



Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: H2O TRI 2 PRO

Test Model: H2O TRI 2 PRO

Environmental Conditions

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





A.1 -20dB Bandwidth

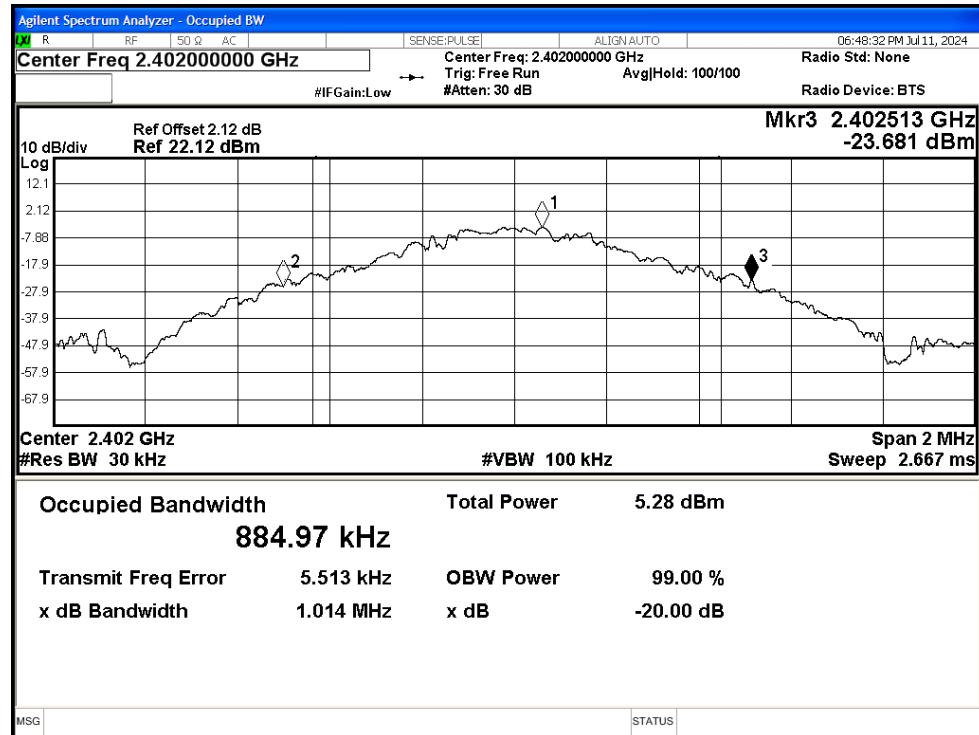
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH5	2402	Ant1	1.014	N/A	Pass
NVNT	1-DH5	2441	Ant1	0.948	N/A	Pass
NVNT	1-DH5	2480	Ant1	0.949	N/A	Pass
NVNT	2-DH5	2402	Ant1	1.282	N/A	Pass
NVNT	2-DH5	2441	Ant1	1.299	N/A	Pass
NVNT	2-DH5	2480	Ant1	1.287	N/A	Pass
NVNT	3-DH5	2402	Ant1	1.294	N/A	Pass
NVNT	3-DH5	2441	Ant1	1.293	N/A	Pass
NVNT	3-DH5	2480	Ant1	1.283	N/A	Pass



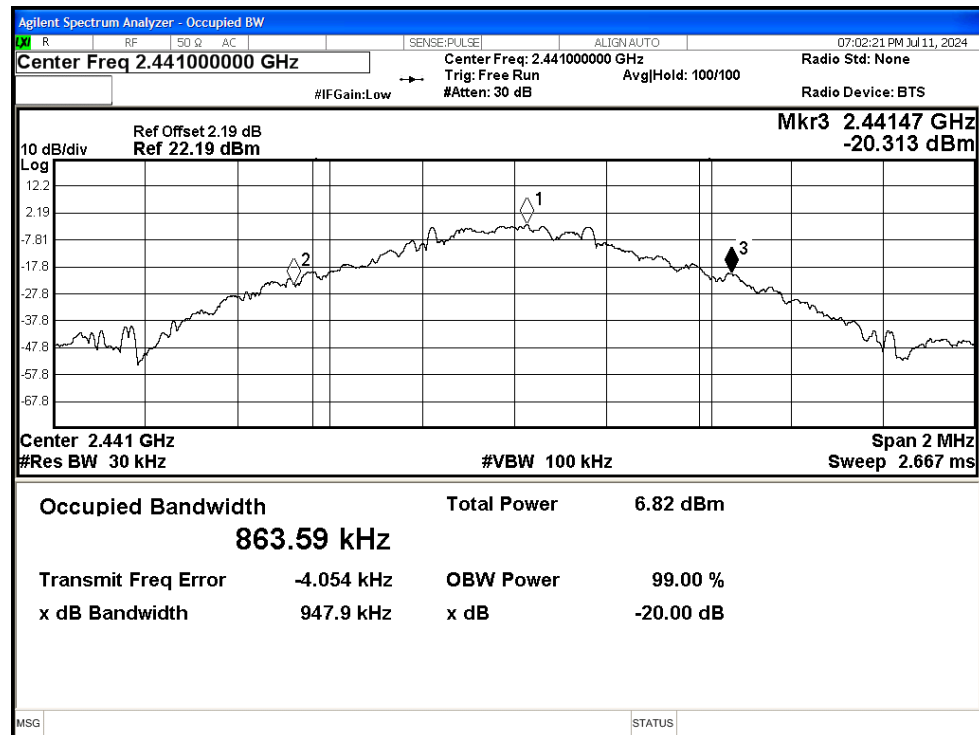


Test Graphs

-20dB Bandwidth NVNT 1-DH5 2402MHz Ant1



-20dB Bandwidth NVNT 1-DH5 2441MHz Ant1

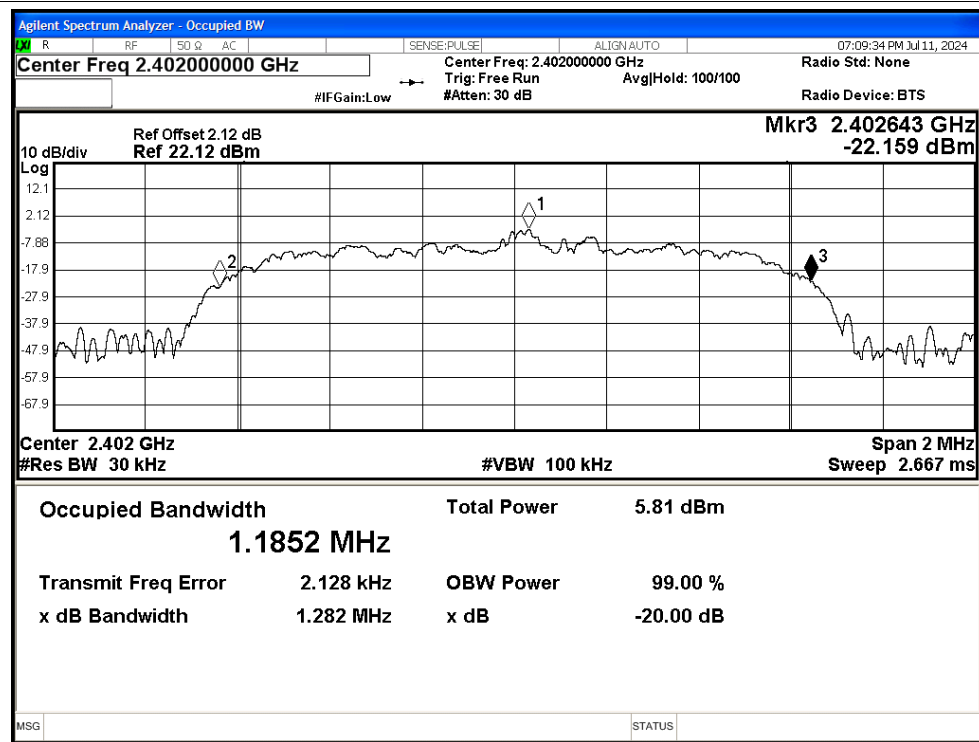




-20dB Bandwidth NVNT 1-DH5 2480MHz Ant1

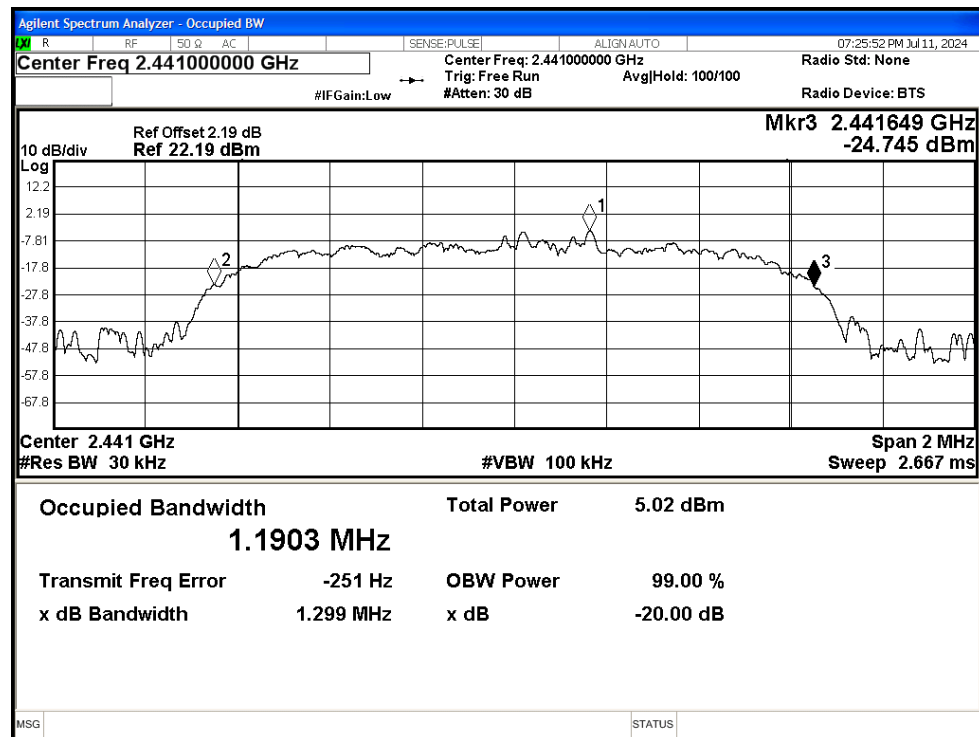


-20dB Bandwidth NVNT 2-DH5 2402MHz Ant1

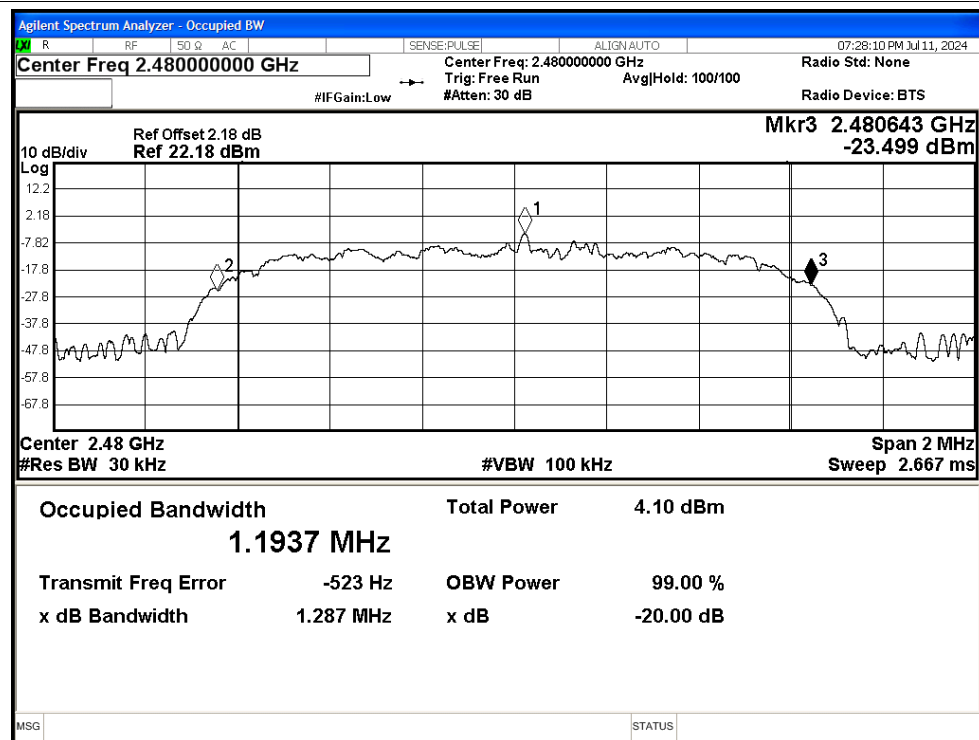




-20dB Bandwidth NVNT 2-DH5 2441MHz Ant1

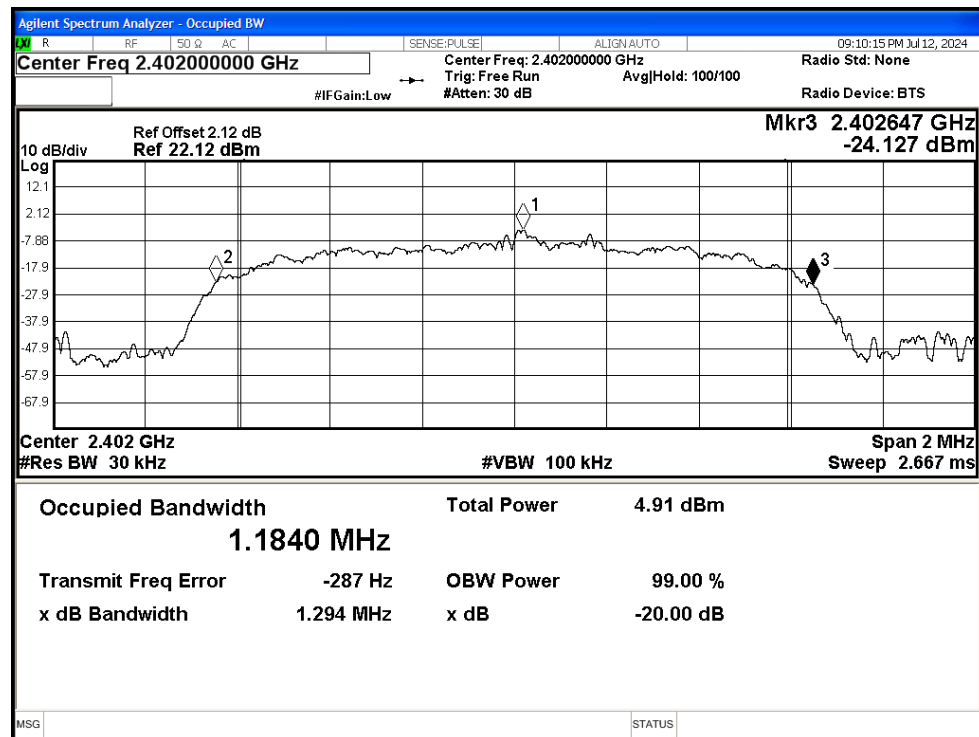


-20dB Bandwidth NVNT 2-DH5 2480MHz Ant1

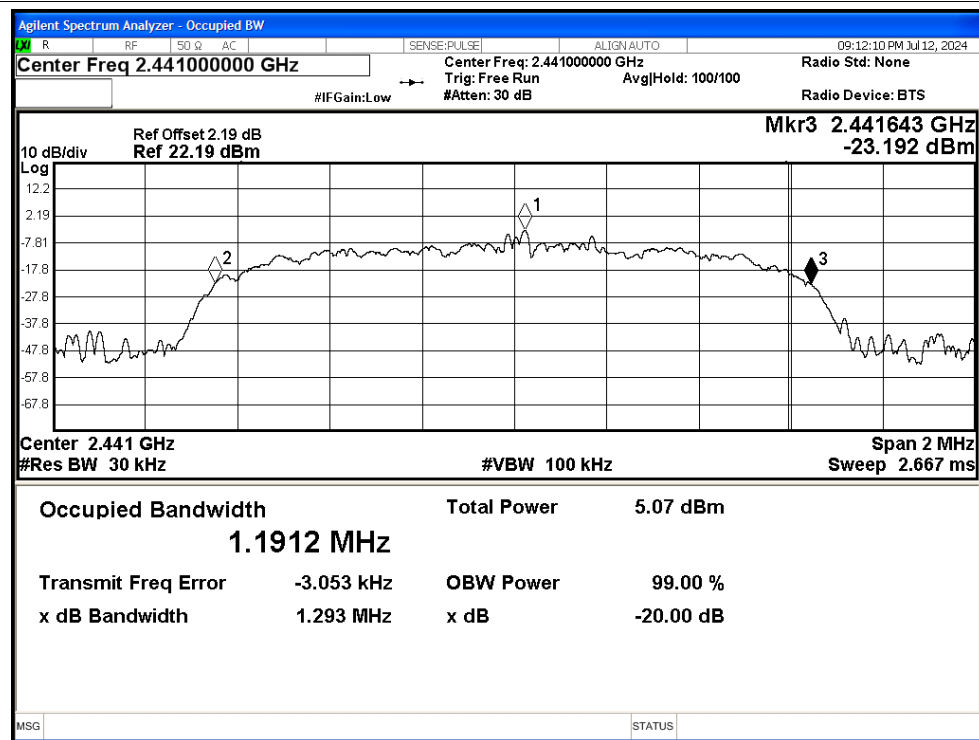


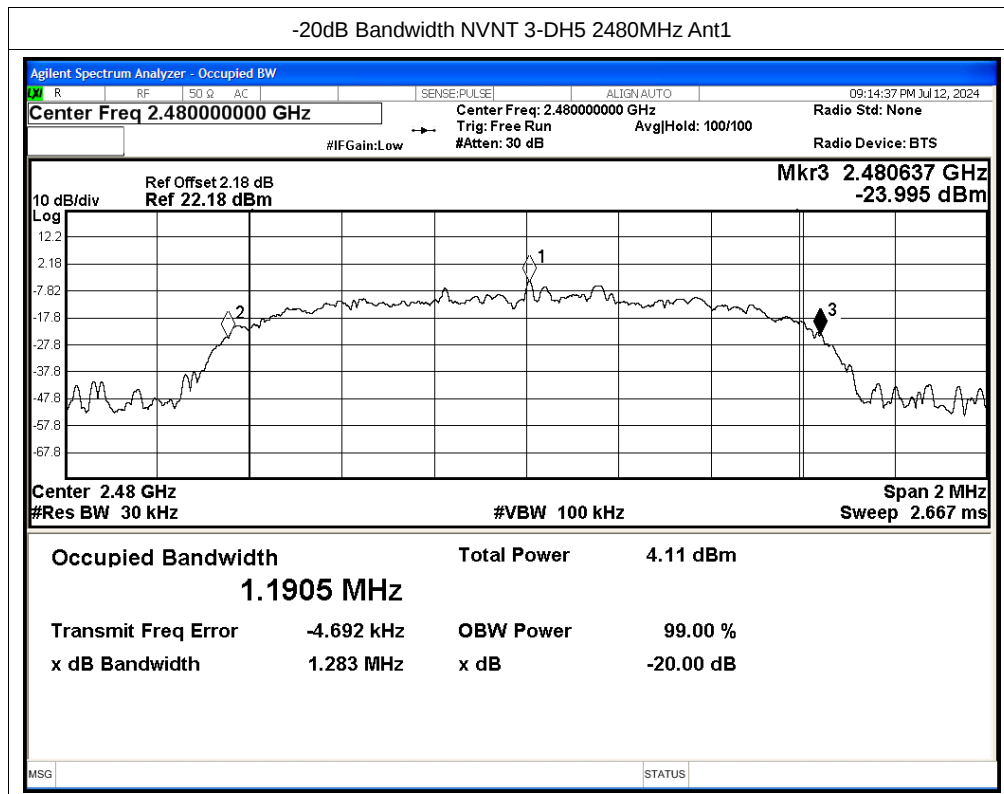


-20dB Bandwidth NVNT 3-DH5 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH5 2441MHz Ant1







A.2 Maximum Peak Conducted Output Power

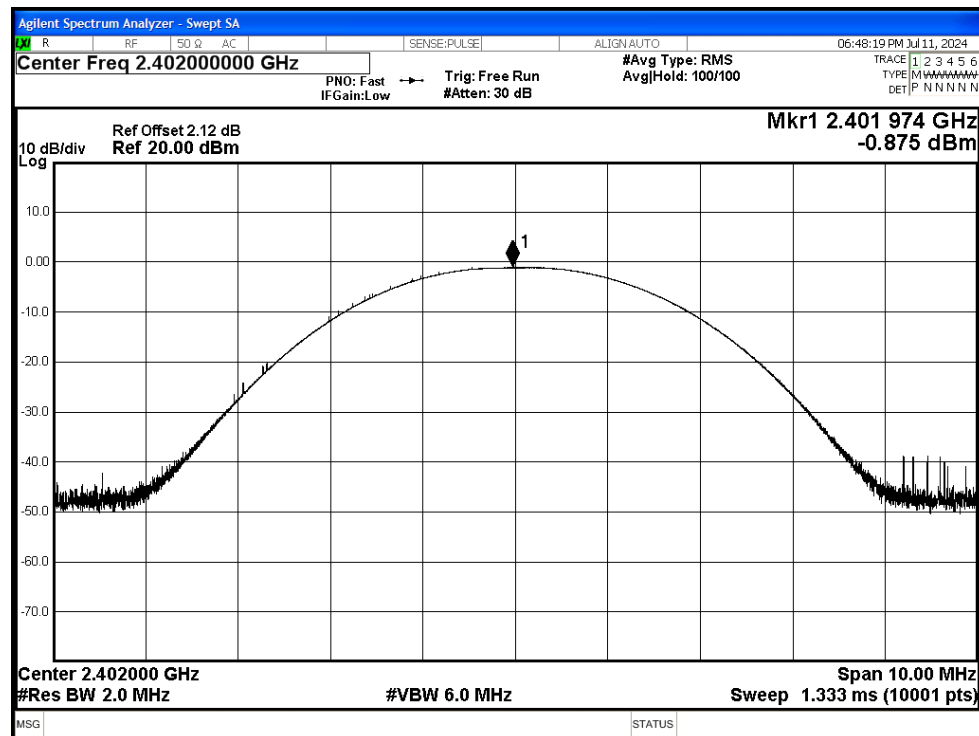
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH5	2402	Ant1	-0.88	21	Pass
NVNT	1-DH5	2441	Ant1	0.52	21	Pass
NVNT	1-DH5	2480	Ant1	0.66	21	Pass
NVNT	2-DH5	2402	Ant1	1.06	21	Pass
NVNT	2-DH5	2441	Ant1	0.48	21	Pass
NVNT	2-DH5	2480	Ant1	-0.44	21	Pass
NVNT	3-DH5	2402	Ant1	0.62	21	Pass
NVNT	3-DH5	2441	Ant1	-0.08	21	Pass
NVNT	3-DH5	2480	Ant1	-0.05	21	Pass



