

Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: Sunrise Alarm Clock N15

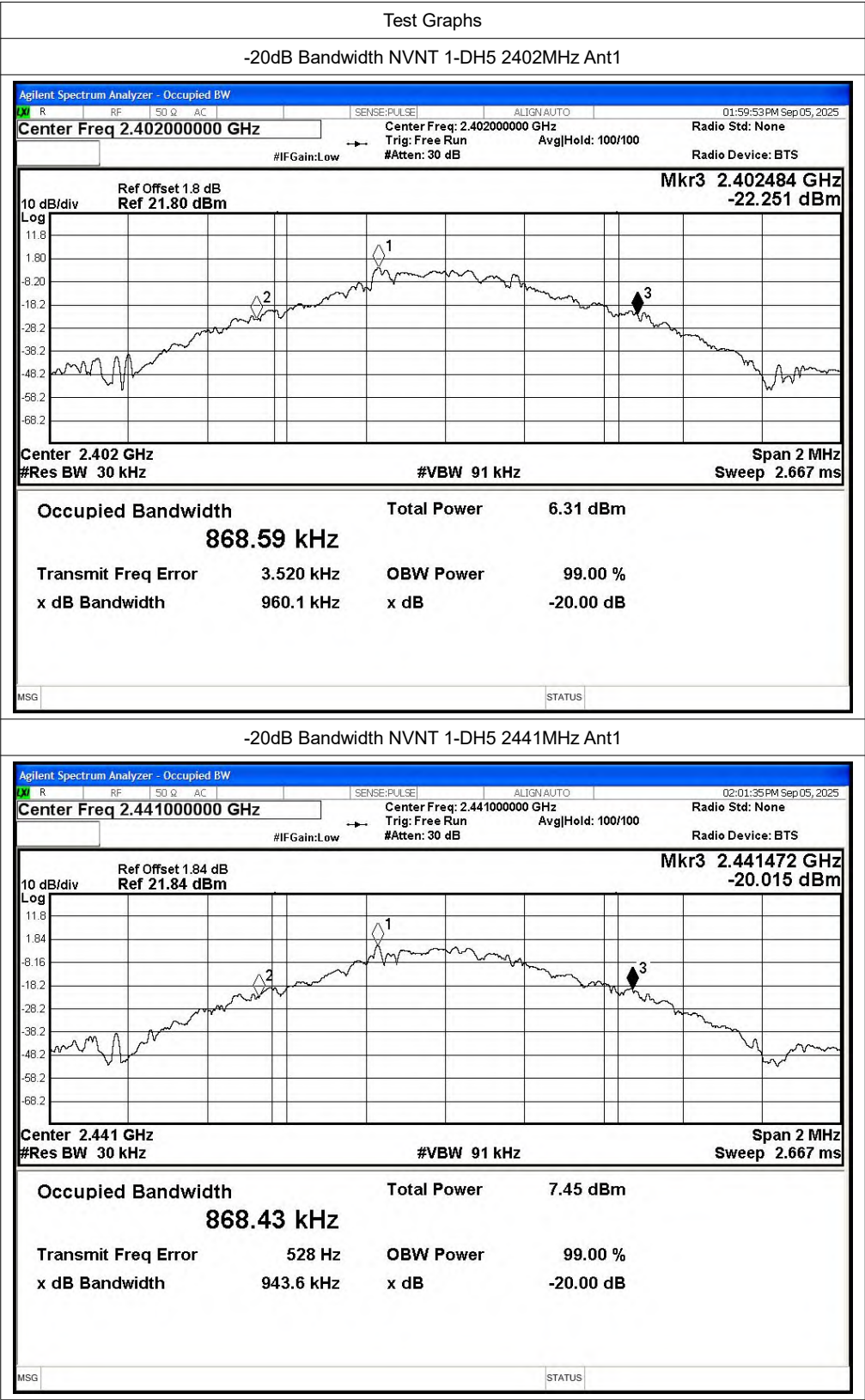
Test Model: N15

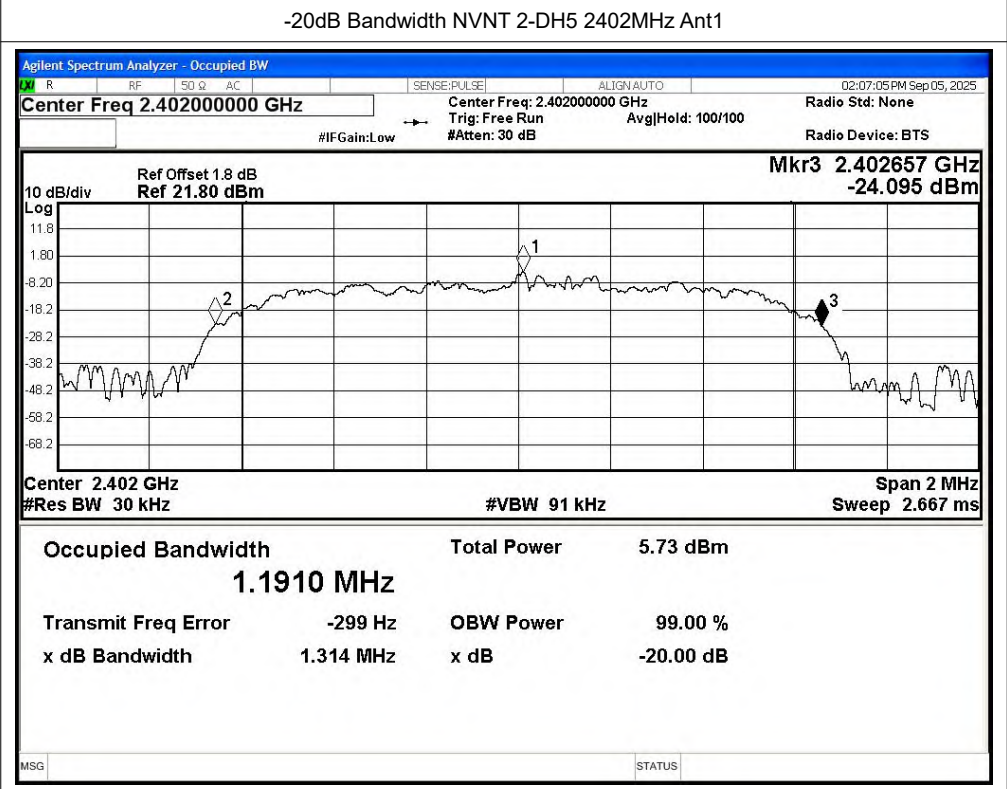
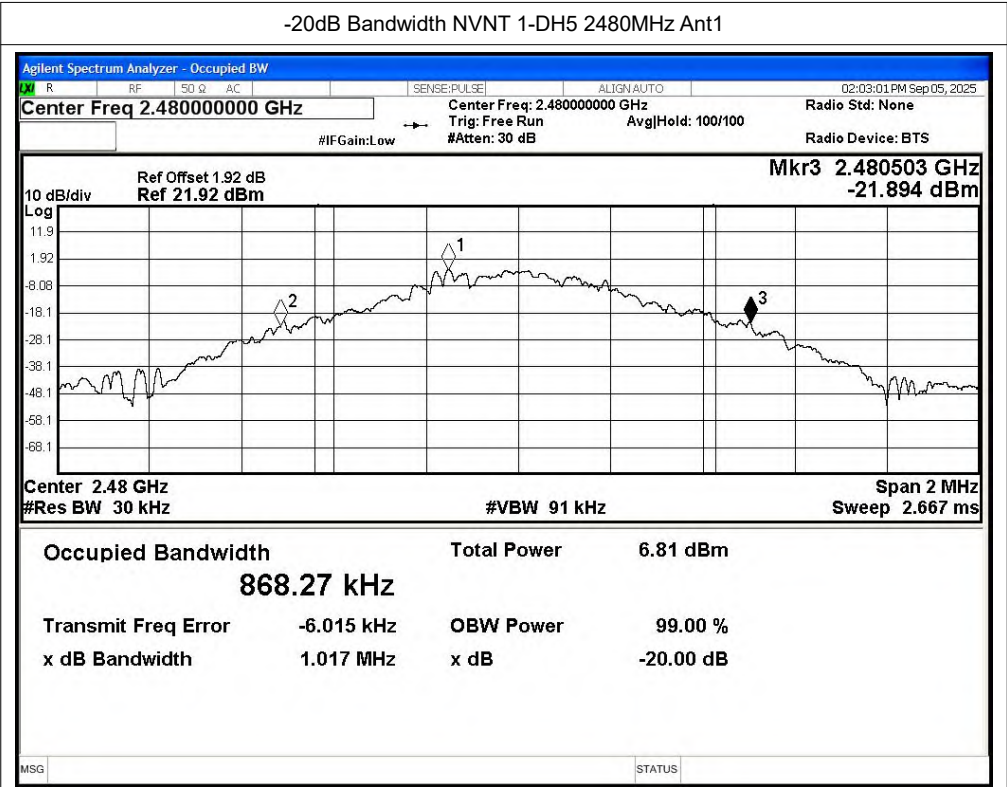
Environmental Conditions

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	0.96	N/A	Pass
NVNT	1-DH5	2441	Ant1	0.944	N/A	Pass
NVNT	1-DH5	2480	Ant1	1.017	N/A	Pass
NVNT	2-DH5	2402	Ant1	1.314	N/A	Pass
NVNT	2-DH5	2441	Ant1	1.281	N/A	Pass
NVNT	2-DH5	2480	Ant1	1.284	N/A	Pass
NVNT	3-DH5	2402	Ant1	1.292	N/A	Pass
NVNT	3-DH5	2441	Ant1	1.289	N/A	Pass
NVNT	3-DH5	2480	Ant1	1.296	N/A	Pass

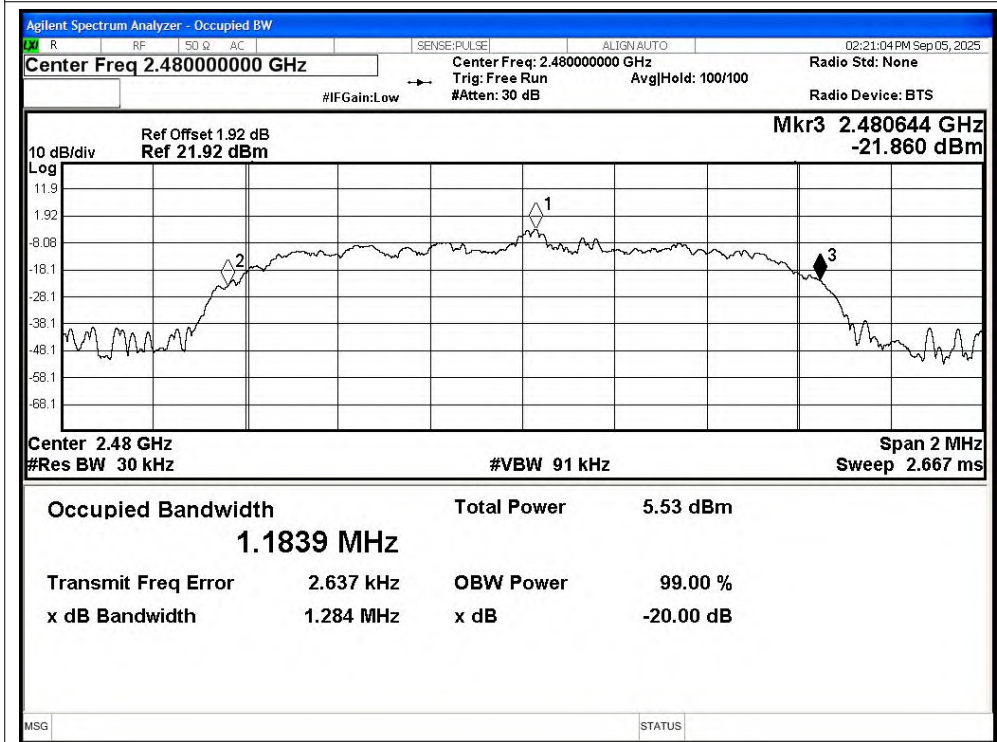




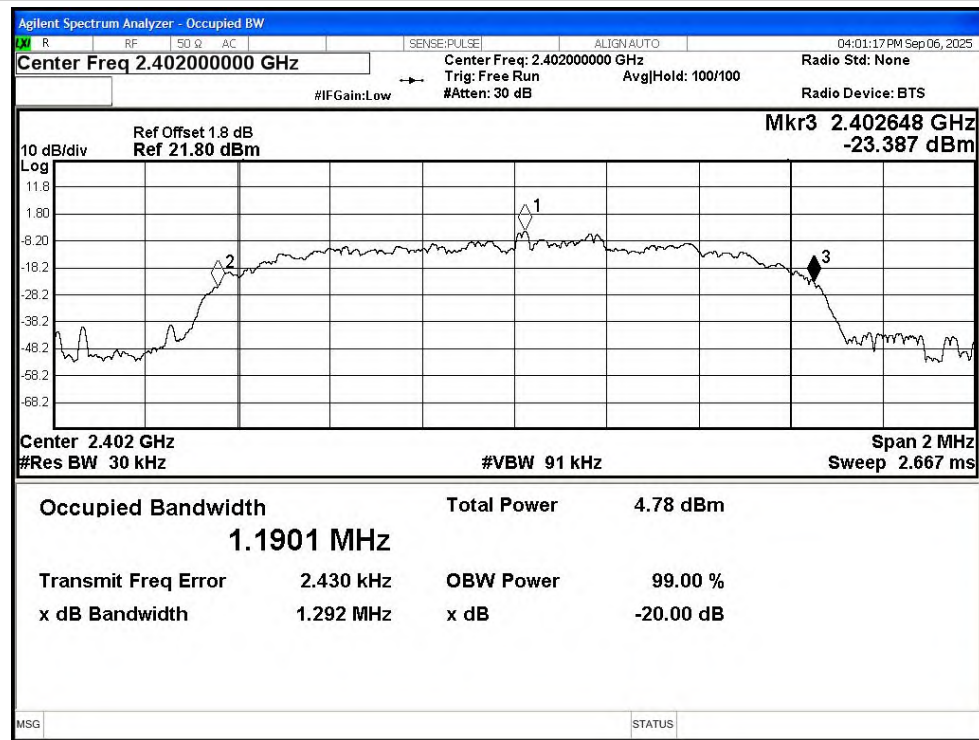
-20dB Bandwidth NVNT 2-DH5 2441MHz Ant1



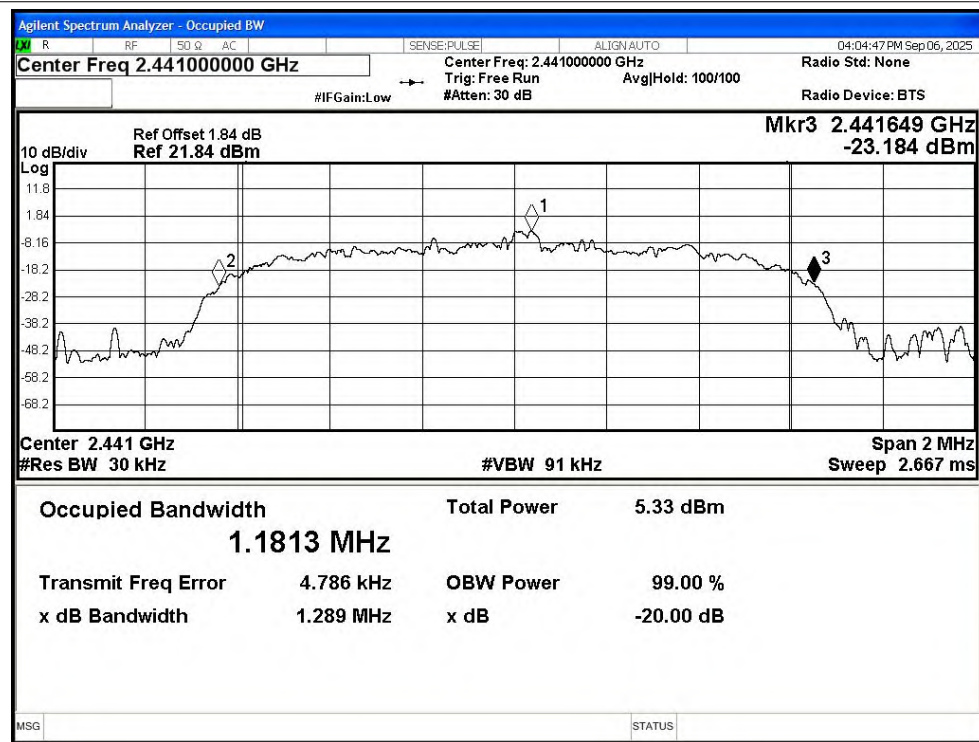
-20dB Bandwidth NVNT 2-DH5 2480MHz Ant1

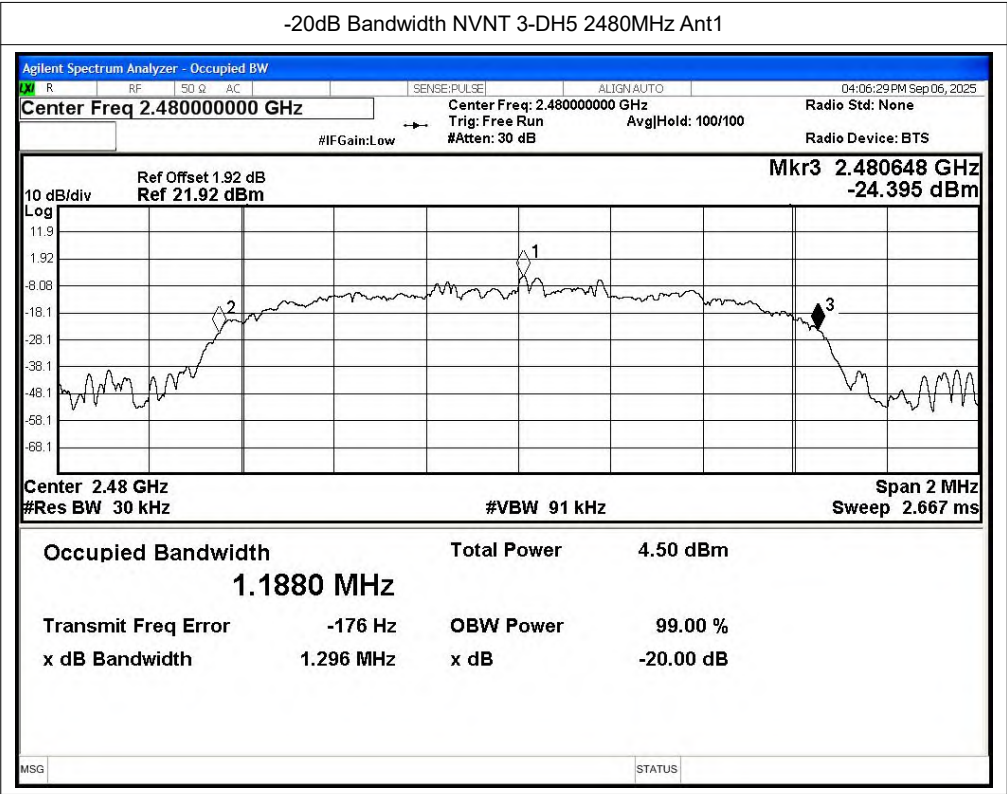


-20dB Bandwidth NVNT 3-DH5 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH5 2441MHz Ant1



