Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name:AIRSPOT

Test Model:A1

Environmental Conditions

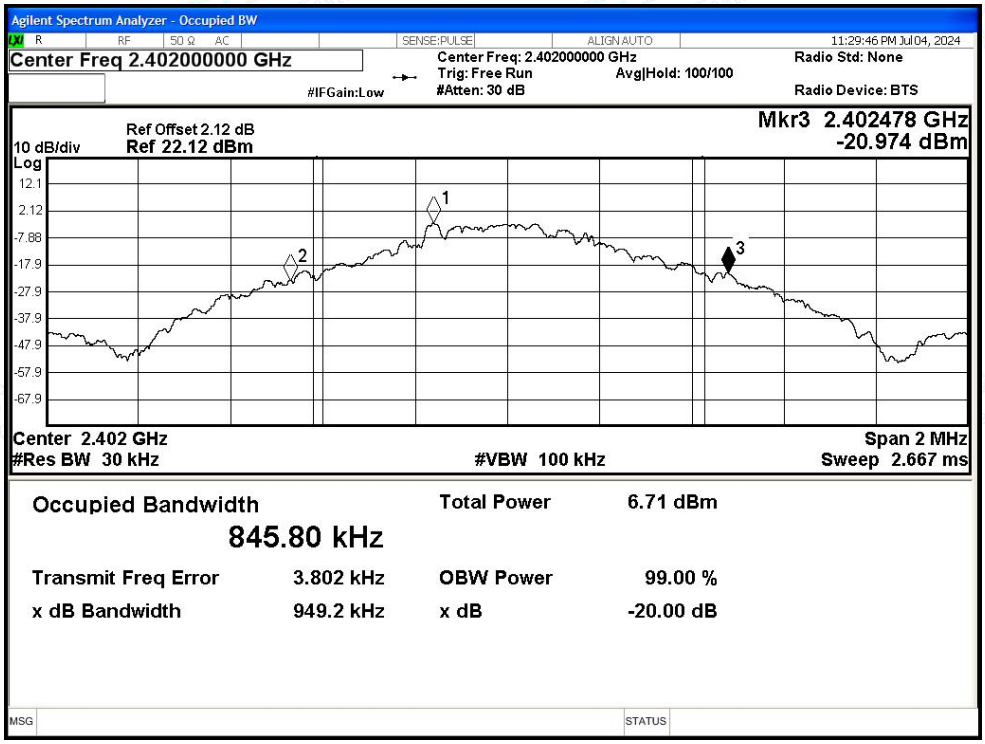
Temperature:	23.8° C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Jerry Chu
Supervised by:	Nick Peng

A.1 -20dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH5	2402	Ant1	0.949	N/A	Pass
NVNT	1-DH5	2441	Ant1	0.946	N/A	Pass
NVNT	1-DH5	2480	Ant1	0.947	N/A	Pass

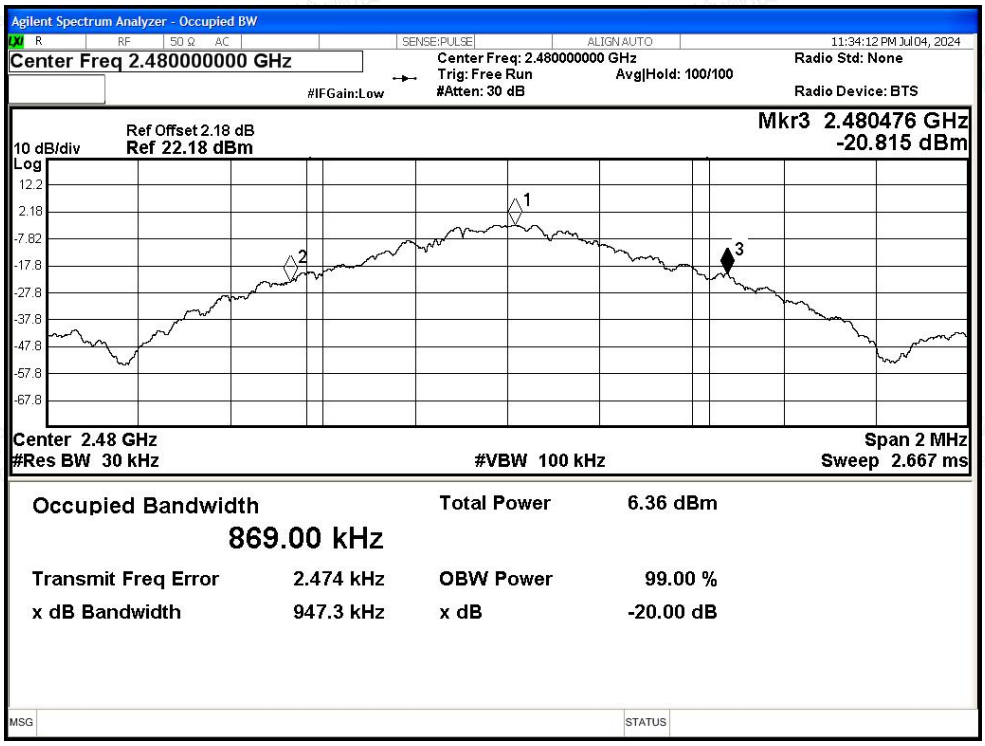
Test Graphs

-20dB Bandwidth NVNT 1-DH5 2402MHz Ant1



-20dB Bandwidth NVNT 1-DH5 2441MHz Ant1

-20dB Bandwidth NVNT 1-DH5 2480MHz Ant1

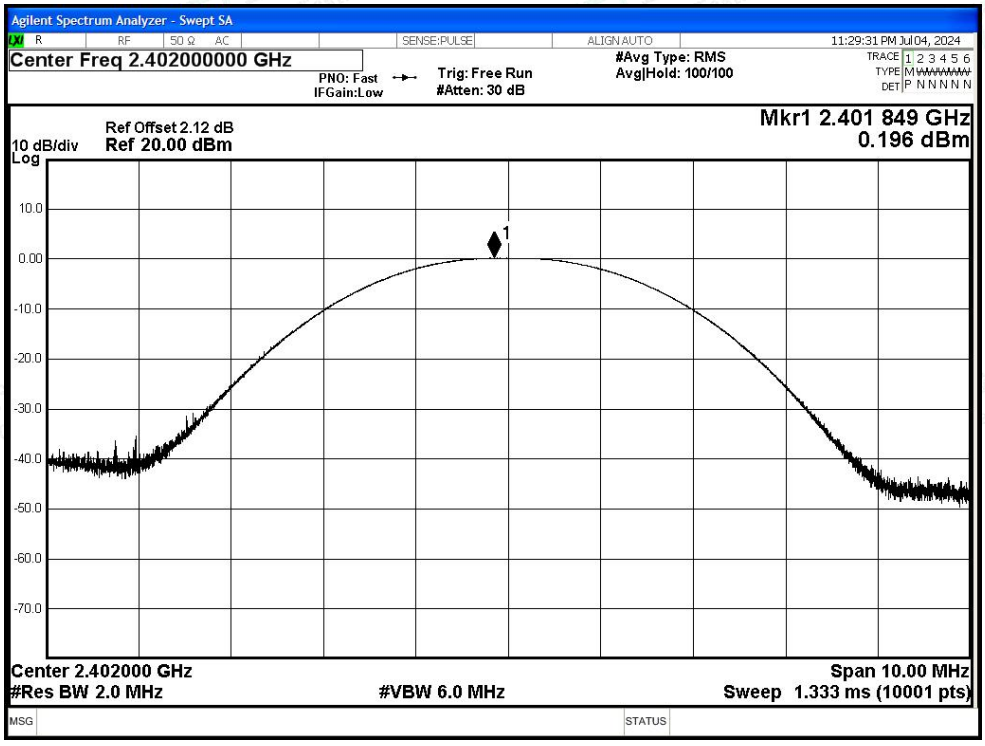


A.2 Maximum Conducted Output Power

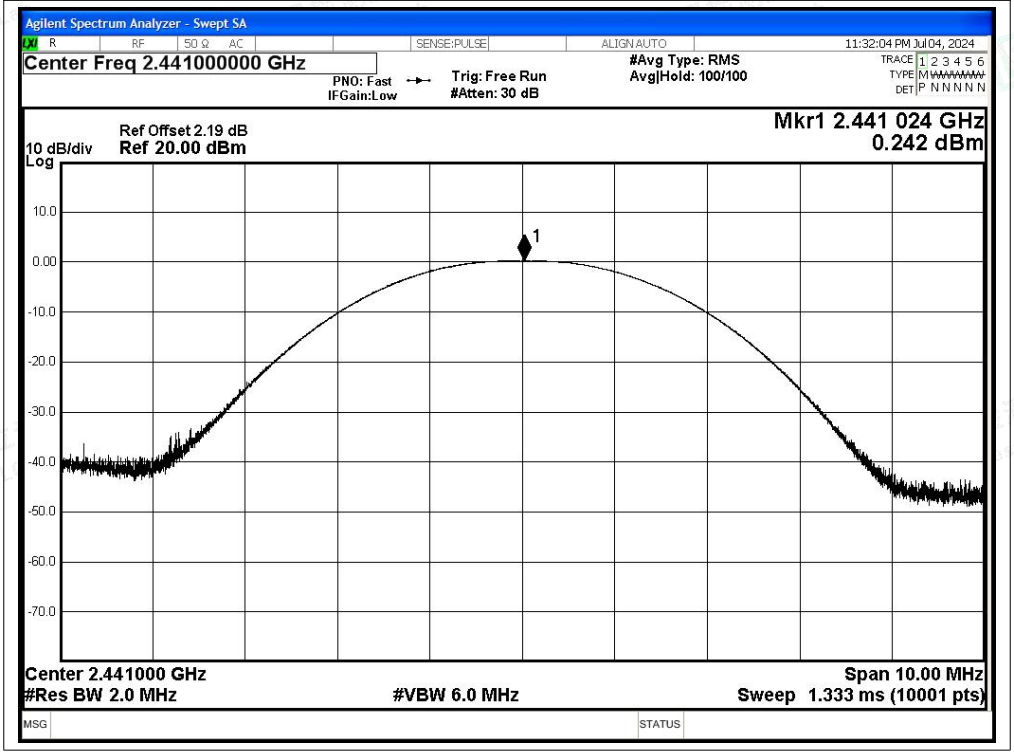
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH5	2402	Ant1	0.2	0	0.2	21	Pass
NVNT	1-DH5	2441	Ant1	0.24	0	0.24	21	Pass
NVNT	1-DH5	2480	Ant1	0.14	0	0.14	21	Pass

