Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: Smart POS Terminal

Test Model: P92

Environmental Conditions

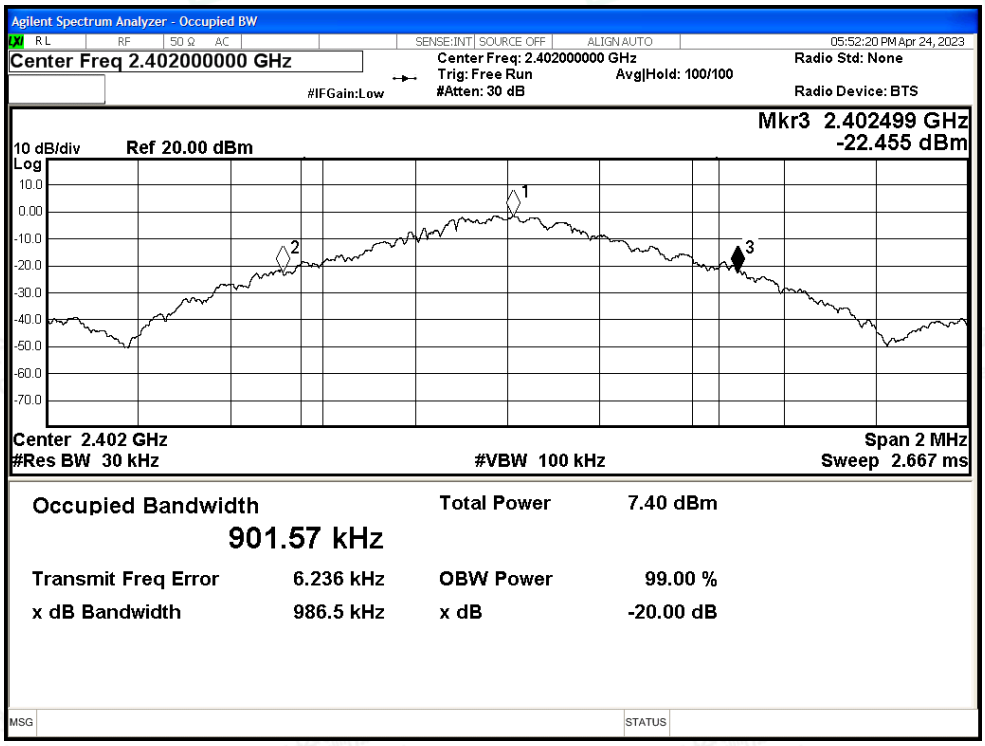
Temperature:	23.8° C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Nick Peng
Supervised by:	Ling Zhu

A.1 -20dB Bandwidth

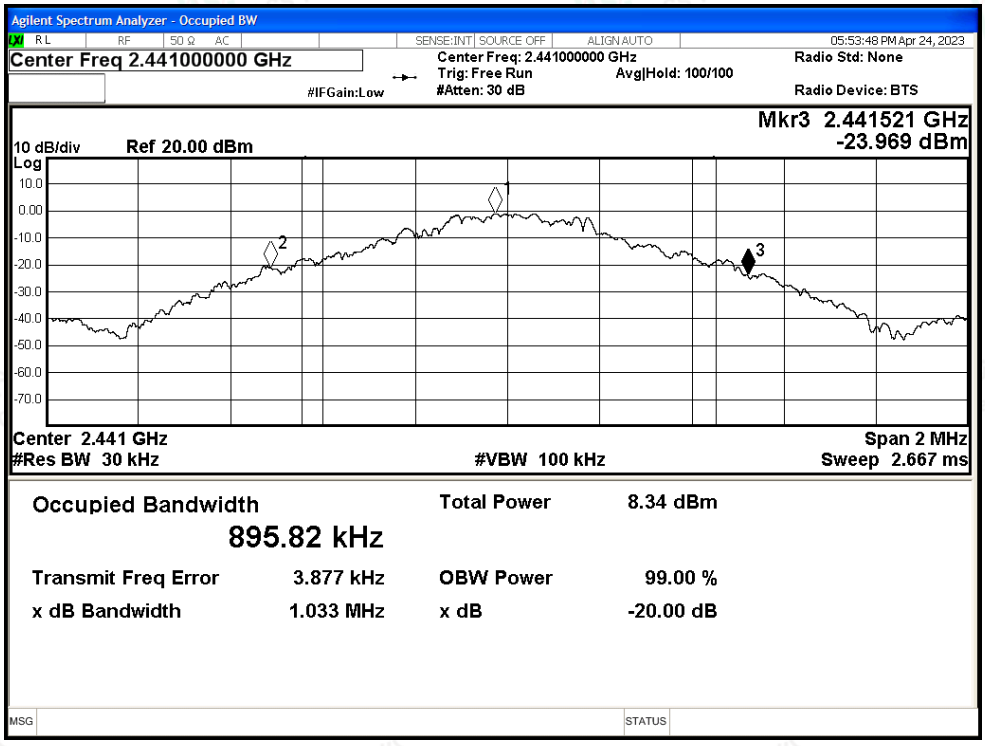
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH5	2402	Ant1	0.987	0	Pass
NVNT	1-DH5	2441	Ant1	1.033	0	Pass
NVNT	1-DH5	2480	Ant1	1.034	0	Pass
NVNT	2-DH5	2402	Ant1	1.277	0	Pass
NVNT	2-DH5	2441	Ant1	1.288	0	Pass
NVNT	2-DH5	2480	Ant1	1.302	0	Pass
NVNT	3-DH5	2402	Ant1	1.313	0	Pass
NVNT	3-DH5	2441	Ant1	1.303	0	Pass
NVNT	3-DH5	2480	Ant1	1.31	0	Pass

Test Graphs

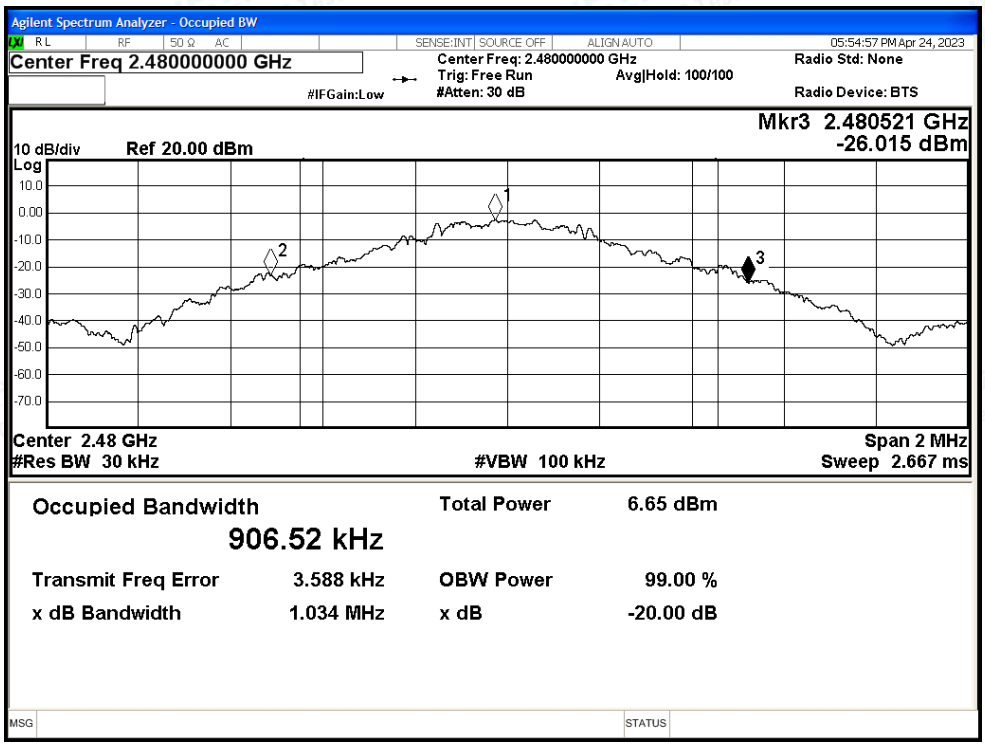
-20dB Bandwidth NVNT 1-DH5 2402MHz Ant1



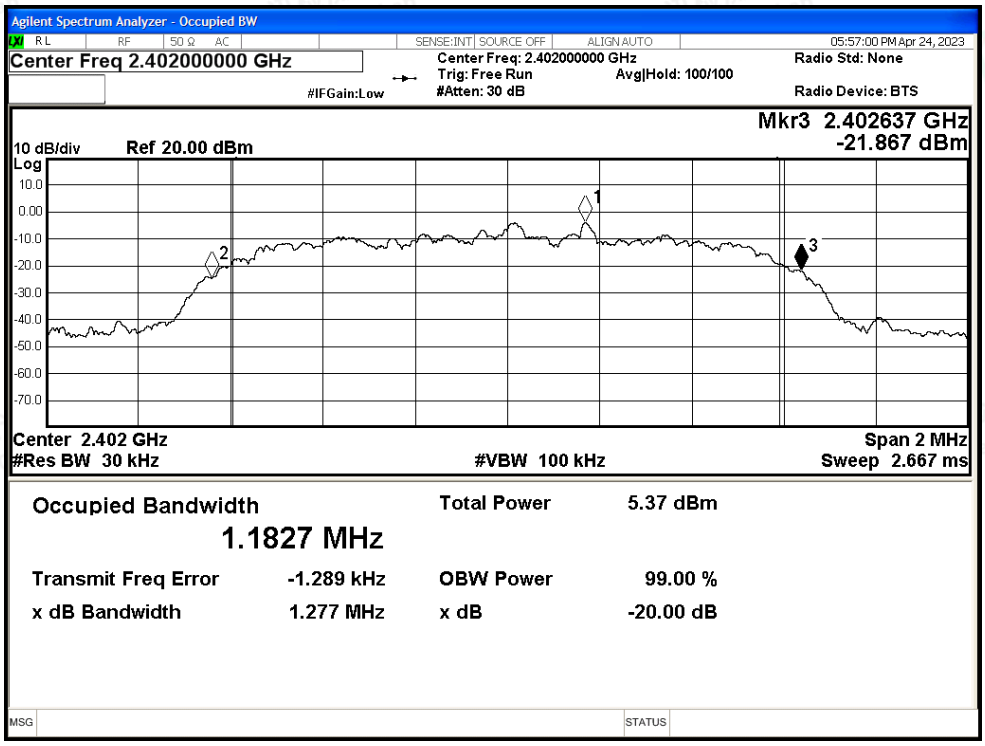
-20dB Bandwidth NVNT 1-DH5 2441MHz Ant1



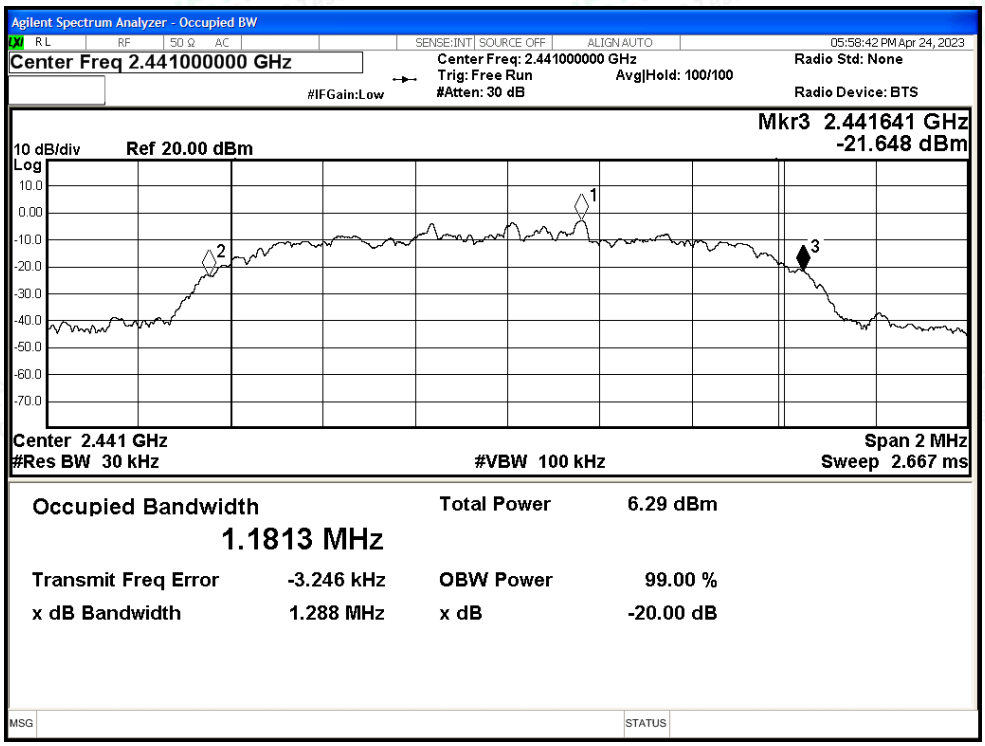
-20dB Bandwidth NVNT 1-DH5 2480MHz Ant1



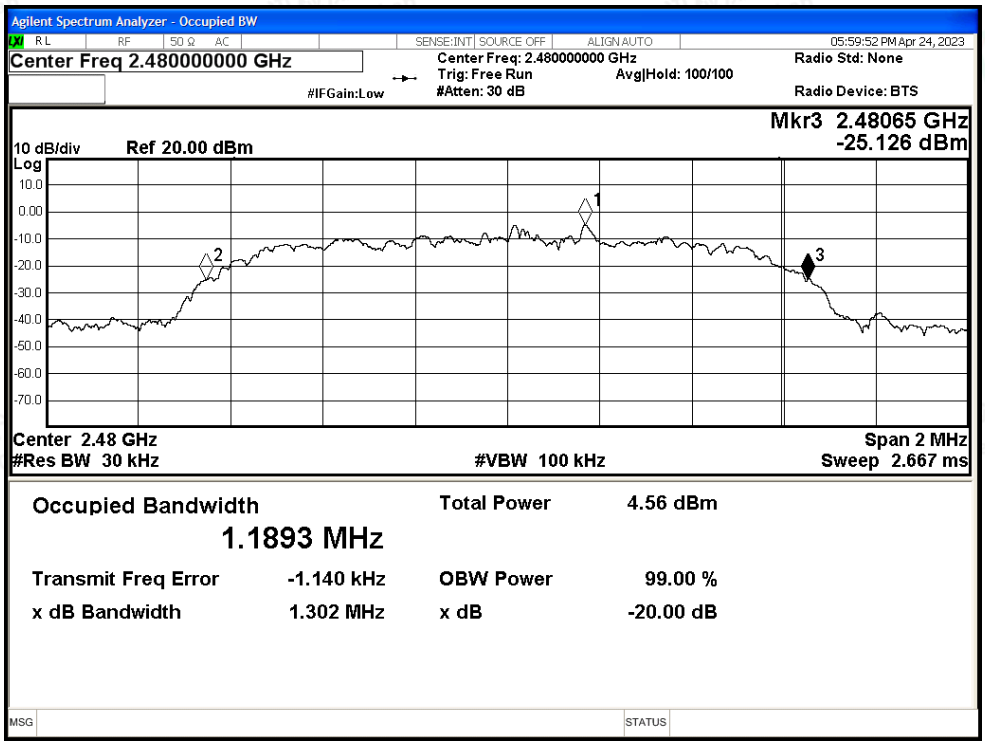
-20dB Bandwidth NVNT 2-DH5 2402MHz Ant1



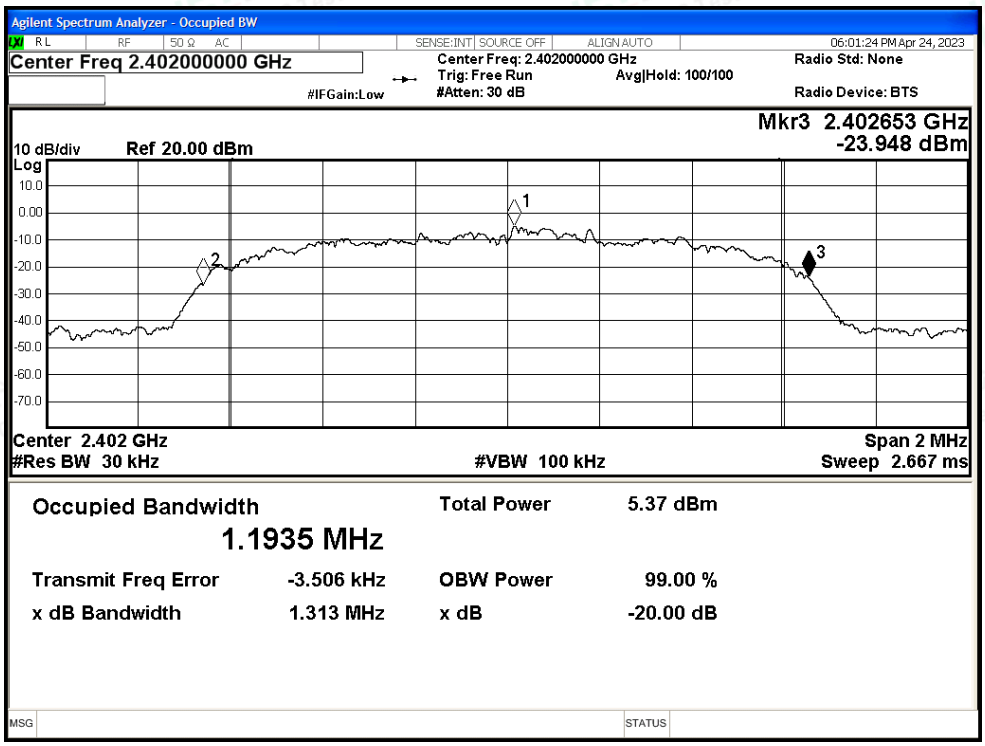
-20dB Bandwidth NVNT 2-DH5 2441MHz Ant1



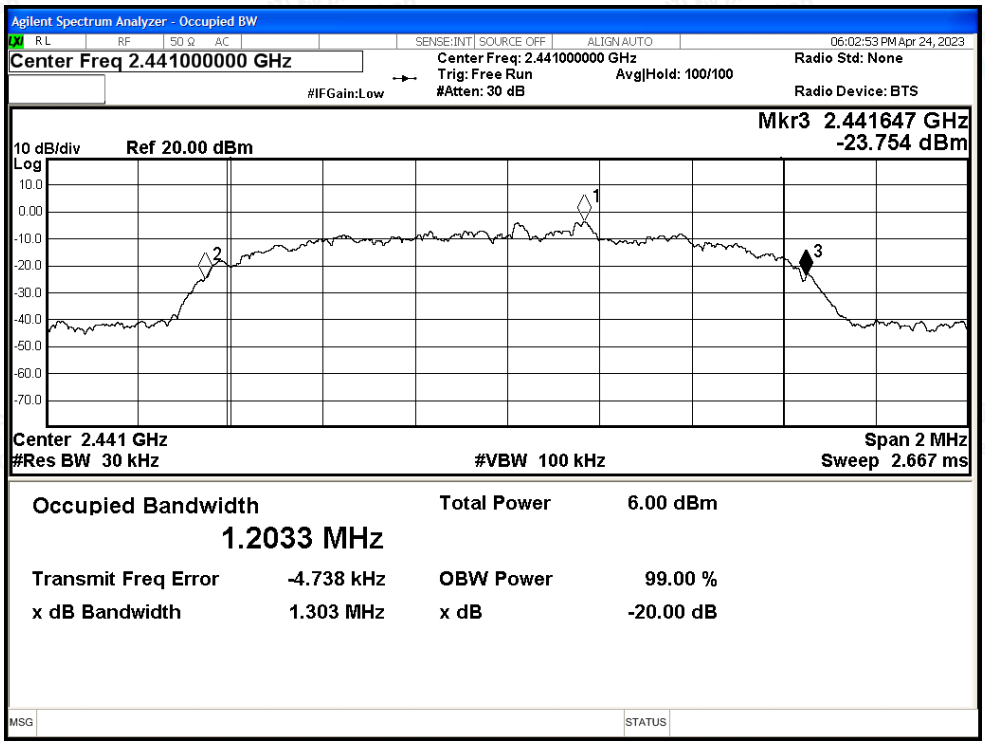
-20dB Bandwidth NVNT 2-DH5 2480MHz Ant1



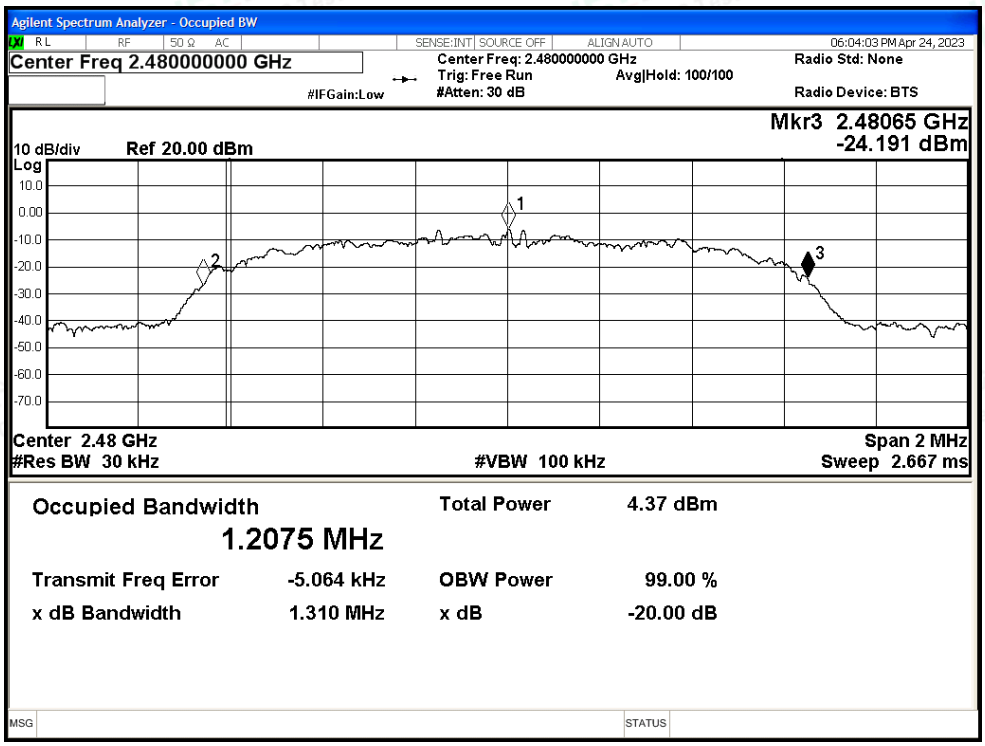
-20dB Bandwidth NVNT 3-DH5 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH5 2441MHz Ant1



-20dB Bandwidth NVNT 3-DH5 2480MHz Ant1

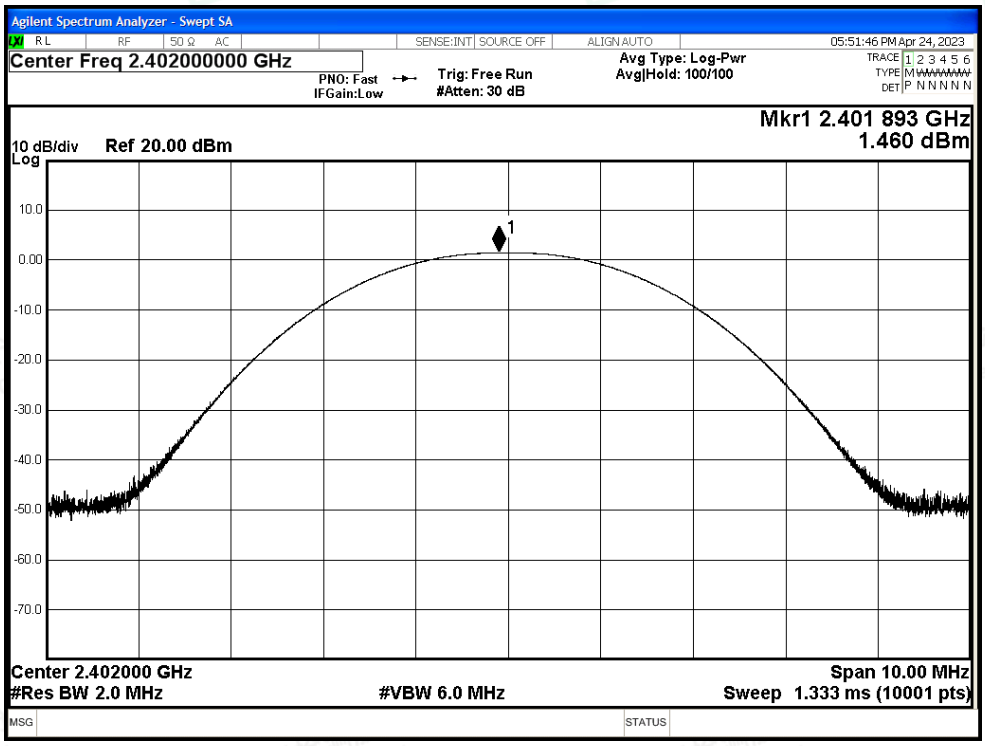


A.2 Maximum Conducted Output Power

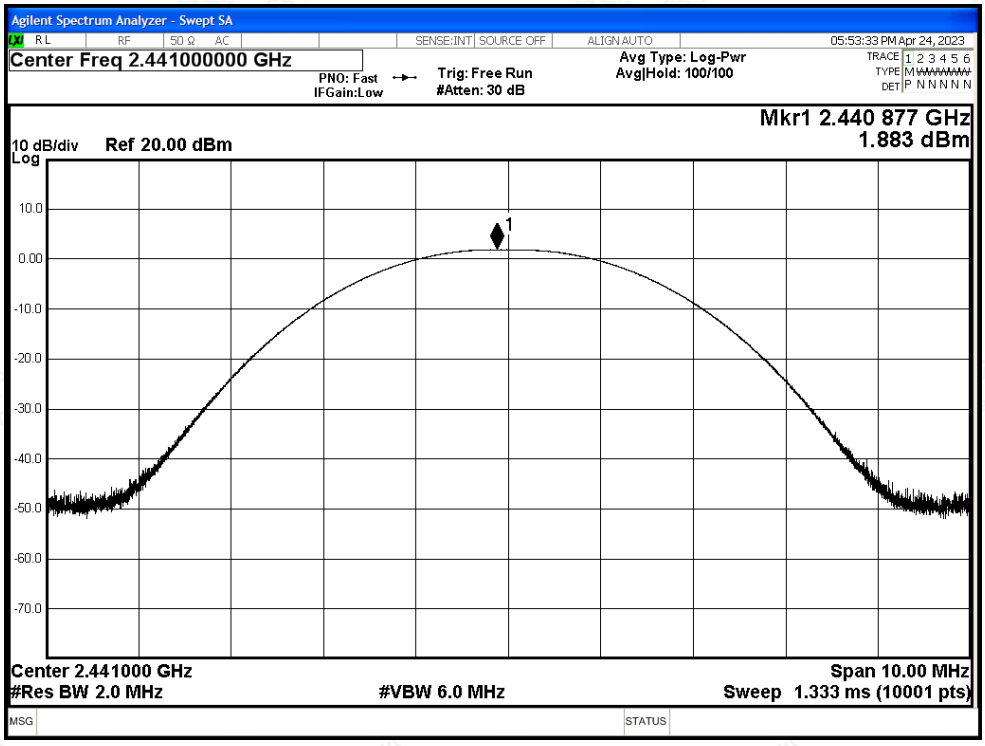
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH5	2402	Ant1	1.46	21	Pass
NVNT	1-DH5	2441	Ant1	1.88	21	Pass
NVNT	1-DH5	2480	Ant1	2.14	21	Pass
NVNT	2-DH5	2402	Ant1	1.14	21	Pass
NVNT	2-DH5	2441	Ant1	1.16	21	Pass
NVNT	2-DH5	2480	Ant1	1.47	21	Pass
NVNT	3-DH5	2402	Ant1	1.27	21	Pass
NVNT	3-DH5	2441	Ant1	1.25	21	Pass
NVNT	3-DH5	2480	Ant1	1.82	21	Pass

