Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: Kidzlane Light Up Dance Mat for Kids

Test Model: KIDZ-000008

Environmental Conditions

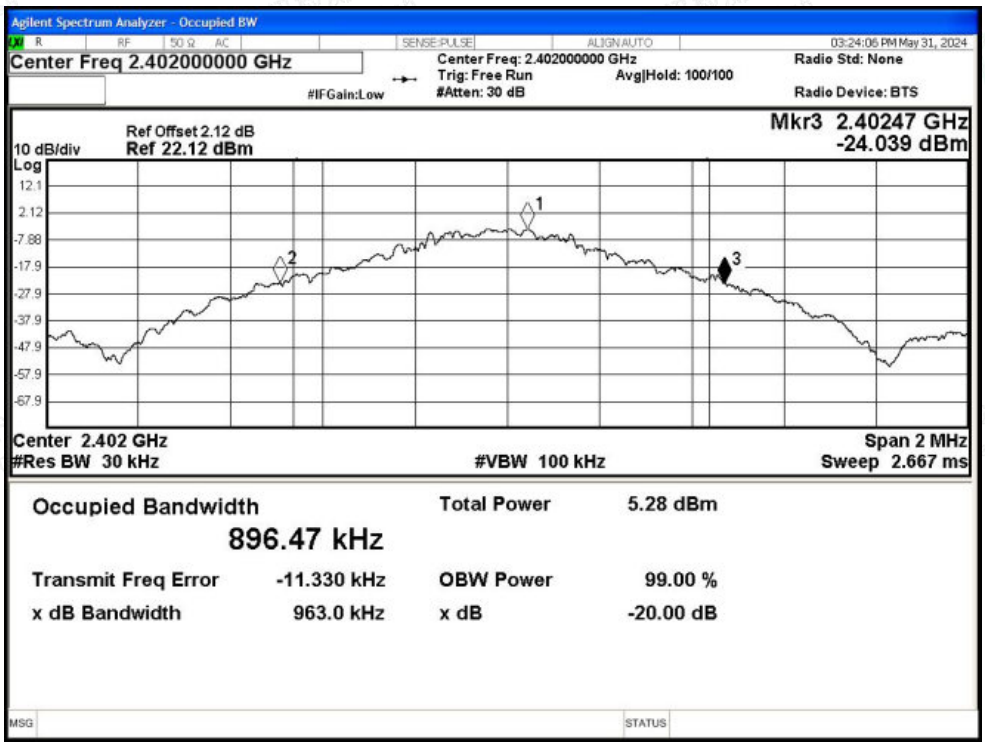
Temperature:	23.8°C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Paddi Chen
Supervised by:	Nick Peng

A.1 -20dB Bandwidth

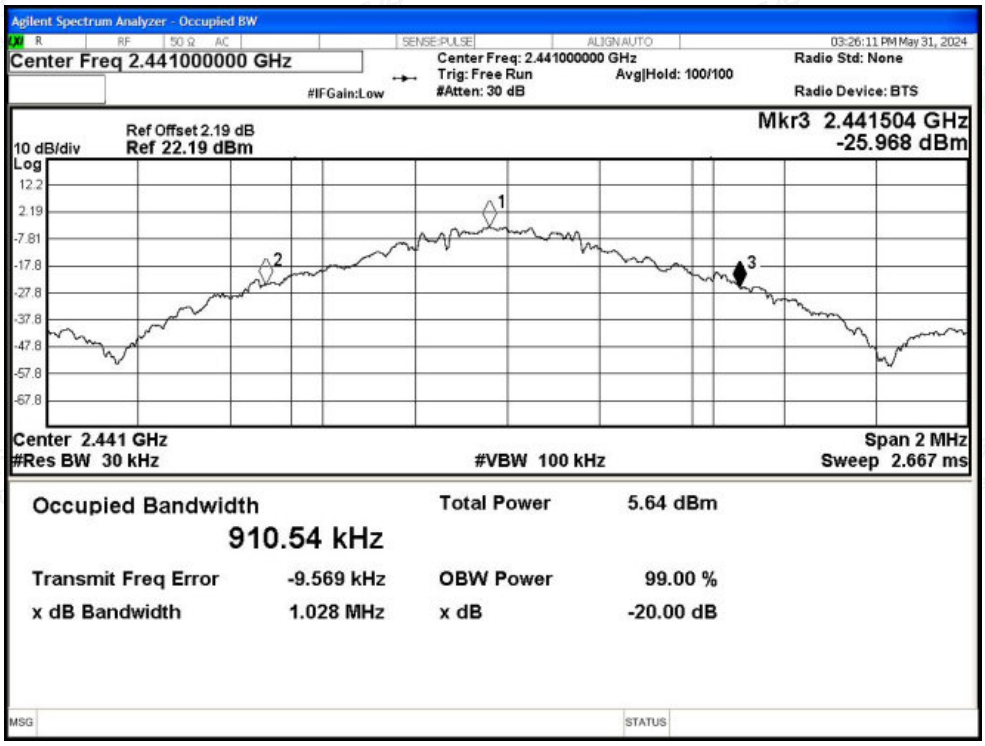
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH5	2402	Ant1	0.963	N/A	Pass
NVNT	1-DH5	2441	Ant1	1.028	N/A	Pass
NVNT	1-DH5	2480	Ant1	1.031	N/A	Pass
NVNT	2-DH5	2402	Ant1	1.273	N/A	Pass
NVNT	2-DH5	2441	Ant1	1.284	N/A	Pass
NVNT	2-DH5	2480	Ant1	1.286	N/A	Pass

Test Graphs

-20dB Bandwidth NVNT 1-DH5 2402MHz Ant1

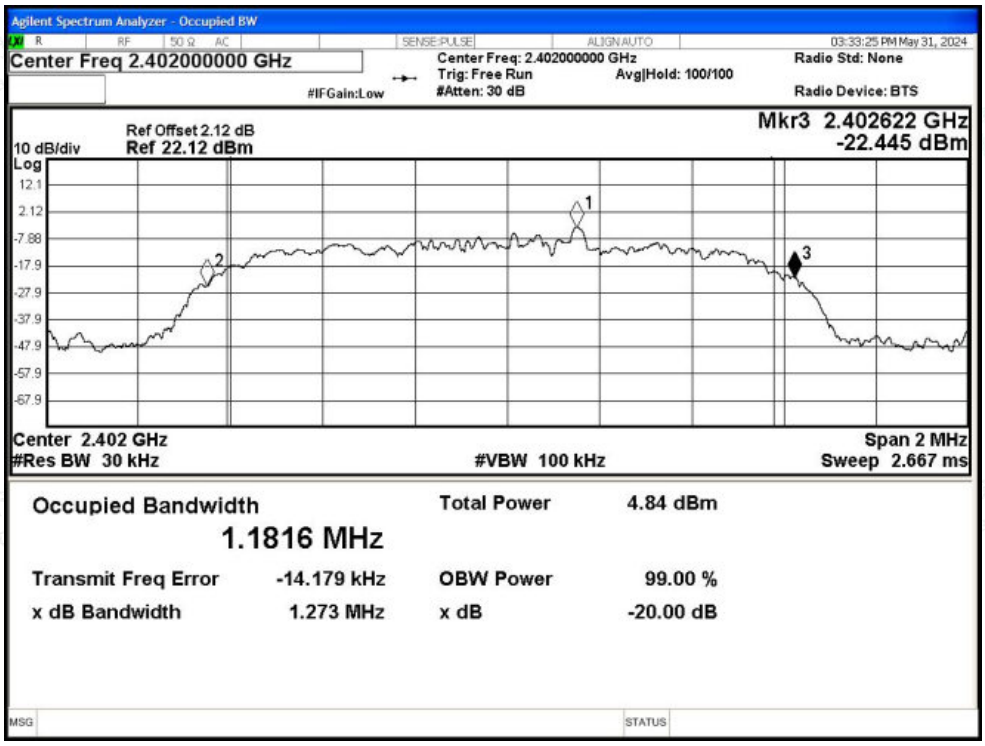


-20dB Bandwidth NVNT 1-DH5 2441MHz Ant1

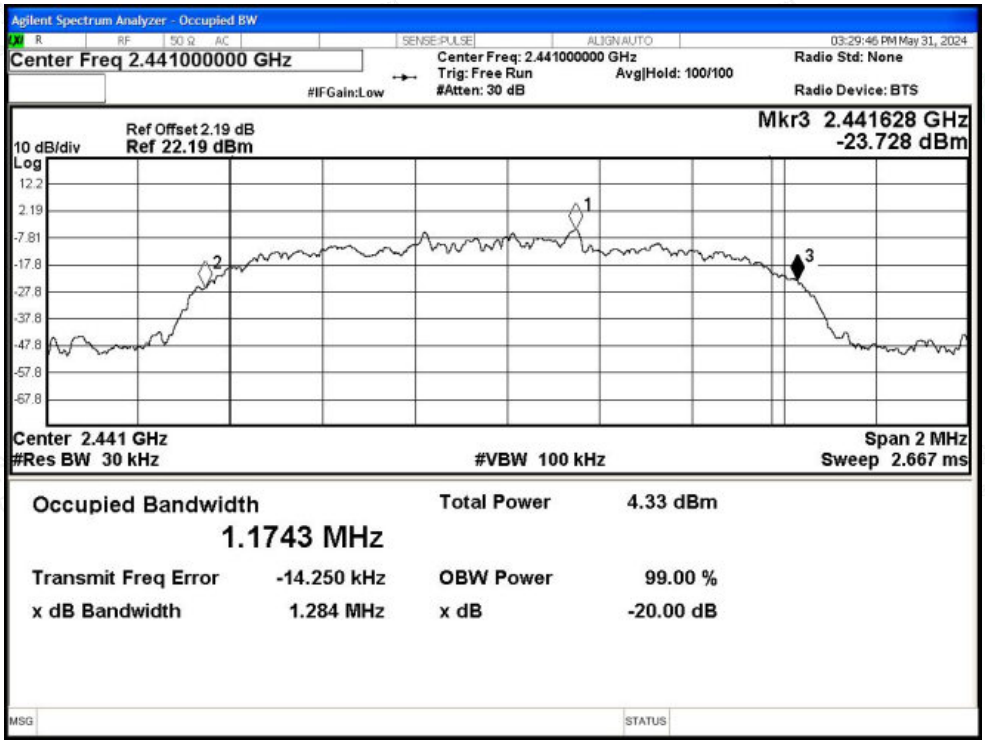


-20dB Bandwidth NVNT 1-DH5 2480MHz Ant1

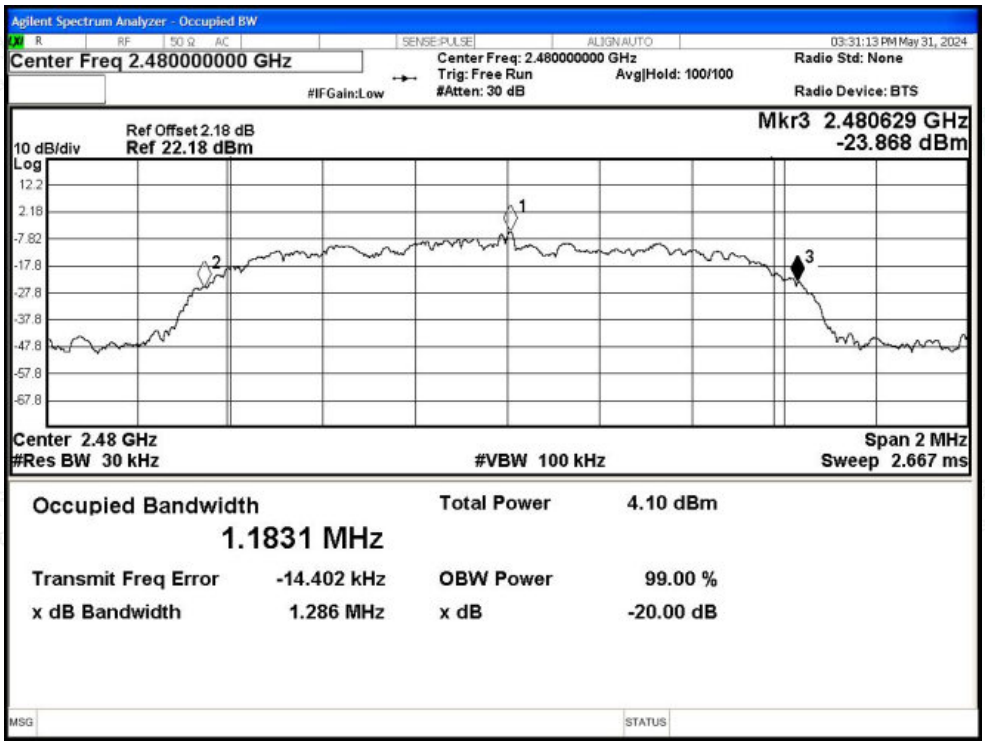
-20dB Bandwidth NVNT 2-DH5 2402MHz Ant1



-20dB Bandwidth NVNT 2-DH5 2441MHz Ant1



-20dB Bandwidth NVNT 2-DH5 2480MHz Ant1

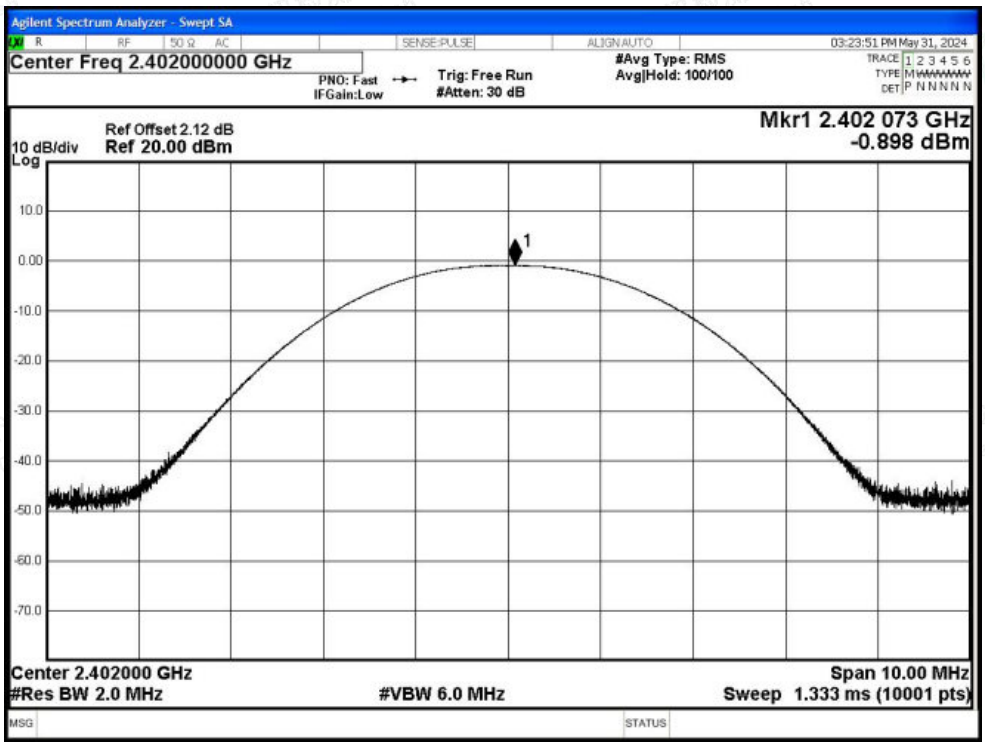


A.2 Maximum Conducted Output Power

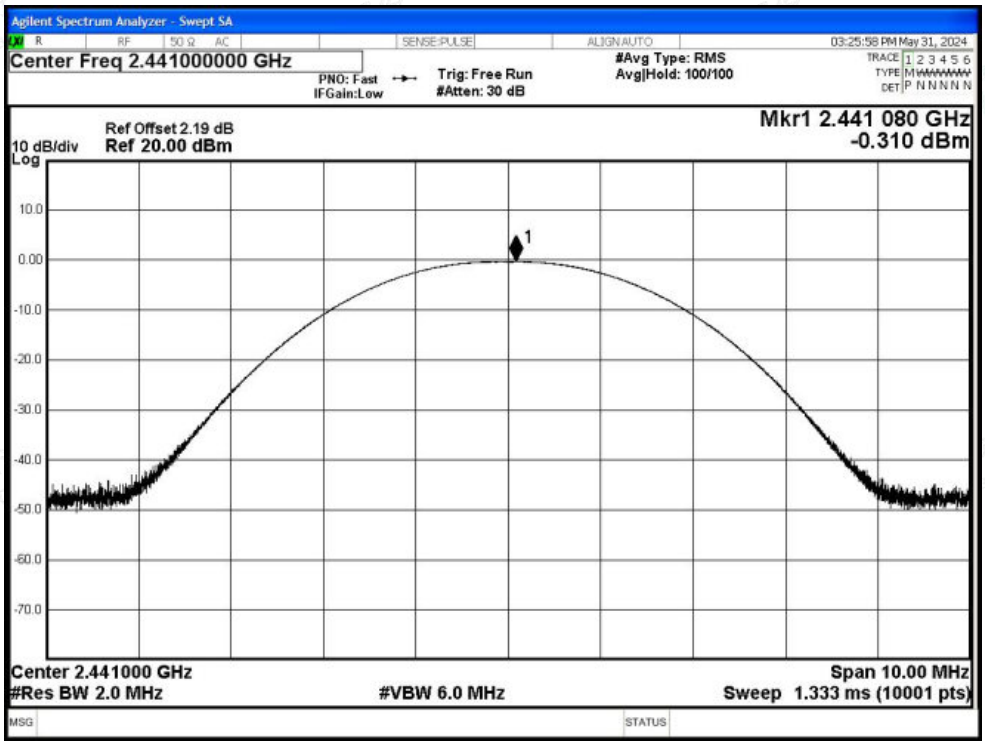
Condition	Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH5	2402	Ant1	-0.90	21	Pass
NVNT	1-DH5	2441	Ant1	-0.31	21	Pass
NVNT	1-DH5	2480	Ant1	-0.03	21	Pass
NVNT	2-DH5	2402	Ant1	0.28	21	Pass
NVNT	2-DH5	2441	Ant1	-0.62	21	Pass
NVNT	2-DH5	2480	Ant1	-0.22	21	Pass

