

Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: Aktive Open Earbuds

Test Model: PUP-0705-BLK

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

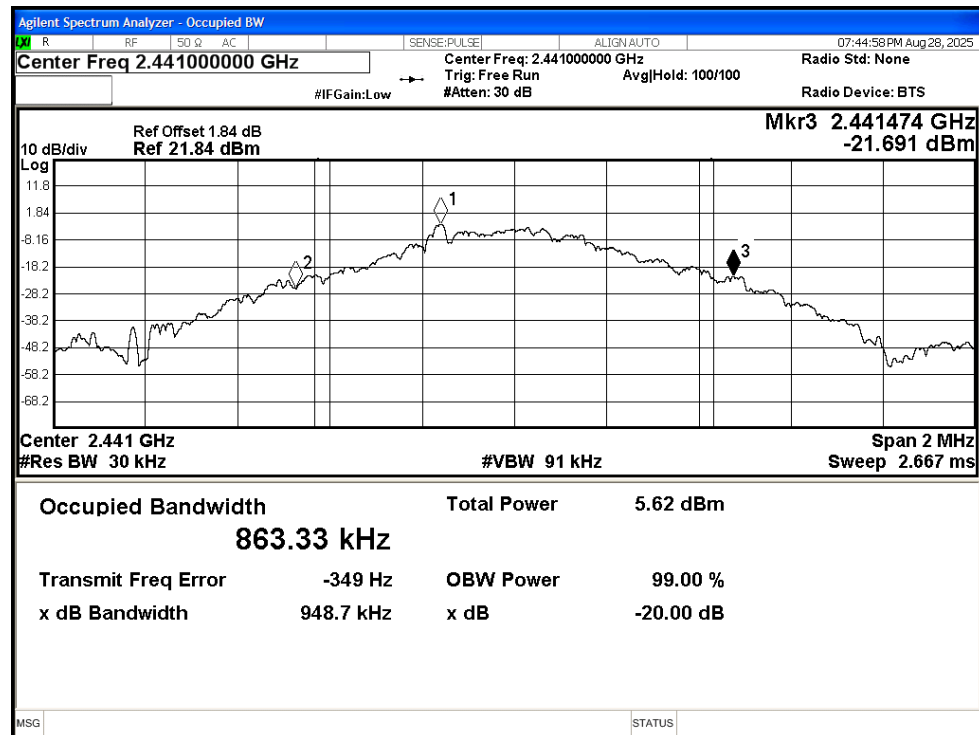
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH5	2402	Ant	0.946	N/A	Pass
NVNT	1-DH5	2441	Ant	0.949	N/A	Pass
NVNT	1-DH5	2480	Ant	1.016	N/A	Pass
NVNT	2-DH5	2402	Ant	1.285	N/A	Pass
NVNT	2-DH5	2441	Ant	1.306	N/A	Pass
NVNT	2-DH5	2480	Ant	1.307	N/A	Pass
NVNT	3-DH5	2402	Ant	1.306	N/A	Pass
NVNT	3-DH5	2441	Ant	1.308	N/A	Pass
NVNT	3-DH5	2480	Ant	1.301	N/A	Pass

Test Graphs

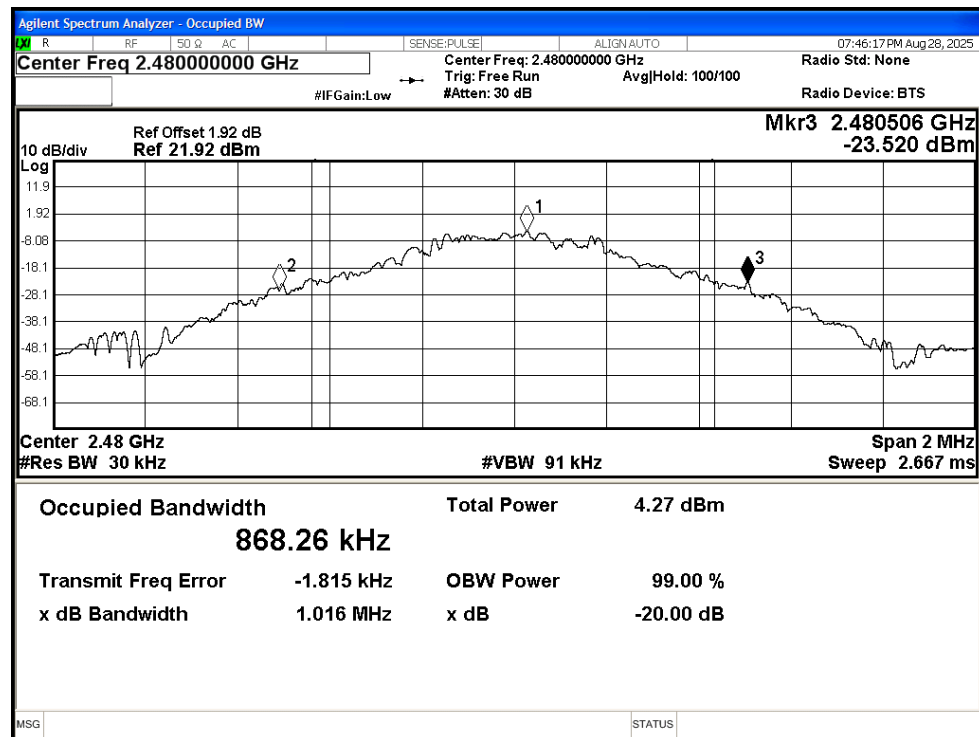
-20dB Bandwidth NVNT 1-DH5 2402MHz Ant



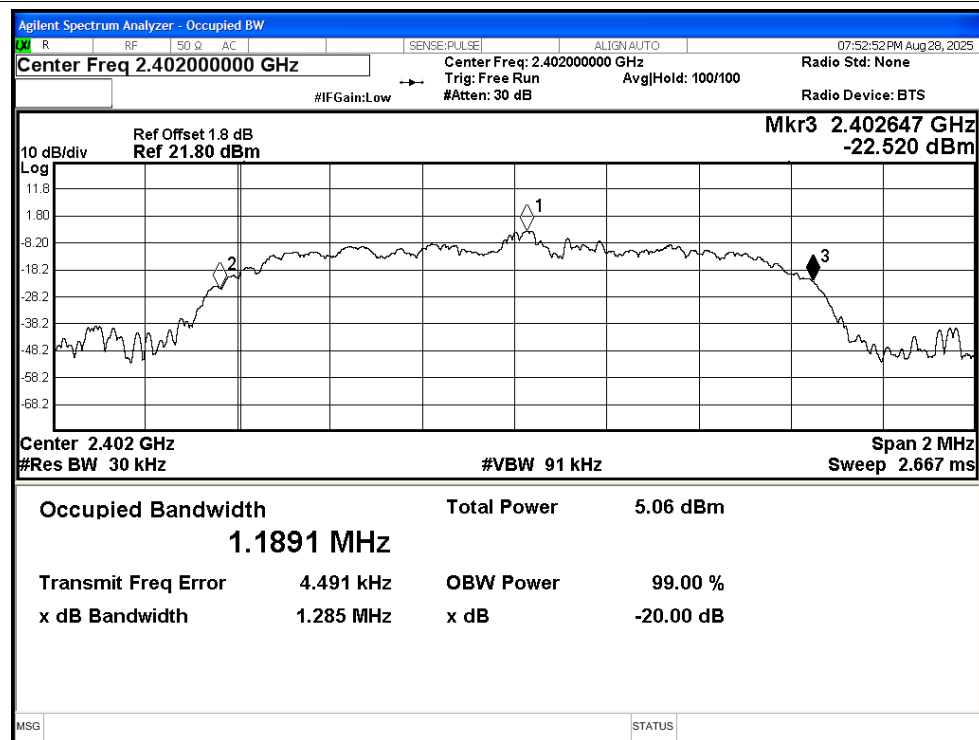
-20dB Bandwidth NVNT 1-DH5 2441MHz Ant



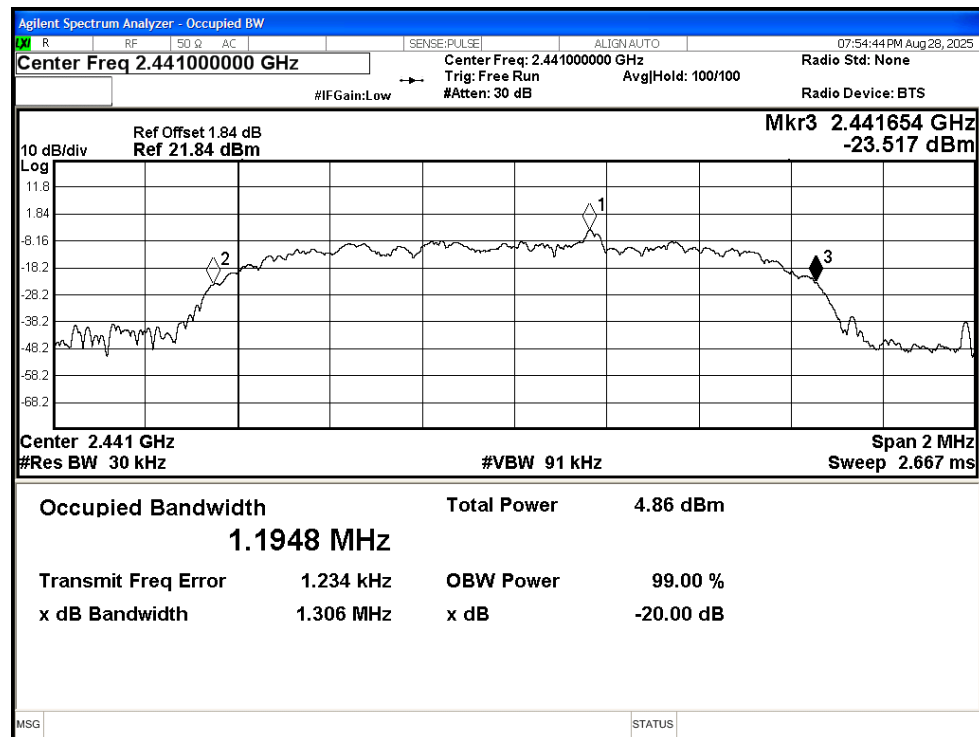
-20dB Bandwidth NVNT 1-DH5 2480MHz Ant



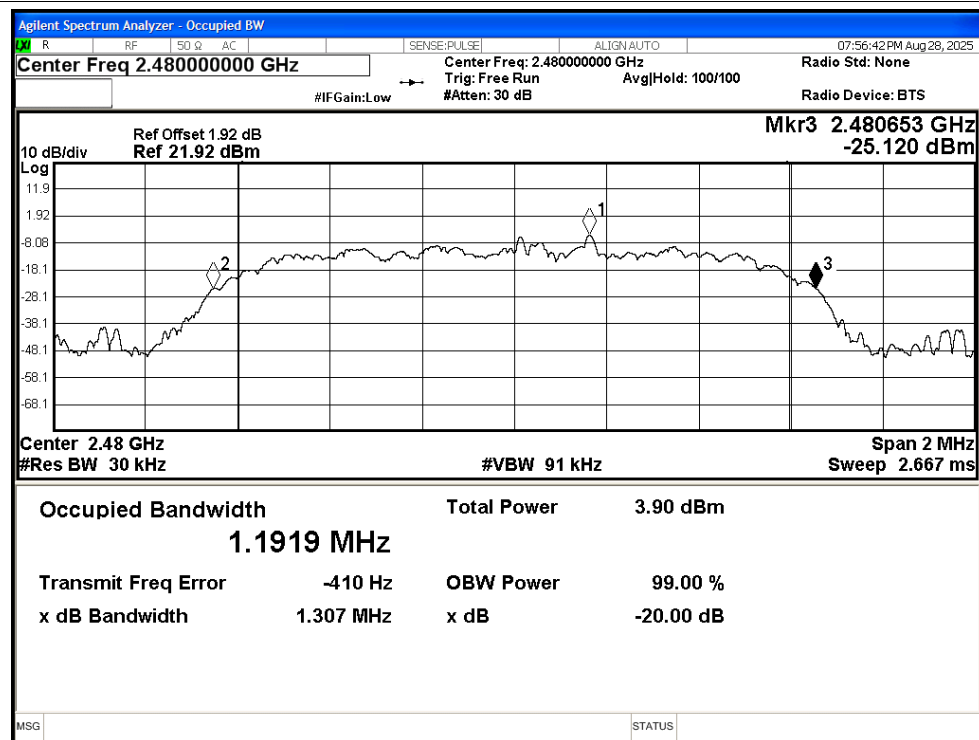
-20dB Bandwidth NVNT 2-DH5 2402MHz Ant



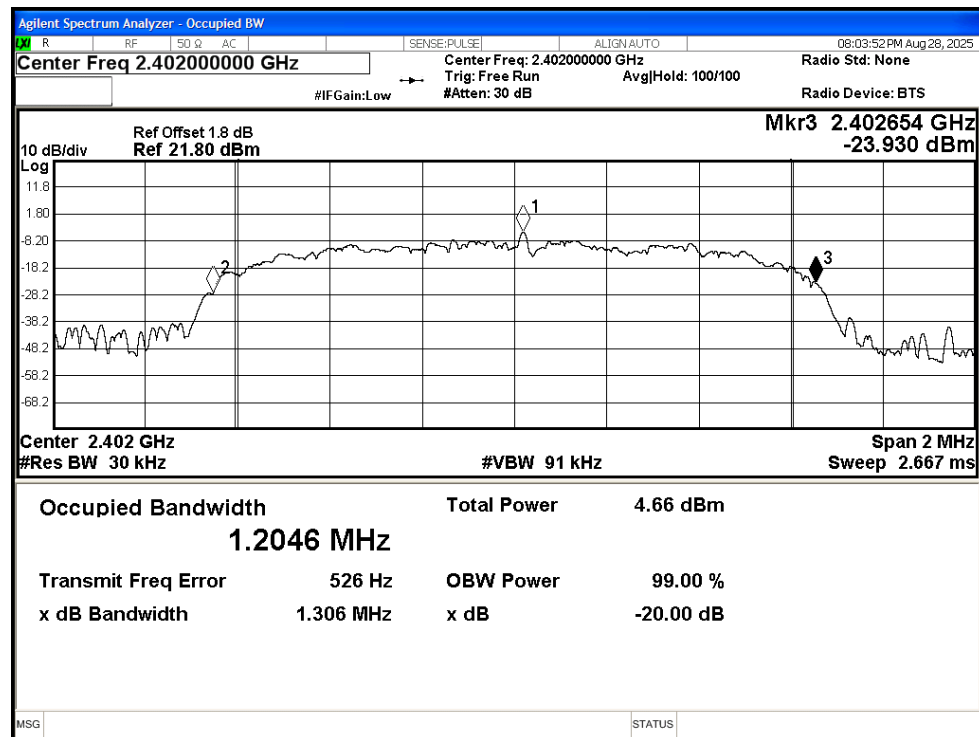
-20dB Bandwidth NVNT 2-DH5 2441MHz Ant



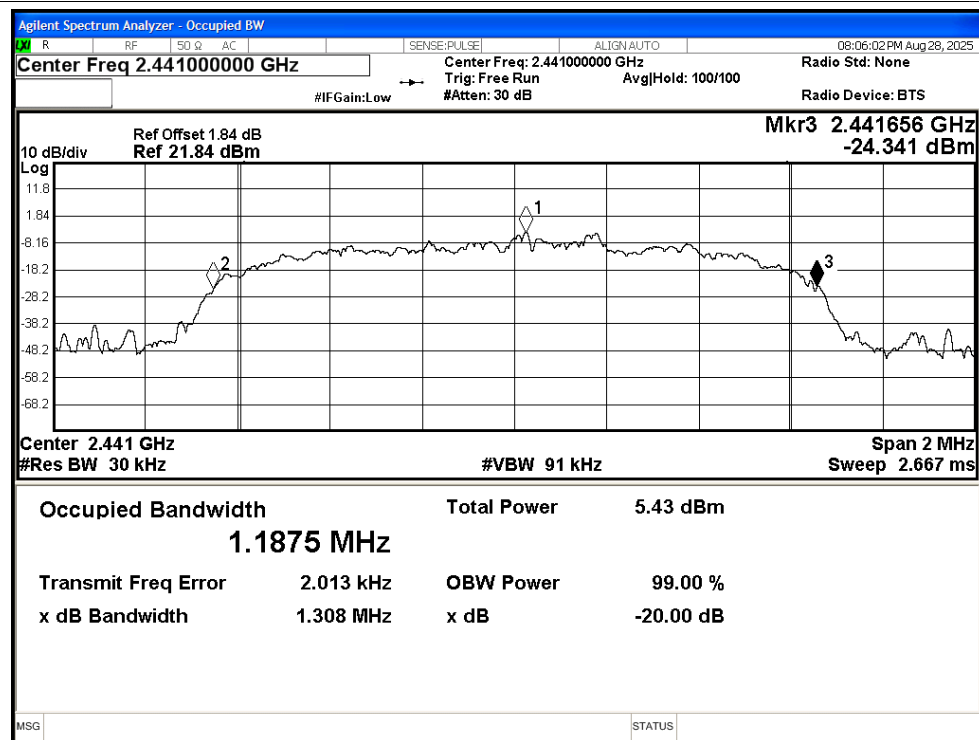
-20dB Bandwidth NVNT 2-DH5 2480MHz Ant

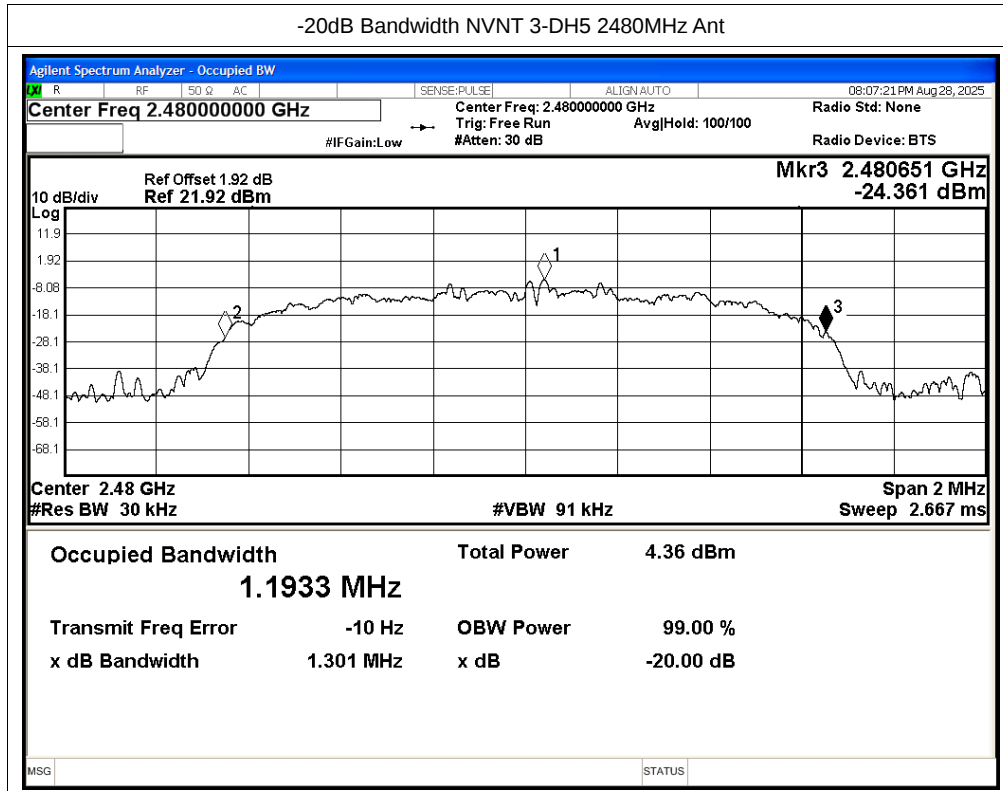


-20dB Bandwidth NVNT 3-DH5 2402MHz Ant



-20dB Bandwidth NVNT 3-DH5 2441MHz Ant



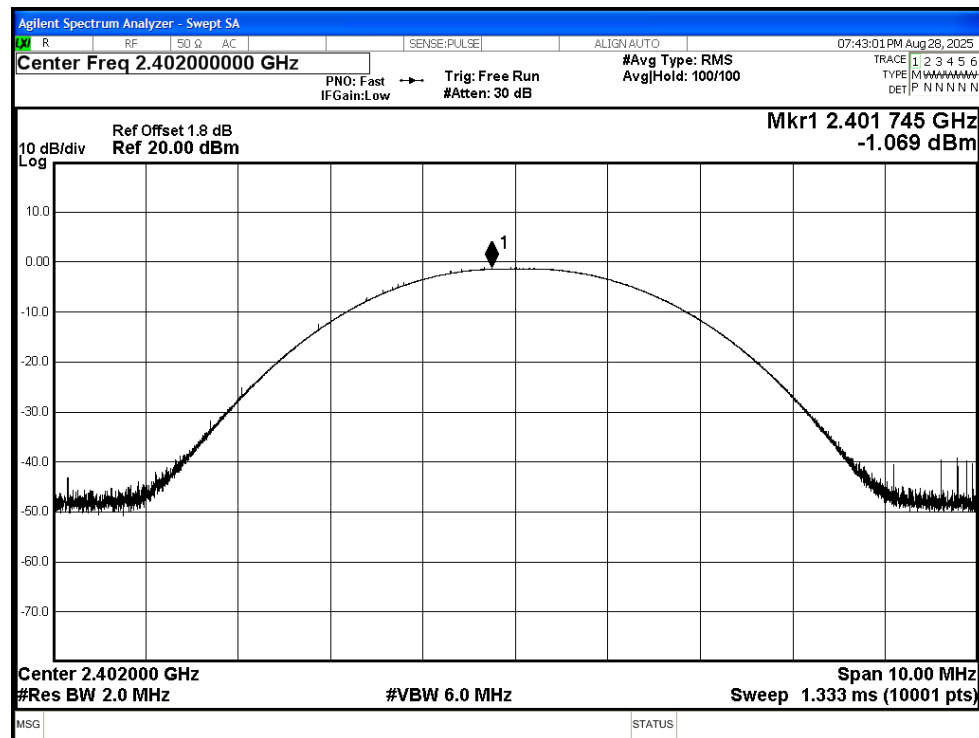


A.2 Maximum Peak Conducted Output Power

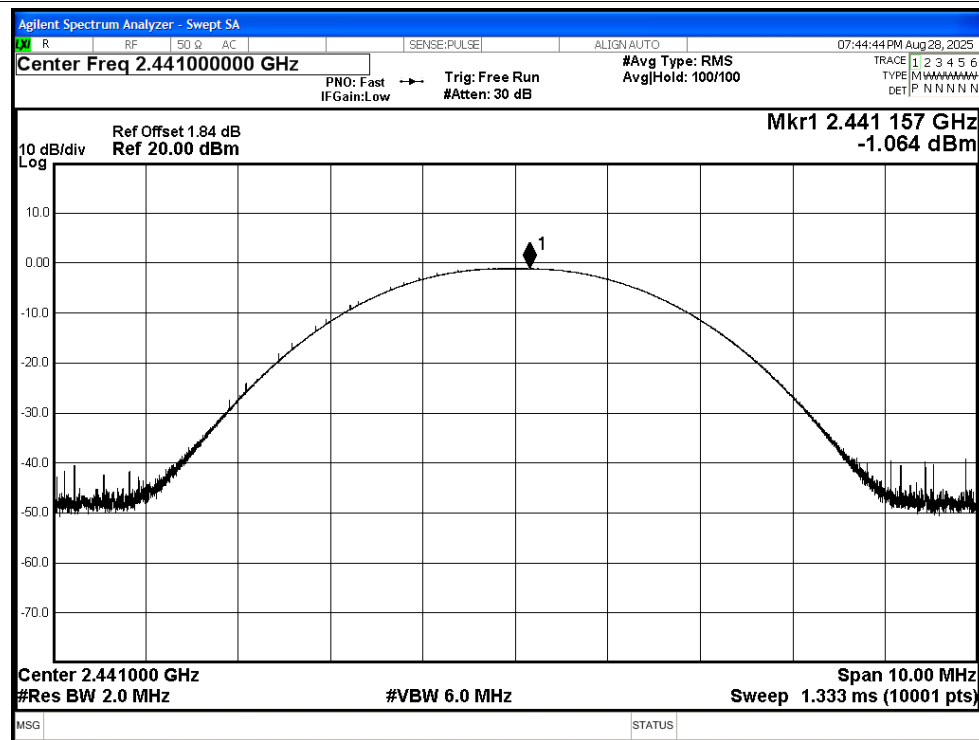
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH5	2402	Ant	-1.07	21	Pass
NVNT	1-DH5	2441	Ant	-1.06	21	Pass
NVNT	1-DH5	2480	Ant	-1.82	21	Pass
NVNT	2-DH5	2402	Ant	0.67	21	Pass
NVNT	2-DH5	2441	Ant	0.98	21	Pass
NVNT	2-DH5	2480	Ant	-0.07	21	Pass
NVNT	3-DH5	2402	Ant	1.1	21	Pass
NVNT	3-DH5	2441	Ant	1.48	21	Pass
NVNT	3-DH5	2480	Ant	0.33	21	Pass