Test Graphs

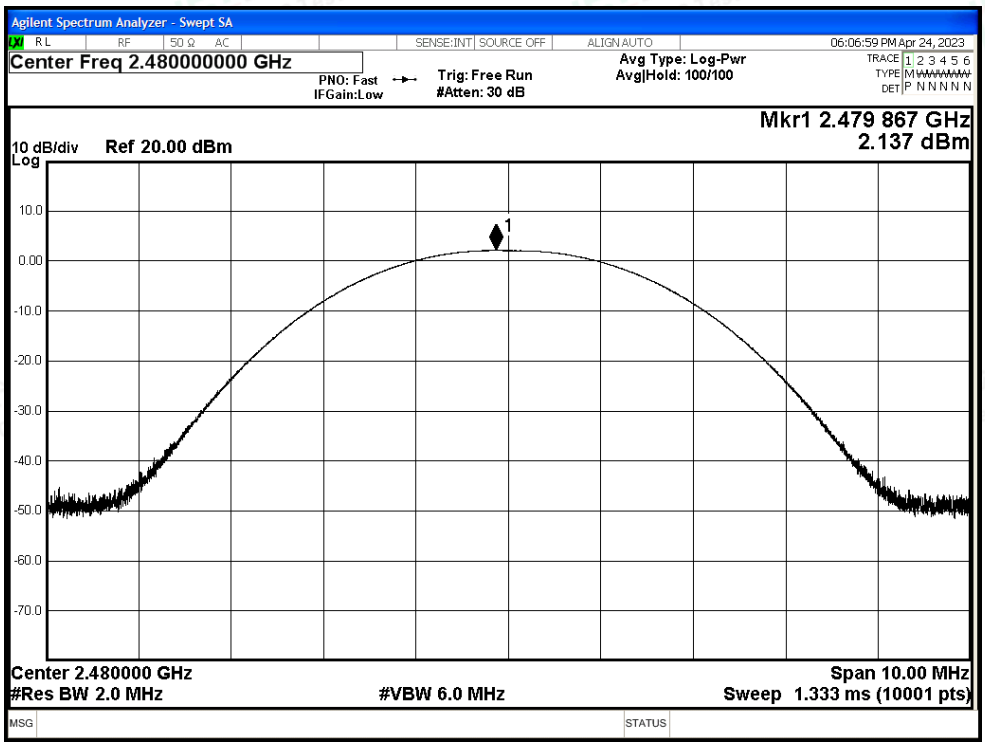
Power NVNT 1-DH5 2402MHz Ant1



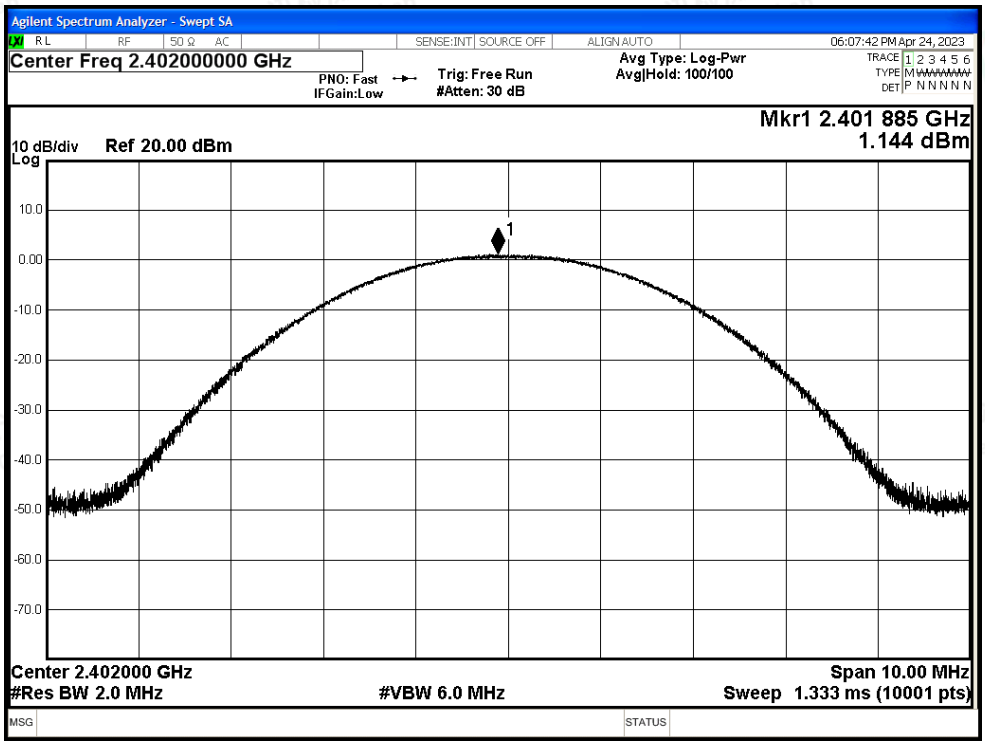
Power NVNT 1-DH5 2441MHz Ant1



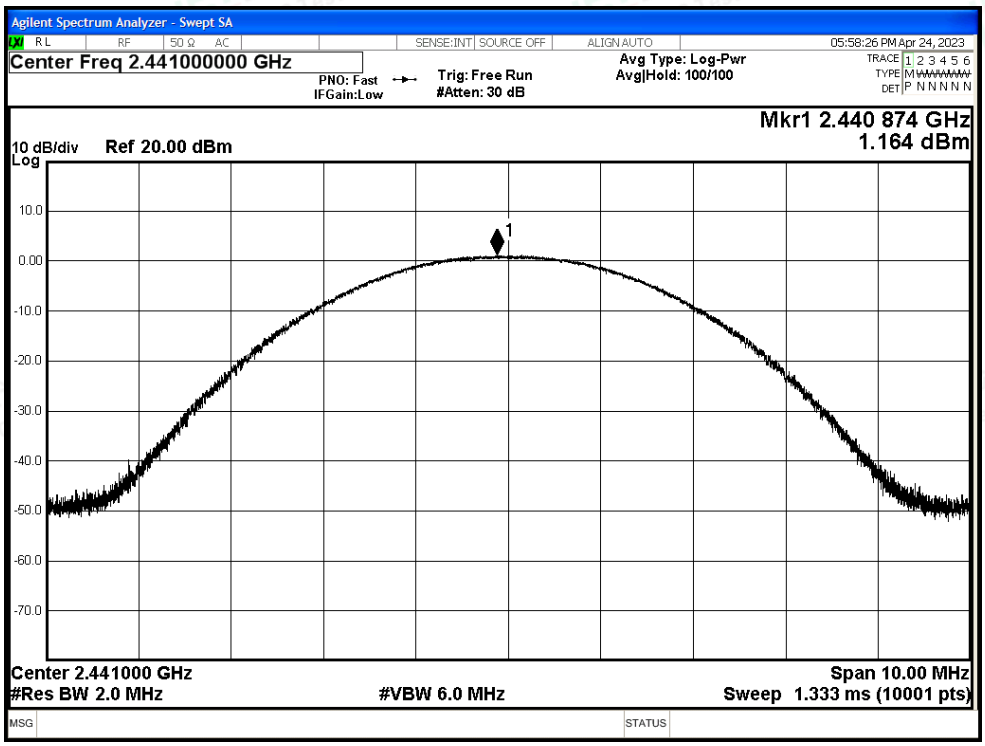
Power NVNT 1-DH5 2480MHz Ant1



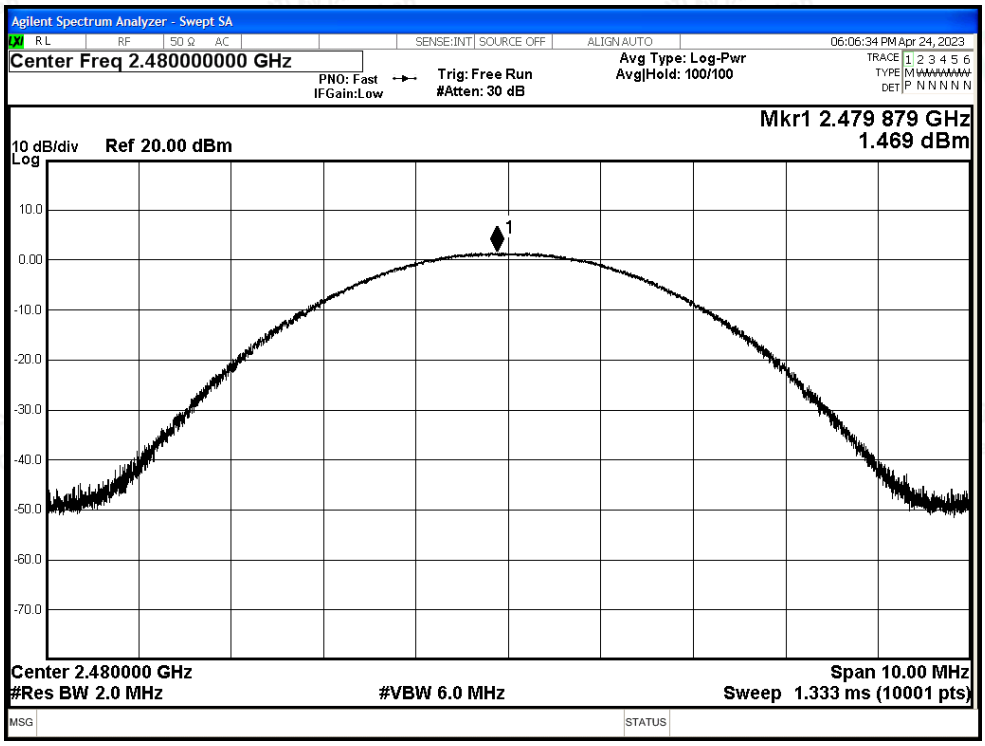
Power NVNT 2-DH5 2402MHz Ant1



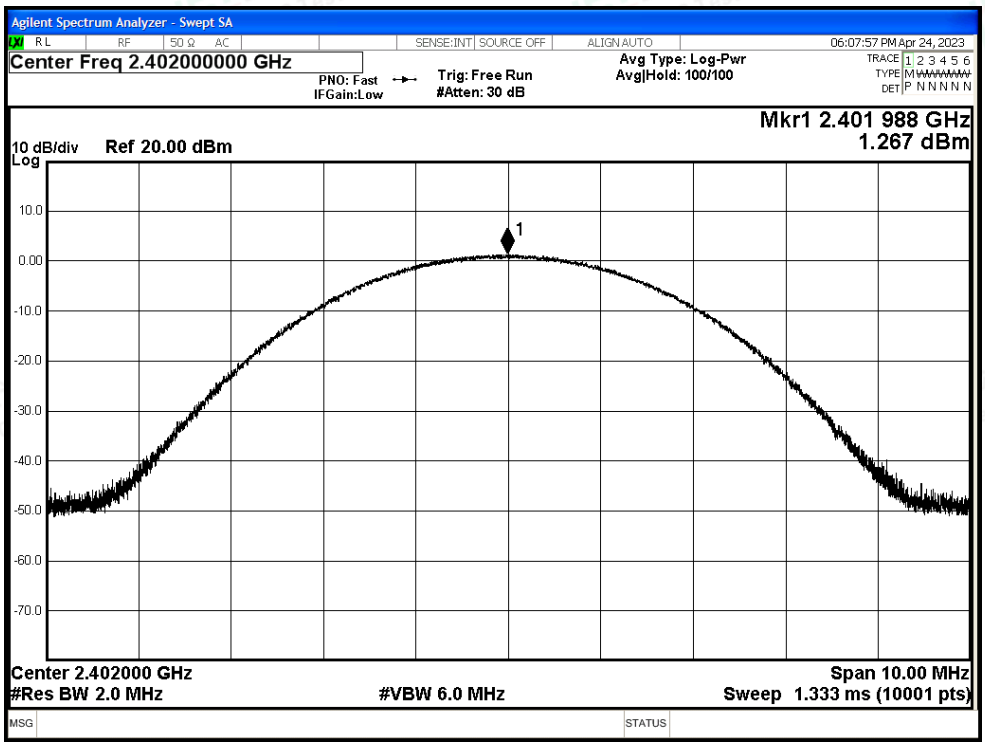
Power NVNT 2-DH5 2441MHz Ant1



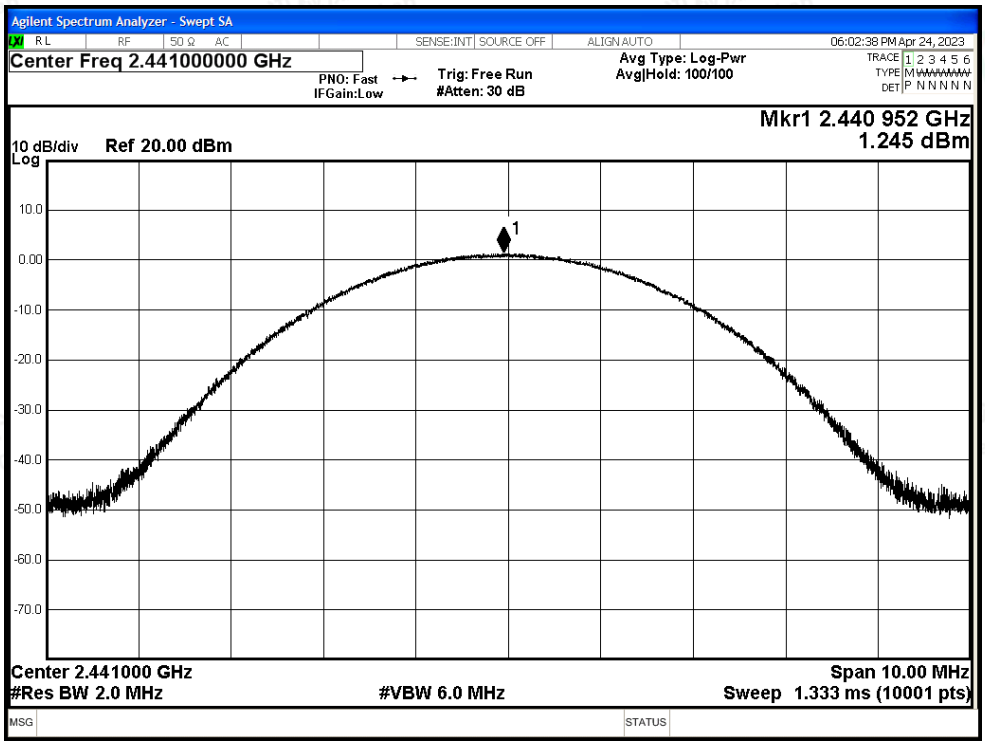
Power NVNT 2-DH5 2480MHz Ant1



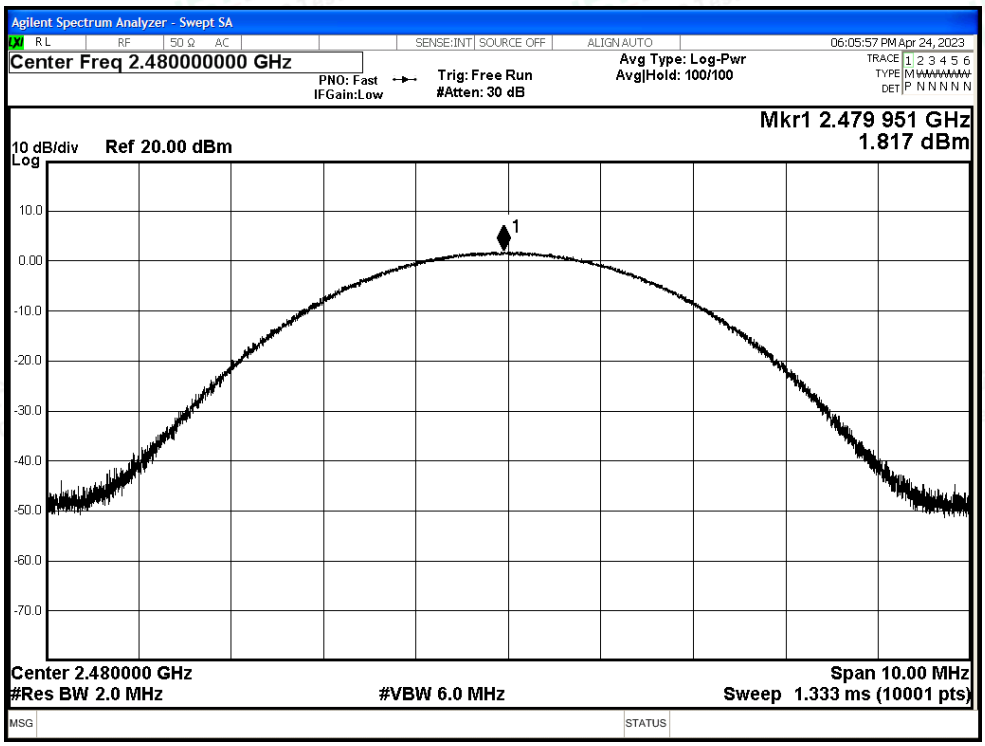
Power NVNT 3-DH5 2402MHz Ant1



Power NVNT 3-DH5 2441MHz Ant1



Power NVNT 3-DH5 2480MHz Ant1

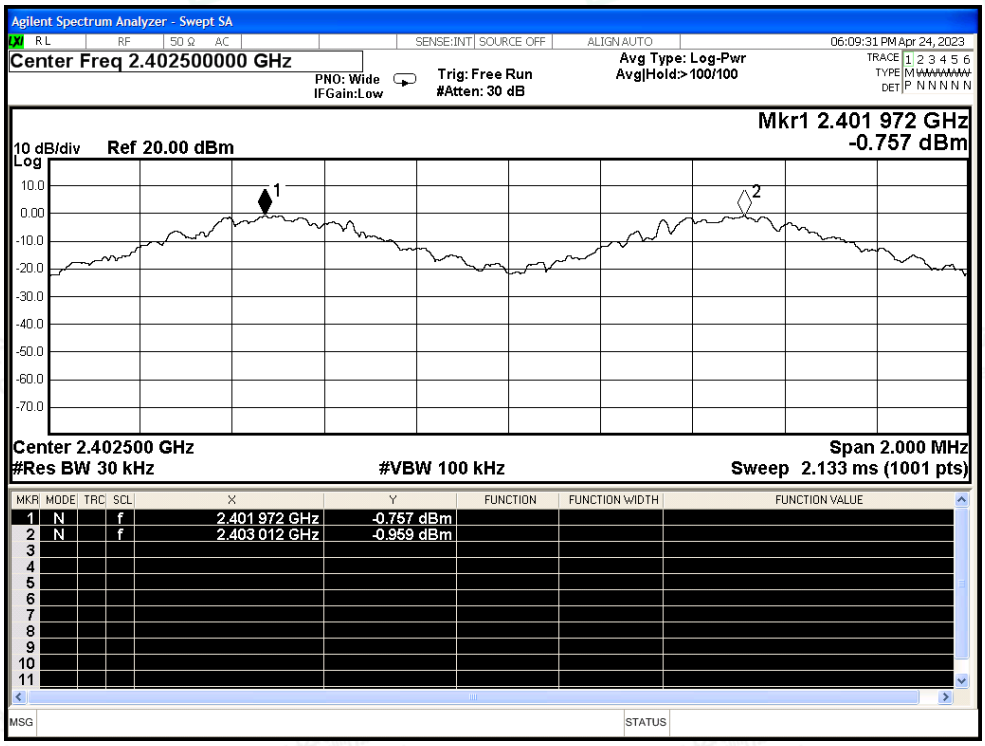


A.3 Carrier Frequencies Separation

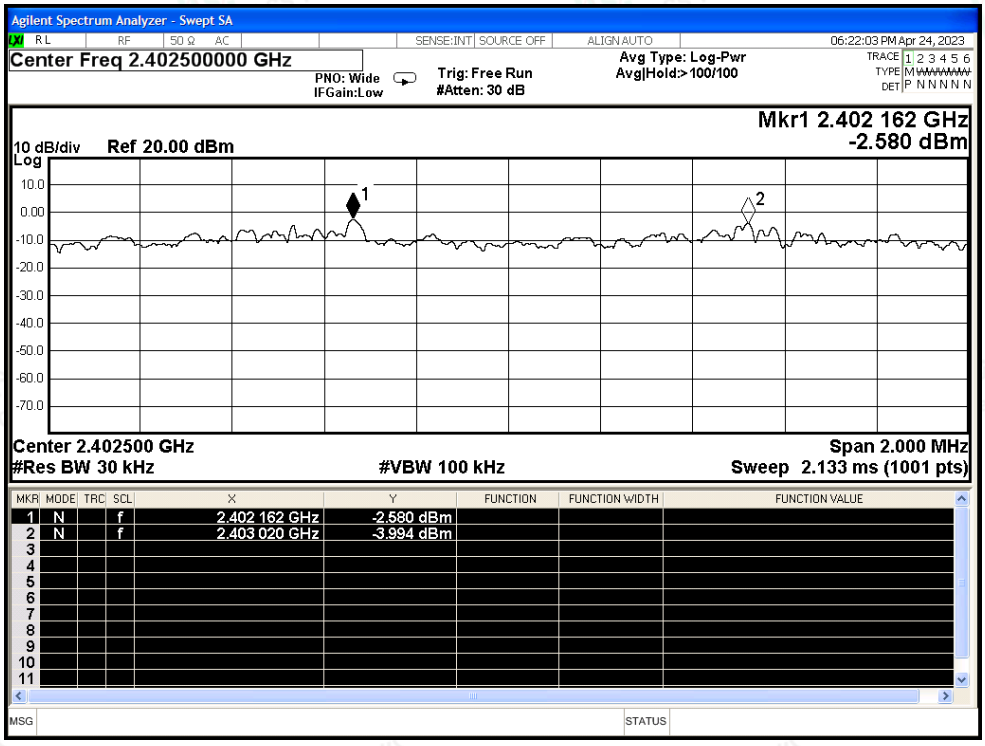
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH5	Ant1	2401.972	2403.012	1.040	0.689	Pass
NVNT	2-DH5	Ant1	2402.162	2403.02	0.858	0.868	Pass
NVNT	3-DH5	Ant1	2402.02	2403.026	1.006	0.875	Pass

