



Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: Smart Plant Grow light

Test Model: PGL01

Environmental Conditions

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



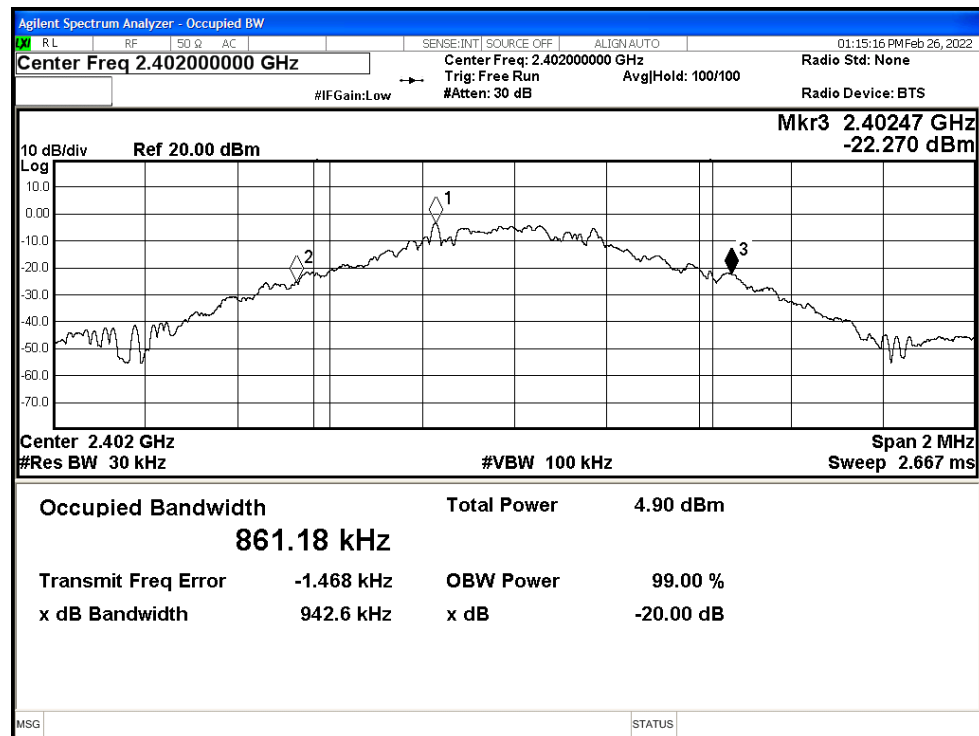
A.1 -20dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH5	2402	Ant1	0.943	0	Pass
NVNT	1-DH5	2441	Ant1	0.942	0	Pass
NVNT	1-DH5	2480	Ant1	0.944	0	Pass
NVNT	2-DH5	2402	Ant1	1.285	0	Pass
NVNT	2-DH5	2441	Ant1	1.284	0	Pass
NVNT	2-DH5	2480	Ant1	1.284	0	Pass
NVNT	3-DH5	2402	Ant1	1.307	0	Pass
NVNT	3-DH5	2441	Ant1	1.309	0	Pass
NVNT	3-DH5	2480	Ant1	1.29	0	Pass



Test Graphs

-20dB Bandwidth NVNT 1-DH5 2402MHz Ant1



-20dB Bandwidth NVNT 1-DH5 2441MHz Ant1

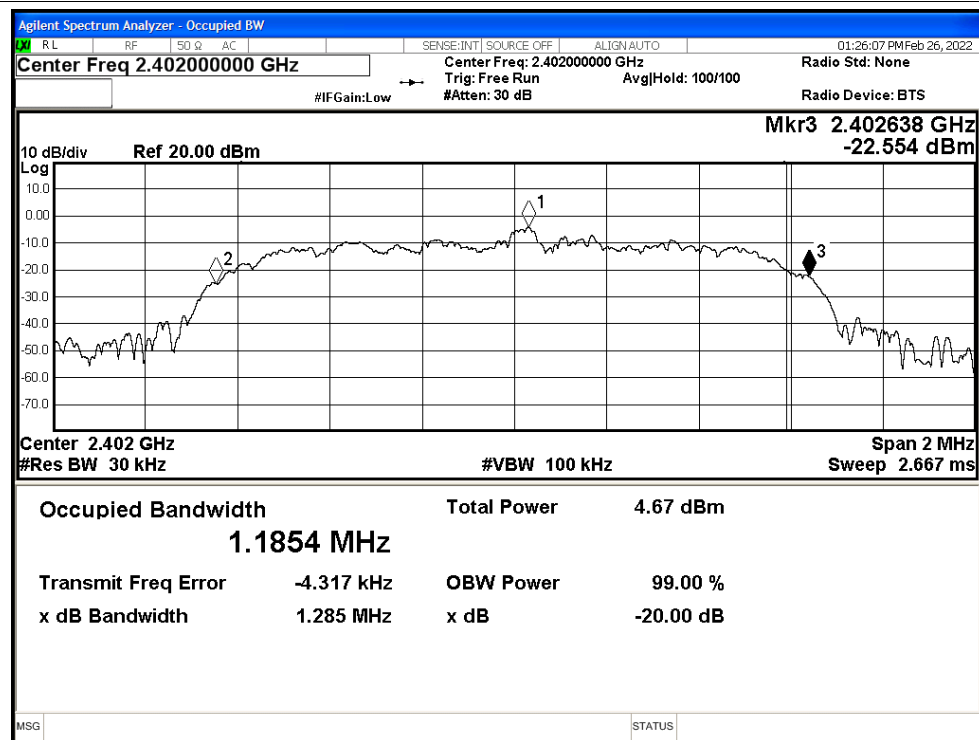




-20dB Bandwidth NVNT 1-DH5 2480MHz Ant1

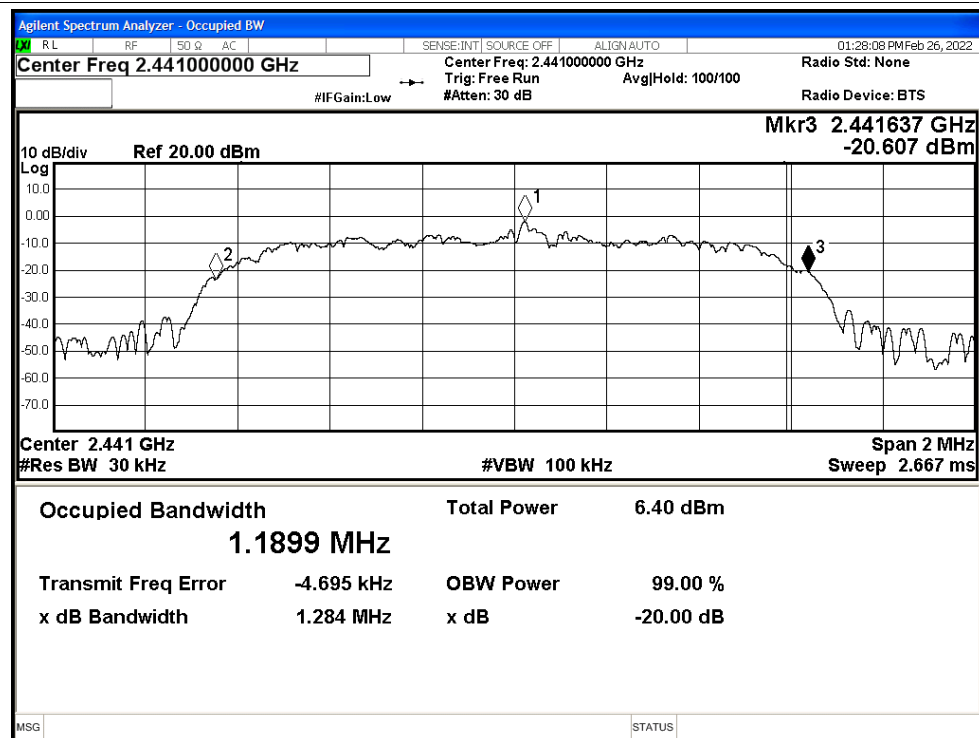


-20dB Bandwidth NVNT 2-DH5 2402MHz Ant1

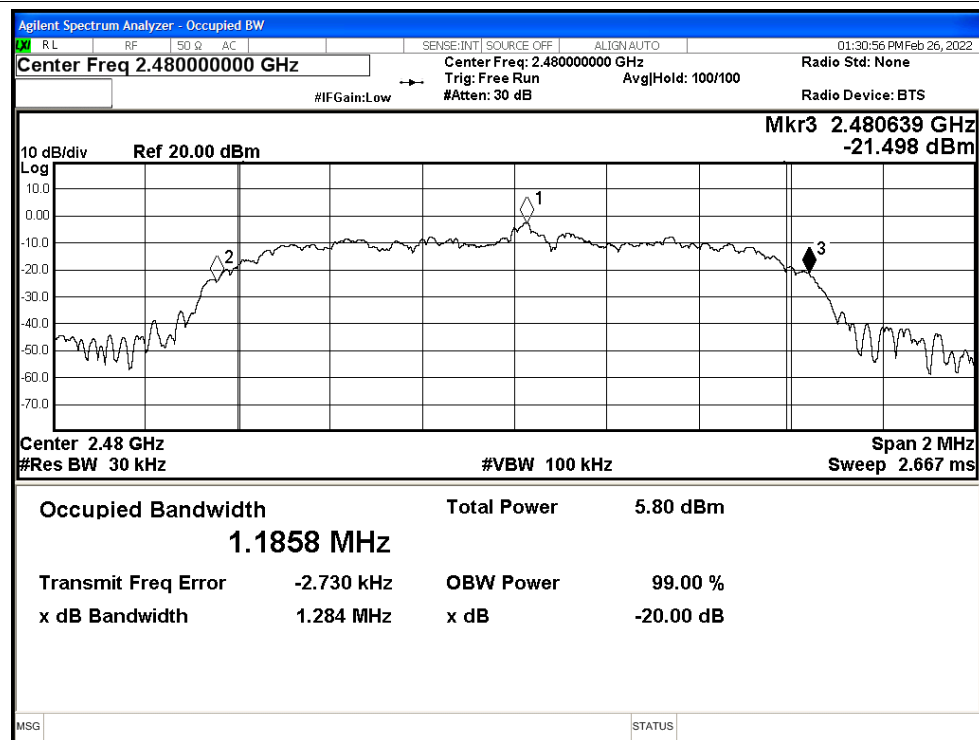




-20dB Bandwidth NVNT 2-DH5 2441MHz Ant1

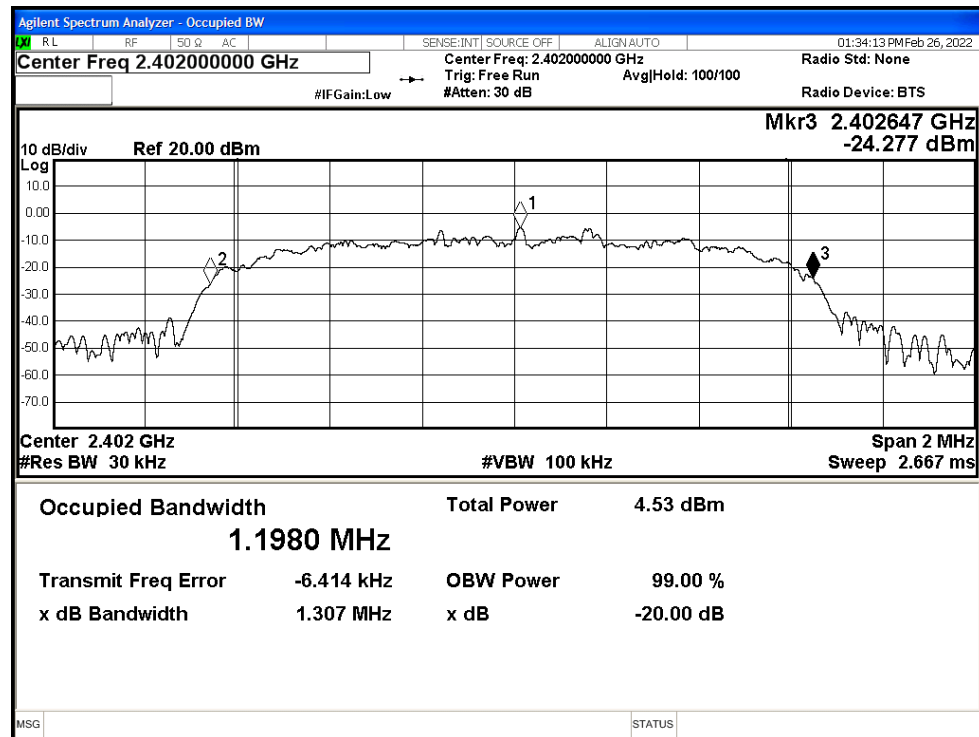


-20dB Bandwidth NVNT 2-DH5 2480MHz Ant1

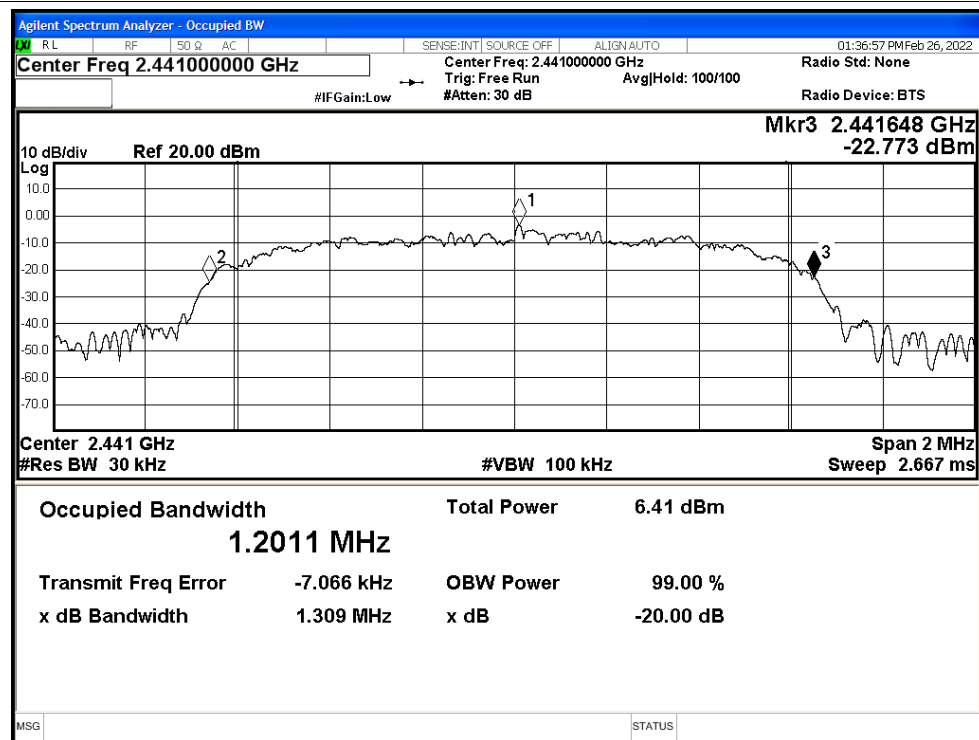


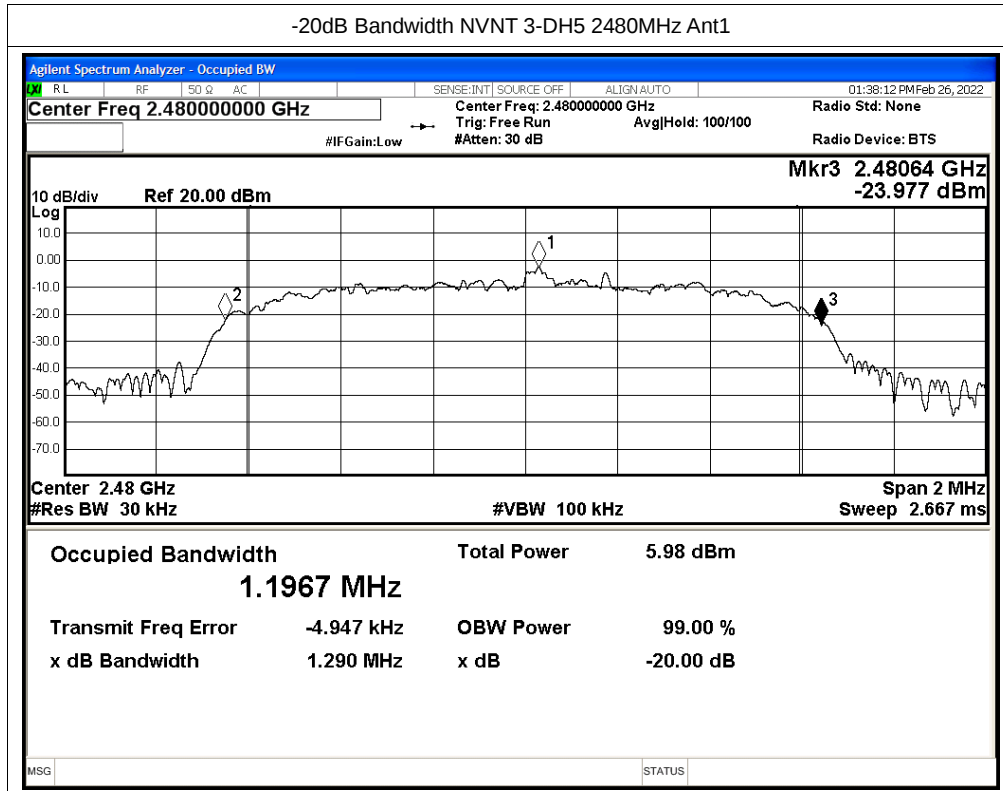


-20dB Bandwidth NVNT 3-DH5 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH5 2441MHz Ant1







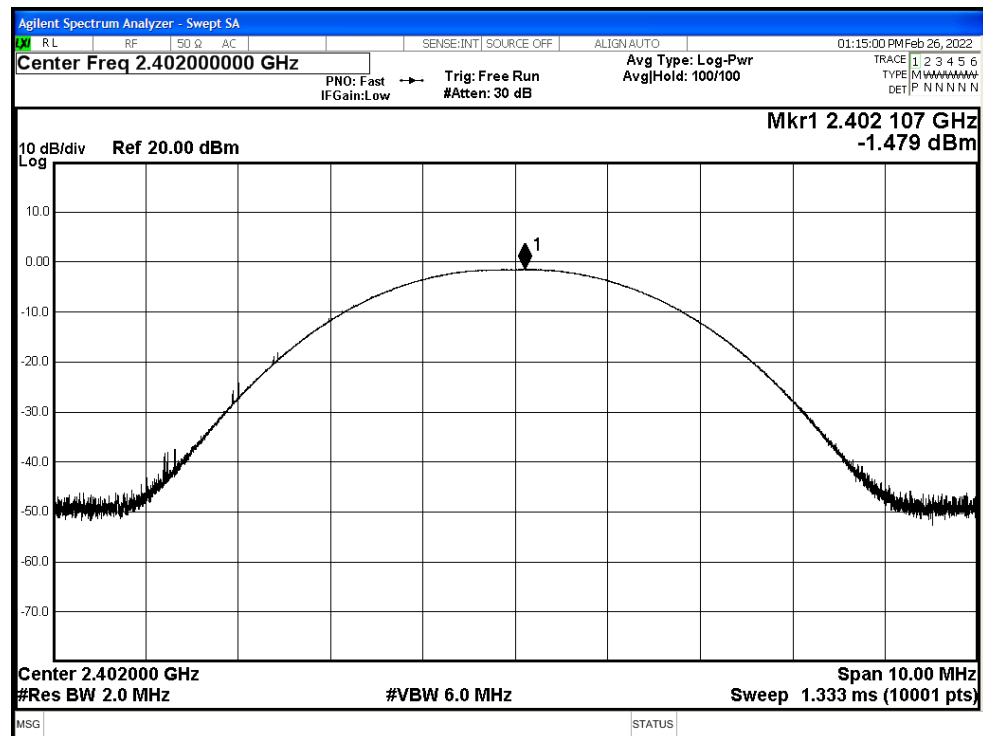
A.2 Maximum Peak Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH5	2402	Ant1	-1.48	0	-1.48	21	Pass
NVNT	1-DH5	2441	Ant1	0.46	0	0.46	21	Pass
NVNT	1-DH5	2480	Ant1	-0.23	0	-0.23	21	Pass
NVNT	2-DH5	2402	Ant1	0.41	0	0.41	21	Pass
NVNT	2-DH5	2441	Ant1	2.28	0	2.28	21	Pass
NVNT	2-DH5	2480	Ant1	1.6	0	1.6	21	Pass
NVNT	3-DH5	2402	Ant1	0.61	0	0.61	21	Pass
NVNT	3-DH5	2441	Ant1	2.6	0	2.6	21	Pass
NVNT	3-DH5	2480	Ant1	1.91	0	1.91	21	Pass

