

Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: B.One Hub
Test Model: Edge 2.1

Environmental Conditions

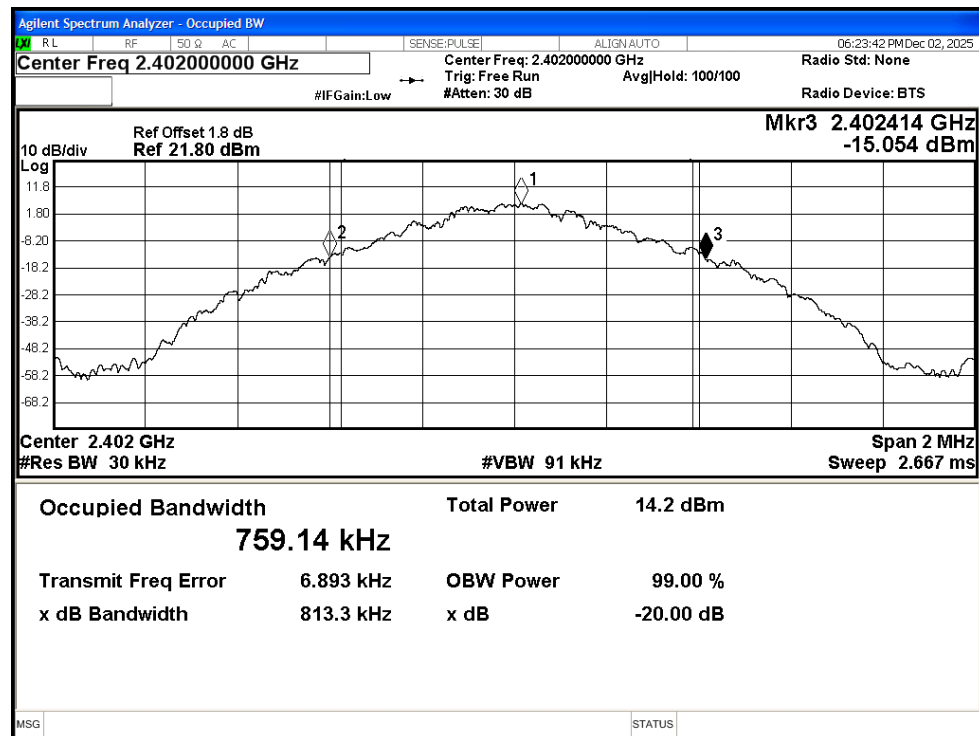
Temperature:	24.9°C
Relative Humidity:	53.8%
ATM Pressure:	100.0 kPa
Test Engineer:	Suichao Lai
Supervised by:	Yan Chen

A.1 20dB Bandwidth

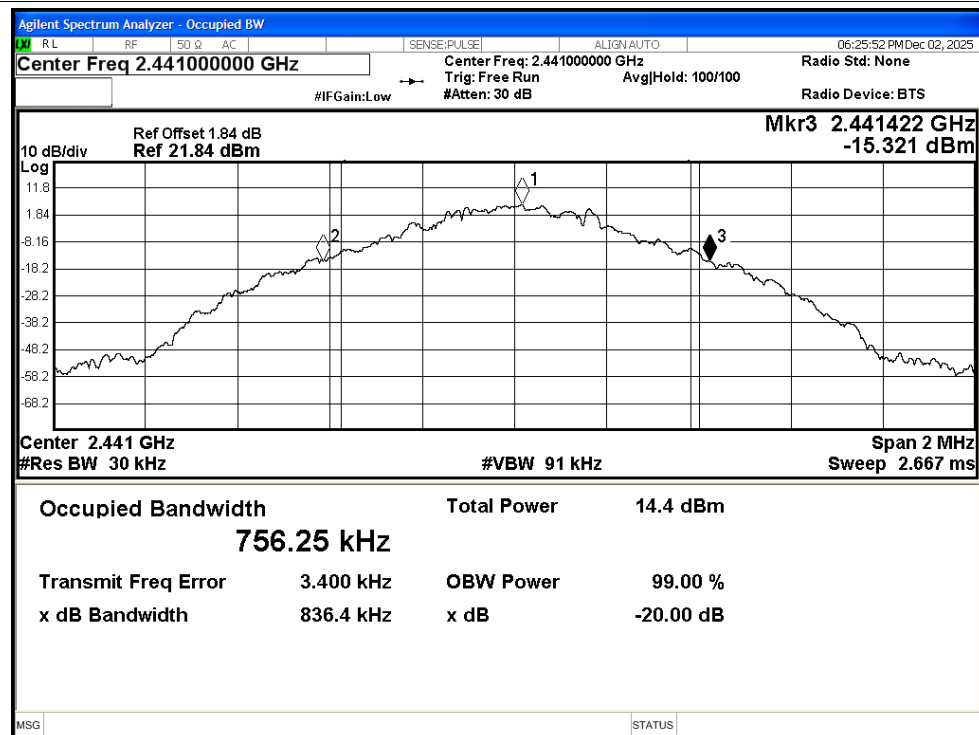
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH5	2402	Ant1	0.813	N/A	Pass
NVNT	1-DH5	2441	Ant1	0.836	N/A	Pass
NVNT	1-DH5	2480	Ant1	0.812	N/A	Pass
NVNT	2-DH5	2402	Ant1	1.273	N/A	Pass
NVNT	2-DH5	2441	Ant1	1.277	N/A	Pass
NVNT	2-DH5	2480	Ant1	1.307	N/A	Pass
NVNT	3-DH5	2402	Ant1	1.294	N/A	Pass
NVNT	3-DH5	2441	Ant1	1.289	N/A	Pass
NVNT	3-DH5	2480	Ant1	1.268	N/A	Pass

Test Graphs

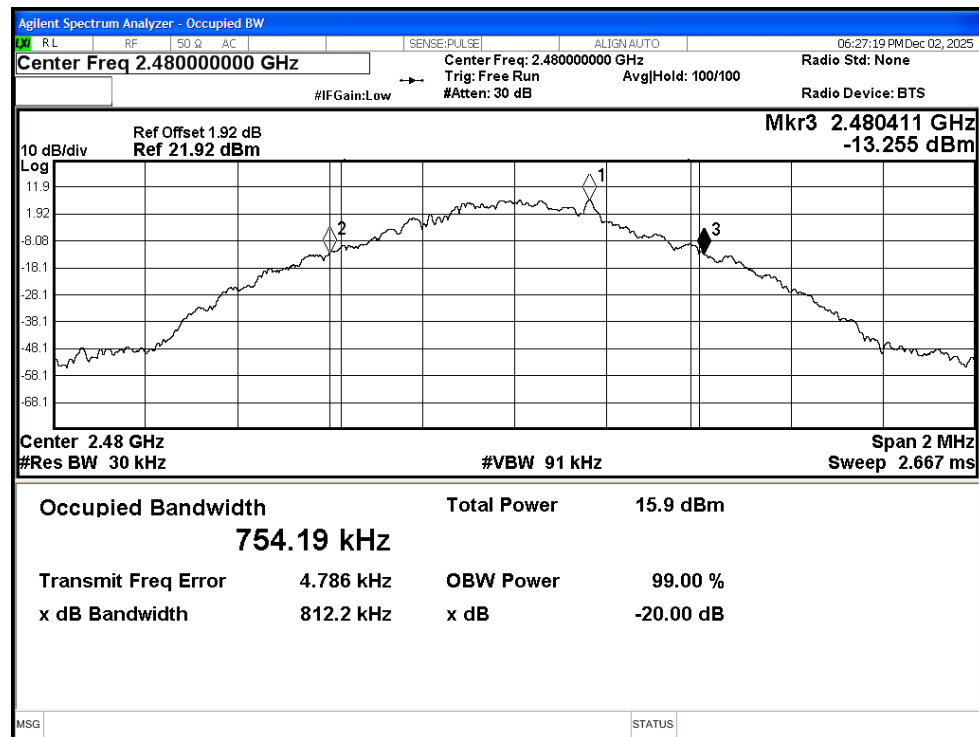
-20dB Bandwidth NVNT 1-DH5 2402MHz Ant1



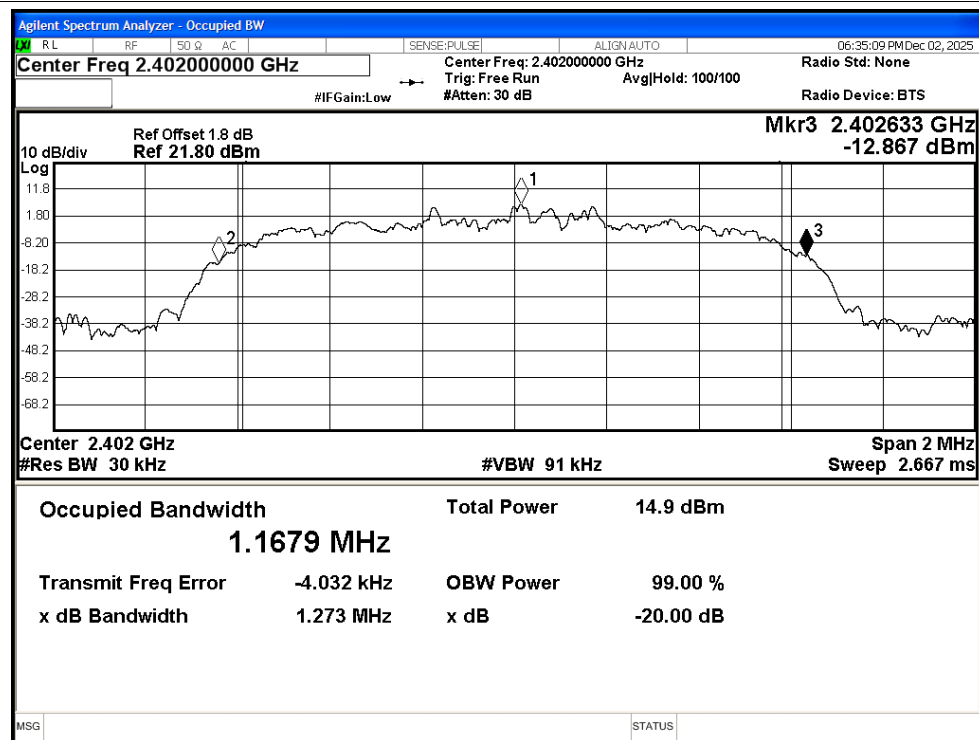
-20dB Bandwidth NVNT 1-DH5 2441MHz Ant1



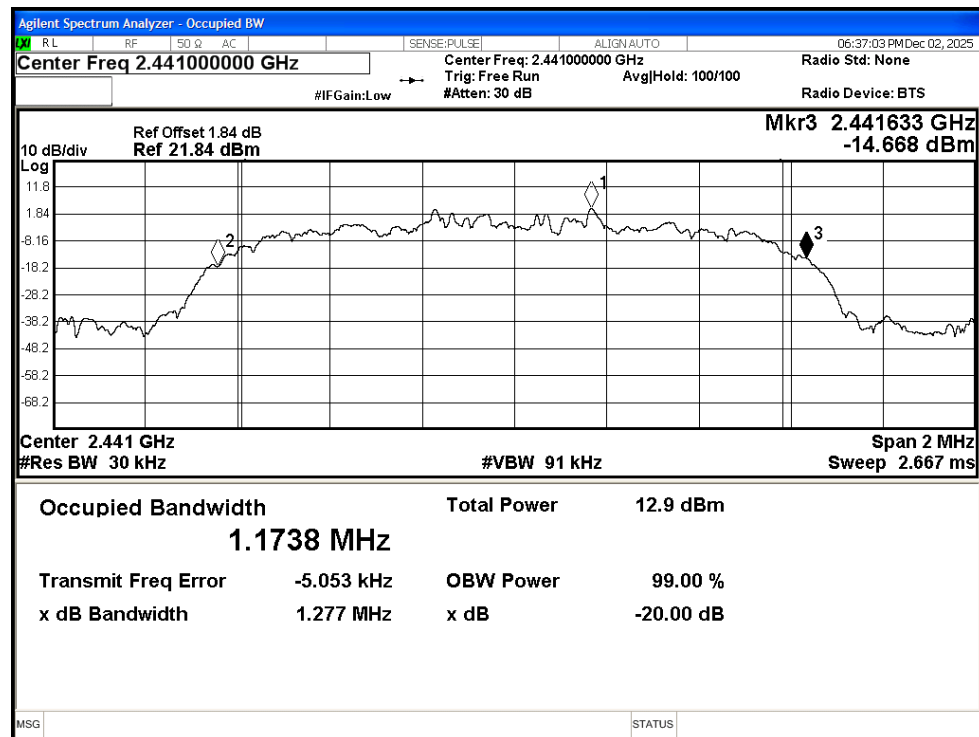
-20dB Bandwidth NVNT 1-DH5 2480MHz Ant1



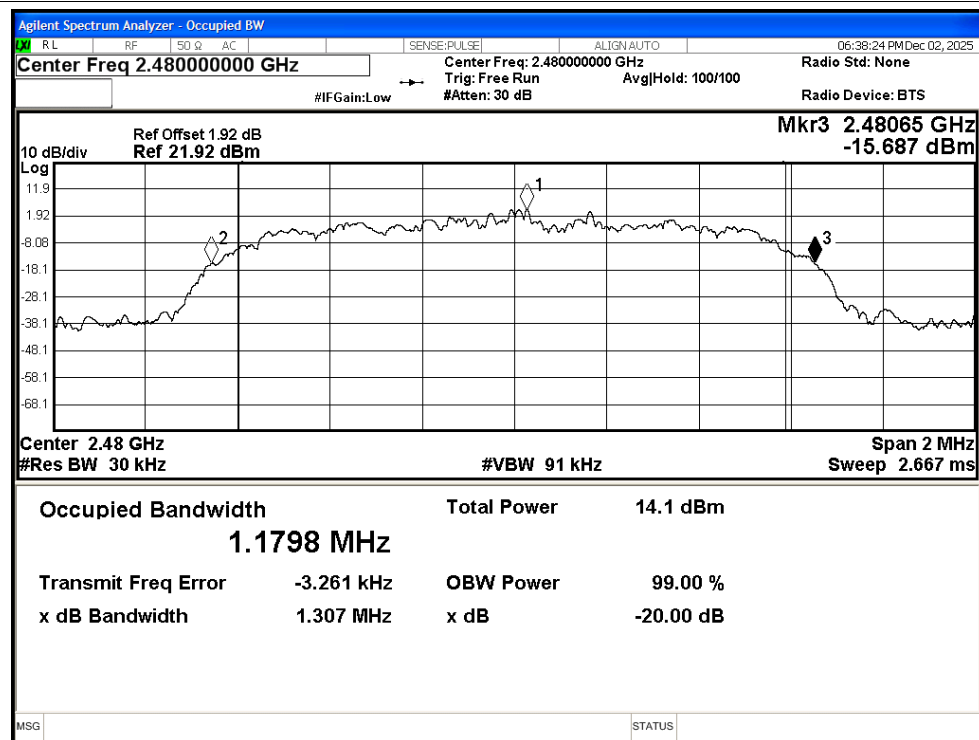
-20dB Bandwidth NVNT 2-DH5 2402MHz Ant1



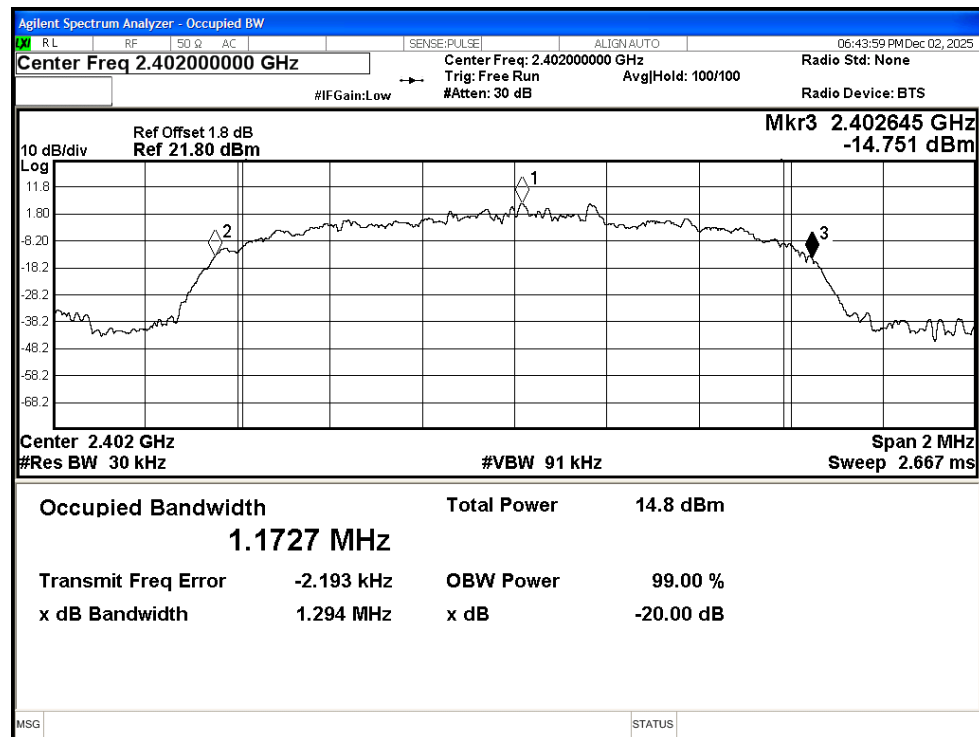
-20dB Bandwidth NVNT 2-DH5 2441MHz Ant1



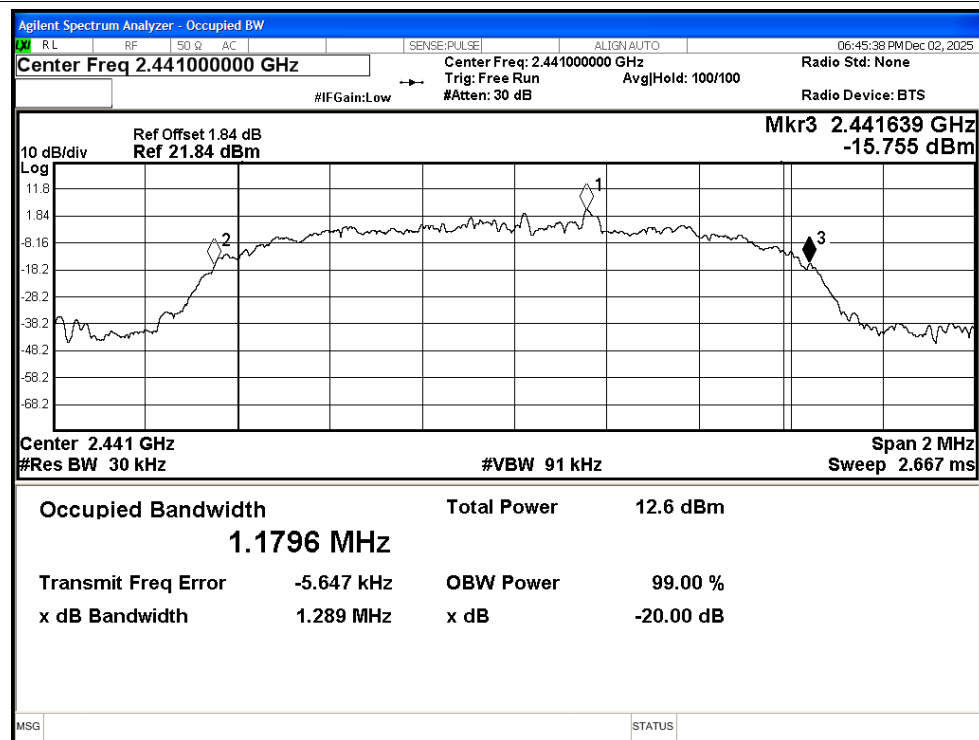
-20dB Bandwidth NVNT 2-DH5 2480MHz Ant1

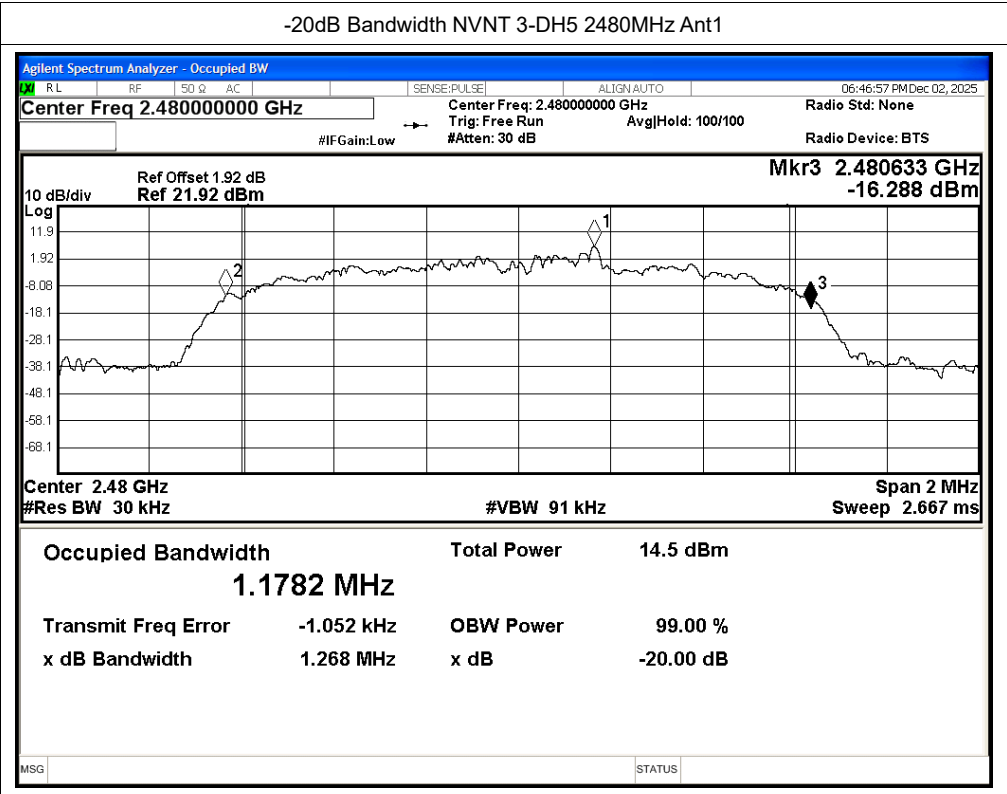


-20dB Bandwidth NVNT 3-DH5 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH5 2441MHz Ant1



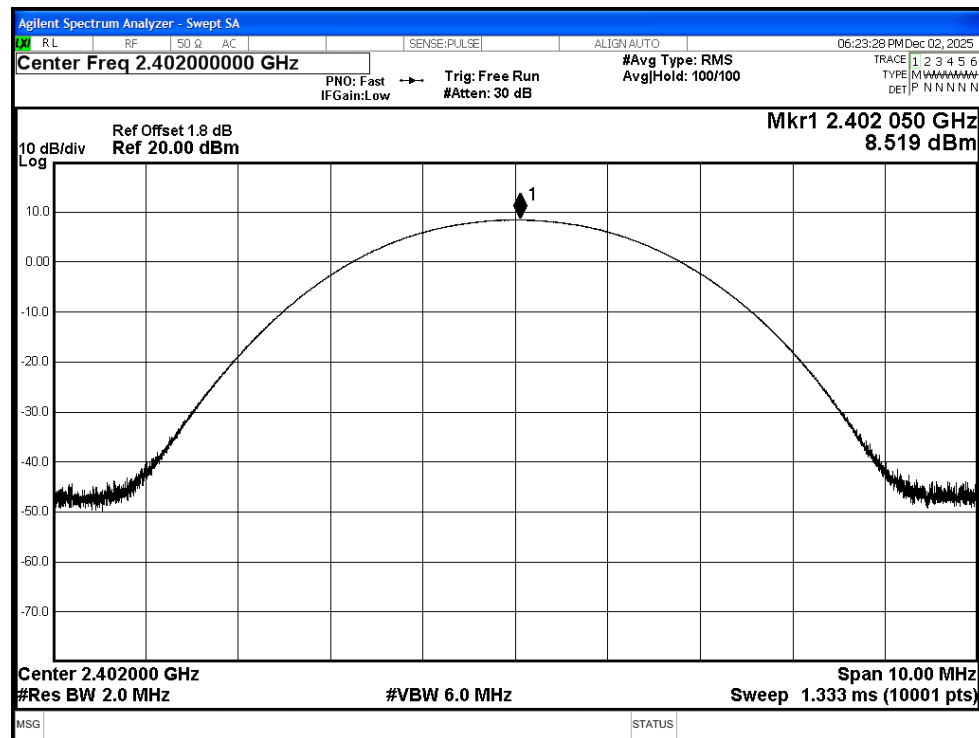


A.2 Maximum Peak Conducted Output Power

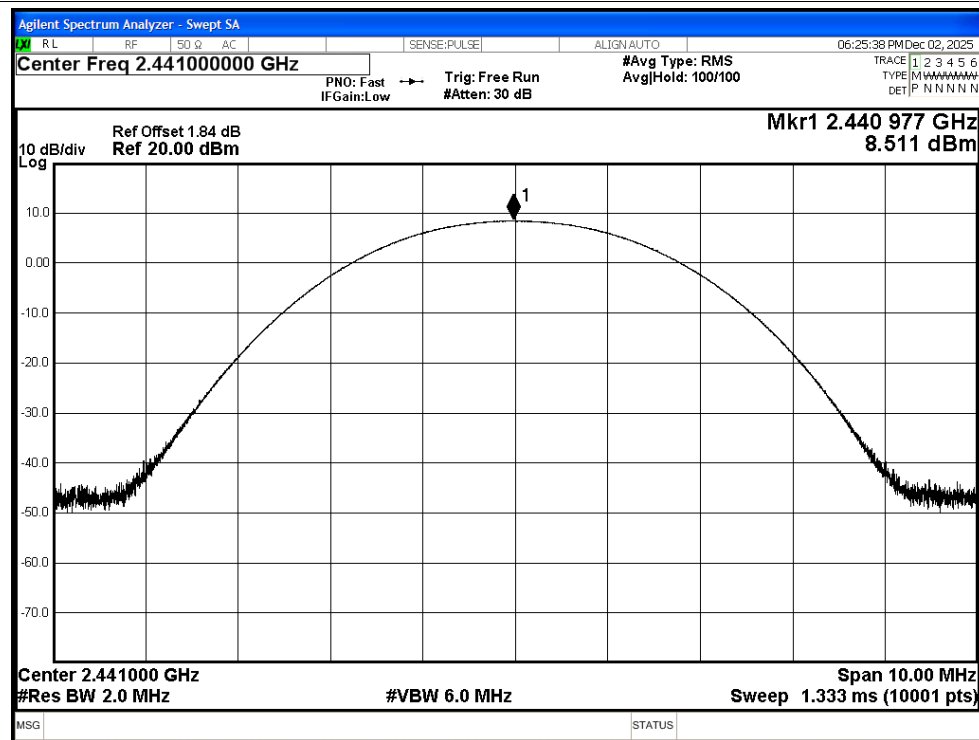
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH5	2402	Ant1	8.52	21	Pass
NVNT	1-DH5	2441	Ant1	8.51	21	Pass
NVNT	1-DH5	2480	Ant1	9.86	21	Pass
NVNT	2-DH5	2402	Ant1	10.23	21	Pass
NVNT	2-DH5	2441	Ant1	8.43	21	Pass
NVNT	2-DH5	2480	Ant1	9.93	21	Pass
NVNT	3-DH5	2402	Ant1	10.11	21	Pass
NVNT	3-DH5	2441	Ant1	8.35	21	Pass
NVNT	3-DH5	2480	Ant1	9.82	21	Pass

