Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: Music Lamp

Test Model: D7000

Environmental Conditions

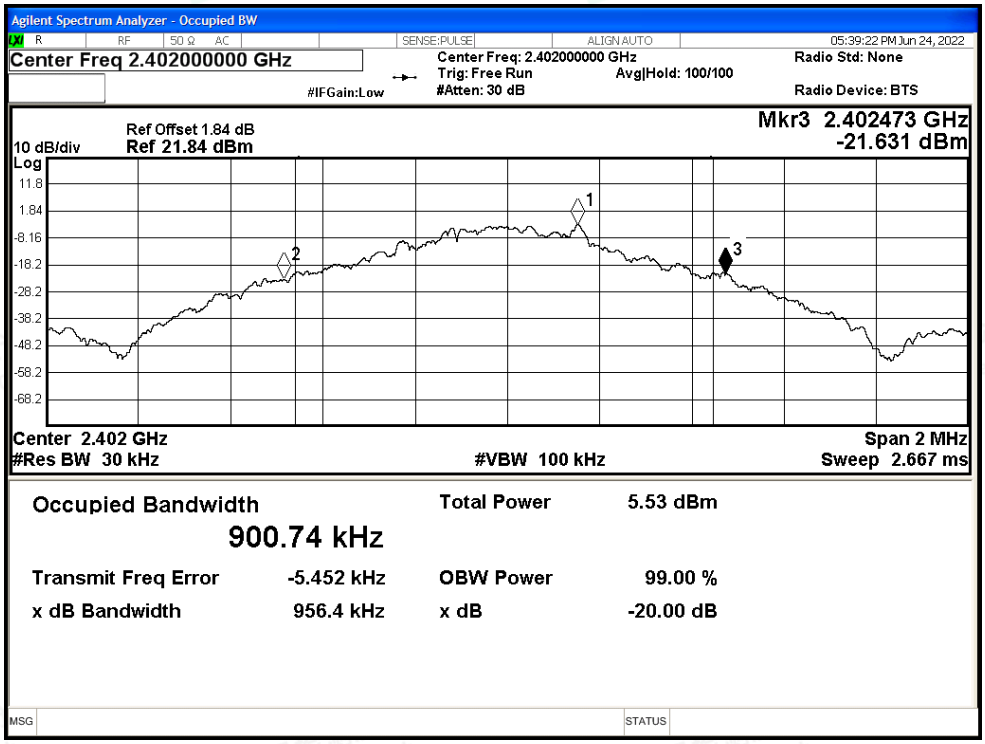
Temperature:	23.5 ° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Monkey Li
Supervised by:	Li Huan

A.1 20dB Bandwidth

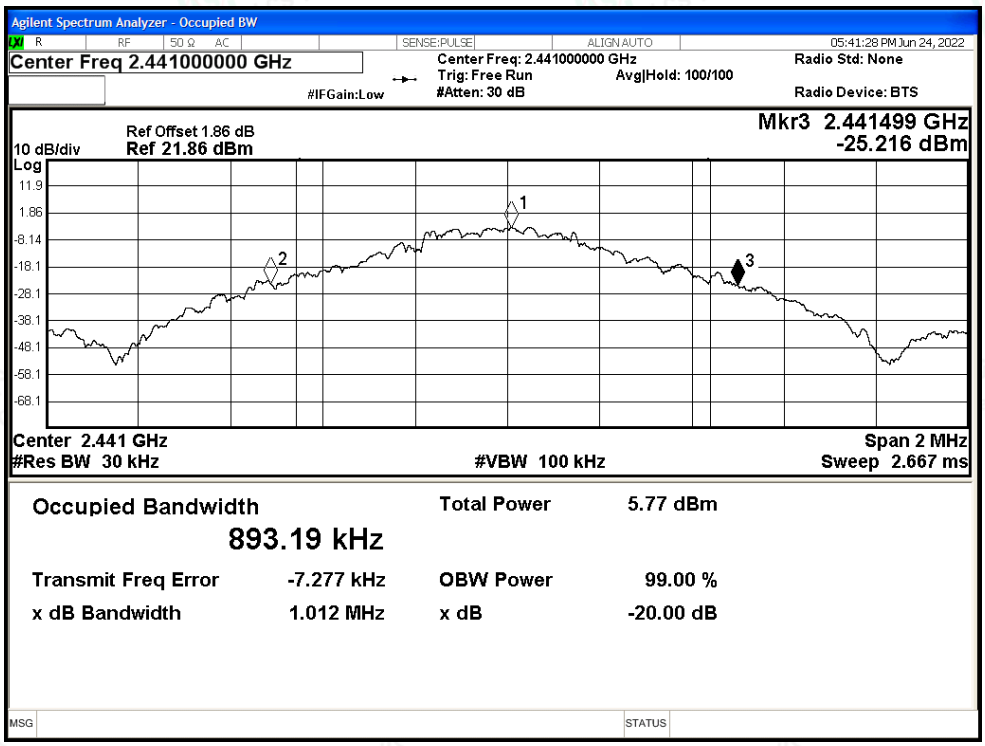
Condition	Mode	Frequency (MHz)	Antenna	20 dB Bandwidth (MHz)	Limit 20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH5	2402	Ant1	0.956	N/A	Pass
NVNT	1-DH5	2441	Ant1	1.012	N/A	Pass
NVNT	1-DH5	2480	Ant1	0.974	N/A	Pass
NVNT	2-DH5	2402	Ant1	1.301	N/A	Pass
NVNT	2-DH5	2441	Ant1	1.307	N/A	Pass
NVNT	2-DH5	2480	Ant1	1.281	N/A	Pass
NVNT	3-DH5	2402	Ant1	1.276	N/A	Pass
NVNT	3-DH5	2441	Ant1	1.27	N/A	Pass
NVNT	3-DH5	2480	Ant1	1.306	N/A	Pass

Test Graphs

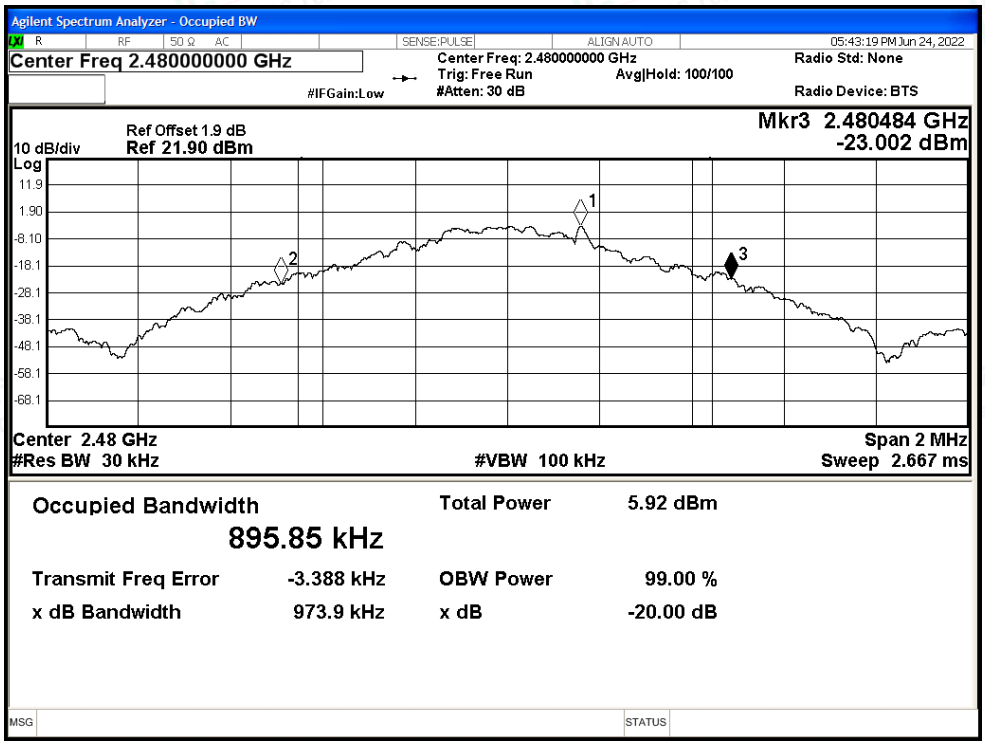
20dB Bandwidth NVNT 1-DH5 2402MHz Ant1



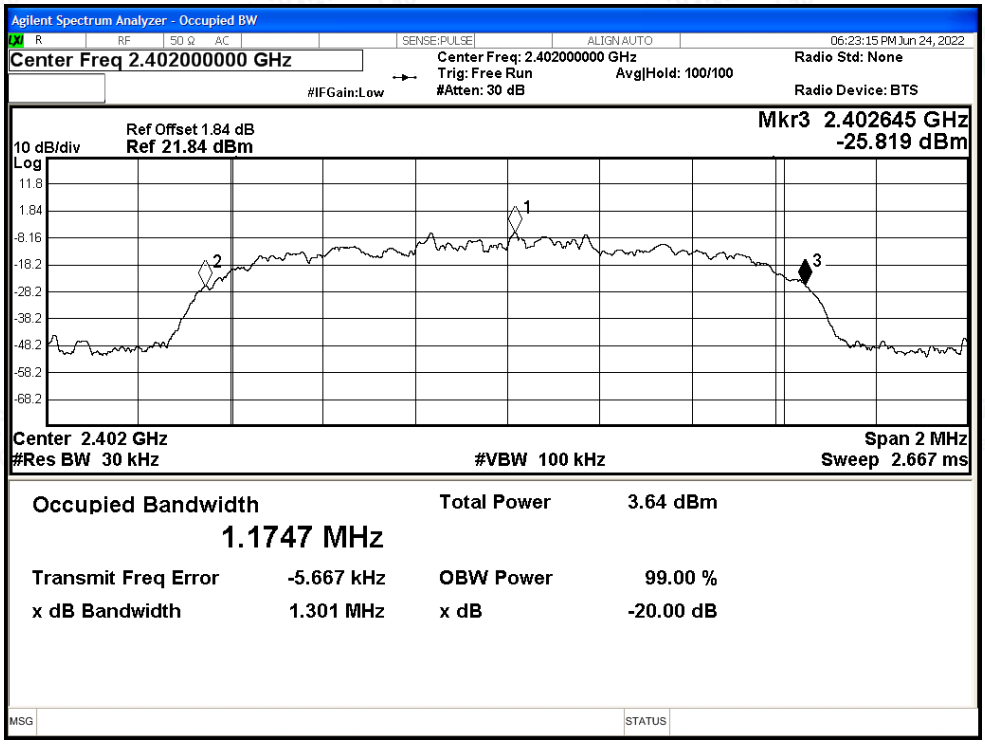
20dB Bandwidth NVNT 1-DH5 2441MHz Ant1



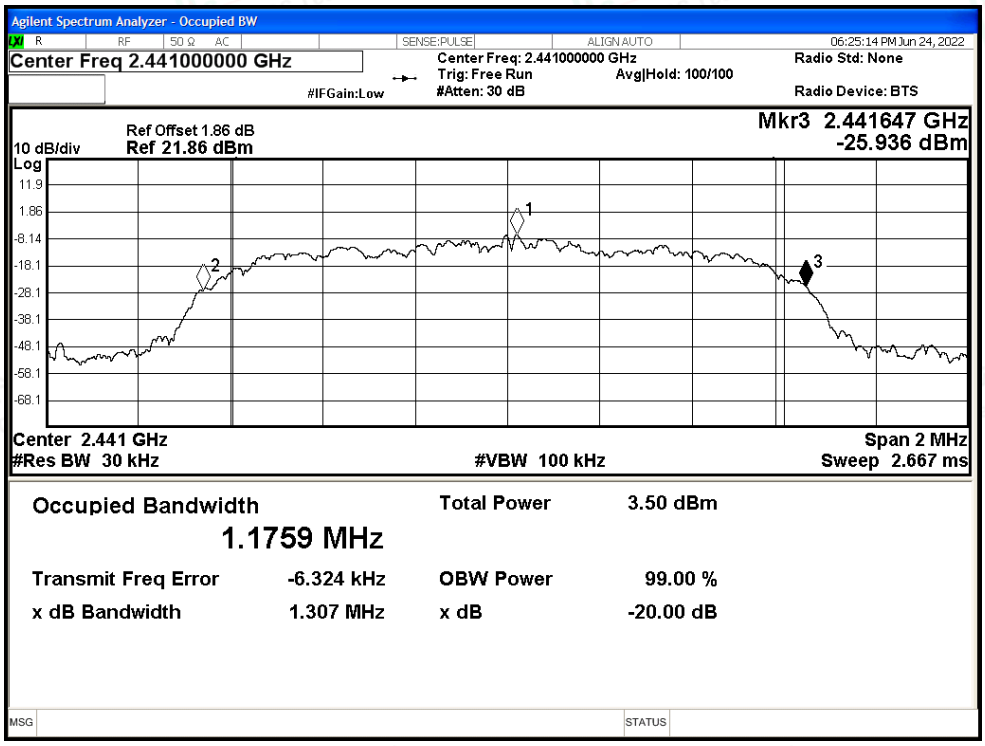
20dB Bandwidth NVNT 1-DH5 2480MHz Ant1



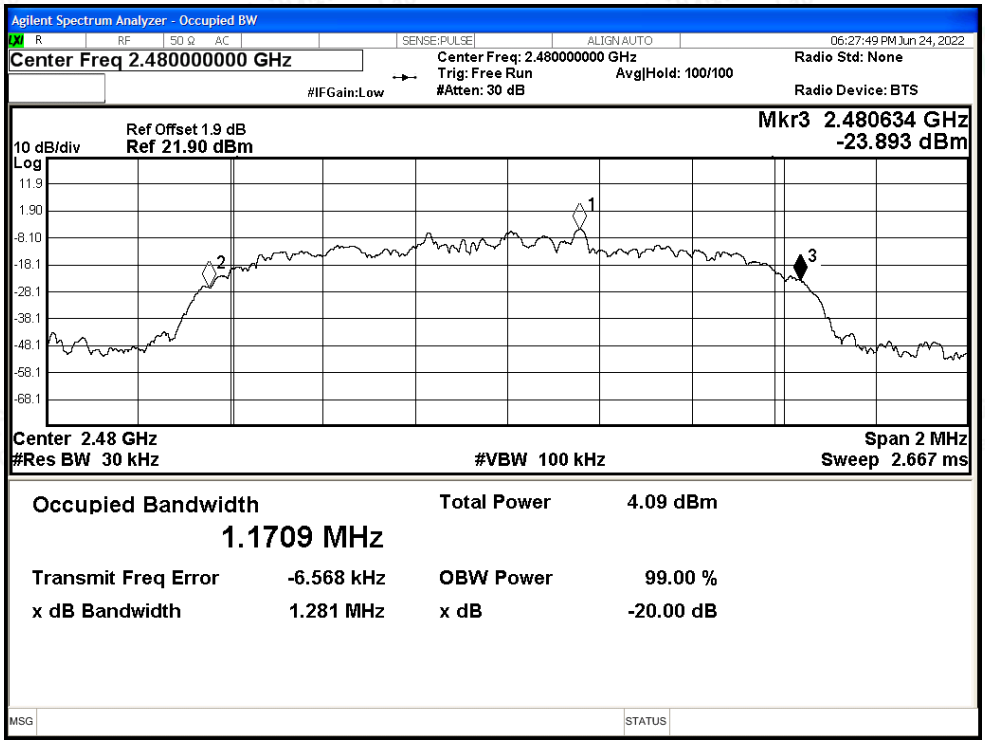
20dB Bandwidth NVNT 2-DH5 2402MHz Ant1



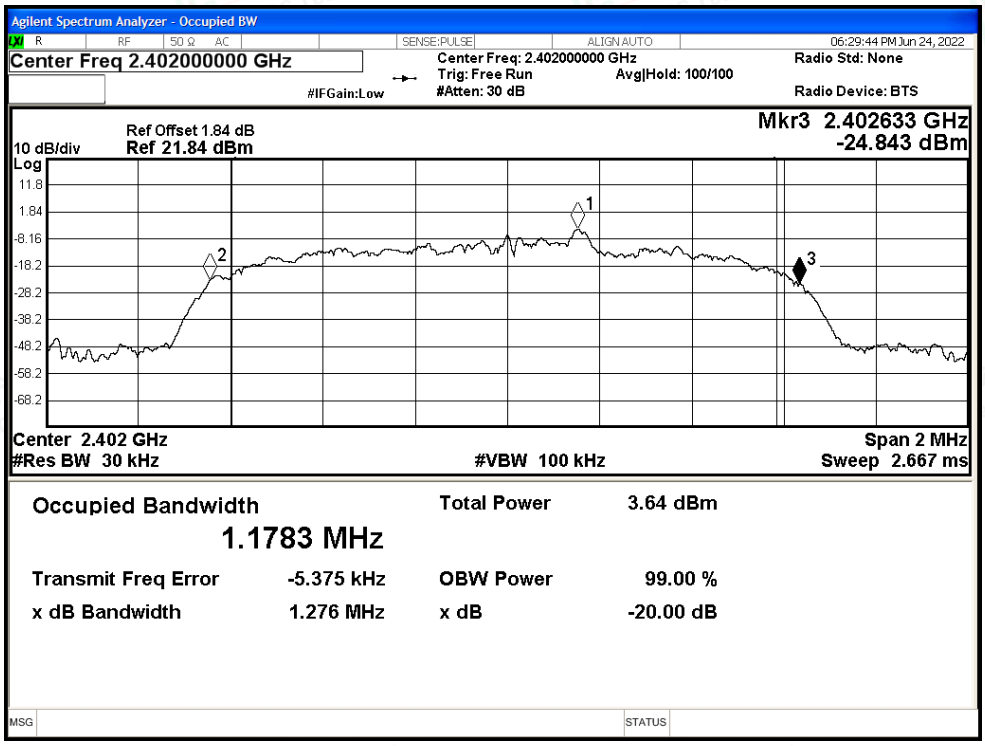
20dB Bandwidth NVNT 2-DH5 2441MHz Ant1



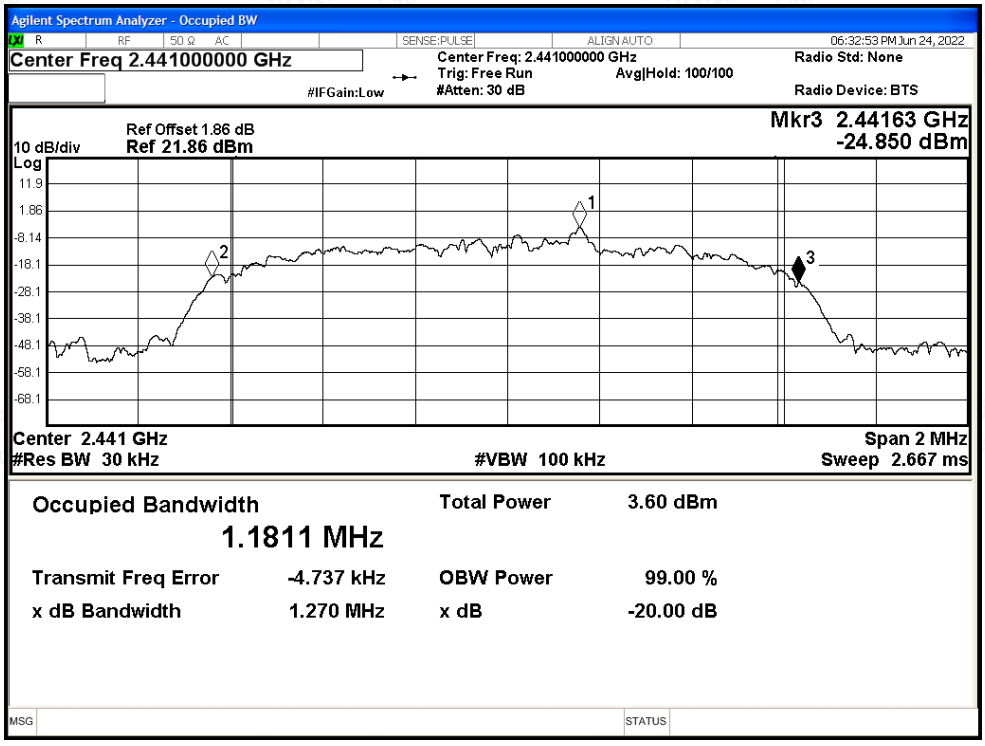
20dB Bandwidth NVNT 2-DH5 2480MHz Ant1



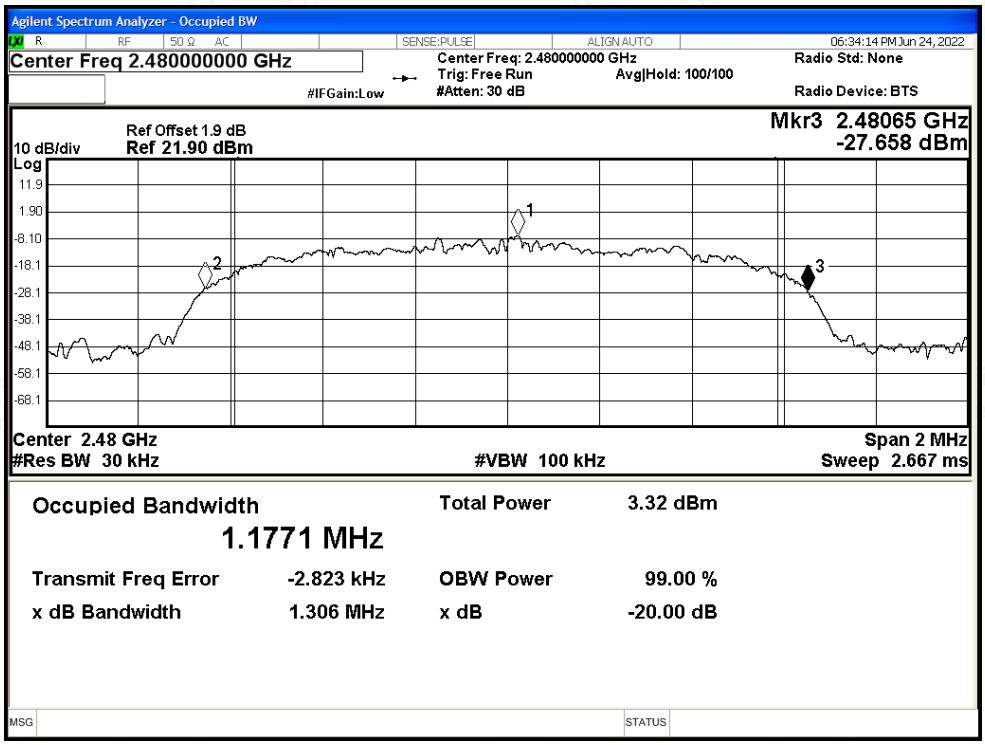
20dB Bandwidth NVNT 3-DH5 2402MHz Ant1



20dB Bandwidth NVNT 3-DH5 2441MHz Ant1



20dB Bandwidth NVNT 3-DH5 2480MHz Ant1

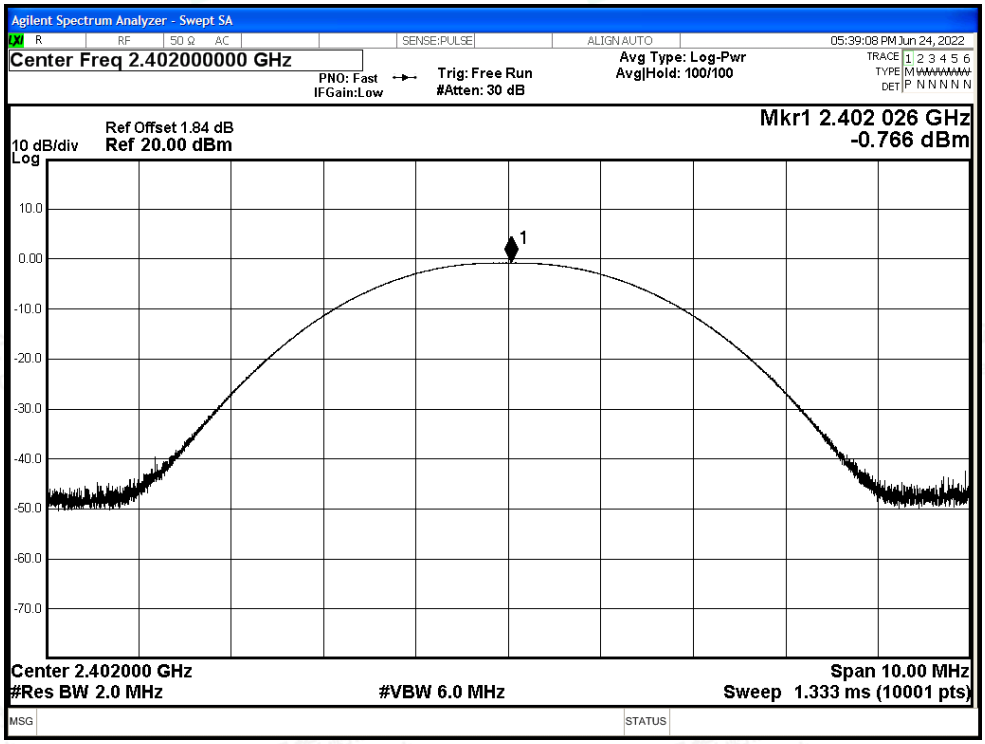


A.2 Maximum Conducted Output Power

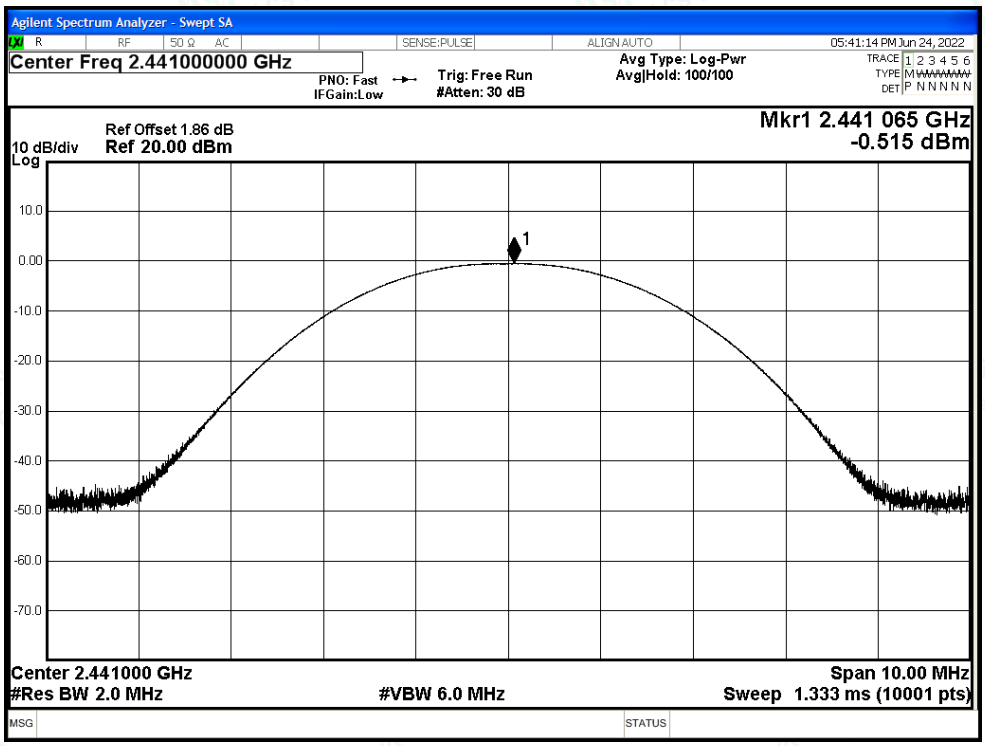
Condition	Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH5	2402	Ant1	-0.77	21	Pass
NVNT	1-DH5	2441	Ant1	-0.52	21	Pass
NVNT	1-DH5	2480	Ant1	-0.48	21	Pass
NVNT	2-DH5	2402	Ant1	-1.18	21	Pass
NVNT	2-DH5	2441	Ant1	-0.95	21	Pass
NVNT	2-DH5	2480	Ant1	-0.89	21	Pass
NVNT	3-DH5	2402	Ant1	-1.11	21	Pass
NVNT	3-DH5	2441	Ant1	-0.86	21	Pass
NVNT	3-DH5	2480	Ant1	-0.8	21	Pass