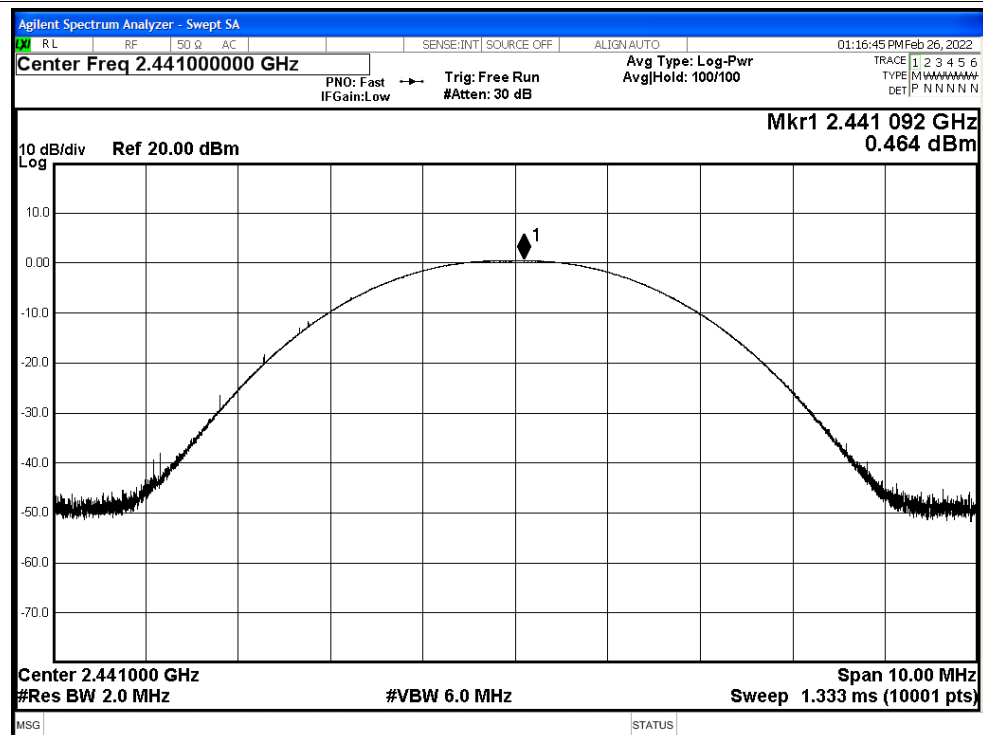


Test Graphs

Power NVNT 1-DH5 2402MHz Ant1

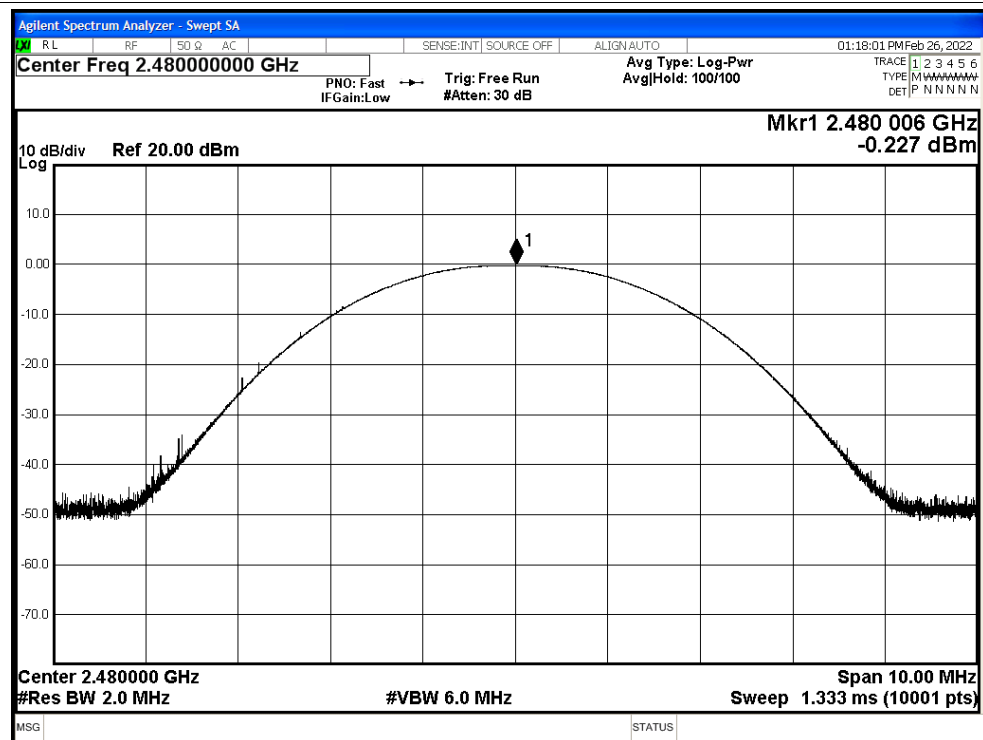


Power NVNT 1-DH5 2441MHz Ant1

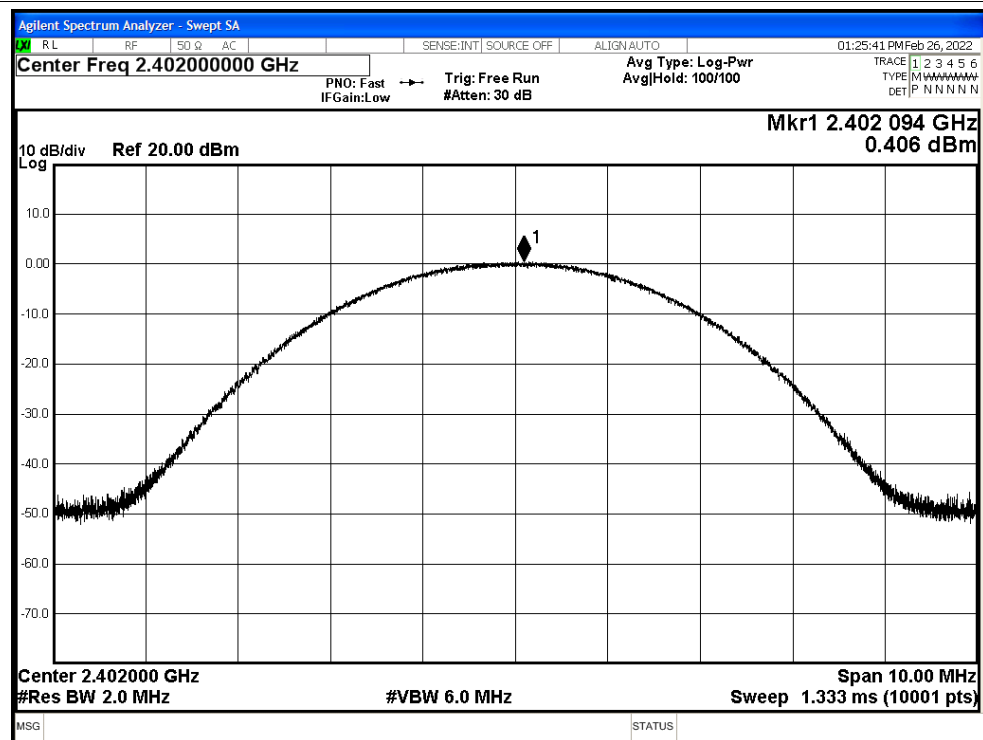




Power NVNT 1-DH5 2480MHz Ant1

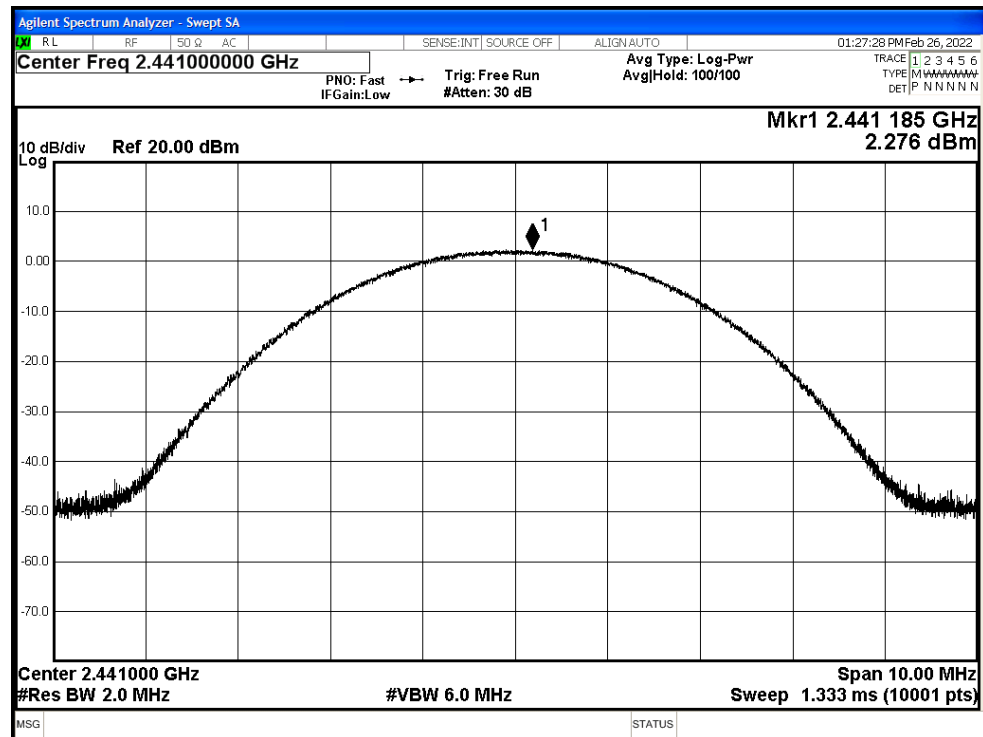


Power NVNT 2-DH5 2402MHz Ant1

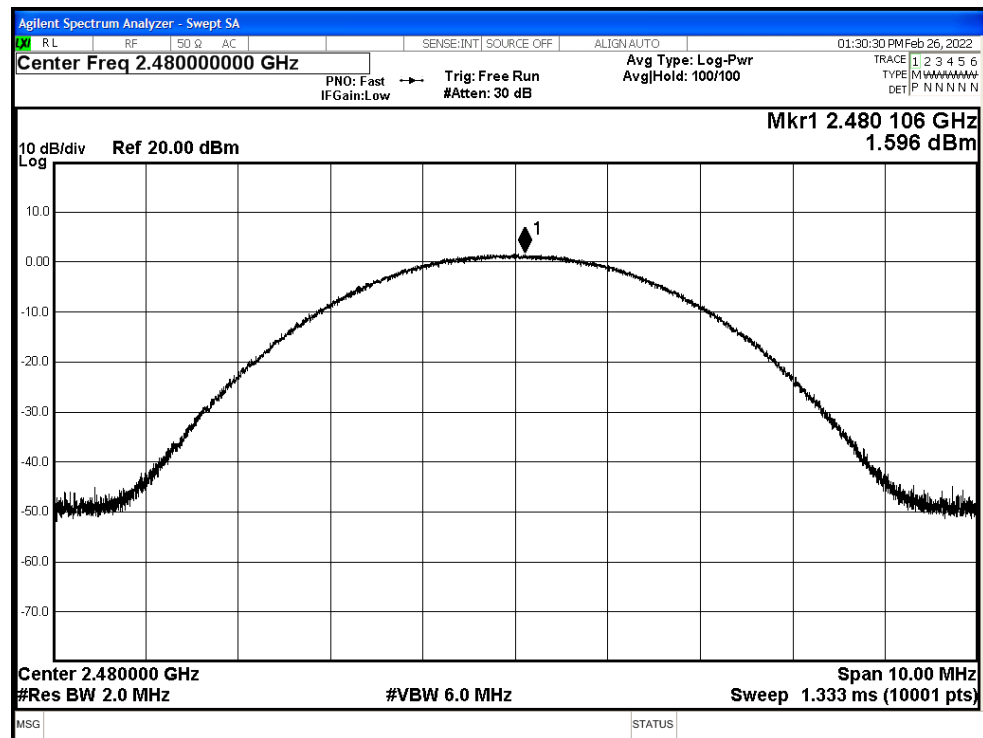




Power NVNT 2-DH5 2441MHz Ant1

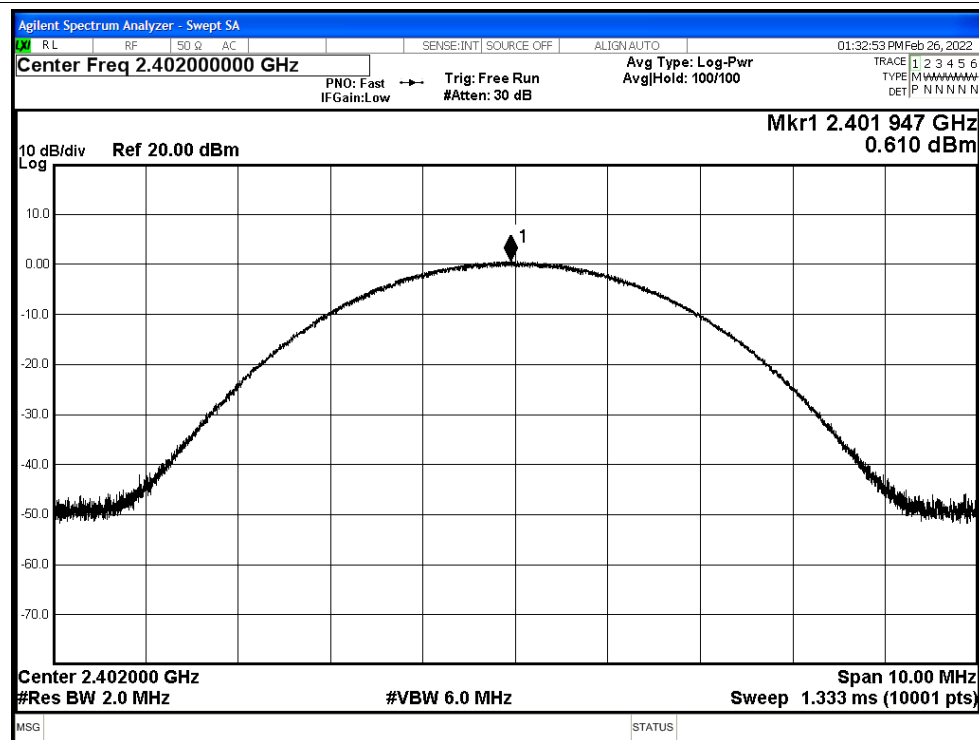


Power NVNT 2-DH5 2480MHz Ant1

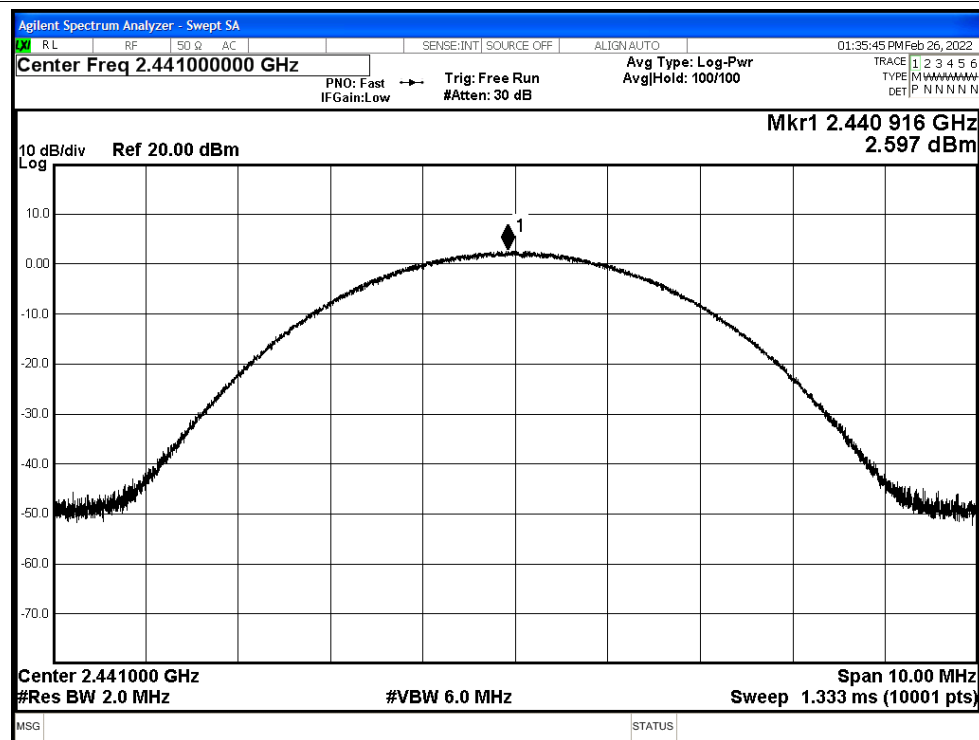


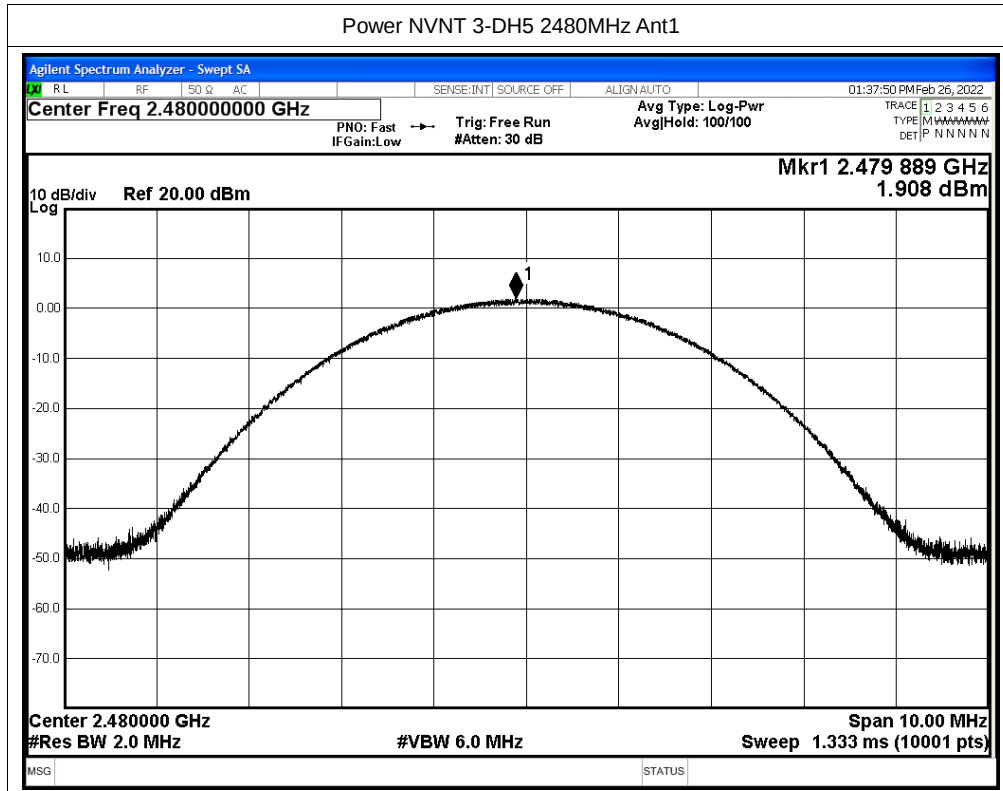


Power NVNT 3-DH5 2402MHz Ant1



Power NVNT 3-DH5 2441MHz Ant1







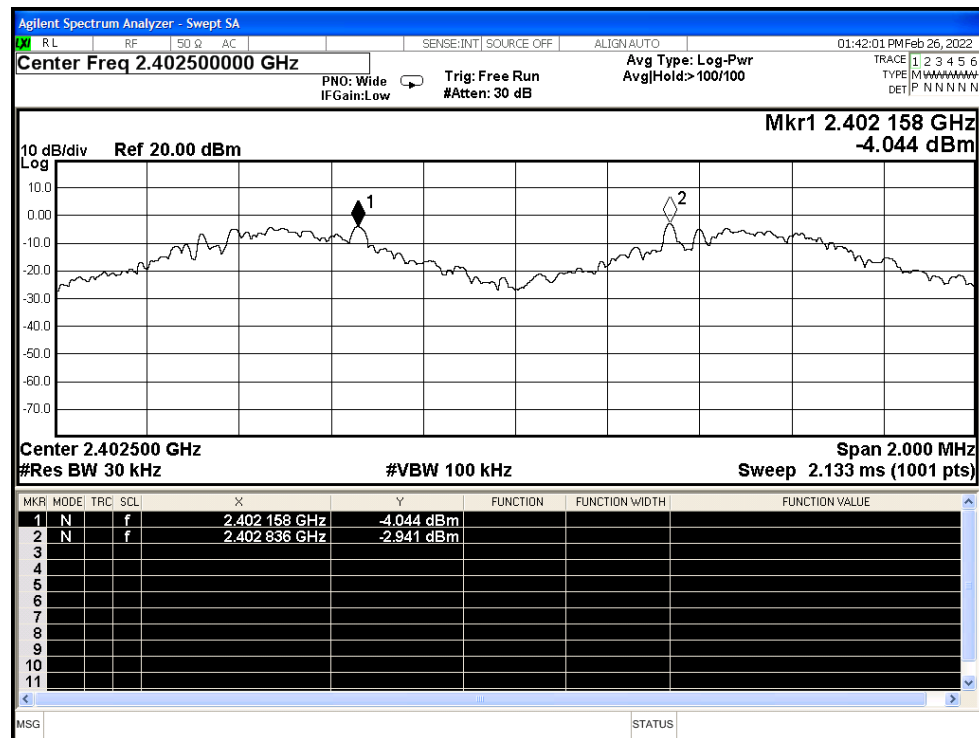
A.3 Carrier Frequencies Separation

Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH5	Ant1	2402.158	2402.836	0.678	0.629	Pass
NVNT	1-DH5	Ant1	2441.02	2442.052	1.032	0.628	Pass
NVNT	1-DH5	Ant1	2478.898	2479.966	1.068	0.629	Pass
NVNT	2-DH5	Ant1	2402.148	2403.04	0.892	0.857	Pass
NVNT	2-DH5	Ant1	2441.106	2442.012	0.906	0.856	Pass
NVNT	2-DH5	Ant1	2479.026	2480.17	1.144	0.856	Pass
NVNT	3-DH5	Ant1	2402.168	2403.164	0.996	0.871	Pass
NVNT	3-DH5	Ant1	2441.014	2442.022	1.008	0.873	Pass
NVNT	3-DH5	Ant1	2479.006	2480.162	1.156	0.86	Pass

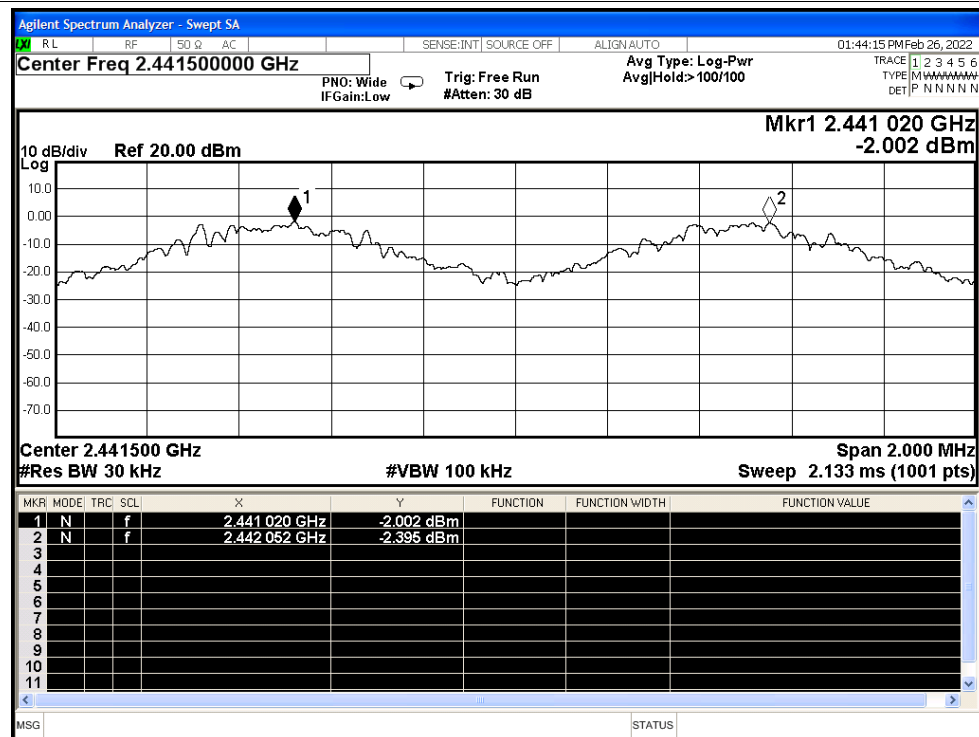


Test Graphs

CFS NVNT 1-DH5 2402MHz Ant1

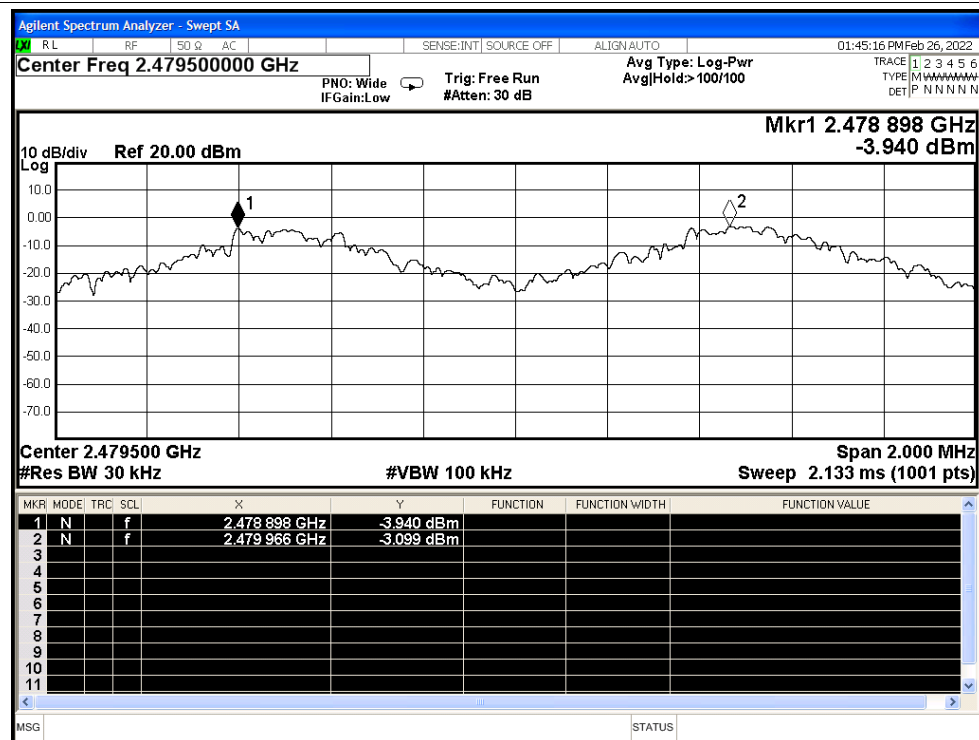


CFS NVNT 1-DH5 2441MHz Ant1

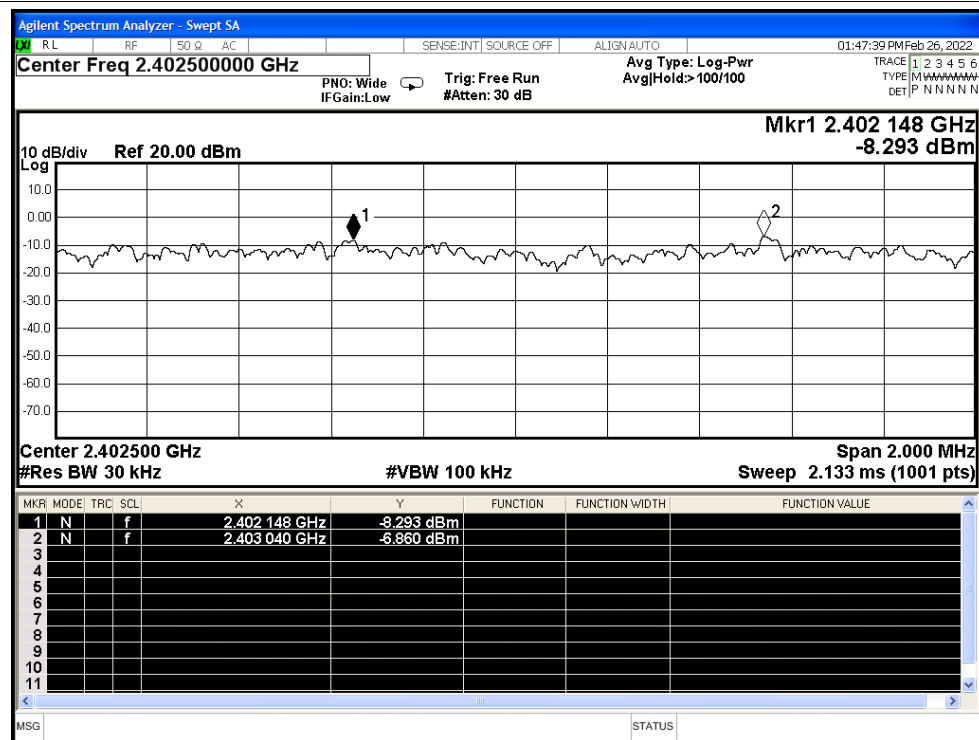




CFS NVNT 1-DH5 2480MHz Ant1

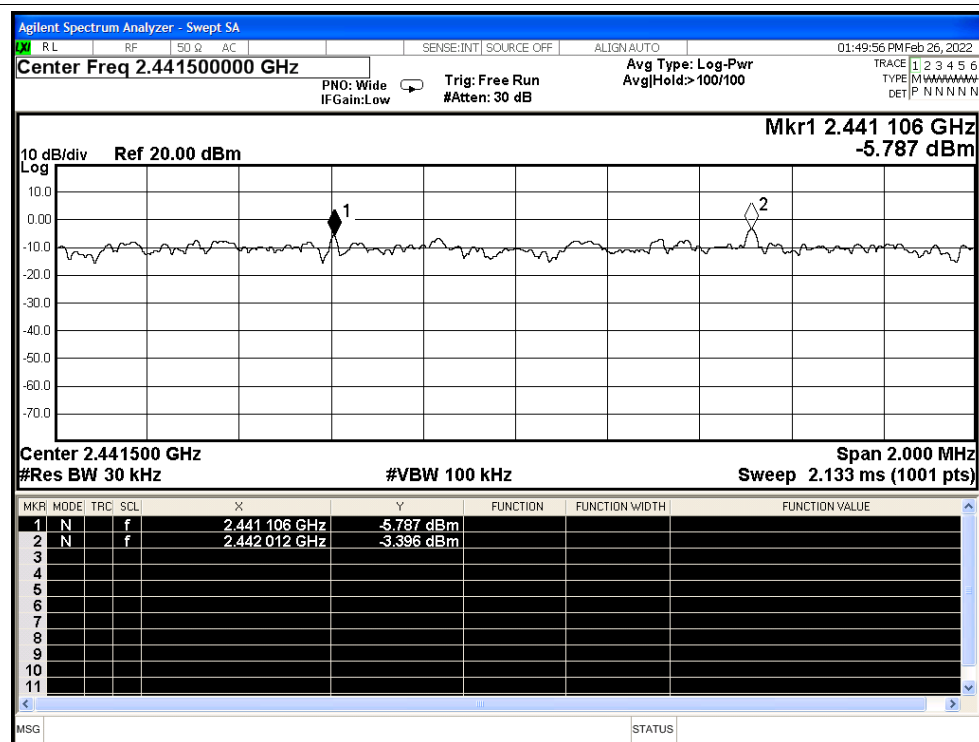


CFS NVNT 2-DH5 2402MHz Ant1

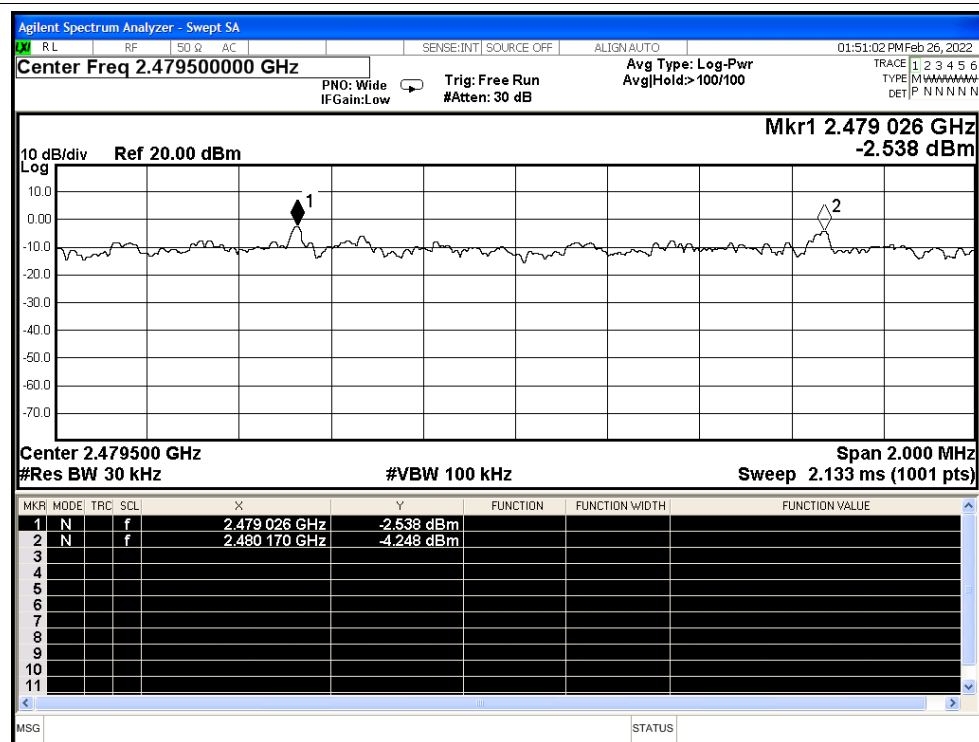




CFS NVNT 2-DH5 2441MHz Ant1

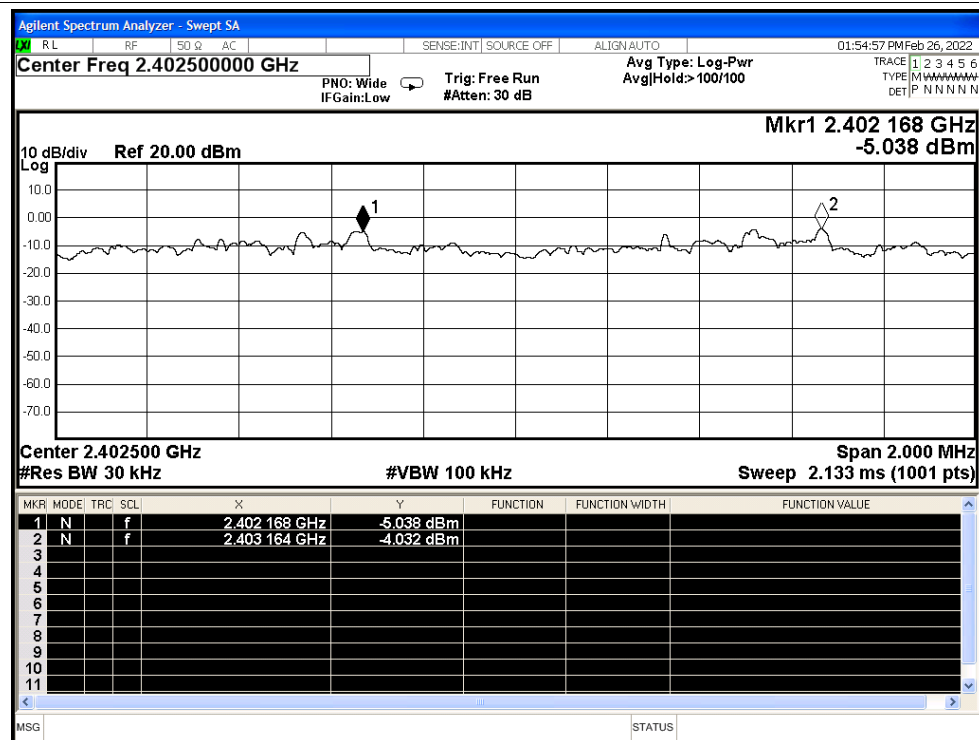


CFS NVNT 2-DH5 2480MHz Ant1

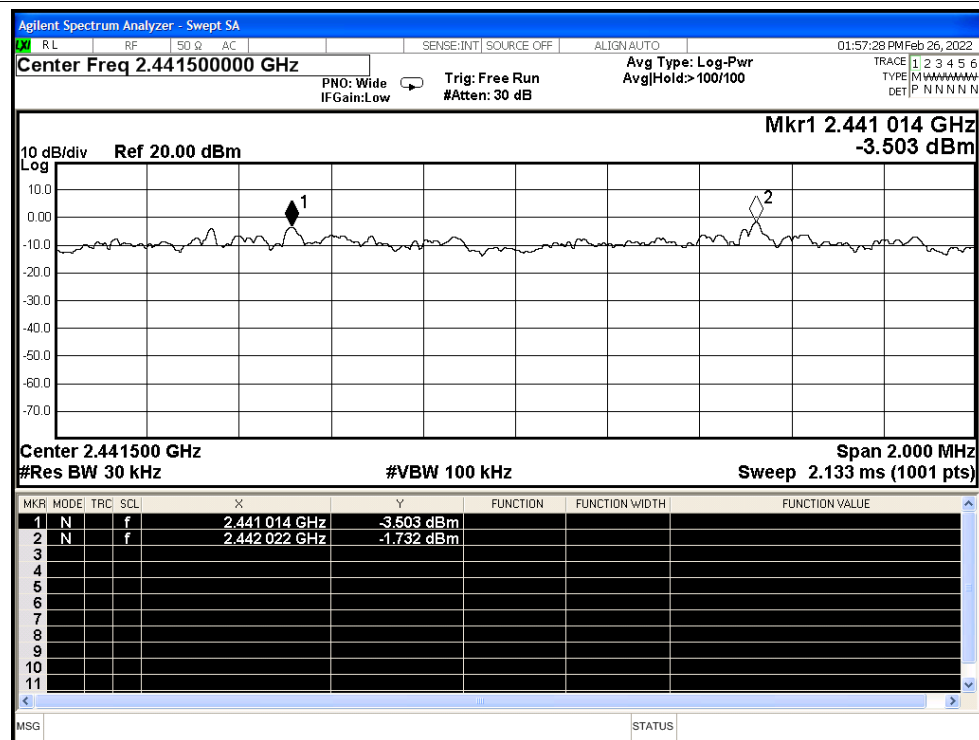




CFS NVNT 3-DH5 2402MHz Ant1



CFS NVNT 3-DH5 2441MHz Ant1





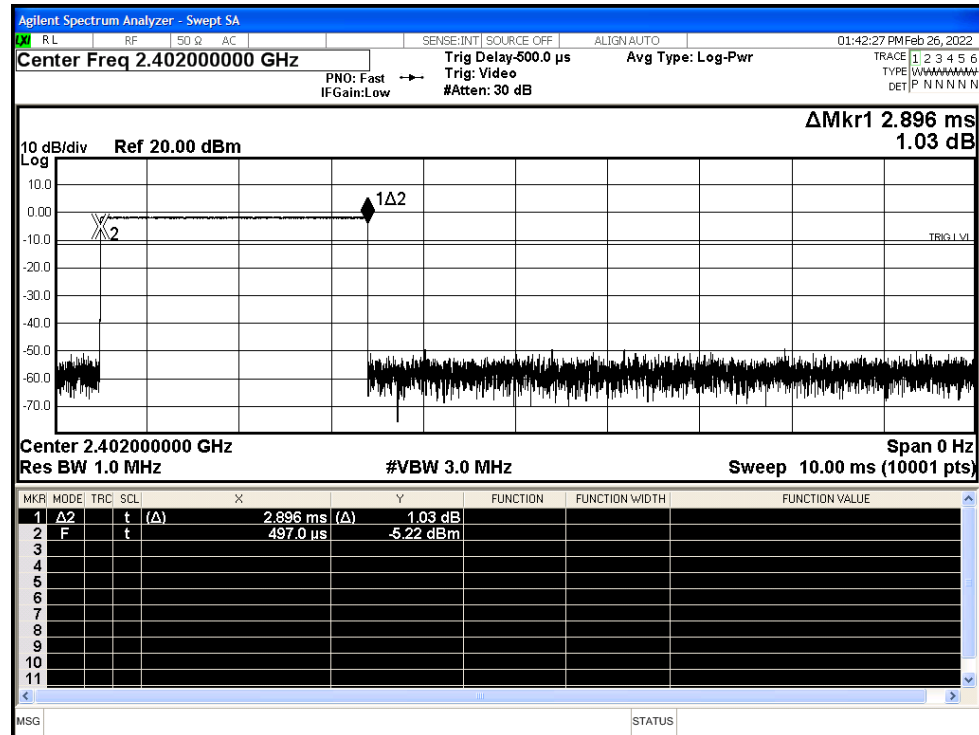
A.4 Dwell Time

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	2.896	292.496	101	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.895	295.29	102	31600	400	Pass
NVNT	1-DH5	2480	Ant1	2.896	295.392	102	31600	400	Pass
NVNT	2-DH5	2402	Ant1	2.884	273.98	95	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.884	262.444	91	31600	400	Pass
NVNT	2-DH5	2480	Ant1	2.884	302.82	105	31600	400	Pass
NVNT	3-DH5	2402	Ant1	2.883	296.949	103	31600	400	Pass
NVNT	3-DH5	2441	Ant1	2.883	325.779	113	31600	400	Pass
NVNT	3-DH5	2480	Ant1	2.883	299.832	104	31600	400	Pass

