Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: Portable Speaker

Test Model: ABS2608

Environmental Conditions

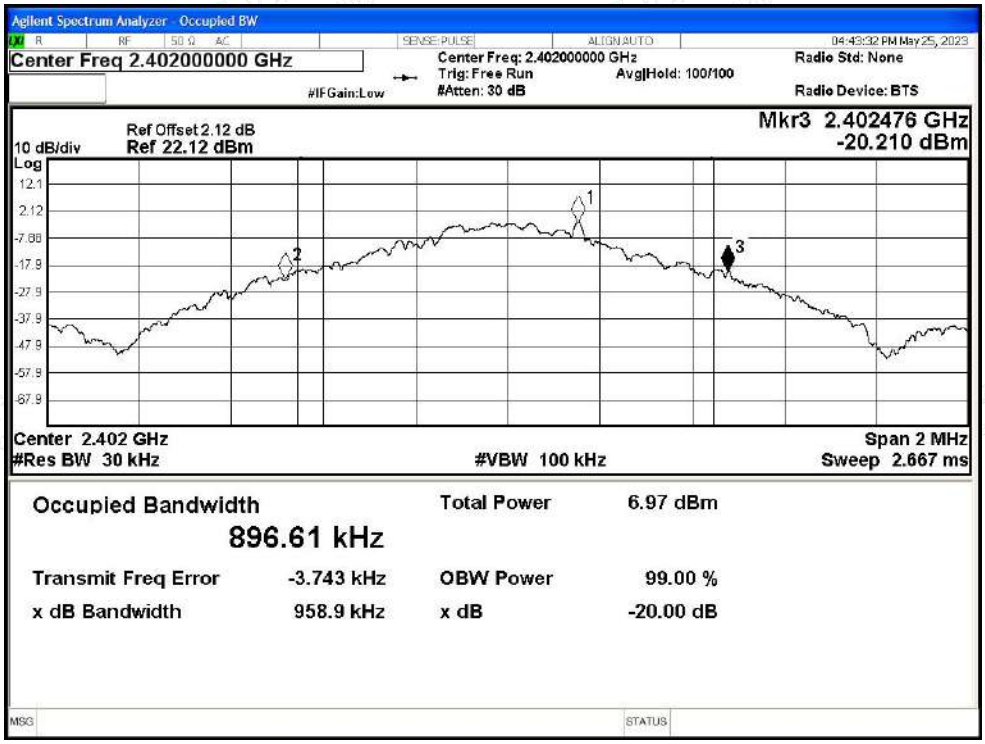
Temperature:	23.8 ° C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Nick Peng Nick Peng
Supervised by:	Ling.zhu Ling Zhu

A.1 -20dB Bandwidth

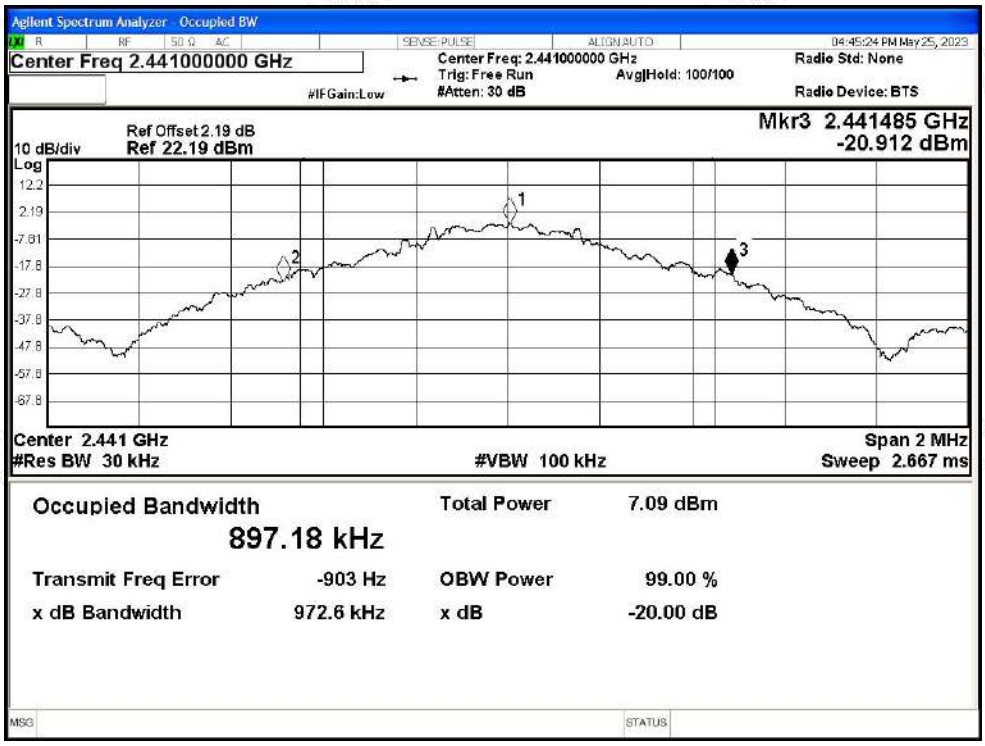
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH5	2402	Ant1	0.959	N/A	Pass
NVNT	1-DH5	2441	Ant1	0.973	N/A	Pass
NVNT	1-DH5	2480	Ant1	1.006	N/A	Pass
NVNT	2-DH5	2402	Ant1	1.291	N/A	Pass
NVNT	2-DH5	2441	Ant1	1.282	N/A	Pass
NVNT	2-DH5	2480	Ant1	1.311	N/A	Pass
NVNT	3-DH5	2402	Ant1	1.282	N/A	Pass
NVNT	3-DH5	2441	Ant1	1.298	N/A	Pass
NVNT	3-DH5	2480	Ant1	1.297	N/A	Pass

Test Graphs

-20dB Bandwidth NVNT 1-DH5 2402MHz Ant1

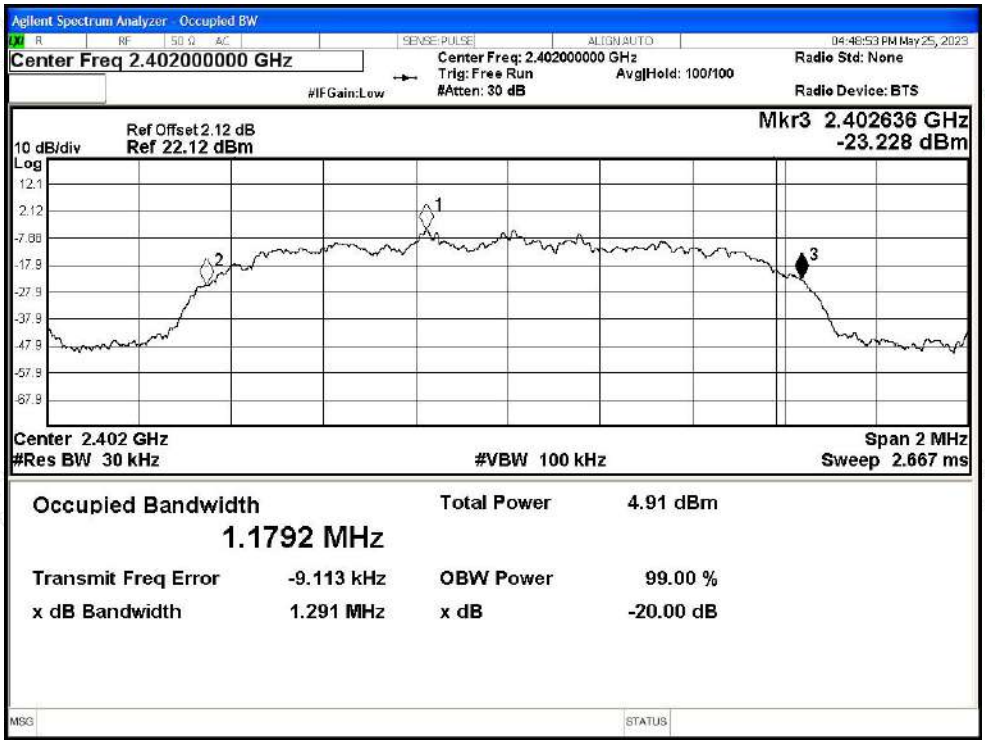


-20dB Bandwidth NVNT 1-DH5 2441MHz Ant1

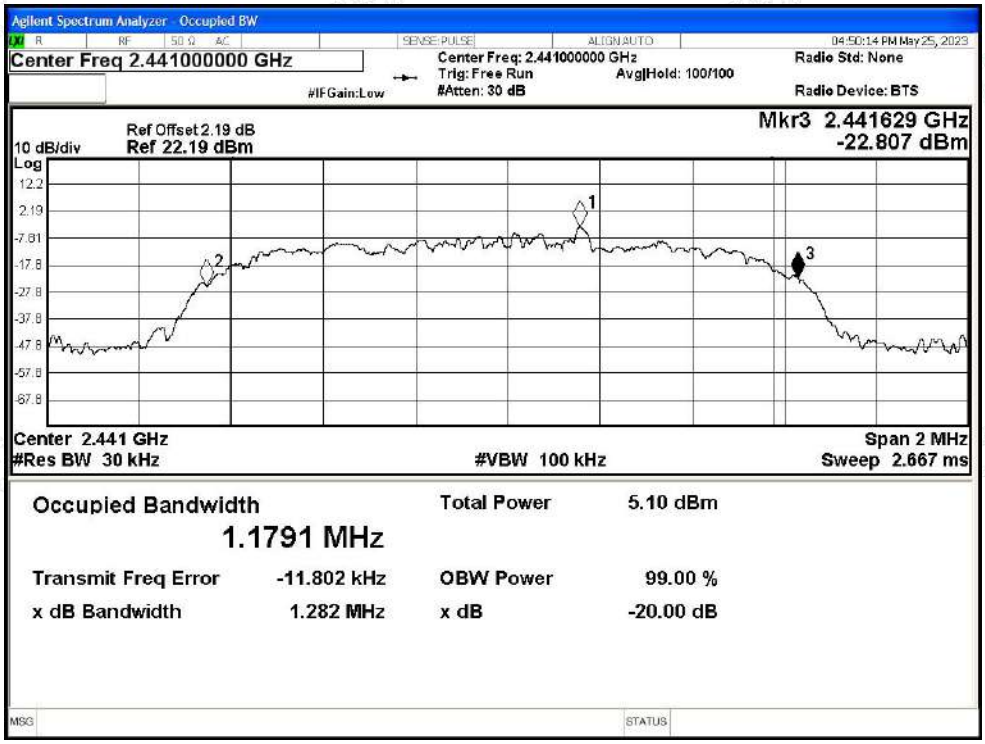


-20dB Bandwidth NVNT 1-DH5 2480MHz Ant1

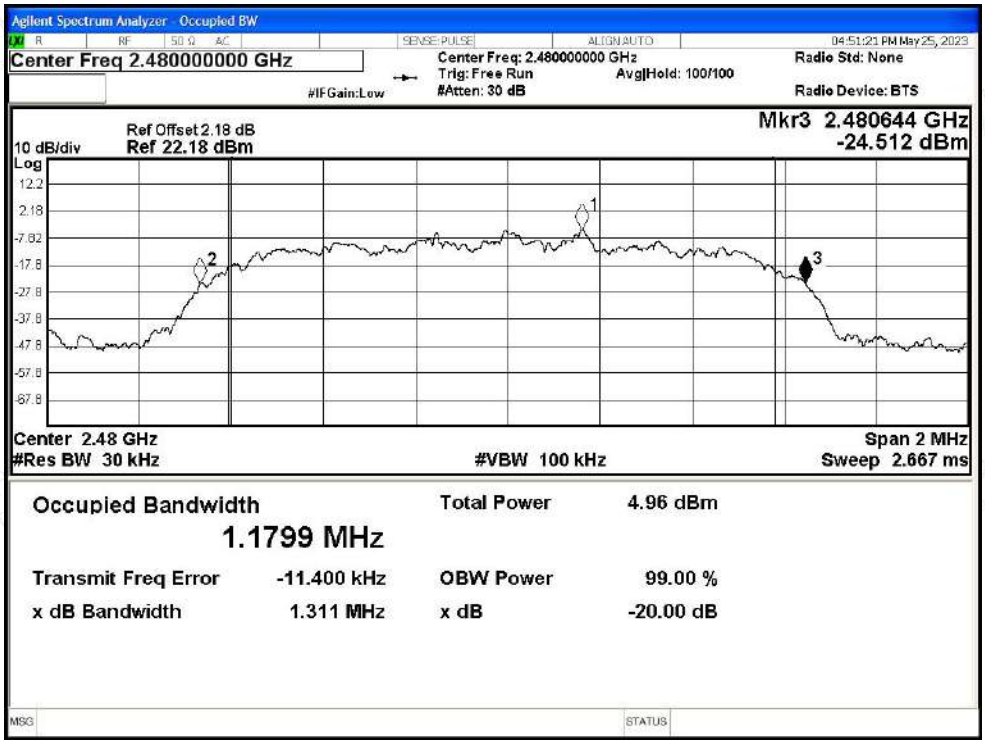
-20dB Bandwidth NVNT 2-DH5 2402MHz Ant1



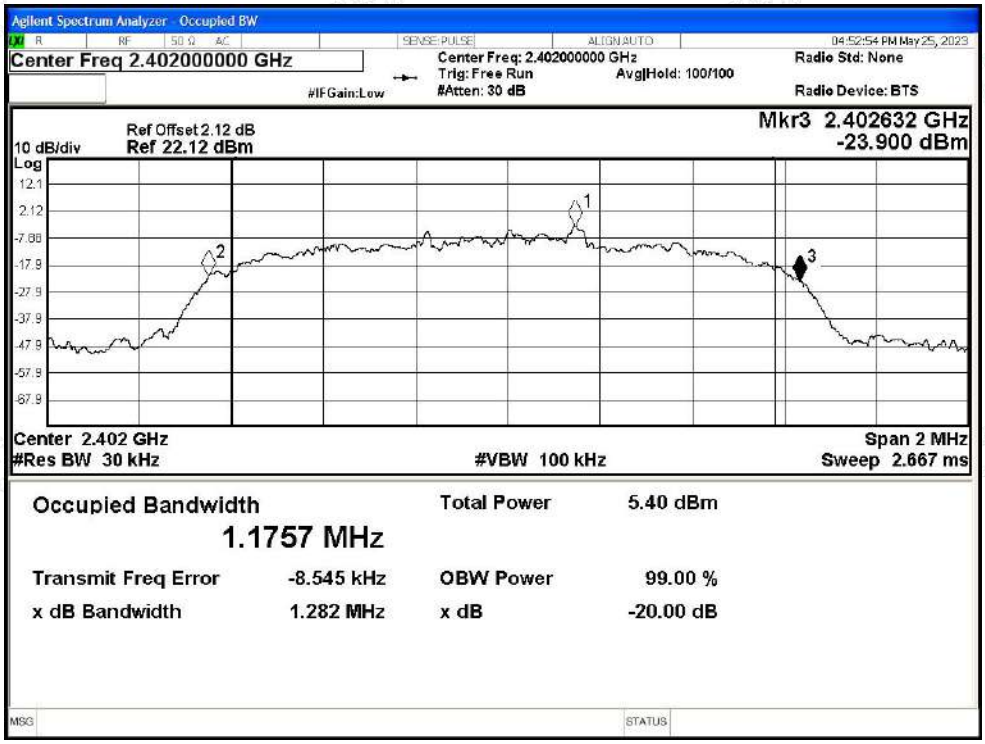
-20dB Bandwidth NVNT 2-DH5 2441MHz Ant1



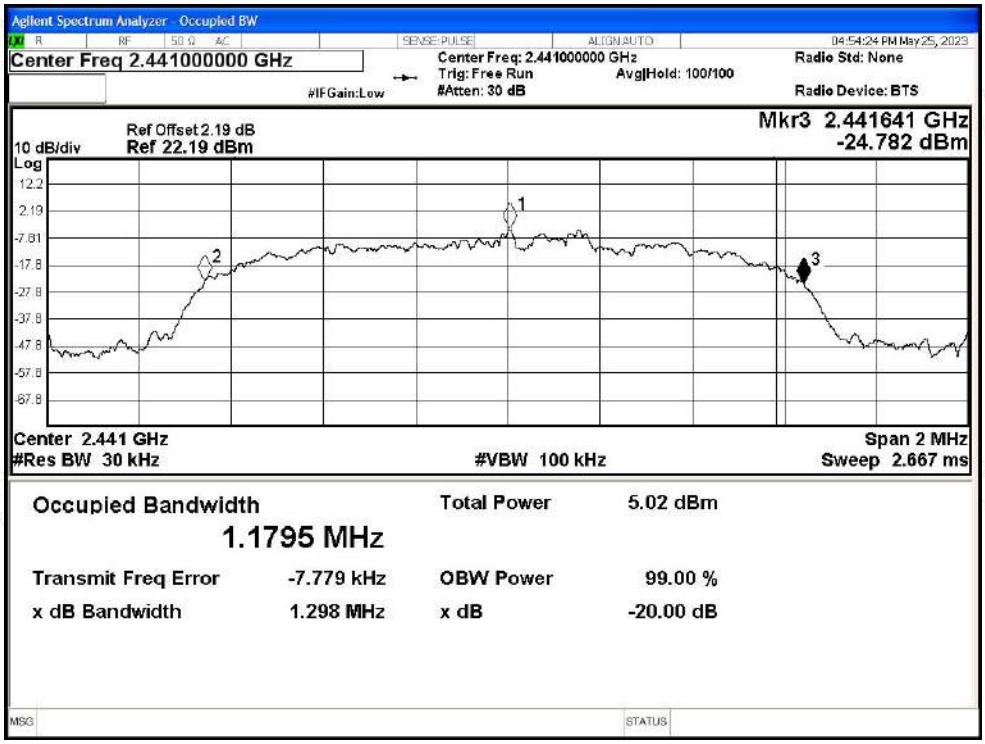
-20dB Bandwidth NVNT 2-DH5 2480MHz Ant1



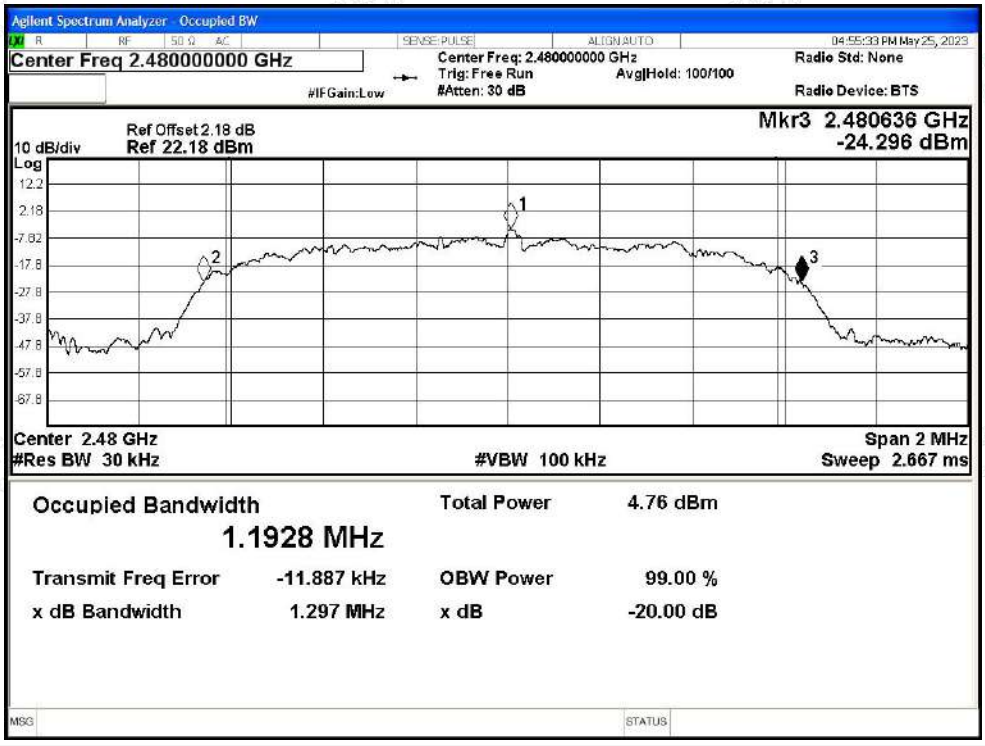
-20dB Bandwidth NVNT 3-DH5 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH5 2441MHz Ant1



-20dB Bandwidth NVNT 3-DH5 2480MHz Ant1



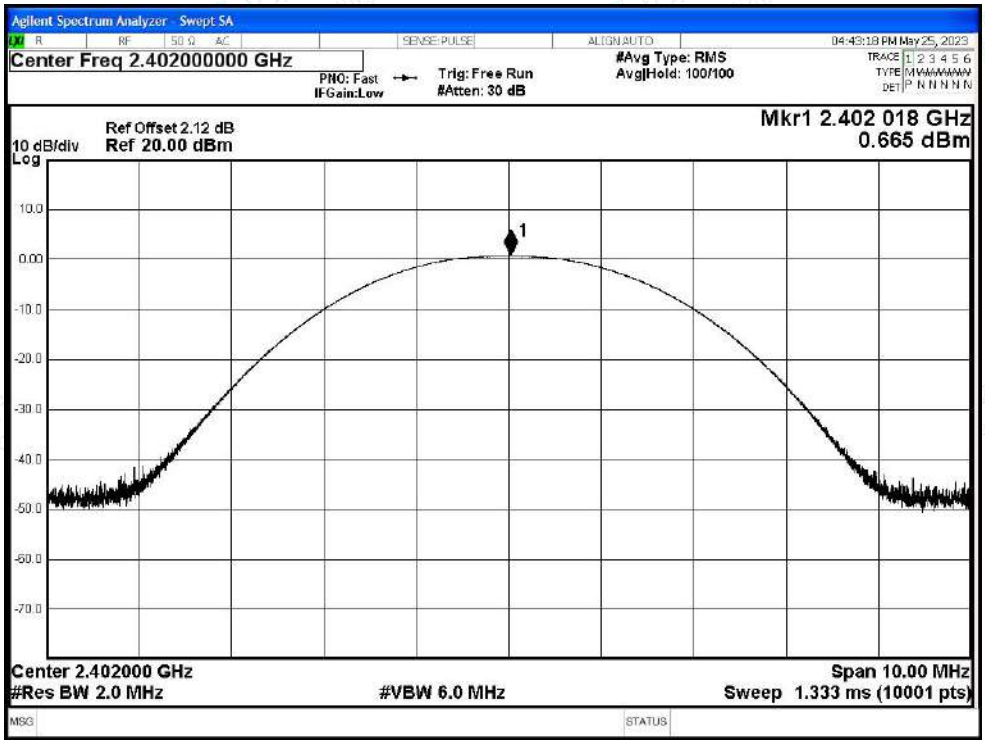
A.2 Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH5	2402	Ant1	0.67	21	Pass
NVNT	1-DH5	2441	Ant1	0.80	21	Pass
NVNT	1-DH5	2480	Ant1	0.78	21	Pass
NVNT	2-DH5	2402	Ant1	0.35	21	Pass
NVNT	2-DH5	2441	Ant1	0.50	21	Pass
NVNT	2-DH5	2480	Ant1	0.45	21	Pass
NVNT	3-DH5	2402	Ant1	0.40	21	Pass
NVNT	3-DH5	2441	Ant1	0.55	21	Pass
NVNT	3-DH5	2480	Ant1	0.58	21	Pass

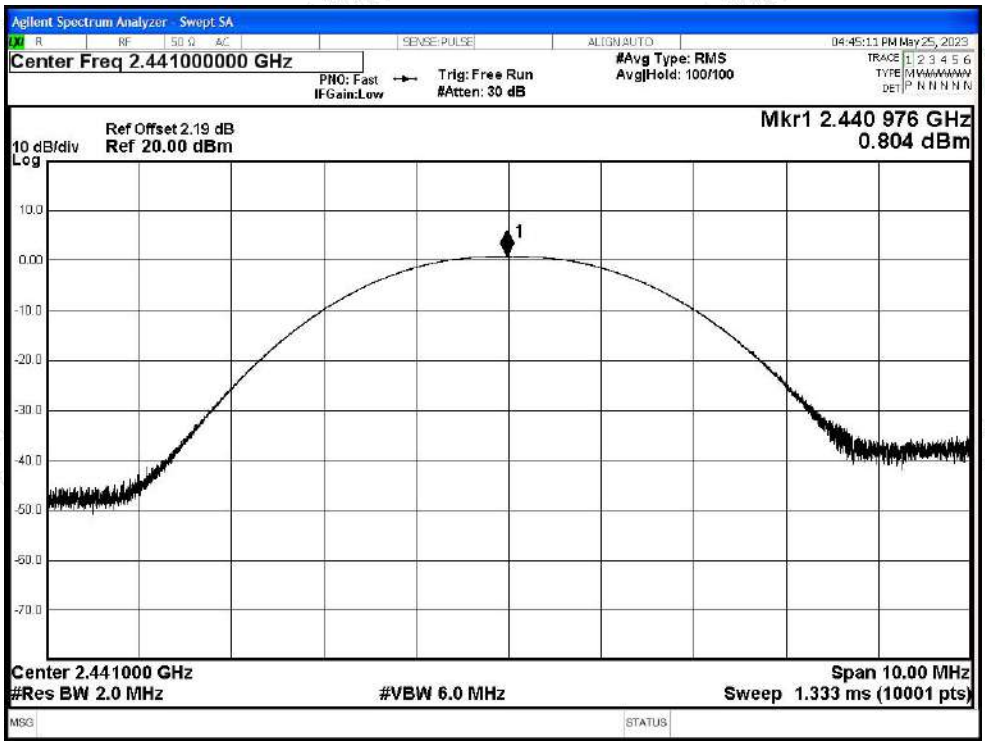
Note: The Duty factor is included in the total power.