Test Graphs

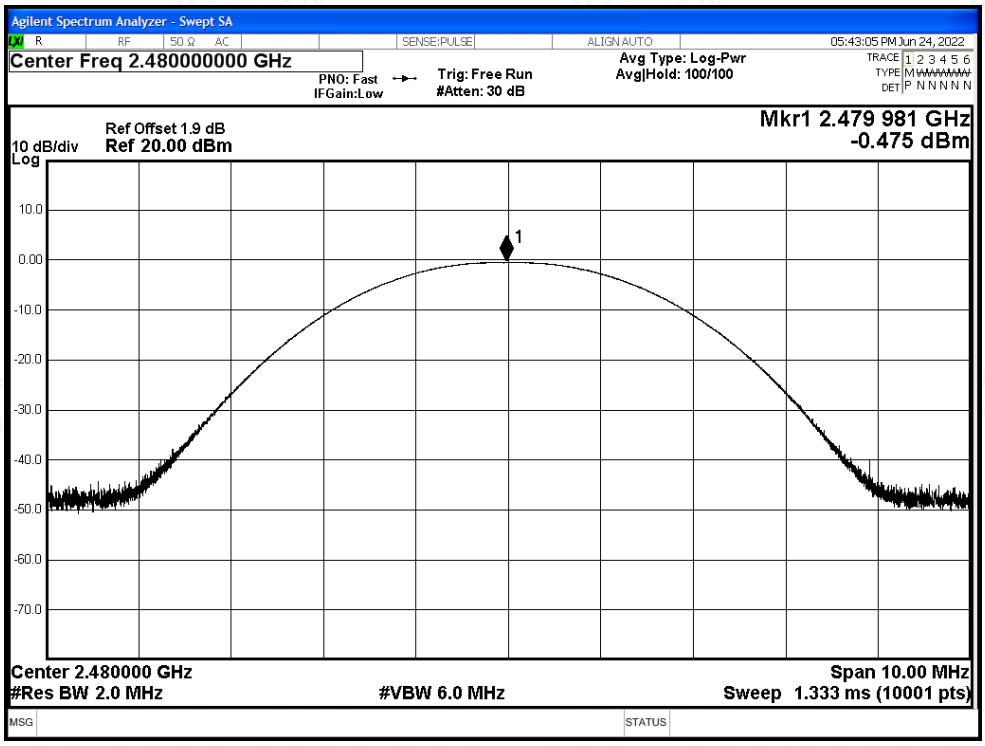
Power NVNT 1-DH5 2402MHz Ant1



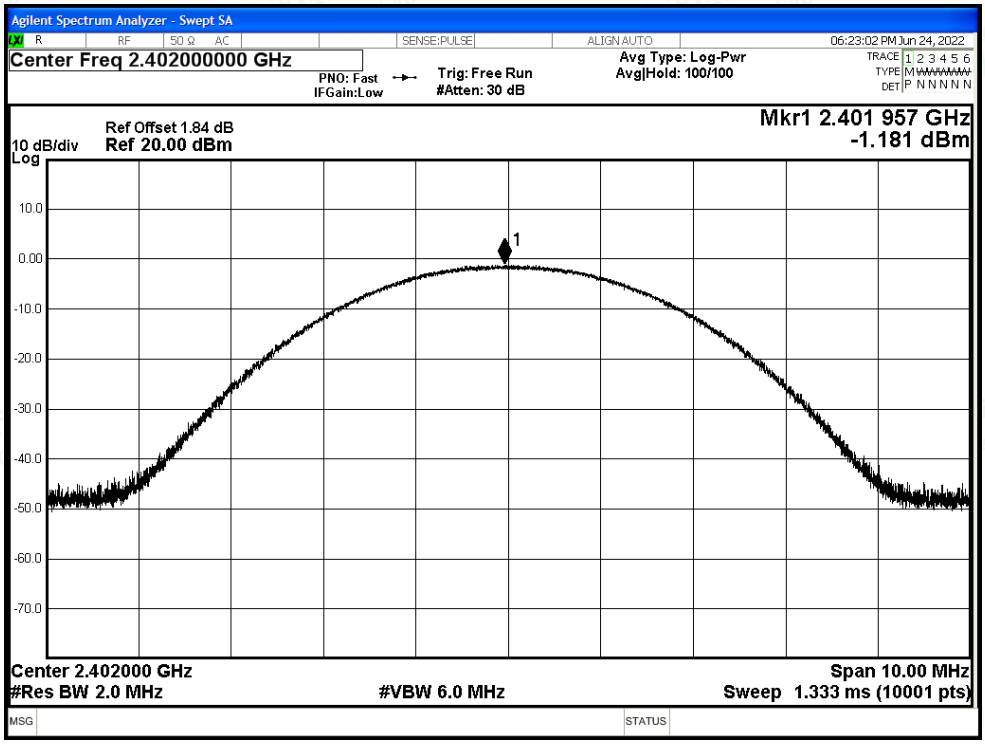
Power NVNT 1-DH5 2441MHz Ant1



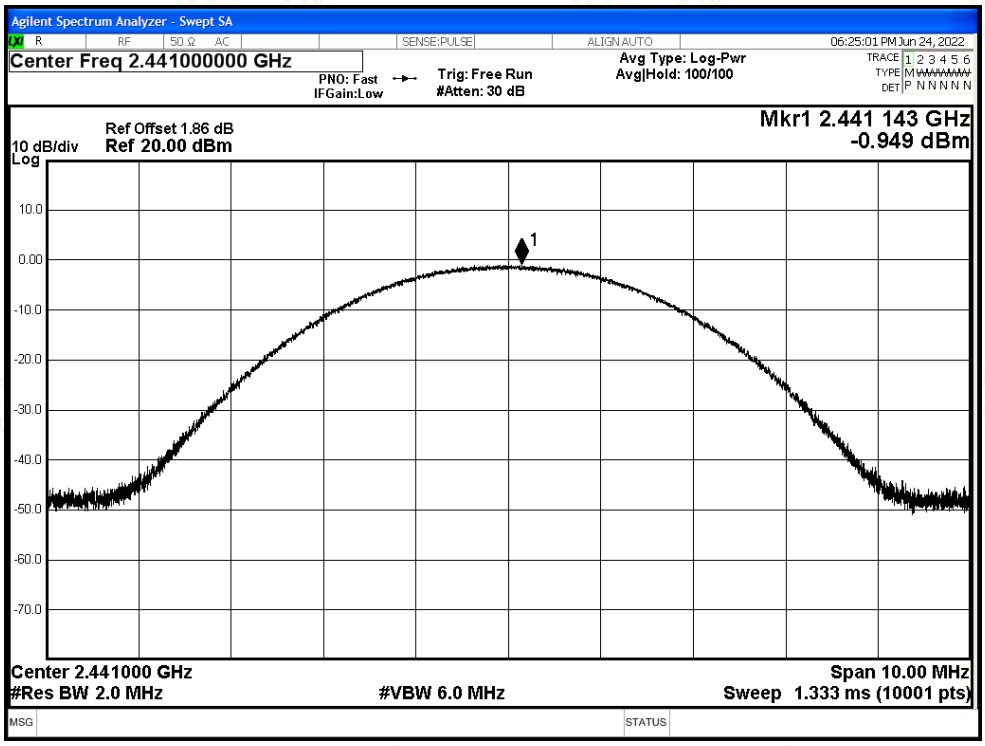
Power NVNT 1-DH5 2480MHz Ant1



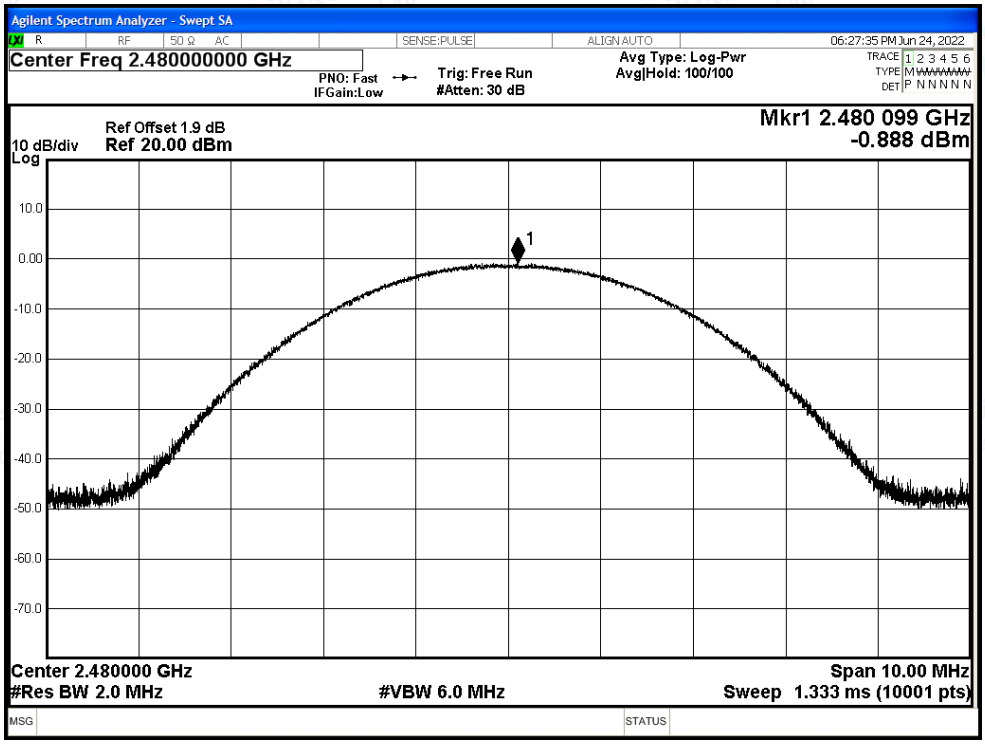
Power NVNT 2-DH5 2402MHz Ant1



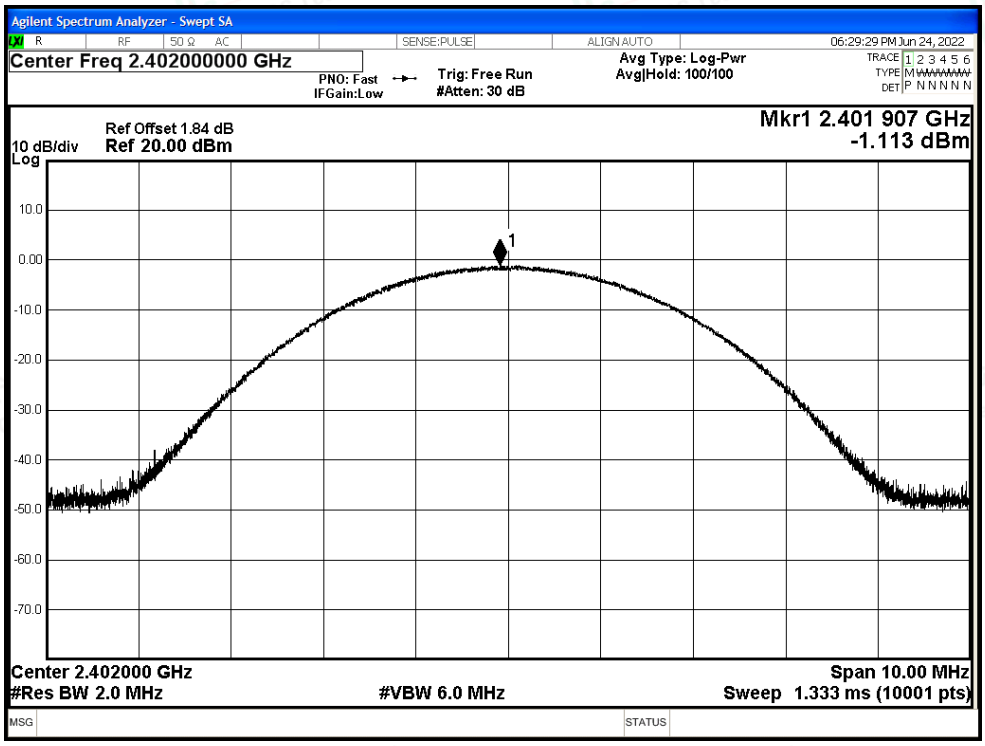
Power NVNT 2-DH5 2441MHz Ant1



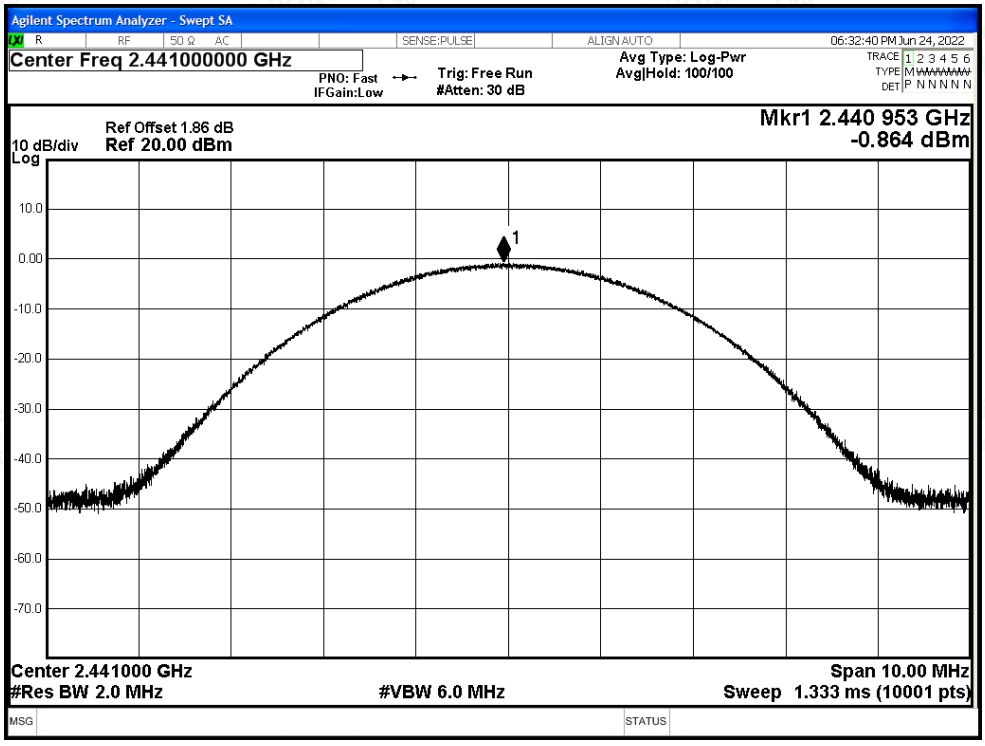
Power NVNT 2-DH5 2480MHz Ant1



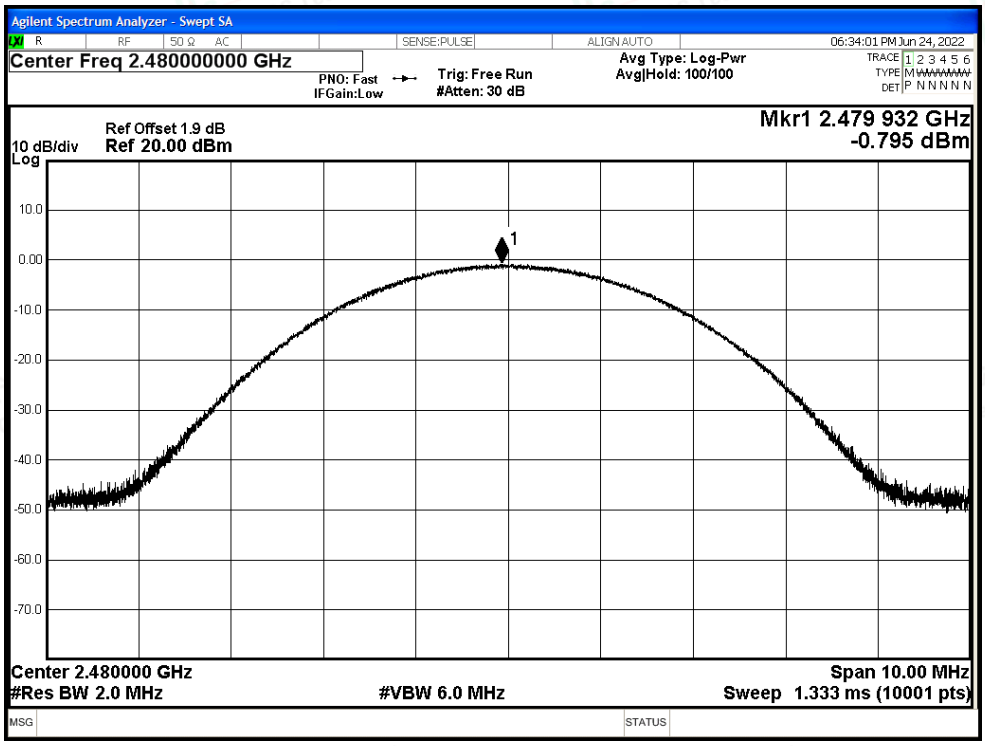
Power NVNT 3-DH5 2402MHz Ant1



Power NVNT 3-DH5 2441MHz Ant1



Power NVNT 3-DH5 2480MHz Ant1

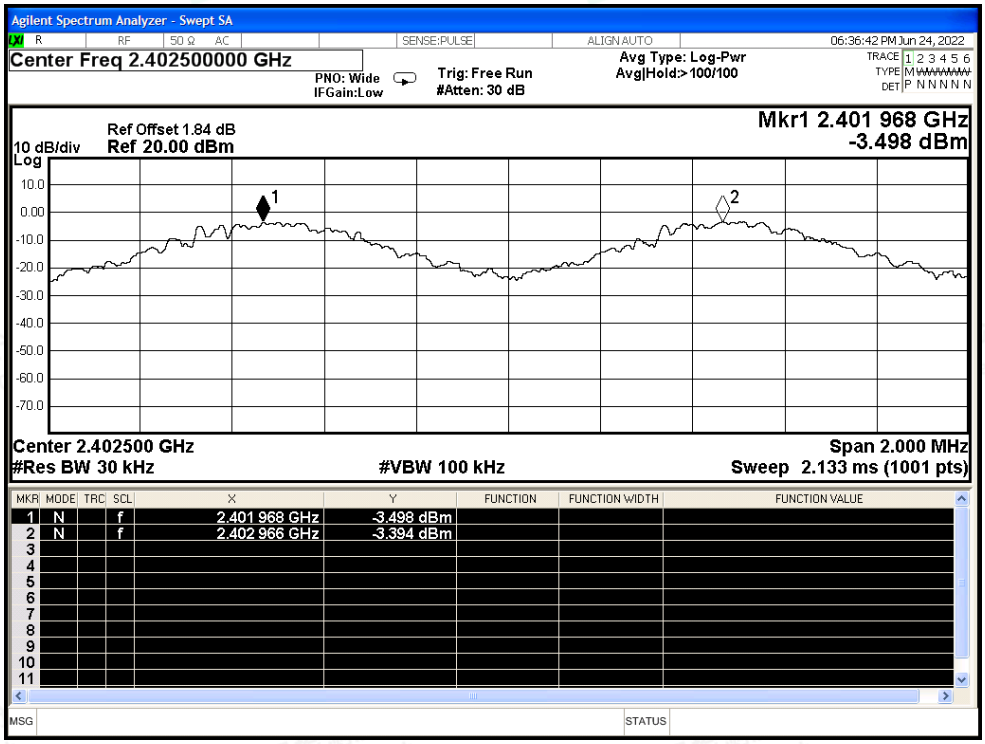


A.3 Carrier Frequencies Separation

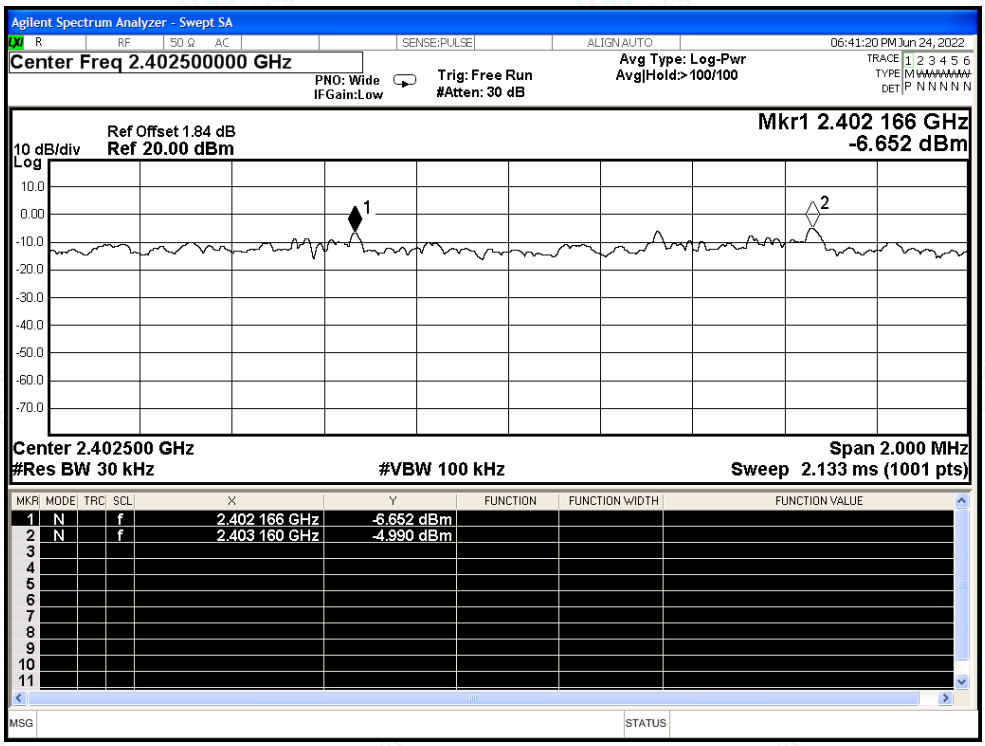
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH5	Ant1	2401.968	2402.966	0.998	0.637	Pass
NVNT	2-DH5	Ant1	2402.166	2403.16	0.994	0.867	Pass
NVNT	3-DH5	Ant1	2402.014	2403.012	0.998	0.851	Pass