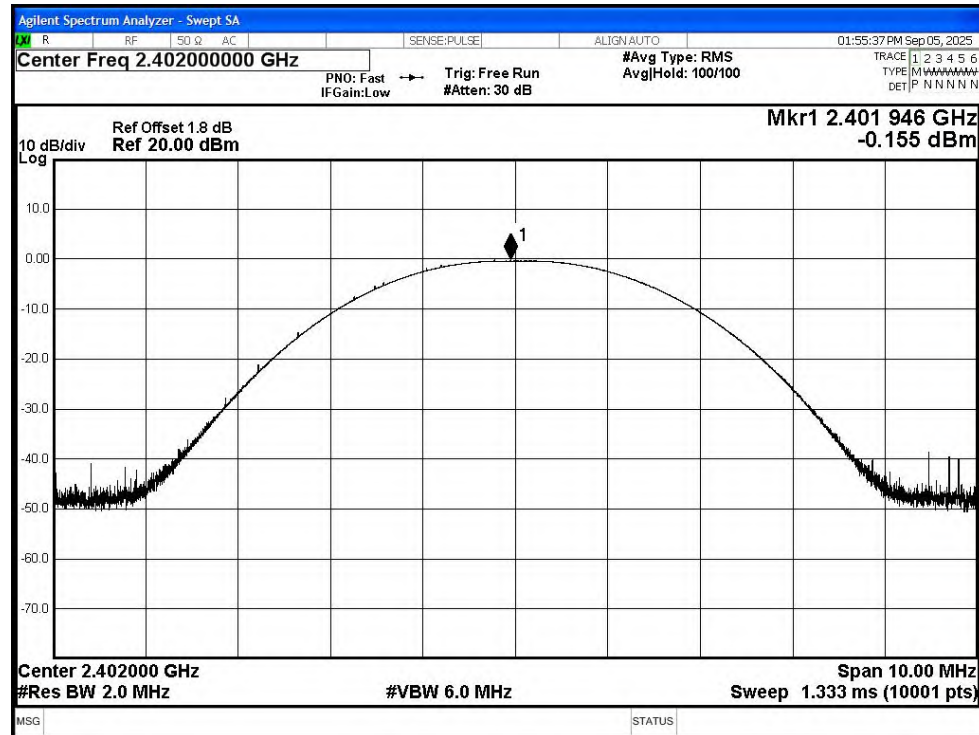


A.2 Maximum Peak Conducted Output Power

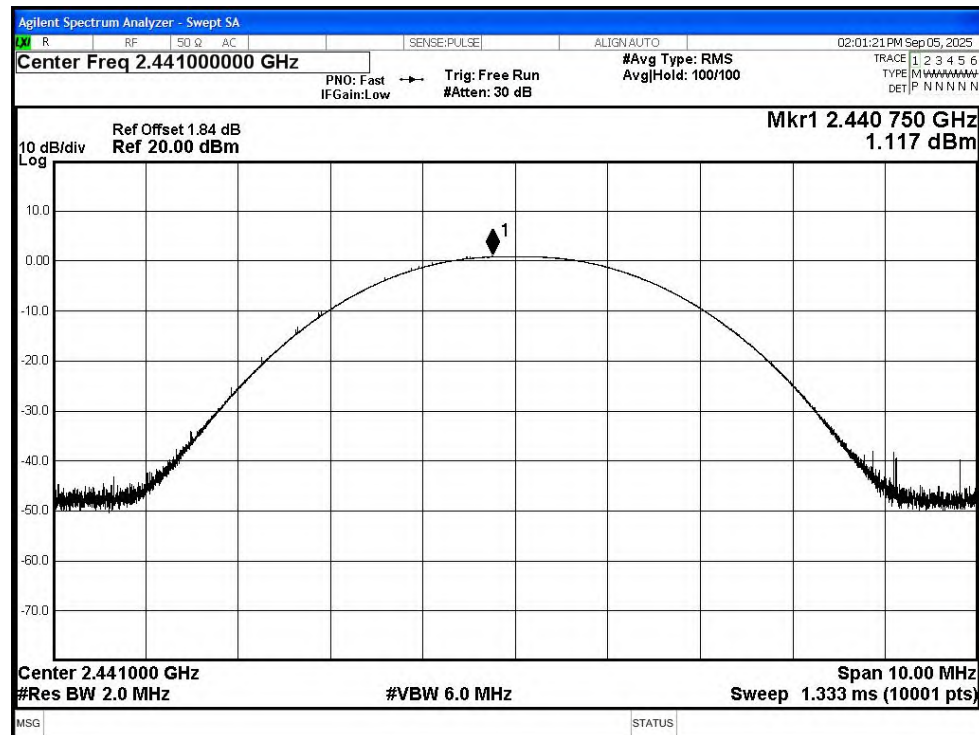
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH5	2402	Ant1	-0.16	21	Pass
NVNT	1-DH5	2441	Ant1	1.12	21	Pass
NVNT	1-DH5	2480	Ant1	0.74	21	Pass
NVNT	2-DH5	2402	Ant1	1.39	21	Pass
NVNT	2-DH5	2441	Ant1	1.39	21	Pass
NVNT	2-DH5	2480	Ant1	0.78	21	Pass
NVNT	3-DH5	2402	Ant1	0.96	21	Pass
NVNT	3-DH5	2441	Ant1	1.1	21	Pass
NVNT	3-DH5	2480	Ant1	0.04	21	Pass

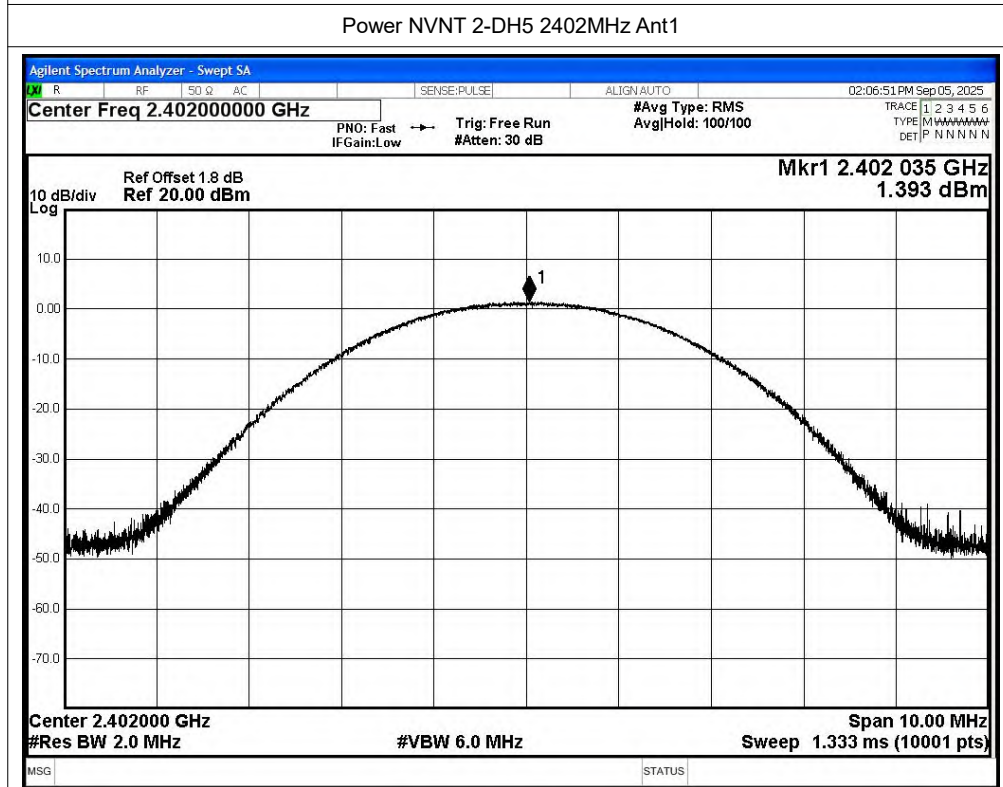
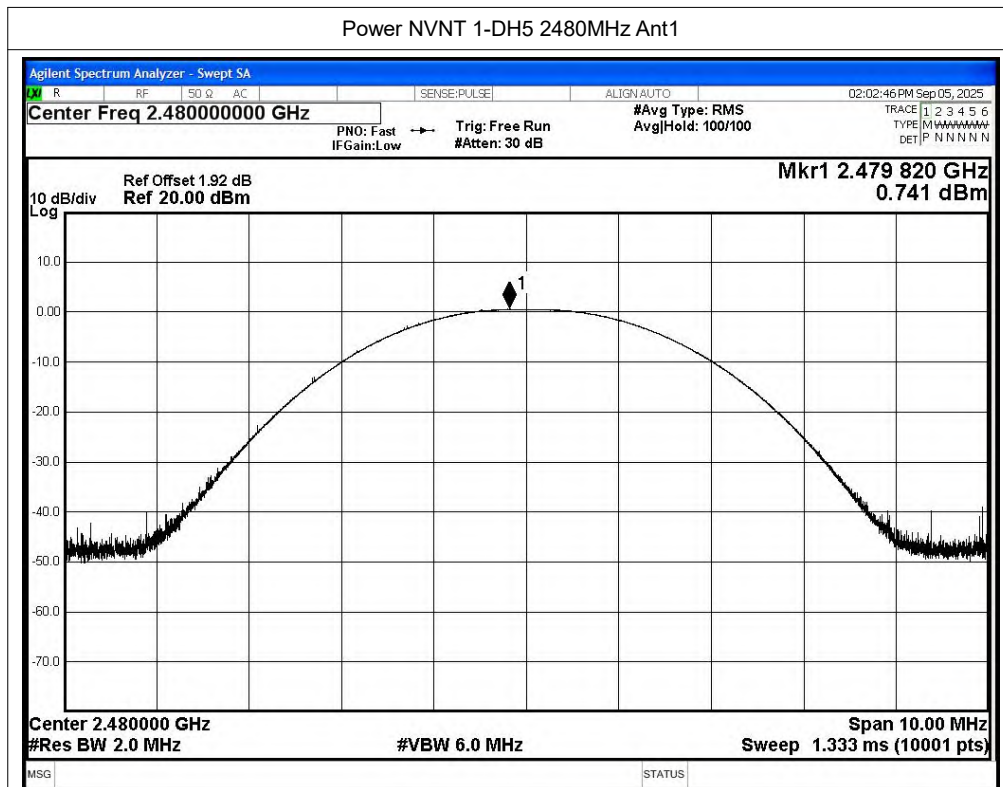
Test Graphs

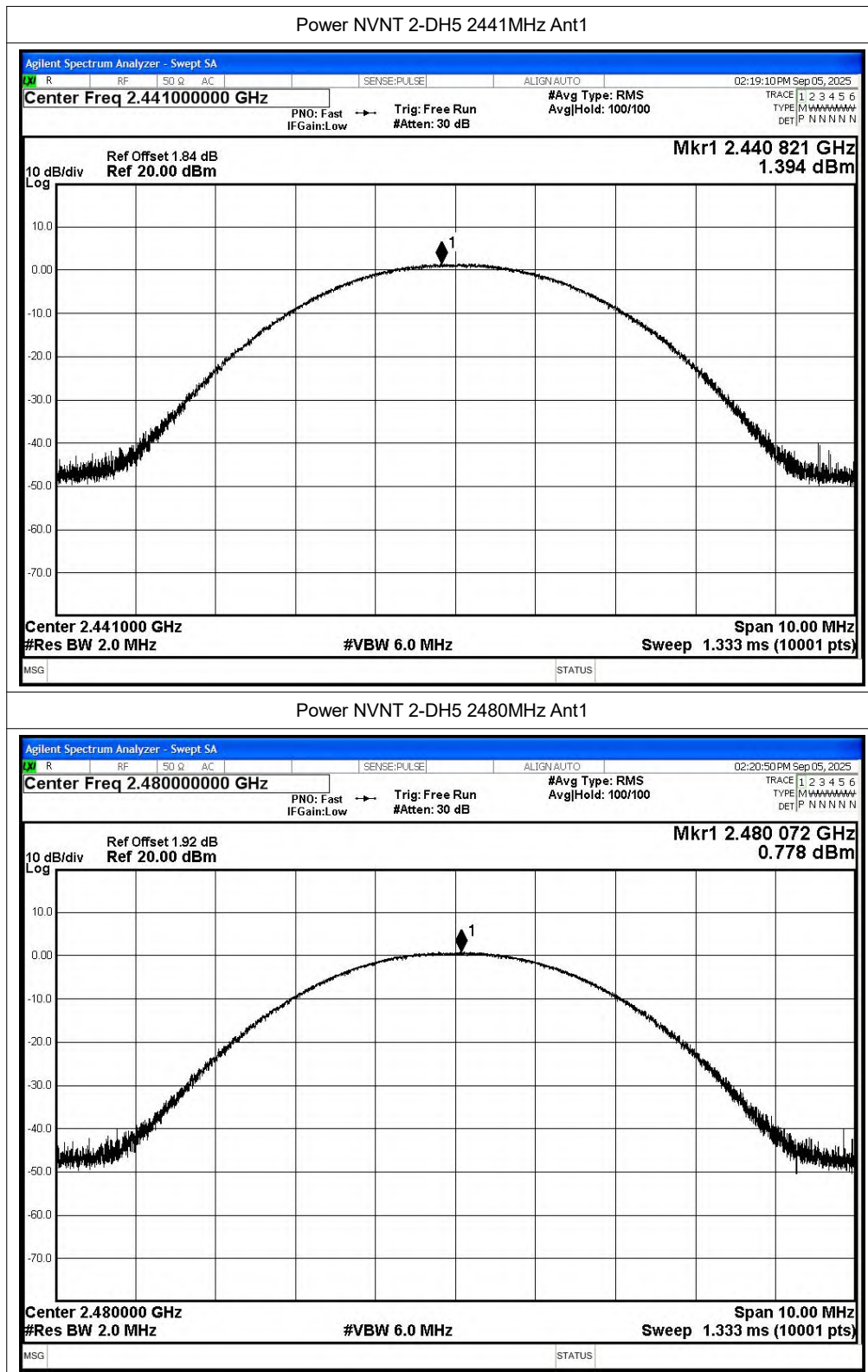
Power NVNT 1-DH5 2402MHz Ant1

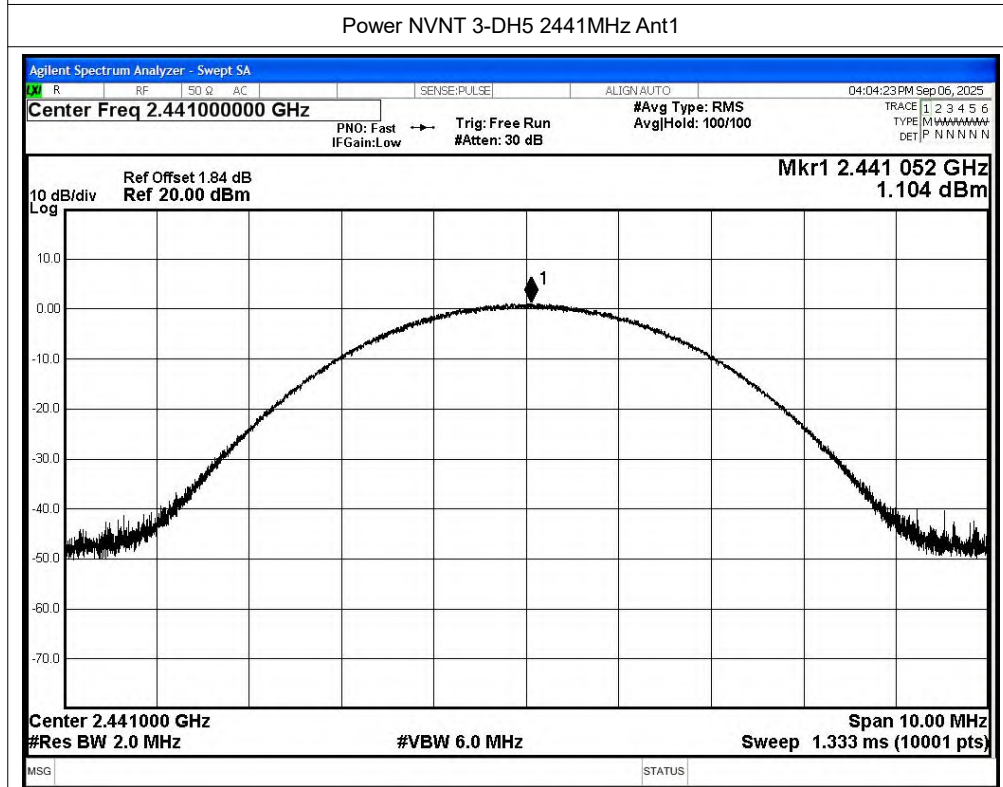
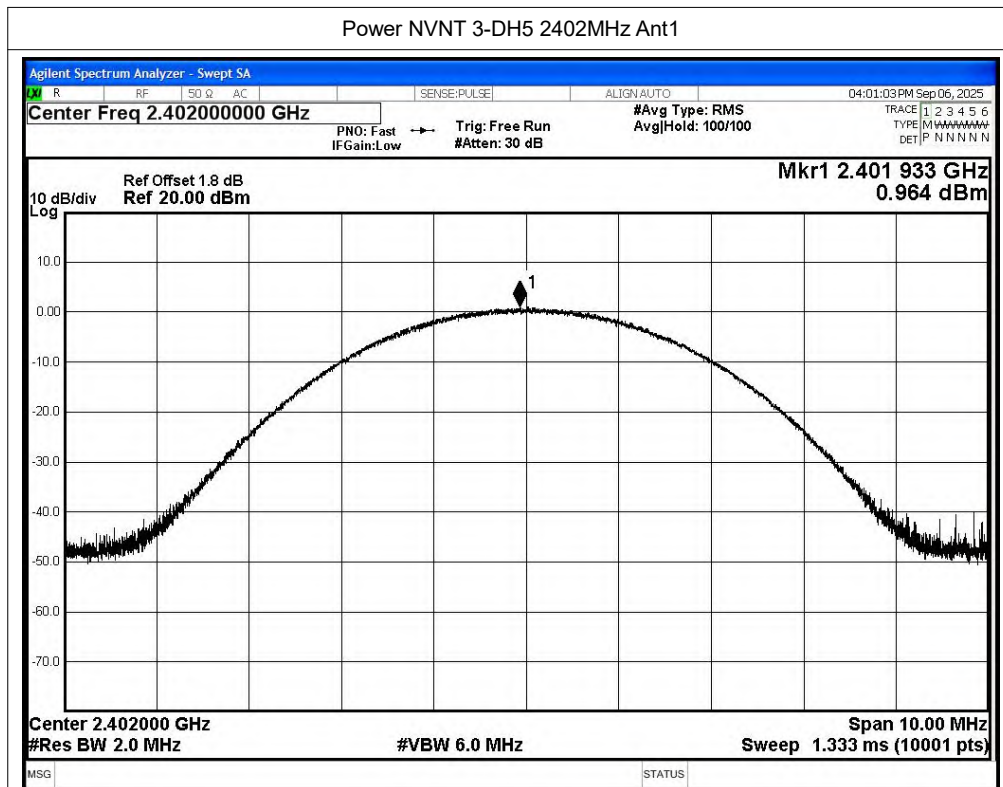


