Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: Ceiling Fan

Test Model: FBA-HYGXHG027

Environmental Conditions

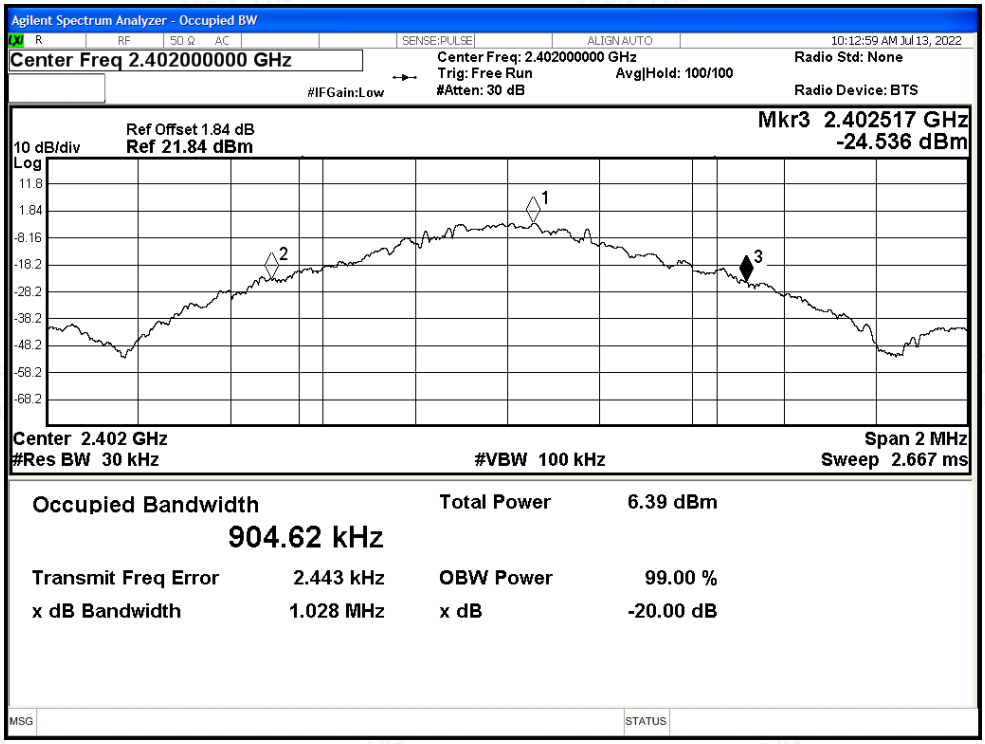
Temperature:	23.5 ° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Monkey Li
Supervised by:	Li Huan

A.1 20dB Bandwidth

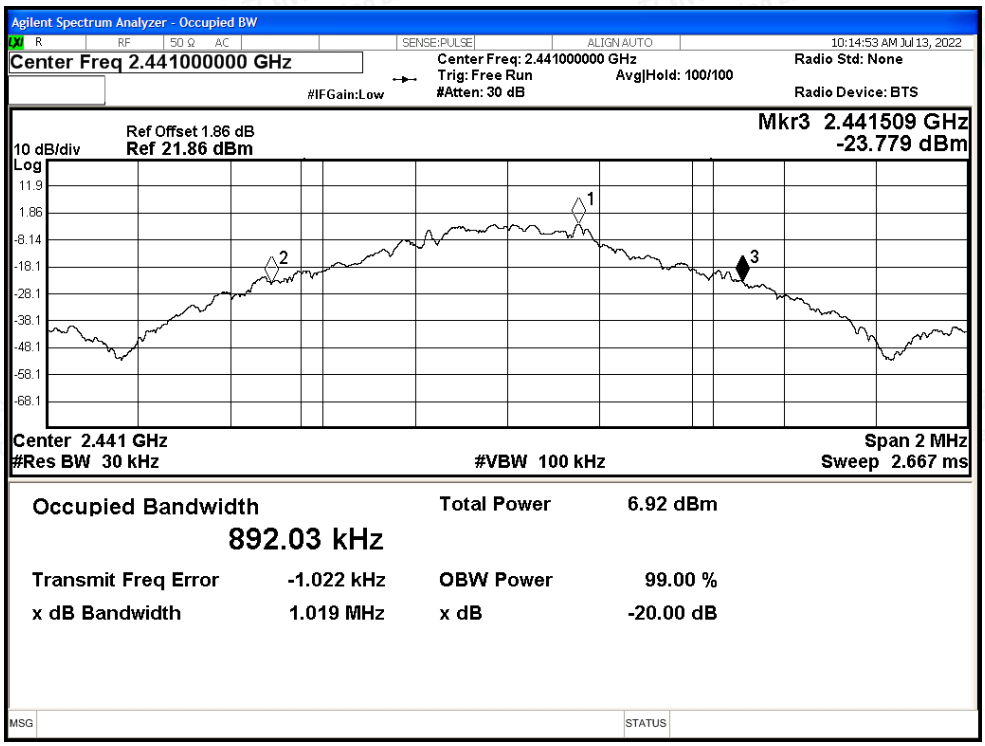
Condition	Mode	Frequency (MHz)	Antenna	20 dB Bandwidth (MHz)	Limit 20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH5	2402	Ant1	1.028	N/A	Pass
NVNT	1-DH5	2441	Ant1	1.019	N/A	Pass
NVNT	1-DH5	2480	Ant1	0.962	N/A	Pass
NVNT	2-DH5	2402	Ant1	1.287	N/A	Pass
NVNT	2-DH5	2441	Ant1	1.287	N/A	Pass
NVNT	2-DH5	2480	Ant1	1.288	N/A	Pass
NVNT	3-DH5	2402	Ant1	1.295	N/A	Pass
NVNT	3-DH5	2441	Ant1	1.282	N/A	Pass
NVNT	3-DH5	2480	Ant1	1.298	N/A	Pass

Test Graphs

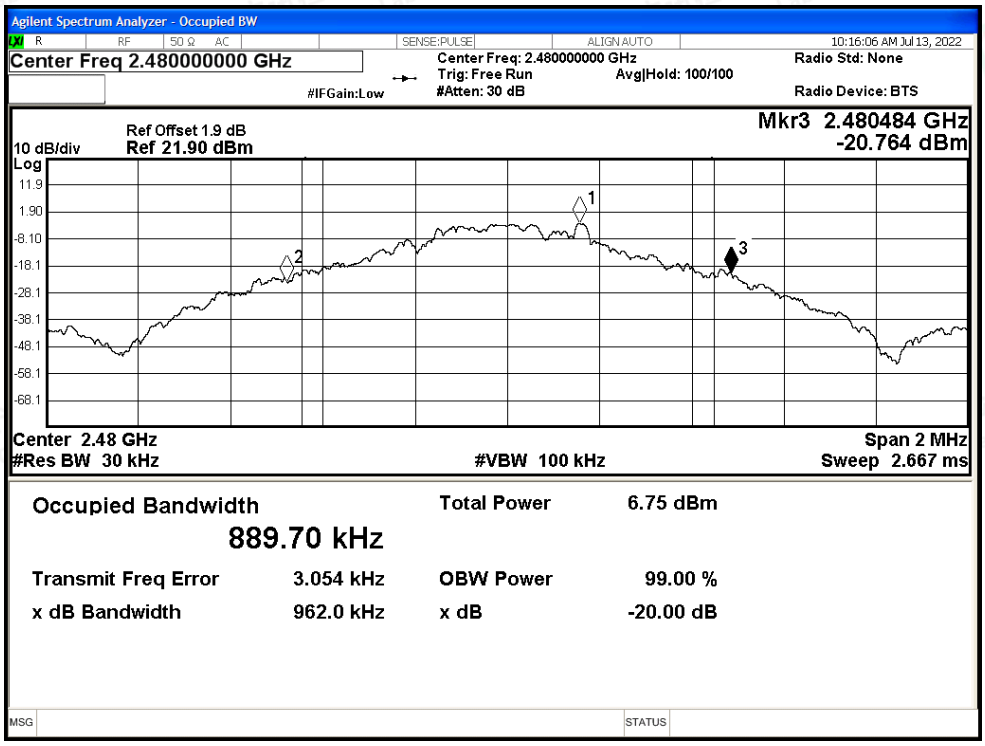
20dB Bandwidth NVNT 1-DH5 2402MHz Ant1



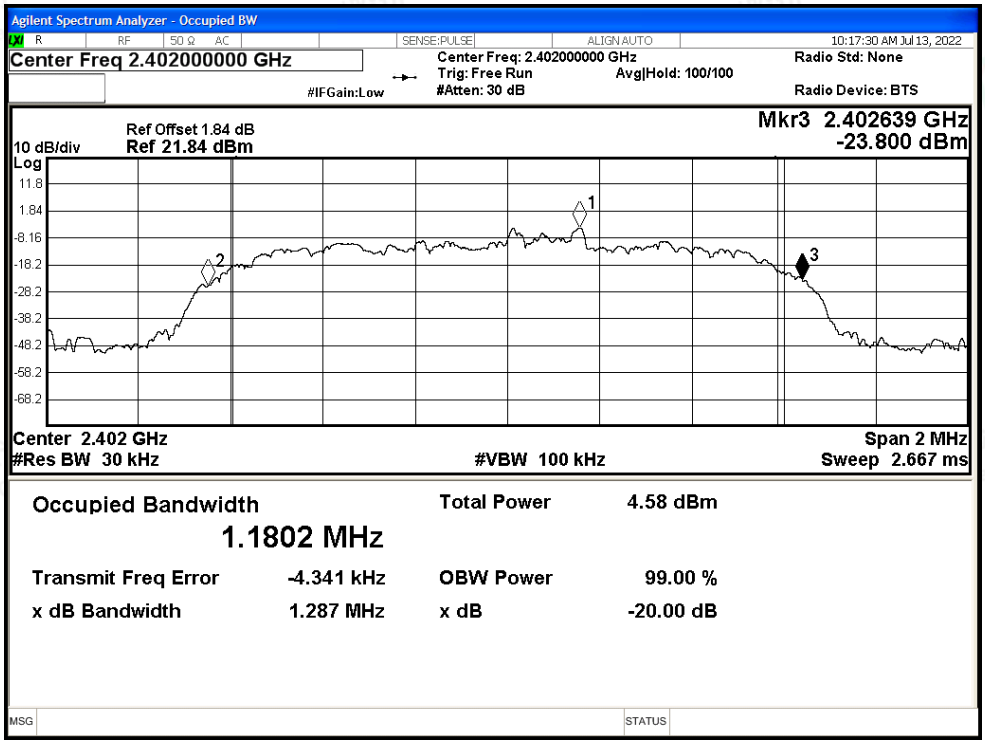
20dB Bandwidth NVNT 1-DH5 2441MHz Ant1



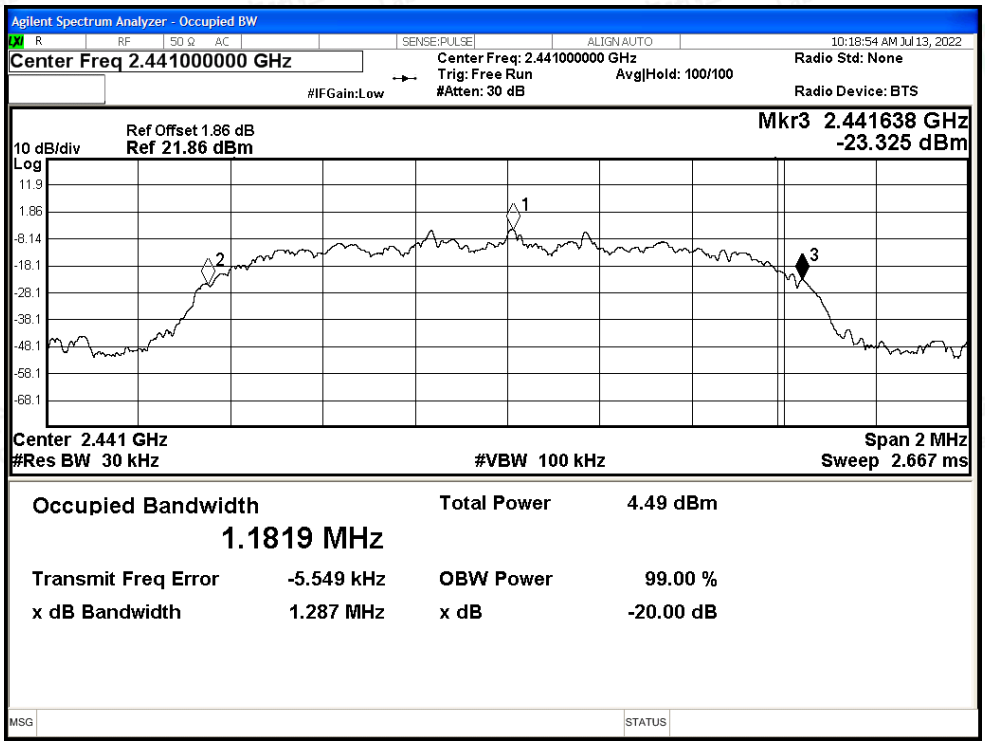
20dB Bandwidth NVNT 1-DH5 2480MHz Ant1



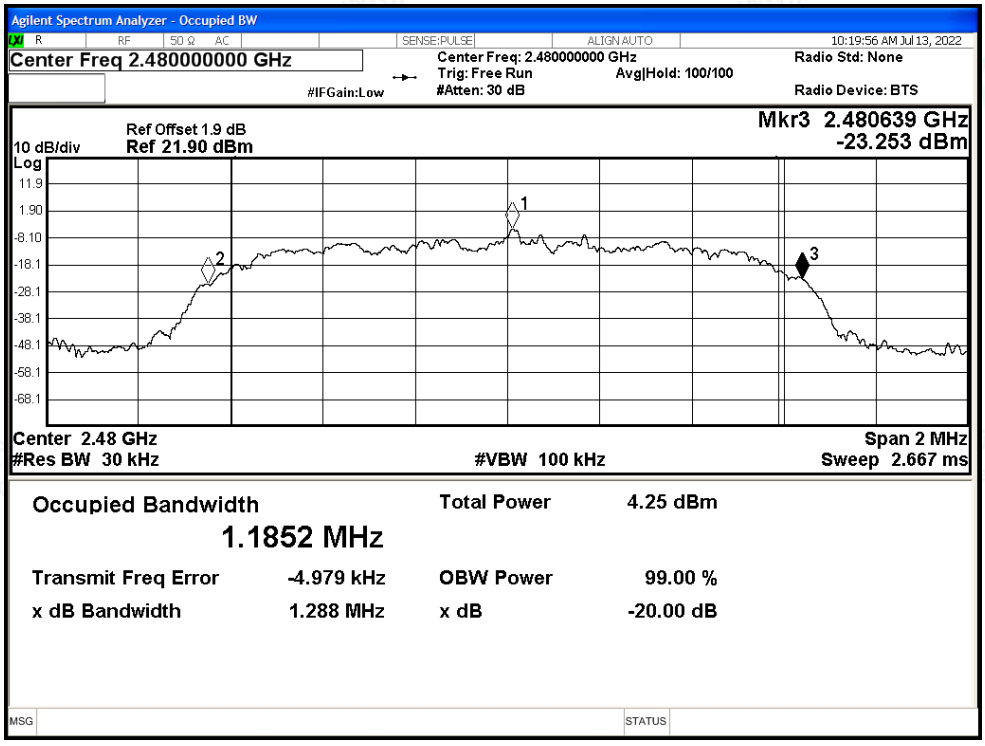
20dB Bandwidth NVNT 2-DH5 2402MHz Ant1



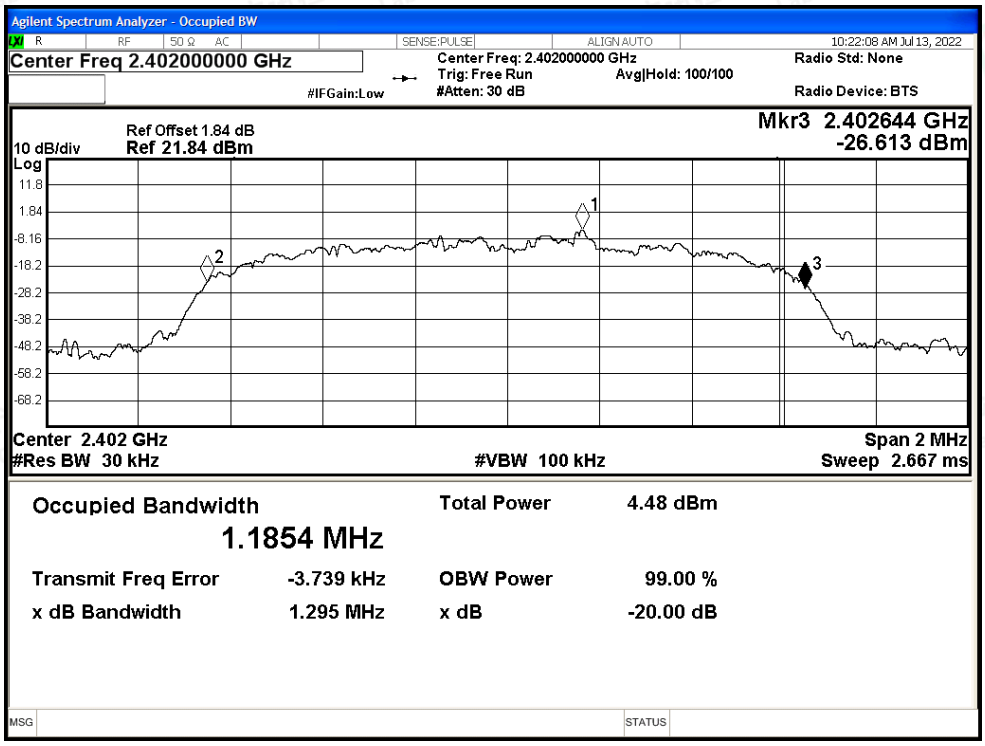
20dB Bandwidth NVNT 2-DH5 2441MHz Ant1



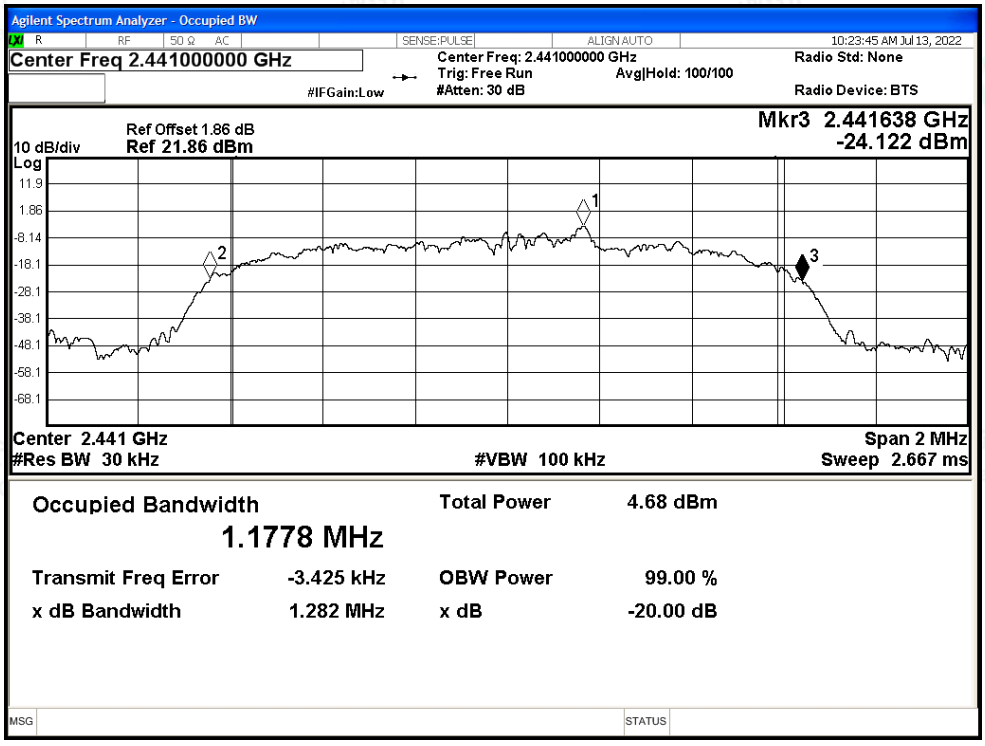
20dB Bandwidth NVNT 2-DH5 2480MHz Ant1



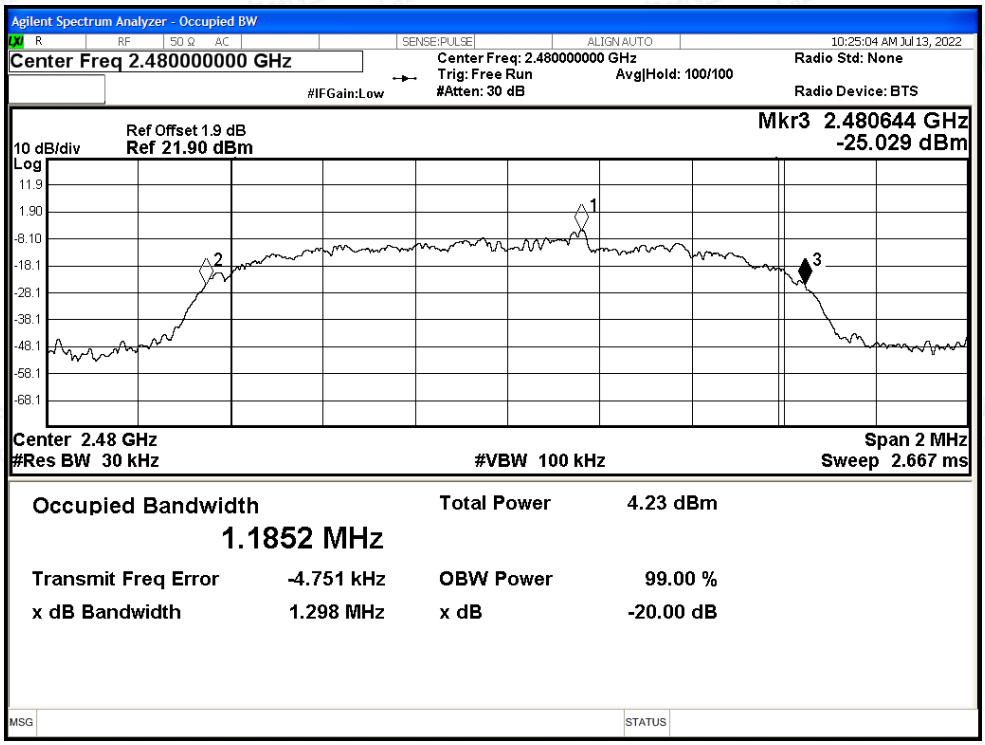
20dB Bandwidth NVNT 3-DH5 2402MHz Ant1



20dB Bandwidth NVNT 3-DH5 2441MHz Ant1



20dB Bandwidth NVNT 3-DH5 2480MHz Ant1

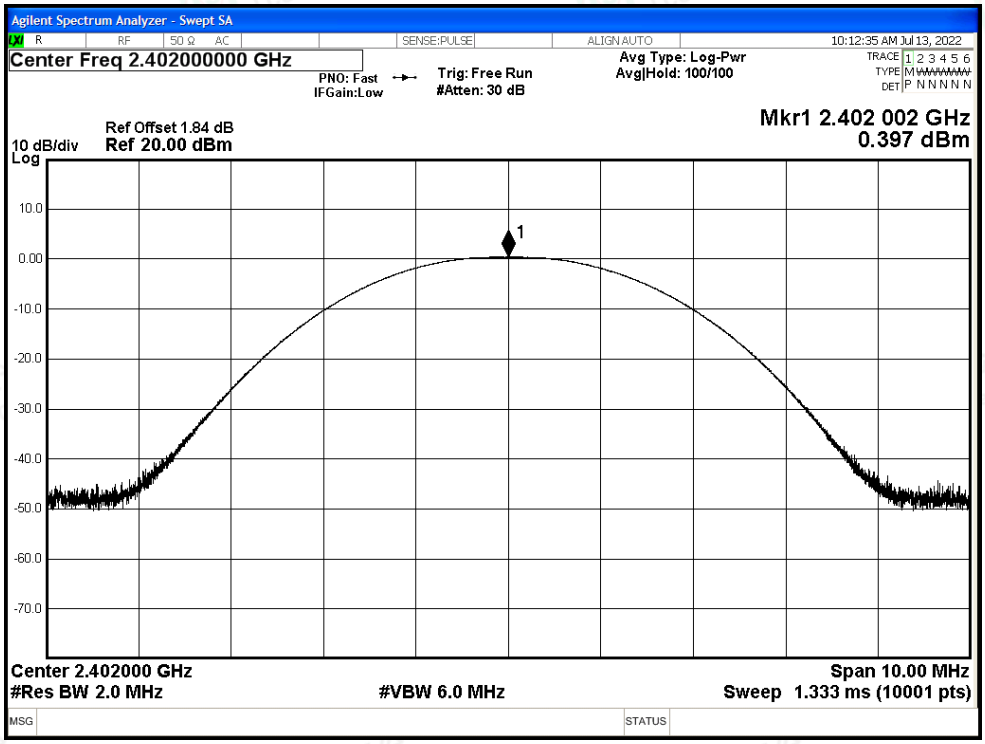


A.2 Maximum Conducted Output Power

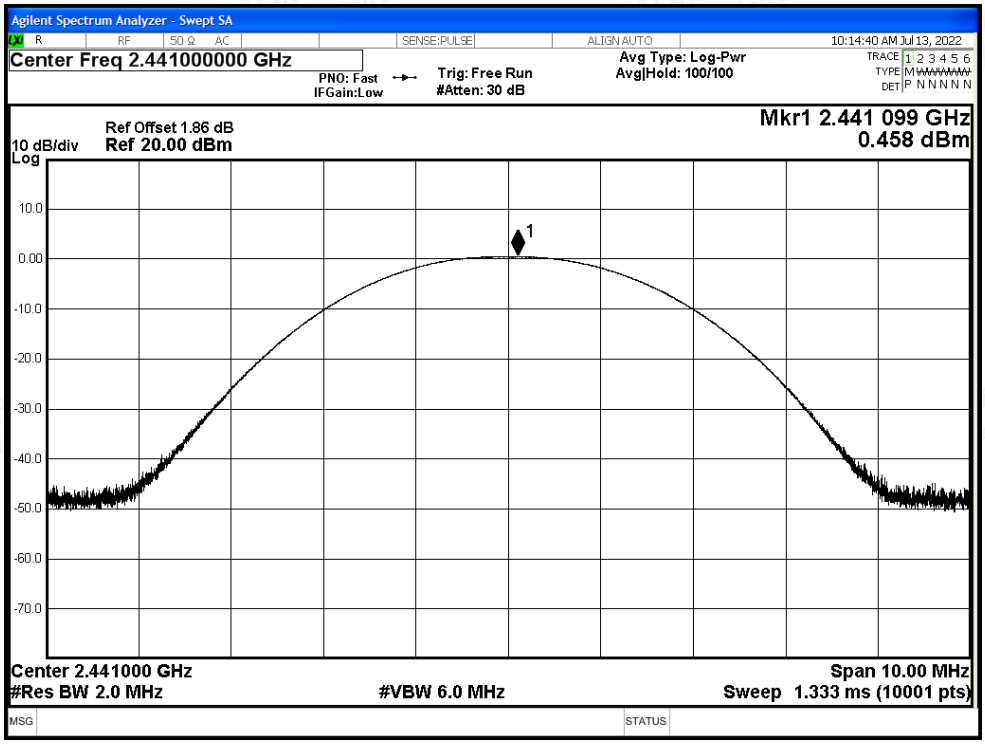
Condition	Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH5	2402	Ant1	0.4	21	Pass
NVNT	1-DH5	2441	Ant1	0.46	21	Pass
NVNT	1-DH5	2480	Ant1	0.29	21	Pass
NVNT	2-DH5	2402	Ant1	0.05	21	Pass
NVNT	2-DH5	2441	Ant1	0.2	21	Pass
NVNT	2-DH5	2480	Ant1	0.05	21	Pass
NVNT	3-DH5	2402	Ant1	0.17	21	Pass
NVNT	3-DH5	2441	Ant1	0.31	21	Pass
NVNT	3-DH5	2480	Ant1	0.15	21	Pass