Test Graphs

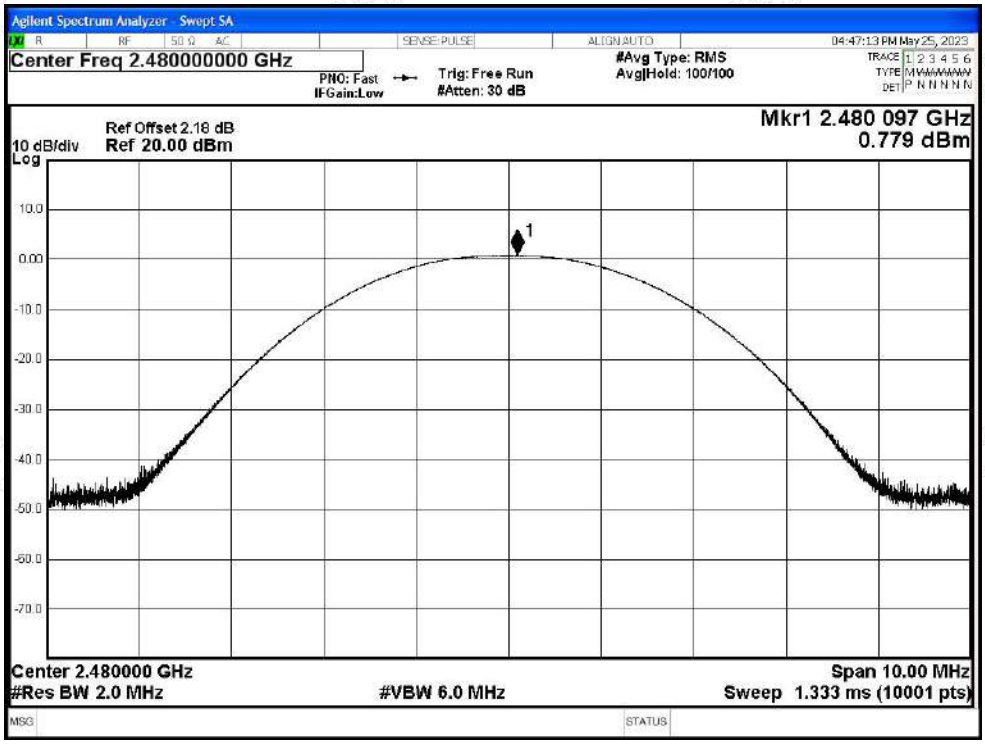
Power NVNT 1-DH5 2402MHz Ant1



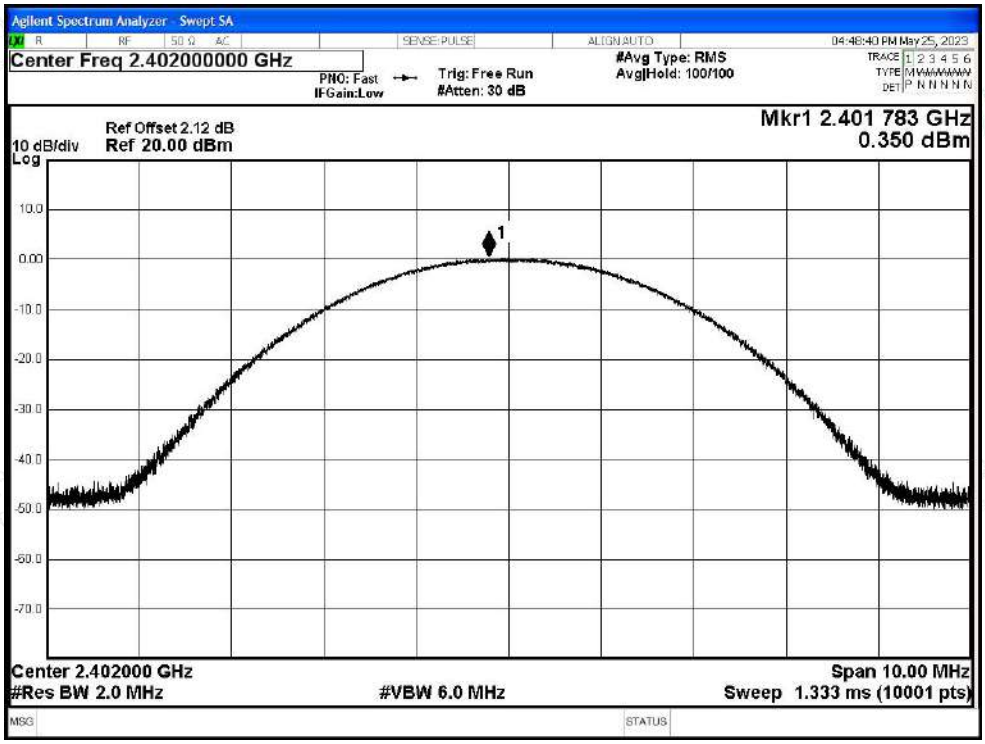
Power NVNT 1-DH5 2441MHz Ant1



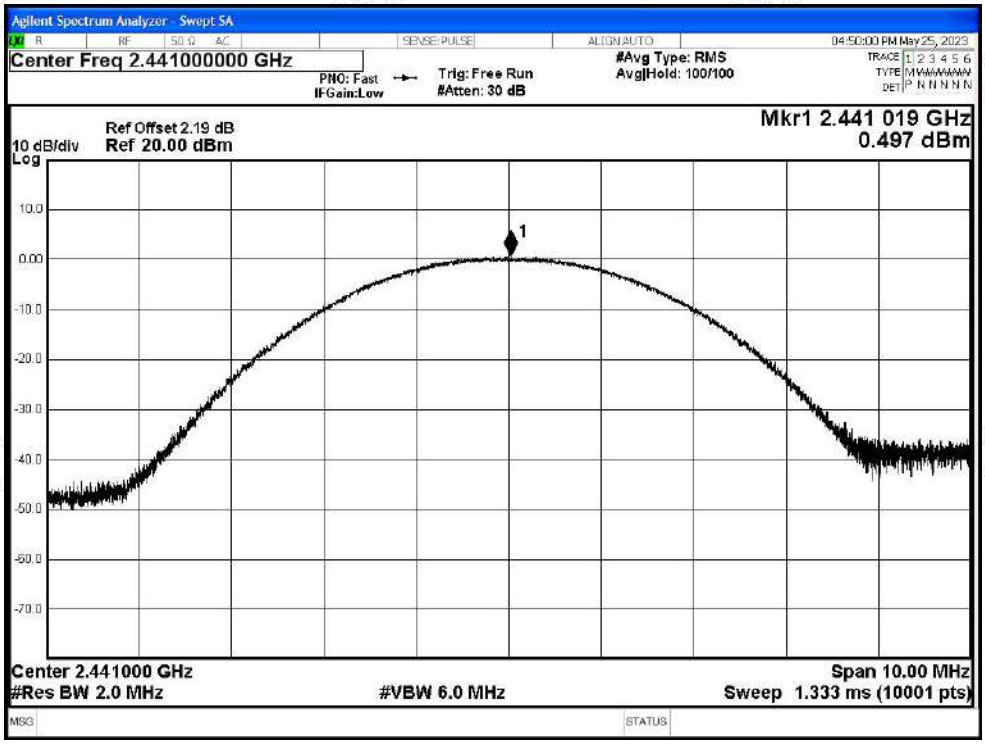
Power NVNT 1-DH5 2480MHz Ant1



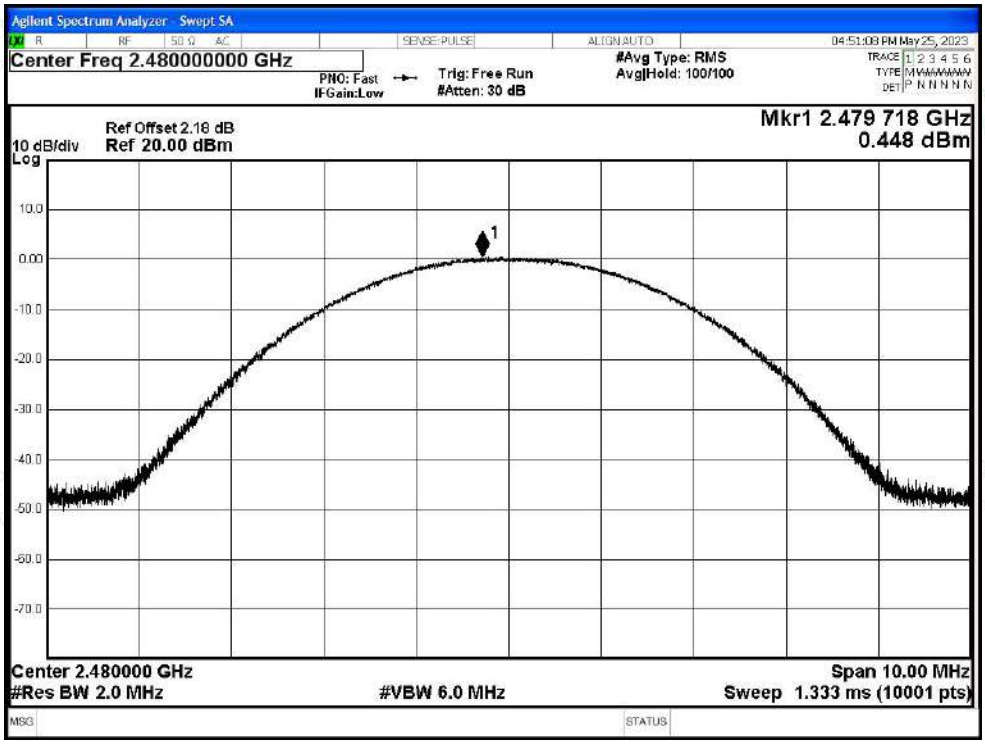
Power NVNT 2-DH5 2402MHz Ant1



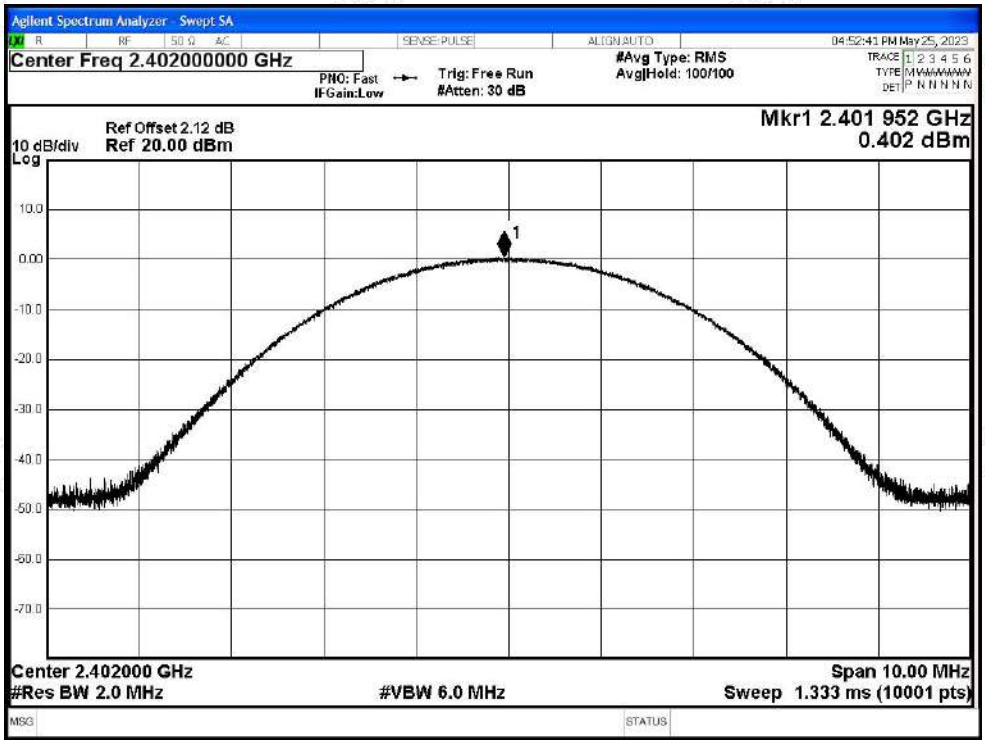
Power NVNT 2-DH5 2441MHz Ant1



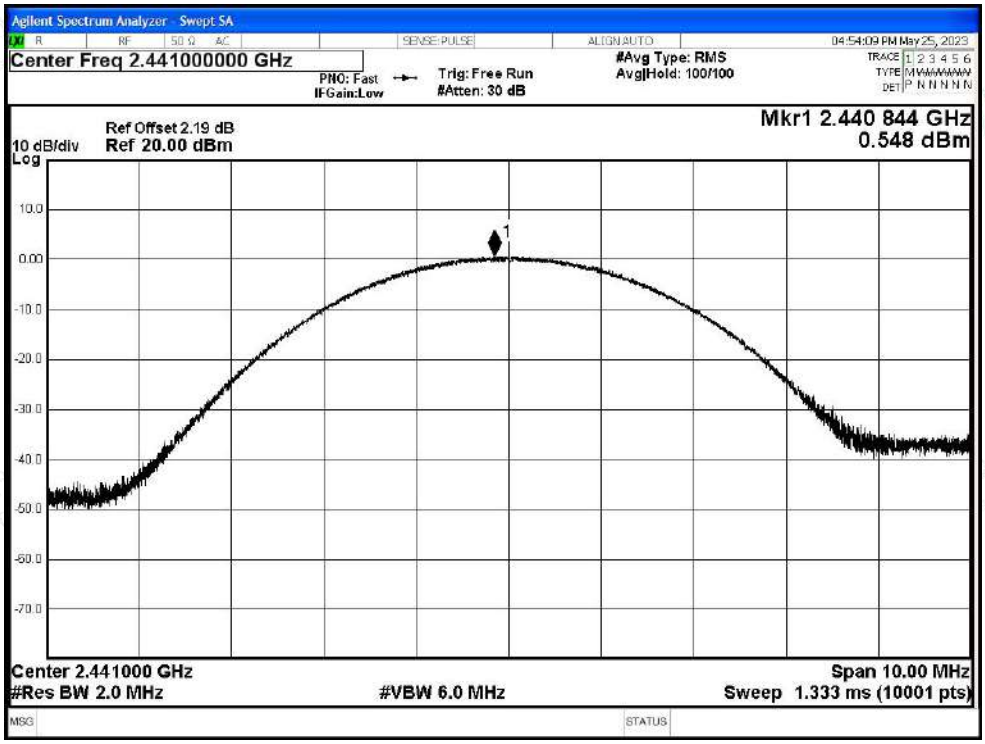
Power NVNT 2-DH5 2480MHz Ant1



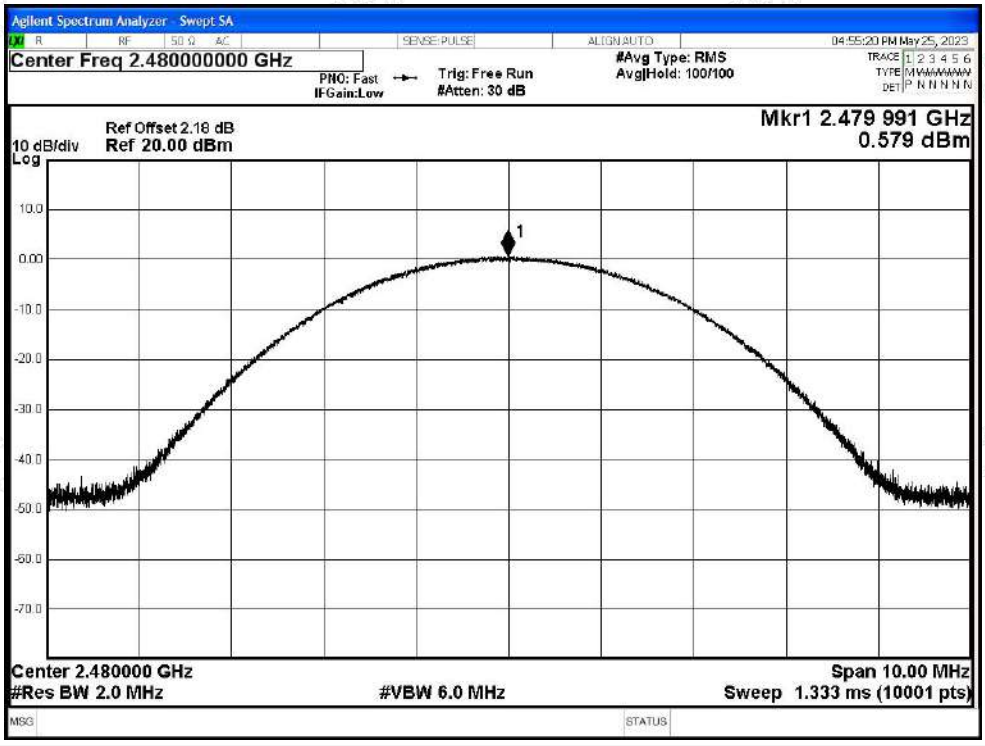
Power NVNT 3-DH5 2402MHz Ant1



Power NVNT 3-DH5 2441MHz Ant1



Power NVNT 3-DH5 2480MHz Ant1

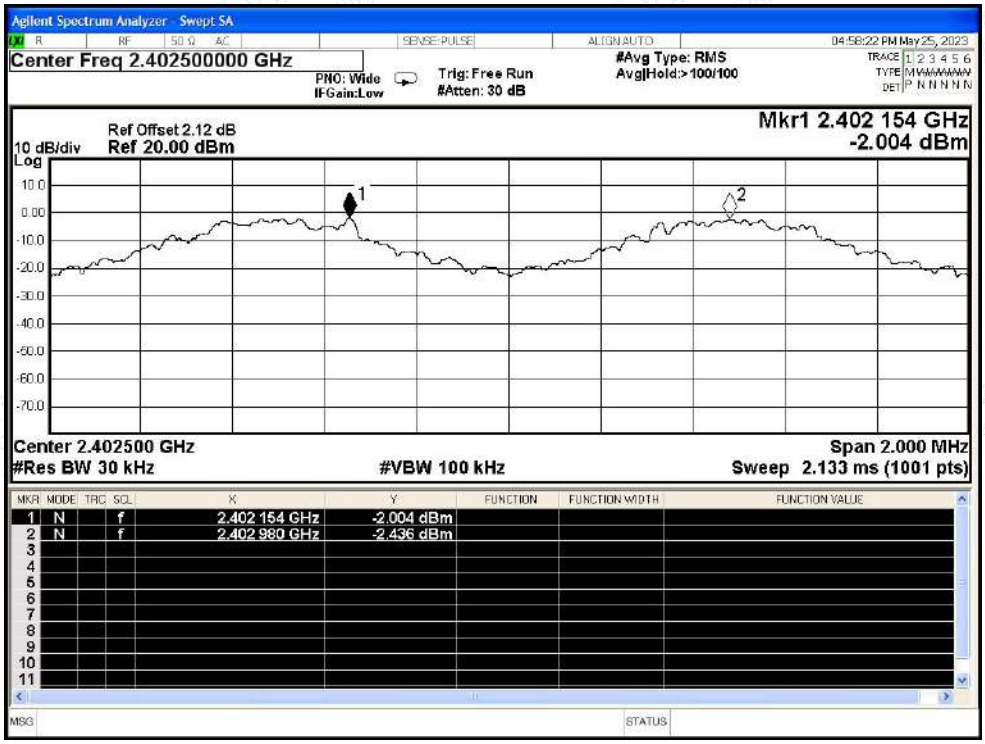


A.3 Carrier Frequencies Separation

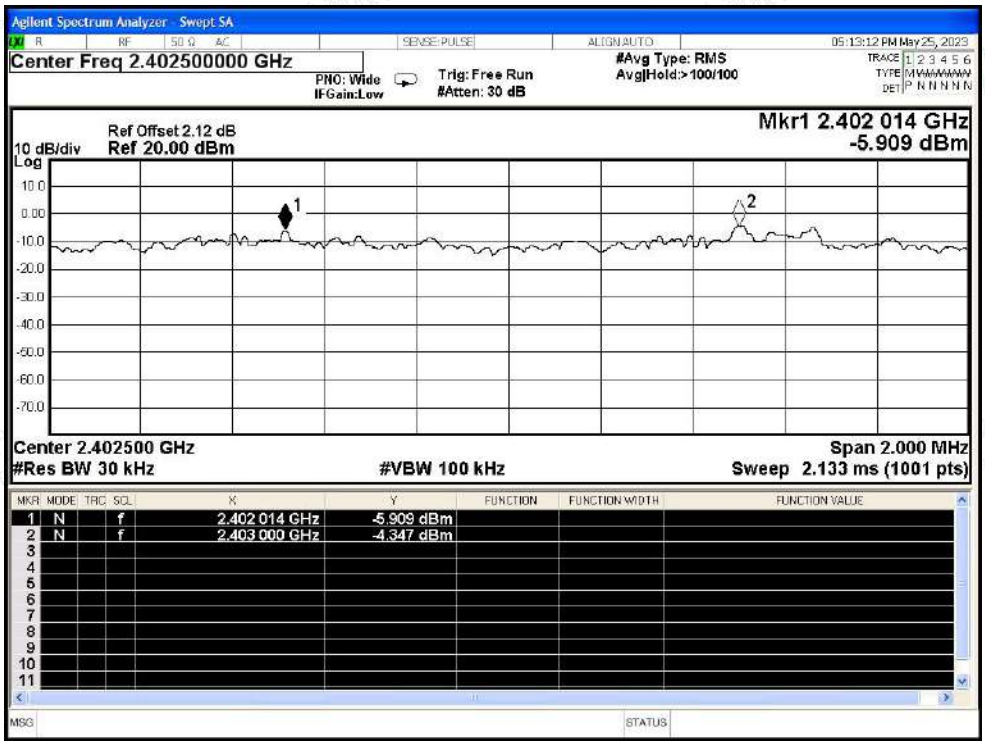
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH5	Ant1	2402.154	2402.98	0.826	0.671	Pass
NVNT	2-DH5	Ant1	2402.014	2403	0.986	0.874	Pass
NVNT	3-DH5	Ant1	2402.16	2403.144	0.984	0.865	Pass