Test Graphs

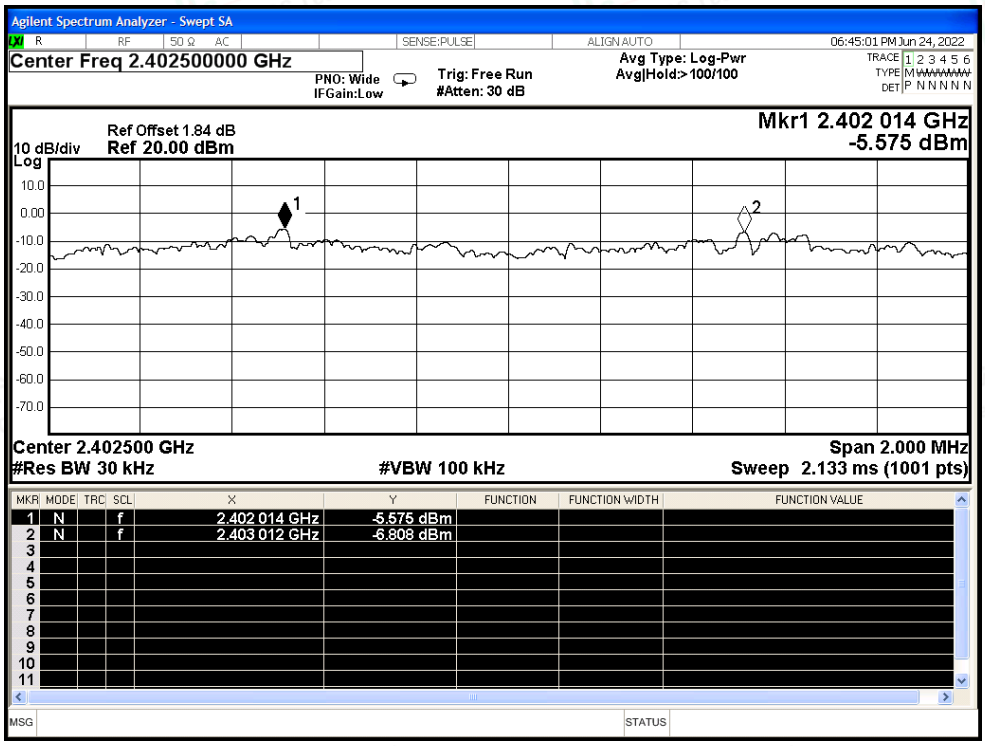
CFS NVNT 1-DH5 2402MHz Ant1



CFS NVNT 2-DH5 2402MHz Ant1



CFS NVNT 3-DH5 2402MHz Ant1

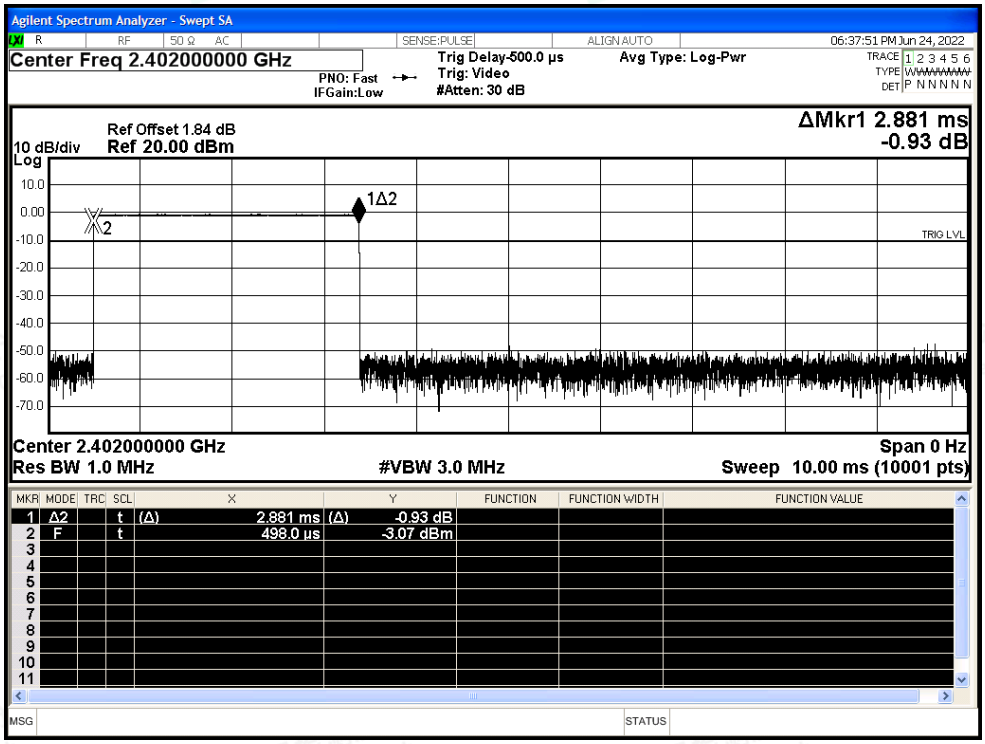


A.4 Dwell Time

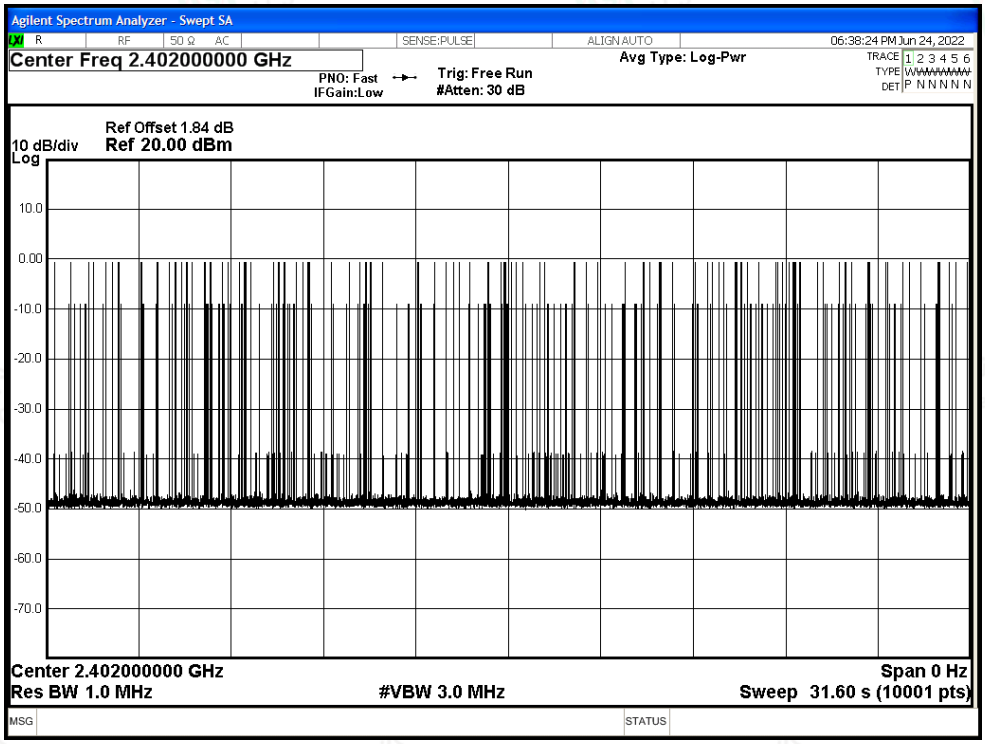
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH5	2402	Ant1	2.881	302.505	105	31600	400	Pass
NVNT	2-DH5	2402	Ant1	2.88	288	100	31600	400	Pass
NVNT	3-DH5	2402	Ant1	2.886	314.574	109	31600	400	Pass

Test Graphs

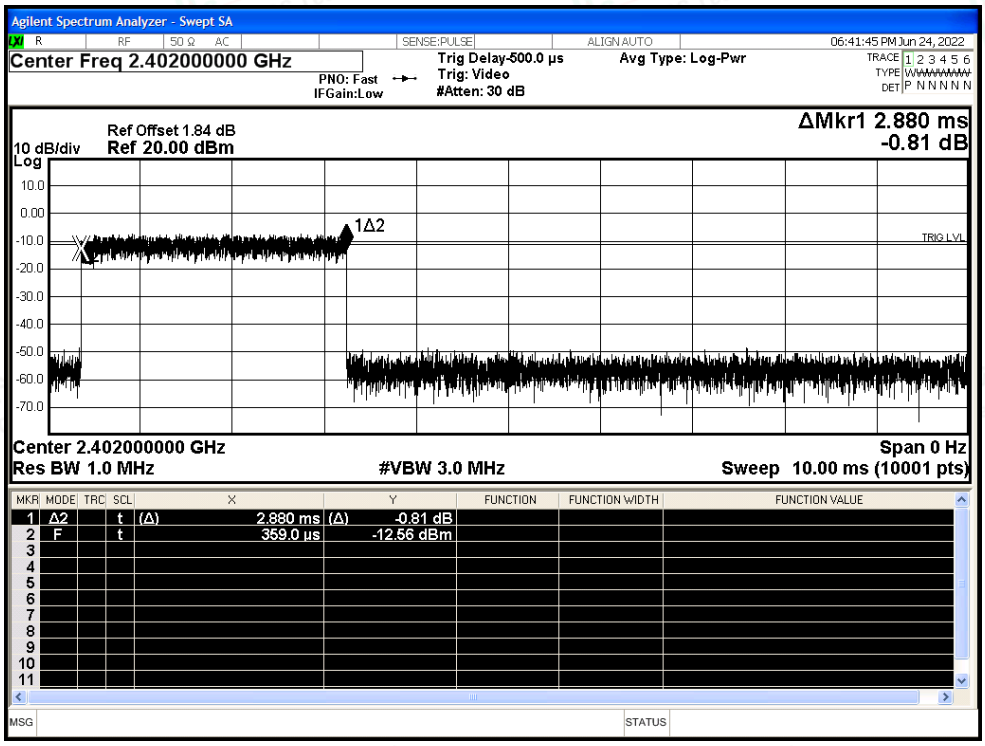
Dwell NVNT 1-DH5 2402MHz Ant1 One Burst



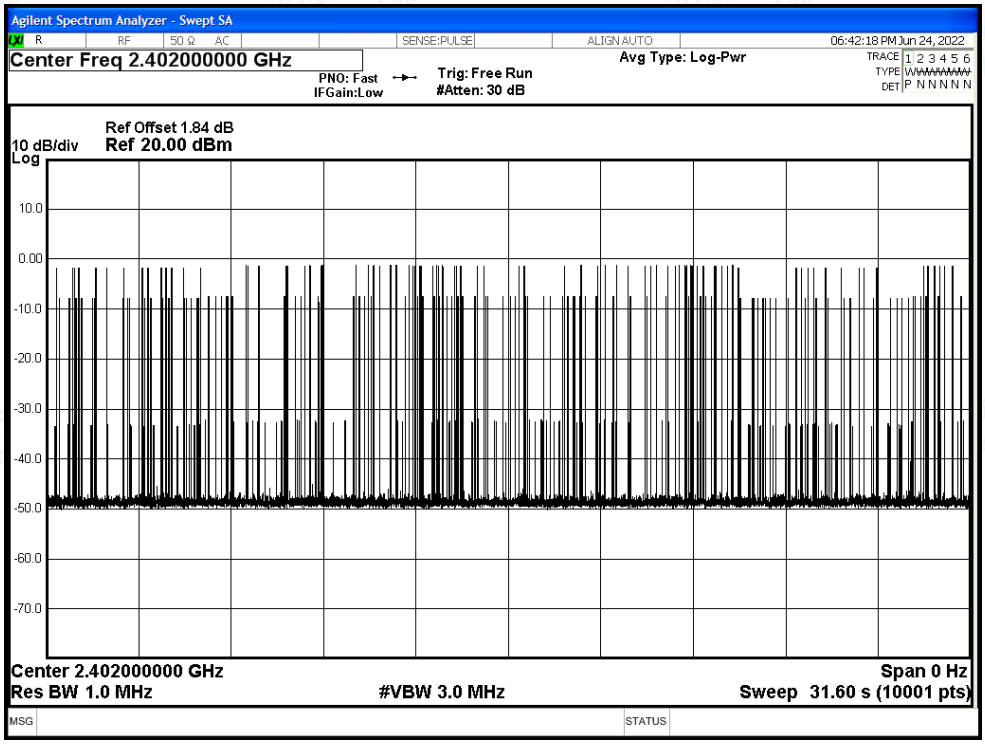
Dwell NVNT 1-DH5 2402MHz Ant1 Accumulated



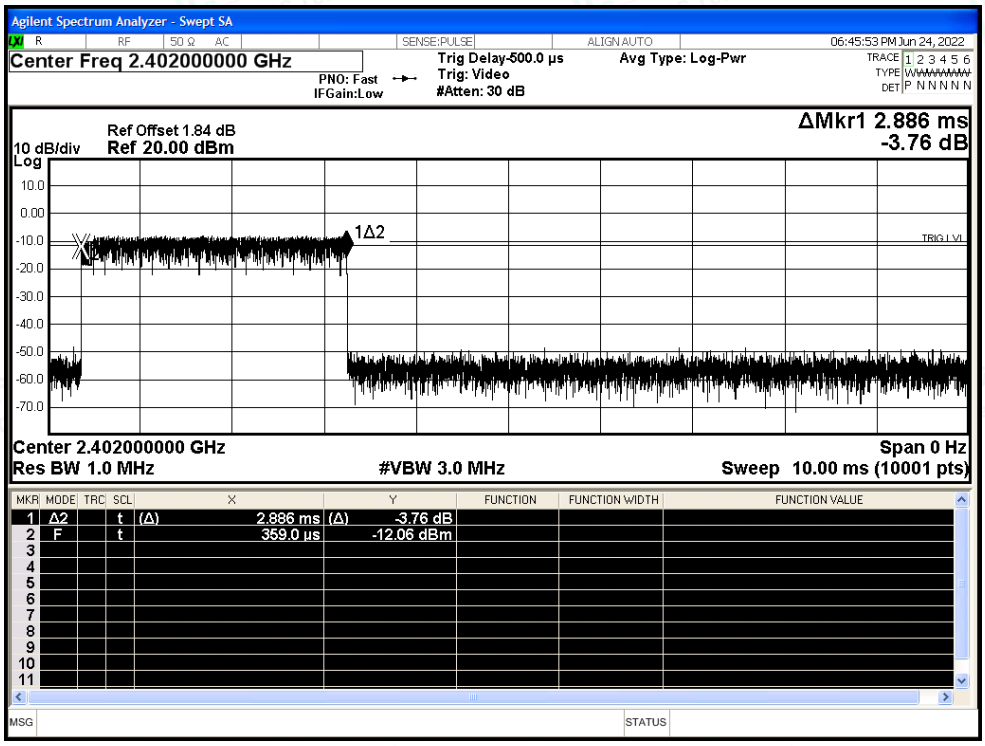
Dwell NVNT 2-DH5 2402MHz Ant1 One Burst



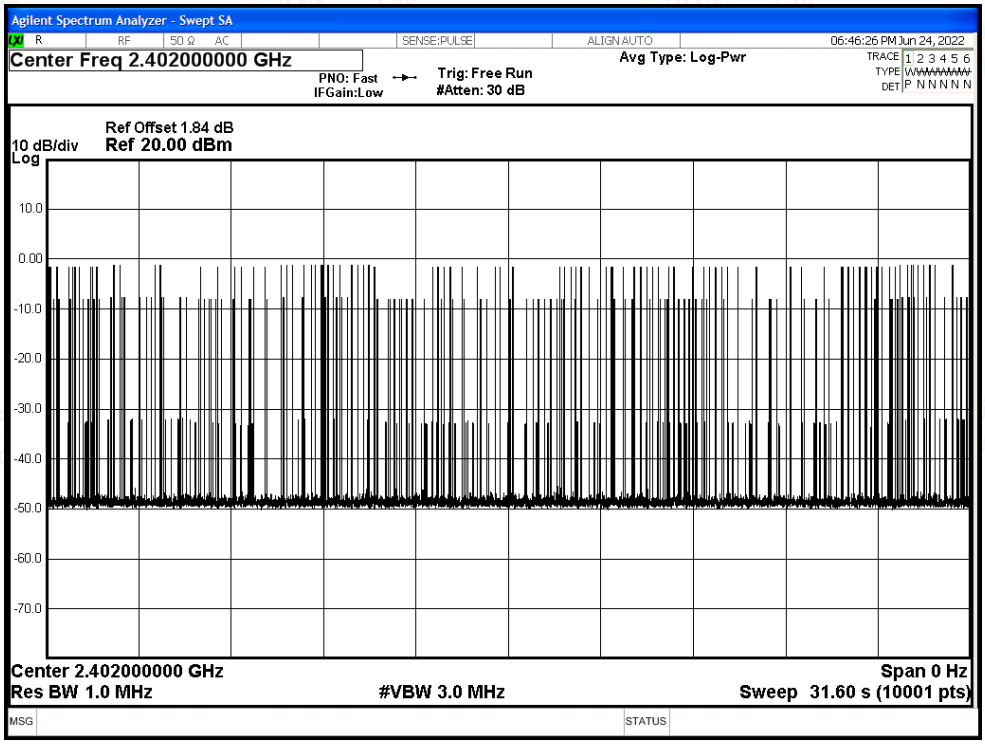
Dwell NVNT 2-DH5 2402MHz Ant1 Accumulated



Dwell NVNT 3-DH5 2402MHz Ant1 One Burst



Dwell NVNT 3-DH5 2402MHz Ant1 Accumulated

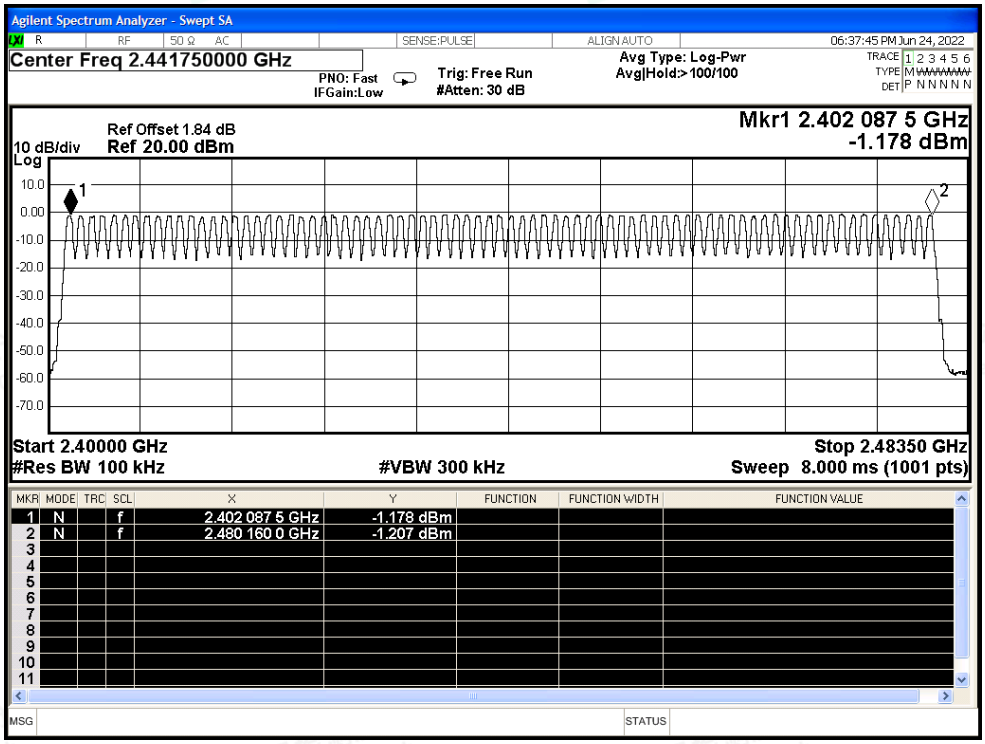


A.5 Number of Hopping Channel

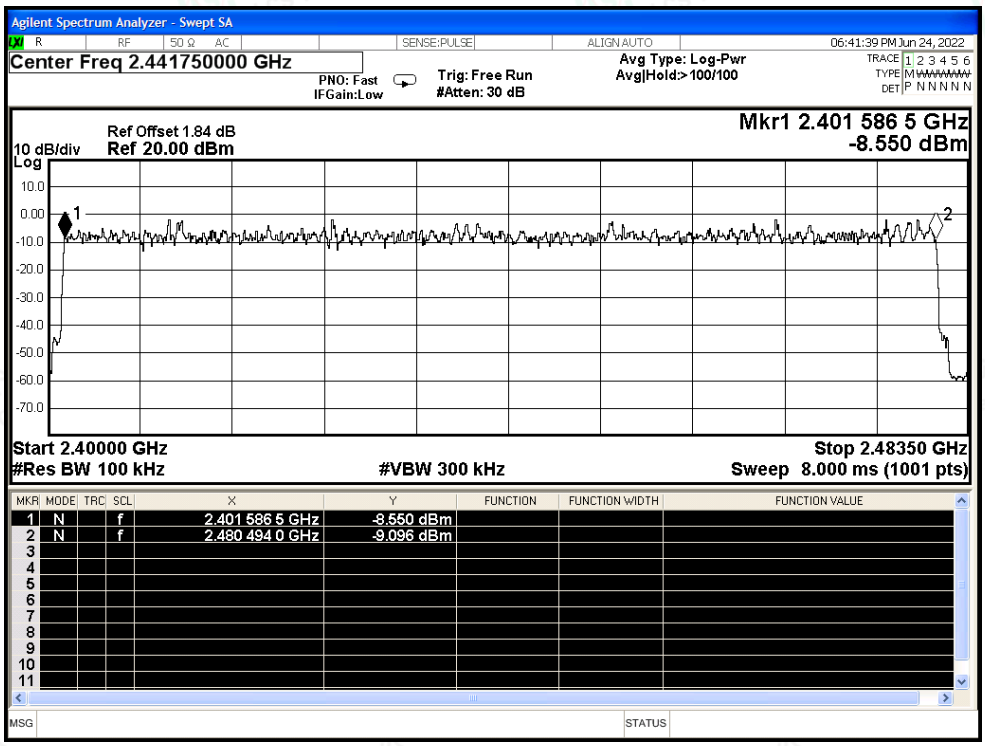
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH5	Ant1	79	15	Pass
NVNT	2-DH5	Ant1	79	15	Pass
NVNT	3-DH5	Ant1	79	15	Pass

Test Graphs

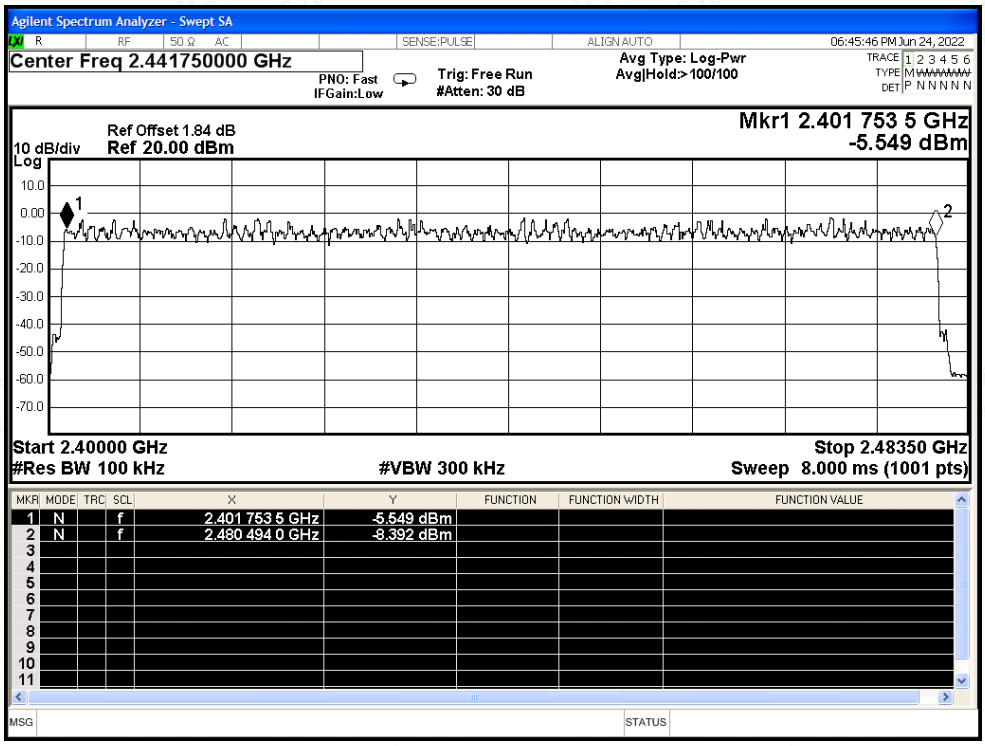
Hopping No. NVNT 1-DH5 2402MHz Ant1



Hopping No. NVNT 2-DH5 2402MHz Ant1



Hopping No. NVNT 3-DH5 2402MHz Ant1

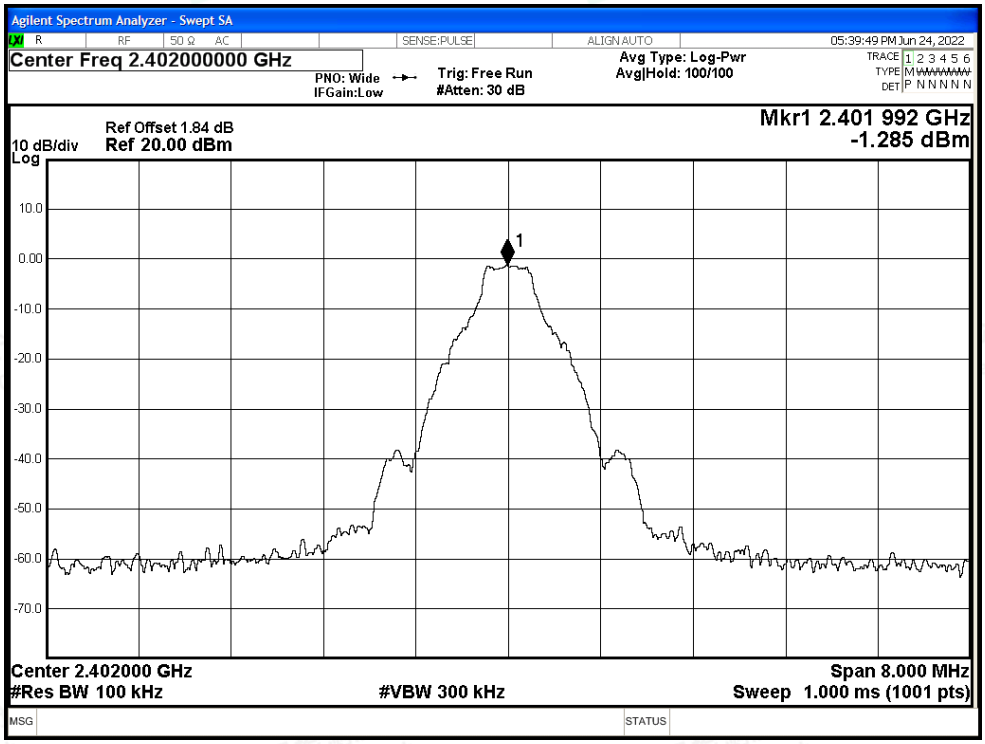


A.6 Band Edge

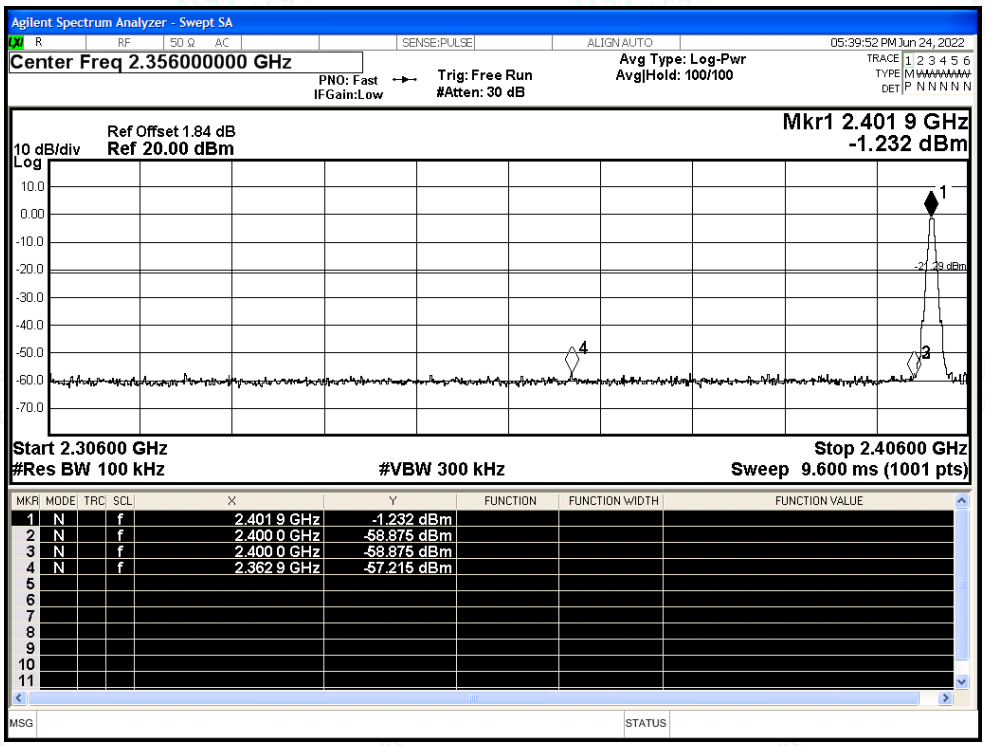
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	-55.93	-20	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	-56.37	-20	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	-50.61	-20	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	-54.44	-20	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	-54.34	-20	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	-54.25	-20	Pass