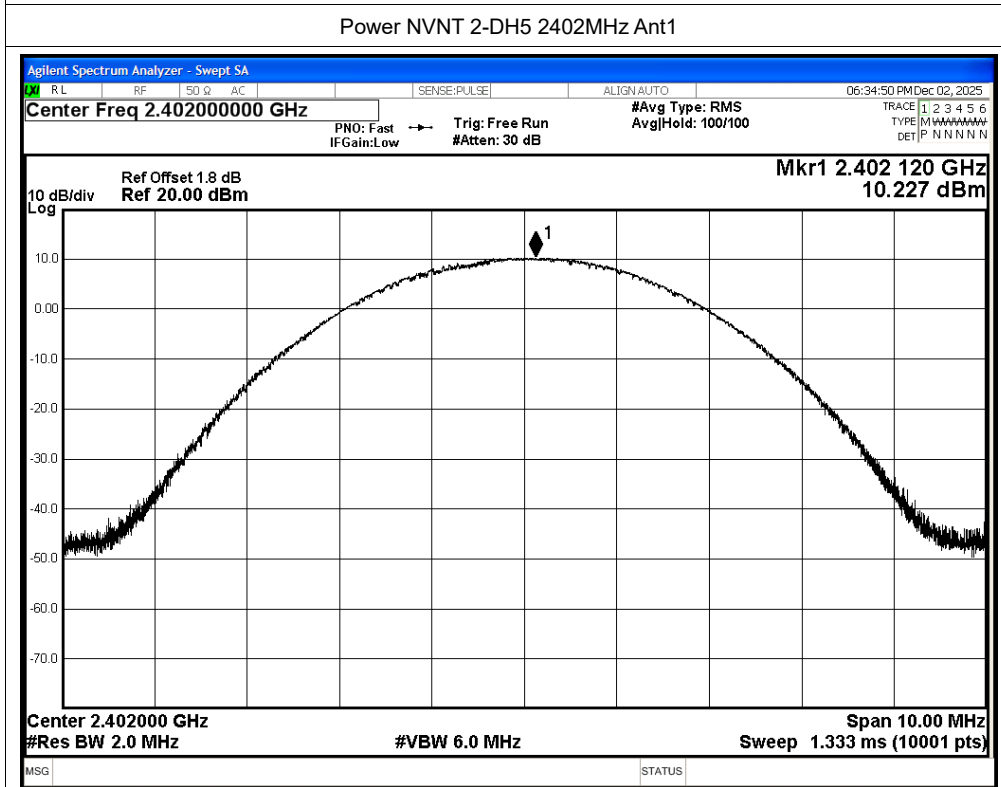
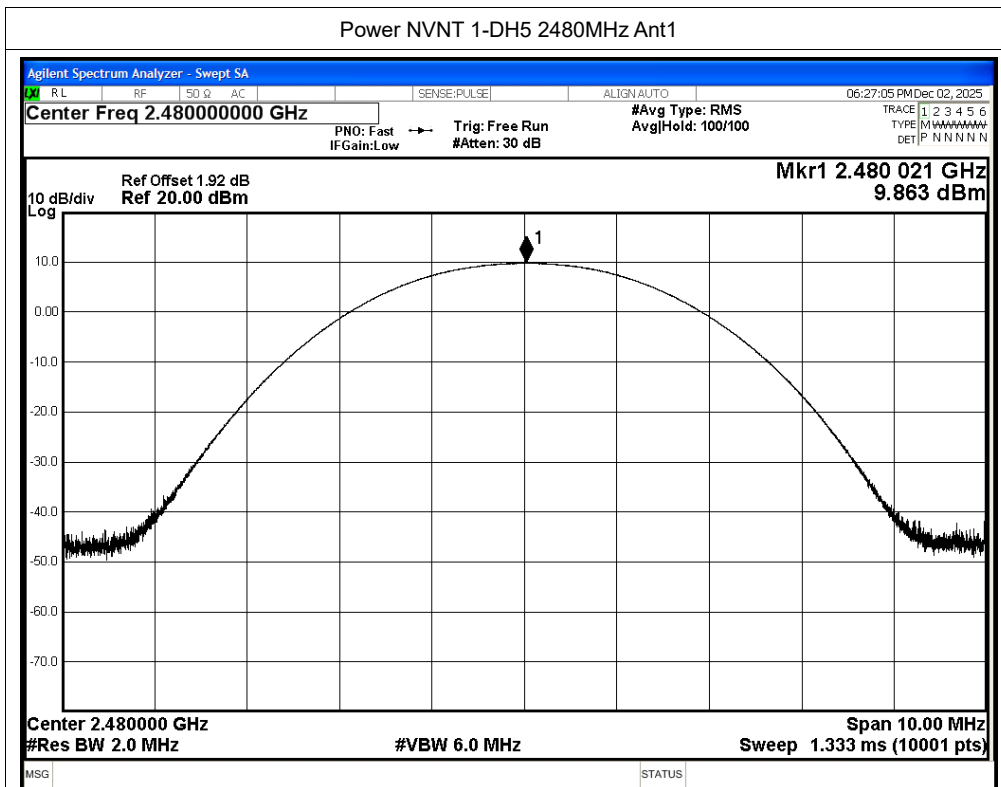
Test Graphs

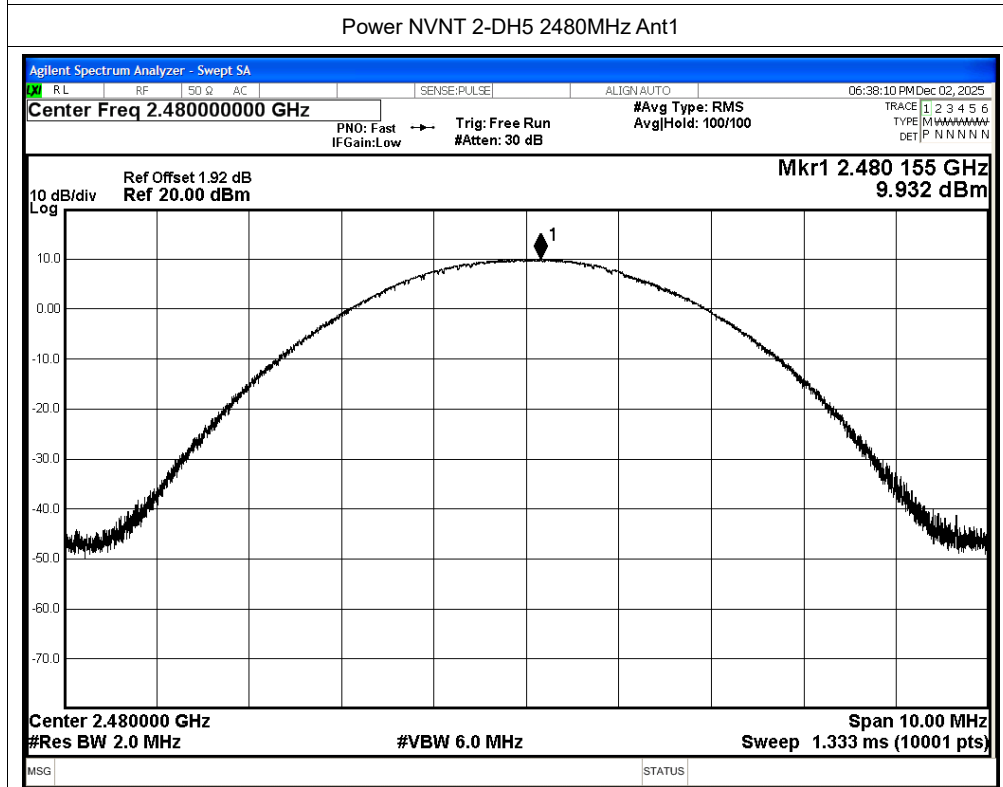
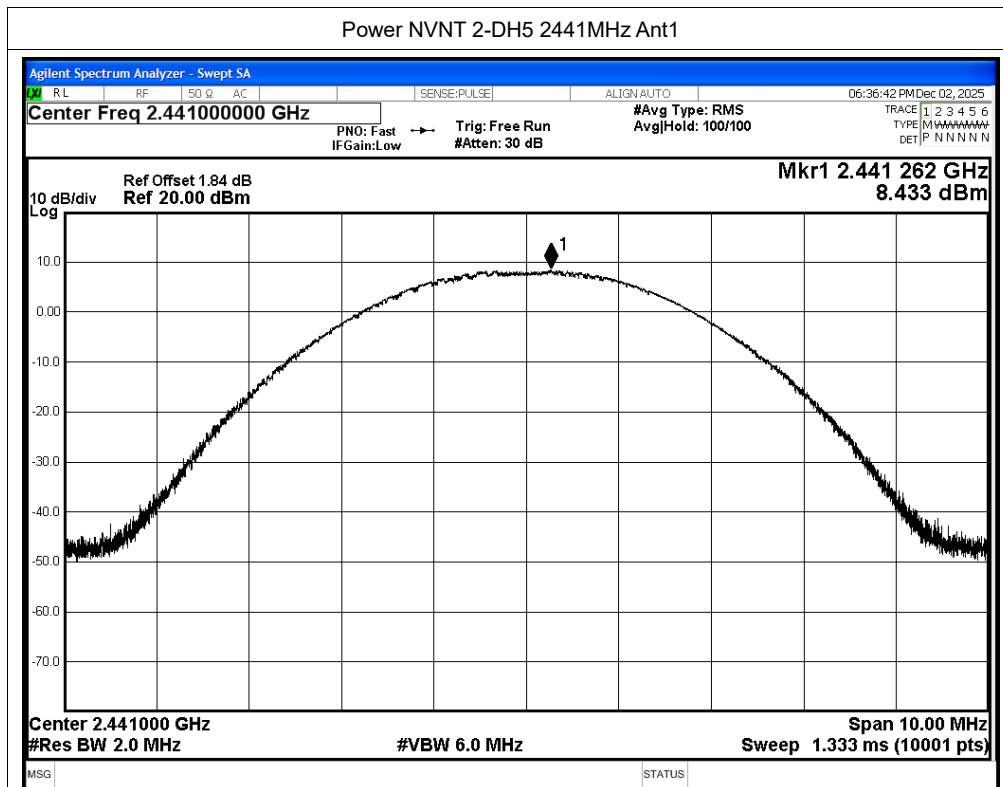
Power NVNT 1-DH5 2402MHz Ant1

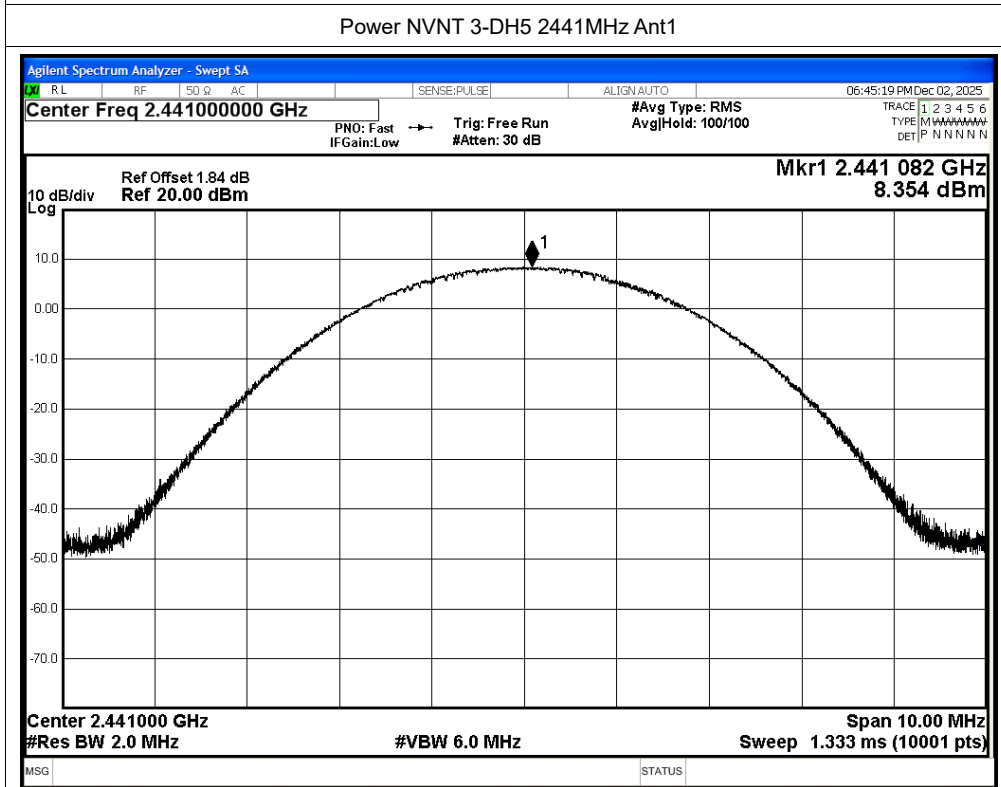
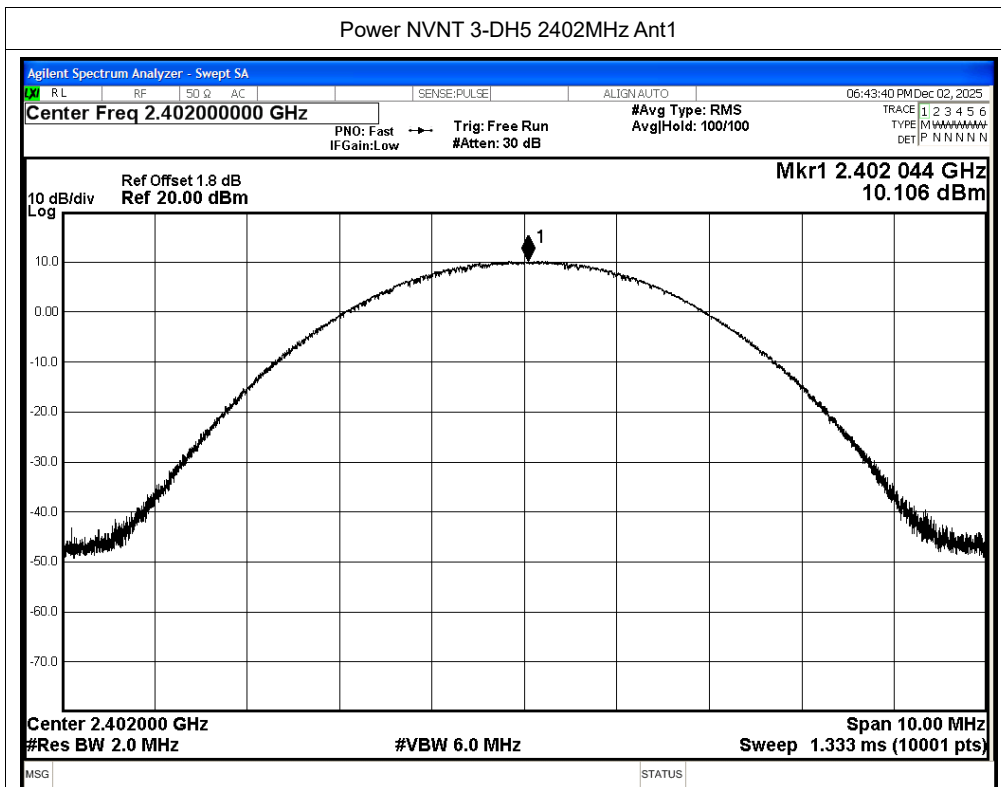


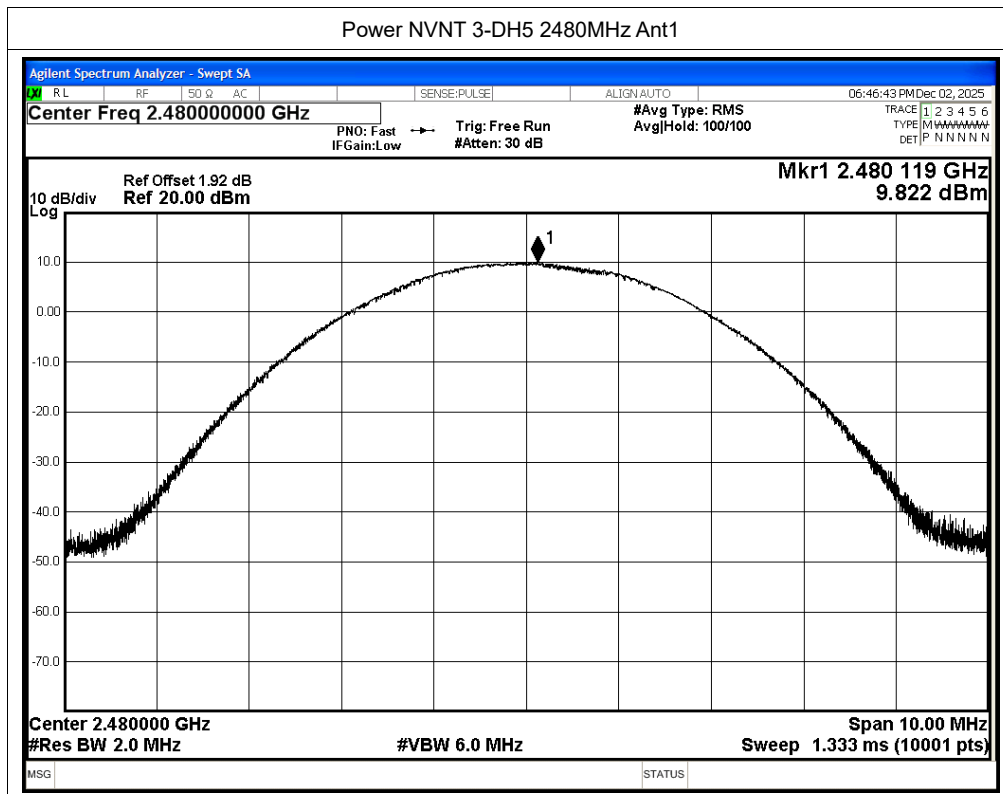
Power NVNT 1-DH5 2441MHz Ant1









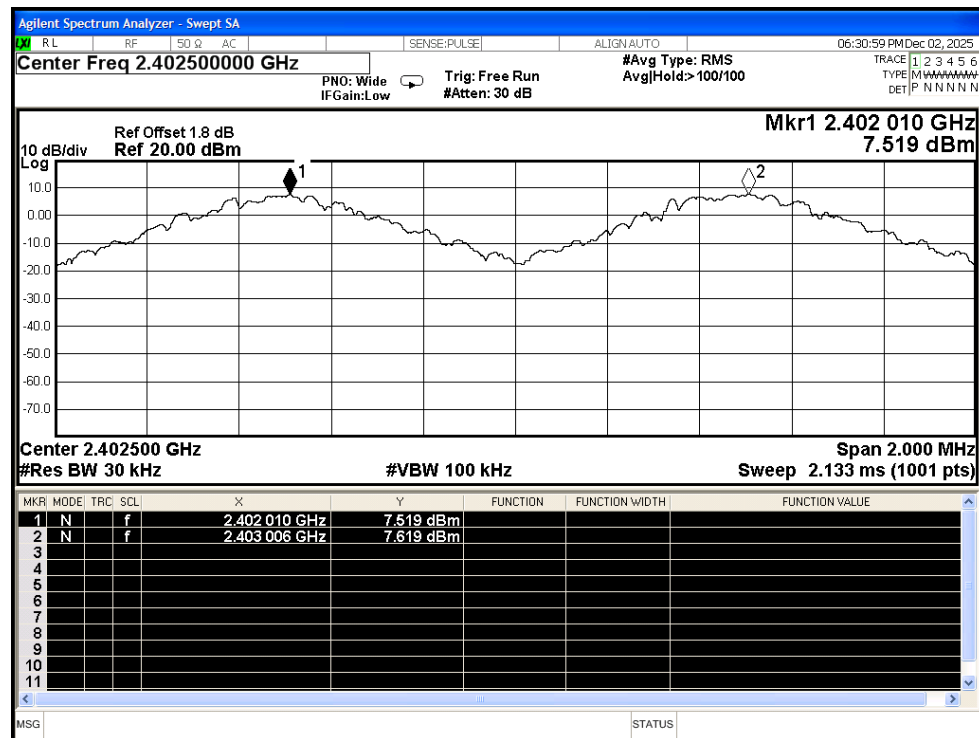


A.3 Carrier Frequencies Separation

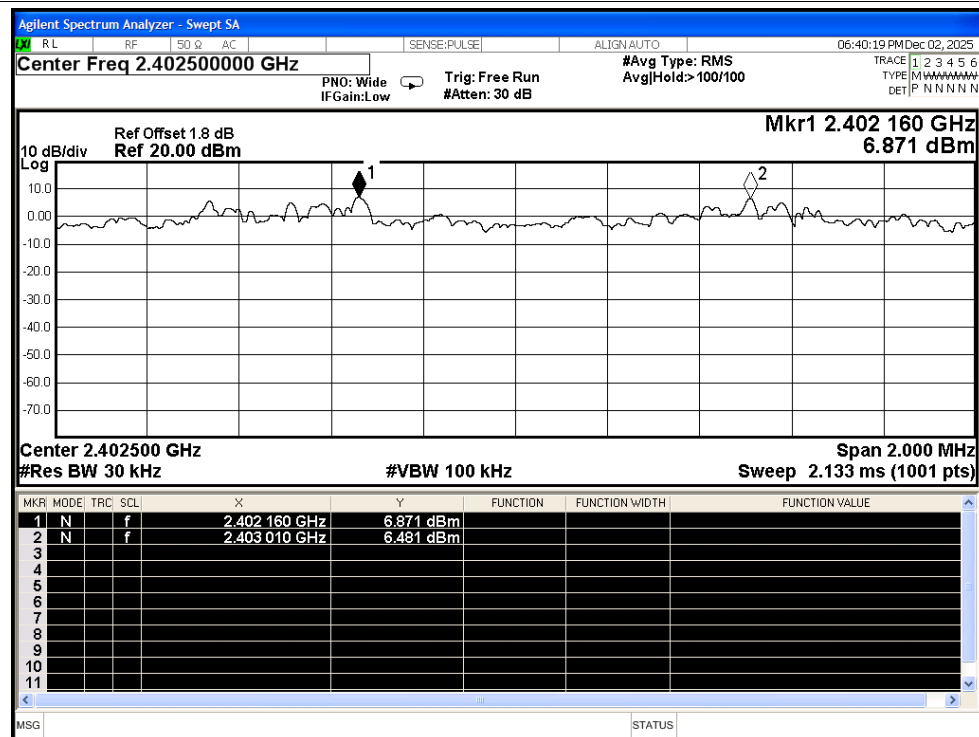
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH5	Ant1	2402.01	2403.006	0.996	0.557	Pass
NVNT	2-DH5	Ant1	2402.16	2403.01	0.85	0.871	Pass
NVNT	3-DH5	Ant1	2402.018	2403.012	0.994	0.863	Pass