Test Graphs

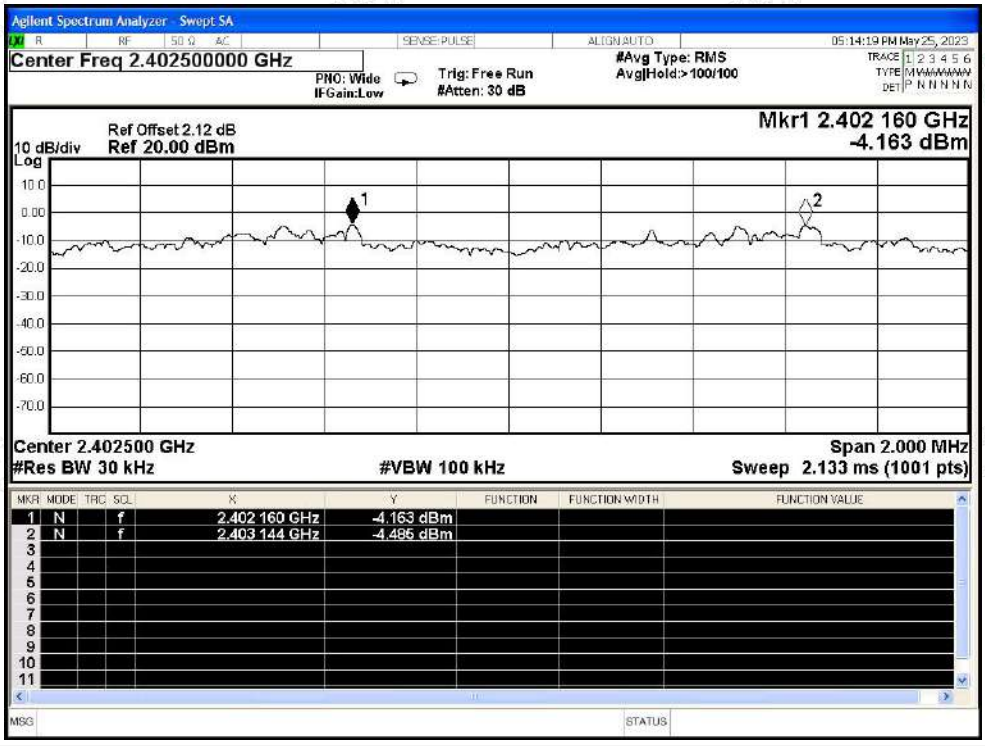
CFS NVNT 1-DH5 2402MHz Ant1



CFS NVNT 2-DH5 2402MHz Ant1



CFS NVNT 3-DH5 2402MHz Ant1

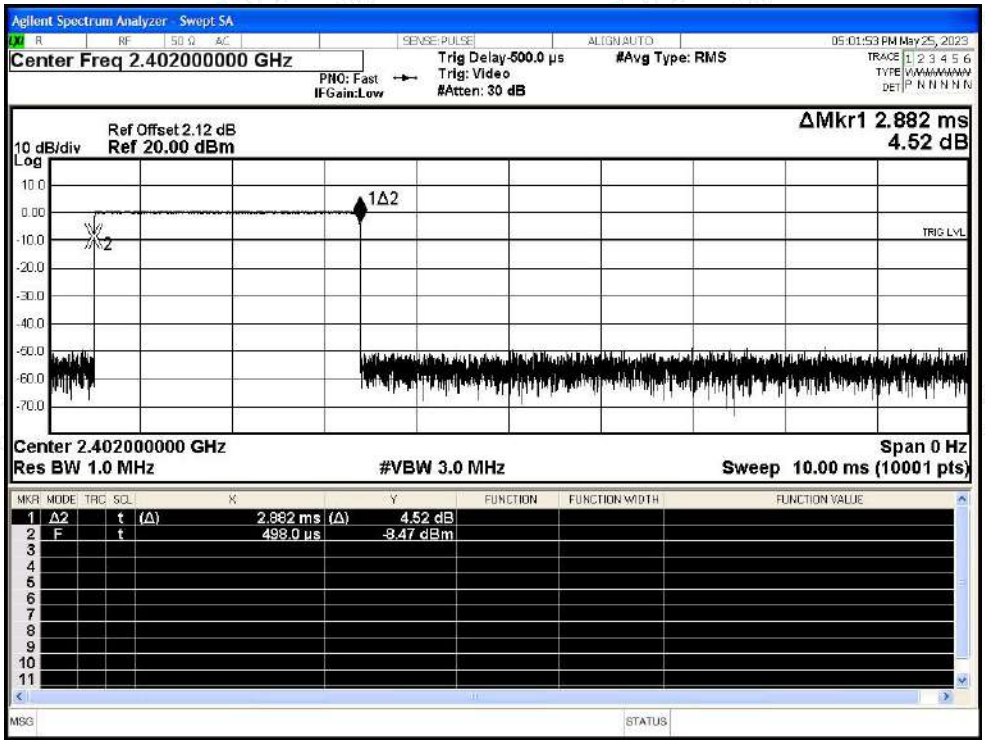


A.4 Dwell Time

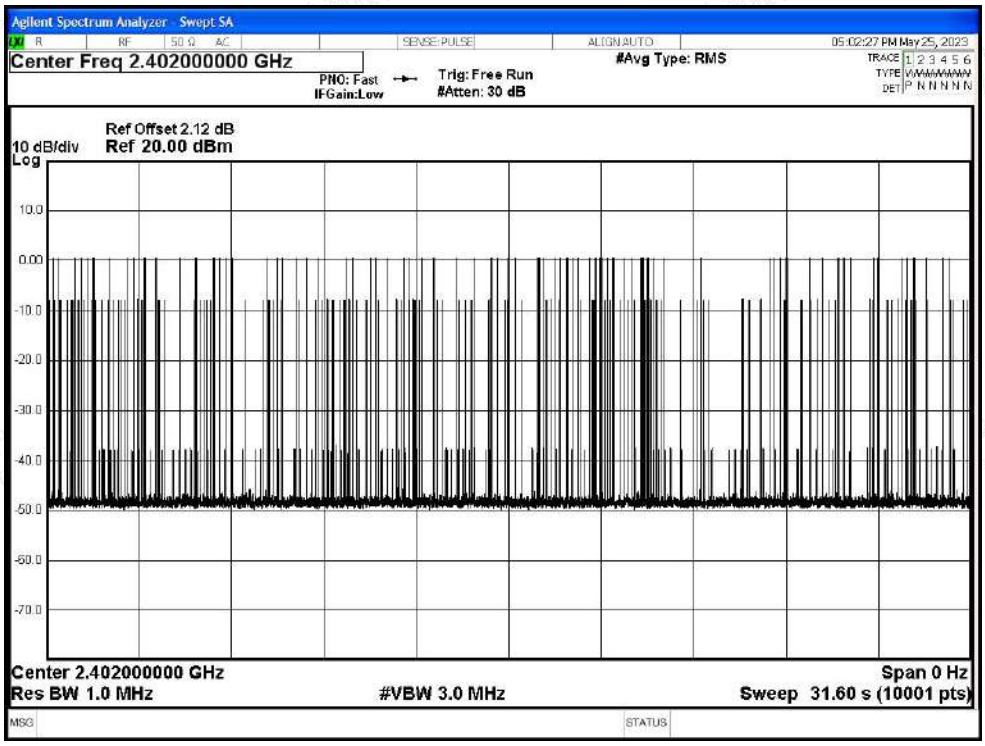
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH5	2402	Ant1	2.882	265.144	92	31600	400	Pass
NVNT	2-DH5	2402	Ant1	2.885	274.075	95	31600	400	Pass
NVNT	3-DH5	2402	Ant1	2.887	288.7	100	31600	400	Pass

Test Graphs

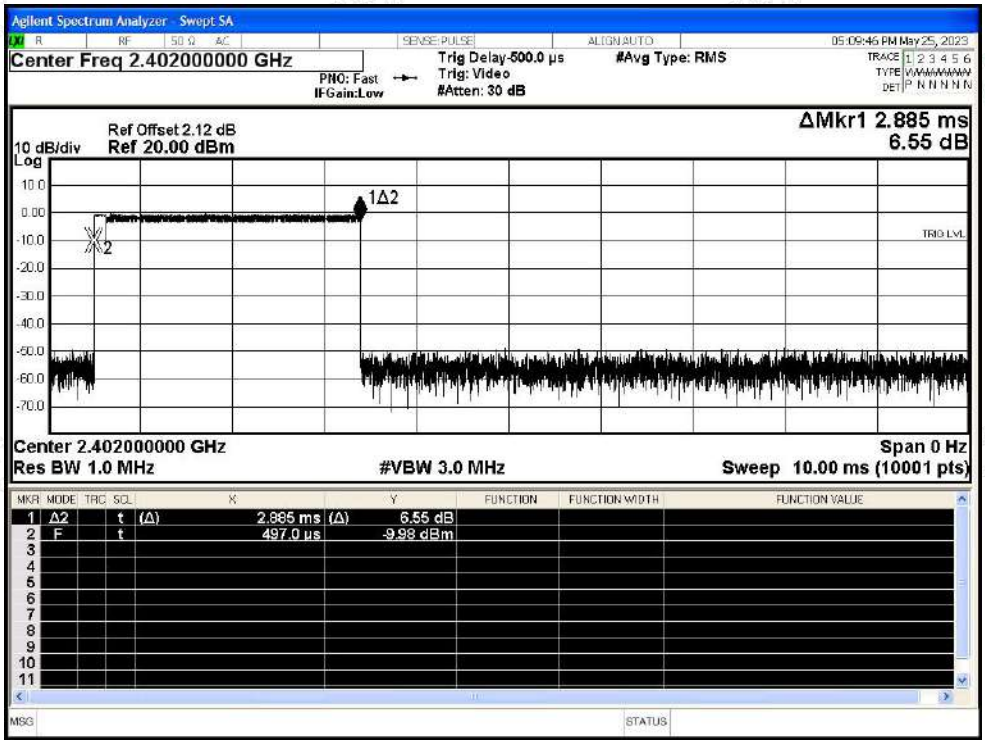
Dwell NVNT 1-DH5 2402MHz Ant1 One Burst



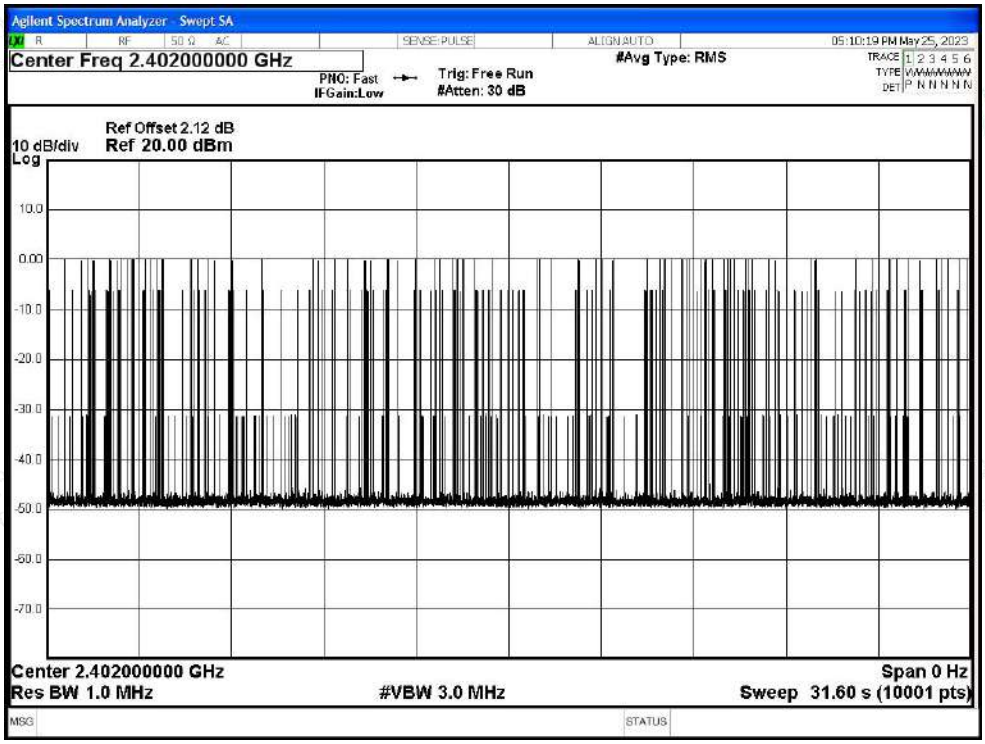
Dwell NVNT 1-DH5 2402MHz Ant1 Accumulated



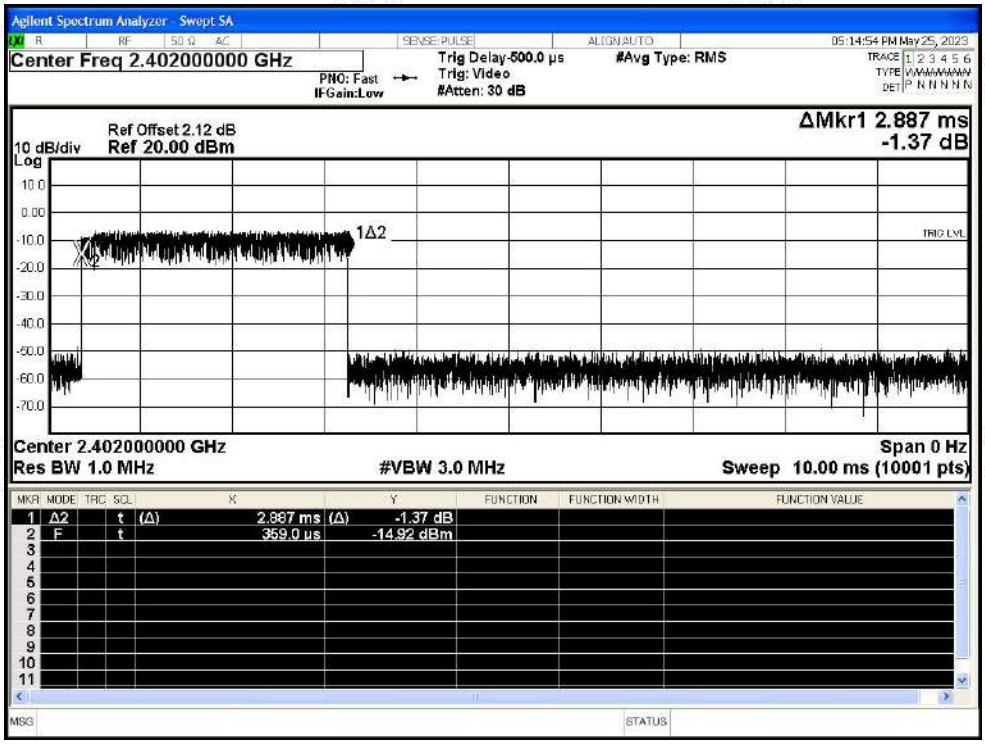
Dwell NVNT 2-DH5 2402MHz Ant1 One Burst



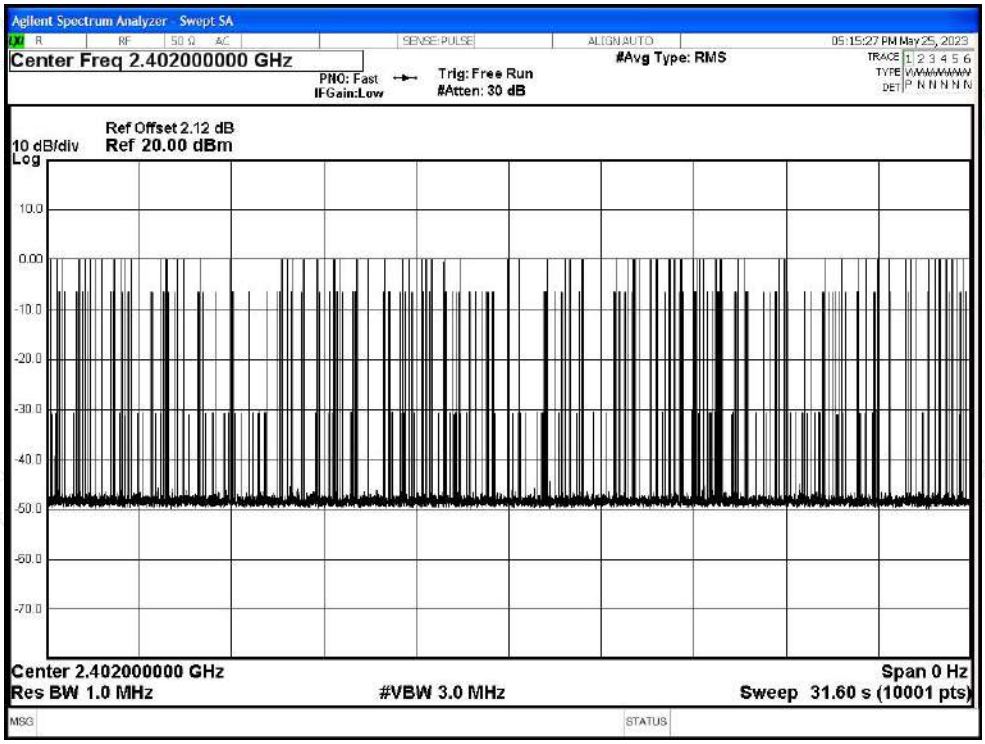
Dwell NVNT 2-DH5 2402MHz Ant1 Accumulated



Dwell NVNT 3-DH5 2402MHz Ant1 One Burst



Dwell NVNT 3-DH5 2402MHz Ant1 Accumulated

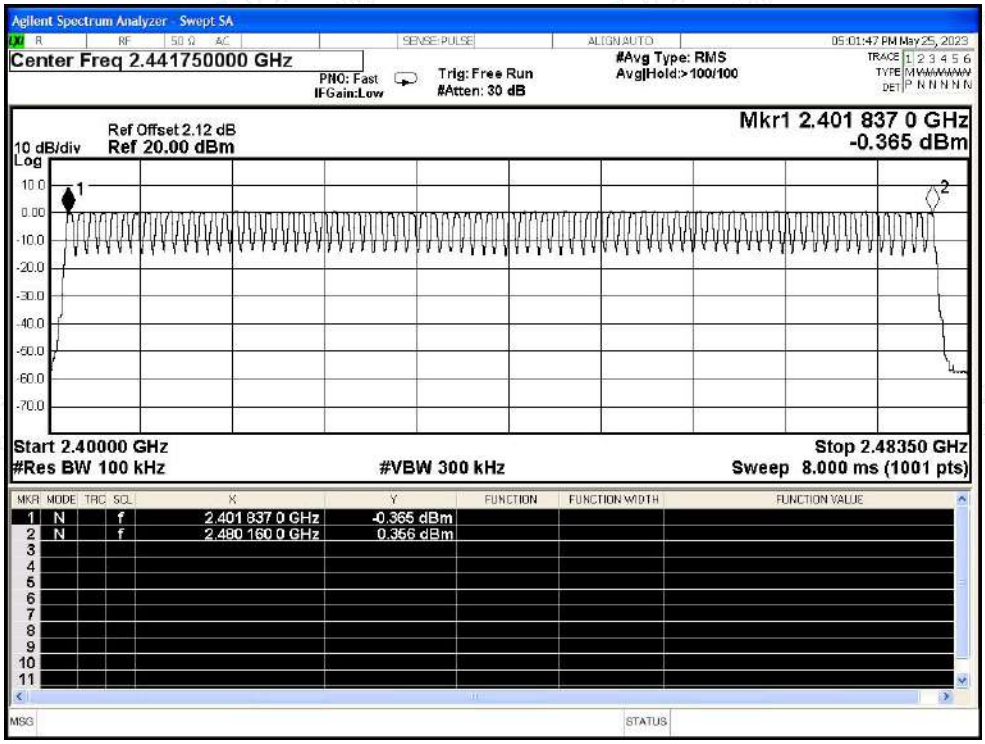


A.5 Number of Hopping Channel

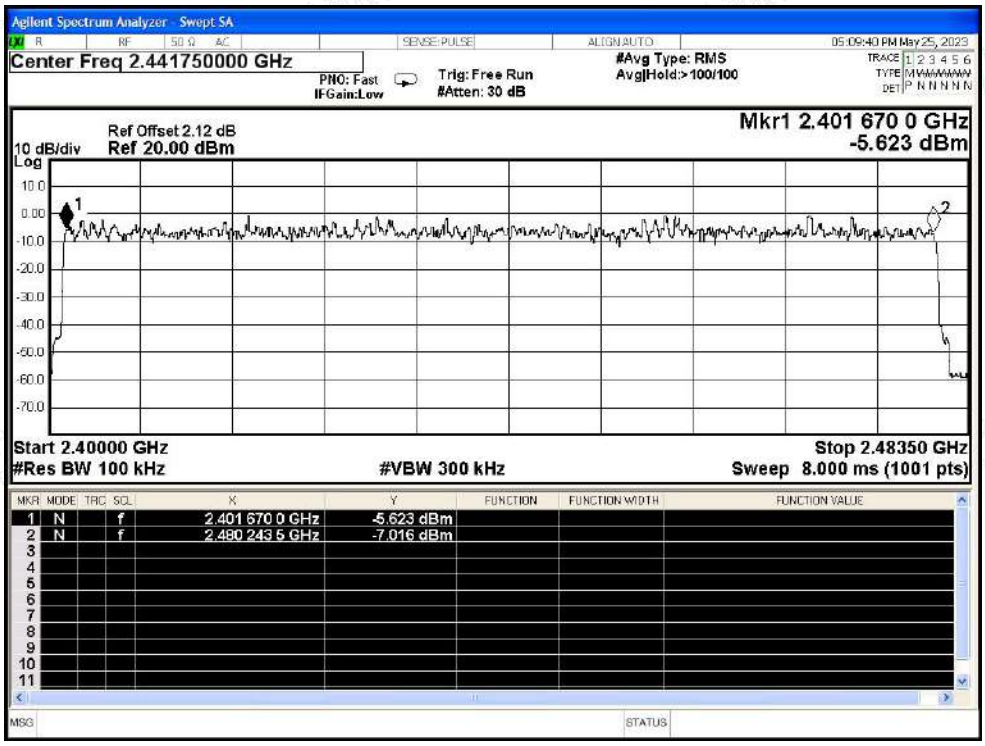
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH5	Ant1	79	15	Pass
NVNT	2-DH5	Ant1	79	15	Pass
NVNT	3-DH5	Ant1	79	15	Pass

Test Graphs

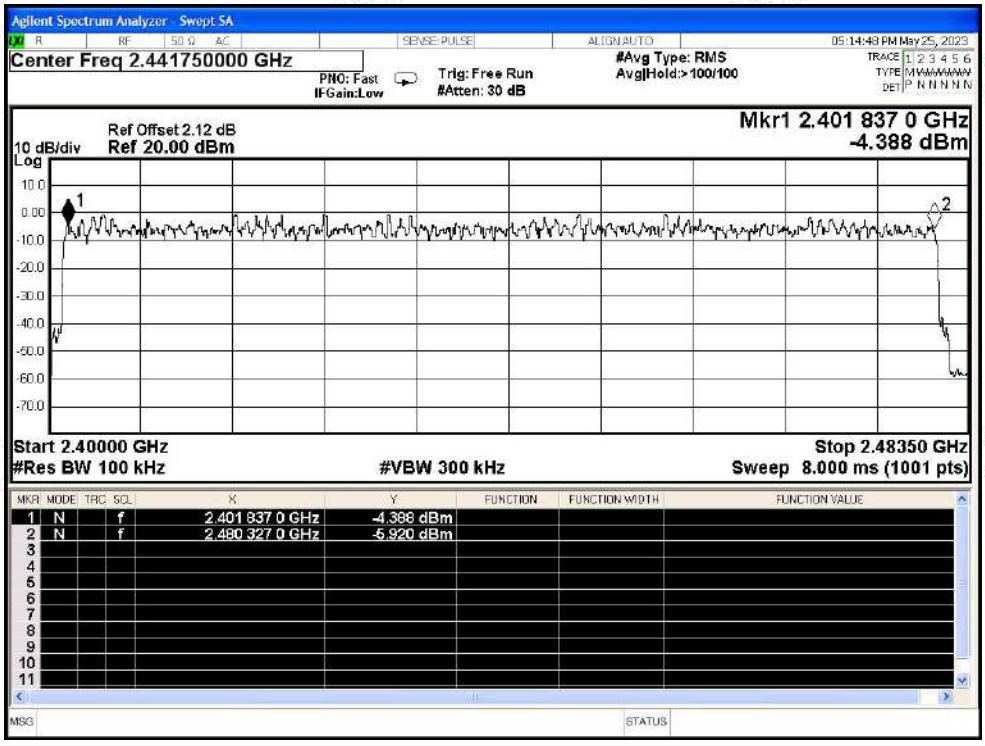
Hopping No. NVNT 1-DH5 2402MHz Ant1



Hopping No. NVNT 2-DH5 2402MHz Ant1



Hopping No. NVNT 3-DH5 2402MHz Ant1

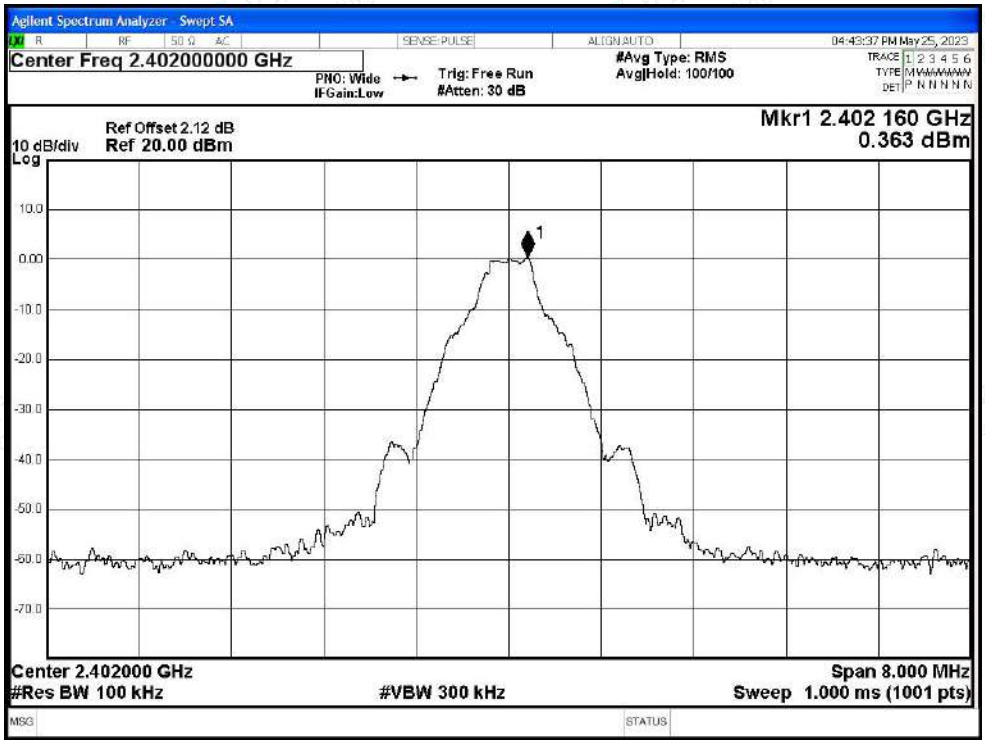


A.6 Band Edge

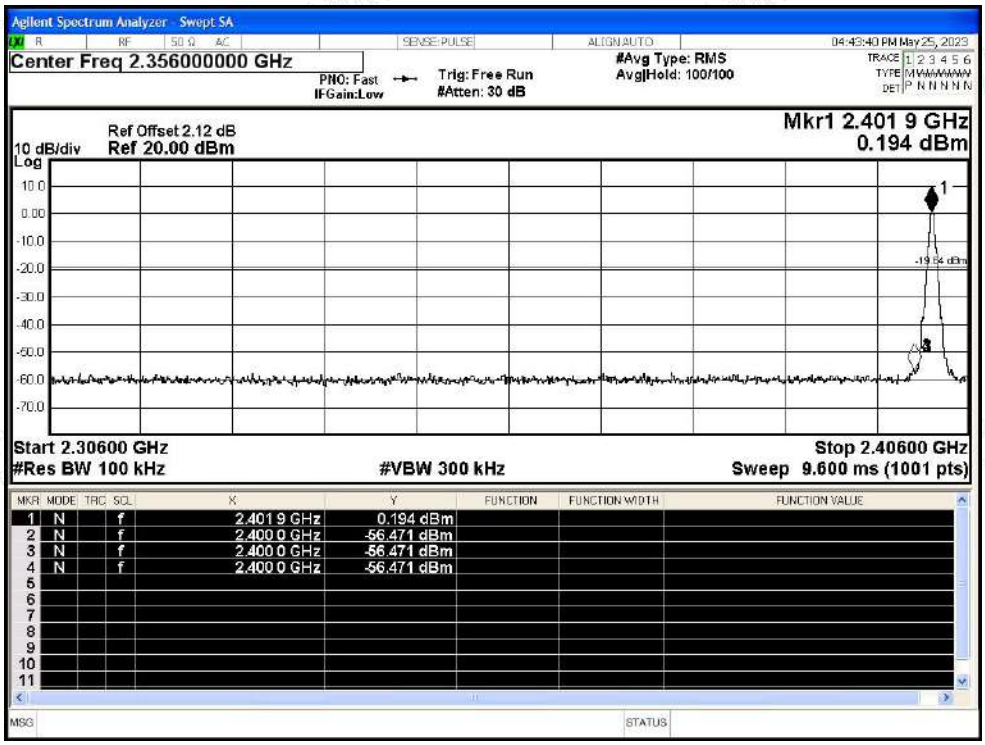
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	-56.83	-20	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	-57.03	-20	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	-53.67	-20	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	-55.58	-20	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	-51.18	-20	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	-57.05	-20	Pass