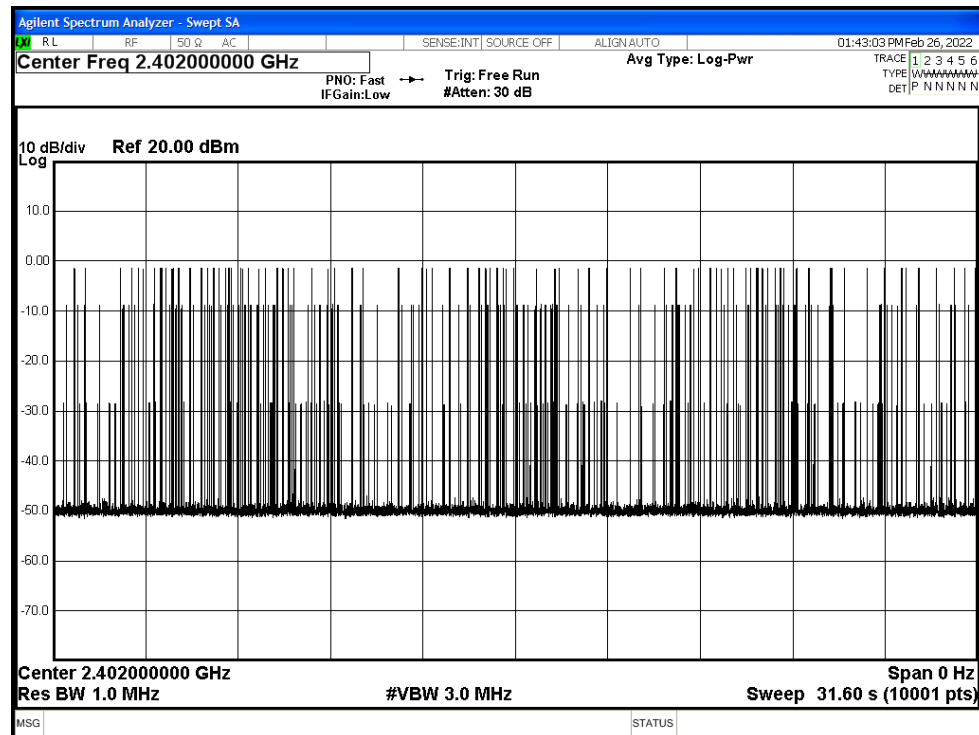


Test Graphs

Dwell NVNT 1-DH5 2402MHz Ant1 One Burst

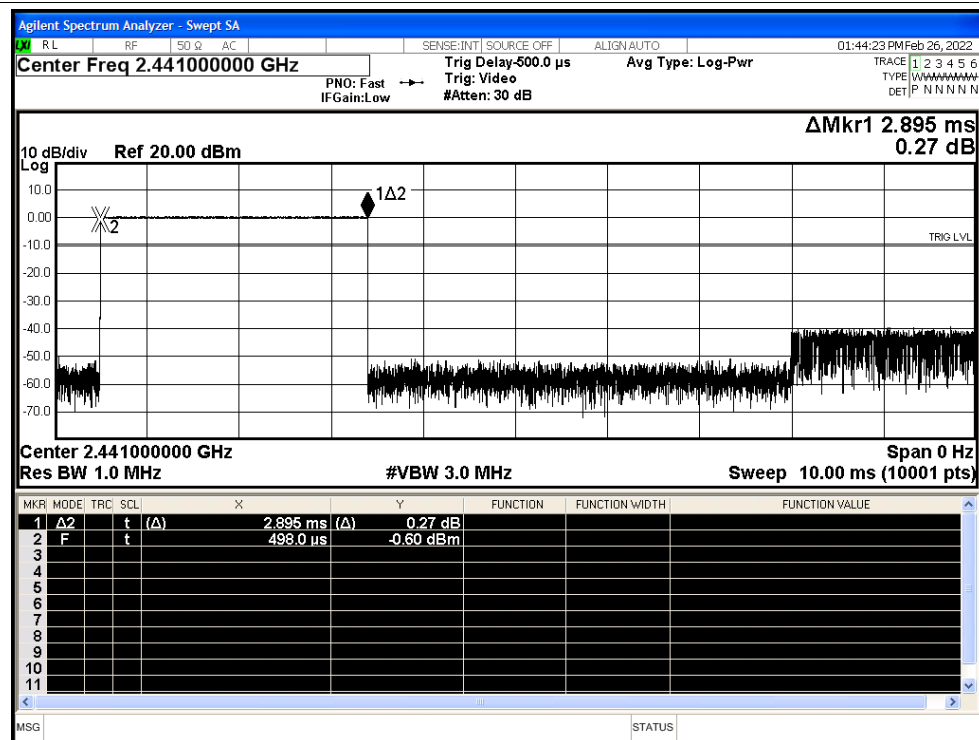


Dwell NVNT 1-DH5 2402MHz Ant1 Accumulated

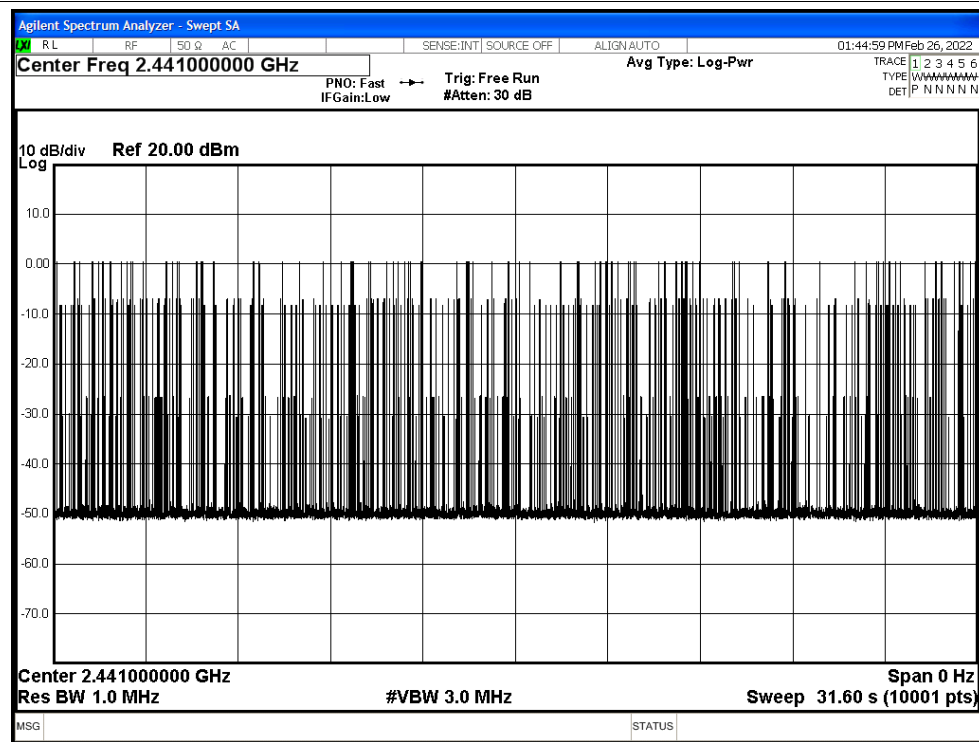




Dwell NVNT 1-DH5 2441MHz Ant1 One Burst

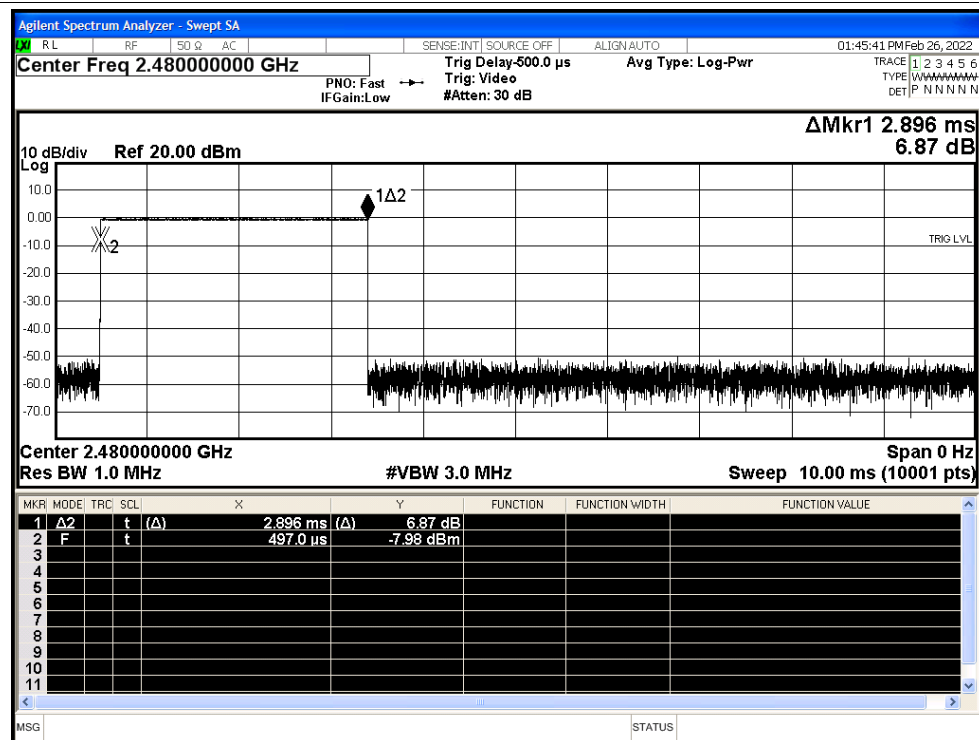


Dwell NVNT 1-DH5 2441MHz Ant1 Accumulated

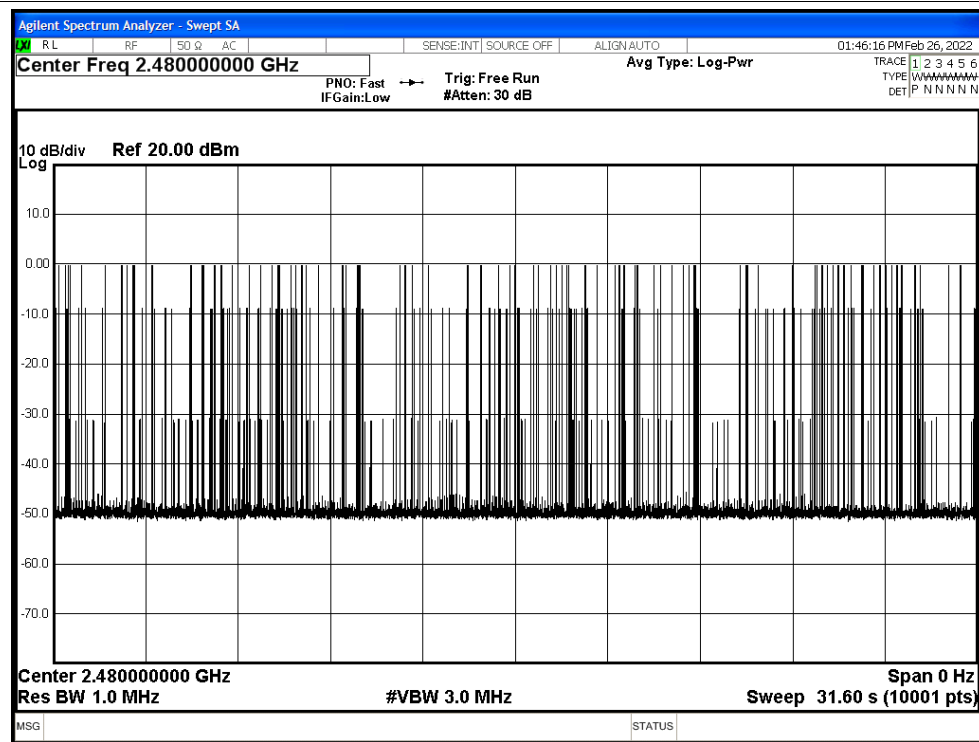




Dwell NVNT 1-DH5 2480MHz Ant1 One Burst

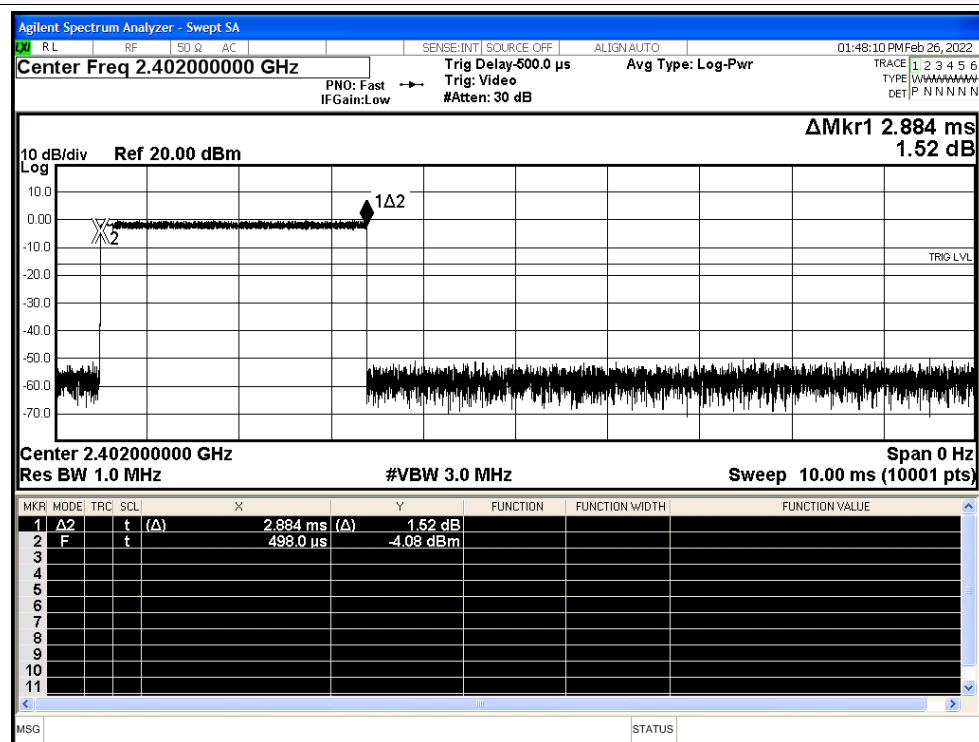


Dwell NVNT 1-DH5 2480MHz Ant1 Accumulated

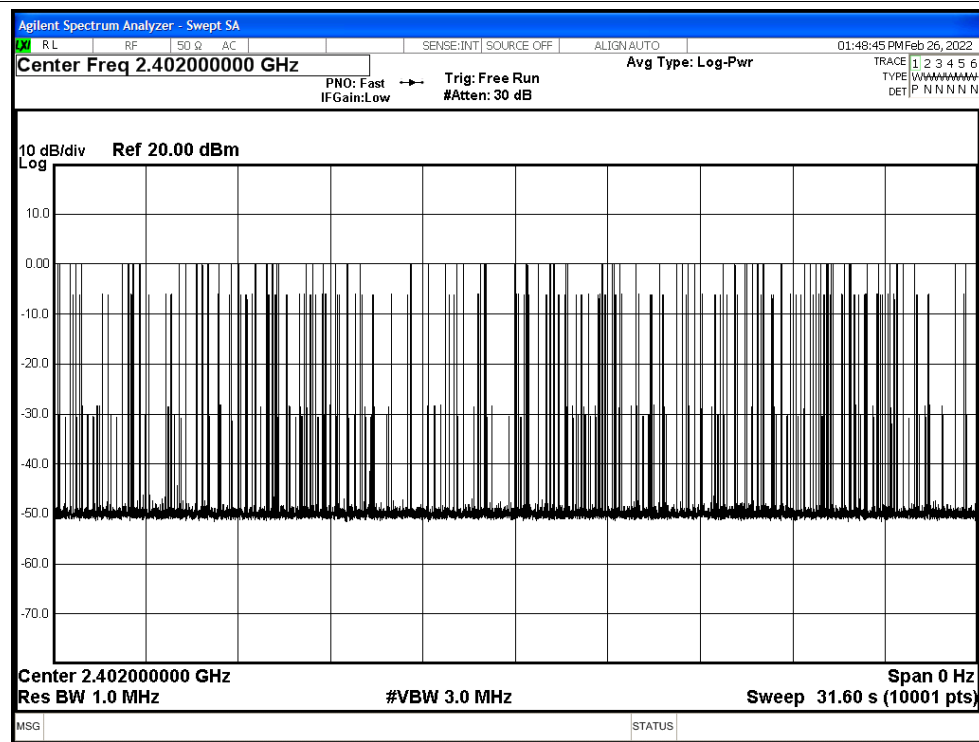




Dwell NVNT 2-DH5 2402MHz Ant1 One Burst

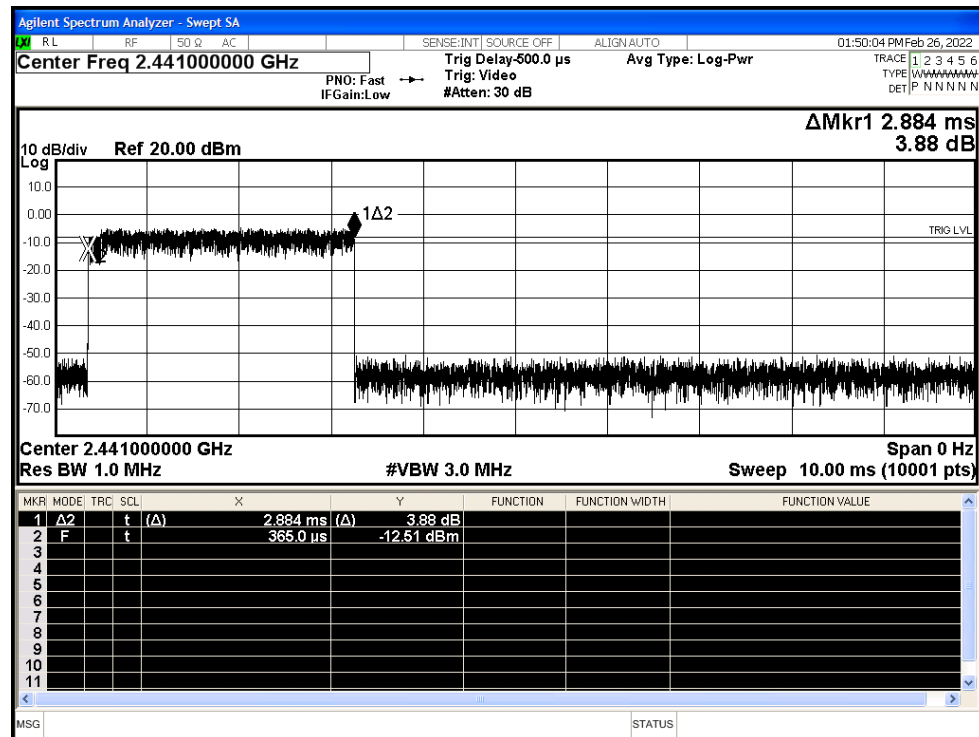


Dwell NVNT 2-DH5 2402MHz Ant1 Accumulated

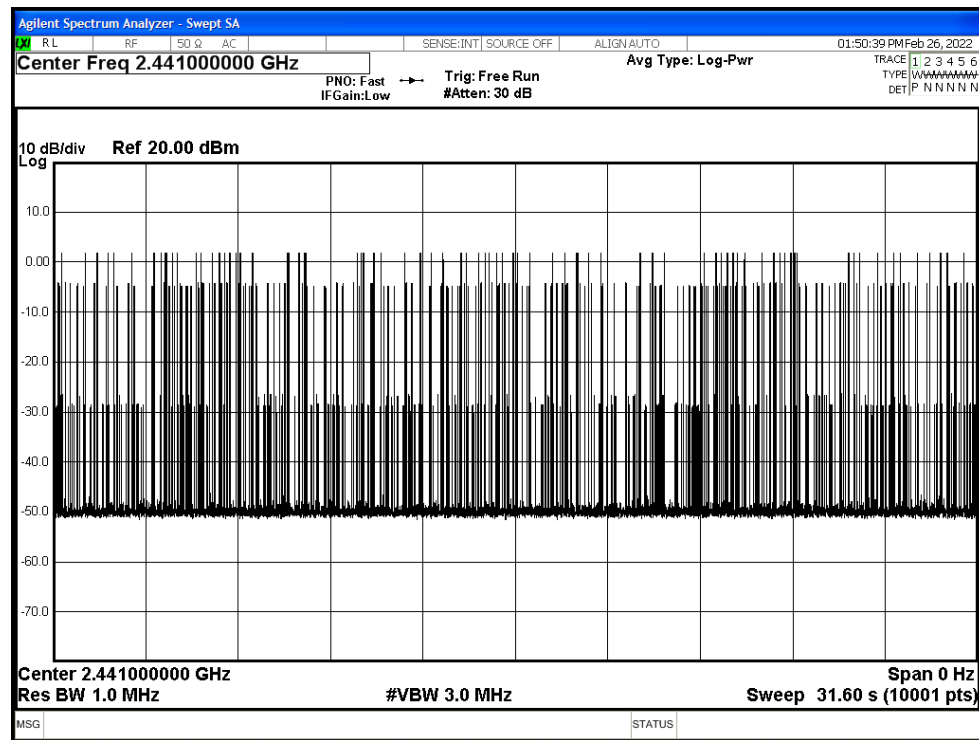




Dwell NVNT 2-DH5 2441MHz Ant1 One Burst

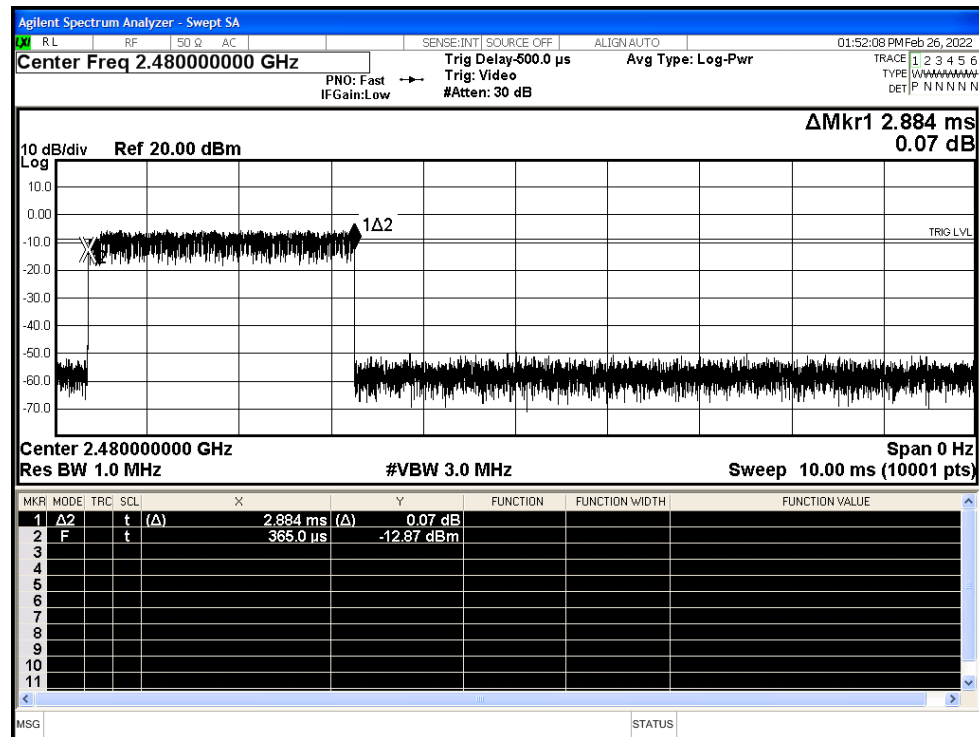


Dwell NVNT 2-DH5 2441MHz Ant1 Accumulated

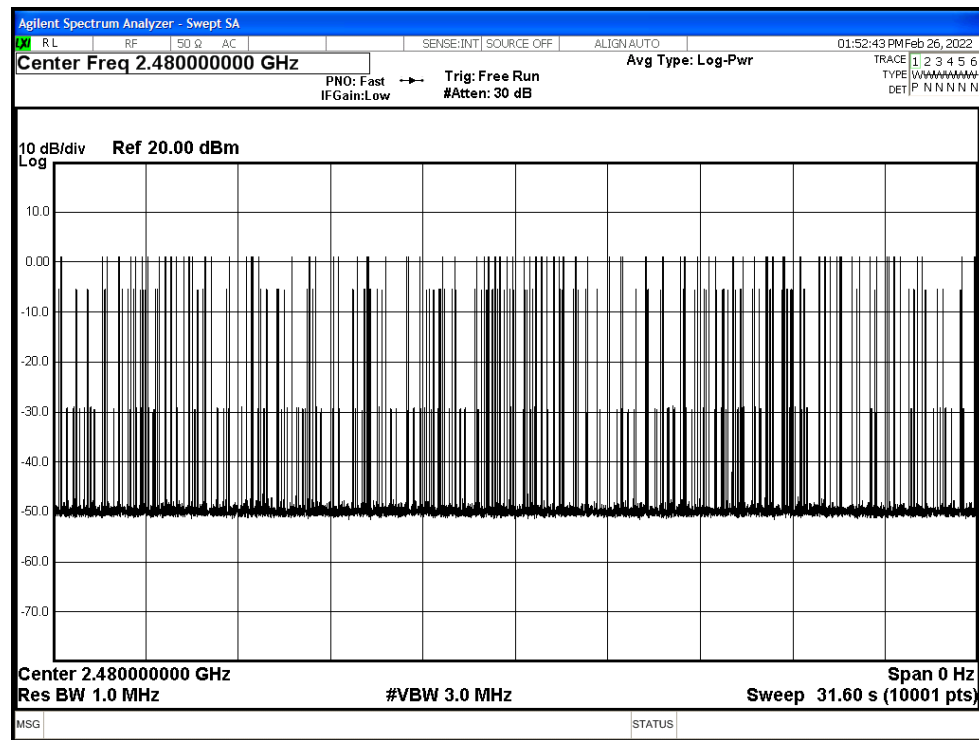




Dwell NVNT 2-DH5 2480MHz Ant1 One Burst

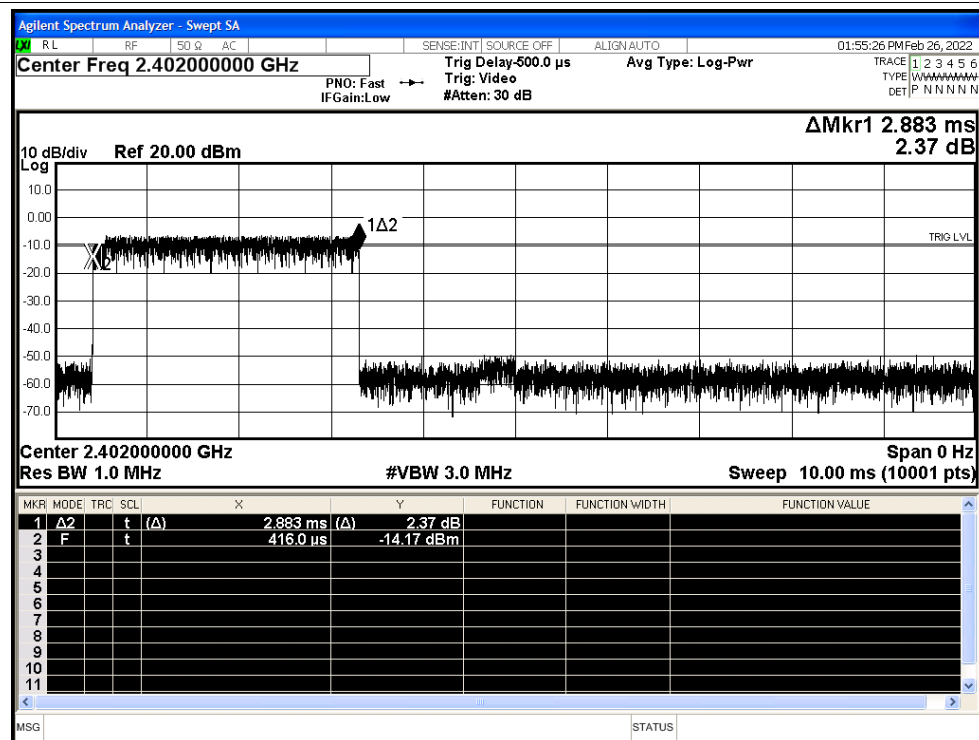


Dwell NVNT 2-DH5 2480MHz Ant1 Accumulated

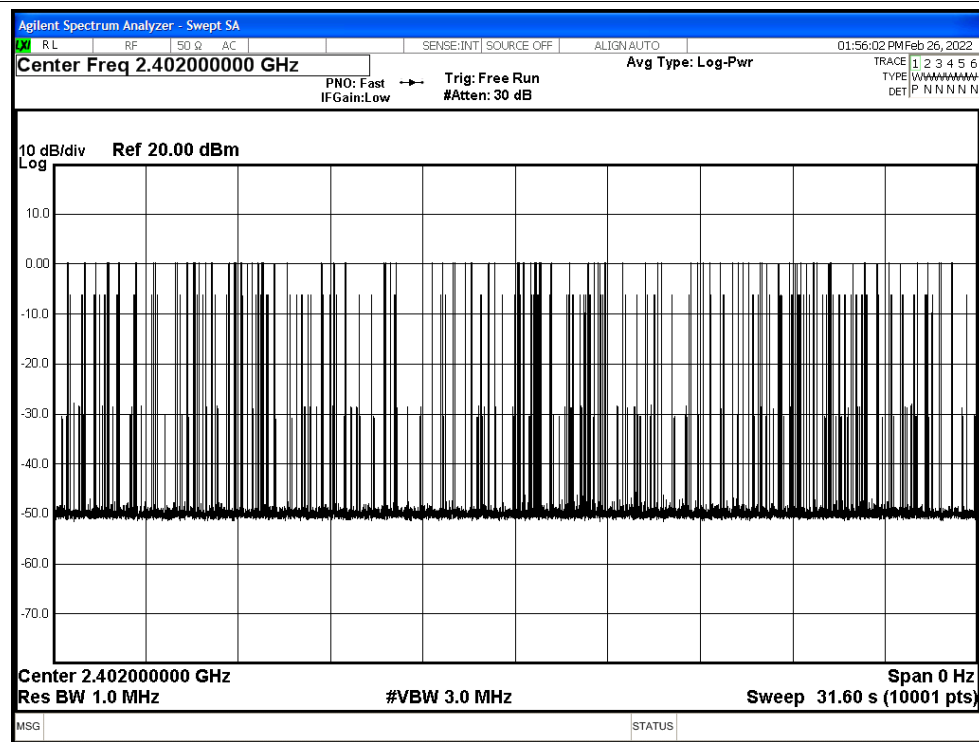




Dwell NVNT 3-DH5 2402MHz Ant1 One Burst

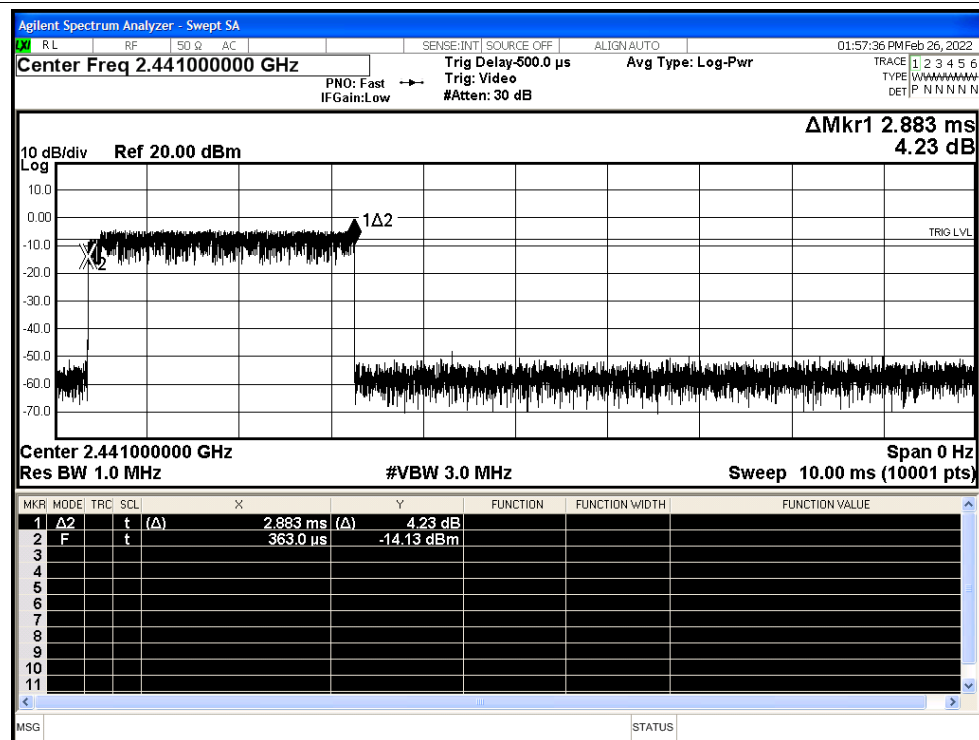


Dwell NVNT 3-DH5 2402MHz Ant1 Accumulated

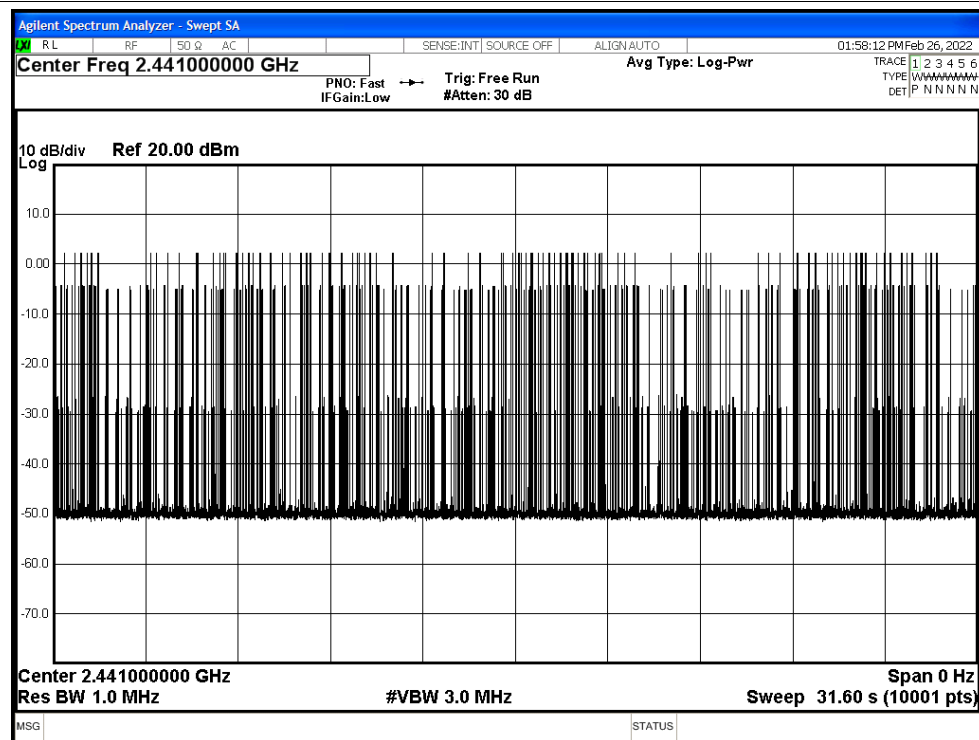




