



## Appendix A

### RF Test Data for BT (Conducted Measurement)

Product Name: Handset

Test Model: BTP50

#### Environmental Conditions

Temperature:	23.8°C
Relative Humidity:	52.1%
ATM Pressure:	100.0kPa
Test Engineer:	Eason Zhou
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	0.954	N/A	Pass
NVNT	1-DH5	2441	Ant1	1.025	N/A	Pass
NVNT	1-DH5	2480	Ant1	0.958	N/A	Pass
NVNT	2-DH5	2402	Ant1	1.277	N/A	Pass
NVNT	2-DH5	2441	Ant1	1.29	N/A	Pass
NVNT	2-DH5	2480	Ant1	1.285	N/A	Pass
NVNT	3-DH5	2402	Ant1	1.296	N/A	Pass
NVNT	3-DH5	2441	Ant1	1.292	N/A	Pass
NVNT	3-DH5	2480	Ant1	1.294	N/A	Pass





Test Graphs

-20dB Bandwidth NVNT 1-DH5 2402MHz Ant1

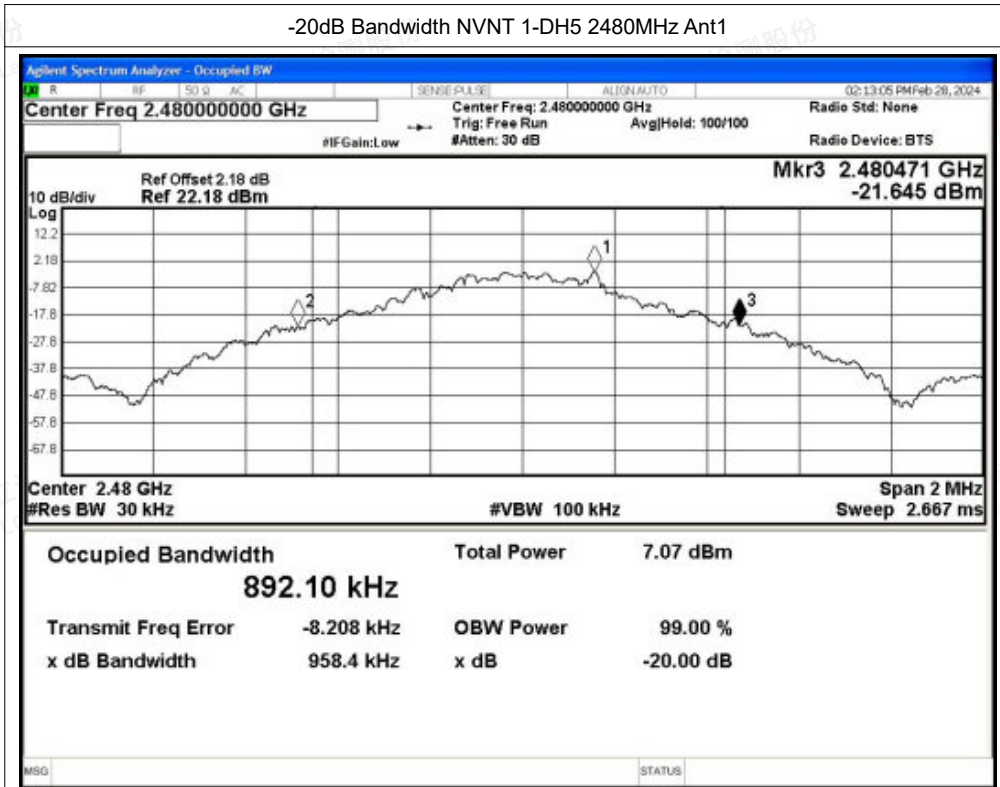


-20dB Bandwidth NVNT 1-DH5 2441MHz Ant1

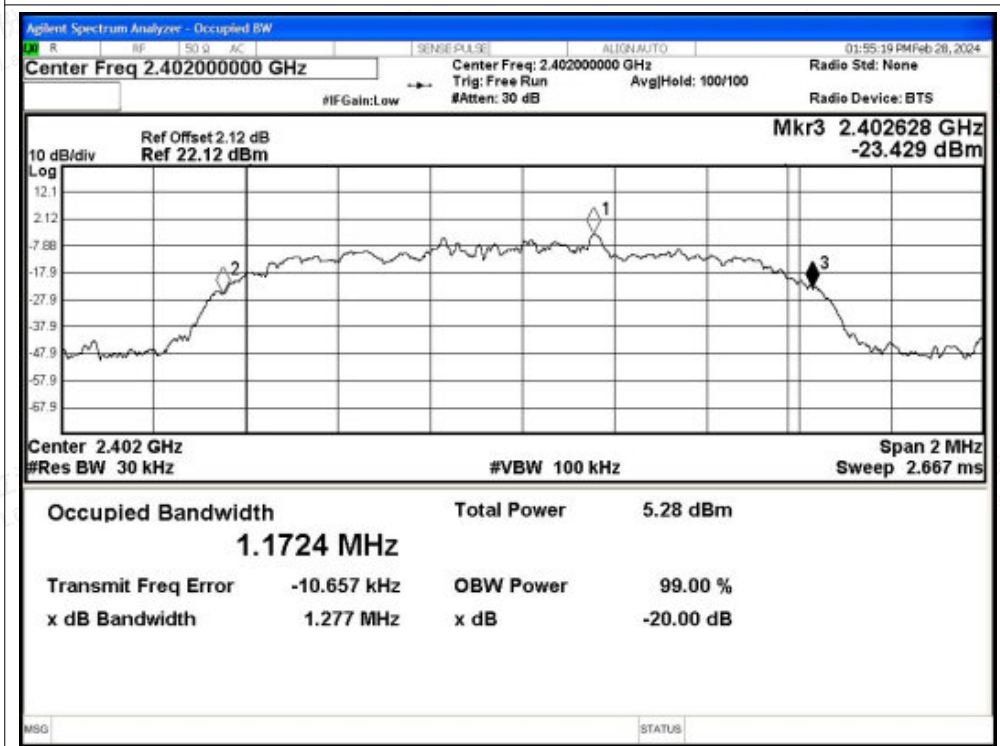




-20dB Bandwidth NVNT 1-DH5 2480MHz Ant1

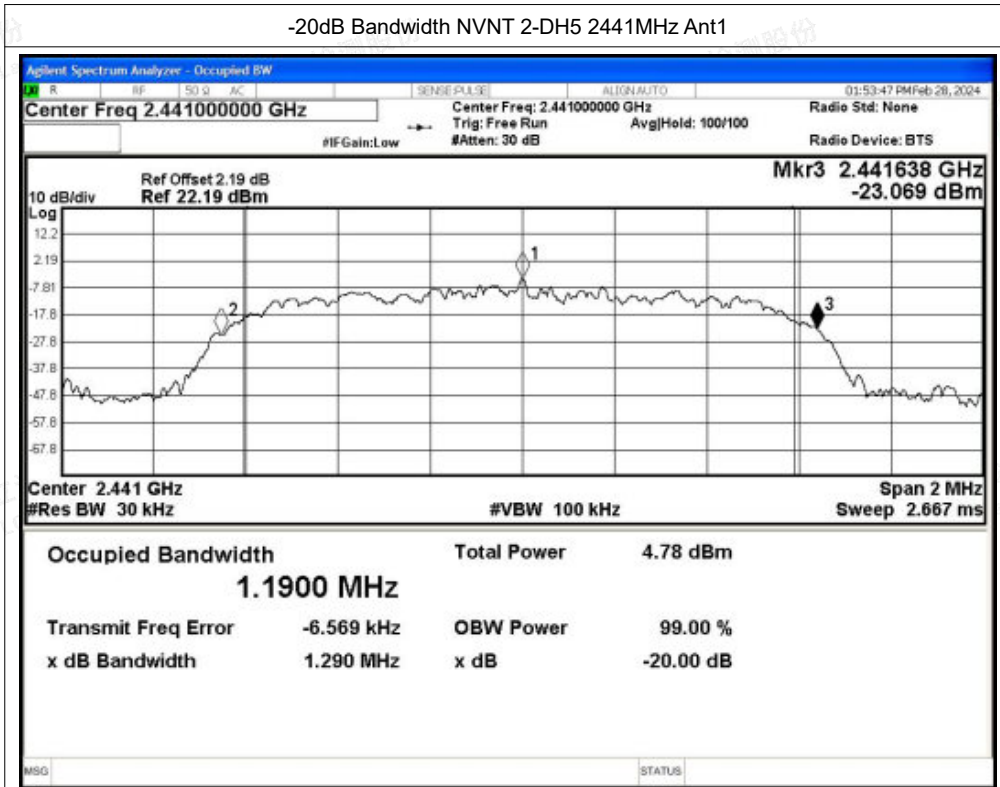


-20dB Bandwidth NVNT 2-DH5 2402MHz Ant1

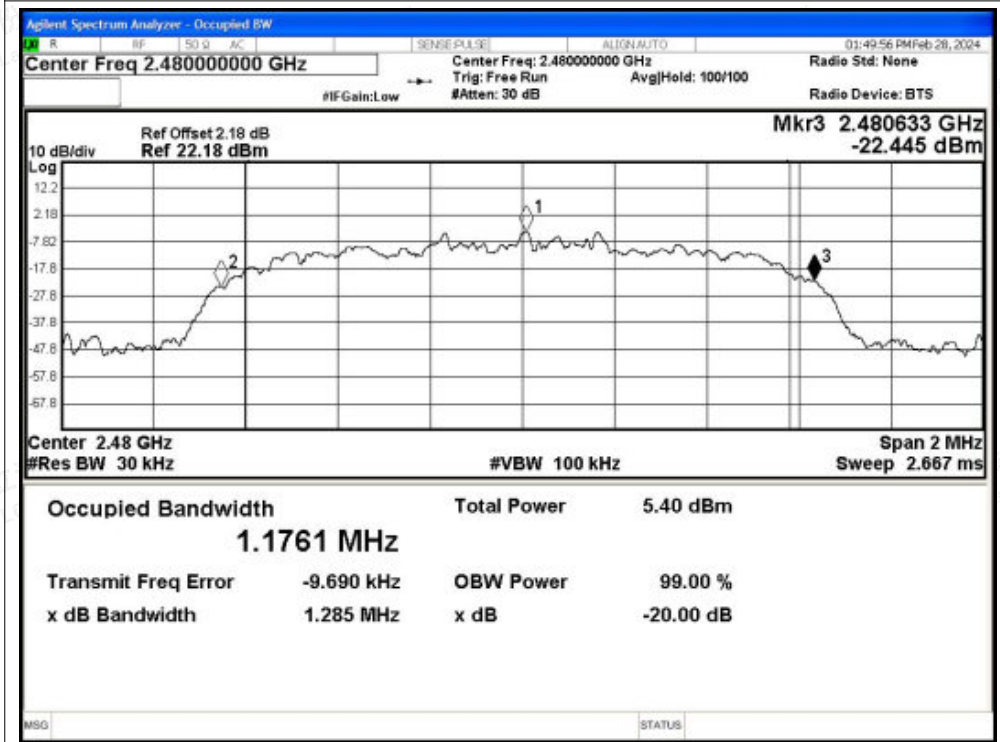




-20dB Bandwidth NVNT 2-DH5 2441MHz Ant1

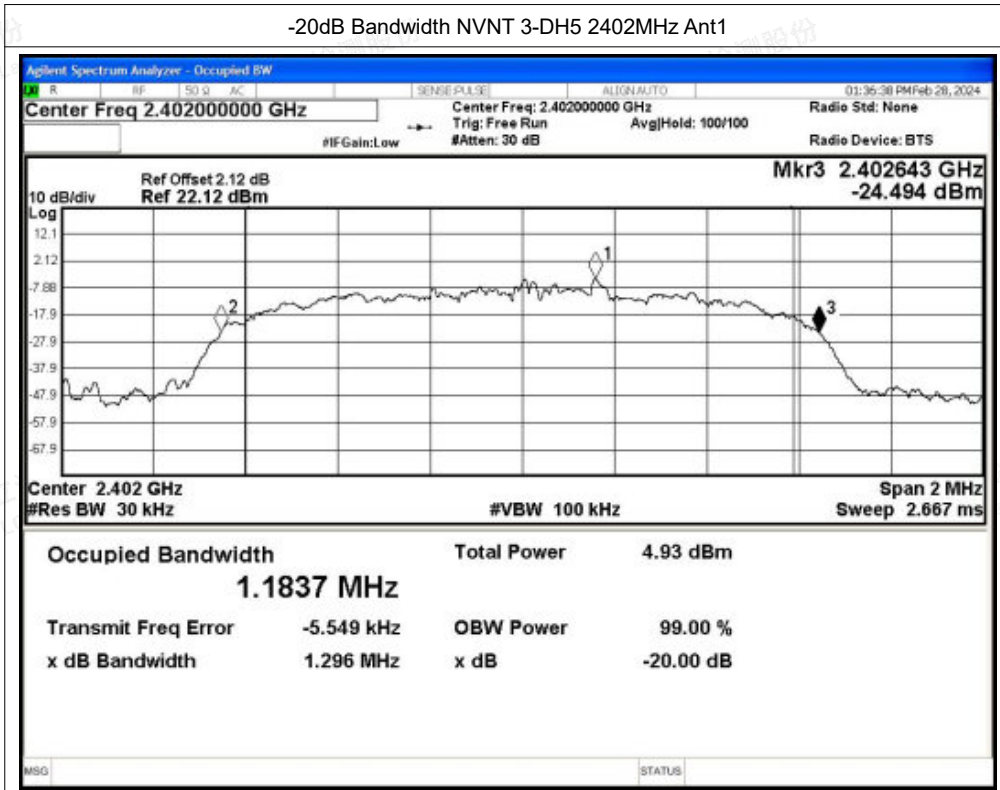


-20dB Bandwidth NVNT 2-DH5 2480MHz Ant1

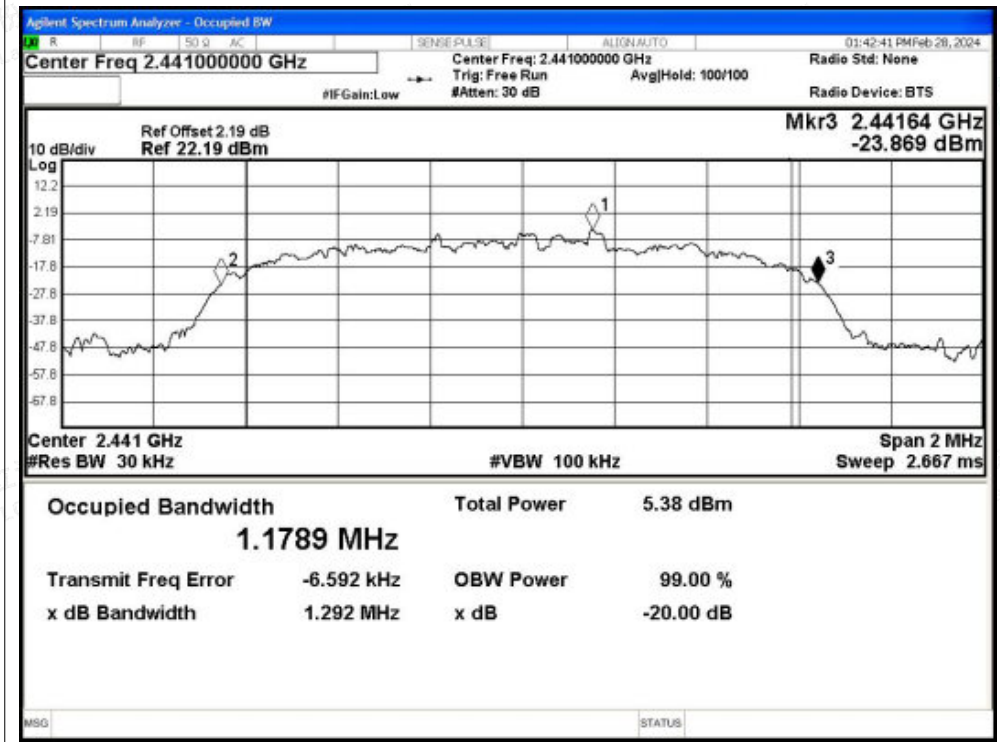




-20dB Bandwidth NVNT 3-DH5 2402MHz Ant1

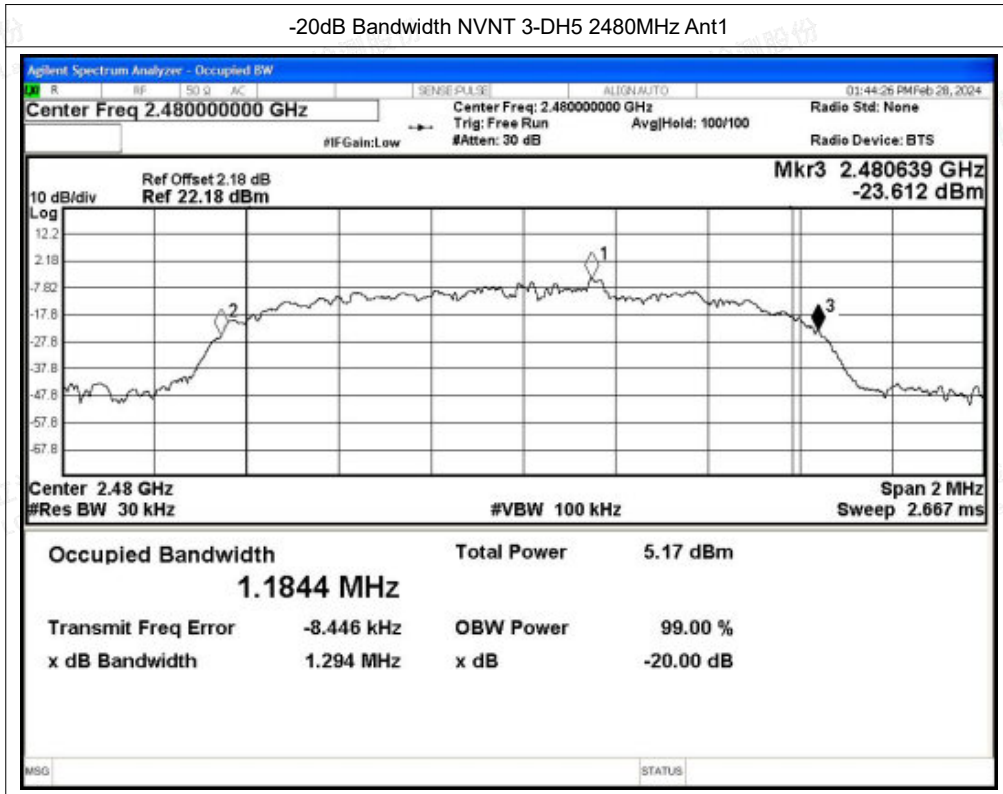


-20dB Bandwidth NVNT 3-DH5 2441MHz Ant1





-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	0.51	21	Pass
NVNT	1-DH5	2441	Ant1	0.85	21	Pass
NVNT	1-DH5	2480	Ant1	0.75	21	Pass
NVNT	2-DH5	2402	Ant1	0.25	21	Pass
NVNT	2-DH5	2441	Ant1	0.59	21	Pass
NVNT	2-DH5	2480	Ant1	0.64	21	Pass
NVNT	3-DH5	2402	Ant1	0.43	21	Pass
NVNT	3-DH5	2441	Ant1	0.76	21	Pass
NVNT	3-DH5	2480	Ant1	0.75	21	Pass

