Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: Bluetooth Headset

Test Model: A9pro

Environmental Conditions

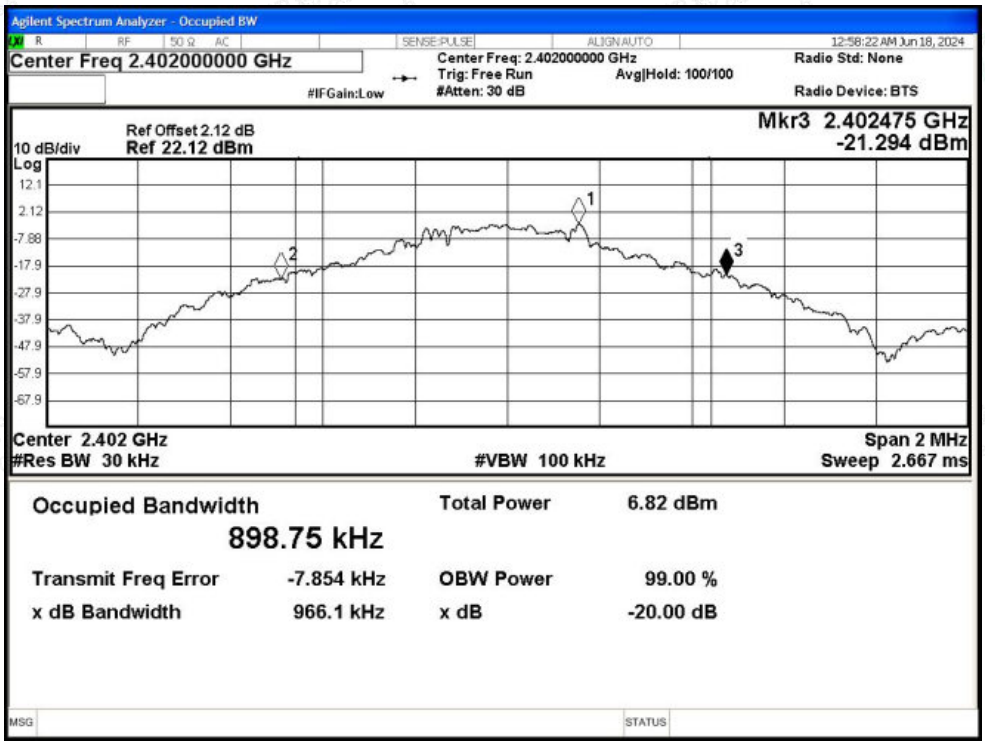
Temperature:	23.8°C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Eason Zhou
Supervised by:	Nick Peng

A.1 -20dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH5	2402	Ant1	0.966	N/A	Pass
NVNT	1-DH5	2441	Ant1	1.028	N/A	Pass
NVNT	1-DH5	2480	Ant1	1.012	N/A	Pass
NVNT	2-DH5	2402	Ant1	1.277	N/A	Pass
NVNT	2-DH5	2441	Ant1	1.28	N/A	Pass
NVNT	2-DH5	2480	Ant1	1.281	N/A	Pass

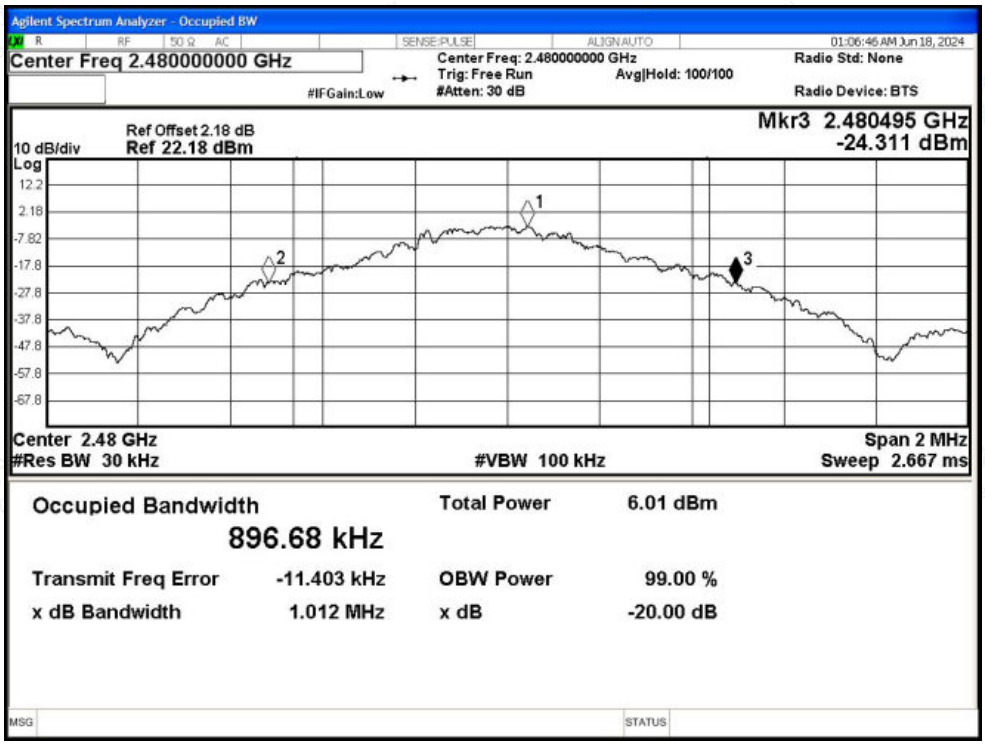
Test Graphs

-20dB Bandwidth NVNT 1-DH5 2402MHz Ant1

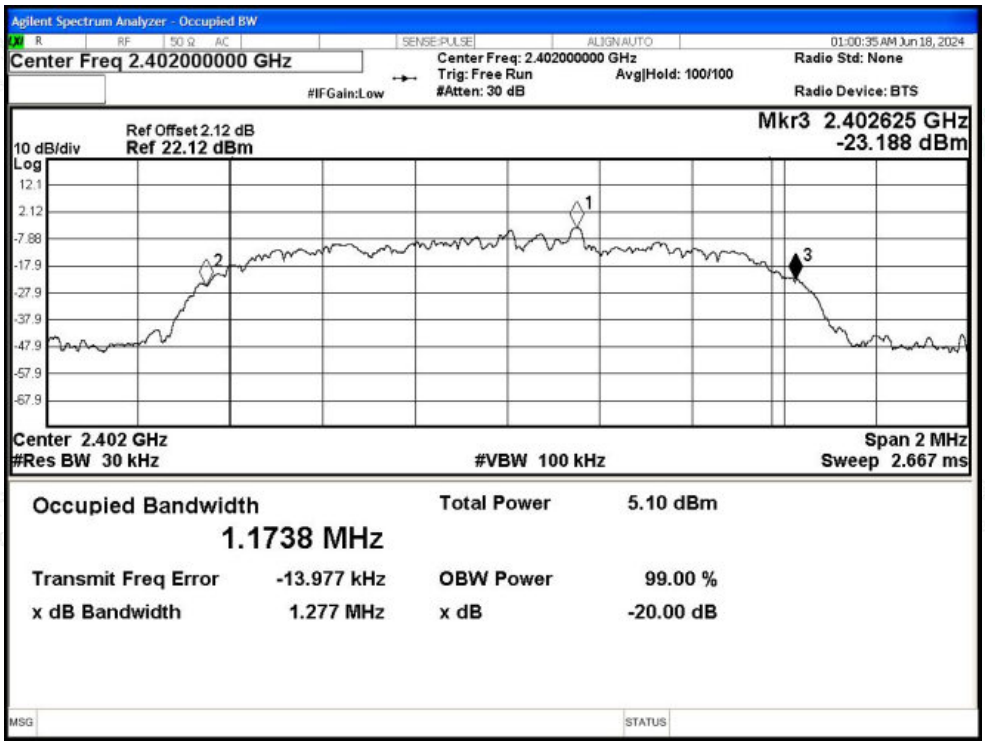


-20dB Bandwidth NVNT 1-DH5 2441MHz Ant1

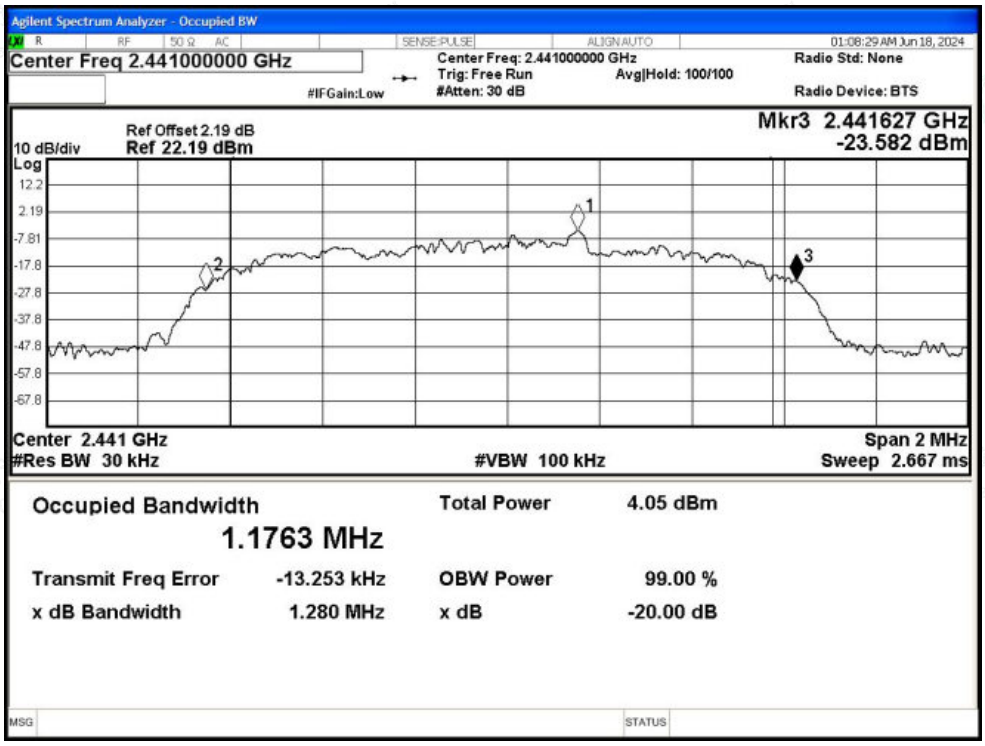
-20dB Bandwidth NVNT 1-DH5 2480MHz Ant1



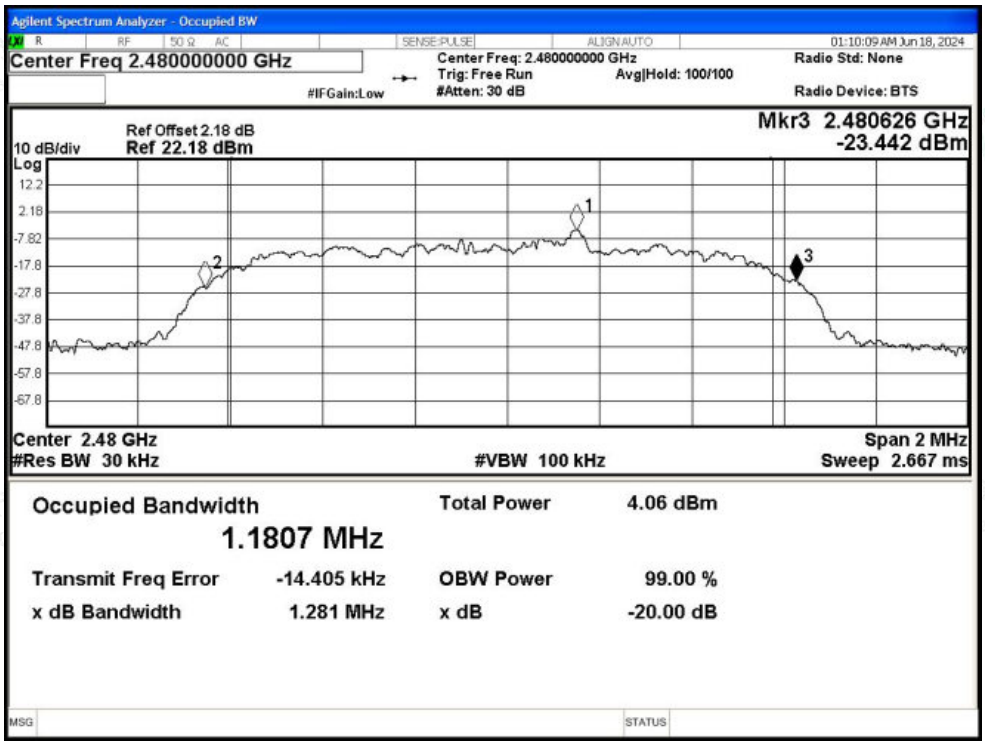
-20dB Bandwidth NVNT 2-DH5 2402MHz Ant1



-20dB Bandwidth NVNT 2-DH5 2441MHz Ant1



-20dB Bandwidth NVNT 2-DH5 2480MHz Ant1

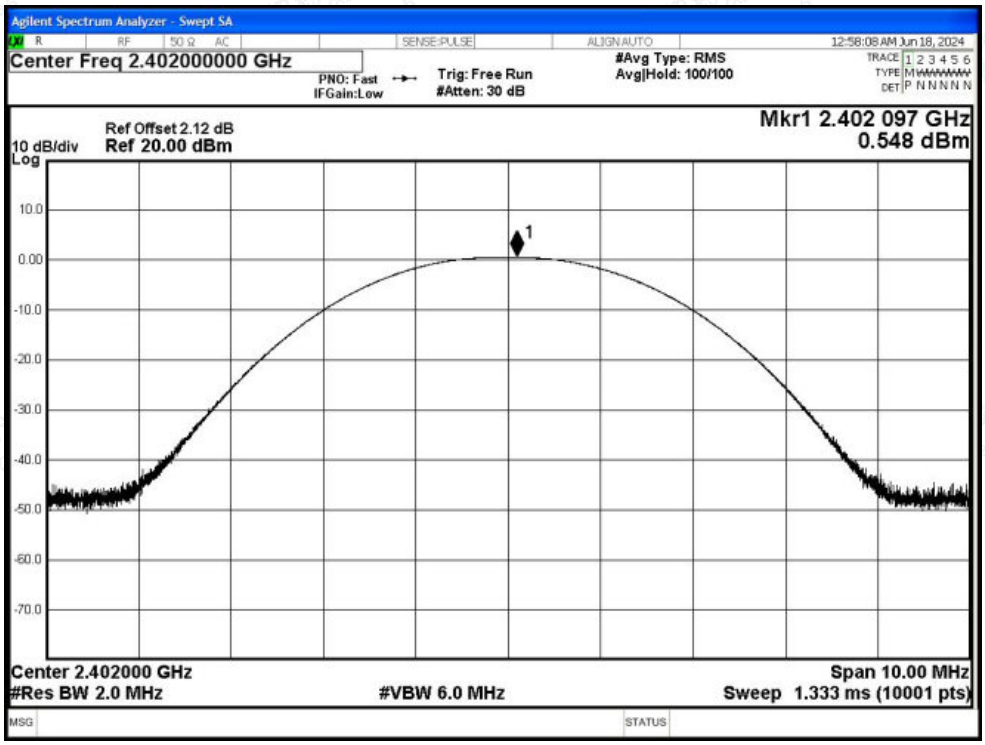


A.2 Maximum Conducted Output Power

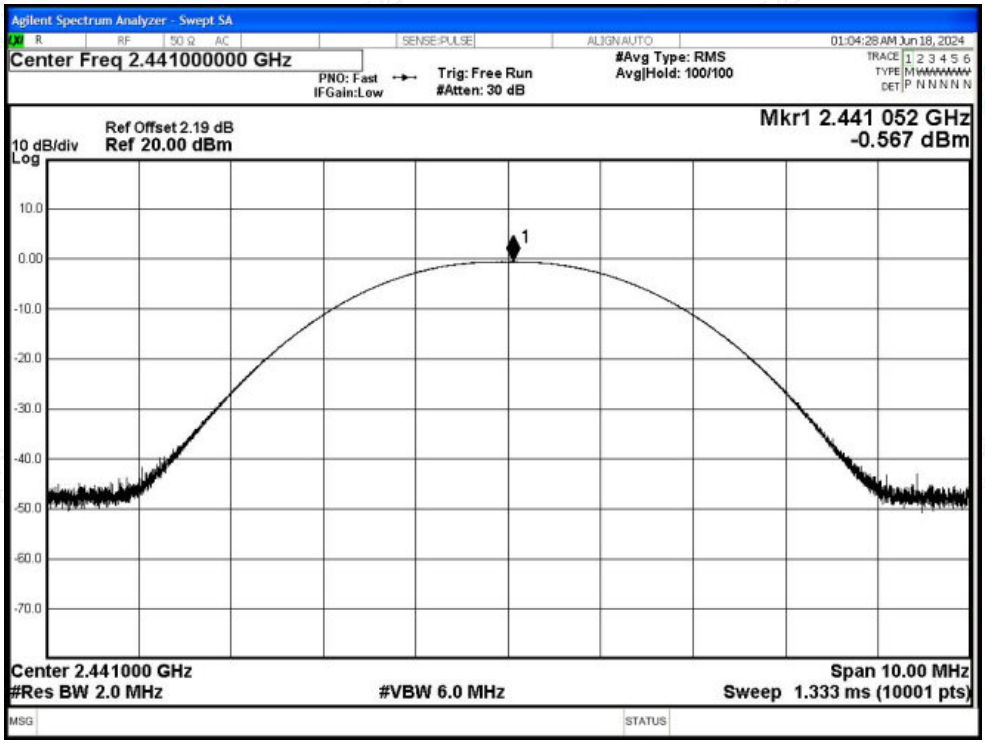
Condition	Mode	Frequency (MHz)	Antenna	FTotal Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH5	2402	Ant1	0.55	21	Pass
NVNT	1-DH5	2441	Ant1	-0.57	21	Pass
NVNT	1-DH5	2480	Ant1	-0.30	21	Pass
NVNT	2-DH5	2402	Ant1	0.32	21	Pass
NVNT	2-DH5	2441	Ant1	-0.81	21	Pass
NVNT	2-DH5	2480	Ant1	-0.53	21	Pass