Test Graphs

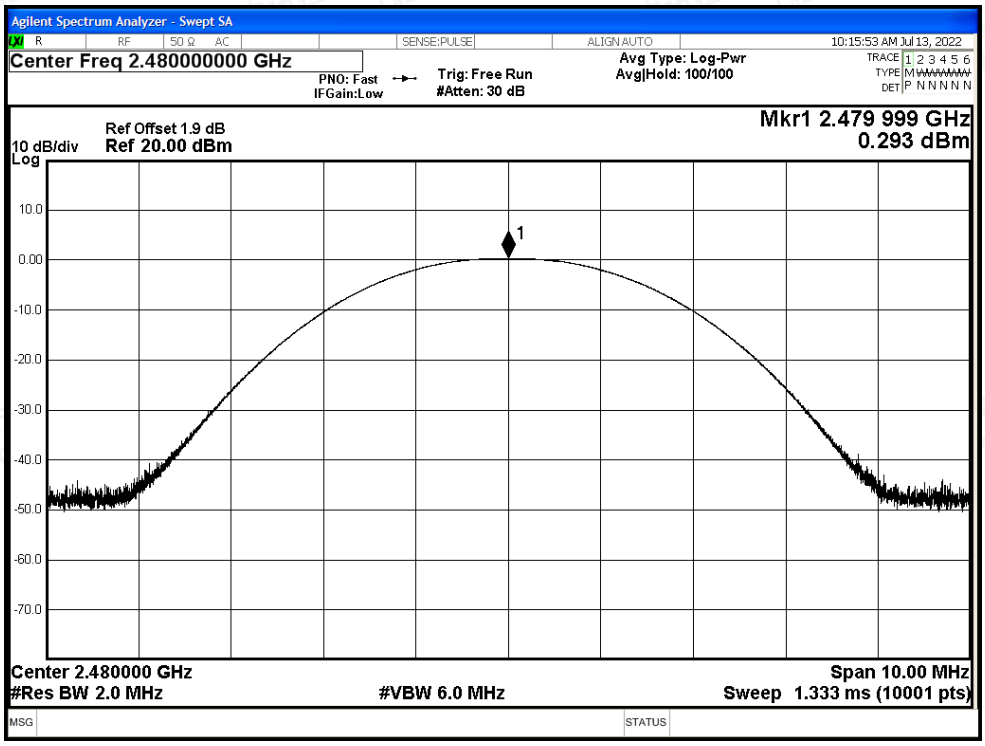
Power NVNT 1-DH5 2402MHz Ant1



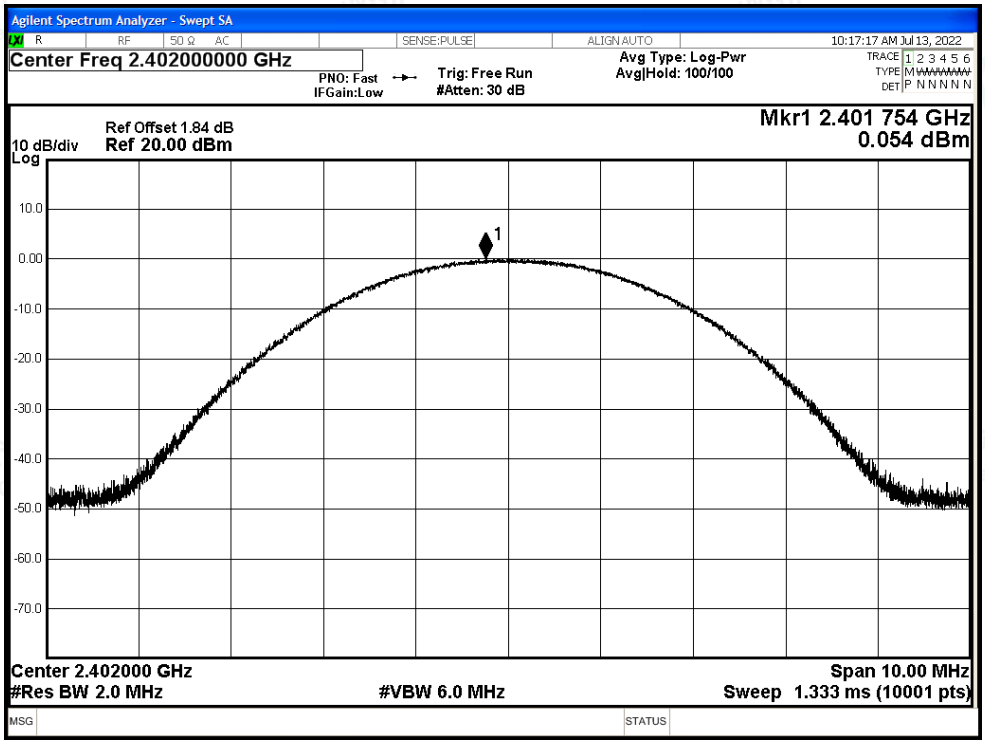
Power NVNT 1-DH5 2441MHz Ant1



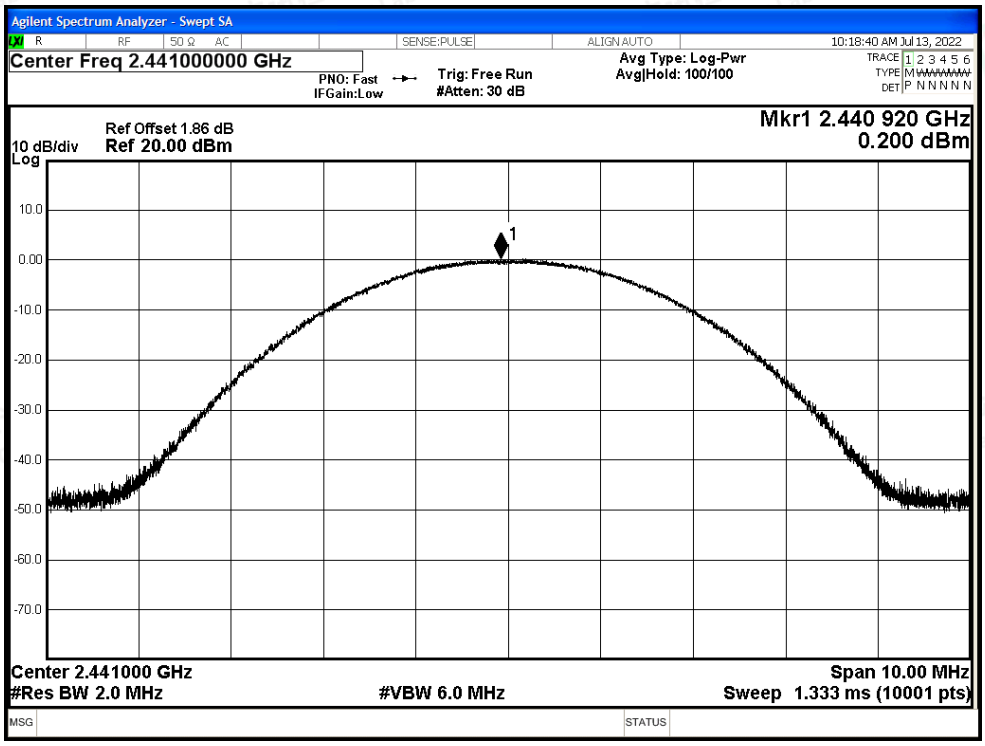
Power NVNT 1-DH5 2480MHz Ant1



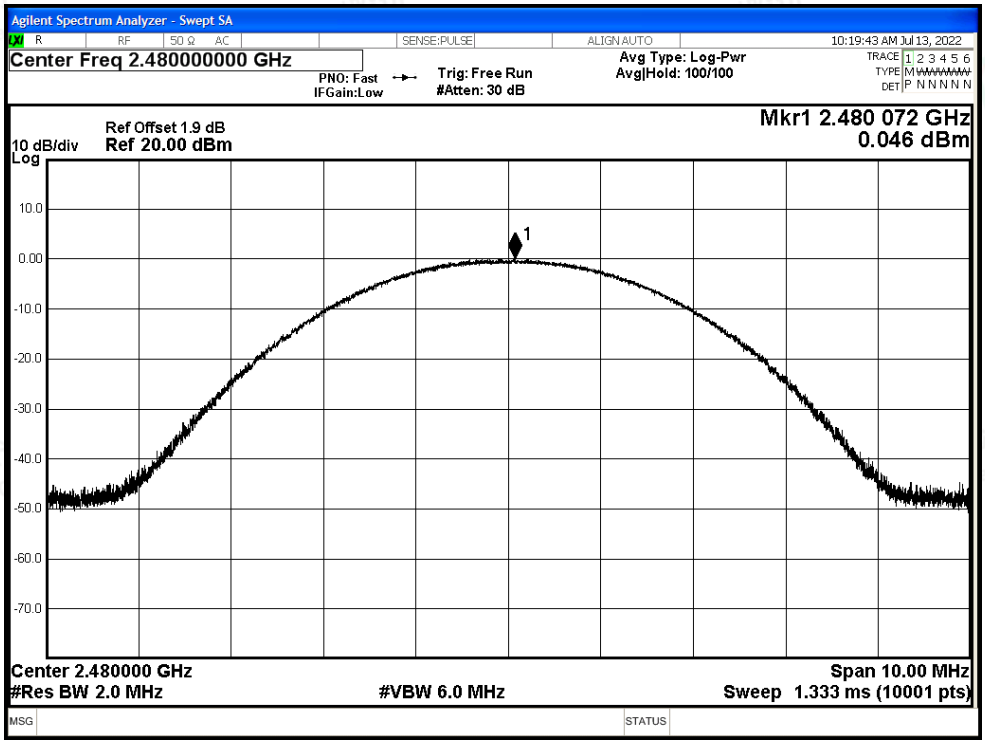
Power NVNT 2-DH5 2402MHz Ant1



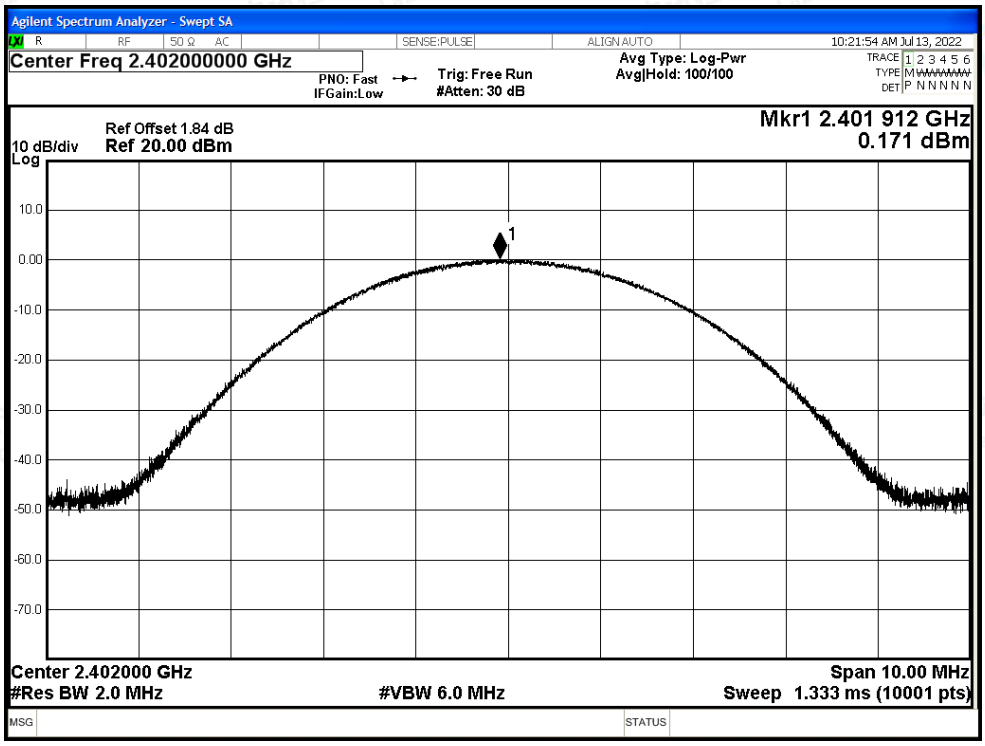
Power NVNT 2-DH5 2441MHz Ant1



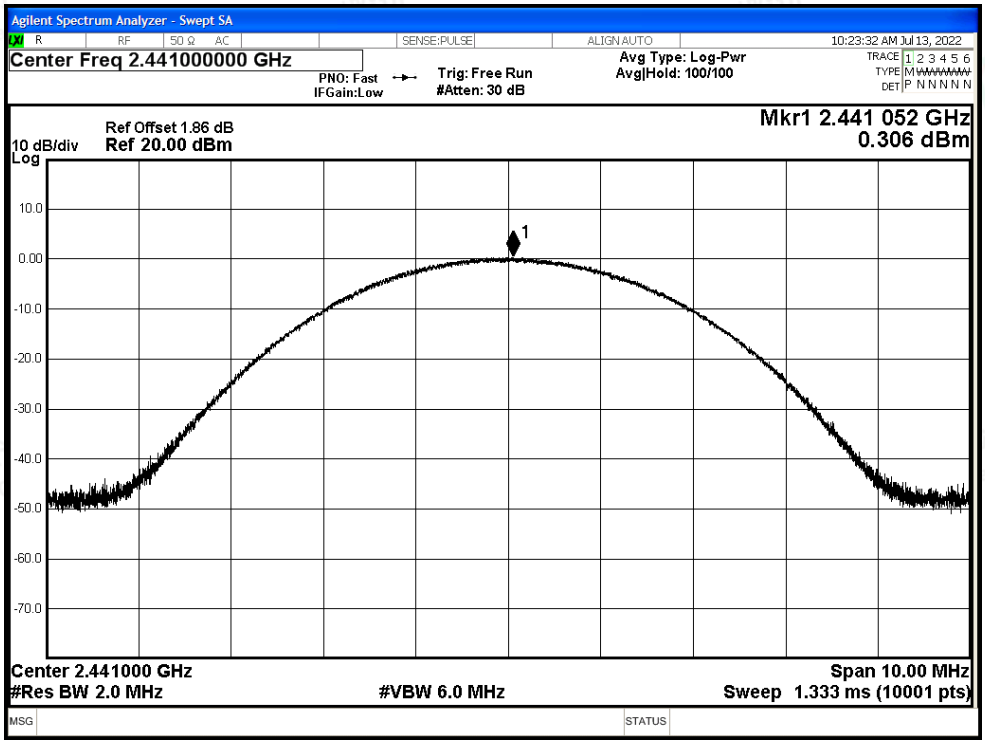
Power NVNT 2-DH5 2480MHz Ant1



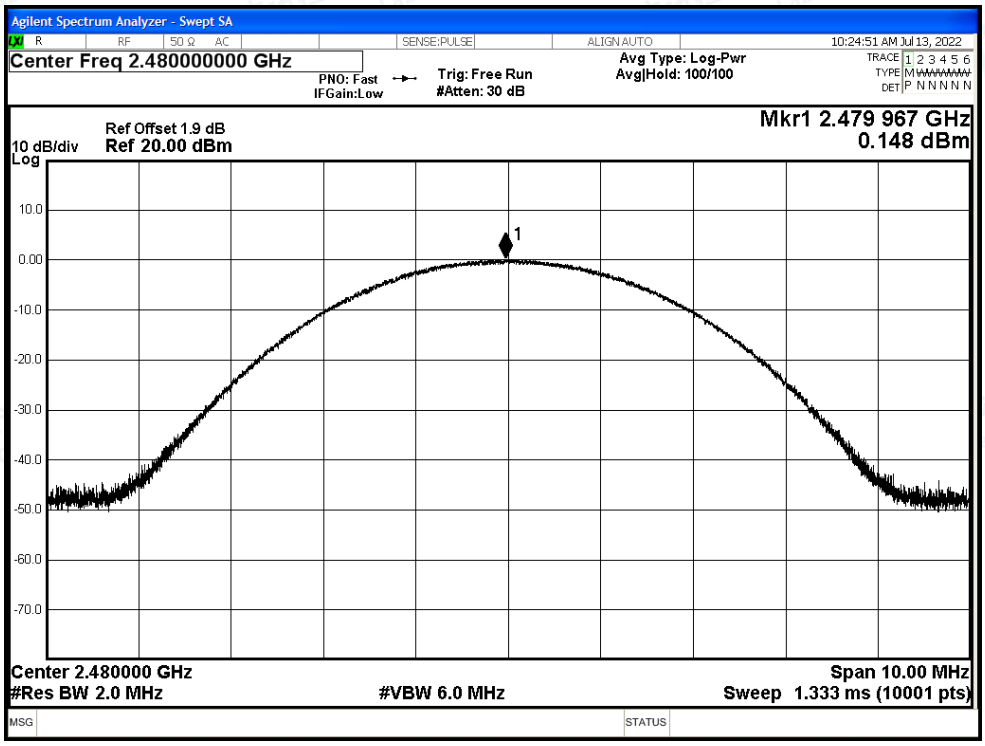
Power NVNT 3-DH5 2402MHz Ant1



Power NVNT 3-DH5 2441MHz Ant1



Power NVNT 3-DH5 2480MHz Ant1

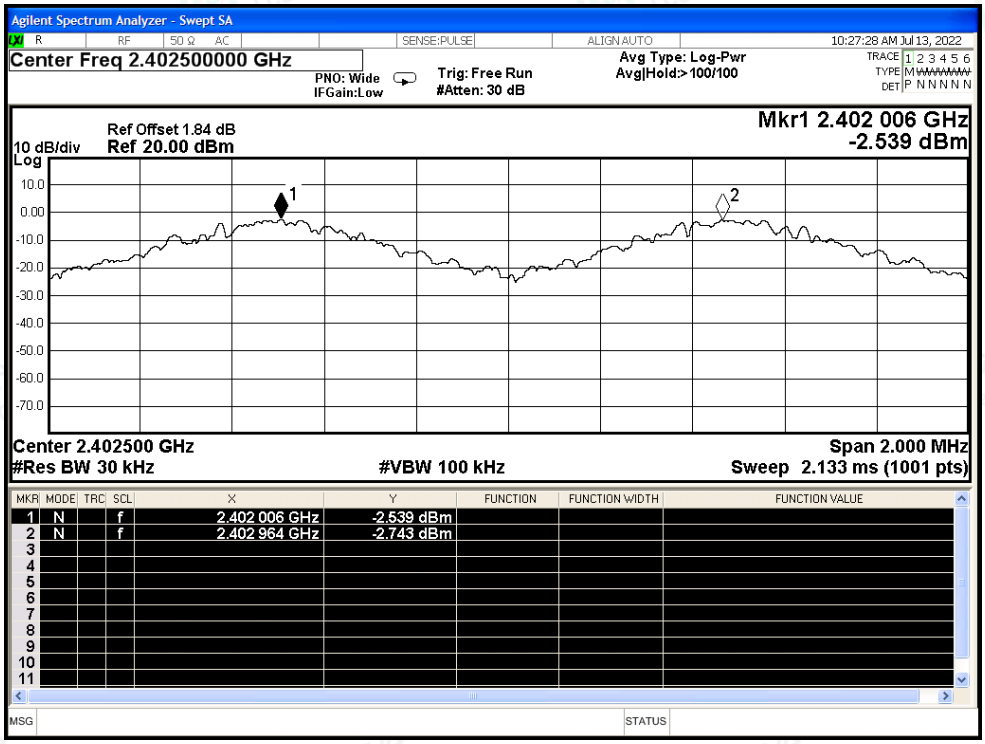


A.3 Carrier Frequencies Separation

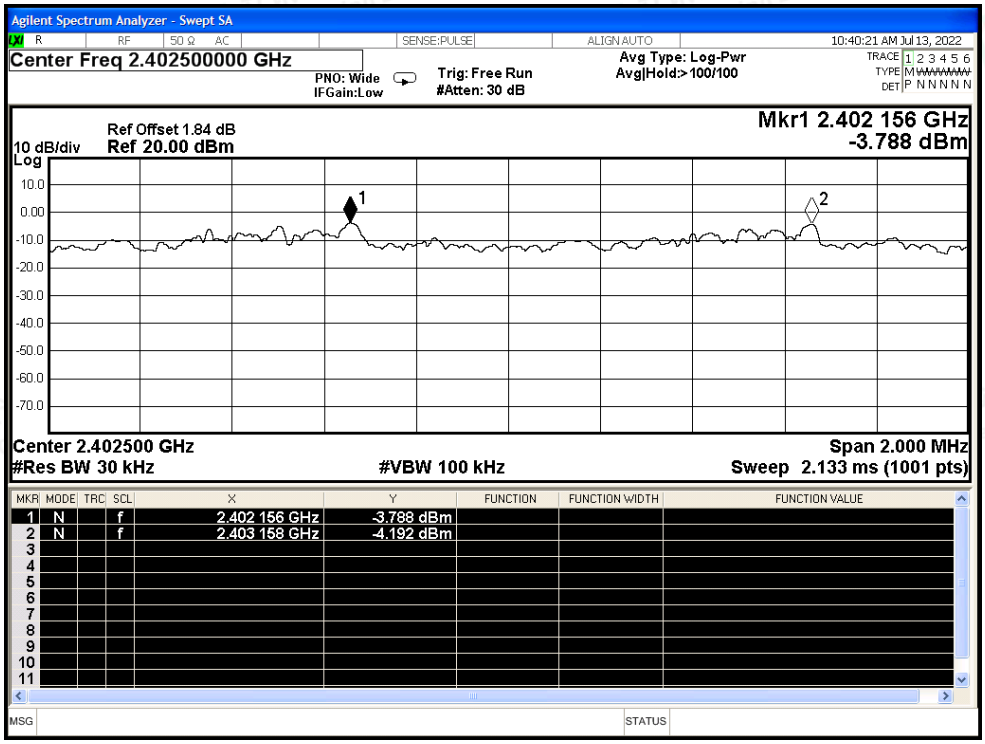
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH5	Ant1	2402.006	2402.964	0.958	0.685	Pass
NVNT	2-DH5	Ant1	2402.156	2403.158	1.002	0.858	Pass
NVNT	3-DH5	Ant1	2402.014	2403.172	1.158	0.863	Pass