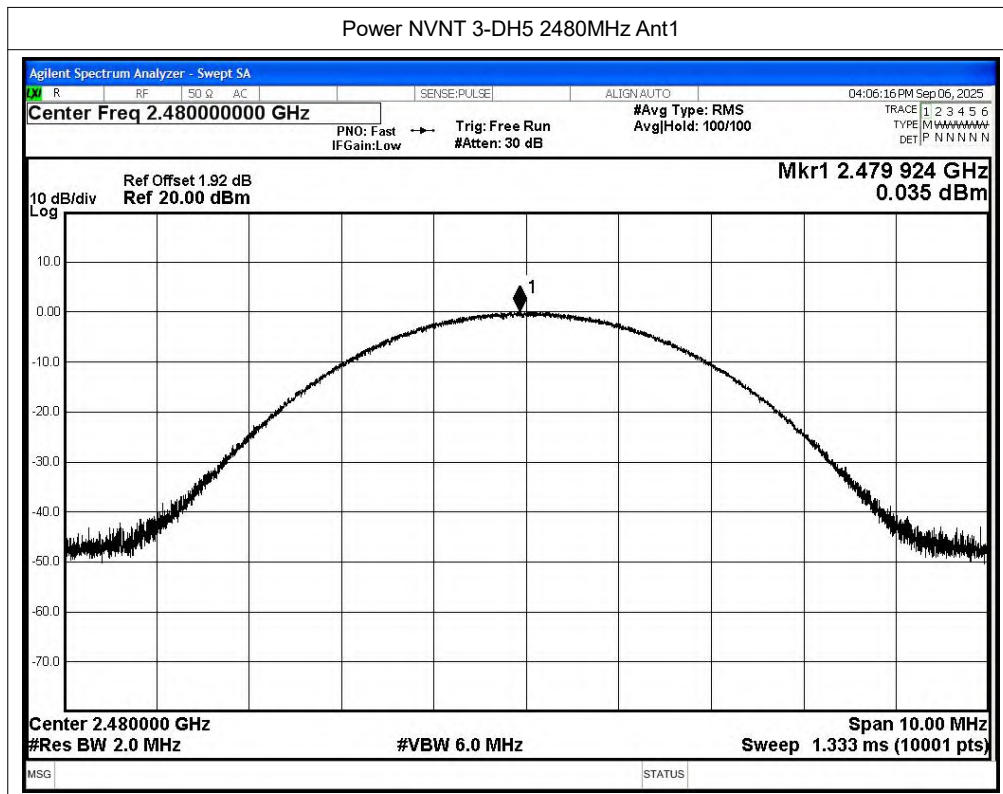
Power NVNT 1-DH5 2441MHz Ant1









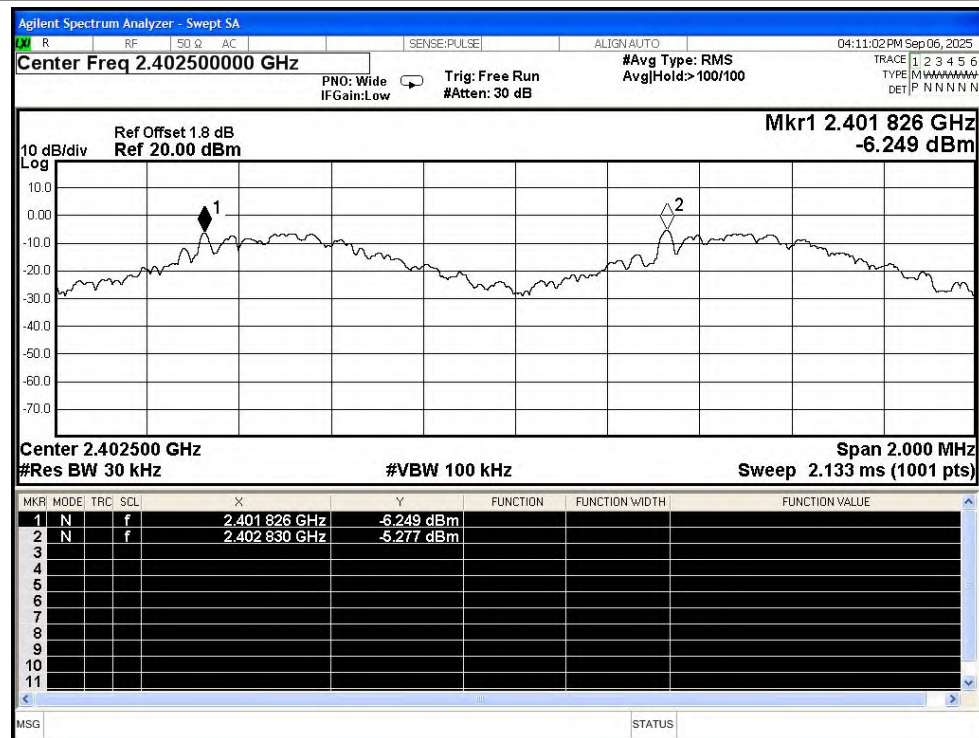


A.3 Carrier Frequencies Separation

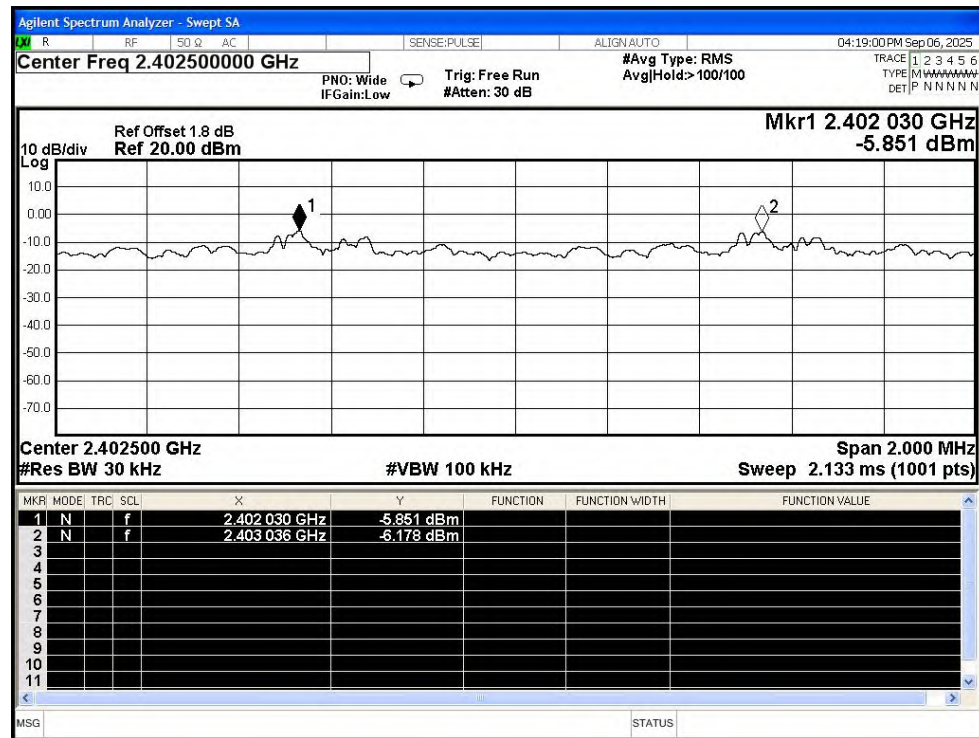
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH5	Ant1	2401.826	2402.83	1.004	0.678	Pass
NVNT	2-DH5	Ant1	2402.03	2403.036	1.006	0.876	Pass
NVNT	3-DH5	Ant1	2402.012	2403.02	1.008	0.864	Pass

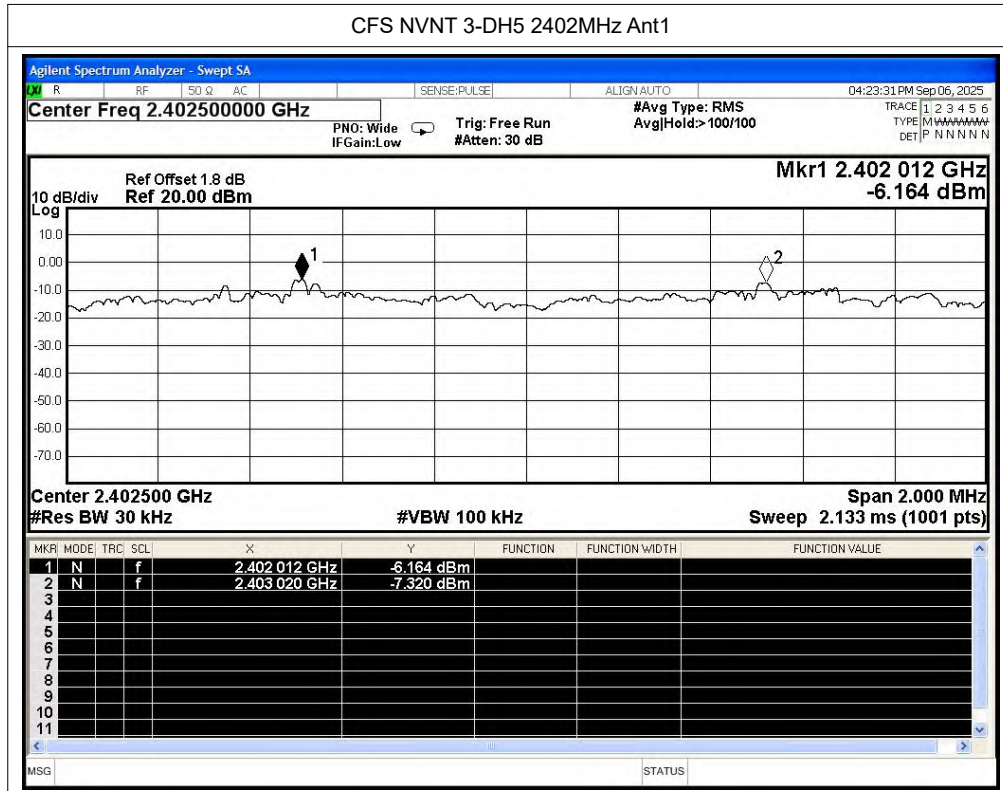
Test Graphs

CFS NVNT 1-DH5 2402MHz Ant1



CFS NVNT 2-DH5 2402MHz Ant1



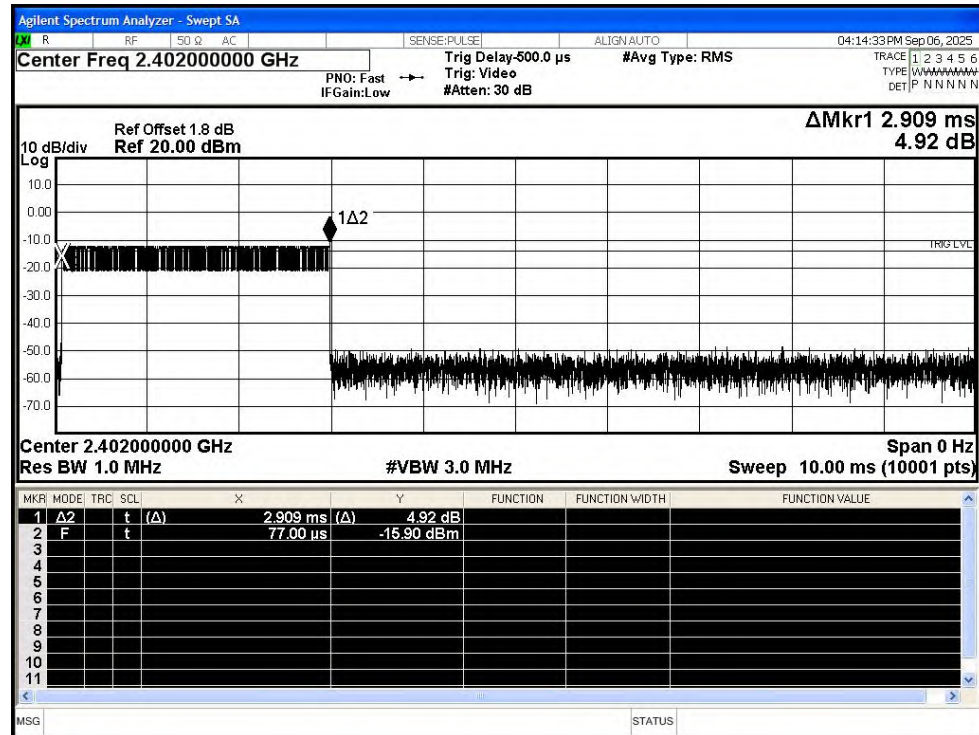


A.4 Dwell Time

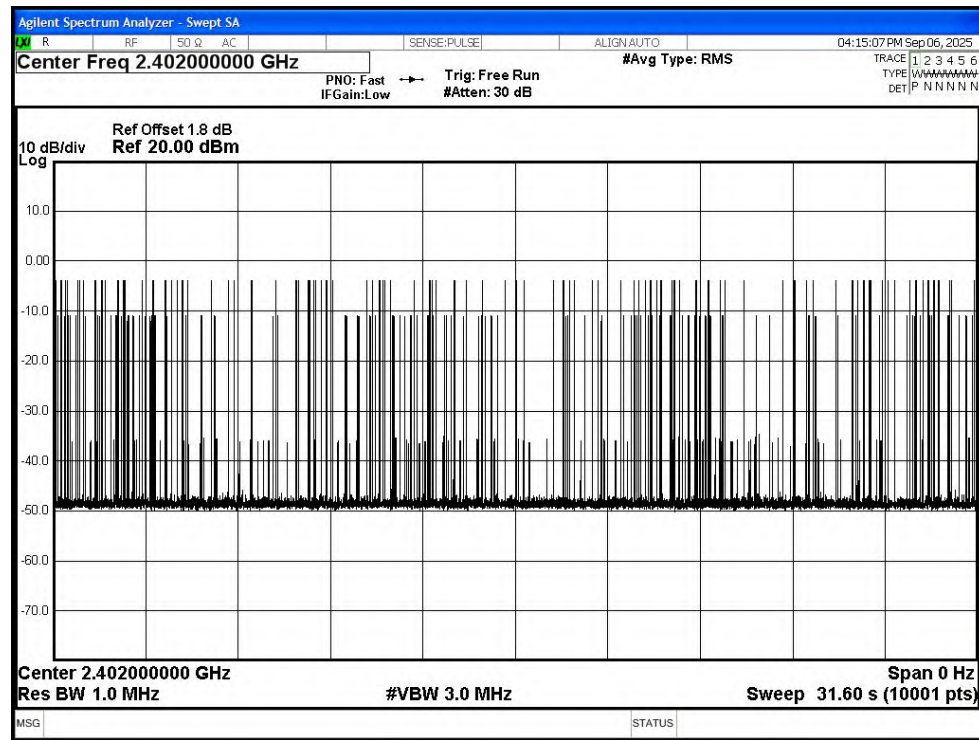
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH5	2402	Ant1	2.909	305.445	105	31600	400	Pass
NVNT	2-DH5	2402	Ant1	2.898	295.596	102	31600	400	Pass
NVNT	3-DH5	2402	Ant1	2.897	269.421	93	31600	400	Pass