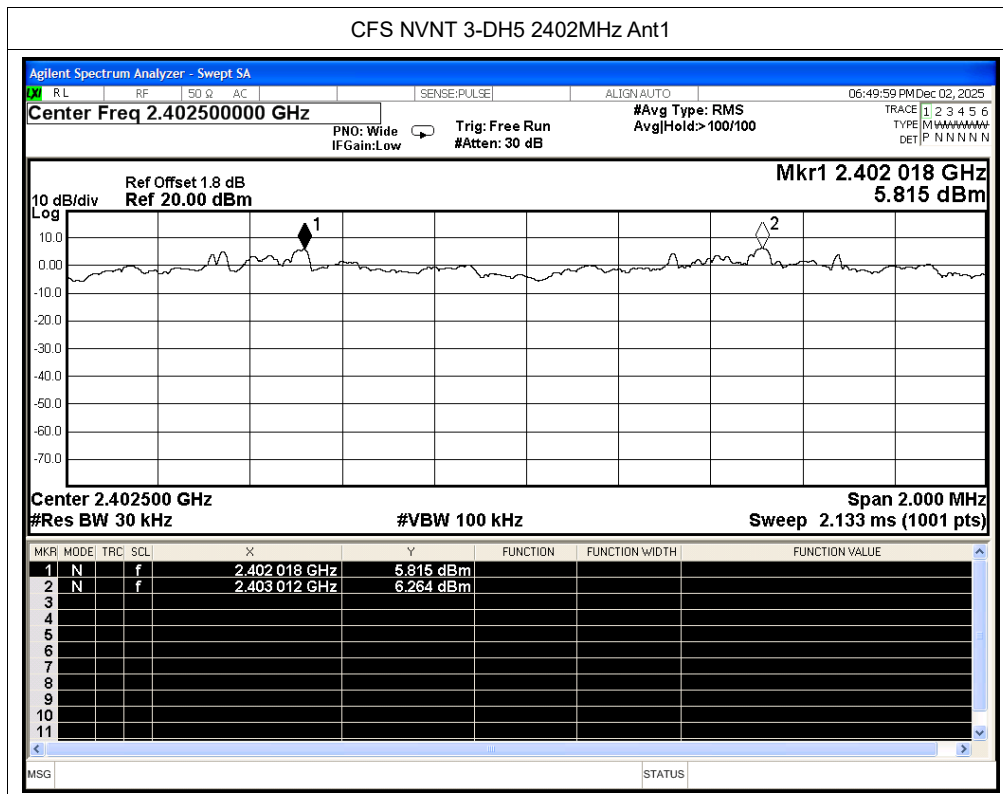
Test Graphs

CFS NVNT 1-DH5 2402MHz Ant1



CFS NVNT 2-DH5 2402MHz Ant1



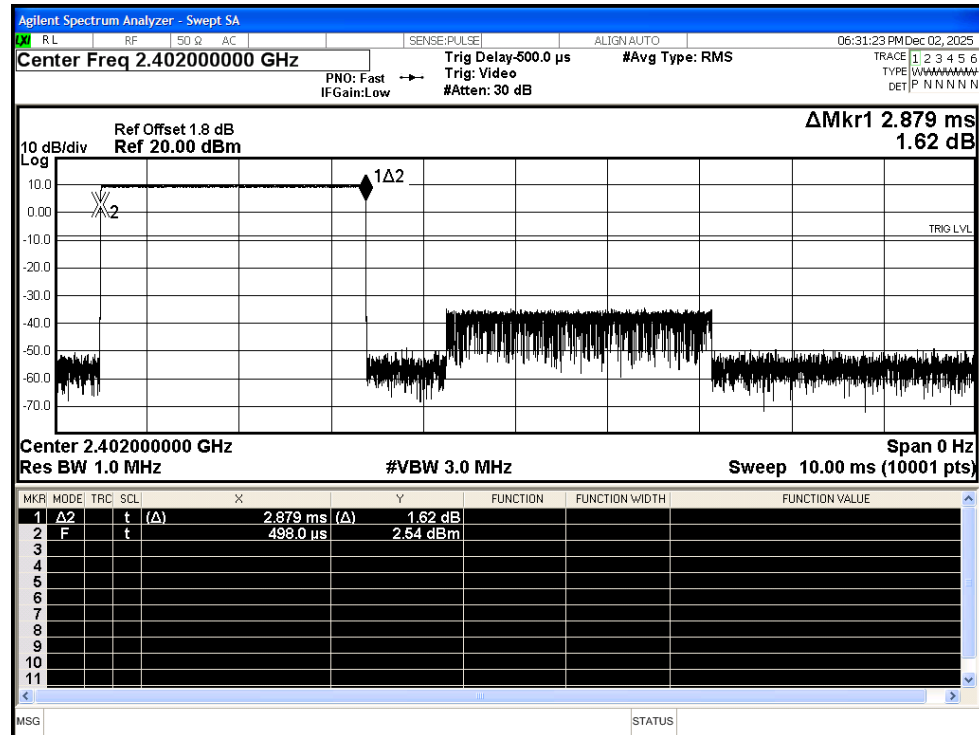


A.4 Dwell Time

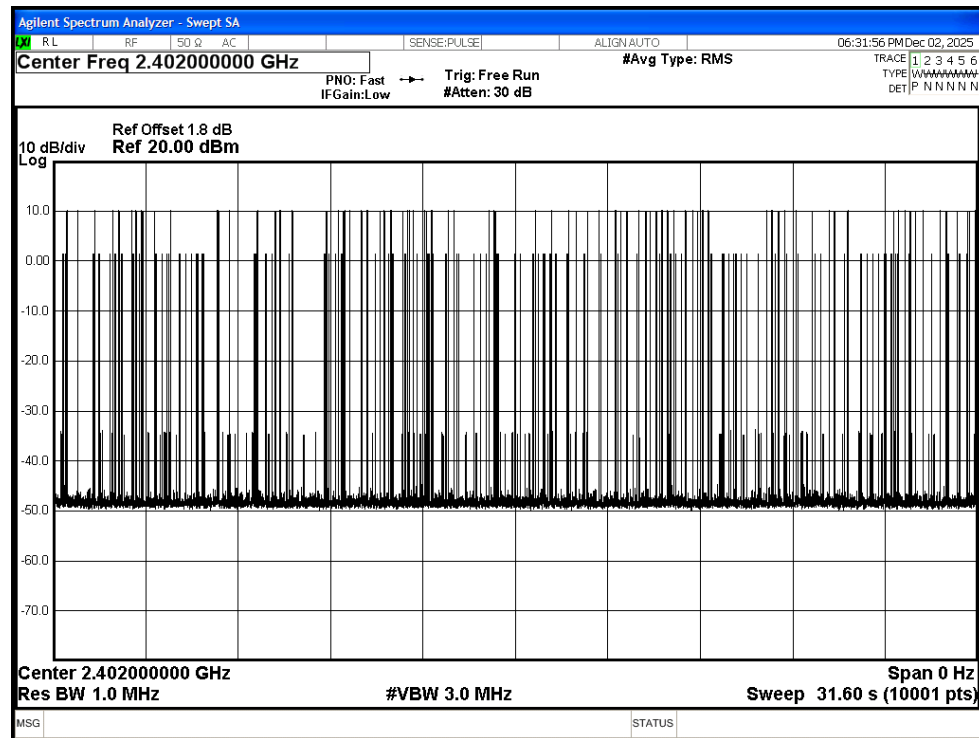
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH5	2402	Ant1	2.879	293.658	102	31600	400	Pass
NVNT	2-DH5	2402	Ant1	2.881	296.743	103	31600	400	Pass
NVNT	3-DH5	2402	Ant1	2.884	305.704	106	31600	400	Pass

Test Graphs

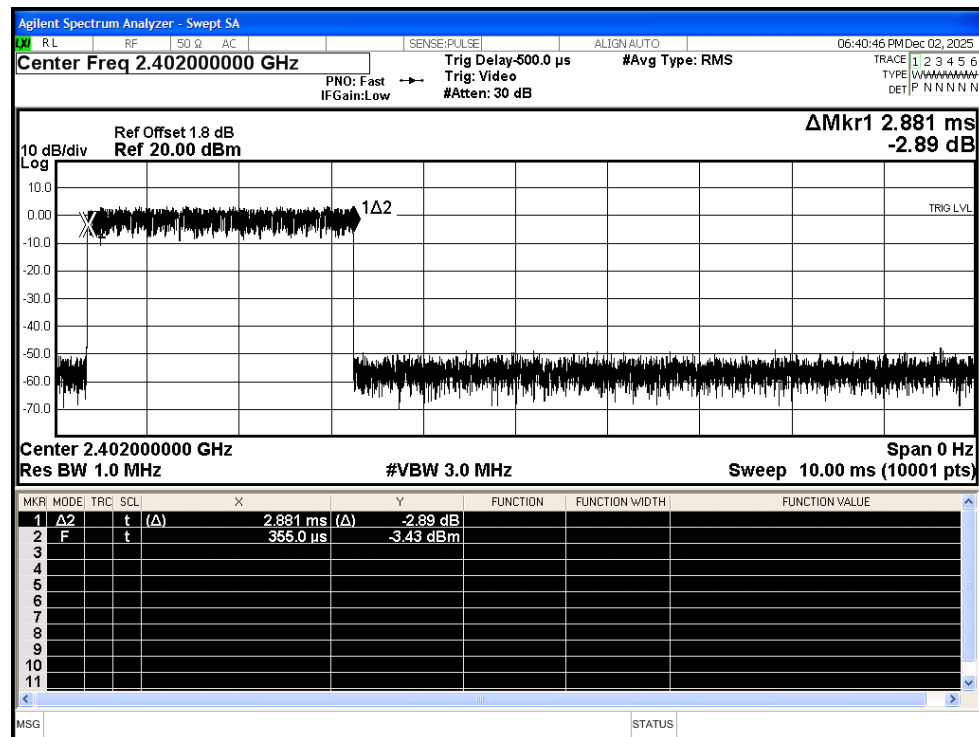
Dwell NVNT 1-DH5 2402MHz Ant1 One Burst



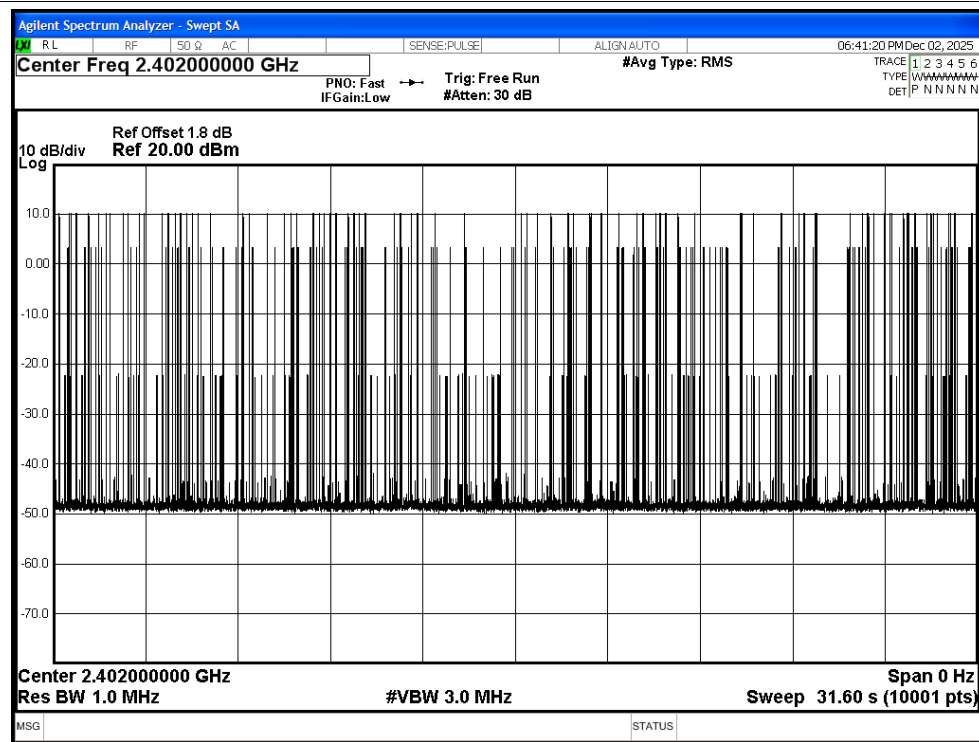
Dwell NVNT 1-DH5 2402MHz Ant1 Accumulated



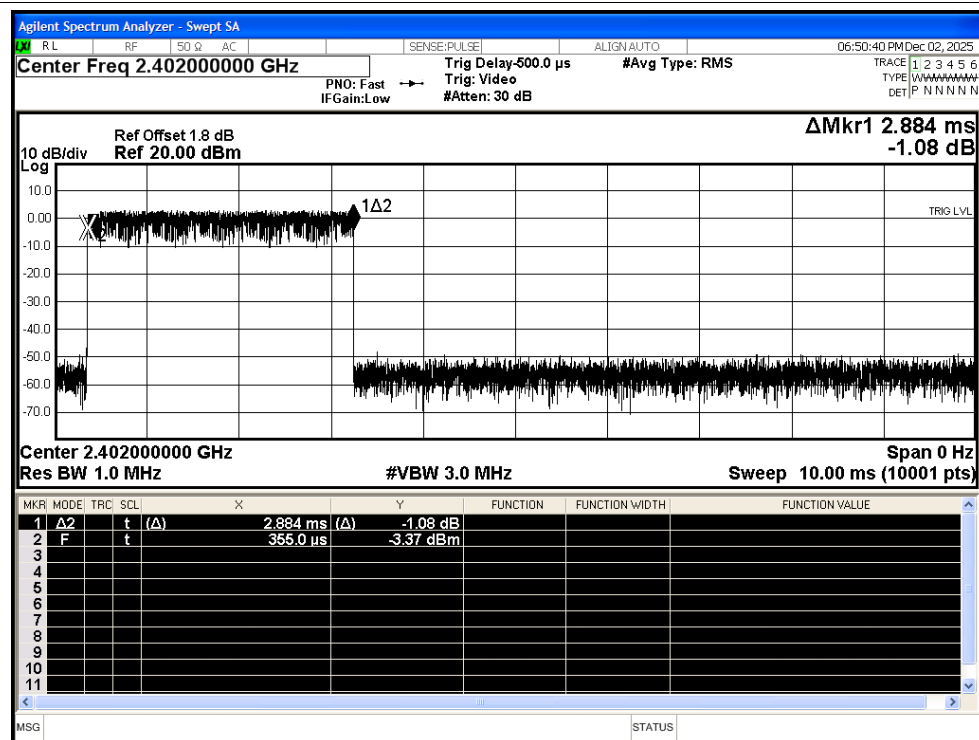
Dwell NVNT 2-DH5 2402MHz Ant1 One Burst



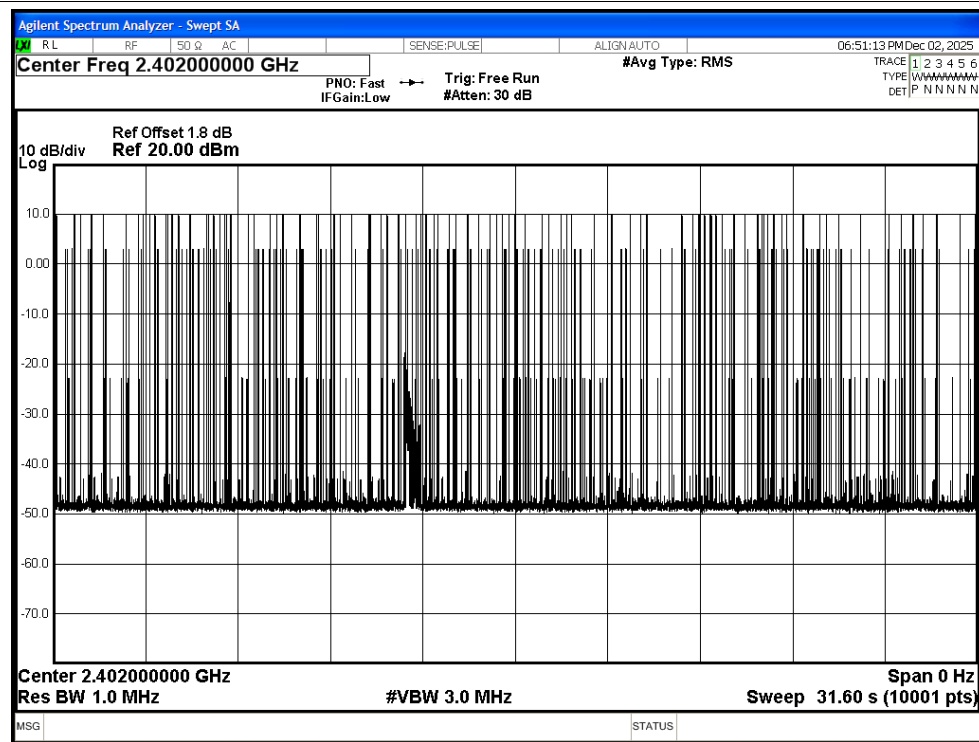
Dwell NVNT 2-DH5 2402MHz Ant1 Accumulated



Dwell NVNT 3-DH5 2402MHz Ant1 One Burst



Dwell NVNT 3-DH5 2402MHz Ant1 Accumulated

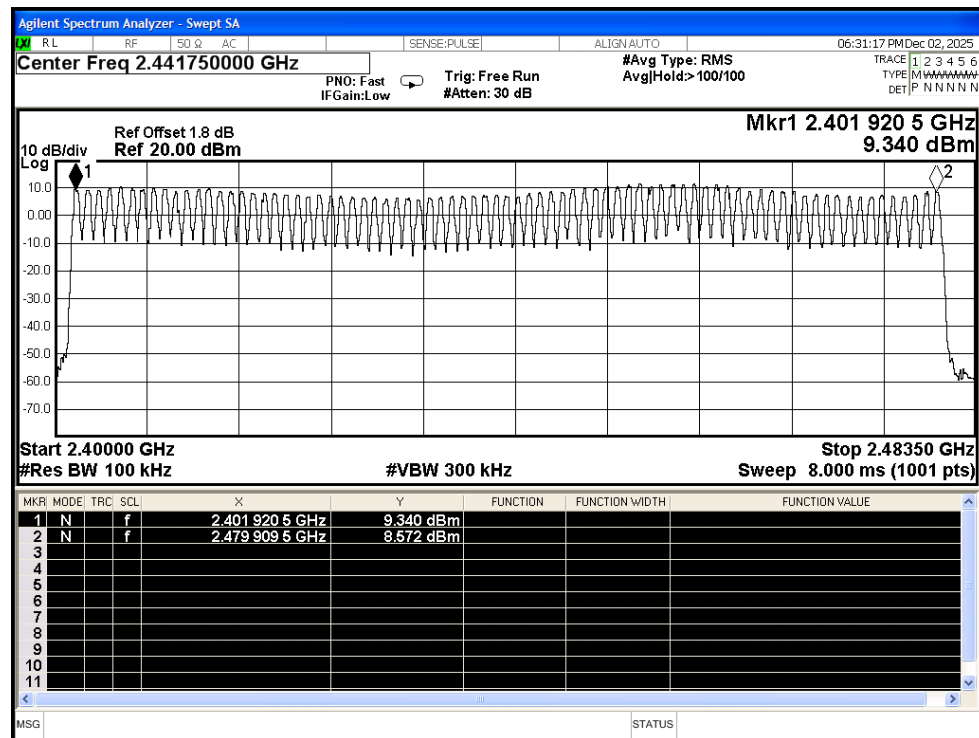


A.5 Number of Hopping Channel

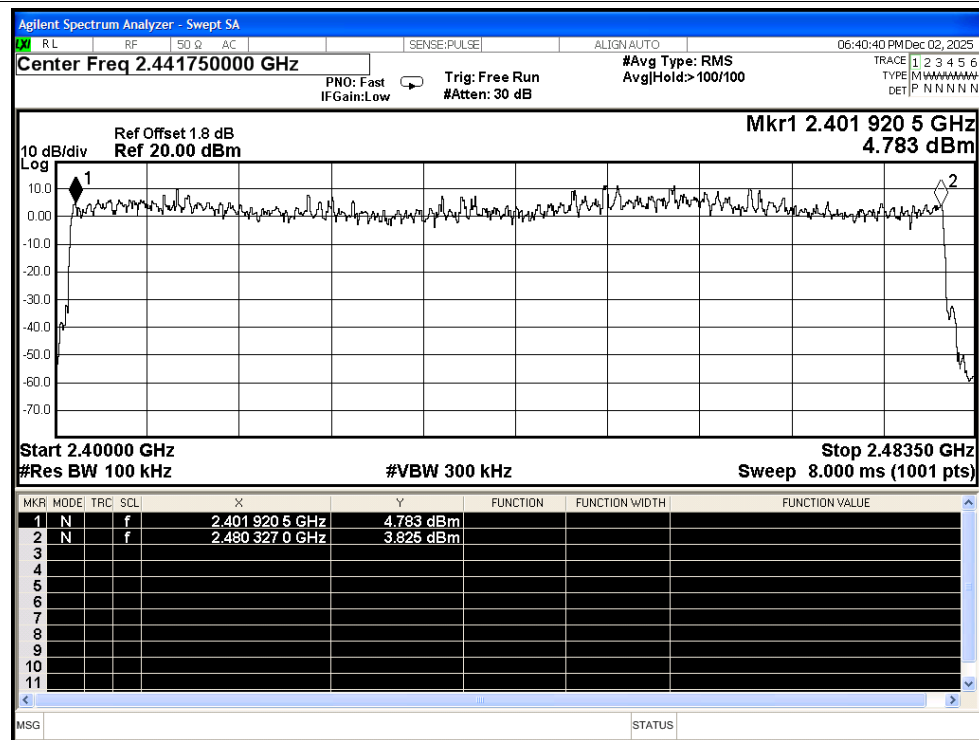
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH5	Ant1	79	15	Pass
NVNT	2-DH5	Ant1	79	15	Pass
NVNT	3-DH5	Ant1	79	15	Pass

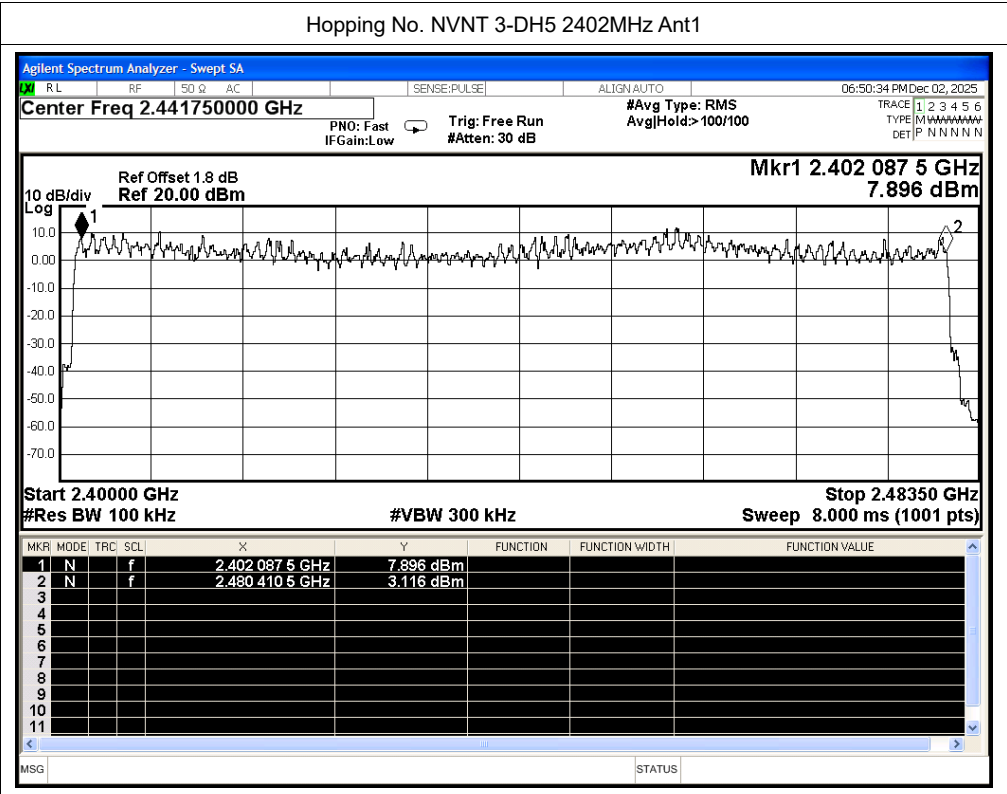
Test Graphs

Hopping No. NVNT 1-DH5 2402MHz Ant1



Hopping No. NVNT 2-DH5 2402MHz Ant1



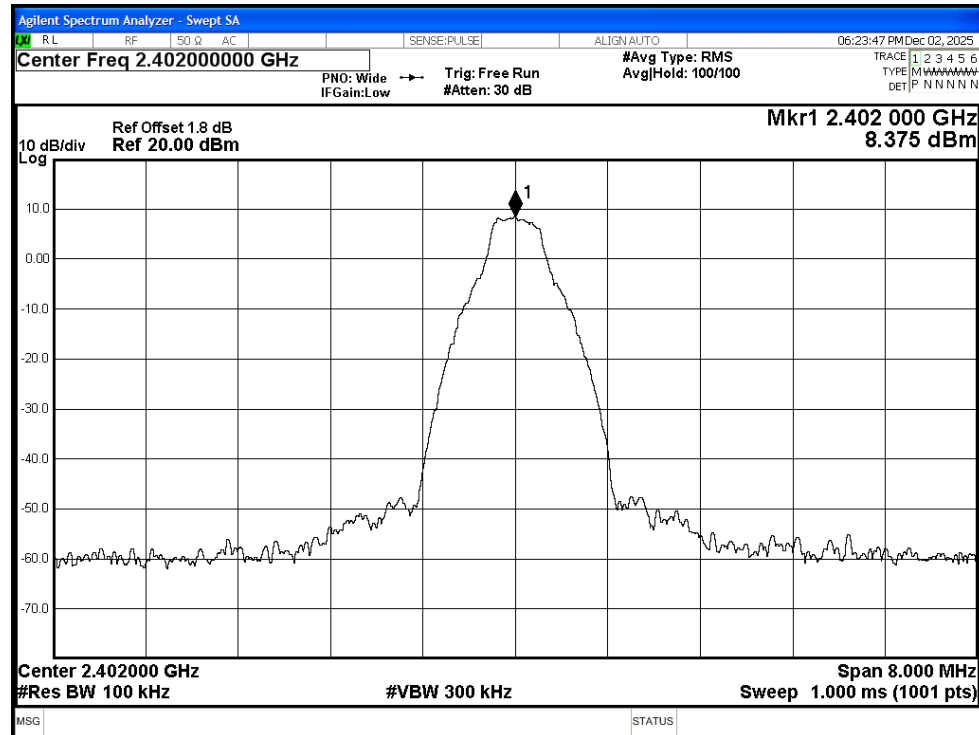


A.6 Band Edge

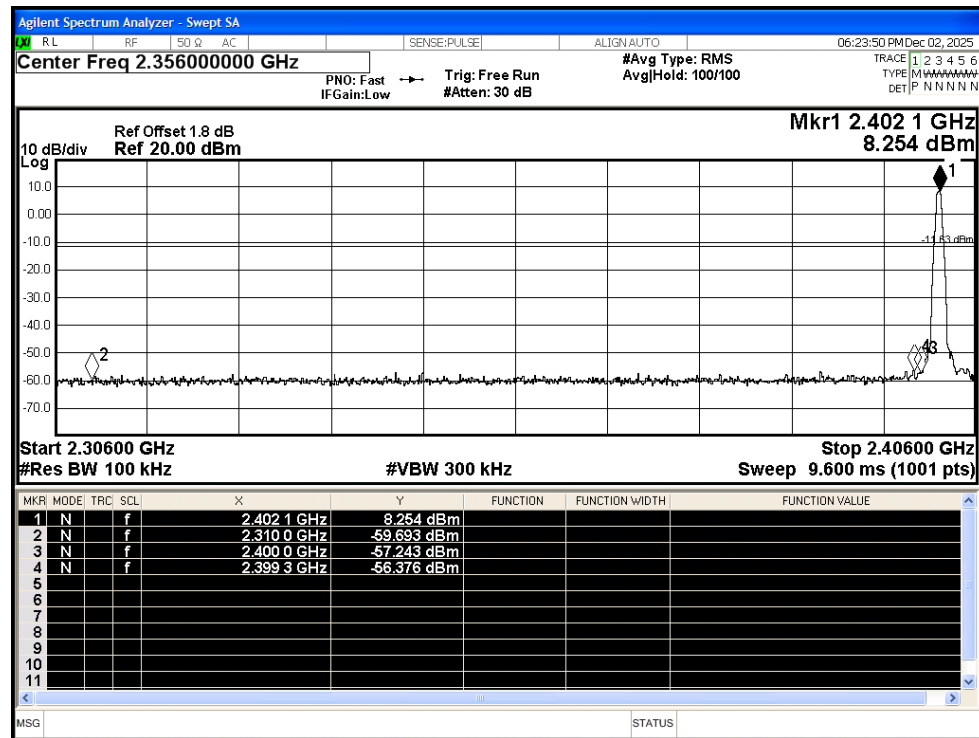
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	-64.75	-20	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	-66.42	-20	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	-60.37	-20	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	-64.09	-20	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	-62.26	-20	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	-63.27	-20	Pass