Test Graphs

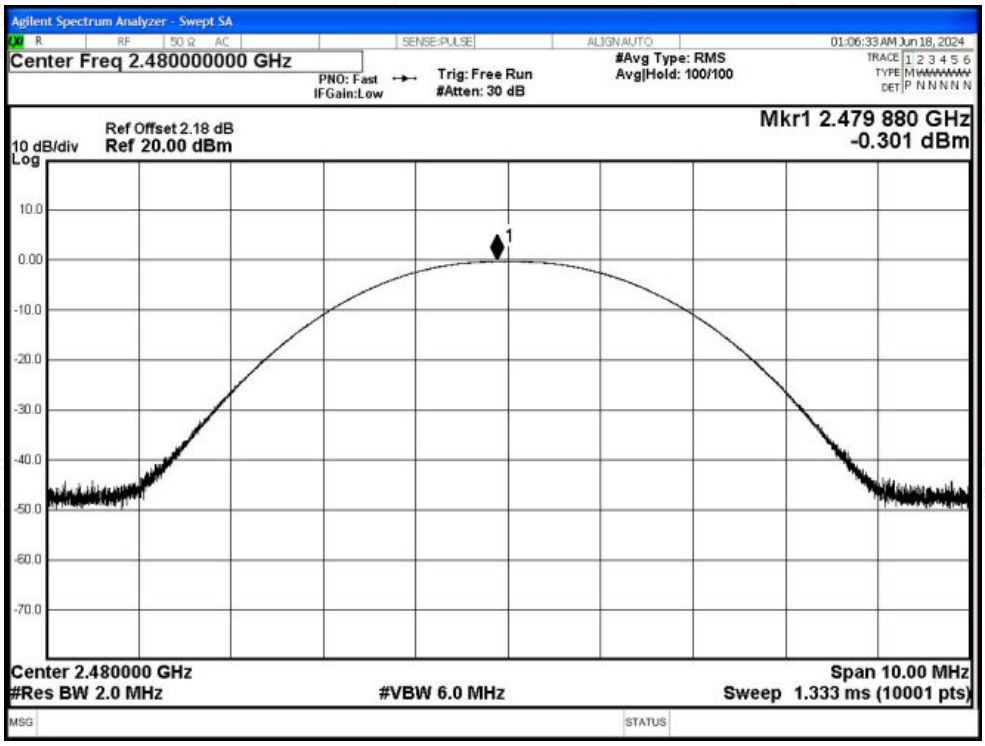
Power NVNT 1-DH5 2402MHz Ant1



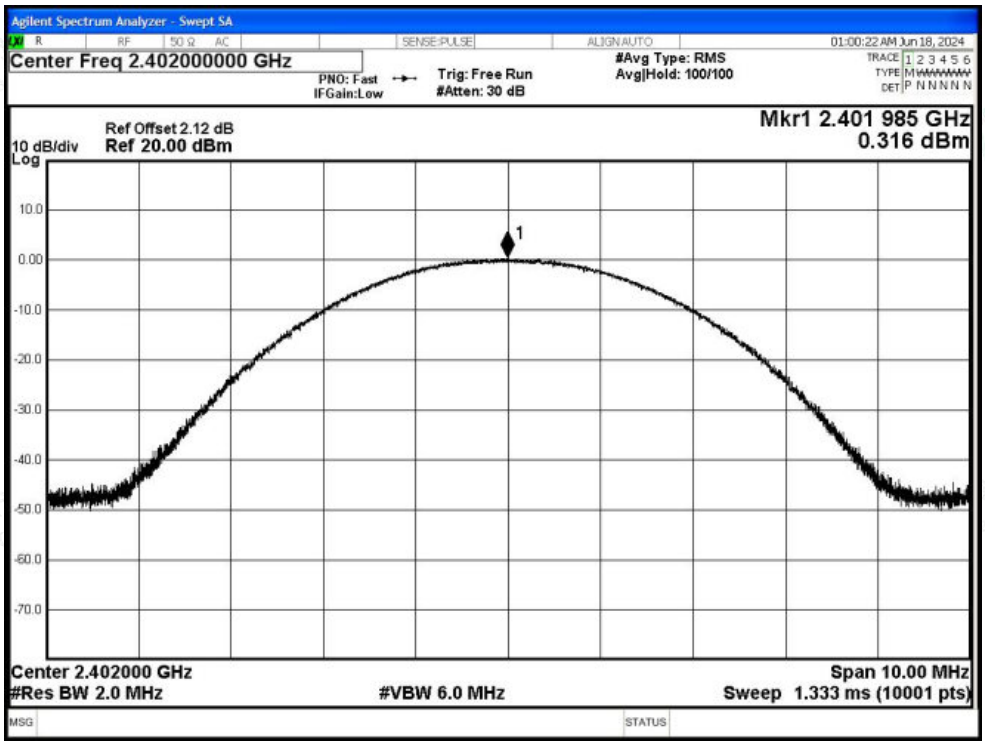
Power NVNT 1-DH5 2441MHz Ant1



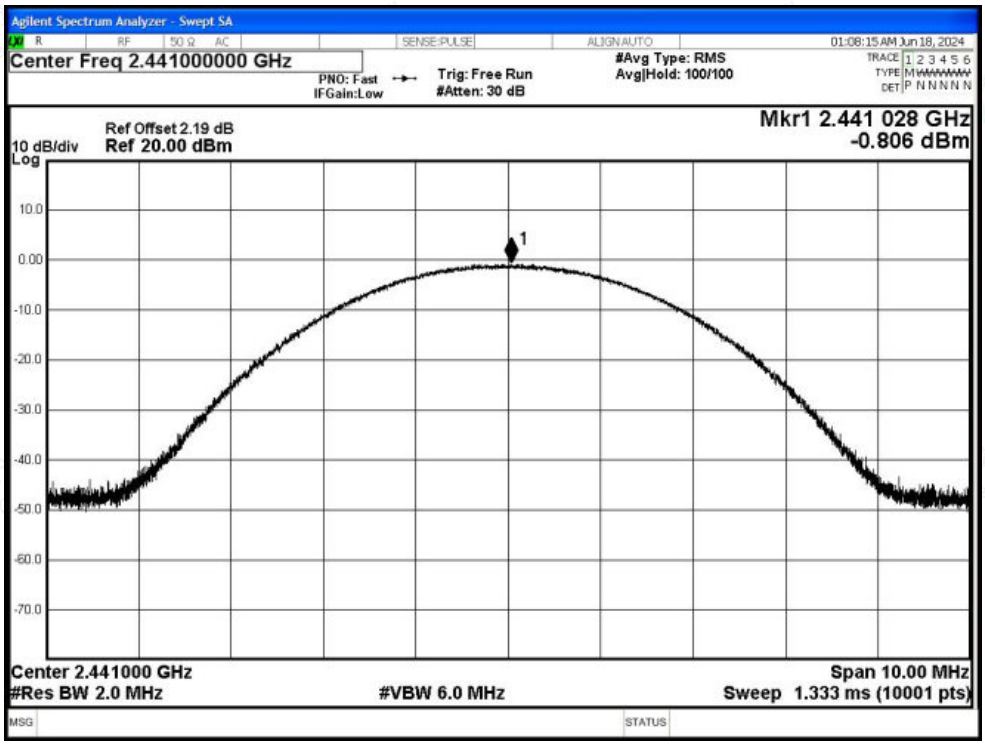
Power NVNT 1-DH5 2480MHz Ant1



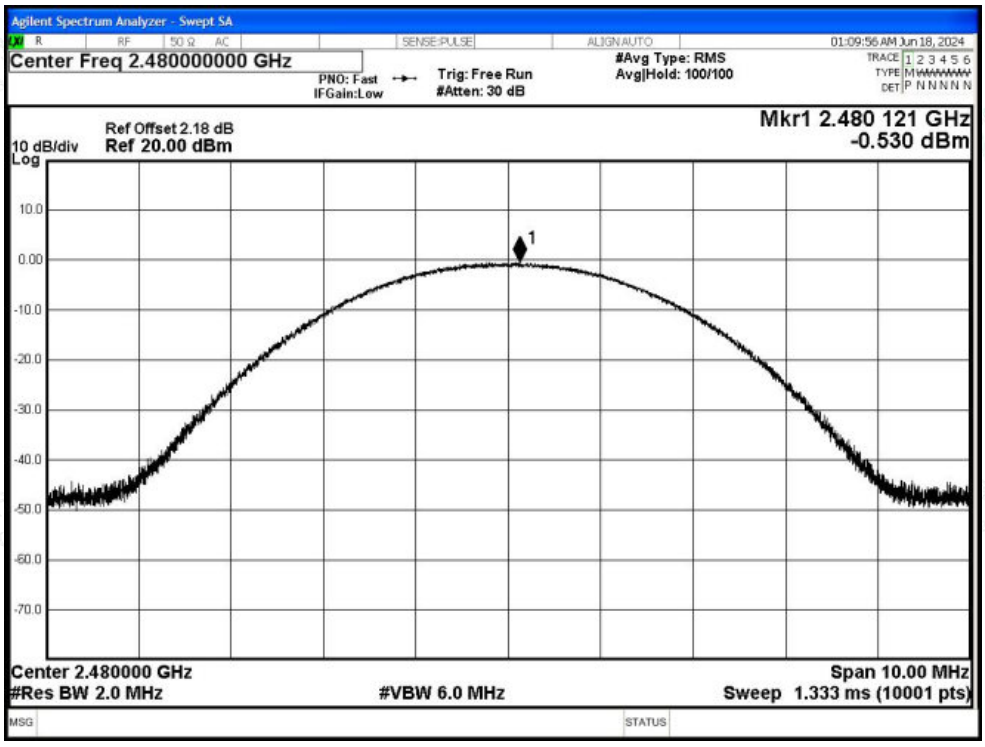
Power NVNT 2-DH5 2402MHz Ant1



Power NVNT 2-DH5 2441MHz Ant1



Power NVNT 2-DH5 2480MHz Ant1

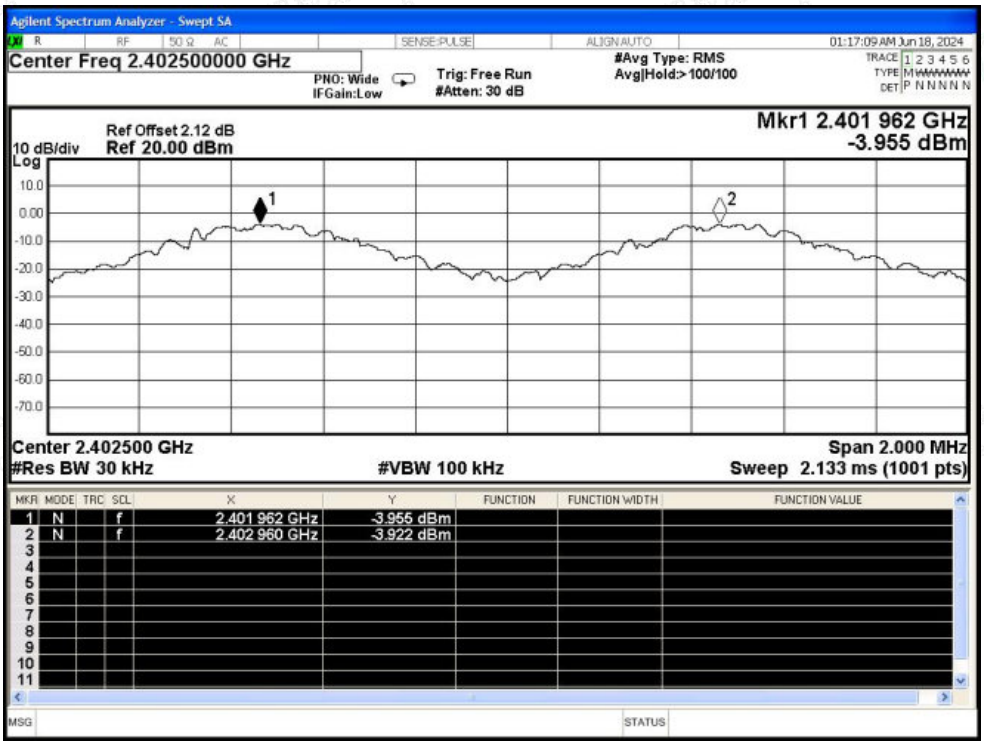


A.3 Carrier Frequencies Separation

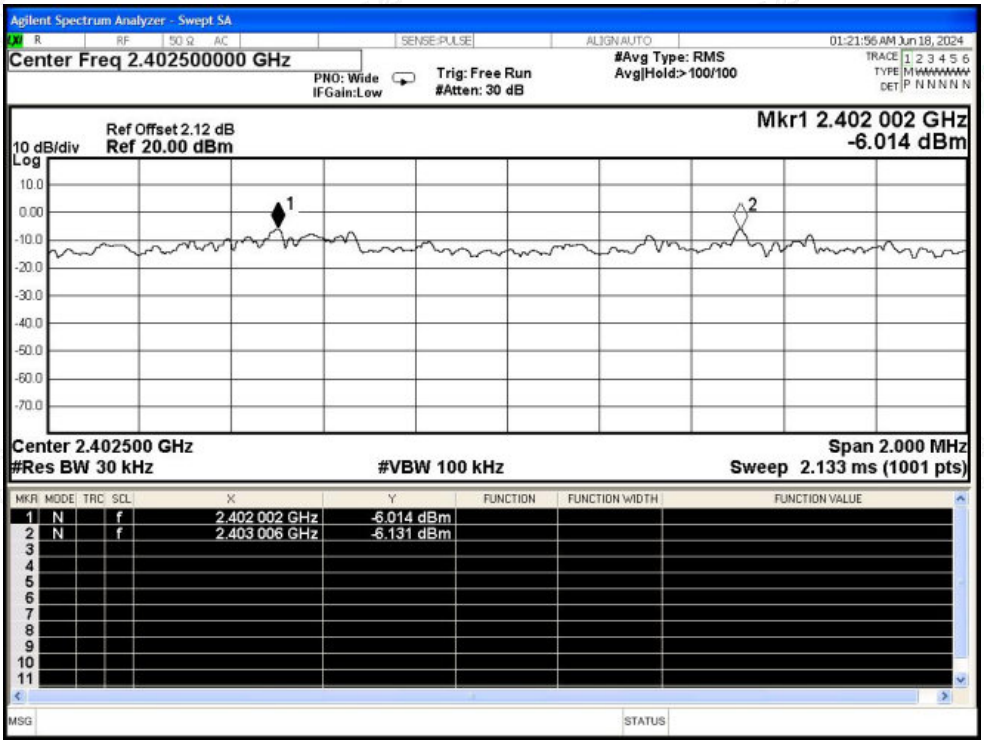
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH5	Ant1	2401.962	2402.96	0.998	0.685	Pass
NVNT	2-DH5	Ant1	2402.002	2403.006	1.004	0.854	Pass

Test Graphs

CFS NVNT 1-DH5 2402MHz Ant1



CFS NVNT 2-DH5 2402MHz Ant1

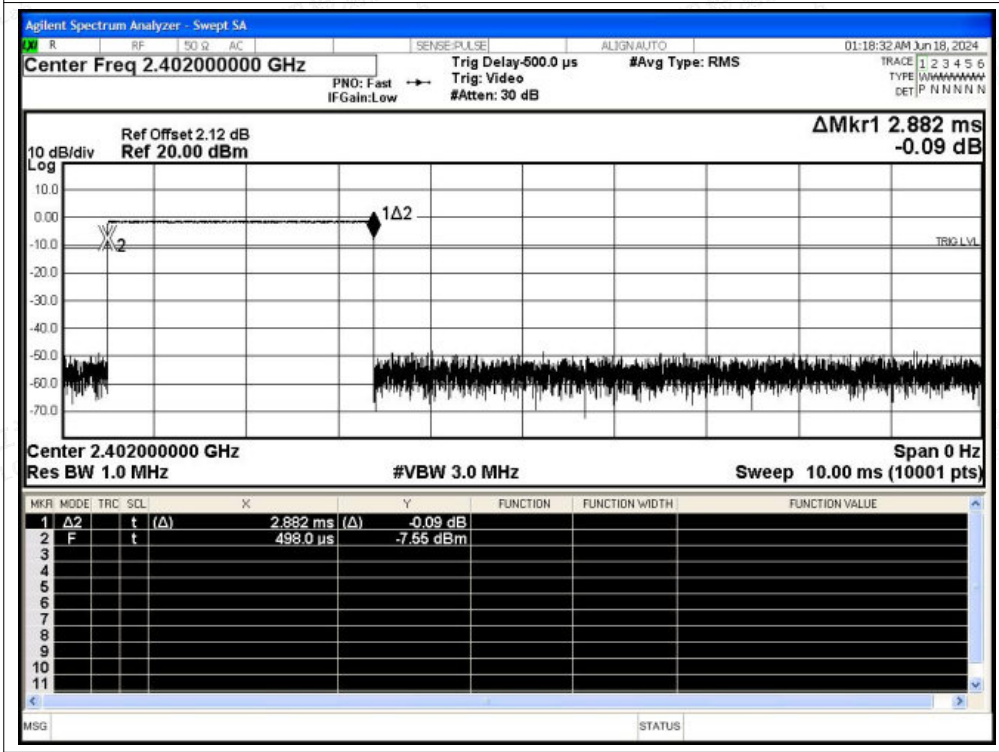


A.4 Dwell Time

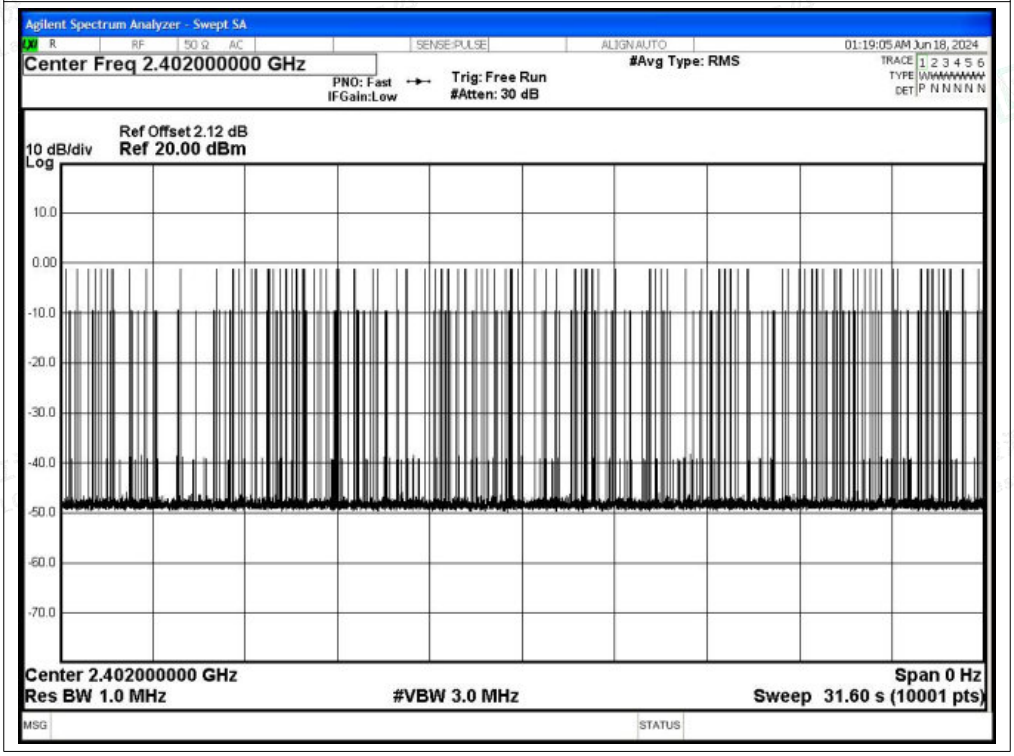
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH5	2402	Ant1	2.882	317.02	110	31600	400	Pass
NVNT	2-DH5	2402	Ant1	2.885	326.005	113	31600	400	Pass

