

FCC Appendix RF Test Data for BT

Product Name: Smart Diagnostic System

Test Model: P806

Environmental Conditions

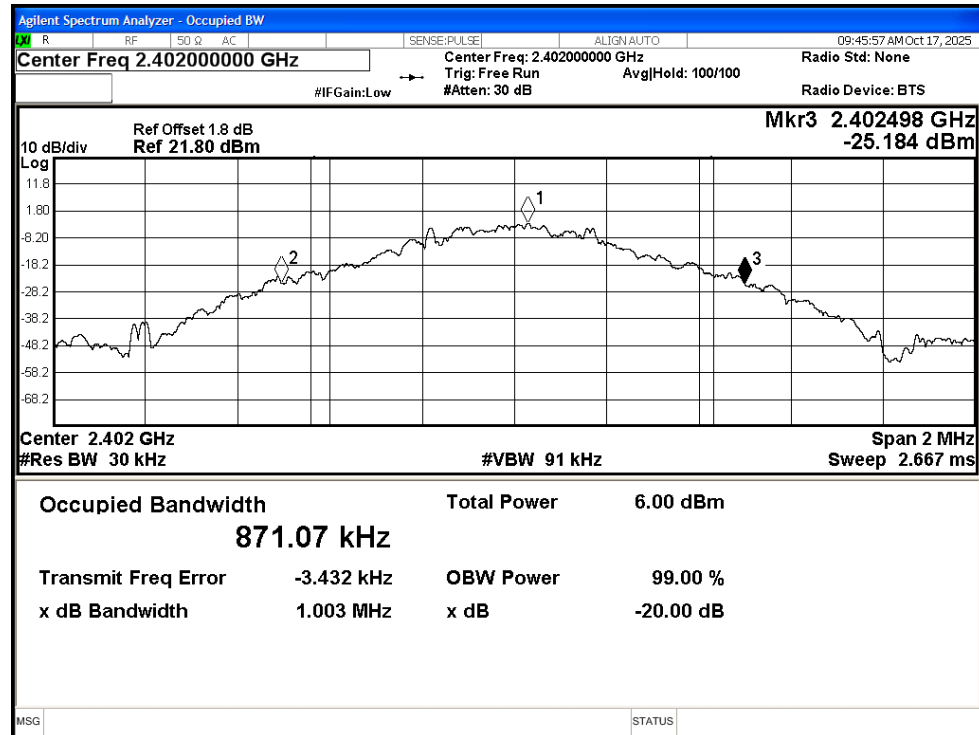
Temperature:	23.8° C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Zoey Cao
Supervised by:	Eric Wang

1. -20dB Bandwidth

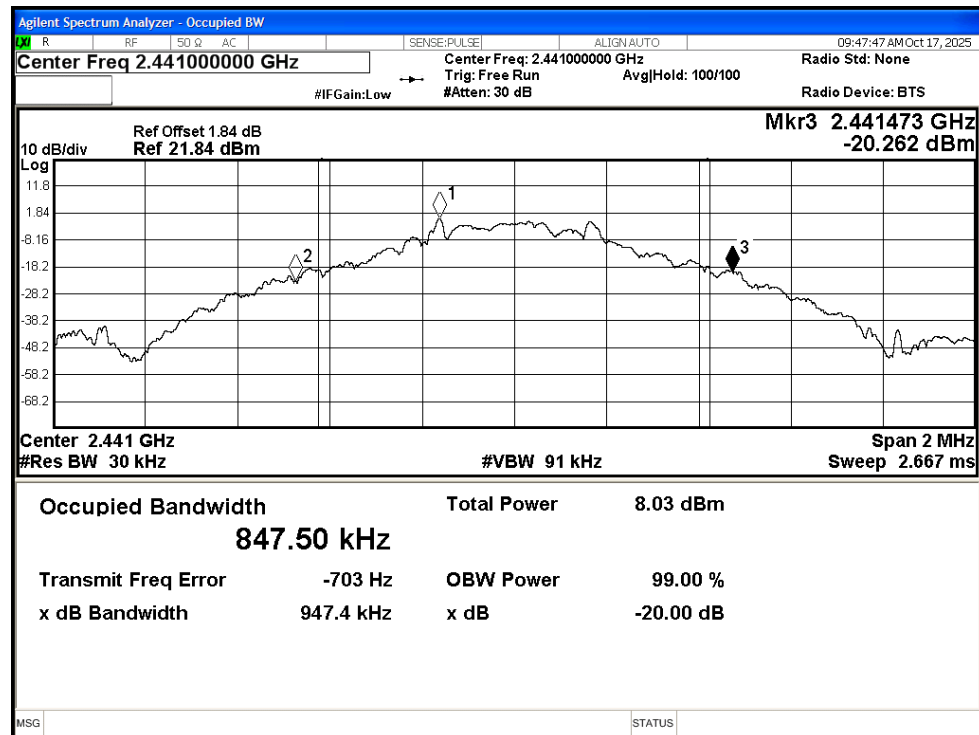
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH5	2402	Ant	1.003	N/A	Pass
NVNT	1-DH5	2441	Ant	0.947	N/A	Pass
NVNT	1-DH5	2480	Ant	1.008	N/A	Pass
NVNT	2-DH5	2402	Ant	1.304	N/A	Pass
NVNT	2-DH5	2441	Ant	1.288	N/A	Pass
NVNT	2-DH5	2480	Ant	1.298	N/A	Pass
NVNT	3-DH5	2402	Ant	1.317	N/A	Pass
NVNT	3-DH5	2441	Ant	1.314	N/A	Pass
NVNT	3-DH5	2480	Ant	1.291	N/A	Pass