Test Graphs

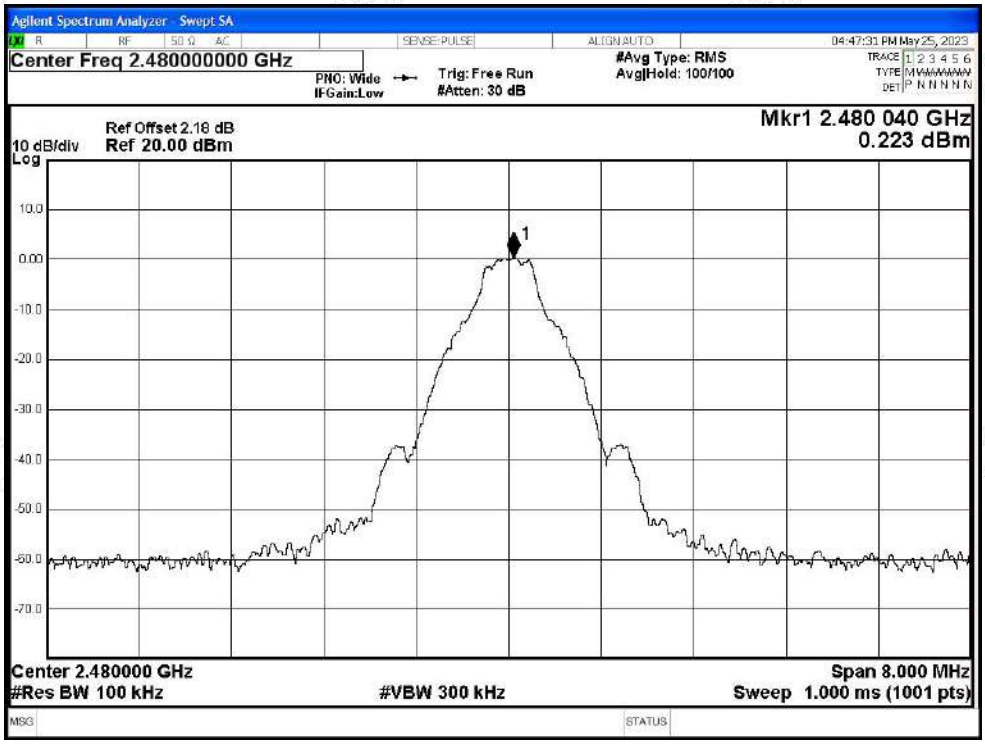
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Ref



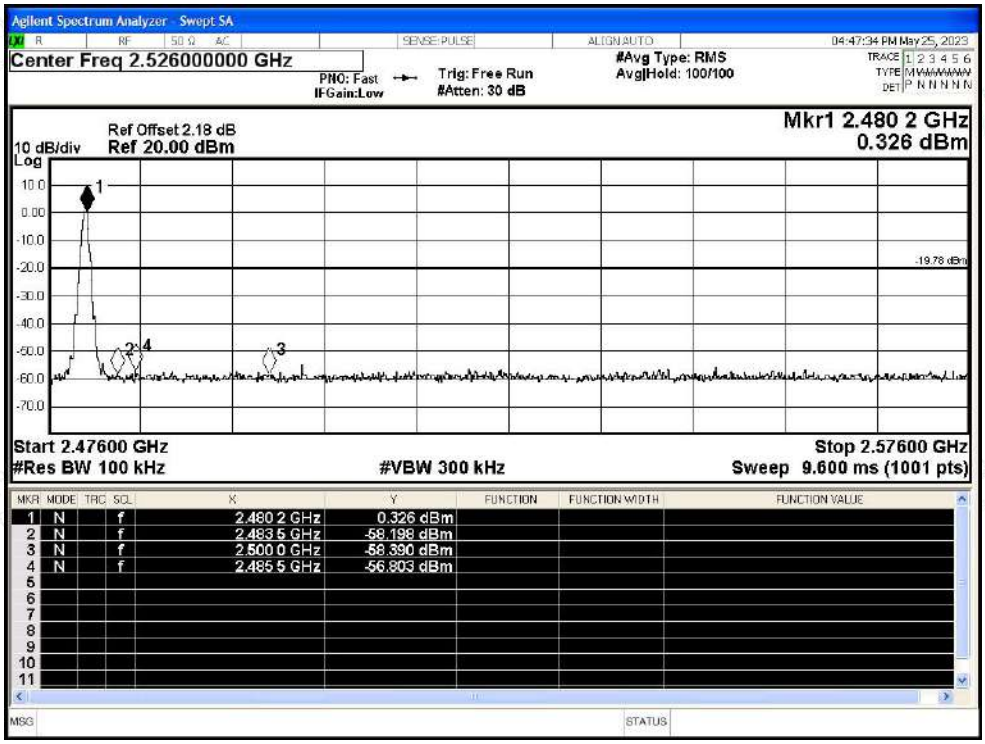
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Emission



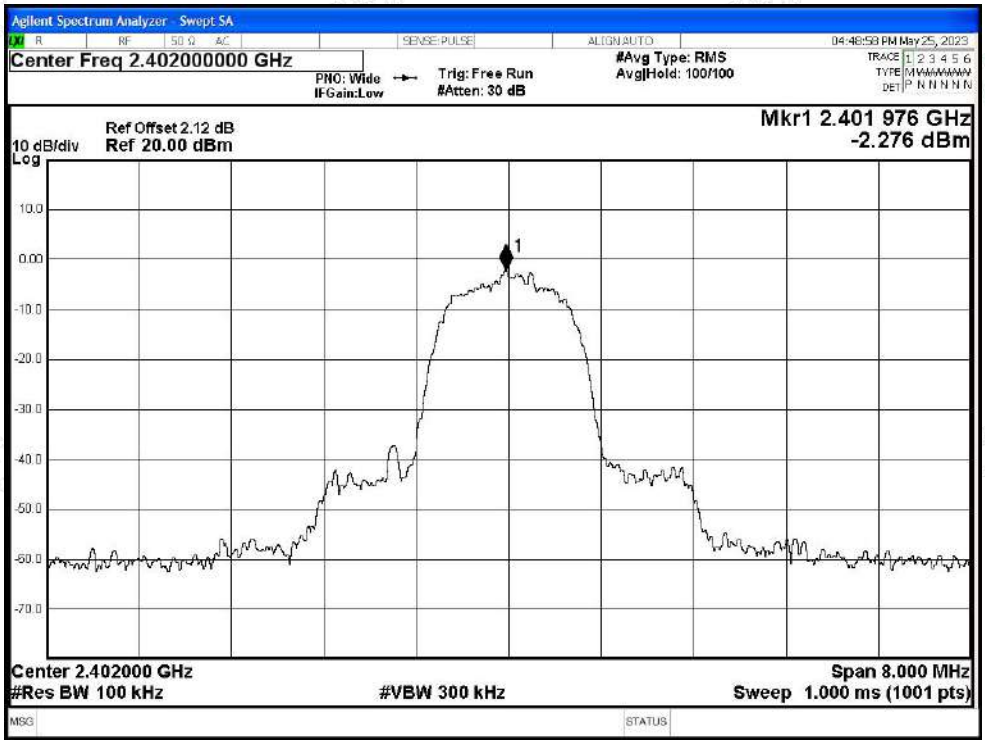
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref



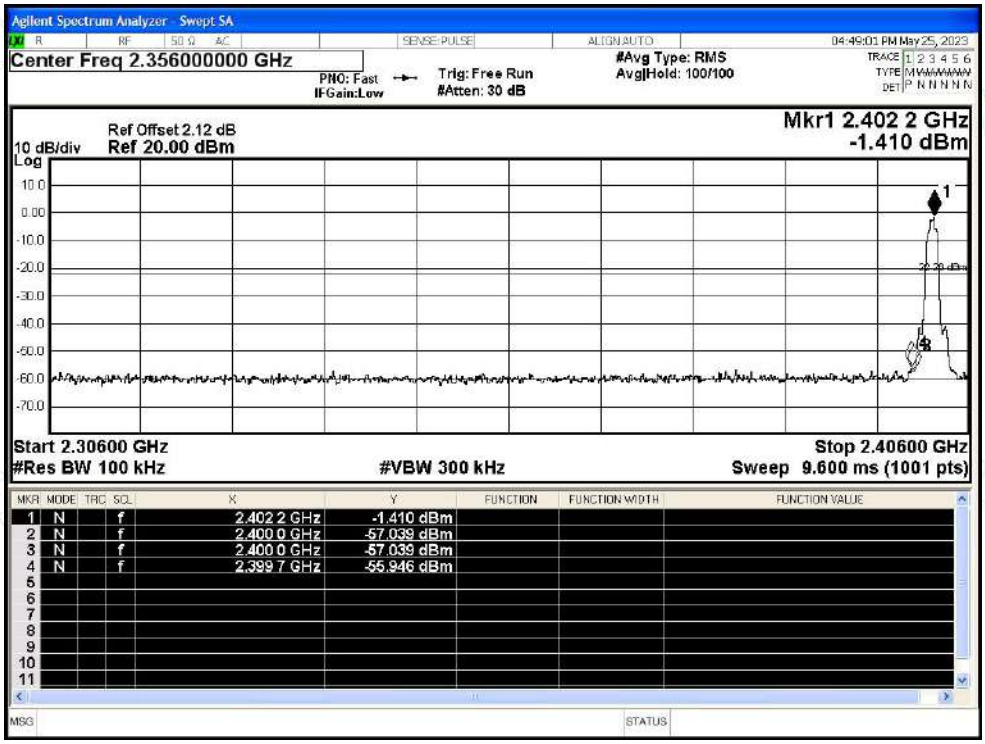
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Emission



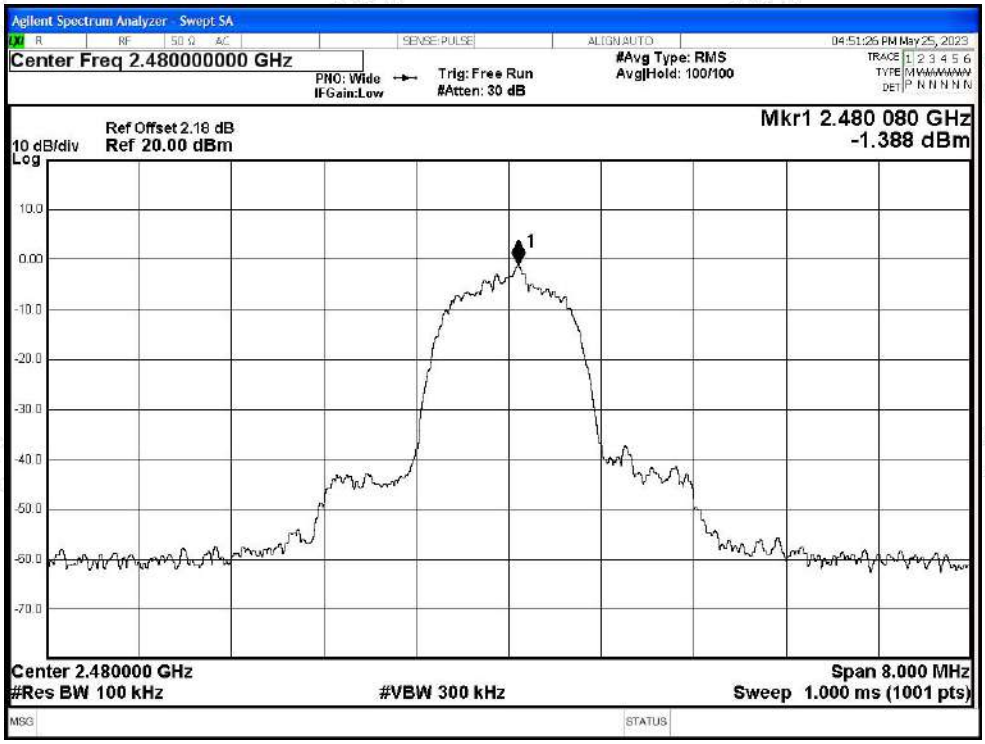
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Ref



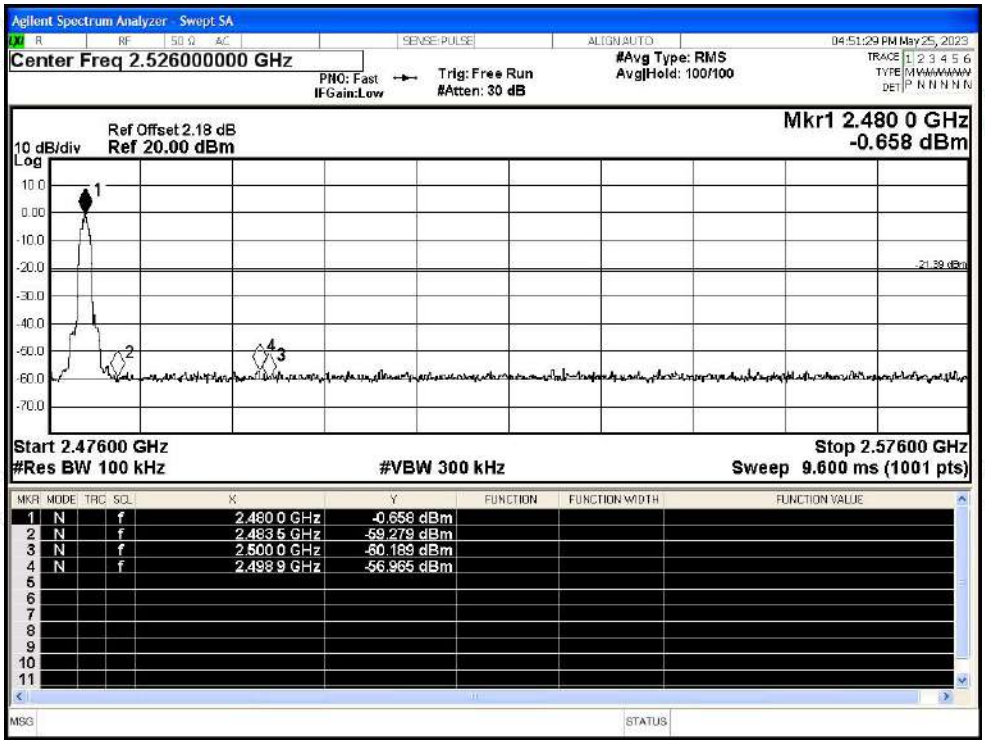
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Emission



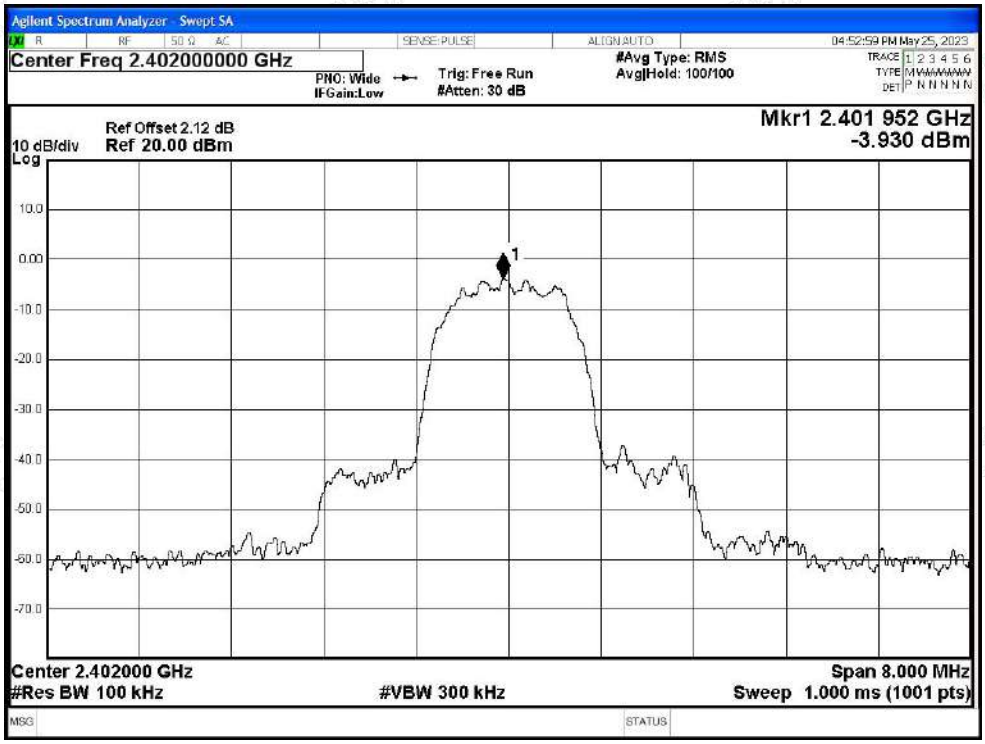
Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Ref



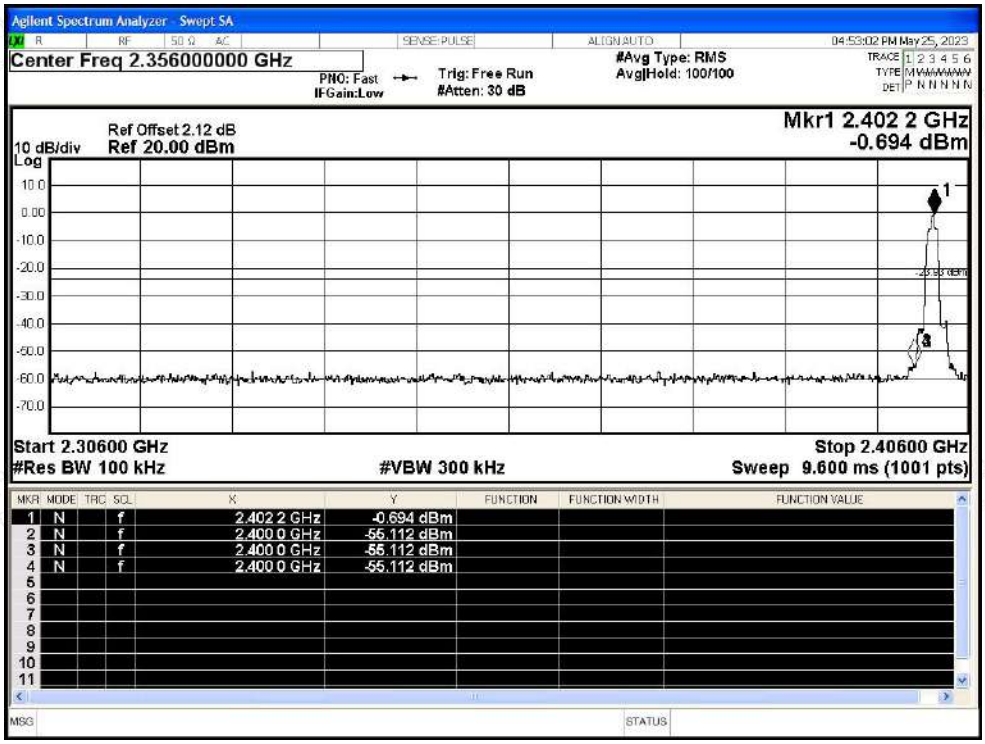
Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Emission



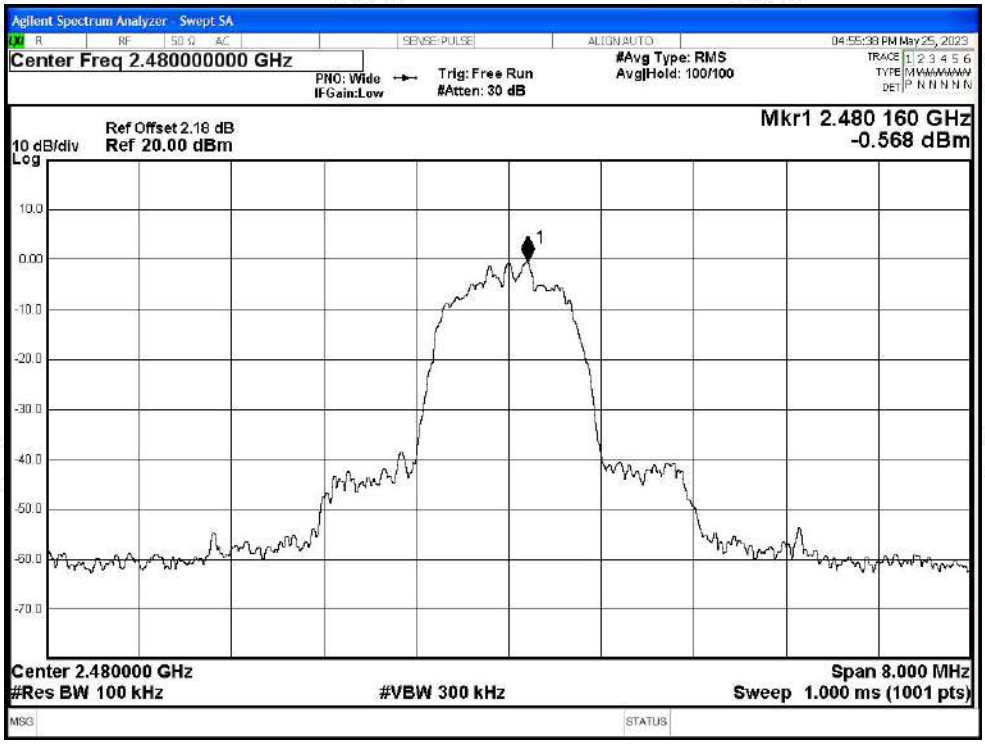
Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Ref



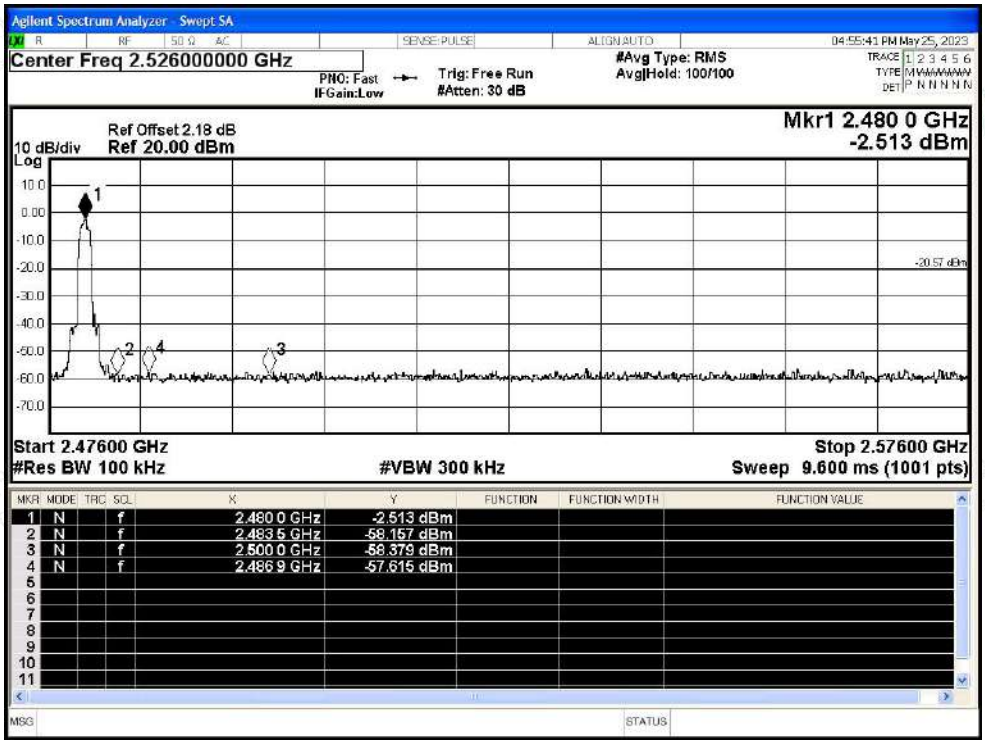
Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Emission