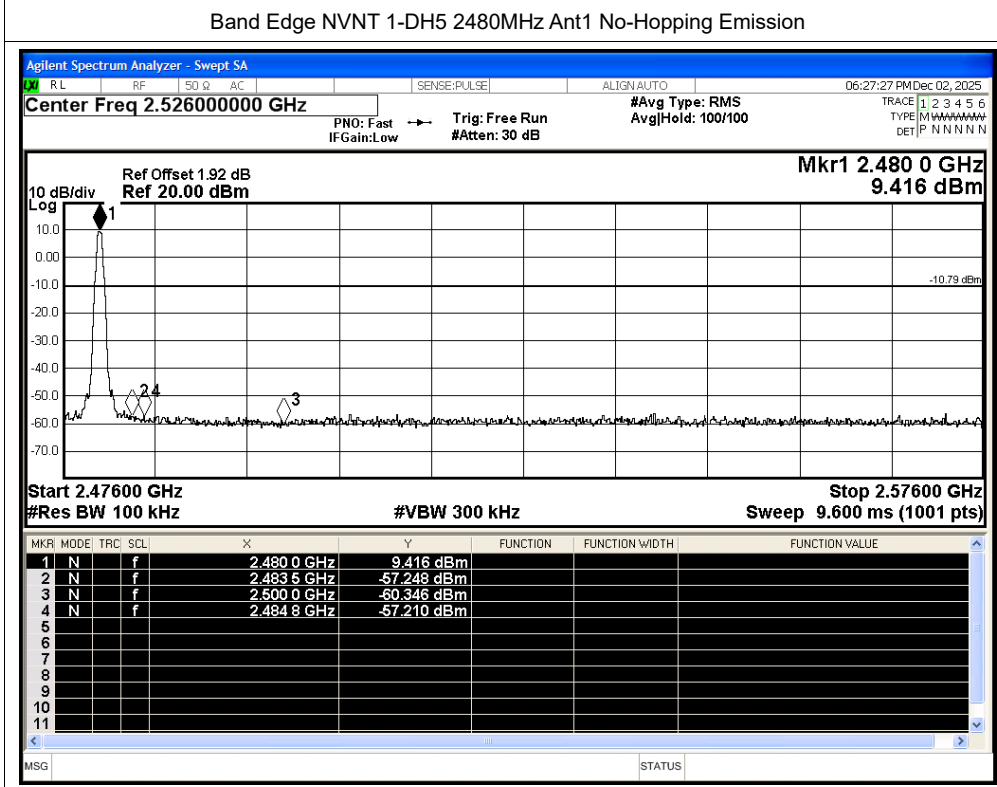
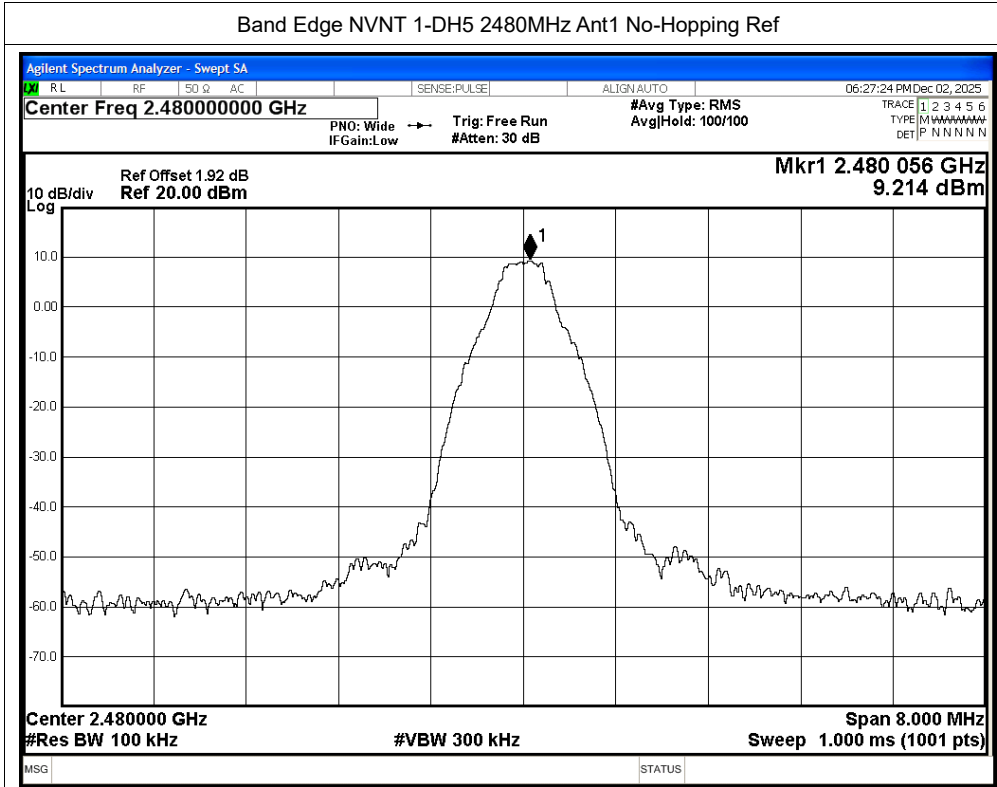
Test Graphs

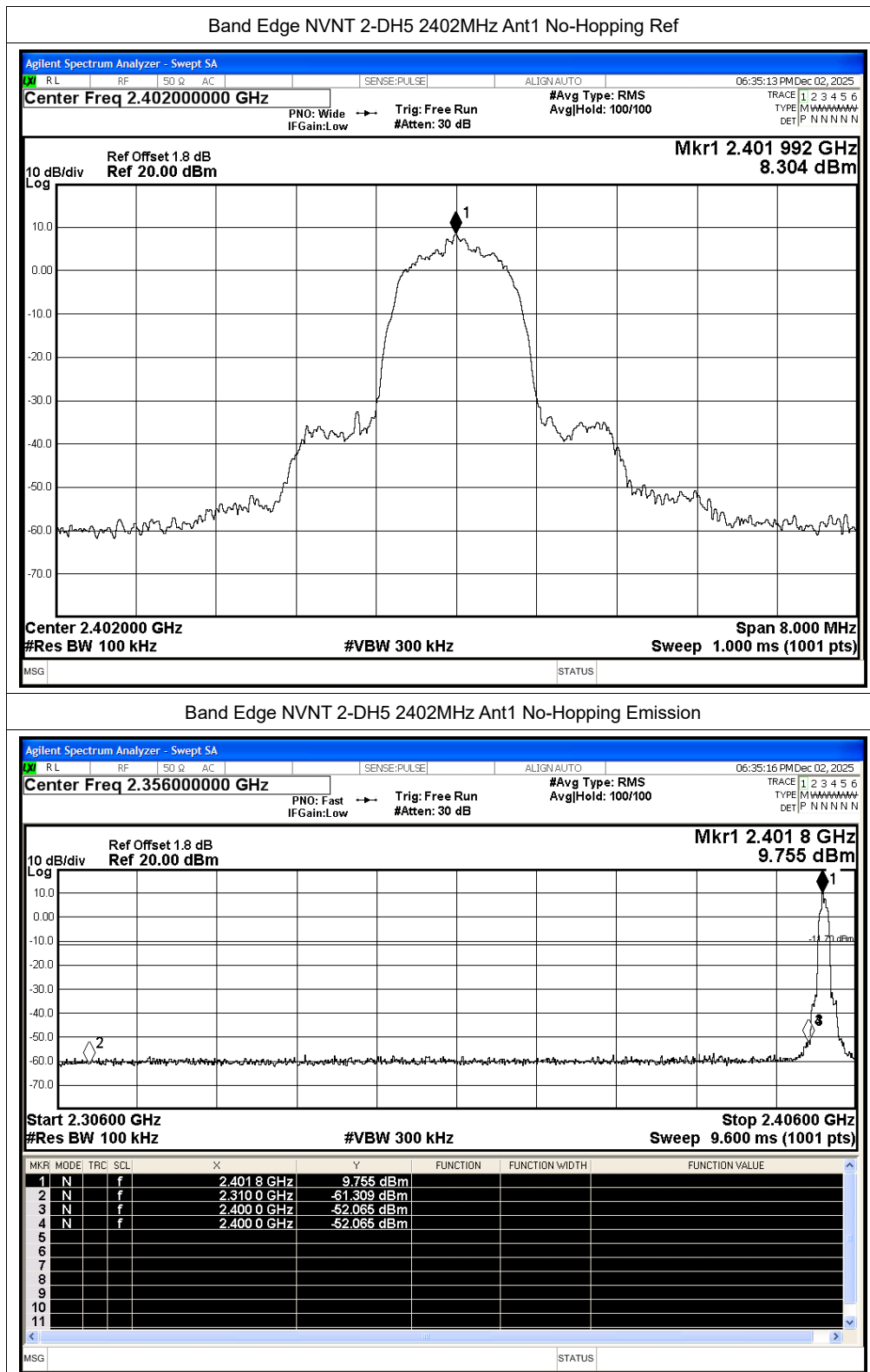
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Ref

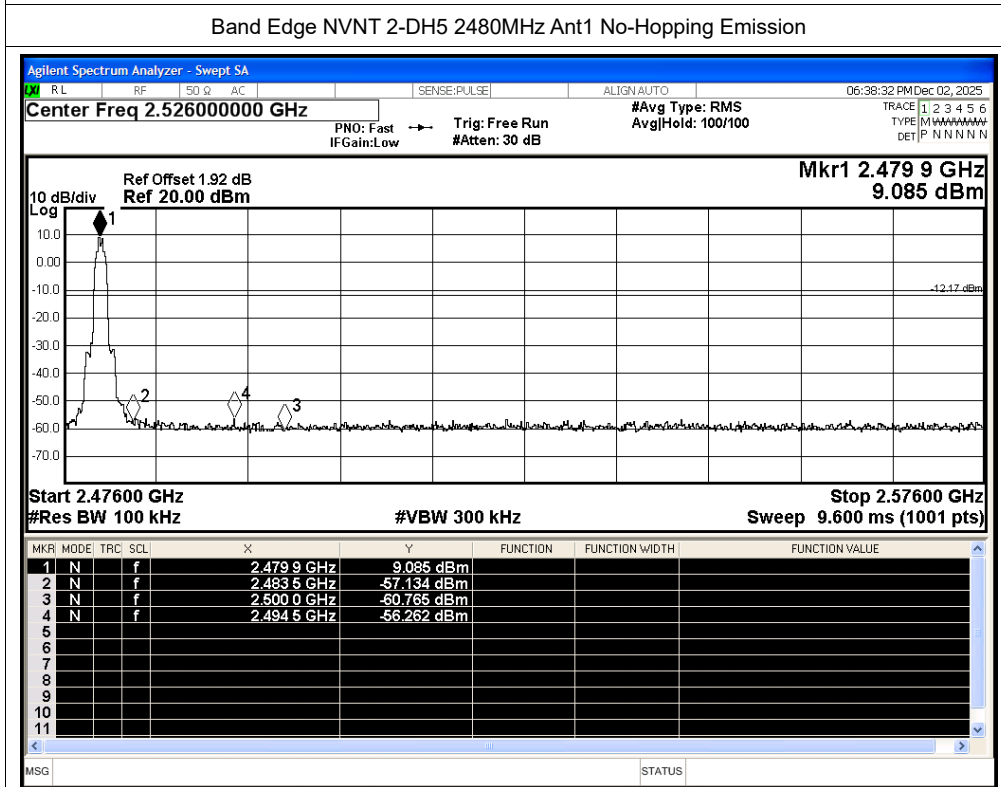
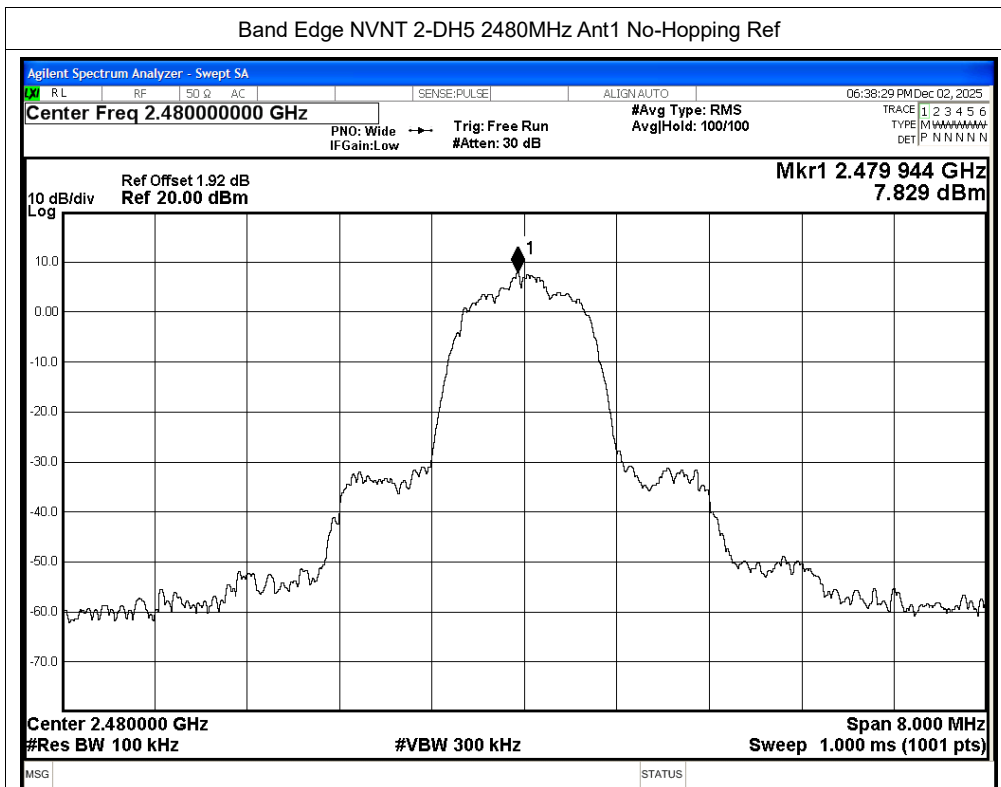


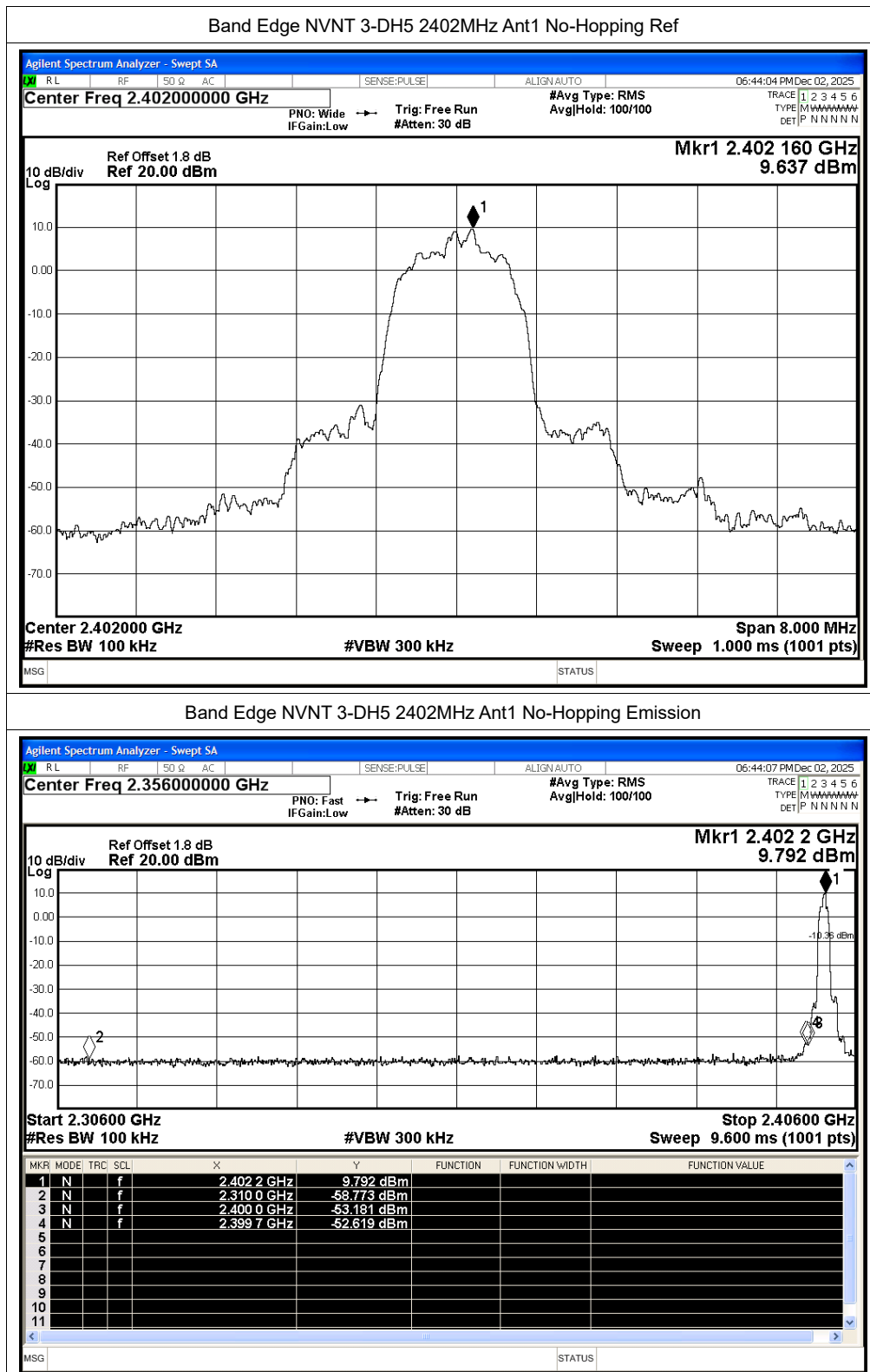
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Emission

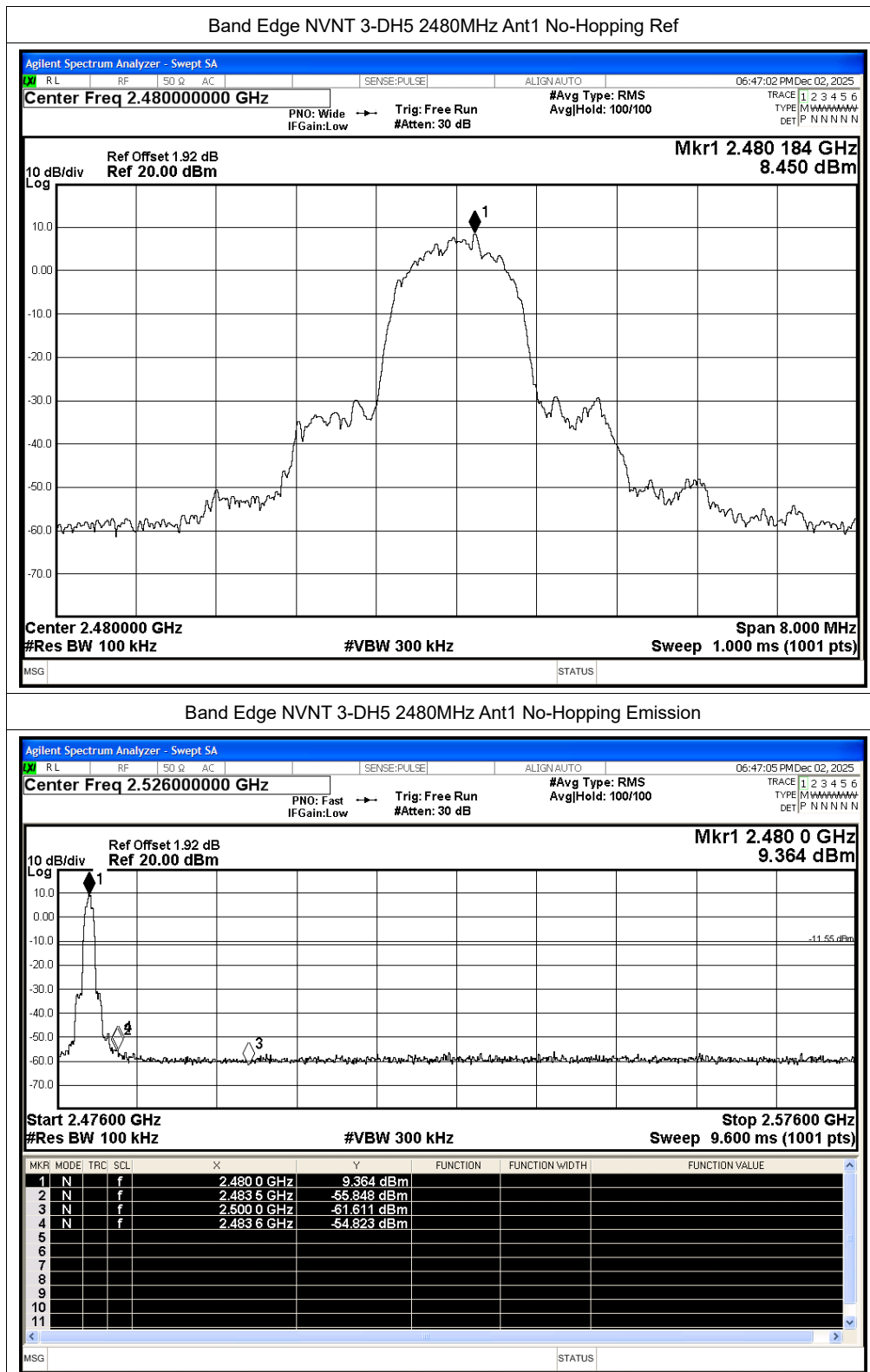










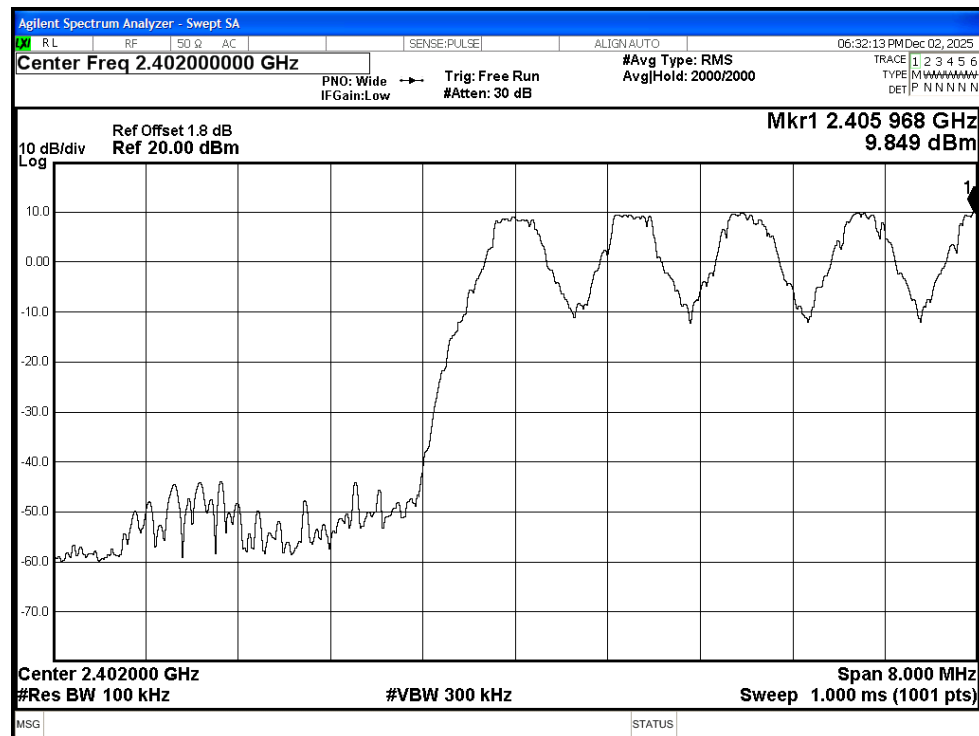


(Hopping)

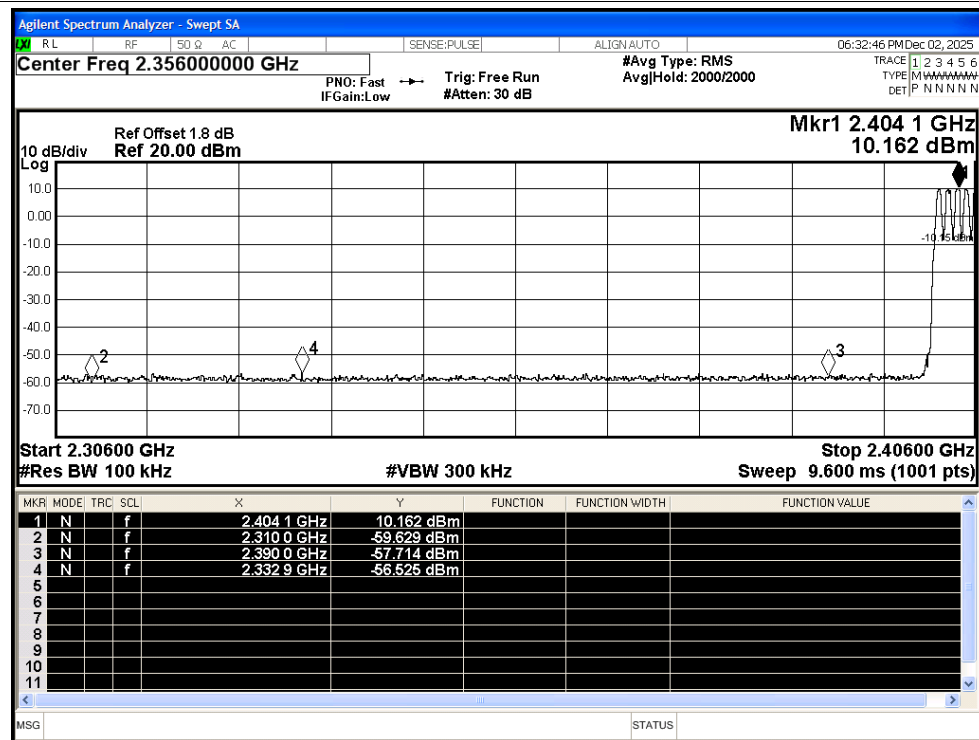
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	Hopping	-66.37	-20	Pass
NVNT	1-DH5	2480	Ant1	Hopping	-64.71	-20	Pass
NVNT	2-DH5	2402	Ant1	Hopping	-66.25	-20	Pass
NVNT	2-DH5	2480	Ant1	Hopping	-56.2	-20	Pass
NVNT	3-DH5	2402	Ant1	Hopping	-65.59	-20	Pass
NVNT	3-DH5	2480	Ant1	Hopping	-63.22	-20	Pass

