



Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: WIRELESS HEADSET

Test Model: ZEALOT-B39

Environmental Conditions

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





A.1 -20dB Bandwidth

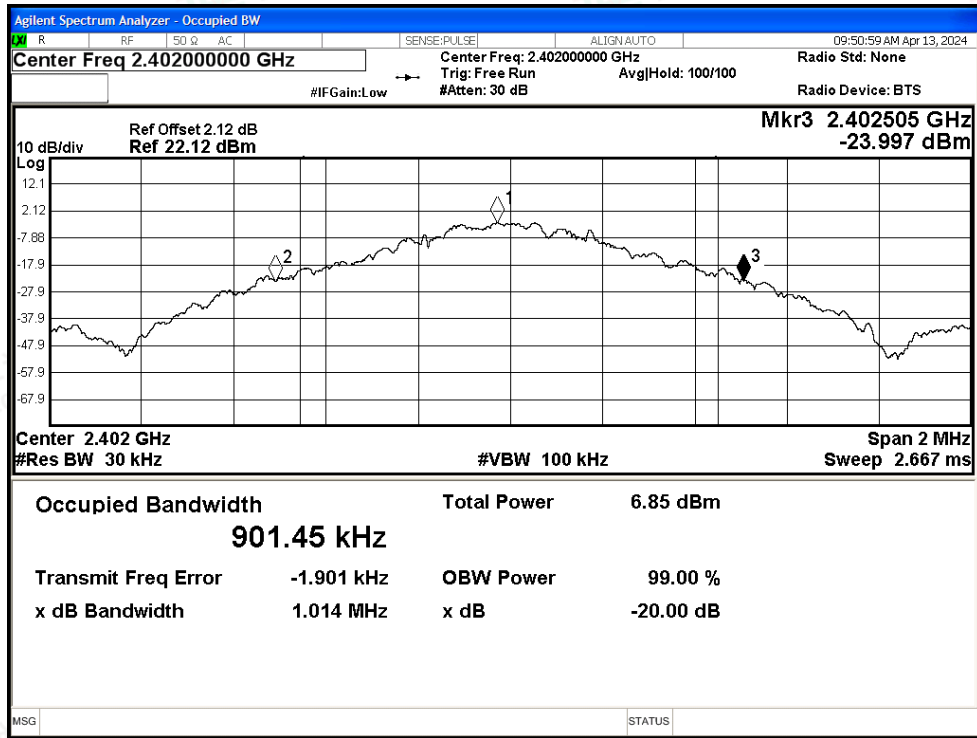
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH5	2402	Ant	1.014	N/A	Pass
NVNT	1-DH5	2441	Ant	1.006	N/A	Pass
NVNT	1-DH5	2480	Ant	1.029	N/A	Pass
NVNT	2-DH5	2402	Ant	1.282	N/A	Pass
NVNT	2-DH5	2441	Ant	1.307	N/A	Pass
NVNT	2-DH5	2480	Ant	1.315	N/A	Pass
NVNT	3-DH5	2402	Ant	1.284	N/A	Pass
NVNT	3-DH5	2441	Ant	1.305	N/A	Pass
NVNT	3-DH5	2480	Ant	1.297	N/A	Pass



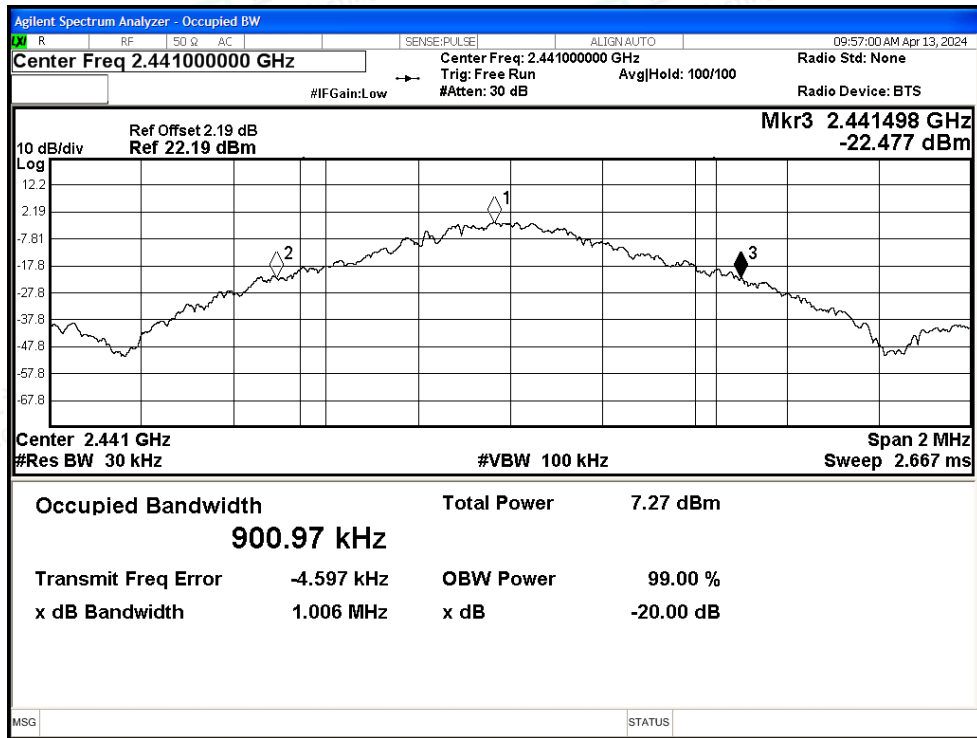


Test Graphs

-20dB Bandwidth NVNT 1-DH5 2402MHz Ant

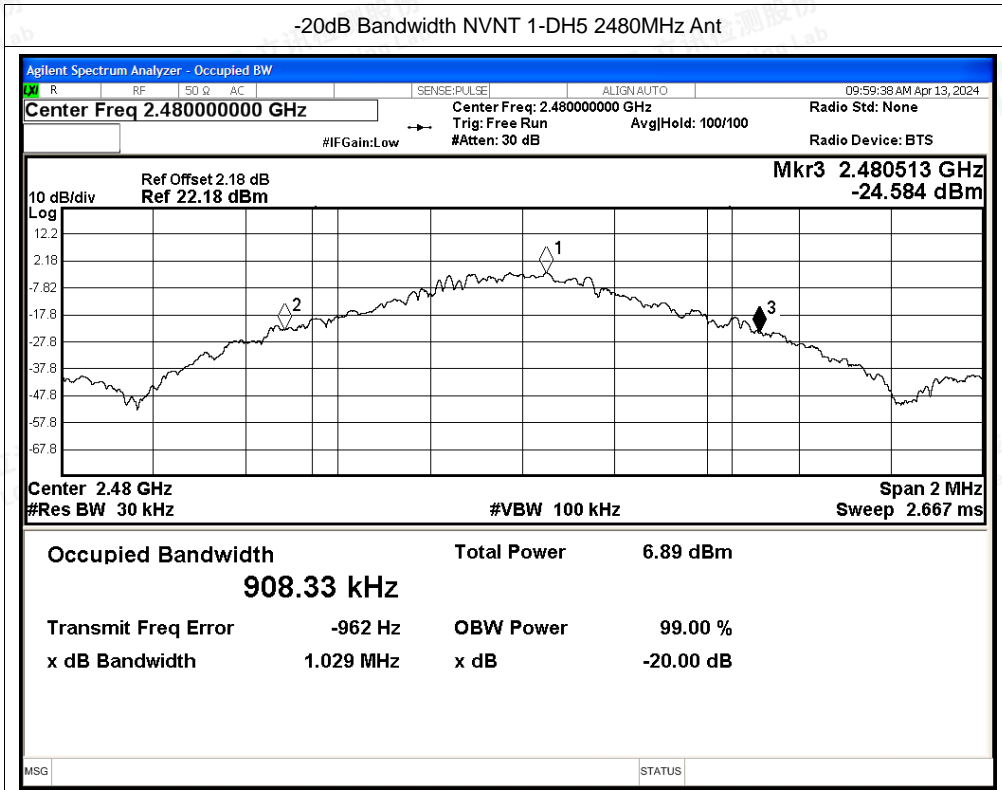


-20dB Bandwidth NVNT 1-DH5 2441MHz Ant

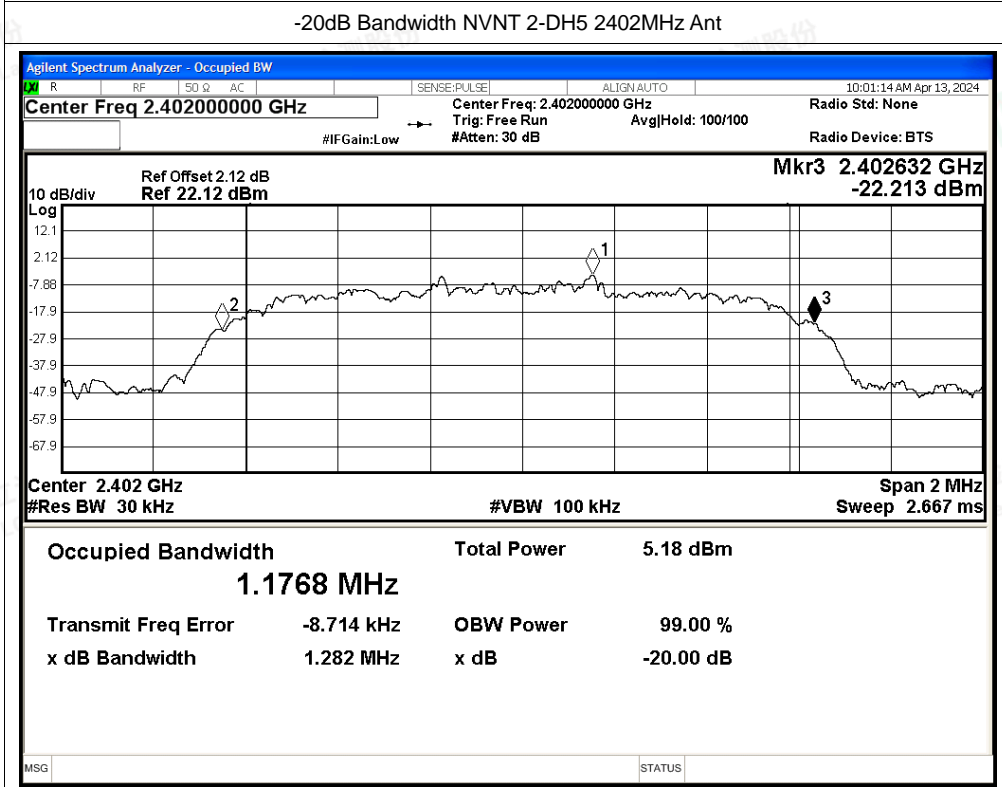




-20dB Bandwidth NVNT 1-DH5 2480MHz Ant

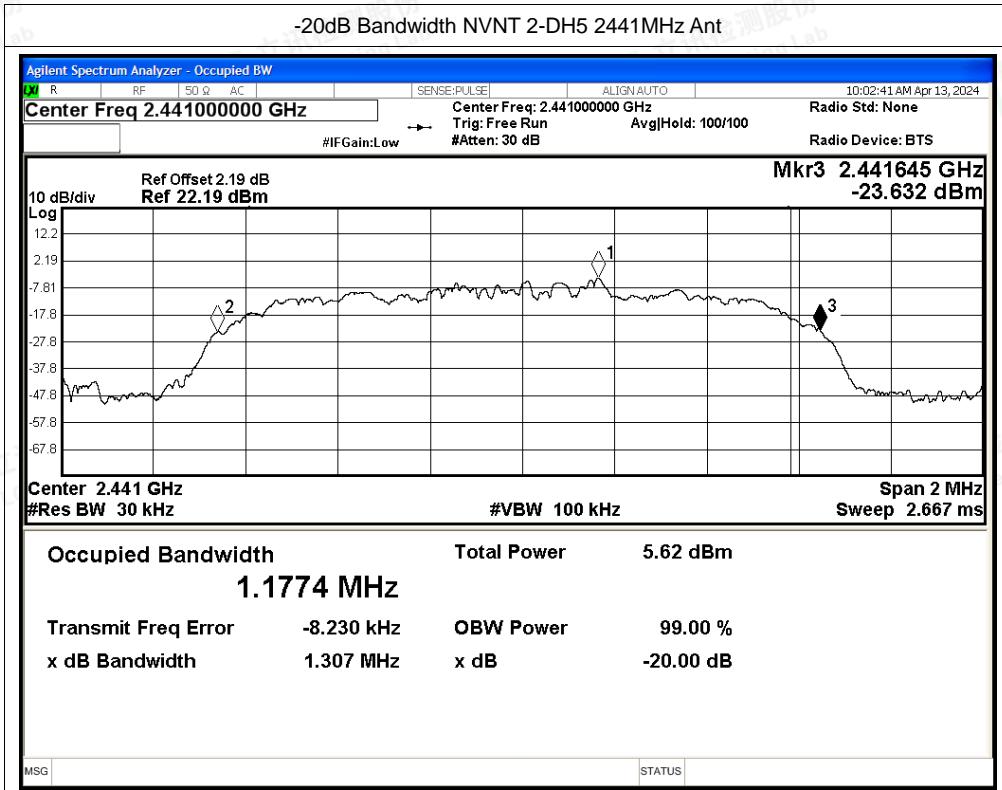


-20dB Bandwidth NVNT 2-DH5 2402MHz Ant

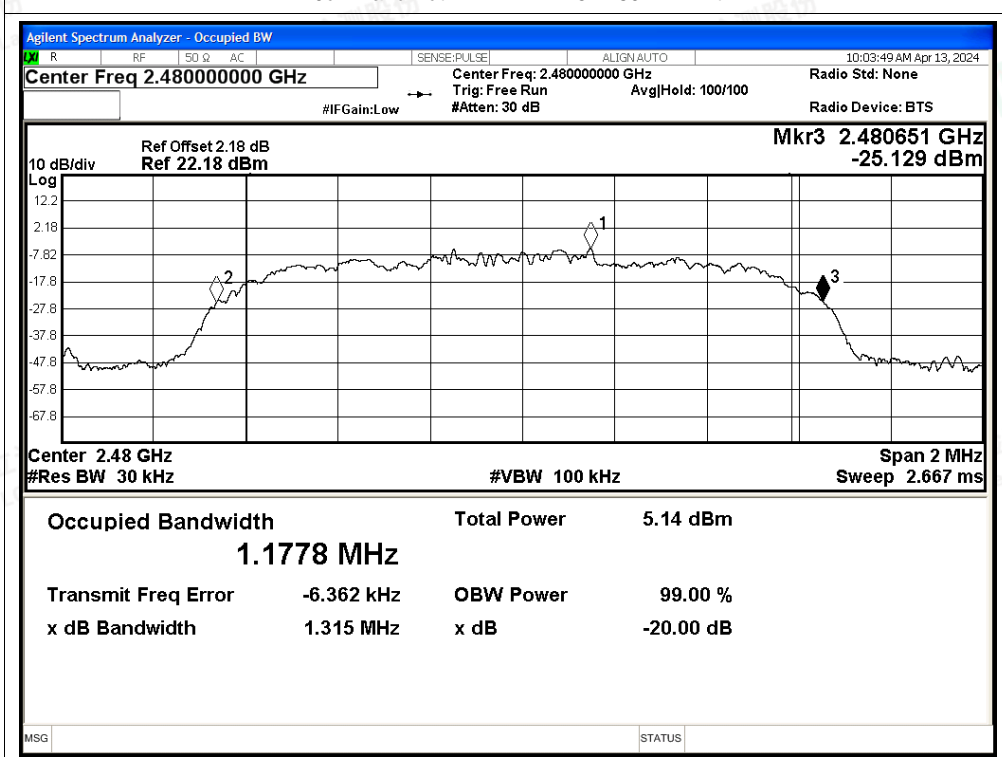




-20dB Bandwidth NVNT 2-DH5 2441MHz Ant

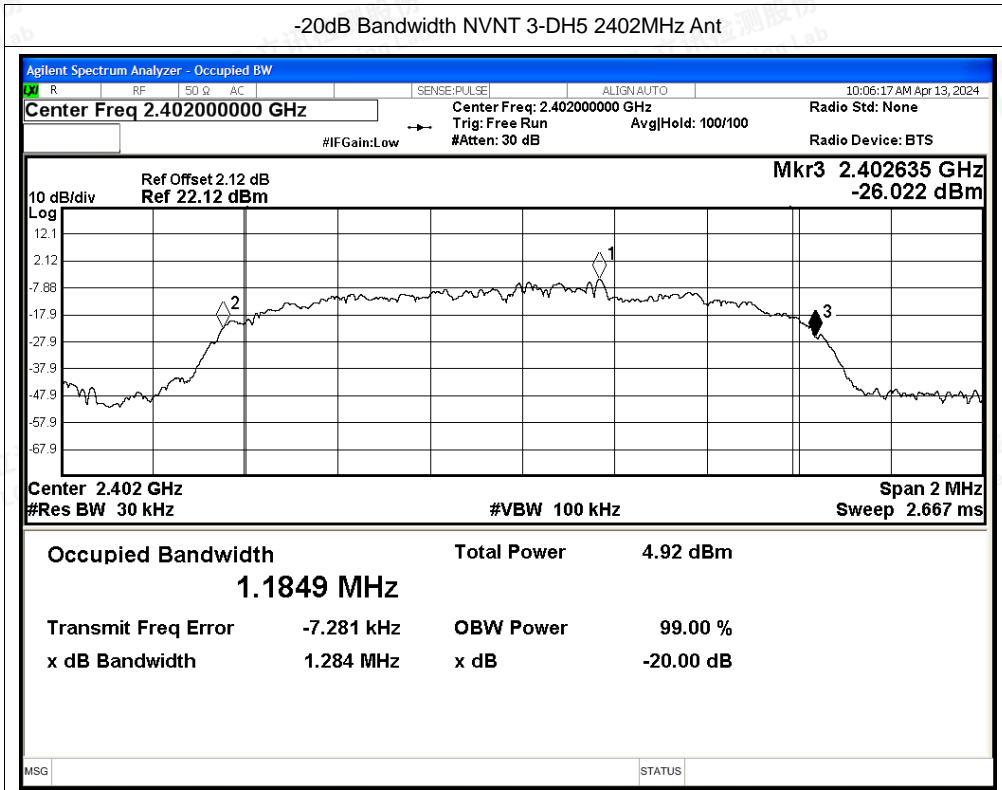


-20dB Bandwidth NVNT 2-DH5 2480MHz Ant

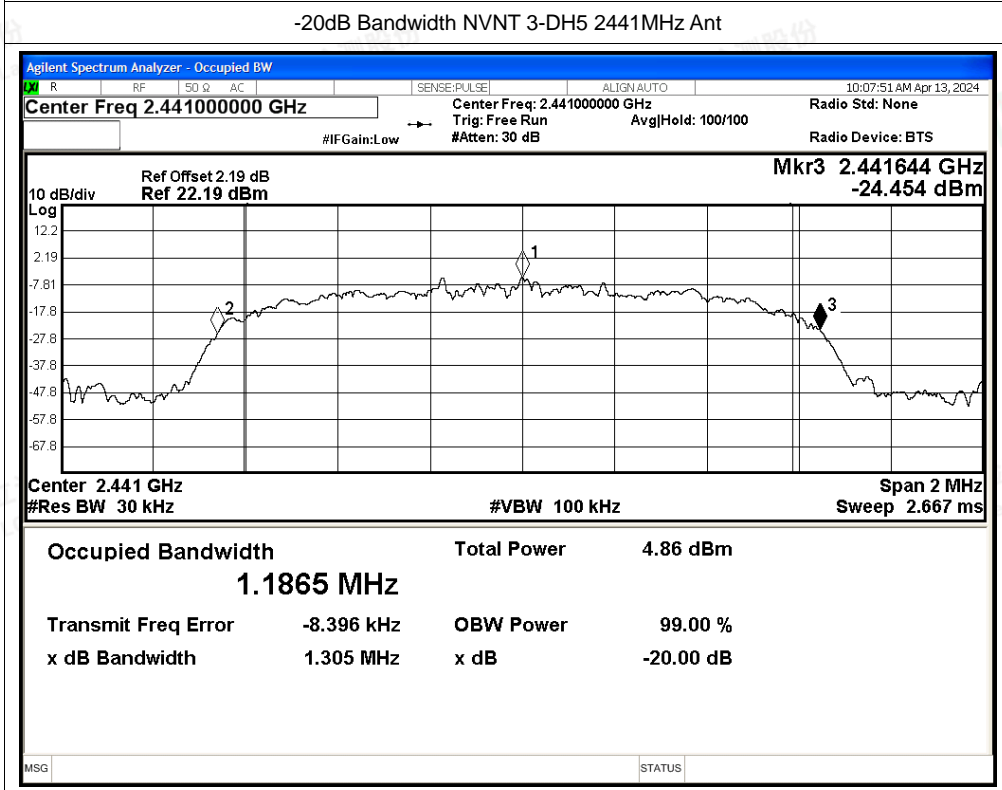


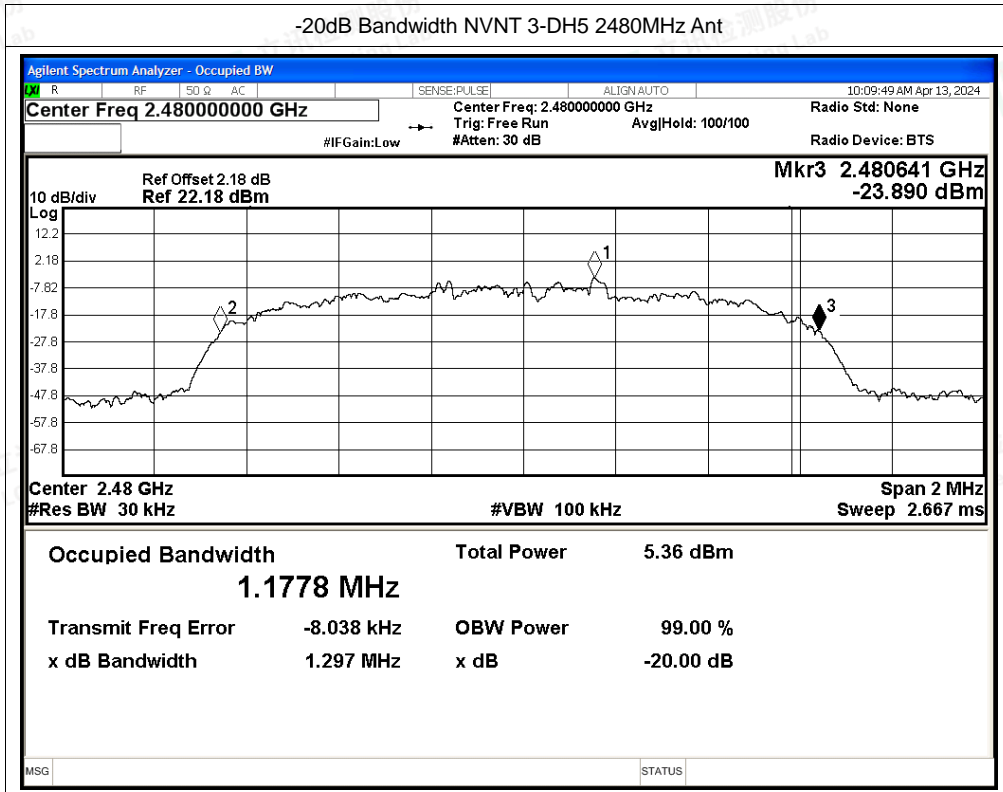


-20dB Bandwidth NVNT 3-DH5 2402MHz Ant



-20dB Bandwidth NVNT 3-DH5 2441MHz Ant







A.2 Maximum Conducted Output Power

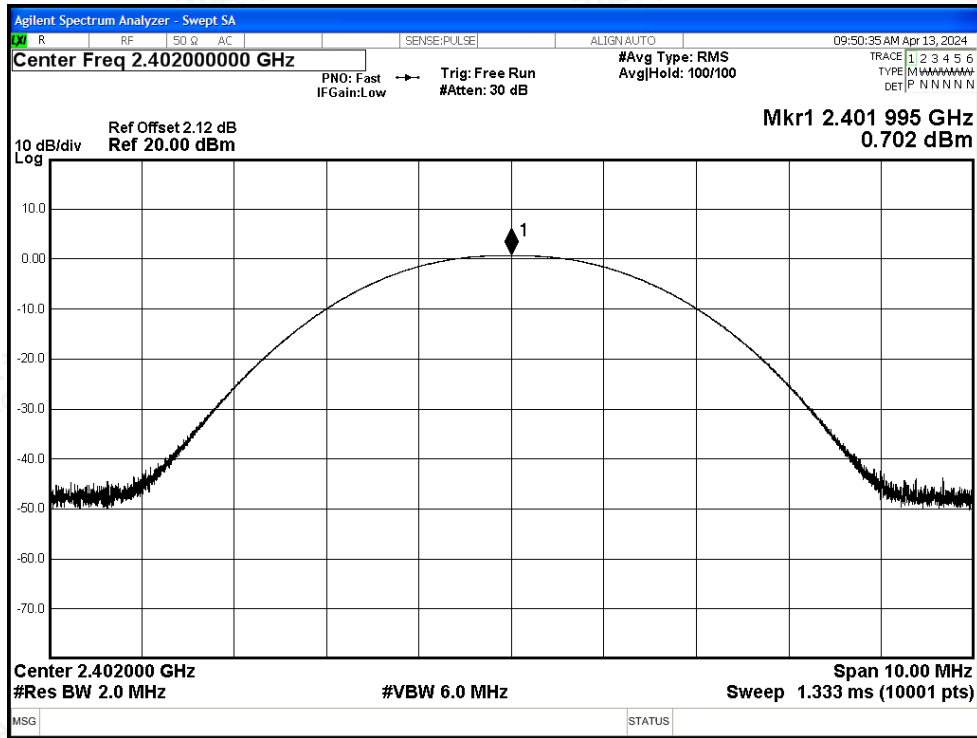
Condition	Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH5	2402	Ant	0.7	21	Pass
NVNT	1-DH5	2441	Ant	1.2	21	Pass
NVNT	1-DH5	2480	Ant	0.9	21	Pass
NVNT	2-DH5	2402	Ant	0.68	21	Pass
NVNT	2-DH5	2441	Ant	0.55	21	Pass
NVNT	2-DH5	2480	Ant	0.65	21	Pass
NVNT	3-DH5	2402	Ant	0.45	21	Pass
NVNT	3-DH5	2441	Ant	0.66	21	Pass
NVNT	3-DH5	2480	Ant	1.13	21	Pass