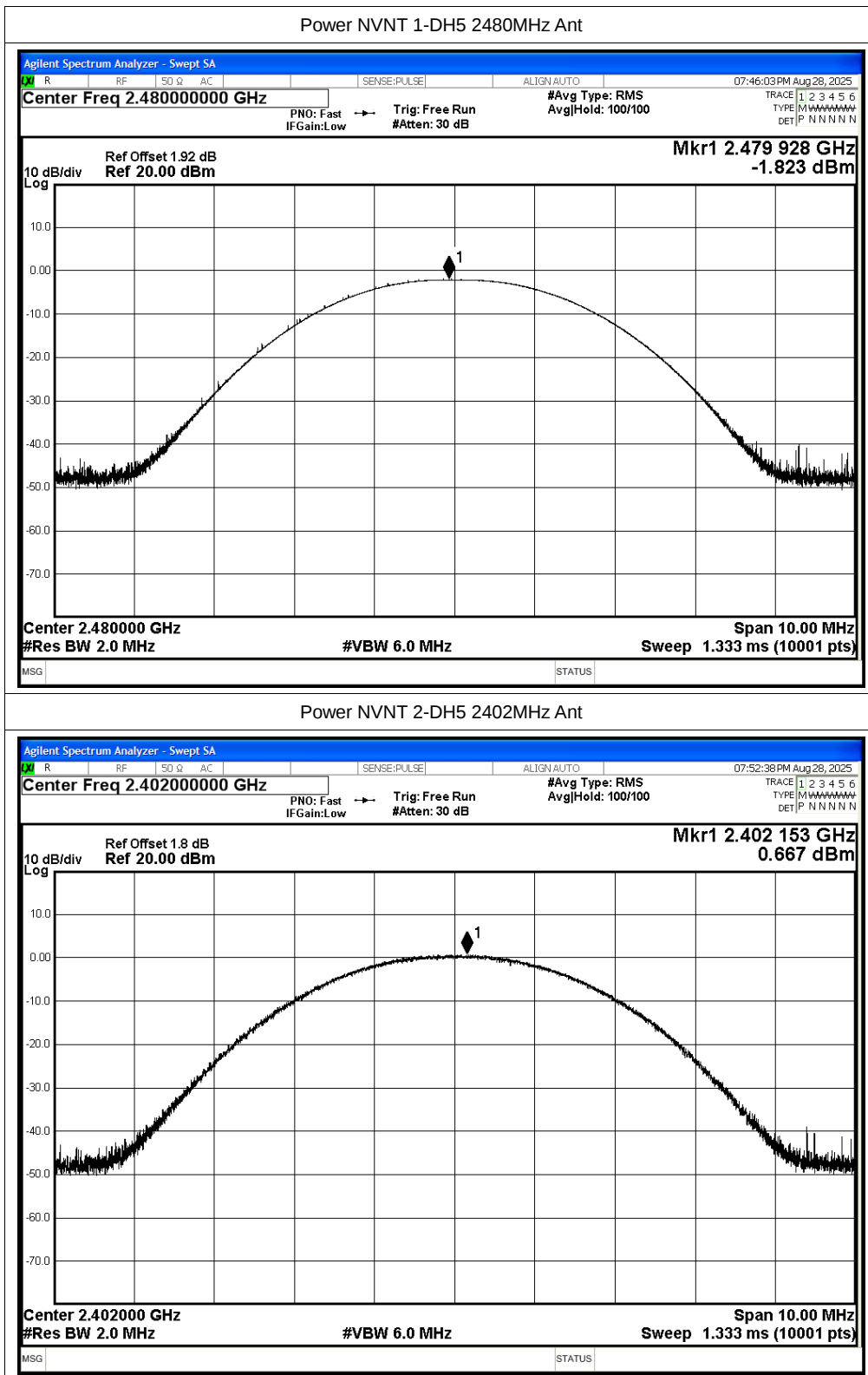
Test Graphs

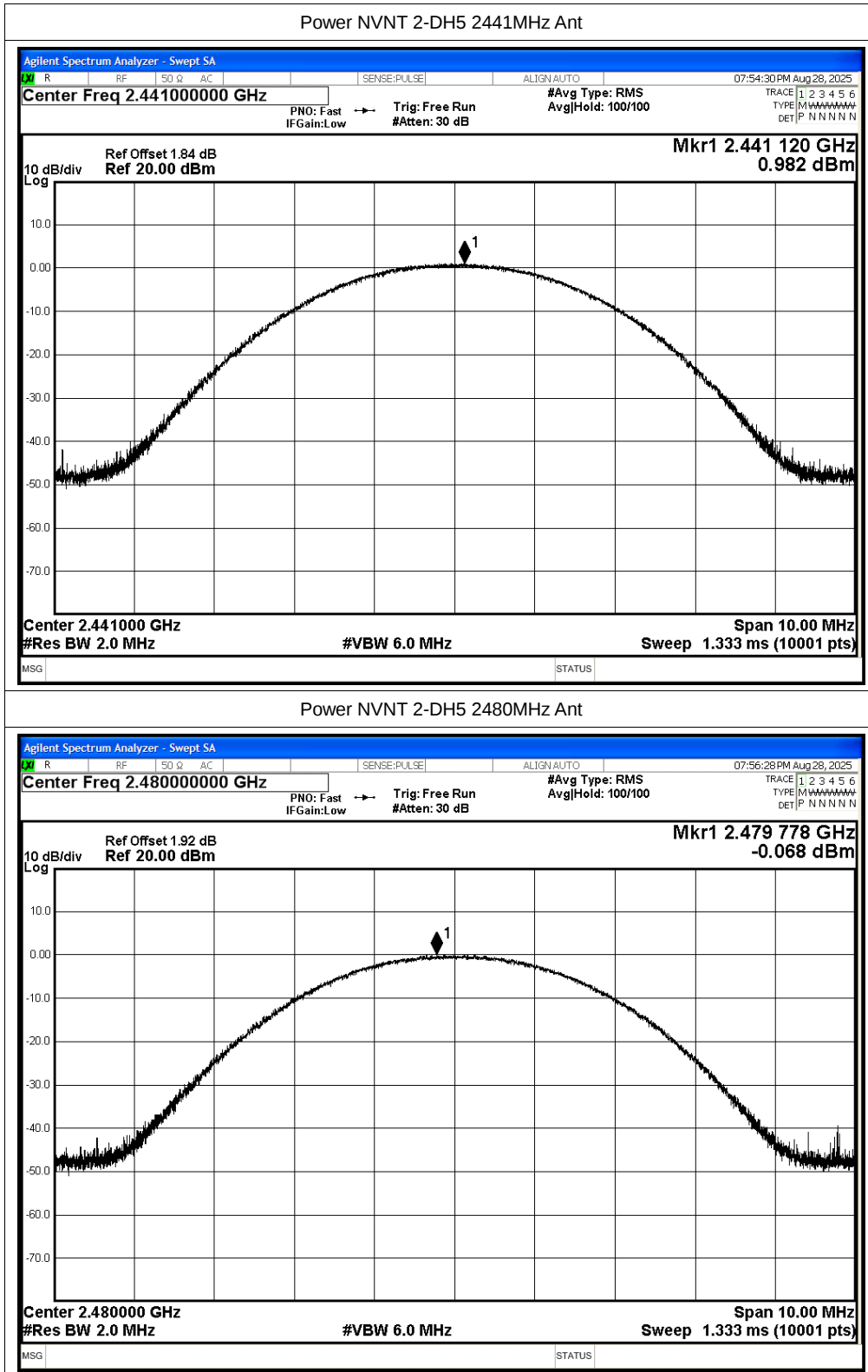
Power NVNT 1-DH5 2402MHz Ant

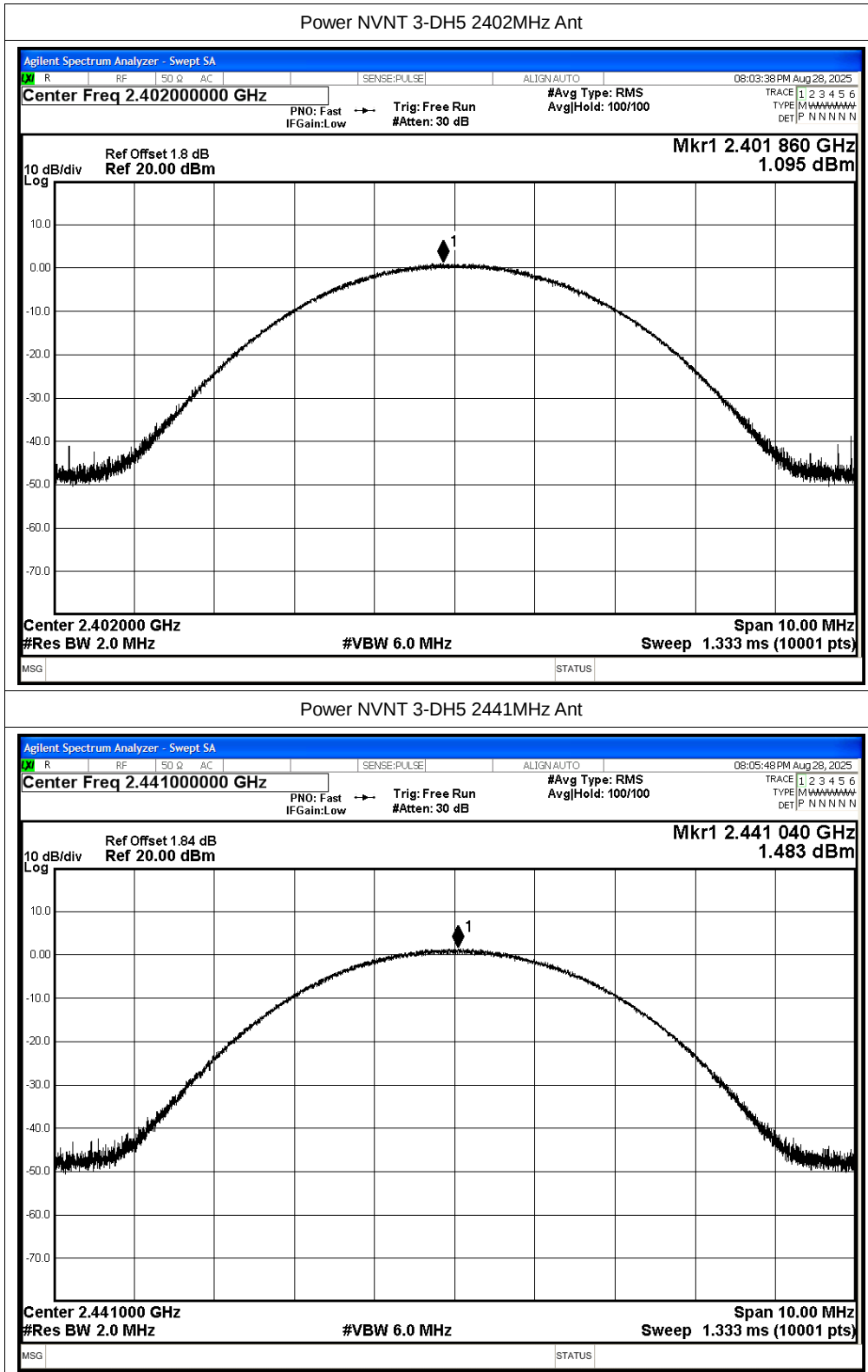


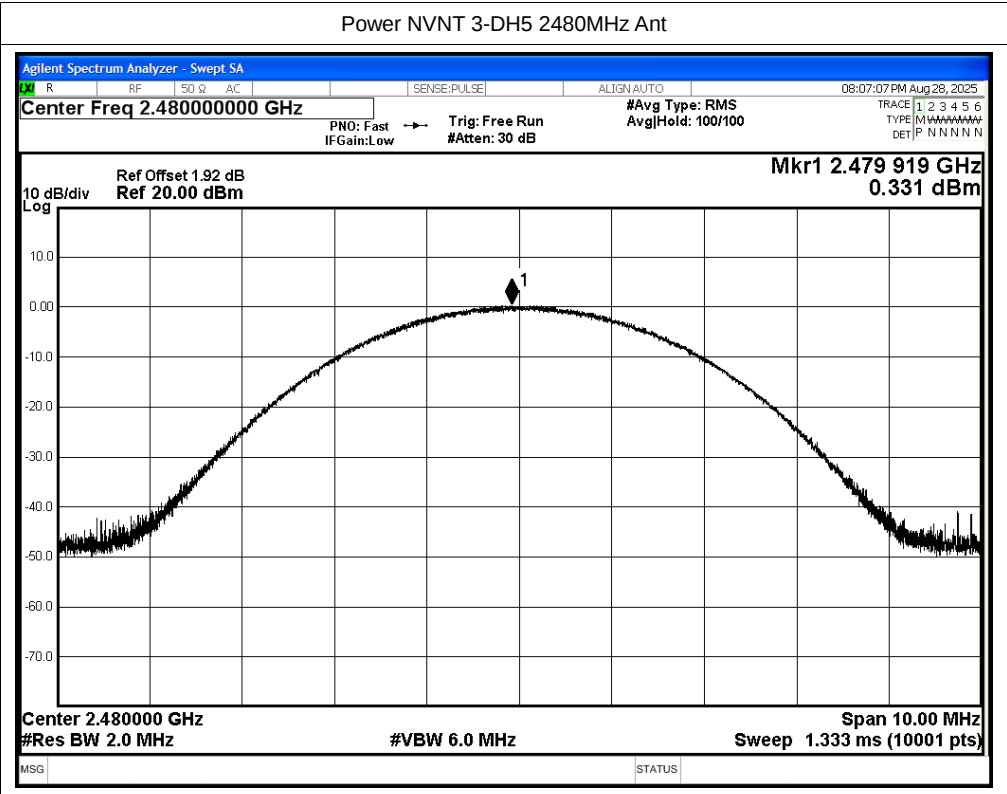
Power NVNT 1-DH5 2441MHz Ant





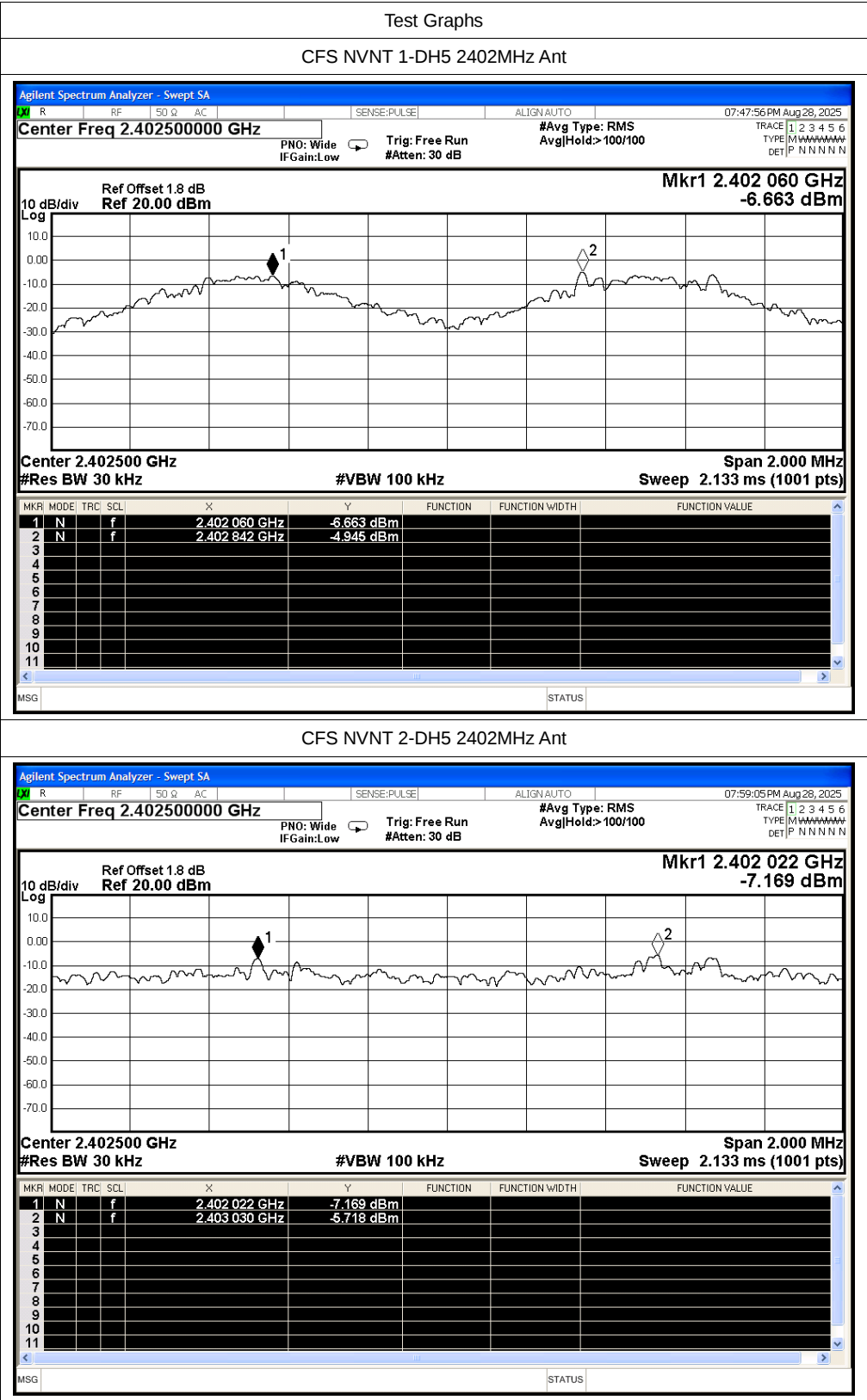






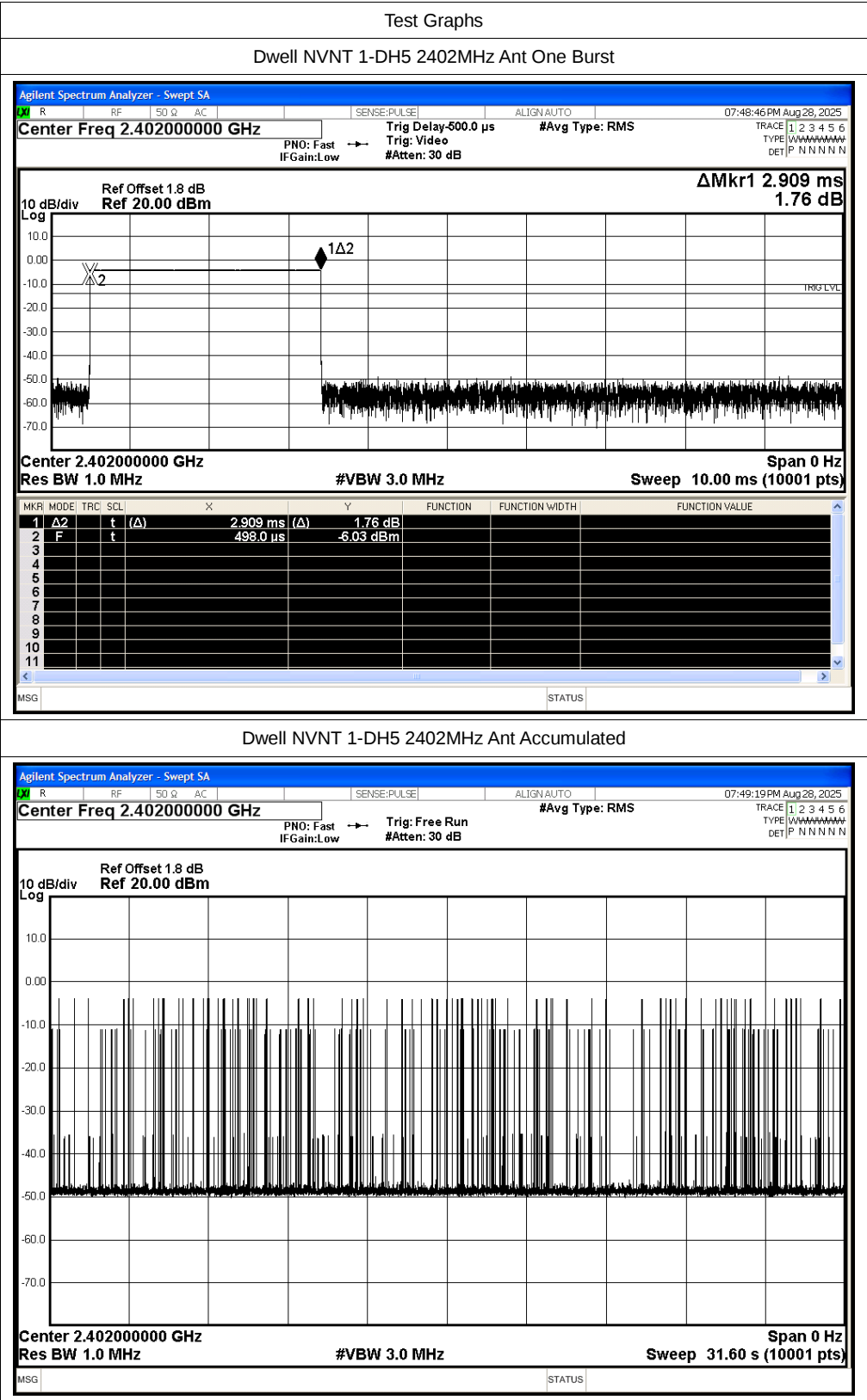
A.3 Carrier Frequencies Separation

Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH5	Ant	2402.06	2402.842	0.782	0.677	Pass
NVNT	2-DH5	Ant	2402.022	2403.03	1.008	0.871	Pass
NVNT	3-DH5	Ant	2402.166	2403.174	1.008	0.872	Pass

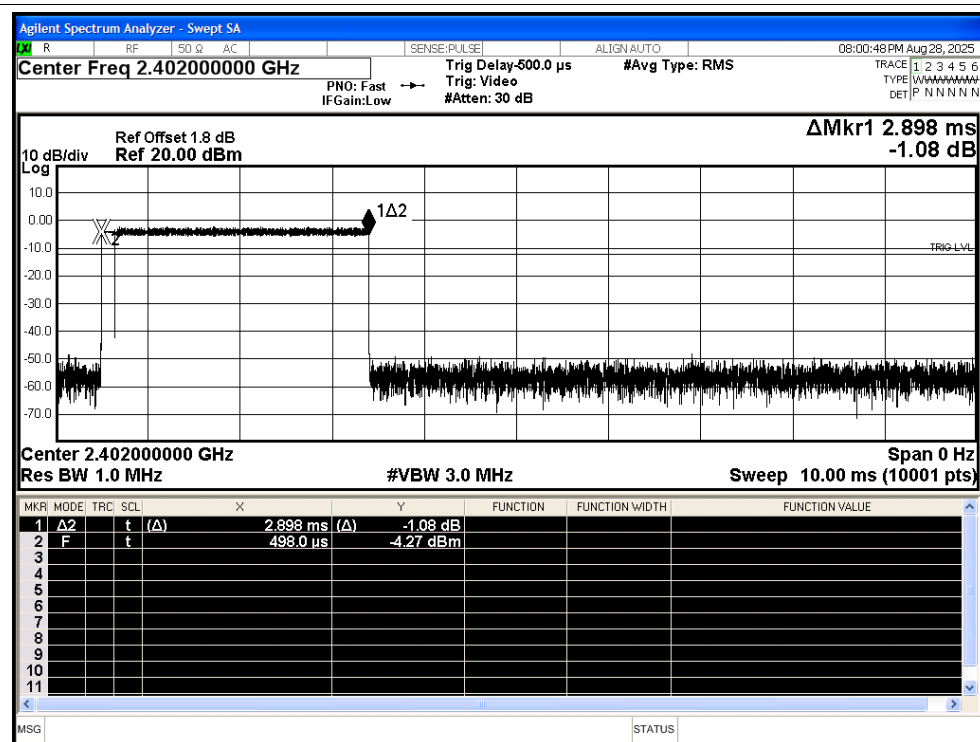


A.4 Dwell Time

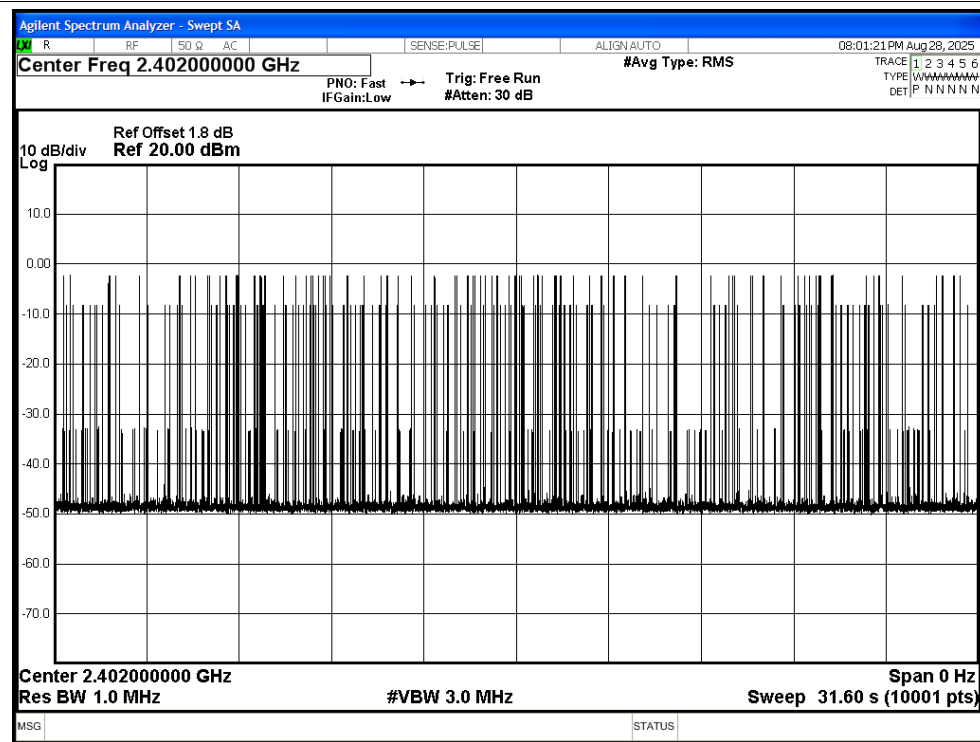
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH5	2402	Ant	2.909	296.718	102	31600	400	Pass
NVNT	2-DH5	2402	Ant	2.898	284.004	98	31600	400	Pass
NVNT	3-DH5	2402	Ant	2.897	292.597	101	31600	400	Pass

