

Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: Translator

Test Model: G5

Environmental Conditions

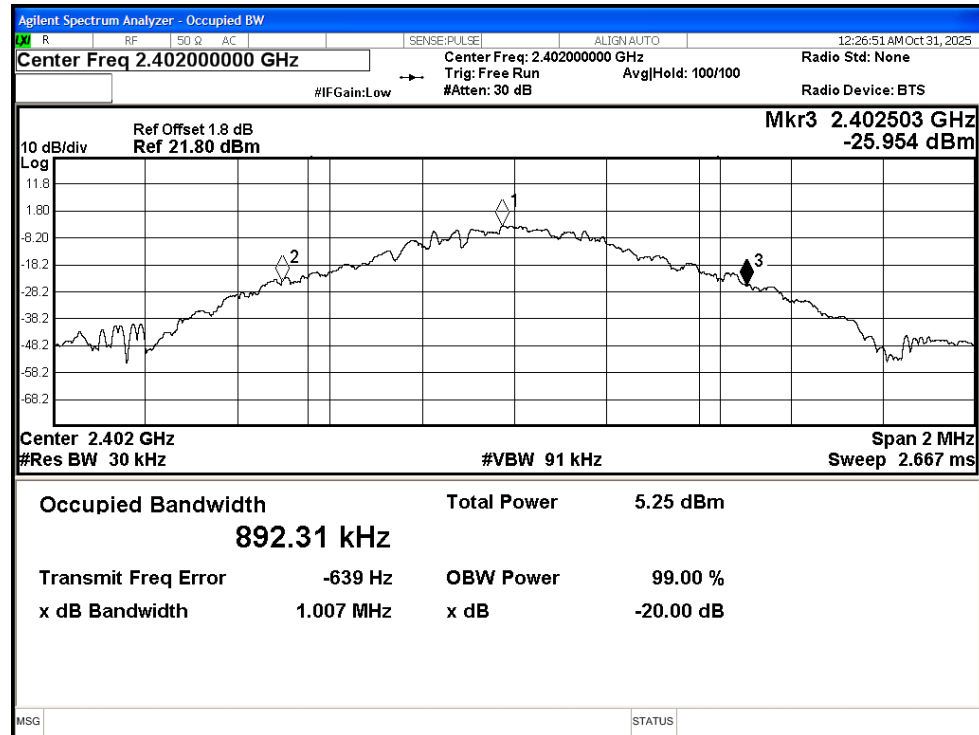
Temperature:	23.8°C
Relative Humidity:	52.6%
ATM Pressure:	100.0 kPa
Test Engineer:	Suichao Lai
Supervised by:	Yan Chen

A.1 -20dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH5	2402	Ant1	1.007	N/A	Pass
NVNT	1-DH5	2441	Ant1	0.947	N/A	Pass
NVNT	1-DH5	2480	Ant1	0.951	N/A	Pass
NVNT	2-DH5	2402	Ant1	1.312	N/A	Pass
NVNT	2-DH5	2441	Ant1	1.288	N/A	Pass
NVNT	2-DH5	2480	Ant1	1.283	N/A	Pass
NVNT	3-DH5	2402	Ant1	1.299	N/A	Pass
NVNT	3-DH5	2441	Ant1	1.302	N/A	Pass
NVNT	3-DH5	2480	Ant1	1.306	N/A	Pass

Test Graphs

-20dB Bandwidth NVNT 1-DH5 2402MHz Ant1



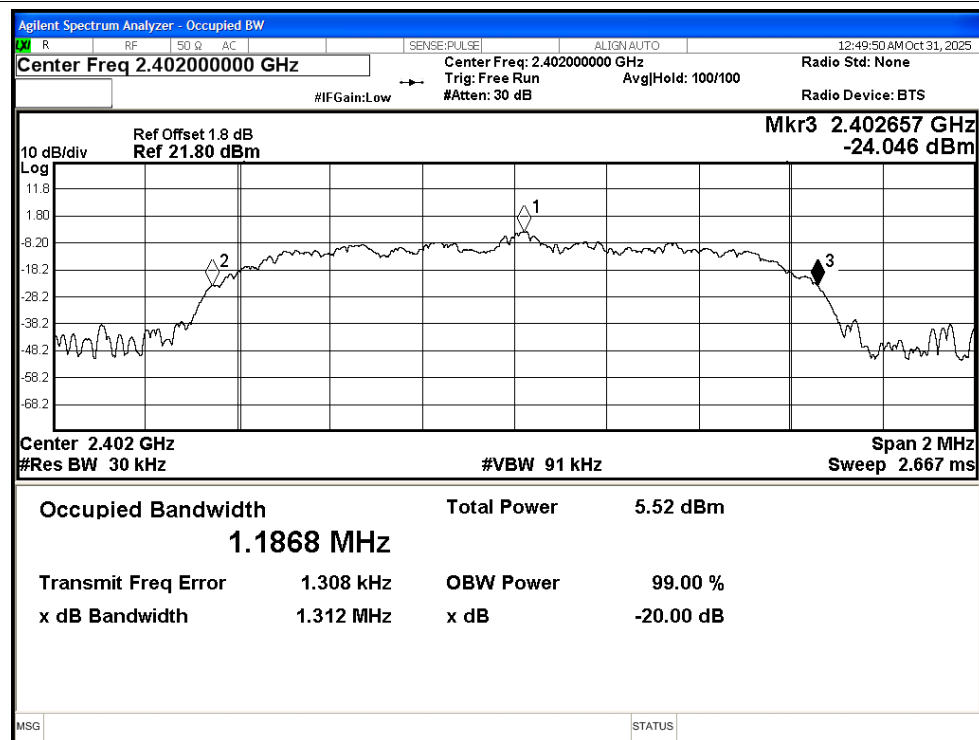
-20dB Bandwidth NVNT 1-DH5 2441MHz Ant1



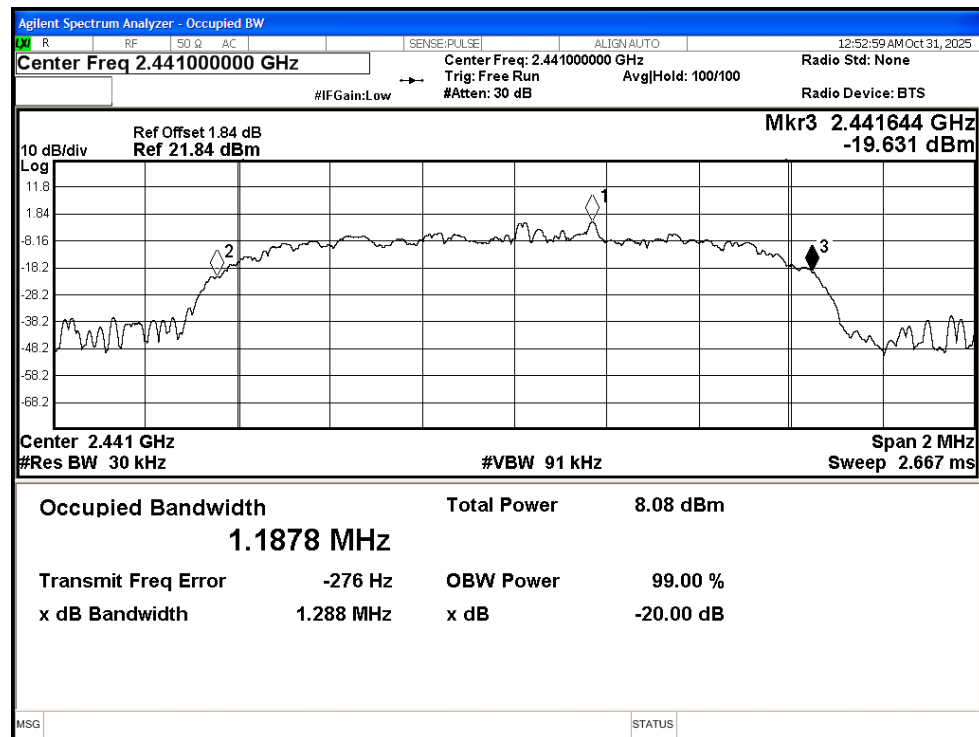
-20dB Bandwidth NVNT 1-DH5 2480MHz Ant1



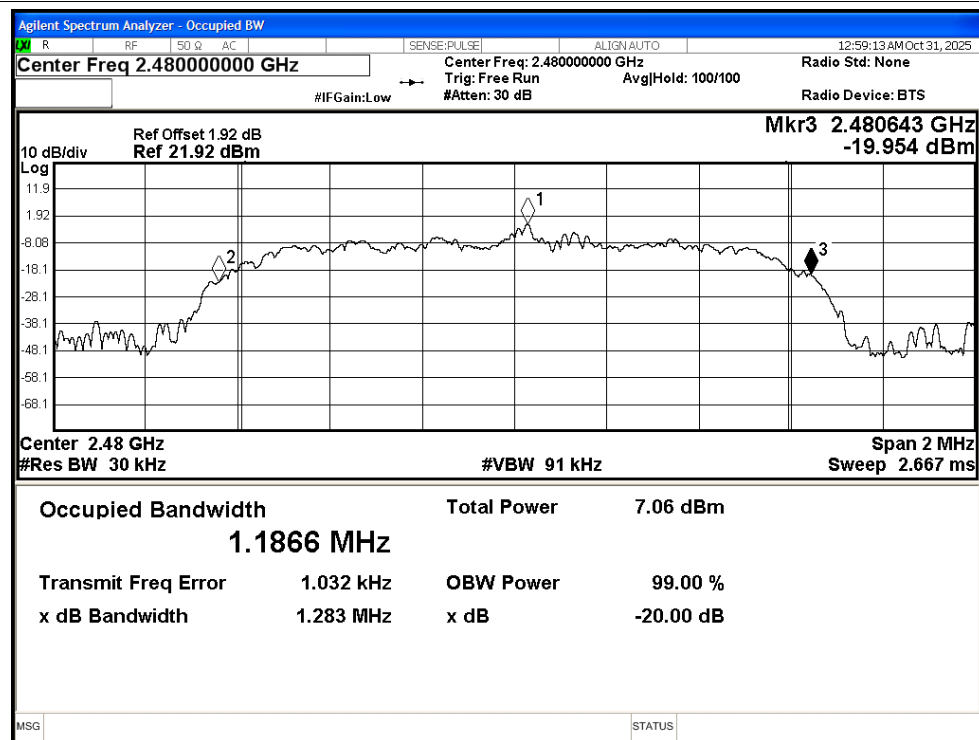
-20dB Bandwidth NVNT 2-DH5 2402MHz Ant1



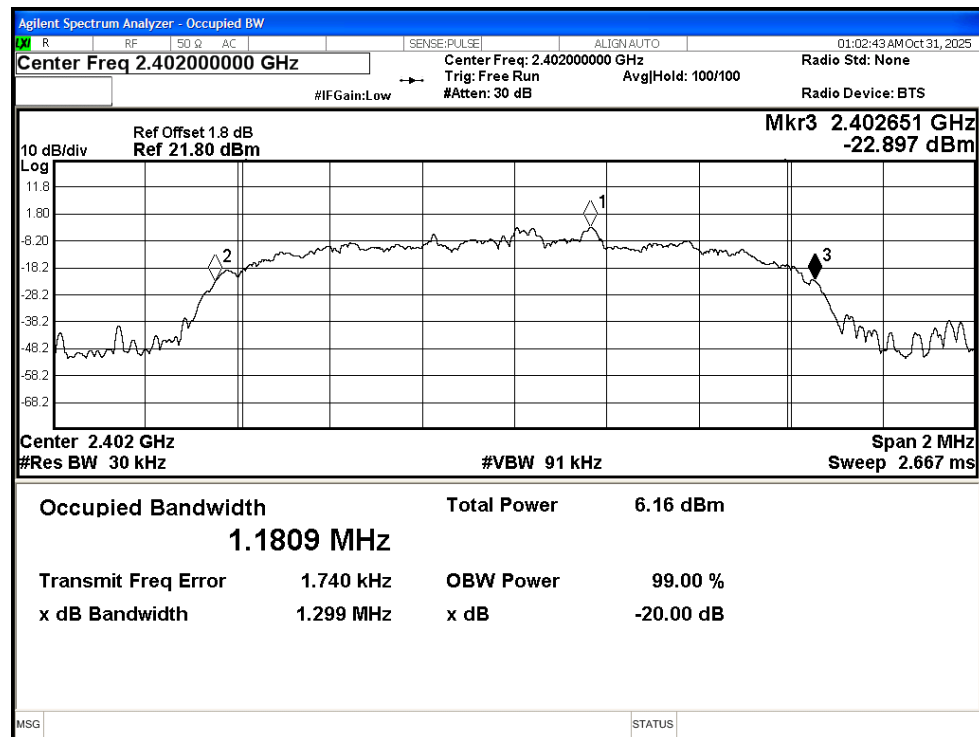
-20dB Bandwidth NVNT 2-DH5 2441MHz Ant1



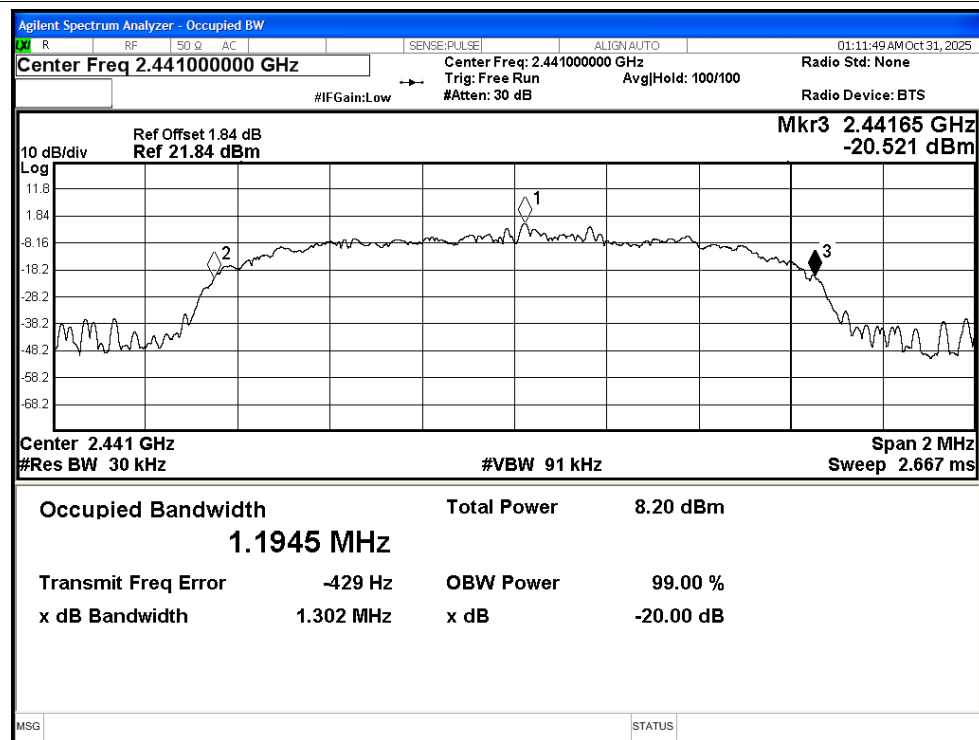
-20dB Bandwidth NVNT 2-DH5 2480MHz Ant1

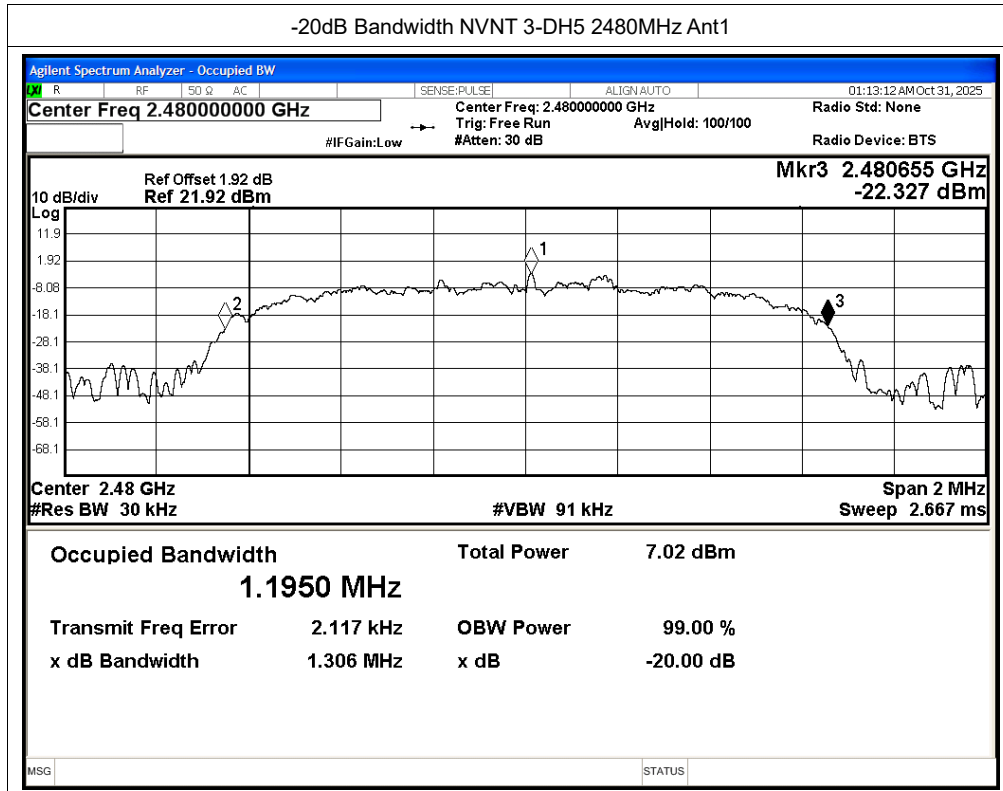


-20dB Bandwidth NVNT 3-DH5 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH5 2441MHz Ant1



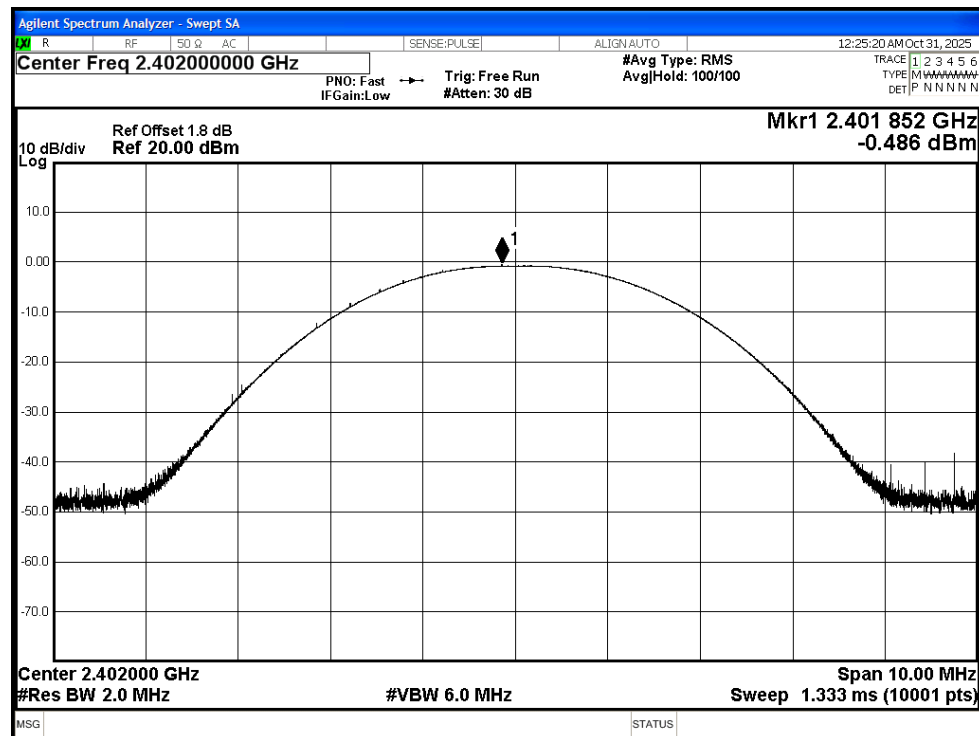


A.2 Maximum Peak Conducted Output Power

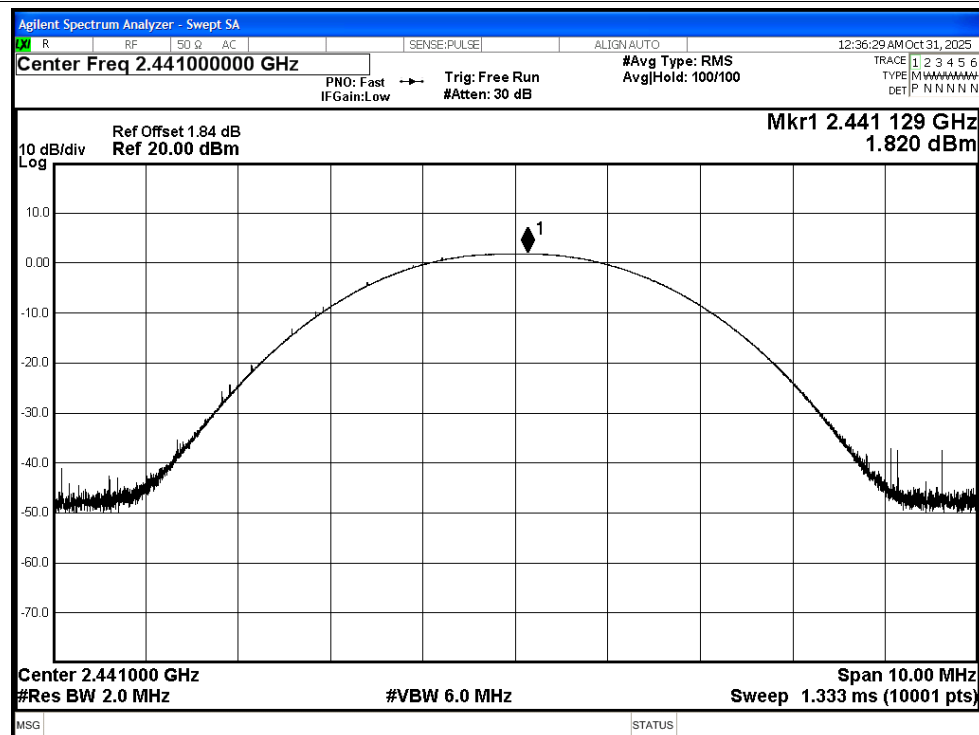
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH5	2402	Ant1	-0.49	21	Pass
NVNT	1-DH5	2441	Ant1	1.82	21	Pass
NVNT	1-DH5	2480	Ant1	1.16	21	Pass
NVNT	2-DH5	2402	Ant1	1.33	21	Pass
NVNT	2-DH5	2441	Ant1	3.79	21	Pass
NVNT	2-DH5	2480	Ant1	2.8	21	Pass
NVNT	3-DH5	2402	Ant1	1.8	21	Pass
NVNT	3-DH5	2441	Ant1	4.15	21	Pass
NVNT	3-DH5	2480	Ant1	3.05	21	Pass

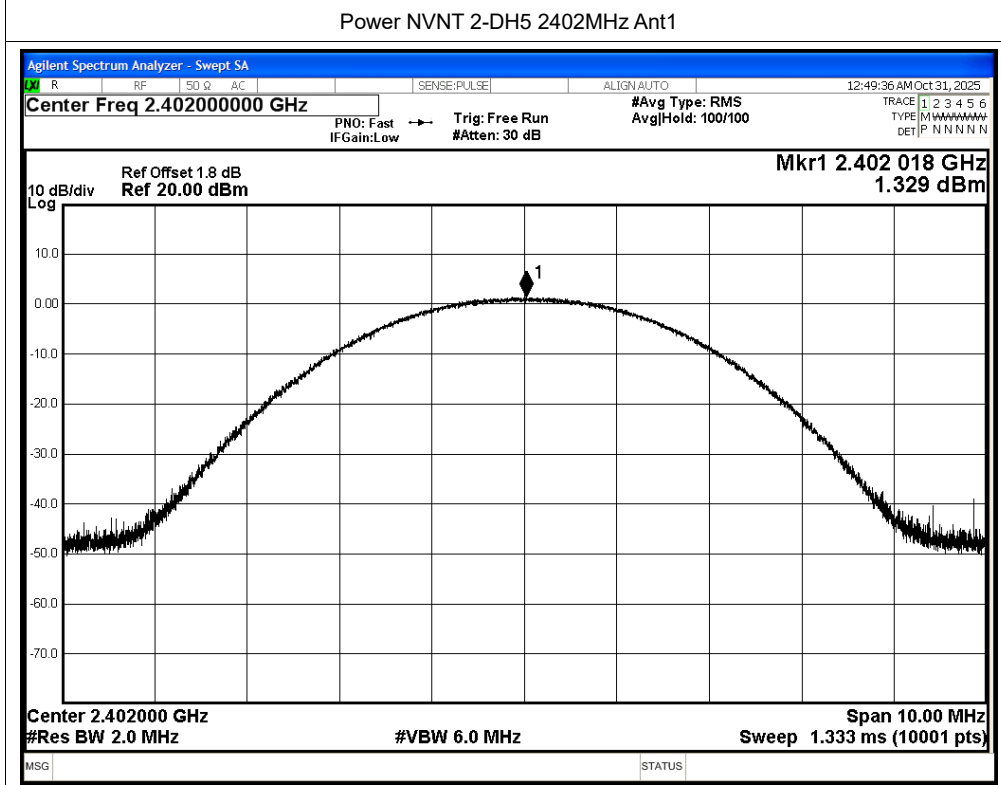
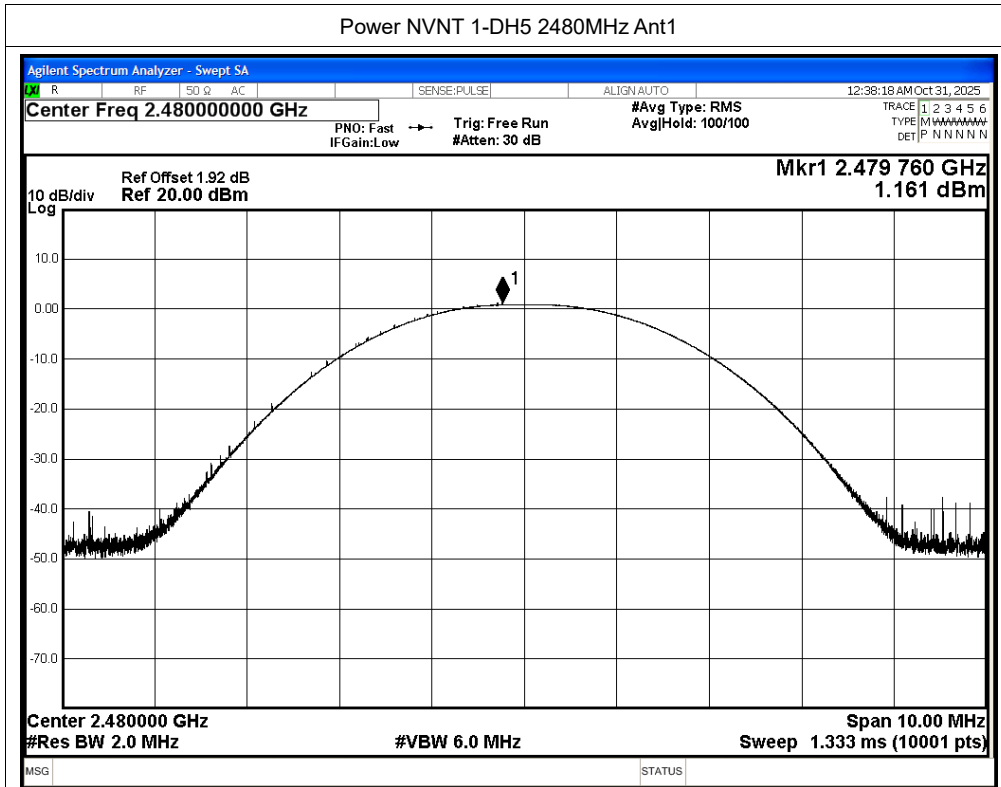
Test Graphs