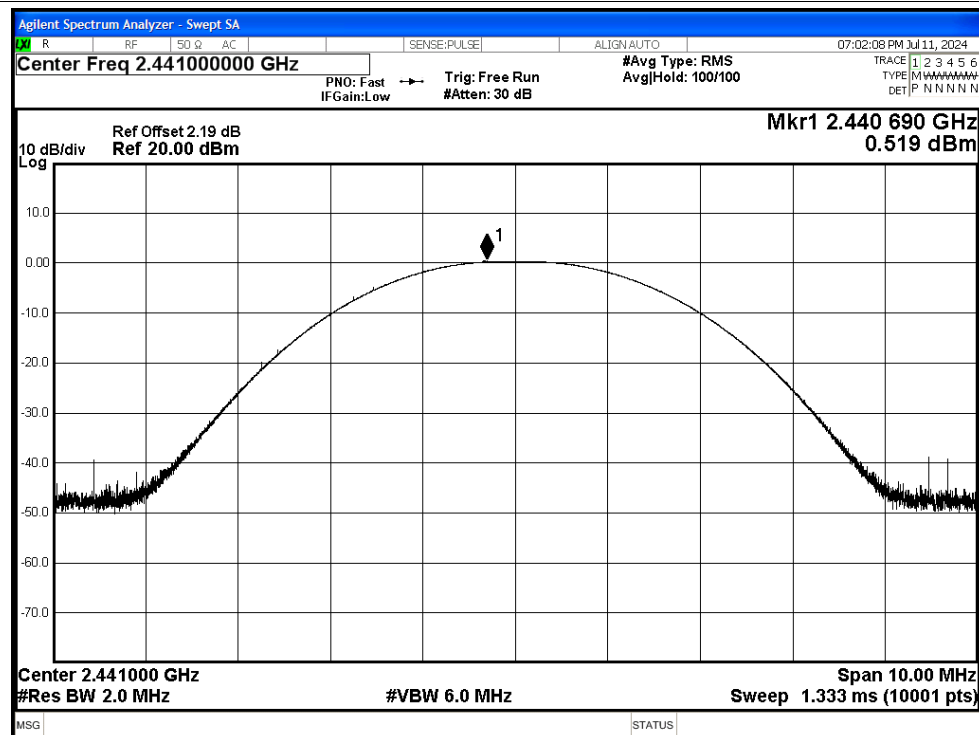


Test Graphs

Power NVNT 1-DH5 2402MHz Ant1

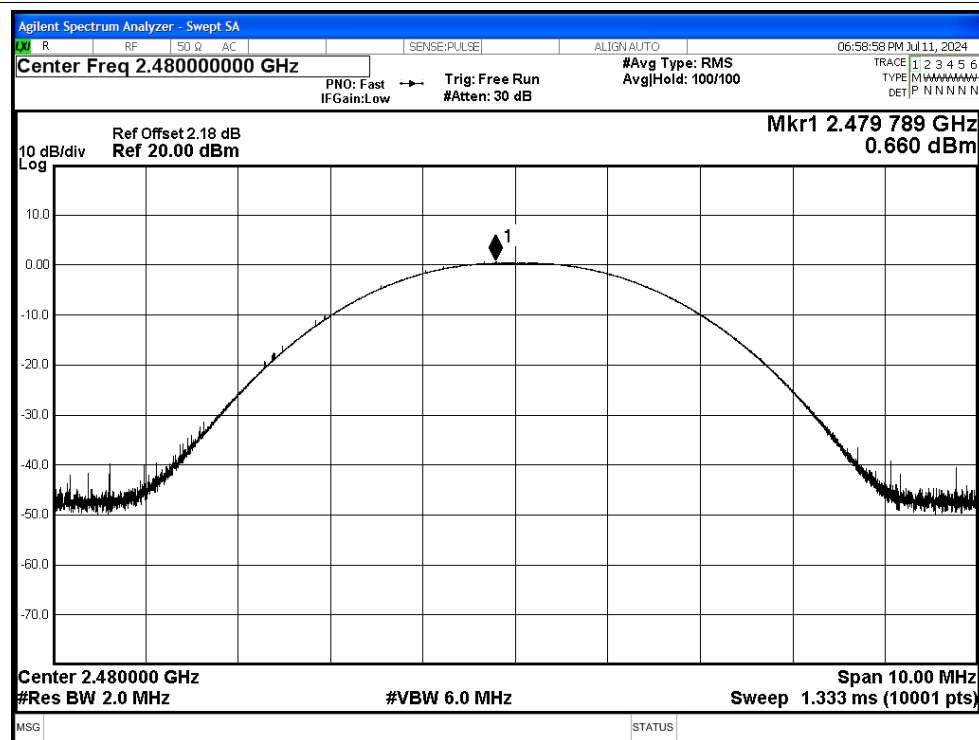


Power NVNT 1-DH5 2441MHz Ant1

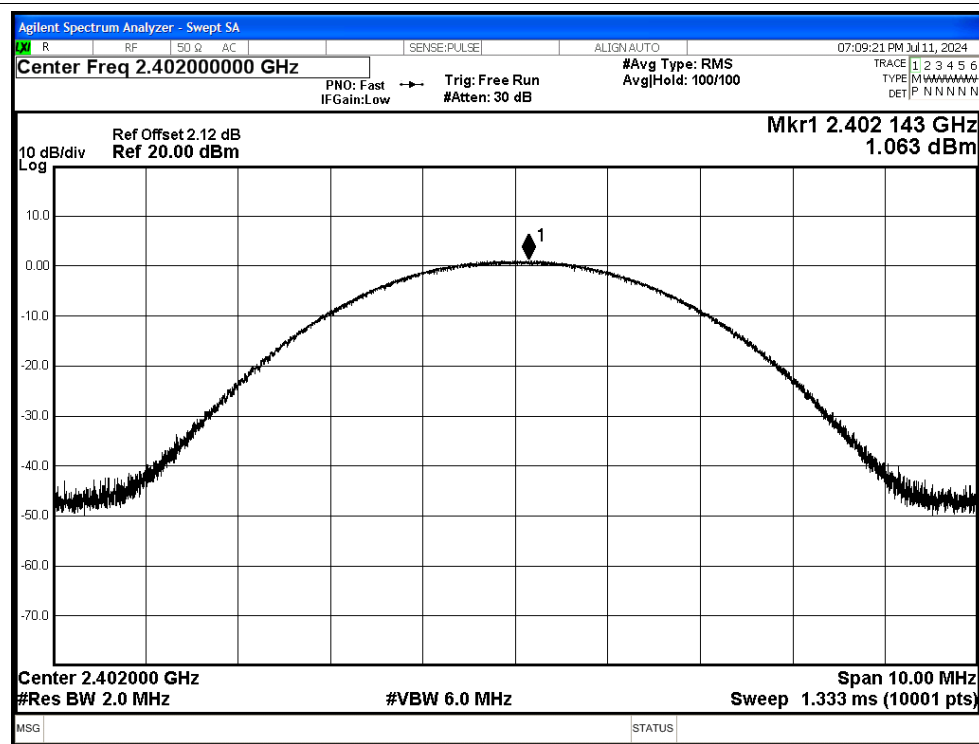




Power NVNT 1-DH5 2480MHz Ant1

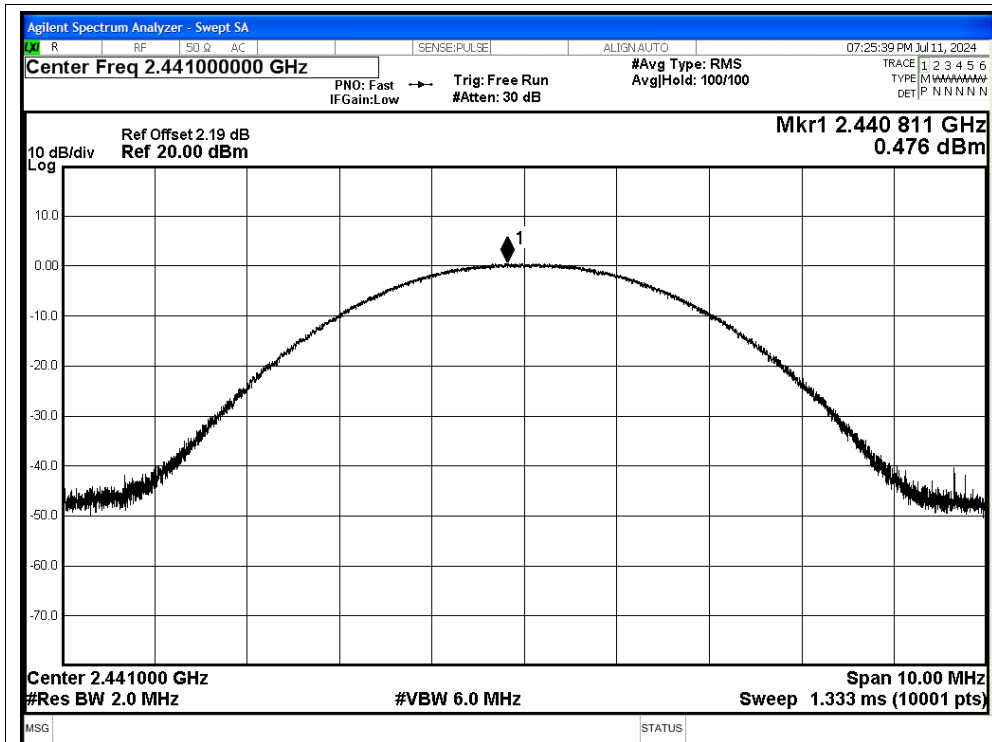


Power NVNT 2-DH5 2402MHz Ant1

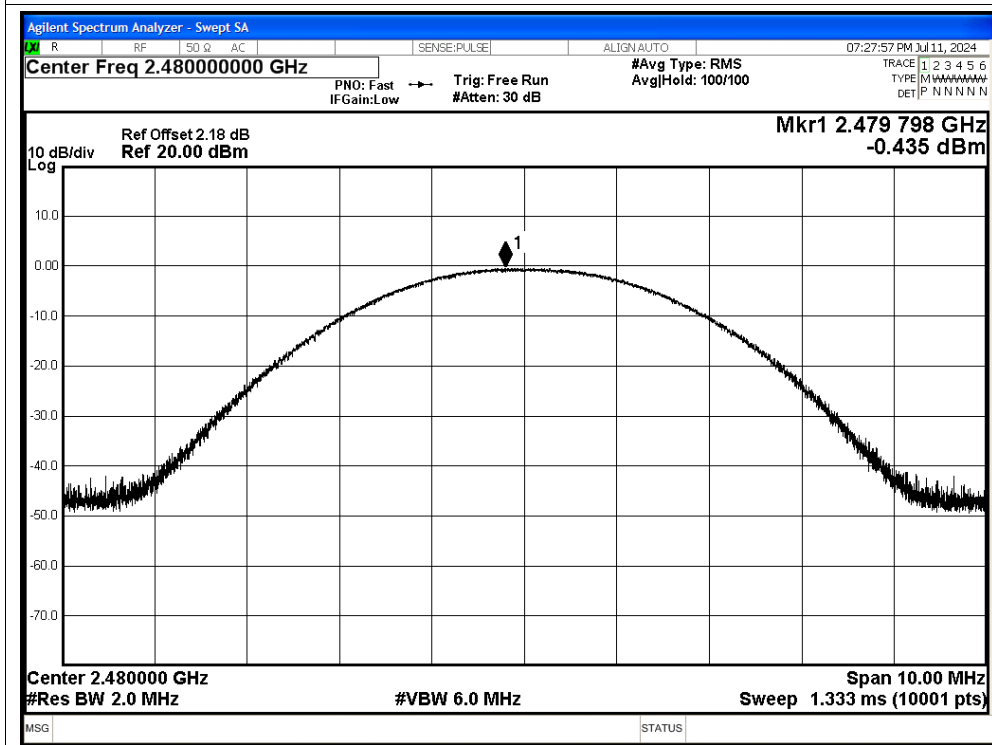


Power NVNT 2-DH5 2441MHz Ant1



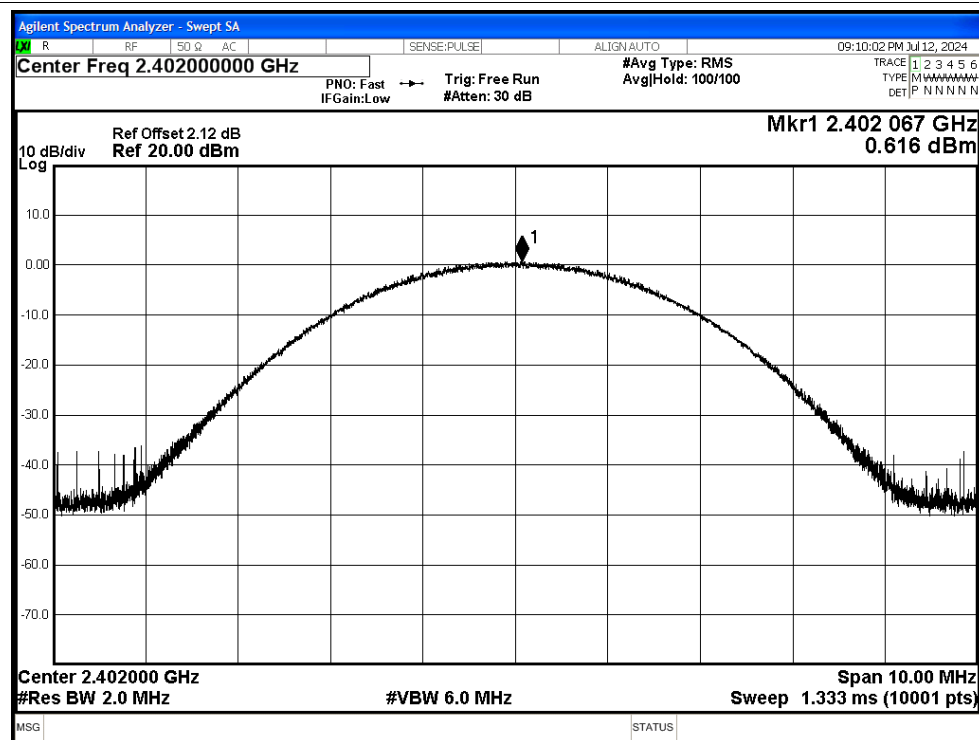


Power NVNT 2-DH5 2480MHz Ant1

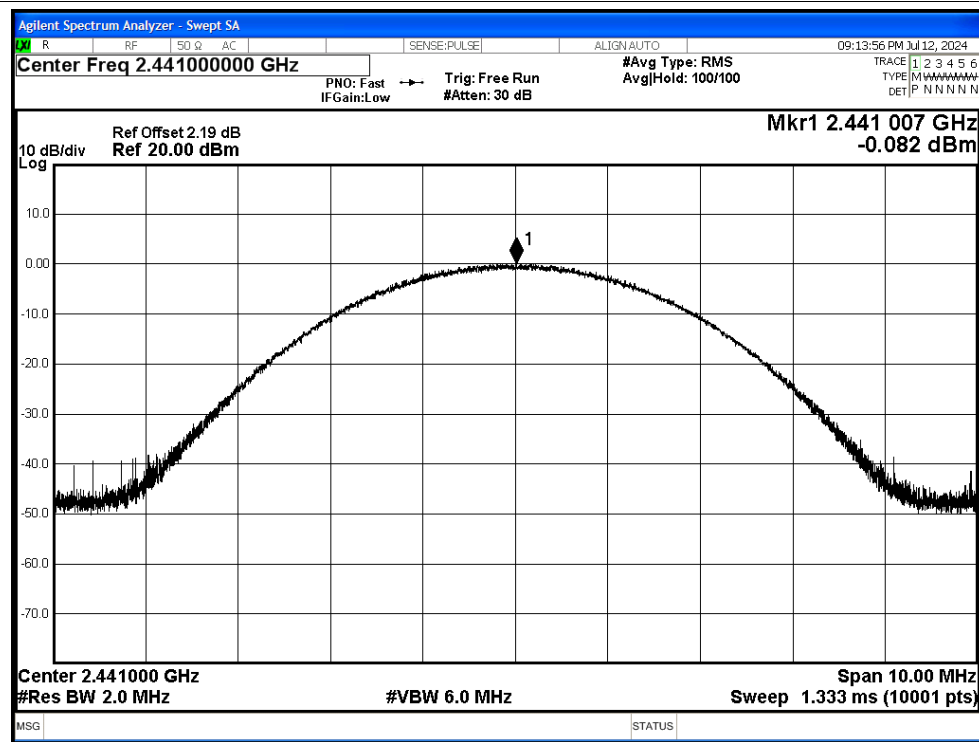


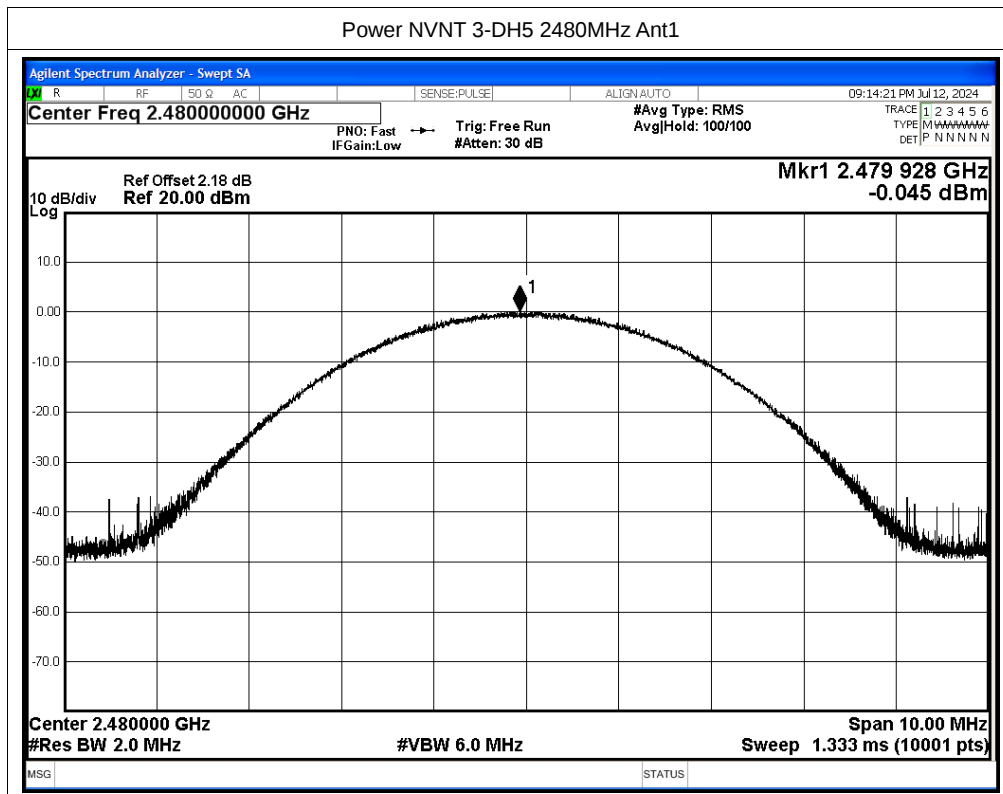


Power NVNT 3-DH5 2402MHz Ant1



Power NVNT 3-DH5 2441MHz Ant1







A.3 Carrier Frequencies Separation

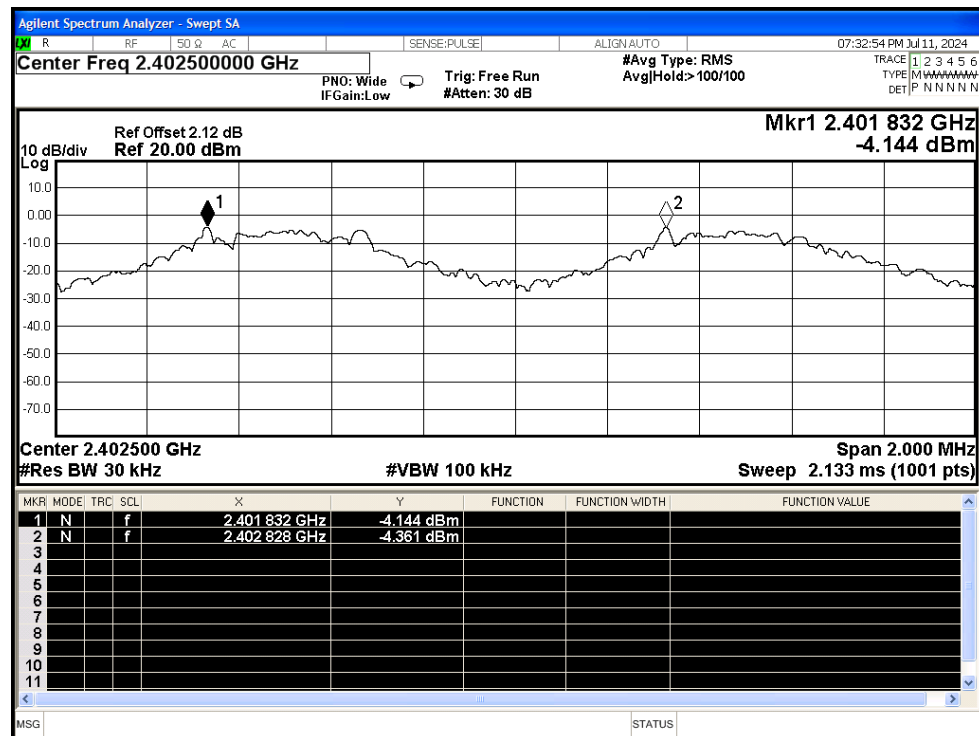
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH5	Ant1	2401.832	2402.828	0.996	0.676	Pass
NVNT	2-DH5	Ant1	2402.012	2403.026	1.014	0.866	Pass
NVNT	3-DH5	Ant1	2402.008	2402.992	0.984	0.863	Pass



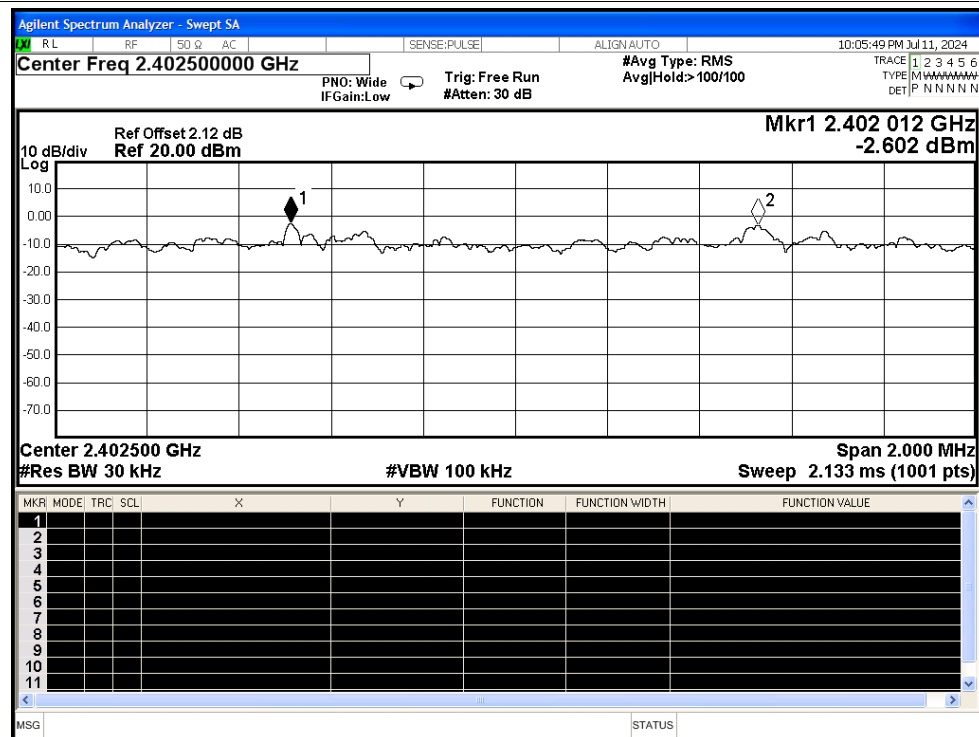


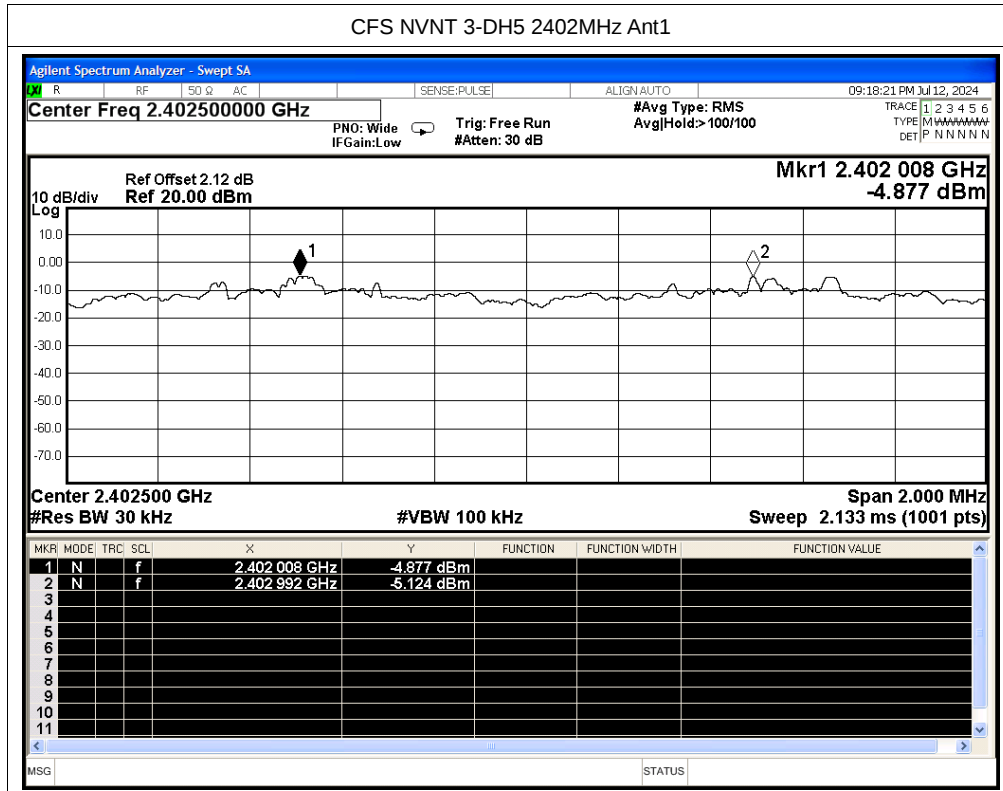
Test Graphs

CFS NVNT 1-DH5 2402MHz Ant1



CFS NVNT 2-DH5 2402MHz Ant1







A.4 Dwell Time

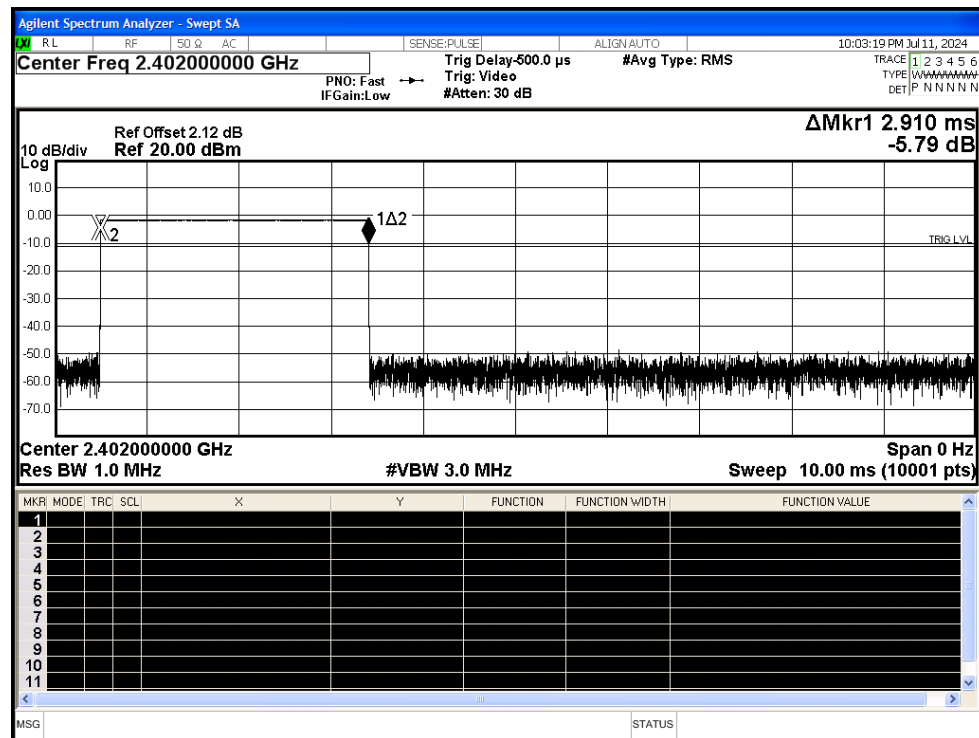
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH5	2402	Ant1	2.91	317.19	109	31600	400	Pass
NVNT	2-DH5	2402	Ant1	2.898	284.004	98	31600	400	Pass
NVNT	3-DH5	2402	Ant1	2.897	289.7	100	31600	400	Pass