Test Graphs

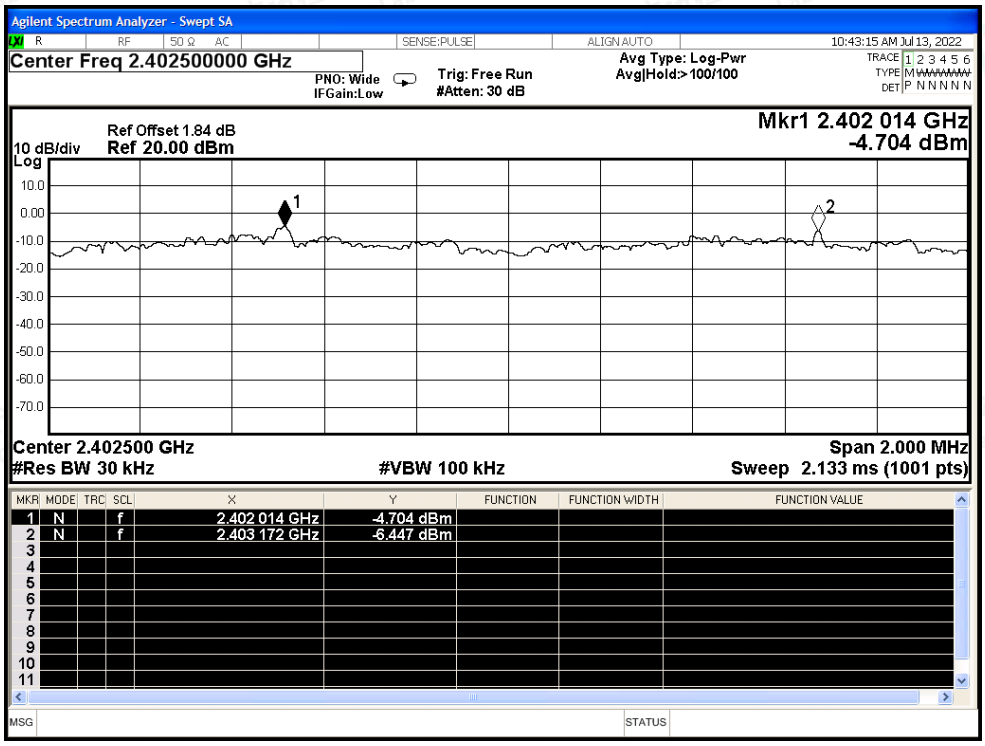
CFS NVNT 1-DH5 2402MHz Ant1



CFS NVNT 2-DH5 2402MHz Ant1



CFS NVNT 3-DH5 2402MHz Ant1

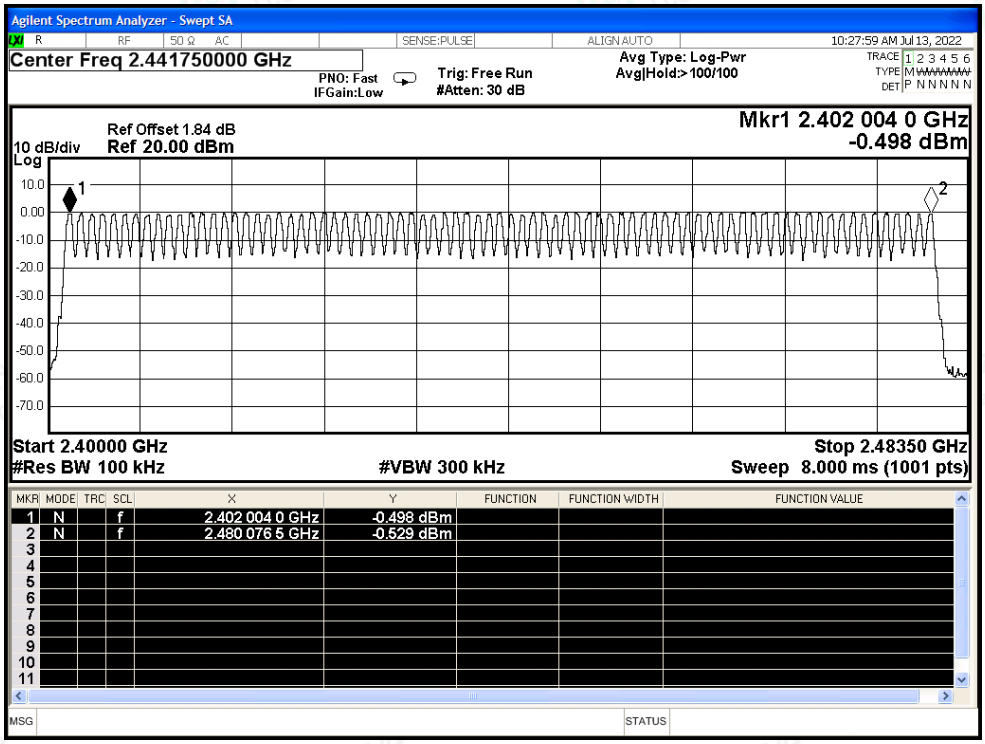


A.5 Number of Hopping Channel

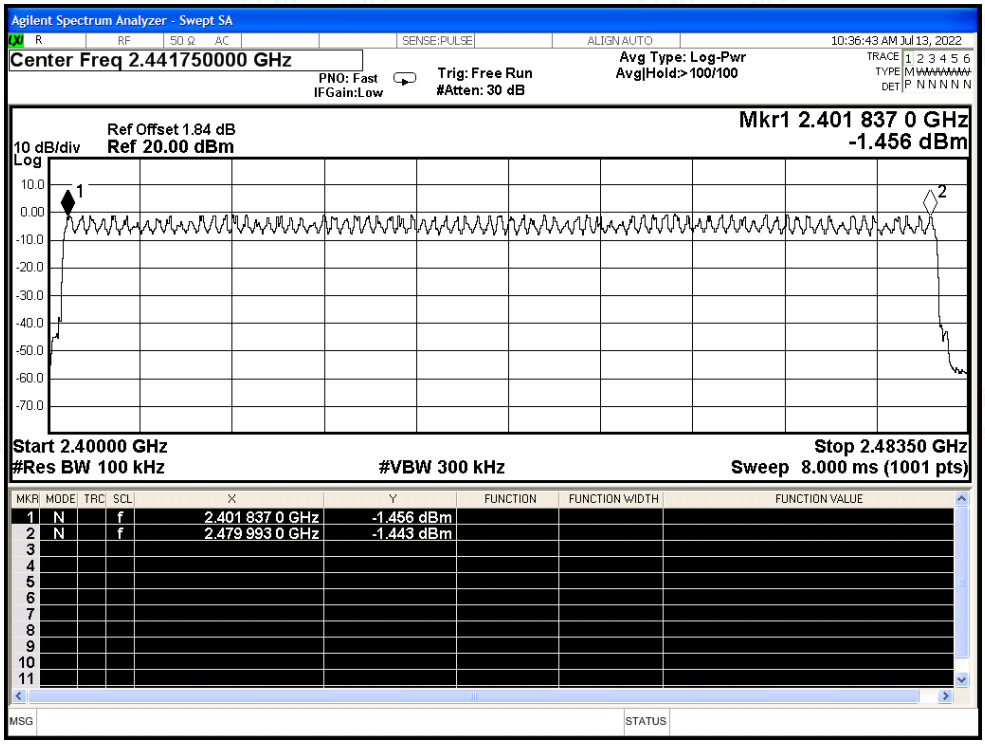
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH5	Ant1	79	15	Pass
NVNT	2-DH5	Ant1	79	15	Pass
NVNT	3-DH5	Ant1	79	15	Pass

Test Graphs

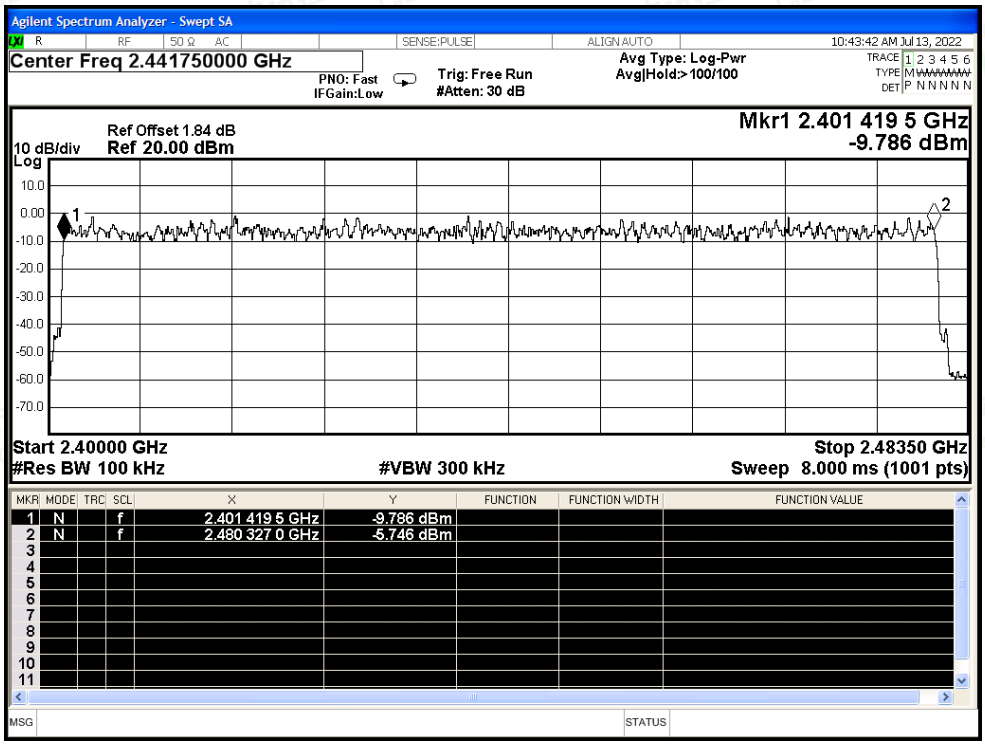
Hopping No. NVNT 1-DH5 2402MHz Ant1



Hopping No. NVNT 2-DH5 2402MHz Ant1



Hopping No. NVNT 3-DH5 2402MHz Ant1

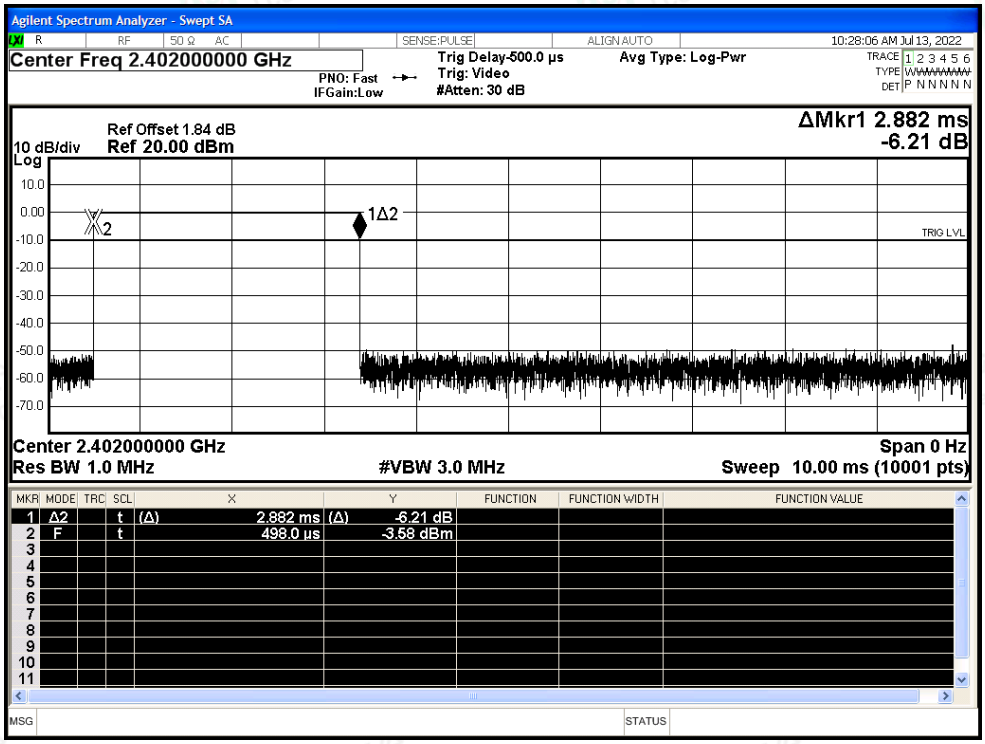


A.4 Dwell Time

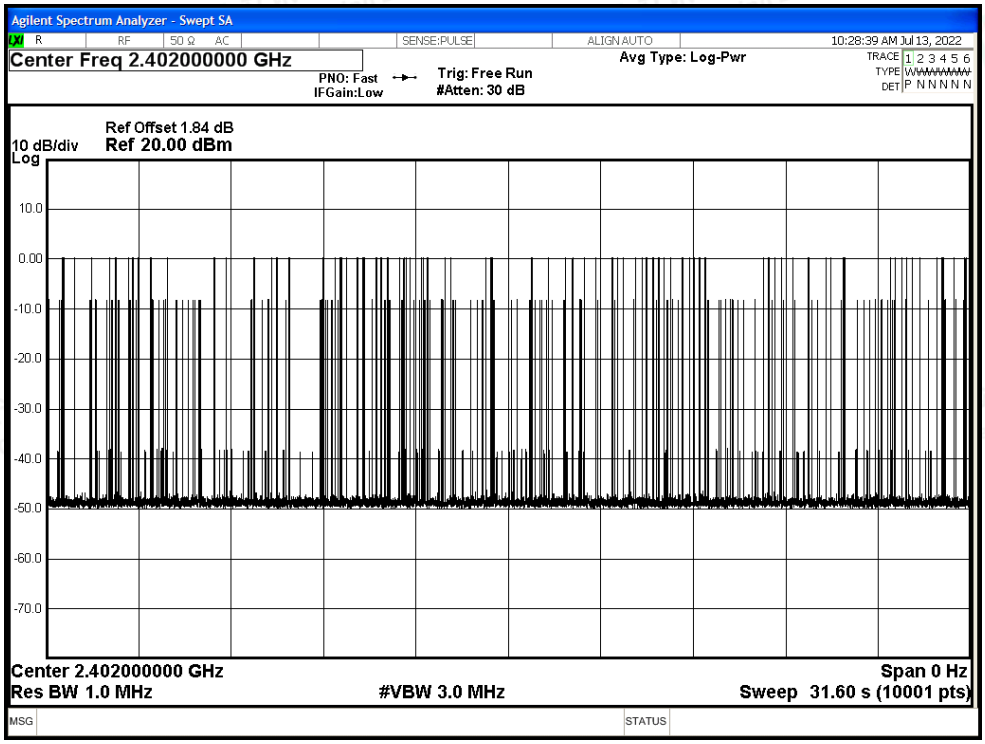
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH5	2402	Ant1	2.882	293.964	102	31600	400	Pass
NVNT	2-DH5	2402	Ant1	2.885	271.19	94	31600	400	Pass
NVNT	3-DH5	2402	Ant1	2.886	314.574	109	31600	400	Pass

Test Graphs

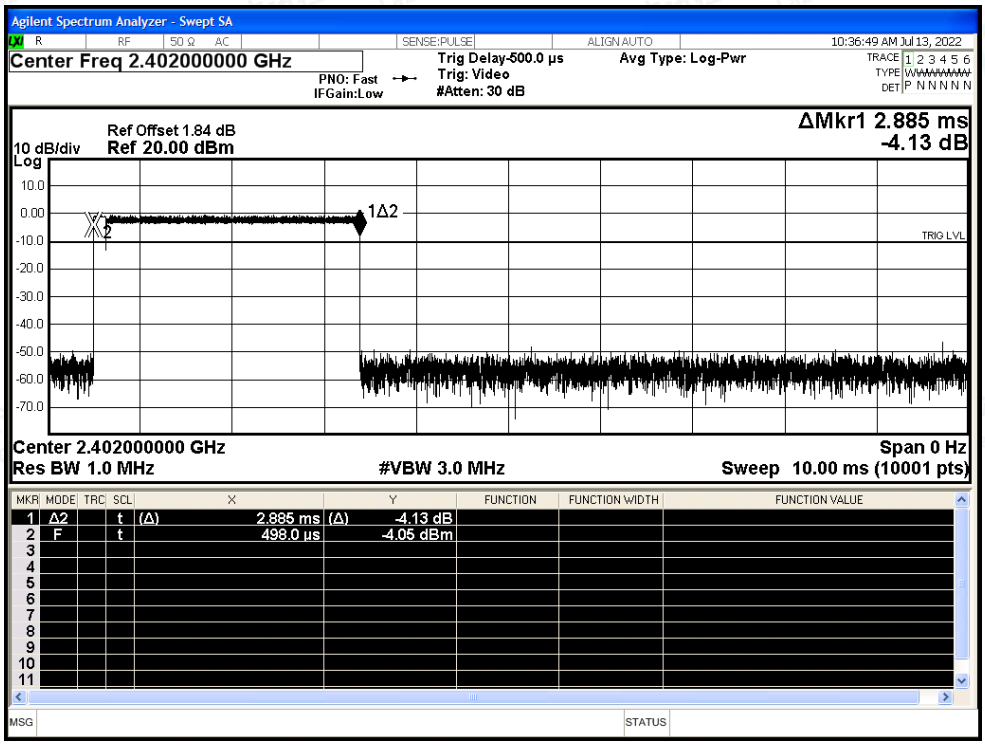
Dwell NVNT 1-DH5 2402MHz Ant1 One Burst



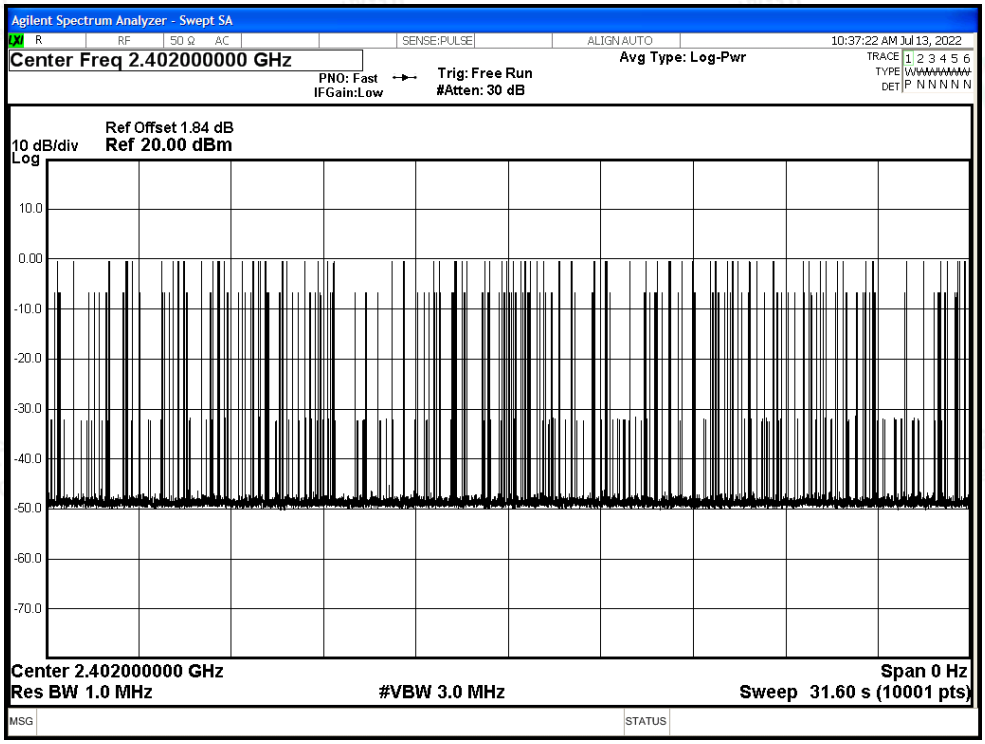
Dwell NVNT 1-DH5 2402MHz Ant1 Accumulated



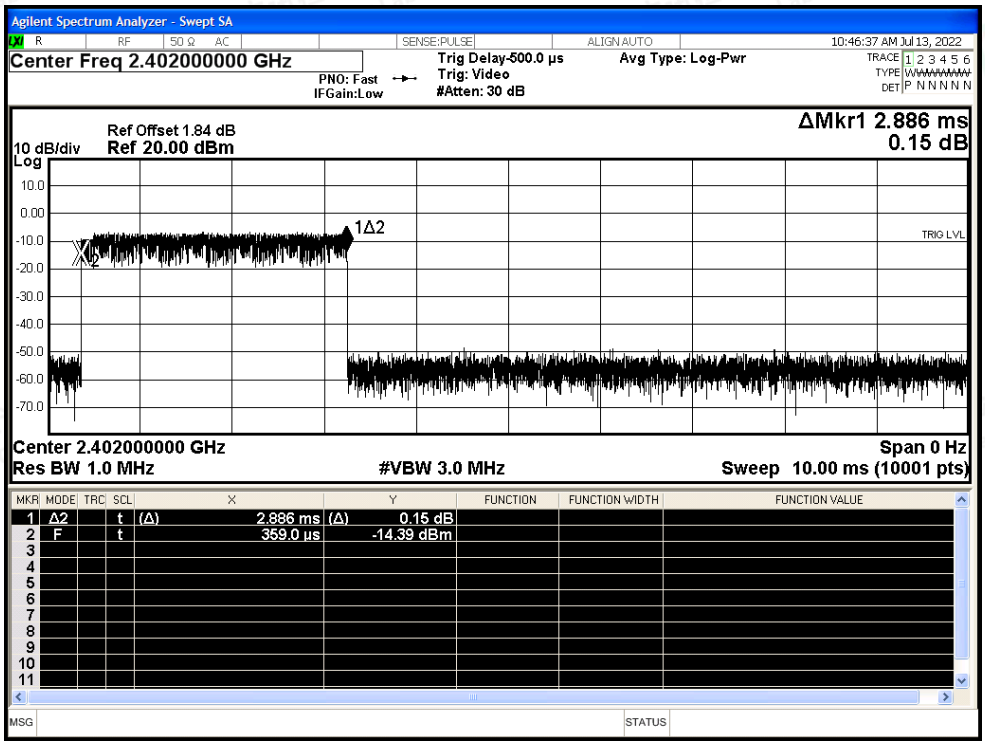
Dwell NVNT 2-DH5 2402MHz Ant1 One Burst



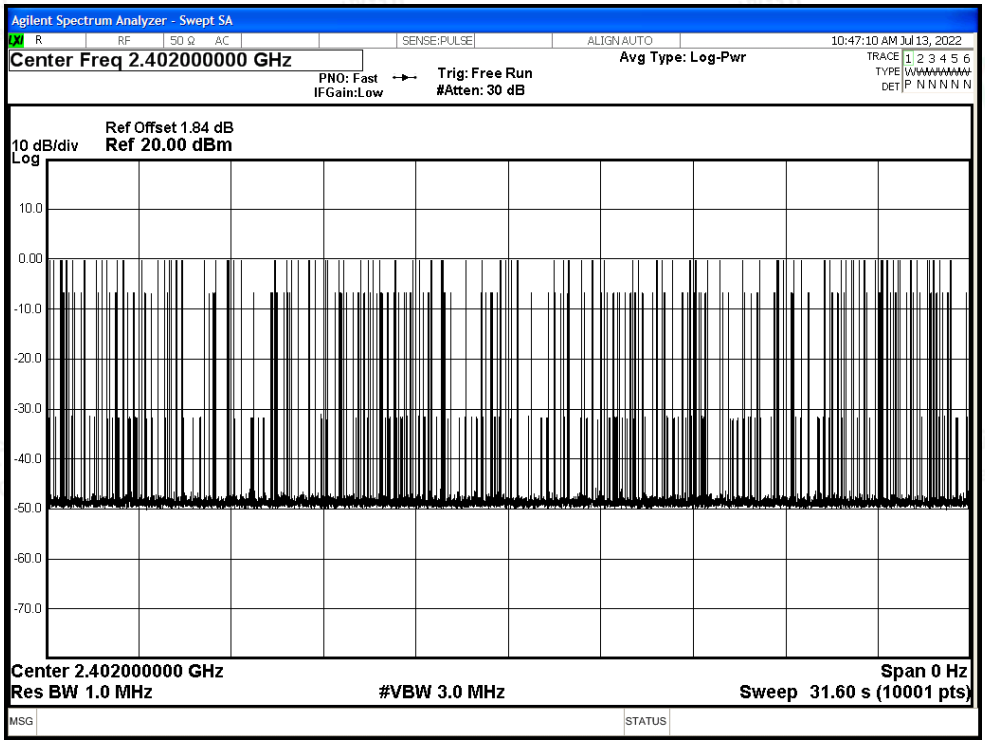
Dwell NVNT 2-DH5 2402MHz Ant1 Accumulated



