Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: Portable amplifier musical instrument speaker

Test Model: YS-10B

Environmental Conditions

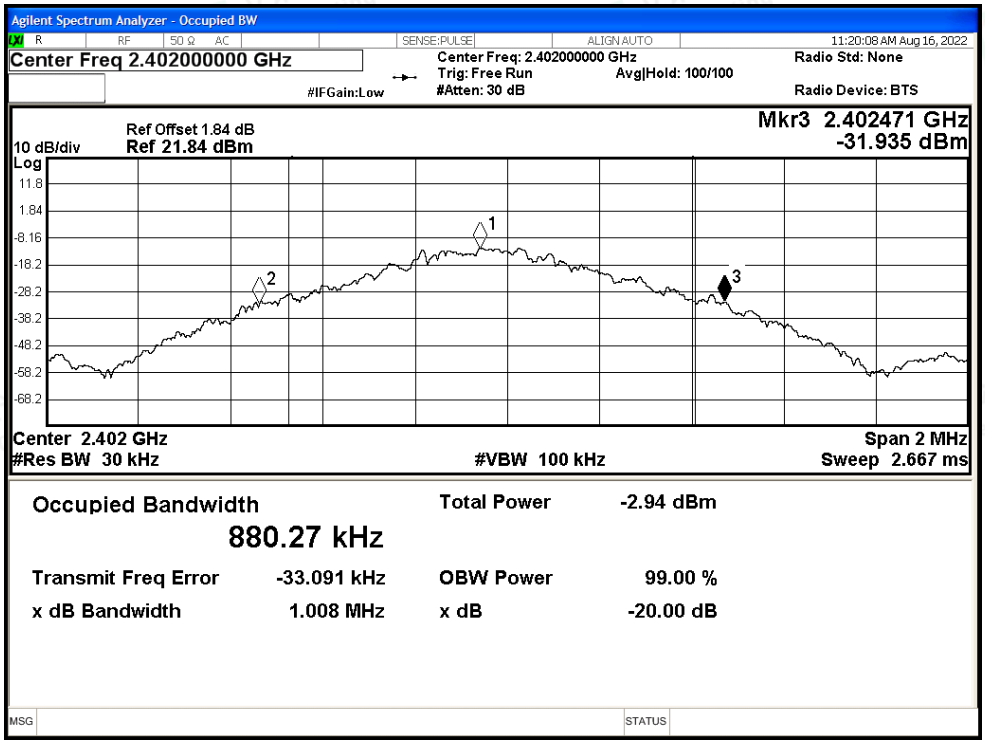
Temperature:	23.5℃
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Monkey Li
Supervised by:	Li Huan

A.1 20dB Bandwidth

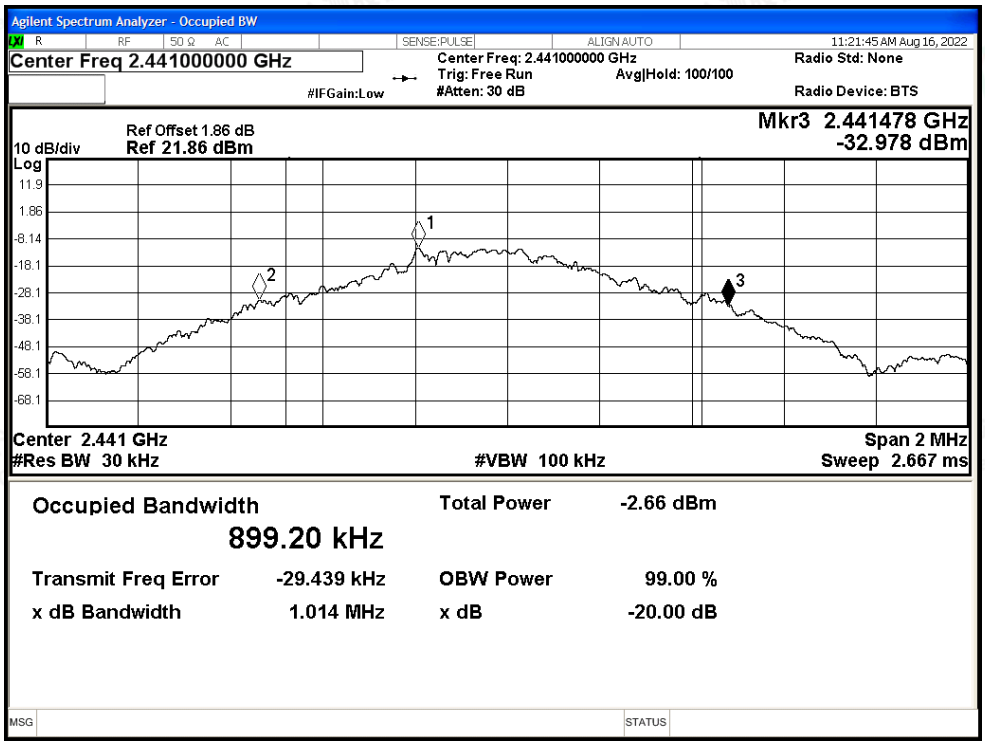
Condition	Mode	Frequency (MHz)	Antenna	20 dB Bandwidth (MHz)	Limit 20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH5	2402	Ant1	1.008	N/A	Pass
NVNT	1-DH5	2441	Ant1	1.014	N/A	Pass
NVNT	1-DH5	2480	Ant1	1.006	N/A	Pass
NVNT	2-DH5	2402	Ant1	1.286	N/A	Pass
NVNT	2-DH5	2441	Ant1	1.313	N/A	Pass
NVNT	2-DH5	2480	Ant1	1.33	N/A	Pass
NVNT	3-DH5	2402	Ant1	1.286	N/A	Pass
NVNT	3-DH5	2441	Ant1	1.286	N/A	Pass
NVNT	3-DH5	2480	Ant1	1.288	N/A	Pass

Test Graphs

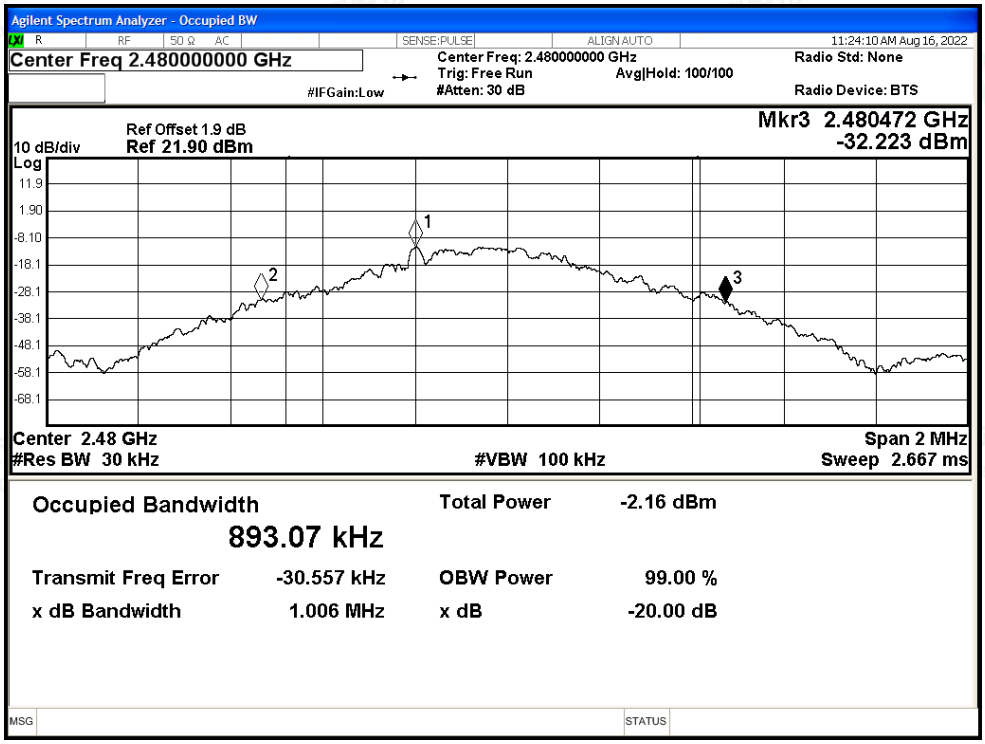
20dB Bandwidth NVNT 1-DH5 2402MHz Ant1



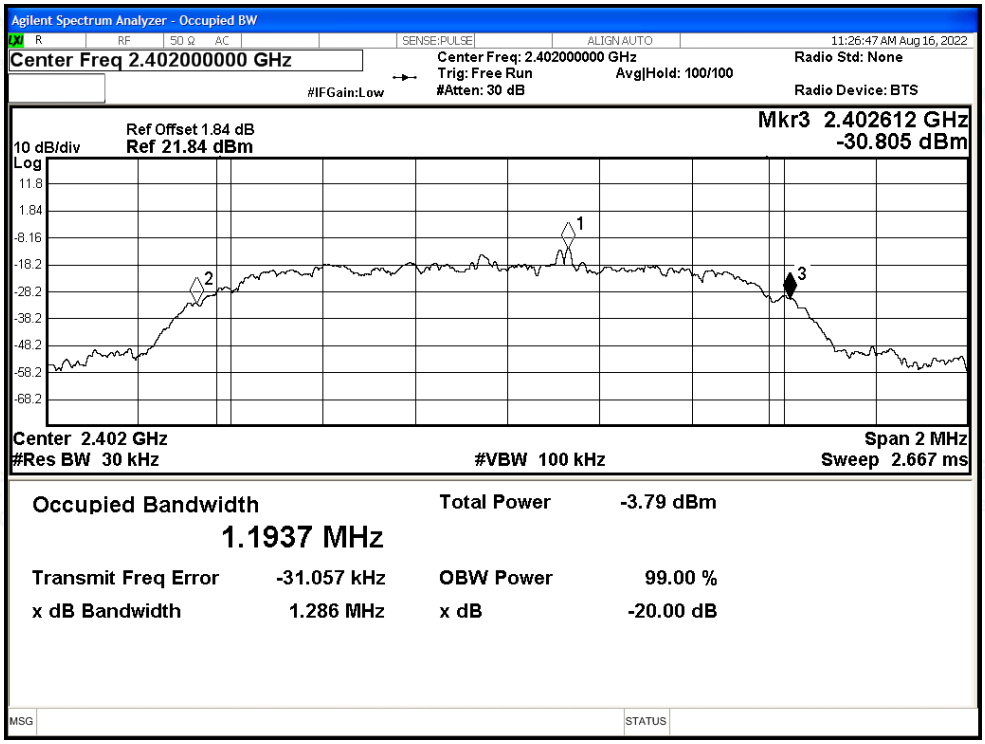
20dB Bandwidth NVNT 1-DH5 2441MHz Ant1



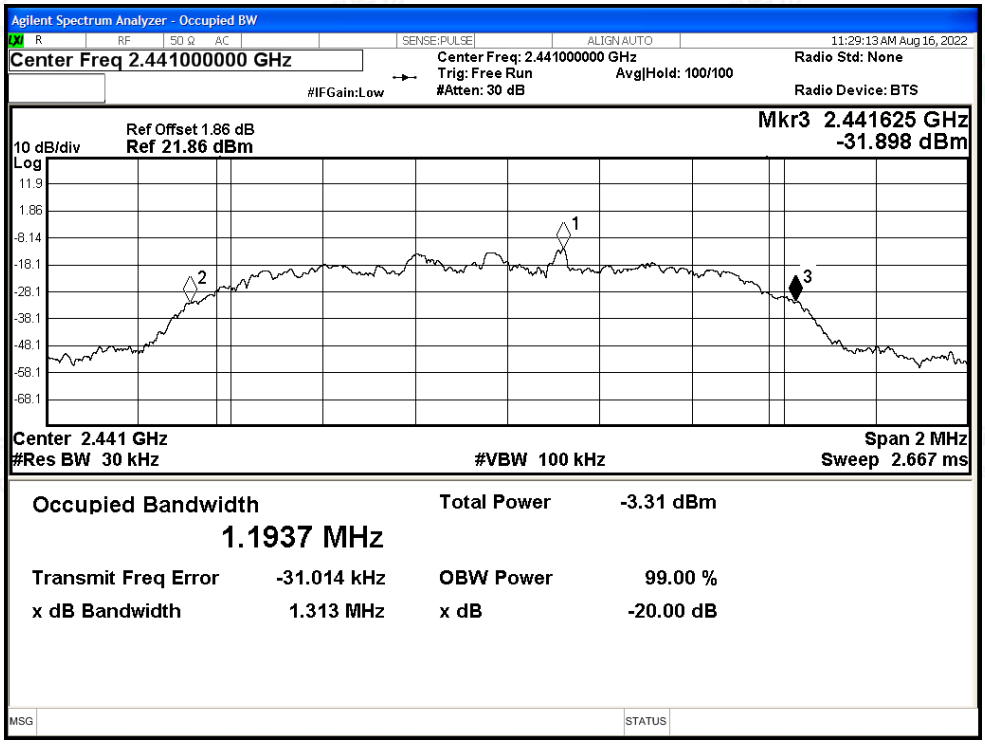
20dB Bandwidth NVNT 1-DH5 2480MHz Ant1



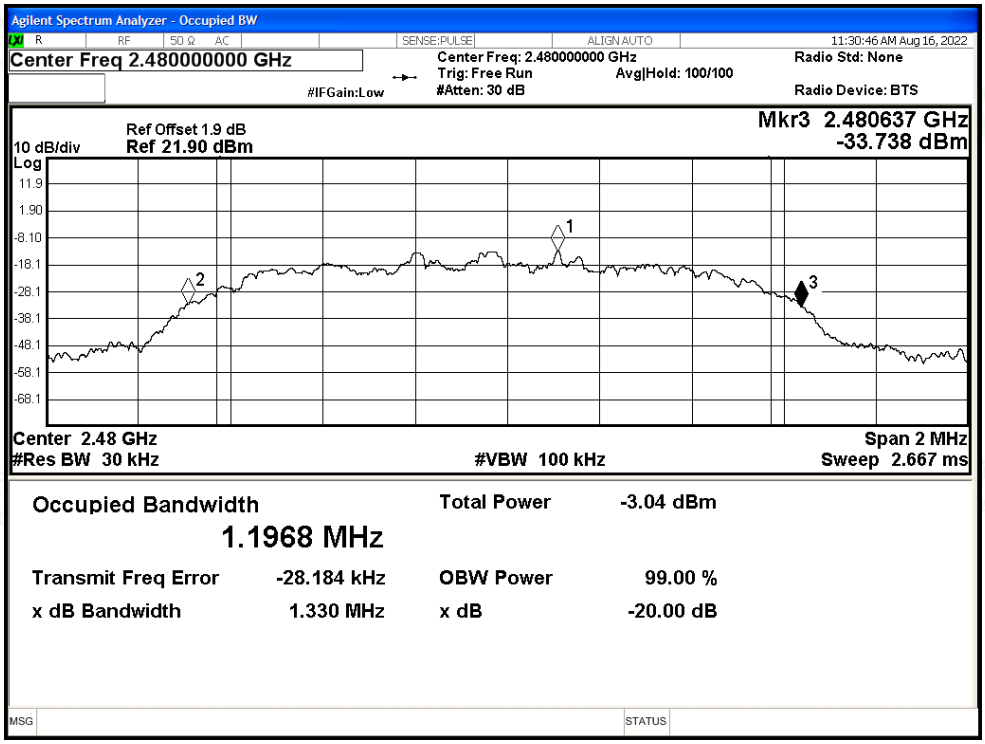
20dB Bandwidth NVNT 2-DH5 2402MHz Ant1



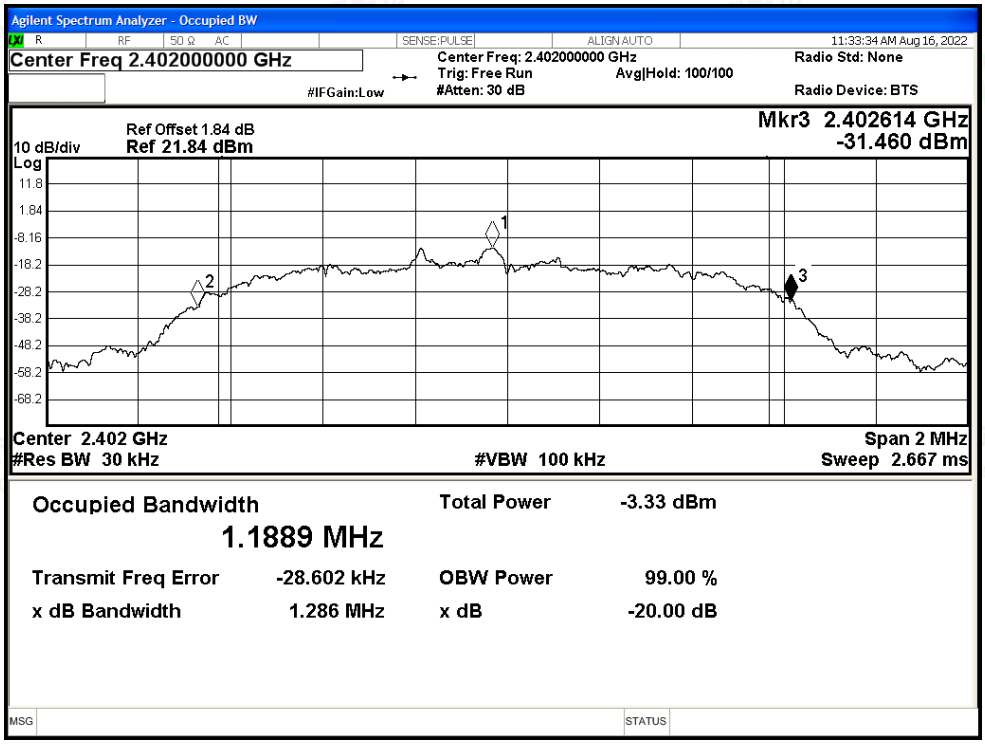
20dB Bandwidth NVNT 2-DH5 2441MHz Ant1



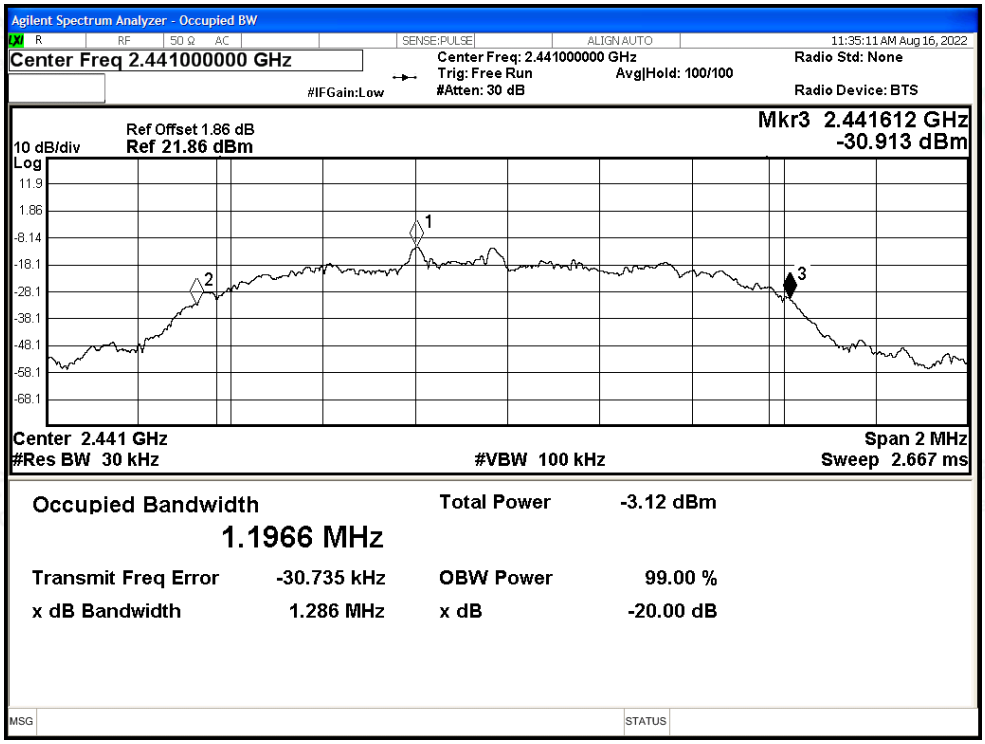
20dB Bandwidth NVNT 2-DH5 2480MHz Ant1



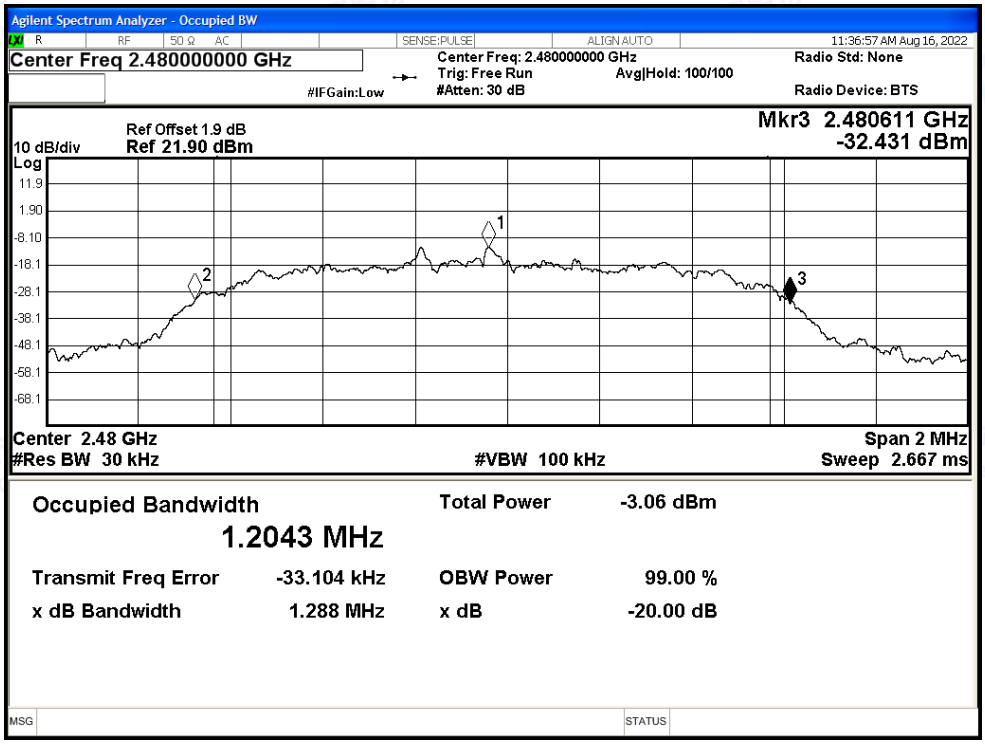
20dB Bandwidth NVNT 3-DH5 2402MHz Ant1



20dB Bandwidth NVNT 3-DH5 2441MHz Ant1



20dB Bandwidth NVNT 3-DH5 2480MHz Ant1

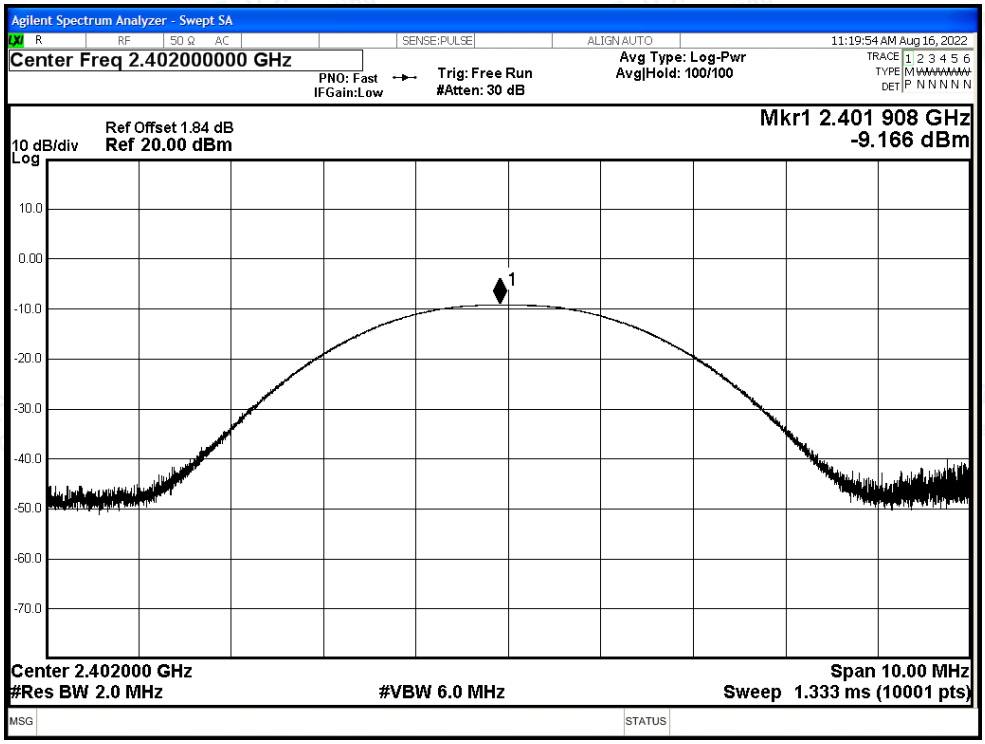


A.2 Maximum Conducted Output Power

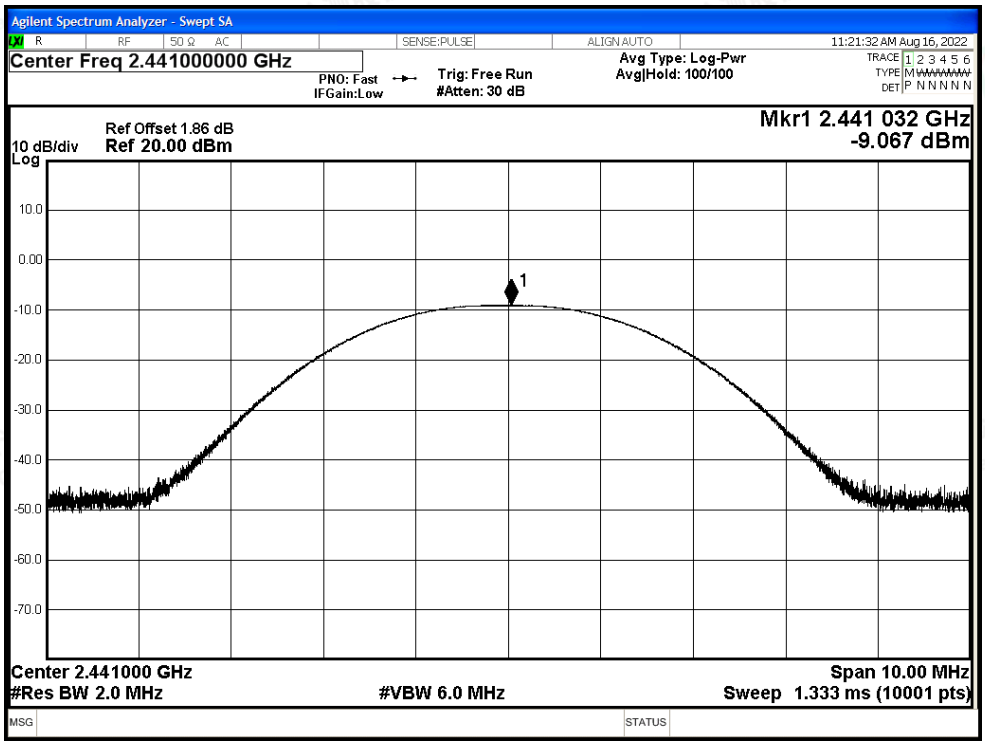
Condition	Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH5	2402	Ant1	-9.17	21	Pass
NVNT	1-DH5	2441	Ant1	-9.07	21	Pass
NVNT	1-DH5	2480	Ant1	-8.82	21	Pass
NVNT	2-DH5	2402	Ant1	-8.38	21	Pass
NVNT	2-DH5	2441	Ant1	-8.18	21	Pass
NVNT	2-DH5	2480	Ant1	-8	21	Pass
NVNT	3-DH5	2402	Ant1	-7.94	21	Pass
NVNT	3-DH5	2441	Ant1	-7.74	21	Pass
NVNT	3-DH5	2480	Ant1	-7.51	21	Pass