Test Graphs

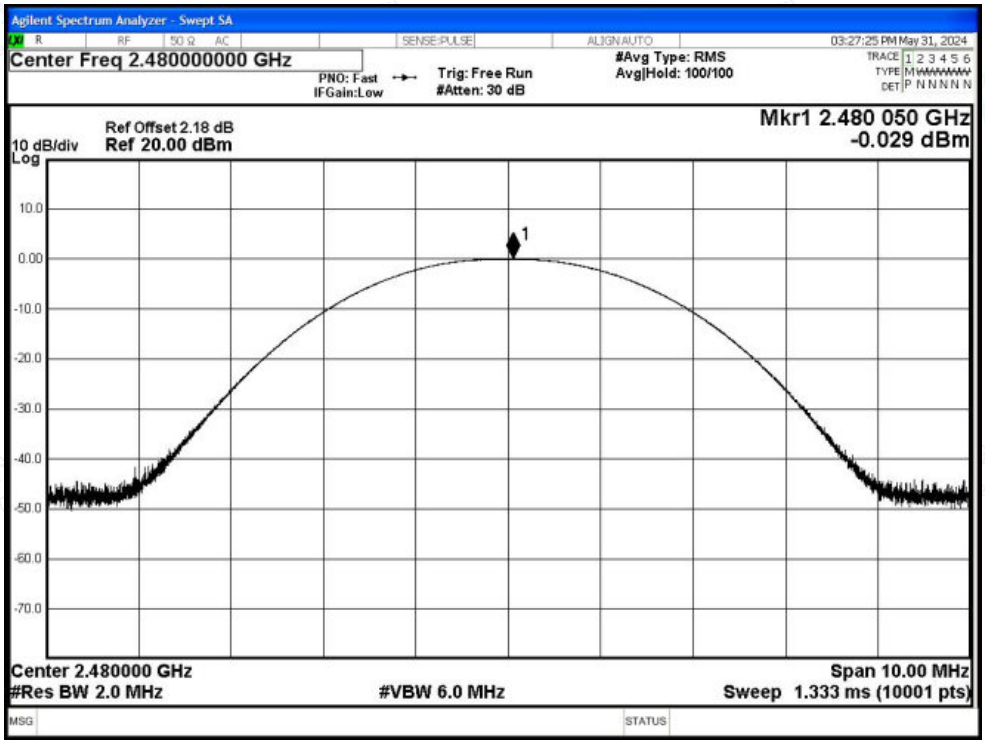
Power NVNT 1-DH5 2402MHz Ant1



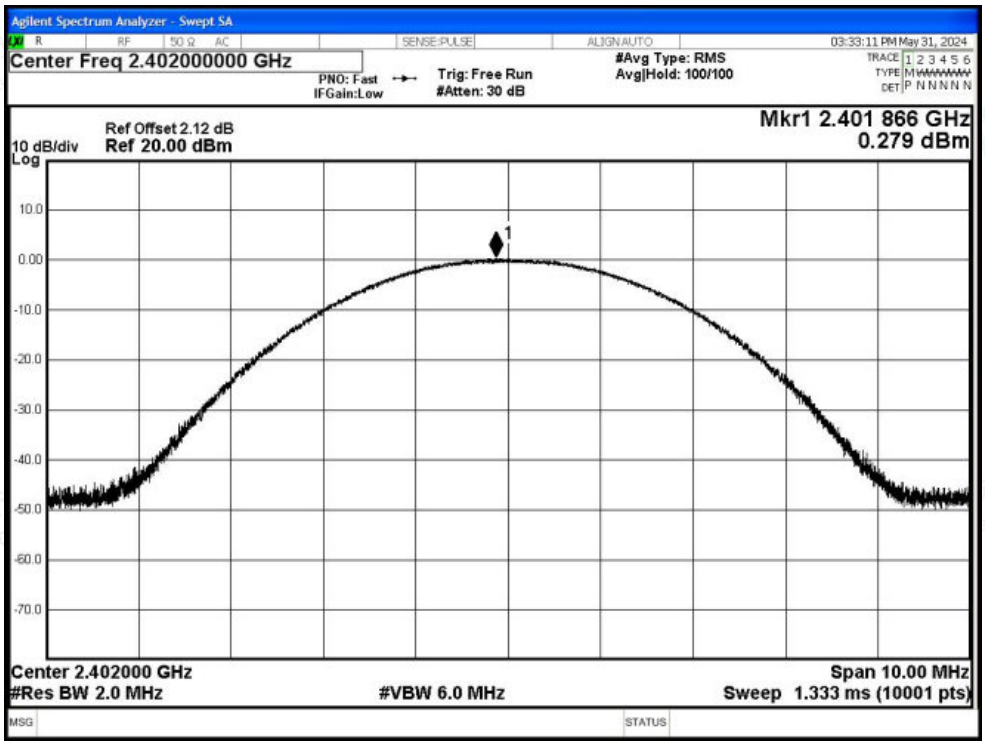
Power NVNT 1-DH5 2441MHz Ant1



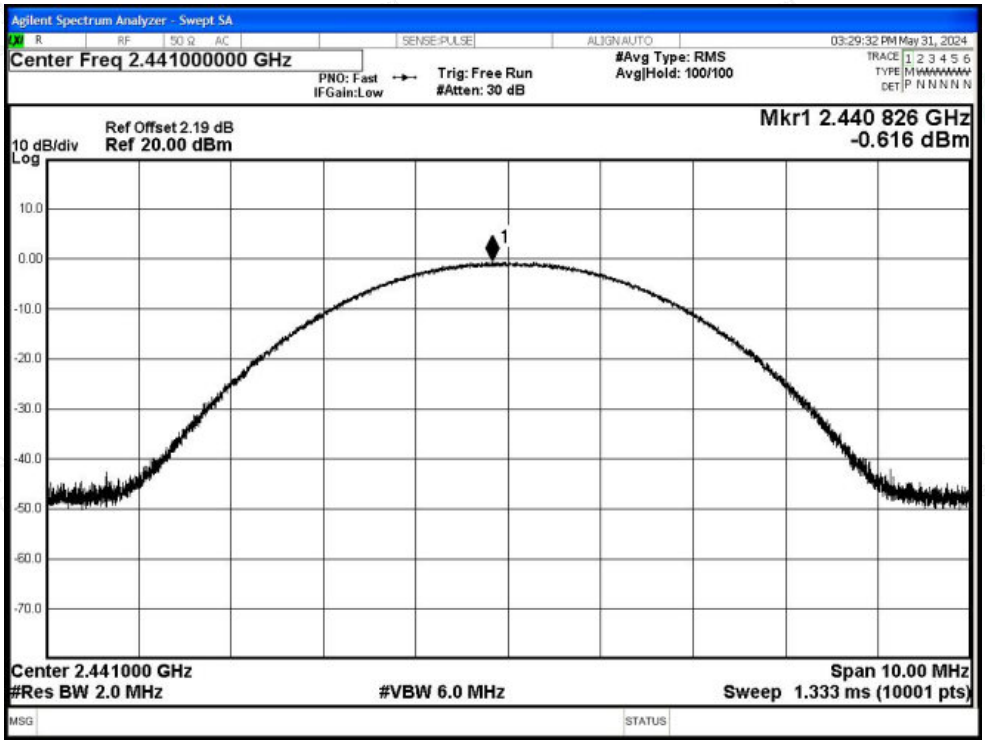
Power NVNT 1-DH5 2480MHz Ant1



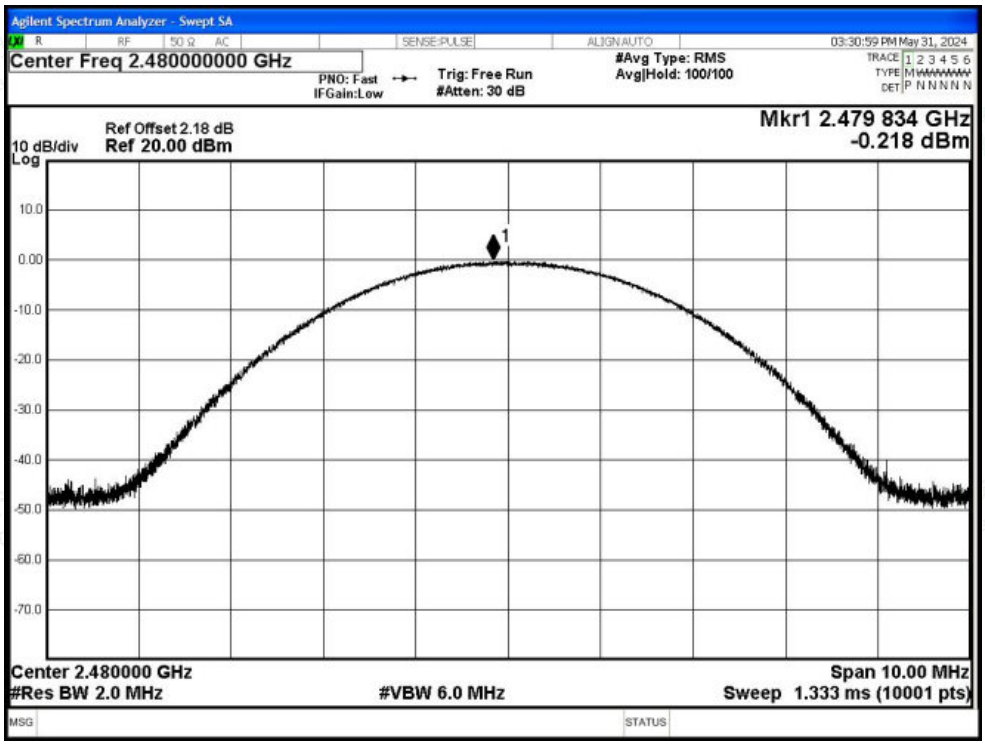
Power NVNT 2-DH5 2402MHz Ant1



Power NVNT 2-DH5 2441MHz Ant1



Power NVNT 2-DH5 2480MHz Ant1

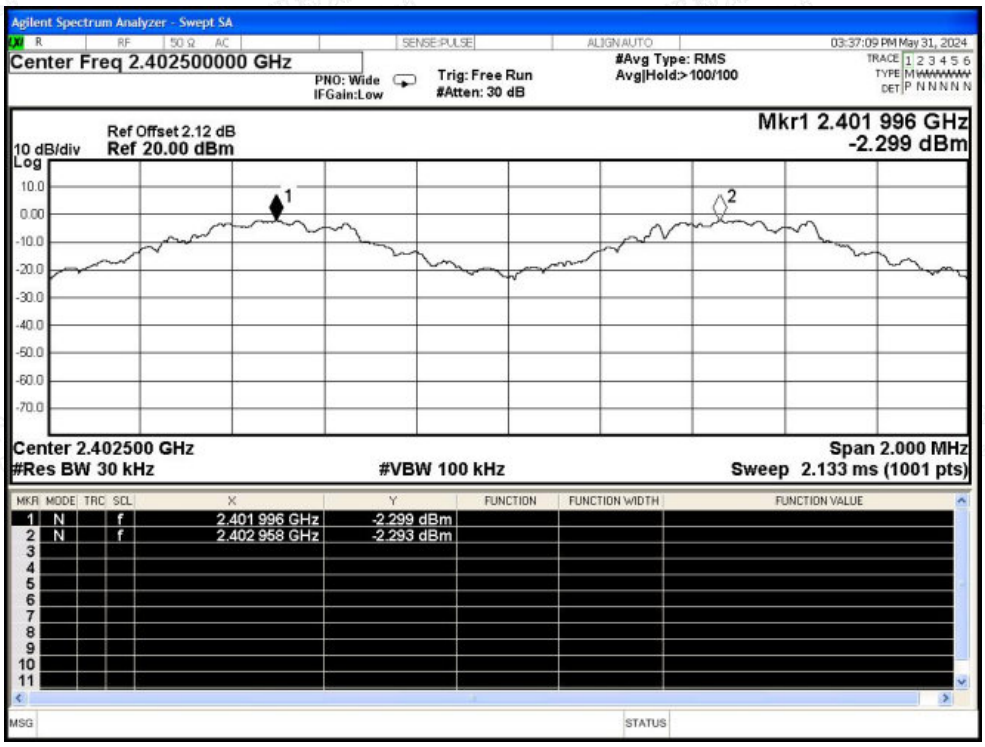


A.3 Carrier Frequencies Separation

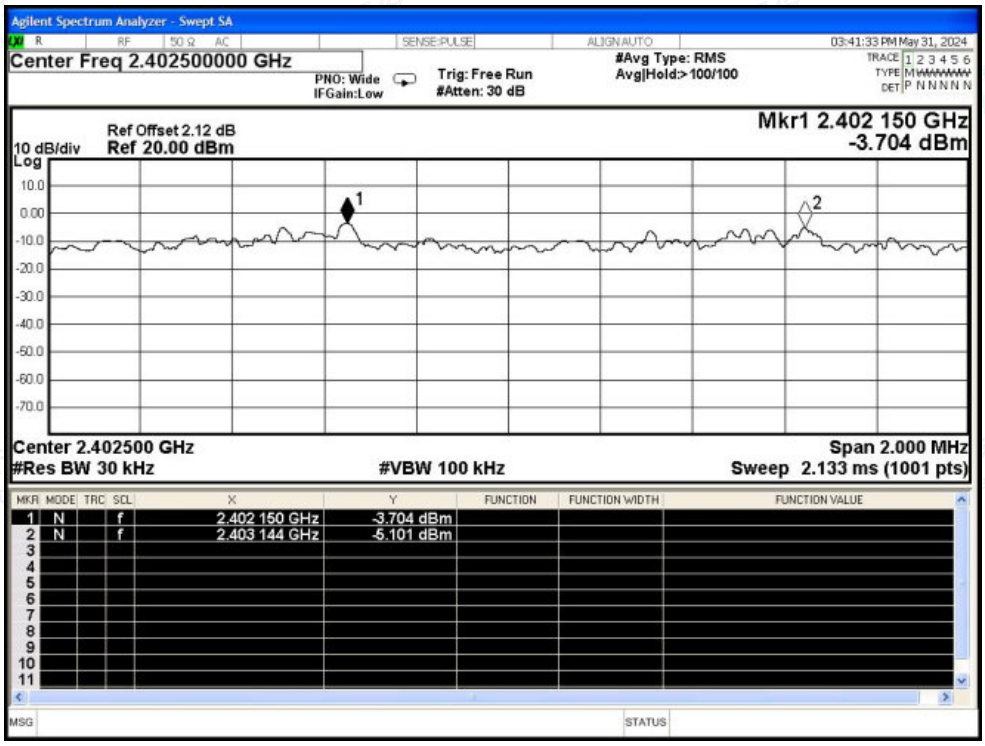
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH5	Ant1	2401.996	2402.958	0.962	0.687	Pass
NVNT	2-DH5	Ant1	2402.15	2403.144	0.994	0.857	Pass

Test Graphs

CFS NVNT 1-DH5 2402MHz Ant1



CFS NVNT 2-DH5 2402MHz Ant1

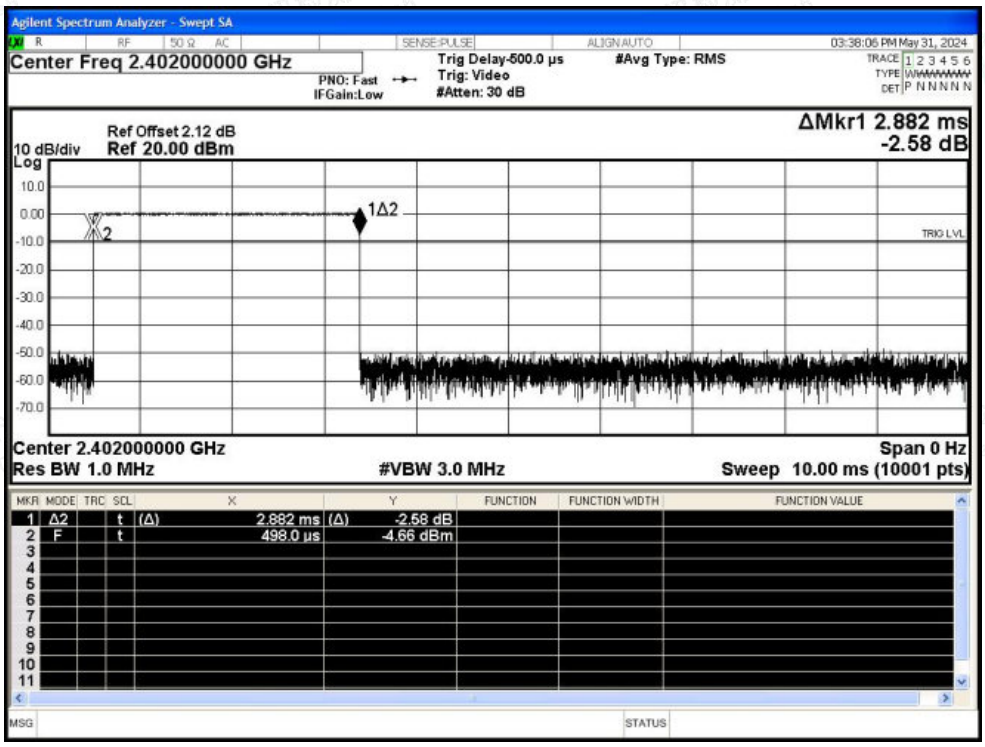


A.4 Dwell Time

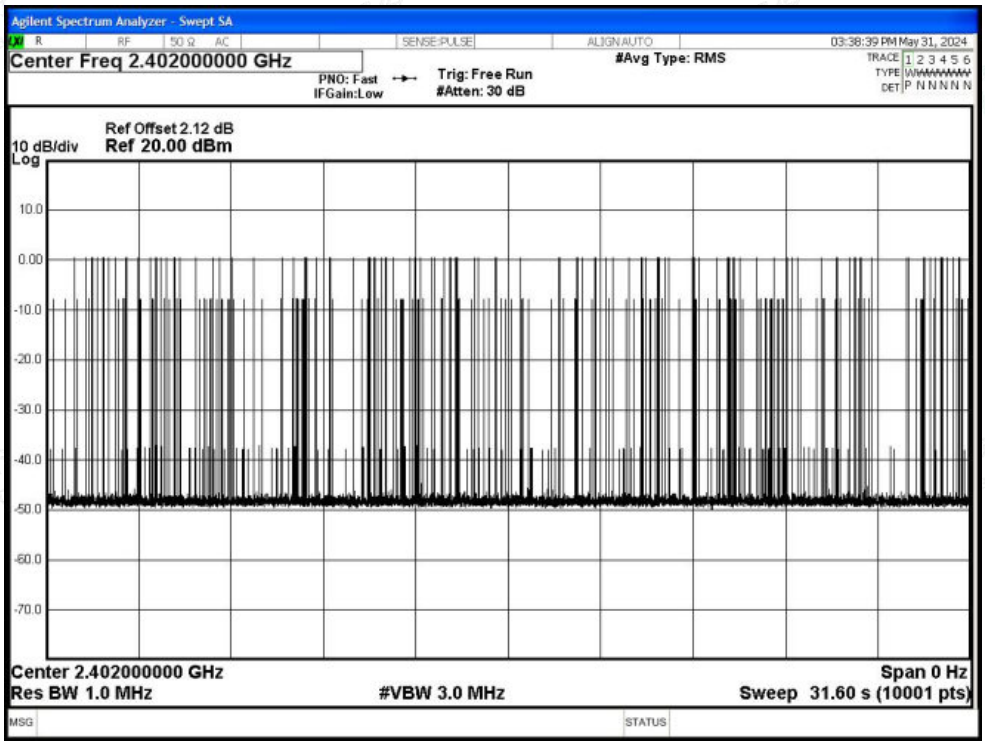
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH5	2402	Ant1	2.882	302.61	105	31600	400	Pass
NVNT	2-DH5	2402	Ant1	2.88	319.68	111	31600	400	Pass