Power NVNT 1-DH5 2402MHz Ant1

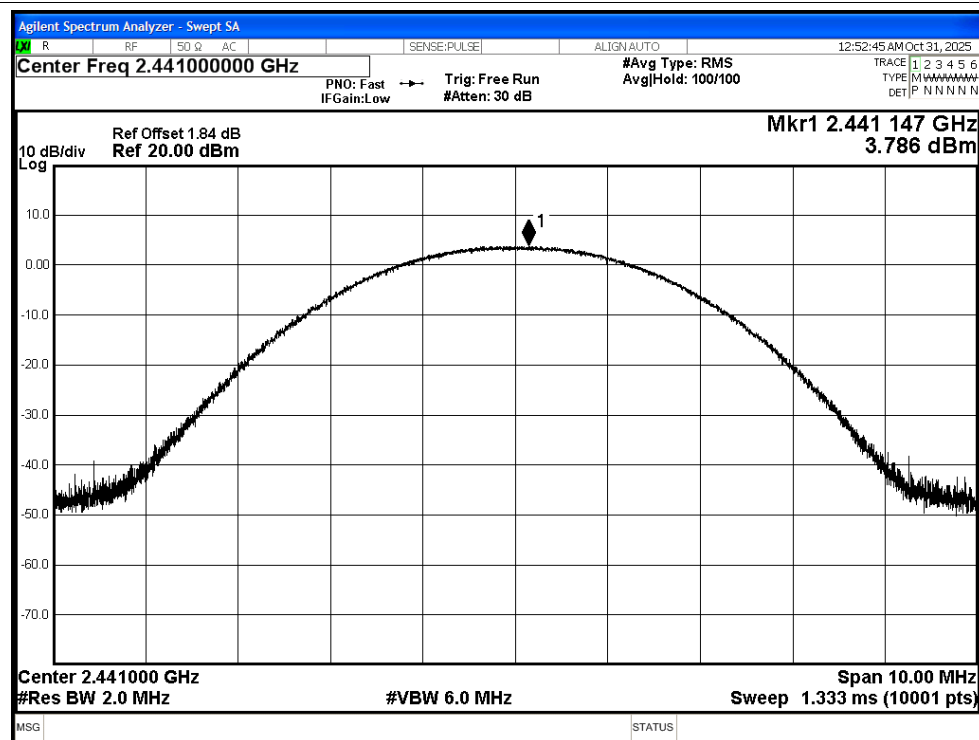


Power NVNT 1-DH5 2441MHz Ant1

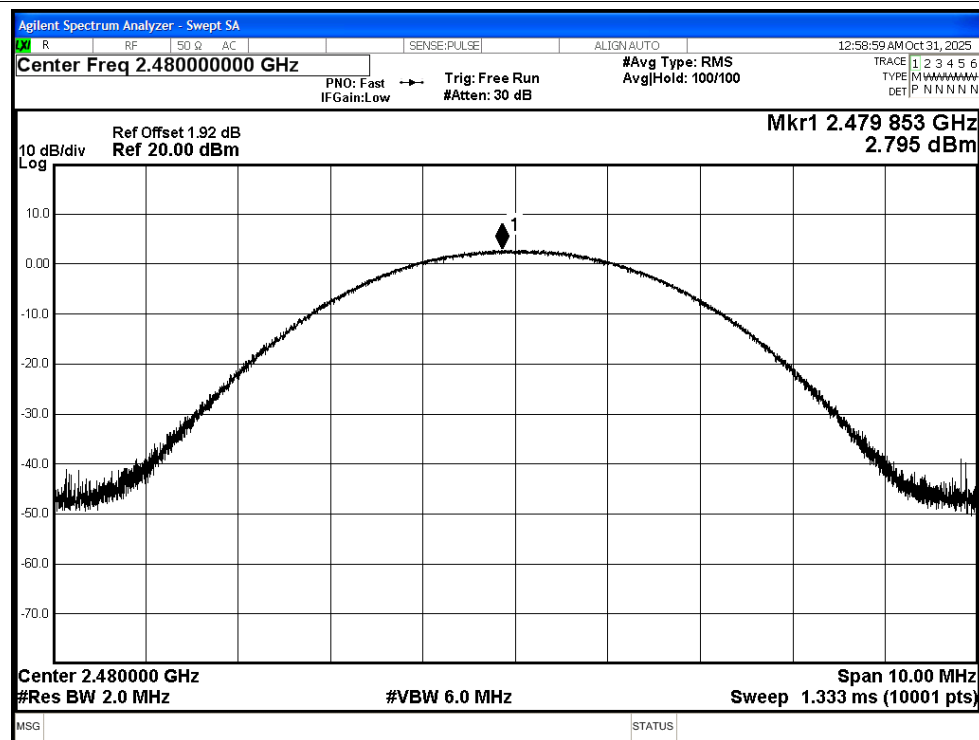


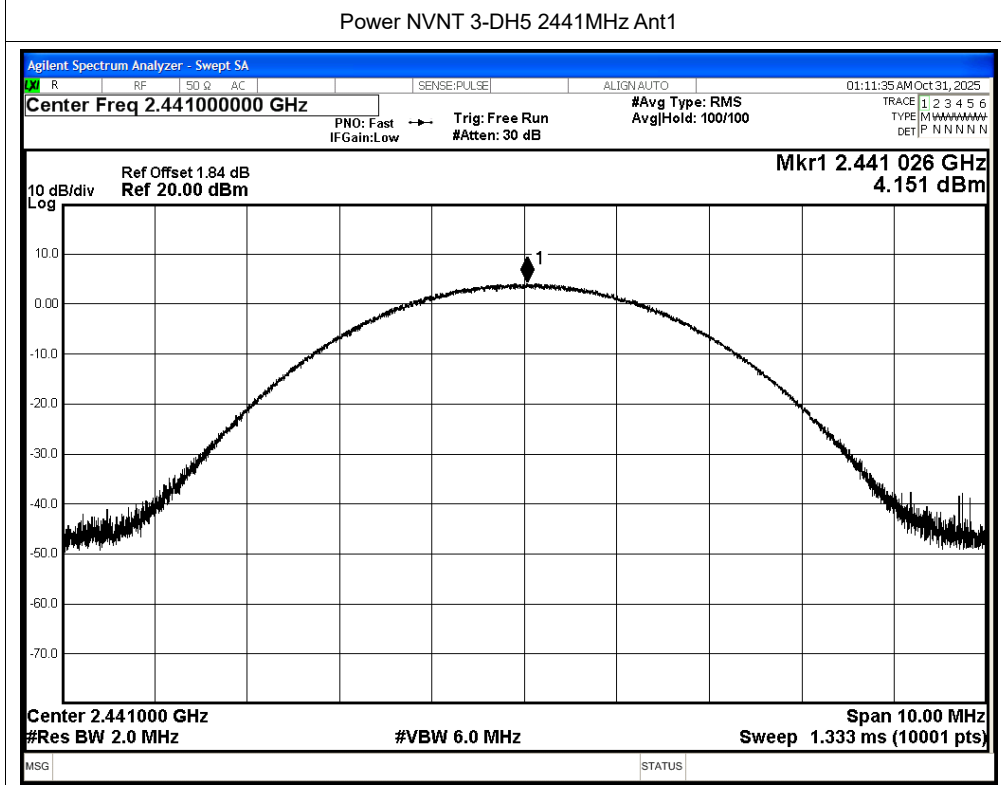
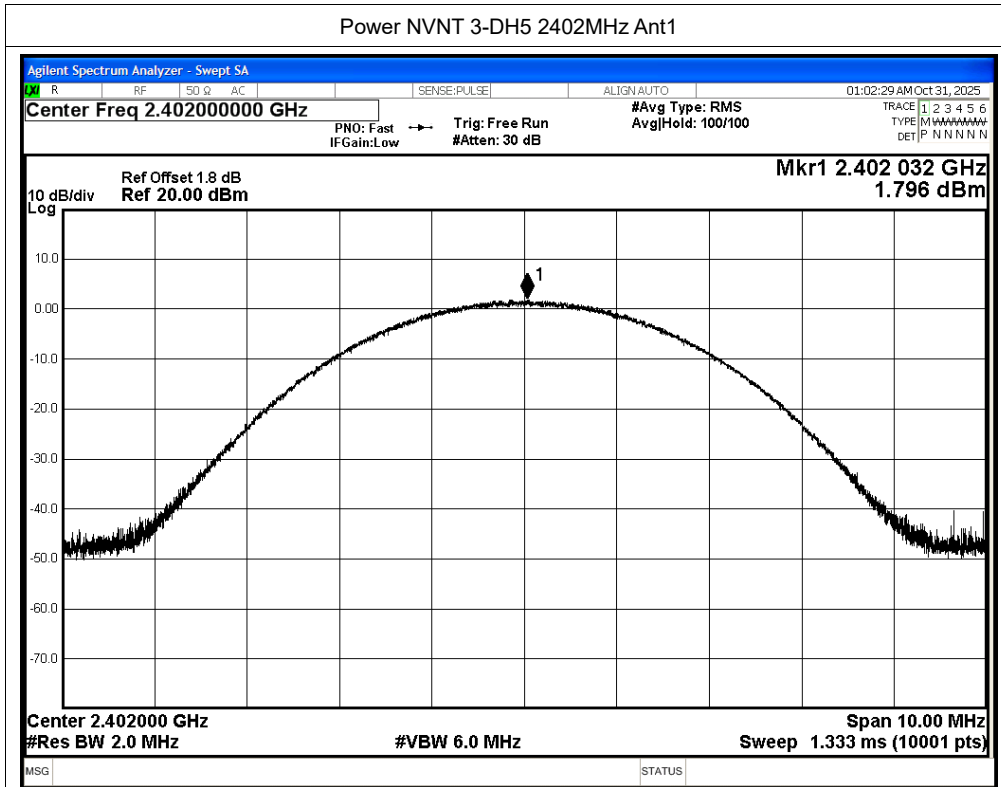


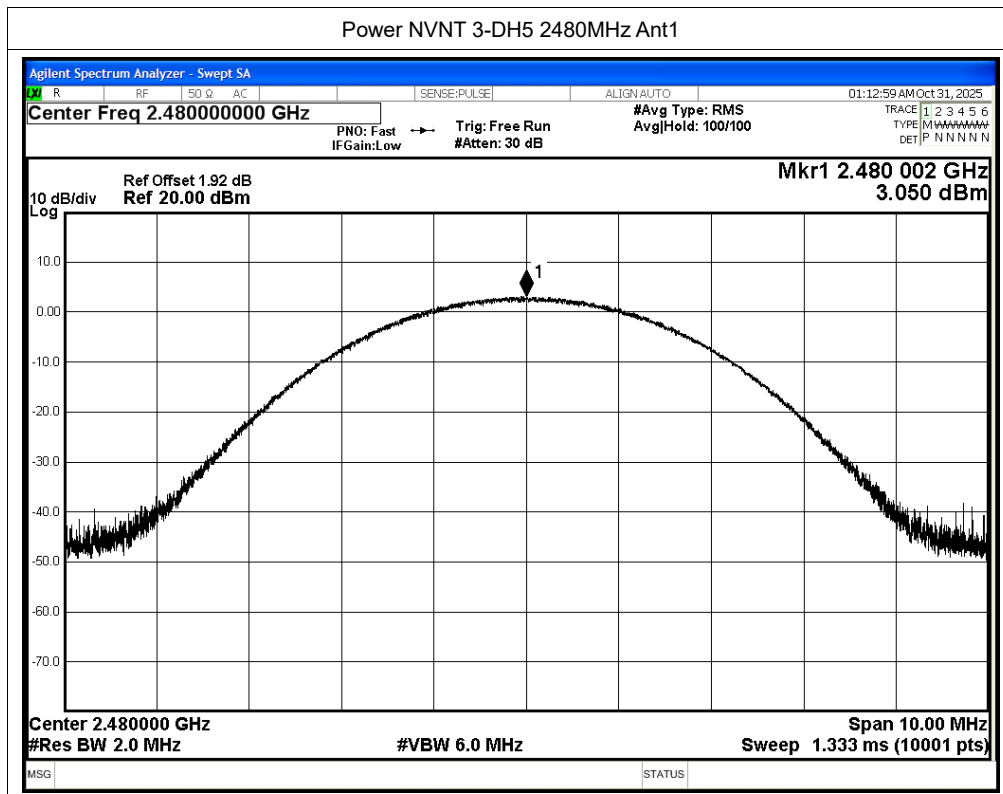
Power NVNT 2-DH5 2441MHz Ant1



Power NVNT 2-DH5 2480MHz Ant1





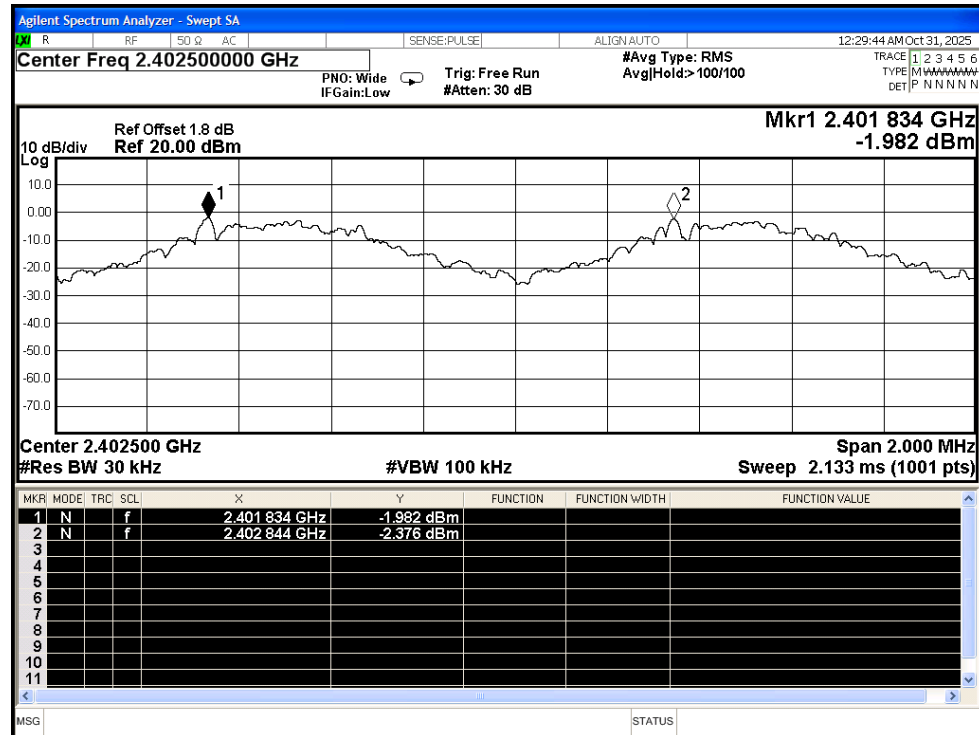


A.3 Carrier Frequencies Separation

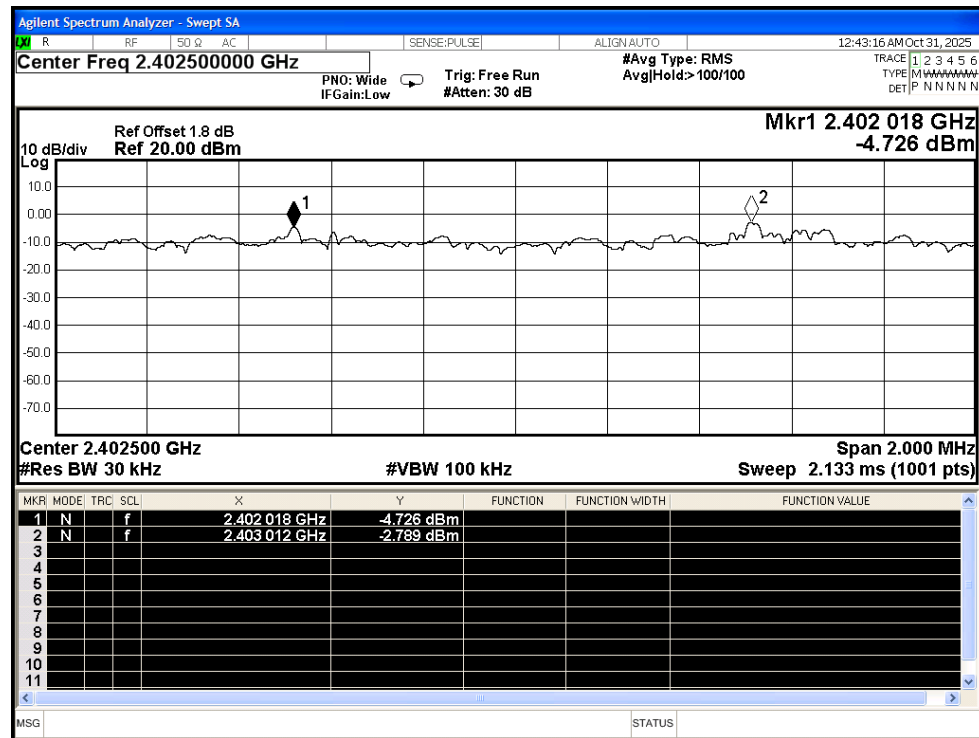
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH5	Ant1	2401.834	2402.844	1.01	0.671	Pass
NVNT	2-DH5	Ant1	2402.018	2403.012	0.994	0.875	Pass
NVNT	3-DH5	Ant1	2401.818	2403.174	1.356	0.871	Pass

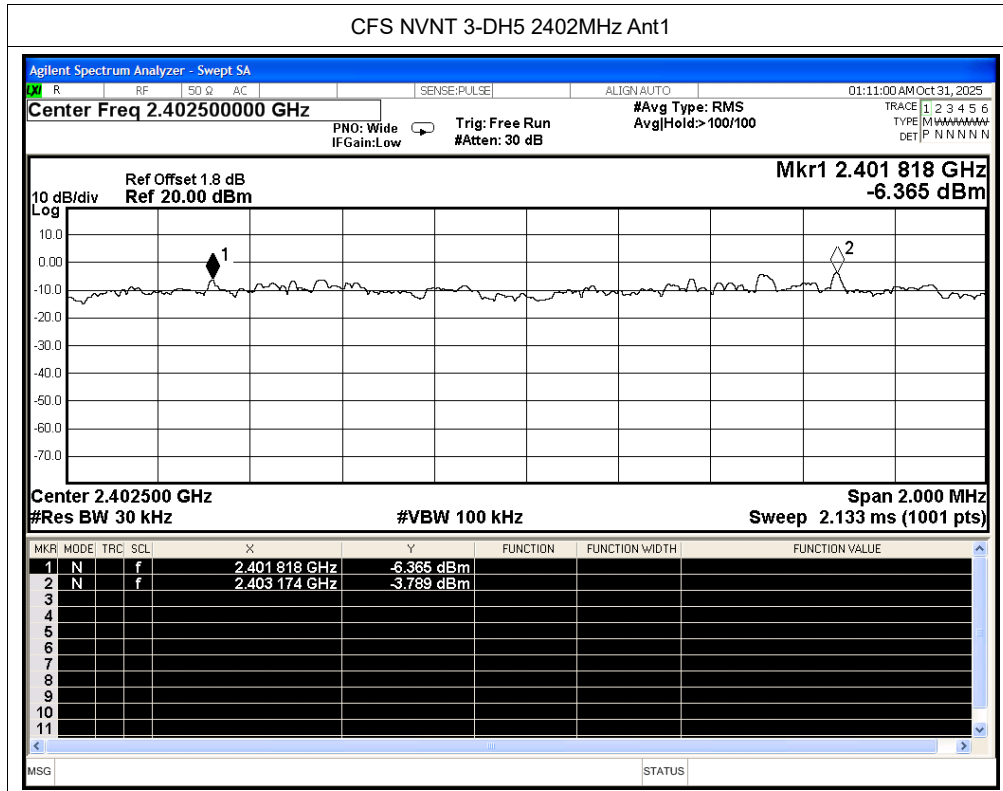
Test Graphs

CFS NVNT 1-DH5 2402MHz Ant1



CFS NVNT 2-DH5 2402MHz Ant1



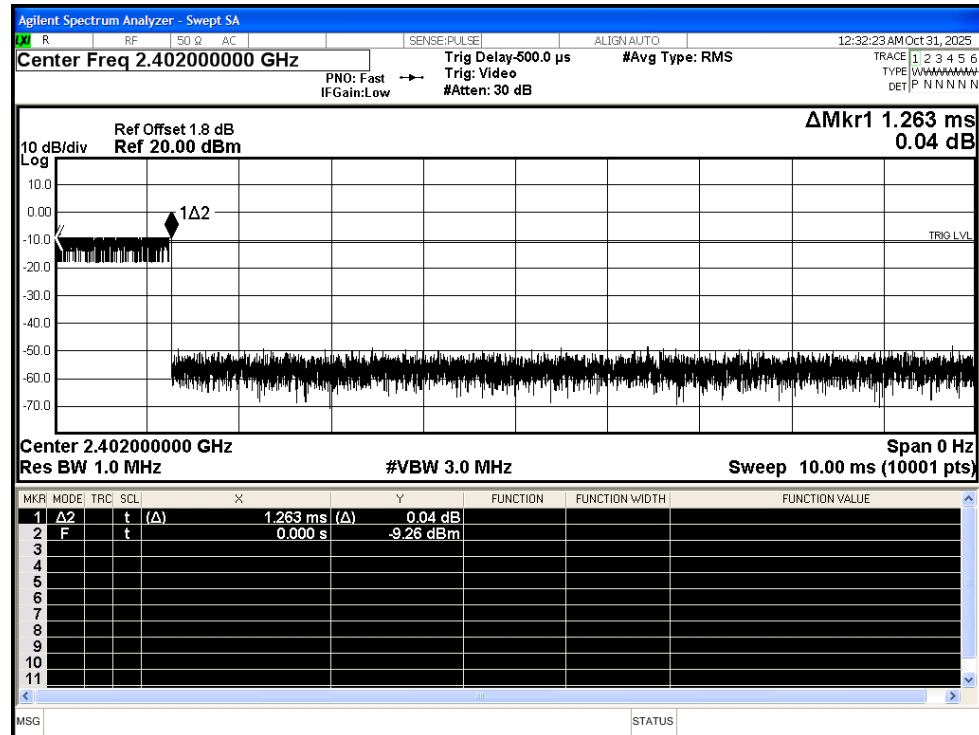


A.4 Dwell Time

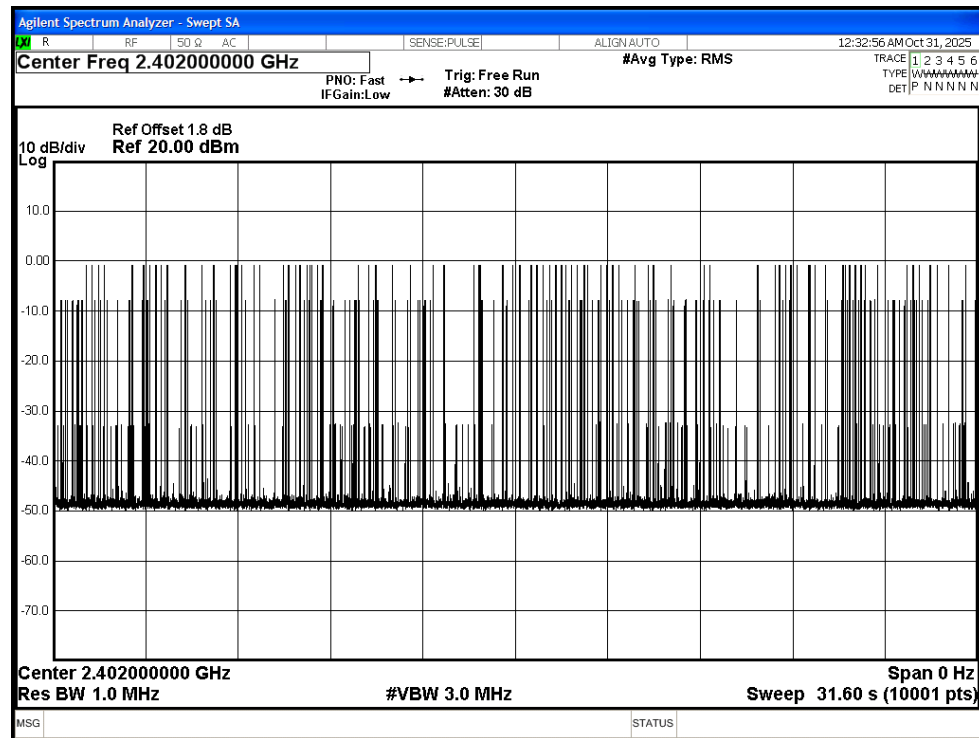
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH5	2402	Ant1	1.263	127.563	101	31600	400	Pass
NVNT	2-DH5	2402	Ant1	2.898	312.984	108	31600	400	Pass
NVNT	3-DH5	2402	Ant1	2.897	315.773	109	31600	400	Pass