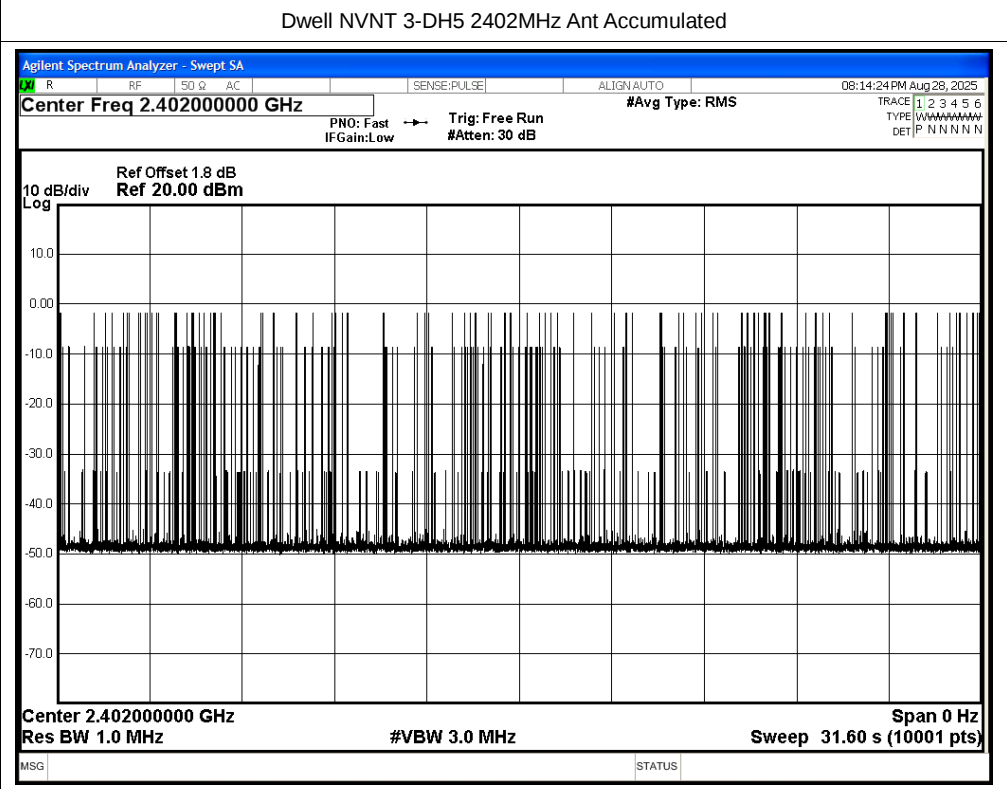
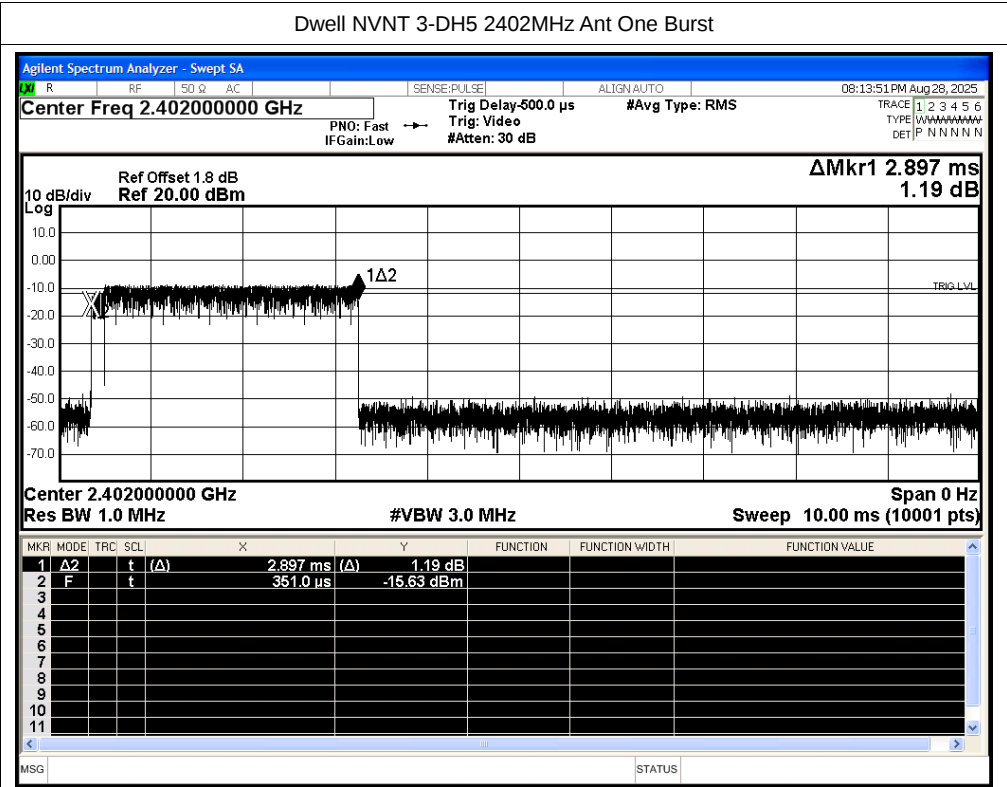


Dwell NVNT 2-DH5 2402MHz Ant One Burst



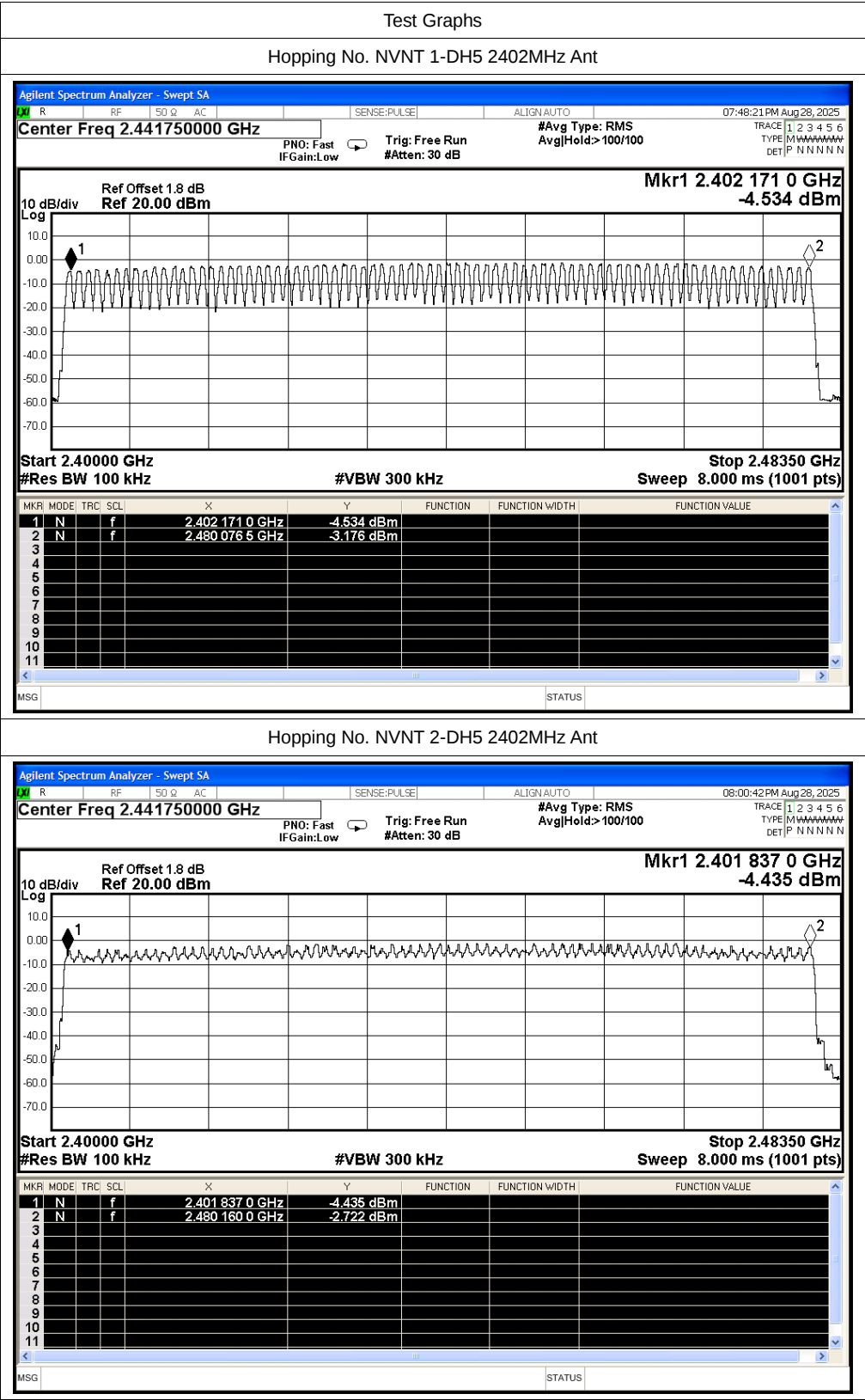
Dwell NVNT 2-DH5 2402MHz Ant Accumulated





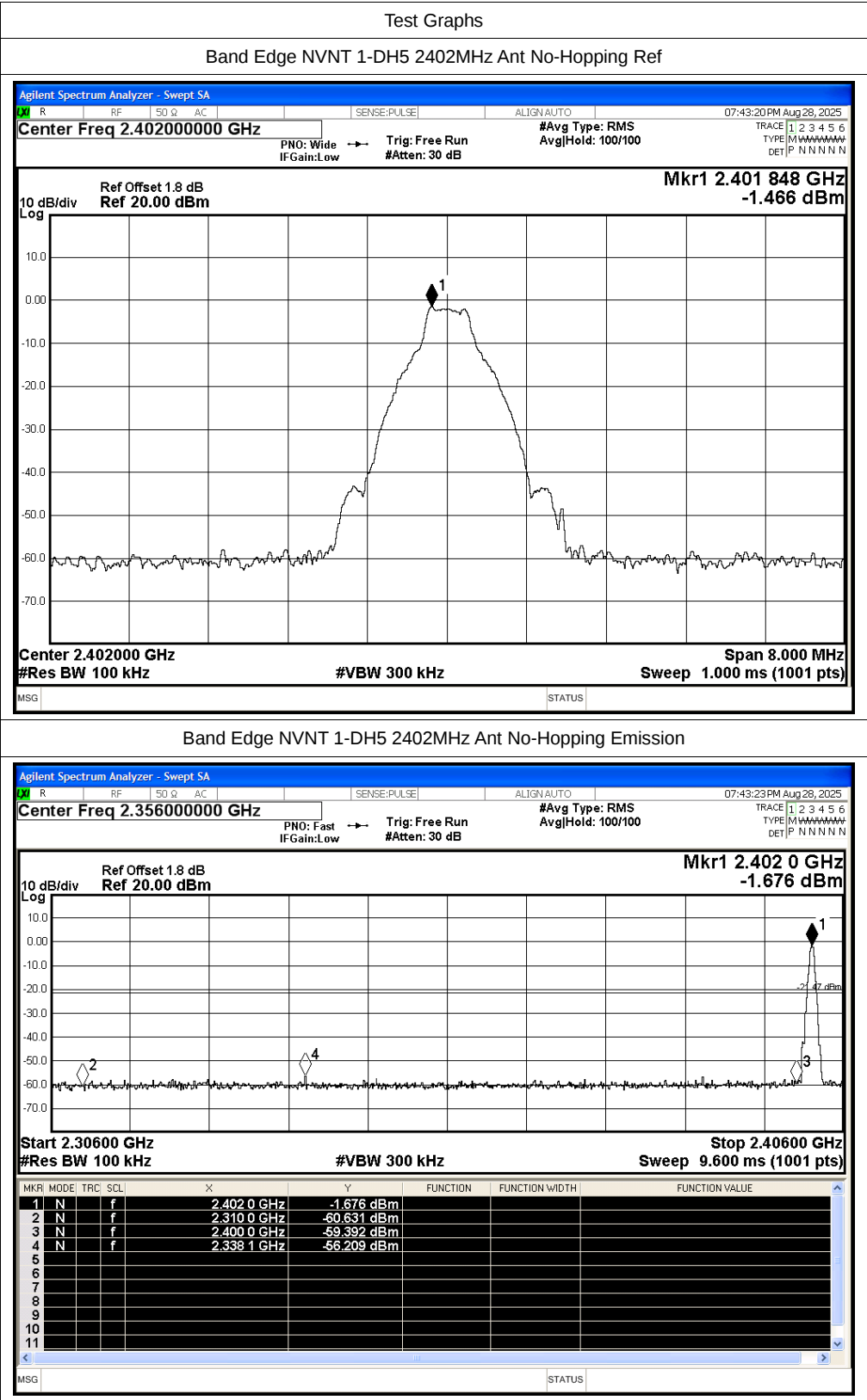
A.5 Number of Hopping Channel

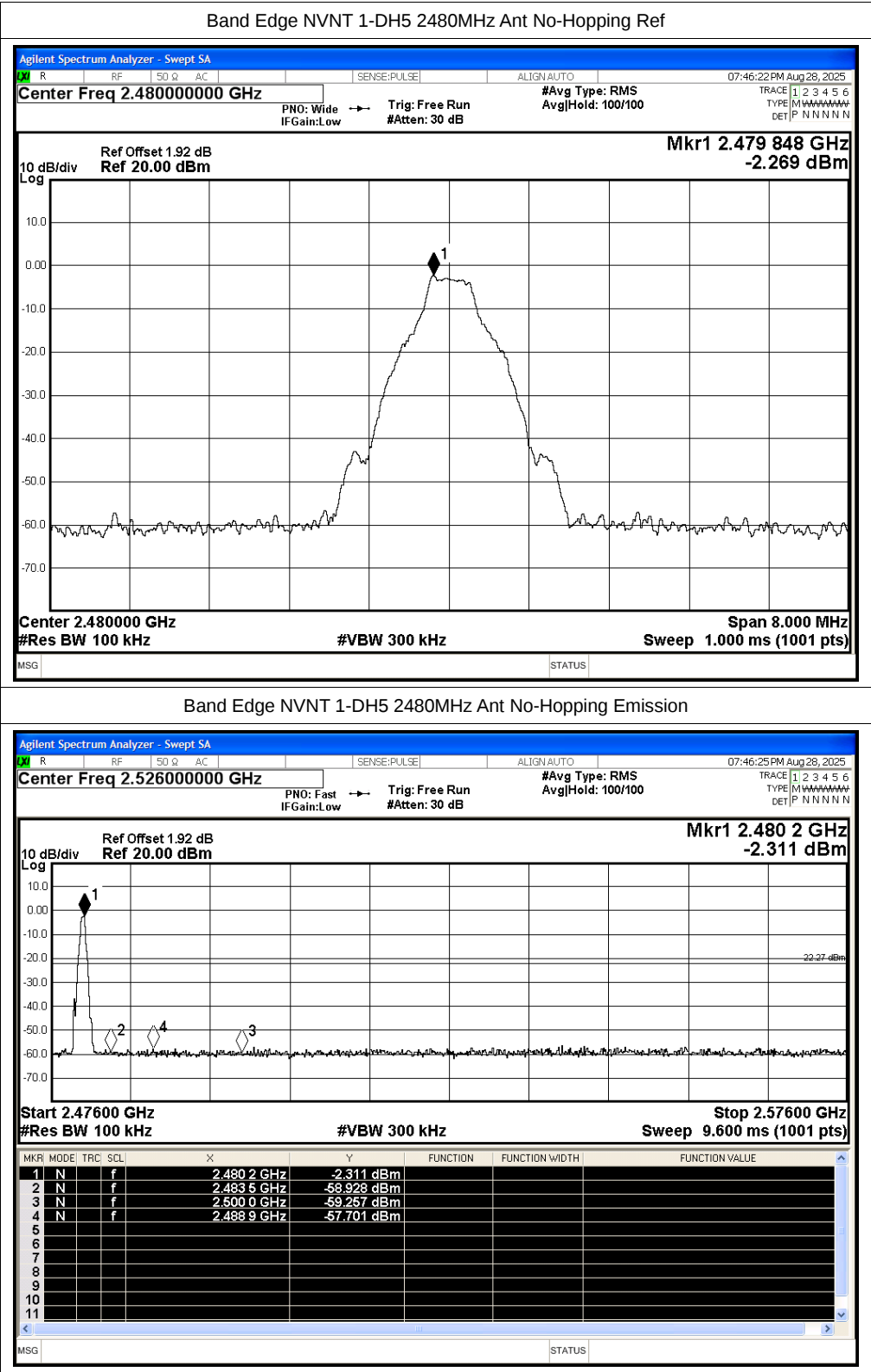
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH5	Ant	79	15	Pass
NVNT	2-DH5	Ant	79	15	Pass
NVNT	3-DH5	Ant	79	15	Pass

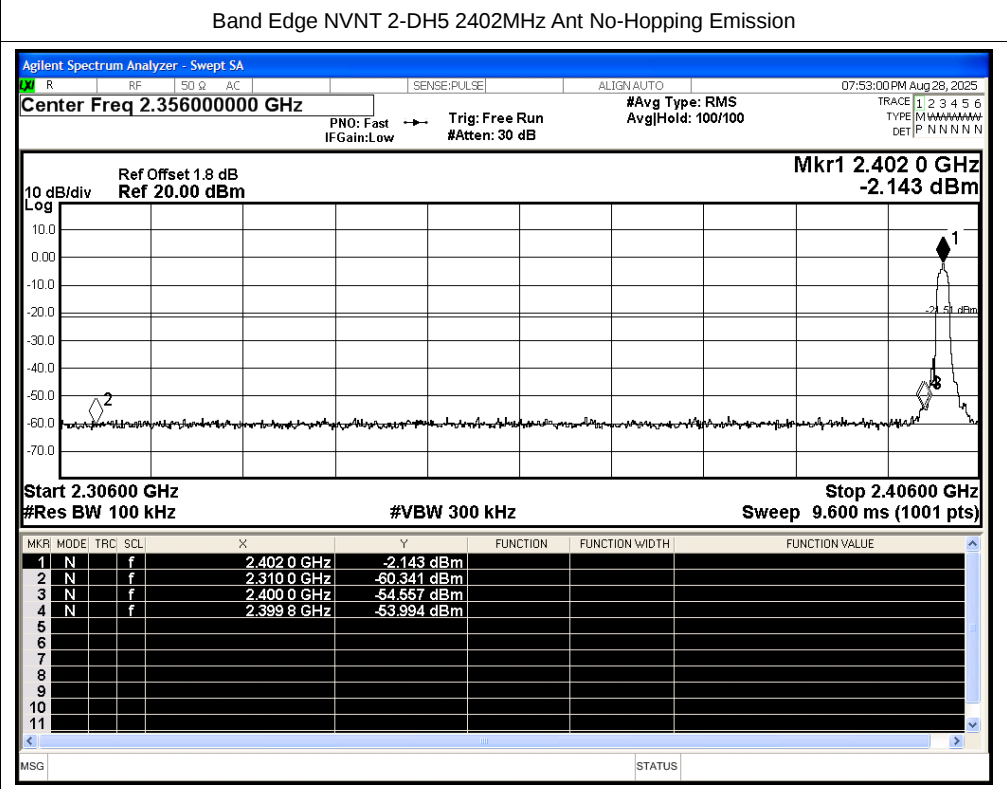
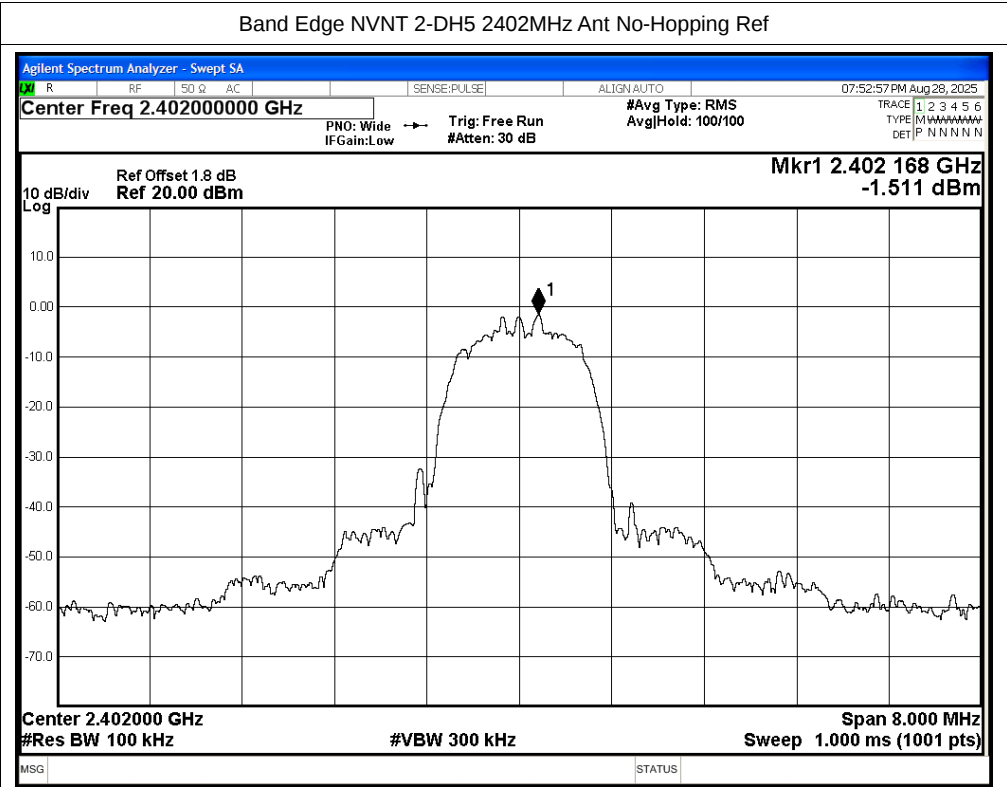