Test Graphs

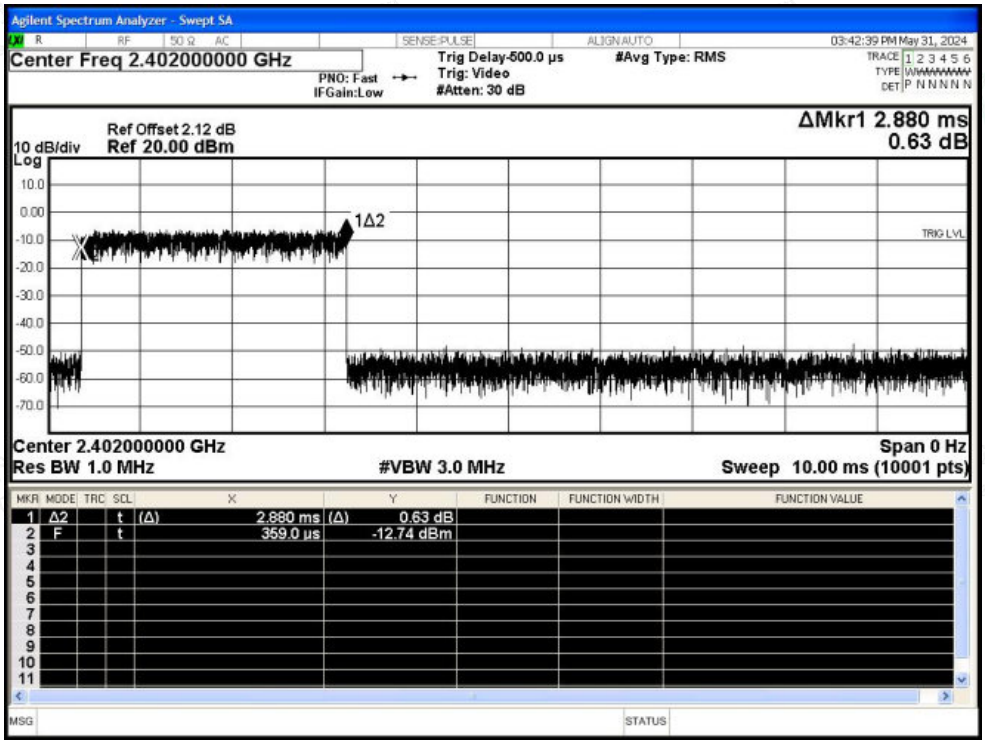
Dwell NVNT 1-DH5 2402MHz Ant1 One Burst



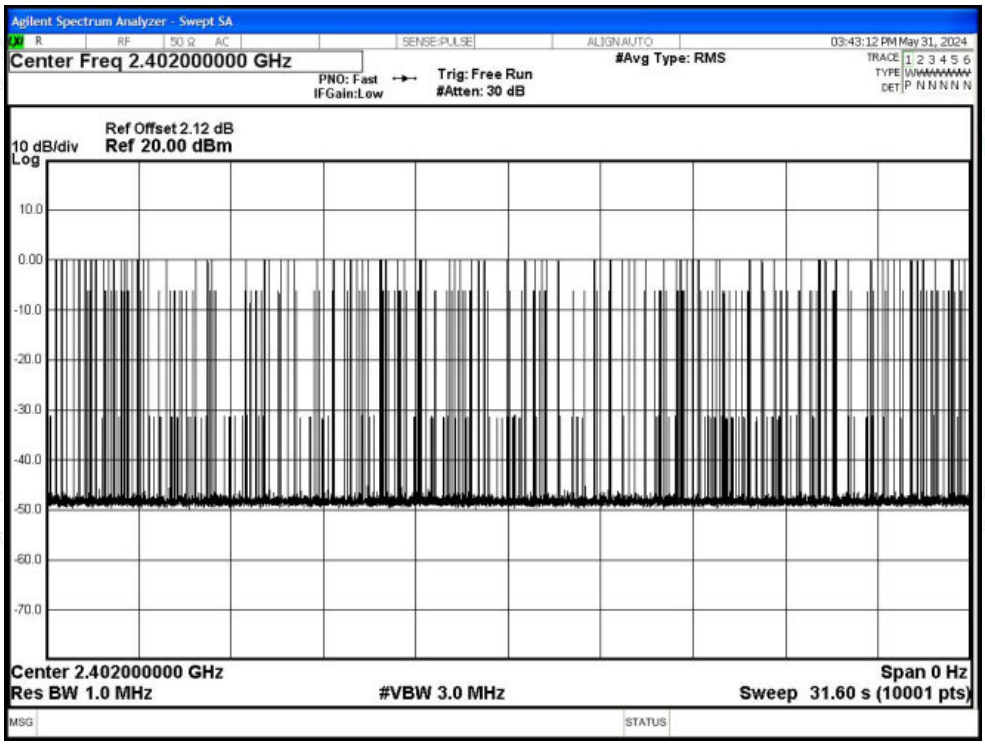
Dwell NVNT 1-DH5 2402MHz Ant1 Accumulated



Dwell NVNT 2-DH5 2402MHz Ant1 One Burst



Dwell NVNT 2-DH5 2402MHz Ant1 Accumulated

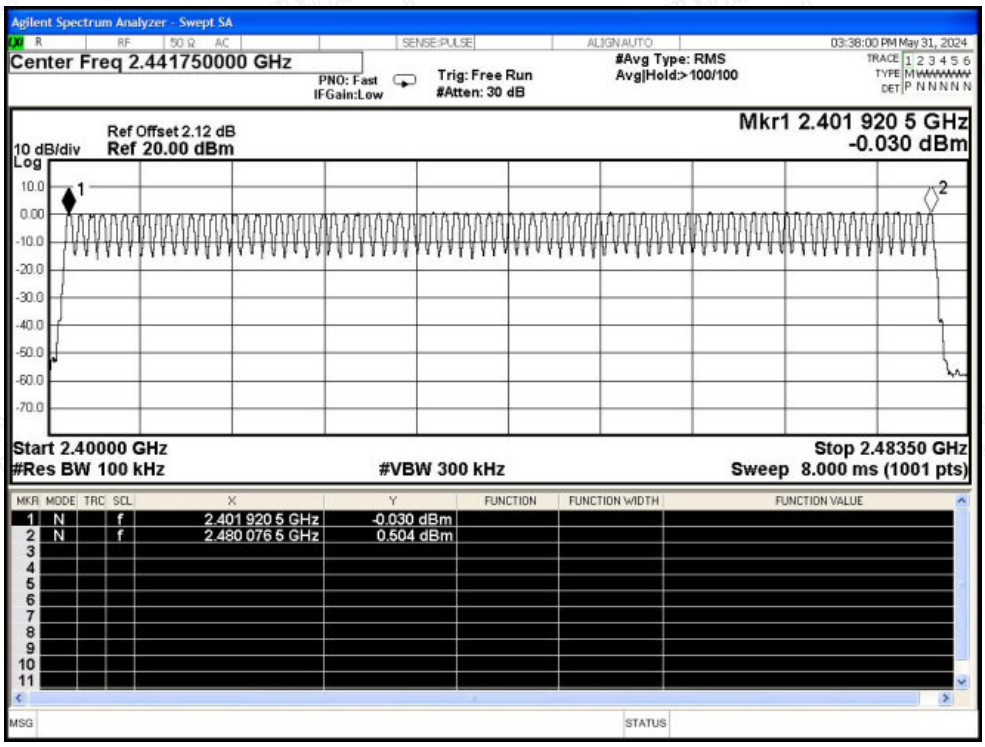


A.5 Number of Hopping Channel

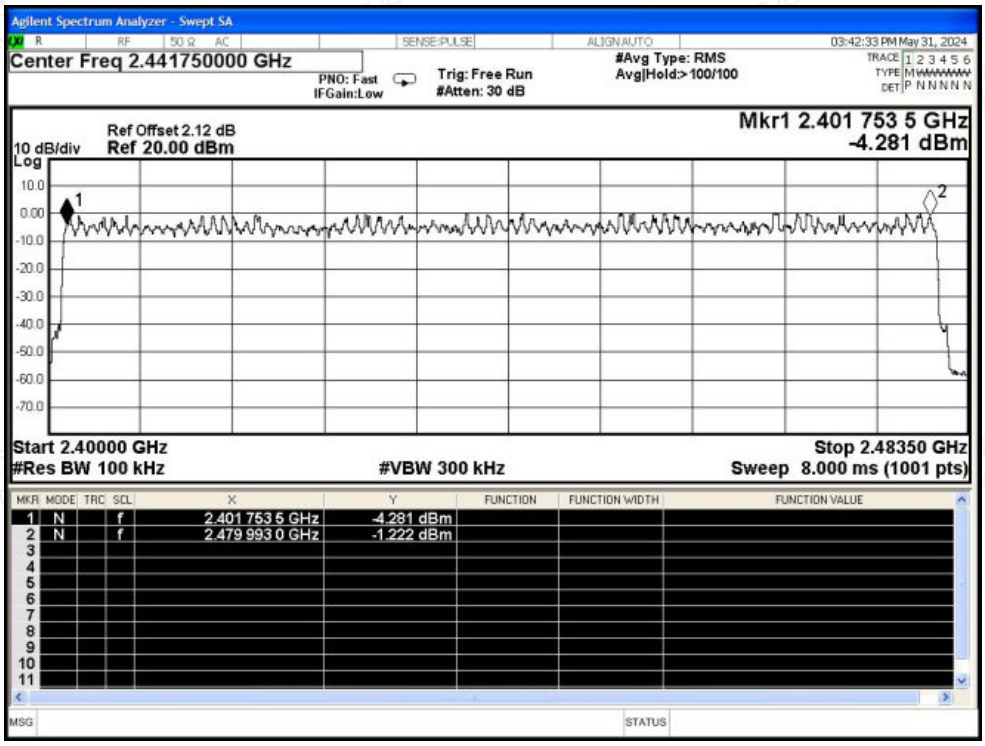
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH5	Ant1	79	15	Pass
NVNT	2-DH5	Ant1	79	15	Pass

Test Graphs

Hopping No. NVNT 1-DH5 2402MHz Ant1



Hopping No. NVNT 2-DH5 2402MHz Ant1

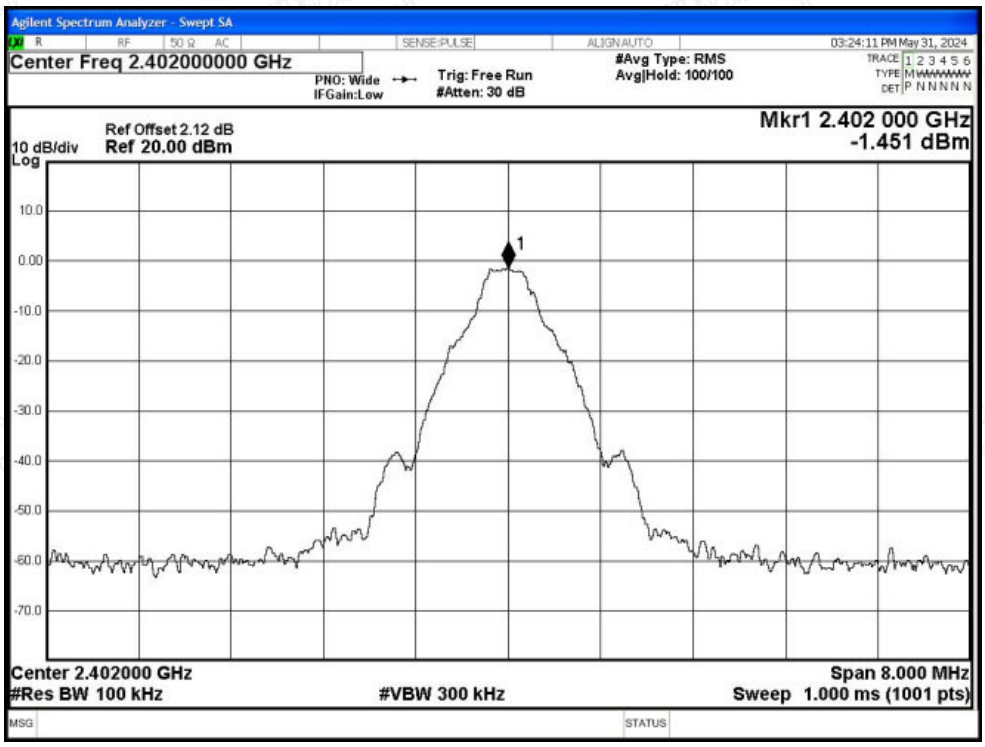


A.6 Band Edge

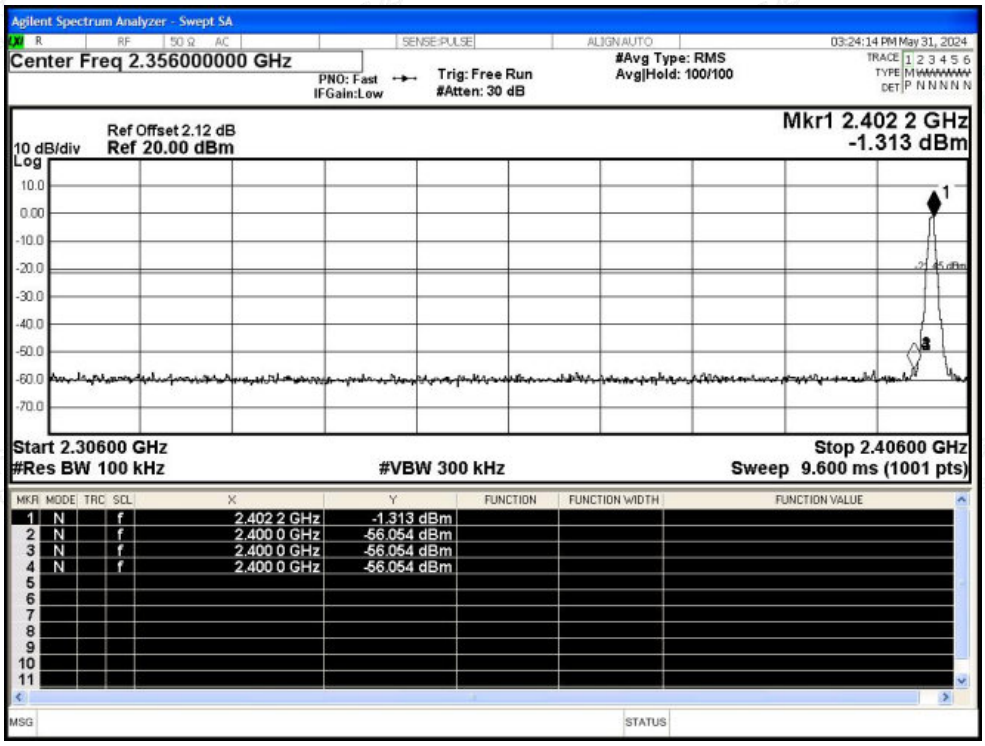
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	-54.6	-20	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	-56.38	-20	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	-50.86	-20	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	-53.6	-20	Pass

Test Graphs

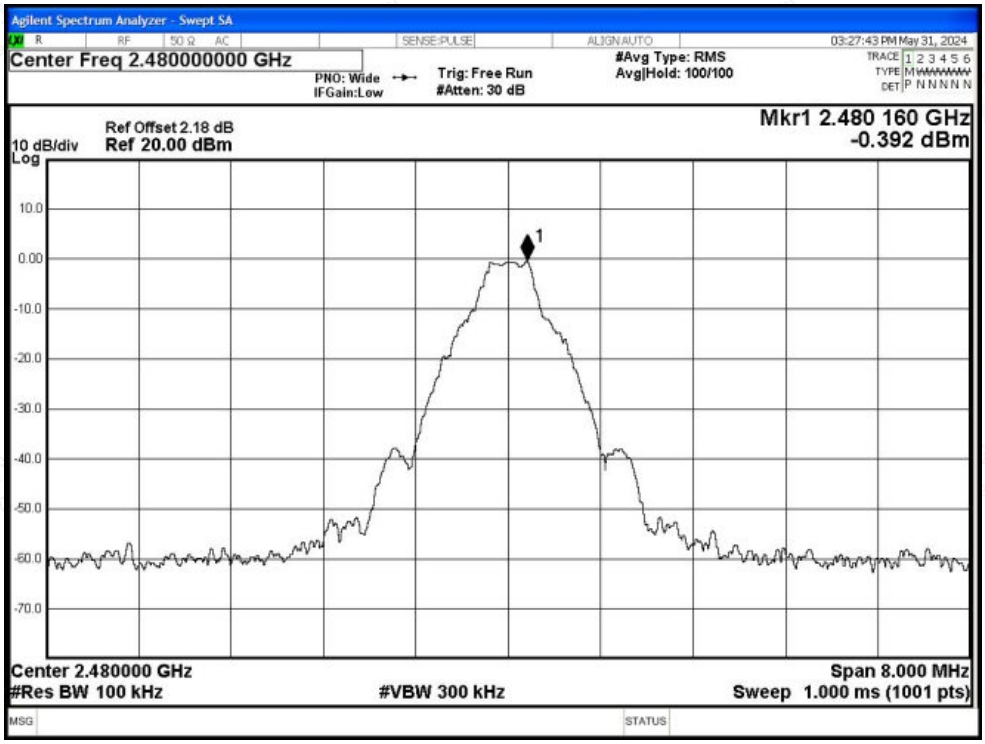
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Ref



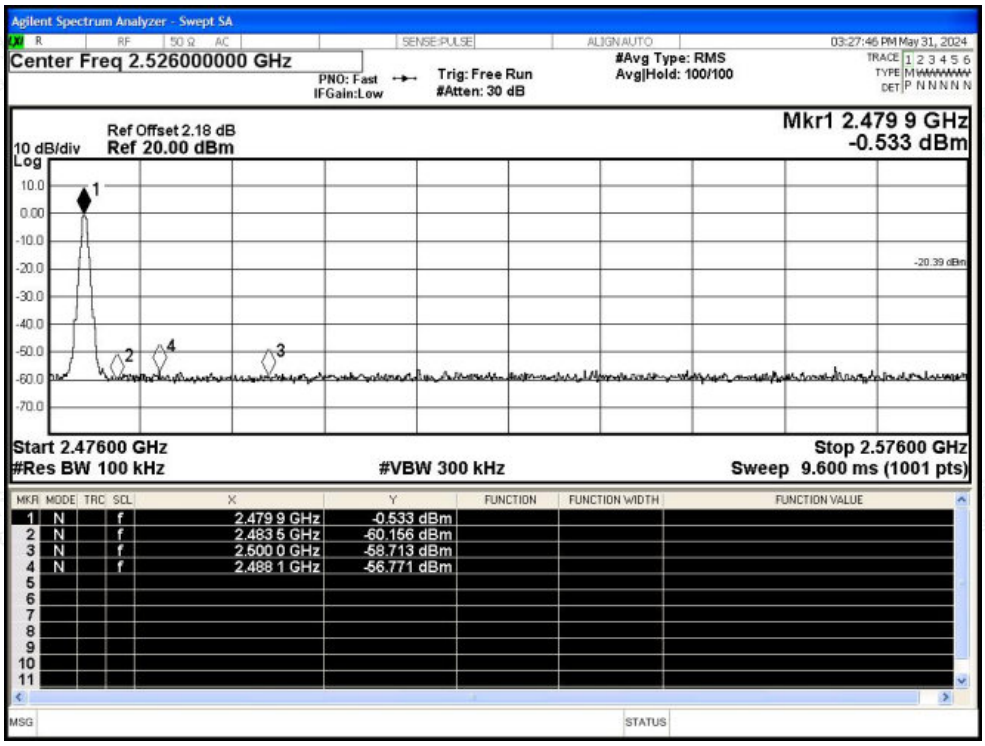
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Emission



