz Ant



Power NVNT 3-DH5 2441MHz Ant



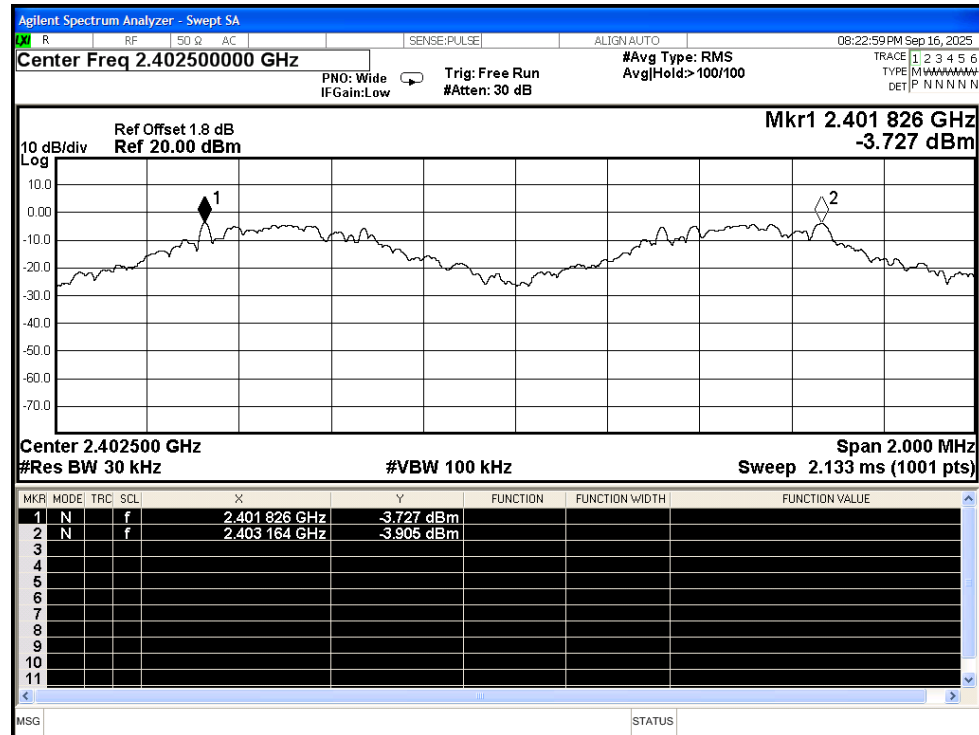


A.3 Carrier Frequencies Separation

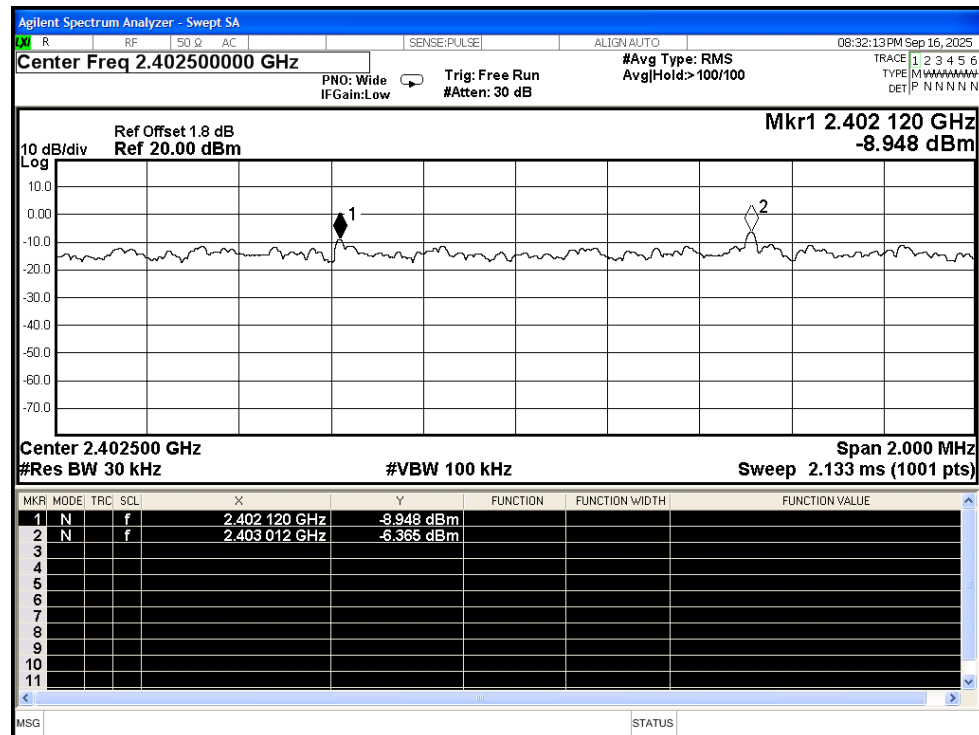
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH5	Ant	2401.826	2403.164	1.338	0.642	Pass
NVNT	2-DH5	Ant	2402.12	2403.012	0.892	0.873	Pass
NVNT	3-DH5	Ant	2402.014	2403.02	1.006	0.867	Pass

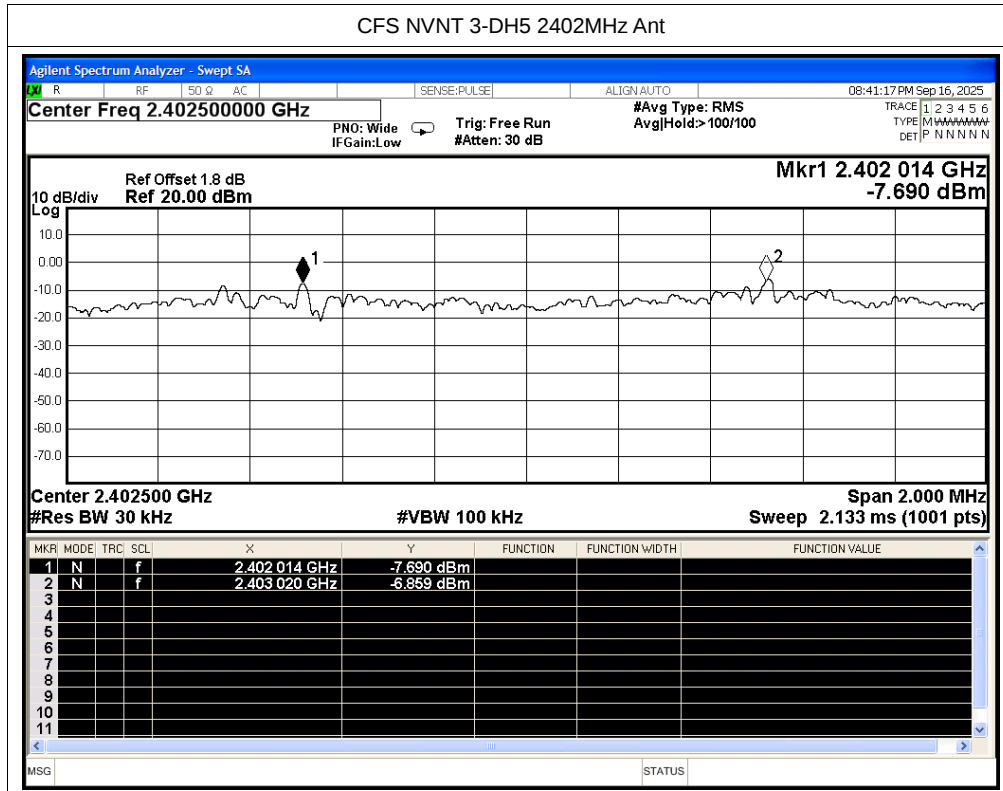
Test Graphs

CFS NVNT 1-DH5 2402MHz Ant



CFS NVNT 2-DH5 2402MHz Ant



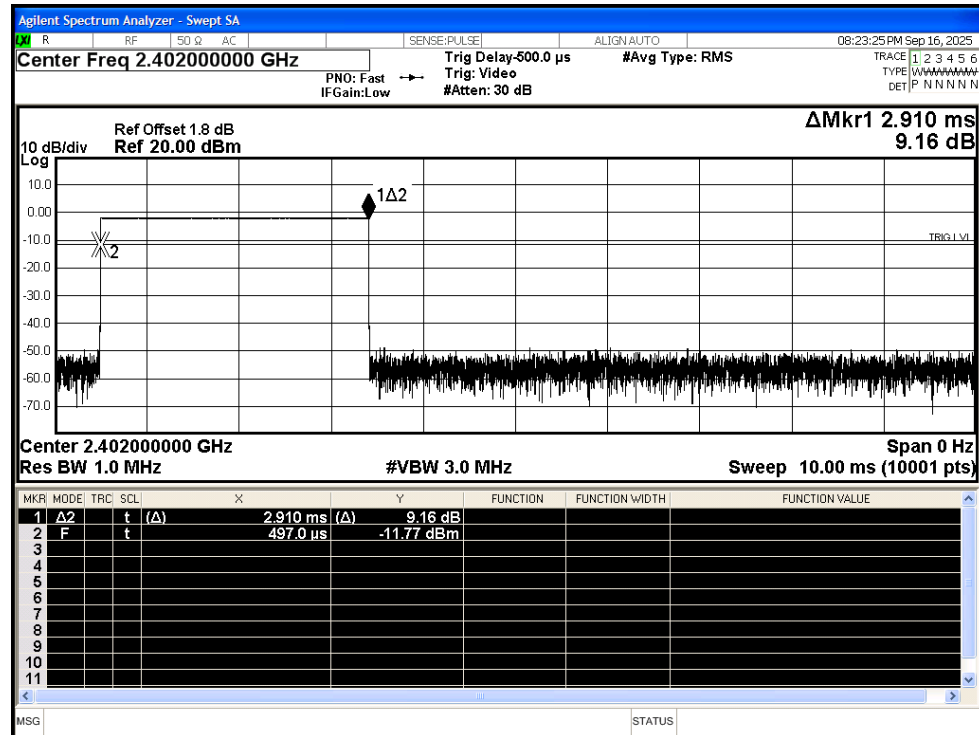


A.4 Dwell Time

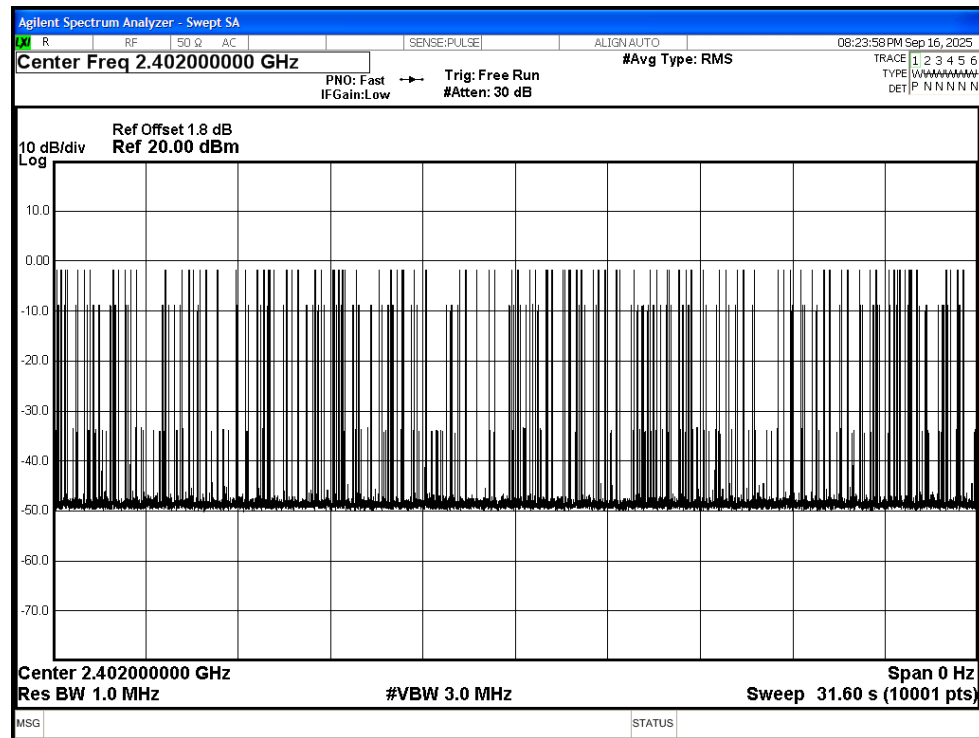
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH5	2402	Ant	2.91	355.02	122	31600	400	Pass
NVNT	2-DH5	2402	Ant	2.898	312.984	108	31600	400	Pass
NVNT	3-DH5	2402	Ant	2.897	298.391	103	31600	400	Pass

Test Graphs

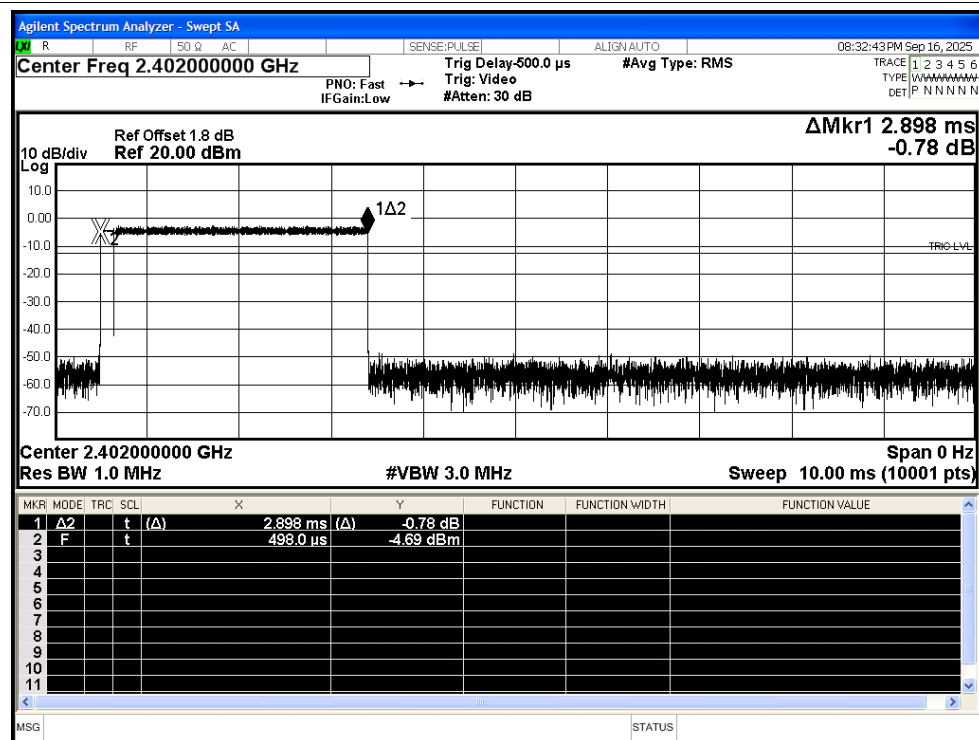
Dwell NVNT 1-DH5 2402MHz Ant One Burst



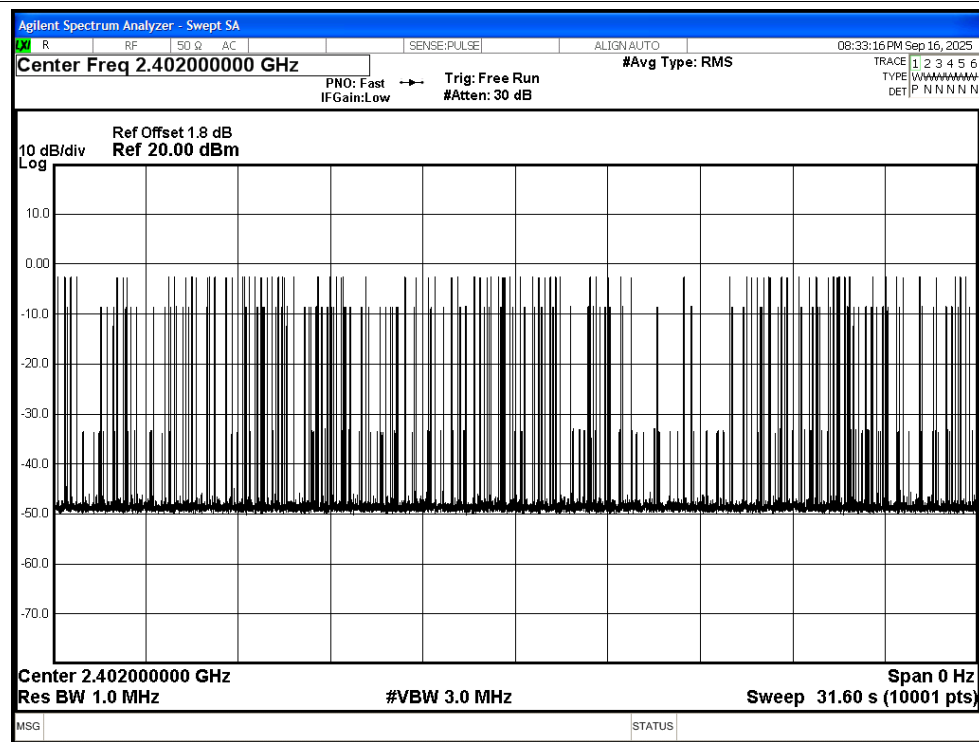
Dwell NVNT 1-DH5 2402MHz Ant Accumulated



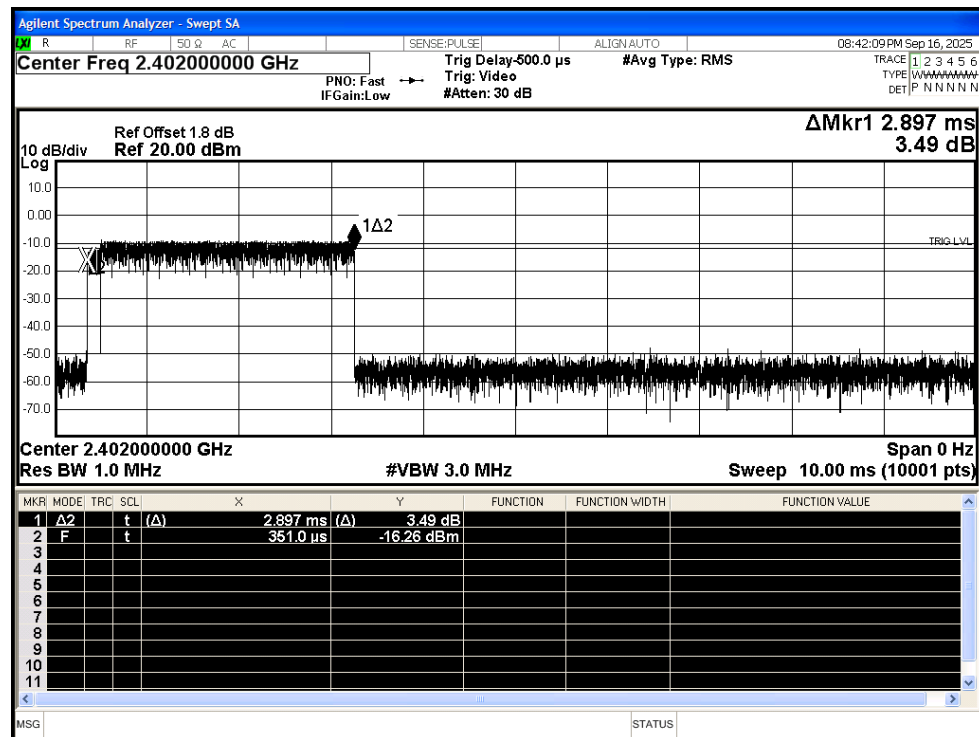
Dwell NVNT 2-DH5 2402MHz Ant One Burst



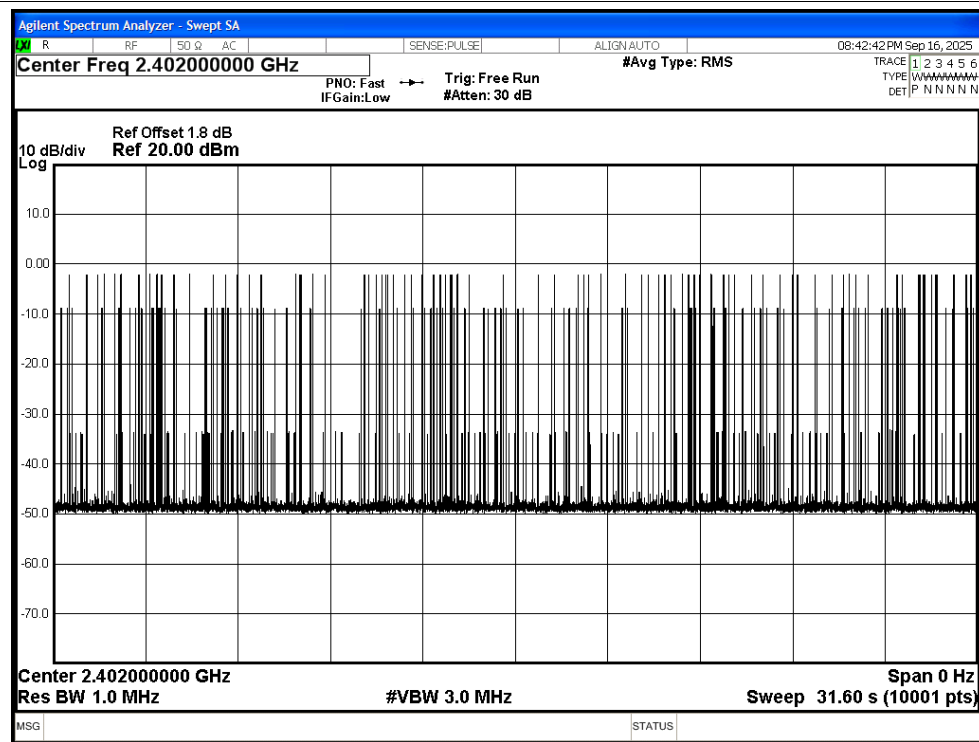
Dwell NVNT 2-DH5 2402MHz Ant Accumulated