Test Graphs

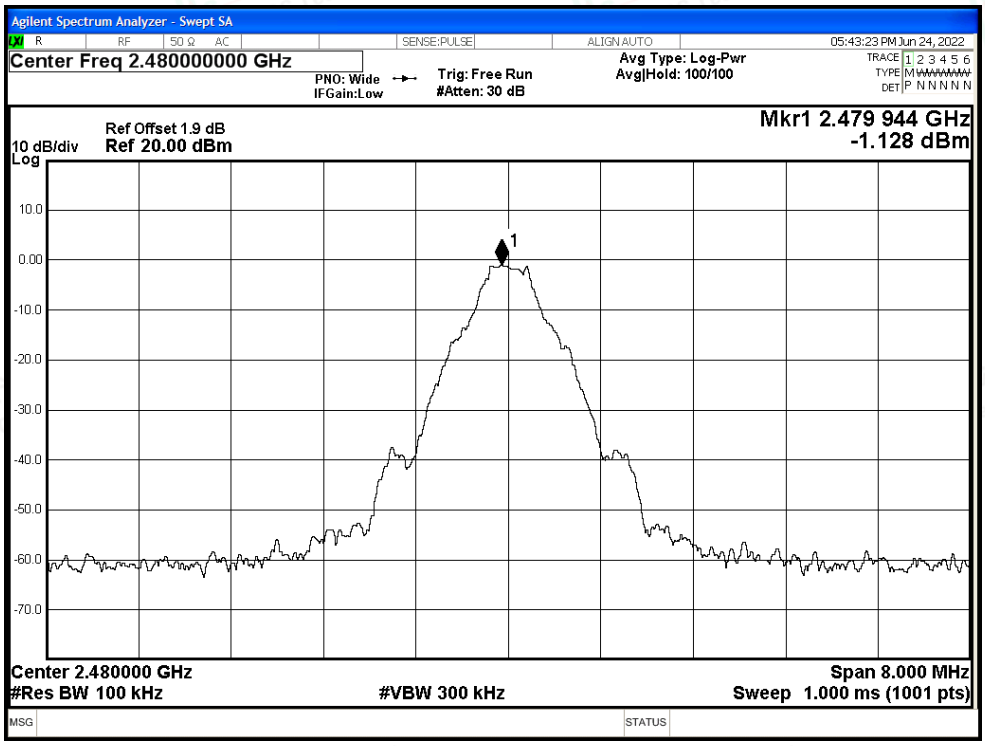
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Ref



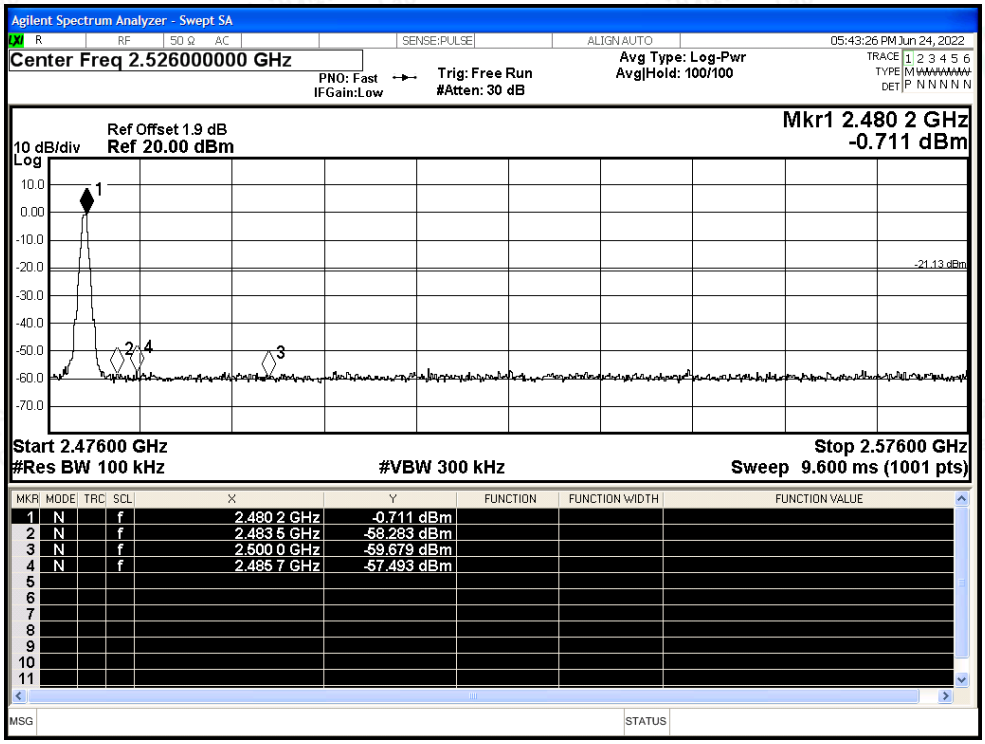
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Emission



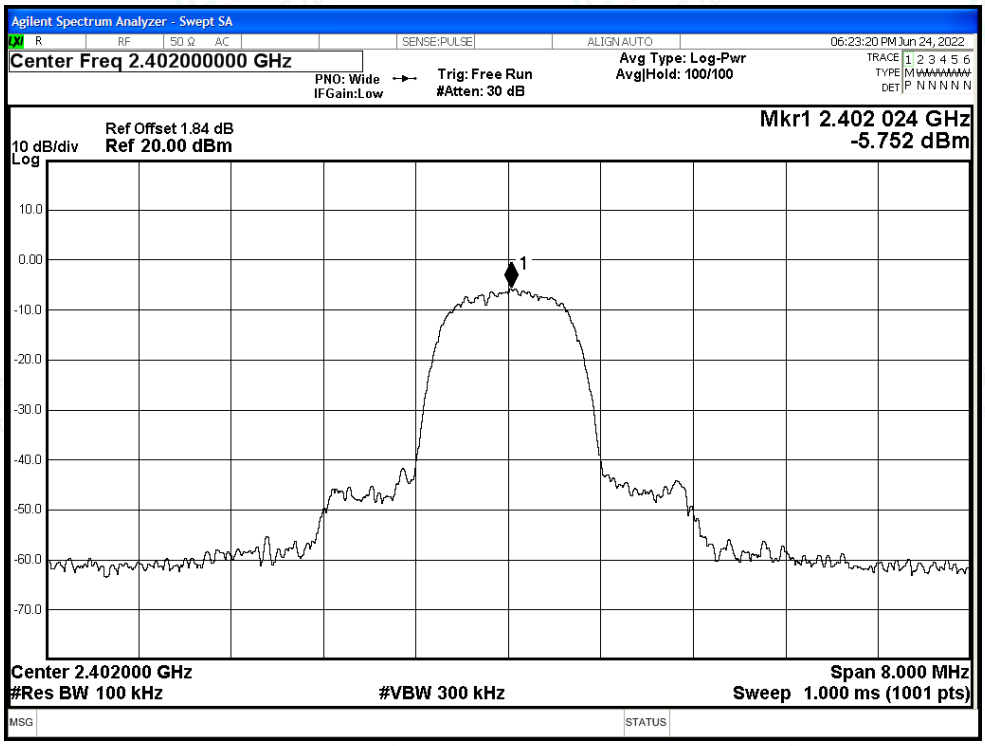
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref



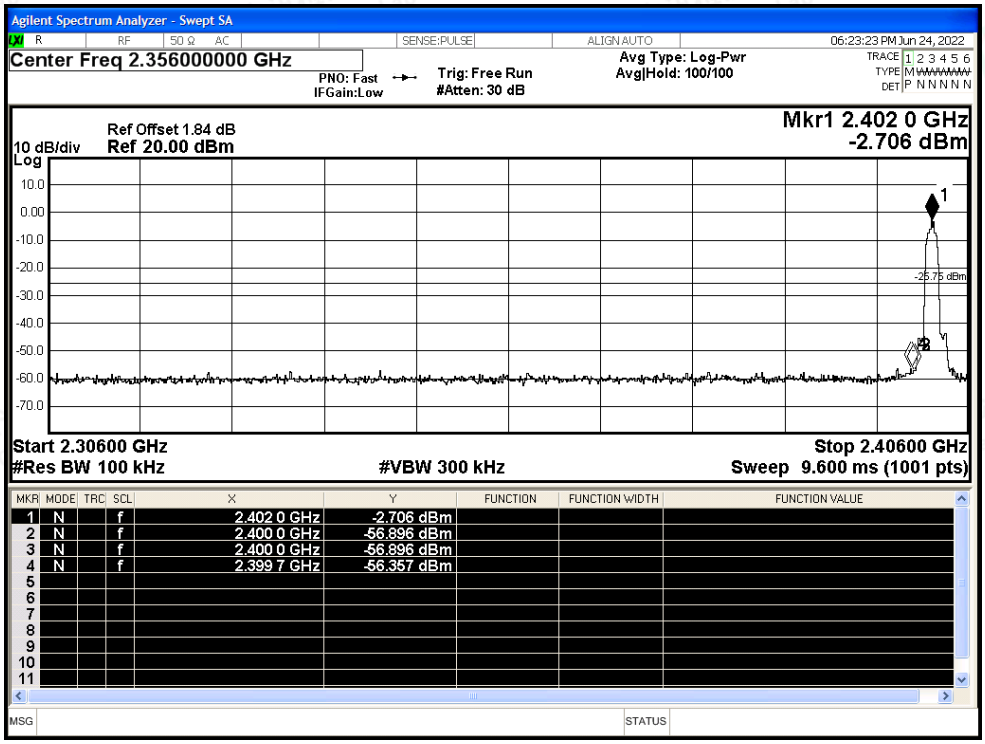
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Emission



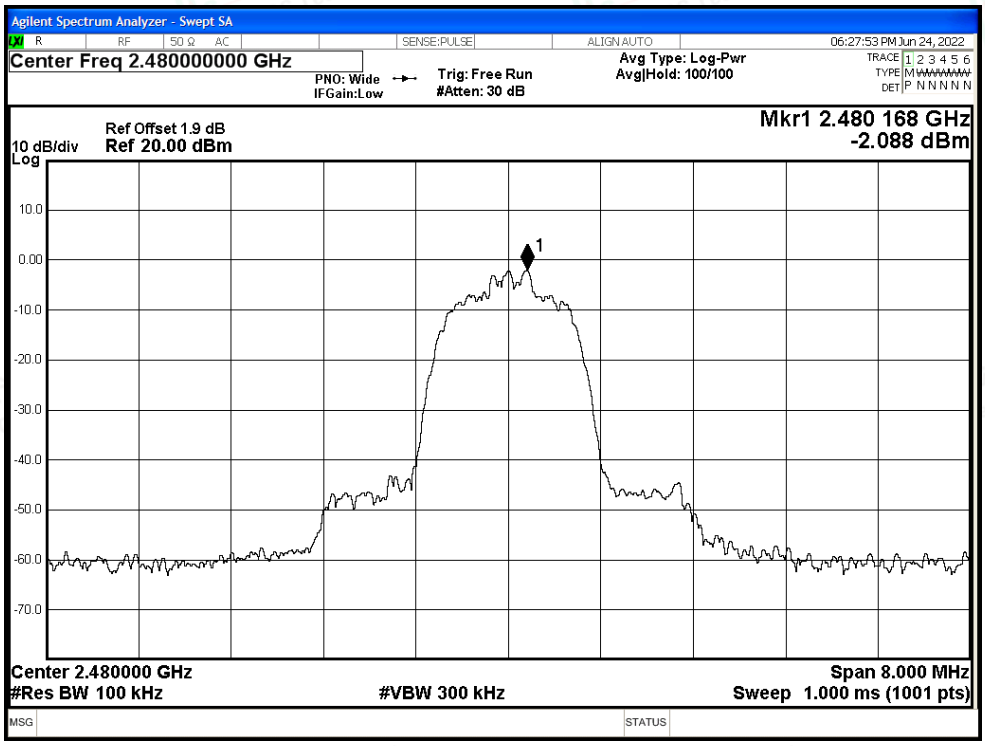
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Ref



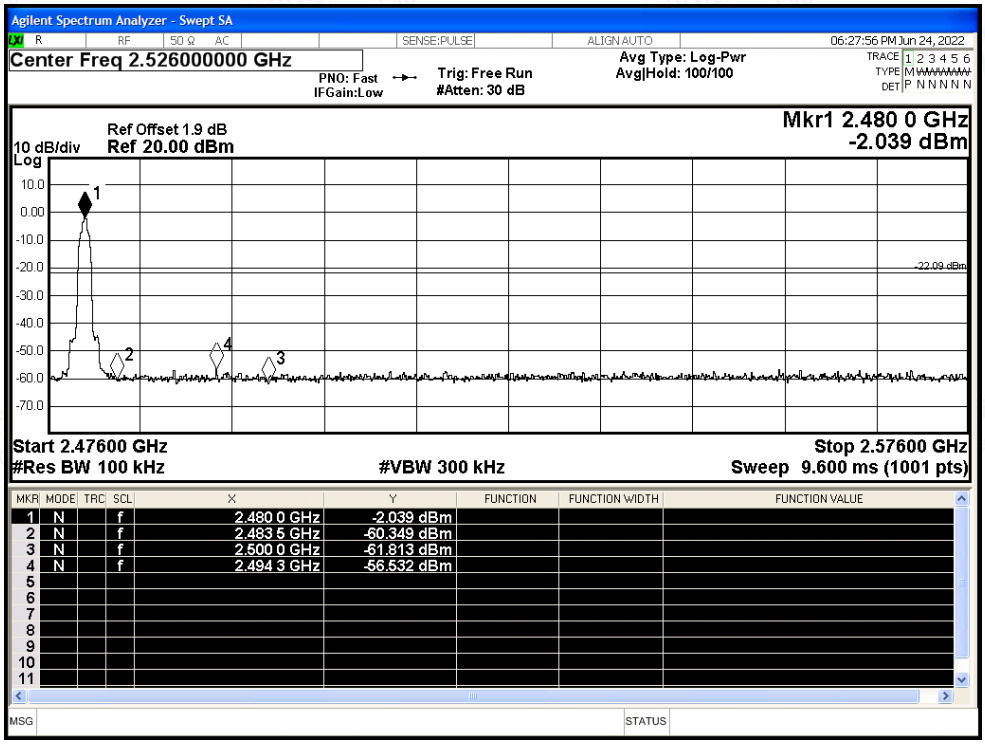
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Emission



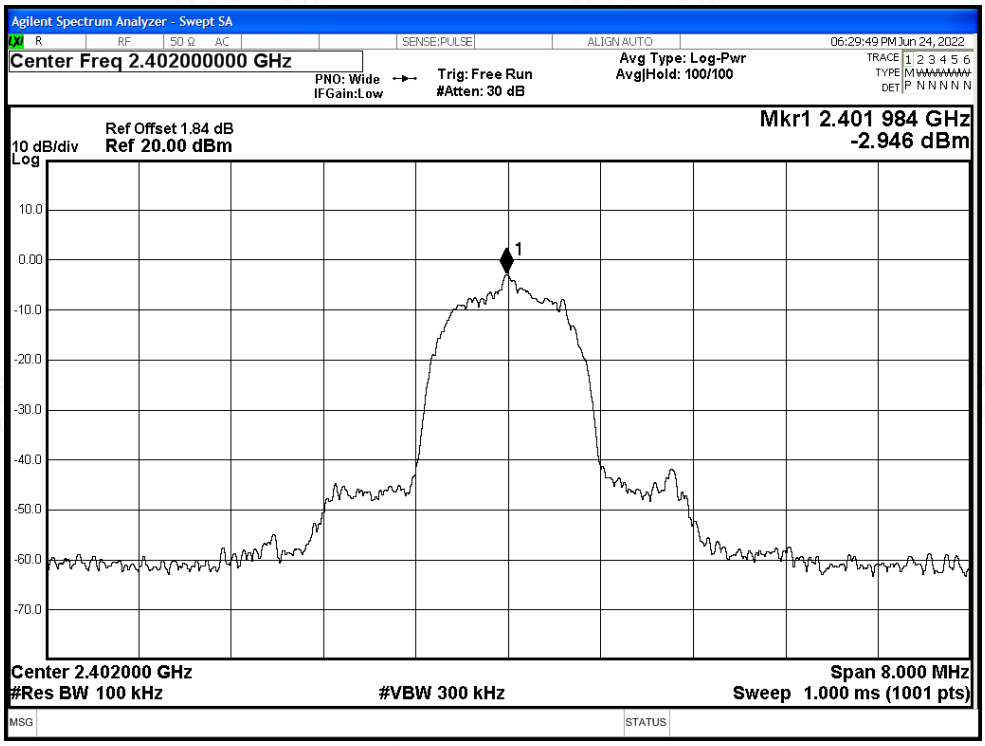
Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Ref



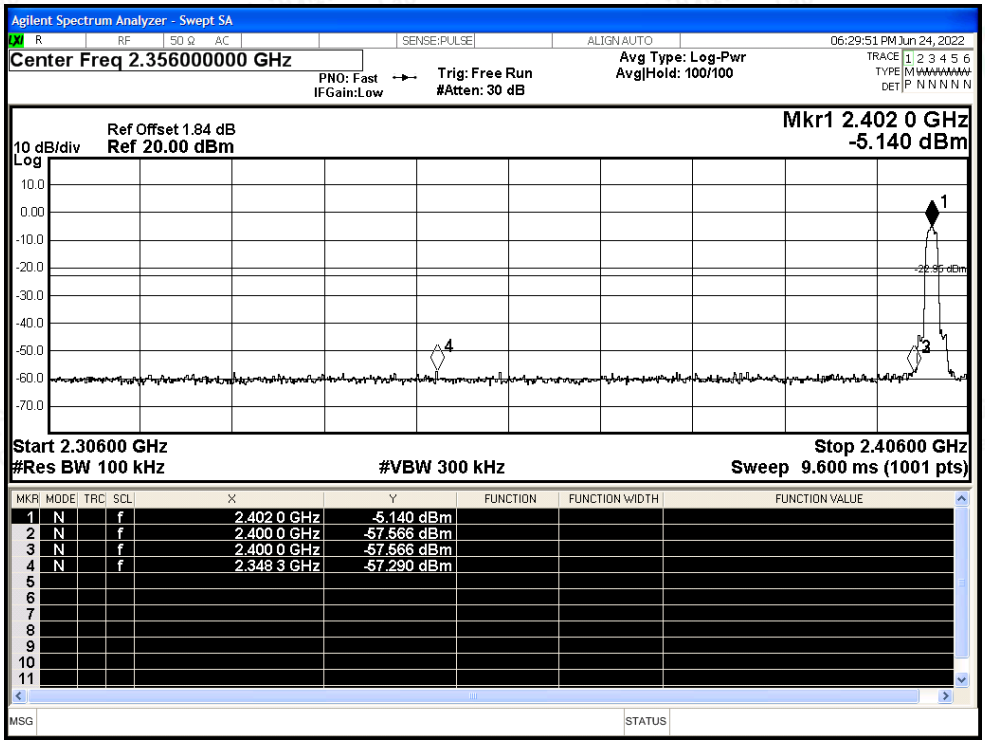
Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Emission



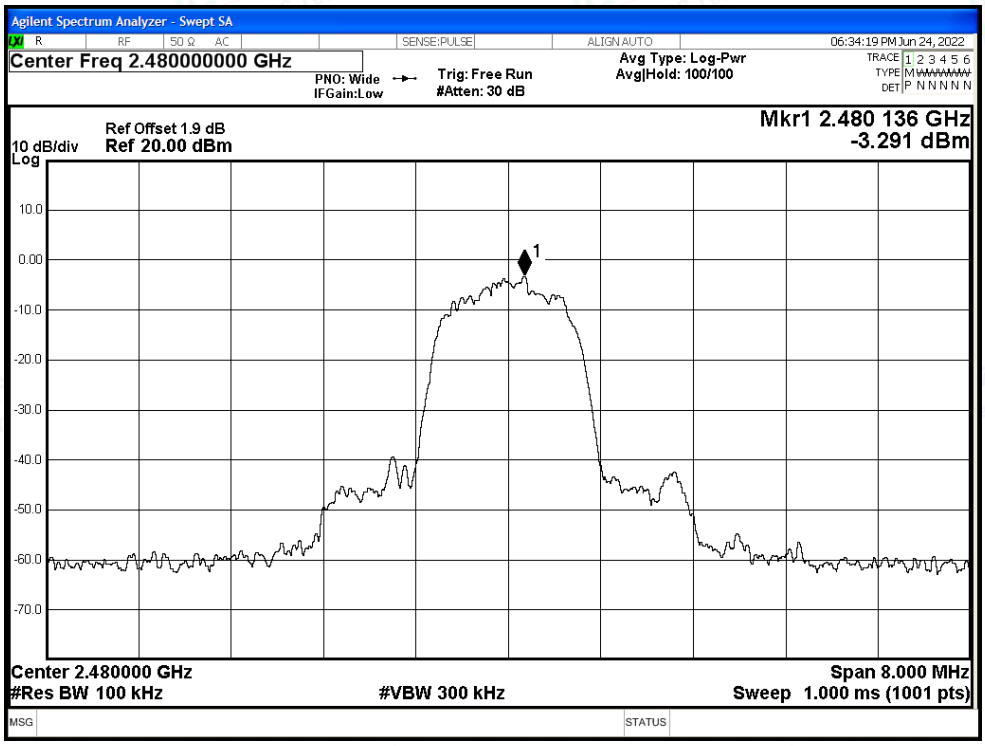
Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Ref



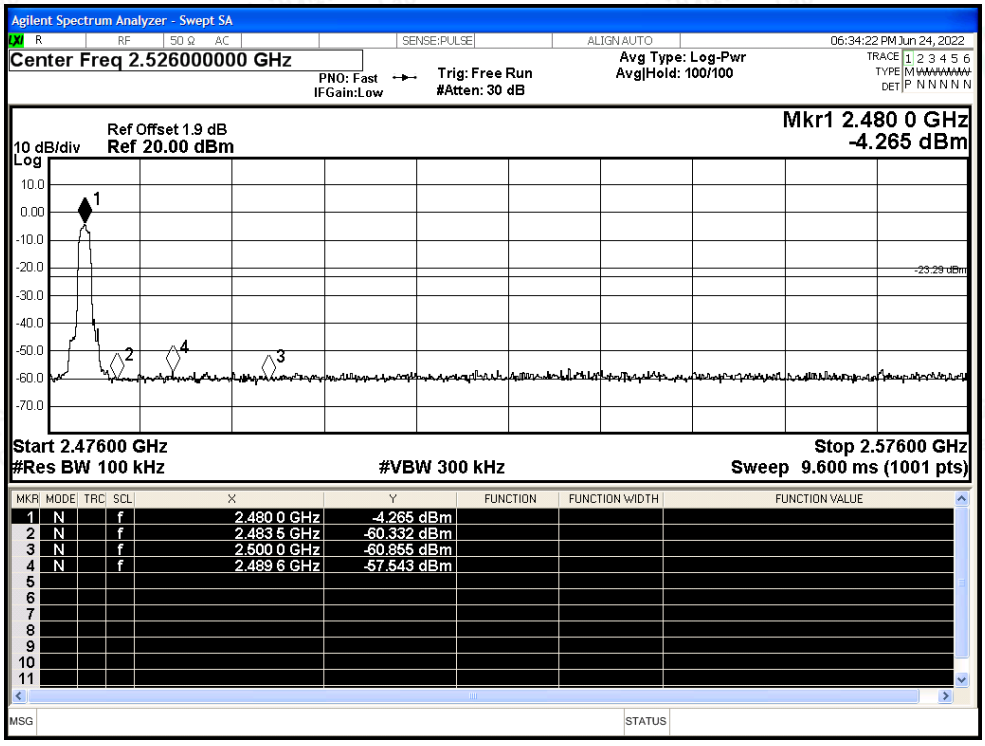
Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Emission