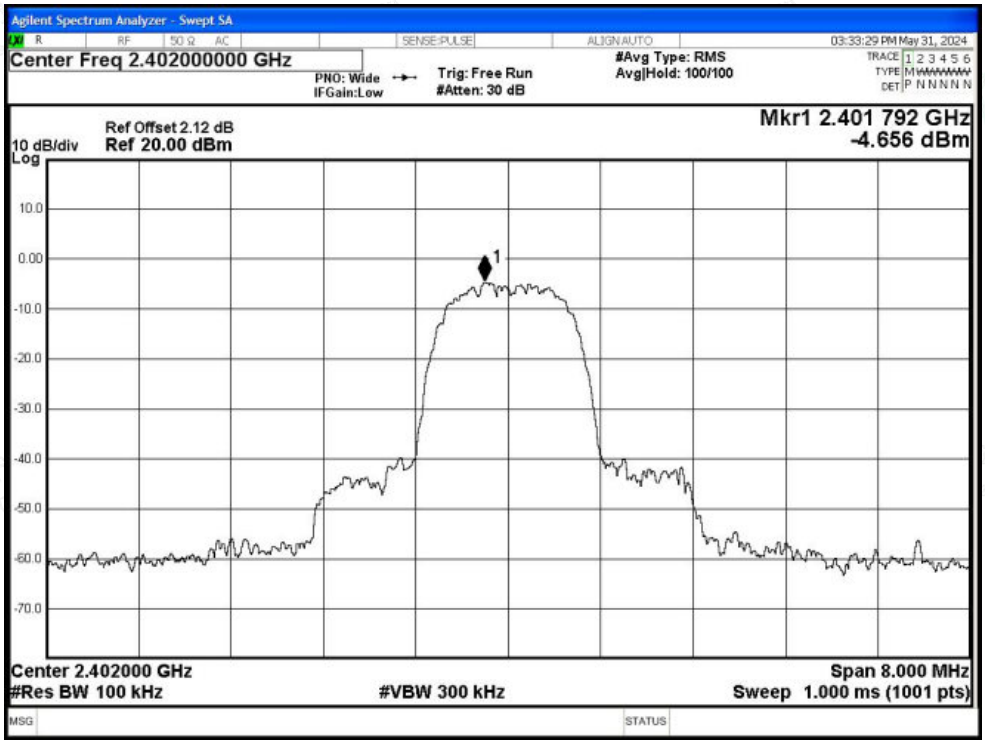
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref



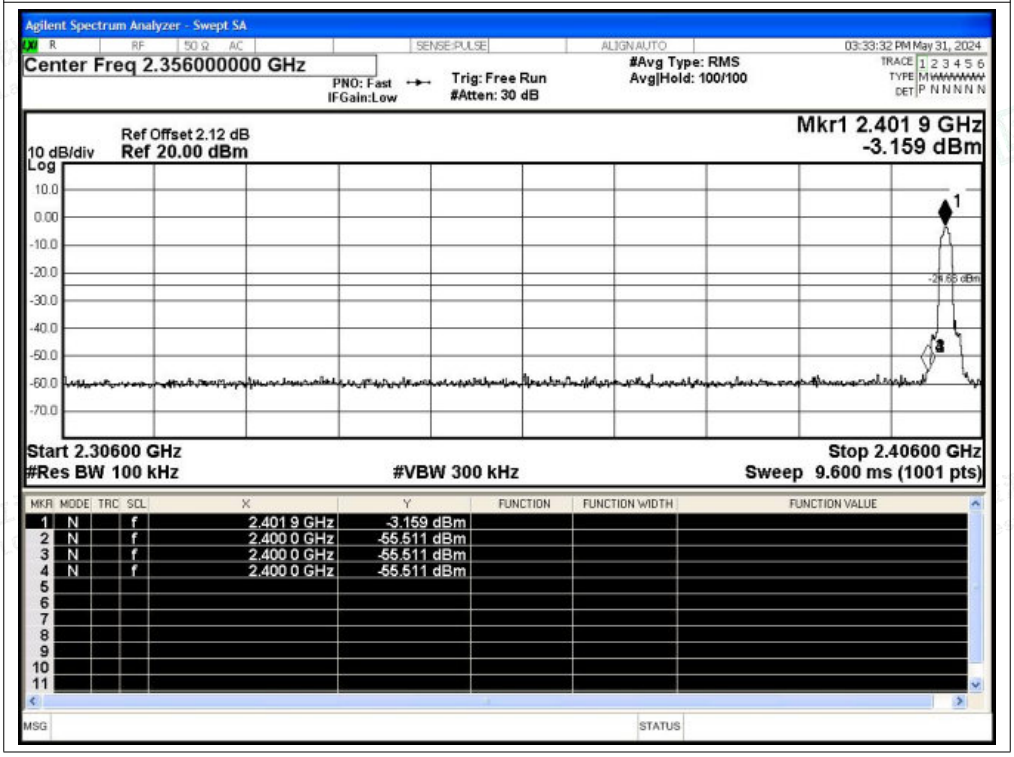
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Emission



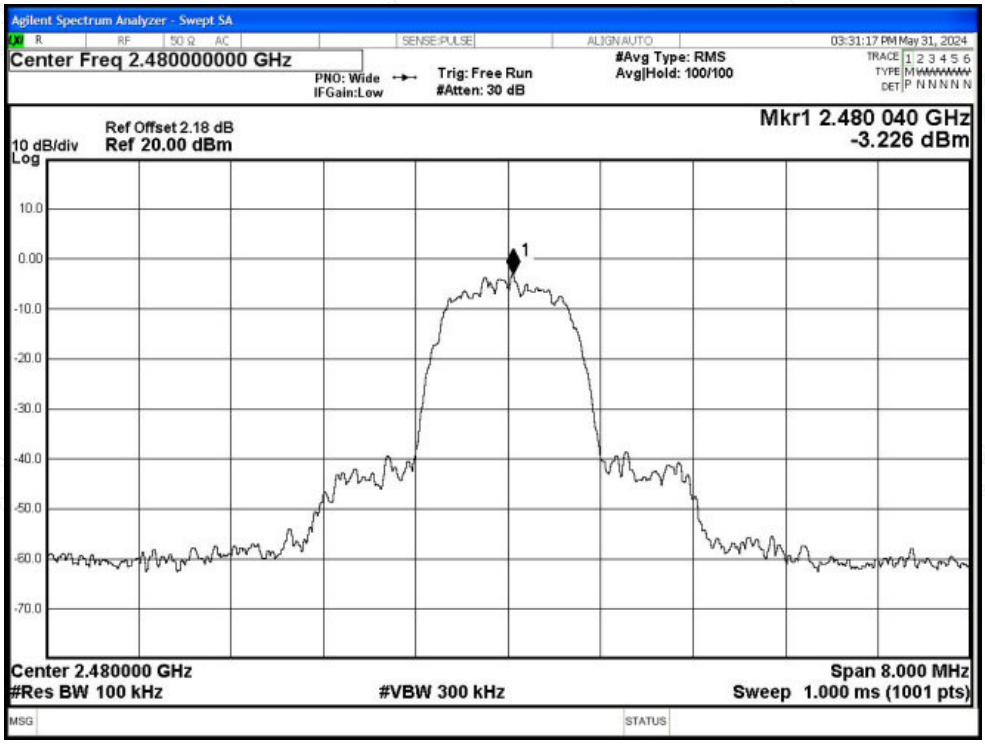
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Ref



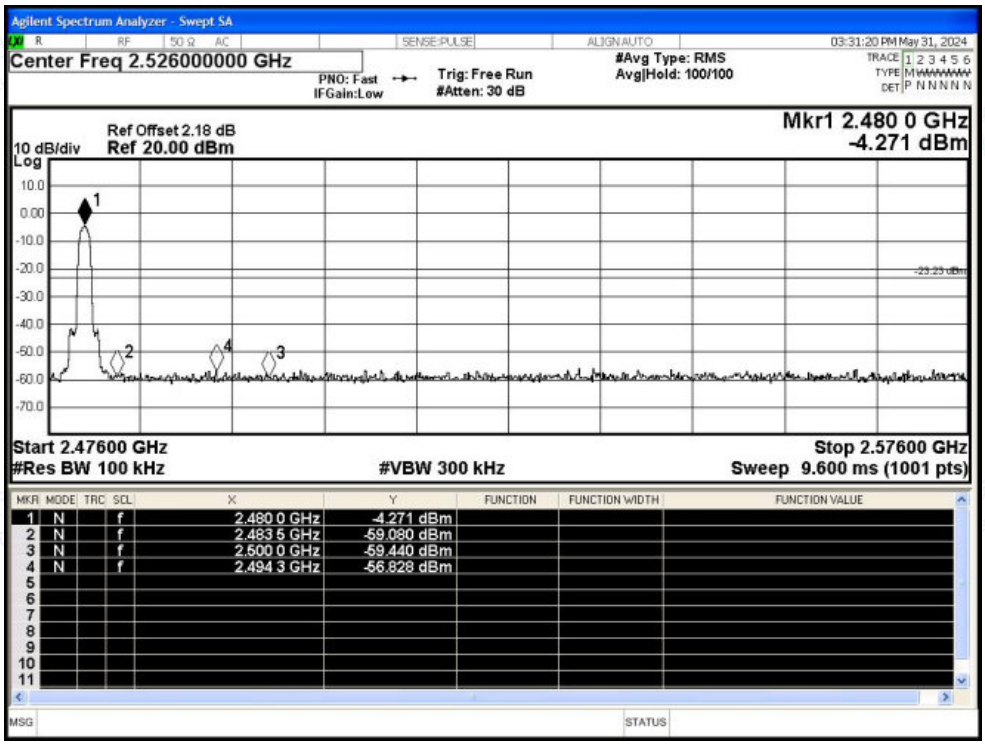
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Emission



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



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

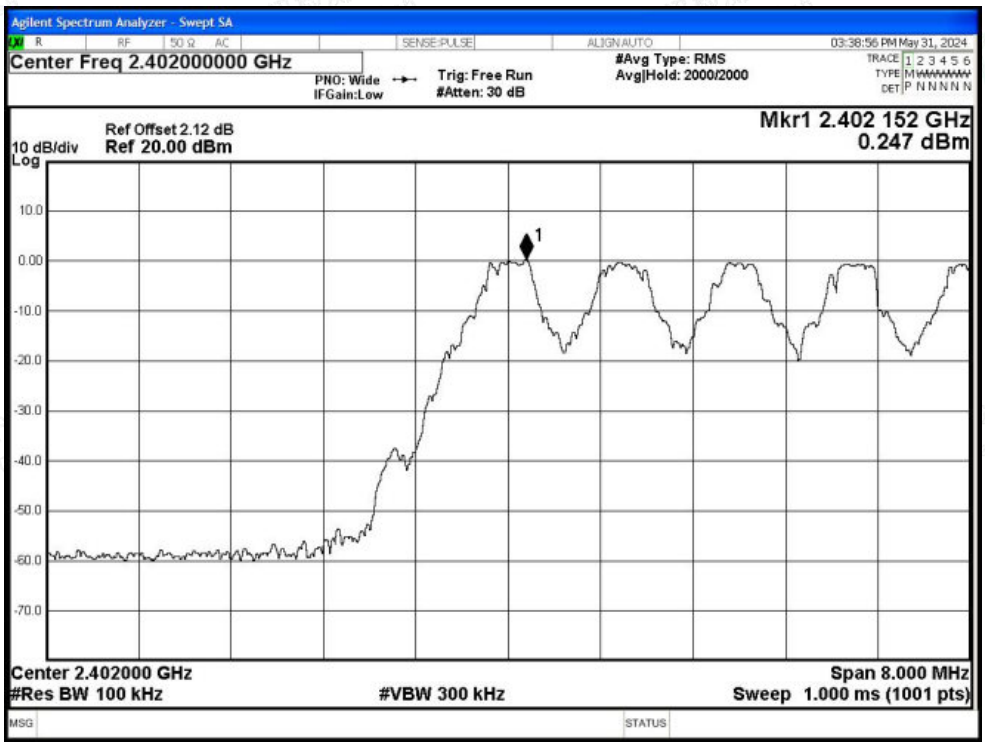


(Hopping)

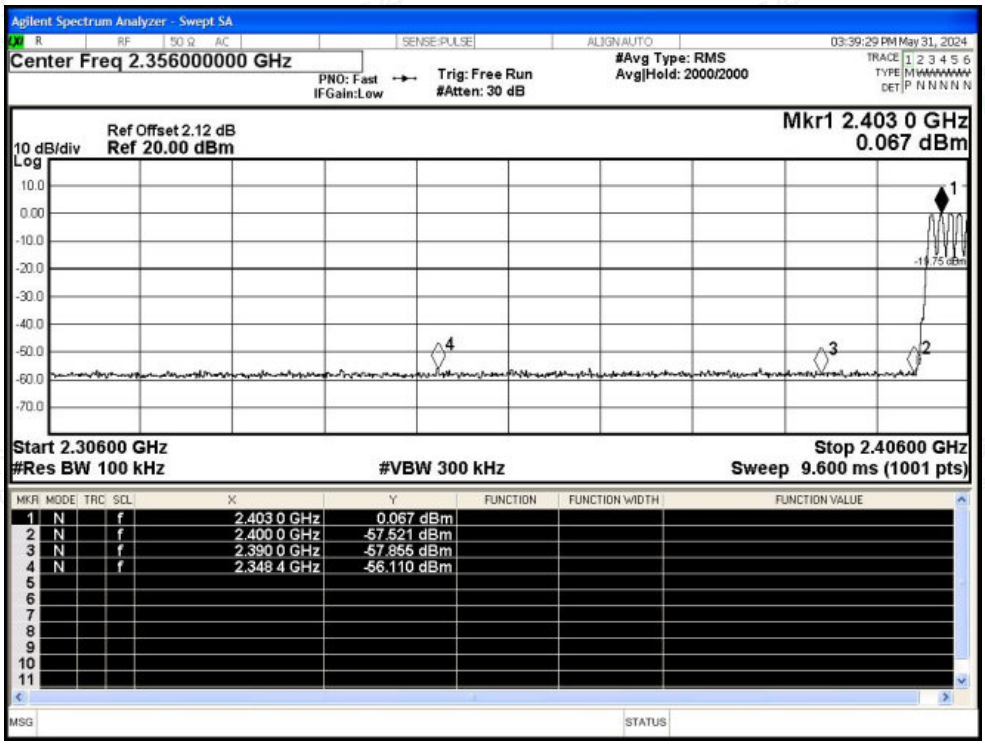
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	Hopping	-56.36	-20	Pass
NVNT	1-DH5	2480	Ant1	Hopping	-57.23	-20	Pass
NVNT	2-DH5	2402	Ant1	Hopping	-53.21	-20	Pass
NVNT	2-DH5	2480	Ant1	Hopping	-54.22	-20	Pass

Test Graphs

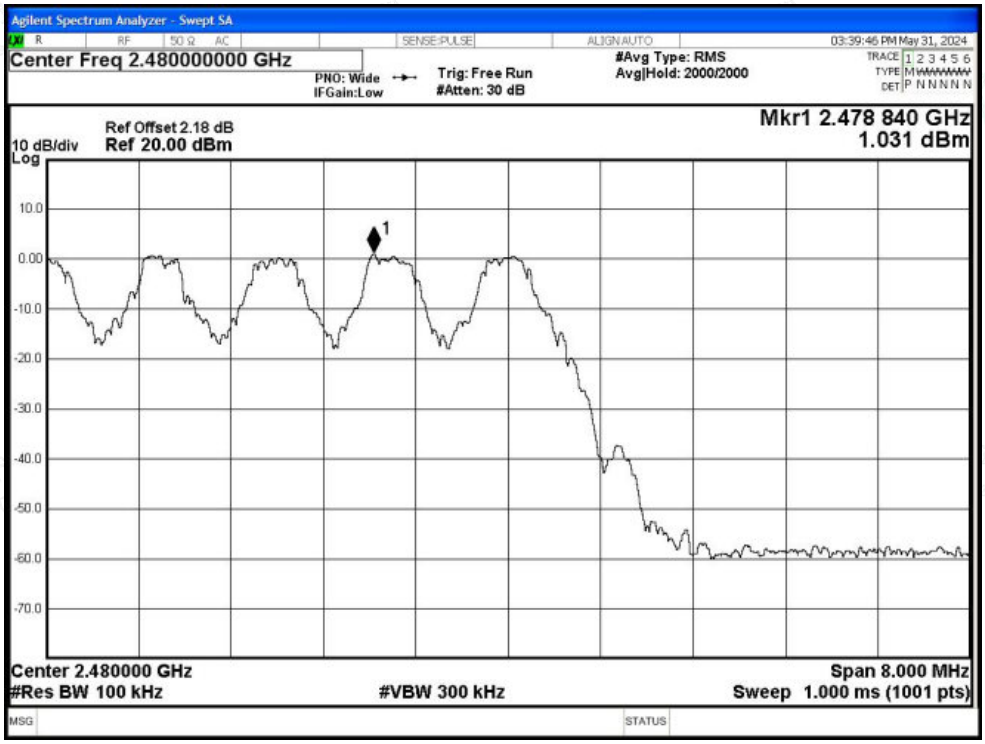
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Ref