Dwell NVNT 3-DH5 2402MHz Ant1 One Burst



Dwell NVNT 3-DH5 2402MHz Ant1 Accumulated

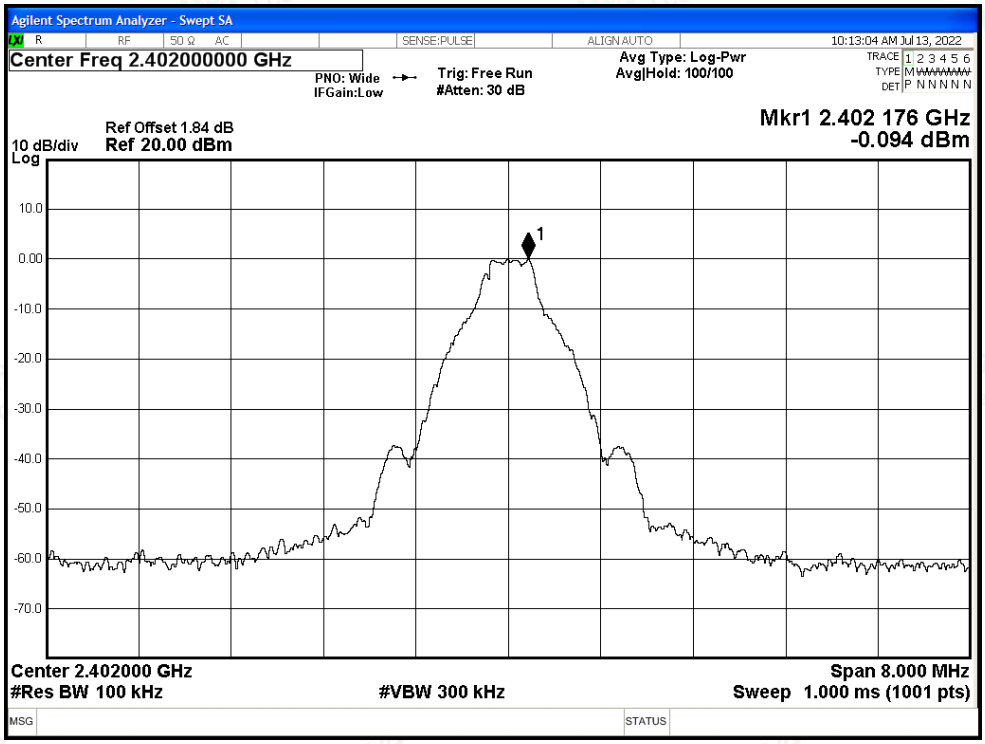


A.6 Band Edge

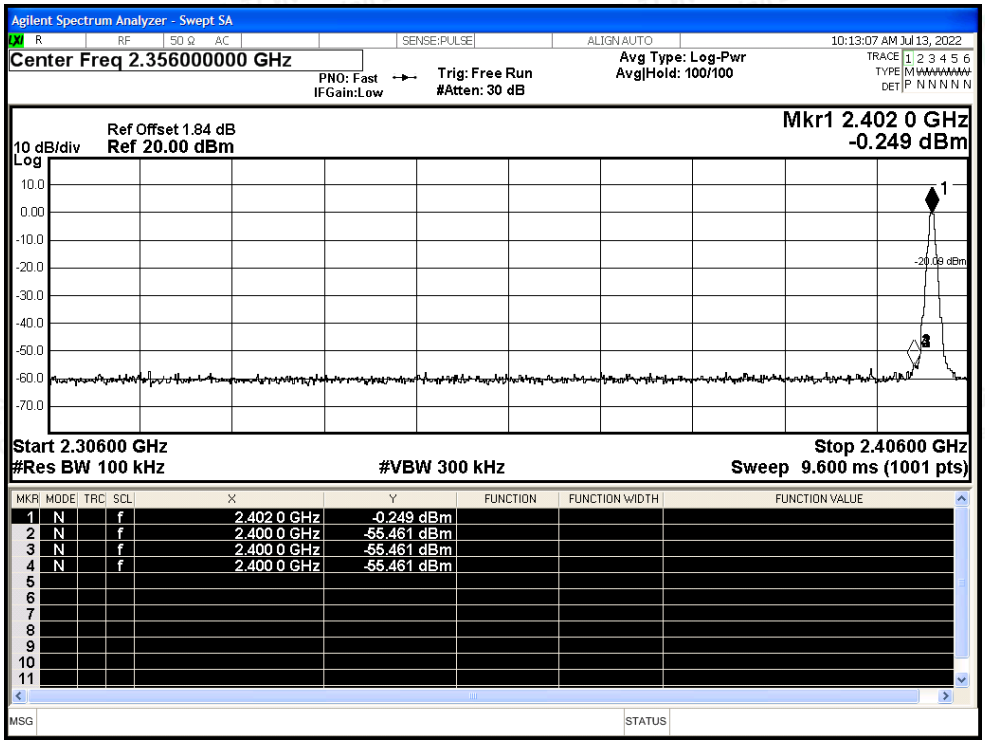
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	-55.37	-20	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	-56.87	-20	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	-54.04	-20	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	-54.76	-20	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	-55.38	-20	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	-55.98	-20	Pass

Test Graphs

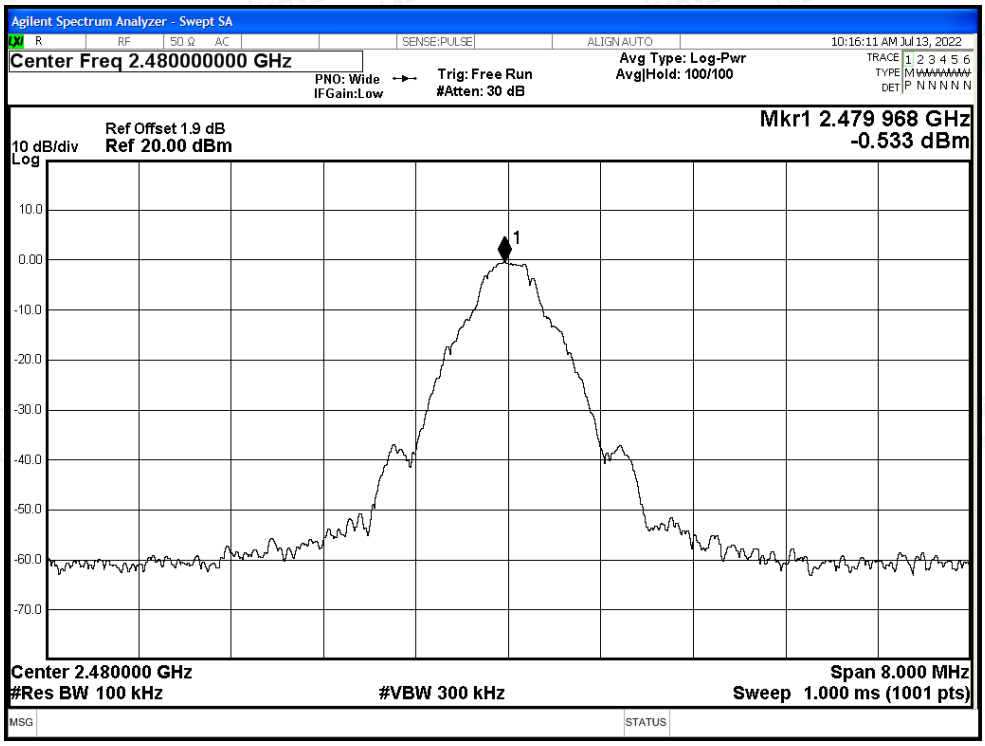
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Ref



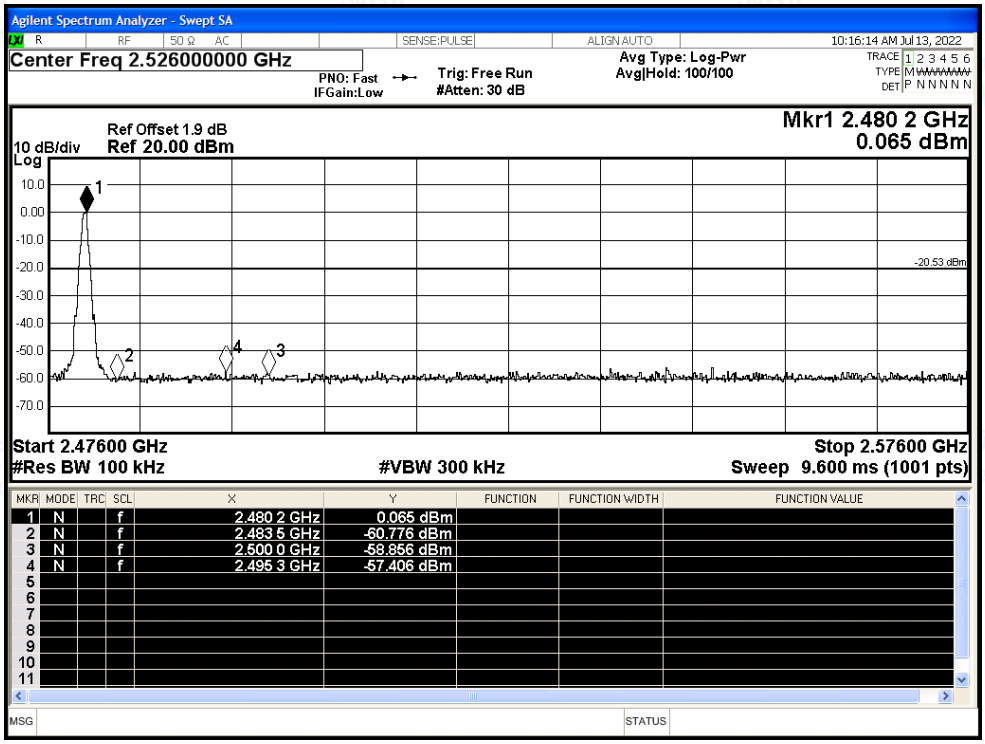
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Emission



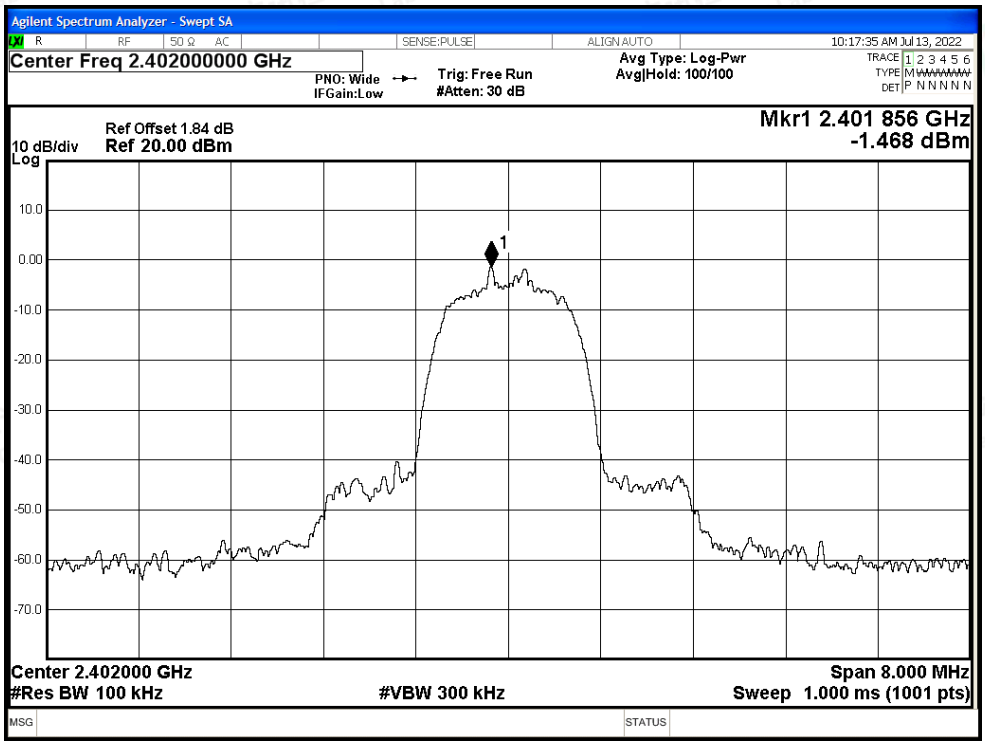
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref



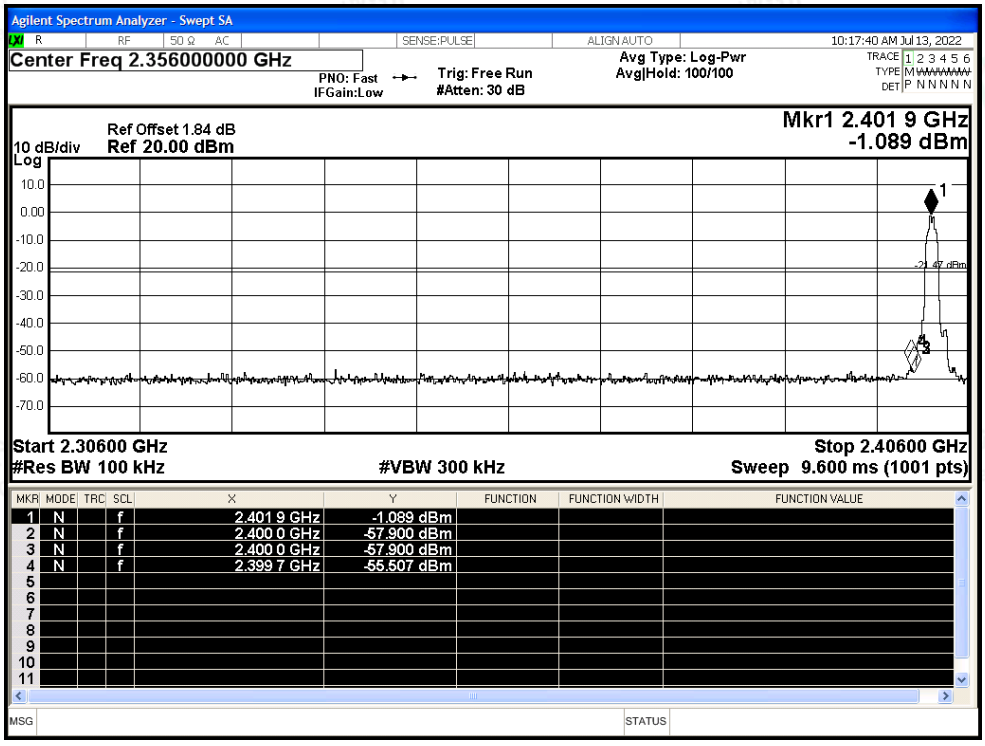
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Emission



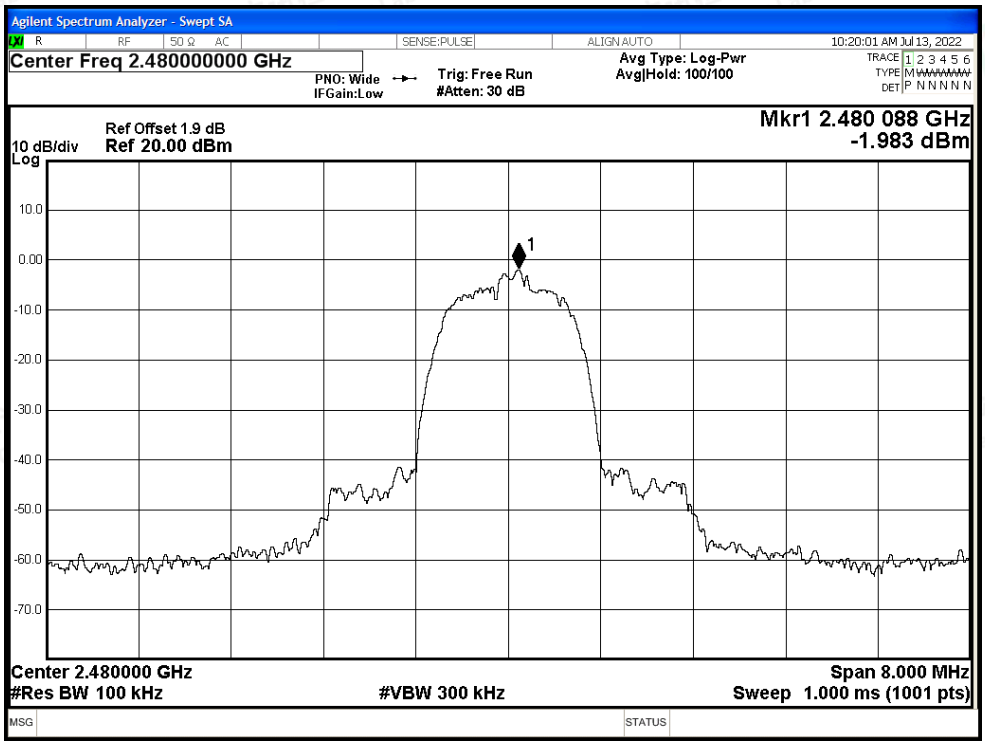
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Ref



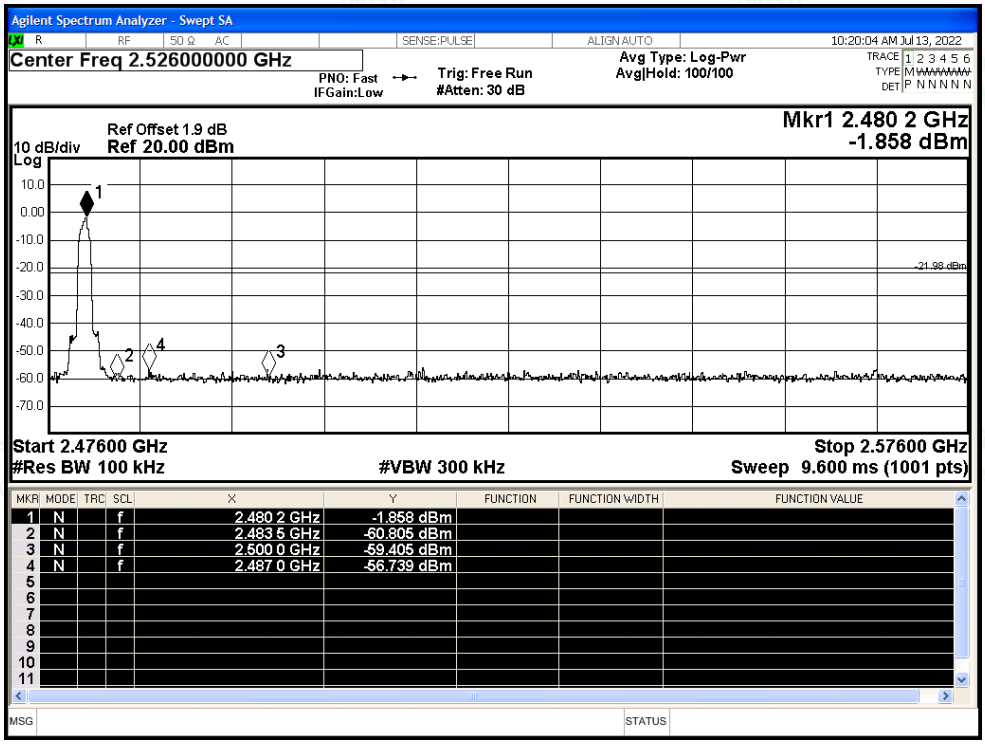
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Emission



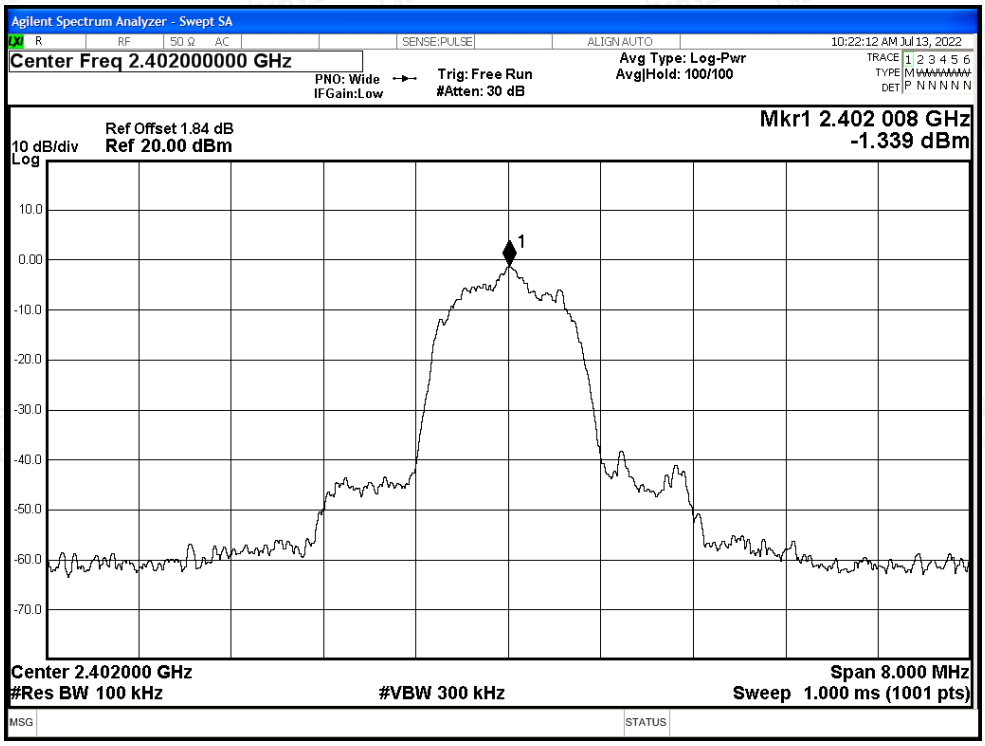
Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Ref



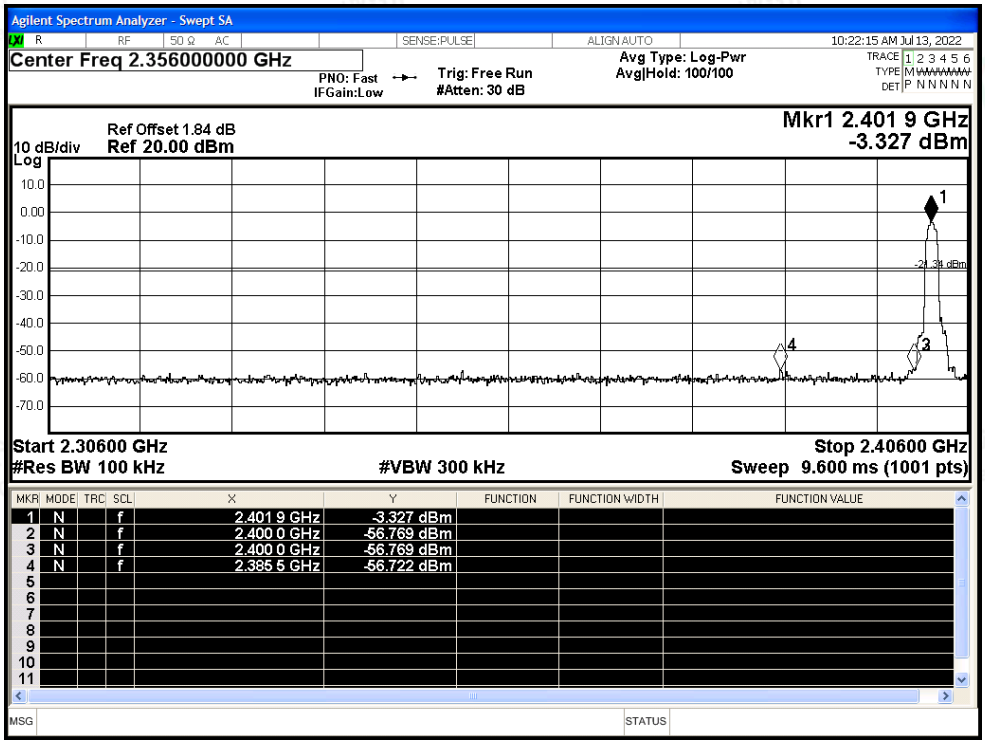
Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Emission



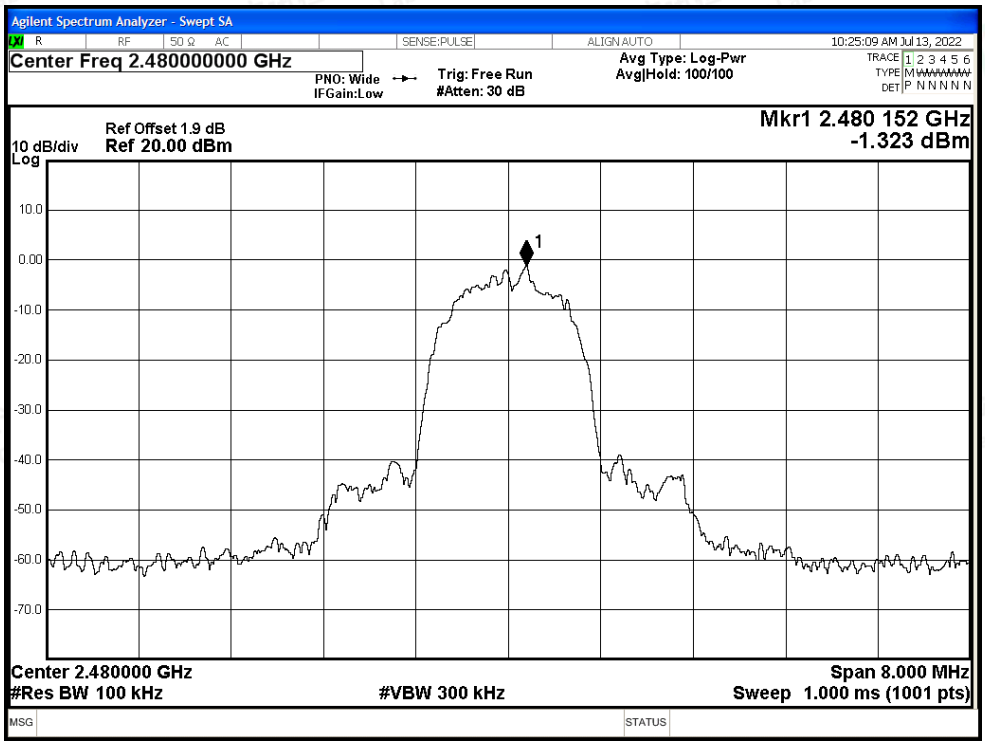
Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Ref



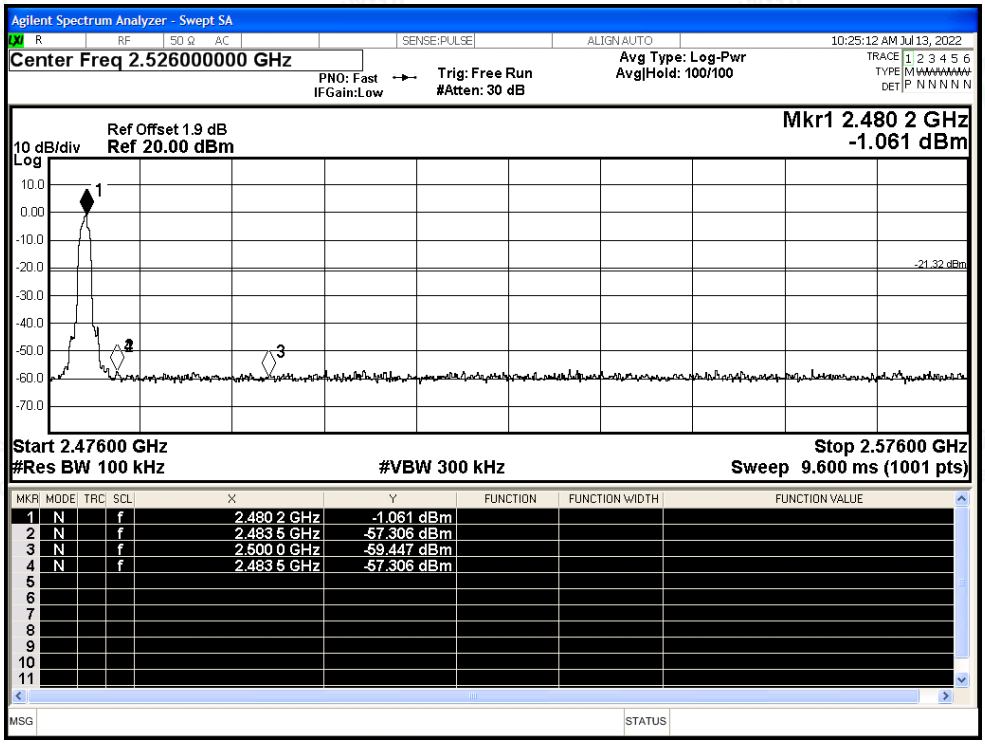
Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Emission



