

Appendix A

RF Test Data for BT(Conducted Measurement)

Product Name: Translator Earbuds

Test Model: A8

Environmental Conditions

Temperature:	23.8°C
Relative Humidity:	52.5%
ATM Pressure:	100.0 kPa
Test Engineer:	Suichao Lai
Supervised by:	Yan Chen

A.1 -20dB Bandwidth

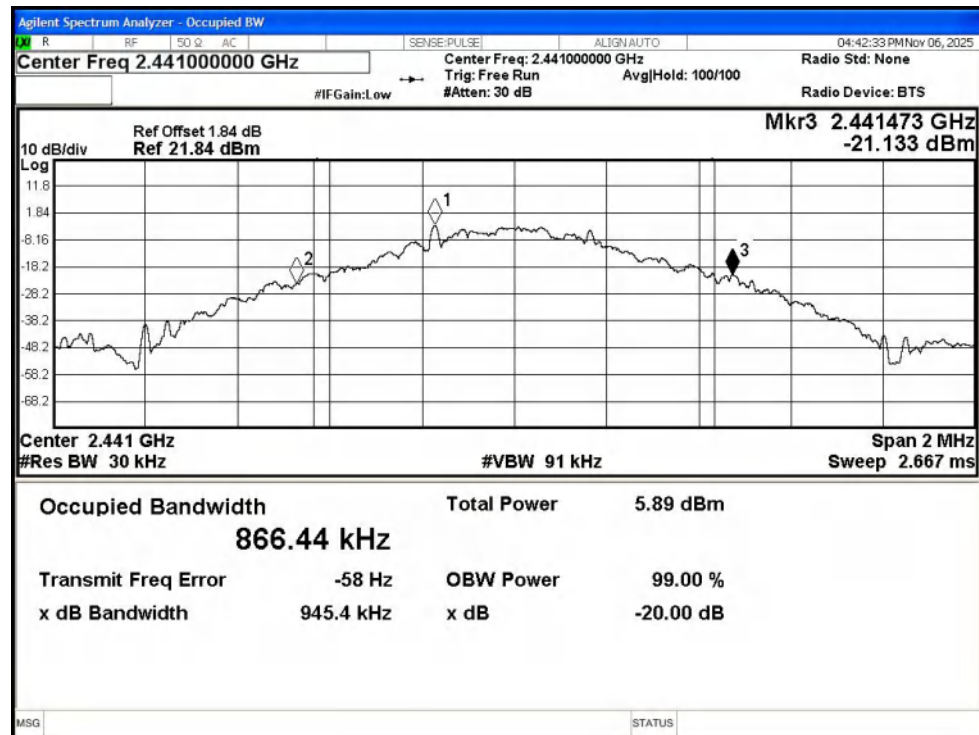
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH5	2402	Ant1	0.998	N/A	Pass
NVNT	1-DH5	2441	Ant1	0.945	N/A	Pass
NVNT	1-DH5	2480	Ant1	0.951	N/A	Pass
NVNT	2-DH5	2402	Ant1	1.285	N/A	Pass
NVNT	2-DH5	2441	Ant1	1.307	N/A	Pass
NVNT	2-DH5	2480	Ant1	1.278	N/A	Pass

Test Graphs

-20dB Bandwidth NVNT 1-DH5 2402MHz Ant1



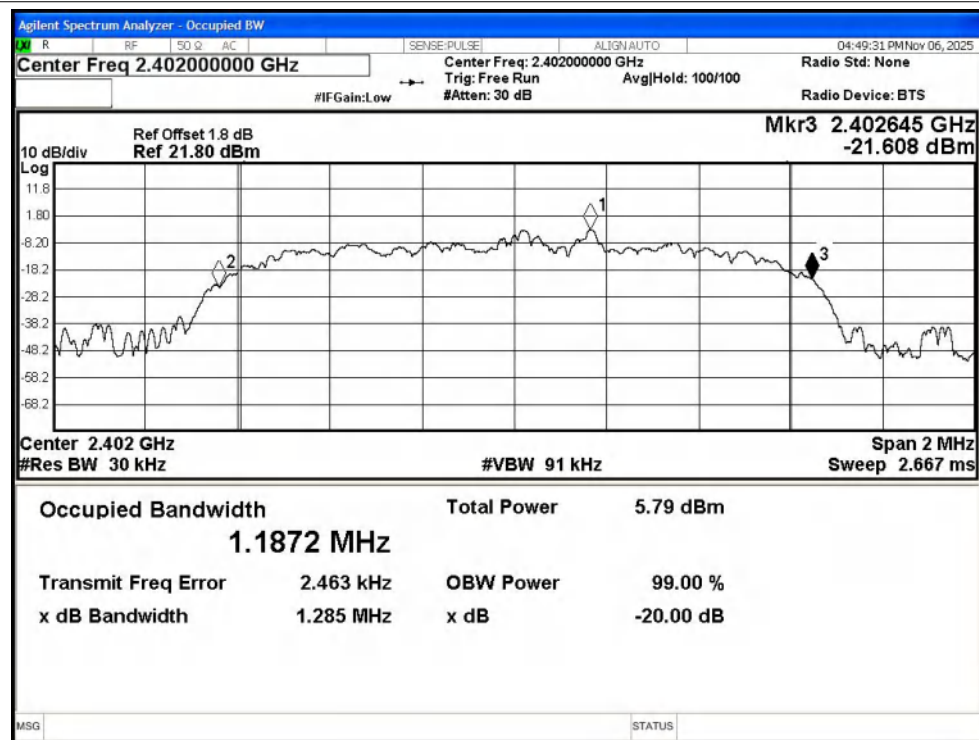
-20dB Bandwidth NVNT 1-DH5 2441MHz Ant1



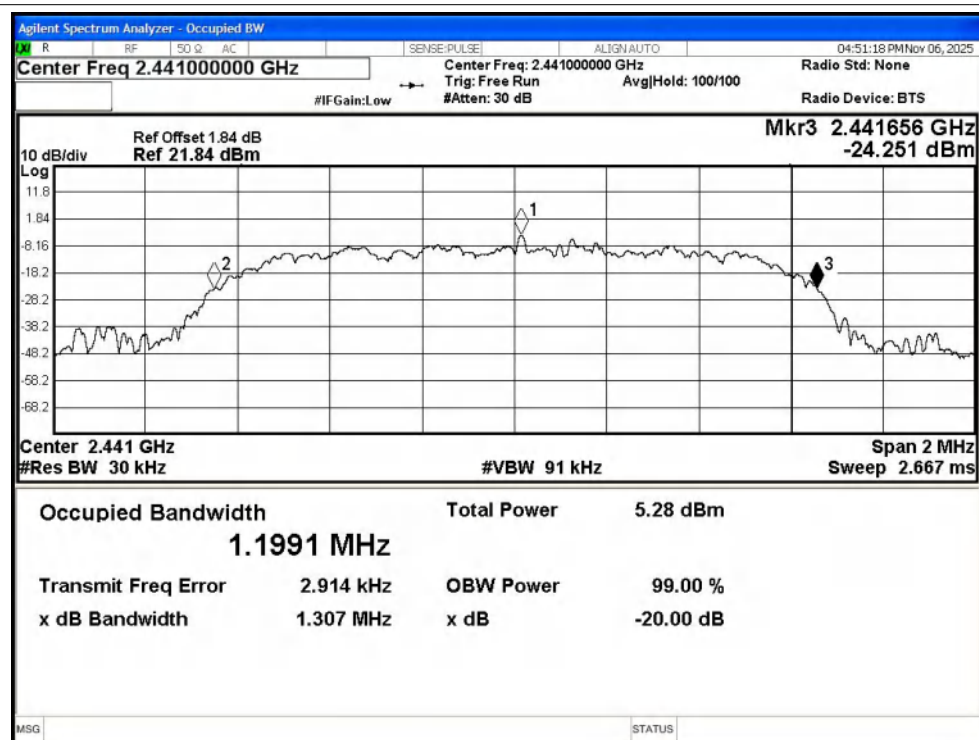
-20dB Bandwidth NVNT 1-DH5 2480MHz Ant1



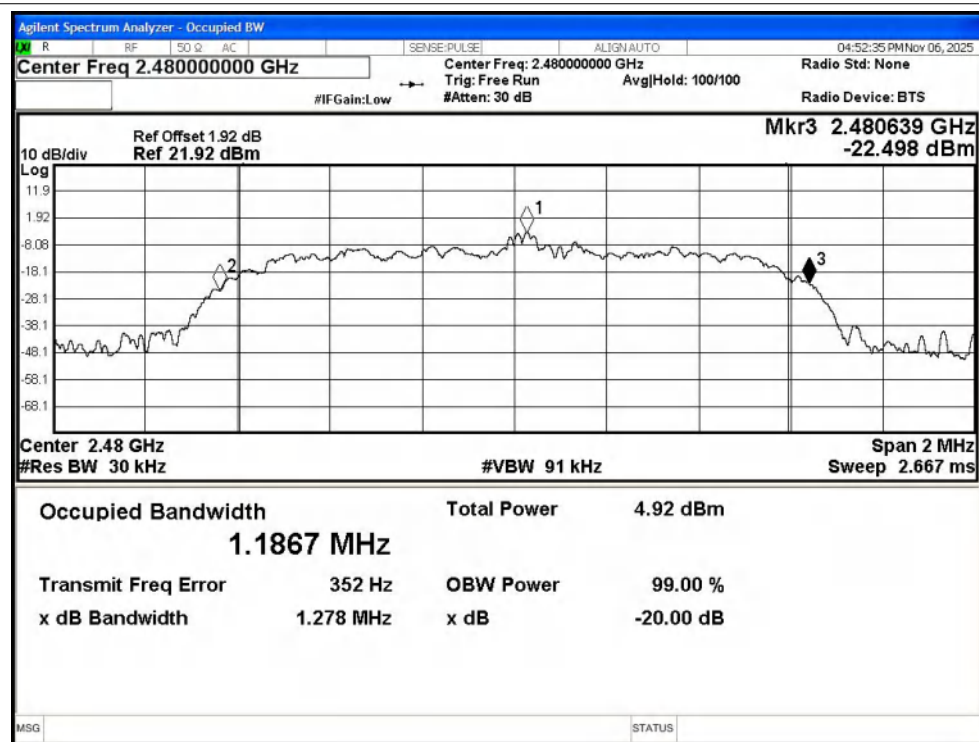
-20dB Bandwidth NVNT 2-DH5 2402MHz Ant1



-20dB Bandwidth NVNT 2-DH5 2441MHz Ant1



-20dB Bandwidth NVNT 2-DH5 2480MHz Ant1

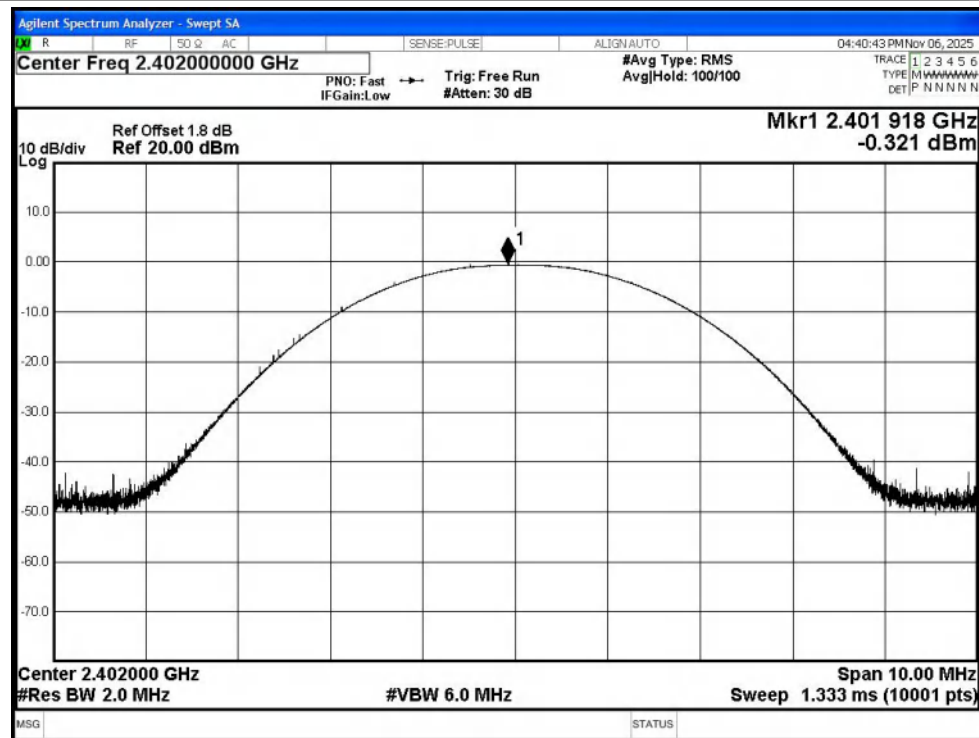


A.2 Maximum Peak Conducted Output Power

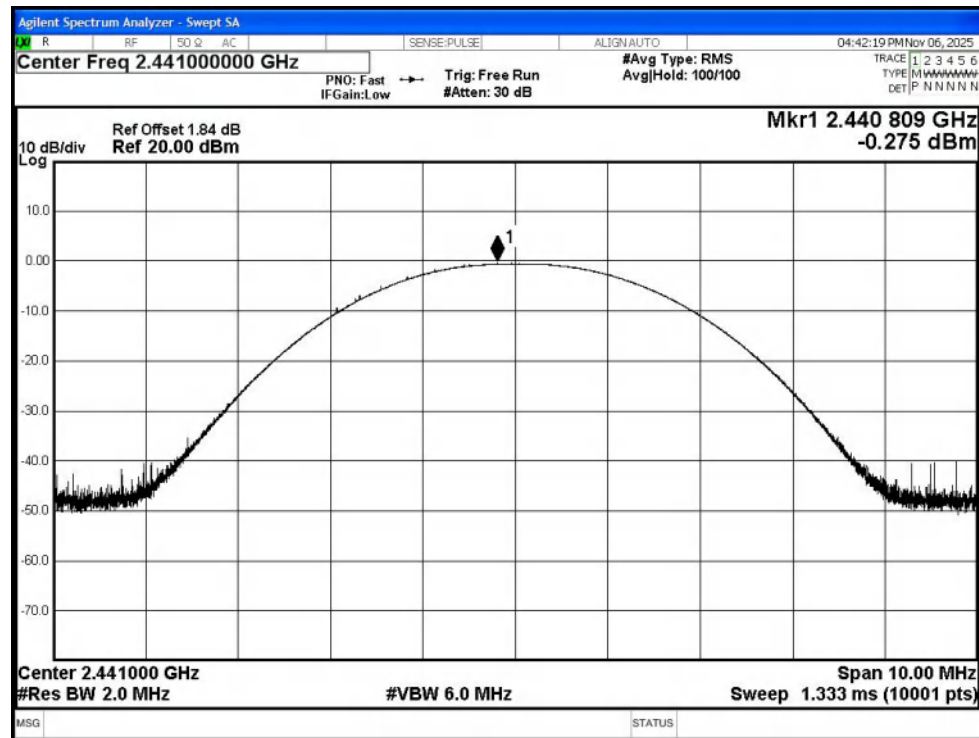
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH5	2402	Ant1	-0.32	21	Pass
NVNT	1-DH5	2441	Ant1	-0.28	21	Pass
NVNT	1-DH5	2480	Ant1	-1.18	21	Pass
NVNT	2-DH5	2402	Ant1	1.46	21	Pass
NVNT	2-DH5	2441	Ant1	1.49	21	Pass
NVNT	2-DH5	2480	Ant1	0.65	21	Pass