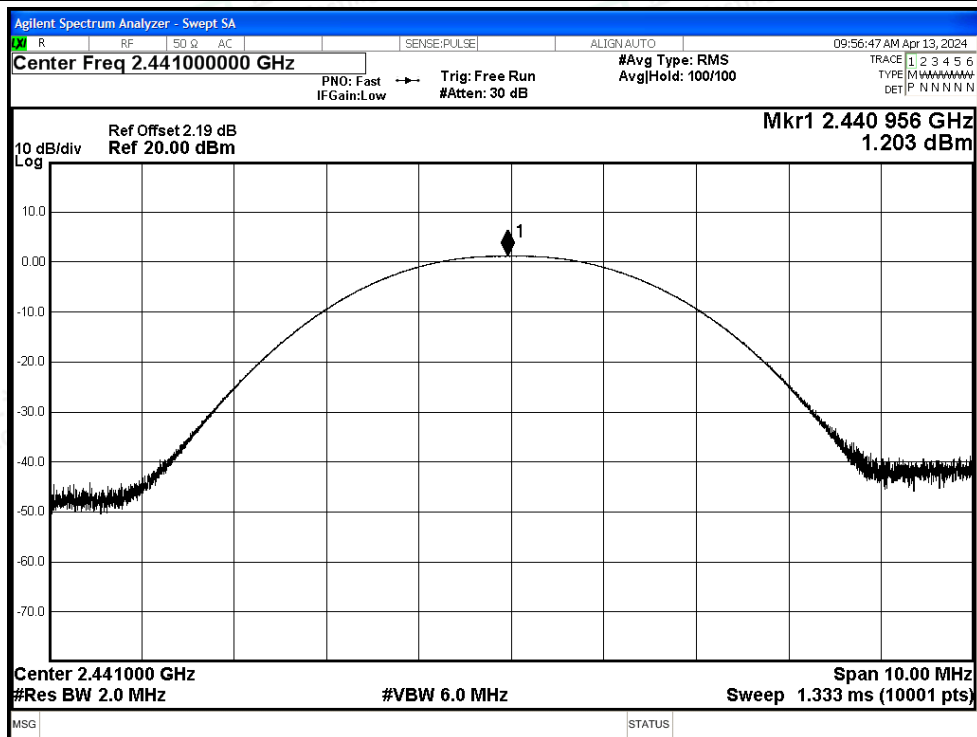


Test Graphs

Power NVNT 1-DH5 2402MHz Ant

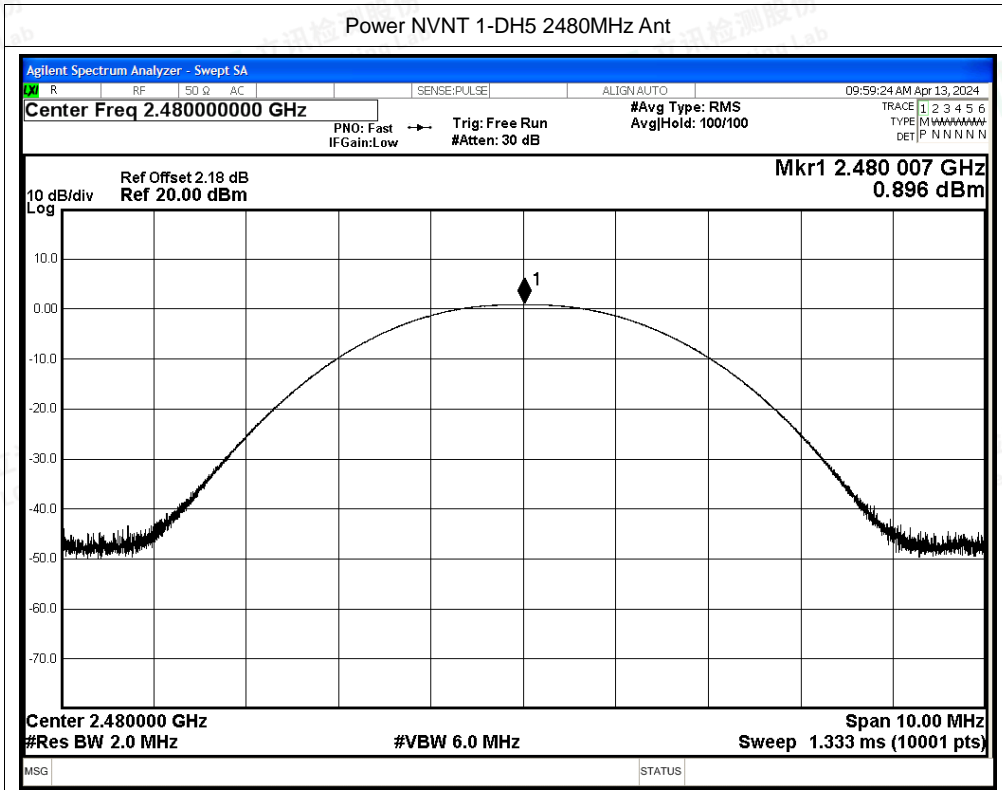


Power NVNT 1-DH5 2441MHz Ant

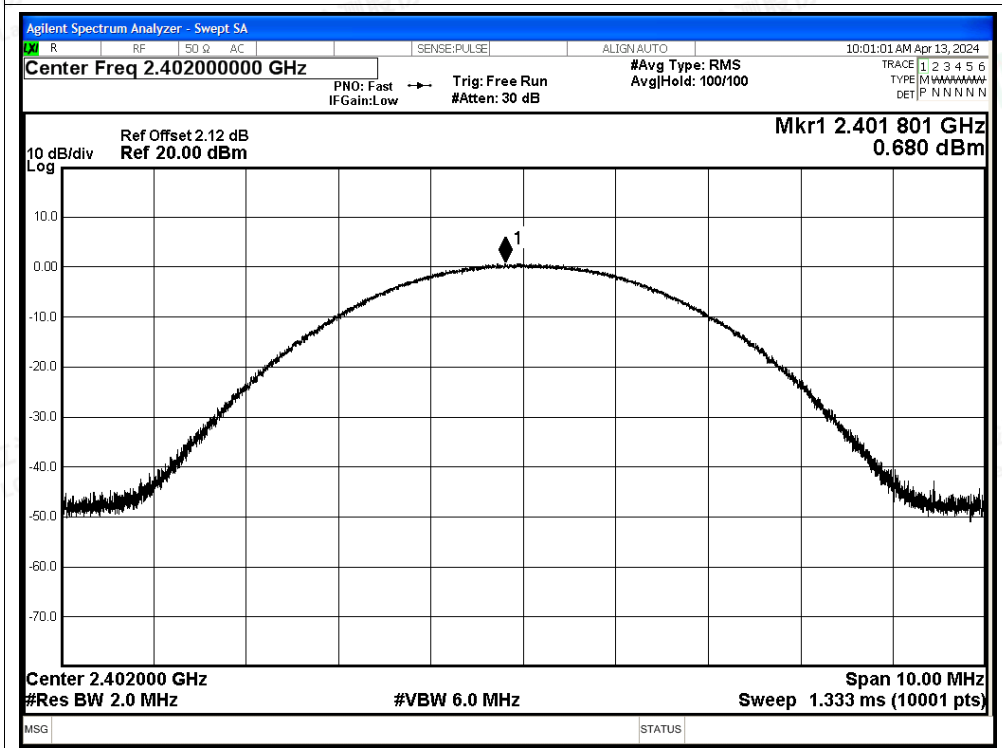




Power NVNT 1-DH5 2480MHz Ant

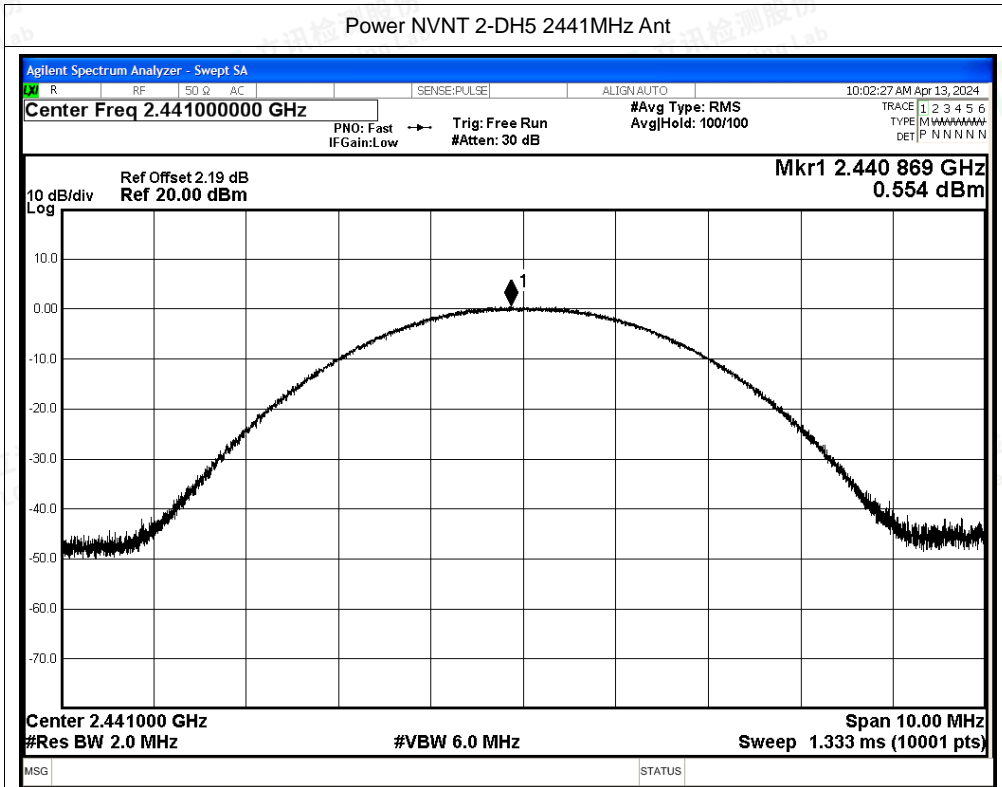


Power NVNT 2-DH5 2402MHz Ant

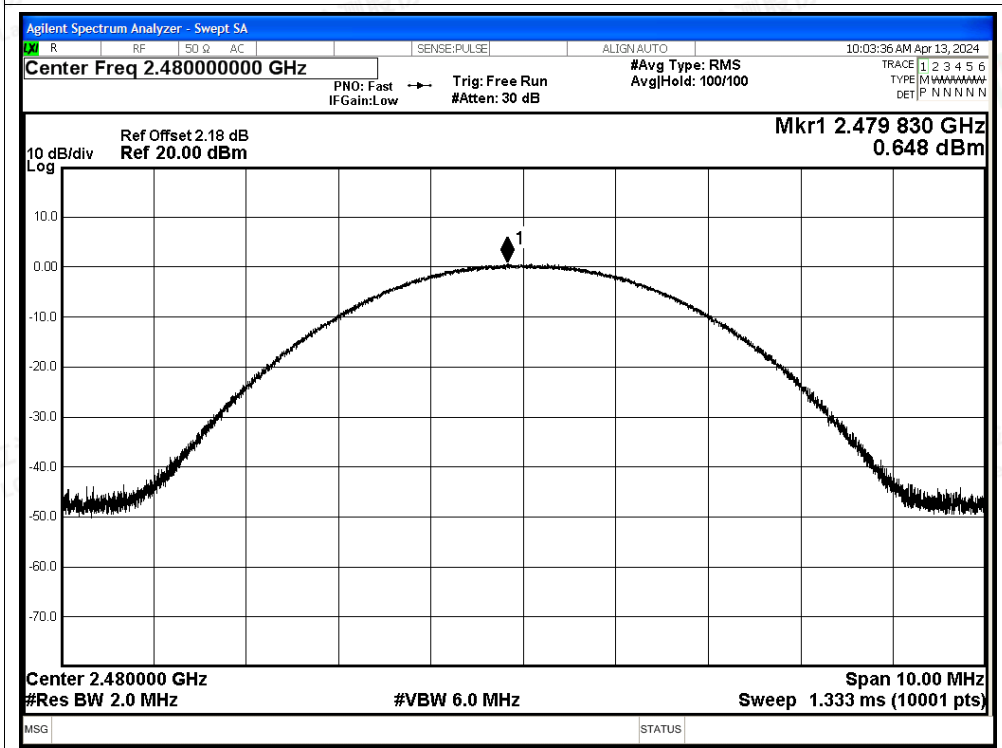




Power NVNT 2-DH5 2441MHz Ant

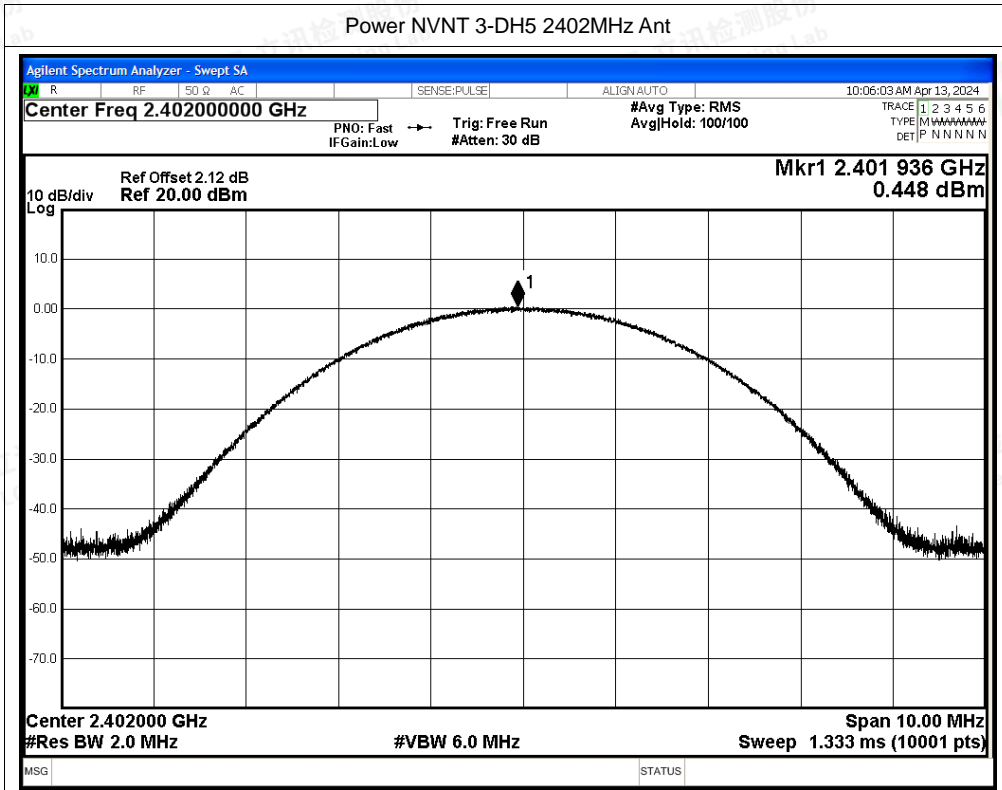


Power NVNT 2-DH5 2480MHz Ant

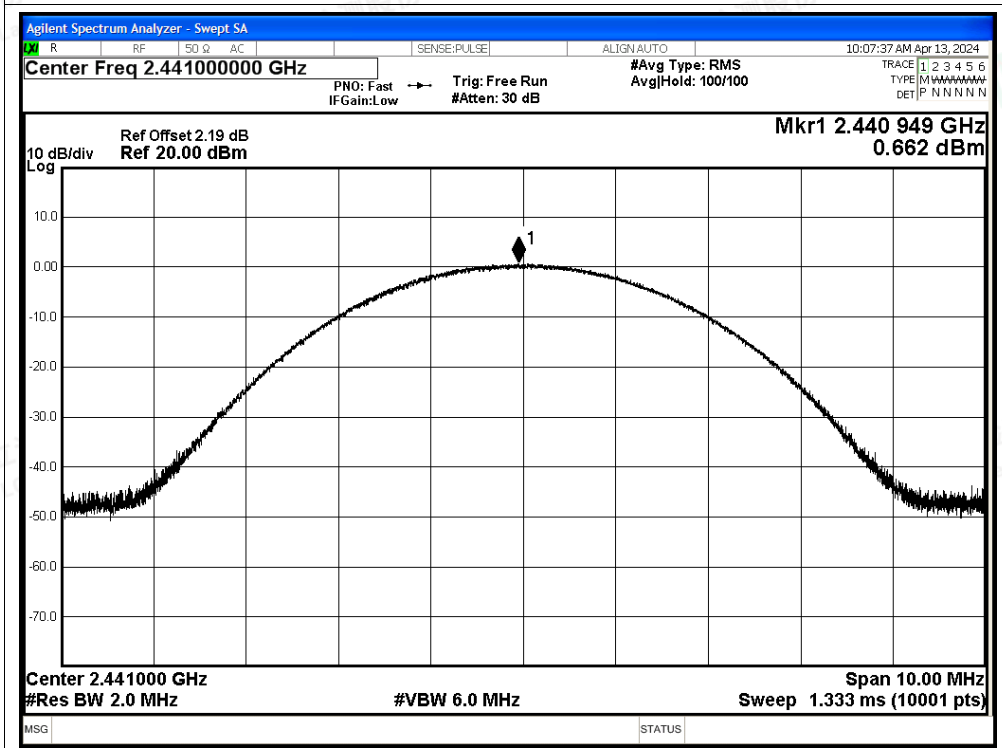


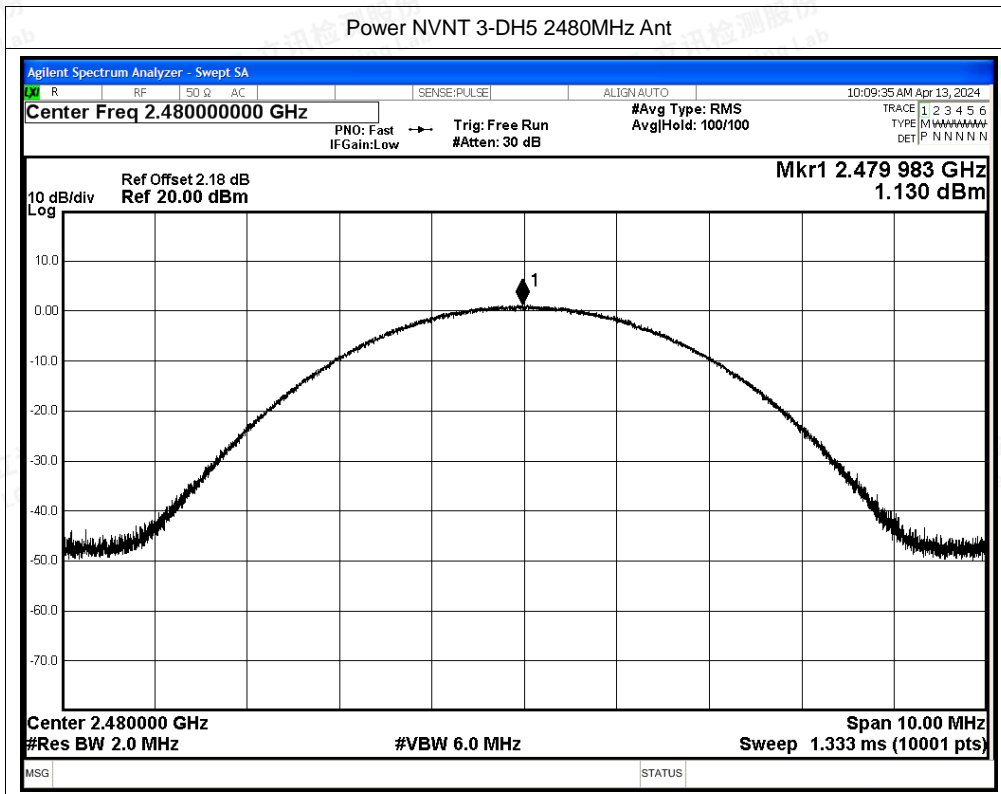


Power NVNT 3-DH5 2402MHz Ant



Power NVNT 3-DH5 2441MHz Ant







A.3 Carrier Frequencies Separation

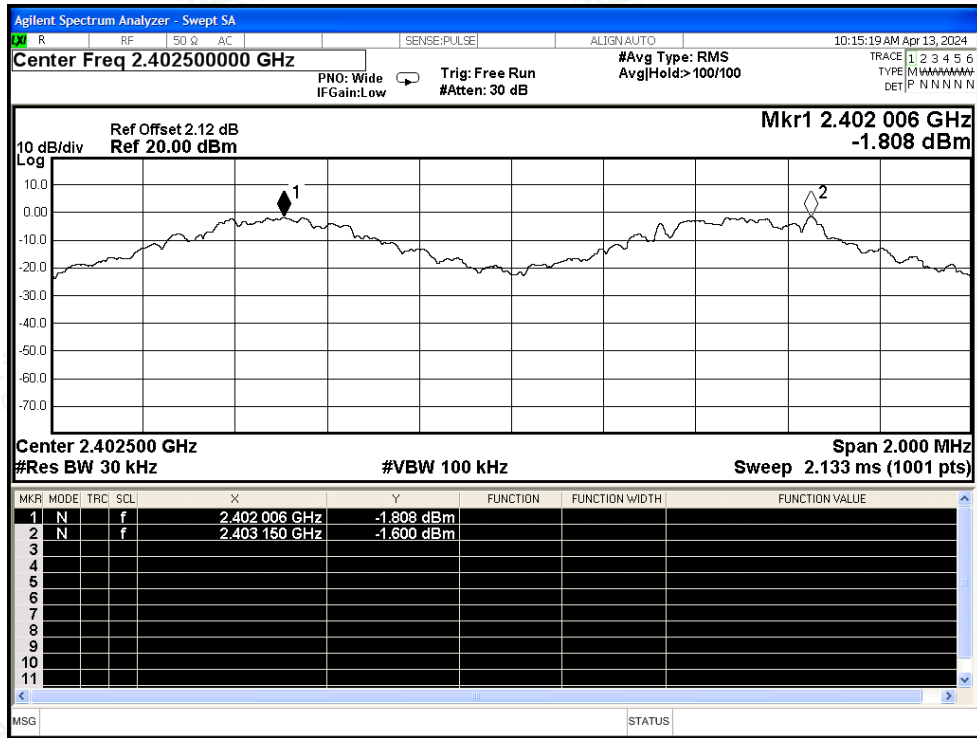
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH5	Ant	2402.006	2403.15	1.144	0.686	Pass
NVNT	2-DH5	Ant	2401.904	2403.156	1.252	0.877	Pass
NVNT	3-DH5	Ant	2402.154	2403.164	1.01	0.870	Pass



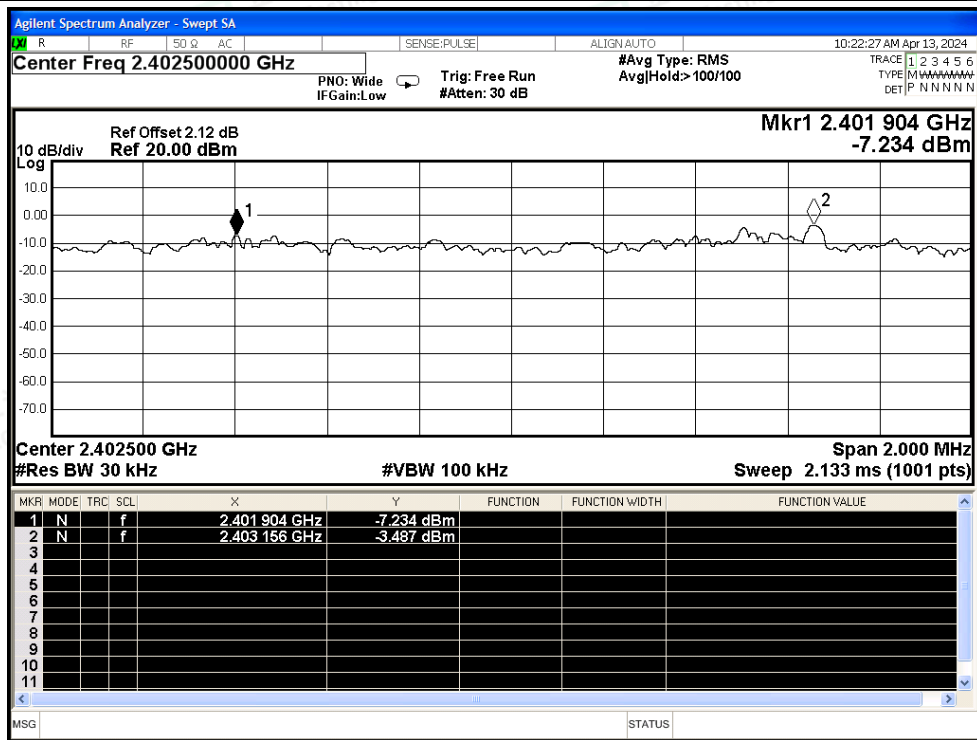


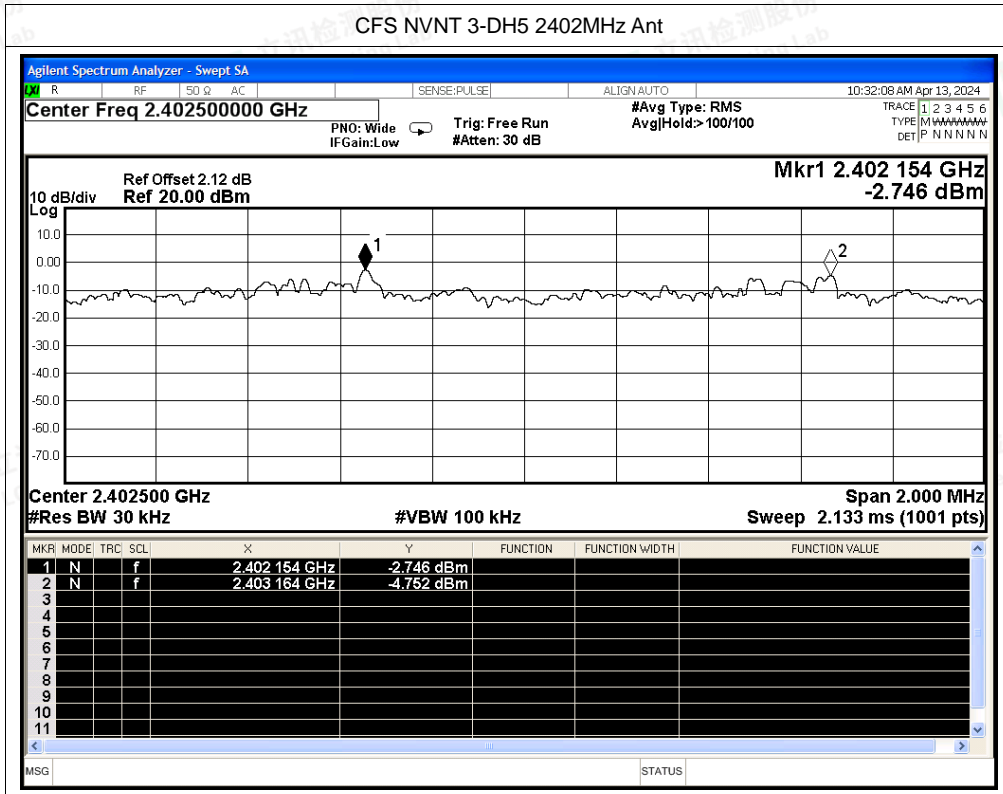
Test Graphs

CFS NVNT 1-DH5 2402MHz Ant



CFS NVNT 2-DH5 2402MHz Ant







A.4 Dwell Time

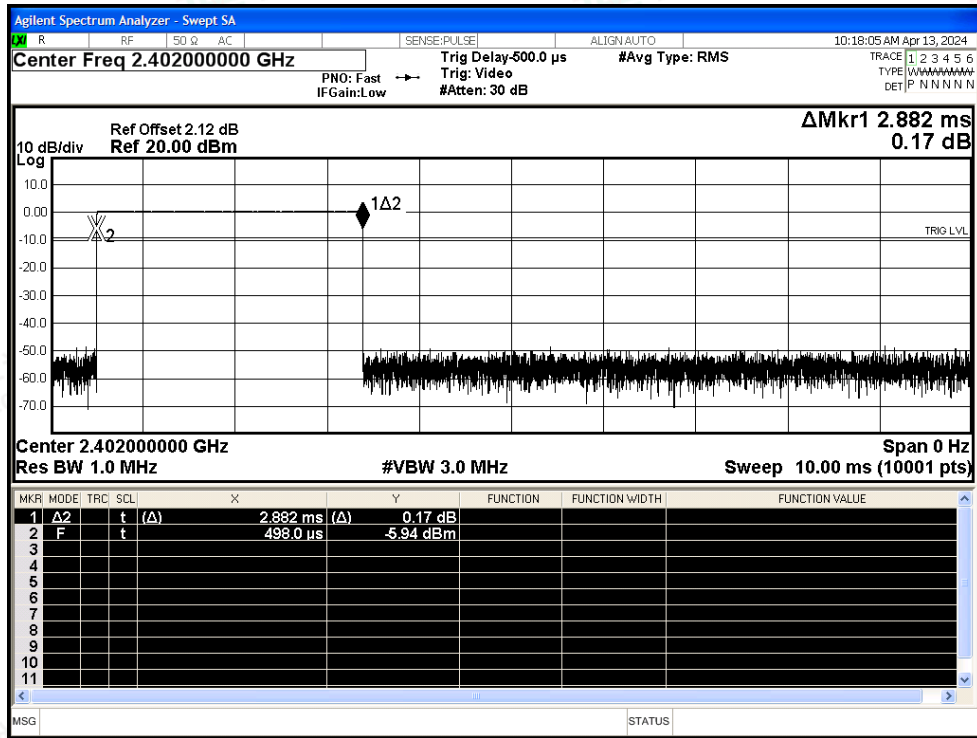
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH5	2402	Ant	2.882	291.082	101	31600	400	Pass
NVNT	2-DH5	2402	Ant	2.885	294.27	102	31600	400	Pass
NVNT	3-DH5	2402	Ant	2.886	277.056	96	31600	400	Pass