Dwell NVNT 3-DH5 2402MHz Ant One Burst



Dwell NVNT 3-DH5 2402MHz Ant Accumulated

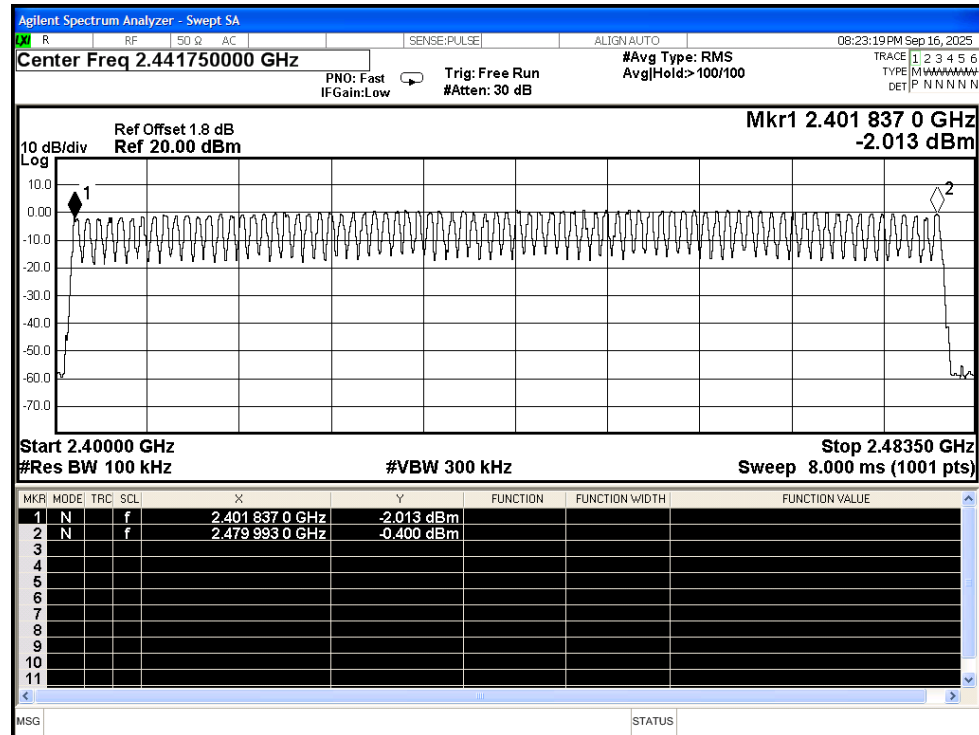


A.5 Number of Hopping Channel

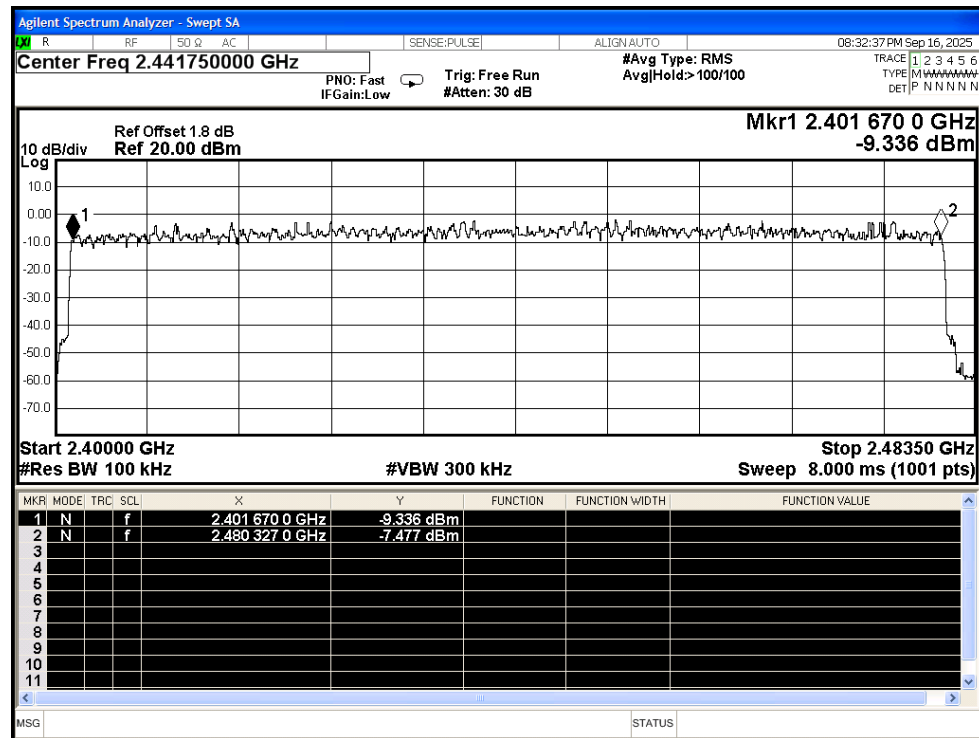
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH5	Ant	79	15	Pass
NVNT	2-DH5	Ant	79	15	Pass
NVNT	3-DH5	Ant	79	15	Pass

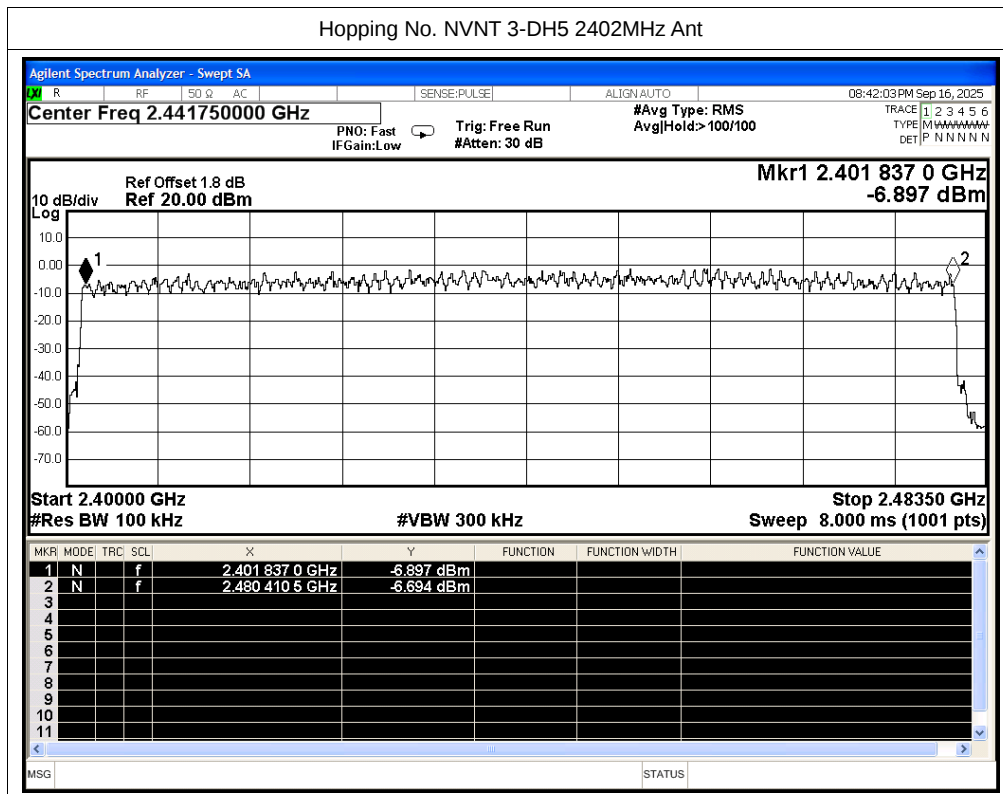
Test Graphs

Hopping No. NVNT 1-DH5 2402MHz Ant



Hopping No. NVNT 2-DH5 2402MHz Ant



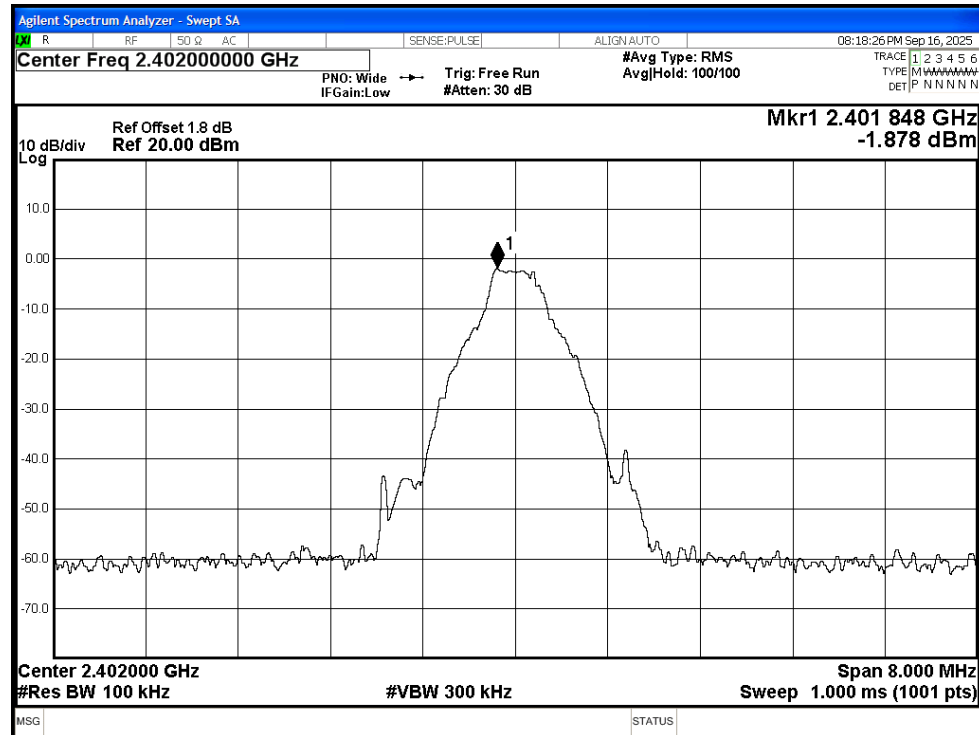


A.6 Band Edge

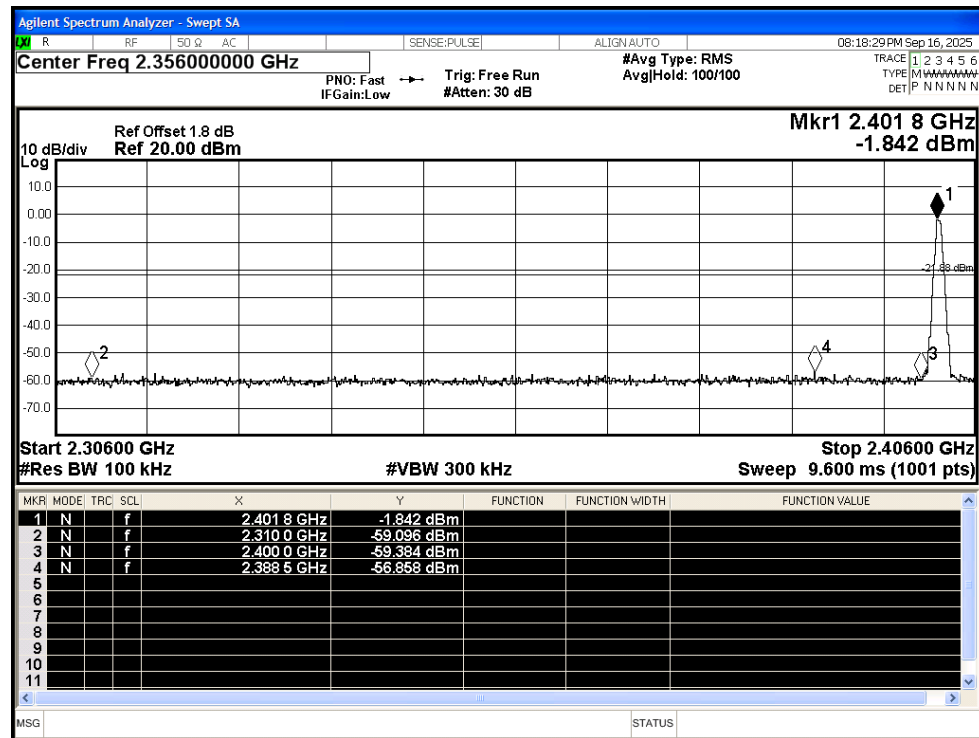
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant	No-Hopping	-54.98	-20	Pass
NVNT	1-DH5	2480	Ant	No-Hopping	-56.12	-20	Pass
NVNT	2-DH5	2402	Ant	No-Hopping	-51.06	-20	Pass
NVNT	2-DH5	2480	Ant	No-Hopping	-53.57	-20	Pass
NVNT	3-DH5	2402	Ant	No-Hopping	-50.57	-20	Pass
NVNT	3-DH5	2480	Ant	No-Hopping	-53.64	-20	Pass

Test Graphs

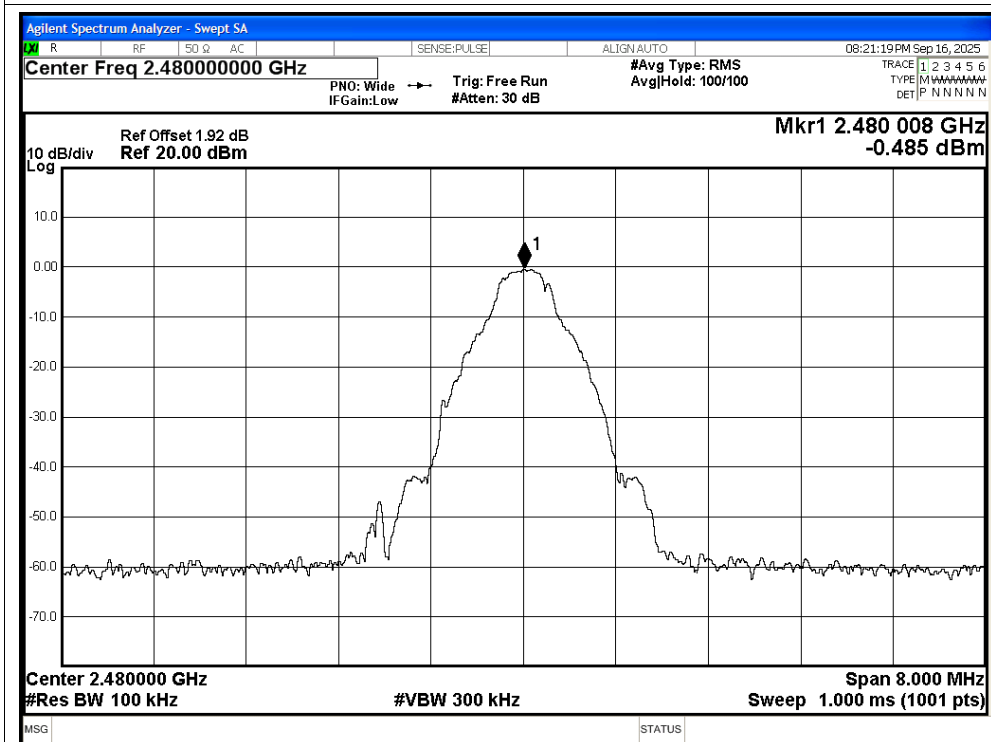
Band Edge NVNT 1-DH5 2402MHz Ant No-Hopping Ref



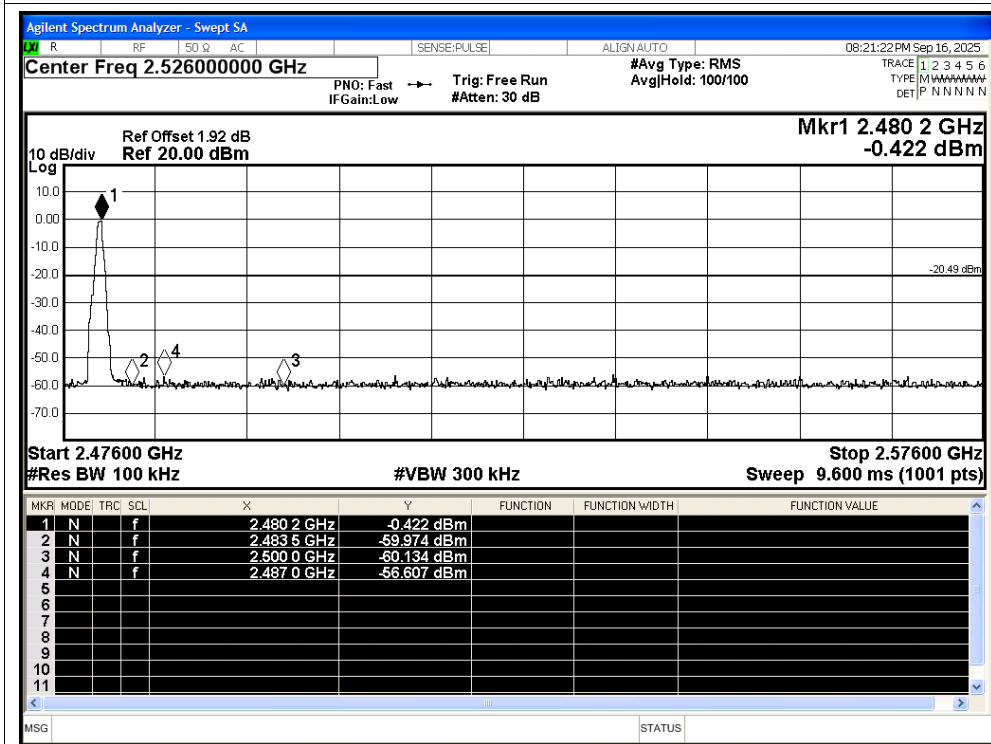
Band Edge NVNT 1-DH5 2402MHz Ant No-Hopping Emission



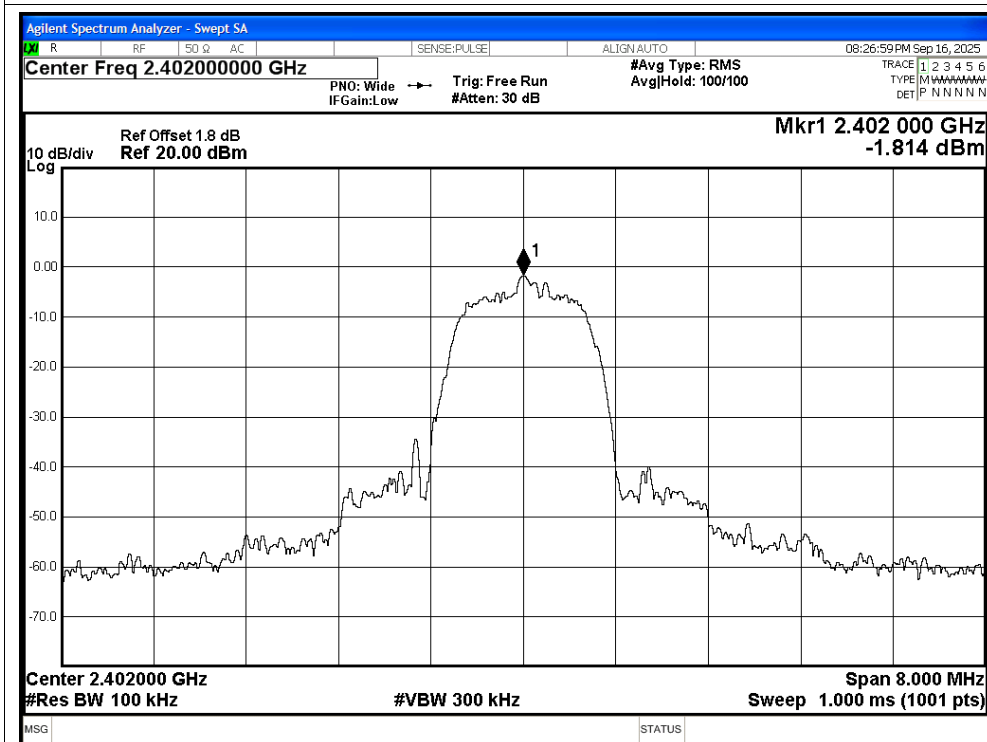
Band Edge NVNT 1-DH5 2480MHz Ant No-Hopping Ref



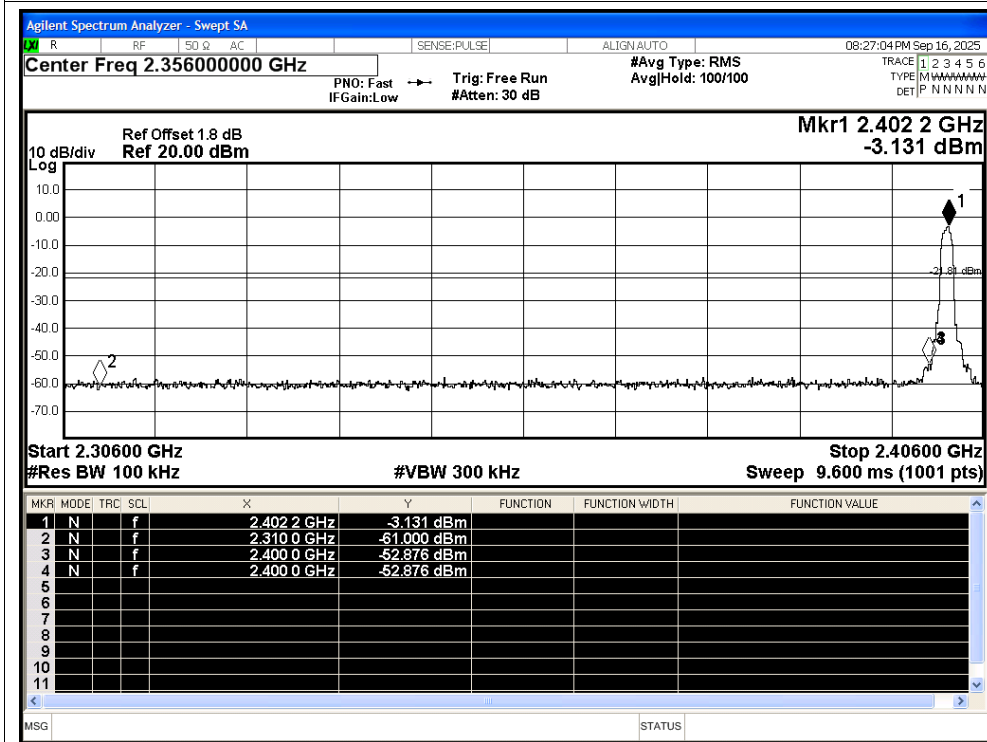
Band Edge NVNT 1-DH5 2480MHz Ant No-Hopping Emission