Test Graphs

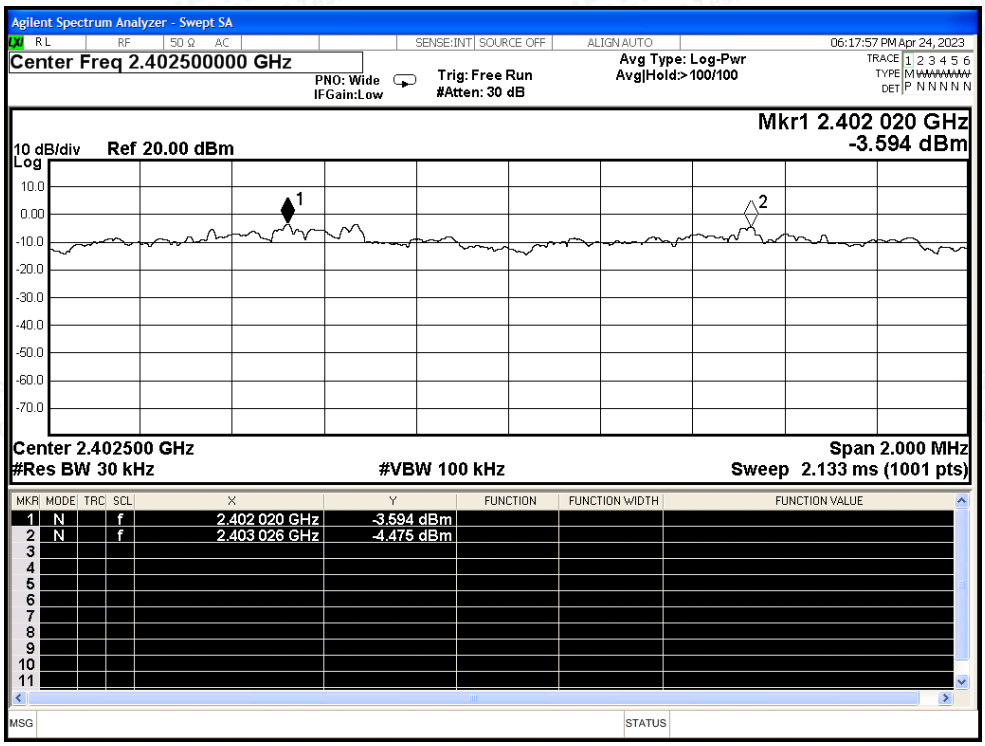
CFS NVNT 1-DH5 2402MHz Ant1



CFS NVNT 2-DH5 2402MHz Ant1



CFS NVNT 3-DH5 2402MHz Ant1

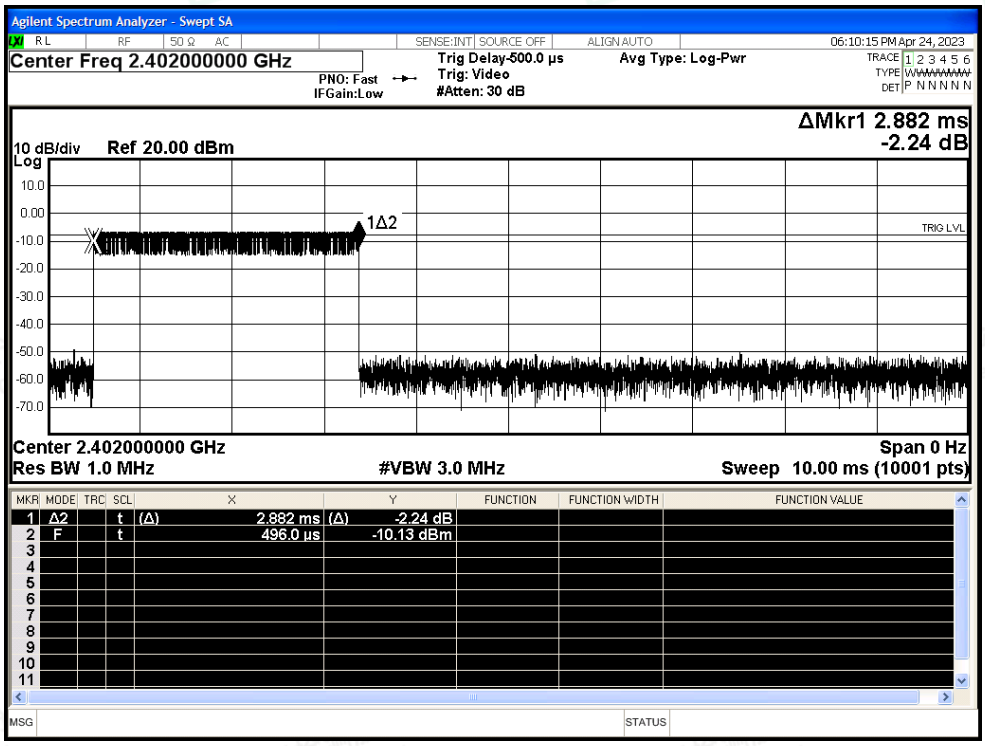


A.4 Dwell Time

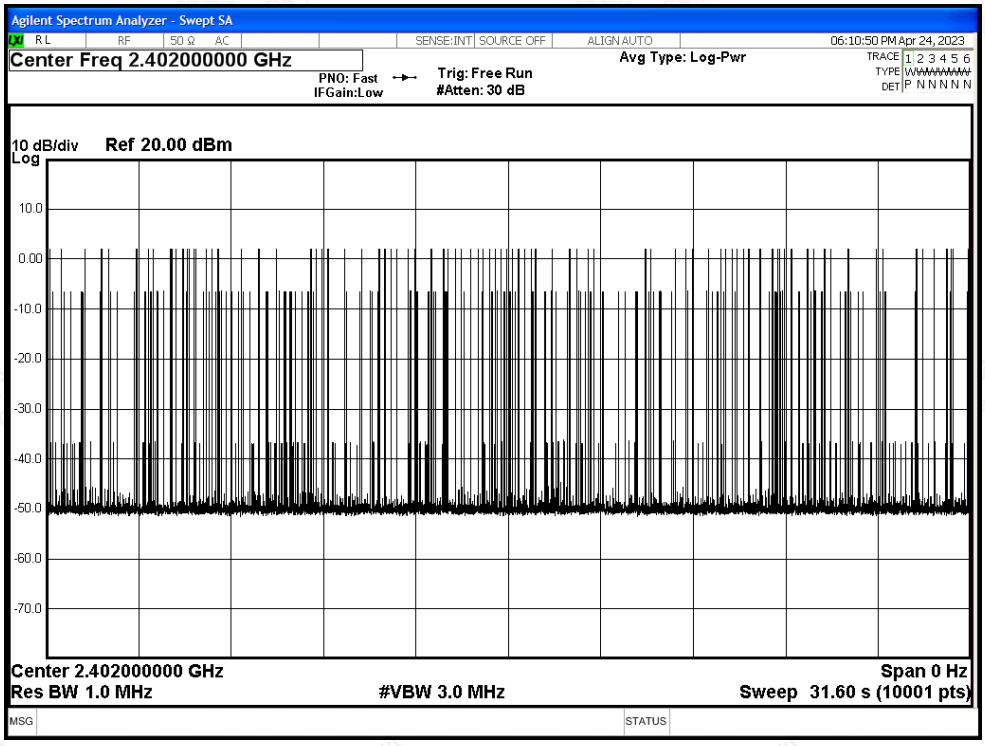
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH5	2402	Ant1	2.882	279.554	97	31600	400	Pass
NVNT	2-DH5	2402	Ant1	2.881	328.434	114	31600	400	Pass
NVNT	3-DH5	2402	Ant1	2.887	306.022	106	31600	400	Pass

Test Graphs

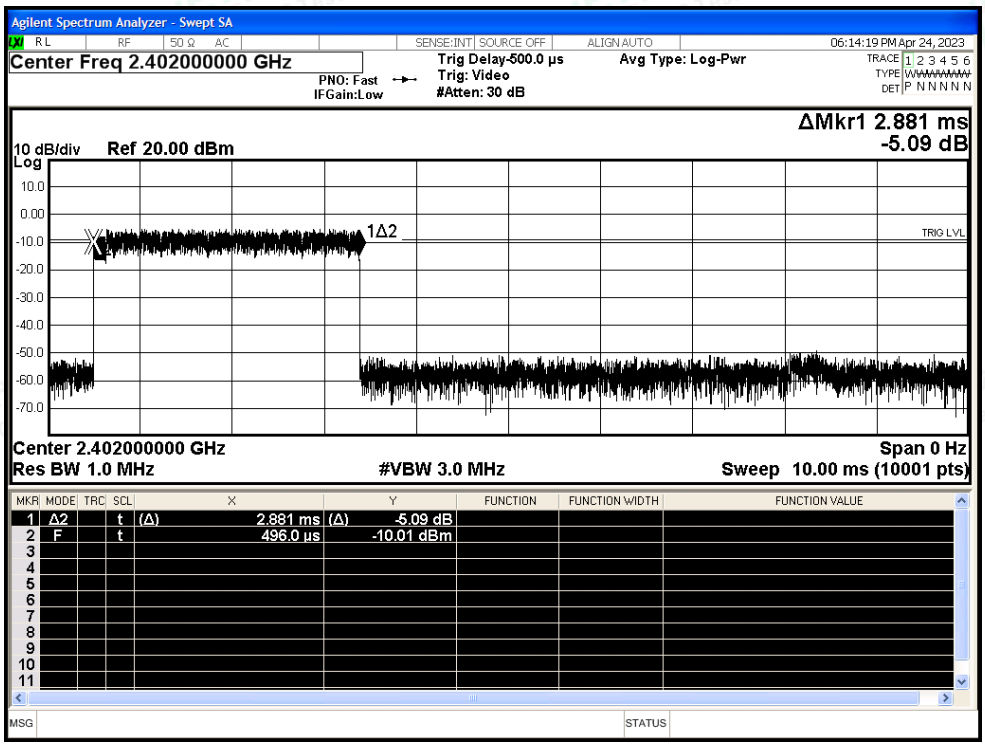
Dwell NVNT 1-DH5 2402MHz Ant1 One Burst



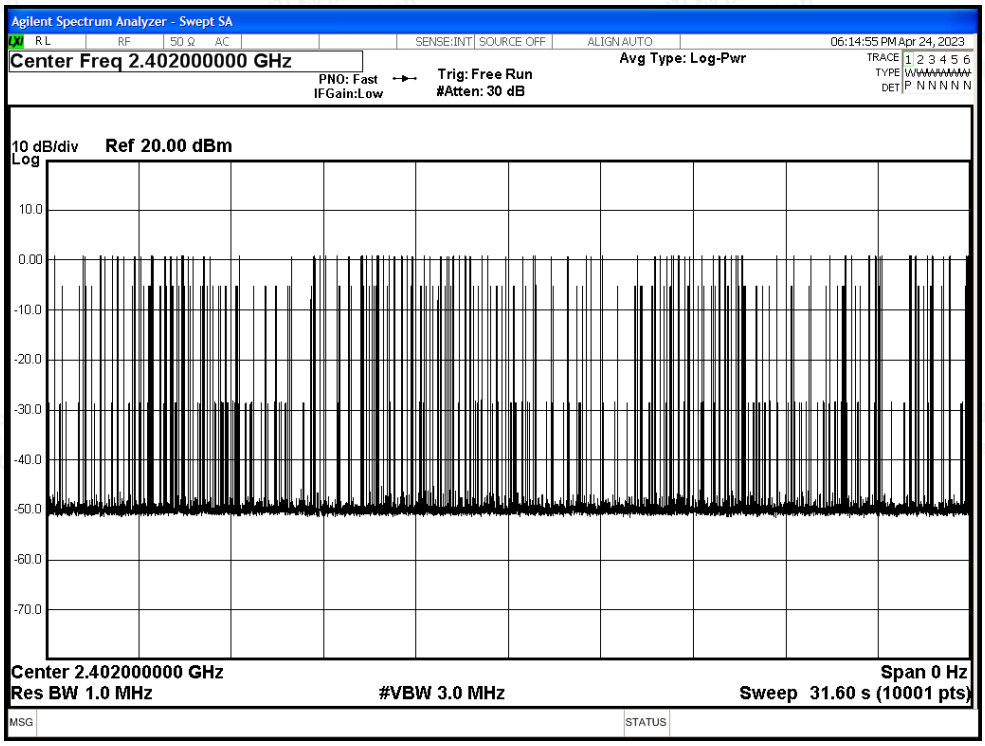
Dwell NVNT 1-DH5 2402MHz Ant1 Accumulated



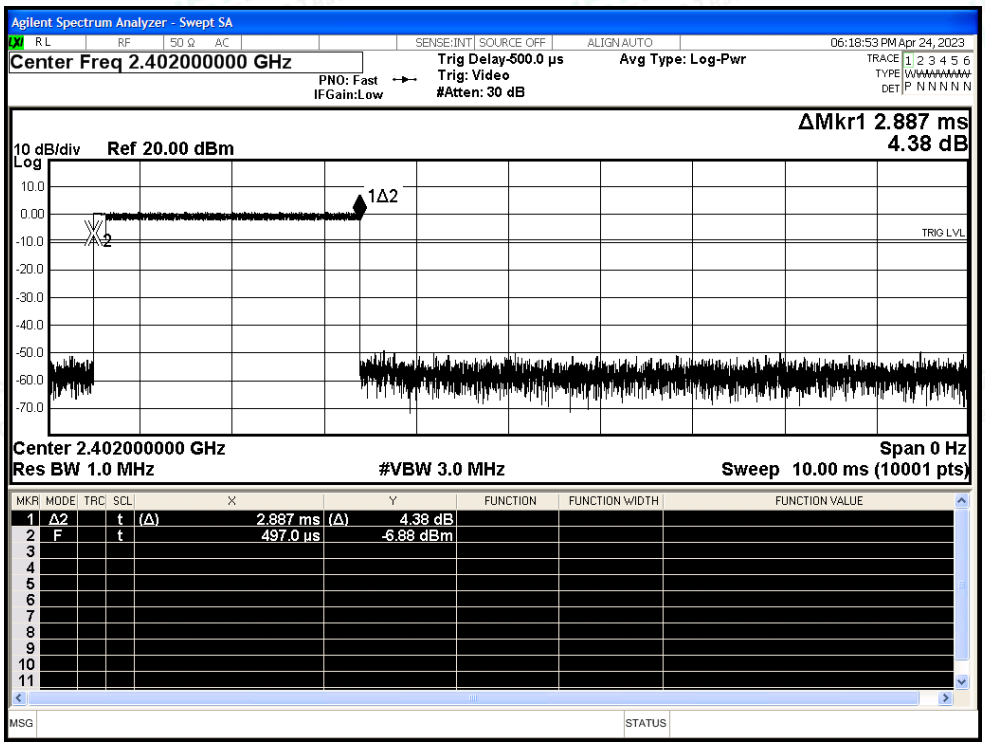
Dwell NVNT 2-DH5 2402MHz Ant1 One Burst



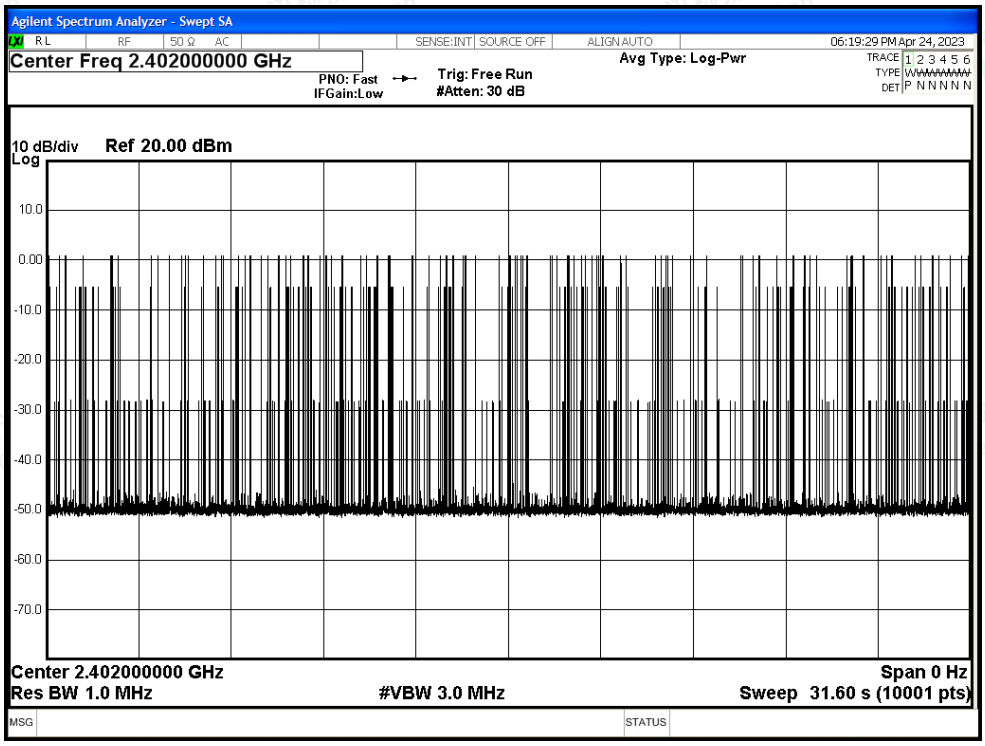
Dwell NVNT 2-DH5 2402MHz Ant1 Accumulated



Dwell NVNT 3-DH5 2402MHz Ant1 One Burst



Dwell NVNT 3-DH5 2402MHz Ant1 Accumulated

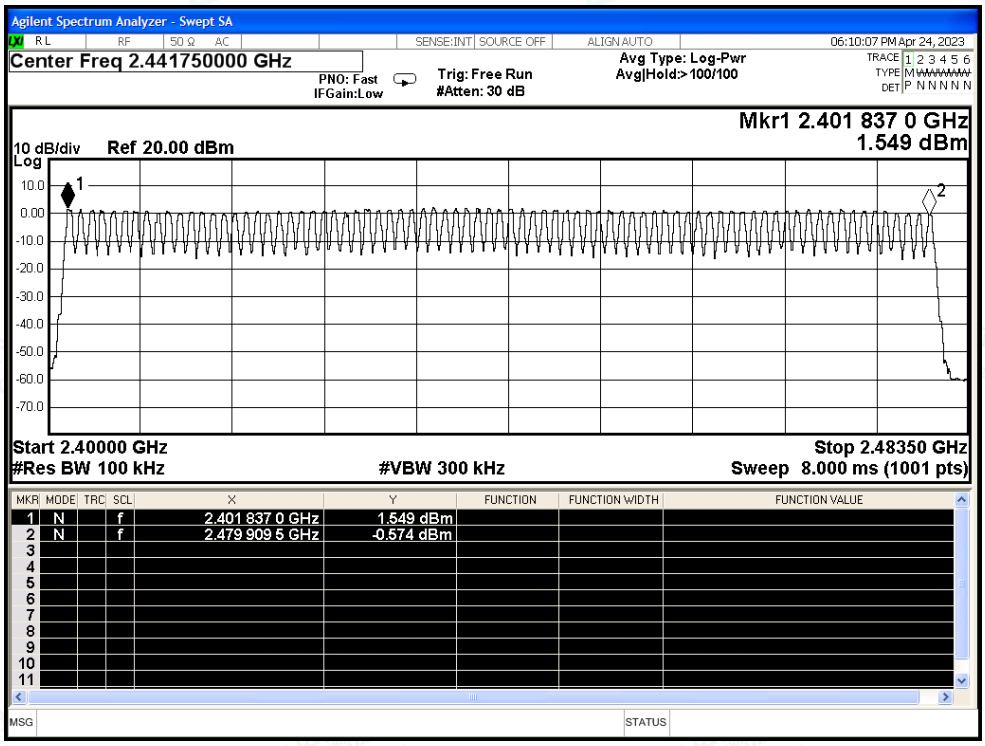


A.5 Number of Hopping Channel

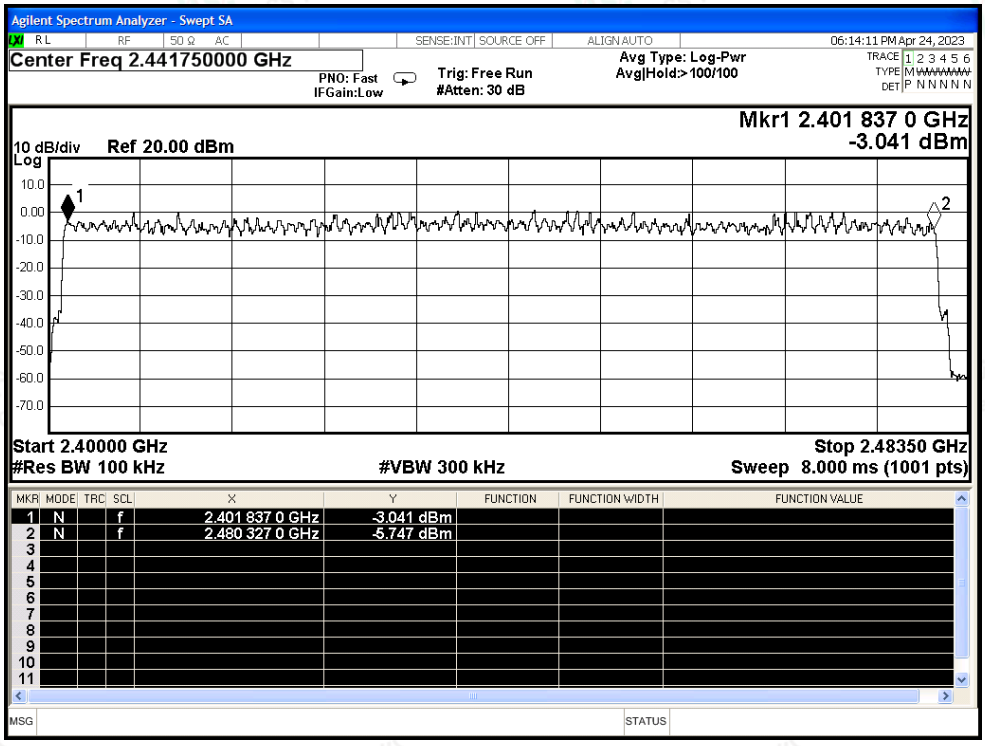
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH5	Ant1	79	15	Pass
NVNT	2-DH5	Ant1	79	15	Pass
NVNT	3-DH5	Ant1	79	15	Pass

Test Graphs

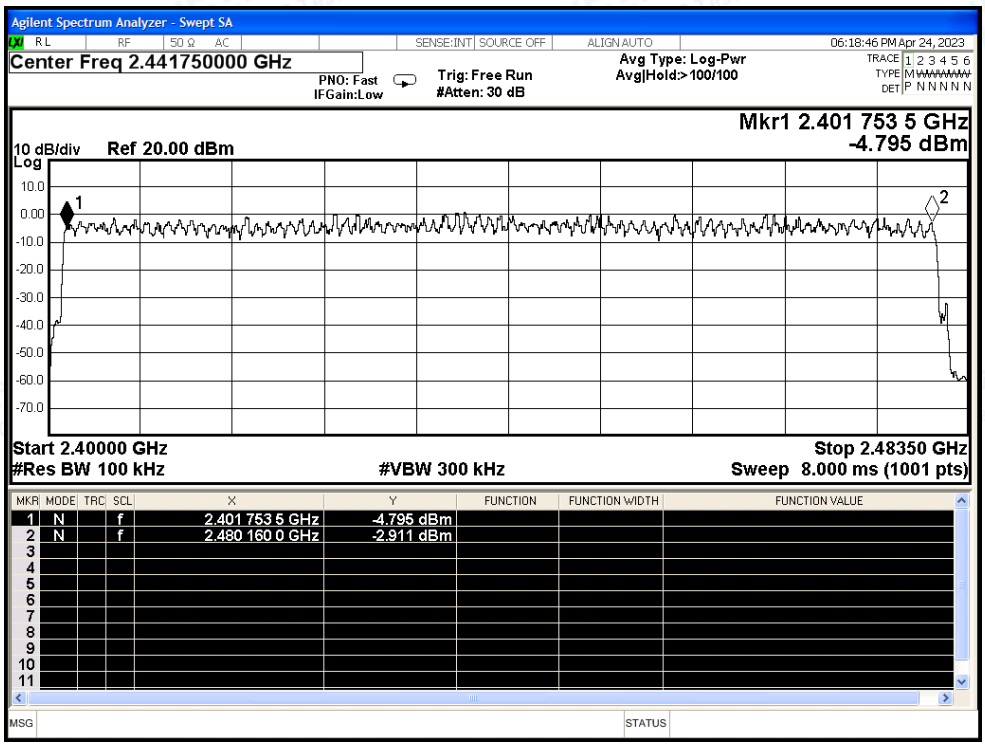
Hopping No. NVNT 1-DH5 2402MHz Ant1



Hopping No. NVNT 2-DH5 2402MHz Ant1



Hopping No. NVNT 3-DH5 2402MHz Ant1

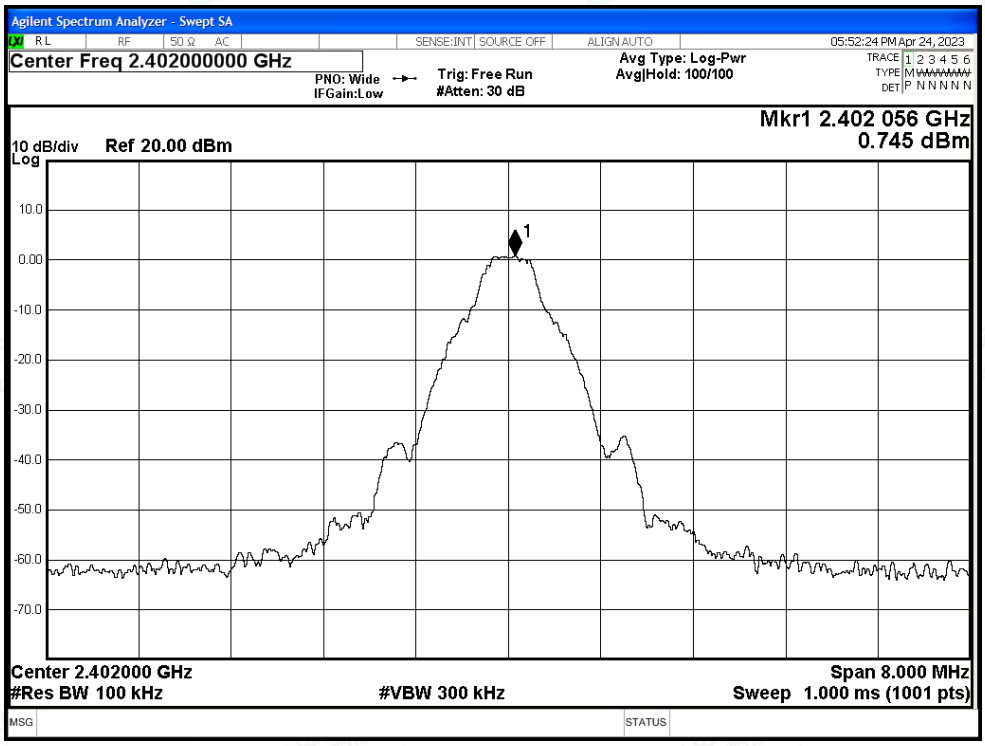


A.6 Band Edge

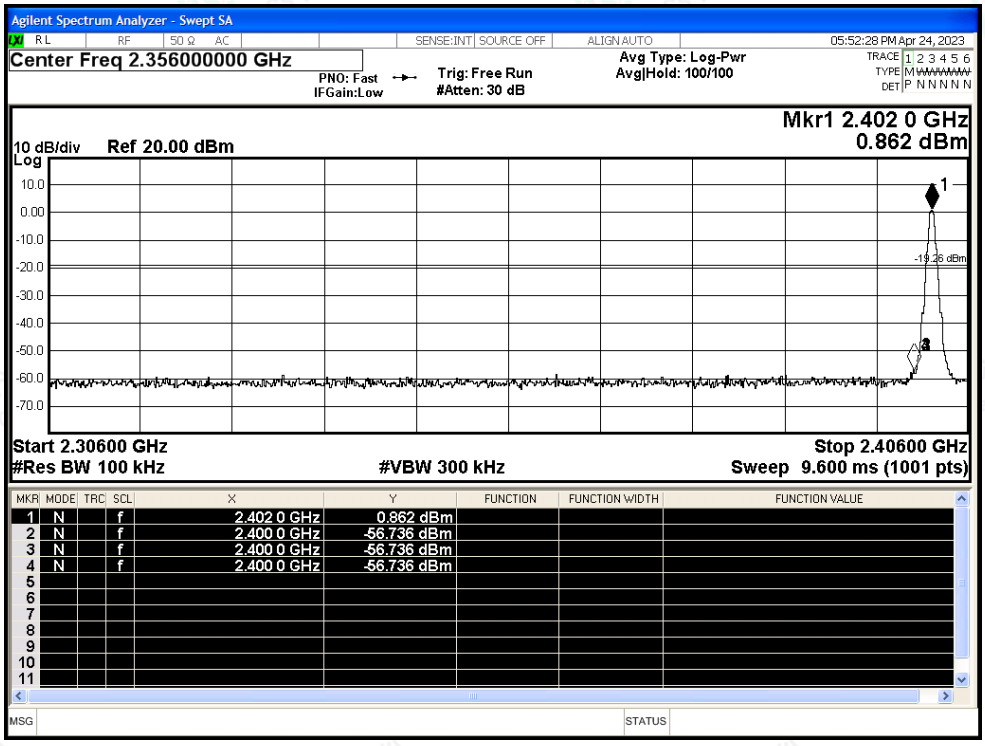
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	-57.48	-20	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	-58.78	-20	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	-55.91	-20	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	-56.95	-20	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	-55.02	-20	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	-56.77	-20	Pass