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



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

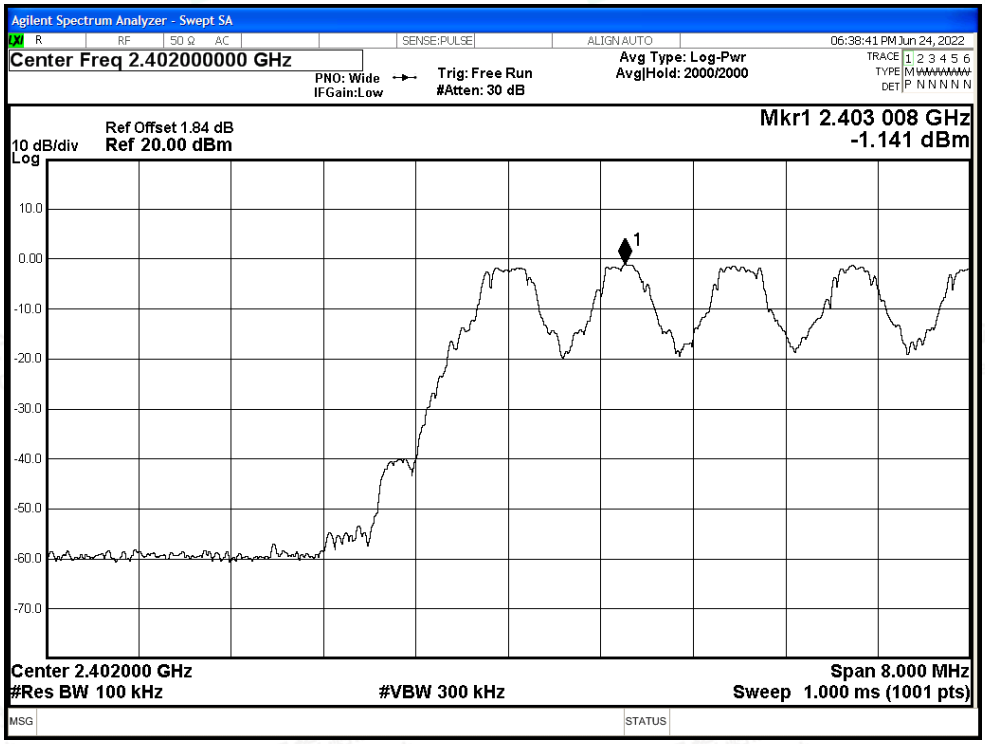


(Hopping)

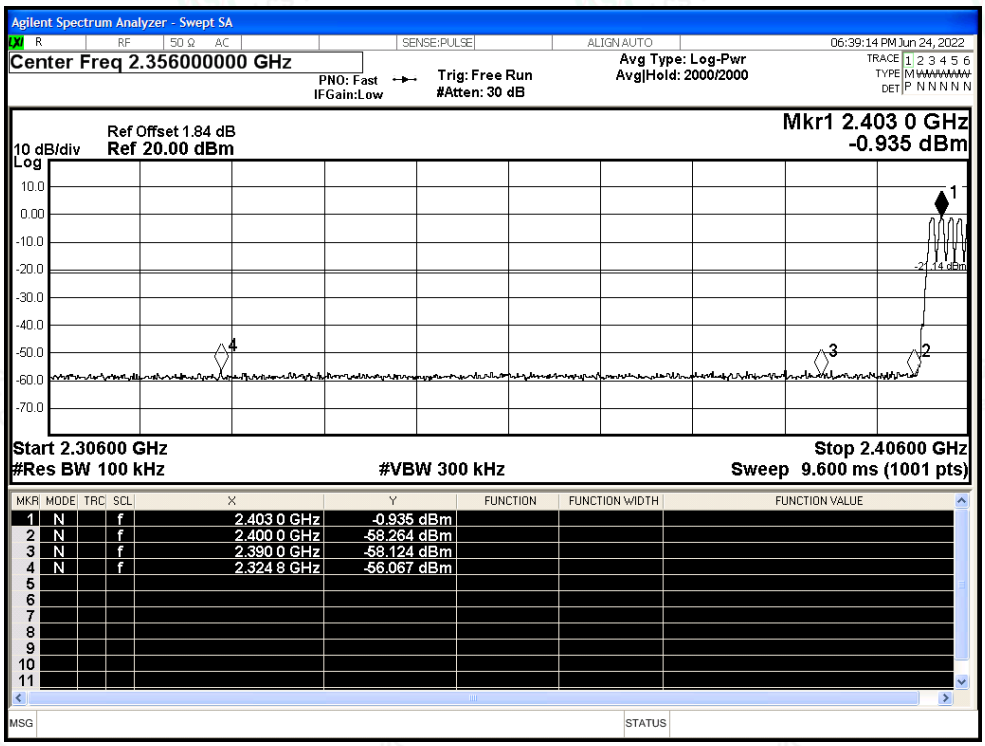
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	Hopping	-54.93	-20	Pass
NVNT	1-DH5	2480	Ant1	Hopping	-55.63	-20	Pass
NVNT	2-DH5	2402	Ant1	Hopping	-54.47	-20	Pass
NVNT	2-DH5	2480	Ant1	Hopping	-52.97	-20	Pass
NVNT	3-DH5	2402	Ant1	Hopping	-53.22	-20	Pass
NVNT	3-DH5	2480	Ant1	Hopping	-53.2	-20	Pass

Test Graphs

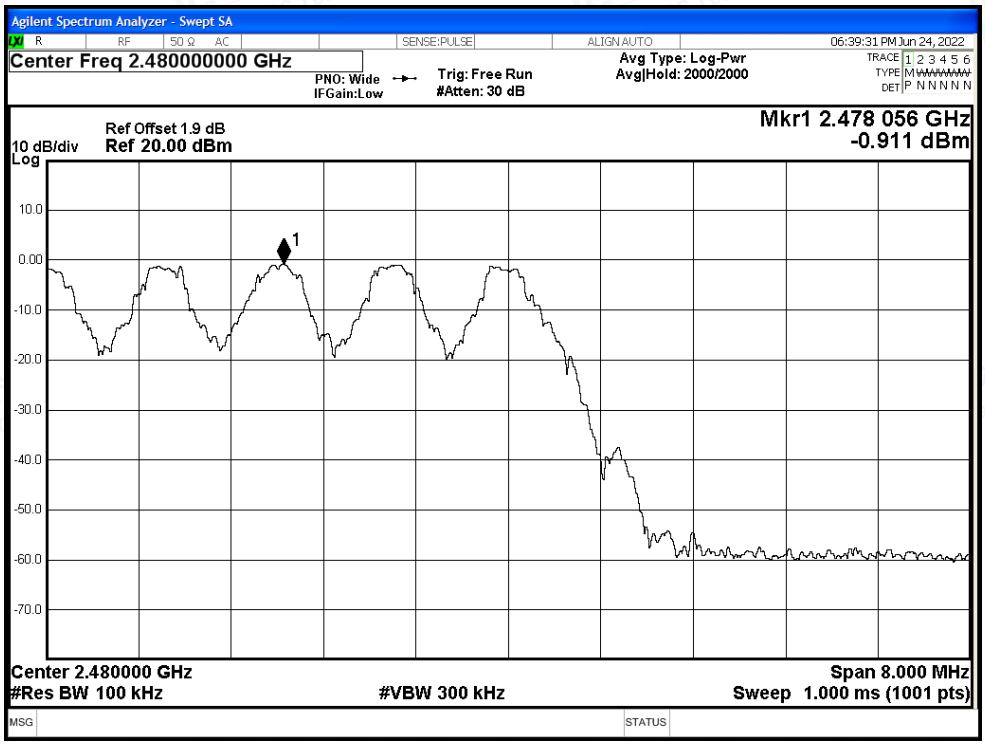
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Ref



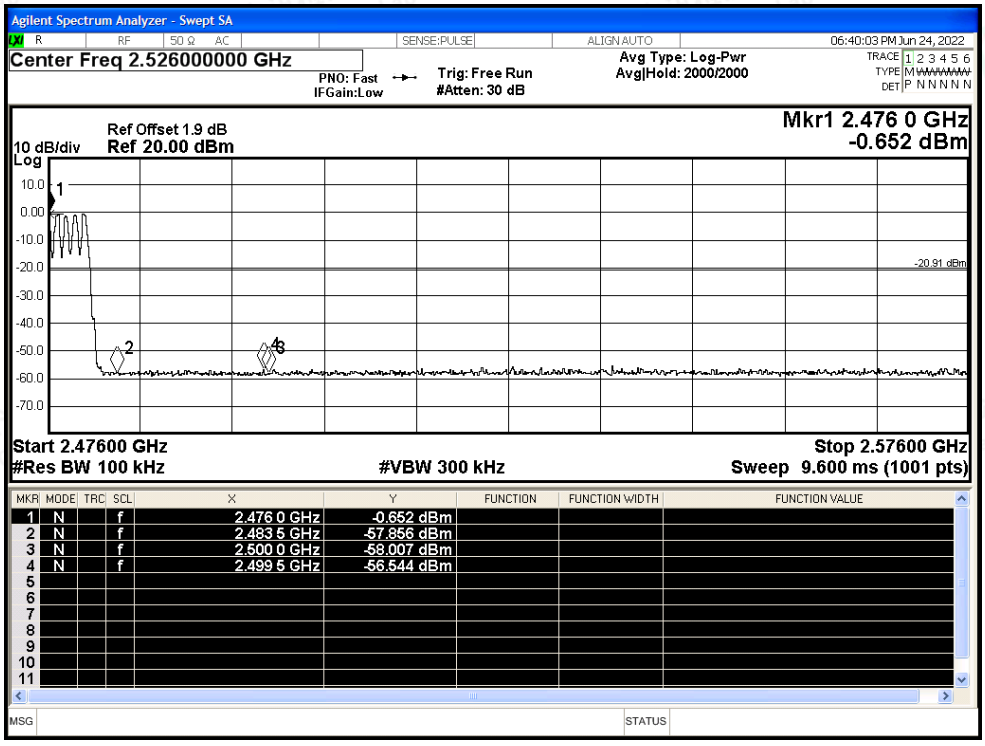
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission



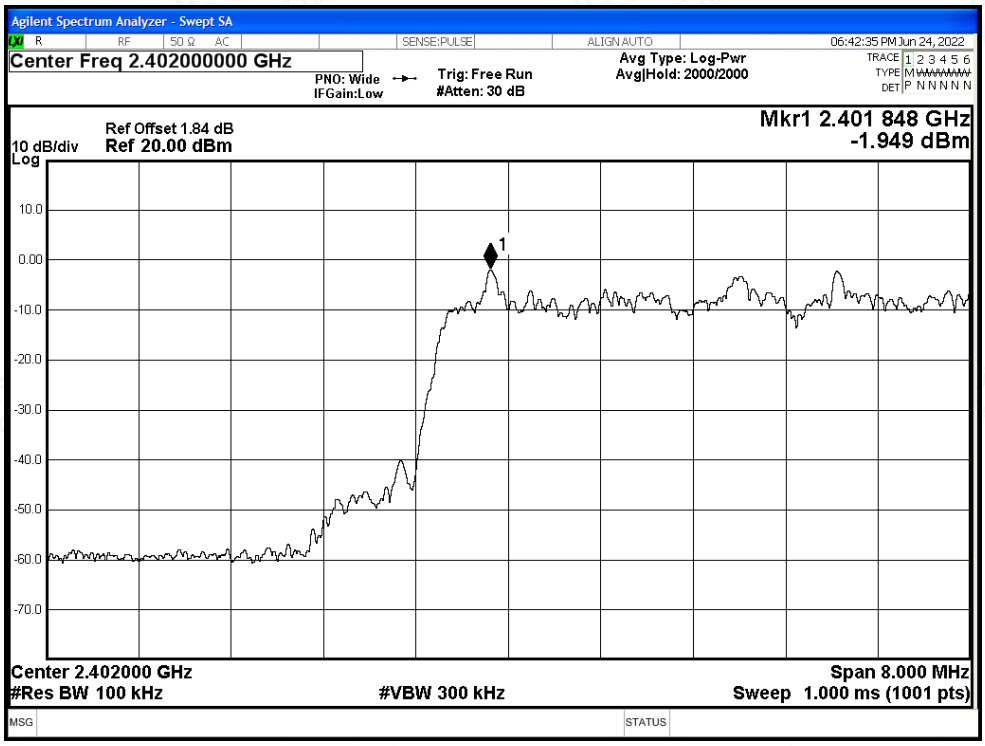
Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Ref



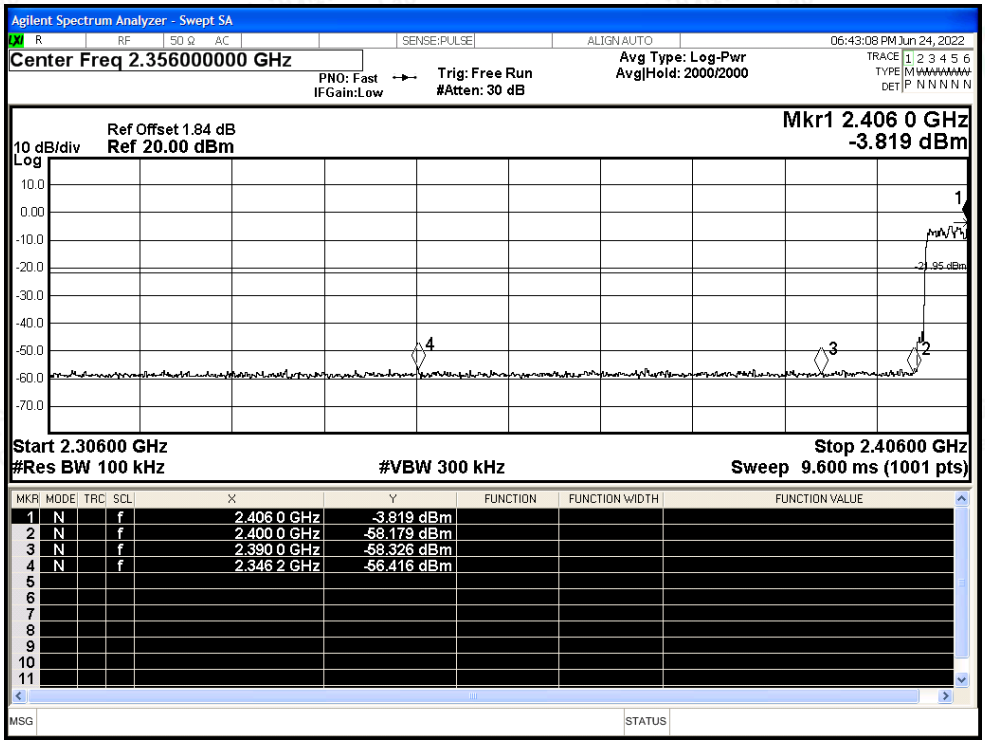
Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Emission



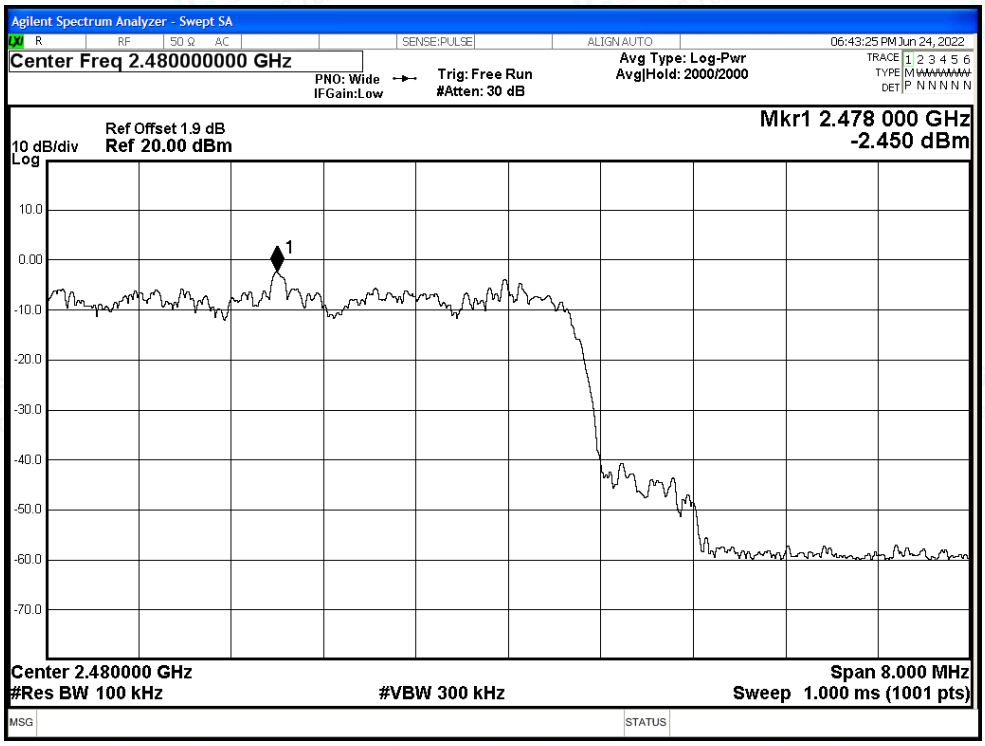
Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Ref



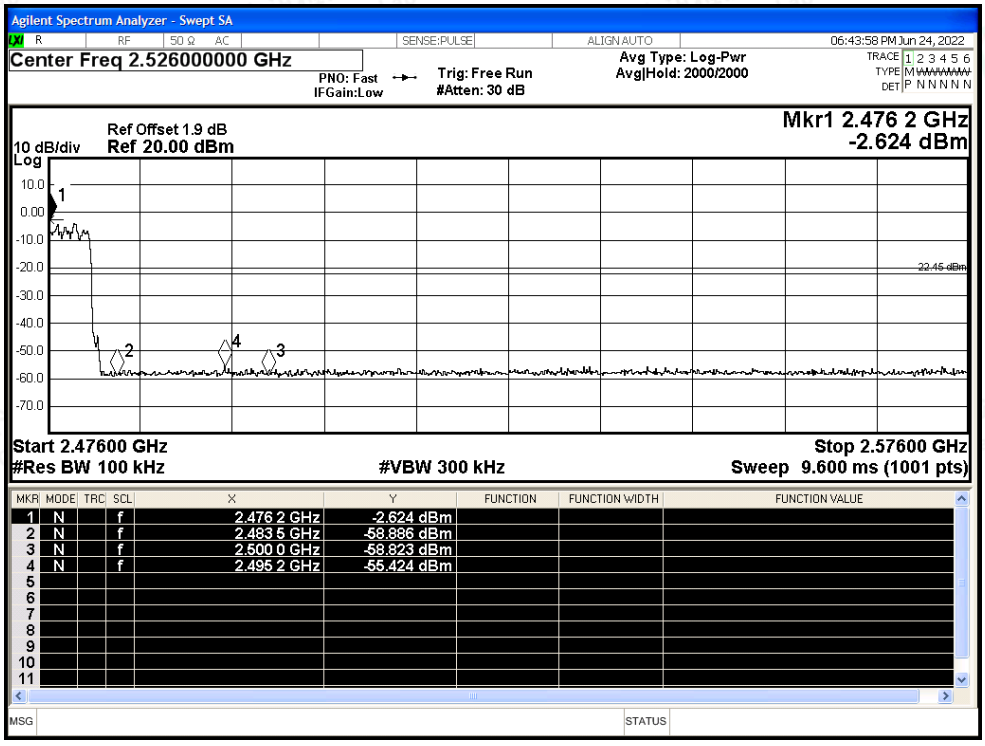
Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Emission



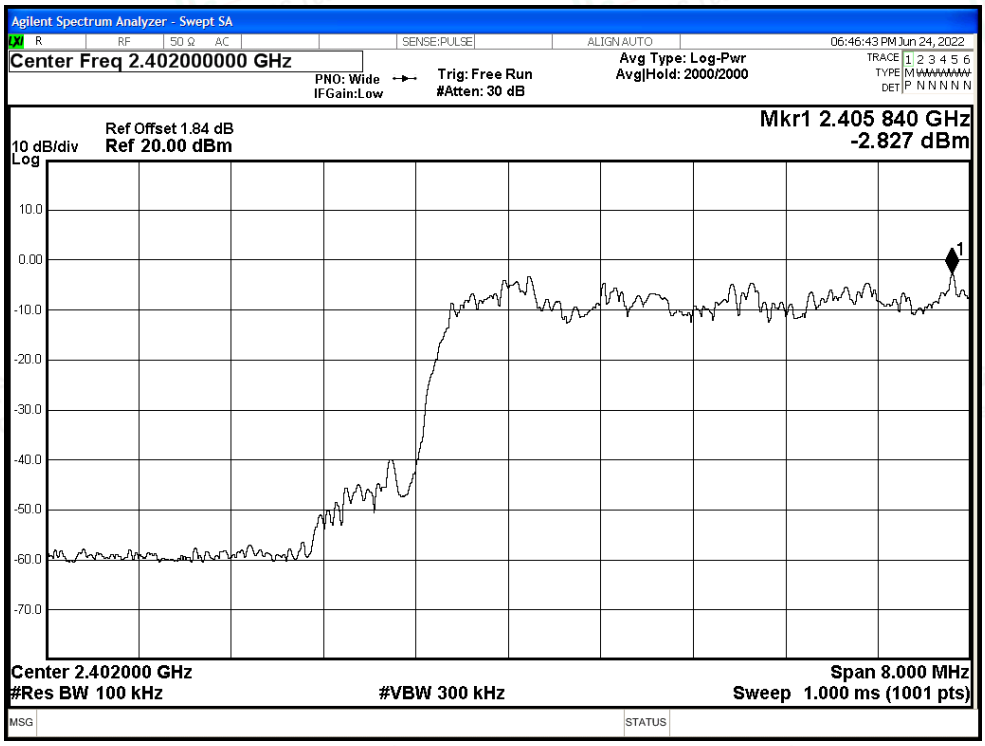
Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Ref



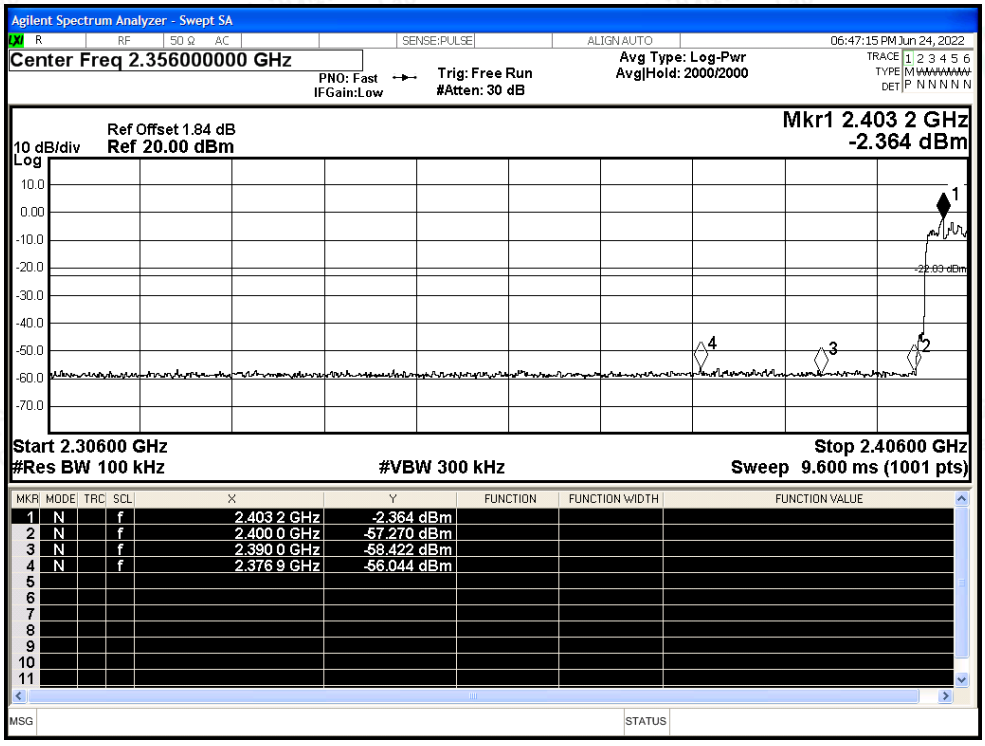
Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Emission