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



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

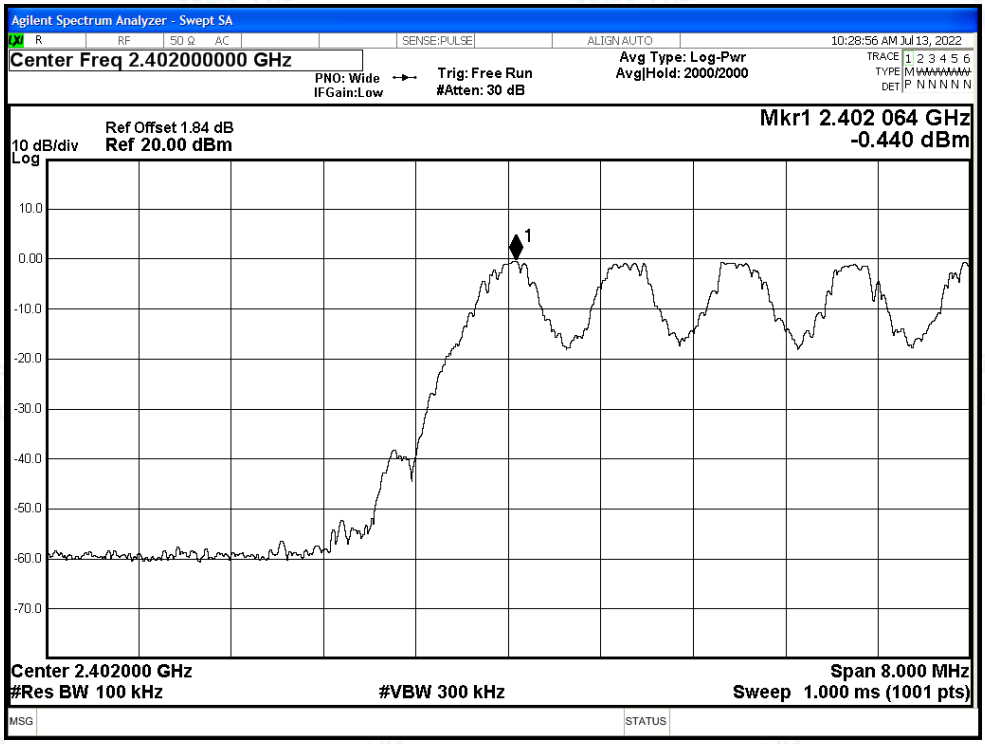


(Hopping)

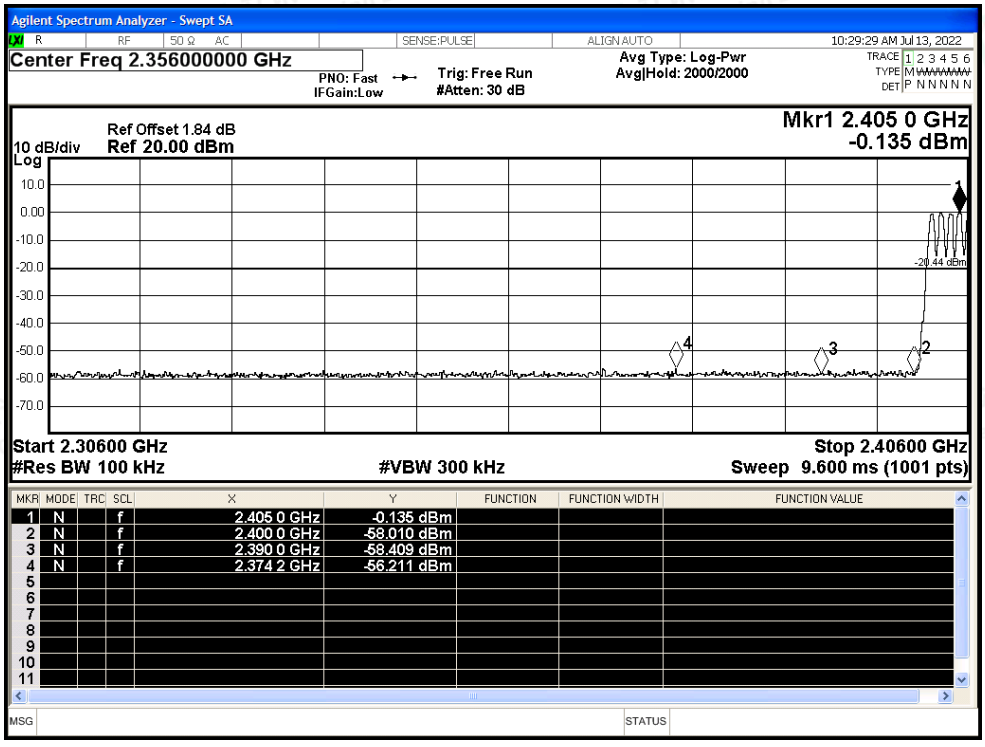
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	Hopping	-55.77	-20	Pass
NVNT	1-DH5	2480	Ant1	Hopping	-56.44	-20	Pass
NVNT	2-DH5	2402	Ant1	Hopping	-54.83	-20	Pass
NVNT	2-DH5	2480	Ant1	Hopping	-55.44	-20	Pass
NVNT	3-DH5	2402	Ant1	Hopping	-55.12	-20	Pass
NVNT	3-DH5	2480	Ant1	Hopping	-54.26	-20	Pass

Test Graphs

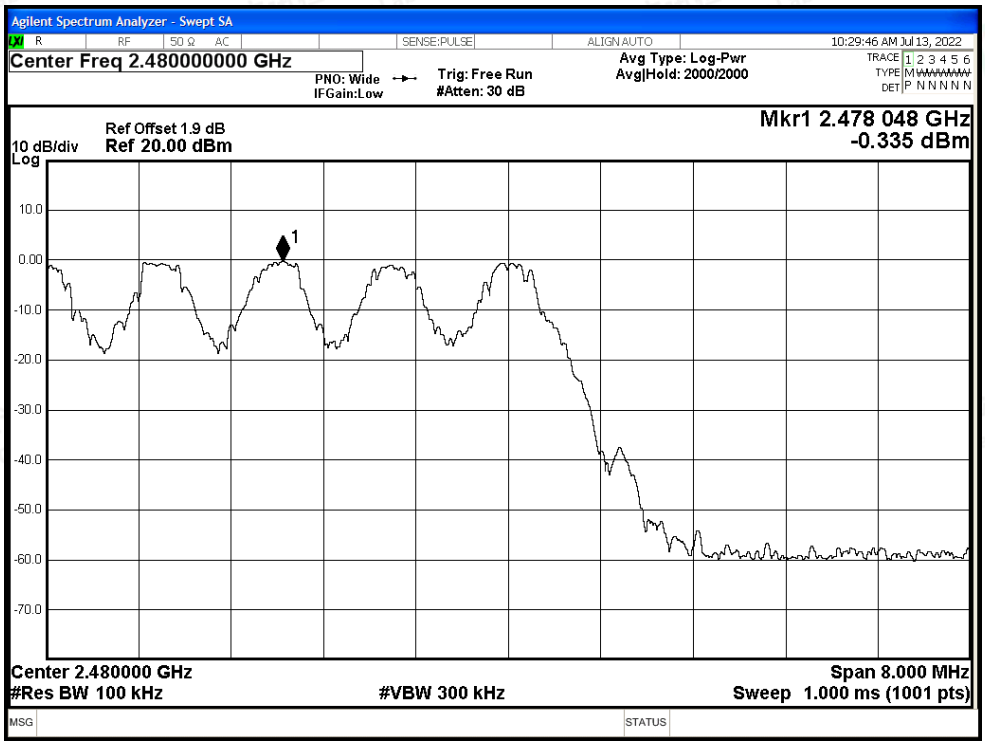
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Ref



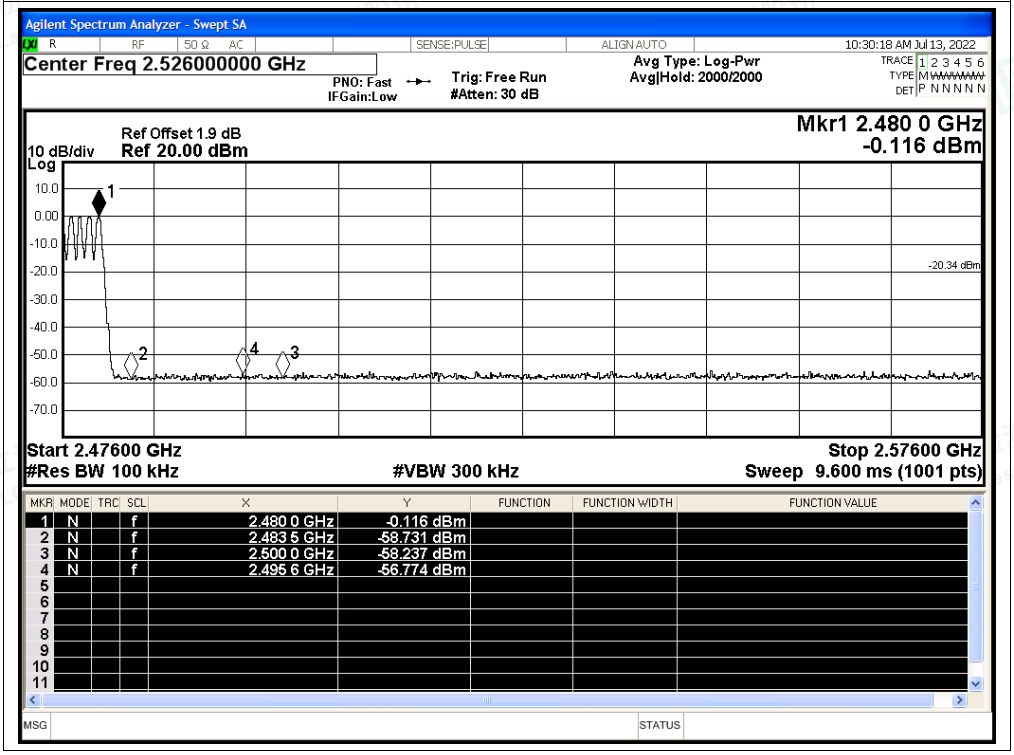
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission



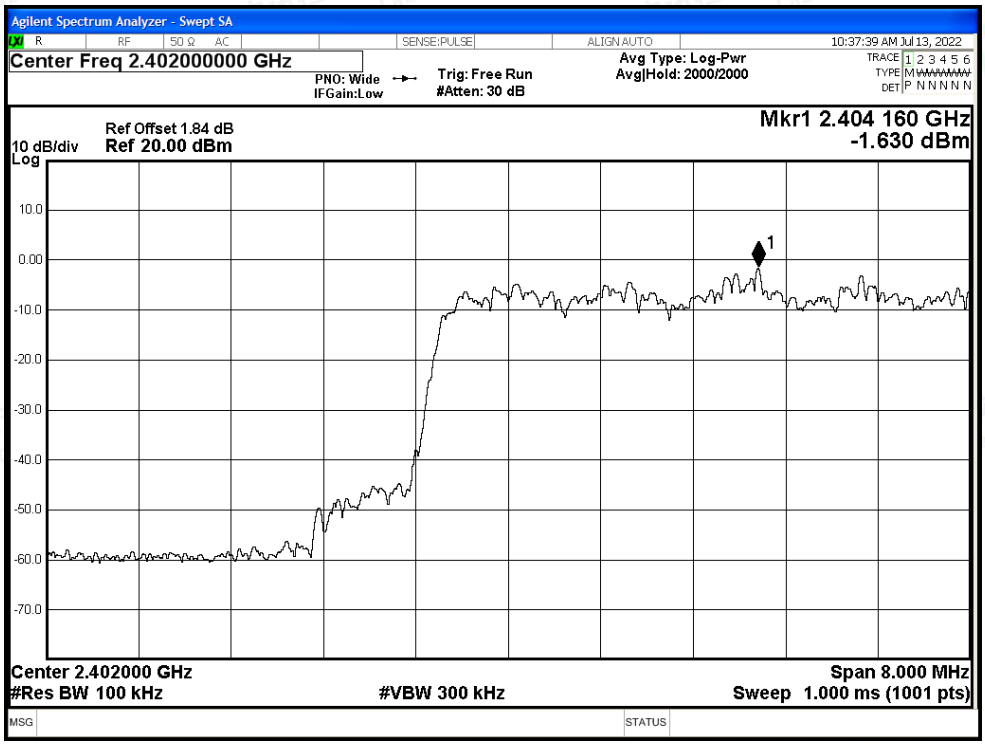
Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Ref



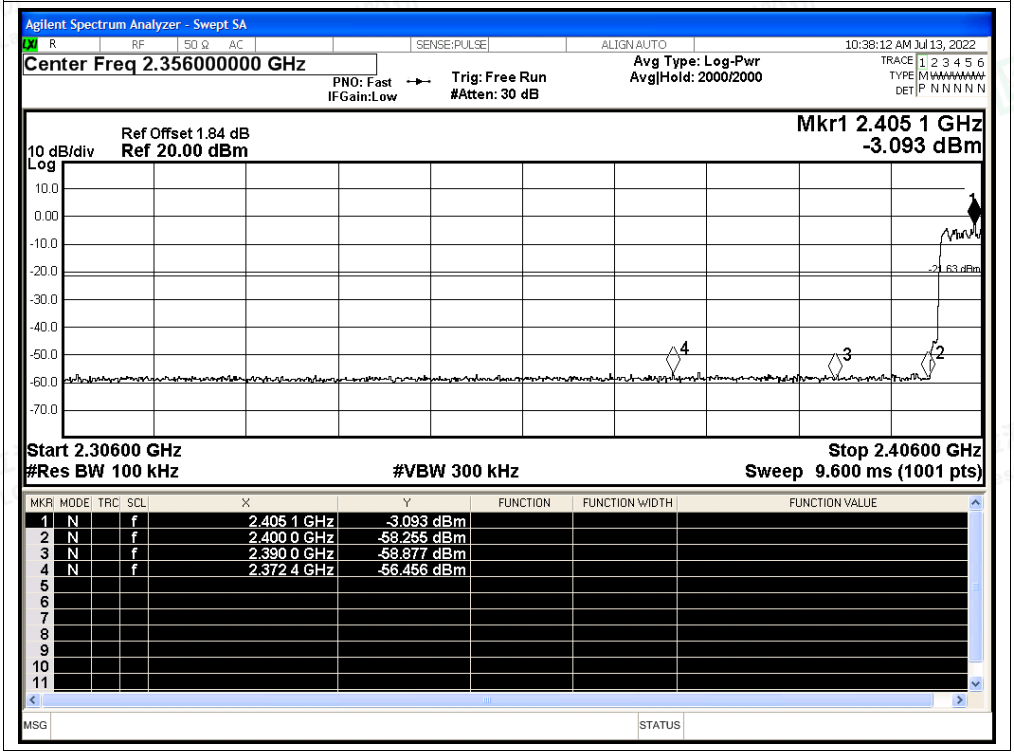
Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Emission



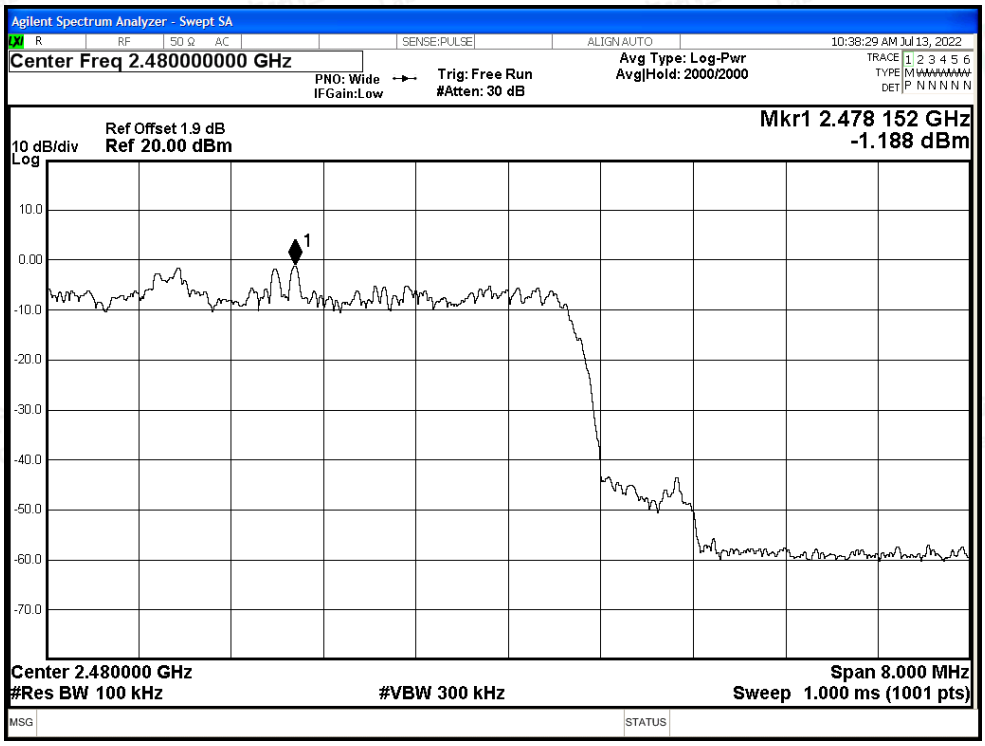
Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Ref



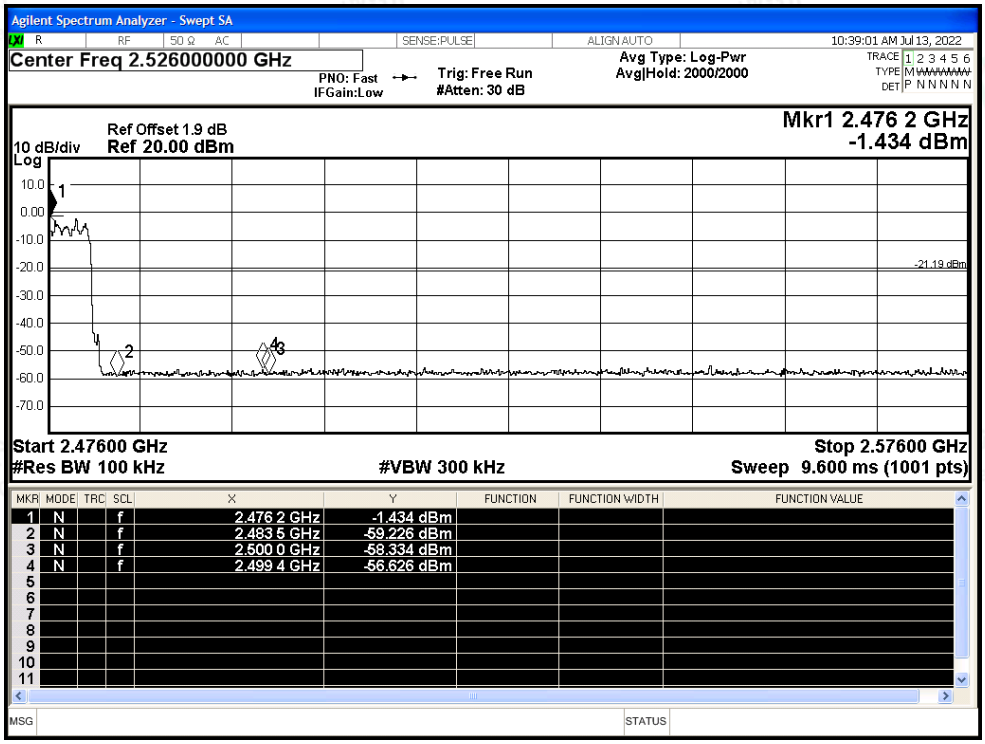
Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Emission



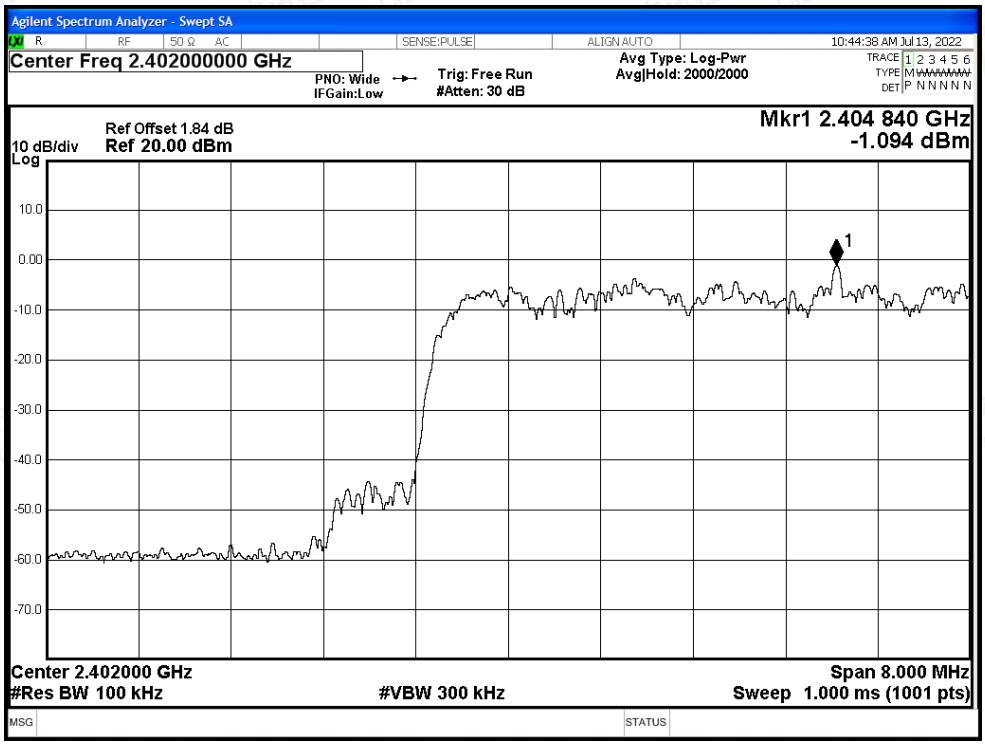
Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Ref



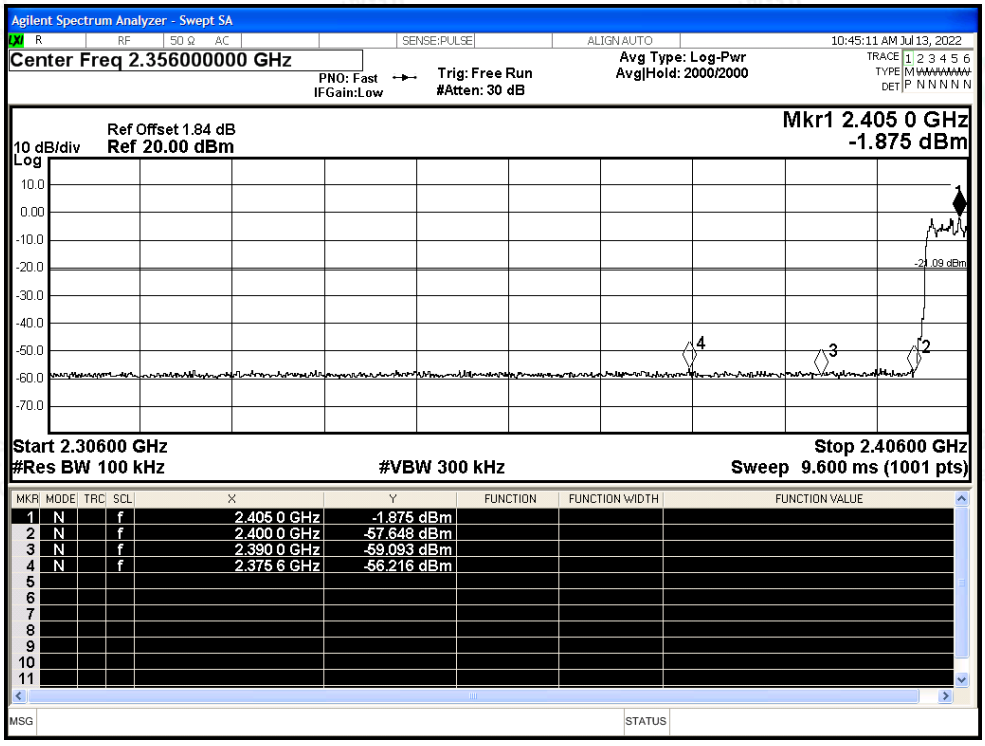
Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Emission