Test Graphs

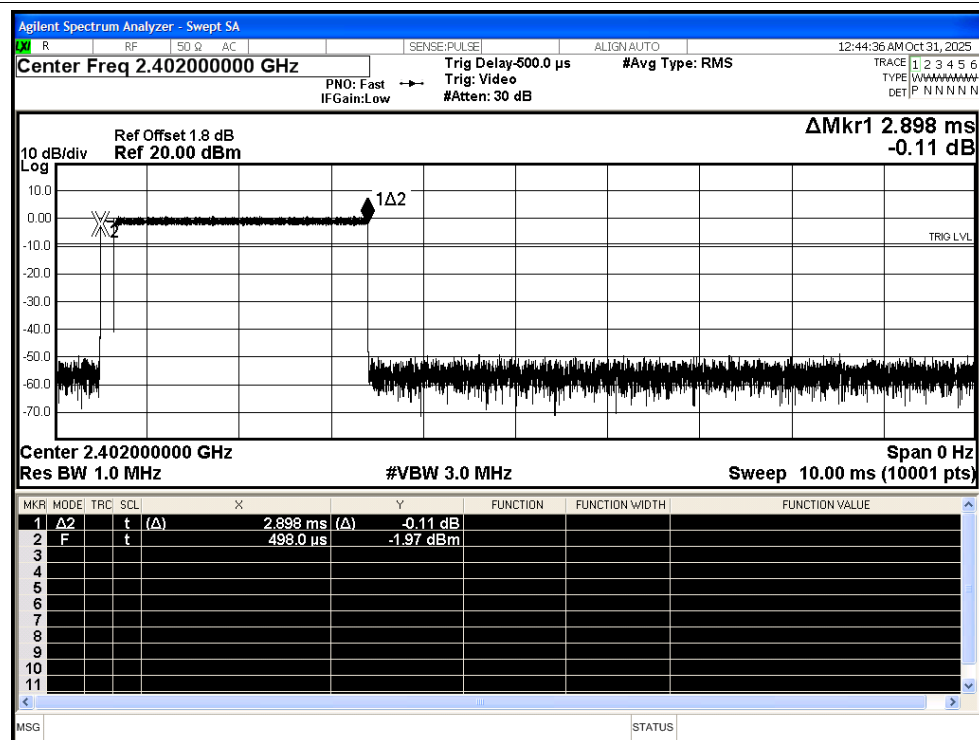
Dwell NVNT 1-DH5 2402MHz Ant1 One Burst



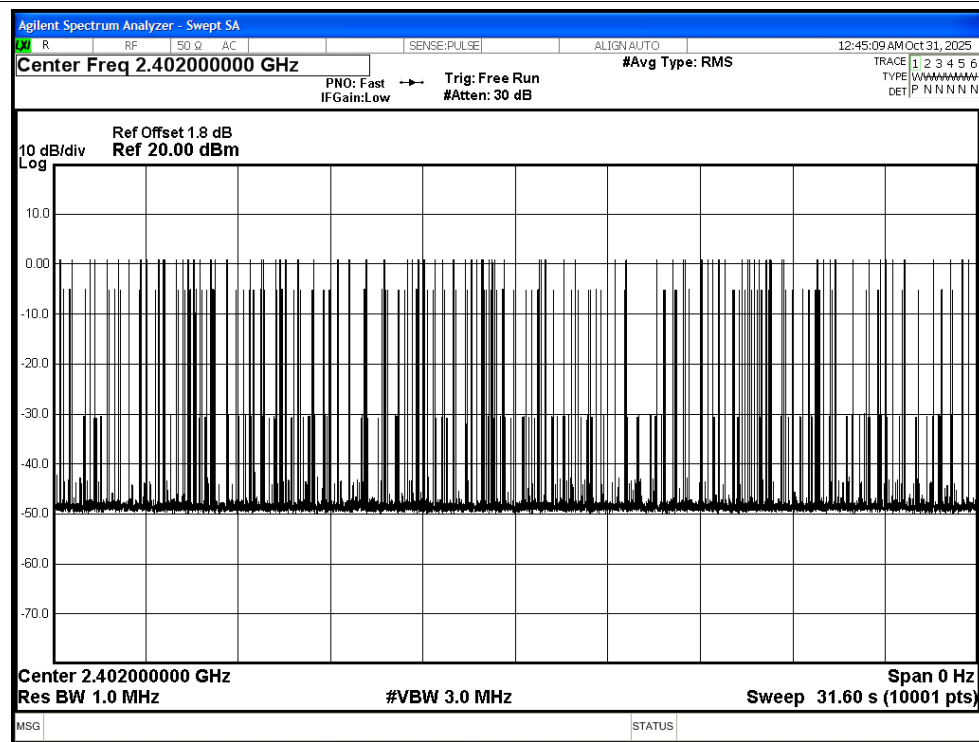
Dwell NVNT 1-DH5 2402MHz Ant1 Accumulated



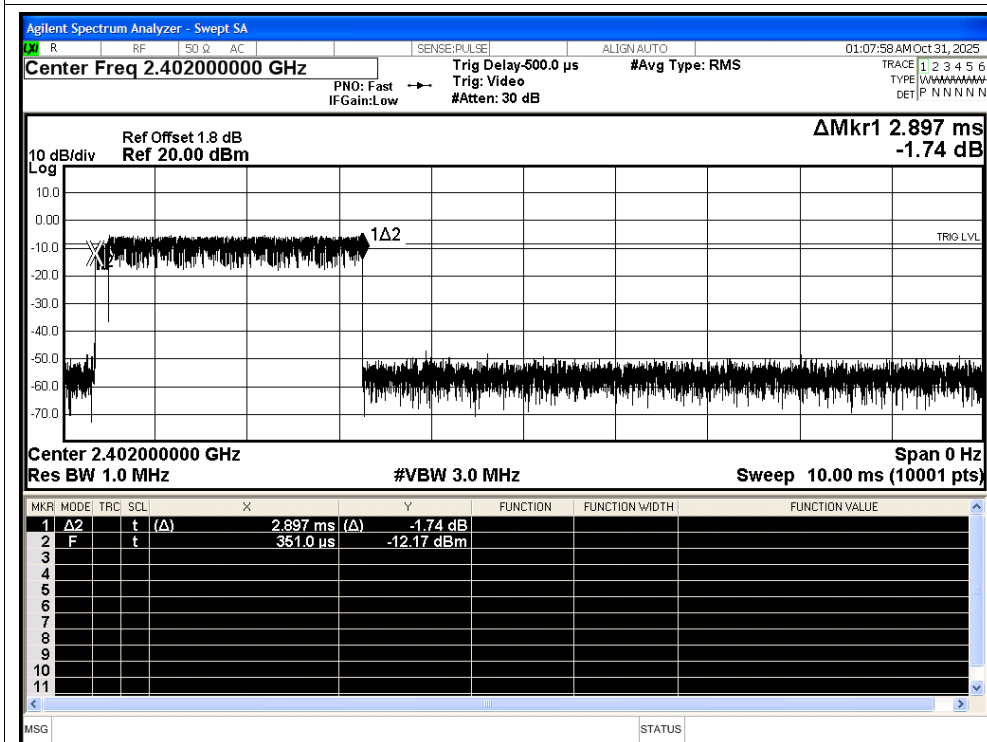
Dwell NVNT 2-DH5 2402MHz Ant1 One Burst



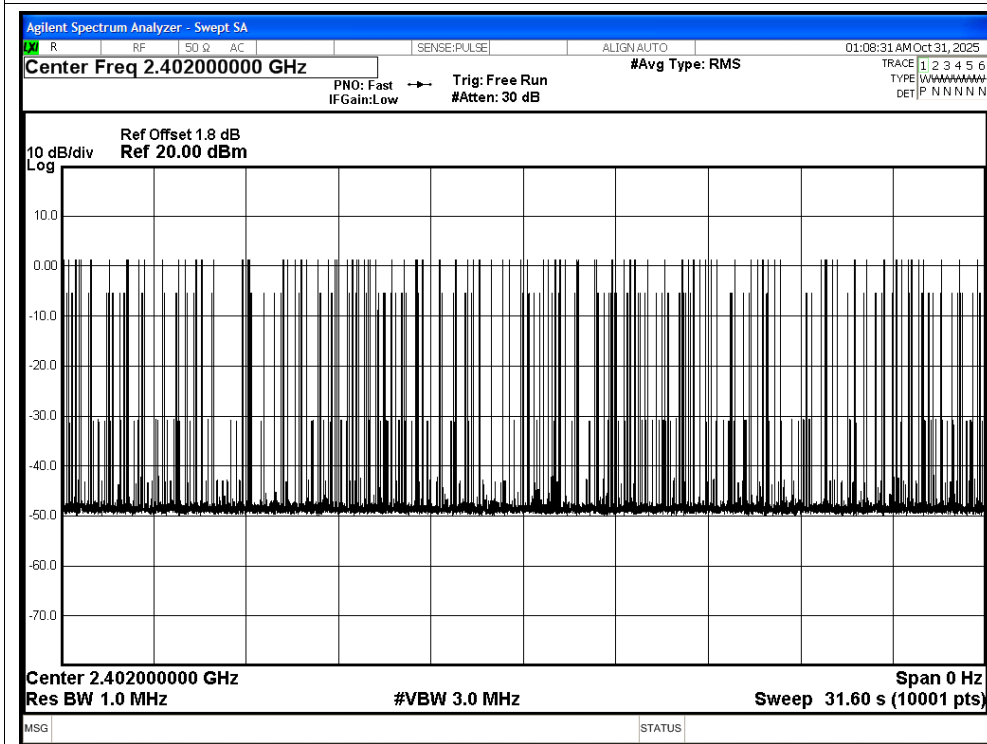
Dwell NVNT 2-DH5 2402MHz Ant1 Accumulated



Dwell NVNT 3-DH5 2402MHz Ant1 One Burst



Dwell NVNT 3-DH5 2402MHz Ant1 Accumulated

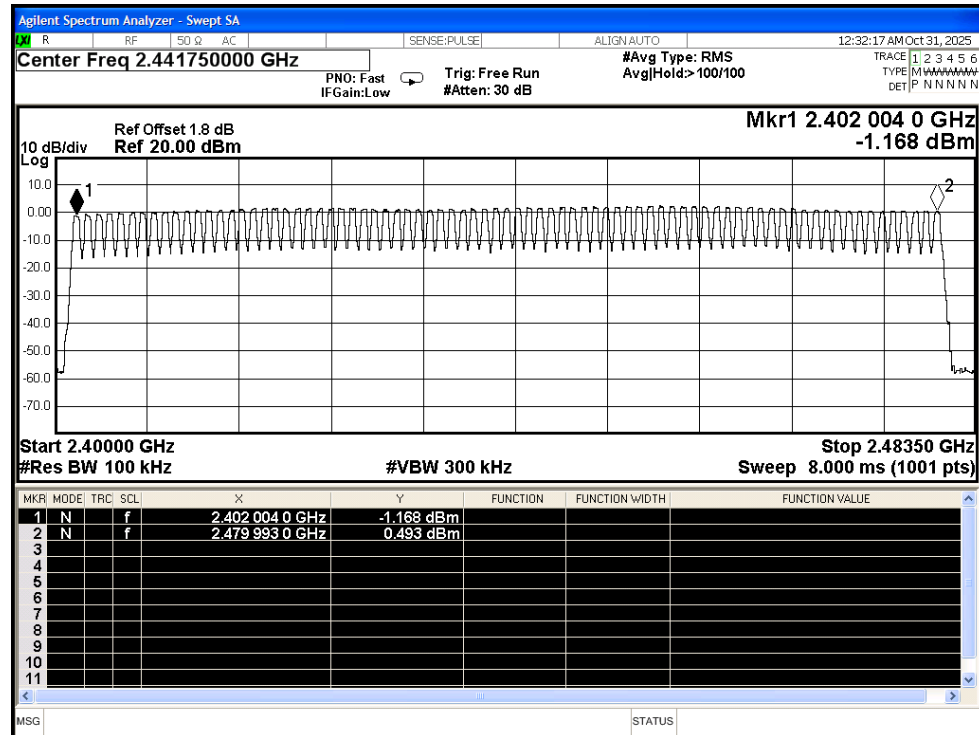


A.5 Number of Hopping Channel

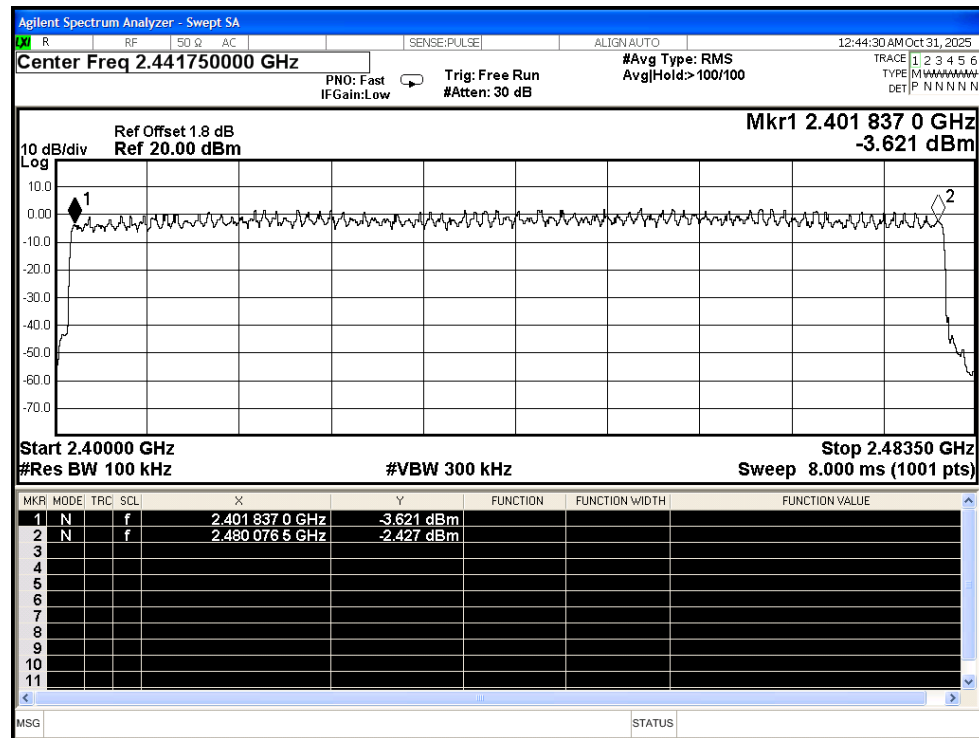
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH5	Ant1	79	15	Pass
NVNT	2-DH5	Ant1	79	15	Pass
NVNT	3-DH5	Ant1	79	15	Pass

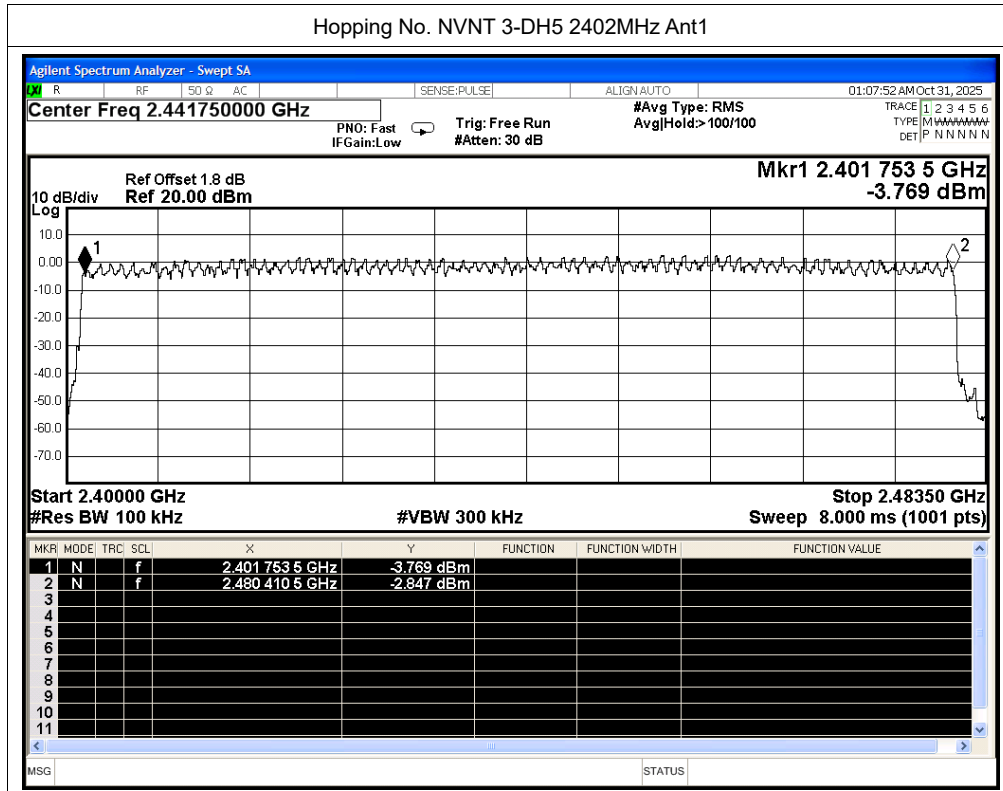
Test Graphs

Hopping No. NVNT 1-DH5 2402MHz Ant1



Hopping No. NVNT 2-DH5 2402MHz Ant1



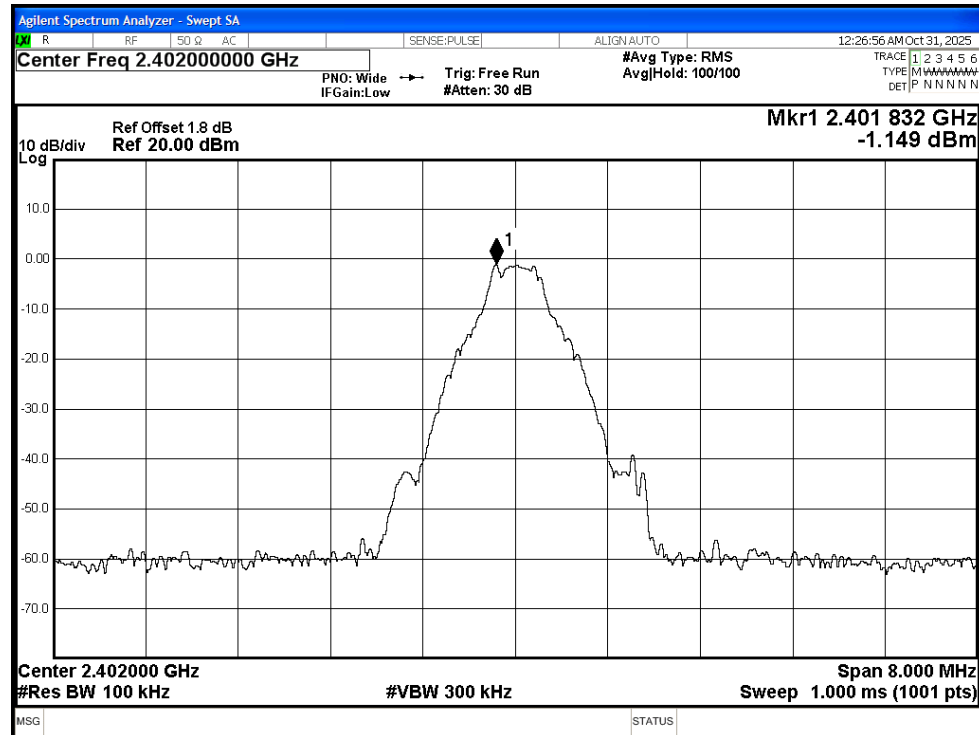


A.6 Band Edge

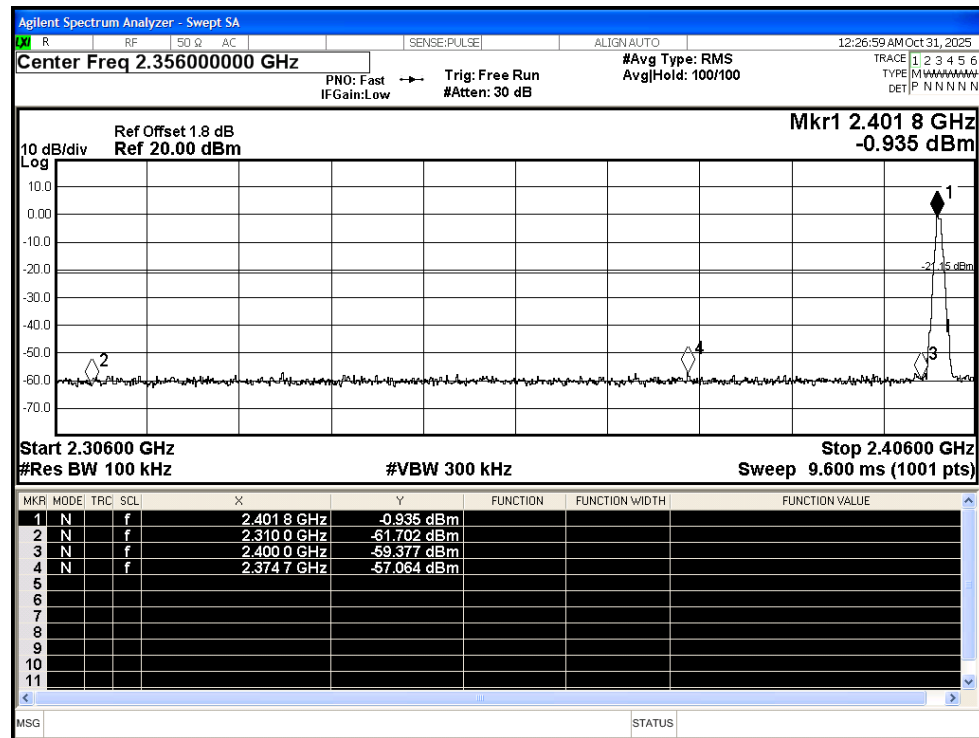
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	-55.92	-20	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	-56.37	-20	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	-51.13	-20	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	-56.27	-20	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	-50.01	-20	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	-54.97	-20	Pass

Test Graphs

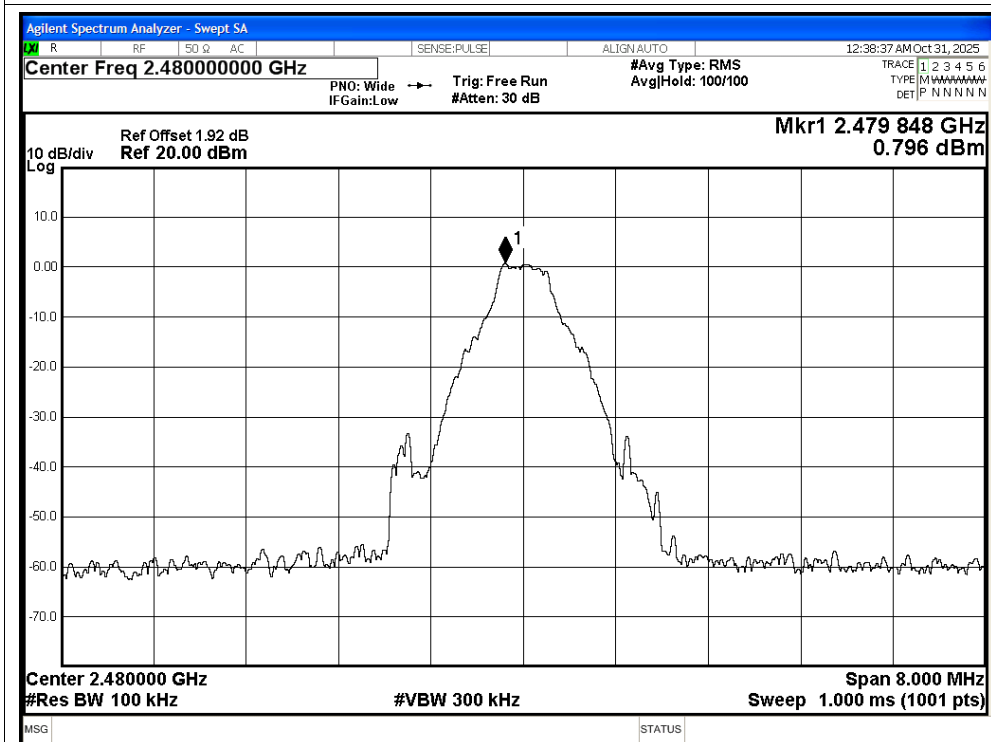
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Ref