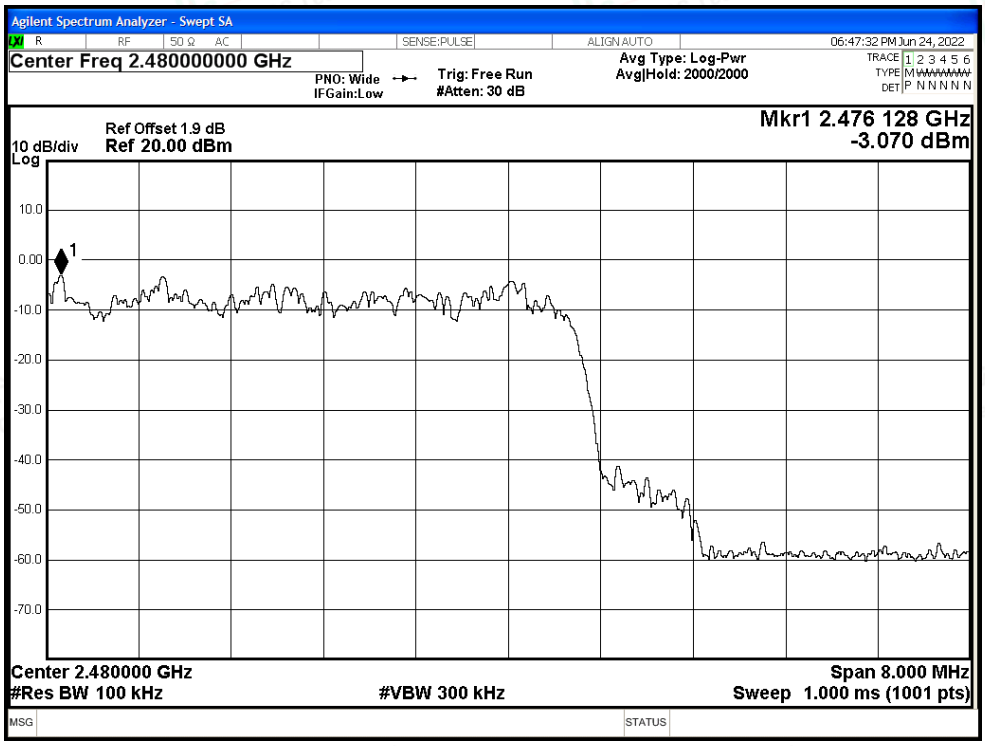
Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Ref



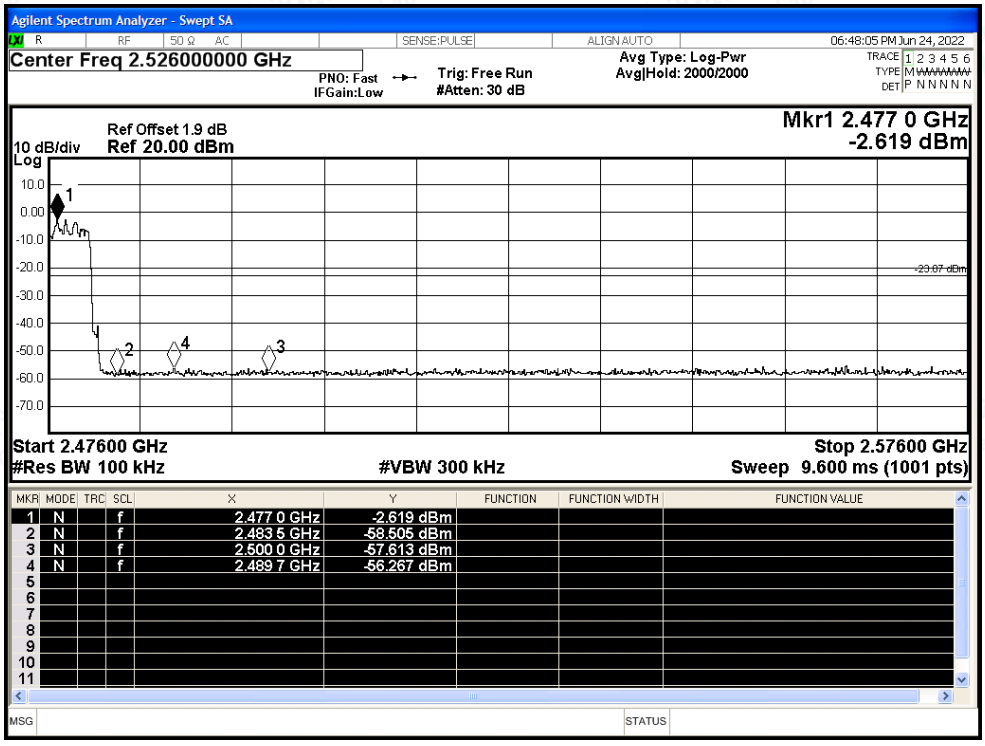
Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Emission



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



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

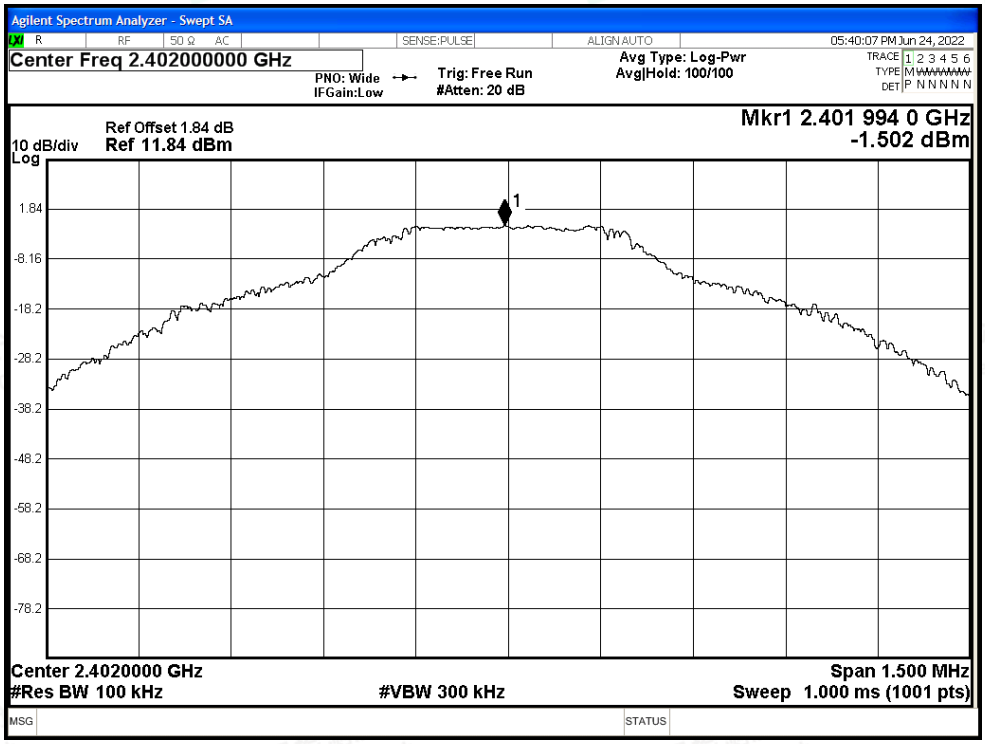


A.7 Conducted RF Spurious Emission

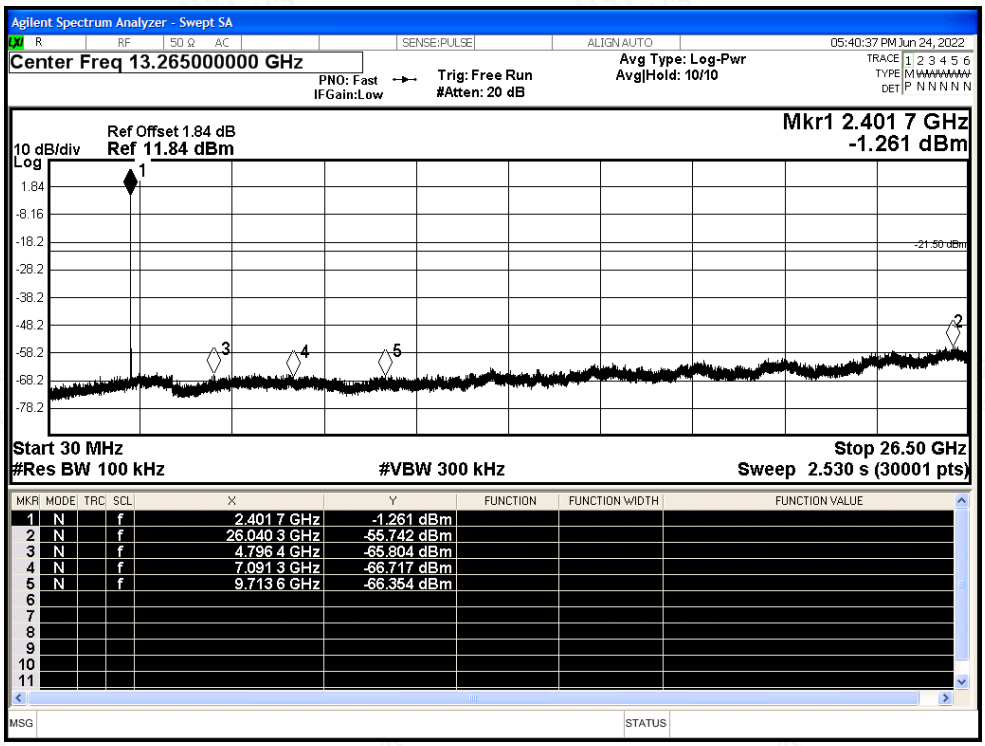
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	-54.24	-20	Pass
NVNT	1-DH5	2441	Ant1	-53.63	-20	Pass
NVNT	1-DH5	2480	Ant1	-55.02	-20	Pass
NVNT	2-DH5	2402	Ant1	-53.43	-20	Pass
NVNT	2-DH5	2441	Ant1	-52.7	-20	Pass
NVNT	2-DH5	2480	Ant1	-52.84	-20	Pass
NVNT	3-DH5	2402	Ant1	-52.05	-20	Pass
NVNT	3-DH5	2441	Ant1	-52.45	-20	Pass
NVNT	3-DH5	2480	Ant1	-52.47	-20	Pass

Test Graphs

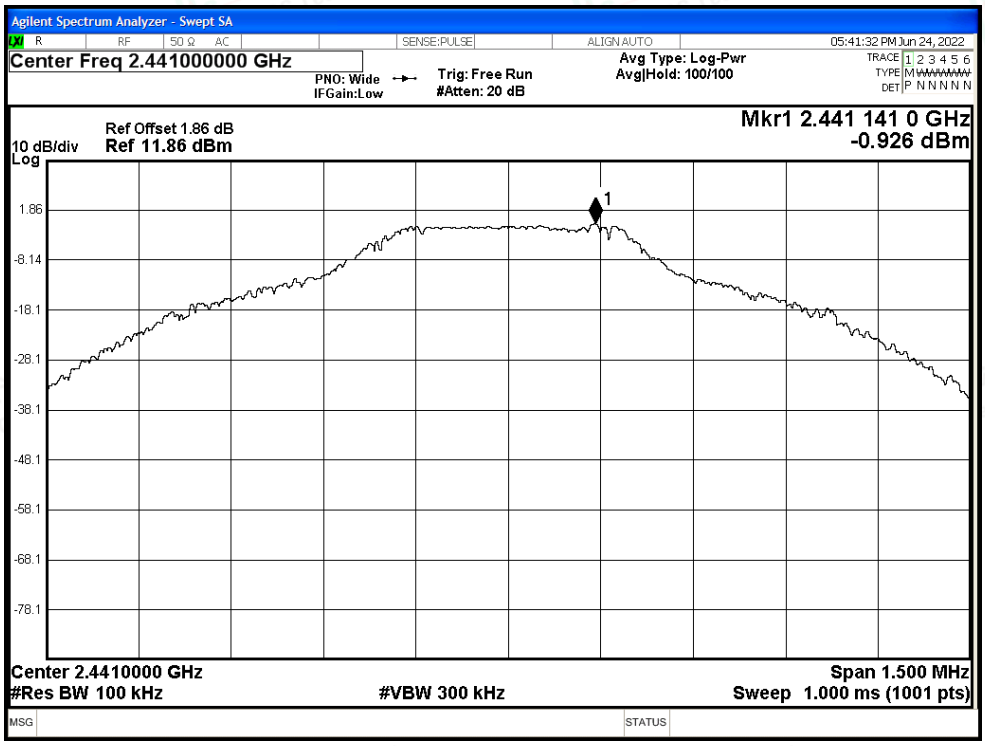
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref



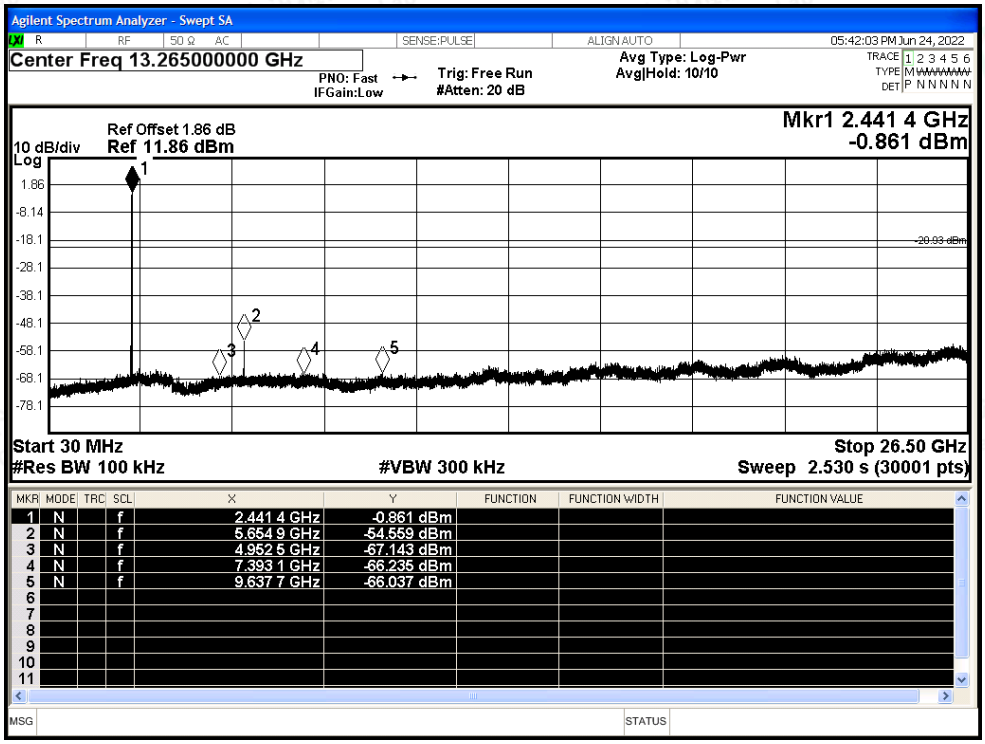
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission



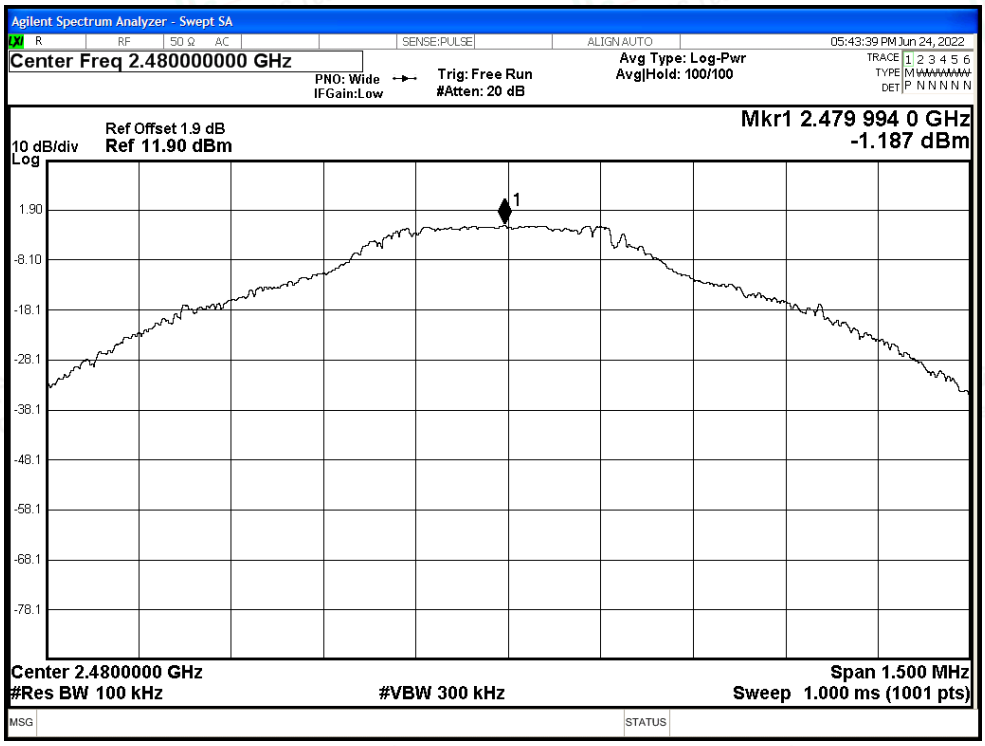
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref



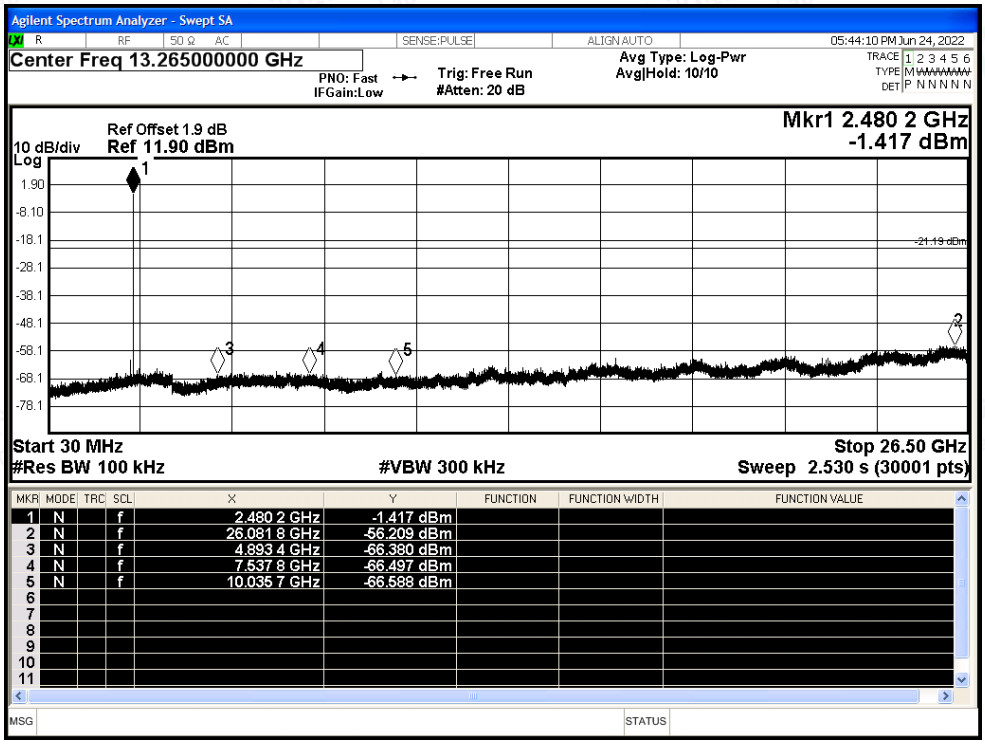
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission



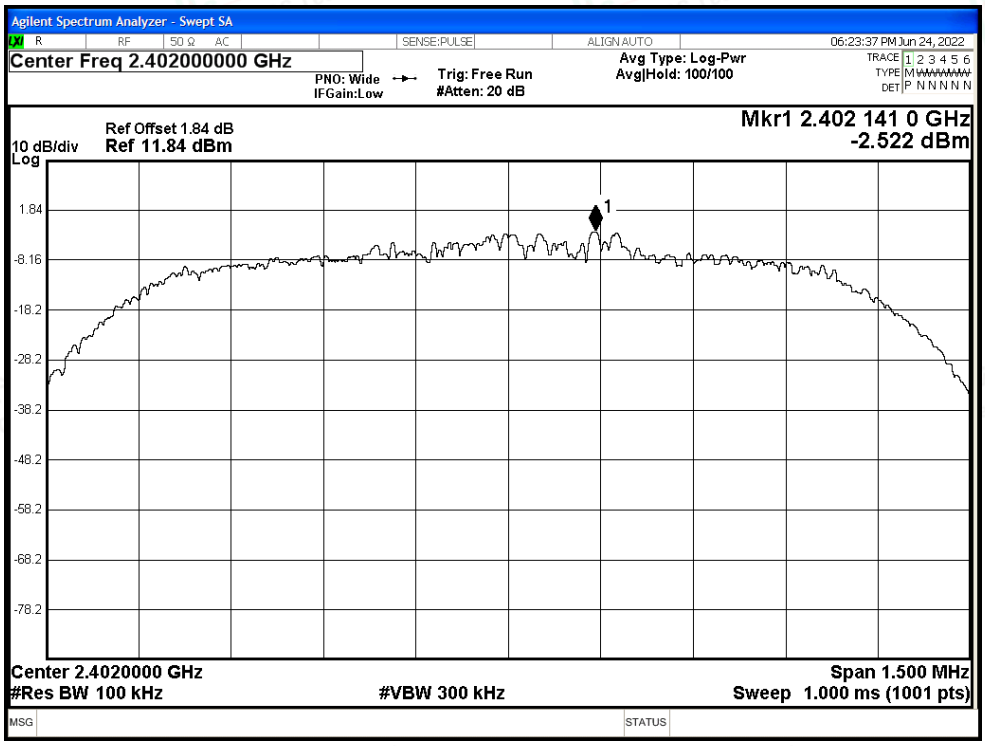
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref



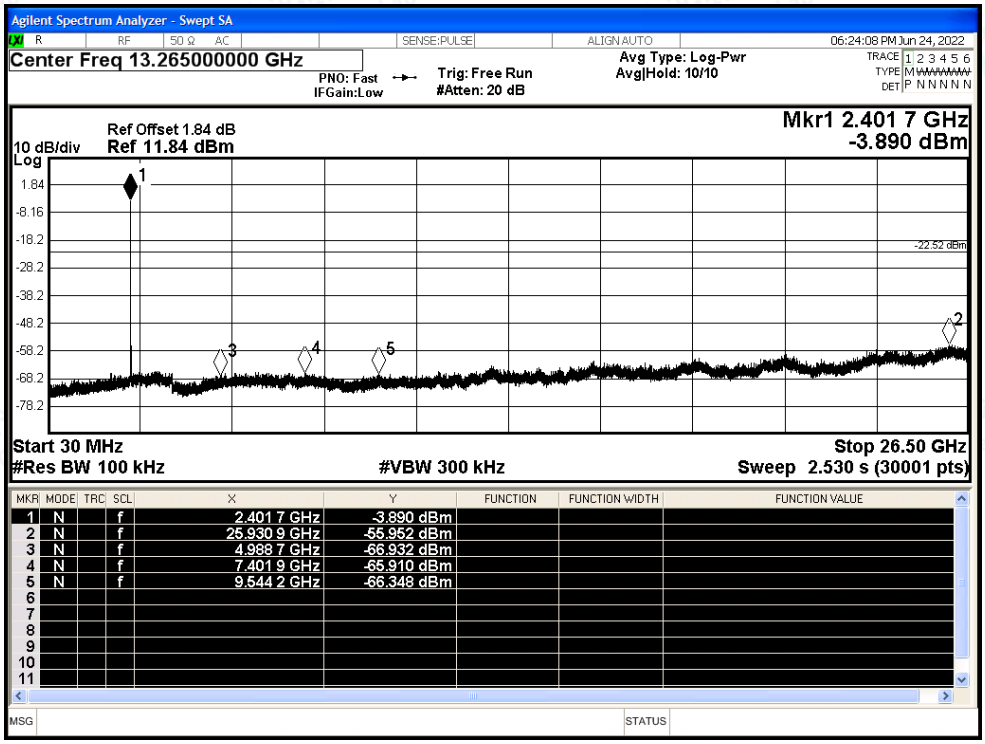
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Emission



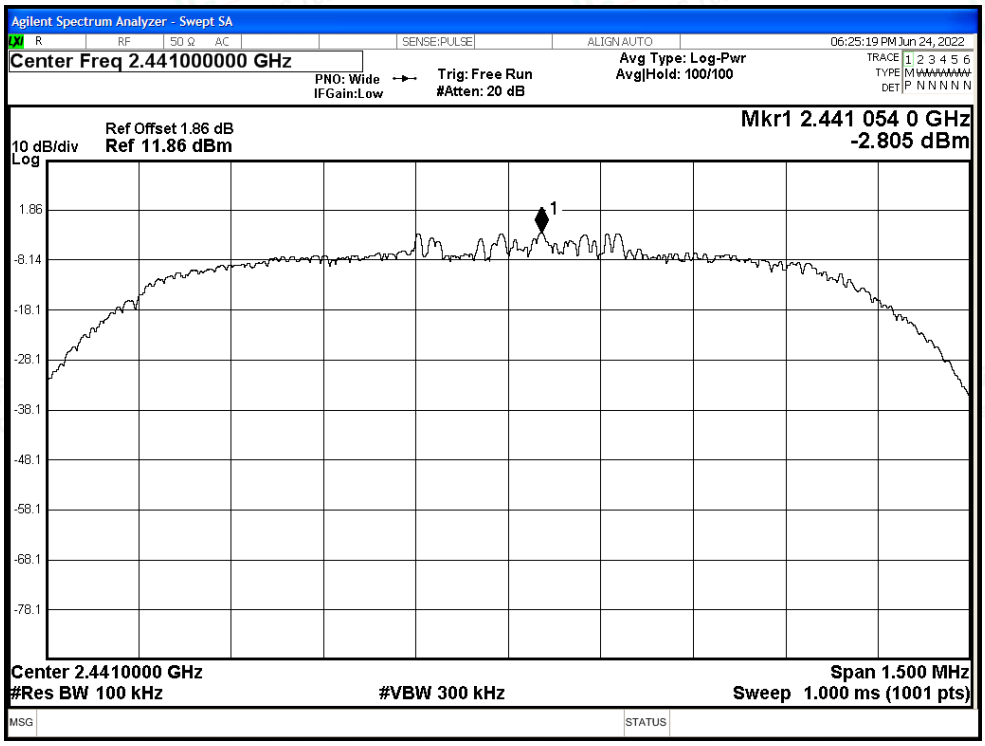
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Ref