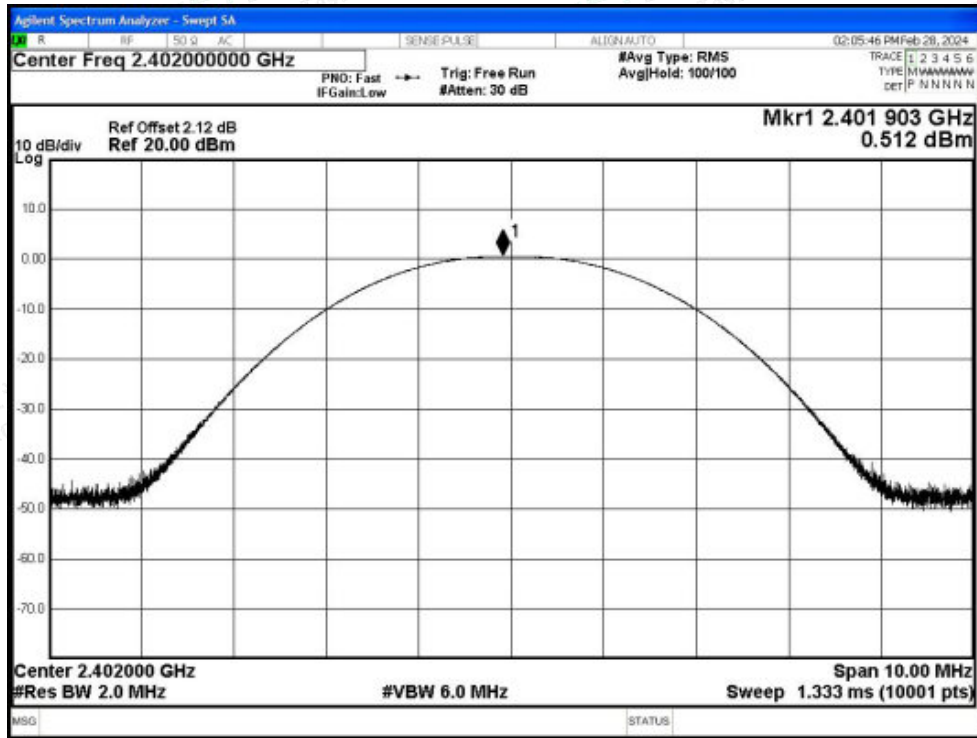




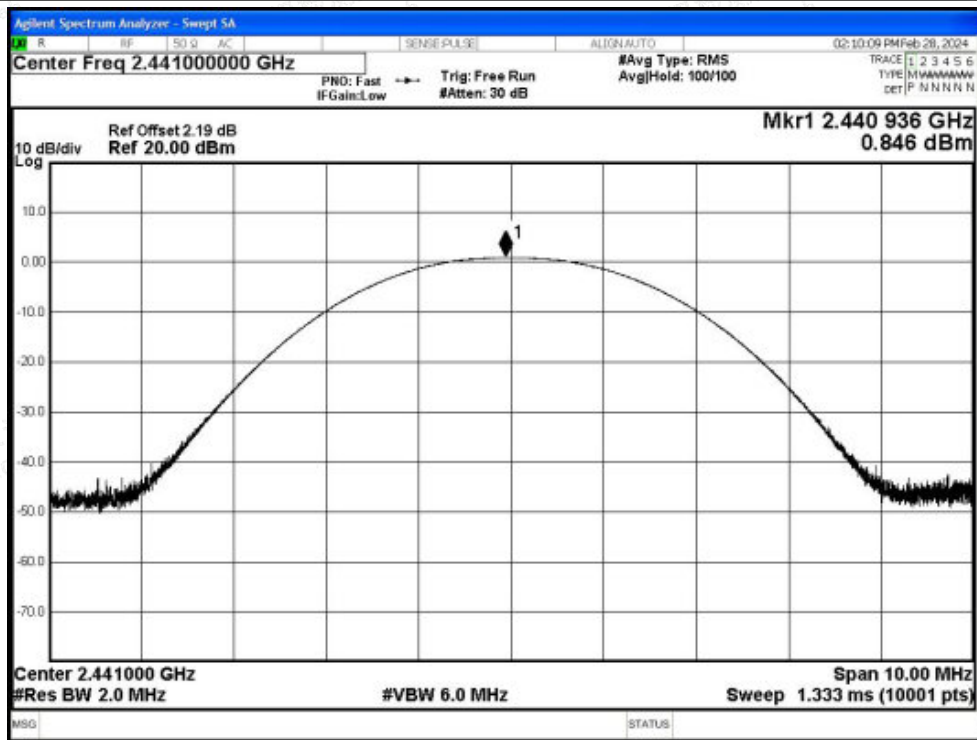


Test Graphs

Power NVNT 1-DH5 2402MHz Ant1

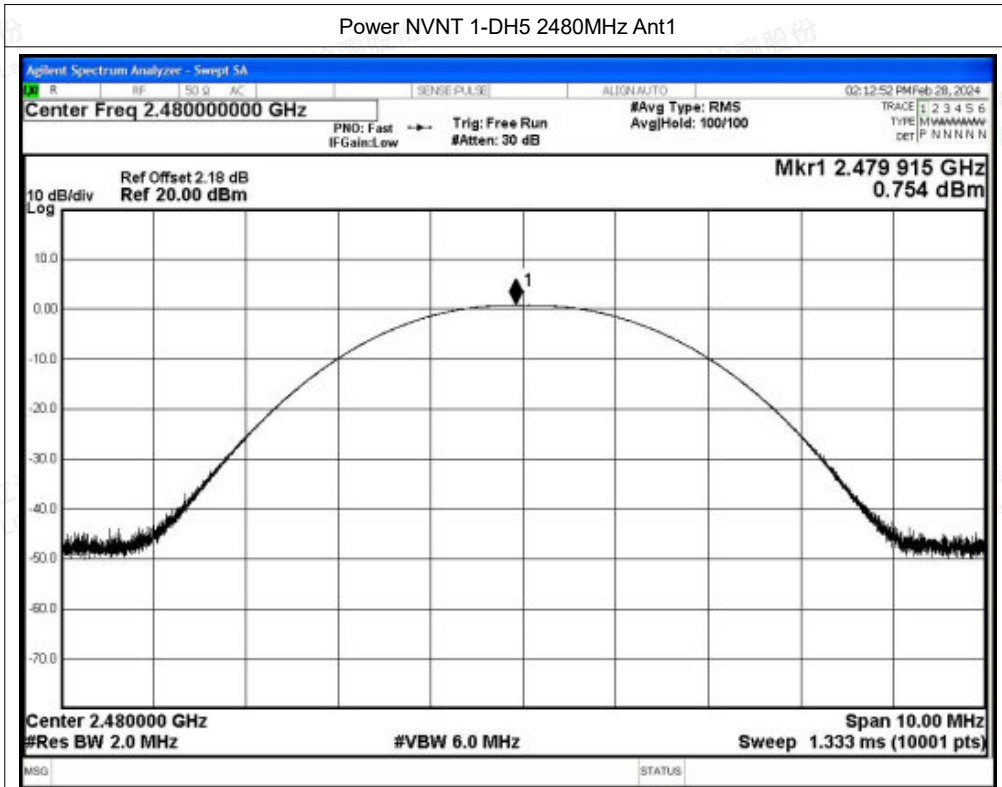


Power NVNT 1-DH5 2441MHz Ant1

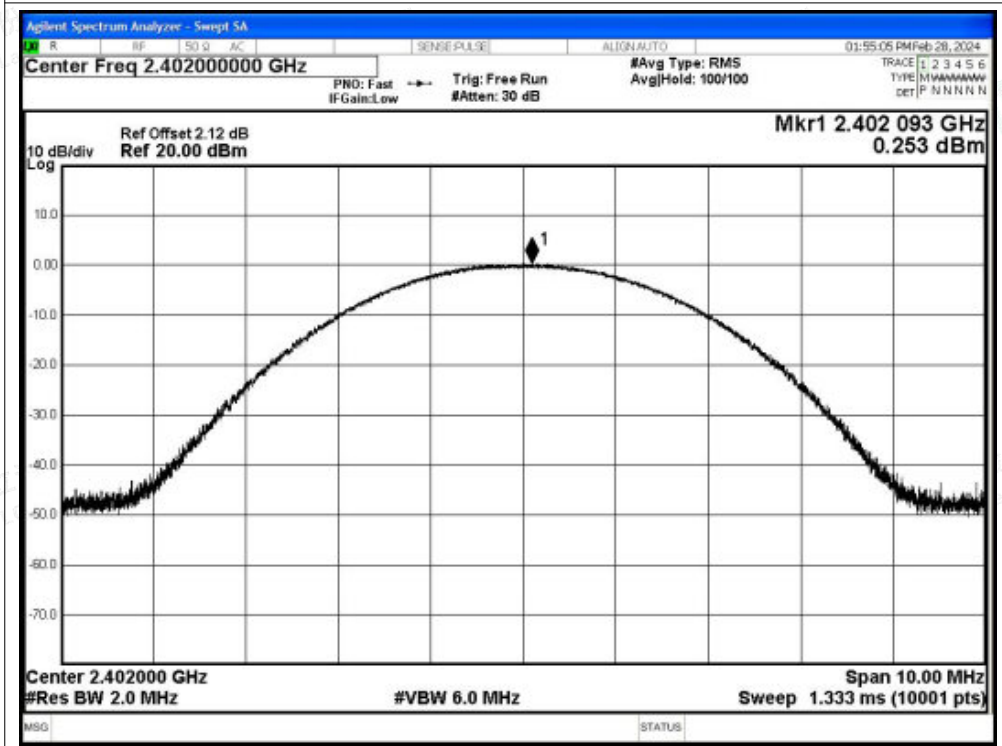




Power NVNT 1-DH5 2480MHz Ant1

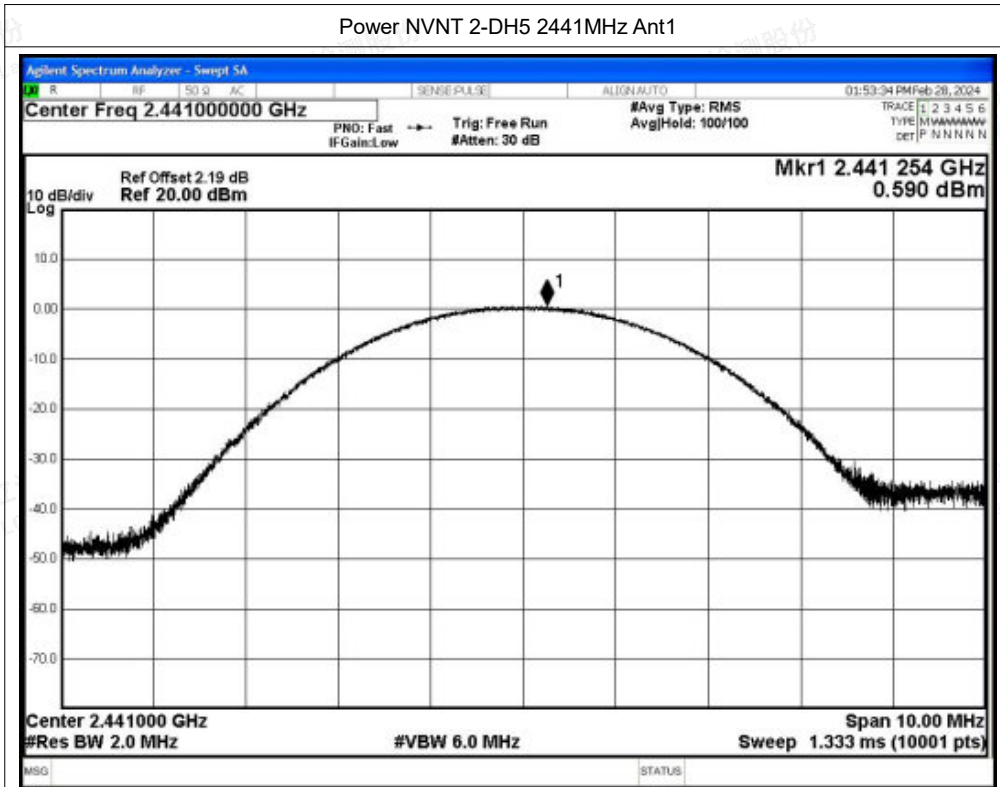


Power NVNT 2-DH5 2402MHz Ant1

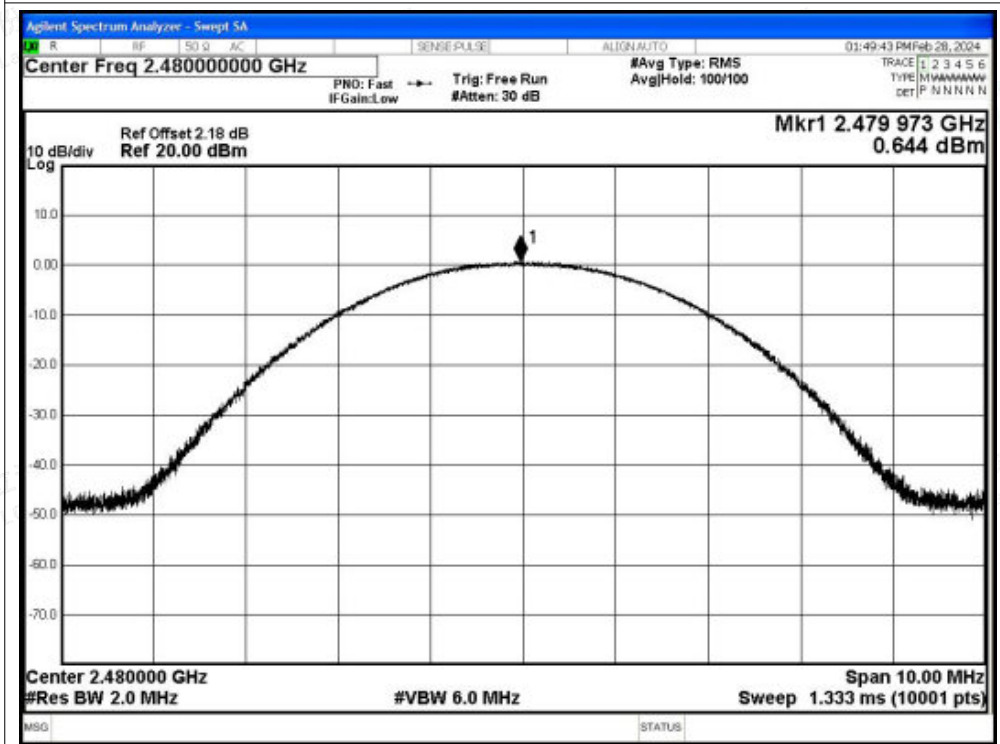




Power NVNT 2-DH5 2441MHz Ant1

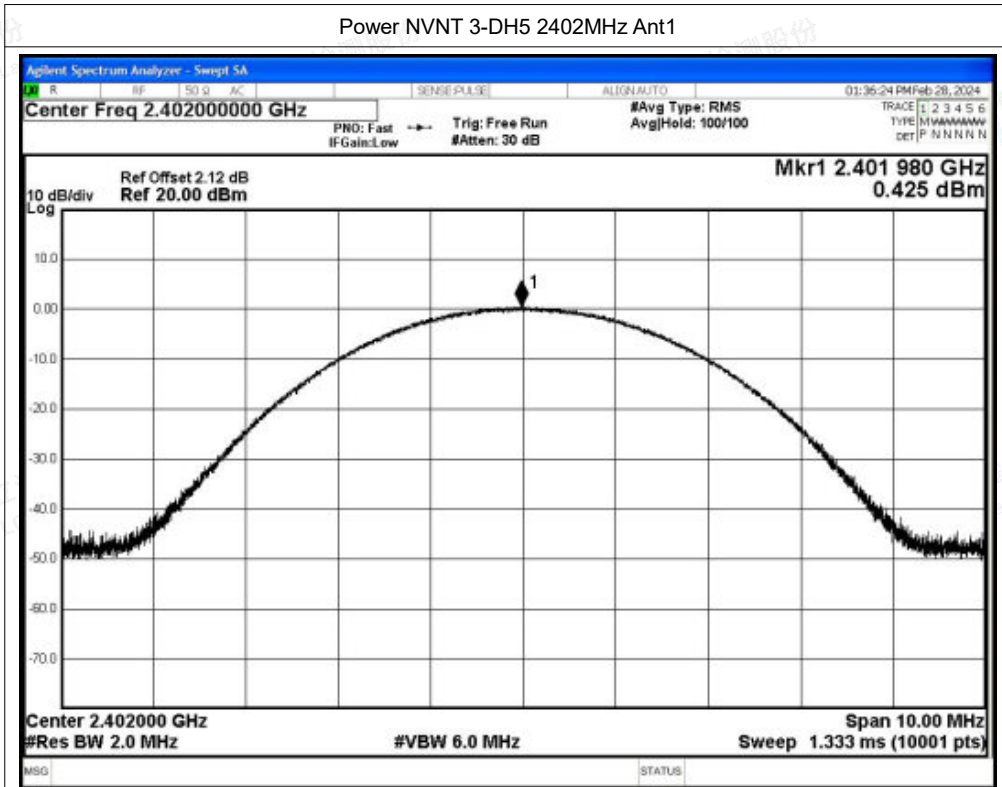


Power NVNT 2-DH5 2480MHz Ant1

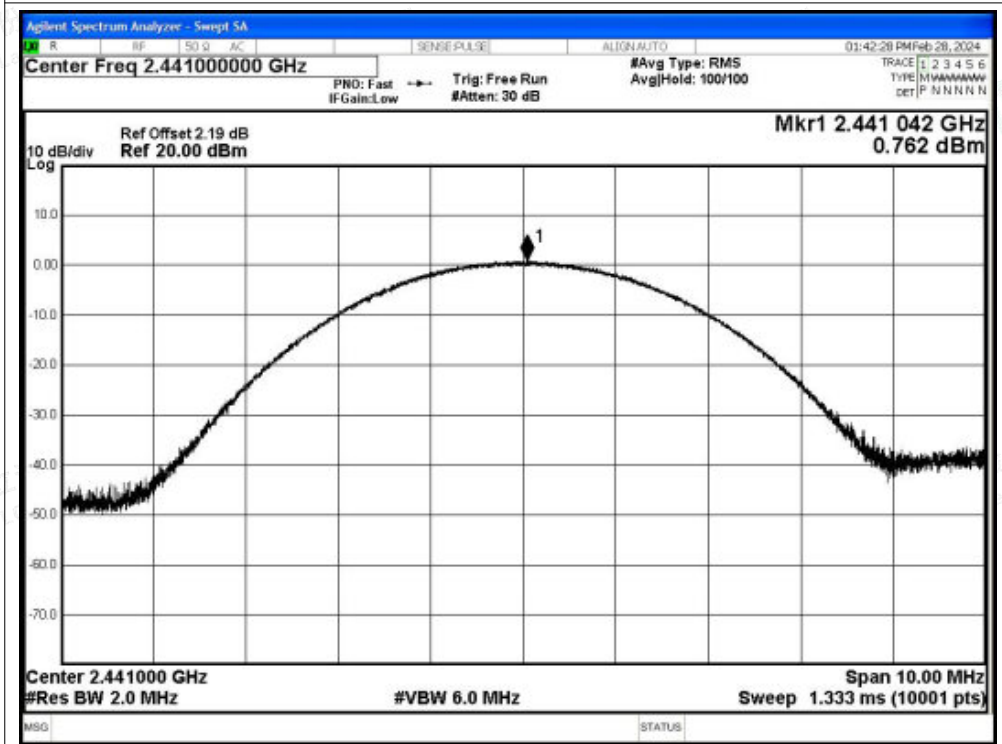


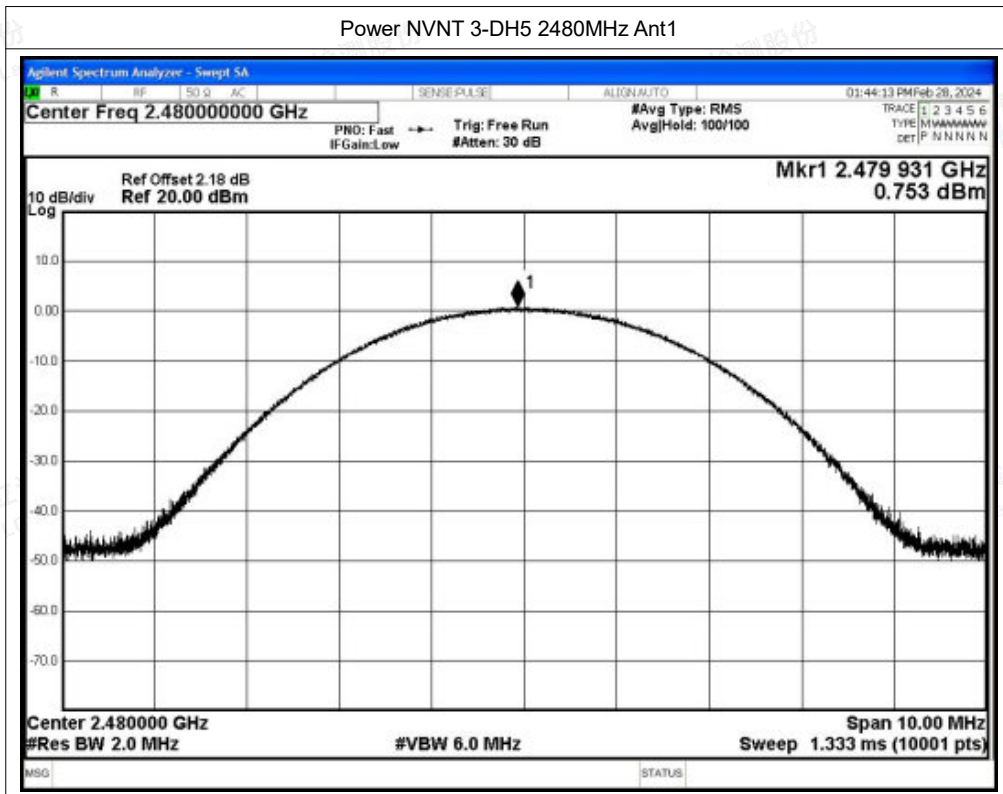


Power NVNT 3-DH5 2402MHz Ant1