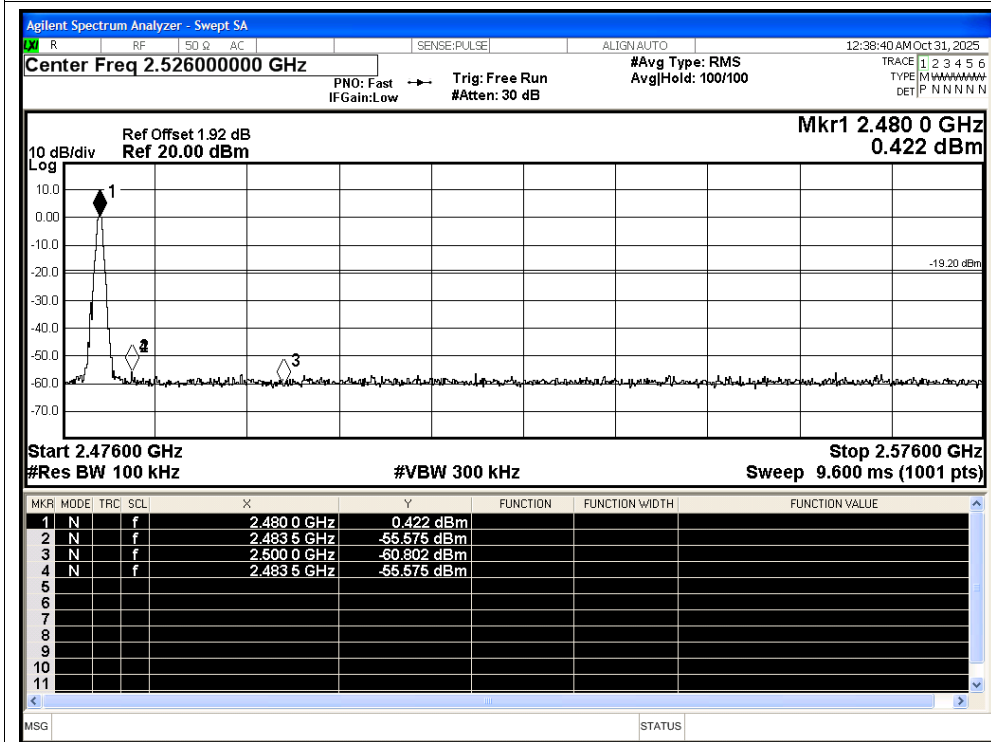
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Emission

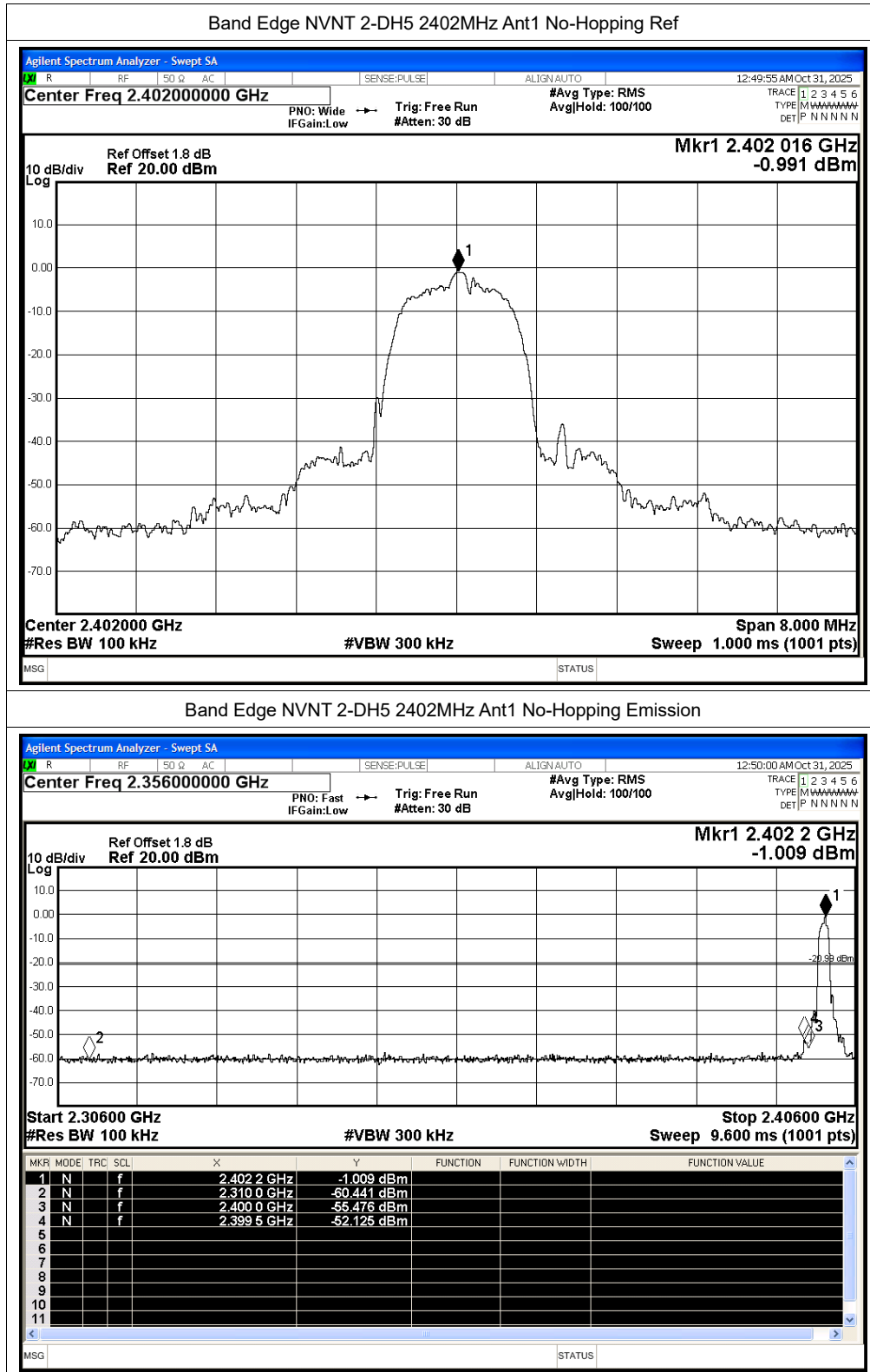


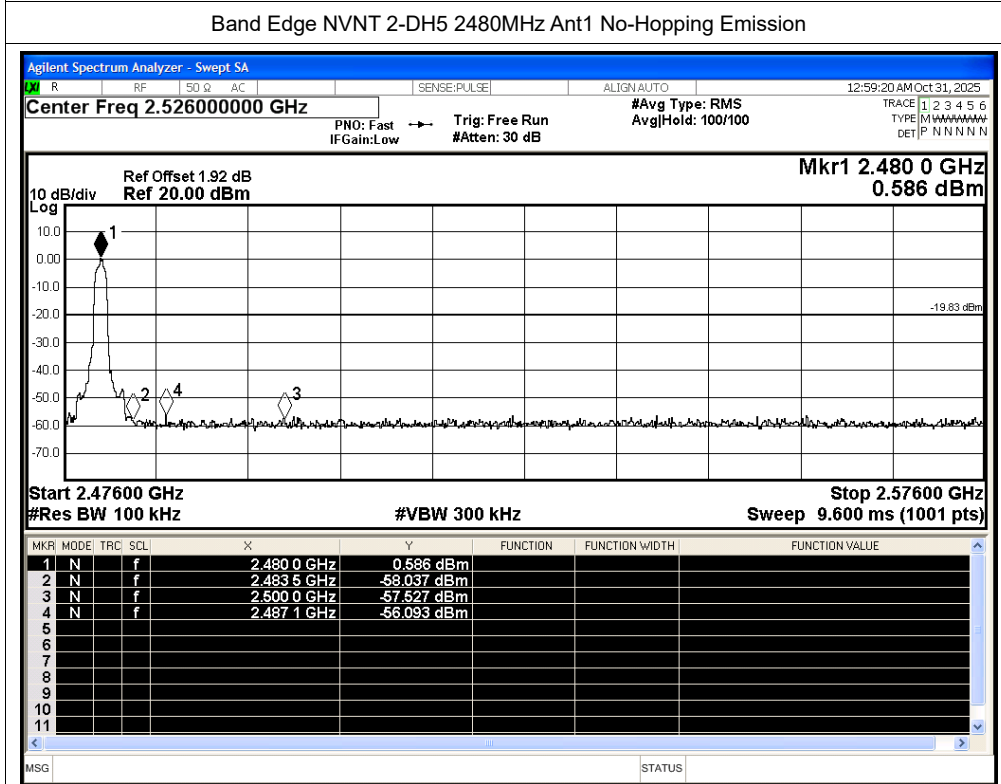
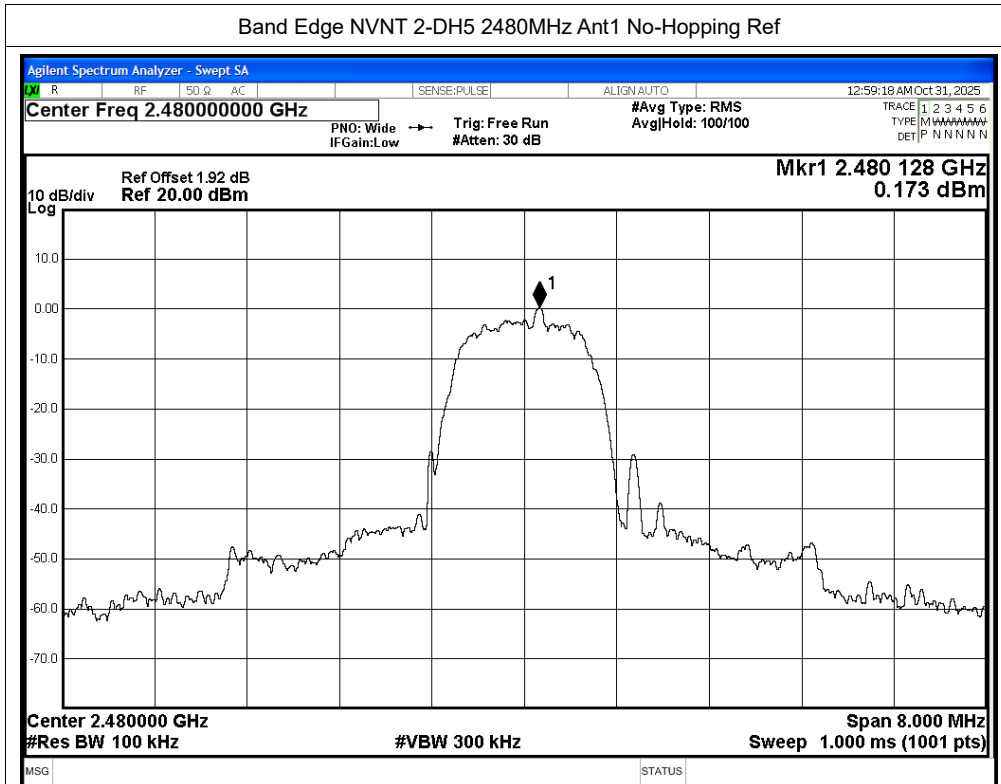
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref

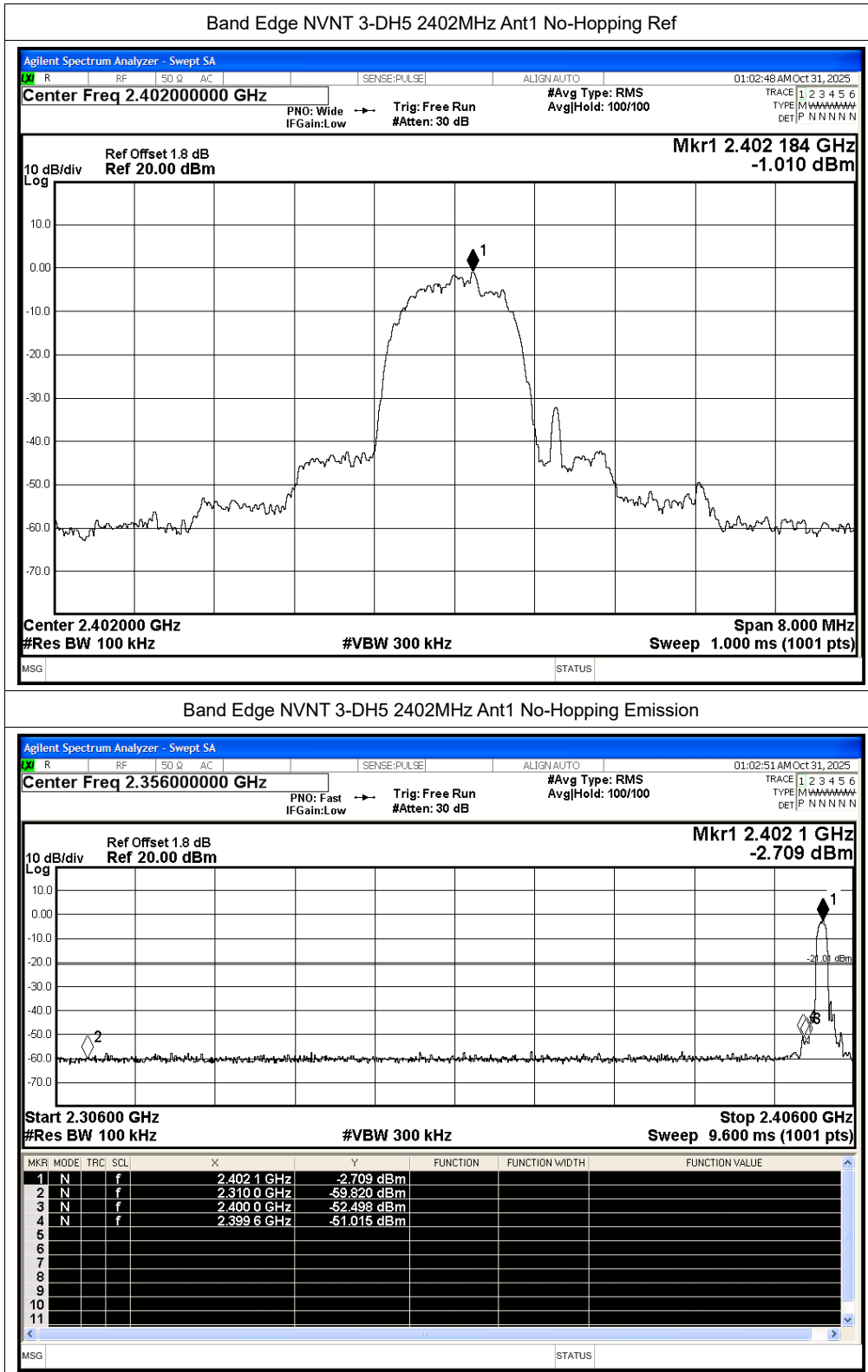


Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Emission

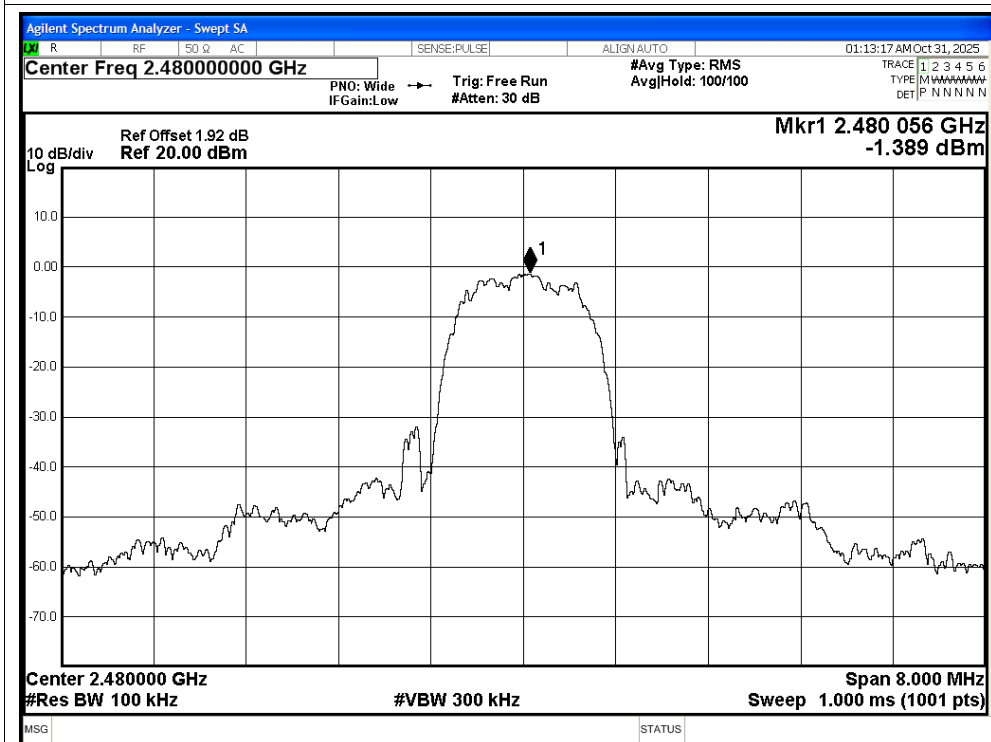




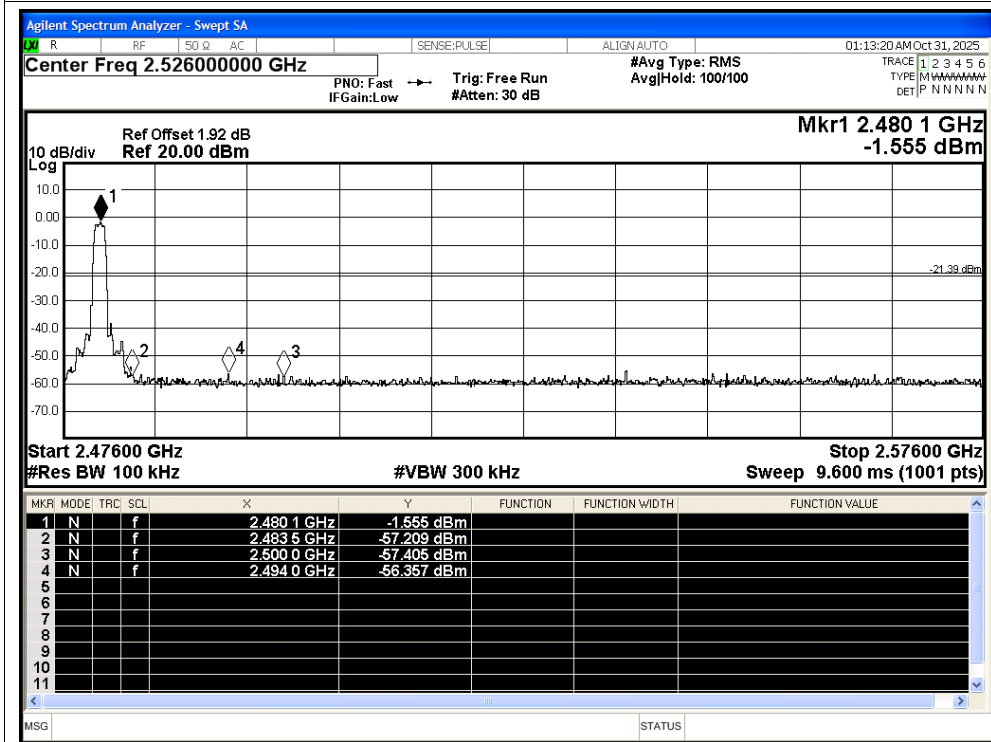




Band Edge NVNT 3-DH5 2480MHz Ant1 No-Hopping Ref



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

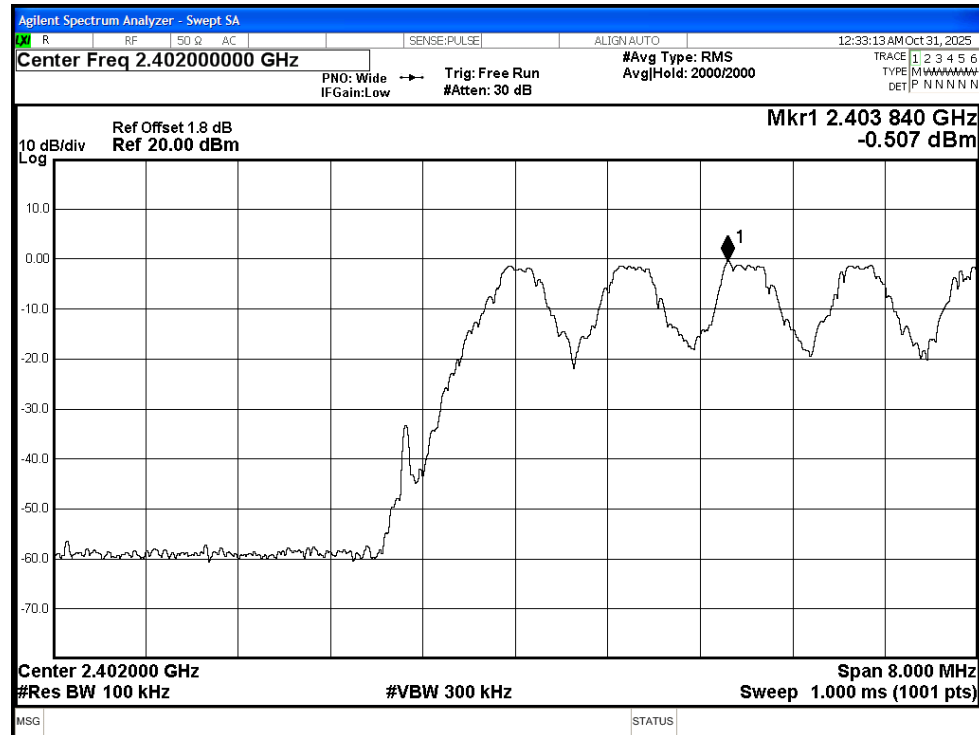


(Hopping)

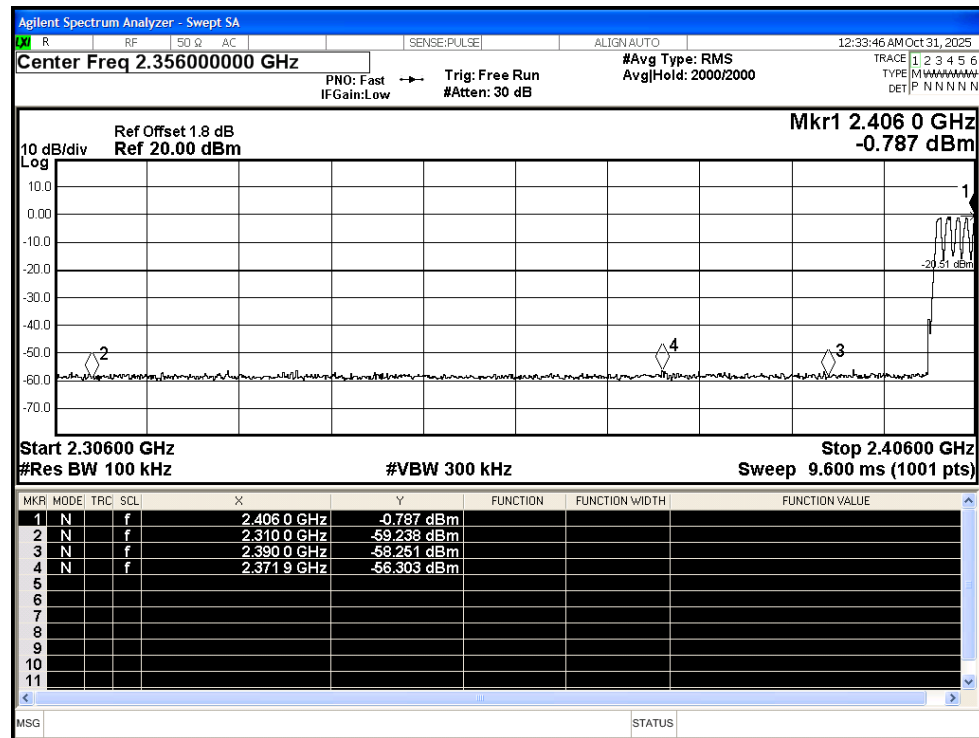
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	Hopping	-55.8	-20	Pass
NVNT	1-DH5	2480	Ant1	Hopping	-56.56	-20	Pass
NVNT	2-DH5	2402	Ant1	Hopping	-55.55	-20	Pass
NVNT	2-DH5	2480	Ant1	Hopping	-56.84	-20	Pass
NVNT	3-DH5	2402	Ant1	Hopping	-55.44	-20	Pass
NVNT	3-DH5	2480	Ant1	Hopping	-54.2	-20	Pass