Test Graphs

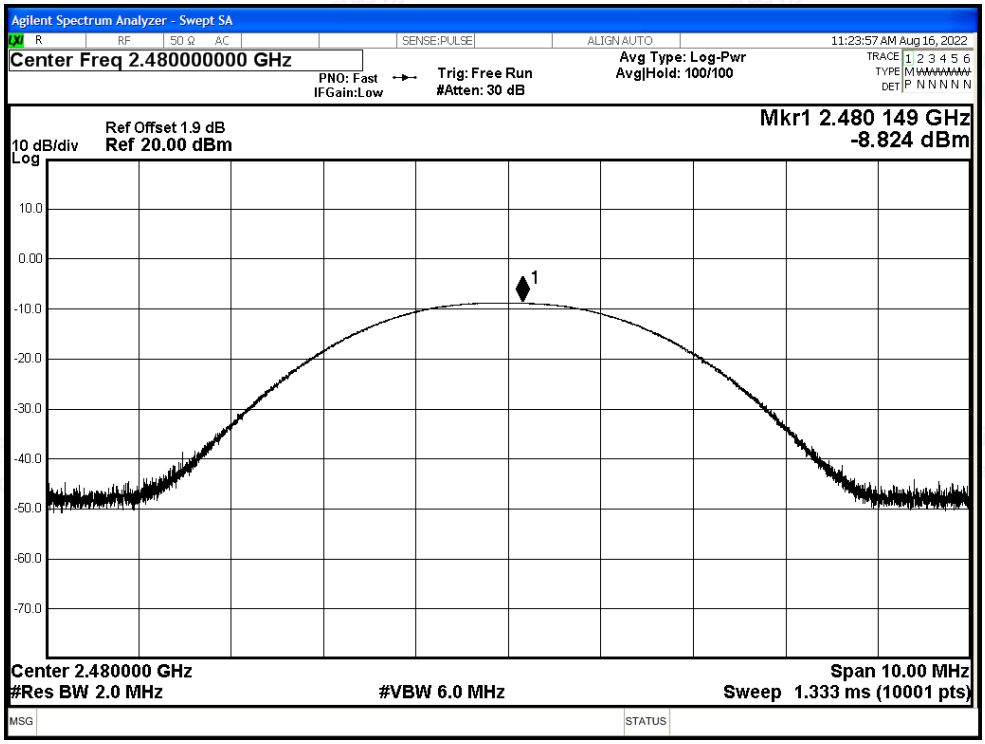
Power NVNT 1-DH5 2402MHz Ant1



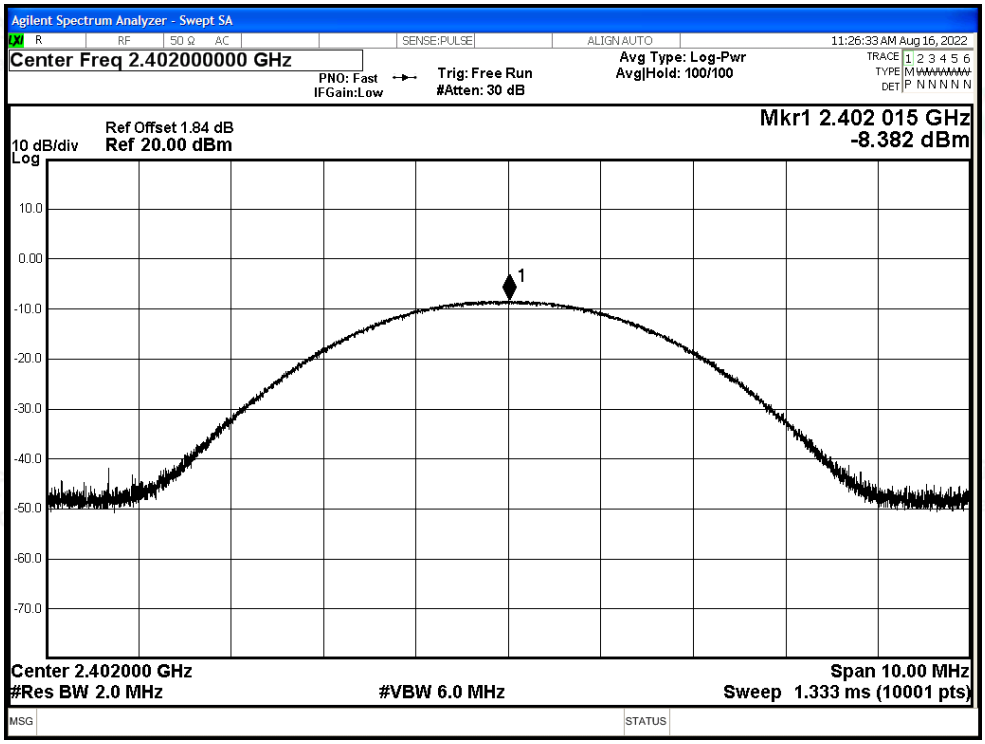
Power NVNT 1-DH5 2441MHz Ant1



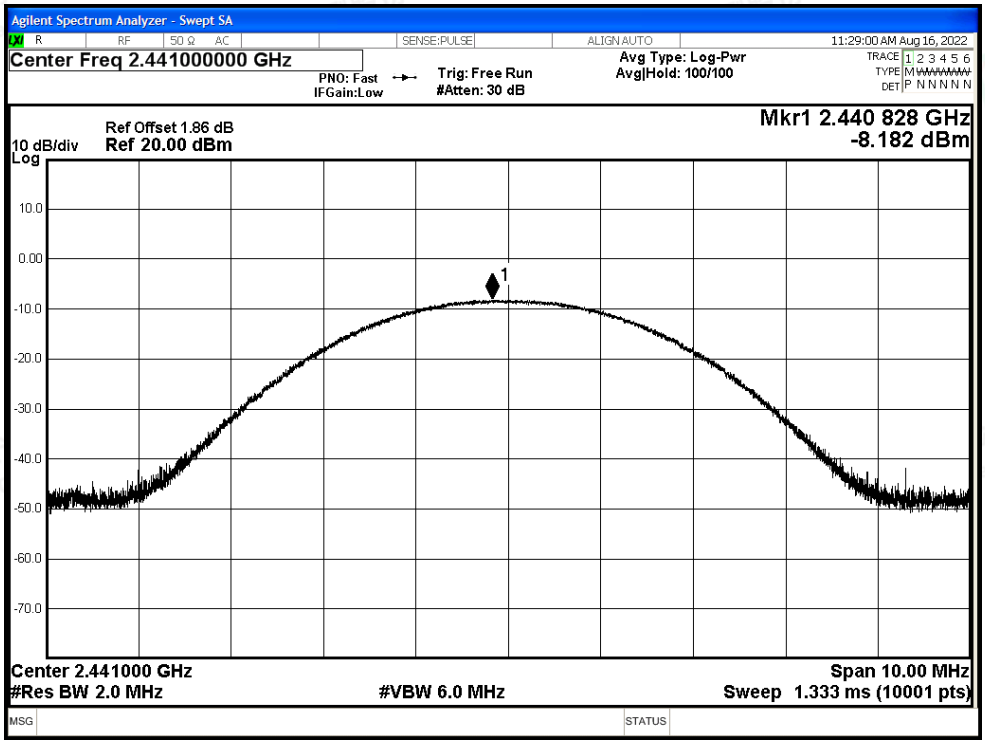
Power NVNT 1-DH5 2480MHz Ant1



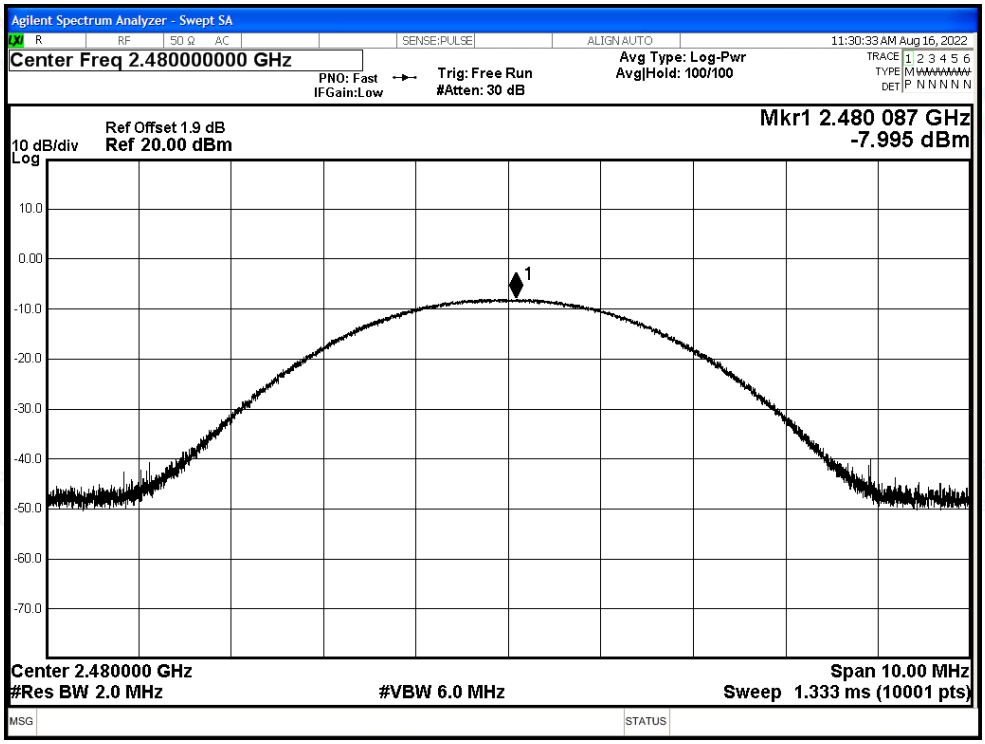
Power NVNT 2-DH5 2402MHz Ant1



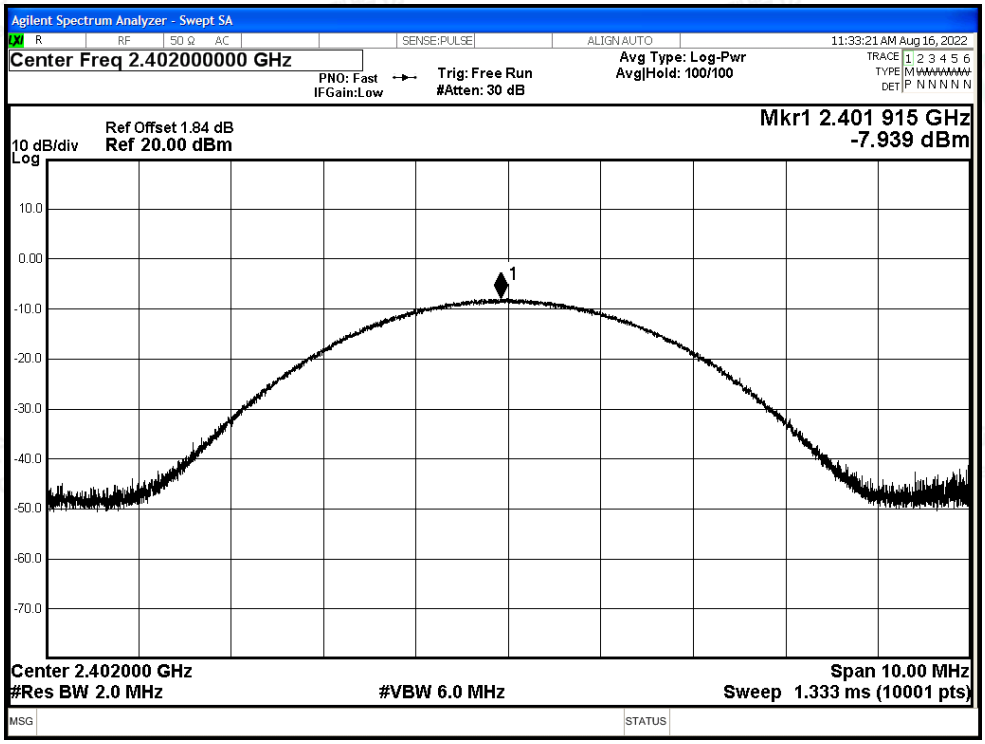
Power NVNT 2-DH5 2441MHz Ant1



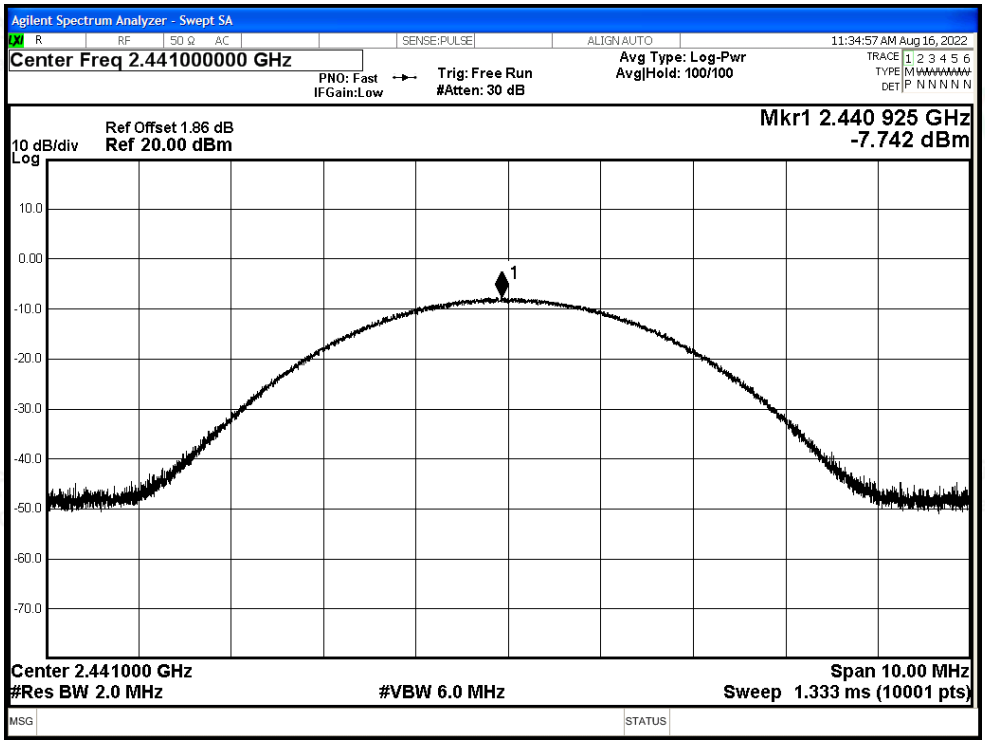
Power NVNT 2-DH5 2480MHz Ant1



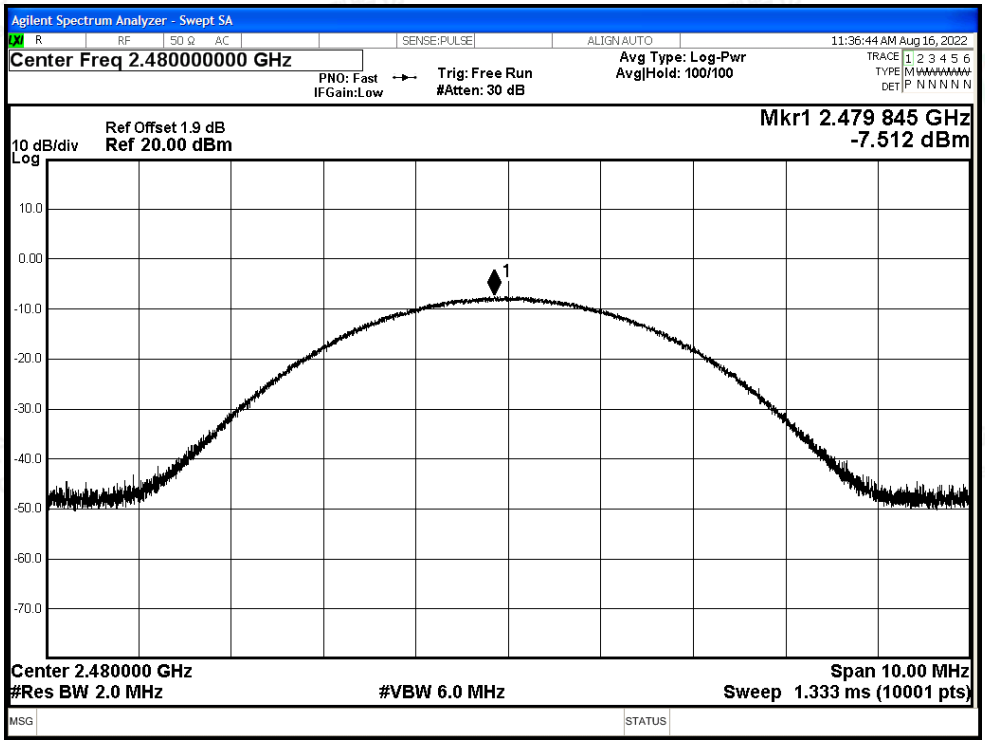
Power NVNT 3-DH5 2402MHz Ant1



Power NVNT 3-DH5 2441MHz Ant1



Power NVNT 3-DH5 2480MHz Ant1

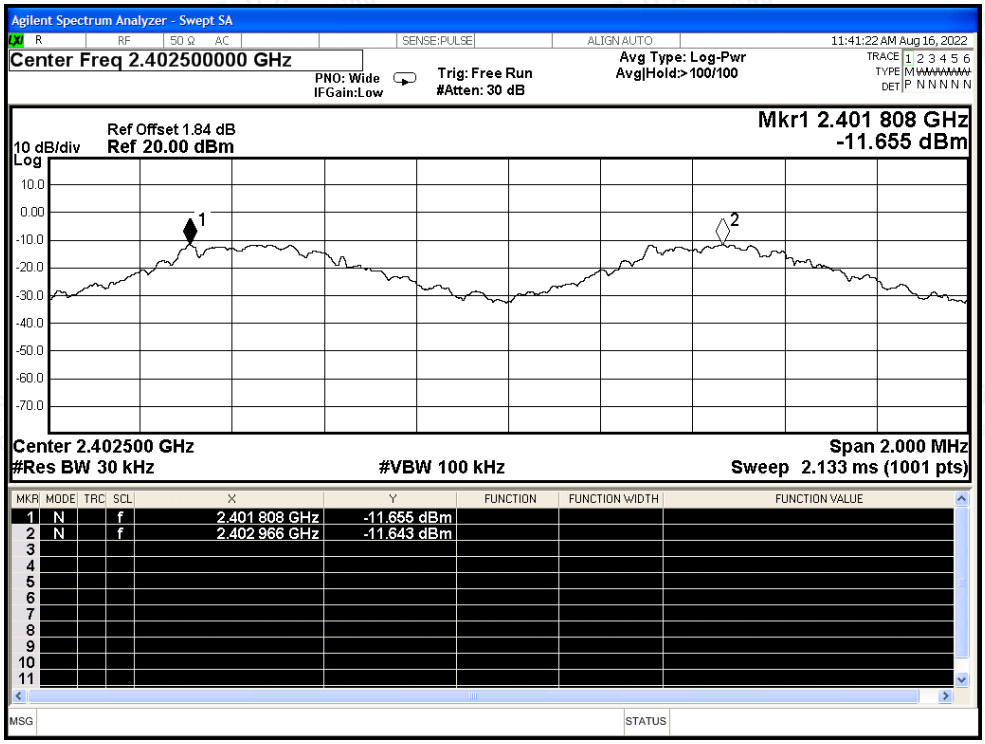


A.3 Carrier Frequencies Separation

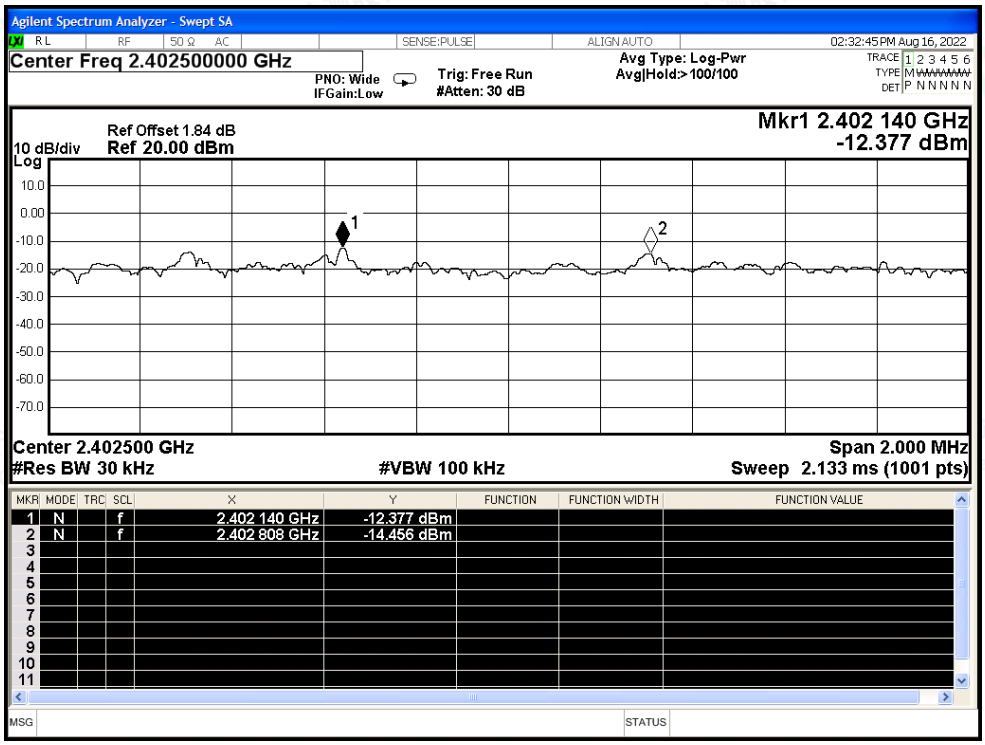
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH5	Ant1	2401.808	2402.966	1.158	0.672	Pass
NVNT	2-DH5	Ant1	2402.14	2402.808	0.668	0.025	Pass
NVNT	3-DH5	Ant1	2401.962	2402.964	1.002	0.025	Pass