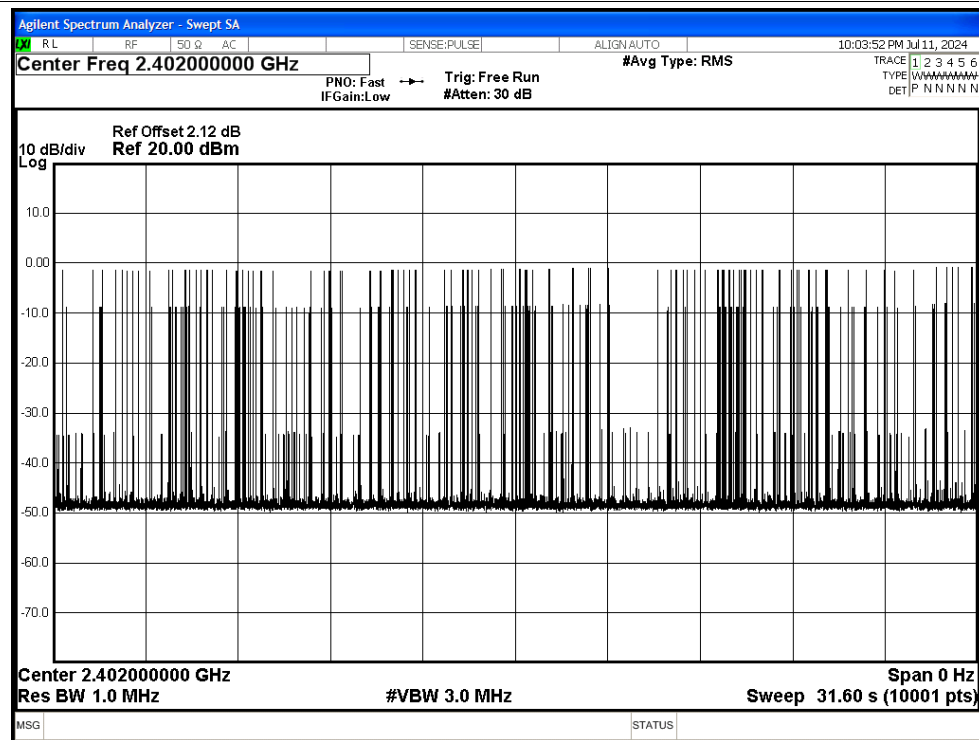


Test Graphs

Dwell NVNT 1-DH5 2402MHz Ant1 One Burst

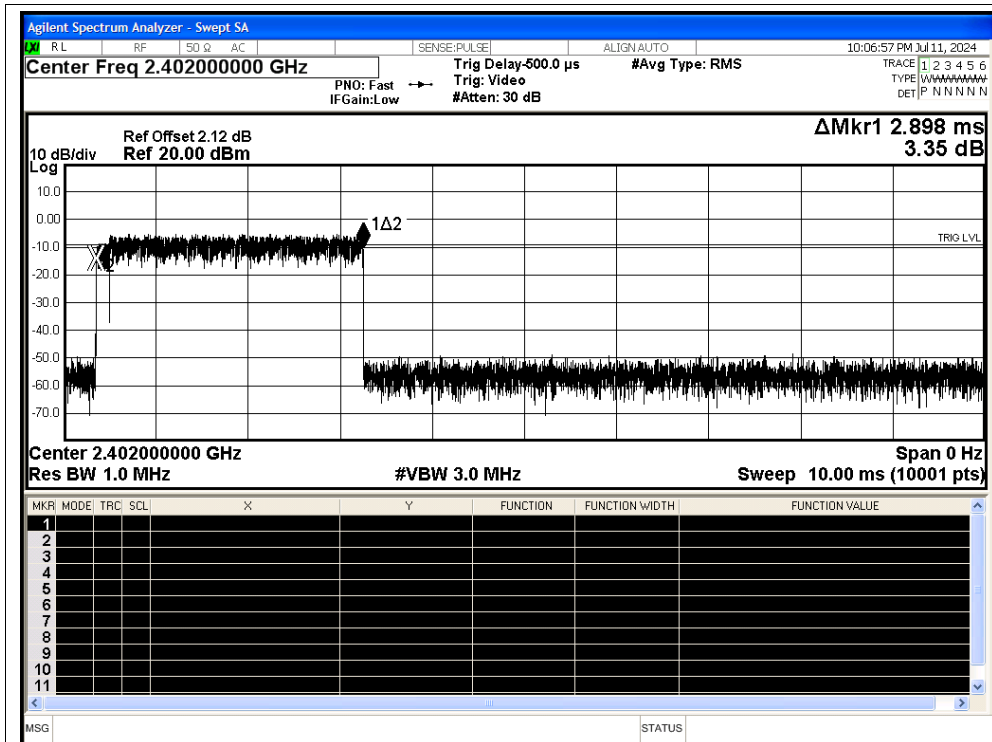


Dwell NVNT 1-DH5 2402MHz Ant1 Accumulated

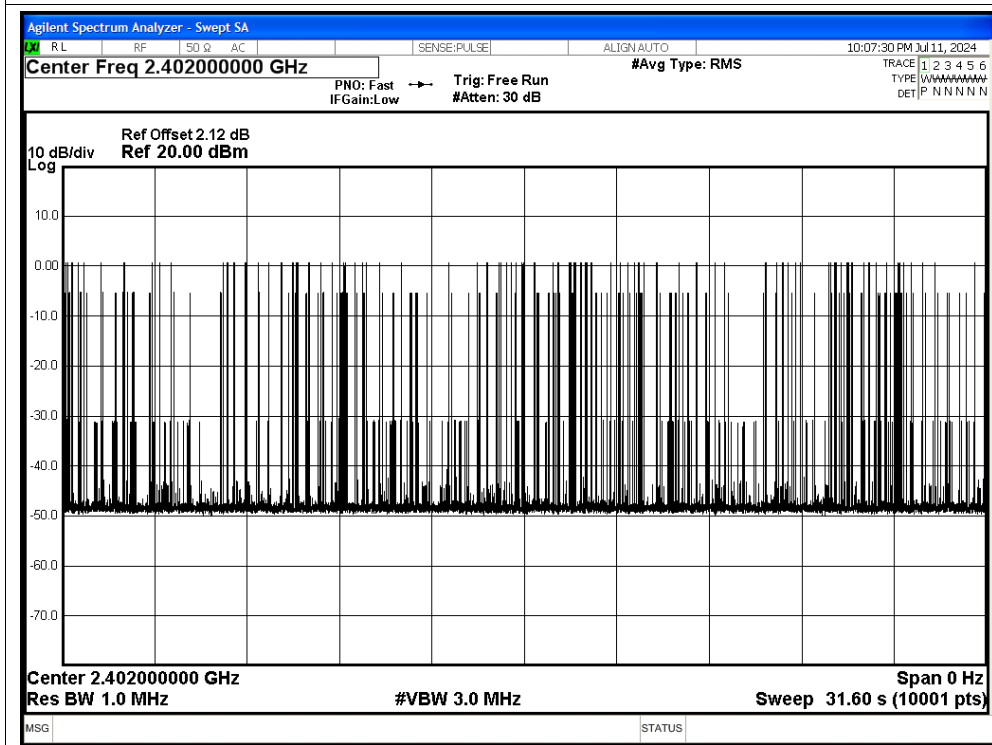


Dwell NVNT 2-DH5 2402MHz Ant1 One Burst



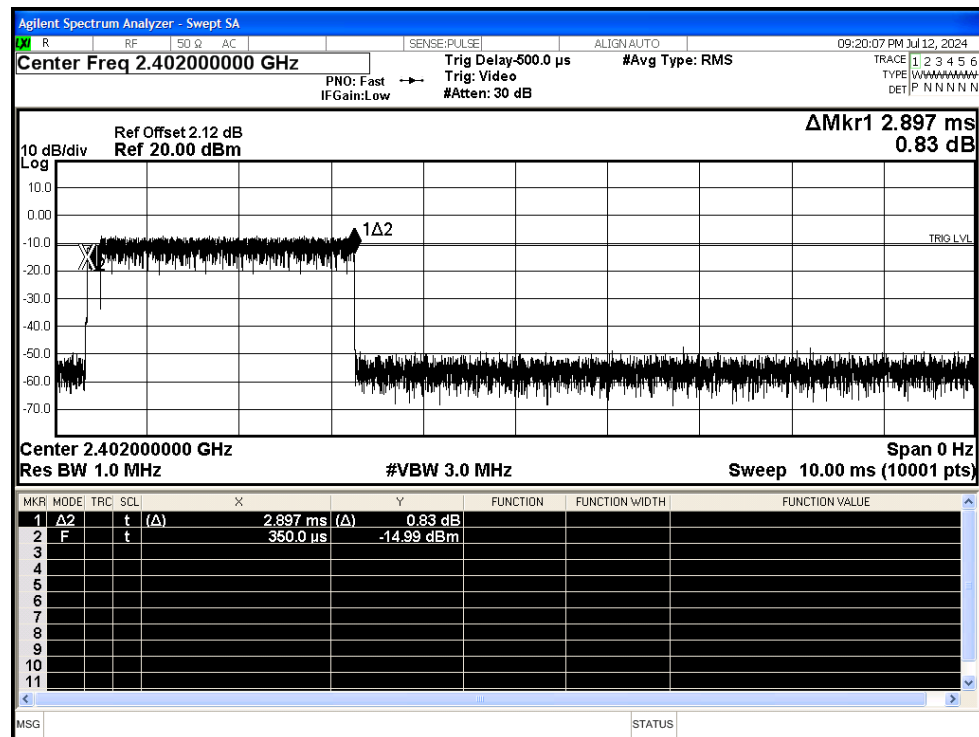


Dwell NVNT 2-DH5 2402MHz Ant1 Accumulated

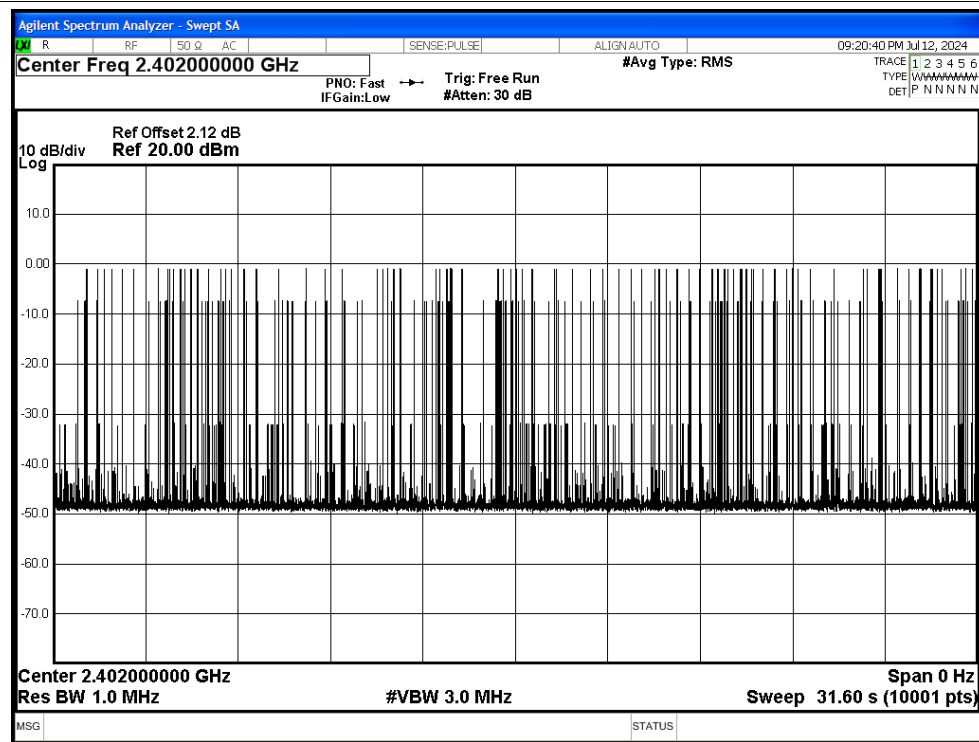




Dwell NVNT 3-DH5 2402MHz Ant1 One Burst



Dwell NVNT 3-DH5 2402MHz Ant1 Accumulated





A.5 Number of Hopping Channel

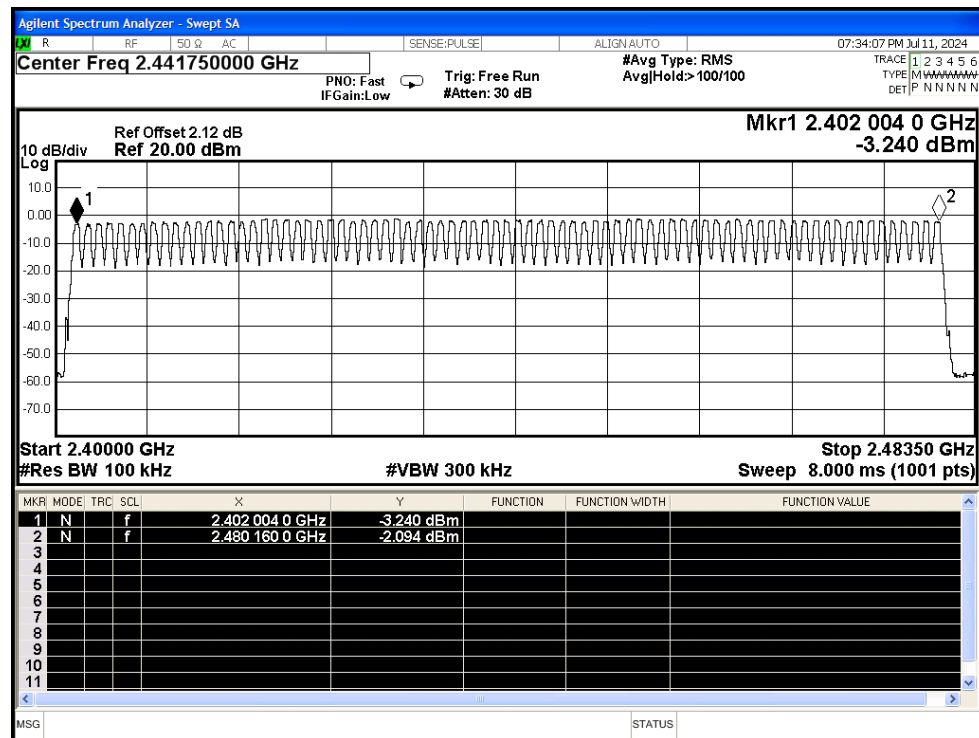
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH5	Ant1	79	15	Pass
NVNT	2-DH5	Ant1	79	15	Pass
NVNT	3-DH5	Ant1	79	15	Pass



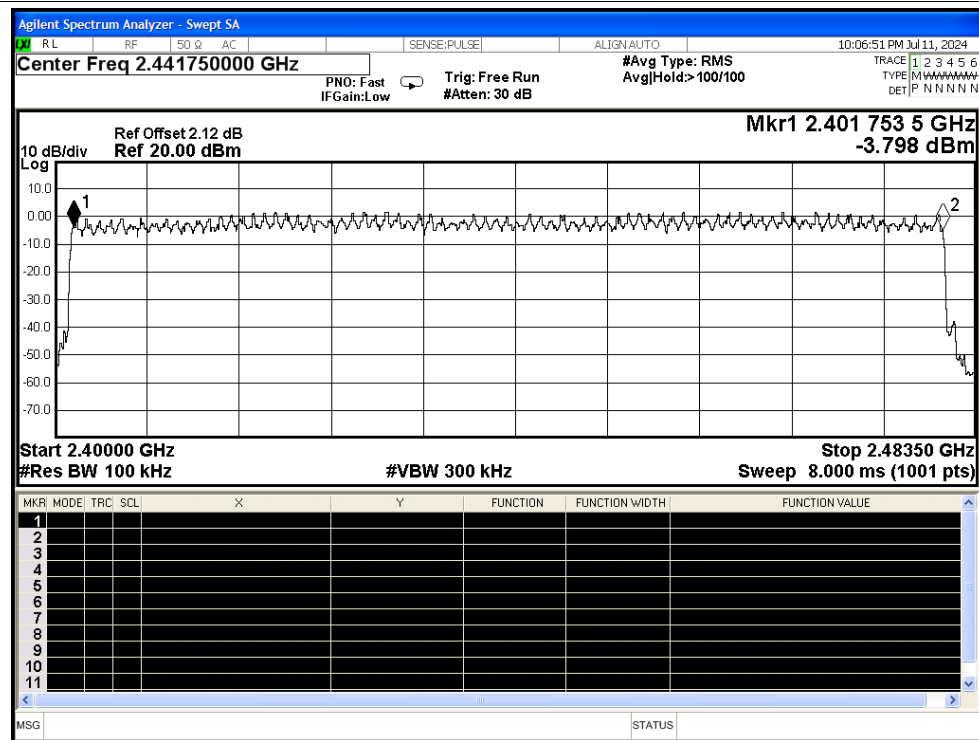


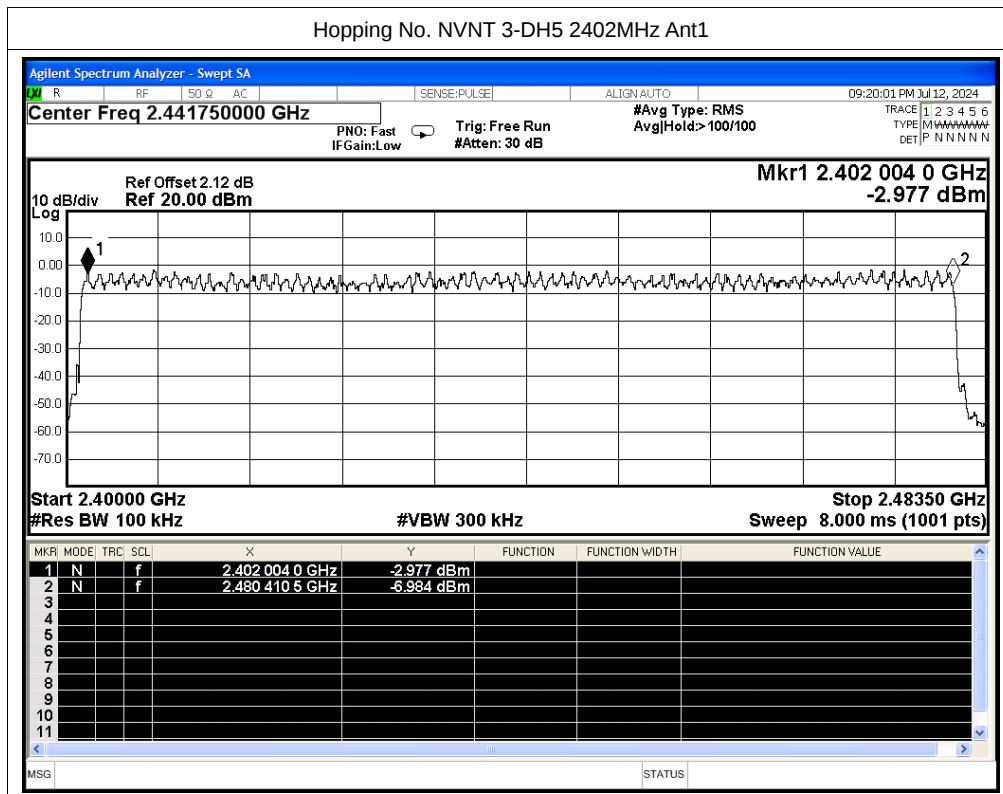
Test Graphs

Hopping No. NVNT 1-DH5 2402MHz Ant1



Hopping No. NVNT 2-DH5 2402MHz Ant1







A.6 Band Edge

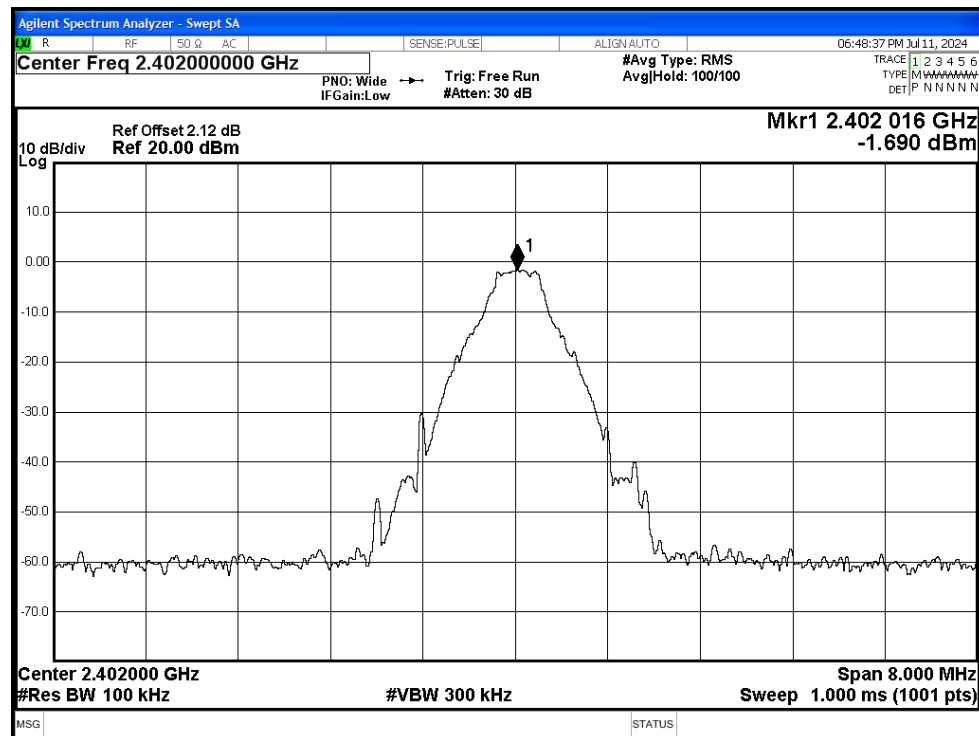
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	-54.97	-20	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	-57.03	-20	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	-53.5	-20	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	-53.43	-20	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	-53.38	-20	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	-54.53	-20	Pass