Test Graphs

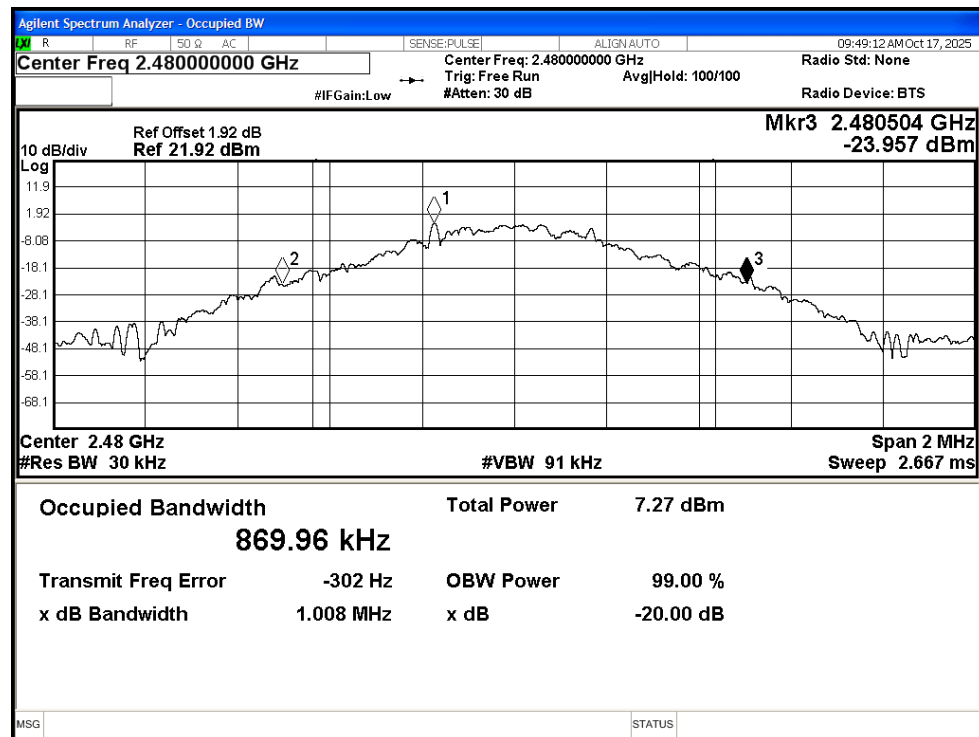
-20dB Bandwidth NVNT 1-DH5 2402MHz Ant



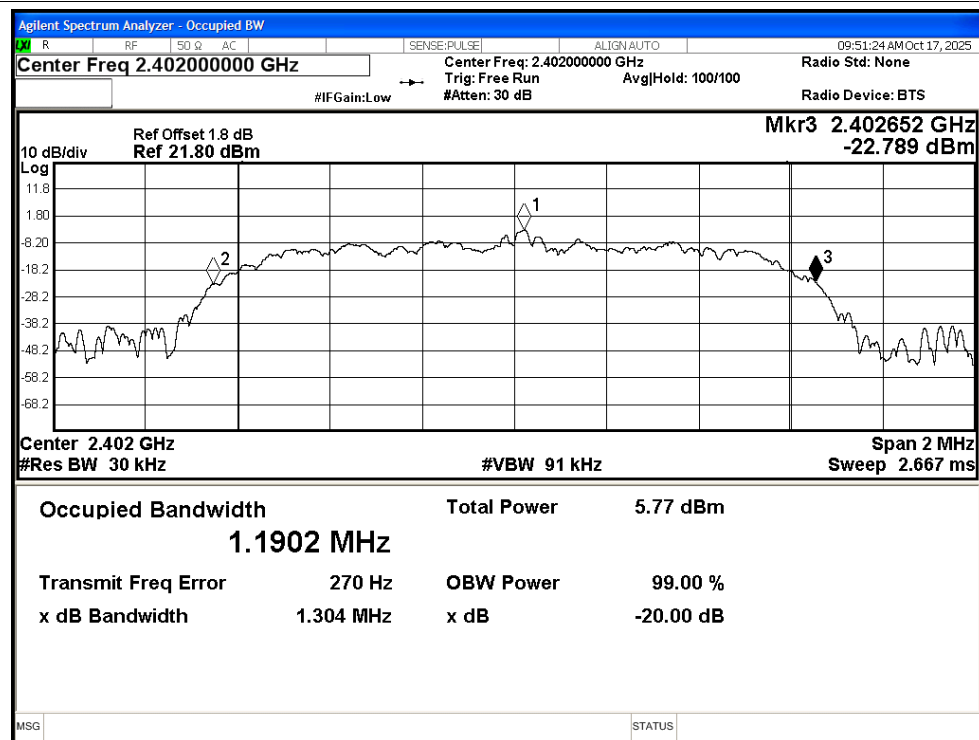
-20dB Bandwidth NVNT 1-DH5 2441MHz Ant



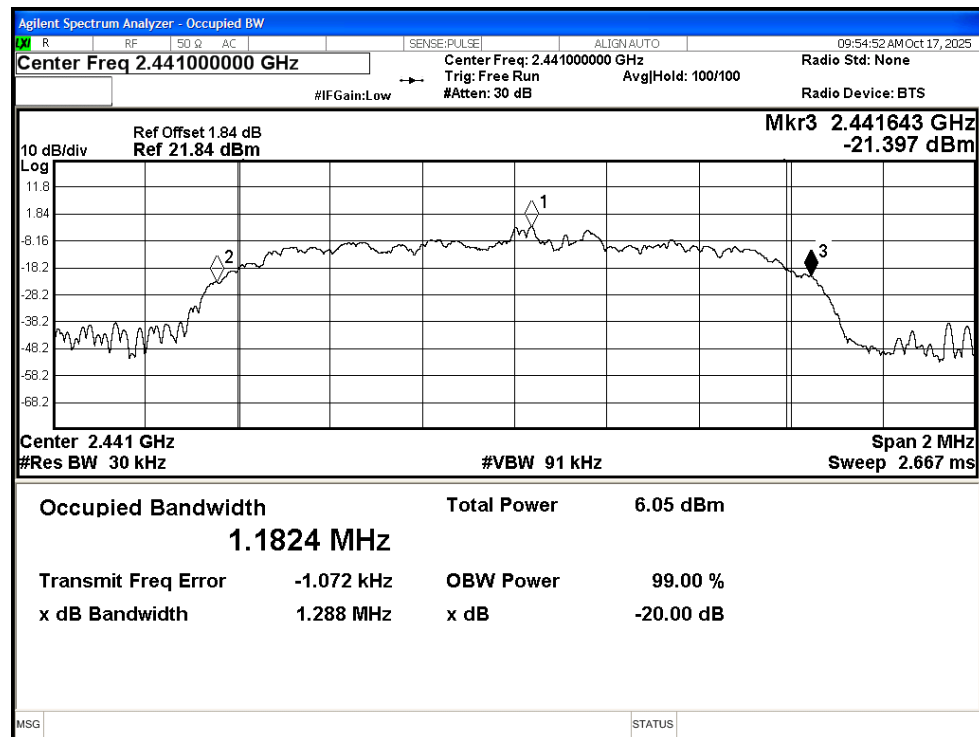
-20dB Bandwidth NVNT 1-DH5 2480MHz Ant



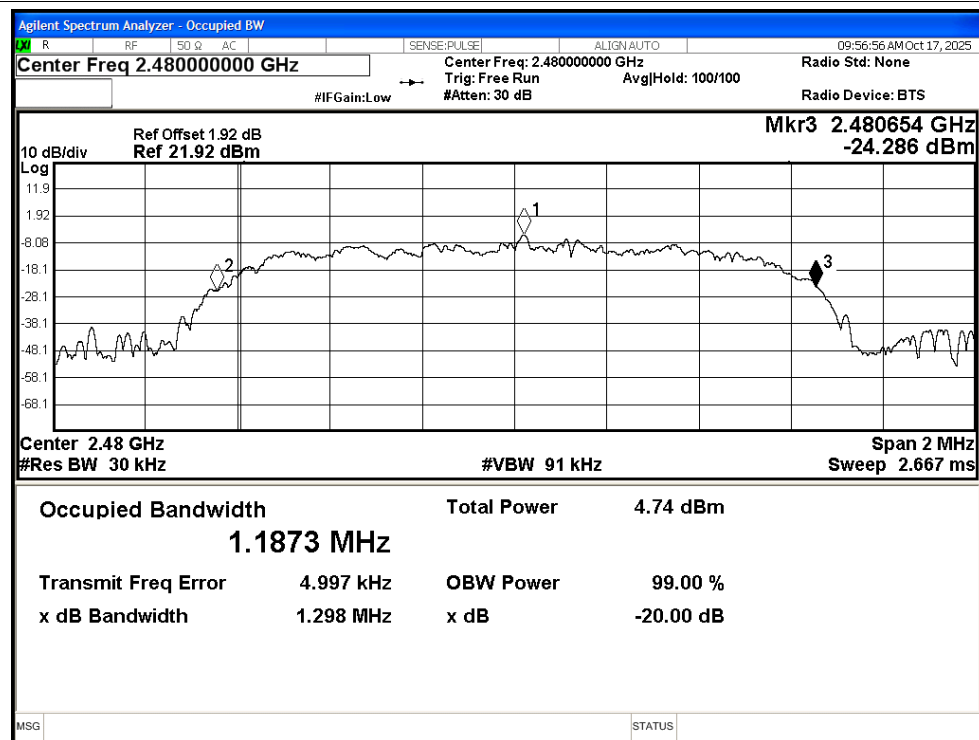
-20dB Bandwidth NVNT 2-DH5 2402MHz Ant



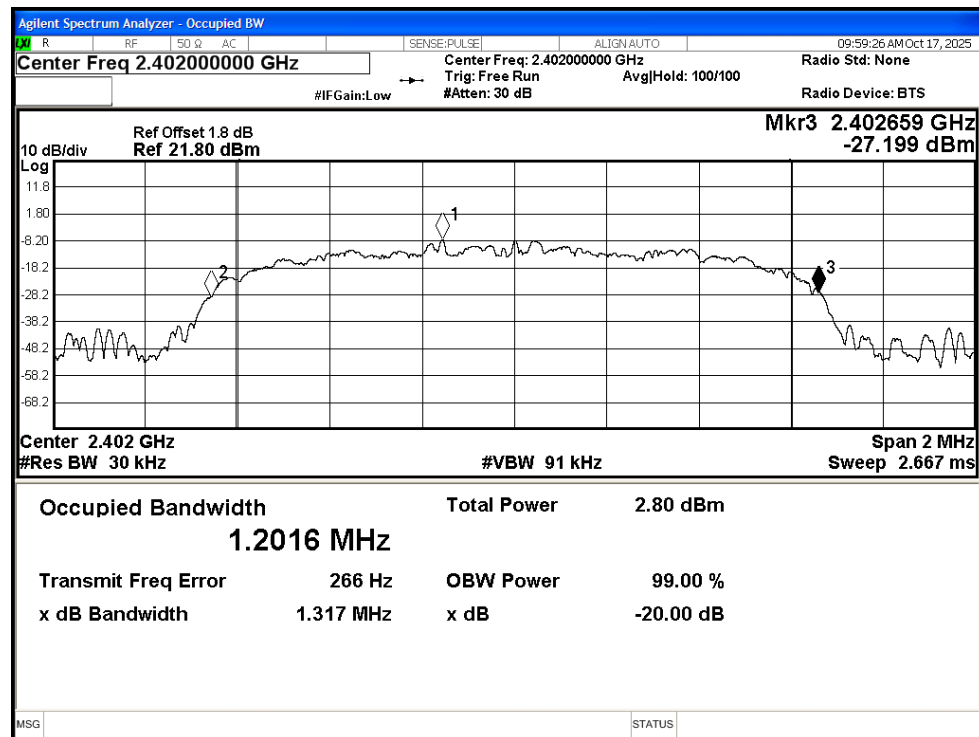
-20dB Bandwidth NVNT 2-DH5 2441MHz Ant



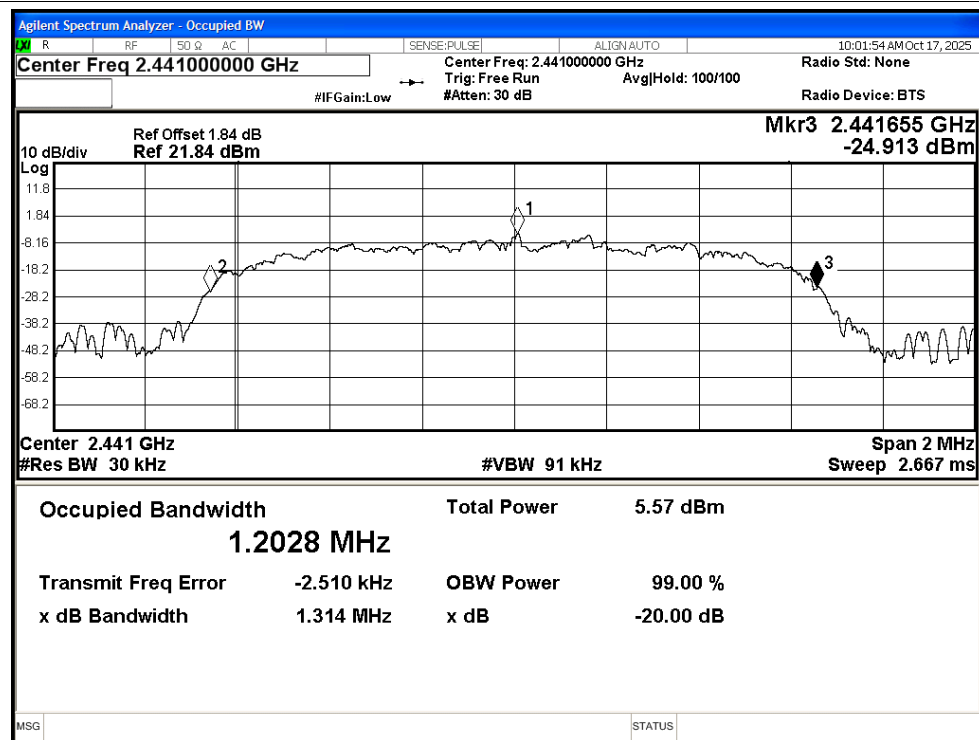
-20dB Bandwidth NVNT 2-DH5 2480MHz Ant

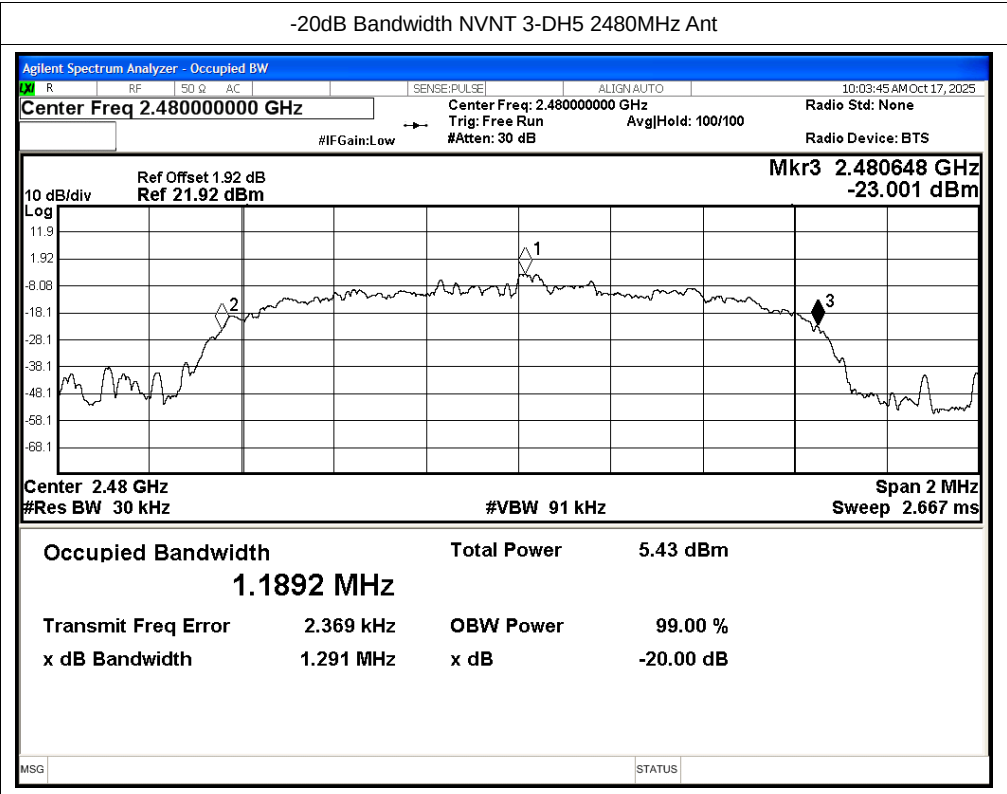


-20dB Bandwidth NVNT 3-DH5 2402MHz Ant



-20dB Bandwidth NVNT 3-DH5 2441MHz Ant





2. Maximum Peak Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH5	2402	Ant	-0.23	21	Pass
NVNT	1-DH5	2441	Ant	1.31	21	Pass
NVNT	1-DH5	2480	Ant	1	21	Pass
NVNT	2-DH5	2402	Ant	1.43	21	Pass
NVNT	2-DH5	2441	Ant	1.52	21	Pass
NVNT	2-DH5	2480	Ant	0.68	21	Pass
NVNT	3-DH5	2402	Ant	-0.78	21	Pass
NVNT	3-DH5	2441	Ant	1.91	21	Pass
NVNT	3-DH5	2480	Ant	0.98	21	Pass