Test Graphs

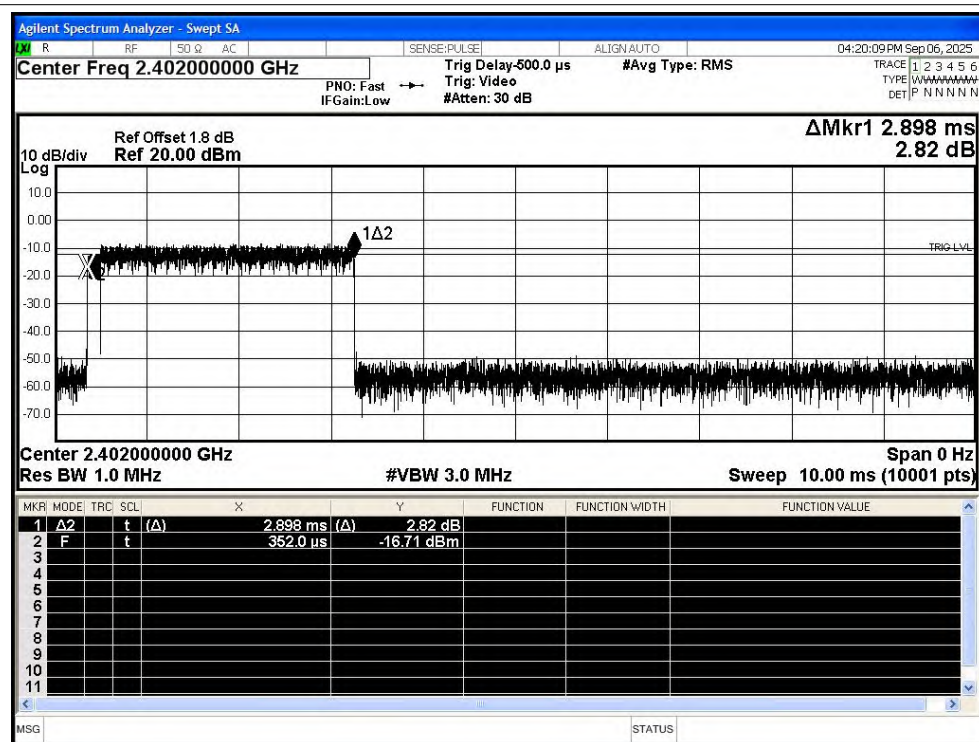
Dwell NVNT 1-DH5 2402MHz Ant1 One Burst



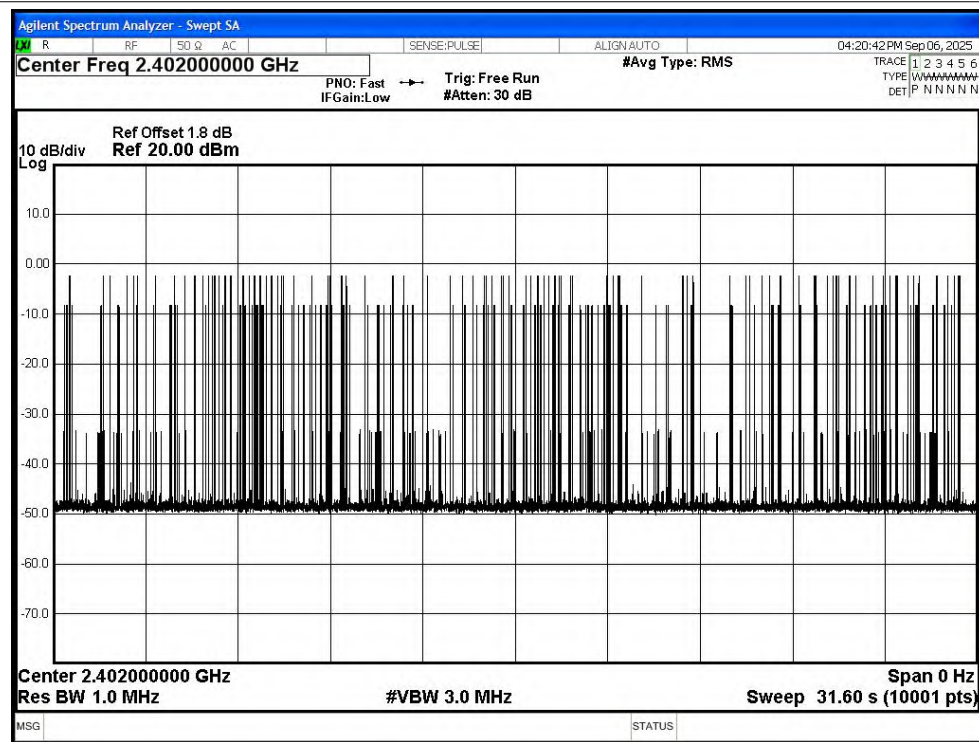
Dwell NVNT 1-DH5 2402MHz Ant1 Accumulated



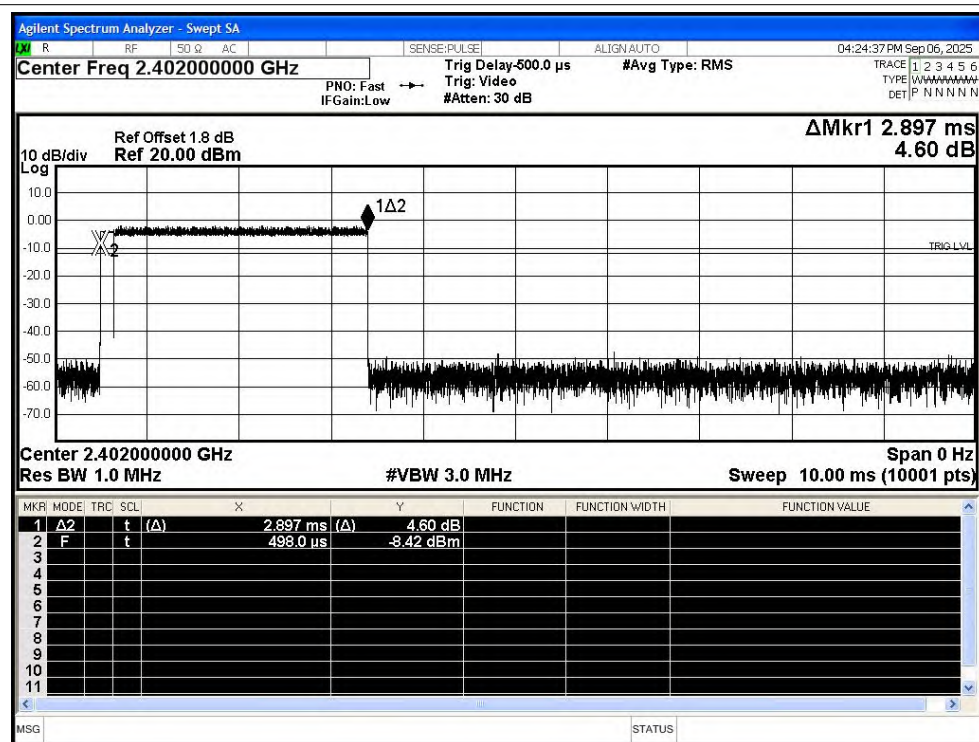
Dwell NVNT 2-DH5 2402MHz Ant1 One Burst



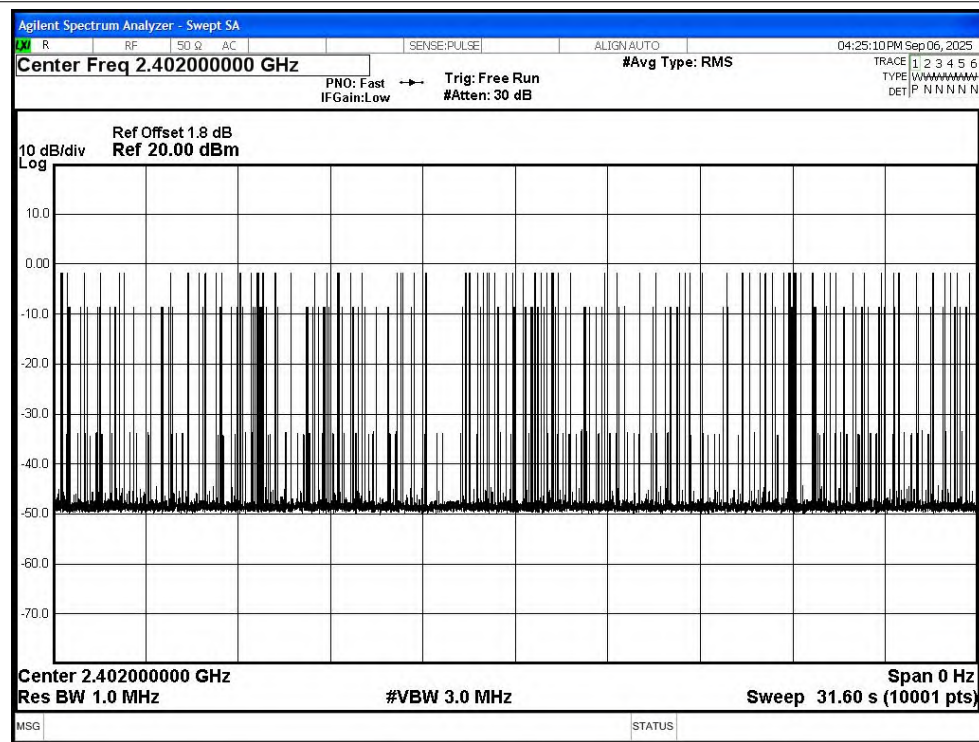
Dwell NVNT 2-DH5 2402MHz Ant1 Accumulated



Dwell NVNT 3-DH5 2402MHz Ant1 One Burst



Dwell NVNT 3-DH5 2402MHz Ant1 Accumulated

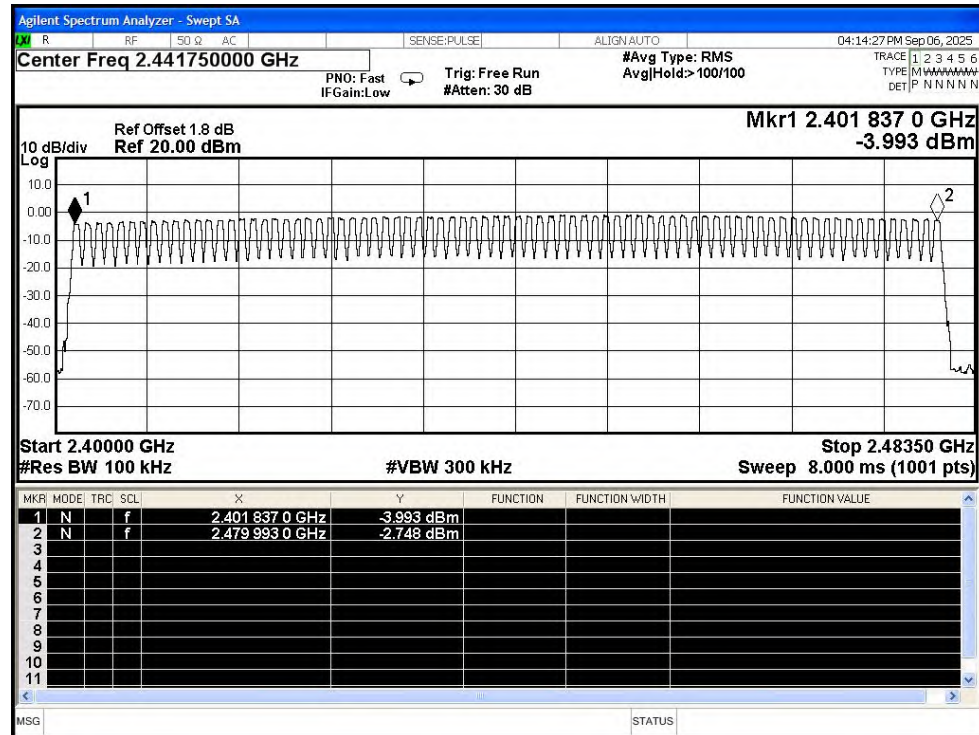


A.5 Number of Hopping Channel

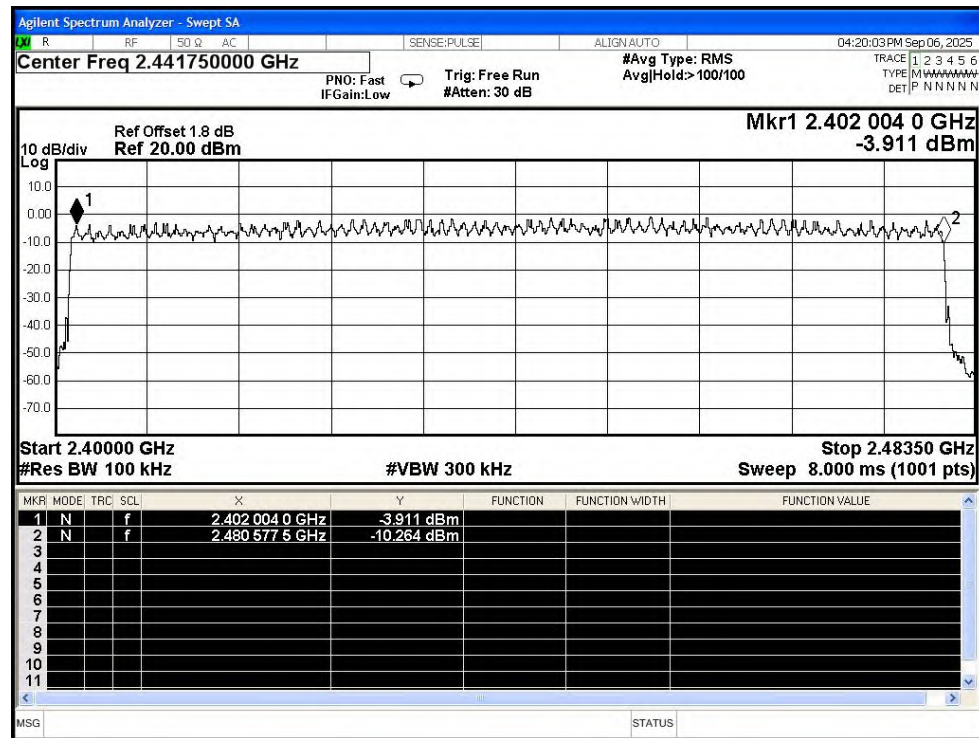
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH5	Ant1	79	15	Pass
NVNT	2-DH5	Ant1	79	15	Pass
NVNT	3-DH5	Ant1	79	15	Pass

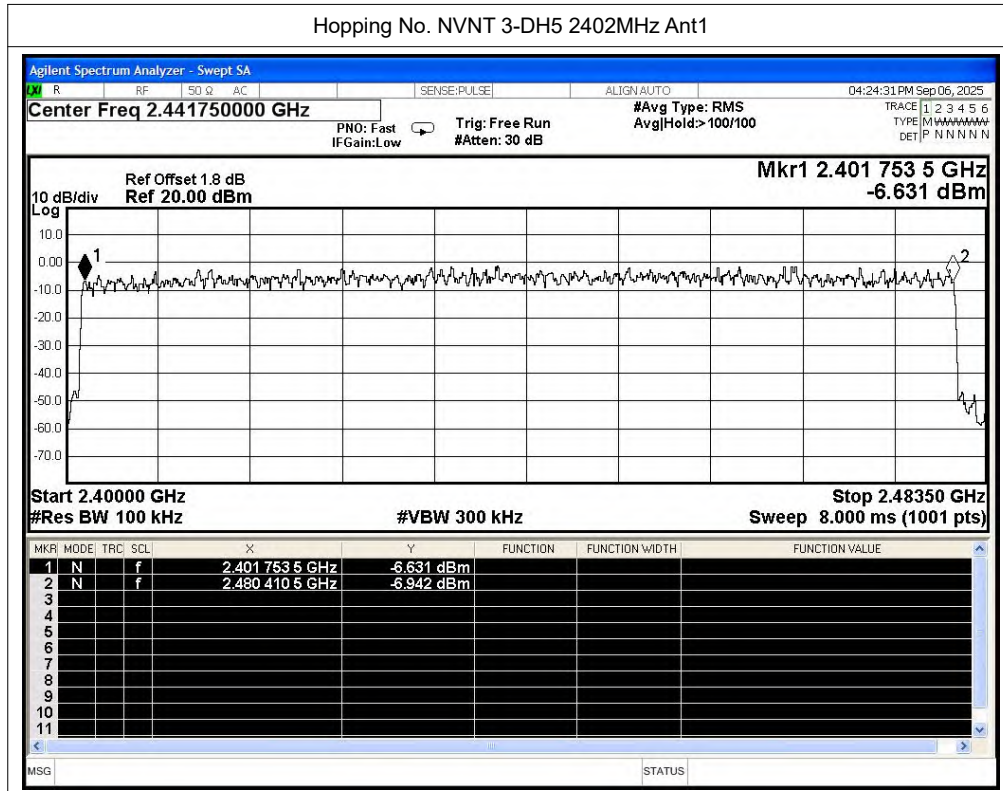
Test Graphs

Hopping No. NVNT 1-DH5 2402MHz Ant1



Hopping No. NVNT 2-DH5 2402MHz Ant1



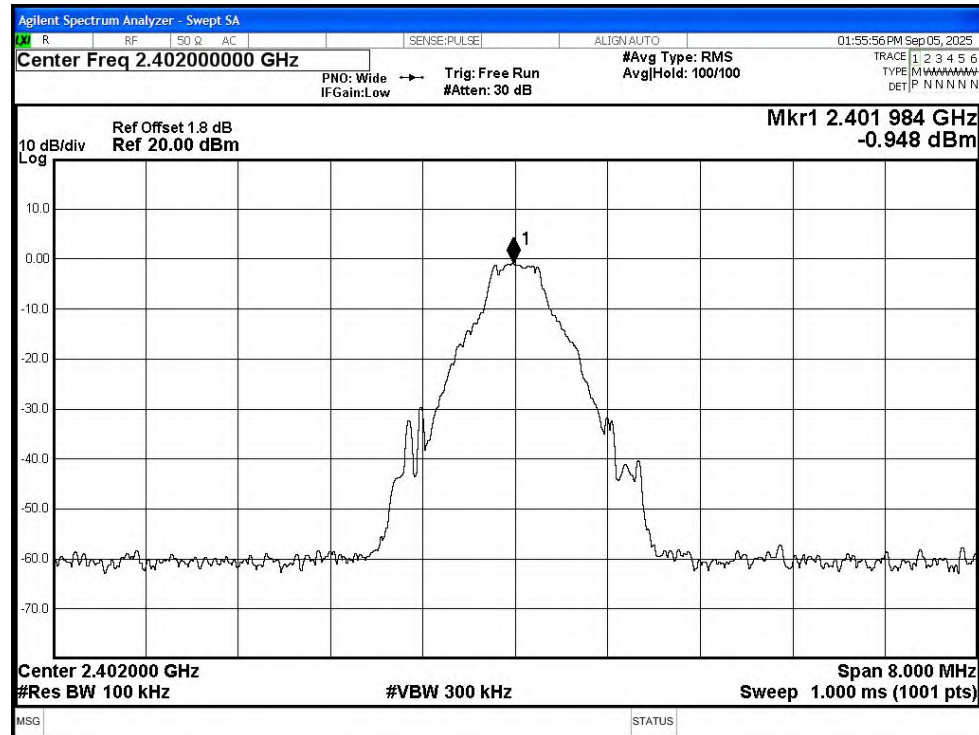


A.6 Band Edge

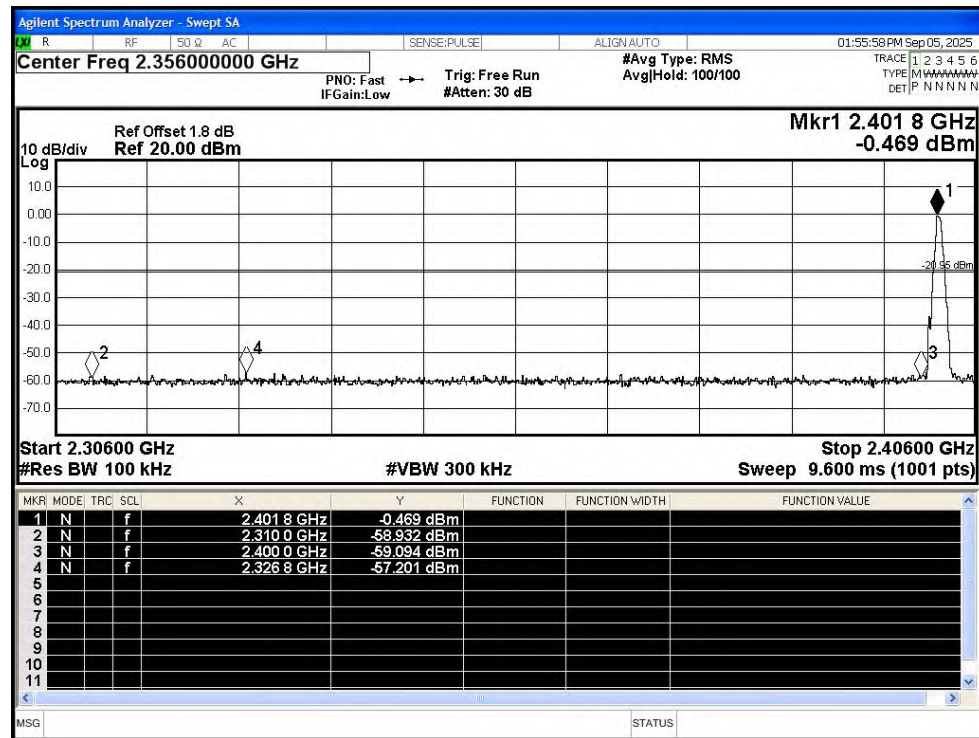
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	-56.25	-20	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	-57.35	-20	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	-53.43	-20	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	-54.58	-20	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	-52.02	-20	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	-53.99	-20	Pass