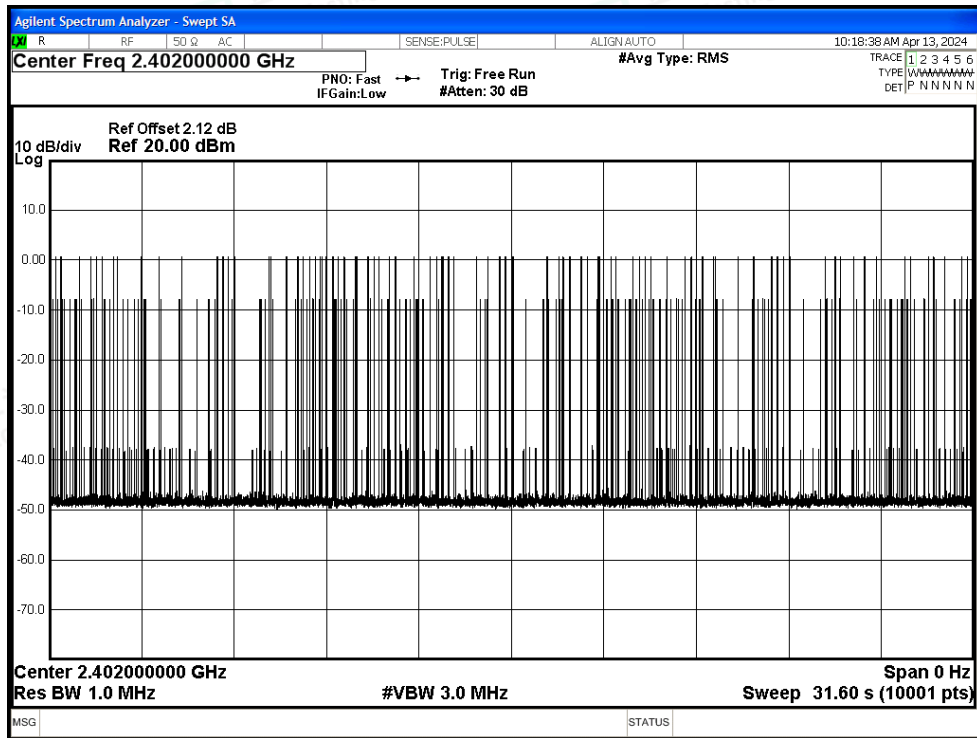


Test Graphs

Dwell NVNT 1-DH5 2402MHz Ant One Burst

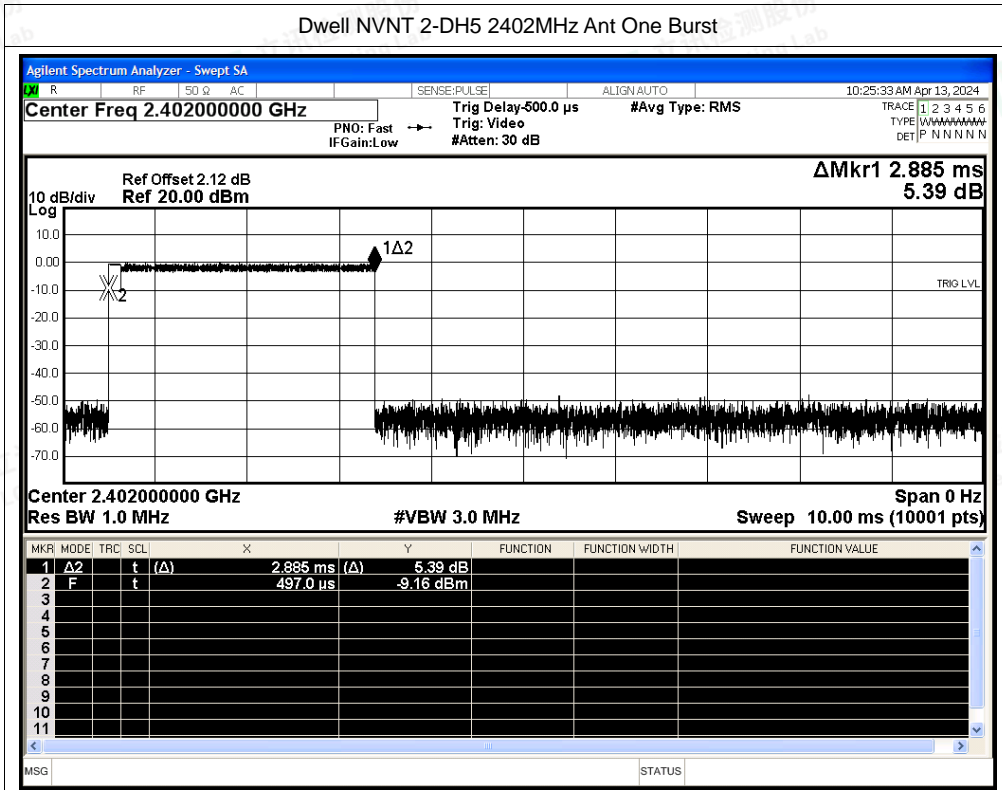


Dwell NVNT 1-DH5 2402MHz Ant Accumulated

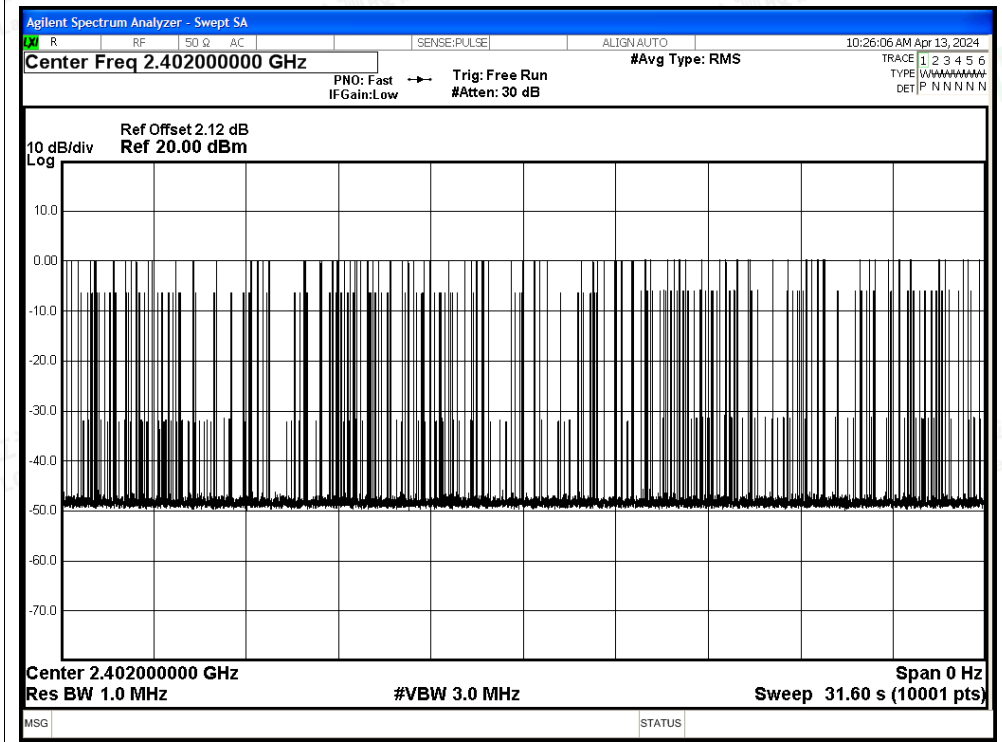




Dwell NVNT 2-DH5 2402MHz Ant One Burst

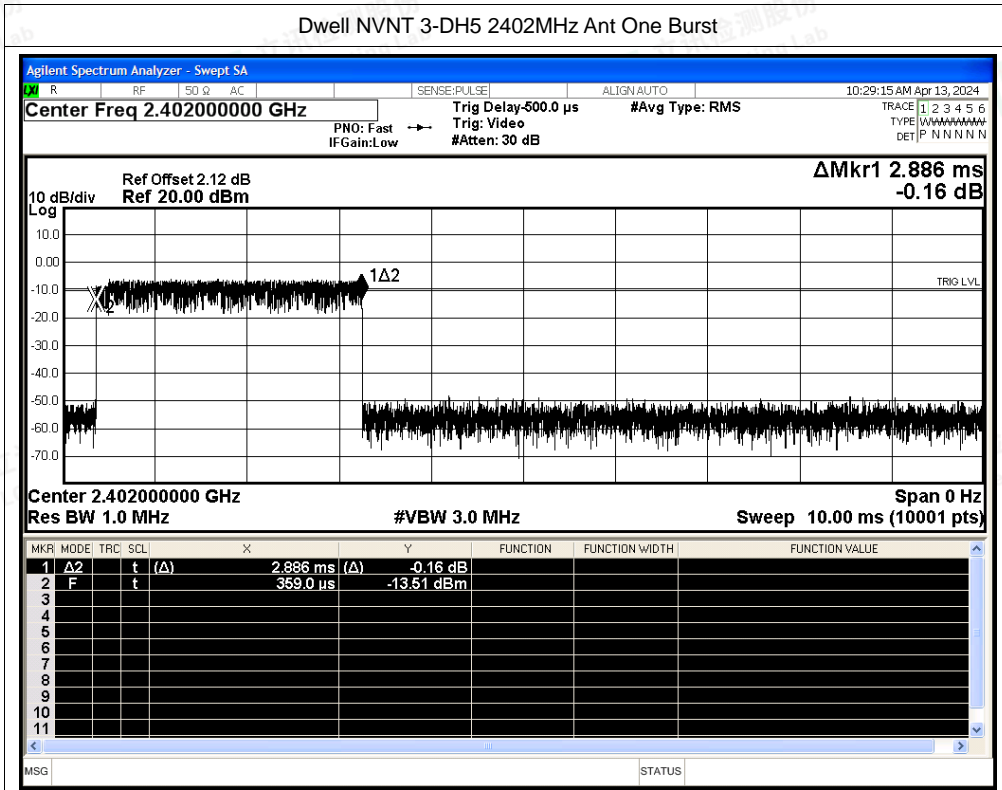


Dwell NVNT 2-DH5 2402MHz Ant Accumulated

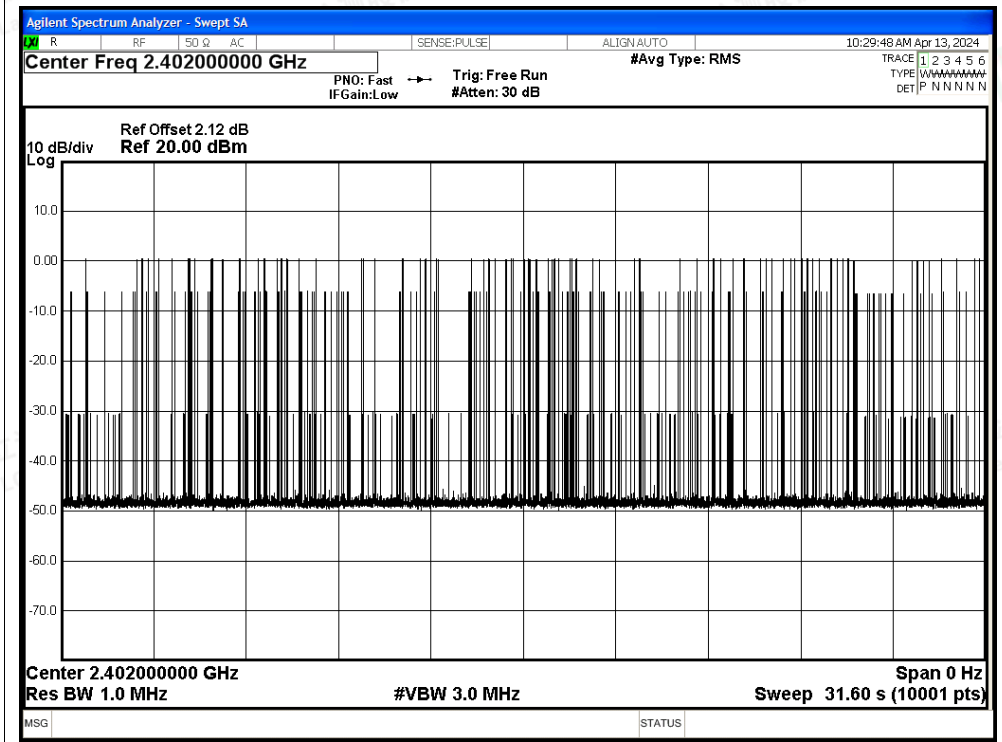




Dwell NVNT 3-DH5 2402MHz Ant One Burst



Dwell NVNT 3-DH5 2402MHz Ant Accumulated





A.5 Number of Hopping Channel

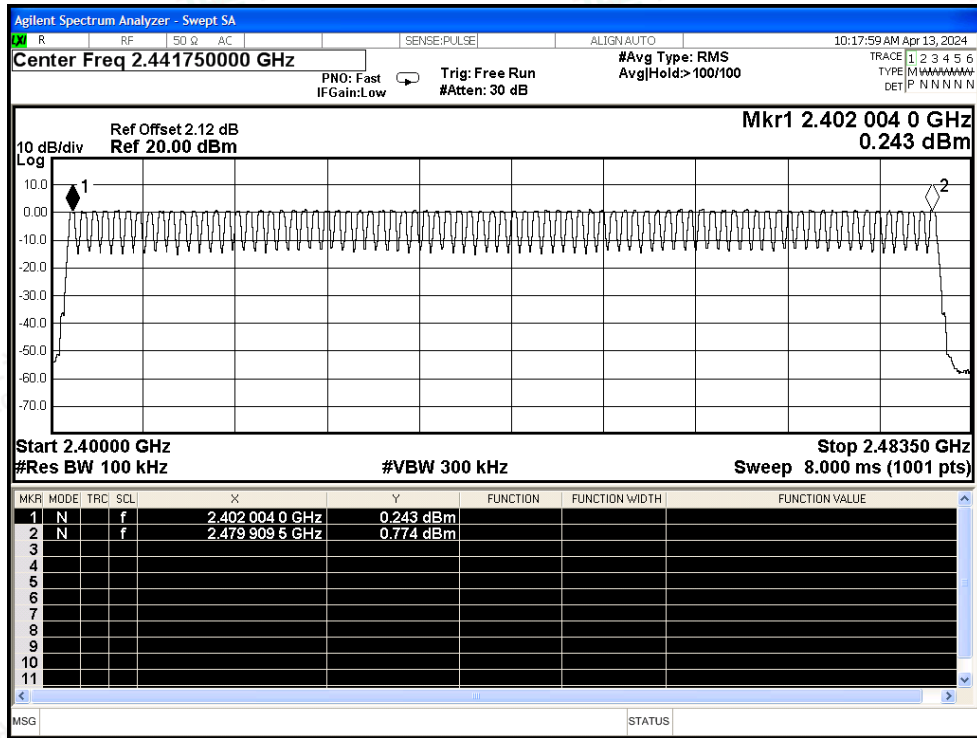
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH5	Ant	79	15	Pass
NVNT	2-DH5	Ant	79	15	Pass
NVNT	3-DH5	Ant	79	15	Pass



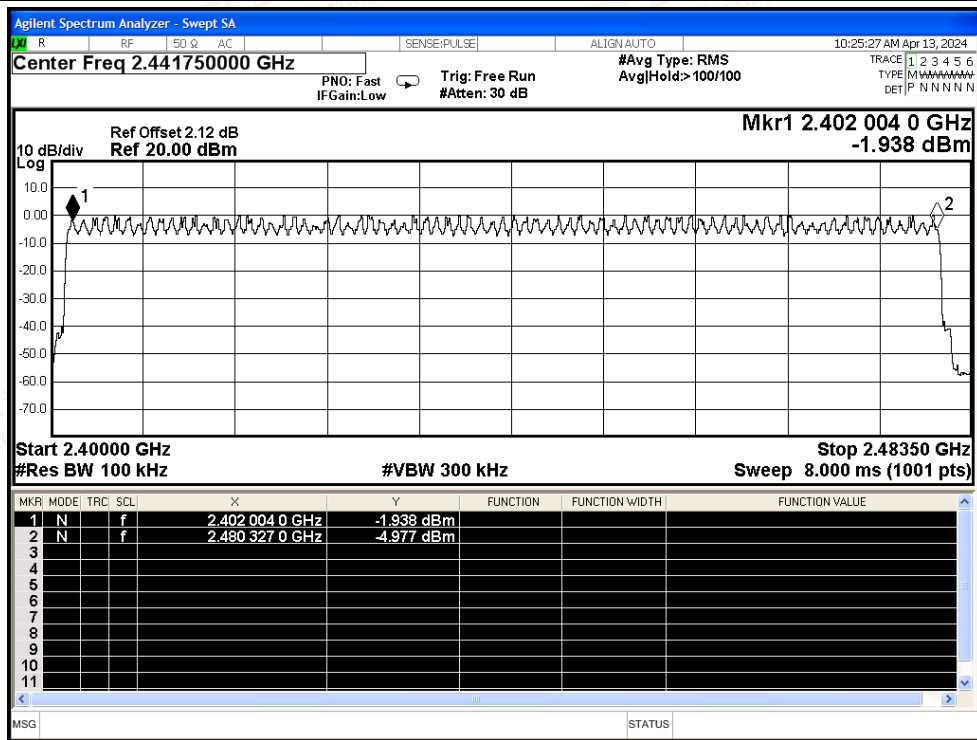


Test Graphs

Hopping No. NVNT 1-DH5 2402MHz Ant

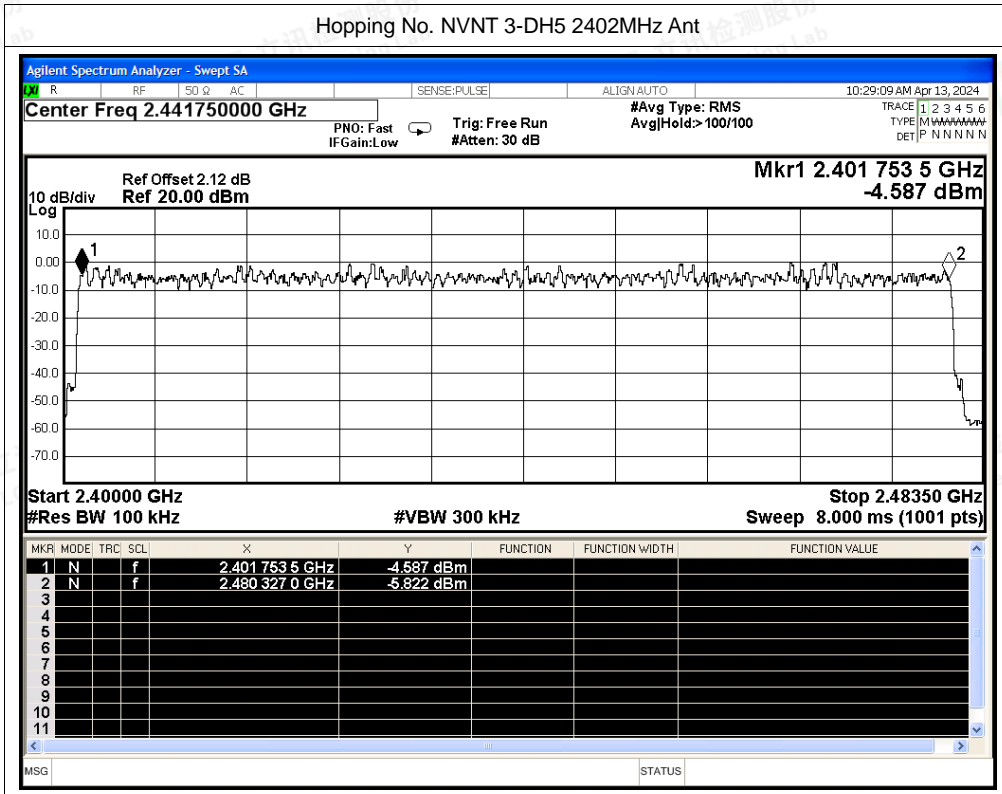


Hopping No. NVNT 2-DH5 2402MHz Ant





Hopping No. NVNT 3-DH5 2402MHz Ant





A.6 Band Edge

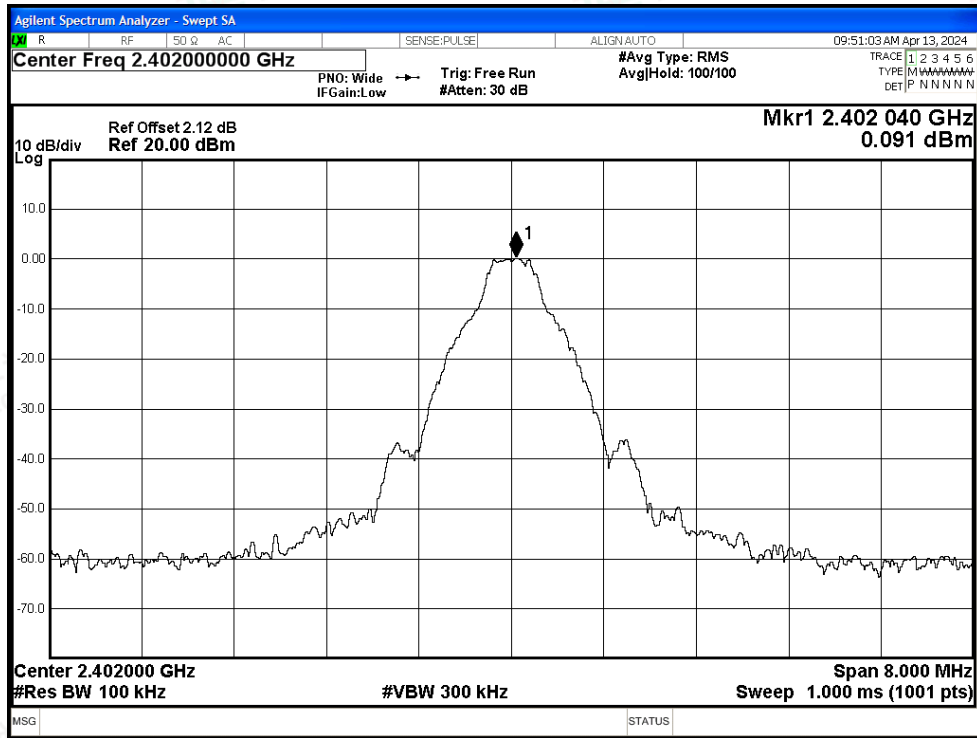
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant	No-Hopping	-55.79	-20	Pass
NVNT	1-DH5	2480	Ant	No-Hopping	-57.47	-20	Pass
NVNT	2-DH5	2402	Ant	No-Hopping	-53.79	-20	Pass
NVNT	2-DH5	2480	Ant	No-Hopping	-53.63	-20	Pass
NVNT	3-DH5	2402	Ant	No-Hopping	-52.57	-20	Pass
NVNT	3-DH5	2480	Ant	No-Hopping	-53.56	-20	Pass