3. Carrier Frequencies Separation

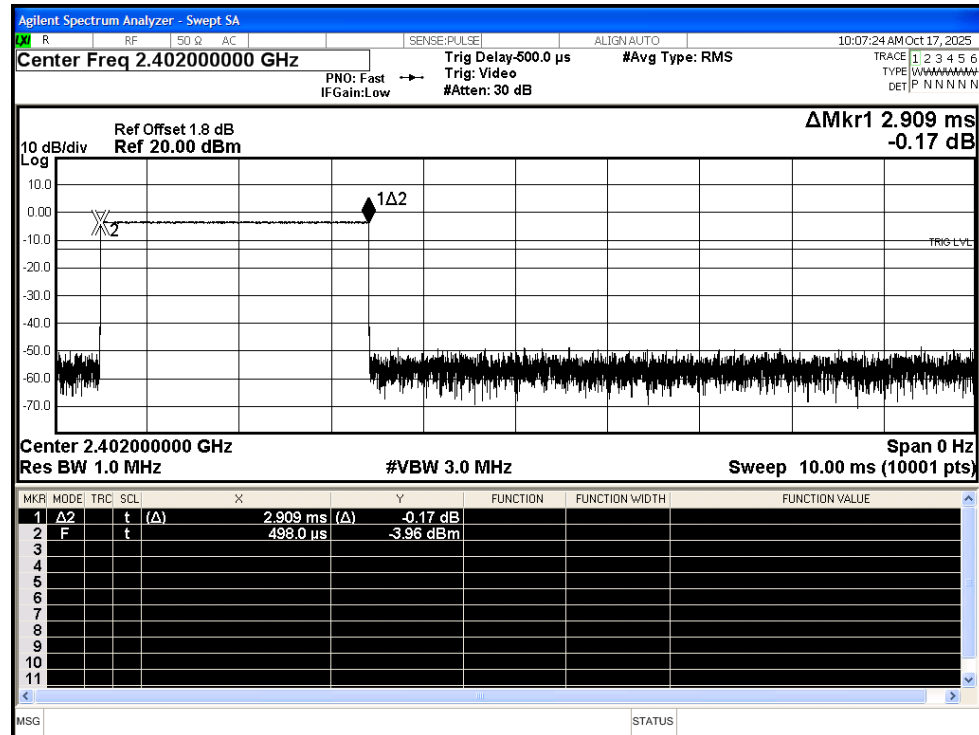
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH5	Ant	2401.978	2403.062	1.084	0.672	Pass
NVNT	2-DH5	Ant	2402.018	2403.032	1.014	0.869	Pass
NVNT	3-DH5	Ant	2402.026	2403.038	1.012	0.878	Pass

4. Dwell Time

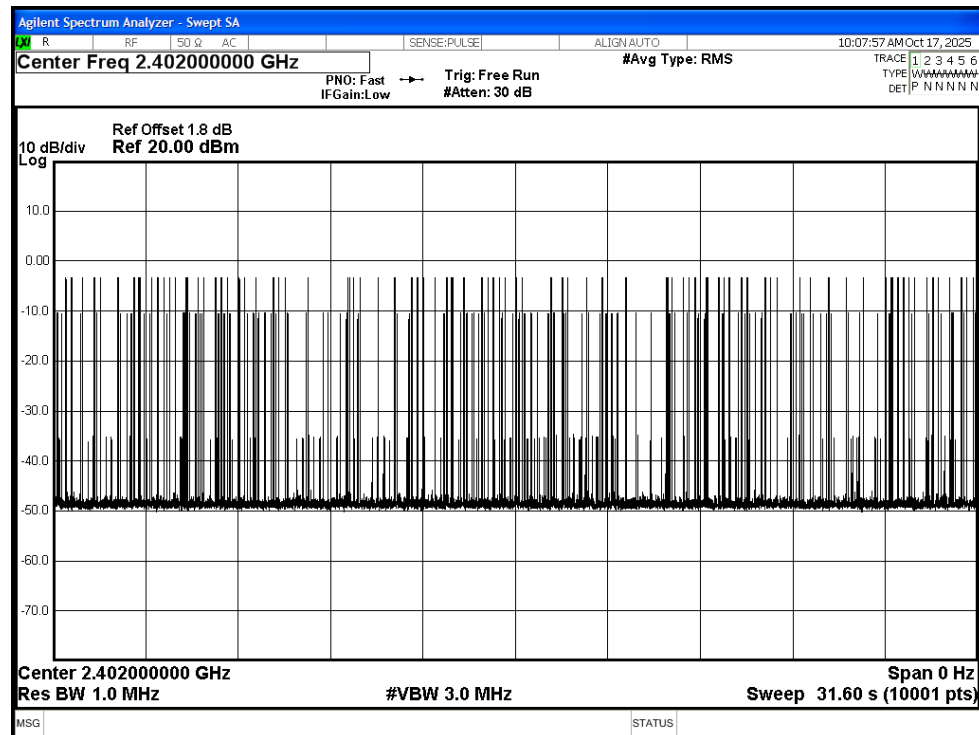
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH5	2402	Ant	2.909	317.081	109	31600	400	Pass
NVNT	2-DH5	2402	Ant	2.899	307.294	106	31600	400	Pass
NVNT	3-DH5	2402	Ant	2.896	318.56	110	31600	400	Pass

Test Graphs

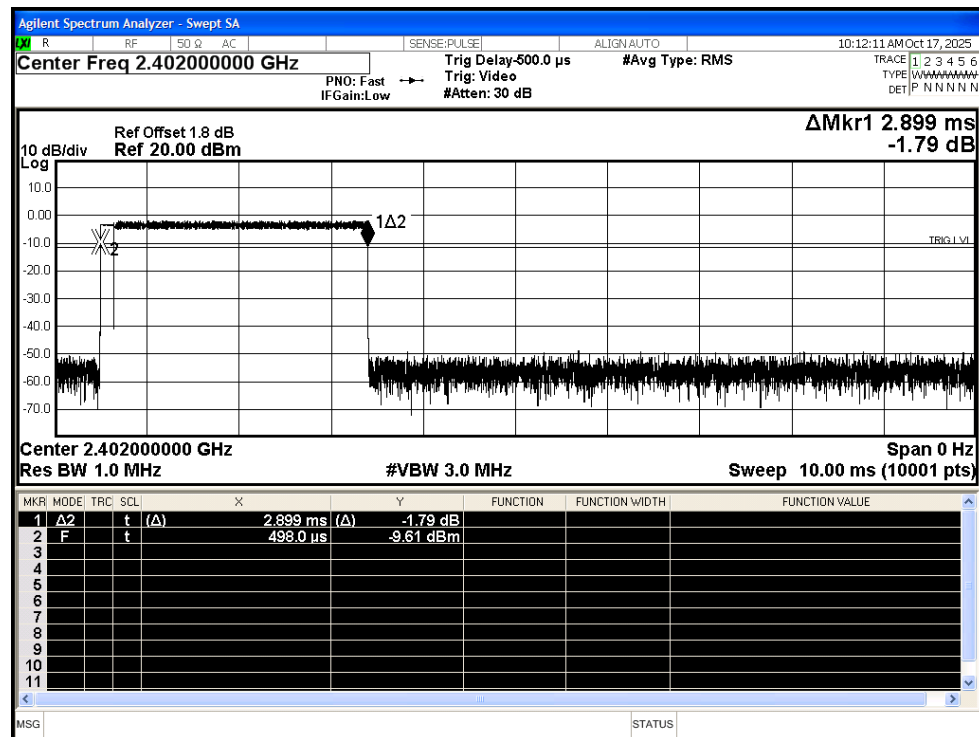
Dwell NVNT 1-DH5 2402MHz Ant One Burst



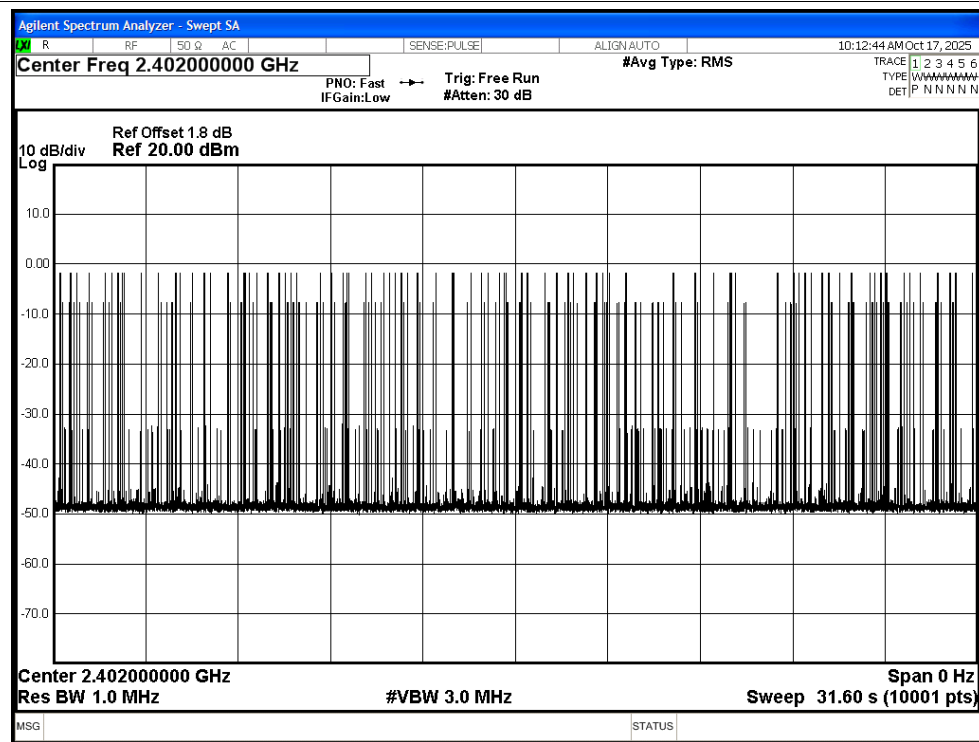
Dwell NVNT 1-DH5 2402MHz Ant Accumulated