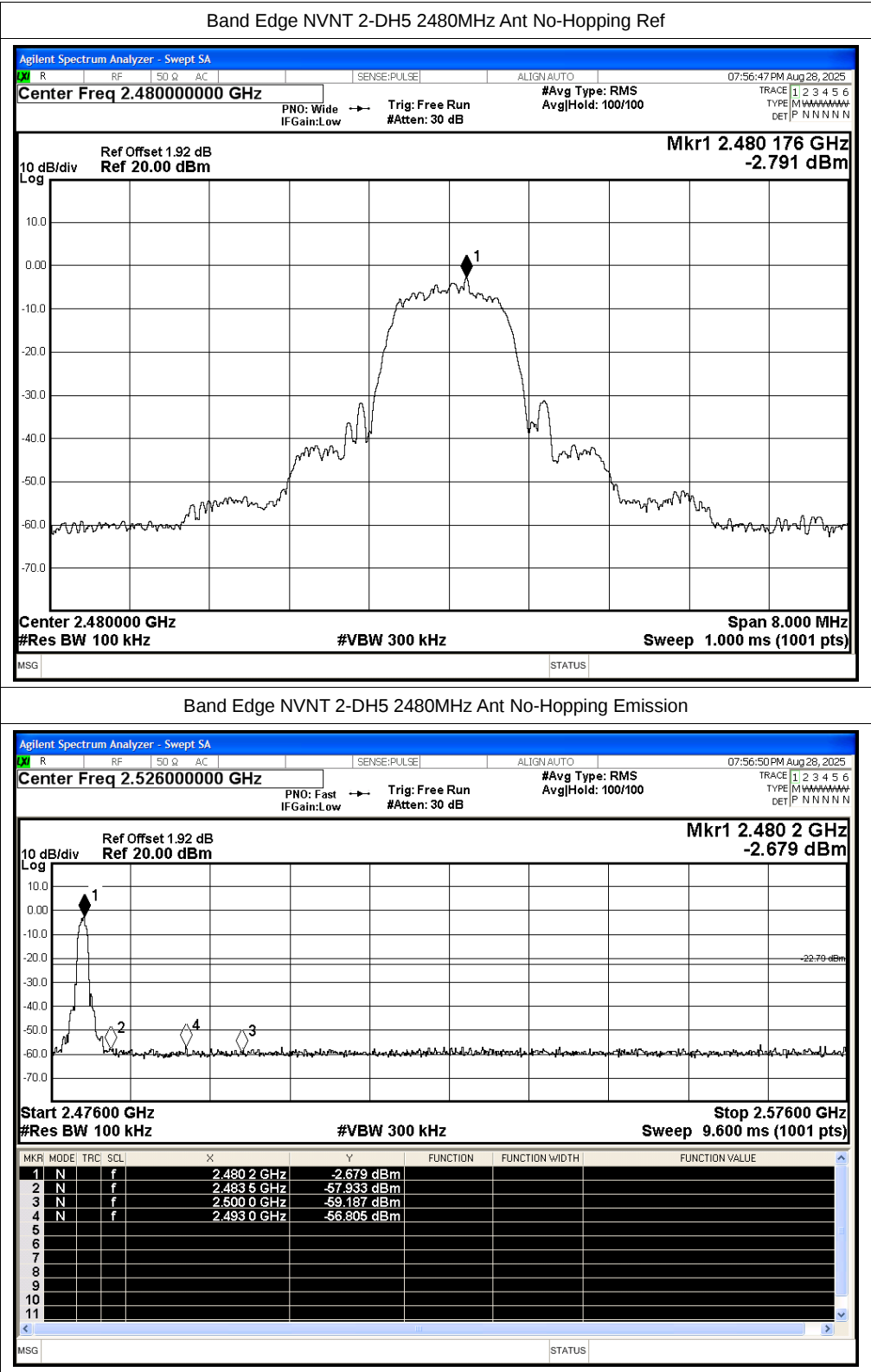
A.6 Band Edge

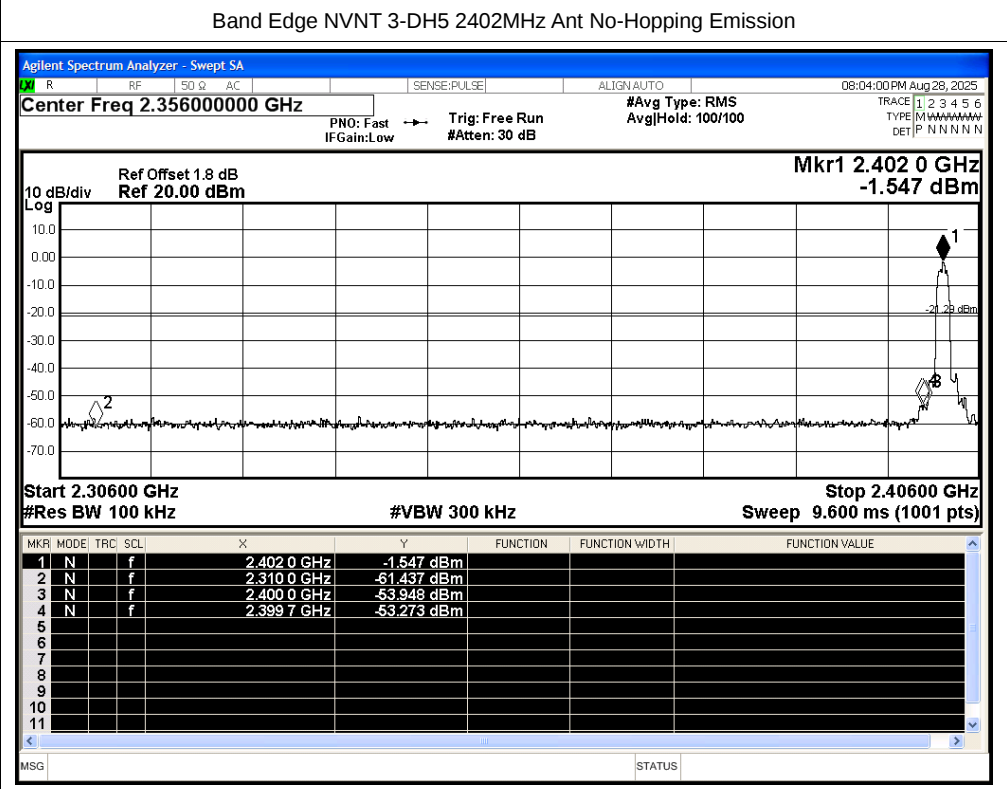
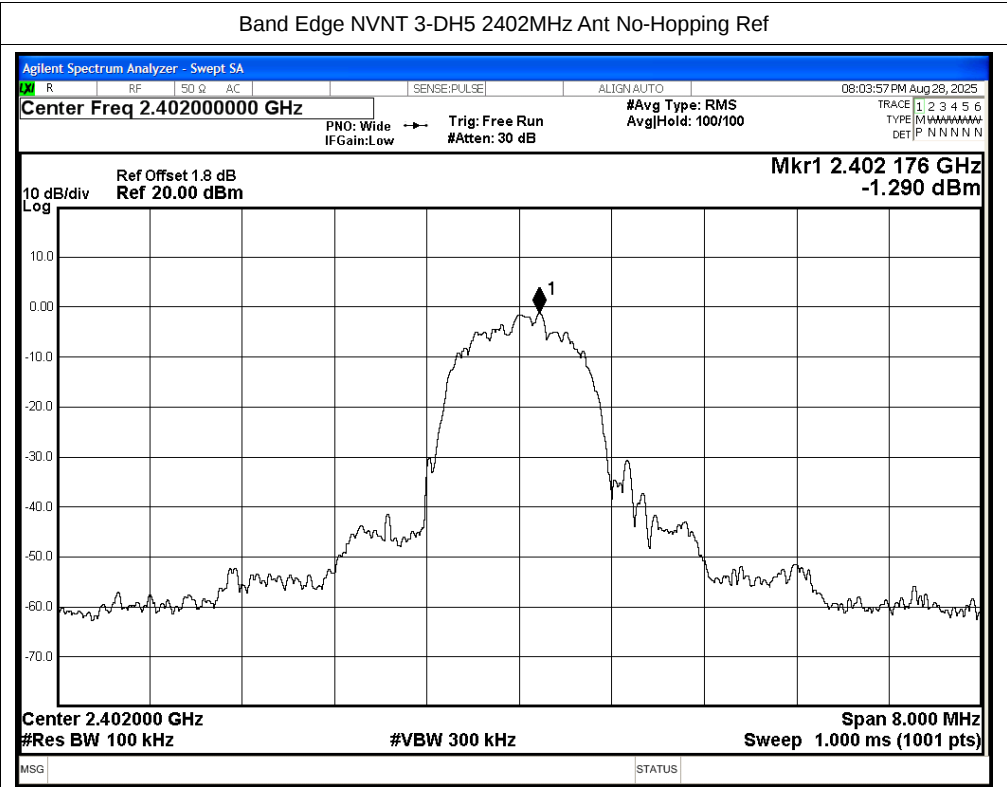
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant	No-Hopping	-54.74	-20	Pass
NVNT	1-DH5	2480	Ant	No-Hopping	-55.43	-20	Pass
NVNT	2-DH5	2402	Ant	No-Hopping	-52.48	-20	Pass
NVNT	2-DH5	2480	Ant	No-Hopping	-54.01	-20	Pass
NVNT	3-DH5	2402	Ant	No-Hopping	-51.98	-20	Pass
NVNT	3-DH5	2480	Ant	No-Hopping	-53.51	-20	Pass

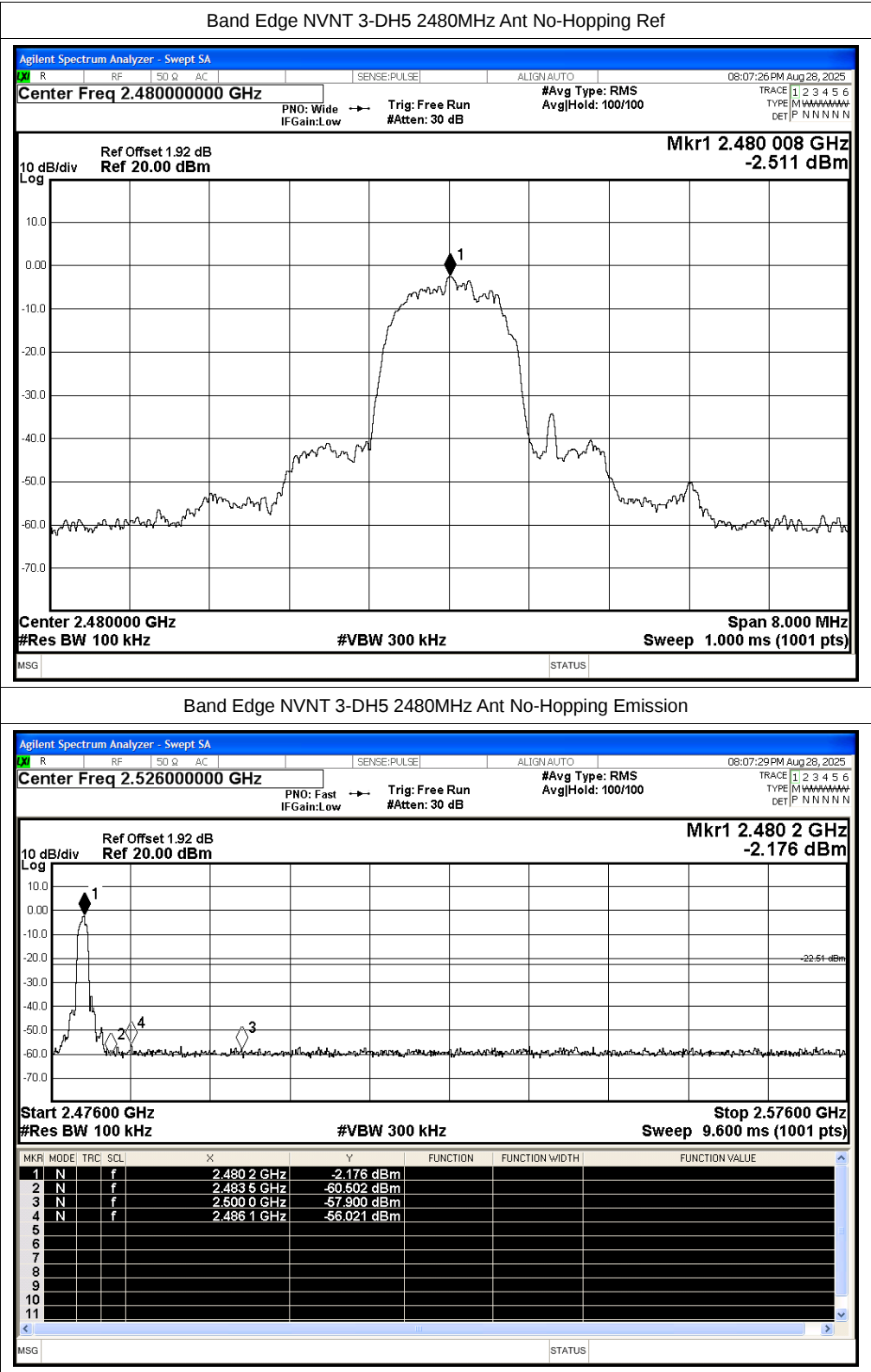






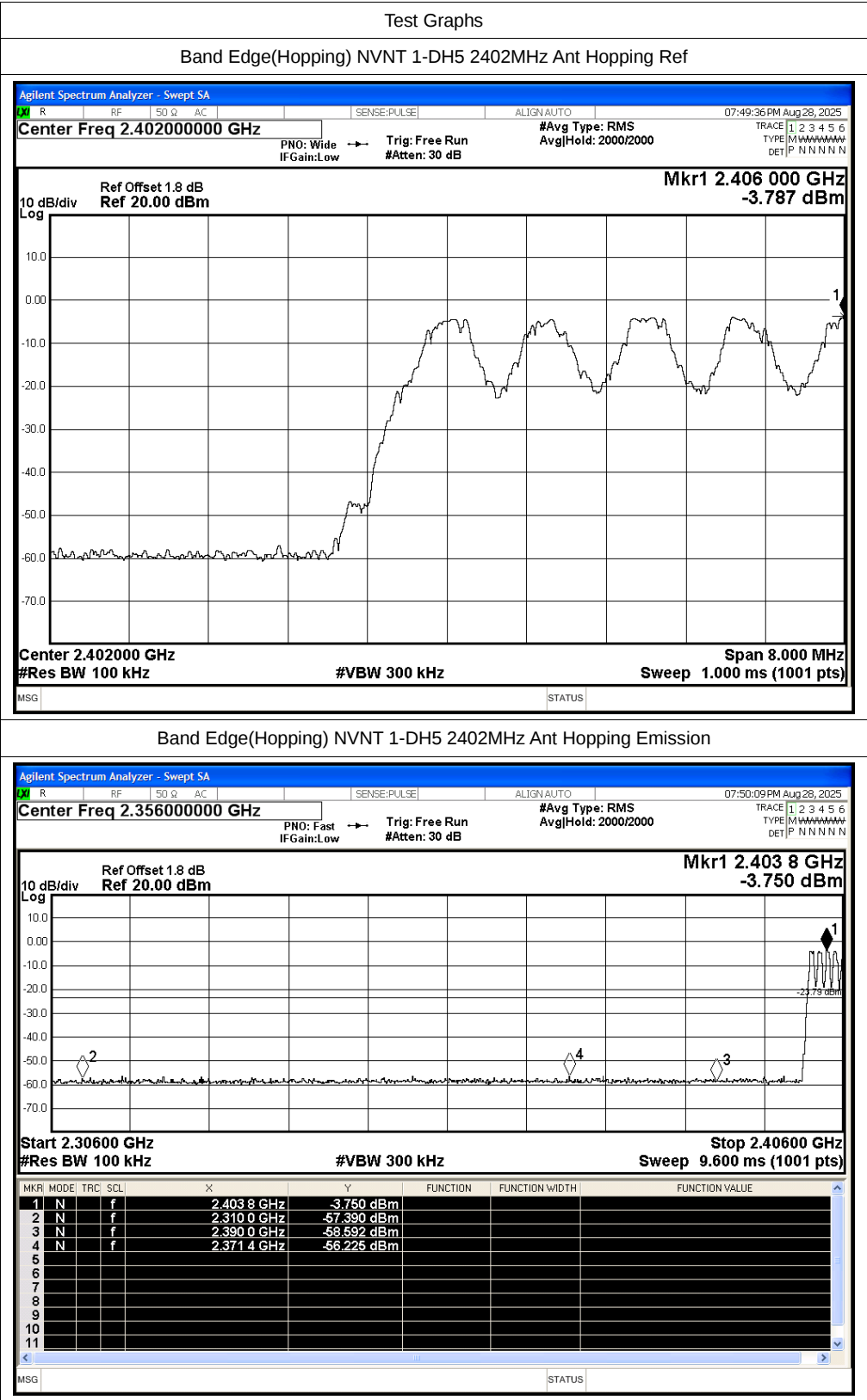


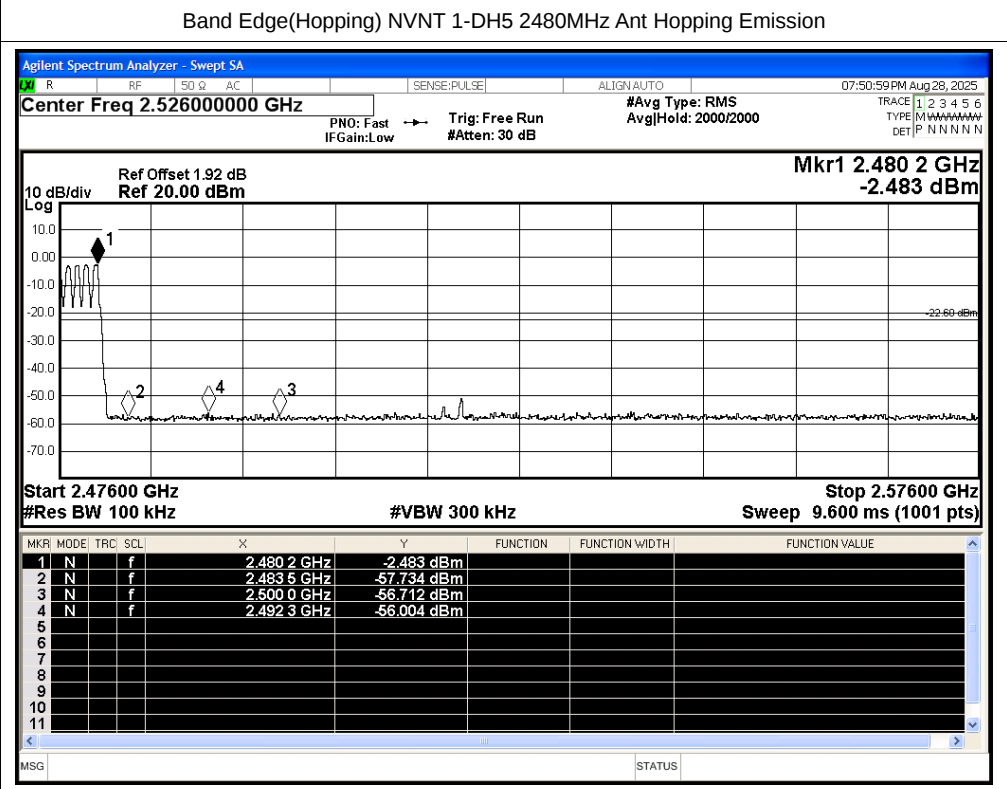
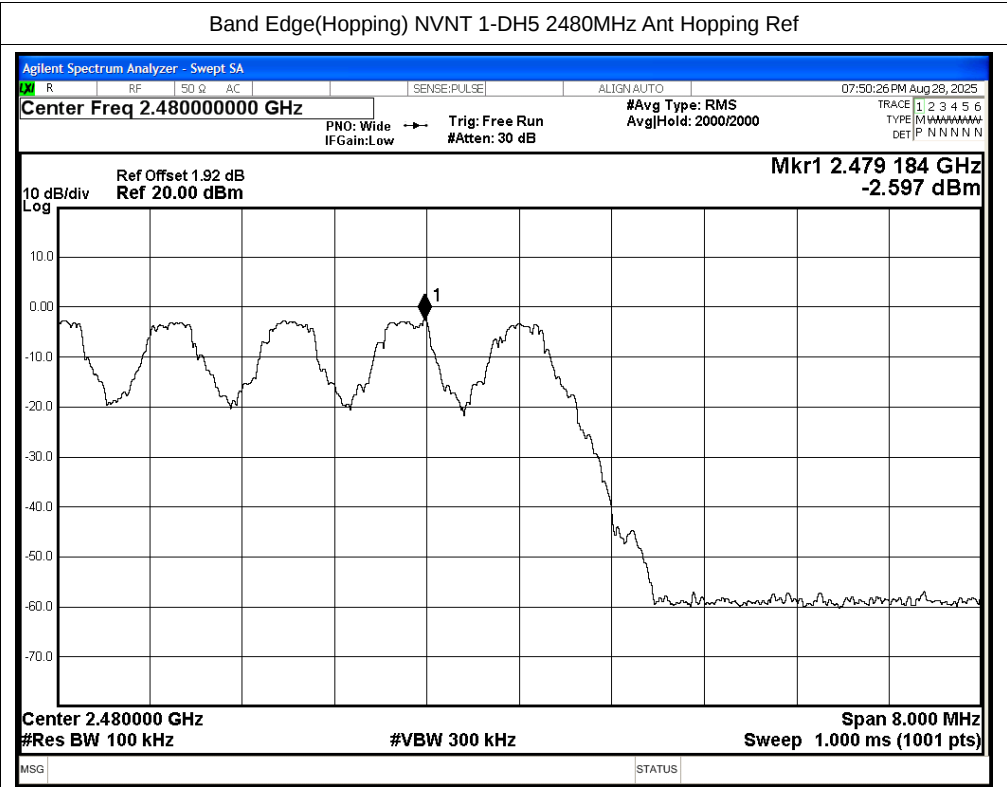


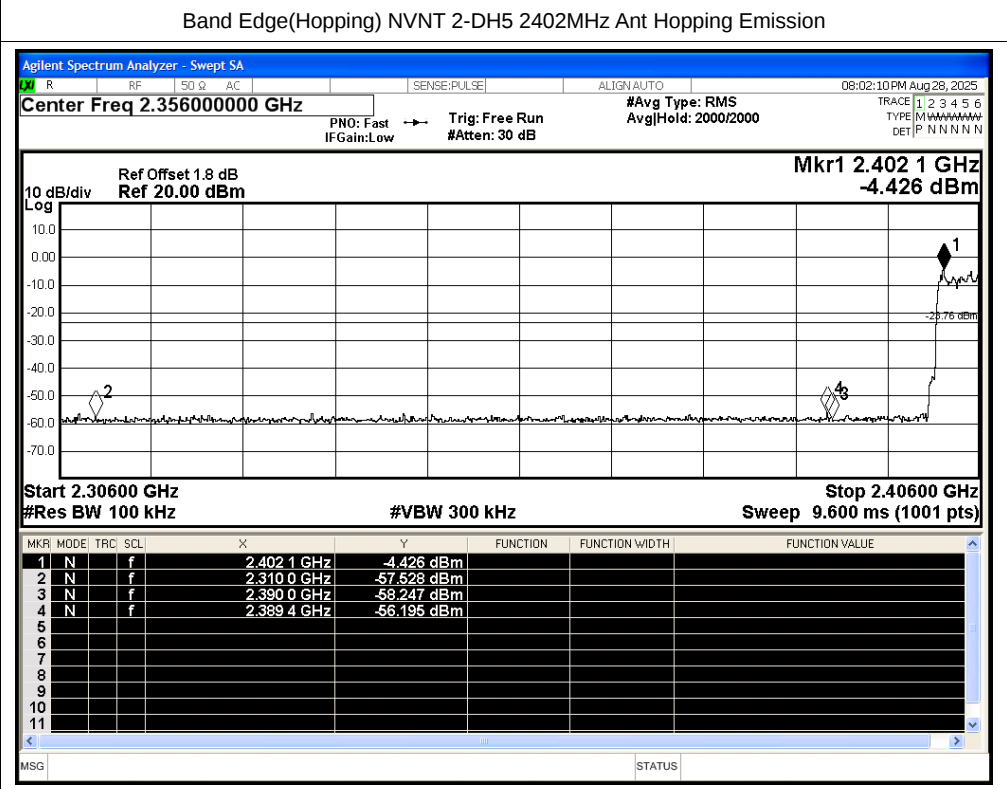
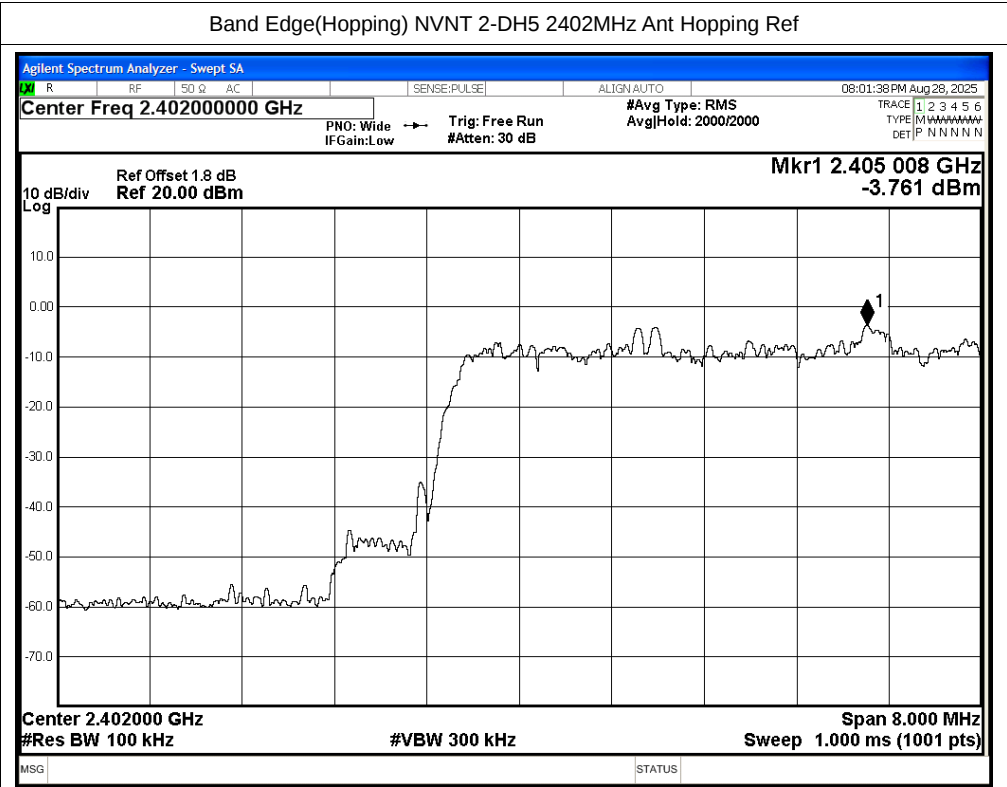