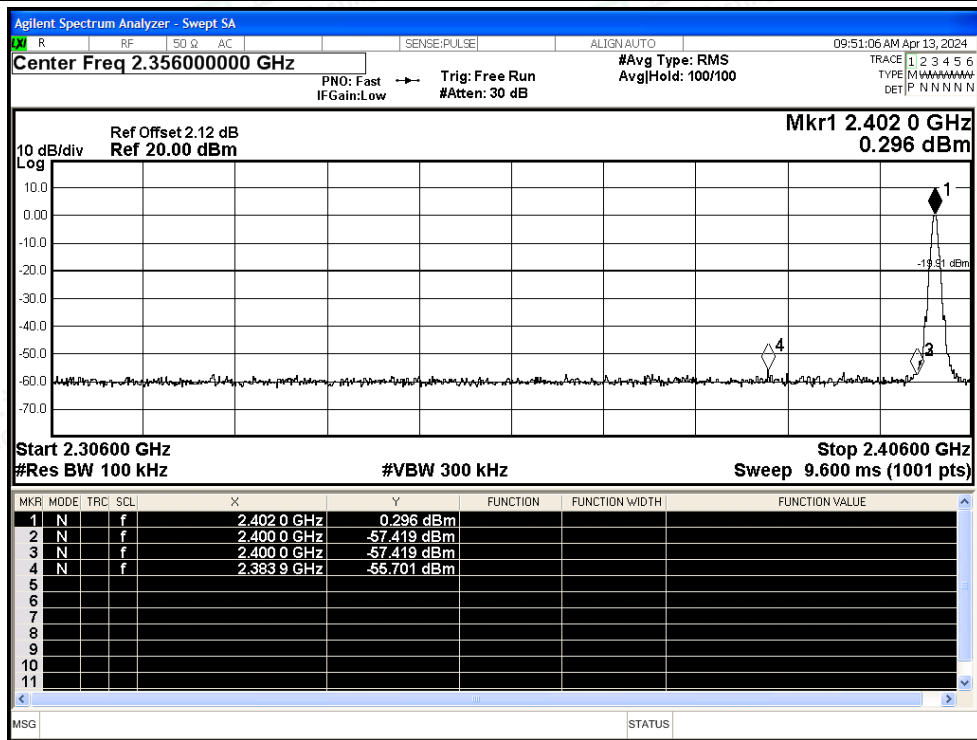


Test Graphs

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

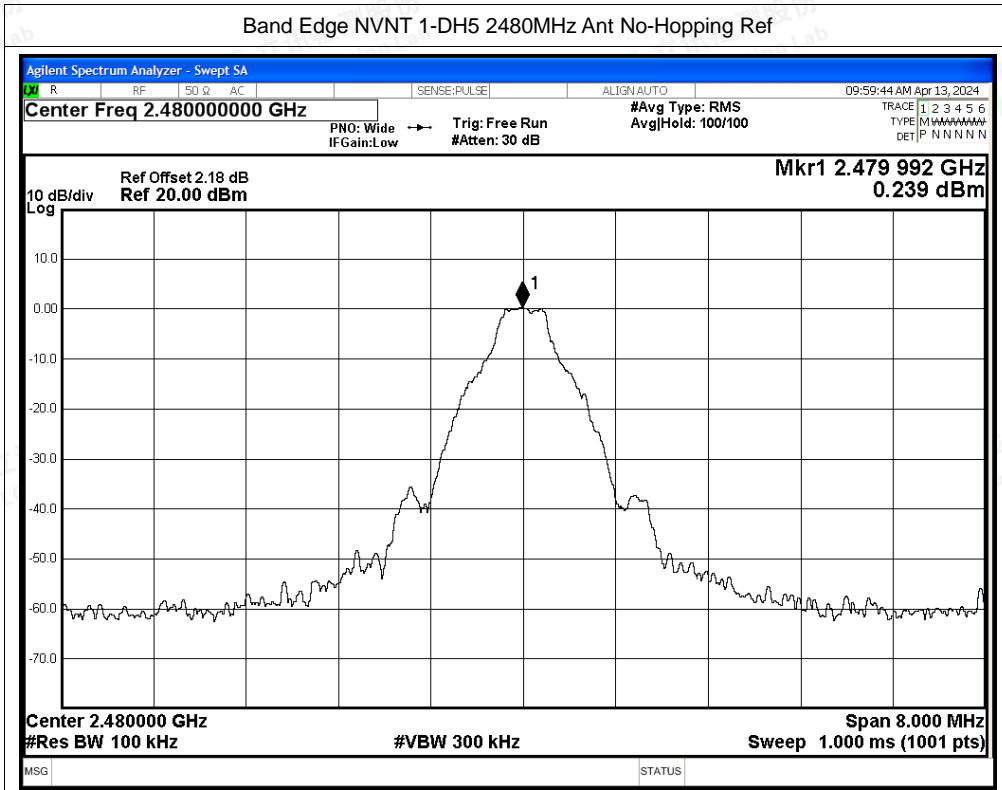


Band Edge NVNT 1-DH5 2402MHz Ant No-Hopping Emission

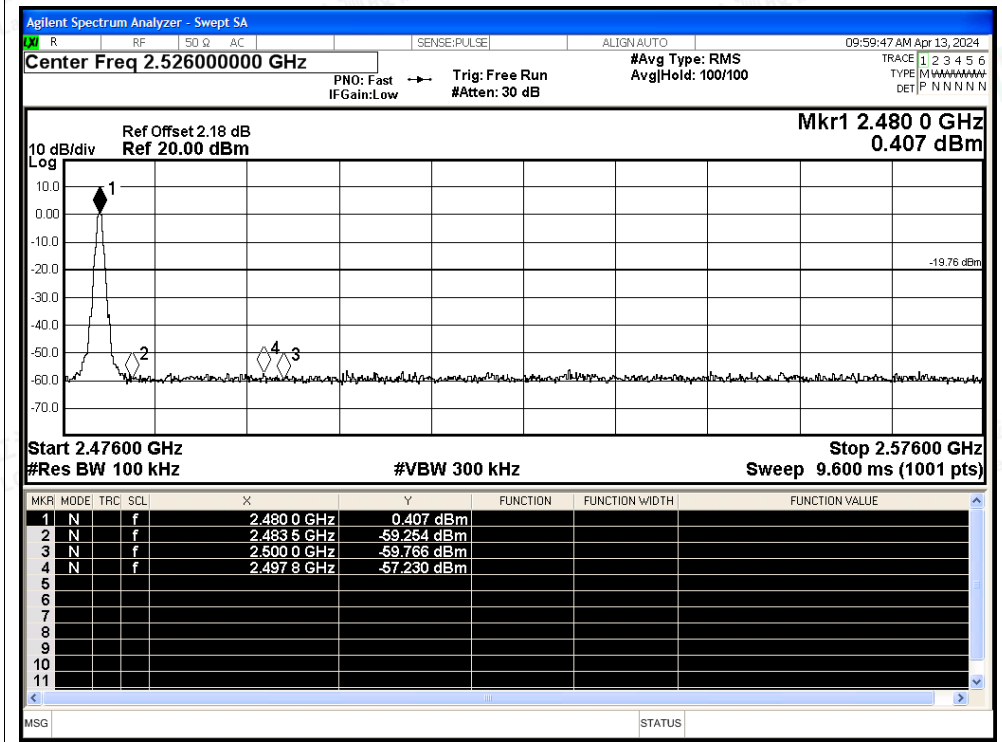




Band Edge NVNT 1-DH5 2480MHz Ant No-Hopping Ref

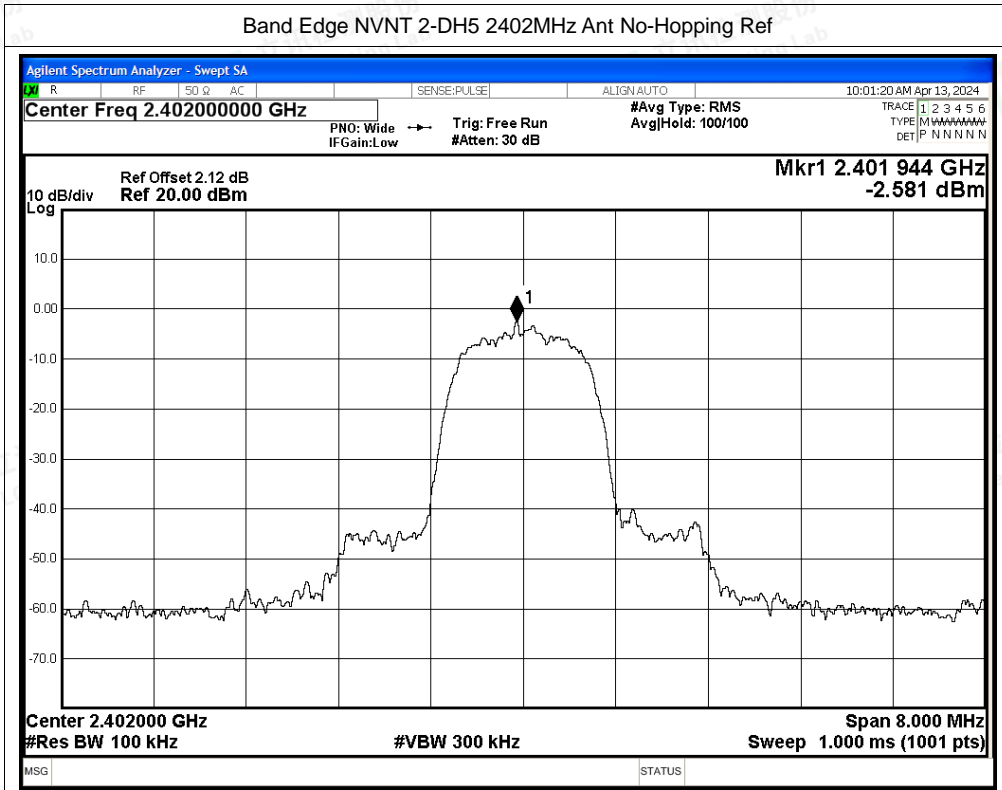


Band Edge NVNT 1-DH5 2480MHz Ant No-Hopping Emission

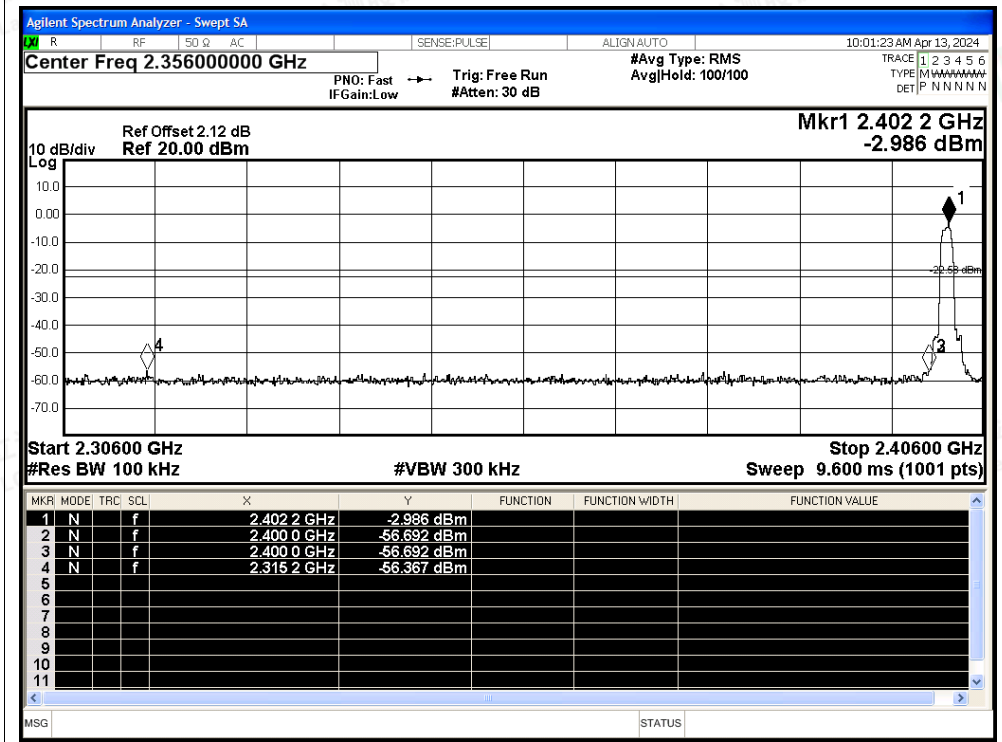




Band Edge NVNT 2-DH5 2402MHz Ant No-Hopping Ref

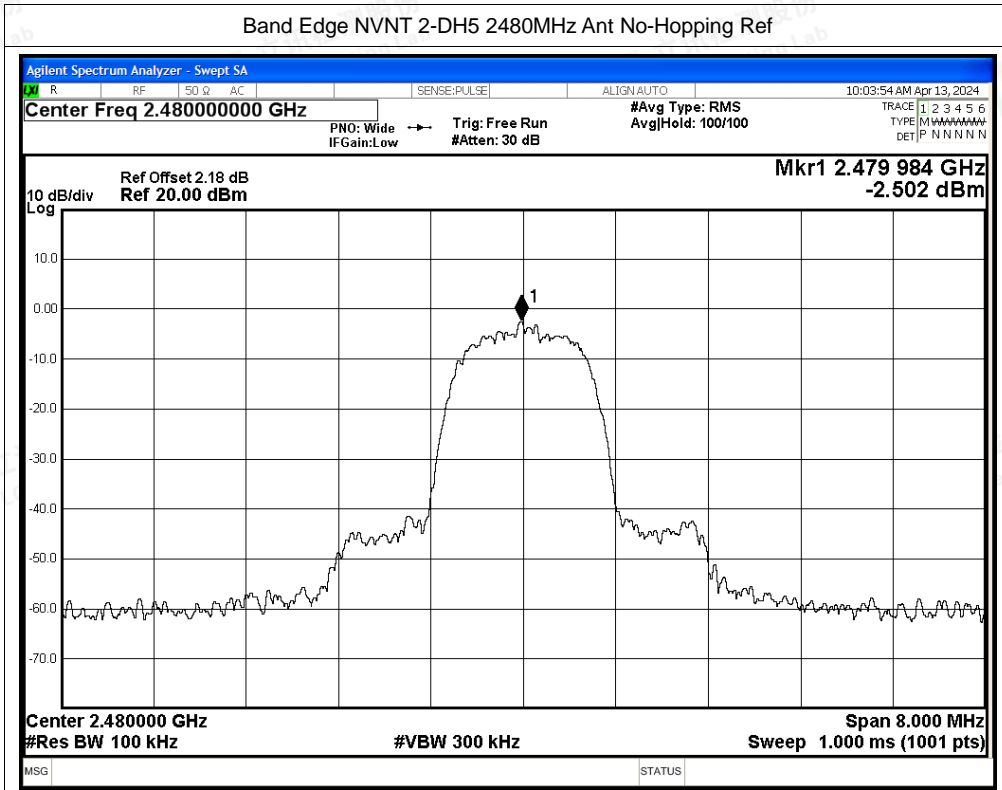


Band Edge NVNT 2-DH5 2402MHz Ant No-Hopping Emission

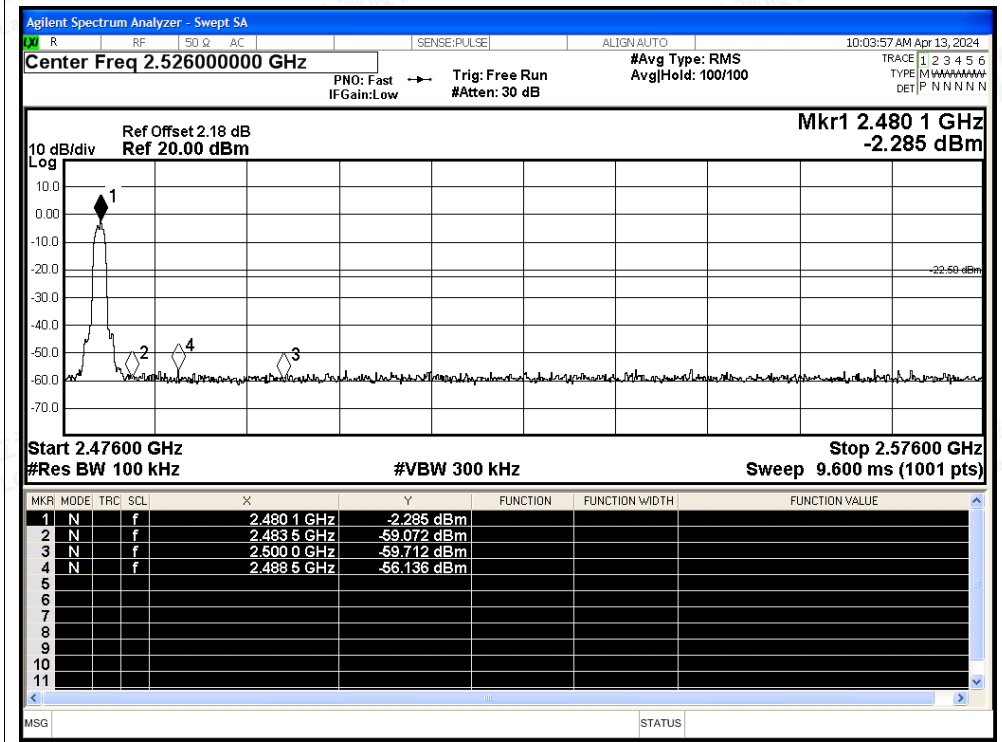




Band Edge NVNT 2-DH5 2480MHz Ant No-Hopping Ref

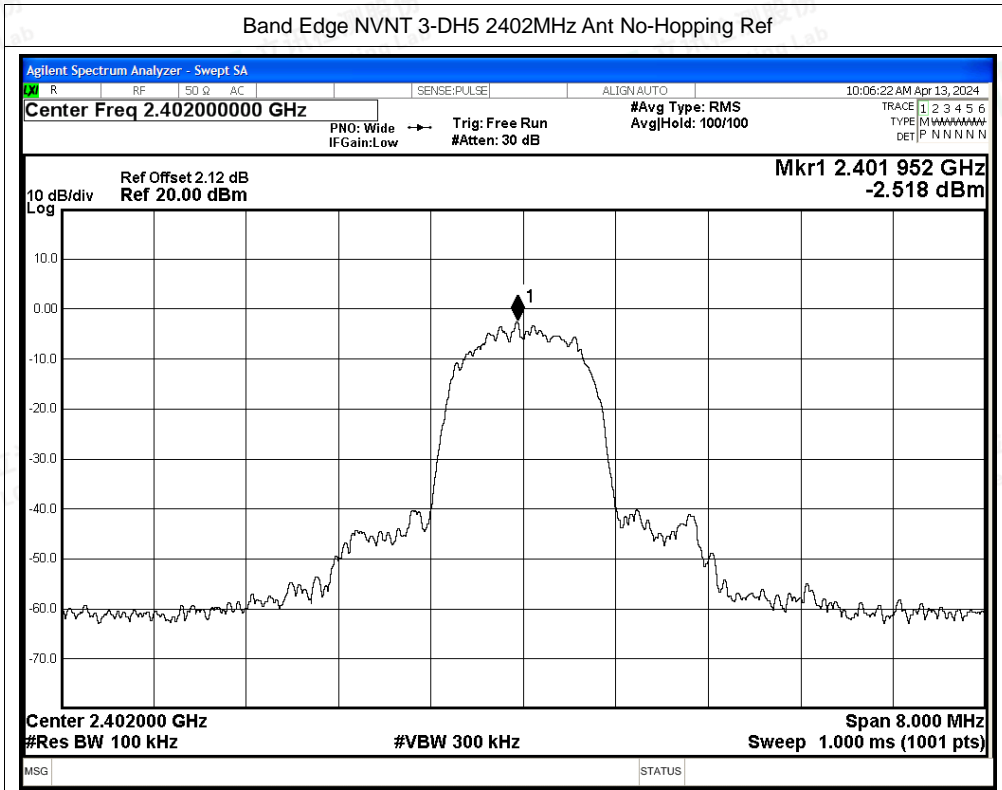


Band Edge NVNT 2-DH5 2480MHz Ant No-Hopping Emission

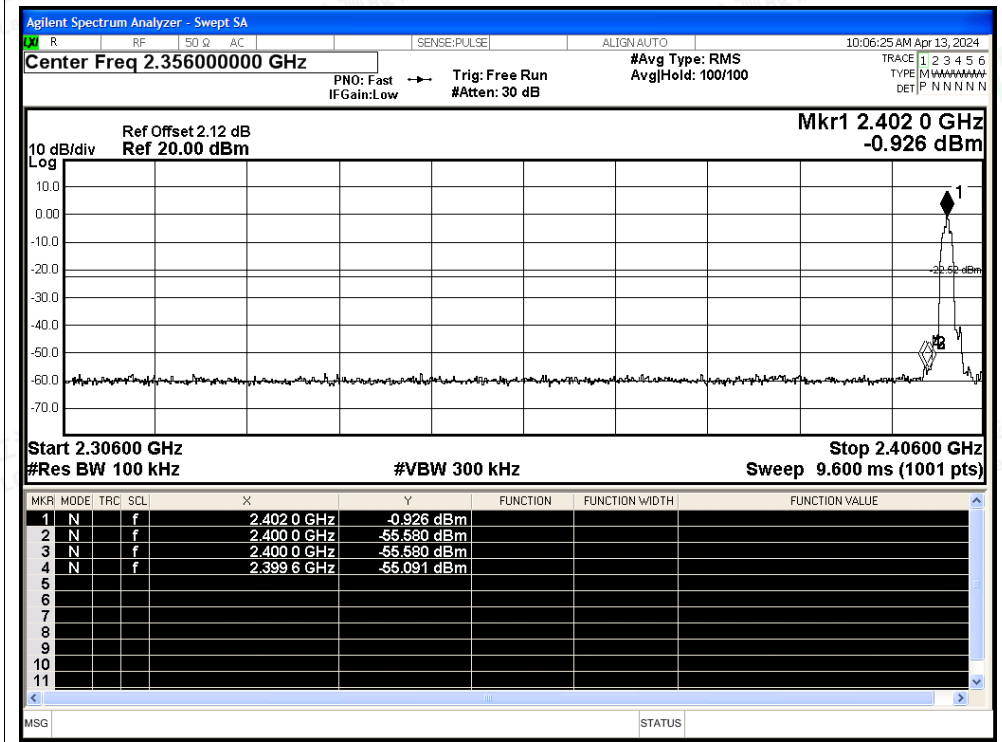




Band Edge NVNT 3-DH5 2402MHz Ant No-Hopping Ref

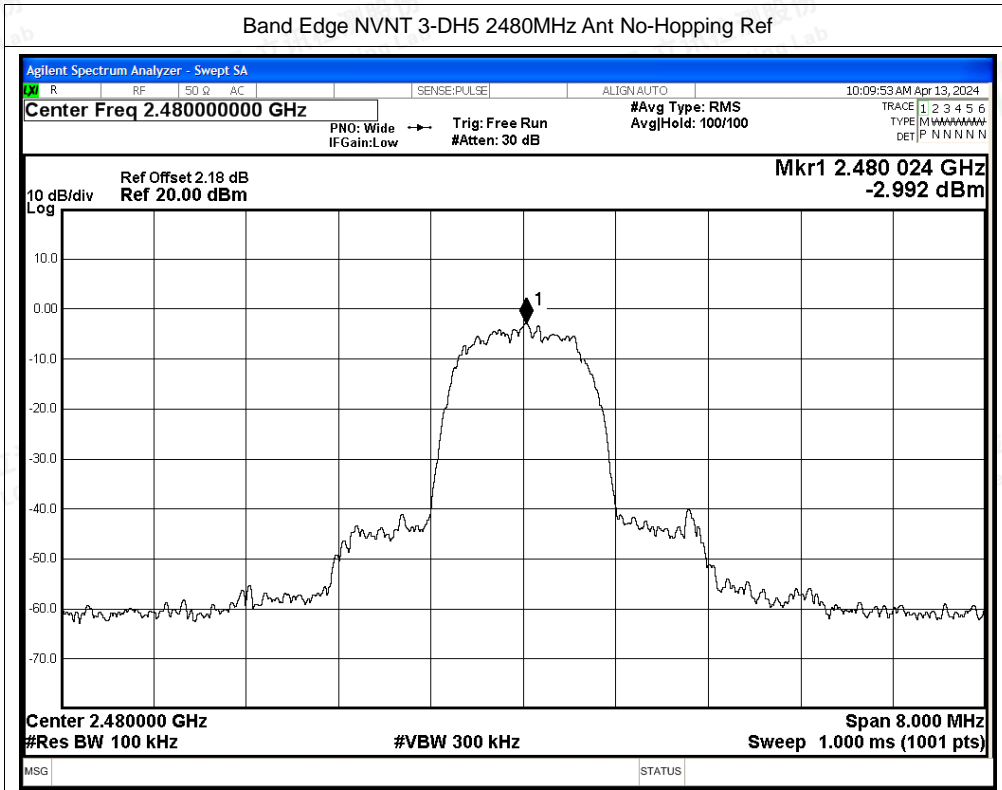


Band Edge NVNT 3-DH5 2402MHz Ant No-Hopping Emission

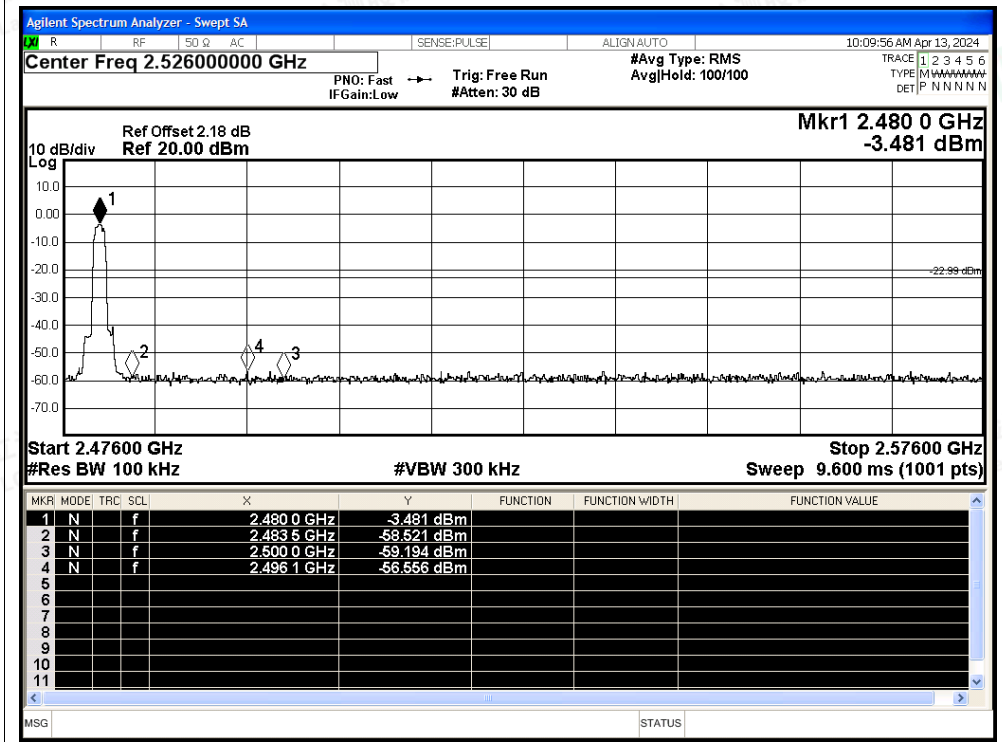




Band Edge NVNT 3-DH5 2480MHz Ant No-Hopping Ref



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





(Hopping)

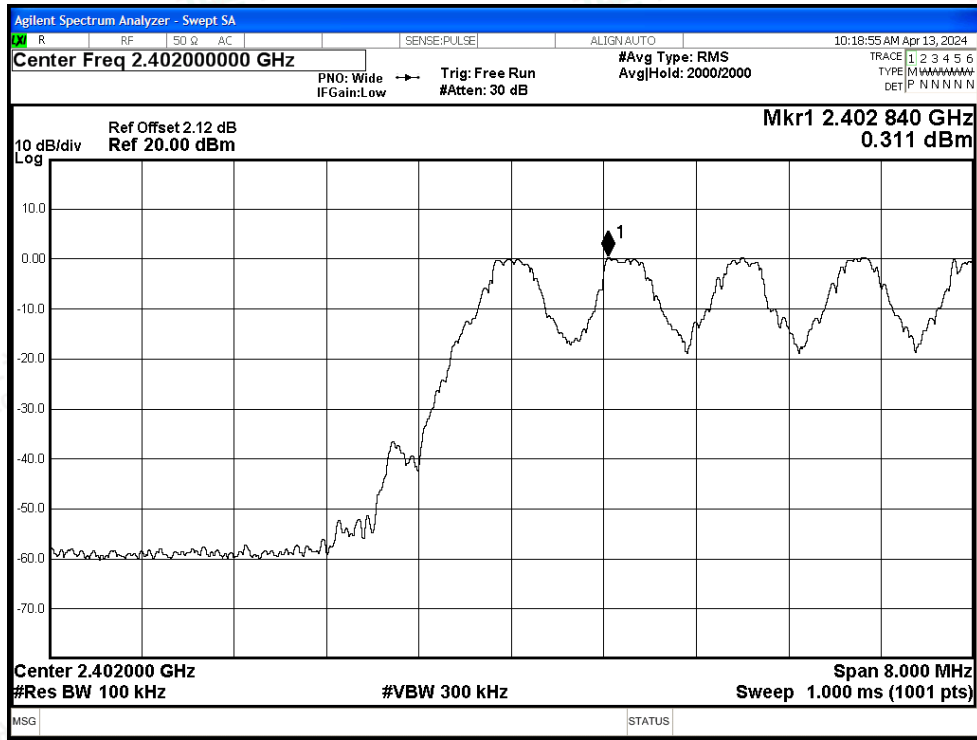
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant	Hopping	-56.68	-20	Pass
NVNT	1-DH5	2480	Ant	Hopping	-56.31	-20	Pass
NVNT	2-DH5	2402	Ant	Hopping	-55.21	-20	Pass
NVNT	2-DH5	2480	Ant	Hopping	-55.22	-20	Pass
NVNT	3-DH5	2402	Ant	Hopping	-55.16	-20	Pass
NVNT	3-DH5	2480	Ant	Hopping	-54.93	-20	Pass