Test Graphs

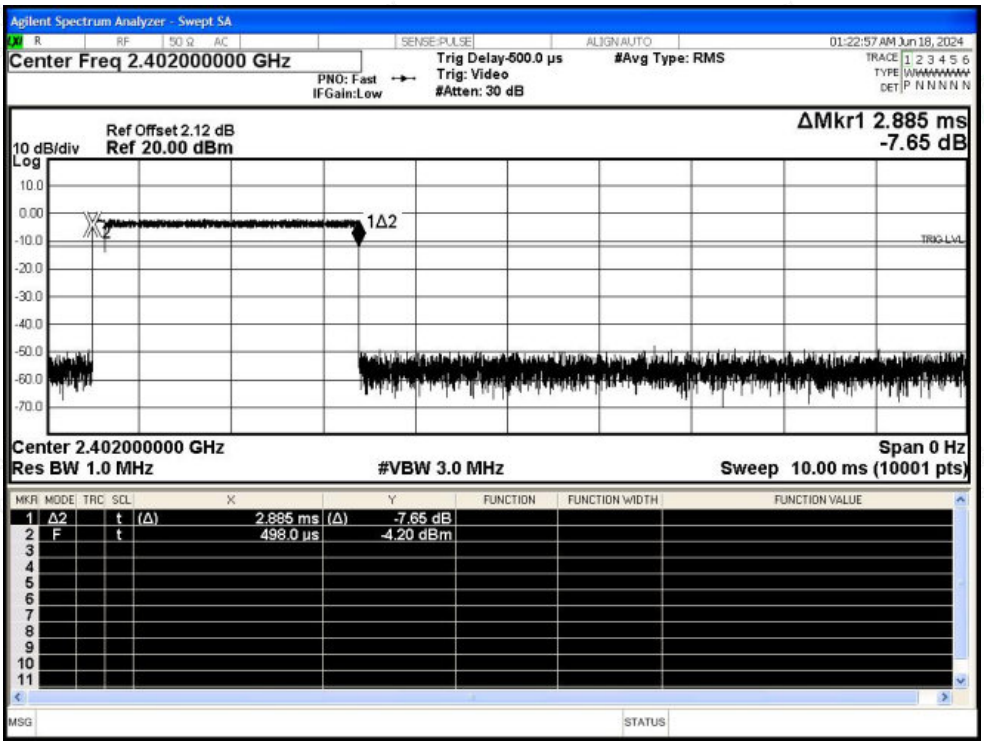
Dwell NVNT 1-DH5 2402MHz Ant1 One Burst



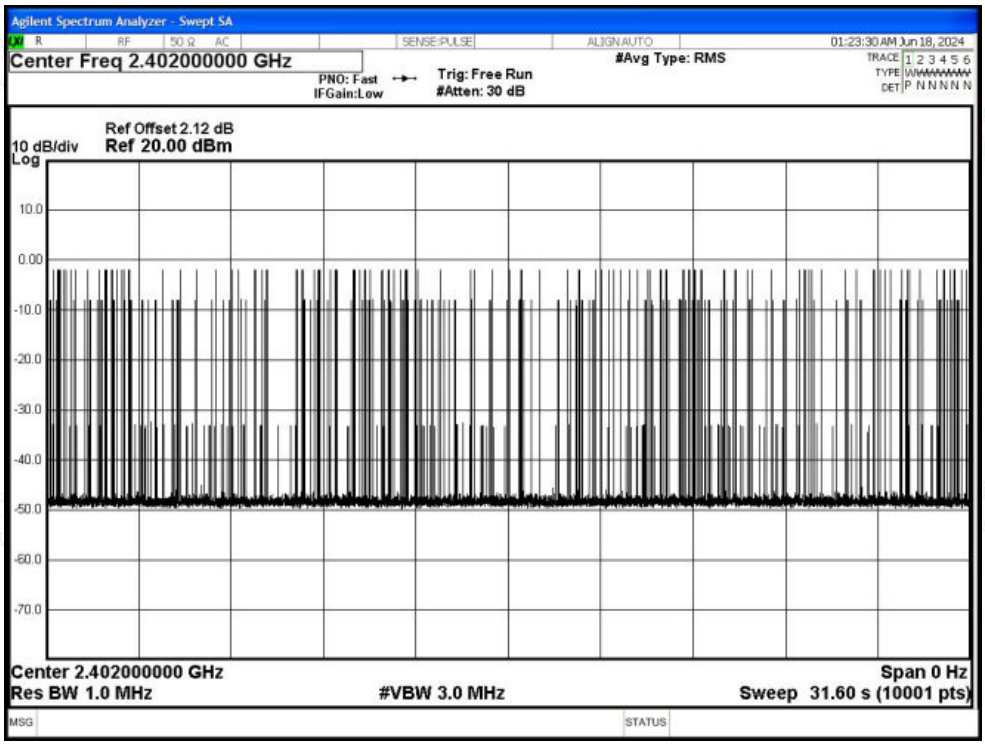
Dwell NVNT 1-DH5 2402MHz Ant1 Accumulated



Dwell NVNT 2-DH5 2402MHz Ant1 One Burst



Dwell NVNT 2-DH5 2402MHz Ant1 Accumulated

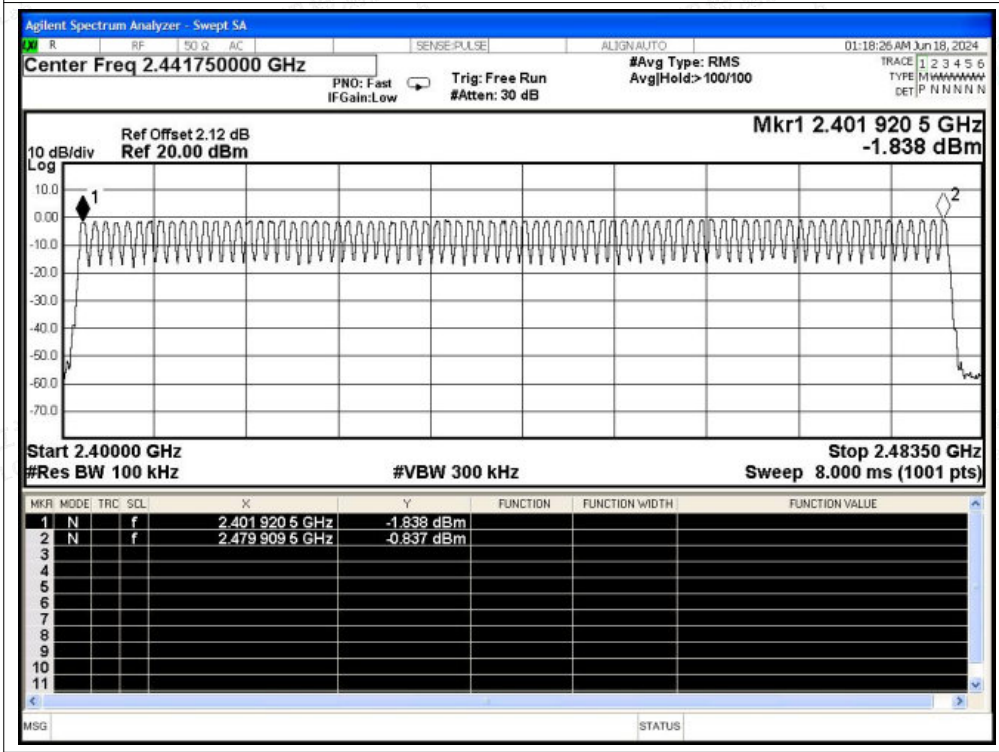


A.5 Number of Hopping Channel

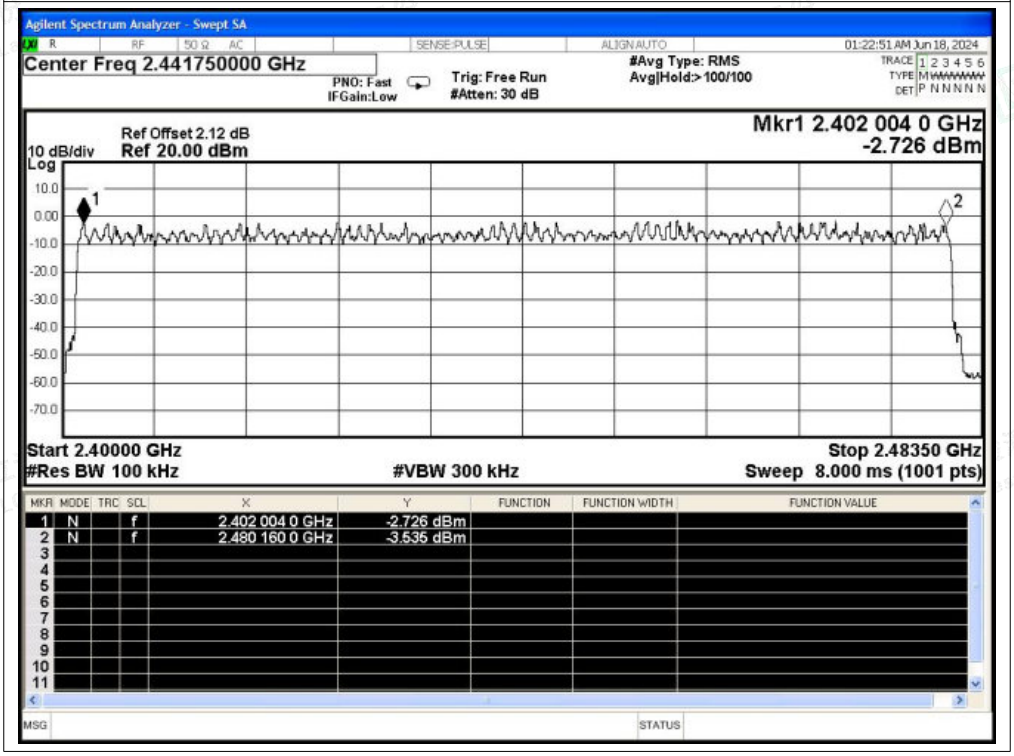
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH5	Ant1	79	15	Pass
NVNT	2-DH5	Ant1	79	15	Pass

Test Graphs

Hopping No. NVNT 1-DH5 2402MHz Ant1



Hopping No. NVNT 2-DH5 2402MHz Ant1

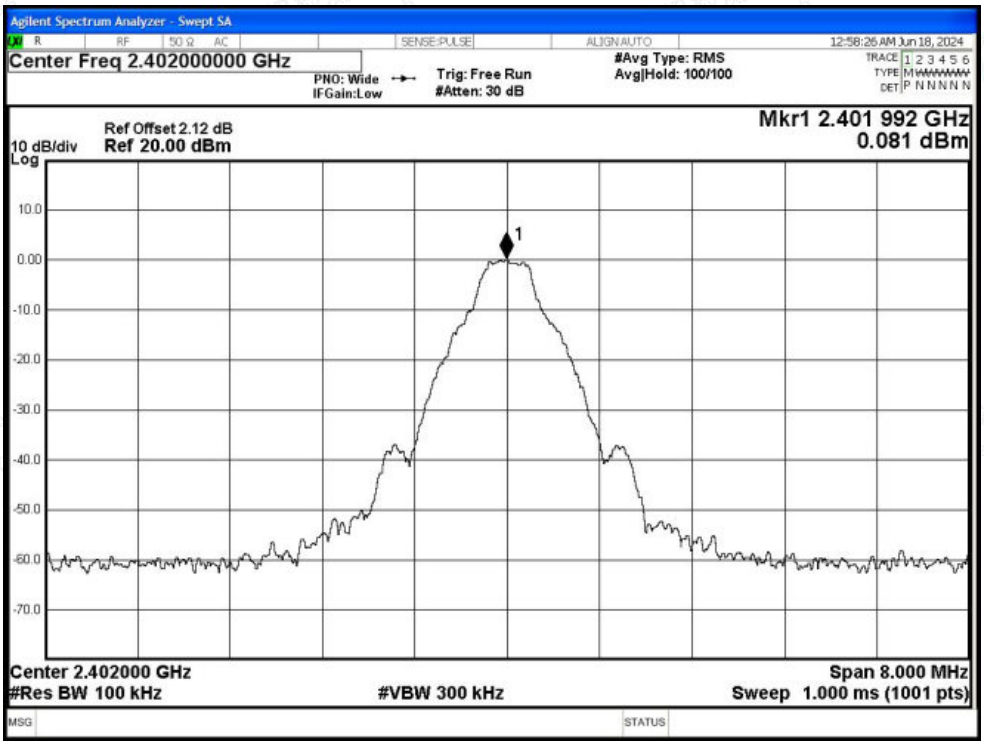


A.6 Band Edge

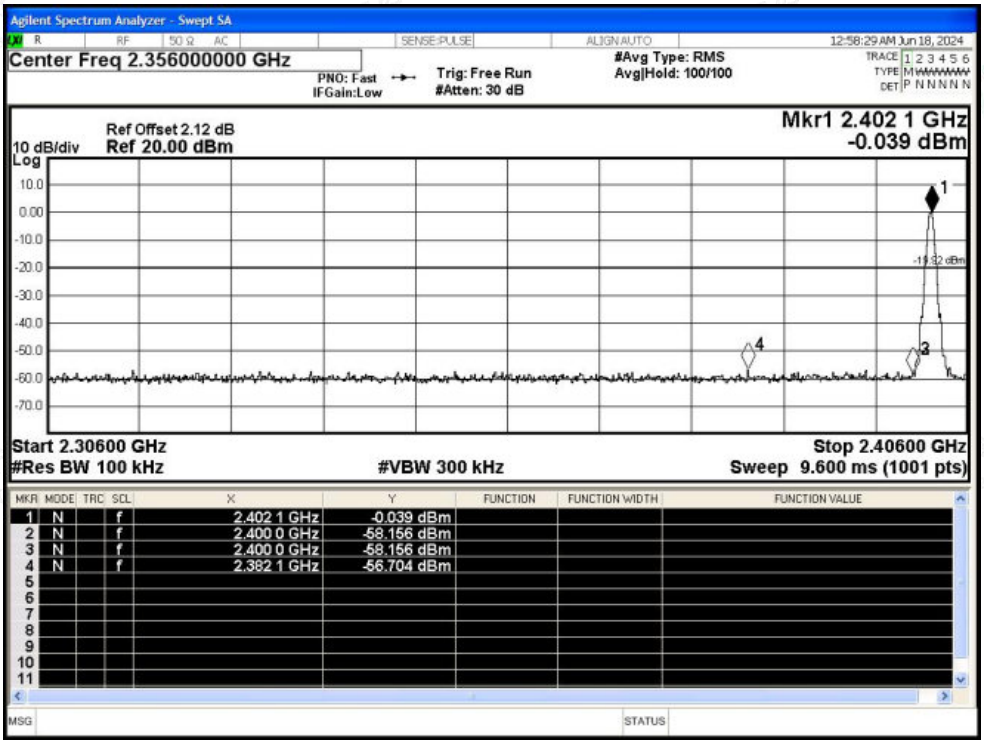
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	-56.79	-20	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	-56.51	-20	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	-54.73	-20	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	-53.63	-20	Pass

Test Graphs

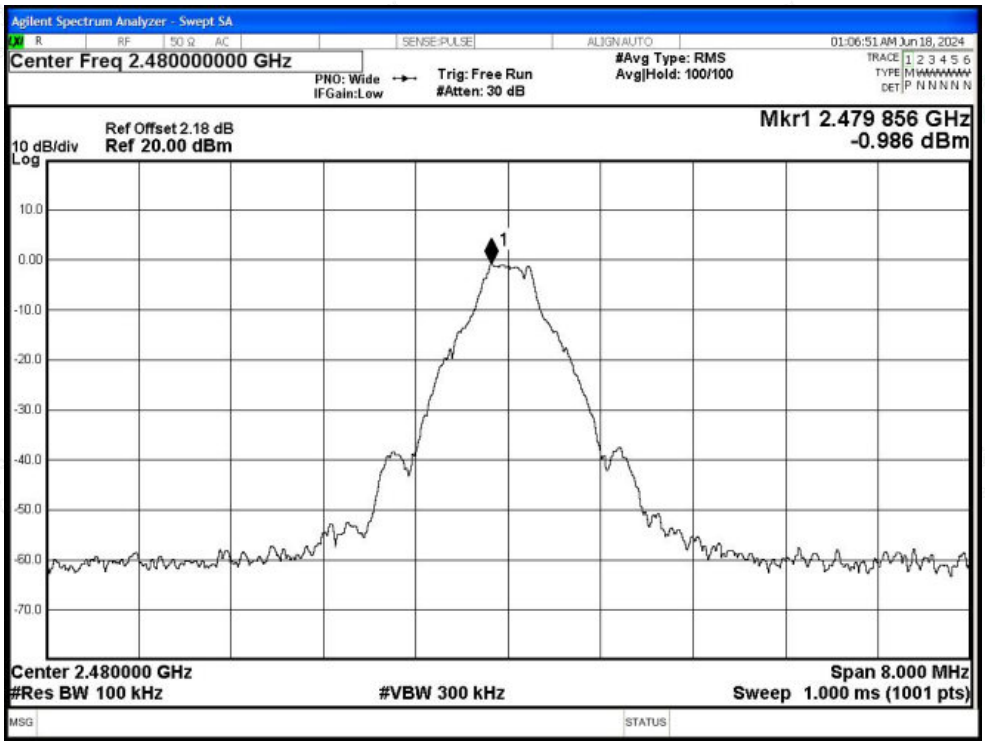
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Ref



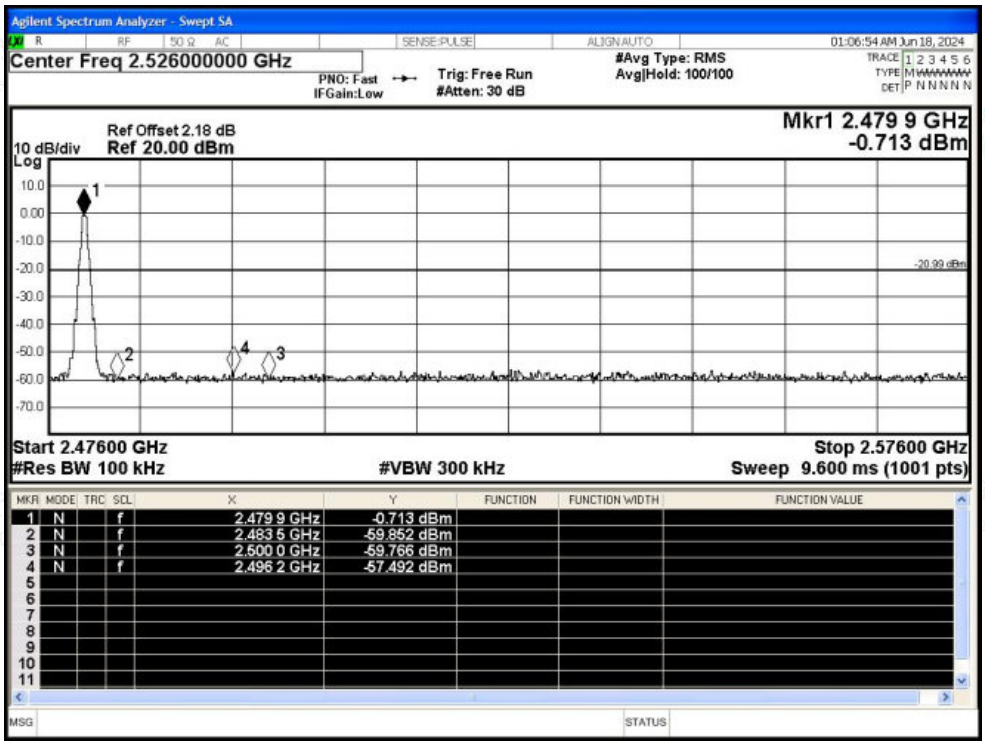
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Emission