Test Graphs

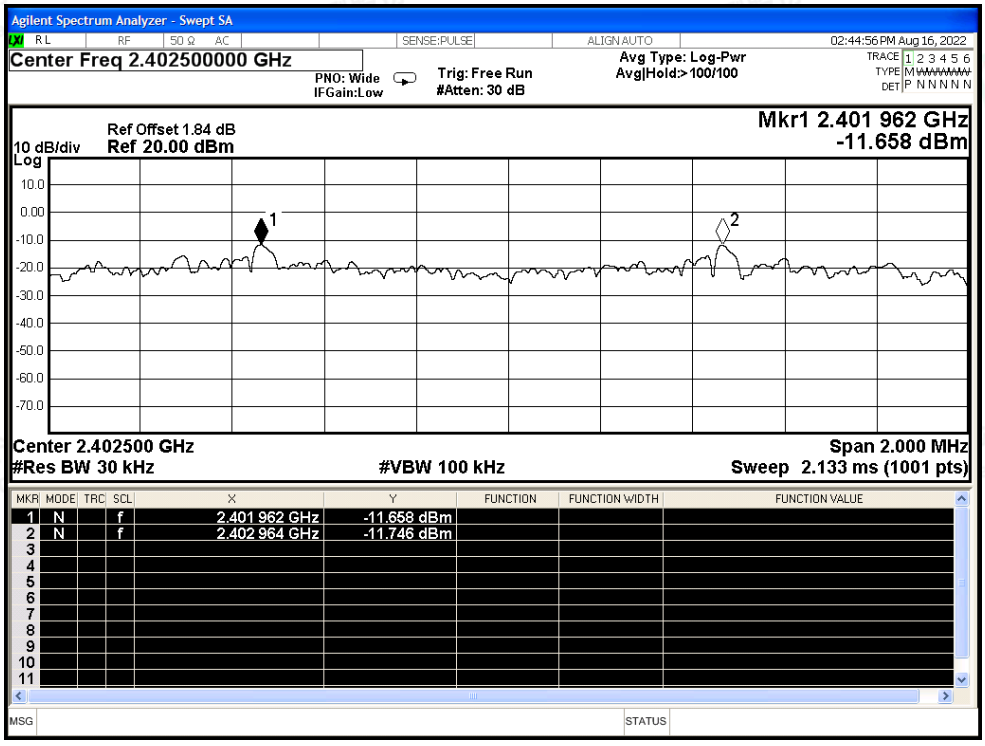
CFS NVNT 1-DH5 2402MHz Ant1



CFS NVNT 2-DH5 2402MHz Ant1



CFS NVNT 3-DH5 2402MHz Ant1

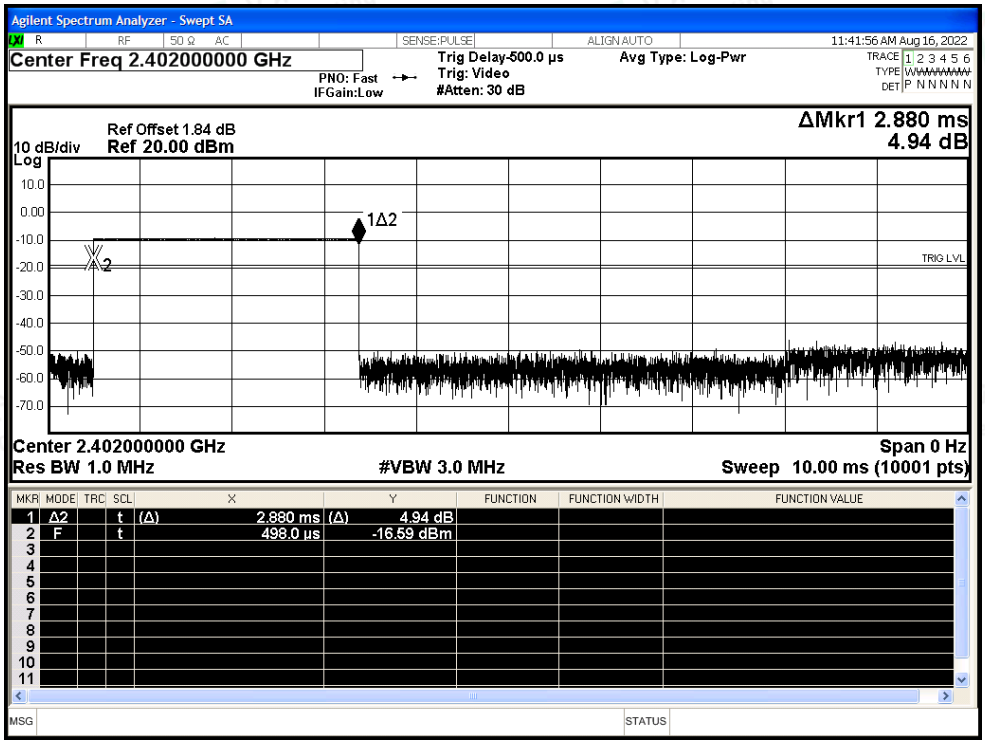


A.4 Dwell Time

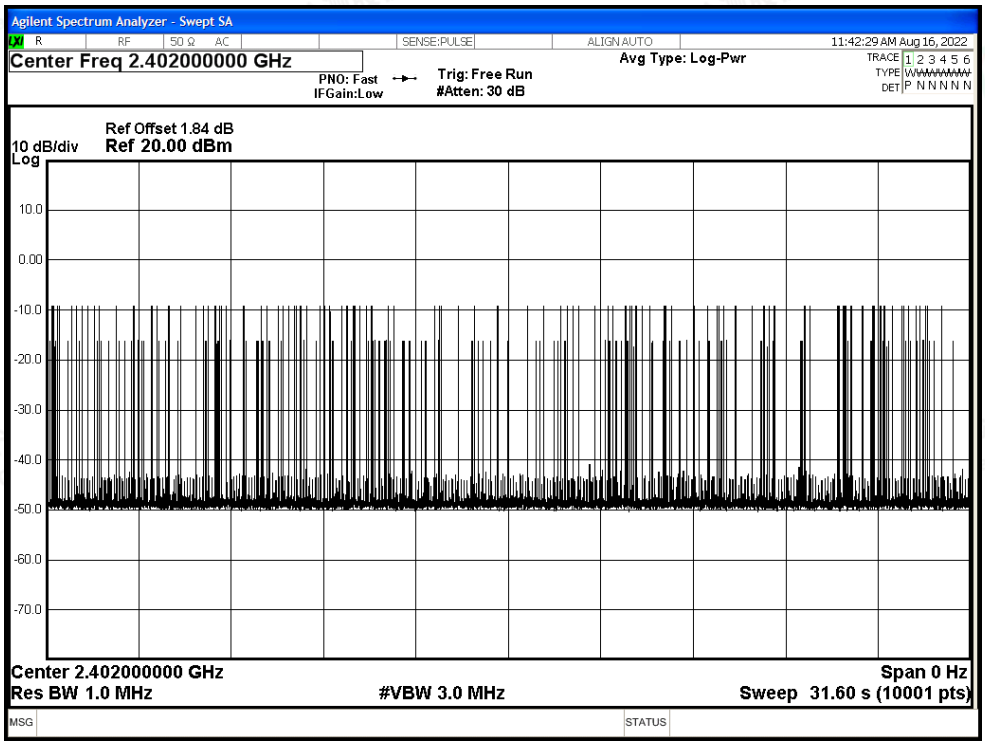
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH5	2402	Ant1	2.88	325.44	113	31600	400	Pass
NVNT	2-DH5	2402	Ant1	2.883	302.715	105	31600	400	Pass
NVNT	3-DH5	2402	Ant1	2.888	257.032	89	31600	400	Pass

Test Graphs

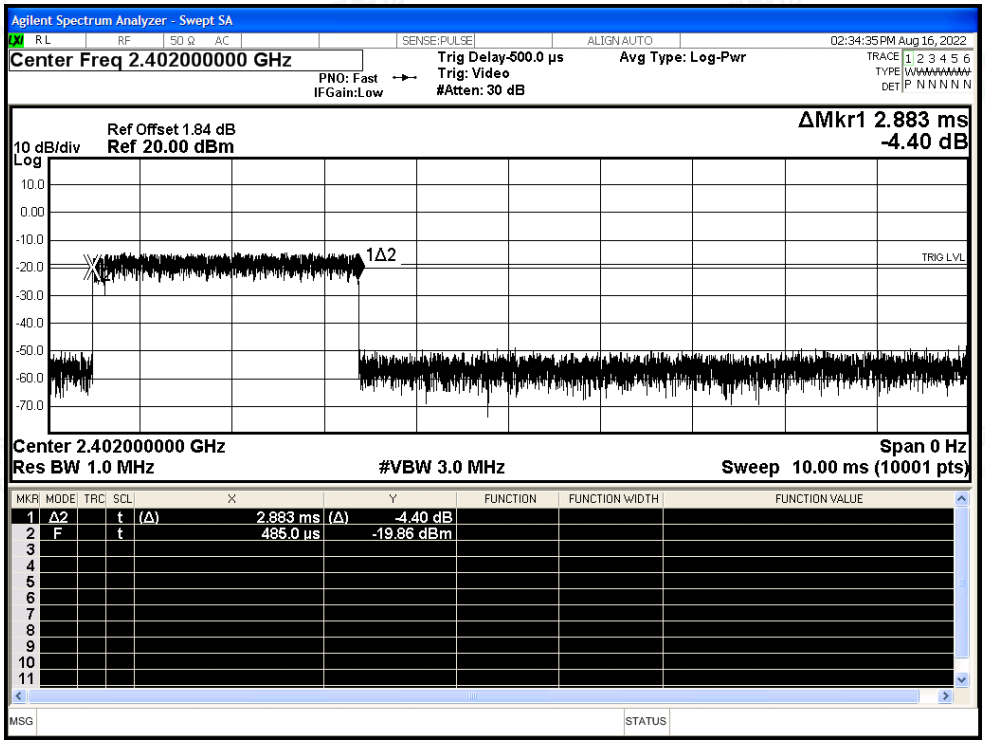
Dwell NVNT 1-DH5 2402MHz Ant1 One Burst



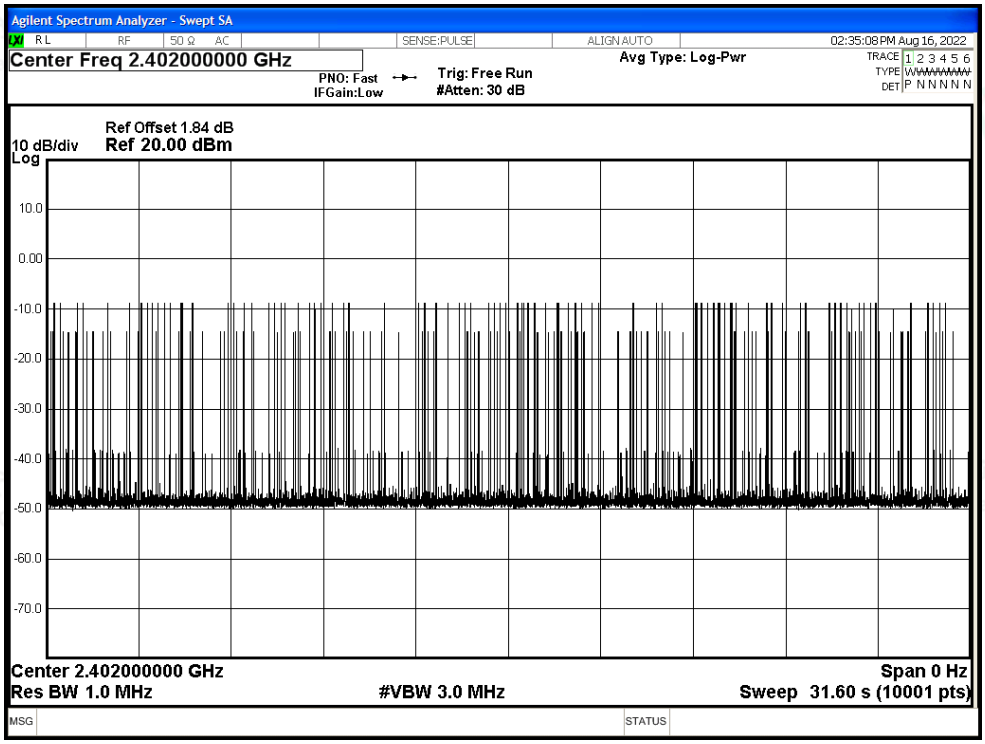
Dwell NVNT 1-DH5 2402MHz Ant1 Accumulated



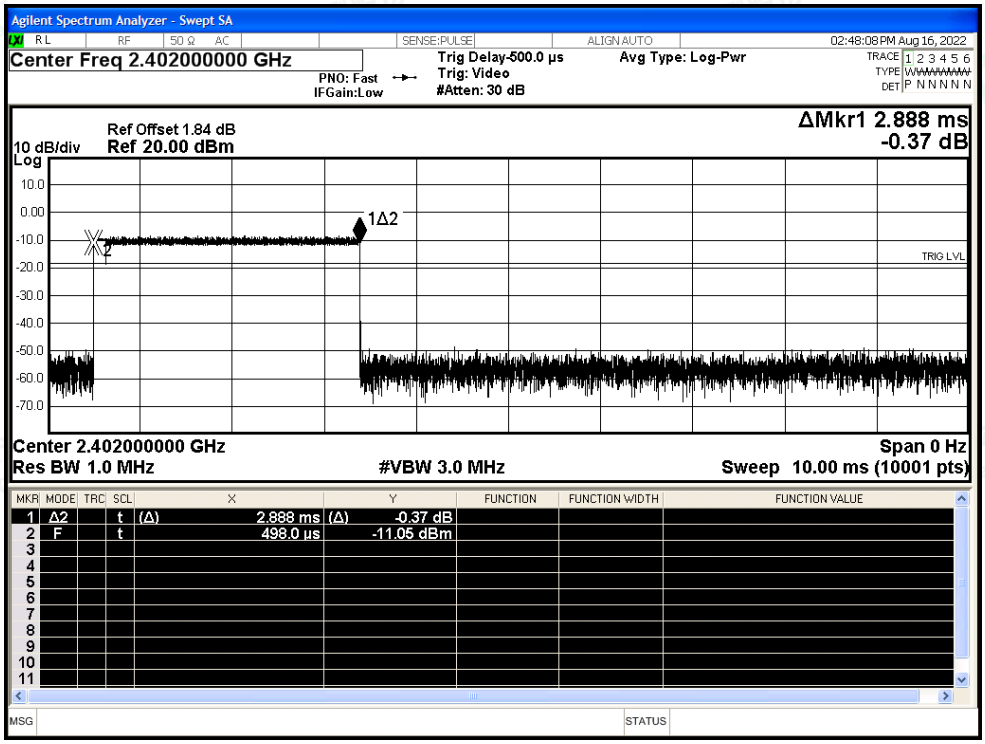
Dwell NVNT 2-DH5 2402MHz Ant1 One Burst



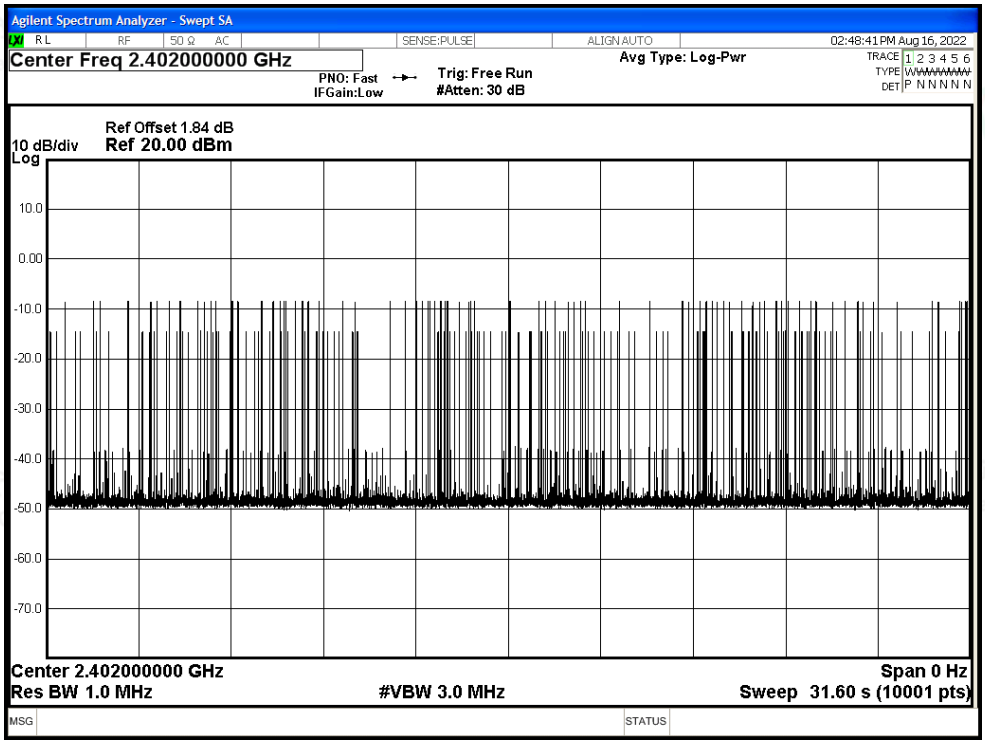
Dwell NVNT 2-DH5 2402MHz Ant1 Accumulated



Dwell NVNT 3-DH5 2402MHz Ant1 One Burst



Dwell NVNT 3-DH5 2402MHz Ant1 Accumulated

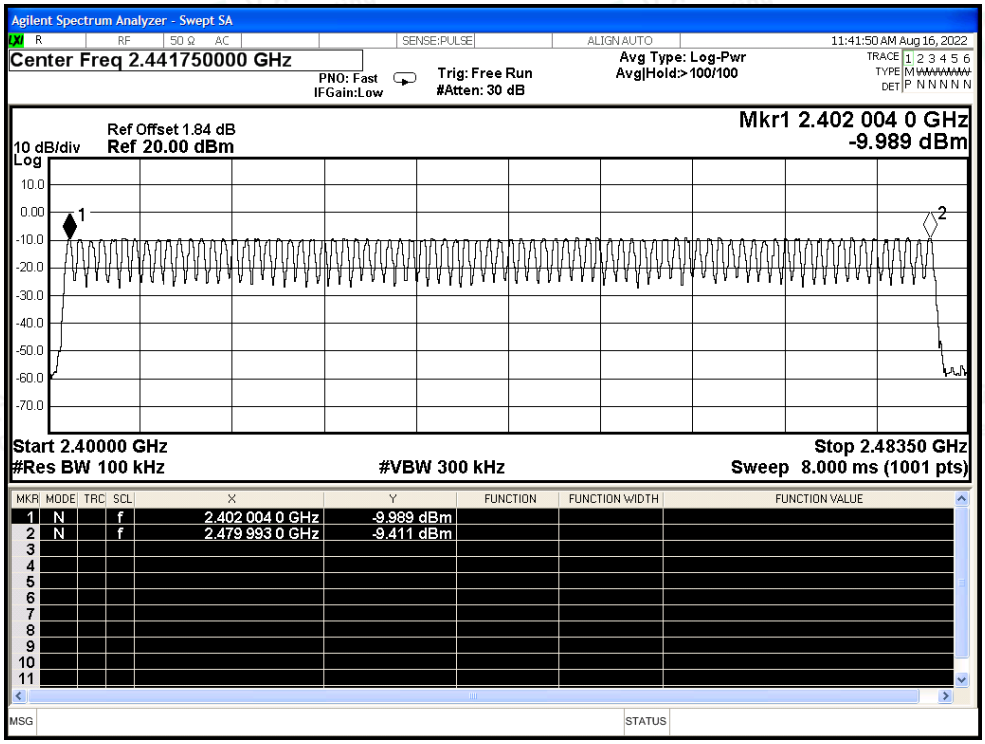


A.5 Number of Hopping Channel

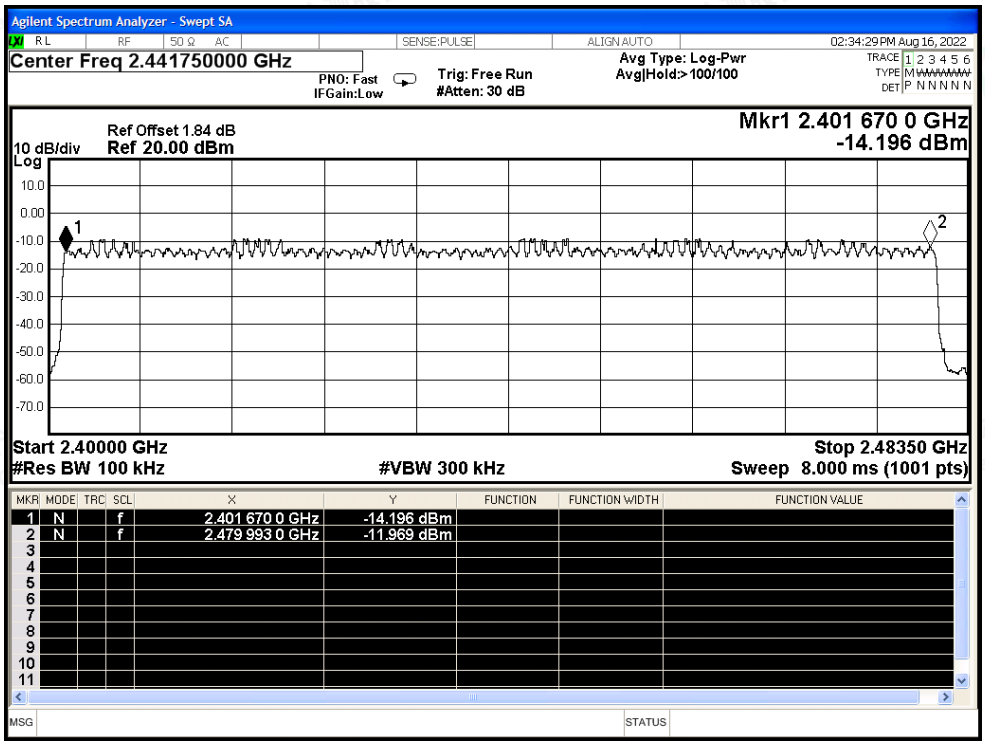
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH5	Ant1	79	15	Pass
NVNT	2-DH5	Ant1	79	15	Pass
NVNT	3-DH5	Ant1	79	15	Pass

Test Graphs

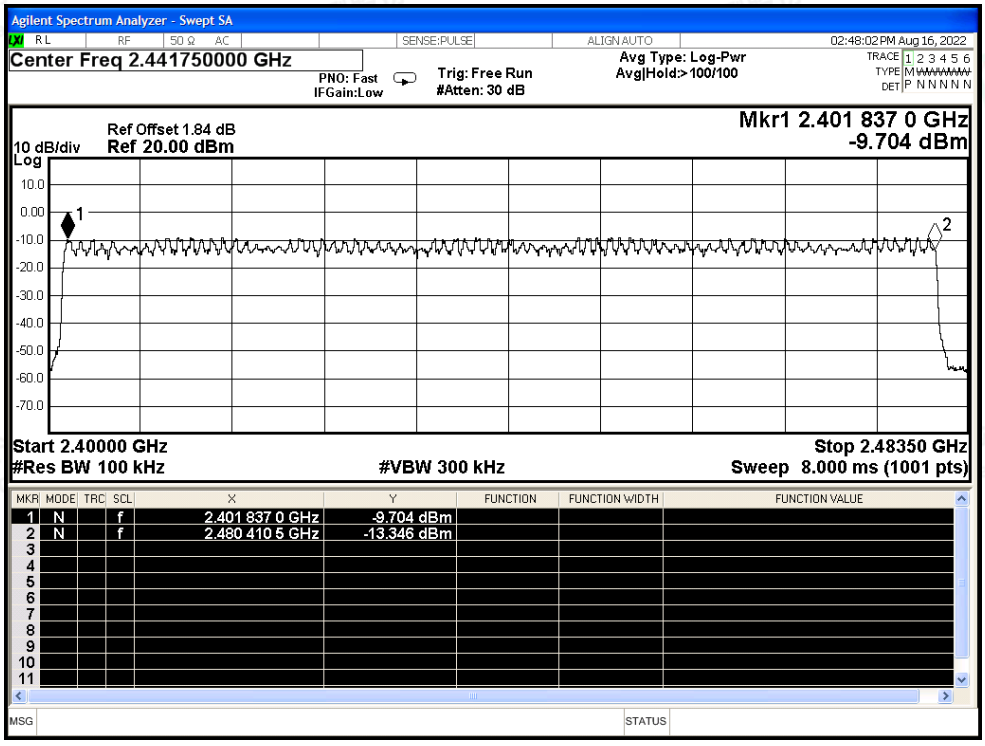
Hopping No. NVNT 1-DH5 2402MHz Ant1



Hopping No. NVNT 2-DH5 2402MHz Ant1



Hopping No. NVNT 3-DH5 2402MHz Ant1

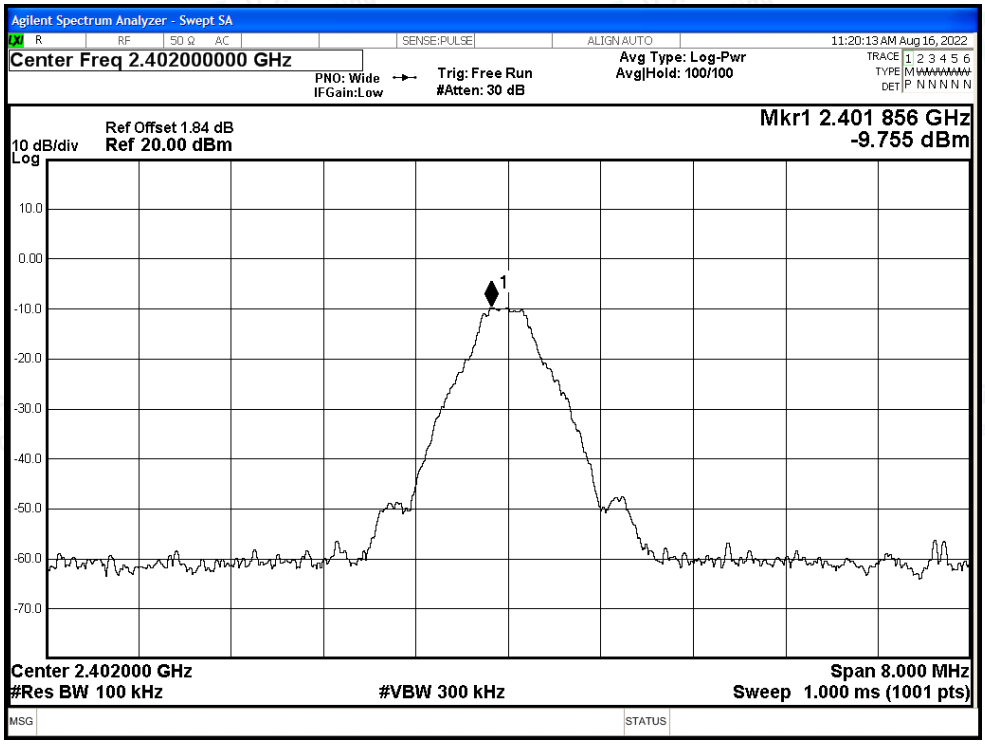


A.6 Band Edge

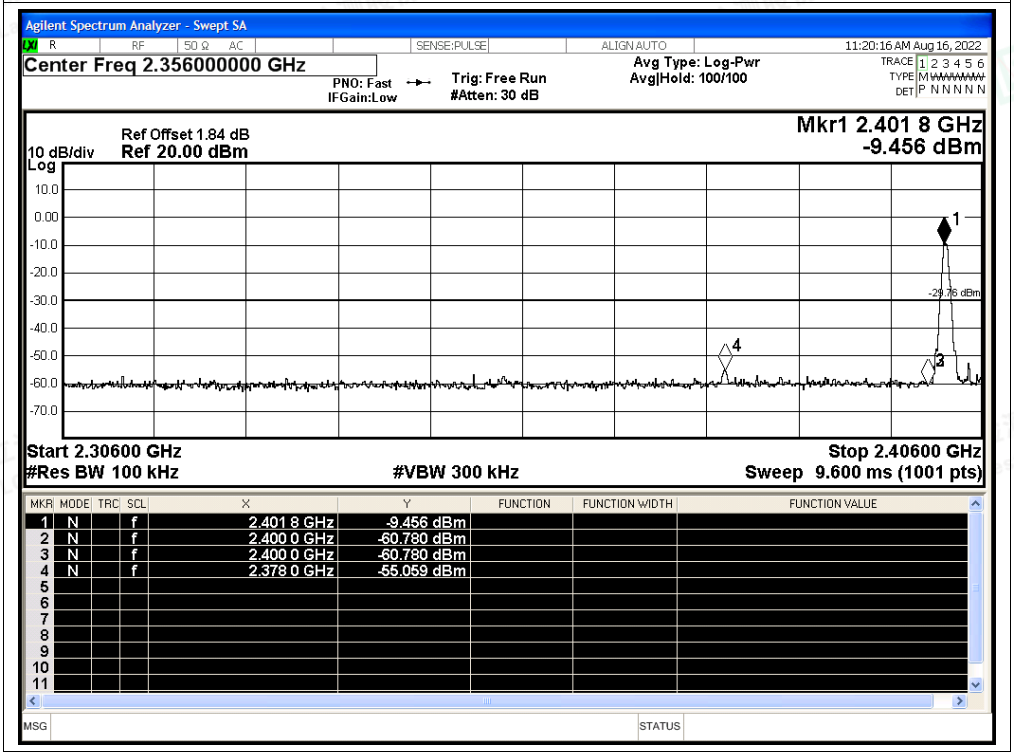
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	-45.3	-20	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	-48.49	-20	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	-46.46	-20	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	-48.37	-20	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	-47.04	-20	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	-45.01	-20	Pass