Test Graphs

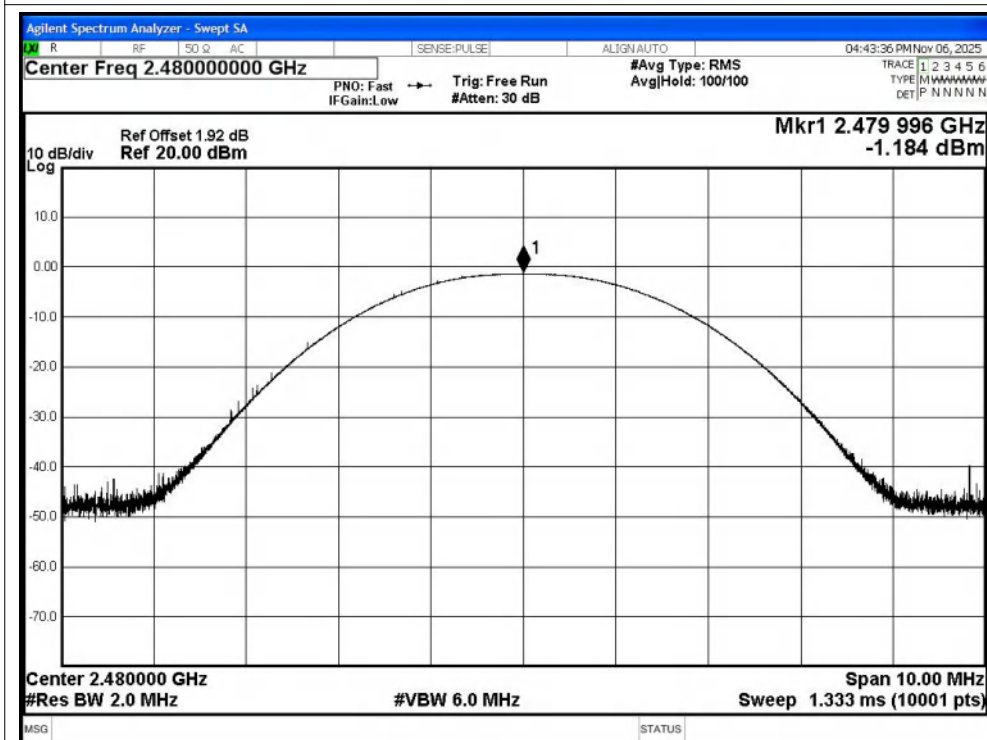
Power NVNT 1-DH5 2402MHz Ant1



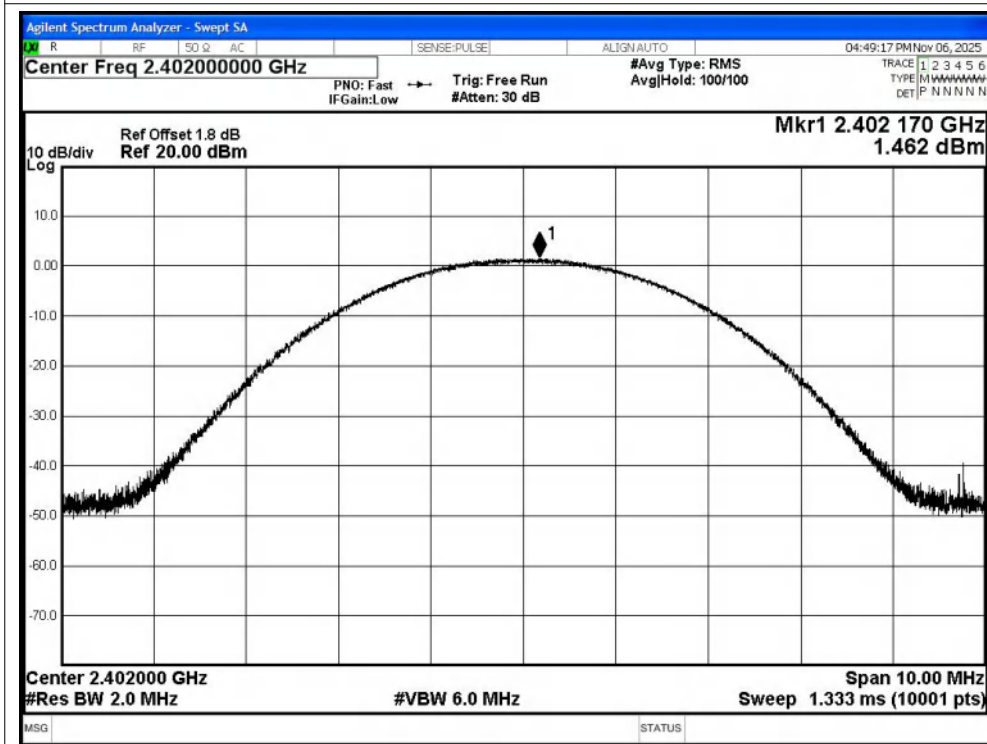
Power NVNT 1-DH5 2441MHz Ant1



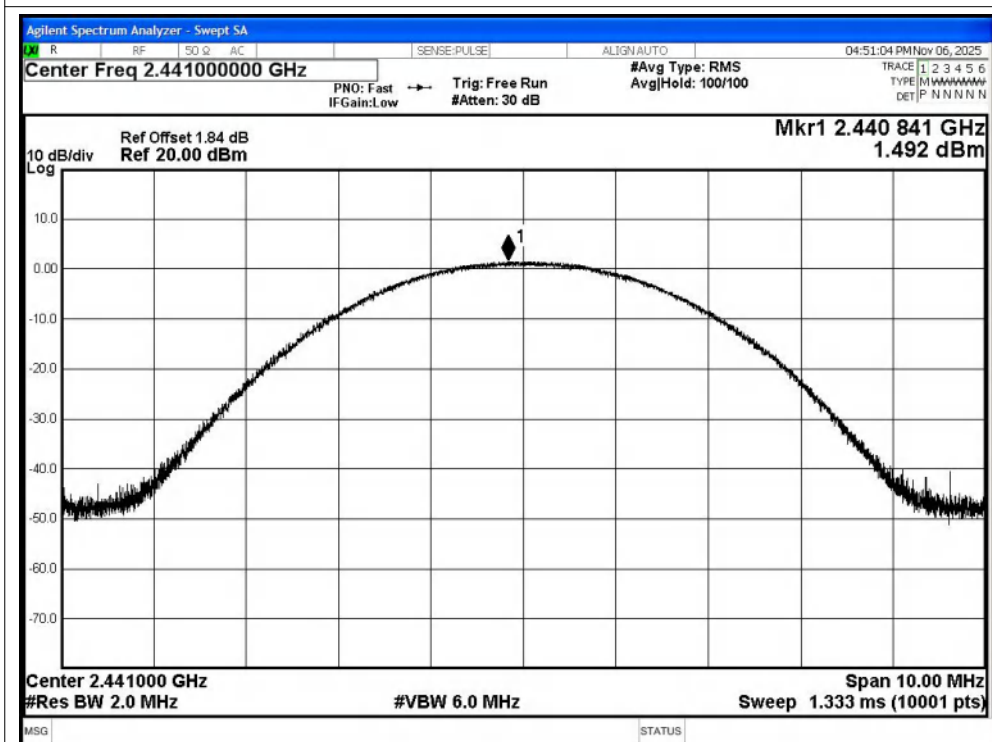
Power NVNT 1-DH5 2480MHz Ant1



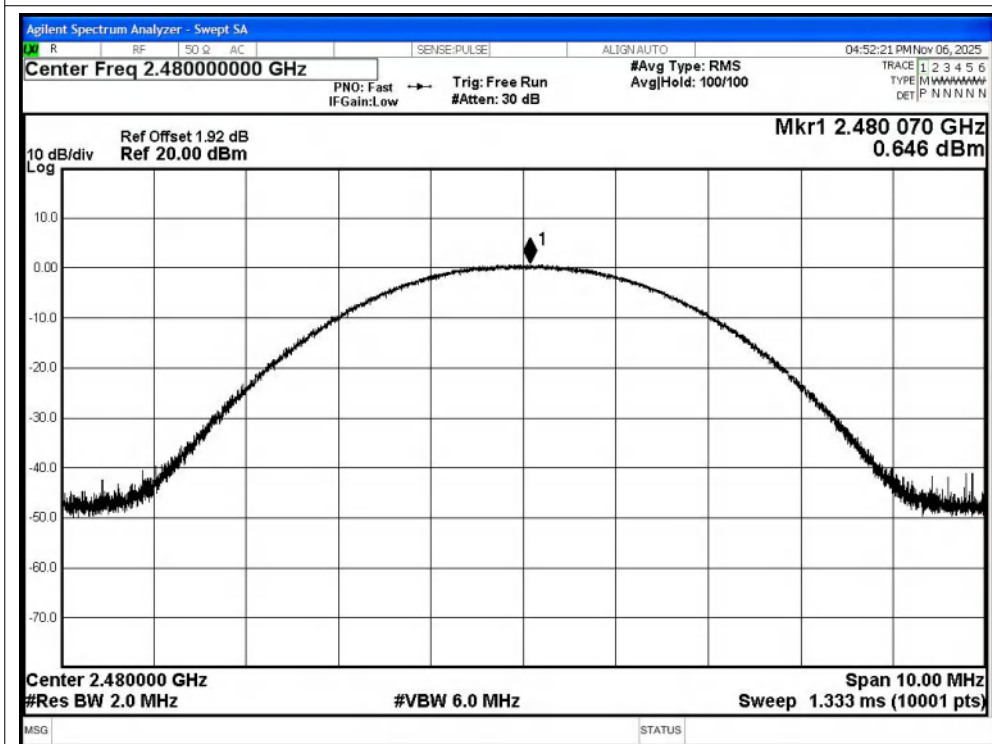
Power NVNT 2-DH5 2402MHz Ant1



Power NVNT 2-DH5 2441MHz Ant1



Power NVNT 2-DH5 2480MHz Ant1

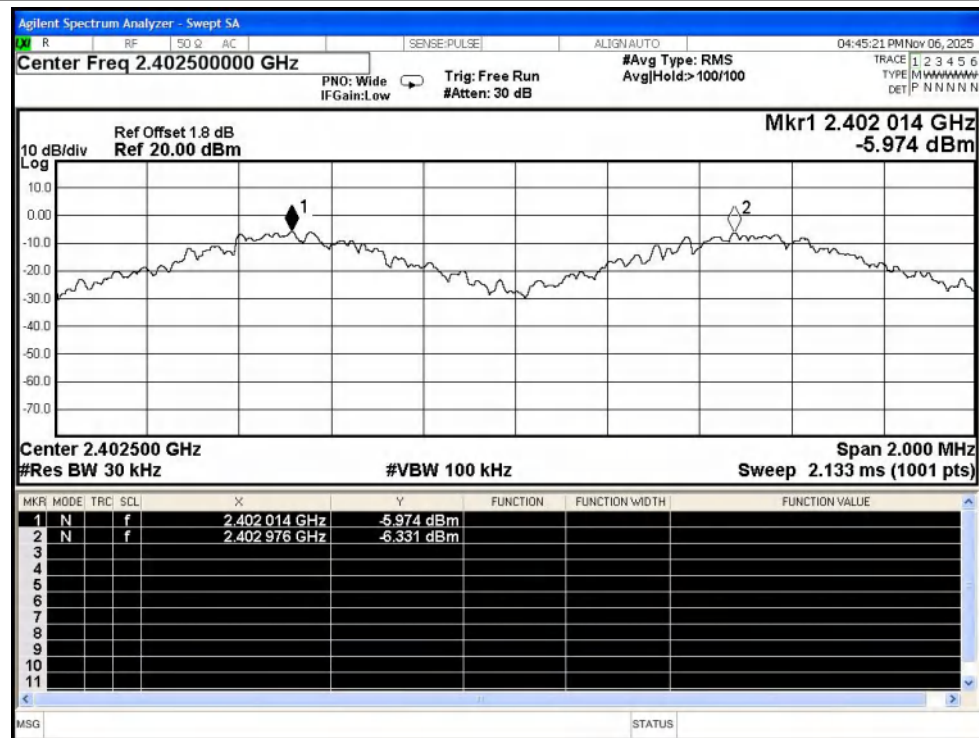


A.3 Carrier Frequencies Separation

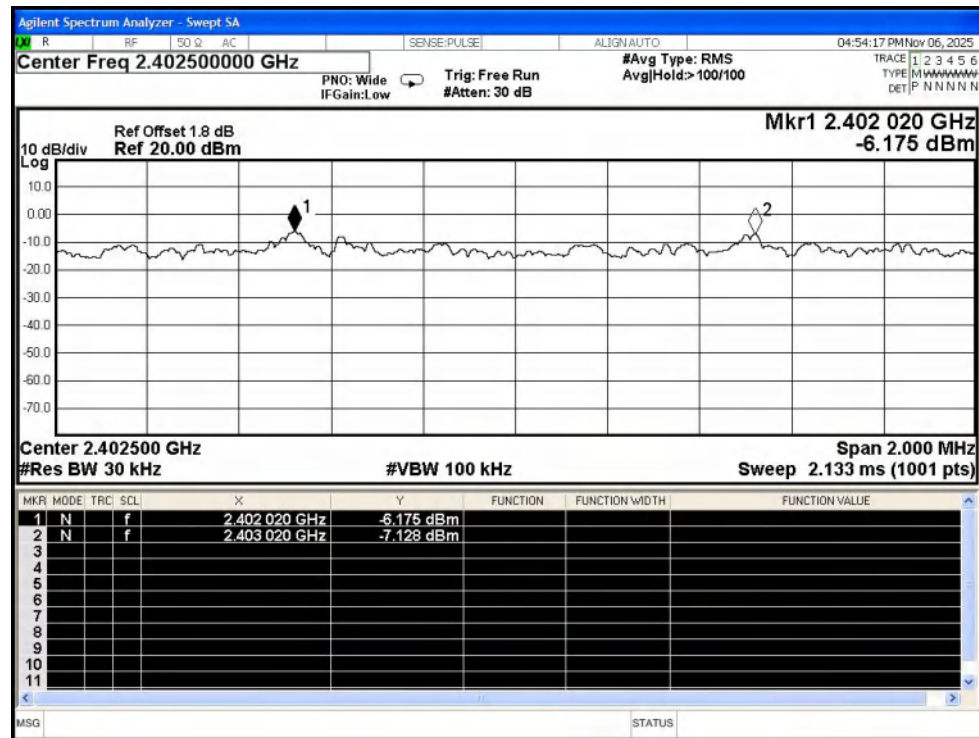
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH5	Ant1	2402.014	2402.976	0.962	0.665	Pass
NVNT	2-DH5	Ant1	2402.02	2403.02	1	0.871	Pass

Test Graphs

CFS NVNT 1-DH5 2402MHz Ant1



CFS NVNT 2-DH5 2402MHz Ant1

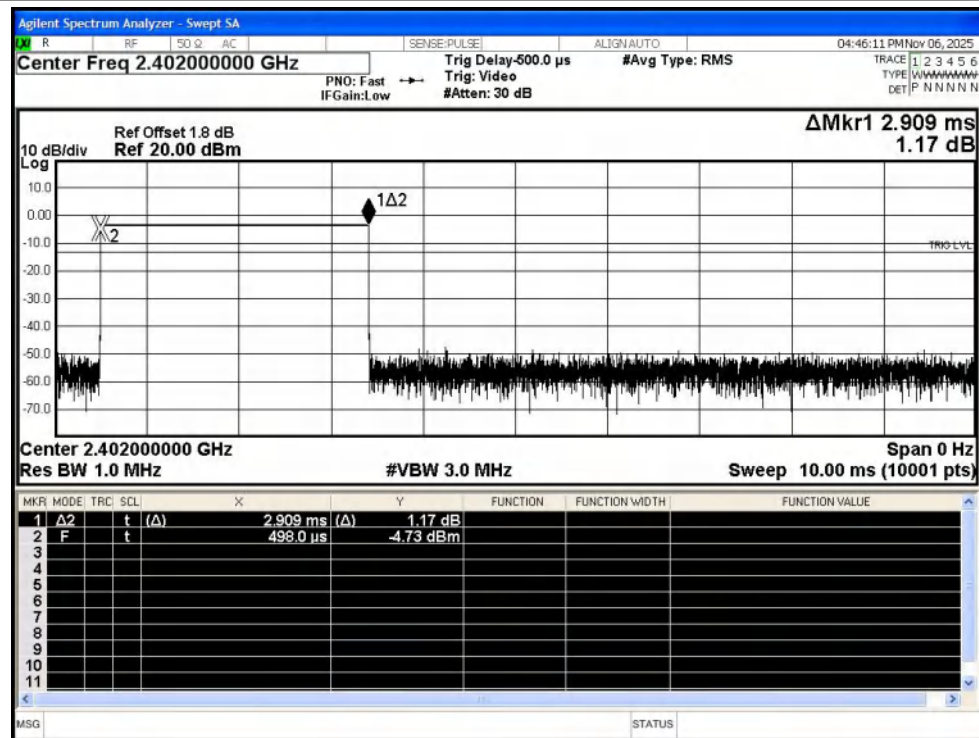


A.4 Dwell Time

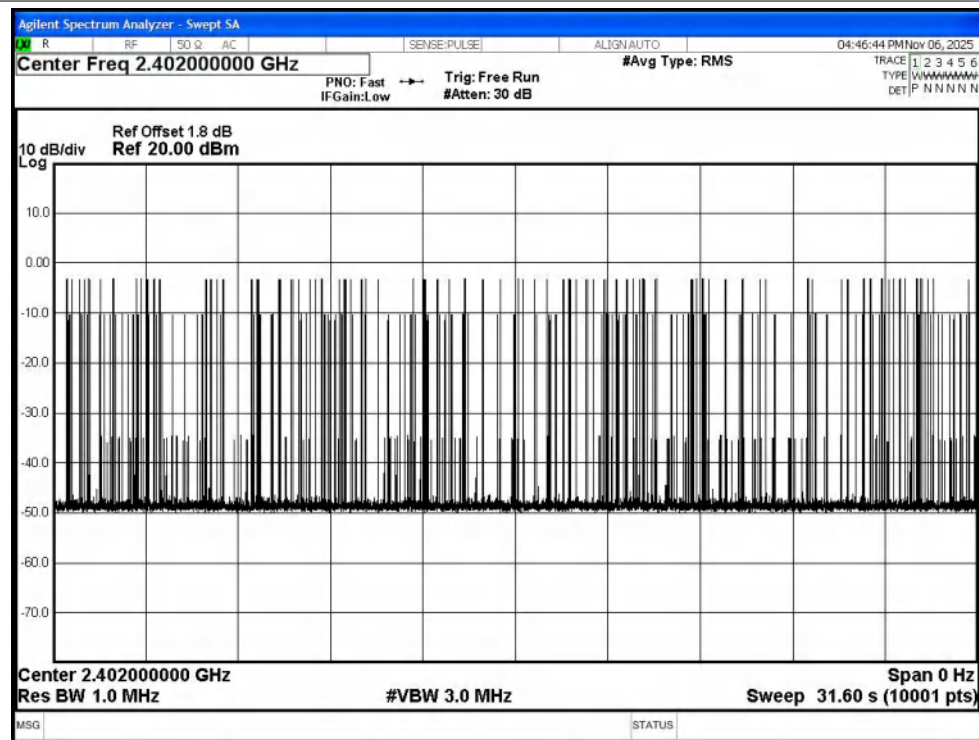
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH5	2402	Ant1	2.909	293.809	101	31600	400	Pass
NVNT	2-DH5	2402	Ant1	2.898	289.8	100	31600	400	Pass