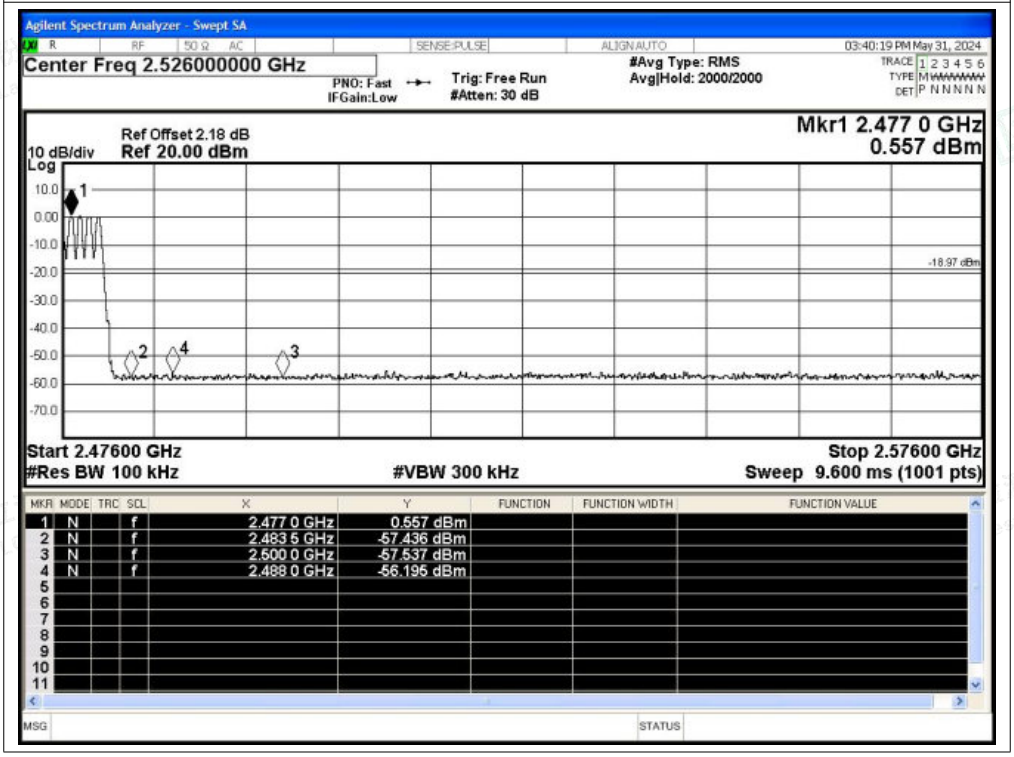
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission



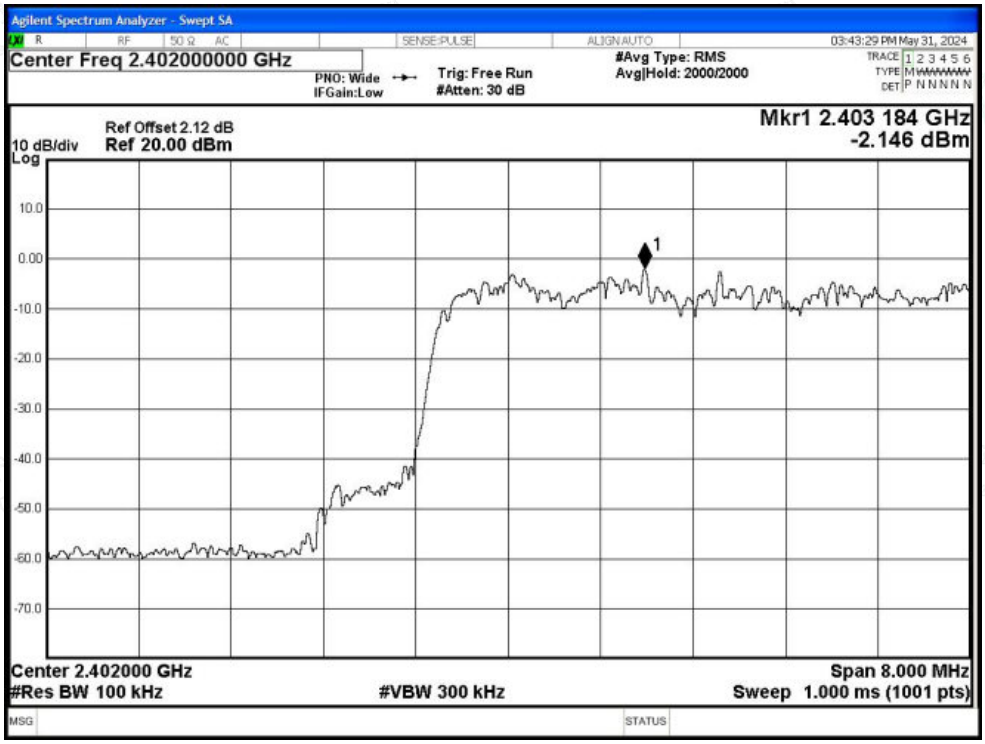
Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Ref



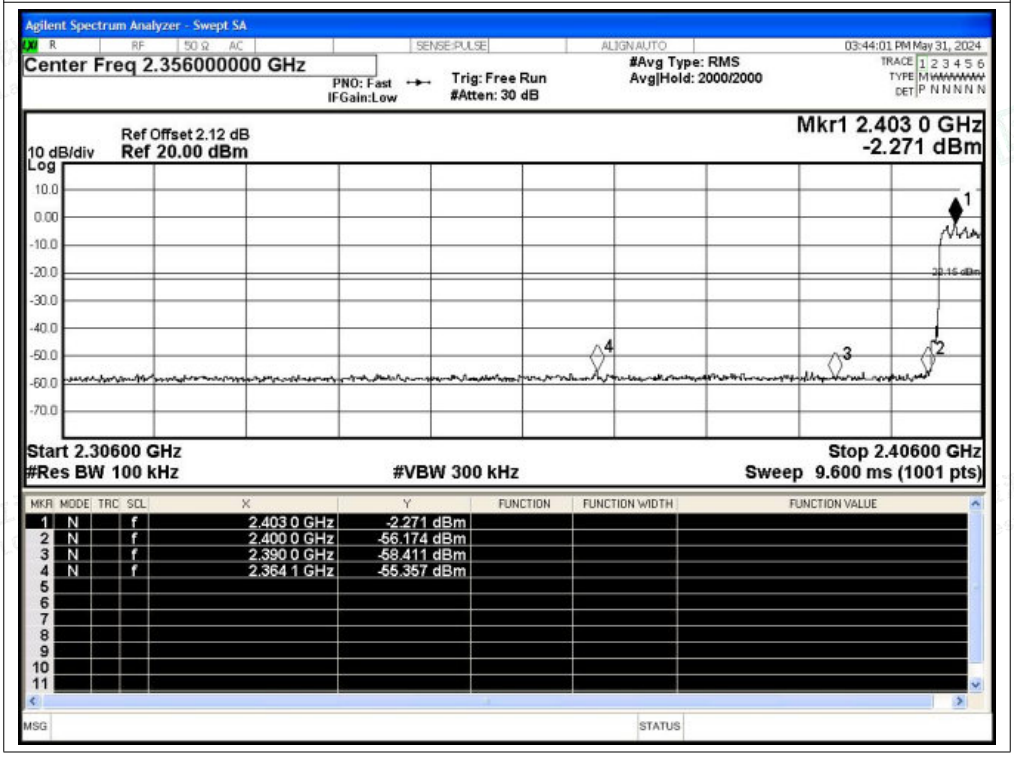
Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Emission



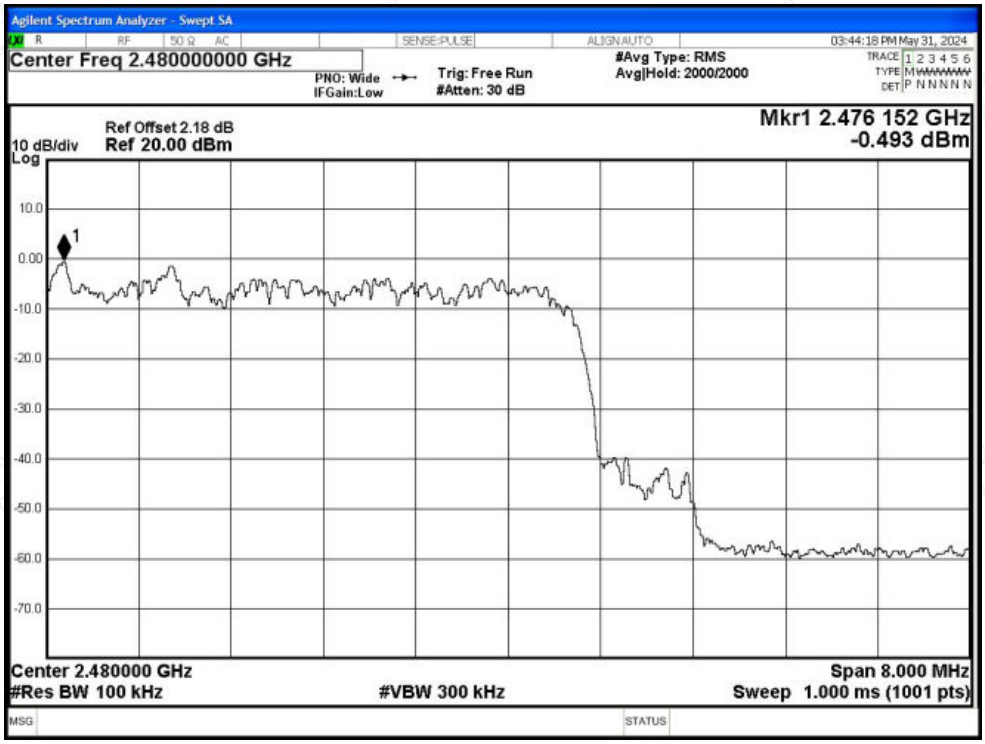
Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Ref



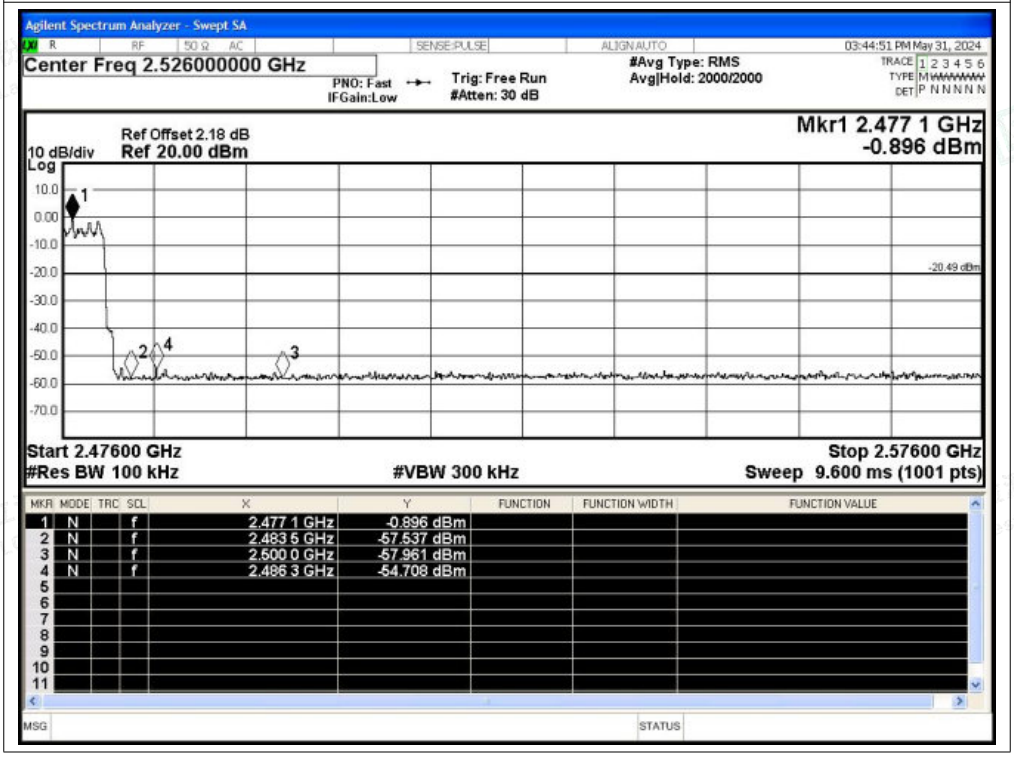
Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Emission



Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Ref



Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Emission

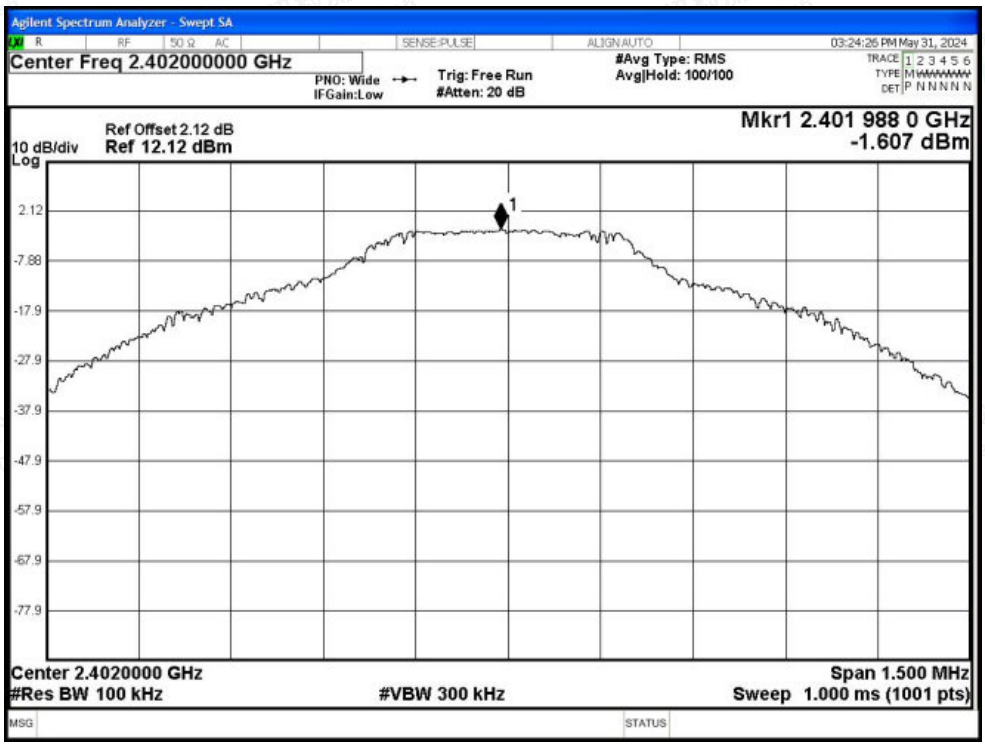


A.7 Conducted RF Spurious Emission

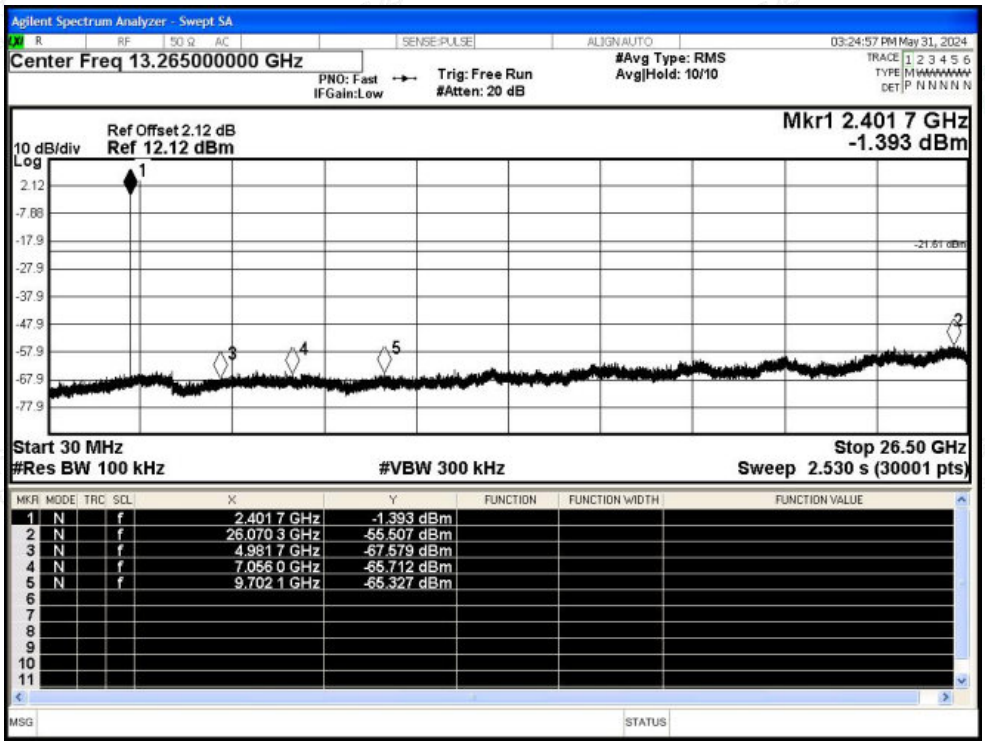
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	-53.9	-20	Pass
NVNT	1-DH5	2441	Ant1	-54.51	-20	Pass
NVNT	1-DH5	2480	Ant1	-54.61	-20	Pass
NVNT	2-DH5	2402	Ant1	-54.2	-20	Pass
NVNT	2-DH5	2441	Ant1	-52.89	-20	Pass
NVNT	2-DH5	2480	Ant1	-53.91	-20	Pass

Test Graphs

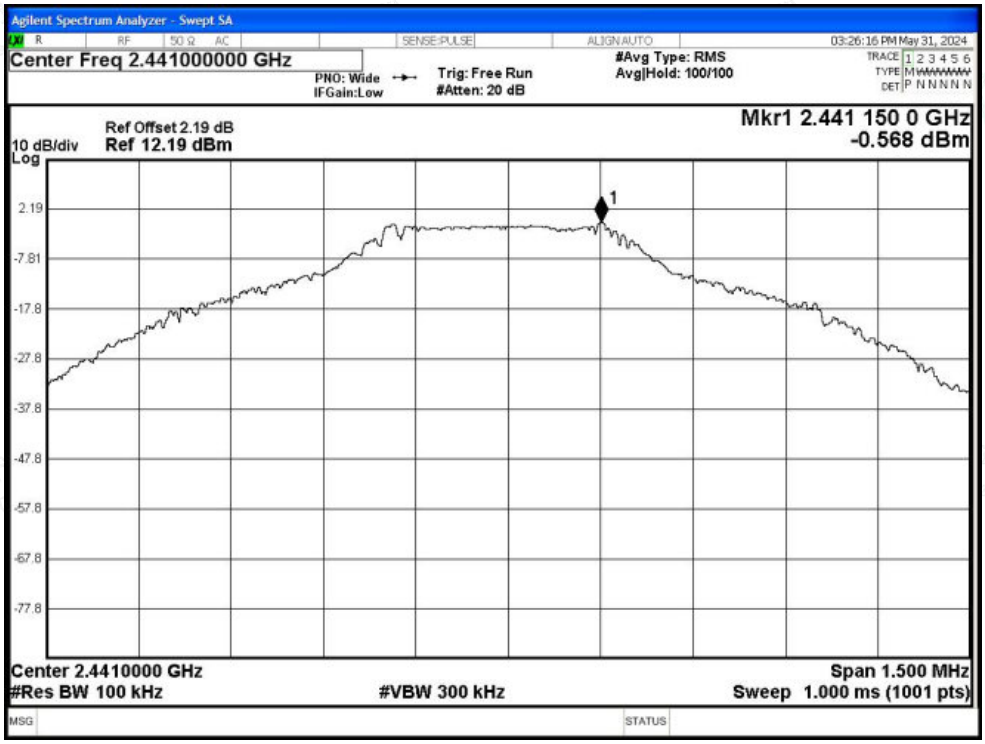
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref



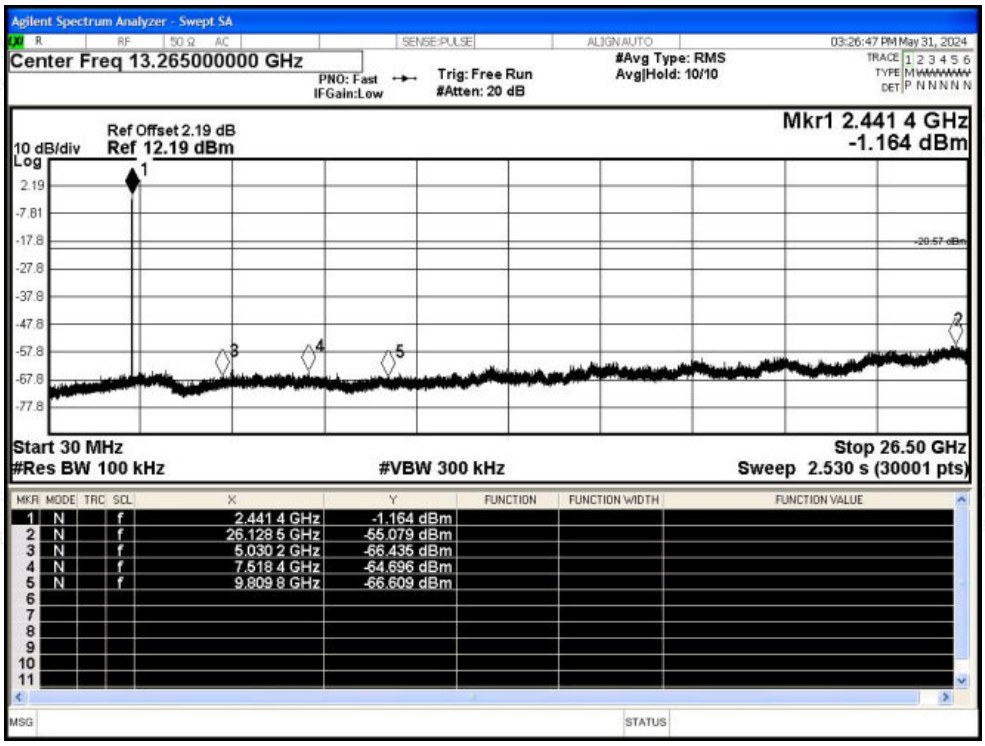
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission



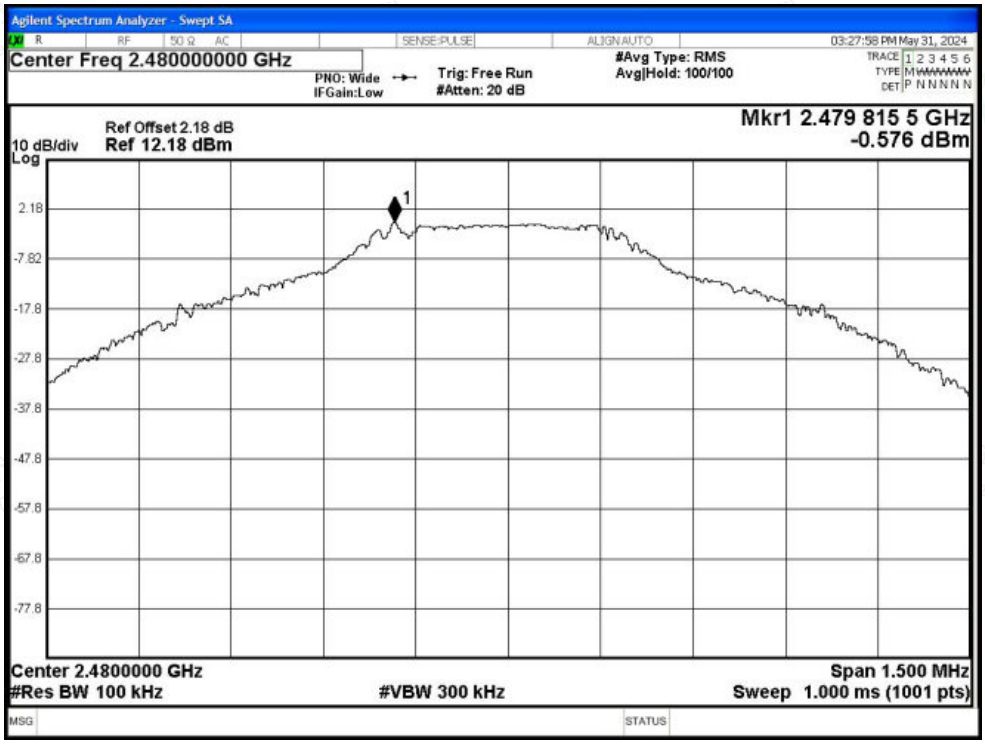
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref



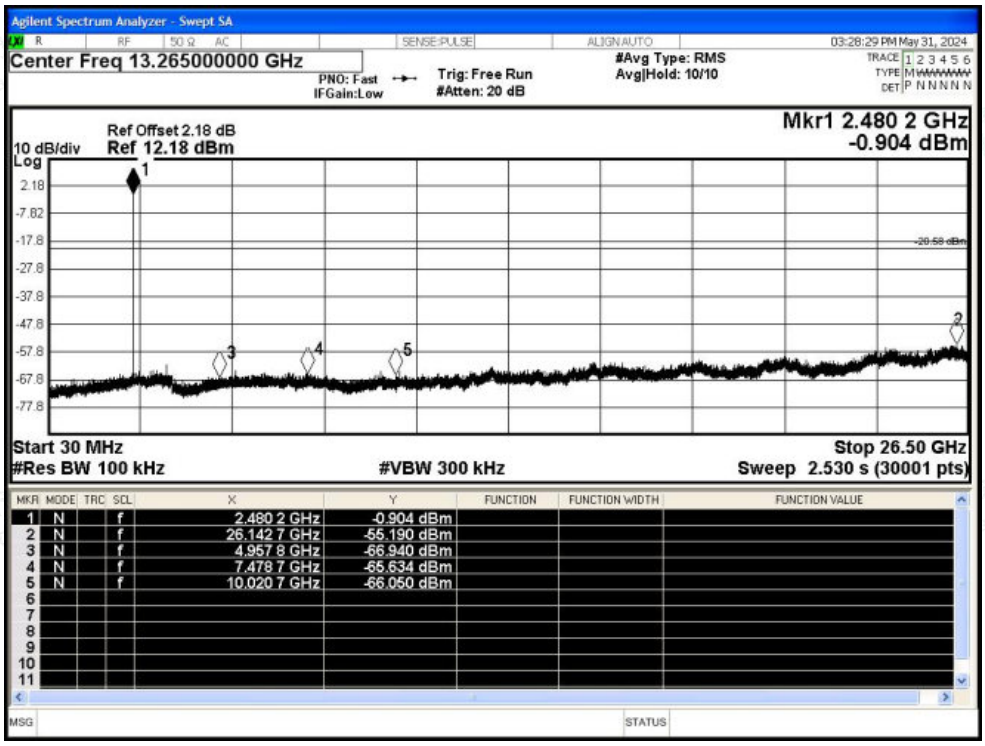
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission



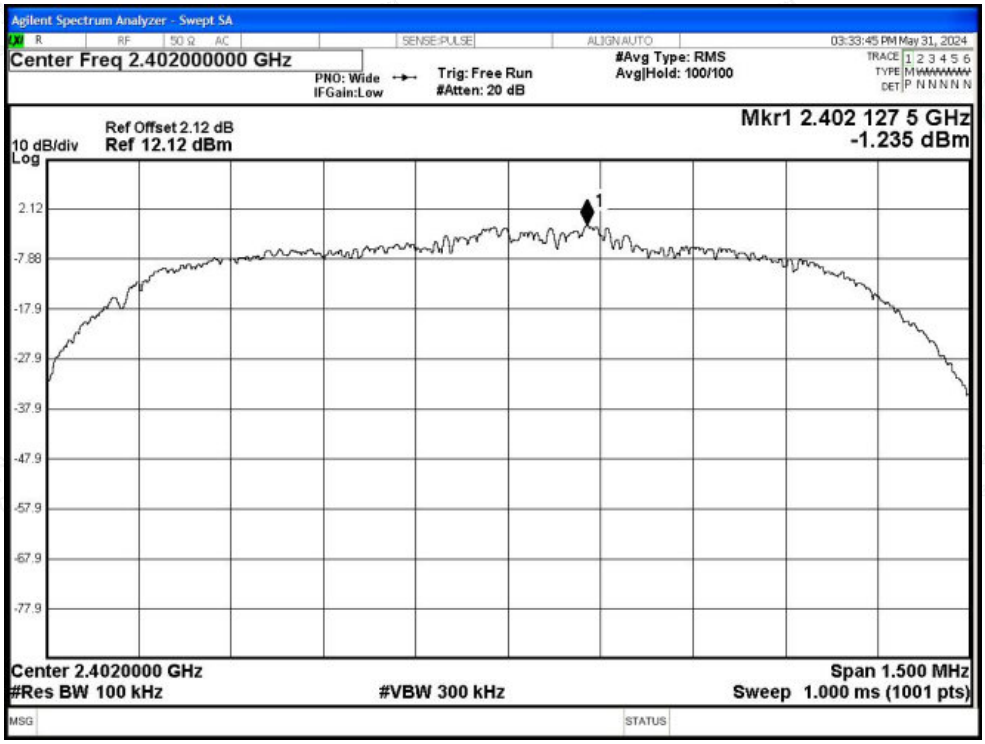
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref



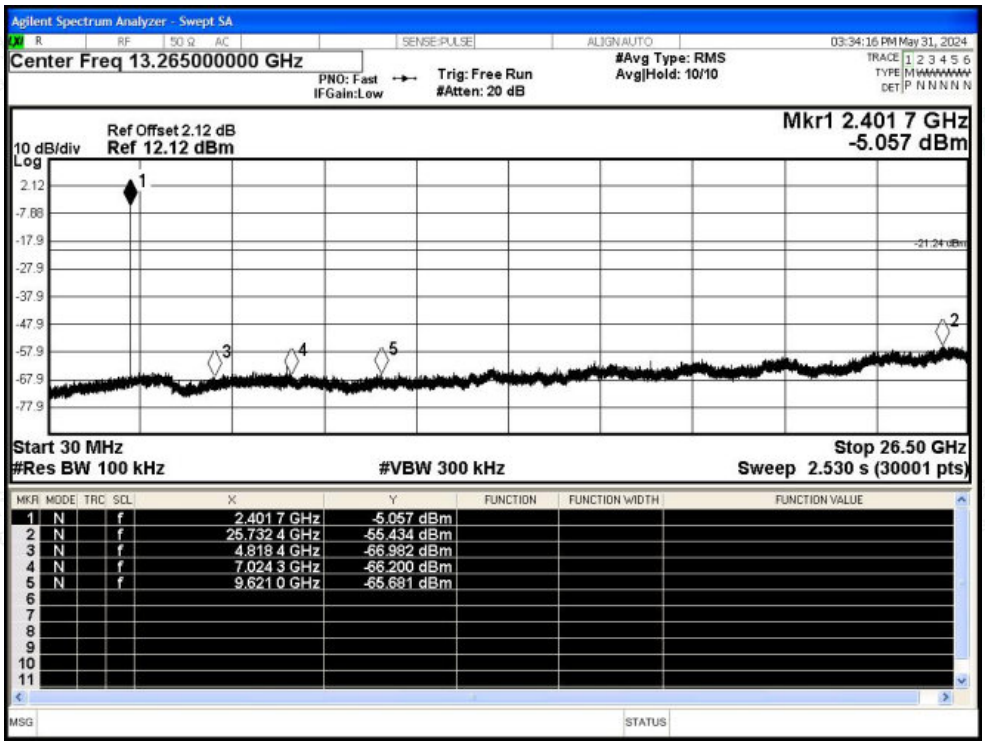
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Emission



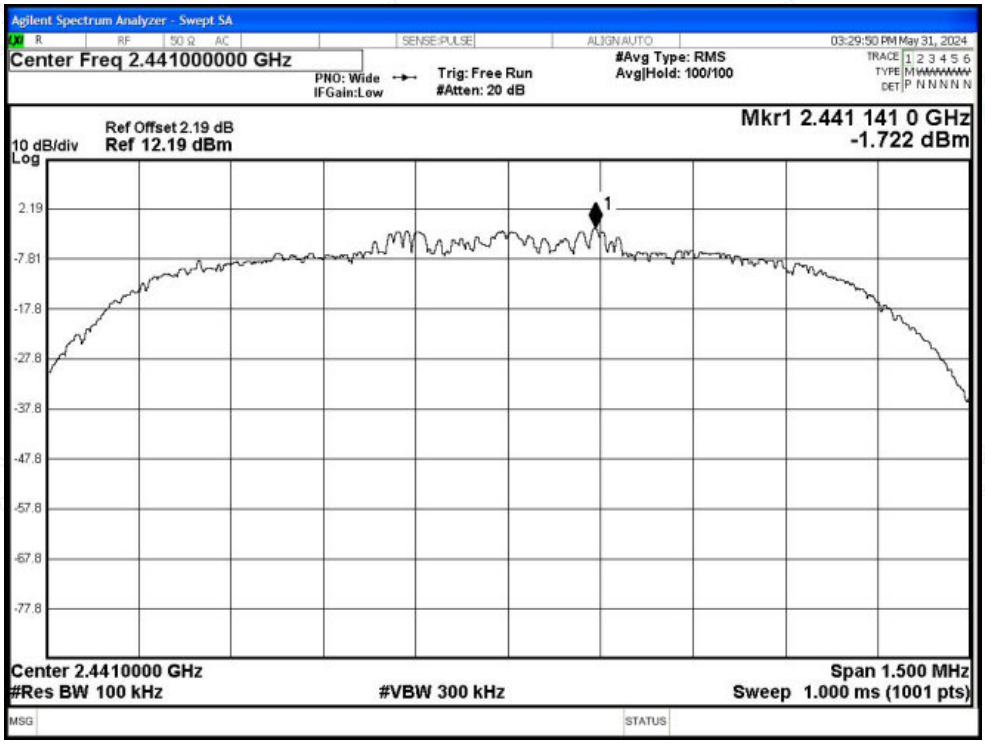
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Ref



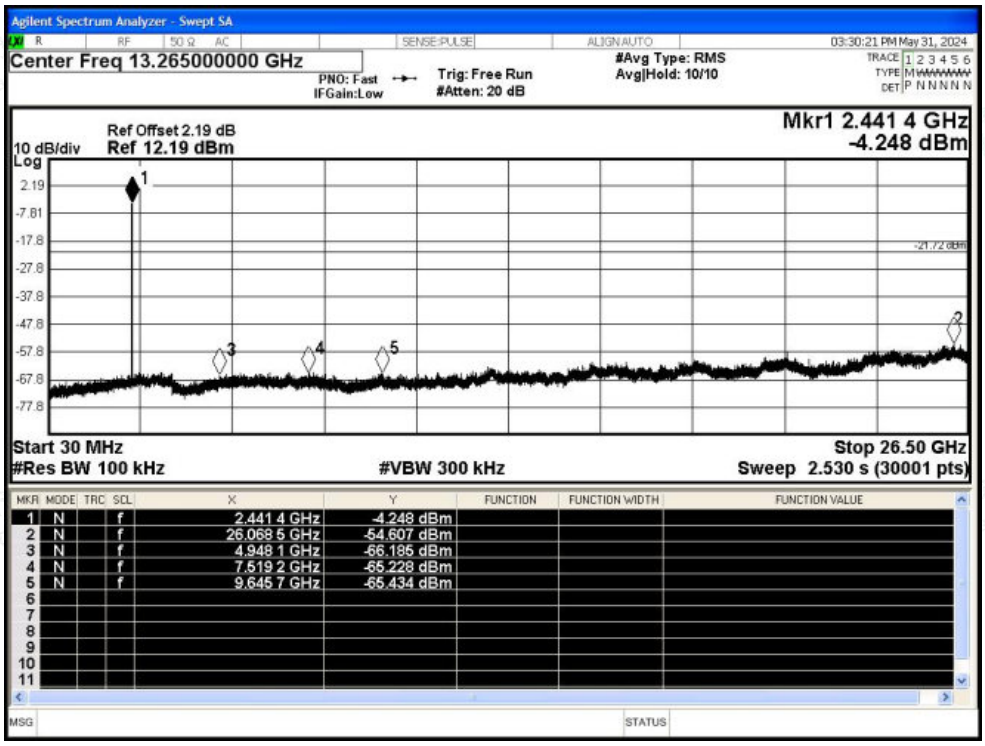
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Emission



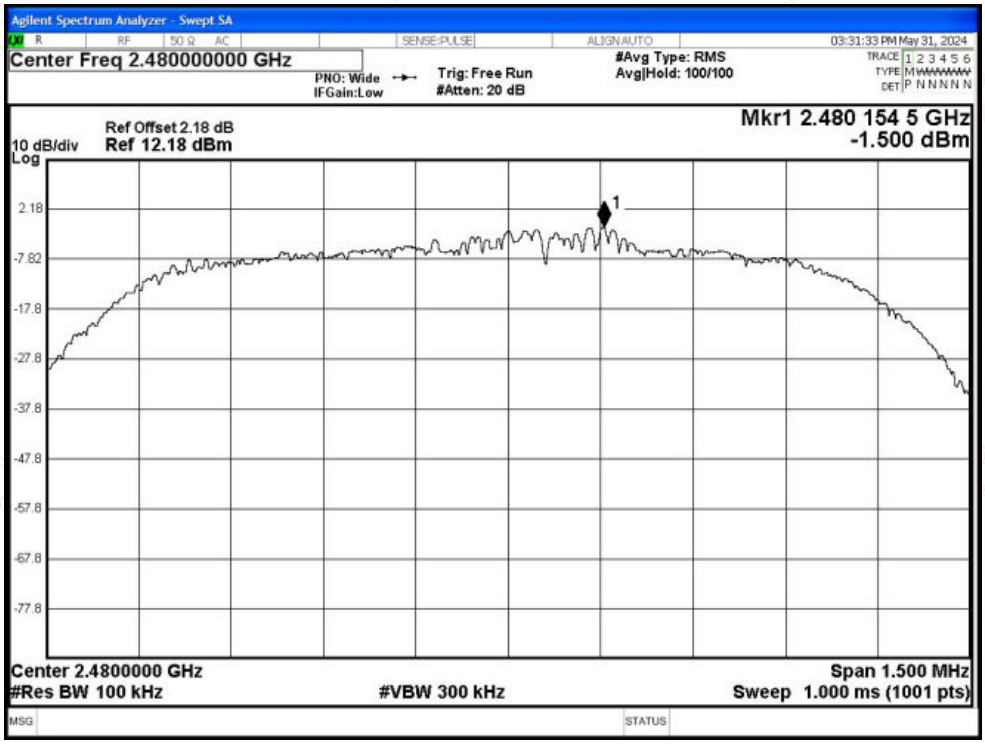
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Ref