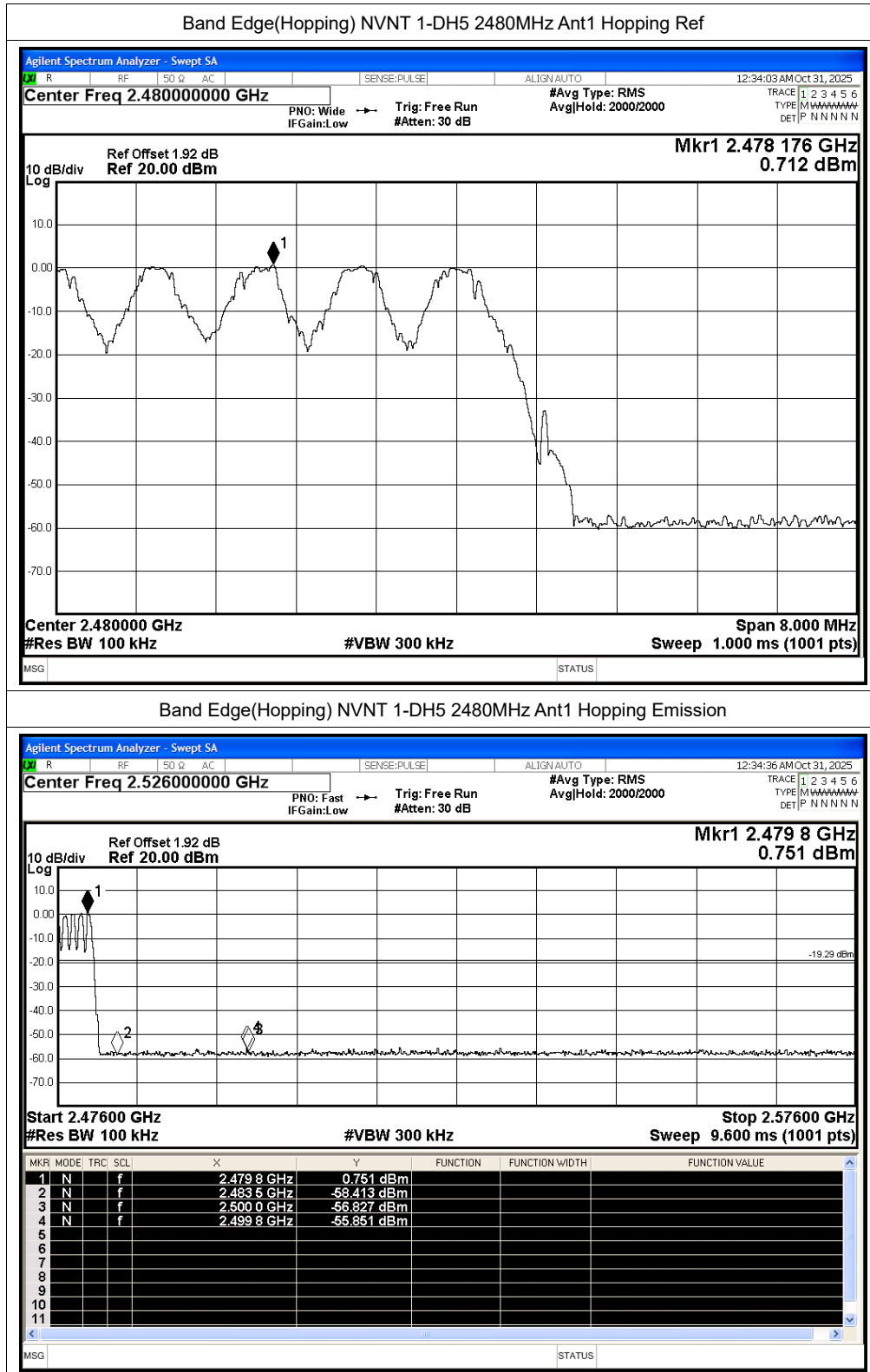
Test Graphs

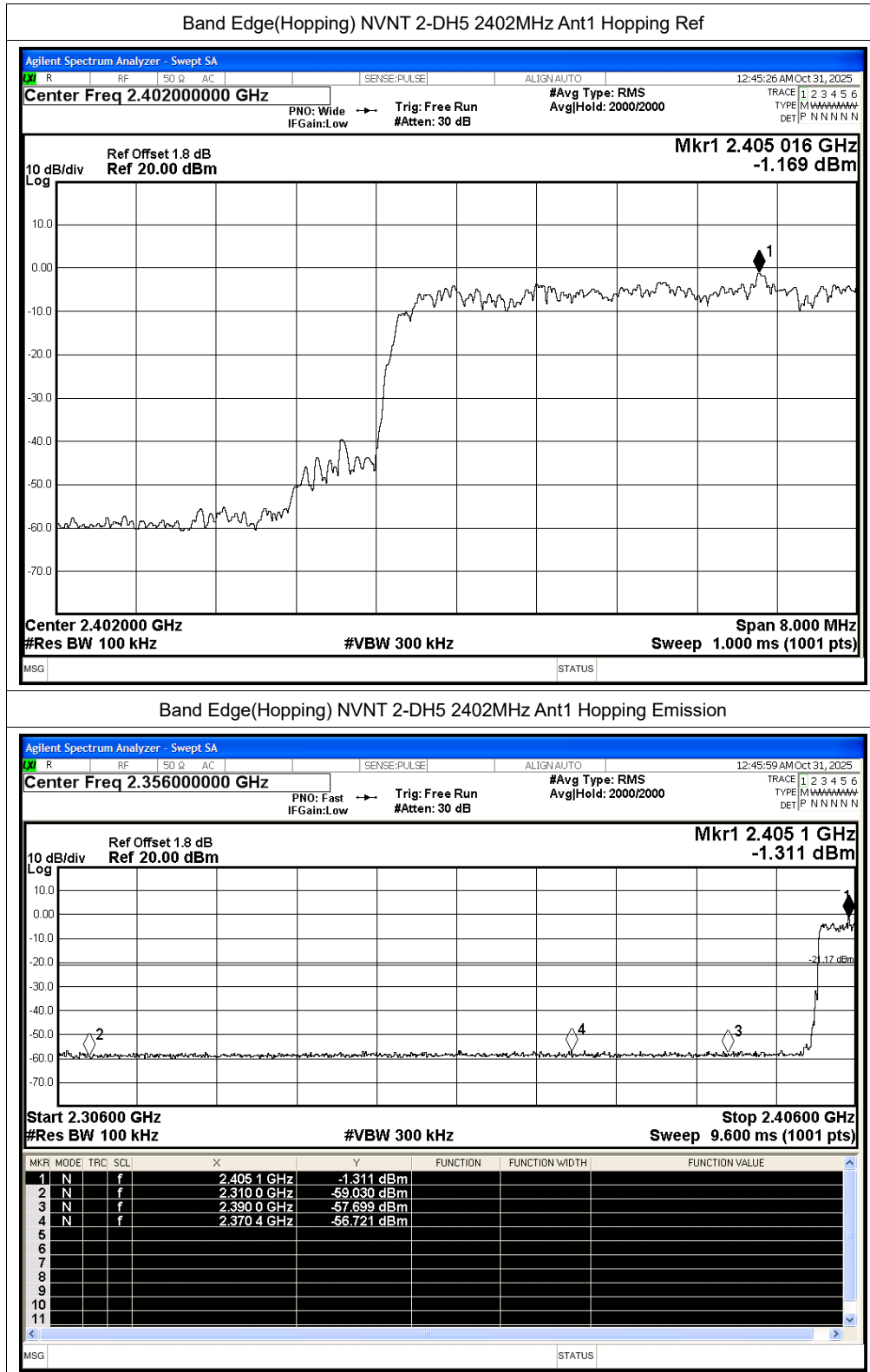
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Ref

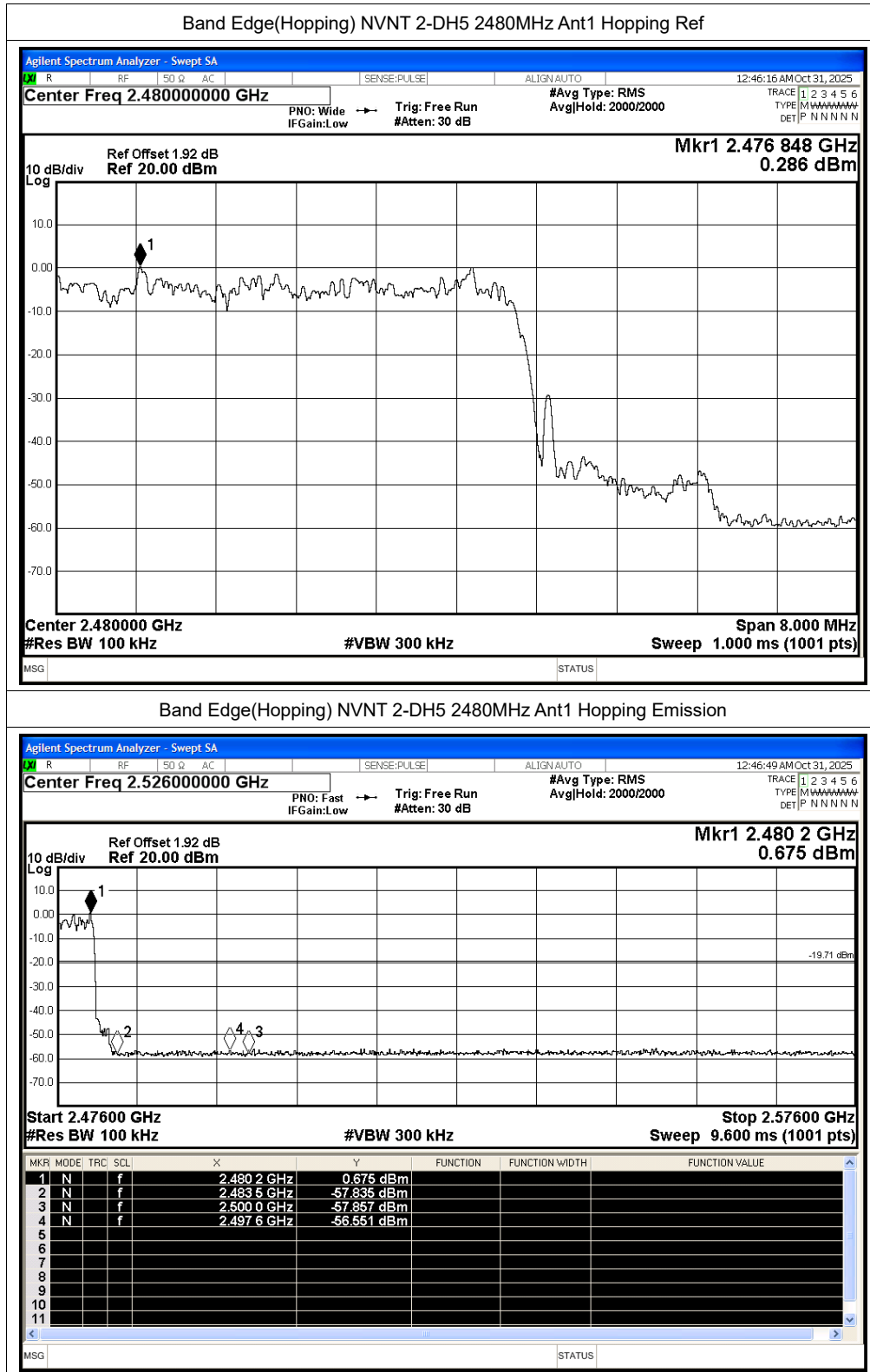


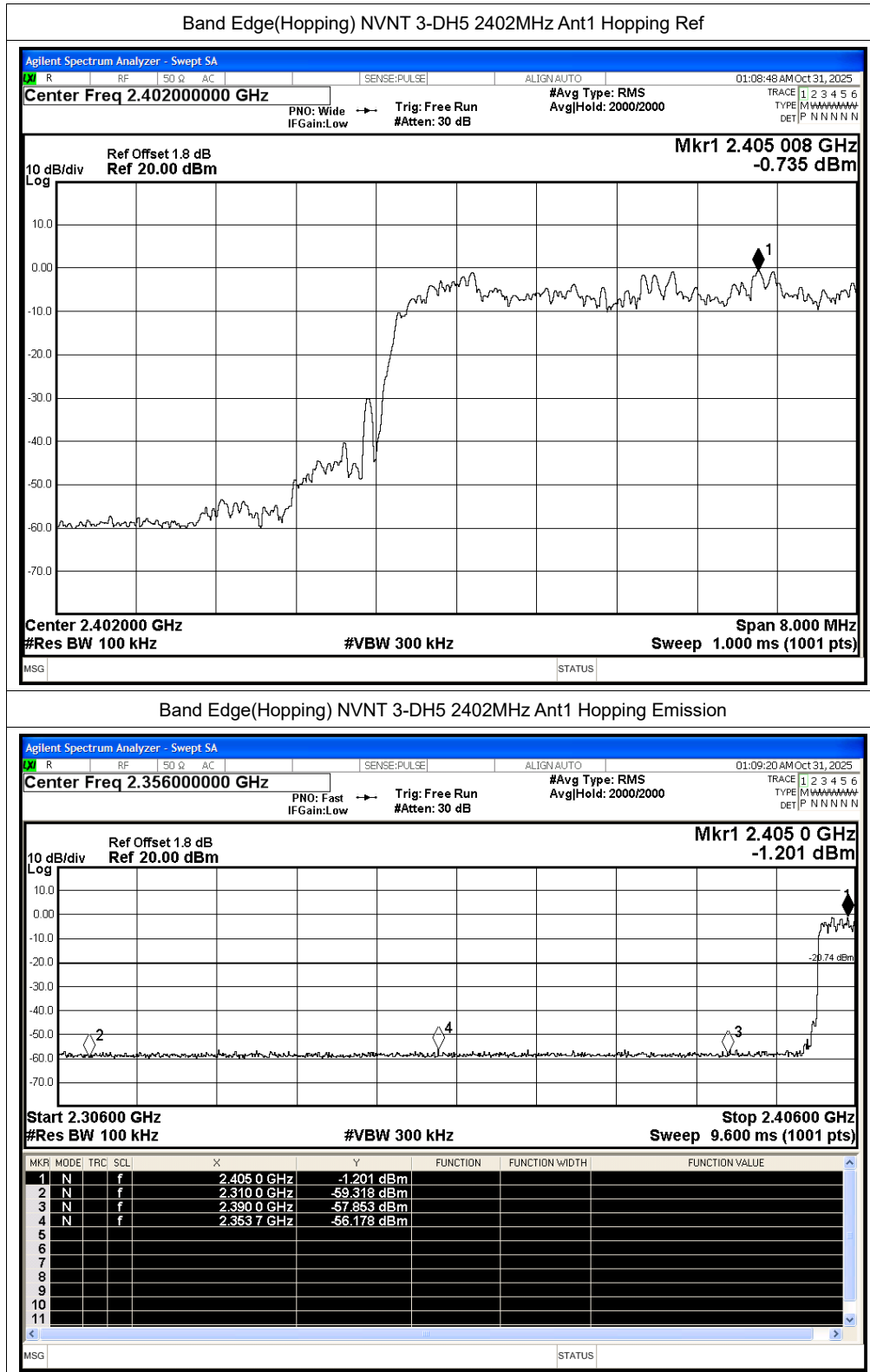
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission

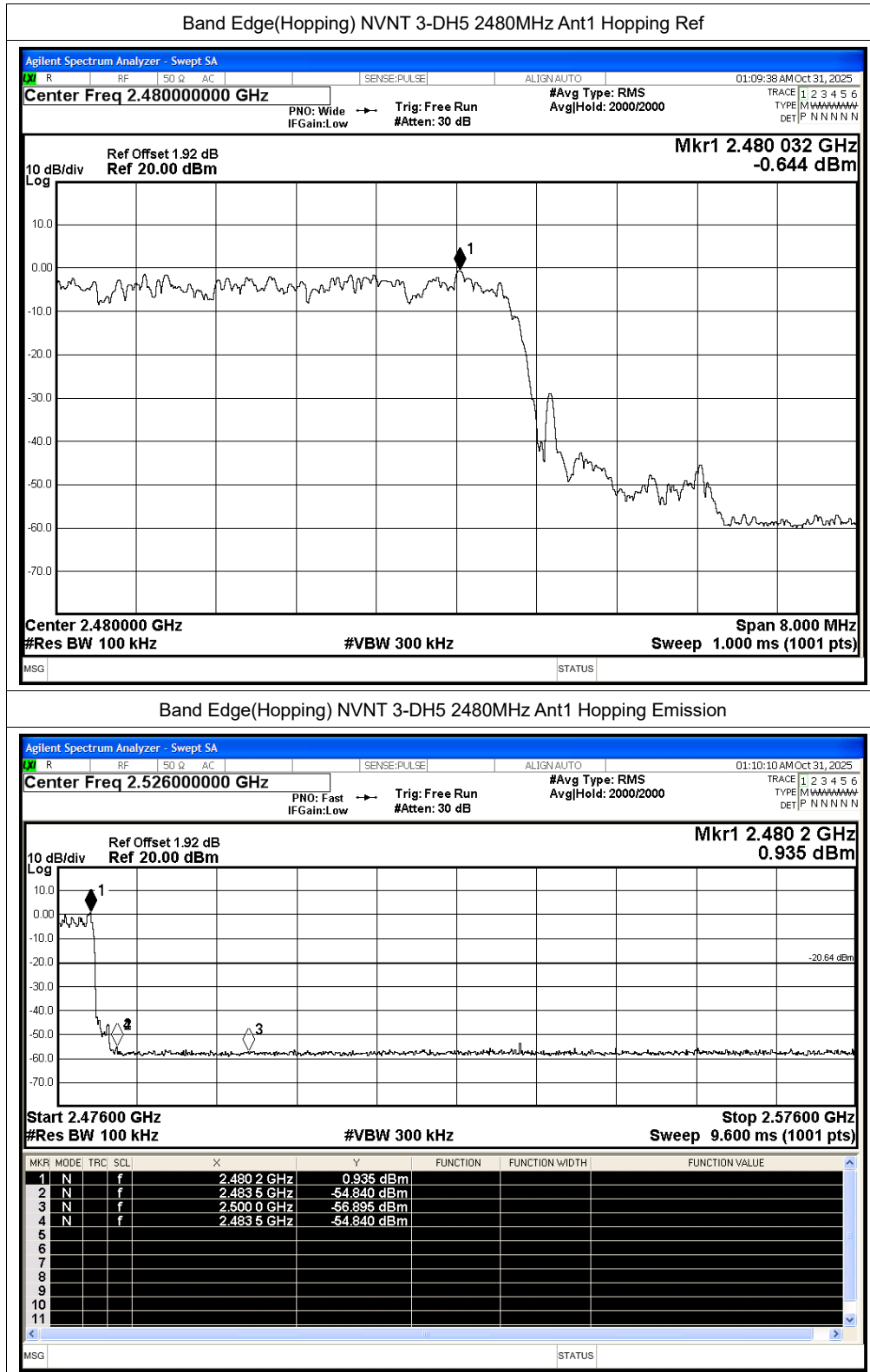










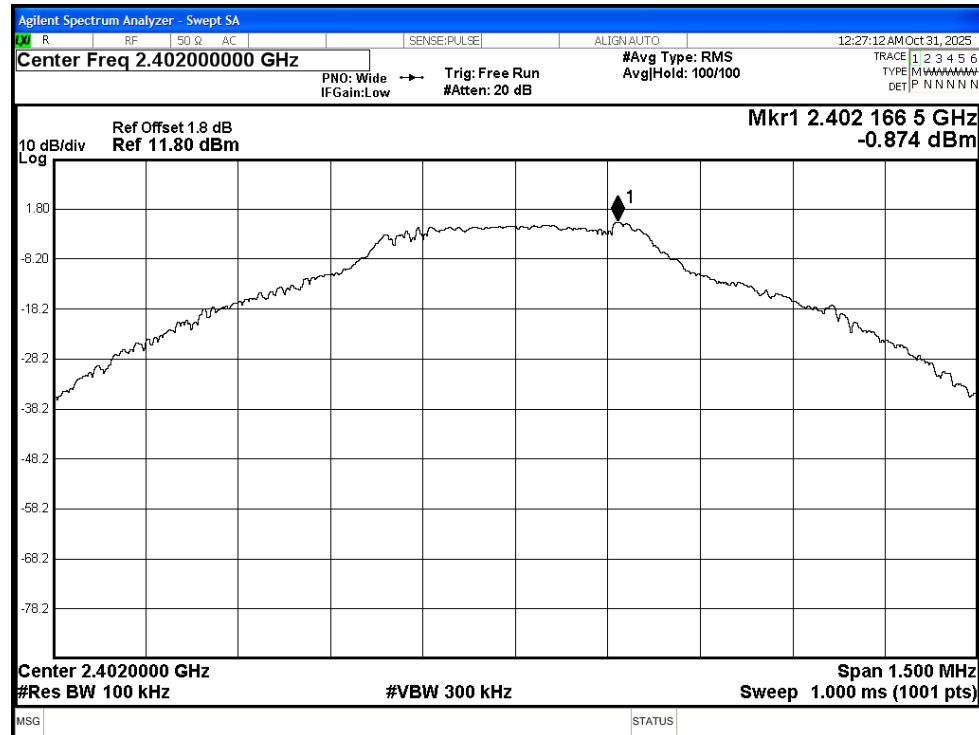


A.7 Conducted RF Spurious Emission

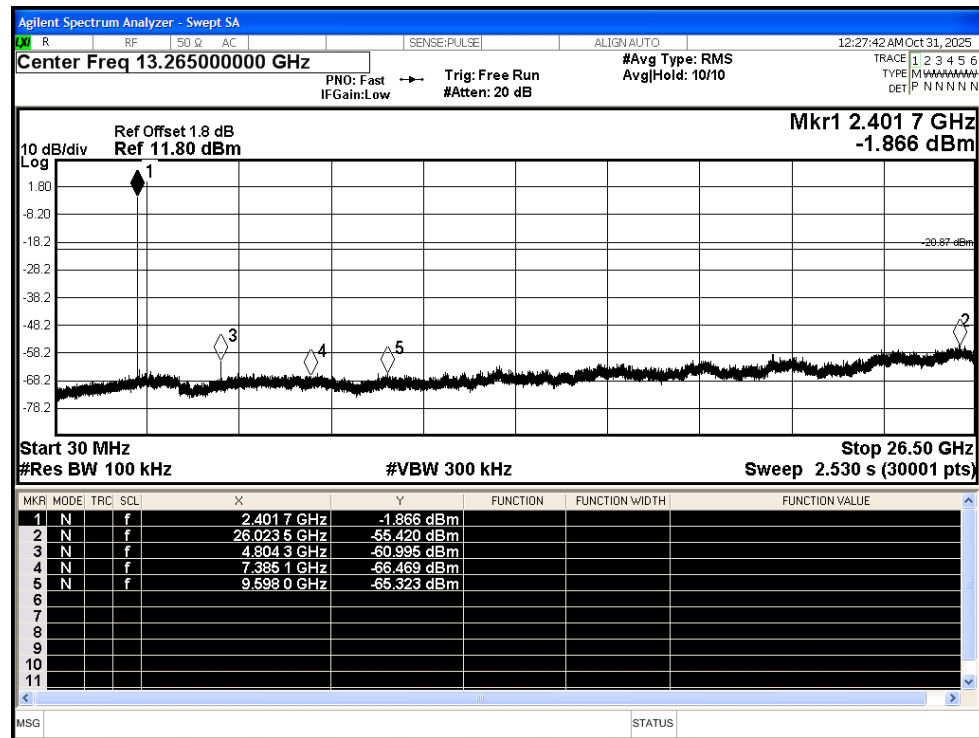
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	-54.55	-20	Pass
NVNT	1-DH5	2441	Ant1	-57.57	-20	Pass
NVNT	1-DH5	2480	Ant1	-55.63	-20	Pass
NVNT	2-DH5	2402	Ant1	-54.2	-20	Pass
NVNT	2-DH5	2441	Ant1	-56.07	-20	Pass
NVNT	2-DH5	2480	Ant1	-56.04	-20	Pass
NVNT	3-DH5	2402	Ant1	-54.15	-20	Pass
NVNT	3-DH5	2441	Ant1	-55.96	-20	Pass
NVNT	3-DH5	2480	Ant1	-56.07	-20	Pass

Test Graphs

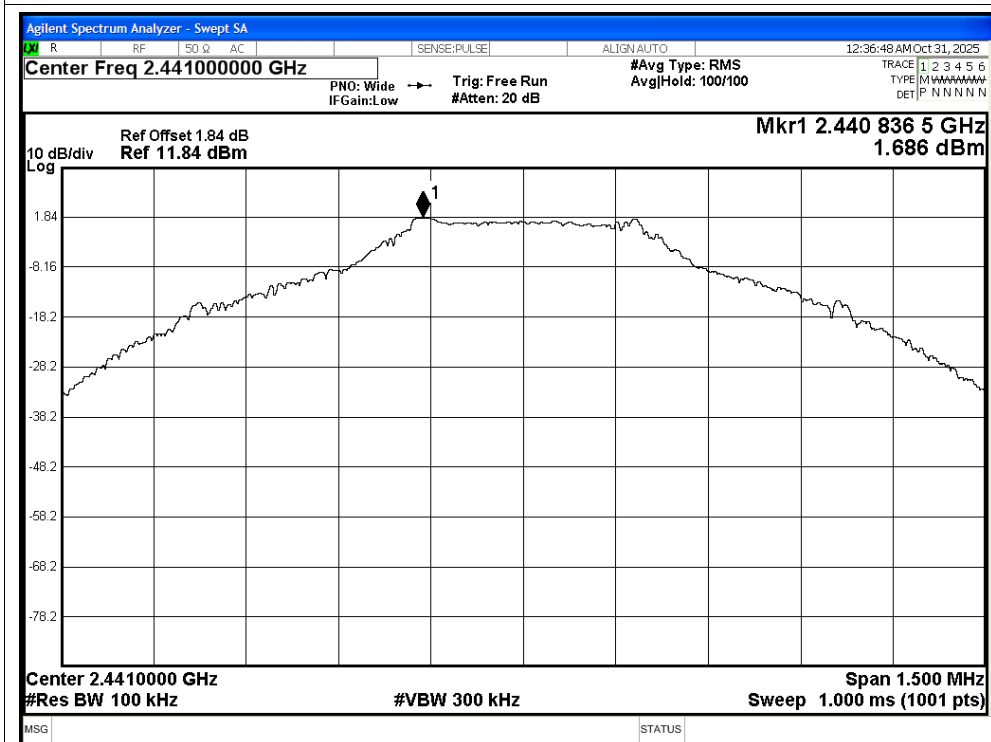
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref



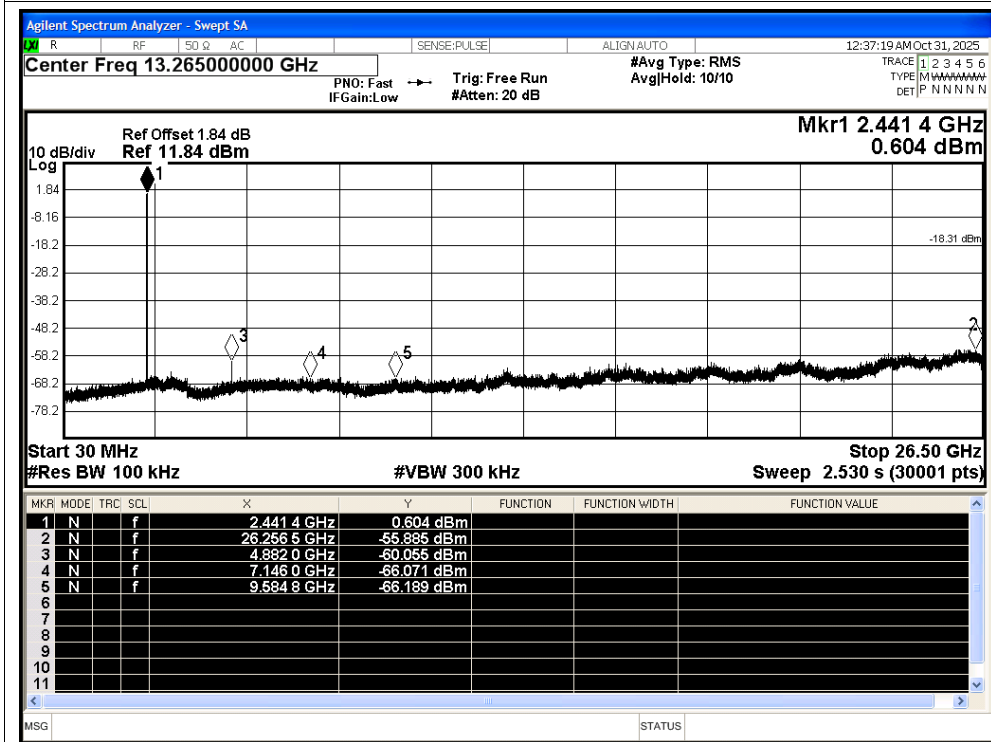
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission



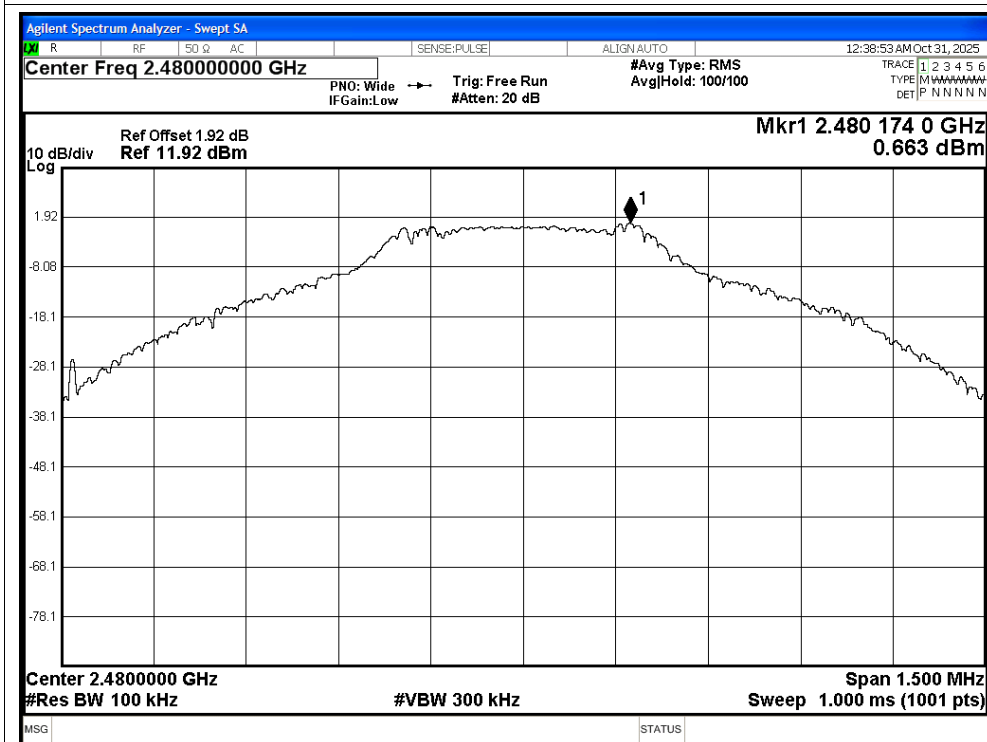
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref



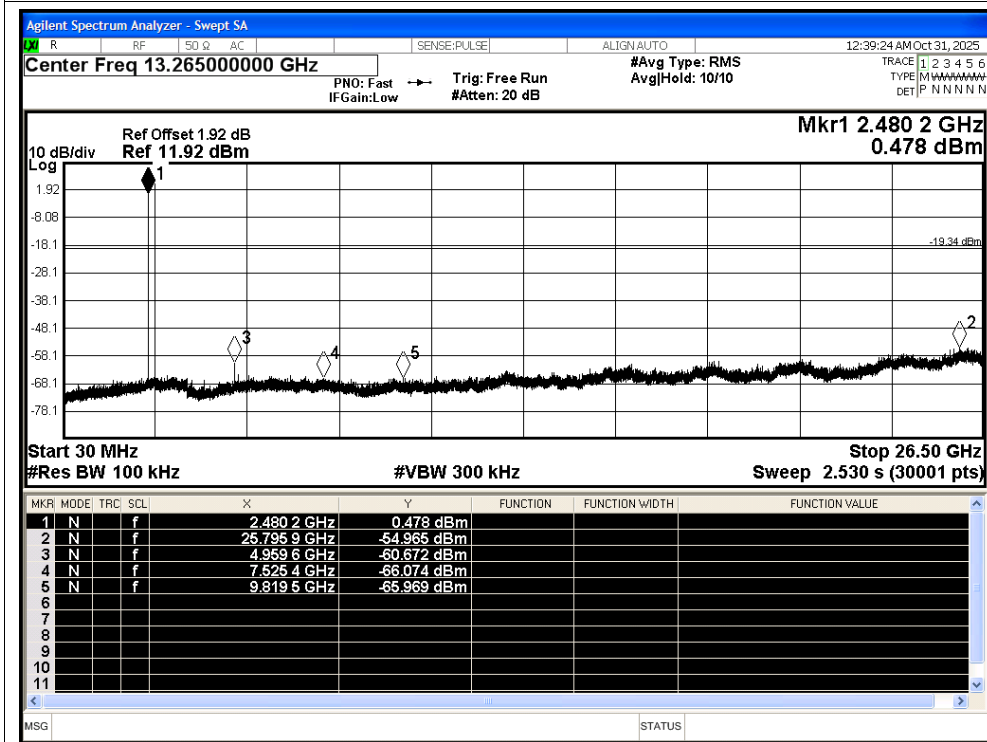
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission



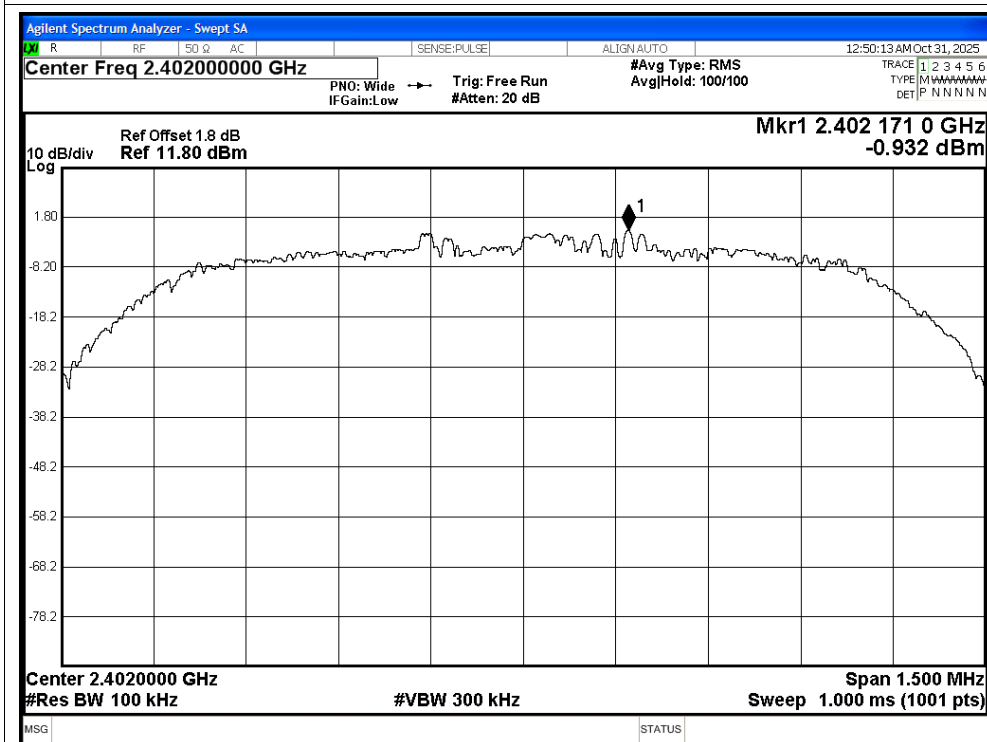
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref



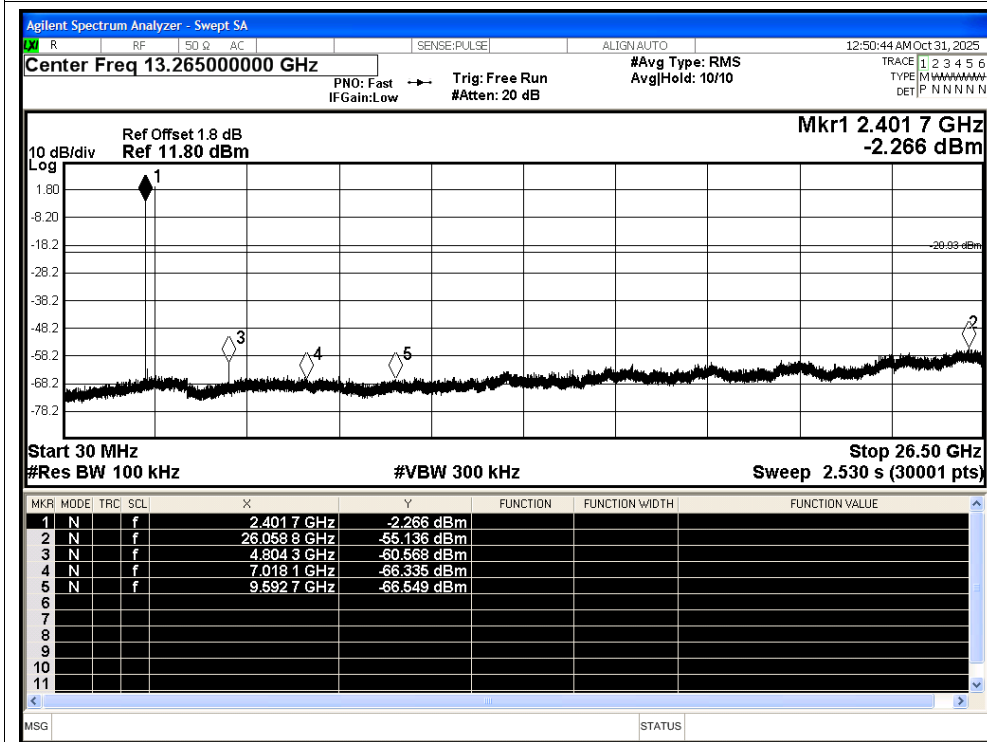
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Emission



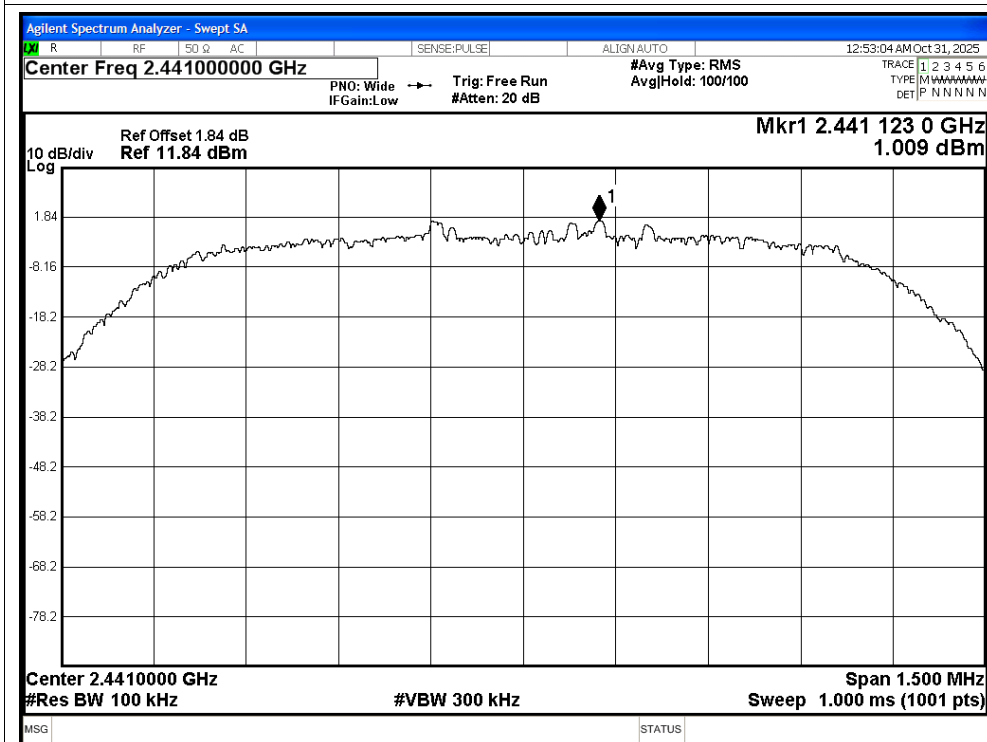
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Ref



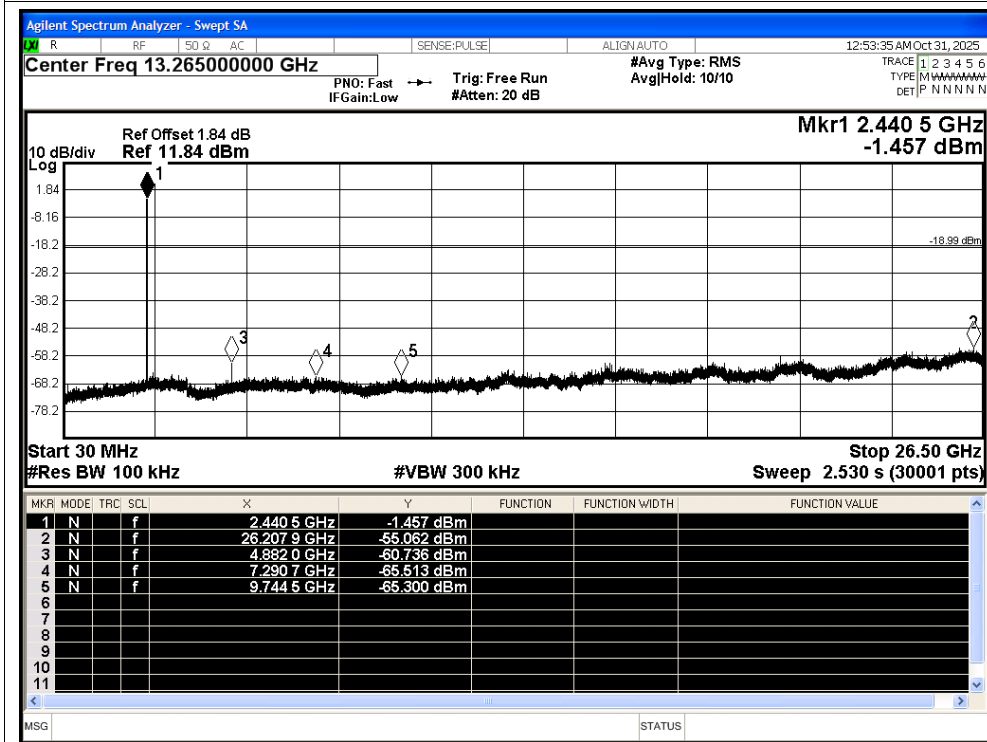
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Emission



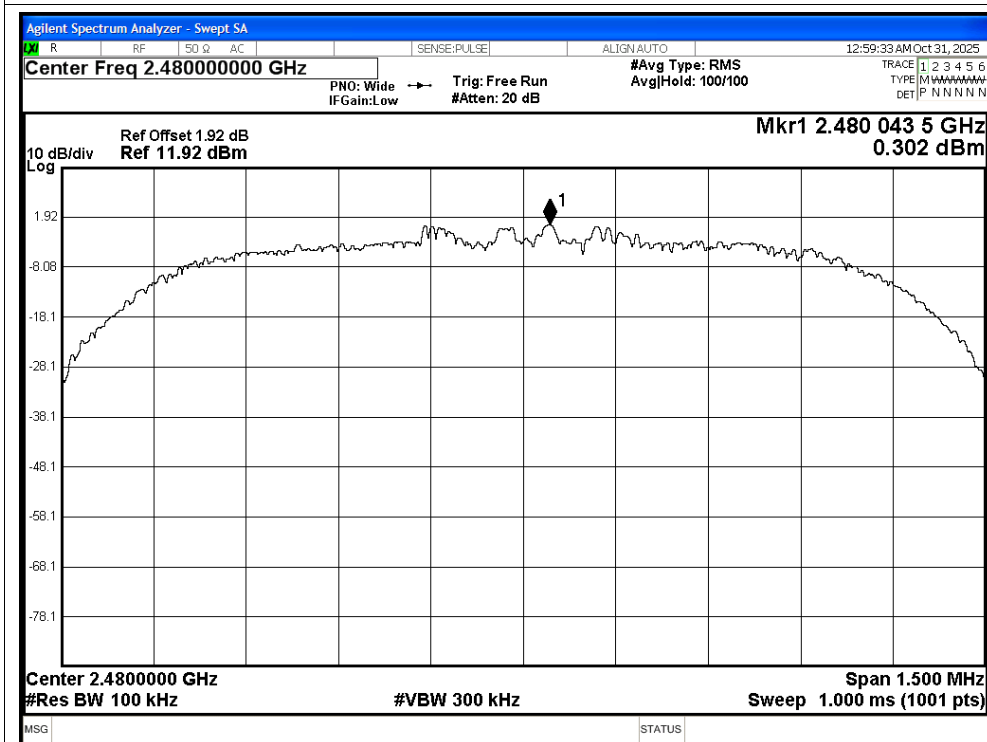
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Ref



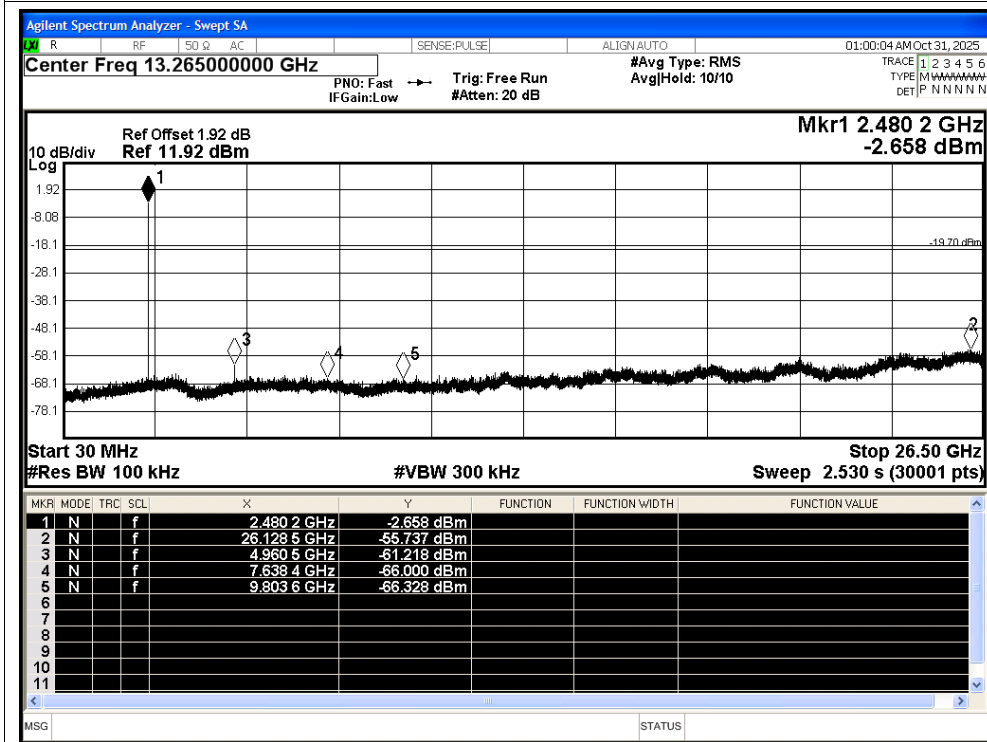
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Emission



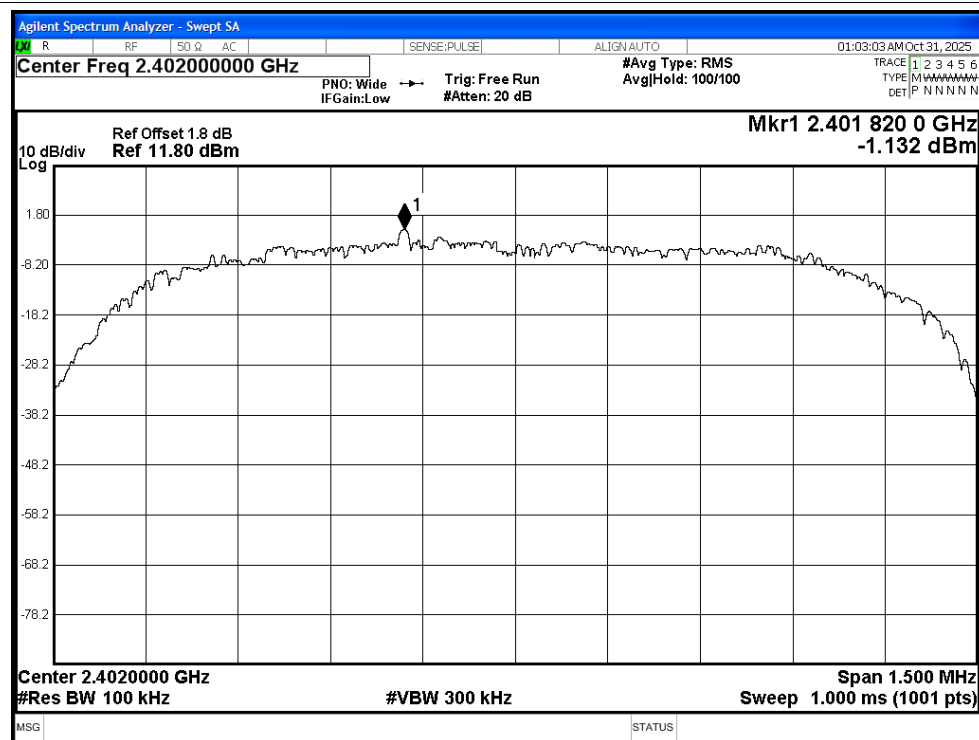
Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Ref



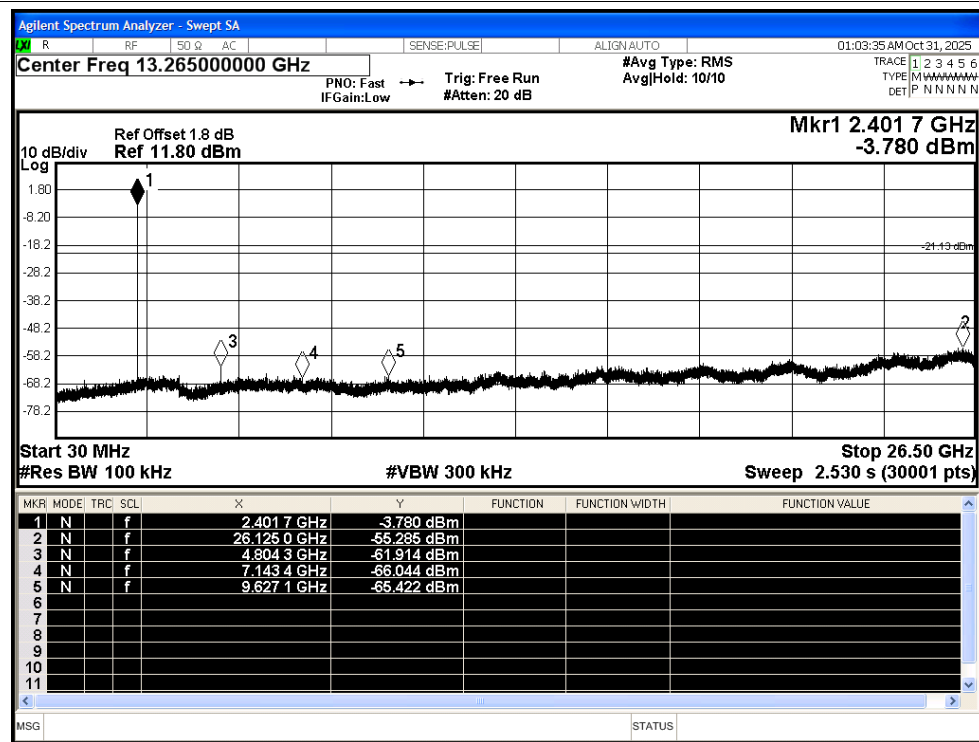
Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Emission



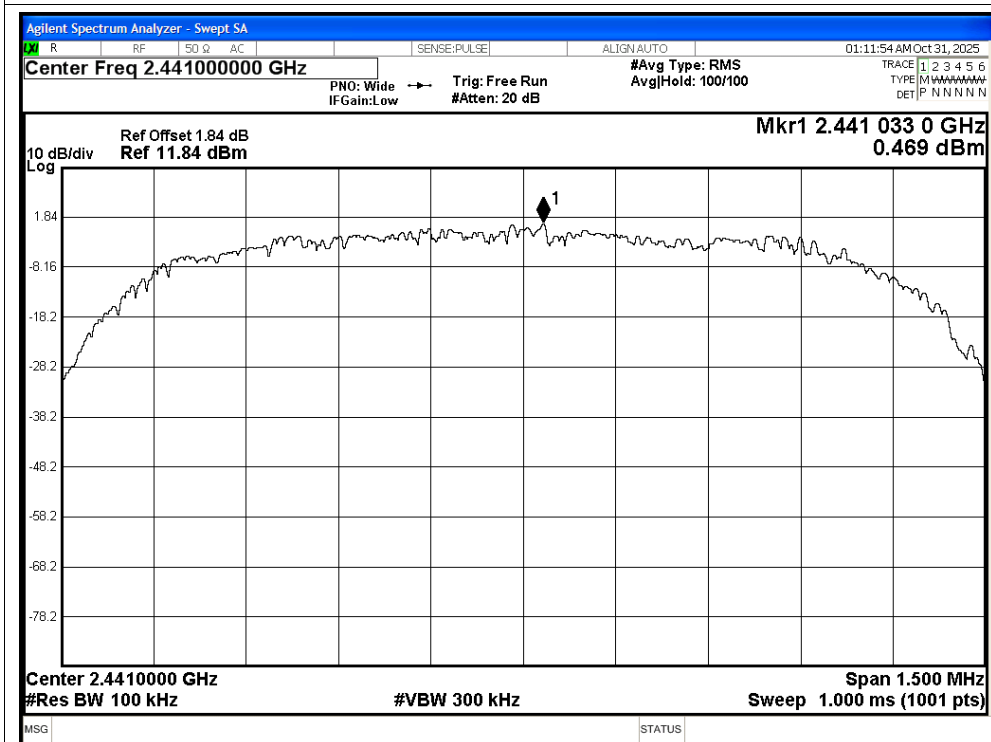
Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Ref