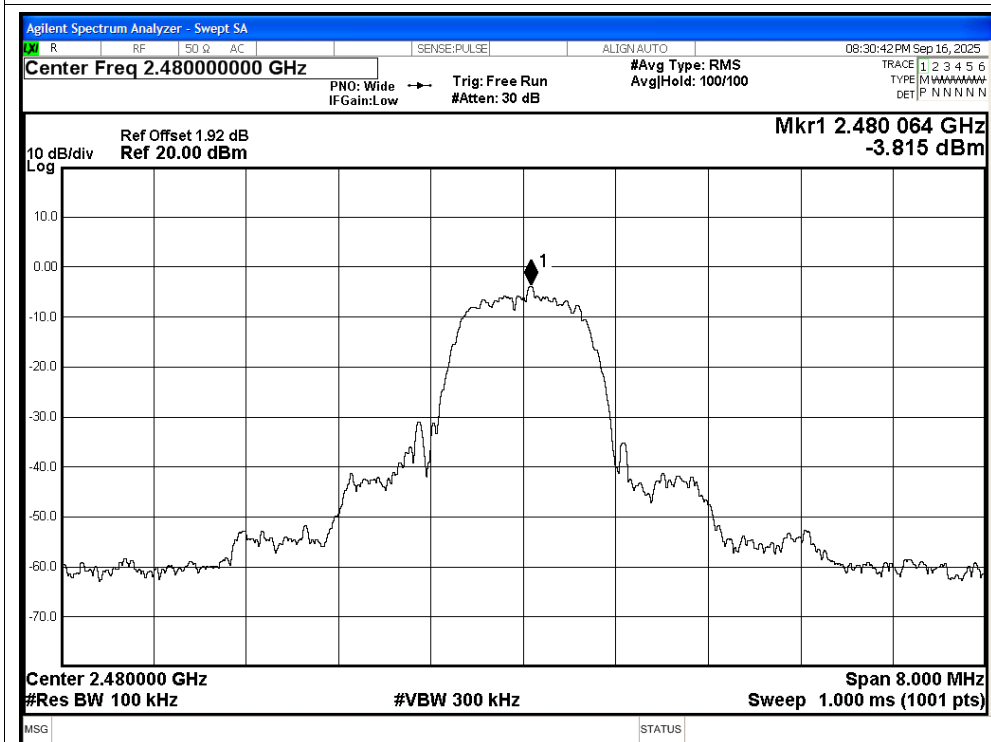
Band Edge NVNT 2-DH5 2402MHz Ant No-Hopping Ref



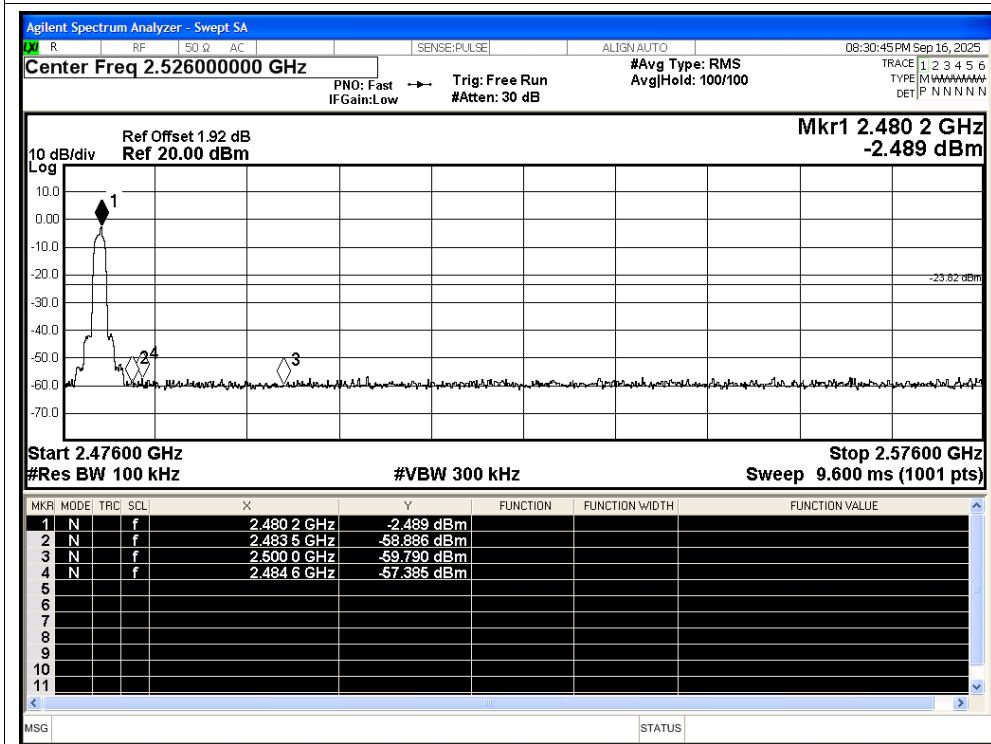
Band Edge NVNT 2-DH5 2402MHz Ant No-Hopping Emission



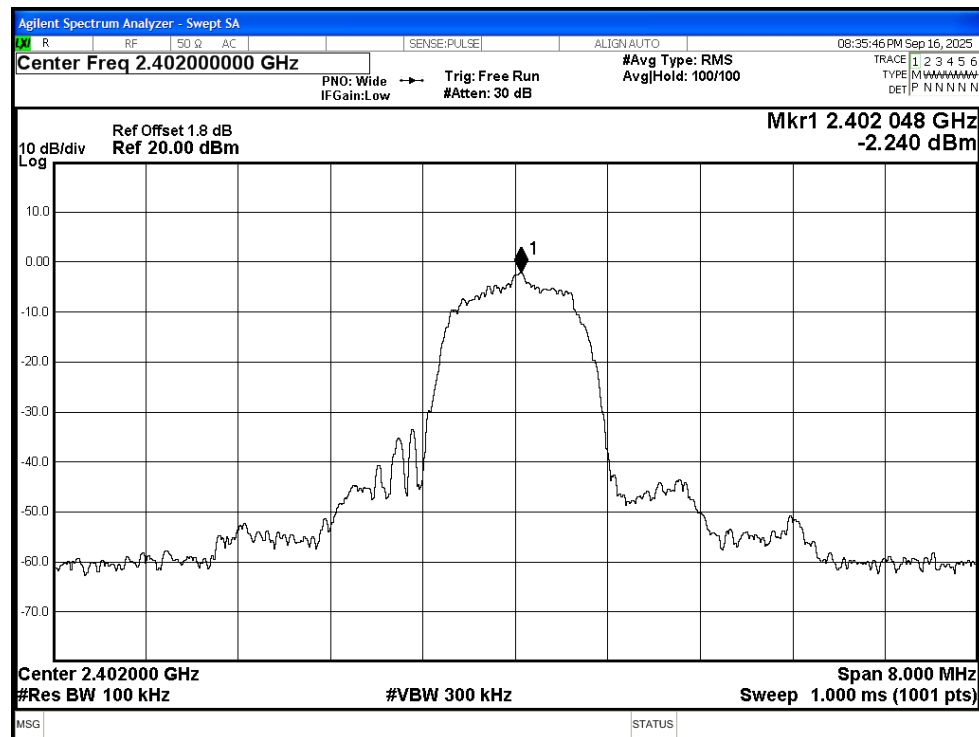
Band Edge NVNT 2-DH5 2480MHz Ant No-Hopping Ref



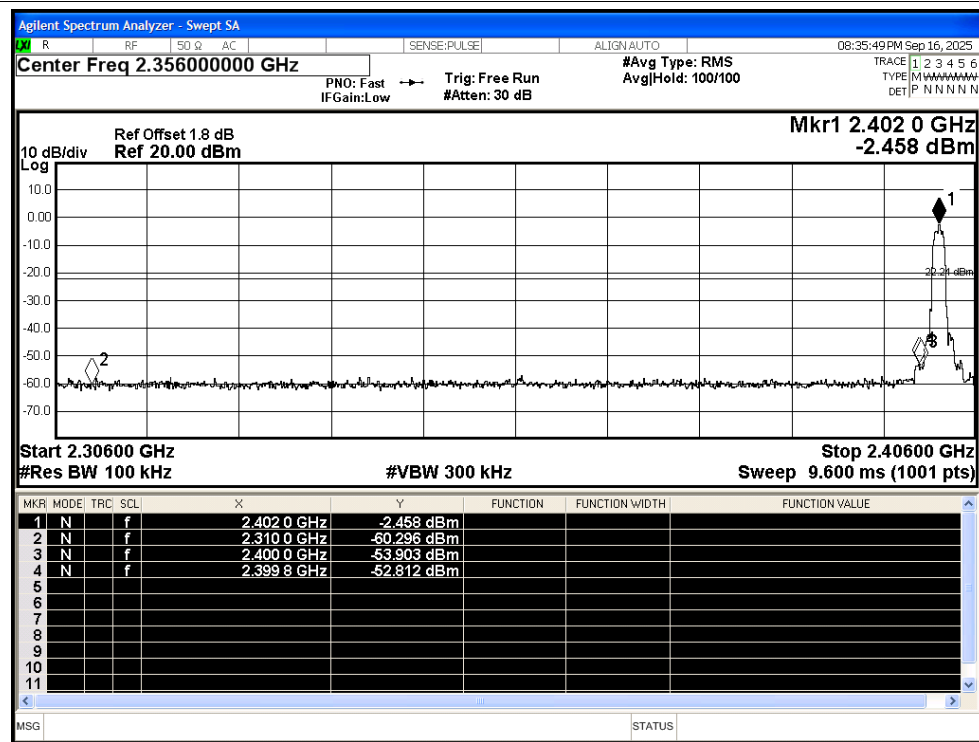
Band Edge NVNT 2-DH5 2480MHz Ant No-Hopping Emission



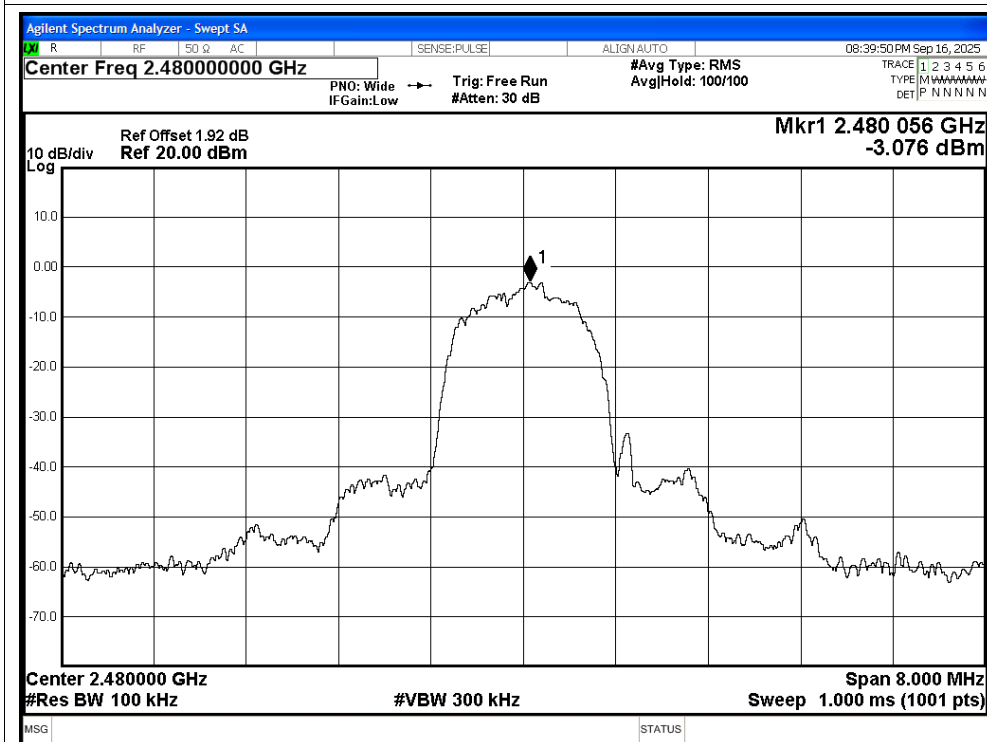
Band Edge NVNT 3-DH5 2402MHz Ant No-Hopping Ref



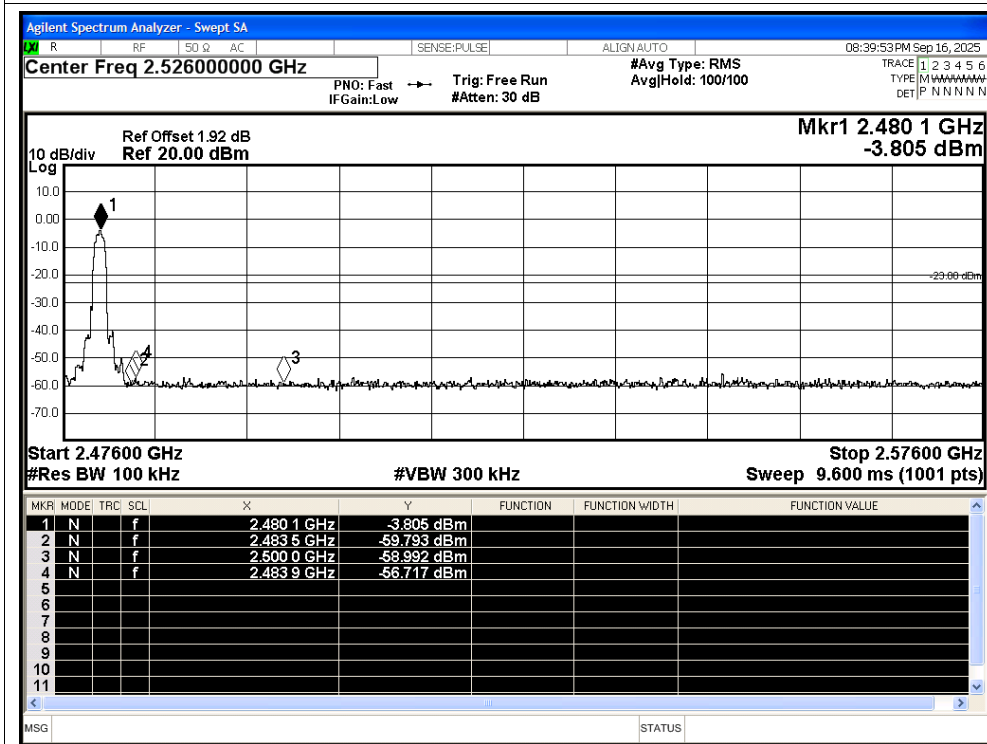
Band Edge NVNT 3-DH5 2402MHz Ant No-Hopping Emission



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



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

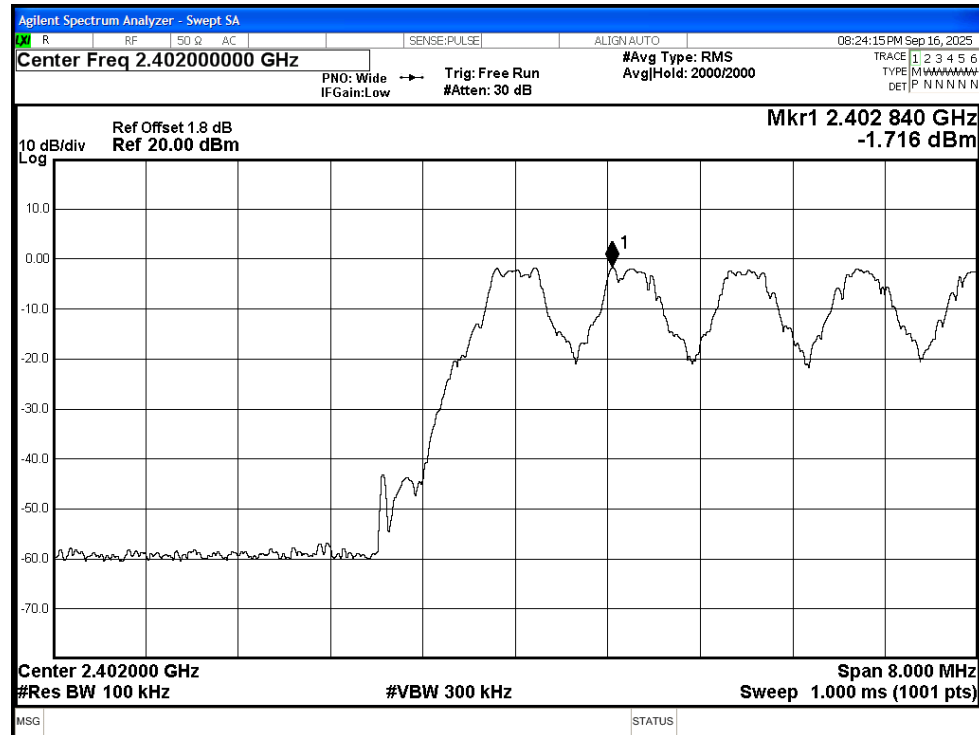


(Hopping)

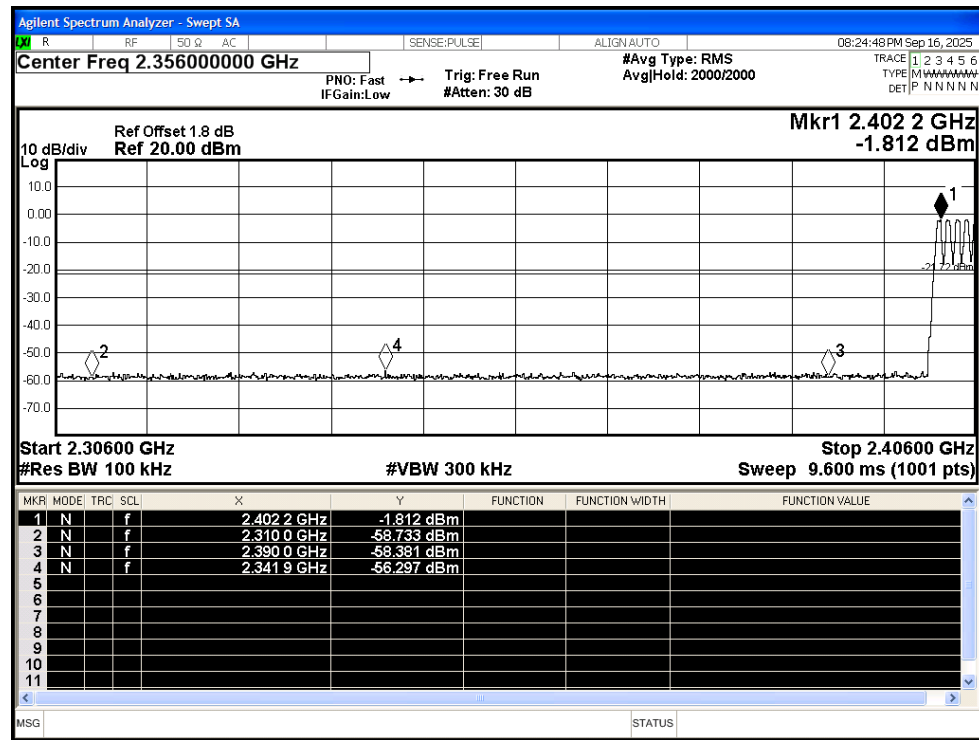
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant	Hopping	-54.58	-20	Pass
NVNT	1-DH5	2480	Ant	Hopping	-55.34	-20	Pass
NVNT	2-DH5	2402	Ant	Hopping	-51.4	-20	Pass
NVNT	2-DH5	2480	Ant	Hopping	-51.35	-20	Pass
NVNT	3-DH5	2402	Ant	Hopping	-52.01	-20	Pass
NVNT	3-DH5	2480	Ant	Hopping	-53.11	-20	Pass

Test Graphs

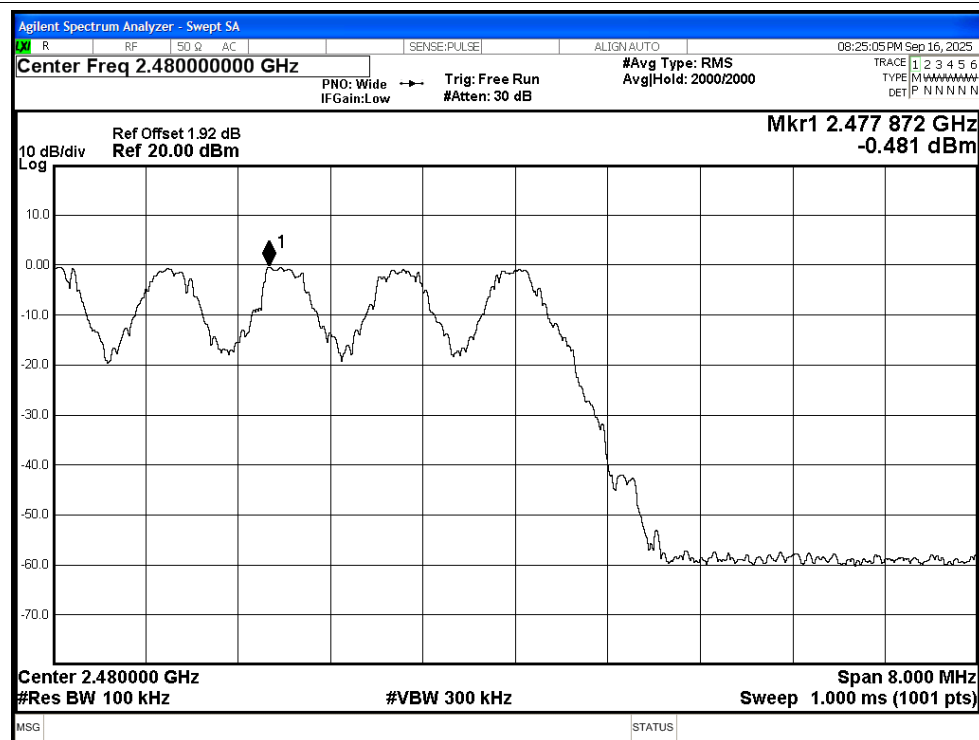
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant Hopping Ref