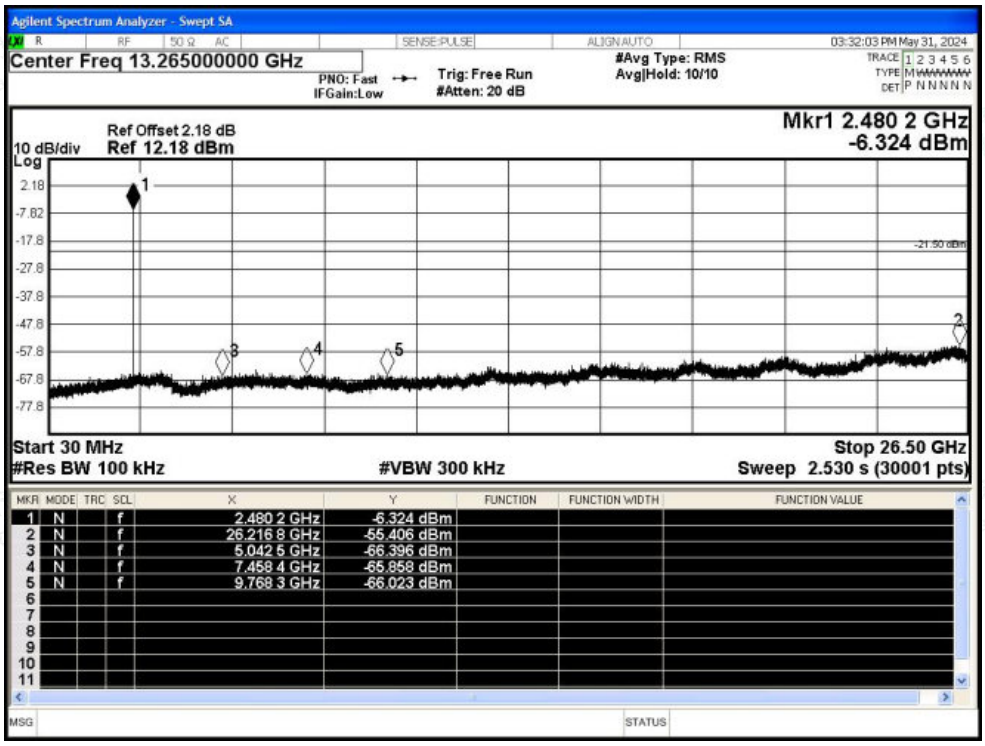
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Emission



Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Ref



Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Emission

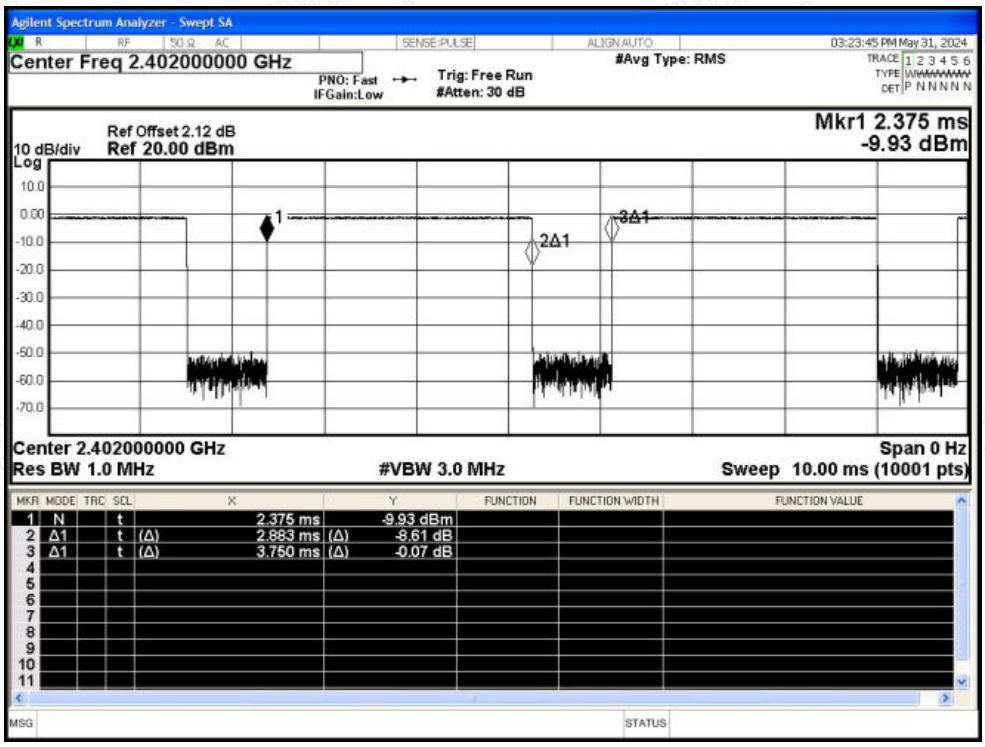


A.8 Duty Cycle

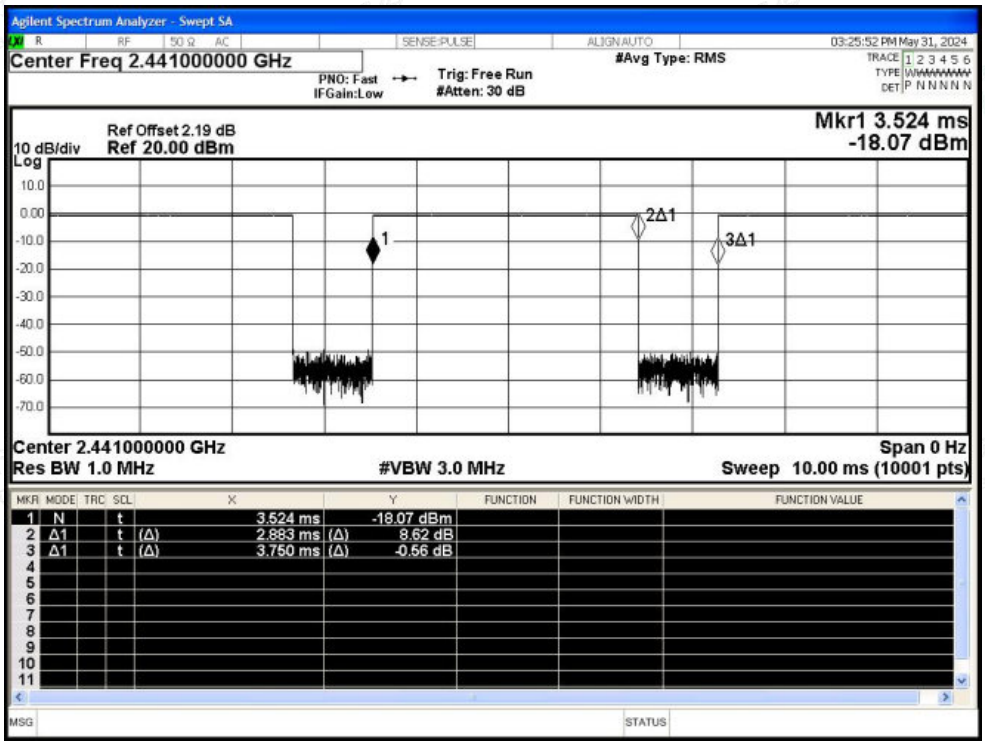
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH5	2402	Ant1	76.88	1.14	0.35
NVNT	1-DH5	2441	Ant1	76.88	1.14	0.35
NVNT	1-DH5	2480	Ant1	76.88	1.14	0.35
NVNT	2-DH5	2402	Ant1	76.96	1.14	0.35
NVNT	2-DH5	2441	Ant1	76.99	1.14	0.35
NVNT	2-DH5	2480	Ant1	76.96	1.14	0.35