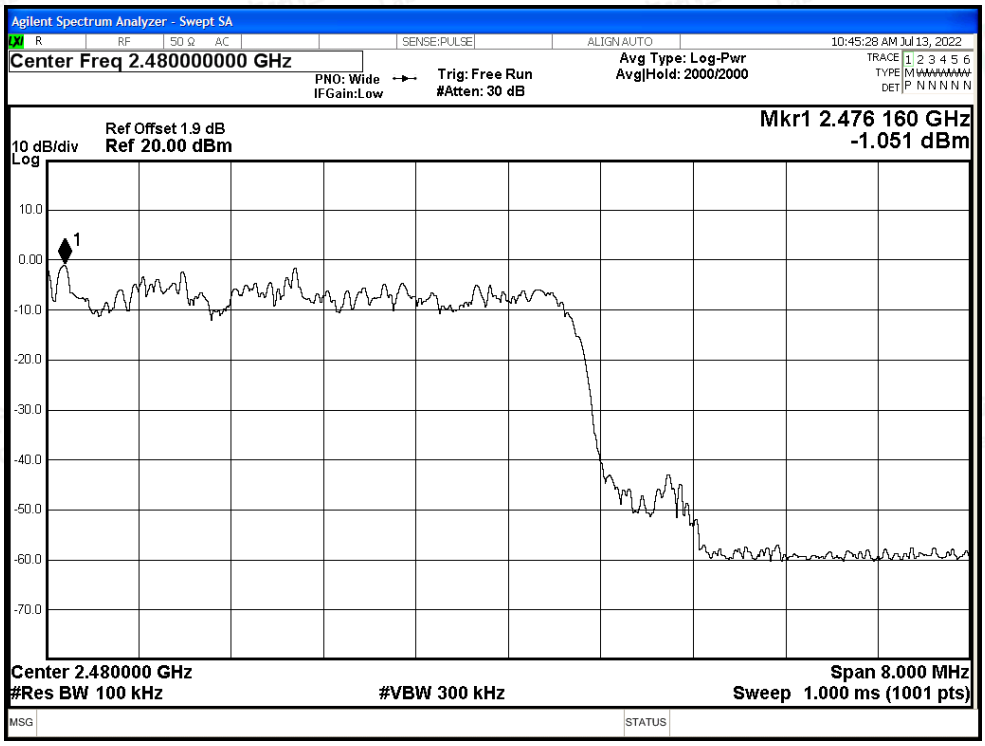
Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Ref



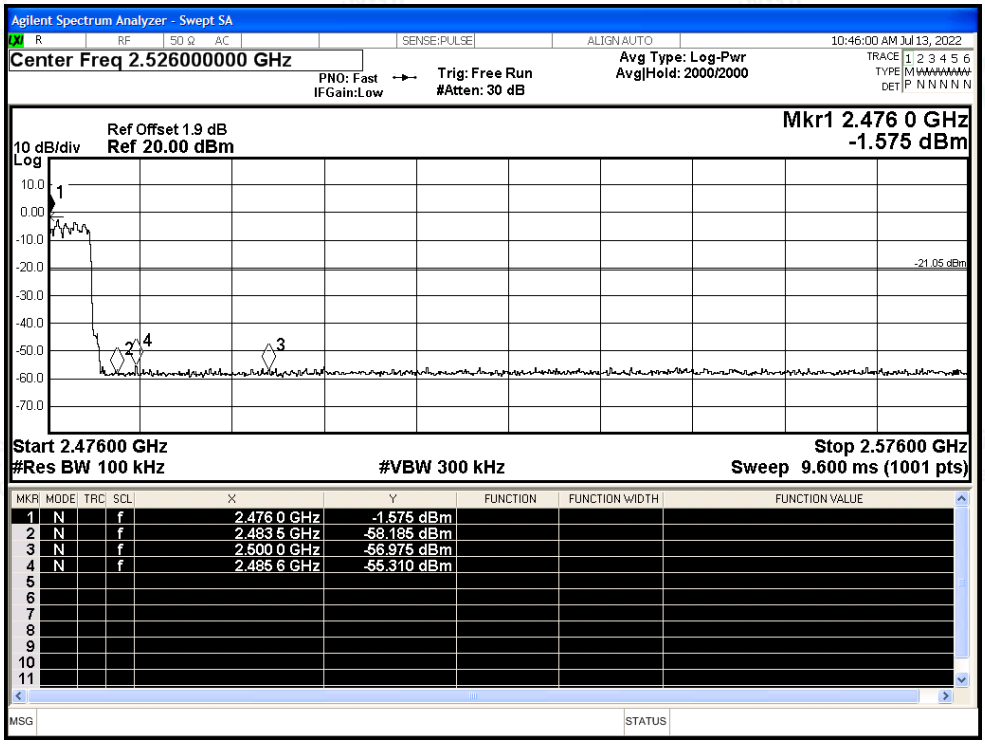
Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Emission



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



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

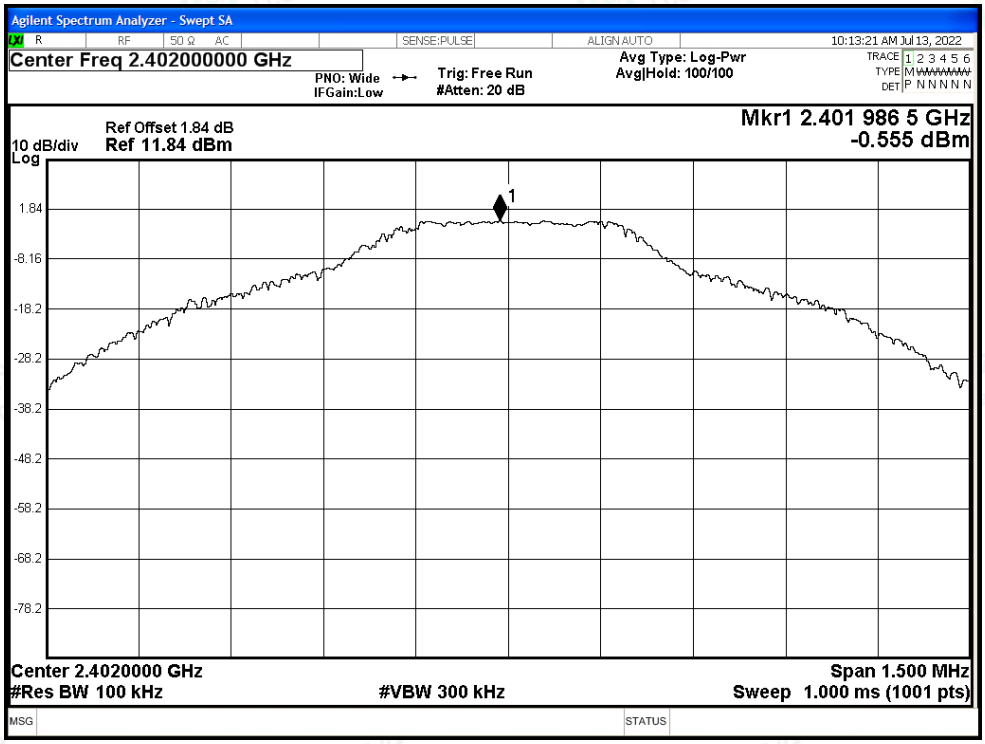


A.7 Conducted RF Spurious Emission

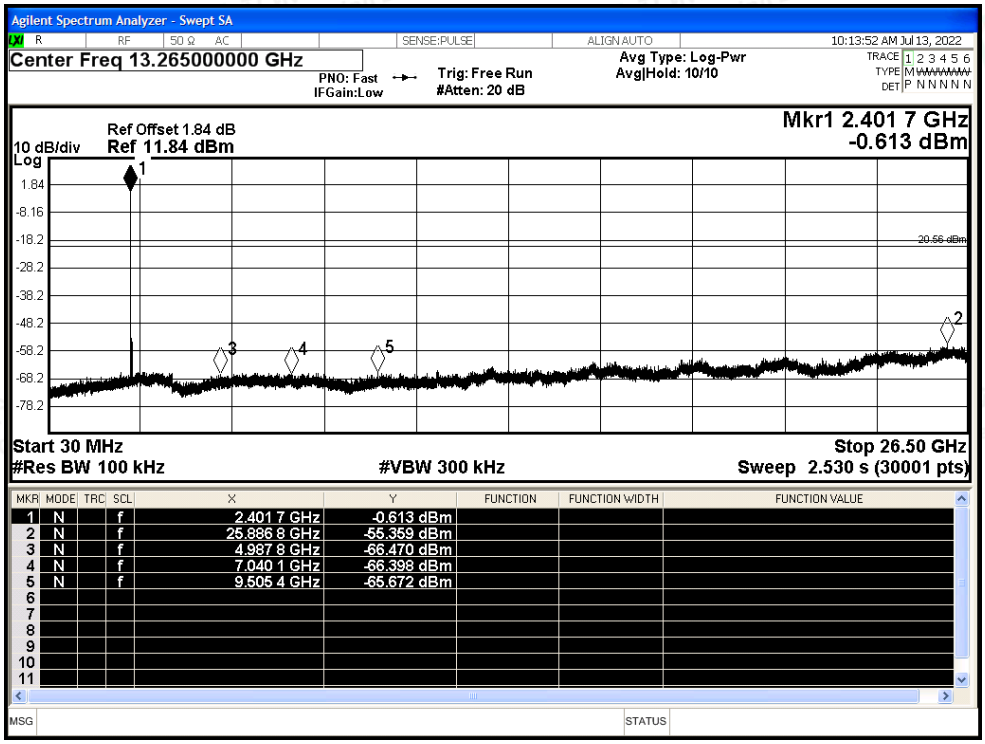
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	-54.8	-20	Pass
NVNT	1-DH5	2441	Ant1	-55.76	-20	Pass
NVNT	1-DH5	2480	Ant1	-55.66	-20	Pass
NVNT	2-DH5	2402	Ant1	-54.84	-20	Pass
NVNT	2-DH5	2441	Ant1	-54.77	-20	Pass
NVNT	2-DH5	2480	Ant1	-53.45	-20	Pass
NVNT	3-DH5	2402	Ant1	-54.12	-20	Pass
NVNT	3-DH5	2441	Ant1	-54.13	-20	Pass
NVNT	3-DH5	2480	Ant1	-54.59	-20	Pass

Test Graphs

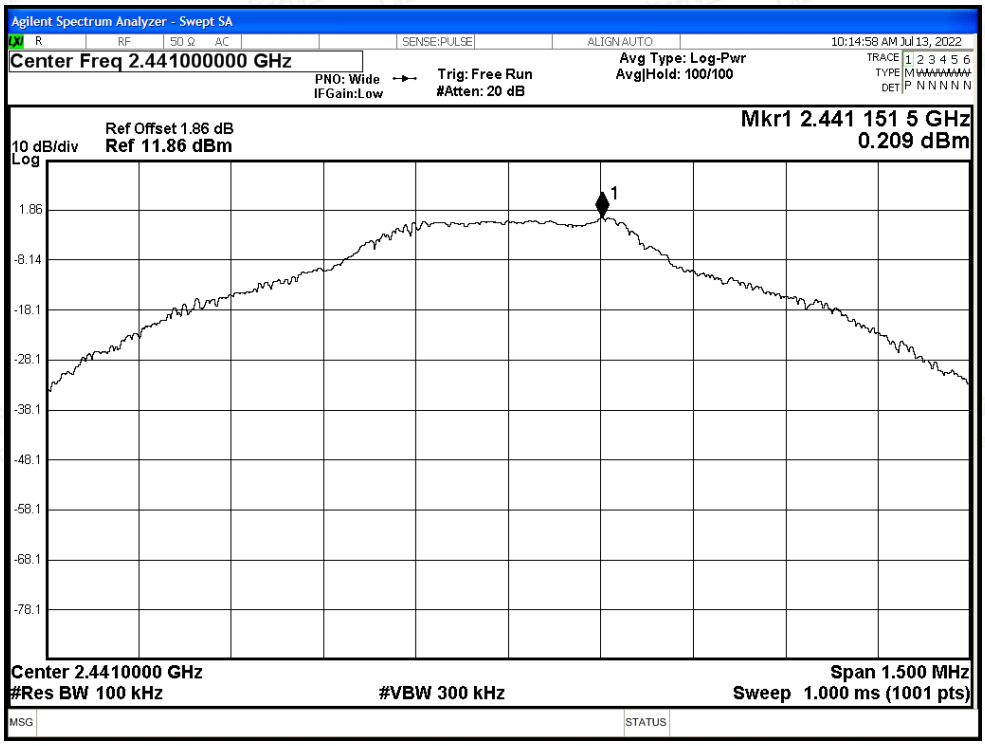
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref



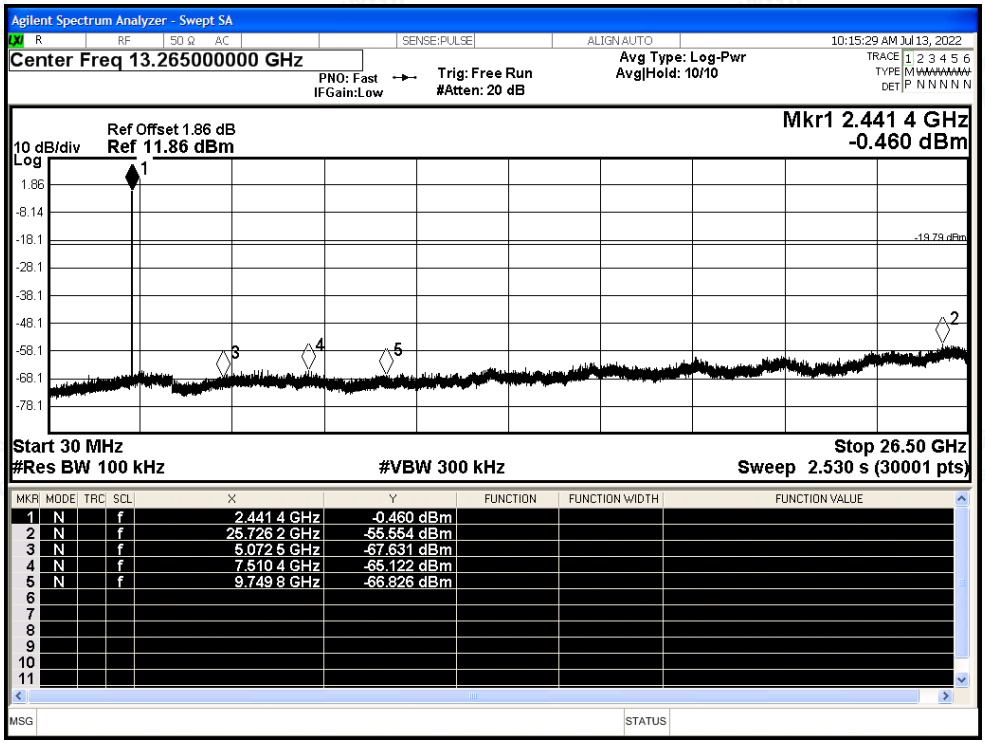
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission



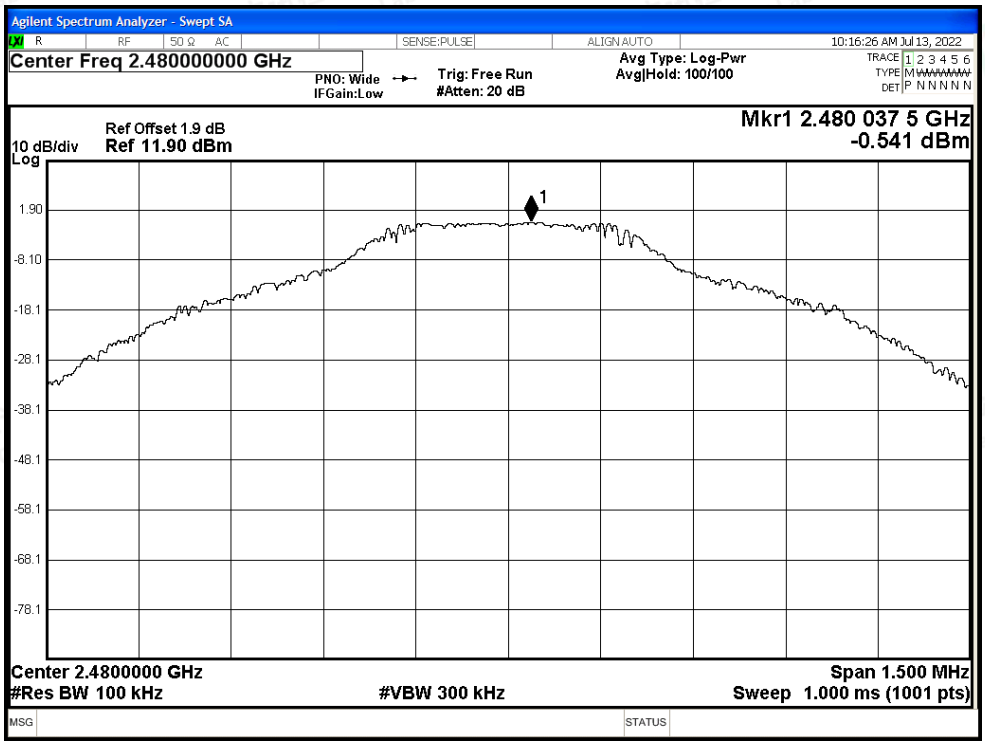
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref



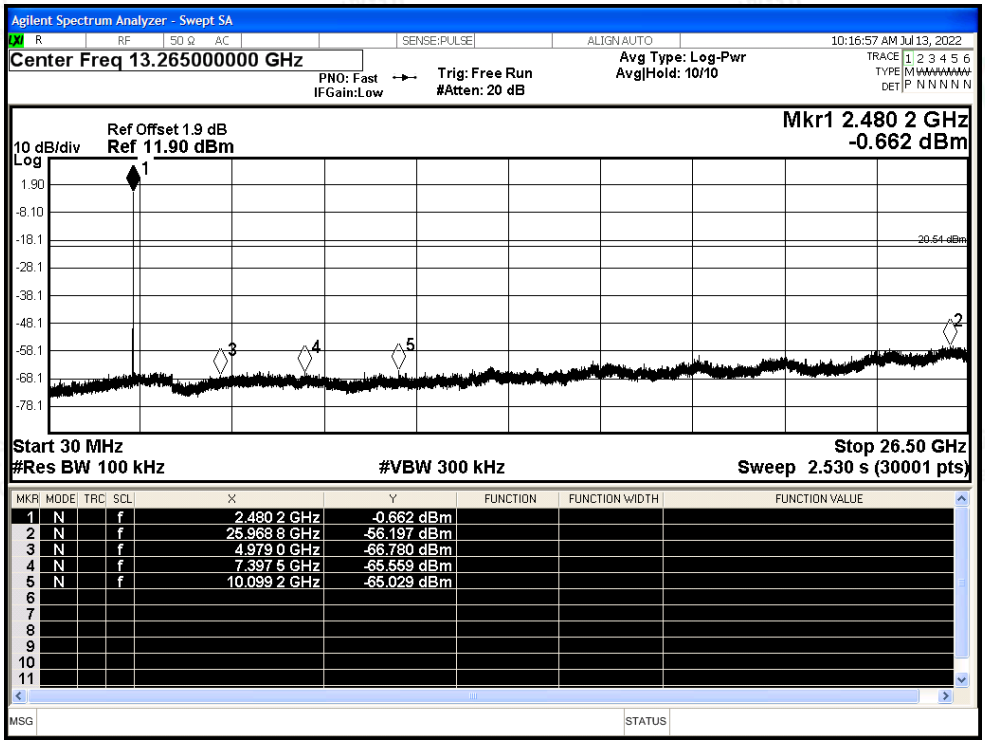
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission



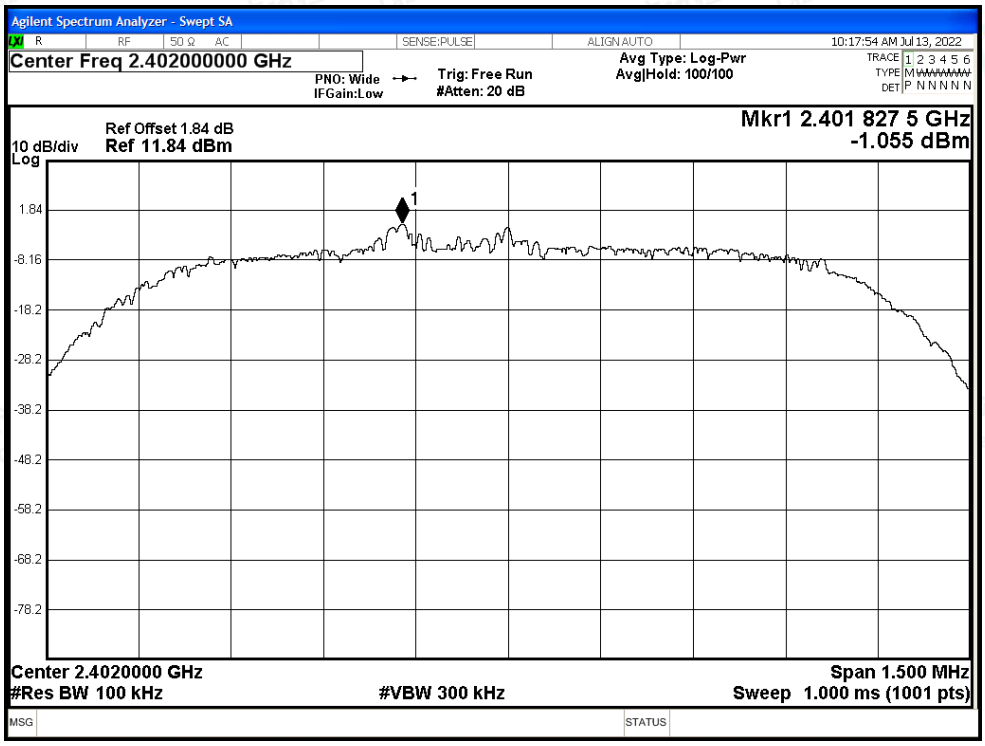
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref



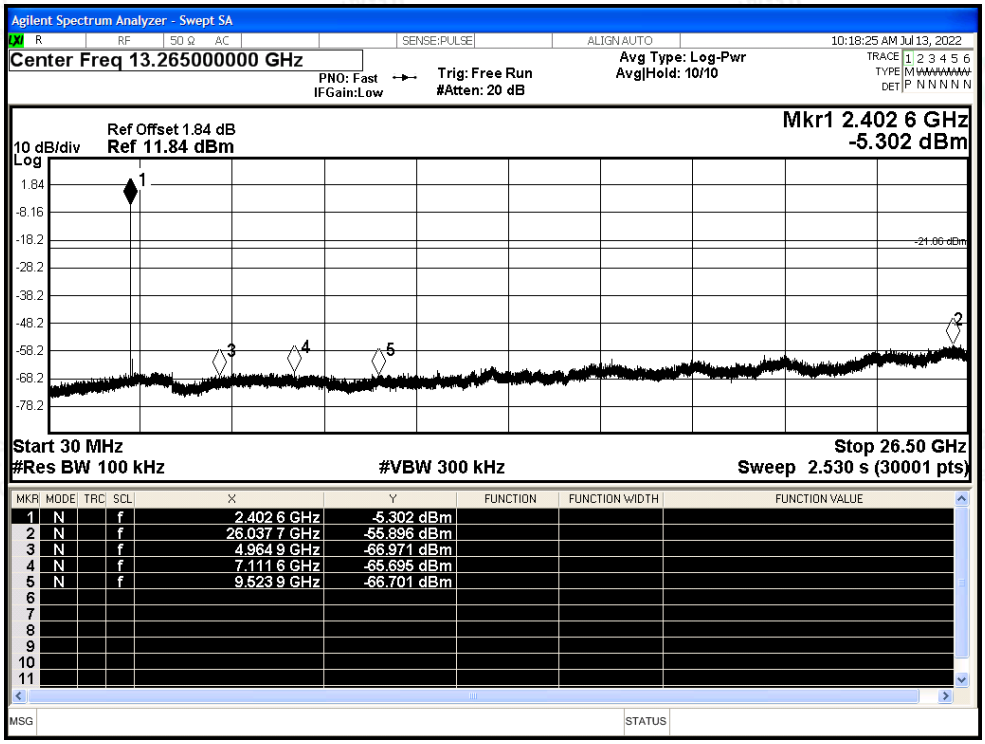
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Emission



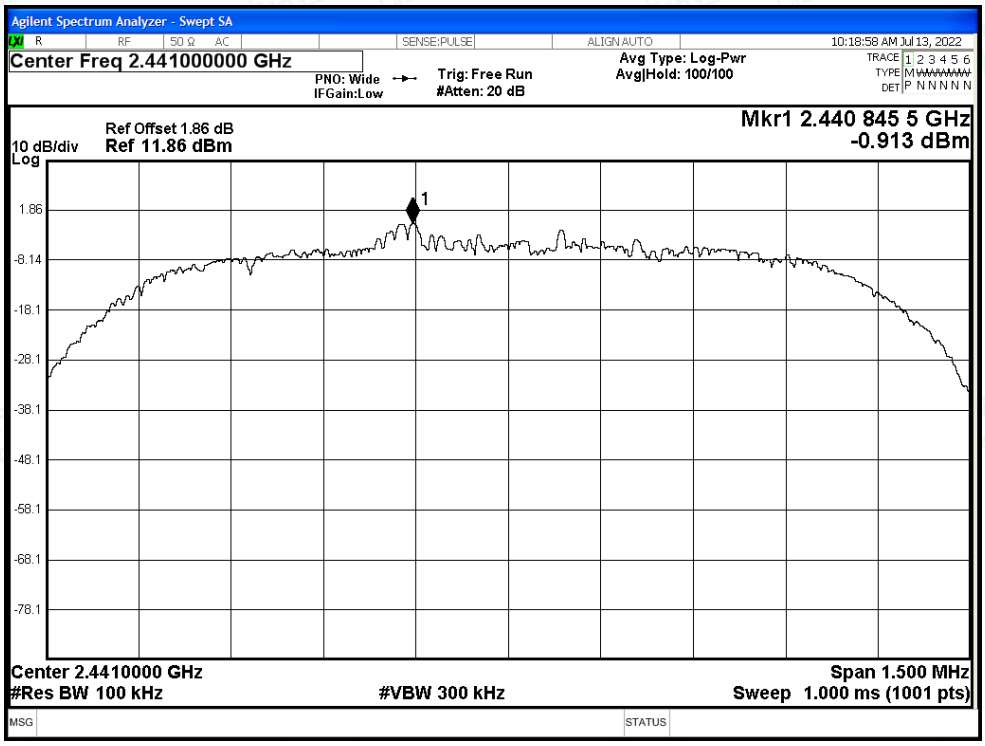
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Ref