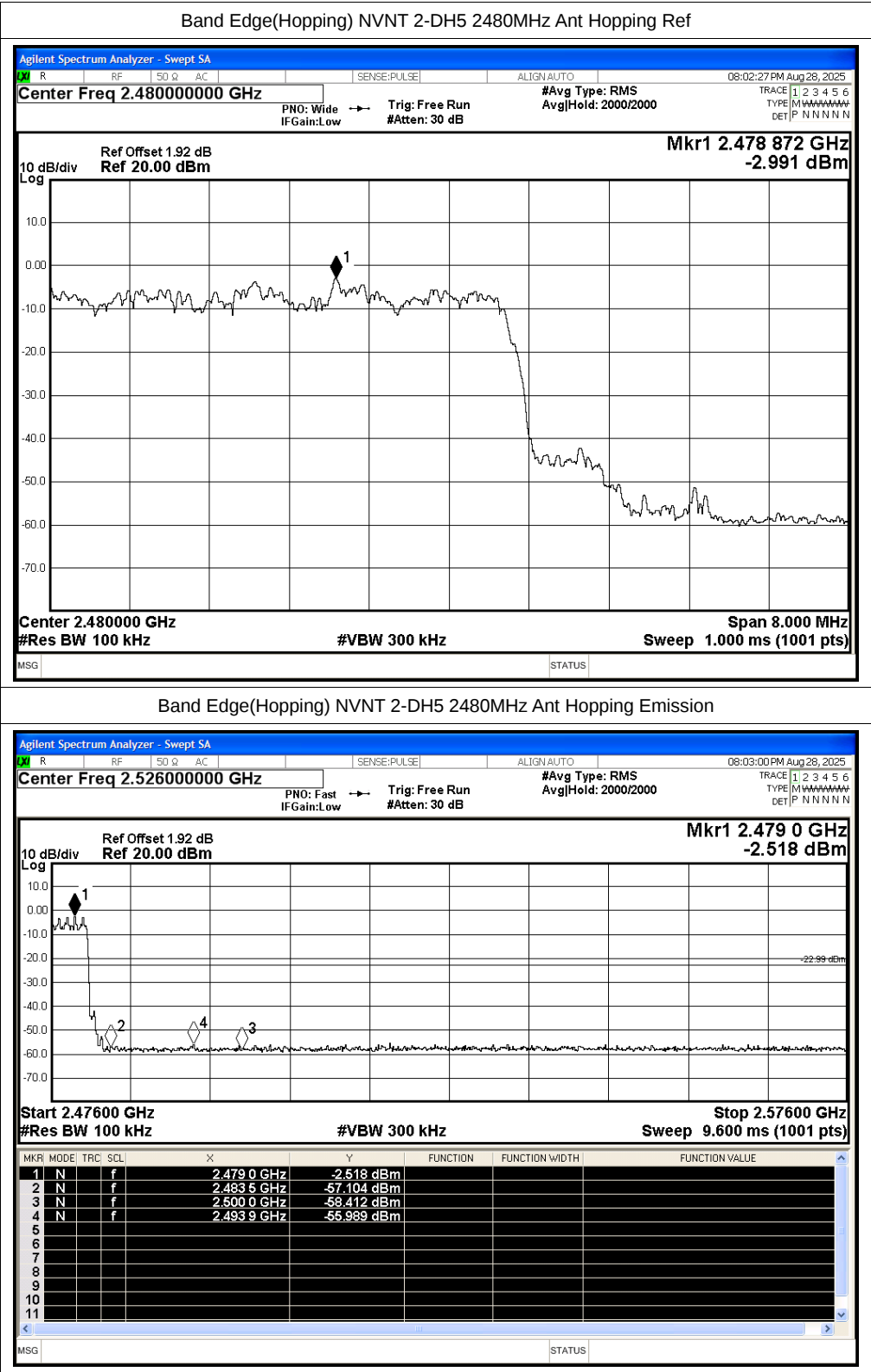
(Hopping)

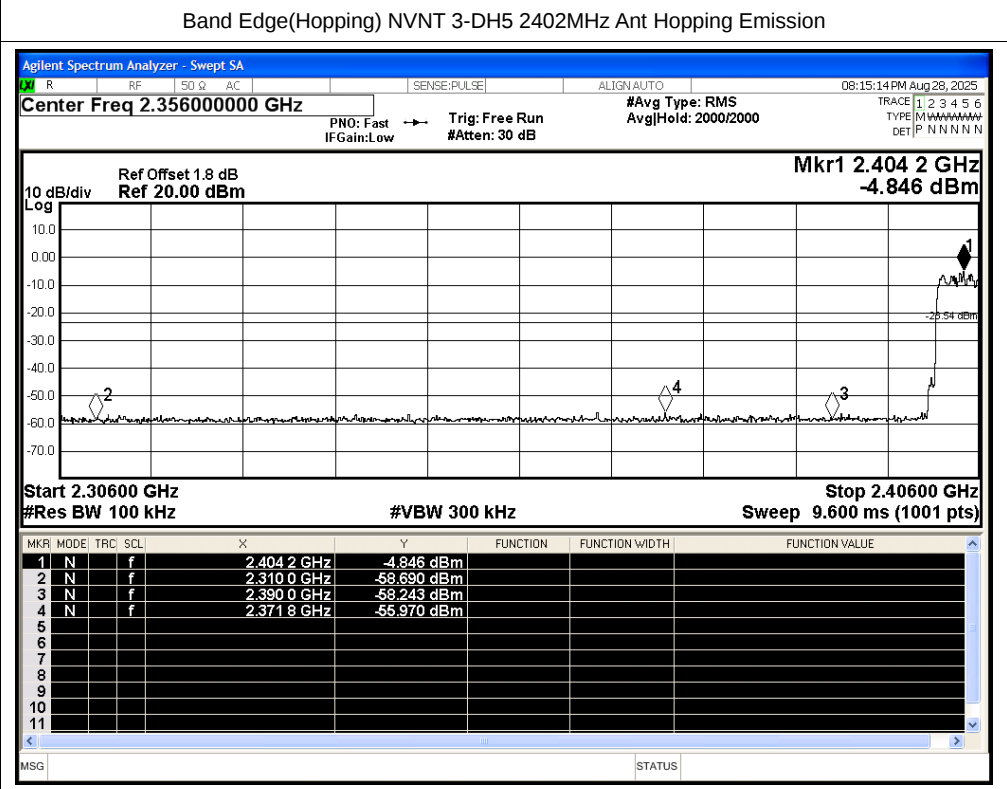
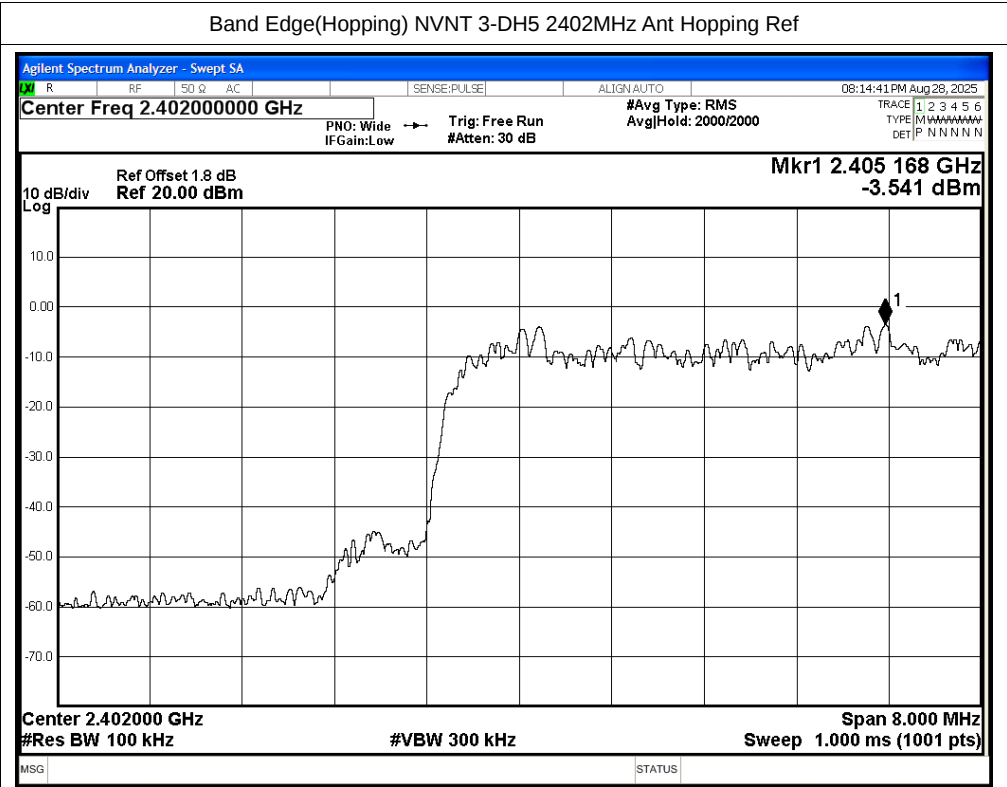
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant	Hopping	-52.44	-20	Pass
NVNT	1-DH5	2480	Ant	Hopping	-53.41	-20	Pass
NVNT	2-DH5	2402	Ant	Hopping	-52.43	-20	Pass
NVNT	2-DH5	2480	Ant	Hopping	-53	-20	Pass
NVNT	3-DH5	2402	Ant	Hopping	-52.43	-20	Pass
NVNT	3-DH5	2480	Ant	Hopping	-53.75	-20	Pass

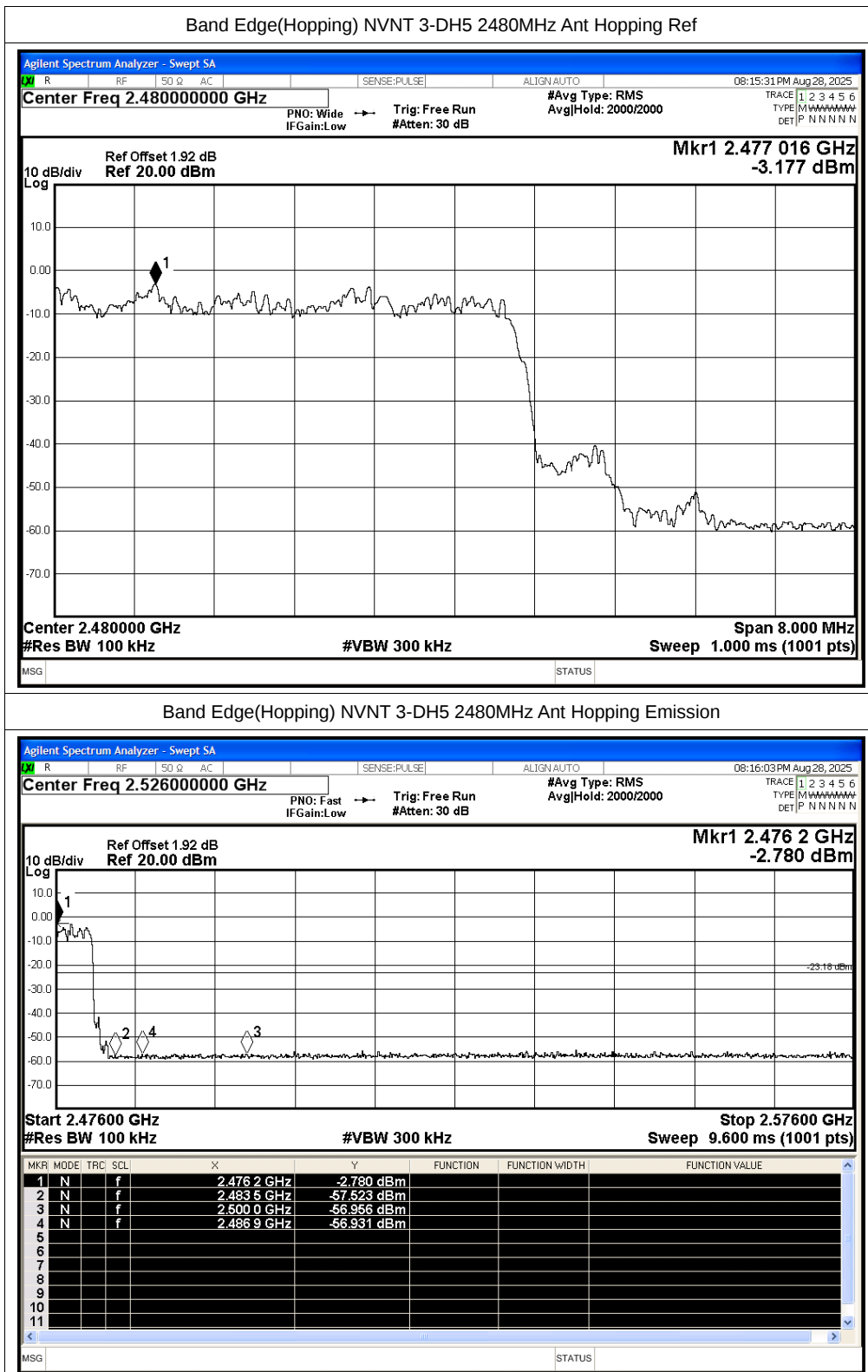






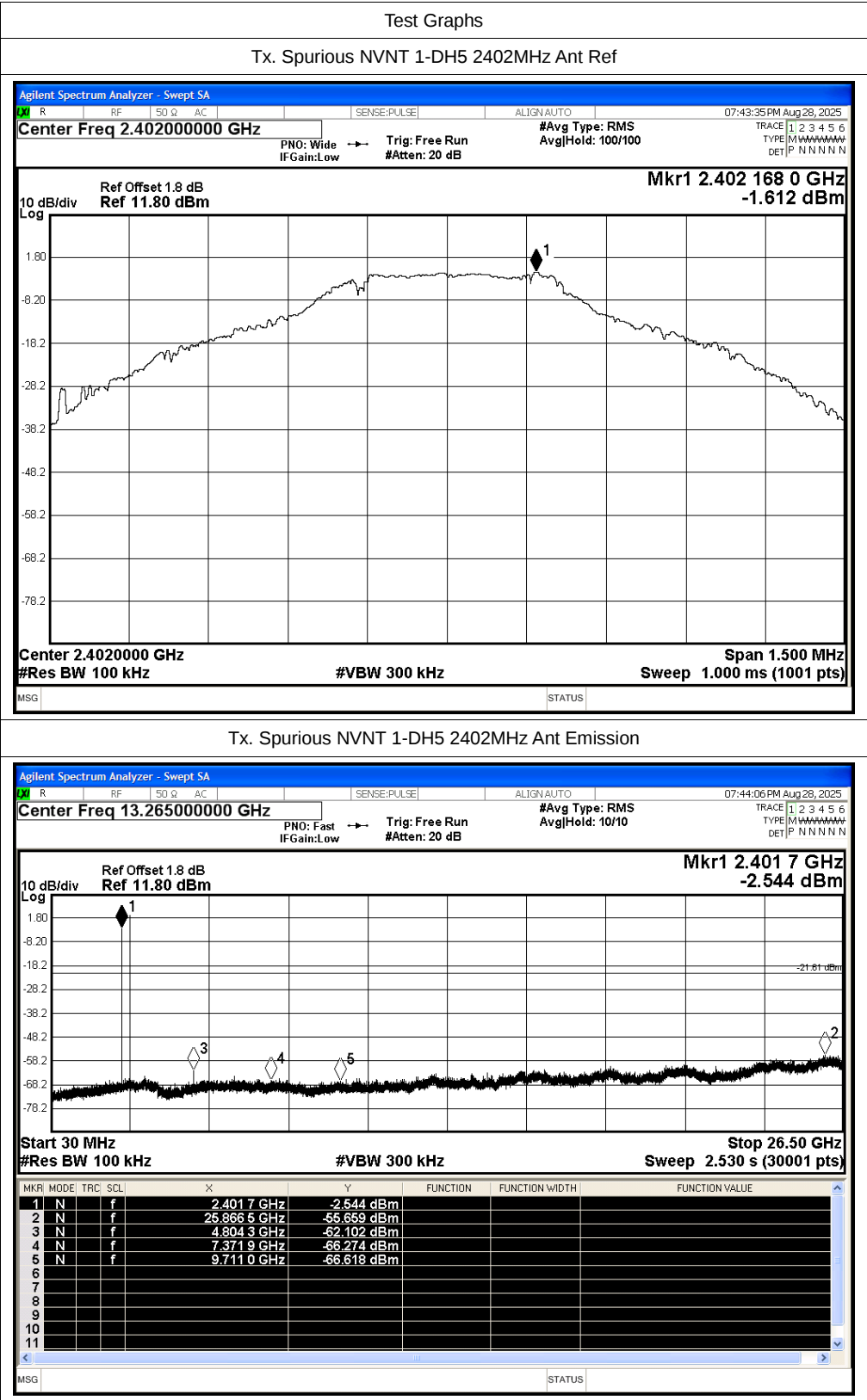


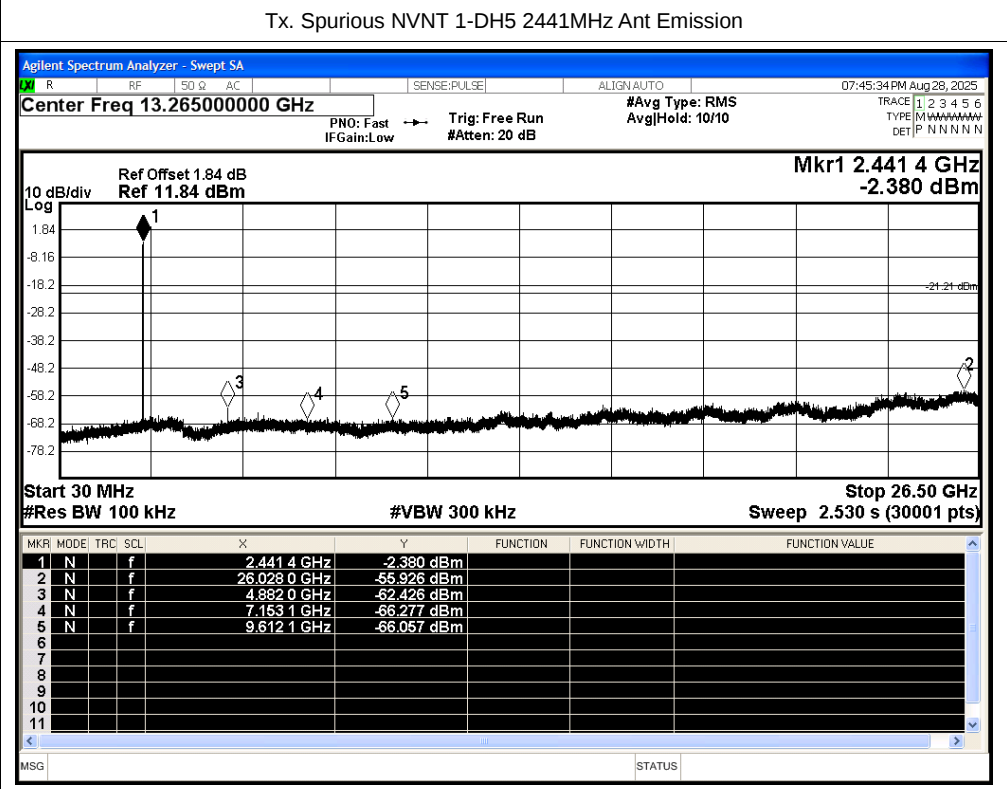
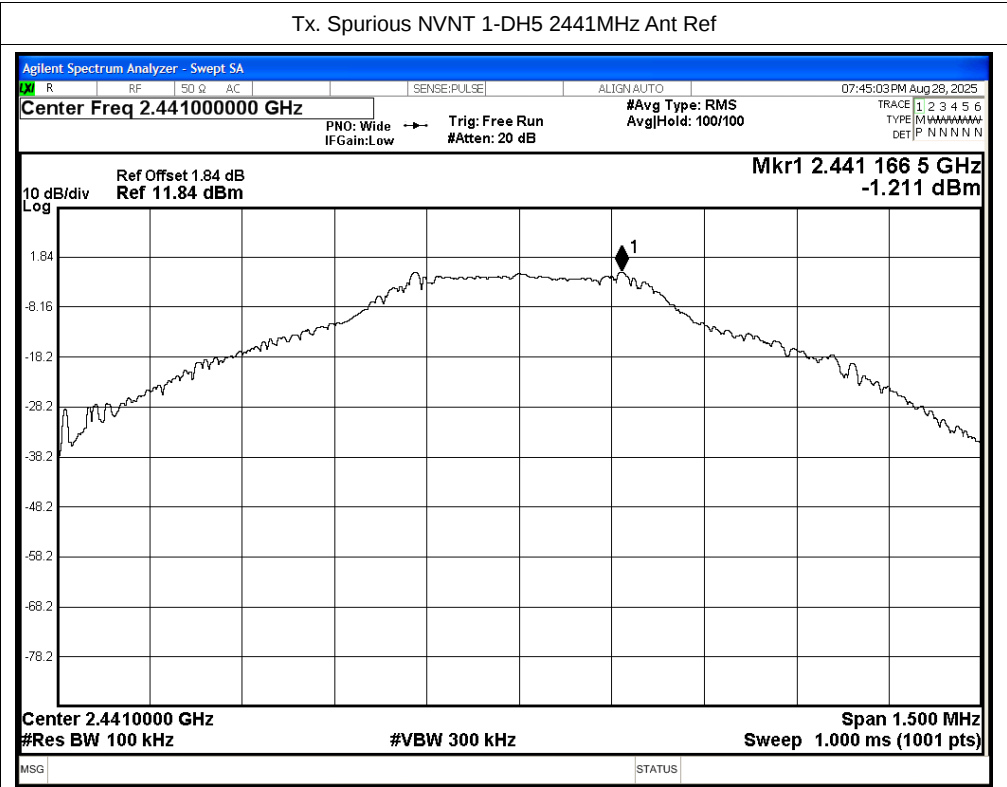


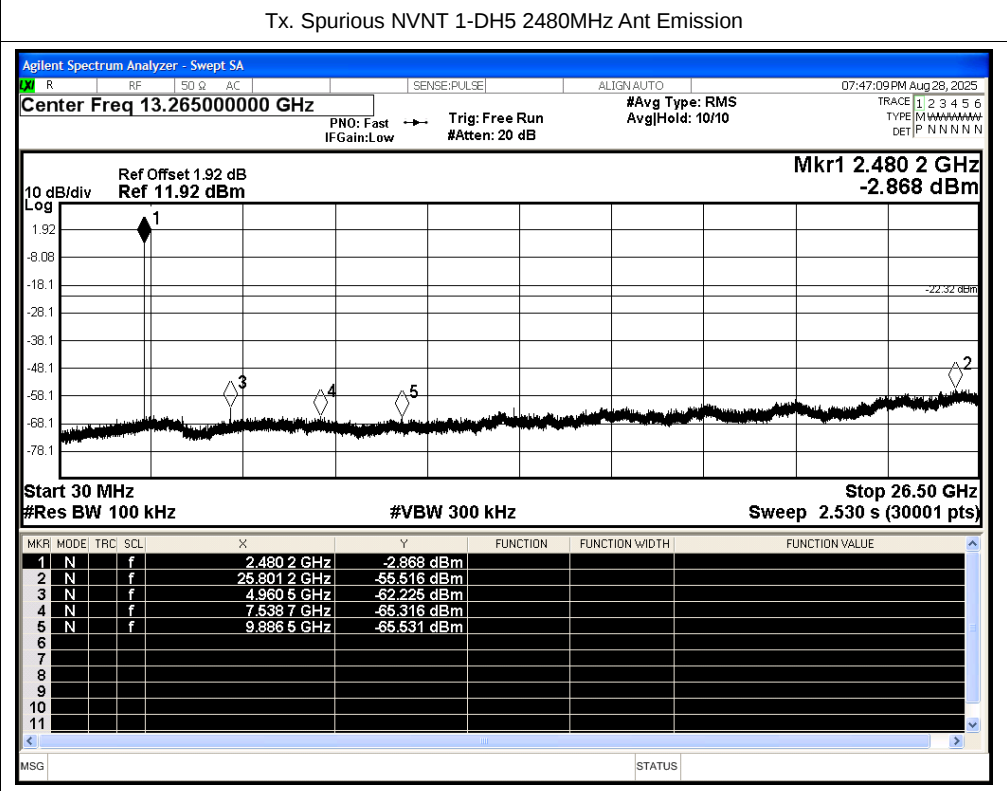
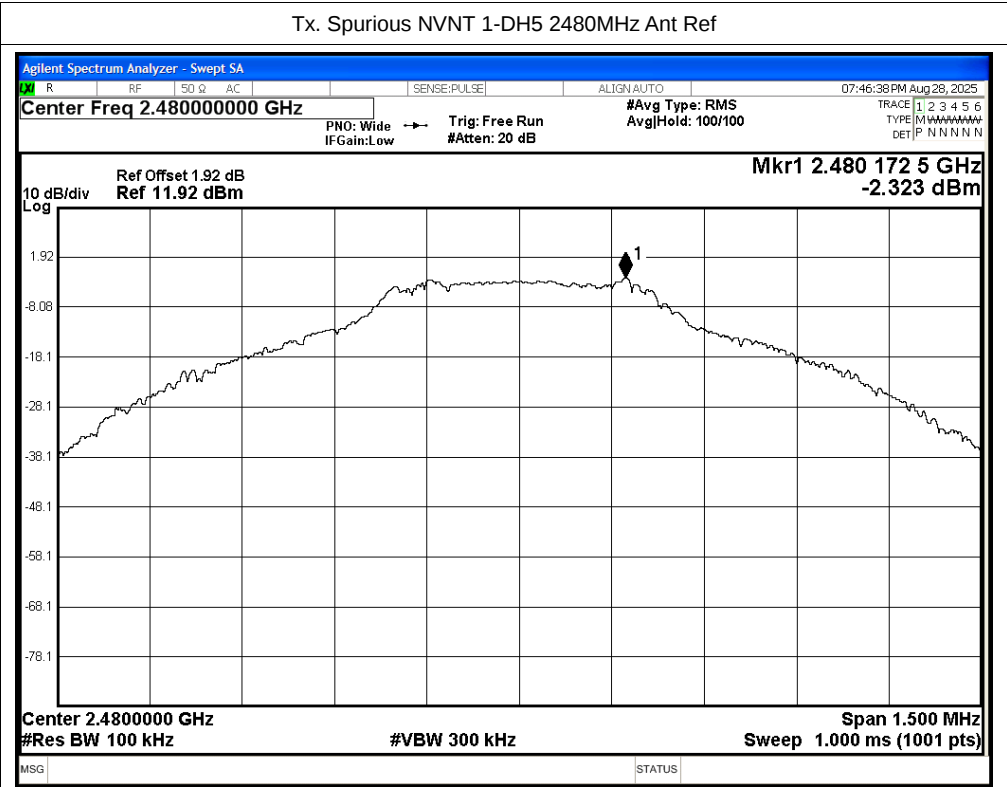