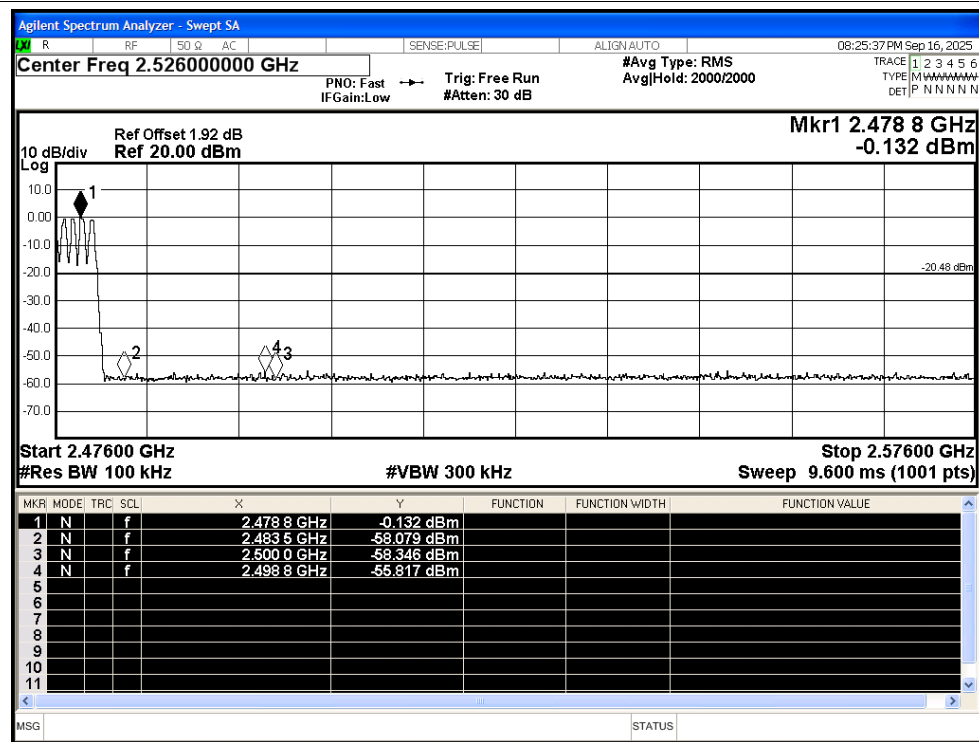
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant Hopping Emission

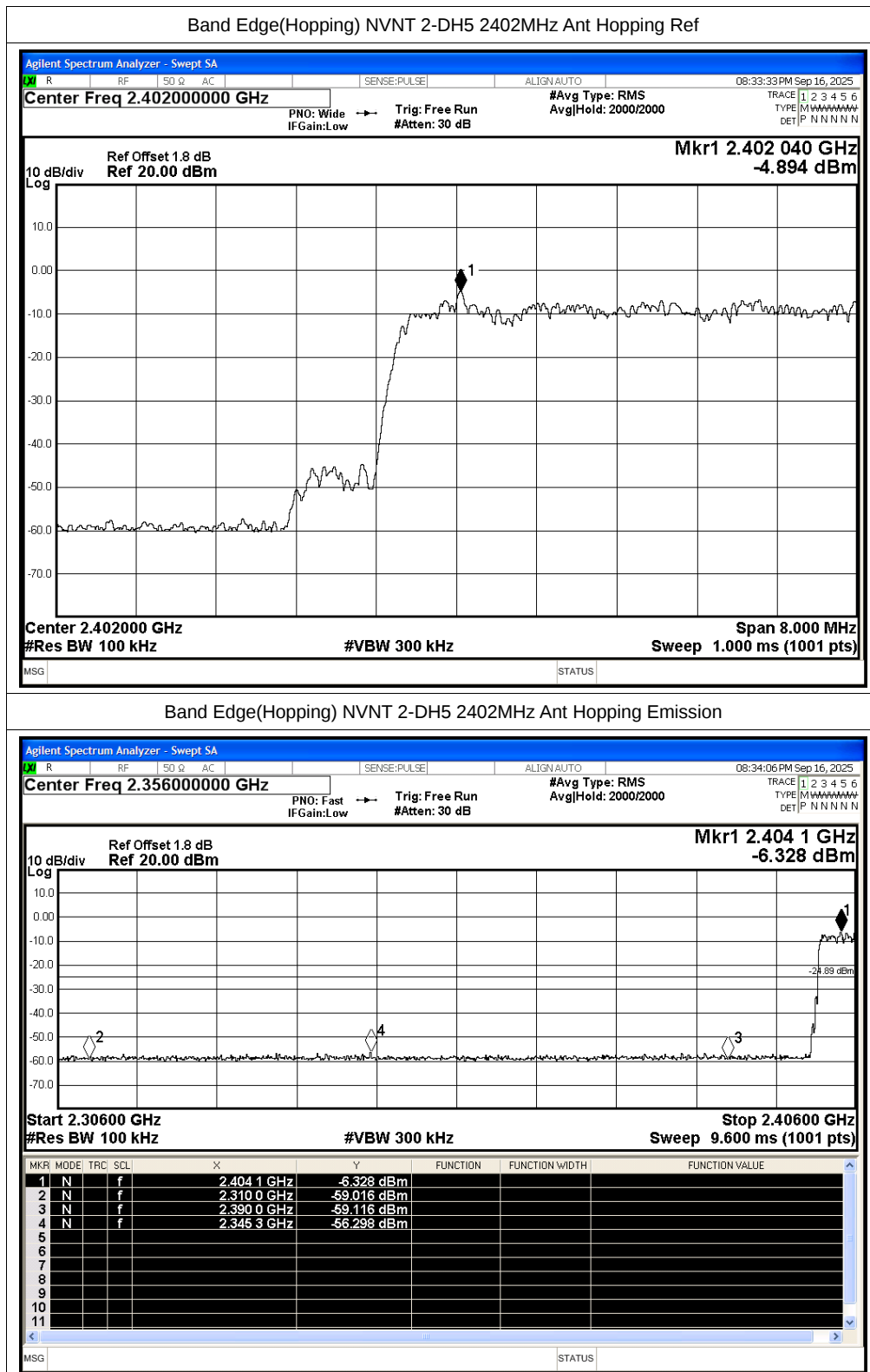


Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant Hopping Ref

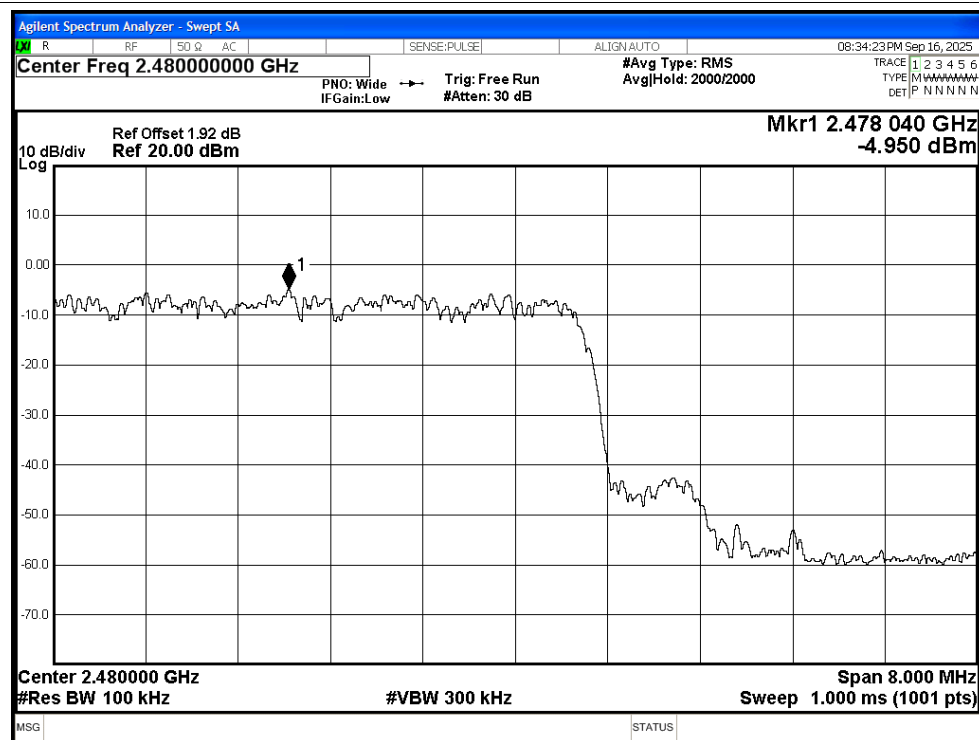


Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant Hopping Emission

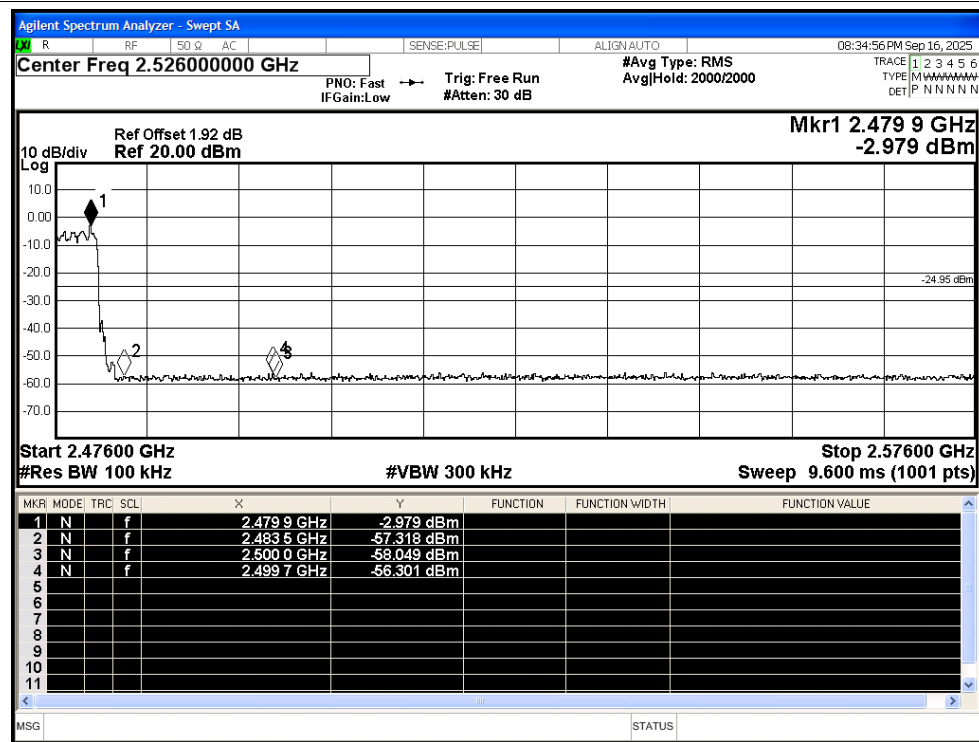




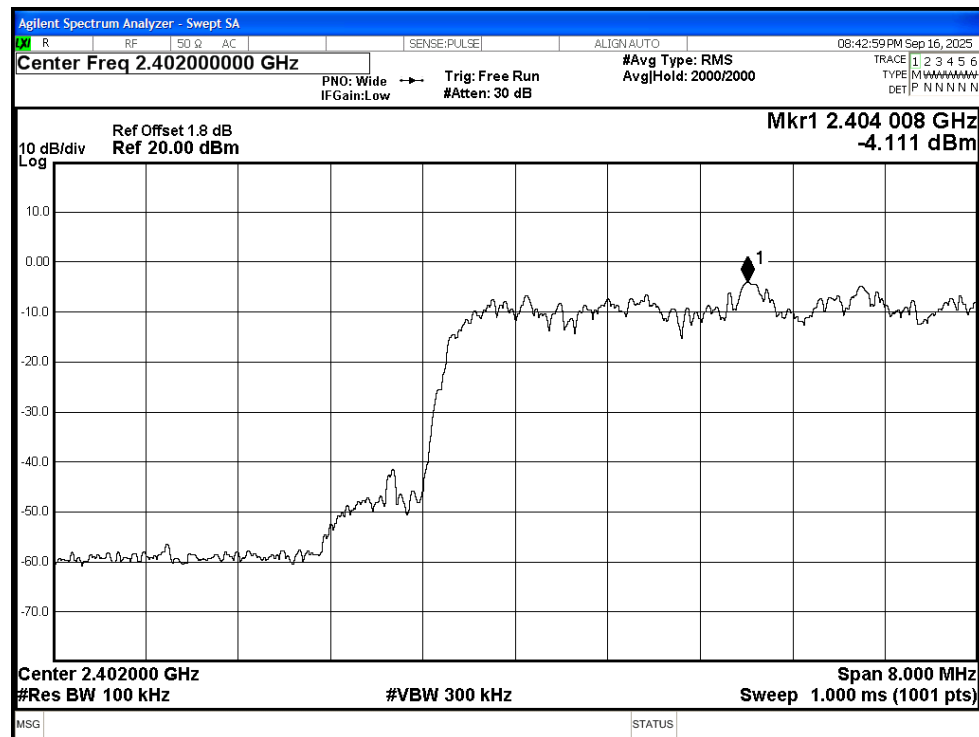
Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant Hopping Ref



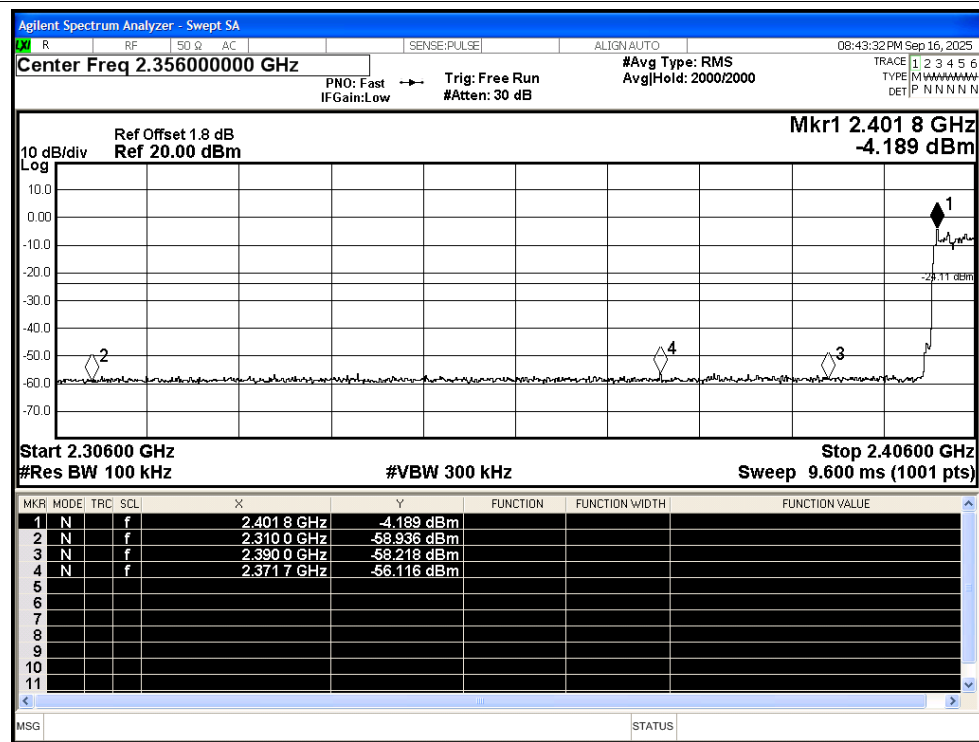
Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant Hopping Emission

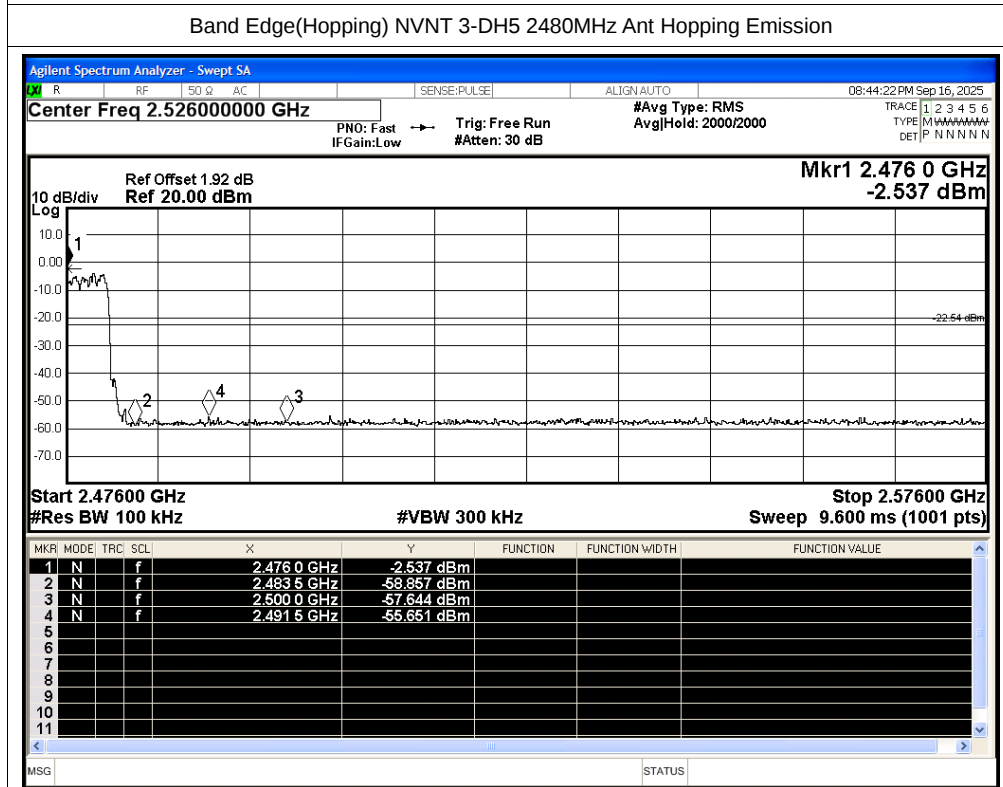
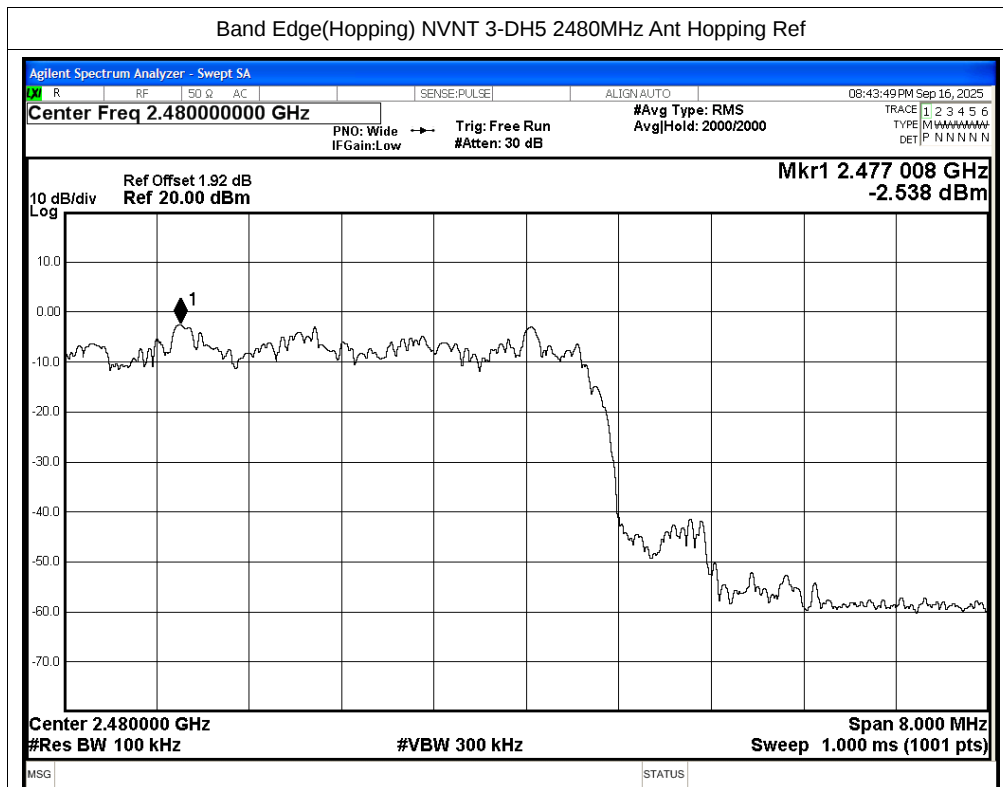


Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant Hopping Ref



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



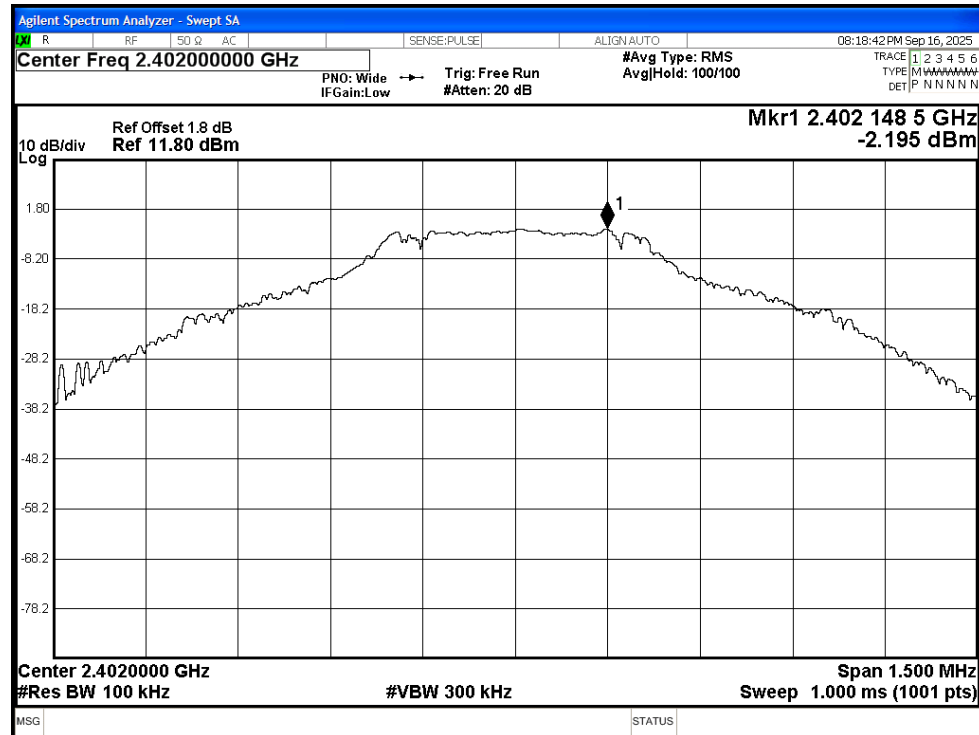


A.7 Conducted RF Spurious Emission

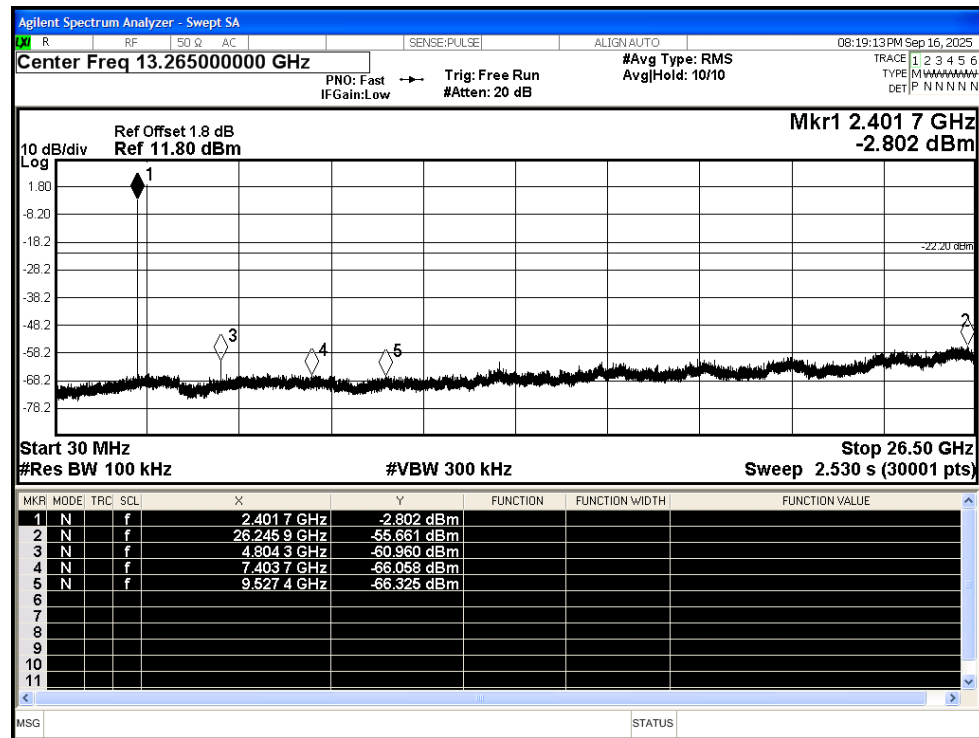
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant	-53.47	-20	Pass
NVNT	1-DH5	2441	Ant	-56.78	-20	Pass
NVNT	1-DH5	2480	Ant	-55.3	-20	Pass
NVNT	2-DH5	2402	Ant	-53.55	-20	Pass
NVNT	2-DH5	2441	Ant	-54.06	-20	Pass
NVNT	2-DH5	2480	Ant	-52.59	-20	Pass
NVNT	3-DH5	2402	Ant	-53.3	-20	Pass
NVNT	3-DH5	2441	Ant	-53.2	-20	Pass
NVNT	3-DH5	2480	Ant	-42.57	-20	Pass

