Appendix A

RF Test Data for BT(Conducted Measurement)

Product Name: Wireless network card

Test Model: CF-723B V2

Environmental Conditions

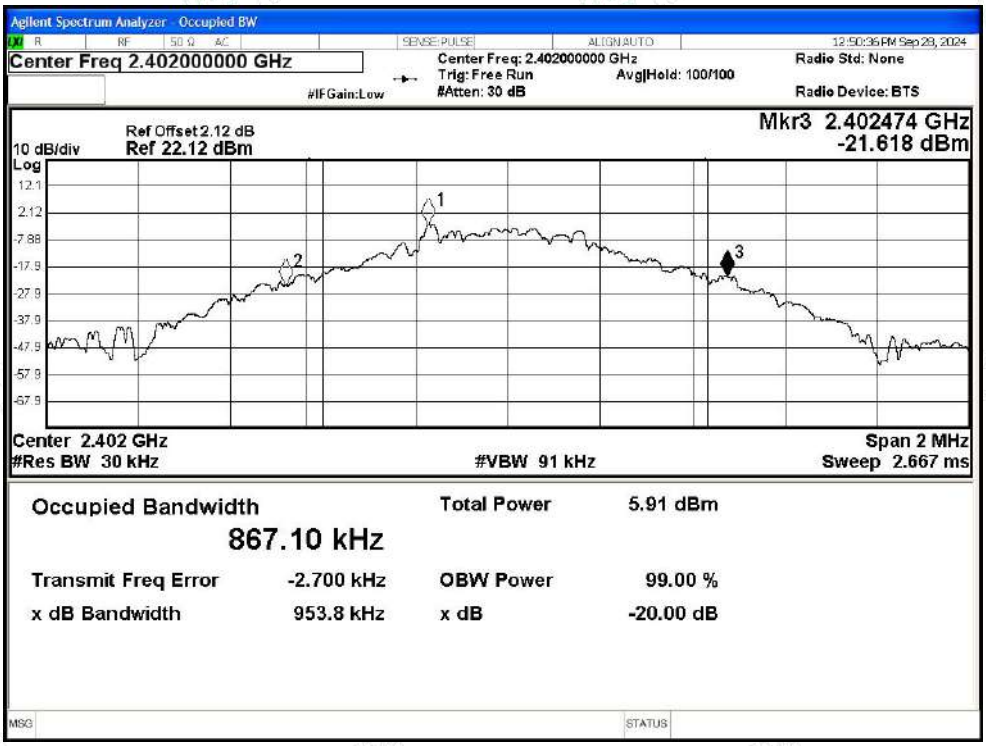
Temperature:	23.5° C
Relative Humidity:	53.6%
ATM Pressure:	100.0 kPa
Test Engineer:	Jay Luo
Supervised by:	Nick Peng

A.1 -20dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH5	2402	Ant1	0.954	N/A	Pass
NVNT	1-DH5	2441	Ant1	1.025	N/A	Pass
NVNT	1-DH5	2480	Ant1	0.993	N/A	Pass
NVNT	2-DH5	2402	Ant1	1.282	N/A	Pass
NVNT	2-DH5	2441	Ant1	1.289	N/A	Pass
NVNT	2-DH5	2480	Ant1	1.328	N/A	Pass
NVNT	3-DH5	2402	Ant1	1.298	N/A	Pass
NVNT	3-DH5	2441	Ant1	1.293	N/A	Pass
NVNT	3-DH5	2480	Ant1	1.299	N/A	Pass

Test Graphs

-20dB Bandwidth NVNT 1-DH5 2402MHz Ant1

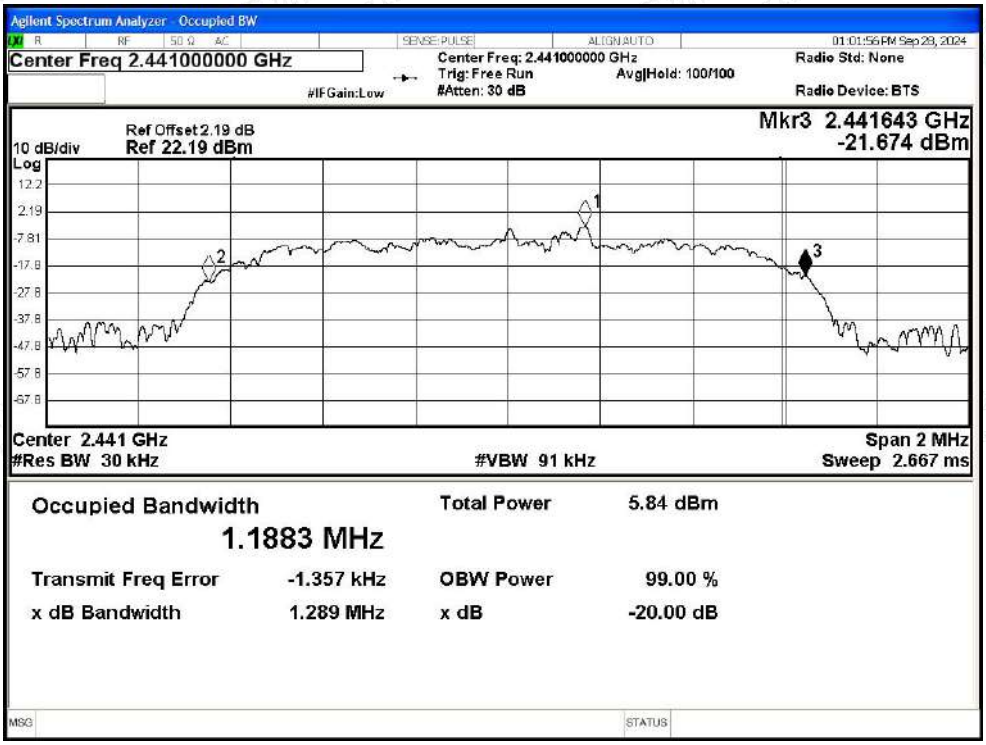


-20dB Bandwidth NVNT 1-DH5 2441MHz Ant1

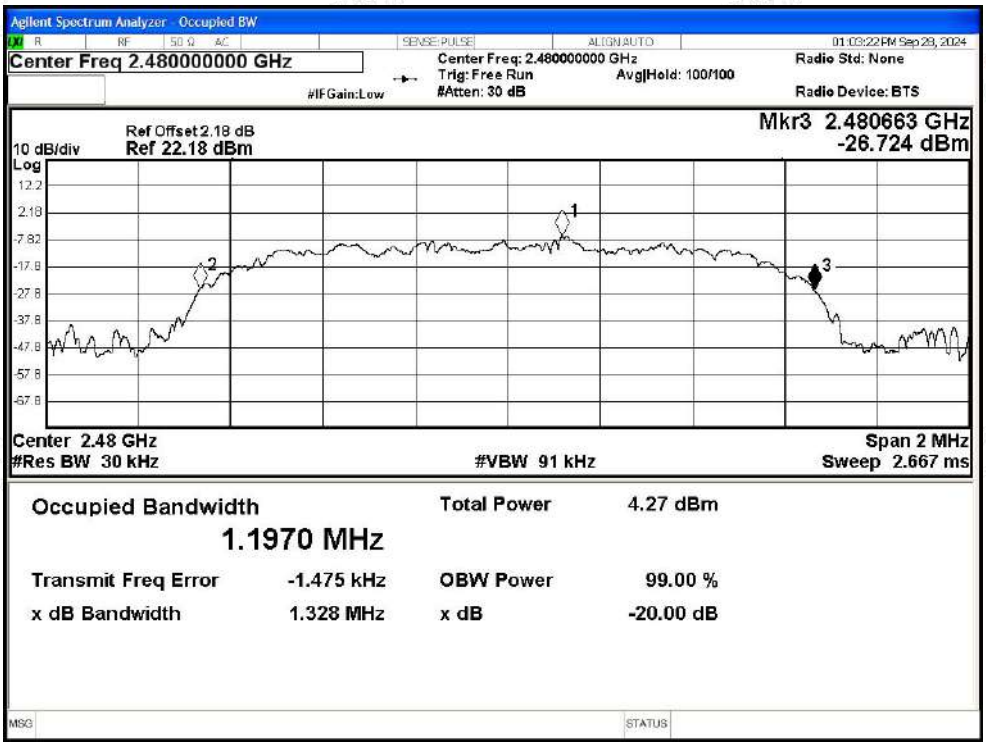
-20dB Bandwidth NVNT 1-DH5 2480MHz Ant1

-20dB Bandwidth NVNT 2-DH5 2402MHz Ant1

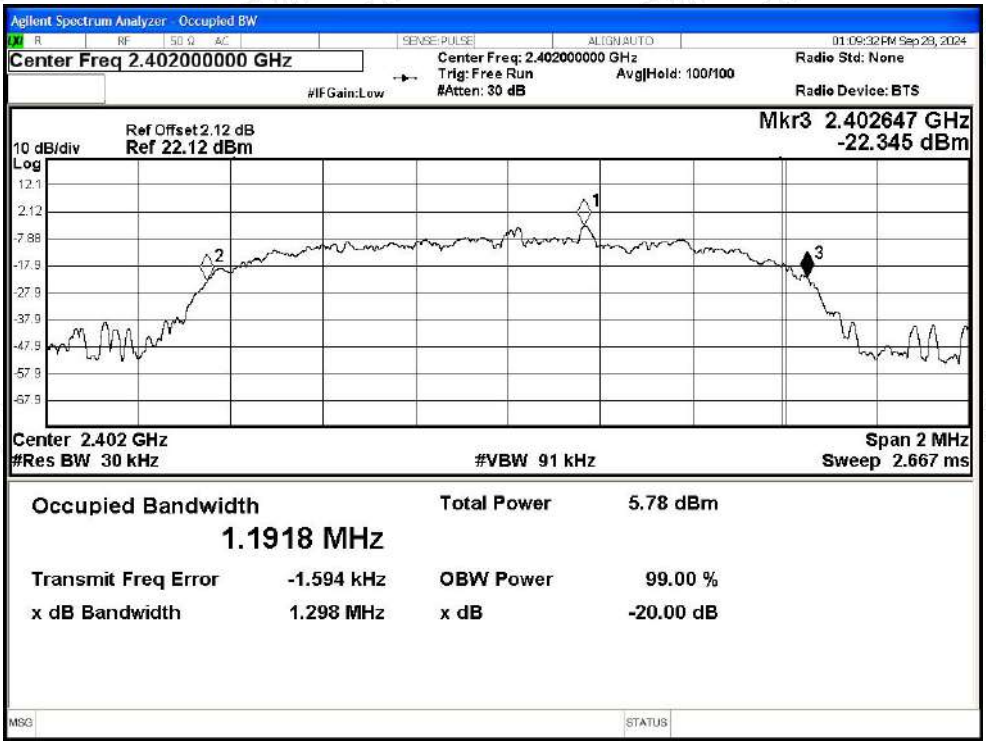
-20dB Bandwidth NVNT 2-DH5 2441MHz Ant1



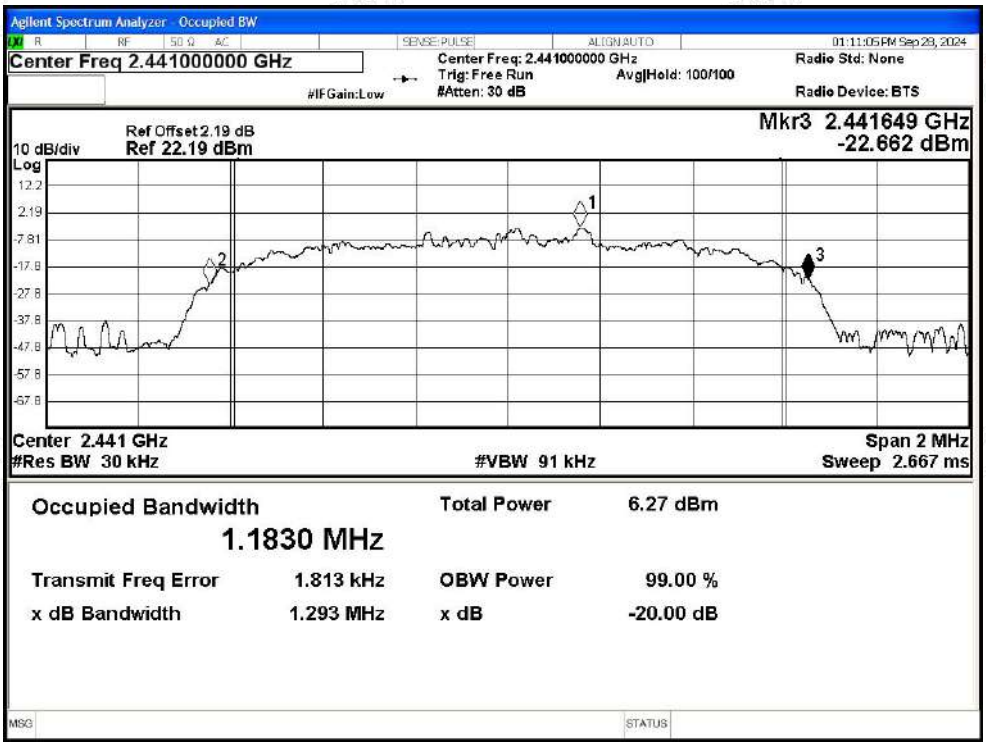
-20dB Bandwidth NVNT 2-DH5 2480MHz Ant1



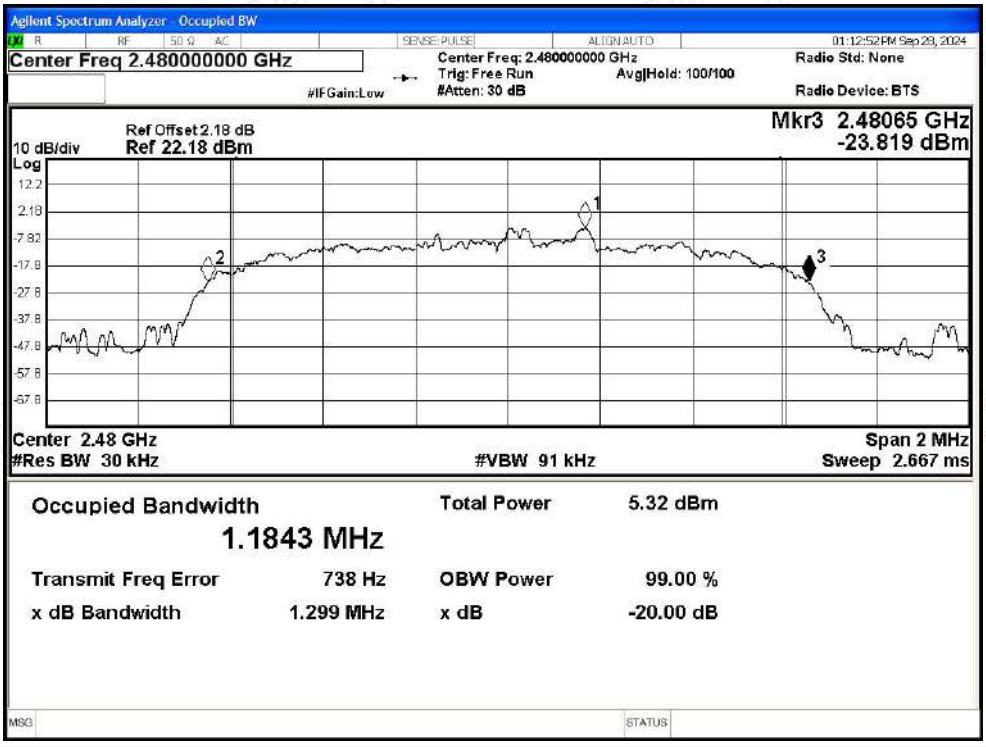
-20dB Bandwidth NVNT 3-DH5 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH5 2441MHz Ant1



-20dB Bandwidth NVNT 3-DH5 2480MHz Ant1

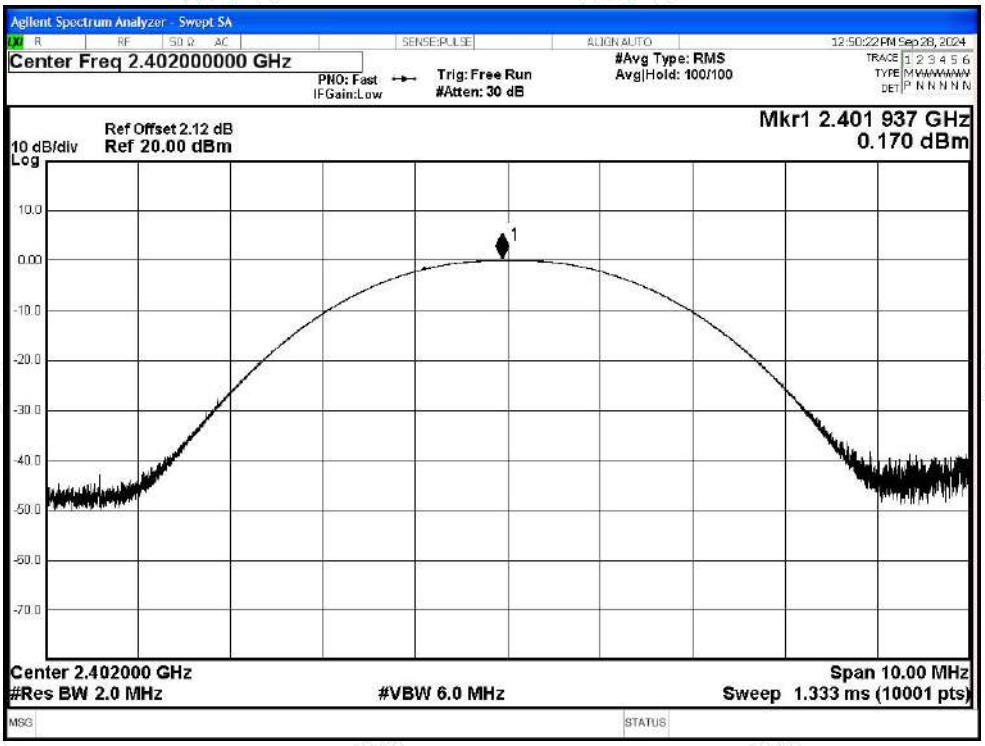


A.2 Maximum Peak Conducted Output Power

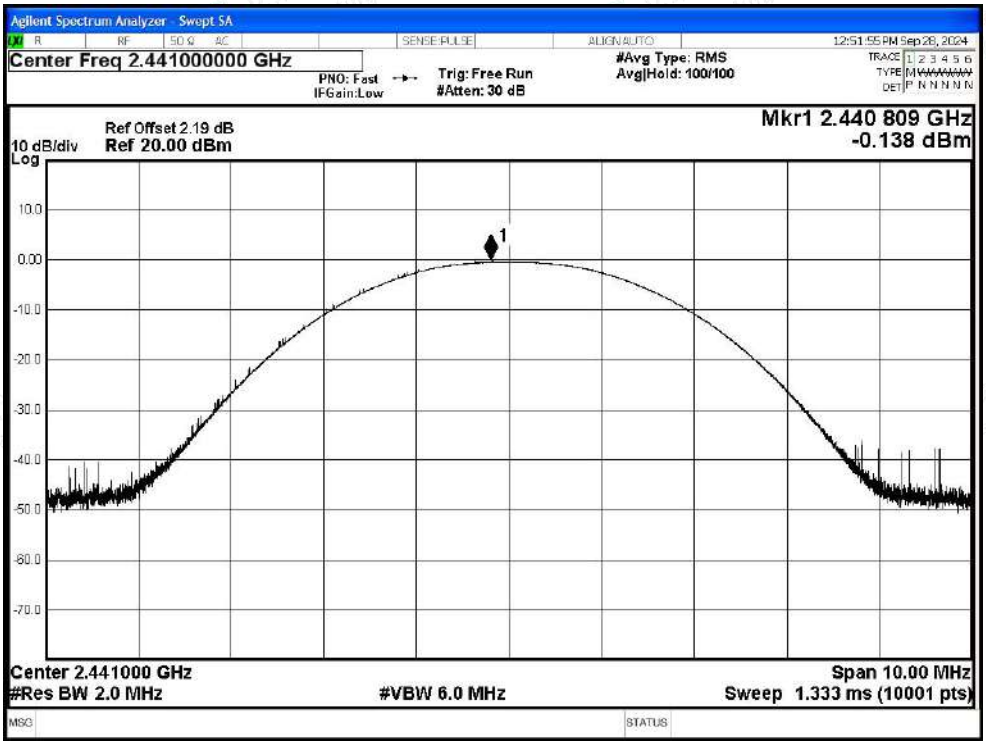
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH5	2402	Ant1	0.17	21	Pass
NVNT	1-DH5	2441	Ant1	-0.14	21	Pass
NVNT	1-DH5	2480	Ant1	1.19	21	Pass
NVNT	2-DH5	2402	Ant1	-0.08	21	Pass
NVNT	2-DH5	2441	Ant1	1.22	21	Pass
NVNT	2-DH5	2480	Ant1	0.49	21	Pass
NVNT	3-DH5	2402	Ant1	0.11	21	Pass
NVNT	3-DH5	2441	Ant1	0.35	21	Pass
NVNT	3-DH5	2480	Ant1	0.18	21	Pass