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



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

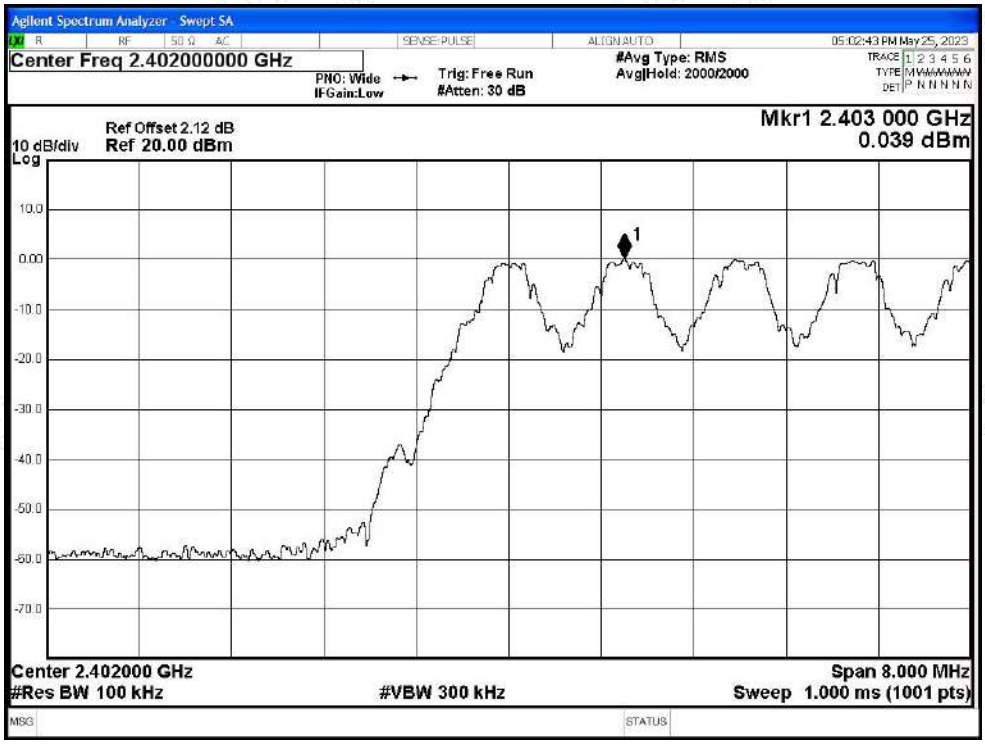


(Hopping)

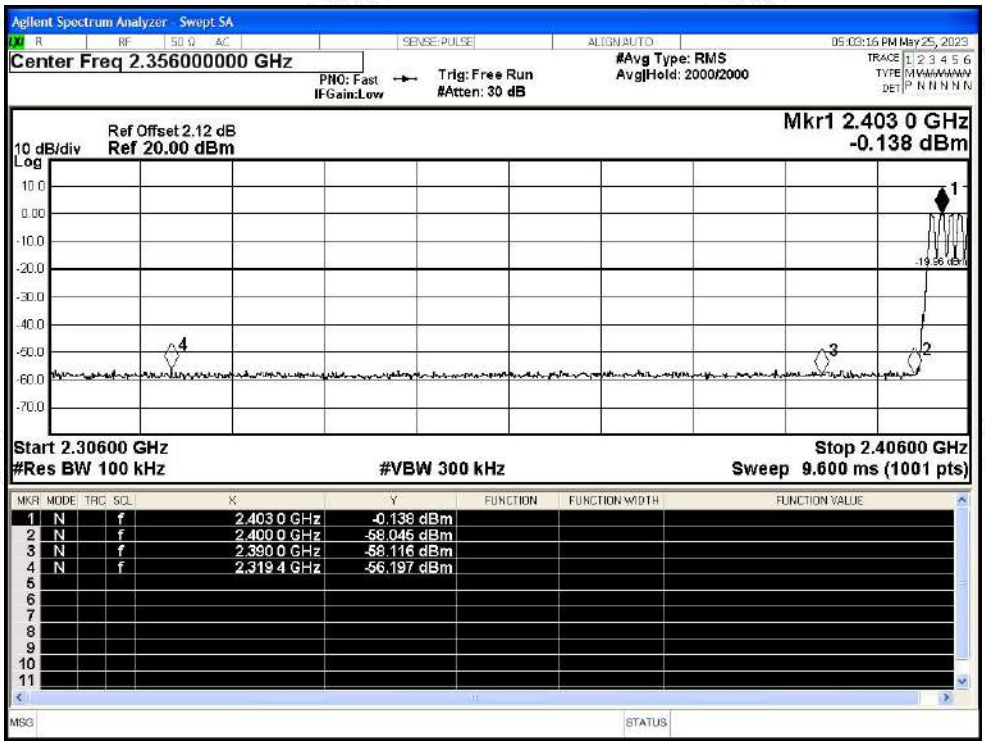
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	Hopping	-56.24	-20	Pass
NVNT	1-DH5	2480	Ant1	Hopping	-55.91	-20	Pass
NVNT	2-DH5	2402	Ant1	Hopping	-54.93	-20	Pass
NVNT	2-DH5	2480	Ant1	Hopping	-55.23	-20	Pass
NVNT	3-DH5	2402	Ant1	Hopping	-54.94	-20	Pass
NVNT	3-DH5	2480	Ant1	Hopping	-55.54	-20	Pass

Test Graphs

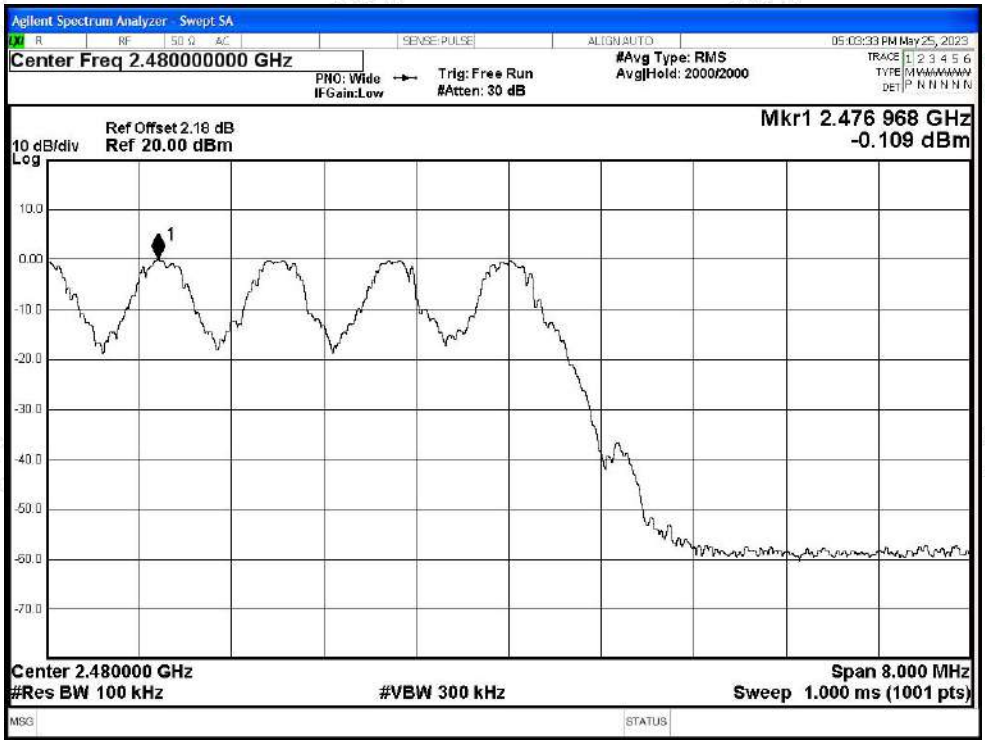
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Ref



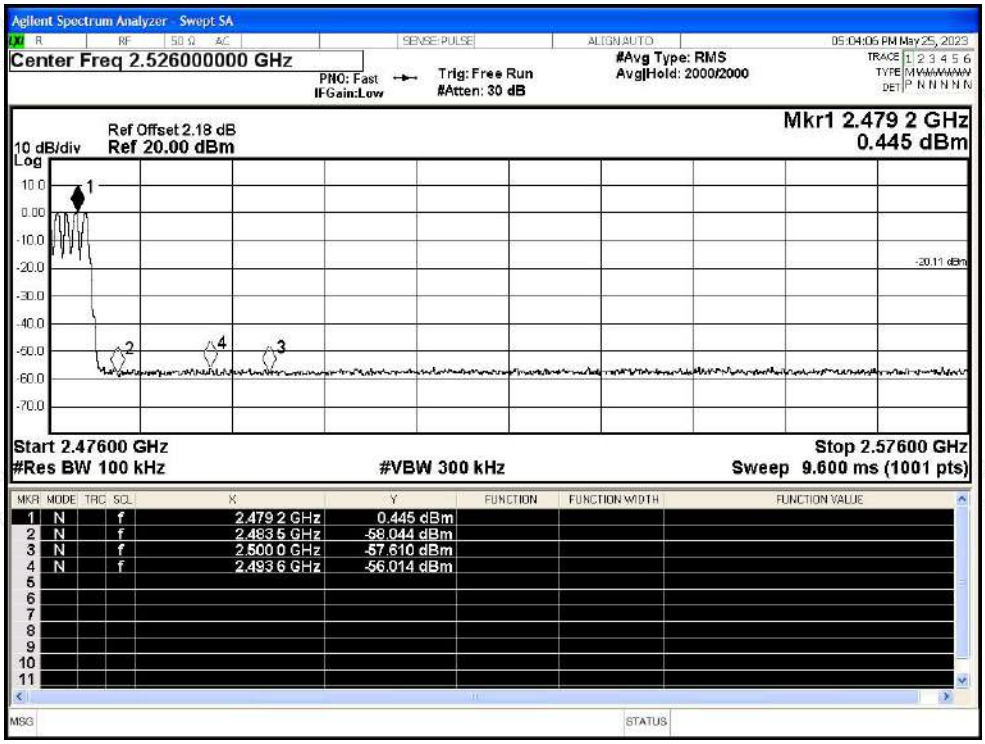
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission



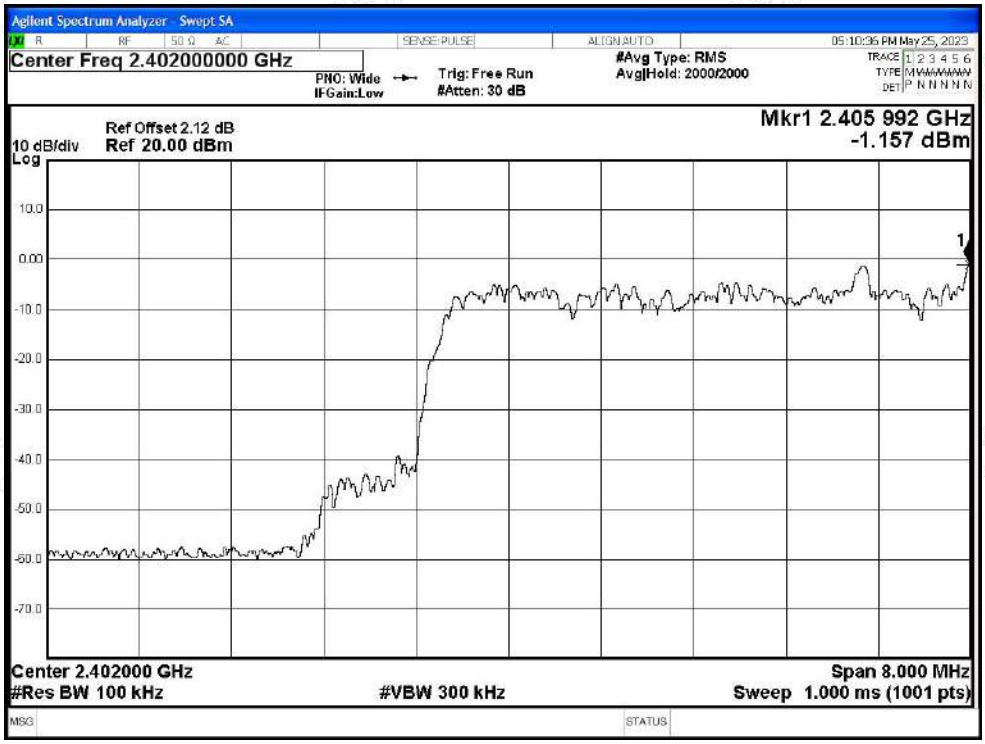
Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Ref



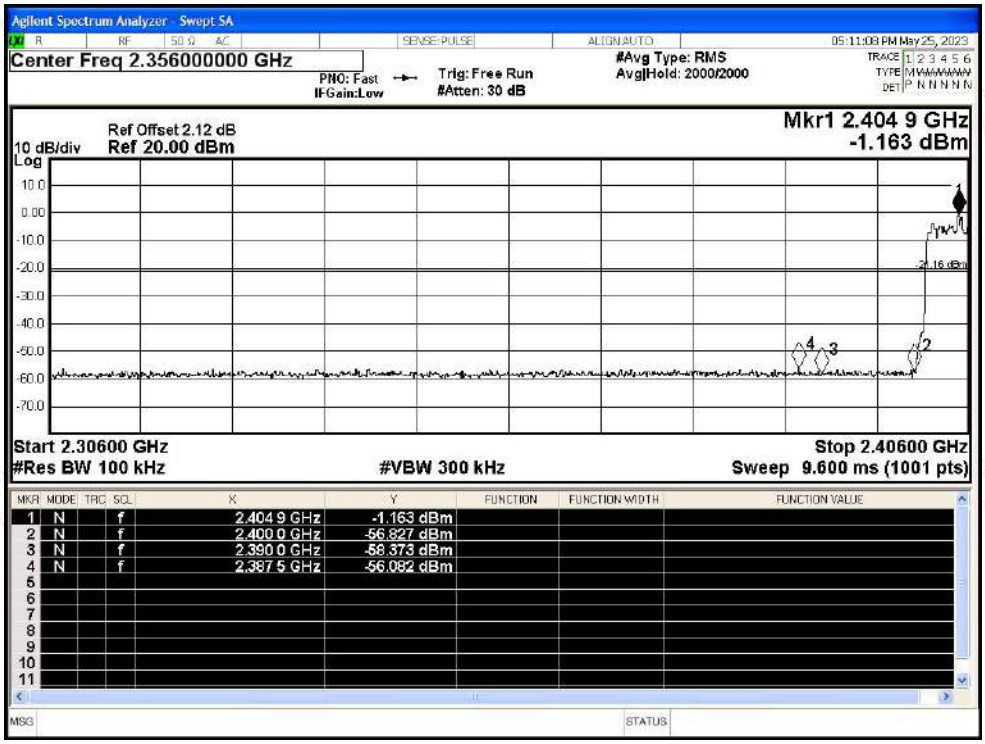
Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Emission



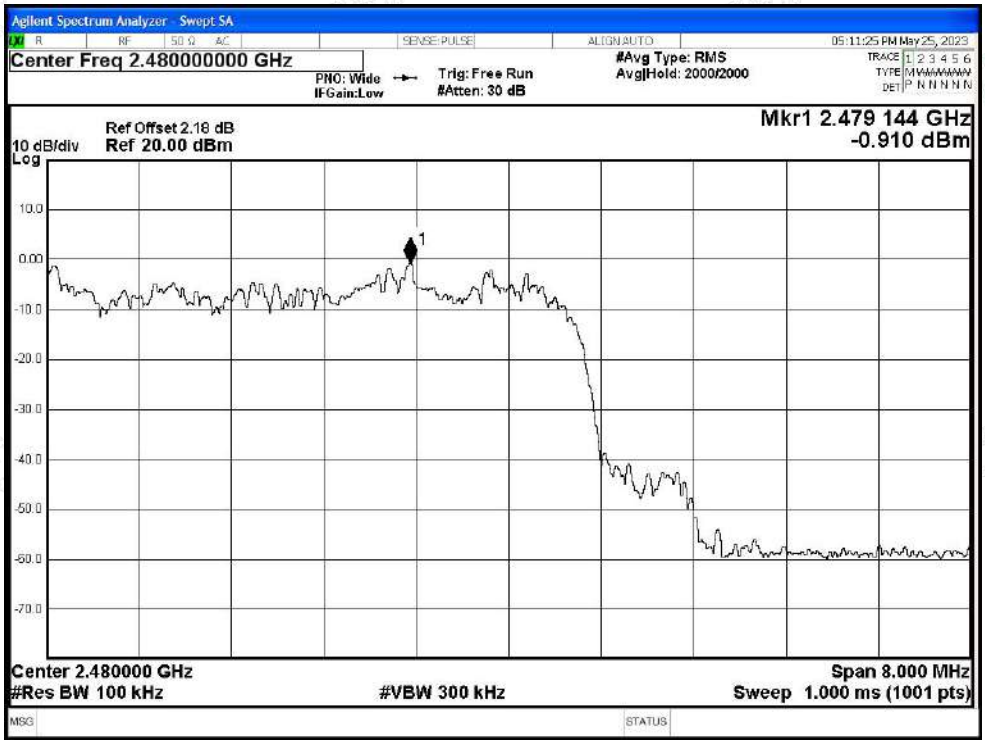
Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Ref



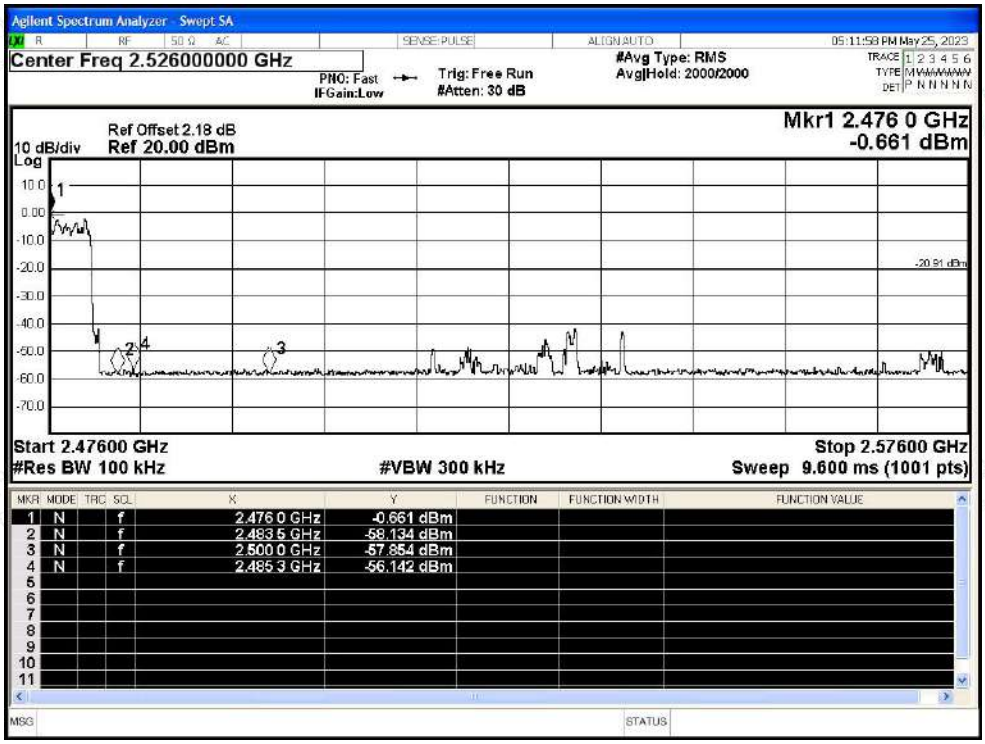
Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Emission



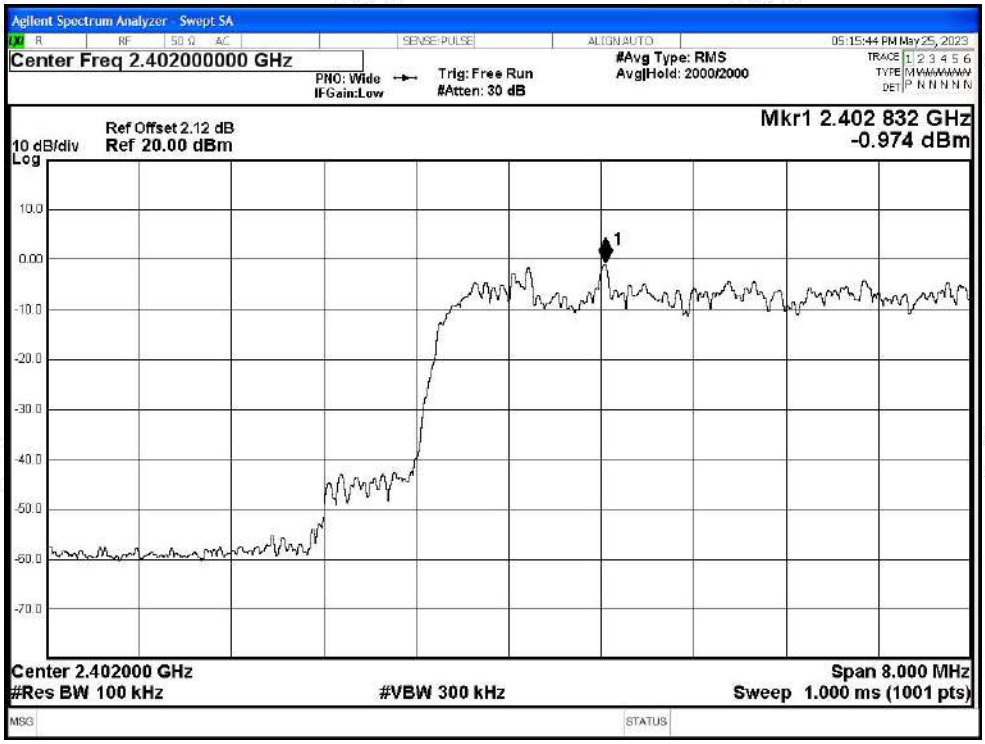
Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Ref



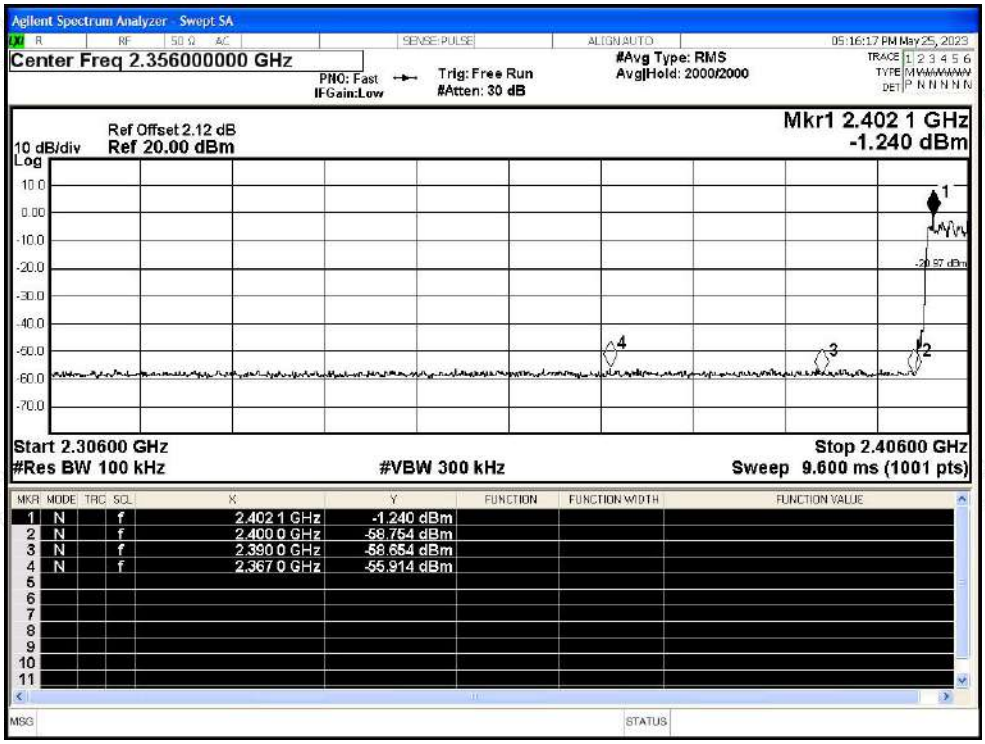
Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Emission



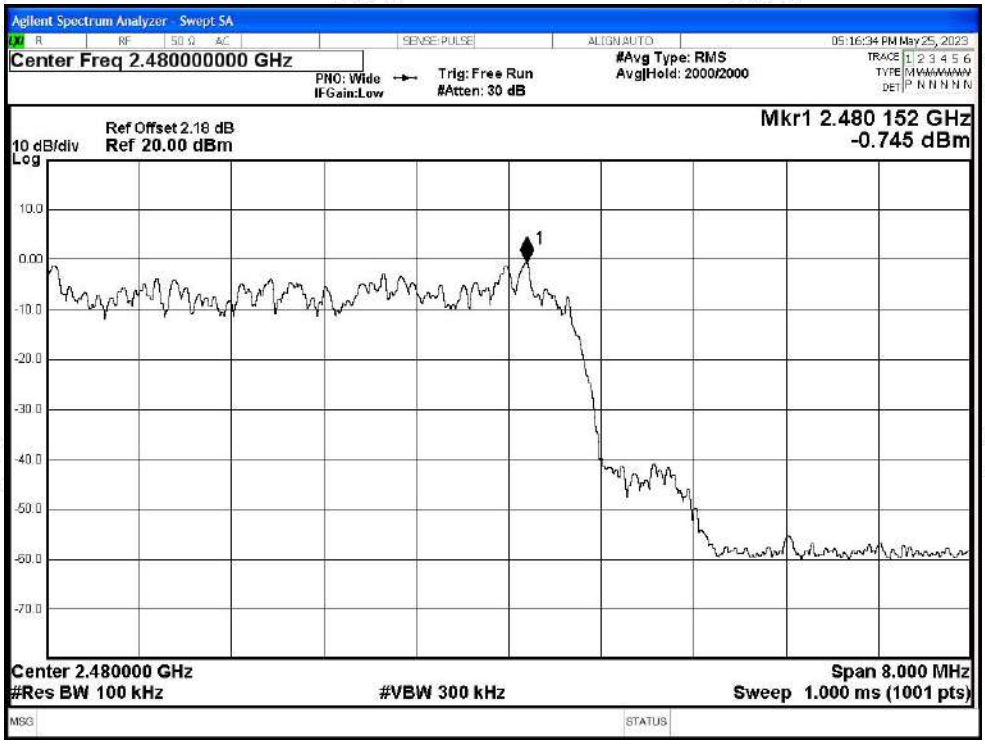
Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Ref