Test Graphs

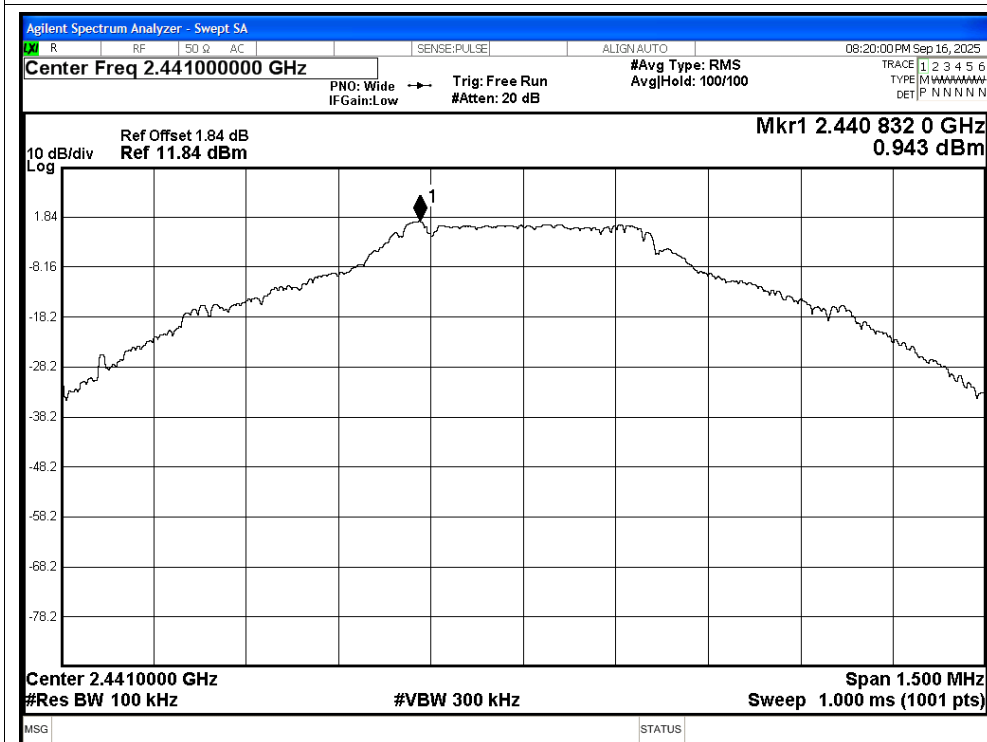
Tx. Spurious NVNT 1-DH5 2402MHz Ant Ref



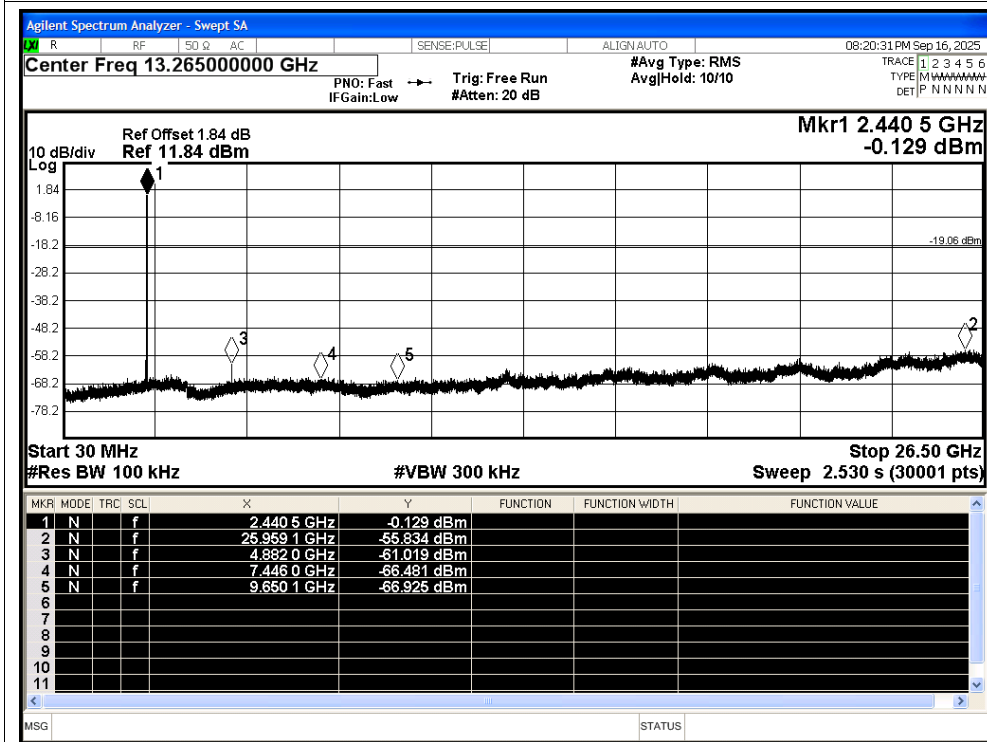
Tx. Spurious NVNT 1-DH5 2402MHz Ant Emission



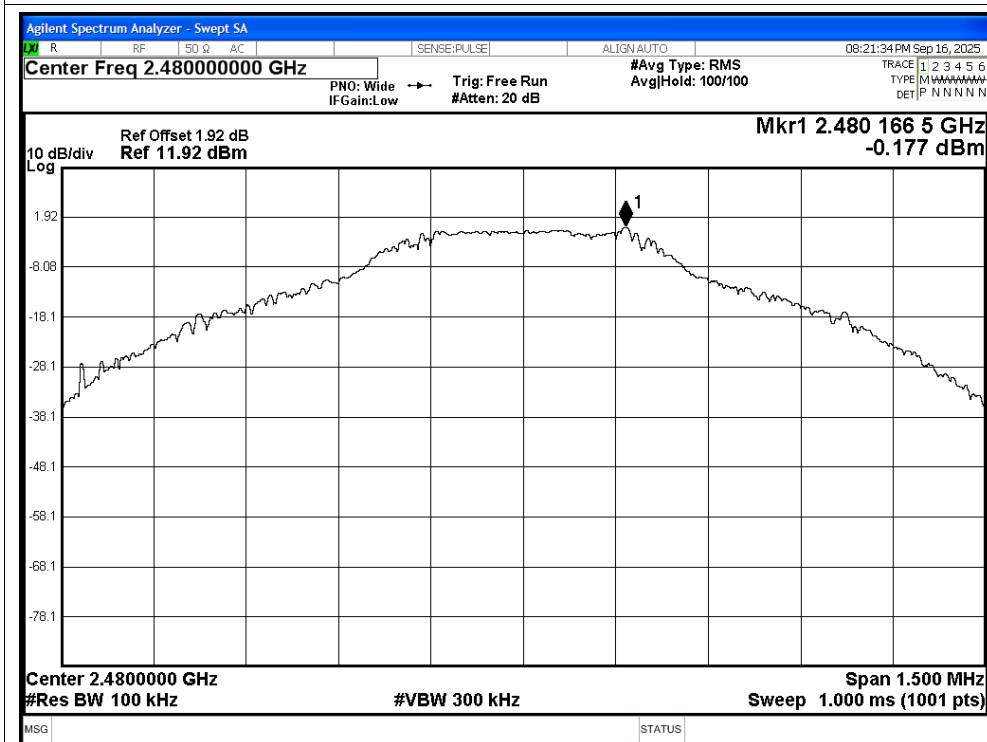
Tx. Spurious NVNT 1-DH5 2441MHz Ant Ref



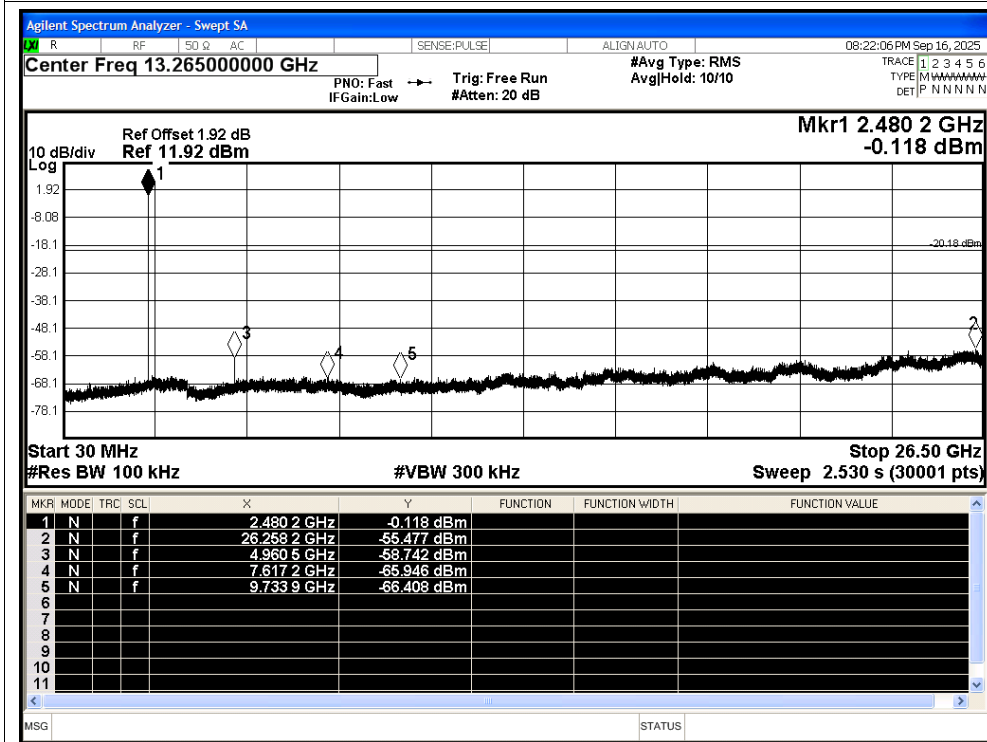
Tx. Spurious NVNT 1-DH5 2441MHz Ant Emission



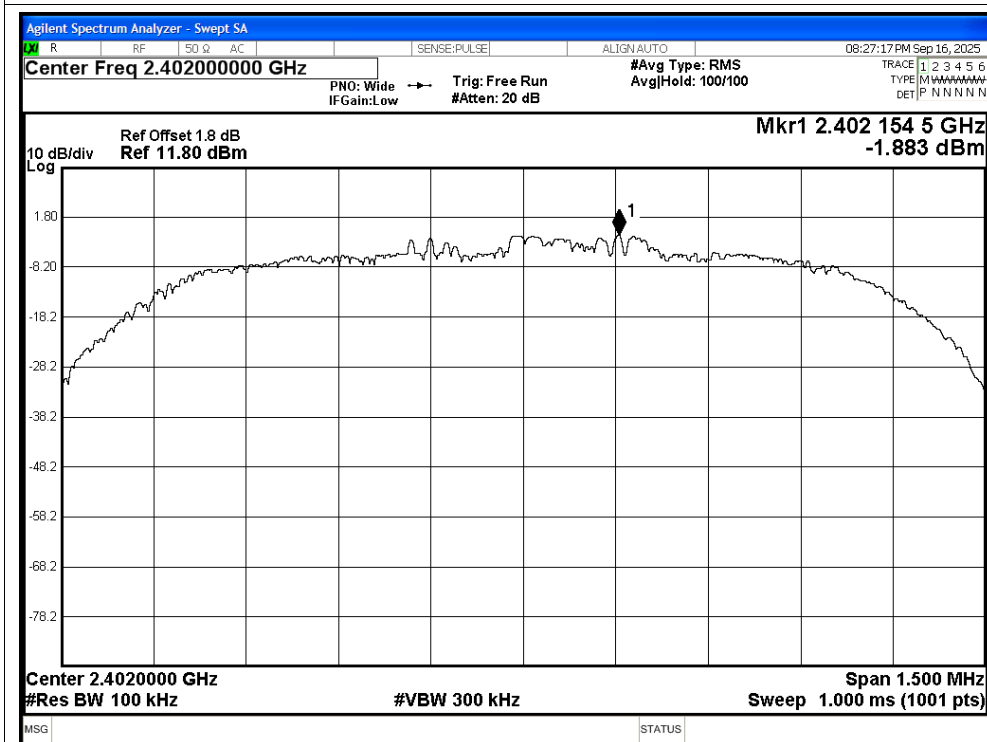
Tx. Spurious NVNT 1-DH5 2480MHz Ant Ref



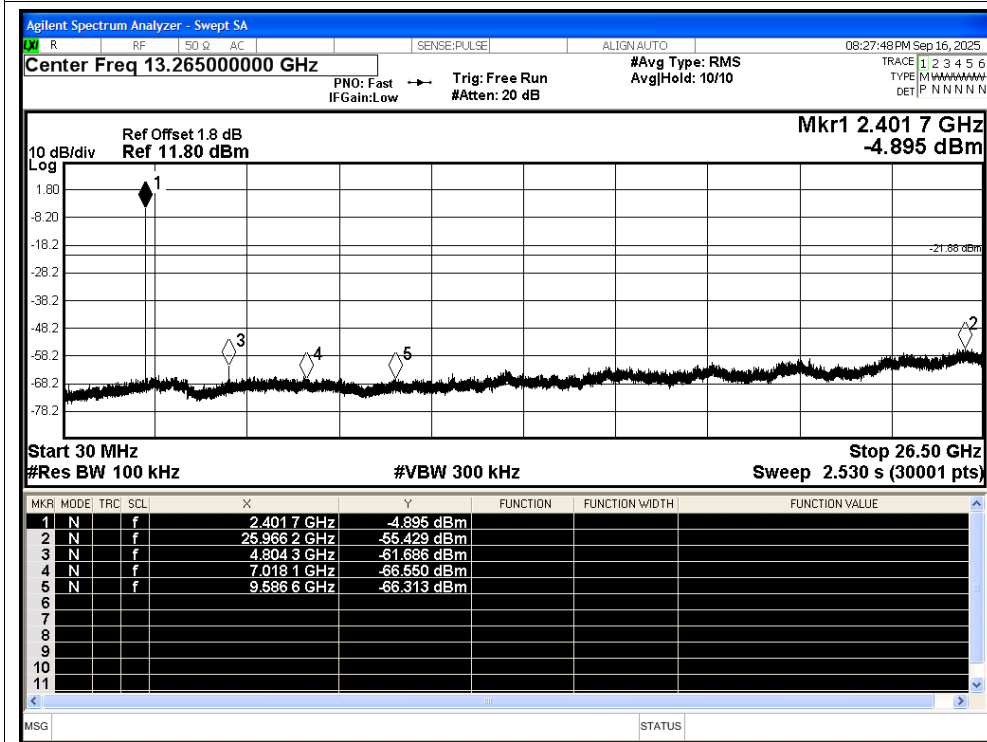
Tx. Spurious NVNT 1-DH5 2480MHz Ant Emission



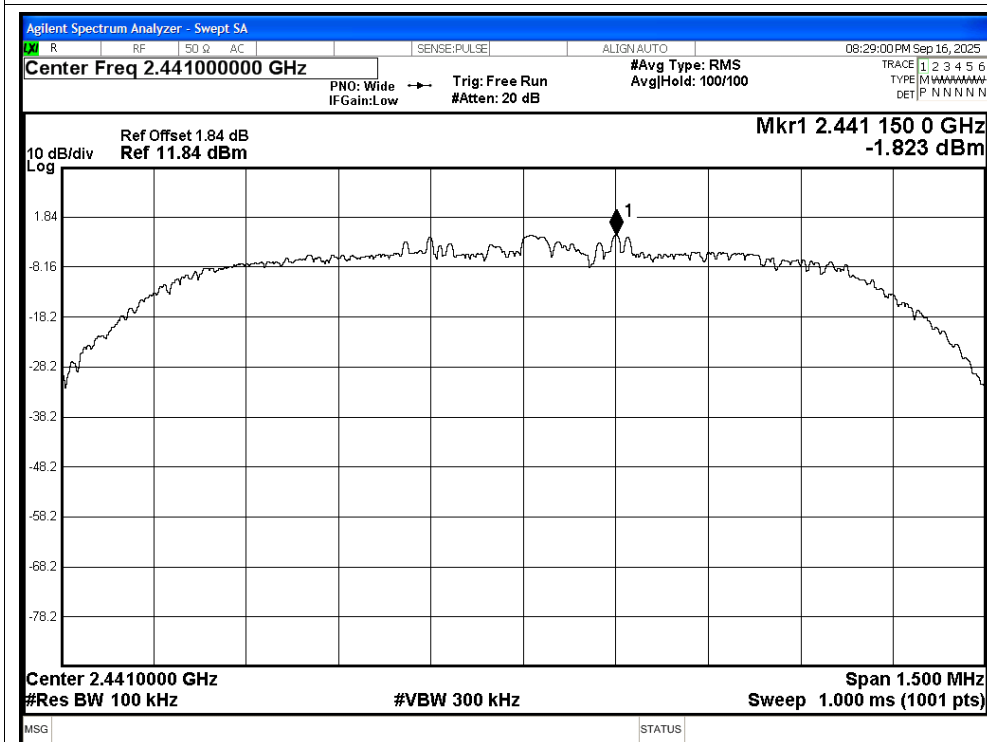
Tx. Spurious NVNT 2-DH5 2402MHz Ant Ref



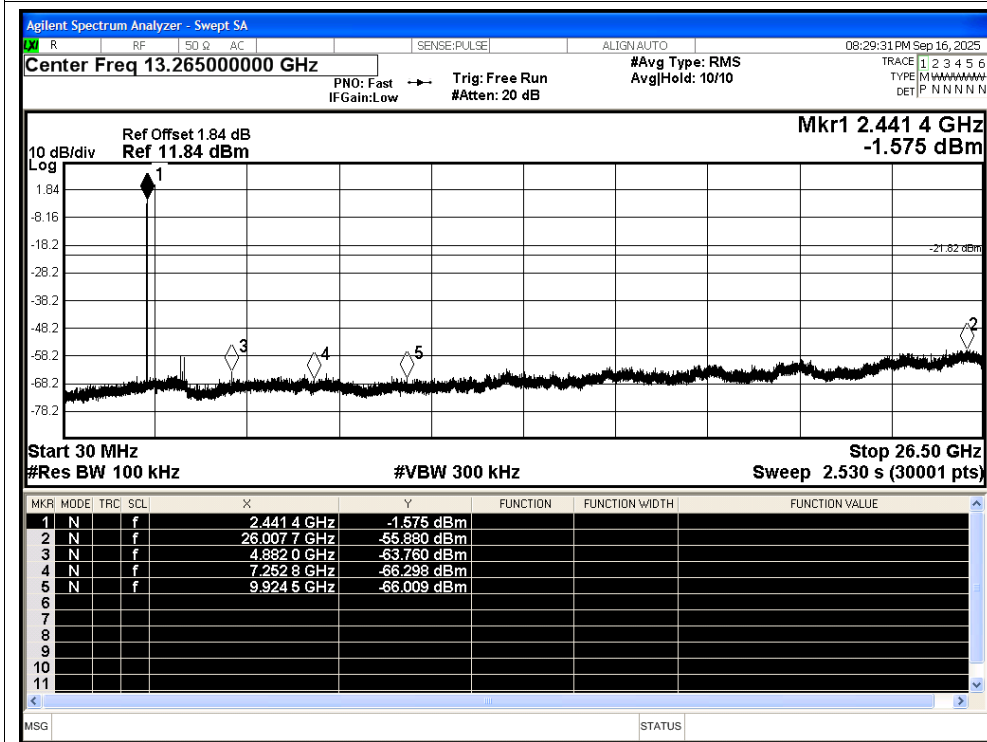
Tx. Spurious NVNT 2-DH5 2402MHz Ant Emission