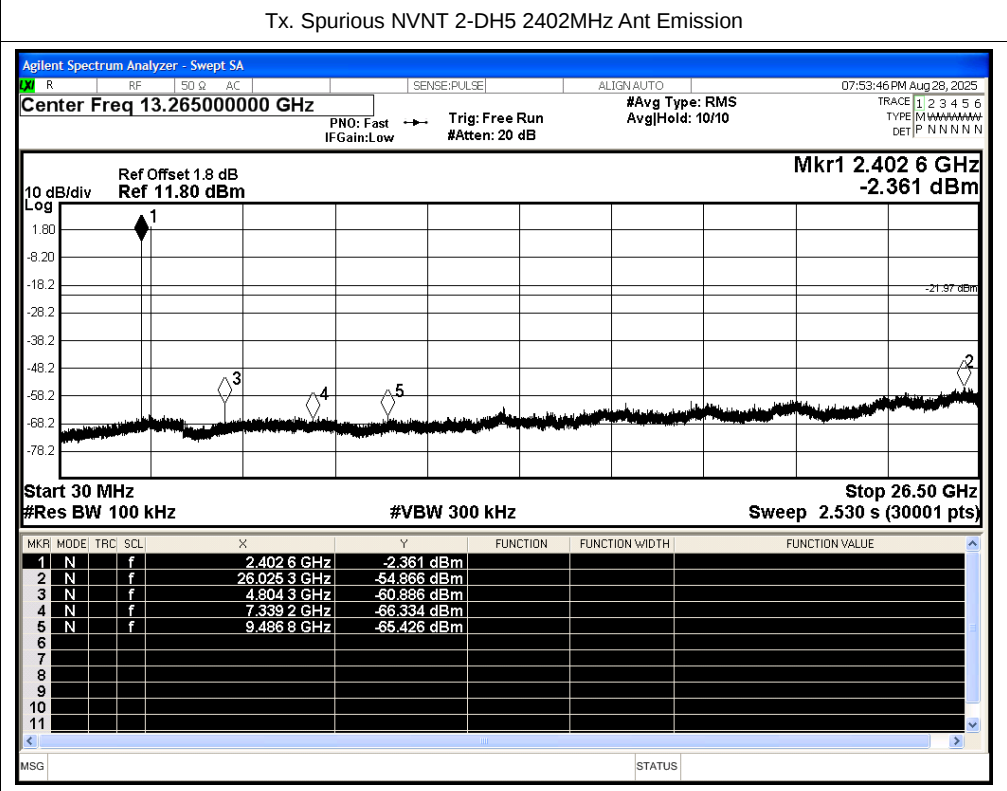
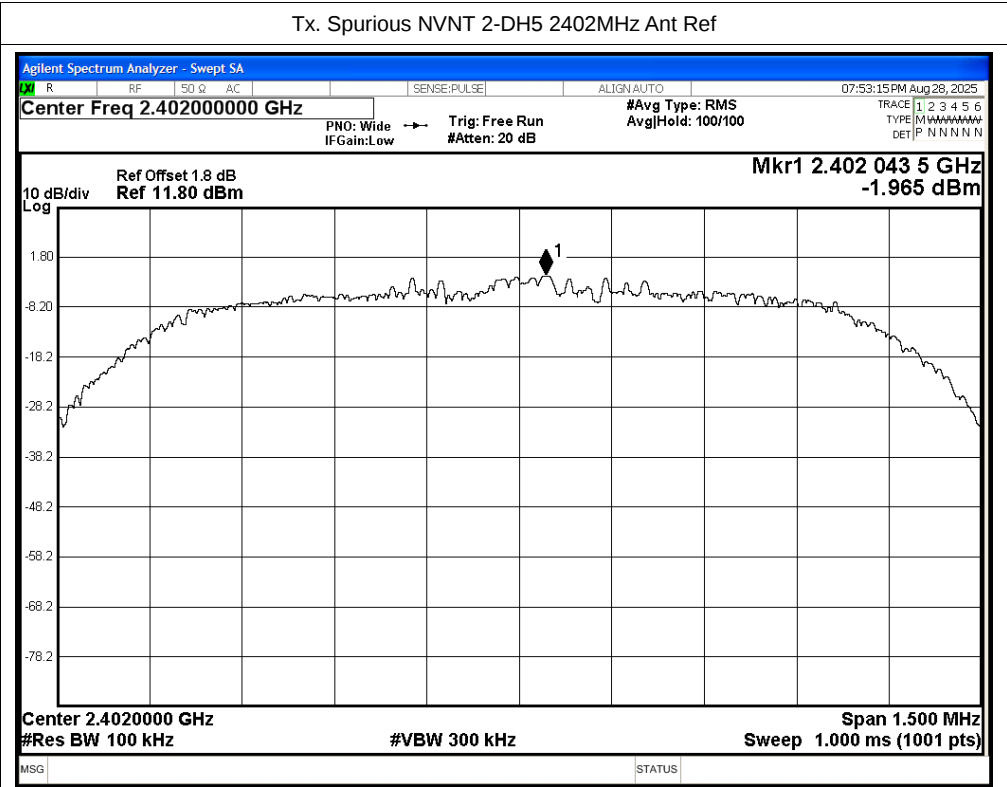
A.7 Conducted RF Spurious Emission

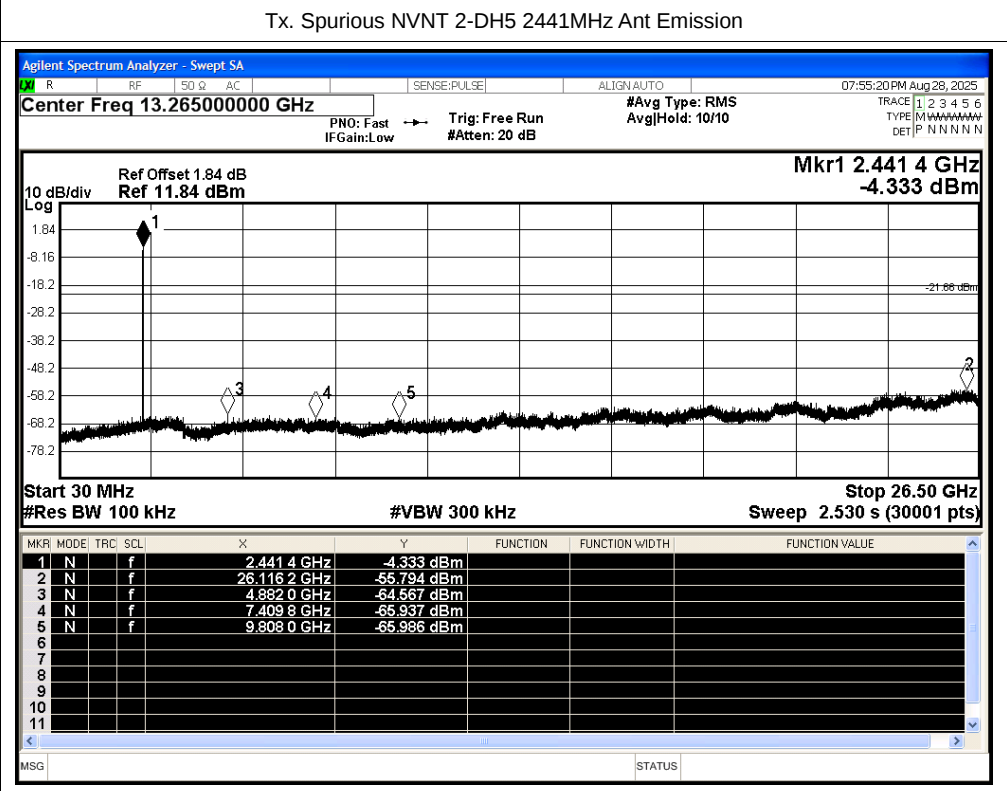
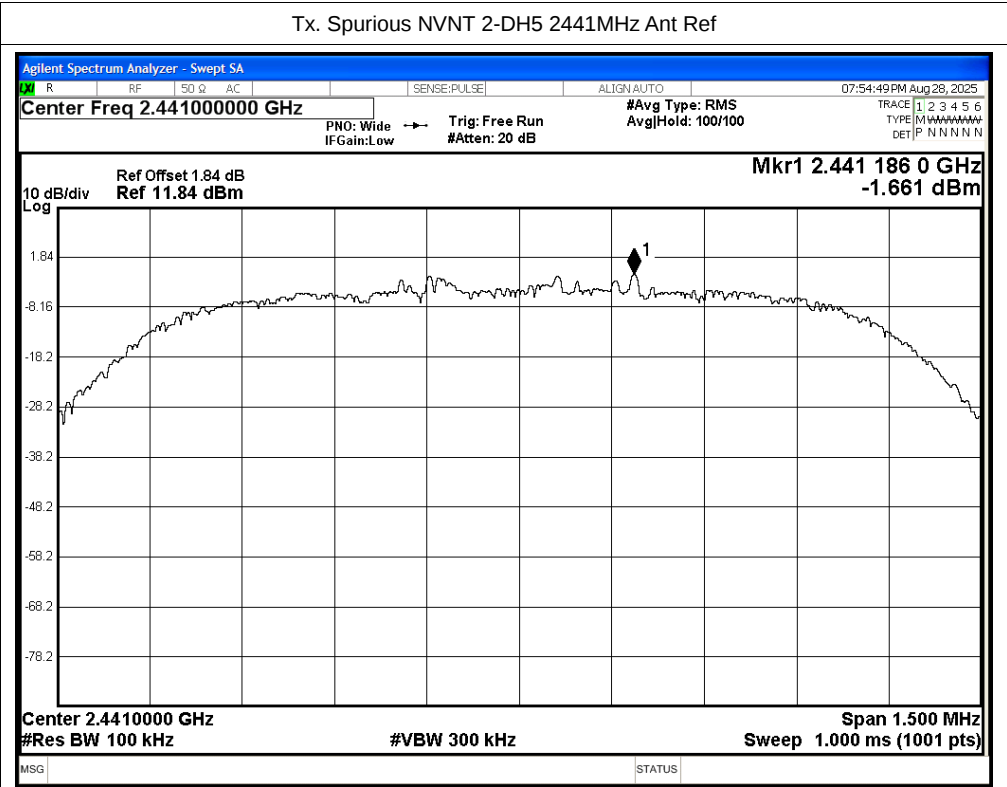
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant	-54.05	-20	Pass
NVNT	1-DH5	2441	Ant	-54.72	-20	Pass
NVNT	1-DH5	2480	Ant	-53.19	-20	Pass
NVNT	2-DH5	2402	Ant	-52.9	-20	Pass
NVNT	2-DH5	2441	Ant	-54.13	-20	Pass
NVNT	2-DH5	2480	Ant	-52.84	-20	Pass
NVNT	3-DH5	2402	Ant	-54.03	-20	Pass
NVNT	3-DH5	2441	Ant	-54.26	-20	Pass
NVNT	3-DH5	2480	Ant	-52.67	-20	Pass

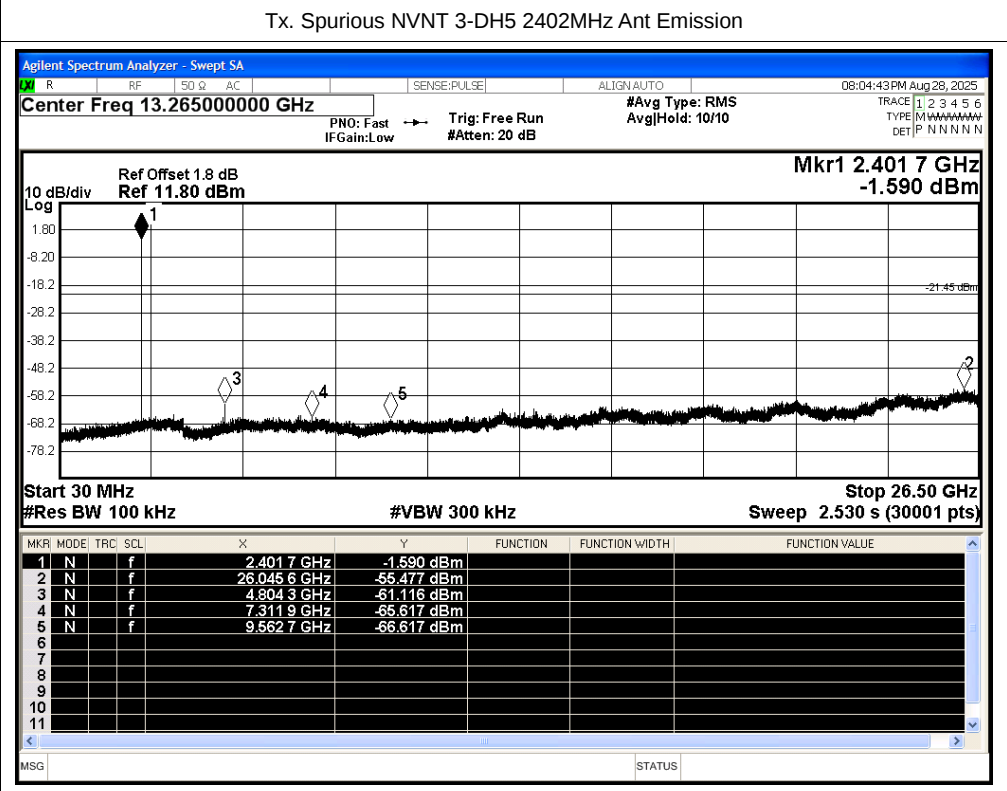
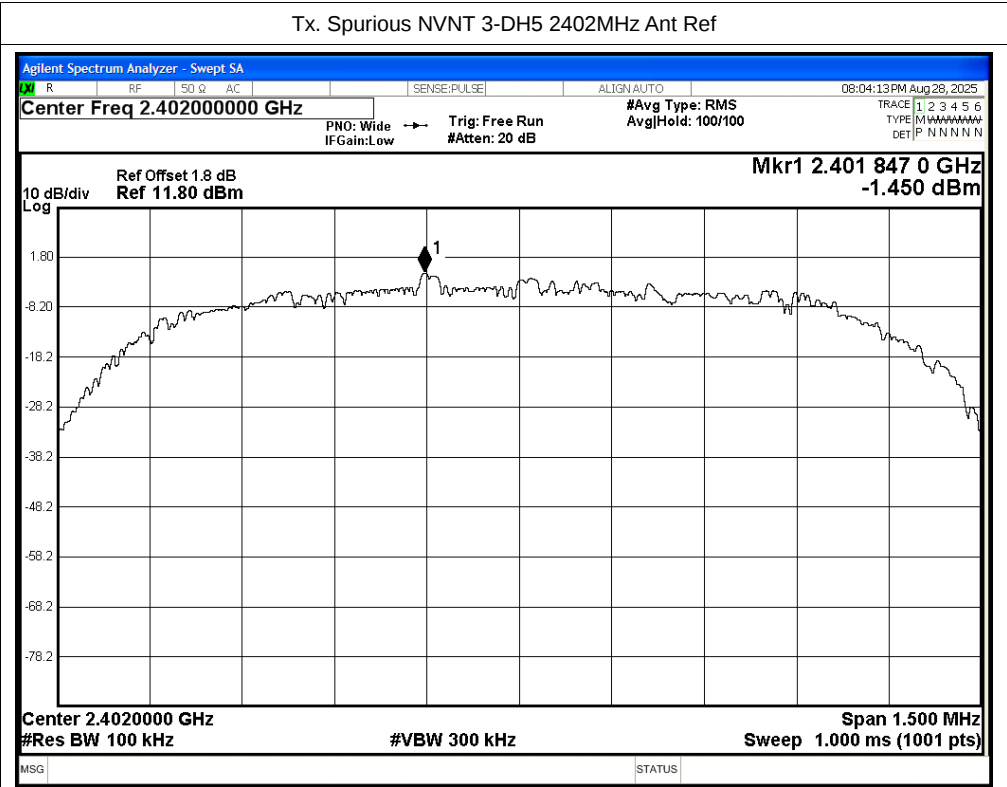


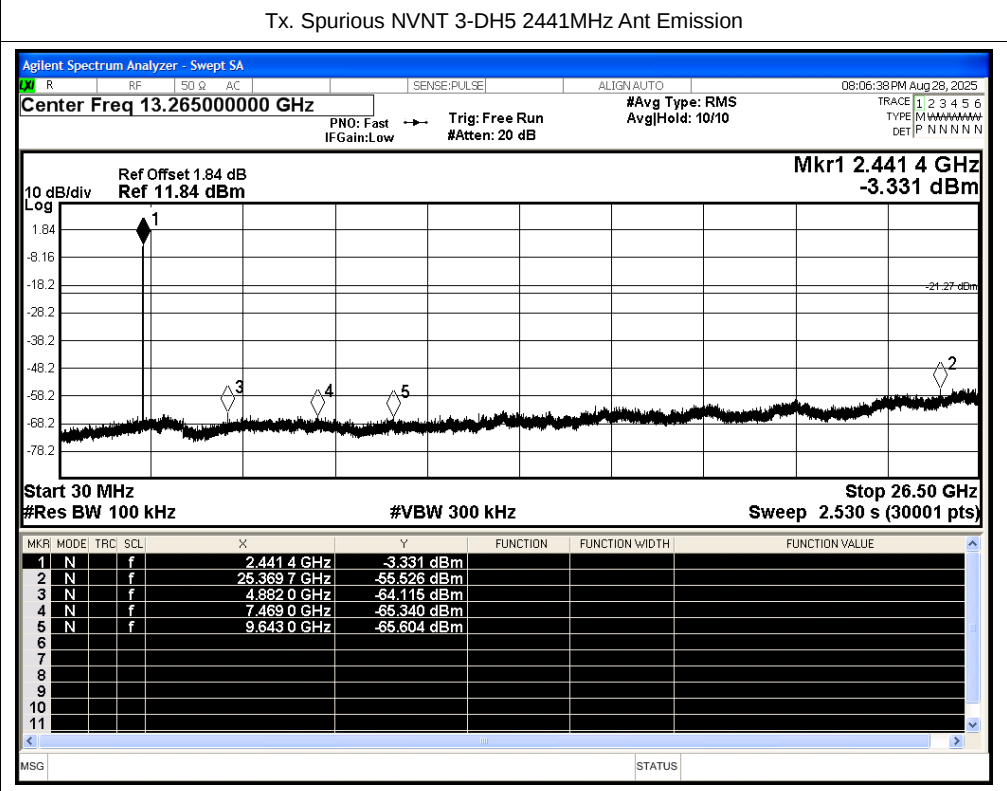
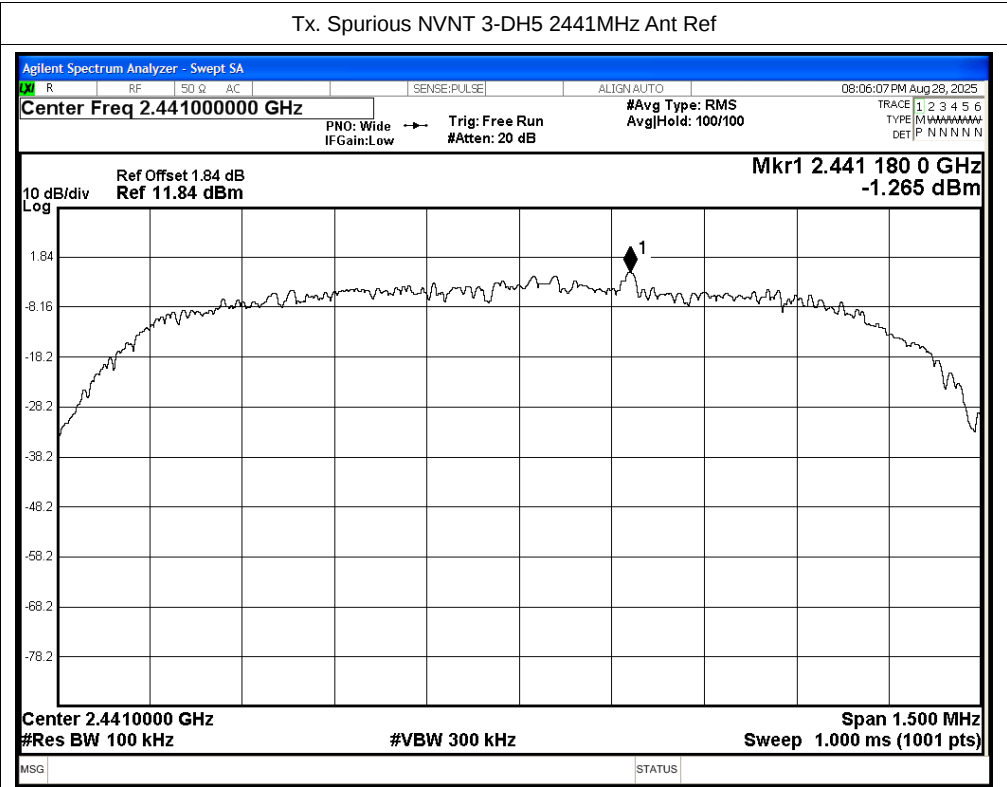


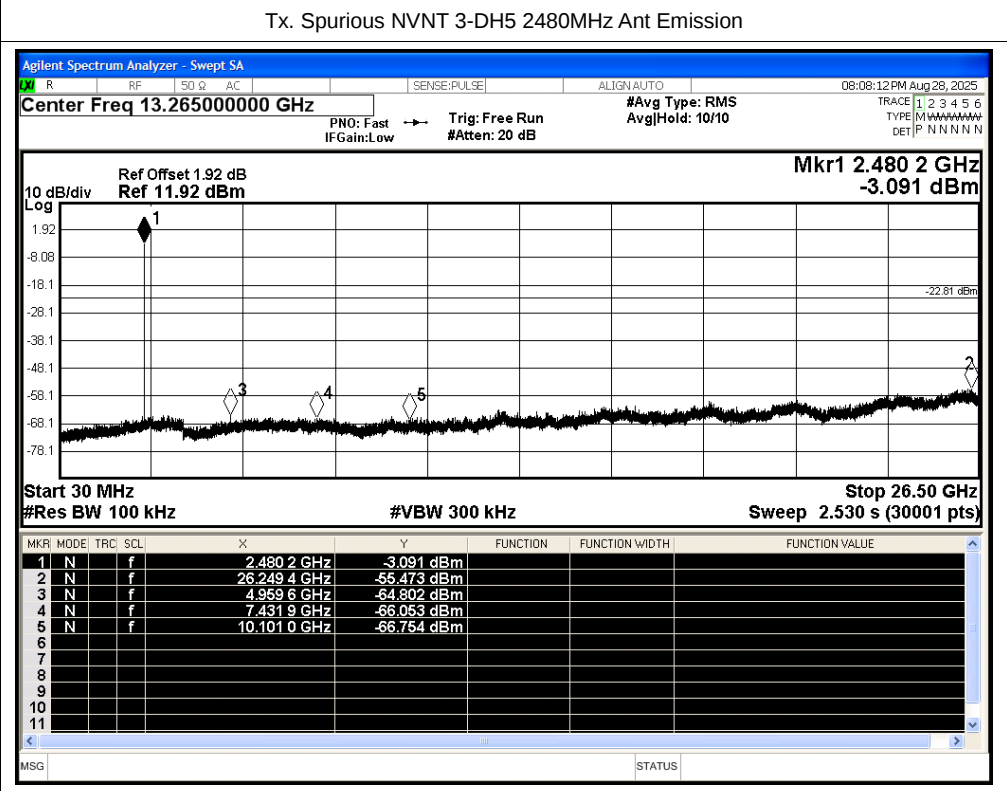
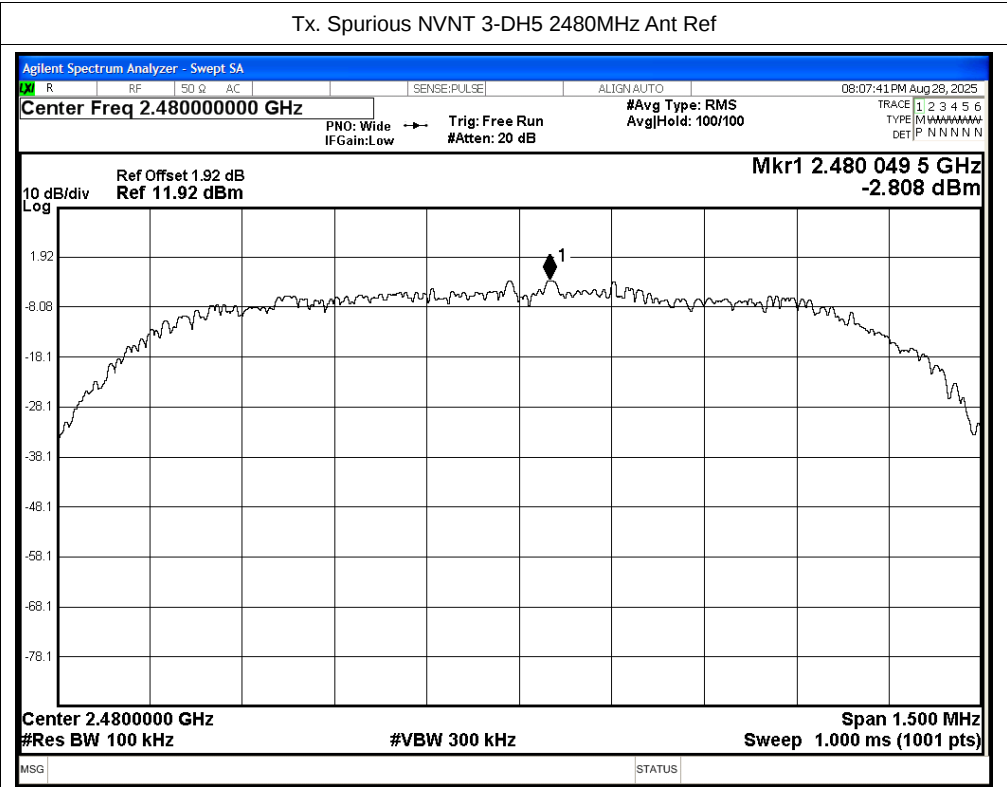