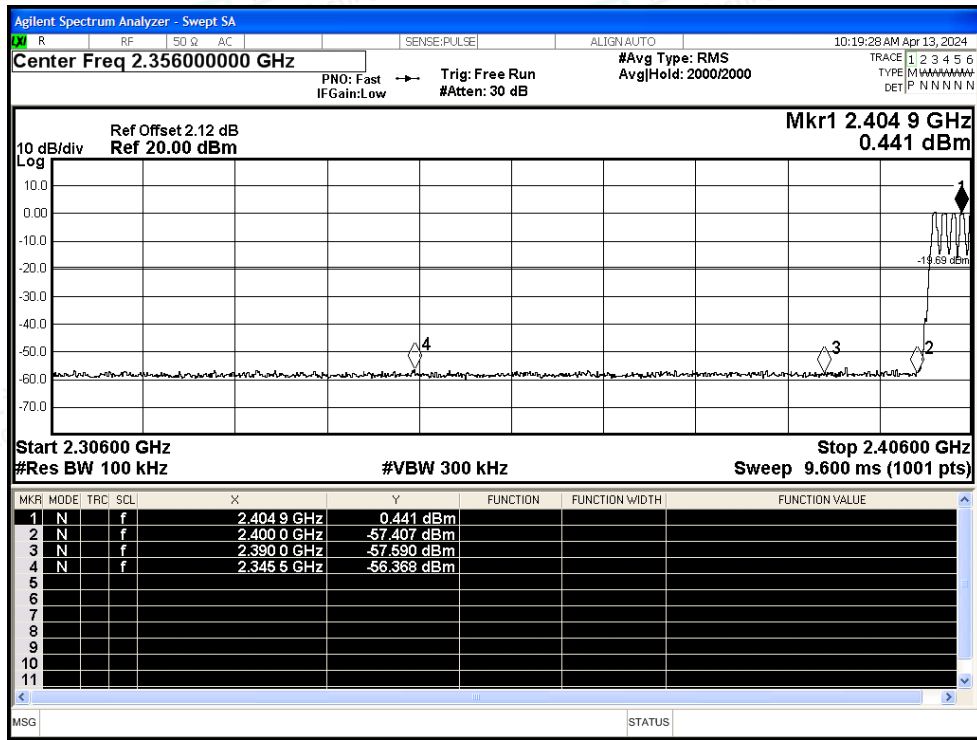


Test Graphs

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

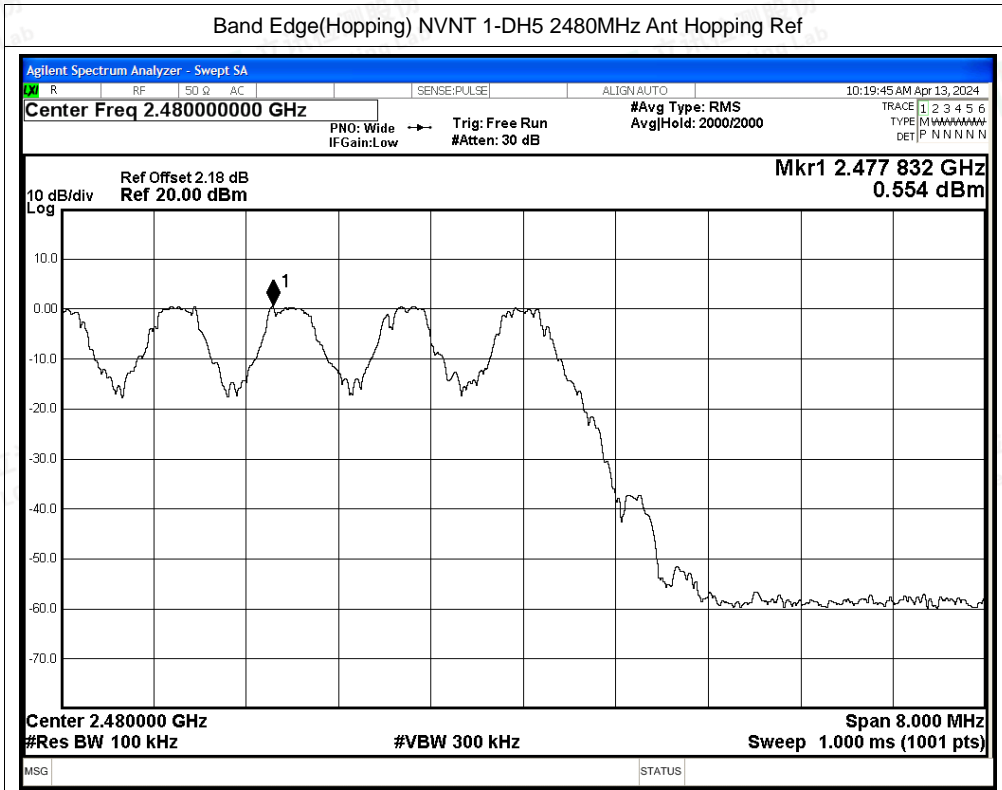


Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant Hopping Emission

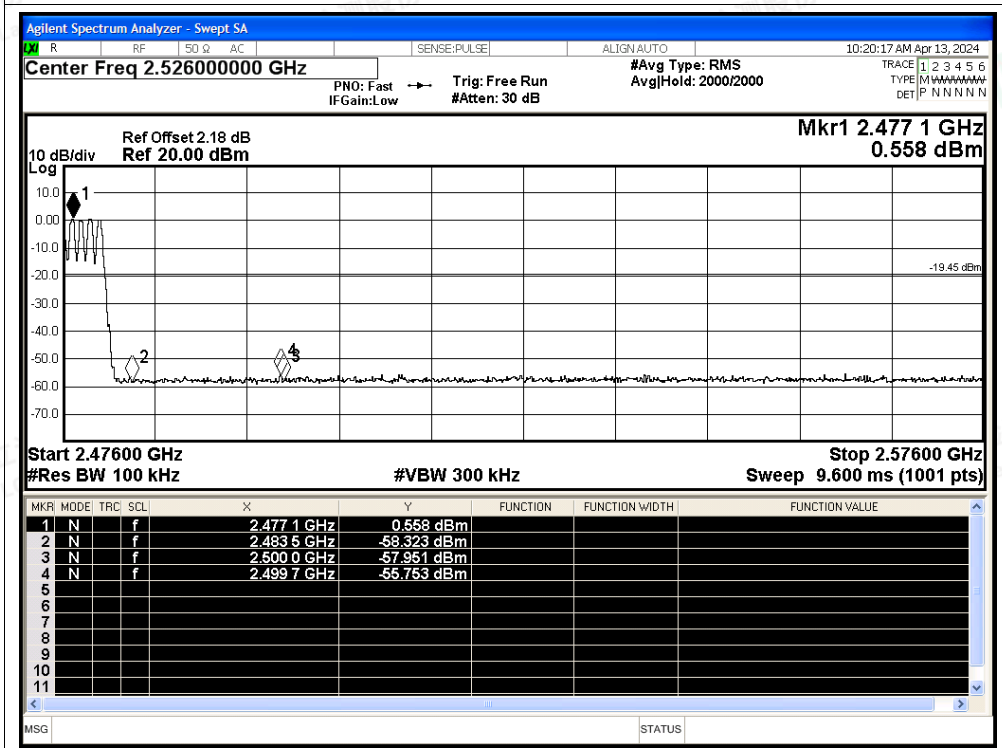




Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant Hopping Ref

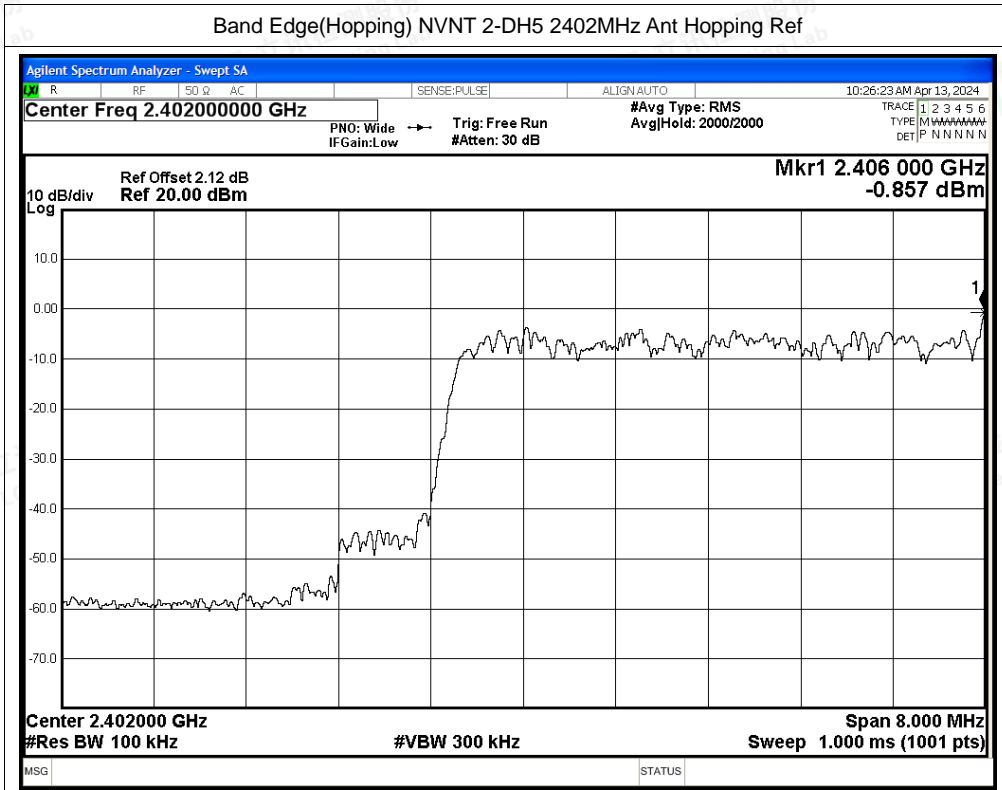


Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant Hopping Emission

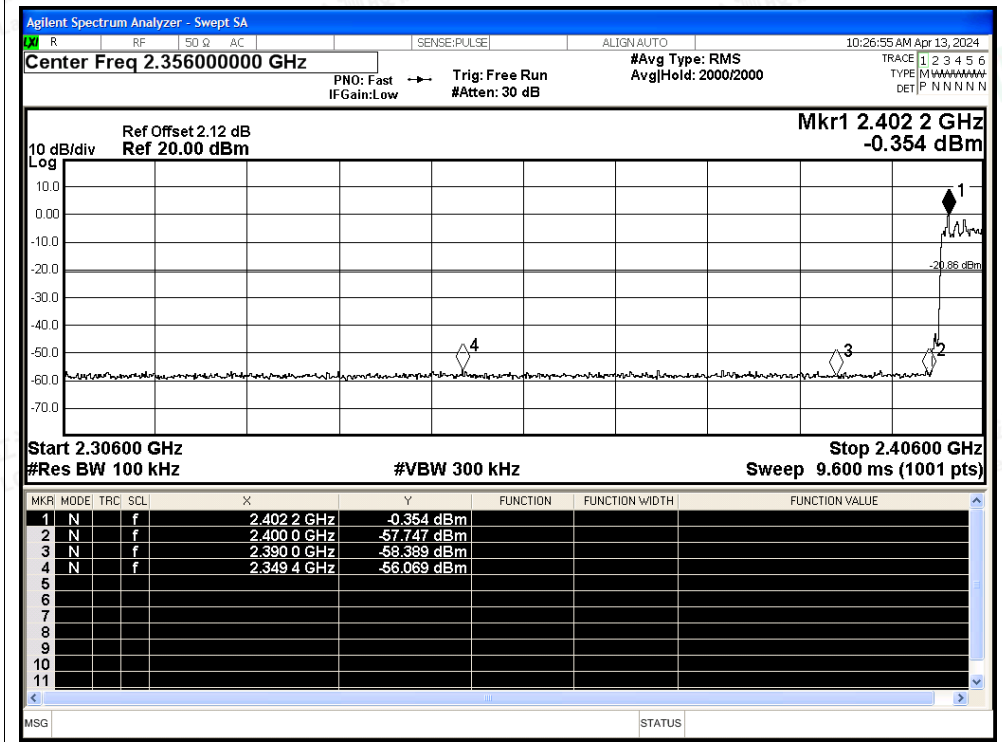


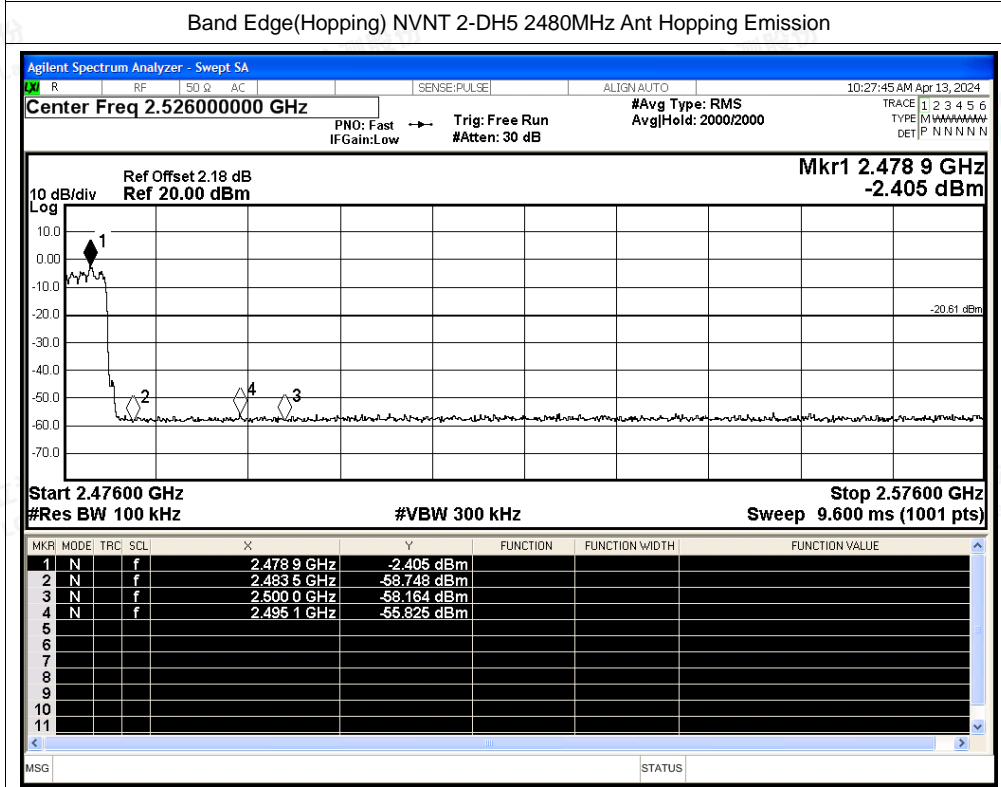
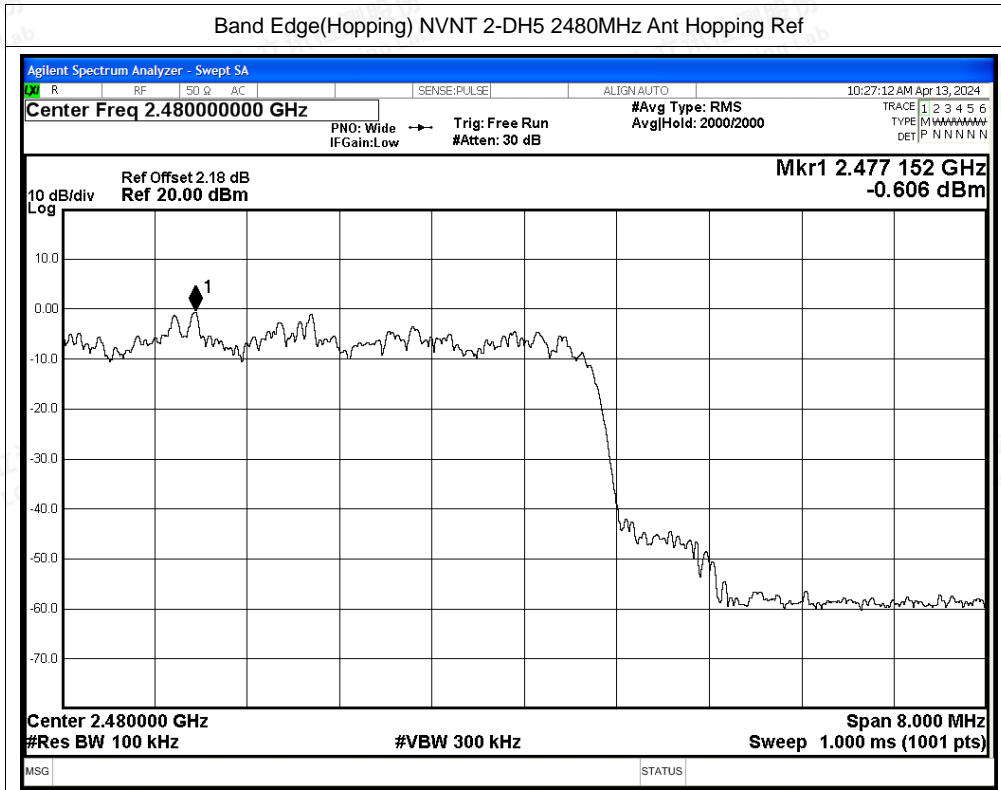


Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant Hopping Ref



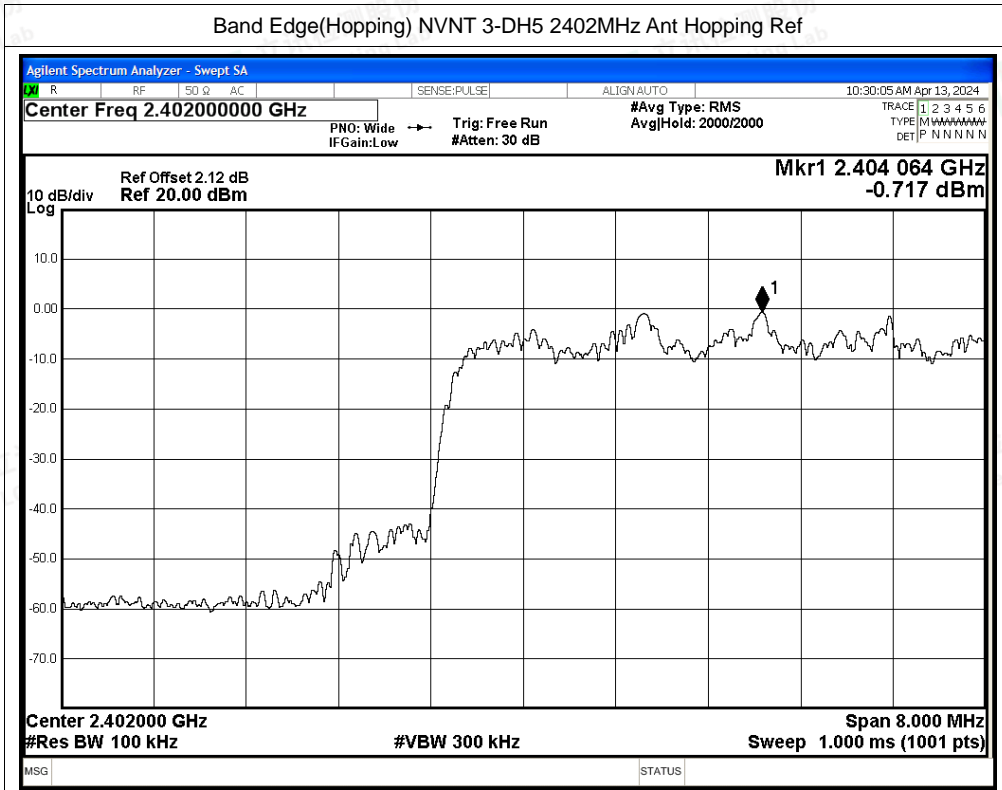
Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant Hopping Emission



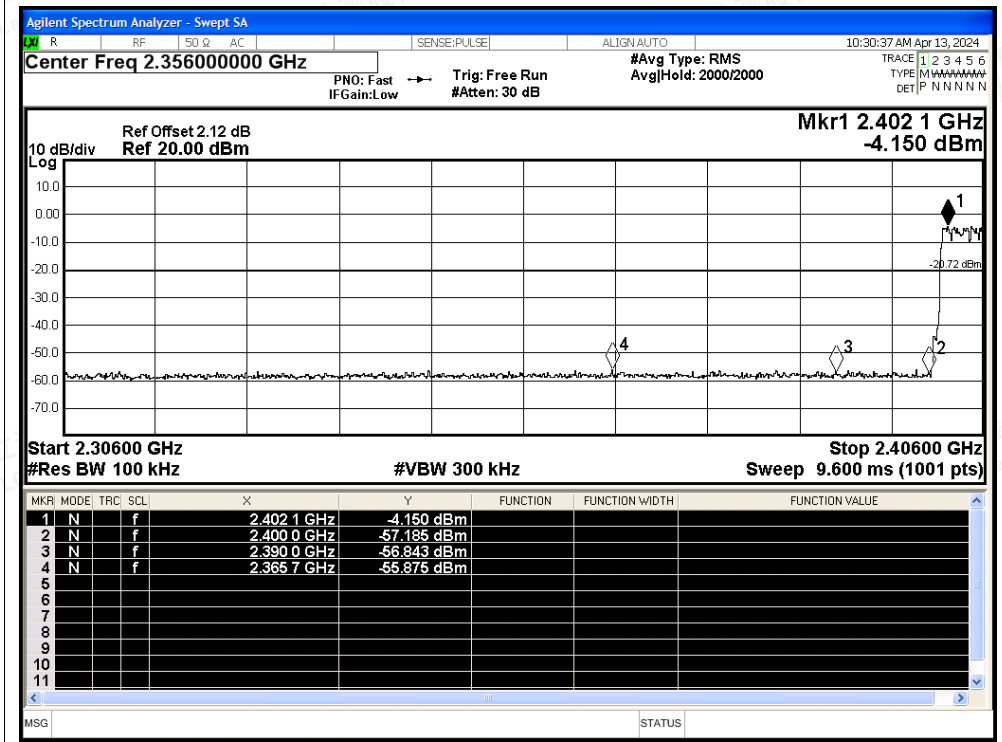




Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant Hopping Ref

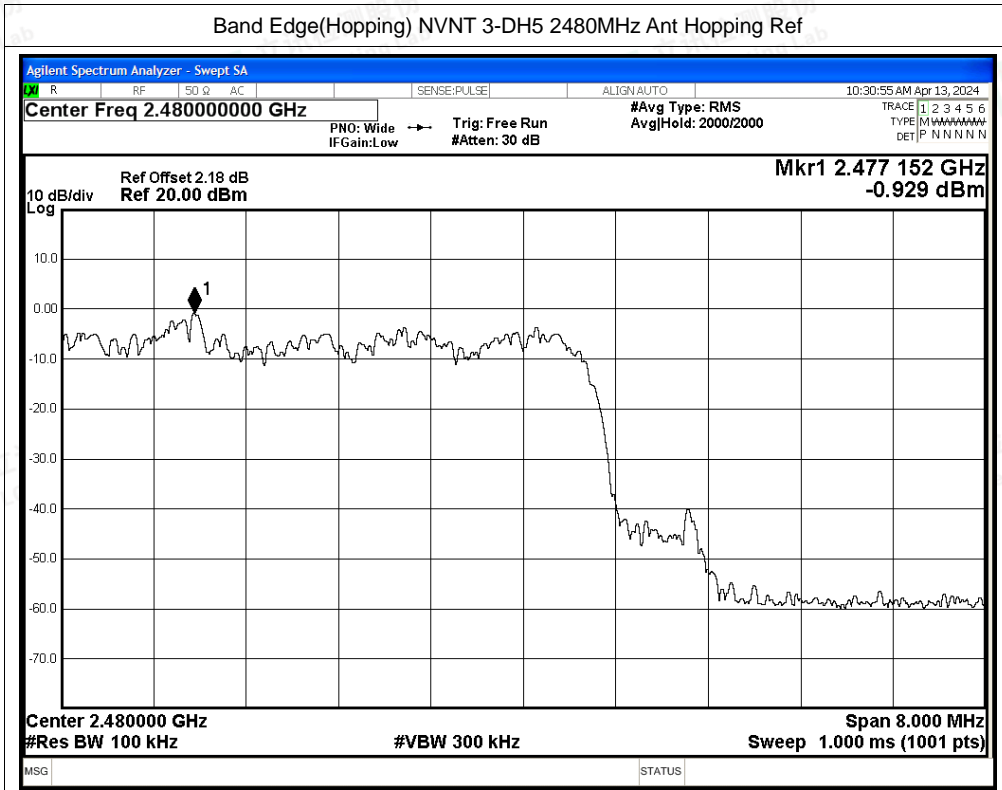


Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant Hopping Emission

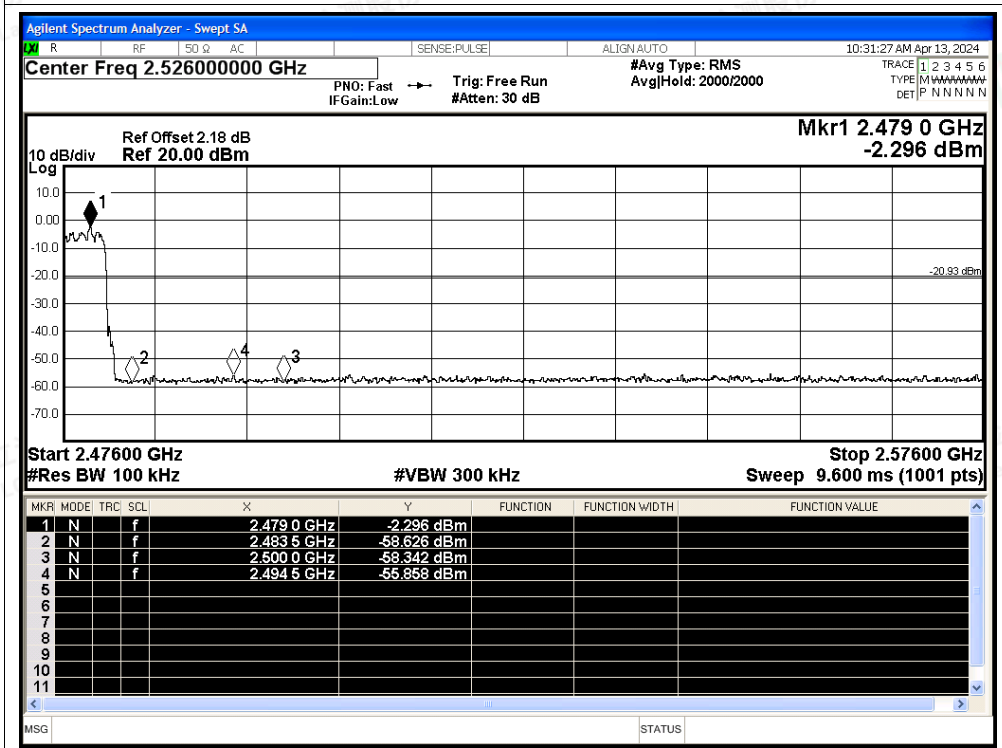




Band Edge(Hopping) NVNT 3-DH5 2480MHz Ant Hopping Ref



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





A.7 Conducted RF Spurious Emission

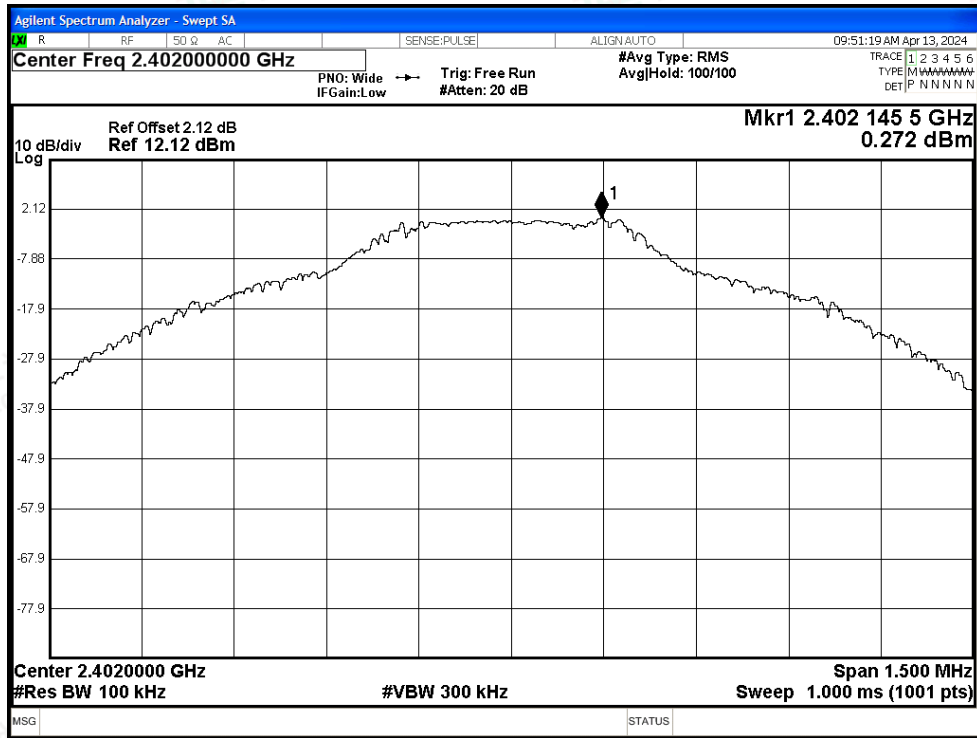
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant	-55.31	-20	Pass
NVNT	1-DH5	2441	Ant	-55.69	-20	Pass
NVNT	1-DH5	2480	Ant	-54.53	-20	Pass
NVNT	2-DH5	2402	Ant	-55.03	-20	Pass
NVNT	2-DH5	2441	Ant	-53.44	-20	Pass
NVNT	2-DH5	2480	Ant	-53.8	-20	Pass
NVNT	3-DH5	2402	Ant	-54.36	-20	Pass
NVNT	3-DH5	2441	Ant	-54.69	-20	Pass
NVNT	3-DH5	2480	Ant	-54.64	-20	Pass