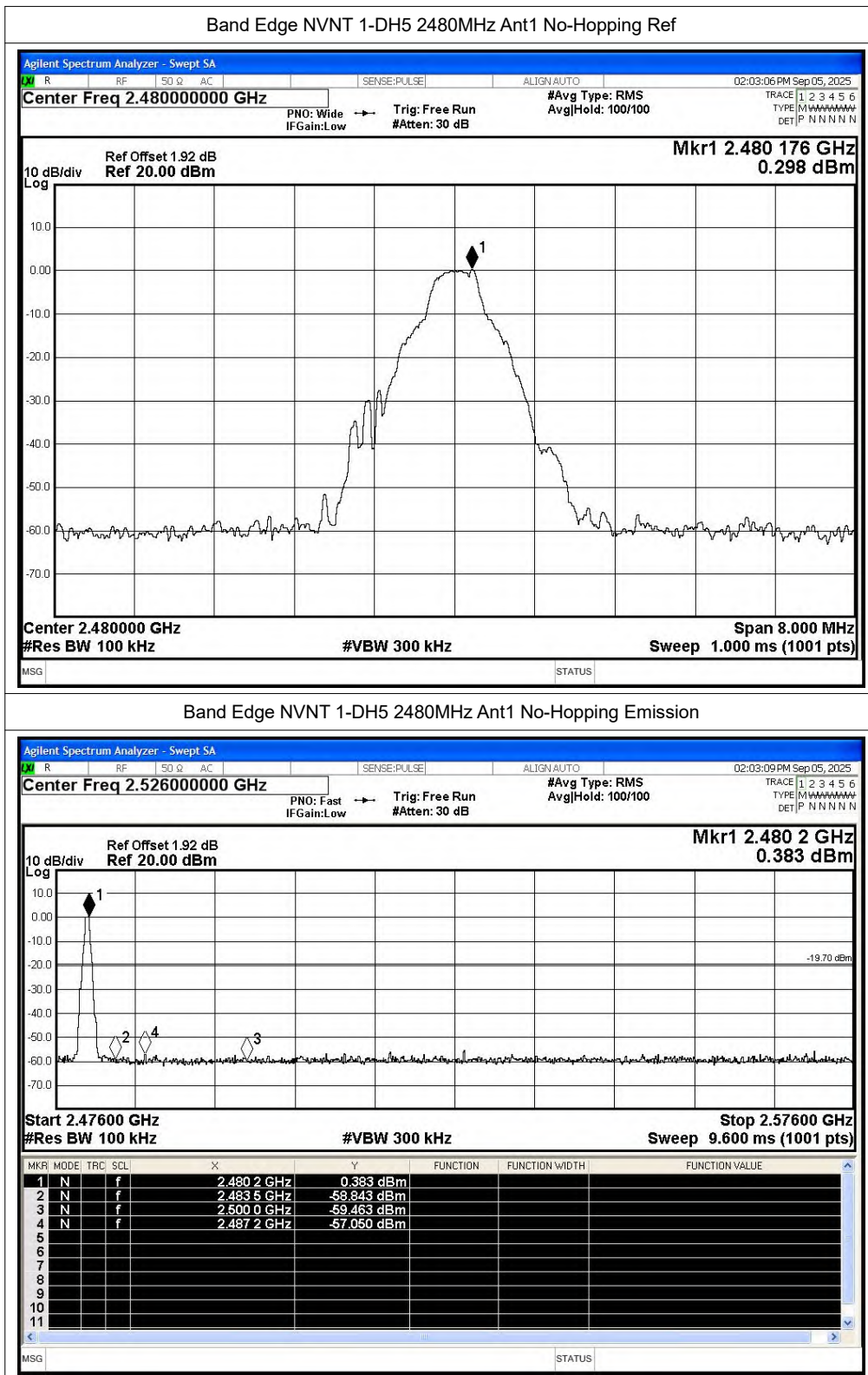
Test Graphs

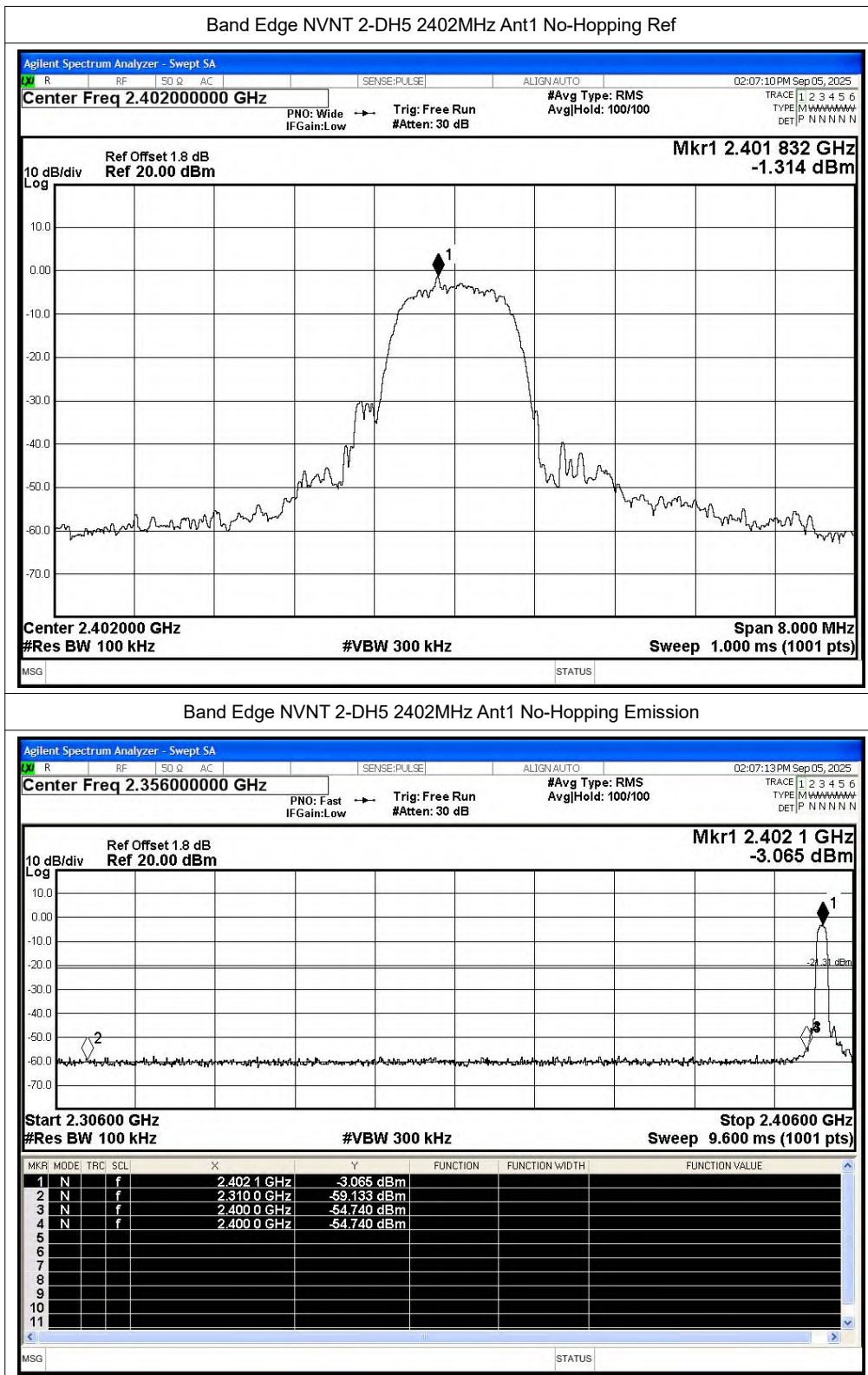
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Ref



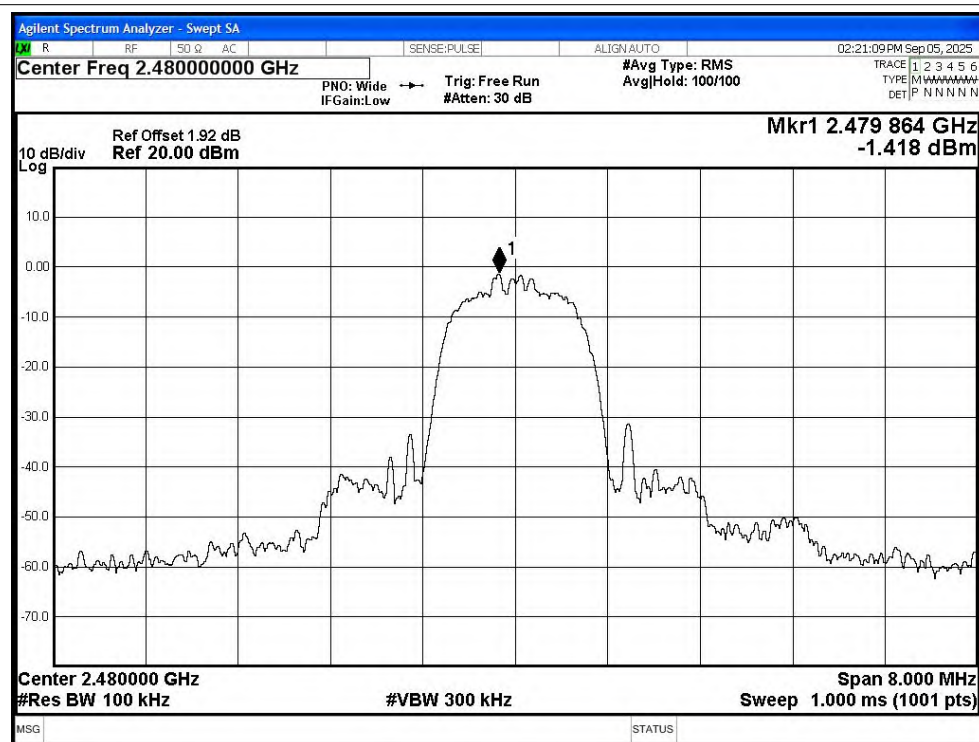
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Emission