Test Graphs

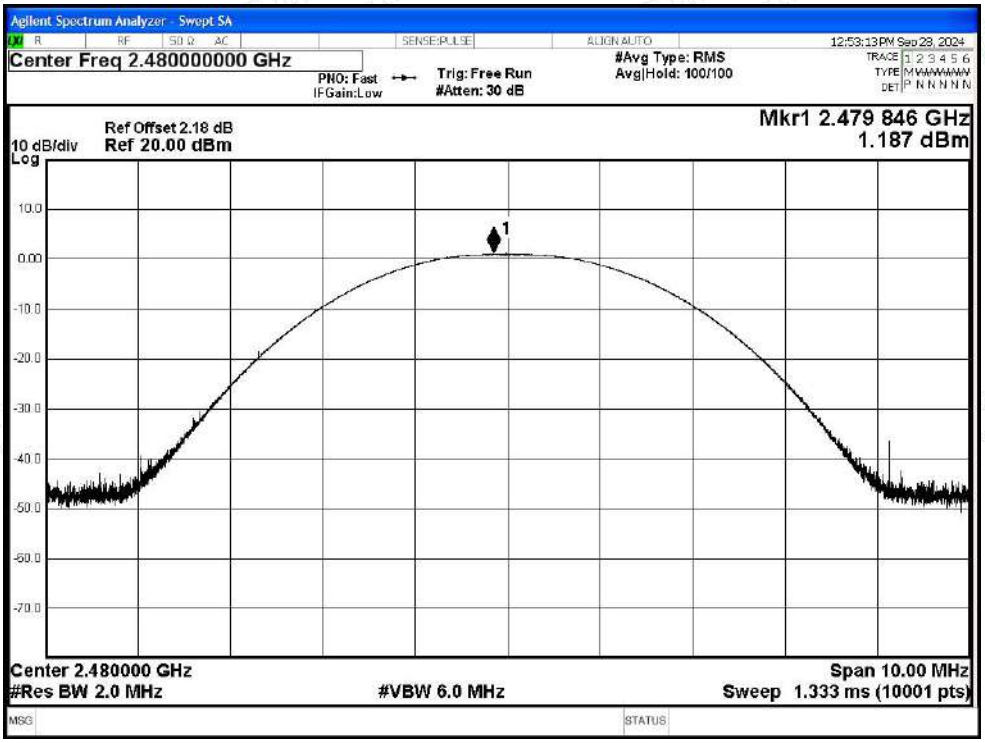
Power NVNT 1-DH5 2402MHz Ant1



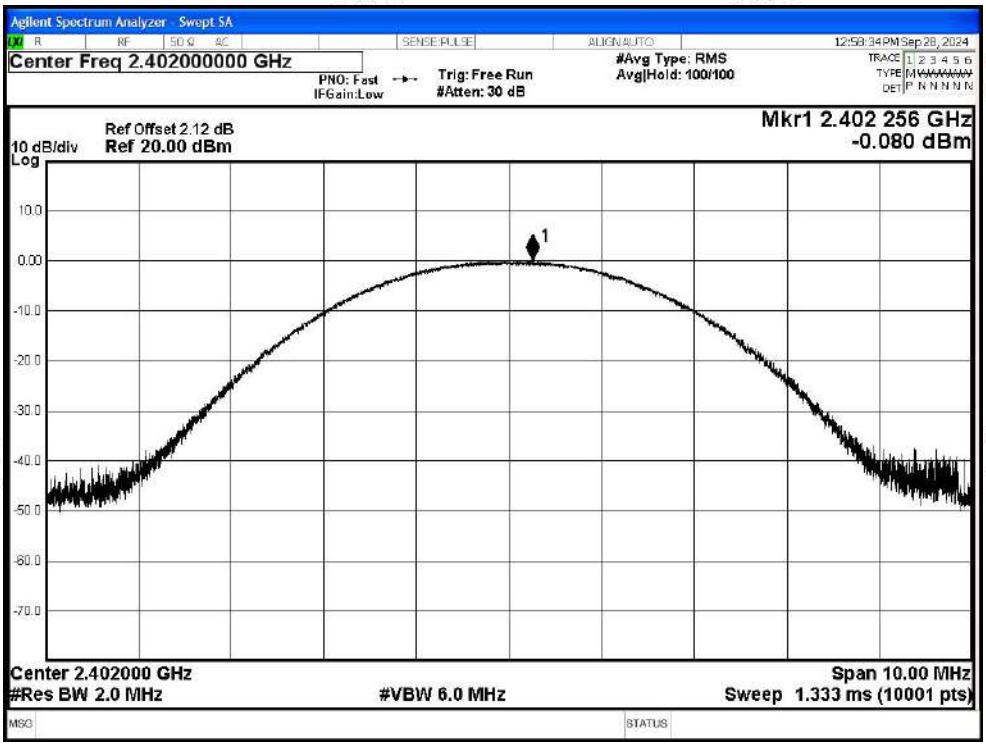
Power NVNT 1-DH5 2441MHz Ant1



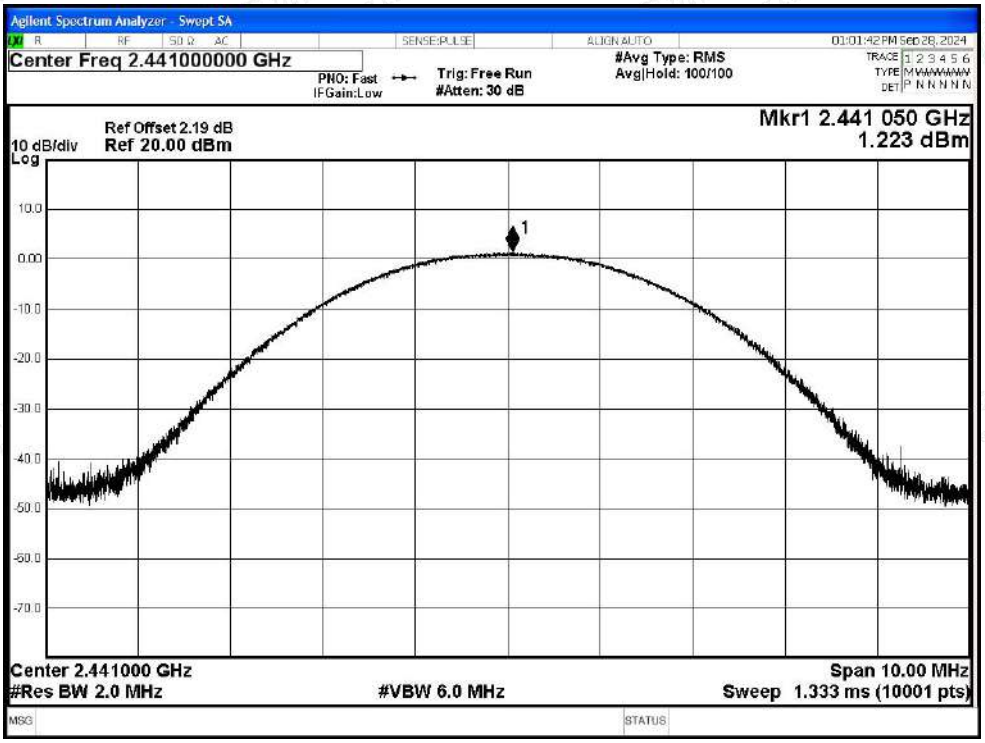
Power NVNT 1-DH5 2480MHz Ant1



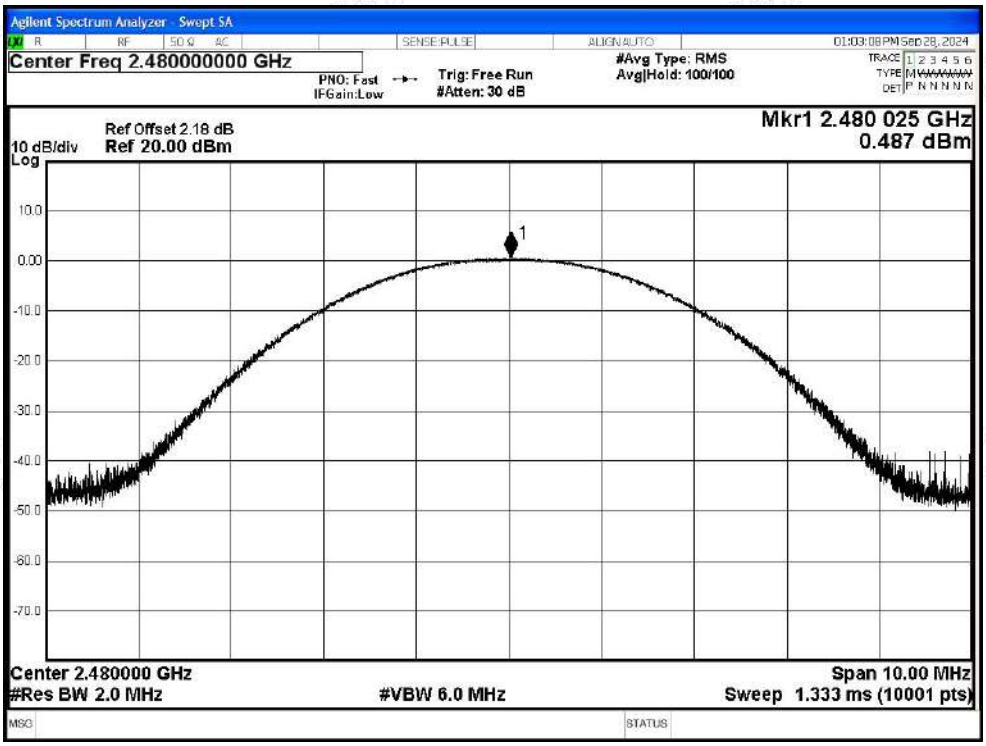
Power NVNT 2-DH5 2402MHz Ant1



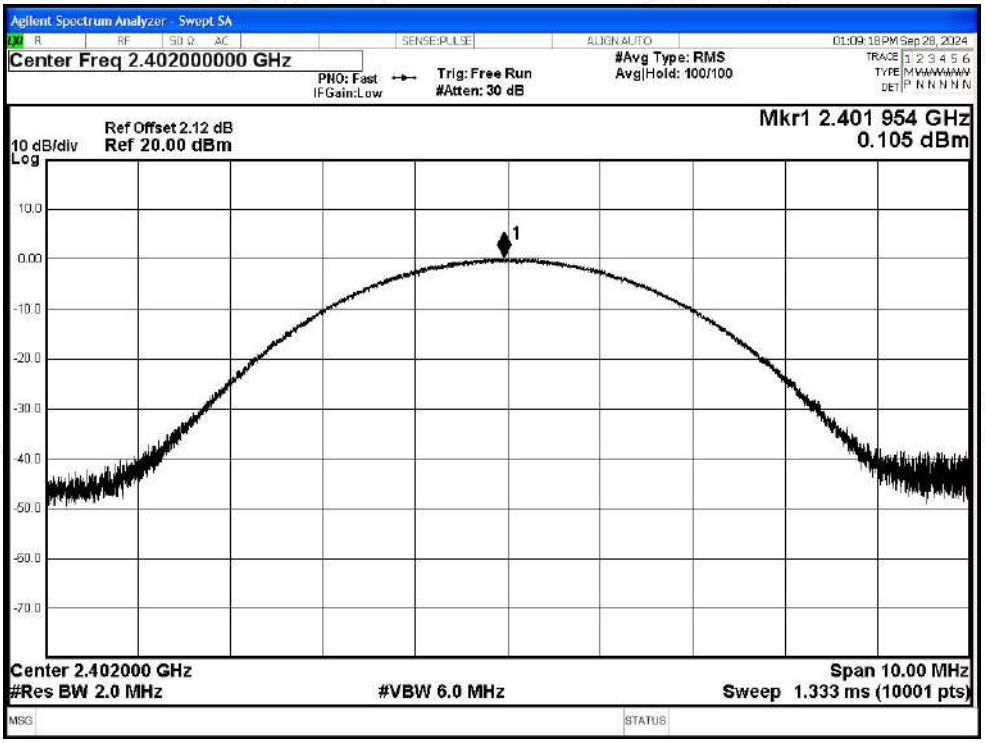
Power NVNT 2-DH5 2441MHz Ant1



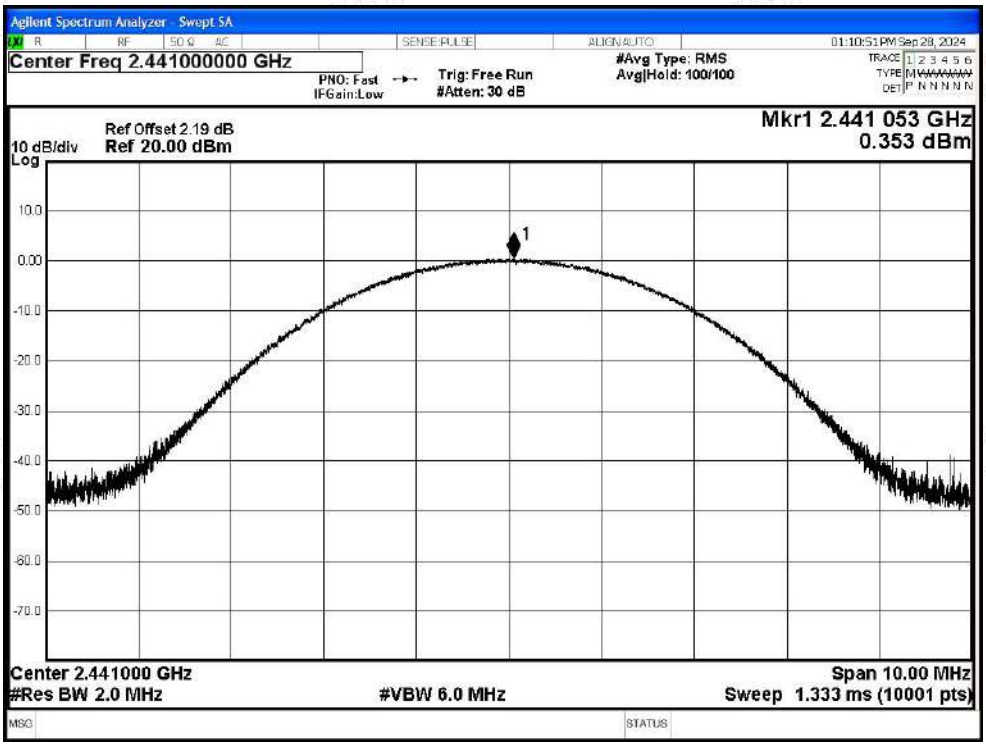
Power NVNT 2-DH5 2480MHz Ant1



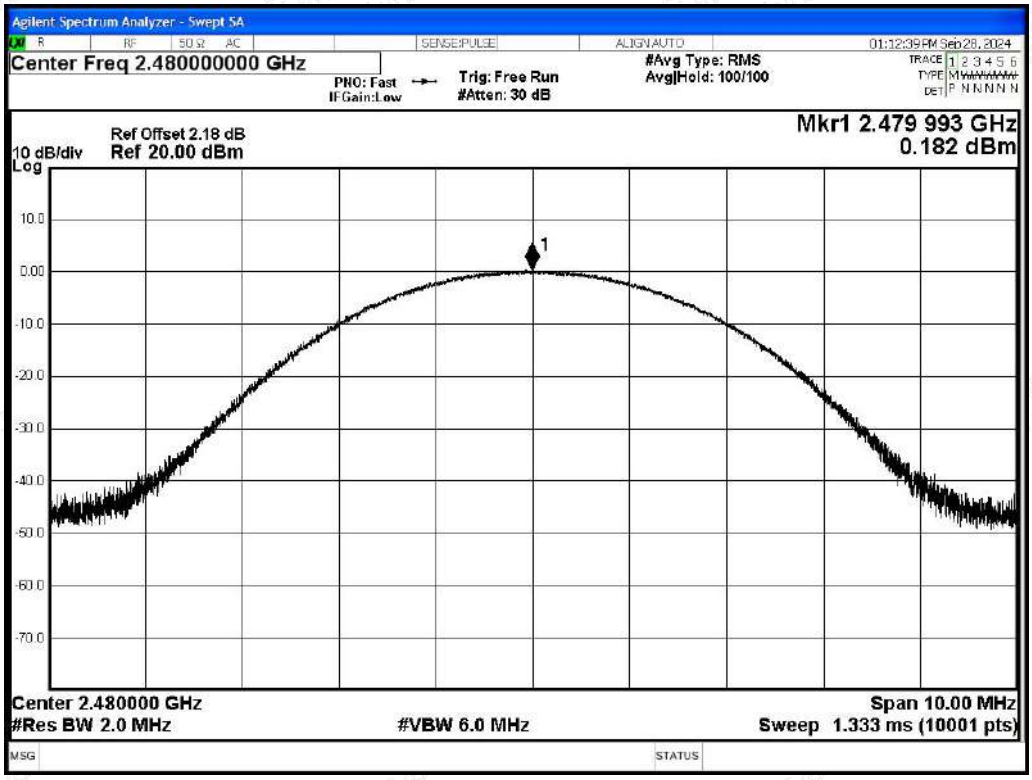
Power NVNT 3-DH5 2402MHz Ant1



Power NVNT 3-DH5 2441MHz Ant1



Power NVNT 3-DH5 2480MHz Ant1

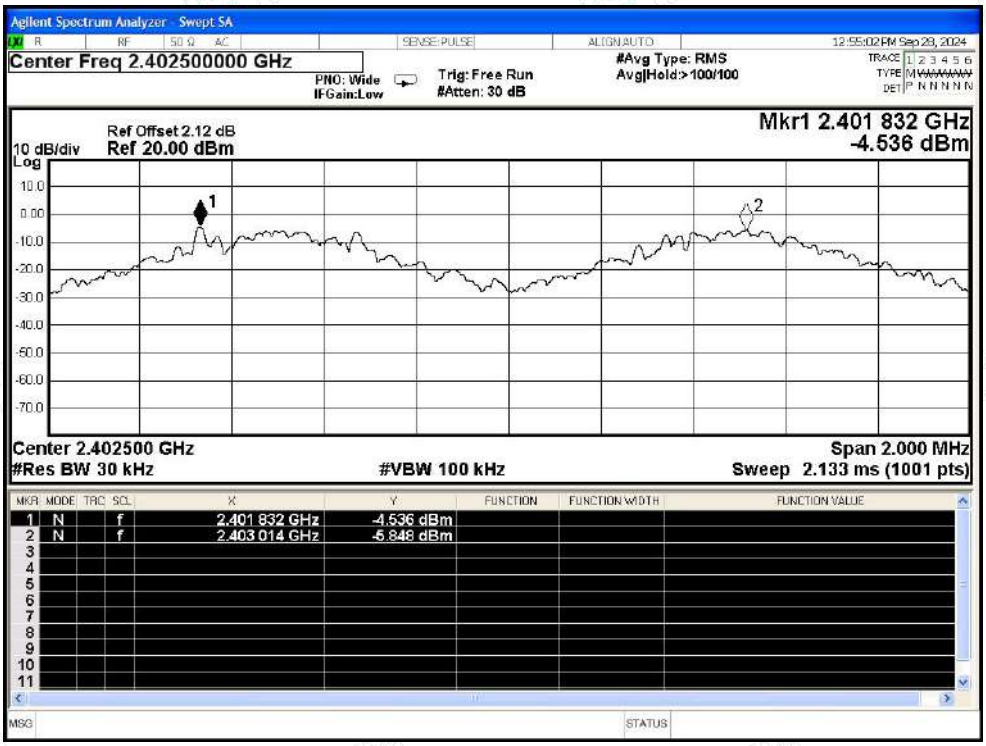


A.3 Carrier Frequencies Separation

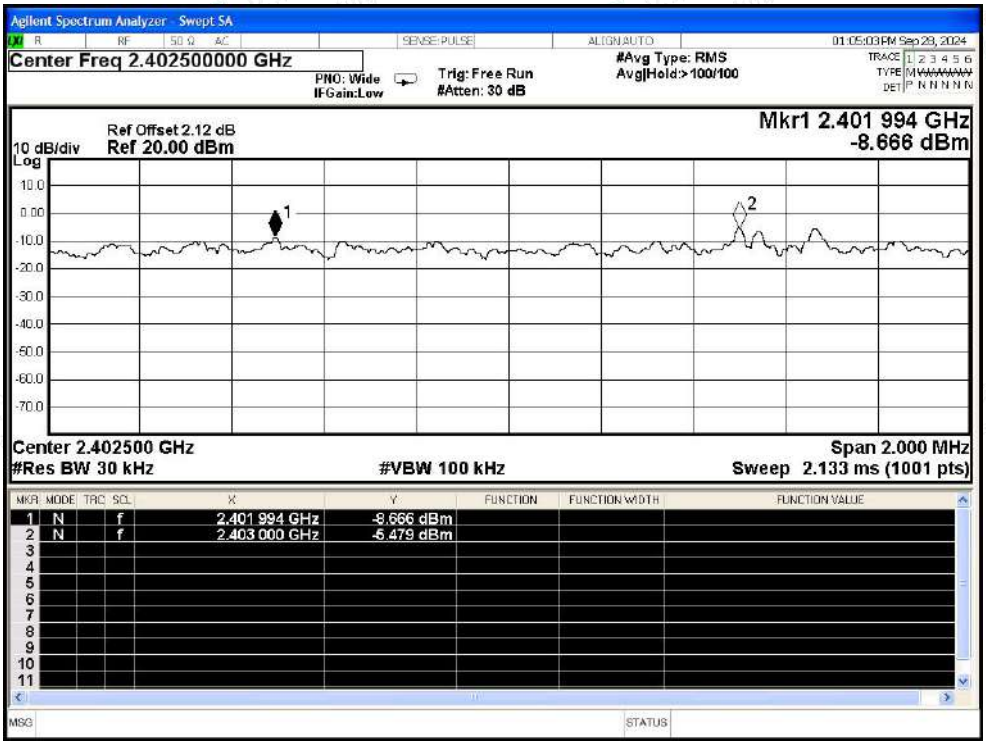
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH5	Ant1	2401.832	2403.014	1.182	0.636	Pass
NVNT	2-DH5	Ant1	2401.994	2403	1.006	0.855	Pass
NVNT	3-DH5	Ant1	2402.024	2403.03	1.006	0.865	Pass

Test Graphs

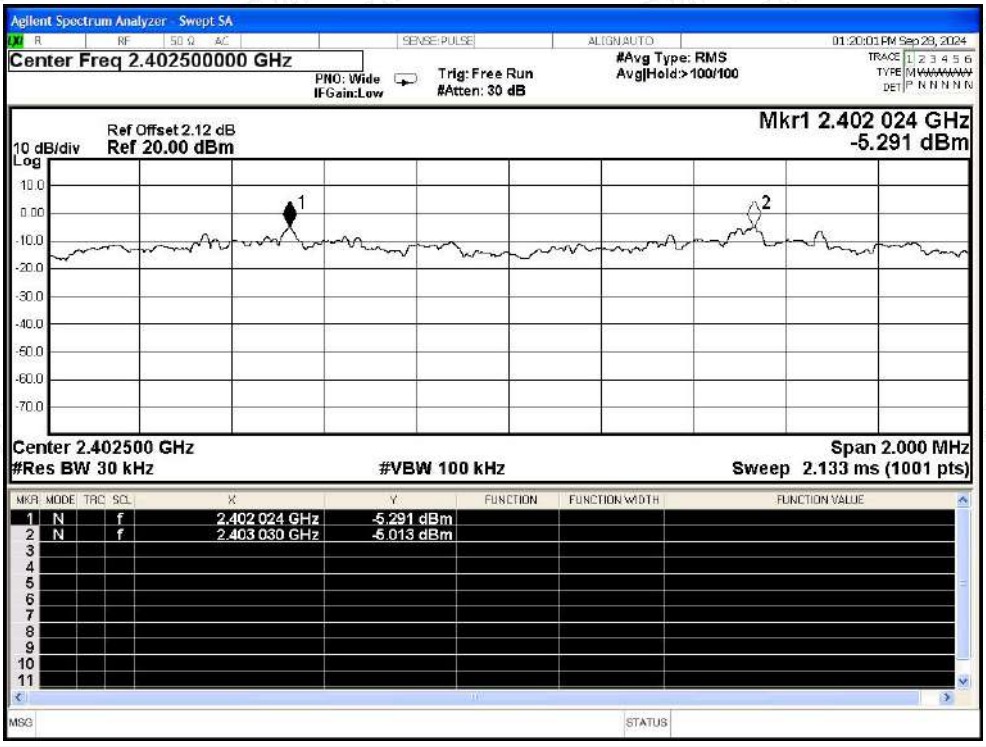
CFS NVNT 1-DH5 2402MHz Ant1



CFS NVNT 2-DH5 2402MHz Ant1



CFS NVNT 3-DH5 2402MHz Ant1

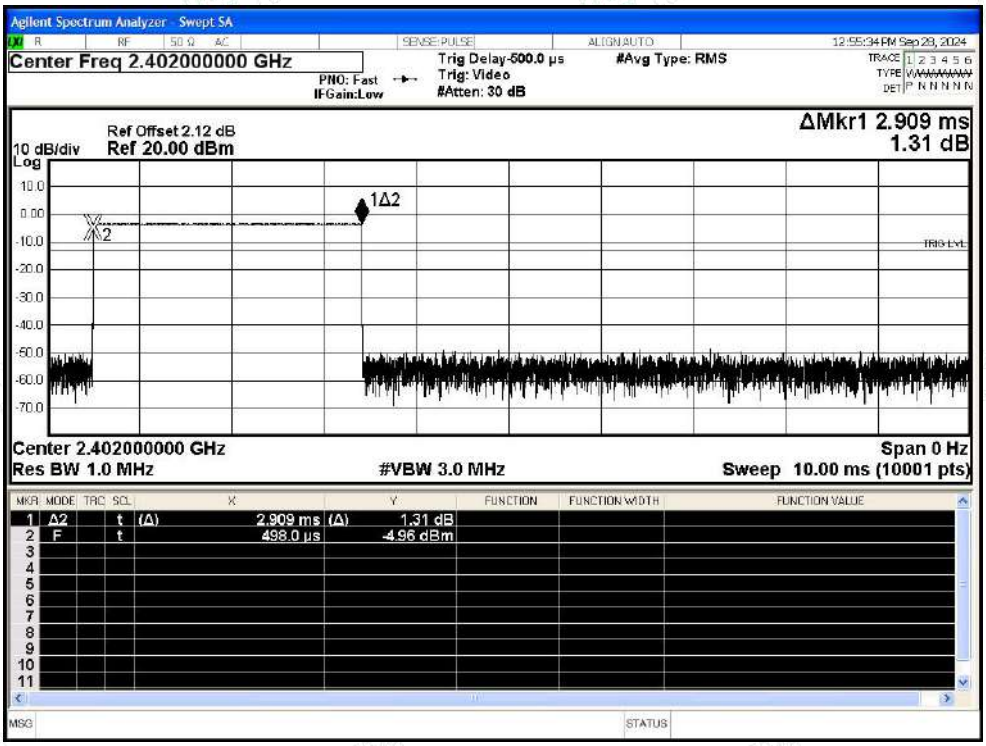


A.4 Dwell Time

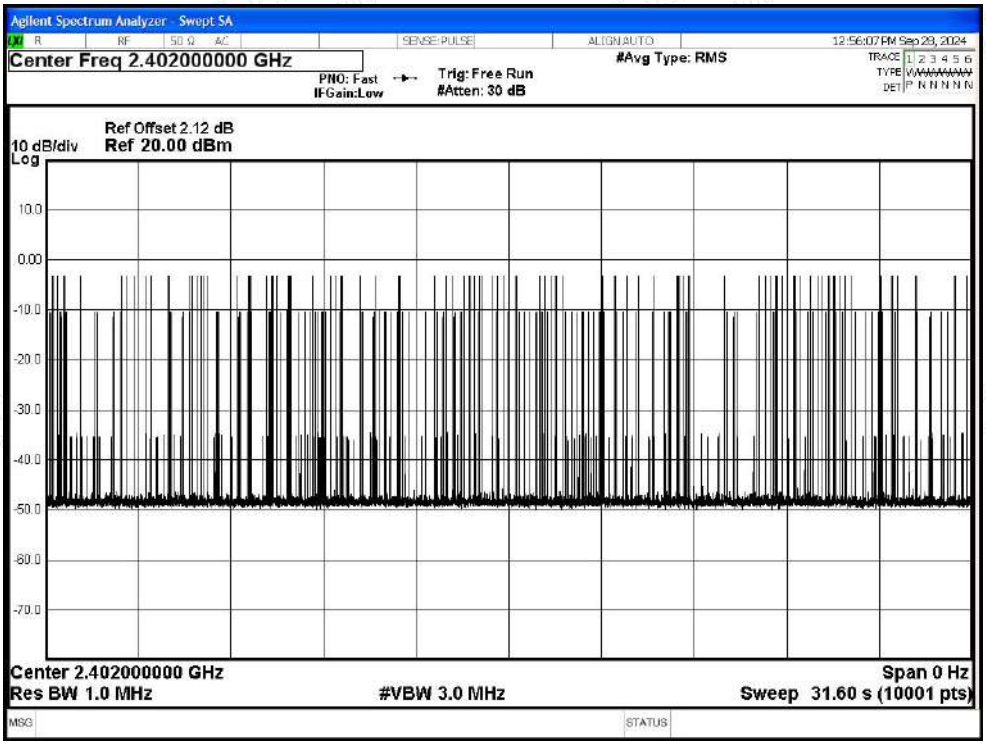
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH5	2402	Ant1	2.909	276.355	95	31600	400	Pass
NVNT	2-DH5	2402	Ant1	2.898	289.8	100	31600	400	Pass
NVNT	3-DH5	2402	Ant1	2.897	309.979	107	31600	400	Pass

Test Graphs

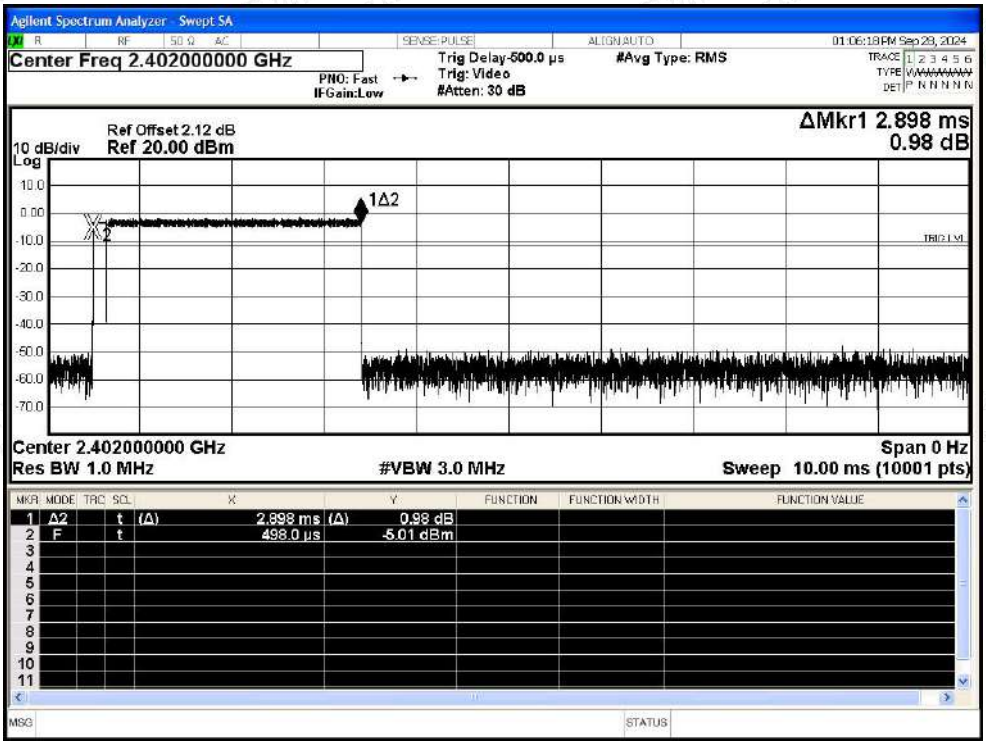
Dwell NVNT 1-DH5 2402MHz Ant1 One Burst



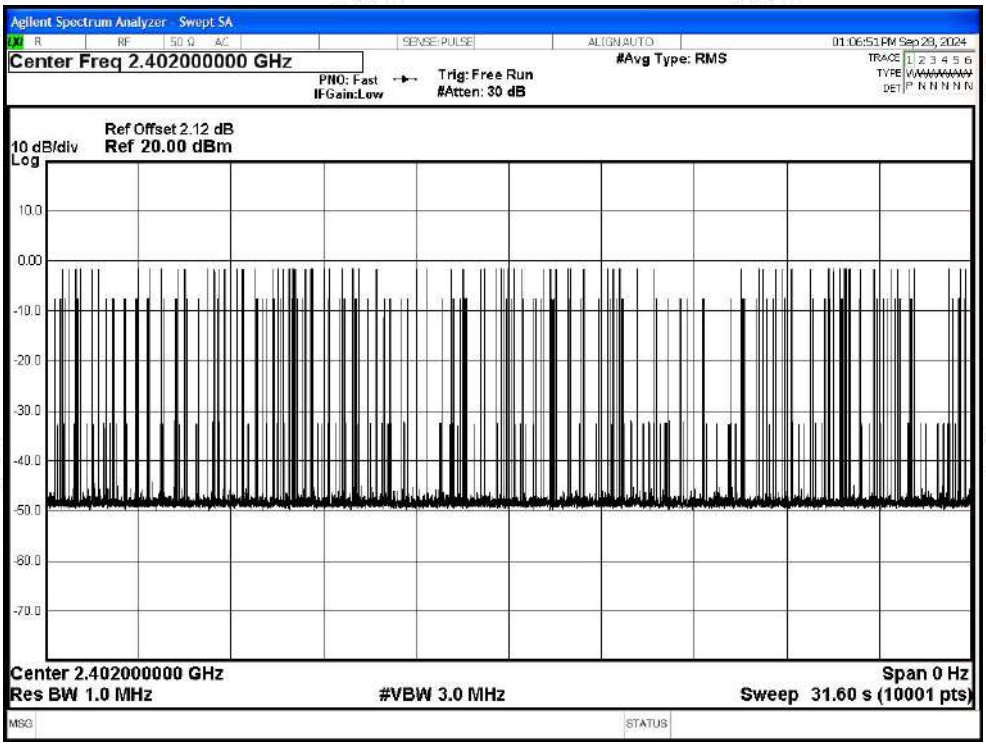
Dwell NVNT 1-DH5 2402MHz Ant1 Accumulated