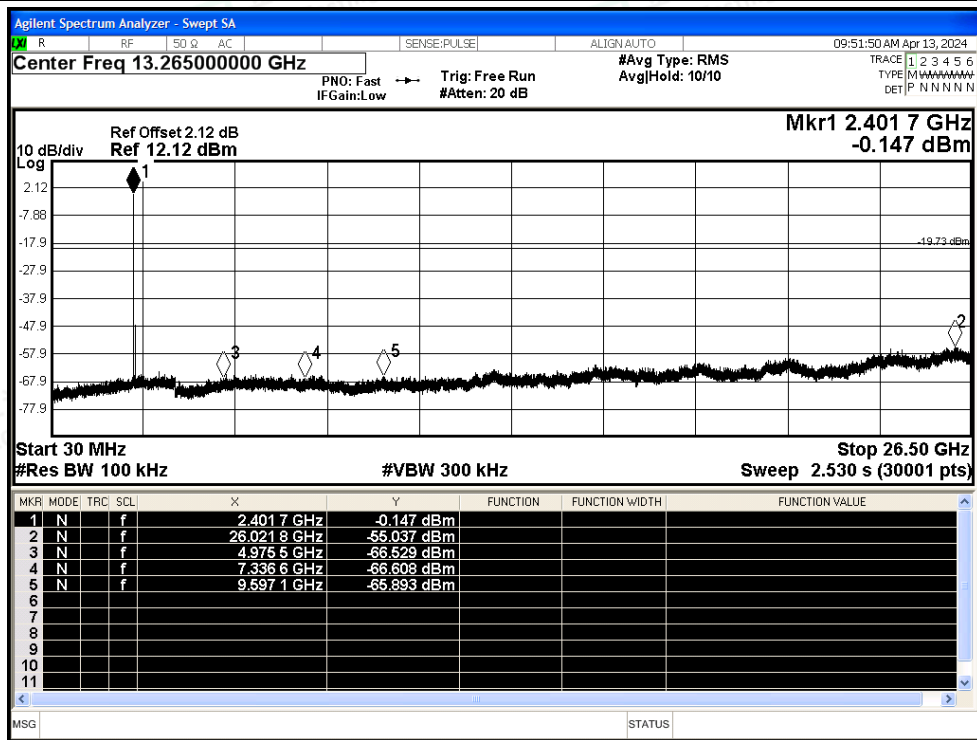


Test Graphs

Tx. Spurious NVNT 1-DH5 2402MHz Ant Ref

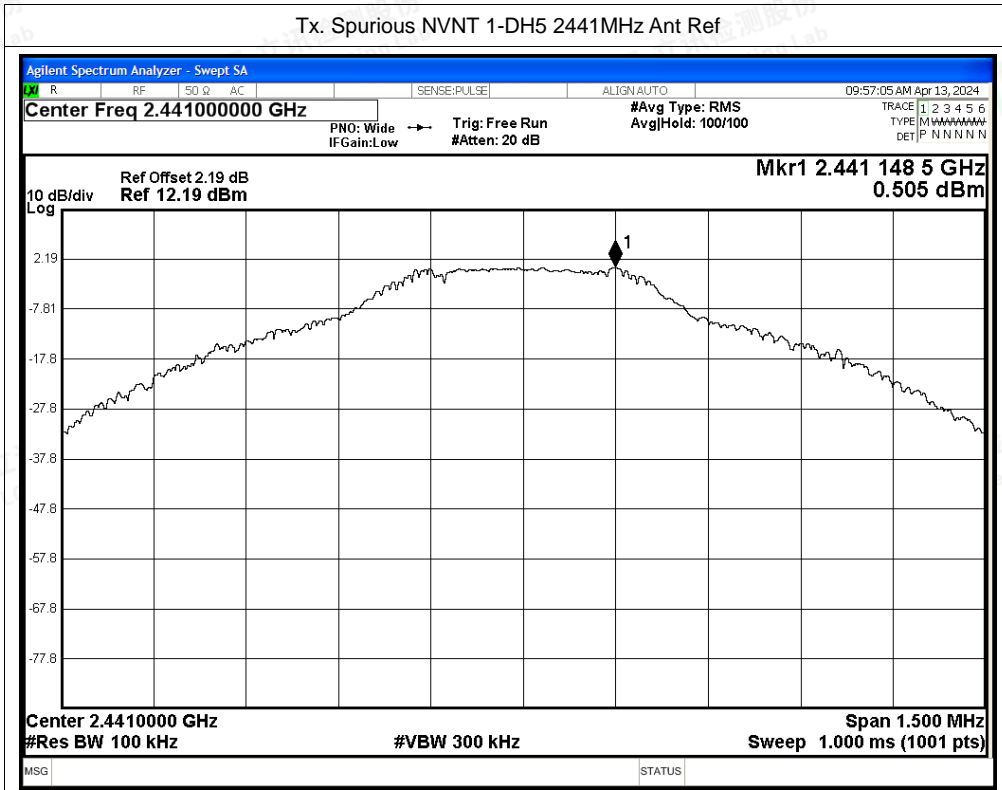


Tx. Spurious NVNT 1-DH5 2402MHz Ant Emission

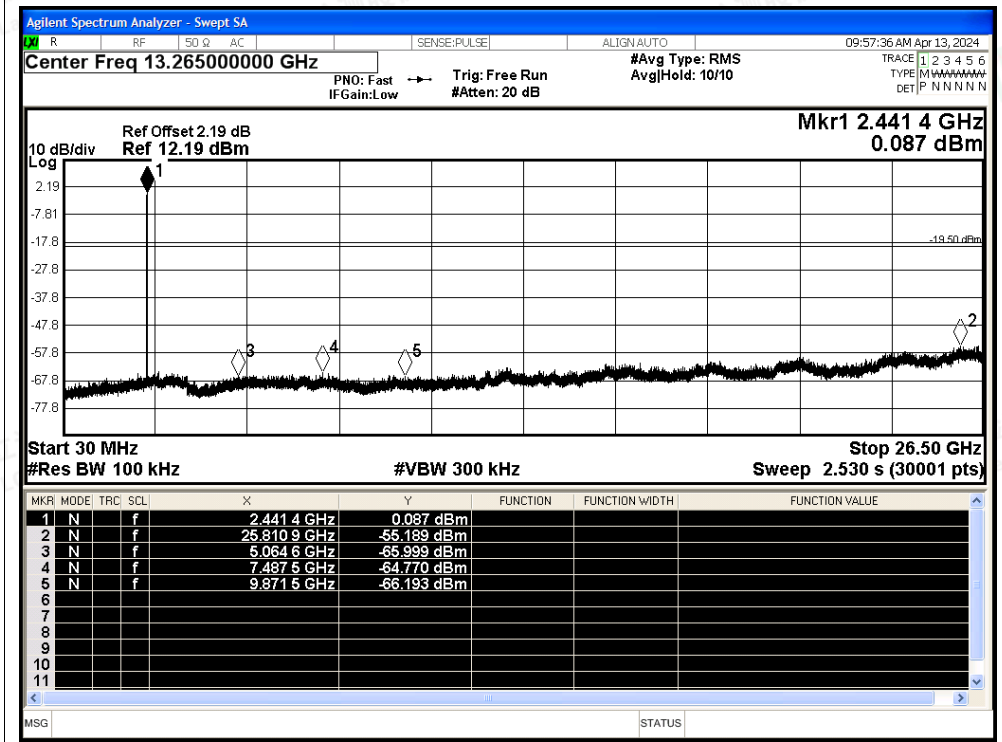




Tx. Spurious NVNT 1-DH5 2441MHz Ant Ref

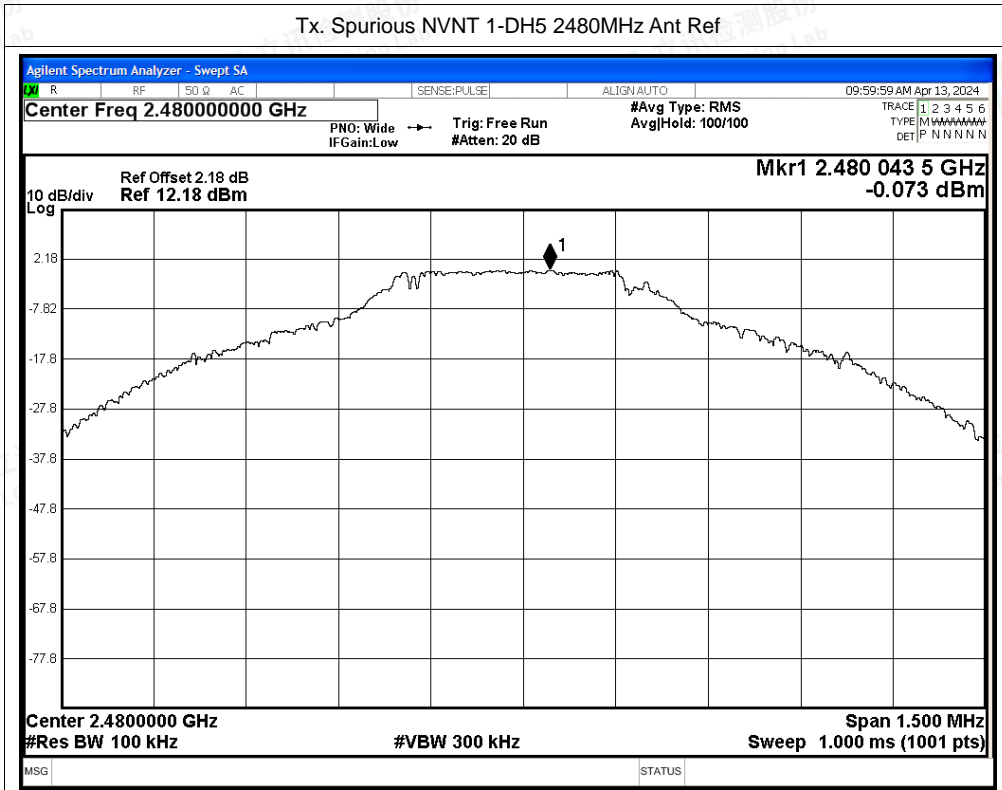


Tx. Spurious NVNT 1-DH5 2441MHz Ant Emission

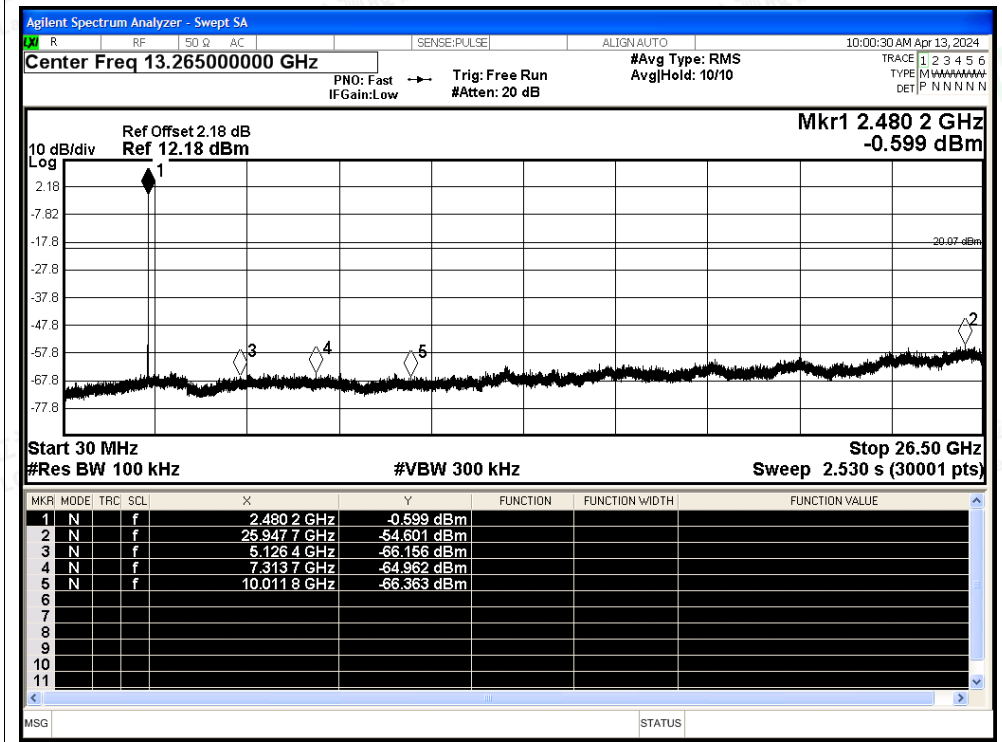




Tx. Spurious NVNT 1-DH5 2480MHz Ant Ref

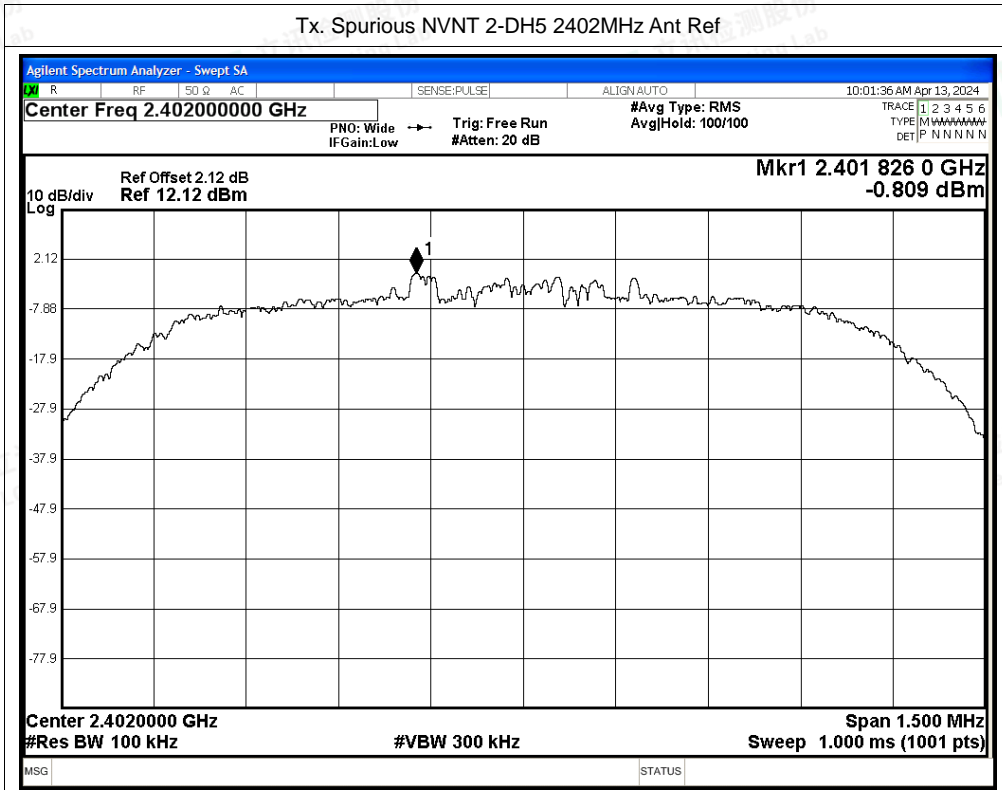


Tx. Spurious NVNT 1-DH5 2480MHz Ant Emission

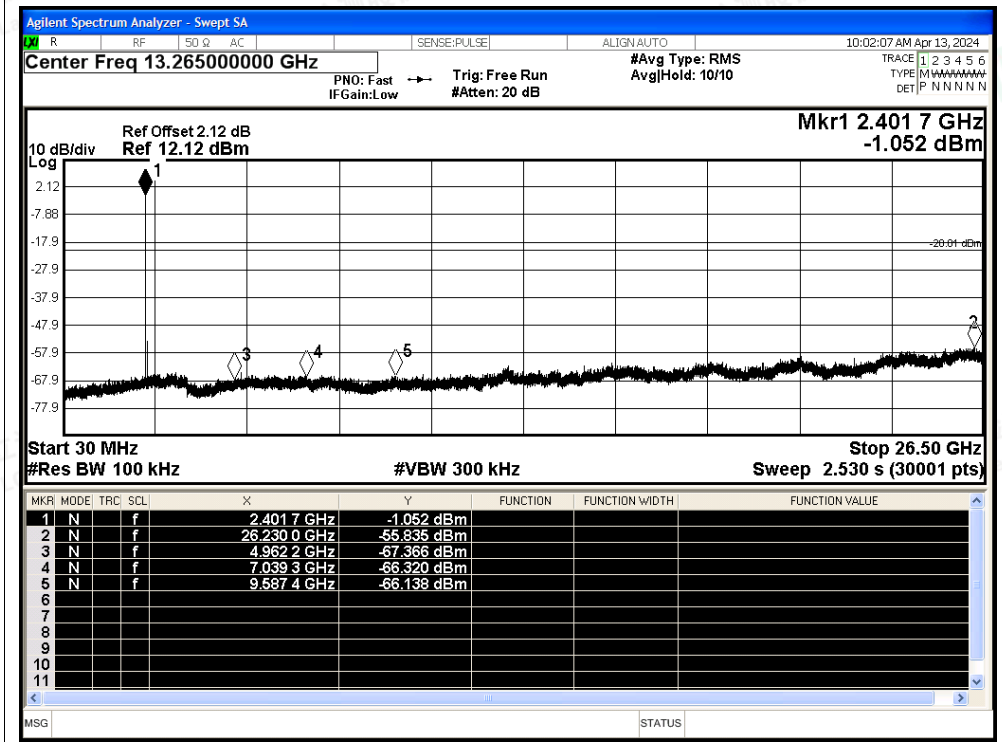




Tx. Spurious NVNT 2-DH5 2402MHz Ant Ref

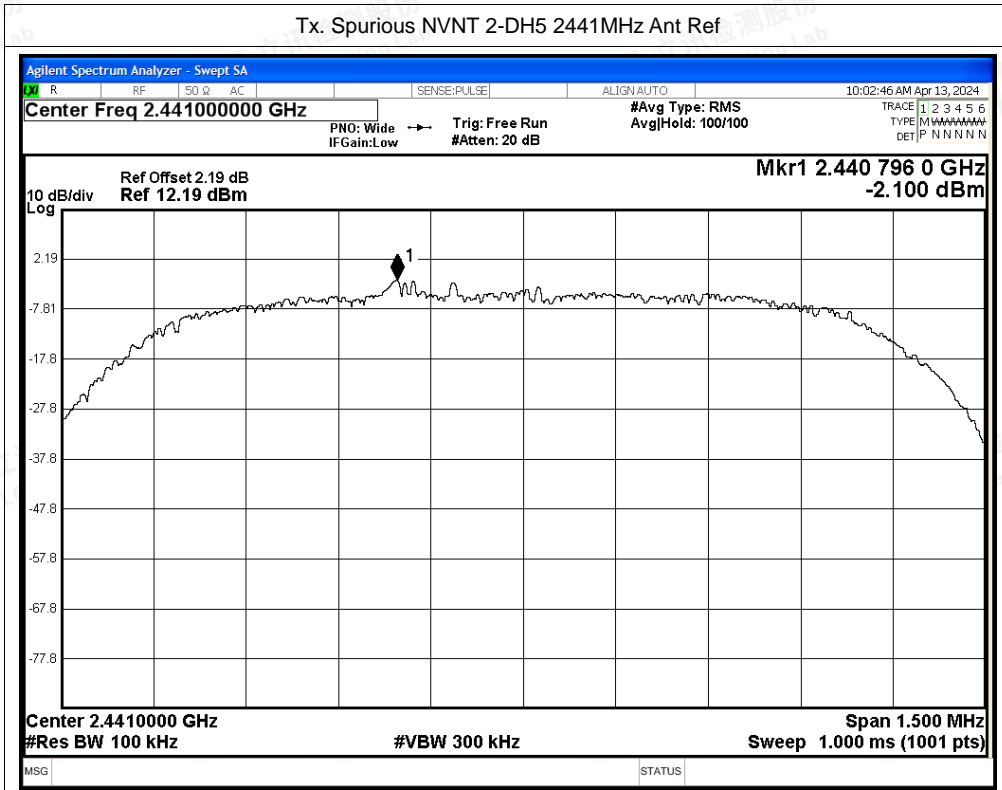


Tx. Spurious NVNT 2-DH5 2402MHz Ant Emission

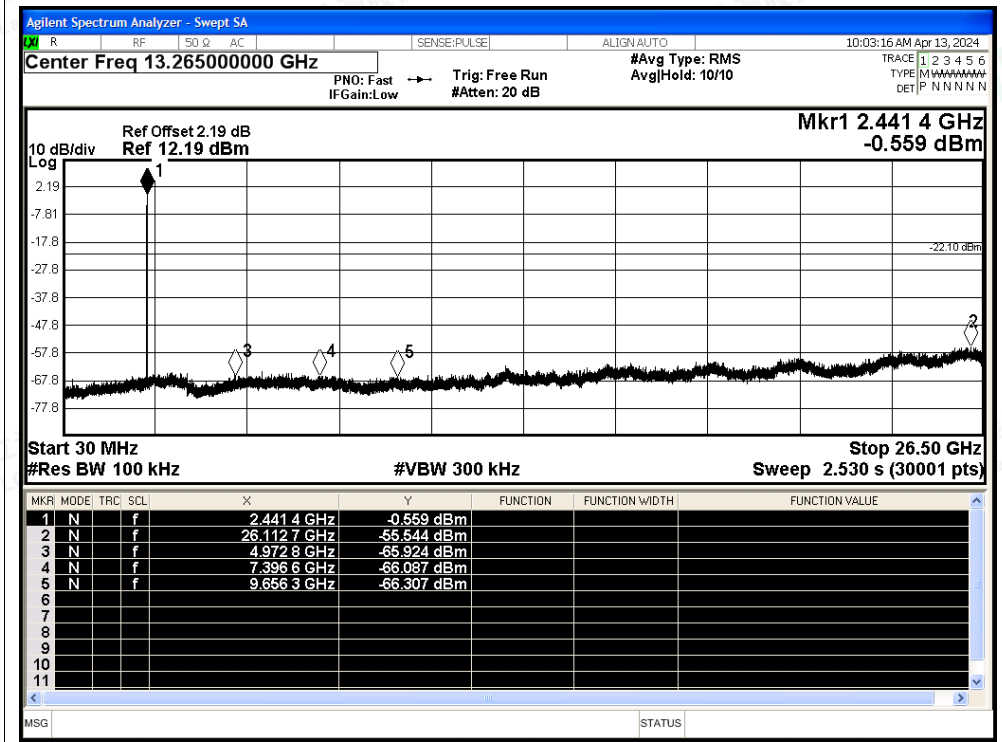




Tx. Spurious NVNT 2-DH5 2441MHz Ant Ref

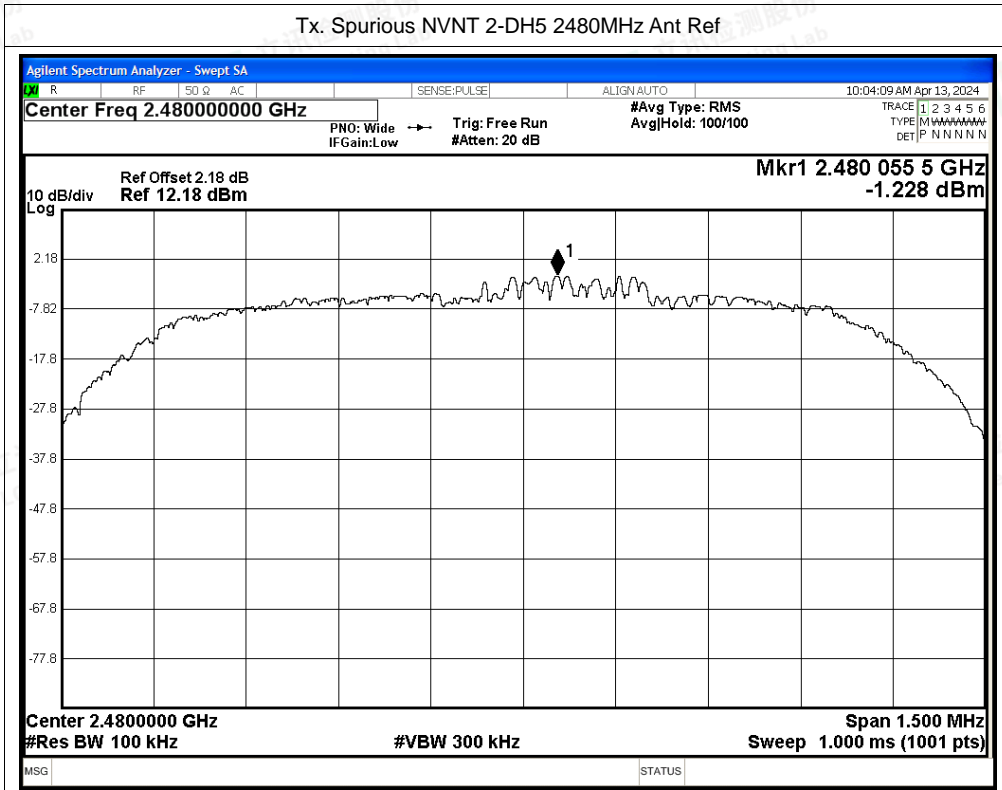


Tx. Spurious NVNT 2-DH5 2441MHz Ant Emission

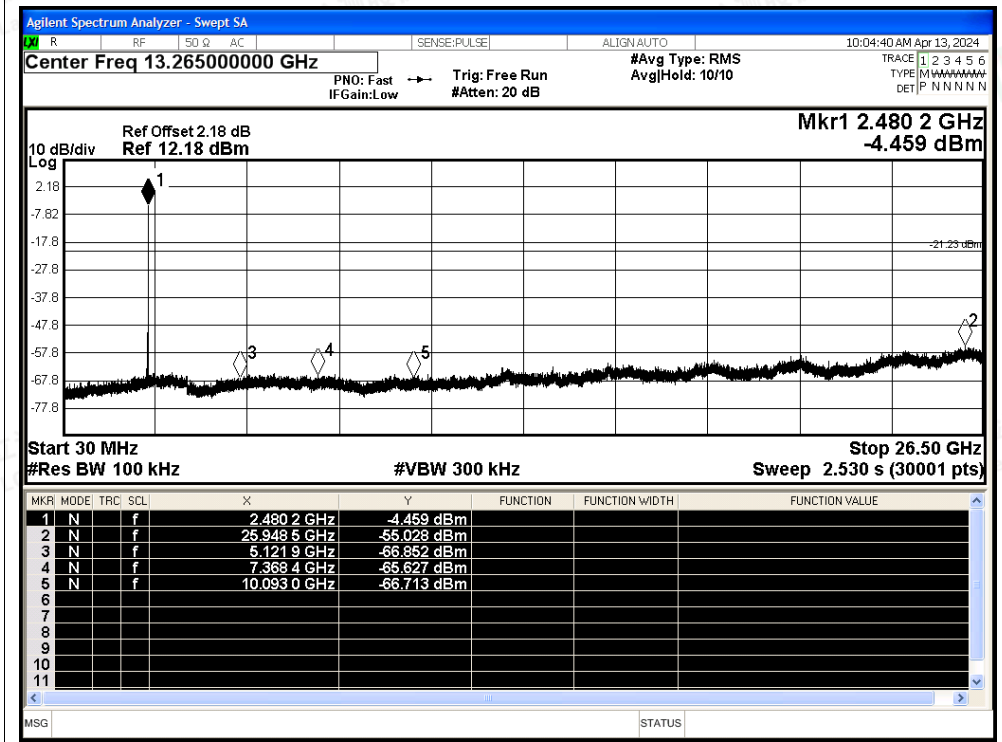




Tx. Spurious NVNT 2-DH5 2480MHz Ant Ref

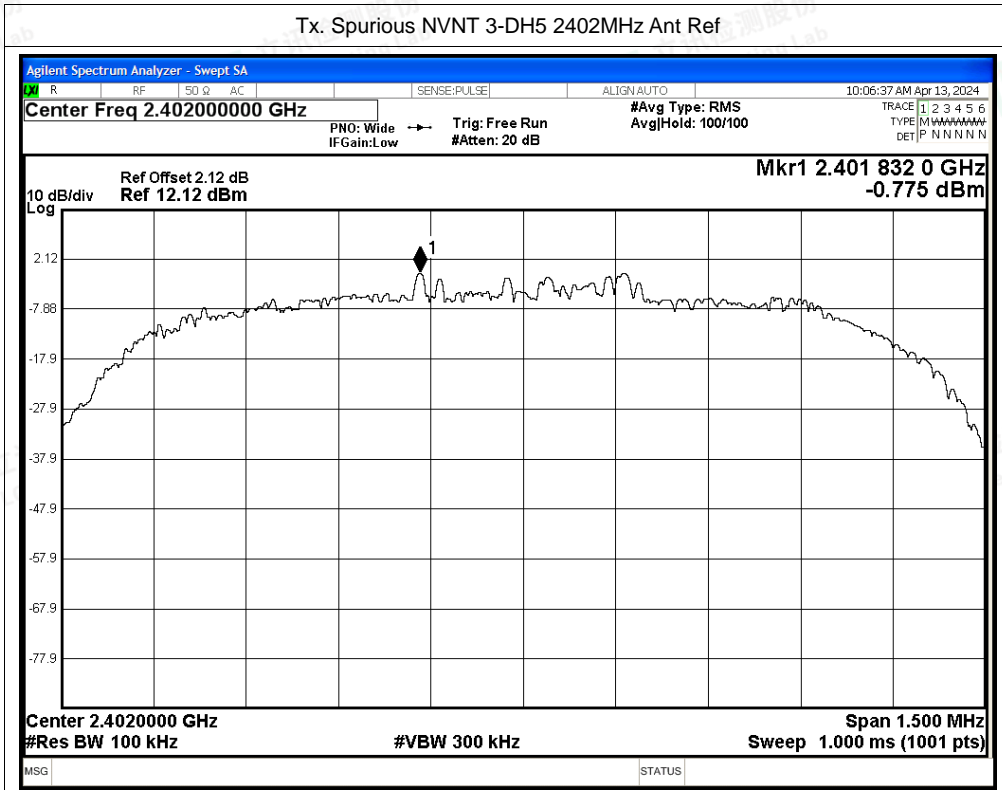


Tx. Spurious NVNT 2-DH5 2480MHz Ant Emission

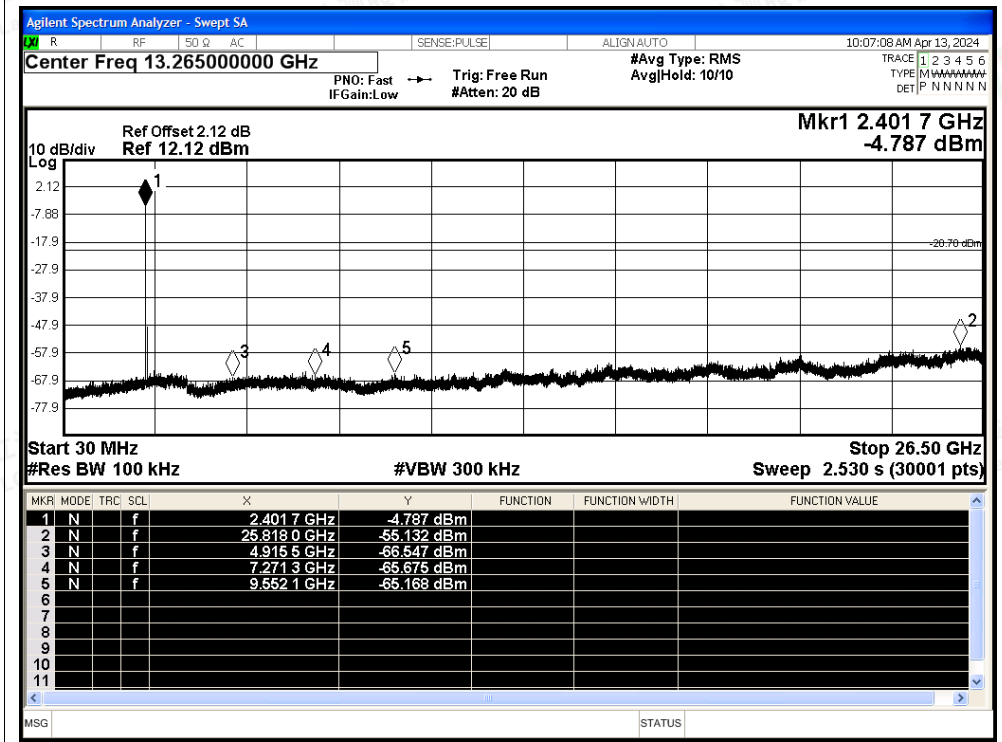




Tx. Spurious NVNT 3-DH5 2402MHz Ant Ref

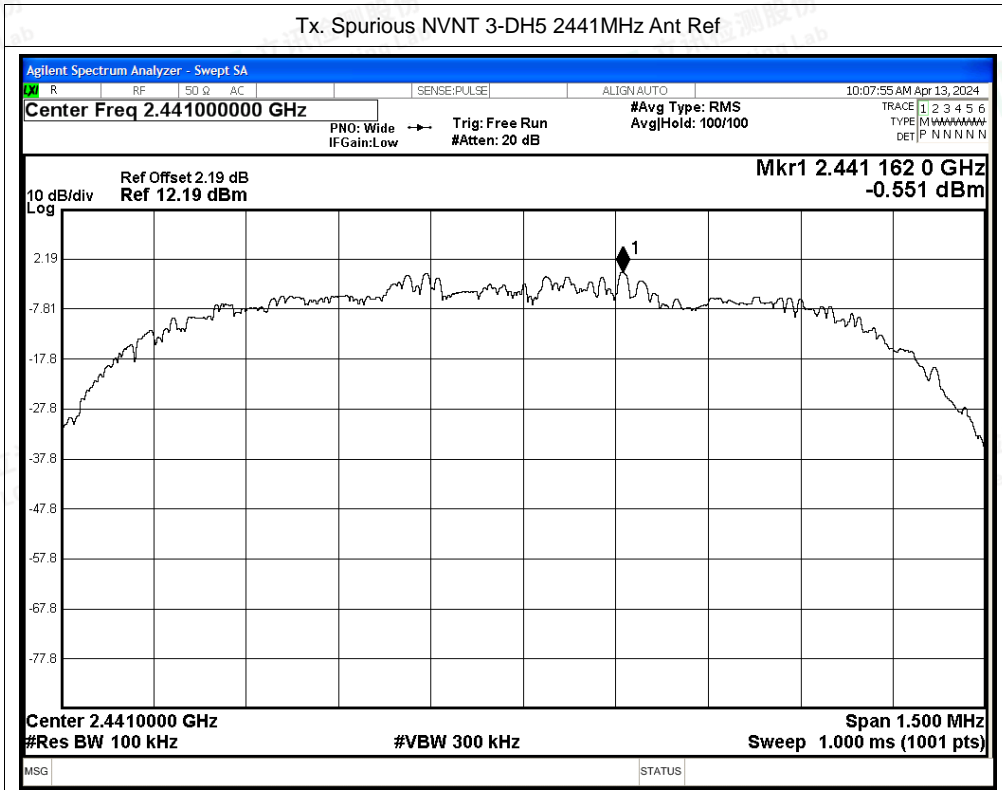


Tx. Spurious NVNT 3-DH5 2402MHz Ant Emission

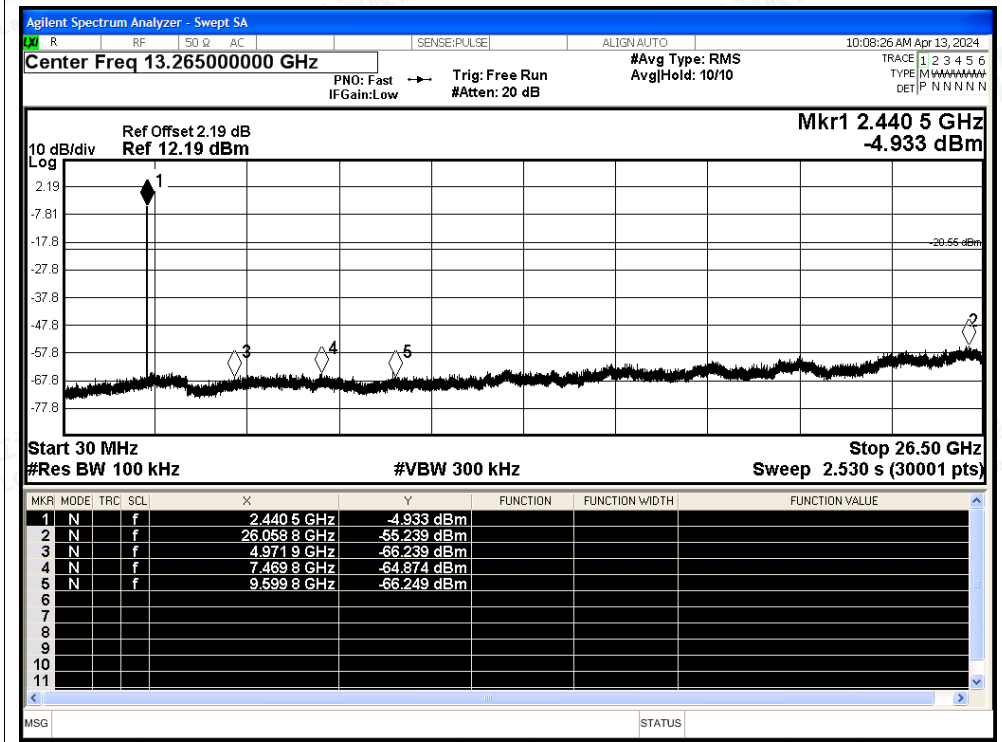




Tx. Spurious NVNT 3-DH5 2441MHz Ant Ref

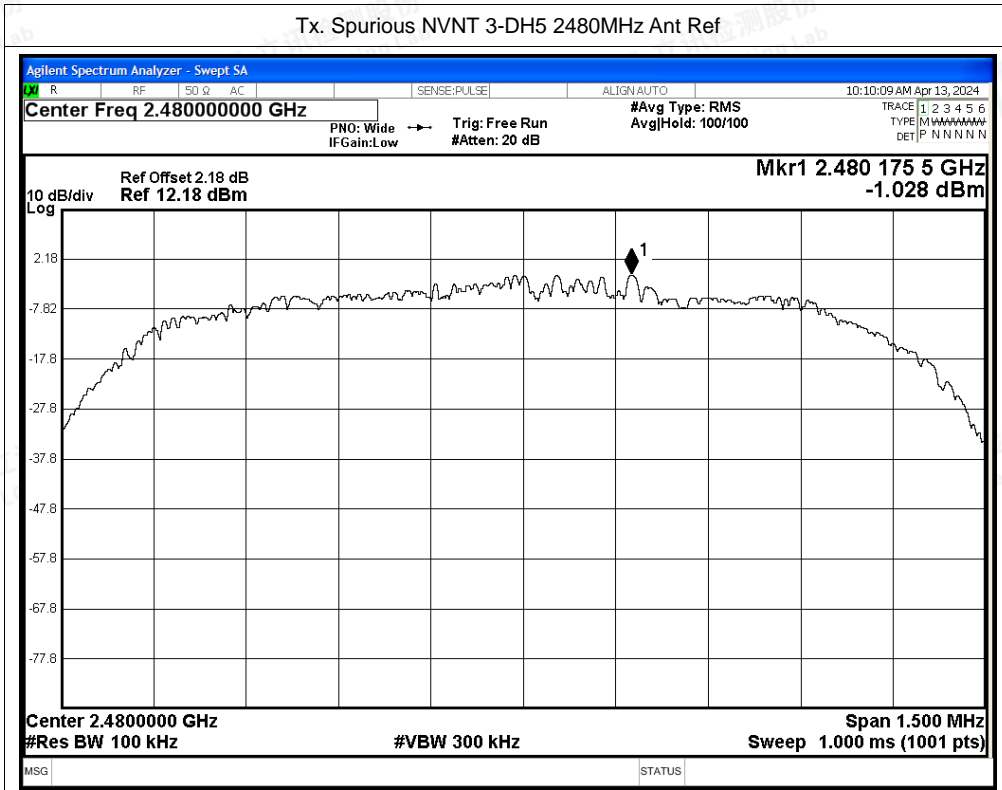


Tx. Spurious NVNT 3-DH5 2441MHz Ant Emission

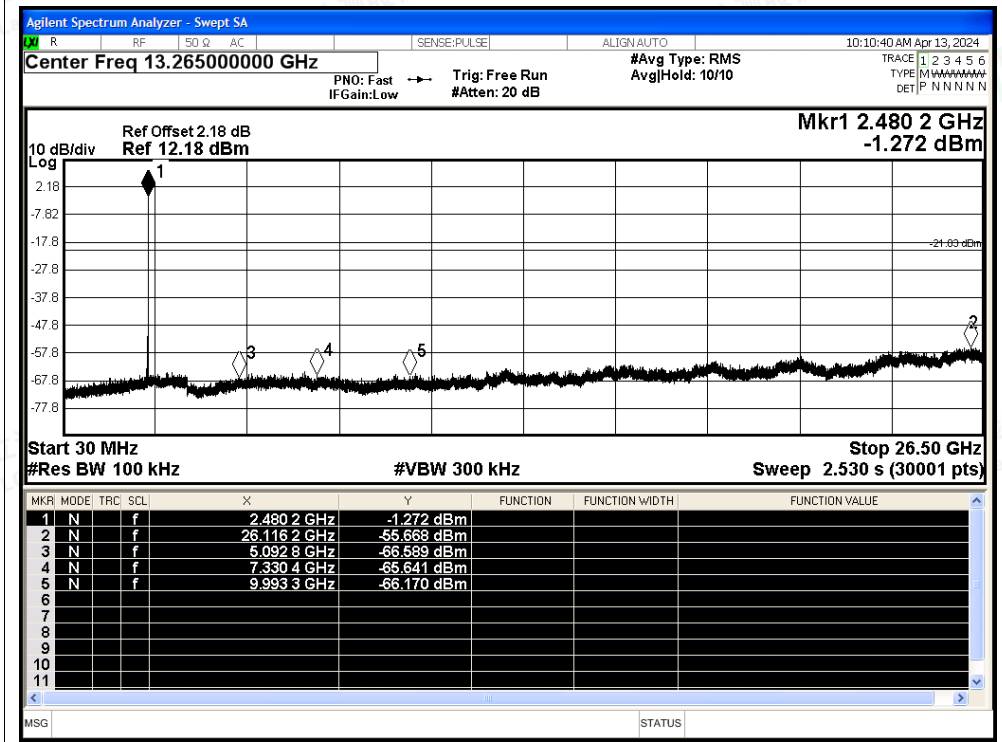




Tx. Spurious NVNT 3-DH5 2480MHz Ant Ref



Tx. Spurious NVNT 3-DH5 2480MHz Ant Emission





A.8 Duty Cycle

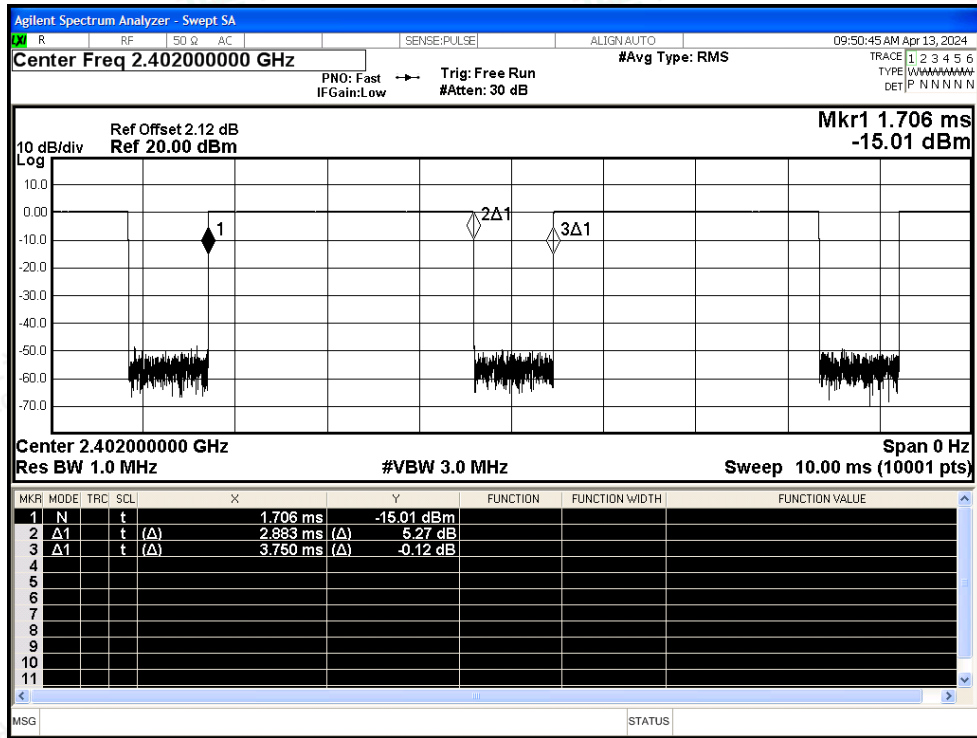
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH5	2402	Ant	76.88	1.14	0.35
NVNT	1-DH5	2441	Ant	76.88	1.14	0.35
NVNT	1-DH5	2480	Ant	76.88	1.14	0.35
NVNT	2-DH5	2402	Ant	76.96	1.14	0.35
NVNT	2-DH5	2441	Ant	76.96	1.14	0.35
NVNT	2-DH5	2480	Ant	76.99	1.14	0.35
NVNT	3-DH5	2402	Ant	77.01	1.13	0.35
NVNT	3-DH5	2441	Ant	77.04	1.13	0.35
NVNT	3-DH5	2480	Ant	77.01	1.13	0.35