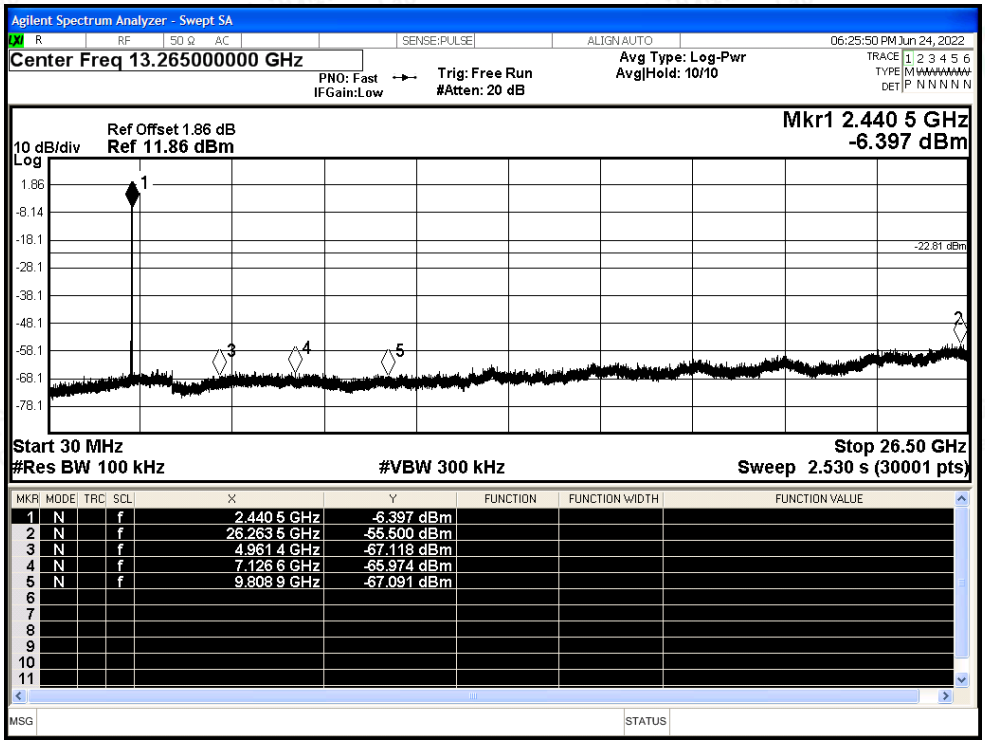
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Emission



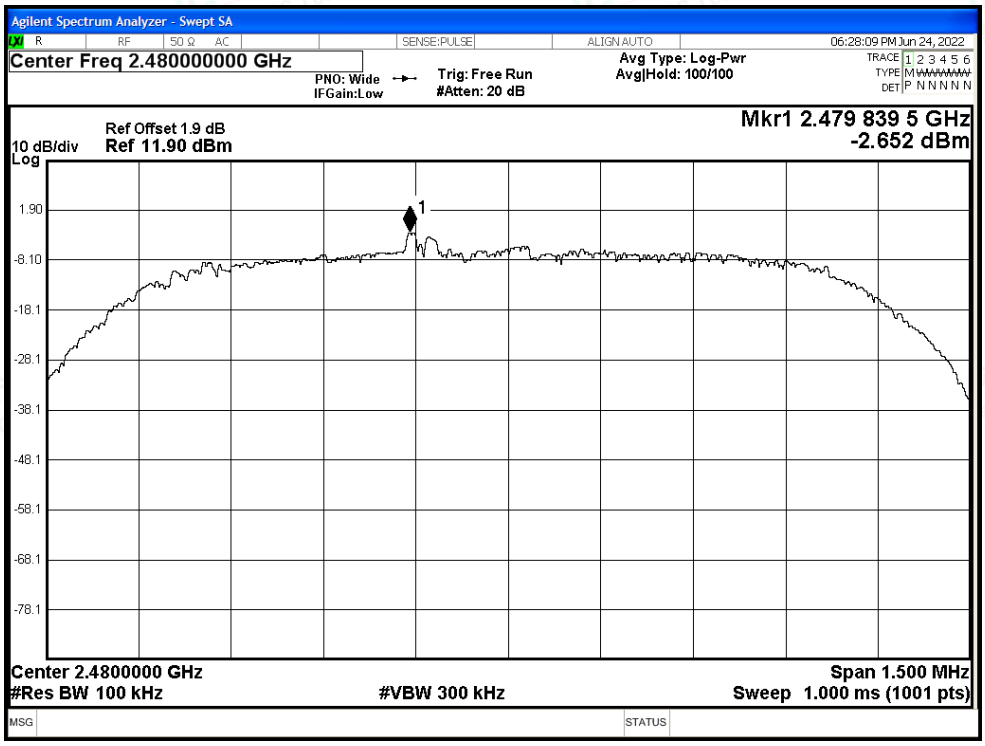
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Ref



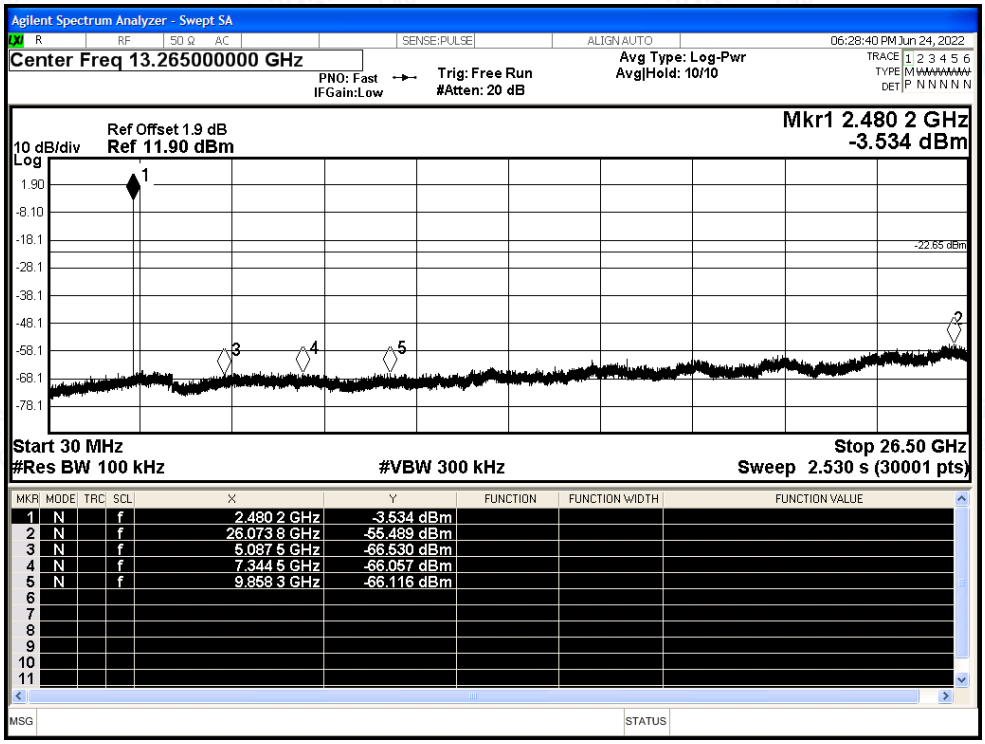
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Emission



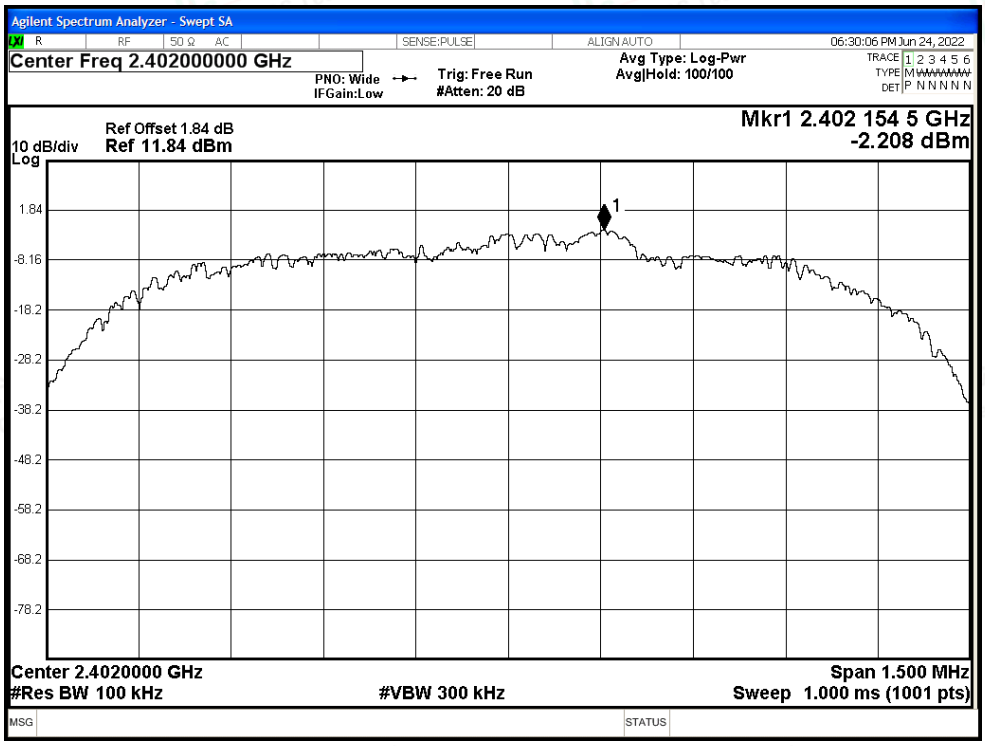
Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Ref



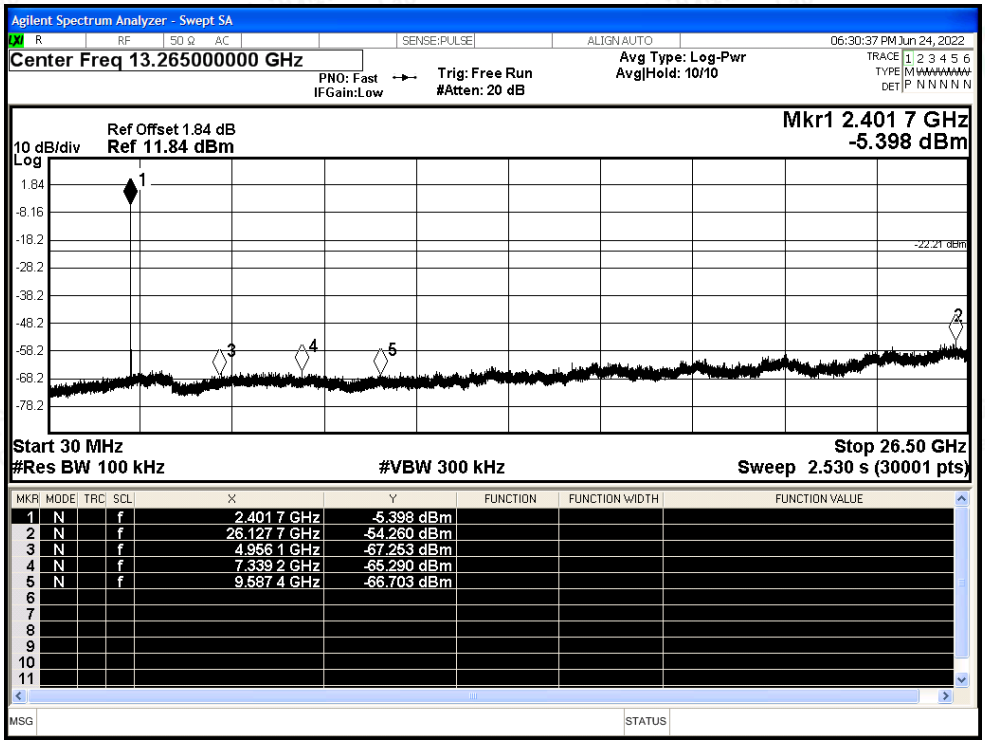
Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Emission



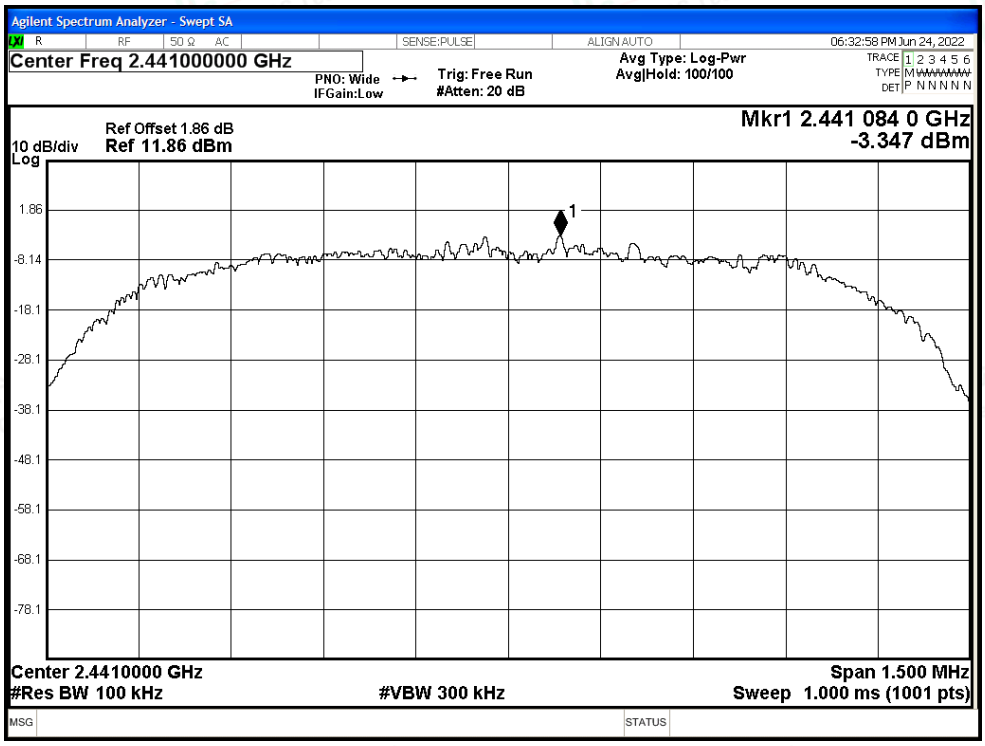
Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Ref



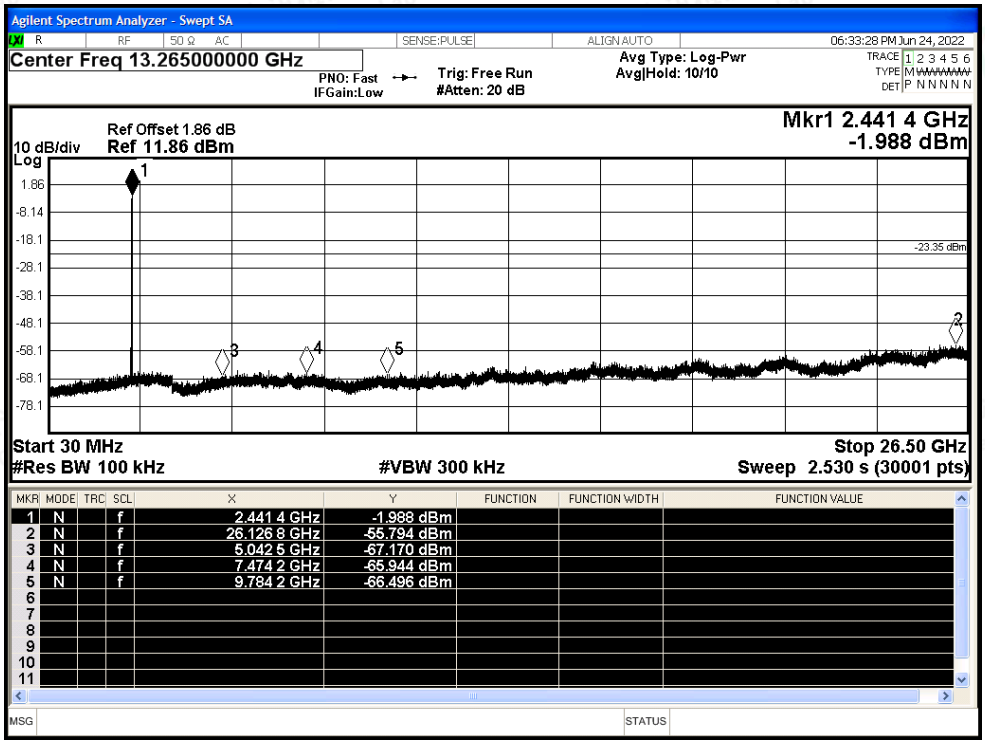
Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Emission



Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Ref

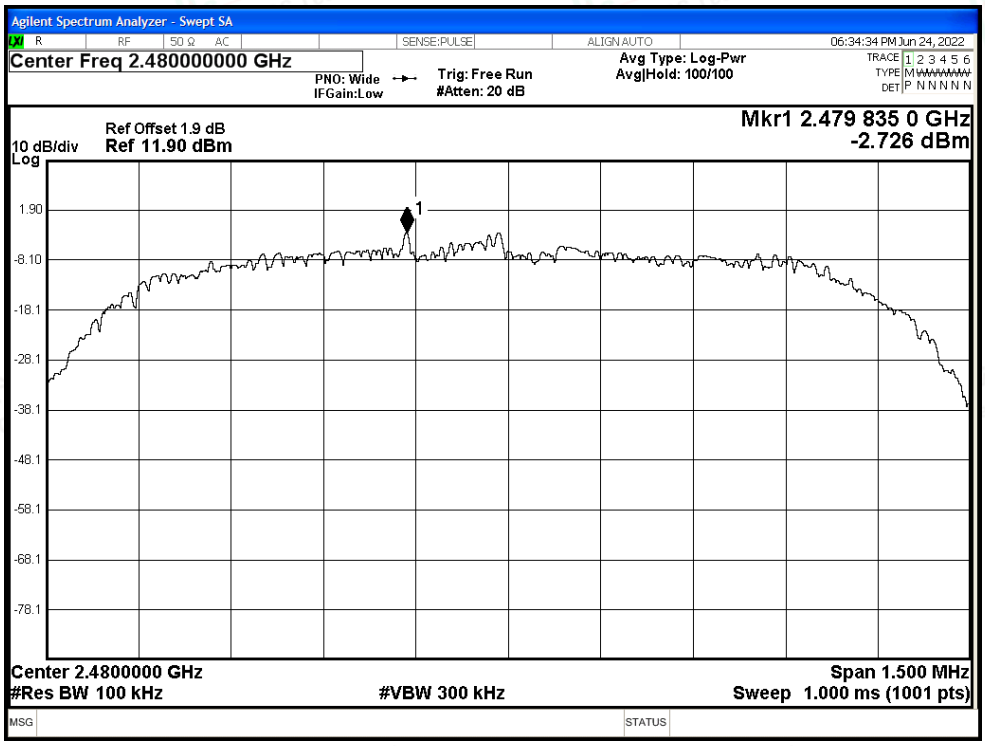


Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Emission

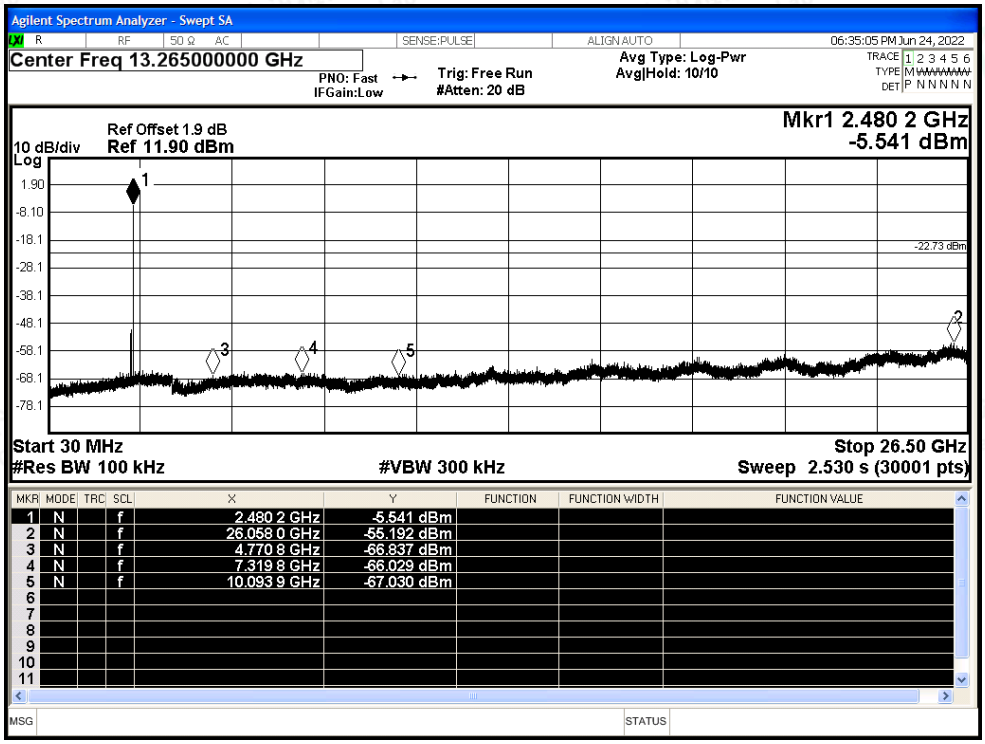


MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N		f	2.441 4 GHz	-1.988 dBm			
2	N		f	26.126 8 GHz	-55.794 dBm			
3	N		f	5.042 5 GHz	-67.170 dBm			
4	N		f	7.474 2 GHz	-65.944 dBm			
5	N		f	9.784 2 GHz	-66.496 dBm			
6								
7								
8								
9								
10								
11								

Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Emission

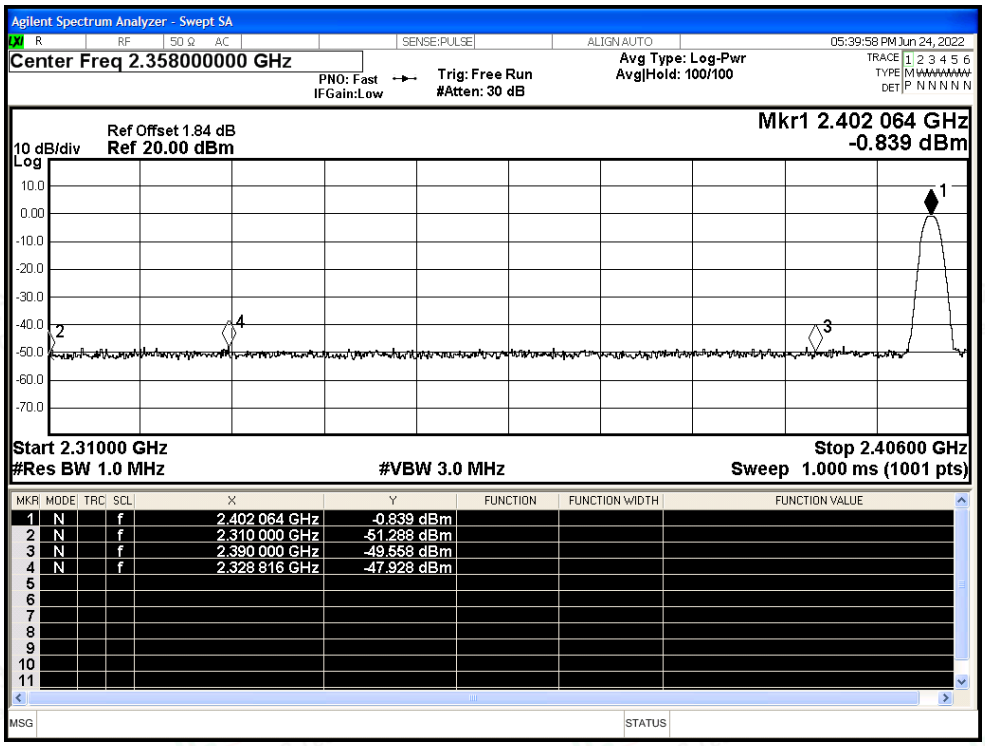


A.8 Restrict Band

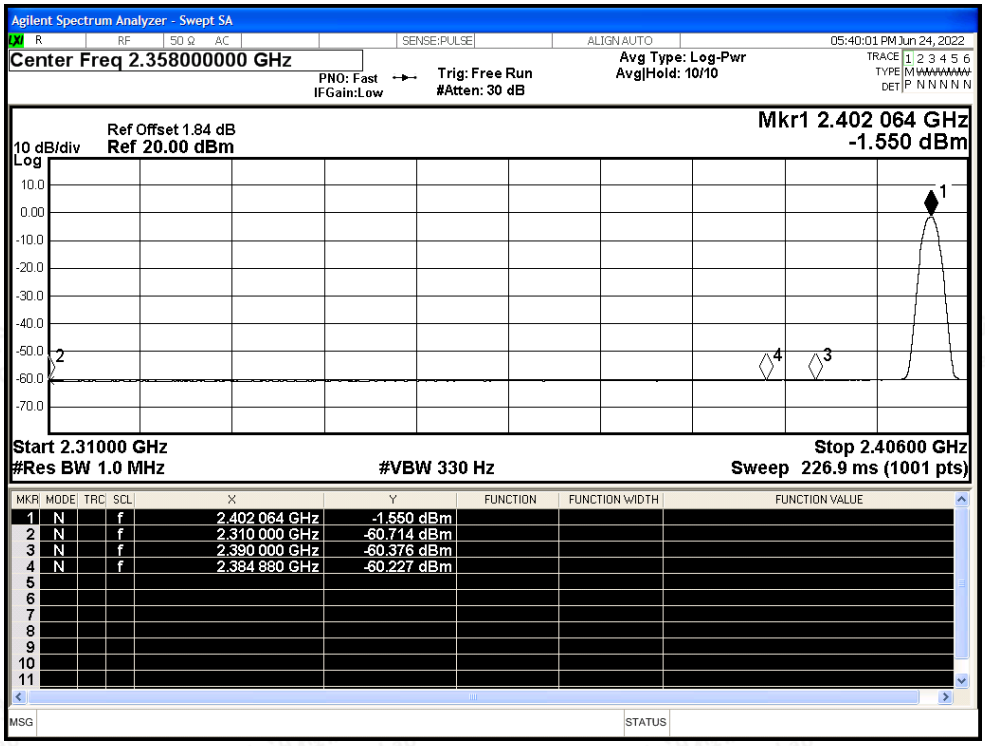
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-51.29	2	45.97	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-60.71	2	36.55	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2328.816	-47.93	2	49.33	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2384.88	-60.23	2	37.03	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-50.34	2	46.92	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-60.43	2	36.83	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-50.02	2	47.24	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-60.04	2	37.22	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2496.232	-47.18	2	50.08	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.896	-59.83	2	37.43	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-49.34	2	47.92	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-59.95	2	37.31	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-50.5	2	46.76	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-60.69	2	36.57	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2314.8	-46.8	2	50.46	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2387.76	-60.11	2	37.15	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-50.99	2	46.27	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-60.36	2	36.9	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-49.47	2	47.79	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-60.05	2	37.21	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2488.984	-46.45	2	50.81	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2486.848	-59.88	2	37.38	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-50.09	2	47.17	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-60.1	2	37.16	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-50.08	2	47.18	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-60.81	2	36.45	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2312.784	-47.84	2	49.42	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2384.112	-60.09	2	37.17	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-51.28	2	45.98	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-60.35	2	36.91	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-50.81	2	46.45	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-59.94	2	37.32	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2499.208	-46.79	2	50.47	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2498.848	-59.8	2	37.46	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-50.04	2	47.22	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-59.96	2	37.3	Average	54	Pass