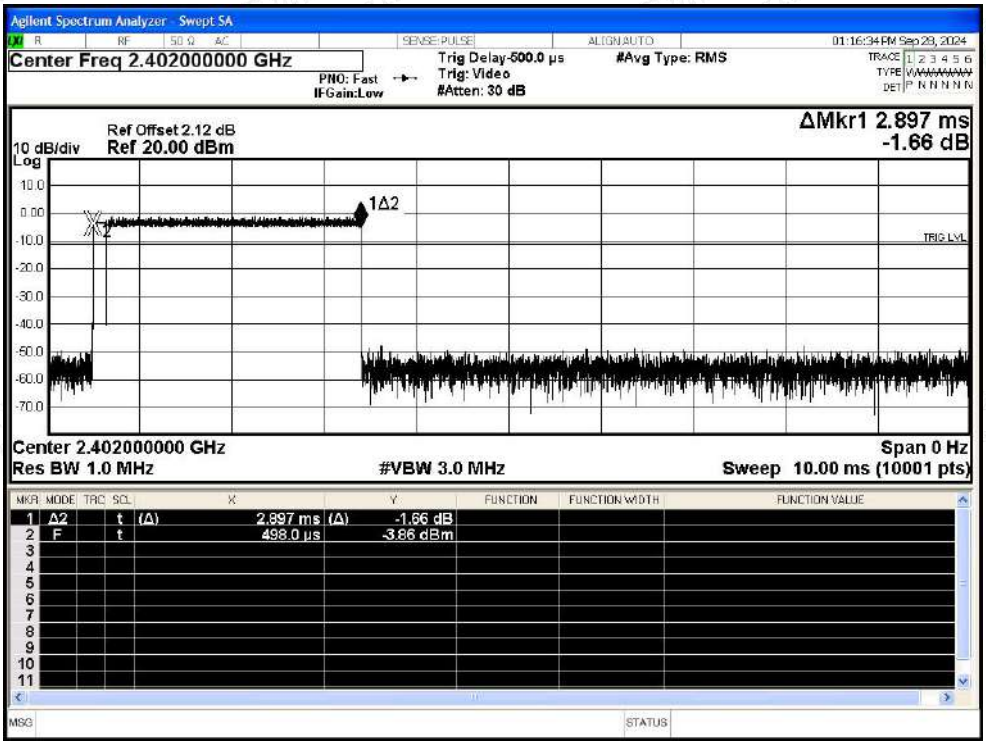
Dwell NVNT 2-DH5 2402MHz Ant1 One Burst



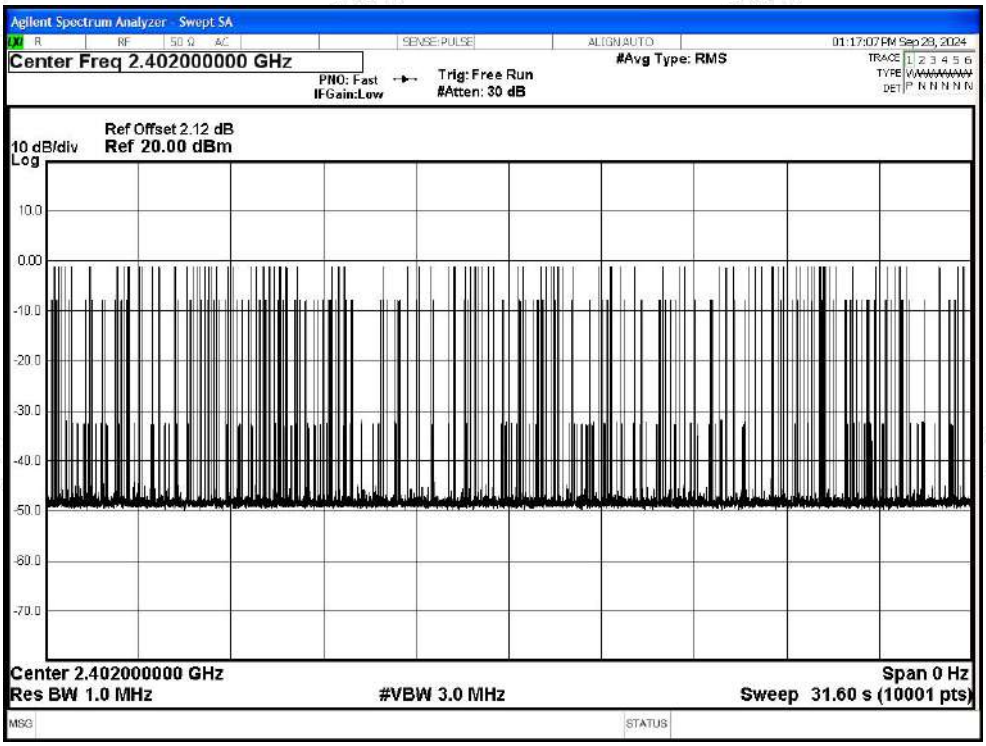
Dwell NVNT 2-DH5 2402MHz Ant1 Accumulated



Dwell NVNT 3-DH5 2402MHz Ant1 One Burst



Dwell NVNT 3-DH5 2402MHz Ant1 Accumulated

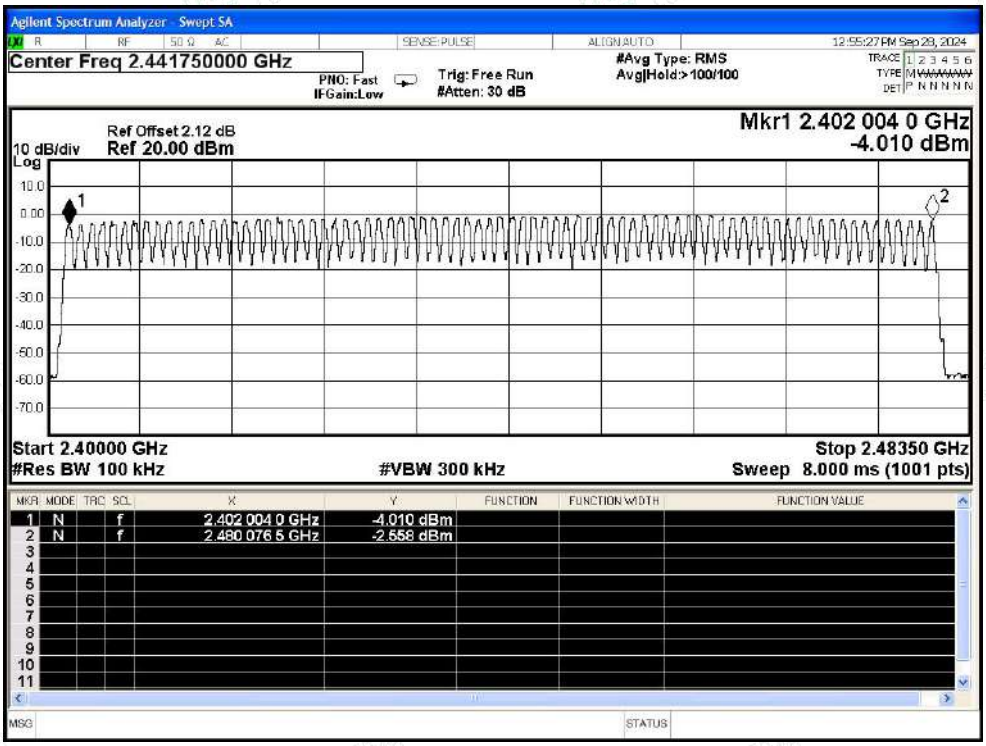


A.5 Number of Hopping Channel

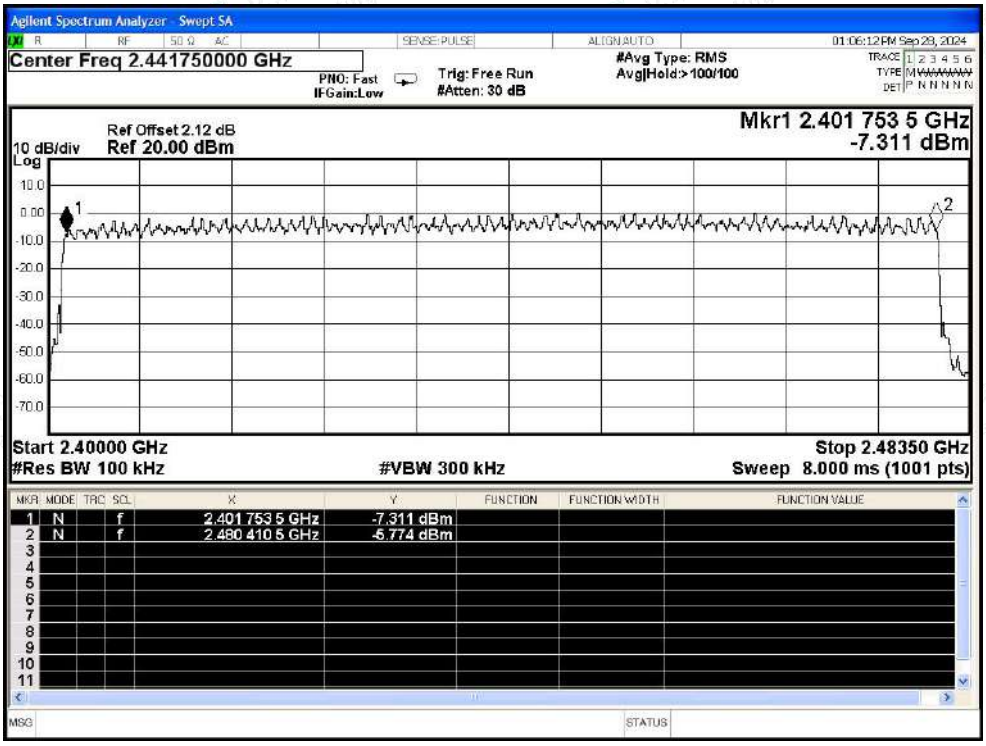
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH5	Ant1	79	15	Pass
NVNT	2-DH5	Ant1	79	15	Pass
NVNT	3-DH5	Ant1	79	15	Pass

Test Graphs

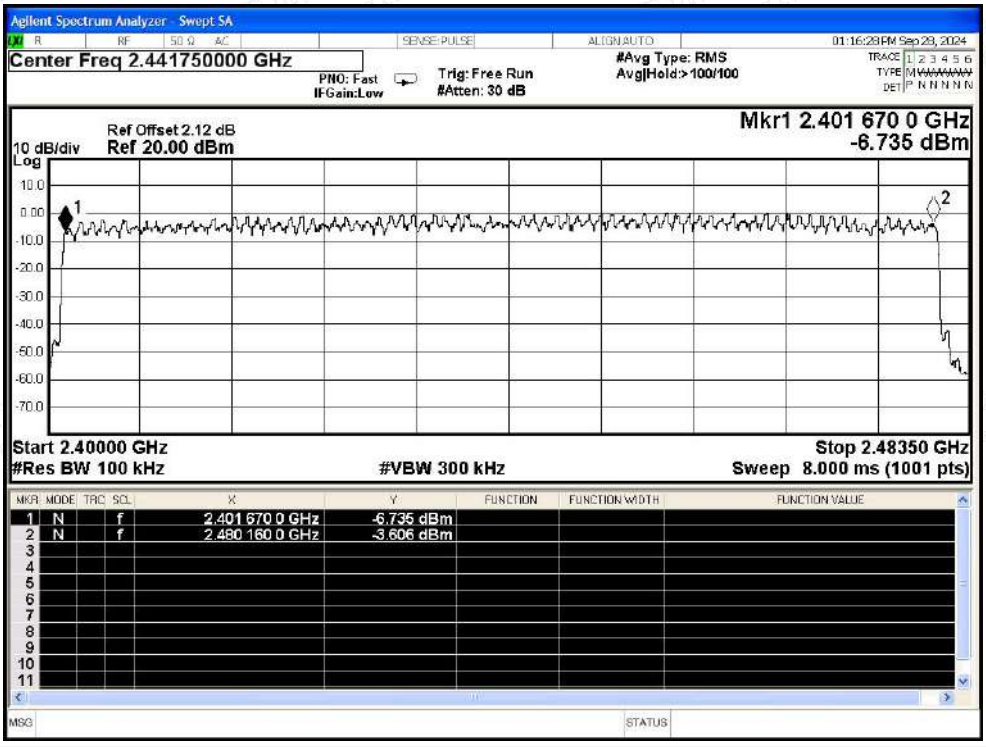
Hopping No. NVNT 1-DH5 2402MHz Ant1



Hopping No. NVNT 2-DH5 2402MHz Ant1



Hopping No. NVNT 3-DH5 2402MHz Ant1

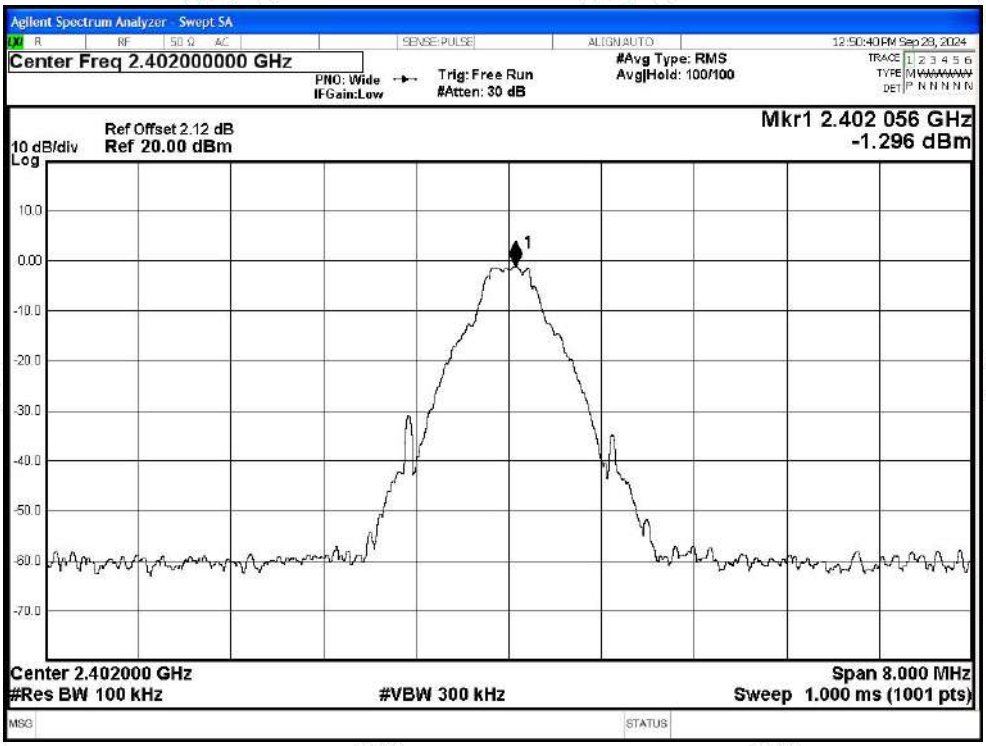


A.6 Band Edge

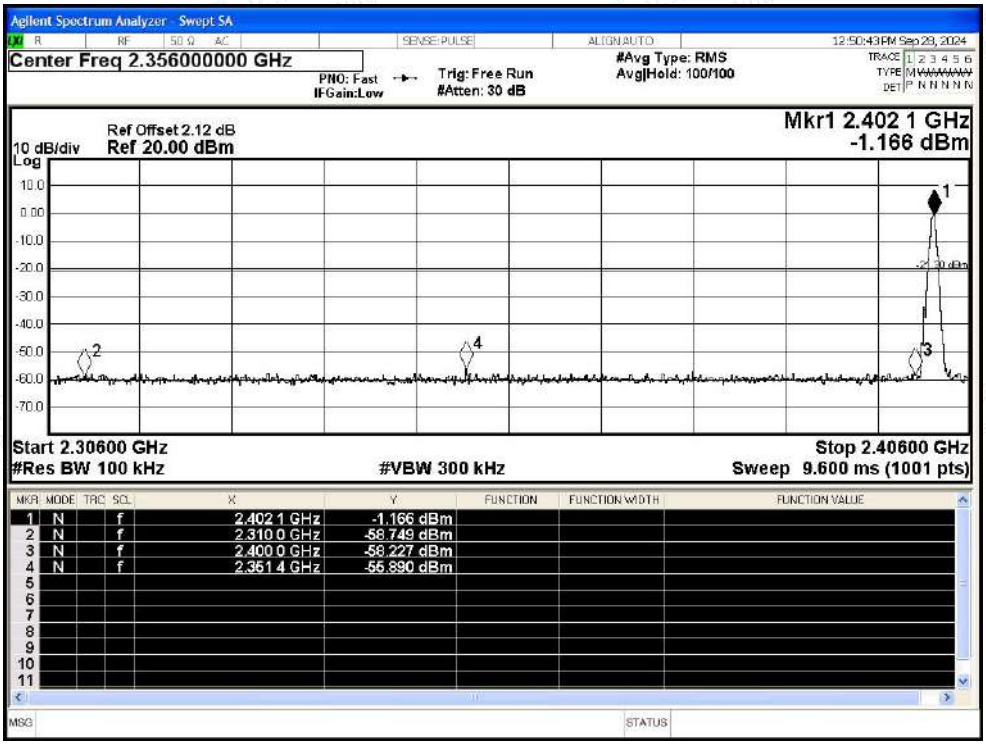
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	-54.59	-20	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	-54.83	-20	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	-50.96	-20	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	-54.81	-20	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	-52.18	-20	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	-55.04	-20	Pass

Test Graphs

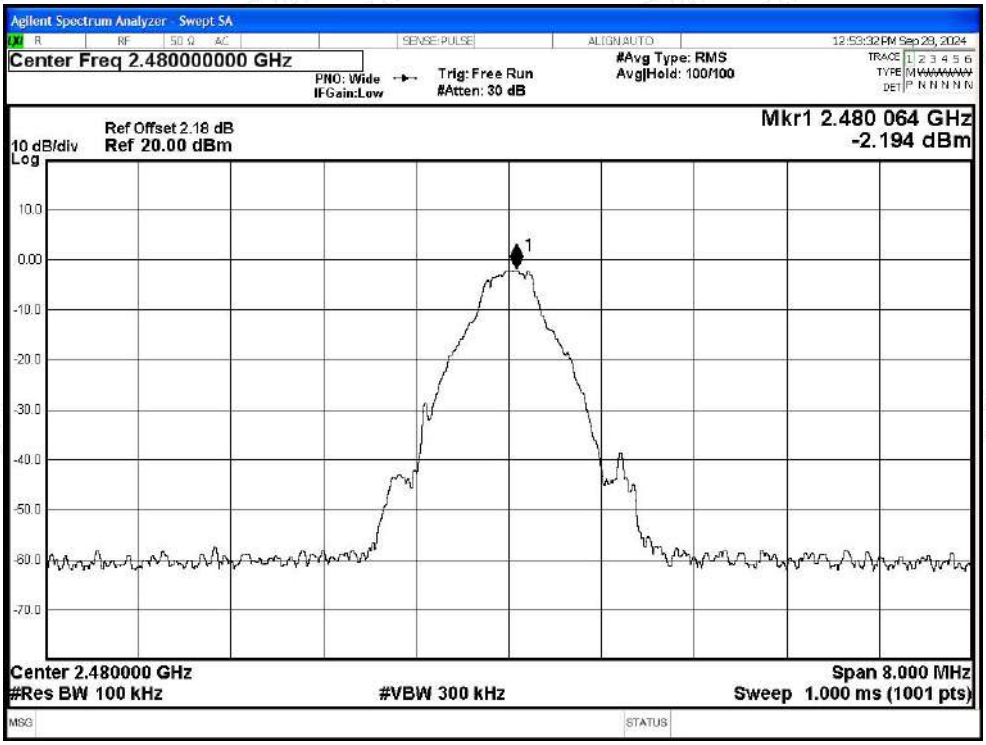
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Ref



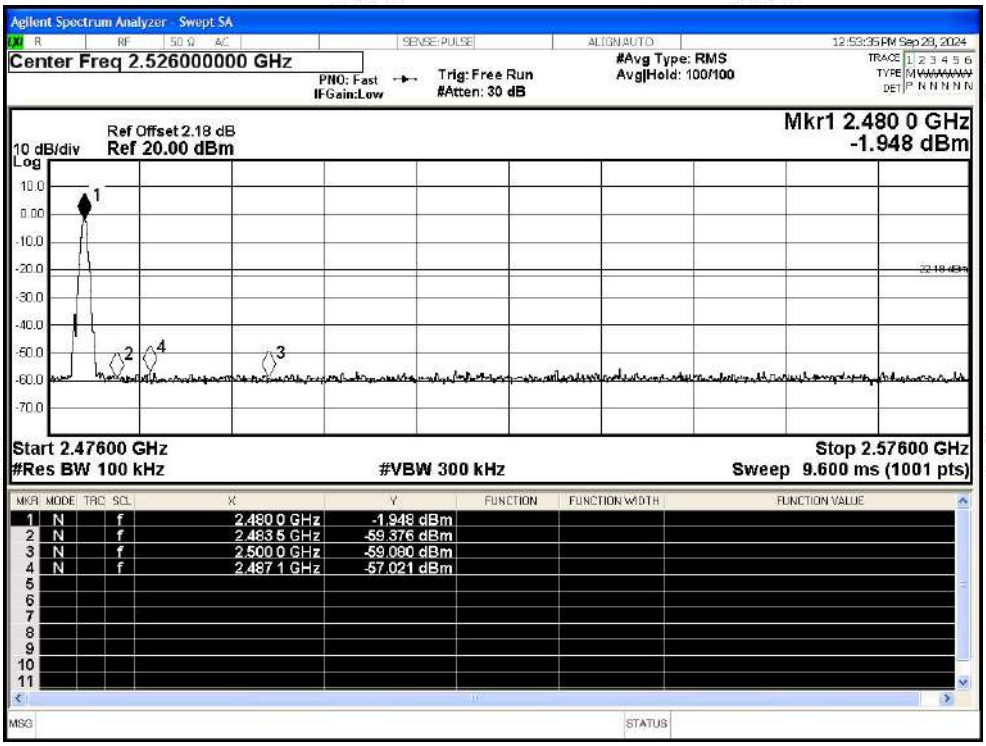
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Emission



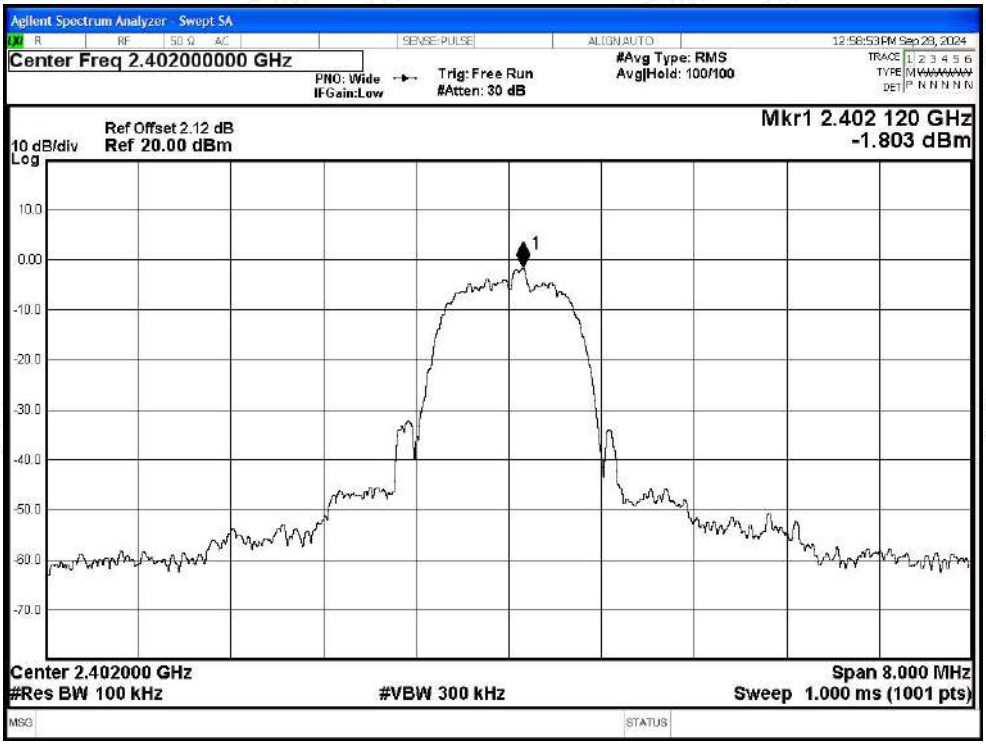
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref



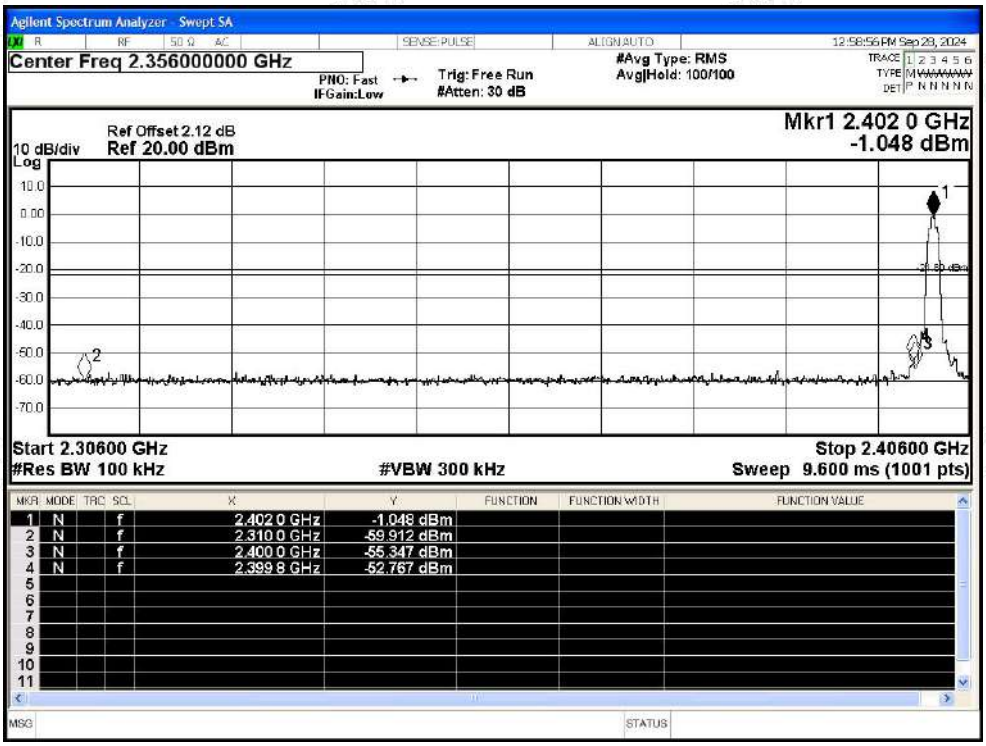
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Emission