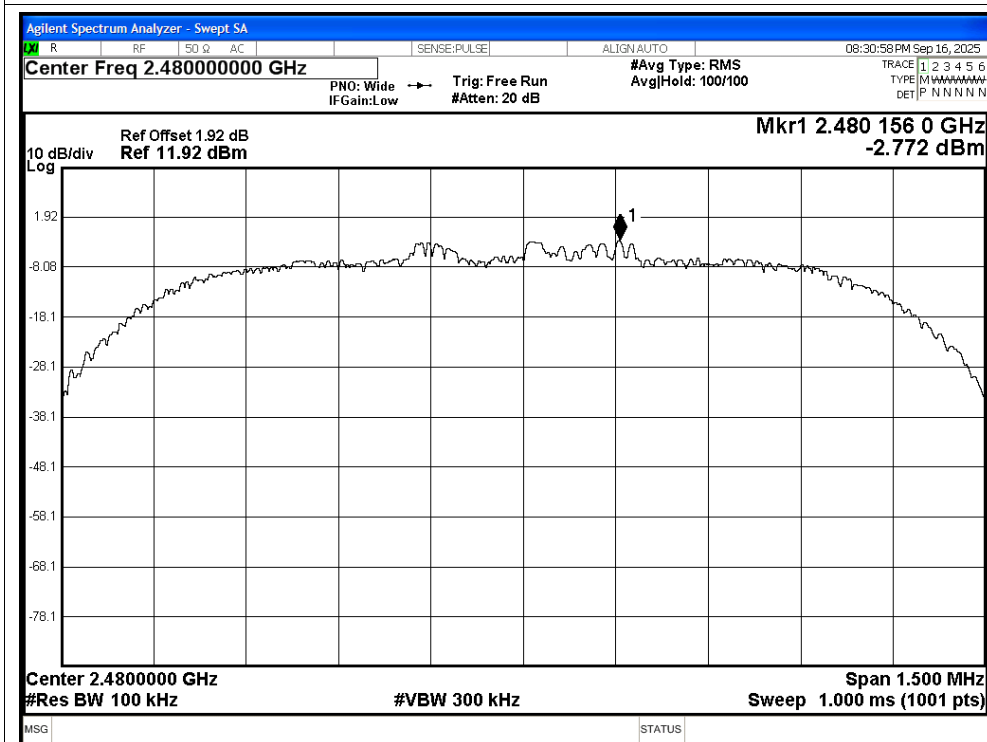
Tx. Spurious NVNT 2-DH5 2441MHz Ant Ref



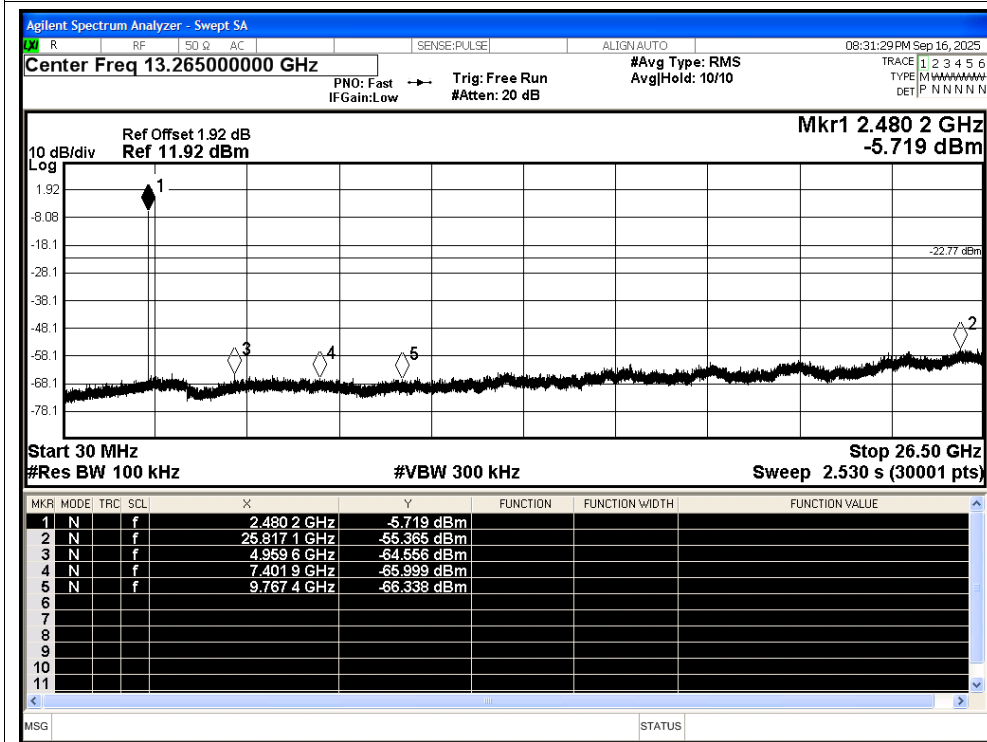
Tx. Spurious NVNT 2-DH5 2441MHz Ant Emission



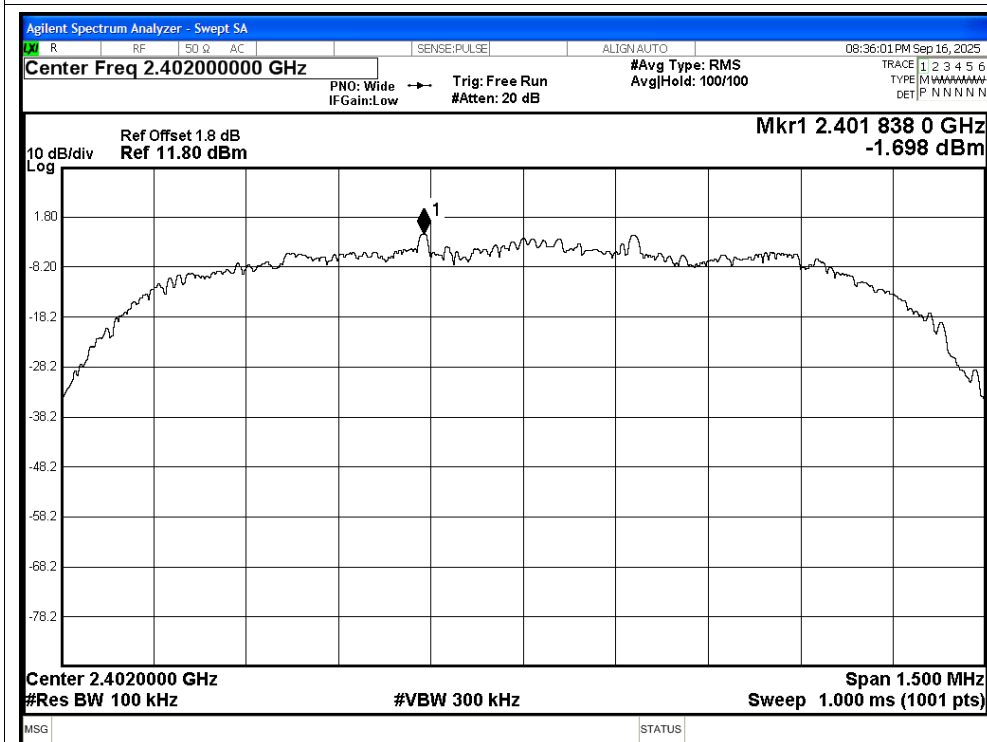
Tx. Spurious NVNT 2-DH5 2480MHz Ant Ref



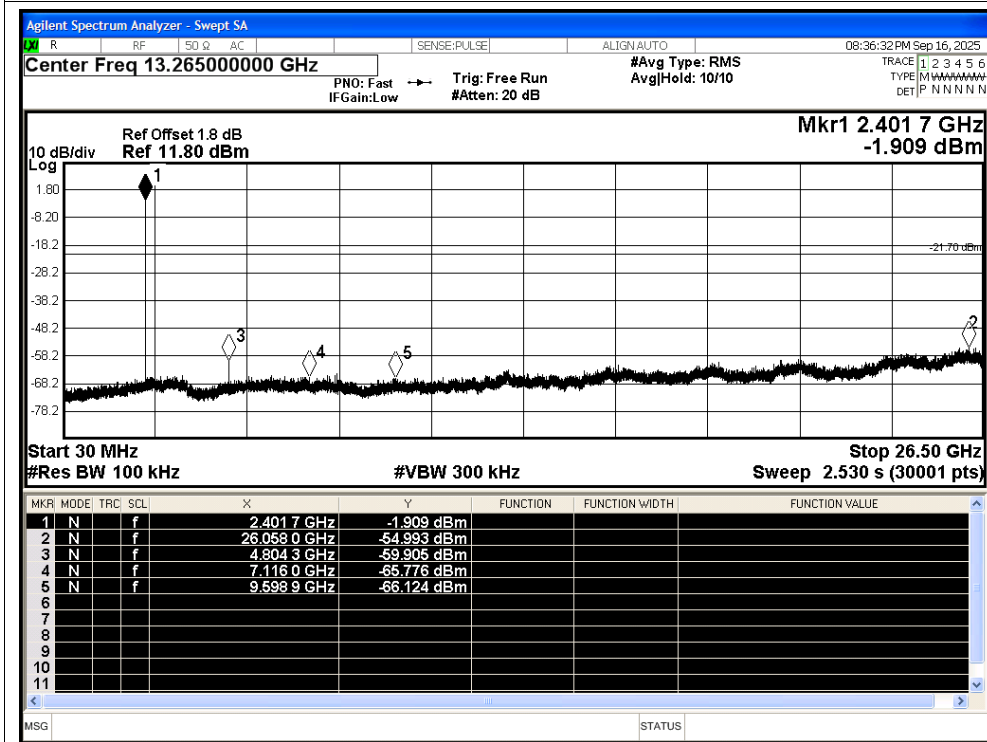
Tx. Spurious NVNT 2-DH5 2480MHz Ant Emission



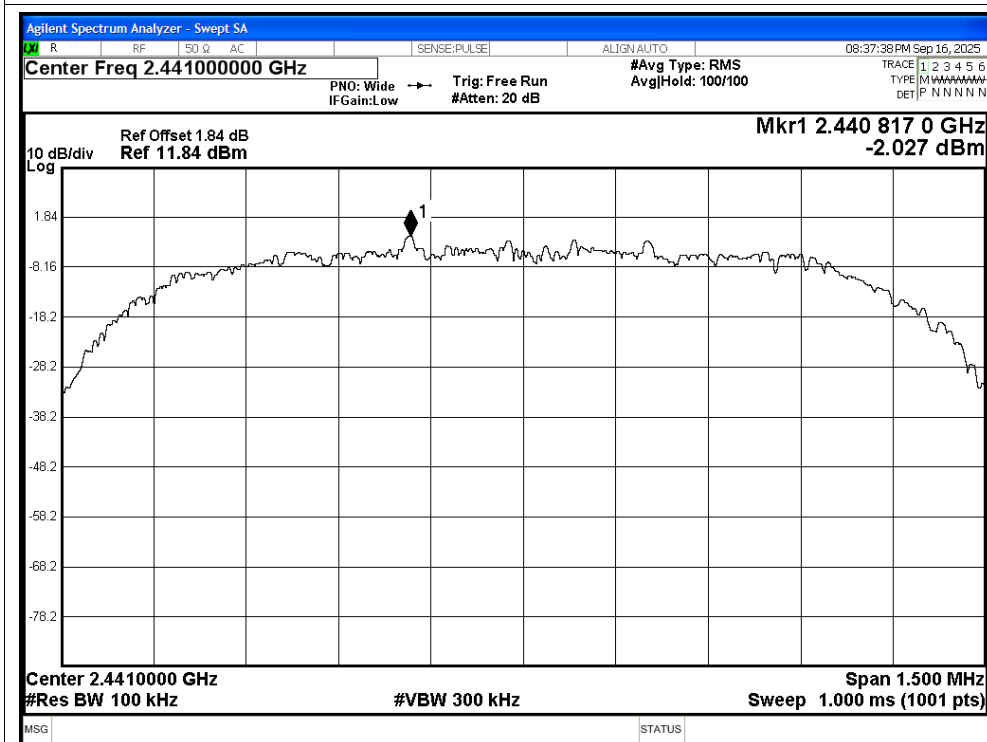
Tx. Spurious NVNT 3-DH5 2402MHz Ant Ref



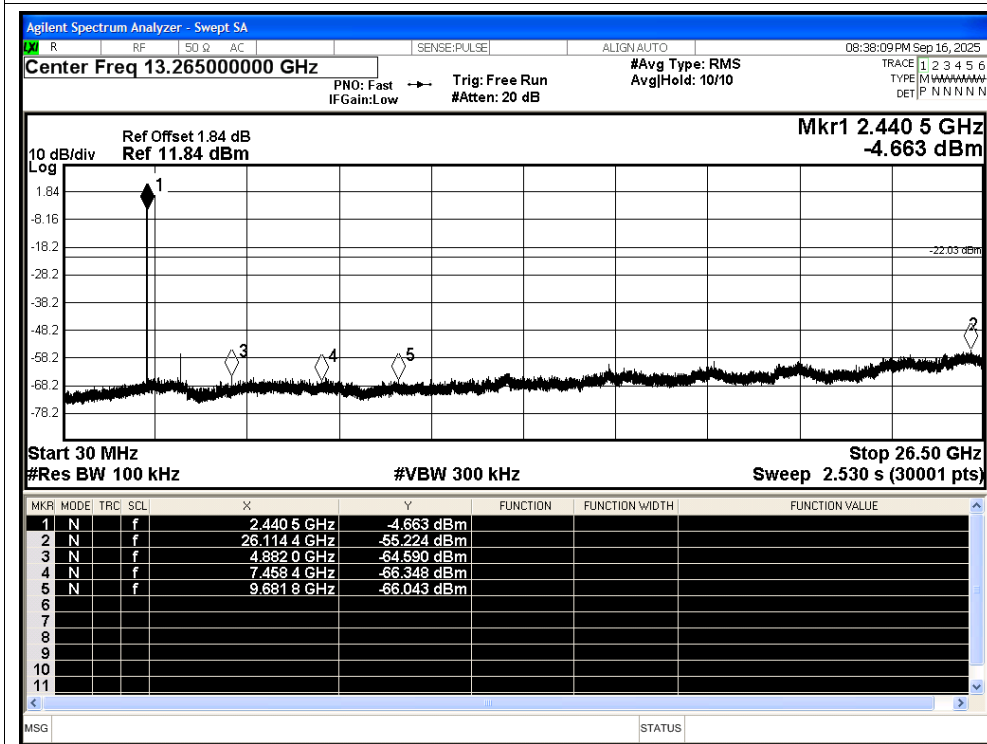
Tx. Spurious NVNT 3-DH5 2402MHz Ant Emission



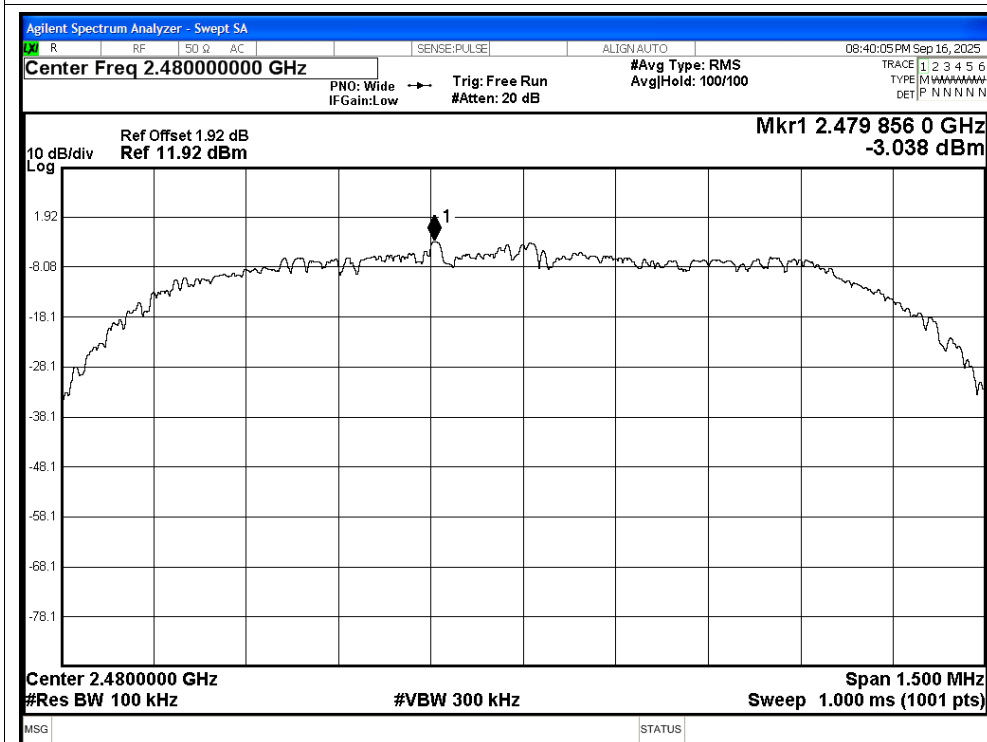
Tx. Spurious NVNT 3-DH5 2441MHz Ant Ref



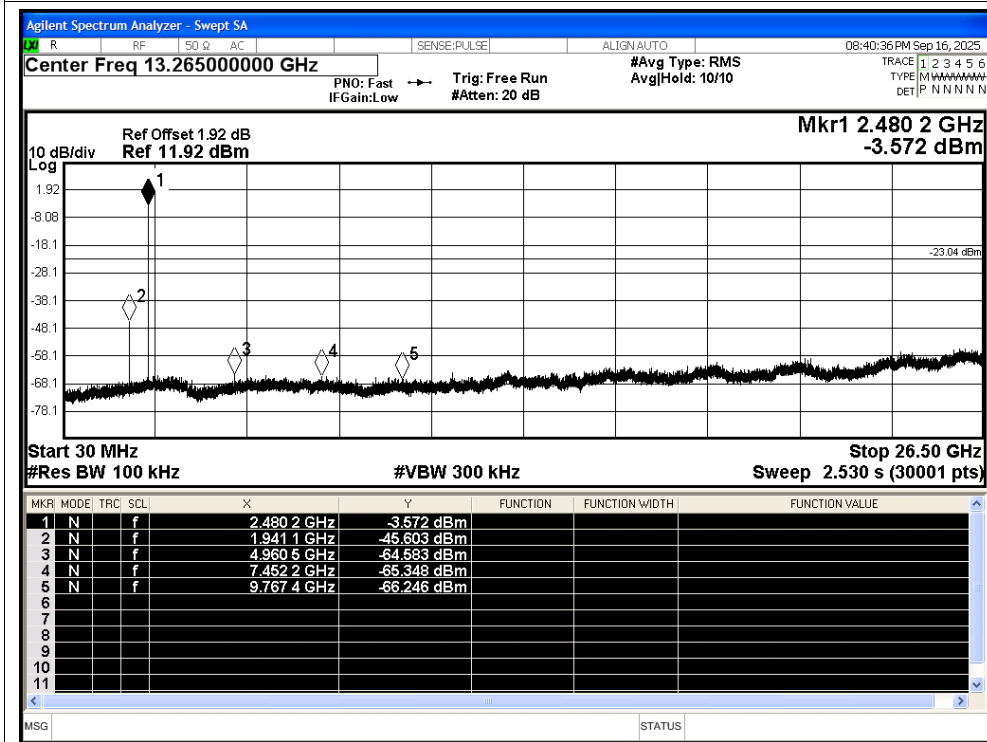
Tx. Spurious NVNT 3-DH5 2441MHz Ant Emission



Tx. Spurious NVNT 3-DH5 2480MHz Ant Ref



Tx. Spurious NVNT 3-DH5 2480MHz Ant Emission

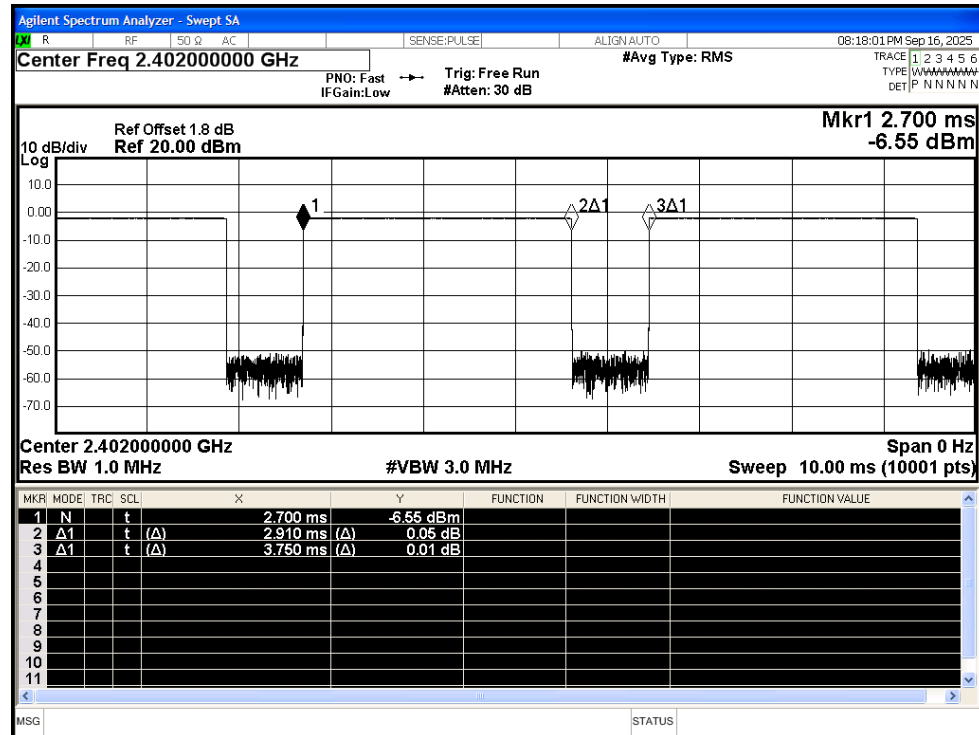


A.8 Duty Cycle

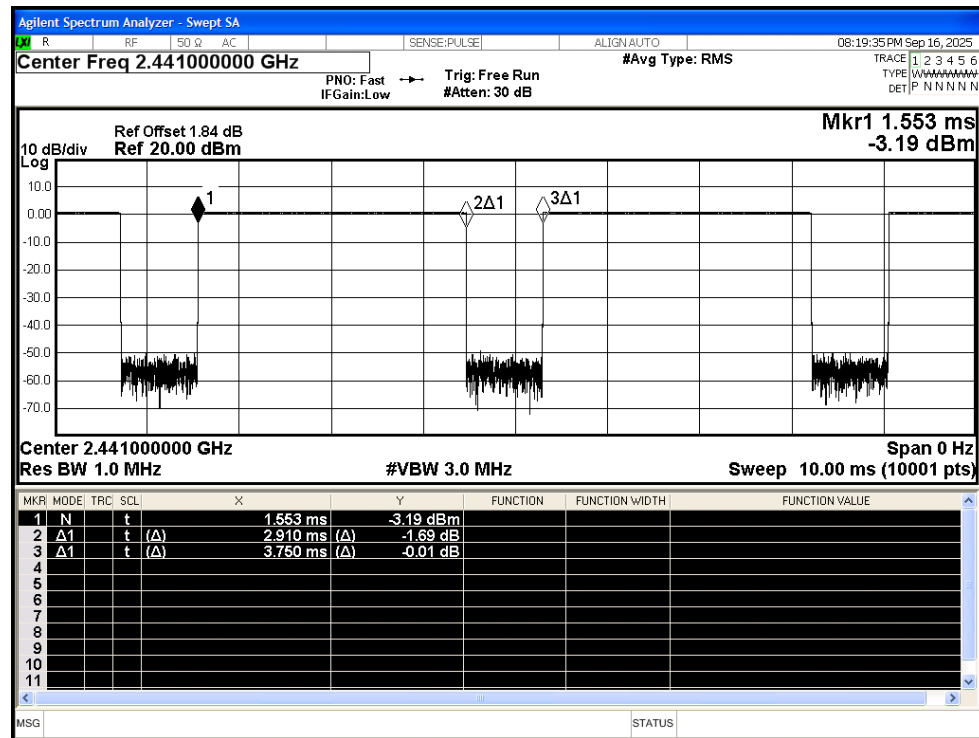
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH5	2402	Ant	77.6	1.1	0.34
NVNT	1-DH5	2441	Ant	77.6	1.1	0.34
NVNT	1-DH5	2480	Ant	77.6	1.1	0.34
NVNT	2-DH5	2402	Ant	77.28	1.12	0.35
NVNT	2-DH5	2441	Ant	77.28	1.12	0.35
NVNT	2-DH5	2480	Ant	77.28	1.12	0.35
NVNT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