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	2401.9	2402.966	1.066	0.683	Pass
NVNT	2-DH5	Ant1	2402.154	2403.162	1.008	0.860	Pass
NVNT	3-DH5	Ant1	2402.16	2403.162	1.002	0.864	Pass



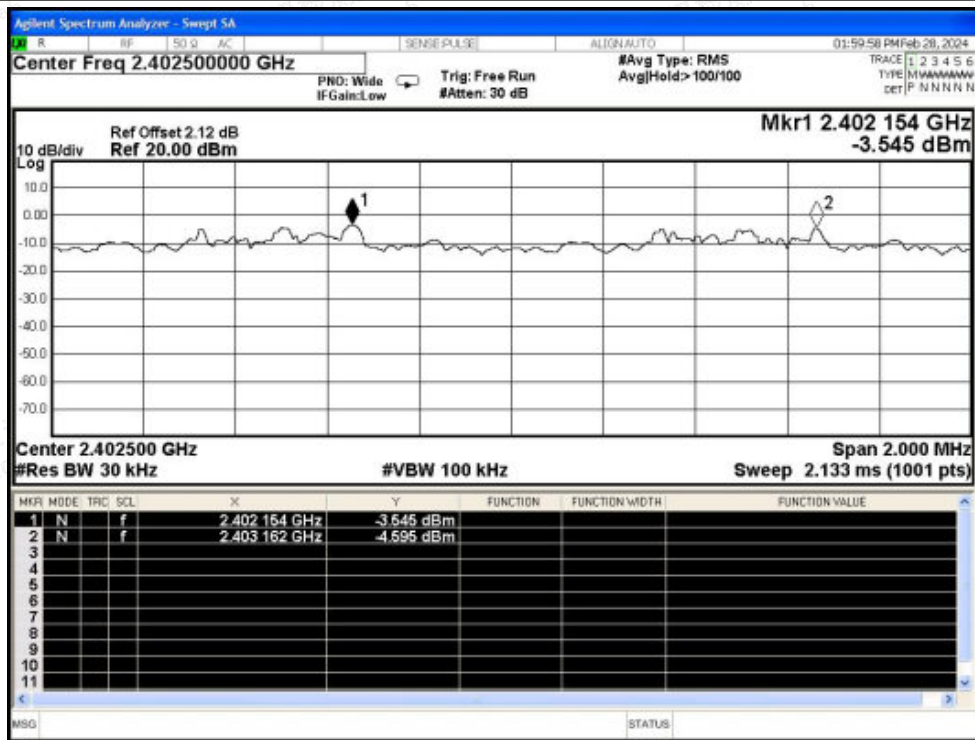


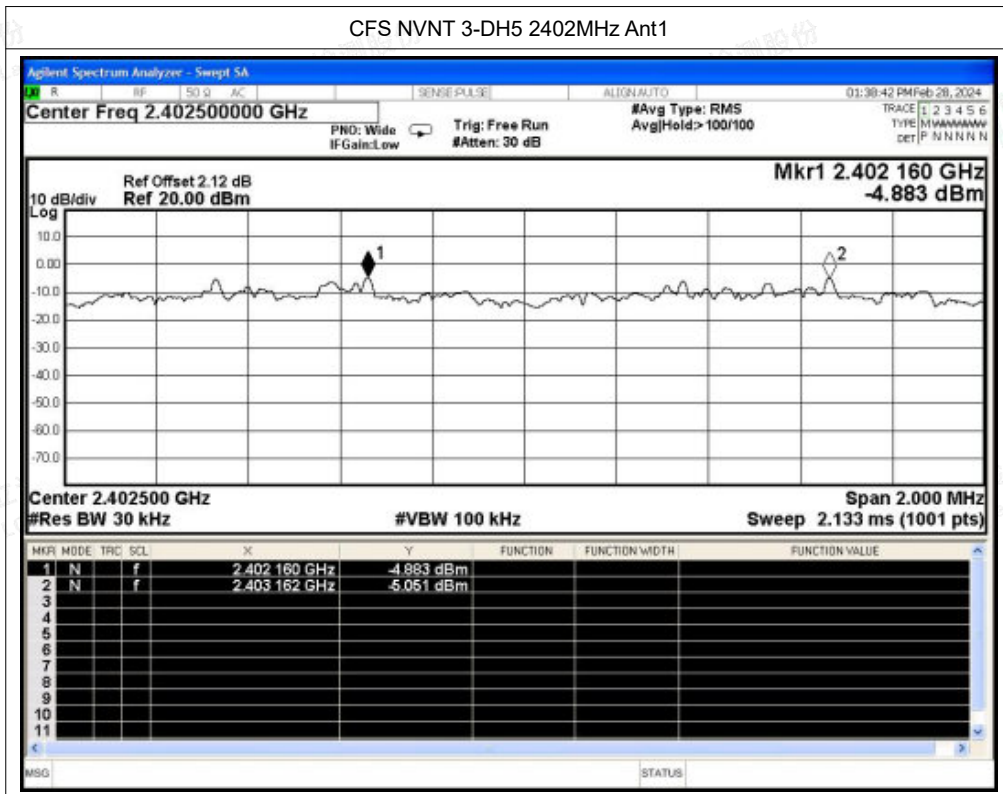
Test Graphs

CFS NVNT 1-DH5 2402MHz Ant1



CFS NVNT 2-DH5 2402MHz Ant1









### A.4 Dwell Time

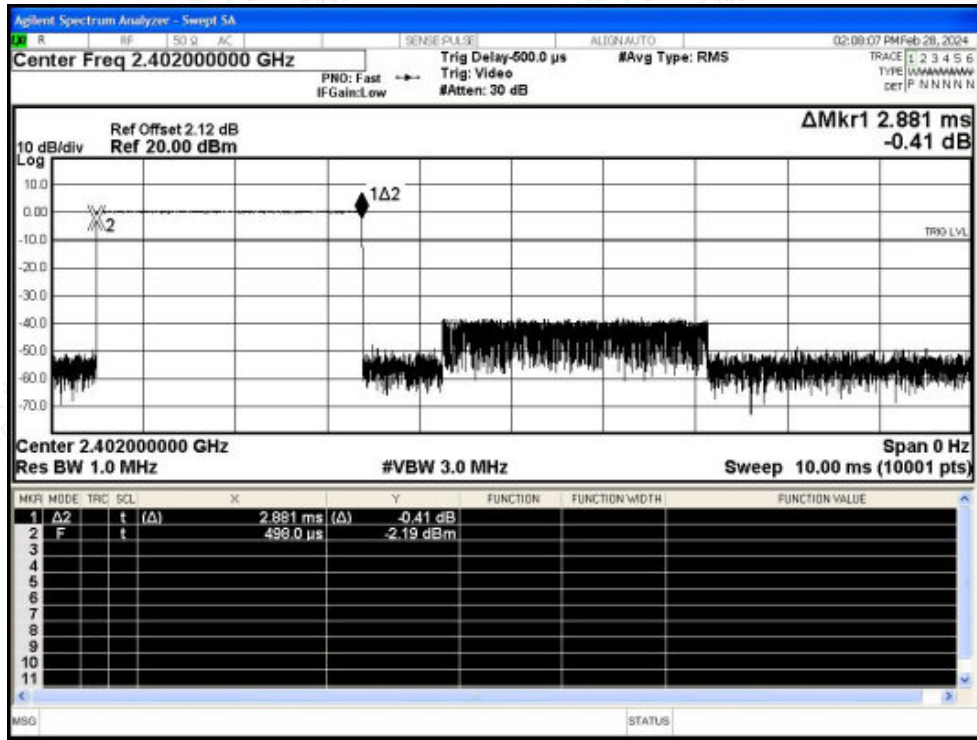
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH5	2402	Ant1	2.881	276.576	96	31600	400	Pass
NVNT	2-DH5	2402	Ant1	2.885	291.385	101	31600	400	Pass
NVNT	3-DH5	2402	Ant1	2.887	308.909	107	31600	400	Pass