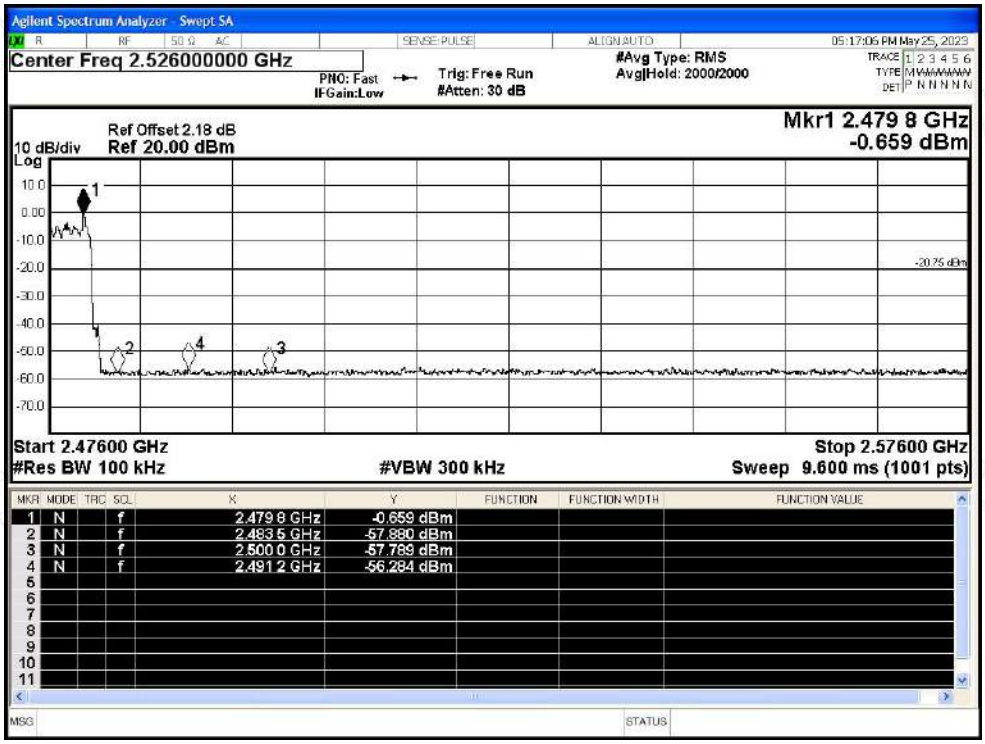
Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Emission



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



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

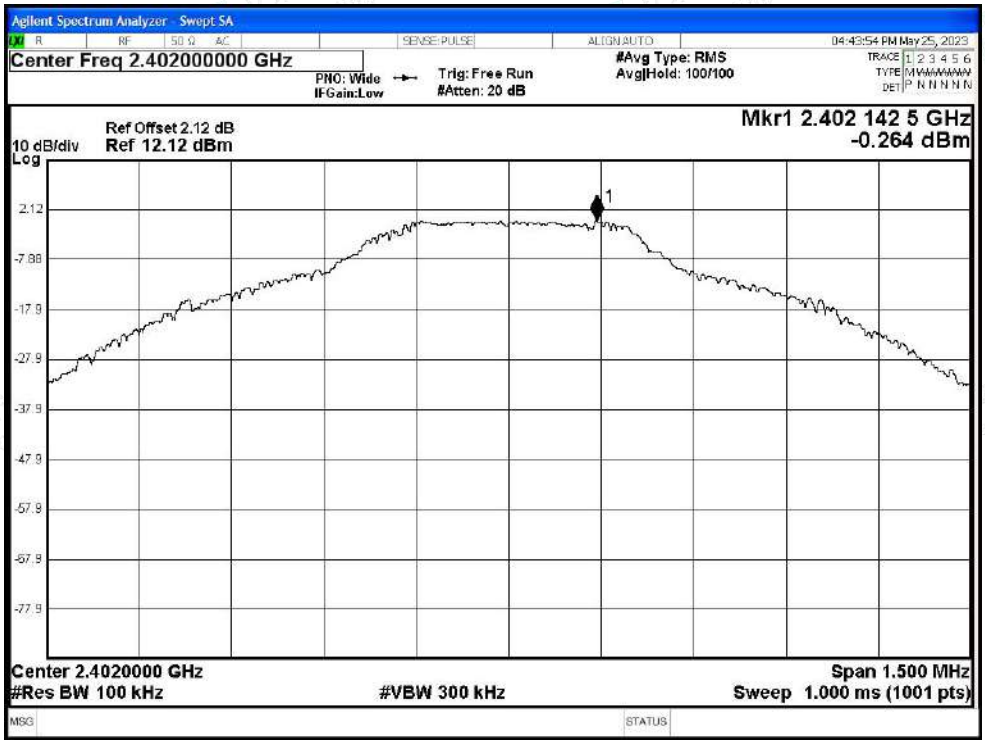


A.7 Conducted RF Spurious Emission

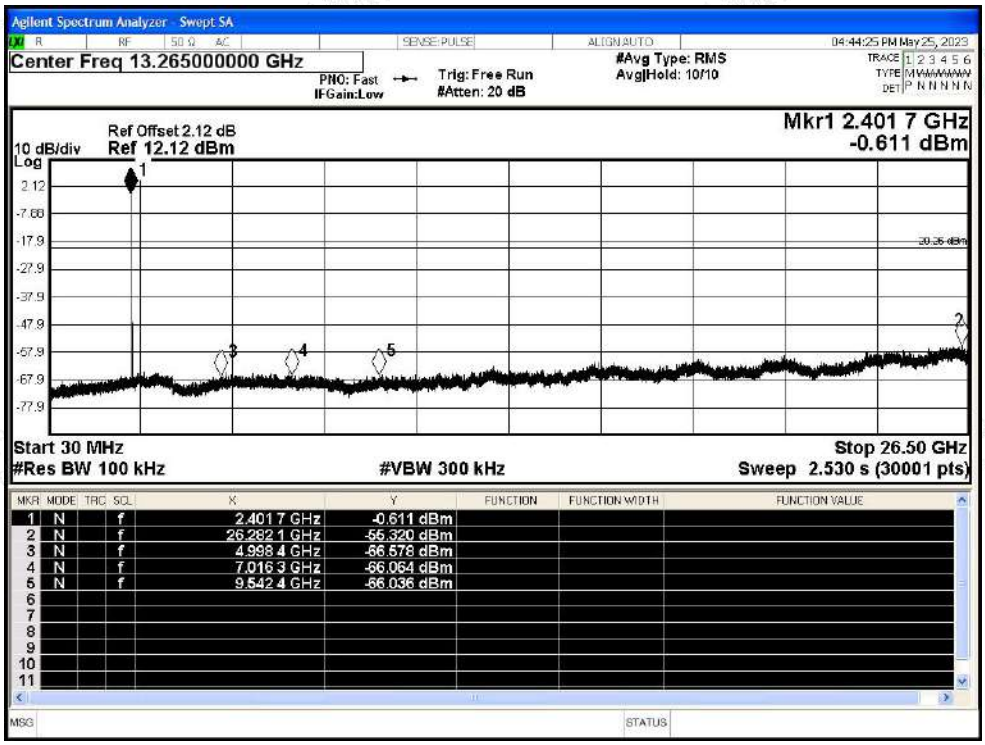
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	-55.06	-20	Pass
NVNT	1-DH5	2441	Ant1	-54.99	-20	Pass
NVNT	1-DH5	2480	Ant1	-55.2	-20	Pass
NVNT	2-DH5	2402	Ant1	-54.39	-20	Pass
NVNT	2-DH5	2441	Ant1	-54.62	-20	Pass
NVNT	2-DH5	2480	Ant1	-54.12	-20	Pass
NVNT	3-DH5	2402	Ant1	-53.98	-20	Pass
NVNT	3-DH5	2441	Ant1	-54.41	-20	Pass
NVNT	3-DH5	2480	Ant1	-53.33	-20	Pass

Test Graphs

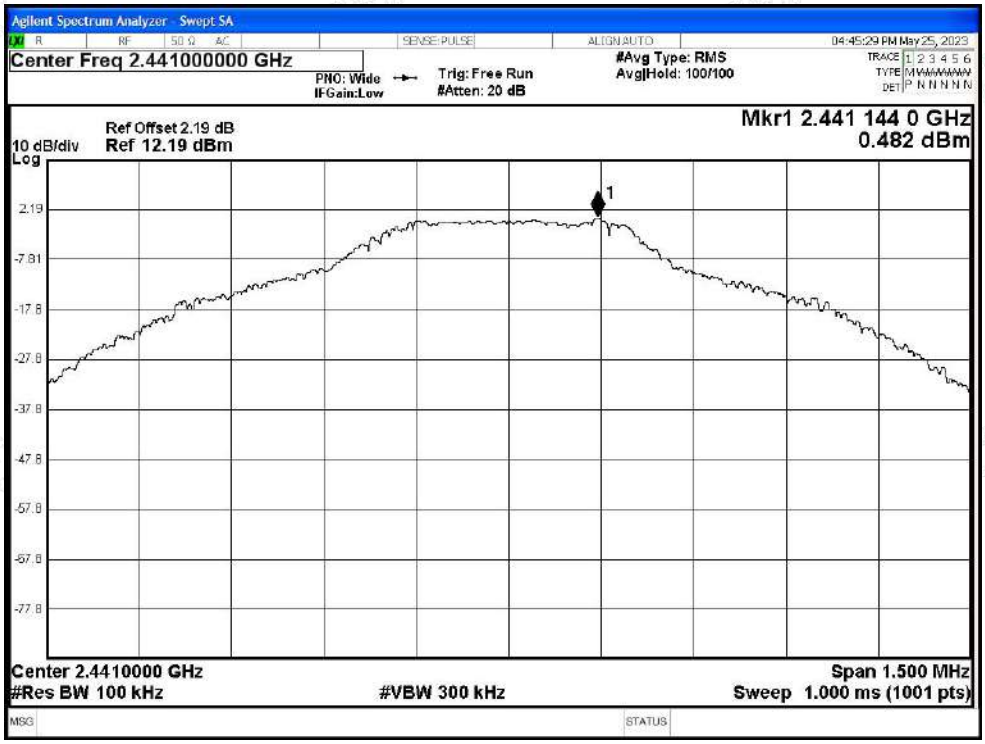
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref



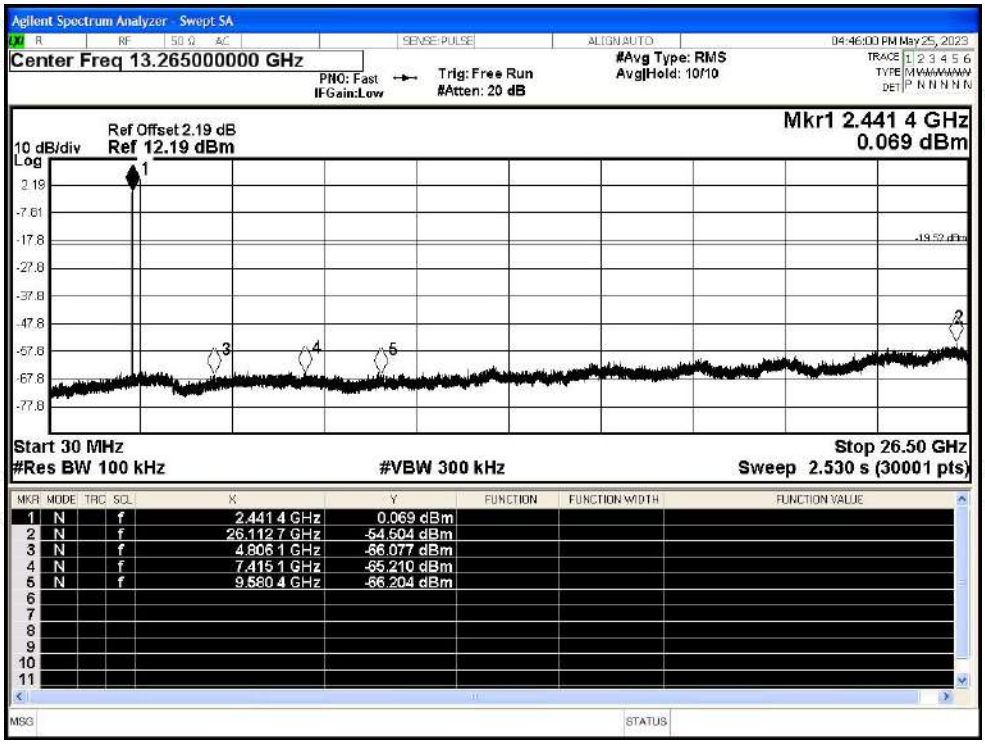
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission



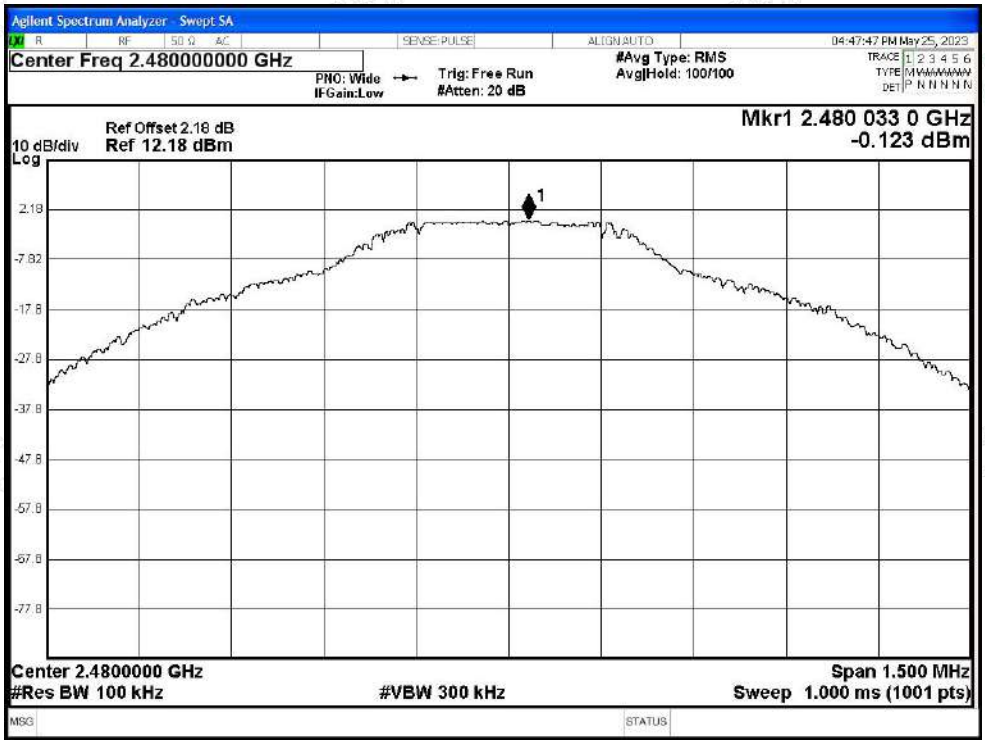
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref



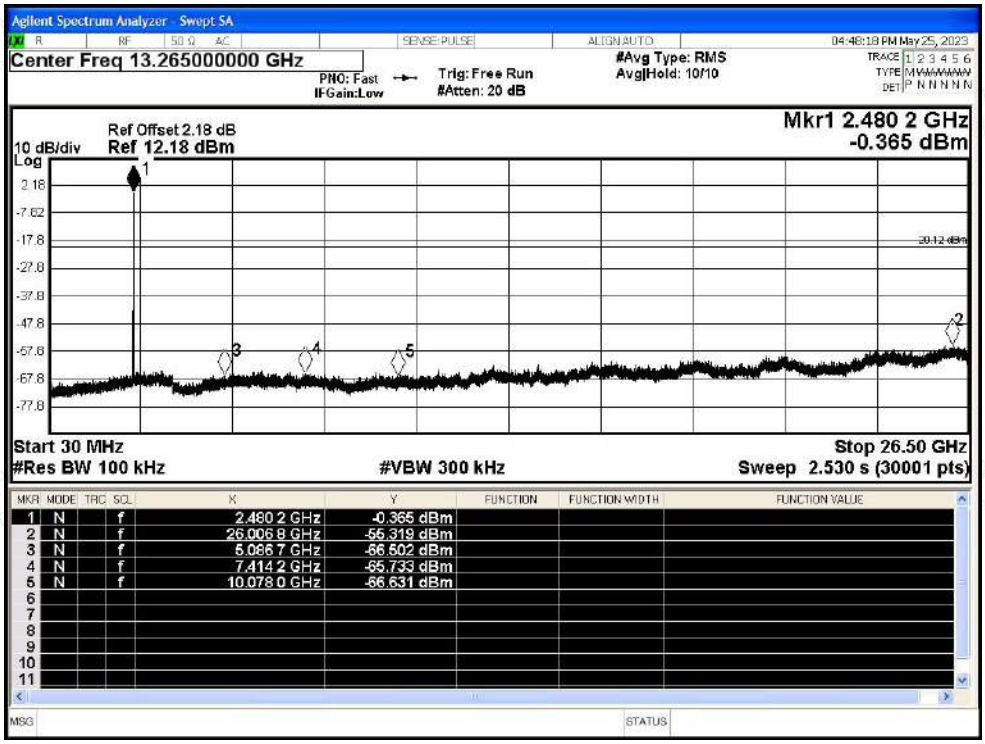
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission



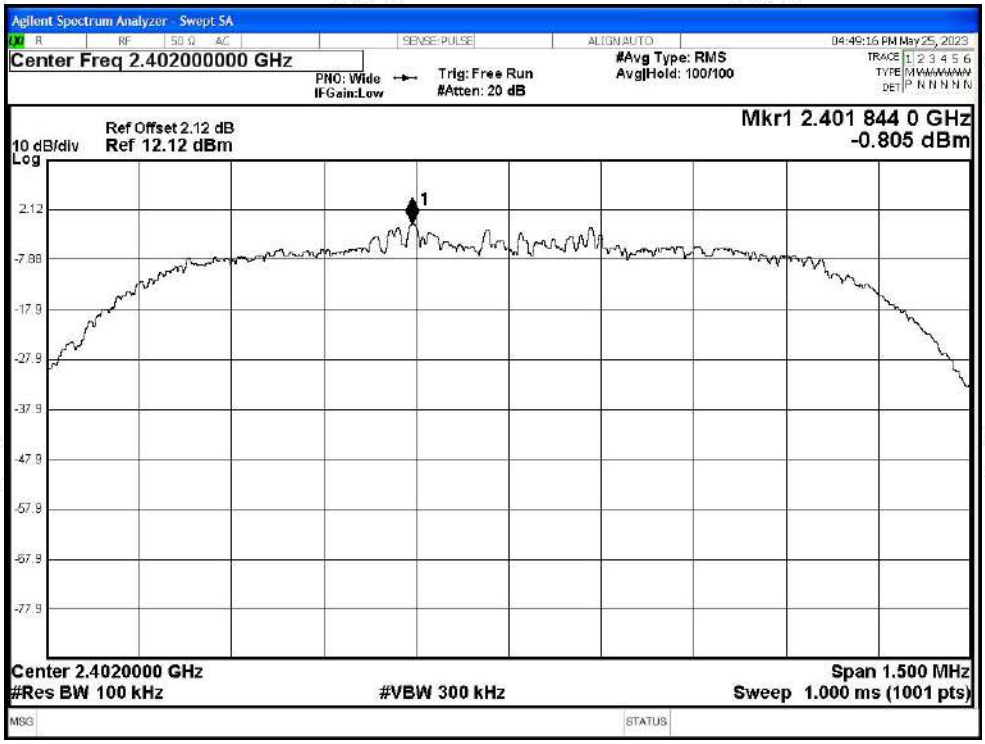
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref



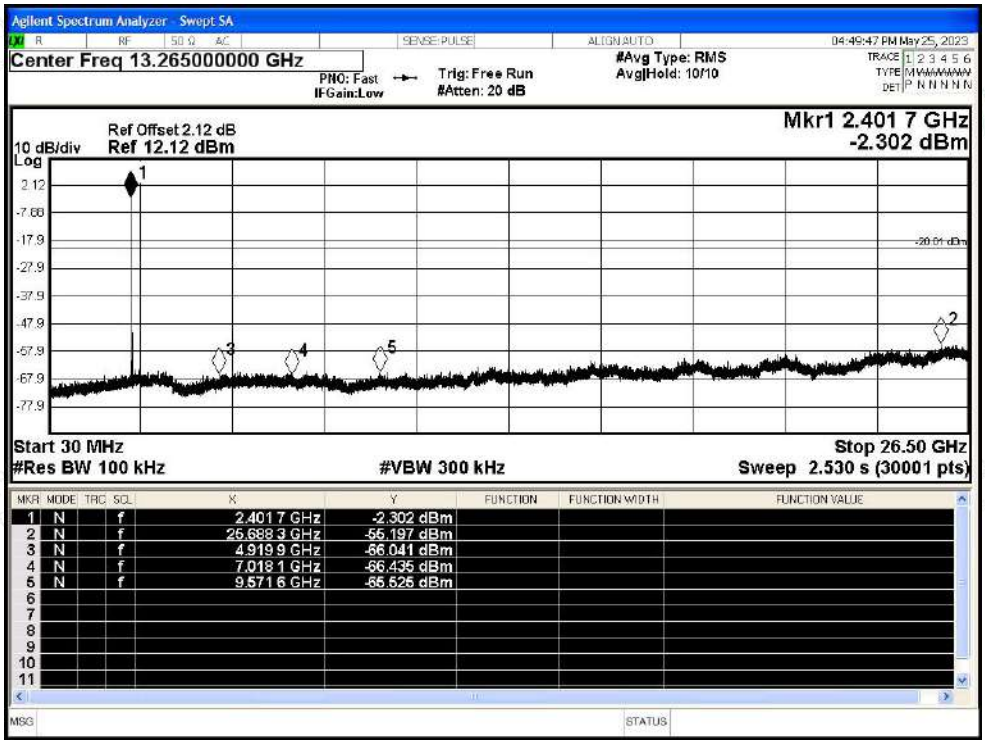
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Emission



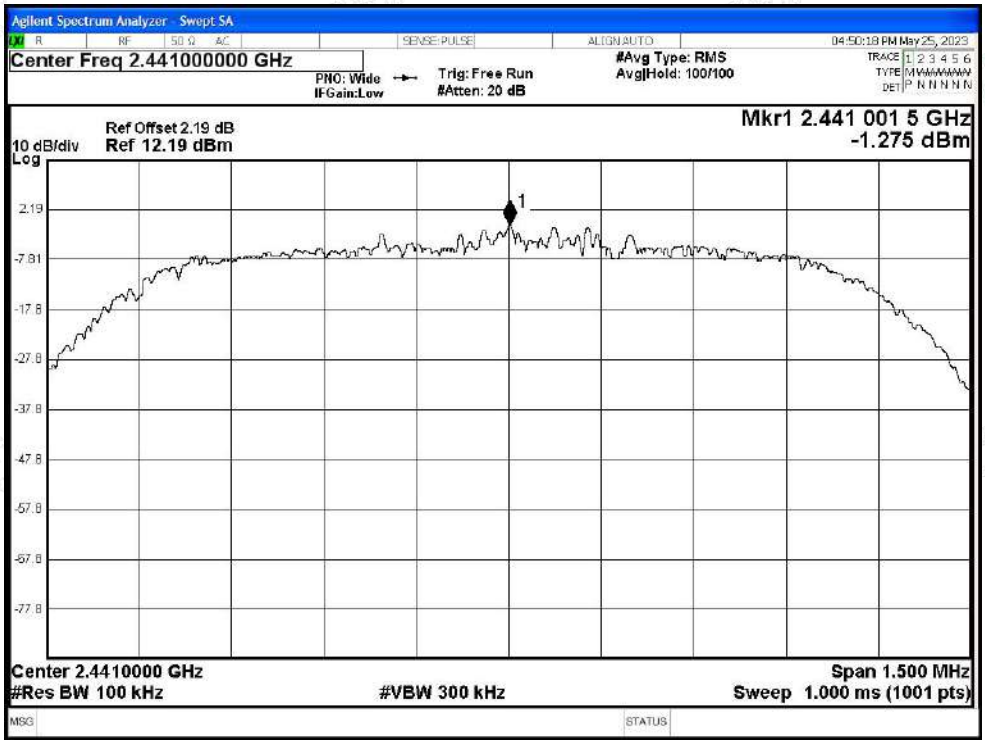
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Ref