Dwell NVNT 3-DH5 2441MHz Ant1 One Burst

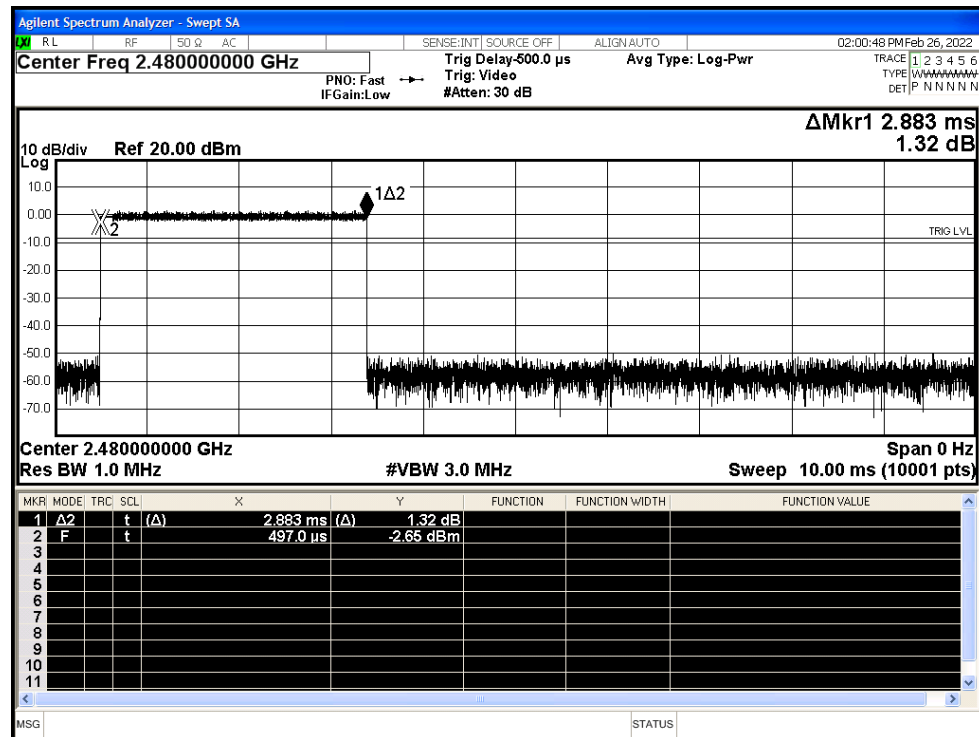


Dwell NVNT 3-DH5 2441MHz Ant1 Accumulated

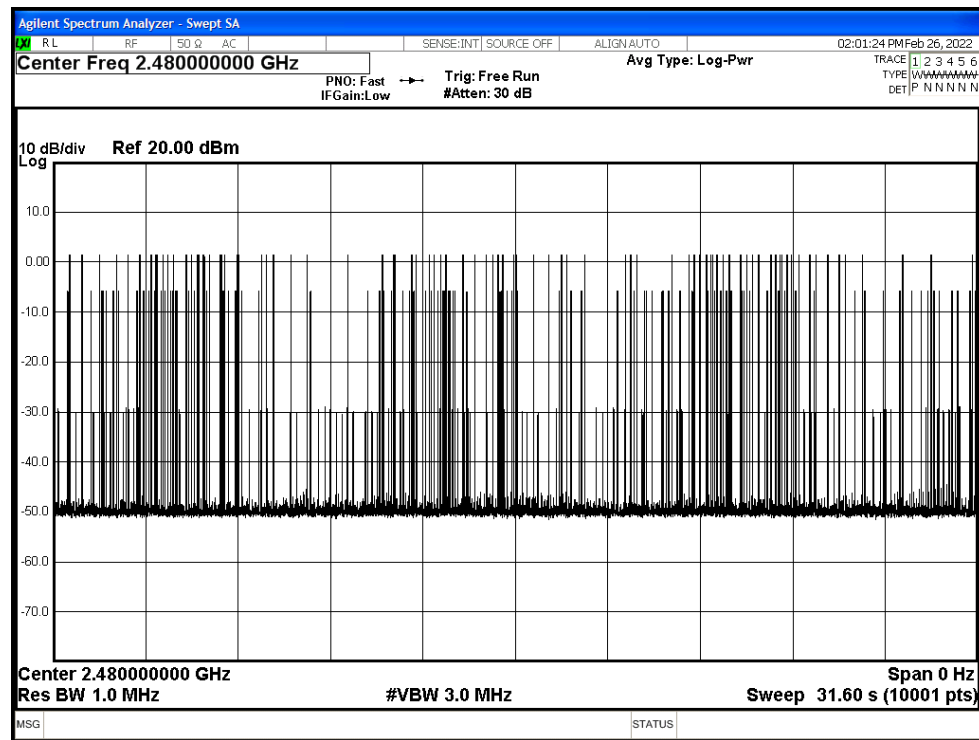




Dwell NVNT 3-DH5 2480MHz Ant1 One Burst



Dwell NVNT 3-DH5 2480MHz Ant1 Accumulated





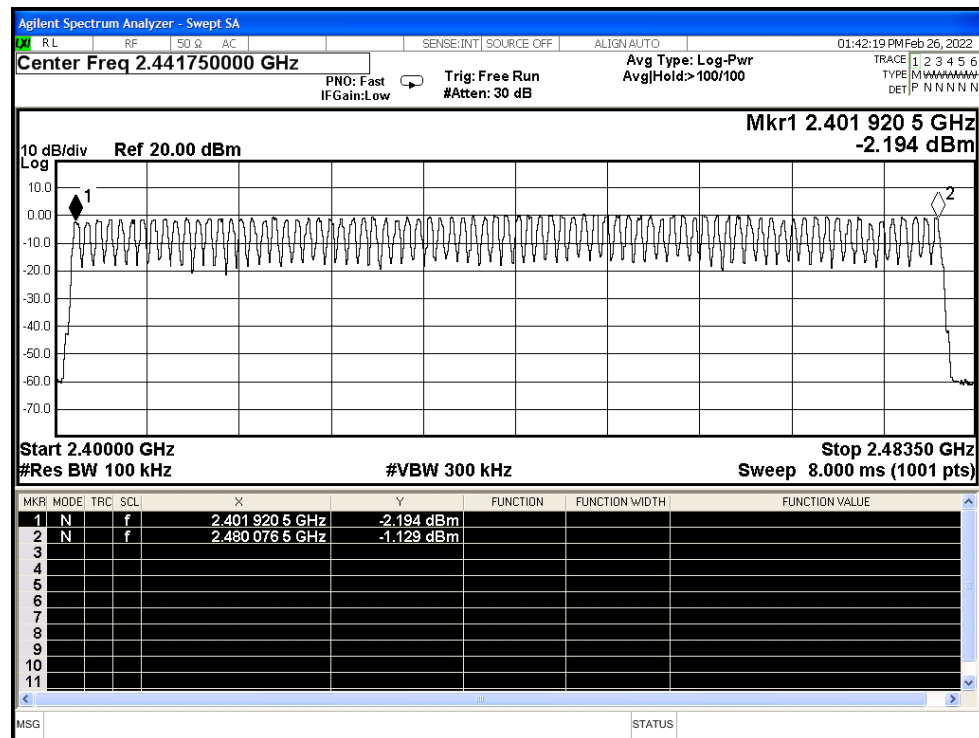
A.5 Number of Hopping Channel

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

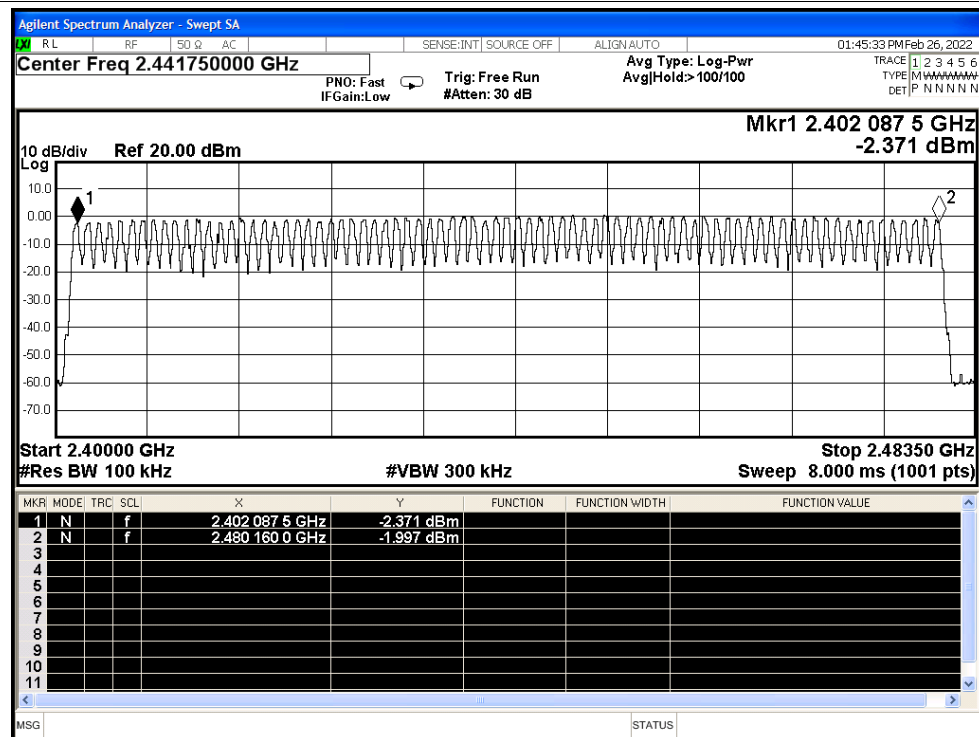


Test Graphs

Hopping No. NVNT 1-DH5 2402MHz Ant1

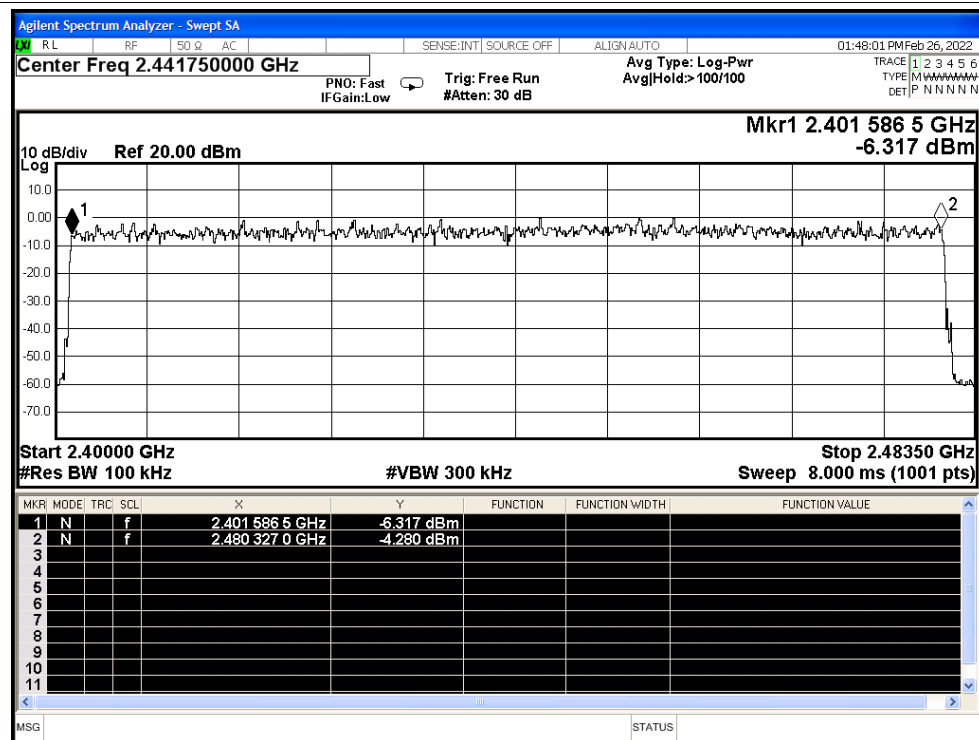


Hopping No. NVNT 1-DH5 2480MHz Ant1

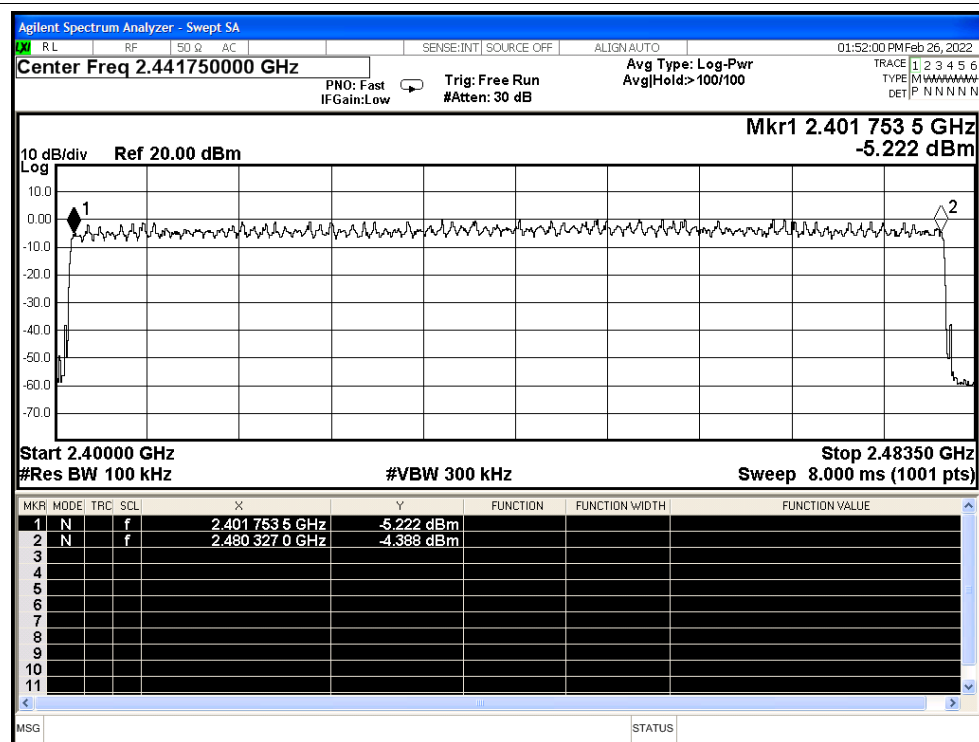




Hopping No. NVNT 2-DH5 2402MHz Ant1

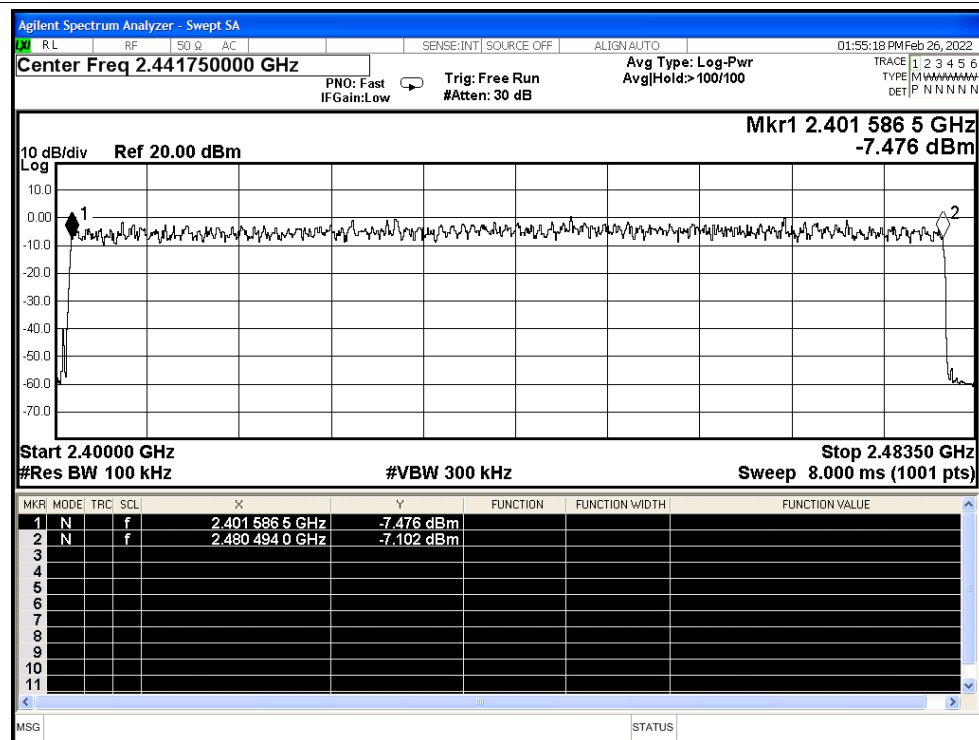


Hopping No. NVNT 2-DH5 2480MHz Ant1

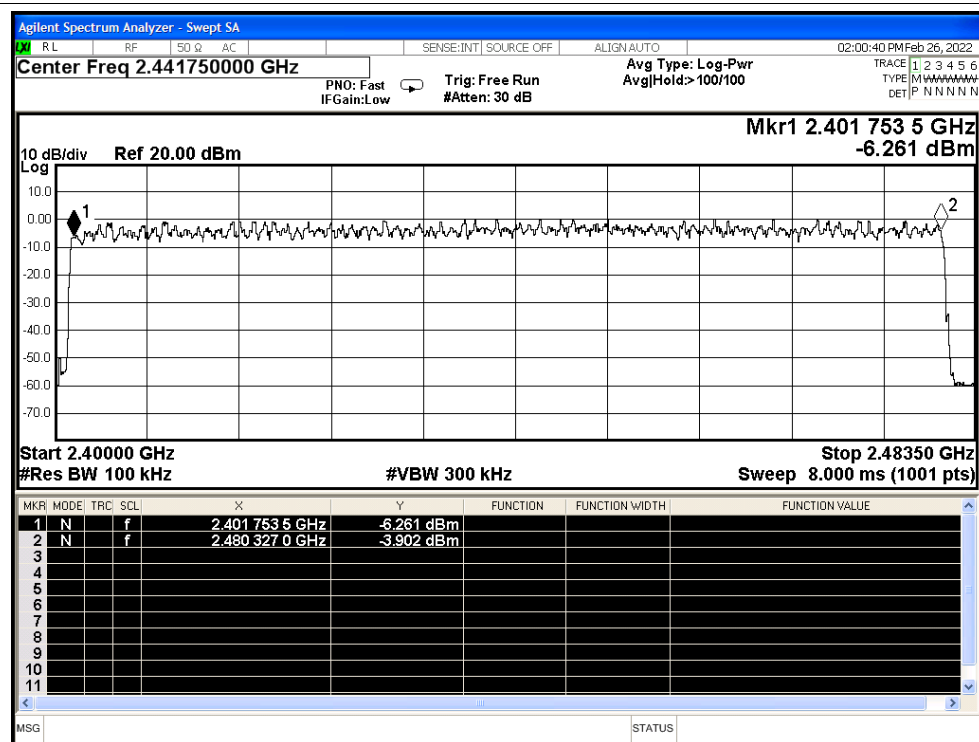




Hopping No. NVNT 3-DH5 2402MHz Ant1



Hopping No. NVNT 3-DH5 2480MHz Ant1





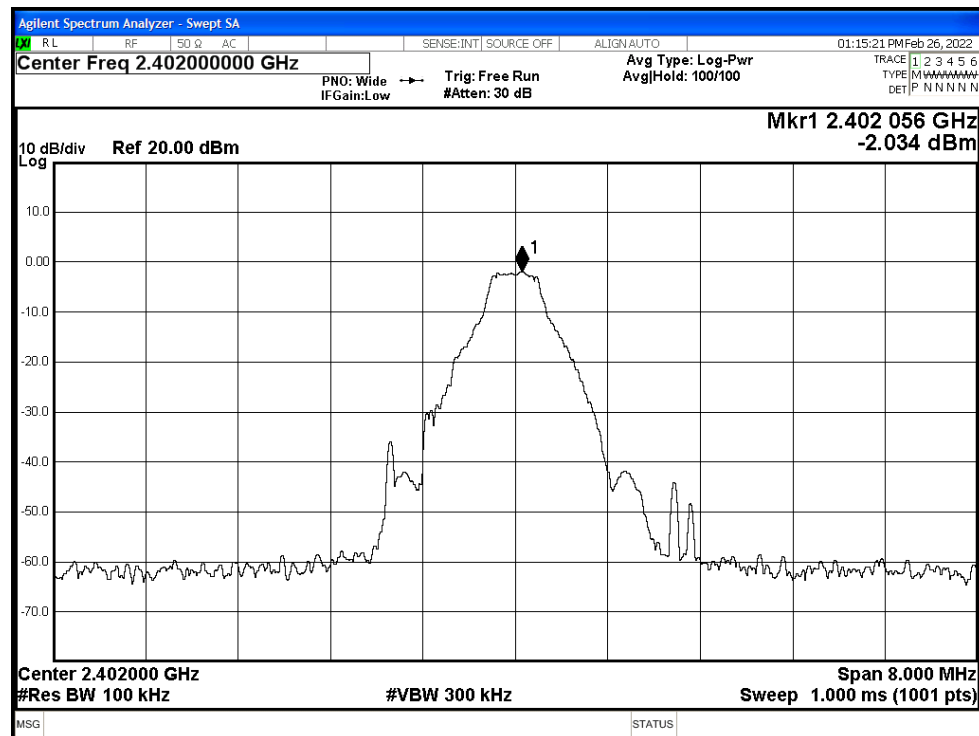
A.6 Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	-56.33	-20	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	-58.51	-20	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	-55.29	-20	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	-57.35	-20	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	-53.2	-20	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	-58.58	-20	Pass