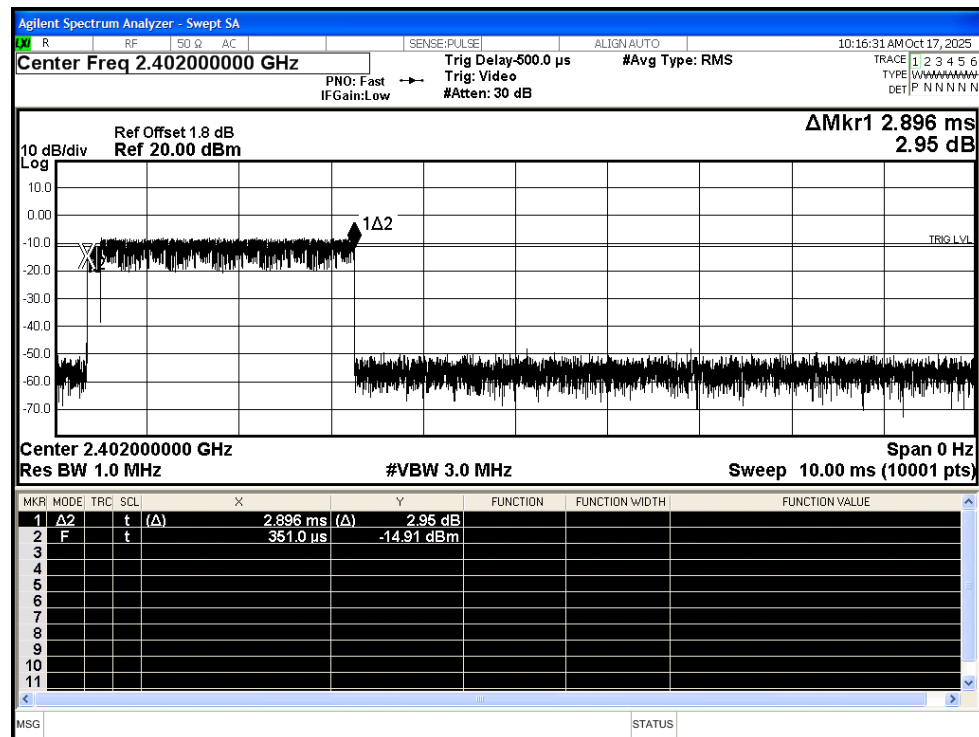
Dwell NVNT 2-DH5 2402MHz Ant One Burst



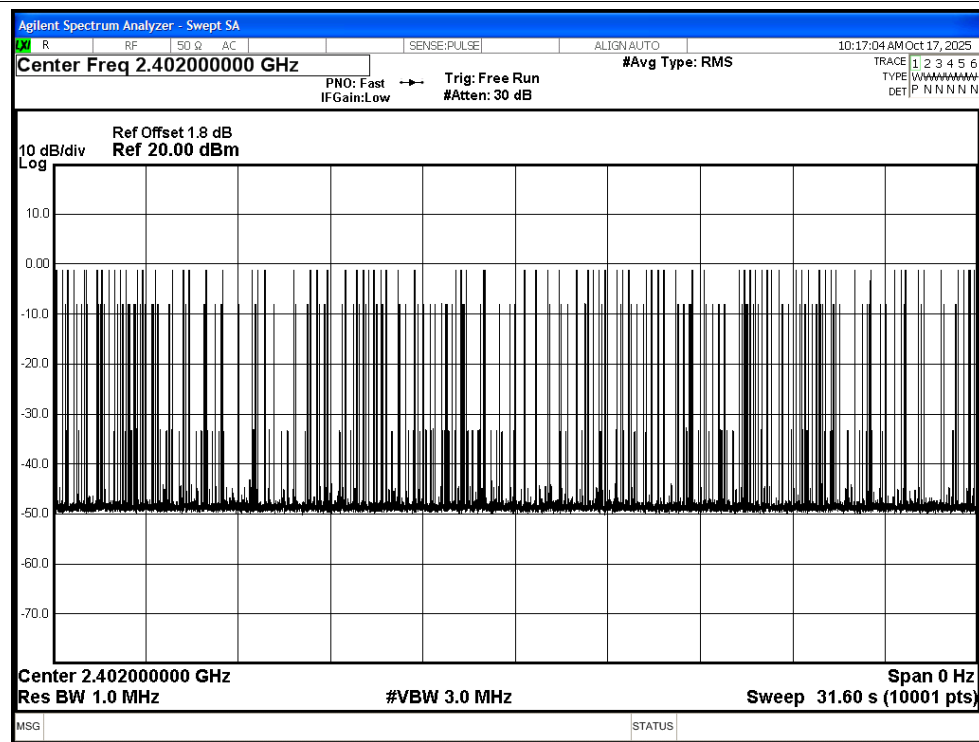
Dwell NVNT 2-DH5 2402MHz Ant Accumulated



Dwell NVNT 3-DH5 2402MHz Ant One Burst

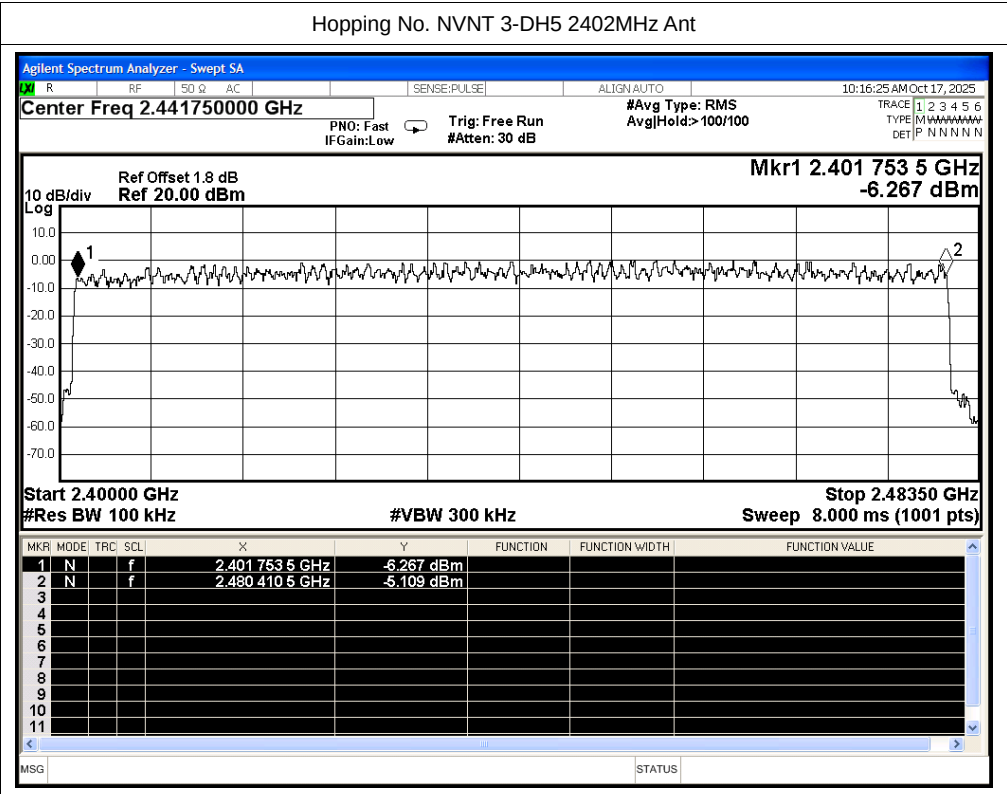


Dwell NVNT 3-DH5 2402MHz Ant Accumulated



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

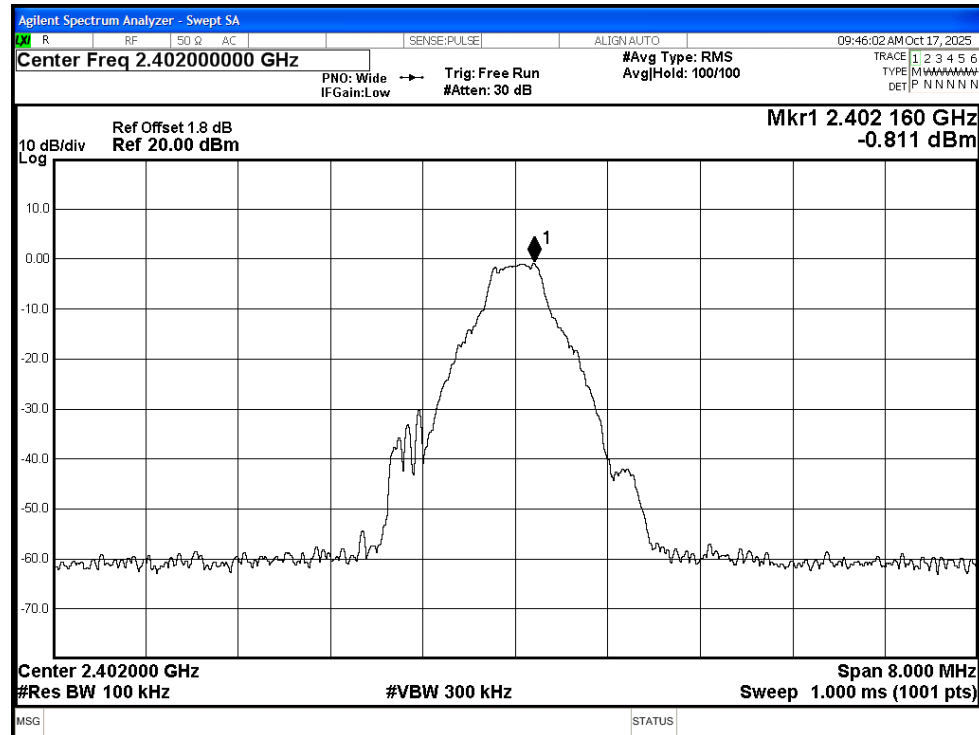


6. Band Edge

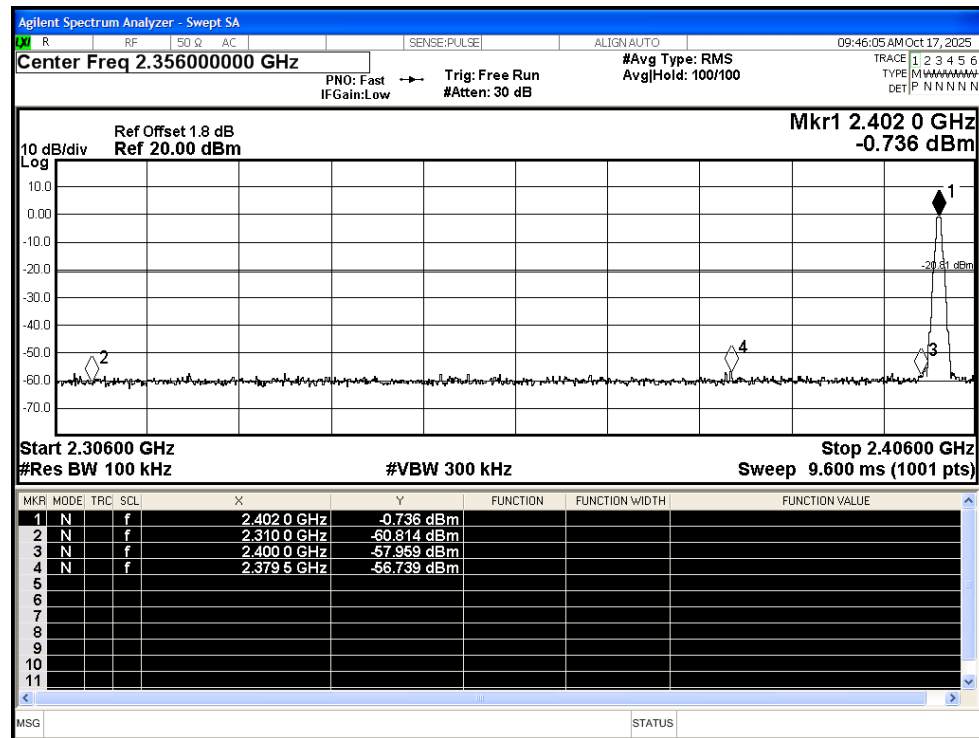
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant	No-Hopping	-55.93	-20	Pass
NVNT	1-DH5	2480	Ant	No-Hopping	-56.55	-20	Pass
NVNT	2-DH5	2402	Ant	No-Hopping	-53.18	-20	Pass
NVNT	2-DH5	2480	Ant	No-Hopping	-54.64	-20	Pass
NVNT	3-DH5	2402	Ant	No-Hopping	-49.21	-20	Pass
NVNT	3-DH5	2480	Ant	No-Hopping	-52.24	-20	Pass

Test Graphs

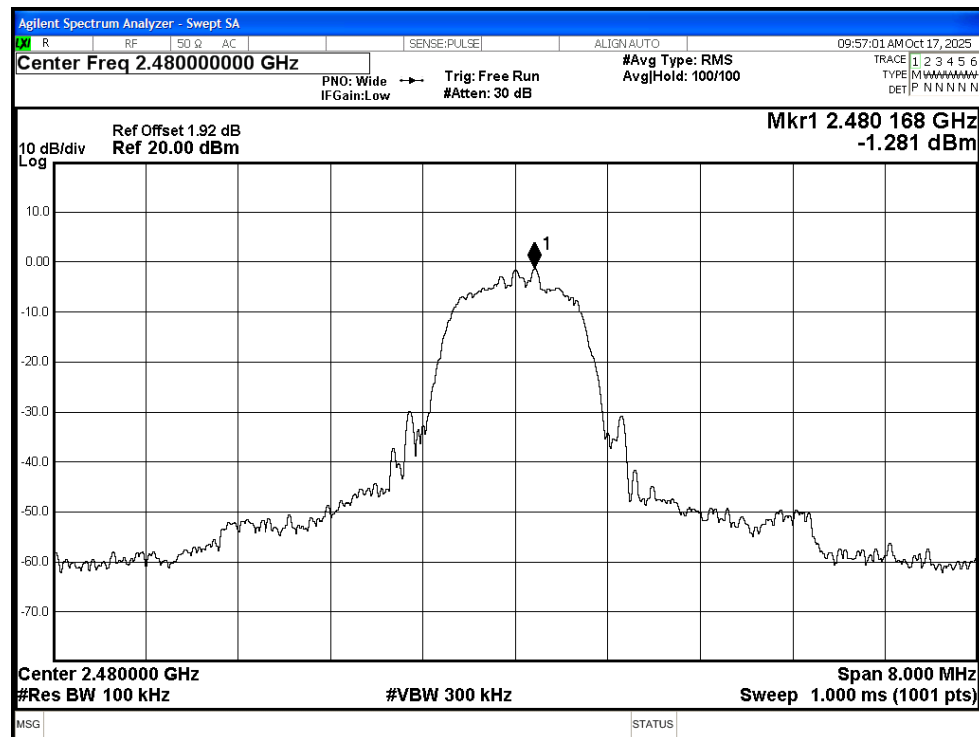
Band Edge NVNT 1-DH5 2402MHz Ant No-Hopping Ref