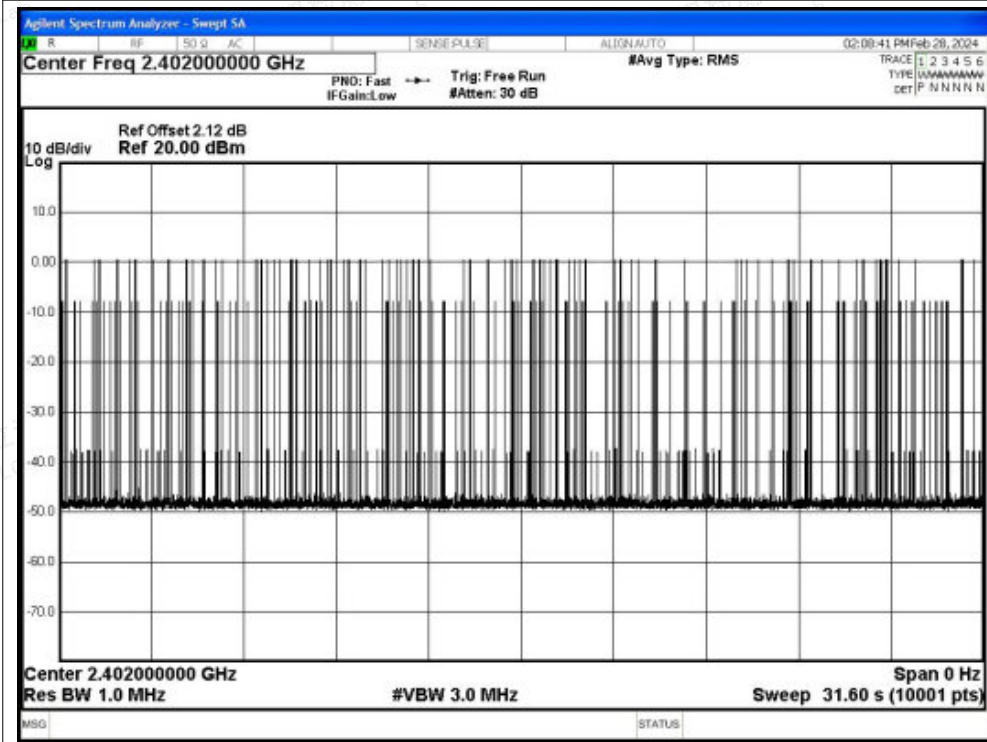


Test Graphs

Dwell NVNT 1-DH5 2402MHz Ant1 One Burst

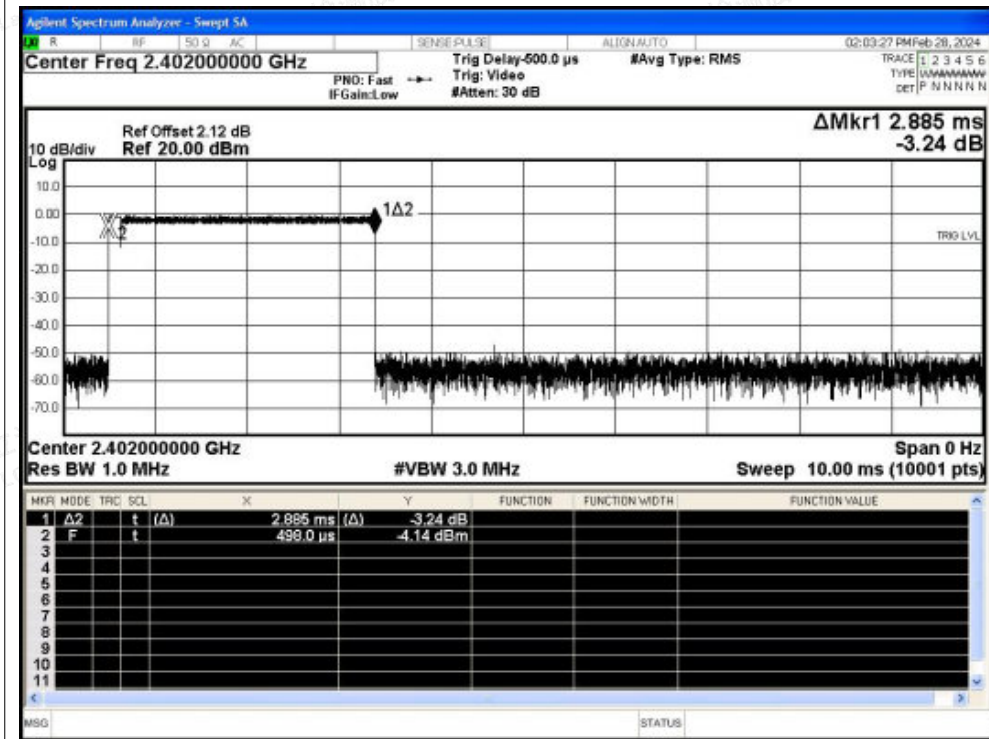


Dwell NVNT 1-DH5 2402MHz Ant1 Accumulated

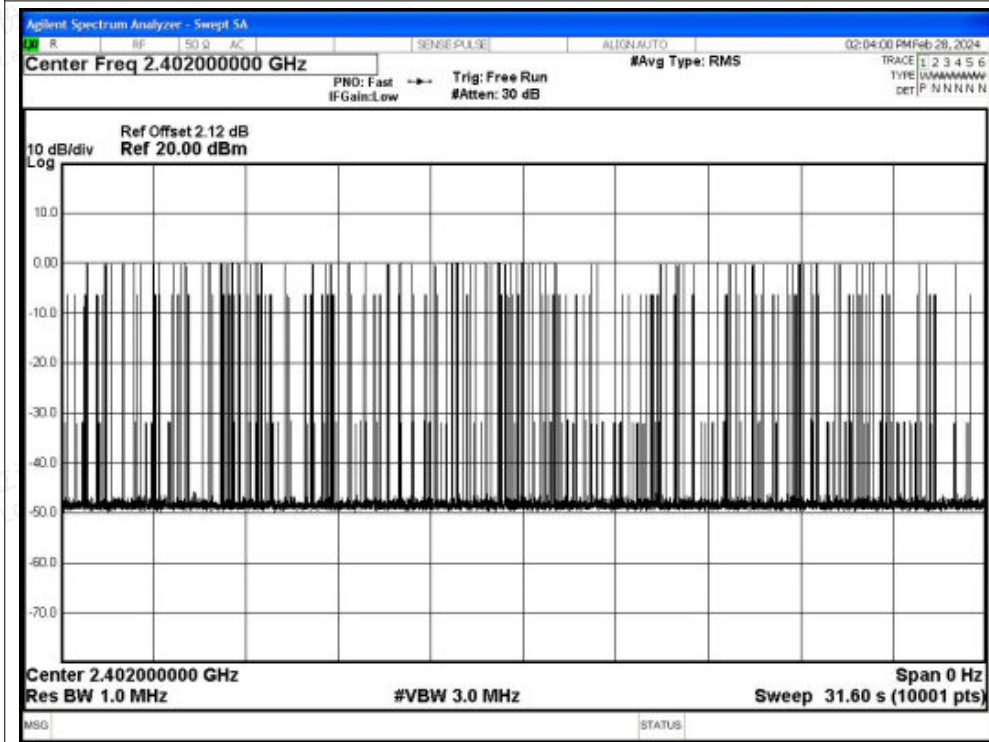




Dwell NVNT 2-DH5 2402MHz Ant1 One Burst

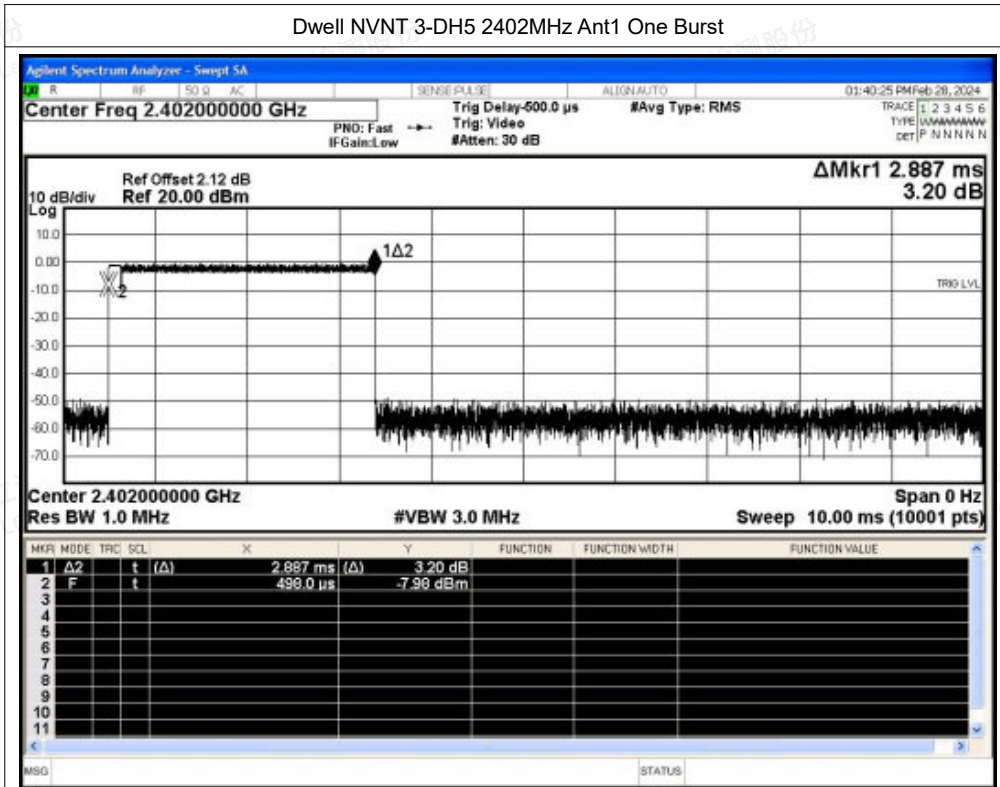


Dwell NVNT 2-DH5 2402MHz Ant1 Accumulated

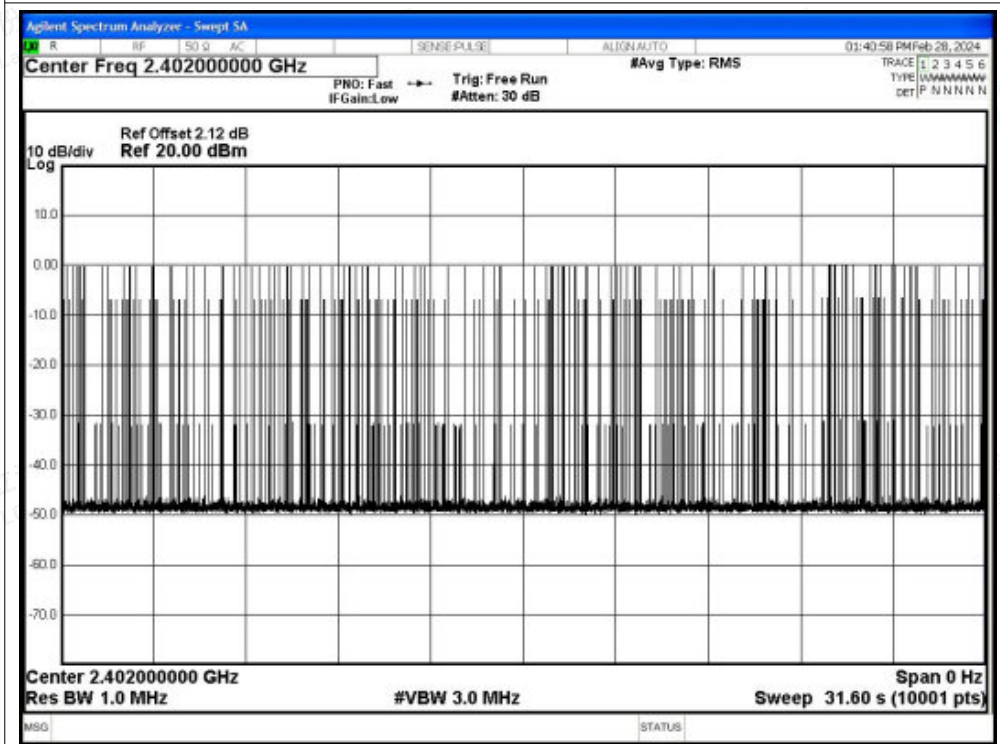




Dwell NVNT 3-DH5 2402MHz Ant1 One Burst



Dwell NVNT 3-DH5 2402MHz Ant1 Accumulated





## A.5 Number of Hopping Channel

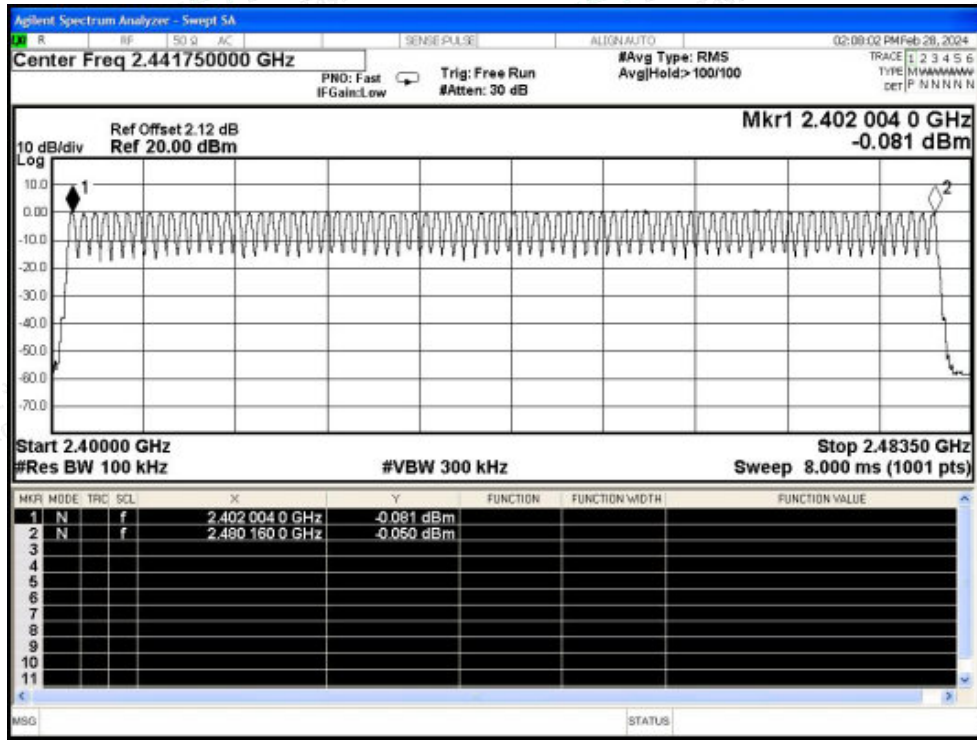
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH5	Ant1	79	15	Pass
NVNT	2-DH5	Ant1	79	15	Pass
NVNT	3-DH5	Ant1	79	15	Pass



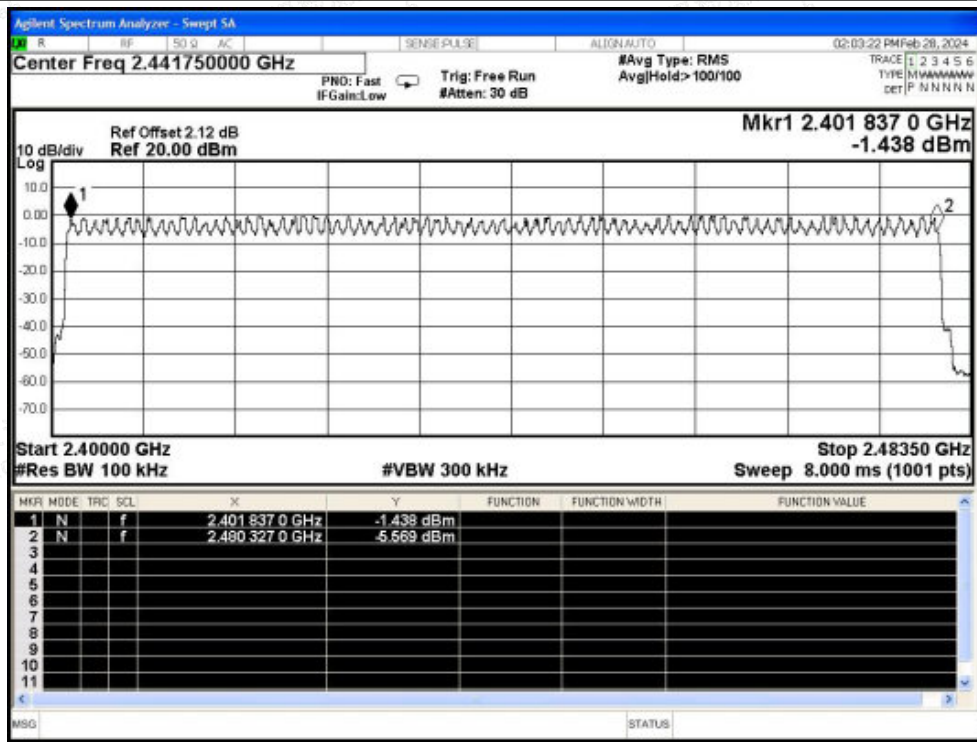


Test Graphs

Hopping No. NVNT 1-DH5 2402MHz Ant1

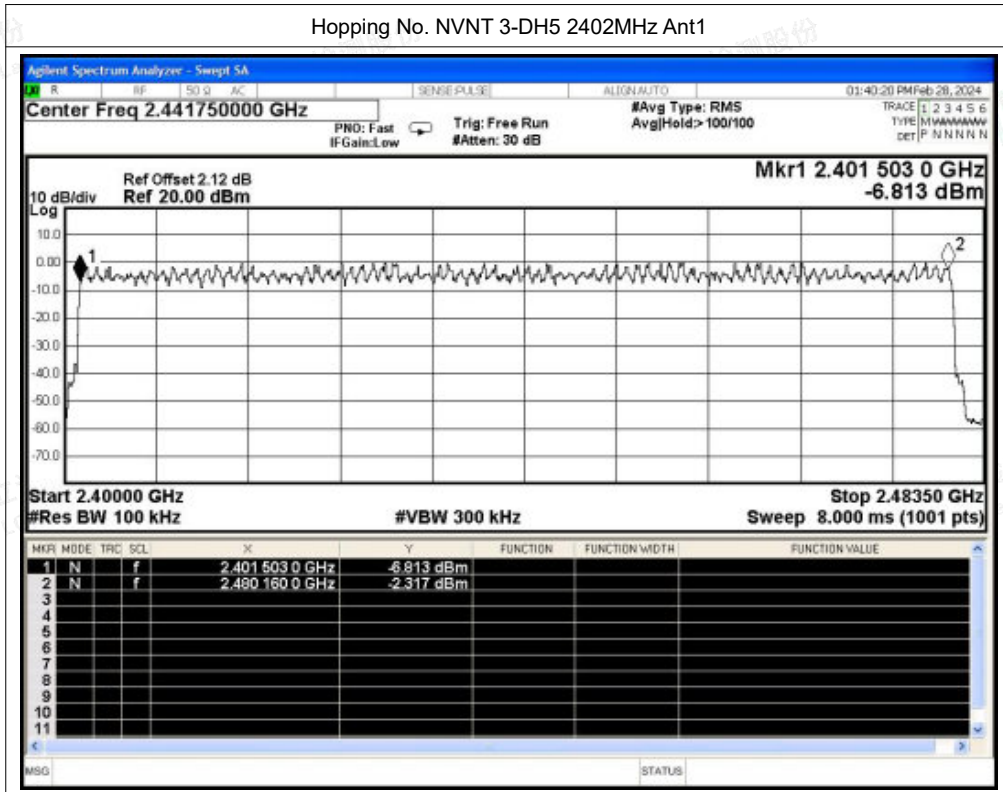


Hopping No. NVNT 2-DH5 2402MHz Ant1





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	-56.46	-20	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	-57.64	-20	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	-55.05	-20	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	-56.71	-20	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	-54.03	-20	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	-56.37	-20	Pass