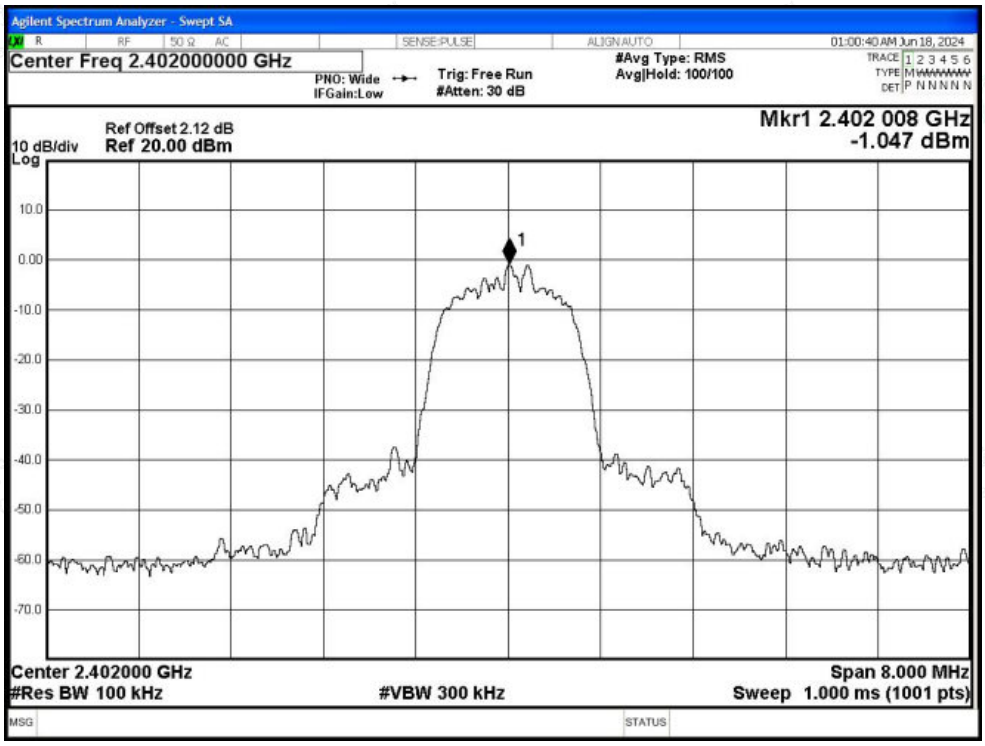
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref



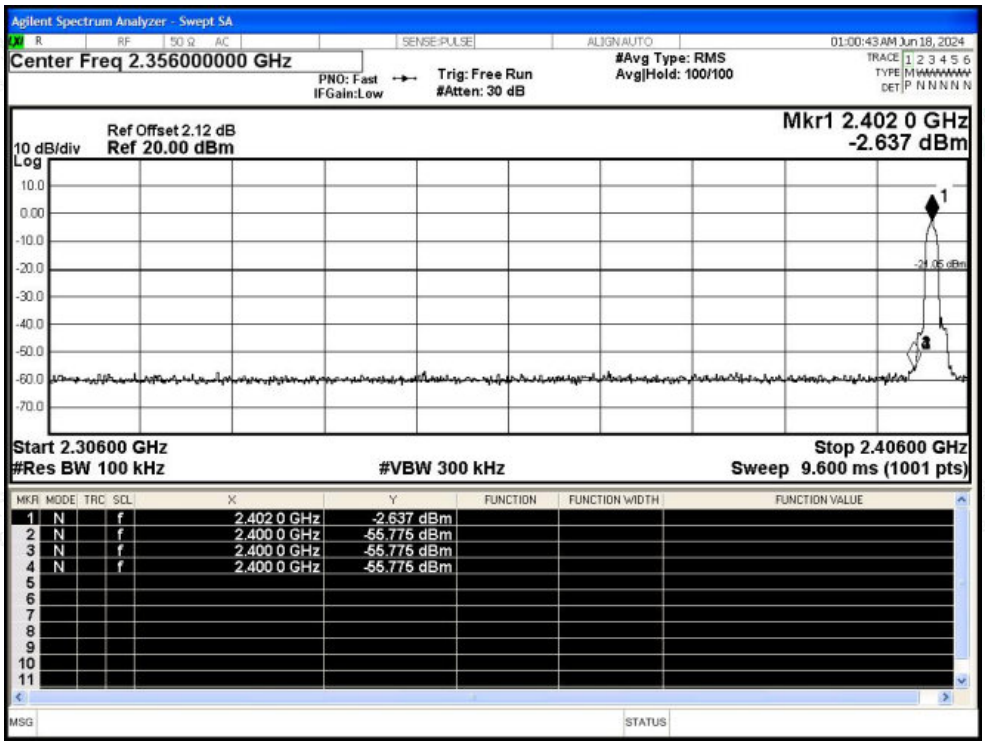
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Emission



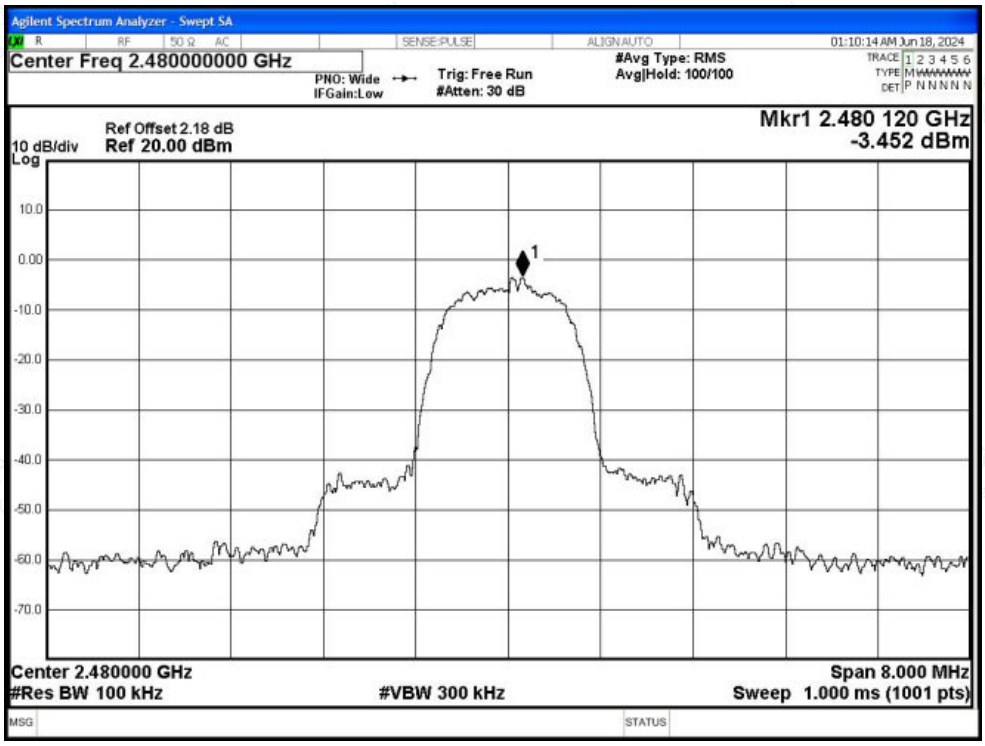
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Ref



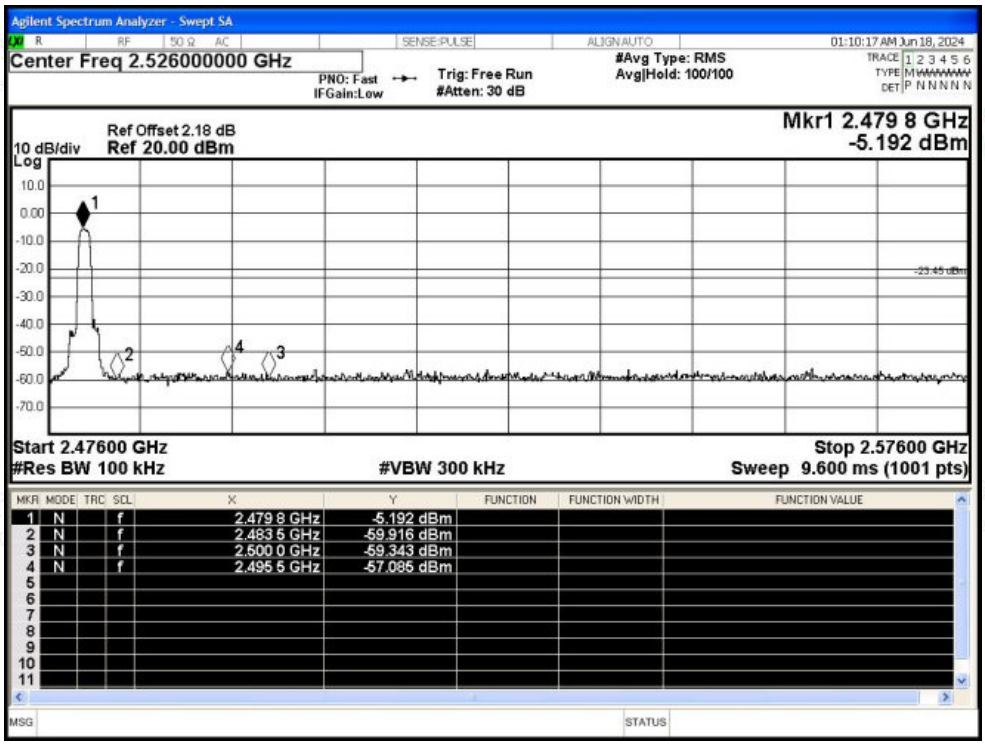
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Emission



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



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

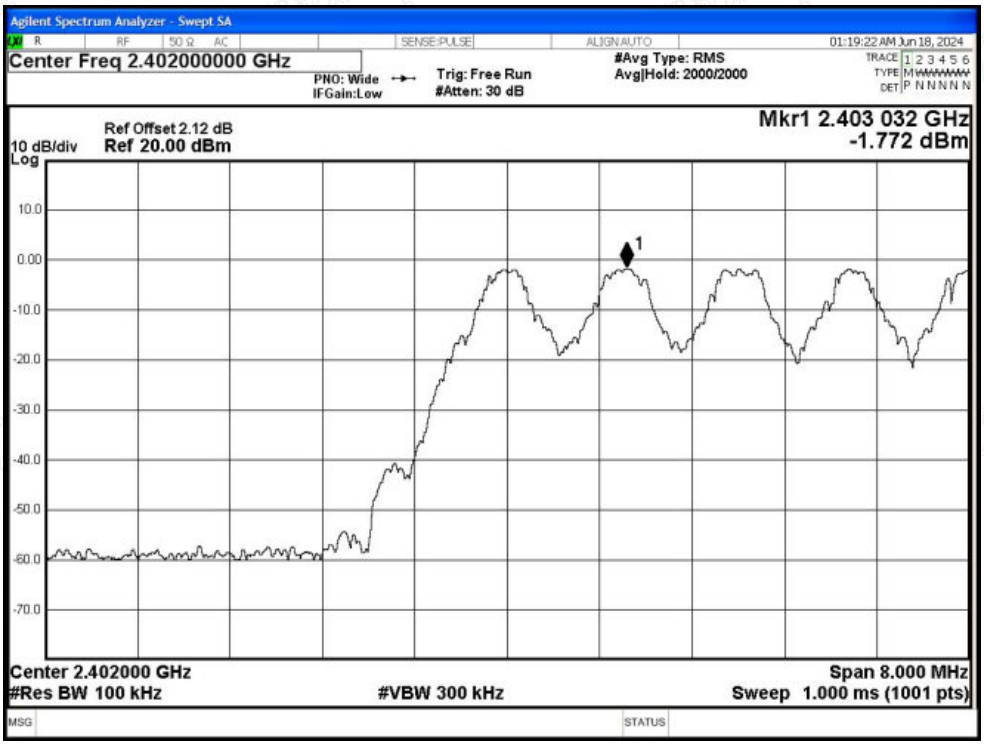


(Hopping)

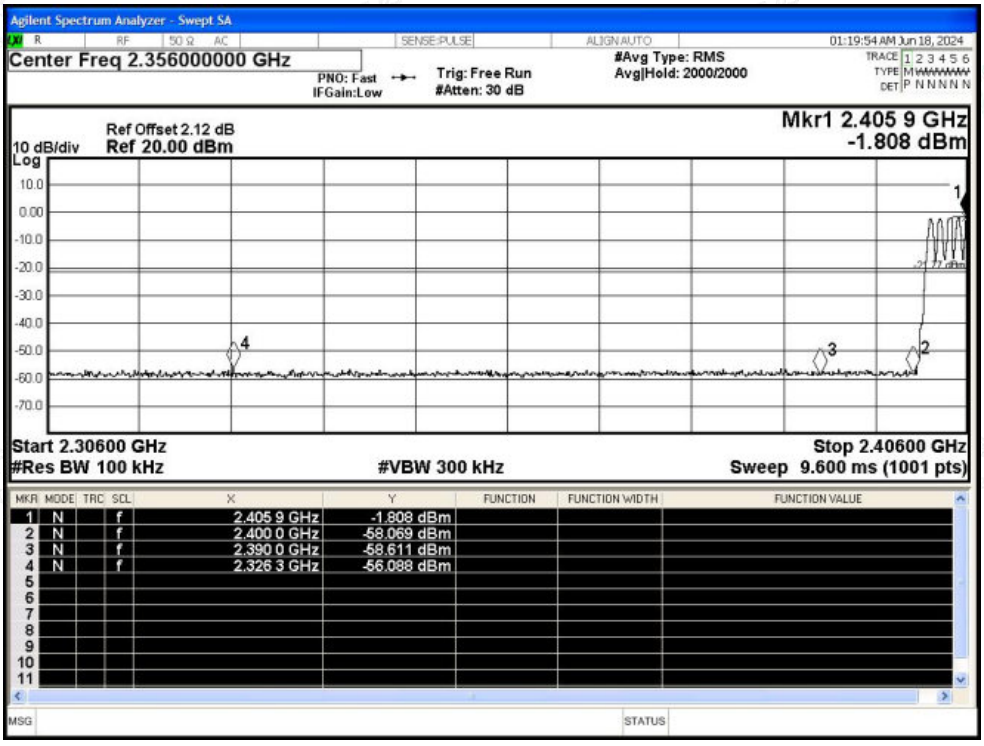
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	Hopping	-54.32	-20	Pass
NVNT	1-DH5	2480	Ant1	Hopping	-55.63	-20	Pass
NVNT	2-DH5	2402	Ant1	Hopping	-51.87	-20	Pass
NVNT	2-DH5	2480	Ant1	Hopping	-54.52	-20	Pass

Test Graphs

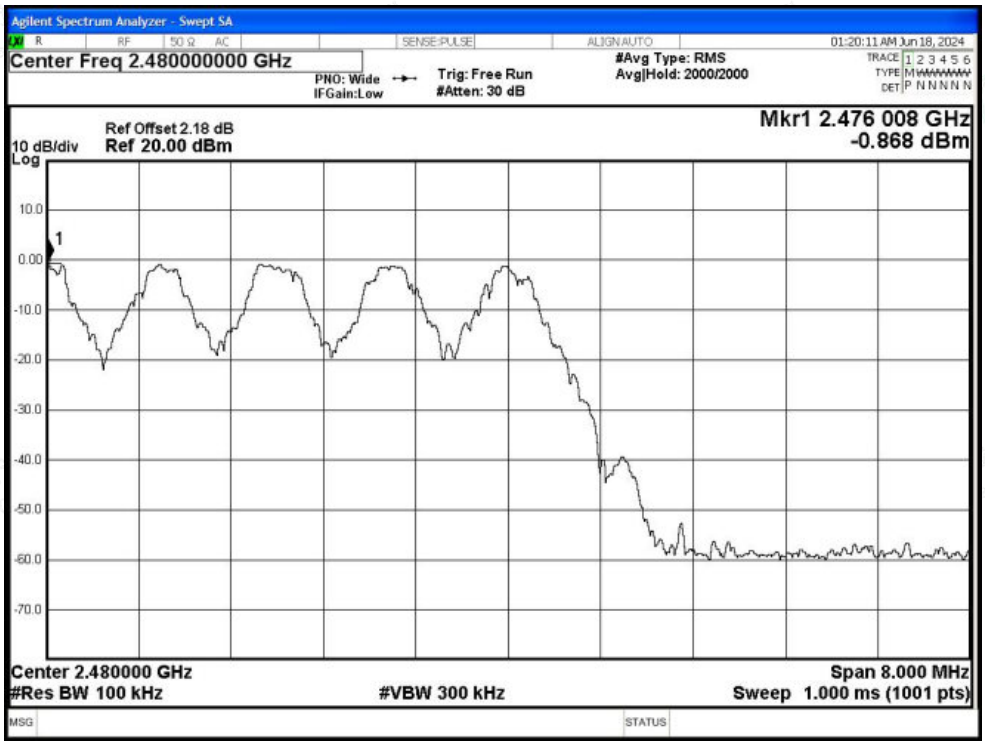
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Ref