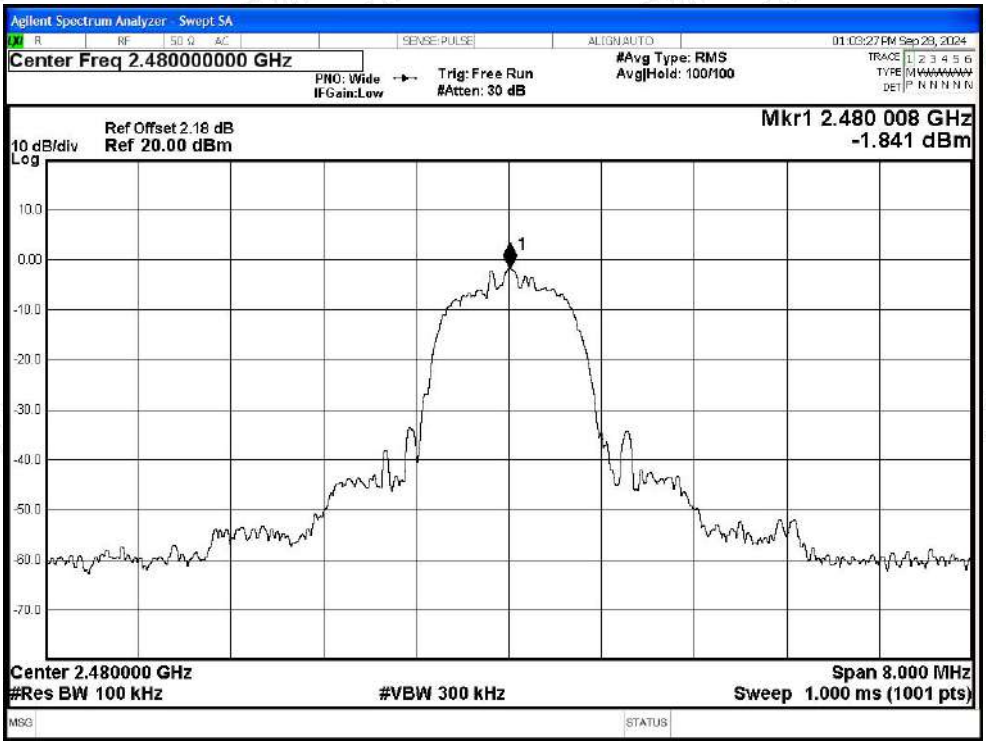
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Ref



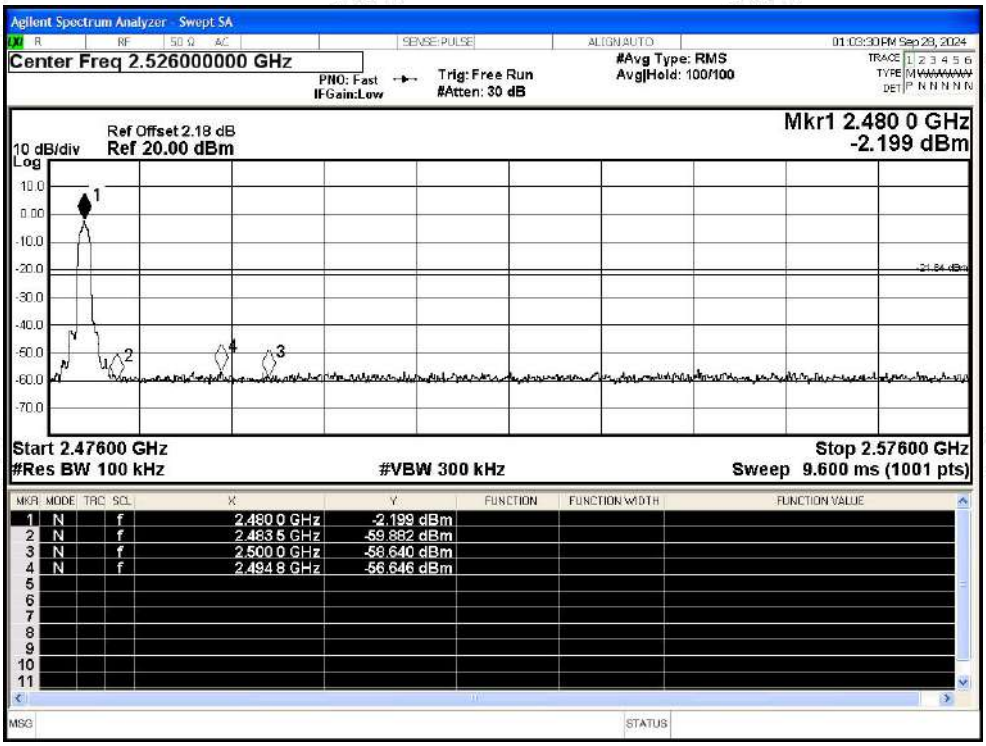
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Emission



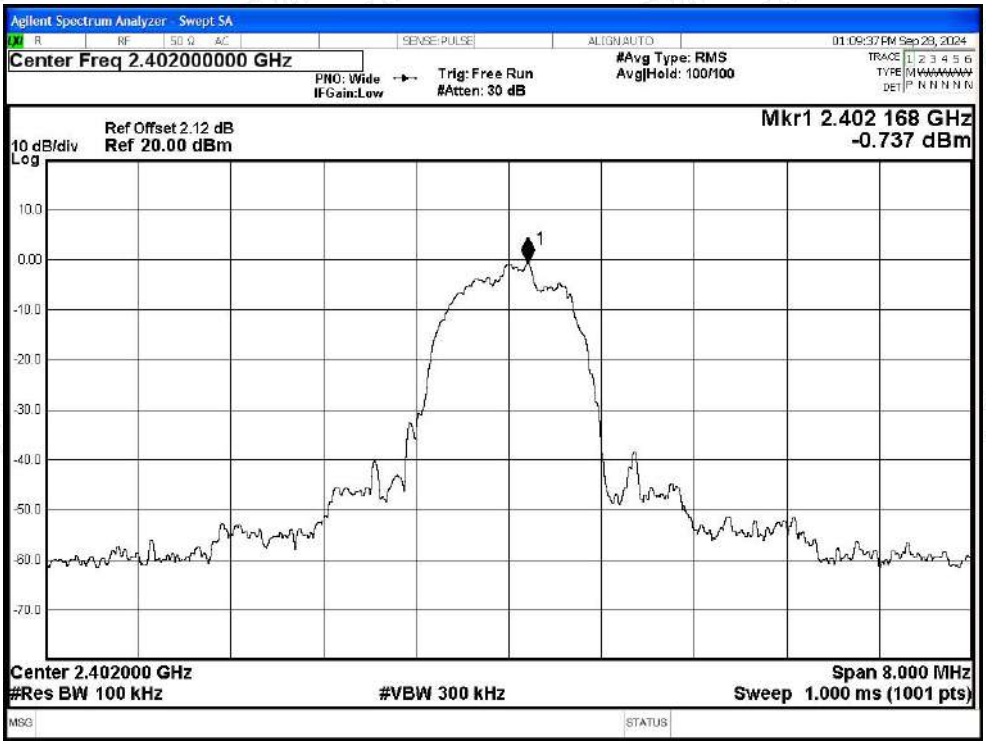
Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Ref



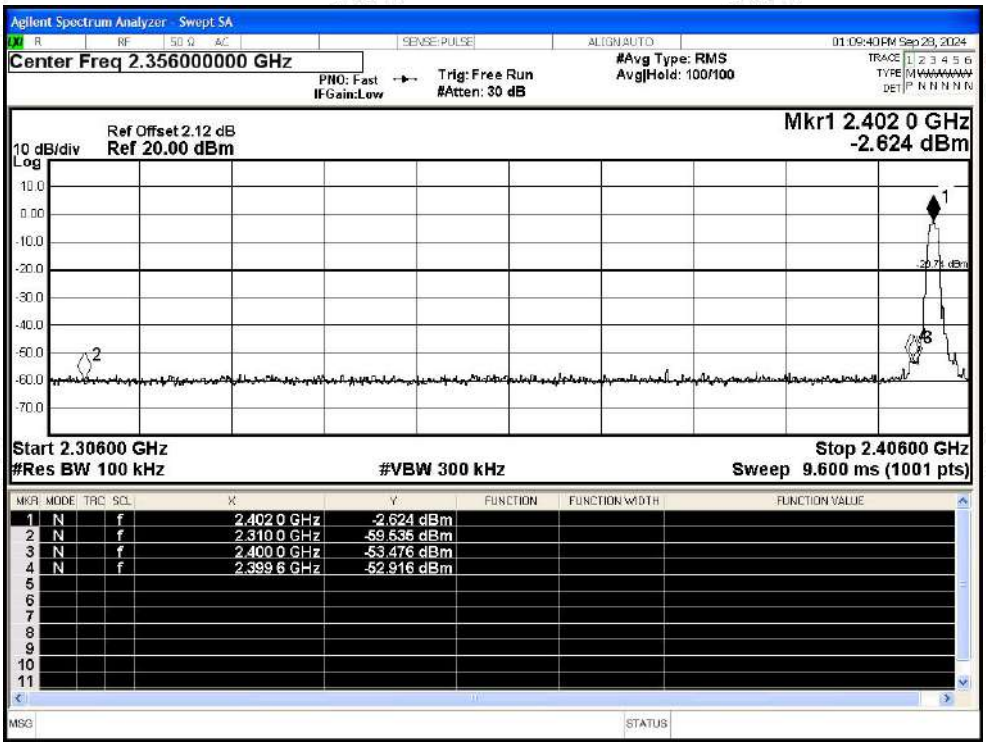
Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Emission



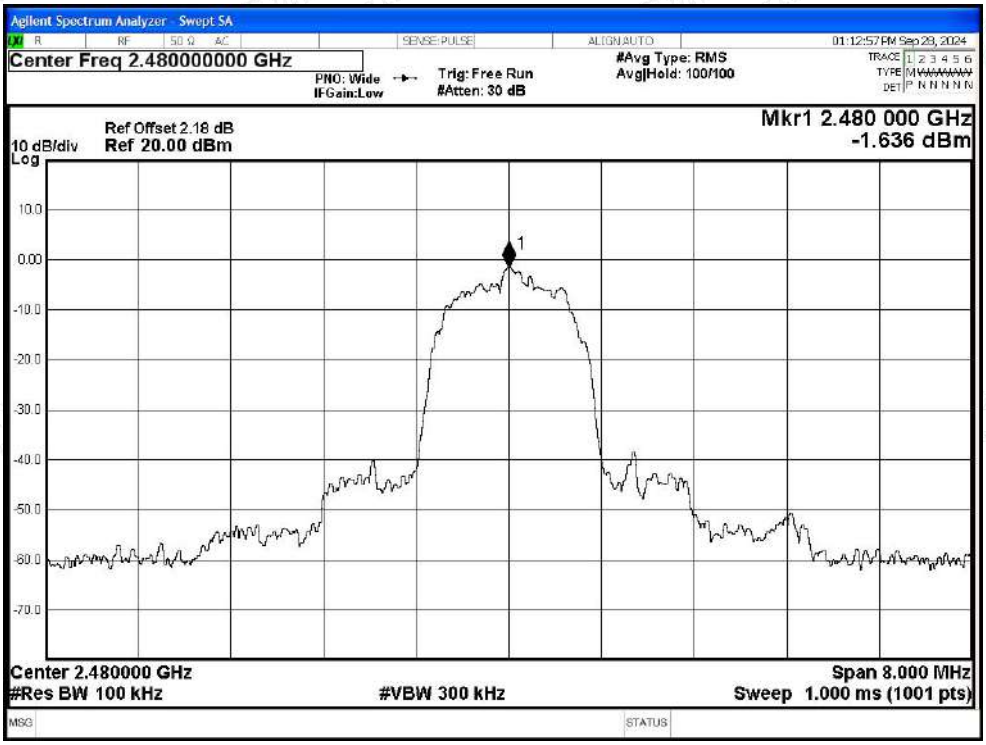
Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Ref



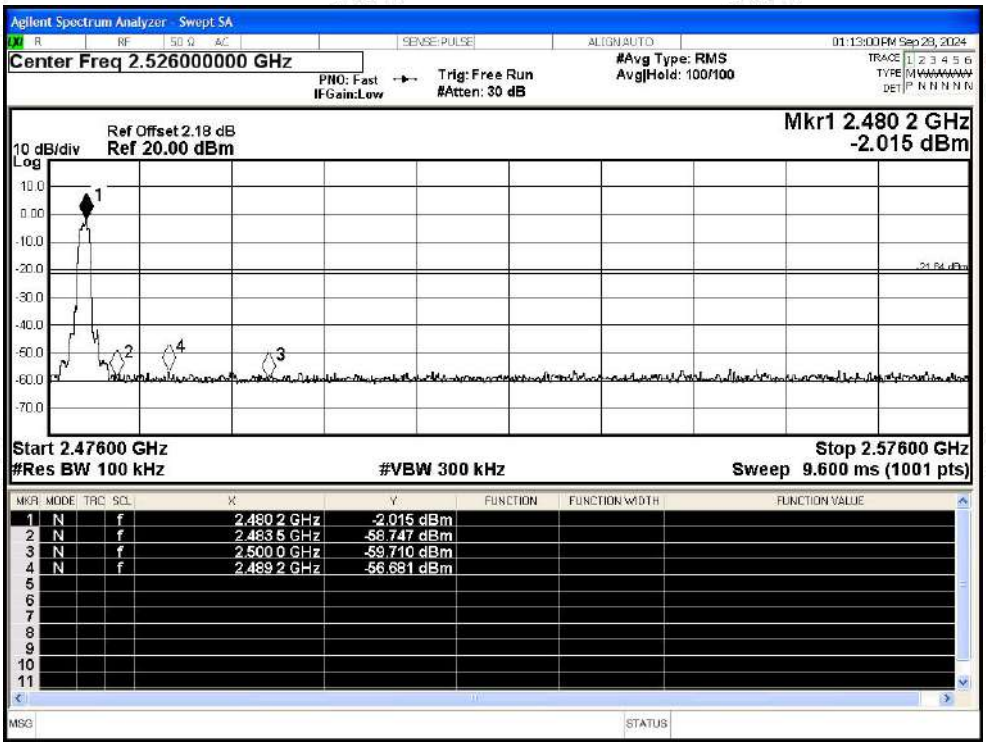
Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Emission



Band Edge NVNT 3-DH5 2480MHz Ant1 No-Hopping Ref



Band Edge NVNT 3-DH5 2480MHz Ant1 No-Hopping Emission

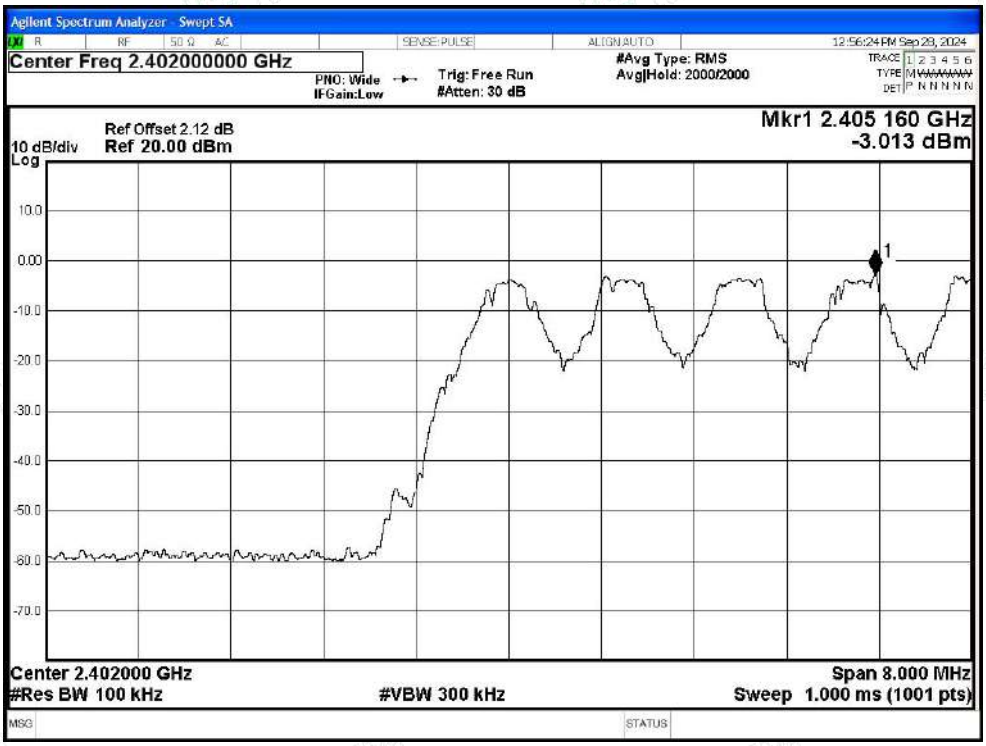


(Hopping)

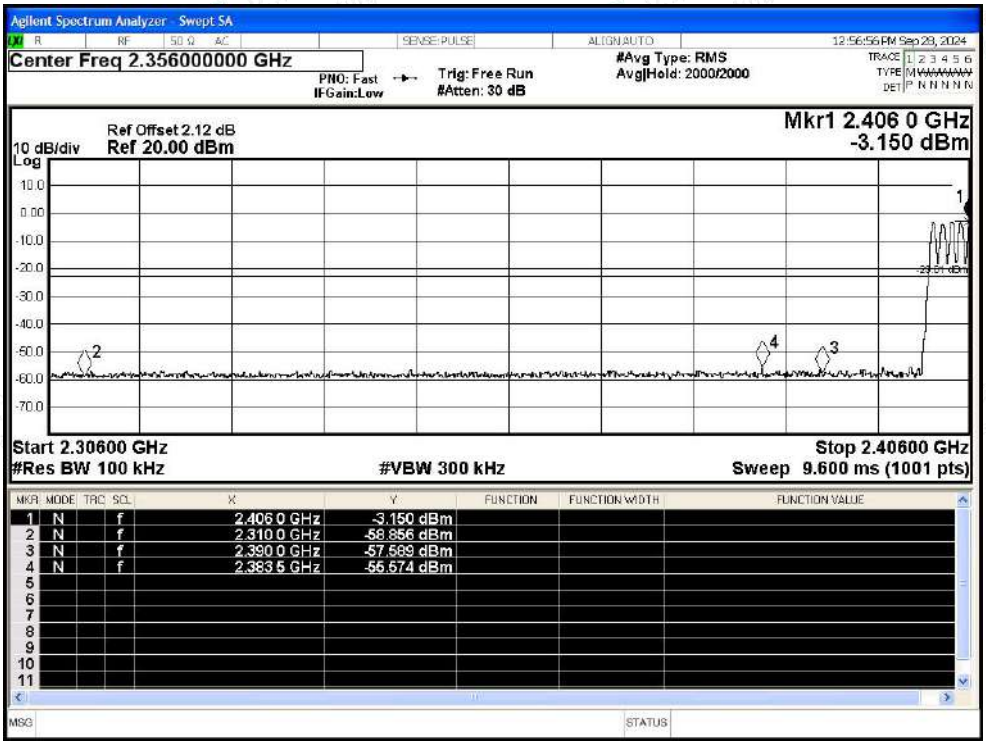
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	Hopping	-52.56	-20	Pass
NVNT	1-DH5	2480	Ant1	Hopping	-54.99	-20	Pass
NVNT	2-DH5	2402	Ant1	Hopping	-52.43	-20	Pass
NVNT	2-DH5	2480	Ant1	Hopping	-53.85	-20	Pass
NVNT	3-DH5	2402	Ant1	Hopping	-52.91	-20	Pass
NVNT	3-DH5	2480	Ant1	Hopping	-54.55	-20	Pass

Test Graphs

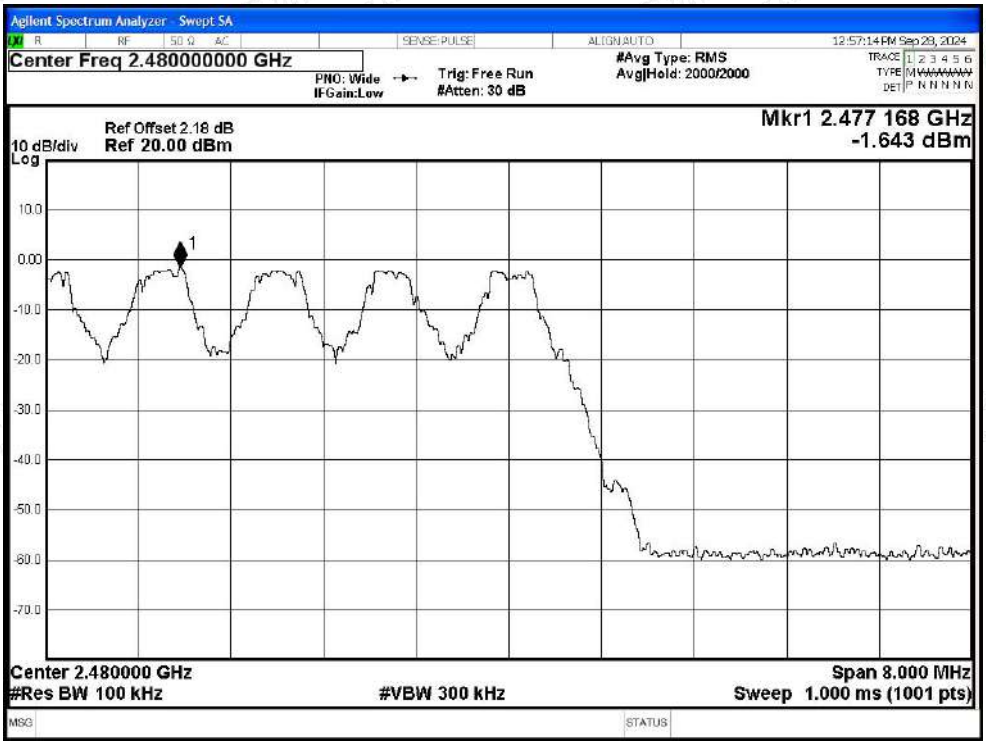
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Ref



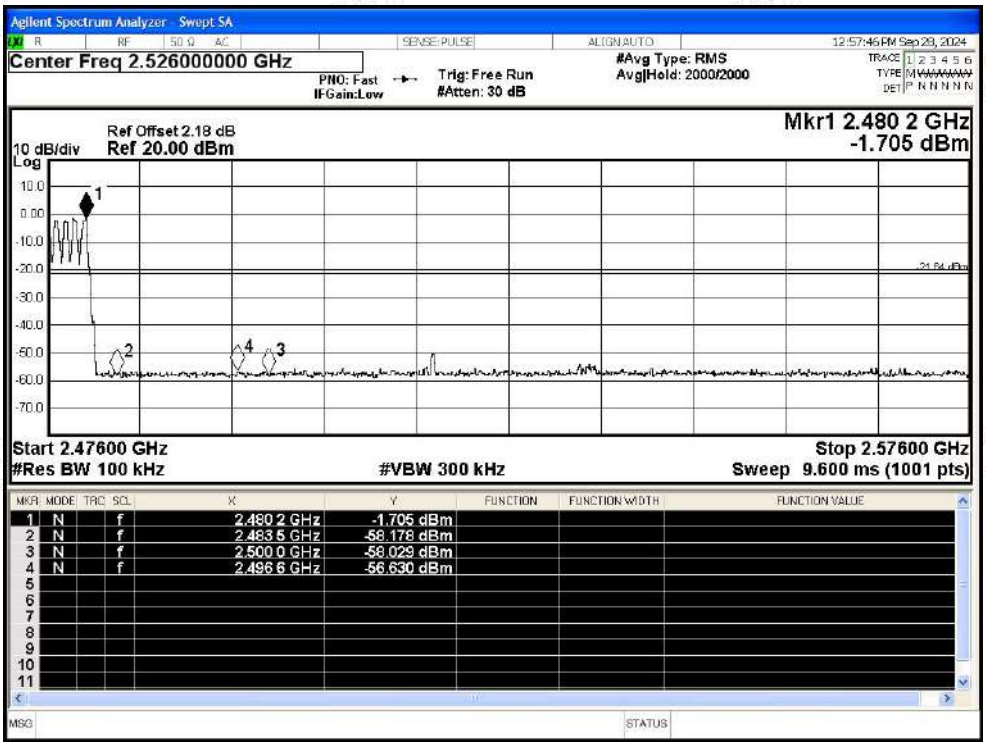
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission



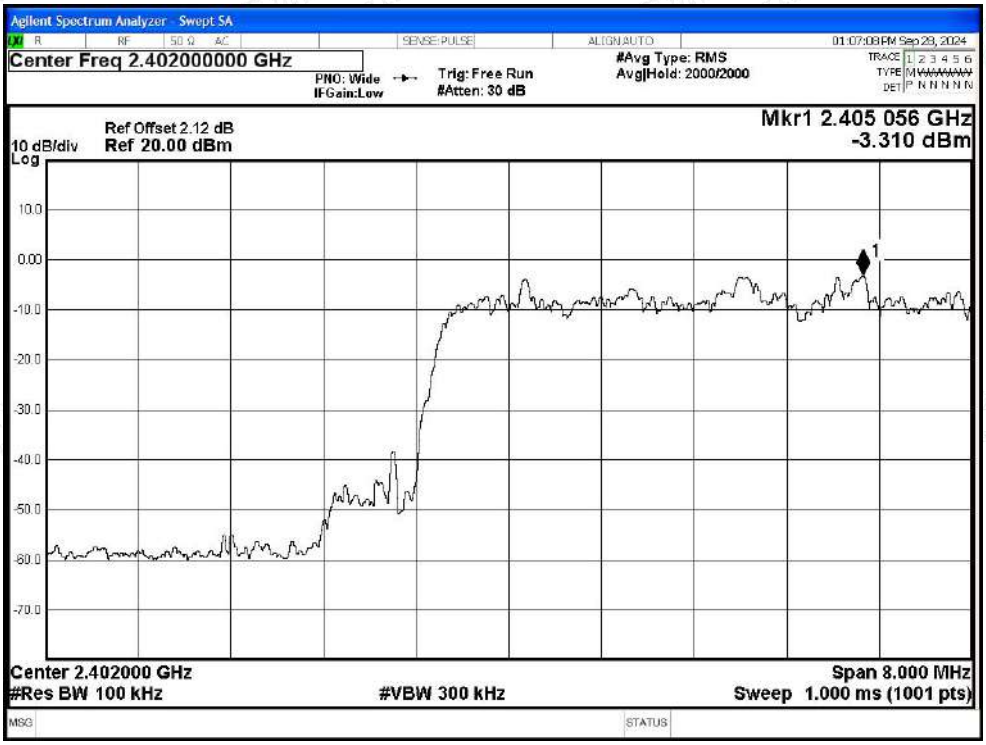
Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Ref



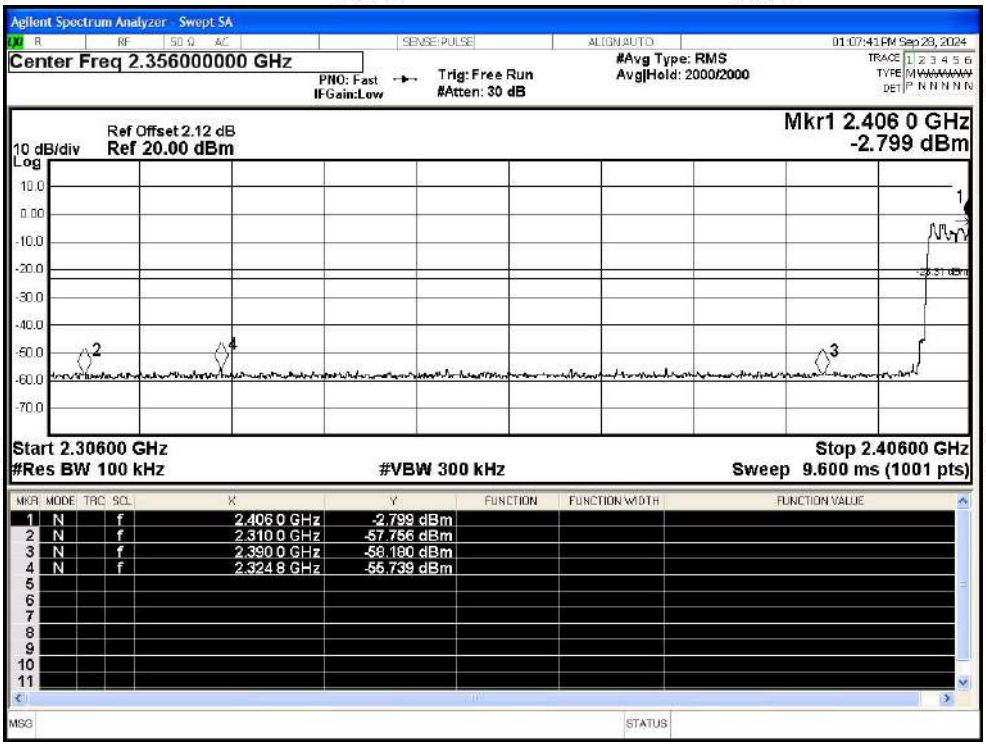
Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Emission