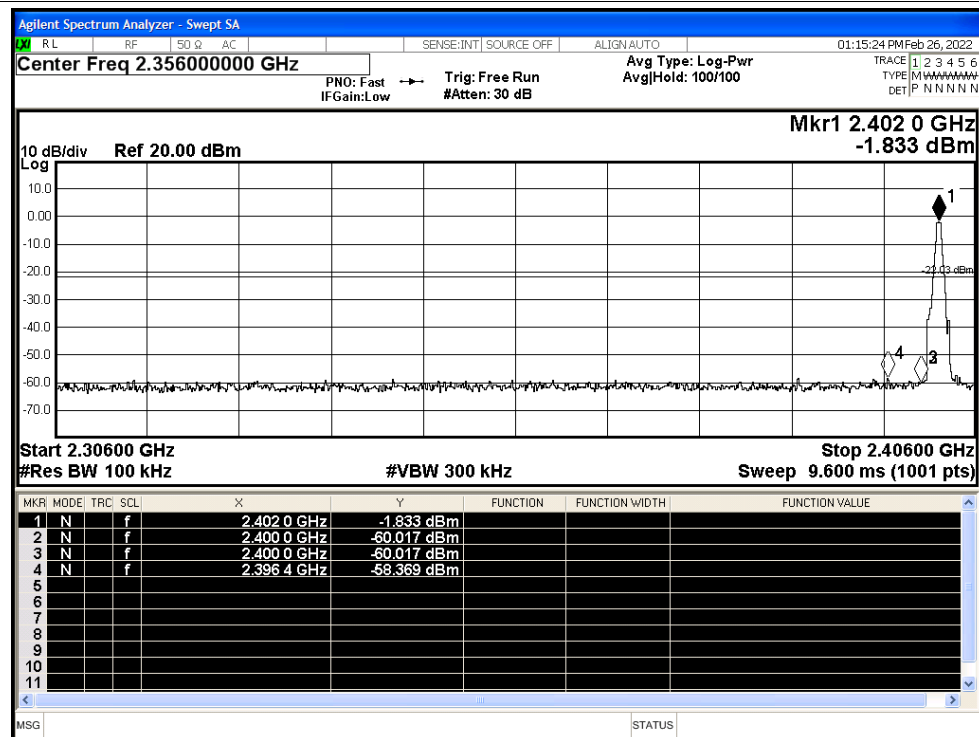


Test Graphs

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

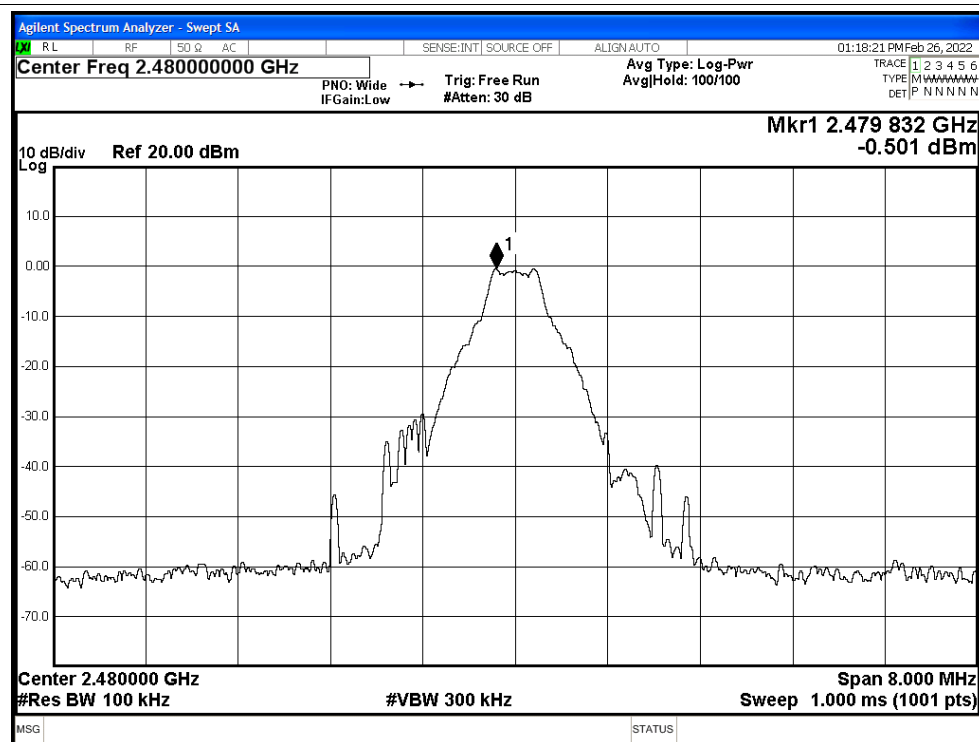


Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Emission

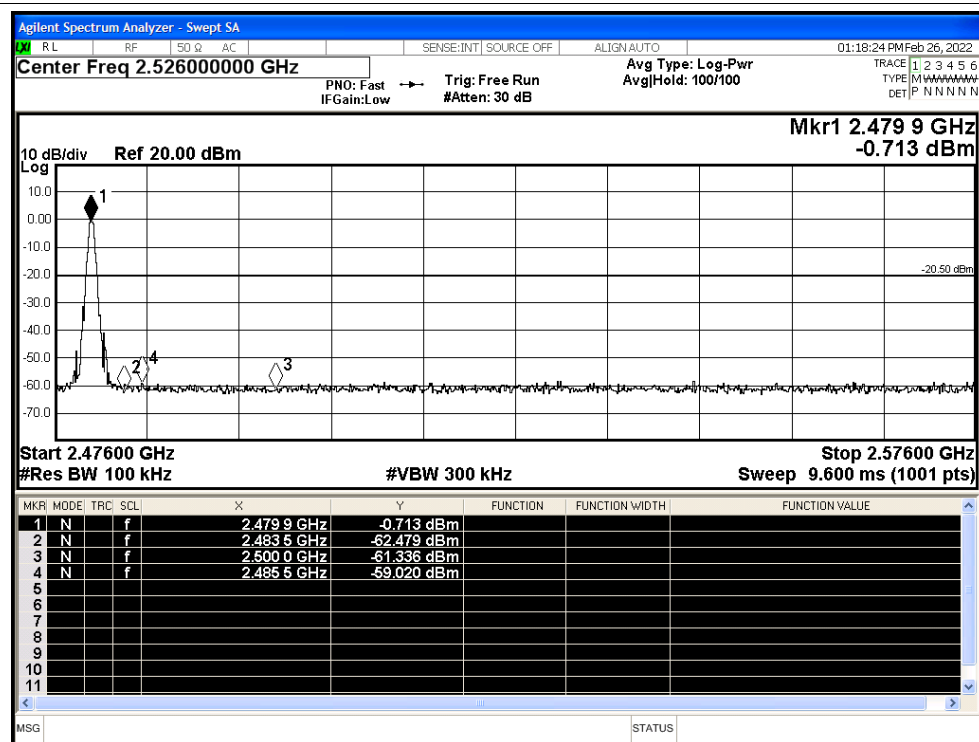




Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref

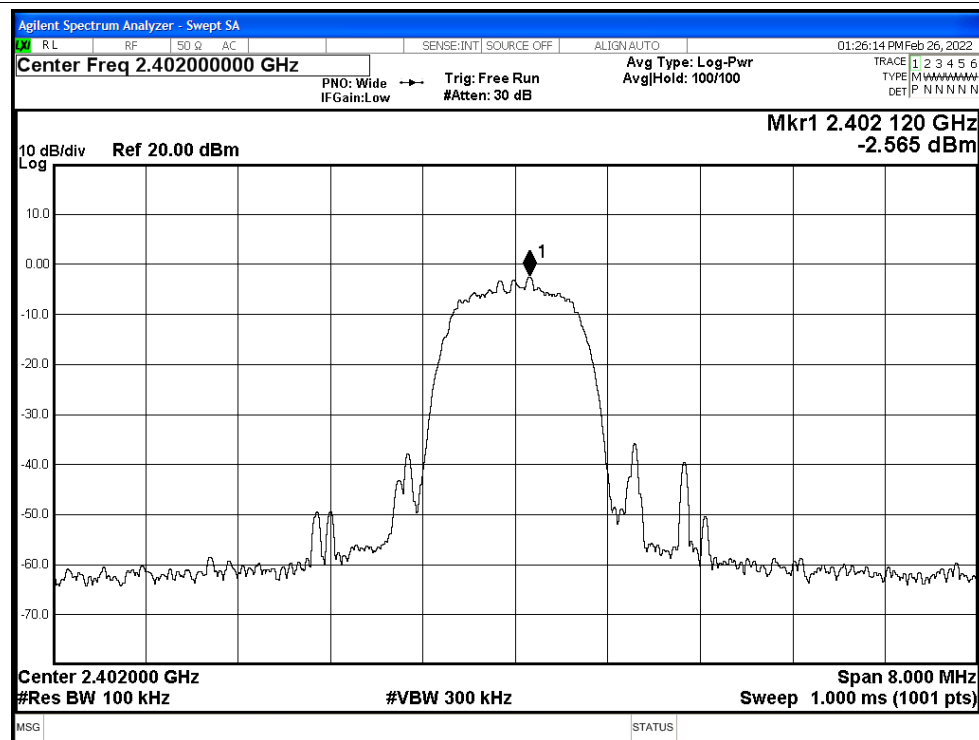


Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Emission

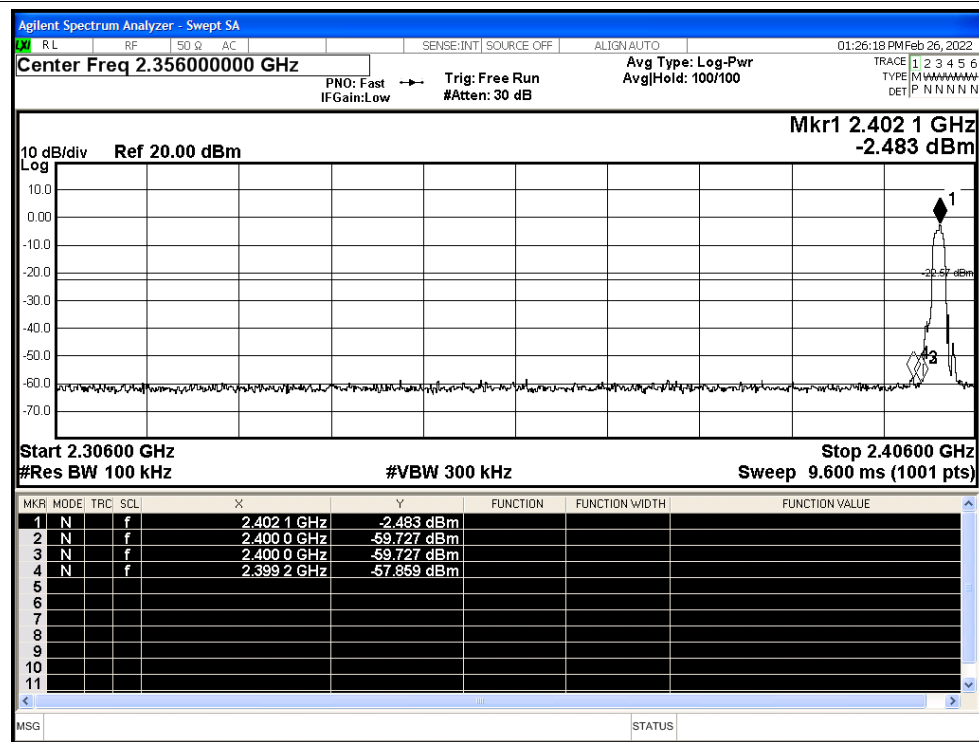




Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Ref

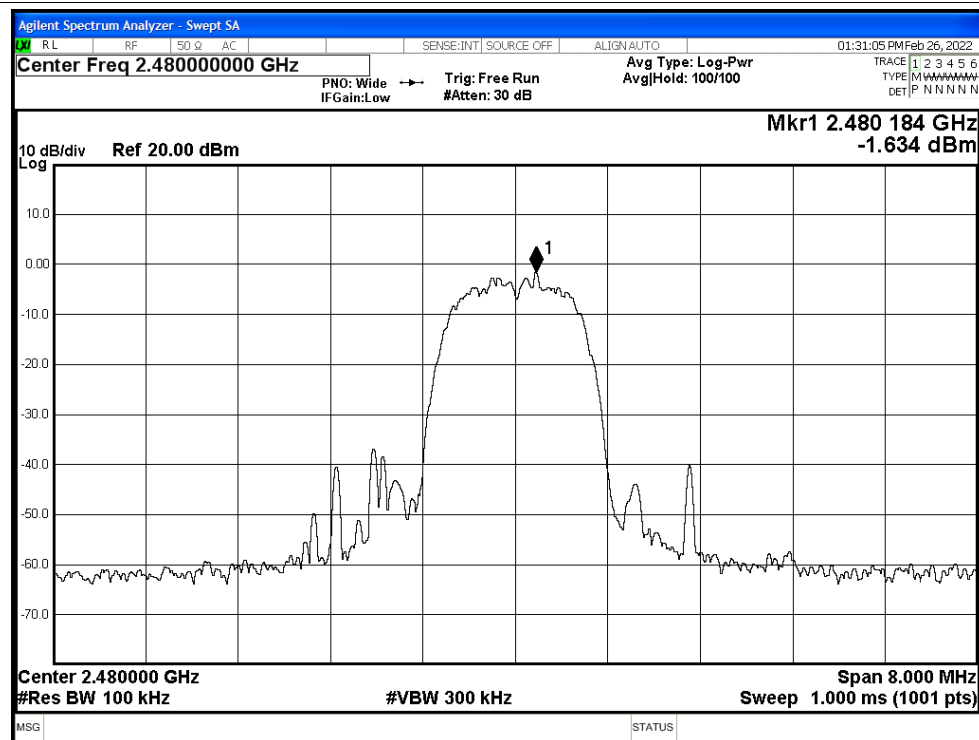


Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Emission

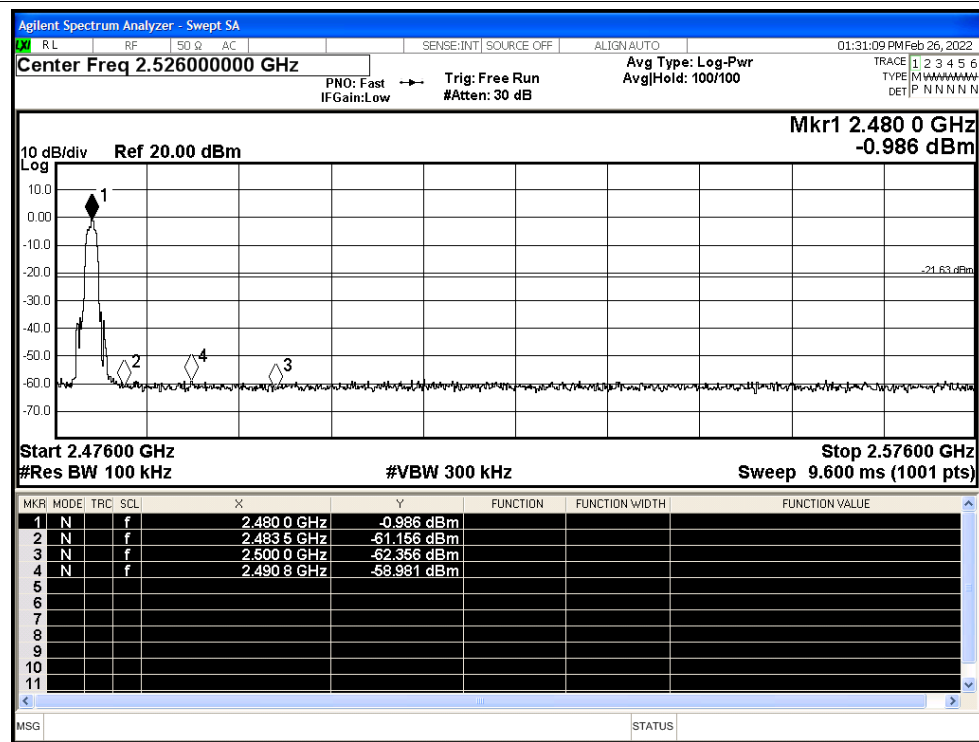




Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Ref

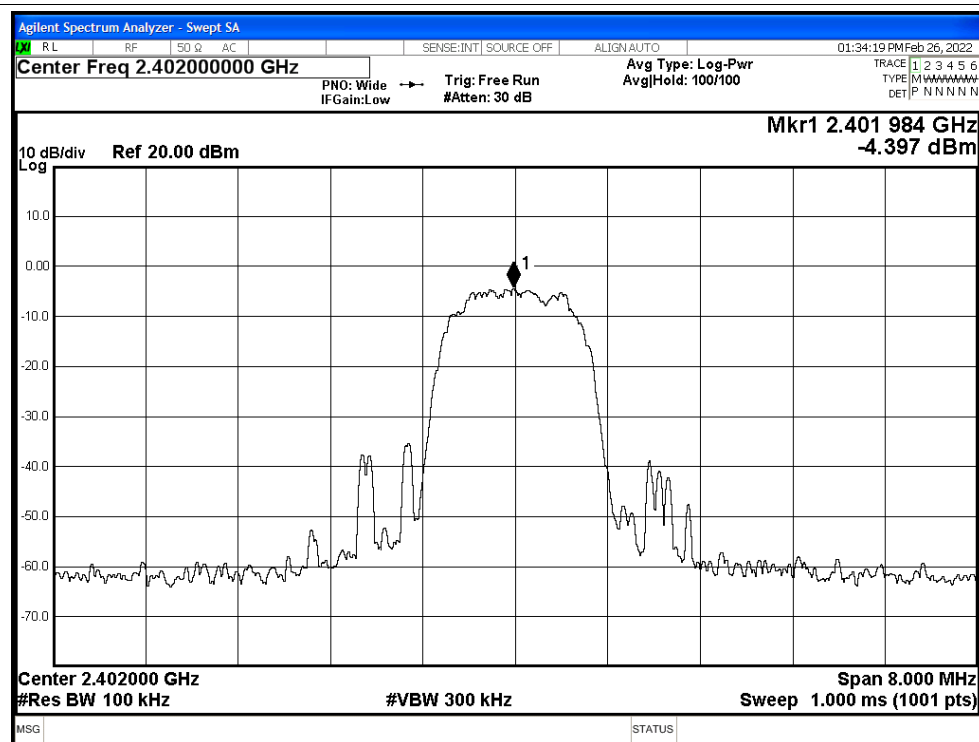


Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Emission

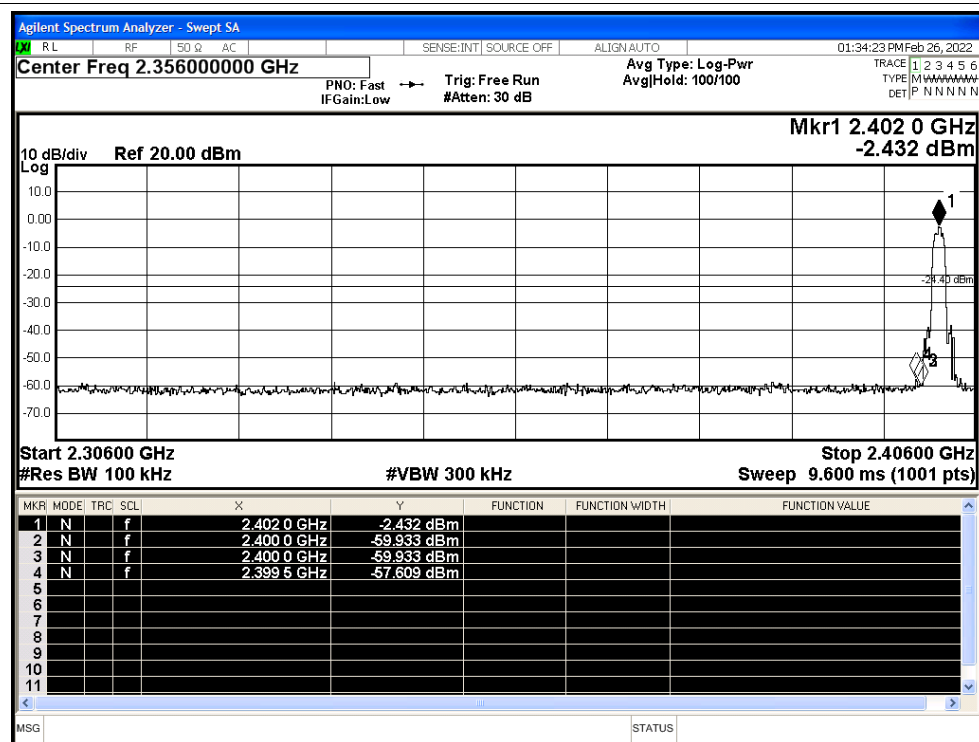




Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Ref

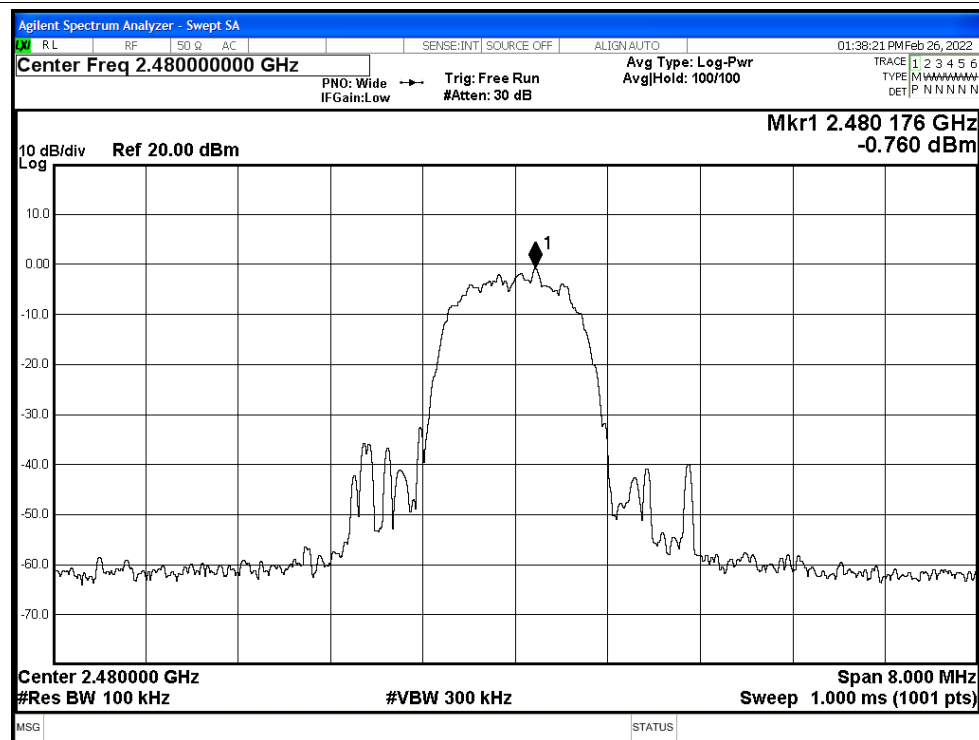


Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Emission

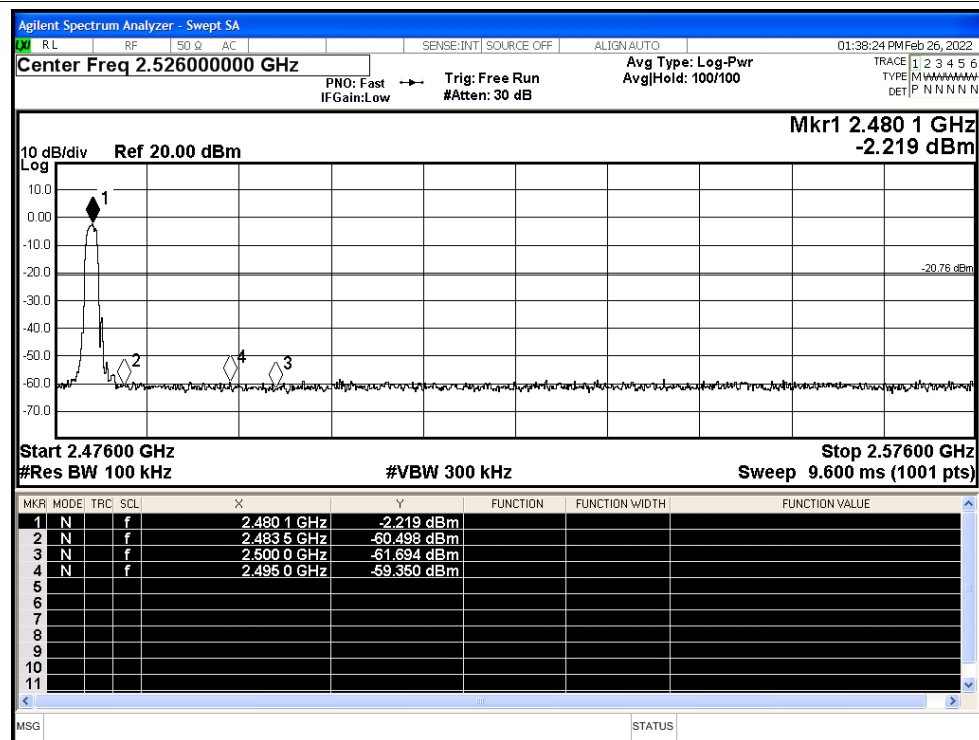




Band Edge NVNT 3-DH5 2480MHz Ant1 No-Hopping Ref



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





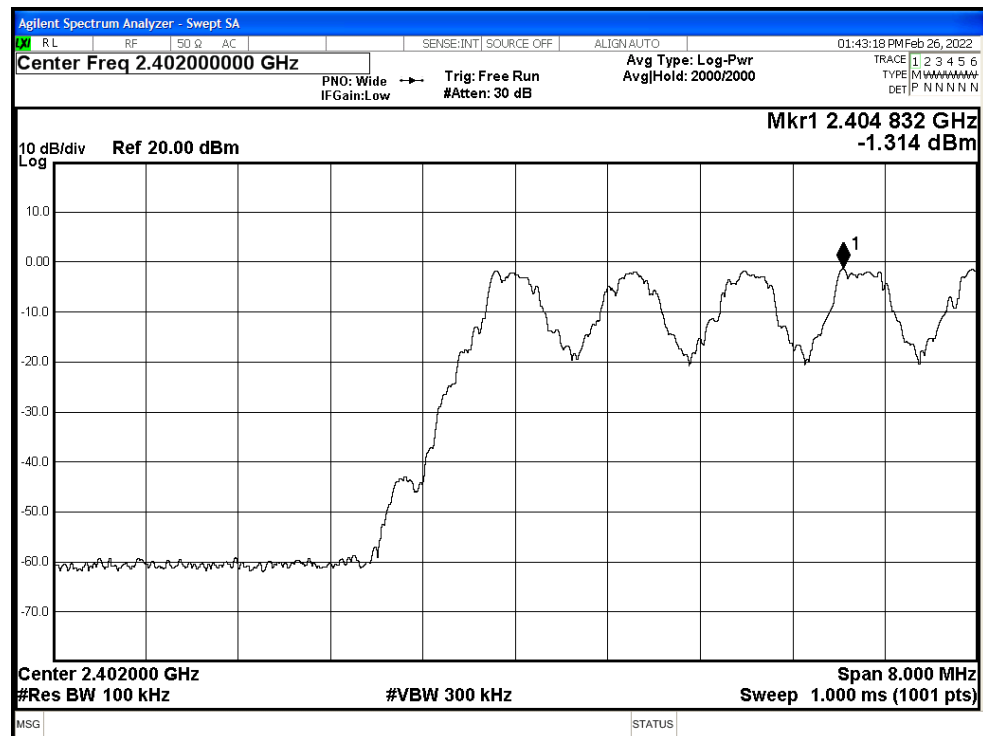
(Hopping)

Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	Hopping	-55.85	-20	Pass
NVNT	1-DH5	2480	Ant1	Hopping	-57.16	-20	Pass
NVNT	2-DH5	2402	Ant1	Hopping	-55.18	-20	Pass
NVNT	2-DH5	2480	Ant1	Hopping	-57.42	-20	Pass
NVNT	3-DH5	2402	Ant1	Hopping	-55.16	-20	Pass
NVNT	3-DH5	2480	Ant1	Hopping	-56.51	-20	Pass