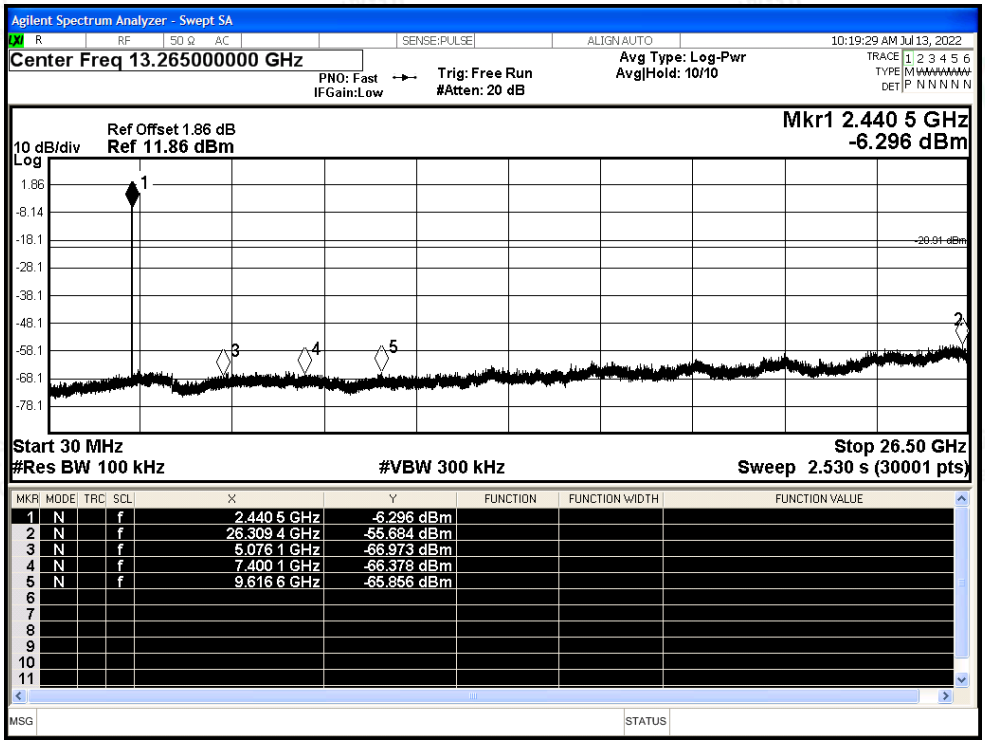
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Emission



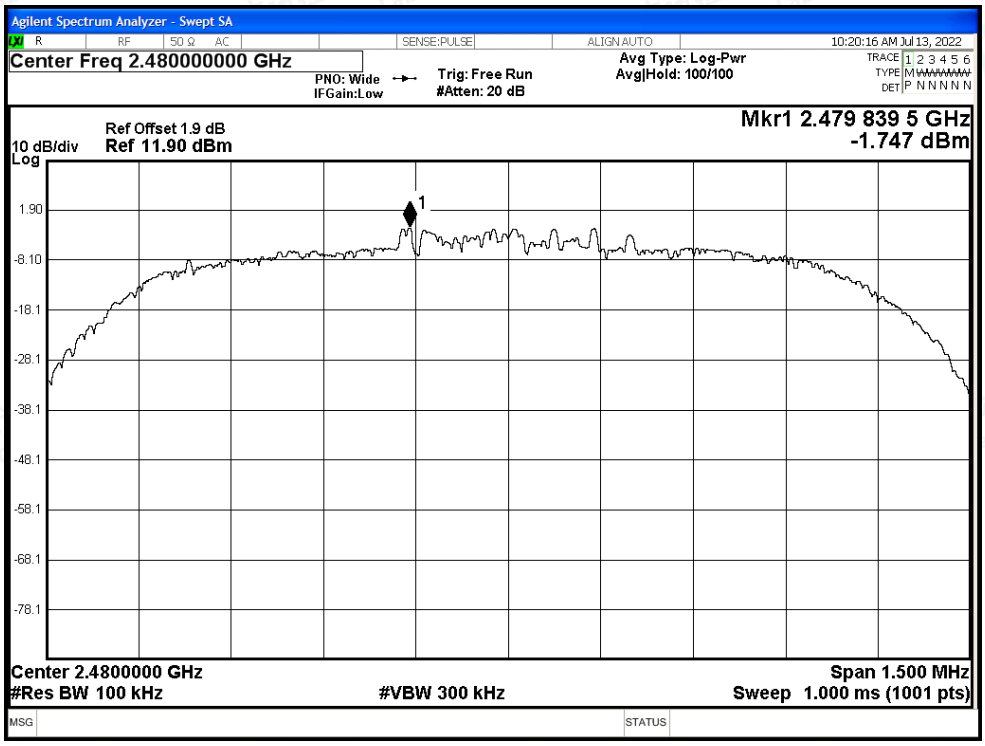
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Ref



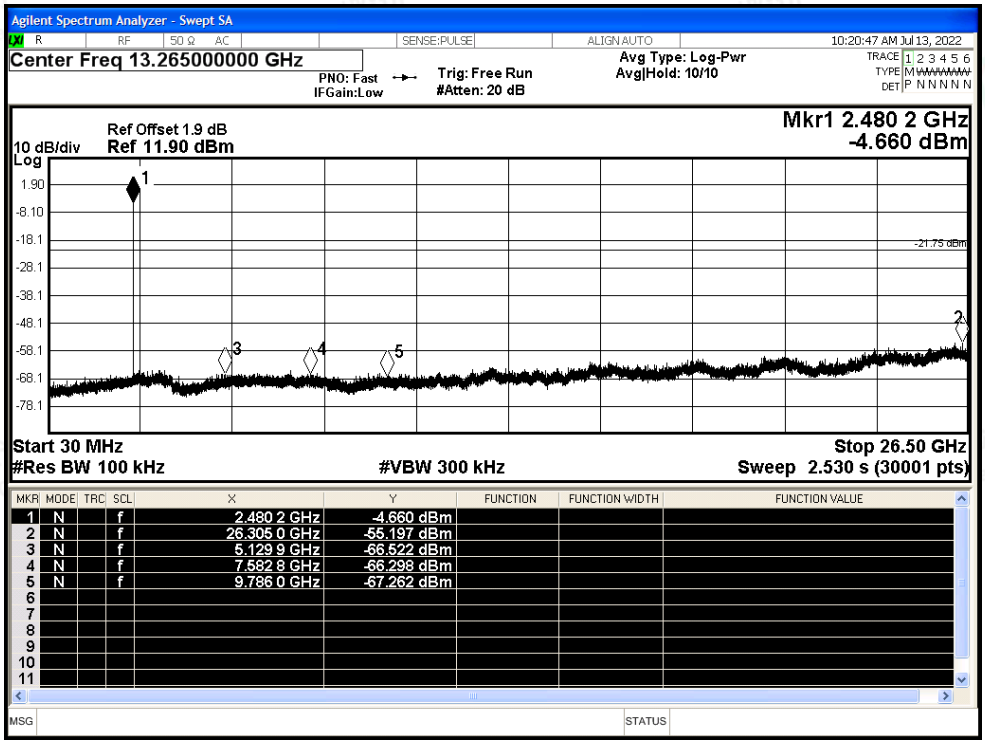
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Emission



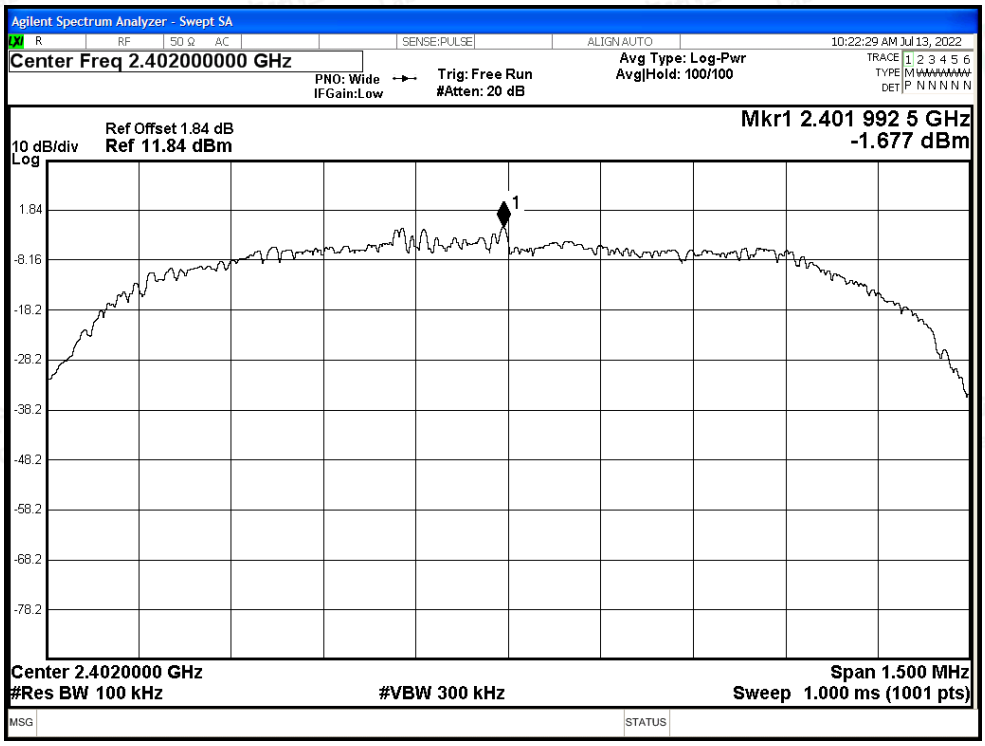
Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Ref



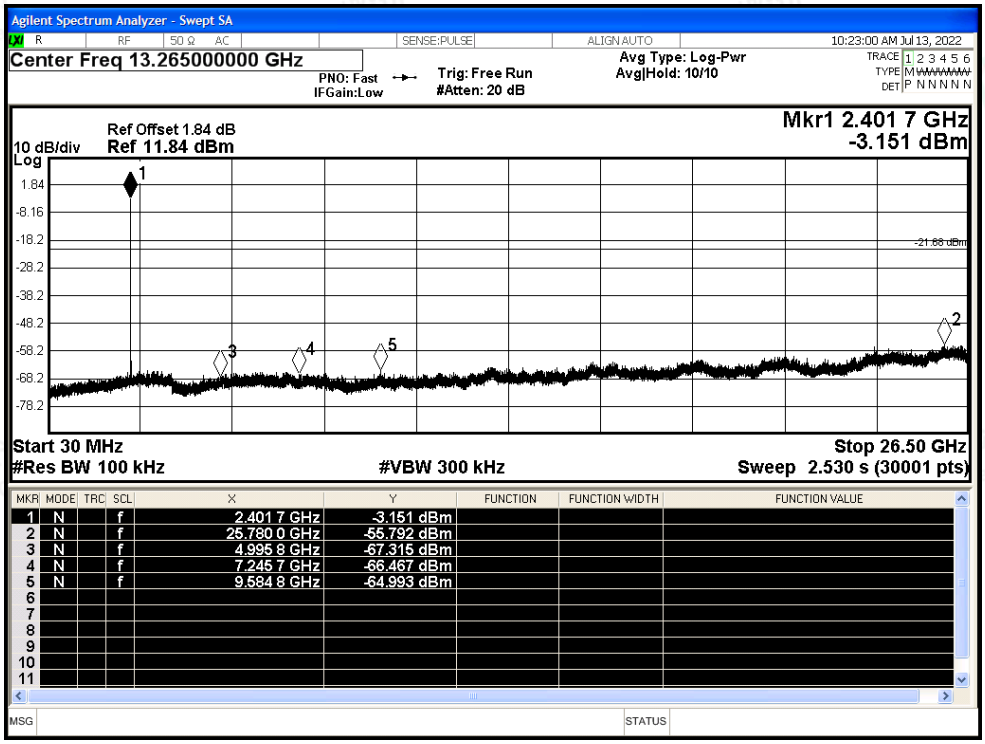
Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Emission



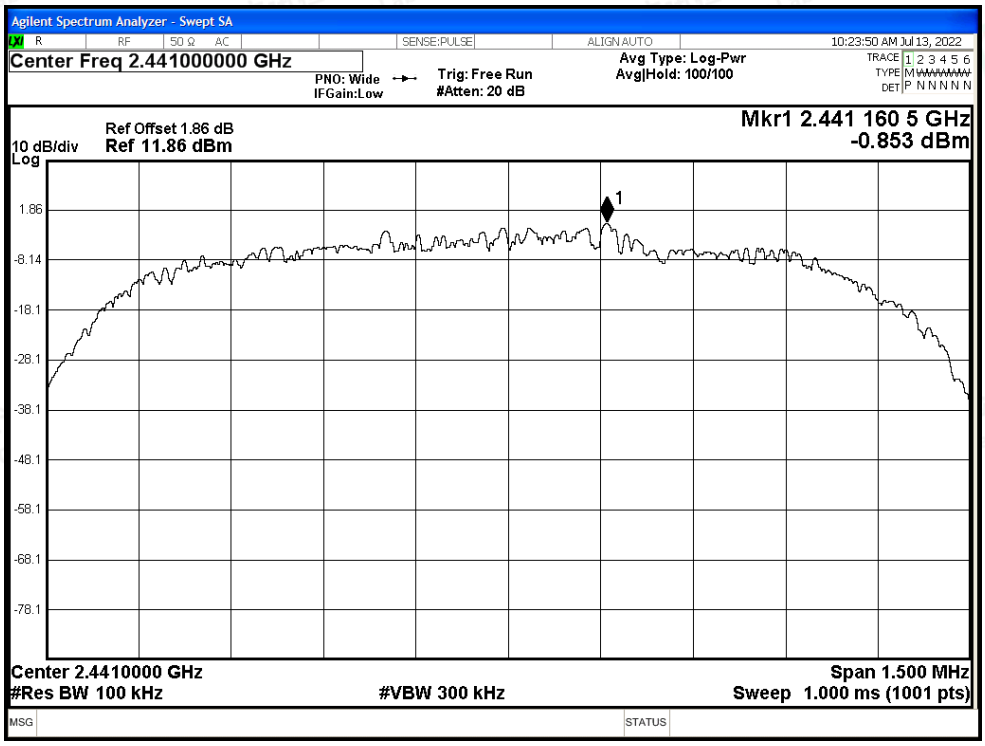
Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Ref



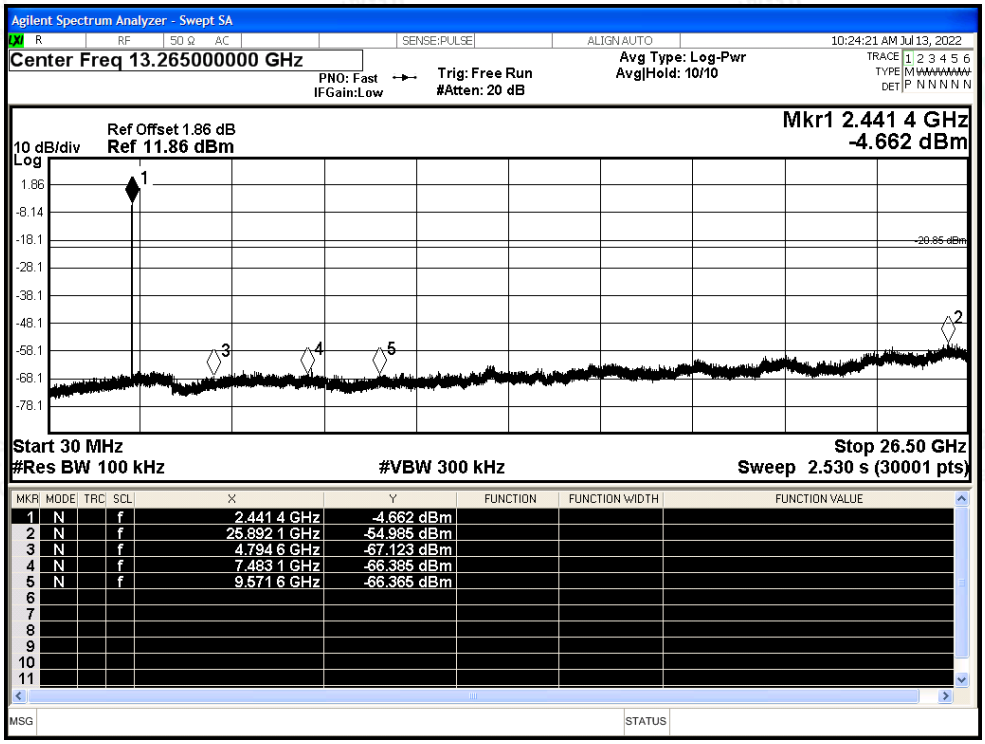
Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Emission



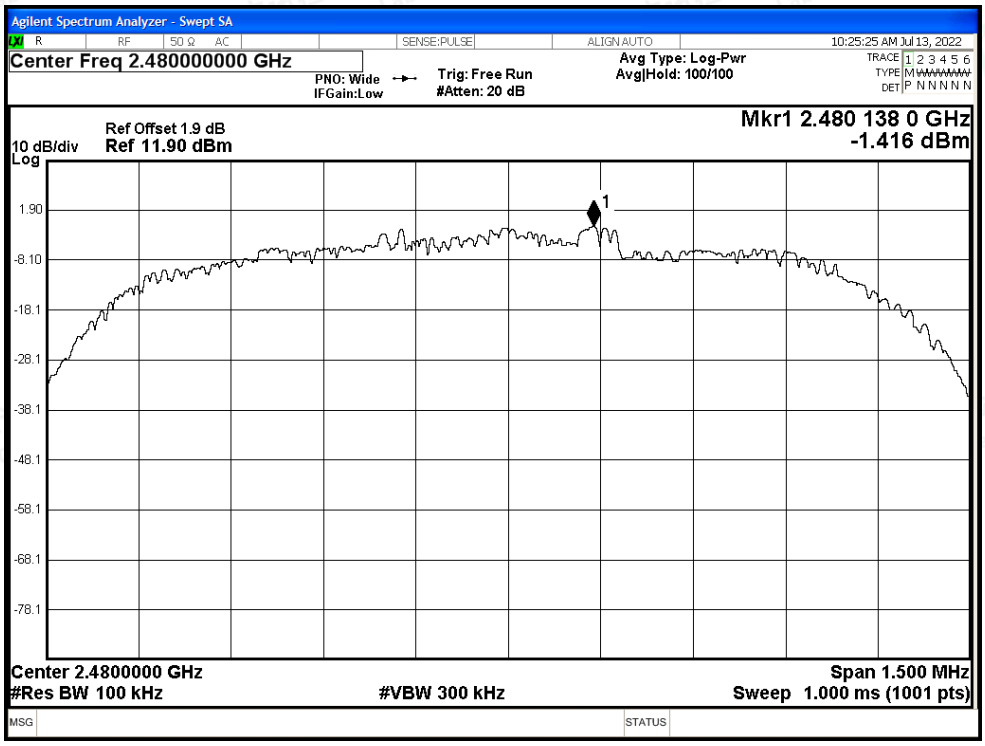
Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Ref



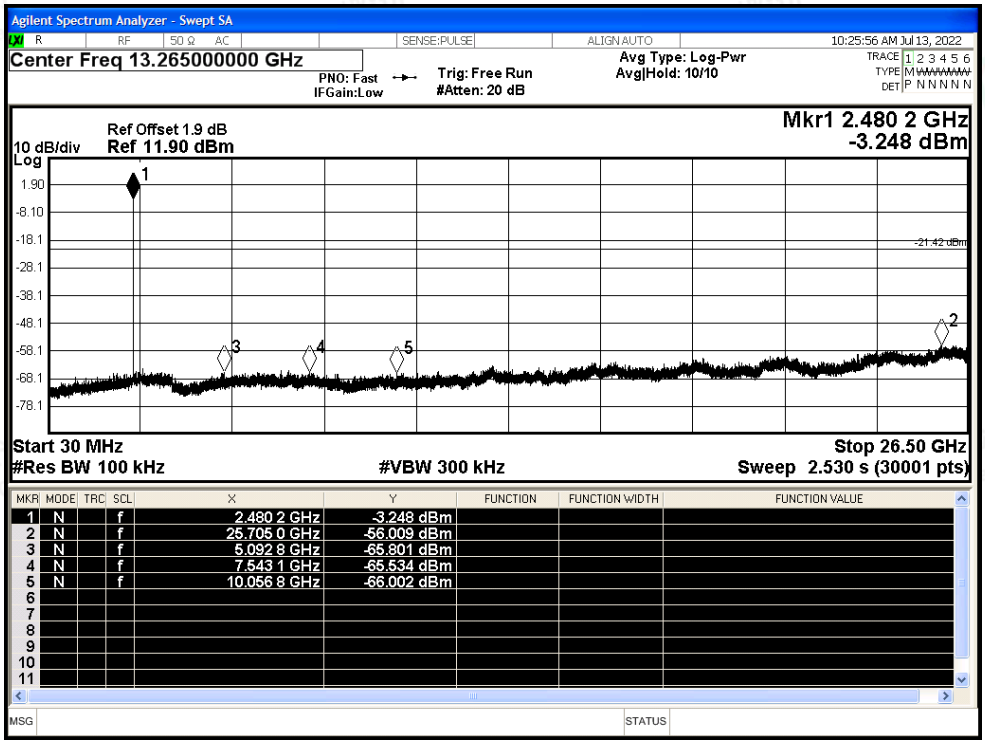
Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Emission

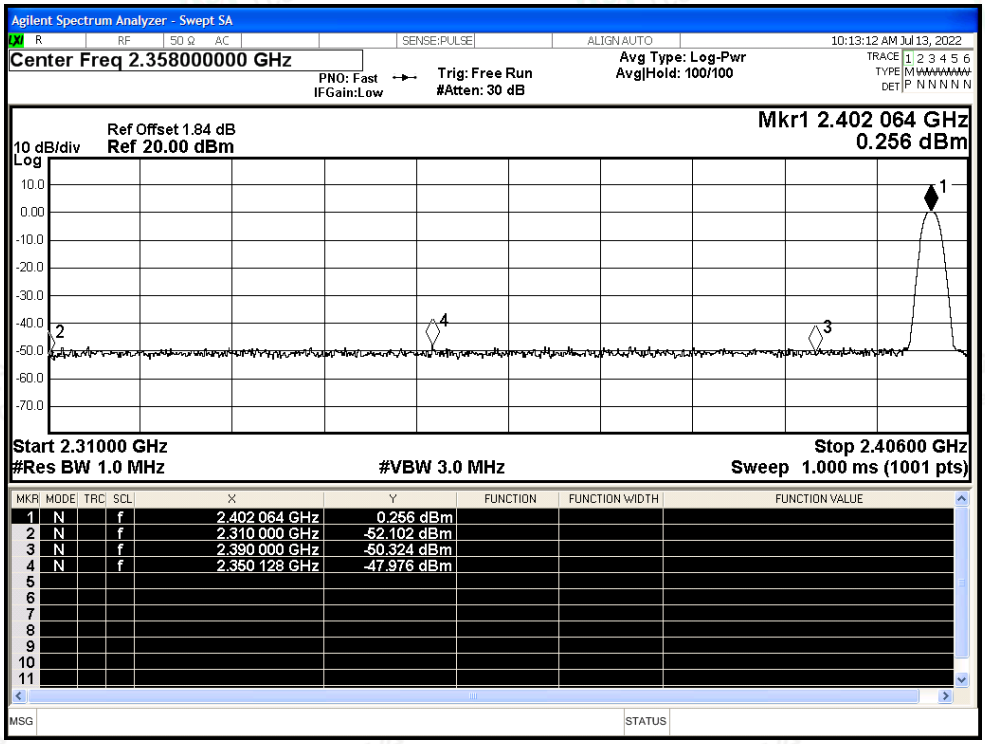


A.8 Restrict Band

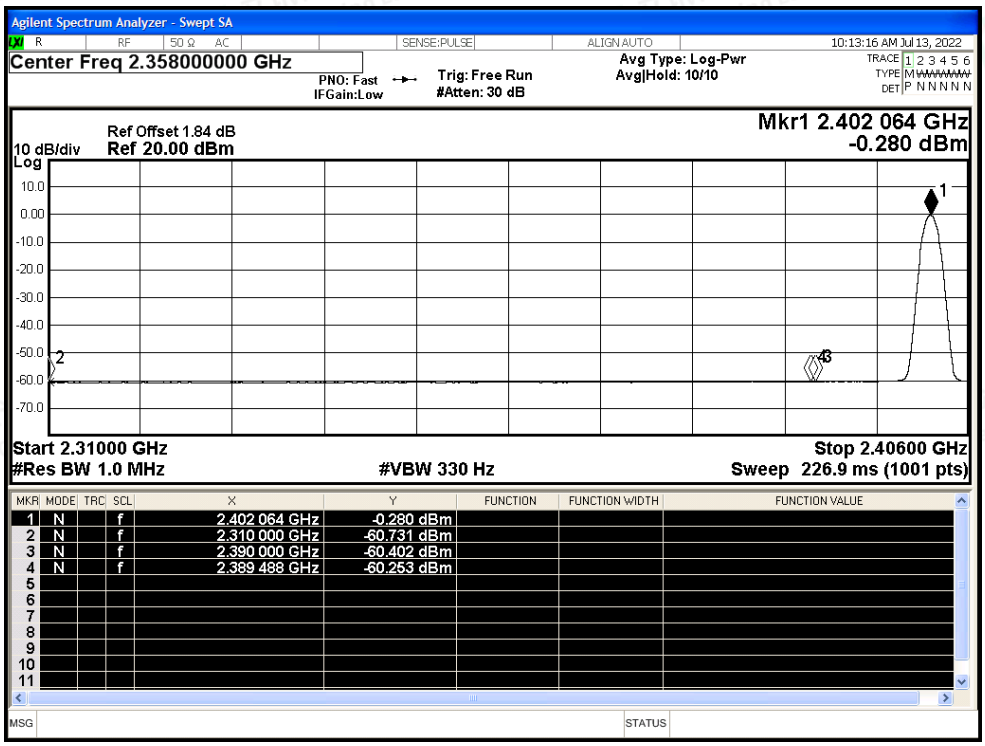
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-52.1	2	45.16	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-60.73	2	36.53	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2350.128	-47.98	2	49.28	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2389.488	-60.25	2	37.01	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-51.47	2	45.79	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-60.41	2	36.85	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-50.16	2	47.1	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-59.94	2	37.32	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2495.128	-46.78	2	50.48	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.848	-59.73	2	37.53	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-49.84	2	47.42	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-60.01	2	37.25	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	-60.82	2	36.44	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2346.384	-47.27	2	49.99	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2386.992	-60.22	2	37.04	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-50.24	2	47.02	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-60.33	2	36.93	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-49.72	2	47.54	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-59.94	2	37.32	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2494.336	-47.29	2	49.97	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.872	-59.85	2	37.41	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-50.8	2	46.46	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-60.14	2	37.12	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-49.83	2	47.43	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-60.73	2	36.53	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2320.464	-47.39	2	49.87	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2386.608	-60.24	2	37.02	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-49.65	2	47.61	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-60.45	2	36.81	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-48.9	2	48.36	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-59.69	2	37.57	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2496.304	-46.55	2	50.71	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.512	-59.69	2	37.57	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-50.23	2	47.03	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-60.06	2	37.2	Average	54	Pass