Test Graphs

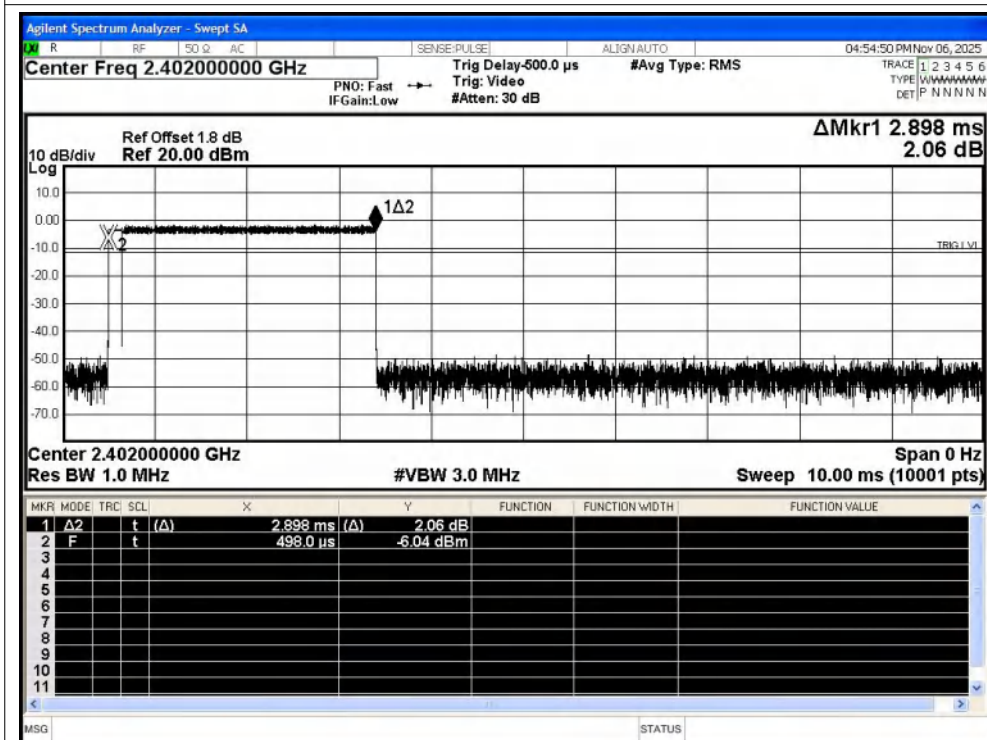
Dwell NVNT 1-DH5 2402MHz Ant1 One Burst



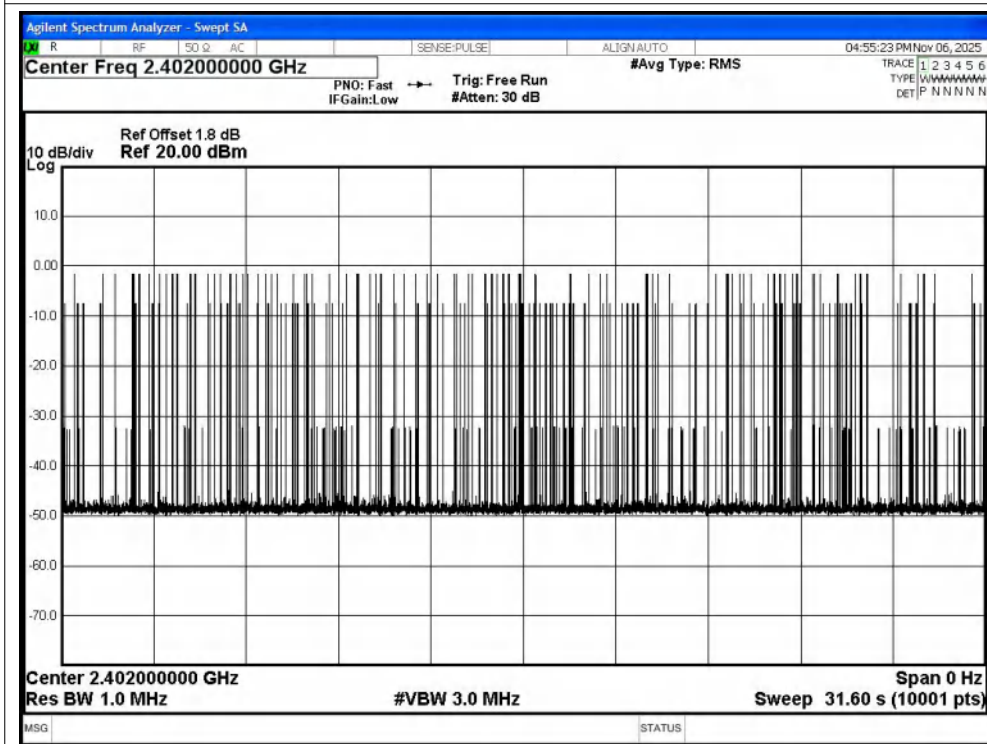
Dwell NVNT 1-DH5 2402MHz Ant1 Accumulated



Dwell NVNT 2-DH5 2402MHz Ant1 One Burst



Dwell NVNT 2-DH5 2402MHz Ant1 Accumulated

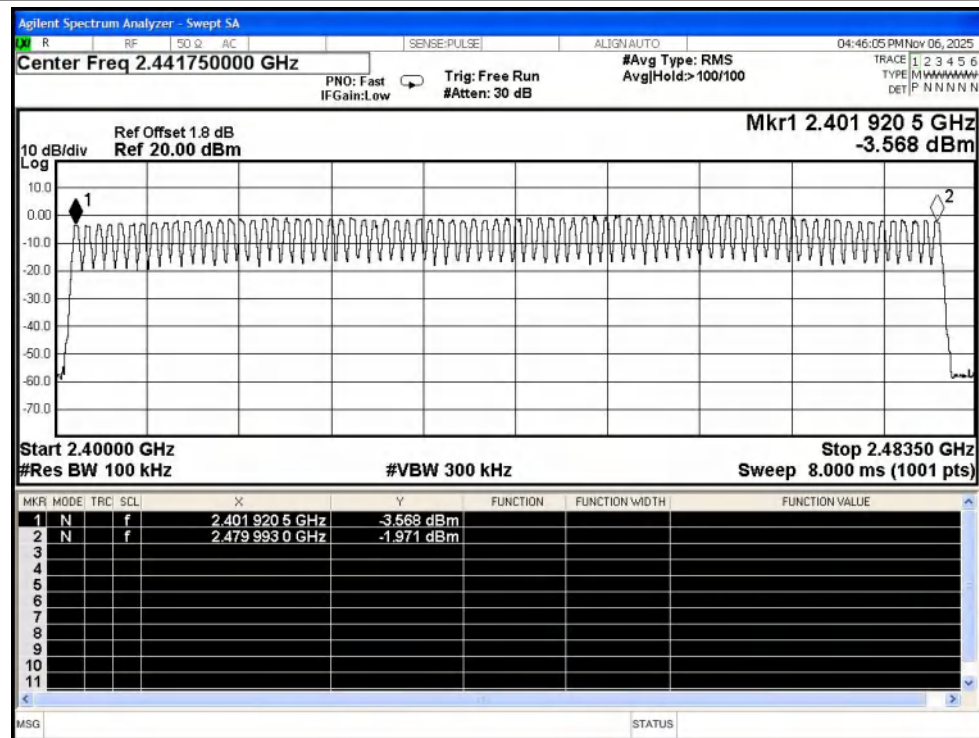


A.5 Number of Hopping Channel

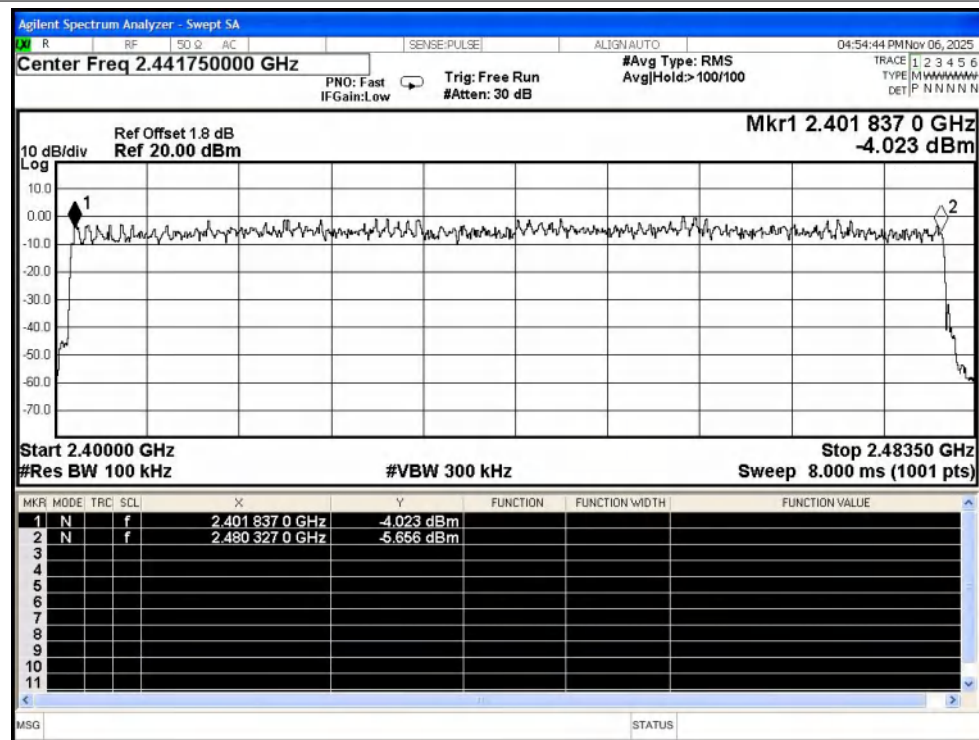
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH5	Ant1	79	15	Pass
NVNT	2-DH5	Ant1	79	15	Pass

Test Graphs

Hopping No. NVNT 1-DH5 2402MHz Ant1



Hopping No. NVNT 2-DH5 2402MHz Ant1

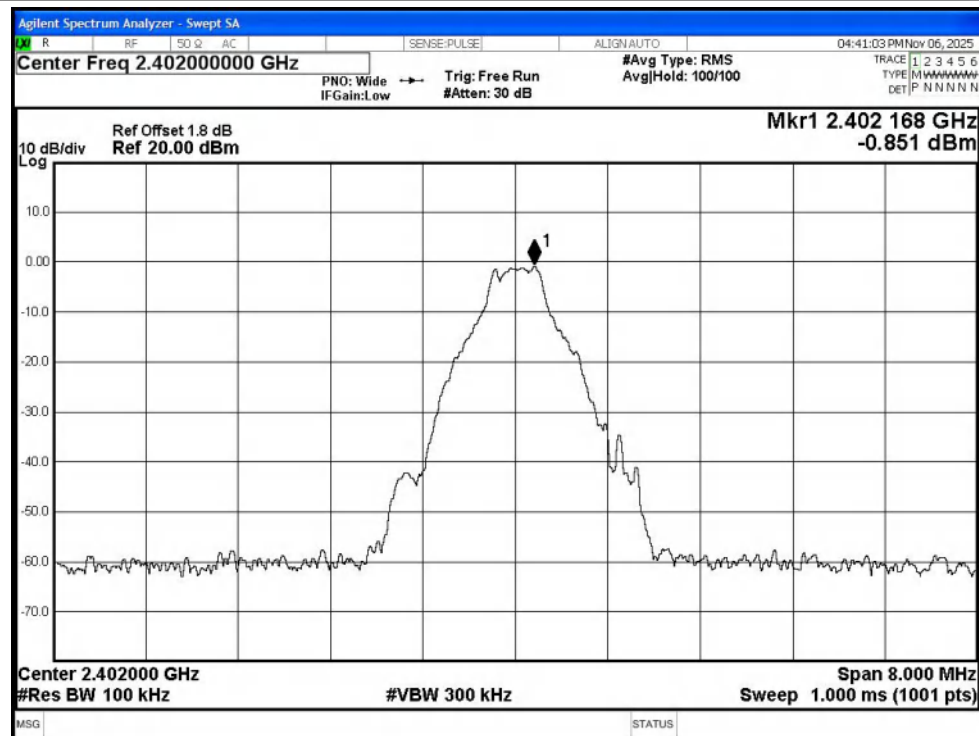


A.6 Band Edge

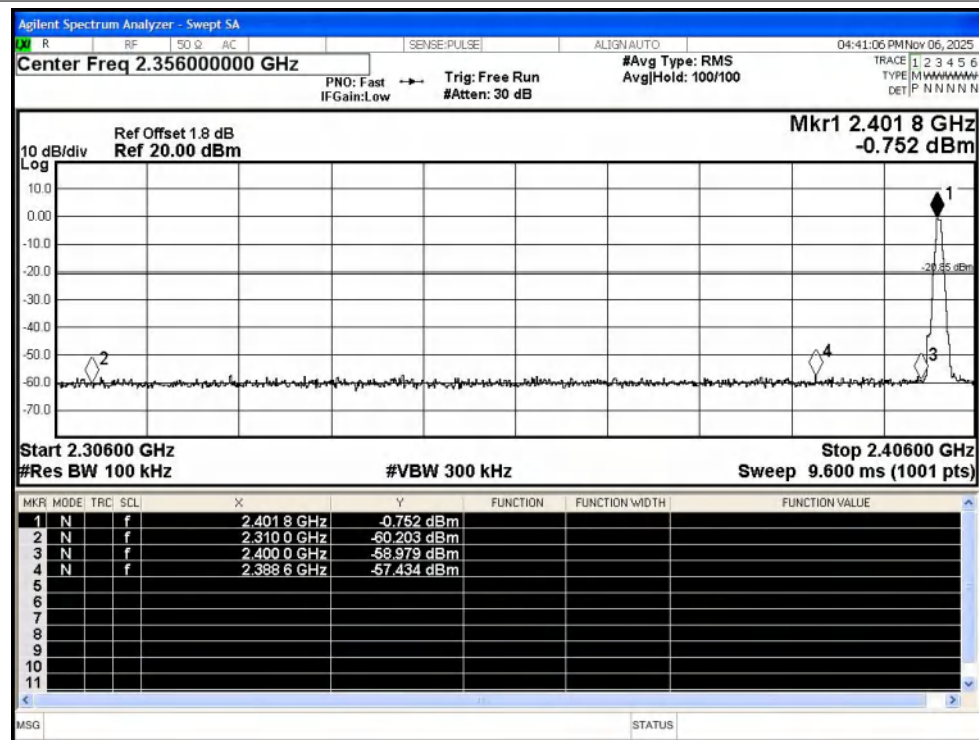
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	-56.58	-20	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	-55.08	-20	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	-51.31	-20	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	-54.11	-20	Pass

Test Graphs

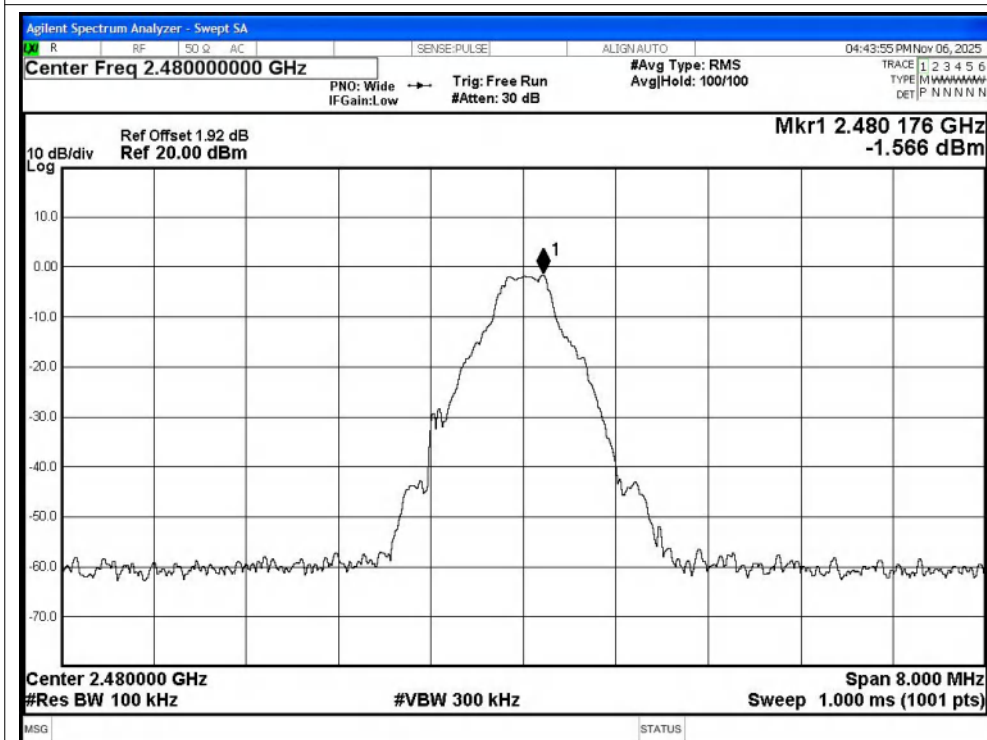
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Ref



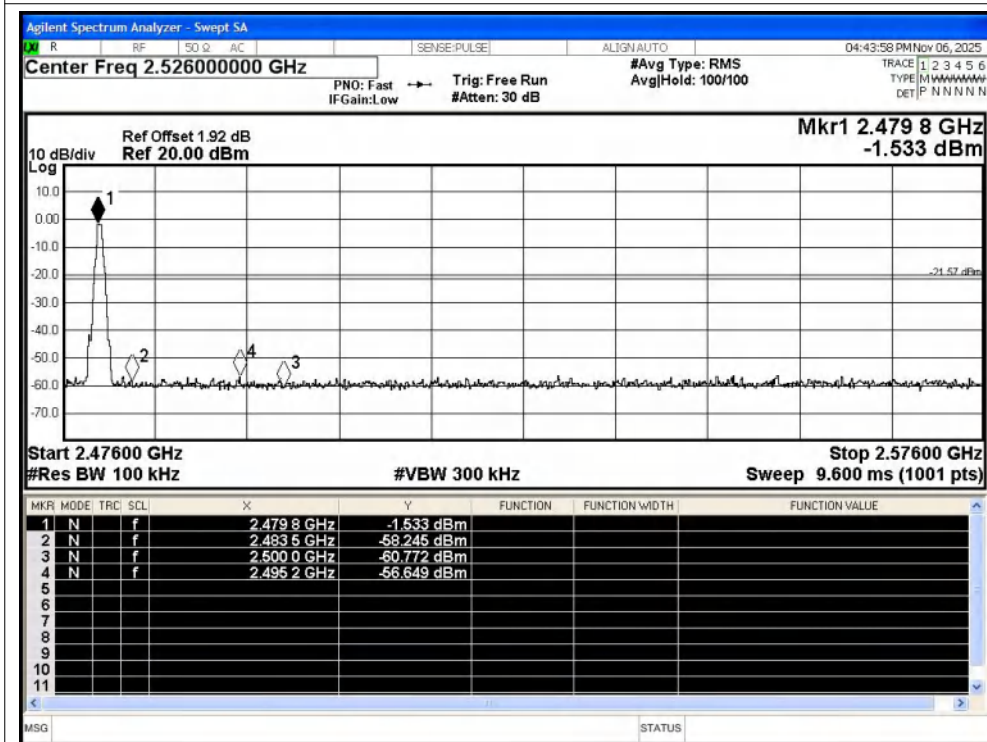
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Emission