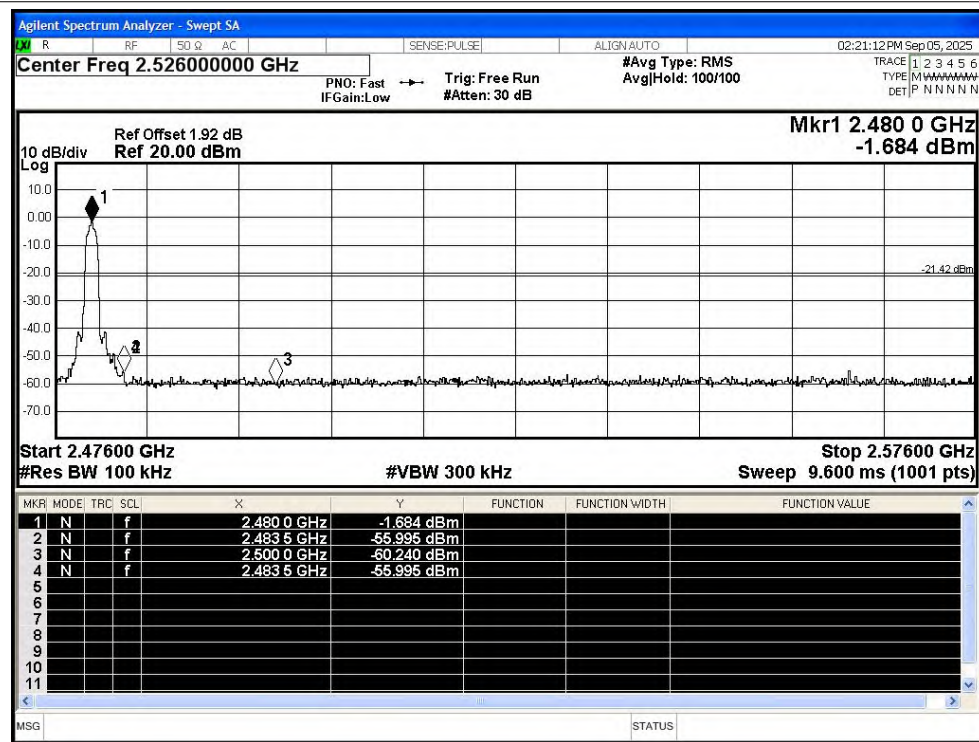


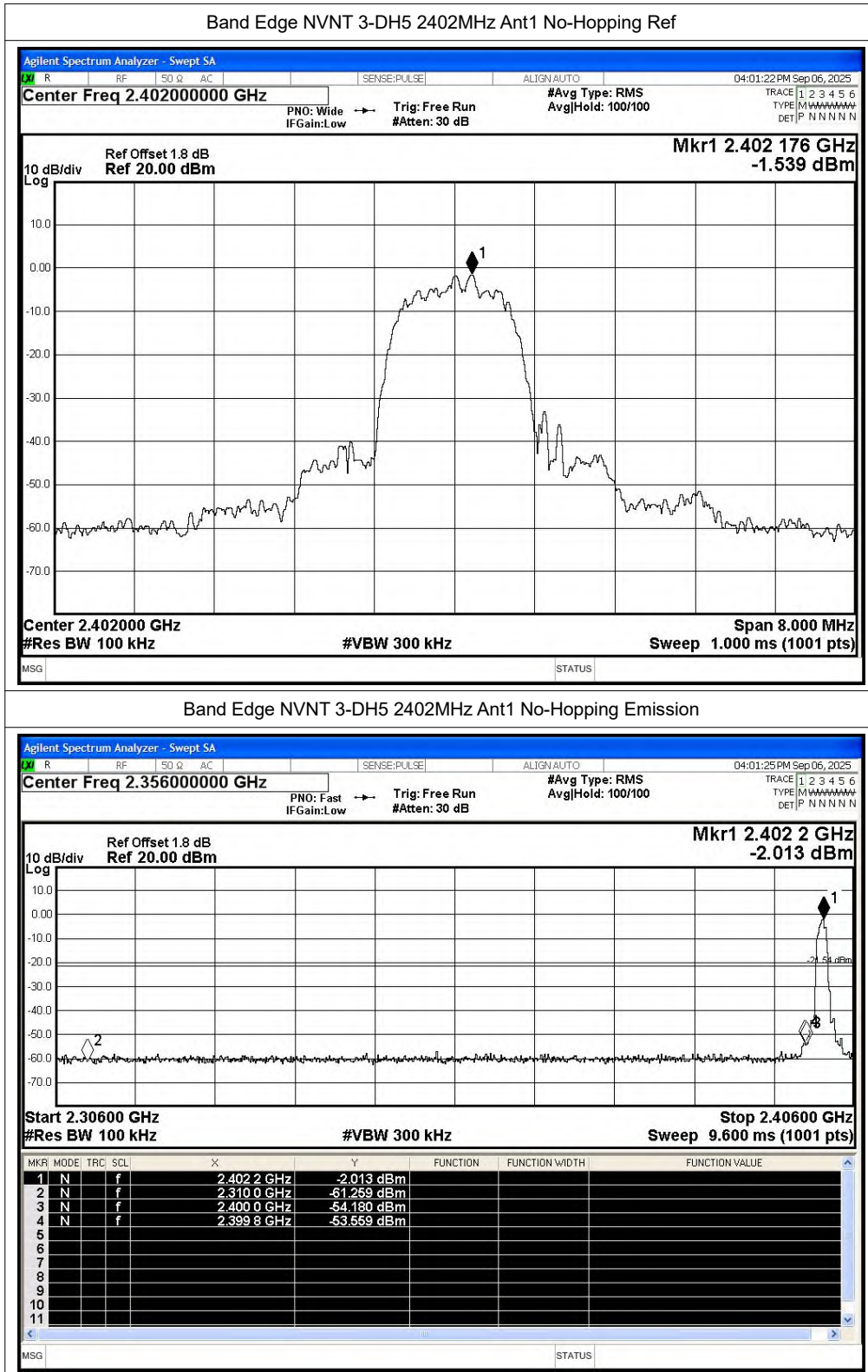


Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Ref

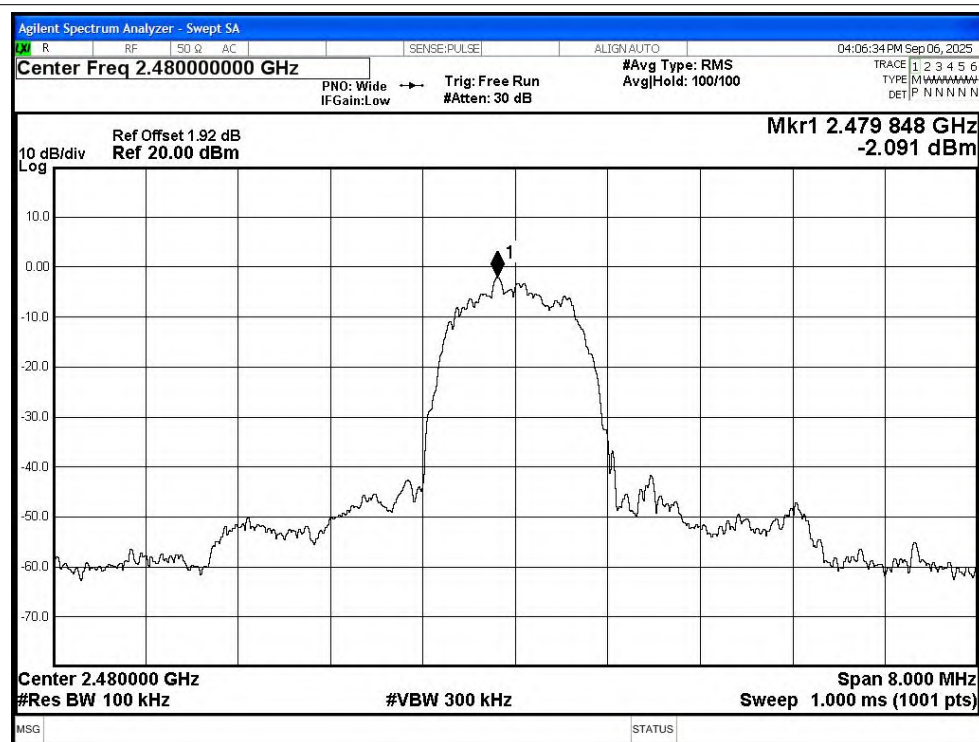


Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Emission

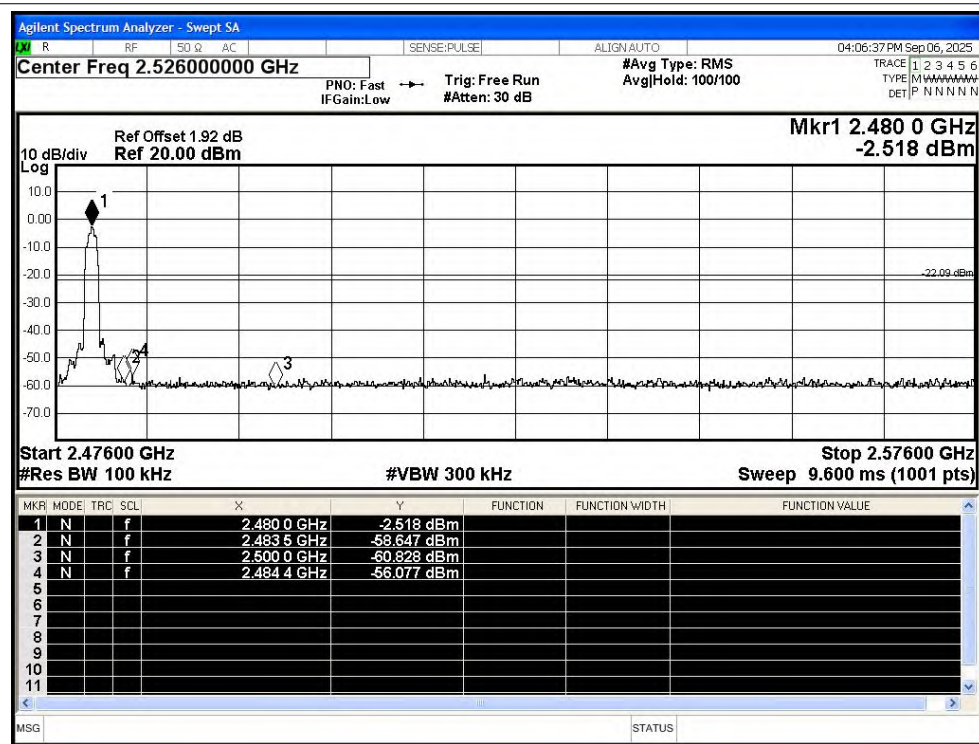




Band Edge NVNT 3-DH5 2480MHz Ant1 No-Hopping Ref



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

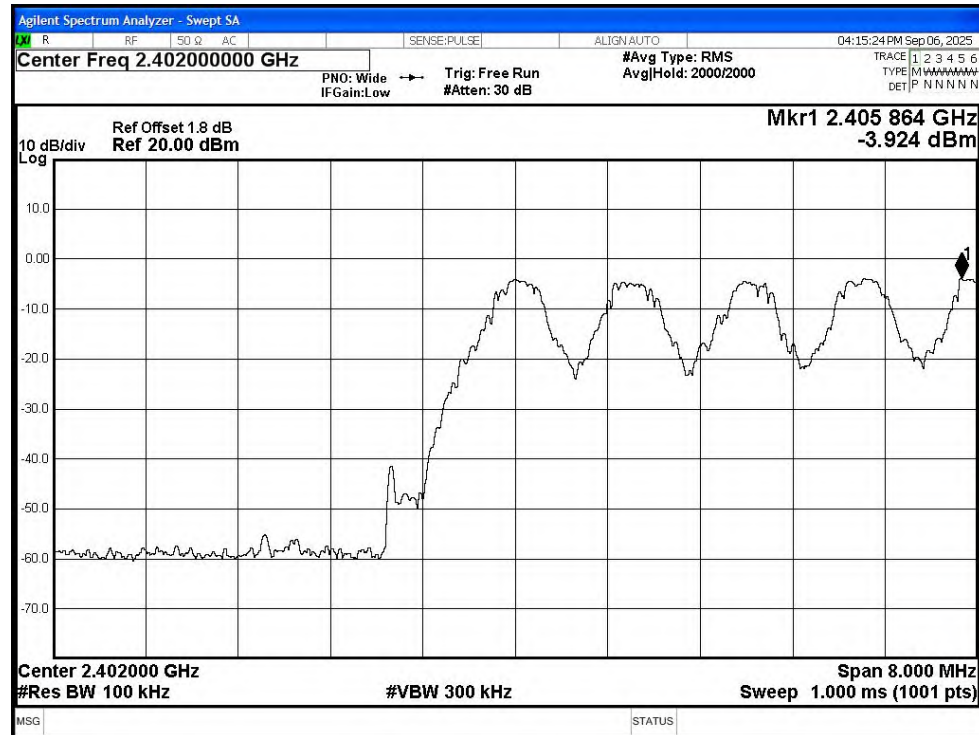


(Hopping)

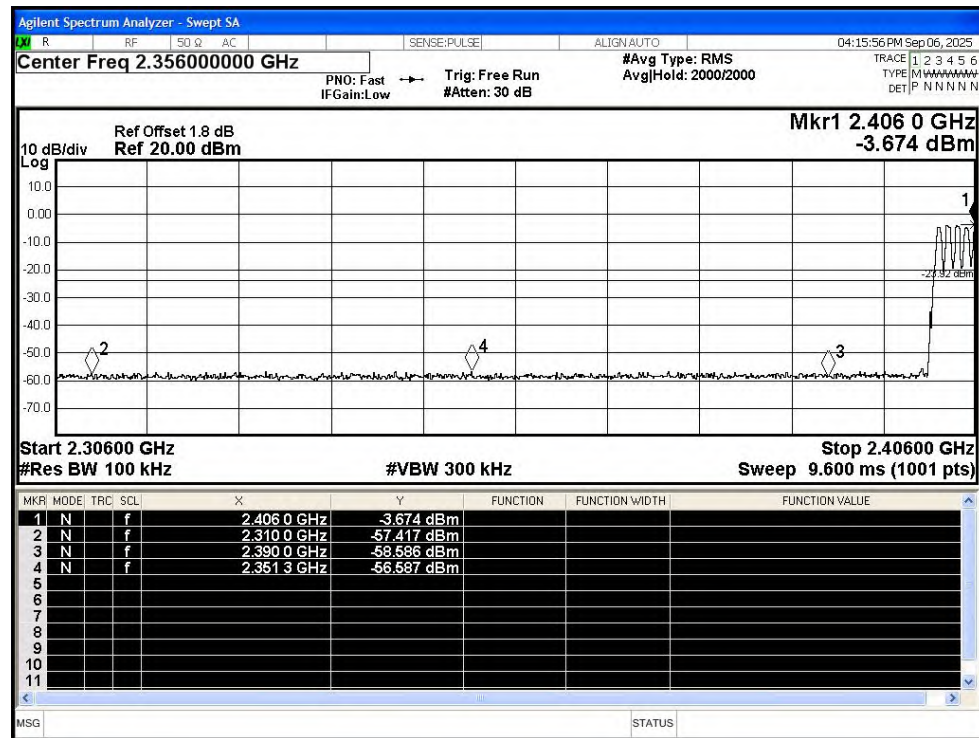
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	Hopping	-52.66	-20	Pass
NVNT	1-DH5	2480	Ant1	Hopping	-52.76	-20	Pass
NVNT	2-DH5	2402	Ant1	Hopping	-52.69	-20	Pass
NVNT	2-DH5	2480	Ant1	Hopping	-53.47	-20	Pass
NVNT	3-DH5	2402	Ant1	Hopping	-52.12	-20	Pass
NVNT	3-DH5	2480	Ant1	Hopping	-54	-20	Pass

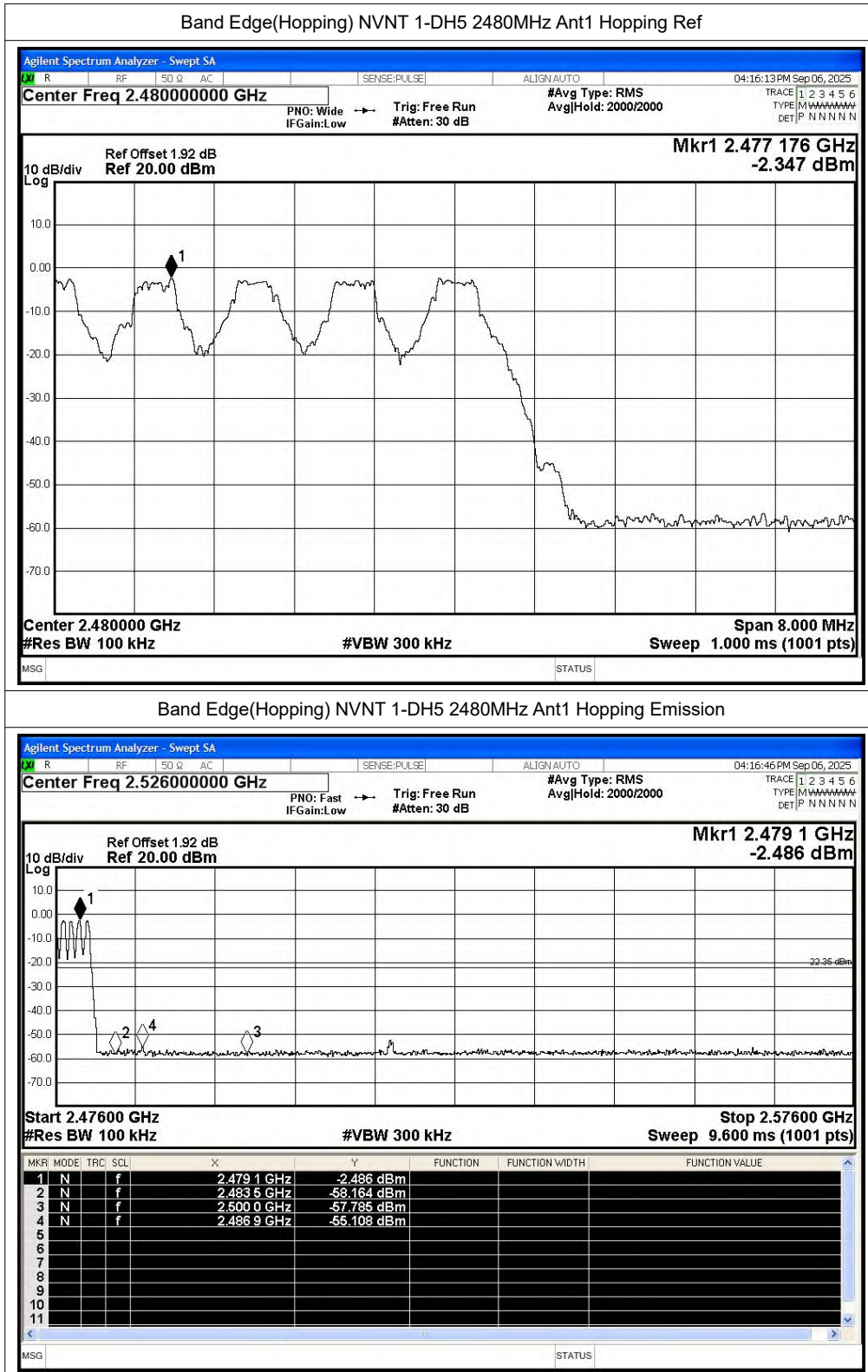
Test Graphs

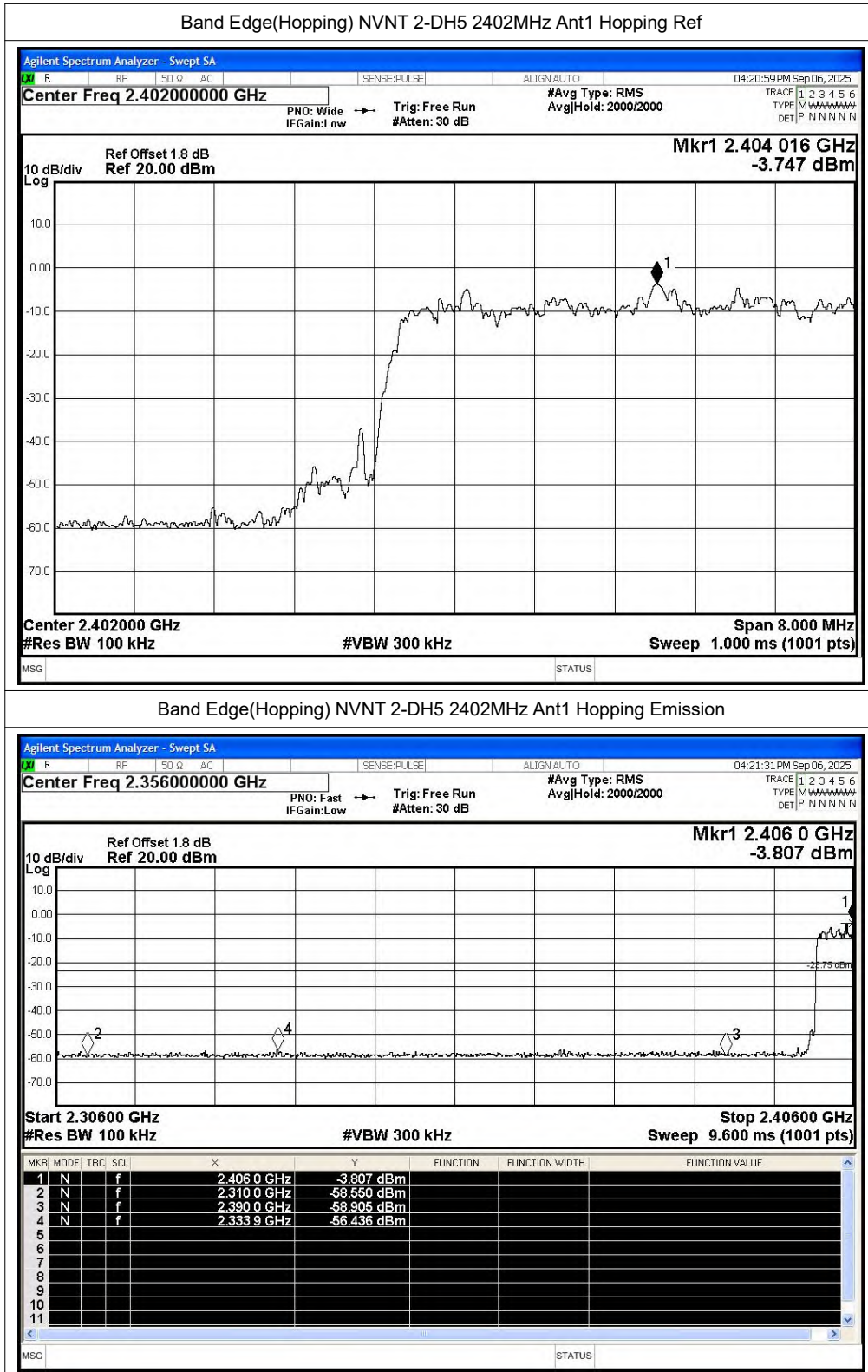
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Ref