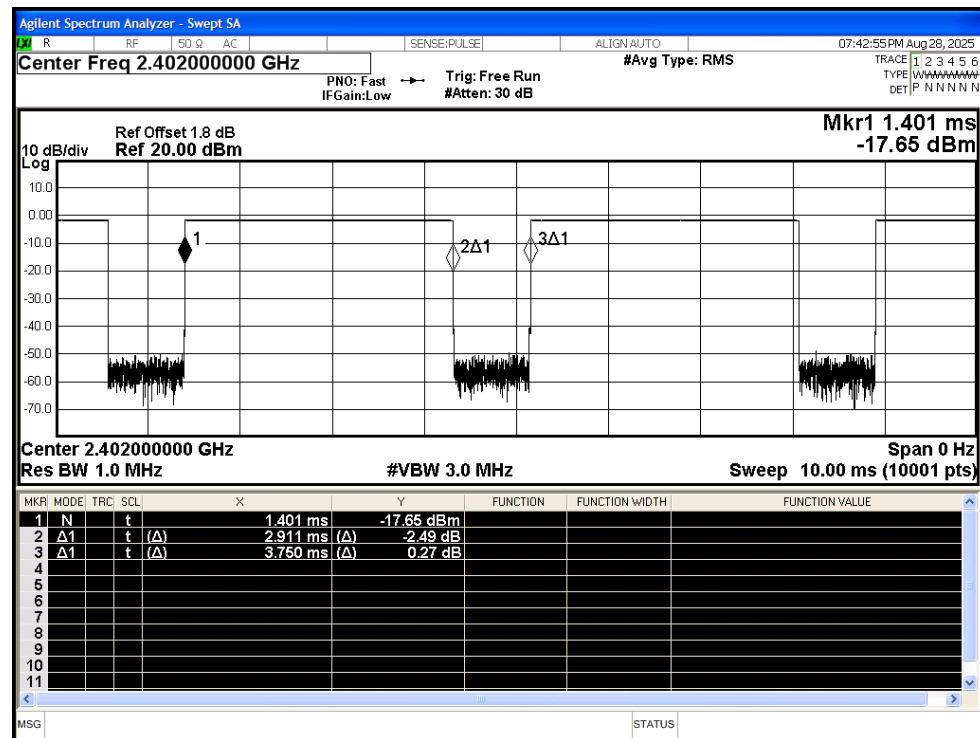


A.8 Duty Cycle

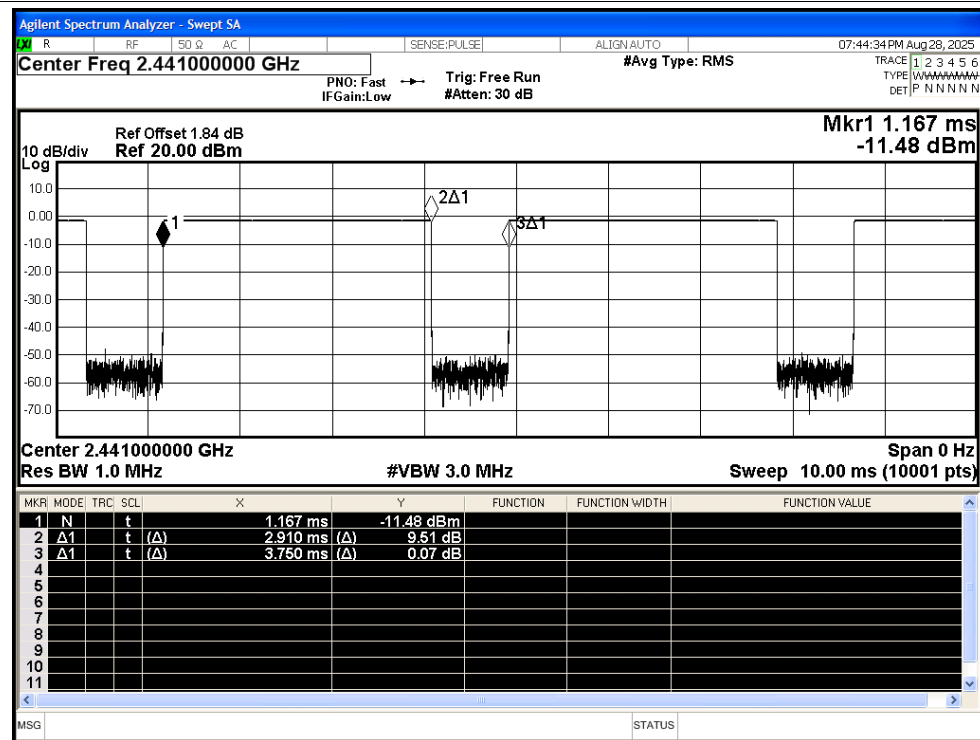
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH5	2402	Ant	77.63	1.1	0.34
NVNT	1-DH5	2441	Ant	77.6	1.1	0.34
NVNT	1-DH5	2480	Ant	77.6	1.1	0.34
NVNT	2-DH5	2402	Ant	77.28	1.12	0.35
NVNT	2-DH5	2441	Ant	77.28	1.12	0.35
NVNT	2-DH5	2480	Ant	77.28	1.12	0.35
NVNT	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

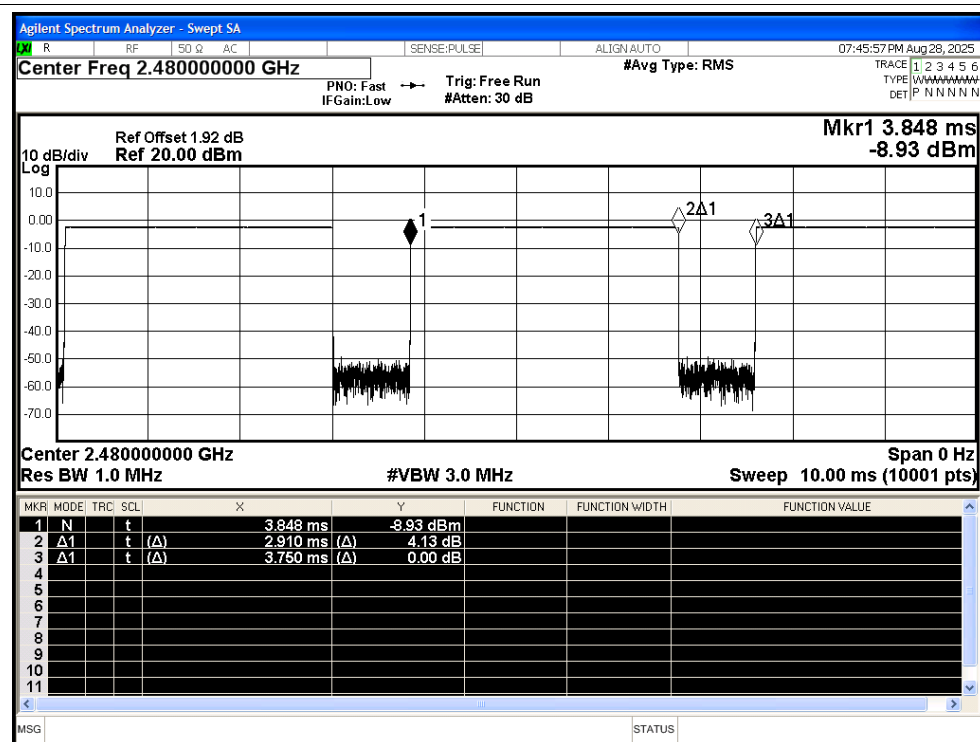
Duty Cycle NVNT 1-DH5 2402MHz Ant



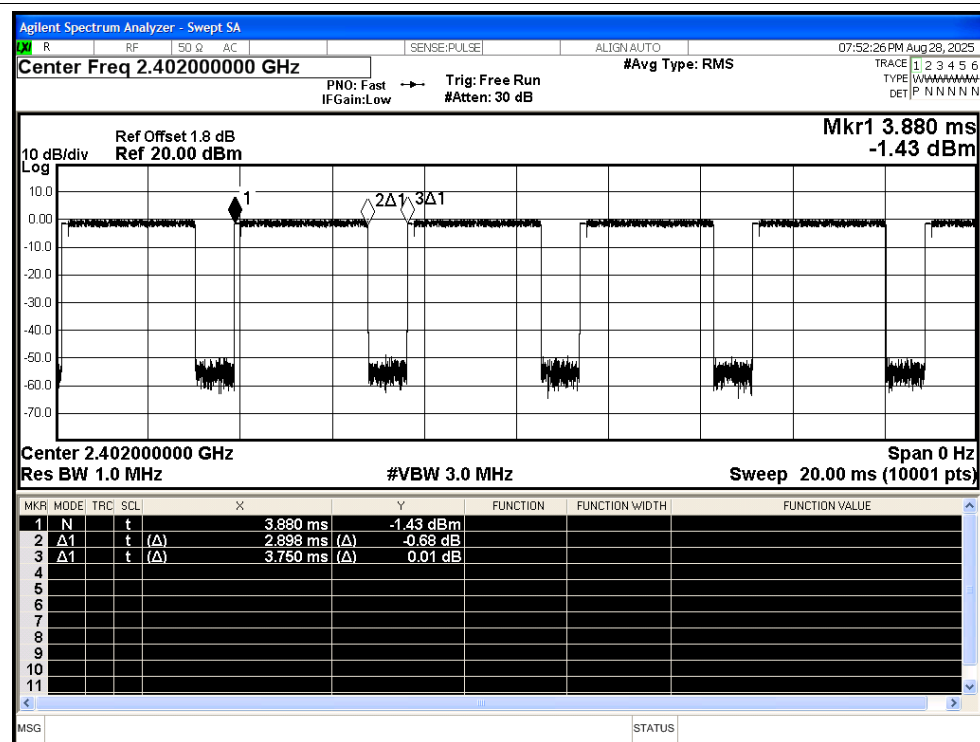
Duty Cycle NVNT 1-DH5 2441MHz Ant

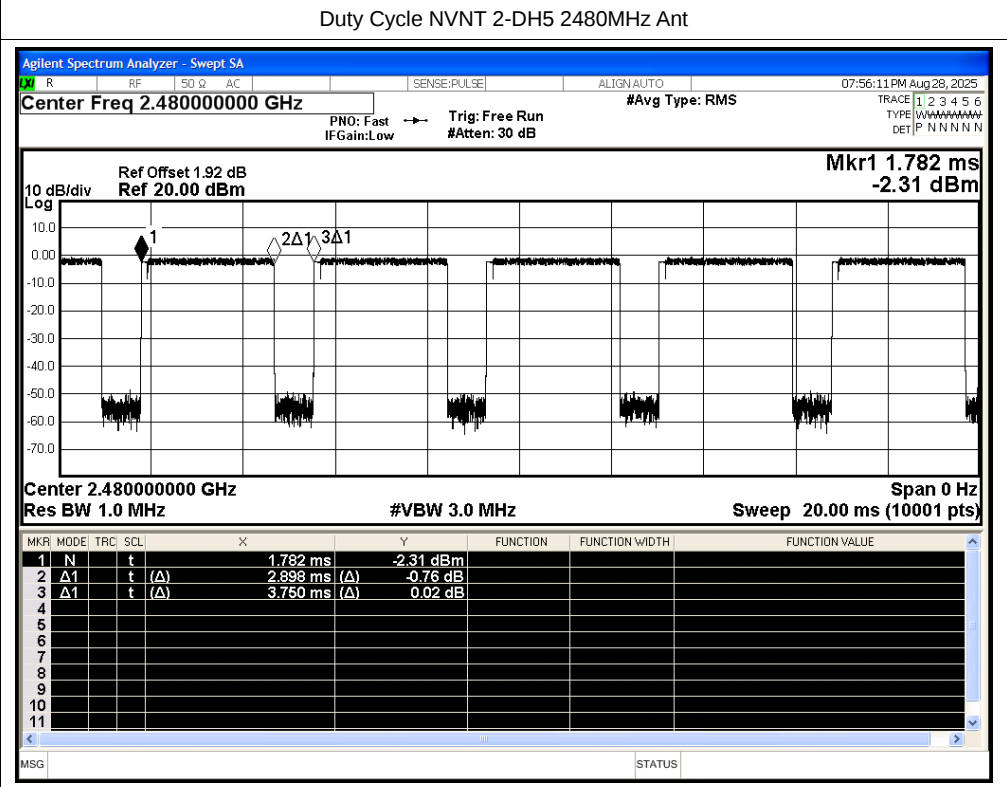
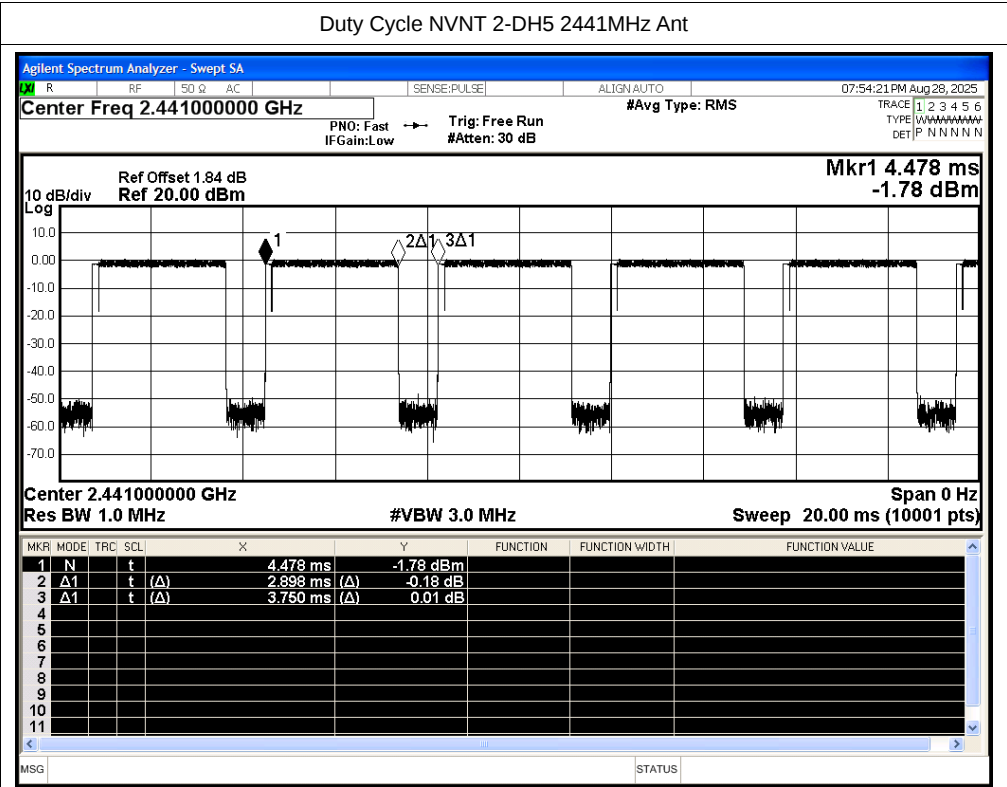


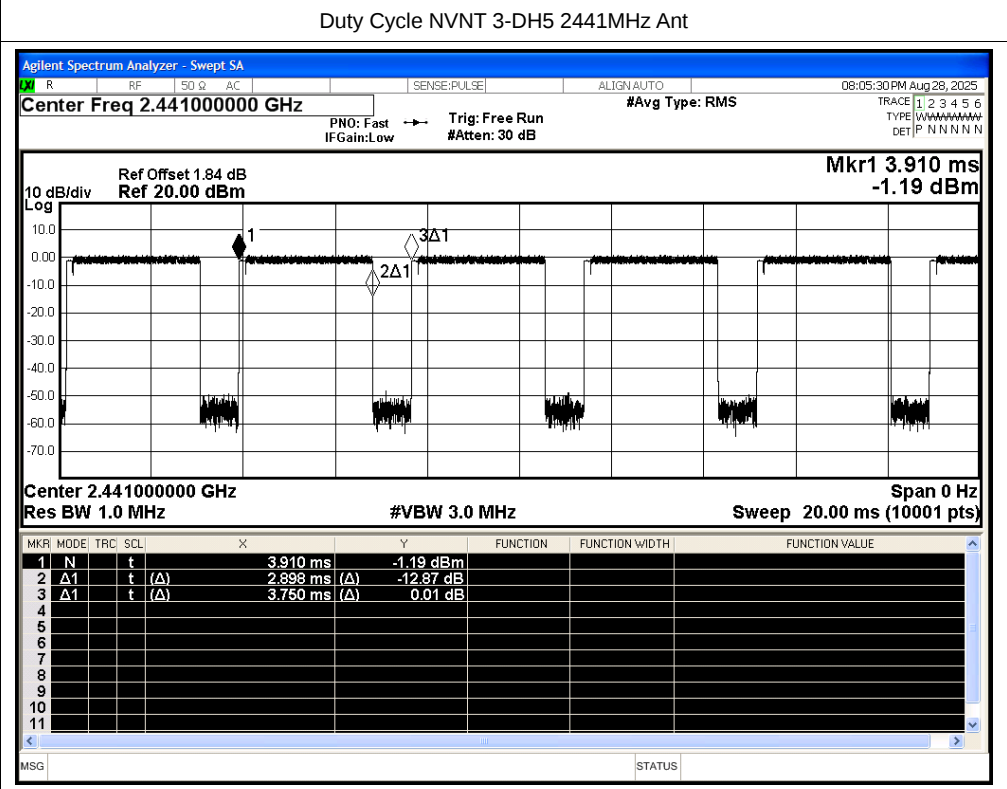
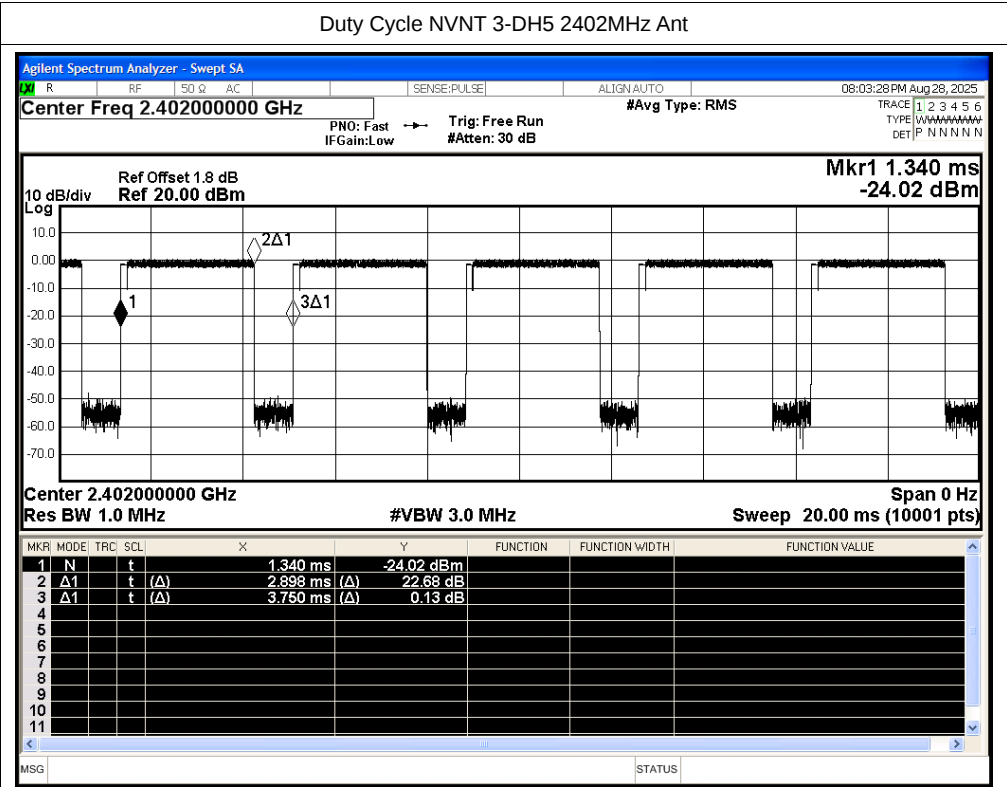
Duty Cycle NVNT 1-DH5 2480MHz Ant