Test Graphs

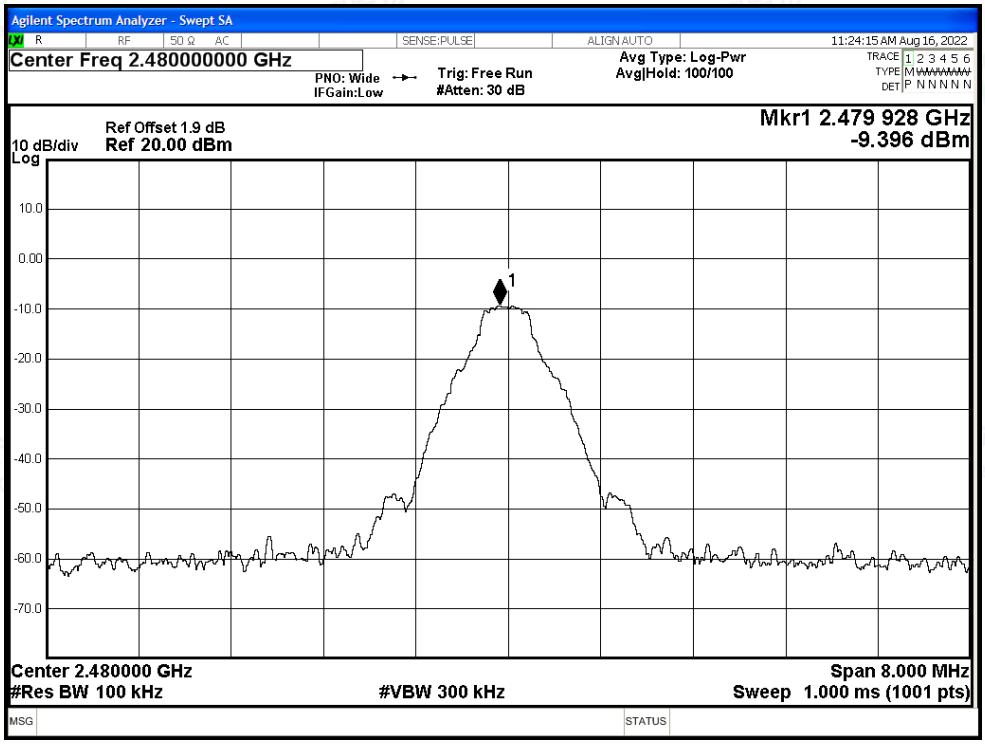
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Ref



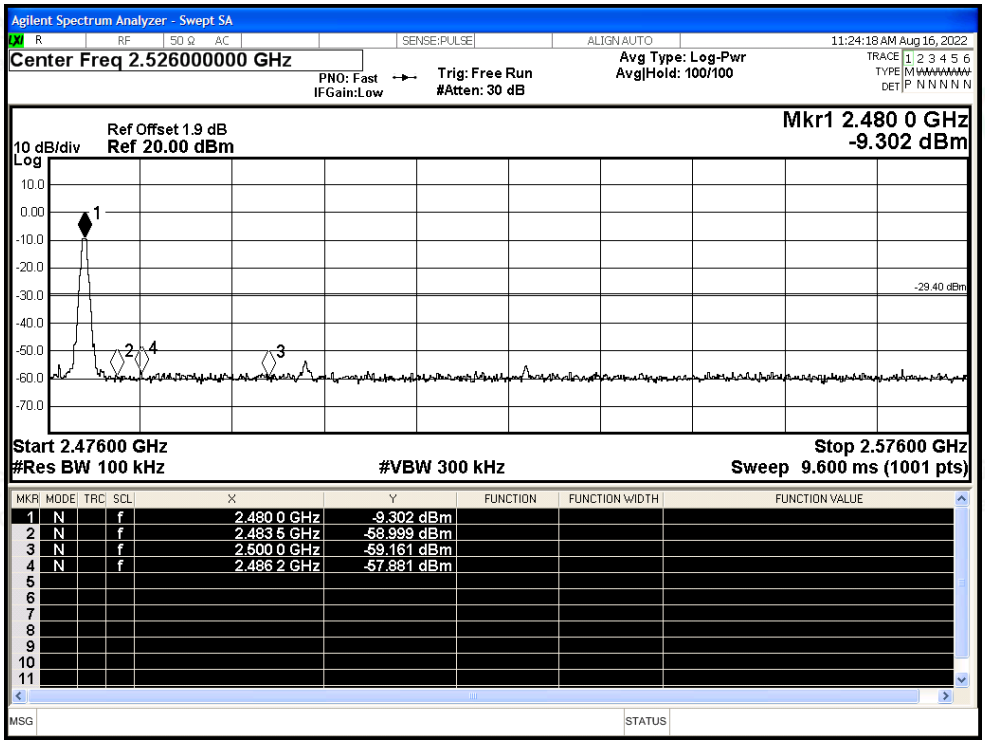
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Emission



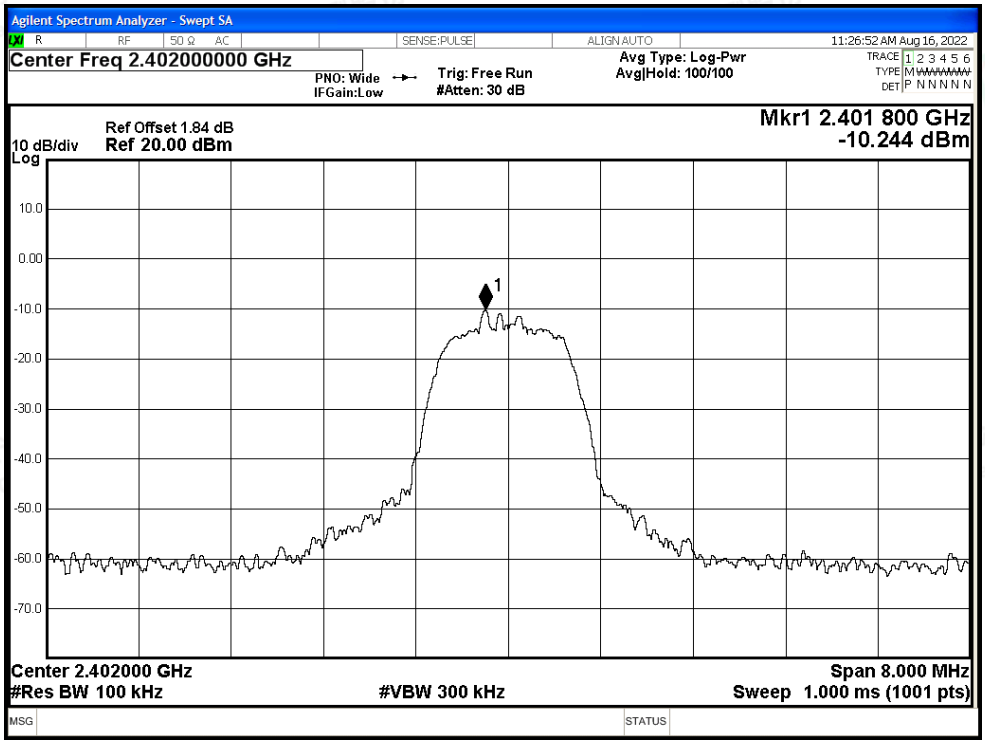
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref



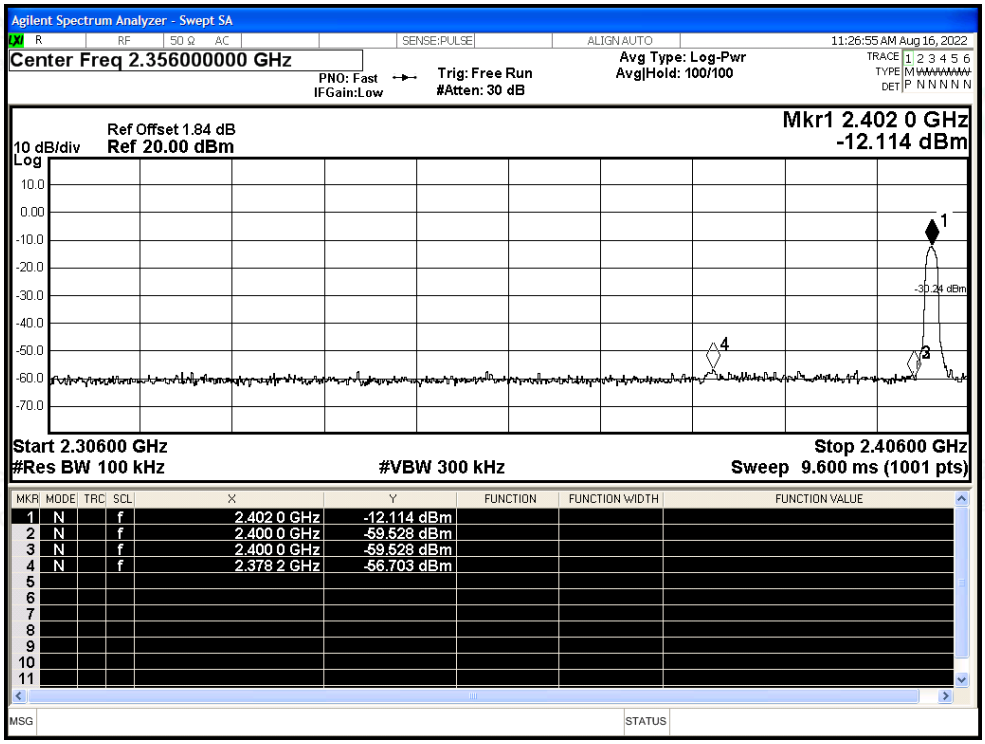
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Emission



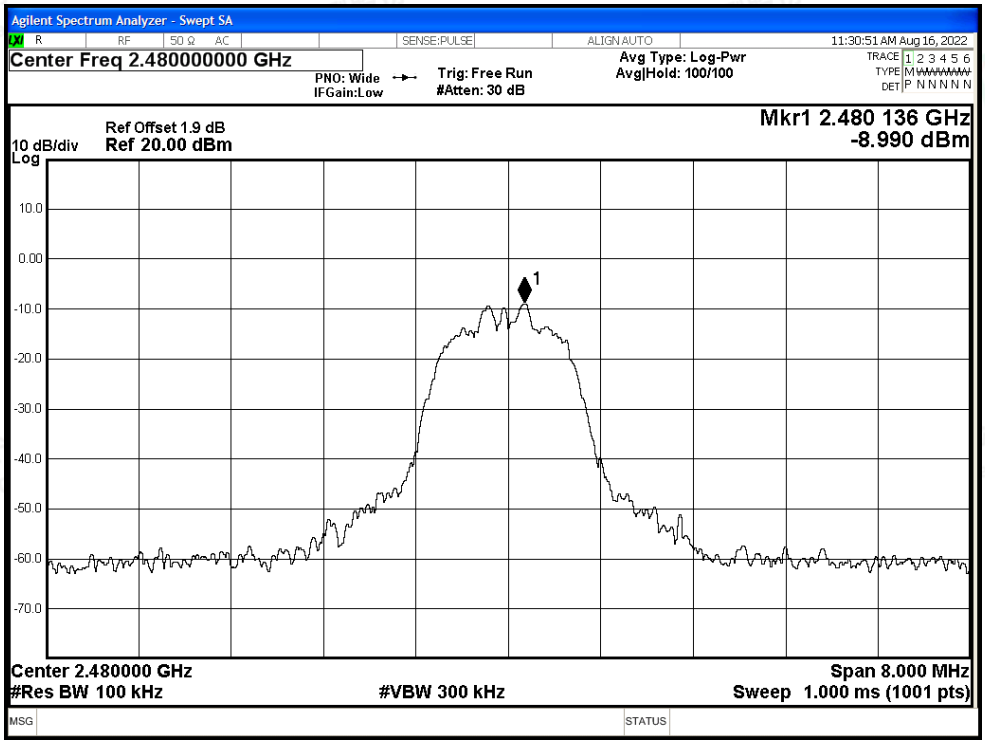
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Ref



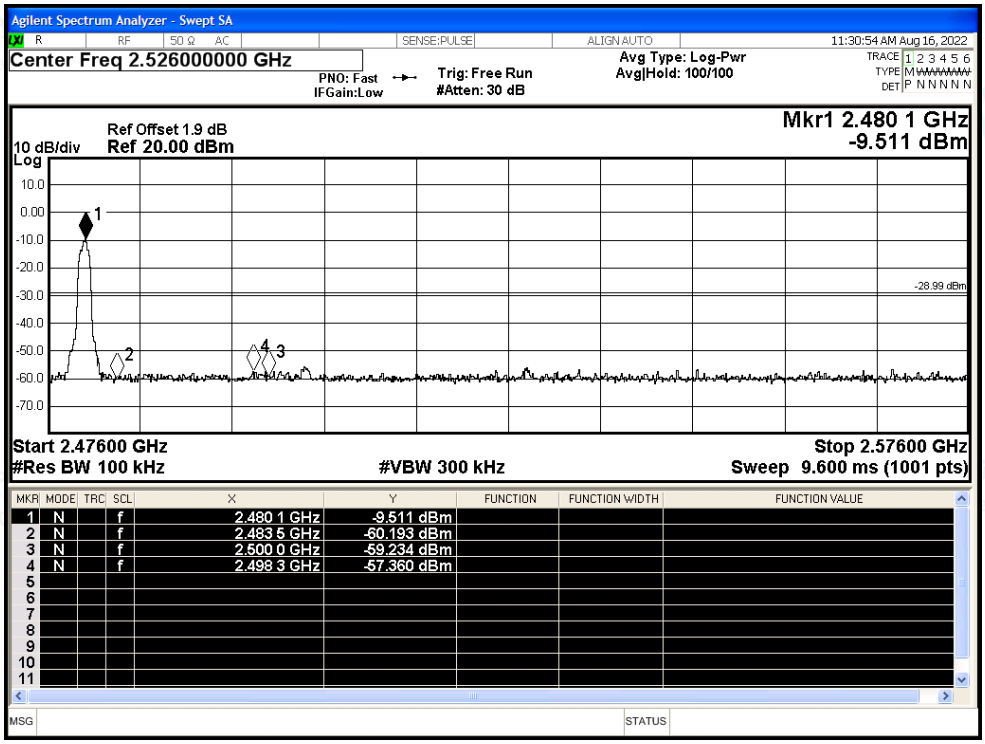
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Emission



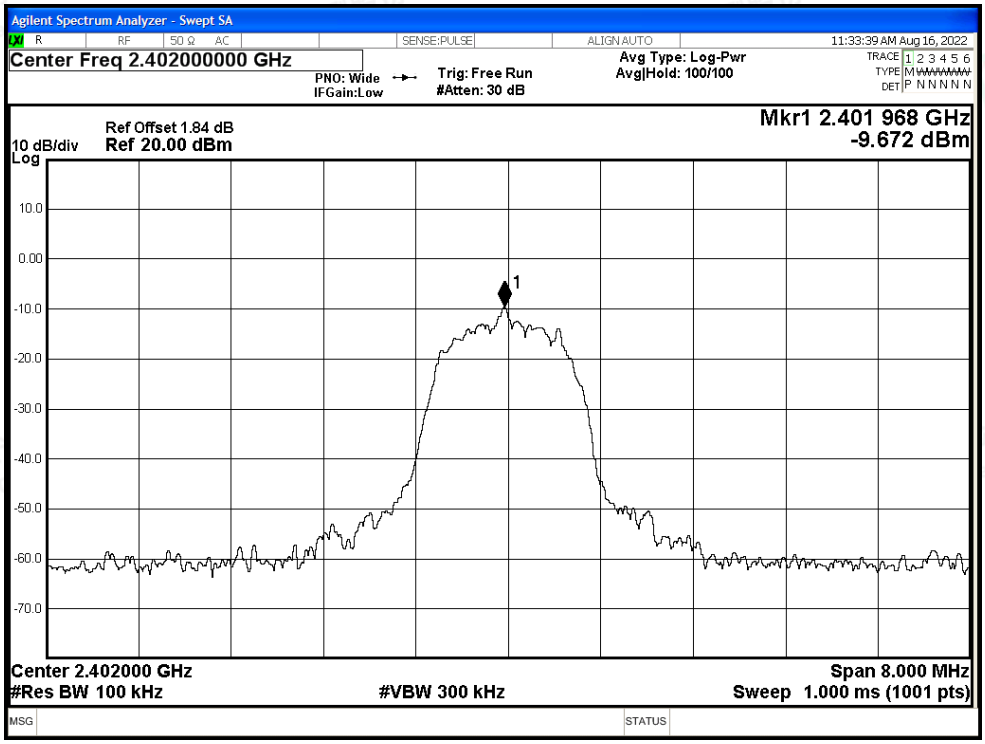
Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Ref



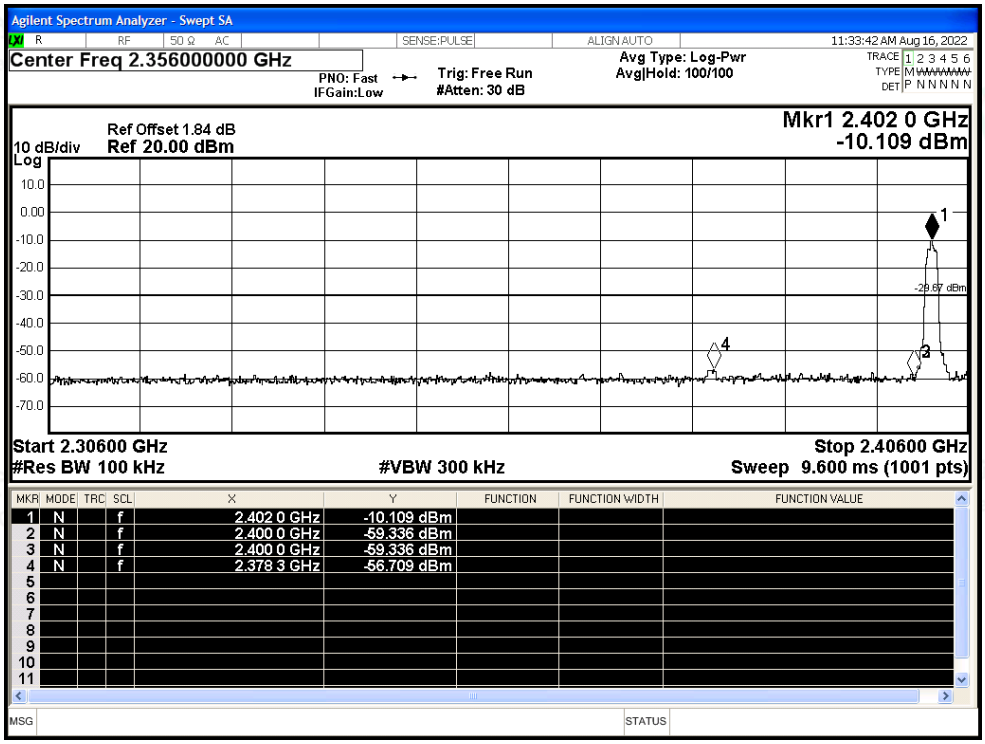
Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Emission



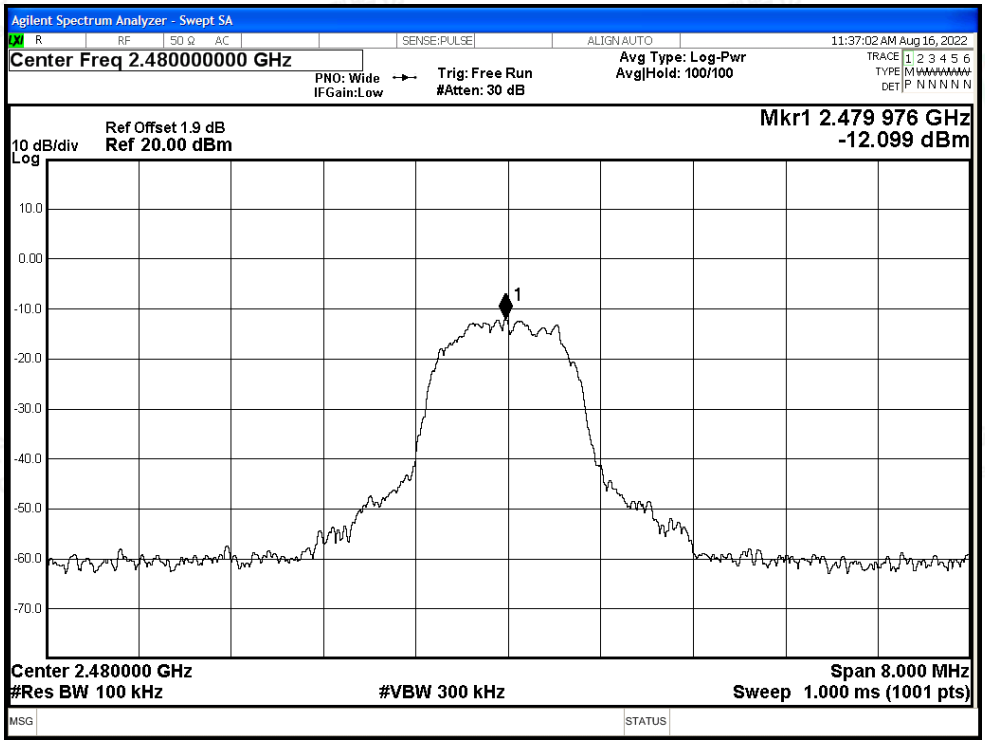
Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Ref



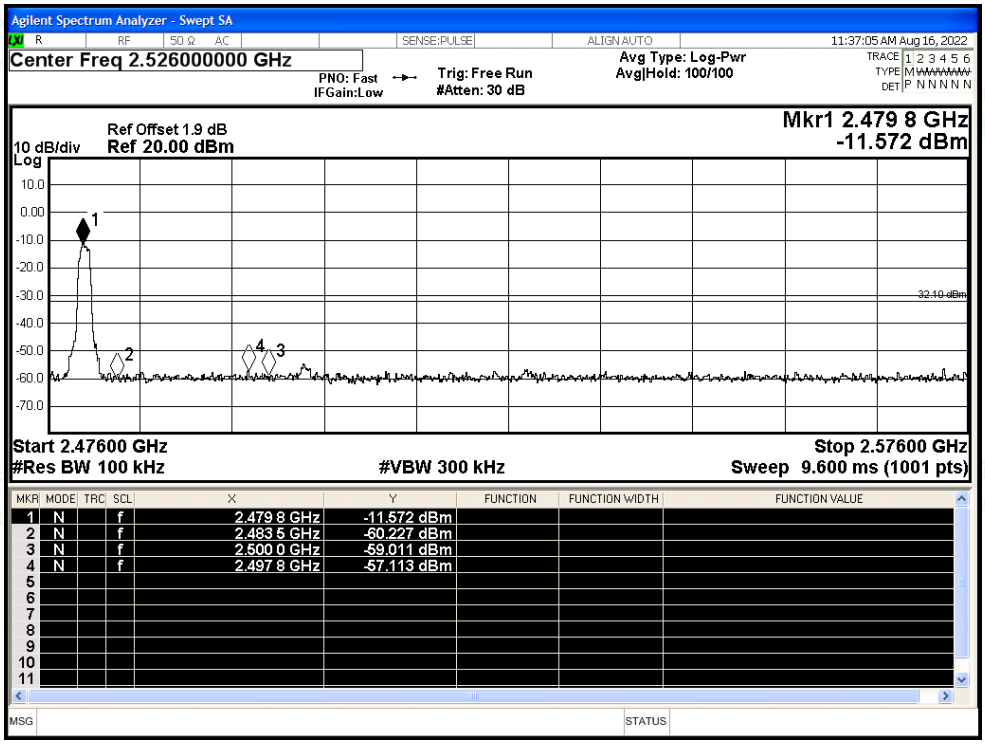
Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Emission