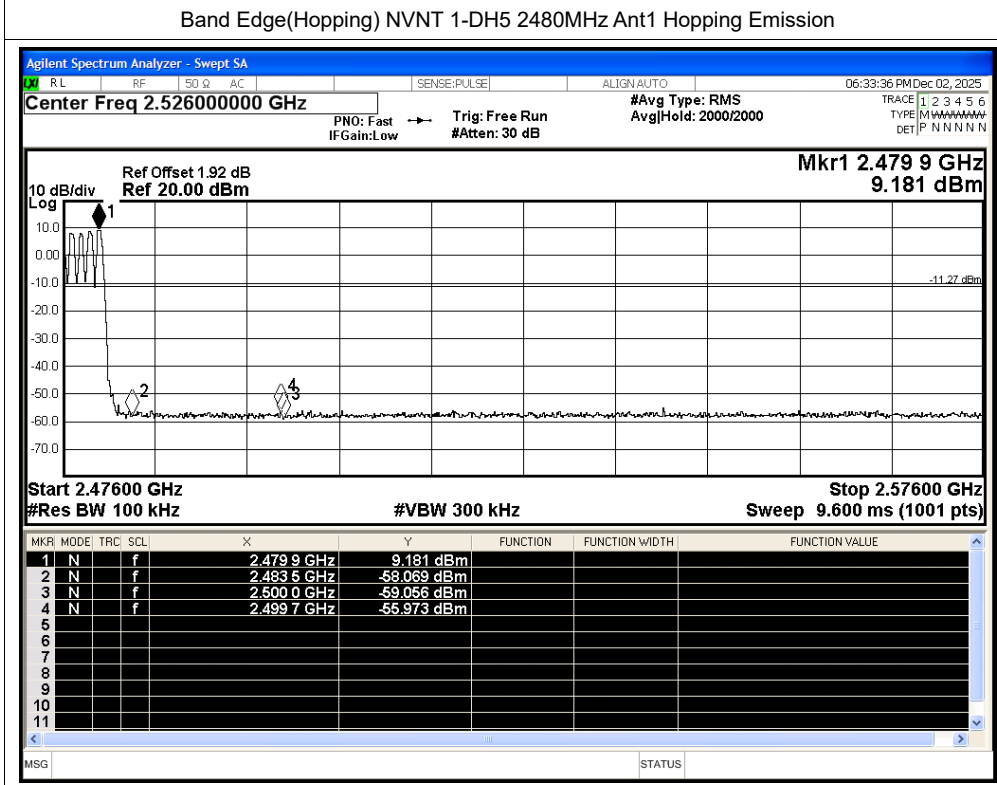
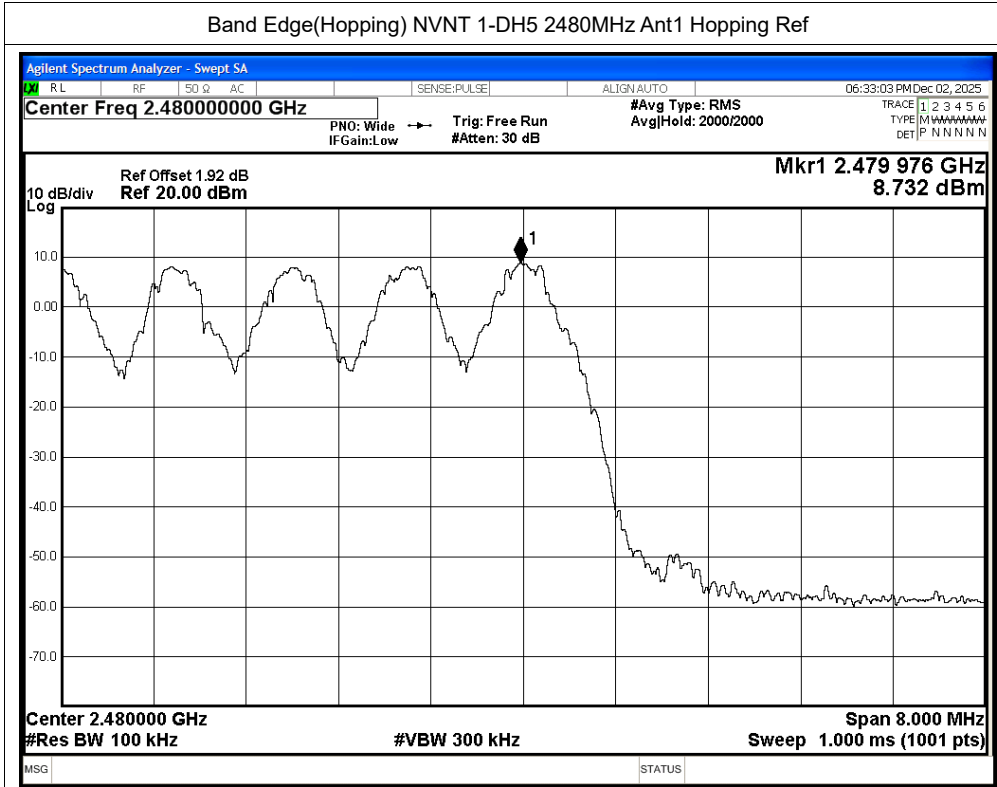
Test Graphs

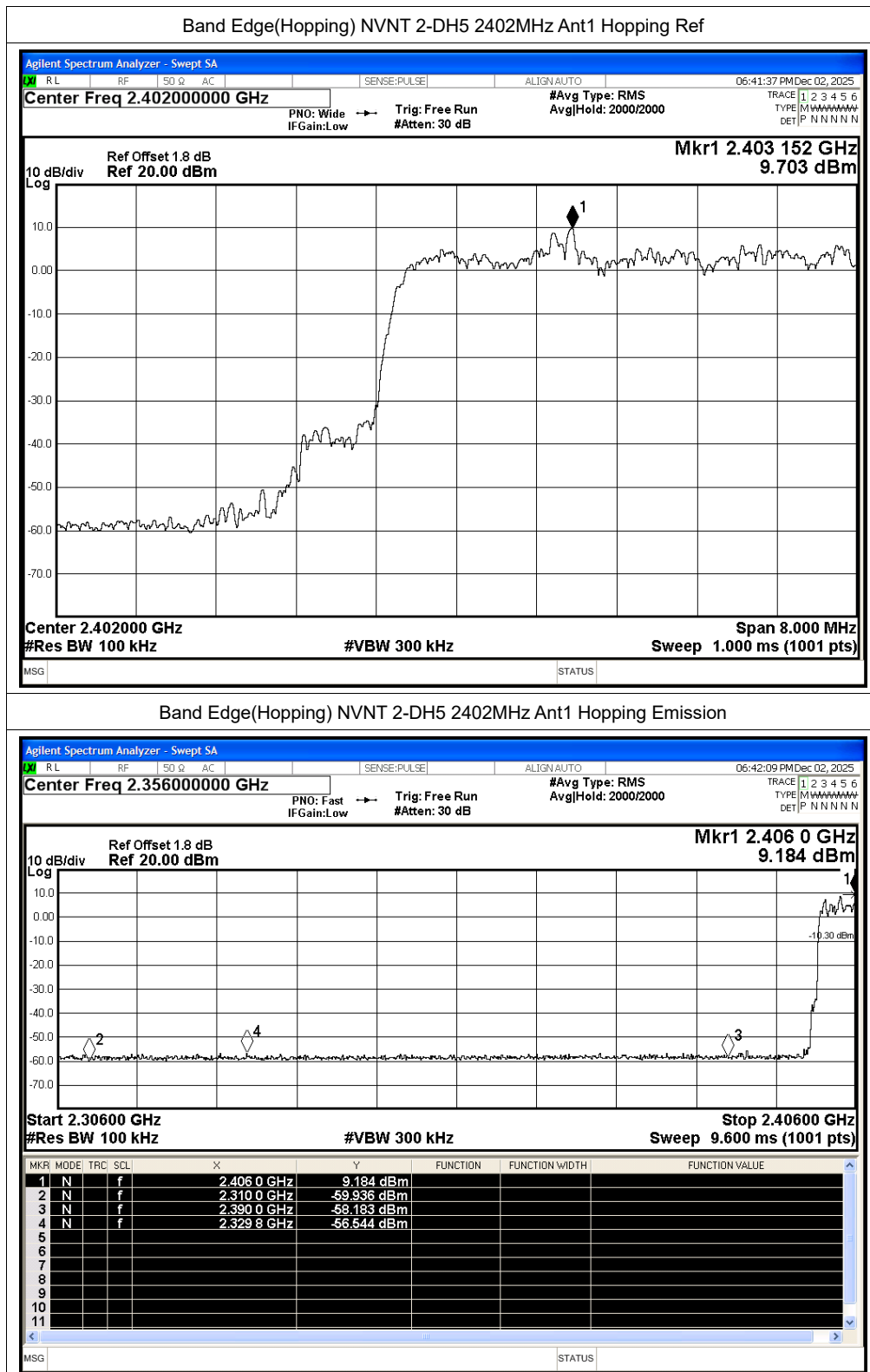
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Ref

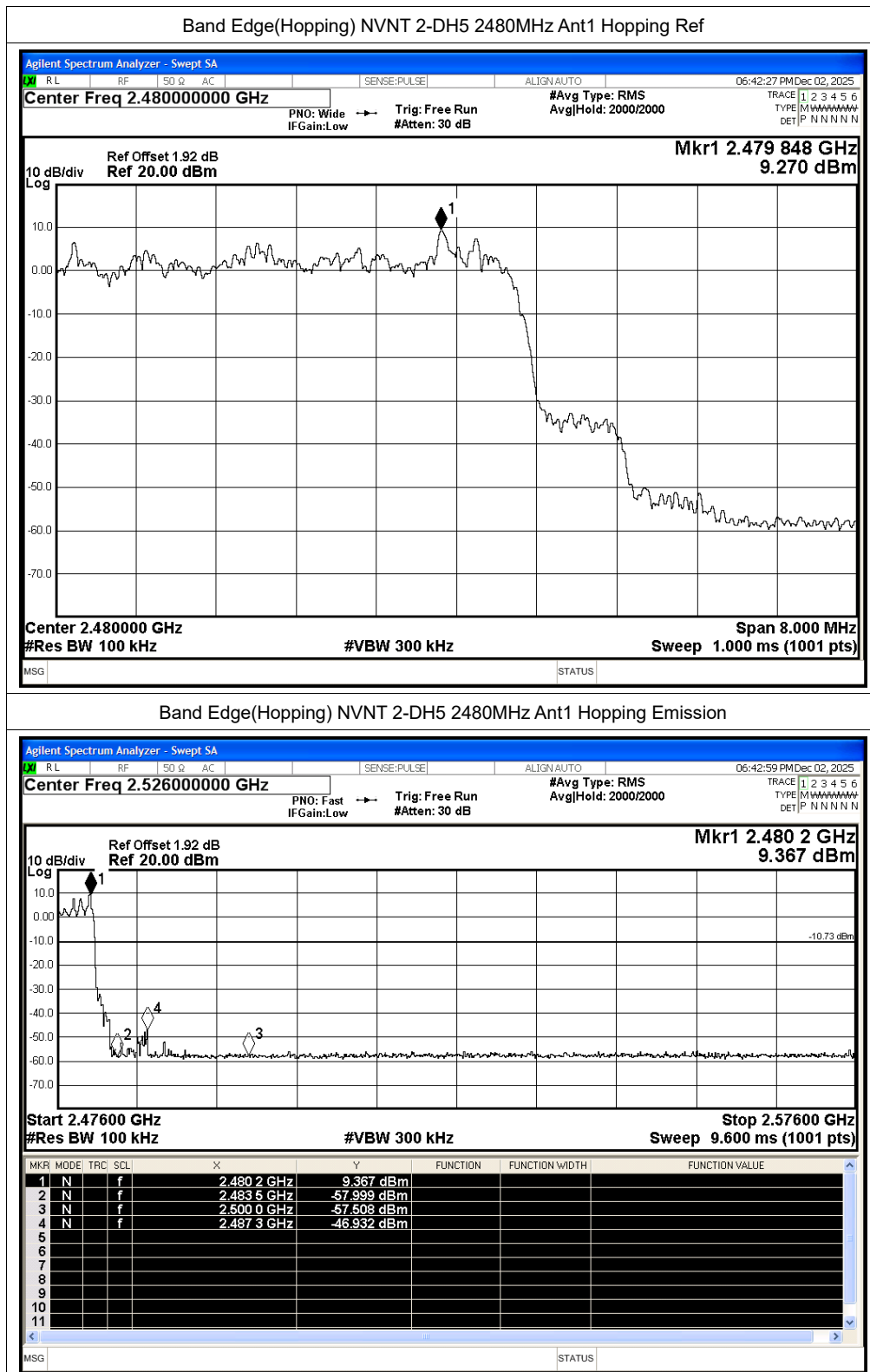


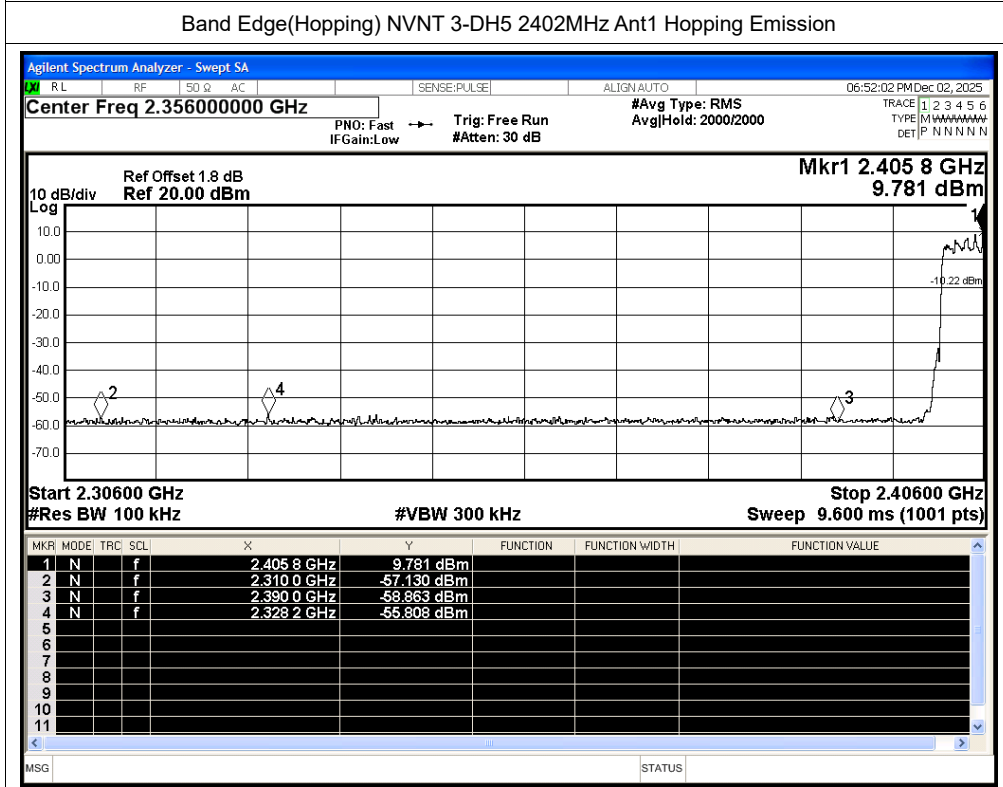
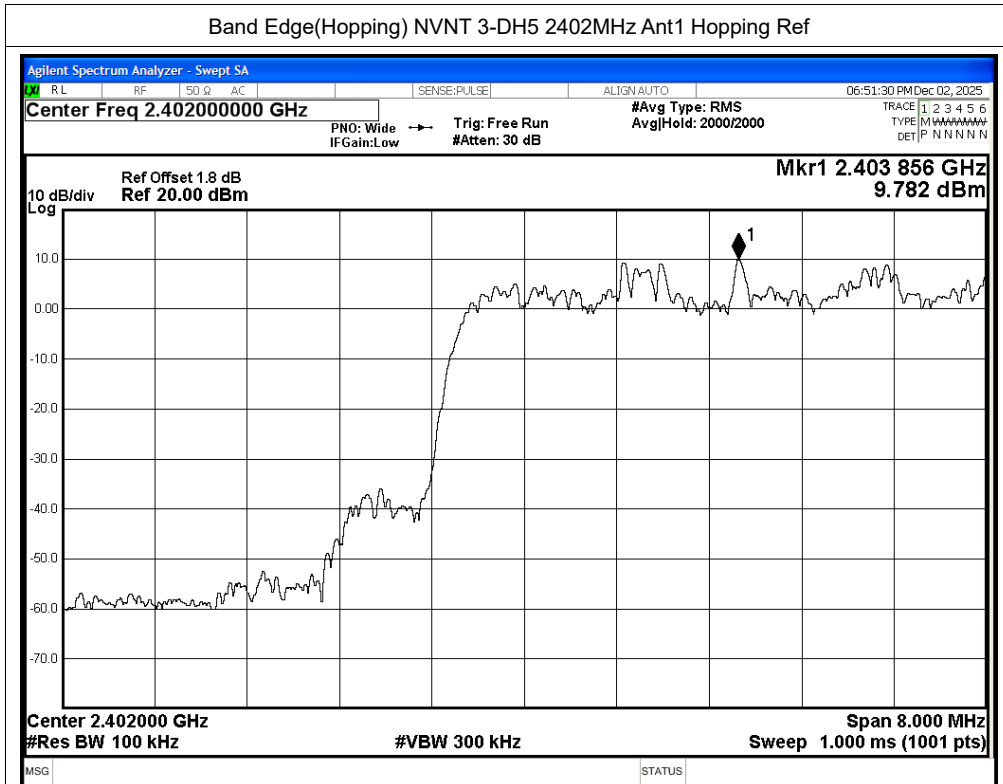
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission

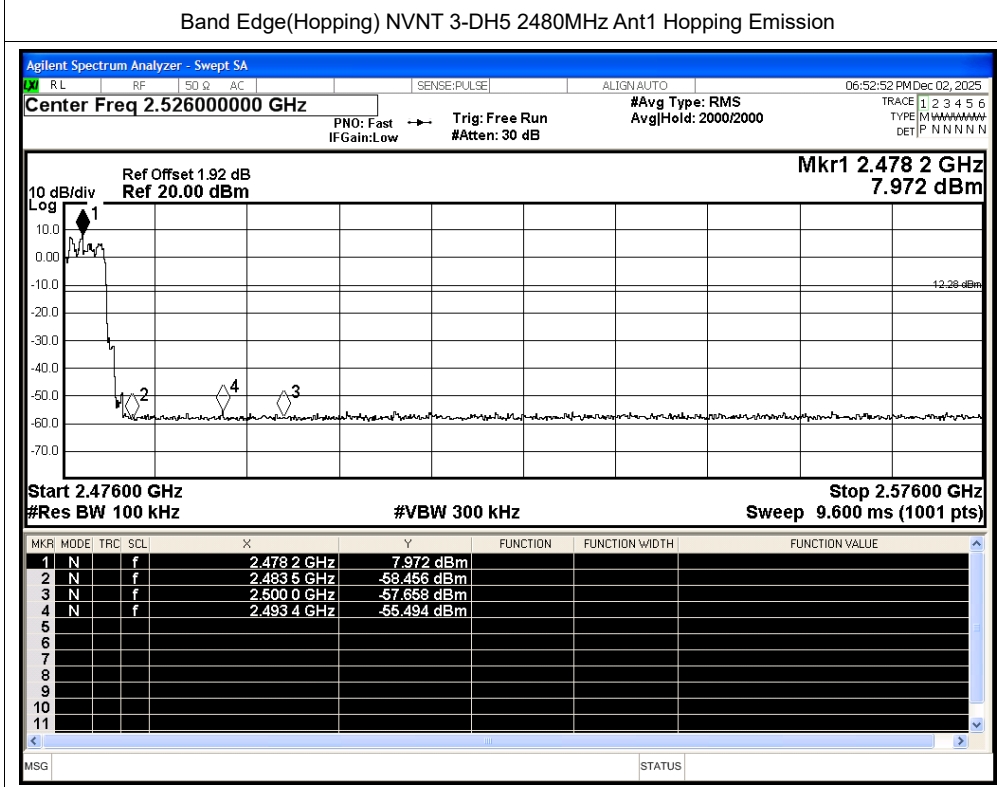
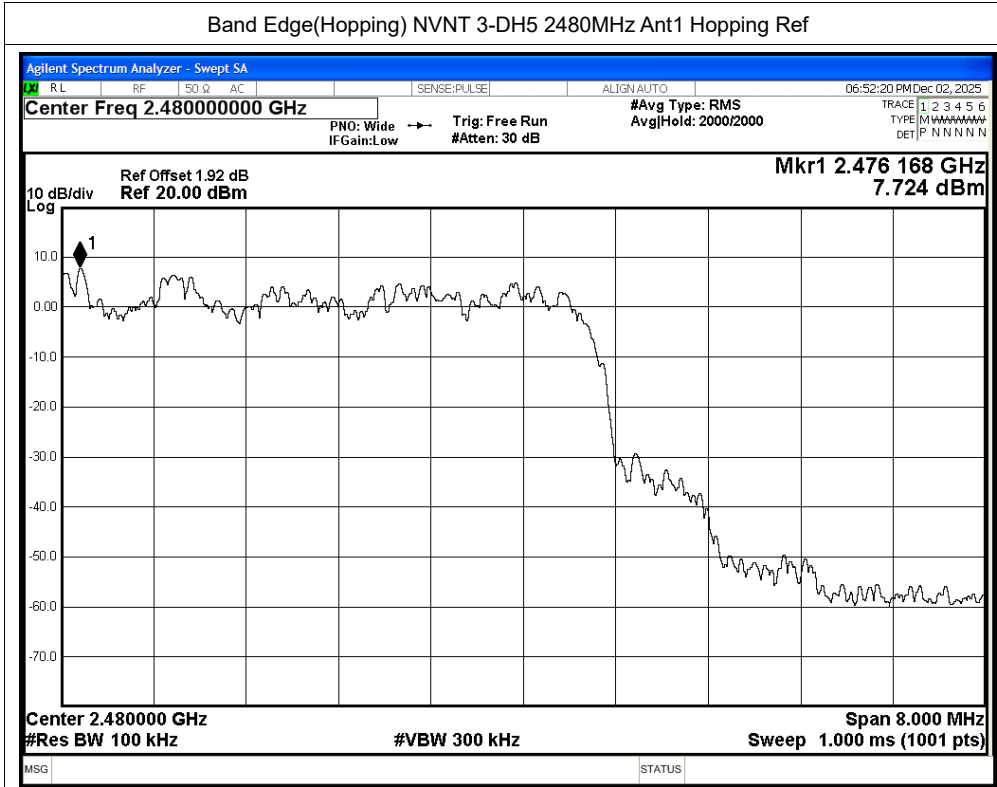










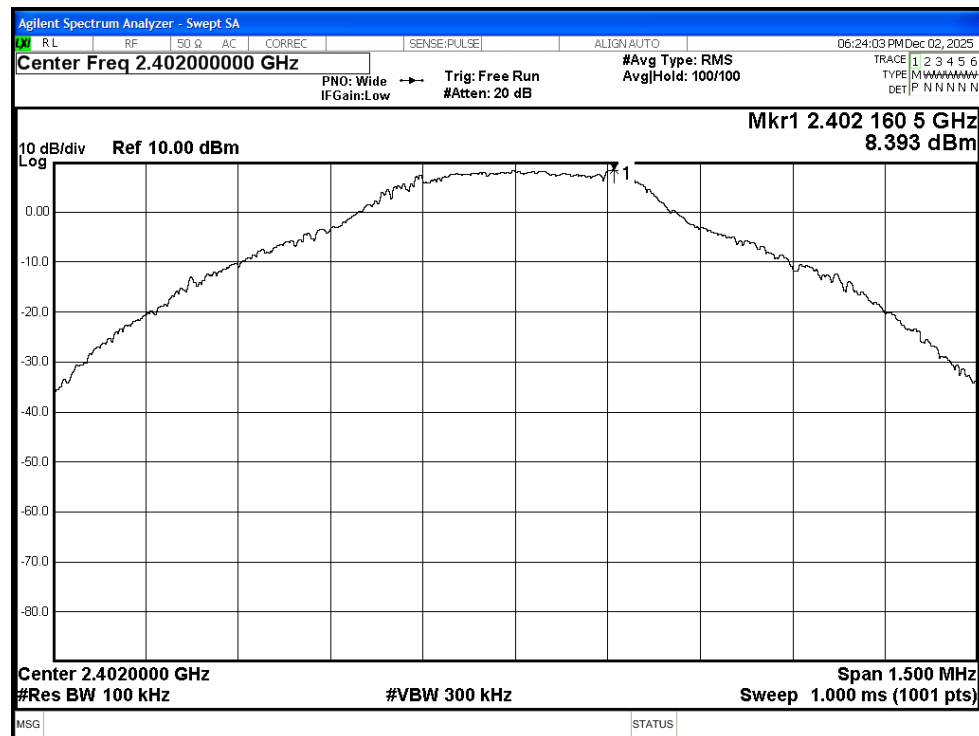


A.7 Conducted RF Spurious Emission

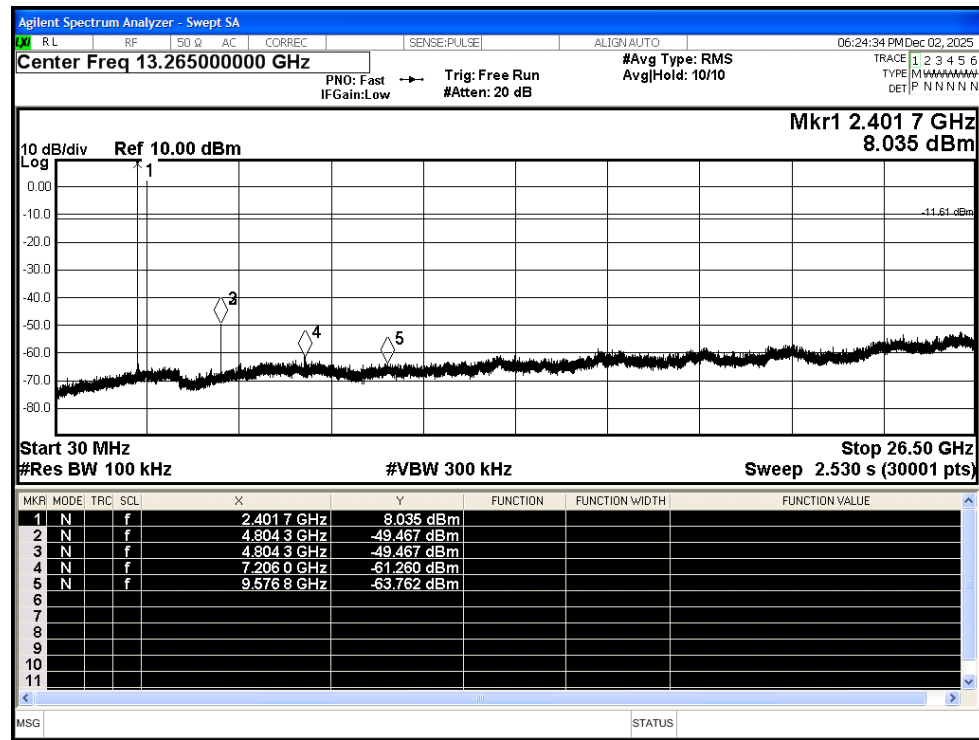
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	-57.86	-20	Pass
NVNT	1-DH5	2441	Ant1	-59.19	-20	Pass
NVNT	1-DH5	2480	Ant1	-51.95	-20	Pass
NVNT	2-DH5	2402	Ant1	-61.63	-20	Pass
NVNT	2-DH5	2441	Ant1	-56.34	-20	Pass
NVNT	2-DH5	2480	Ant1	-61.06	-20	Pass
NVNT	3-DH5	2402	Ant1	-62.78	-20	Pass
NVNT	3-DH5	2441	Ant1	-55.92	-20	Pass
NVNT	3-DH5	2480	Ant1	-60.74	-20	Pass