Test Graphs

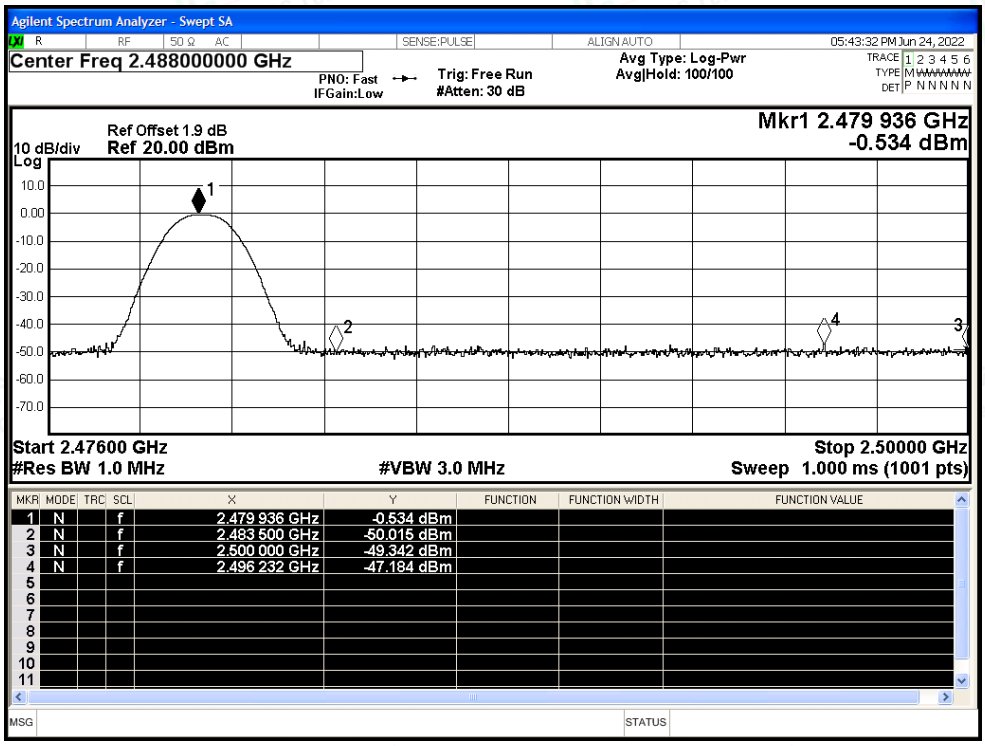
Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Peak



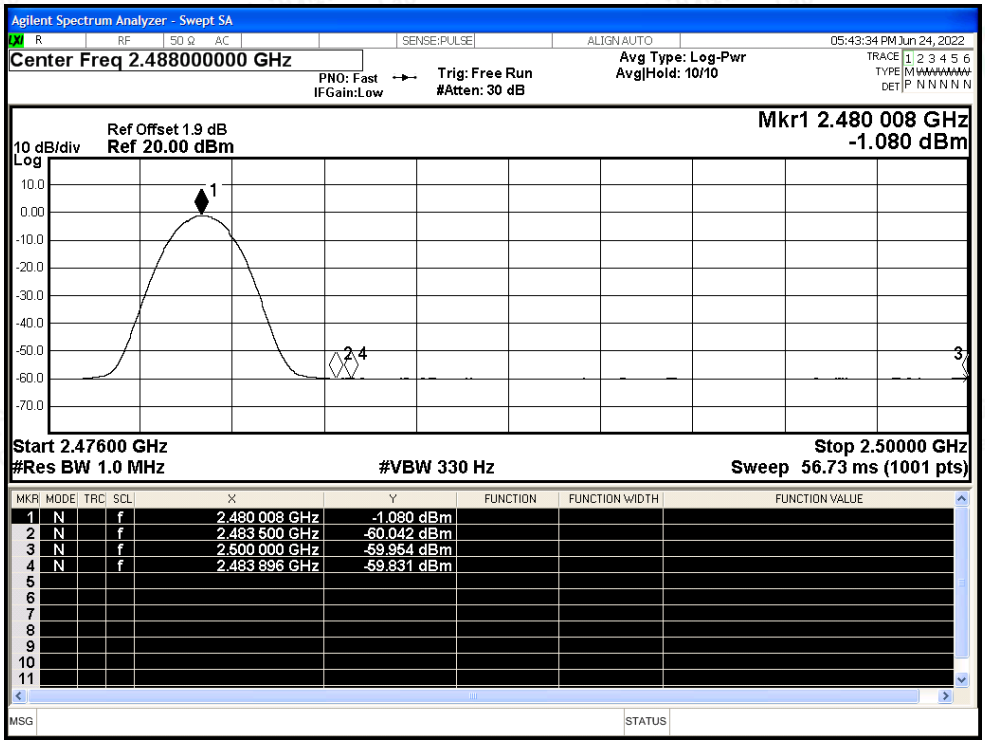
Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Average



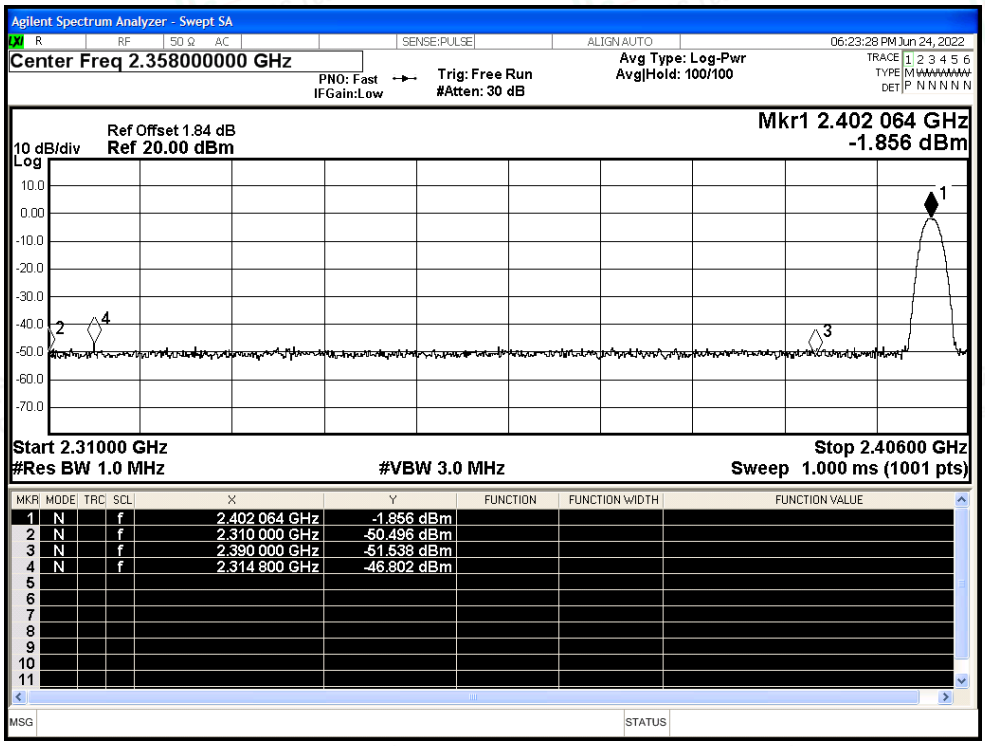
Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Peak



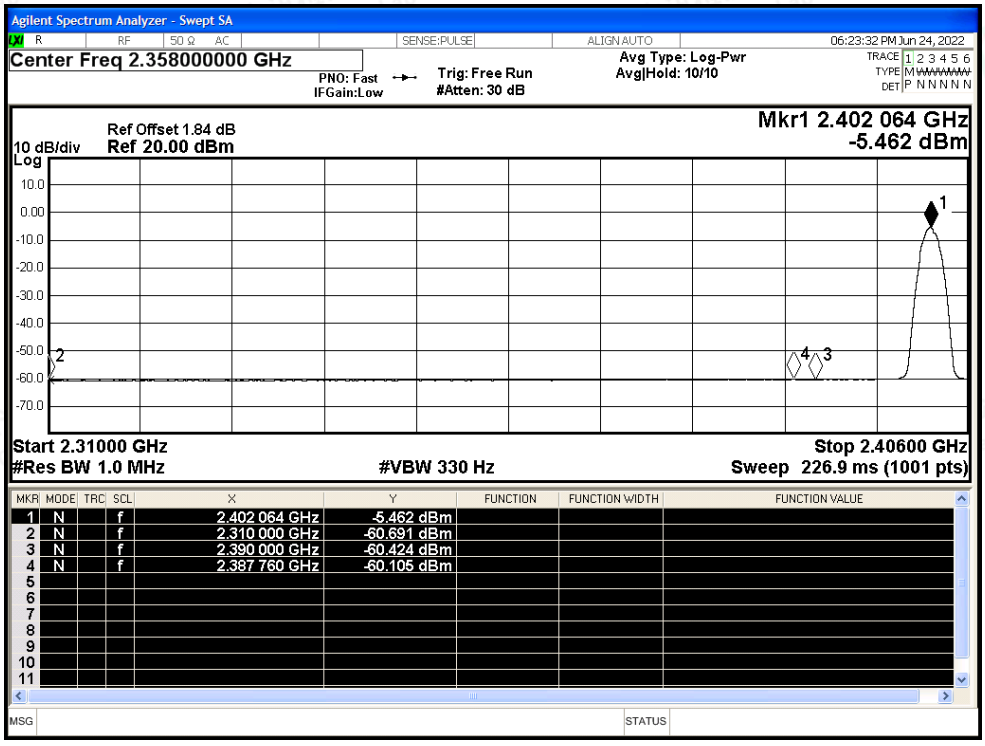
Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Average



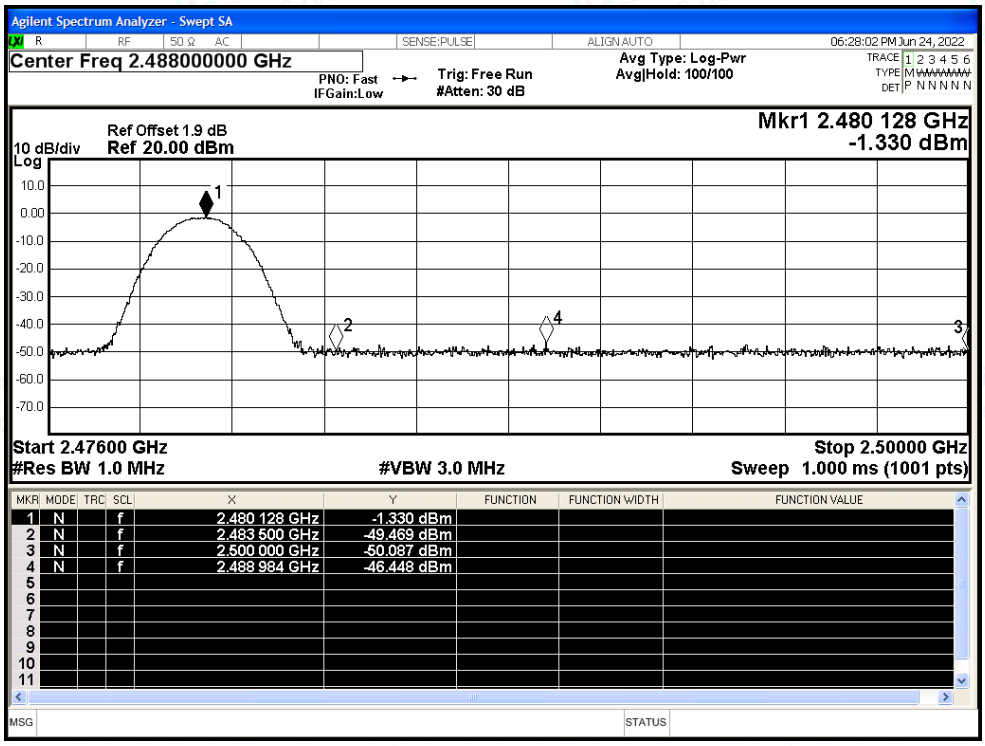
Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Peak



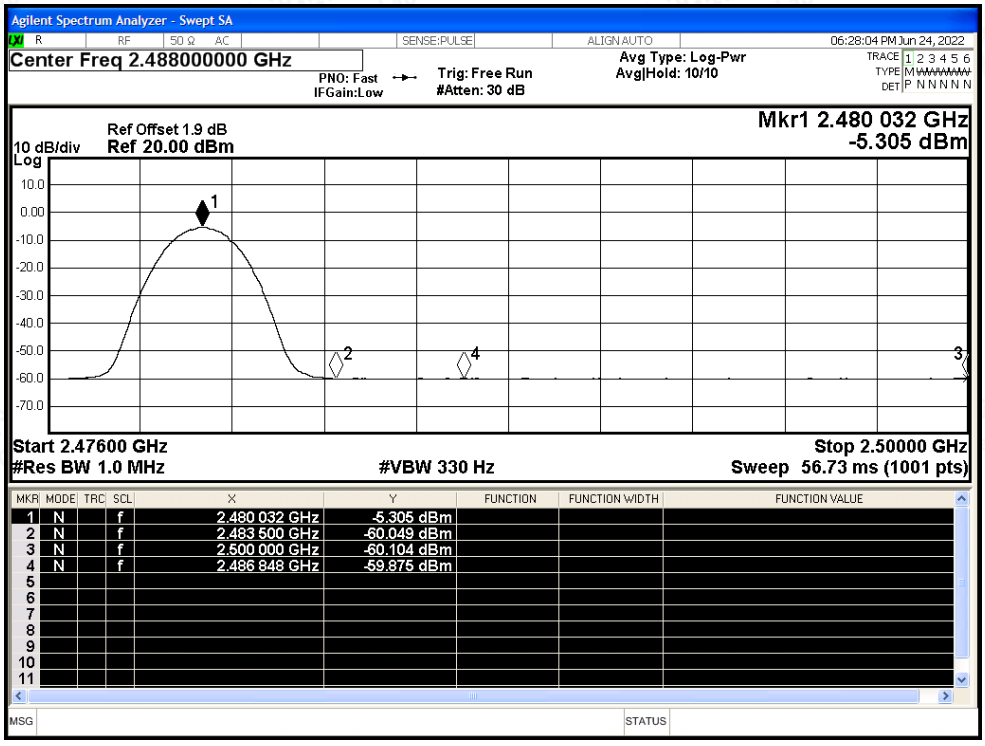
Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Average



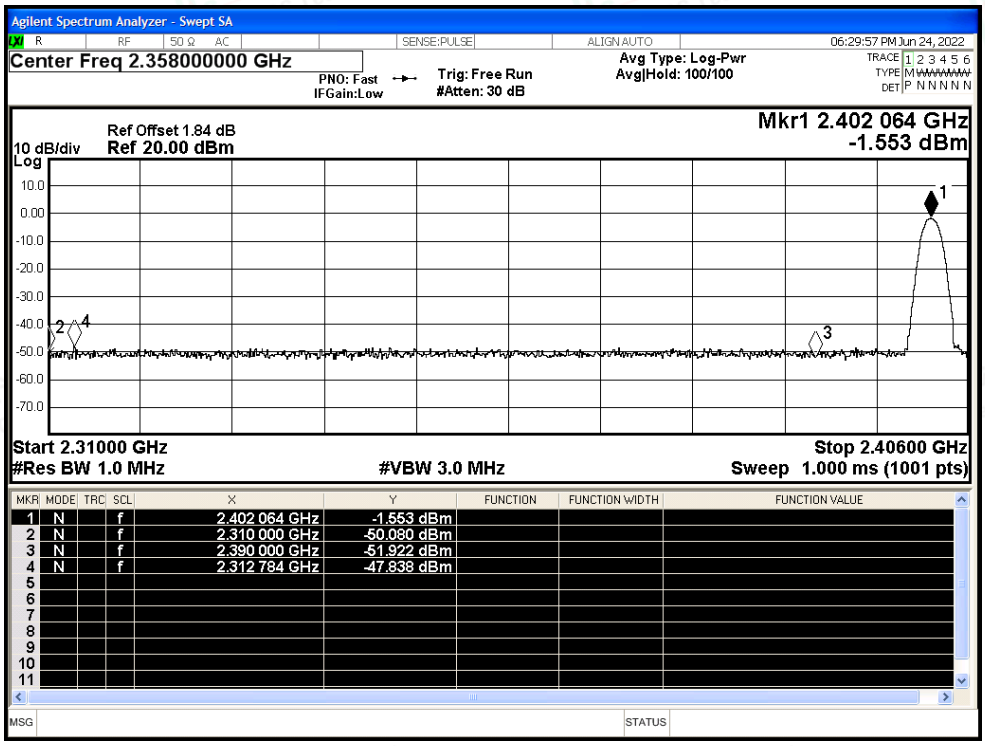
Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Peak



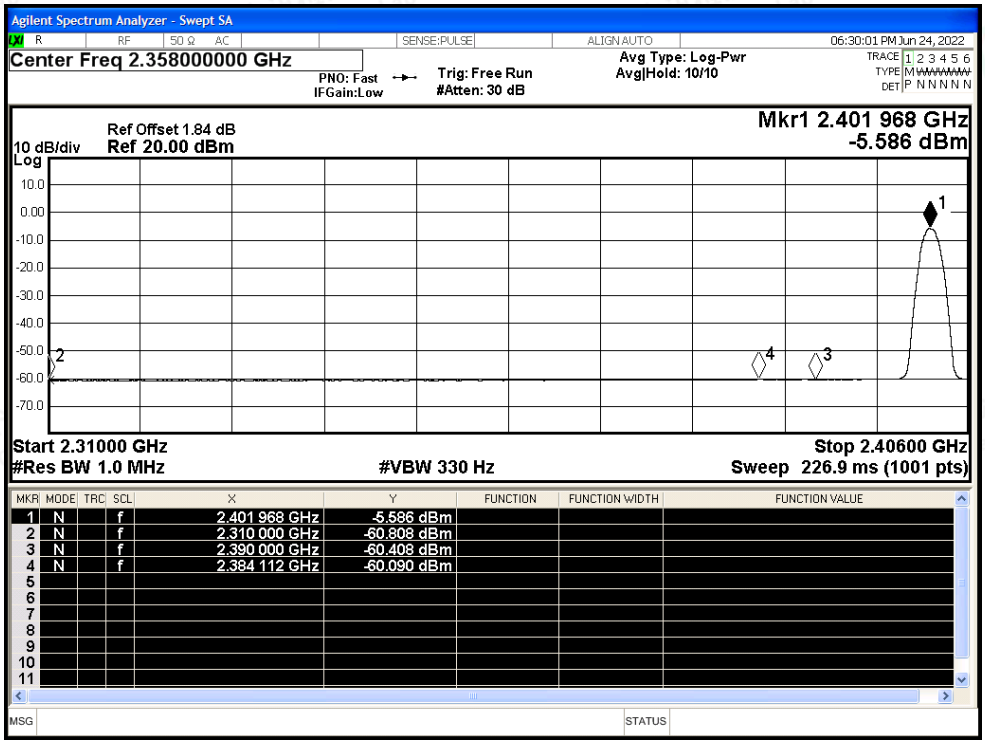
Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Average



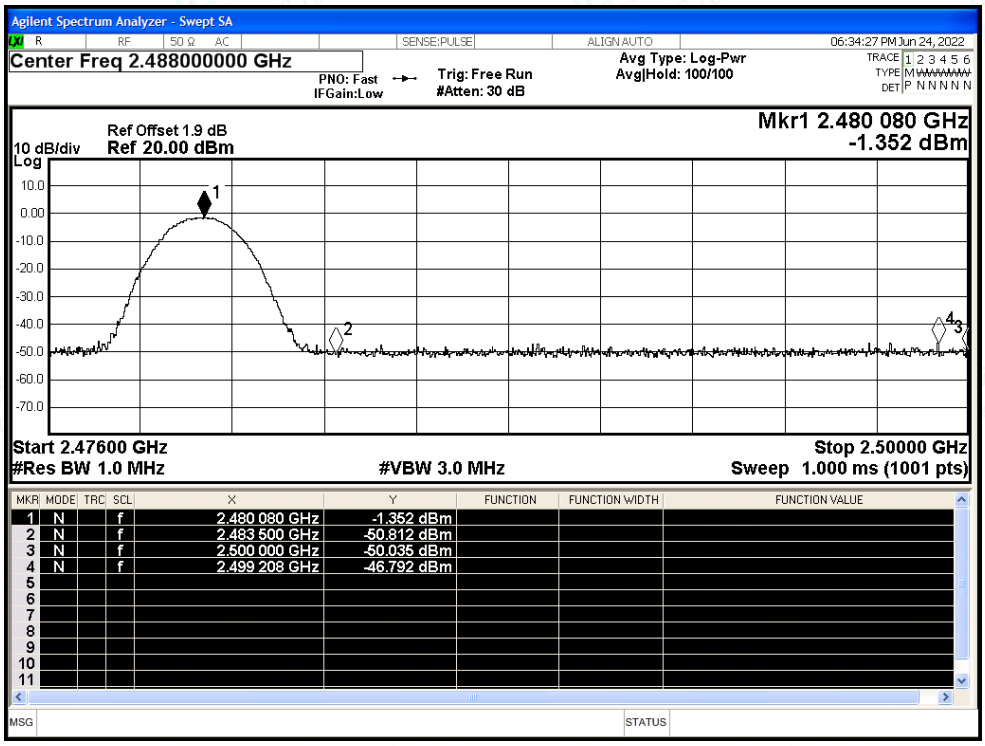
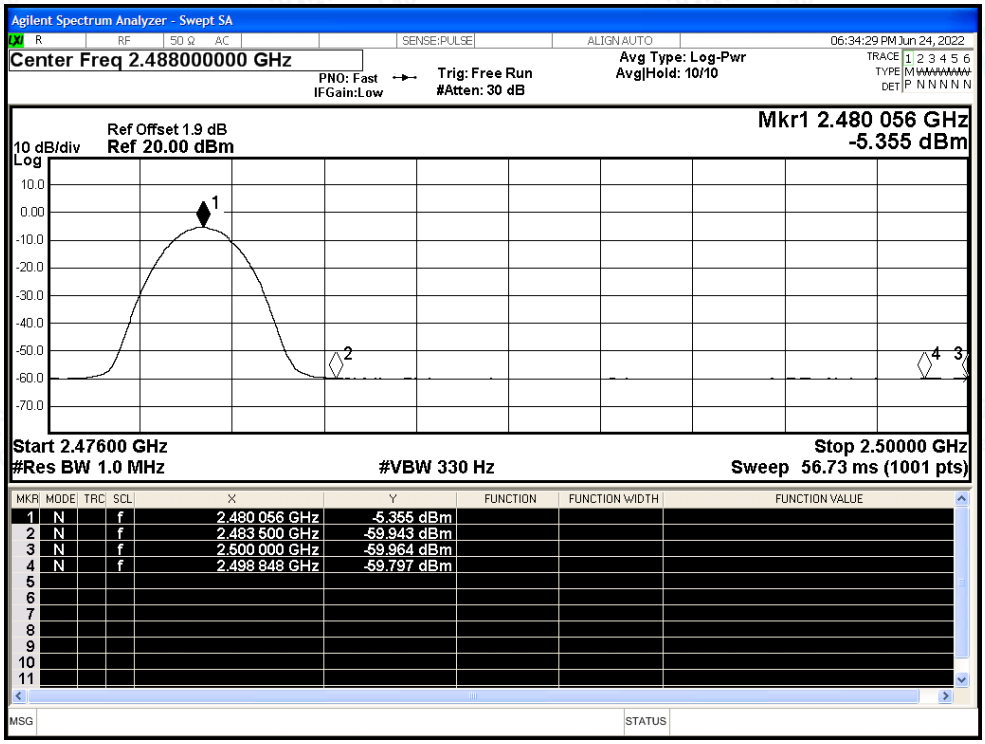
Restrict Band NVNT 3-DH5 2402MHz Ant1 No-Hopping Peak



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