Test Graphs

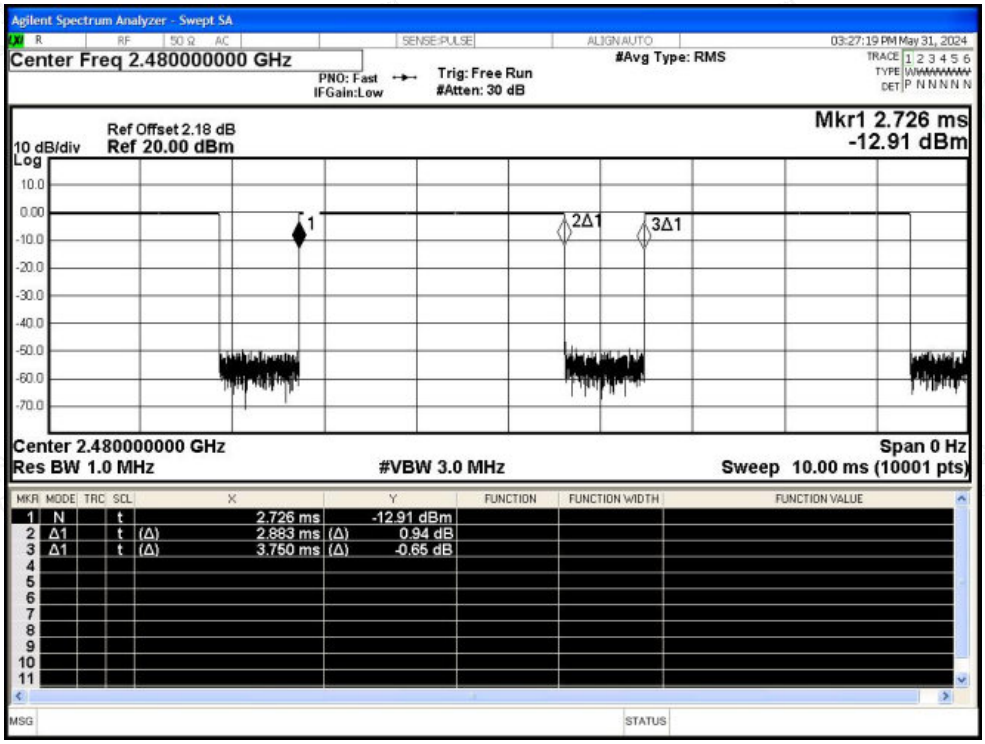
Duty Cycle NVNT 1-DH5 2402MHz Ant1



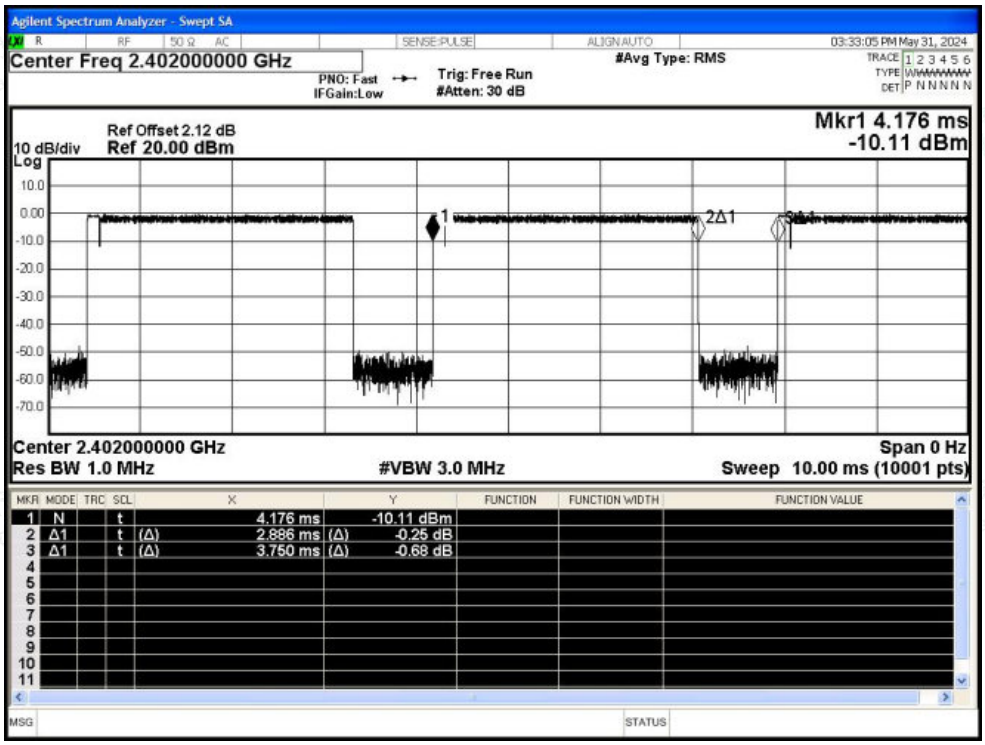
Duty Cycle NVNT 1-DH5 2441MHz Ant1



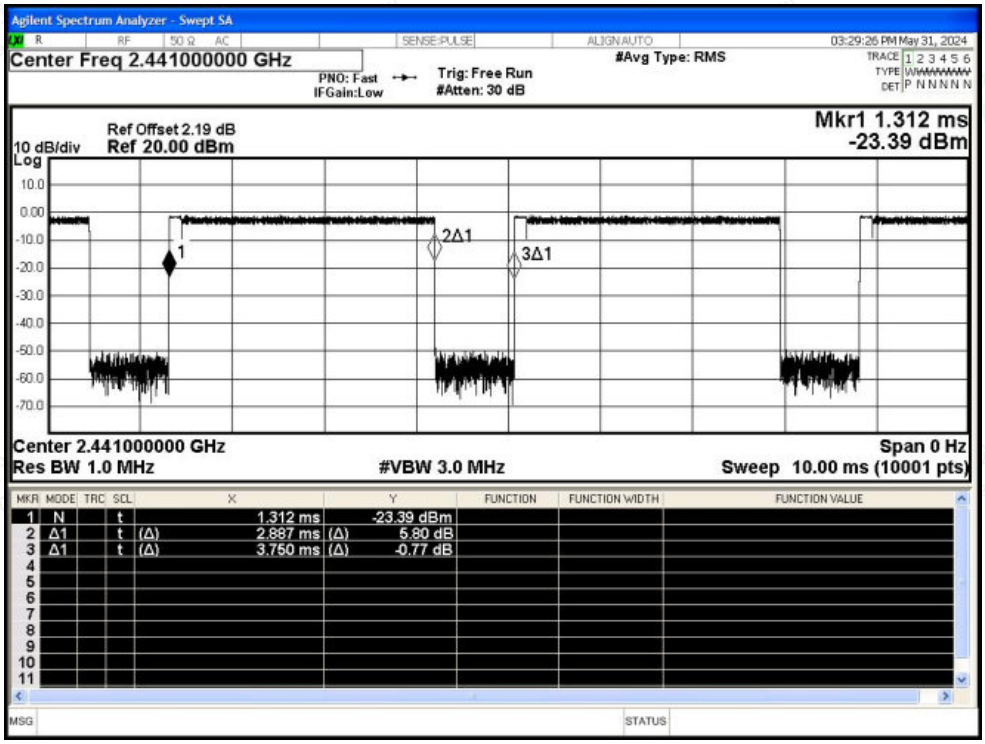
Duty Cycle NVNT 1-DH5 2480MHz Ant1



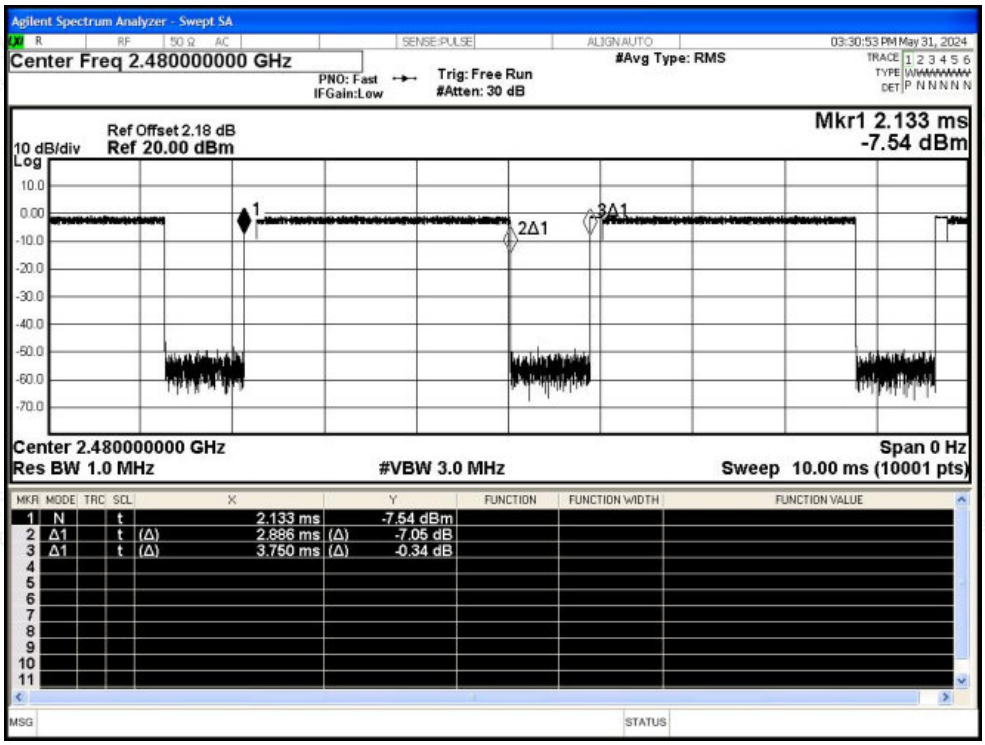
Duty Cycle NVNT 2-DH5 2402MHz Ant1



Duty Cycle NVNT 2-DH5 2441MHz Ant1



Duty Cycle NVNT 2-DH5 2480MHz Ant1

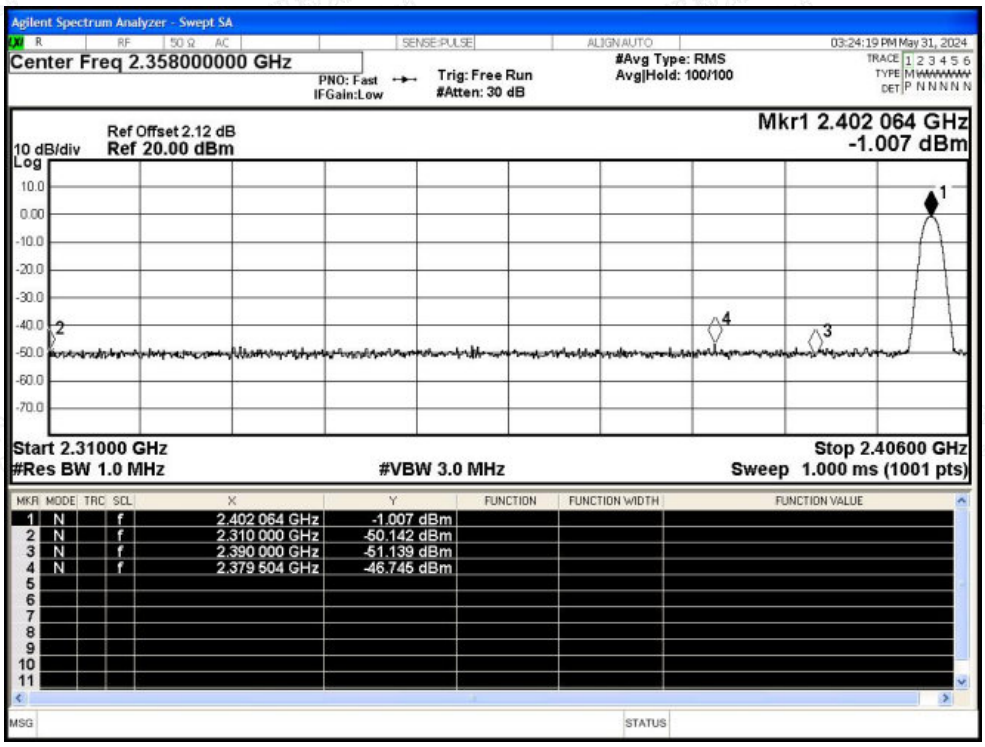


A.9 Restrict Band

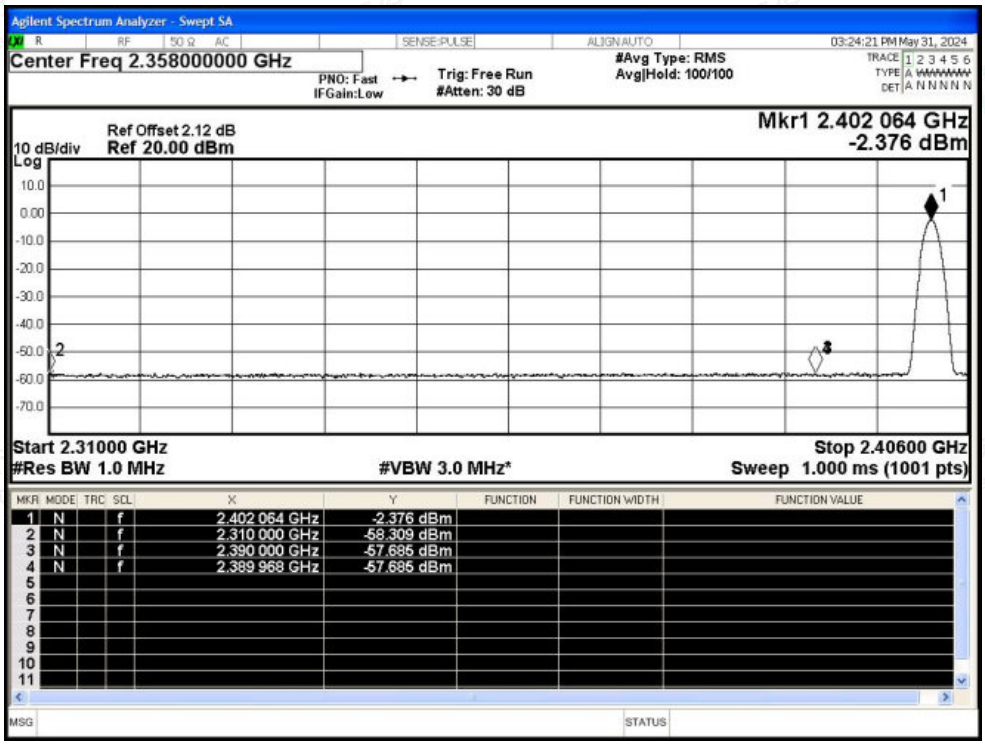
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-50.14	2	-	47.12	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-58.31	2	1.14	40.09	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2379.504	-46.75	2	-	50.51	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2389.968	-57.69	2	1.14	40.71	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-51.14	2	-	46.12	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-57.69	2	1.14	40.71	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-48.48	2	-	48.78	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-57.6	2	1.14	40.8	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2495.896	-46.77	2	-	50.49	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2496.04	-57.23	2	1.14	41.17	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-50.39	2	-	46.87	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-58.09	2	1.14	40.31	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-50.81	2	-	46.45	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-58.45	2	1.14	39.95	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2382.864	-47.22	2	-	50.04	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2378.064	-57.32	2	1.14	41.08	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-49.24	2	-	48.02	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-58.13	2	1.14	40.27	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-48.4	2	-	48.86	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-57.67	2	1.14	40.73	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2495.704	-46.74	2	-	50.52	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2497.216	-57.12	2	1.14	41.28	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-49.32	2	-	47.94	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-57.8	2	1.14	40.6	Average	54	Pass

Test Graphs

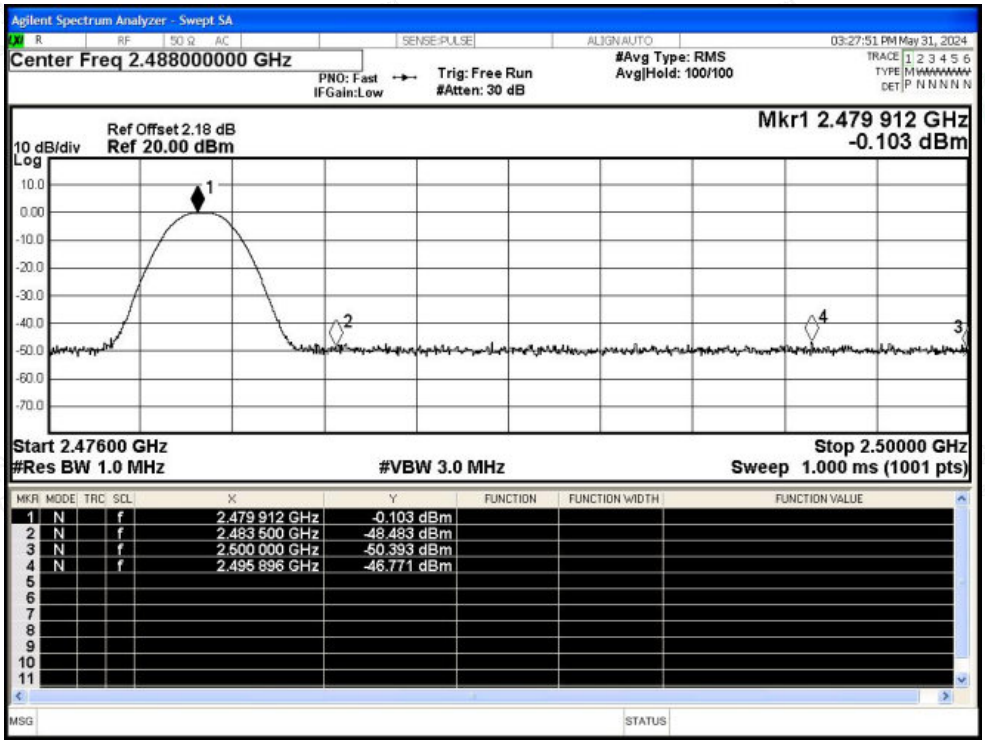
Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Peak



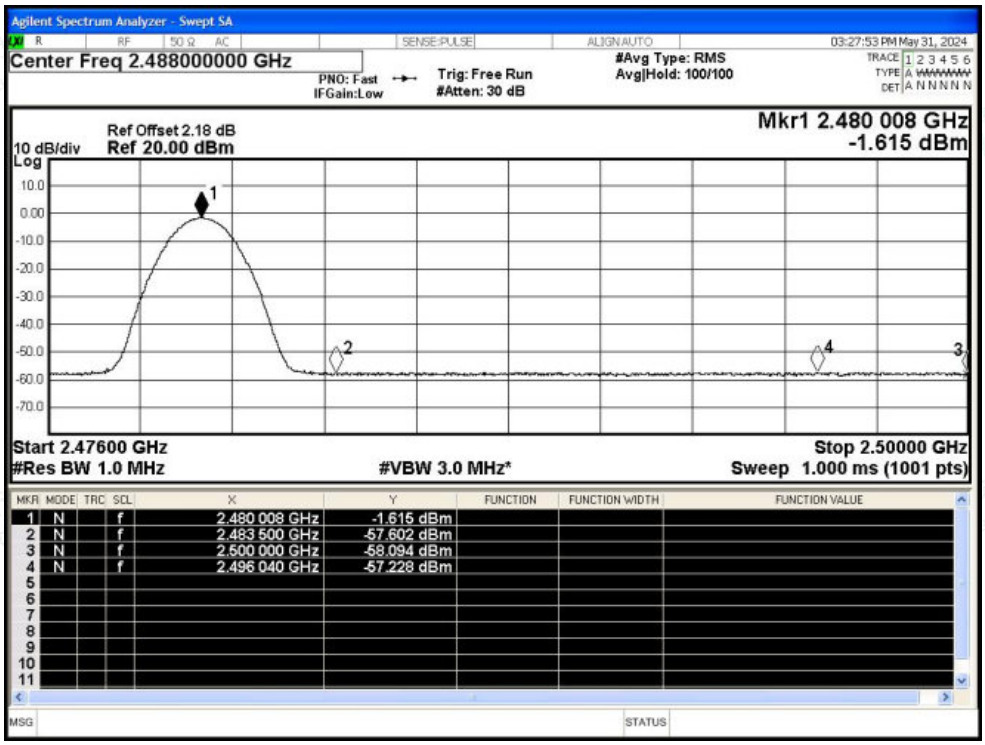
Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Average



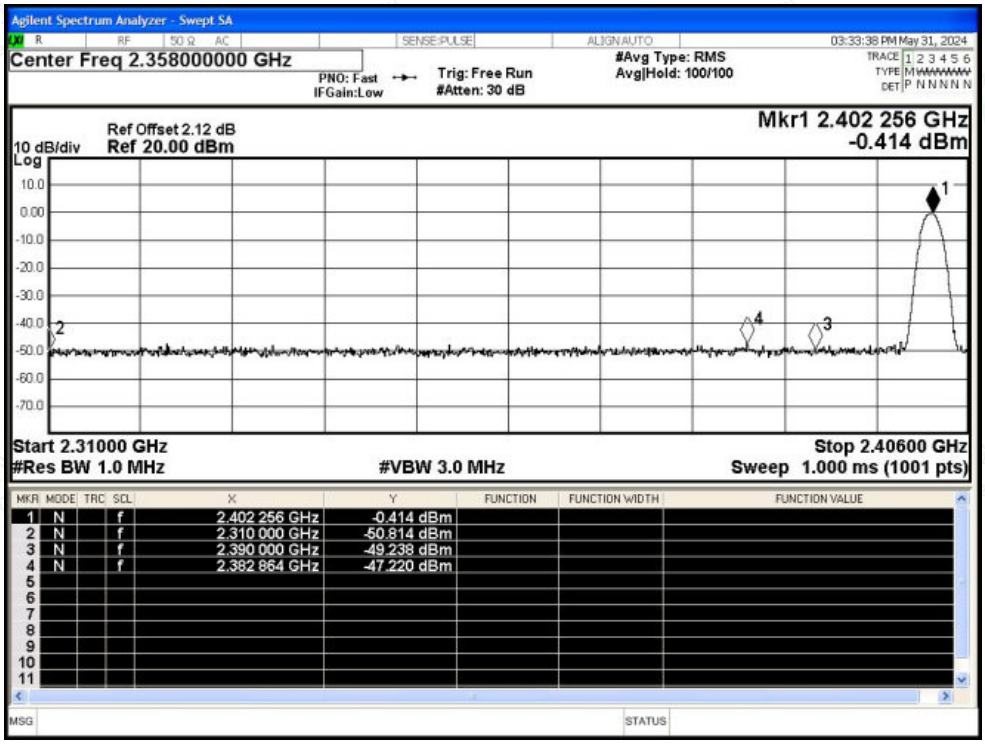
Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Peak



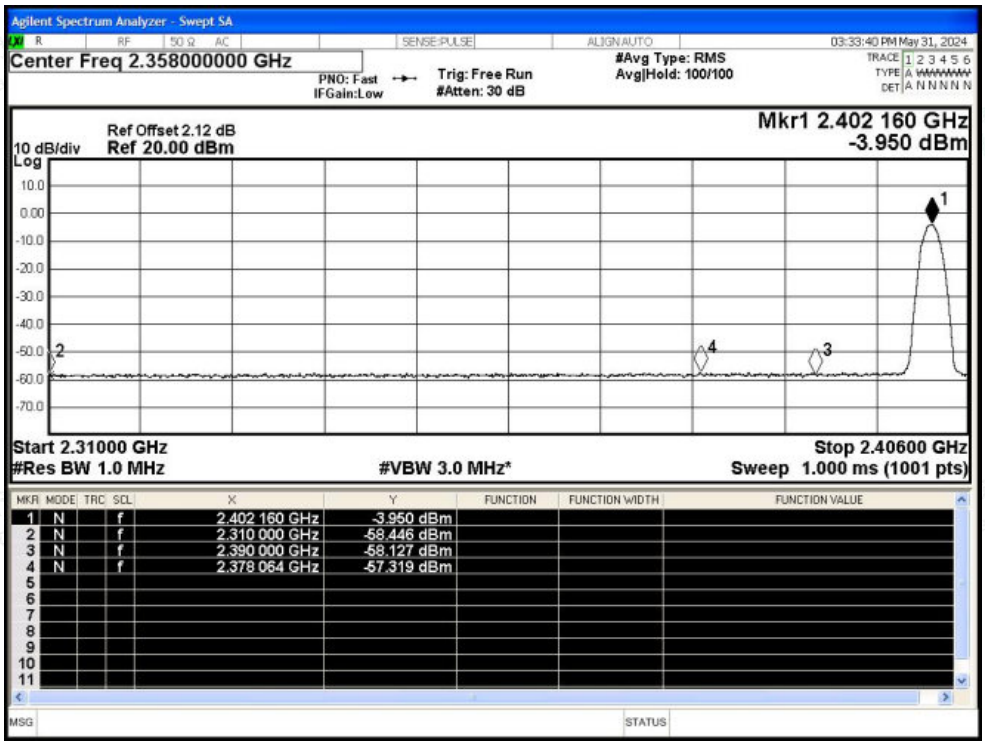
Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Average



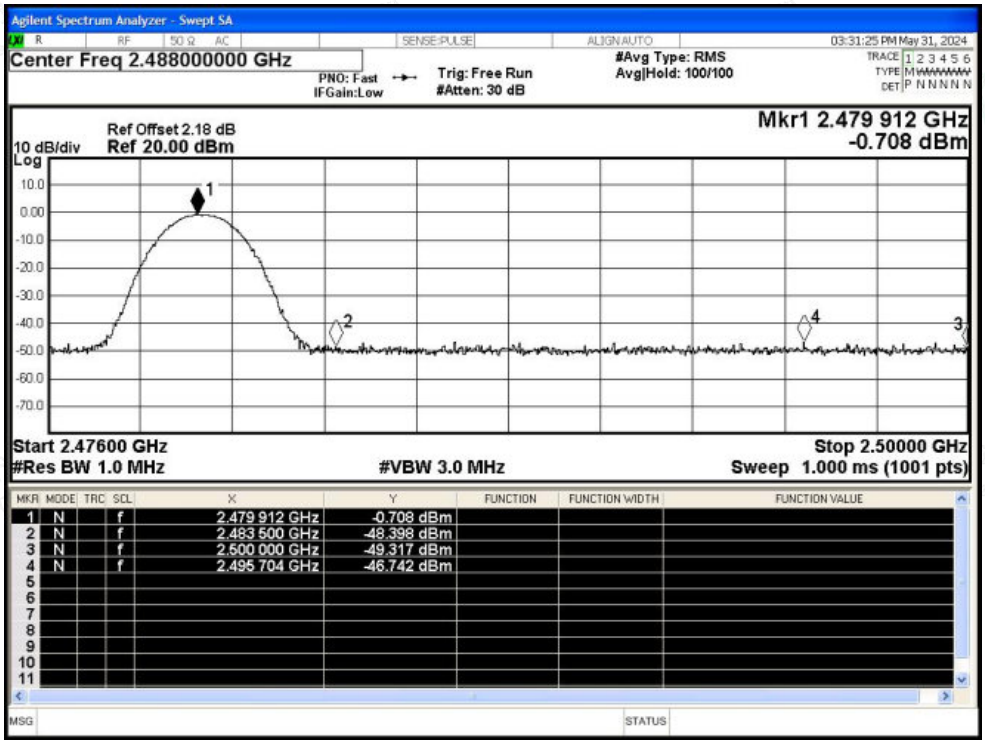
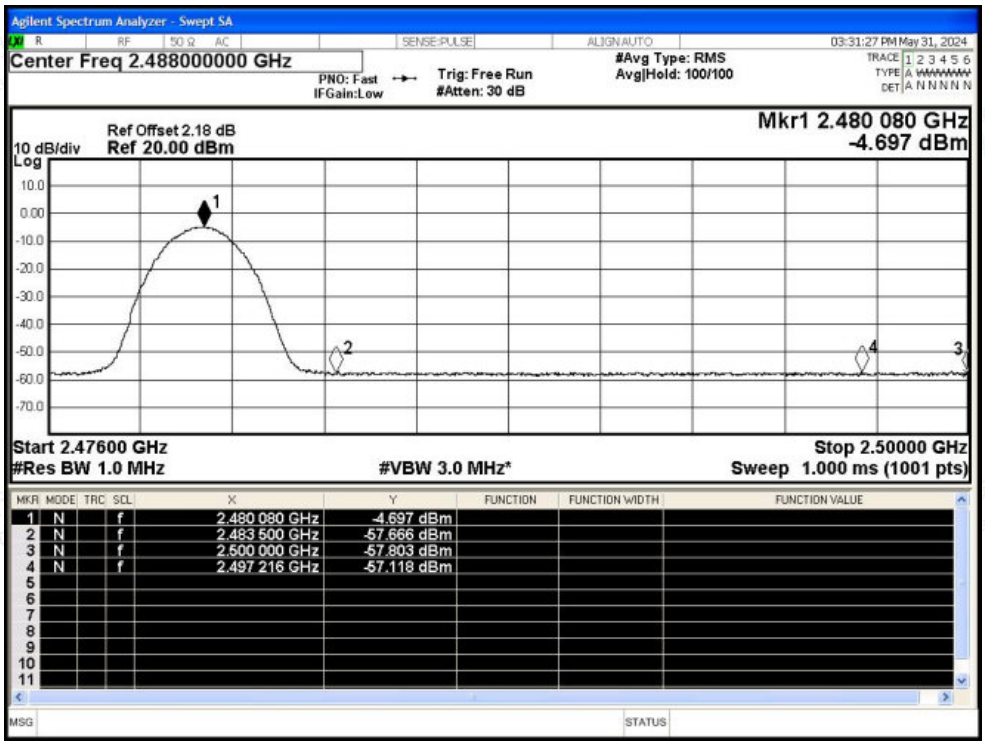
Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Peak



Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Average



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



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