Test Graphs

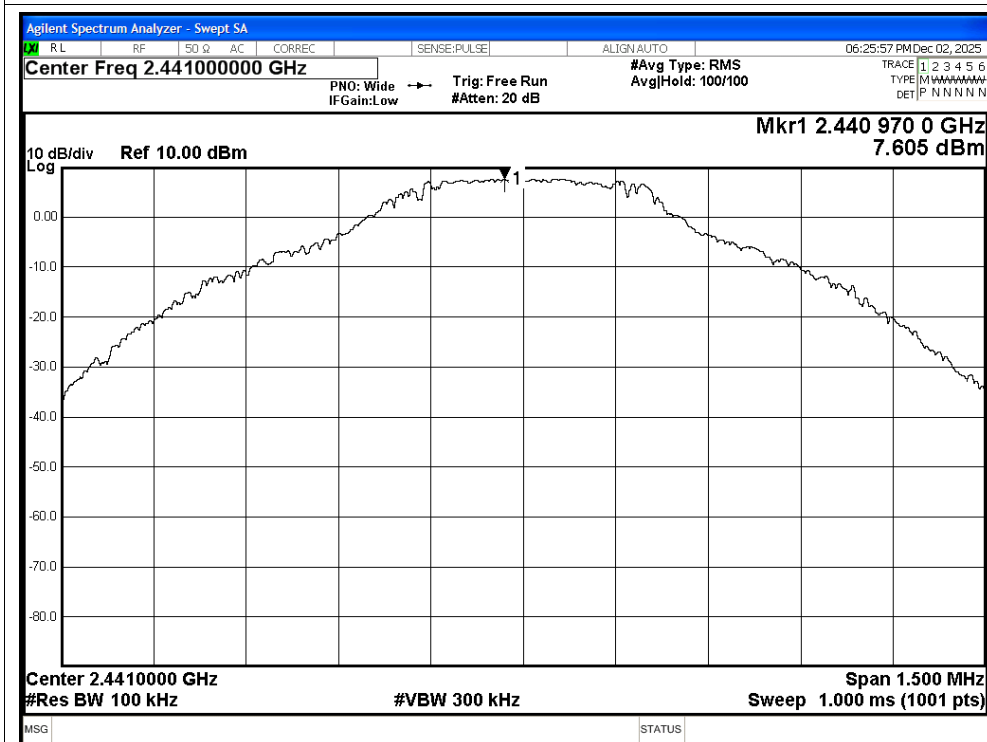
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref



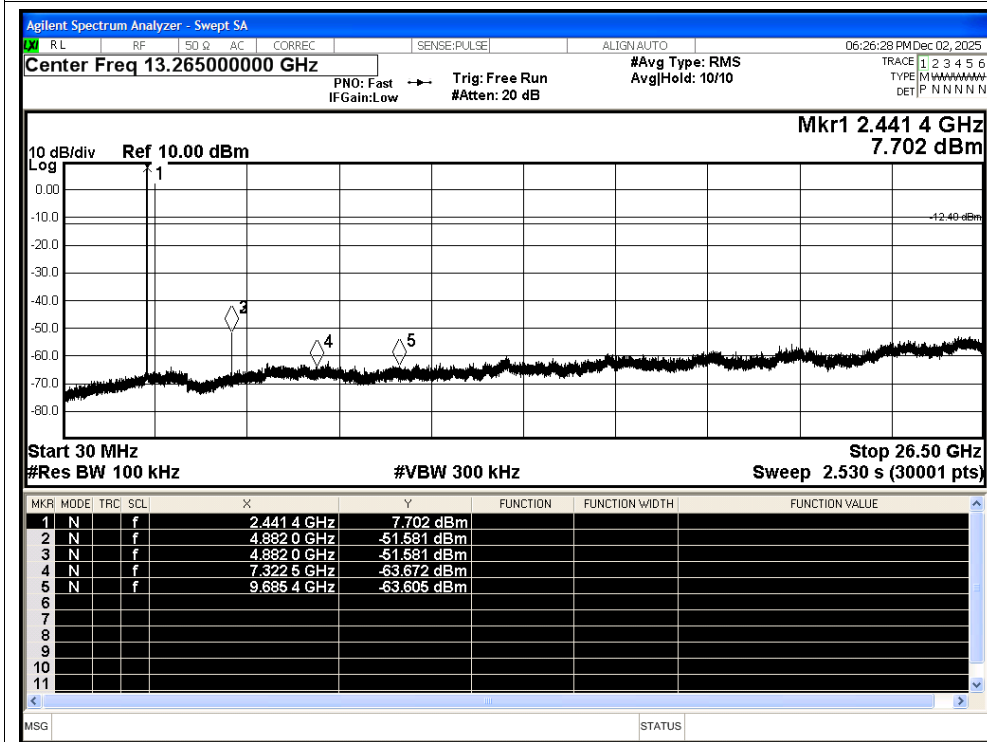
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission



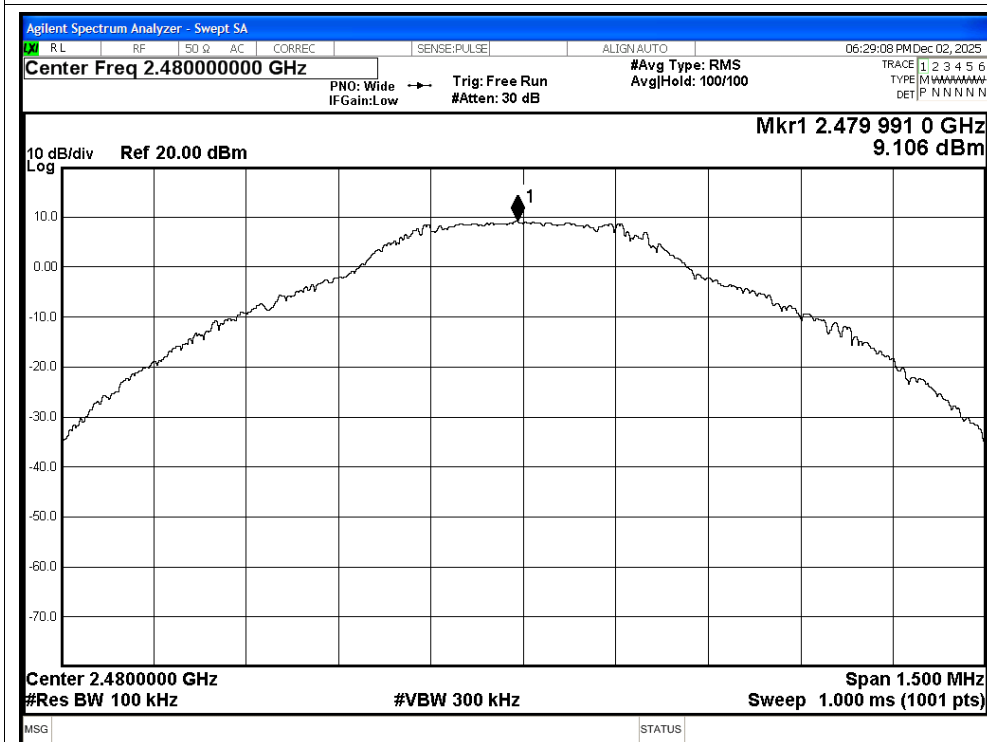
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref



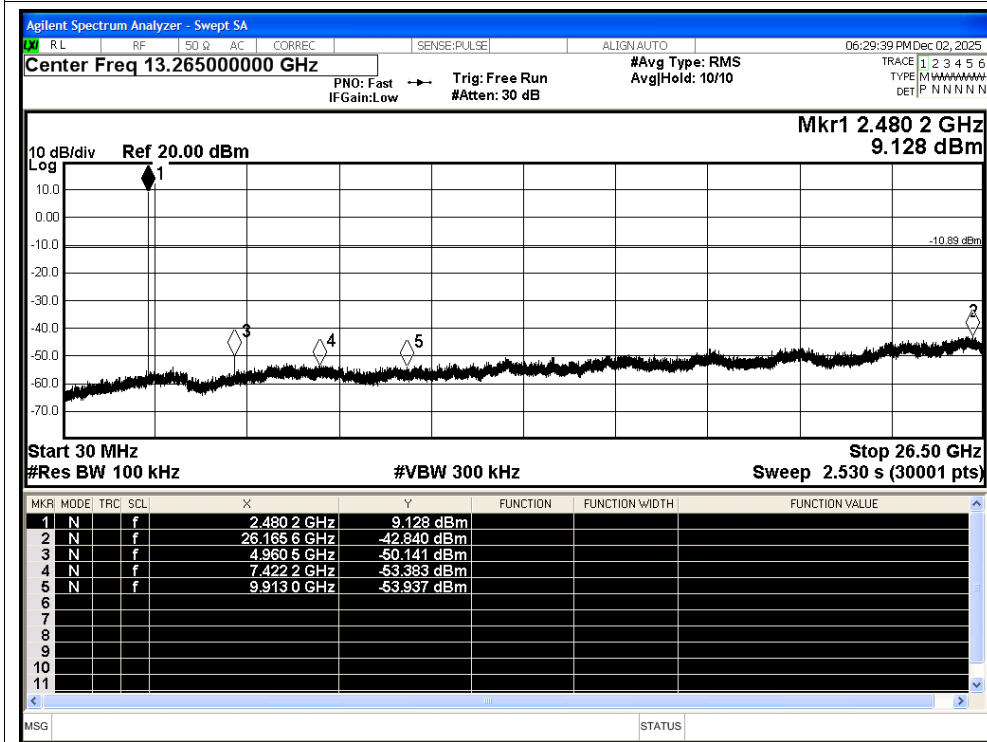
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission



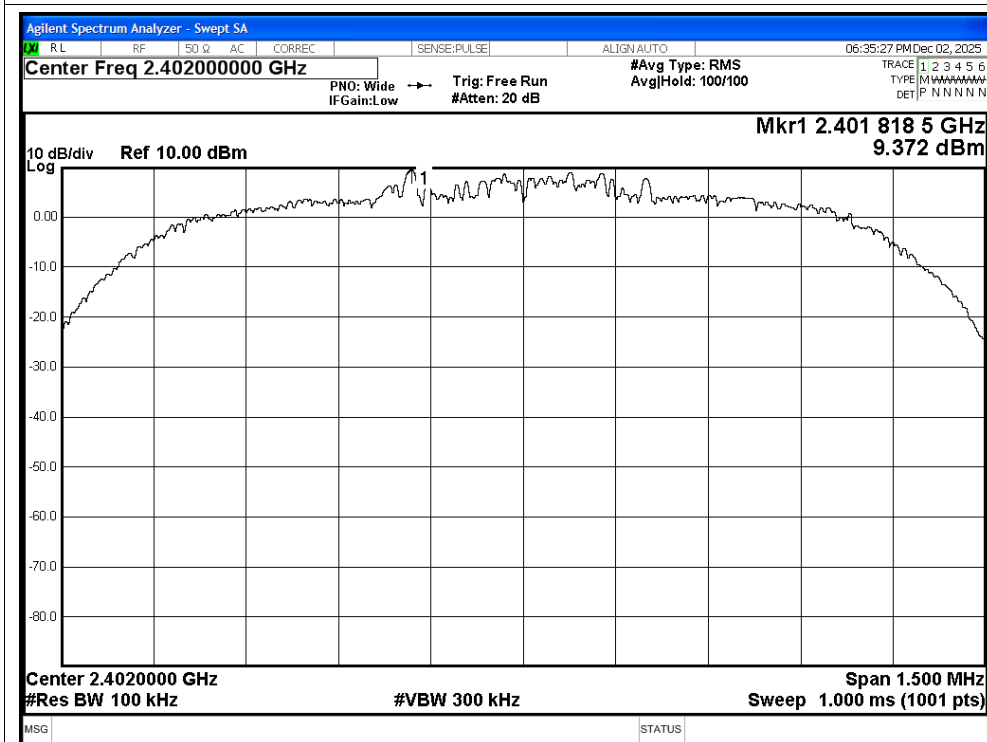
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref



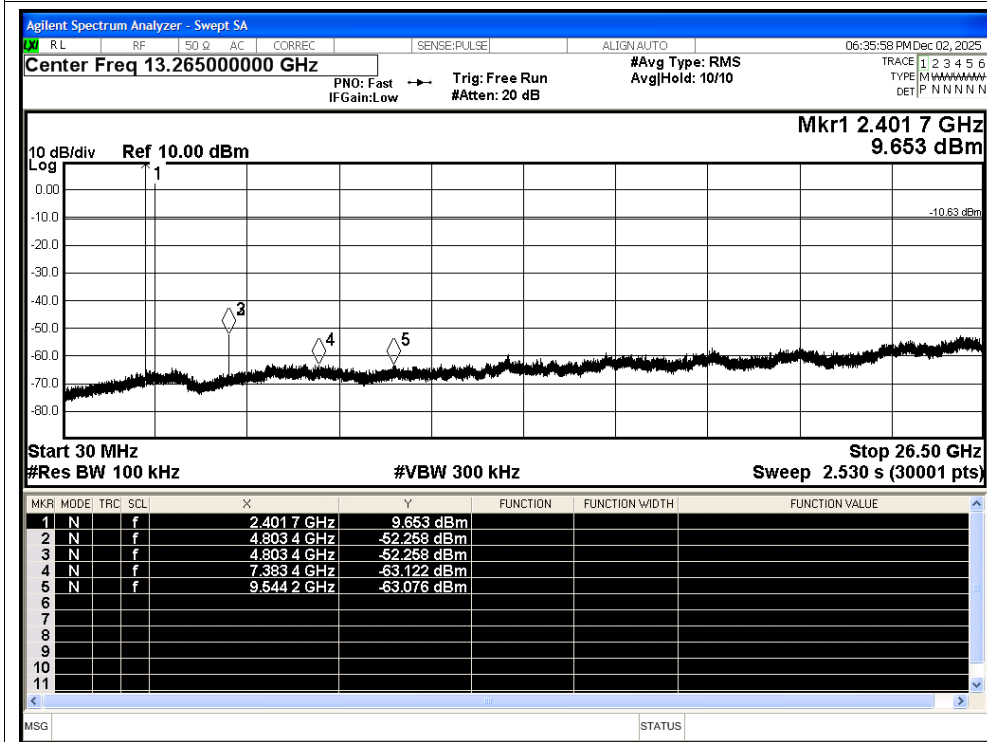
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Emission



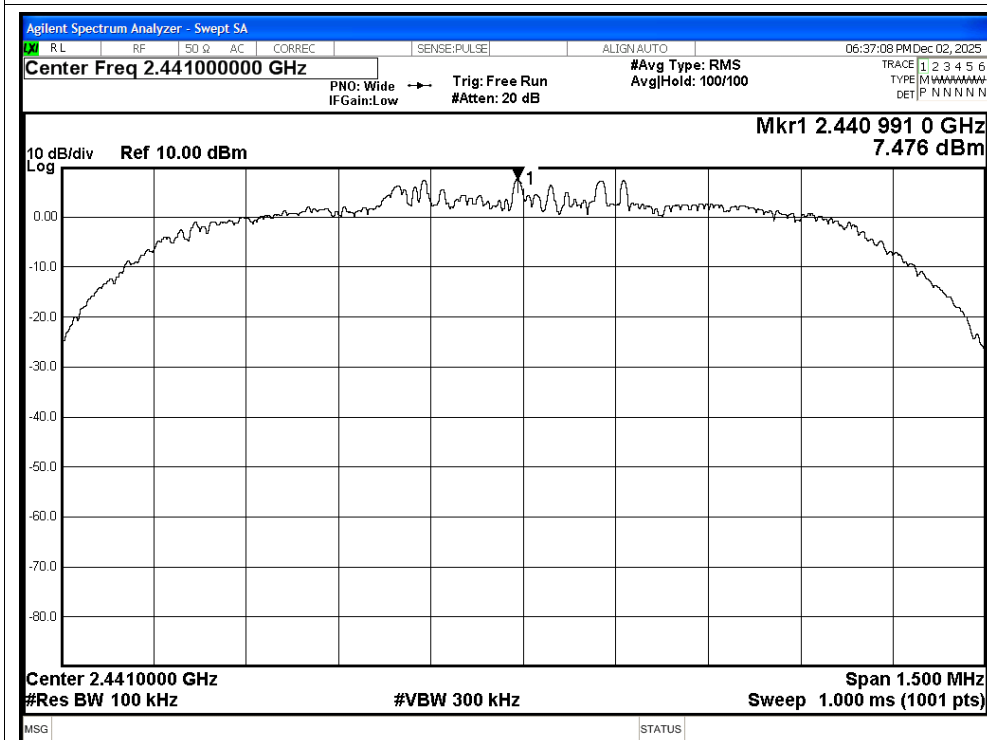
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Ref



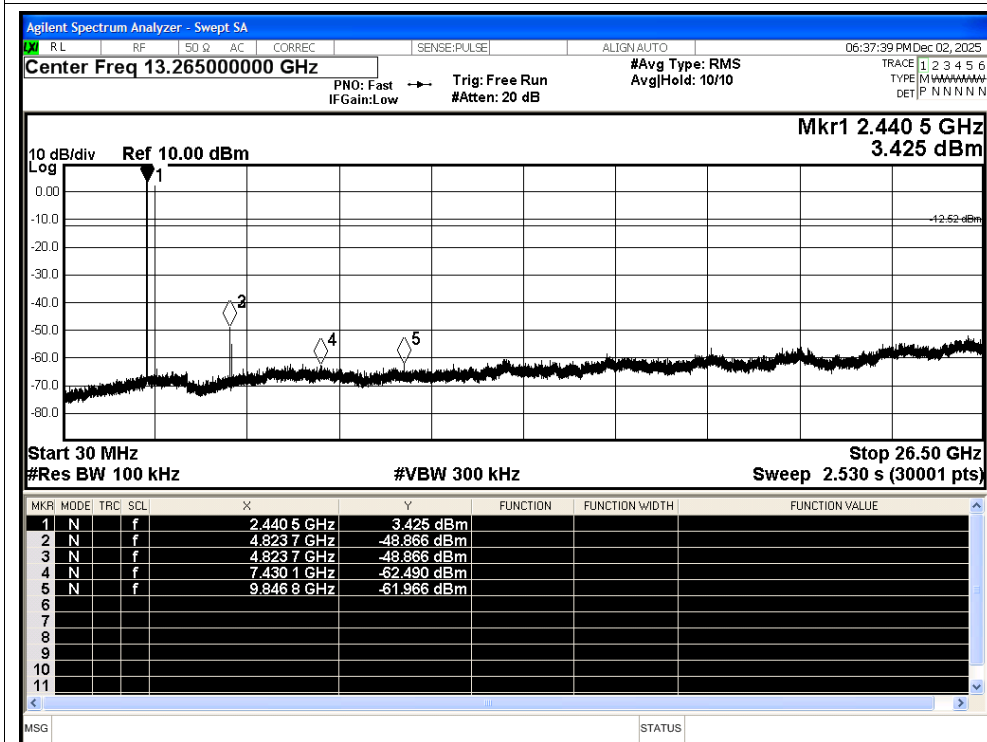
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Emission



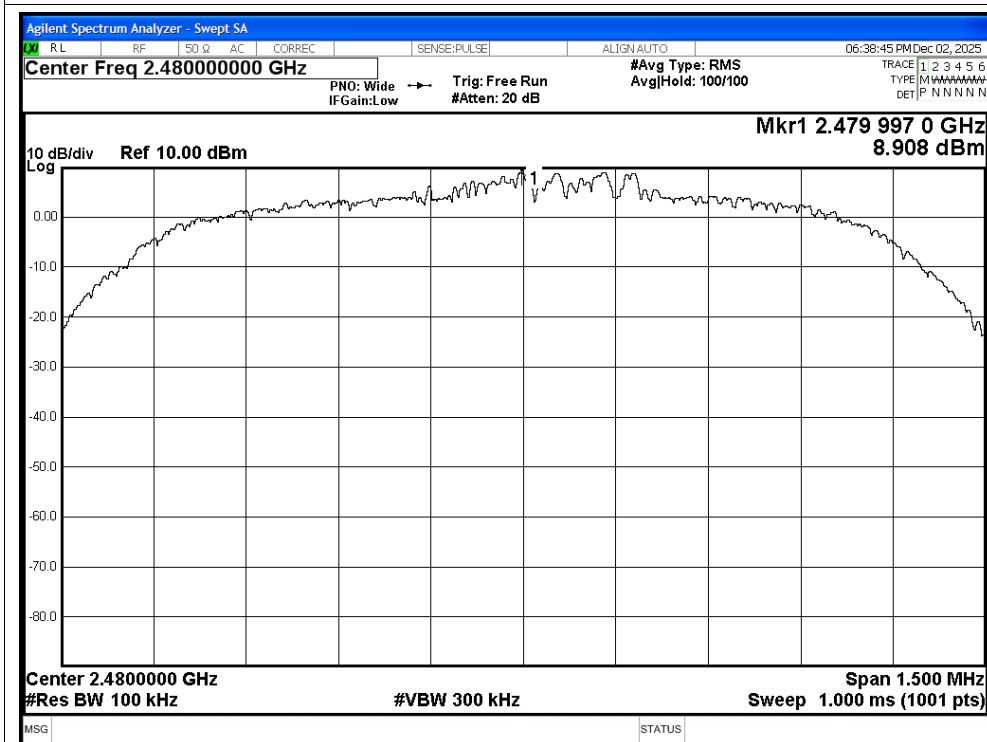
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Ref



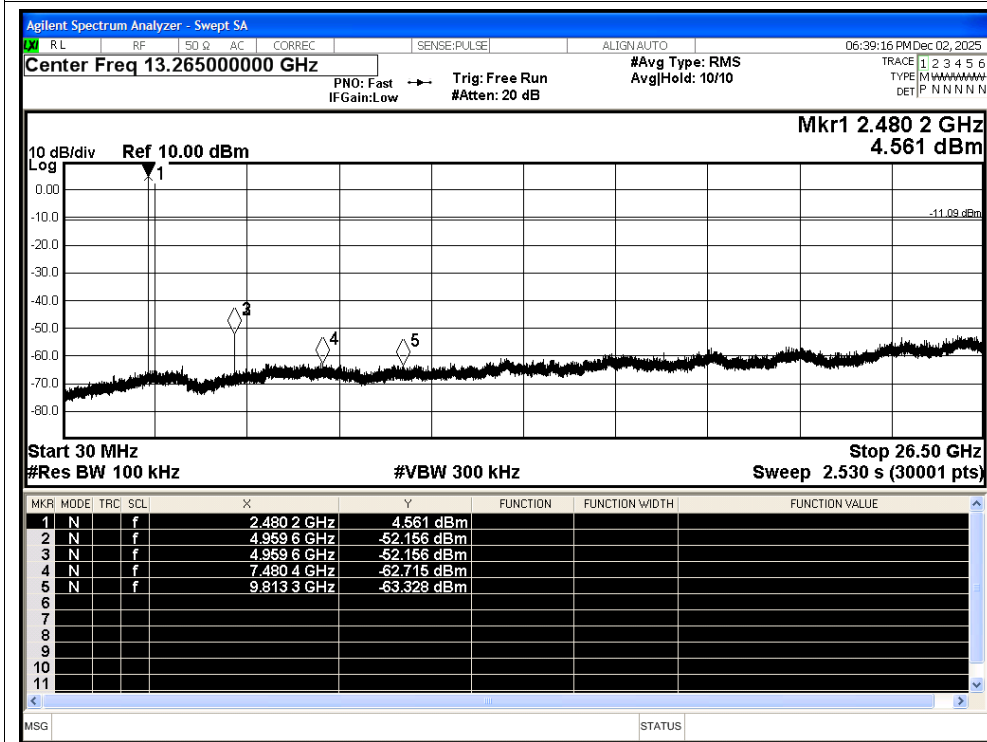
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Emission



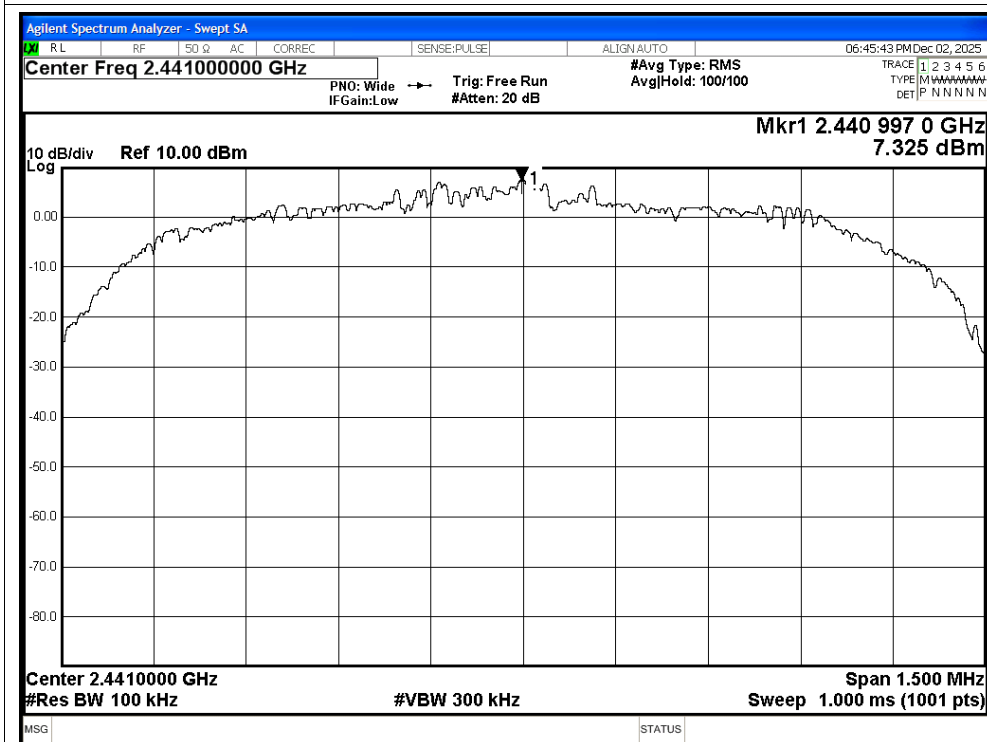
Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Ref