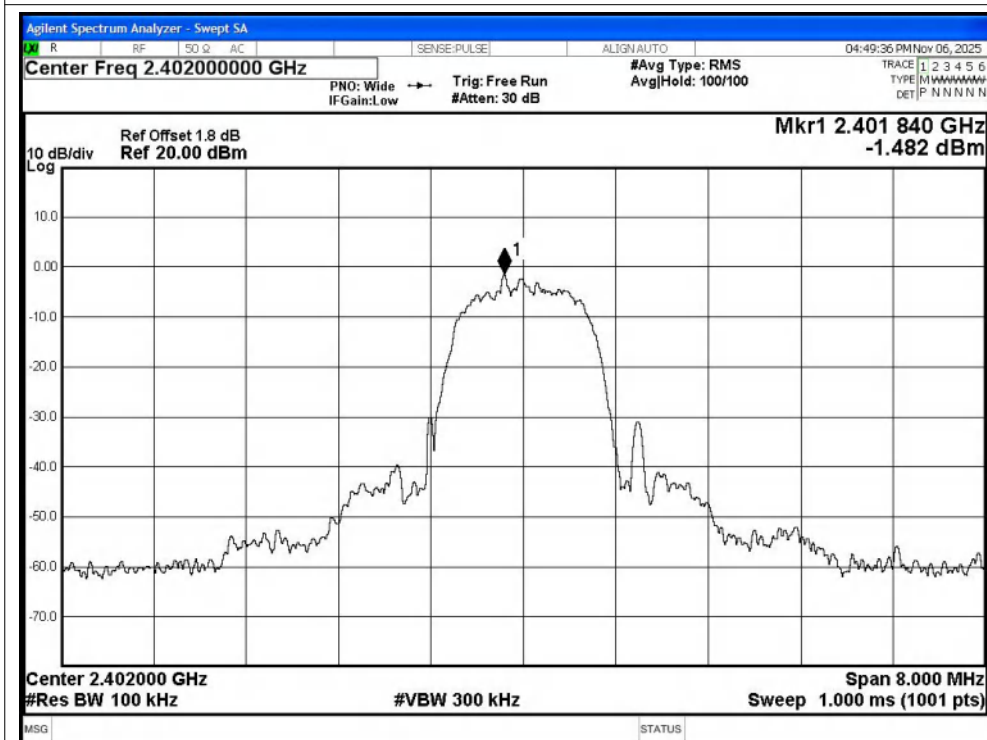
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref



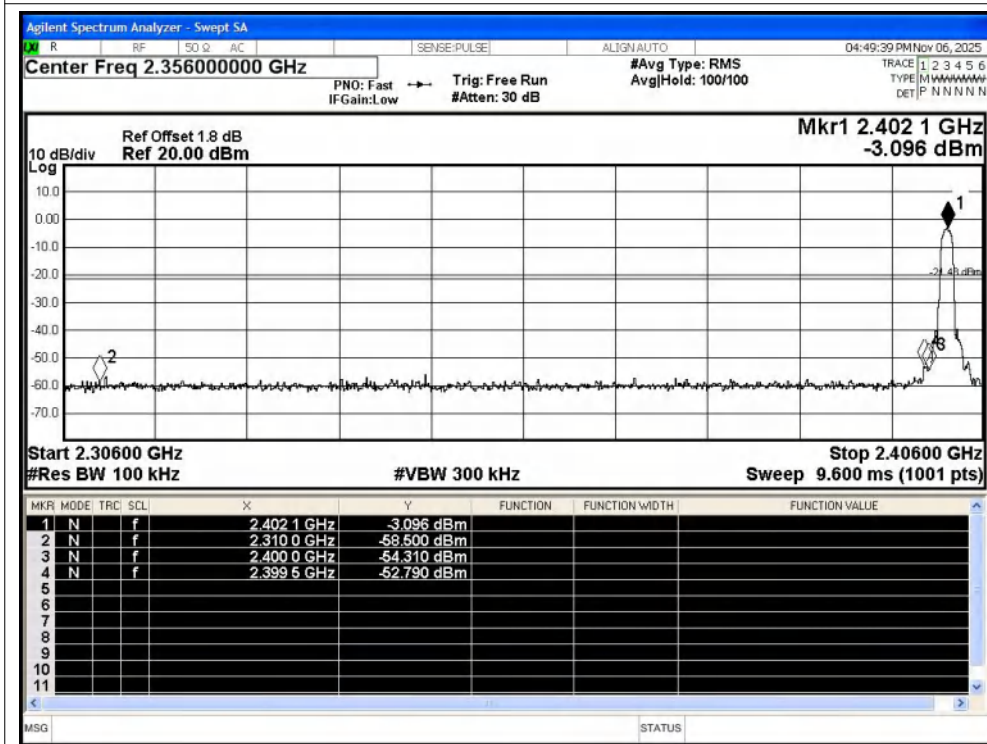
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Emission



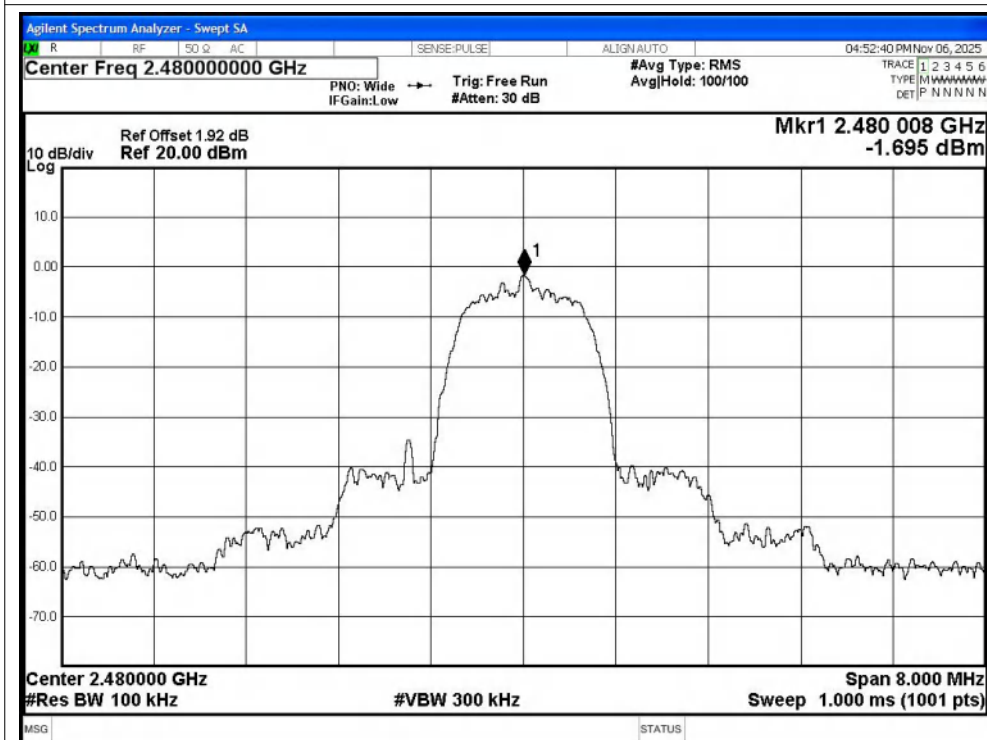
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Ref



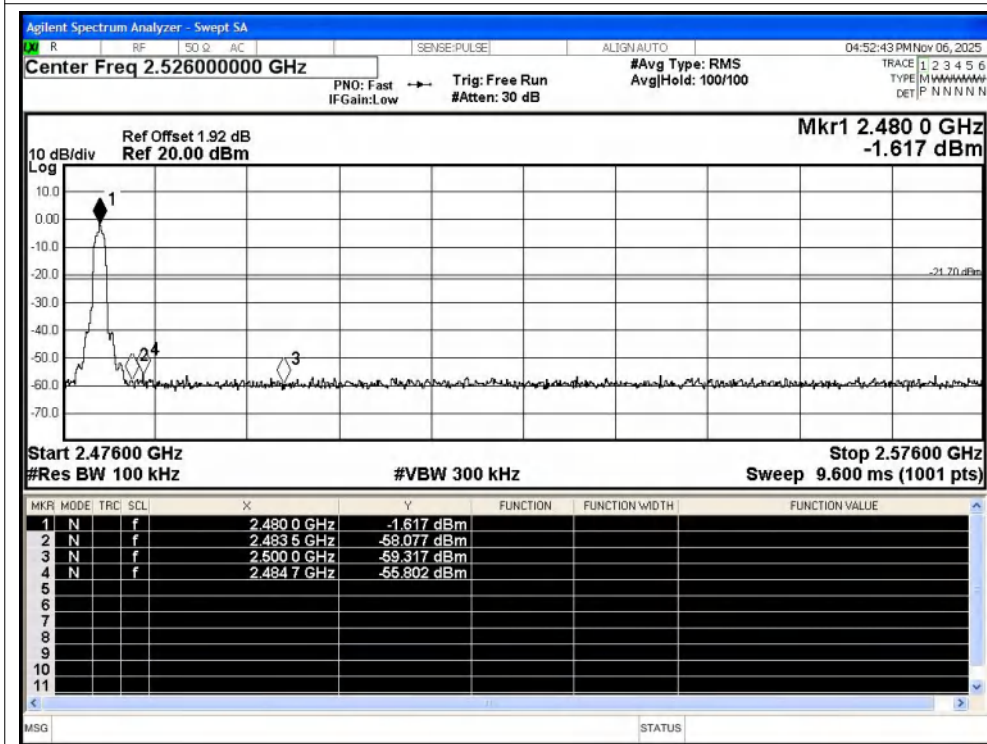
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Emission



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



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

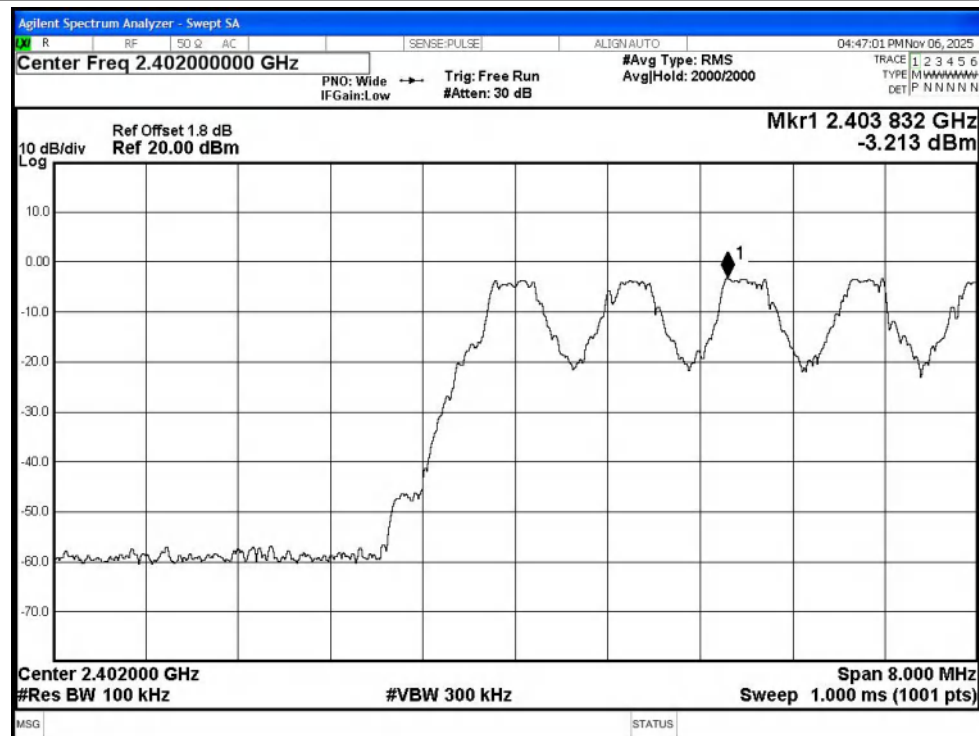


(Hopping)

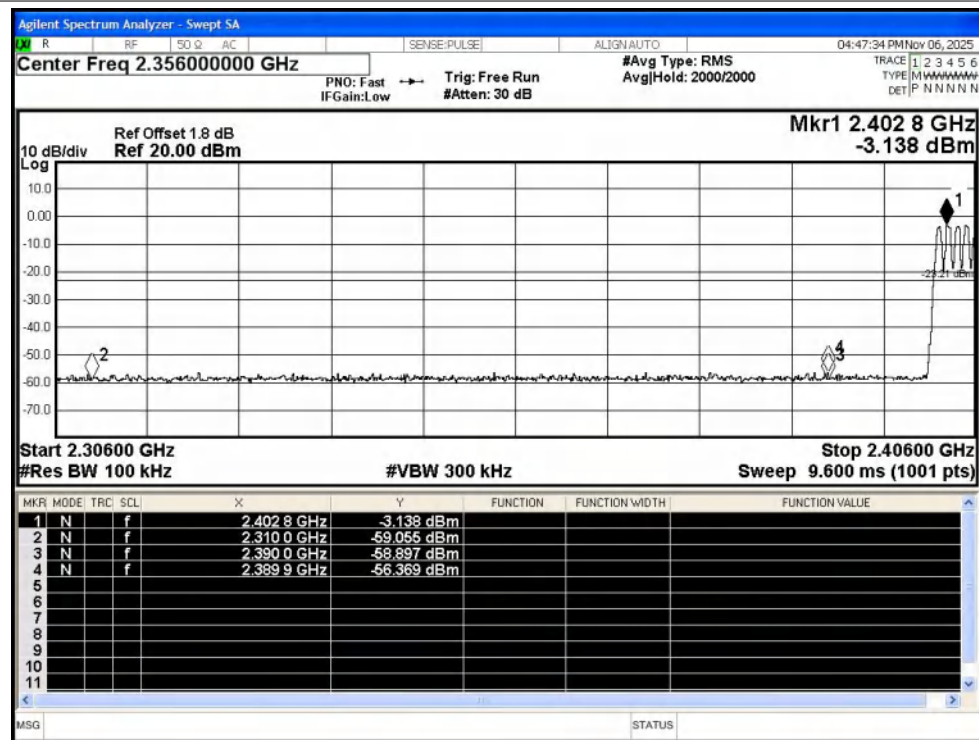
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	Hopping	-53.16	-20	Pass
NVNT	1-DH5	2480	Ant1	Hopping	-54.47	-20	Pass
NVNT	2-DH5	2402	Ant1	Hopping	-53.53	-20	Pass
NVNT	2-DH5	2480	Ant1	Hopping	-53.3	-20	Pass

Test Graphs

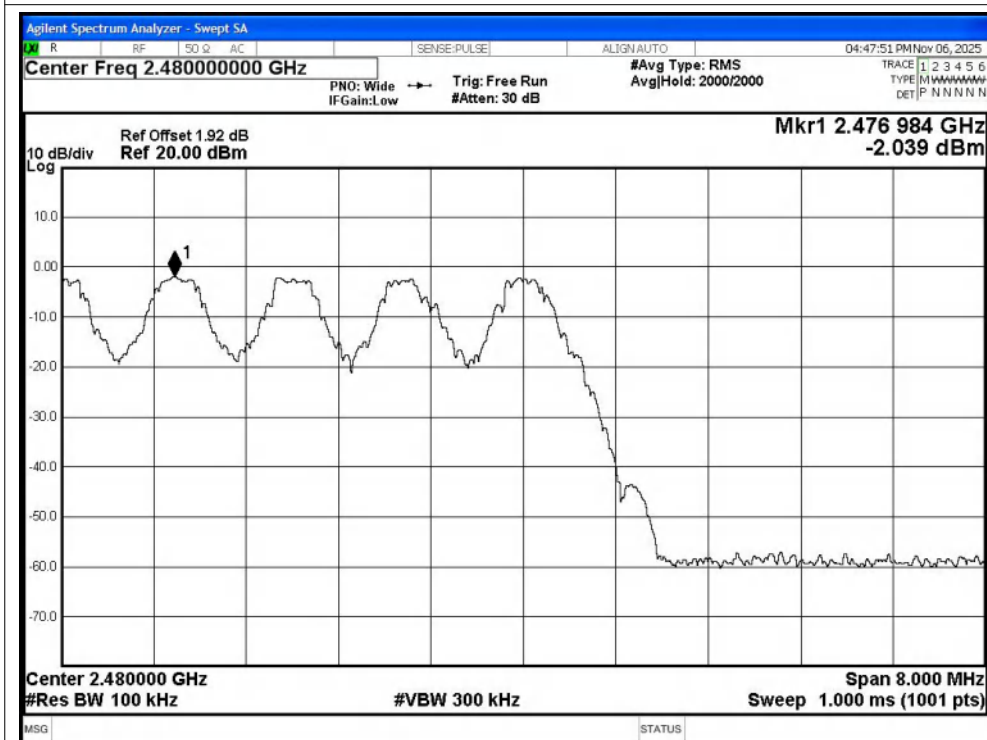
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Ref