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



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

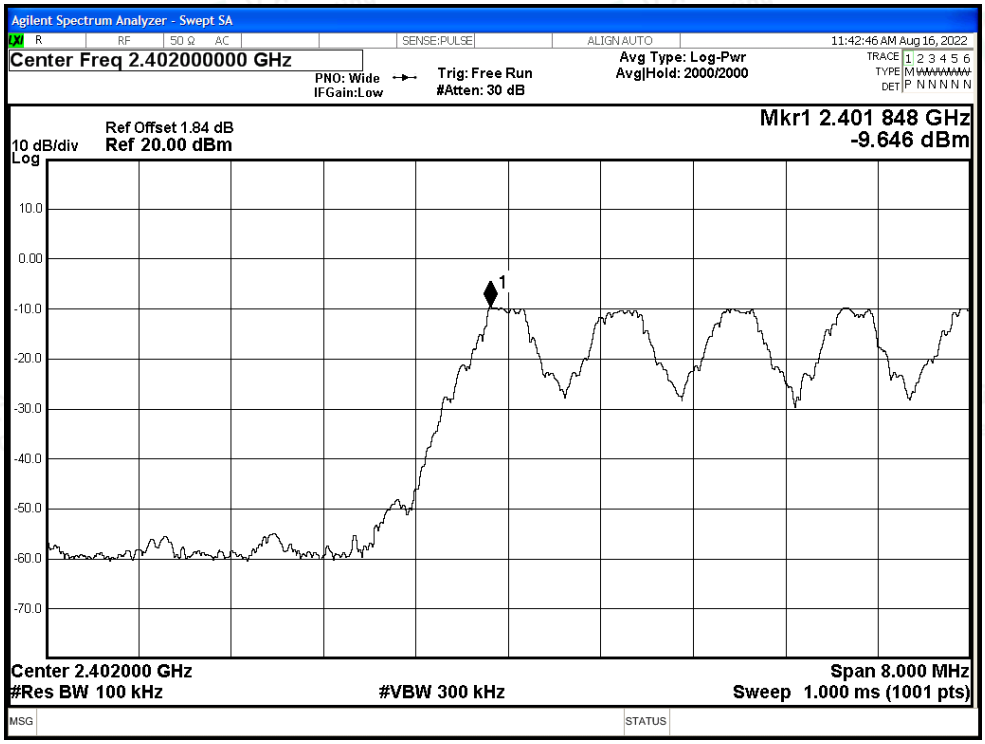


(Hopping)

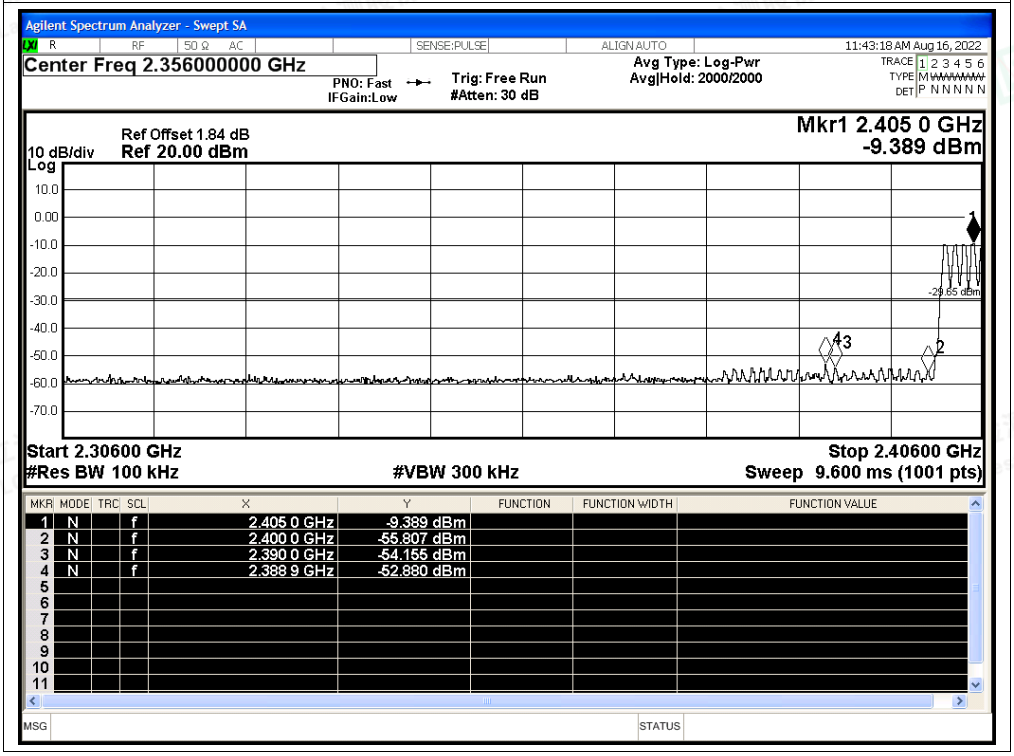
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	Hopping	-43.23	-20	Pass
NVNT	1-DH5	2480	Ant1	Hopping	-44.82	-20	Pass
NVNT	2-DH5	2402	Ant1	Hopping	-45.25	-20	Pass
NVNT	2-DH5	2480	Ant1	Hopping	-45.21	-20	Pass
NVNT	3-DH5	2402	Ant1	Hopping	-44.47	-20	Pass
NVNT	3-DH5	2480	Ant1	Hopping	-45.54	-20	Pass

Test Graphs

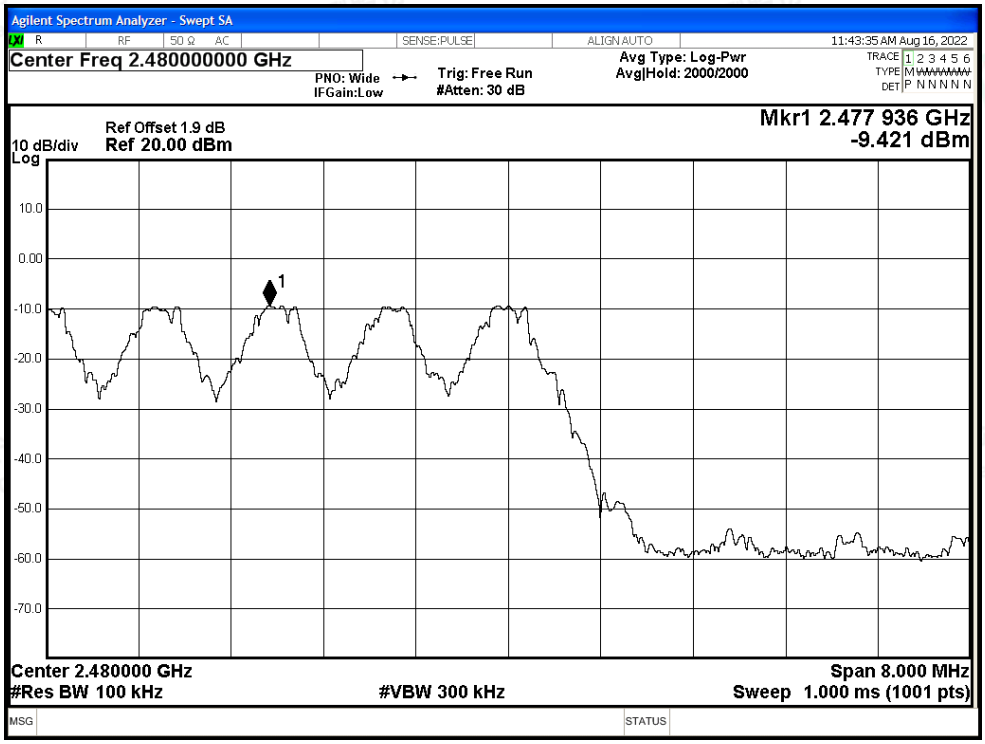
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Ref



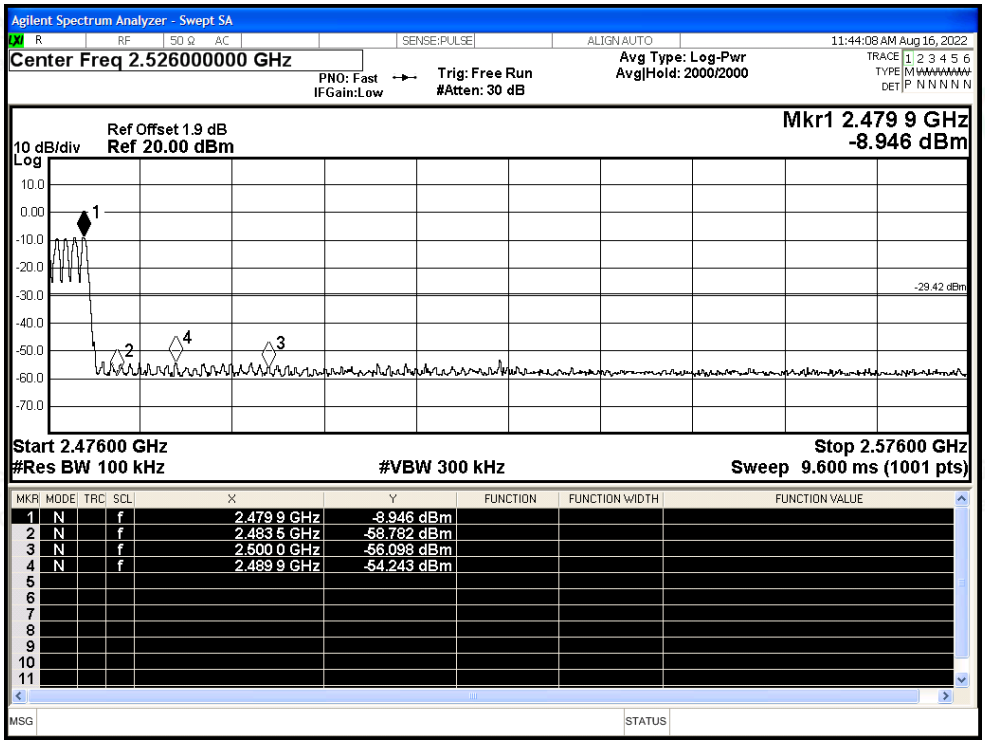
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission



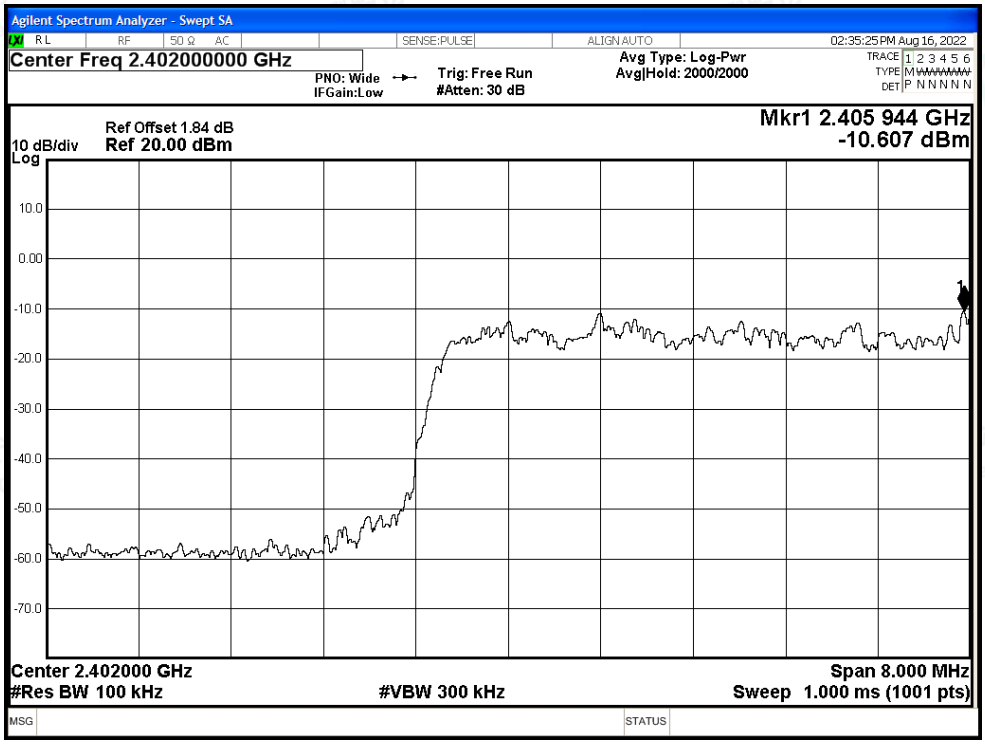
Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Ref



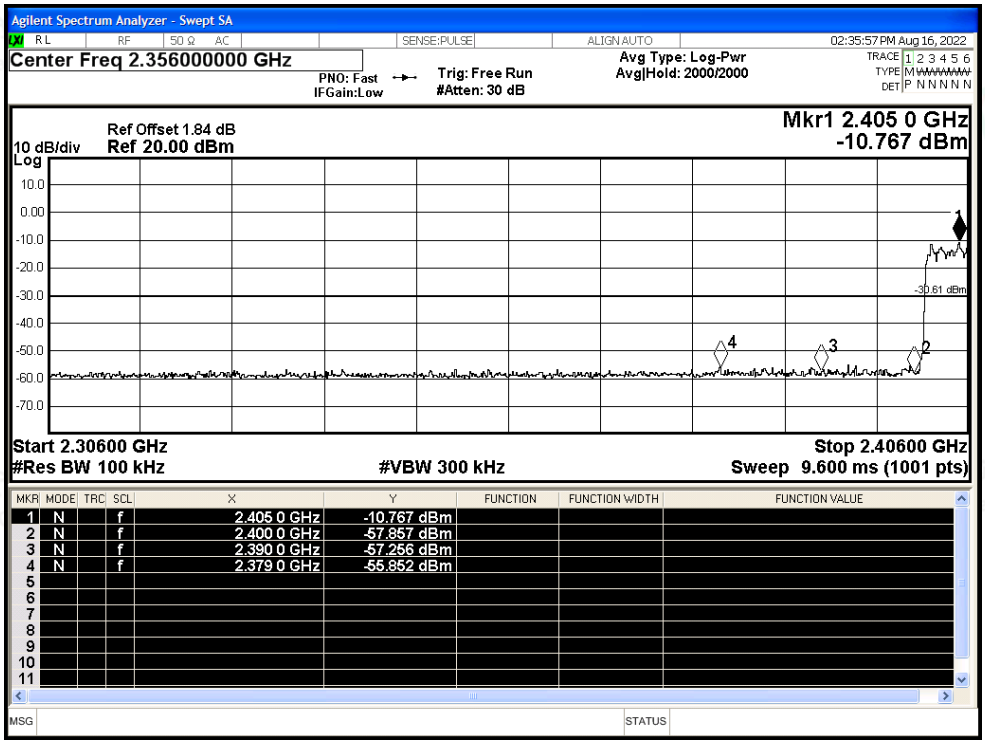
Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Emission



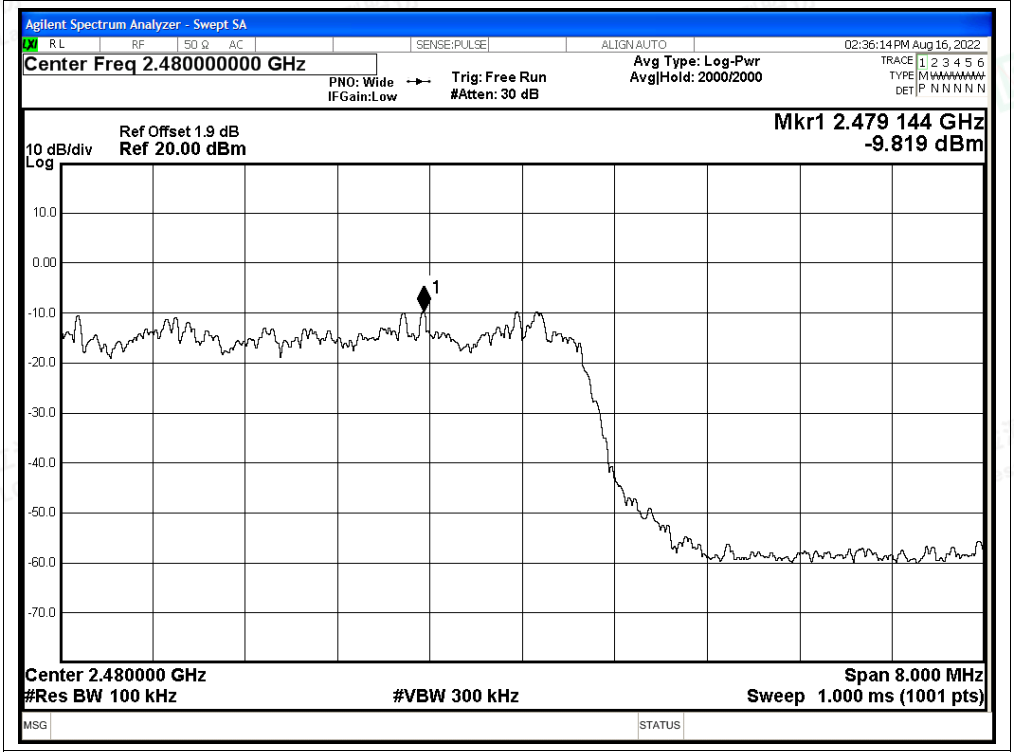
Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Ref



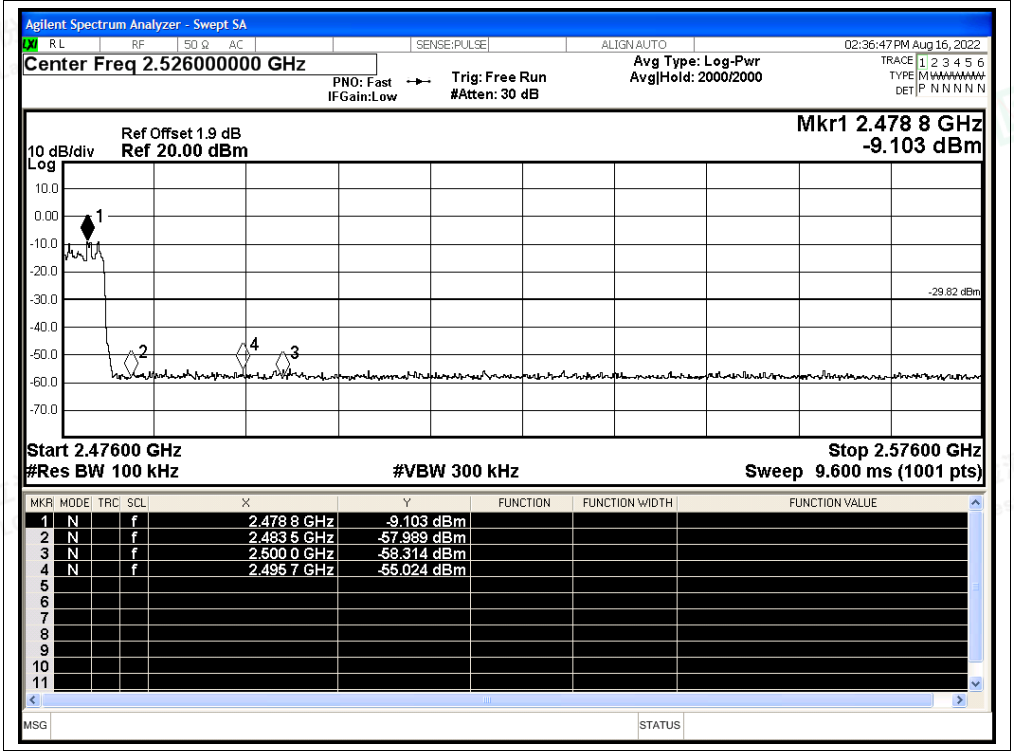
Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Emission



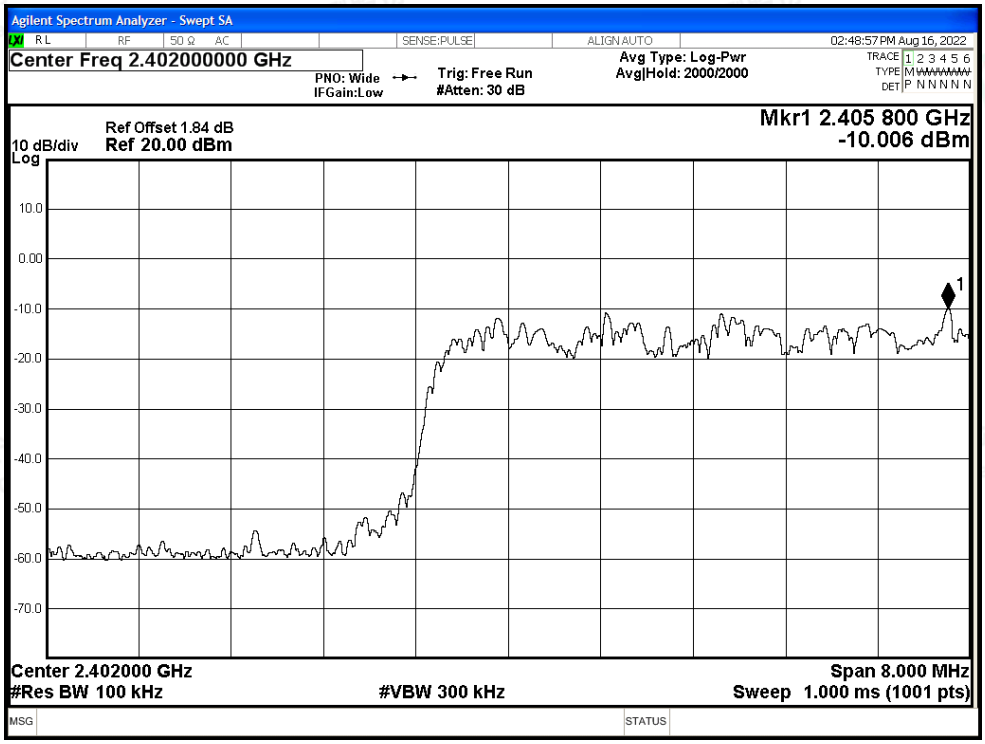
Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Ref



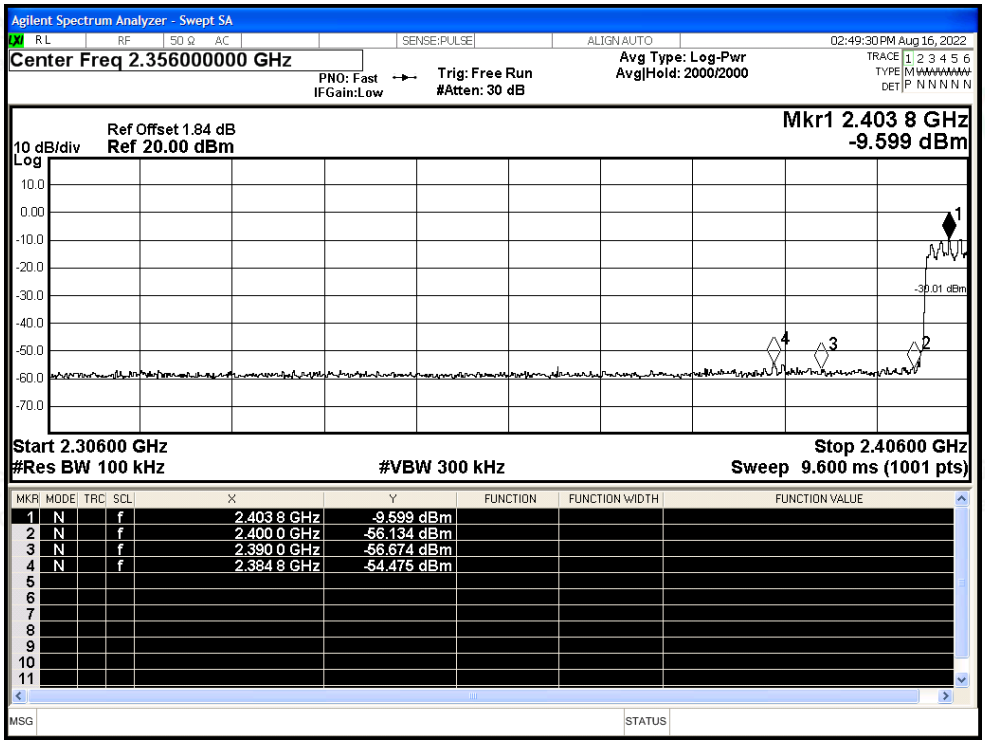
Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Emission