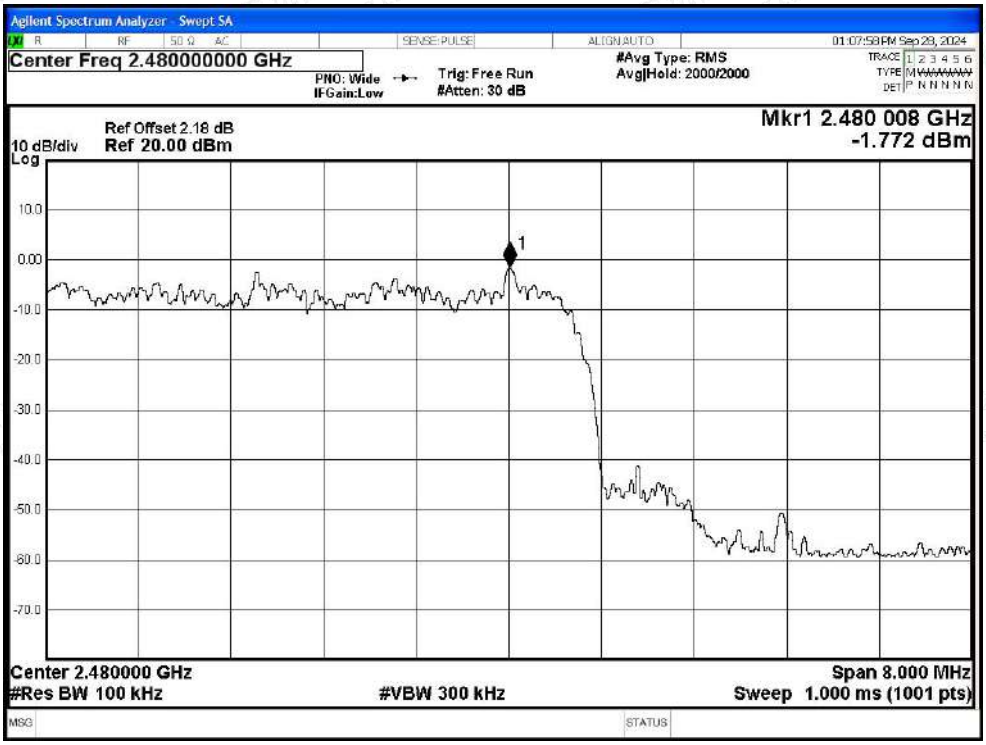
Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Ref



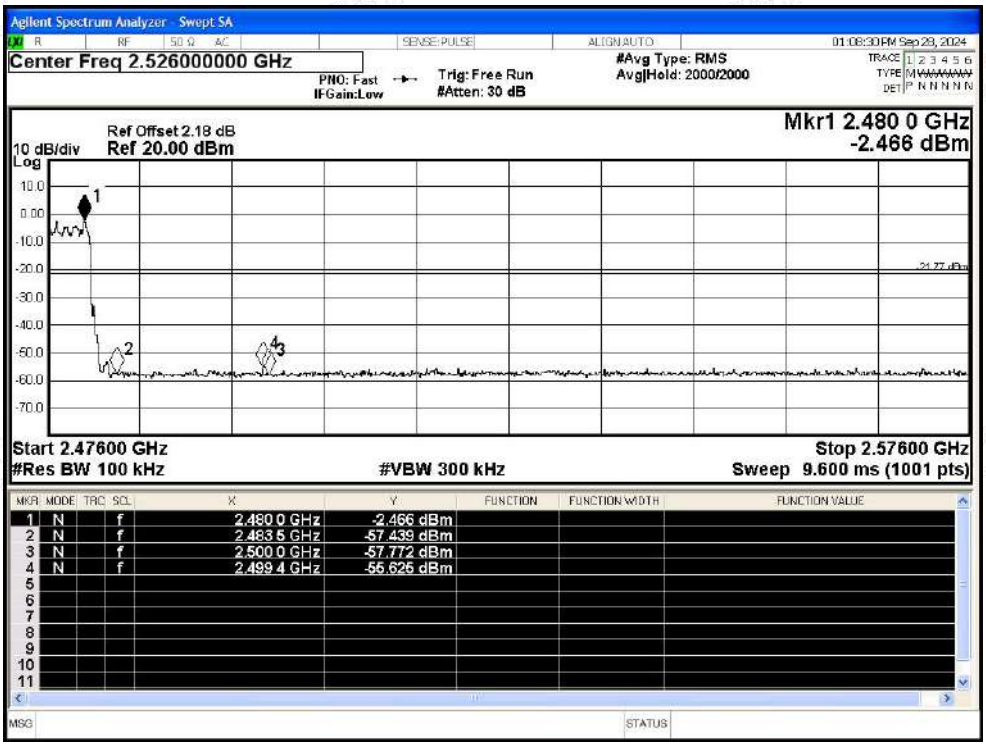
Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Emission



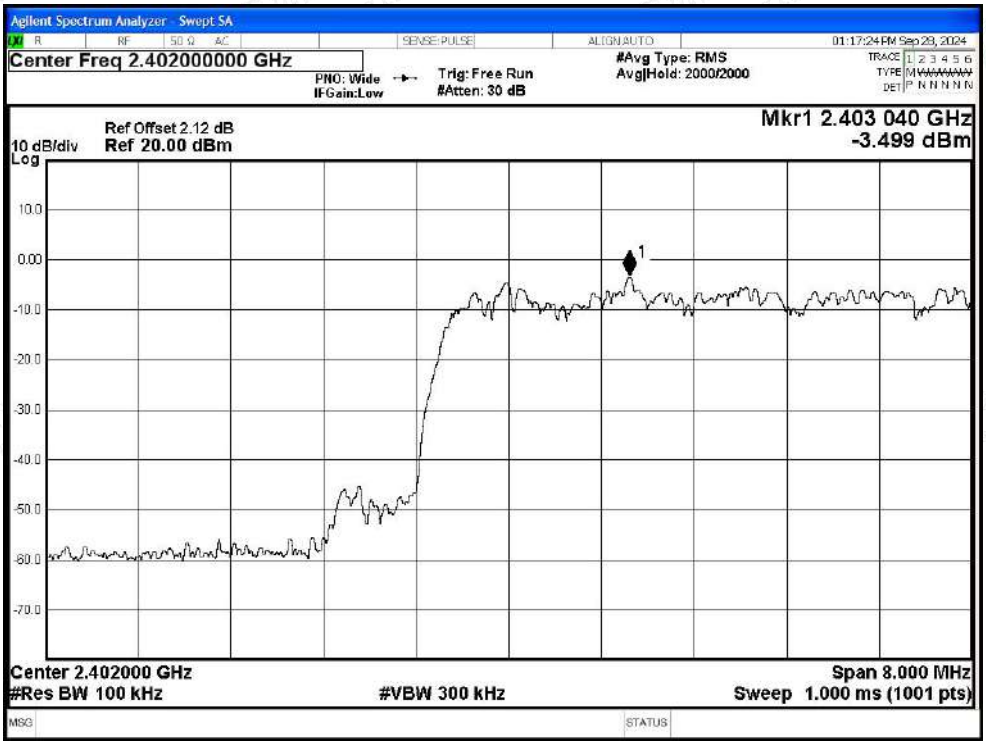
Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Ref



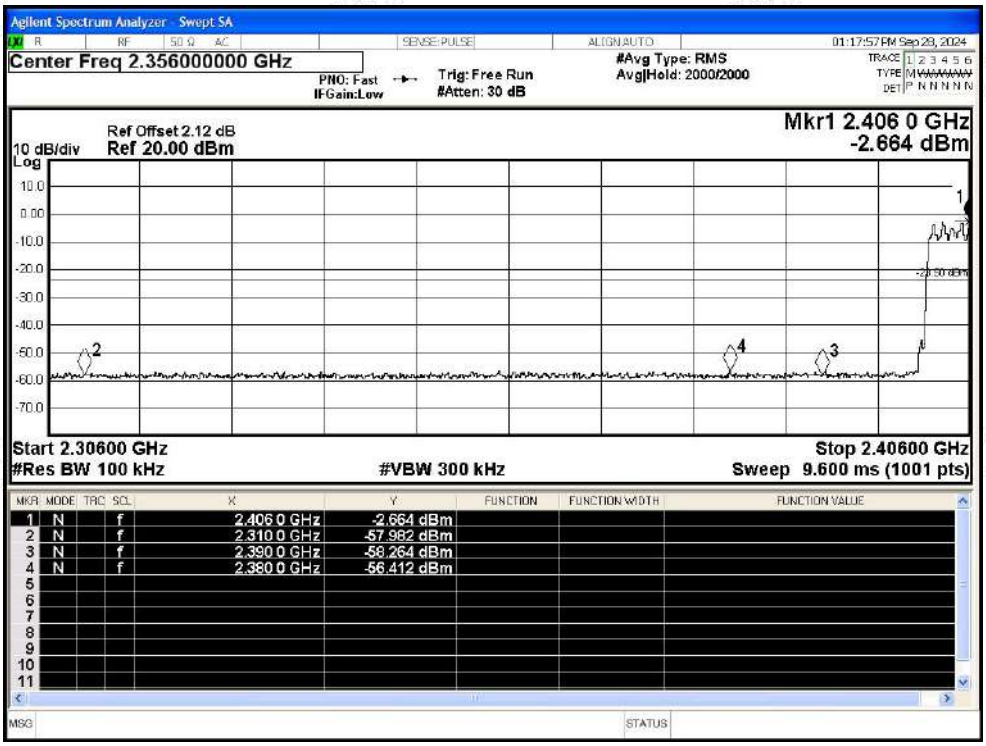
Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Emission



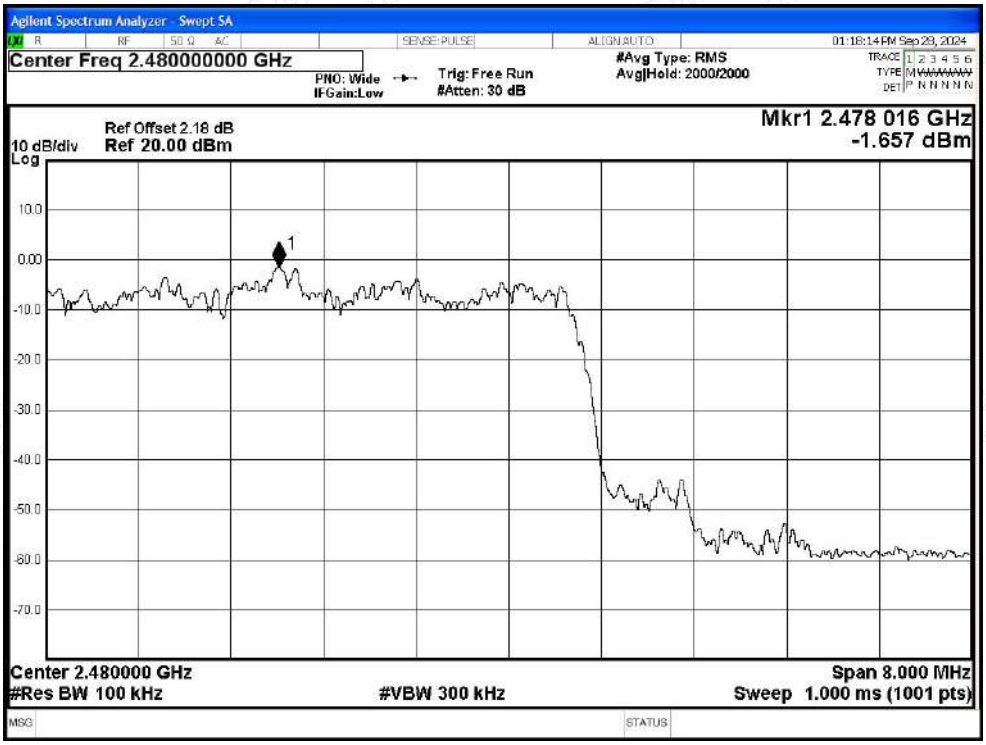
Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Ref



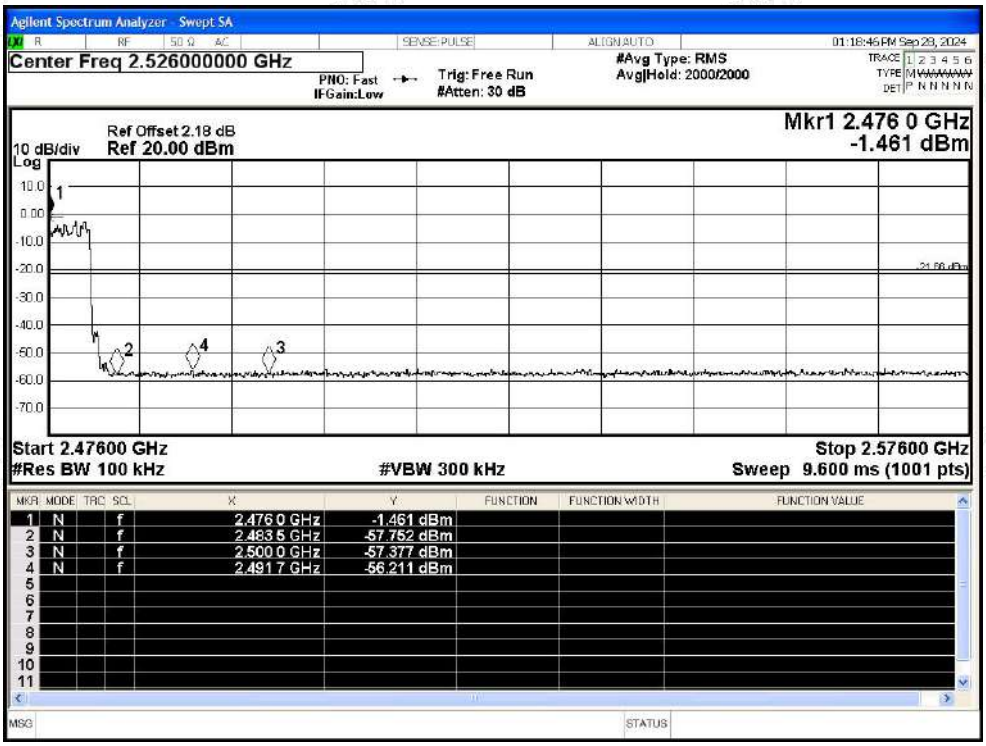
Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Emission



Band Edge(Hopping) NVNT 3-DH5 2480MHz Ant1 Hopping Ref



Band Edge(Hopping) NVNT 3-DH5 2480MHz Ant1 Hopping Emission

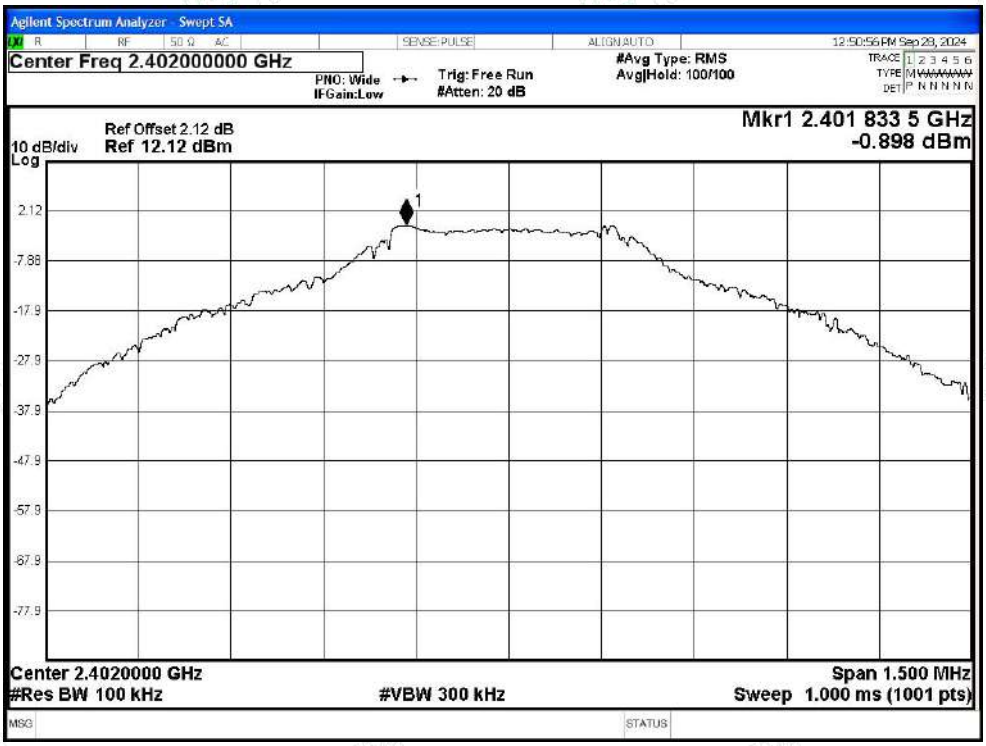


A.7 Conducted RF Spurious Emission

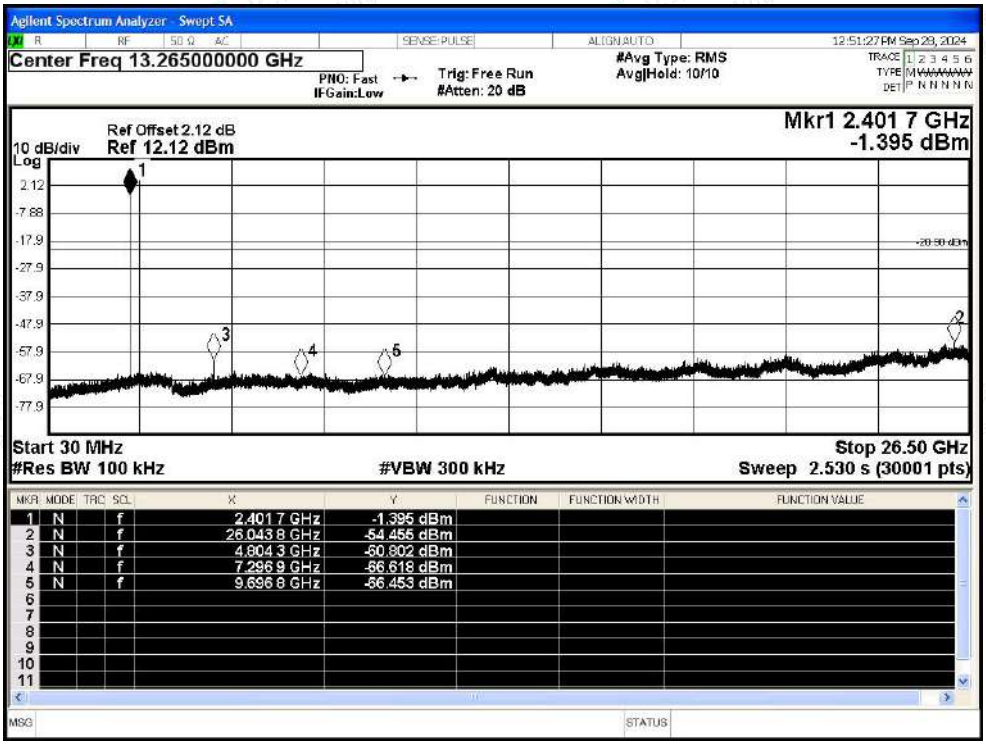
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	-53.56	-20	Pass
NVNT	1-DH5	2441	Ant1	-54.47	-20	Pass
NVNT	1-DH5	2480	Ant1	-53.48	-20	Pass
NVNT	2-DH5	2402	Ant1	-51.64	-20	Pass
NVNT	2-DH5	2441	Ant1	-53.94	-20	Pass
NVNT	2-DH5	2480	Ant1	-53.58	-20	Pass
NVNT	3-DH5	2402	Ant1	-53.26	-20	Pass
NVNT	3-DH5	2441	Ant1	-54.45	-20	Pass
NVNT	3-DH5	2480	Ant1	-53.79	-20	Pass

Test Graphs

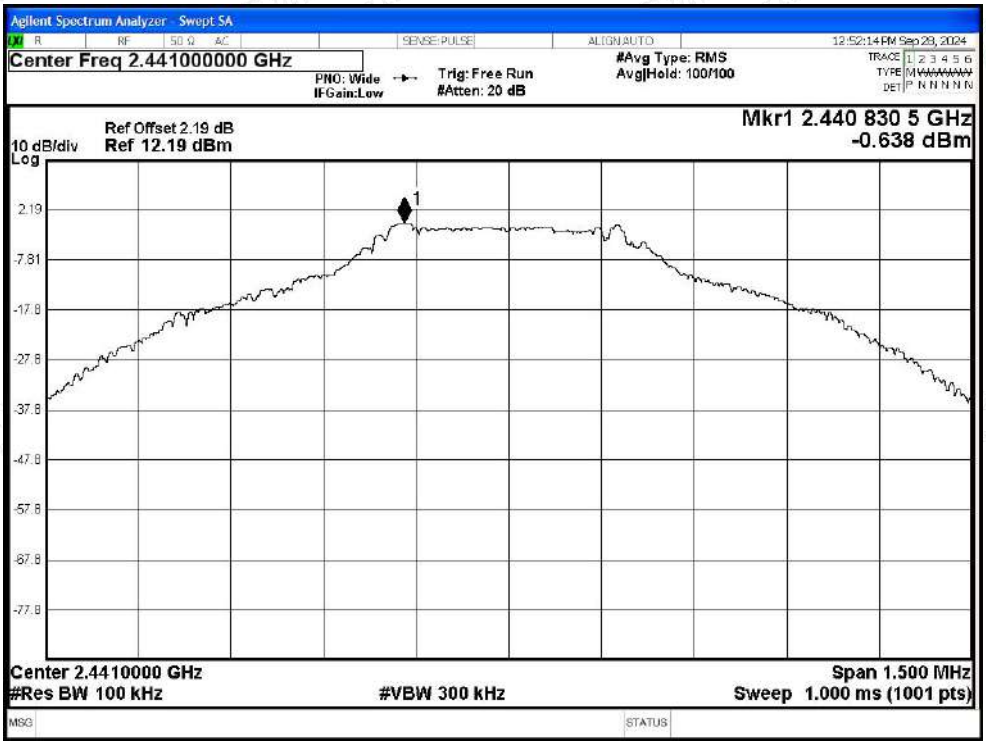
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref



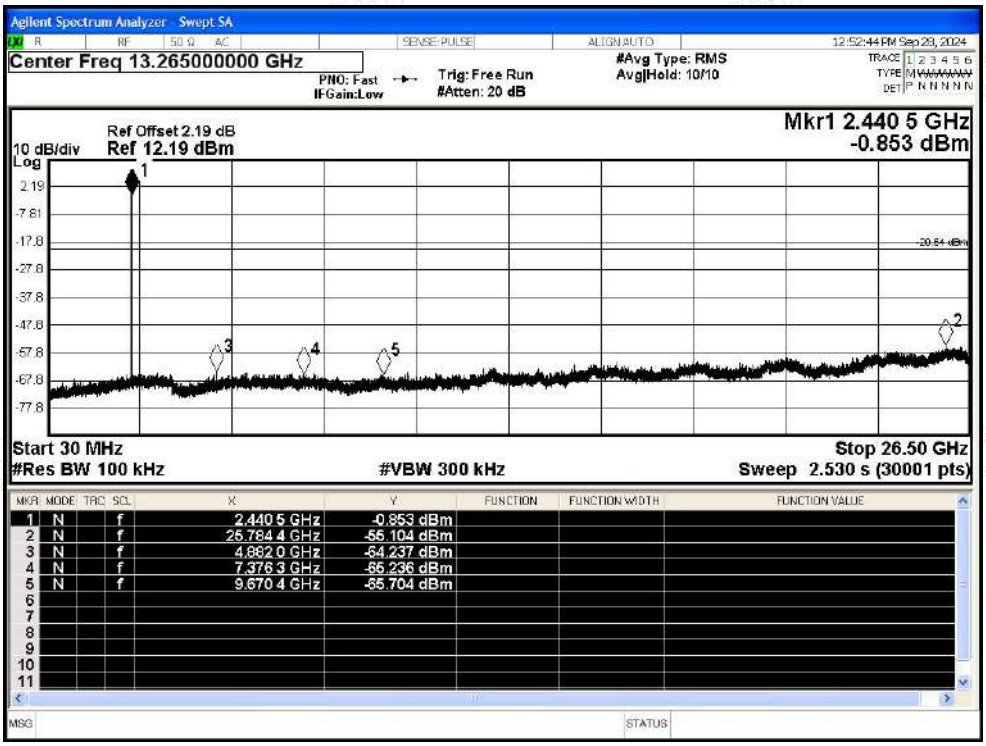
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission



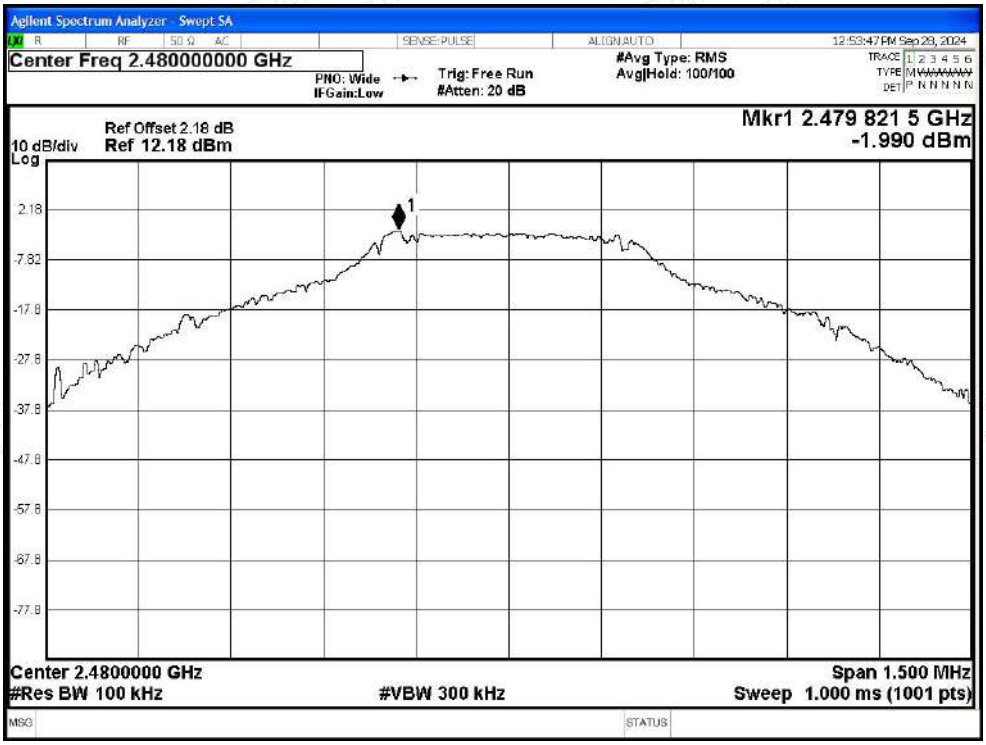
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref