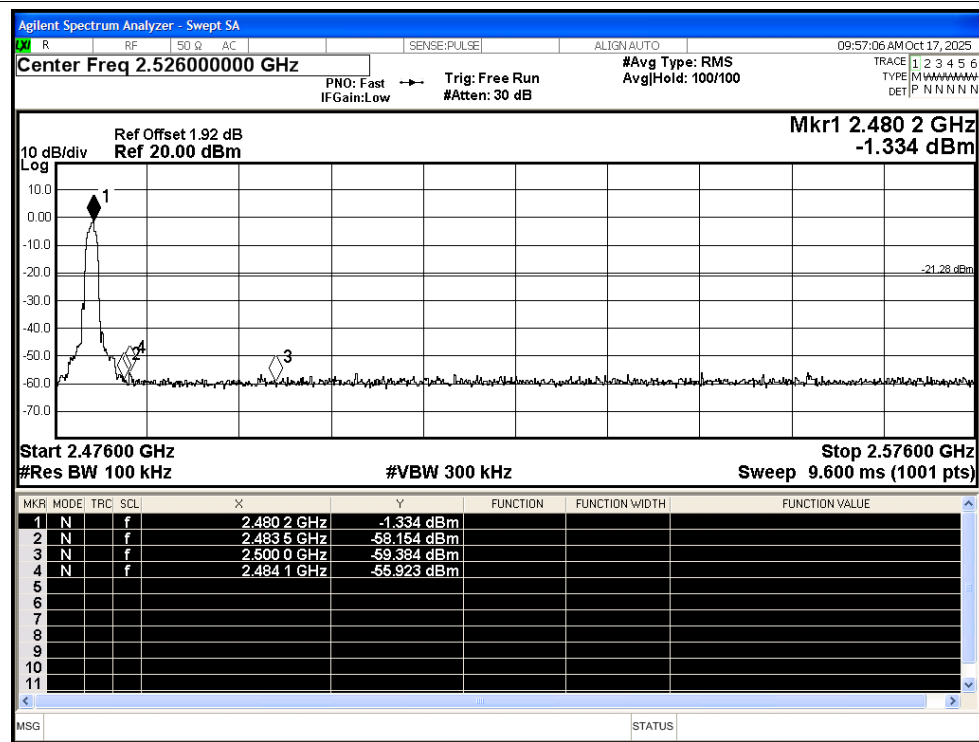
Band Edge NVNT 1-DH5 2402MHz Ant No-Hopping Emission



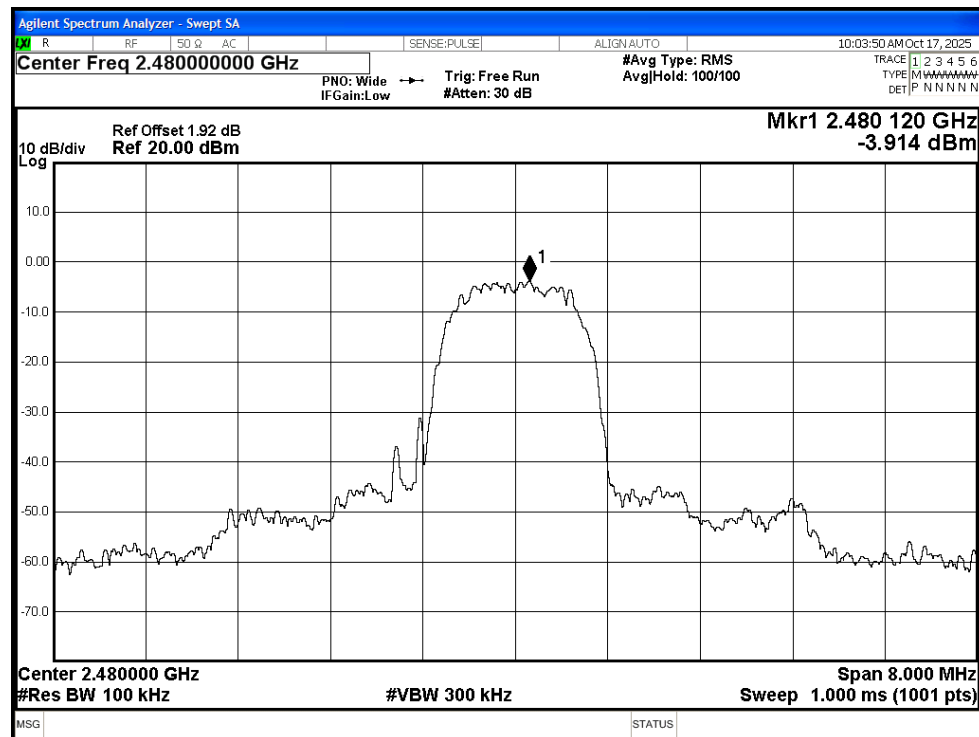
Band Edge NVNT 2-DH5 2480MHz Ant No-Hopping Ref



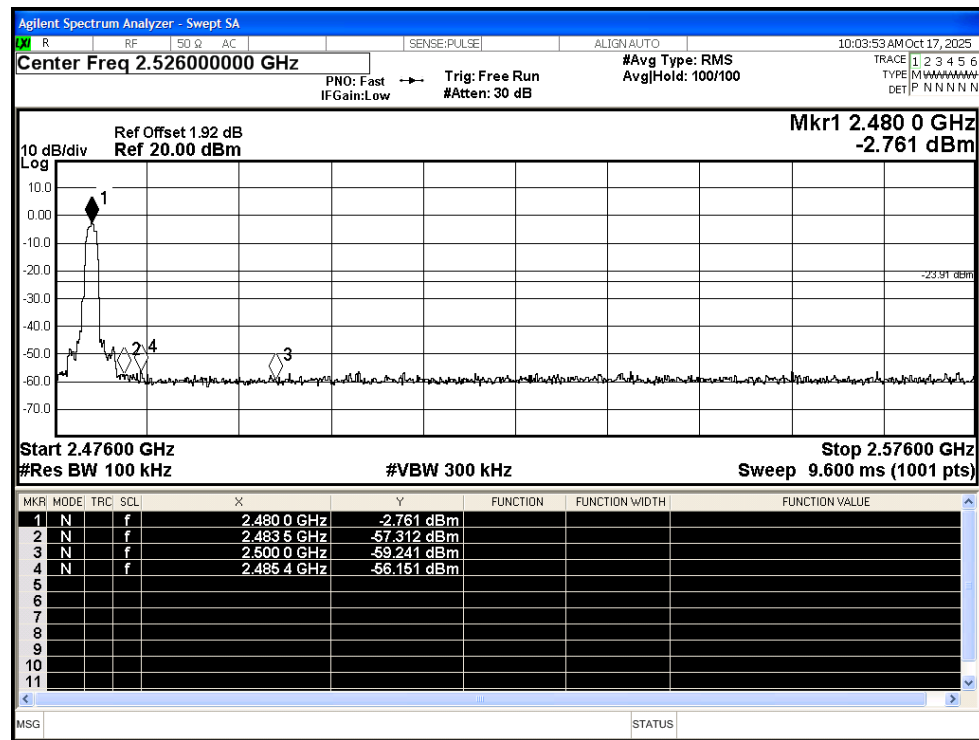
Band Edge NVNT 2-DH5 2480MHz Ant No-Hopping Emission



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



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

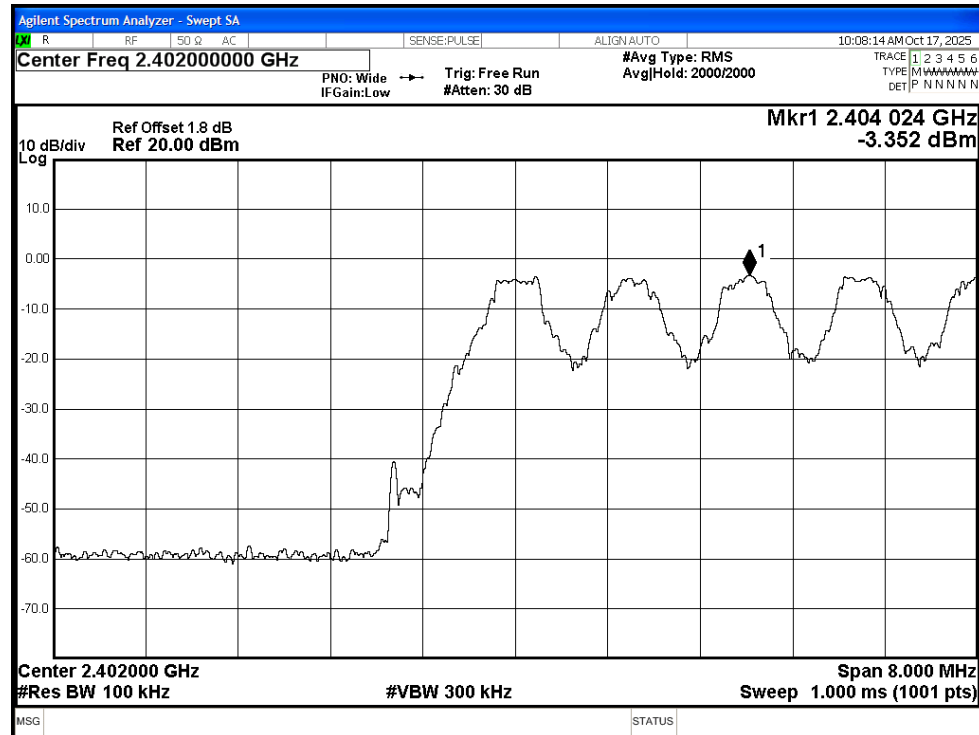


(Hopping)