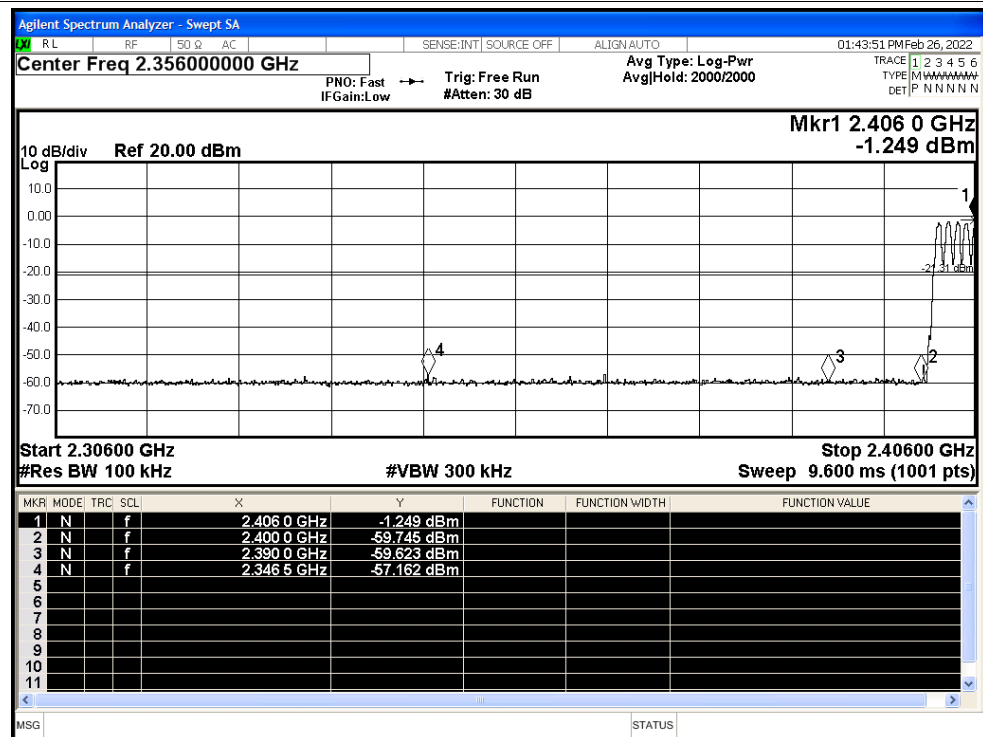


Test Graphs

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

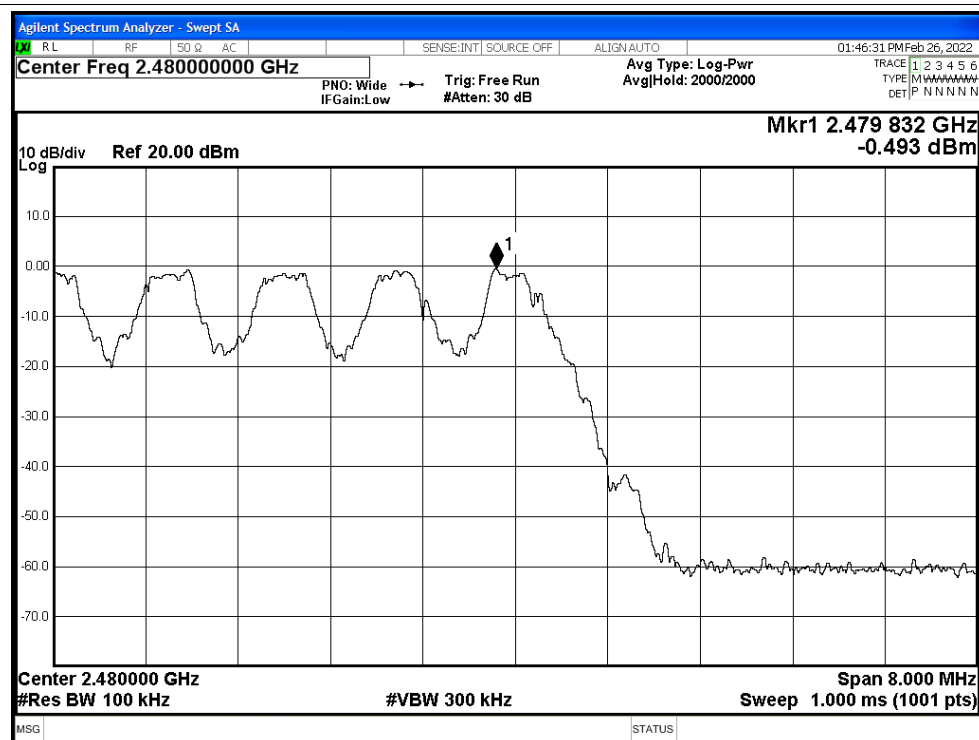


Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission

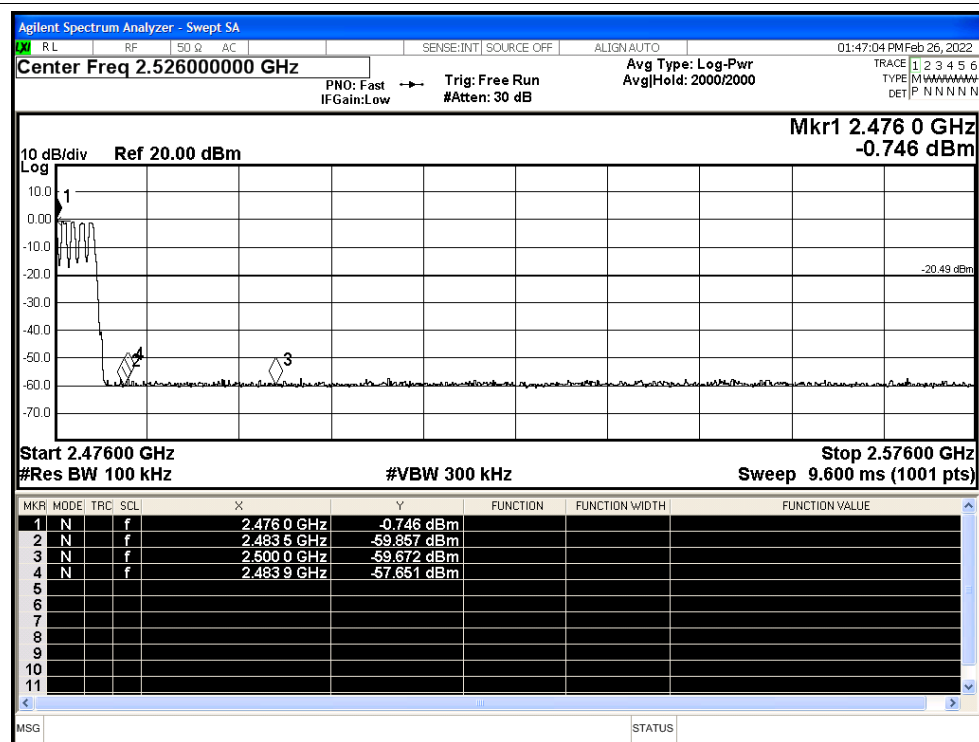




Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Ref

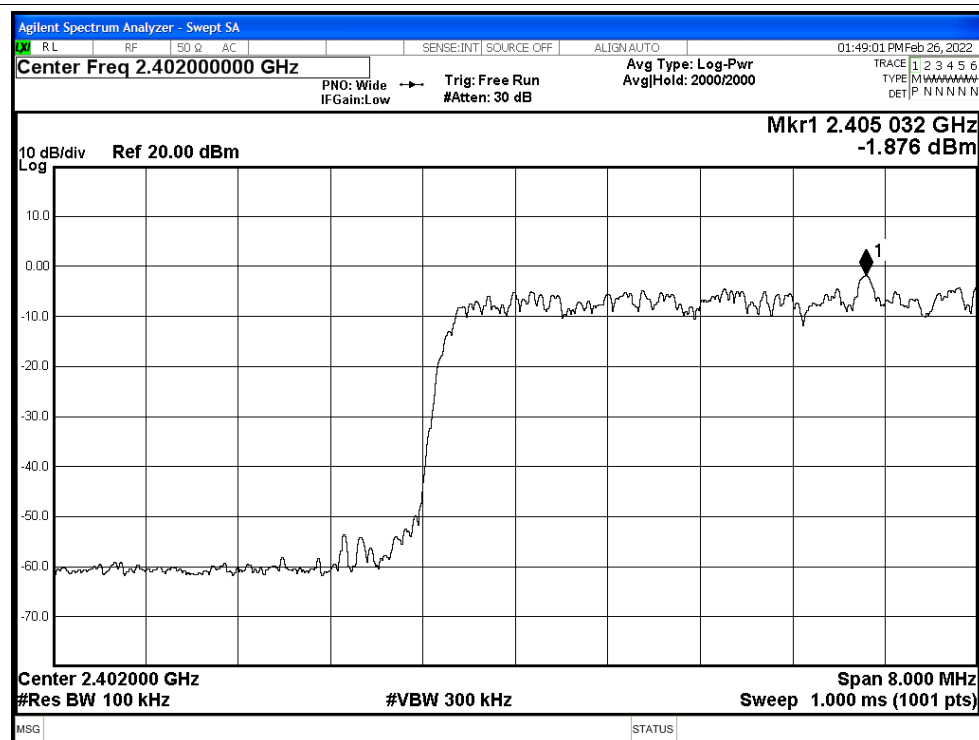


Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Emission

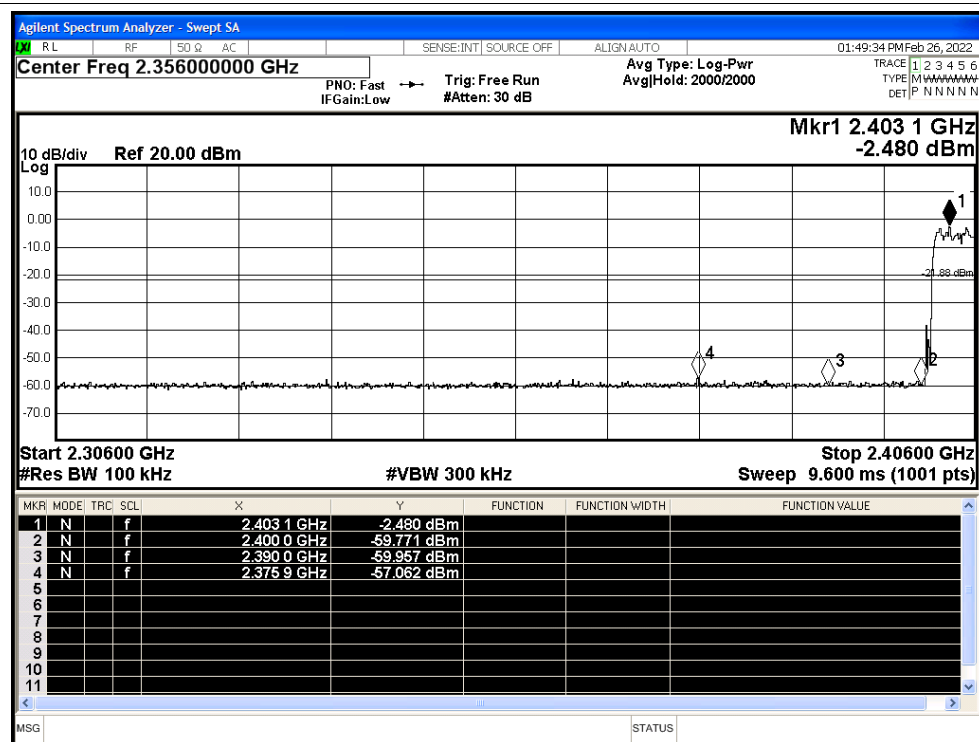




Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Ref

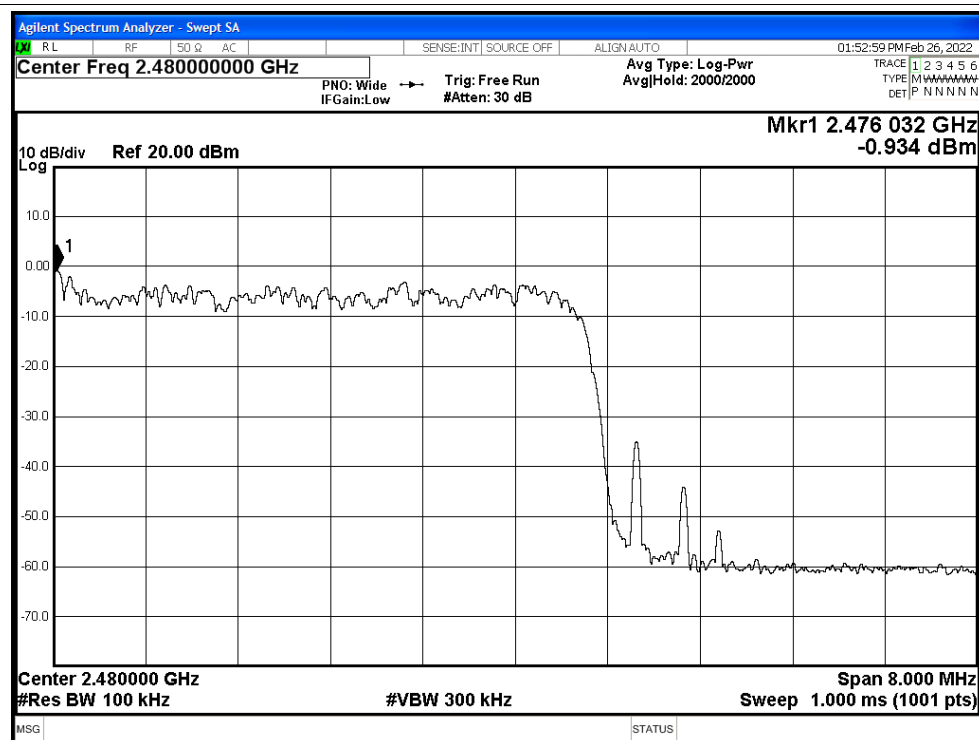


Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Emission

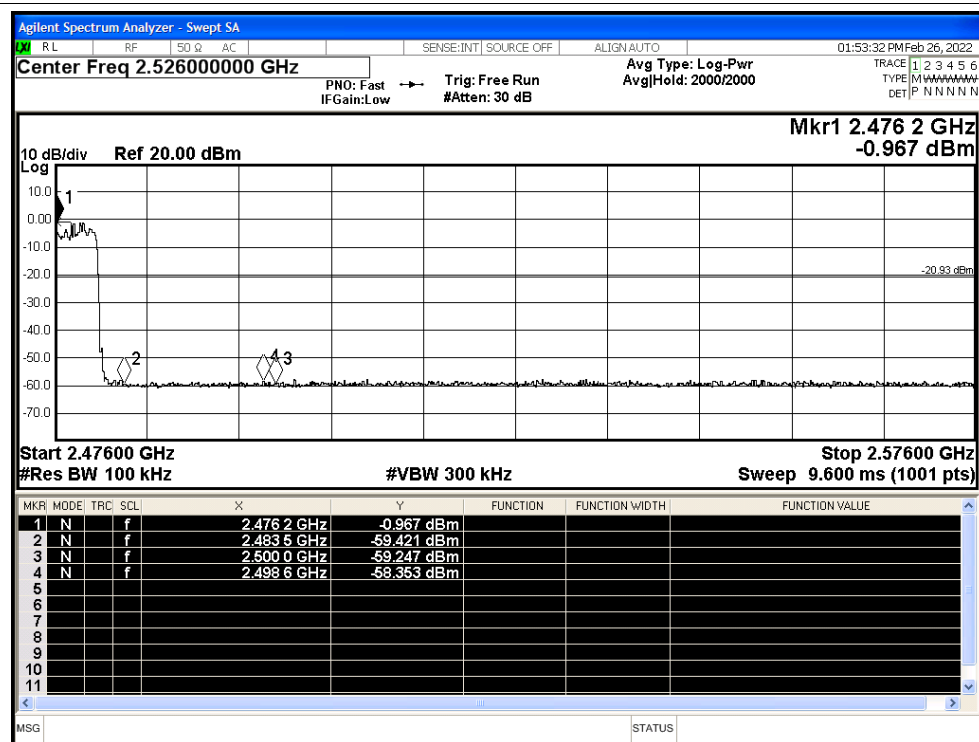




Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Ref

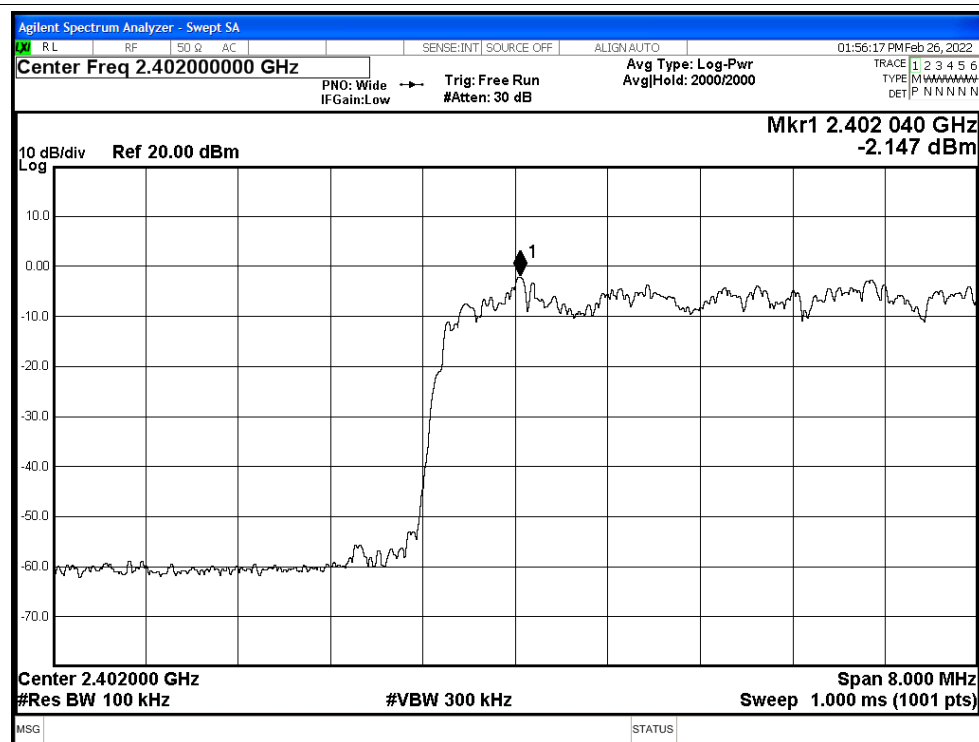


Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Emission

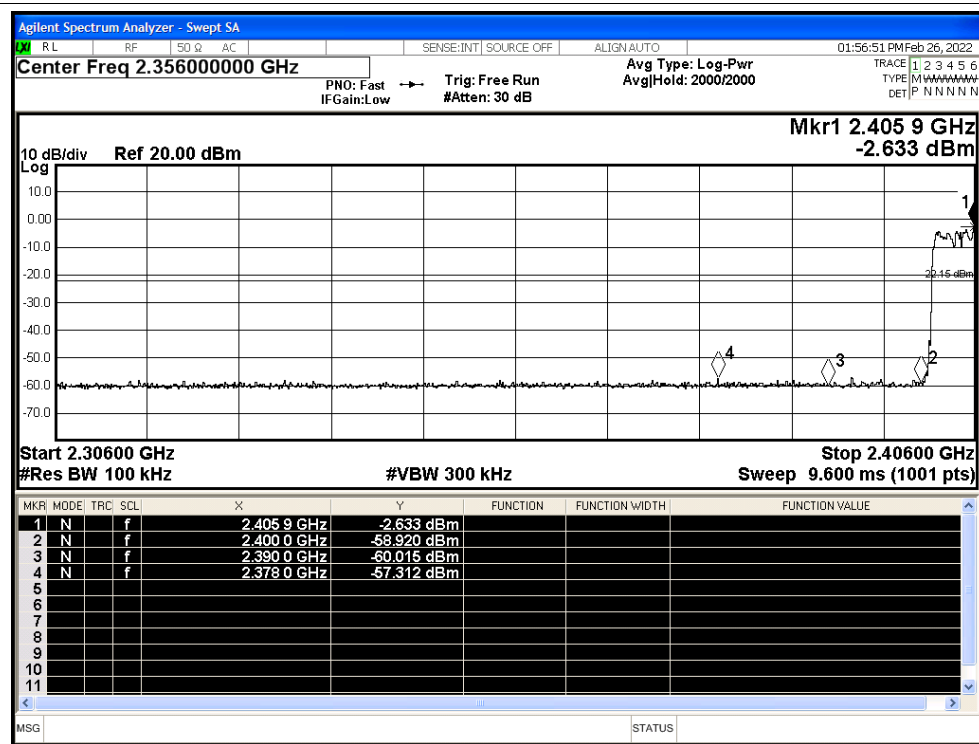




Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Ref

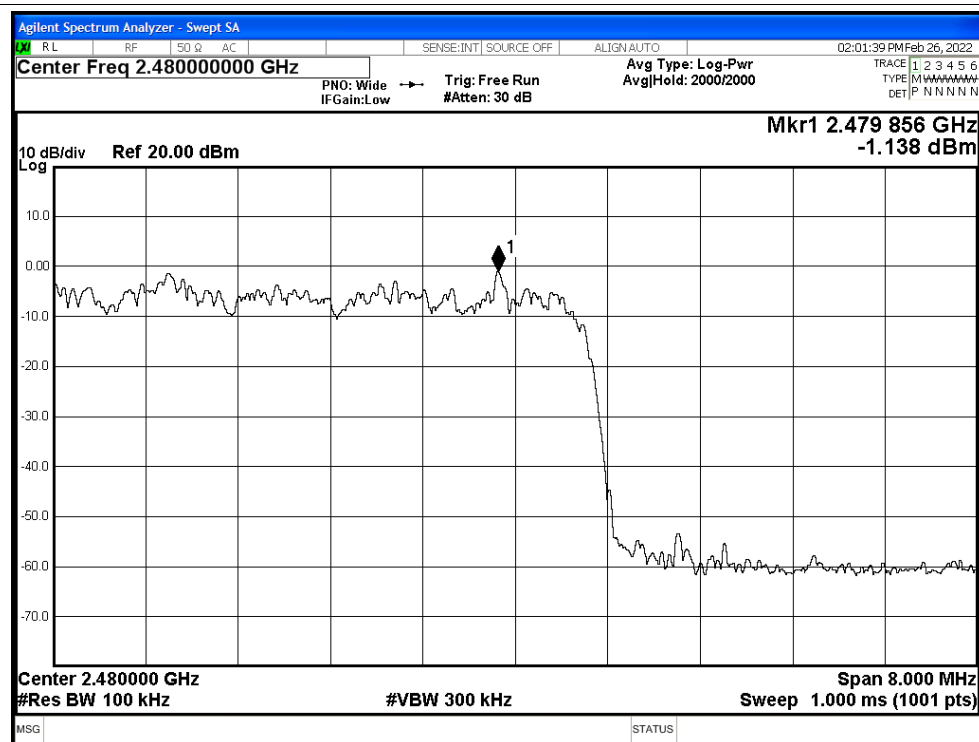


Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Emission

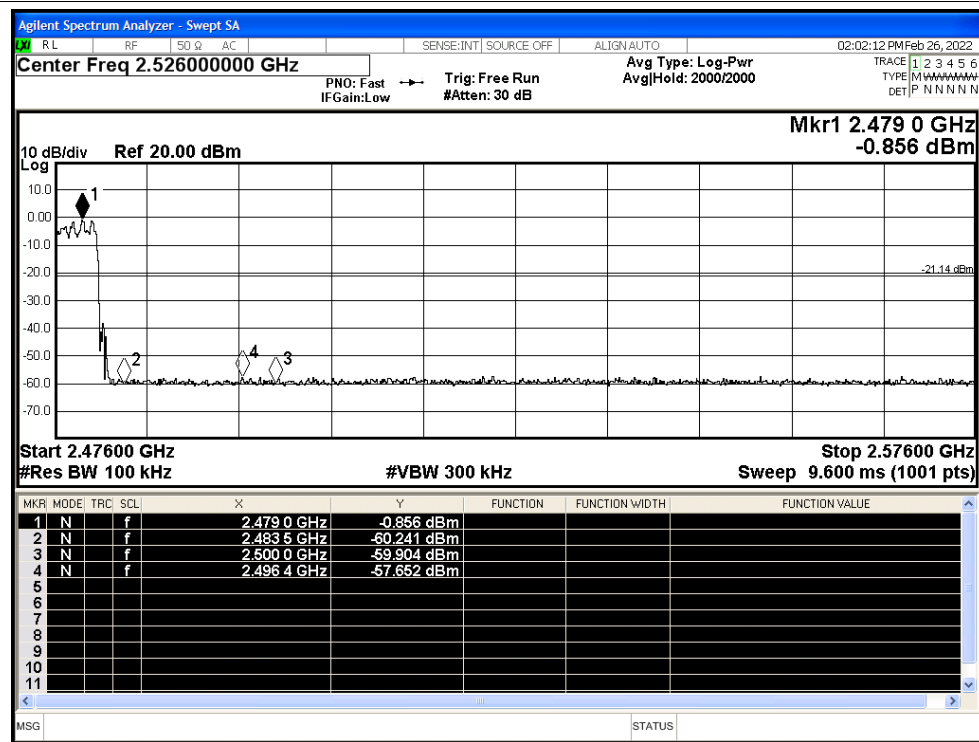




Band Edge(Hopping) NVNT 3-DH5 2480MHz Ant1 Hopping Ref



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





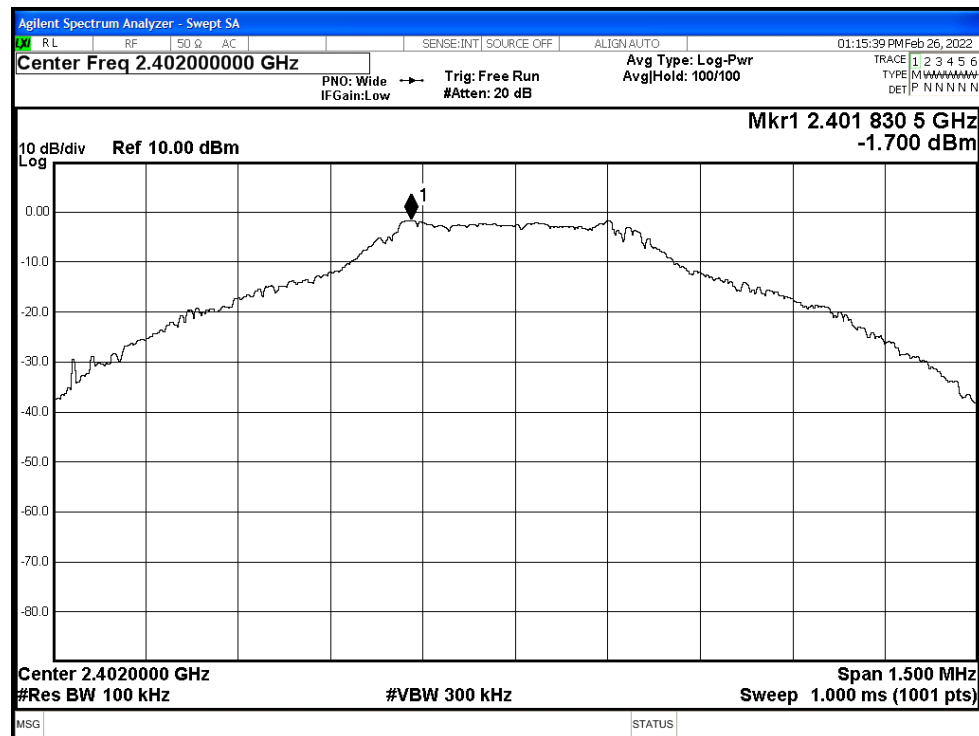
A.7 Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	-50.96	-20	Pass
NVNT	1-DH5	2441	Ant1	-57.48	-20	Pass
NVNT	1-DH5	2480	Ant1	-57.35	-20	Pass
NVNT	2-DH5	2402	Ant1	-47.52	-20	Pass
NVNT	2-DH5	2441	Ant1	-52.24	-20	Pass
NVNT	2-DH5	2480	Ant1	-53.51	-20	Pass
NVNT	3-DH5	2402	Ant1	-54.88	-20	Pass
NVNT	3-DH5	2441	Ant1	-57.22	-20	Pass
NVNT	3-DH5	2480	Ant1	-56.64	-20	Pass