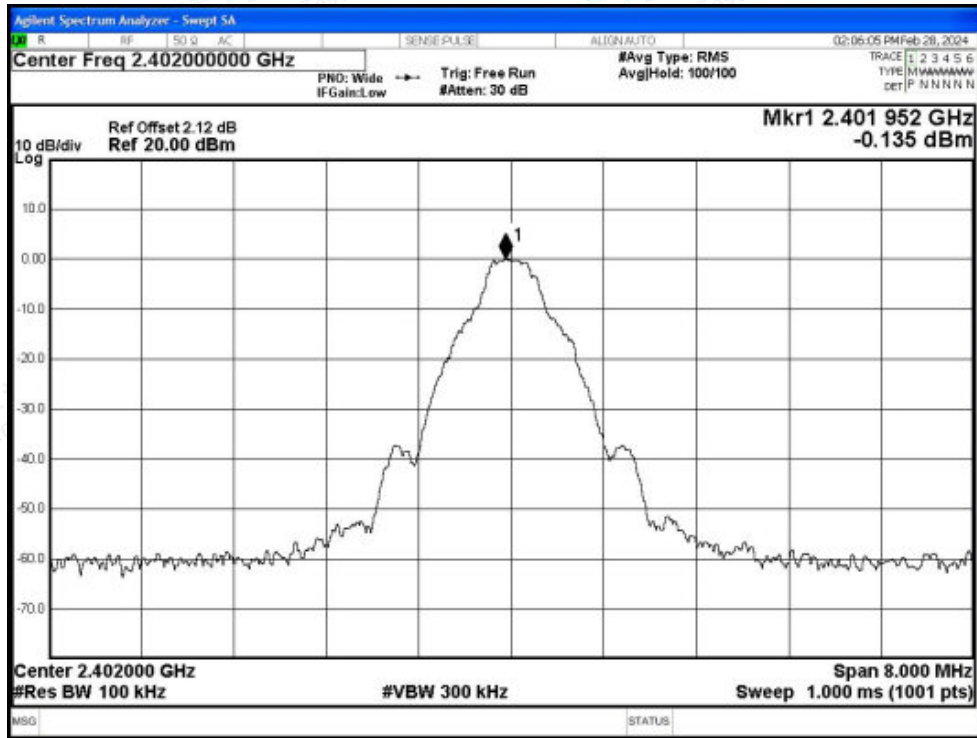




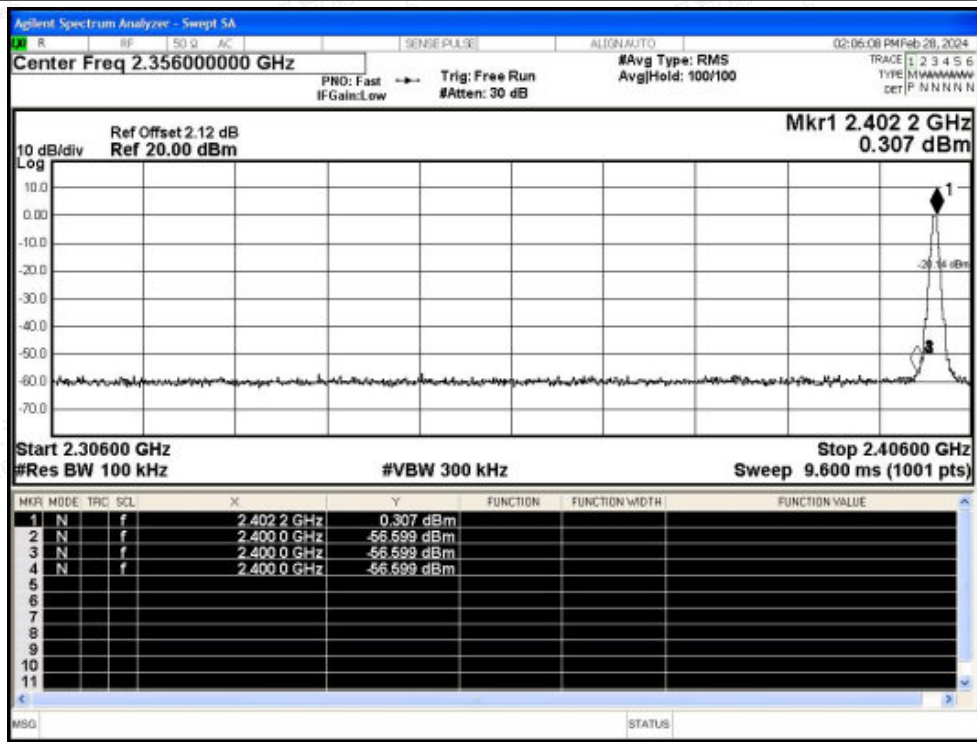


Test Graphs

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

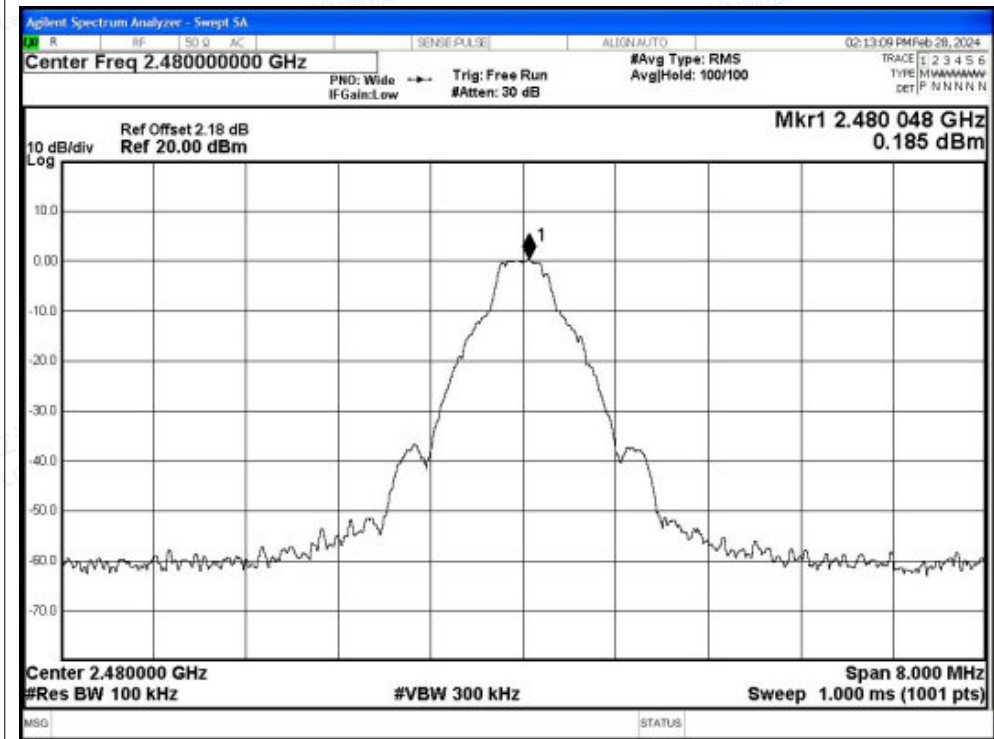


Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Emission

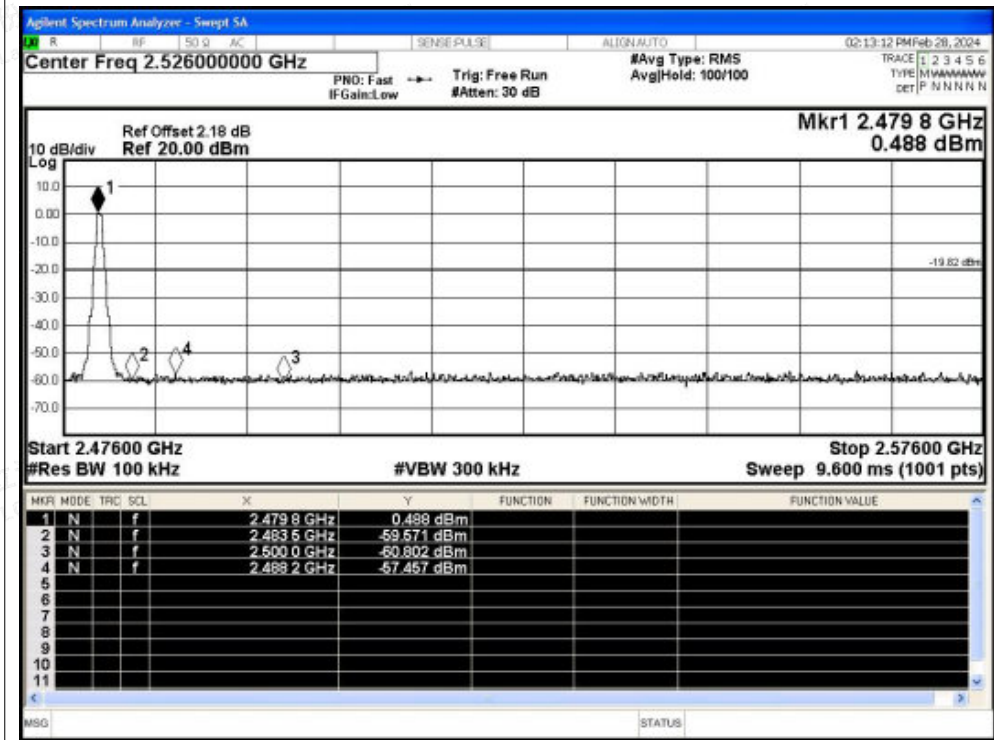




Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref

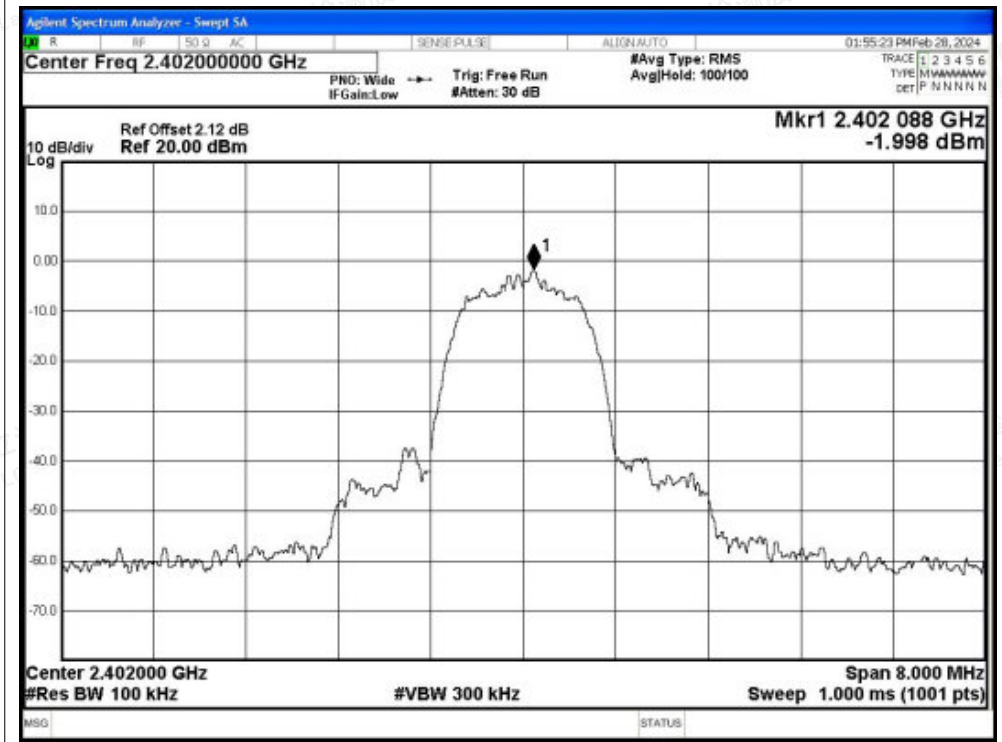


Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Emission

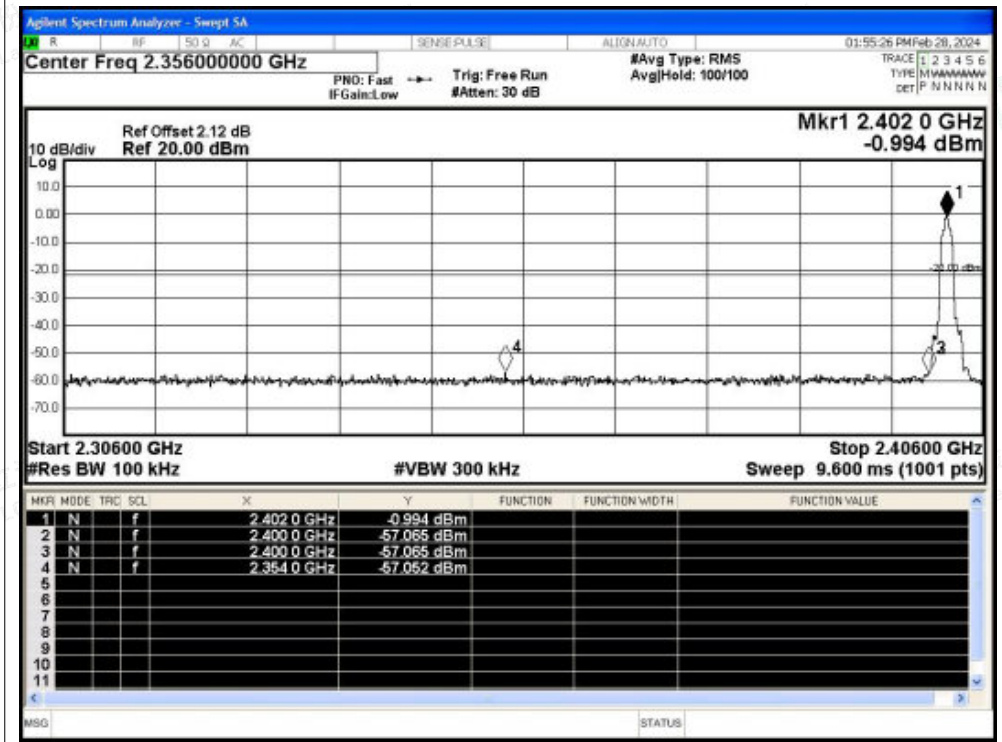




Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Ref

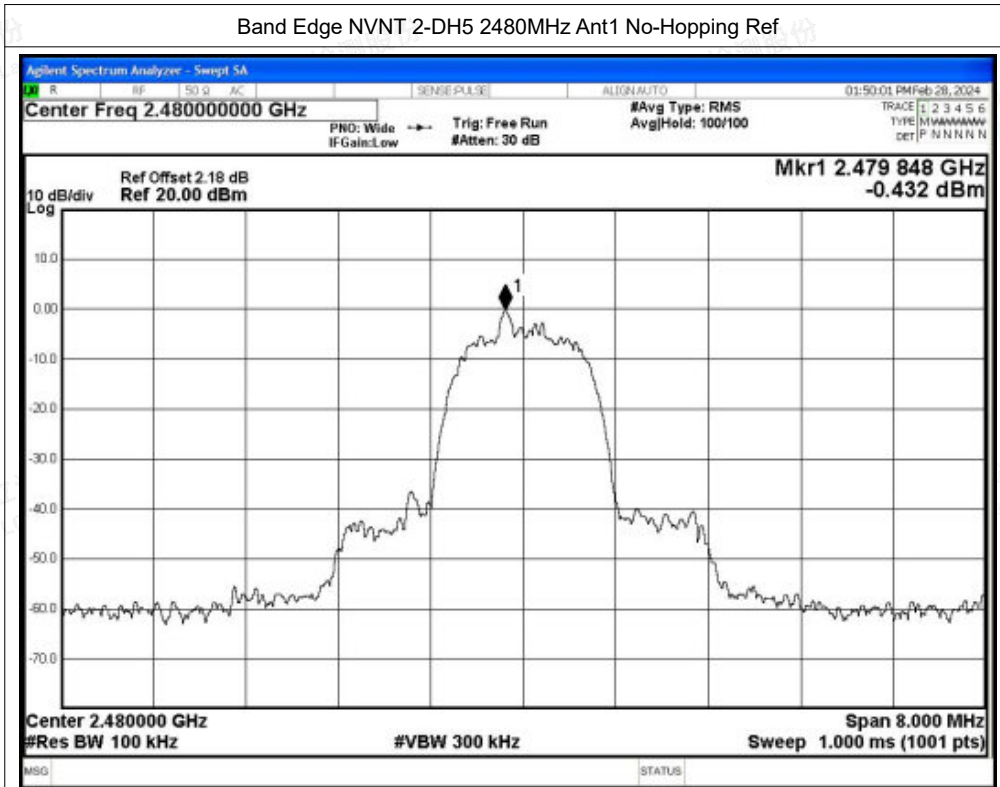


Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Emission

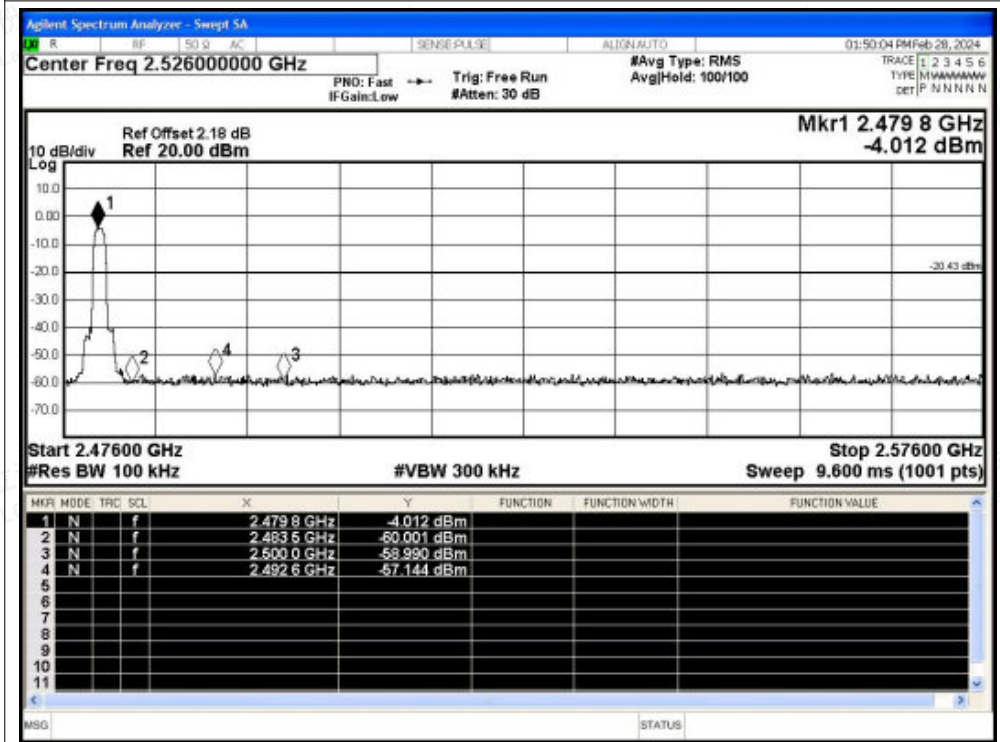




Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Ref

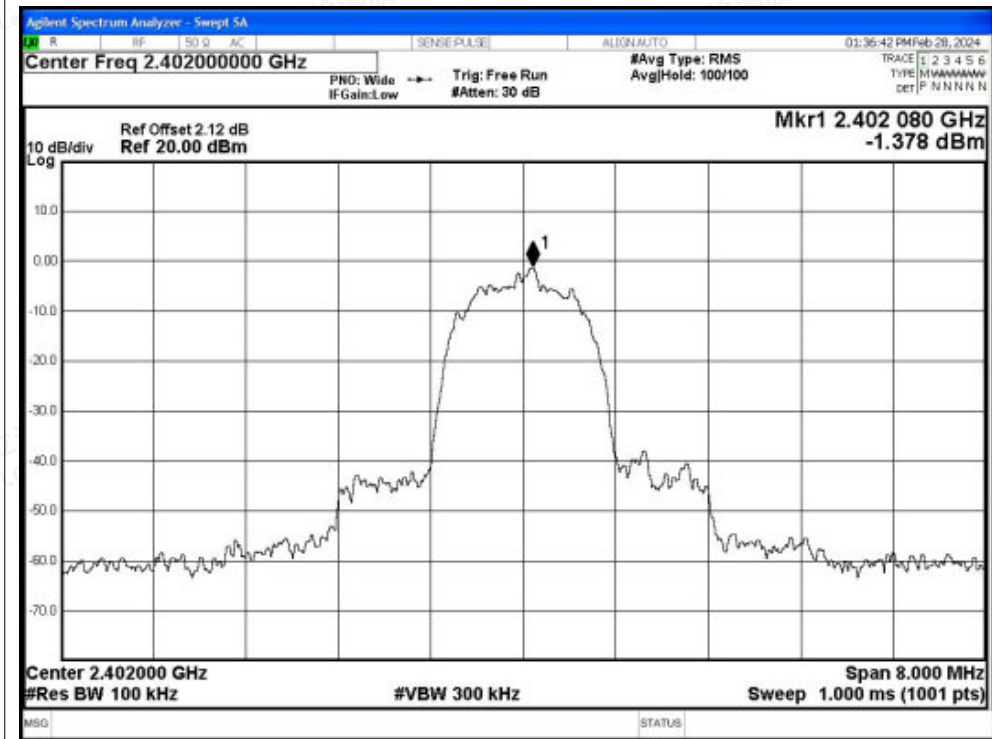


Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Emission

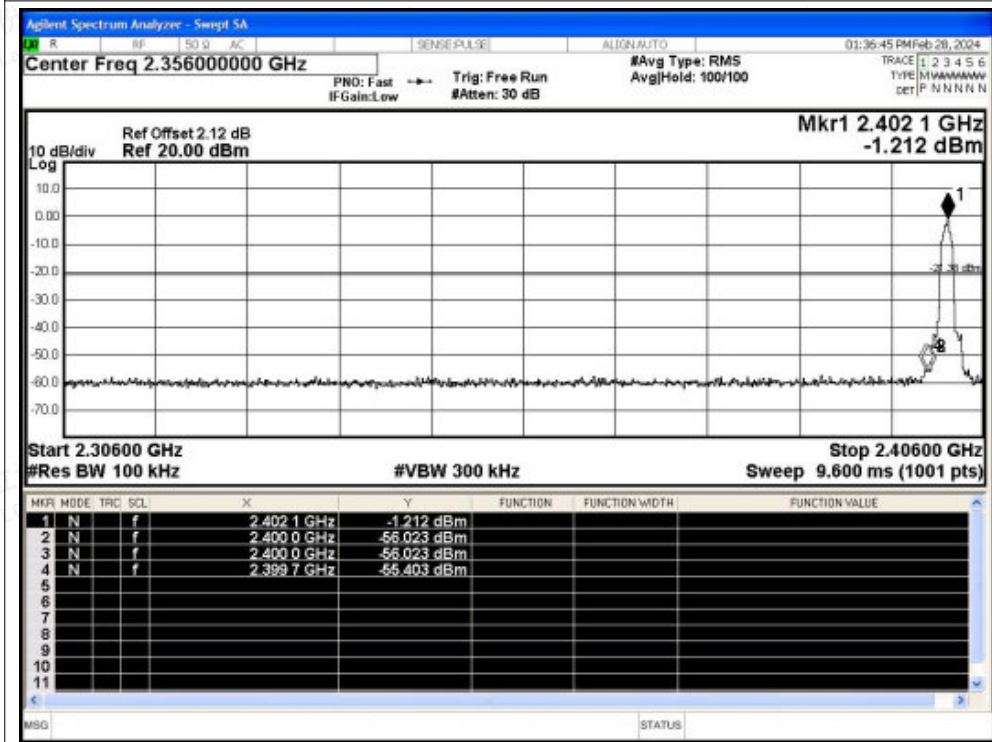




Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Ref

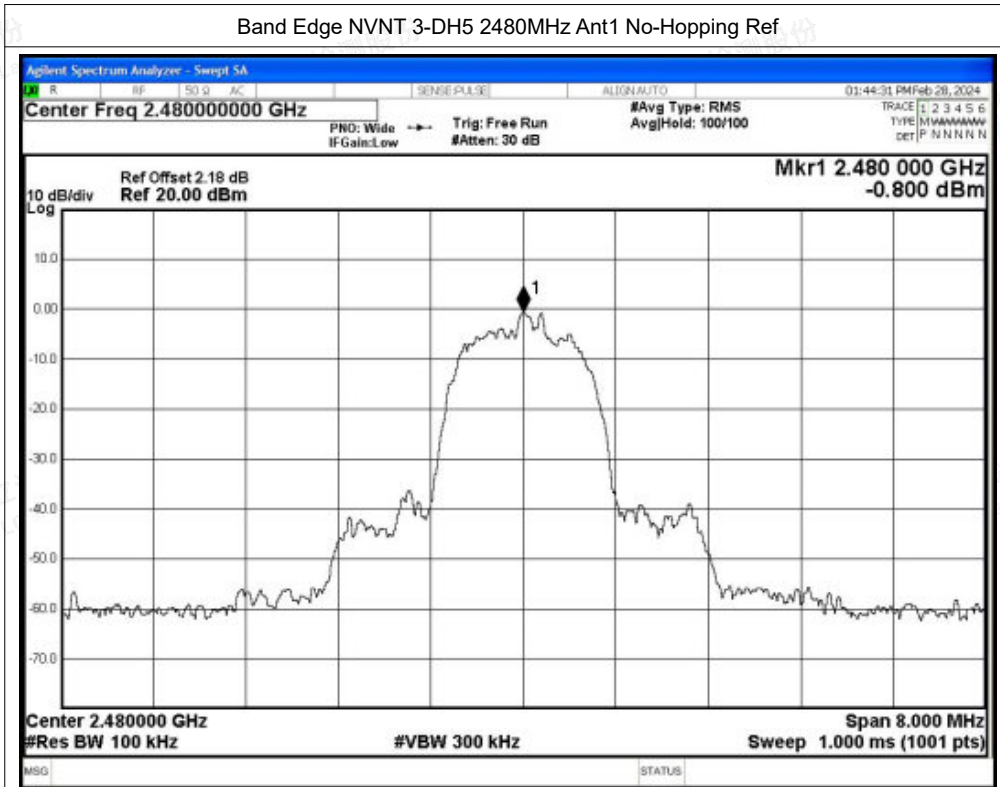


Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Emission

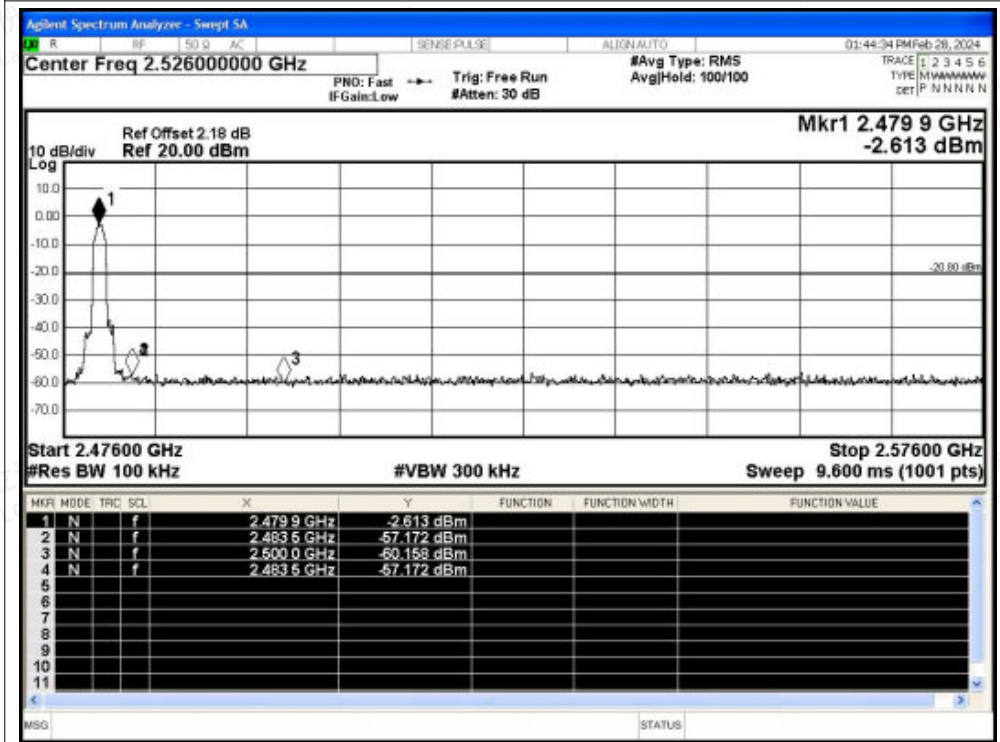




Band Edge NVNT 3-DH5 2480MHz Ant1 No-Hopping Ref



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





### (Hopping)

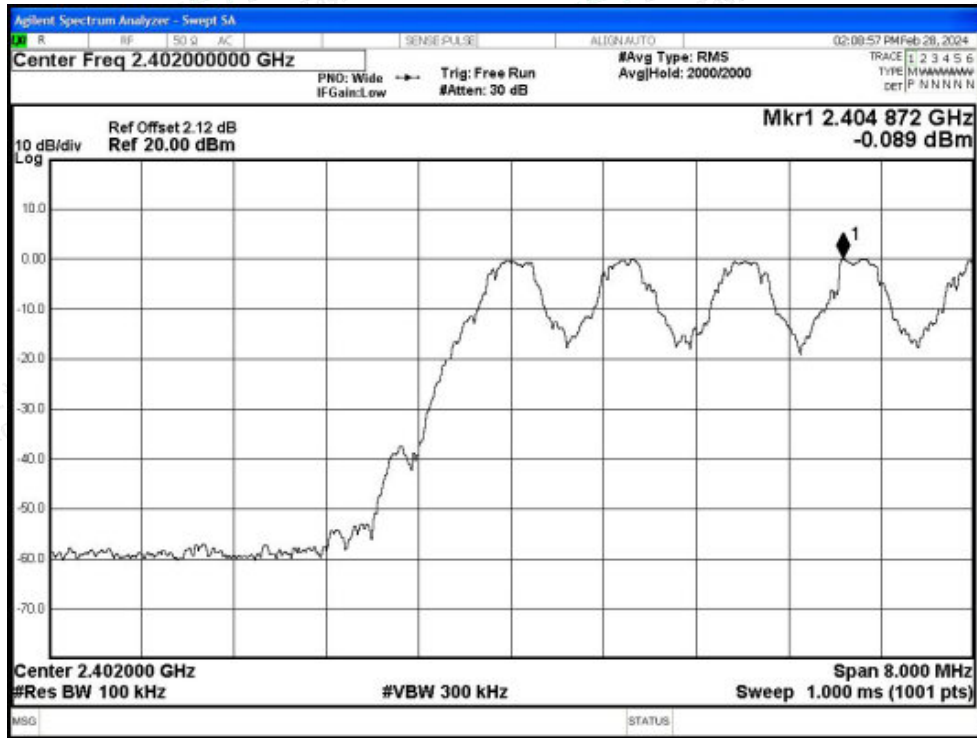
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	Hopping	-55.97	-20	Pass
NVNT	1-DH5	2480	Ant1	Hopping	-56.54	-20	Pass
NVNT	2-DH5	2402	Ant1	Hopping	-54.5	-20	Pass
NVNT	2-DH5	2480	Ant1	Hopping	-55.74	-20	Pass
NVNT	3-DH5	2402	Ant1	Hopping	-54.55	-20	Pass
NVNT	3-DH5	2480	Ant1	Hopping	-54.73	-20	Pass



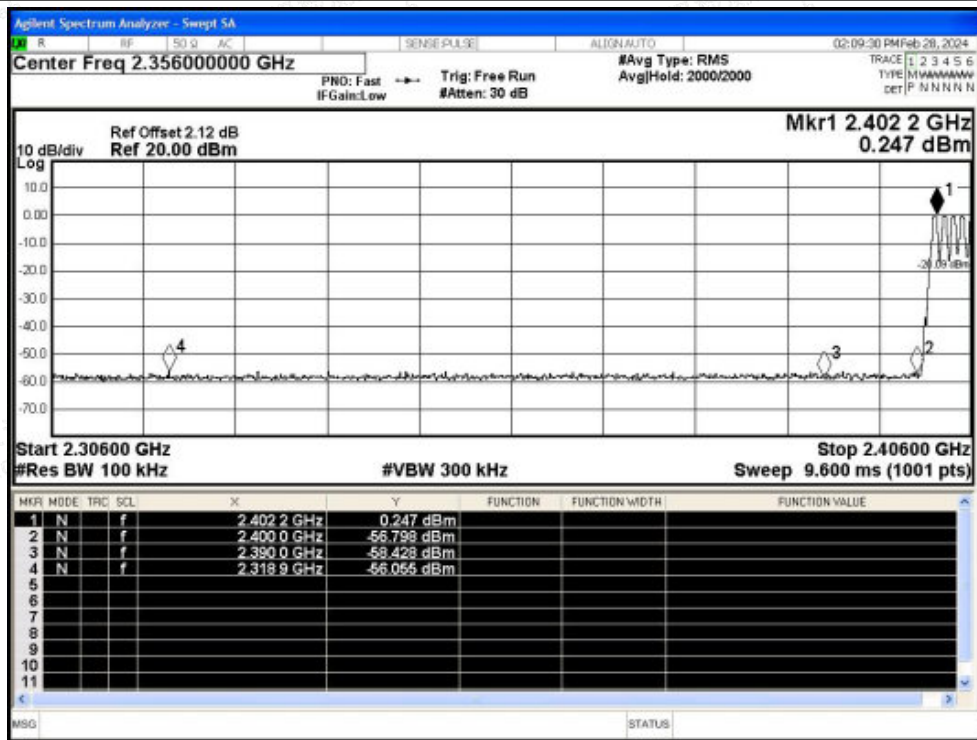


Test Graphs

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



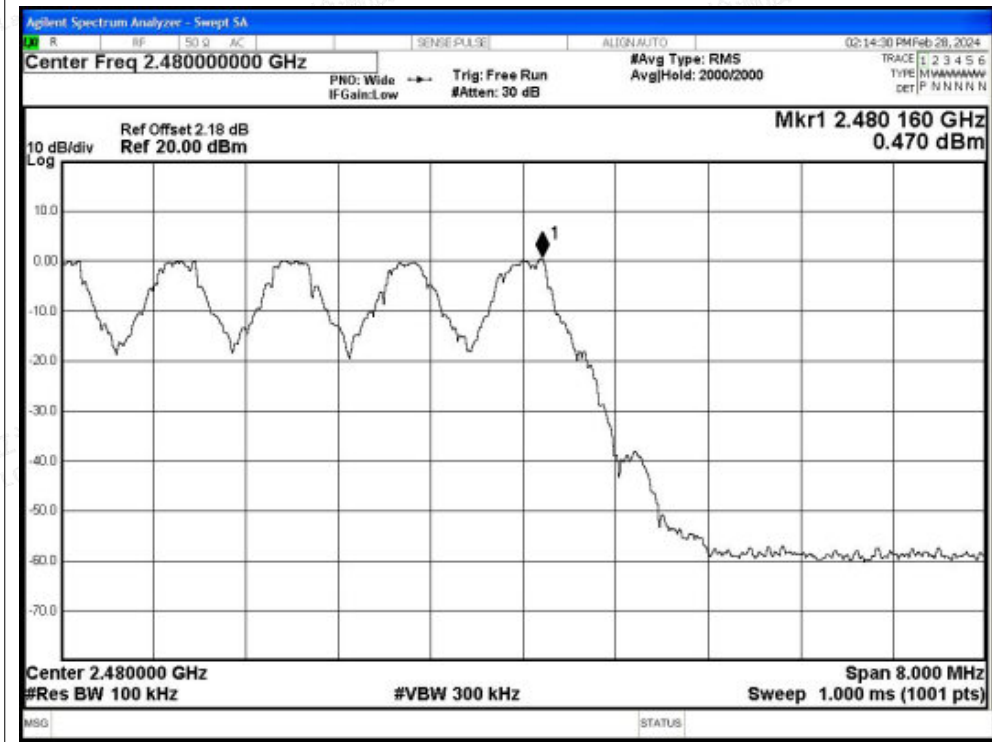
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission



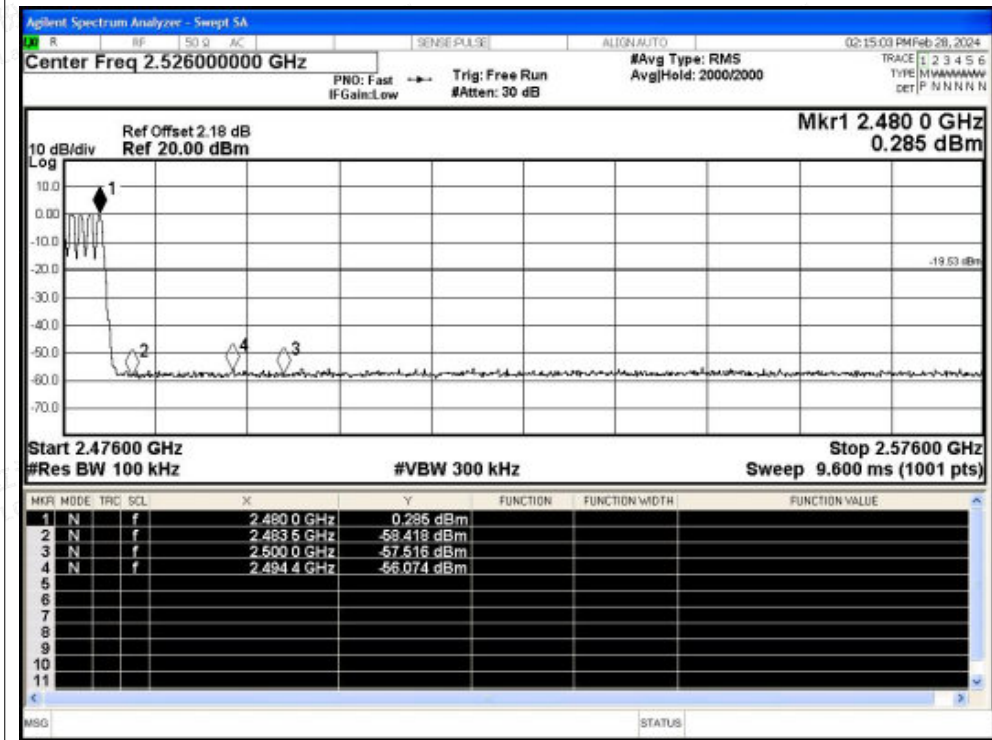




Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Ref



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

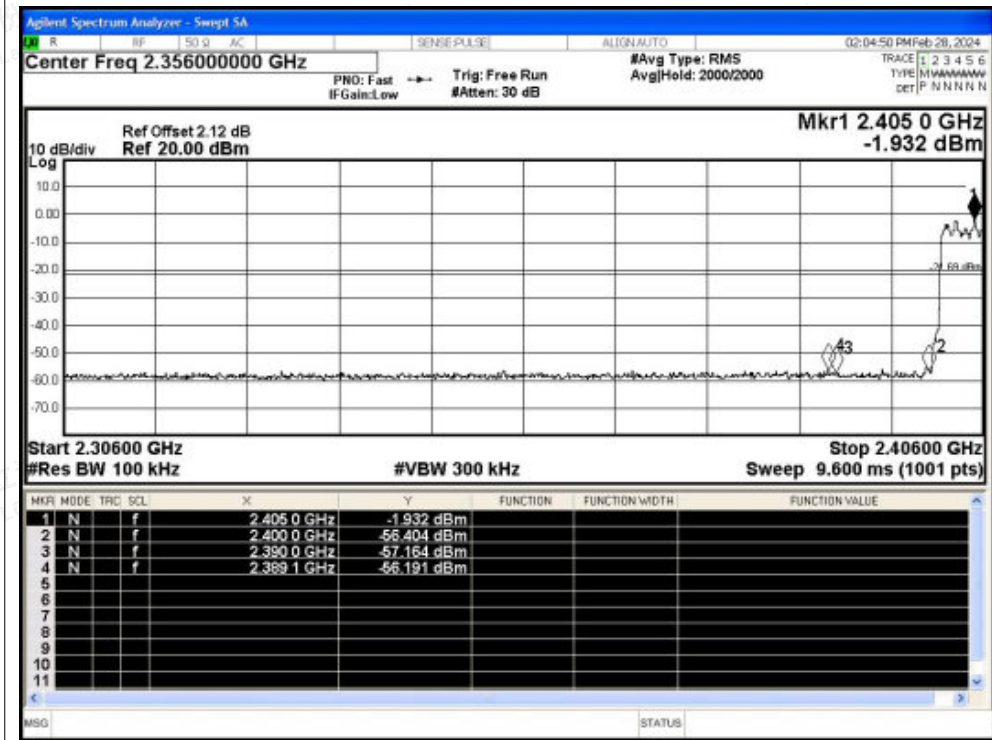




Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Ref

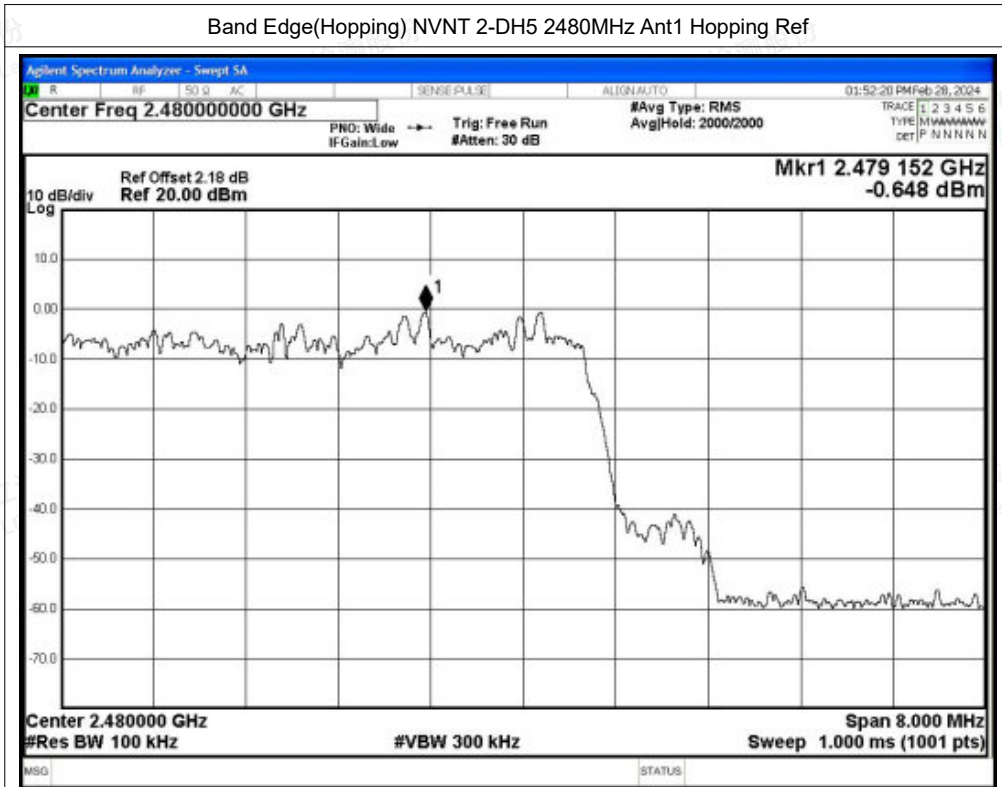


Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Emission

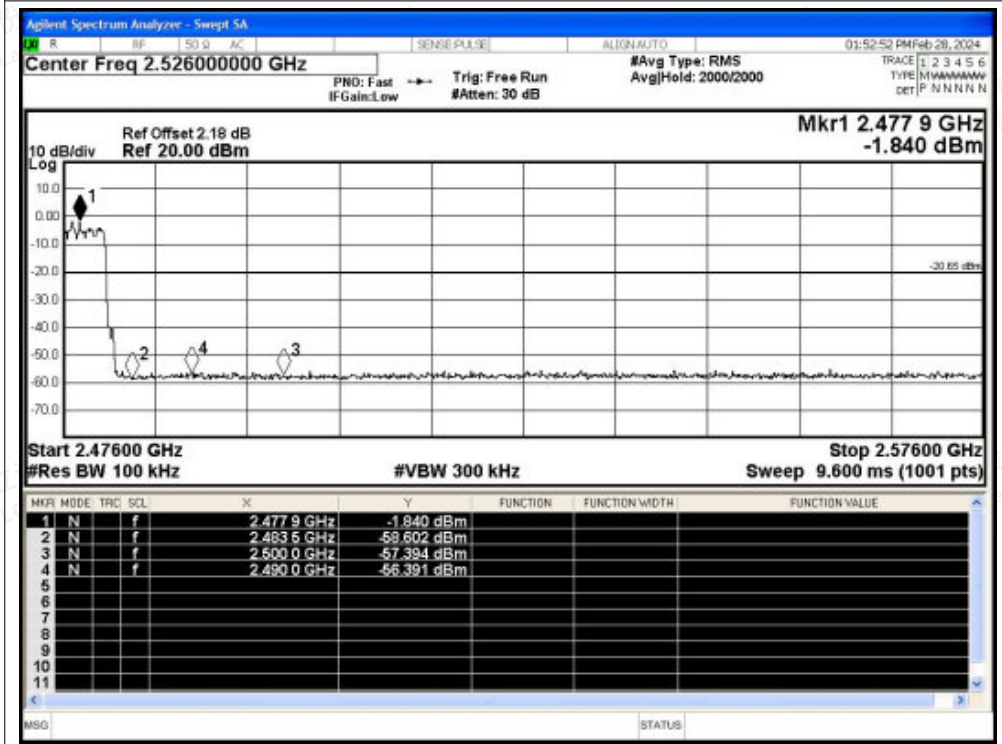




Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Ref

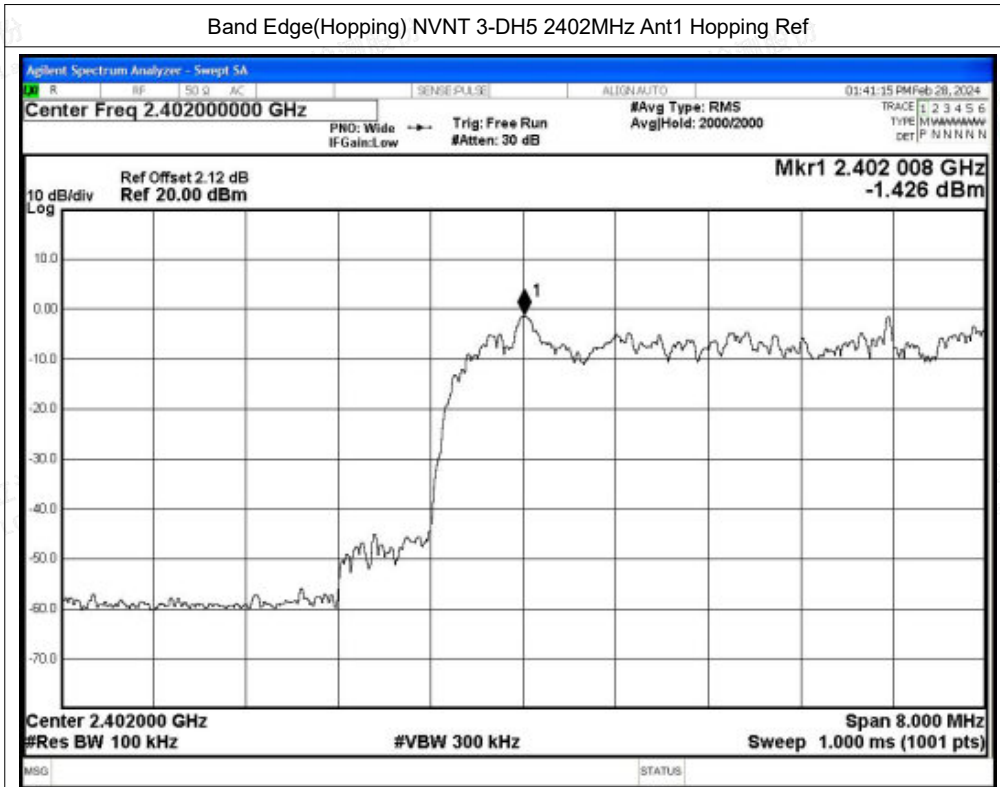


Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Emission

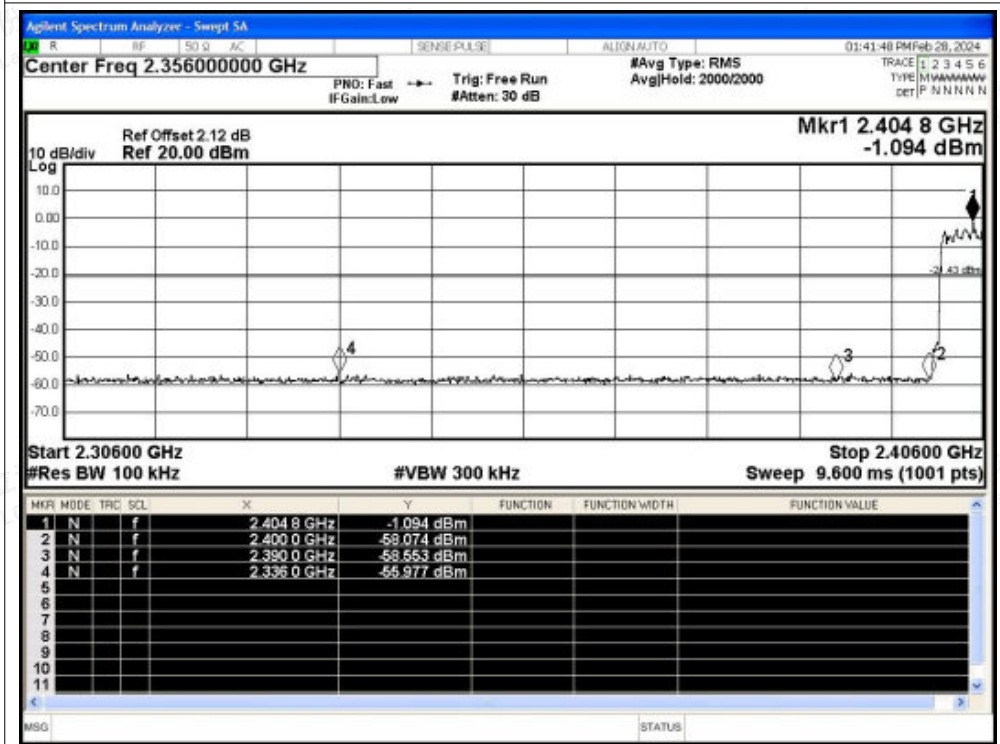




Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Ref

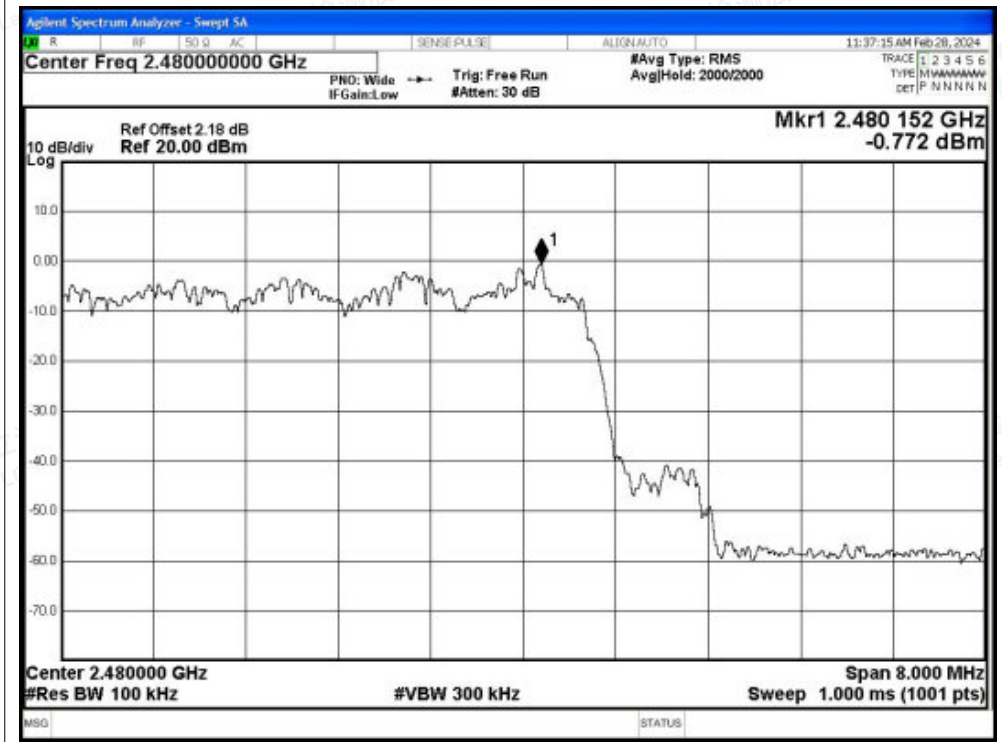


Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Emission

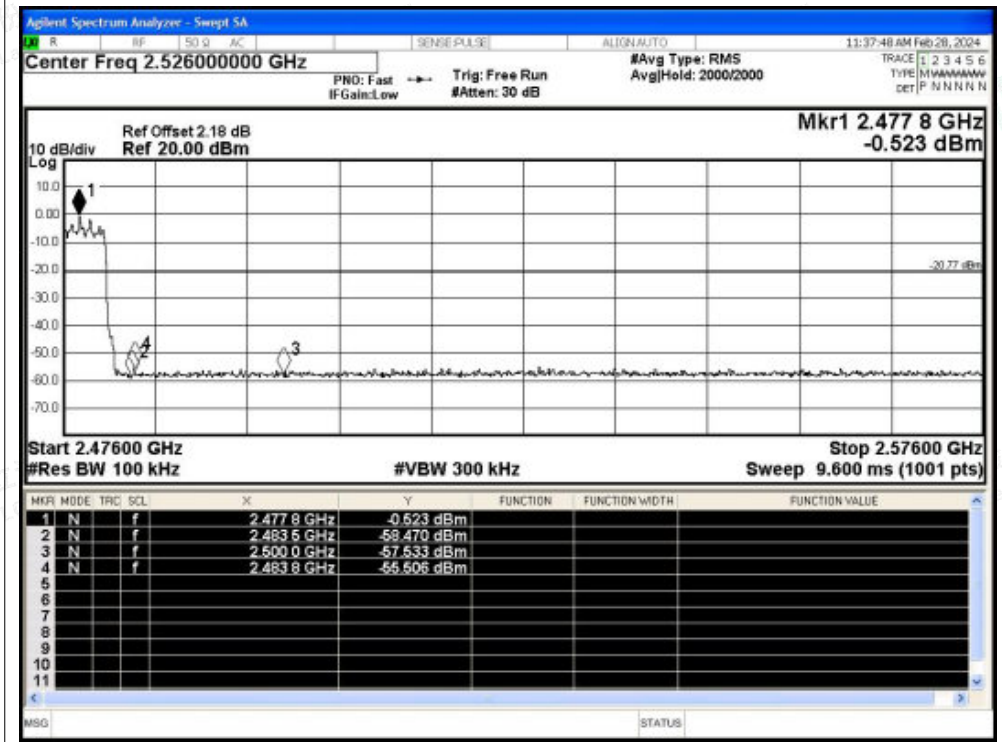




Band Edge(Hopping) NVNT 3-DH5 2480MHz Ant1 Hopping Ref