Test Graphs

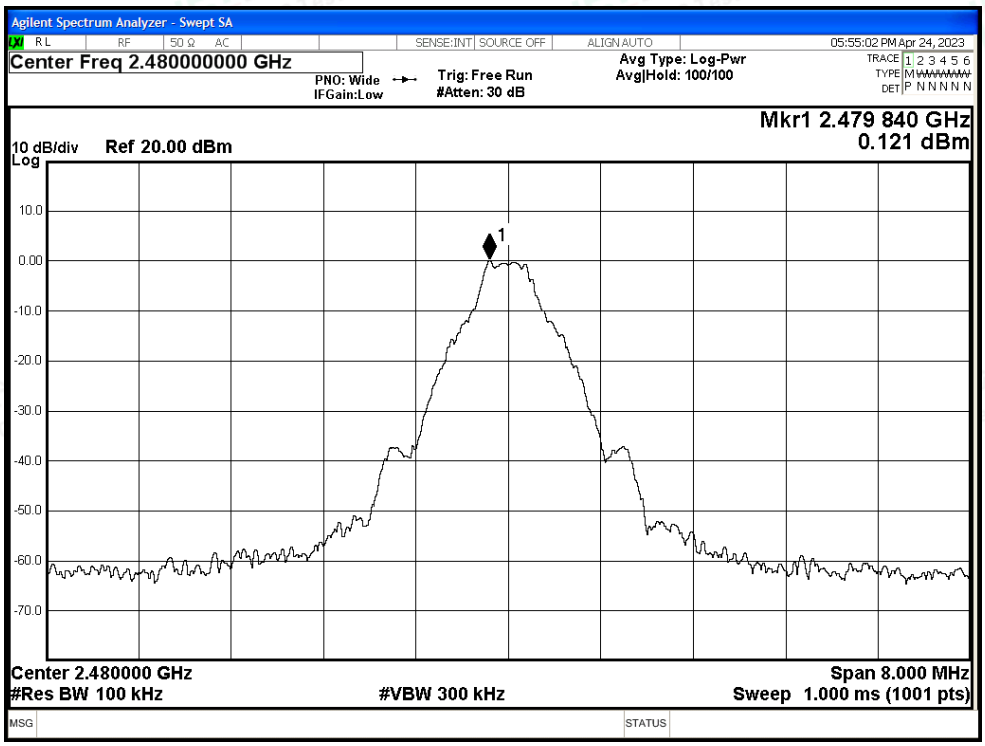
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Ref



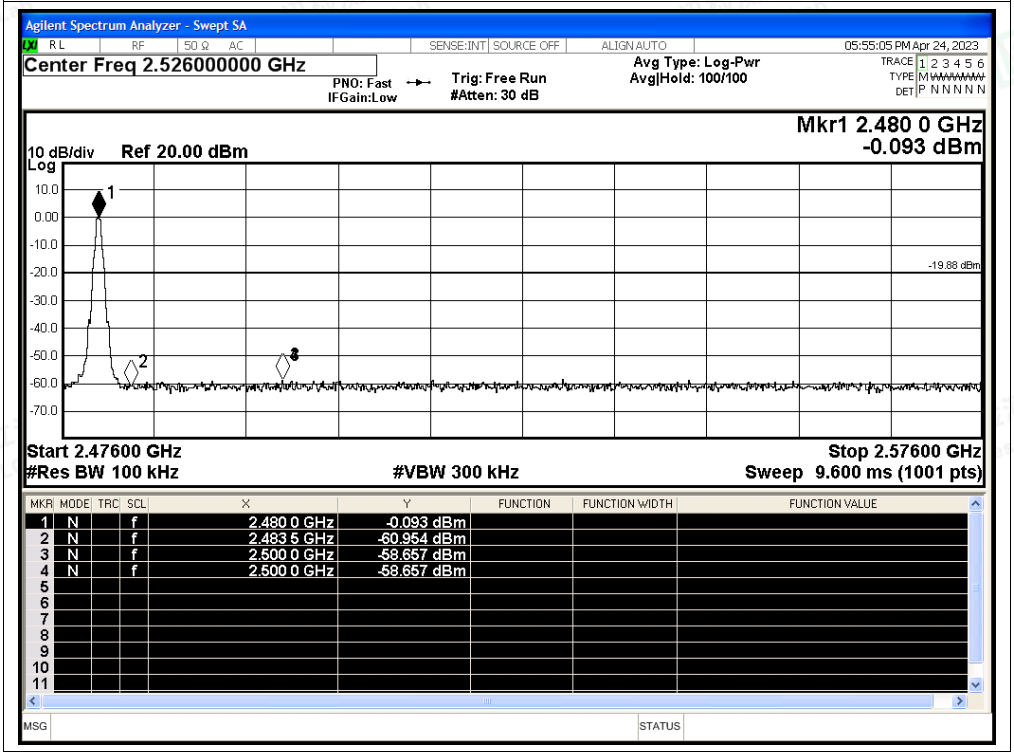
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Emission



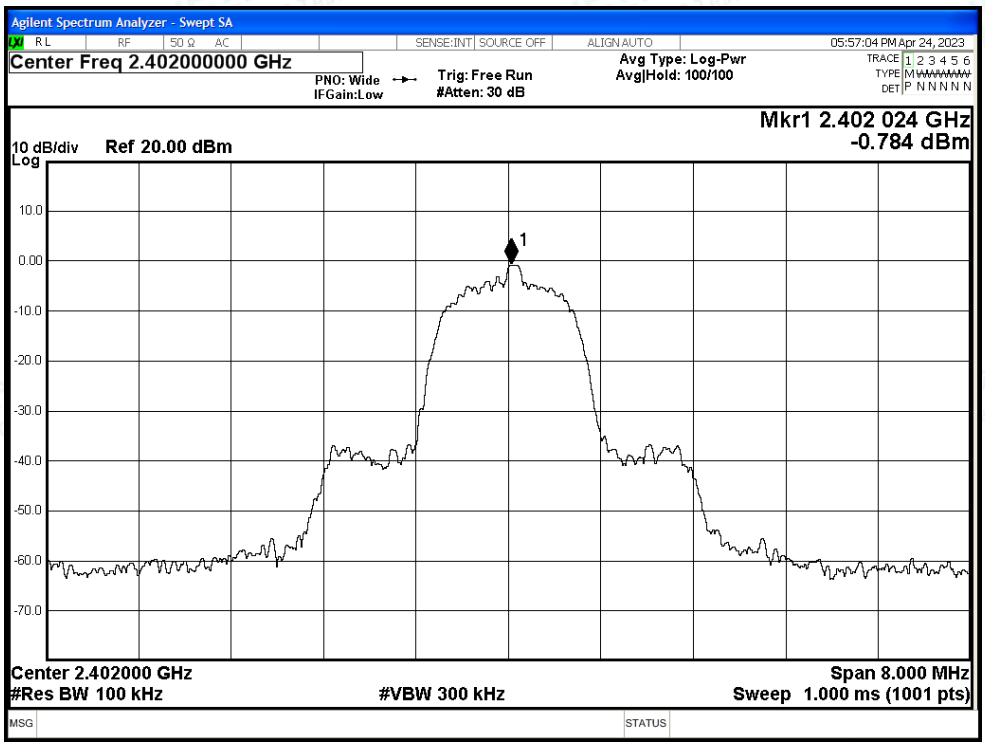
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref



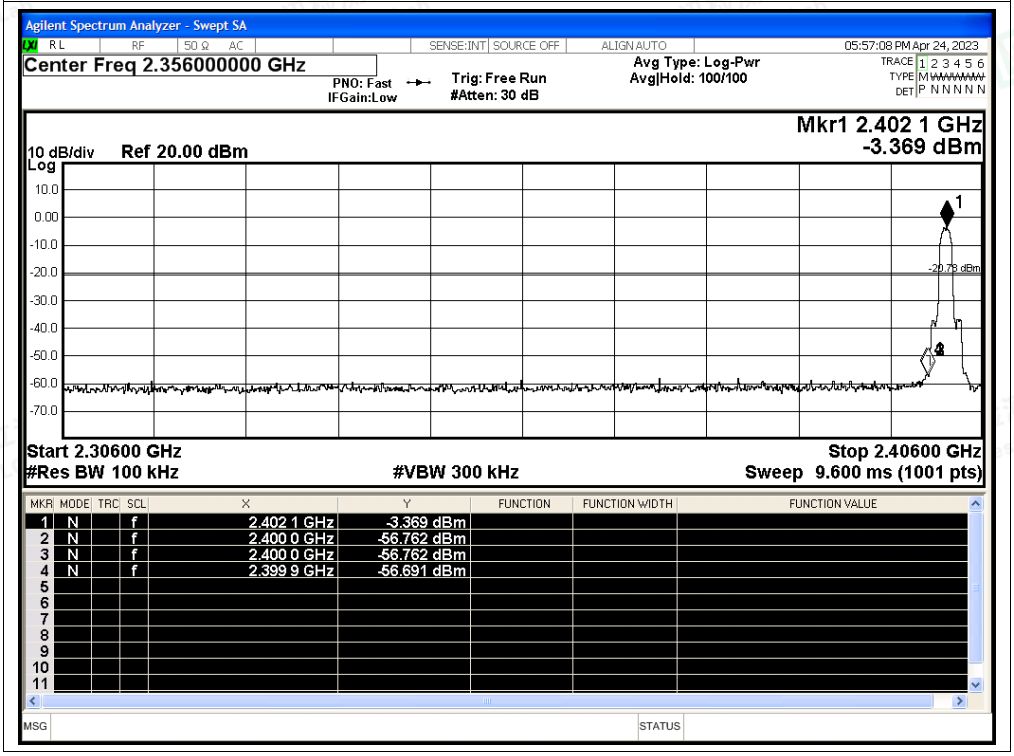
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Emission



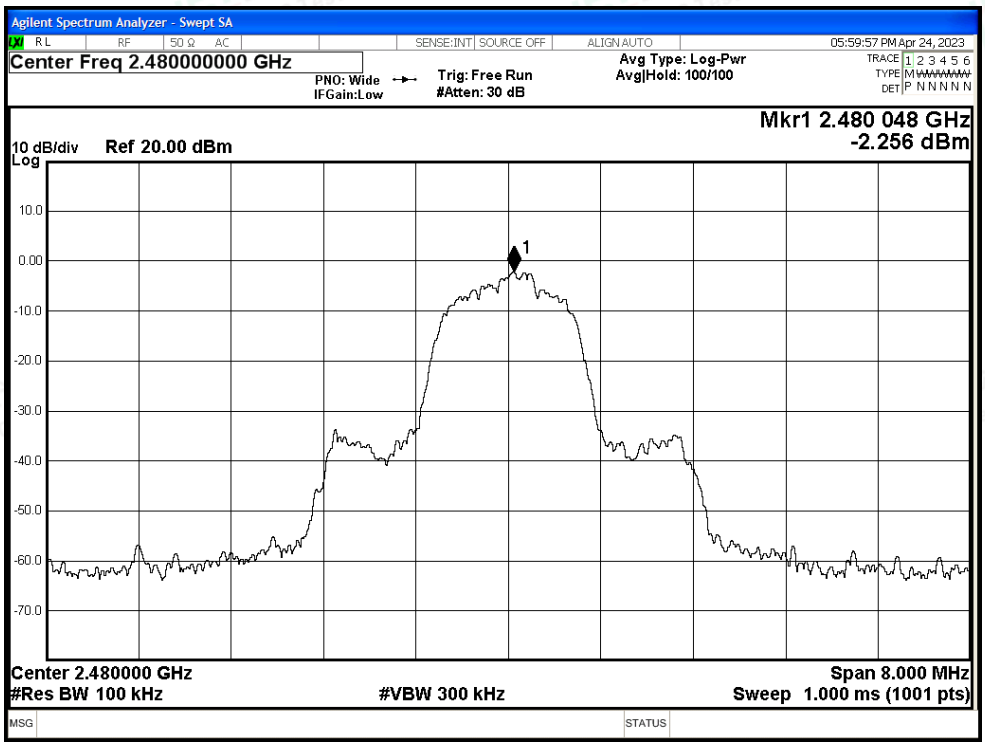
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Ref



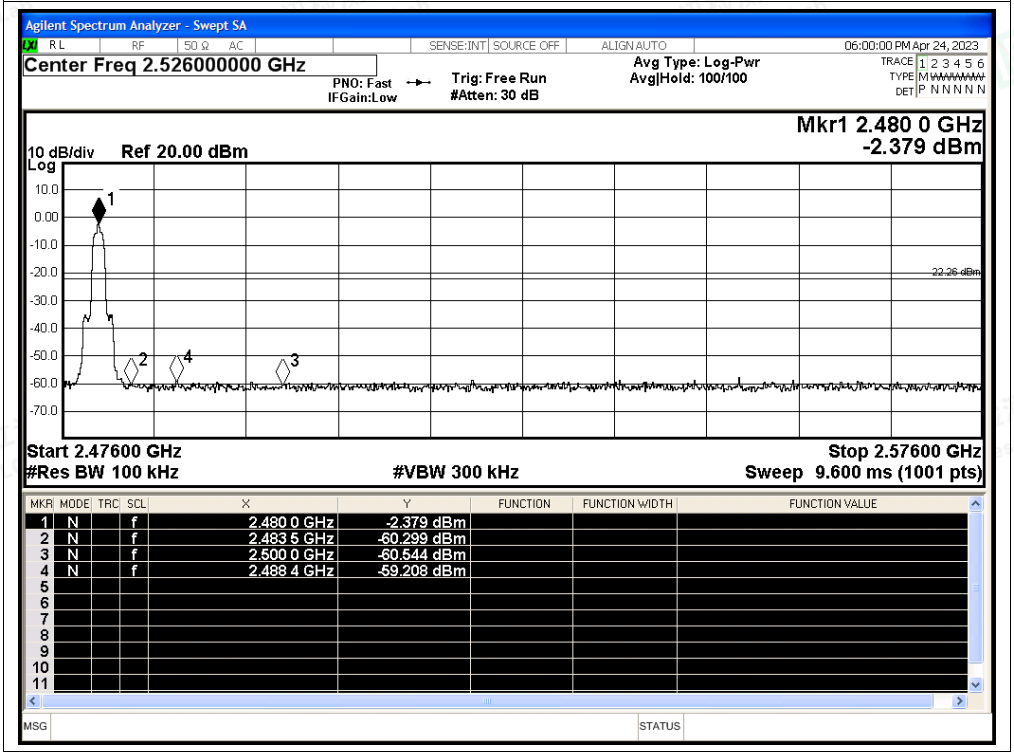
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Emission



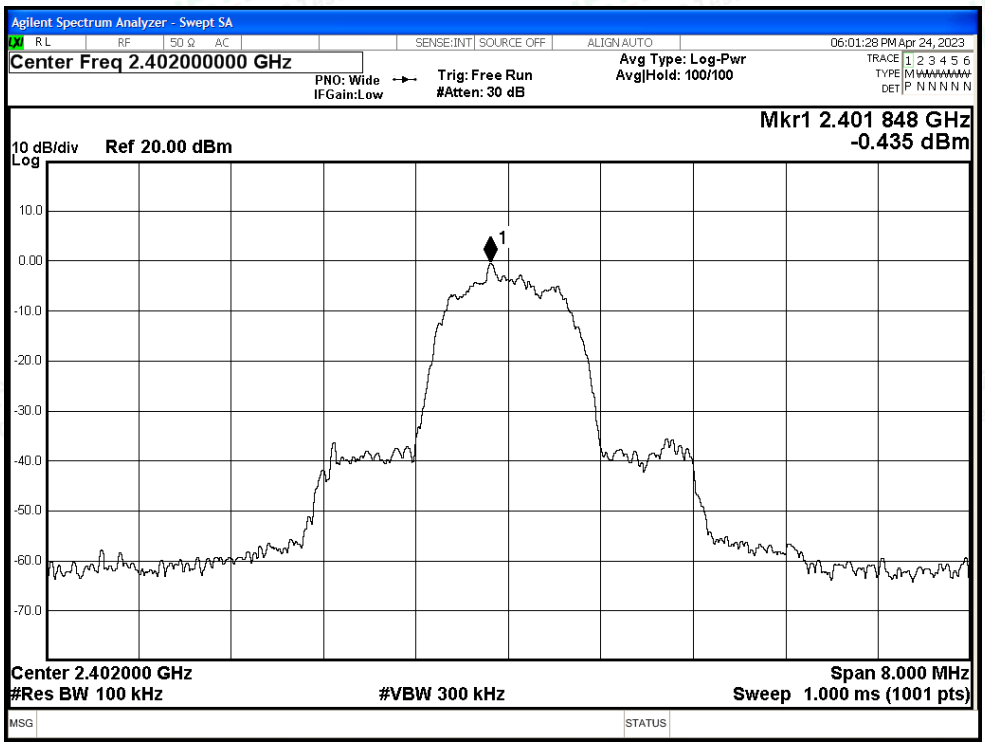
Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Ref



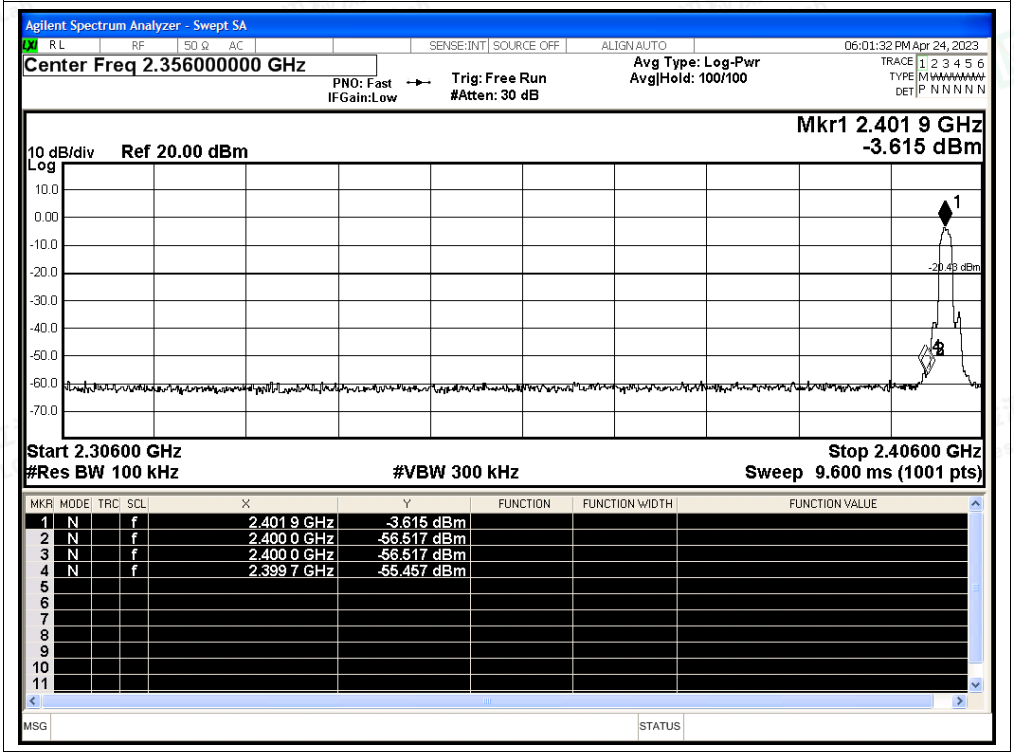
Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Emission



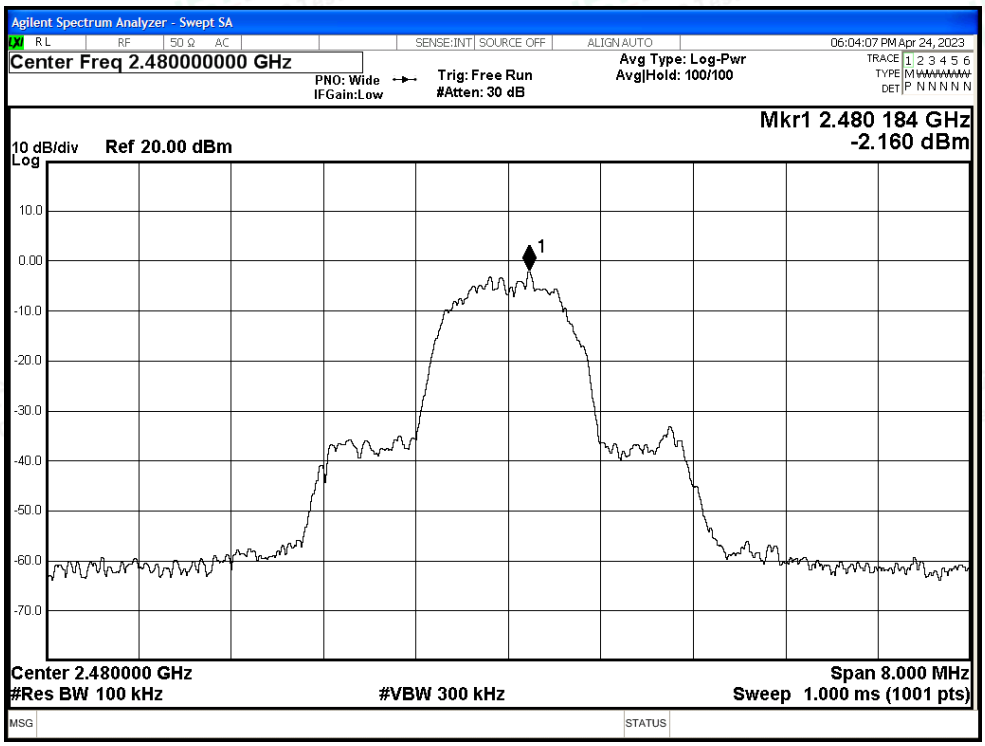
Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Ref