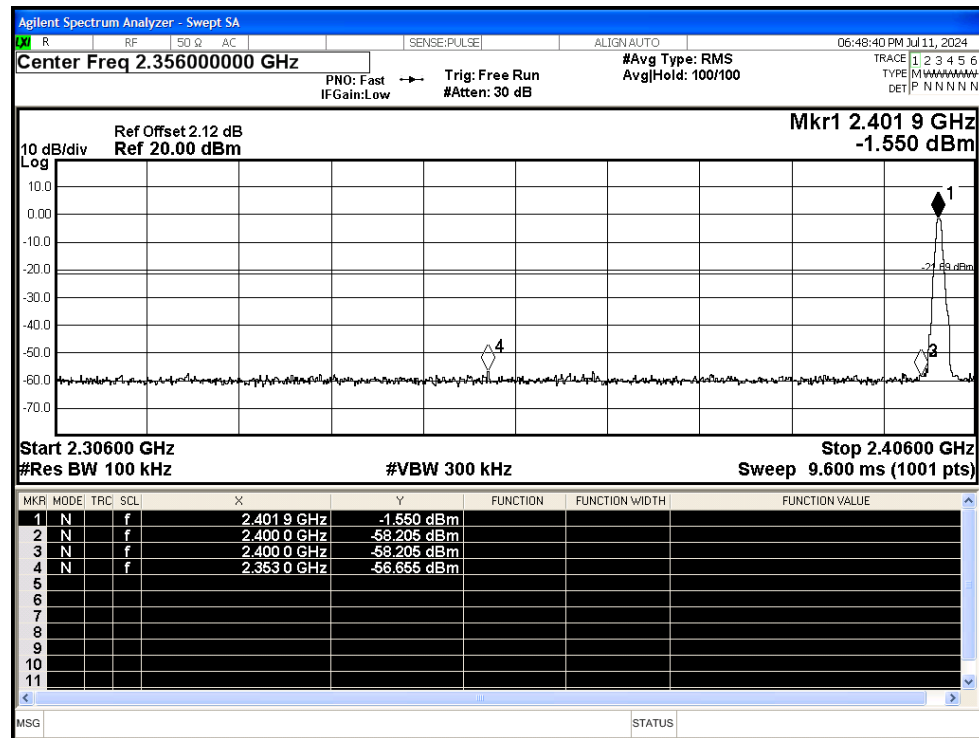


Test Graphs

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

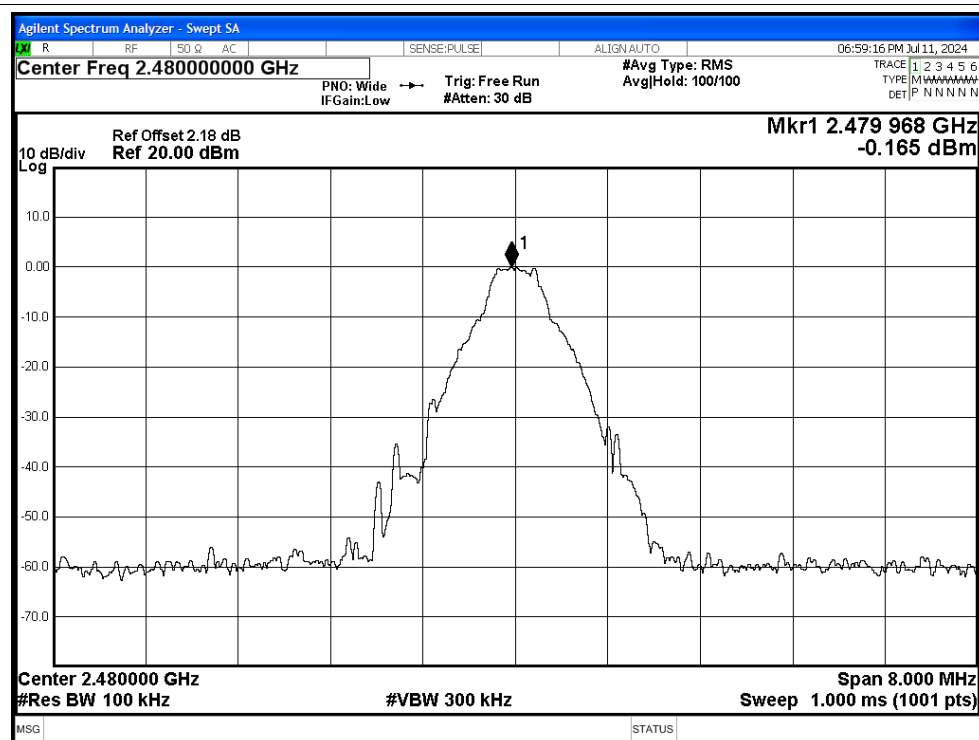


Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Emission

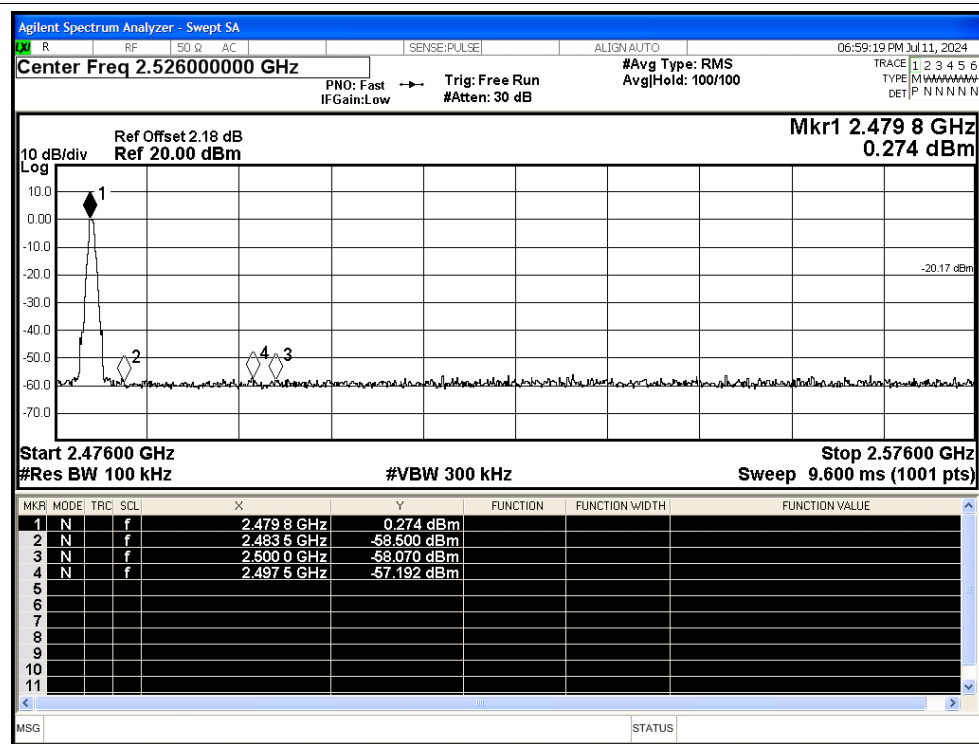




Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref

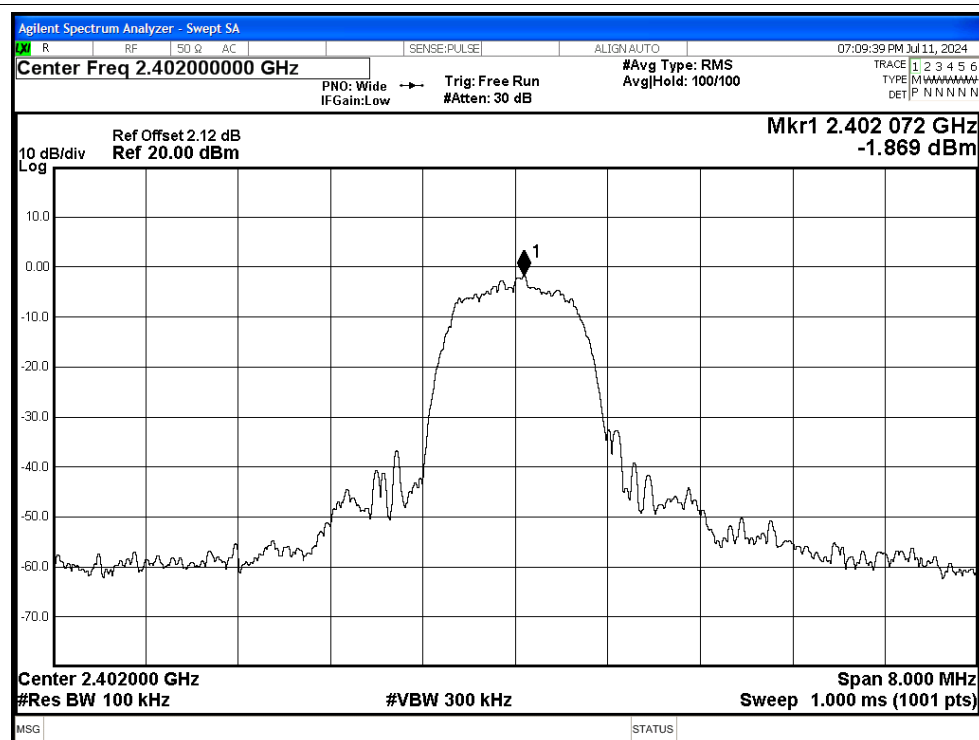


Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Emission

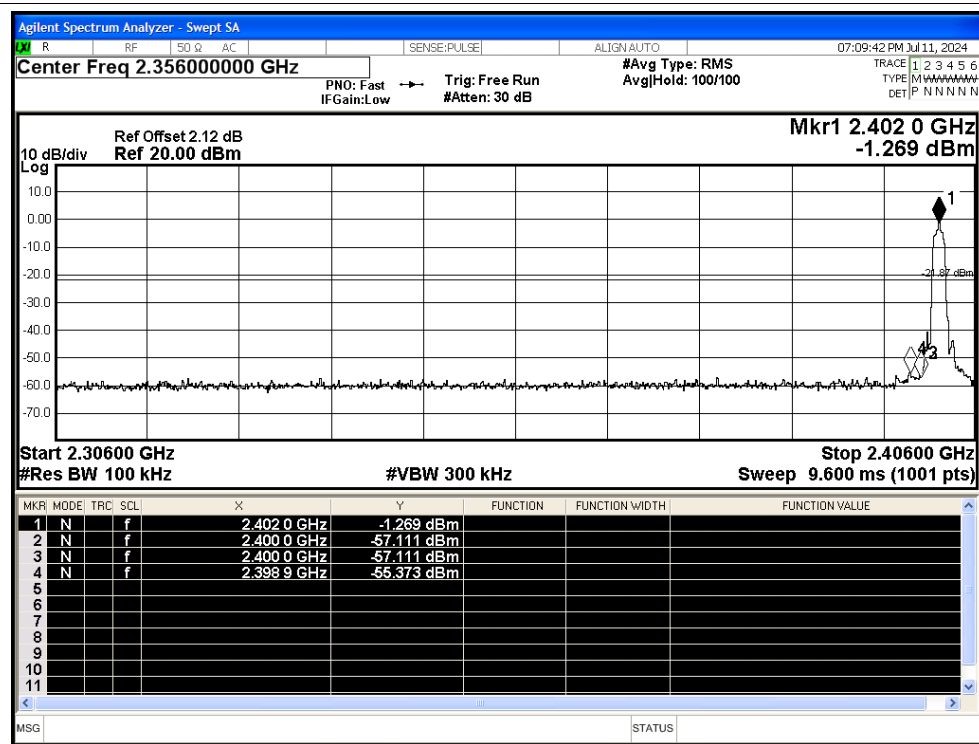




Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Ref

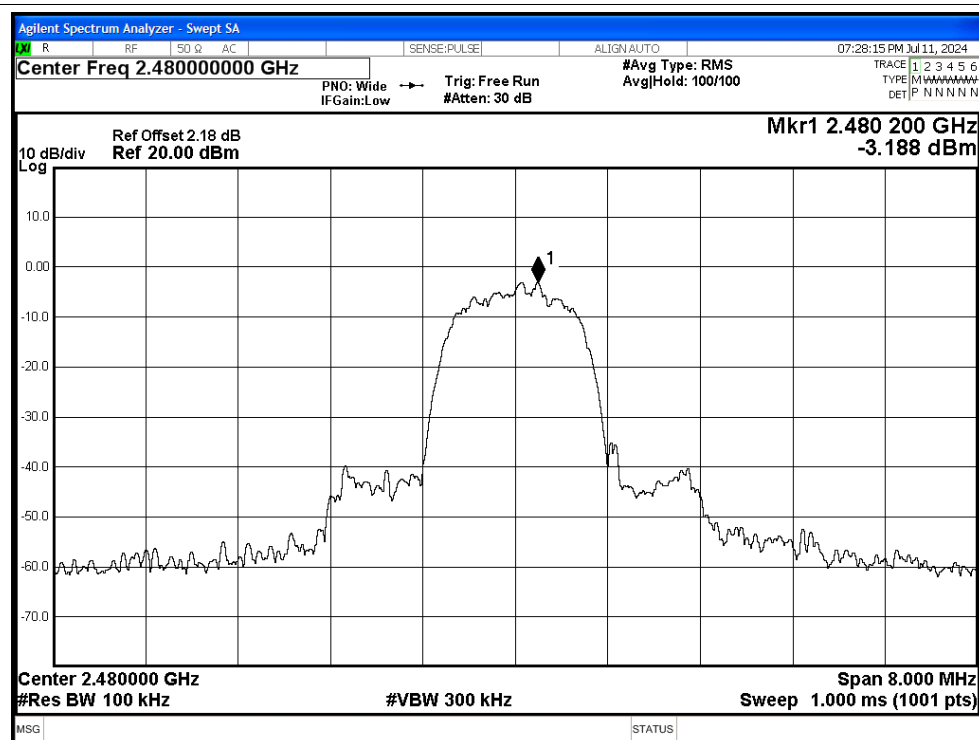


Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Emission

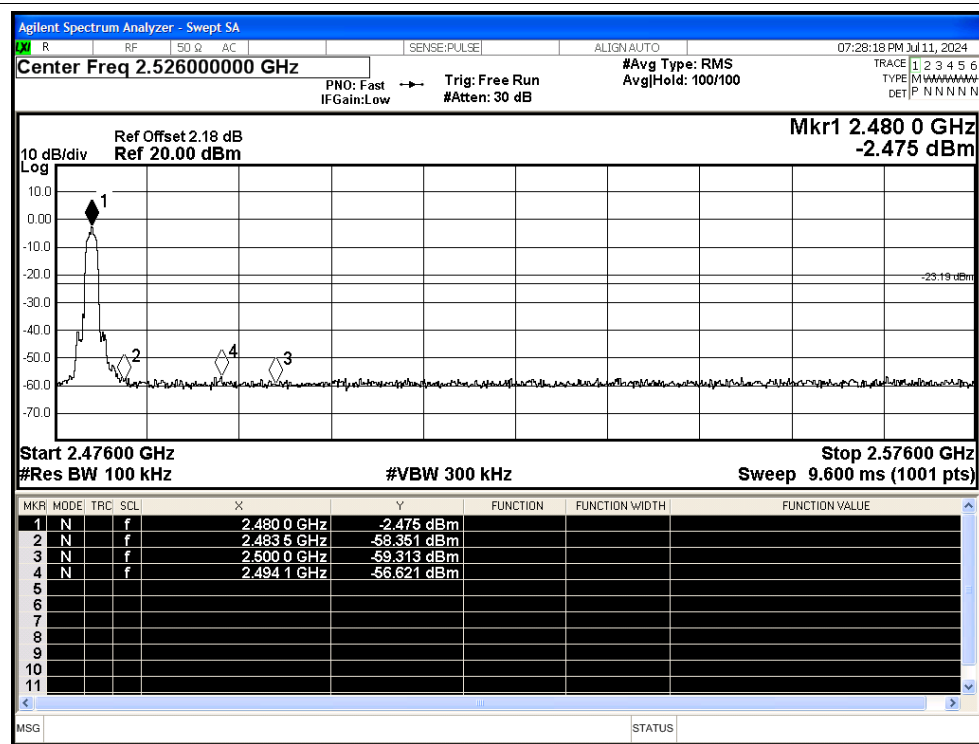




Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Ref

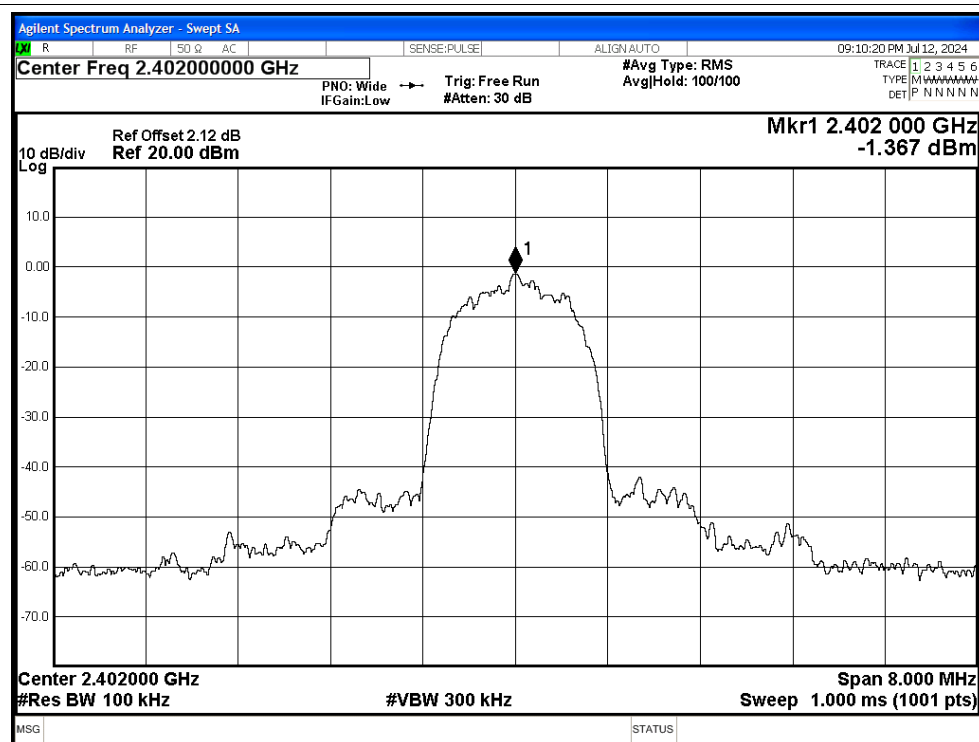


Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Emission

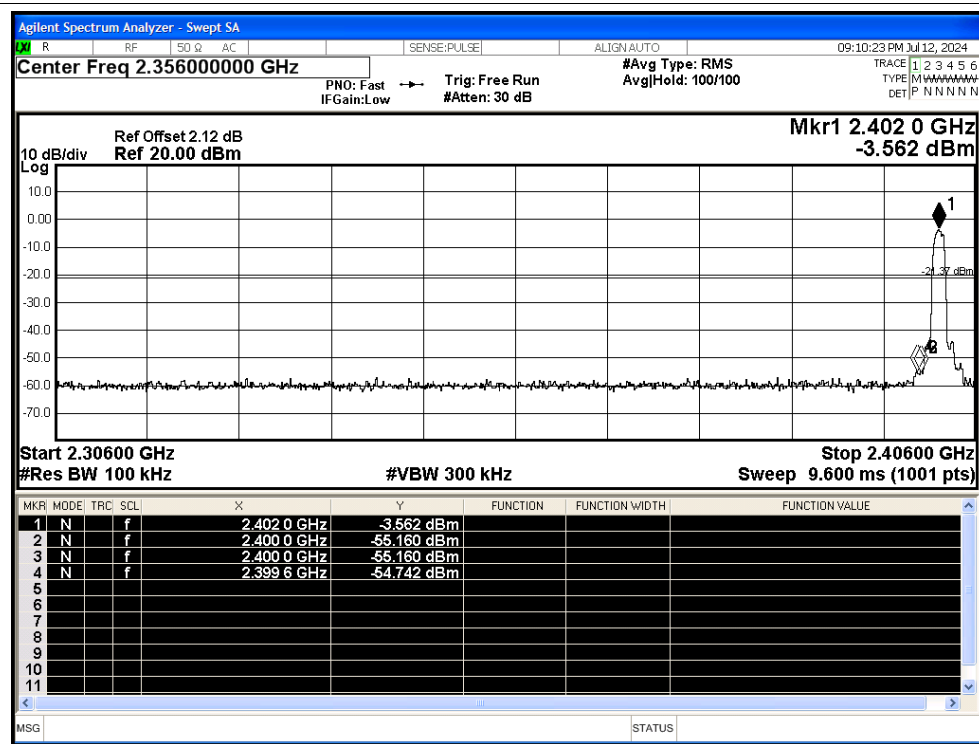




Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Ref

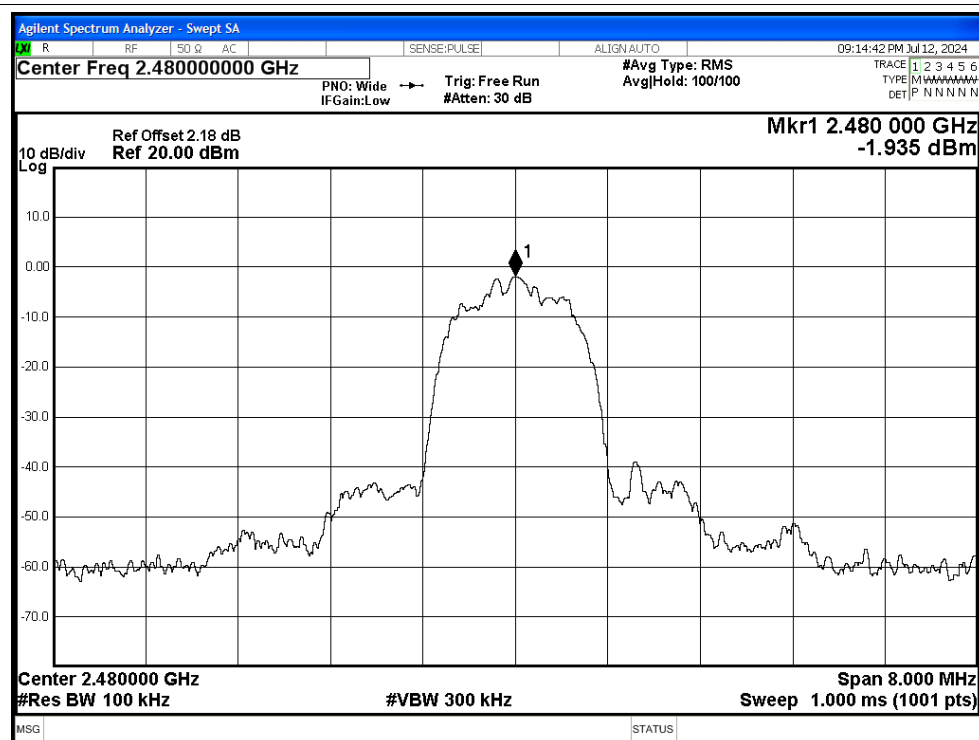


Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Emission

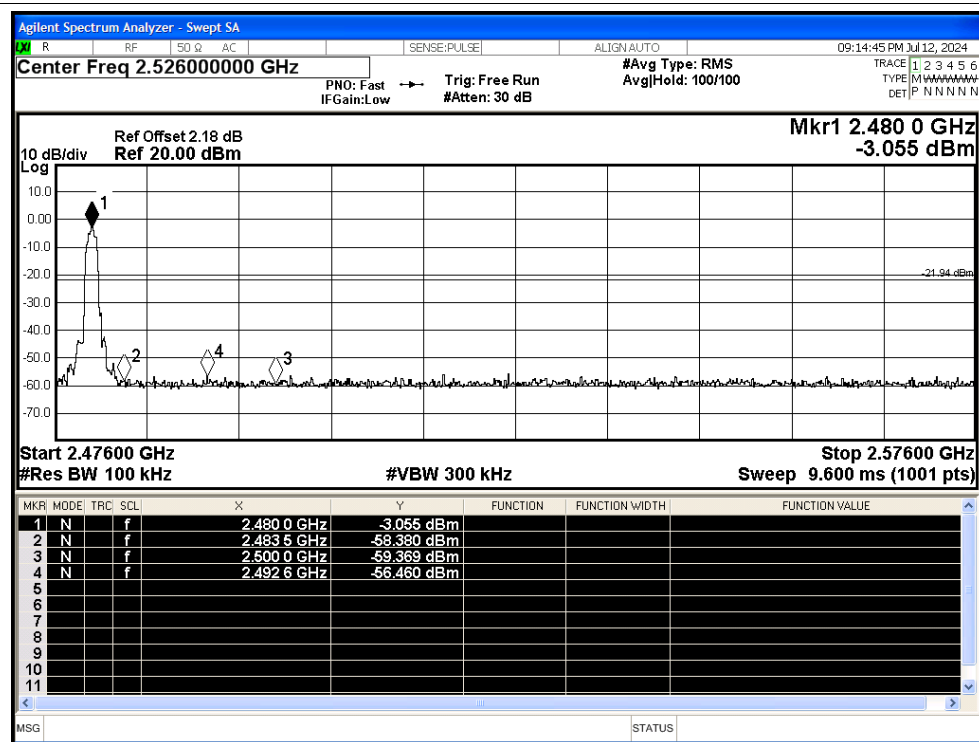




Band Edge NVNT 3-DH5 2480MHz Ant1 No-Hopping Ref



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





(Hopping)

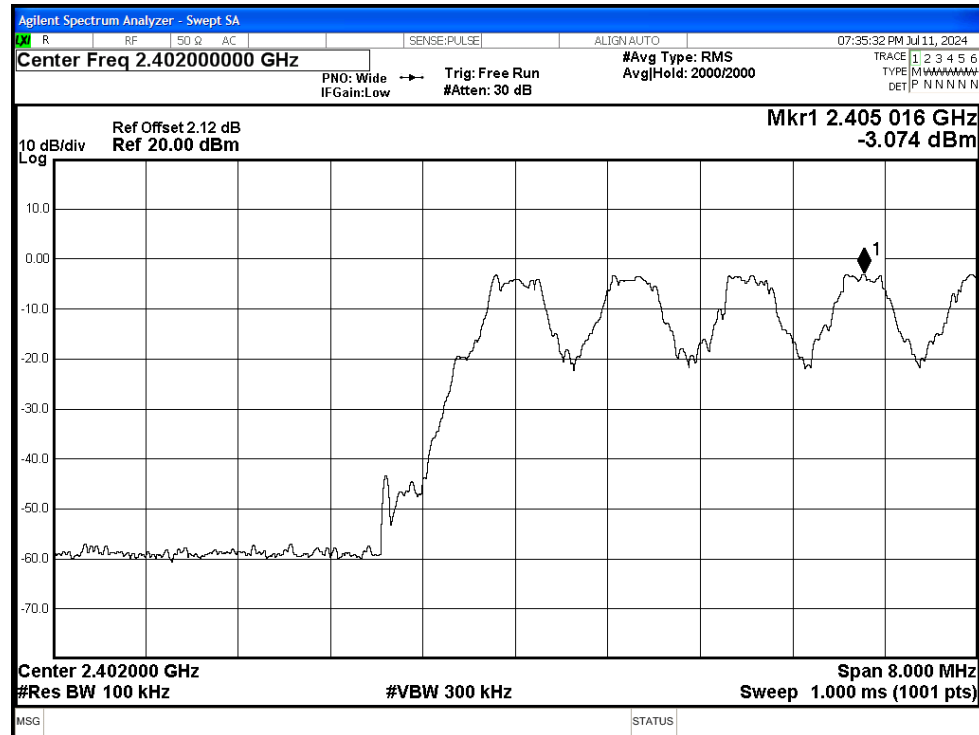
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	Hopping	-52.57	-20	Pass
NVNT	1-DH5	2480	Ant1	Hopping	-53.53	-20	Pass
NVNT	2-DH5	2402	Ant1	Hopping	-54.71	-20	Pass
NVNT	2-DH5	2480	Ant1	Hopping	-54.43	-20	Pass
NVNT	3-DH5	2402	Ant1	Hopping	-54.55	-20	Pass
NVNT	3-DH5	2480	Ant1	Hopping	-53.93	-20	Pass