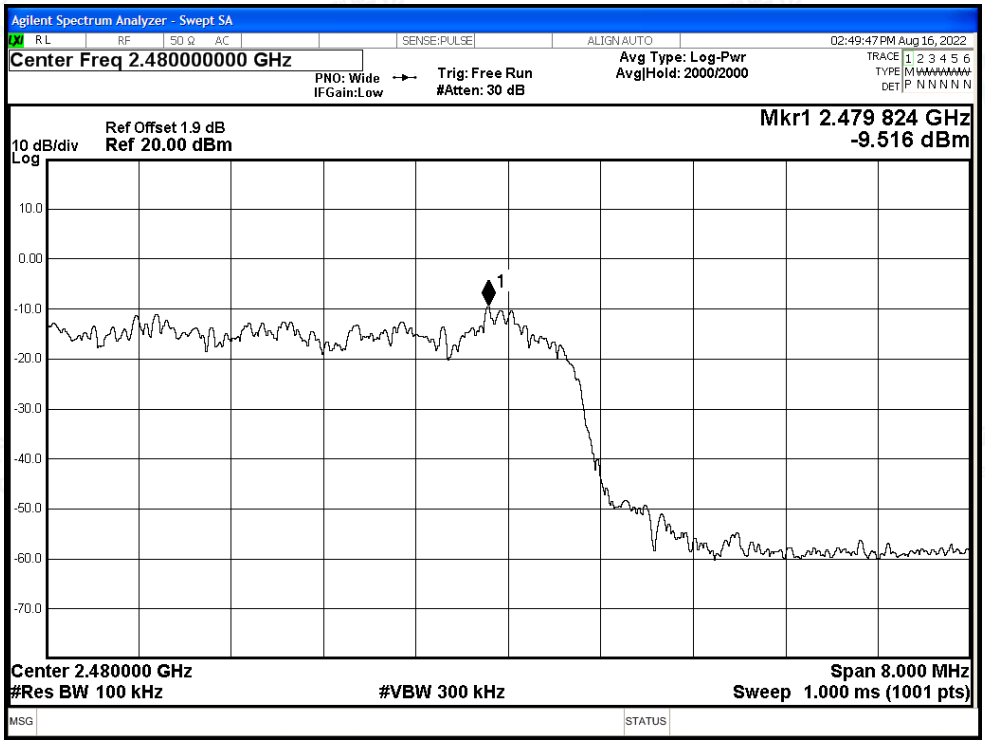
Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Ref



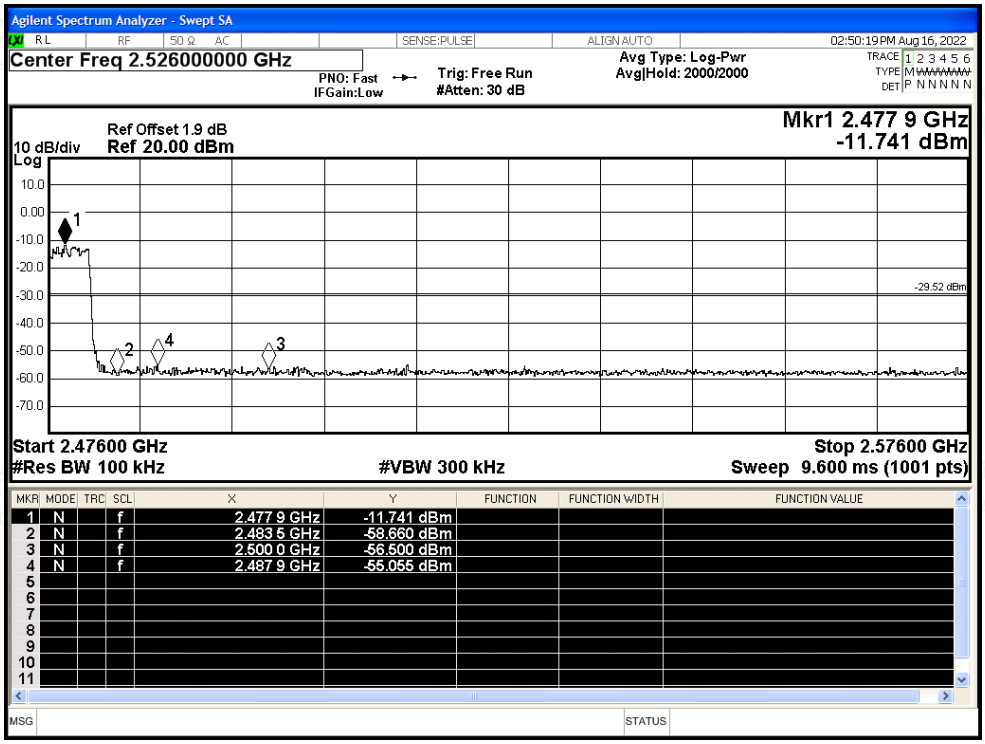
Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Emission



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



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

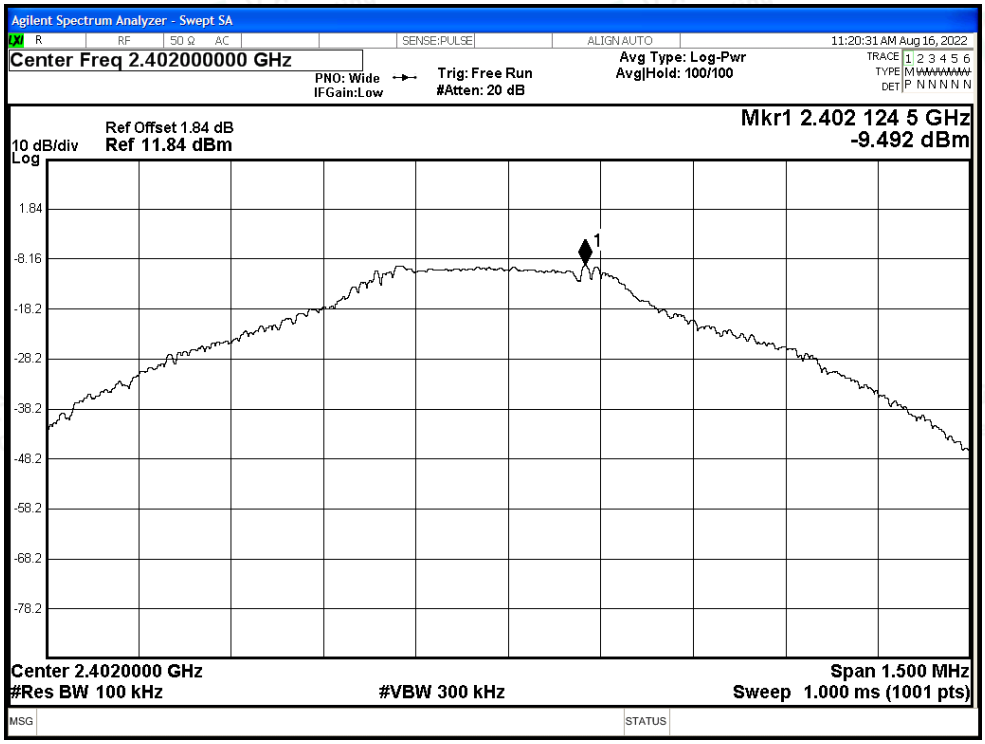


A.7 Conducted RF Spurious Emission

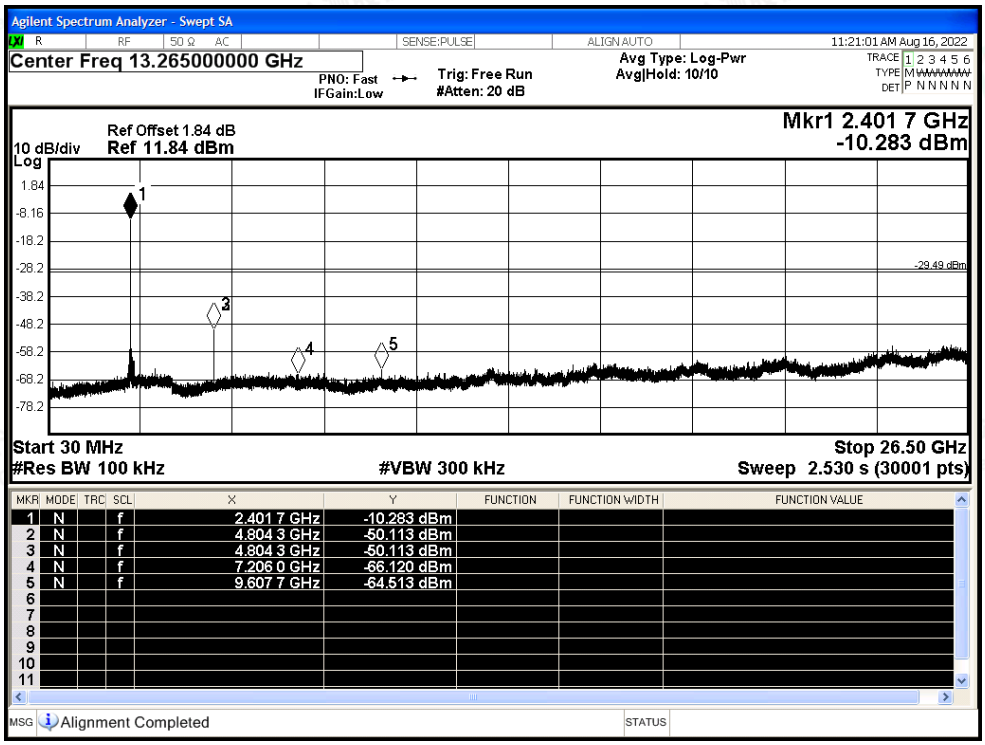
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	-40.62	-20	Pass
NVNT	1-DH5	2441	Ant1	-40.98	-20	Pass
NVNT	1-DH5	2480	Ant1	-39	-20	Pass
NVNT	2-DH5	2402	Ant1	-42.02	-20	Pass
NVNT	2-DH5	2441	Ant1	-41.79	-20	Pass
NVNT	2-DH5	2480	Ant1	-40.28	-20	Pass
NVNT	3-DH5	2402	Ant1	-40.75	-20	Pass
NVNT	3-DH5	2441	Ant1	-42.24	-20	Pass
NVNT	3-DH5	2480	Ant1	-41.72	-20	Pass

Test Graphs

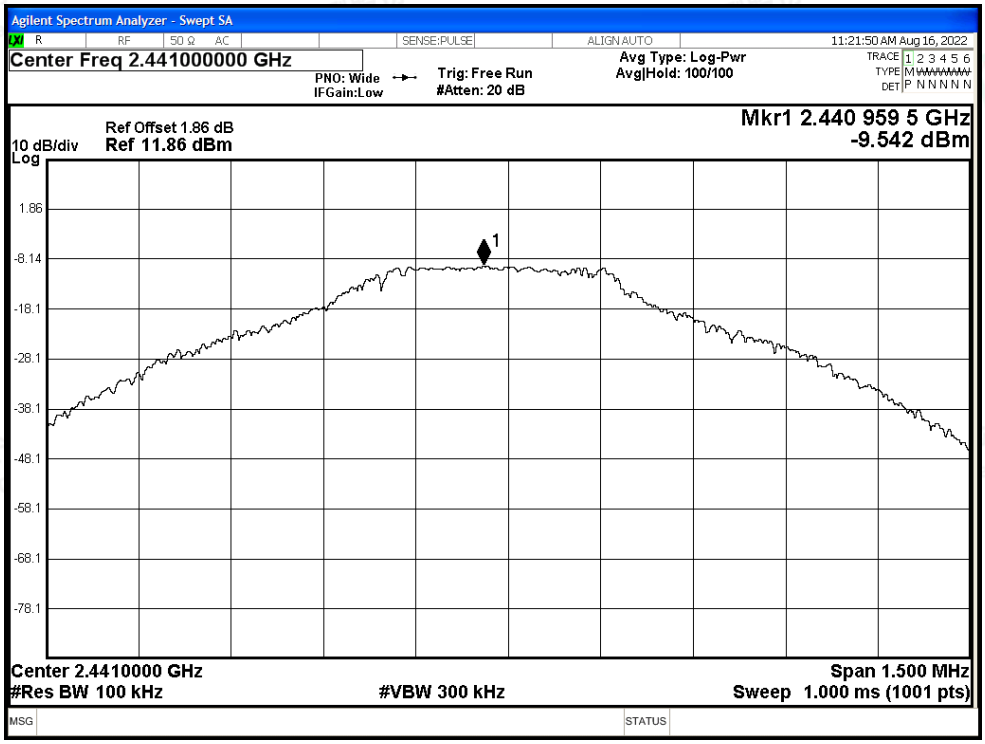
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref



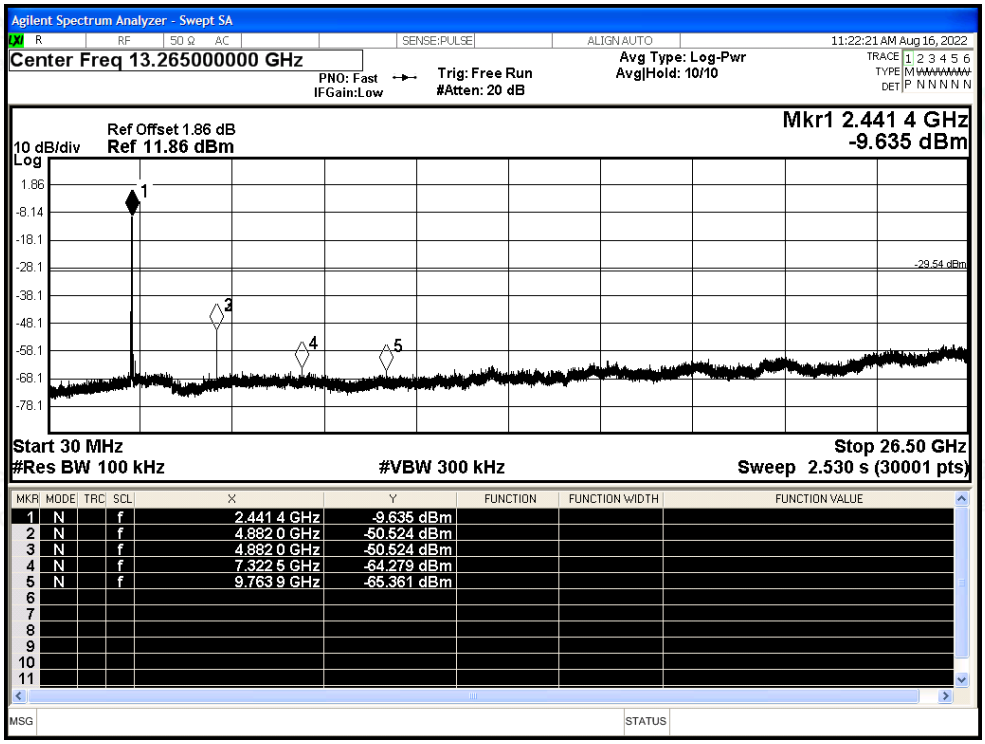
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission



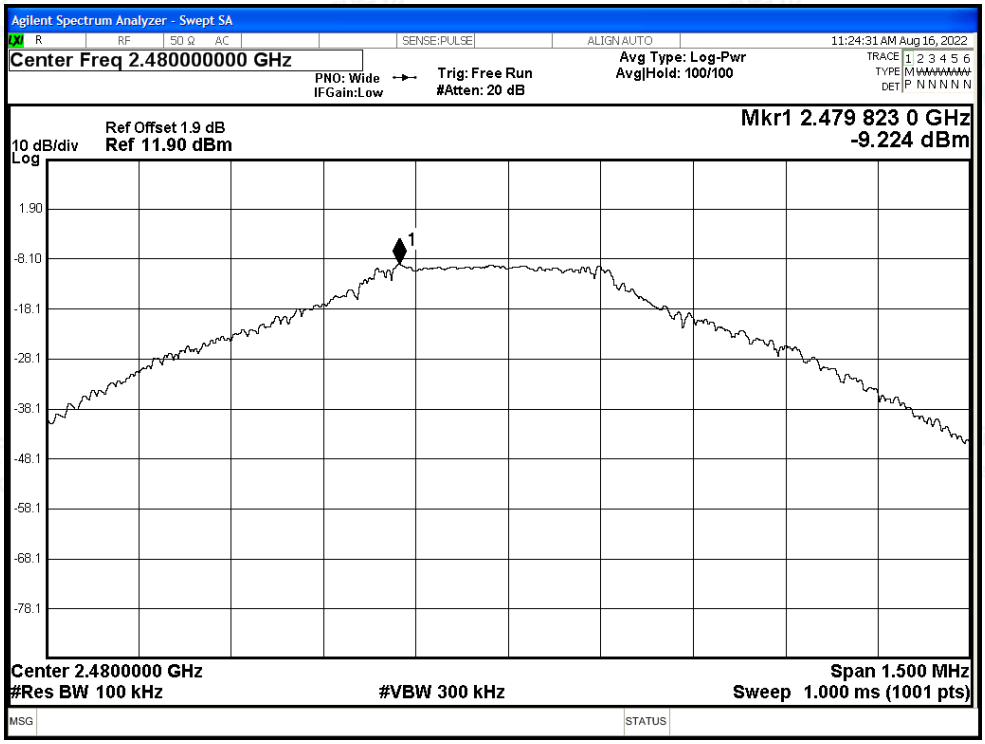
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref



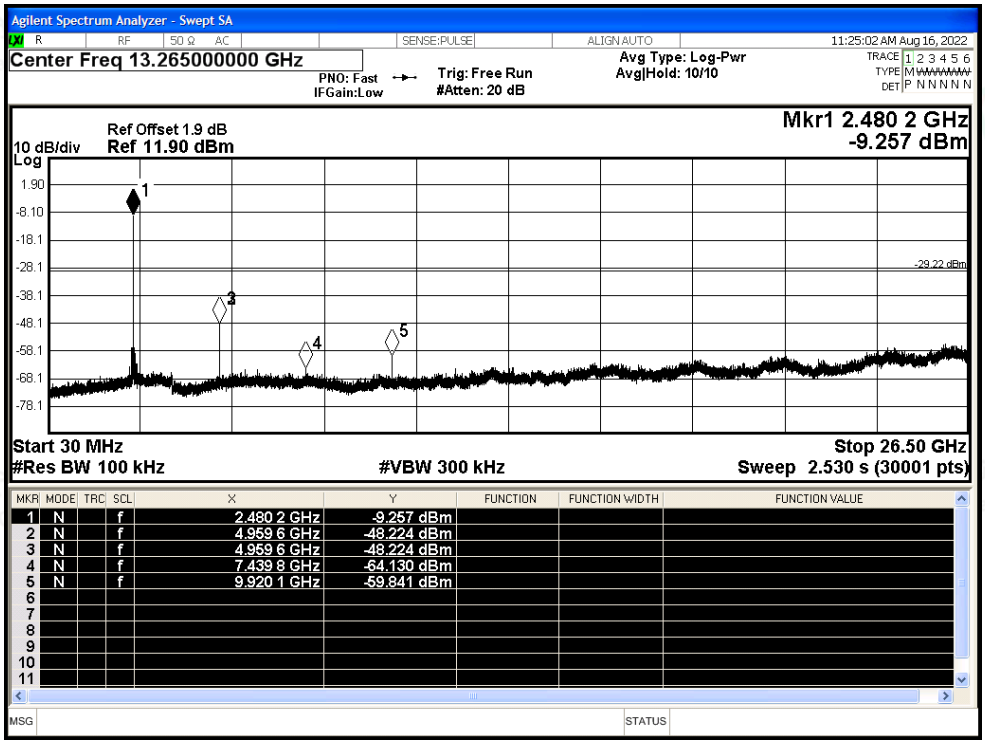
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission



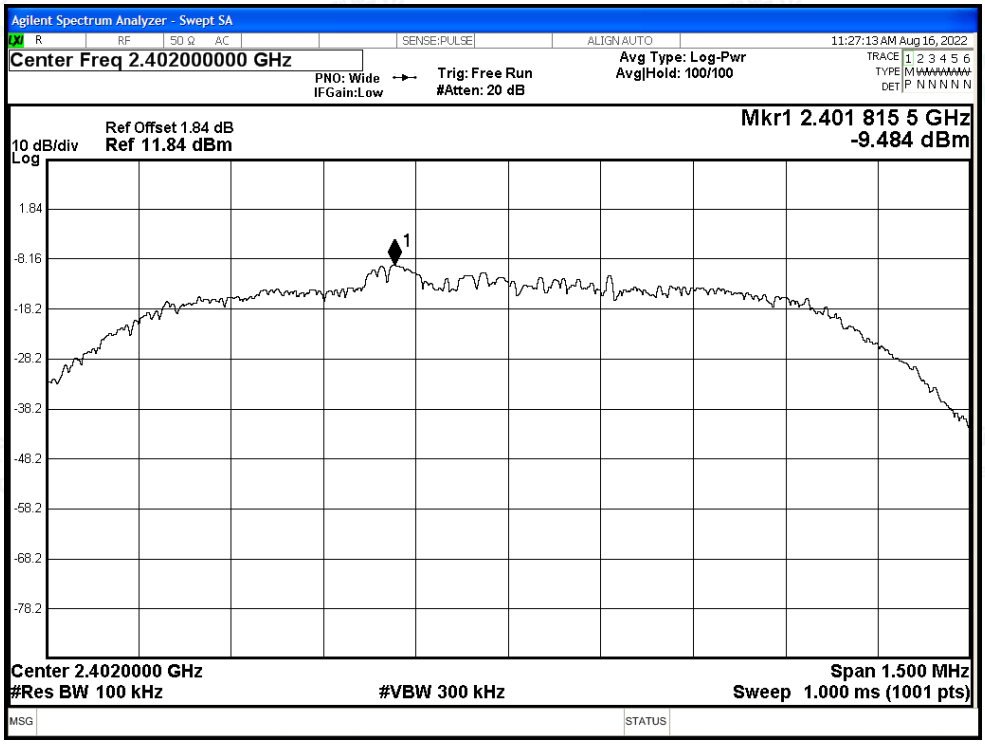
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref



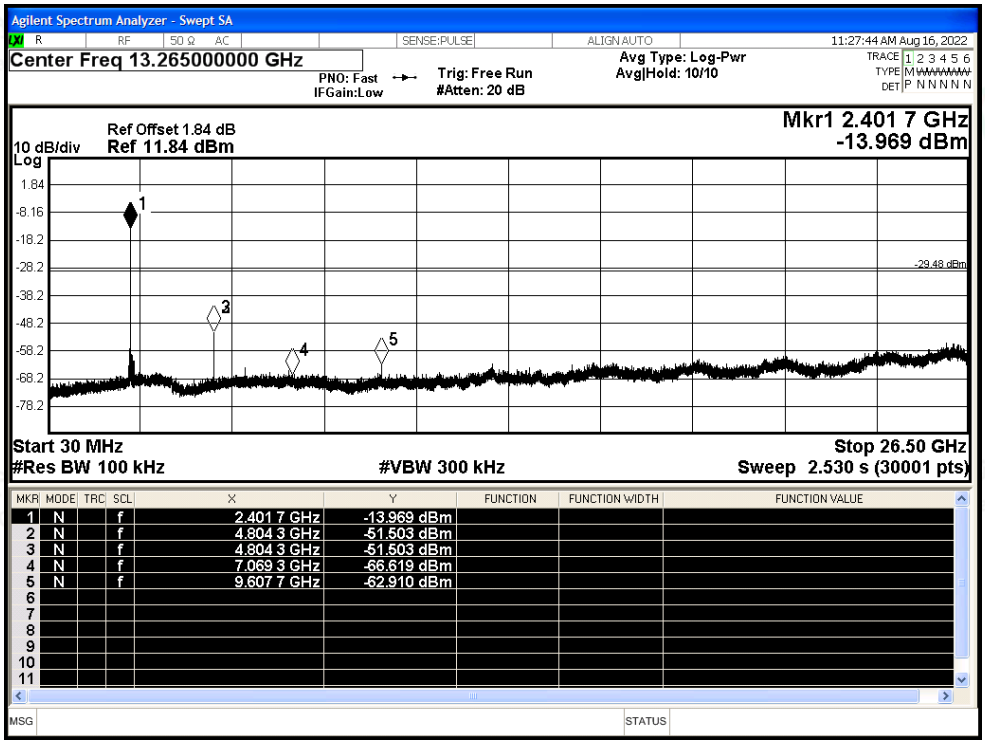
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Emission



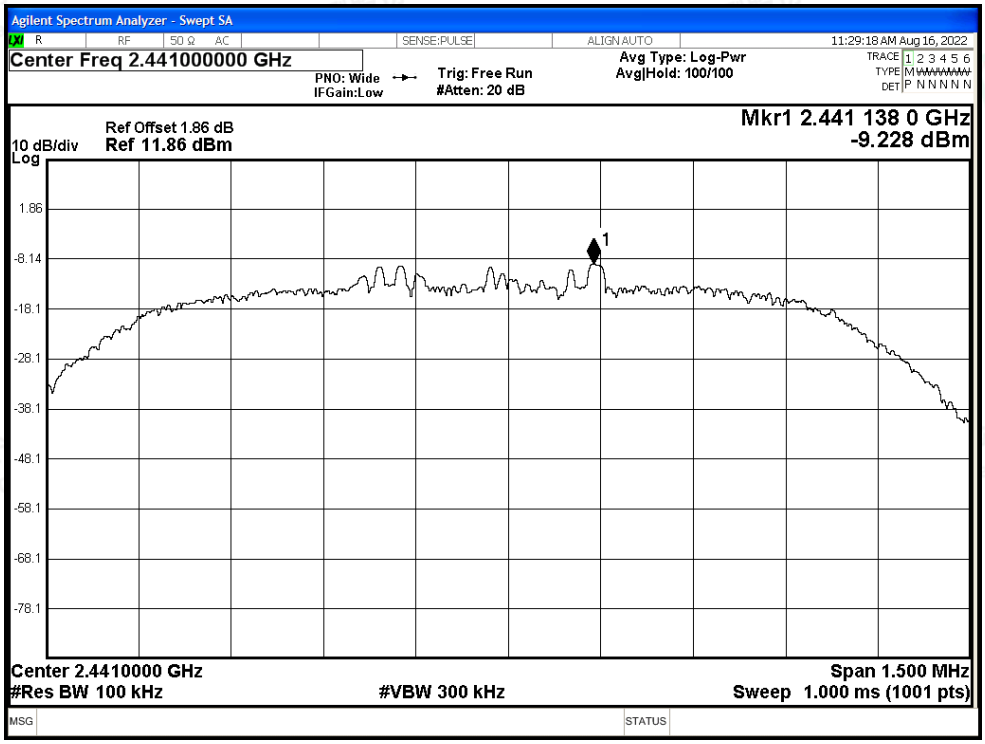
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Ref