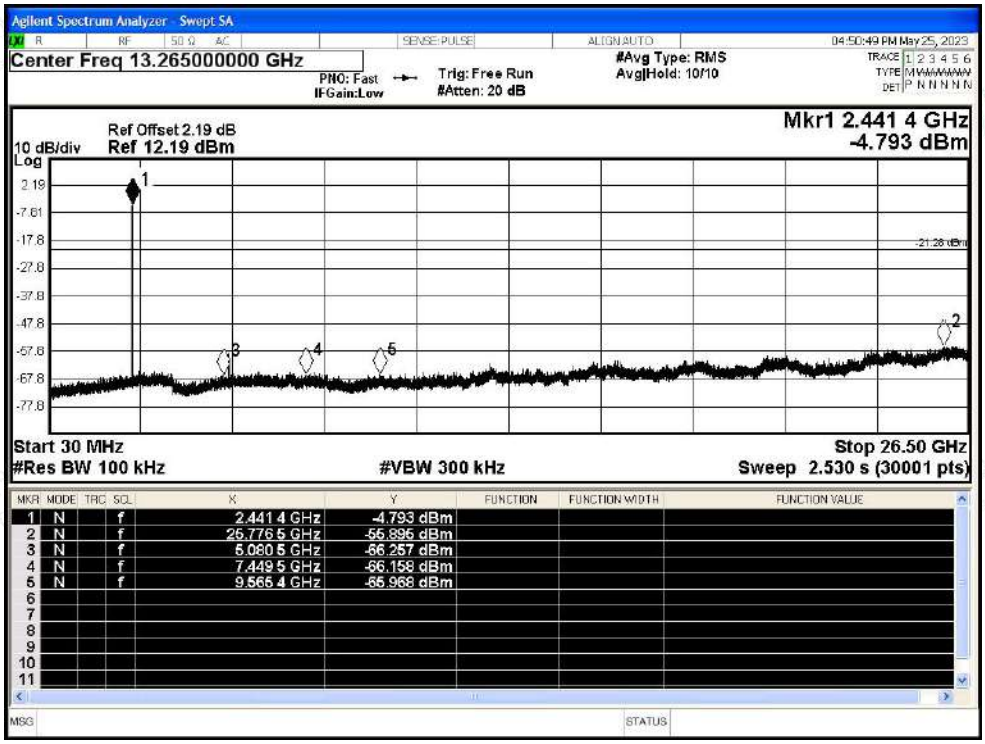
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Emission



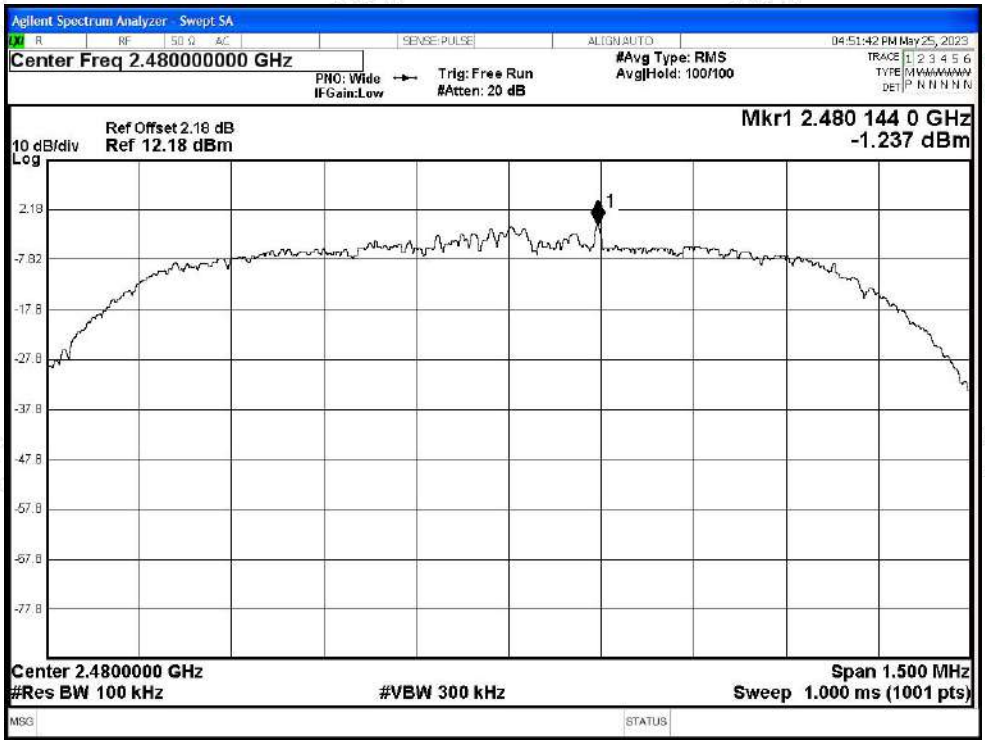
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Ref



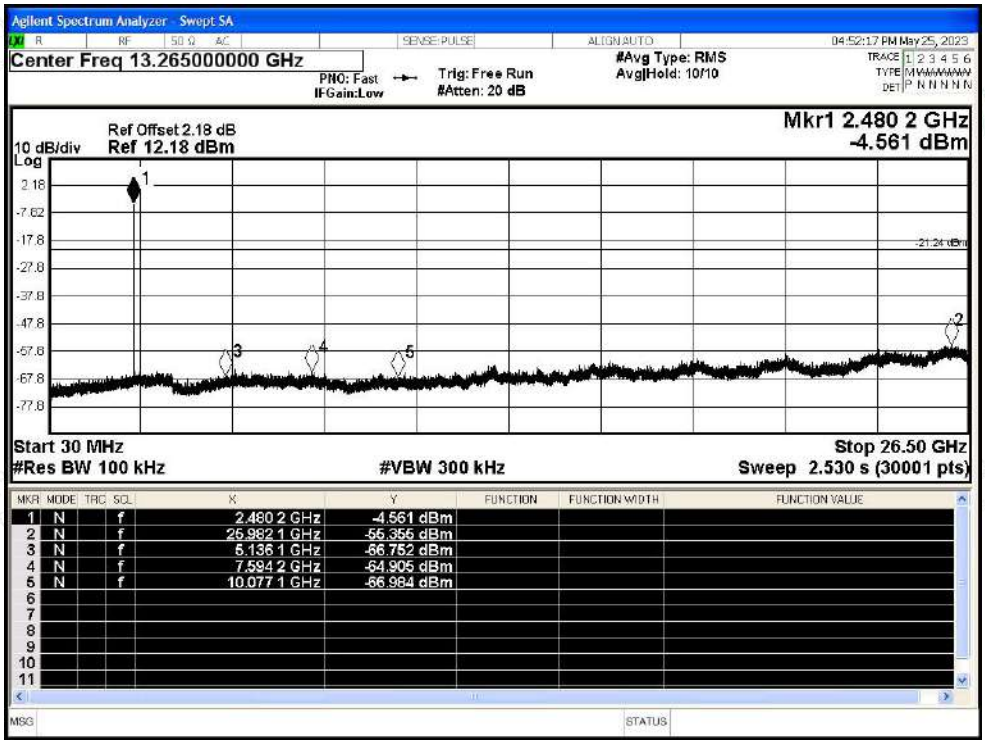
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Emission



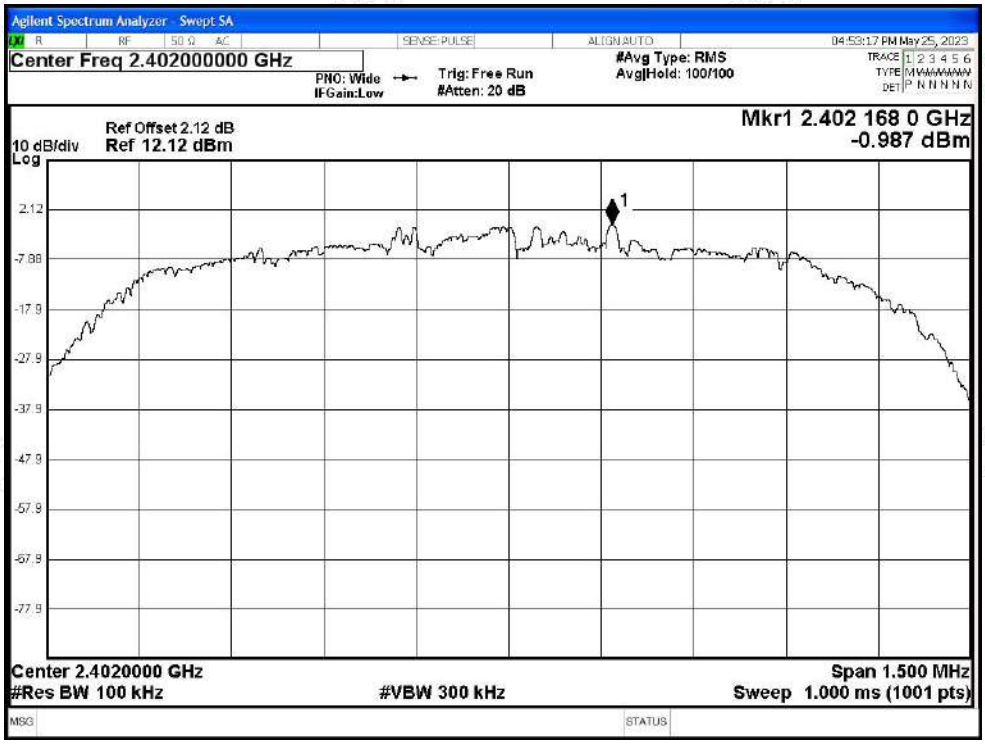
Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Ref



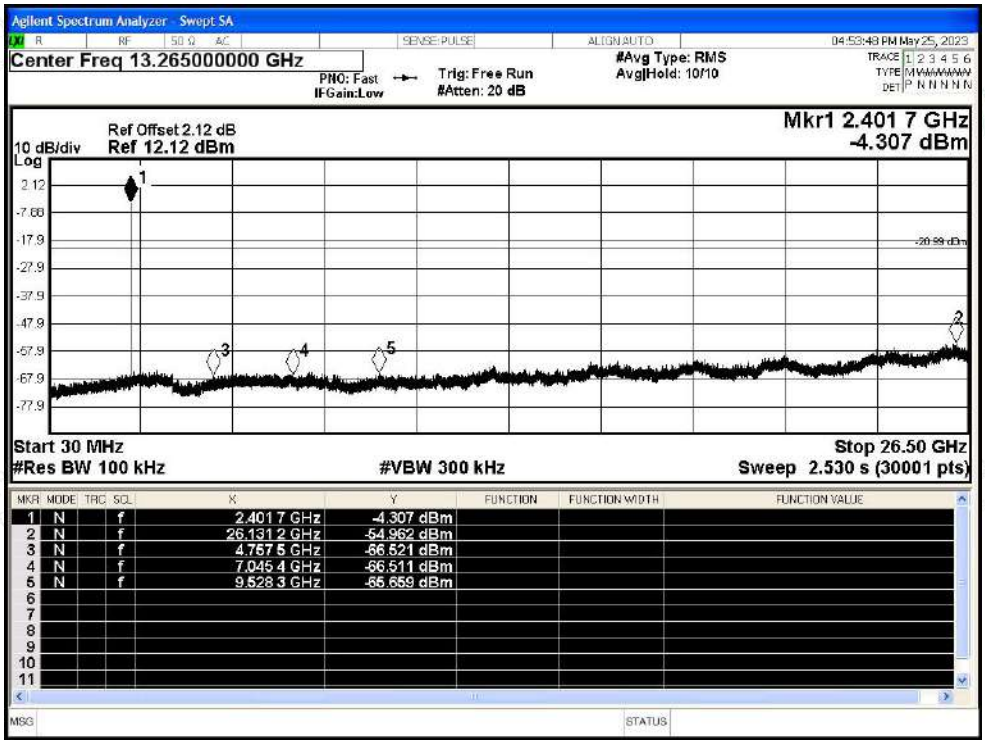
Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Emission



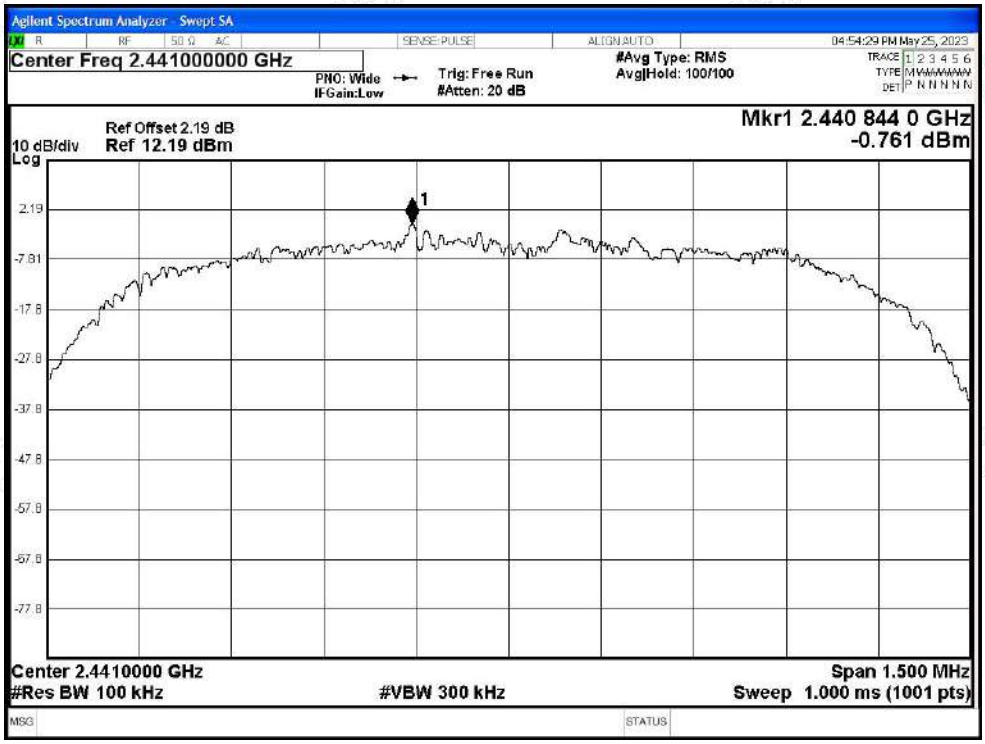
Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Ref



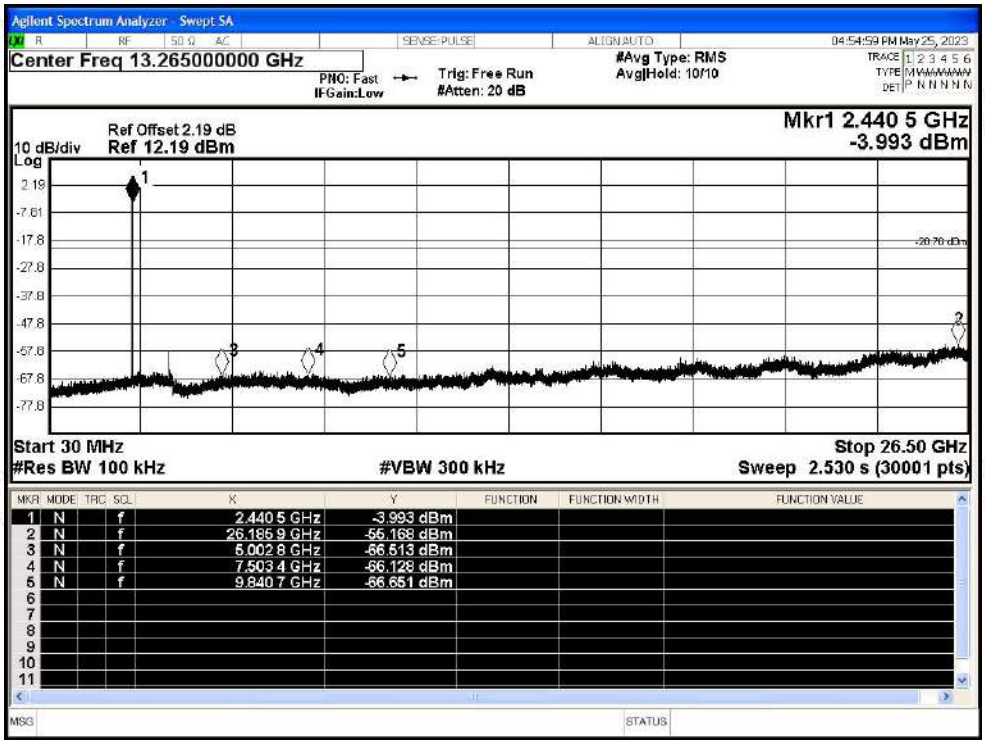
Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Emission



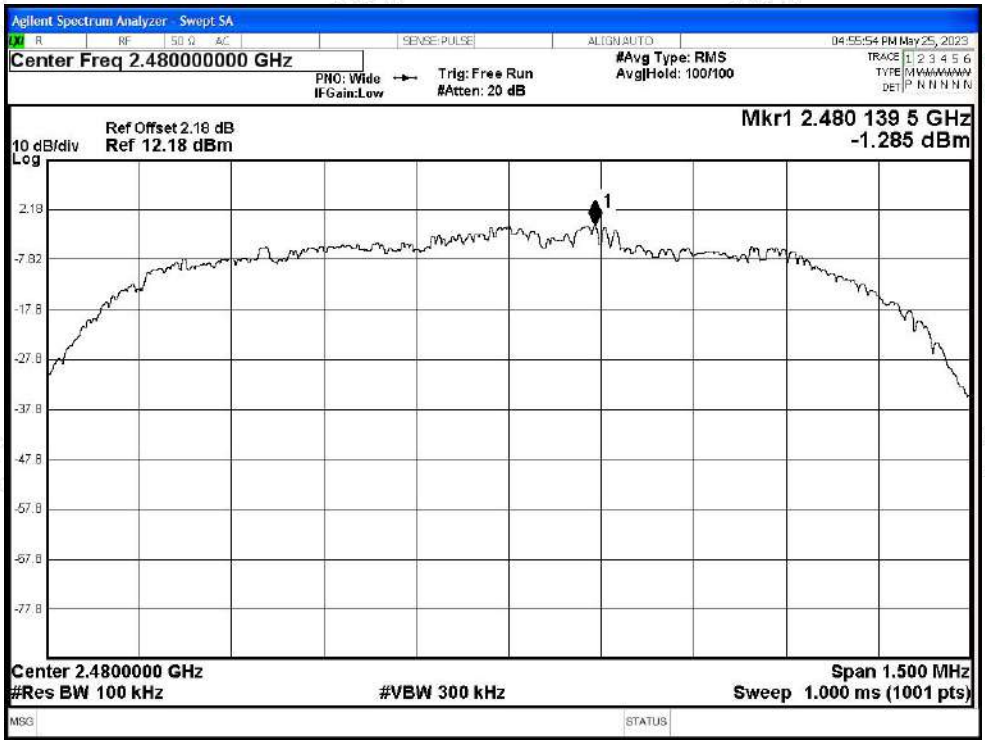
Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Ref



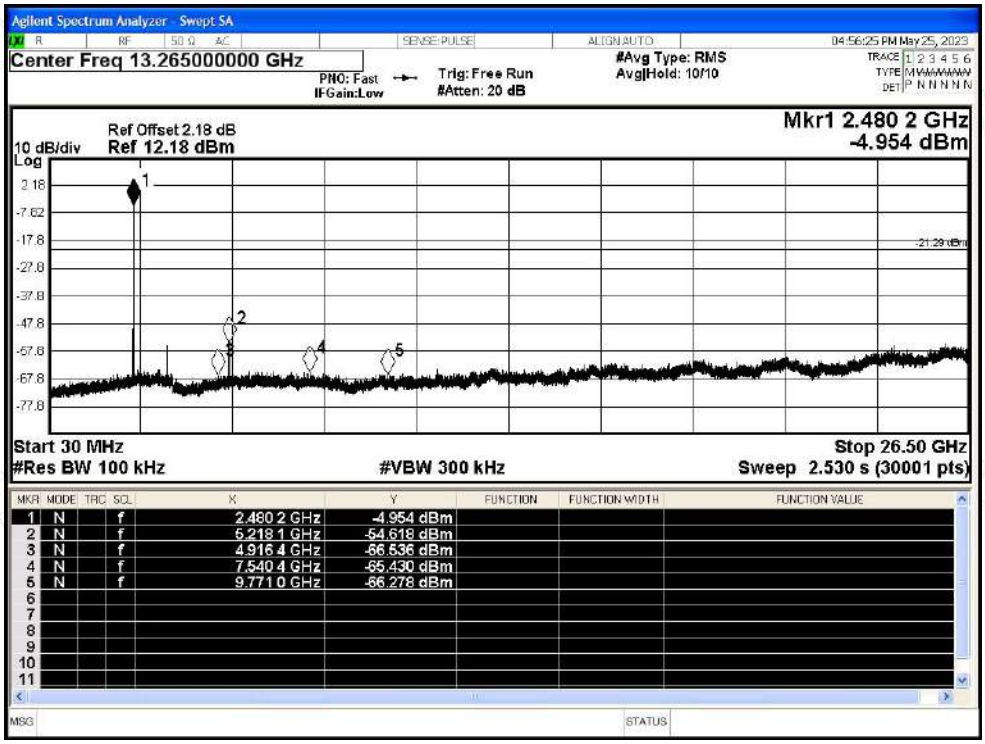
Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Emission

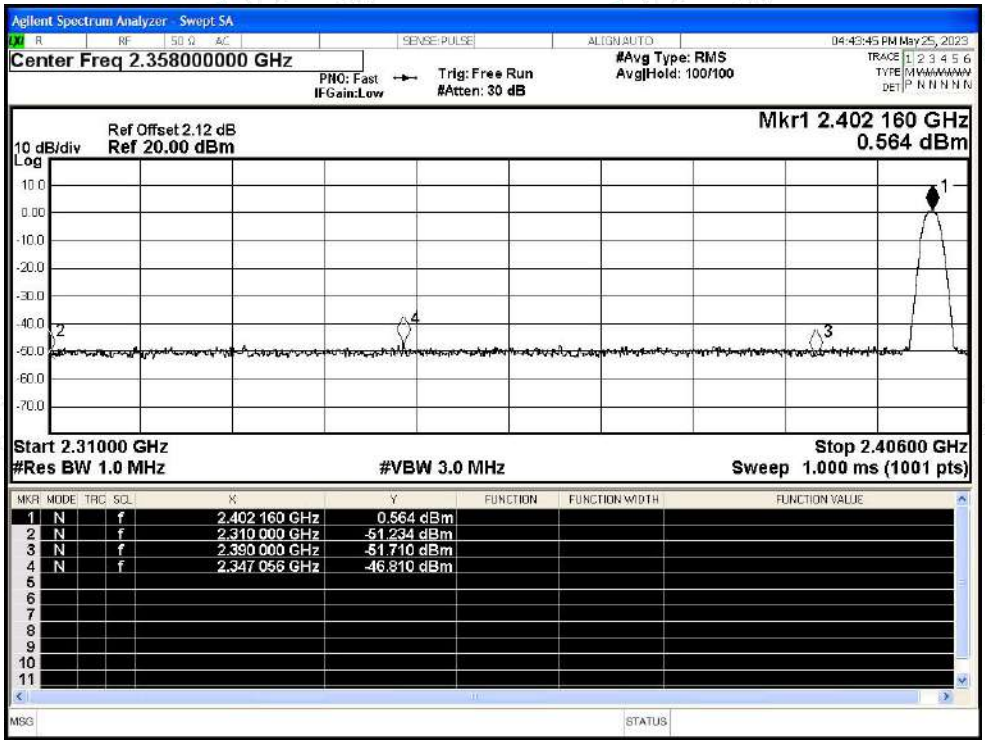


A.8 Restrict Band

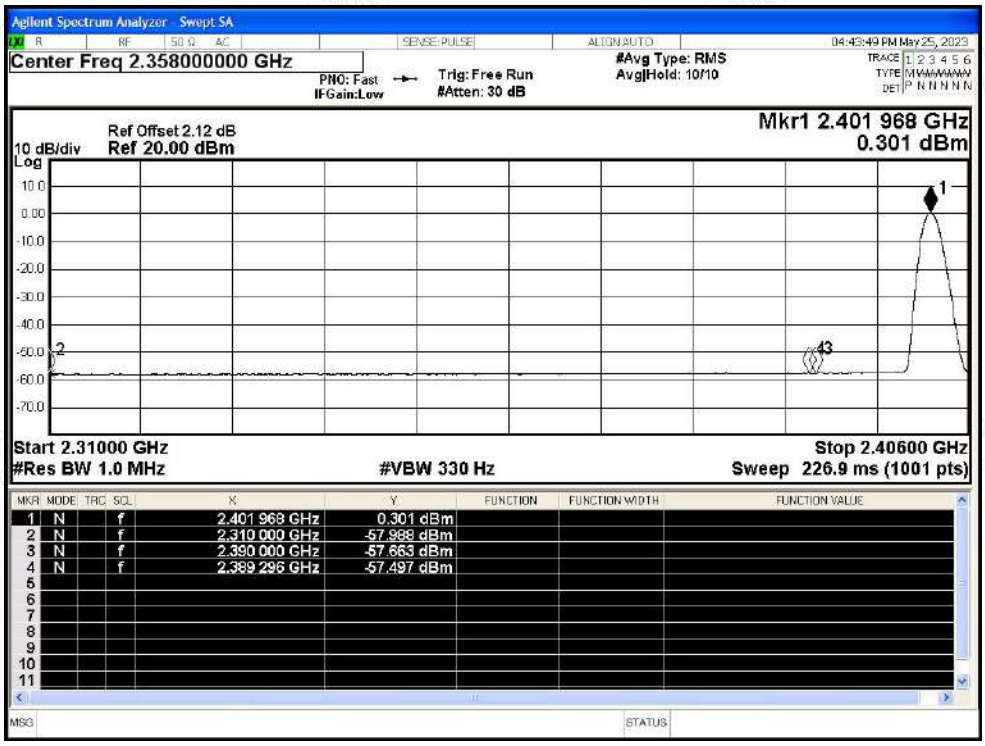
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-51.23	2	46.03	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-57.99	2	39.27	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2347.056	-46.81	2	50.45	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2389.296	-57.5	2	39.76	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-51.71	2	45.55	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-57.66	2	39.6	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-49.77	2	47.49	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-55.67	2	41.59	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2487.352	-46.61	2	50.65	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.512	-55.67	2	41.59	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-50.19	2	47.07	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-57.43	2	39.83	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-50.67	2	46.59	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-57.9	2	39.36	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2360.304	-47.19	2	50.07	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2389.584	-57.37	2	39.89	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-49.55	2	47.71	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-57.58	2	39.68	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-49.87	2	47.39	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-55.41	2	41.85	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2499.184	-47.05	2	50.21	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.512	-55.41	2	41.85	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-50.38	2	46.88	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-57.29	2	39.97	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-50.7	2	46.56	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-57.98	2	39.28	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2351.856	-46.4	2	50.86	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2387.856	-57.33	2	39.93	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-47.09	2	50.17	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-57.63	2	39.63	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-50.08	2	47.18	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-55.5	2	41.76	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2499.376	-46.9	2	50.36	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.512	-55.5	2	41.76	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-49.58	2	47.68	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-57.17	2	40.09	Average	54	Pass