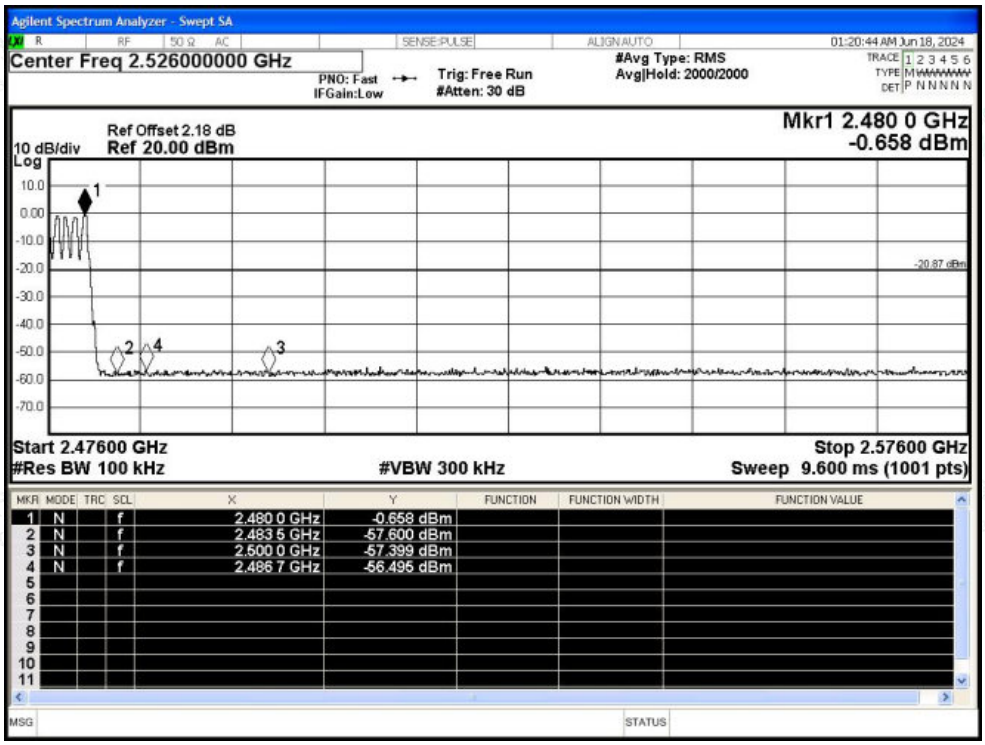
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission



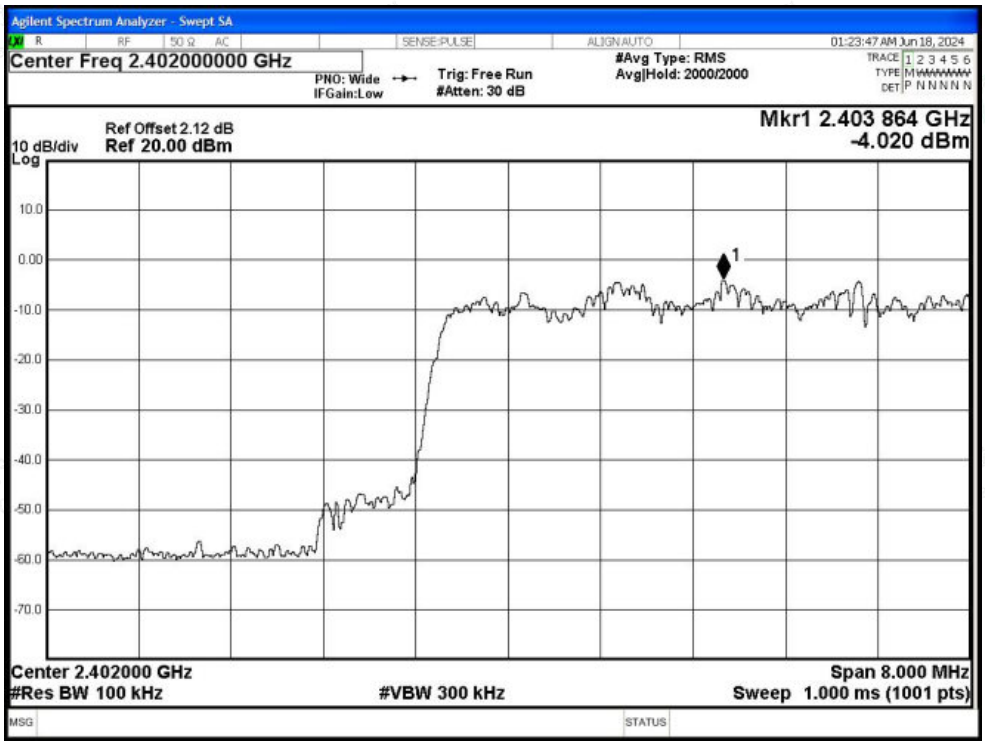
Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Ref



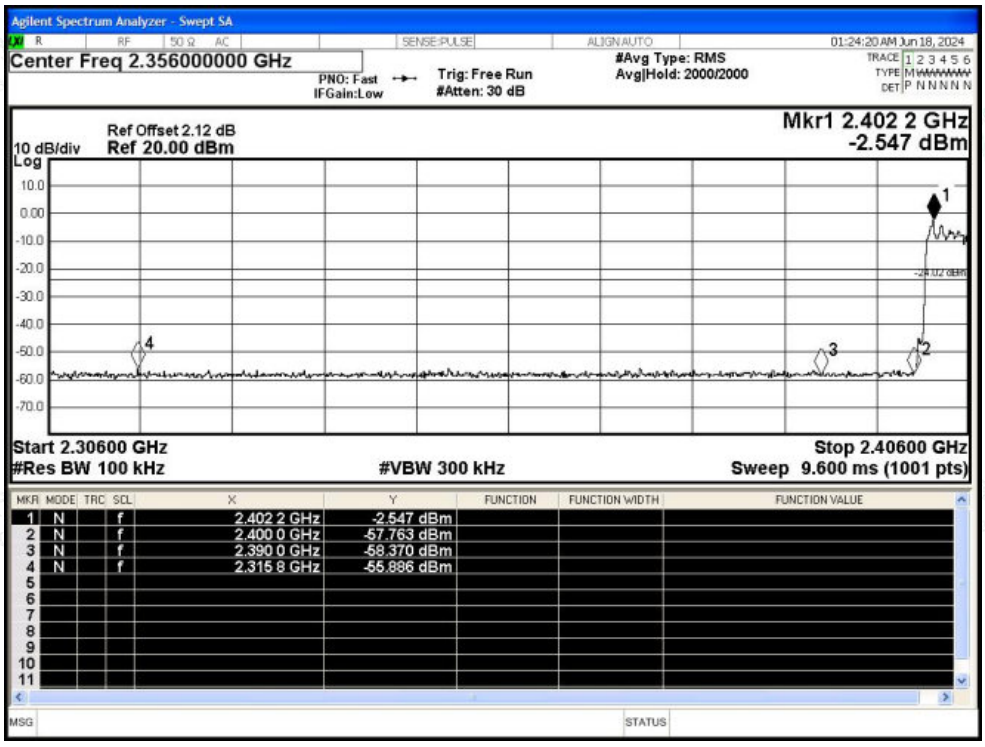
Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Emission



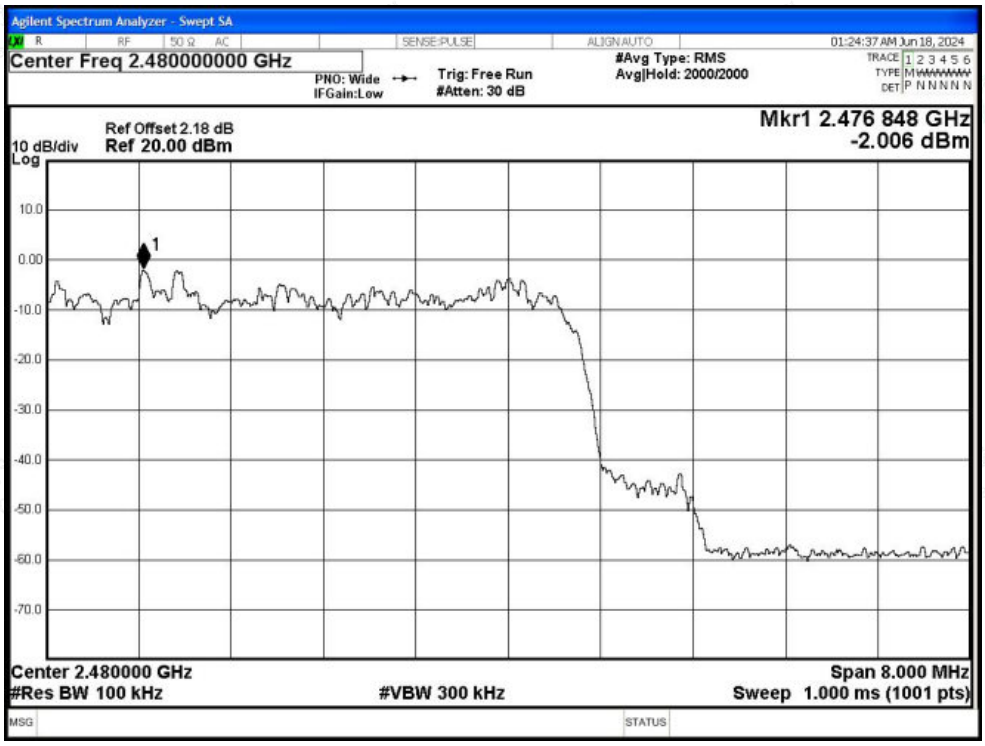
Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Ref



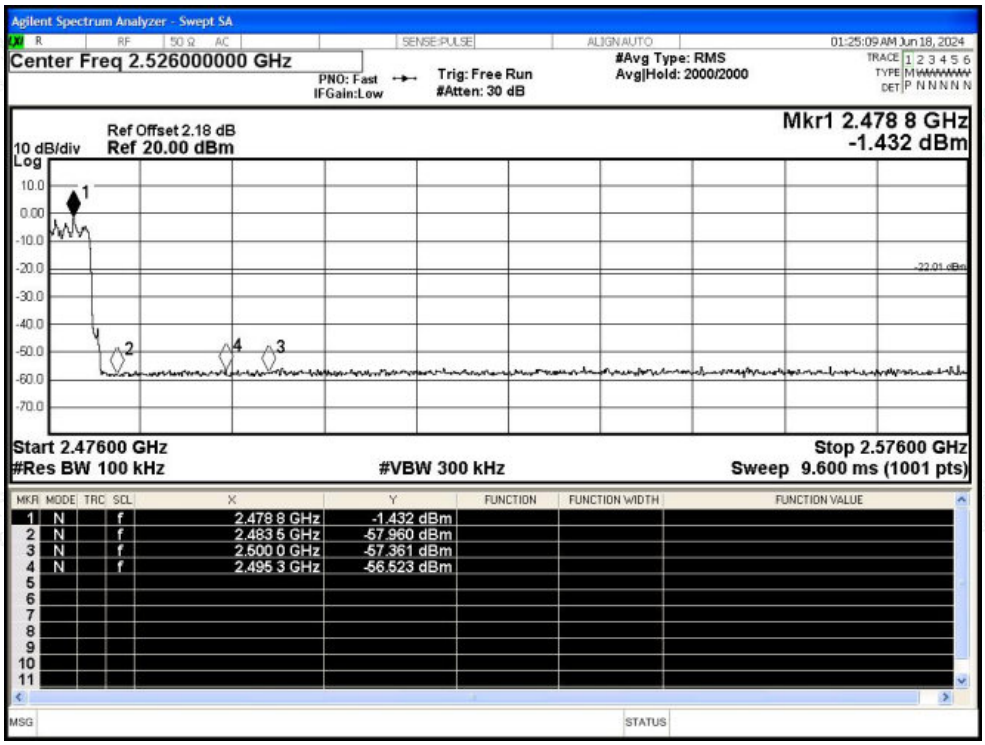
Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Emission



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



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

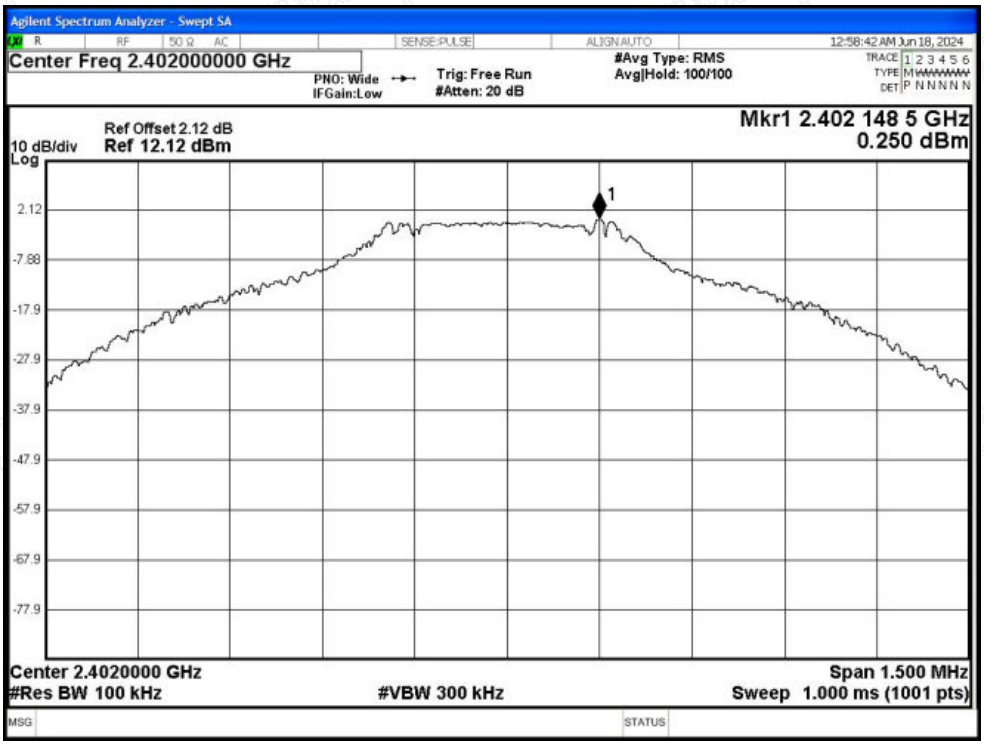


A.7 Conducted RF Spurious Emission

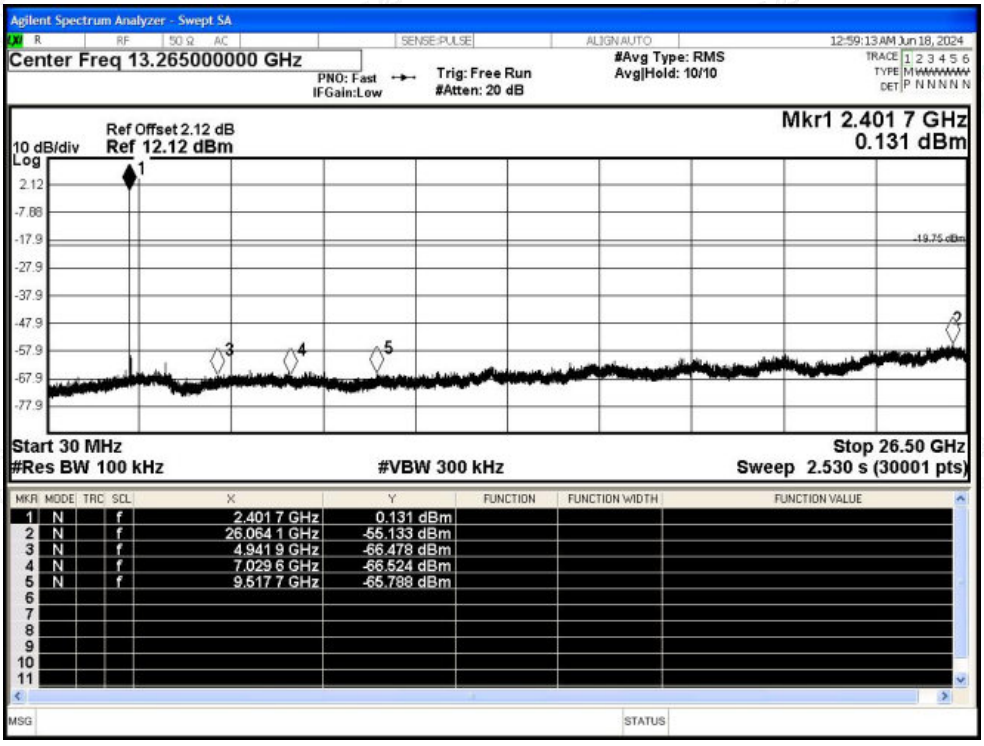
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	-55.38	-20	Pass
NVNT	1-DH5	2441	Ant1	-54.44	-20	Pass
NVNT	1-DH5	2480	Ant1	-54.01	-20	Pass
NVNT	2-DH5	2402	Ant1	-53.49	-20	Pass
NVNT	2-DH5	2441	Ant1	-52.92	-20	Pass
NVNT	2-DH5	2480	Ant1	-52.7	-20	Pass

Test Graphs

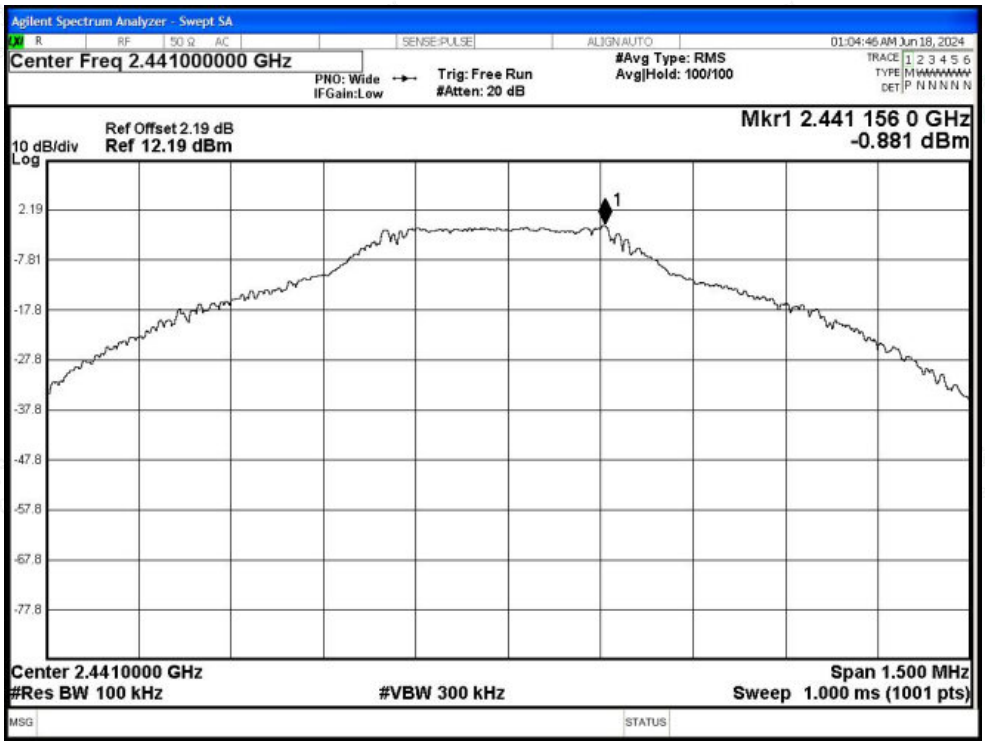
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref