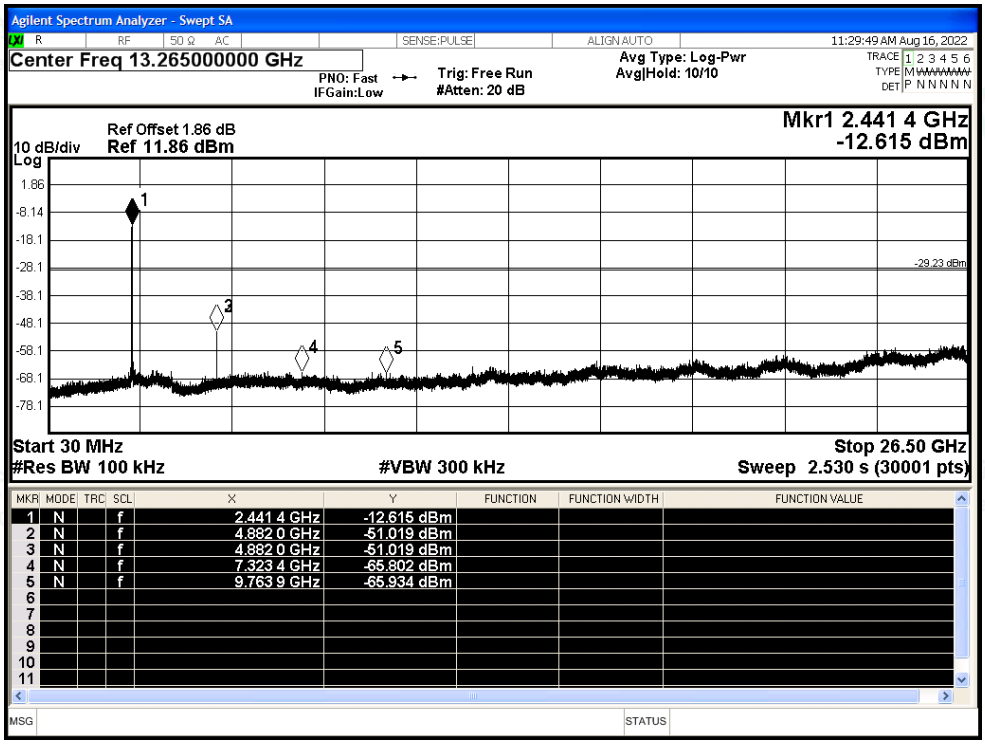
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Emission



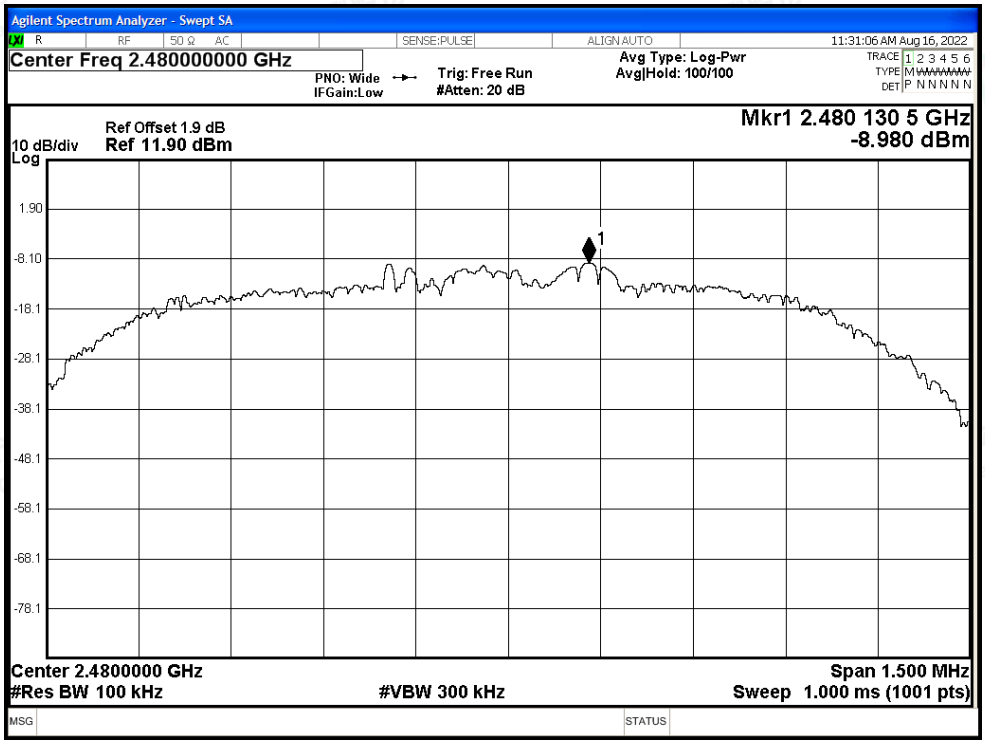
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Ref



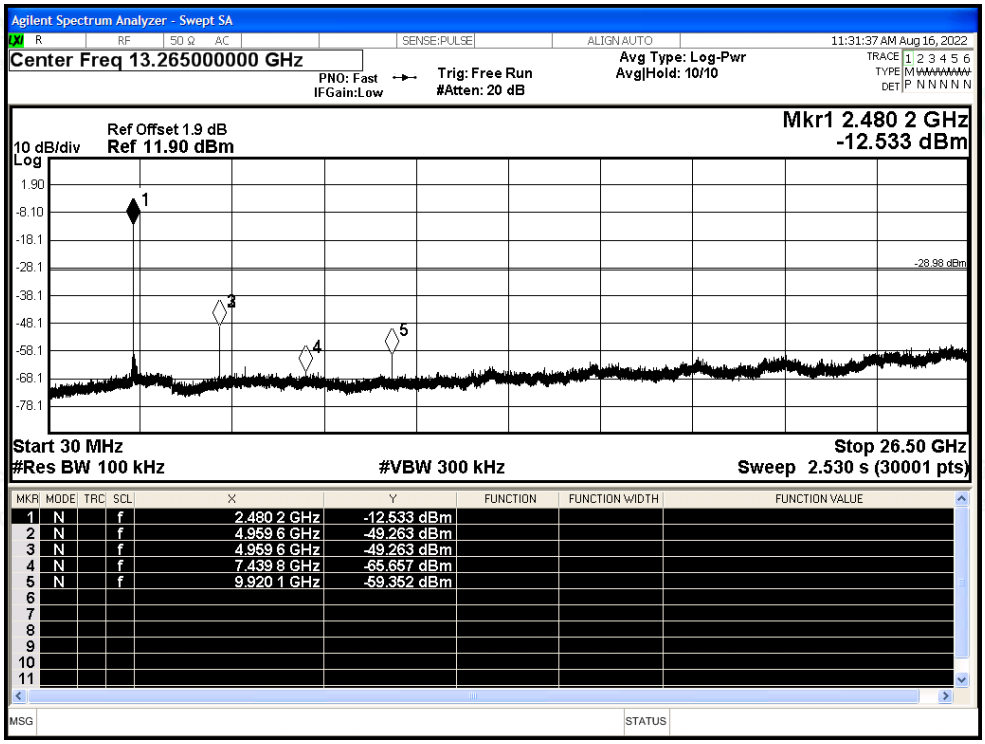
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Emission



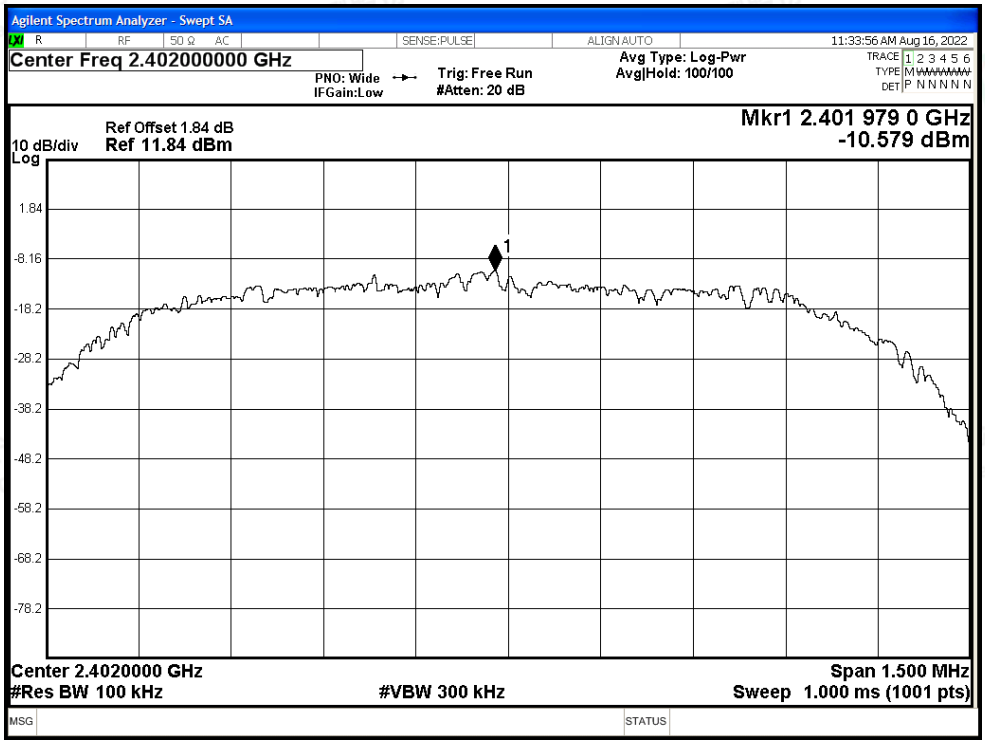
Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Ref



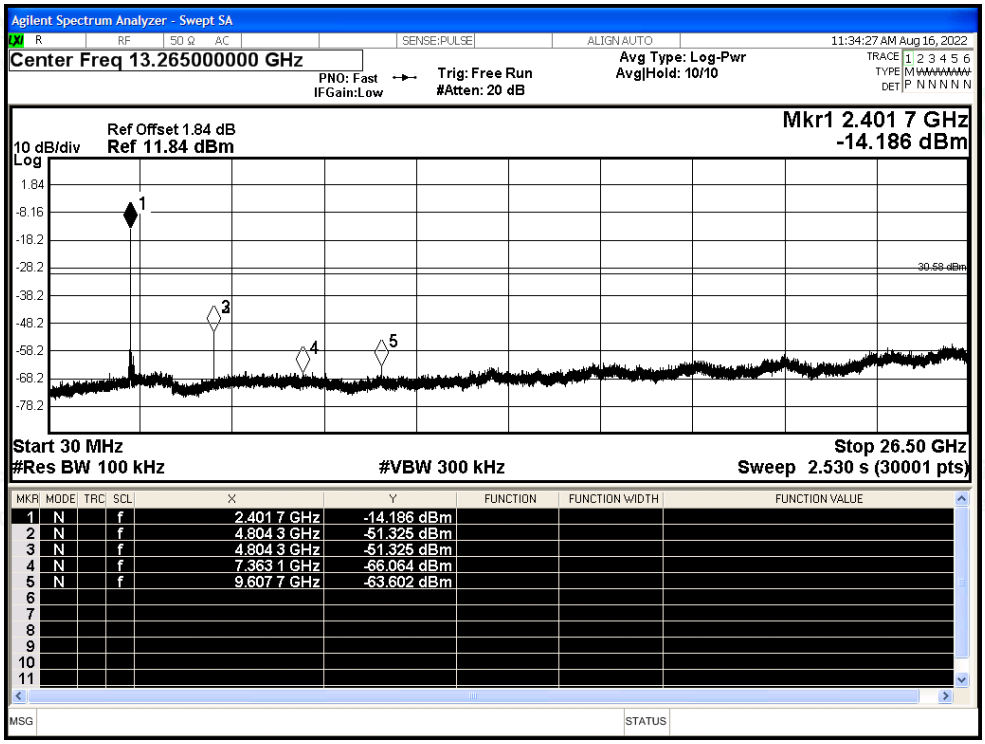
Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Emission



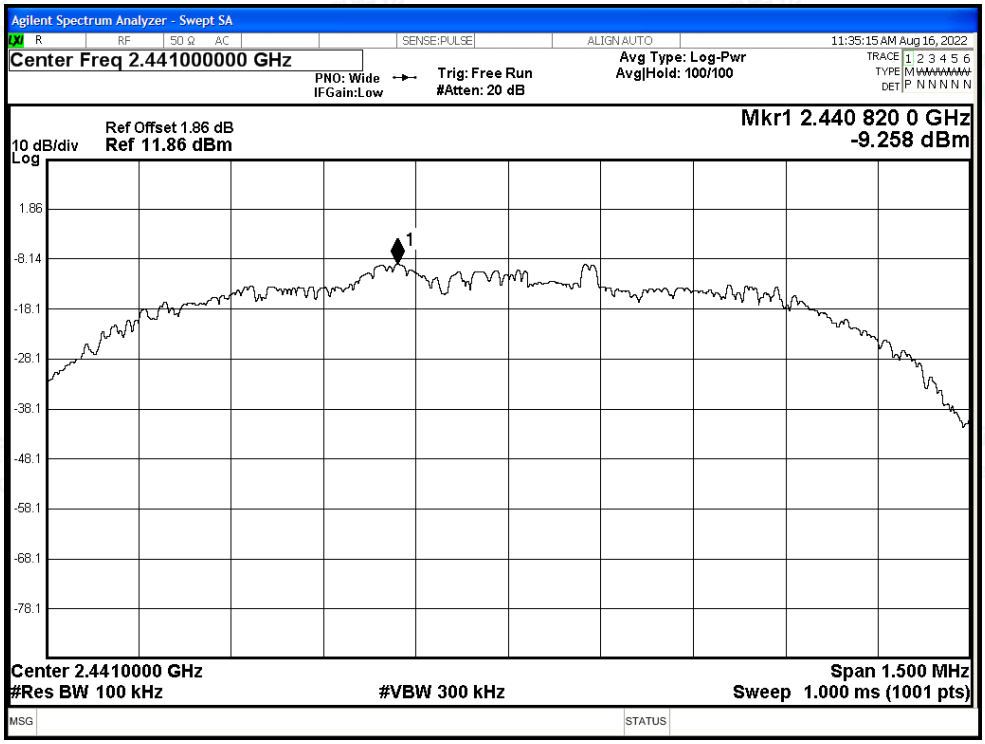
Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Ref



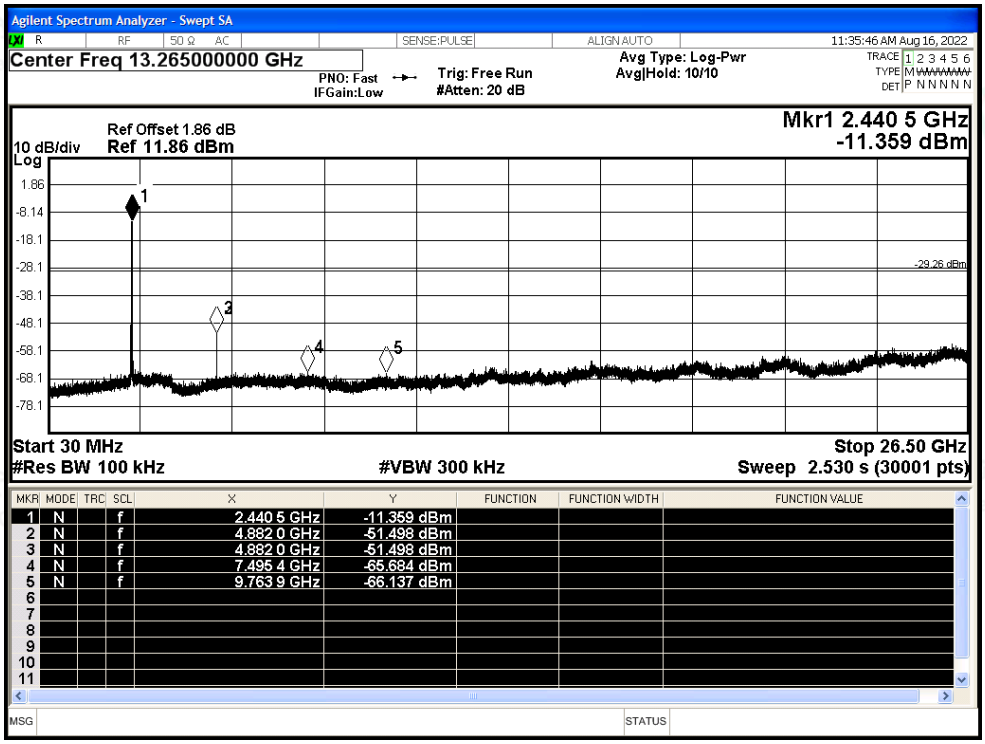
Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Emission



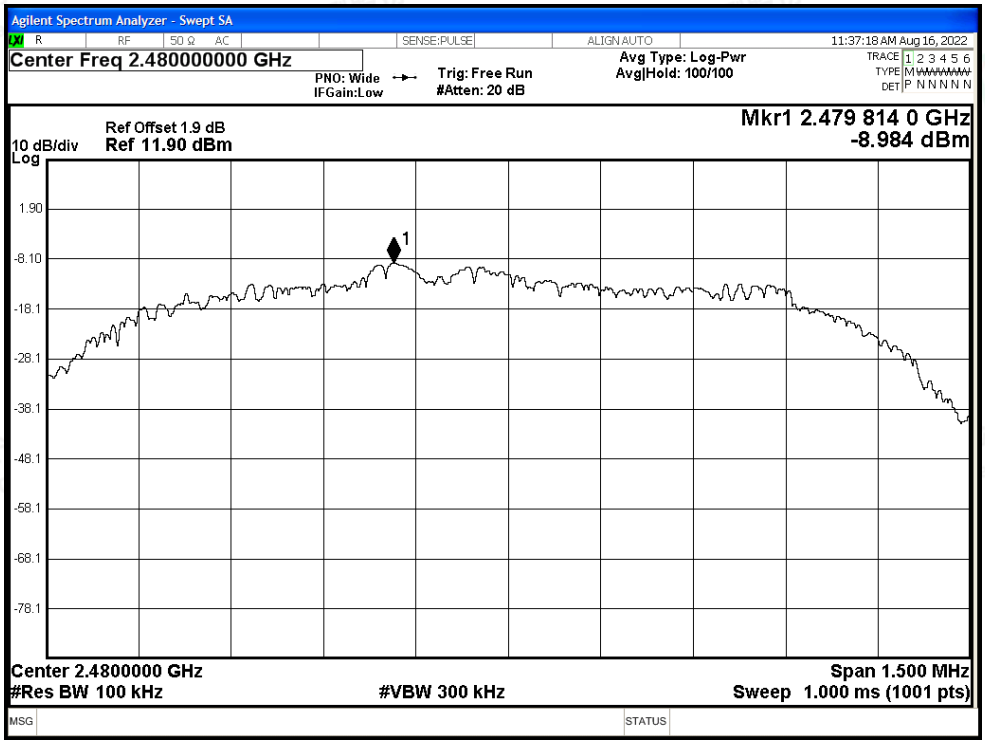
Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Ref



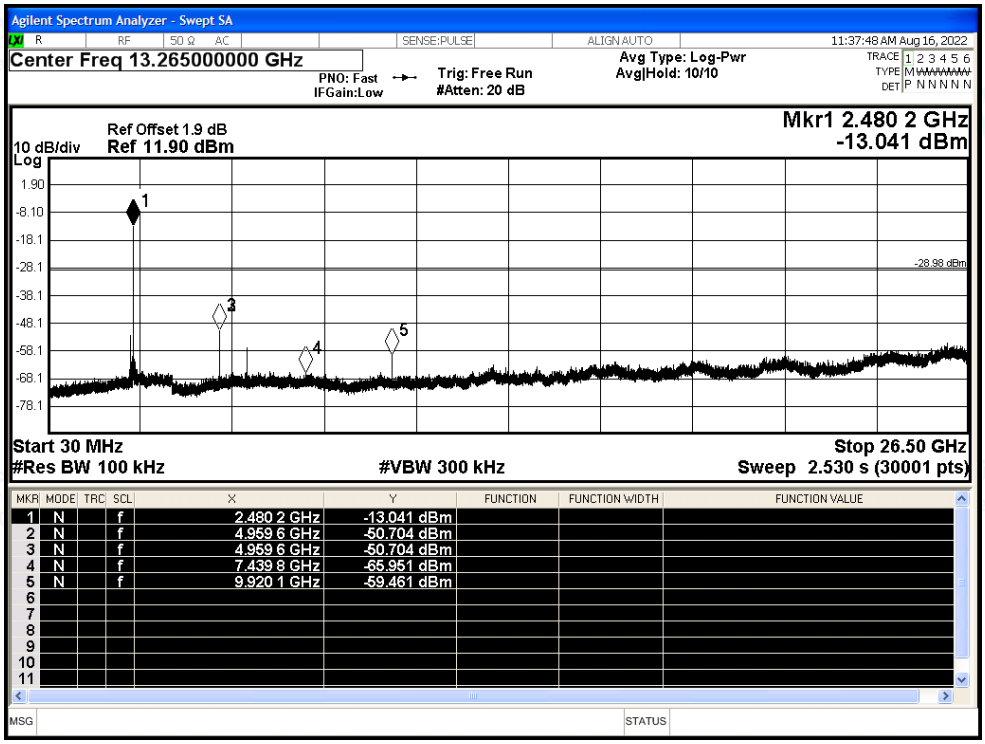
Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Emission

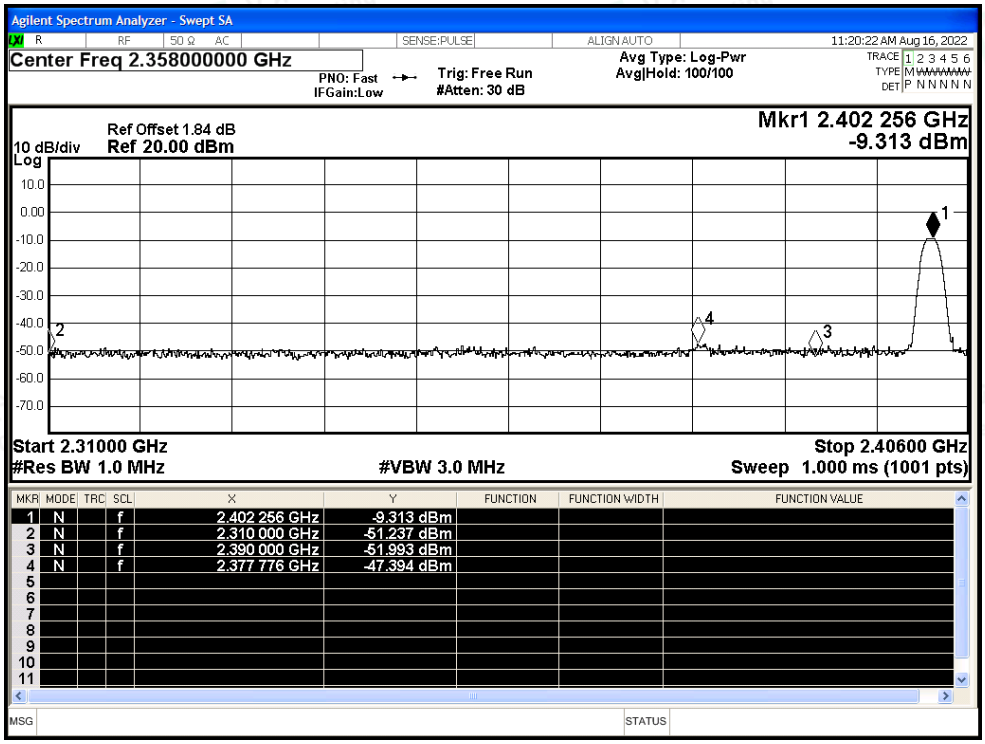


A.8 Restrict Band

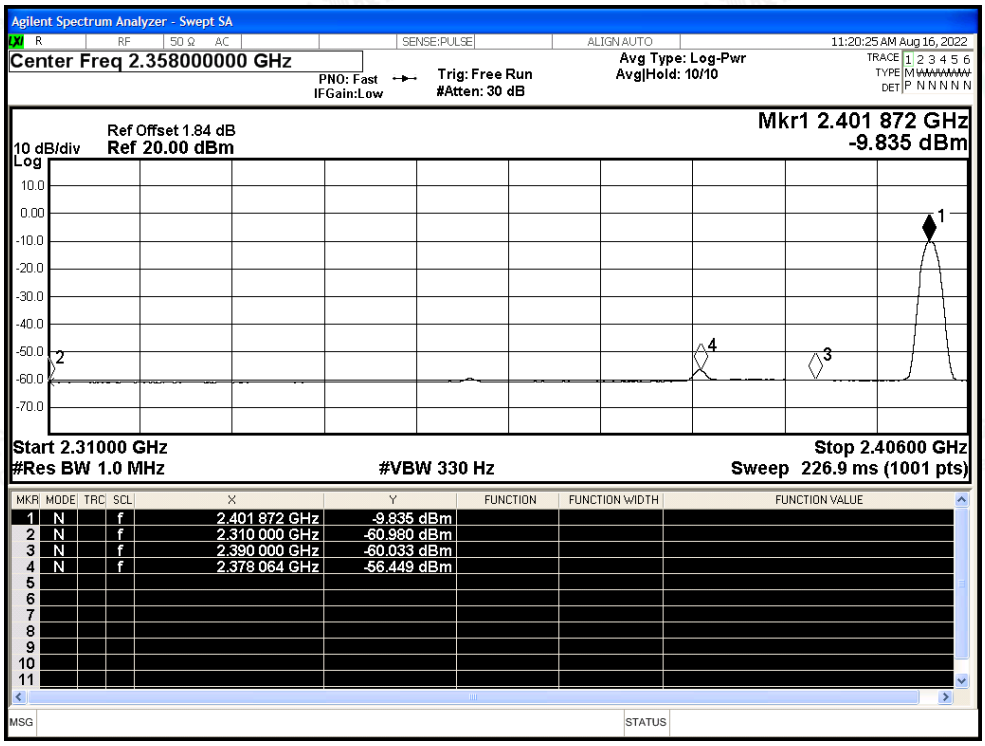
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-51.24	2	46.02	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-60.98	2	36.28	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2377.776	-47.39	2	49.87	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2378.064	-56.45	2	40.81	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-49.26	2	48	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-59.98	2	37.28	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-50.33	2	46.93	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-60.08	2	37.18	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2493.616	-46.69	2	50.57	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2497.624	-59.3	2	37.96	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-49.5	2	47.76	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-59.74	2	37.52	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-51.07	2	46.19	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-60.94	2	36.32	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2311.824	-47.71	2	49.55	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2377.968	-57.58	2	39.68	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-50.76	2	46.5	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-60.22	2	37.04	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-50.93	2	46.33	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-60.1	2	37.16	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2496.856	-46.69	2	50.57	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2498.536	-59.33	2	37.93	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-48.7	2	48.56	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-59.66	2	37.6	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-51.95	2	45.31	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-60.94	2	36.32	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2389.584	-47.95	2	49.31	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2377.968	-57.82	2	39.44	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-50.18	2	47.08	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-60.09	2	37.17	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-50.32	2	46.94	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-59.91	2	37.35	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2499.76	-47.07	2	50.19	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2497.528	-59.32	2	37.94	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-47.95	2	49.31	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-59.59	2	37.67	Average	54	Pass