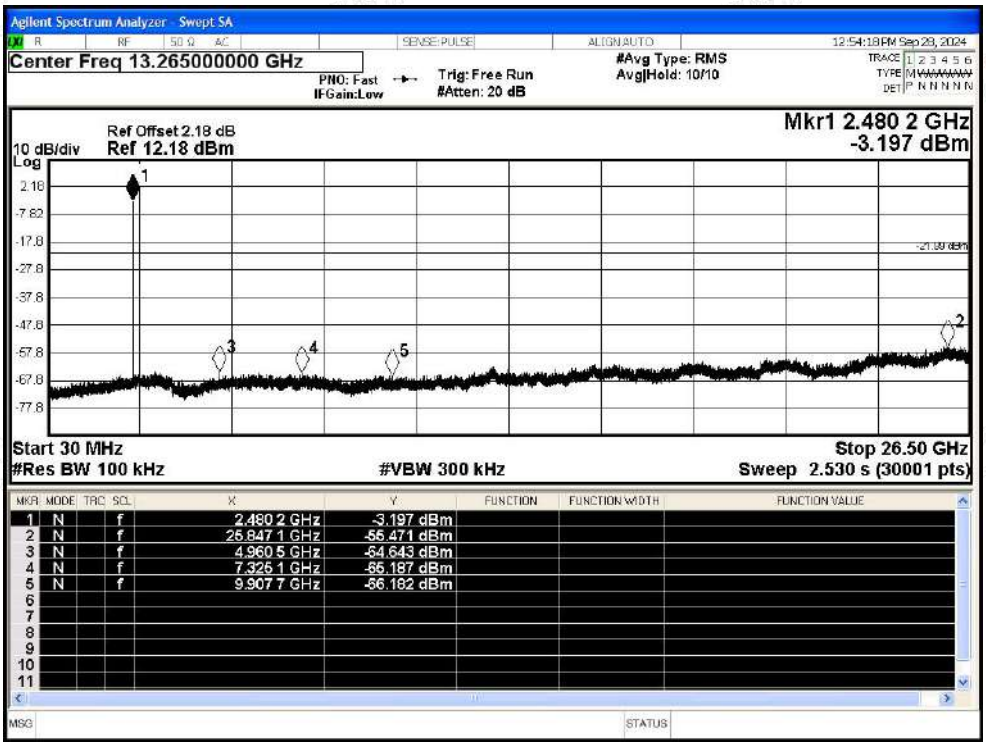
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission



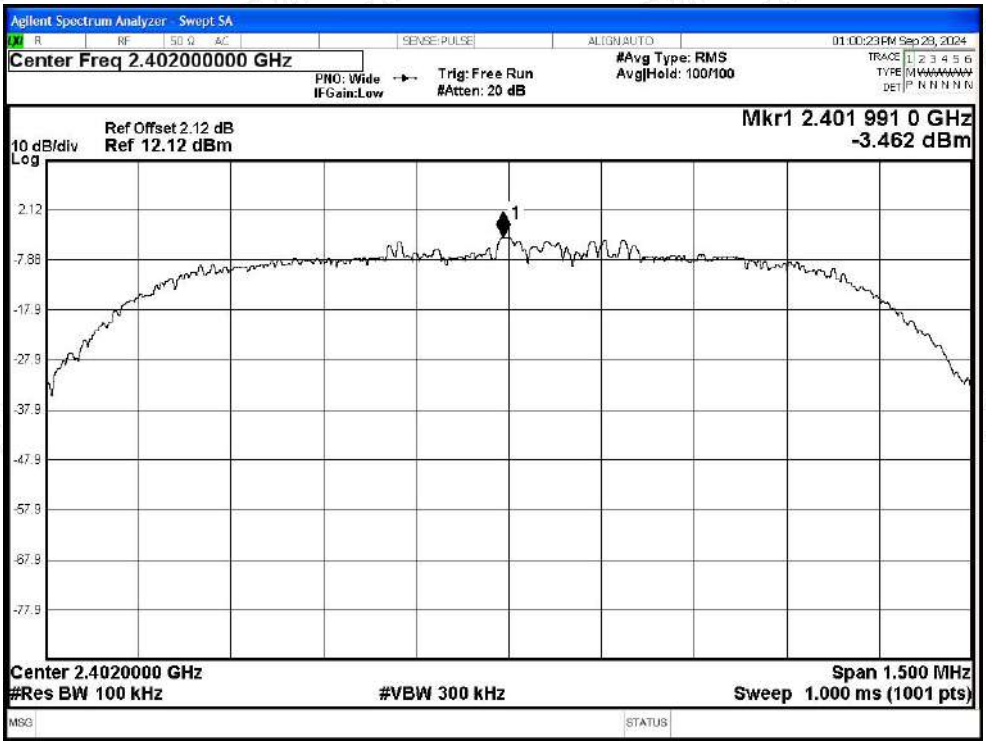
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref



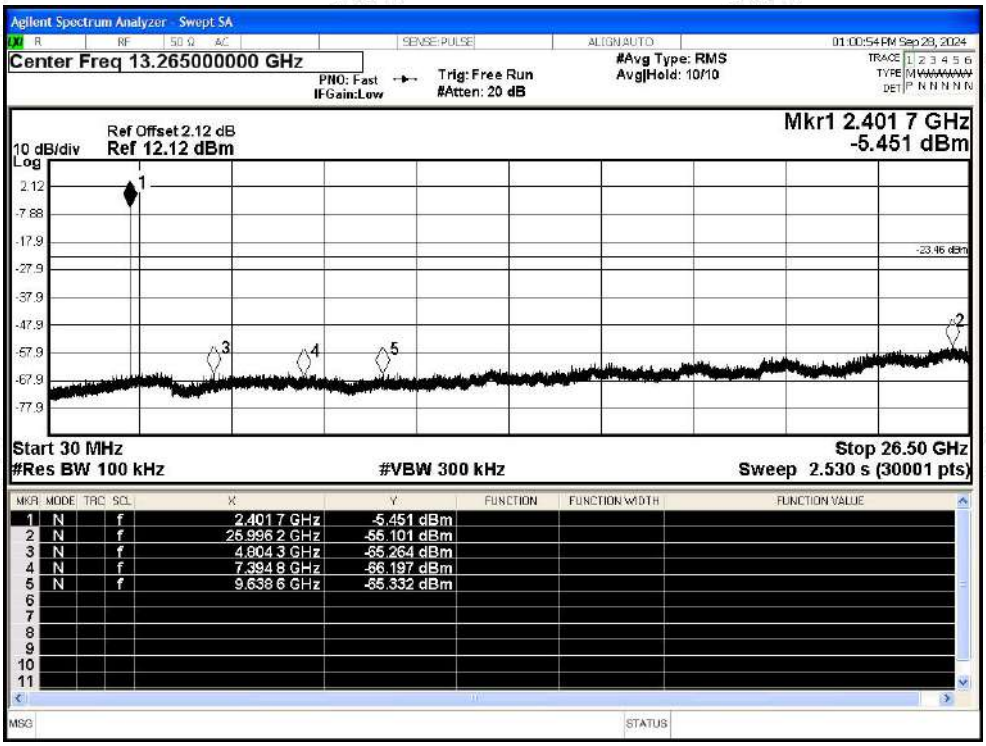
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Emission



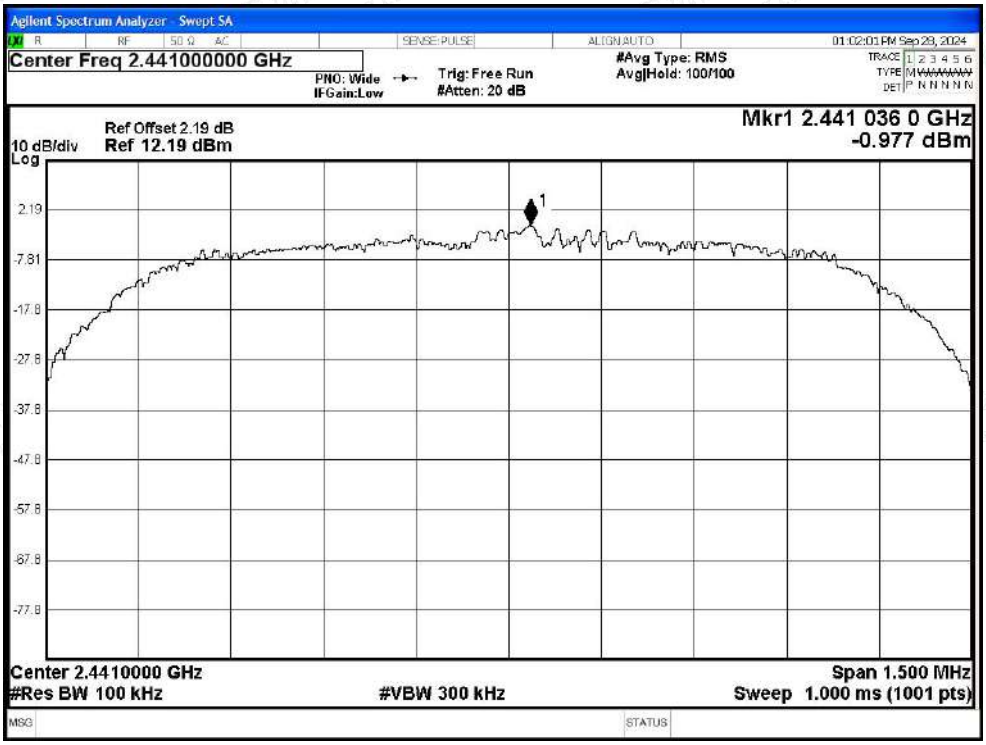
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Ref



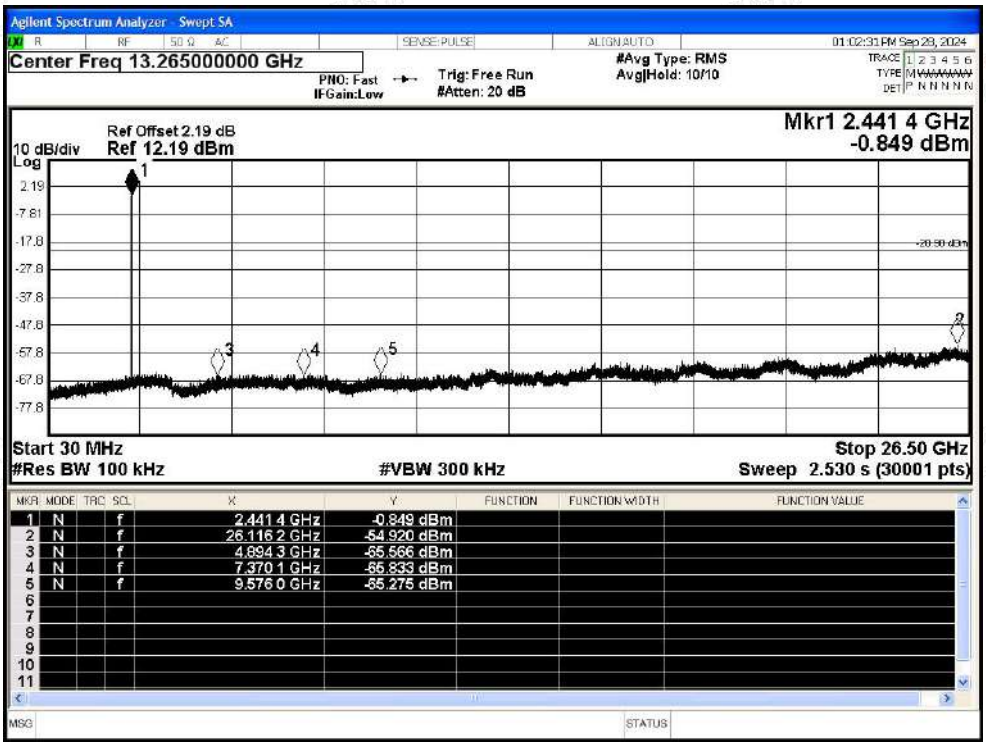
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Emission



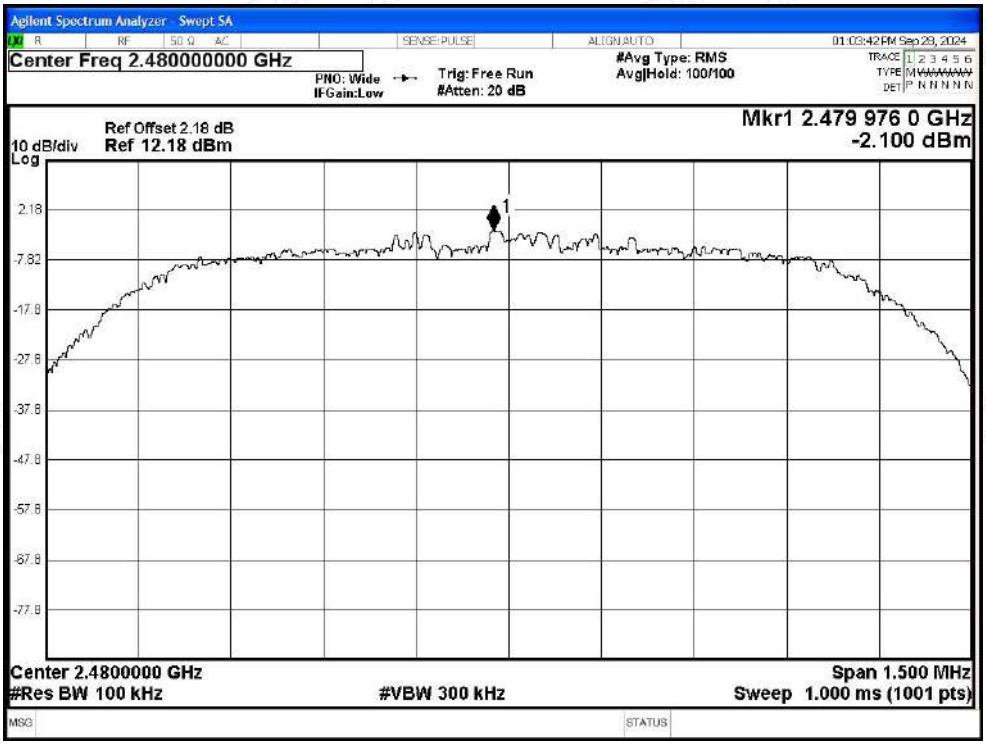
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Ref



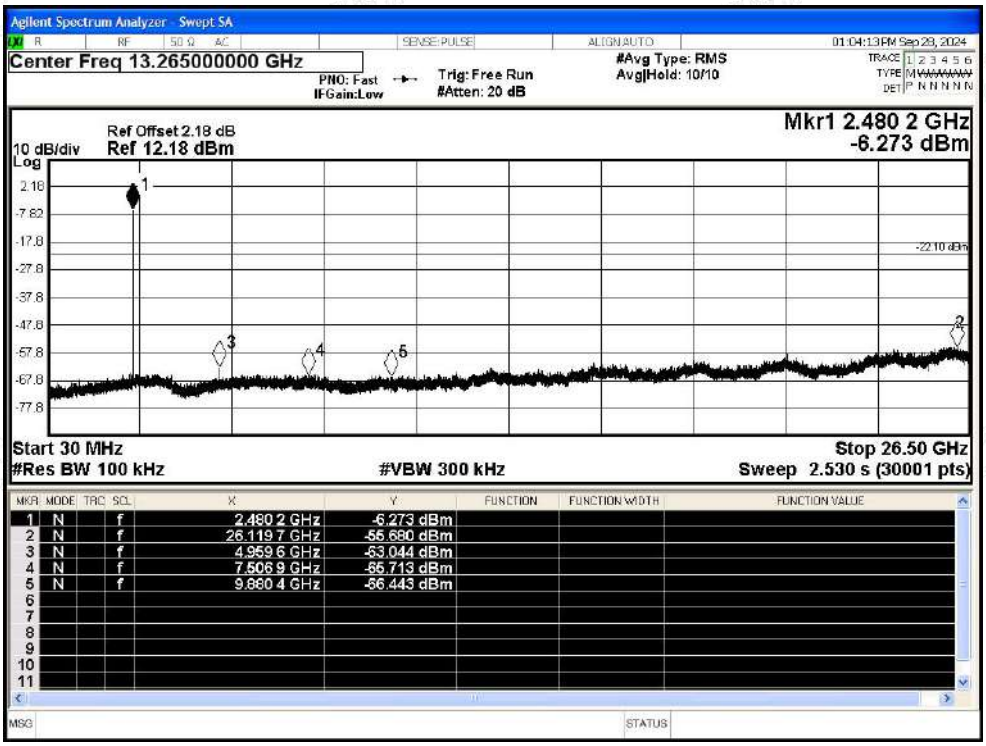
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Emission



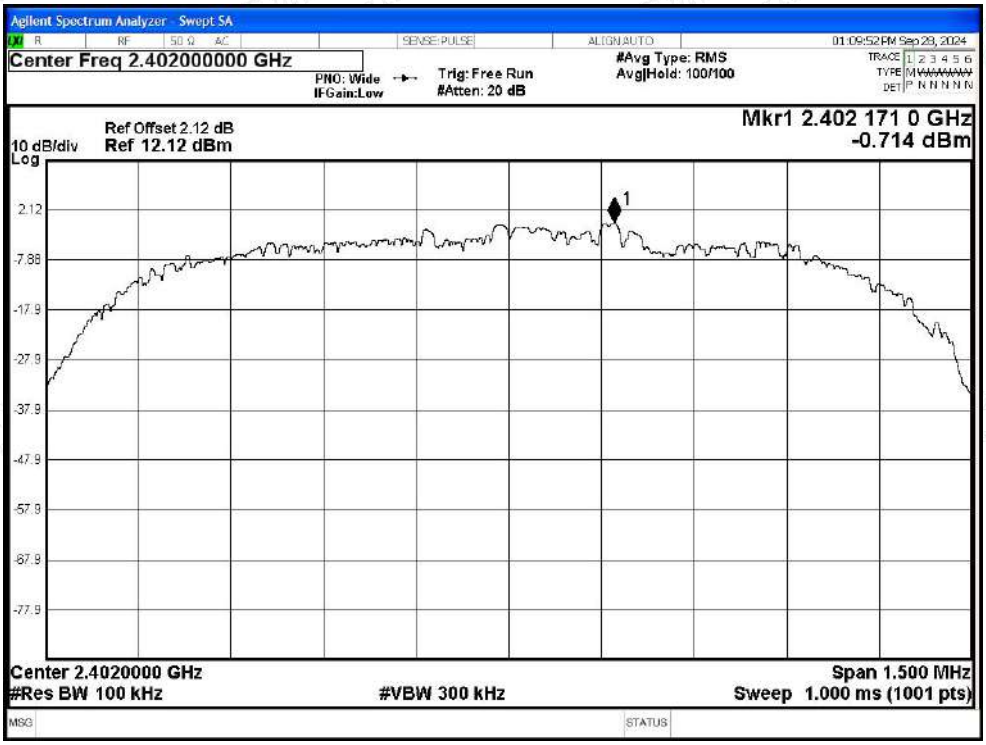
Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Ref



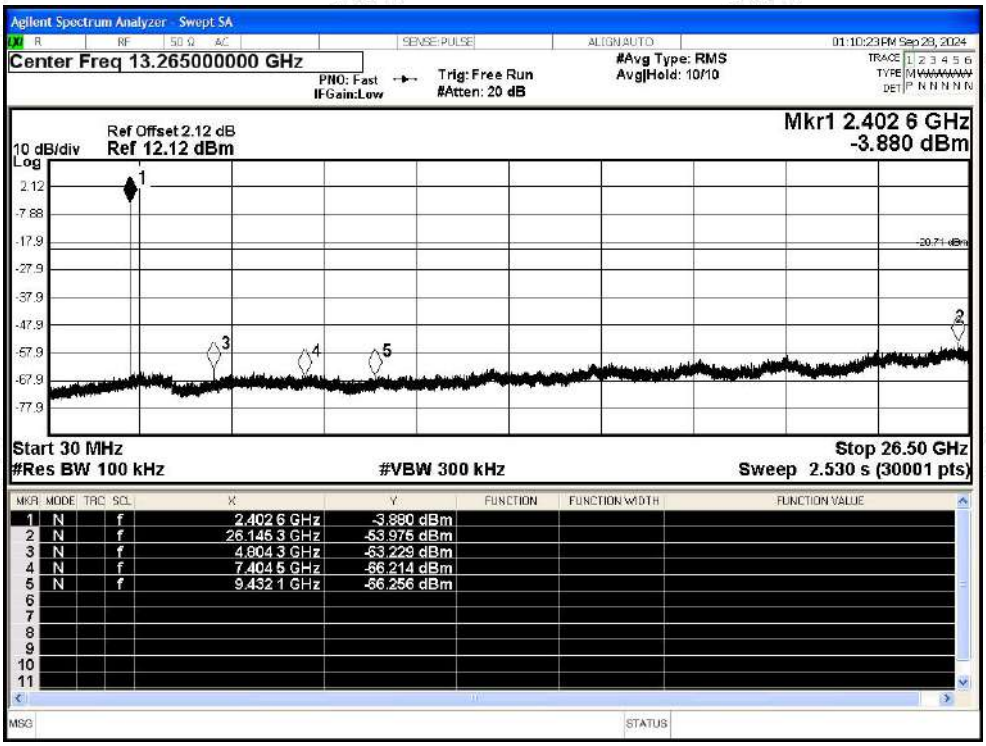
Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Emission



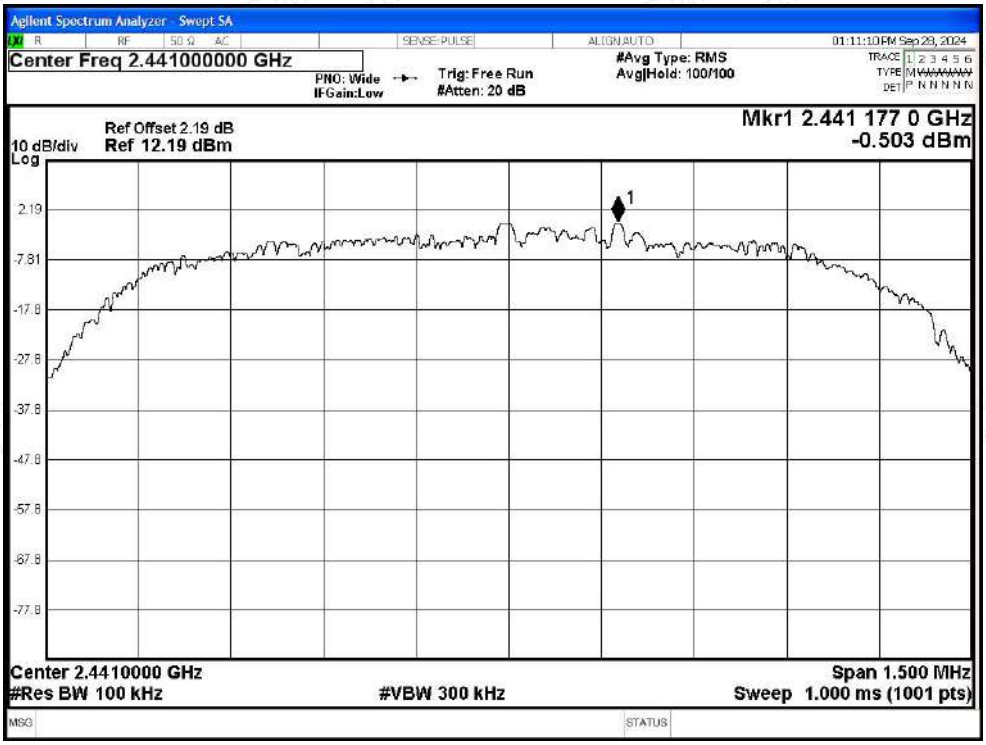
Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Ref



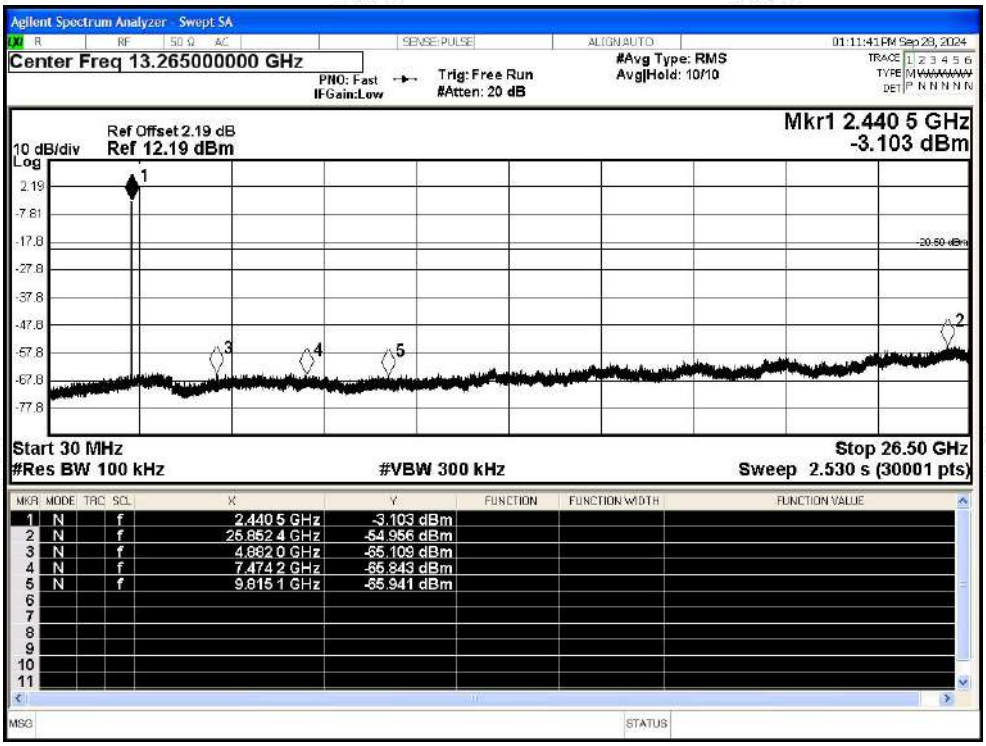
Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Emission



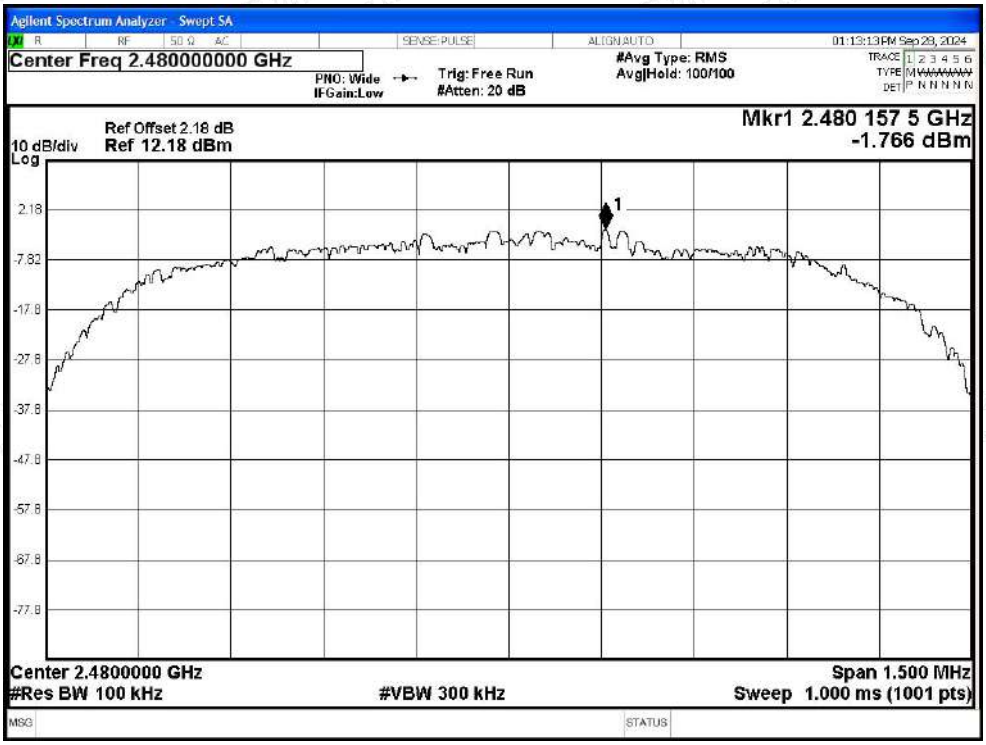
Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Ref