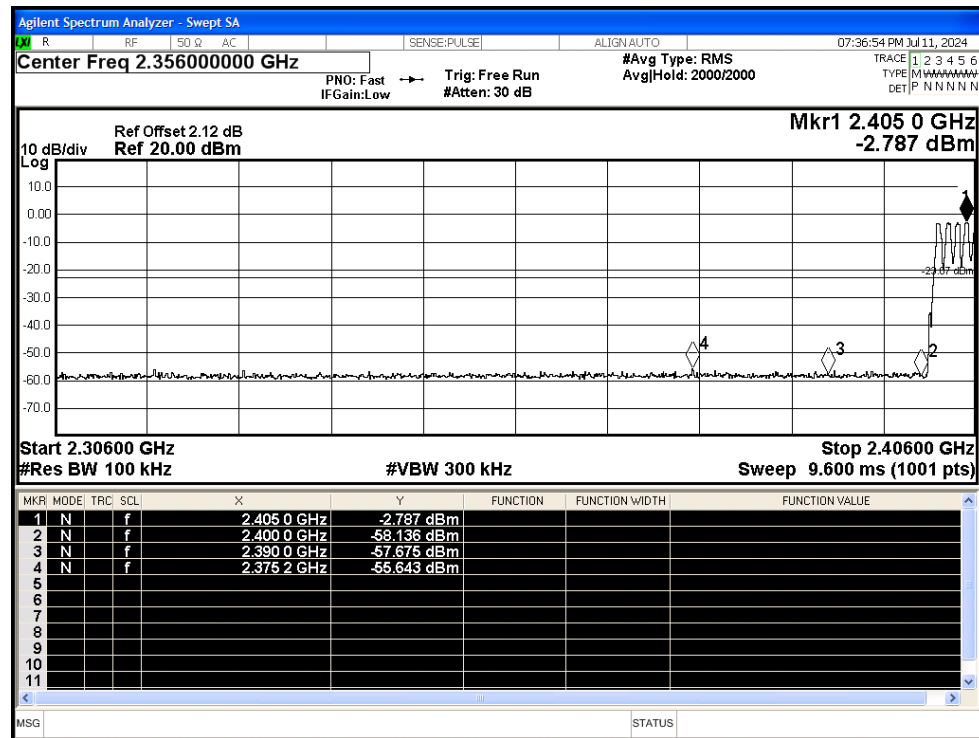


Test Graphs

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

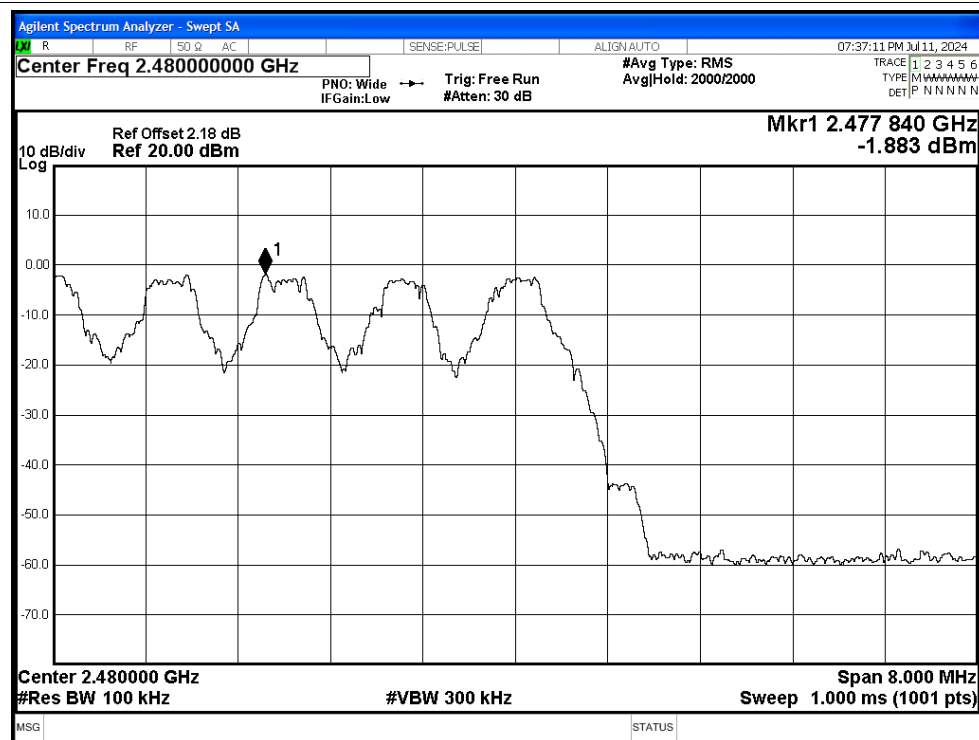


Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission

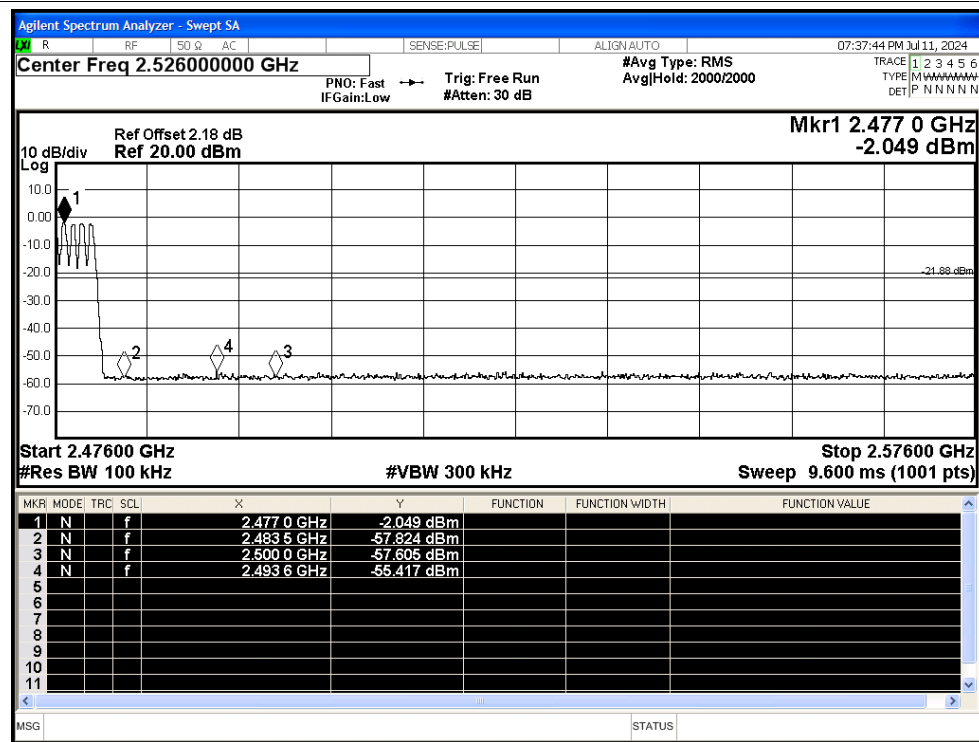


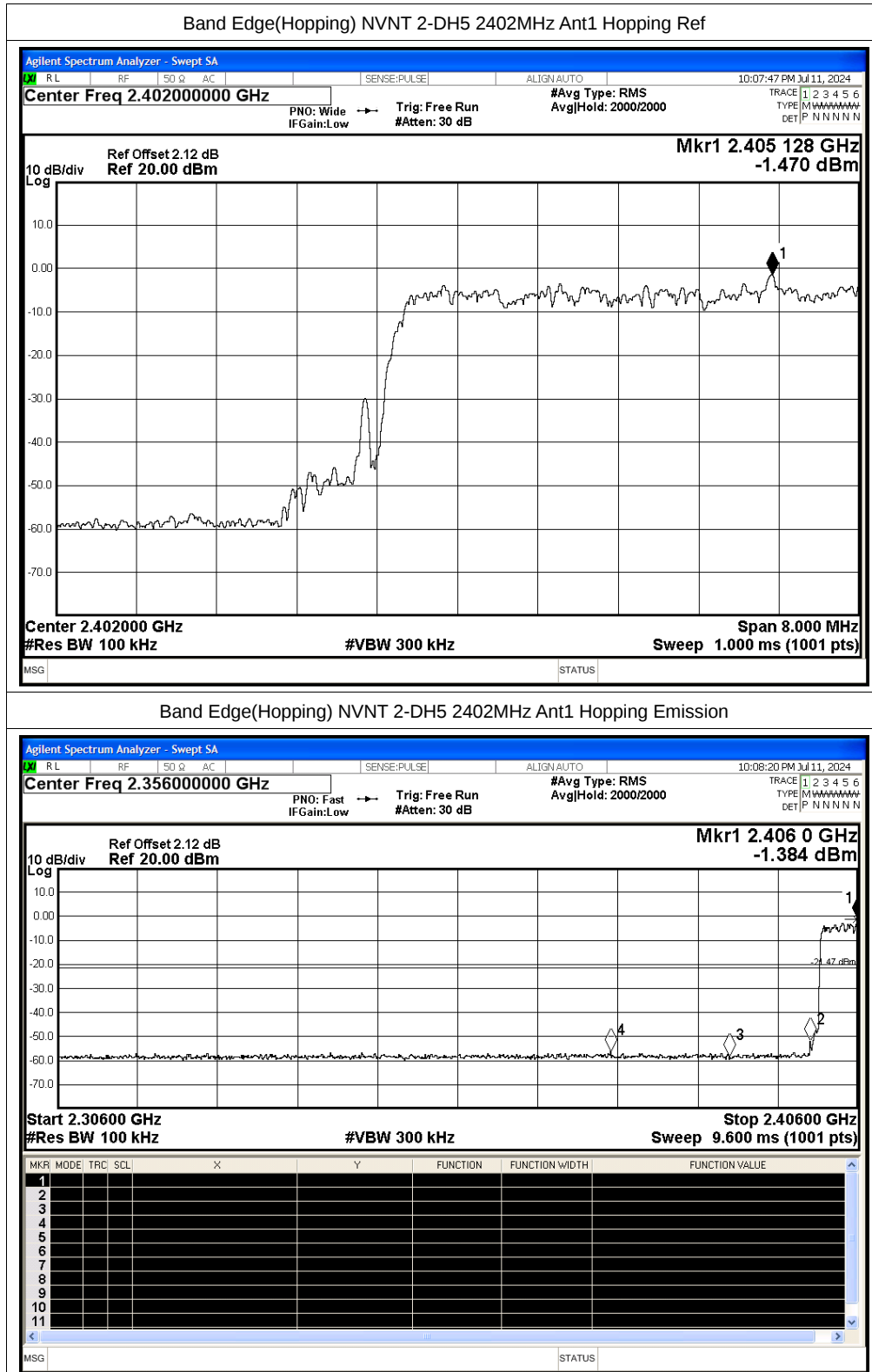


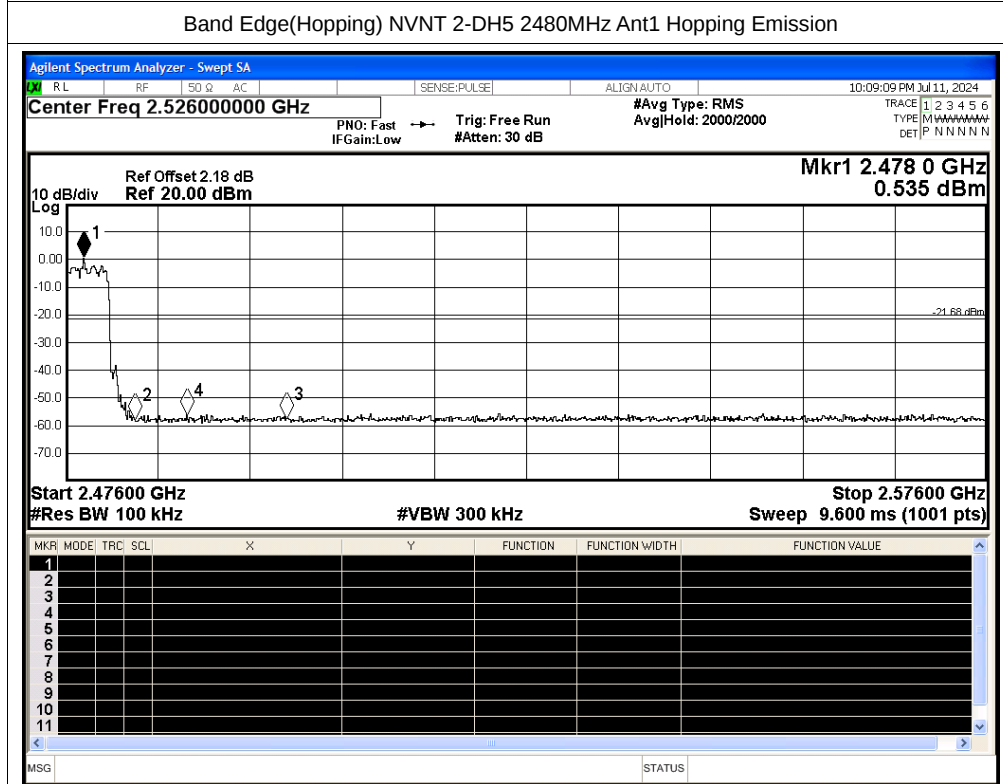
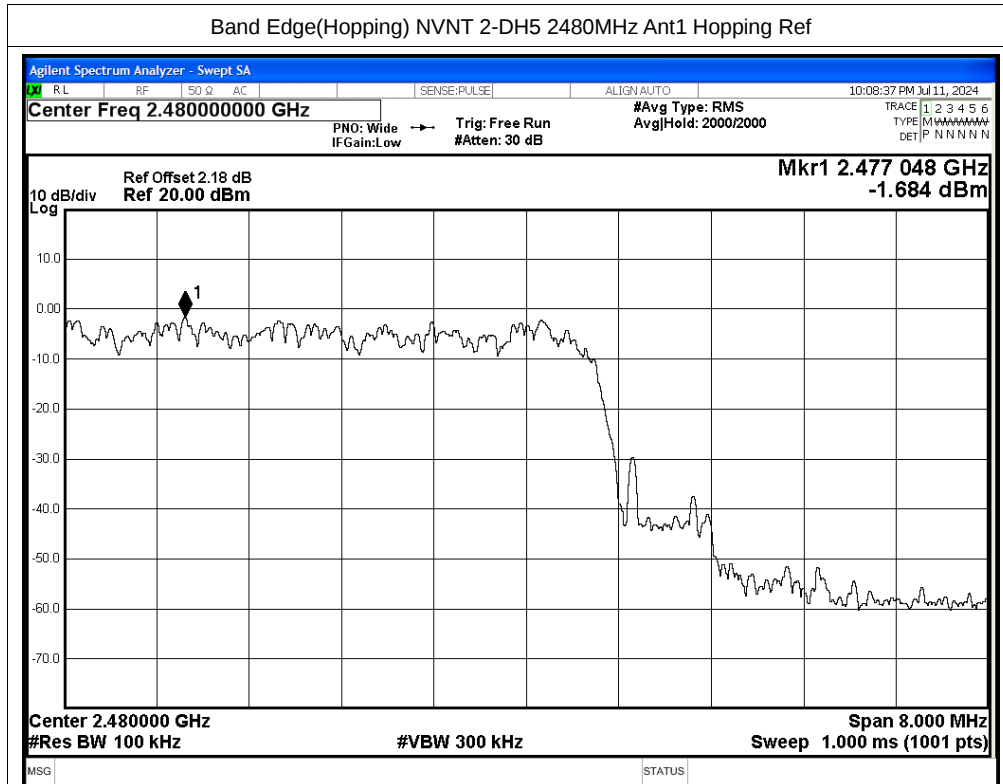
Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Ref



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

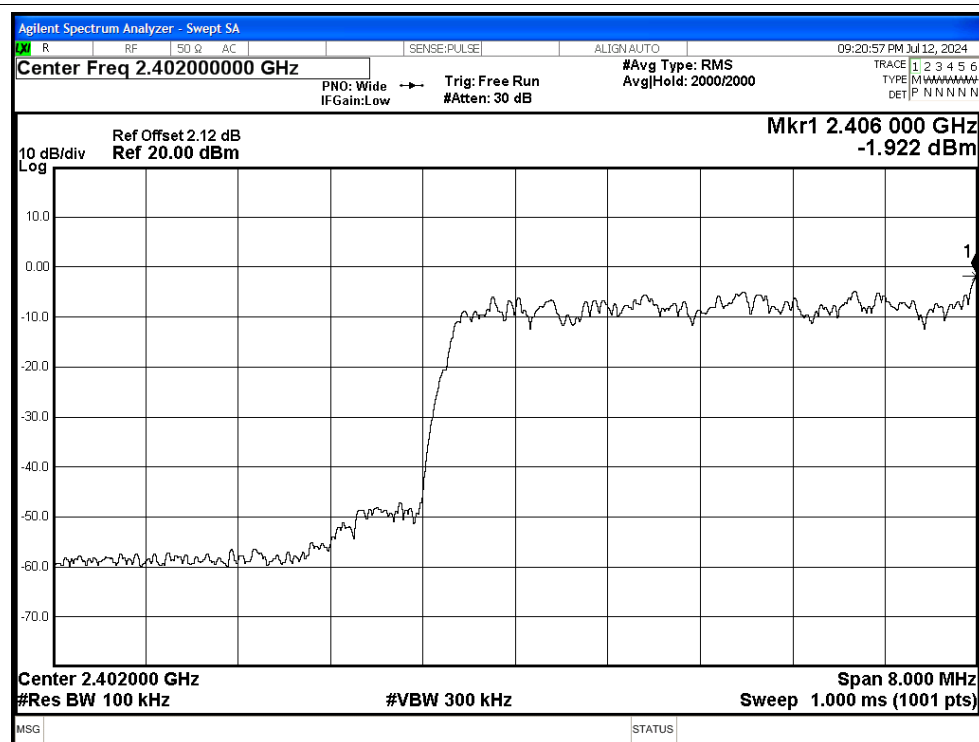




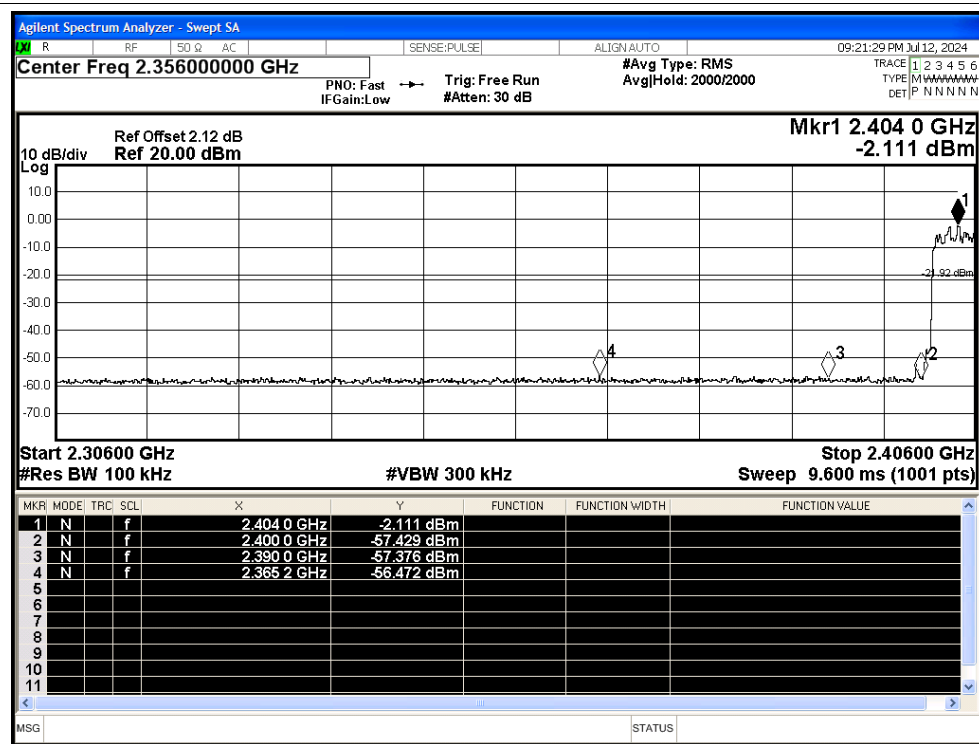


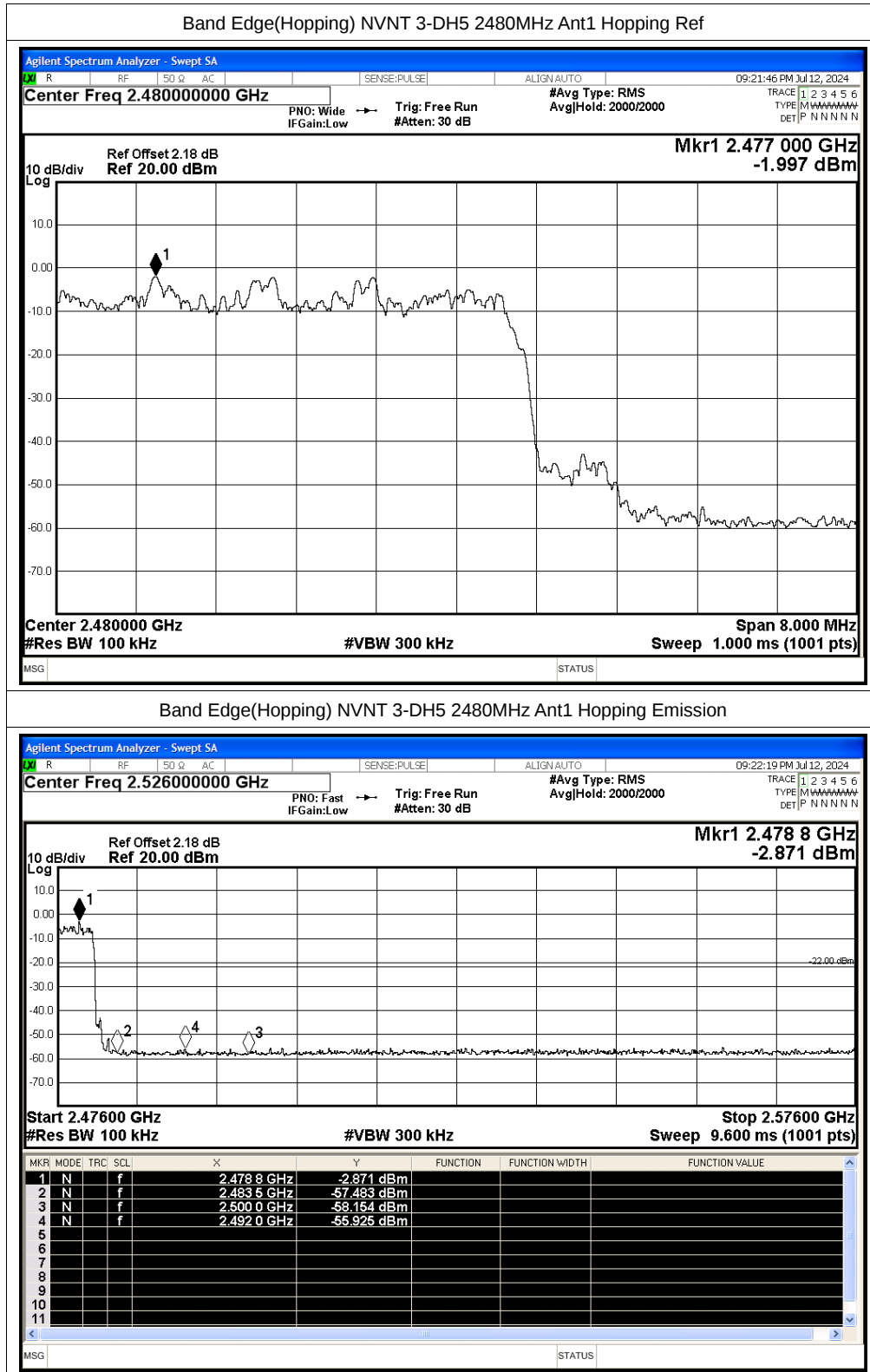


Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Ref



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







A.7 Conducted RF Spurious Emission

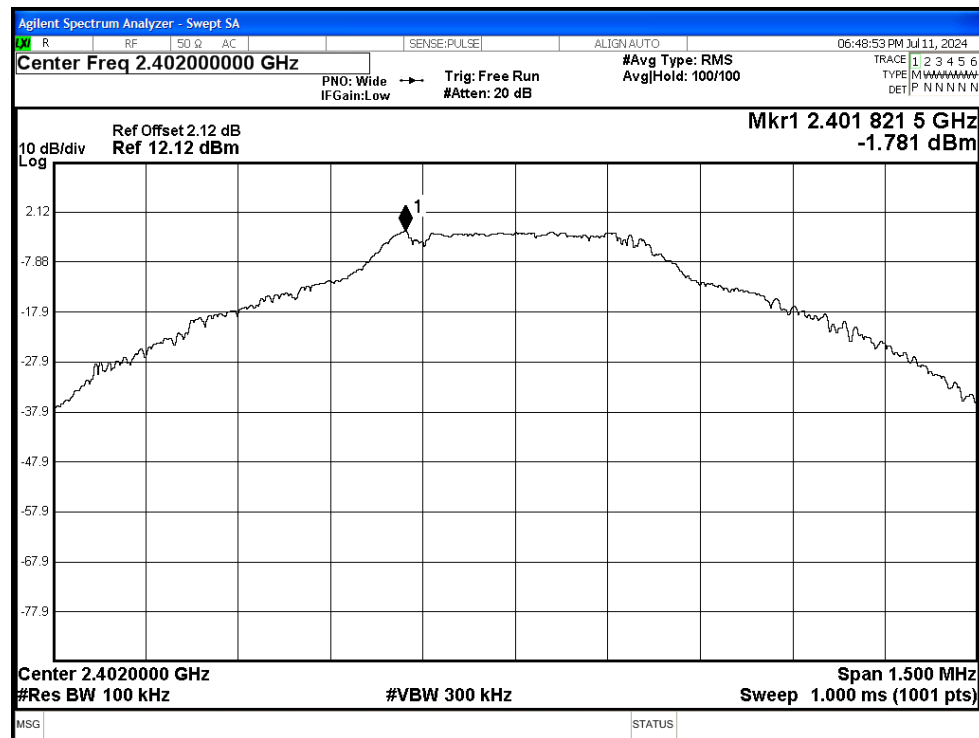
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	-54.03	-20	Pass
NVNT	1-DH5	2441	Ant1	-55.47	-20	Pass
NVNT	1-DH5	2480	Ant1	-55.51	-20	Pass
NVNT	2-DH5	2402	Ant1	-40.87	-20	Pass
NVNT	2-DH5	2441	Ant1	-53.85	-20	Pass
NVNT	2-DH5	2480	Ant1	-52.24	-20	Pass
NVNT	3-DH5	2402	Ant1	-53.85	-20	Pass
NVNT	3-DH5	2441	Ant1	-54.62	-20	Pass
NVNT	3-DH5	2480	Ant1	-52.53	-20	Pass