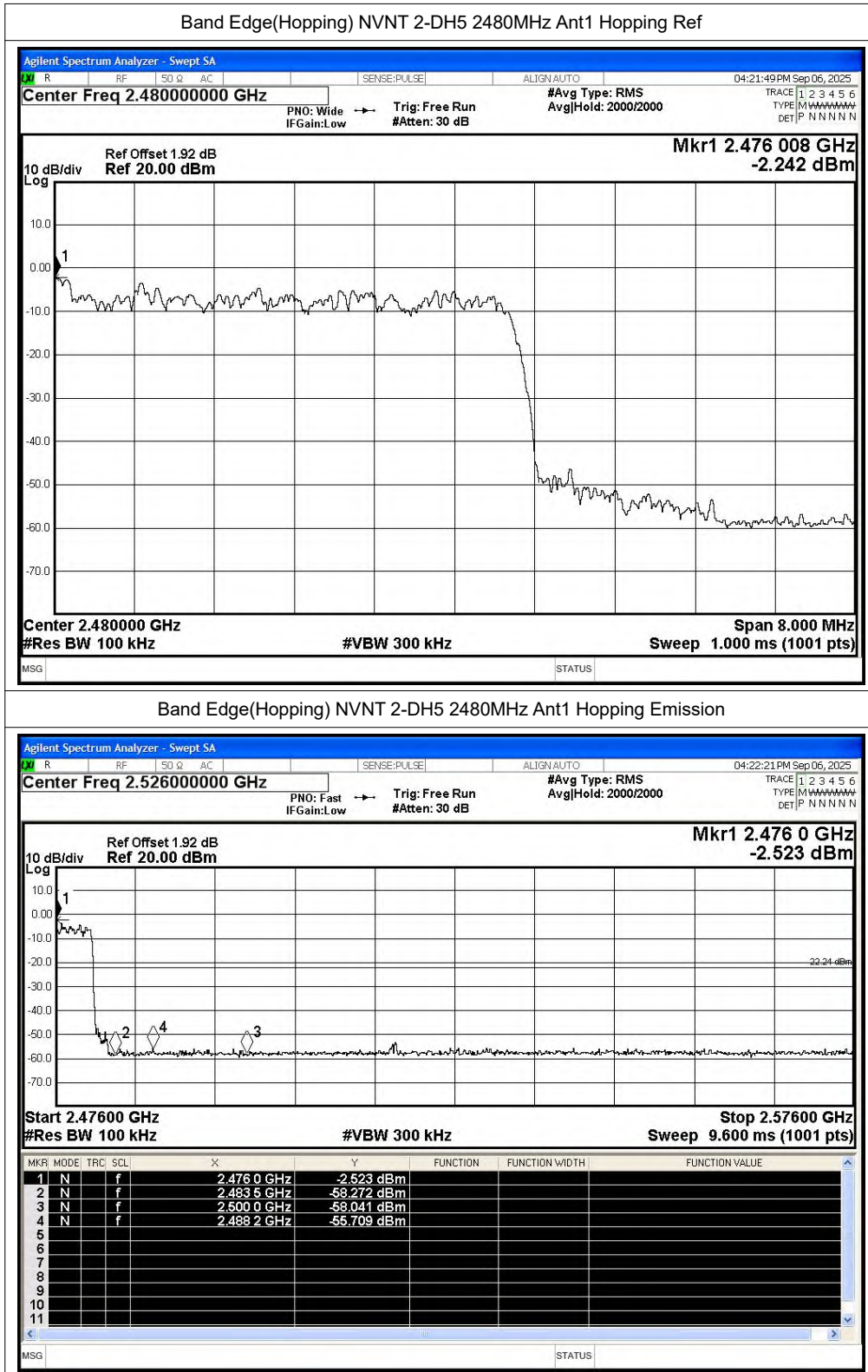


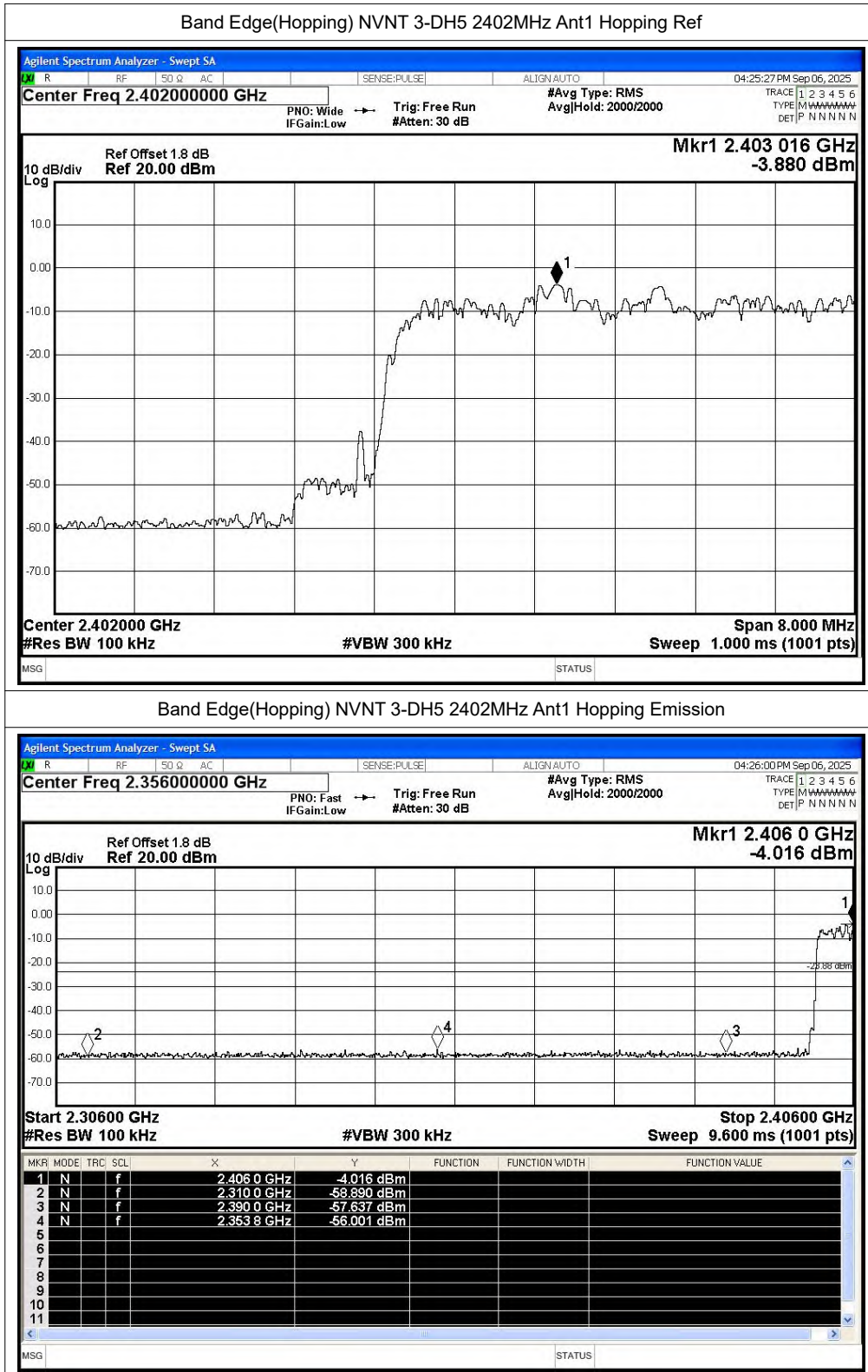
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission

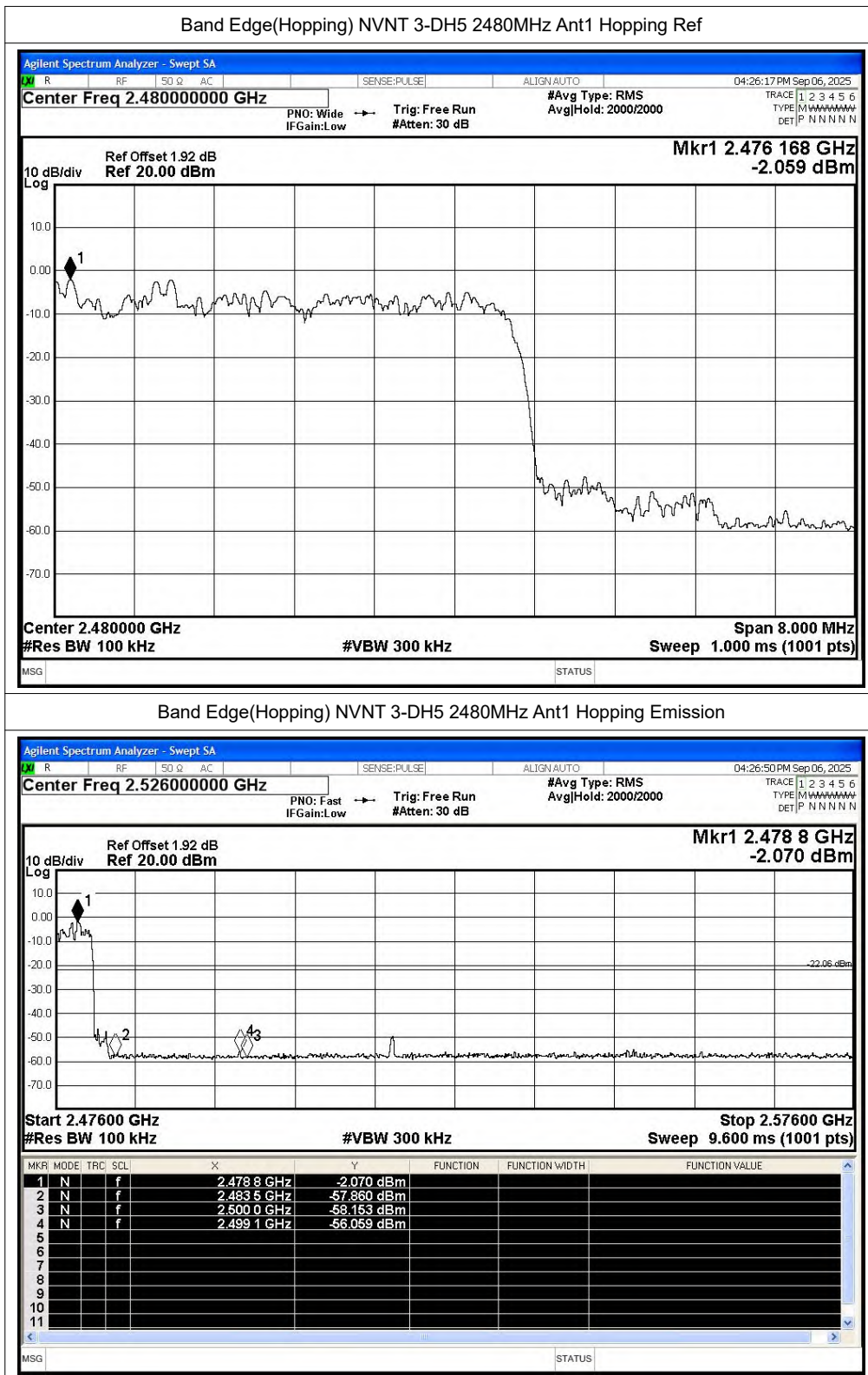










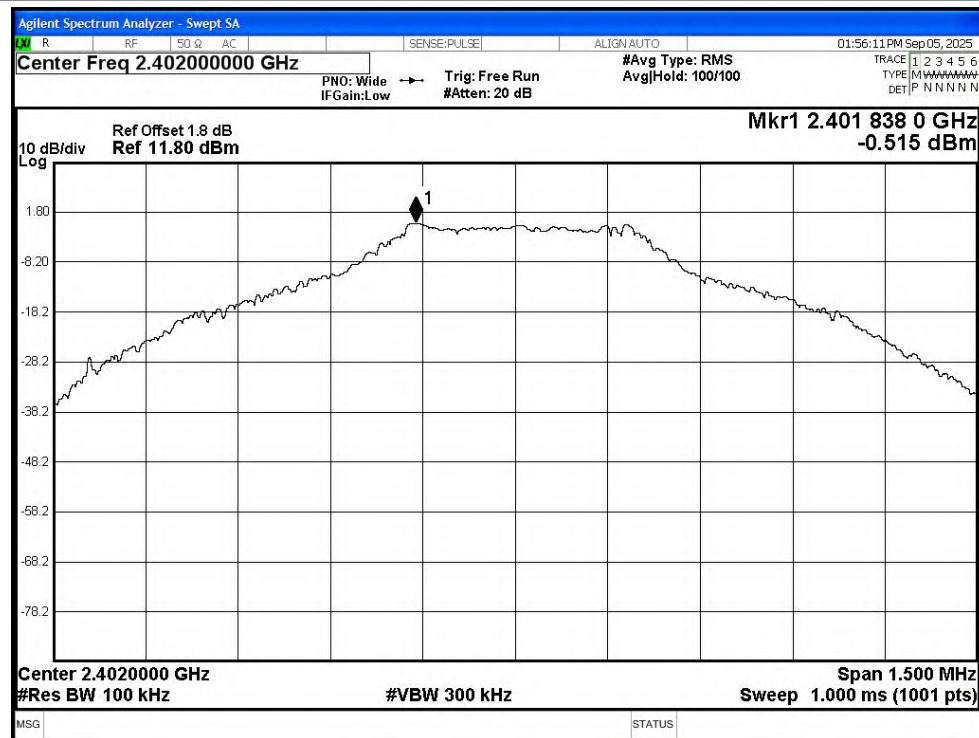


A.7 Conducted RF Spurious Emission

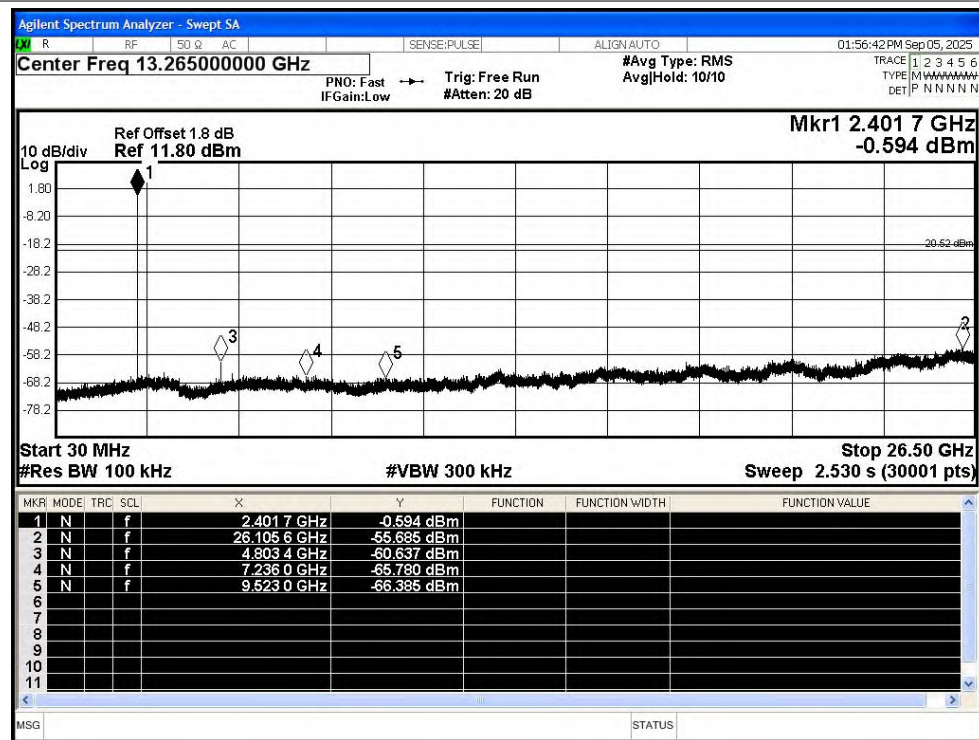
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	-55.17	-20	Pass
NVNT	1-DH5	2441	Ant1	-56.25	-20	Pass
NVNT	1-DH5	2480	Ant1	-50.19	-20	Pass
NVNT	2-DH5	2402	Ant1	-54.82	-20	Pass
NVNT	2-DH5	2441	Ant1	-54.36	-20	Pass
NVNT	2-DH5	2480	Ant1	-53.67	-20	Pass
NVNT	3-DH5	2402	Ant1	-52.31	-20	Pass
NVNT	3-DH5	2441	Ant1	-50.4	-20	Pass
NVNT	3-DH5	2480	Ant1	-53.68	-20	Pass

Test Graphs

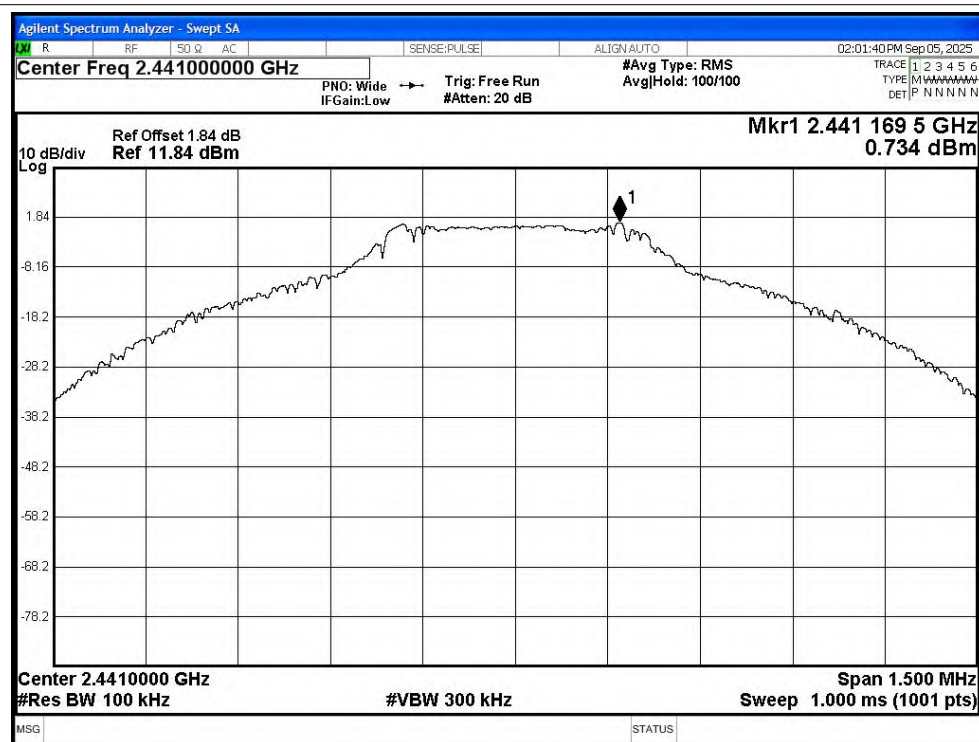
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref



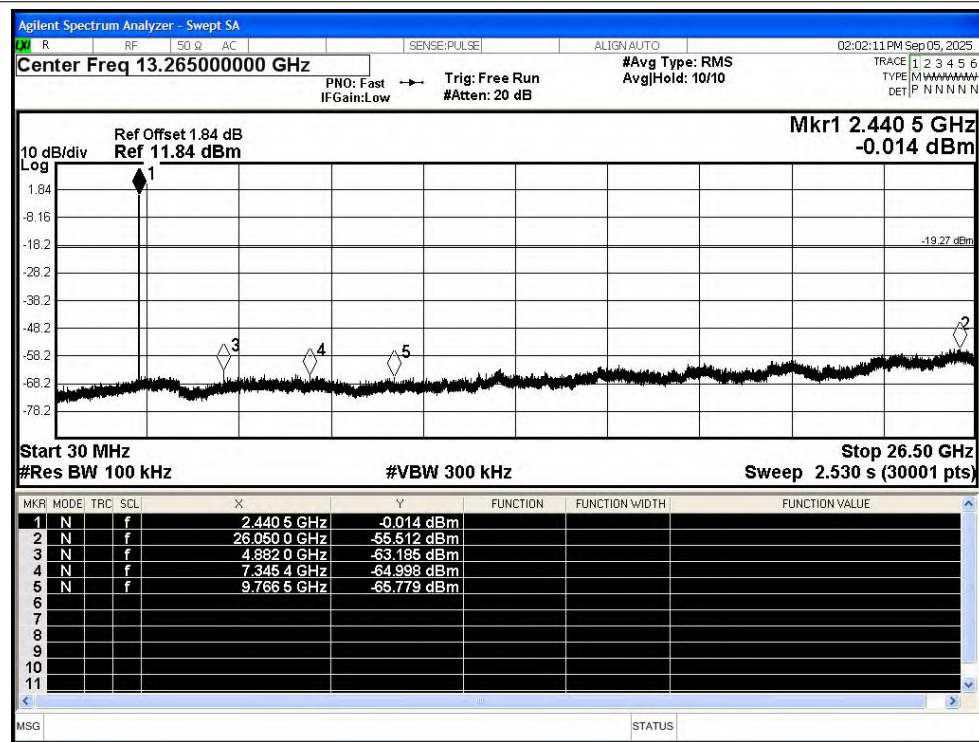
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission



Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref



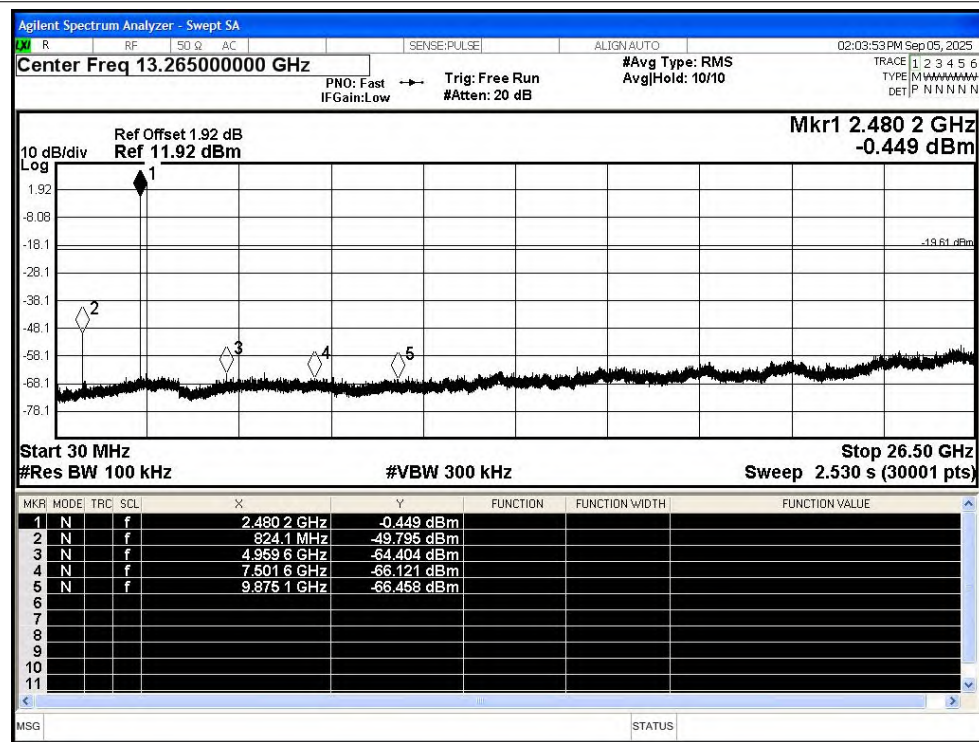
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission



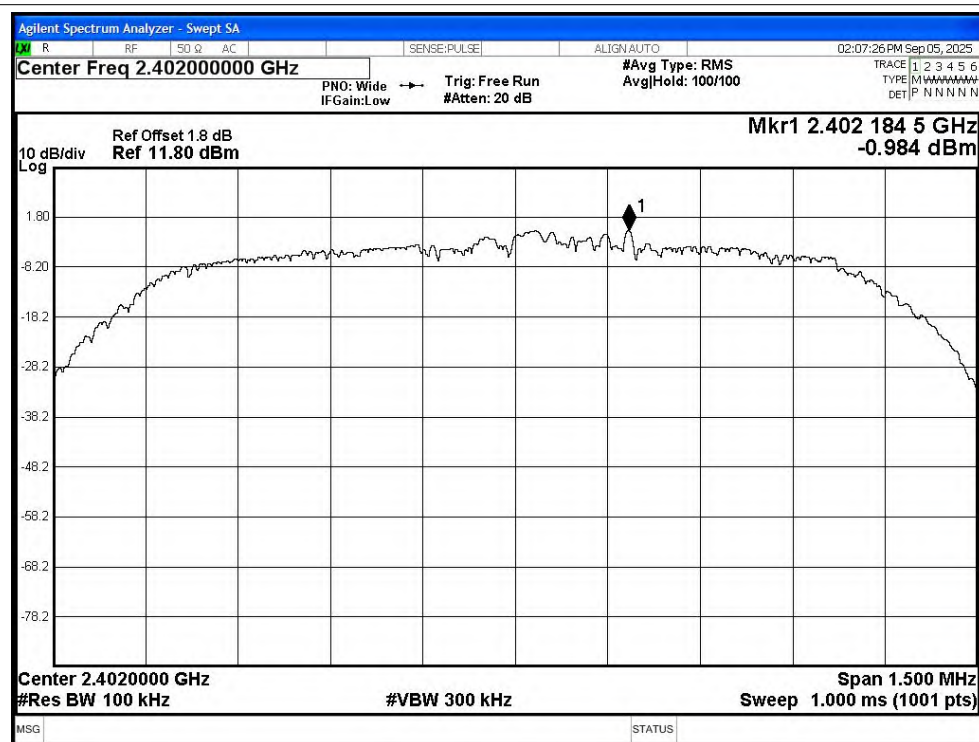
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref



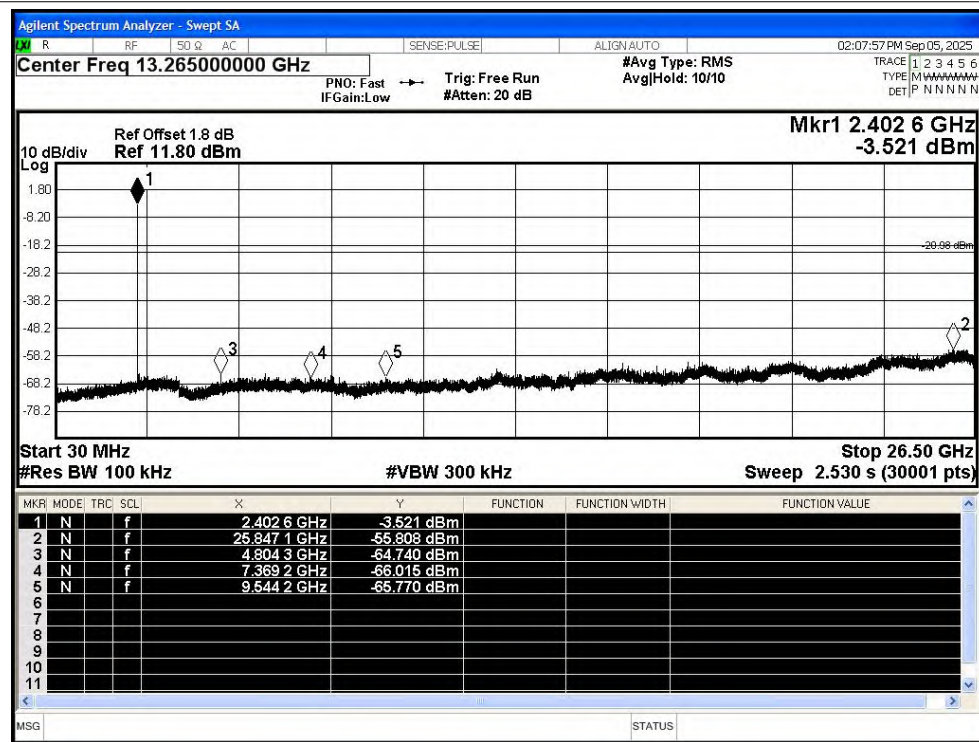
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Emission



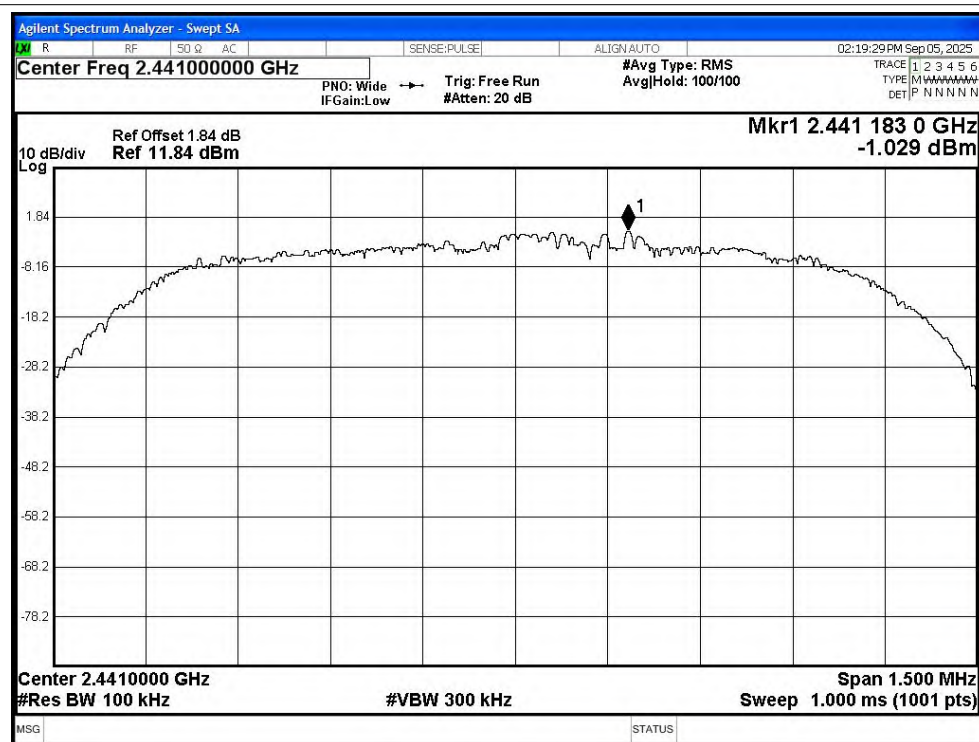
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Ref



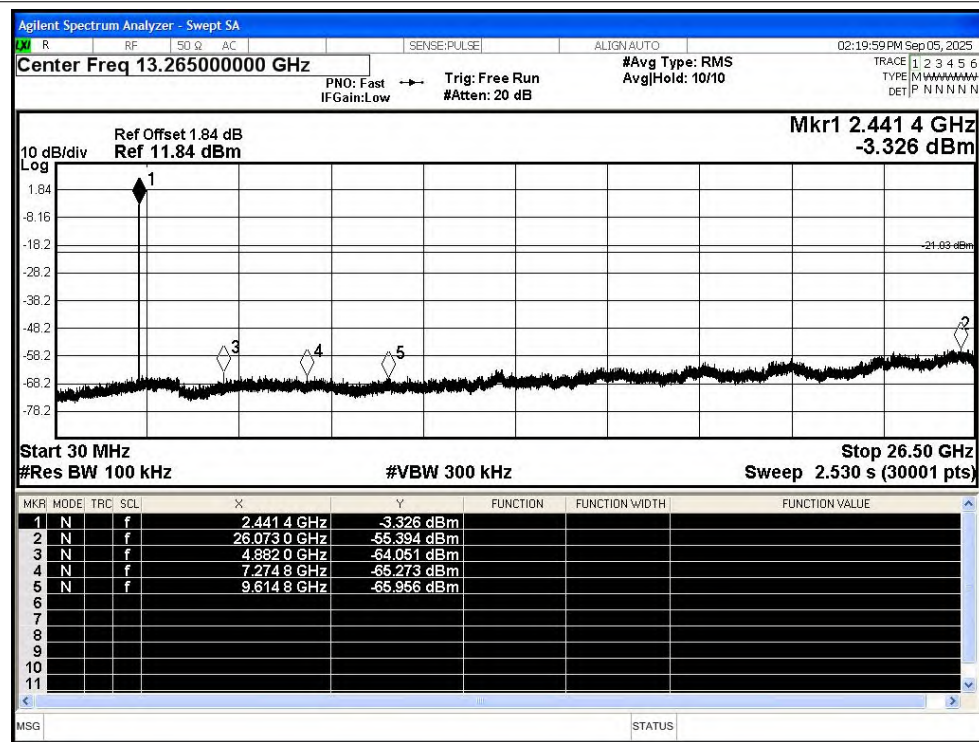
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Emission



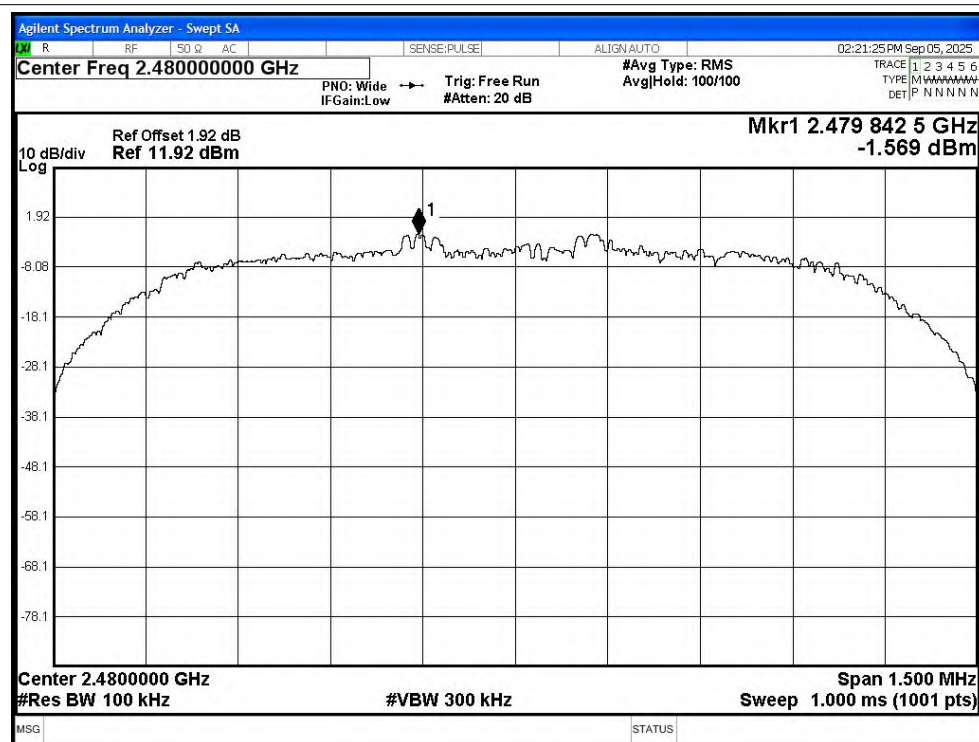
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Ref



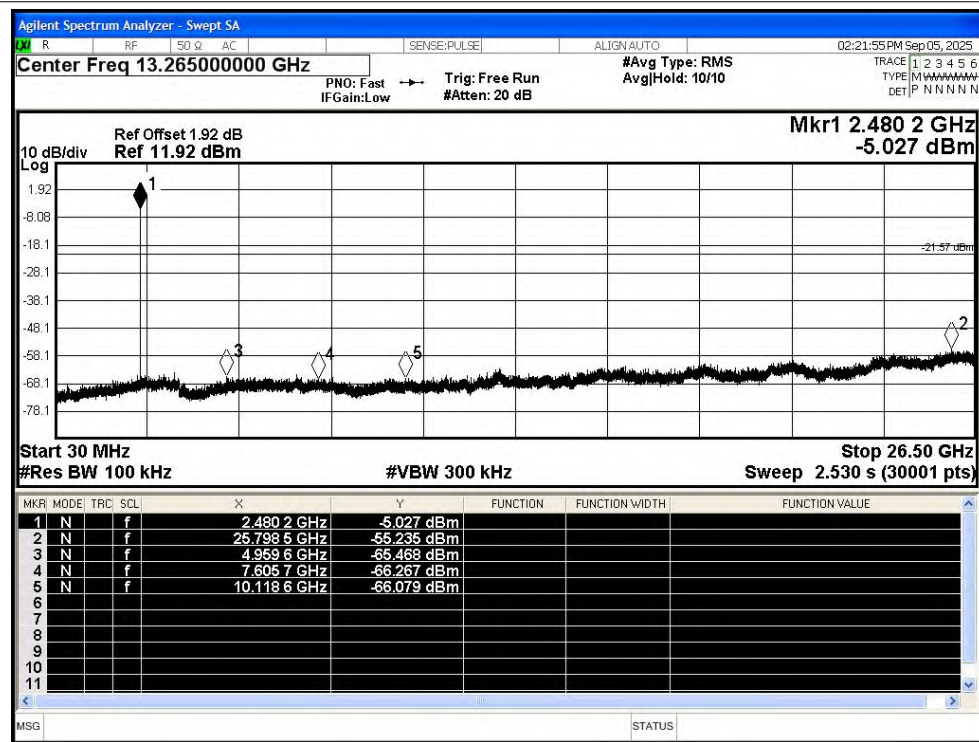
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Emission



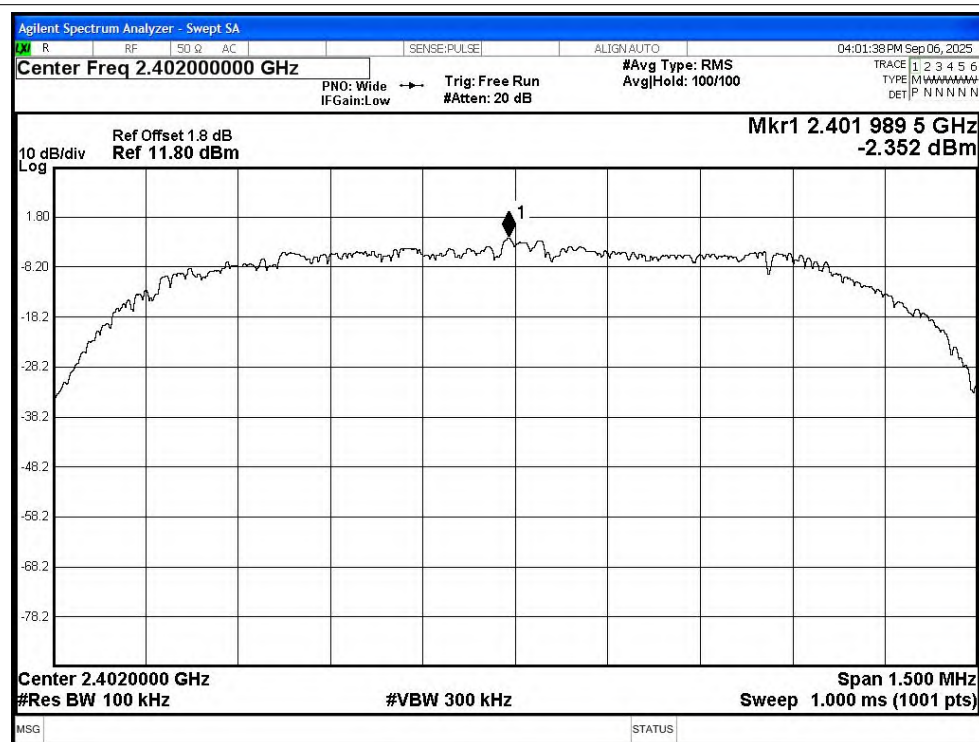
Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Ref



Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Emission



Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Ref



Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Emission