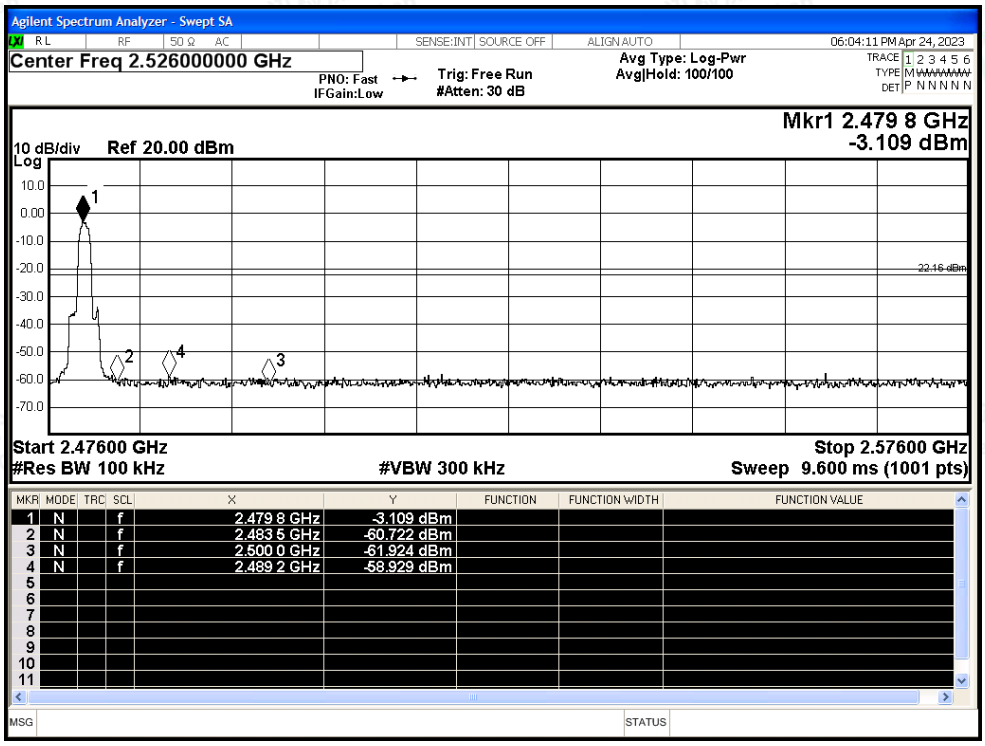
Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Emission



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



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

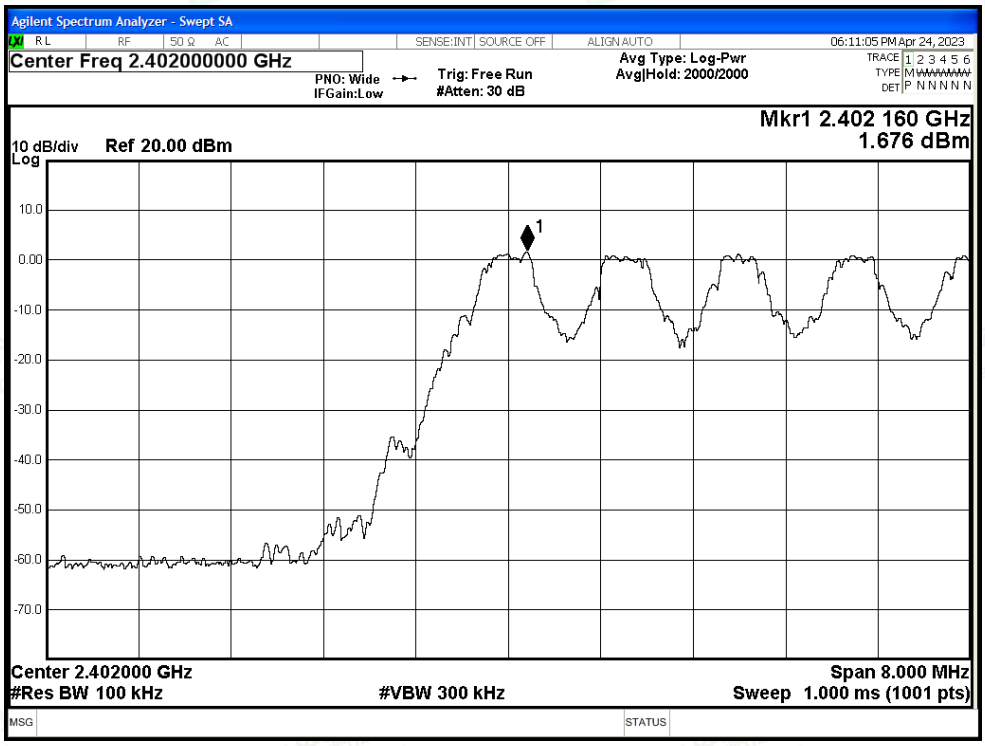


(Hopping)

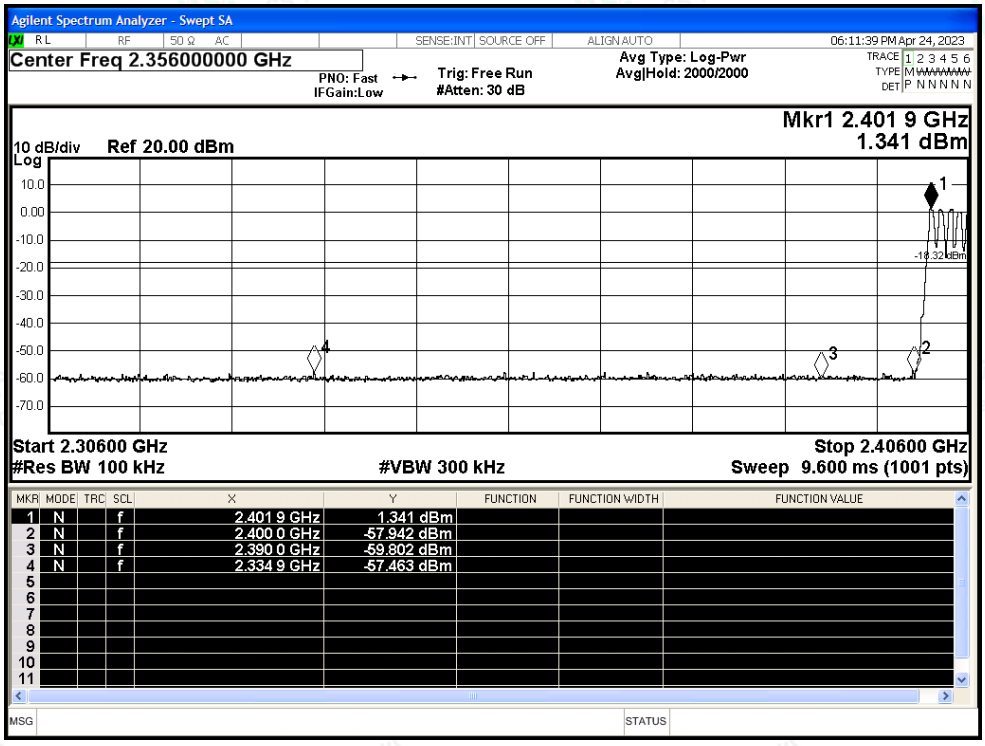
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	Hopping	-59.14	-20	Pass
NVNT	1-DH5	2480	Ant1	Hopping	-57.69	-20	Pass
NVNT	2-DH5	2402	Ant1	Hopping	-57.47	-20	Pass
NVNT	2-DH5	2480	Ant1	Hopping	-56.36	-20	Pass
NVNT	3-DH5	2402	Ant1	Hopping	-55.03	-20	Pass
NVNT	3-DH5	2480	Ant1	Hopping	-56.37	-20	Pass

Test Graphs

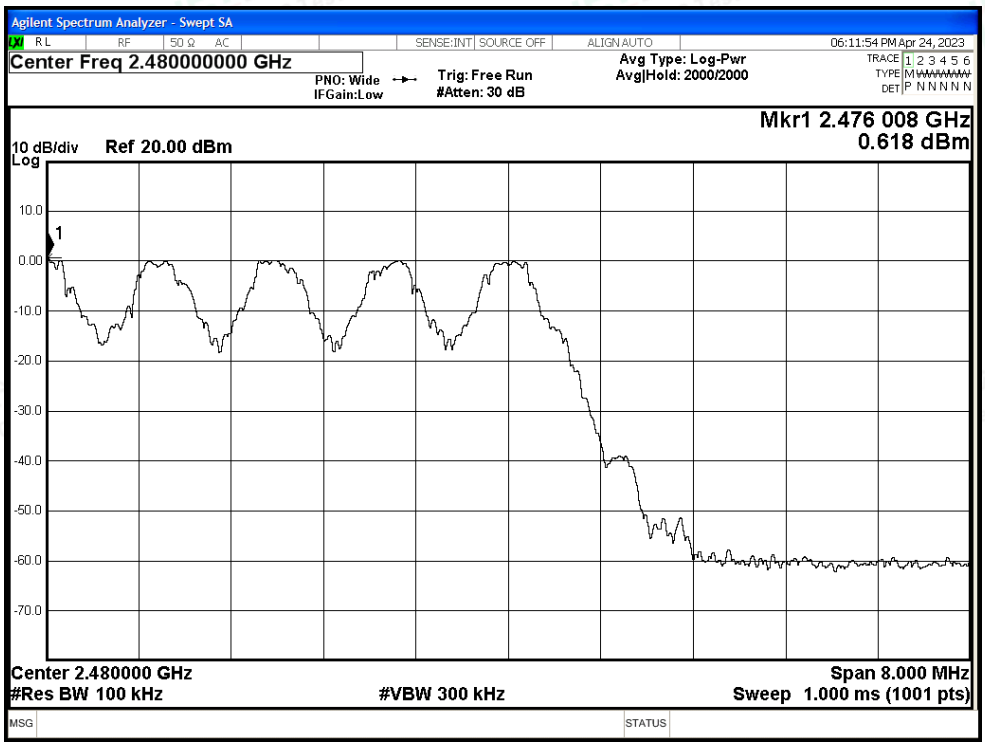
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Ref



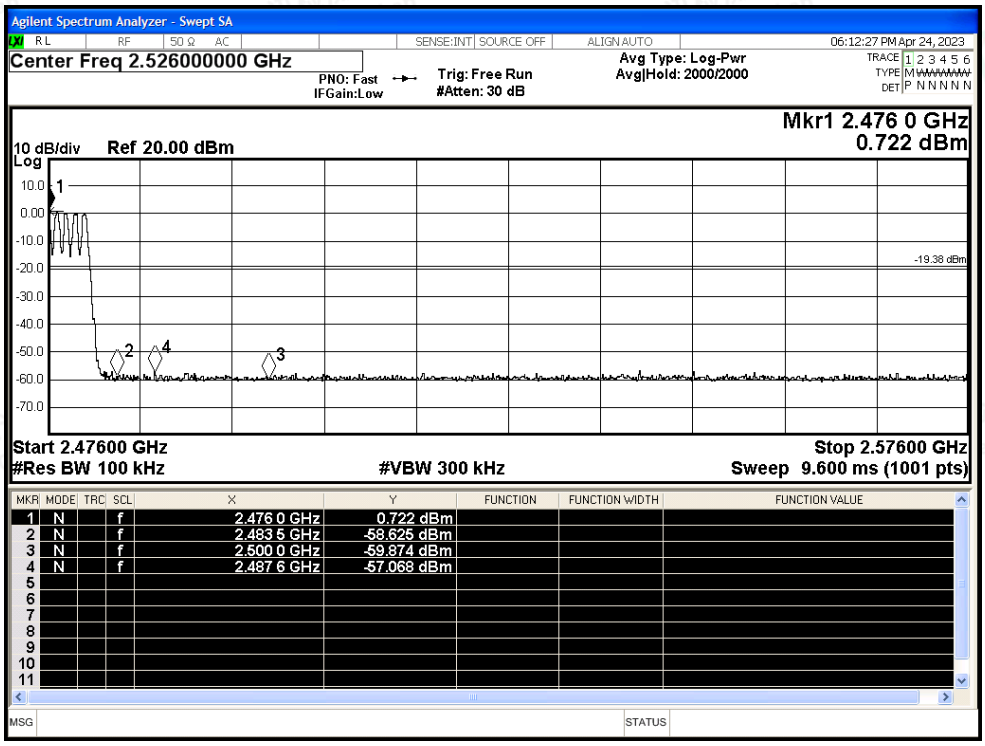
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission



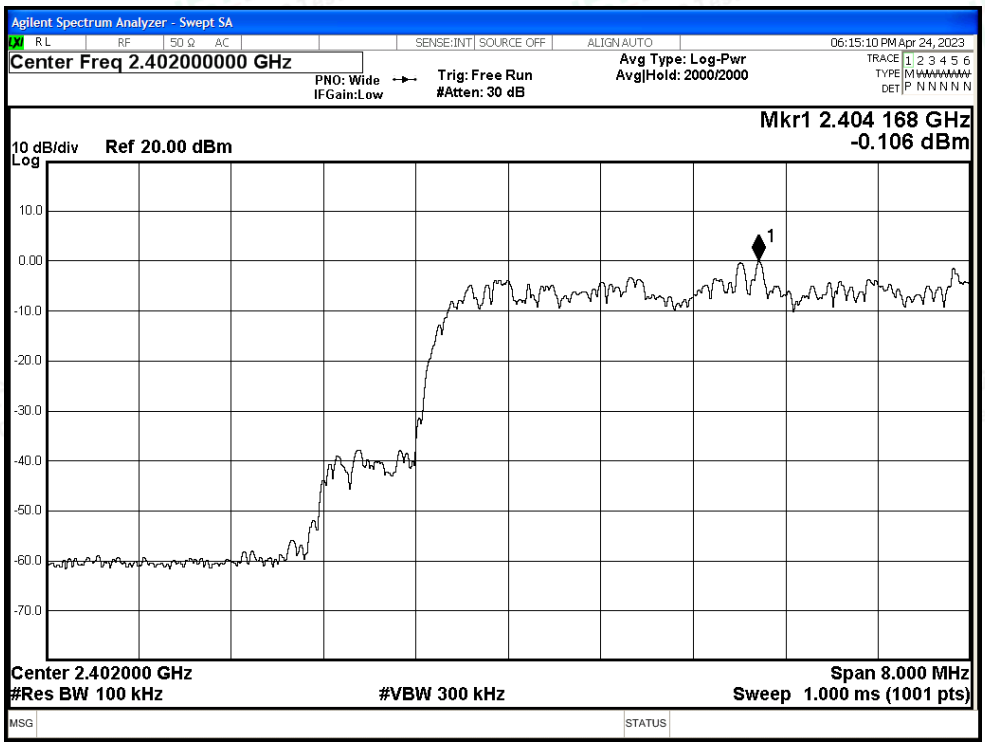
Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Ref



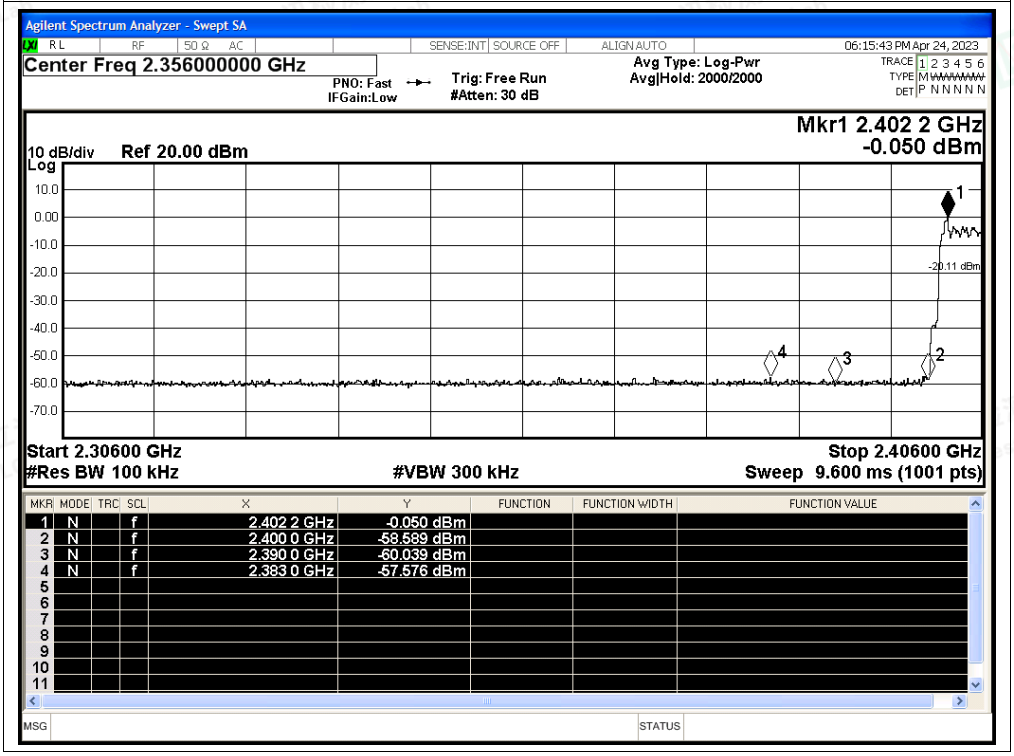
Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Emission



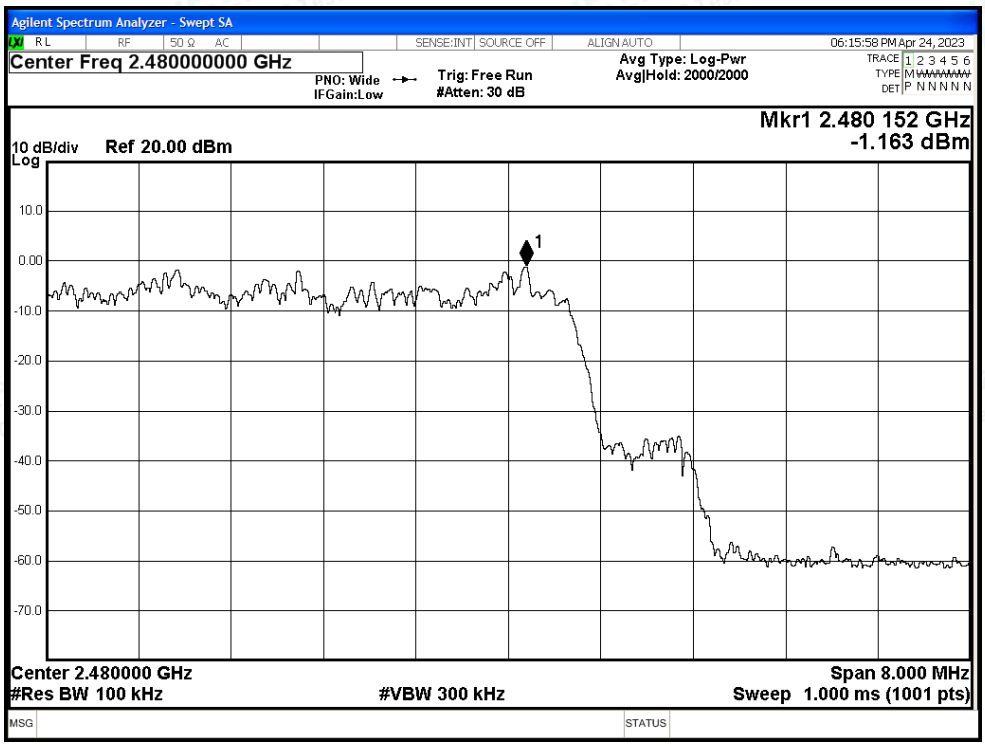
Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Ref



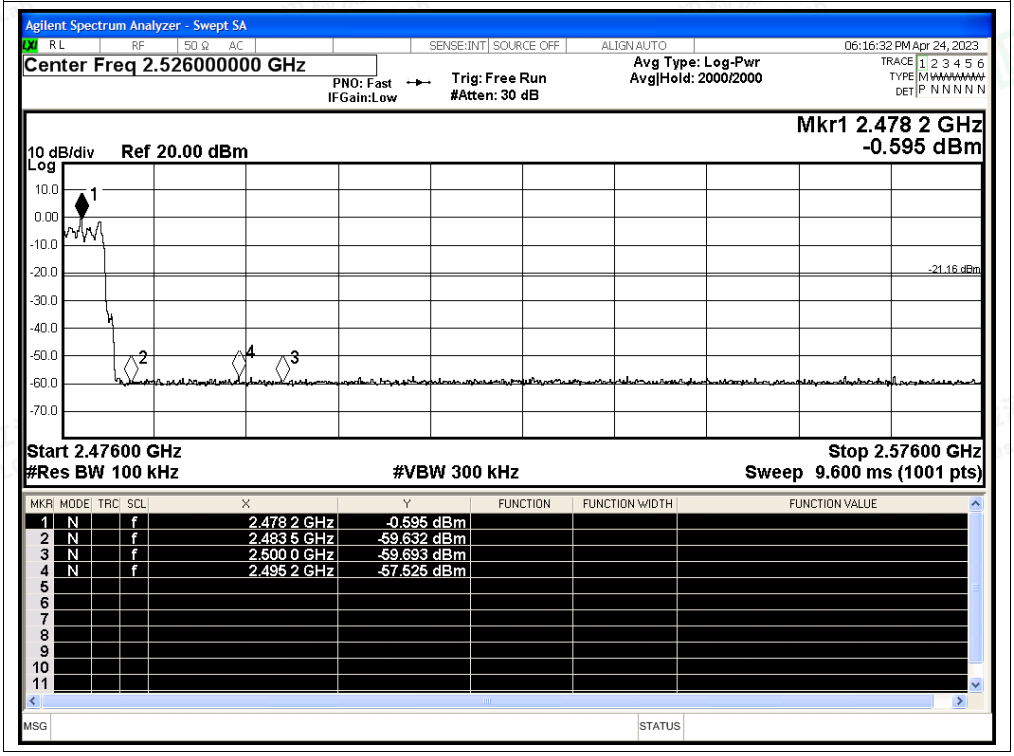
Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Emission



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

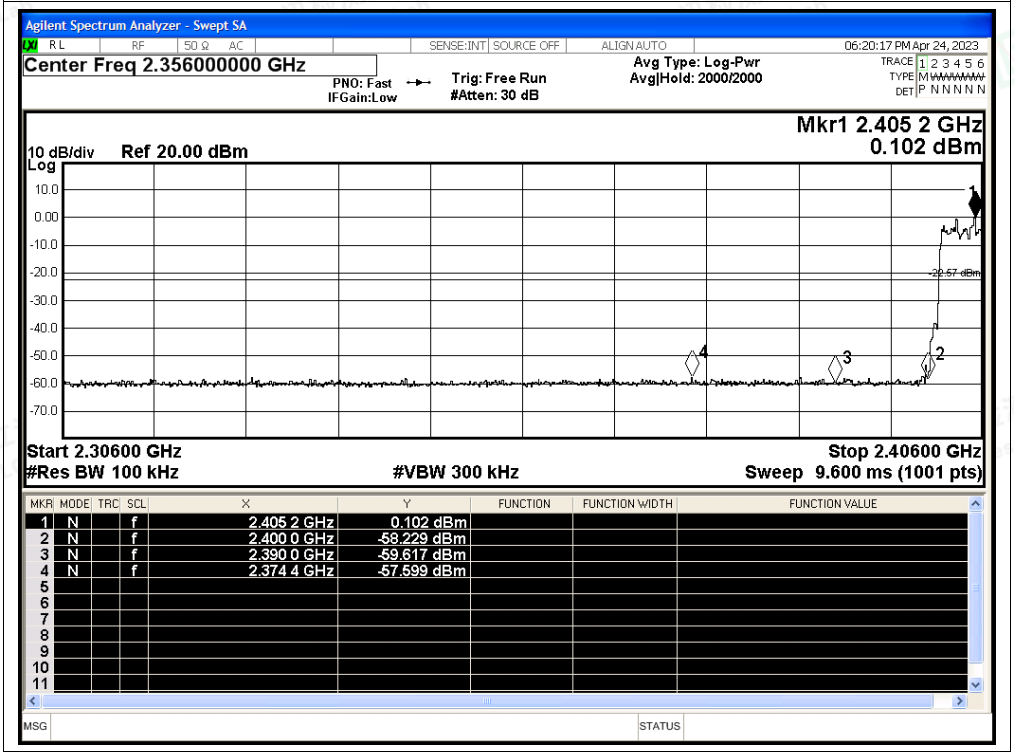


Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Emission

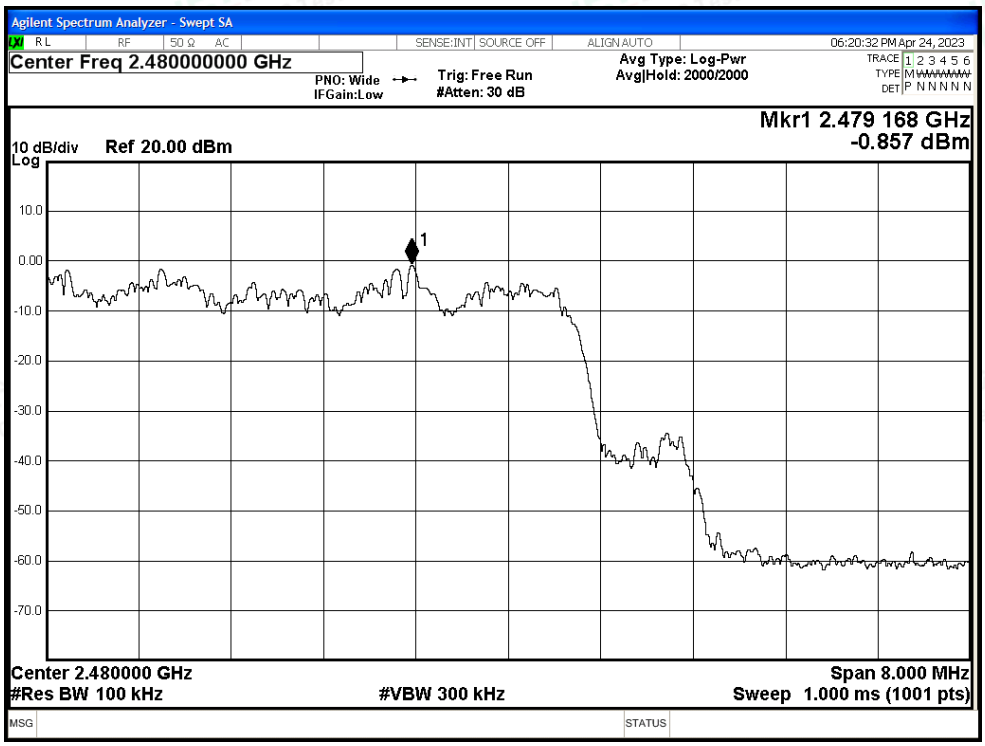


Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Ref

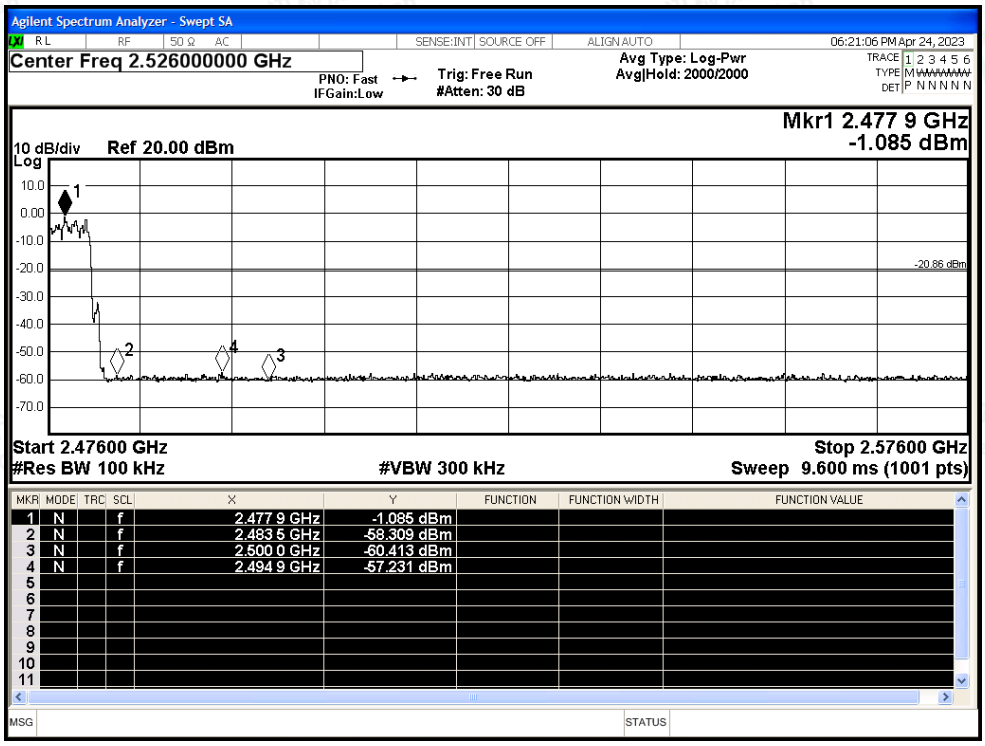
Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Emission