Test Graphs

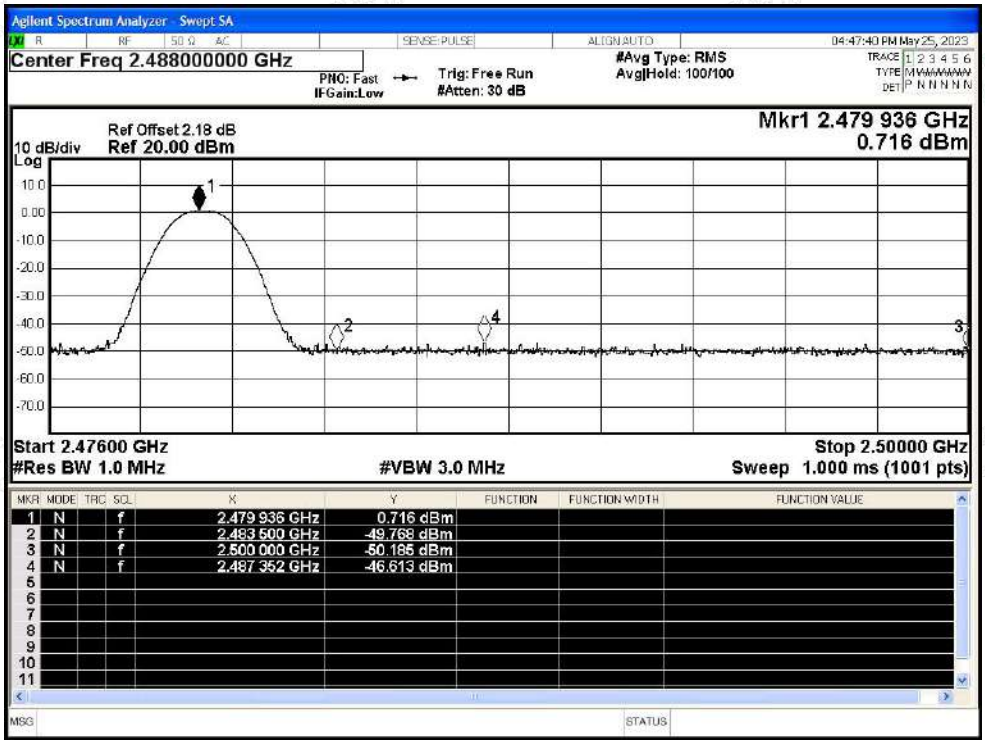
Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Peak



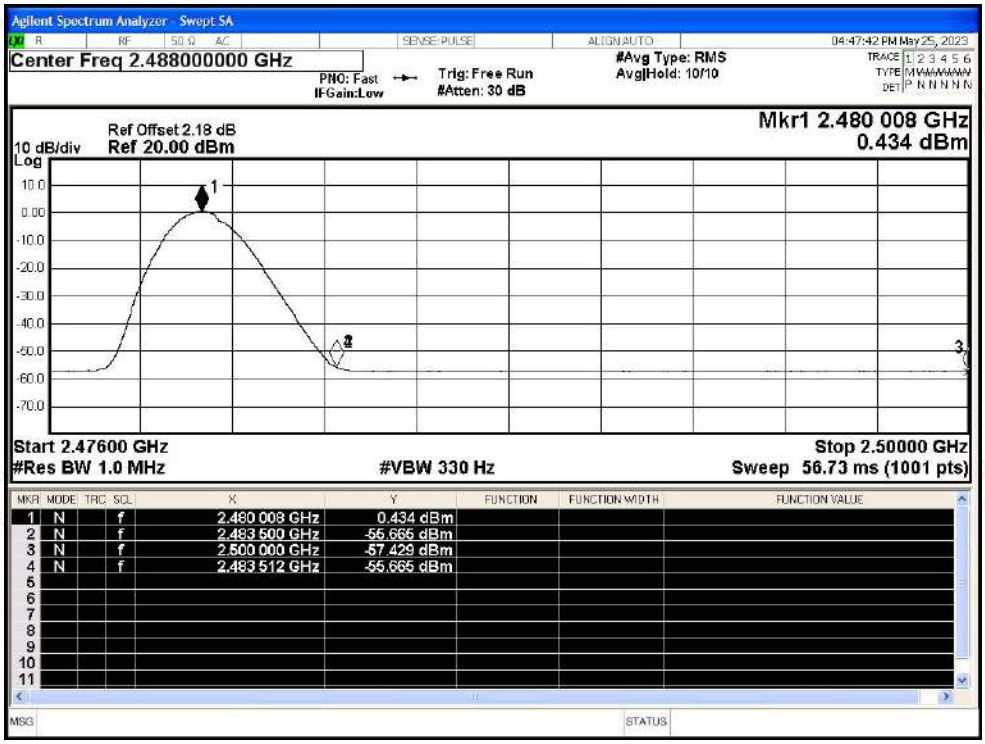
Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Average



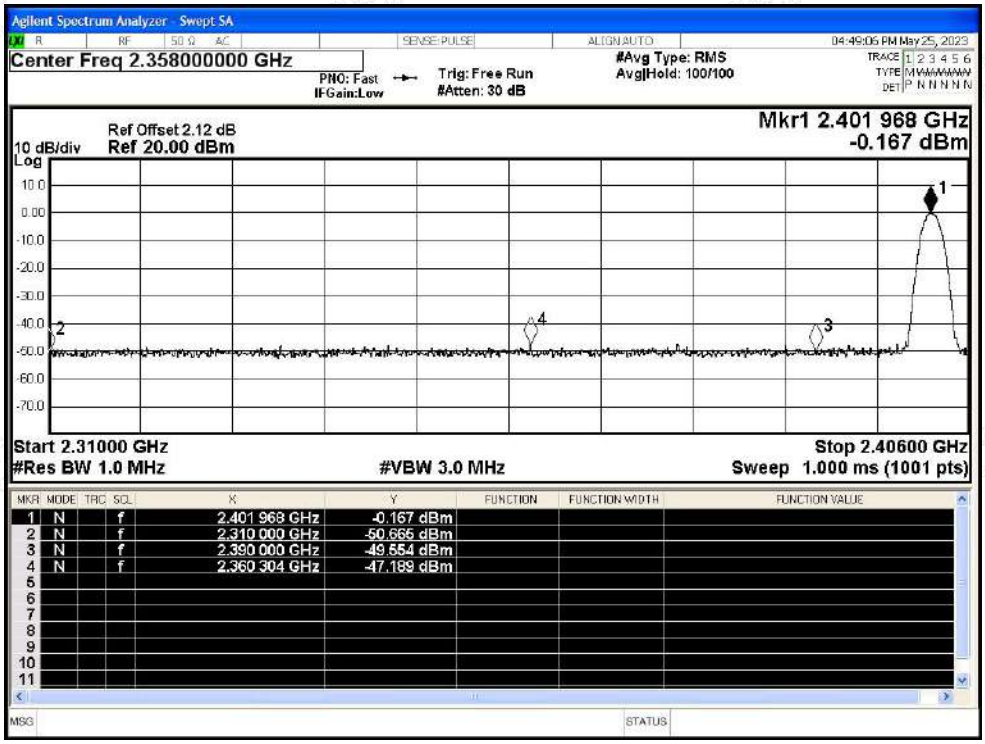
Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Peak



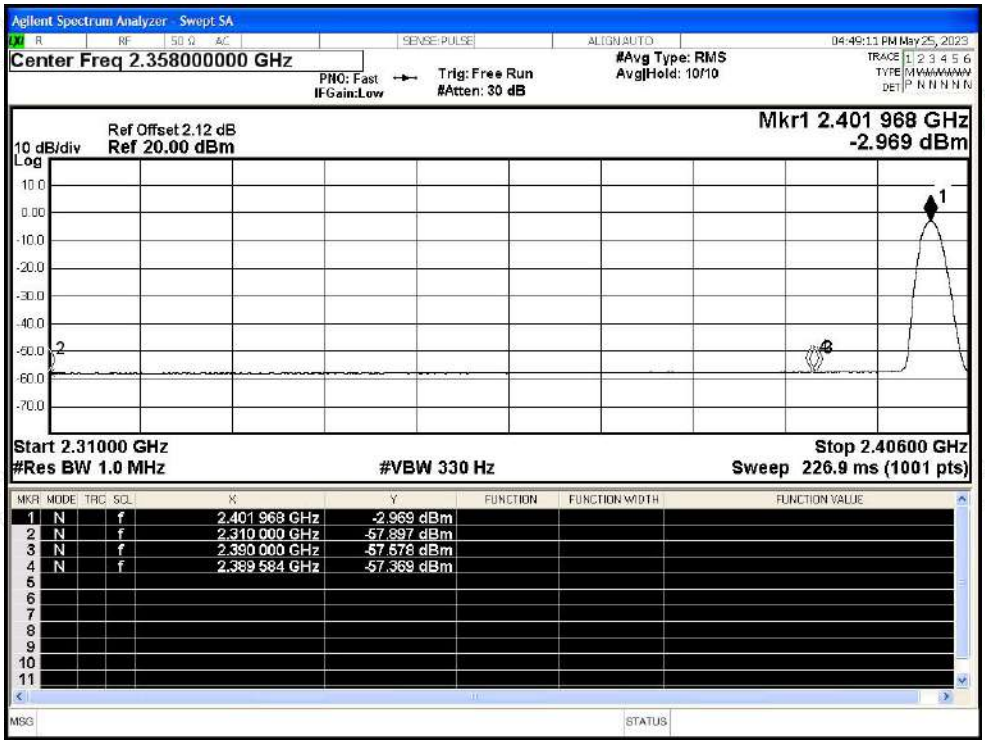
Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Average



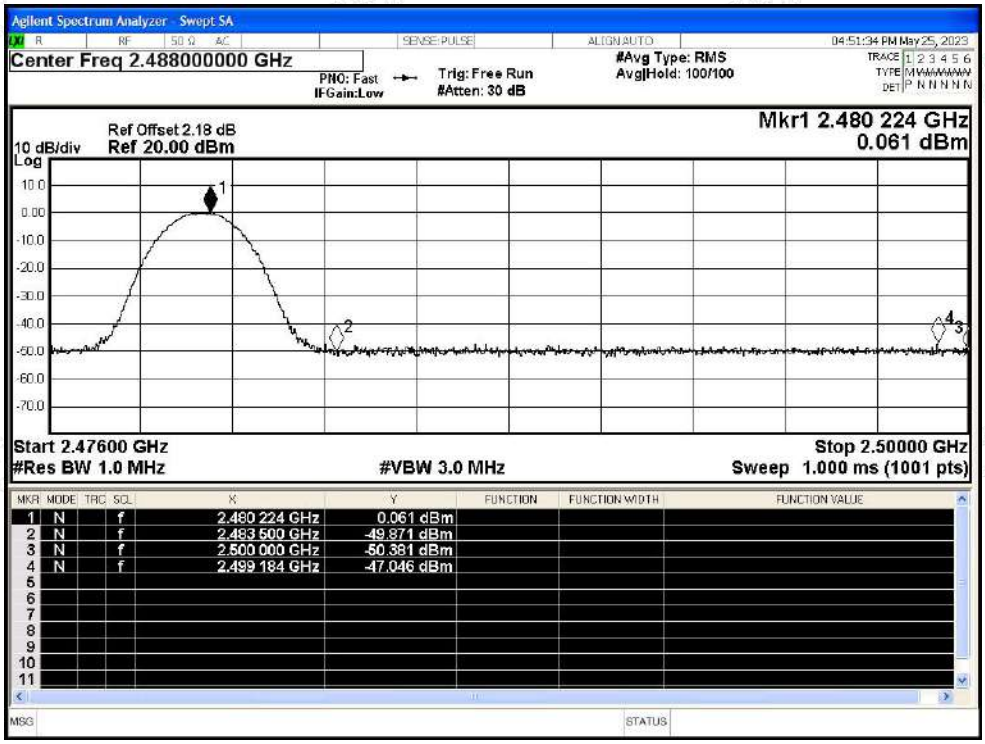
Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Peak



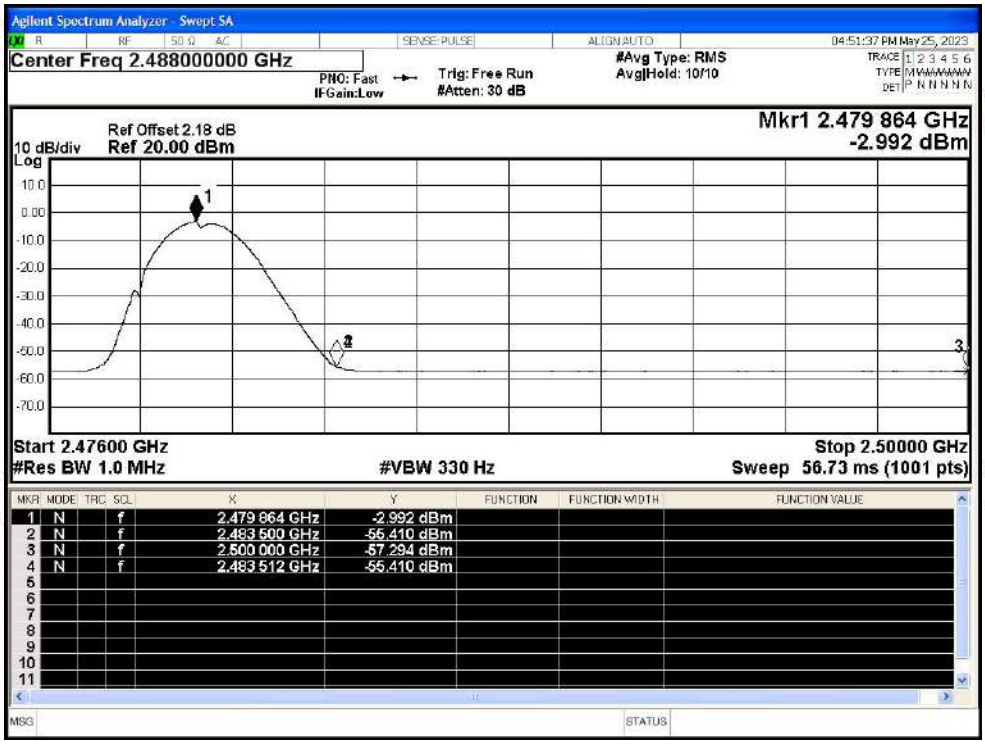
Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Average



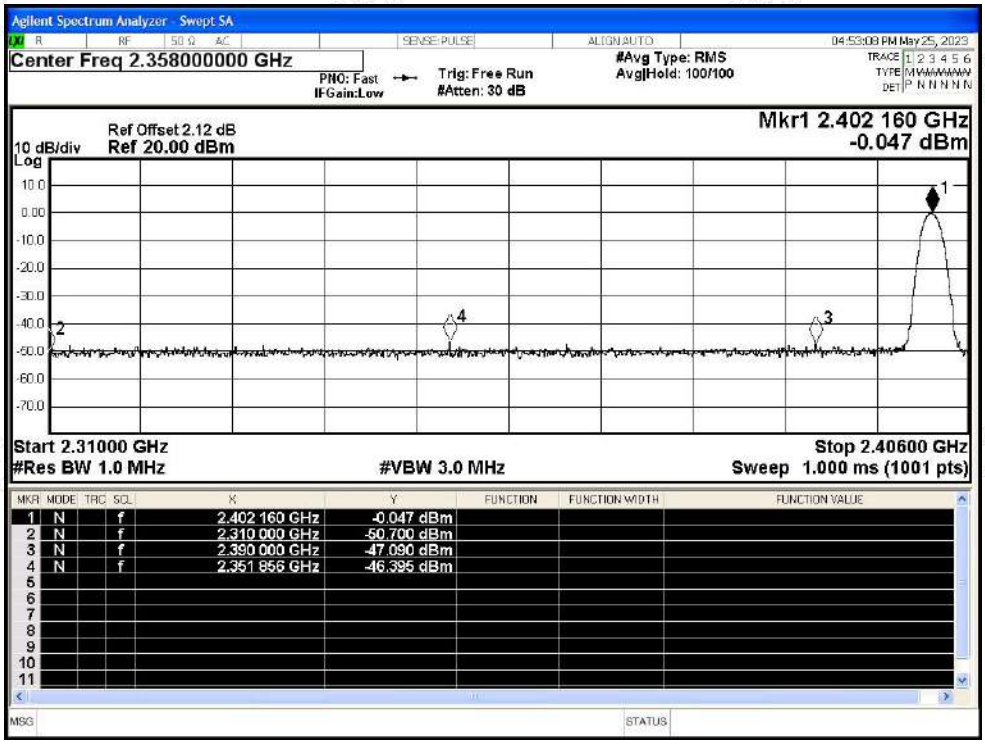
Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Peak



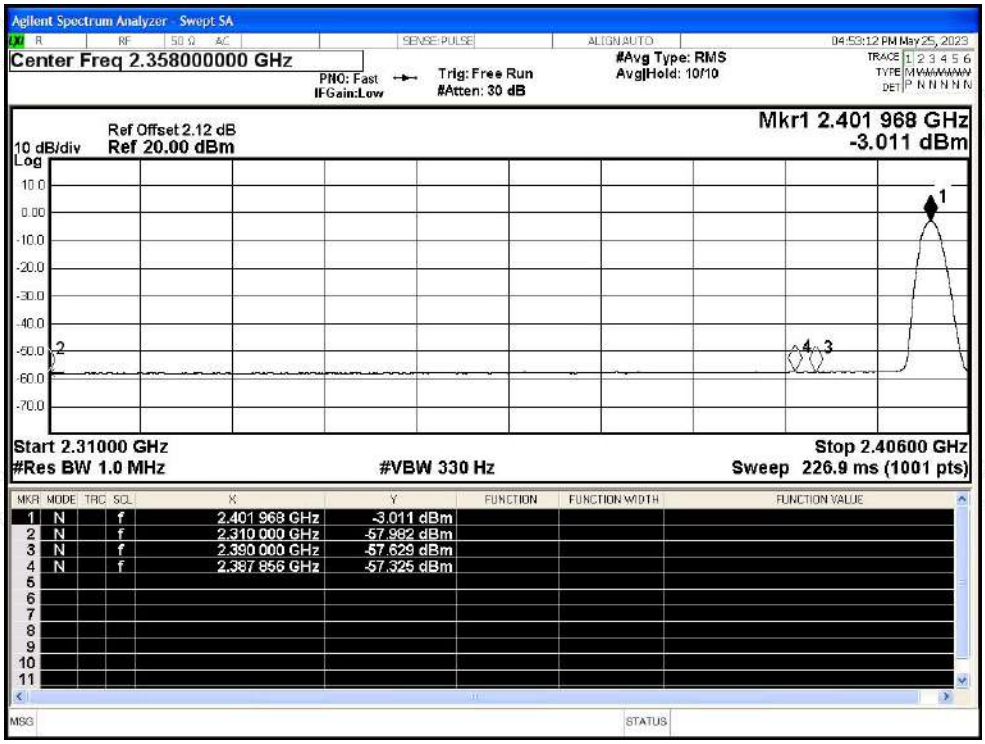
Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Average



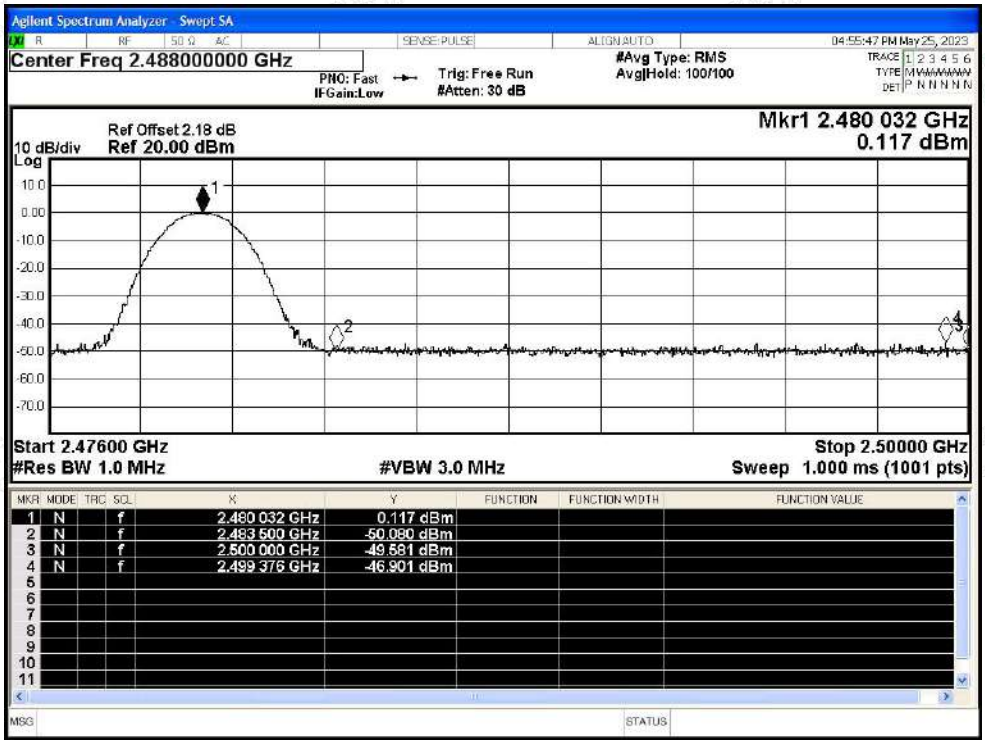
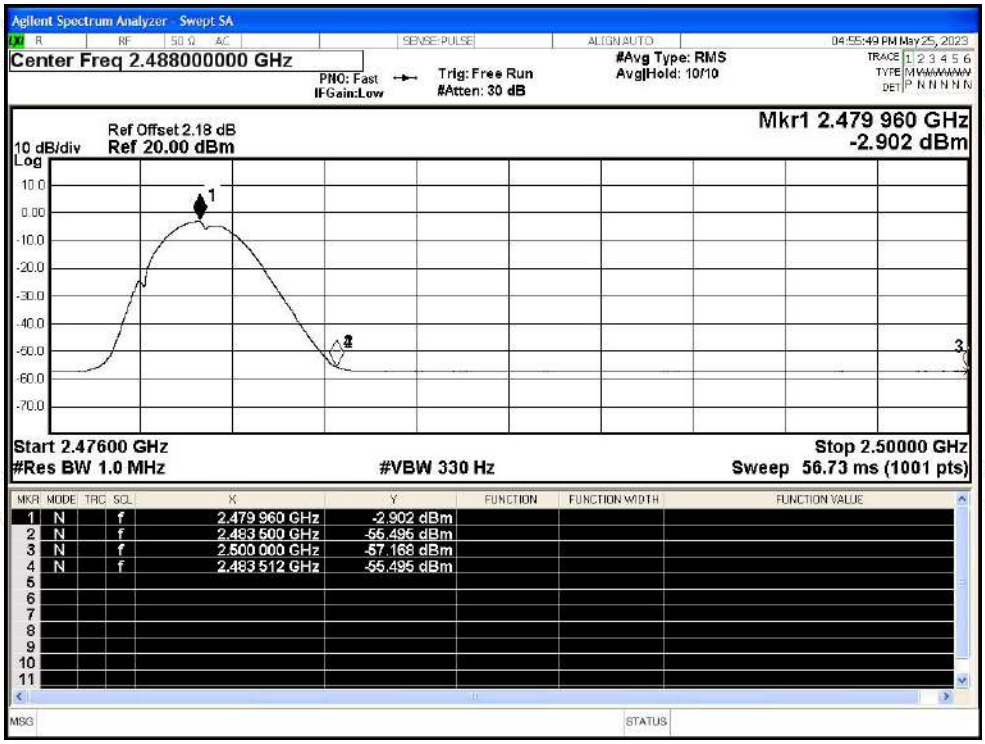
Restrict Band NVNT 3-DH5 2402MHz Ant1 No-Hopping Peak



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