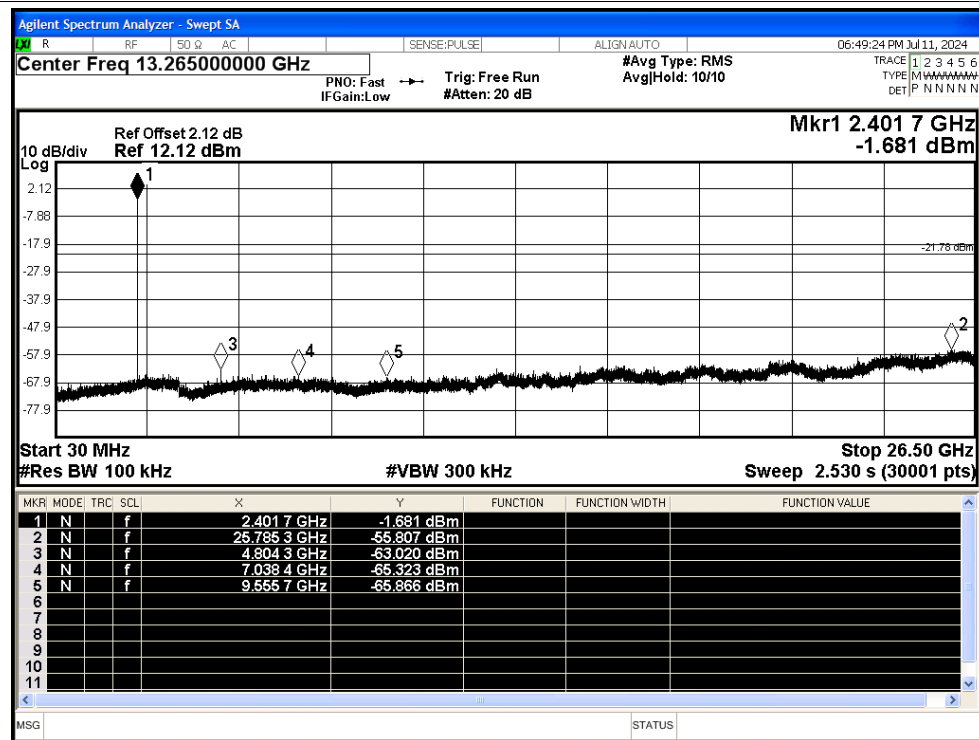


Test Graphs

Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref

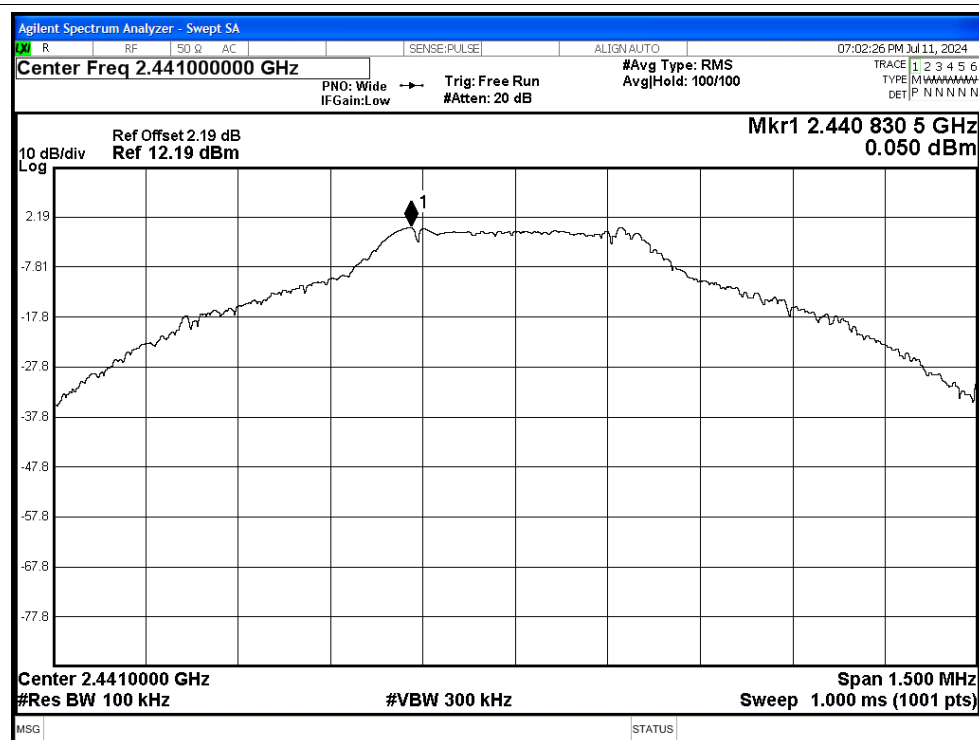


Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission

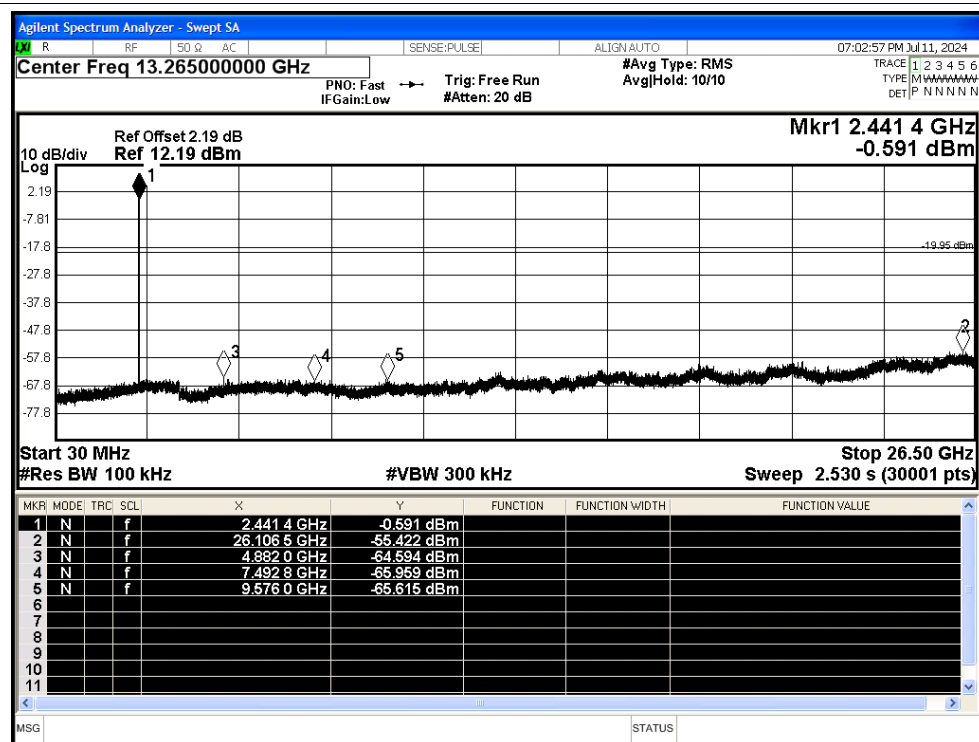




Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref

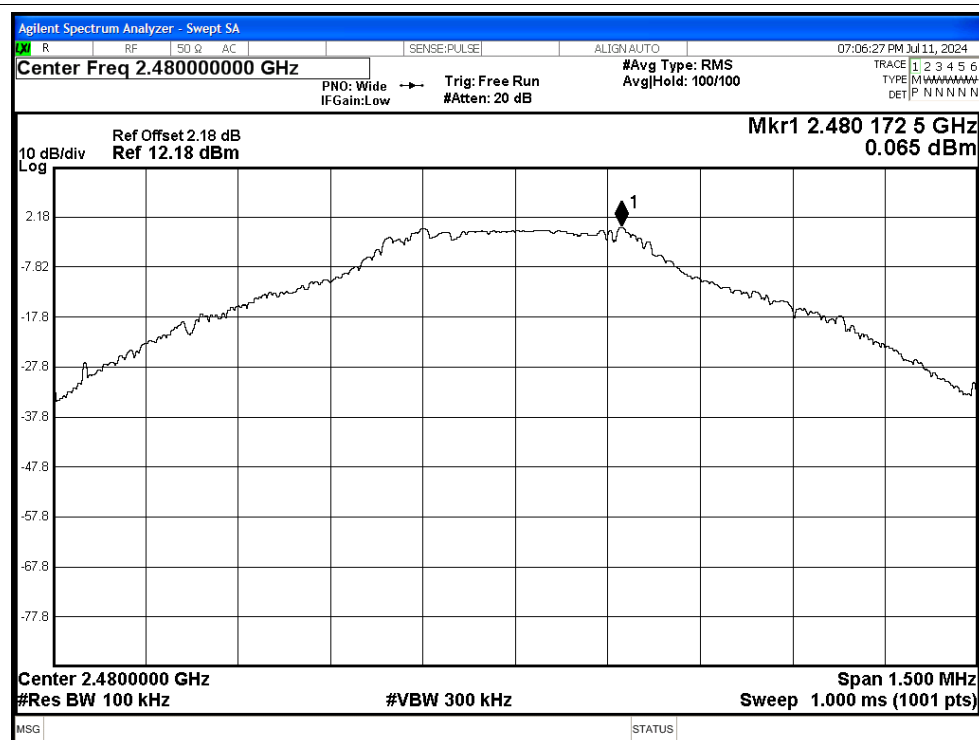


Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission

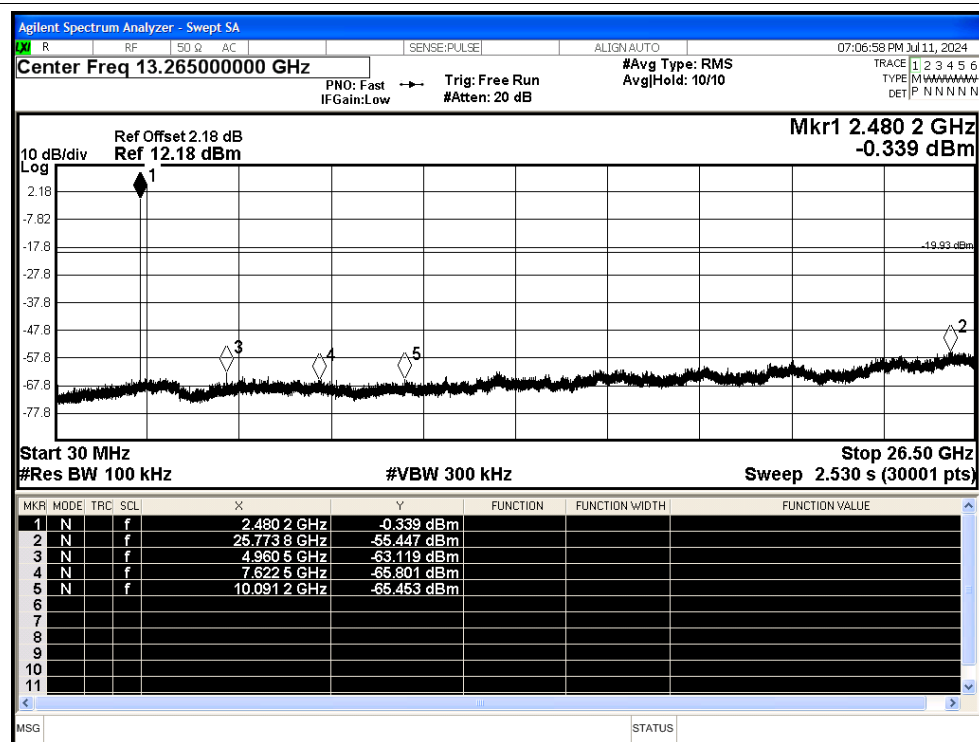




Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref

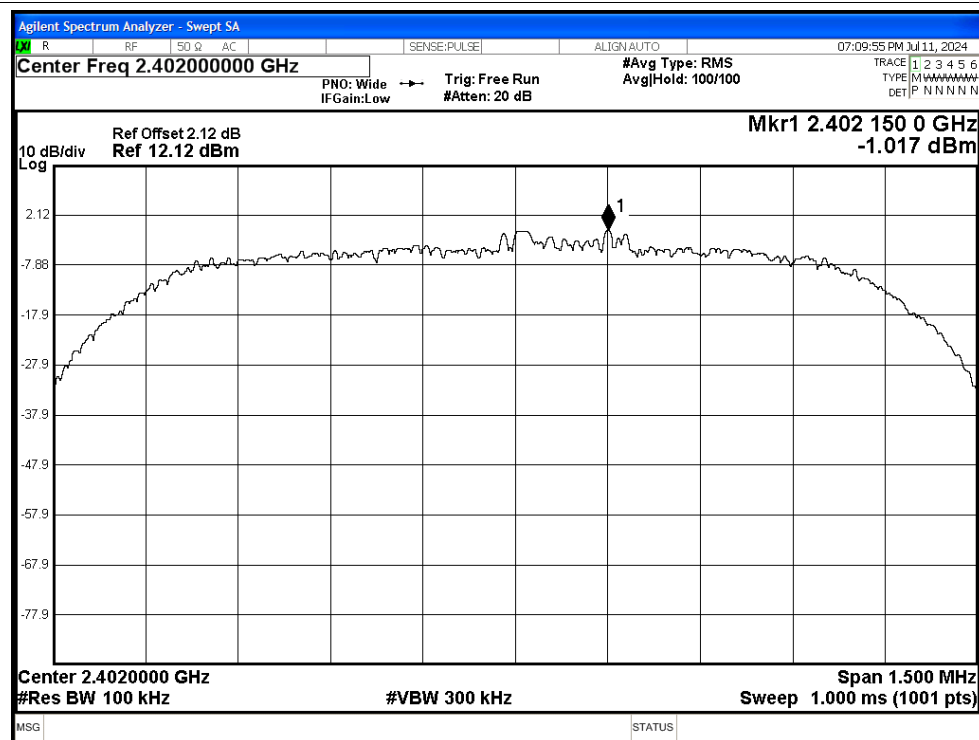


Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Emission

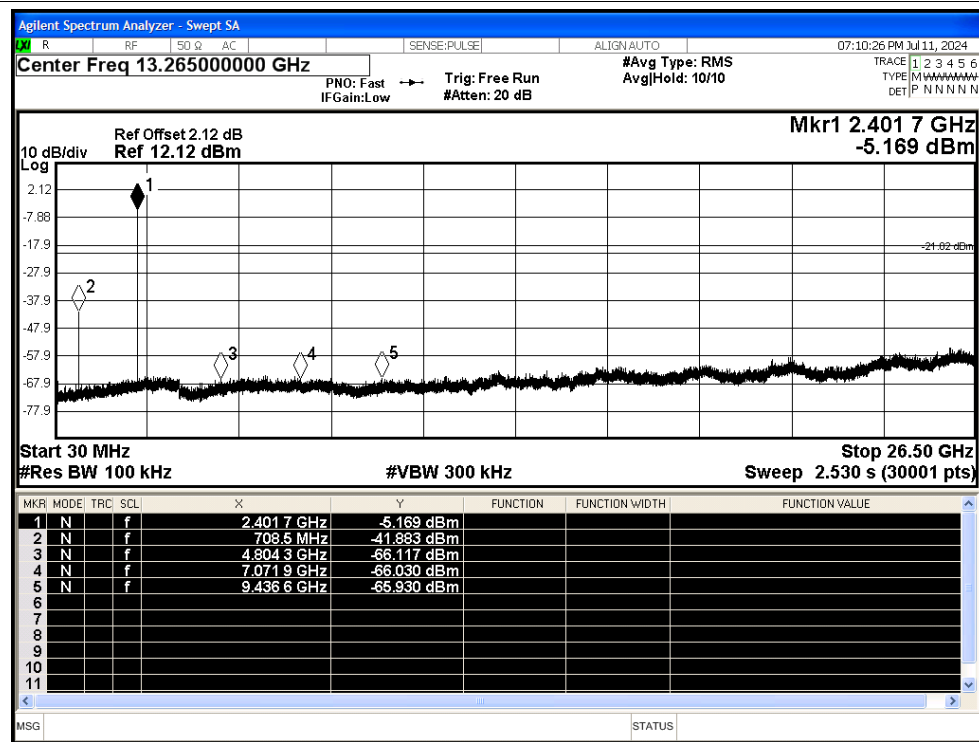




Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Ref

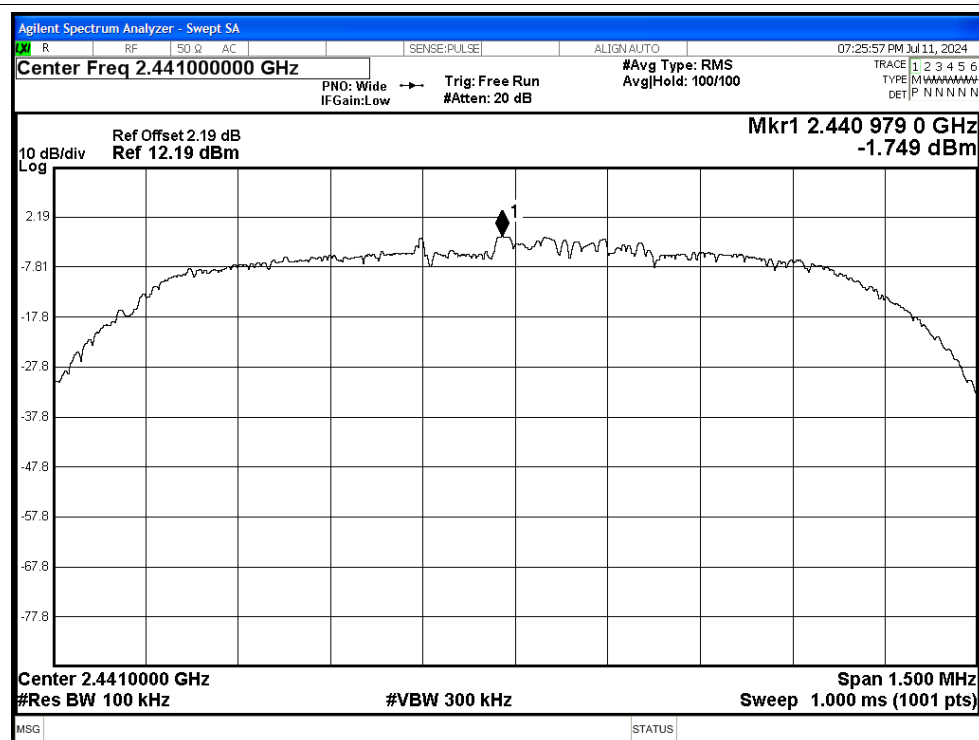


Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Emission

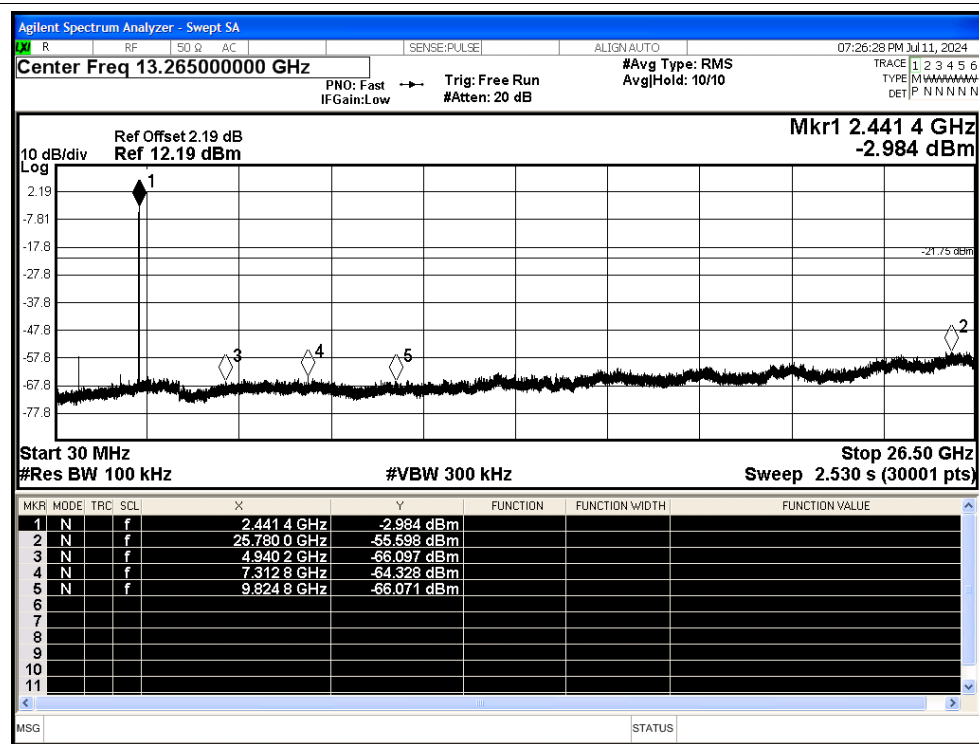




Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Ref

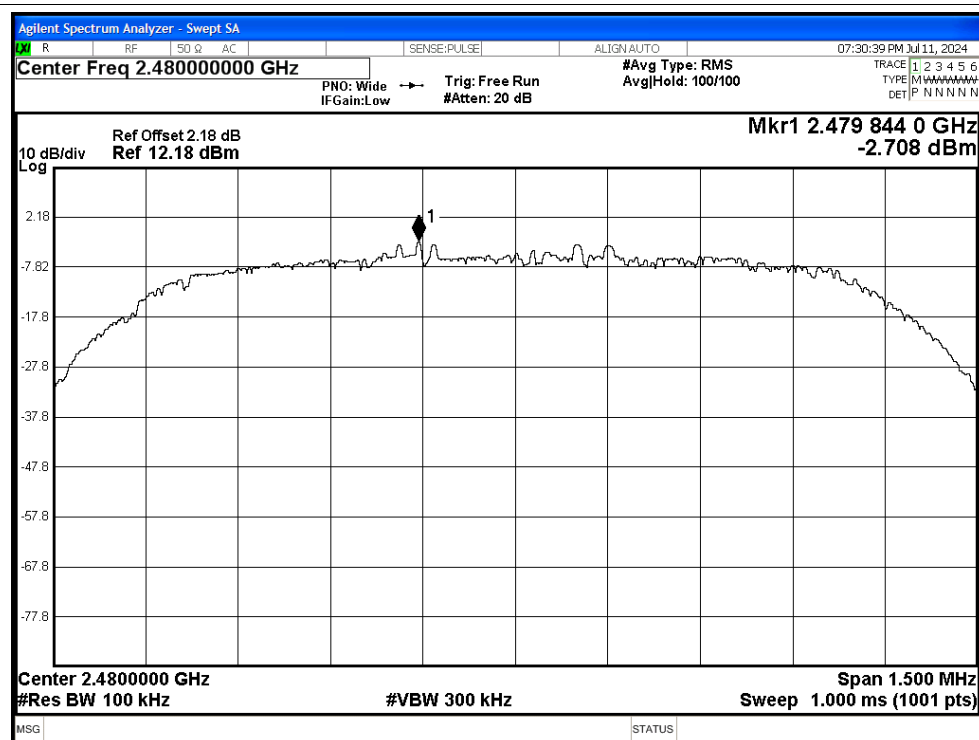


Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Emission

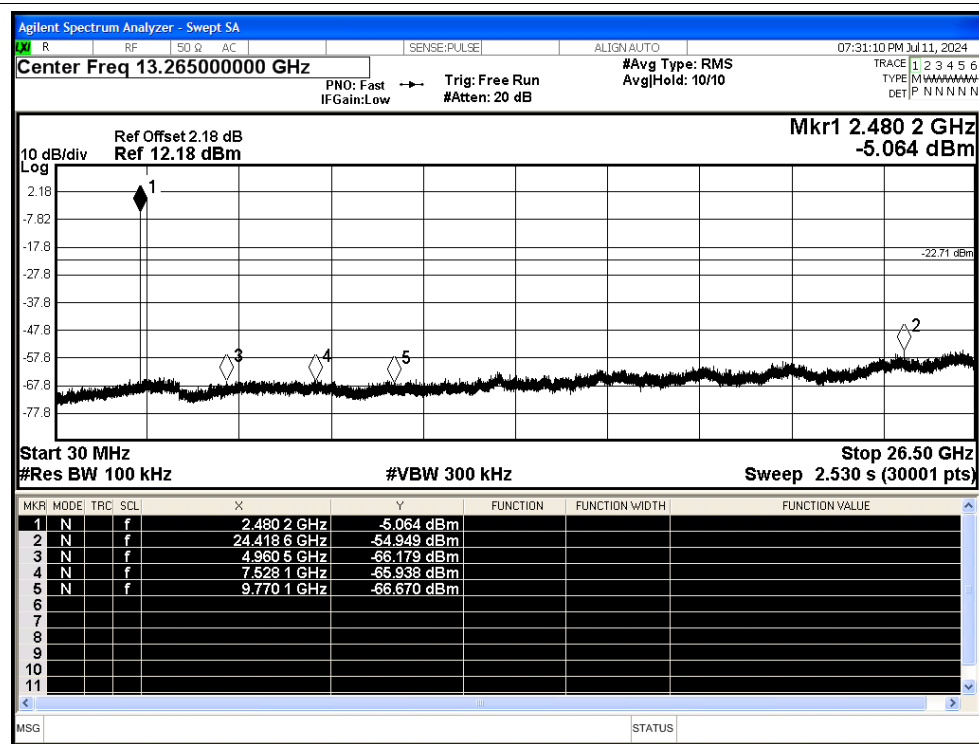




Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Ref

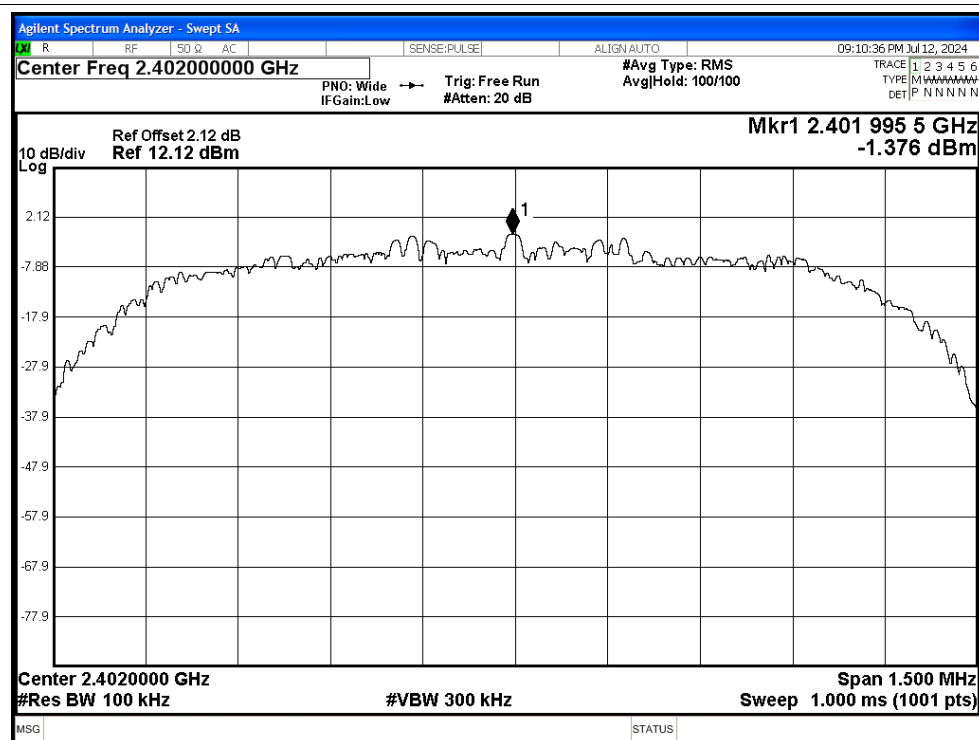


Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Emission

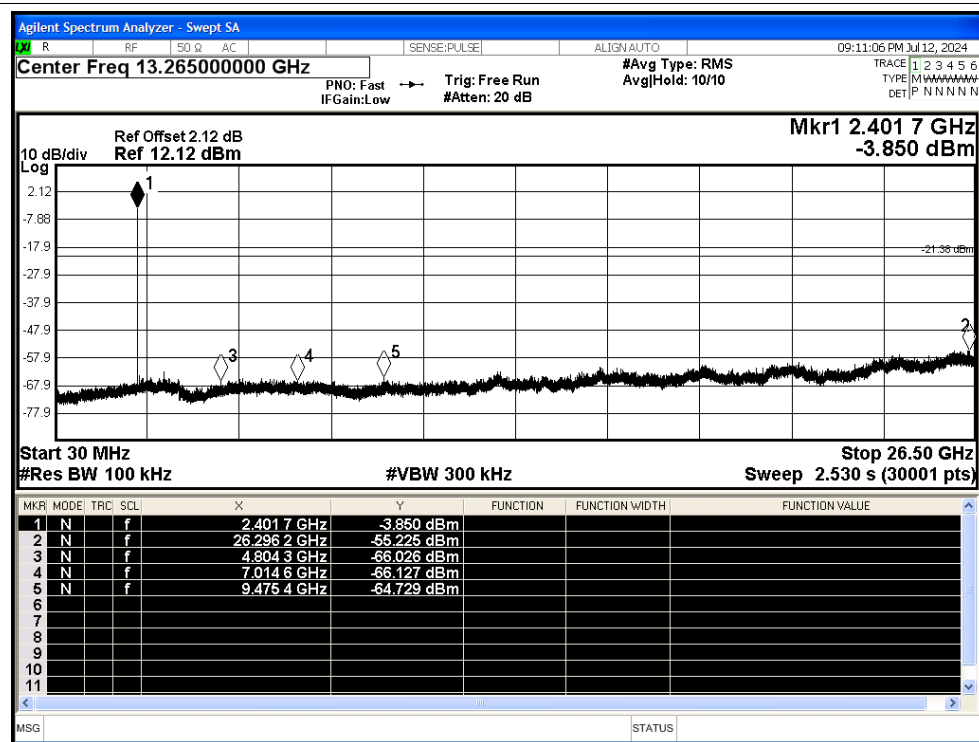




Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Ref

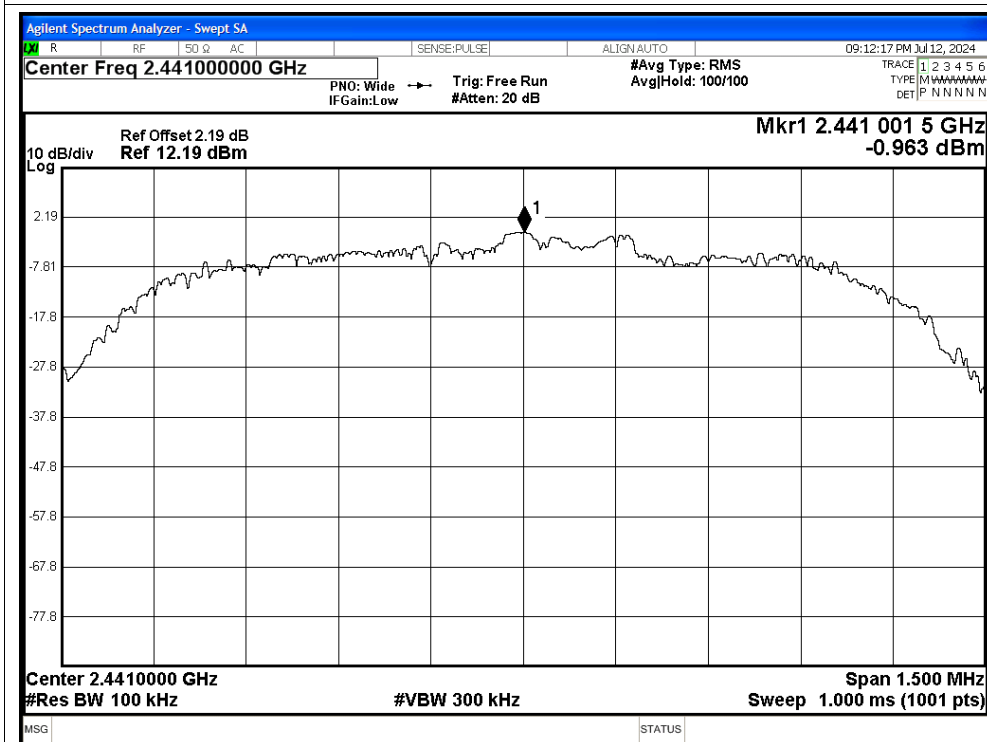


Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Emission

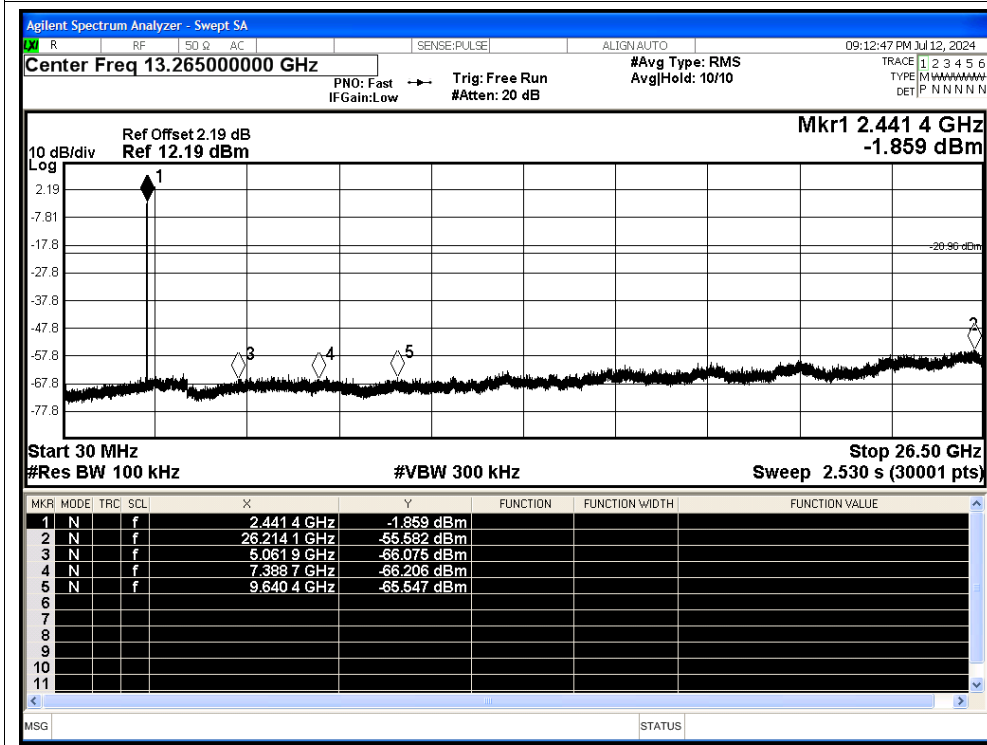




Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Ref

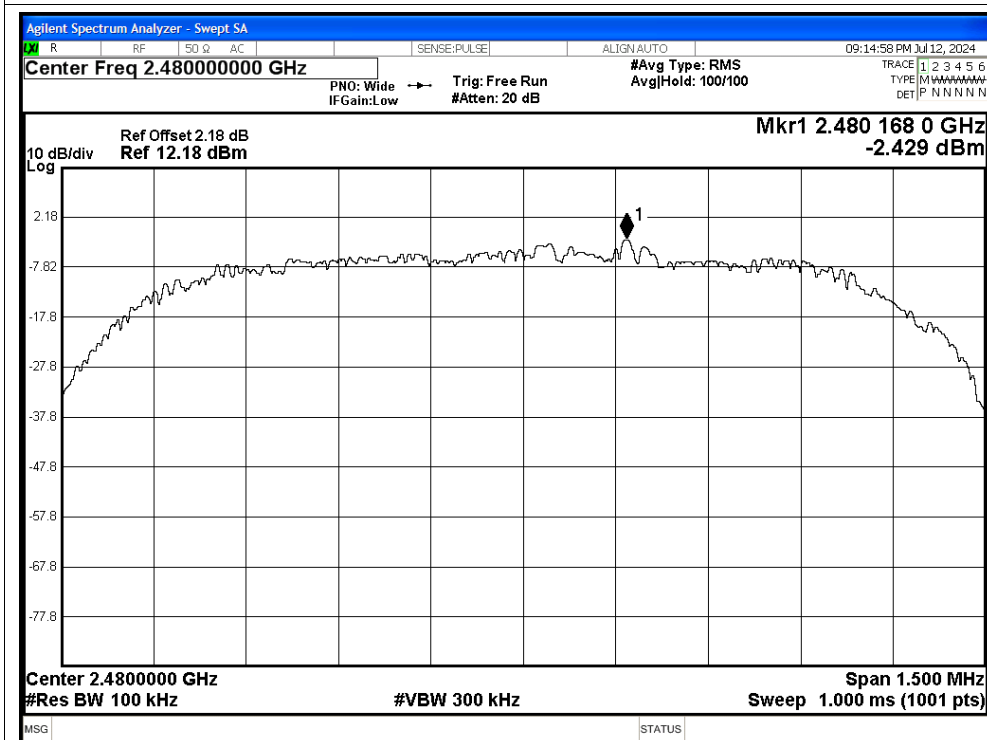


Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Emission

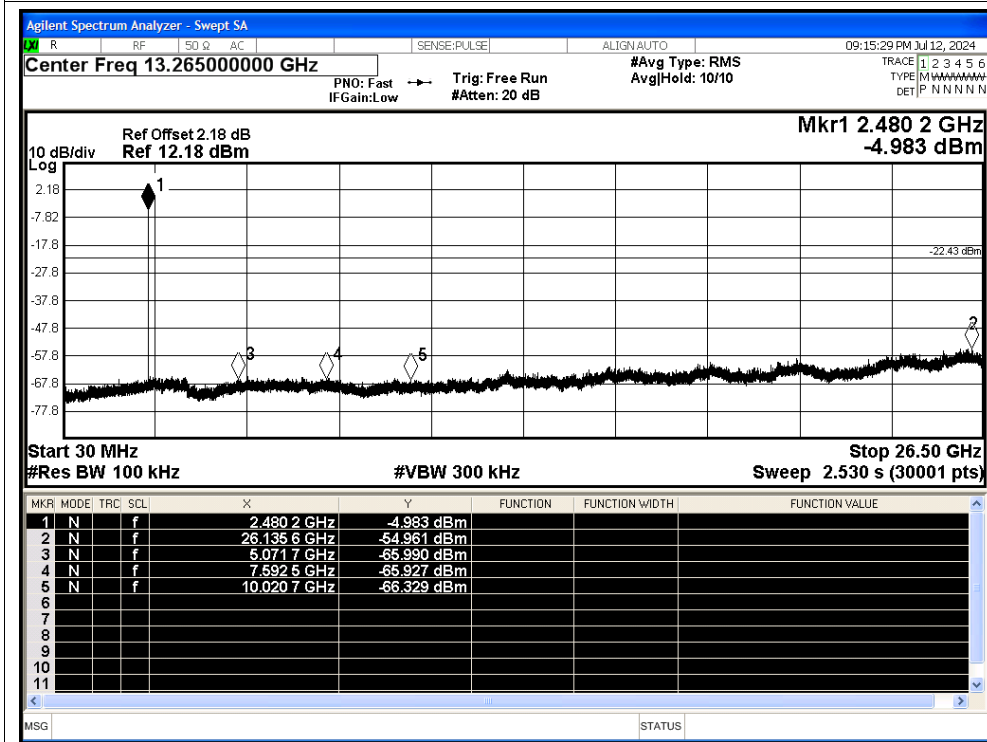




Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Emission





A.8 Duty Cycle

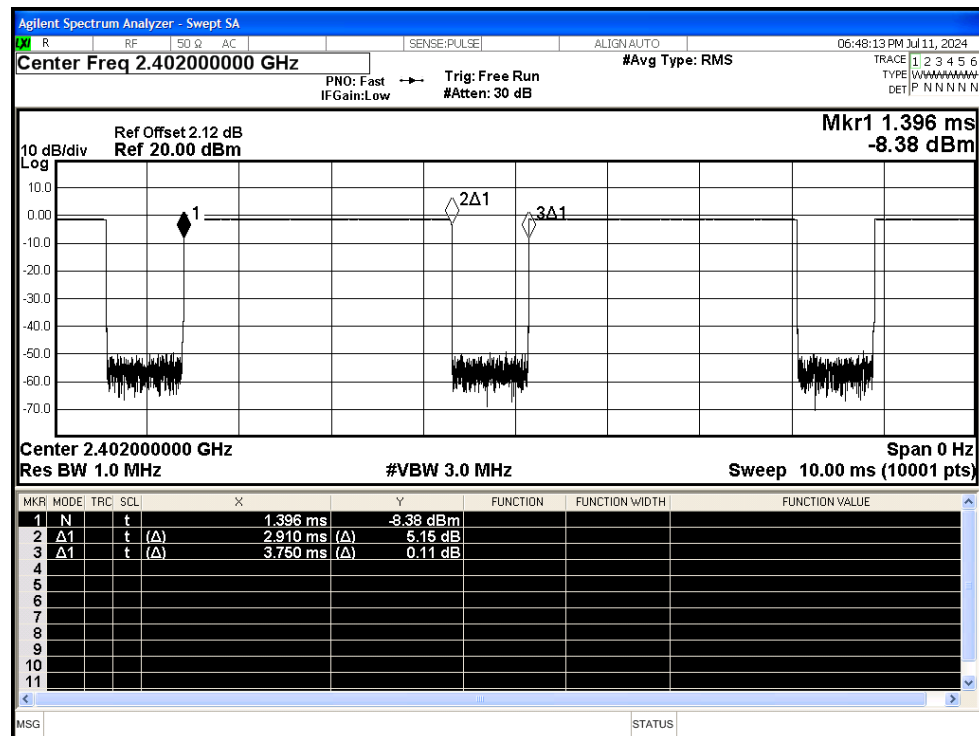
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH5	2402	Ant1	77.6	1.1	0.34
NVNT	1-DH5	2441	Ant1	77.6	1.1	0.34
NVNT	1-DH5	2480	Ant1	77.6	1.1	0.34
NVNT	2-DH5	2402	Ant1	77.28	1.12	0.35
NVNT	2-DH5	2441	Ant1	77.28	1.12	0.35
NVNT	2-DH5	2480	Ant1	77.28	1.12	0.35
NVNT	3-DH5	2402	Ant1	76.41	1.17	0.36
NVNT	3-DH5	2441	Ant1	76.38	1.17	0.36
NVNT	3-DH5	2480	Ant1	76.37	1.17	0.36