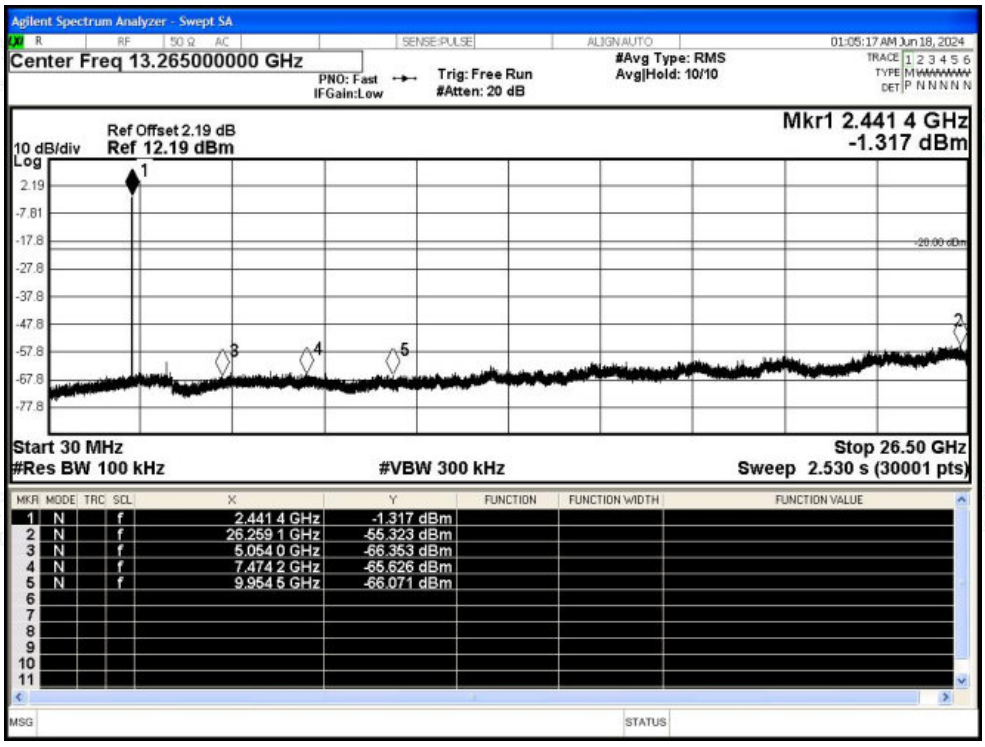
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission



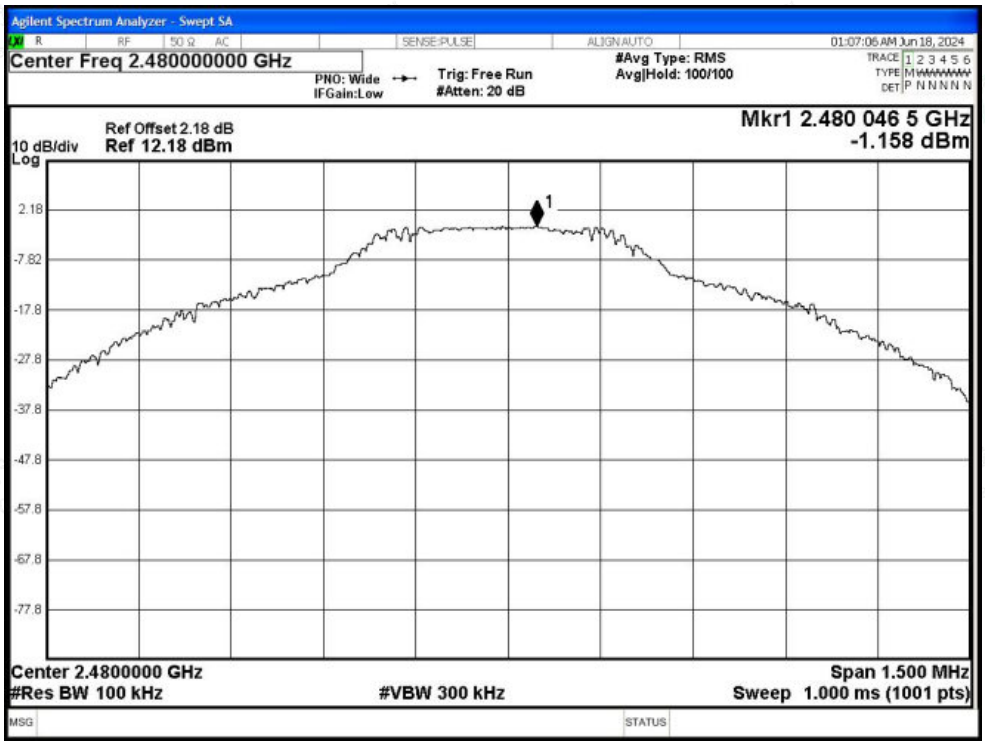
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref



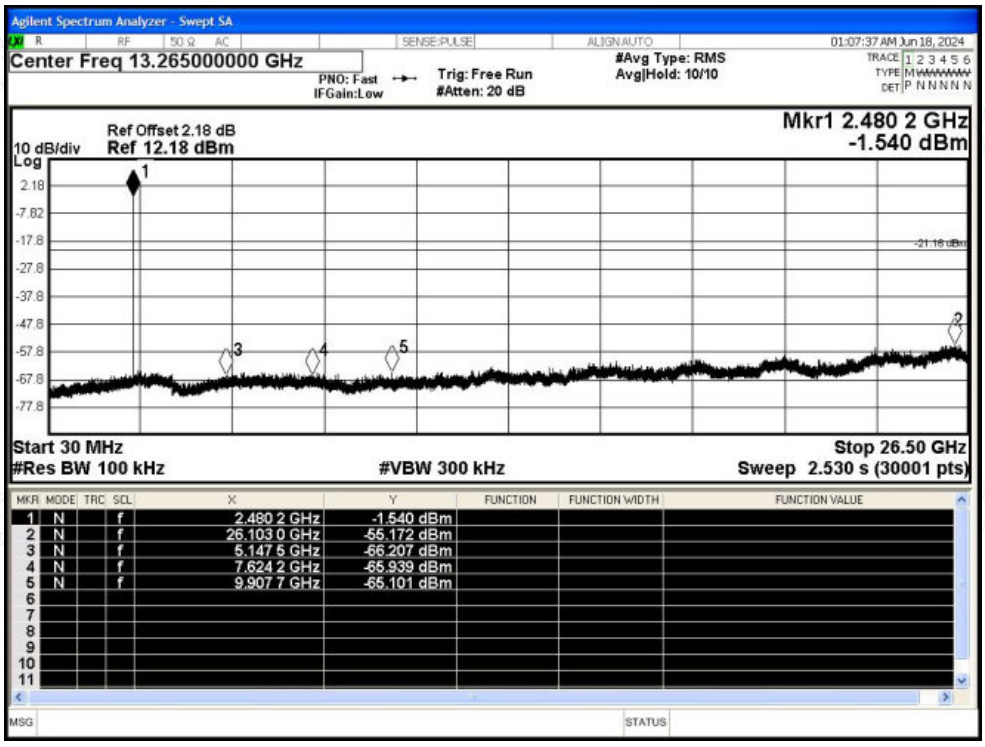
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission



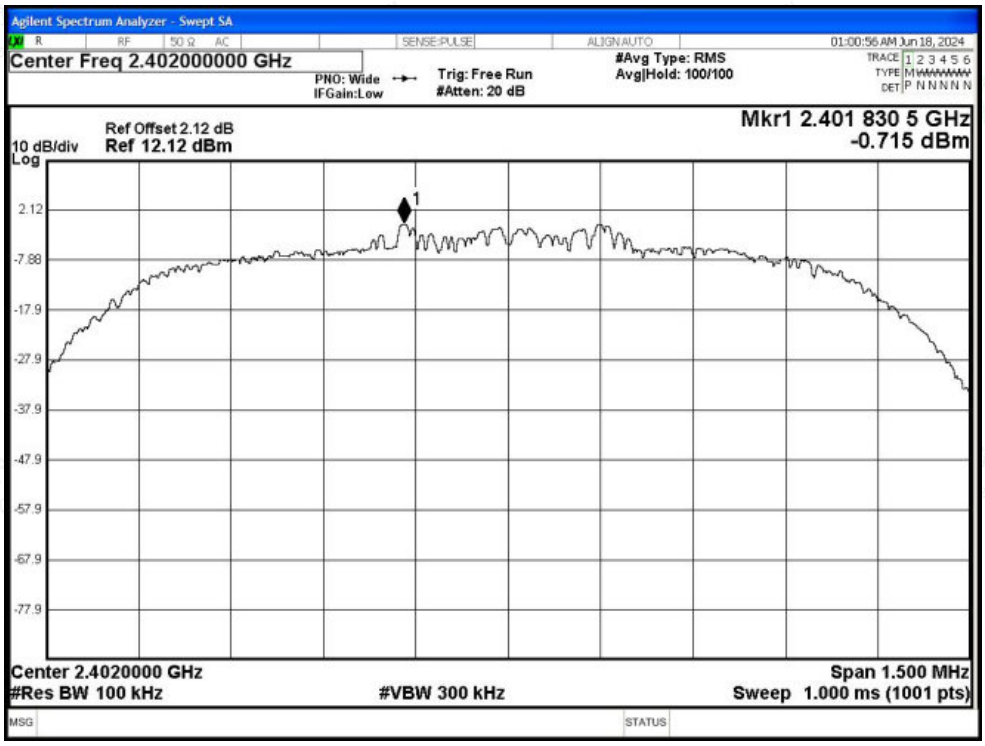
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref



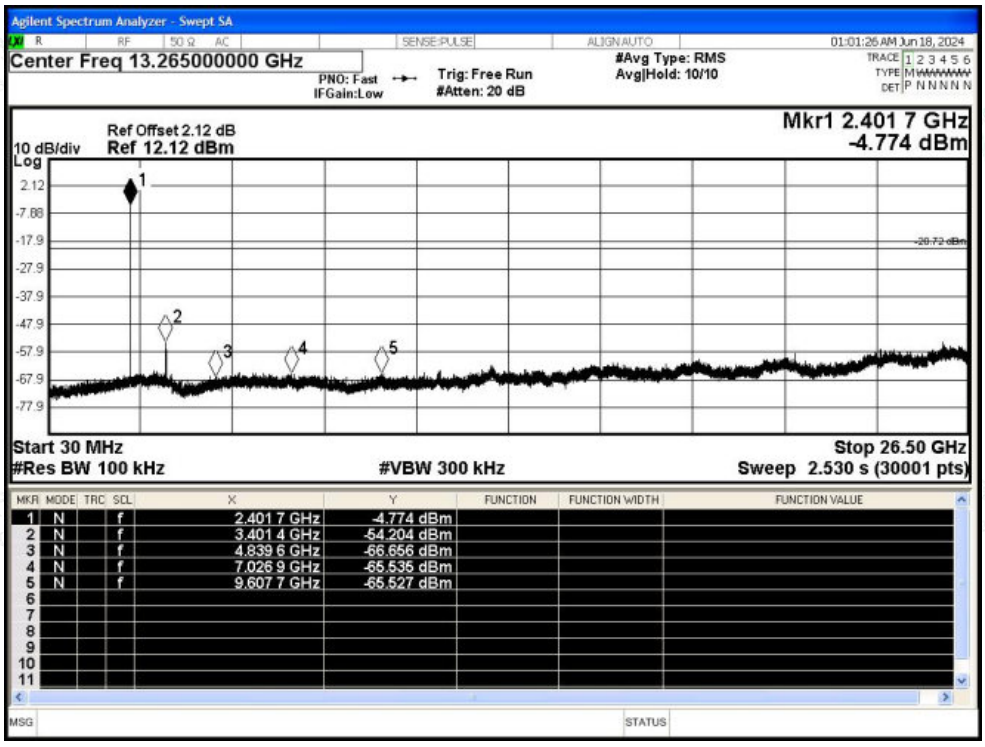
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Emission



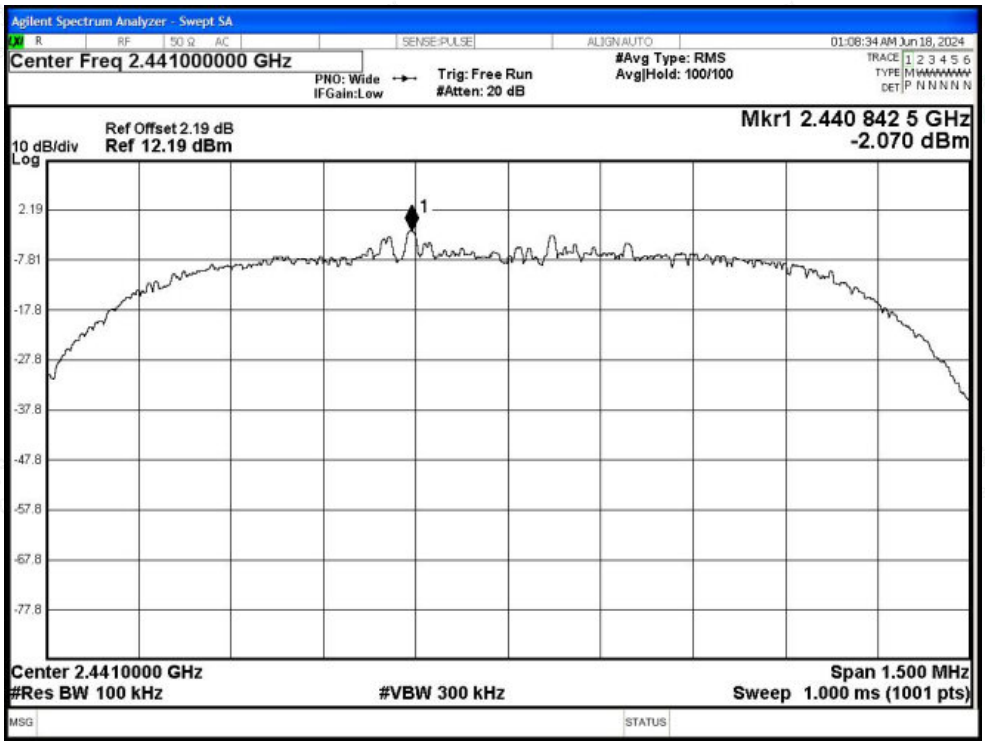
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Ref



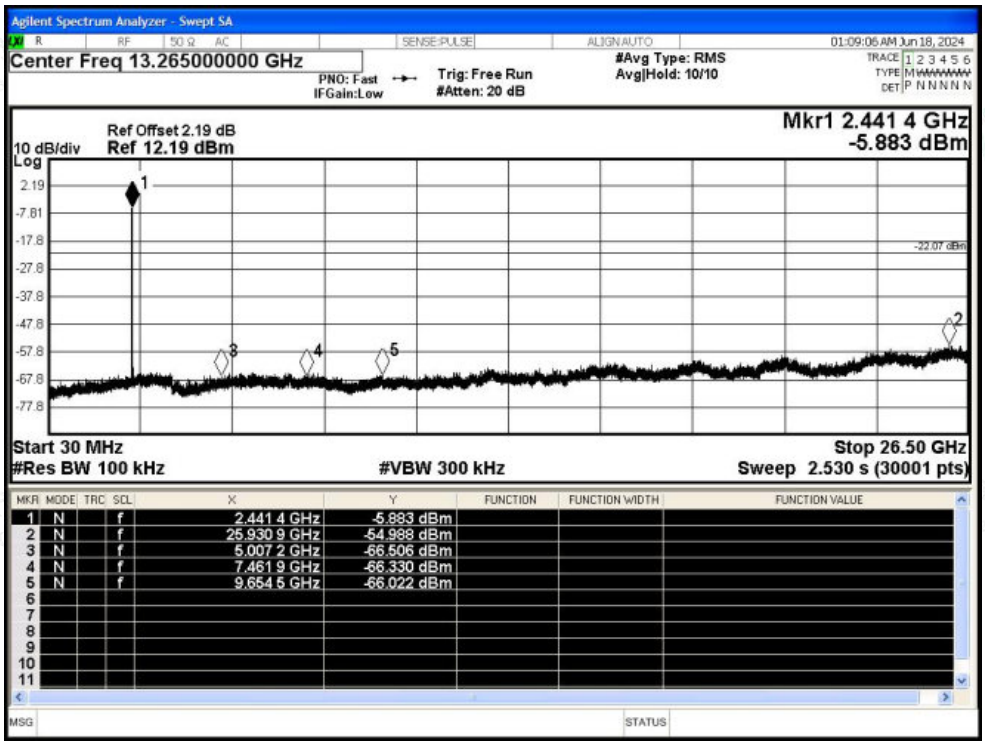
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Emission



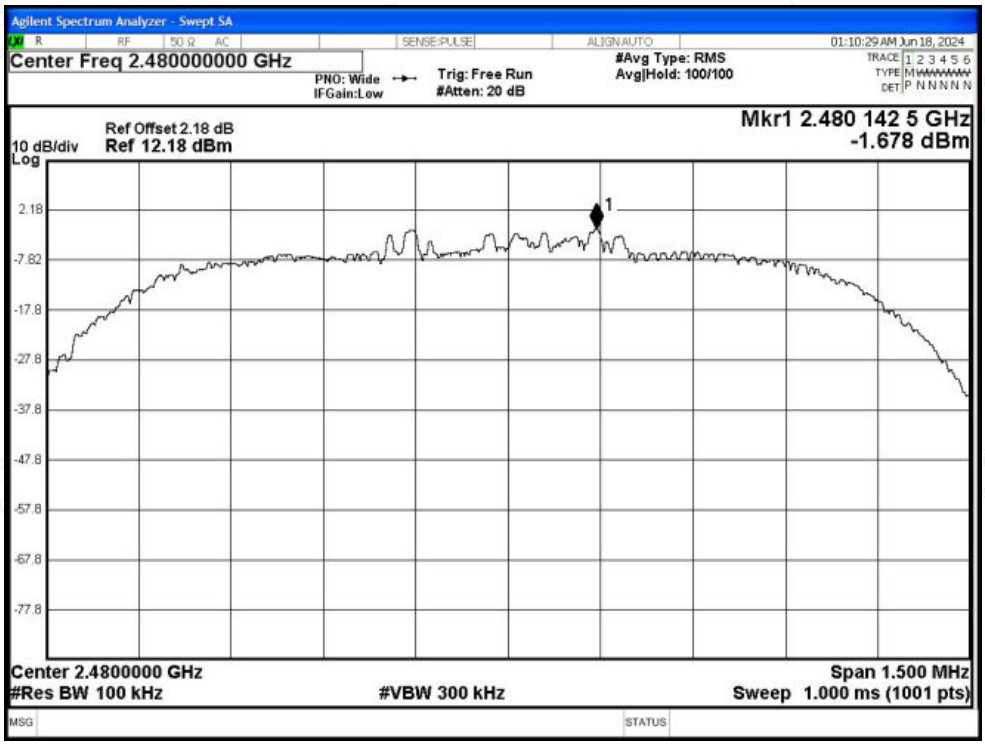
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Ref