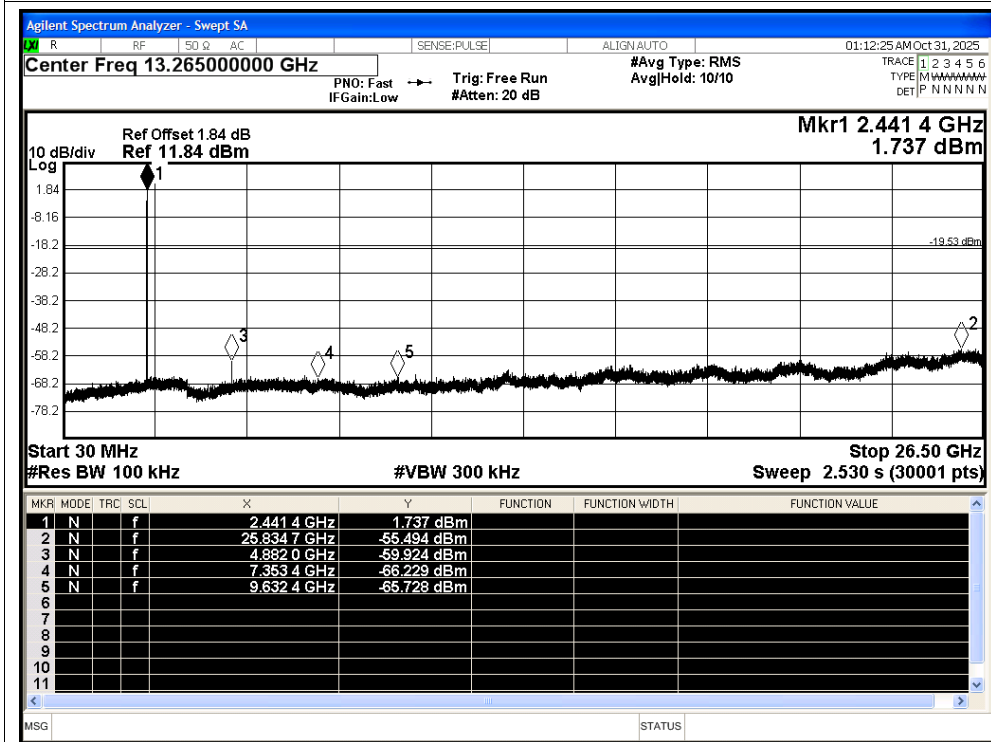
Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Emission



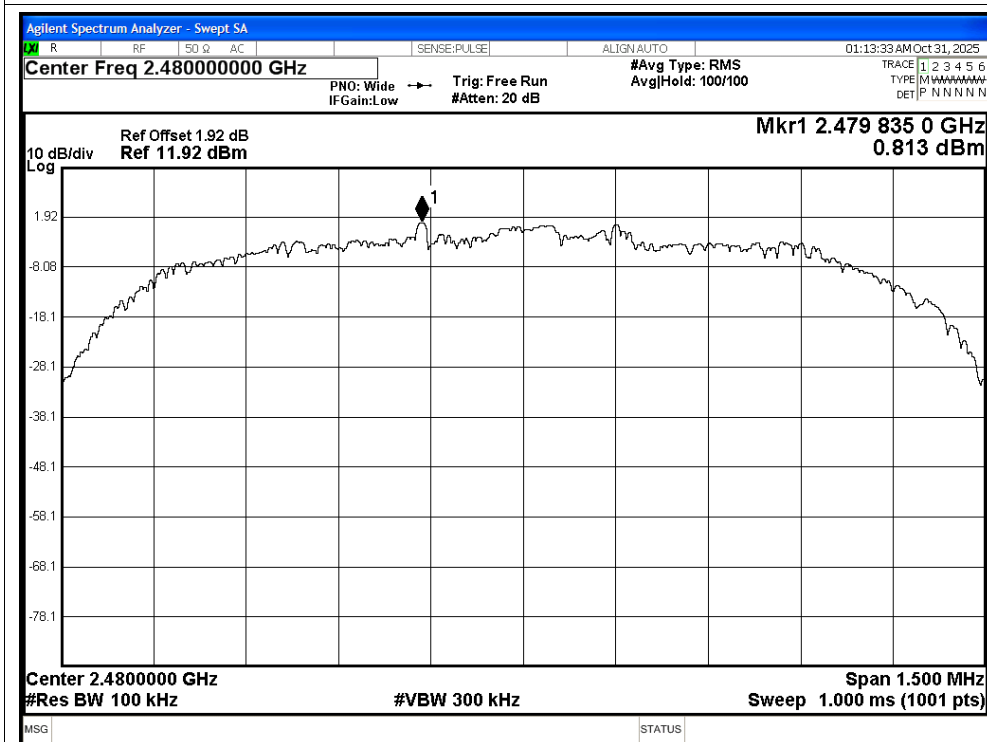
Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Ref



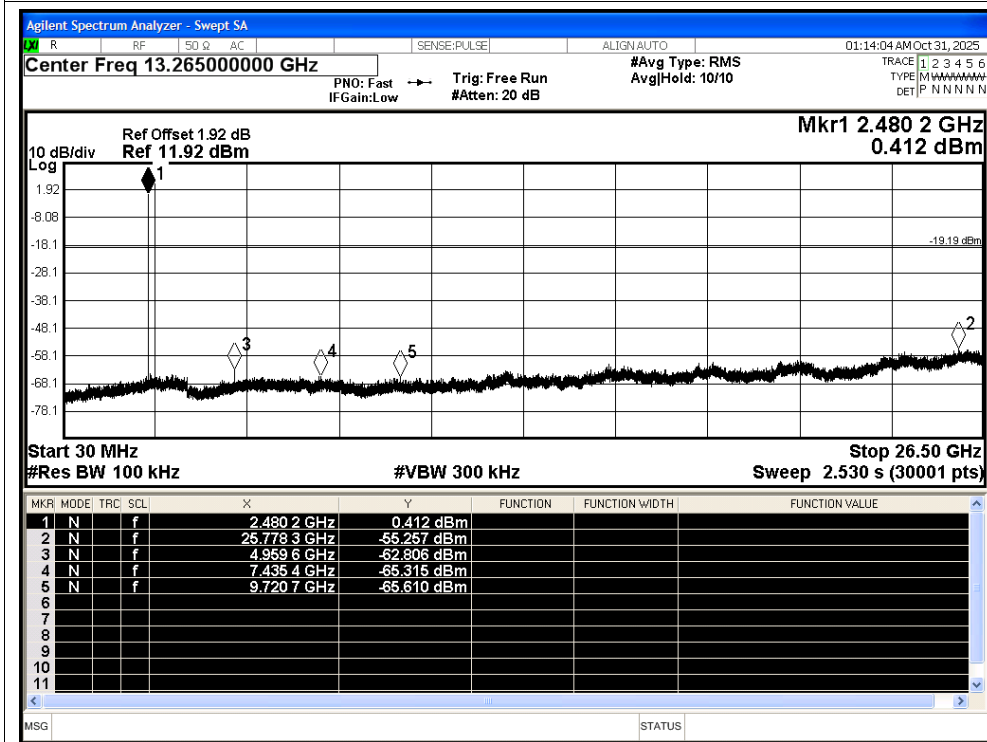
Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Emission

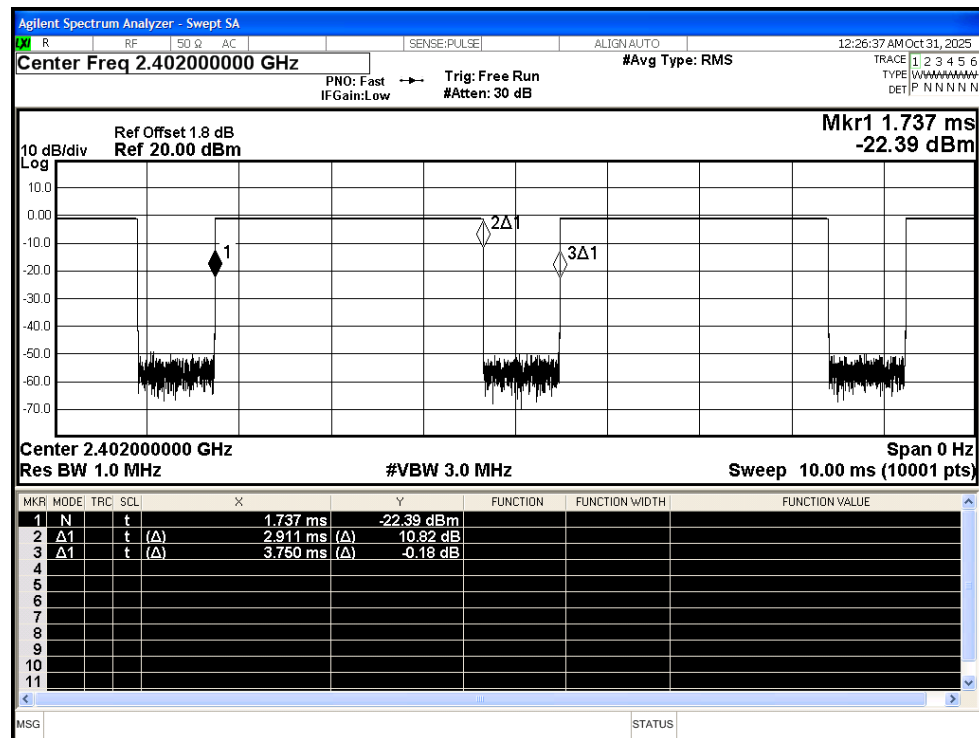


A.8 Duty Cycle

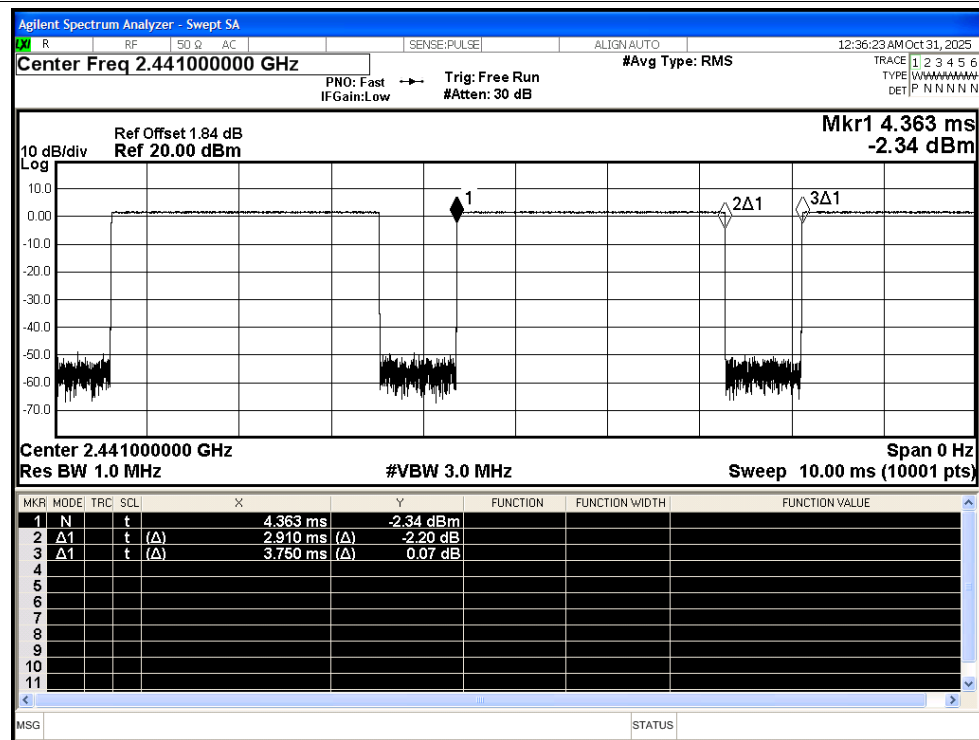
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH5	2402	Ant1	77.63	1.1	0.34
NVNT	1-DH5	2441	Ant1	77.6	1.1	0.34
NVNT	1-DH5	2480	Ant1	77.63	1.1	0.34
NVNT	2-DH5	2402	Ant1	76.43	1.17	0.36
NVNT	2-DH5	2441	Ant1	97.22	0.12	7.14
NVNT	2-DH5	2480	Ant1	97.22	0.12	7.14
NVNT	3-DH5	2402	Ant1	97.22	0.12	7.14
NVNT	3-DH5	2441	Ant1	97.22	0.12	7.14
NVNT	3-DH5	2480	Ant1	97.22	0.12	7.14