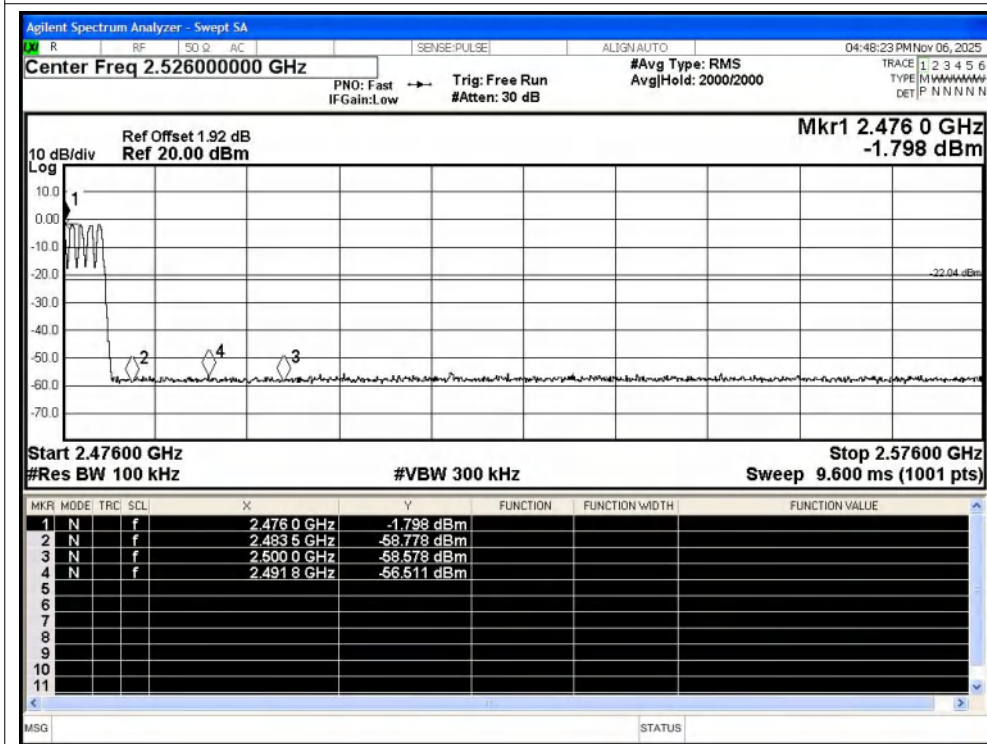
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission



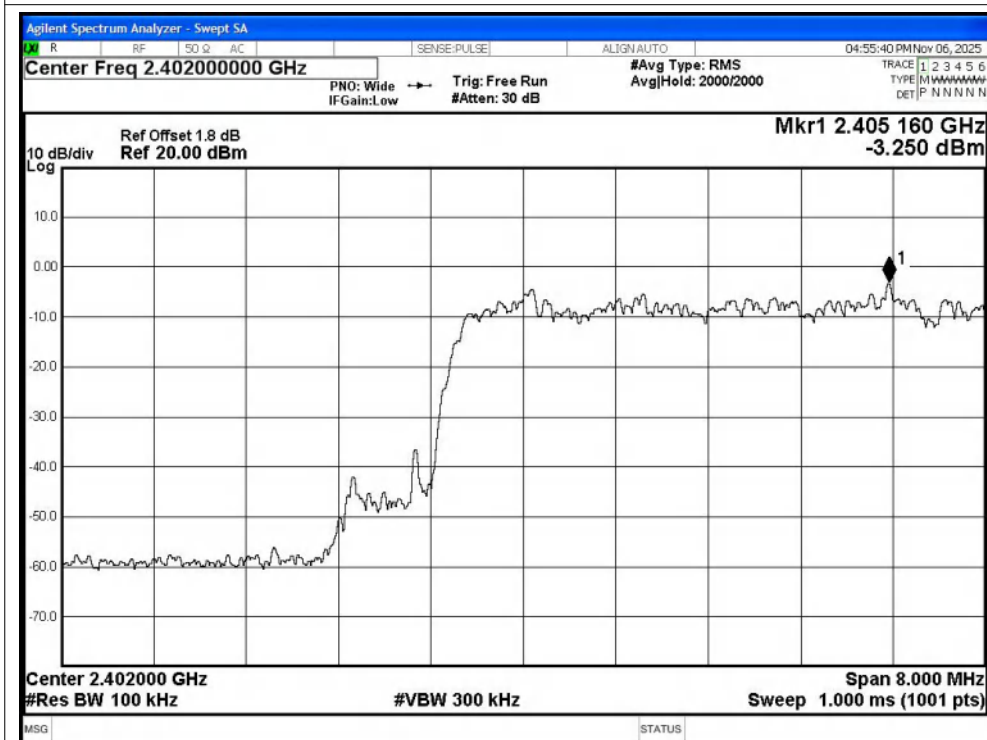
Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Ref



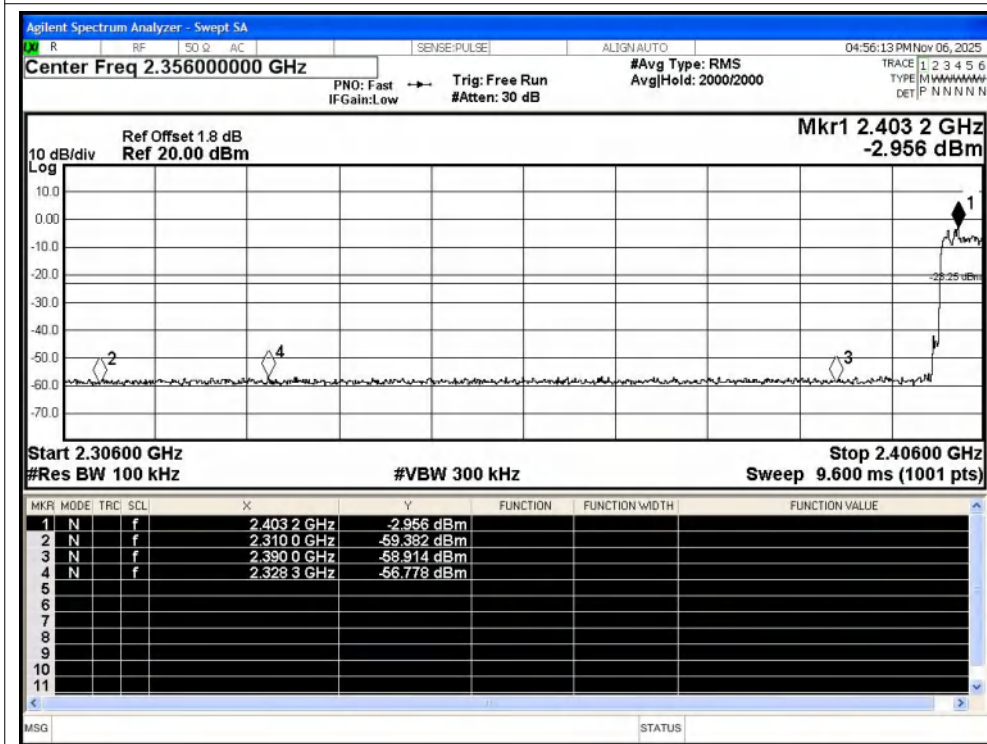
Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Emission



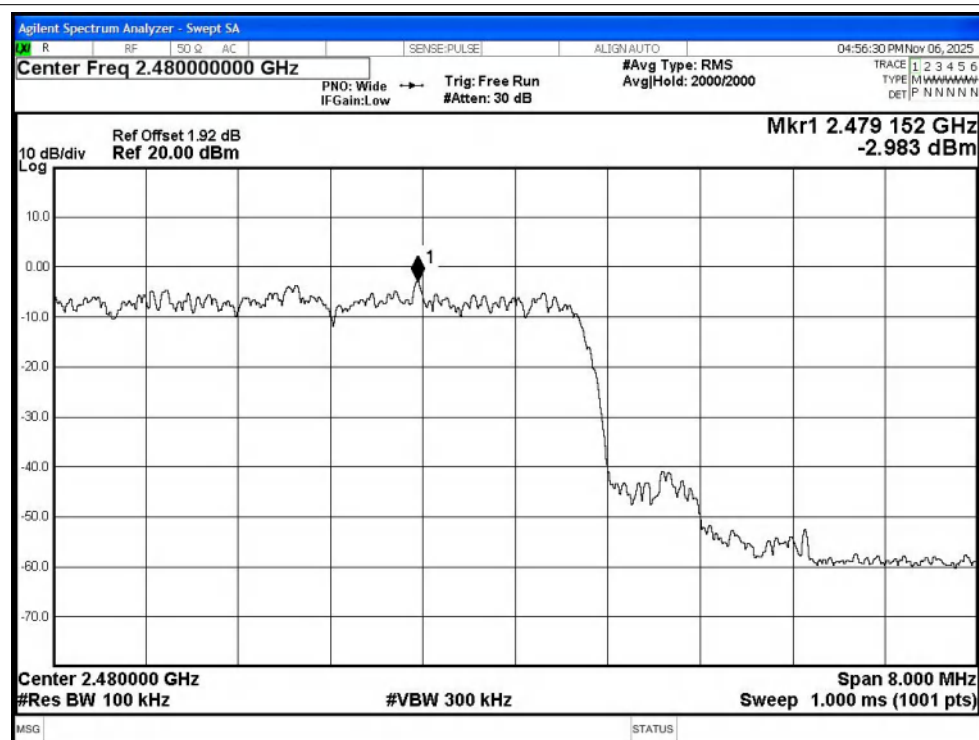
Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Ref



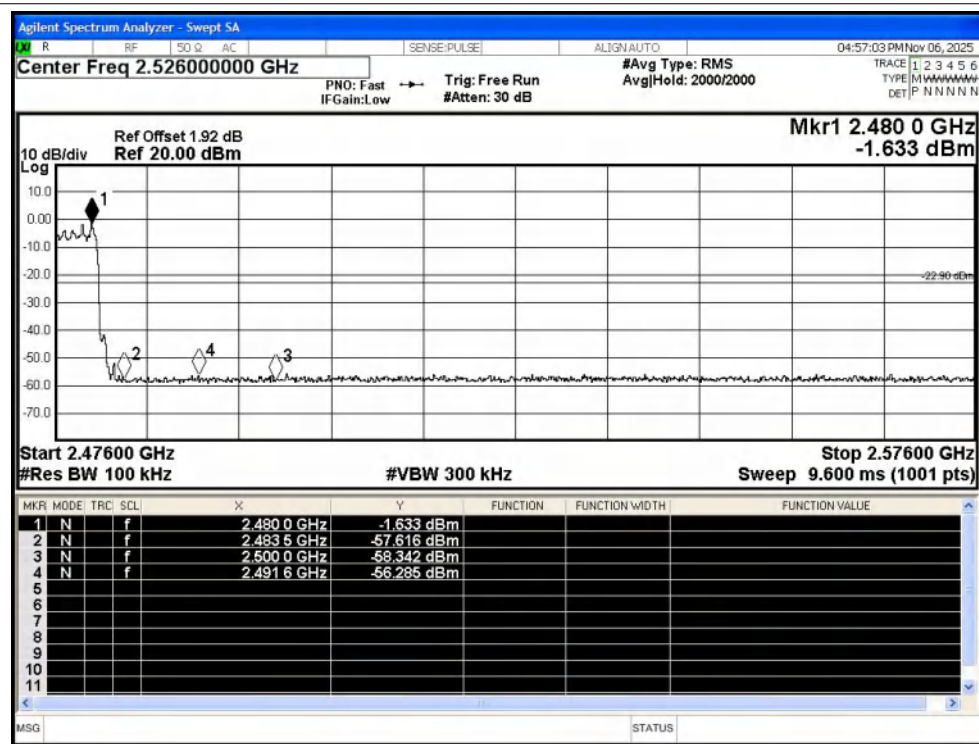
Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Emission



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



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

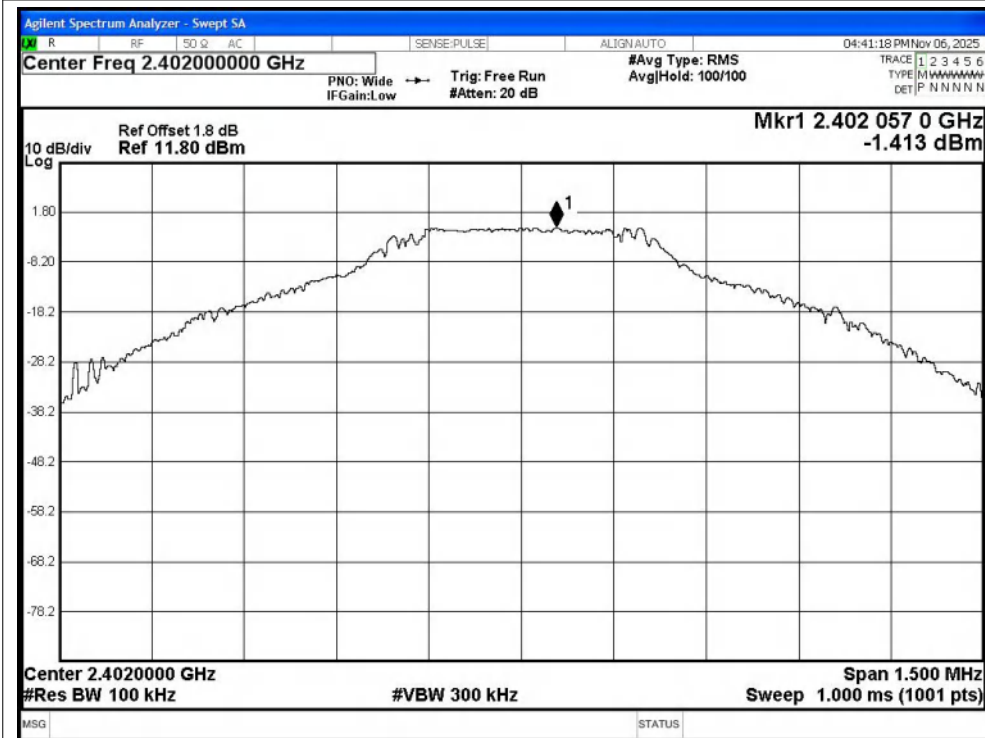


A.7 Conducted RF Spurious Emission

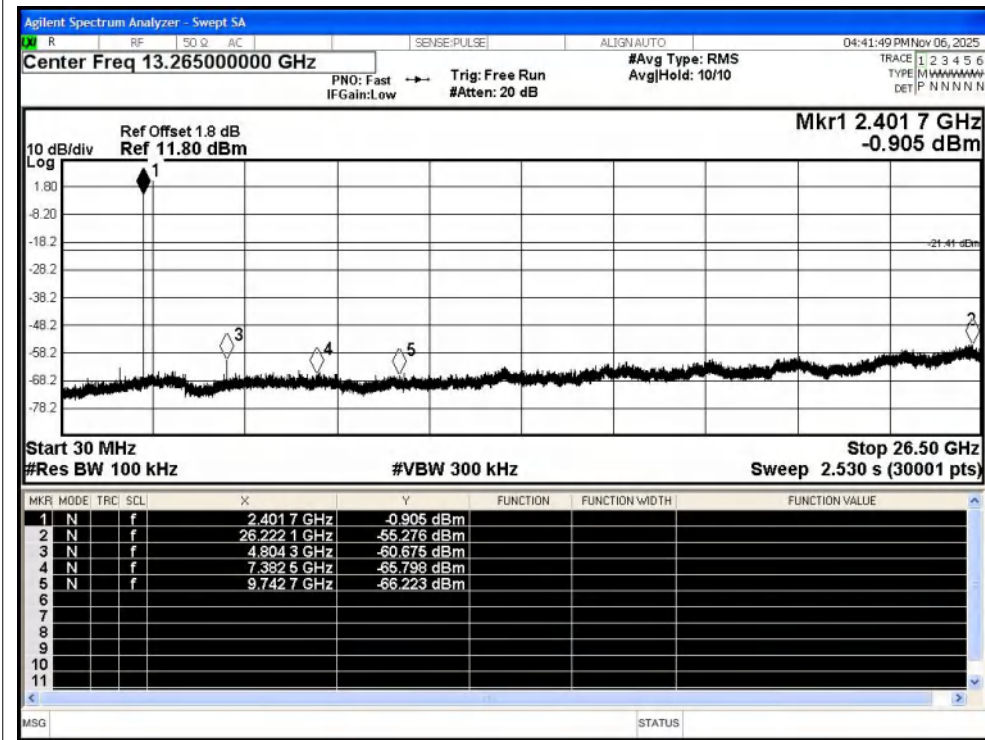
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	-53.86	-20	Pass
NVNT	1-DH5	2441	Ant1	-54.48	-20	Pass
NVNT	1-DH5	2480	Ant1	-53.5	-20	Pass
NVNT	2-DH5	2402	Ant1	-54.46	-20	Pass
NVNT	2-DH5	2441	Ant1	-54.2	-20	Pass
NVNT	2-DH5	2480	Ant1	-52.95	-20	Pass

Test Graphs

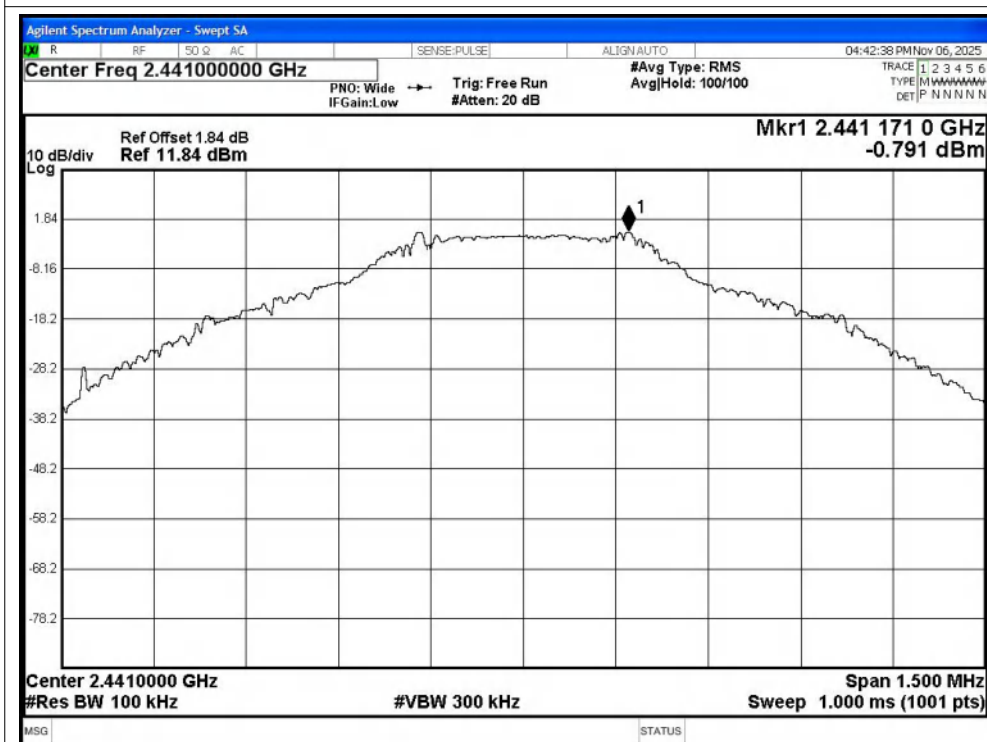
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref



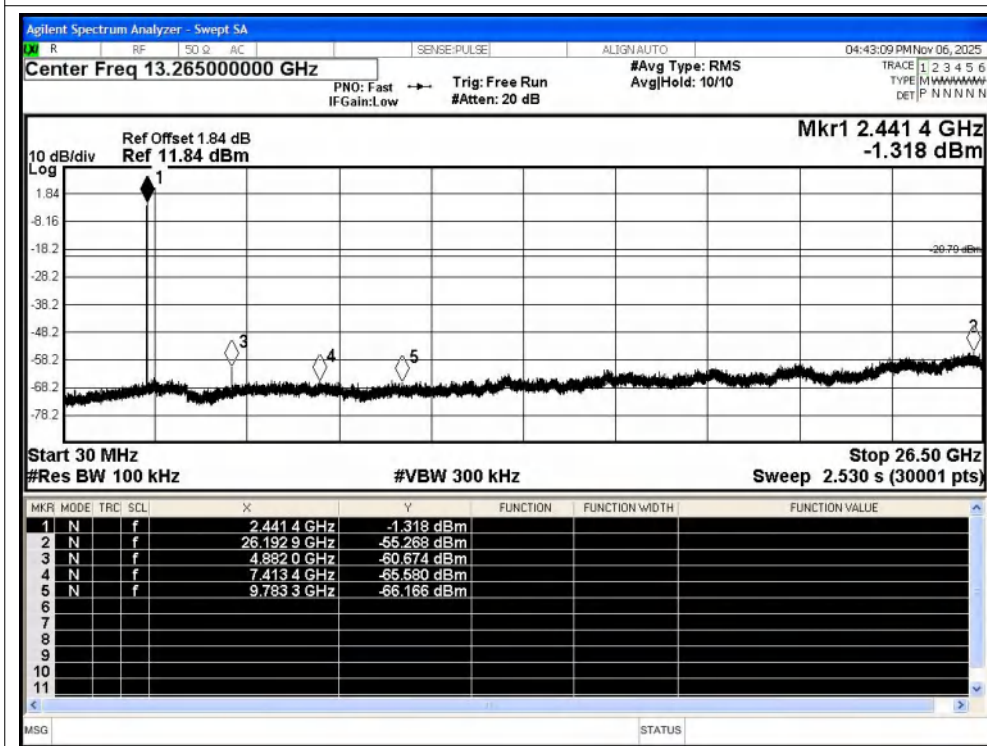
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission



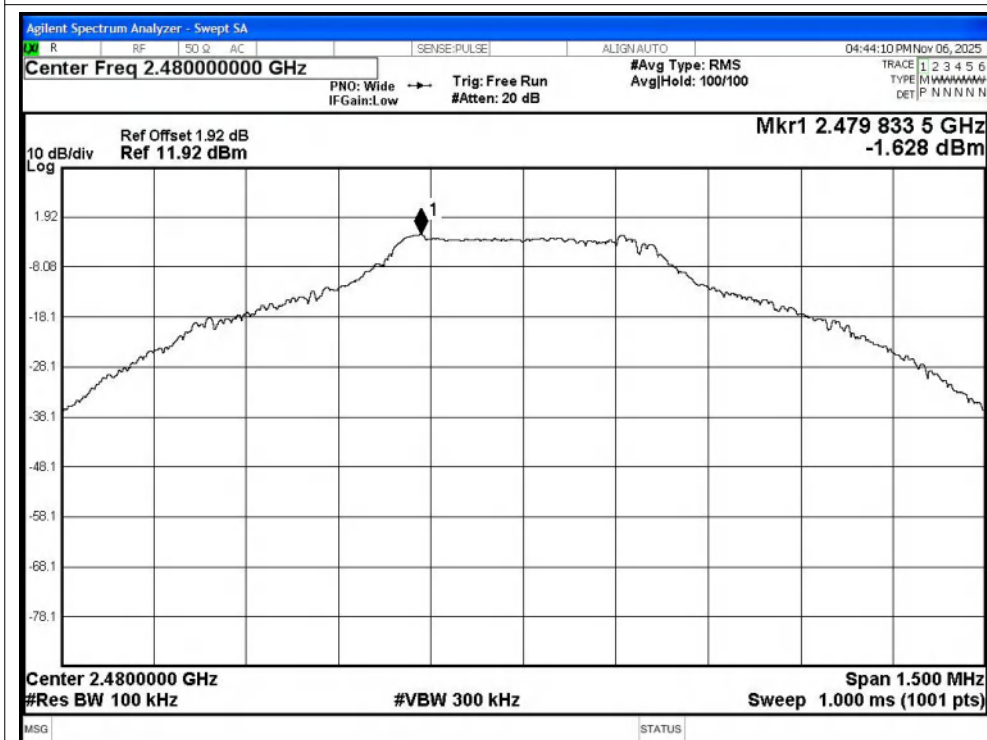
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref



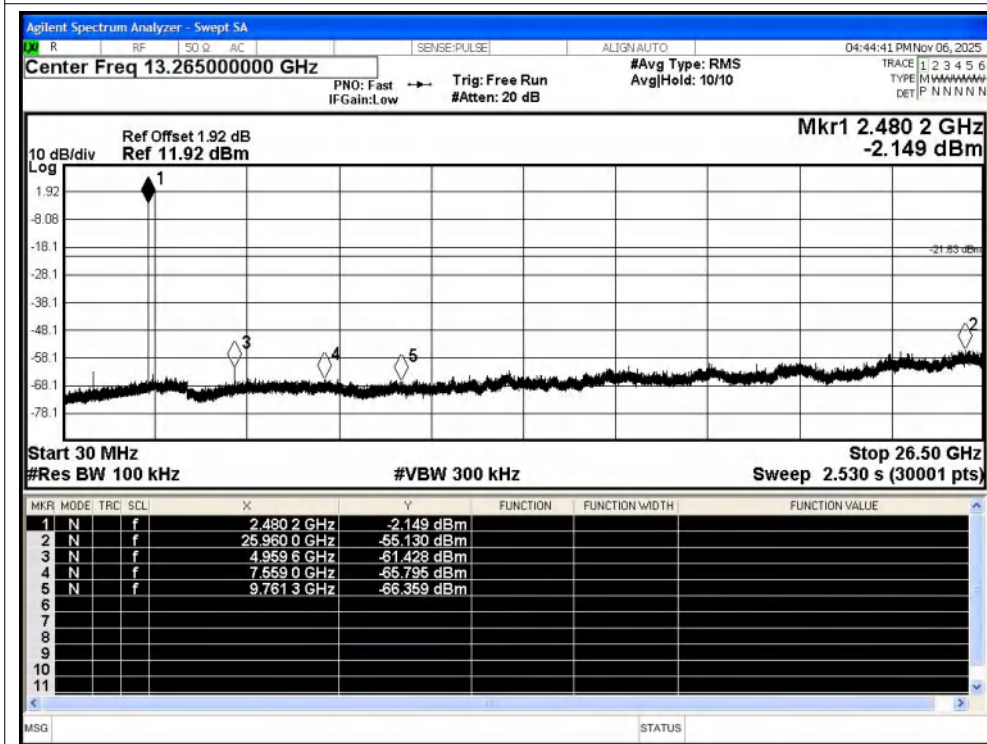
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission



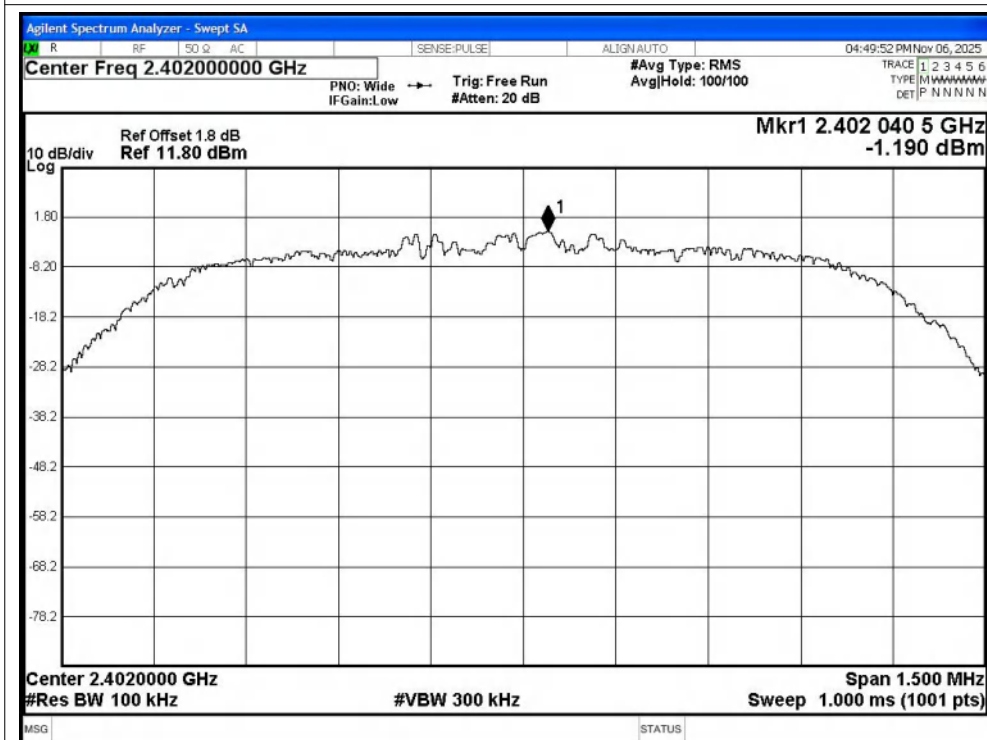
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref



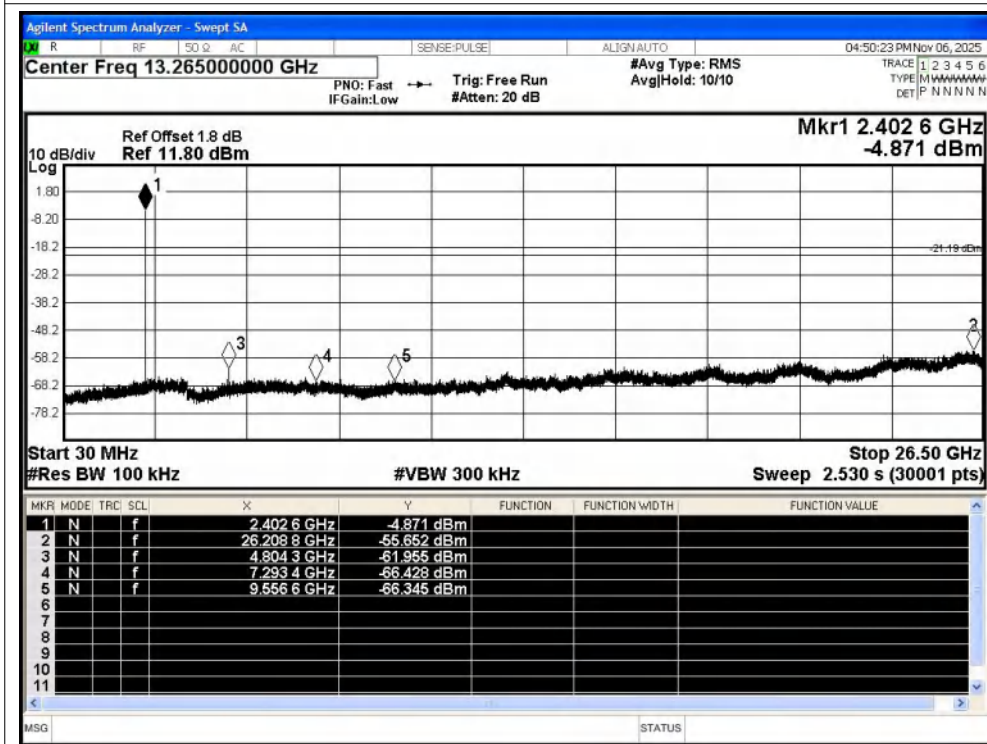
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Emission



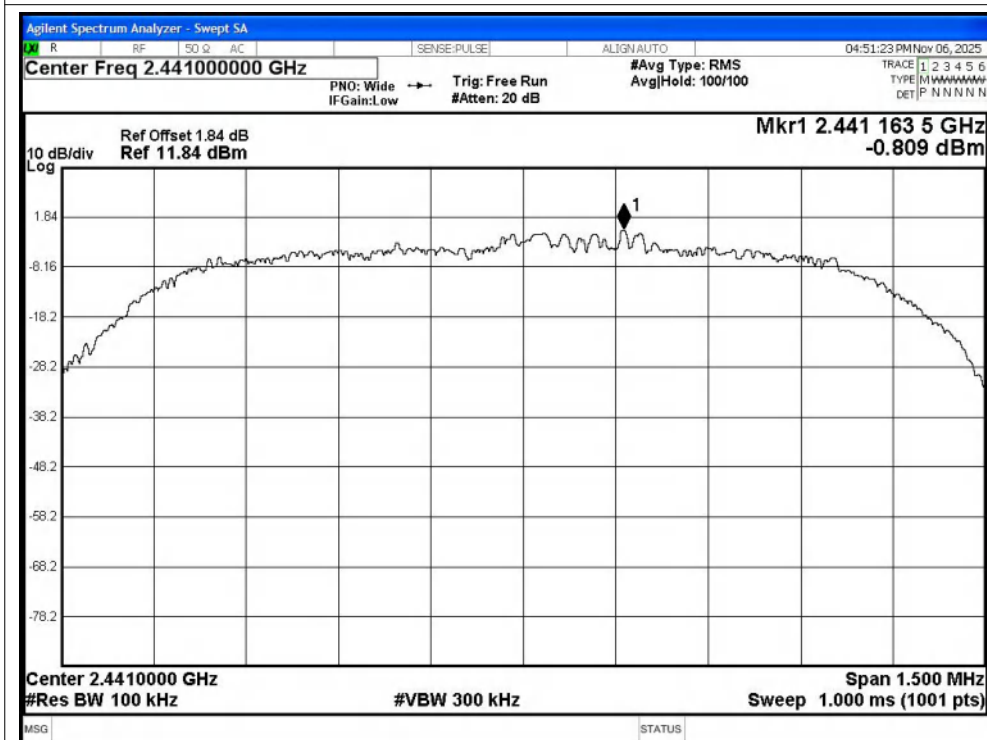
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Ref



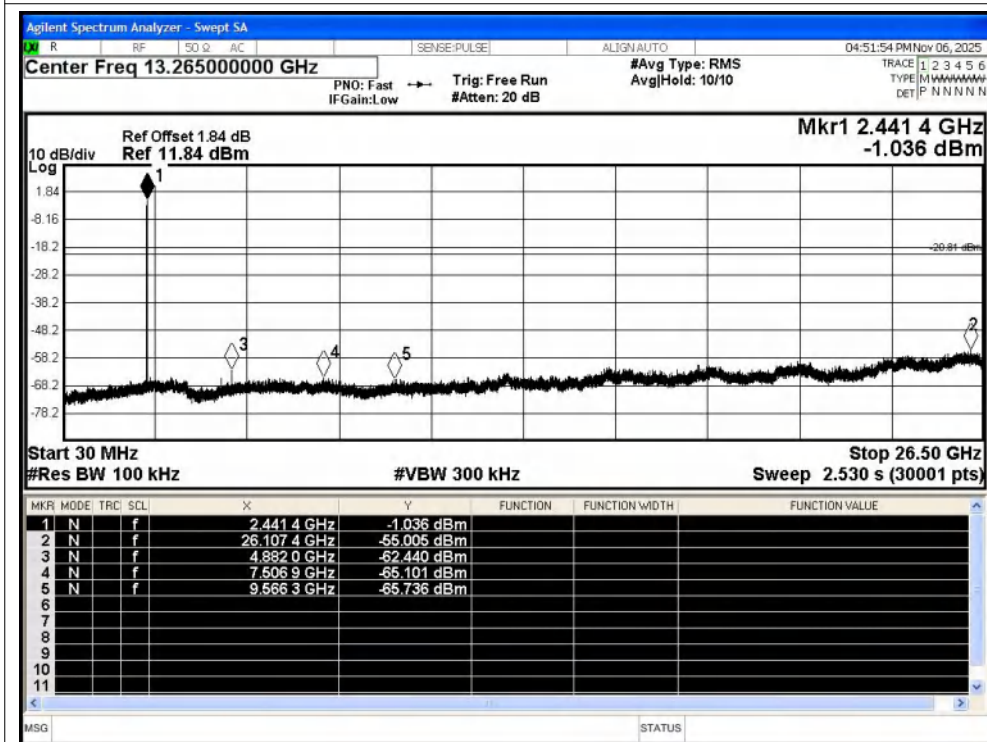
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Emission