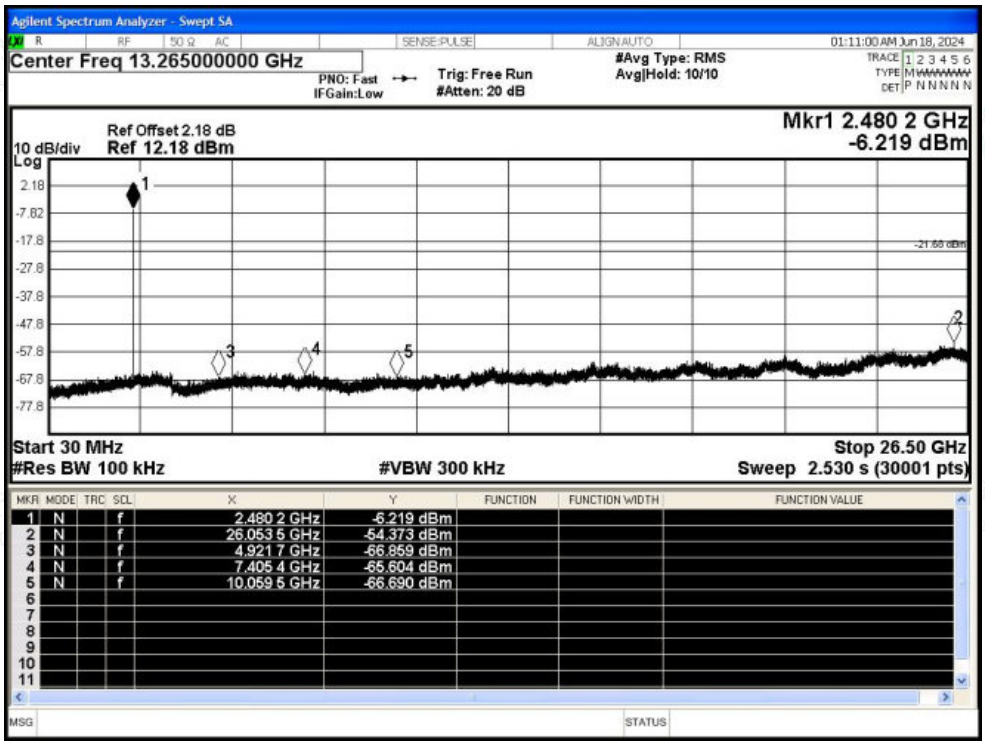
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Emission



Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Ref



Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Emission

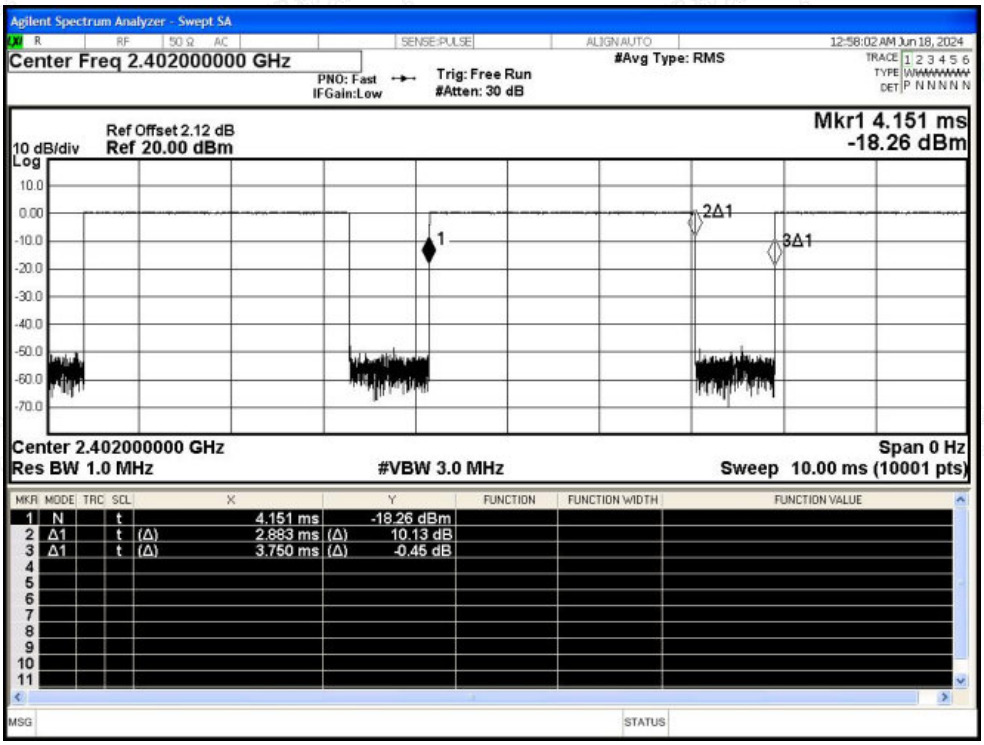


A.8 Duty Cycle

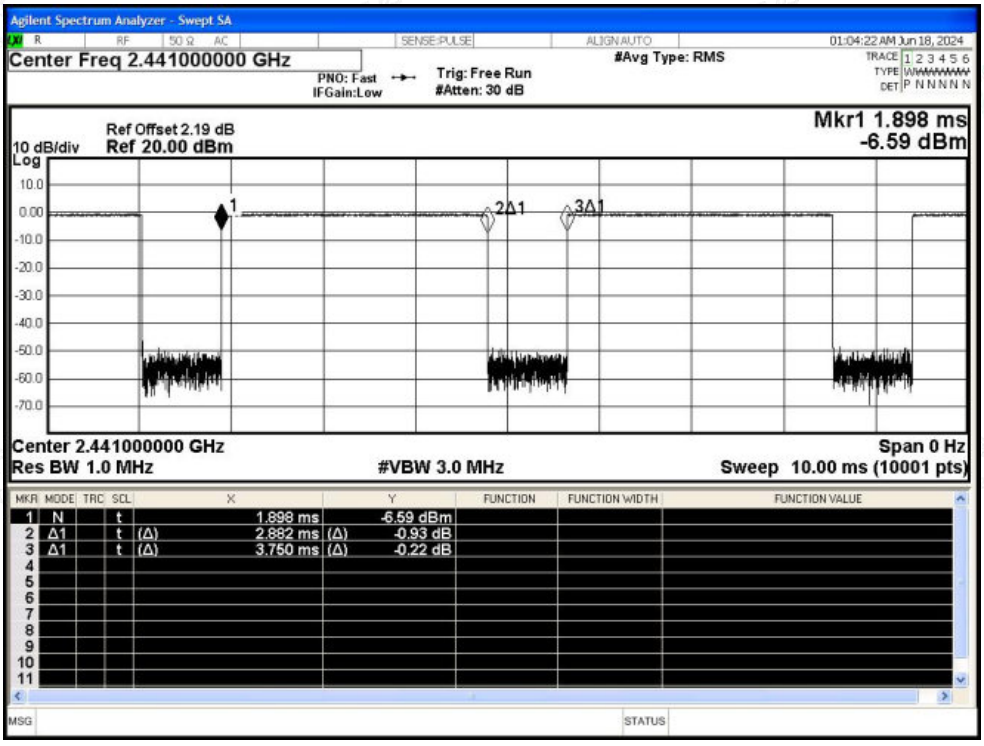
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH5	2402	Ant1	76.88	1.14	0.35
NVNT	1-DH5	2441	Ant1	76.85	1.14	0.35
NVNT	1-DH5	2480	Ant1	76.88	1.14	0.35
NVNT	2-DH5	2402	Ant1	76.96	1.14	0.35
NVNT	2-DH5	2441	Ant1	76.99	1.14	0.35
NVNT	2-DH5	2480	Ant1	76.96	1.14	0.35