Test Graphs

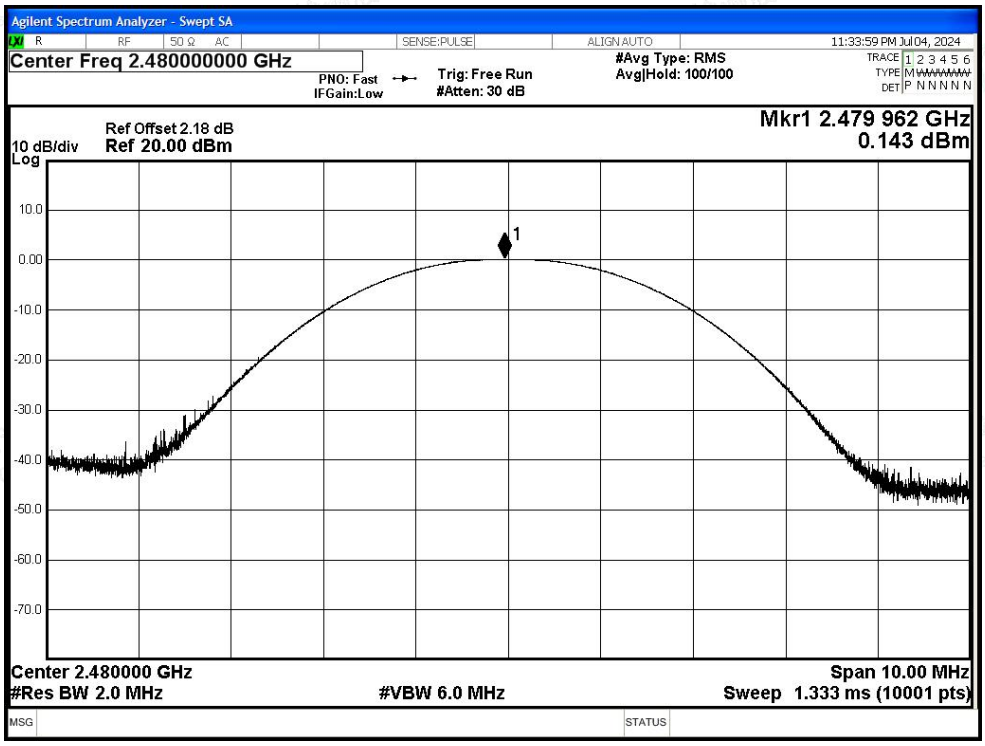
Power NVNT 1-DH5 2402MHz Ant1



Power NVNT 1-DH5 2441MHz Ant1



Power NVNT 1-DH5 2480MHz Ant1

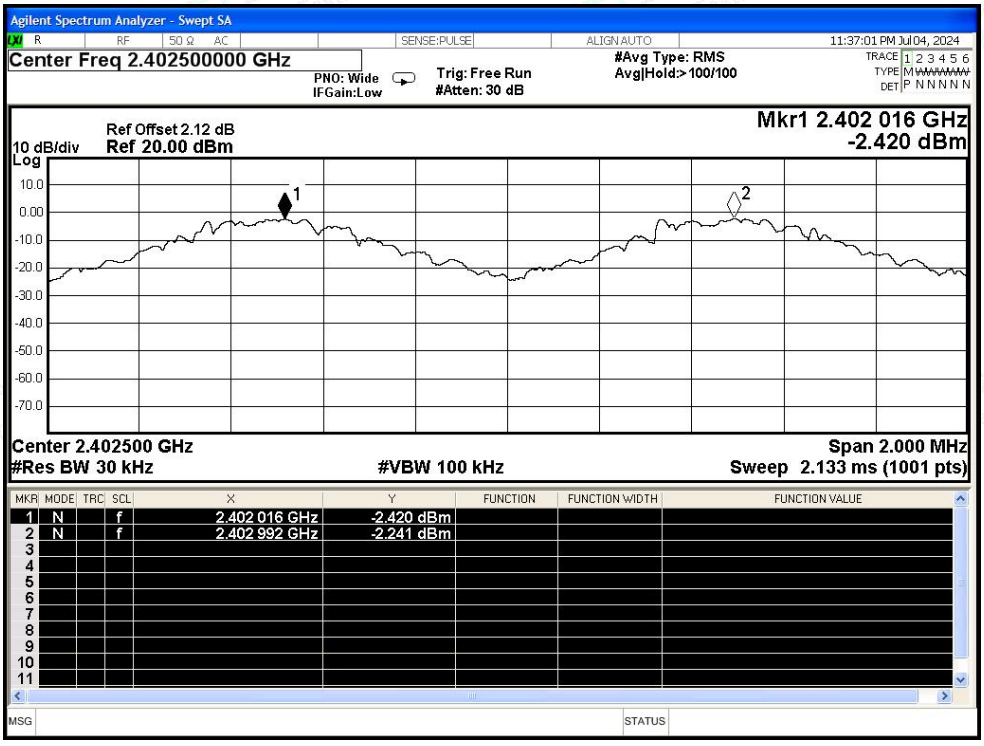


A.3 Carrier Frequencies Separation

Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH5	Ant1	2402.016	2402.992	0.976	0.633	Pass