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



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

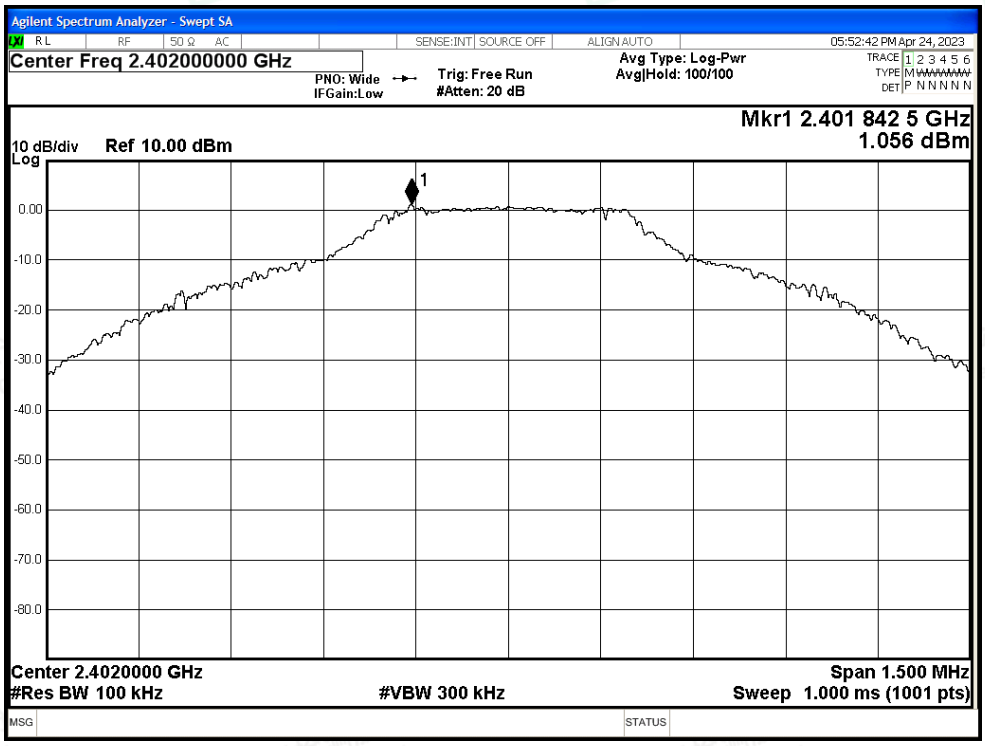


A.7 Conducted RF Spurious Emission

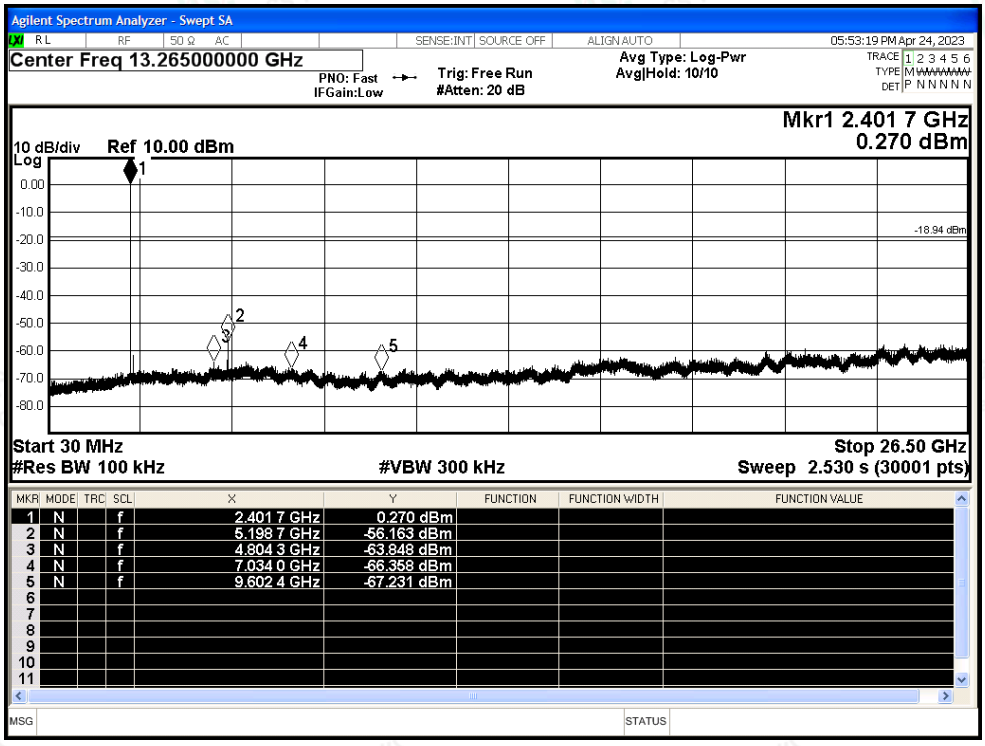
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	-57.22	-20	Pass
NVNT	1-DH5	2441	Ant1	-54.23	-20	Pass
NVNT	1-DH5	2480	Ant1	-55.75	-20	Pass
NVNT	2-DH5	2402	Ant1	-51.84	-20	Pass
NVNT	2-DH5	2441	Ant1	-54.15	-20	Pass
NVNT	2-DH5	2480	Ant1	-54.32	-20	Pass
NVNT	3-DH5	2402	Ant1	-55.23	-20	Pass
NVNT	3-DH5	2441	Ant1	-54.77	-20	Pass
NVNT	3-DH5	2480	Ant1	-52.81	-20	Pass

Test Graphs

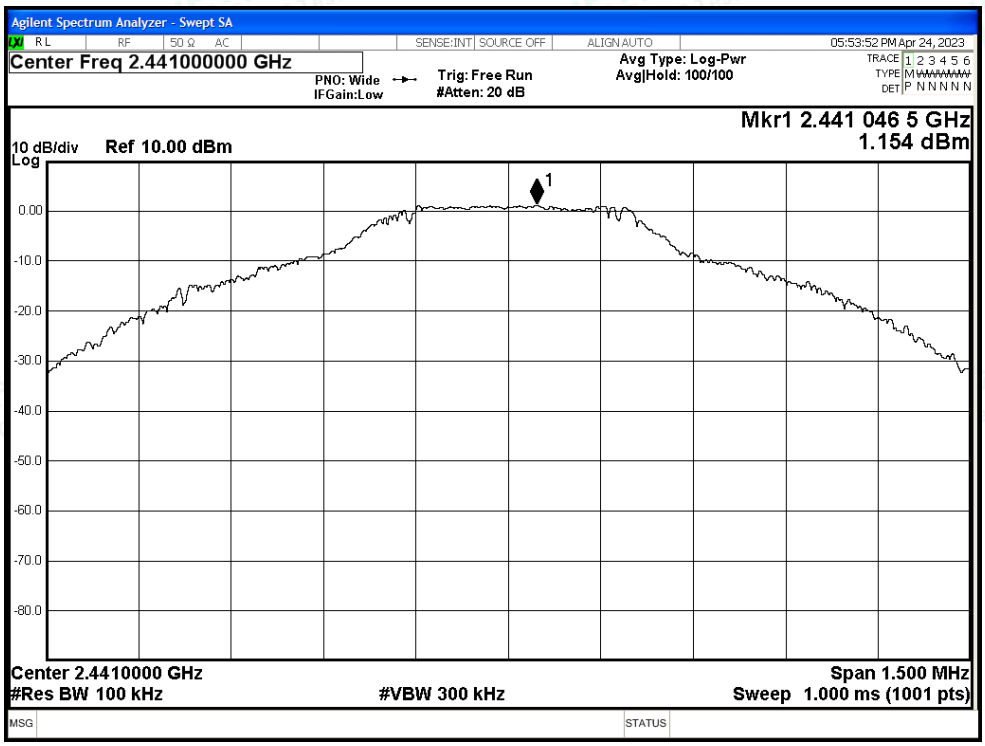
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref



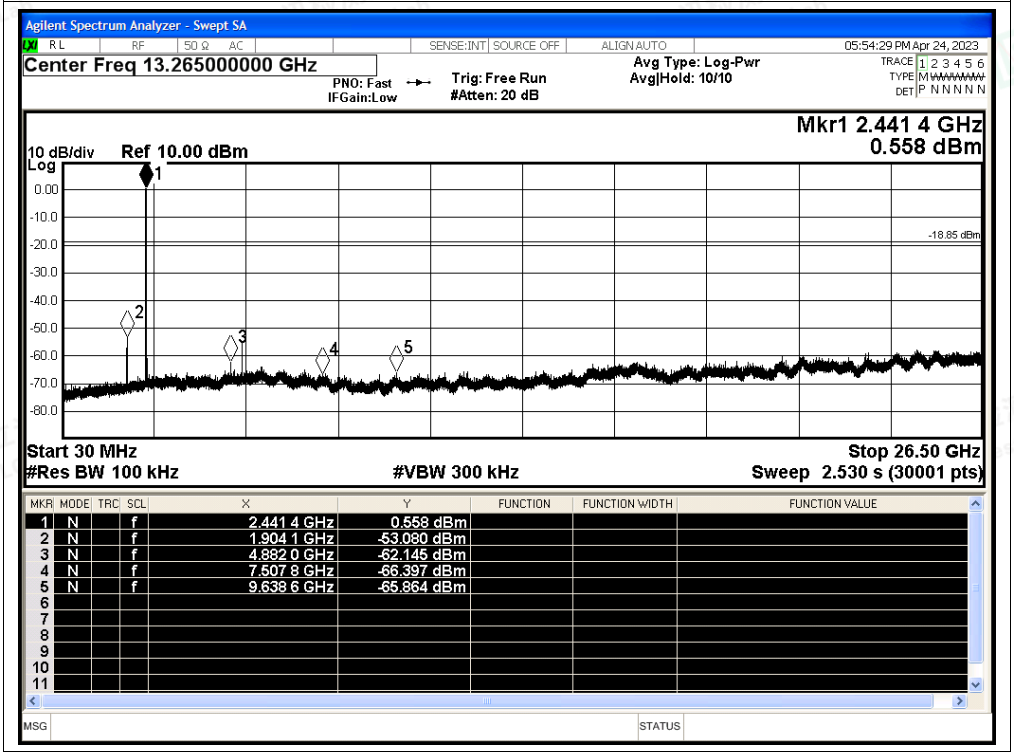
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission



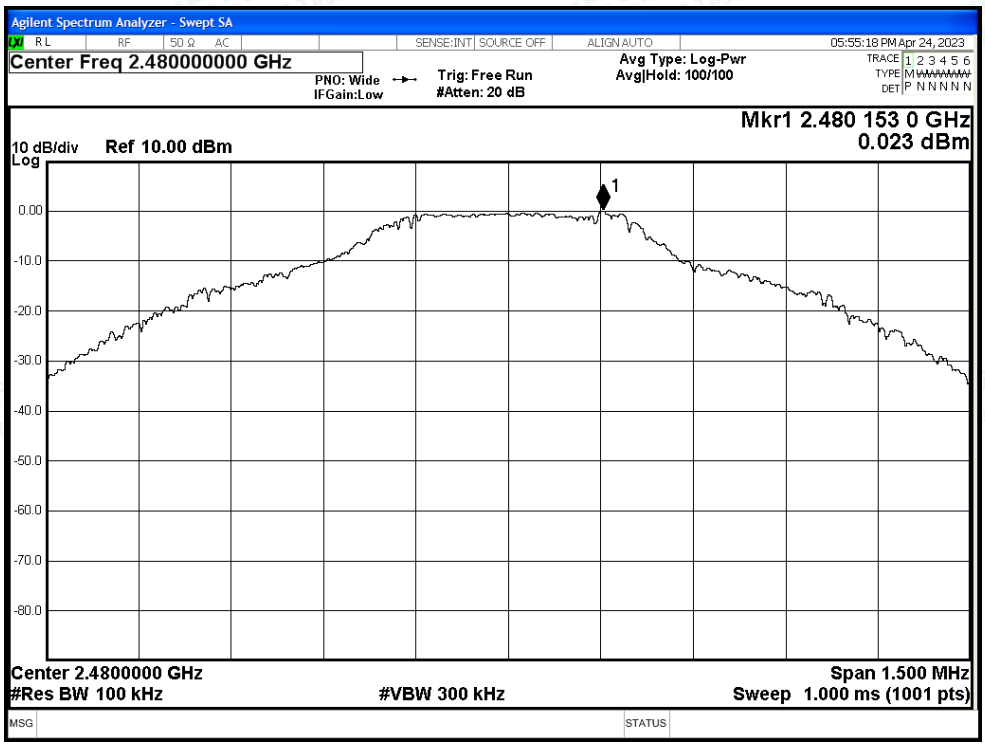
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref



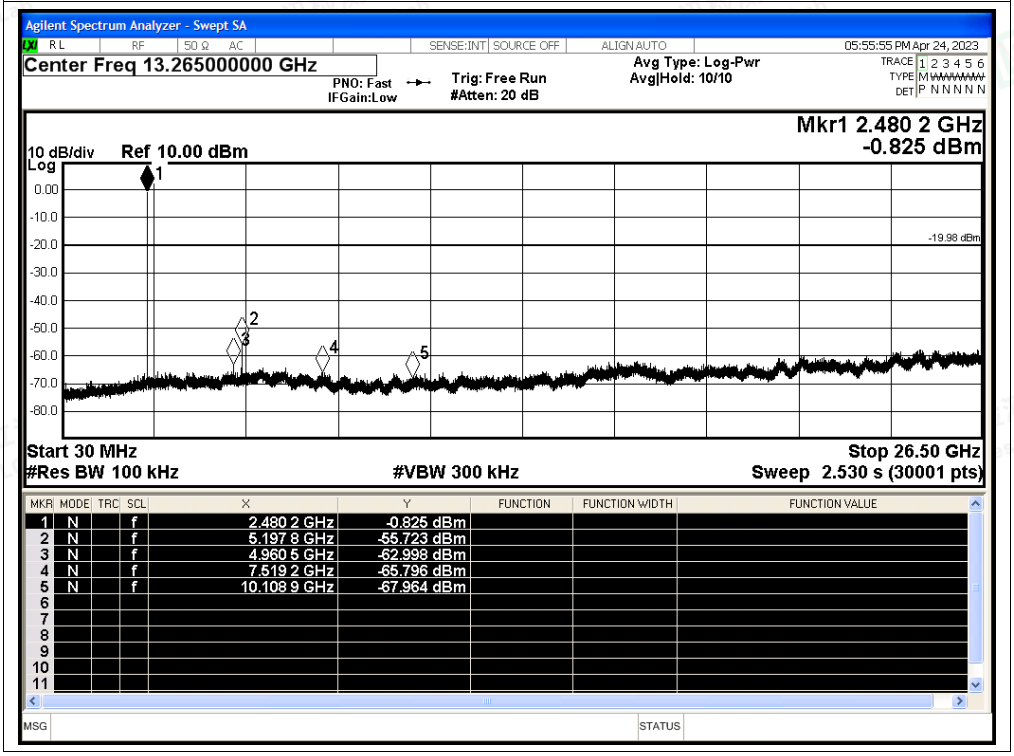
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission



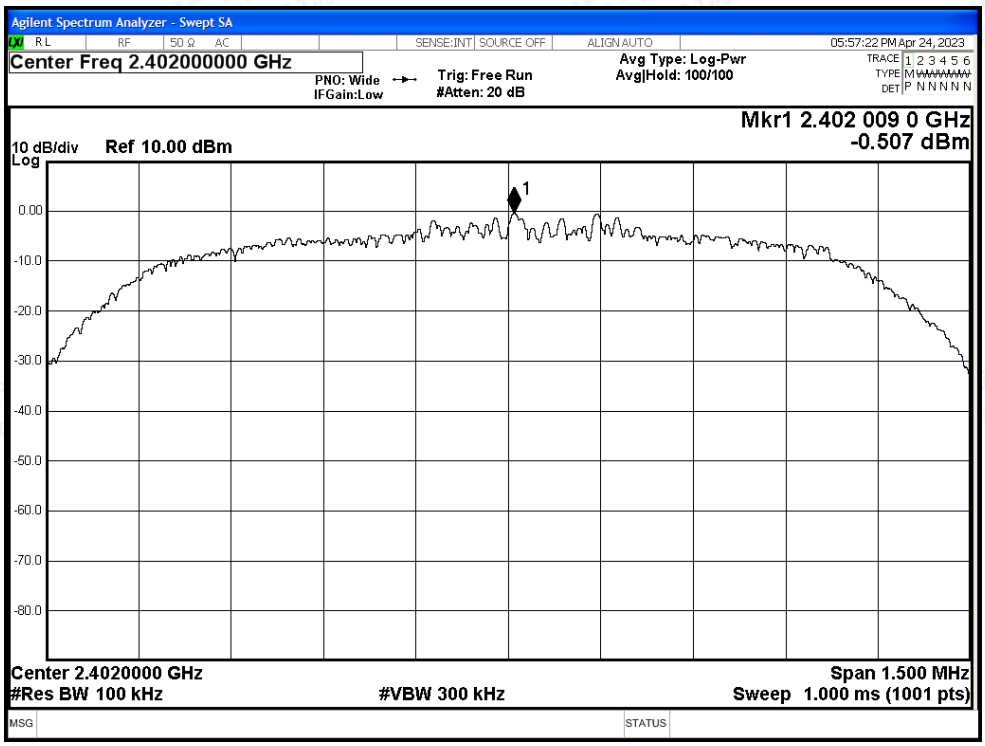
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref



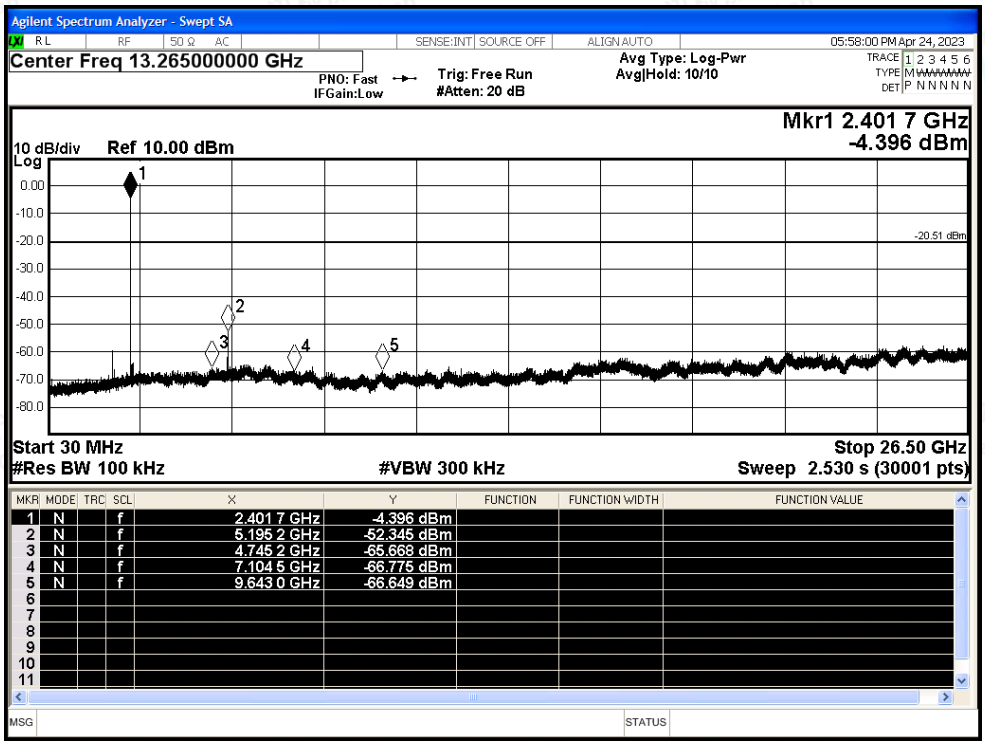
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Emission



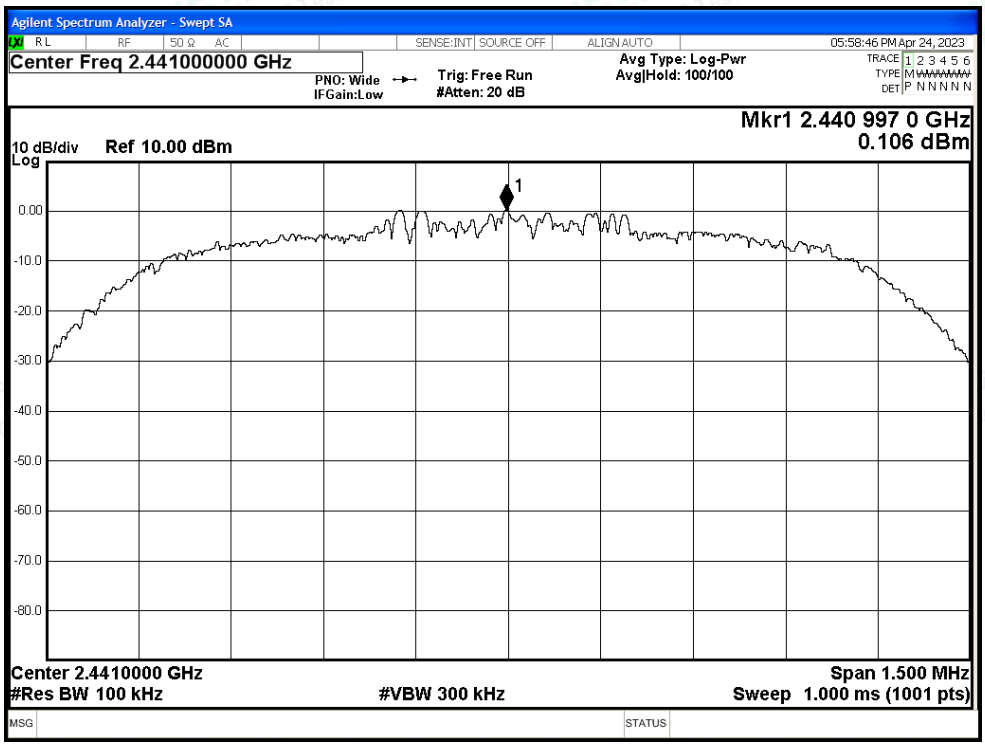
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Ref