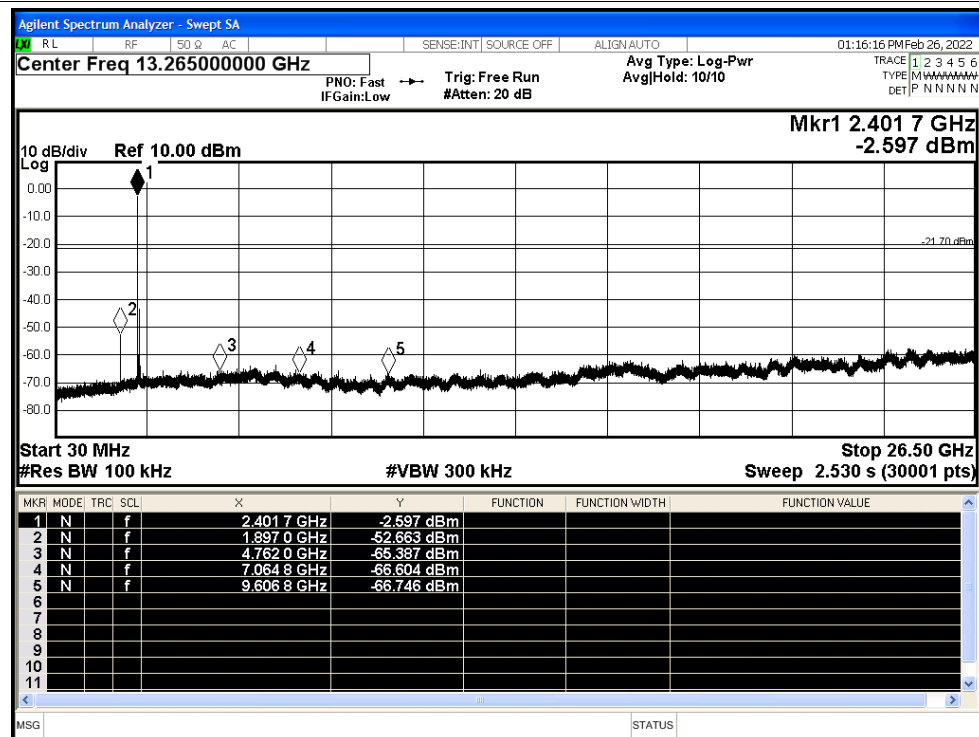


Test Graphs

Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref

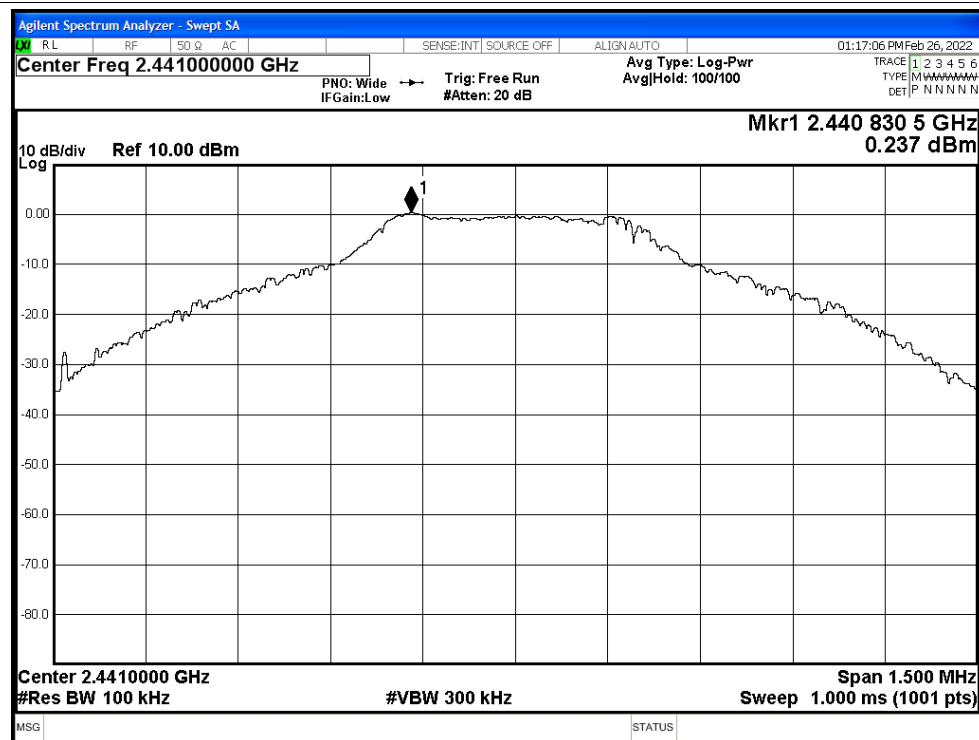


Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission

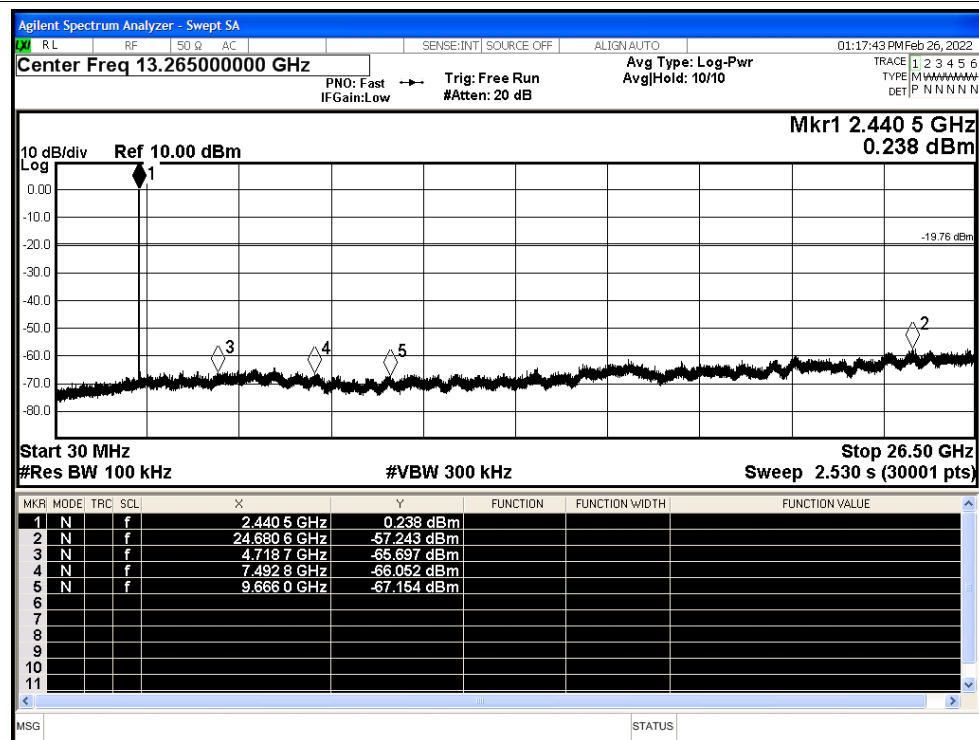




Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref

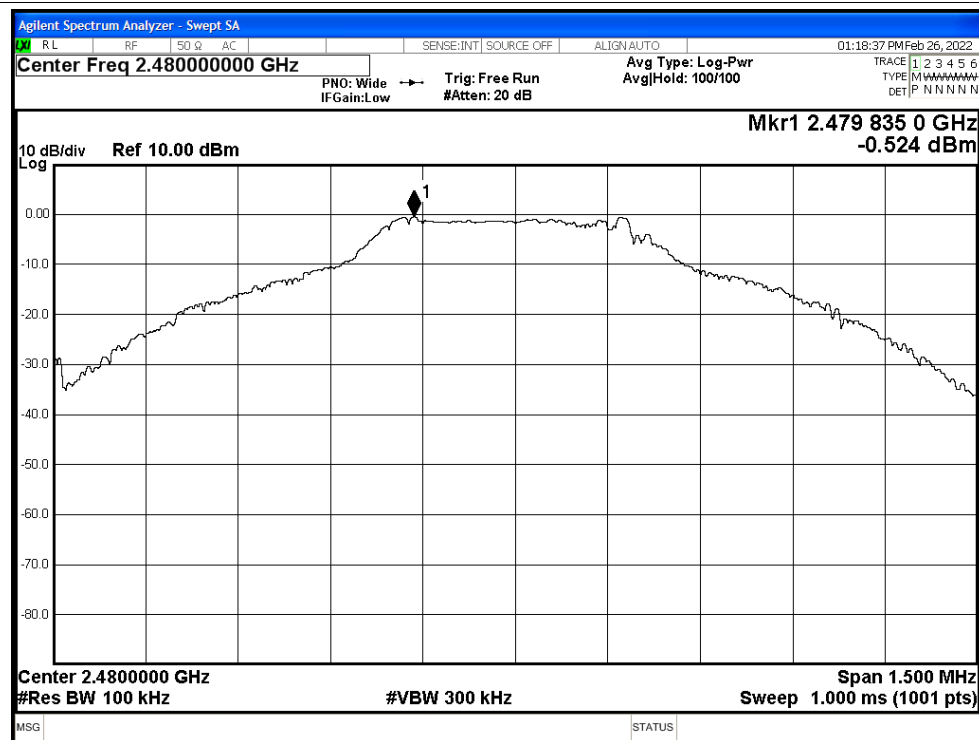


Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission

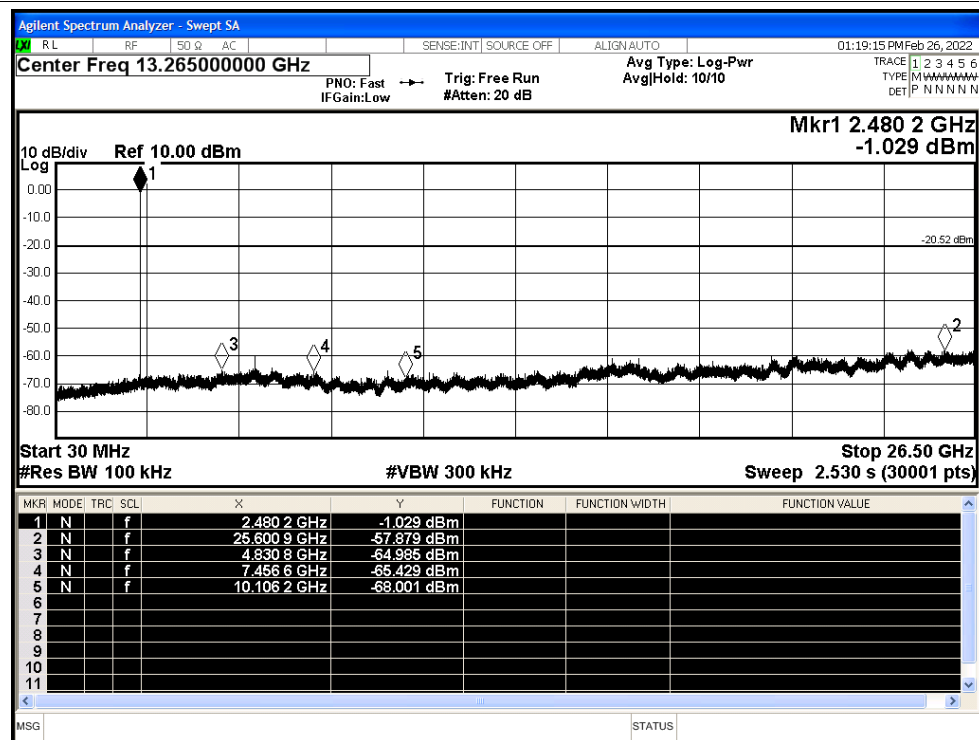




Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref

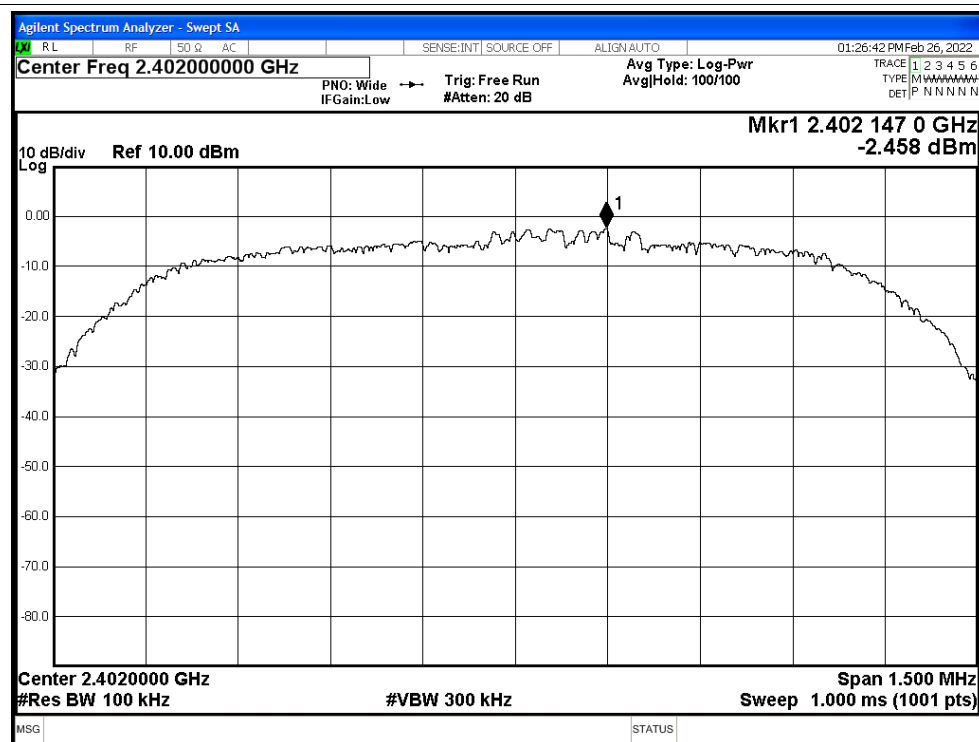


Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Emission

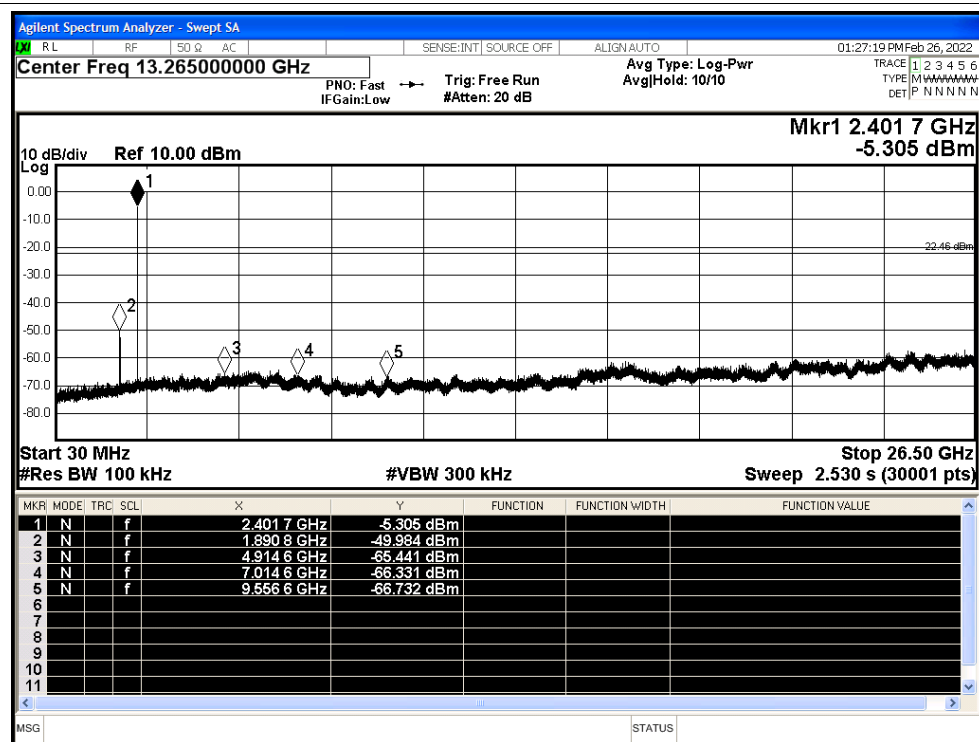




Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Ref

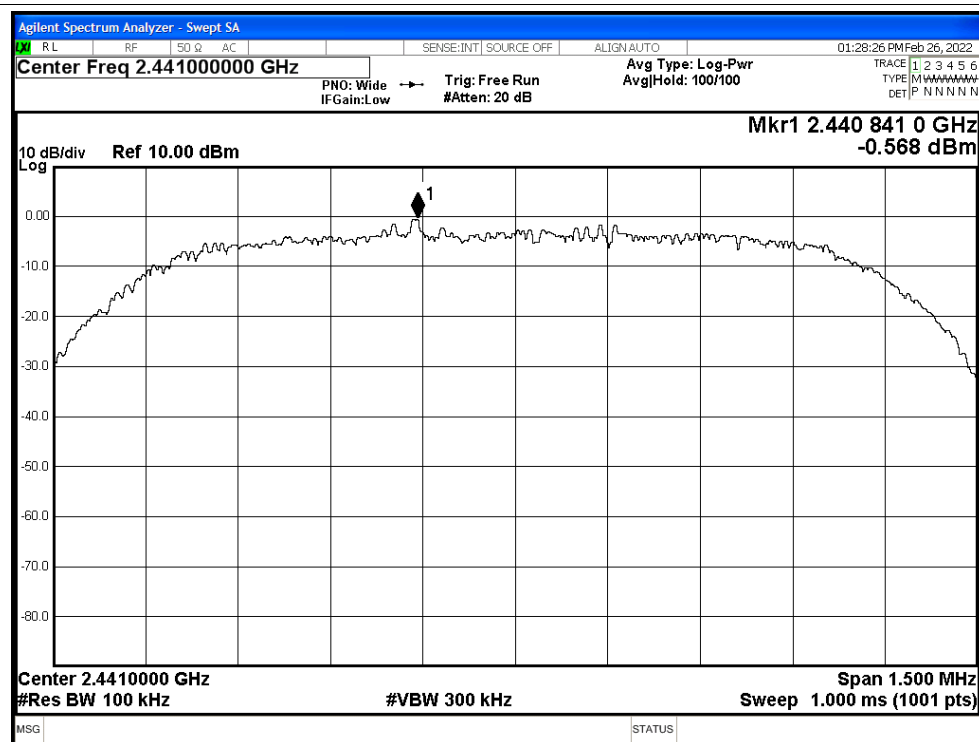


Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Emission

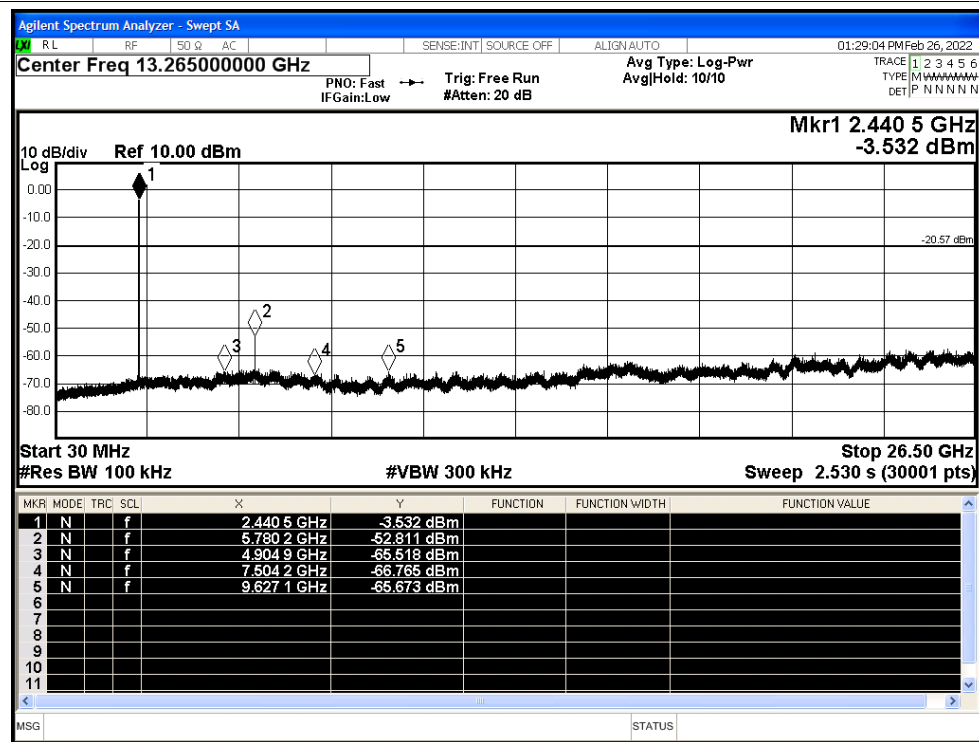




Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Ref

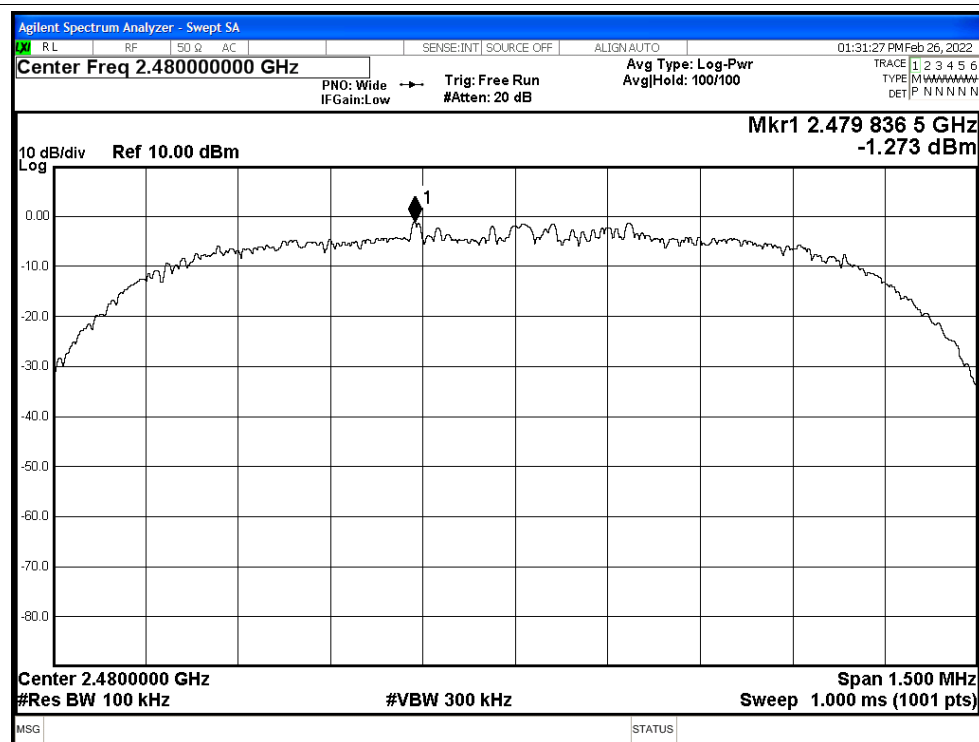


Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Emission

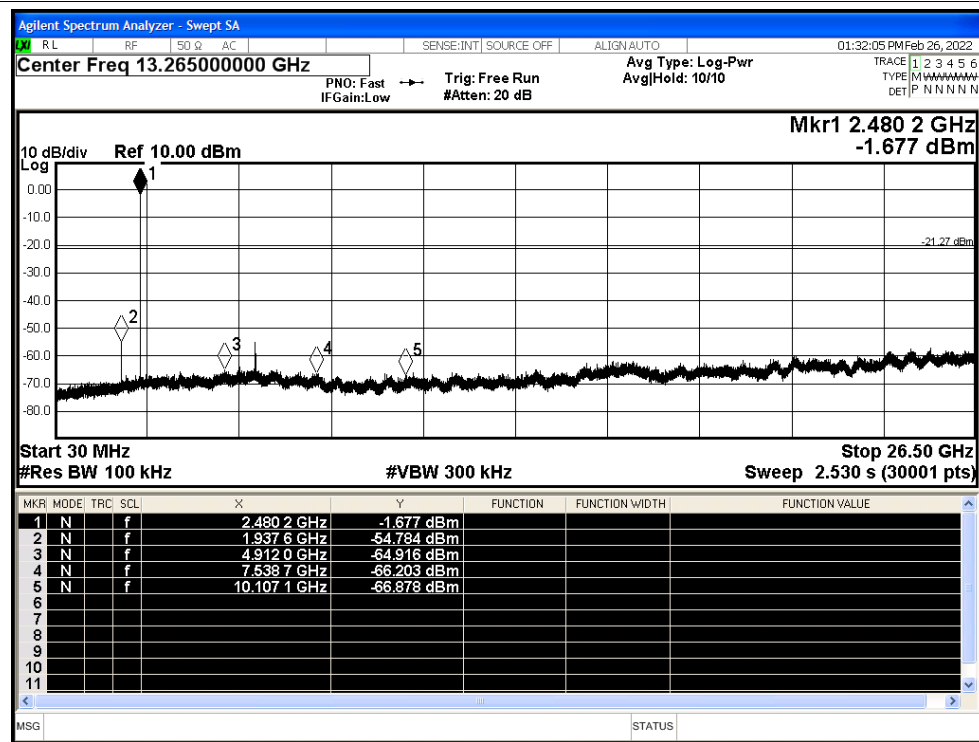




Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Ref

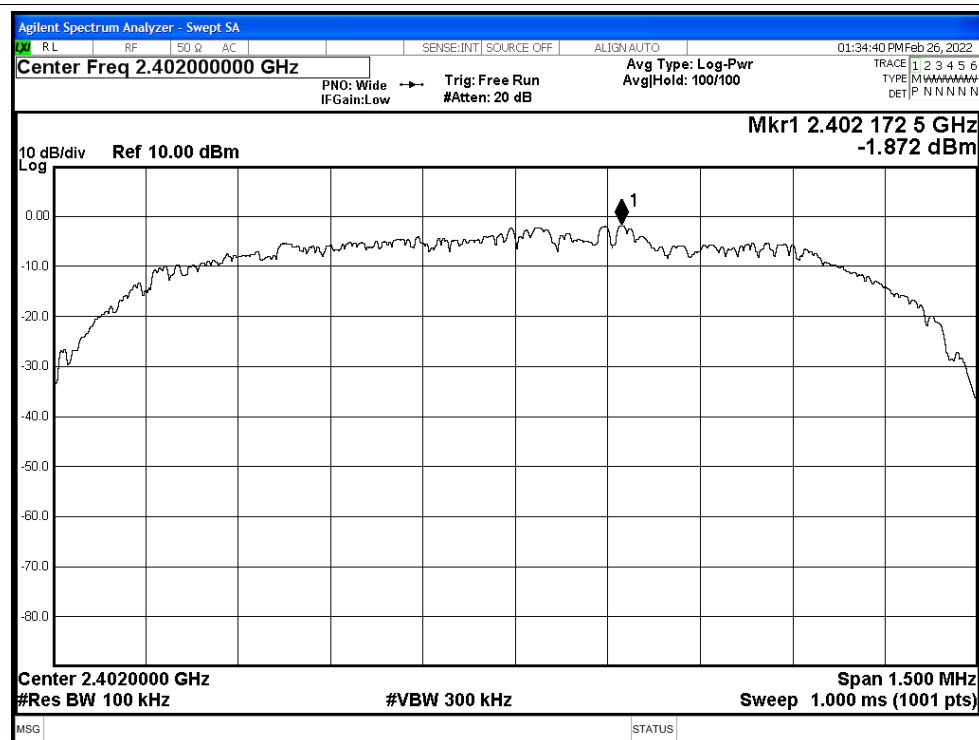


Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Emission

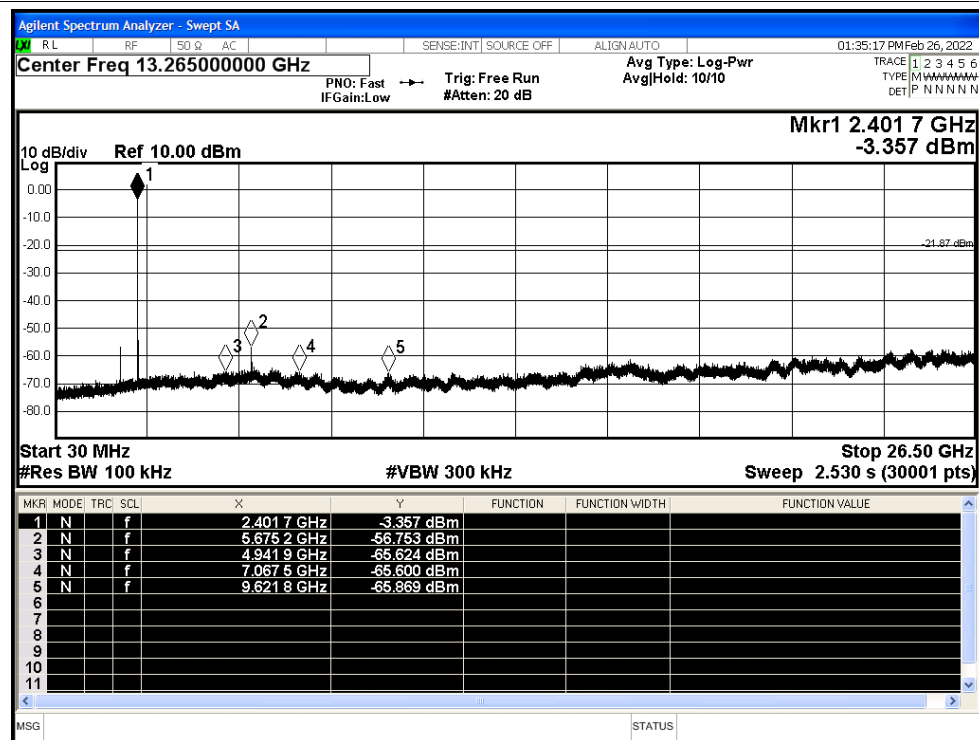




Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Ref

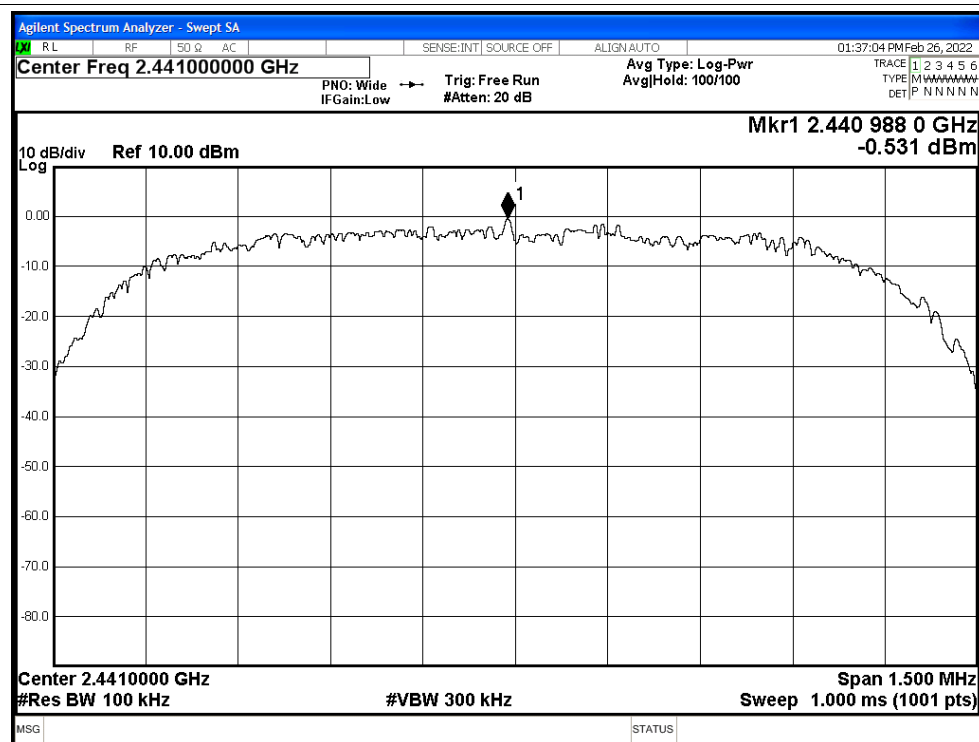


Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Emission

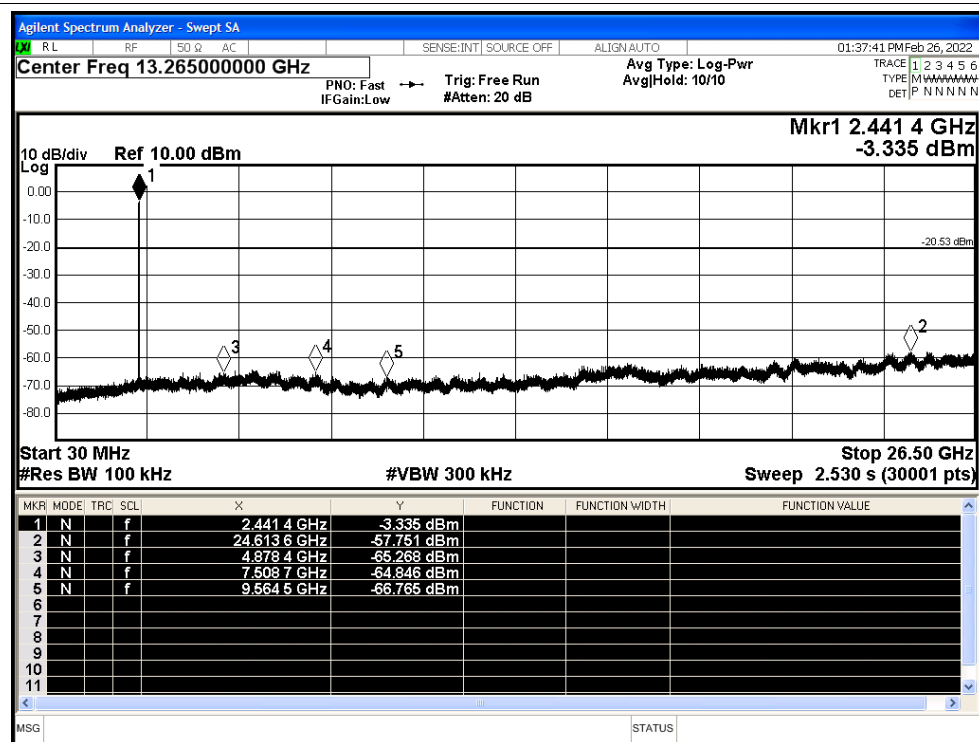




Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Ref

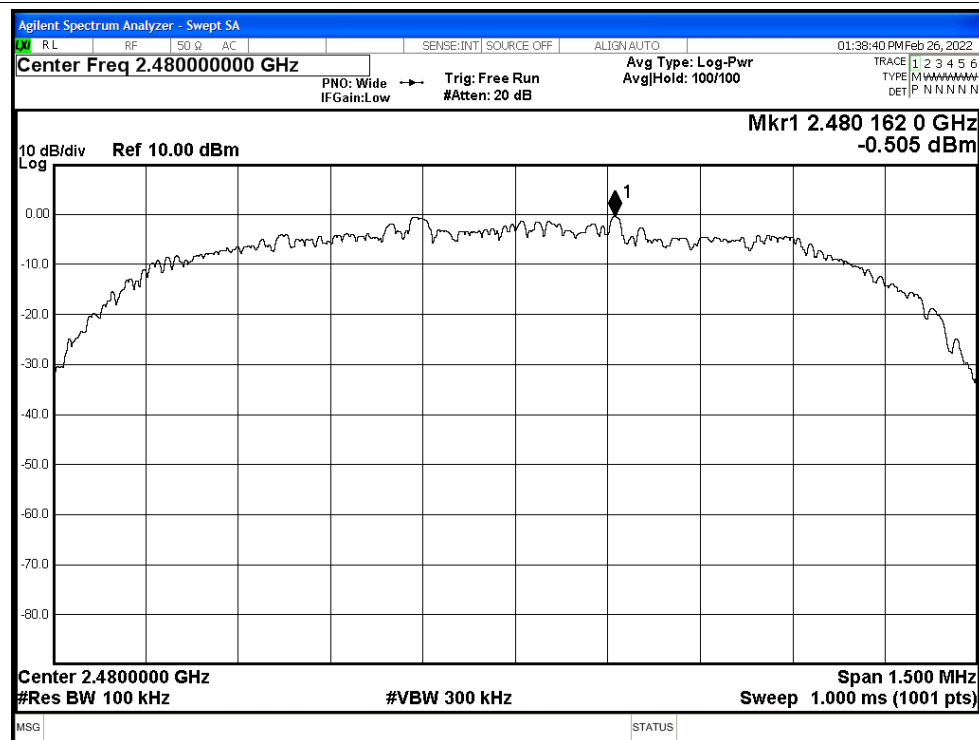


Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Emission

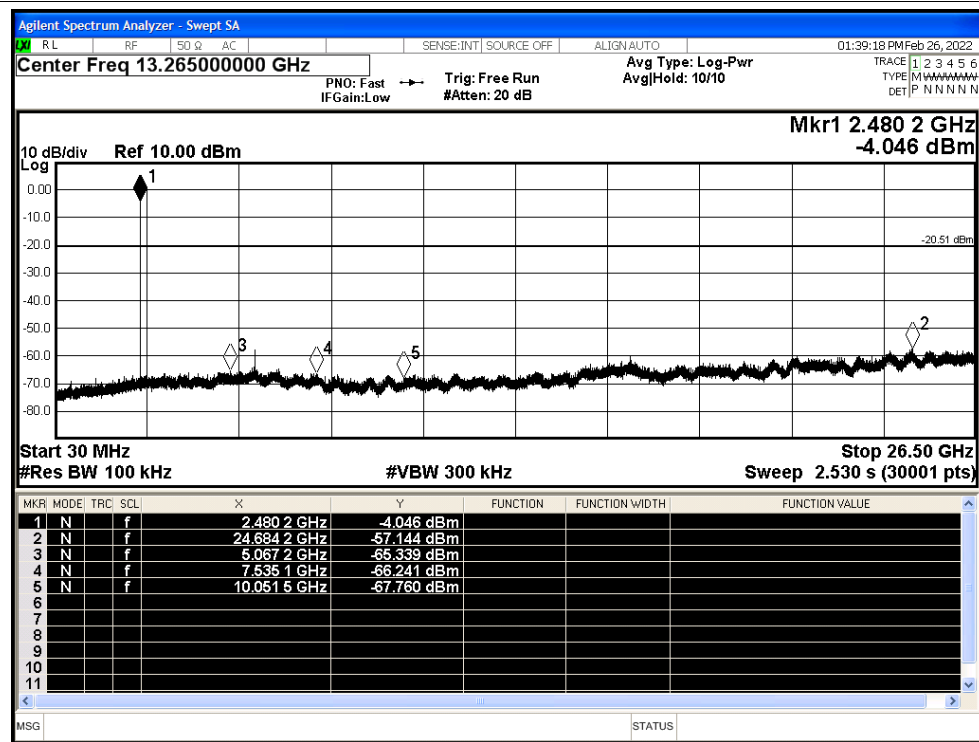




Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Emission





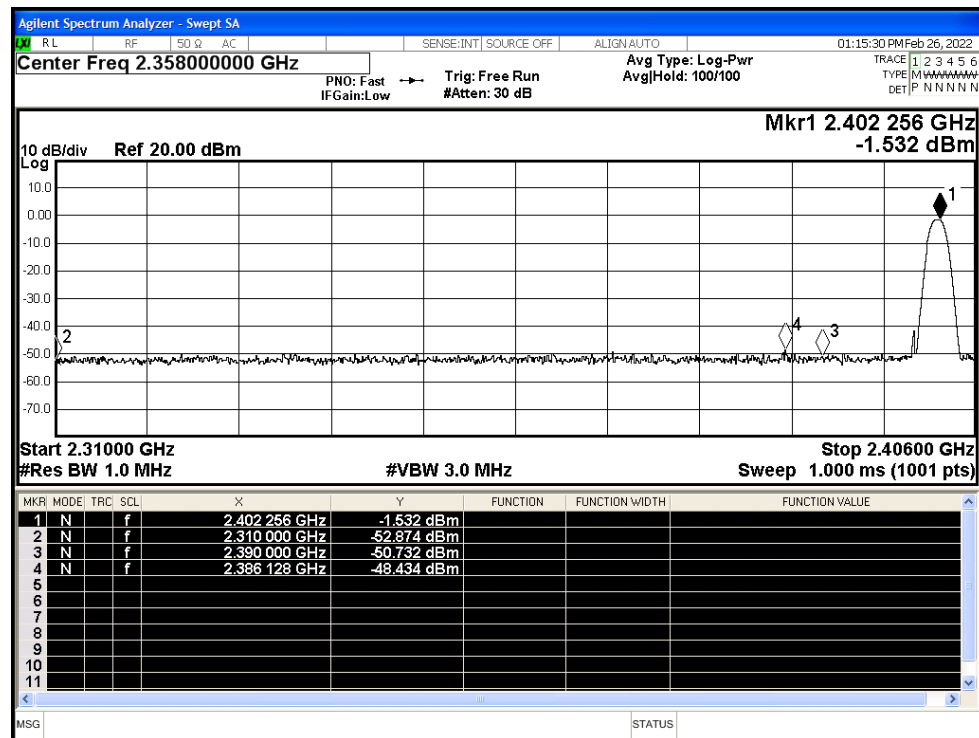
A.8 Restrict Band

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	-52.87	2	44.39	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-61.91	2	35.35	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2386.128	-48.43	2	48.83	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2372.016	-61.55	2	35.71	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-51.53	2	45.73	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-61.7	2	35.56	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-50.25	2	47.01	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-60.71	2	36.55	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2487.976	-48.88	2	48.38	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.536	-60.66	2	36.6	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-52.67	2	44.59	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-61.56	2	35.7	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-52.32	2	44.94	