Test Graphs

CFS NVNT 1-DH5 2402MHz Ant1

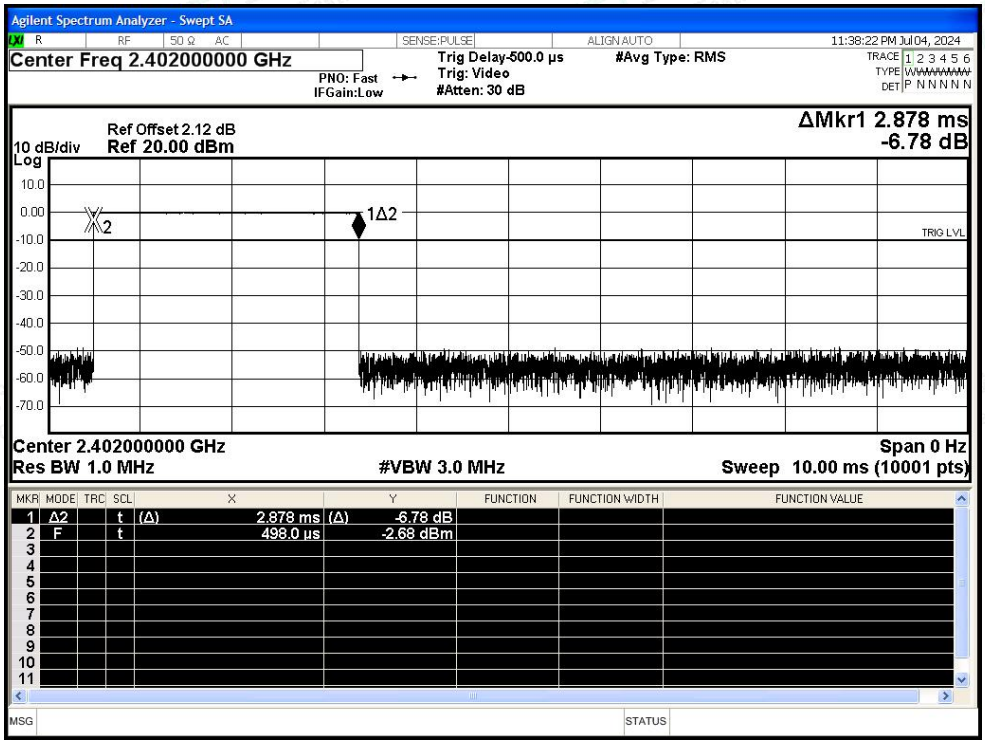


A.4 Dwell Time

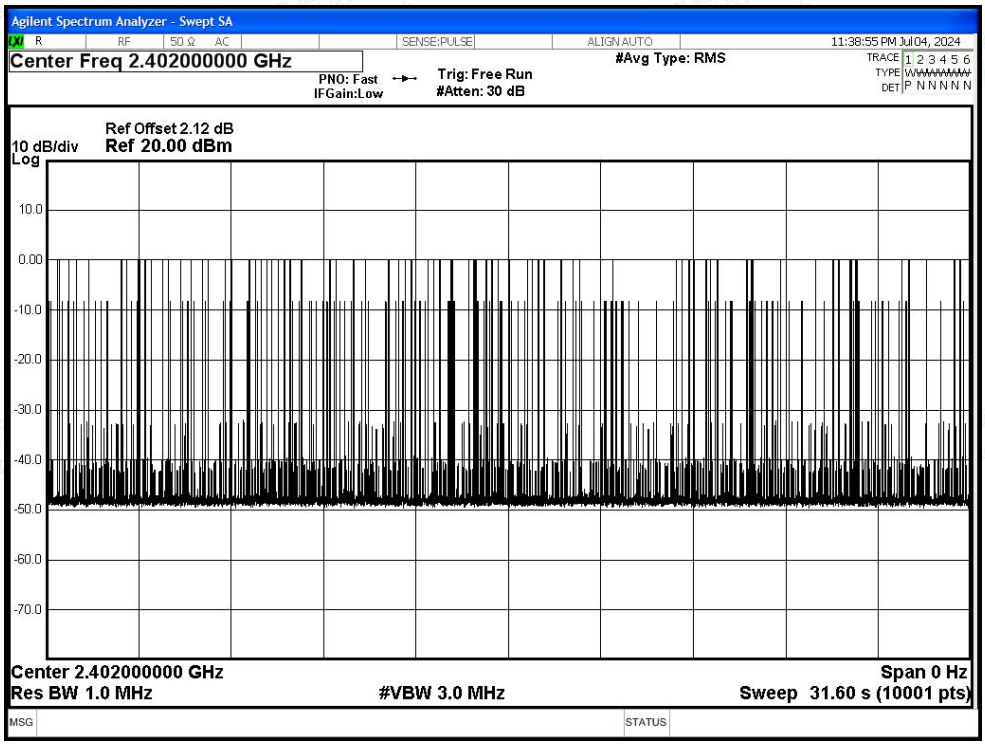
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH5	2402	Ant1	2.878	267.654	93	31600	400	Pass

Test Graphs

Dwell NVNT 1-DH5 2402MHz Ant1 One Burst



Dwell NVNT 1-DH5 2402MHz Ant1 Accumulated

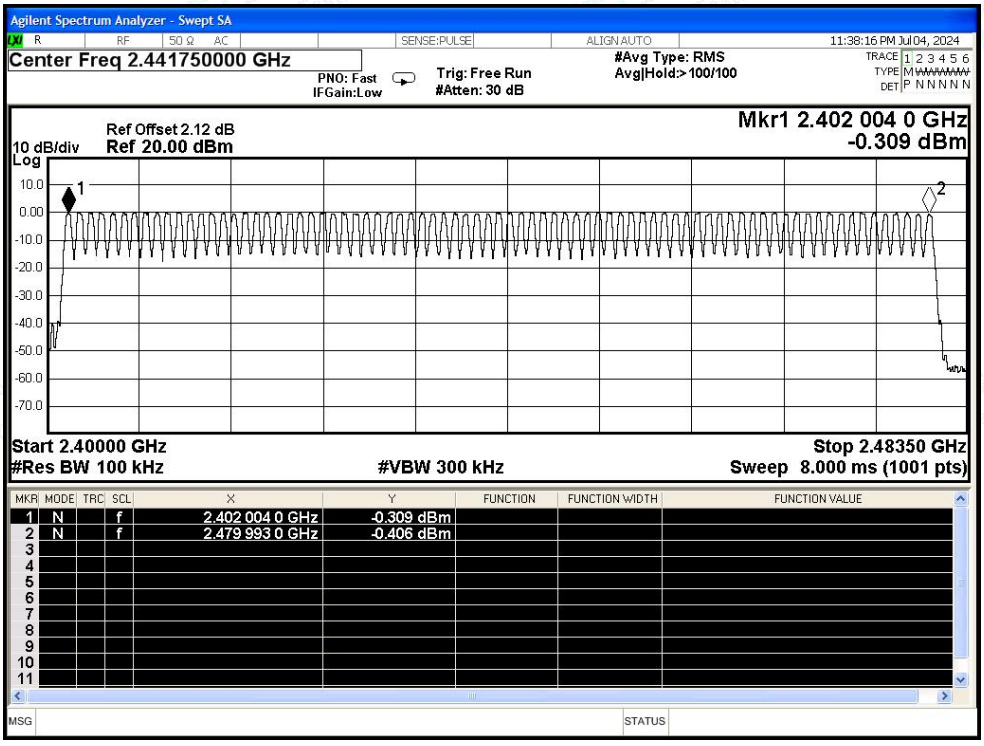


A.5 Number of Hopping Channel

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

Test Graphs

Hopping No. NVNT 1-DH5 2402MHz Ant1

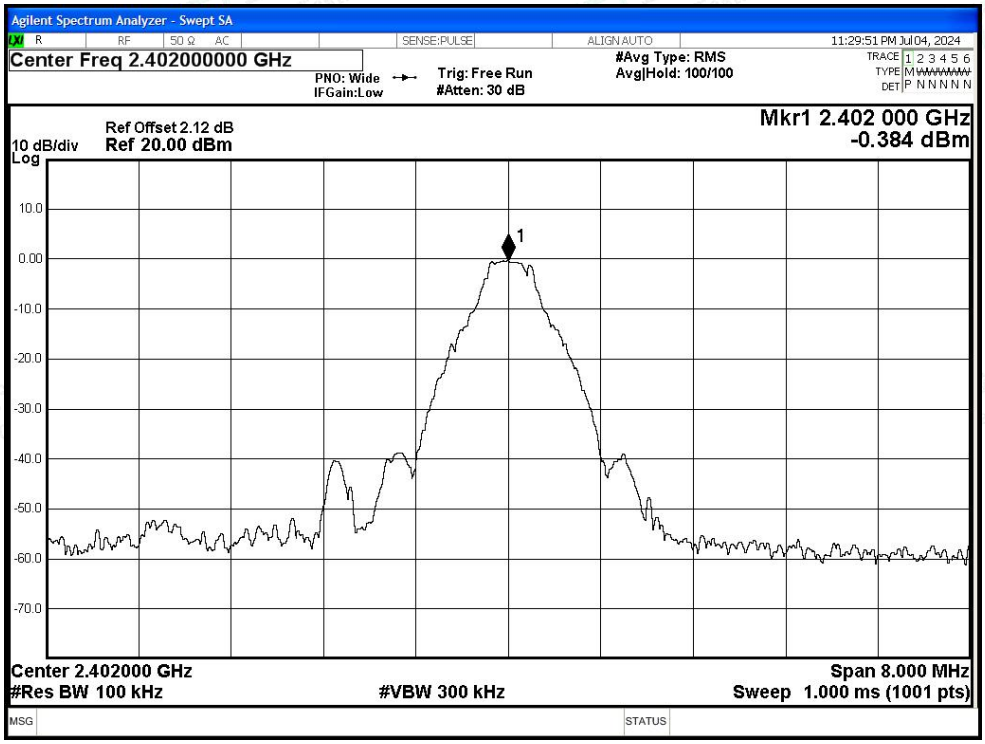


A.6 Band Edge

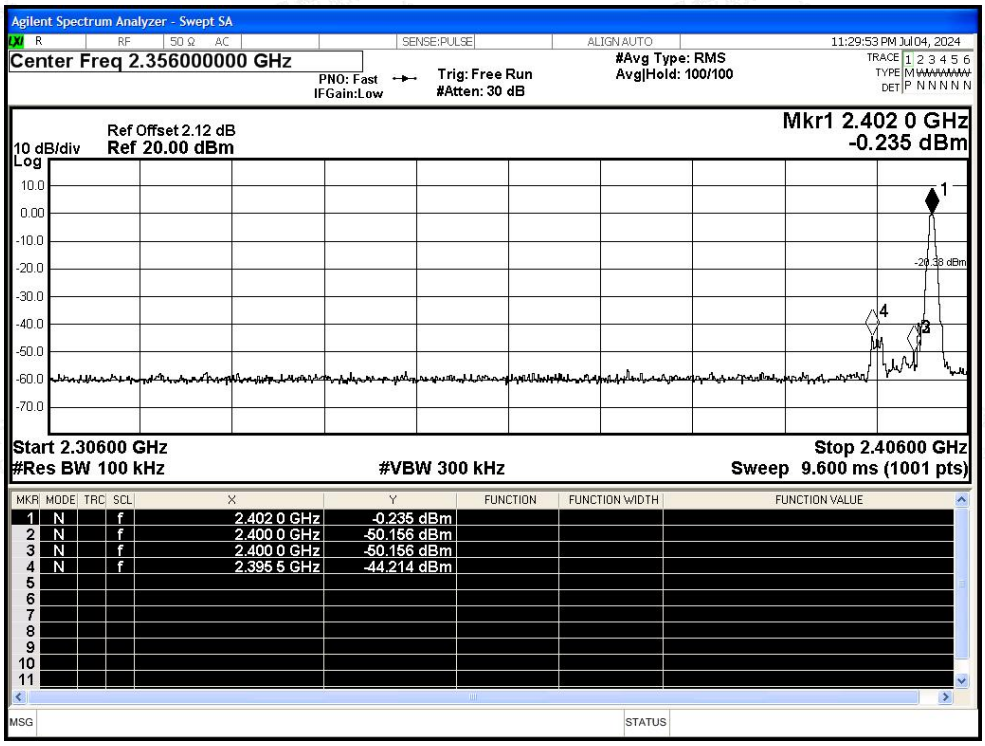
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	-43.83	-20	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	-55.89	-20	Pass