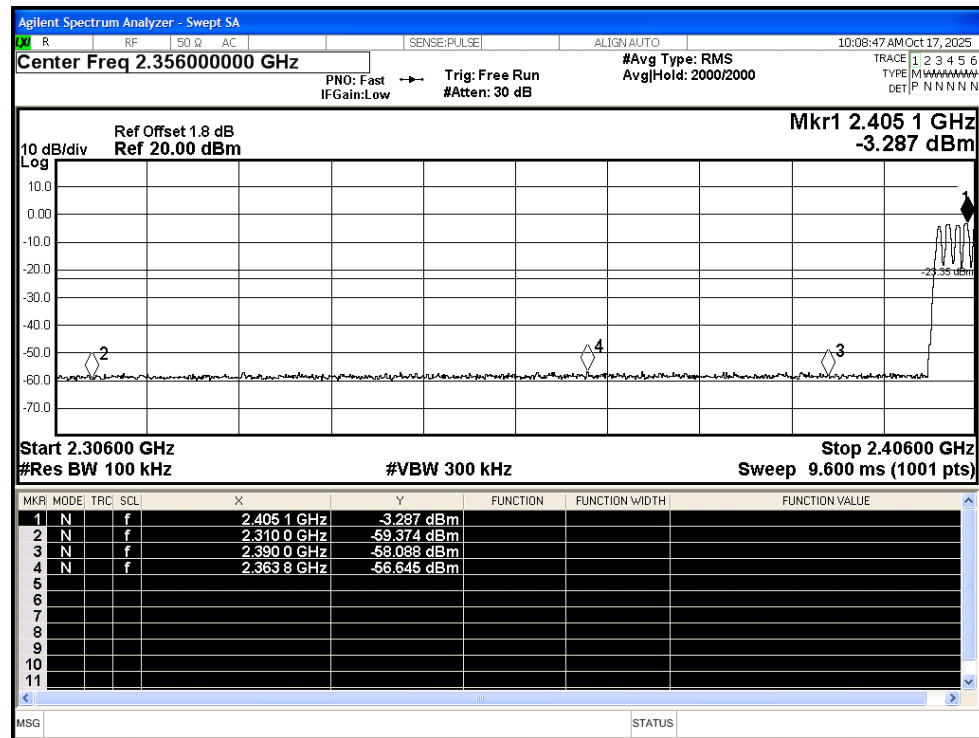
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant	Hopping	-53.29	-20	Pass
NVNT	1-DH5	2480	Ant	Hopping	-55.59	-20	Pass
NVNT	2-DH5	2402	Ant	Hopping	-52.31	-20	Pass
NVNT	2-DH5	2480	Ant	Hopping	-54.22	-20	Pass
NVNT	3-DH5	2402	Ant	Hopping	-52.65	-20	Pass
NVNT	3-DH5	2480	Ant	Hopping	-52.73	-20	Pass

Test Graphs

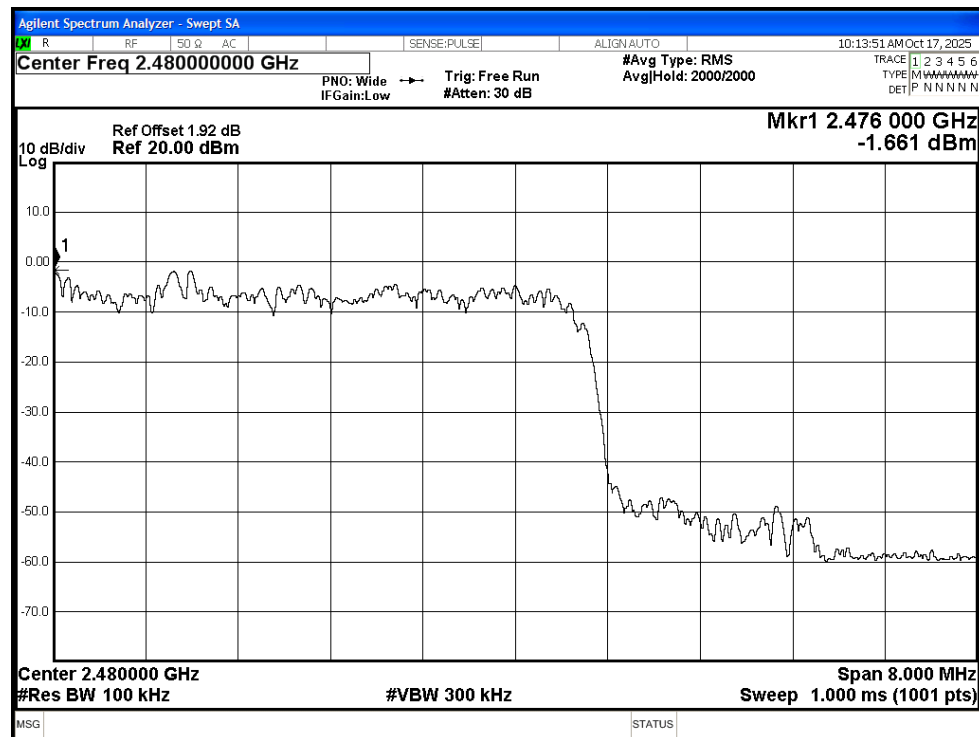
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant Hopping Ref



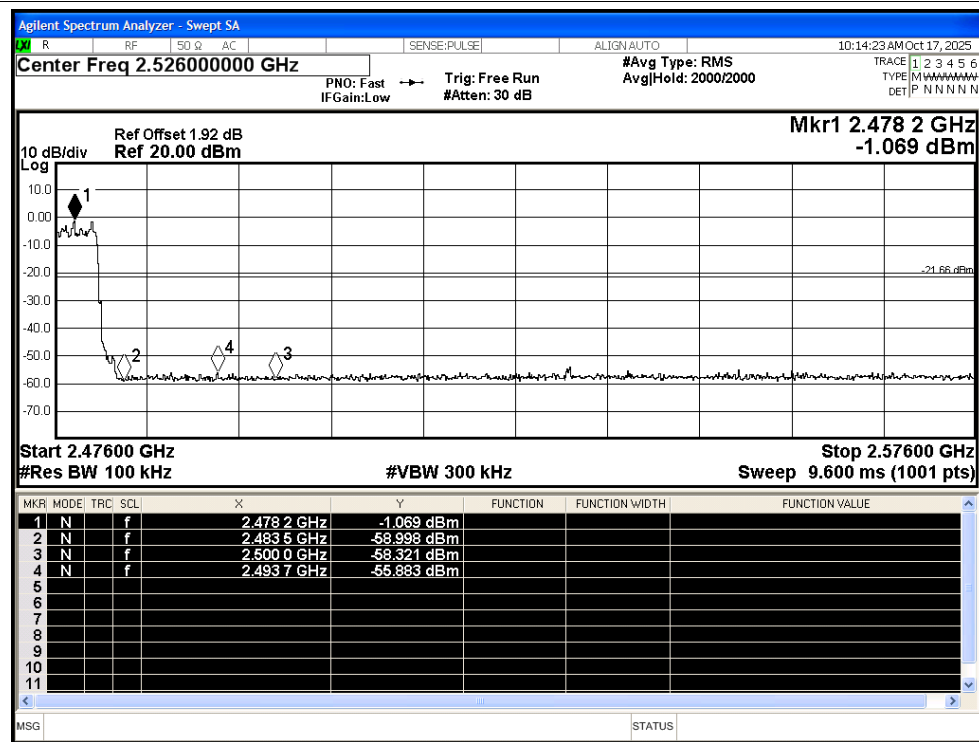
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant Hopping Emission



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



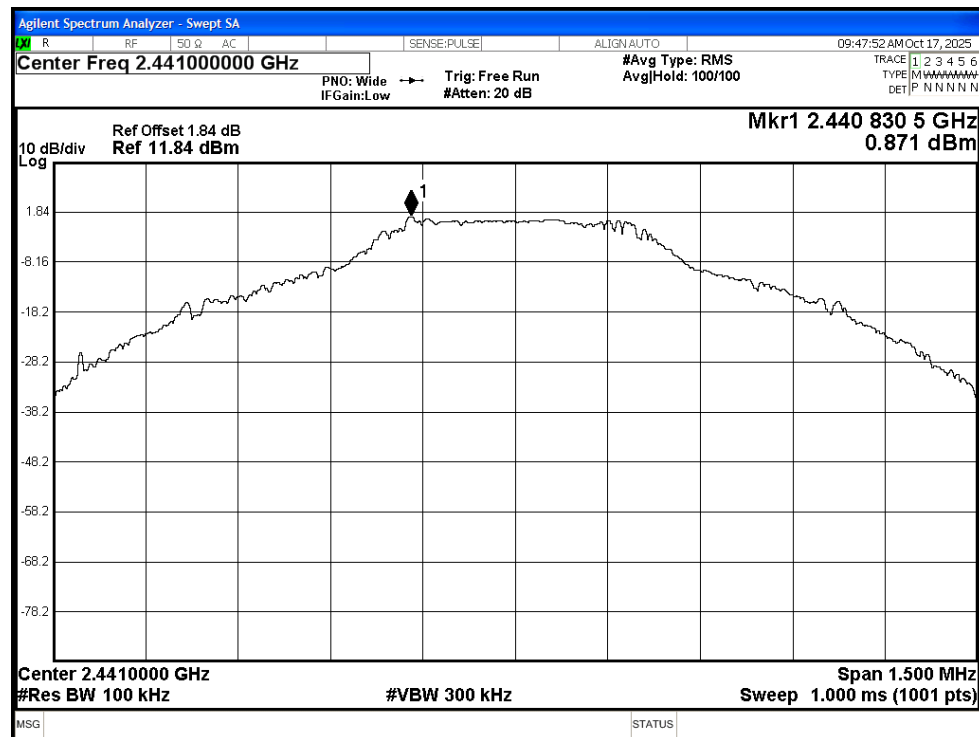
Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant Hopping Emission



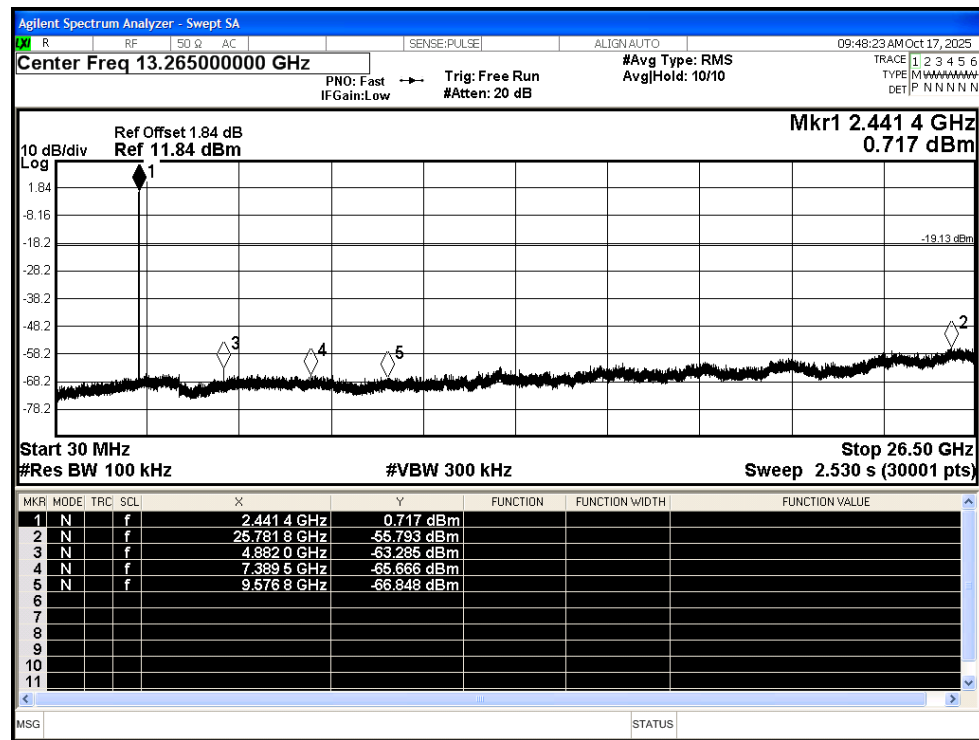
7. Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant	-55.23	-20	Pass
NVNT	1-DH5	2441	Ant	-56.66	-20	Pass
NVNT	1-DH5	2480	Ant	-55.2	-20	Pass
NVNT	2-DH5	2402	Ant	-55.3	-20	Pass
NVNT	2-DH5	2441	Ant	-54.3	-20	Pass
NVNT	2-DH5	2480	Ant	-53.01	-20	Pass
NVNT	3-DH5	2402	Ant	-51.46	-20	Pass
NVNT	3-DH5	2441	Ant	-55.35	-20	Pass
NVNT	3-DH5	2480	Ant	-54.75	-20	Pass