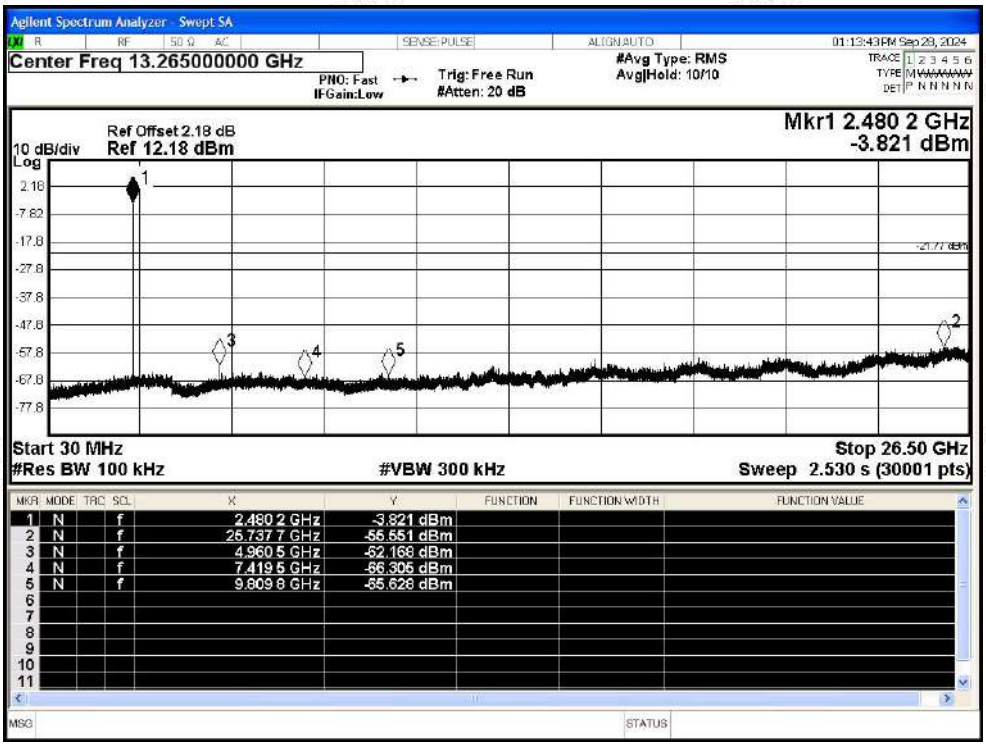
Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Emission

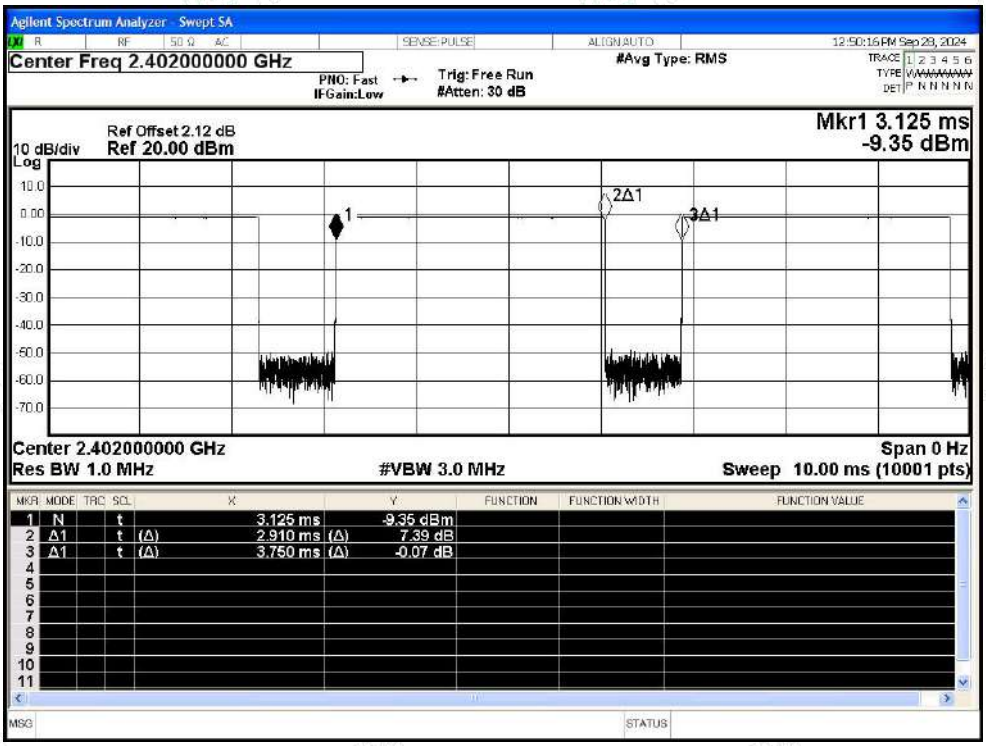


A.8 Duty Cycle

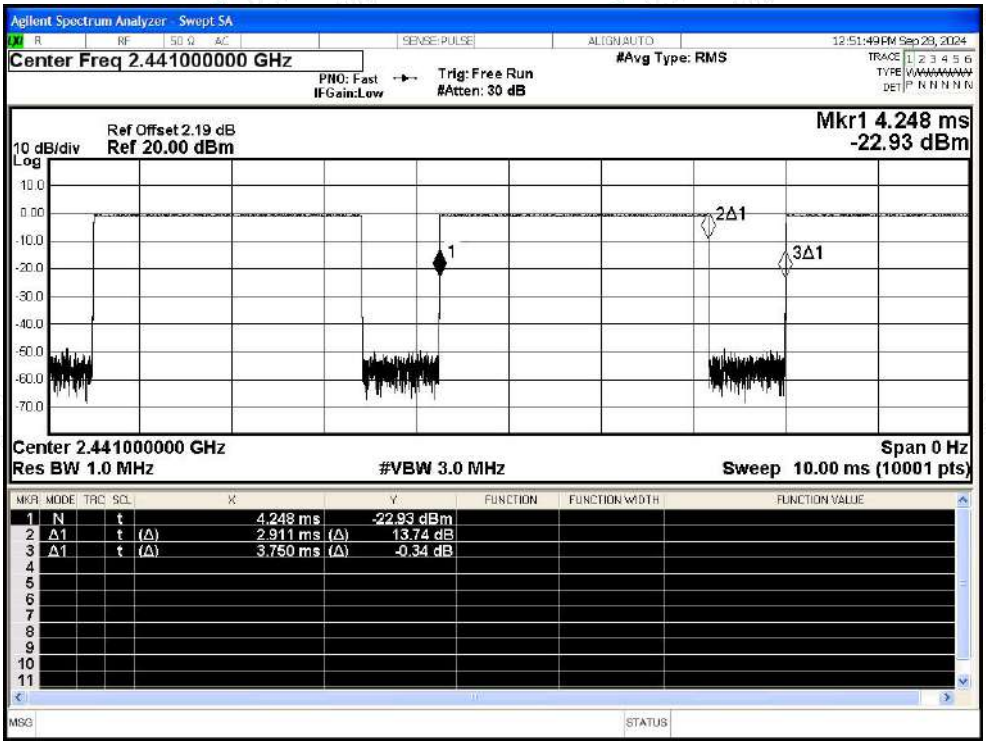
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH5	2402	Ant1	77.6	1.1	0.34
NVNT	1-DH5	2441	Ant1	77.63	1.1	0.34
NVNT	1-DH5	2480	Ant1	77.6	1.1	0.34
NVNT	2-DH5	2402	Ant1	77.28	1.12	0.35
NVNT	2-DH5	2441	Ant1	77.33	1.12	0.34
NVNT	2-DH5	2480	Ant1	77.28	1.12	0.35
NVNT	3-DH5	2402	Ant1	77.28	1.12	0.35
NVNT	3-DH5	2441	Ant1	77.28	1.12	0.35
NVNT	3-DH5	2480	Ant1	77.23	1.12	0.35

Test Graphs

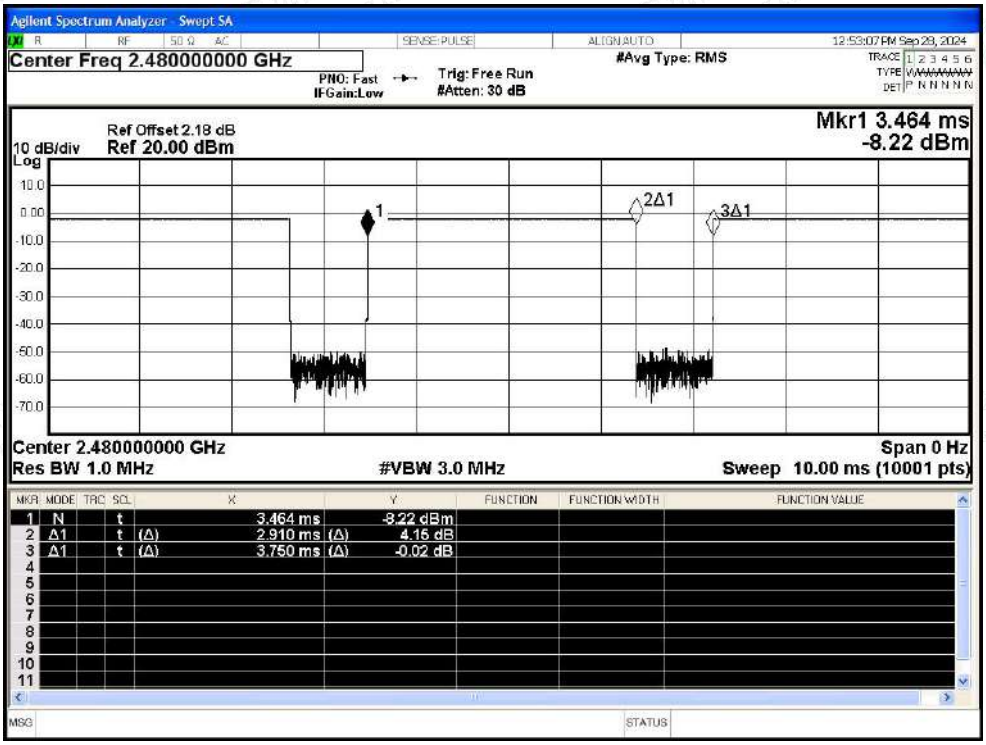
Duty Cycle NVNT 1-DH5 2402MHz Ant1



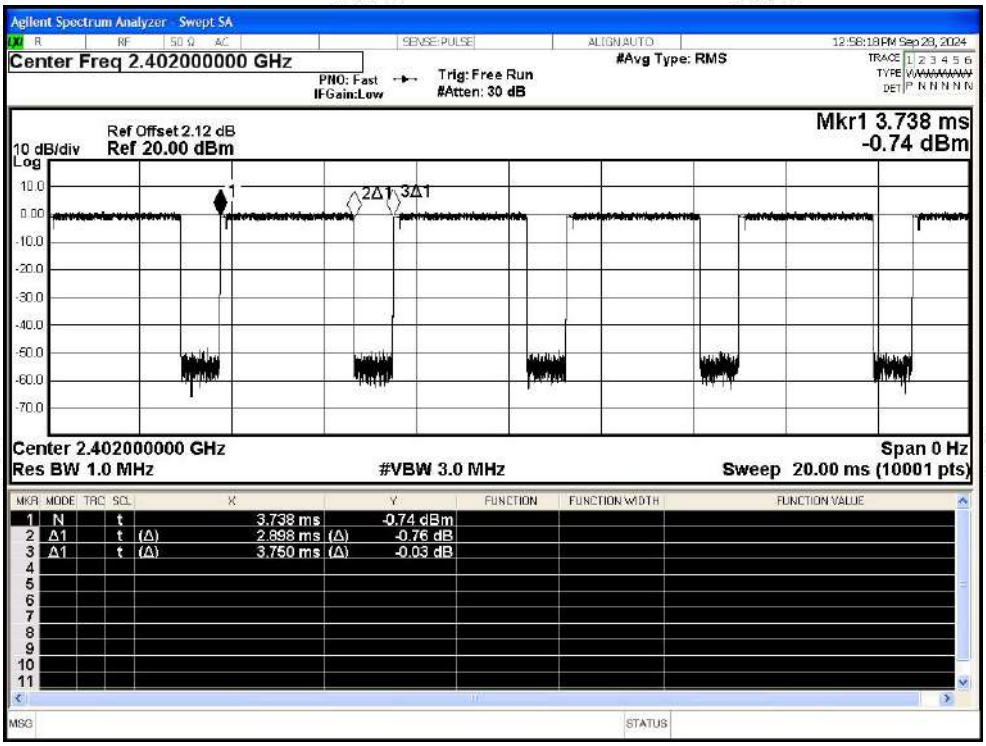
Duty Cycle NVNT 1-DH5 2441MHz Ant1



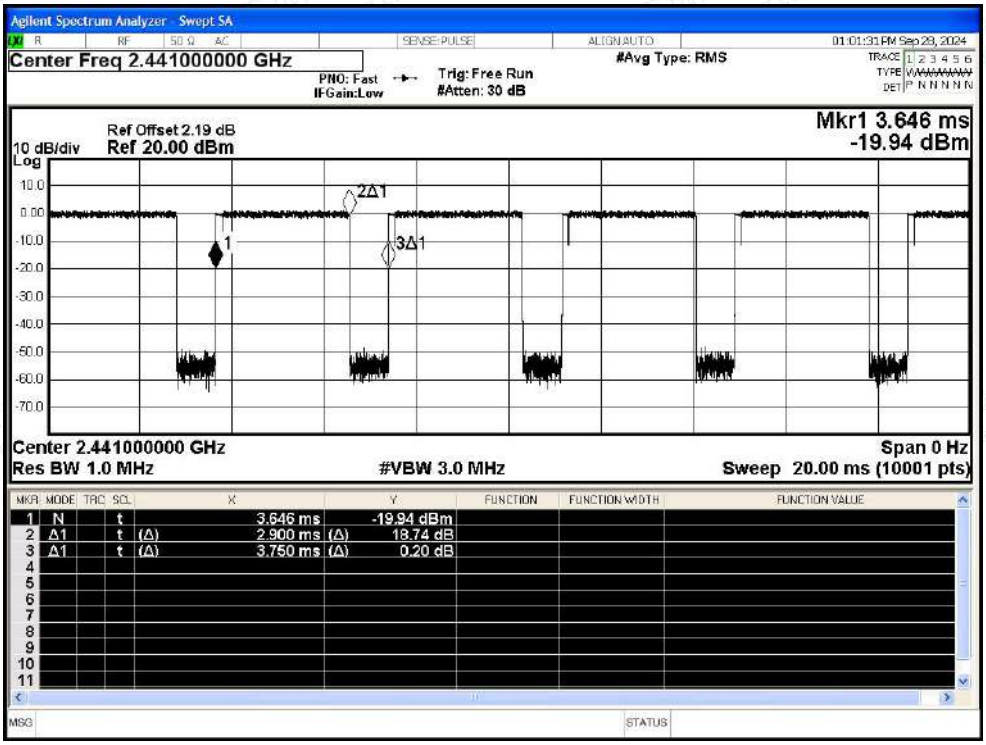
Duty Cycle NVNT 1-DH5 2480MHz Ant1



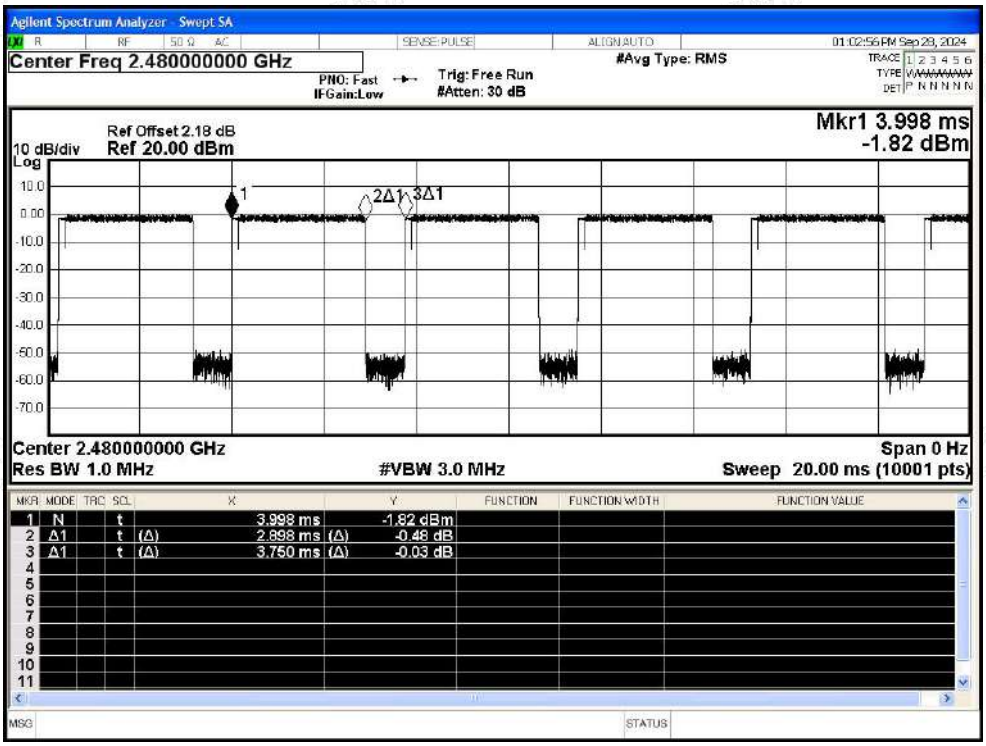
Duty Cycle NVNT 2-DH5 2402MHz Ant1



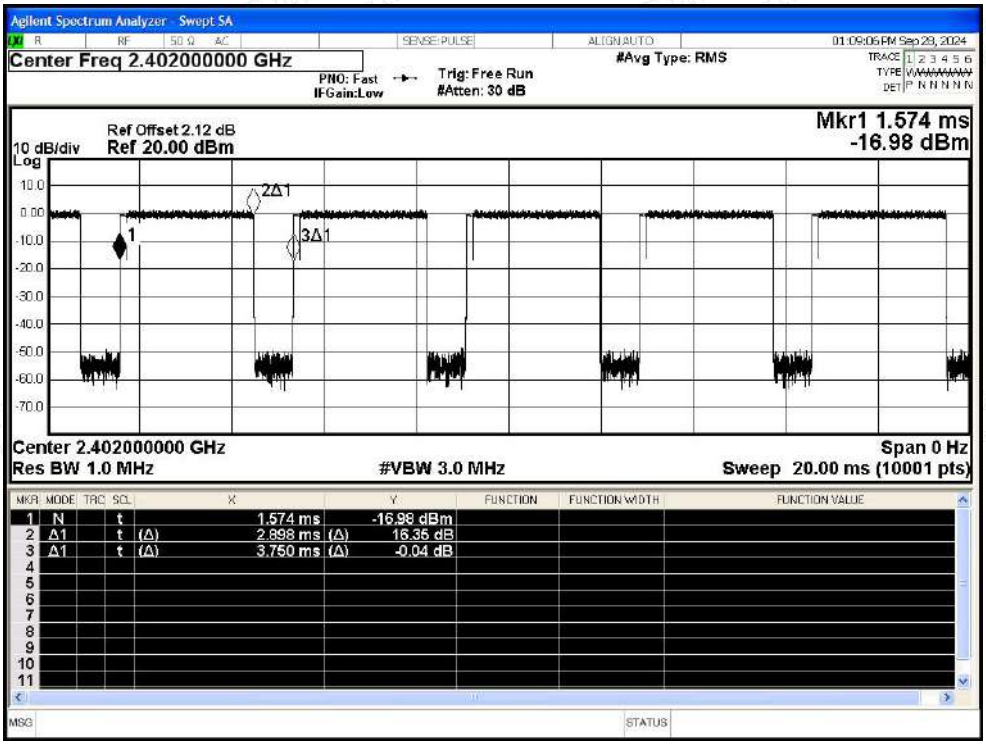
Duty Cycle NVNT 2-DH5 2441MHz Ant1



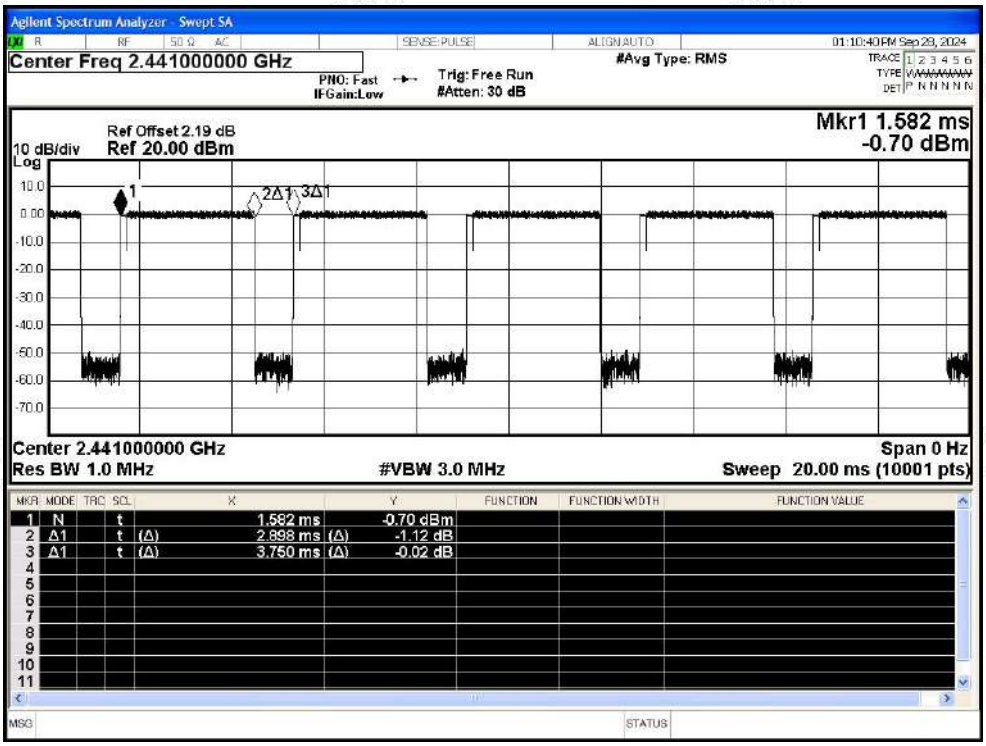
Duty Cycle NVNT 2-DH5 2480MHz Ant1



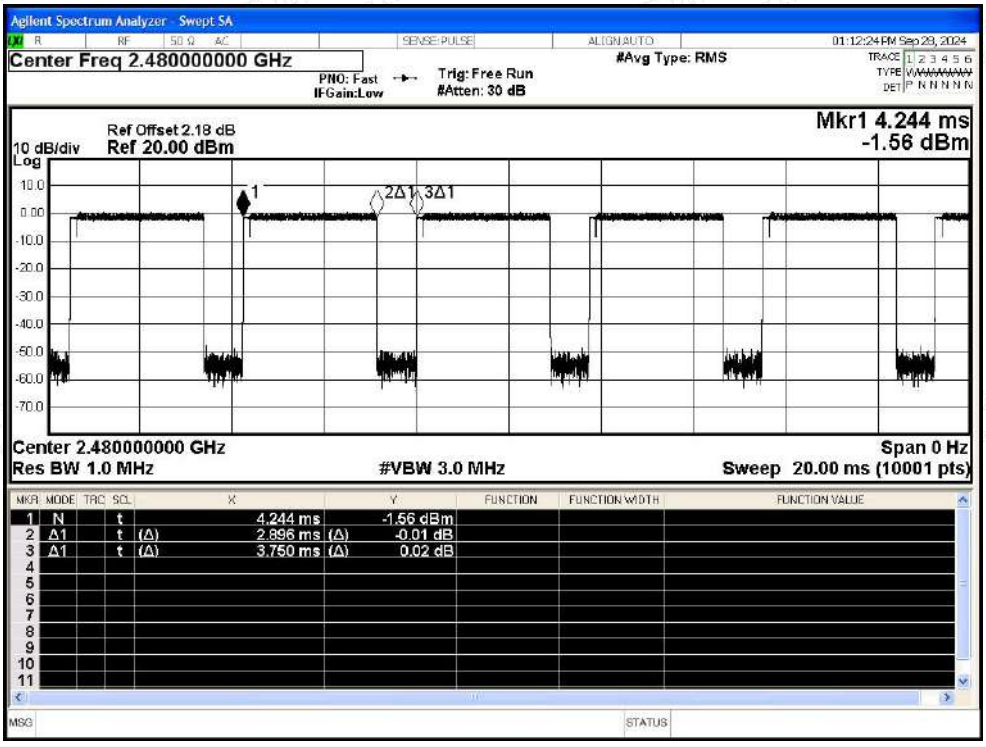
Duty Cycle NVNT 3-DH5 2402MHz Ant1



Duty Cycle NVNT 3-DH5 2441MHz Ant1



Duty Cycle NVNT 3-DH5 2480MHz Ant1

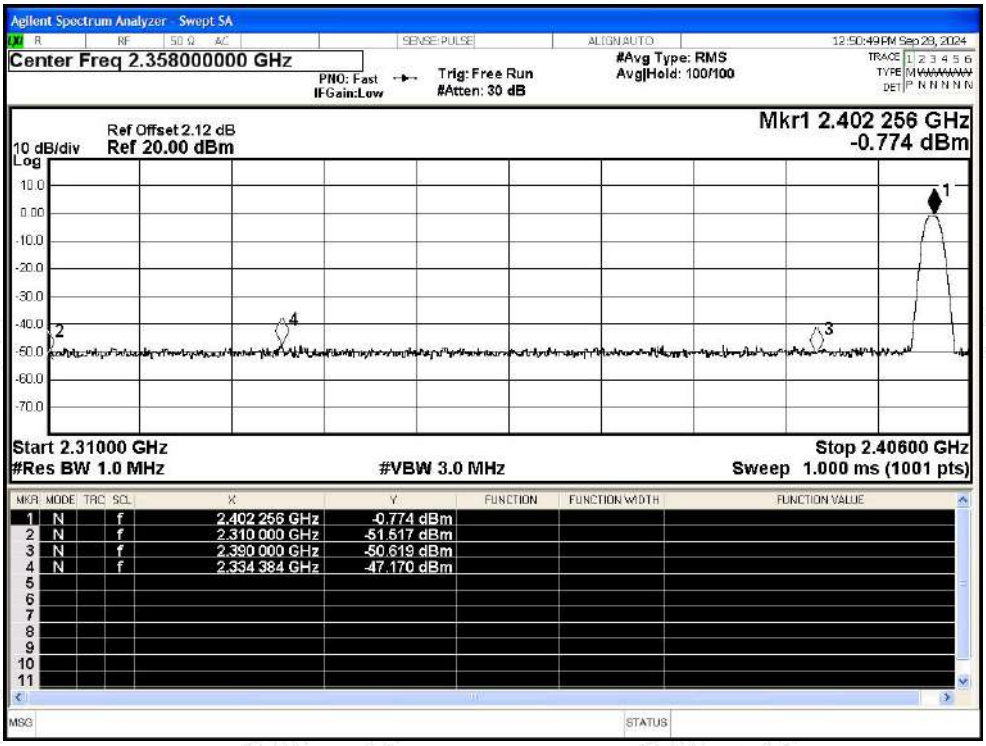


A.9 Restrict Band

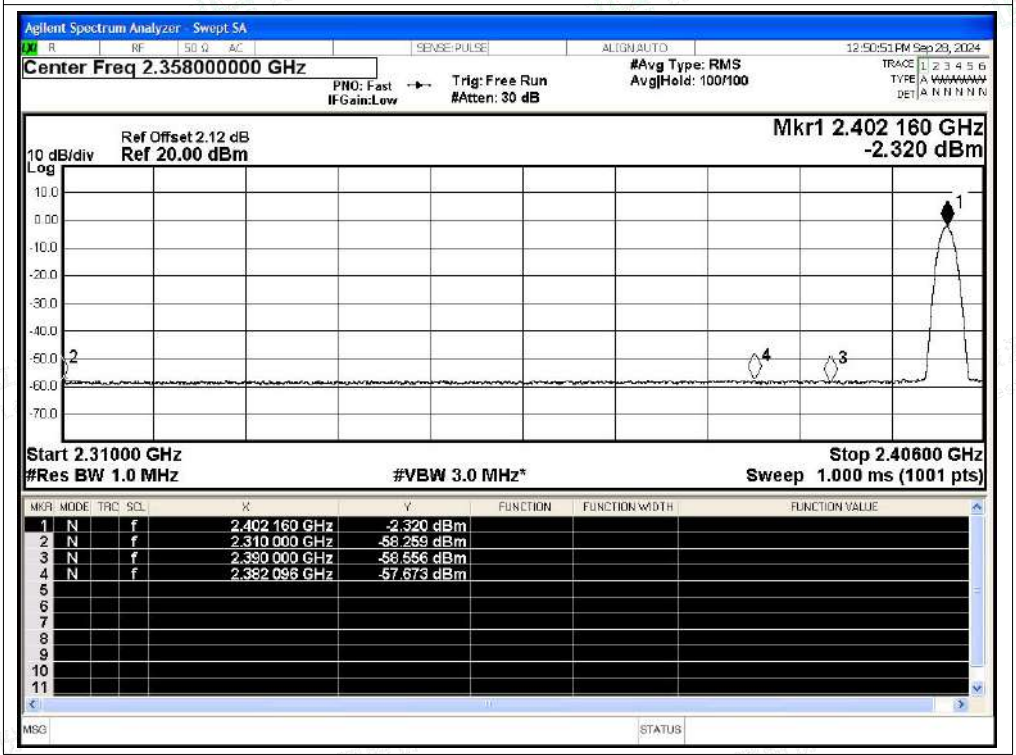
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-51.52	2	-	45.74	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-58.26	2	1.1	40.1	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2334.384	-47.17	2	-	50.09	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2382.096	-57.67	2	1.1	40.69	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-50.62	2	-	46.64	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-58.56	2	1.1	39.8	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-49.61	2	-	47.65	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-57.81	2	1.1	40.55	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2487.328	-47.3	2	-	49.96	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2488.288	-57.08	2	1.1	41.28	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-48.35	2	-	48.91	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-57.82	2	1.1	40.54	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-49.75	2	-	47.51	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-59.06	2	1.12	39.32	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2389.104	-46.69	2	-	50.57	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2383.44	-57.51	2	1.12	40.87	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-50.23	2	-	47.03	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-58.43	2	1.12	39.95	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-49.43	2	-	47.83	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-57.65	2	1.12	40.73	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2494.768	-46.65	2	-	50.61	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2488.072	-57.15	2	1.12	41.23	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-48.54	2	-	48.72	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-57.67	2	1.12	40.71	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-52.12	2	-	45.14	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-58.54	2	1.12	39.84	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2352.336	-47.95	2	-	49.31	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2337.36	-57.62	2	1.12	40.76	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-50.57	2	-	46.69	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-58.57	2	1.12	39.81	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-49.3	2	-	47.96	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-57.42	2	1.12	40.96	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2485	-46.78	2	-	50.48	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2496.112	-56.99	2	1.12	41.39	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-50.23	2	-	47.03	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-58.21	2	1.12	40.17	Average	54	Pass