Test Graphs

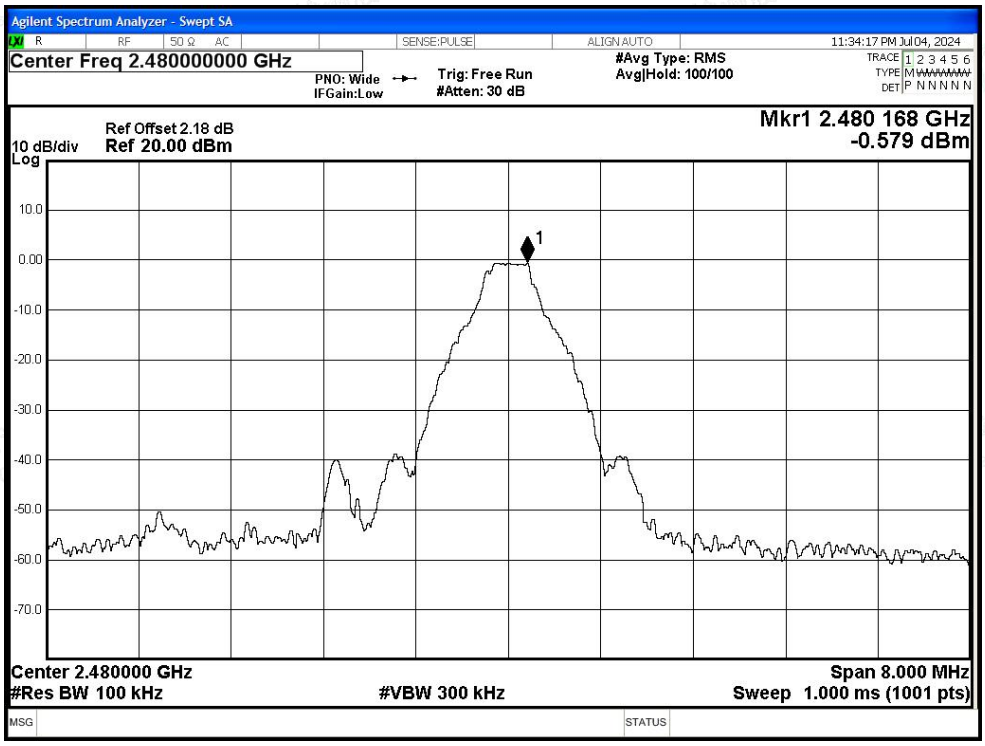
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Ref



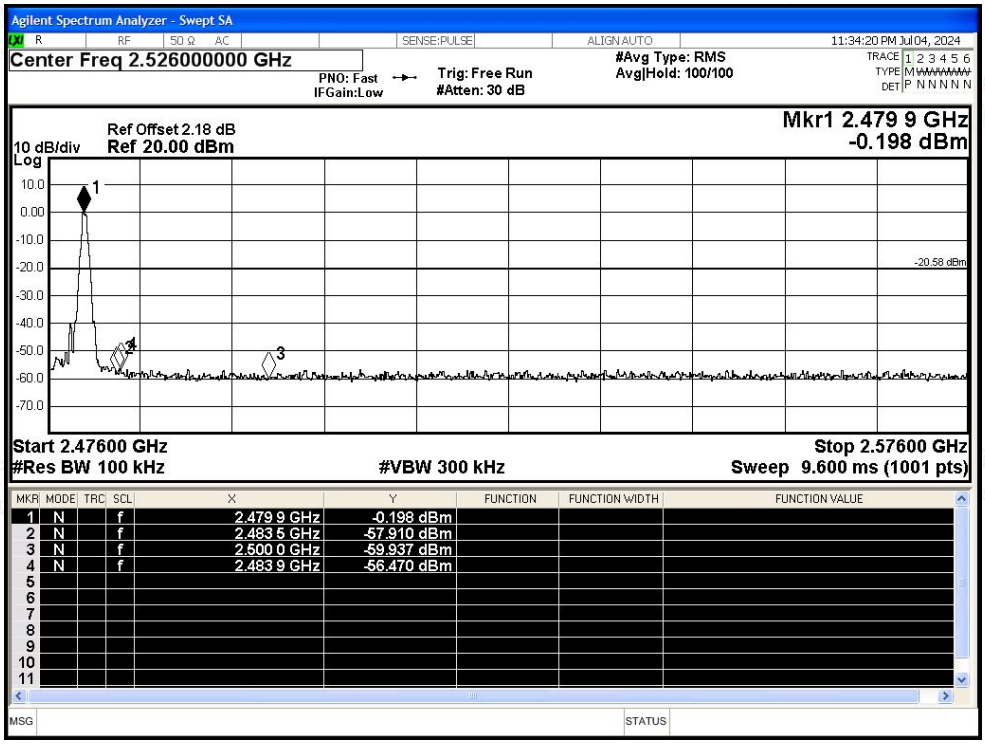
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Emission



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



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

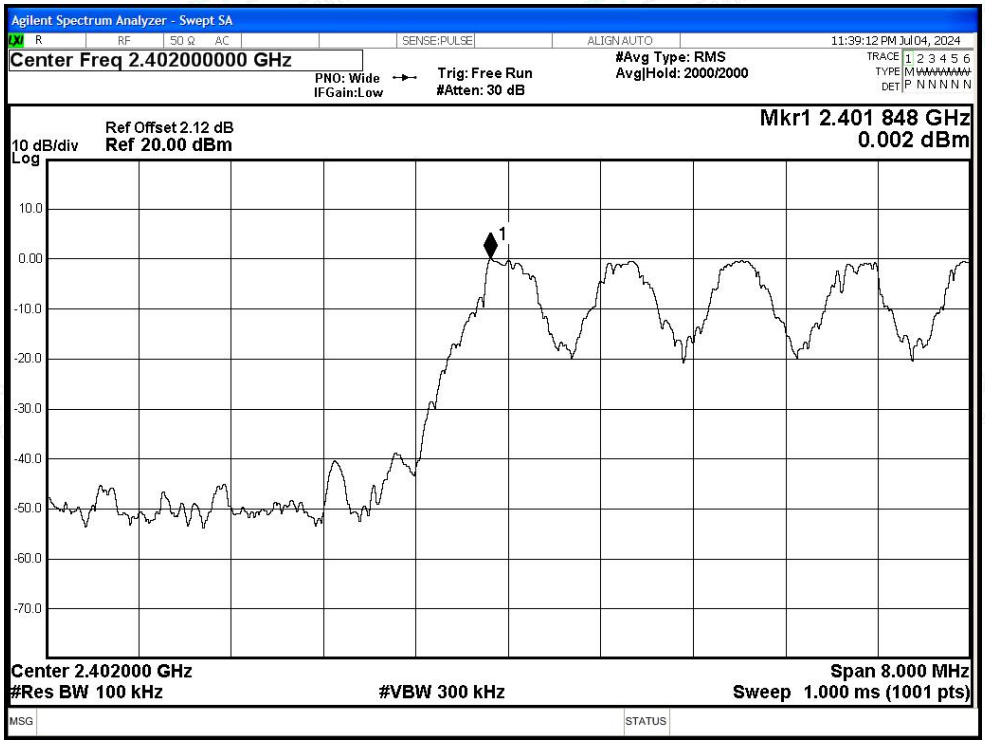


(Hopping)

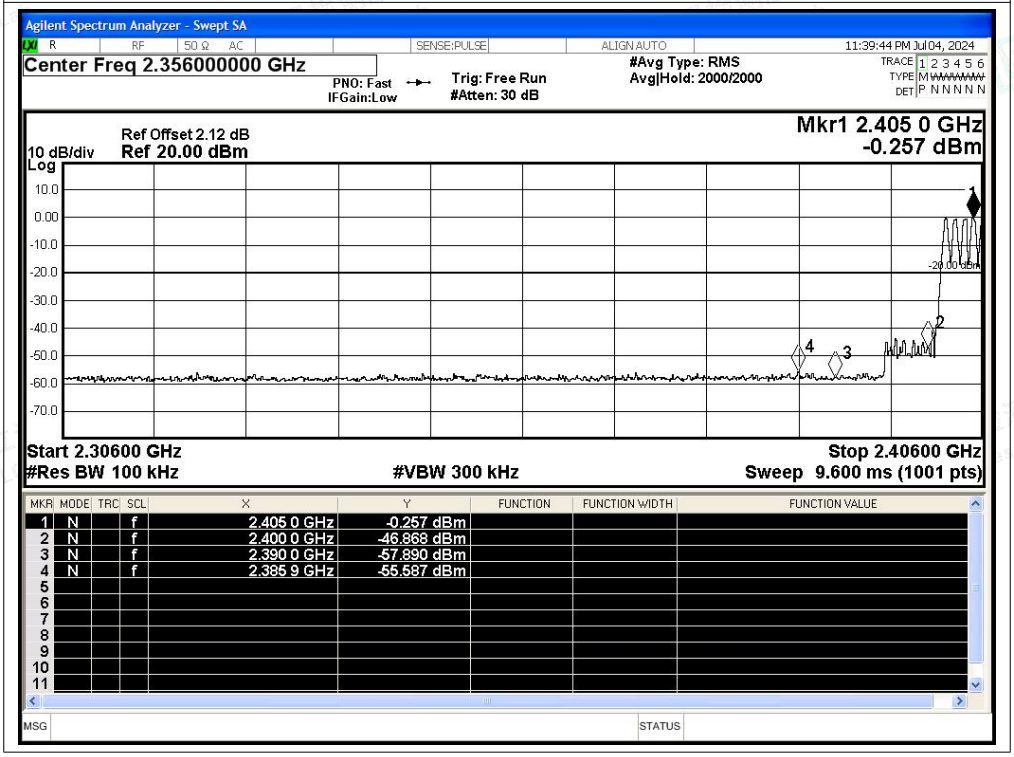
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	Hopping	-55.59	-20	Pass
NVNT	1-DH5	2480	Ant1	Hopping	-54.41	-20	Pass