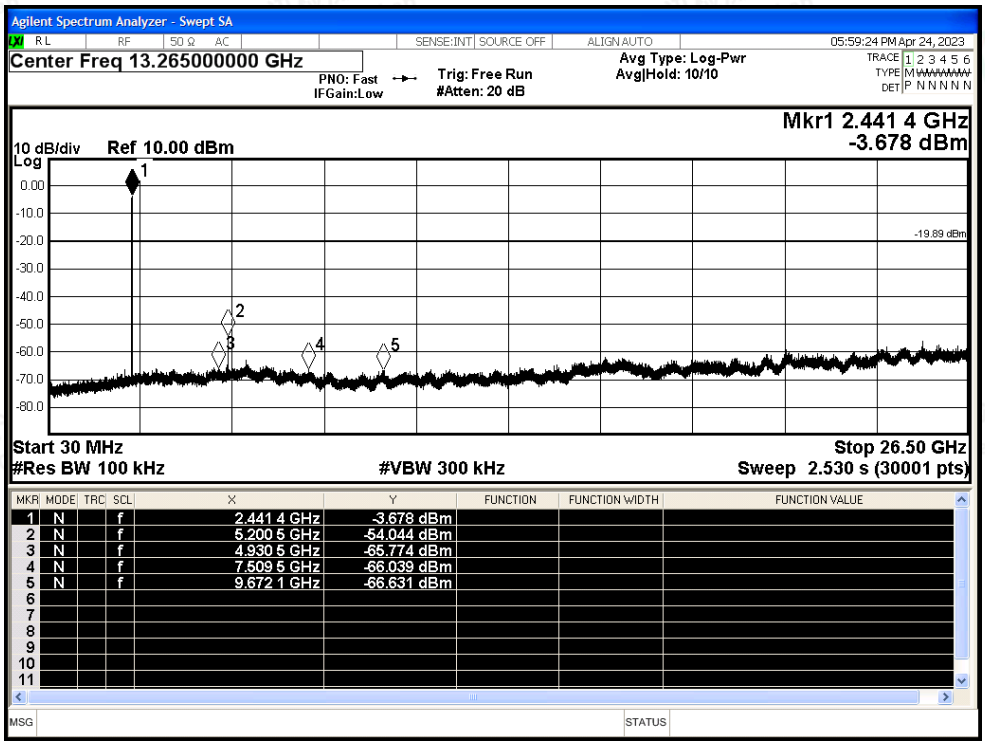
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Emission



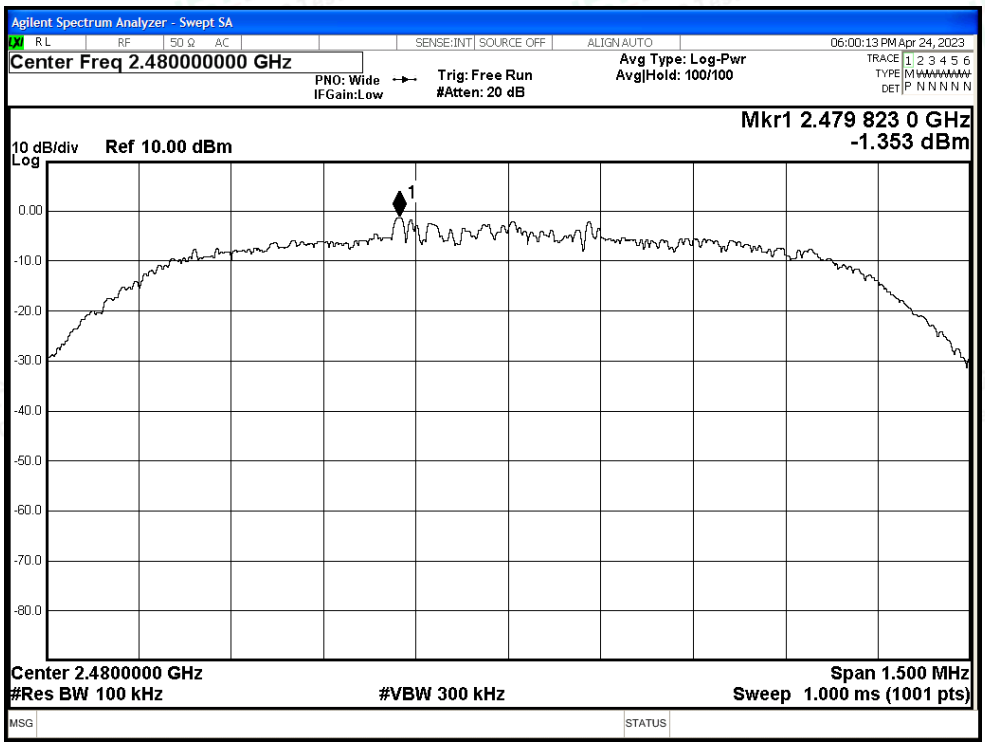
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Ref



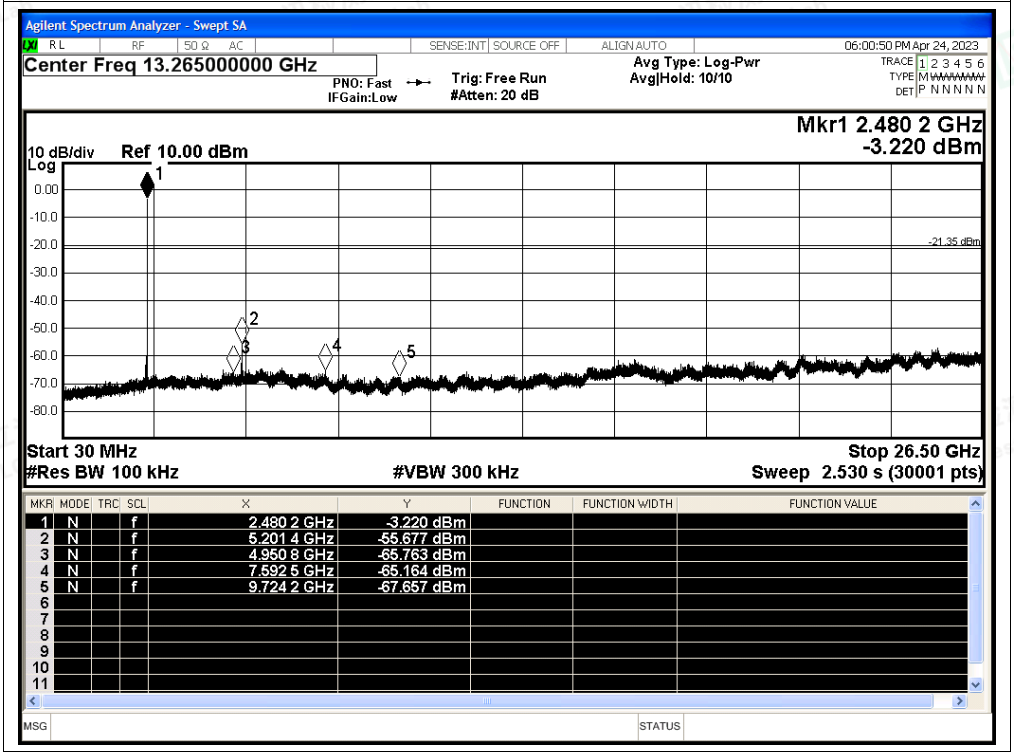
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Emission



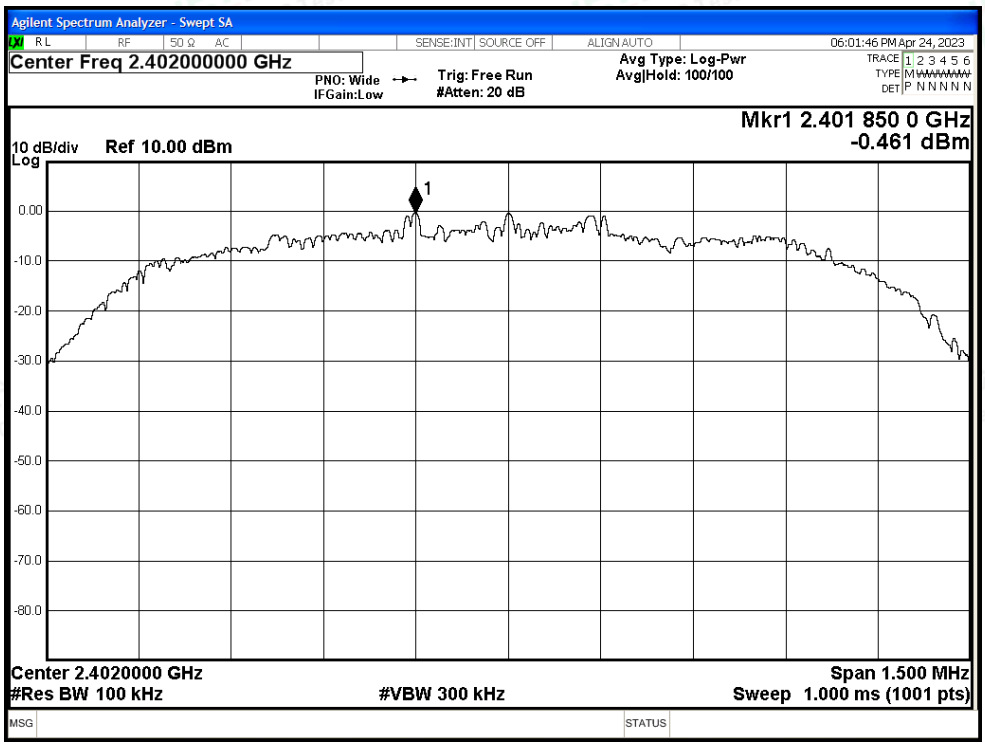
Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Ref



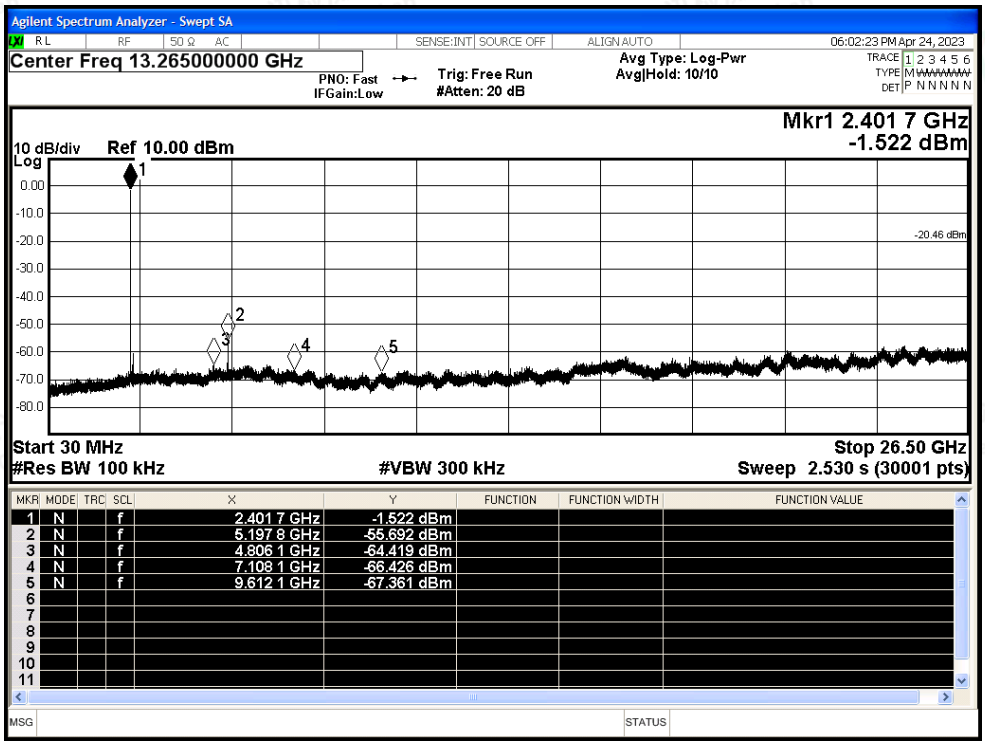
Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Emission



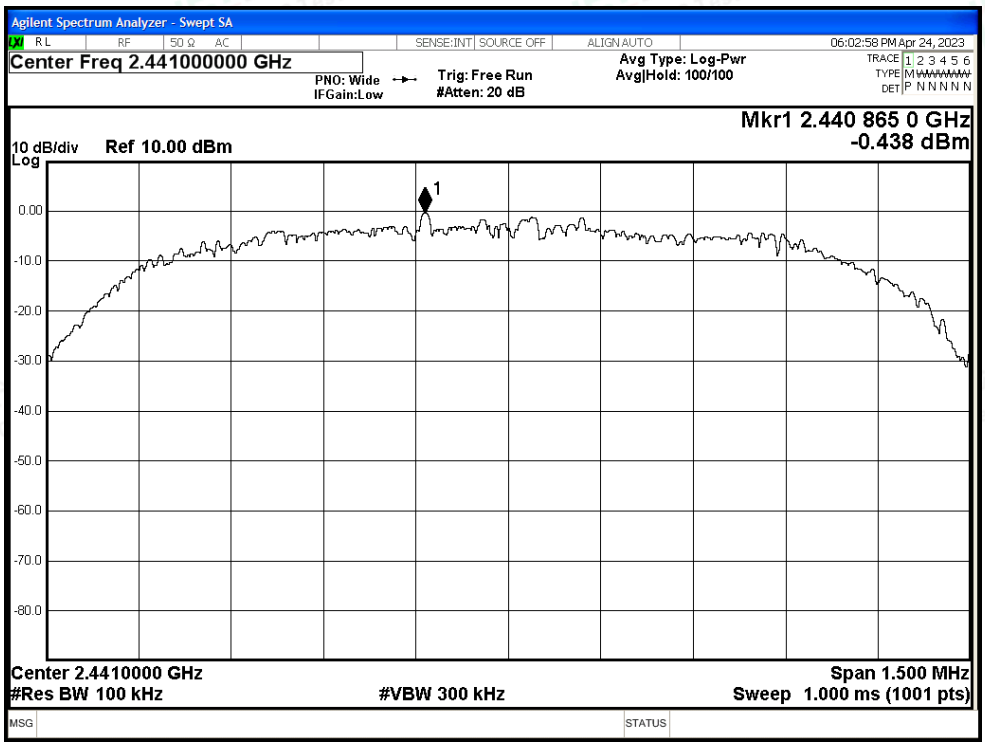
Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Ref



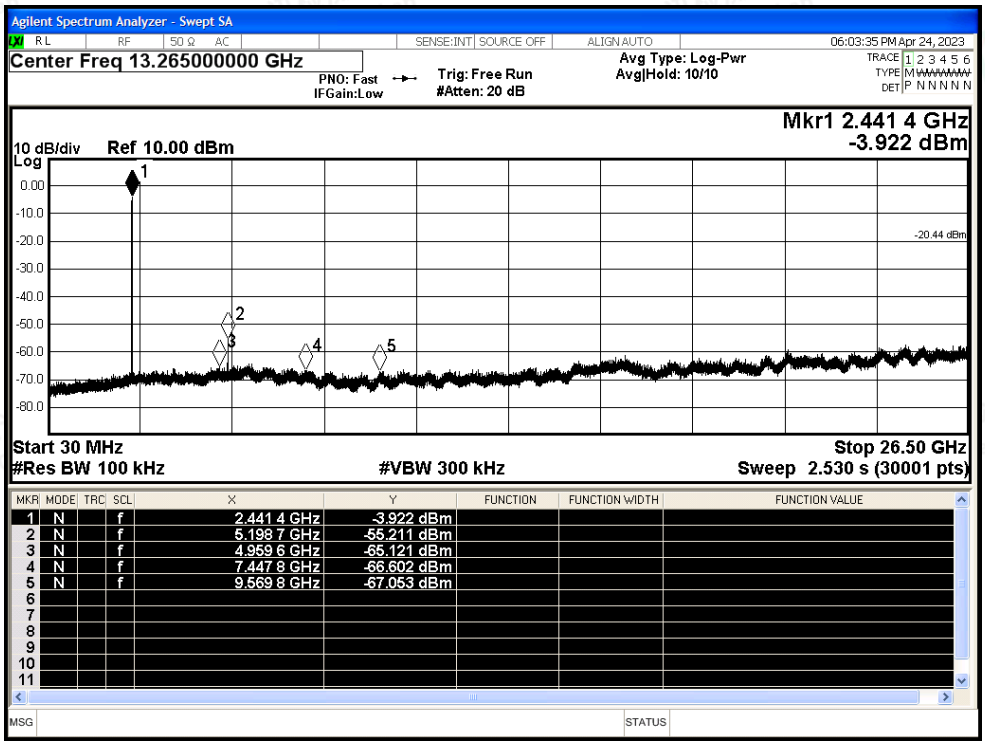
Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Emission



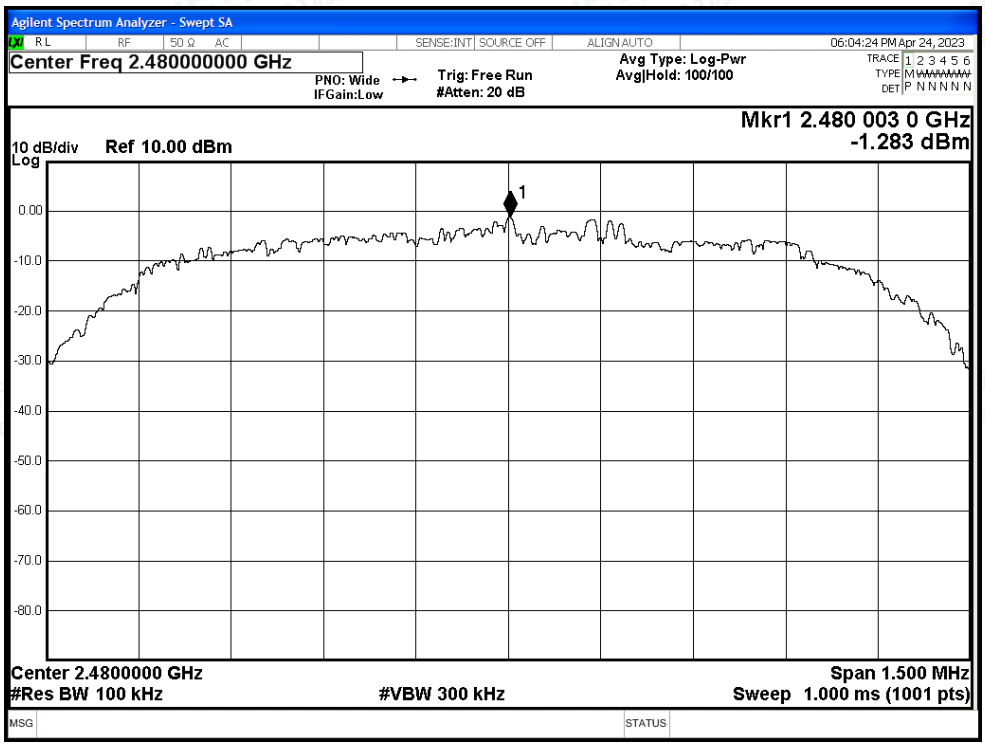
Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Ref



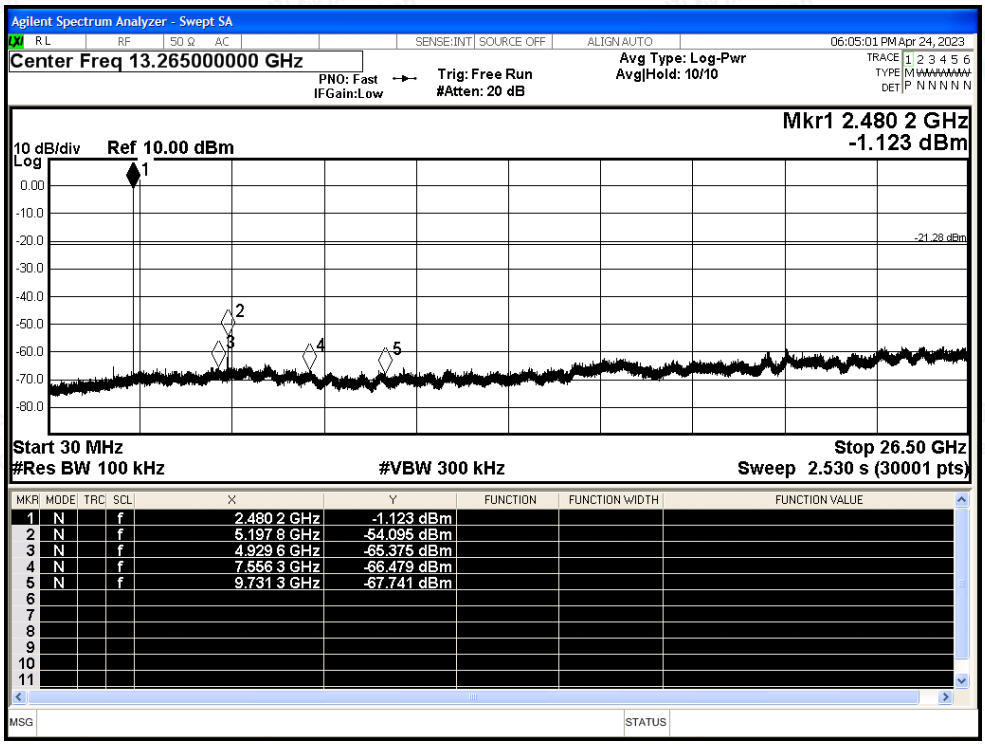
Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Emission

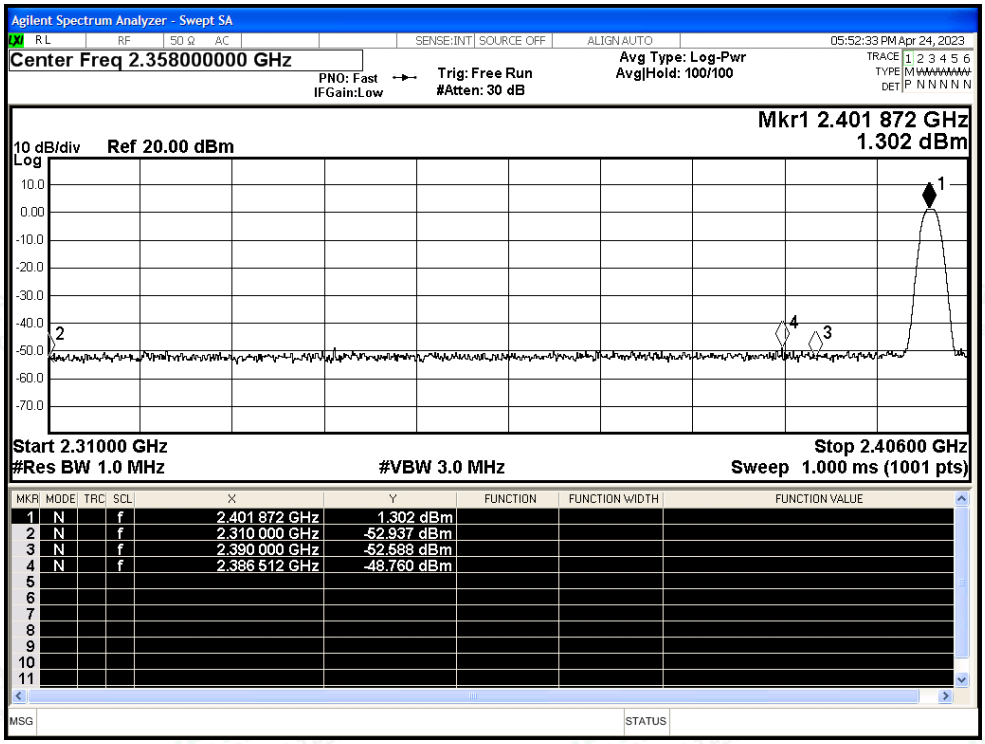


A.8 Restrict Band

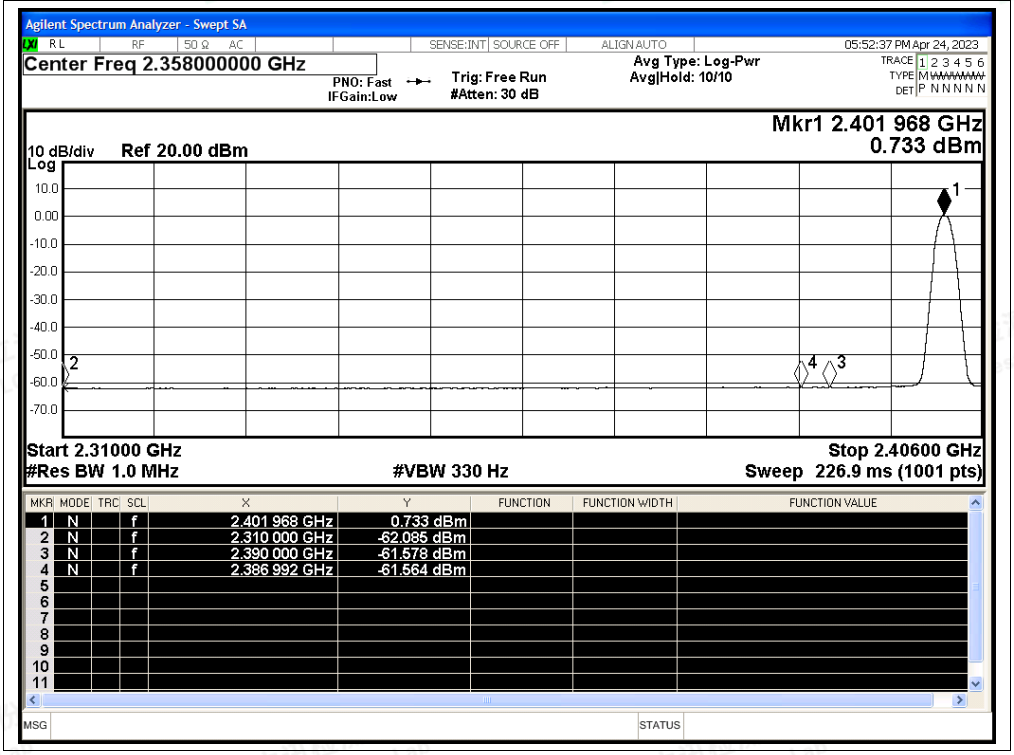
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-52.94	2	44.32	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-62.09	2	35.17	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2386.512	-48.76	2	48.5	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2386.992	-61.56	2	35.7	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	-61.58	2	35.68	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-49.93	2	47.33	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-61.11	2	36.15	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2485.336	-49.11	2	48.15	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.512	-61.11	2	36.15	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-50.07	2	47.19	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-61.63	2	35.63	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-51.25	2	46.01	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-62.02	2	35.24	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2326.128	-48.85	2	48.41	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2388.624	-61.66	2	35.6	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-52.12	2	45.14	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-61.74	2	35.52	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-50.71	2	46.55	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-60.95	2	36.31	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2492.872	-48.84	2	48.42	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.56	-60.94	2	36.32	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-52.79	2	44.47	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-61.8	2	35.46	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-53	2	44.26	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-62.29	2	34.97	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2360.88	-48.99	2	48.27	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2386.224	-61.57	2	35.69	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-53.34	2	43.92	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-61.75	2	35.51	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-50.46	2	46.8	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-60.88	2	36.38	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2484.04	-47.86	2	49.4	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.584	-60.79	2	36.47	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-51.47	2	45.79	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-61.81	2	35.45	Average	54	Pass