Test Graphs

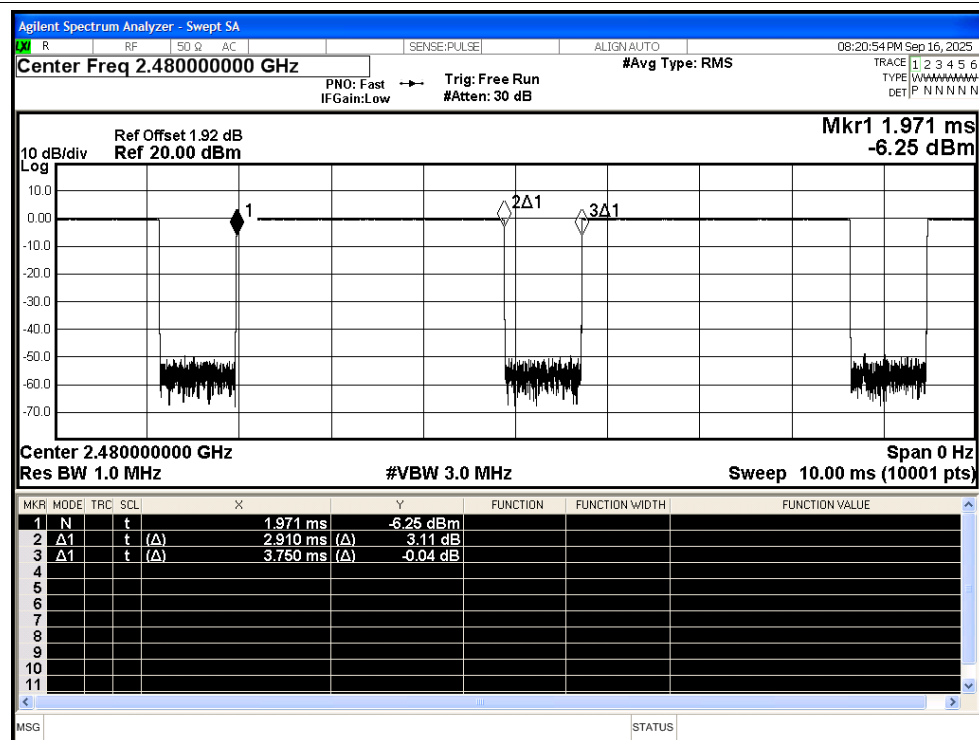
Duty Cycle NVNT 1-DH5 2402MHz Ant



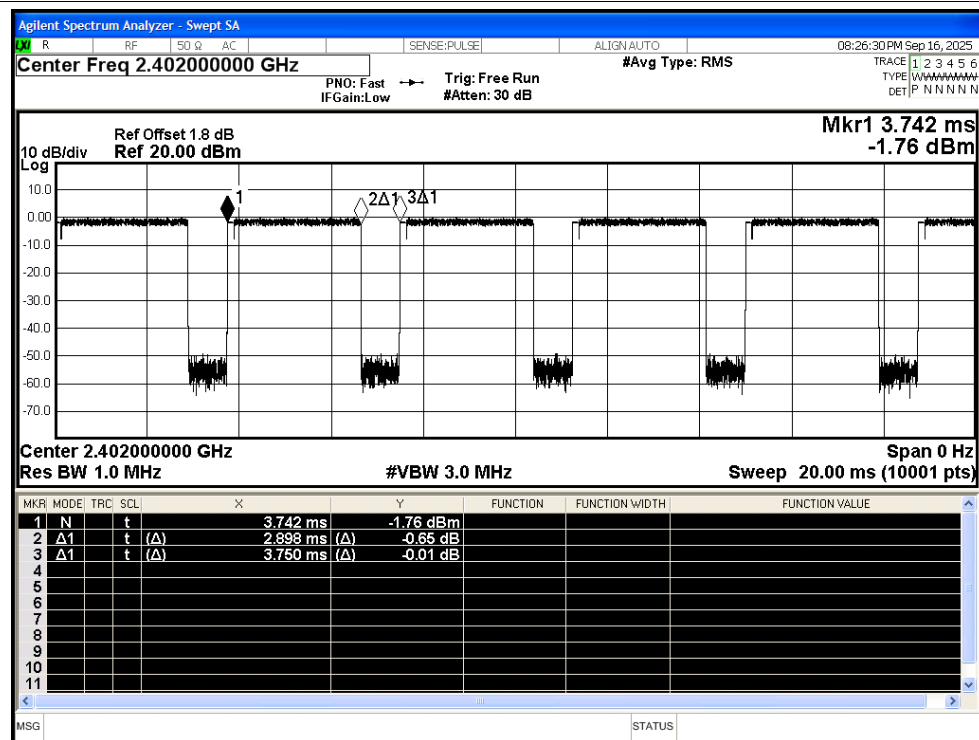
Duty Cycle NVNT 1-DH5 2441MHz Ant



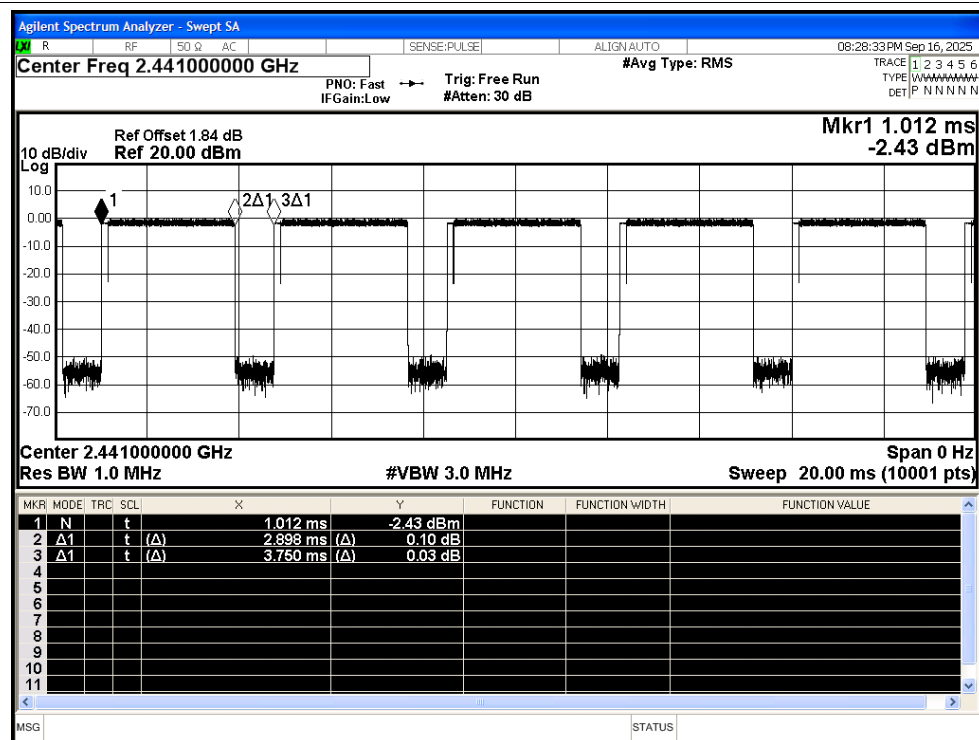
Duty Cycle NVNT 1-DH5 2480MHz Ant



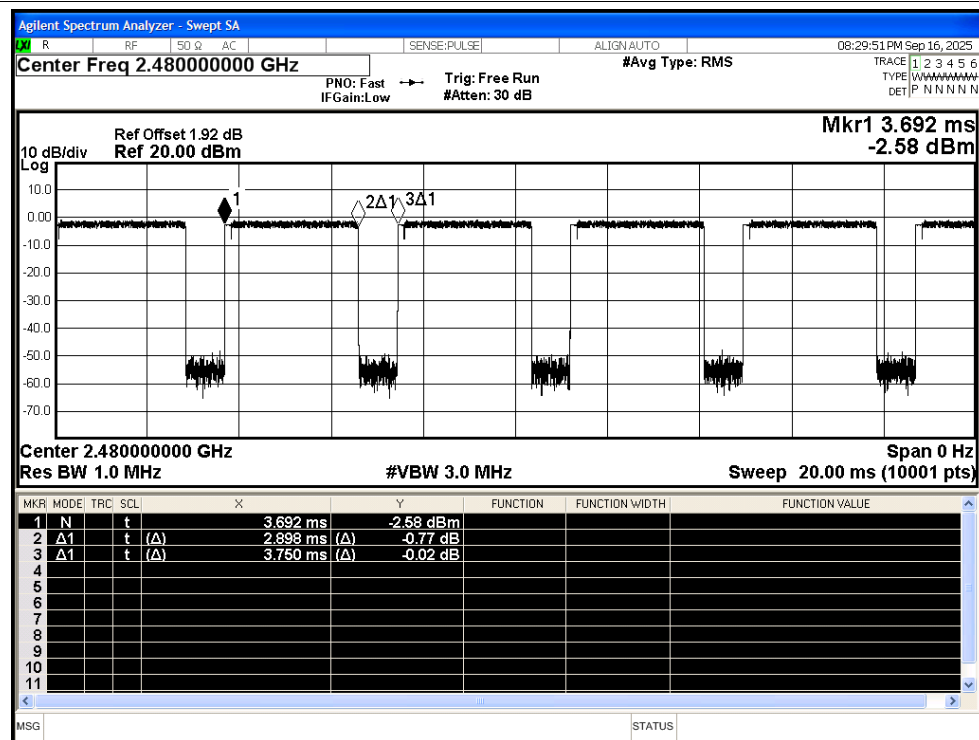
Duty Cycle NVNT 2-DH5 2402MHz Ant



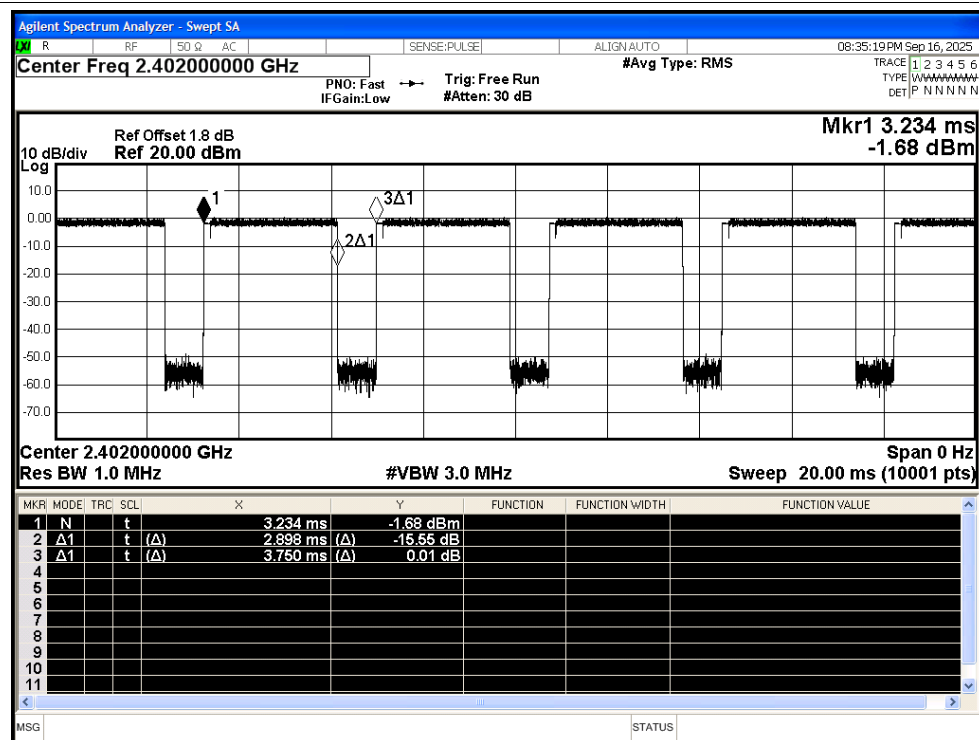
Duty Cycle NVNT 2-DH5 2441MHz Ant



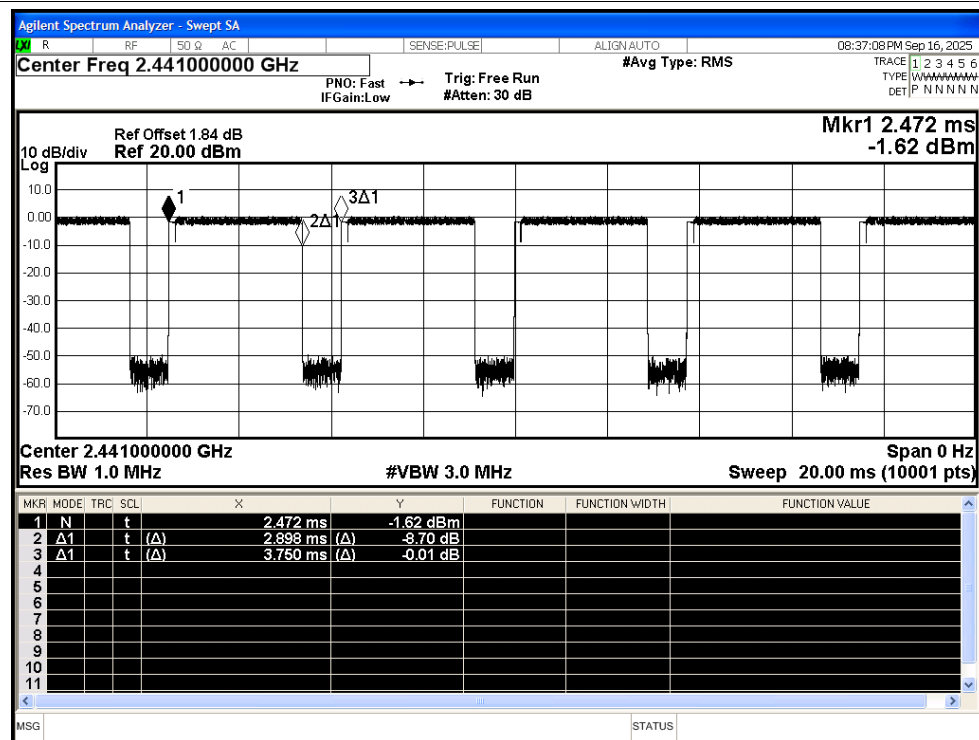
Duty Cycle NVNT 2-DH5 2480MHz Ant

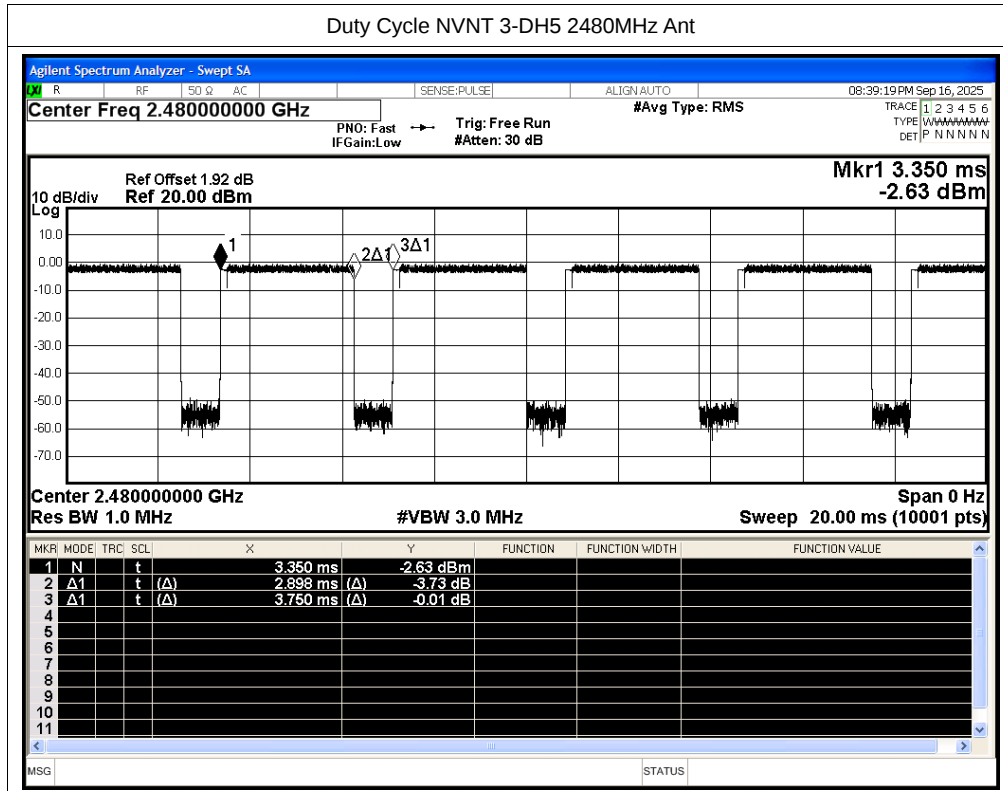


Duty Cycle NVNT 3-DH5 2402MHz Ant



Duty Cycle NVNT 3-DH5 2441MHz Ant



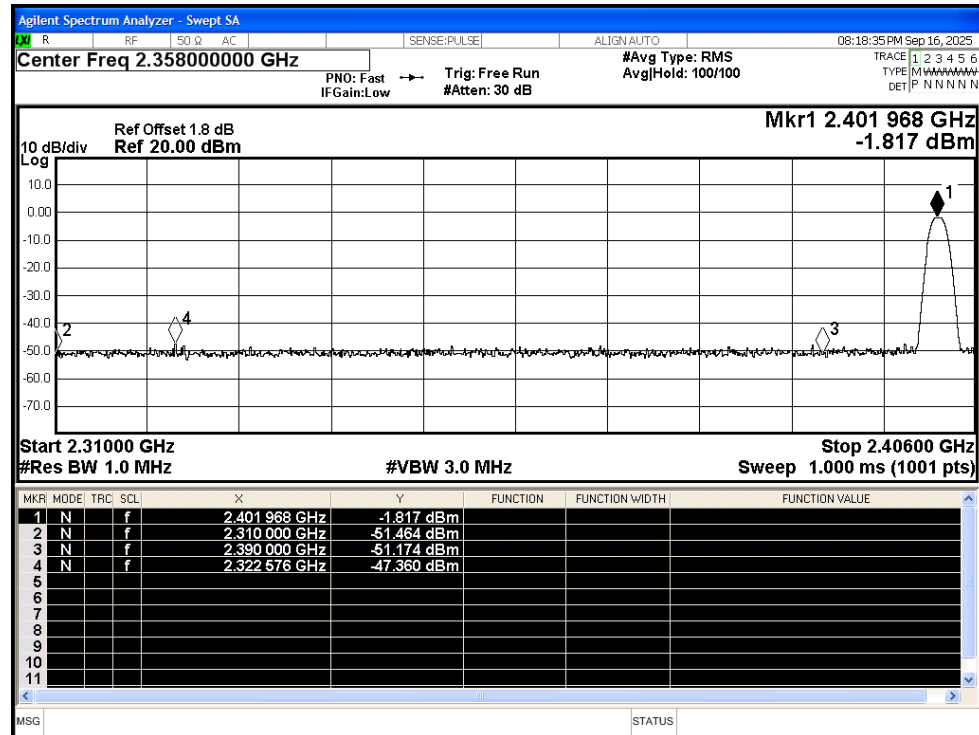


A.9 Restrict Band

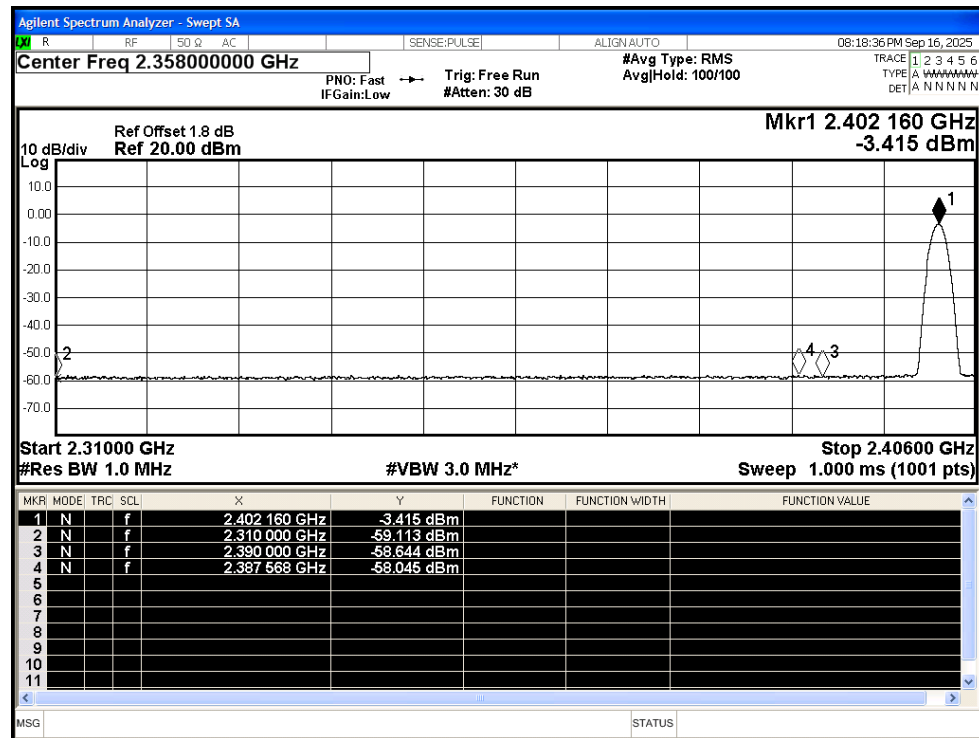
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH5	2402	Ant	No-Hopping	2310	-51.46	2	-	45.8	Peak	74	Pass
NVNT	1-DH5	2402	Ant	No-Hopping	2310	-59.11	2	1.1	39.25	Average	54	Pass
NVNT	1-DH5	2402	Ant	No-Hopping	2322.576	-47.36	2	-	49.9	Peak	74	Pass
NVNT	1-DH5	2402	Ant	No-Hopping	2387.568	-58.05	2	1.1	40.31	Average	54	Pass
NVNT	1-DH5	2402	Ant	No-Hopping	2390	-51.17	2	-	46.09	Peak	74	Pass
NVNT	1-DH5	2402	Ant	No-Hopping	2390	-58.64	2	1.1	39.72	Average	54	Pass
NVNT	1-DH5	2480	Ant	No-Hopping	2483.5	-47.73	2	-	49.53	Peak	74	Pass
NVNT	1-DH5	2480	Ant	No-Hopping	2483.5	-57.73	2	1.1	40.63	Average	54	Pass
NVNT	1-DH5	2480	Ant	No-Hopping	2485.336	-45.14	2	-	52.12	Peak	74	Pass
NVNT	1-DH5	2480	Ant	No-Hopping	2484.04	-57.32	2	1.1	41.04	Average	54	Pass
NVNT	1-DH5	2480	Ant	No-Hopping	2500	-49.86	2	-	47.4	Peak	74	Pass
NVNT	1-DH5	2480	Ant	No-Hopping	2500	-58.54	2	1.1	39.82	Average	54	Pass
NVNT	2-DH5	2402	Ant	No-Hopping	2310	-52.55	2	-	44.71	Peak	74	Pass
NVNT	2-DH5	2402	Ant	No-Hopping	2310	-58.34	2	1.12	40.04	Average	54	Pass
NVNT	2-DH5	2402	Ant	No-Hopping	2337.072	-47.68	2	-	49.58	Peak	74	Pass
NVNT	2-DH5	2402	Ant	No-Hopping	2377.296	-58.04	2	1.12	40.34	Average	54	Pass
NVNT	2-DH5	2402	Ant	No-Hopping	2390	-50.03	2	-	47.23	Peak	74	Pass
NVNT	2-DH5	2402	Ant	No-Hopping	2390	-58.72	2	1.12	39.66	Average	54	Pass
NVNT	2-DH5	2480	Ant	No-Hopping	2483.5	-49.94	2	-	47.32	Peak	74	Pass