Test Graphs

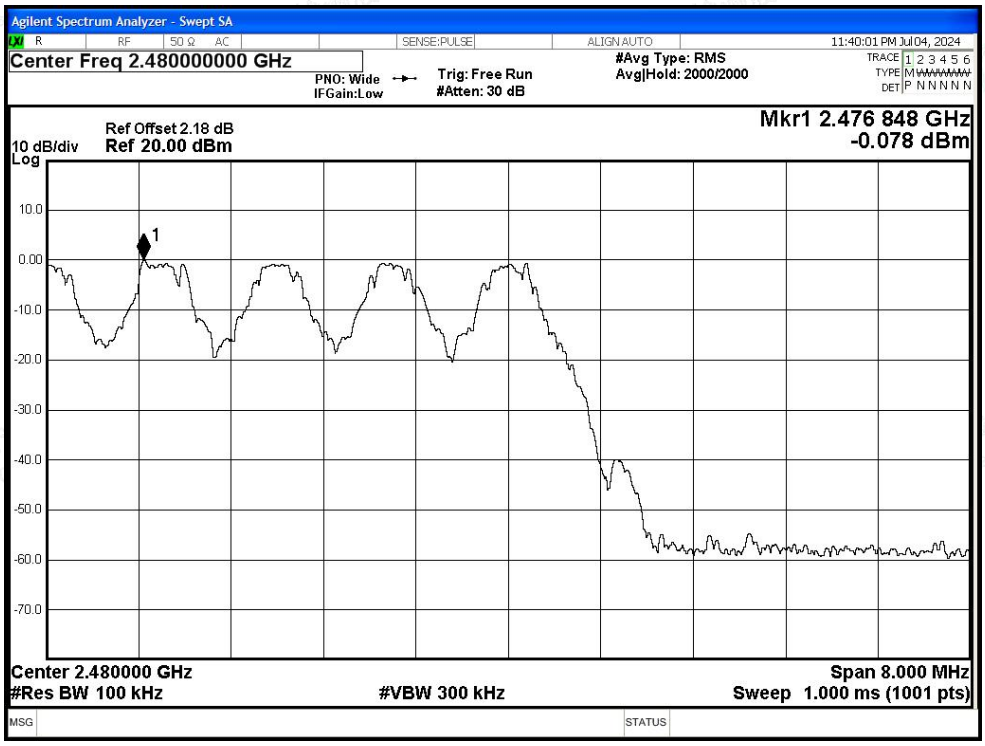
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Ref



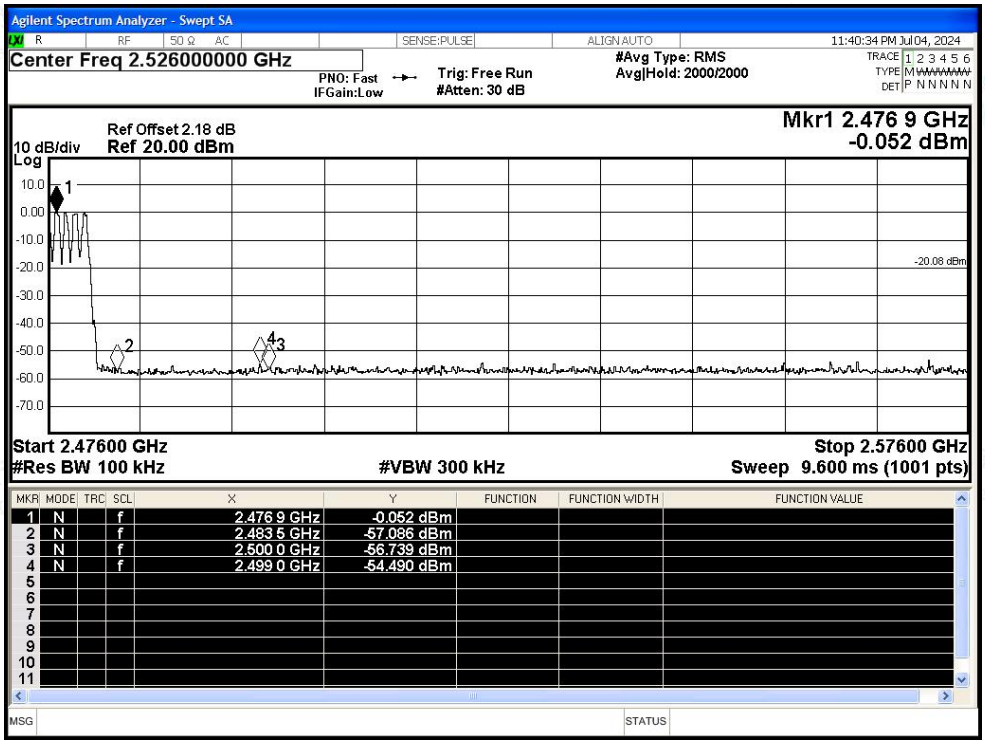
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission



Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Ref



Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Emission

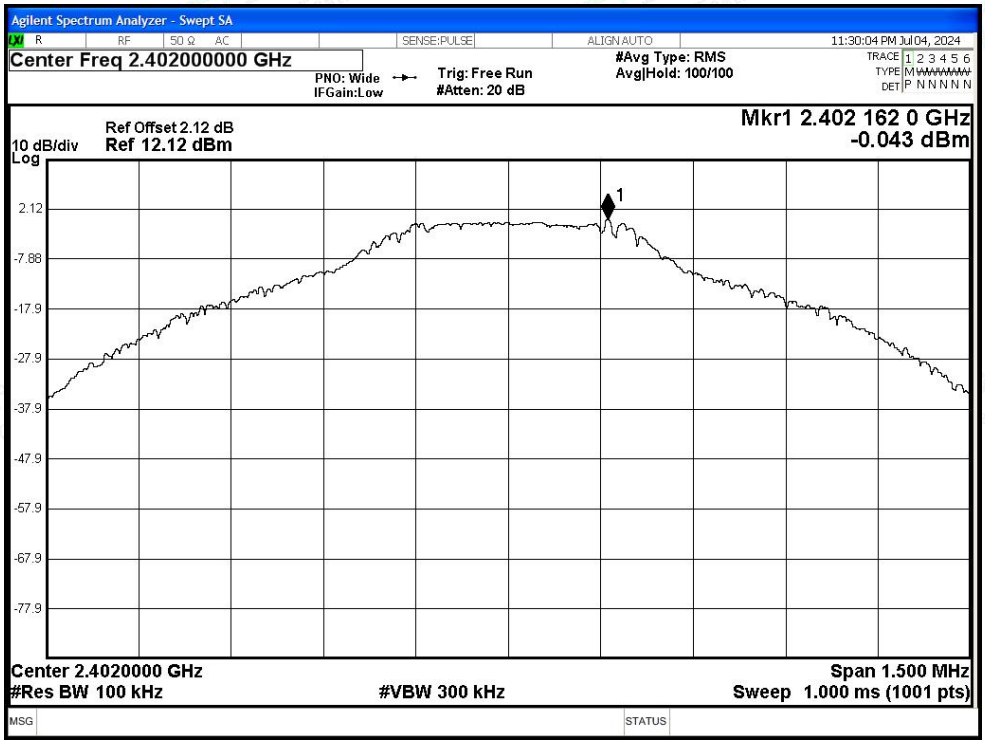


A.7 Conducted RF Spurious Emission

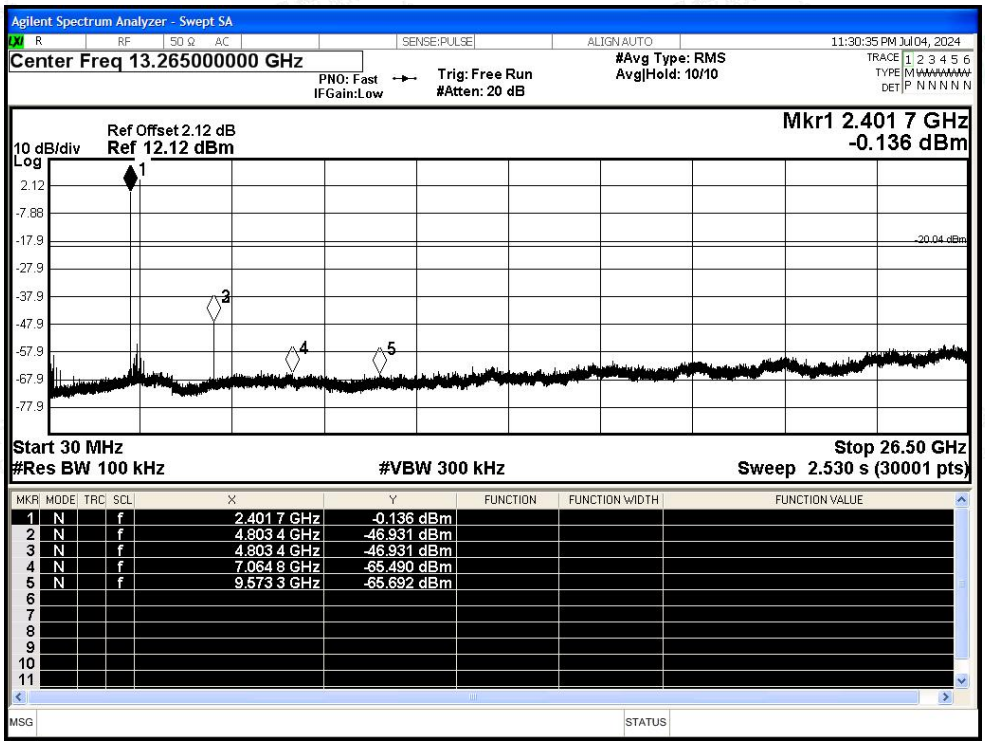
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	-46.89	-20	Pass
NVNT	1-DH5	2441	Ant1	-45.22	-20	Pass
NVNT	1-DH5	2480	Ant1	-47.37	-20	Pass