Test Graphs

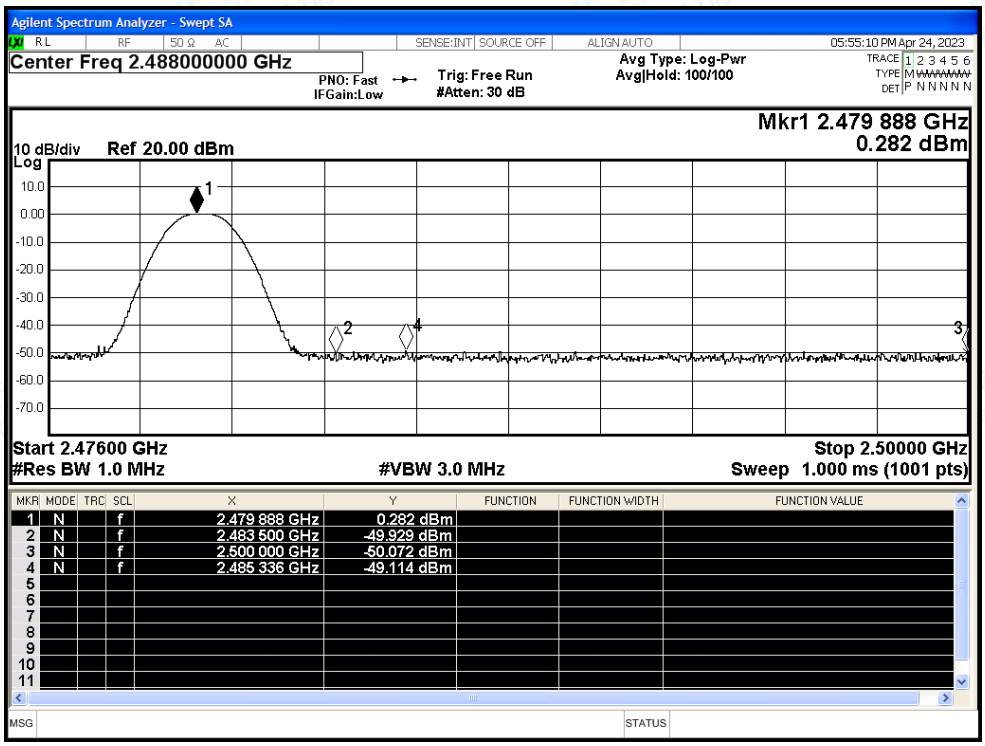
Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Peak



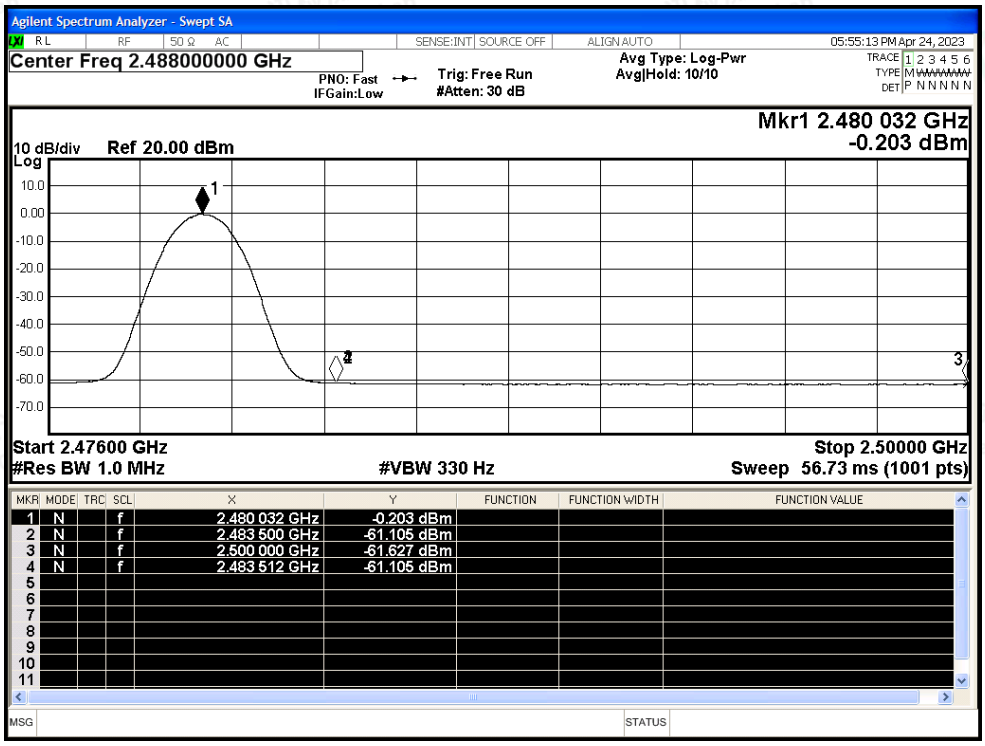
Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Average



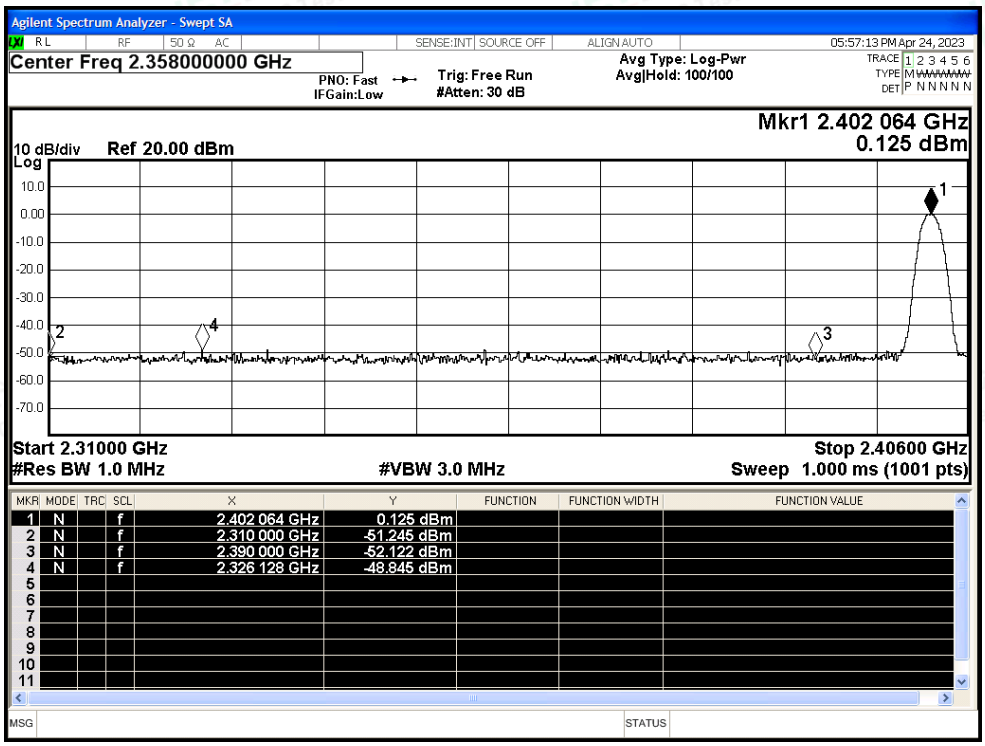
Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Peak



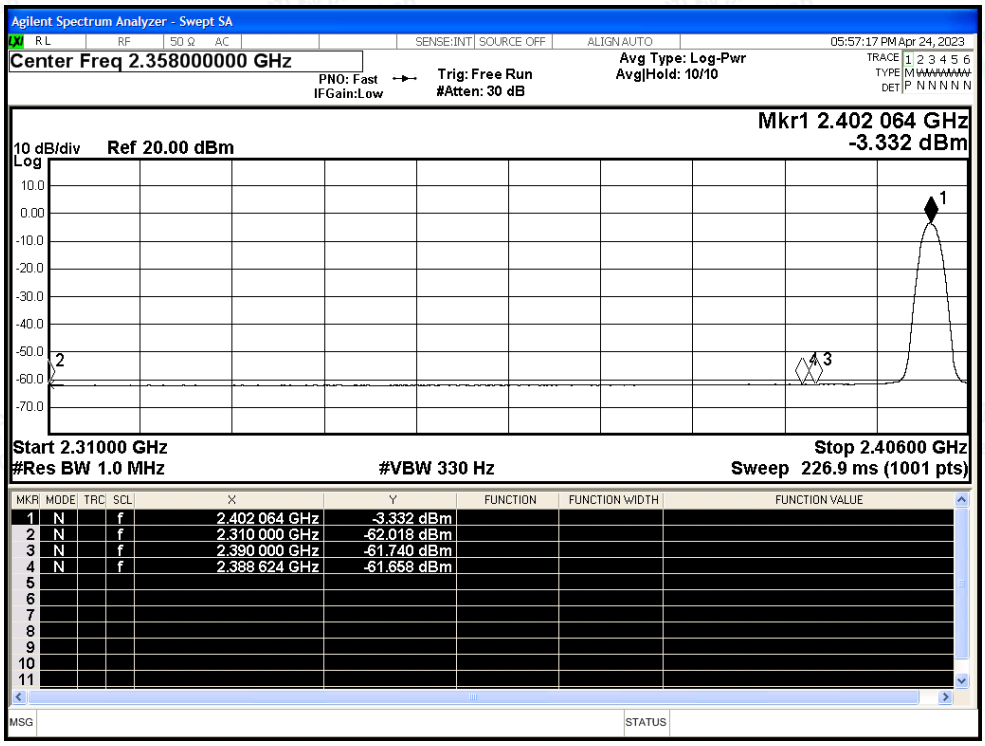
Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Average



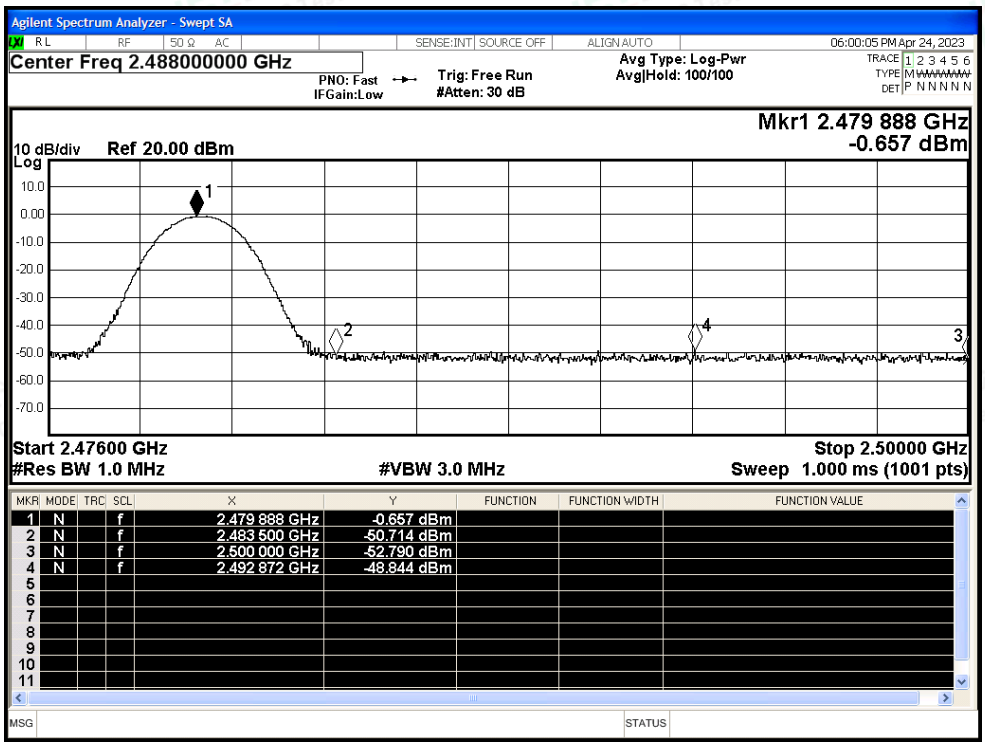
Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Peak



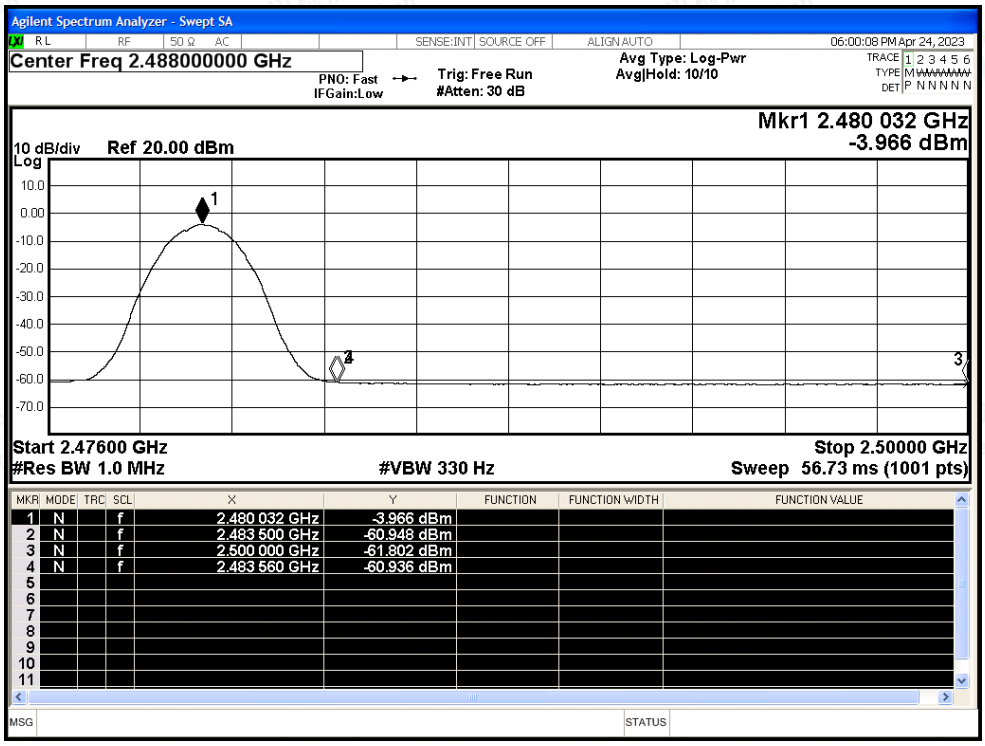
Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Average



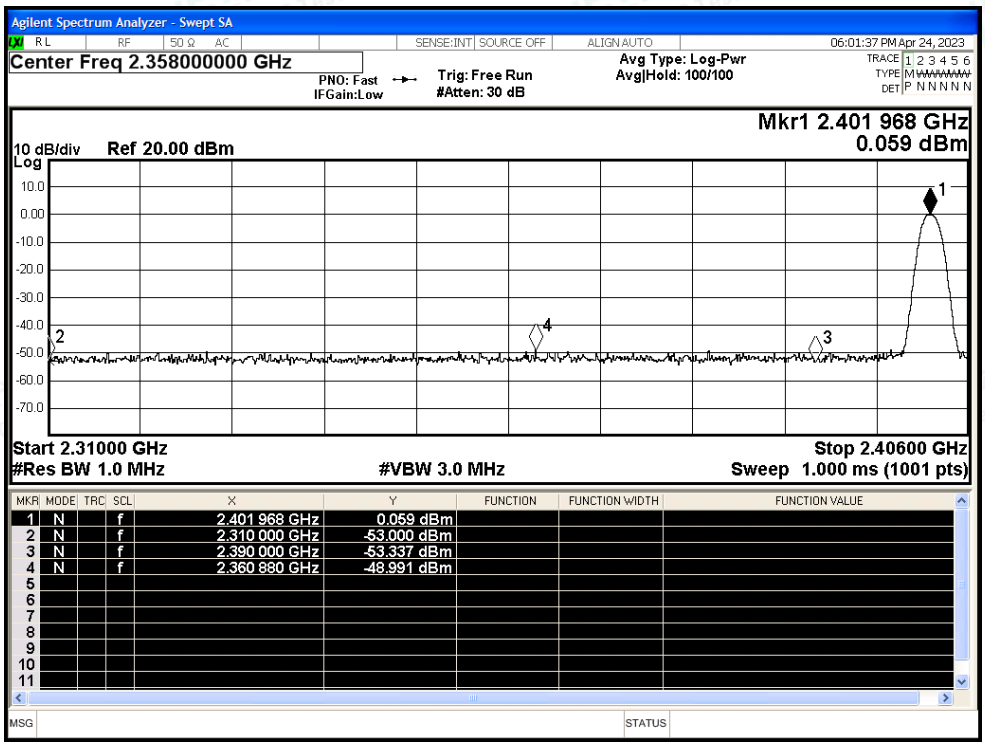
Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Peak



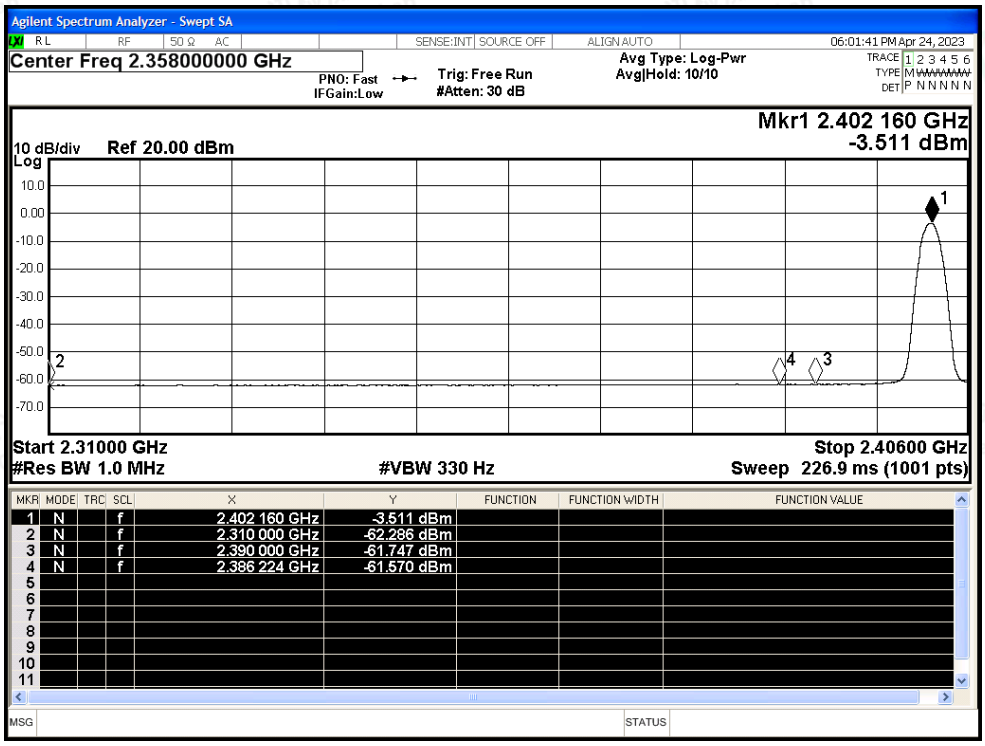
Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Average



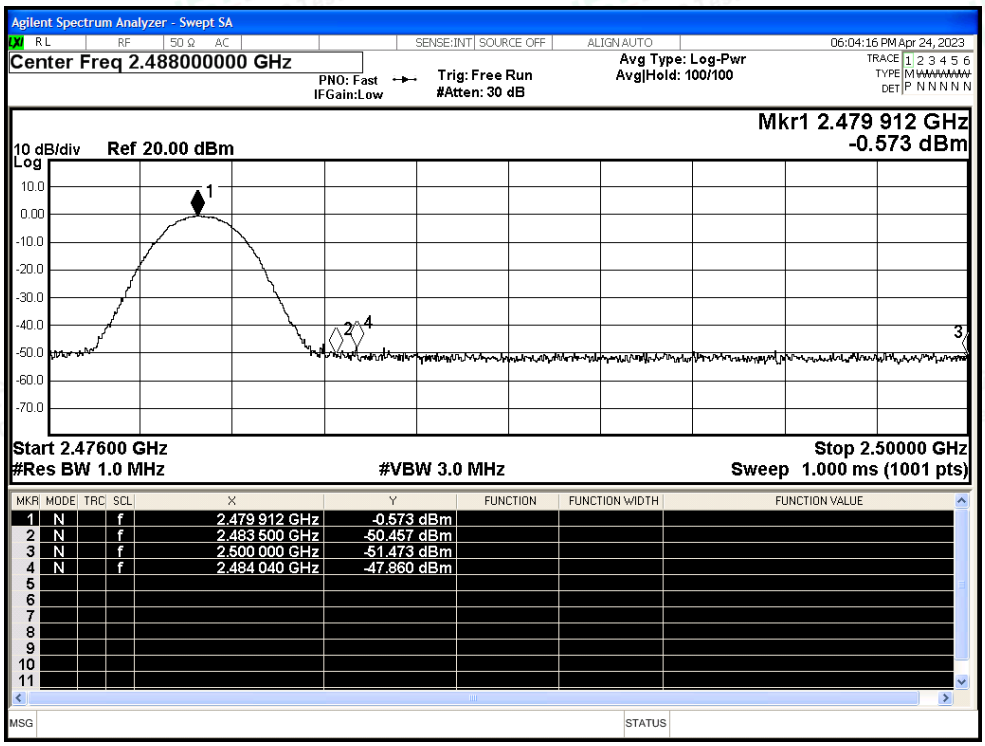
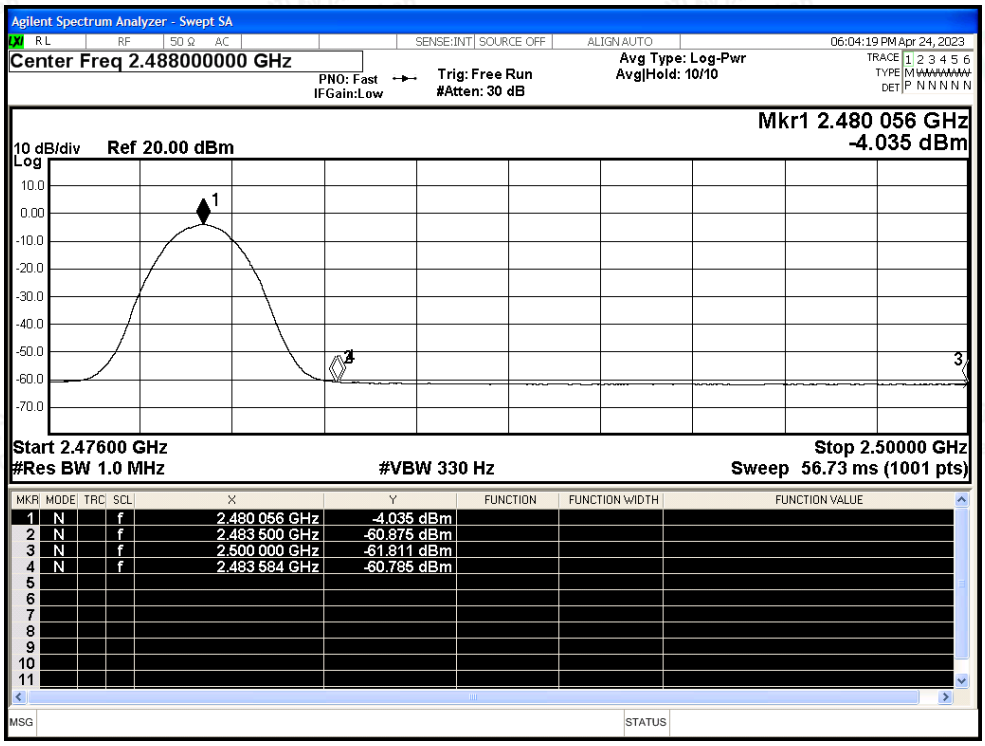
Restrict Band NVNT 3-DH5 2402MHz Ant1 No-Hopping Peak



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