Test Graphs

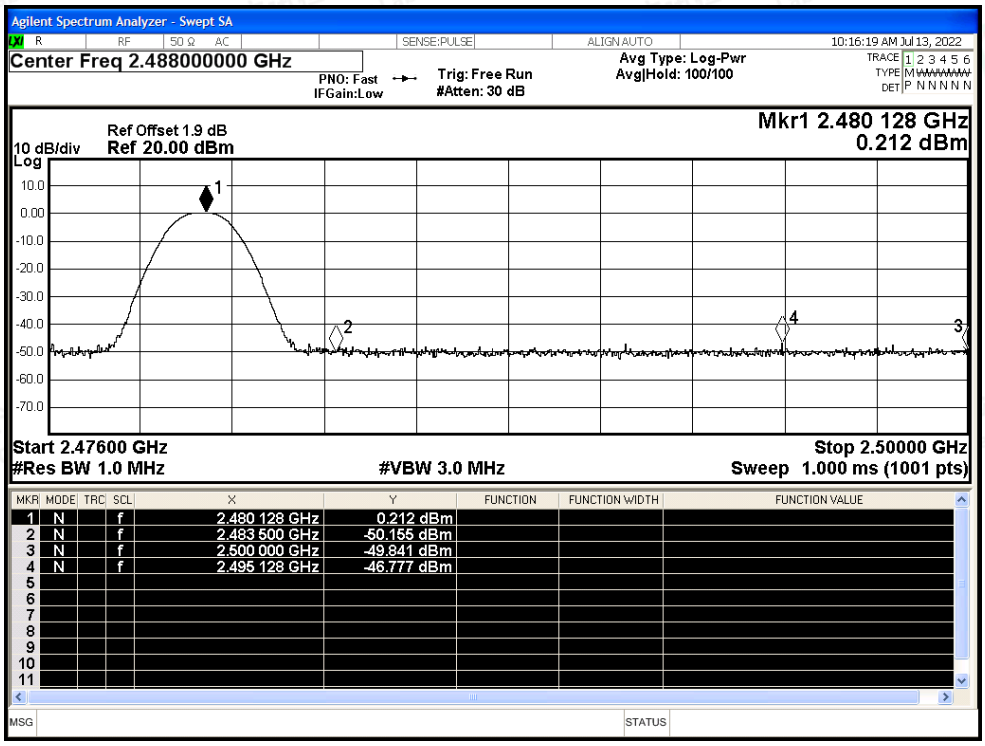
Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Peak



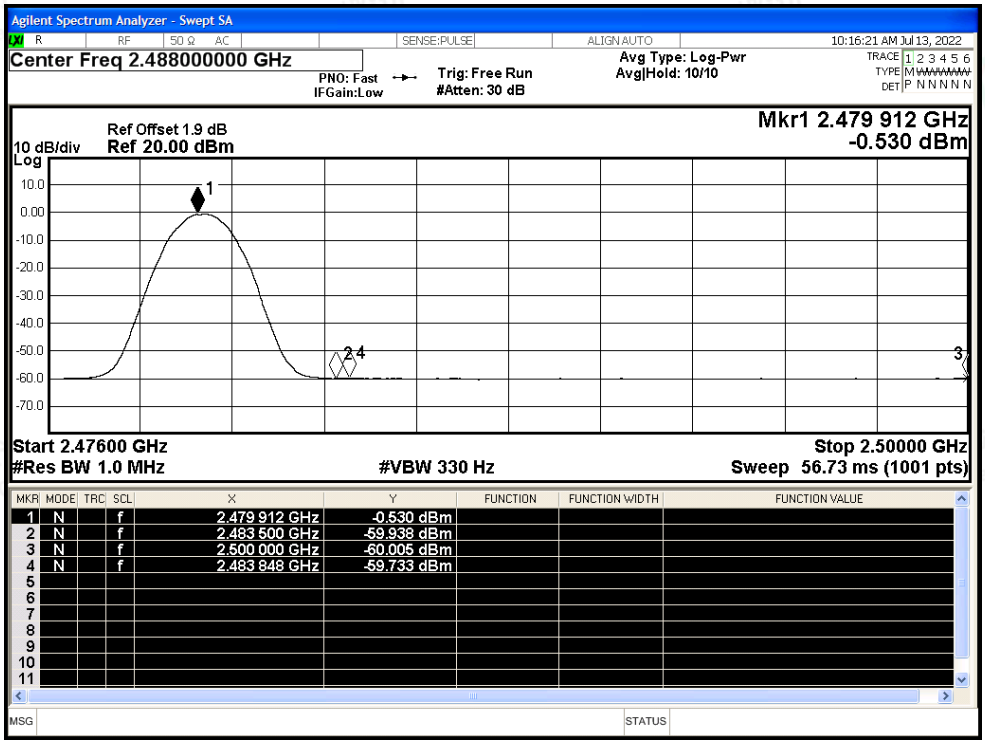
Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Average



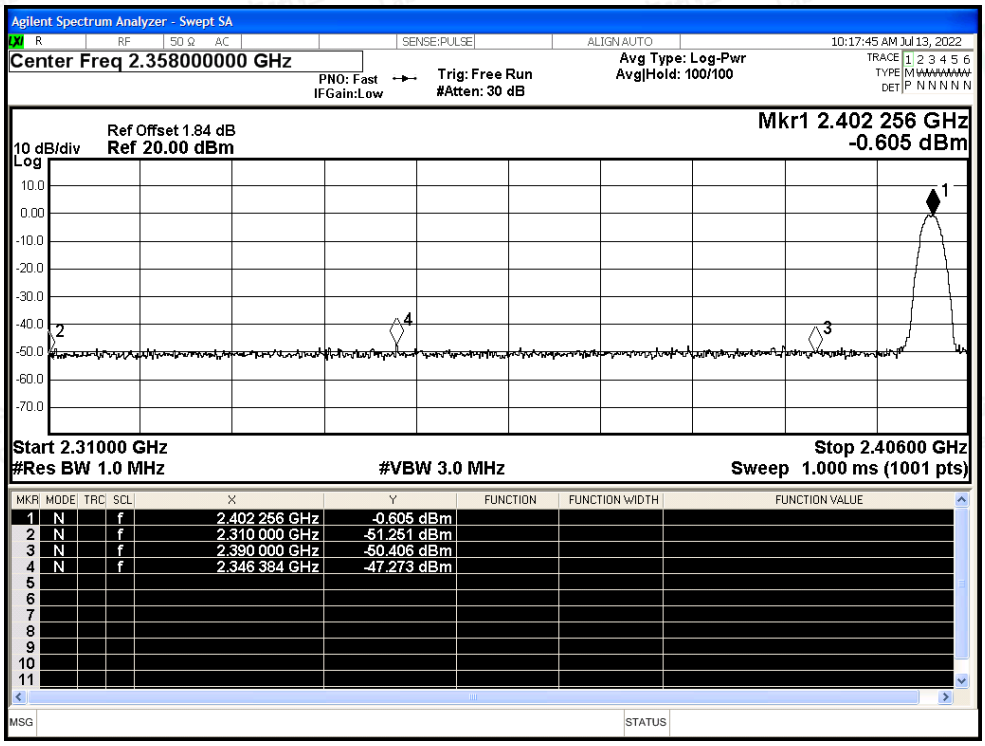
Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Peak



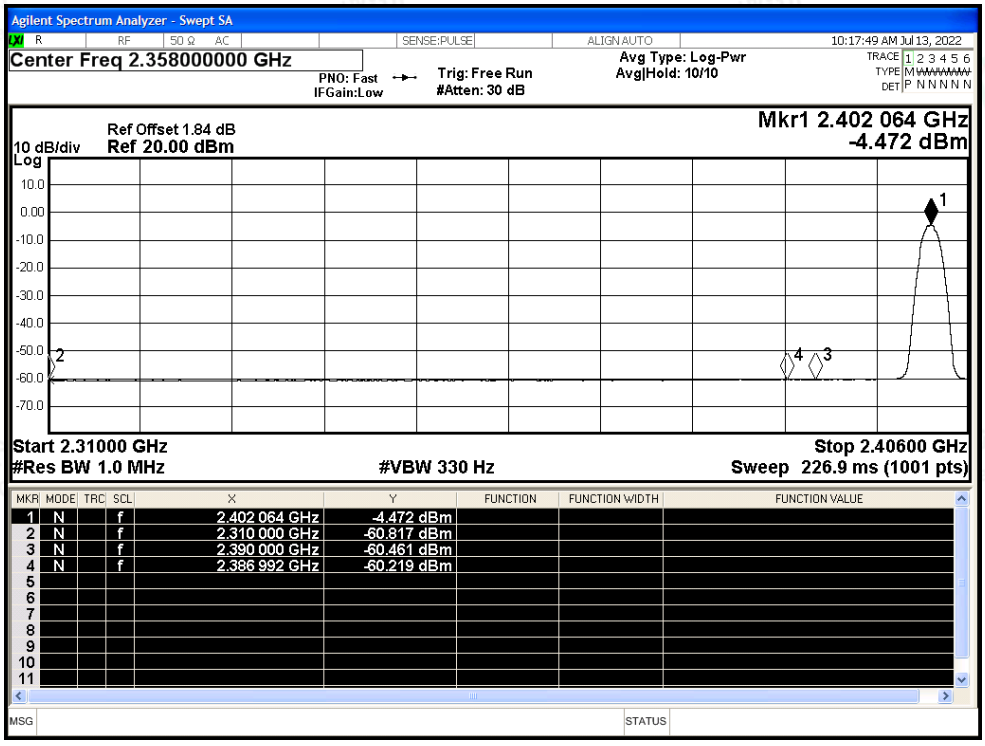
Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Average



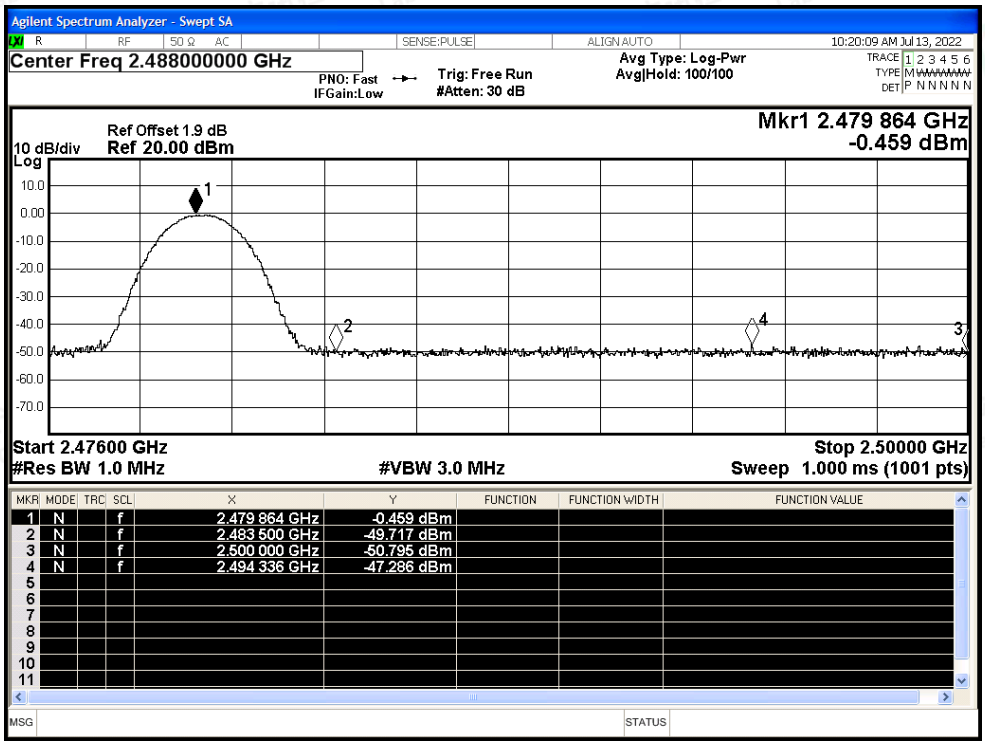
Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Peak



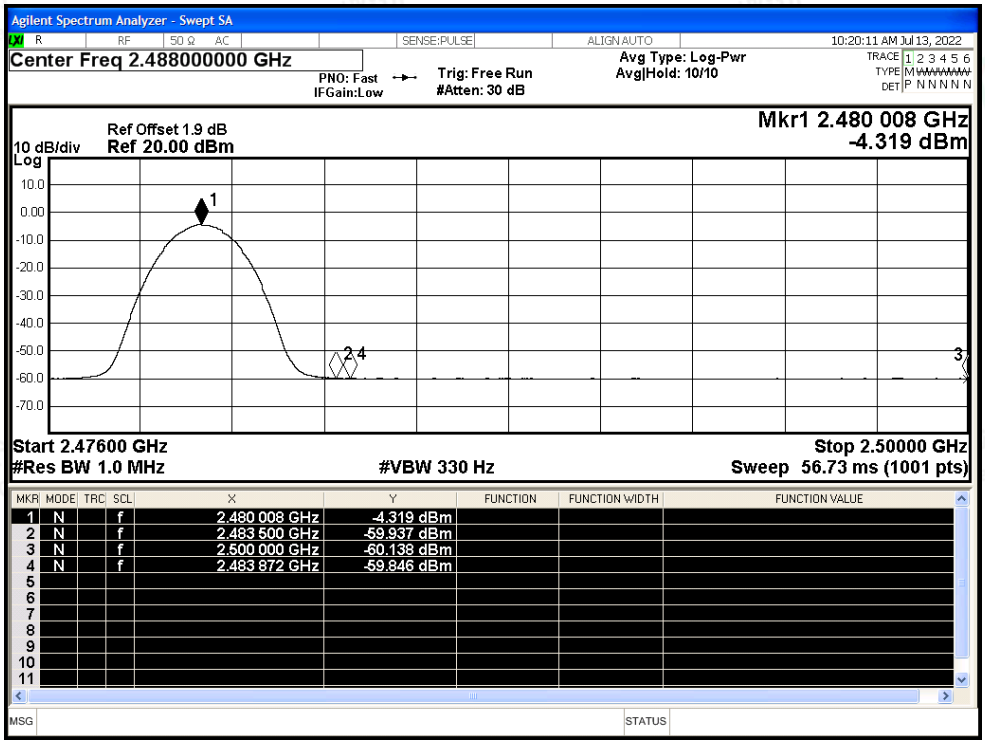
Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Average



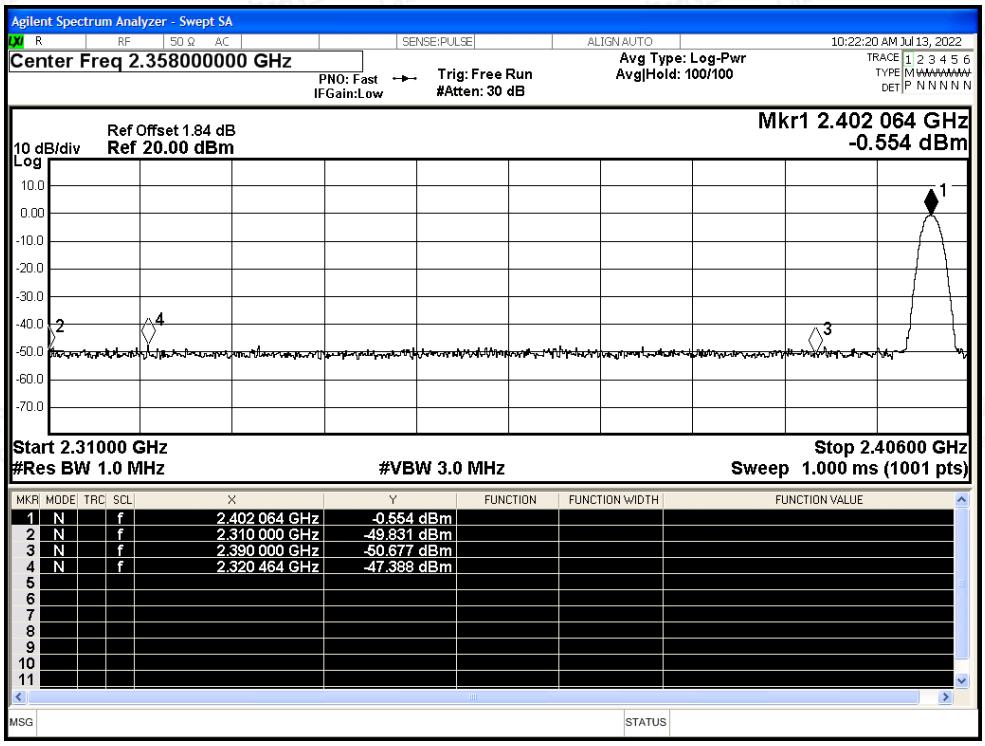
Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Peak



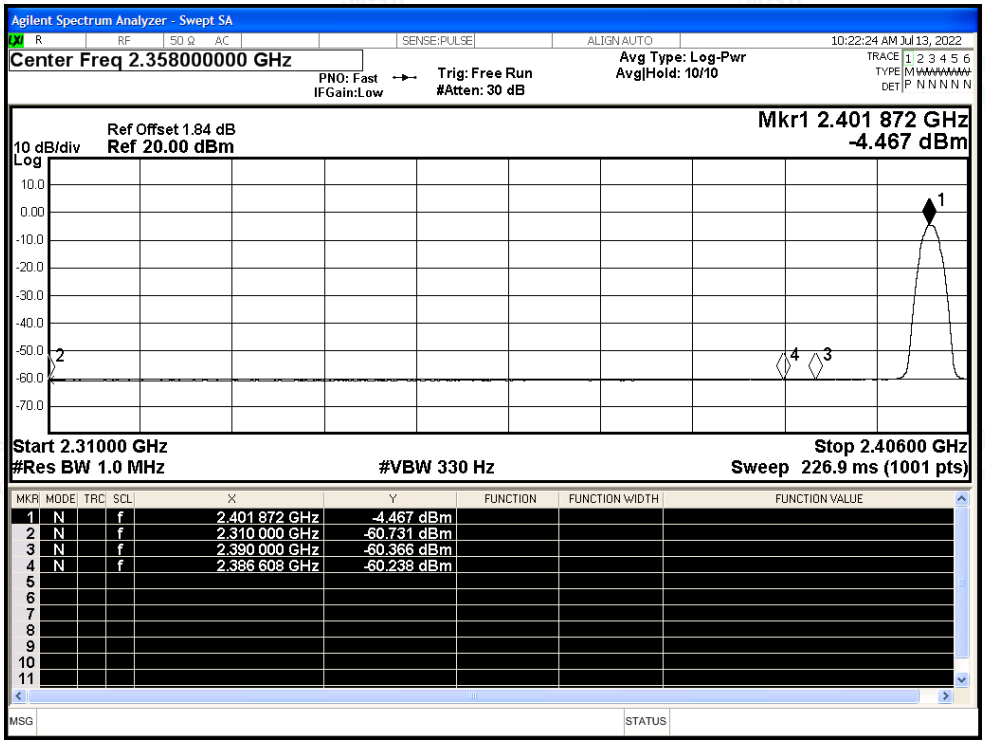
Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Average



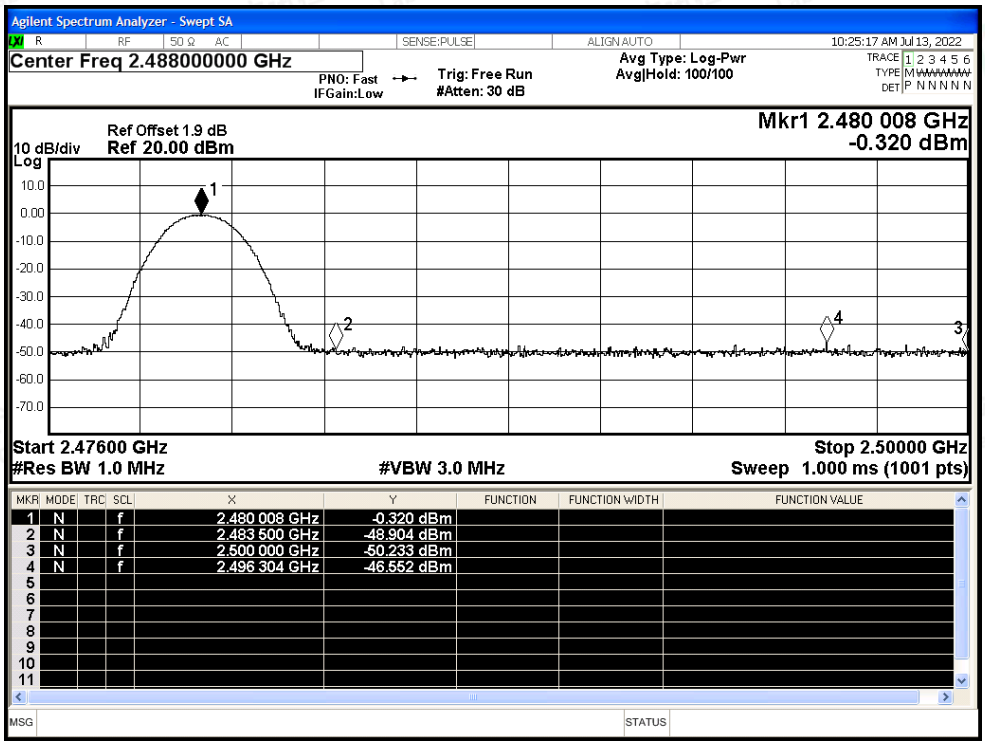
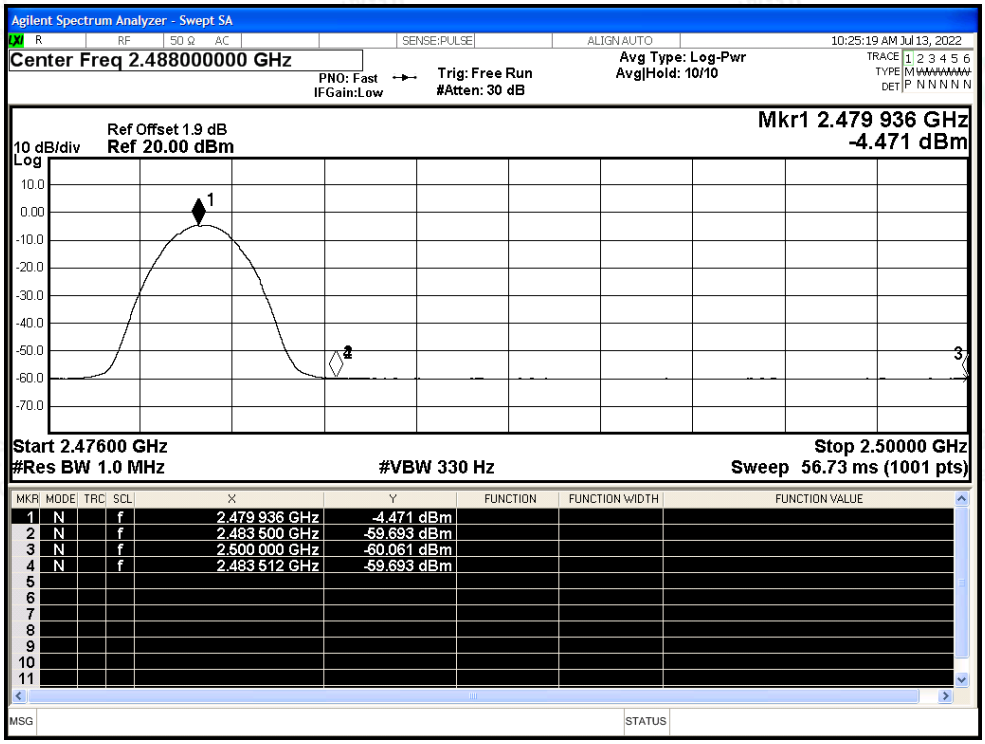
Restrict Band NVNT 3-DH5 2402MHz Ant1 No-Hopping Peak



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