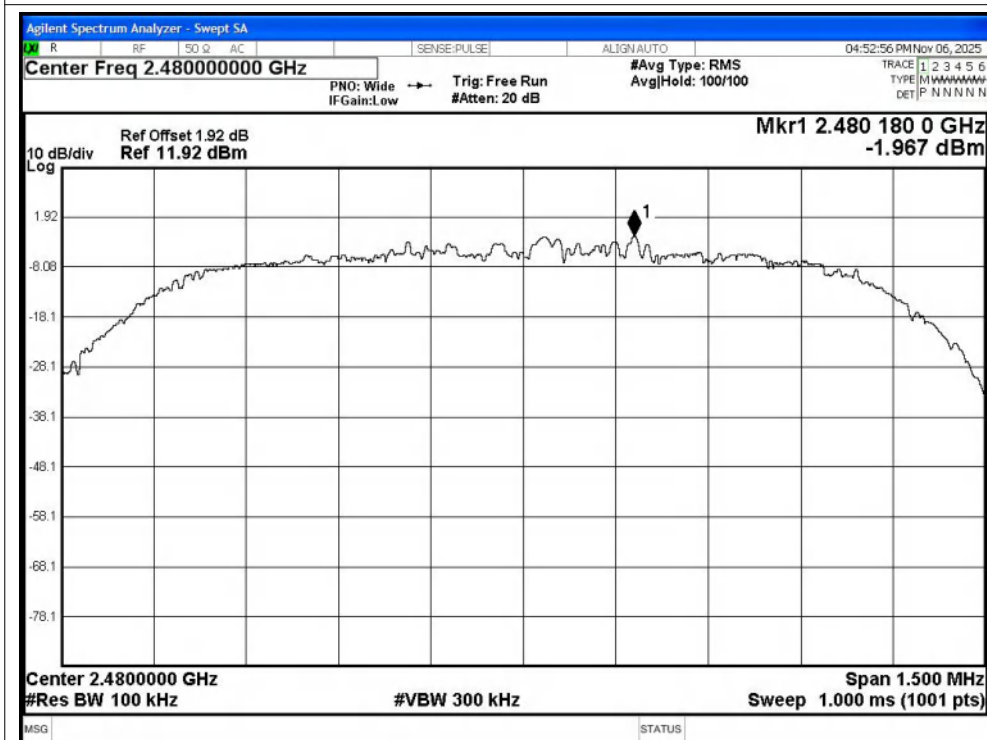
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Ref



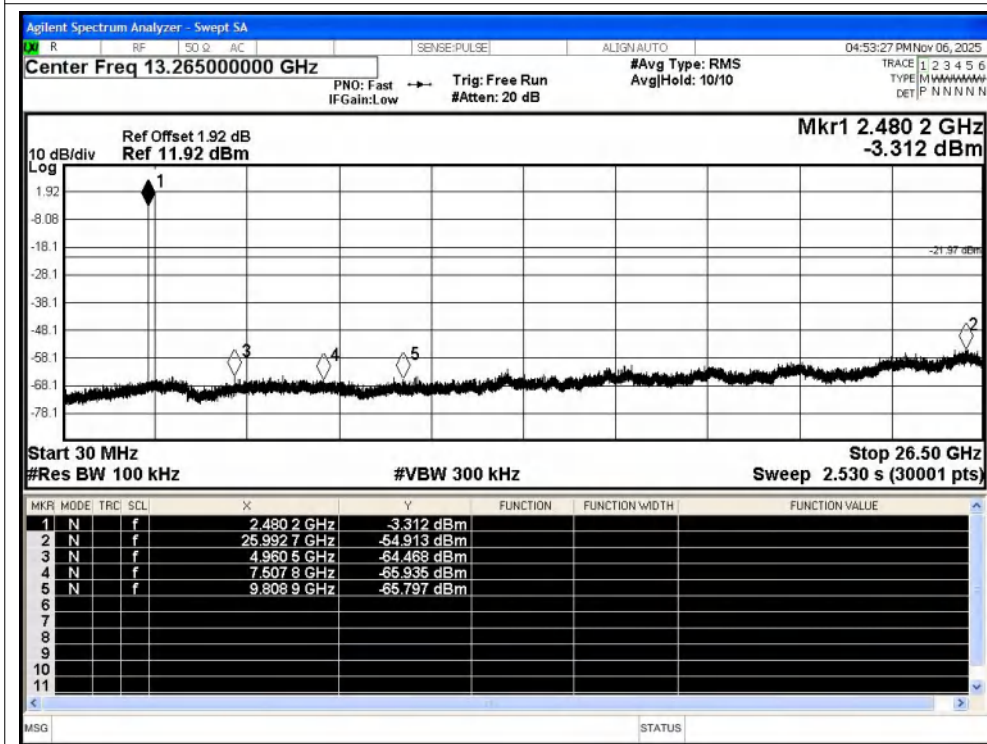
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Emission



Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Ref



Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Emission

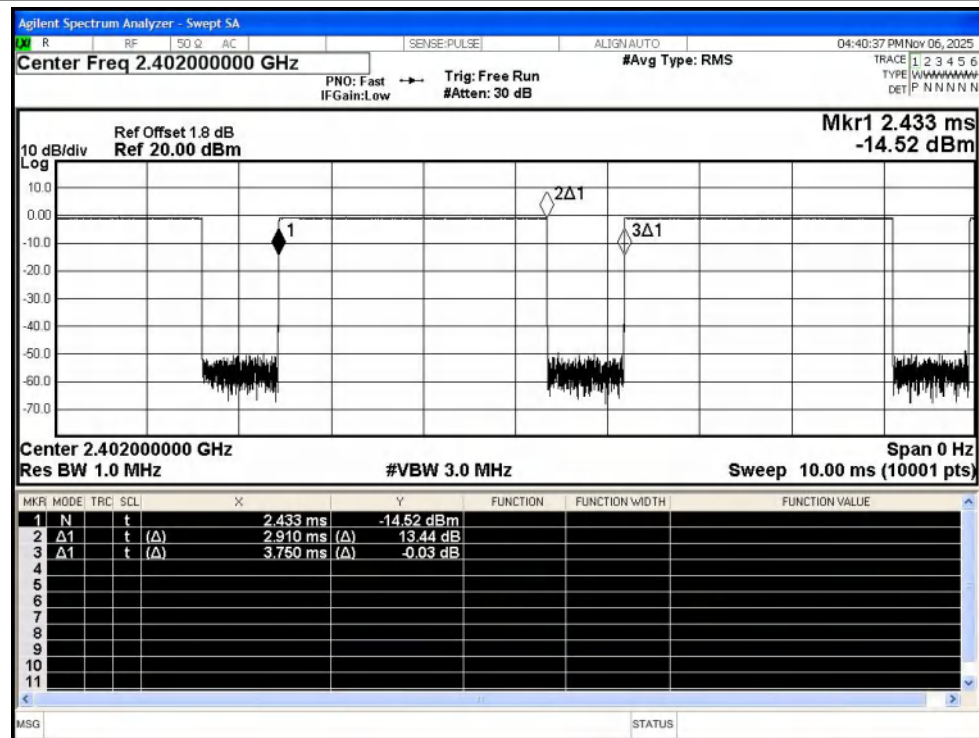


A.8 Duty Cycle

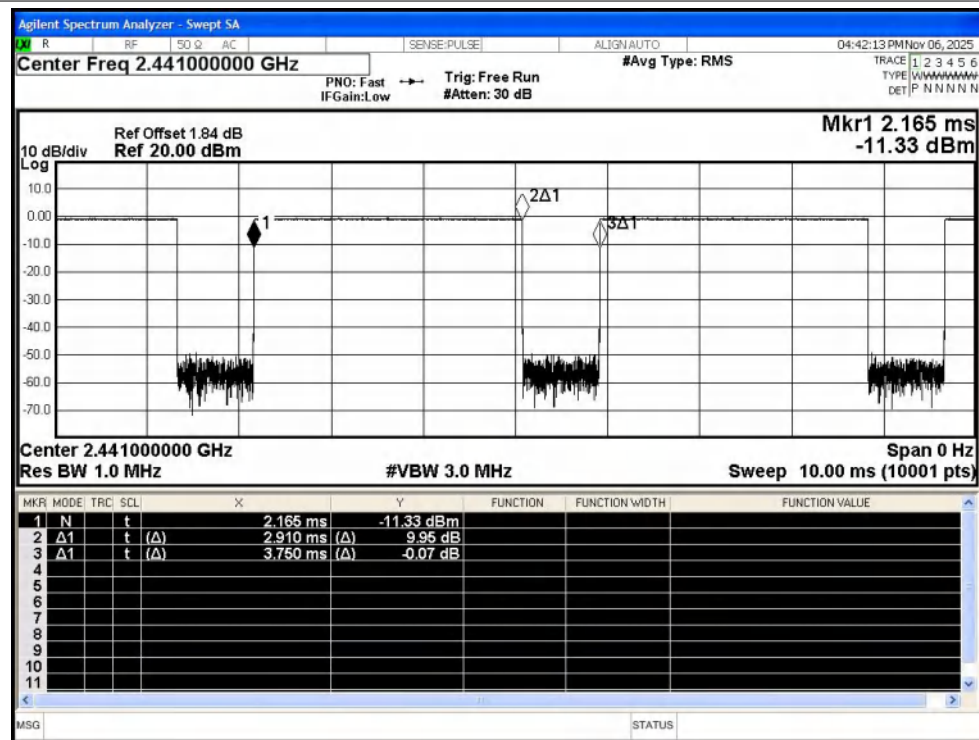
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH5	2402	Ant1	77.6	1.1	0.34
NVNT	1-DH5	2441	Ant1	77.6	1.1	0.34
NVNT	1-DH5	2480	Ant1	77.63	1.1	0.34
NVNT	2-DH5	2402	Ant1	77.33	1.12	0.34
NVNT	2-DH5	2441	Ant1	77.28	1.12	0.35
NVNT	2-DH5	2480	Ant1	77.28	1.12	0.35