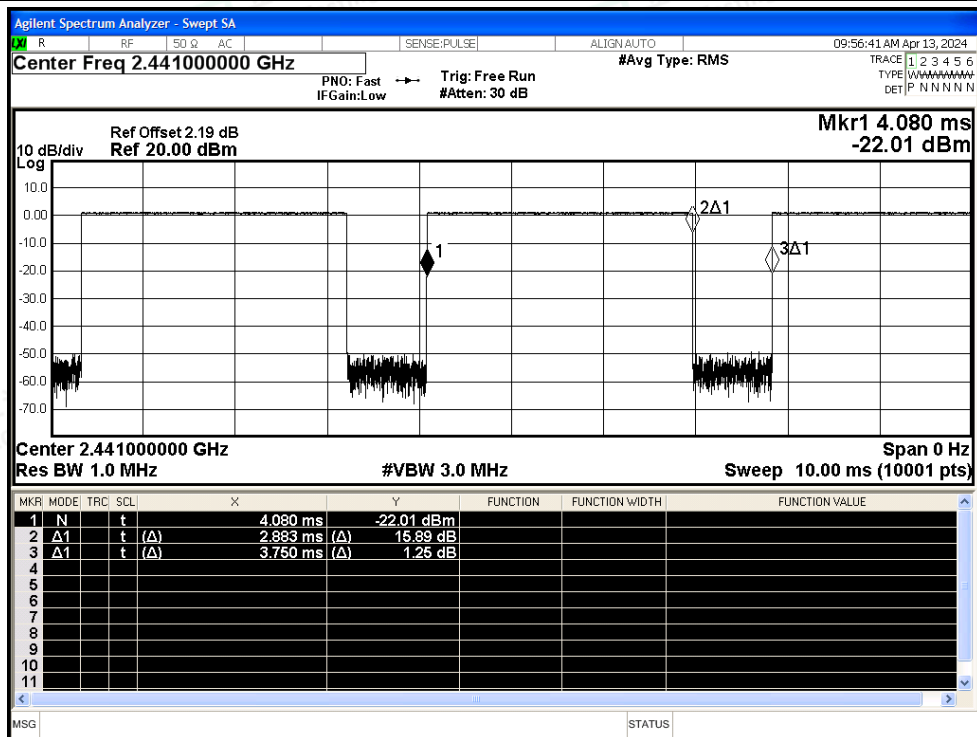


Test Graphs

Duty Cycle NVNT 1-DH5 2402MHz Ant

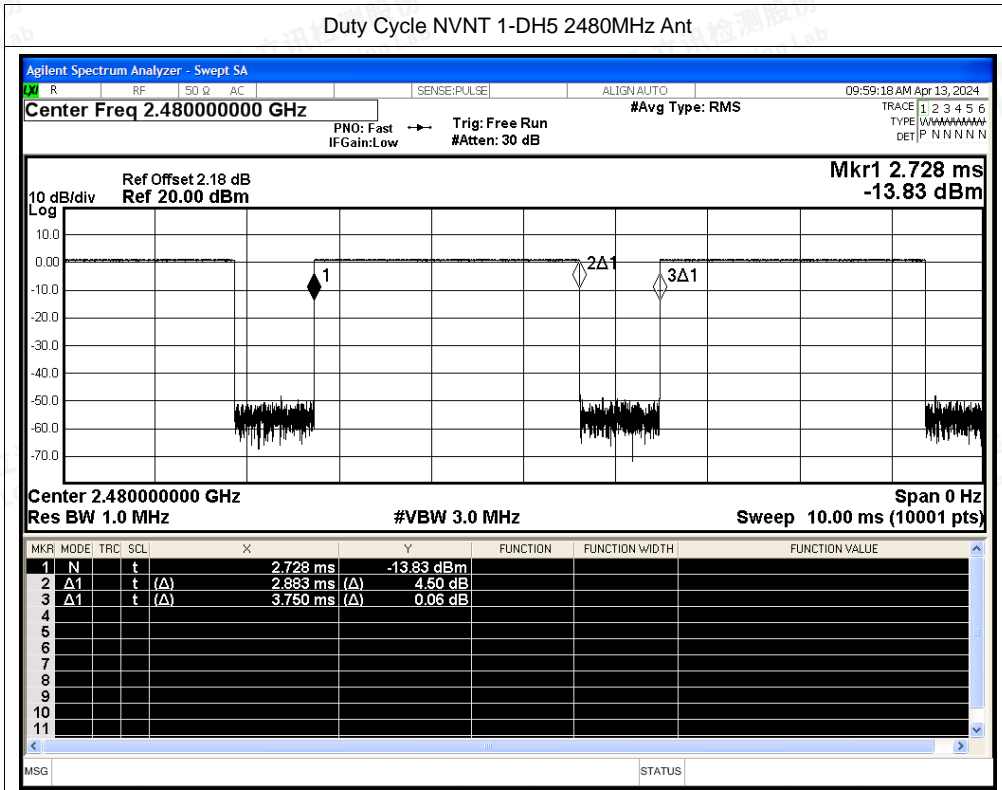


Duty Cycle NVNT 1-DH5 2441MHz Ant

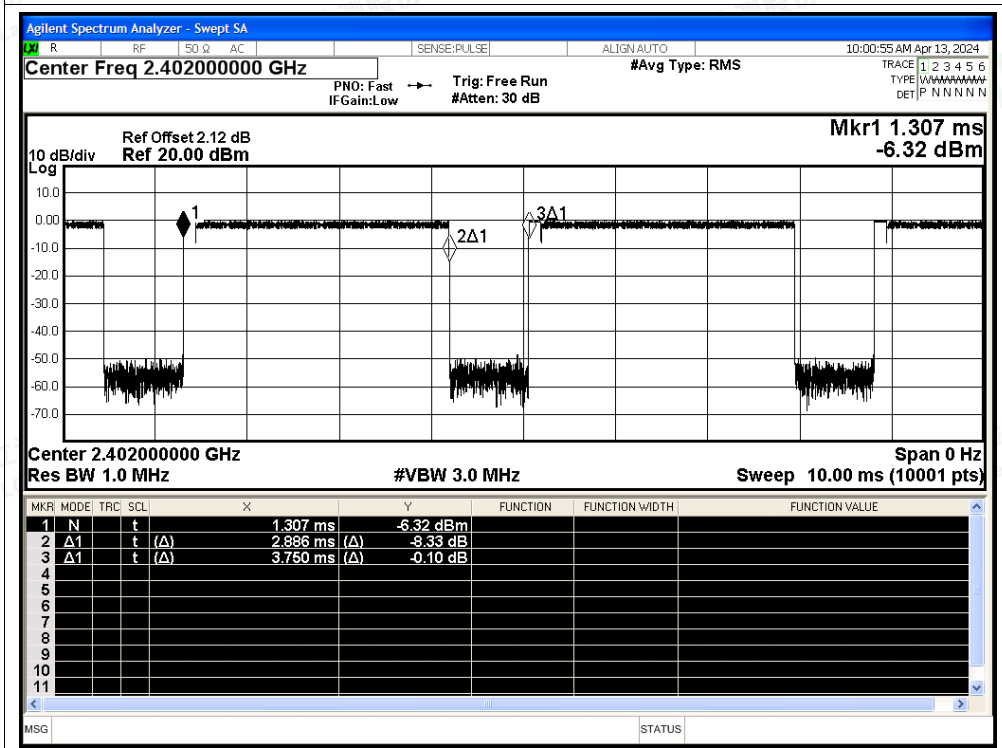




Duty Cycle NVNT 1-DH5 2480MHz Ant

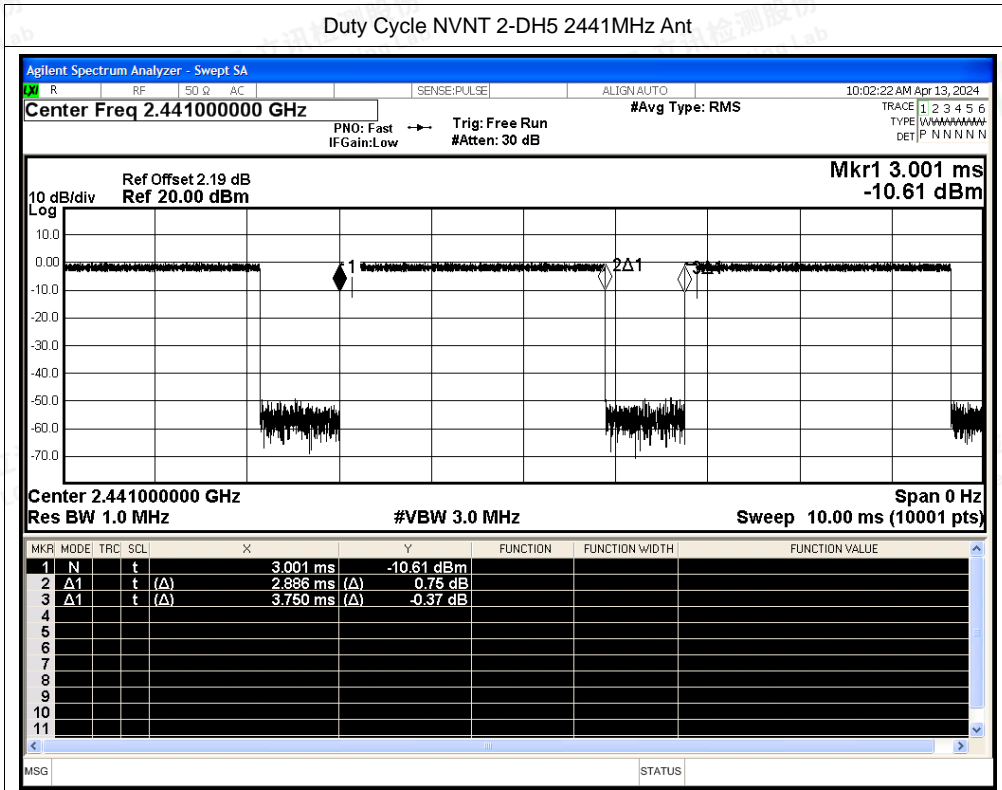


Duty Cycle NVNT 2-DH5 2402MHz Ant

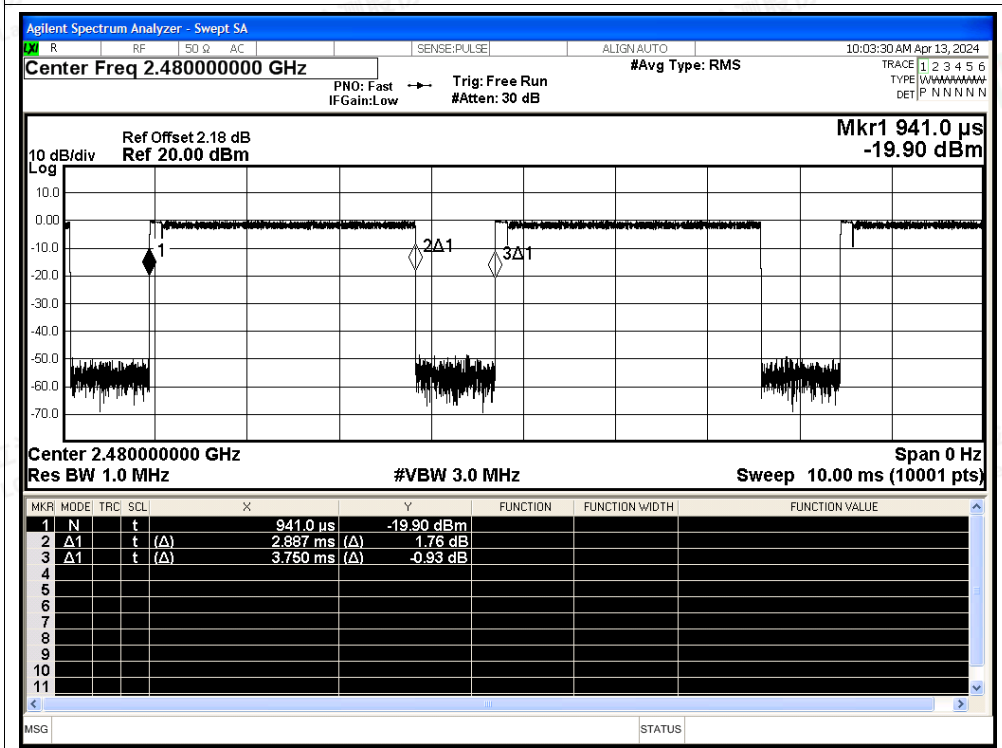




Duty Cycle NVNT 2-DH5 2441MHz Ant

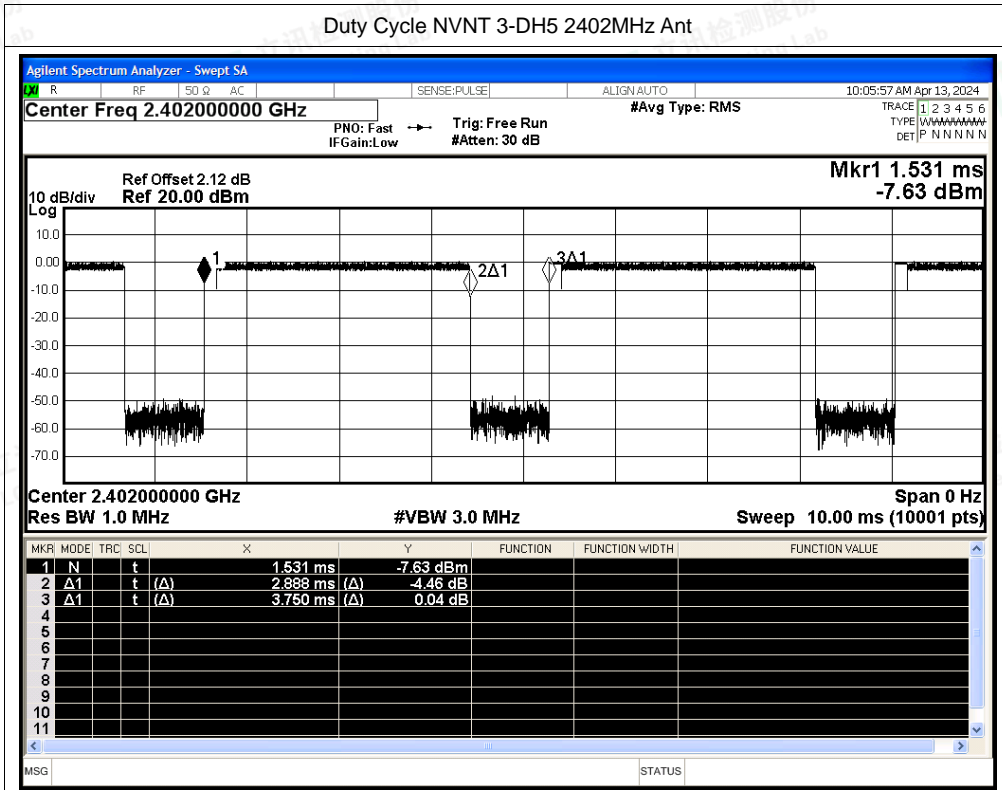


Duty Cycle NVNT 2-DH5 2480MHz Ant

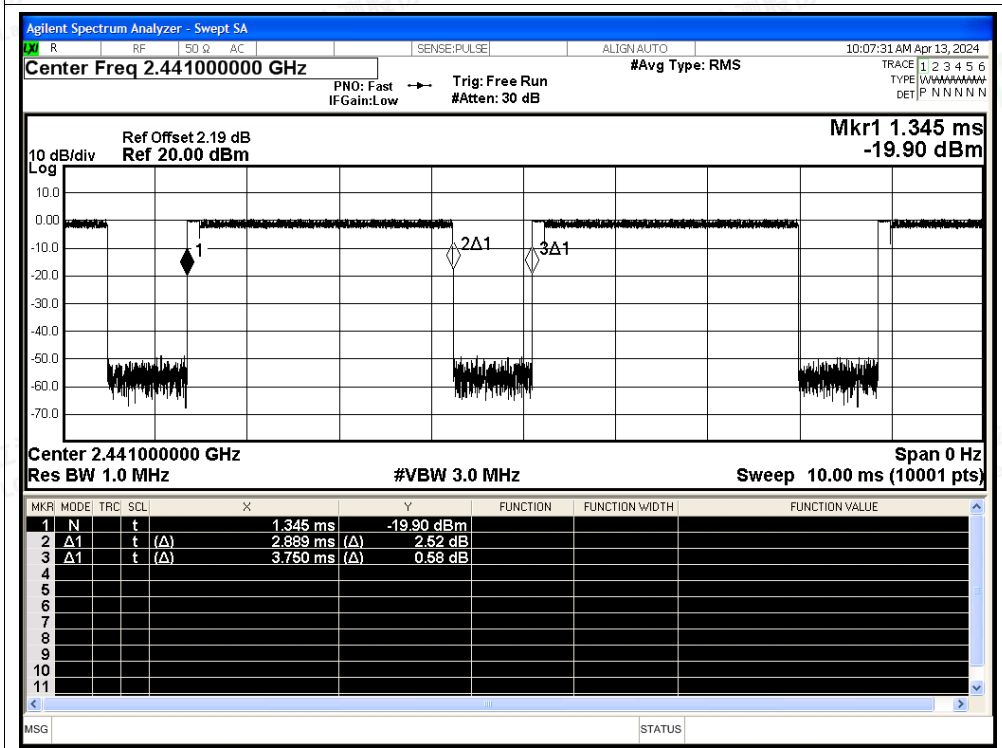


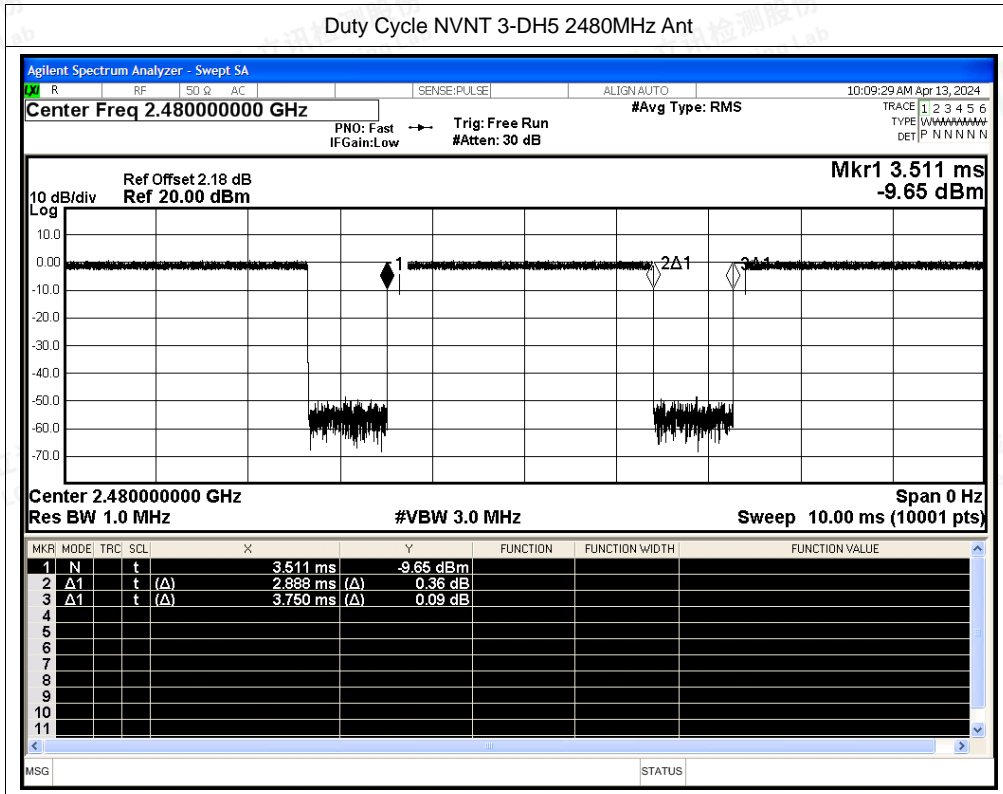


Duty Cycle NVNT 3-DH5 2402MHz Ant



Duty Cycle NVNT 3-DH5 2441MHz Ant







A.9 Restrict Band

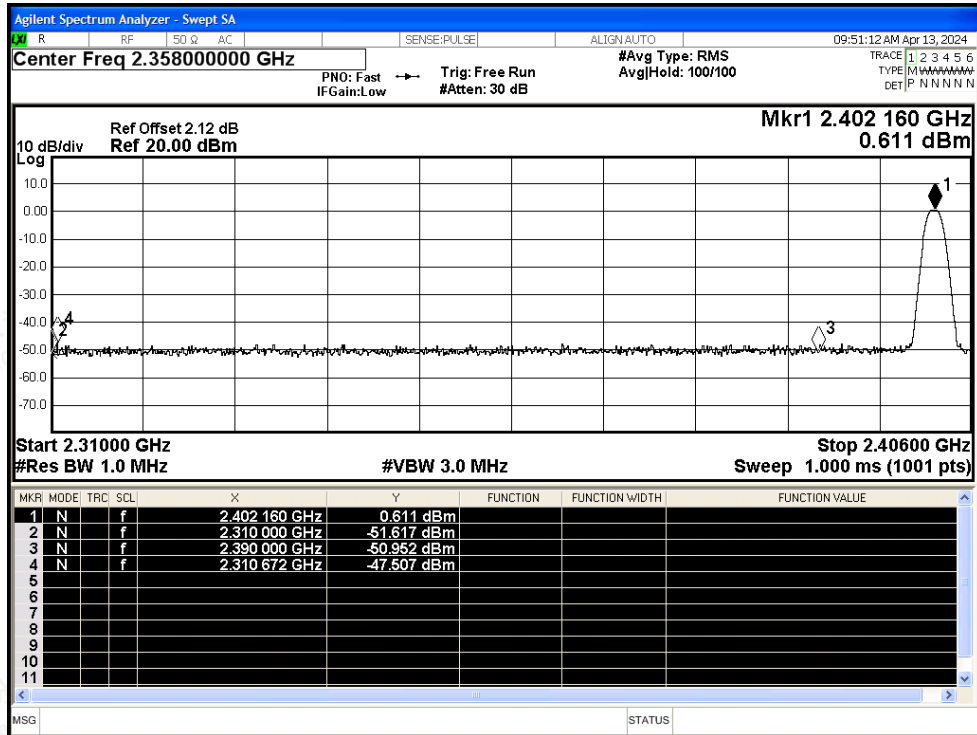
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH5	2402	Ant	No-Hopping	2310	-51.62	2	-	45.64	Peak	74	Pass
NVNT	1-DH5	2402	Ant	No-Hopping	2310	-58.62	2	1.14	39.78	Average	54	Pass
NVNT	1-DH5	2402	Ant	No-Hopping	2310.672	-47.51	2	-	49.75	Peak	74	Pass
NVNT	1-DH5	2402	Ant	No-Hopping	2374.032	-57.6	2	1.14	40.8	Average	54	Pass
NVNT	1-DH5	2402	Ant	No-Hopping	2390	-50.95	2	-	46.31	Peak	74	Pass
NVNT	1-DH5	2402	Ant	No-Hopping	2390	-58.12	2	1.14	40.28	Average	54	Pass
NVNT	1-DH5	2480	Ant	No-Hopping	2483.5	-50.18	2	-	47.08	Peak	74	Pass
NVNT	1-DH5	2480	Ant	No-Hopping	2483.5	-57.9	2	1.14	40.5	Average	54	Pass
NVNT	1-DH5	2480	Ant	No-Hopping	2492.416	-46.95	2	-	50.31	Peak	74	Pass
NVNT	1-DH5	2480	Ant	No-Hopping	2487.352	-57.19	2	1.14	41.21	Average	54	Pass
NVNT	1-DH5	2480	Ant	No-Hopping	2500	-48.92	2	-	48.34	Peak	74	Pass
NVNT	1-DH5	2480	Ant	No-Hopping	2500	-57.83	2	1.14	40.57	Average	54	Pass
NVNT	2-DH5	2402	Ant	No-Hopping	2310	-50.62	2	-	46.64	Peak	74	Pass
NVNT	2-DH5	2402	Ant	No-Hopping	2310	-59.08	2	1.14	39.32	Average	54	Pass
NVNT	2-DH5	2402	Ant	No-Hopping	2353.584	-47.21	2	-	50.05	Peak	74	Pass
NVNT	2-DH5	2402	Ant	No-Hopping	2384.016	-57.64	2	1.14	40.76	Average	54	Pass
NVNT	2-DH5	2402	Ant	No-Hopping	2390	-51.43	2	-	45.83	Peak	74	Pass
NVNT	2-DH5	2402	Ant	No-Hopping	2390	-57.85	2	1.14	40.55	Average	54	Pass
NVNT	2-DH5	2480	Ant	No-Hopping	2483.5	-50.32	2	-	46.94	Peak	74	Pass
NVNT	2-DH5	2480	Ant	No-Hopping	2483.5	-58.06	2	1.14	40.34	Average	54	Pass
NVNT	2-DH5	2480	Ant	No-Hopping	2485.696	-46.92	2	-	50.34	Peak	74	Pass