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-62.13	2	35.13	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2353.392	-49.12	2	48.14	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2383.248	-61.54	2	35.72	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-52.74	2	44.52	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-61.67	2	35.59	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-51.18	2	46.08	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-60.93	2	36.33	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2485.84	-48.42	2	48.84	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.608	-60.89	2	36.37	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-51.56	2	45.7	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-61.51	2	35.75	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-53.57	2	43.69	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-62.12	2	35.14	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2319.312	-49.01	2	48.25	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2379.504	-61.5	2	35.76	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-51.21	2	46.05	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-61.87	2	35.39	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-51.86	2	45.4	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-60.64	2	36.62	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2495.872	-49.06	2	48.2	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.512	-60.64	2	36.62	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-51.82	2	45.44	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-61.7	2	35.56	Average	54	Pass

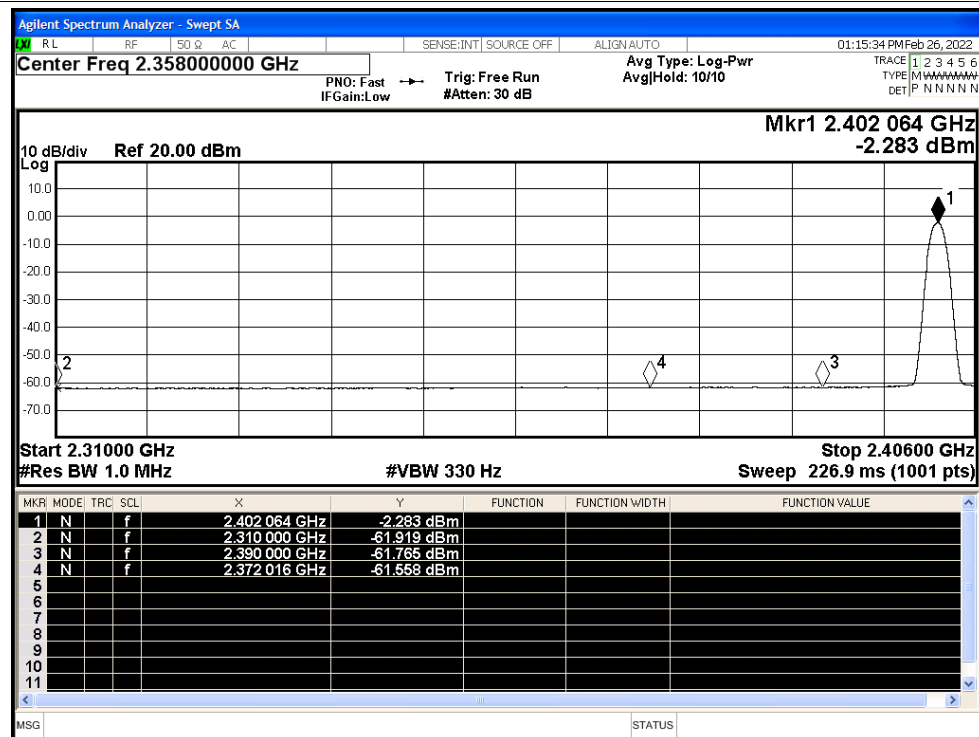


Test Graphs

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

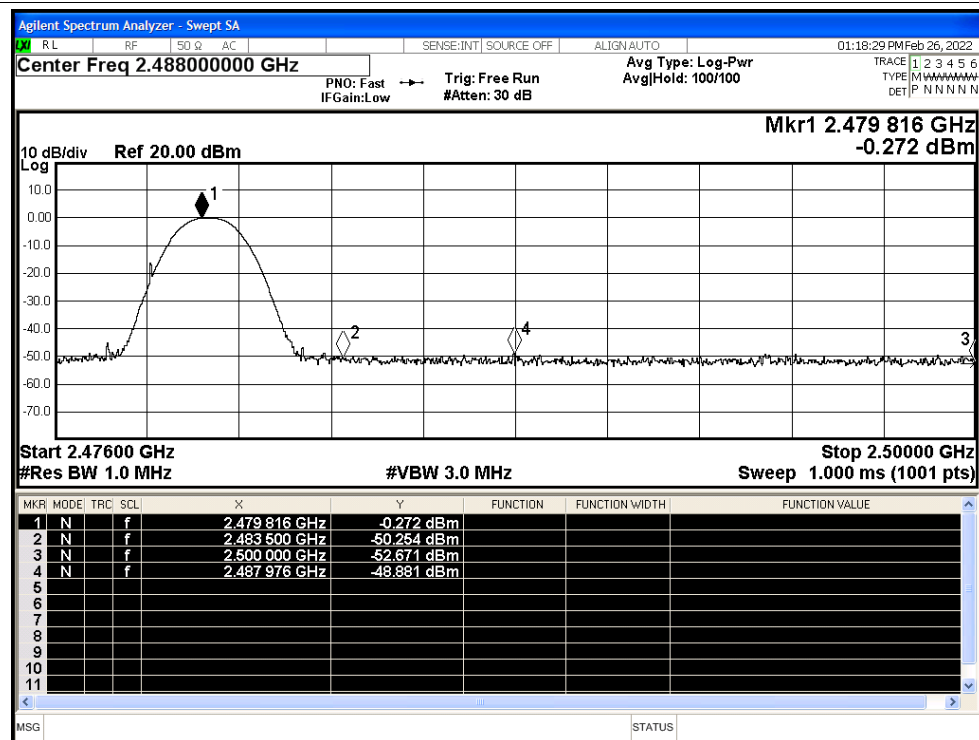


Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Average

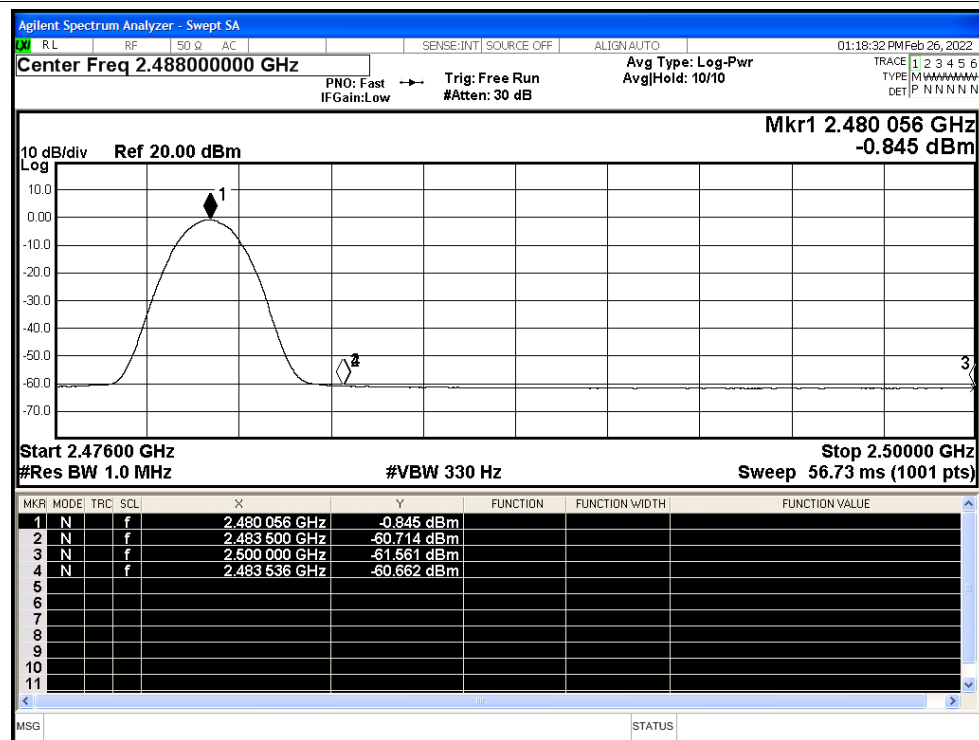




Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Peak

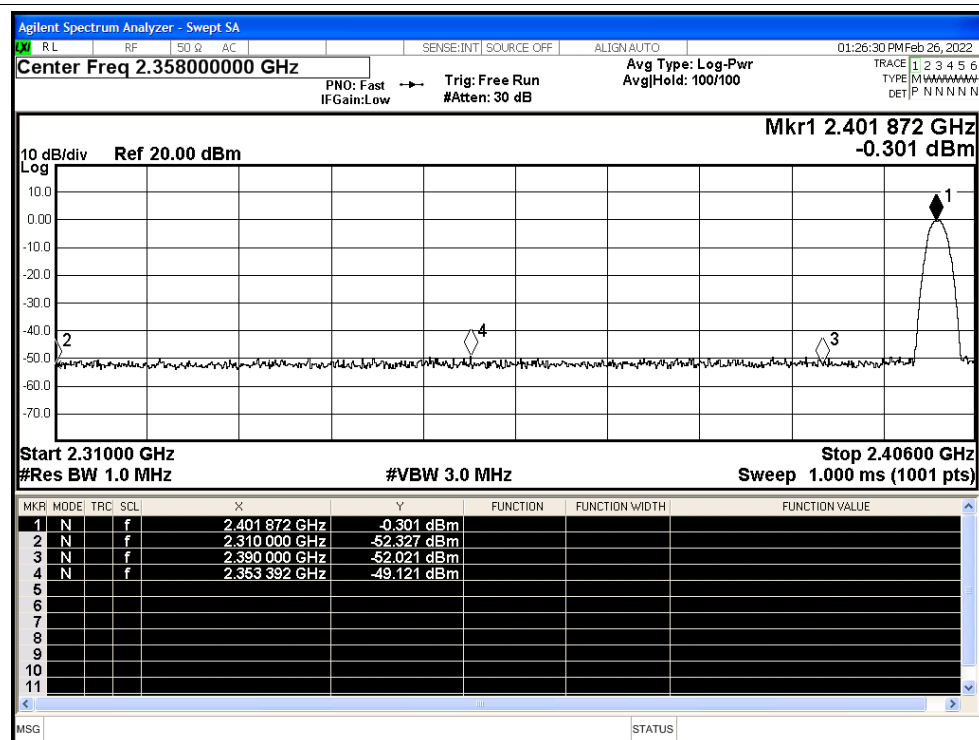


Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Average

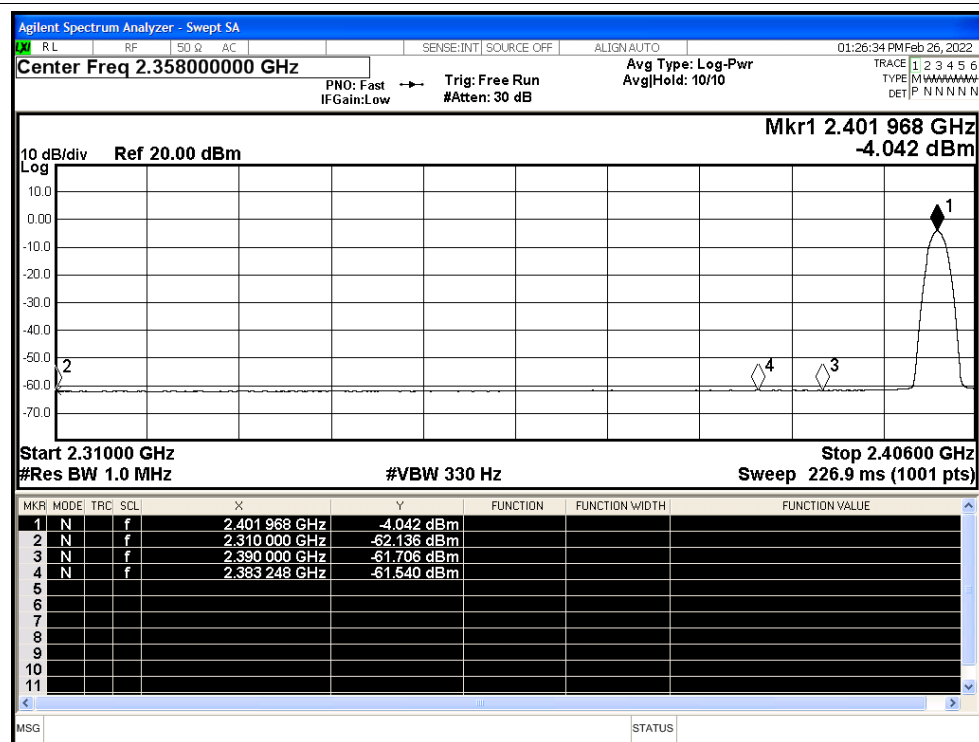




Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Peak

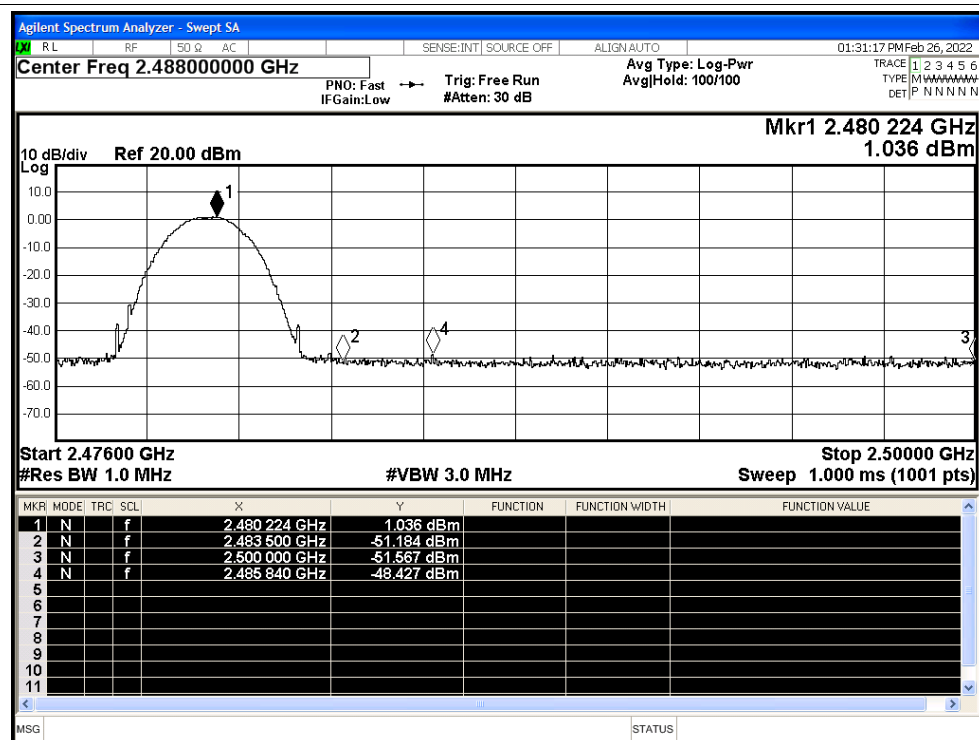


Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Average

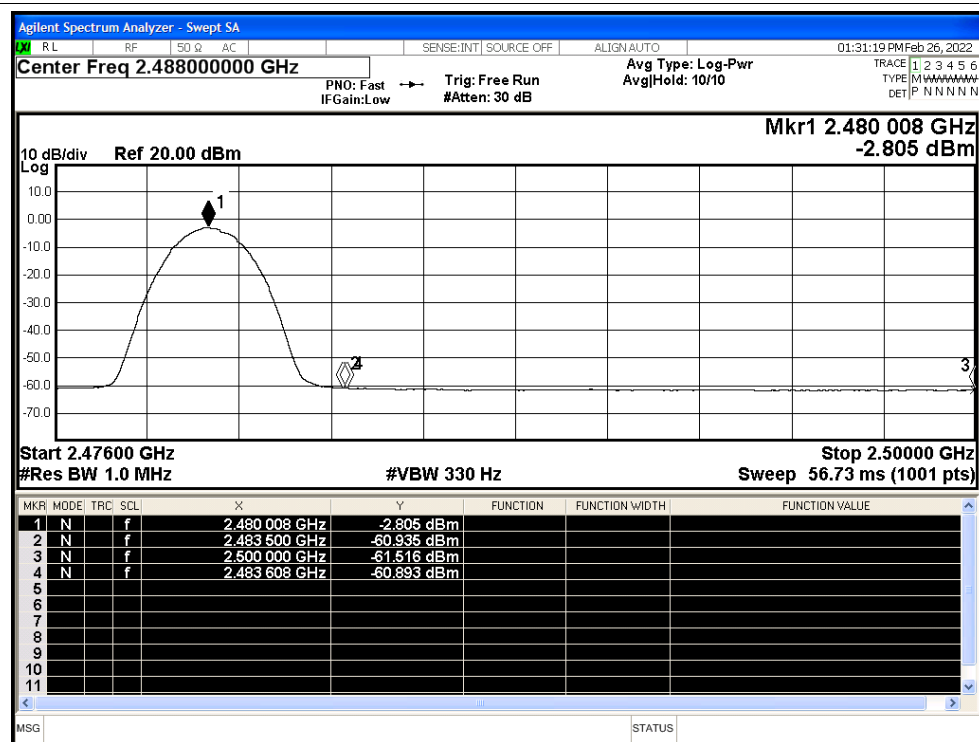




Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Peak

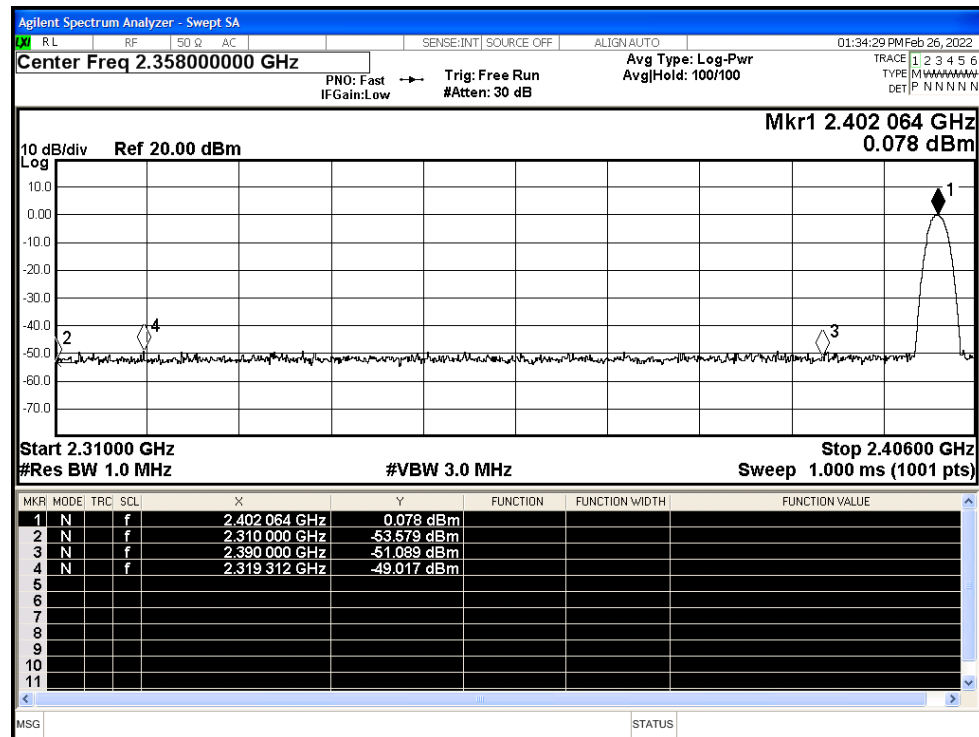


Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Average

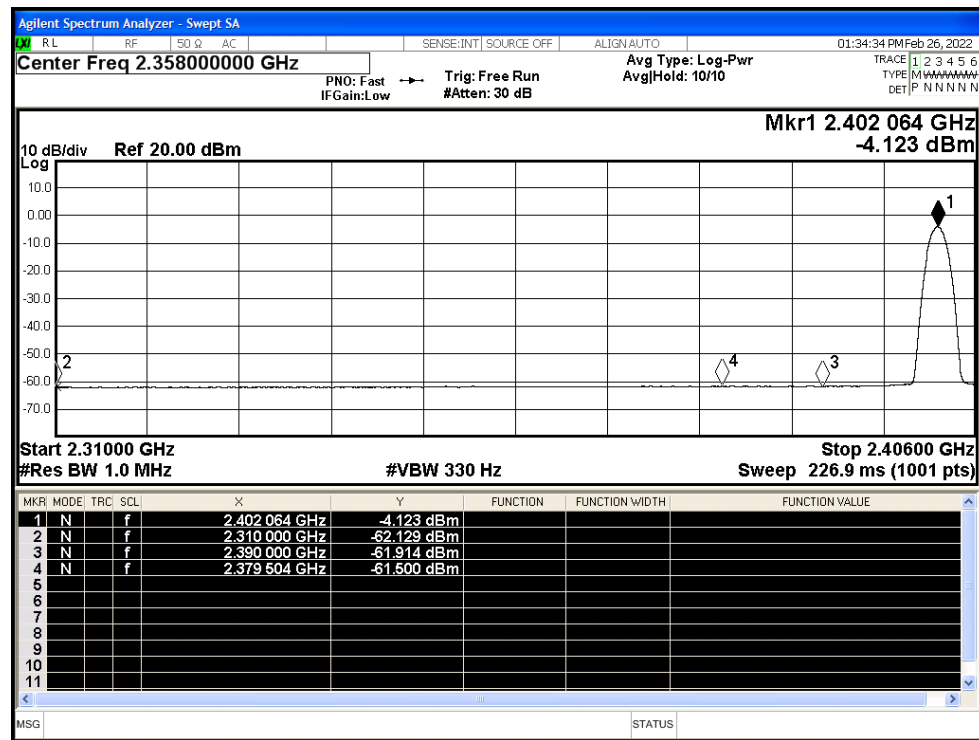




Restrict Band NVNT 3-DH5 2402MHz Ant1 No-Hopping Peak

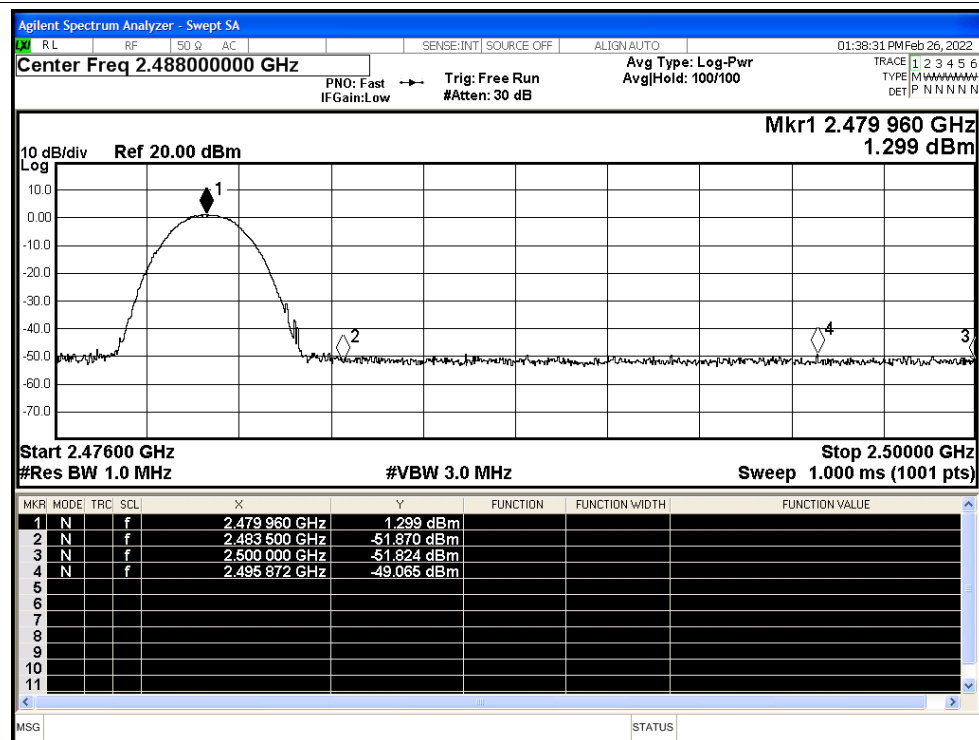


Restrict Band NVNT 3-DH5 2402MHz Ant1 No-Hopping Average





Restrict Band NVNT 3-DH5 2480MHz Ant1 No-Hopping Peak



Restrict Band NVNT 3-DH5 2480MHz Ant1 No-Hopping Average