Test Graphs

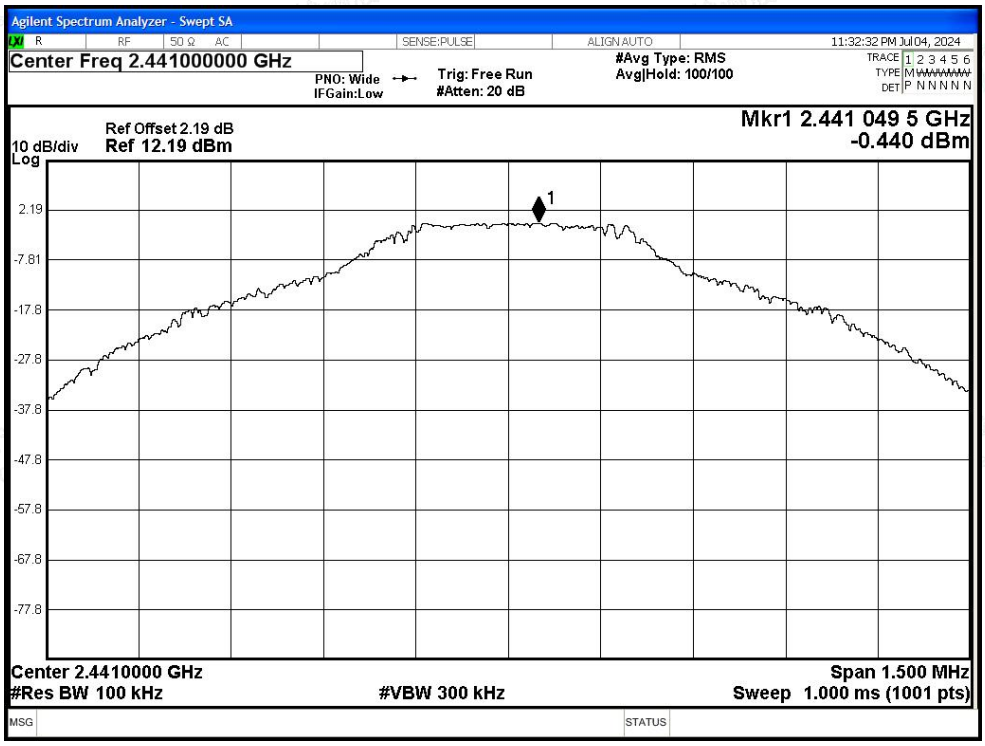
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref



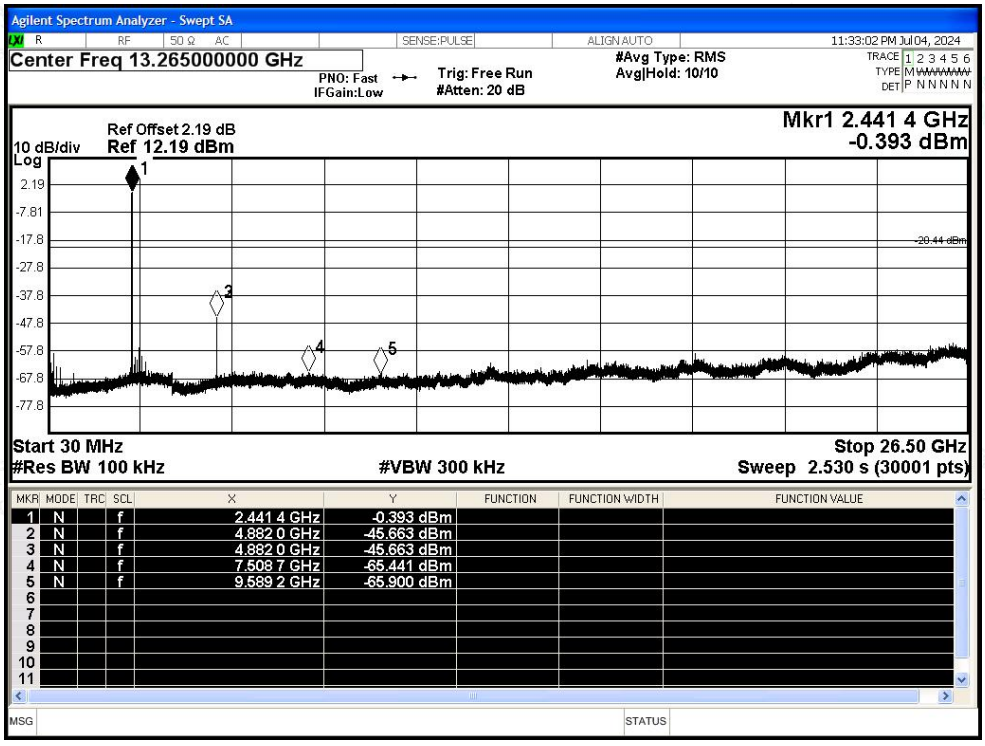
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission



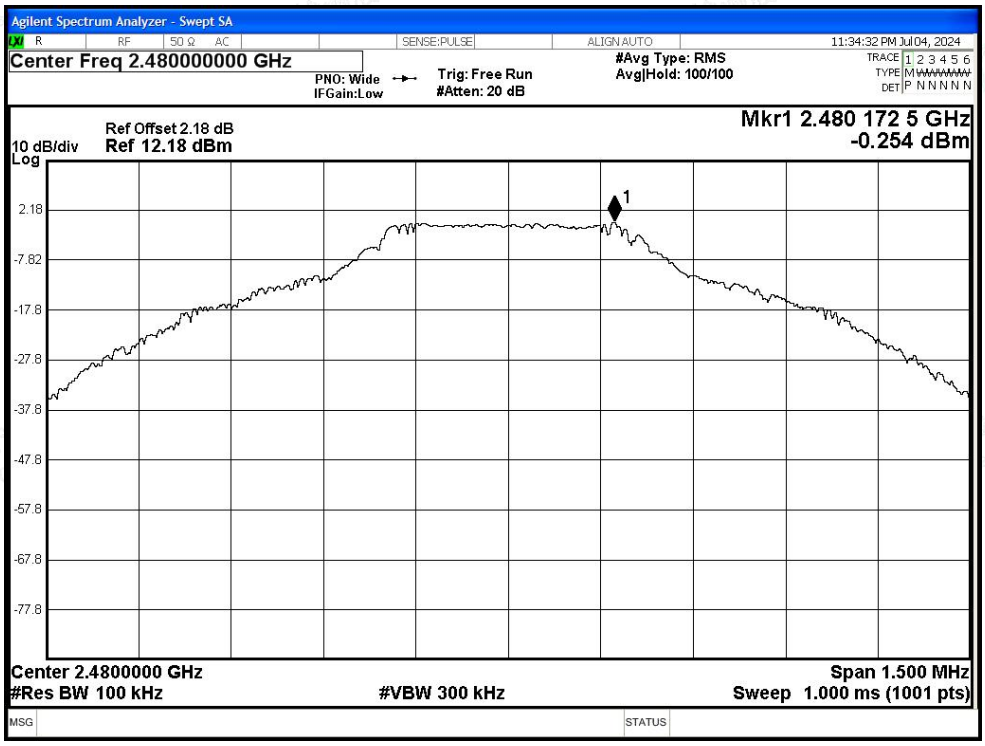
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref



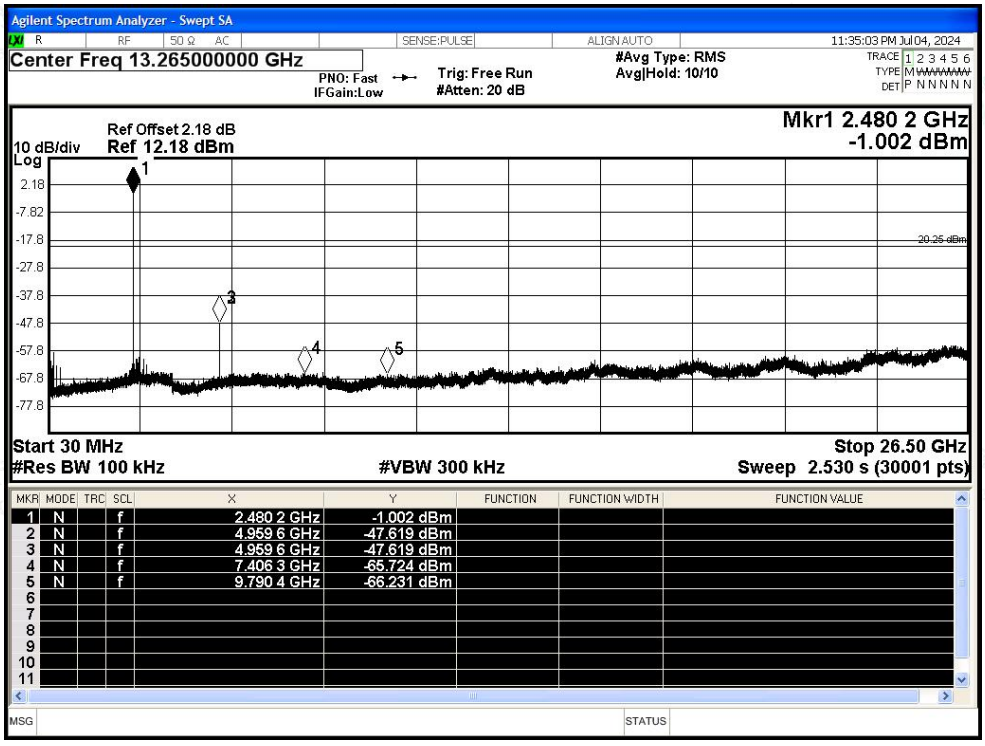
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission



Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref



Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Emission

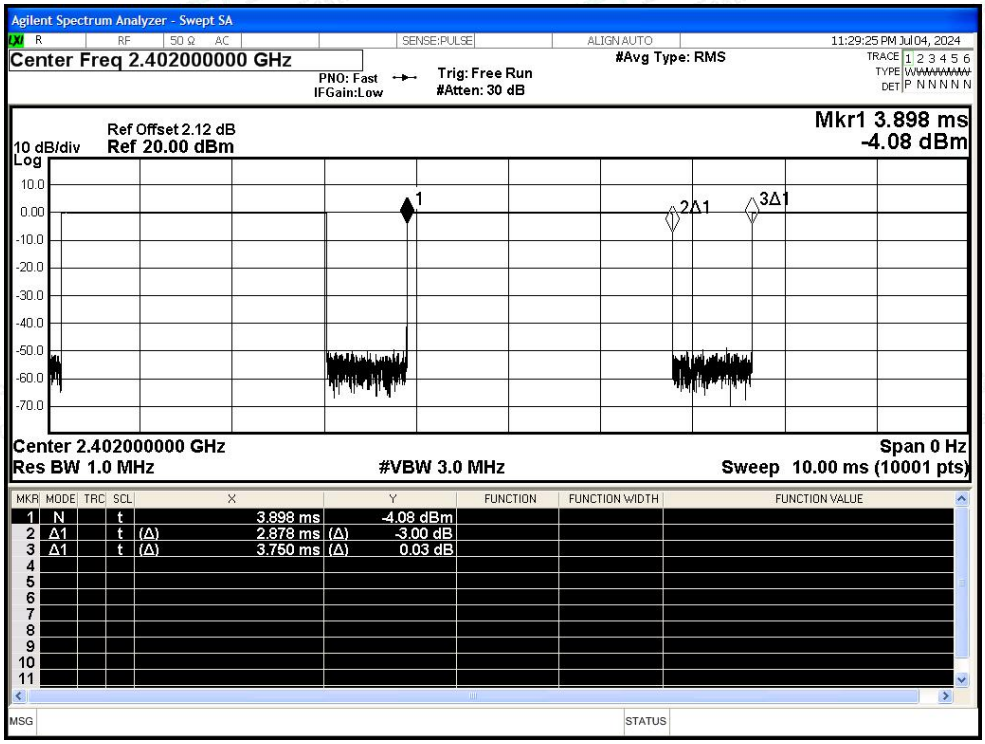


A.8 Duty Cycle

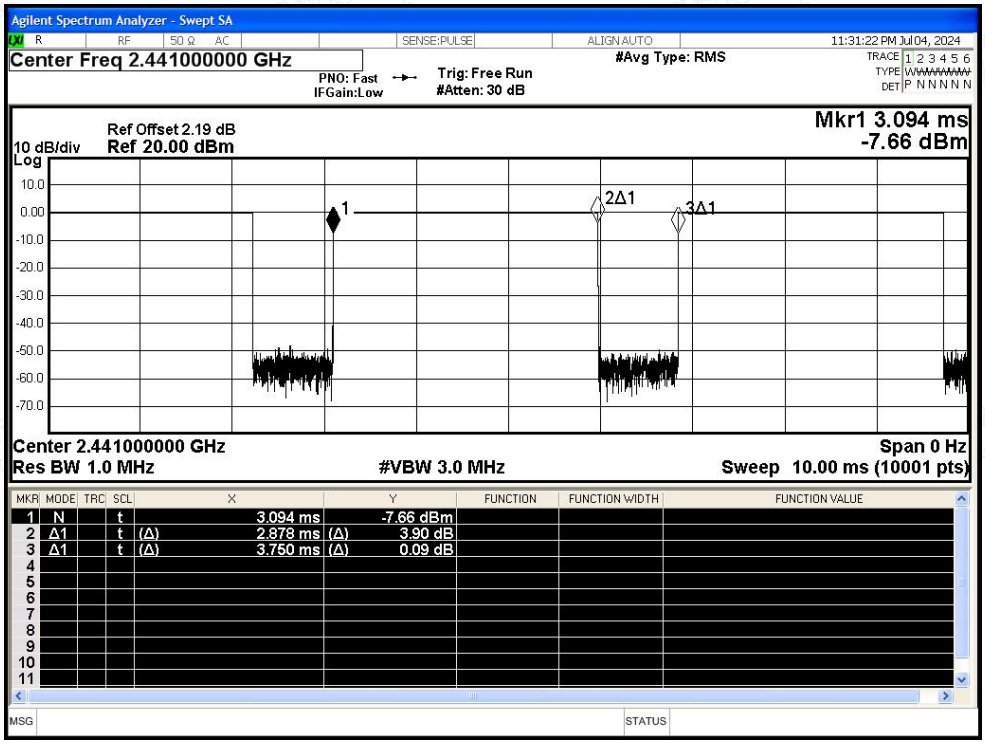
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH5	2402	Ant1	76.75	1.15	0.35
NVNT	1-DH5	2441	Ant1	76.75	1.15	0.35
NVNT	1-DH5	2480	Ant1	76.77	1.15	0.35