Test Graphs

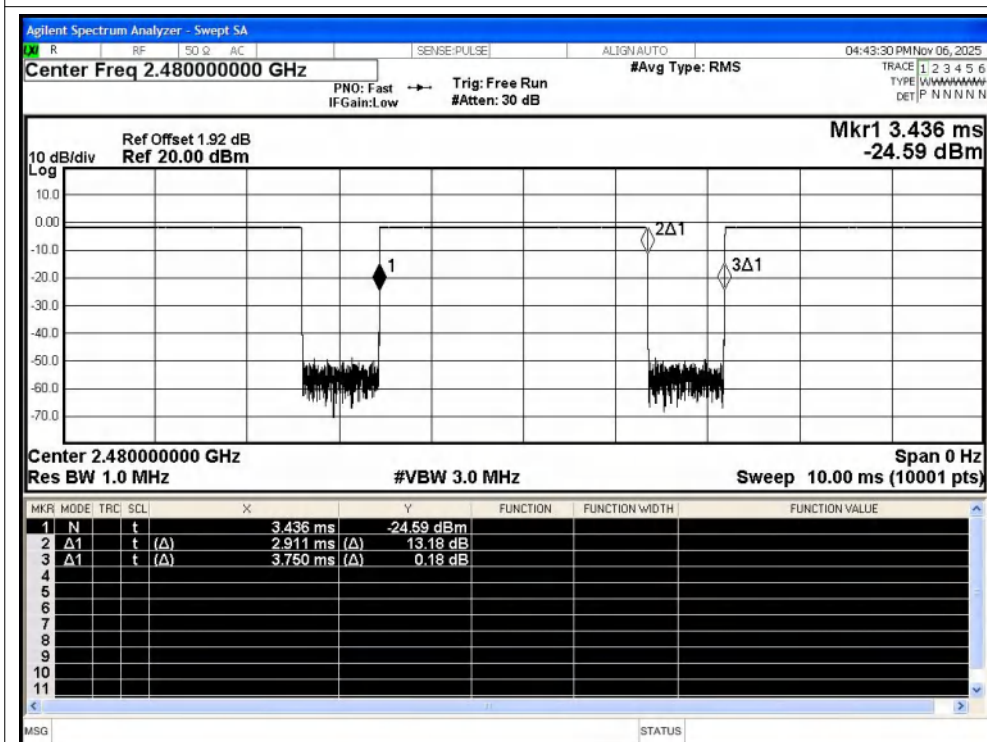
Duty Cycle NVNT 1-DH5 2402MHz Ant1



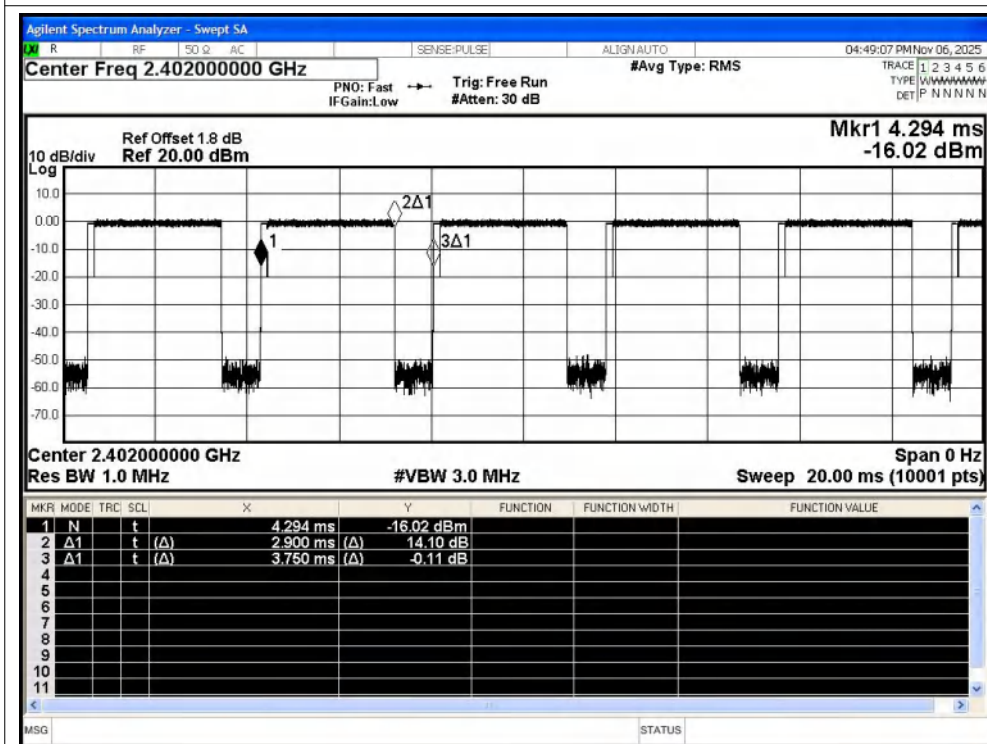
Duty Cycle NVNT 1-DH5 2441MHz Ant1



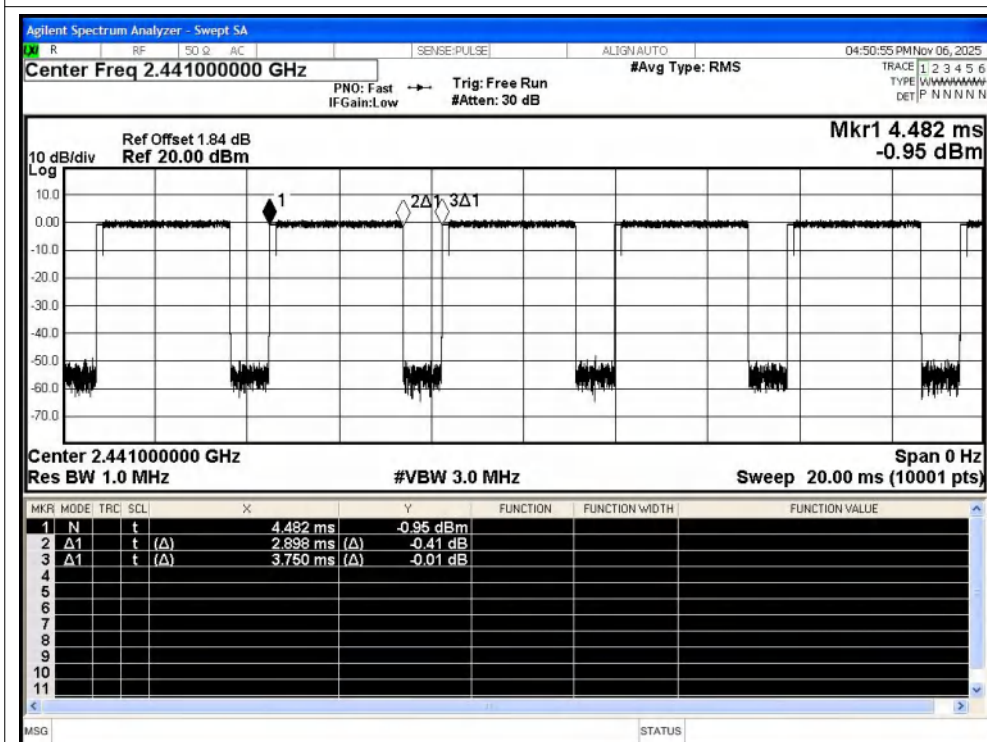
Duty Cycle NVNT 1-DH5 2480MHz Ant1



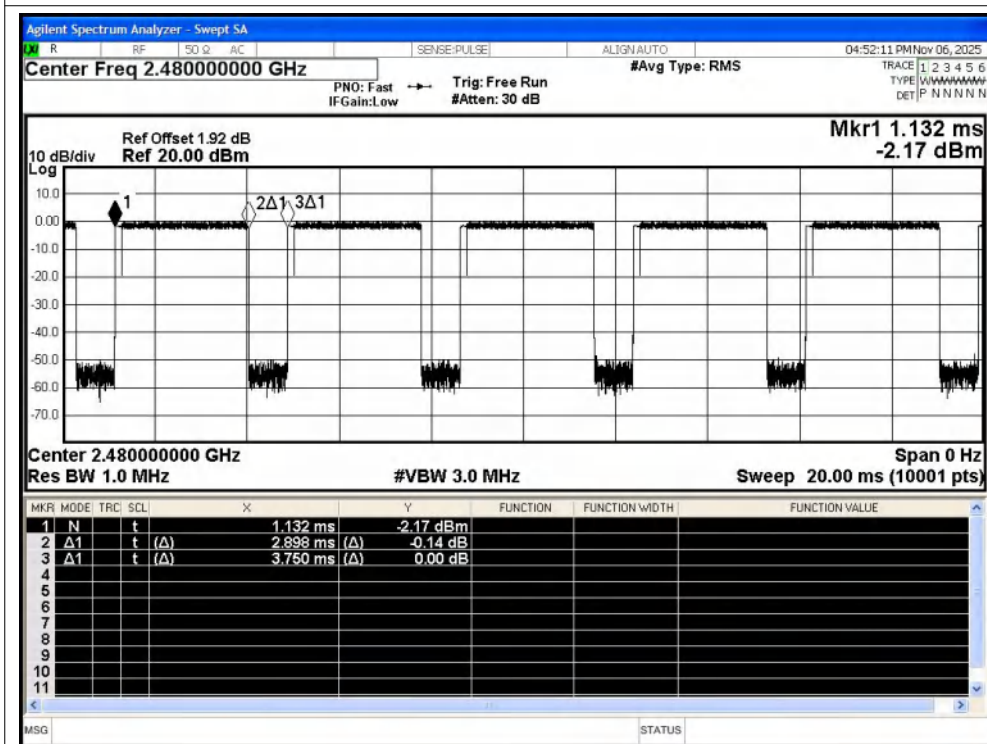
Duty Cycle NVNT 2-DH5 2402MHz Ant1



Duty Cycle NVNT 2-DH5 2441MHz Ant1



Duty Cycle NVNT 2-DH5 2480MHz Ant1

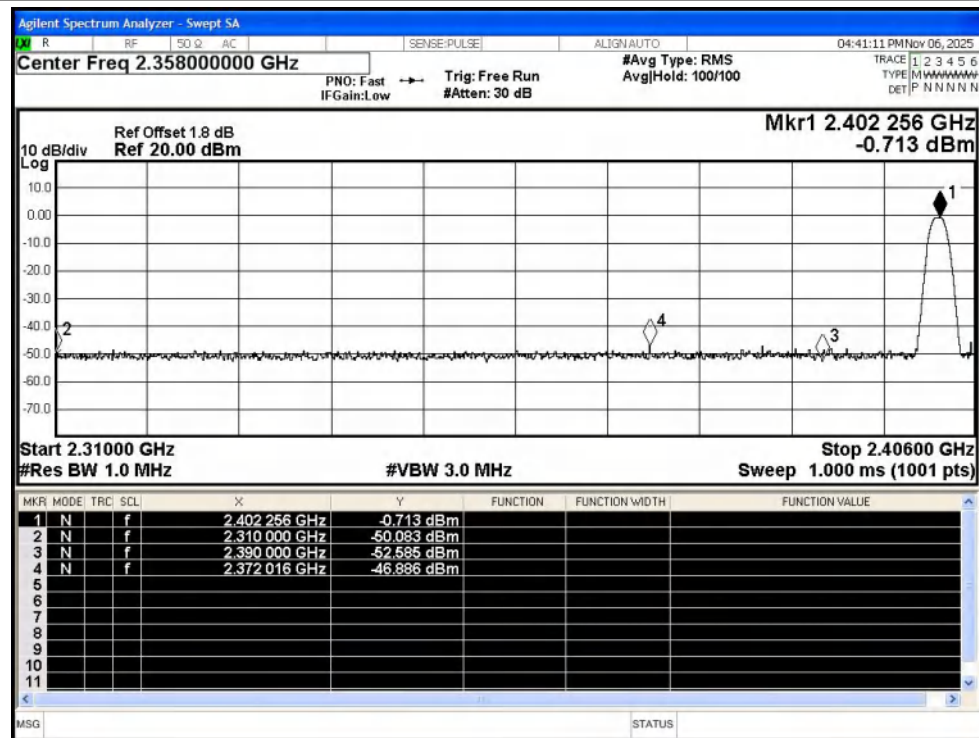


A.9 Restrict Band

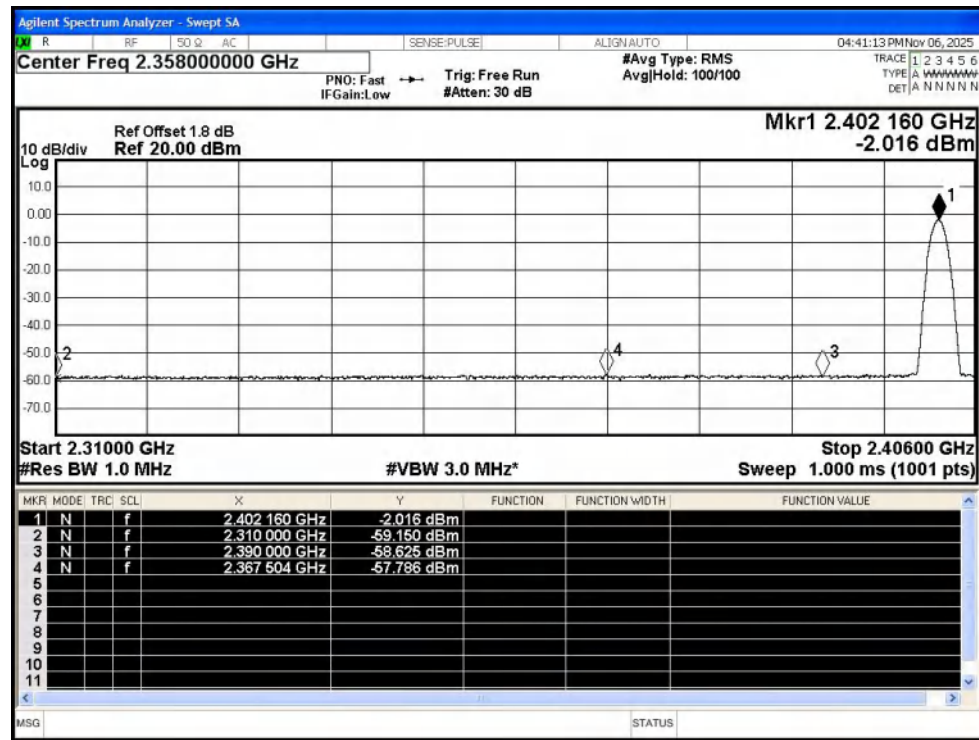
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-50.08	2	-	47.18	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-59.15	2	1.1	39.21	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2372.016	-46.89	2	-	50.37	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2367.504	-57.79	2	1.1	40.57	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-52.59	2	-	44.67	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-58.63	2	1.1	39.73	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-50.91	2	-	46.35	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-57.69	2	1.1	40.67	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2495.272	-46.56	2	-	50.7	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.8	-57.08	2	1.1	41.28	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-49.95	2	-	47.31	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-58.28	2	1.1	40.08	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-51.49	2	-	45.77	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-58.75	2	1.12	39.63	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2357.136	-47.9	2	-	49.36	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2384.592	-57.81	2	1.12	40.57	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-52.06	2	-	45.2	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-58.73	2	1.12	39.65	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-49.56	2	-	47.7	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-57.78	2	1.12	40.6	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2487.64	-47.09	2	-	50.17	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.872	-57.03	2	1.12	41.35	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-50.91	2	-	46.35	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-58.39	2	1.12	39.99	Average	54	Pass

Test Graphs

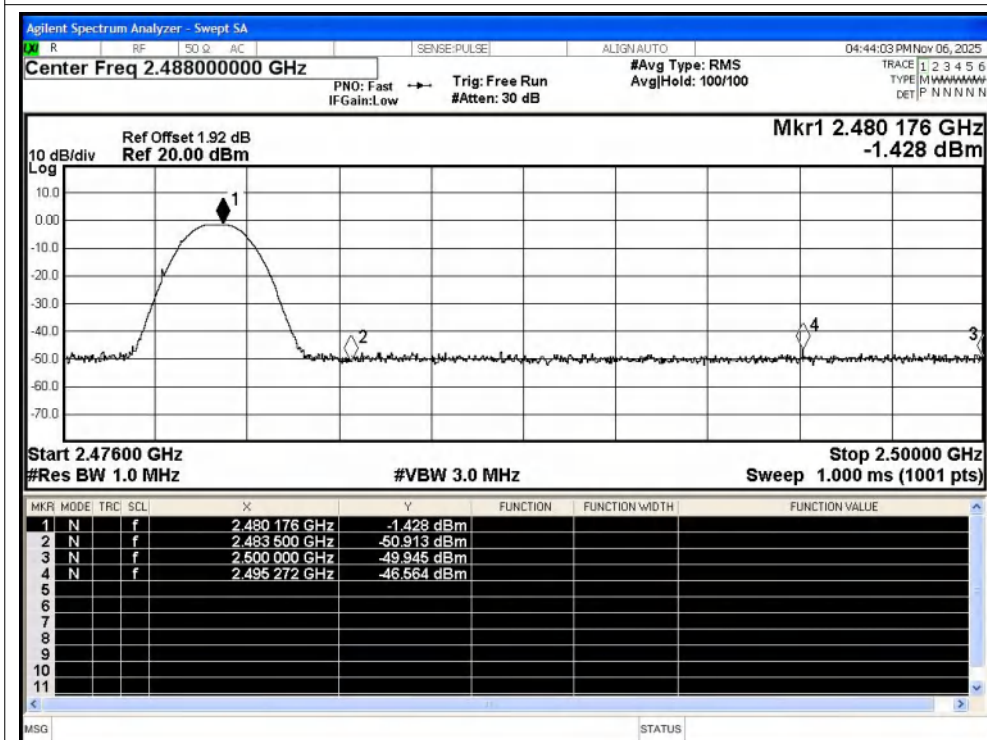
Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Peak



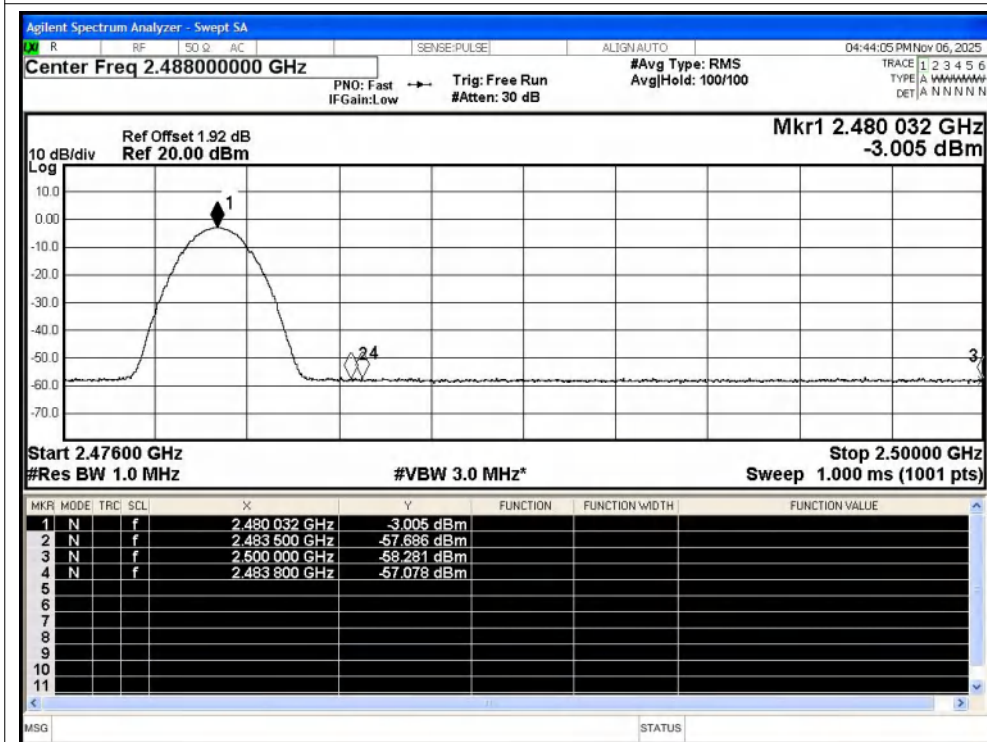
Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Average



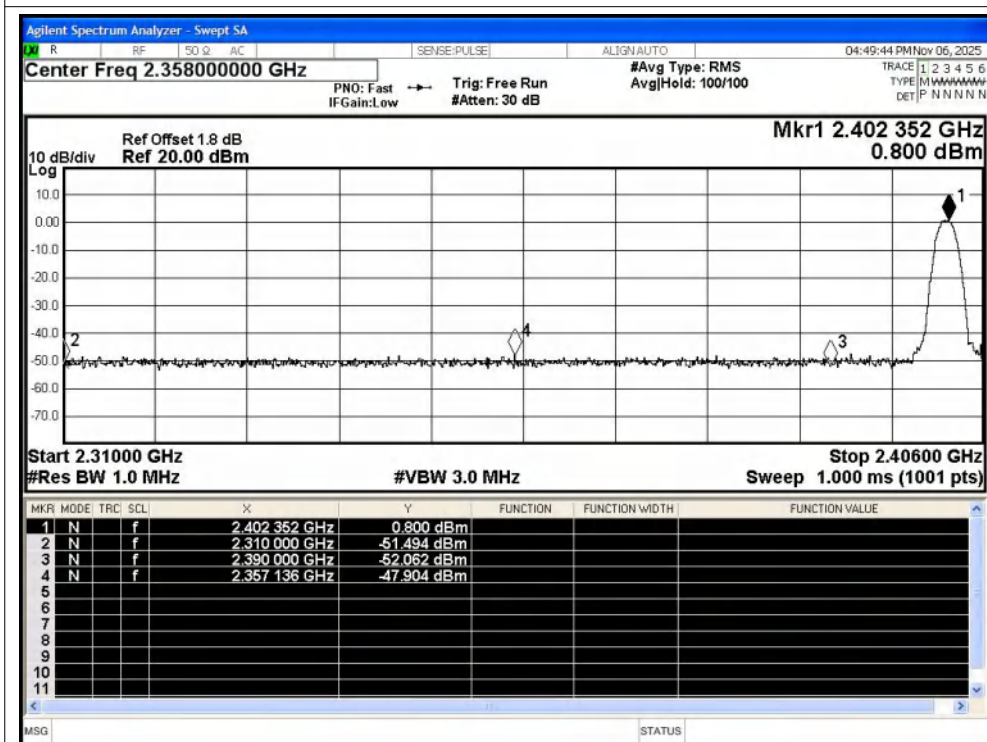
Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Peak



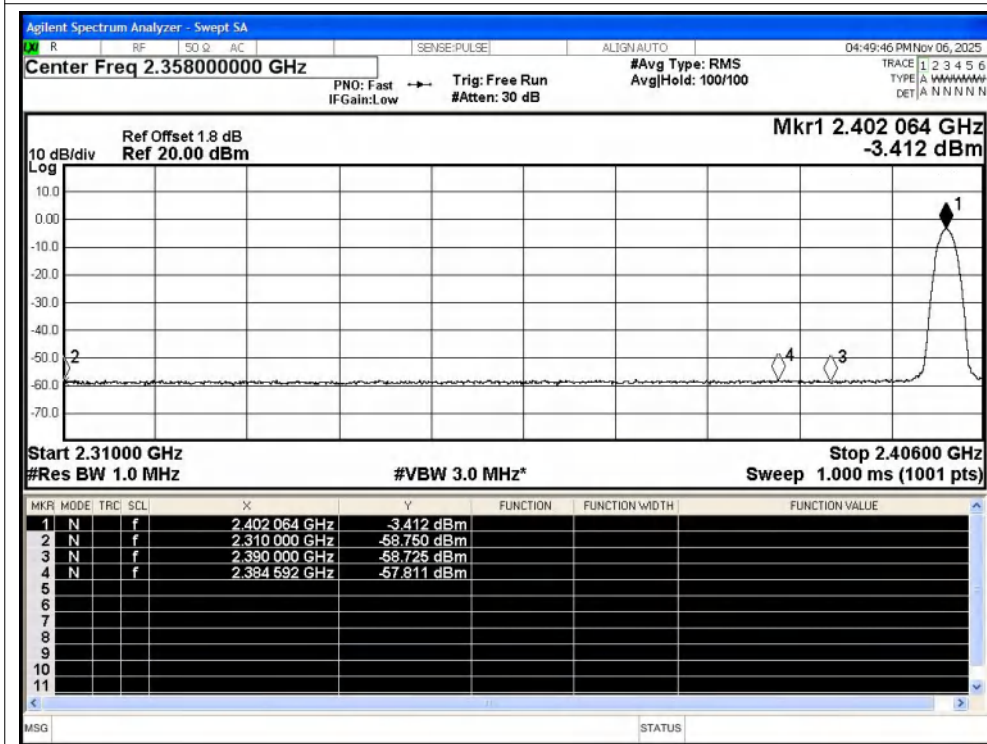
Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Average



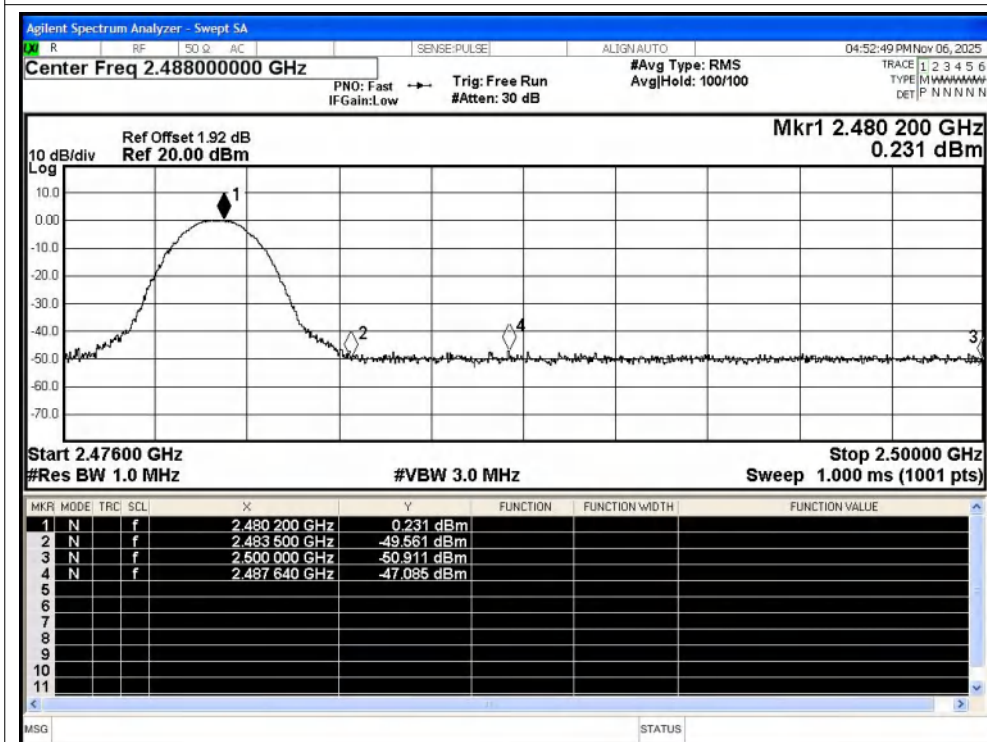
Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Peak



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