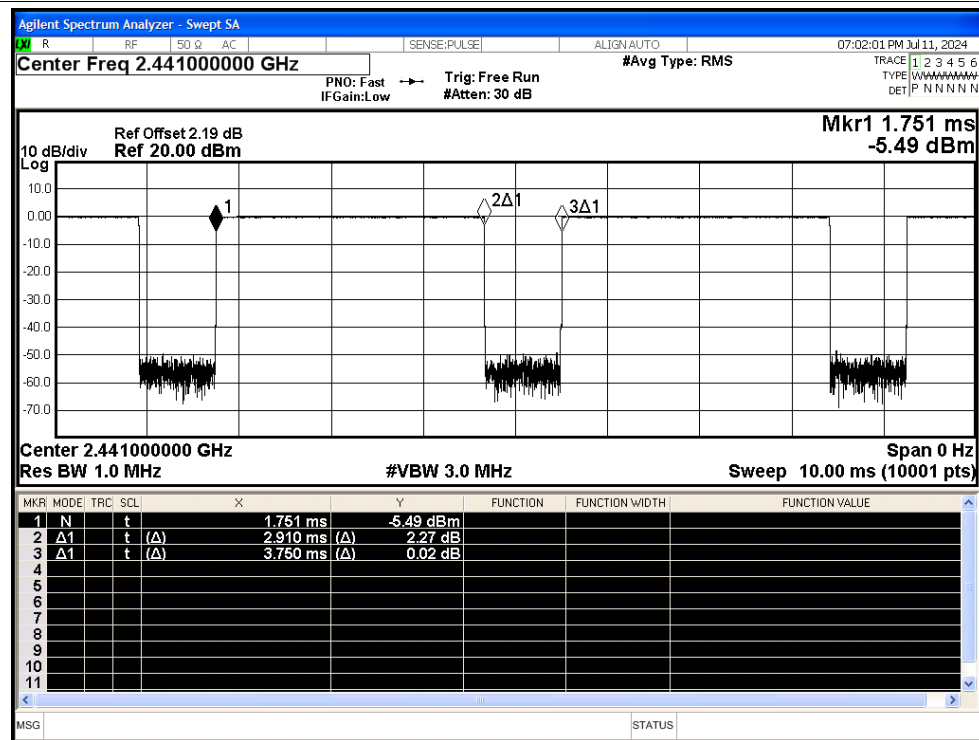


Test Graphs

Duty Cycle NVNT 1-DH5 2402MHz Ant1

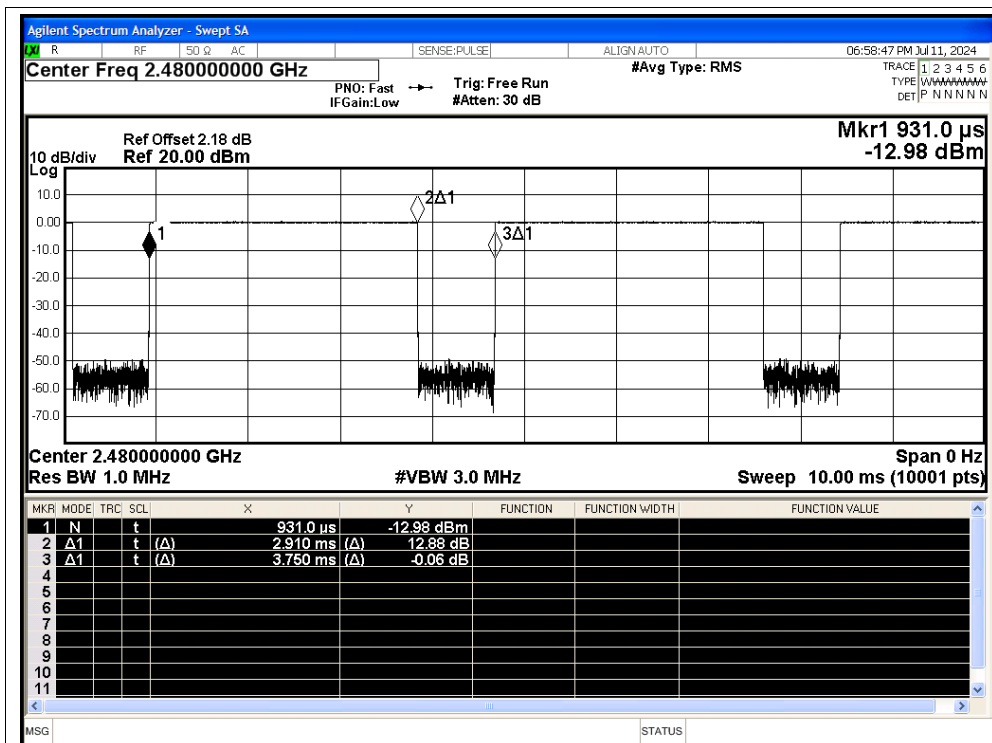


Duty Cycle NVNT 1-DH5 2441MHz Ant1

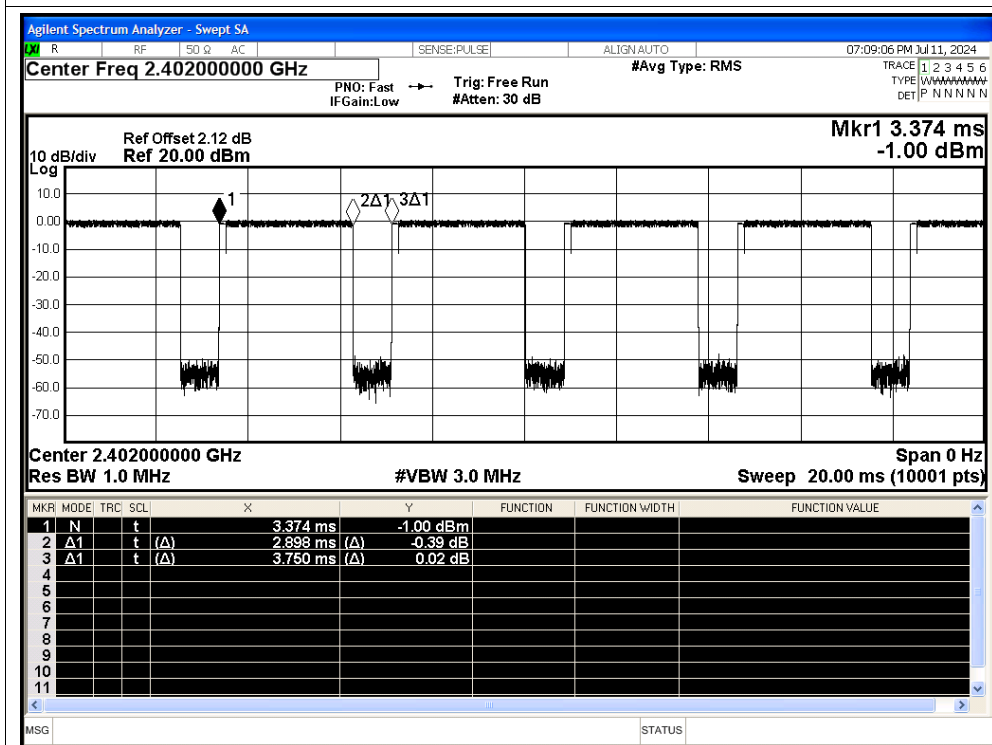


Duty Cycle NVNT 1-DH5 2480MHz Ant1



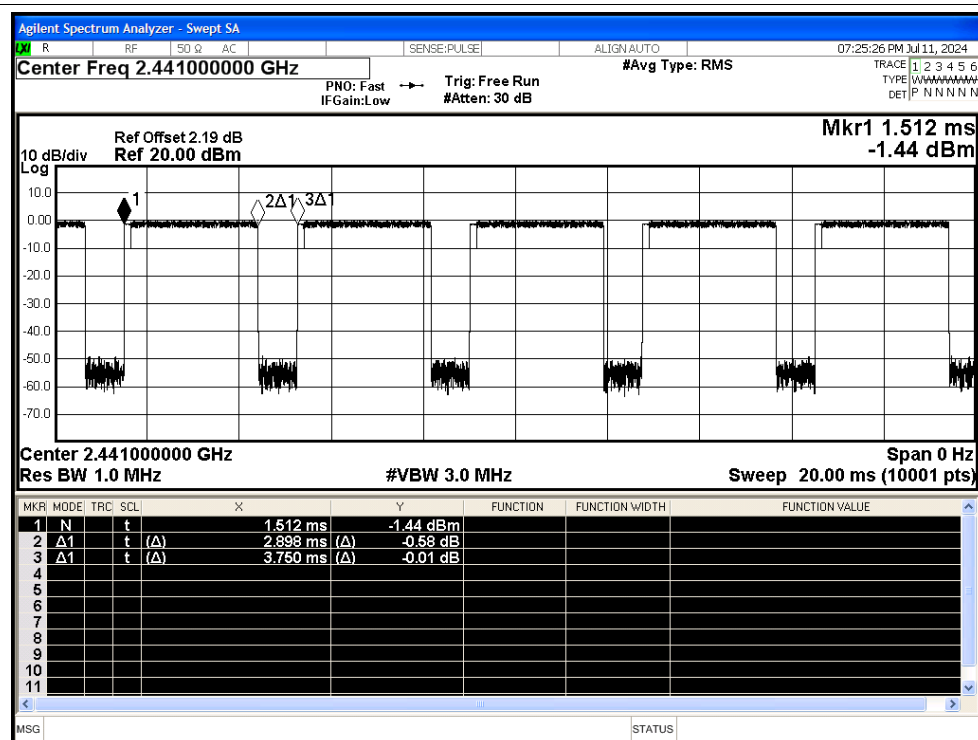


Duty Cycle NVNT 2-DH5 2402MHz Ant1

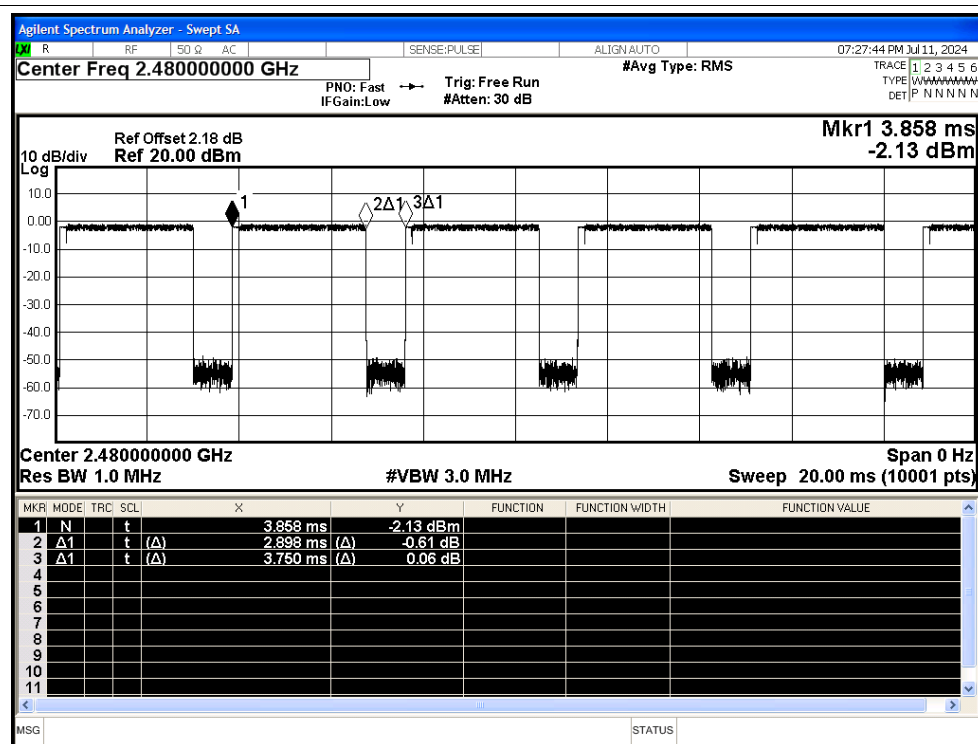




Duty Cycle NVNT 2-DH5 2441MHz Ant1

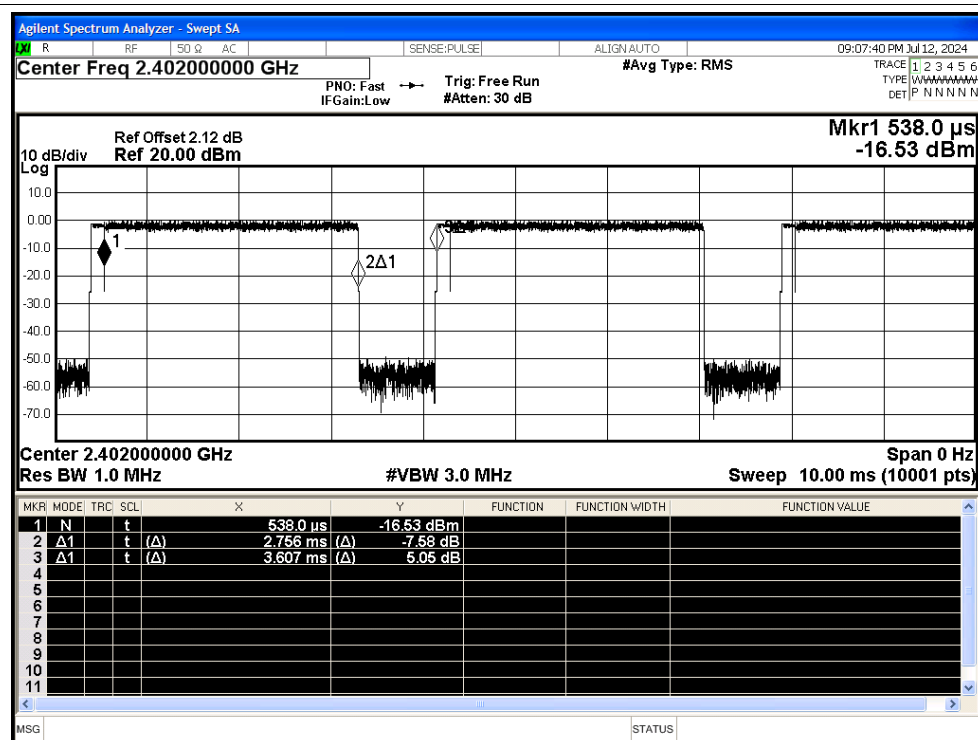


Duty Cycle NVNT 2-DH5 2480MHz Ant1

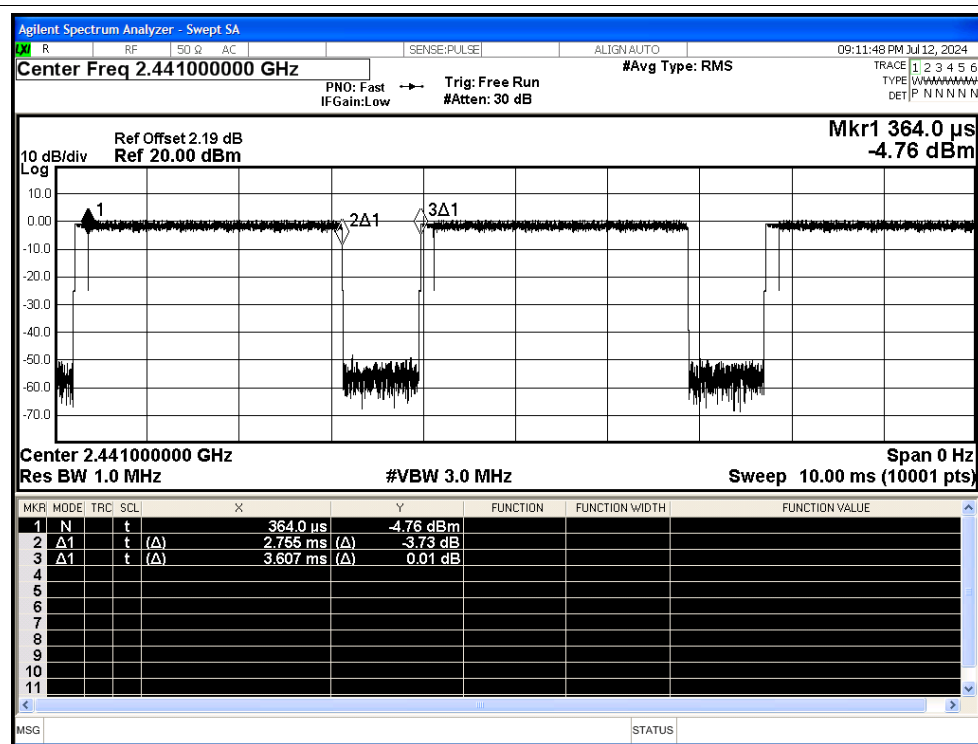


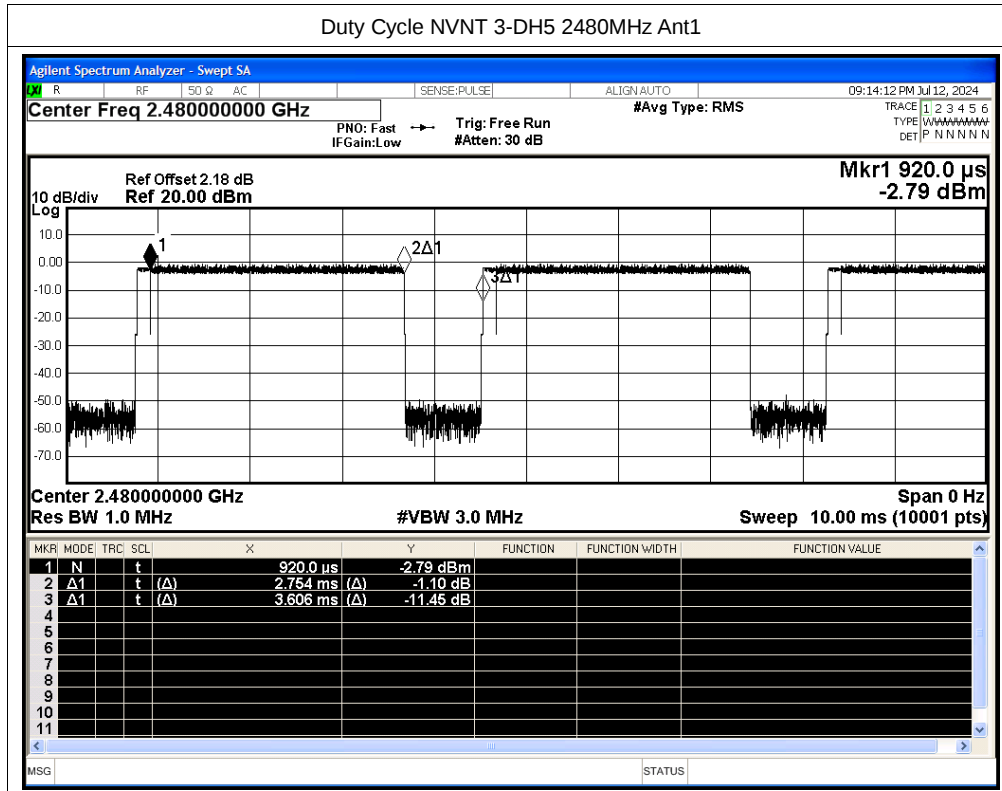


Duty Cycle NVNT 3-DH5 2402MHz Ant1



Duty Cycle NVNT 3-DH5 2441MHz Ant1







A.9 Restrict Band

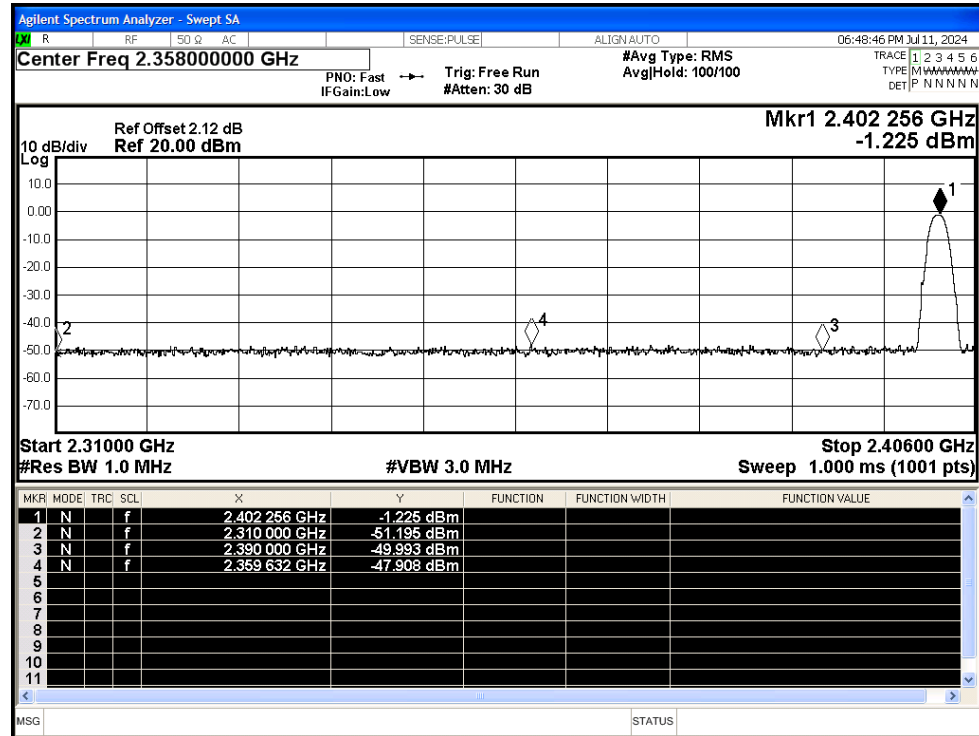
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-51.2	2.58	-	46.64	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-59.17	2.58	1.1	39.77	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2359.632	-47.91	2.58	-	49.93	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2386.128	-57.64	2.58	1.1	41.3	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-49.99	2.58	-	47.85	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-57.96	2.58	1.1	40.98	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-48.02	2.58	-	49.82	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-56.79	2.58	1.1	42.15	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2484.592	-44.96	2.58	-	52.88	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.512	-56.79	2.58	1.1	42.15	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-49.97	2.58	-	47.87	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-57.74	2.58	1.1	41.2	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-51.41	2.58	-	46.43	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-58.63	2.58	1.12	40.33	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2362.416	-47.3	2.58	-	50.54	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2369.712	-57.5	2.58	1.12	41.46	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-50.37	2.58	-	47.47	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-58.18	2.58	1.12	40.78	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-46.85	2.58	-	50.99	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-57.19	2.58	1.12	41.77	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.512	-46.85	2.58	-	50.99	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.536	-56.62	2.58	1.12	42.34	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-49.62	2.58	-	48.22	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-57.53	2.58	1.12	41.43	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-50.84	2.58	-	47	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-58.98	2.58	1.17	40.03	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2385.168	-47.16	2.58	-	50.68	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2384.784	-57.62	2.58	1.17	41.39	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-50.86	2.58	-	46.98	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-58.72	2.58	1.17	40.29	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-49.89	2.58	-	47.95	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-57.66	2.58	1.17	41.35	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2484.568	-42.62	2.58	-	55.22	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.584	-57.27	2.58	1.17	41.74	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-51.1	2.58	-	46.74	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-57.75	2.58	1.17	41.26	Average	54	Pass



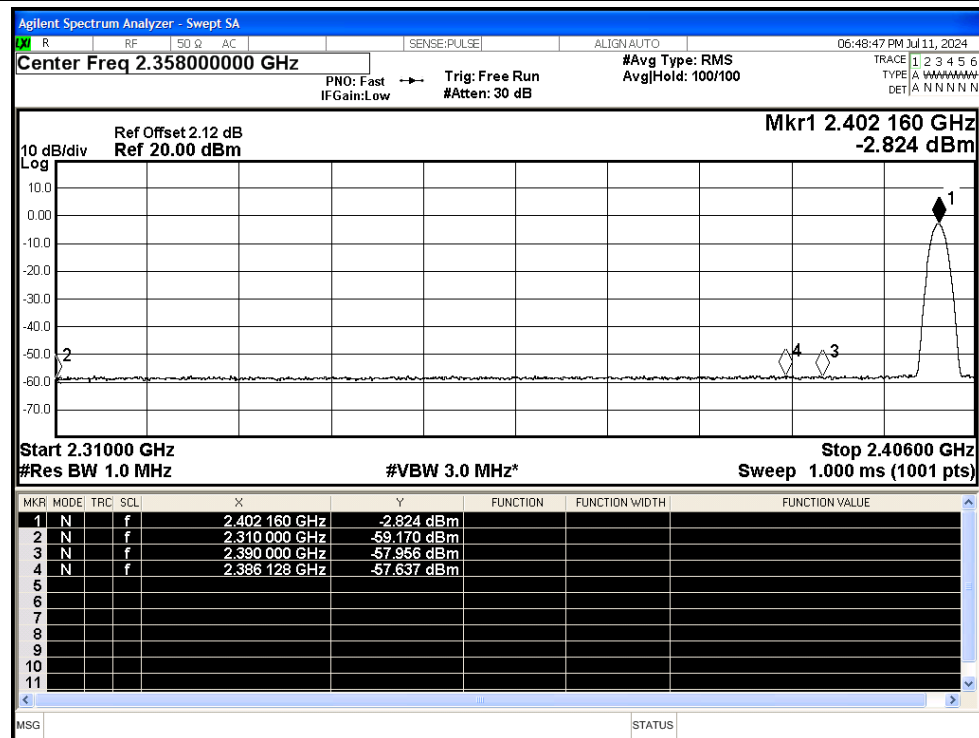


Test Graphs

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

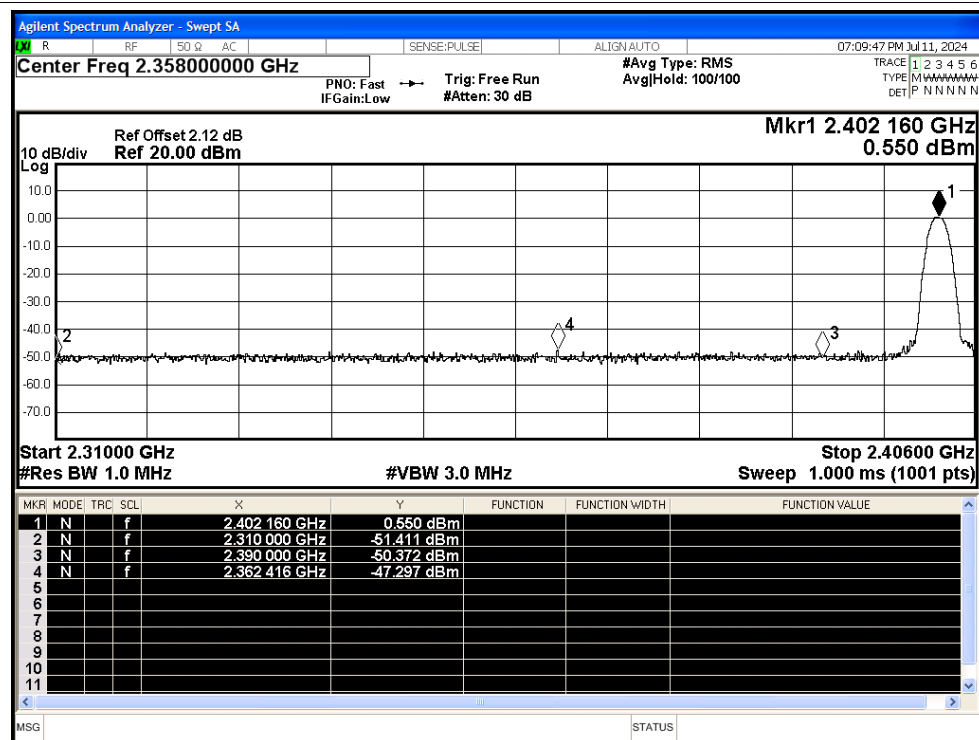


Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Average

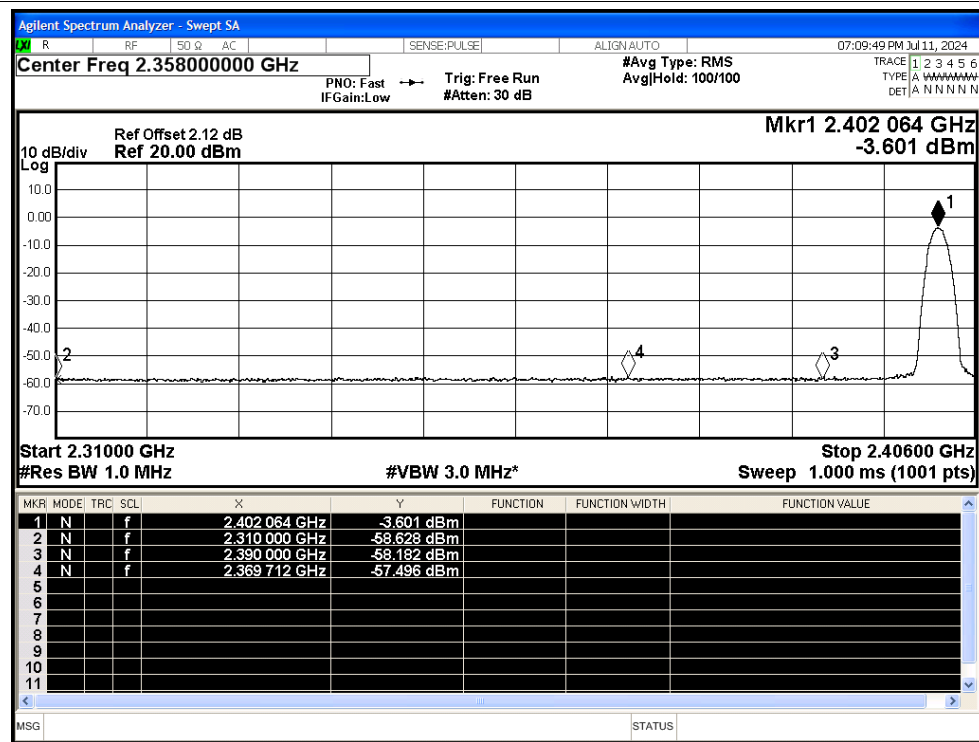




Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Peak

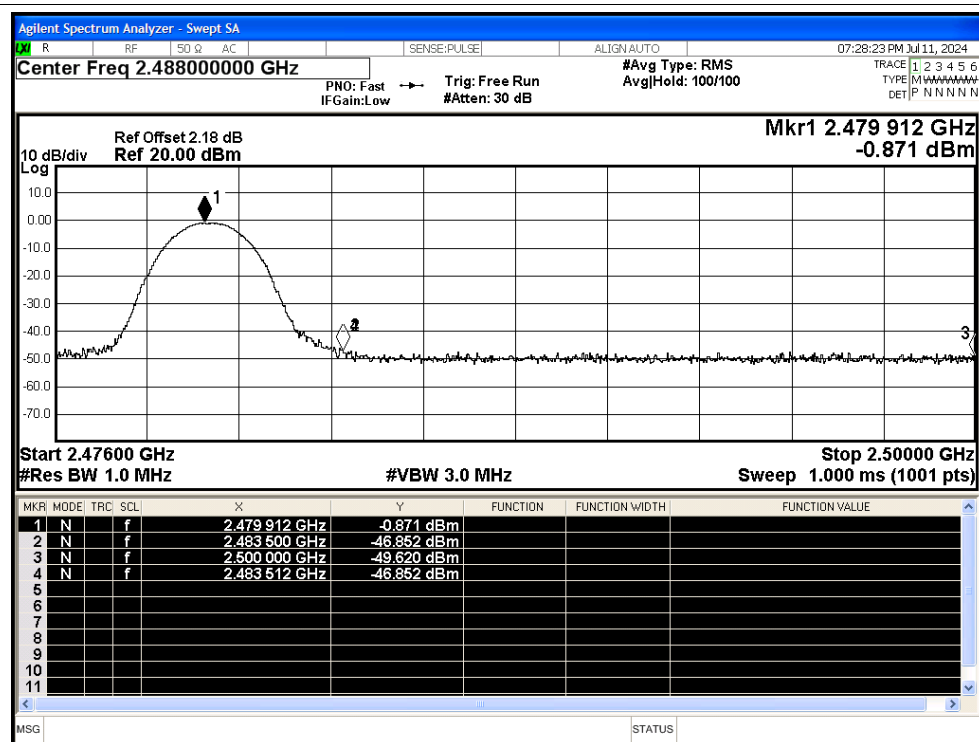


Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Average

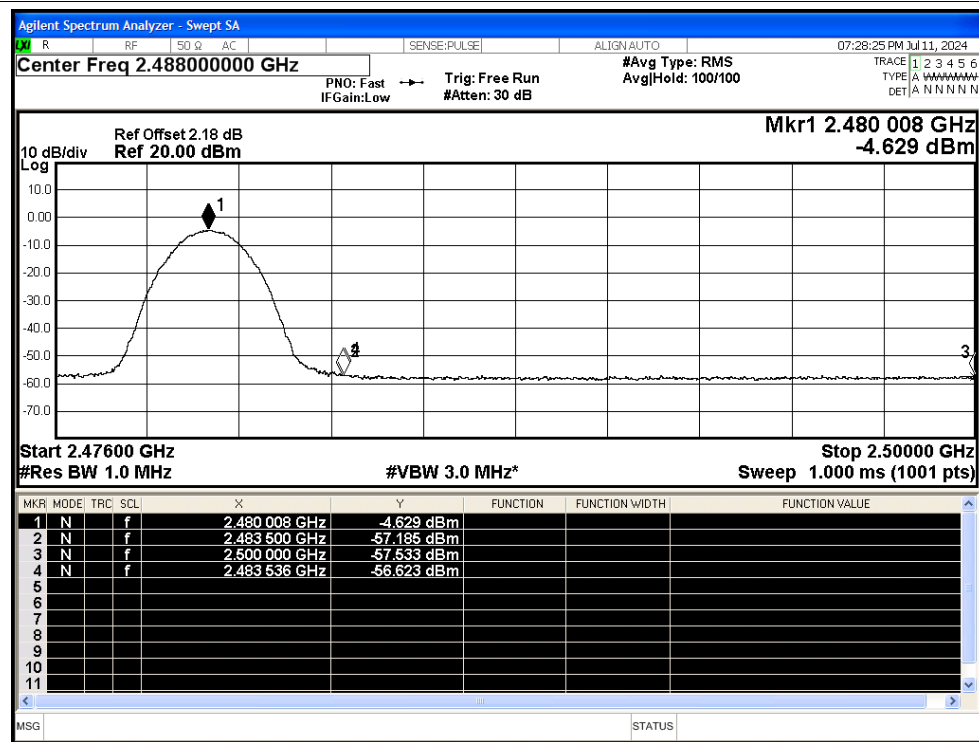




Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Peak

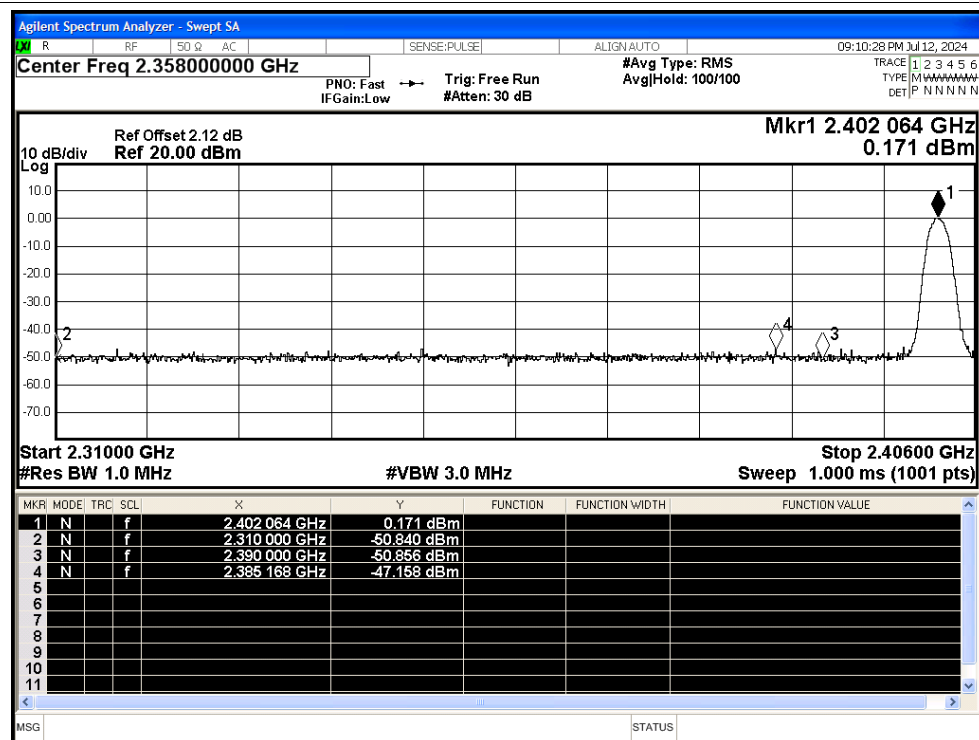


Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Average





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



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