NVNT	2-DH5	2480	Ant	No-Hopping	2491.648	-57.01	2	1.14	41.39	Average	54	Pass
NVNT	2-DH5	2480	Ant	No-Hopping	2500	-50.32	2	-	46.94	Peak	74	Pass
NVNT	2-DH5	2480	Ant	No-Hopping	2500	-58.25	2	1.14	40.15	Average	54	Pass
NVNT	3-DH5	2402	Ant	No-Hopping	2310	-50.74	2	-	46.52	Peak	74	Pass
NVNT	3-DH5	2402	Ant	No-Hopping	2310	-58.72	2	1.13	39.67	Average	54	Pass
NVNT	3-DH5	2402	Ant	No-Hopping	2349.84	-47.45	2	-	49.81	Peak	74	Pass
NVNT	3-DH5	2402	Ant	No-Hopping	2354.64	-57.5	2	1.13	40.89	Average	54	Pass
NVNT	3-DH5	2402	Ant	No-Hopping	2390	-50.68	2	-	46.58	Peak	74	Pass
NVNT	3-DH5	2402	Ant	No-Hopping	2390	-58.05	2	1.13	40.34	Average	54	Pass
NVNT	3-DH5	2480	Ant	No-Hopping	2483.5	-49.92	2	-	47.34	Peak	74	Pass
NVNT	3-DH5	2480	Ant	No-Hopping	2483.5	-57.59	2	1.13	40.8	Average	54	Pass
NVNT	3-DH5	2480	Ant	No-Hopping	2488.48	-46.63	2	-	50.63	Peak	74	Pass
NVNT	3-DH5	2480	Ant	No-Hopping	2483.872	-57.05	2	1.13	41.34	Average	54	Pass
NVNT	3-DH5	2480	Ant	No-Hopping	2500	-49.16	2	-	48.1	Peak	74	Pass
NVNT	3-DH5	2480	Ant	No-Hopping	2500	-57.42	2	1.13	40.97	Average	54	Pass



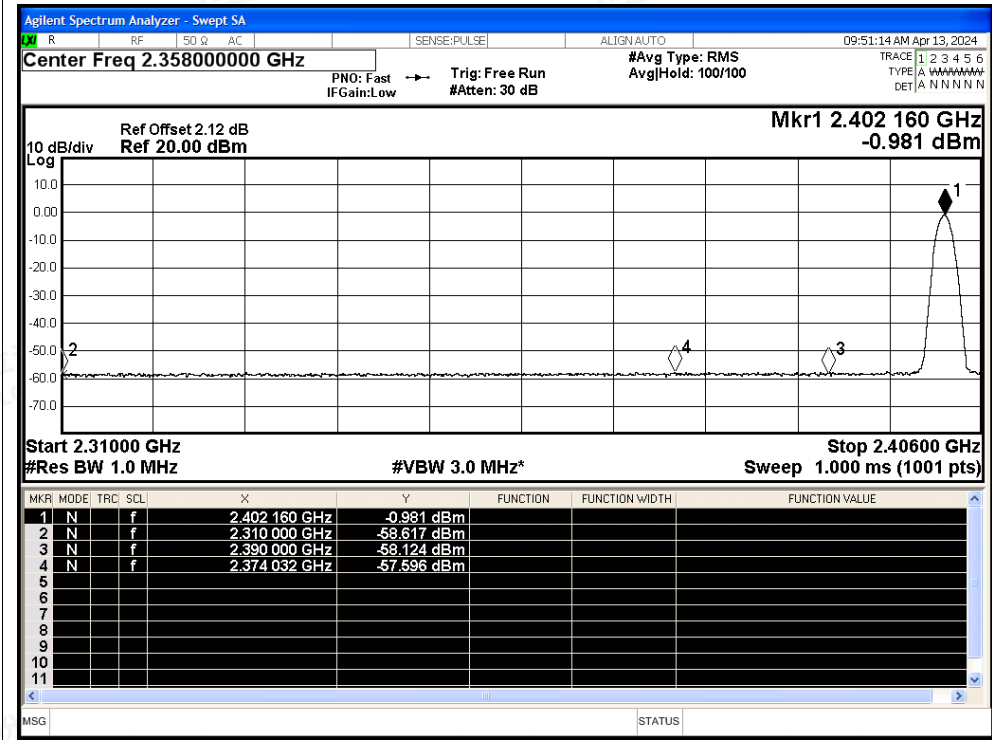


Test Graphs

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

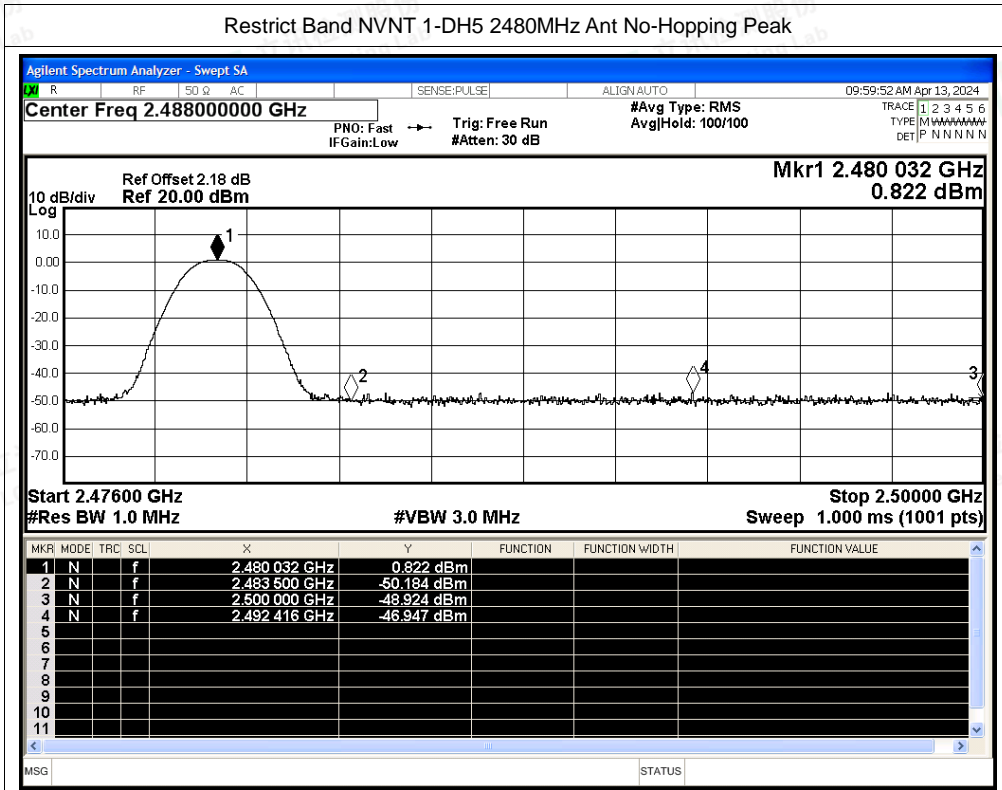


Restrict Band NVNT 1-DH5 2402MHz Ant No-Hopping Average

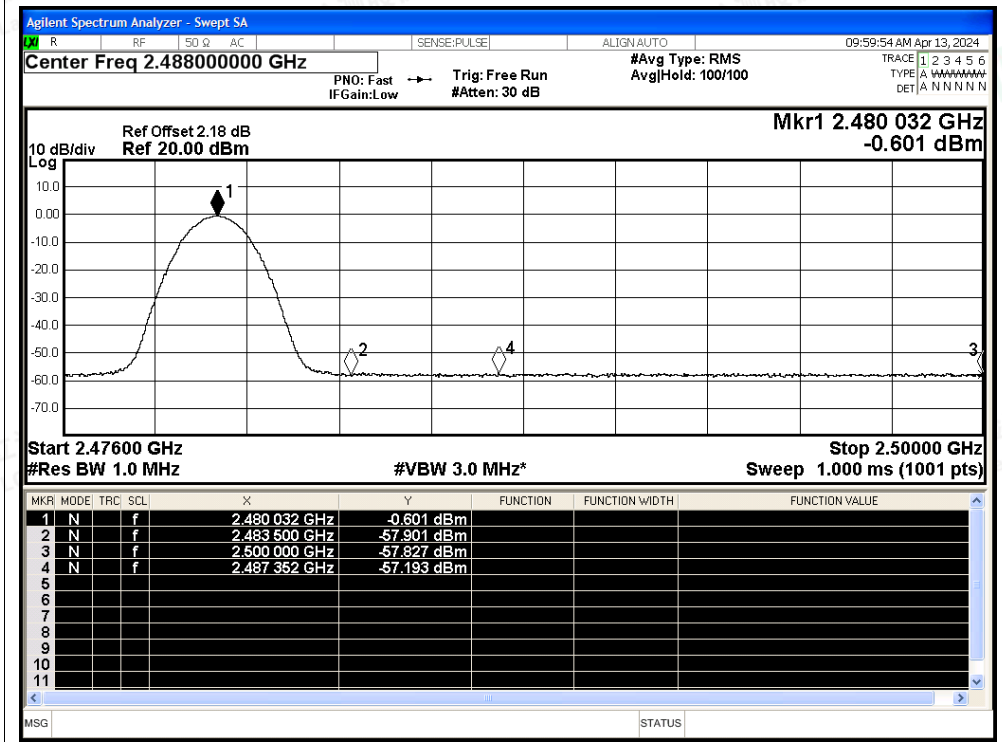




Restrict Band NVNT 1-DH5 2480MHz Ant No-Hopping Peak

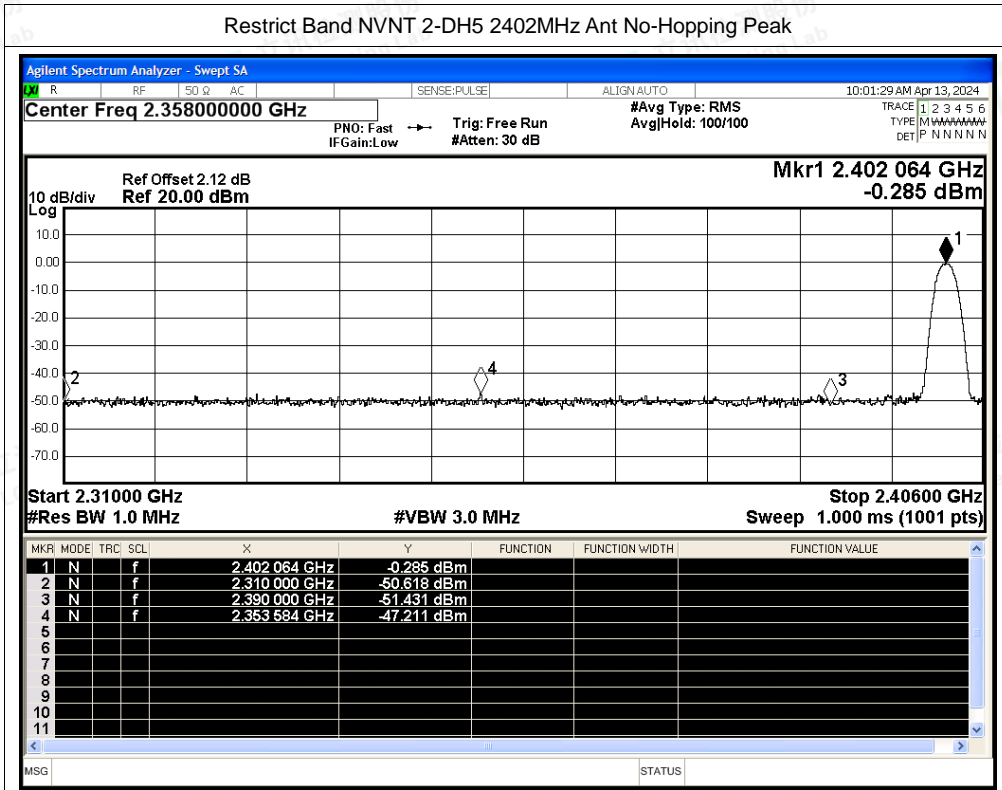


Restrict Band NVNT 1-DH5 2480MHz Ant No-Hopping Average

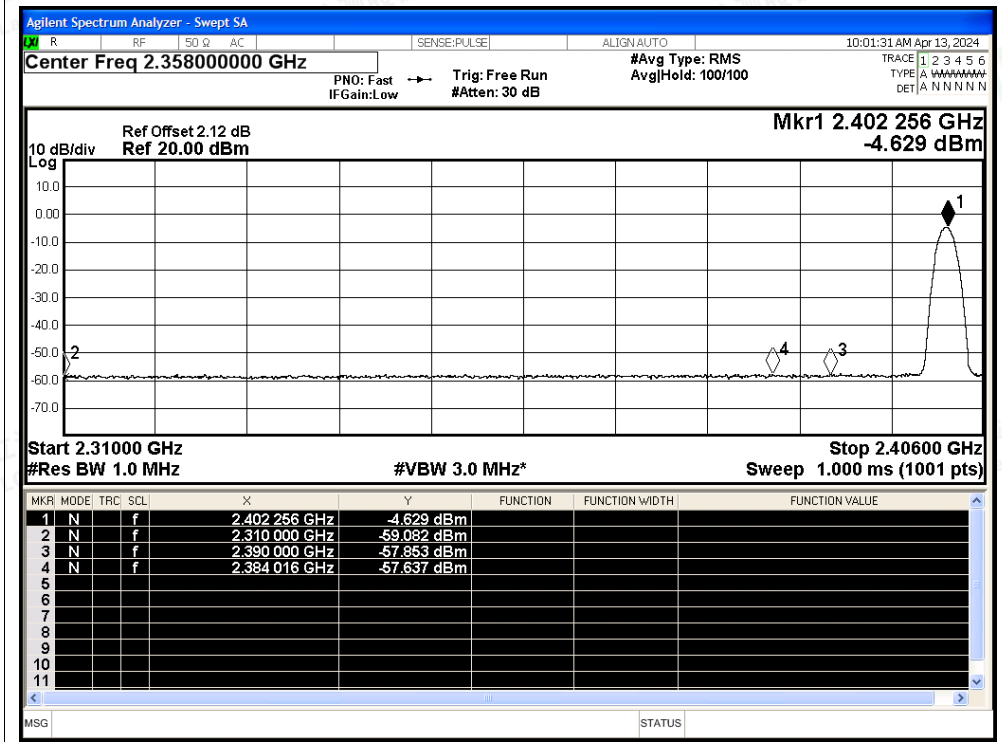




Restrict Band NVNT 2-DH5 2402MHz Ant No-Hopping Peak

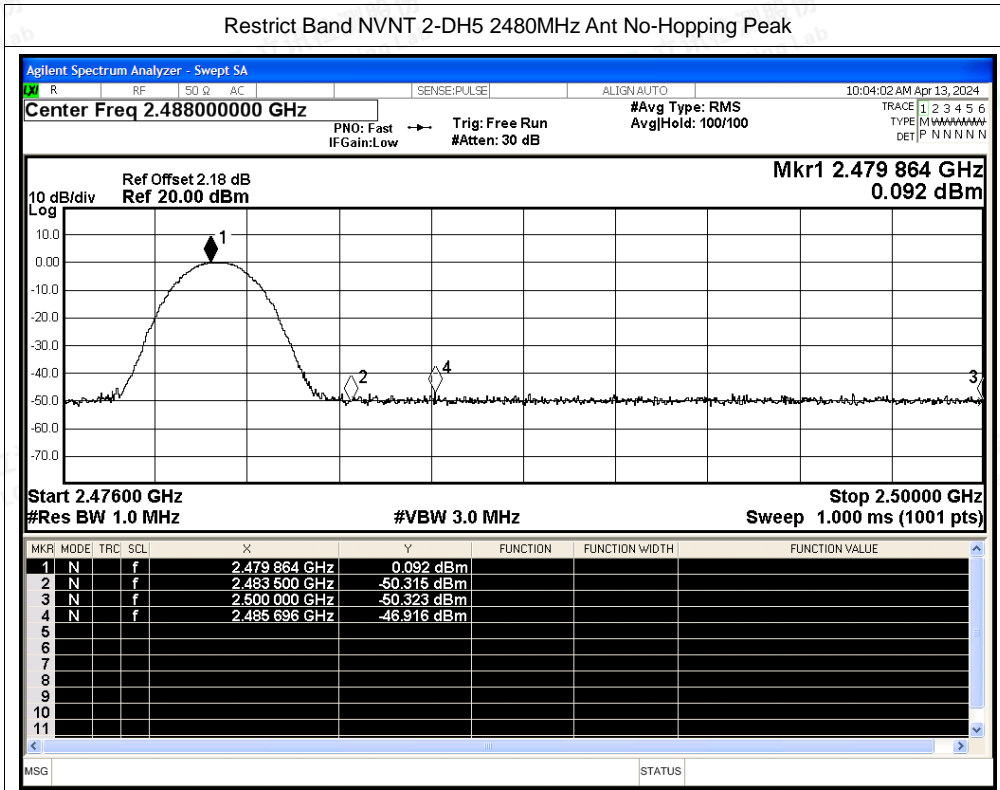


Restrict Band NVNT 2-DH5 2402MHz Ant No-Hopping Average

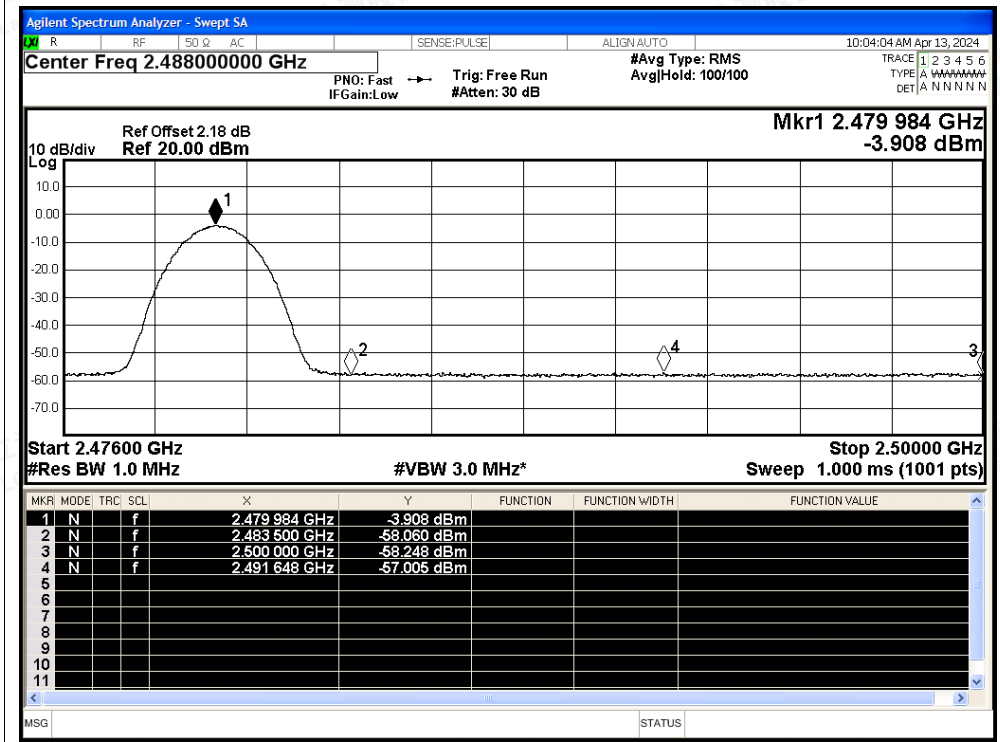




Restrict Band NVNT 2-DH5 2480MHz Ant No-Hopping Peak

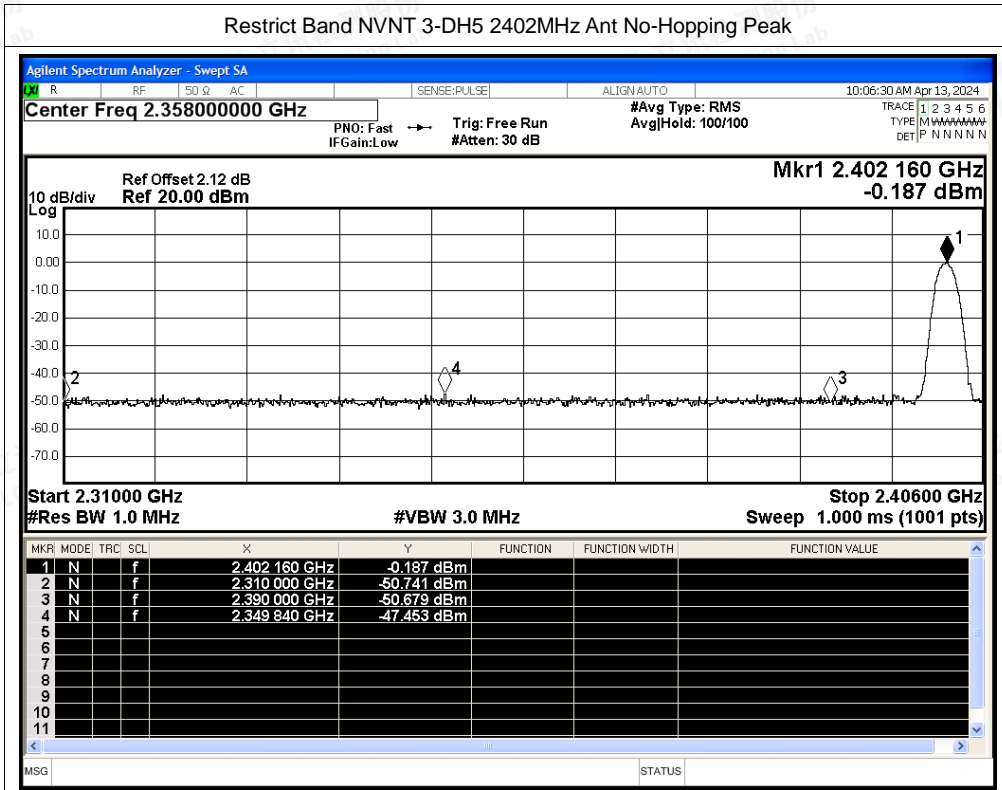


Restrict Band NVNT 2-DH5 2480MHz Ant No-Hopping Average

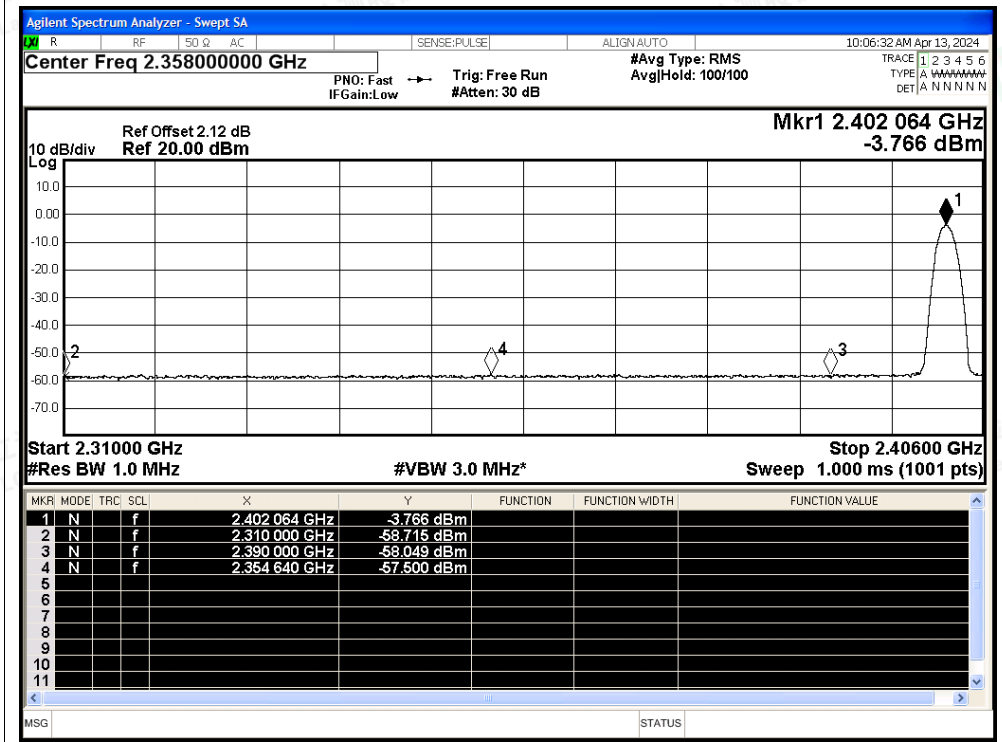




Restrict Band NVNT 3-DH5 2402MHz Ant No-Hopping Peak

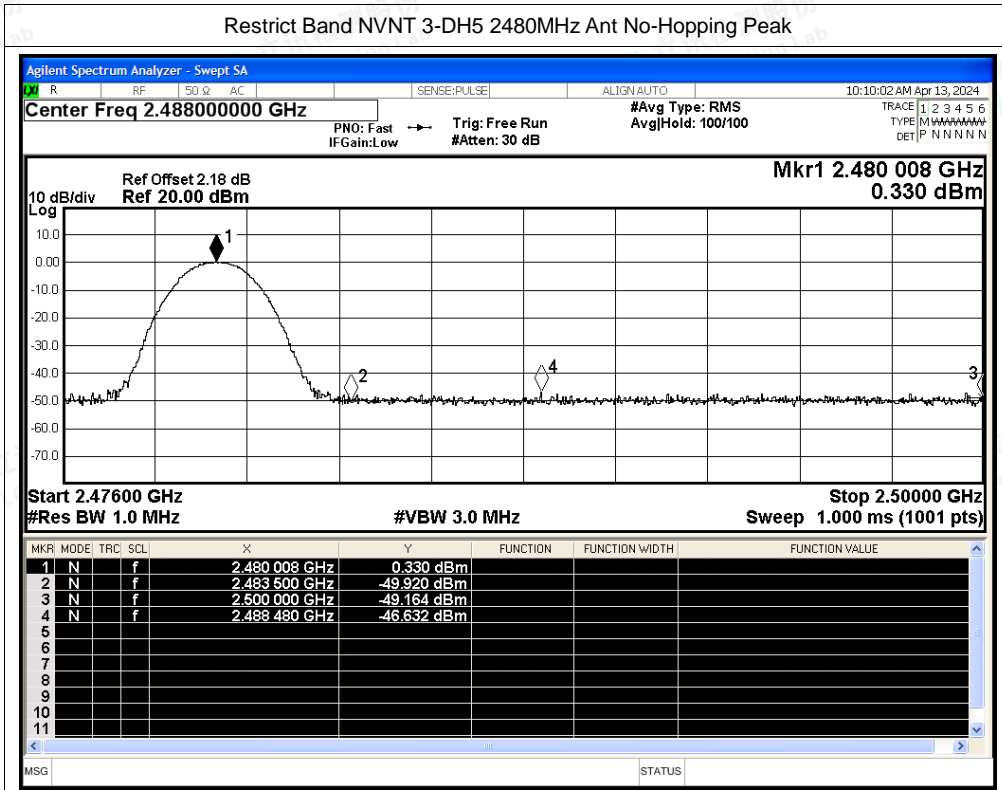


Restrict Band NVNT 3-DH5 2402MHz Ant No-Hopping Average





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



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