Test Graphs

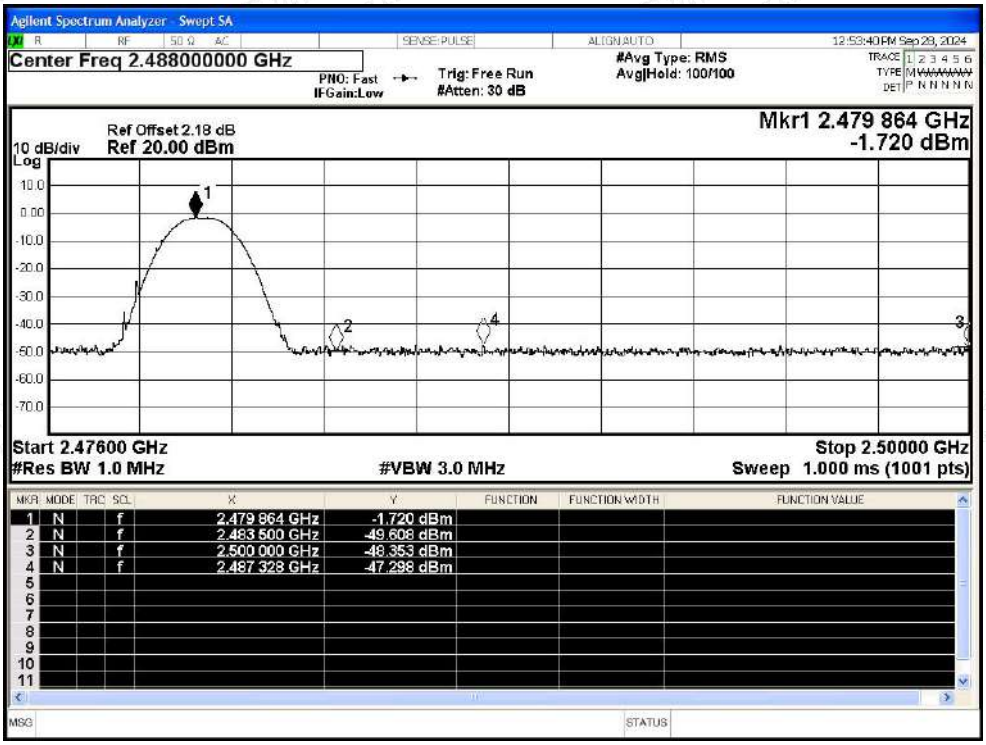
Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Peak



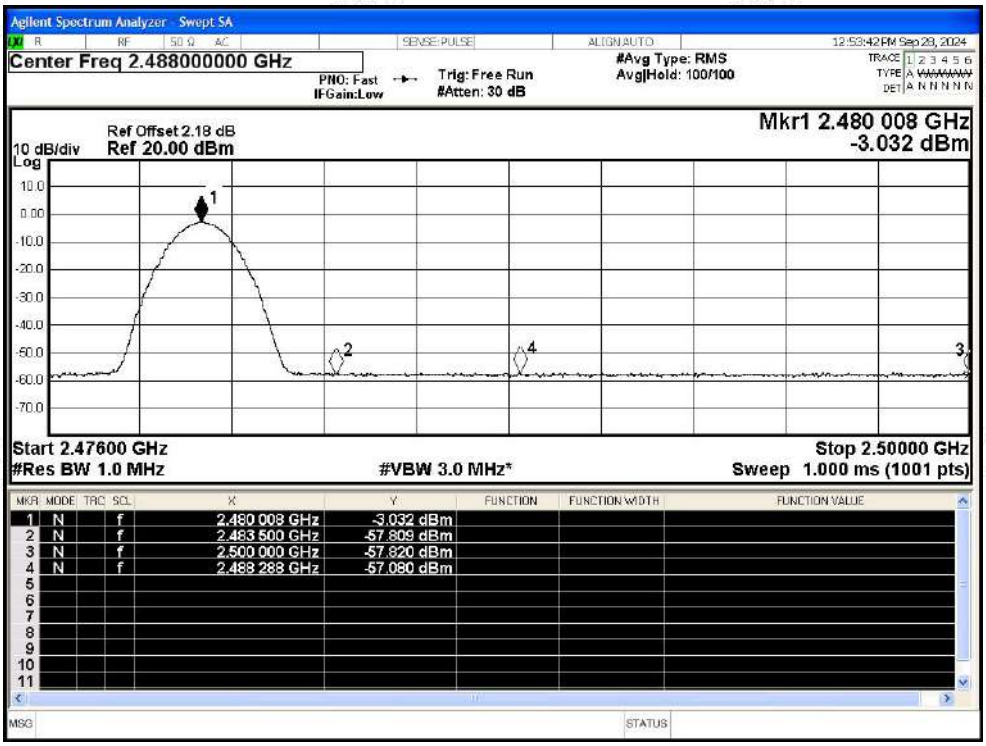
Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Average



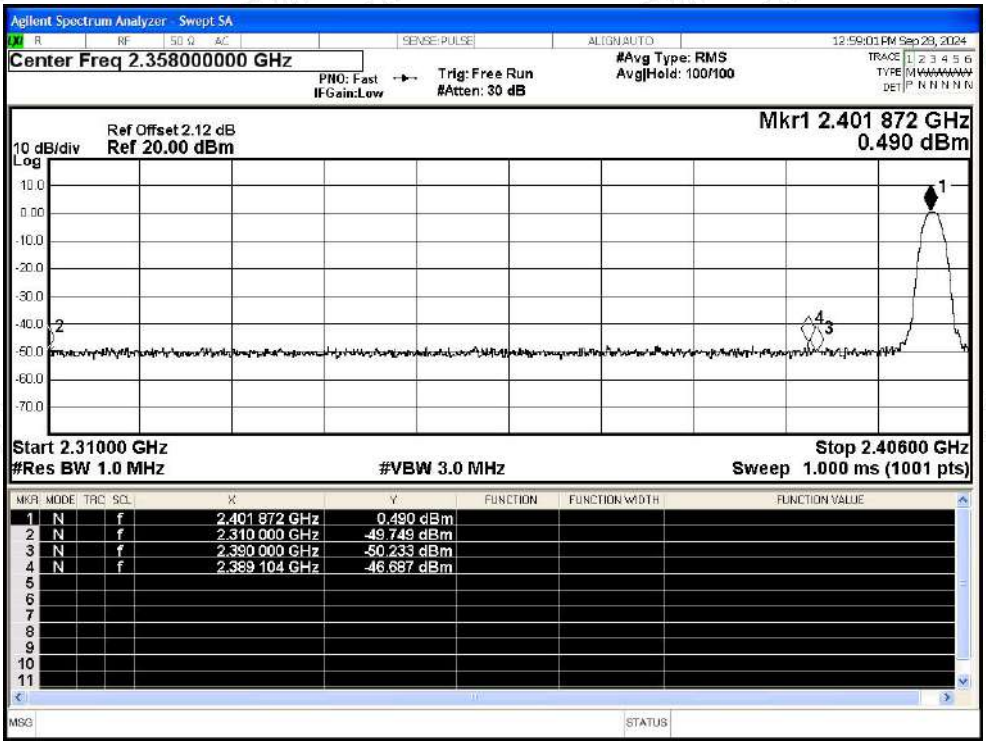
Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Peak



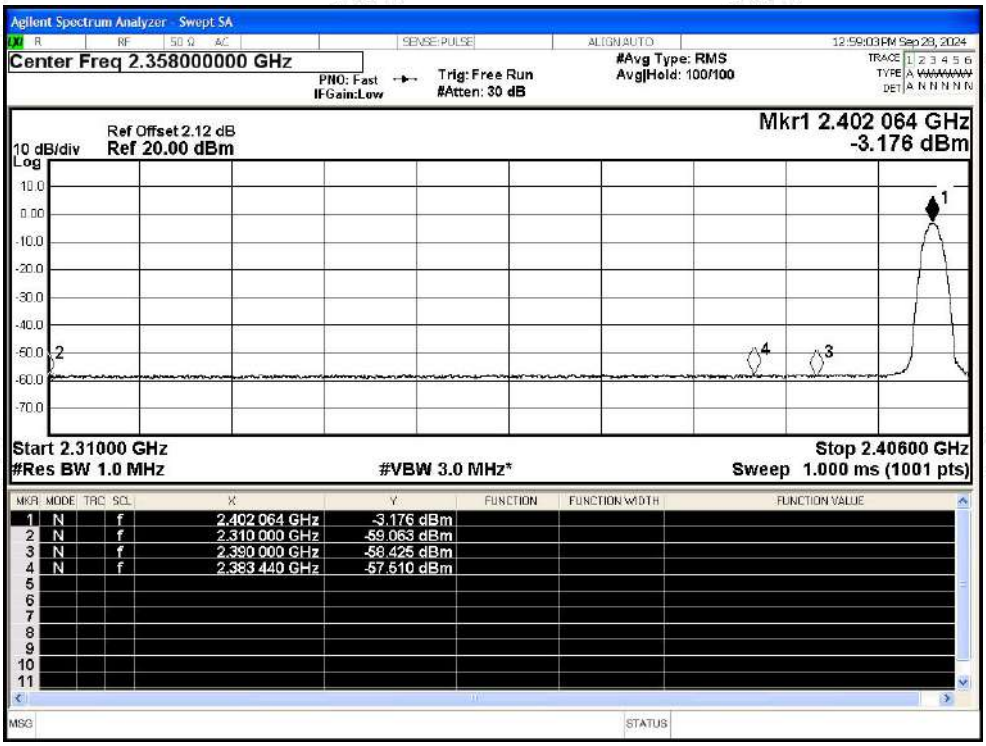
Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Average



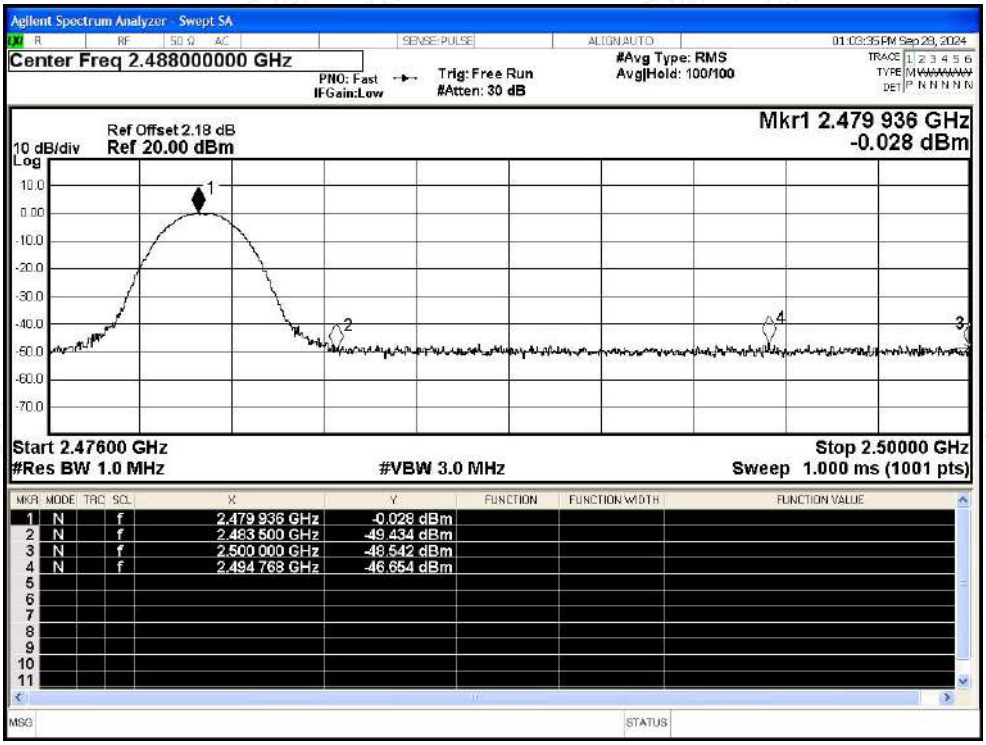
Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Peak



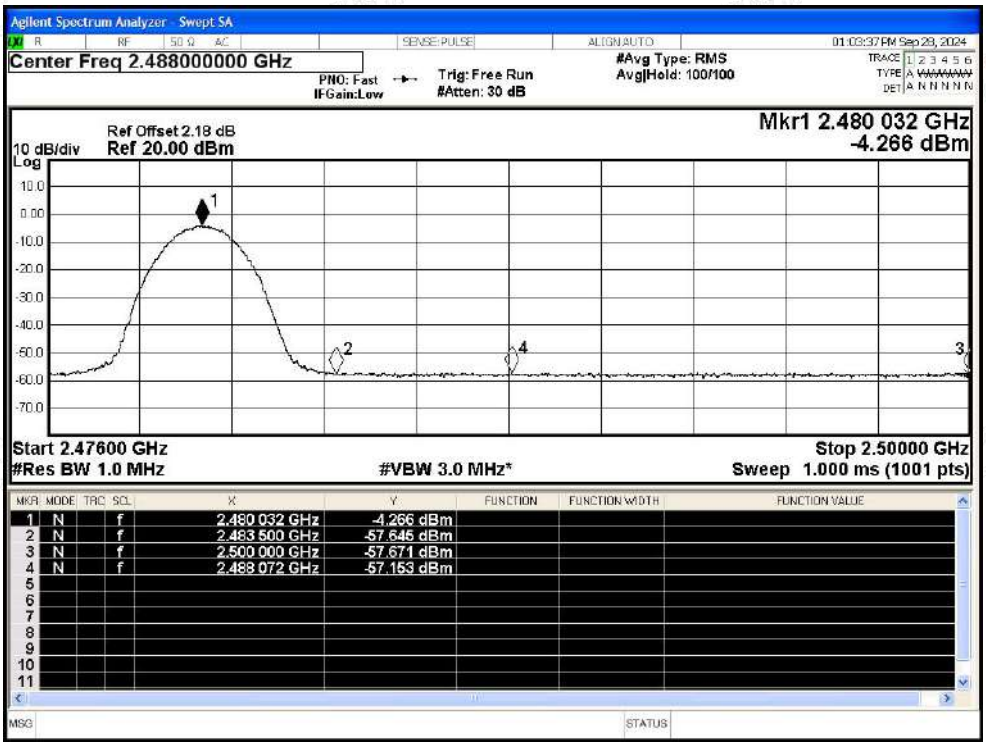
Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Average



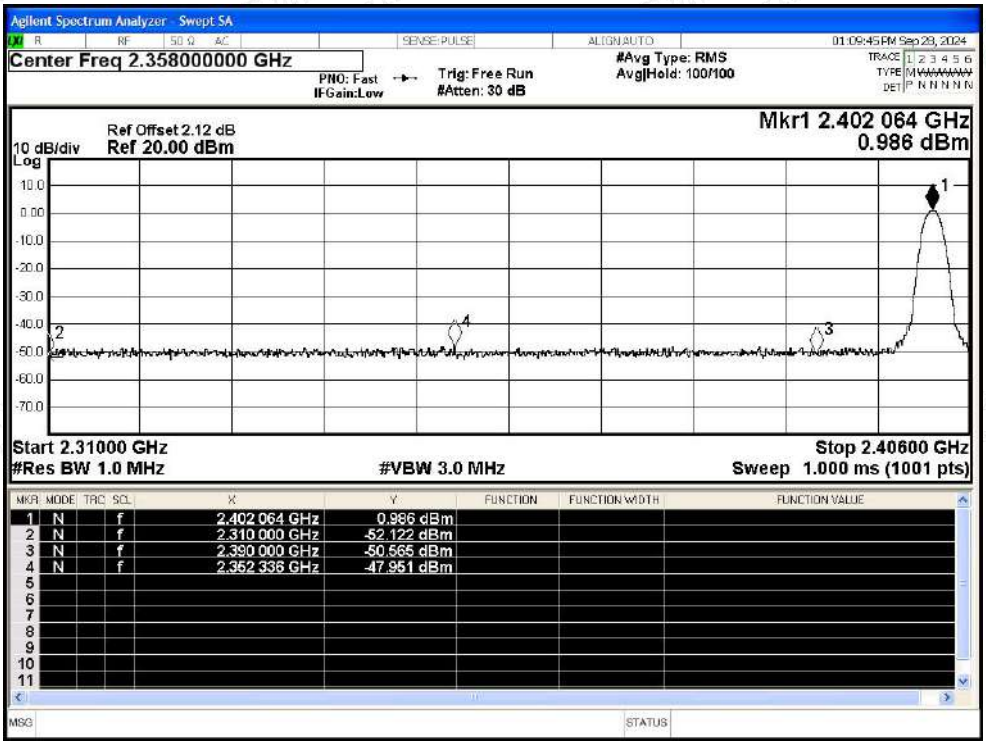
Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Peak



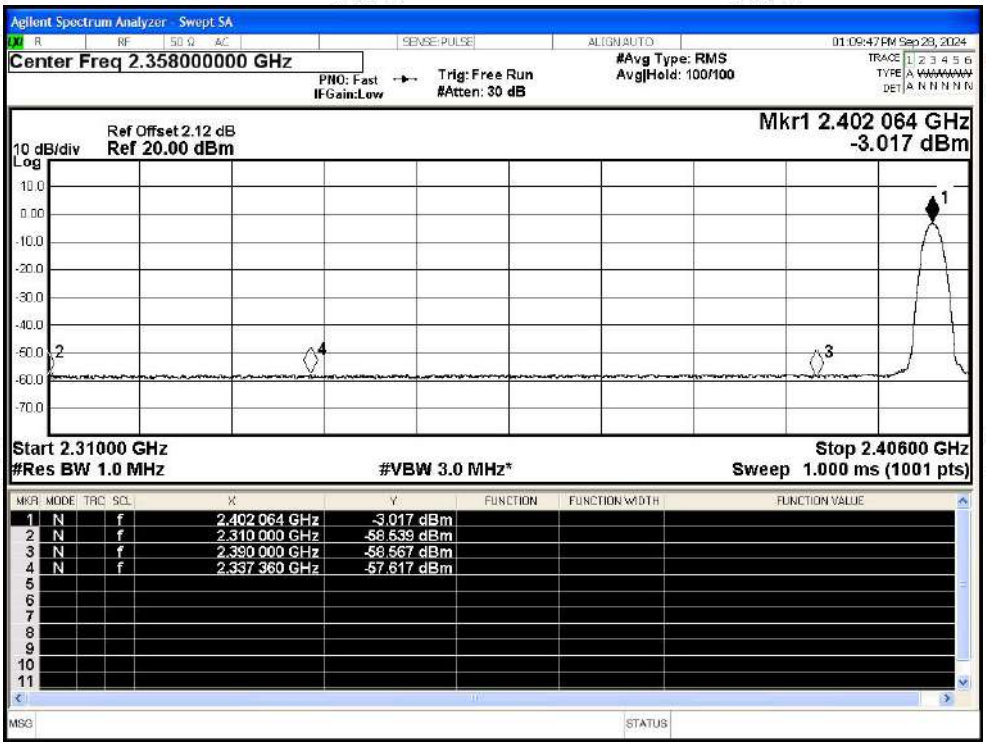
Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Average



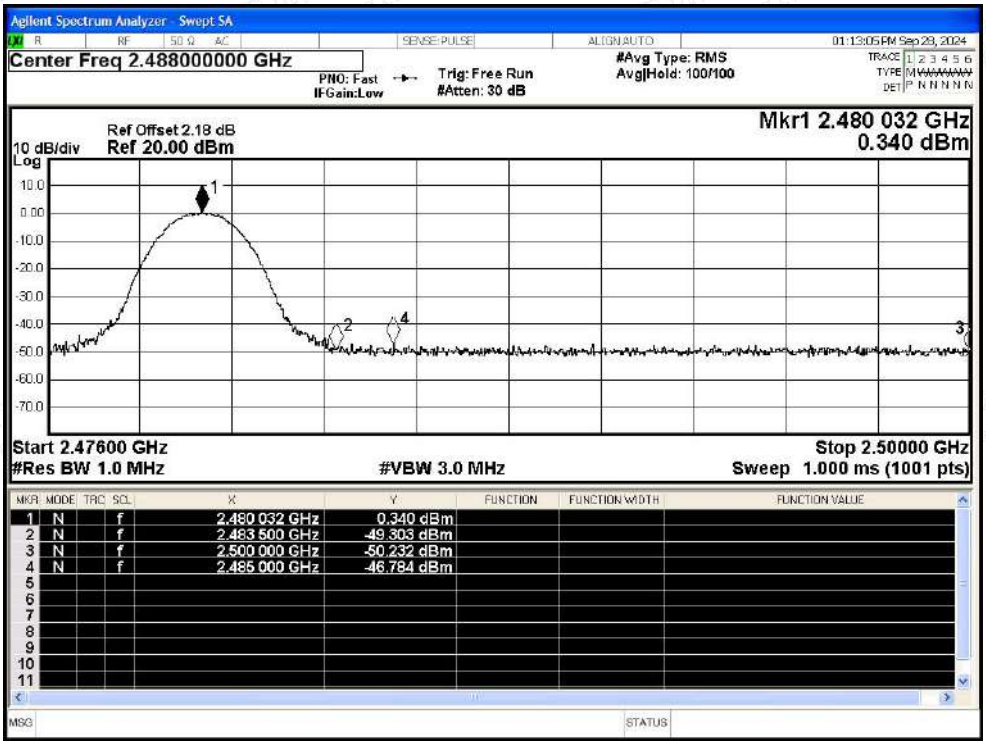
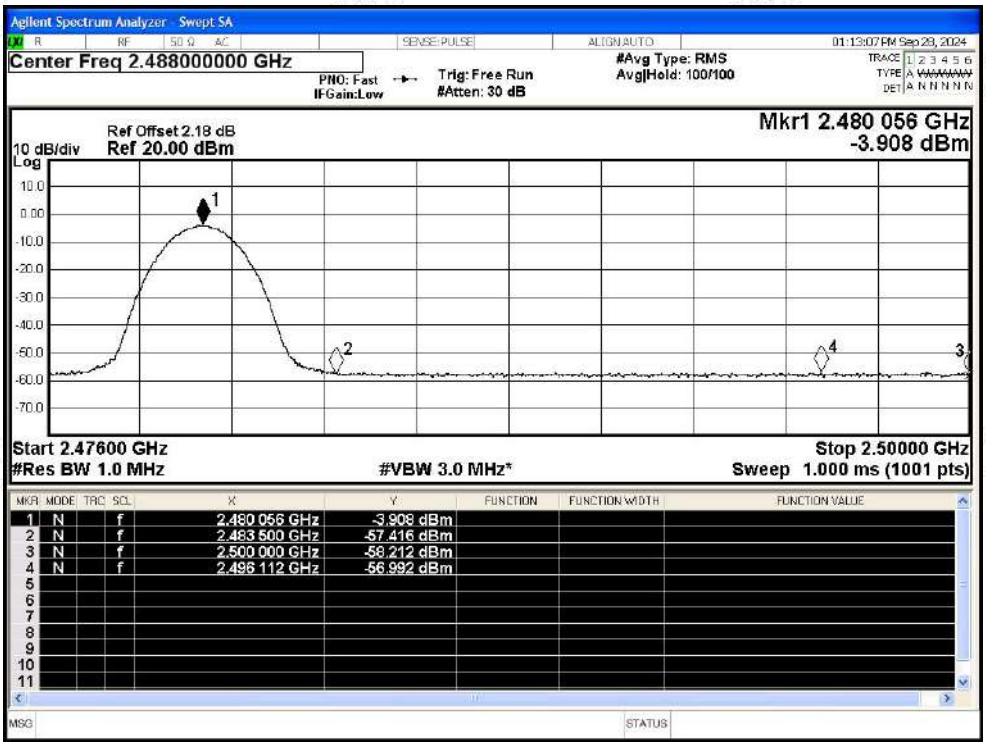
Restrict Band NVNT 3-DH5 2402MHz Ant1 No-Hopping Peak



Restrict Band NVNT 3-DH5 2402MHz Ant1 No-Hopping Average



Restrict Band NVNT 3-DH5 2480MHz Ant1 No-Hopping Peak



Restrict Band NVNT 3-DH5 2480MHz Ant1 No-Hopping Average