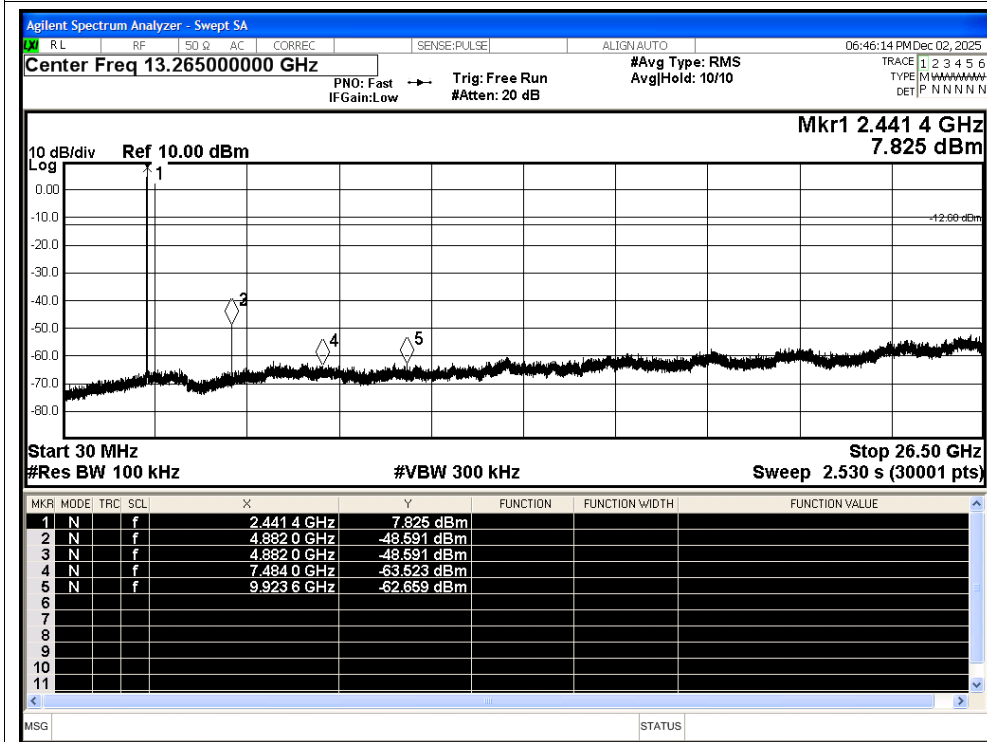
Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Emission



Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Ref



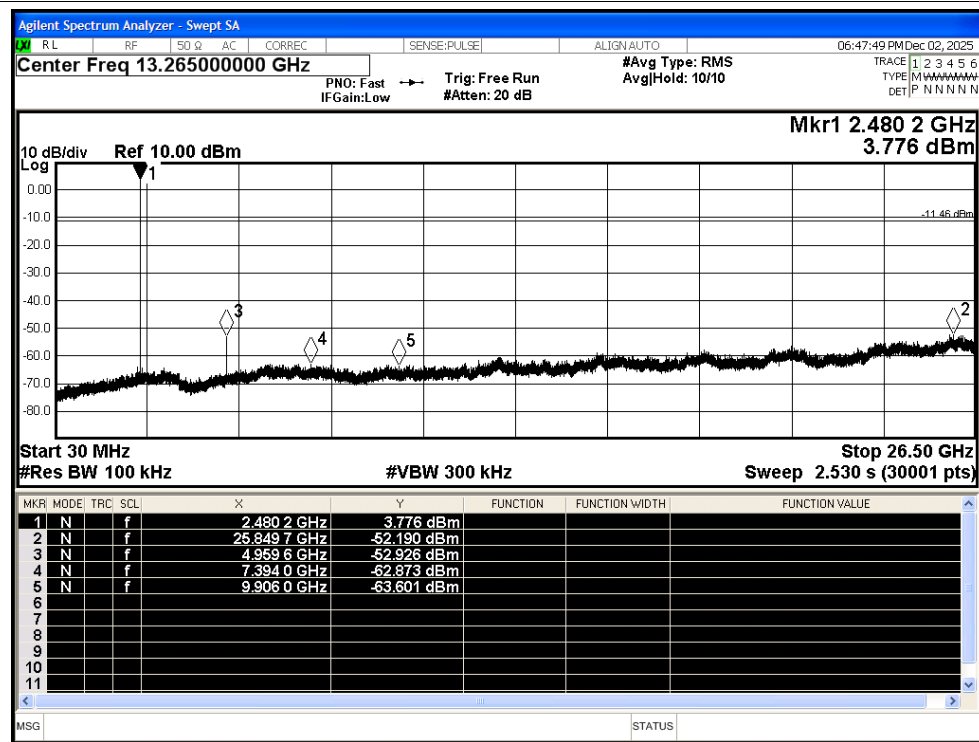
Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Emission

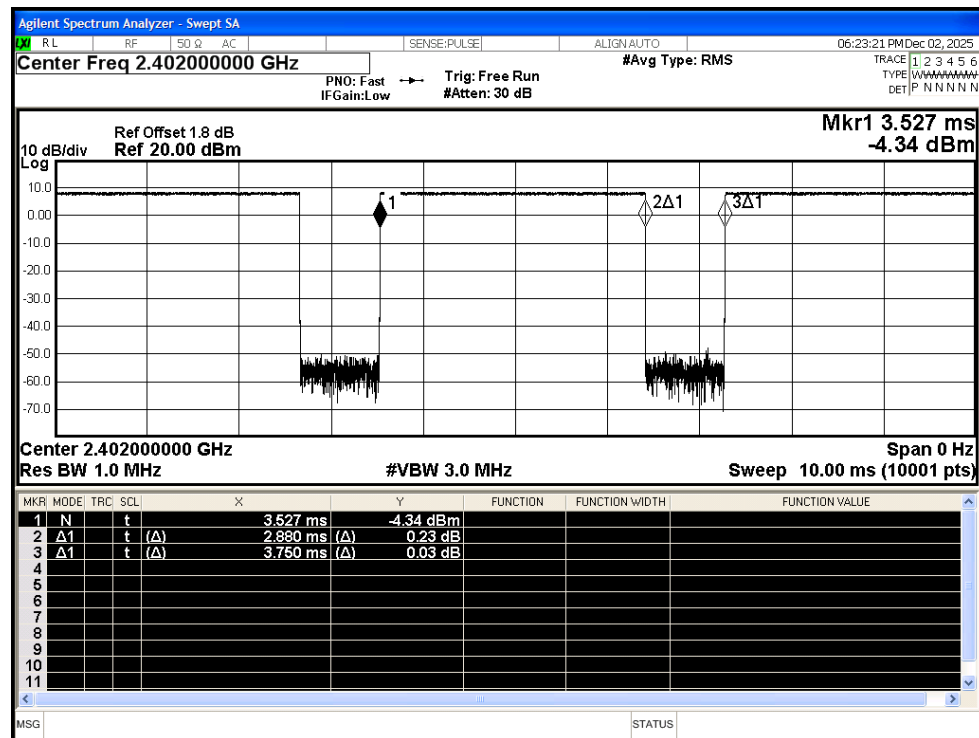


A.8 Duty Cycle

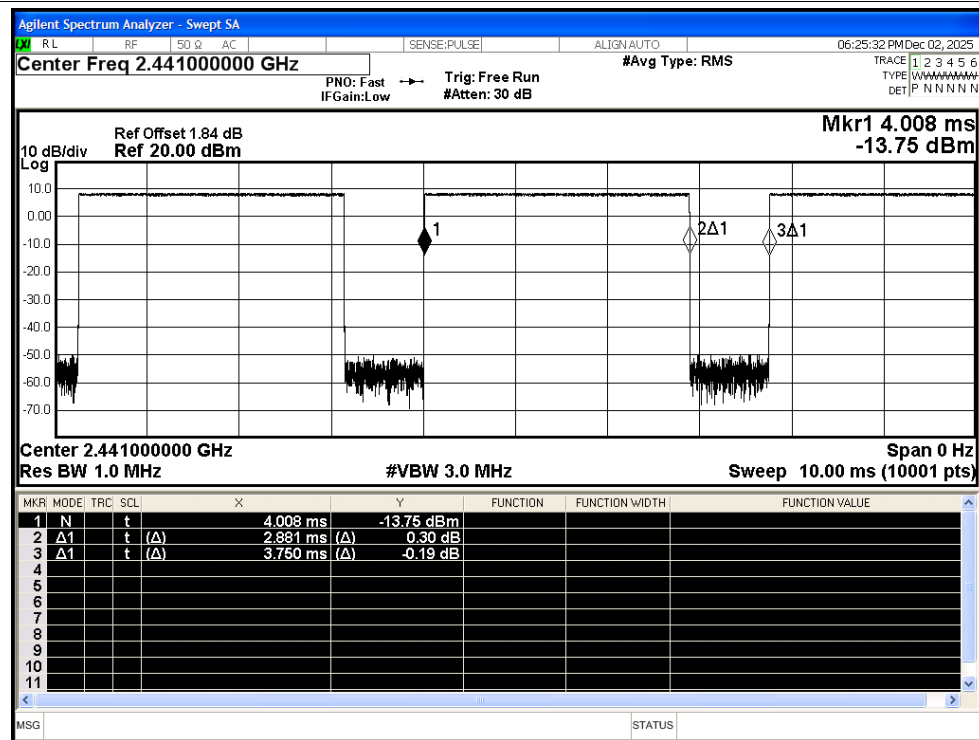
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH5	2402	Ant1	76.8	1.15	0.35
NVNT	1-DH5	2441	Ant1	76.83	1.14	0.35
NVNT	1-DH5	2480	Ant1	76.83	1.14	0.35
NVNT	2-DH5	2402	Ant1	76.96	1.14	0.35
NVNT	2-DH5	2441	Ant1	76.91	1.14	0.35
NVNT	2-DH5	2480	Ant1	76.91	1.14	0.35
NVNT	3-DH5	2402	Ant1	76.96	1.14	0.35
NVNT	3-DH5	2441	Ant1	76.96	1.14	0.35
NVNT	3-DH5	2480	Ant1	76.96	1.14	0.35