Test Graphs

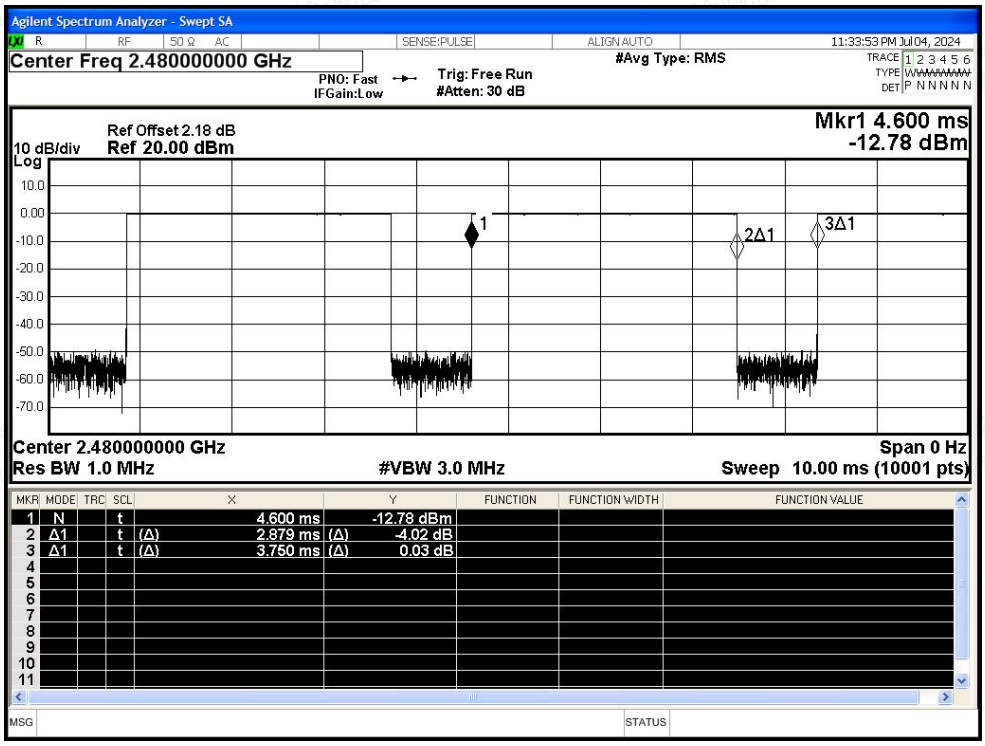
Duty Cycle NVNT 1-DH5 2402MHz Ant1



Duty Cycle NVNT 1-DH5 2441MHz Ant1



Duty Cycle NVNT 1-DH5 2480MHz Ant1

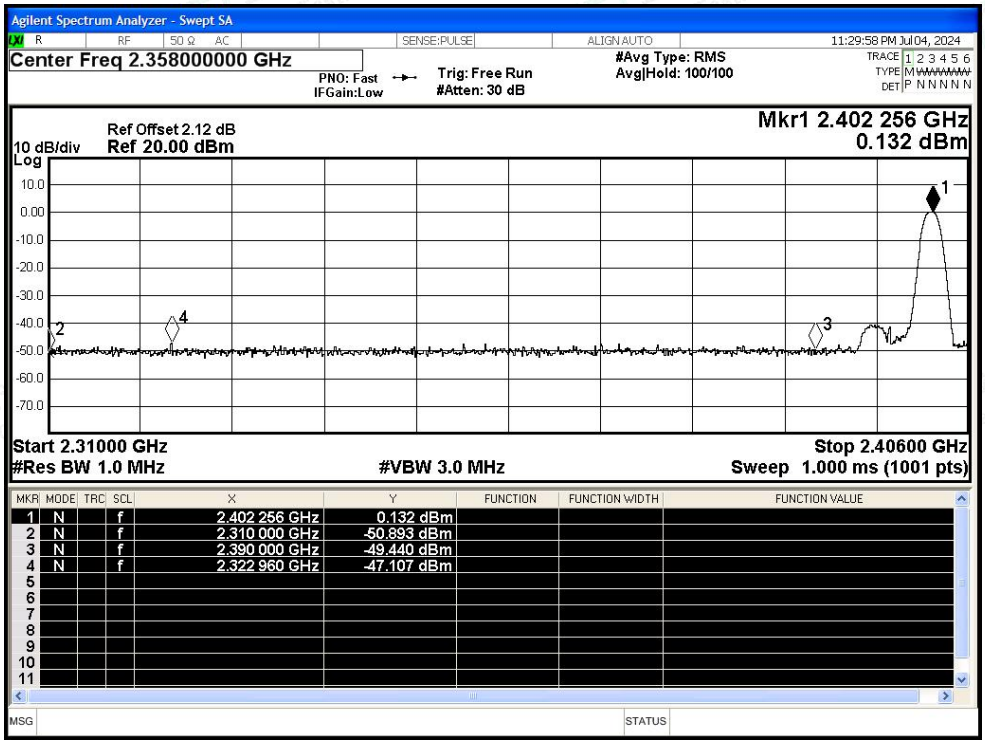


A.9 Restrict Band

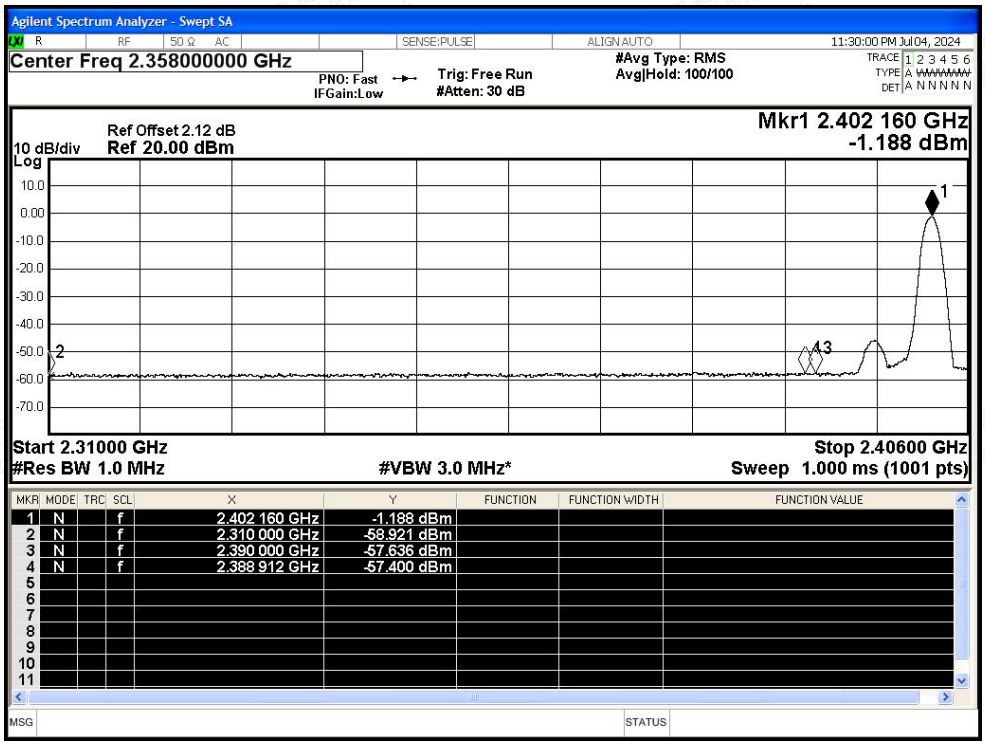
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-50.89	2	-	46.37	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-58.92	2	1.15	39.49	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2322.96	-47.11	2	-	50.15	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2388.912	-57.4	2	1.15	41.01	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-49.44	2	-	47.82	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-57.64	2	1.15	40.77	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-45.63	2	-	51.63	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-55.92	2	1.15	42.49	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.512	-45.63	2	-	51.63	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.512	-55.92	2	1.15	42.49	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-48.89	2	-	48.37	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-58.1	2	1.15	40.31	Average	54	Pass

Test Graphs

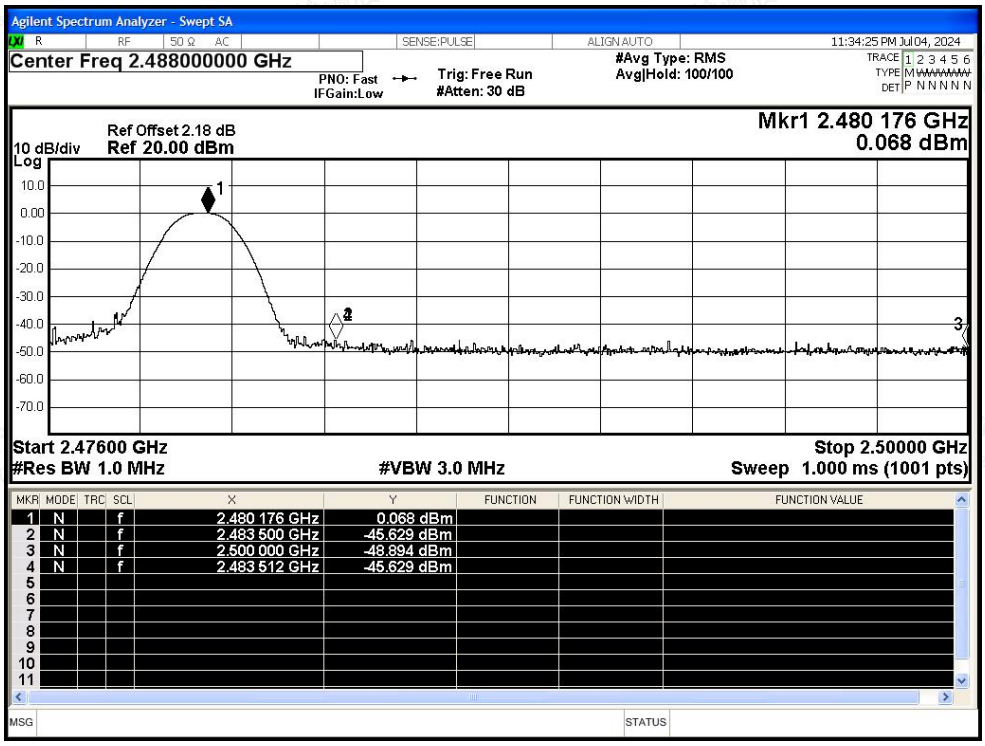
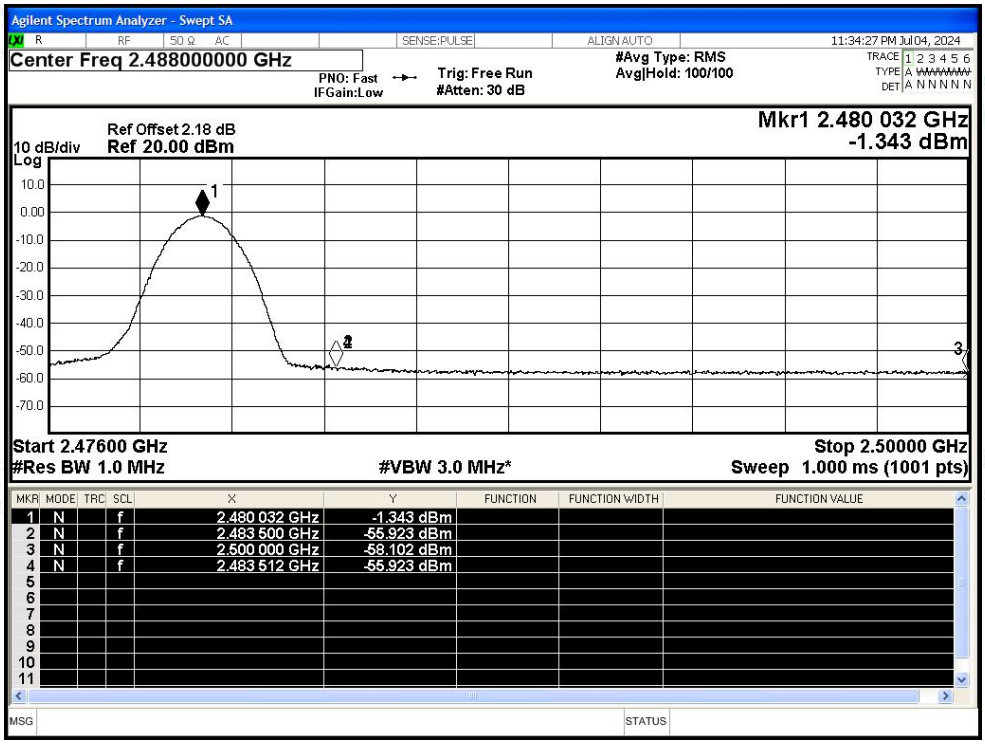
Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Peak



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