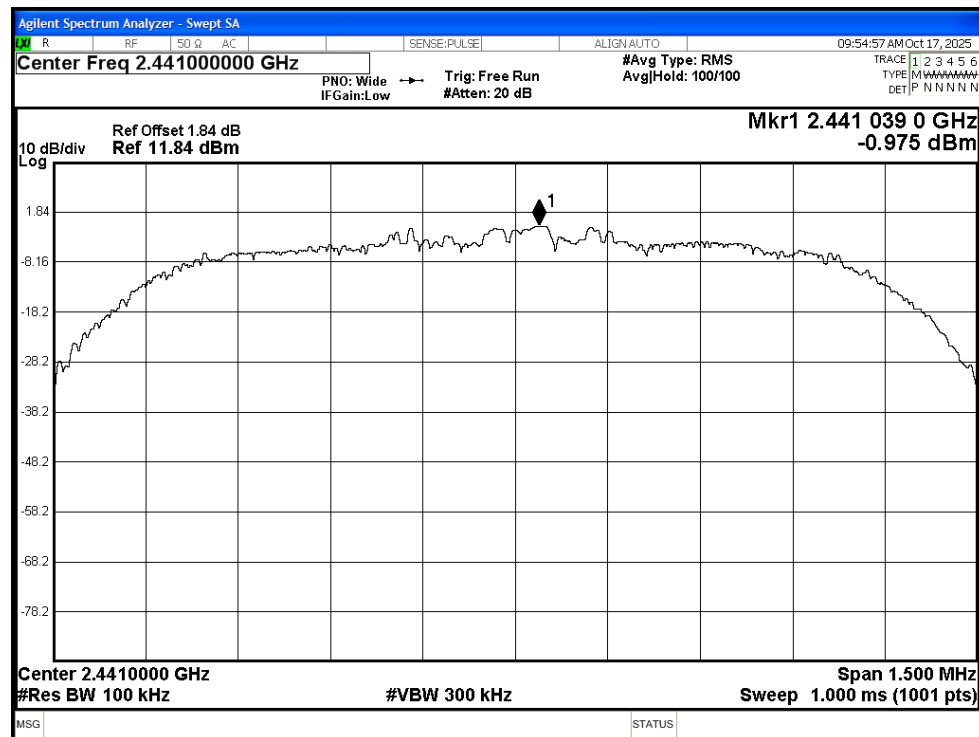
Tx. Spurious NVNT 1-DH5 2441MHz Ant Ref



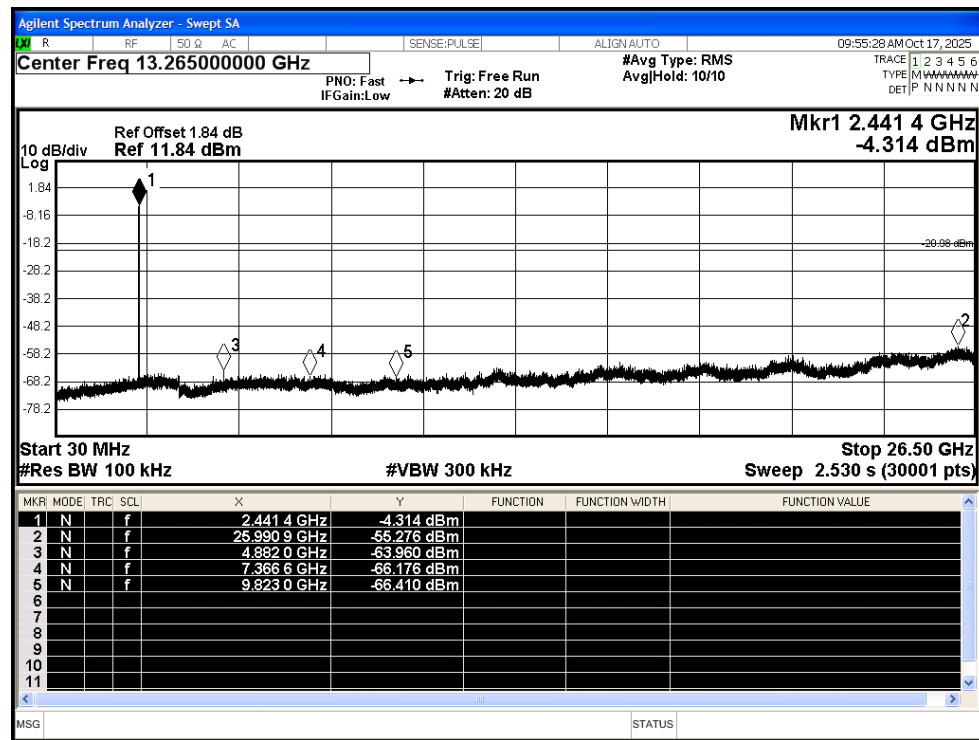
Tx. Spurious NVNT 1-DH5 2441MHz Ant Emission



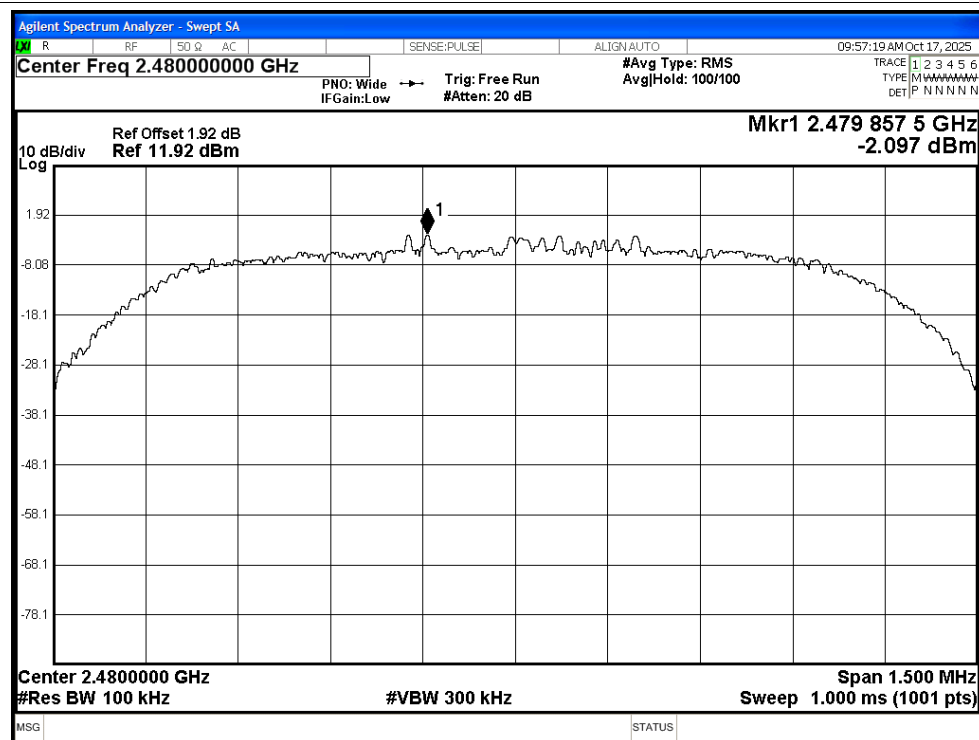
Tx. Spurious NVNT 2-DH5 2441MHz Ant Ref



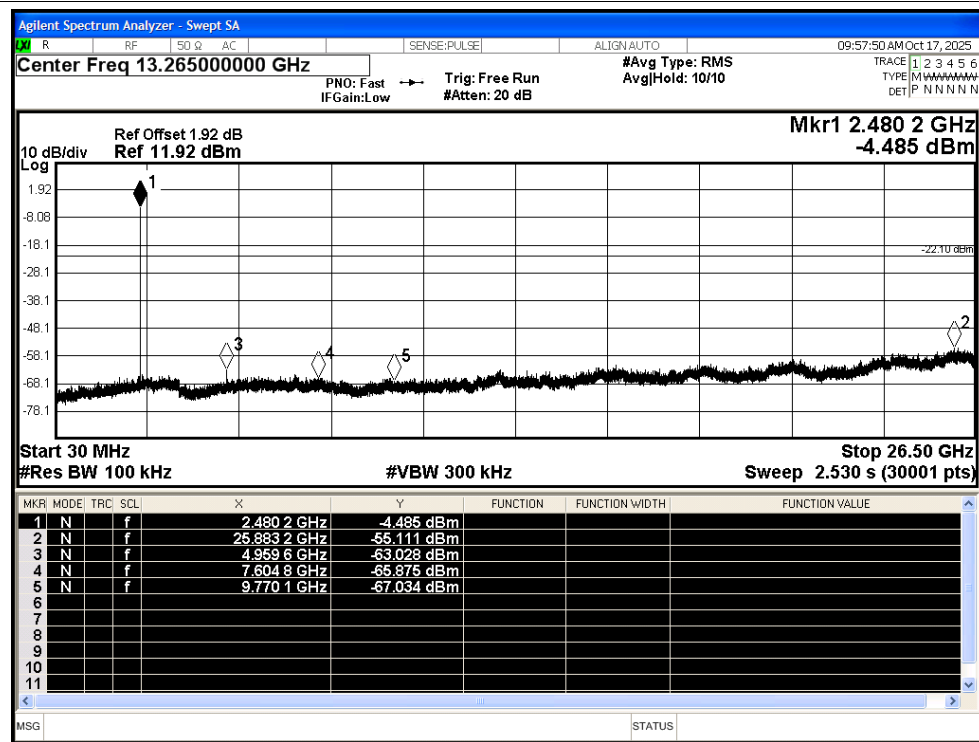
Tx. Spurious NVNT 2-DH5 2441MHz Ant Emission