Test Graphs

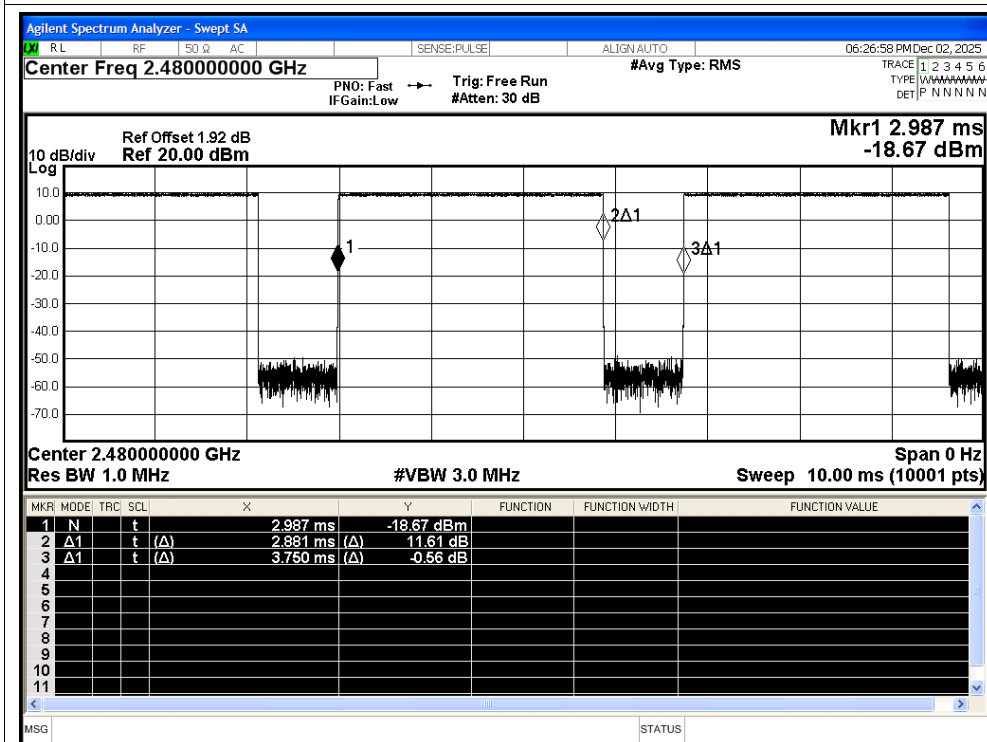
Duty Cycle NVNT 1-DH5 2402MHz Ant1



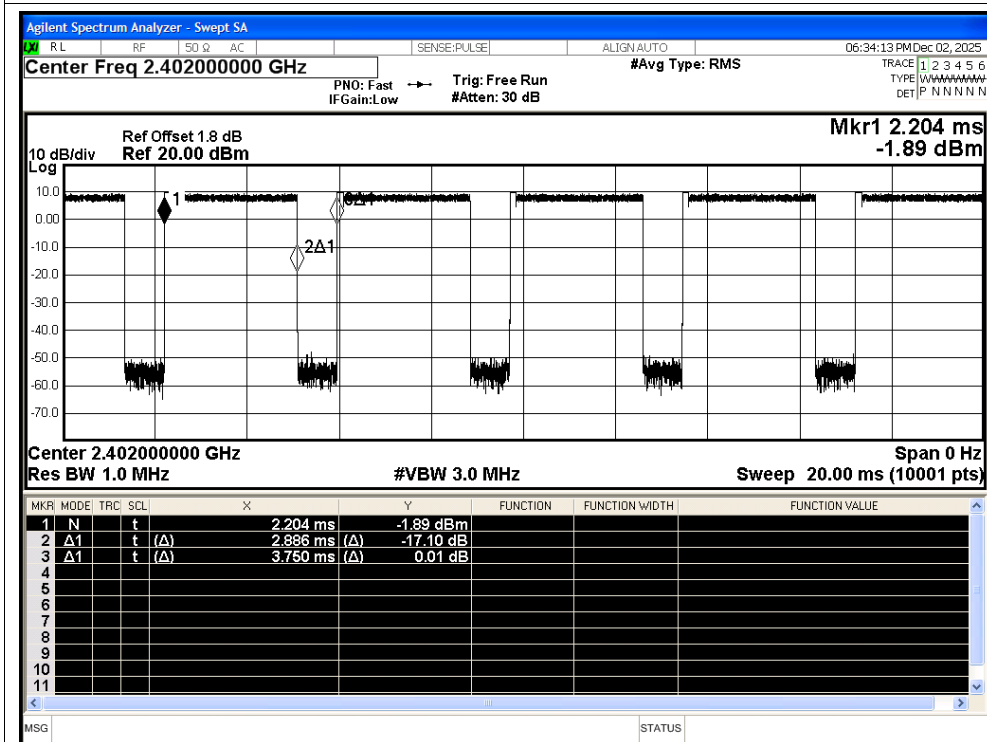
Duty Cycle NVNT 1-DH5 2441MHz Ant1



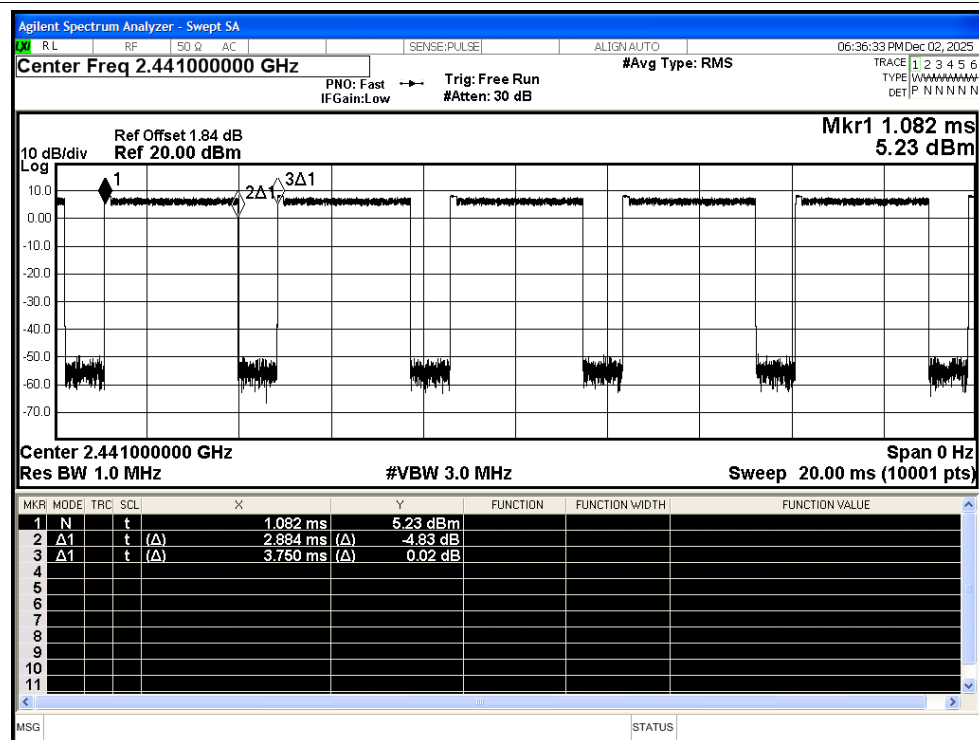
Duty Cycle NVNT 1-DH5 2480MHz Ant1



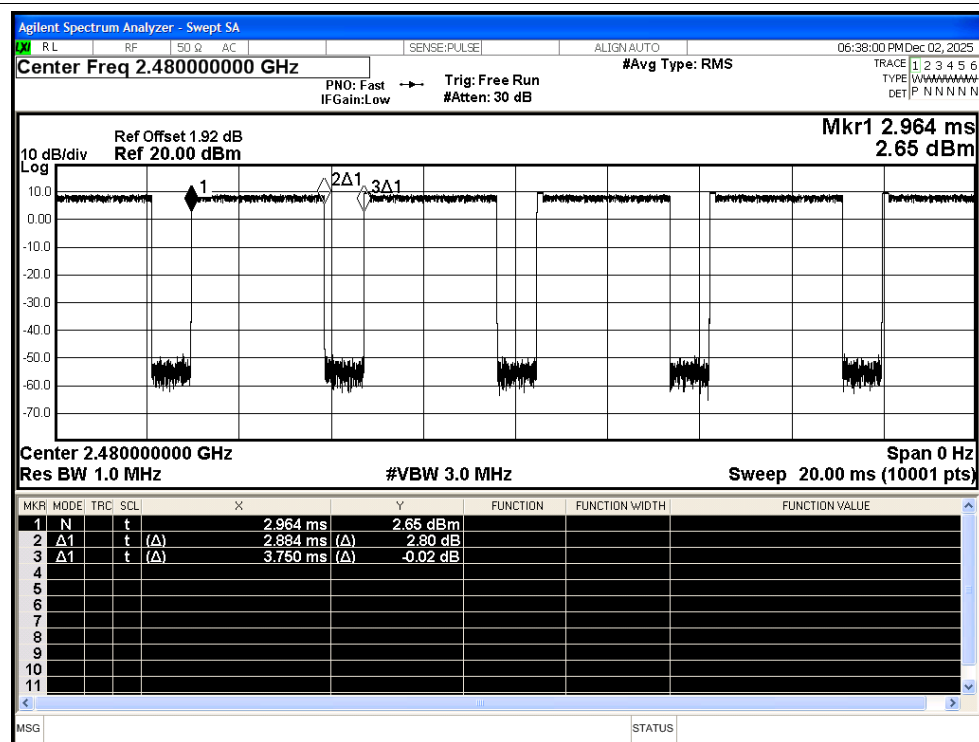
Duty Cycle NVNT 2-DH5 2402MHz Ant1



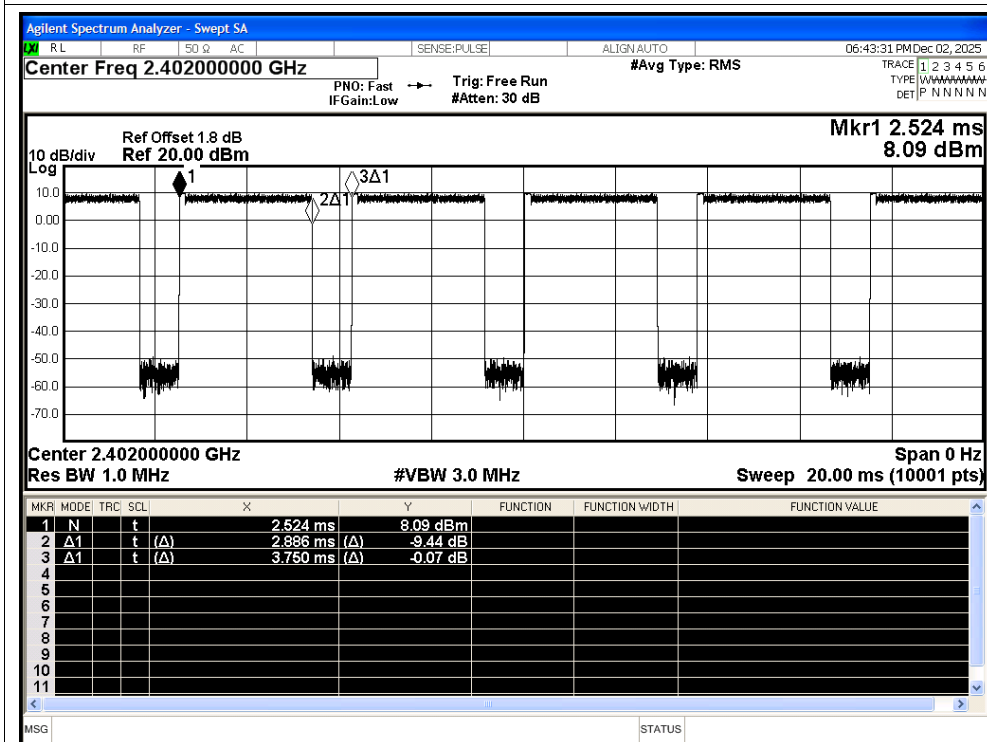
Duty Cycle NVNT 2-DH5 2441MHz Ant1



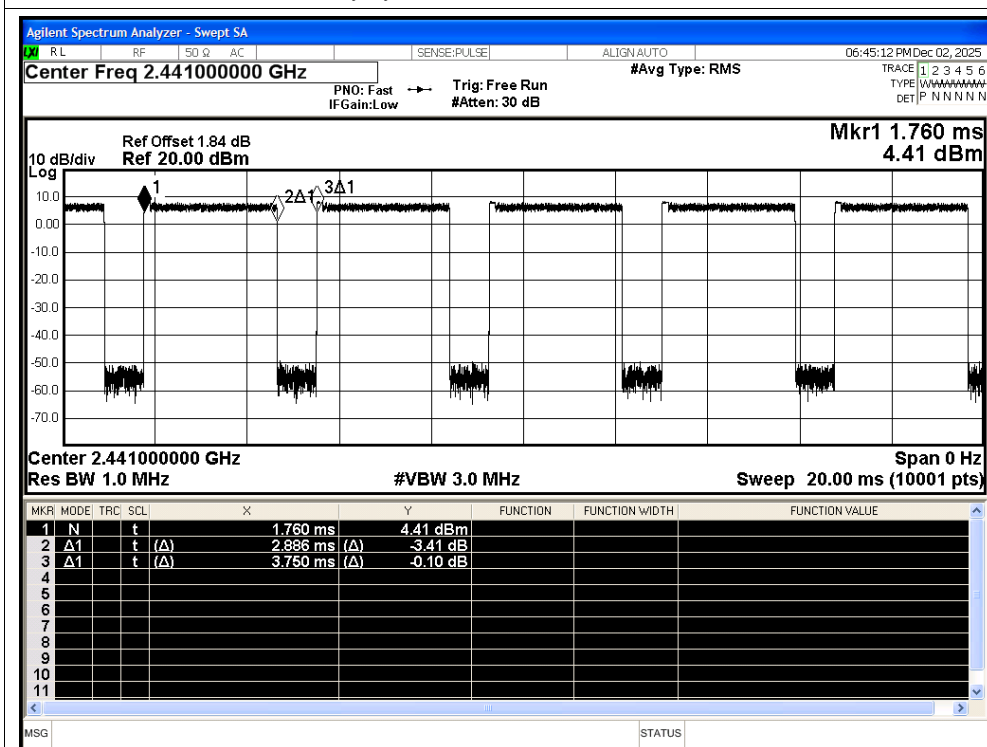
Duty Cycle NVNT 2-DH5 2480MHz Ant1



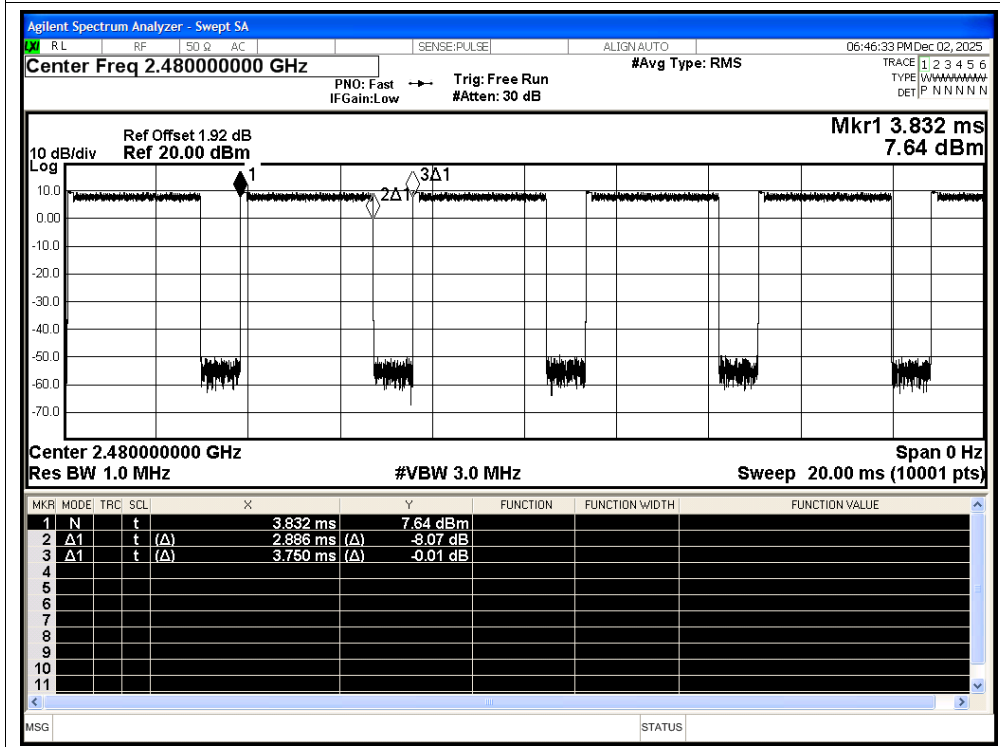
Duty Cycle NVNT 3-DH5 2402MHz Ant1



Duty Cycle NVNT 3-DH5 2441MHz Ant1



Duty Cycle NVNT 3-DH5 2480MHz Ant1

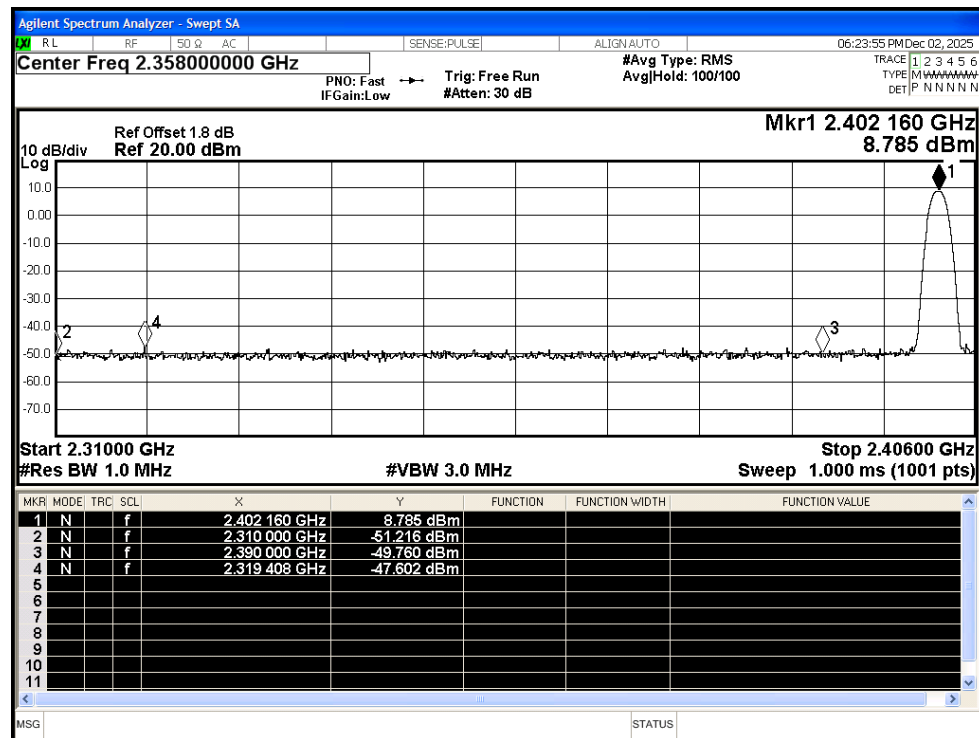


A.9 Restrict Band

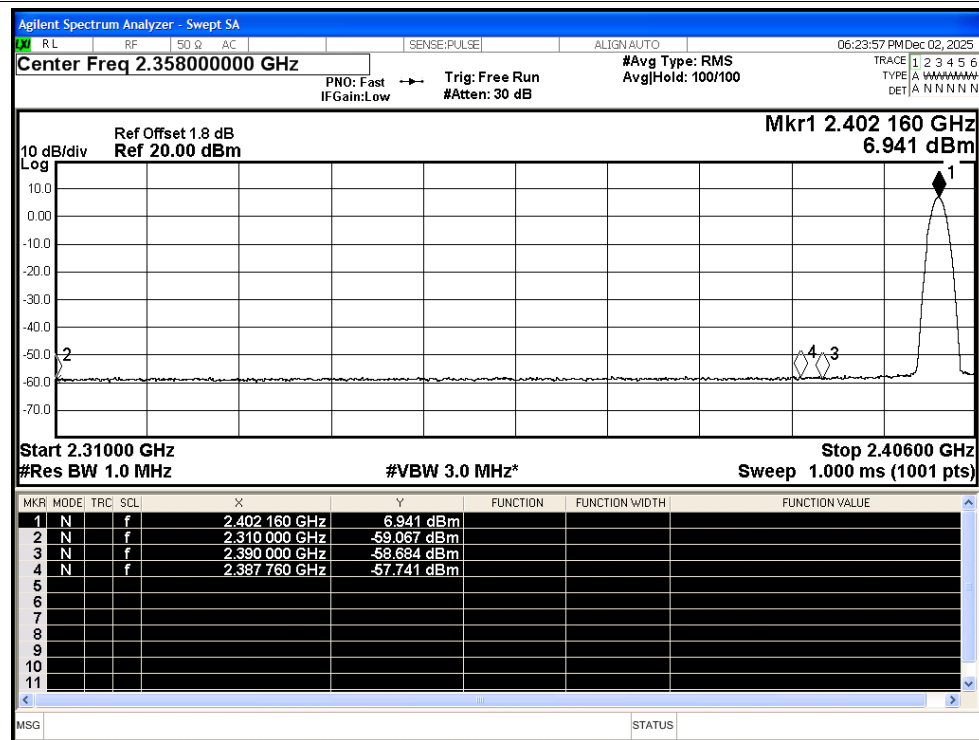
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-51.22	3	-	47.04	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-59.07	3	1.15	40.34	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2319.408	-47.6	3	-	50.66	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2387.76	-57.74	3	1.15	41.67	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-49.76	3	-	48.50	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-58.68	3	1.15	40.73	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-48.83	3	-	49.43	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-56.63	3	1.14	42.77	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2484.472	-47.09	3	-	51.17	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.656	-55.9	3	1.14	43.50	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-50.89	3	-	47.37	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-58.34	3	1.14	41.06	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-49.44	3	-	48.82	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-58.52	3	1.14	40.88	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2338.224	-47.45	3	-	50.81	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2370.96	-57.8	3	1.14	41.60	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-50.76	3	-	47.50	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-58.32	3	1.14	41.08	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-47.91	3	-	50.35	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-56.34	3	1.14	43.06	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.584	-44.47	3	-	53.79	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.536	-56	3	1.14	43.40	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-49.71	3	-	48.55	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-58.3	3	1.14	41.10	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-50.9	3	-	47.36	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-59.36	3	1.14	40.04	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2329.776	-47.75	3	-	50.51	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2359.056	-57.88	3	1.14	41.52	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-50.62	3	-	47.64	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-58.49	3	1.14	40.91	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-45.72	3	-	52.54	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-55.41	3	1.14	43.99	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.56	-43.84	3	-	54.42	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.512	-55.41	3	1.14	43.99	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-50.19	3	-	48.07	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-58.21	3	1.14	41.19	Average	54	Pass

Test Graphs

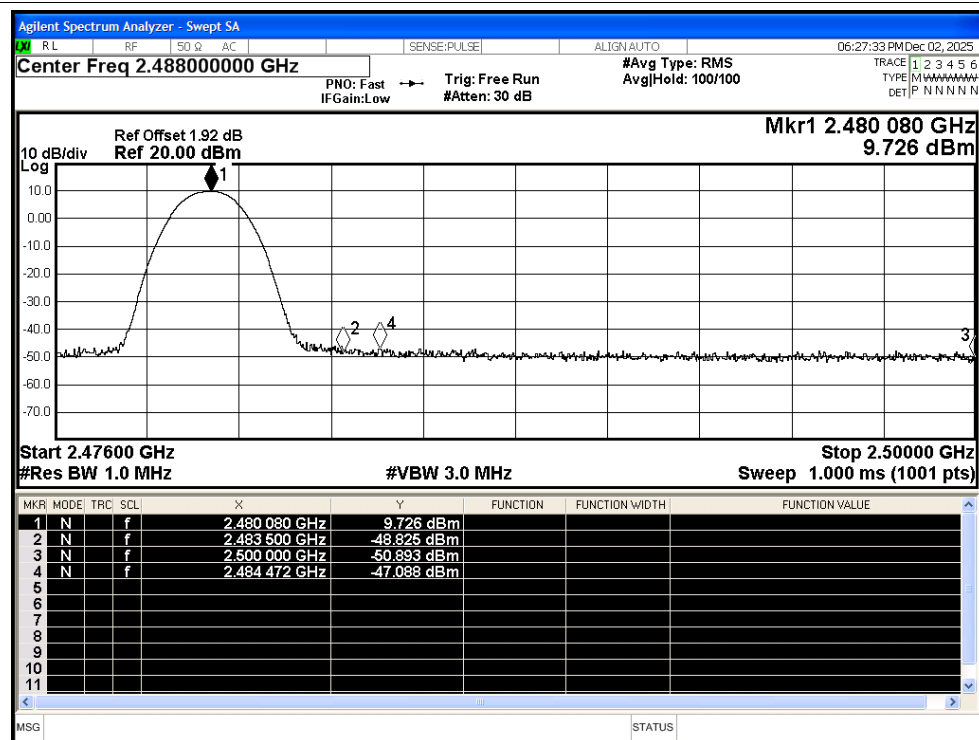
Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Peak



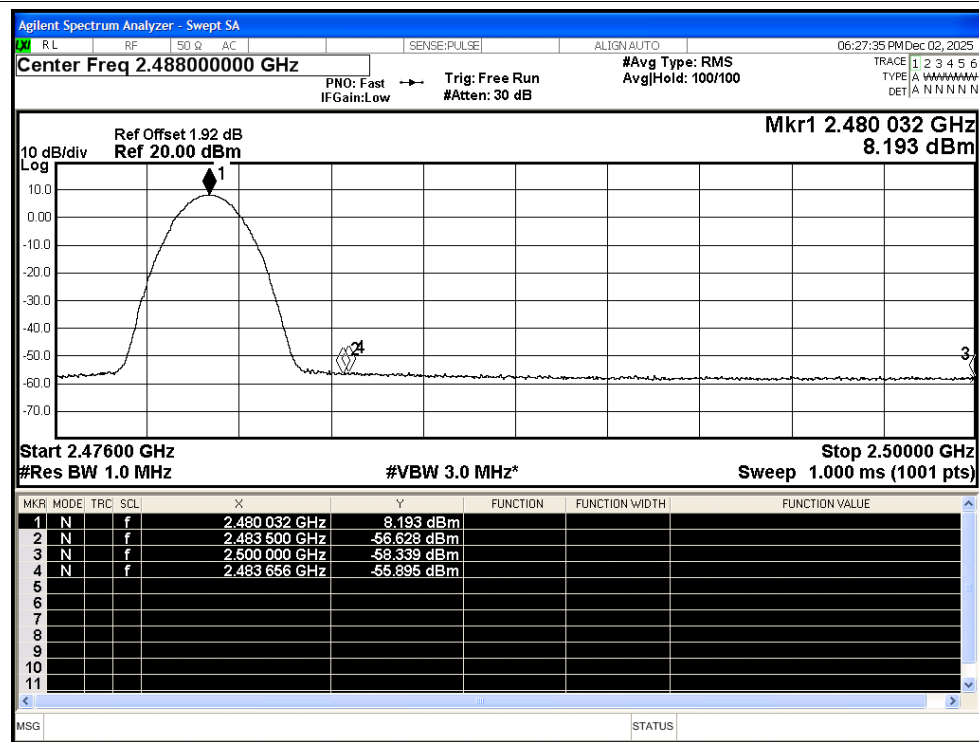
Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Average

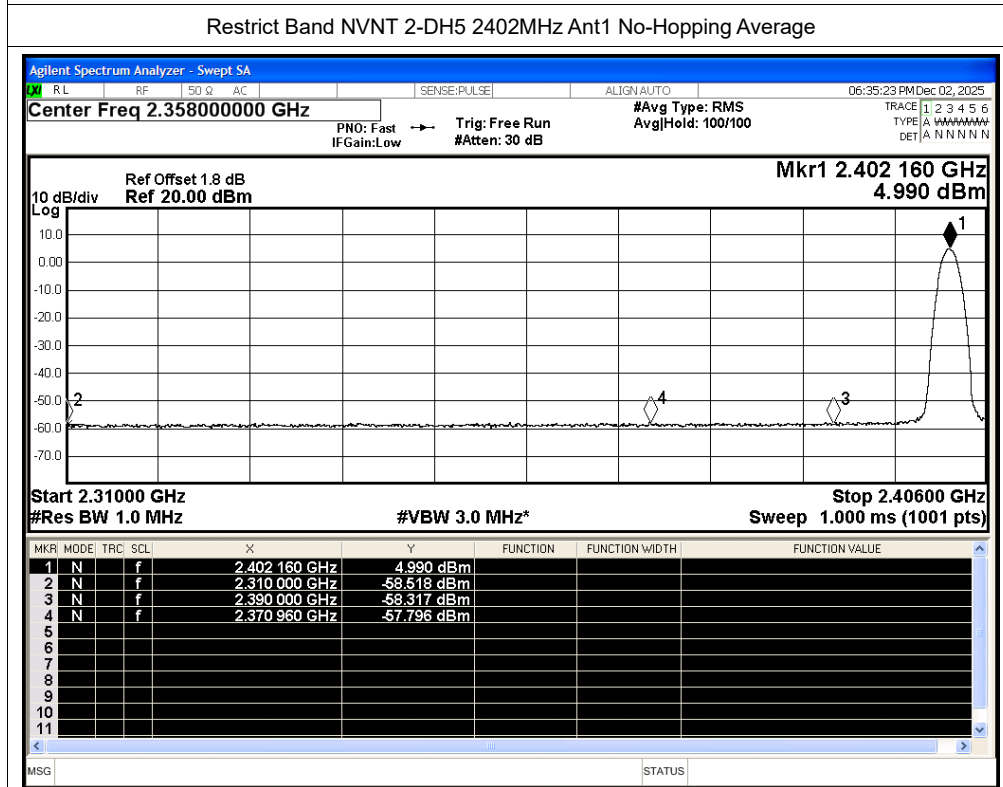
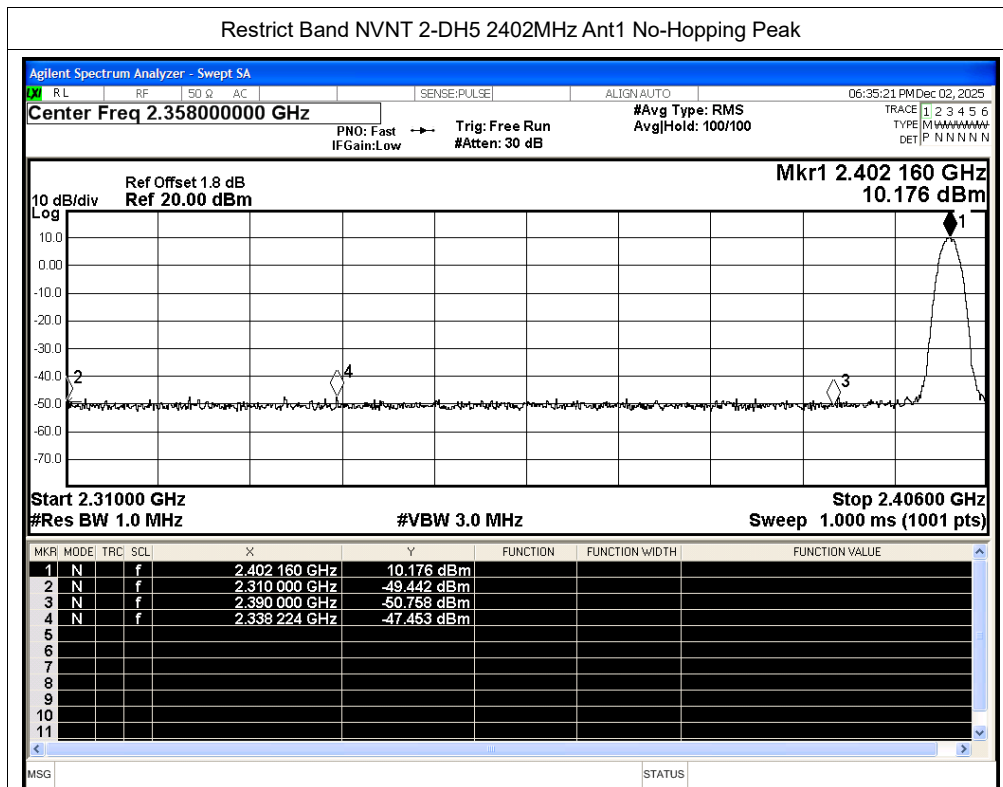


Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Peak

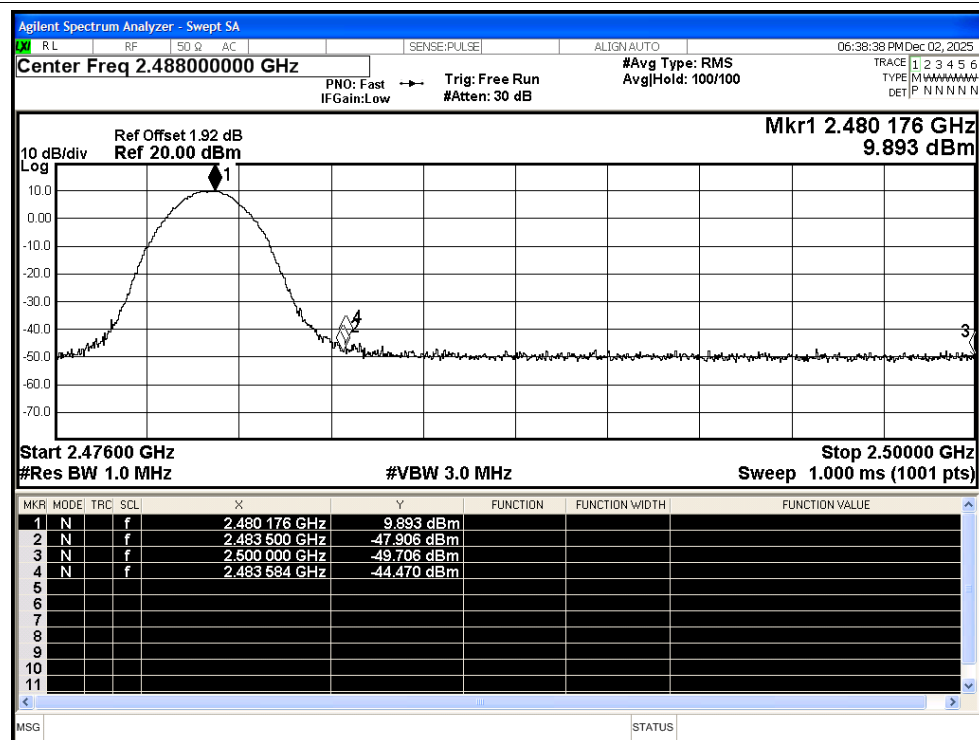


Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Average

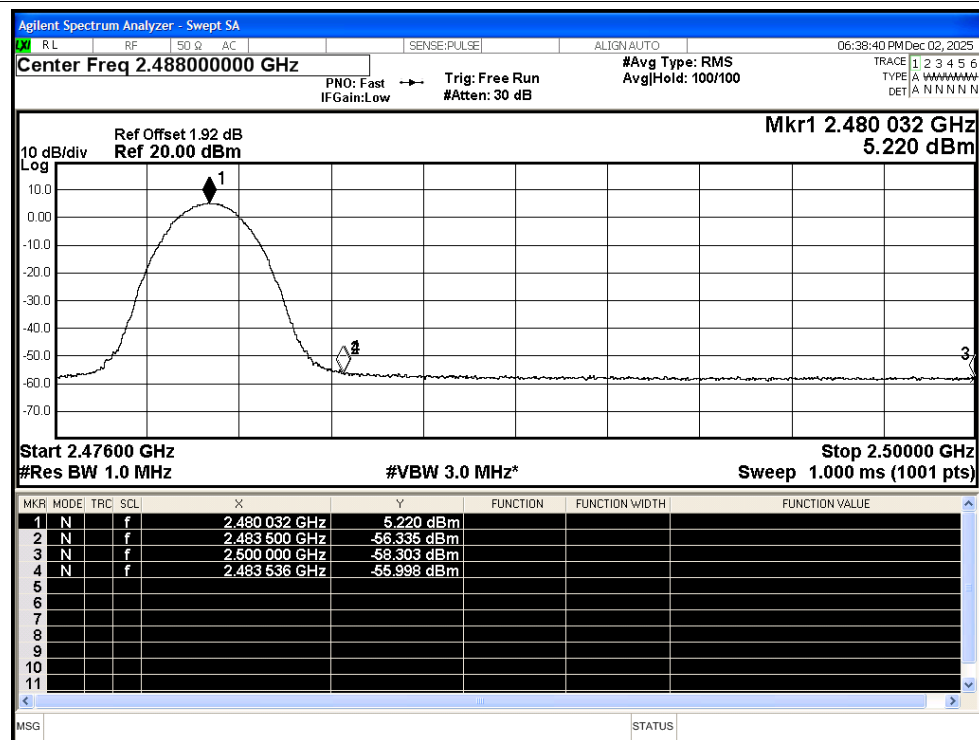




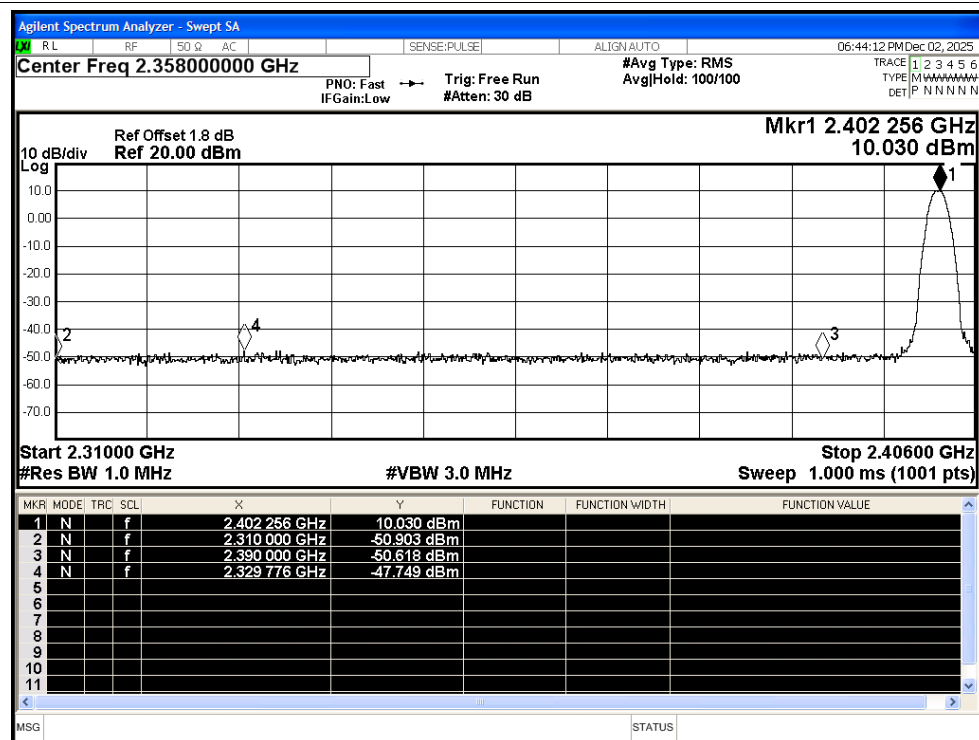
Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Peak



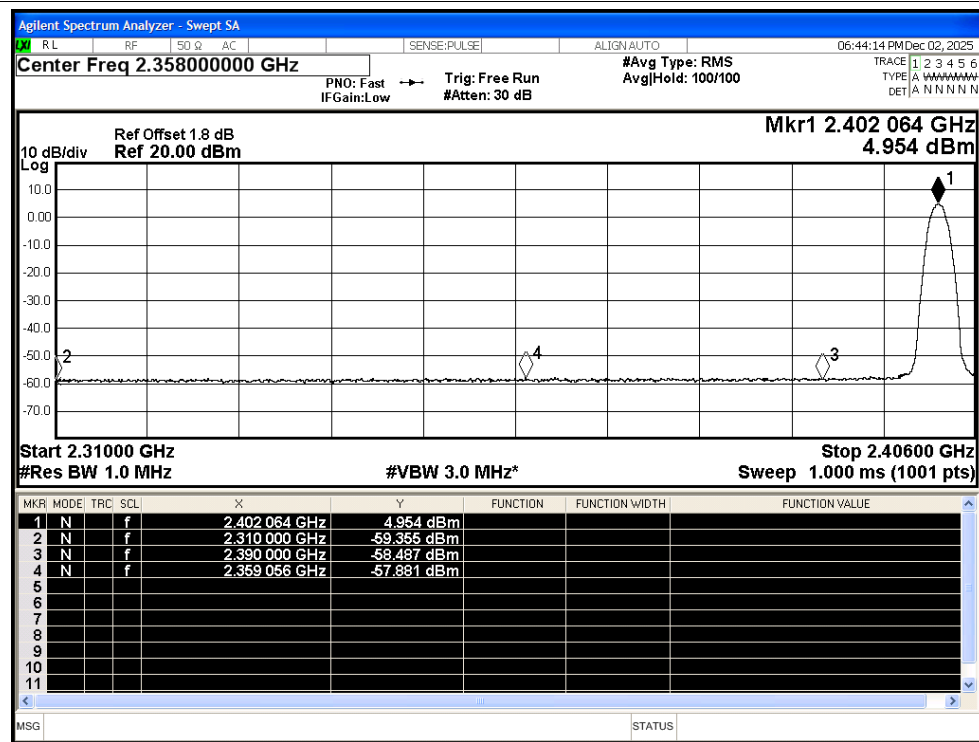
Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Average



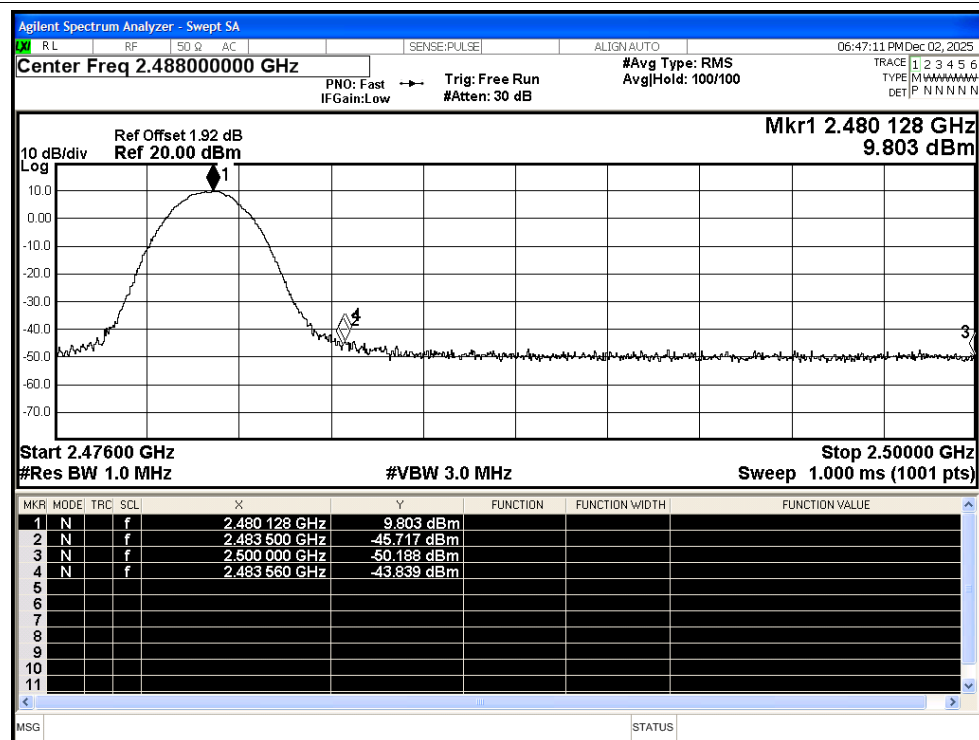
Restrict Band NVNT 3-DH5 2402MHz Ant1 No-Hopping Peak



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



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



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