Test Graphs

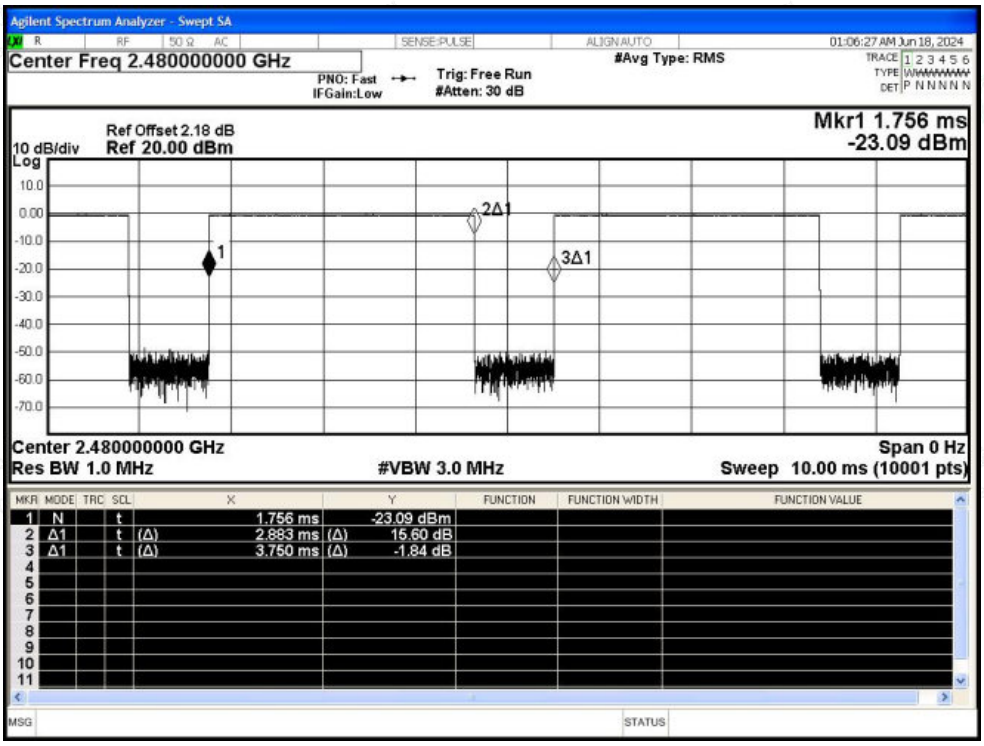
Duty Cycle NVNT 1-DH5 2402MHz Ant1



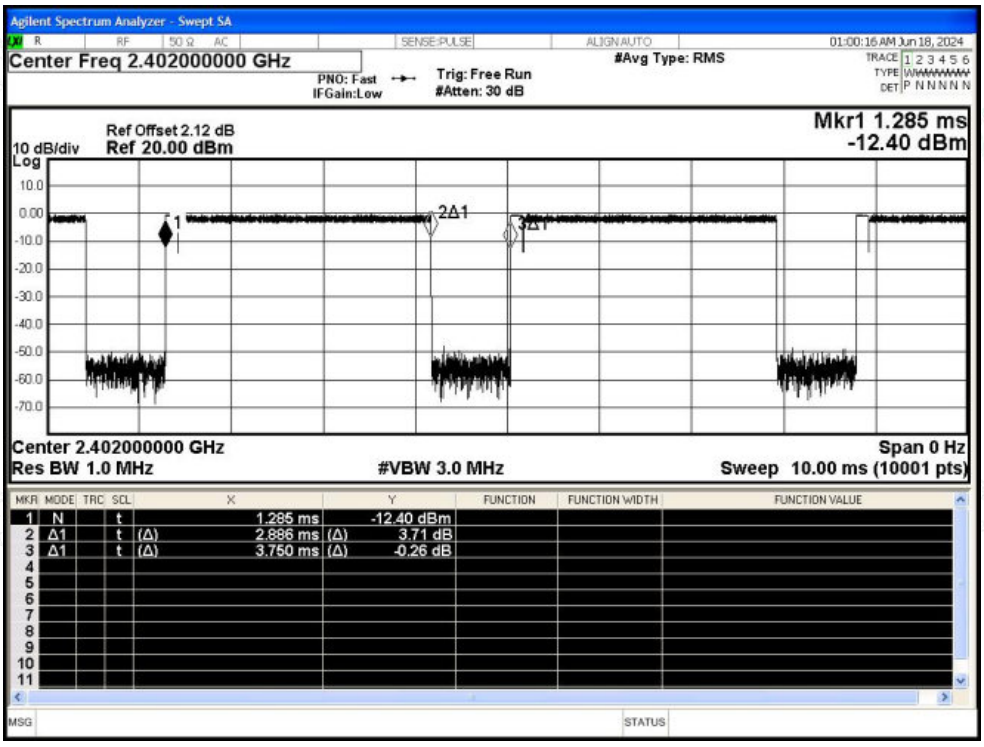
Duty Cycle NVNT 1-DH5 2441MHz Ant1



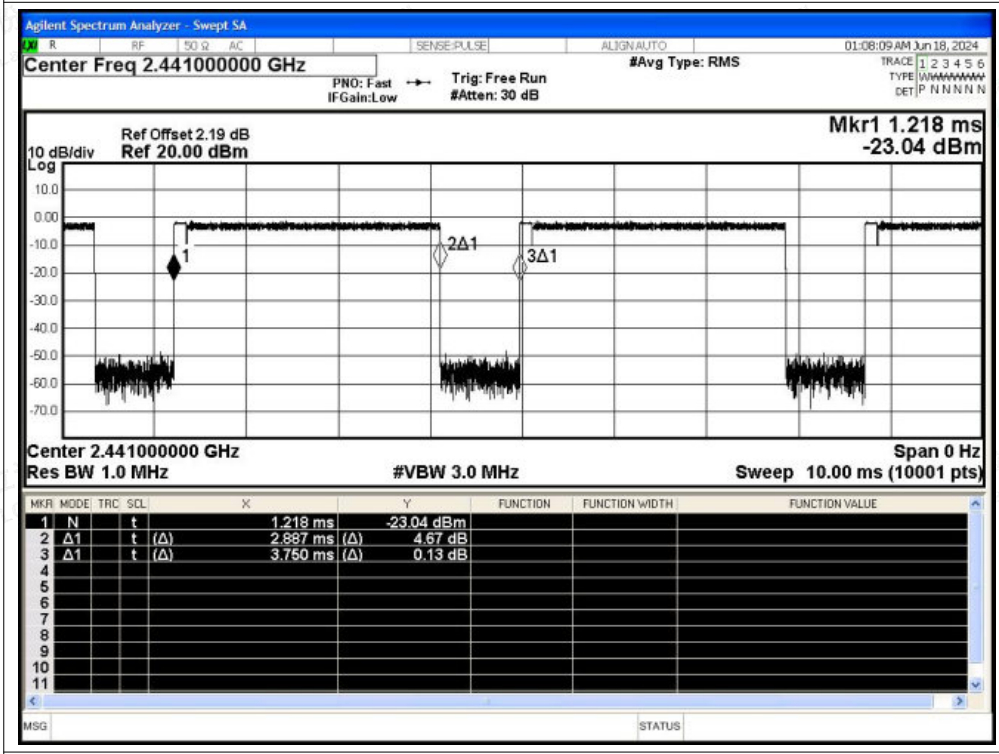
Duty Cycle NVNT 1-DH5 2480MHz Ant1



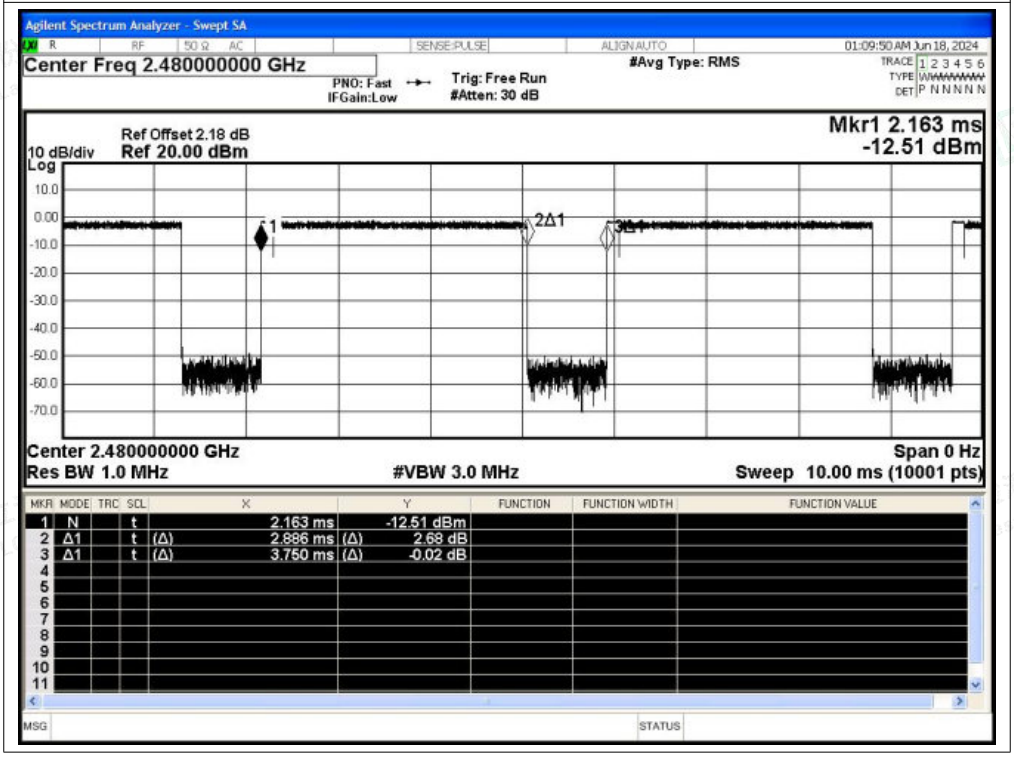
Duty Cycle NVNT 2-DH5 2402MHz Ant1



Duty Cycle NVNT 2-DH5 2441MHz Ant1



Duty Cycle NVNT 2-DH5 2480MHz Ant1

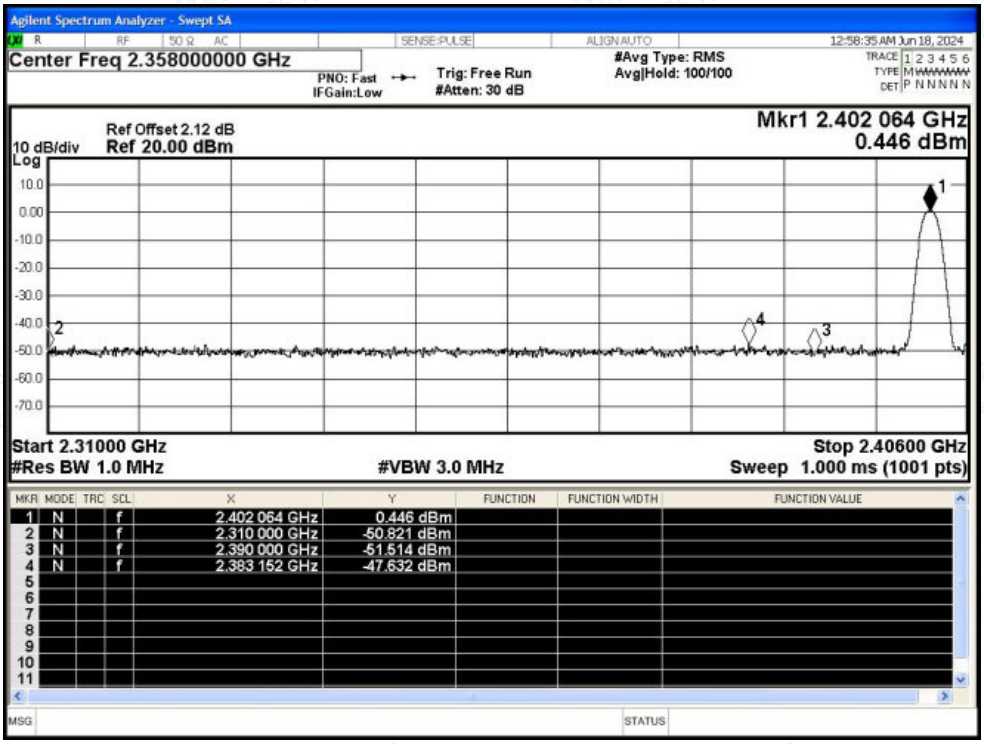


A.9 Restrict Band

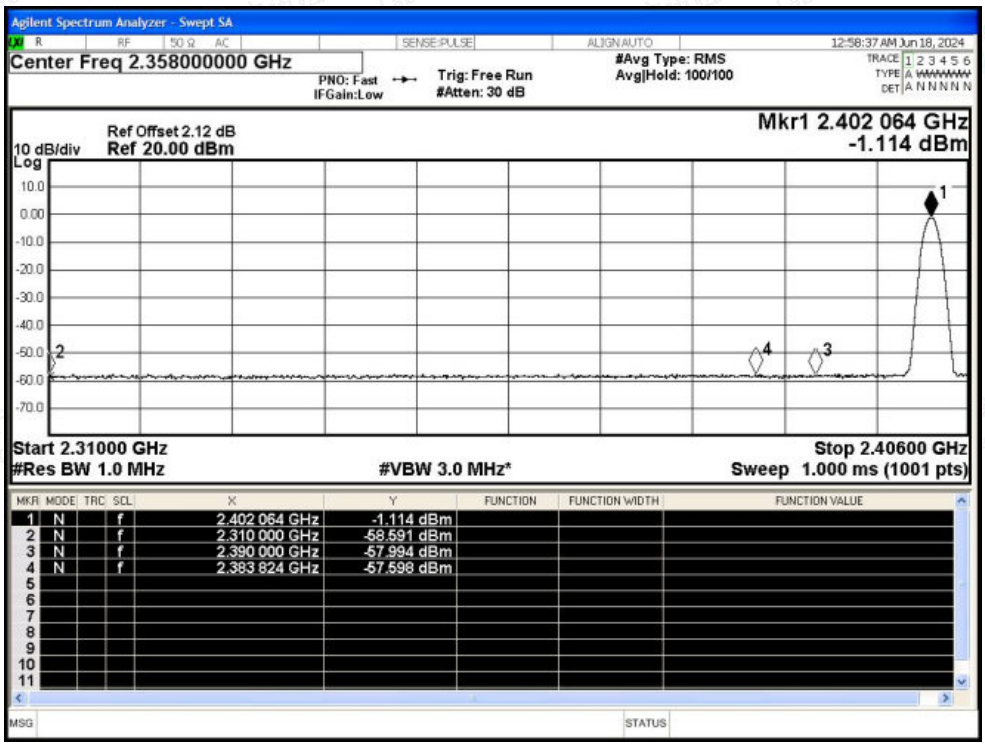
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-50.82	2.36	-	46.80	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-58.59	2.36	1.14	40.17	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2383.152	-47.63	2.36	-	49.99	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2383.824	-57.6	2.36	1.14	41.16	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-51.51	2.36	-	46.11	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-57.99	2.36	1.14	40.77	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-50.52	2.36	-	47.10	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-57.43	2.36	1.14	41.33	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2485.072	-47.05	2.36	-	50.57	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2484.856	-57.2	2.36	1.14	41.56	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-50.36	2.36	-	47.26	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-58.35	2.36	1.14	40.41	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-51.3	2.36	-	46.32	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-58.62	2.36	1.14	40.14	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2353.008	-46.59	2.36	-	51.03	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2363.664	-57.58	2.36	1.14	41.18	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-48.56	2.36	-	49.06	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-58.07	2.36	1.14	40.69	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-50.13	2.36	-	47.49	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-58.56	2.36	1.14	40.20	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2487.256	-46.64	2.36	-	50.98	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2493.616	-56.82	2.36	1.14	41.94	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-51.01	2.36	-	46.61	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-57.94	2.36	1.14	40.82	Average	54	Pass

Test Graphs

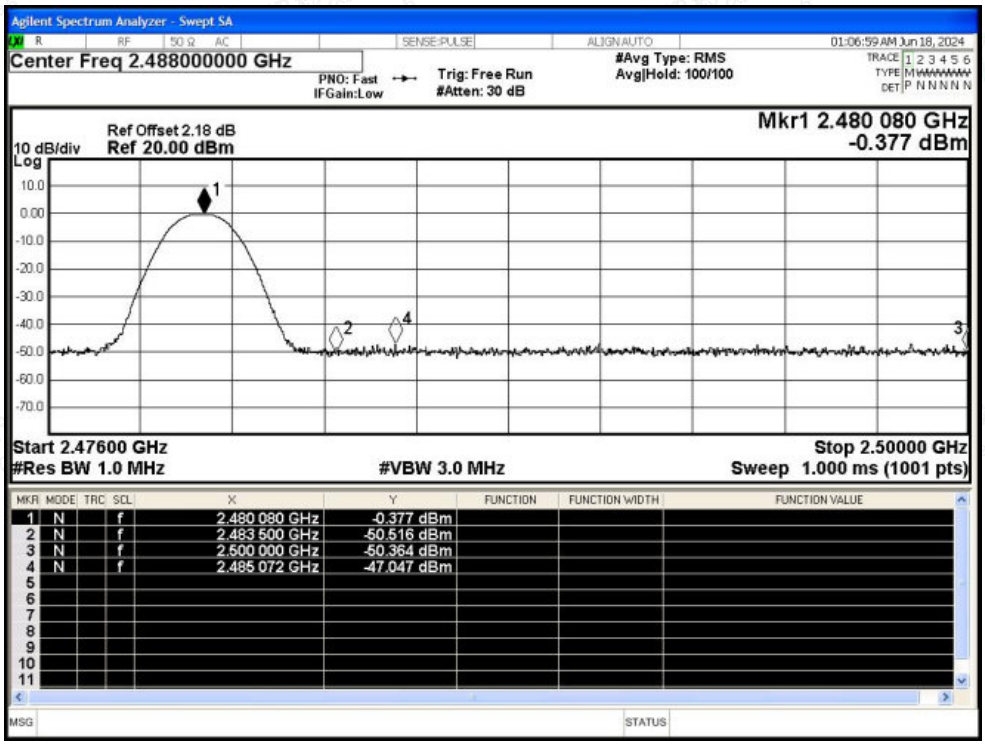
Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Peak



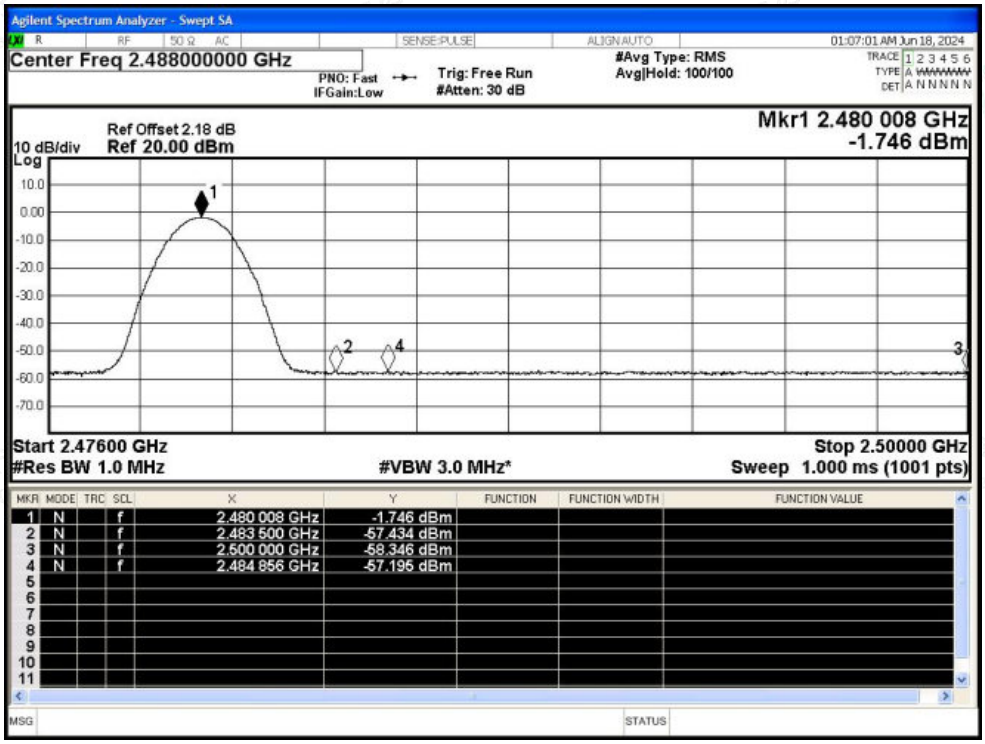
Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Average



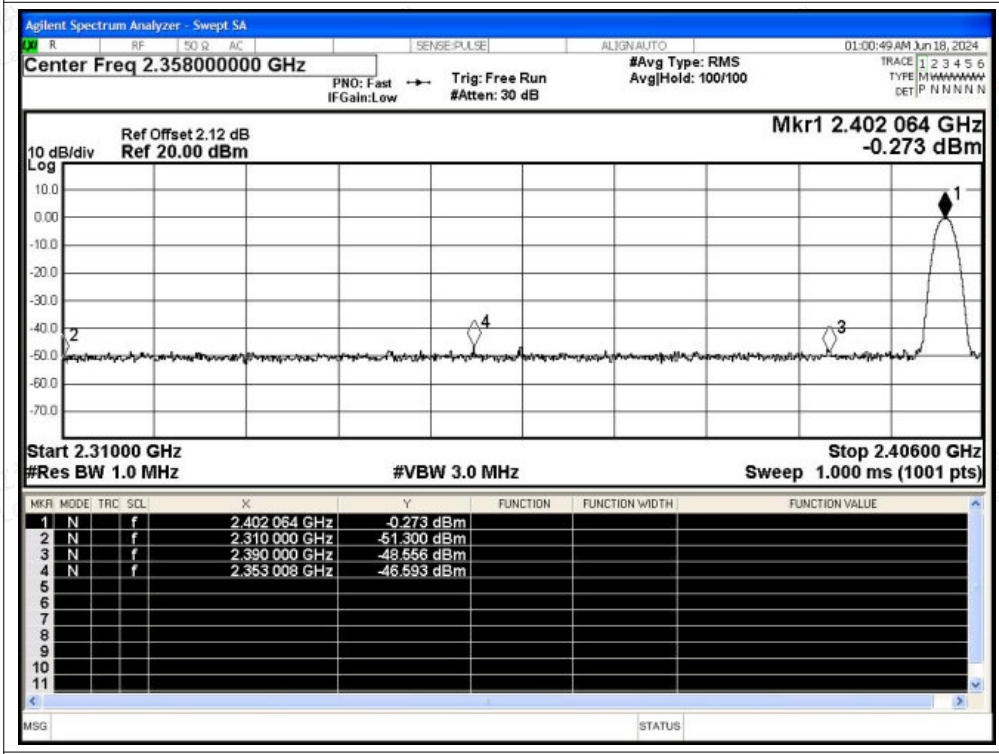
Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Peak



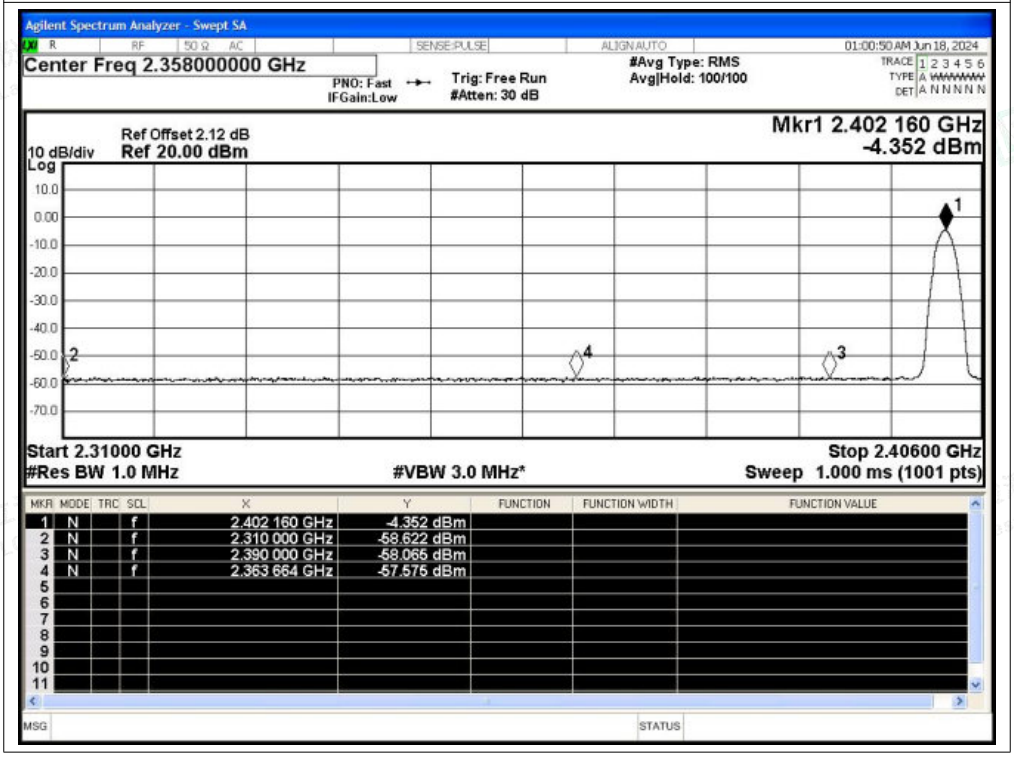
Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Average



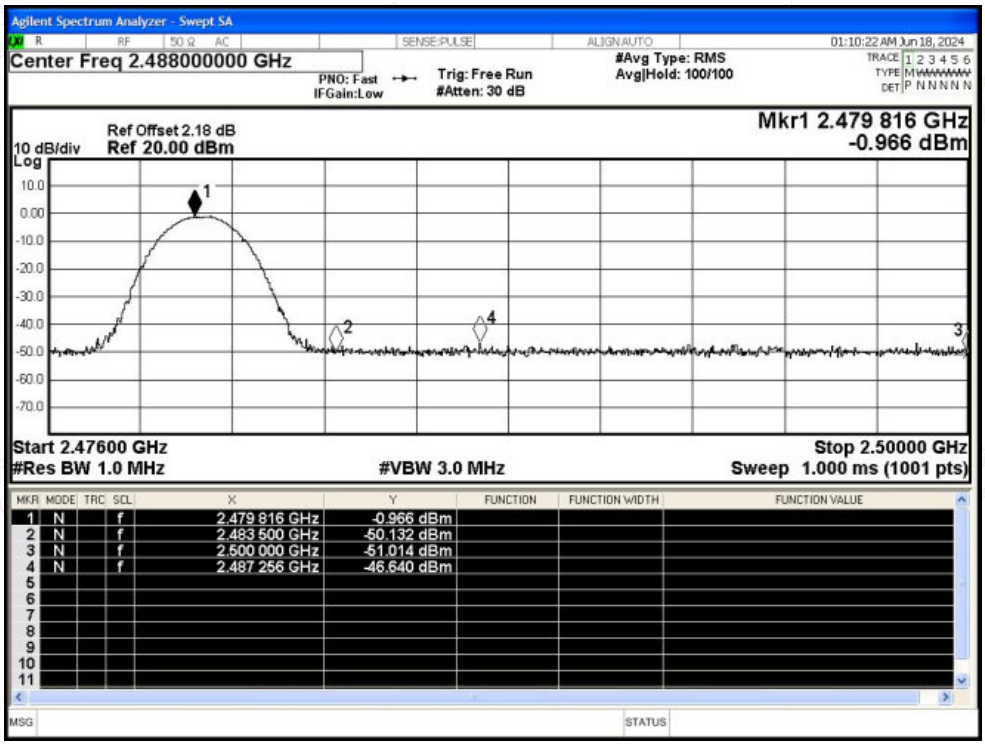
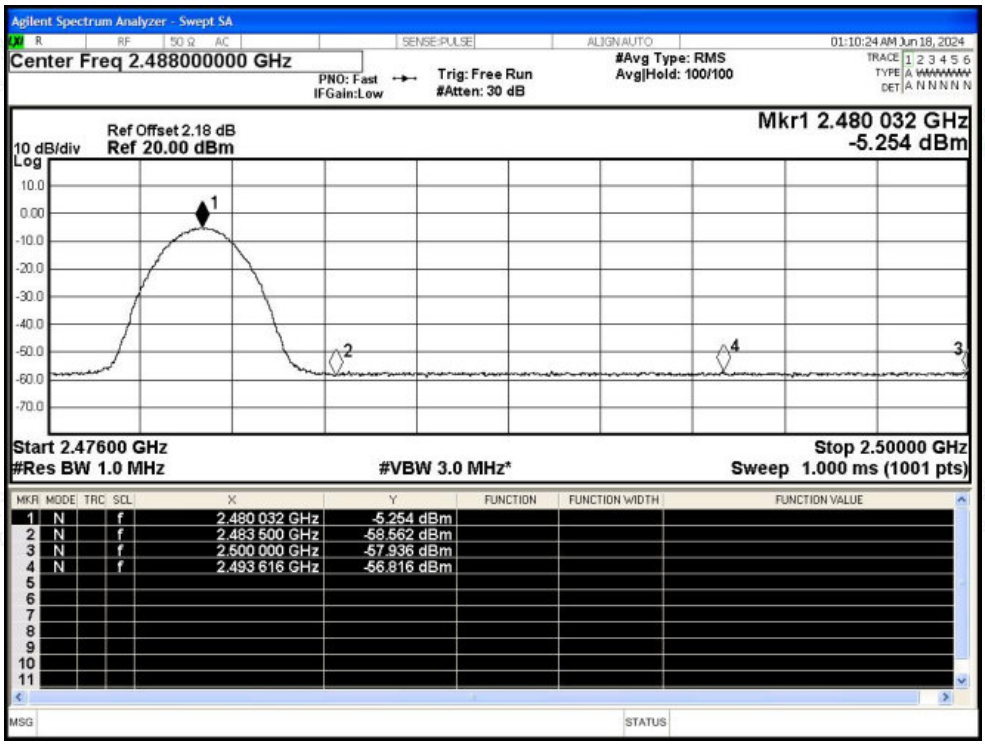
Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Peak



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