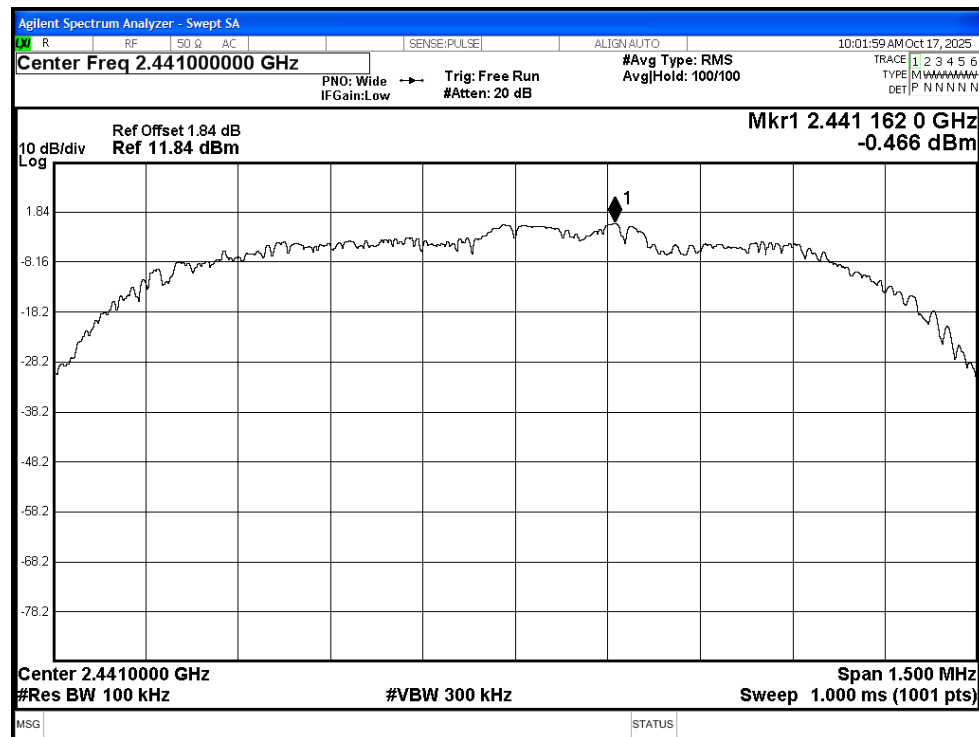
Tx. Spurious NVNT 2-DH5 2480MHz Ant Ref



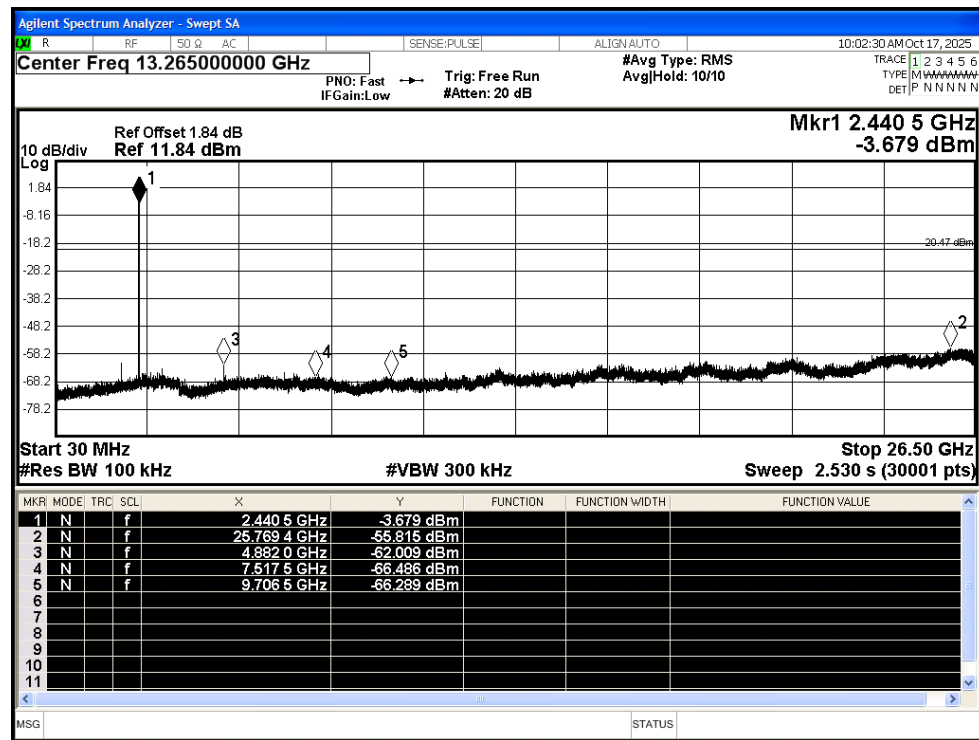
Tx. Spurious NVNT 2-DH5 2480MHz Ant Emission



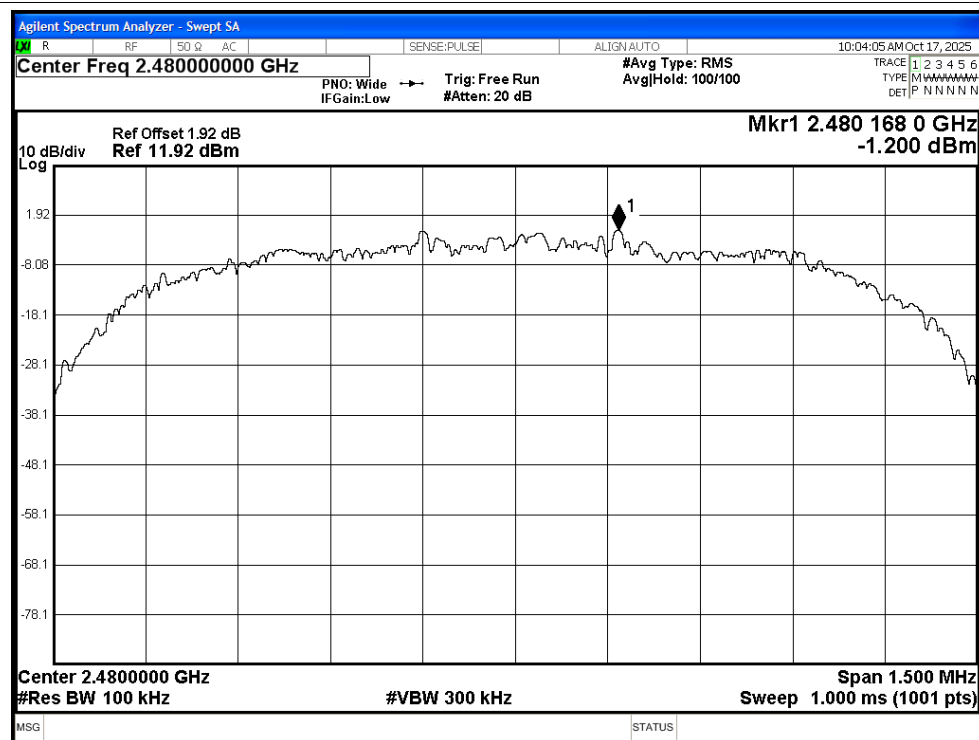
Tx. Spurious NVNT 3-DH5 2441MHz Ant Ref



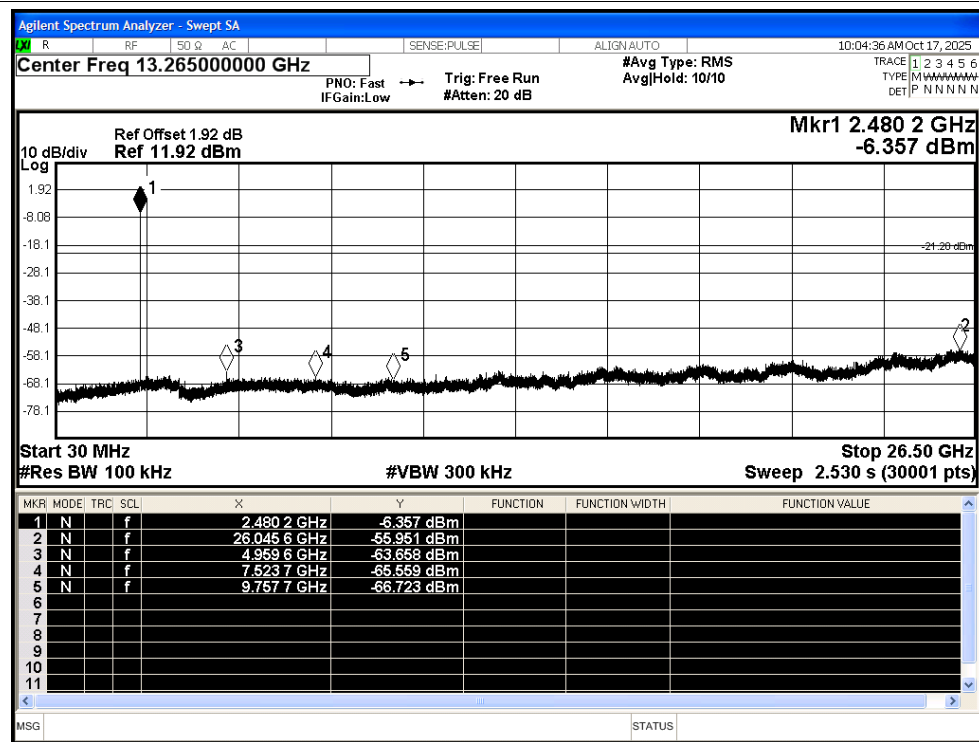
Tx. Spurious NVNT 3-DH5 2441MHz Ant Emission



Tx. Spurious NVNT 3-DH5 2480MHz Ant Ref



Tx. Spurious NVNT 3-DH5 2480MHz Ant Emission



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	77.33	1.12	0.34
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

[illegible][illegible]

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	-50.57	2	-	46.69	Peak	74	Pass
NVNT	1-DH5	2402	Ant	No-Hopping	2310	-59.14	2	1.1	39.22	Average	54	Pass
NVNT	1-DH5	2402	Ant	No-Hopping	2337.744	-47.36	2	-	49.9	Peak	74	Pass
NVNT	1-DH5	2402	Ant	No-Hopping	2375.952	-57.95	2	1.1	40.41	Average	54	Pass
NVNT	1-DH5	2402	Ant	No-Hopping	2390	-50.84	2	-	46.42	Peak	74	Pass
NVNT	1-DH5	2402	Ant	No-Hopping	2390	-59.04	2	1.1	39.32	Average	54	Pass
NVNT	1-DH5	2480	Ant	No-Hopping	2483.5	-49.69	2	-	47.57	Peak	74	Pass
NVNT	1-DH5	2480	Ant	No-Hopping	2483.5	-57.96	2	1.1	40.4	Average	54	Pass
NVNT	1-DH5	2480	Ant	No-Hopping	2498.944	-47.25	2	-	50.01	Peak	74	Pass
NVNT	1-DH5	2480	Ant	No-Hopping	2483.704	-57.15	2	1.1	41.21	Average	54	Pass
NVNT	1-DH5	2480	Ant	No-Hopping	2500	-49.14	2	-	48.12	Peak	74	Pass
NVNT	1-DH5	2480	Ant	No-Hopping	2500	-58.52	2	1.1	39.84	Average	54	Pass
NVNT	2-DH5	2402	Ant	No-Hopping	2310	-50.24	2	-	47.02	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	2364.72	-47.5	2	-	49.76	Peak	74	Pass
NVNT	2-DH5	2402	Ant	No-Hopping	2365.296	-57.91	2	1.12	40.47	Average	54	Pass
NVNT	2-DH5	2402	Ant	No-Hopping	2390	-50.51	2	-	46.75	Peak	74	Pass
NVNT	2-DH5	2402	Ant	No-Hopping	2390	-58.69	2	1.12	39.69	Average	54	Pass
NVNT	2-DH5	2480	Ant	No-Hopping	2483.5	-47.02	2	-	50.24	Peak	74	Pass
NVNT	2-DH5	2480	Ant	No-Hopping	2483.5	-57.14	2	1.12	41.24	Average	54	Pass
NVNT	2-DH5	2480	Ant	No-Hopping	2483.536	-46.35	2	-	50.91	Peak	74	Pass
NVNT	2-DH5	2480	Ant	No-Hopping	2483.608	-56.72	2	1.12	41.66	Average	54	Pass
NVNT	2-DH5	2480	Ant	No-Hopping	2500	-50.91	2	-	46.35	Peak	74	Pass
NVNT	2-DH5	2480	Ant	No-Hopping	2500	-58	2	1.12	40.38	Average	54	Pass
NVNT	3-DH5	2402	Ant	No-Hopping	2310	-50.55	2	-	46.71	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	2374.416	-47.08	2	-	50.18	Peak	74	Pass
NVNT	3-DH5	2402	Ant	No-Hopping	2386.32	-57.91	2	1.12	40.47	Average	54	Pass
NVNT	3-DH5	2402	Ant	No-Hopping	2390	-48.46	2	-	48.8	Peak	74	Pass
NVNT	3-DH5	2402	Ant	No-Hopping	2390	-58.56	2	1.12	39.82	Average	54	Pass
NVNT	3-DH5	2480	Ant	No-Hopping	2483.5	-47.35	2	-	49.91	Peak	74	Pass
NVNT	3-DH5	2480	Ant	No-Hopping	2483.5	-56.91	2	1.12	41.47	Average	54	Pass
NVNT	3-DH5	2480	Ant	No-Hopping	2483.632	-45.38	2	-	51.88	Peak	74	Pass
NVNT	3-DH5	2480	Ant	No-Hopping	2483.872	-56.91	2	1.12	41.47	Average	54	Pass
NVNT	3-DH5	2480	Ant	No-Hopping	2500	-50.36	2	-	46.9	Peak	74	Pass
NVNT	3-DH5	2480	Ant	No-Hopping	2500	-57.94	2	1.12	40.44	Average	54	Pass