Test Graphs

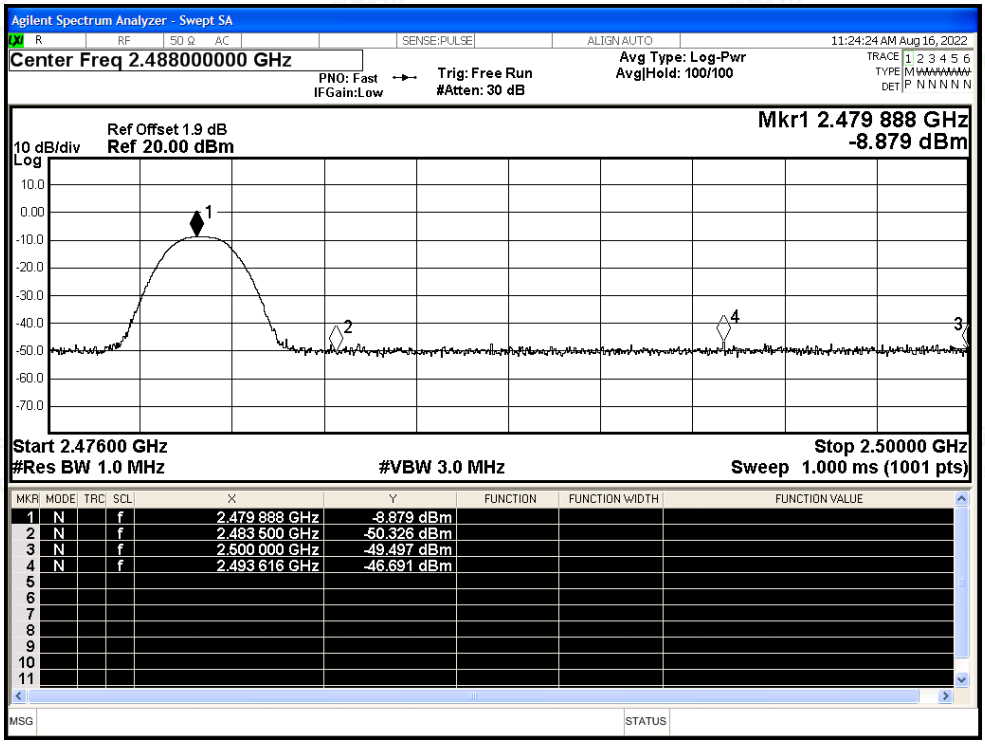
Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Peak



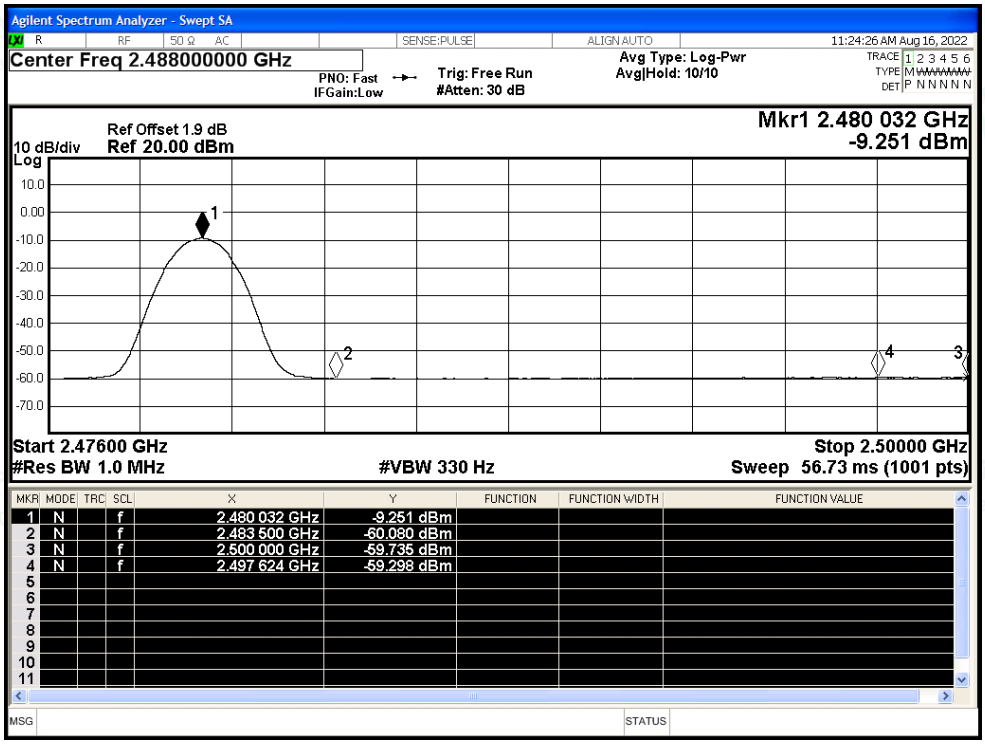
Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Average



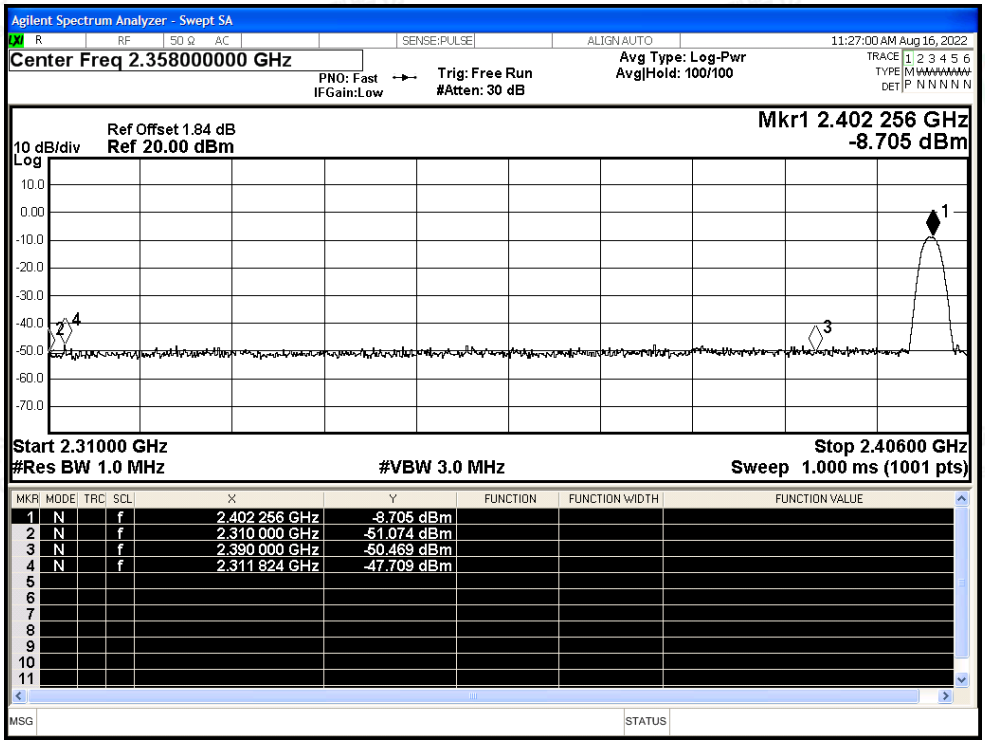
Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Peak



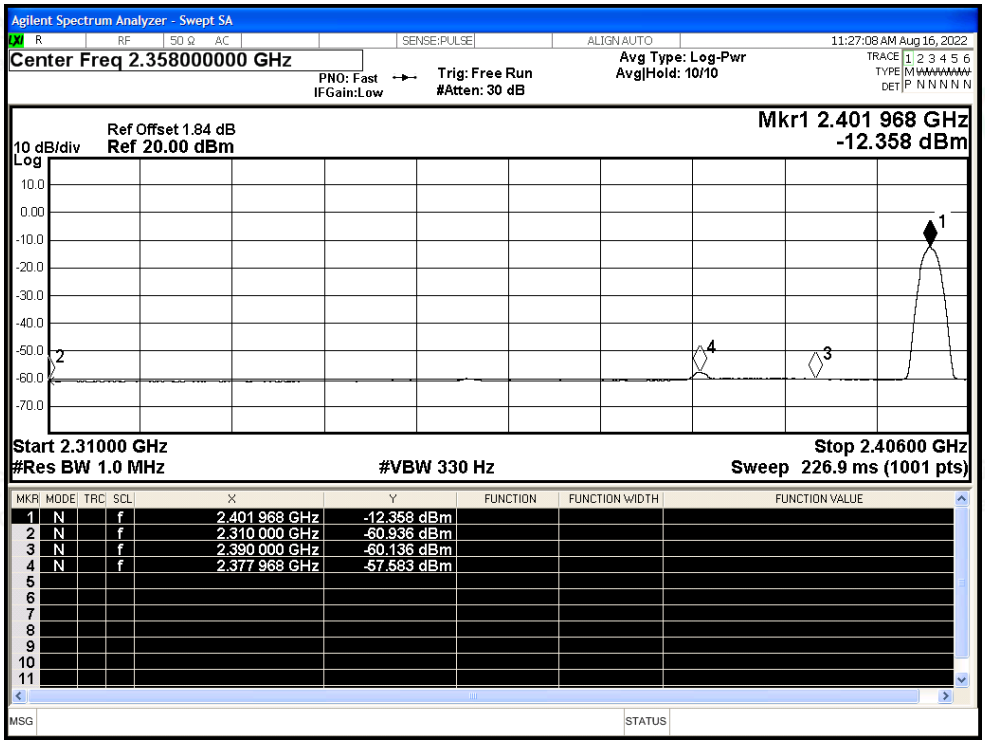
Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Average



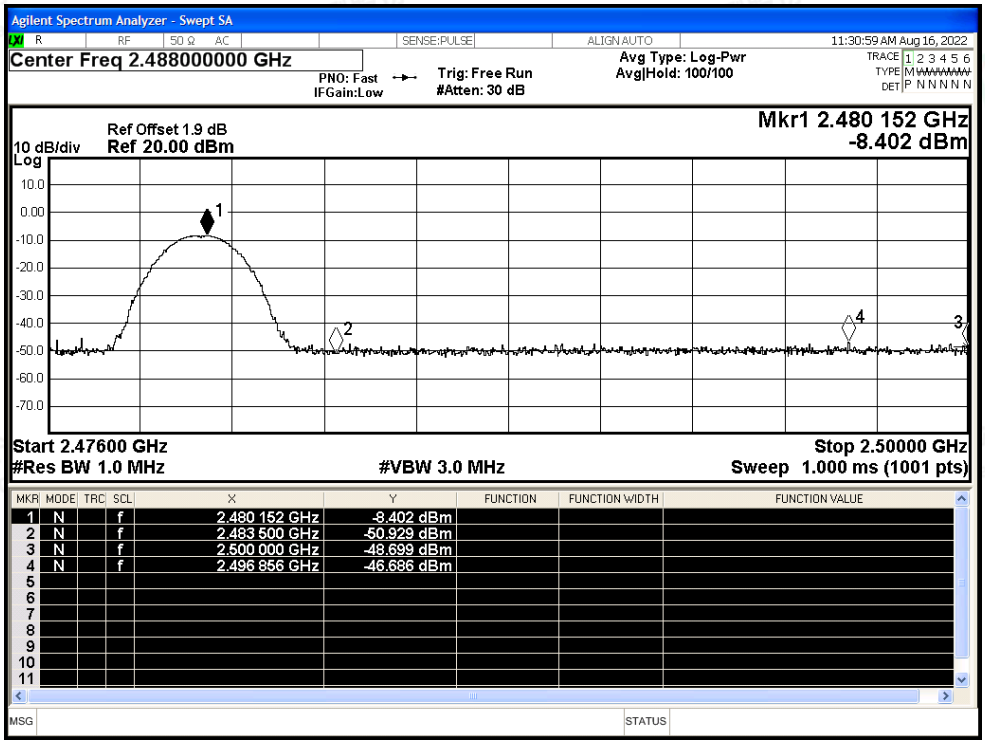
Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Peak



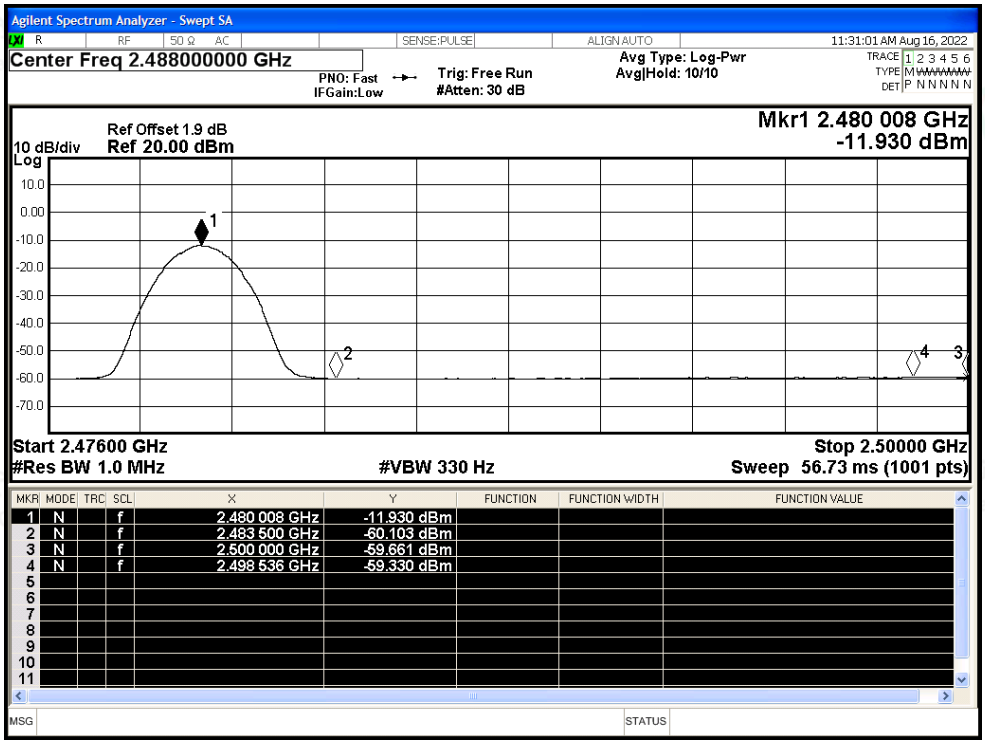
Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Average



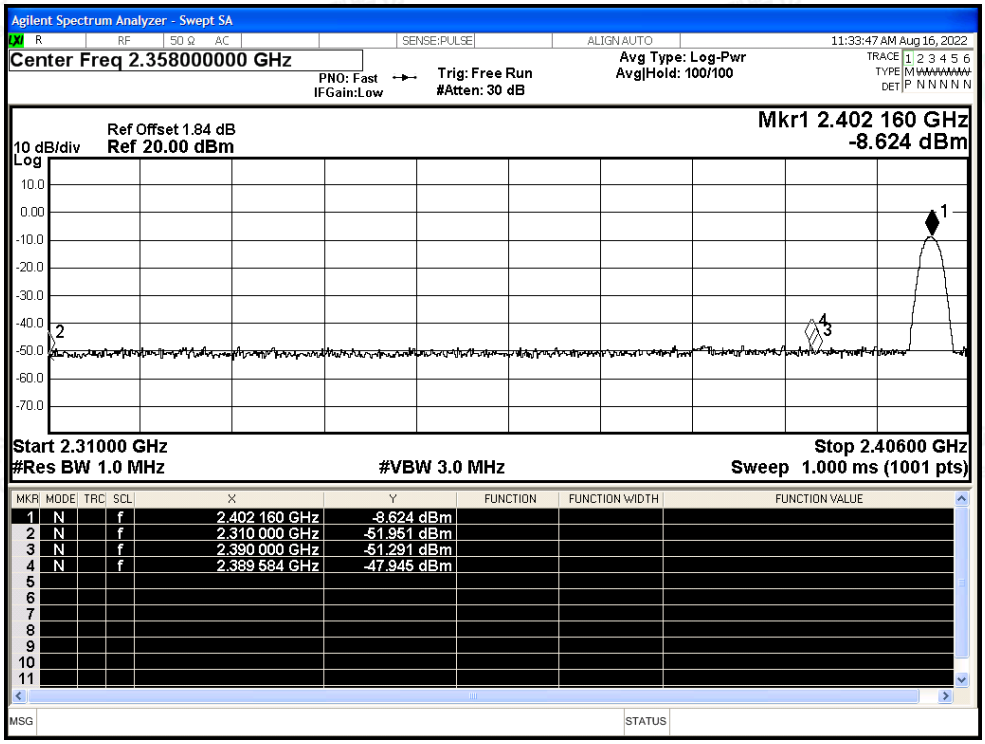
Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Peak



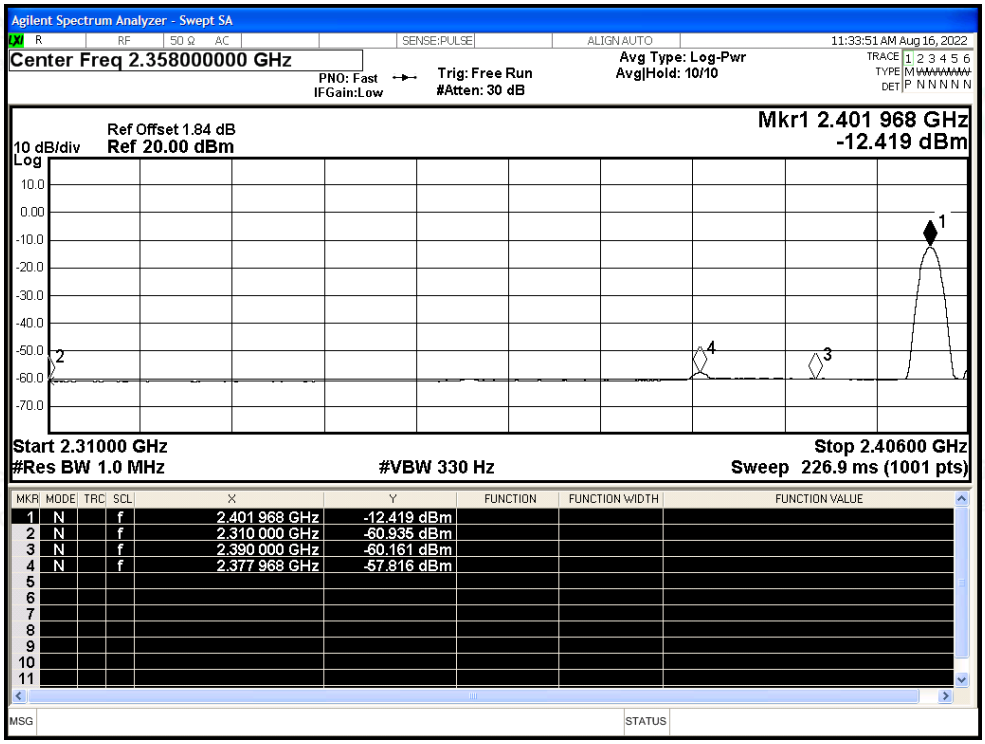
Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Average



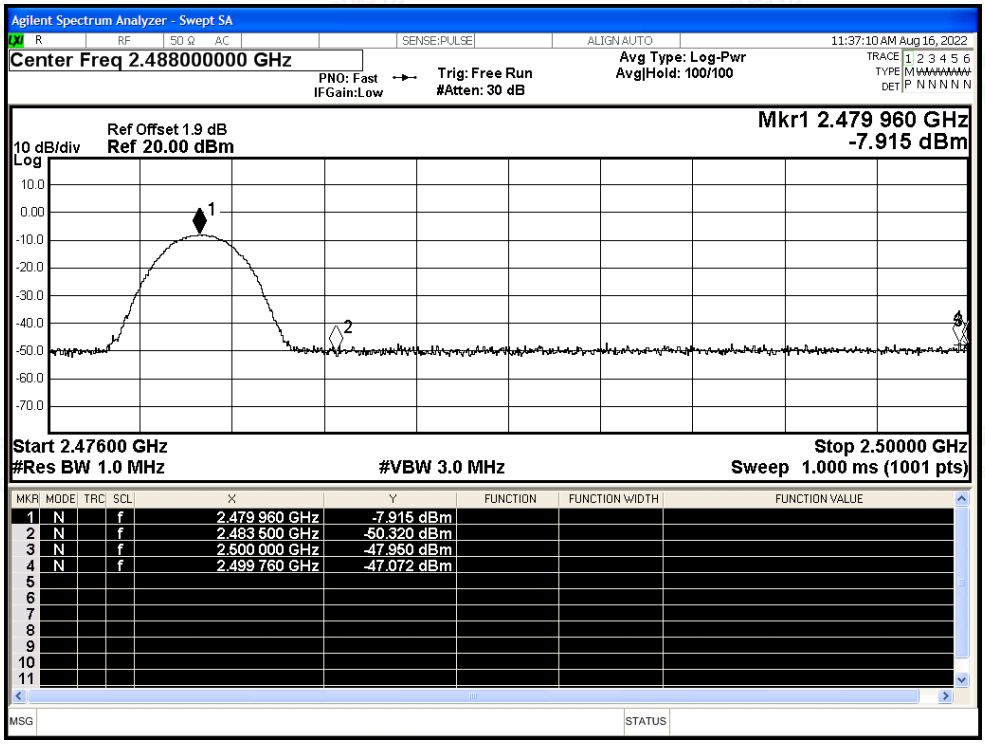
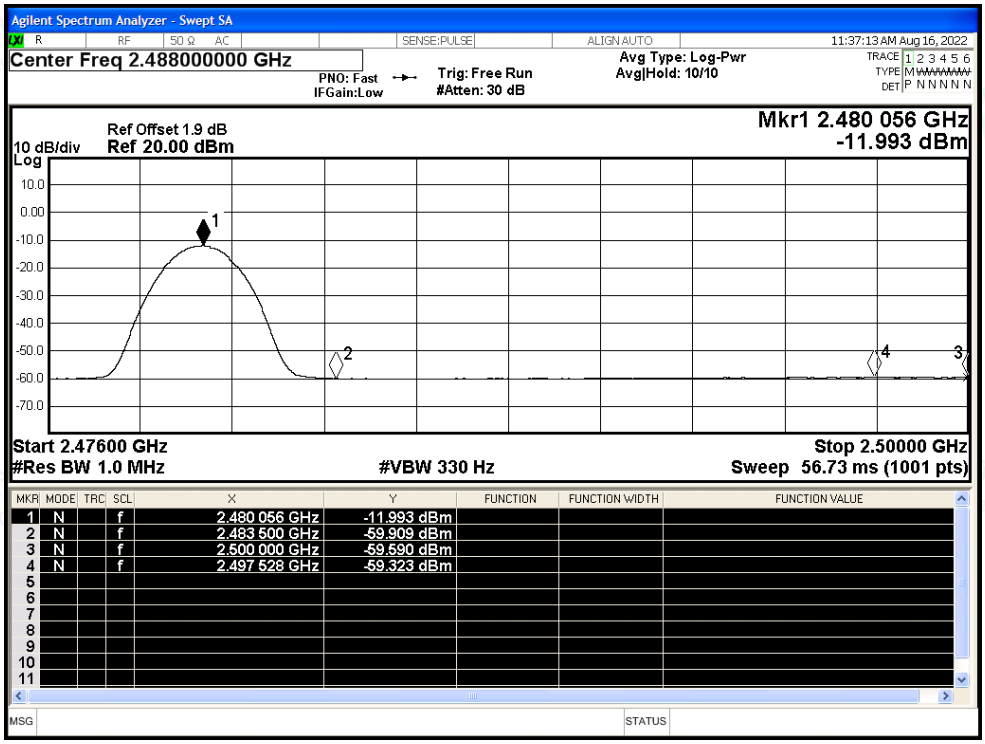
Restrict Band NVNT 3-DH5 2402MHz Ant1 No-Hopping Peak



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