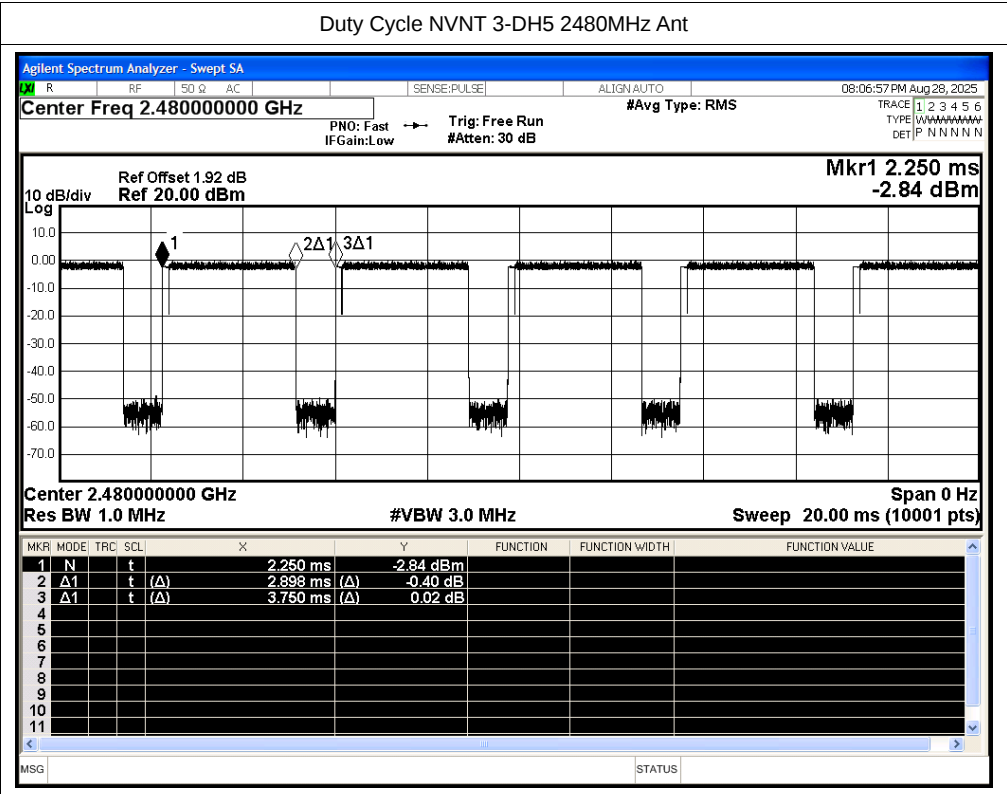


Duty Cycle NVNT 2-DH5 2402MHz Ant



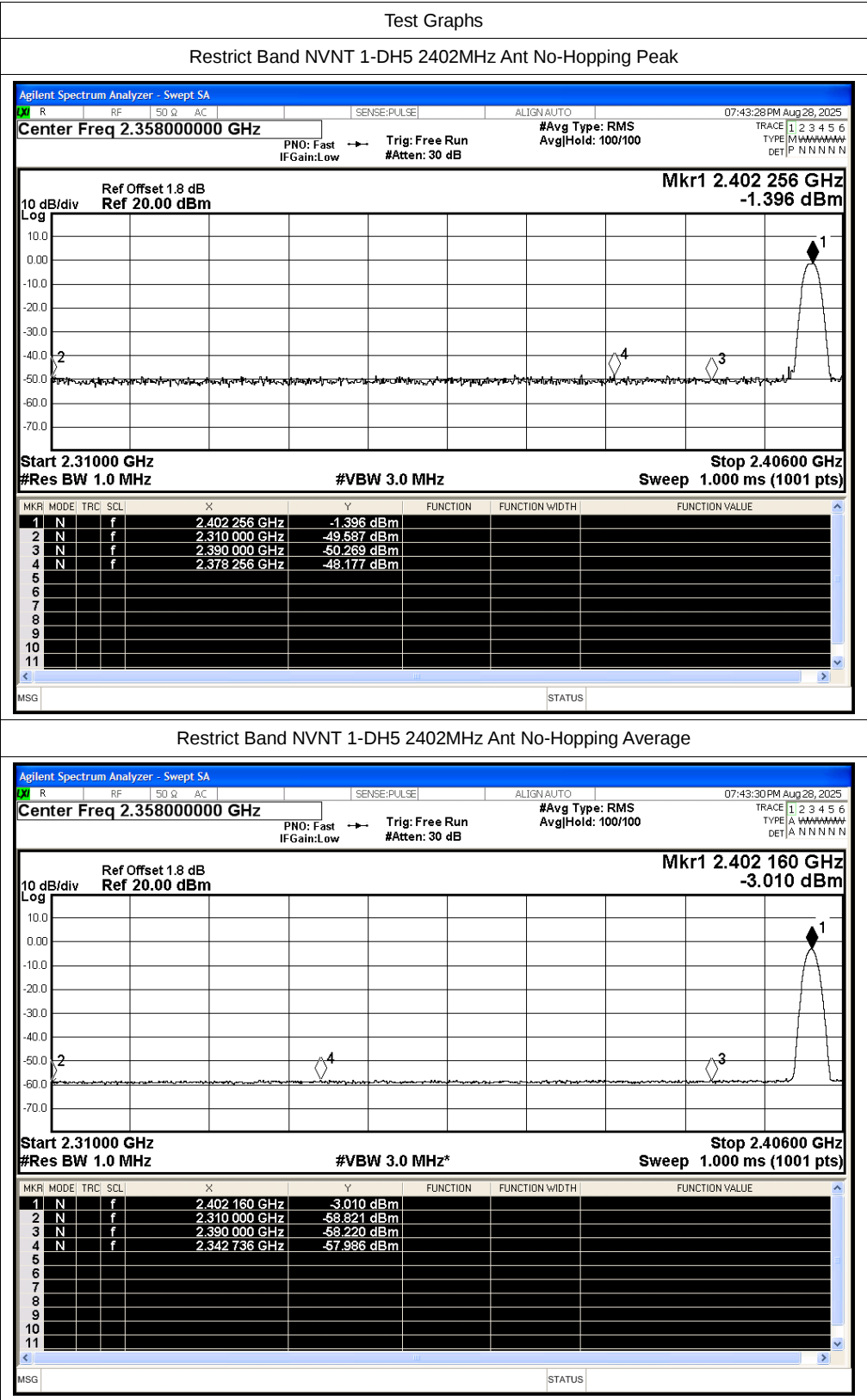


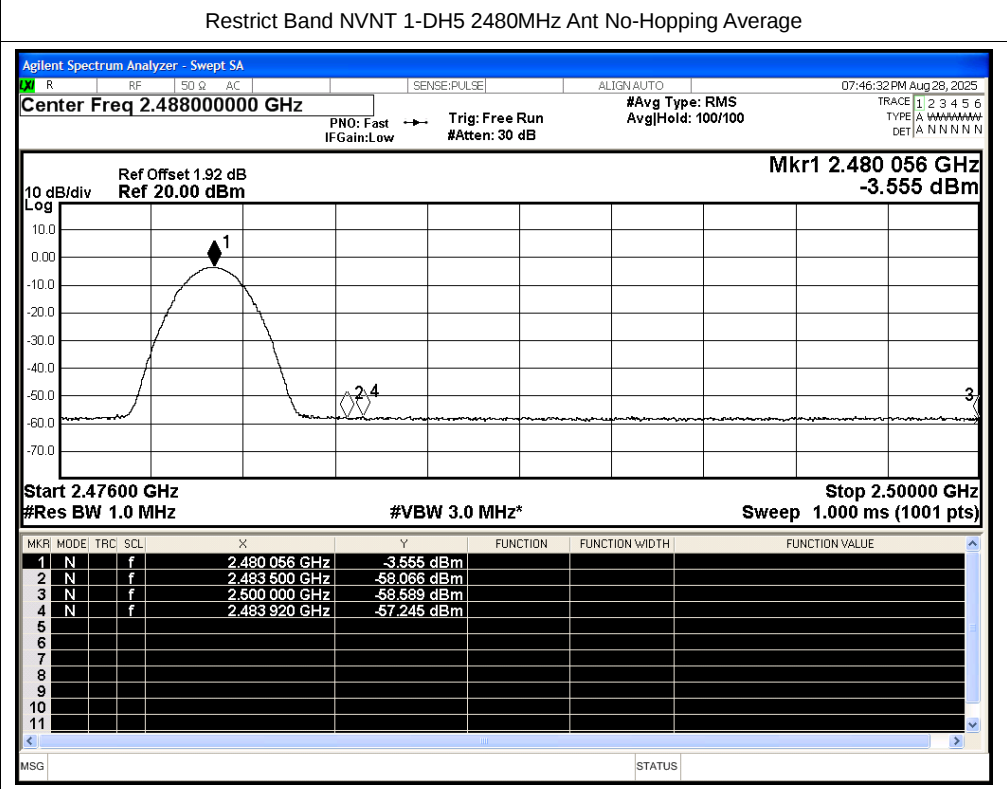
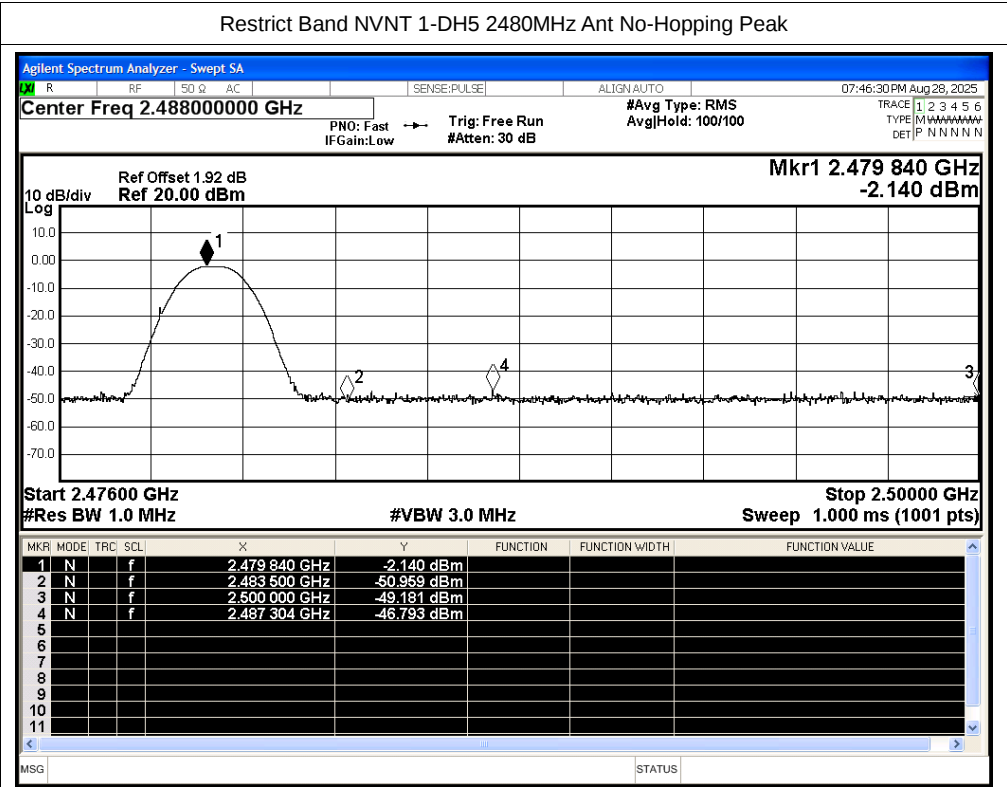




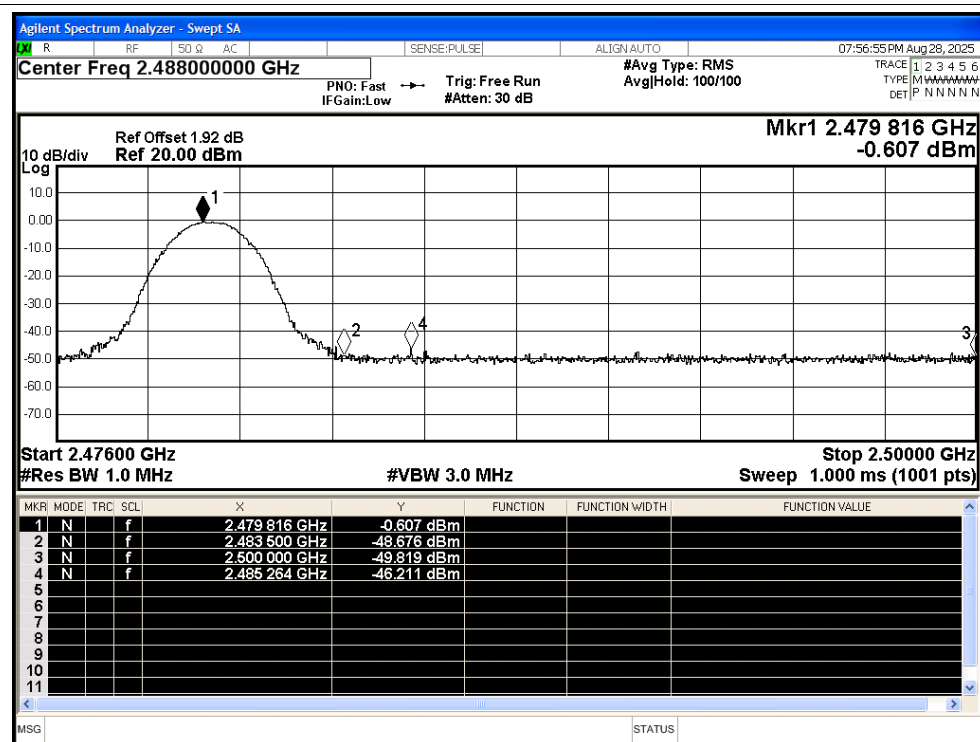
A.9 Restrict Band

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	-49.59	2.7	-	48.37	Peak	74	Pass
NVNT	1-DH5	2402	Ant	No-Hopping	2310	-58.82	2.7	1.1	40.24	Average	54	Pass
NVNT	1-DH5	2402	Ant	No-Hopping	2378.256	-48.18	2.7	-	49.78	Peak	74	Pass
NVNT	1-DH5	2402	Ant	No-Hopping	2342.736	-57.99	2.7	1.1	41.07	Average	54	Pass
NVNT	1-DH5	2402	Ant	No-Hopping	2390	-50.27	2.7	-	47.69	Peak	74	Pass
NVNT	1-DH5	2402	Ant	No-Hopping	2390	-58.22	2.7	1.1	40.84	Average	54	Pass
NVNT	1-DH5	2480	Ant	No-Hopping	2483.5	-50.96	2.7	-	47.00	Peak	74	Pass
NVNT	1-DH5	2480	Ant	No-Hopping	2483.5	-58.07	2.7	1.1	40.99	Average	54	Pass
NVNT	1-DH5	2480	Ant	No-Hopping	2487.304	-46.79	2.7	-	51.17	Peak	74	Pass
NVNT	1-DH5	2480	Ant	No-Hopping	2483.92	-57.25	2.7	1.1	41.81	Average	54	Pass
NVNT	1-DH5	2480	Ant	No-Hopping	2500	-49.18	2.7	-	48.78	Peak	74	Pass
NVNT	1-DH5	2480	Ant	No-Hopping	2500	-58.59	2.7	1.1	40.47	Average	54	Pass
NVNT	2-DH5	2402	Ant	No-Hopping	2310	-50.72	2.7	-	47.24	Peak	74	Pass
NVNT	2-DH5	2402	Ant	No-Hopping	2310	-59.08	2.7	1.12	40.00	Average	54	Pass
NVNT	2-DH5	2402	Ant	No-Hopping	2316.624	-47.26	2.7	-	50.70	Peak	74	Pass
NVNT	2-DH5	2402	Ant	No-Hopping	2354.16	-57.92	2.7	1.12	41.16	Average	54	Pass
NVNT	2-DH5	2402	Ant	No-Hopping	2390	-51.96	2.7	-	46.00	Peak	74	Pass
NVNT	2-DH5	2402	Ant	No-Hopping	2390	-58.55	2.7	1.12	40.53	Average	54	Pass
NVNT	2-DH5	2480	Ant	No-Hopping	2483.5	-48.68	2.7	-	49.28	Peak	74	Pass
NVNT	2-DH5	2480	Ant	No-Hopping	2483.5	-57.9	2.7	1.12	41.18	Average	54	Pass
NVNT	2-DH5	2480	Ant	No-Hopping	2485.264	-46.21	2.7	-	51.75	Peak	74	Pass
NVNT	2-DH5	2480	Ant	No-Hopping	2484.832	-57.25	2.7	1.12	41.83	Average	54	Pass
NVNT	2-DH5	2480	Ant	No-Hopping	2500	-49.82	2.7	-	48.14	Peak	74	Pass
NVNT	2-DH5	2480	Ant	No-Hopping	2500	-58.49	2.7	1.12	40.59	Average	54	Pass
NVNT	3-DH5	2402	Ant	No-Hopping	2310	-49.69	2.7	-	48.27	Peak	74	Pass
NVNT	3-DH5	2402	Ant	No-Hopping	2310	-59.34	2.7	1.12	39.74	Average	54	Pass
NVNT	3-DH5	2402	Ant	No-Hopping	2358.096	-47.83	2.7	-	50.13	Peak	74	Pass
NVNT	3-DH5	2402	Ant	No-Hopping	2336.496	-57.95	2.7	1.12	41.13	Average	54	Pass
NVNT	3-DH5	2402	Ant	No-Hopping	2390	-50.65	2.7	-	47.31	Peak	74	Pass
NVNT	3-DH5	2402	Ant	No-Hopping	2390	-58.12	2.7	1.12	40.96	Average	54	Pass
NVNT	3-DH5	2480	Ant	No-Hopping	2483.5	-48.62	2.7	-	49.34	Peak	74	Pass
NVNT	3-DH5	2480	Ant	No-Hopping	2483.5	-57.36	2.7	1.12	41.72	Average	54	Pass
NVNT	3-DH5	2480	Ant	No-Hopping	2491.504	-47	2.7	-	50.96	Peak	74	Pass
NVNT	3-DH5	2480	Ant	No-Hopping	2483.56	-57.2	2.7	1.12	41.88	Average	54	Pass
NVNT	3-DH5	2480	Ant	No-Hopping	2500	-49.93	2.7	-	48.03	Peak	74	Pass
NVNT	3-DH5	2480	Ant	No-Hopping	2500	-58.52	2.7	1.12	40.56	Average	54	Pass

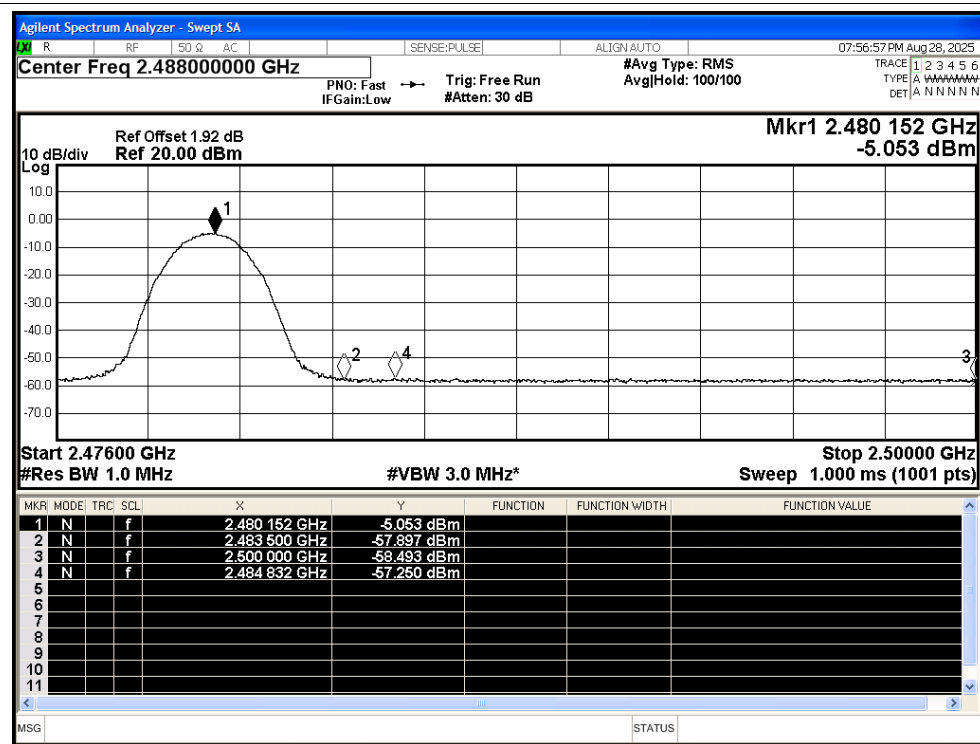


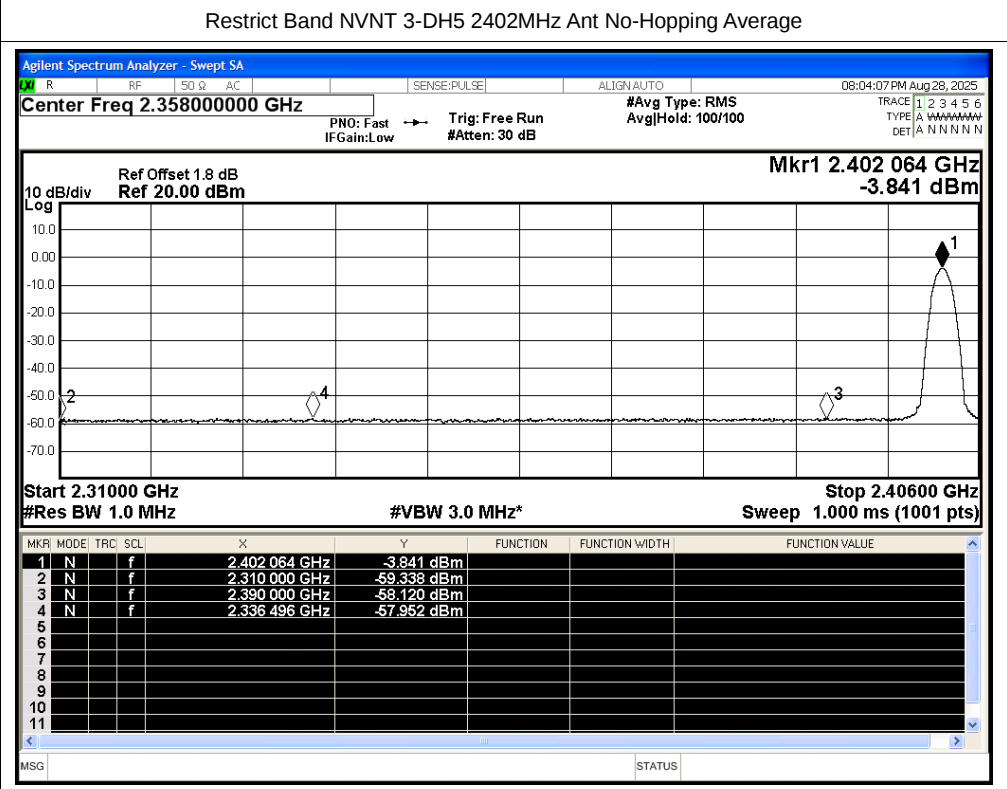
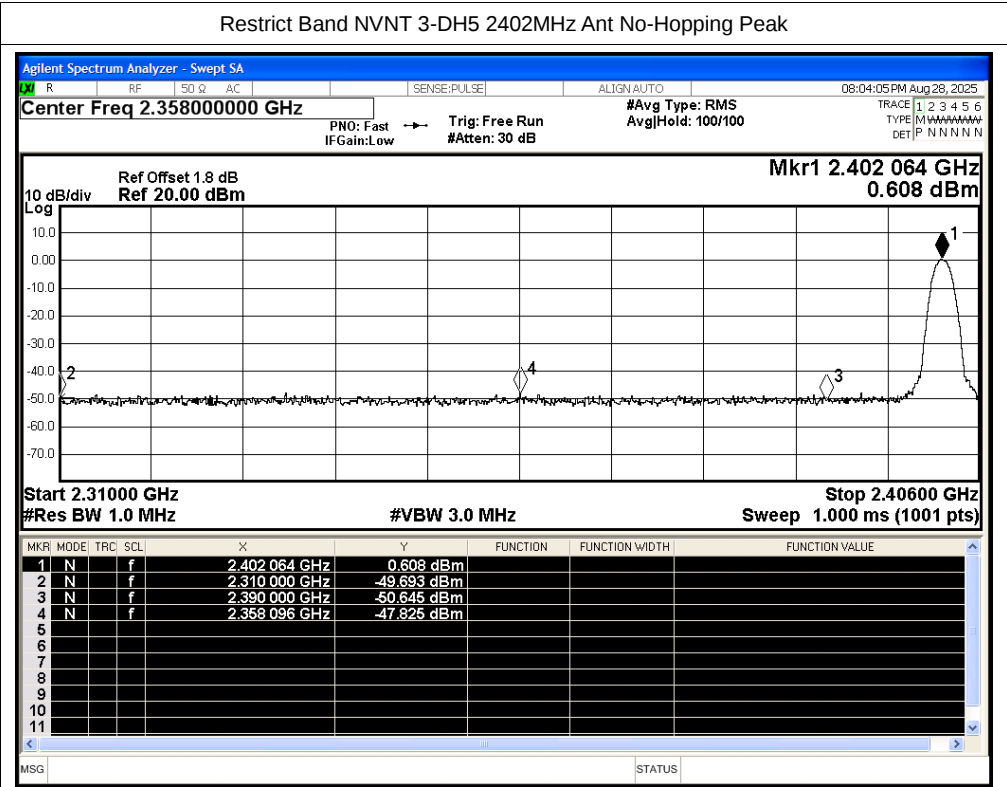


Restrict Band NVNT 2-DH5 2480MHz Ant No-Hopping Peak

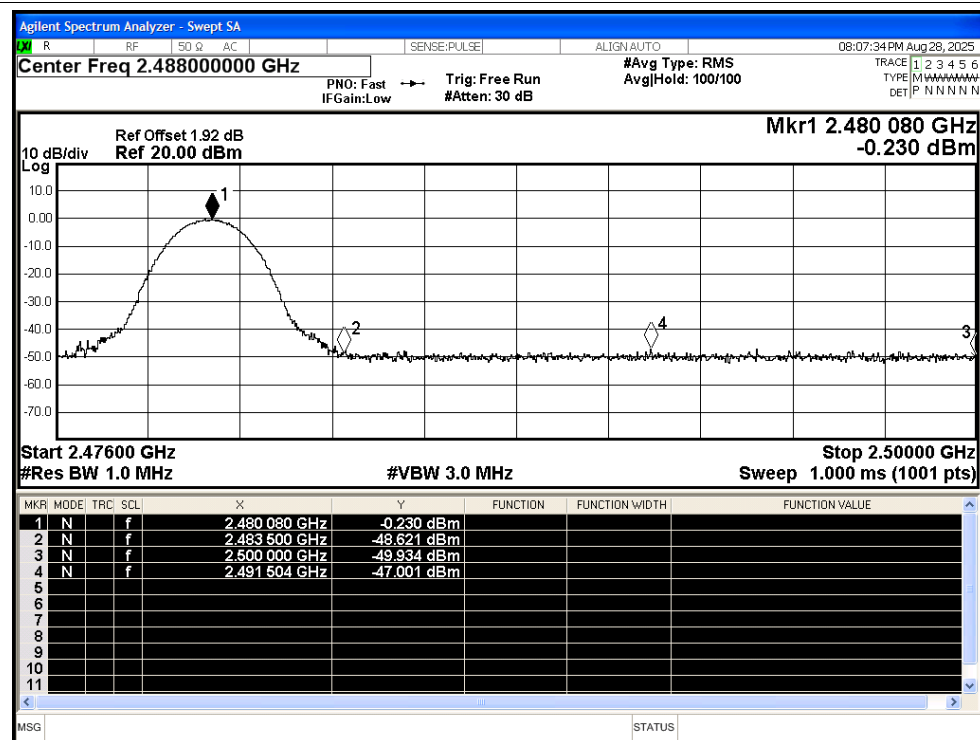


Restrict Band NVNT 2-DH5 2480MHz Ant No-Hopping Average





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



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