Test Graphs

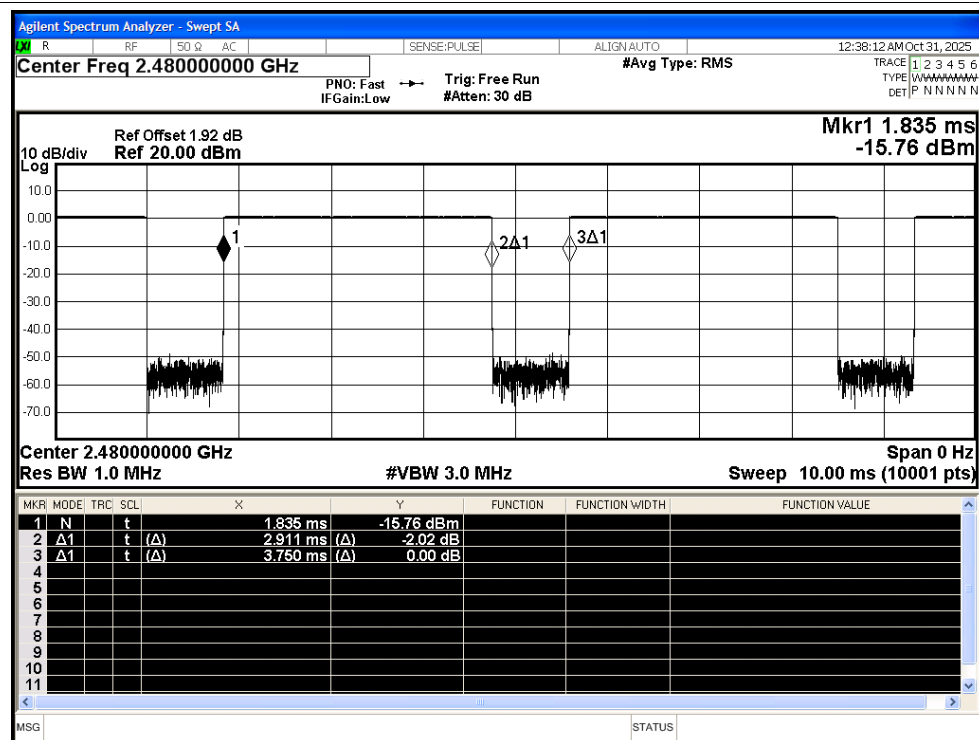
Duty Cycle NVNT 1-DH5 2402MHz Ant1



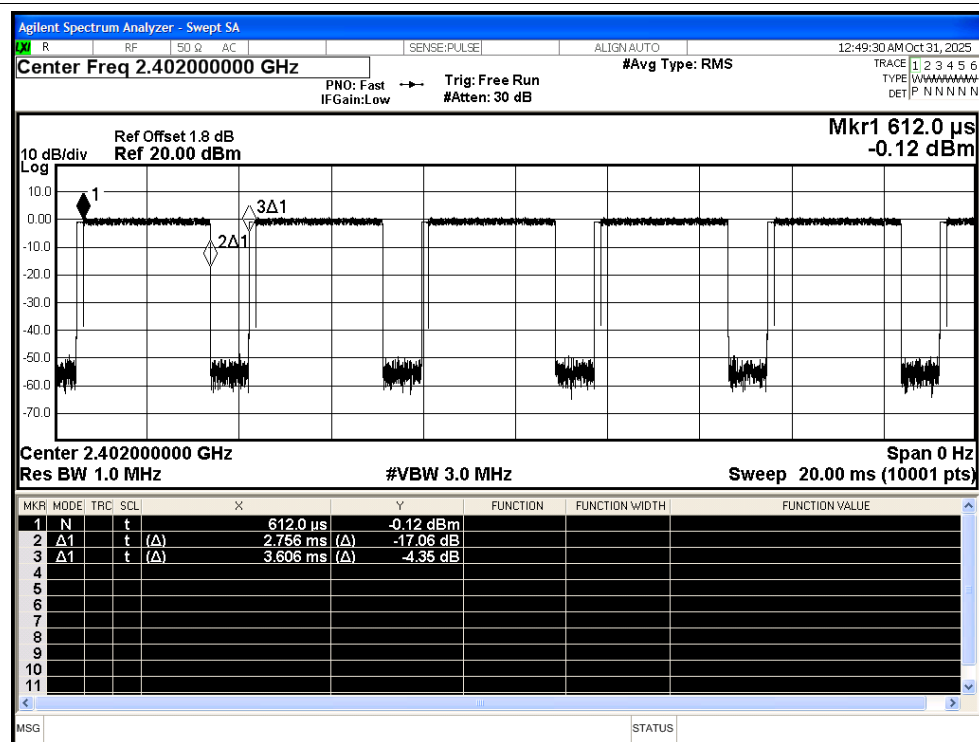
Duty Cycle NVNT 1-DH5 2441MHz Ant1



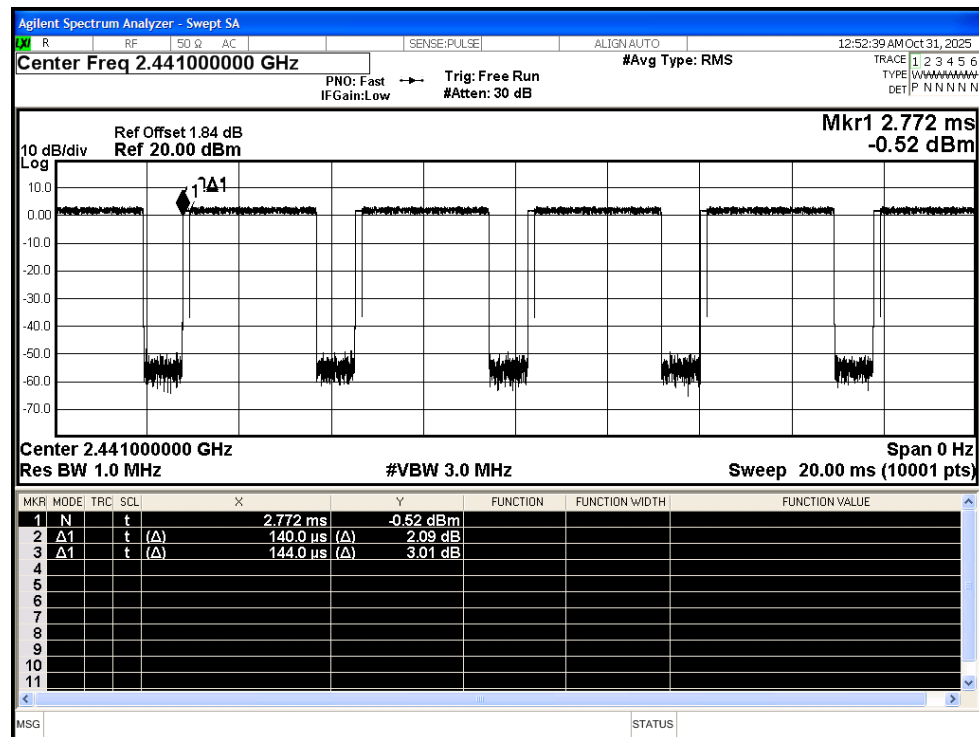
Duty Cycle NVNT 1-DH5 2480MHz Ant1



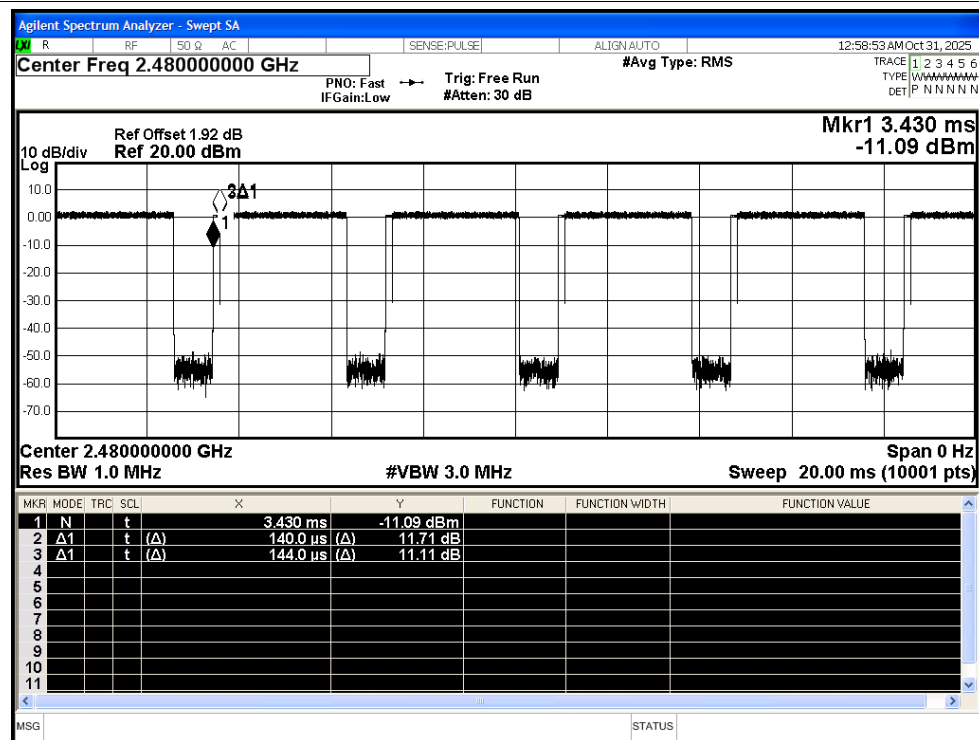
Duty Cycle NVNT 2-DH5 2402MHz Ant1



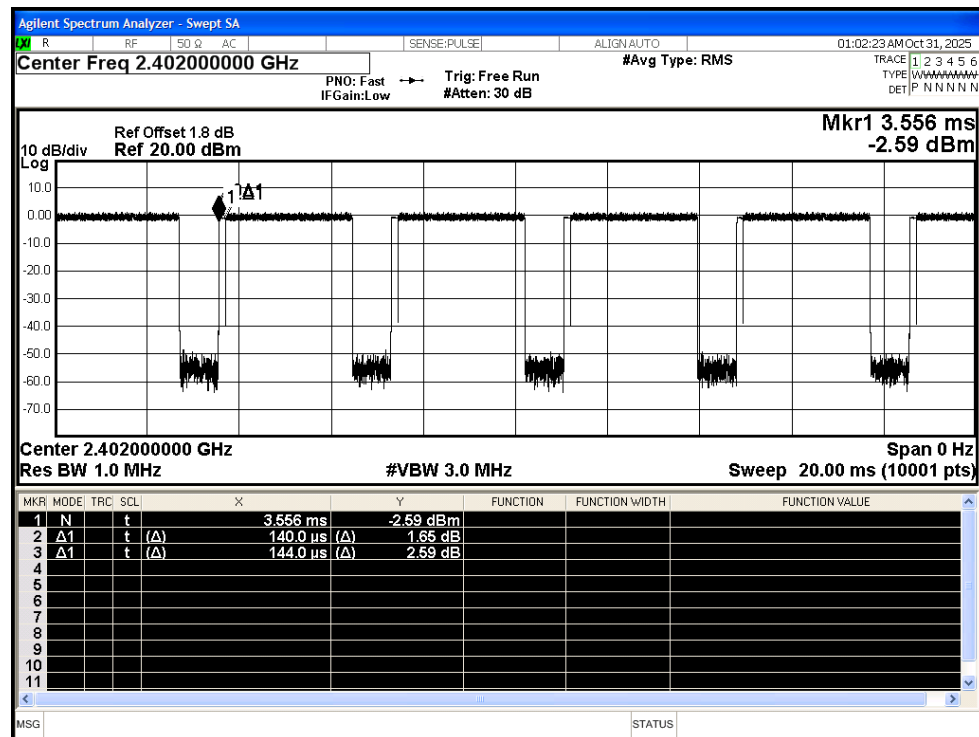
Duty Cycle NVNT 2-DH5 2441MHz Ant1



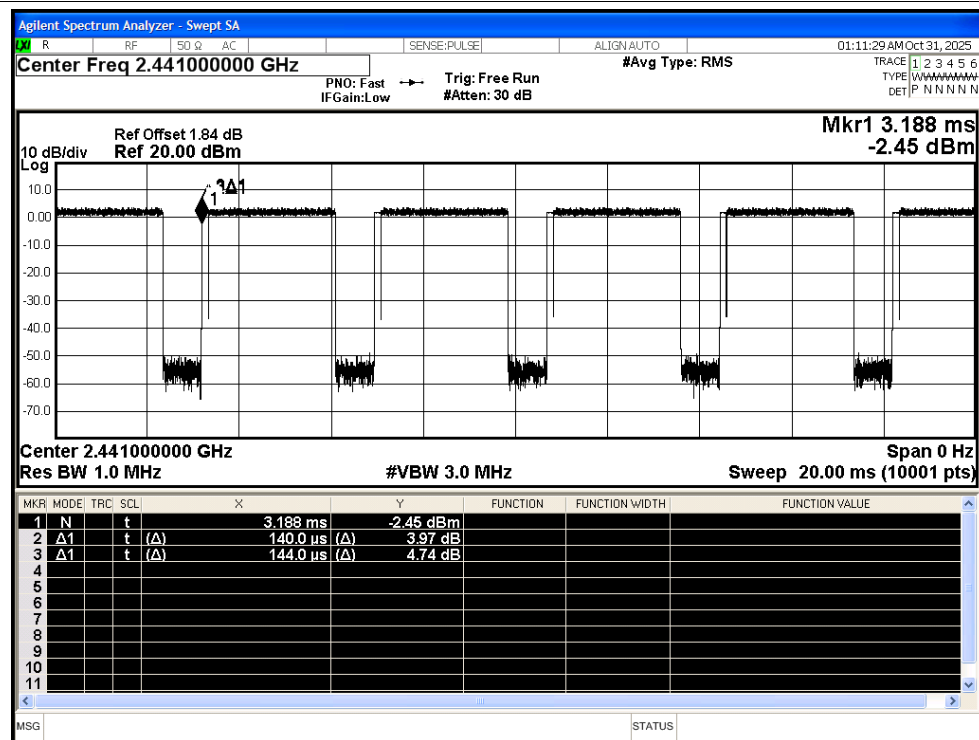
Duty Cycle NVNT 2-DH5 2480MHz Ant1

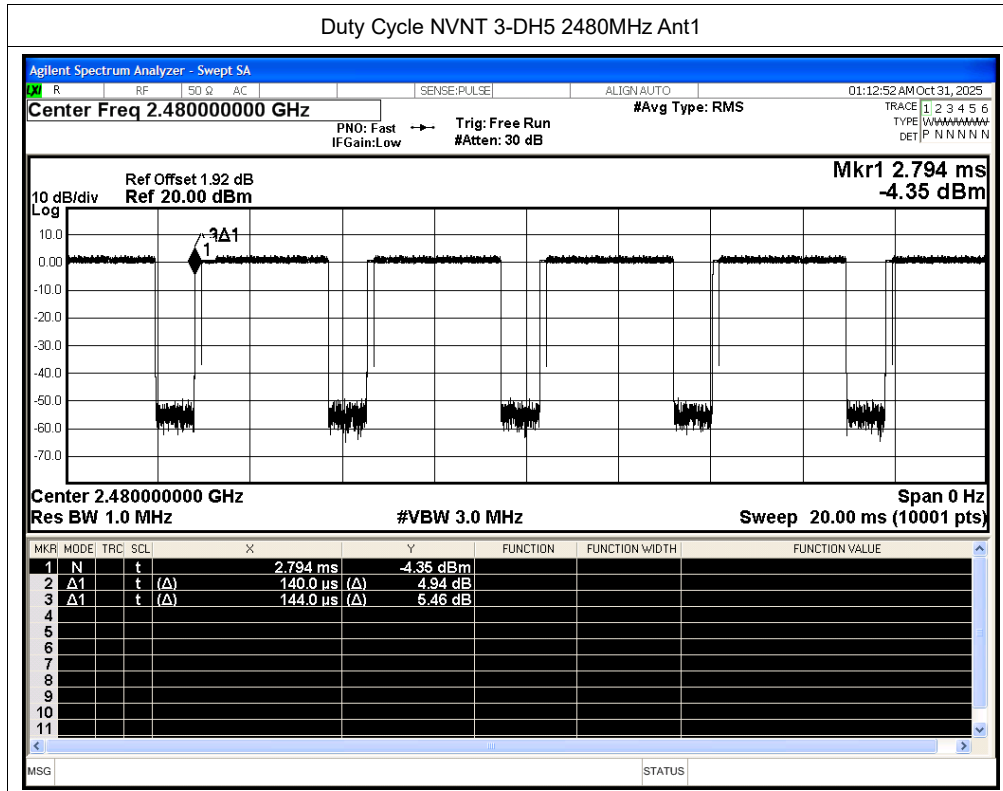


Duty Cycle NVNT 3-DH5 2402MHz Ant1



Duty Cycle NVNT 3-DH5 2441MHz Ant1



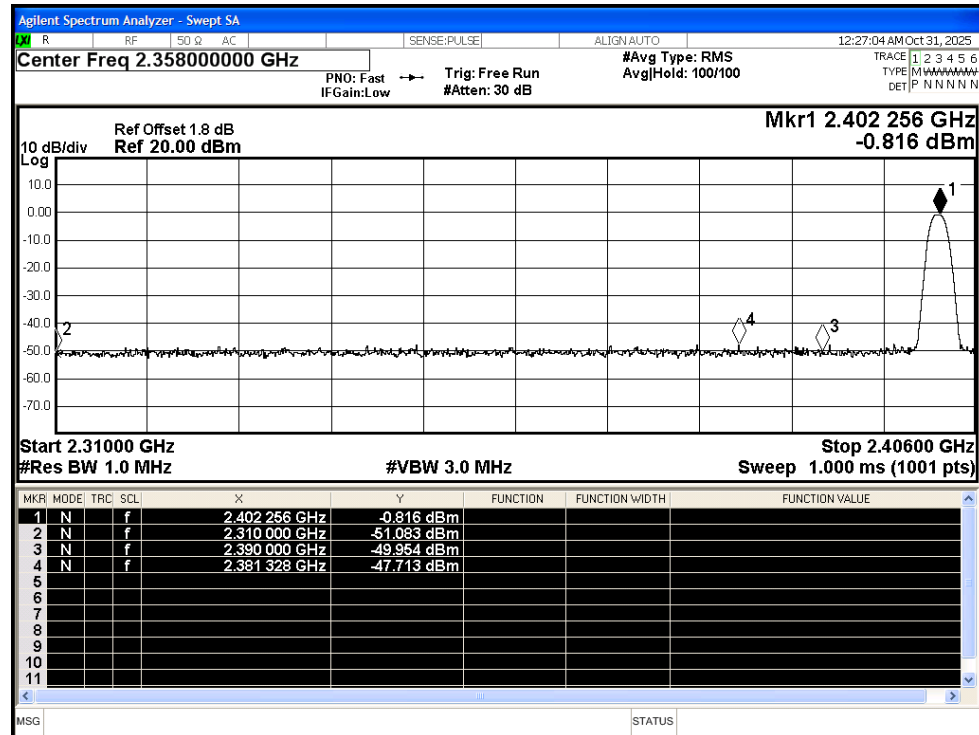


A.9 Restrict Band

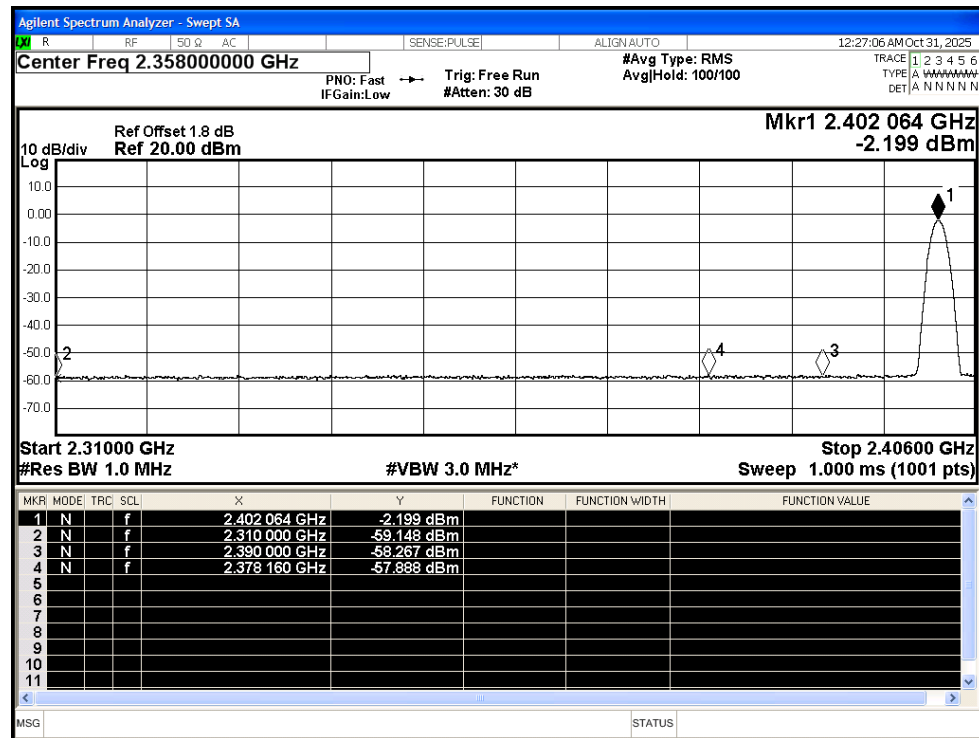
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-51.08	2	-	46.18	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-59.15	2	1.1	39.21	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2381.328	-47.71	2	-	49.55	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2378.16	-57.89	2	1.1	40.47	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-49.95	2	-	47.31	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-58.27	2	1.1	40.09	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-49.25	2	-	48.01	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-57.85	2	1.1	40.51	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2485.96	-44.31	2	-	52.95	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2486.464	-57.19	2	1.1	41.17	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-50.76	2	-	46.5	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-57.94	2	1.1	40.42	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-50.82	2	-	46.44	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-59.05	2	1.17	39.38	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2333.136	-46.99	2	-	50.27	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2373.552	-57.73	2	1.17	40.7	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-51.11	2	-	46.15	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-58.53	2	1.17	39.9	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-45.24	2	-	52.02	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-56.92	2	0.12	40.46	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.728	-43.54	2	-	53.72	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.56	-56.09	2	0.12	41.29	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-49.94	2	-	47.32	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-57.63	2	0.12	39.75	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-50.57	2	-	46.69	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-59.04	2	0.12	38.34	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2361.456	-47.92	2	-	49.34	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2333.712	-57.88	2	0.12	39.5	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-50.22	2	-	47.04	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-58.71	2	0.12	38.67	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-45.89	2	-	51.37	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-55.99	2	0.12	41.39	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.608	-44.05	2	-	53.21	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.608	-55.76	2	0.12	41.62	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-50.97	2	-	46.29	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-58.48	2	0.12	38.9	Average	54	Pass

Test Graphs

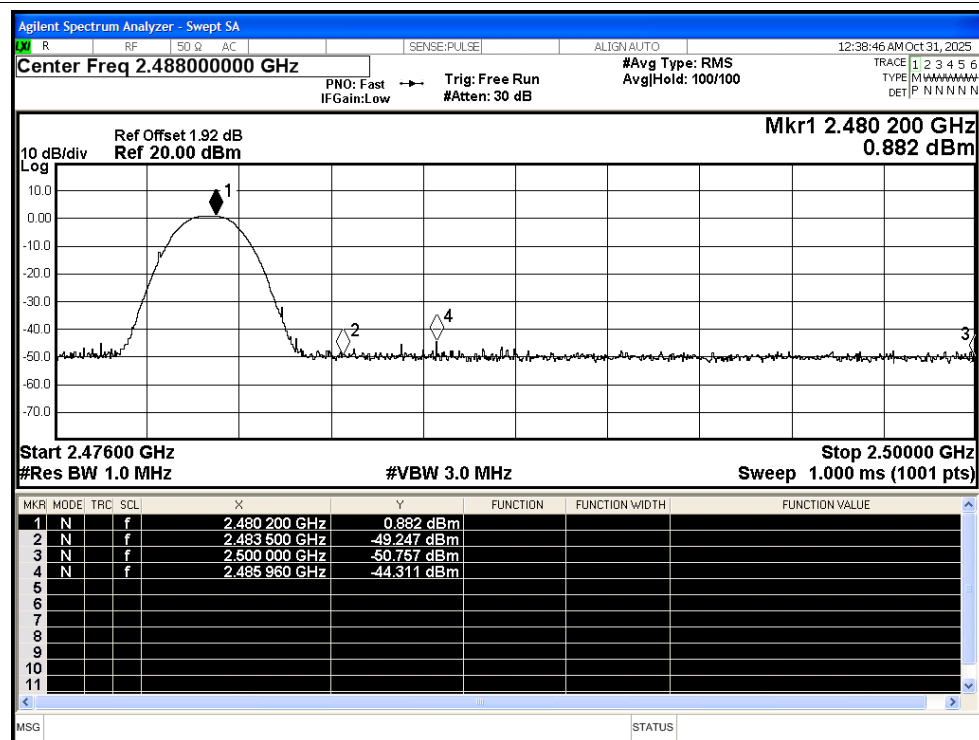
Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Peak



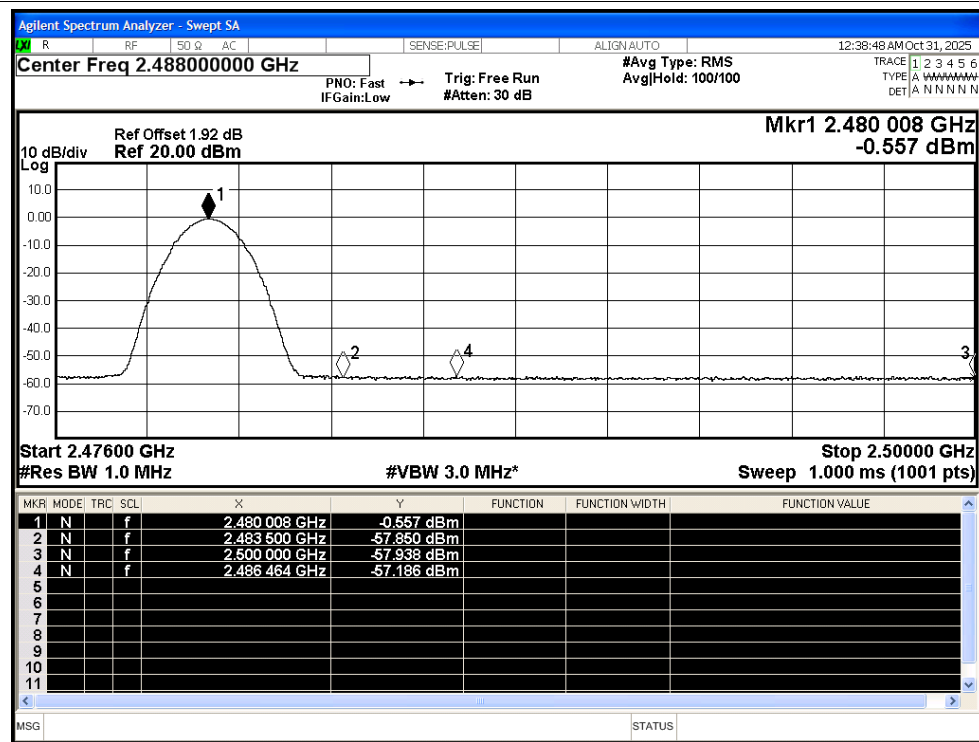
Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Average



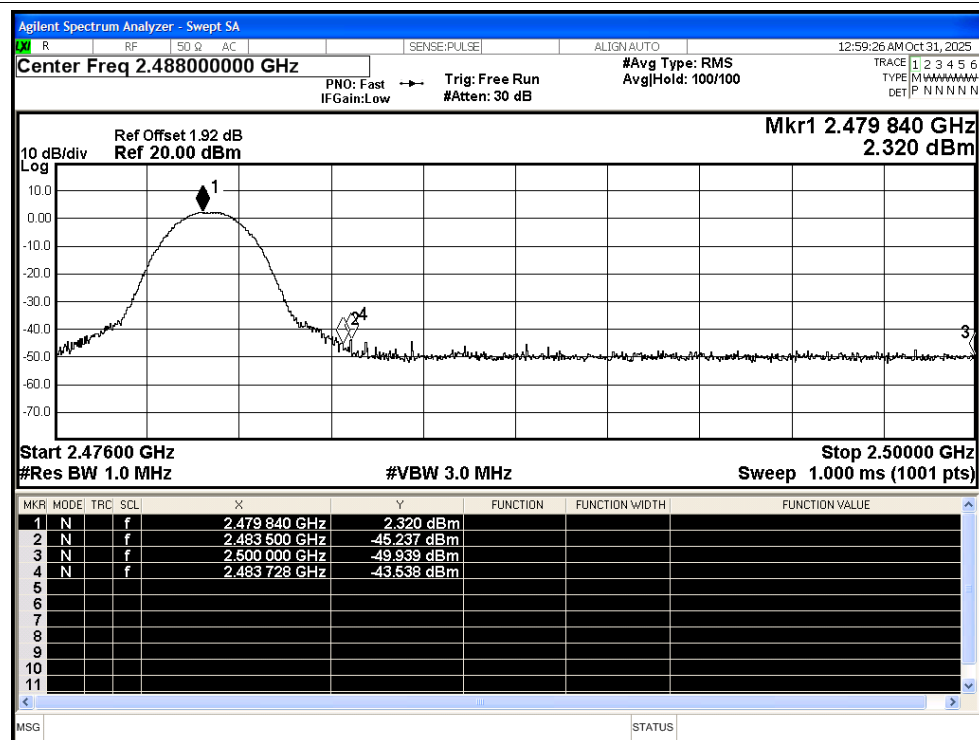
Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Peak



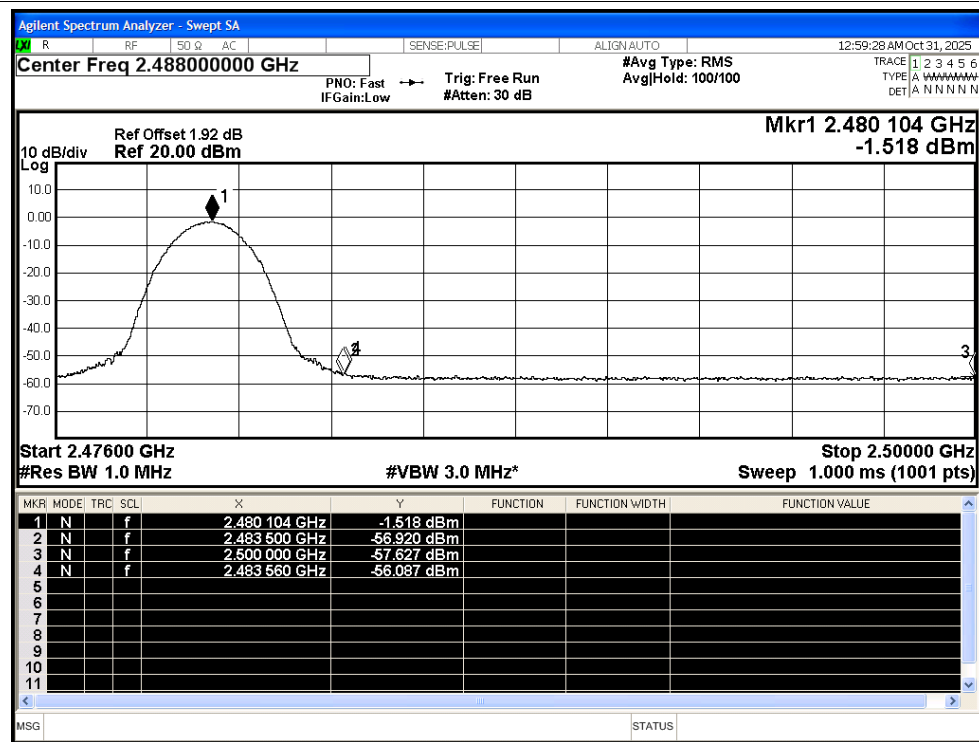
Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Average

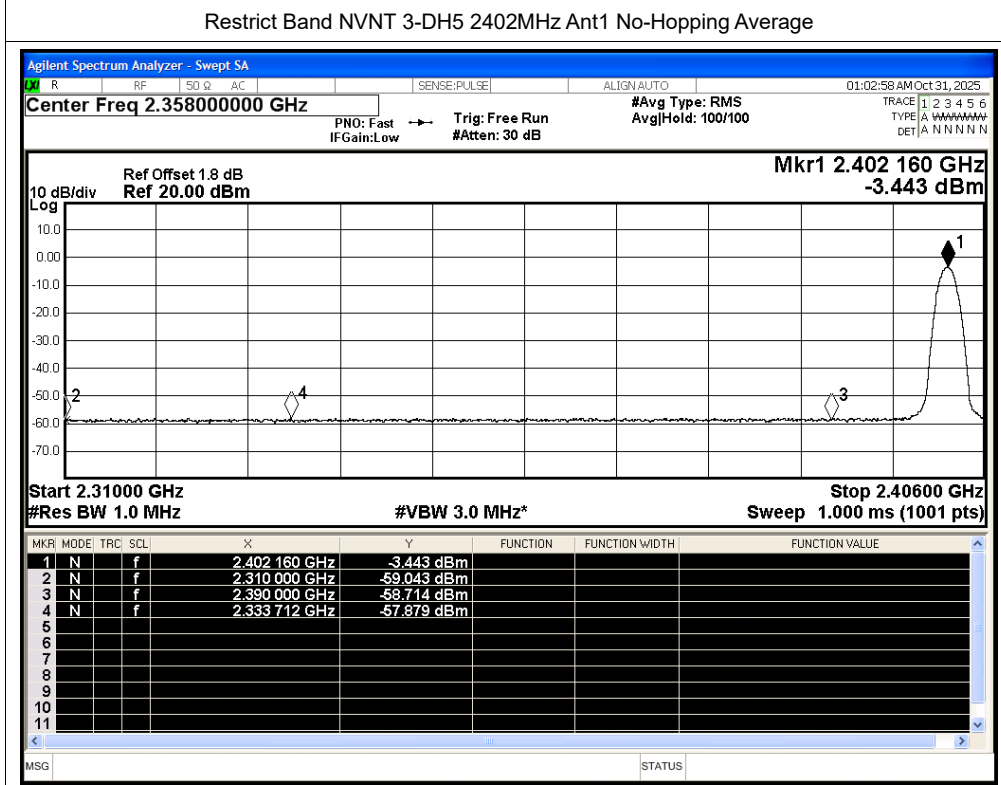
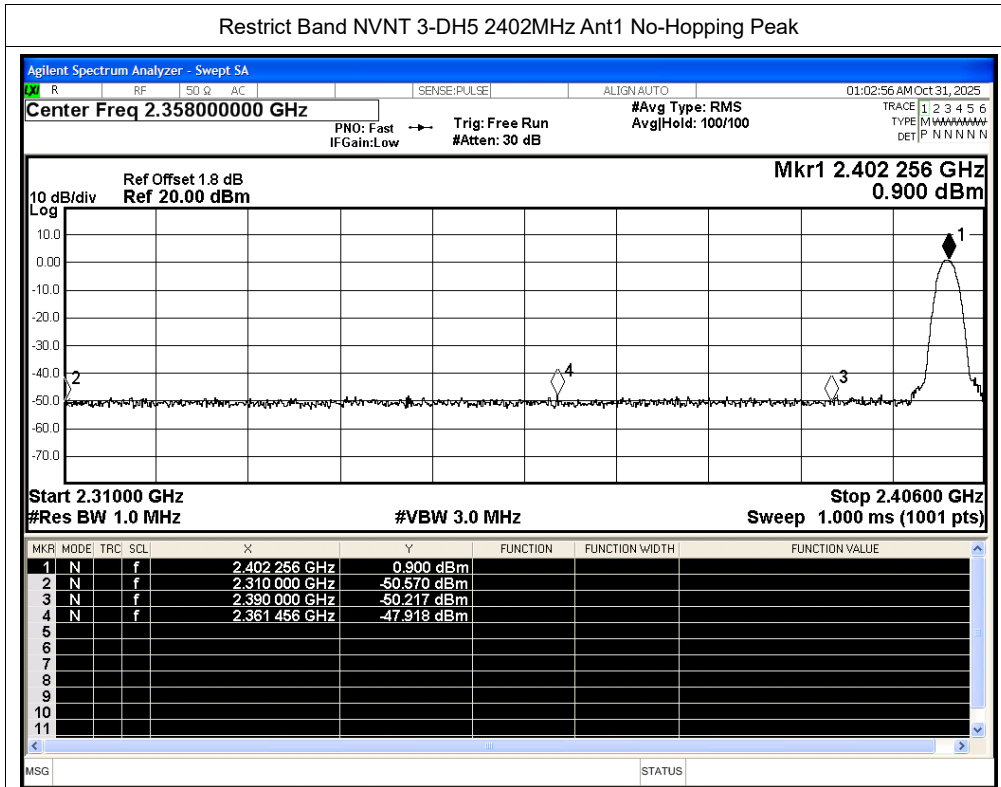


Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Peak

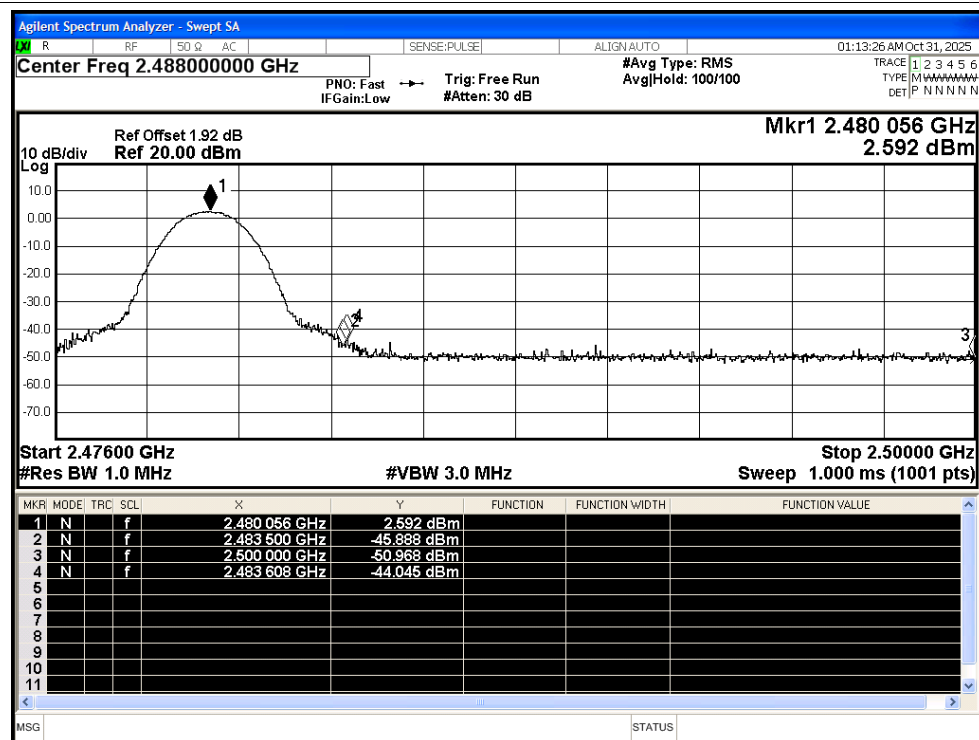


Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Average





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



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