NVNT	2-DH5	2480	Ant	No-Hopping	2483.5	-58.43	2	1.12	39.95	Average	54	Pass
NVNT	2-DH5	2480	Ant	No-Hopping	2499.736	-46.98	2	-	50.28	Peak	74	Pass
NVNT	2-DH5	2480	Ant	No-Hopping	2483.824	-57.23	2	1.12	41.15	Average	54	Pass
NVNT	2-DH5	2480	Ant	No-Hopping	2500	-51.06	2	-	46.2	Peak	74	Pass
NVNT	2-DH5	2480	Ant	No-Hopping	2500	-58.66	2	1.12	39.72	Average	54	Pass
NVNT	3-DH5	2402	Ant	No-Hopping	2310	-49.97	2	-	47.29	Peak	74	Pass
NVNT	3-DH5	2402	Ant	No-Hopping	2310	-58.79	2	1.12	39.59	Average	54	Pass
NVNT	3-DH5	2402	Ant	No-Hopping	2350.704	-48.06	2	-	49.2	Peak	74	Pass
NVNT	3-DH5	2402	Ant	No-Hopping	2366.832	-57.95	2	1.12	40.43	Average	54	Pass
NVNT	3-DH5	2402	Ant	No-Hopping	2390	-50.19	2	-	47.07	Peak	74	Pass
NVNT	3-DH5	2402	Ant	No-Hopping	2390	-59.1	2	1.12	39.28	Average	54	Pass
NVNT	3-DH5	2480	Ant	No-Hopping	2483.5	-50.11	2	-	47.15	Peak	74	Pass
NVNT	3-DH5	2480	Ant	No-Hopping	2483.5	-57.68	2	1.12	40.7	Average	54	Pass
NVNT	3-DH5	2480	Ant	No-Hopping	2484.592	-44.87	2	-	52.39	Peak	74	Pass
NVNT	3-DH5	2480	Ant	No-Hopping	2497.264	-57.24	2	1.12	41.14	Average	54	Pass
NVNT	3-DH5	2480	Ant	No-Hopping	2500	-49.85	2	-	47.41	Peak	74	Pass
NVNT	3-DH5	2480	Ant	No-Hopping	2500	-58.28	2	1.12	40.1	Average	54	Pass

Test Graphs

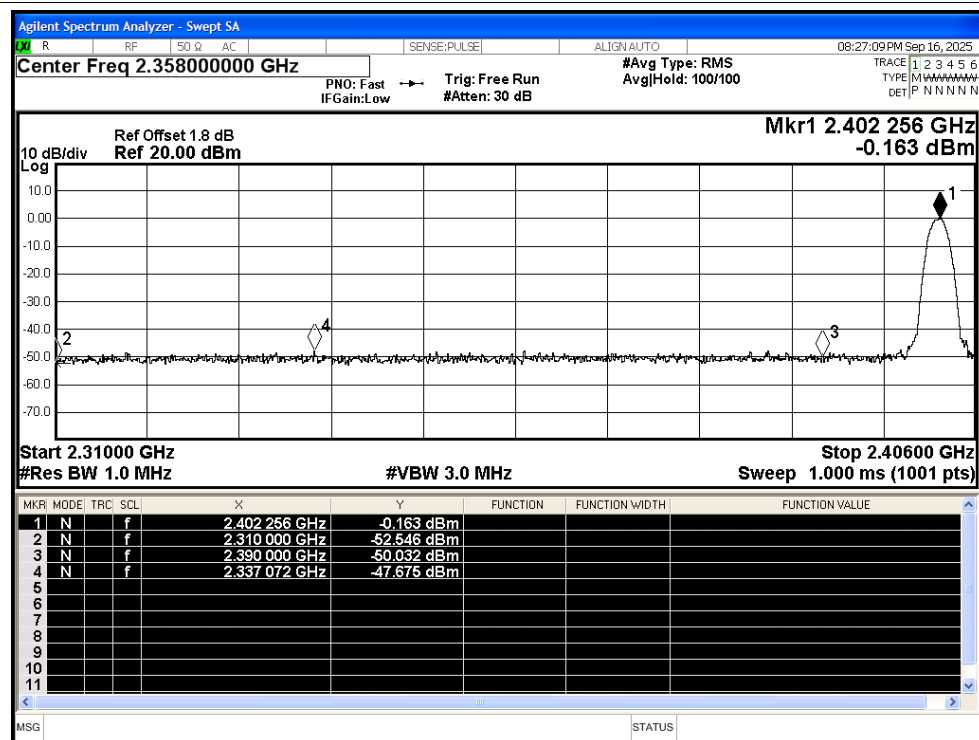
Restrict Band NVNT 1-DH5 2402MHz Ant No-Hopping Peak



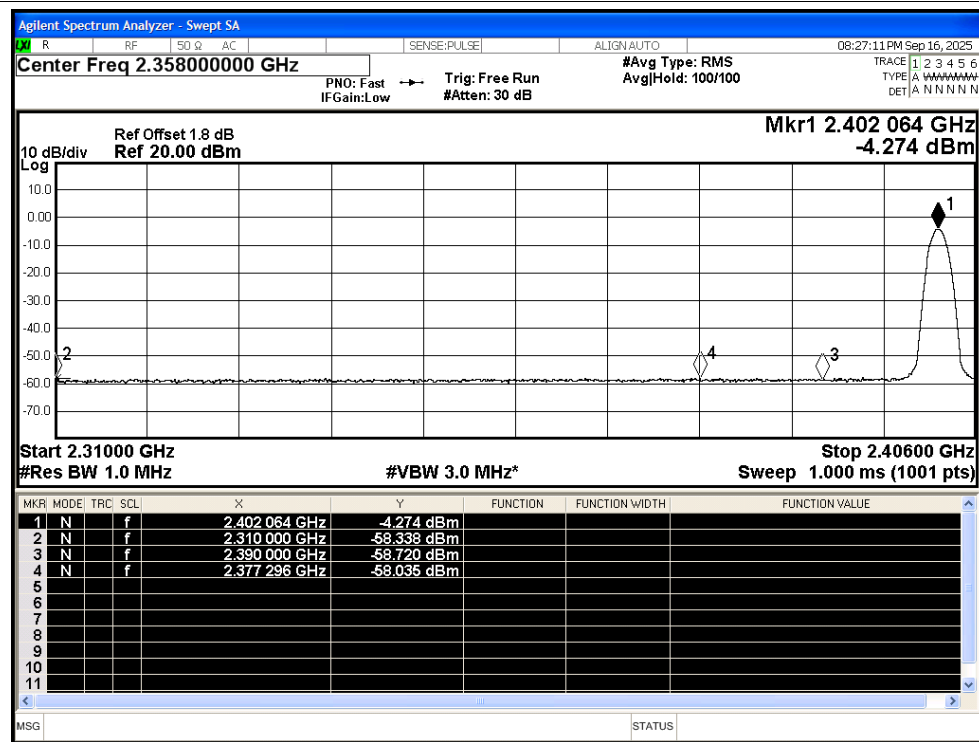
Restrict Band NVNT 1-DH5 2402MHz Ant No-Hopping Average



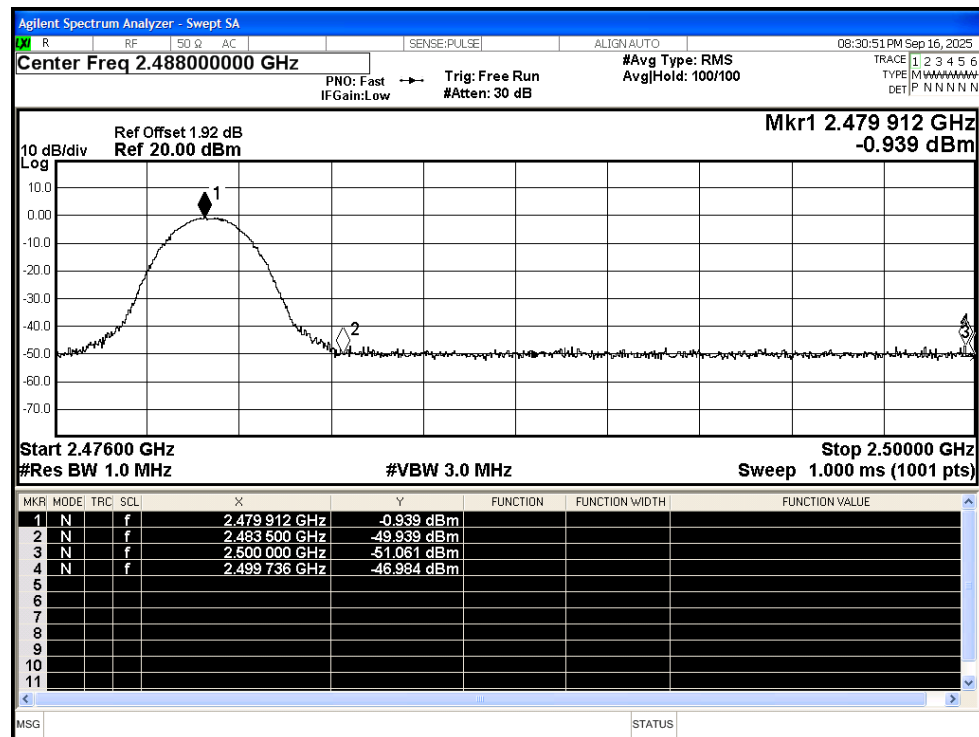
Restrict Band NVNT 2-DH5 2402MHz Ant No-Hopping Peak



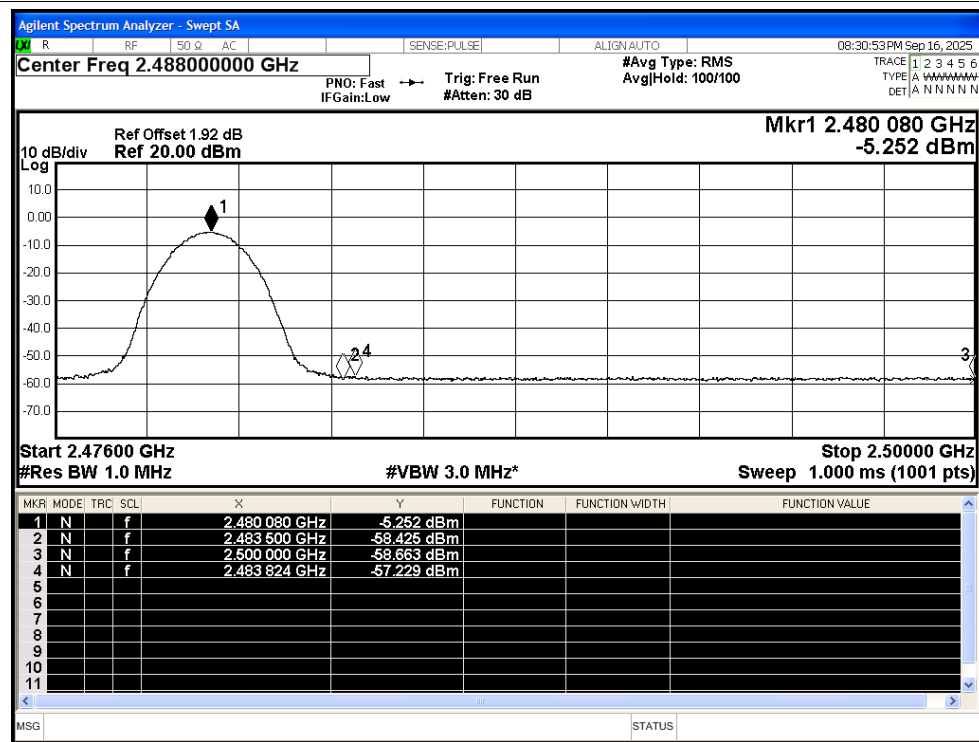
Restrict Band NVNT 2-DH5 2402MHz Ant No-Hopping Average



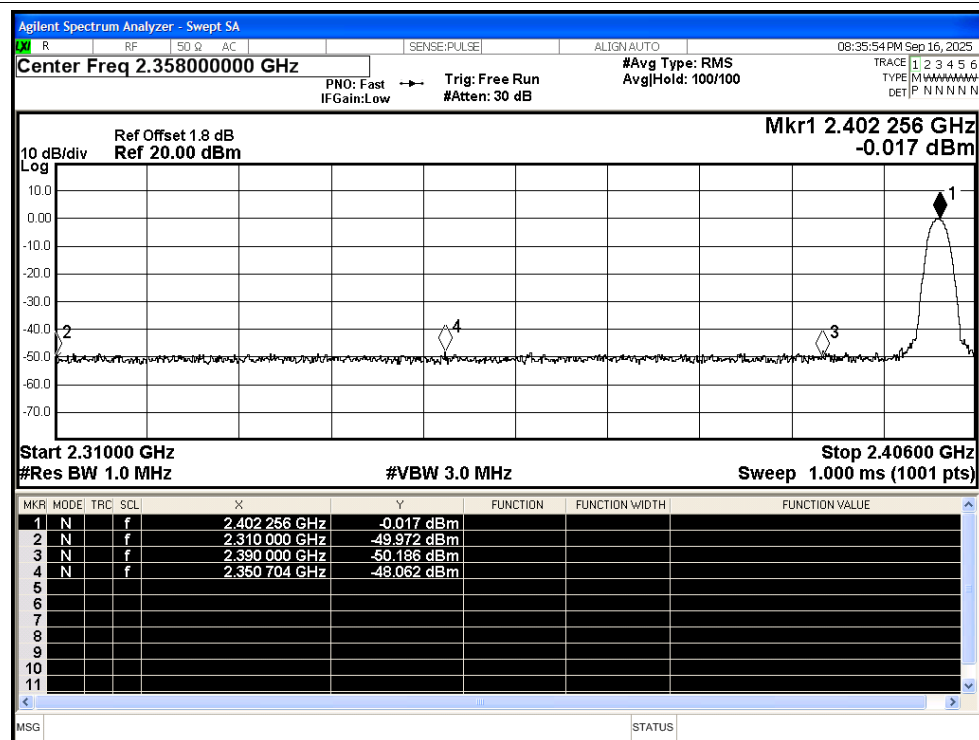
Restrict Band NVNT 2-DH5 2480MHz Ant No-Hopping Peak



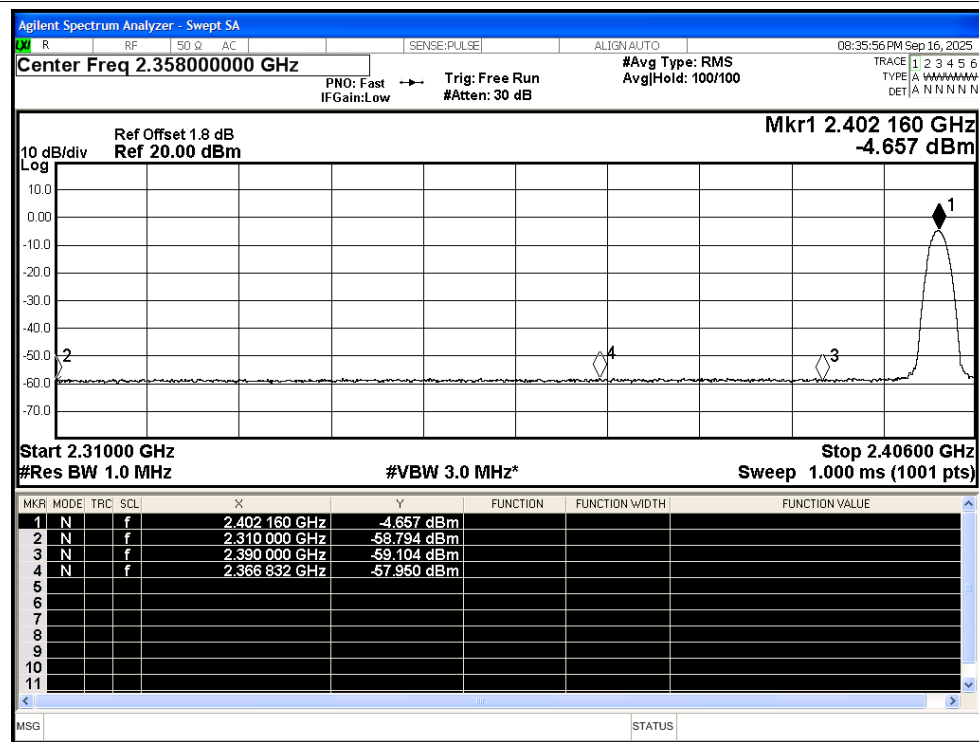
Restrict Band NVNT 2-DH5 2480MHz Ant No-Hopping Average



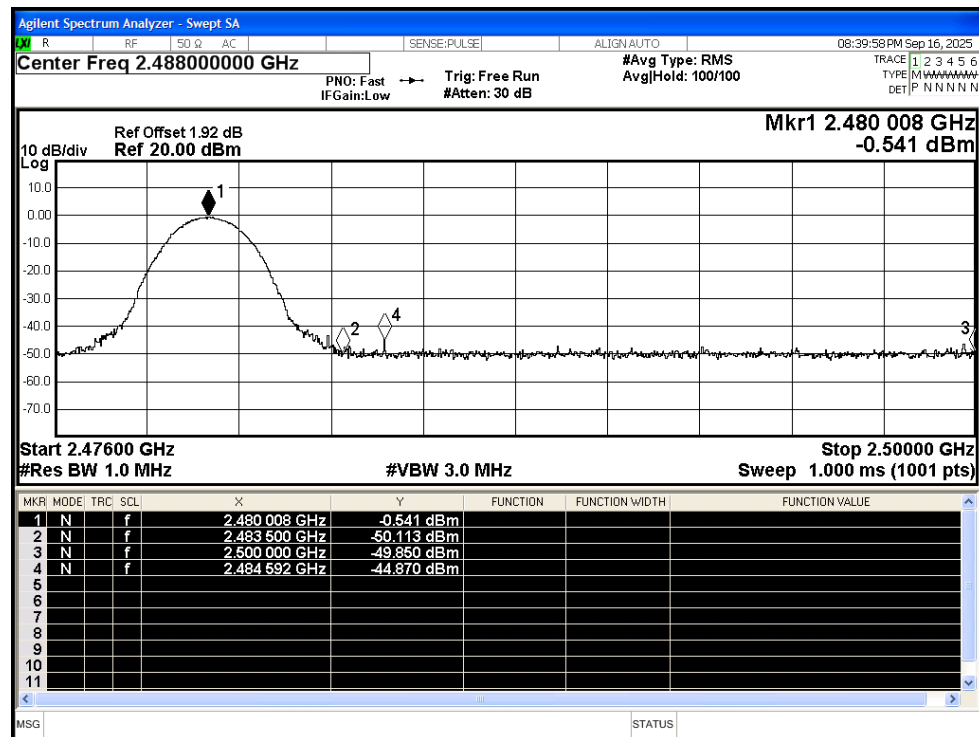
Restrict Band NVNT 3-DH5 2402MHz Ant No-Hopping Peak



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



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



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