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





## A.7 Conducted RF Spurious Emission

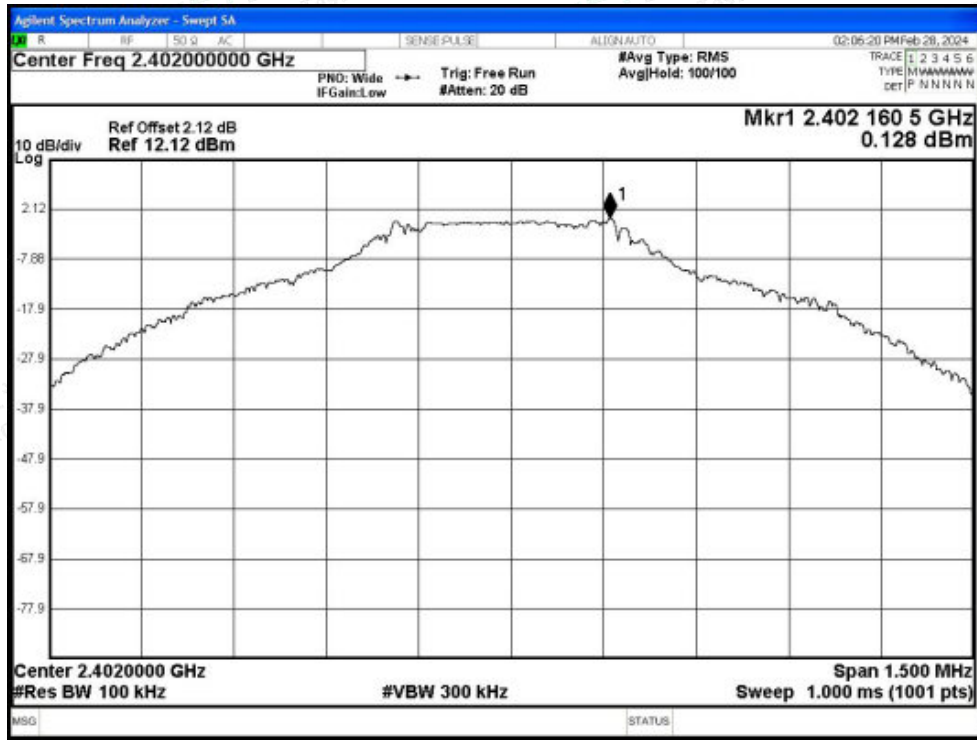
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	-55.37	-20	Pass
NVNT	1-DH5	2441	Ant1	-39.79	-20	Pass
NVNT	1-DH5	2480	Ant1	-55.84	-20	Pass
NVNT	2-DH5	2402	Ant1	-54.14	-20	Pass
NVNT	2-DH5	2441	Ant1	-54.44	-20	Pass
NVNT	2-DH5	2480	Ant1	-53.89	-20	Pass
NVNT	3-DH5	2402	Ant1	-54.92	-20	Pass
NVNT	3-DH5	2441	Ant1	-55.19	-20	Pass
NVNT	3-DH5	2480	Ant1	-55.35	-20	Pass



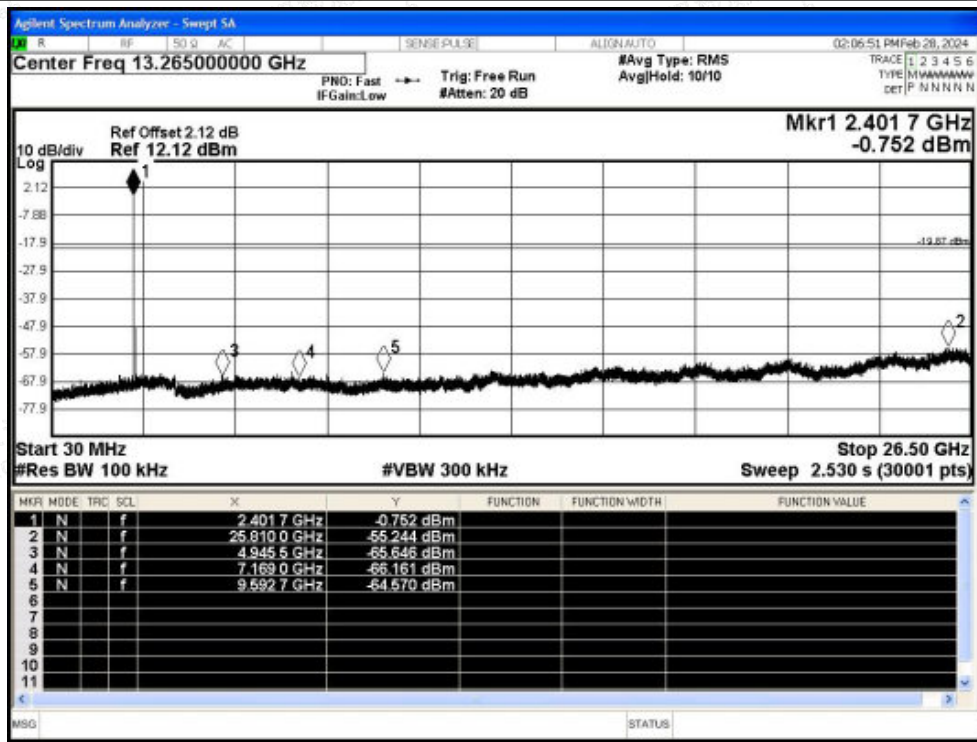


Test Graphs

Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref

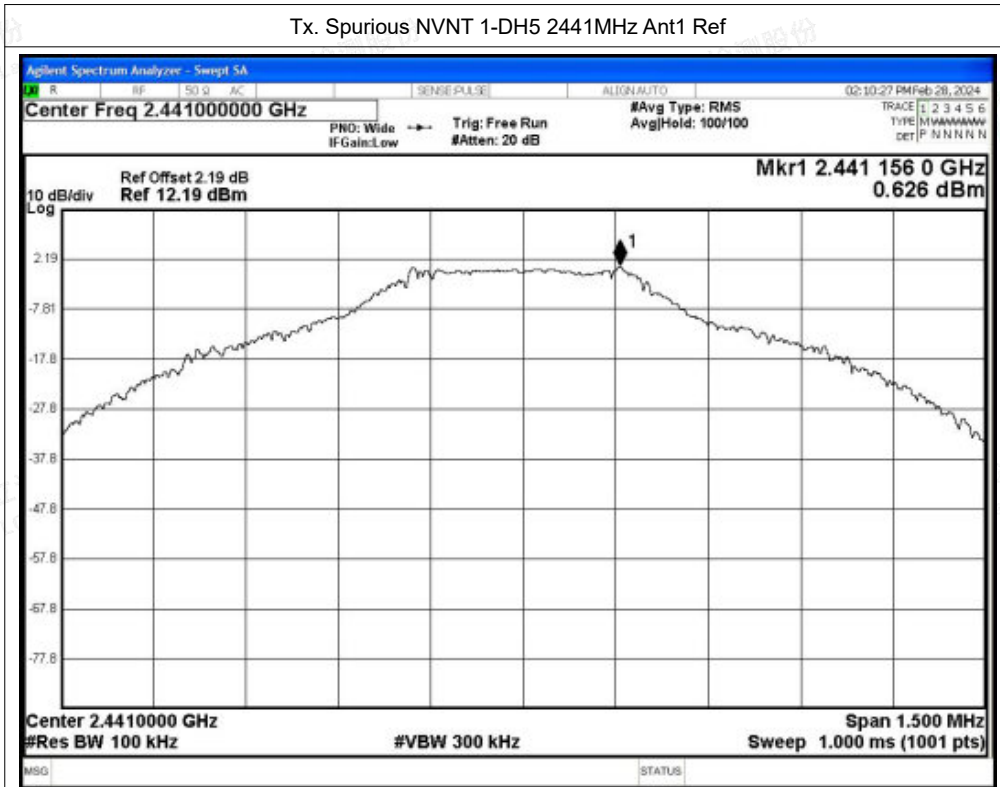


Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission

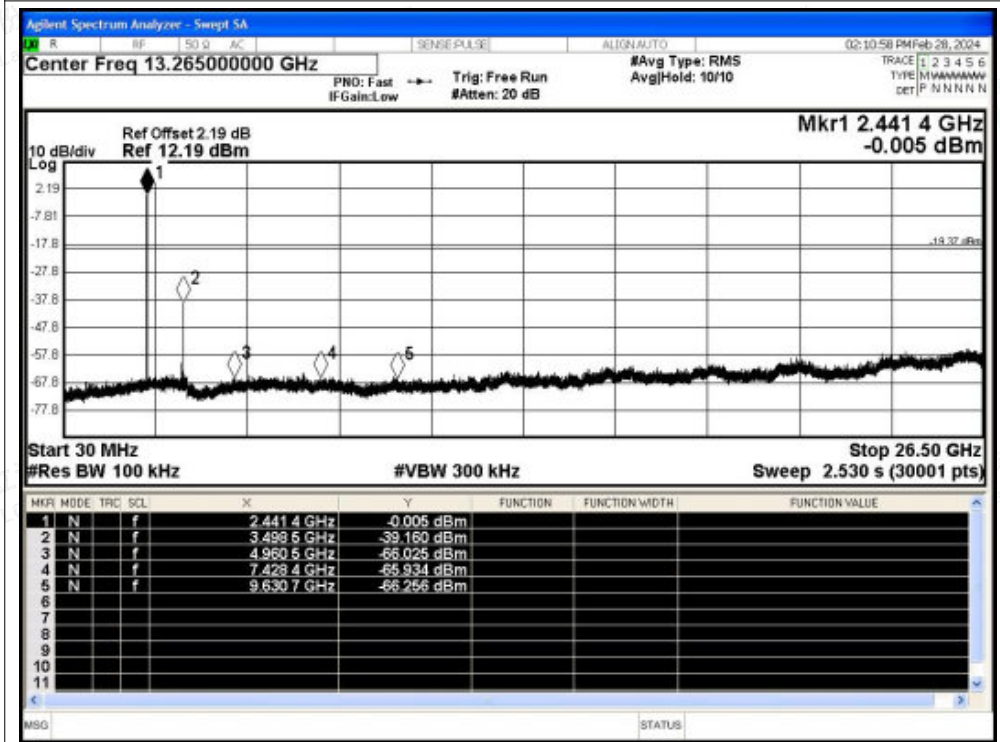




Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref



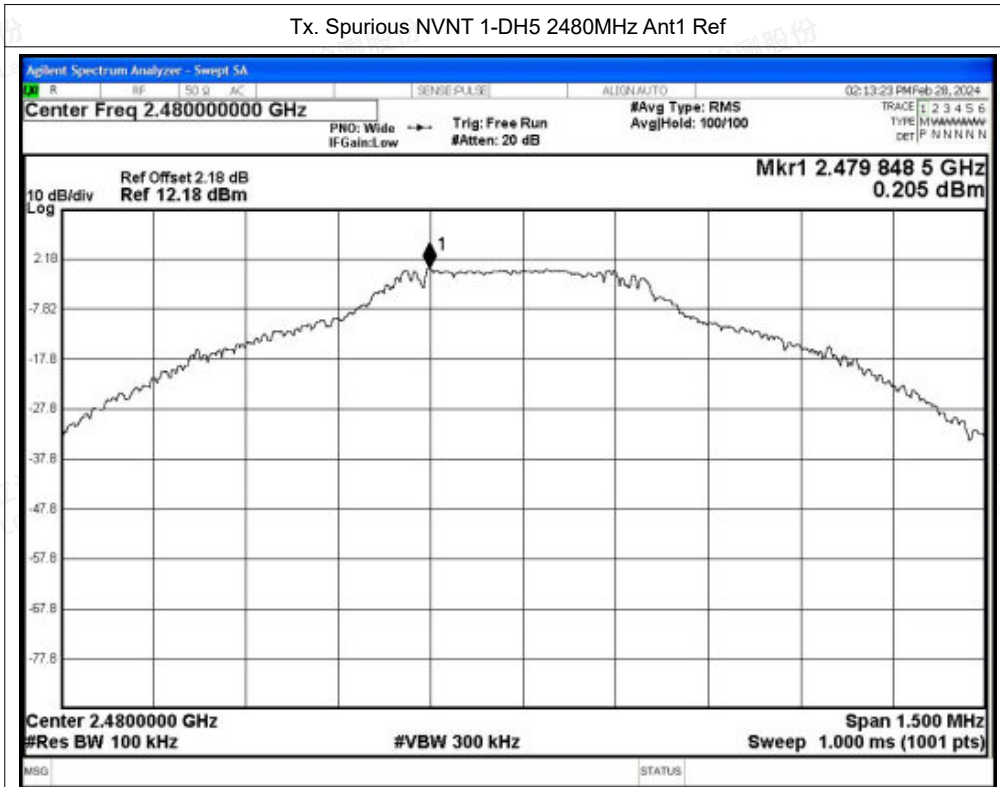
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission



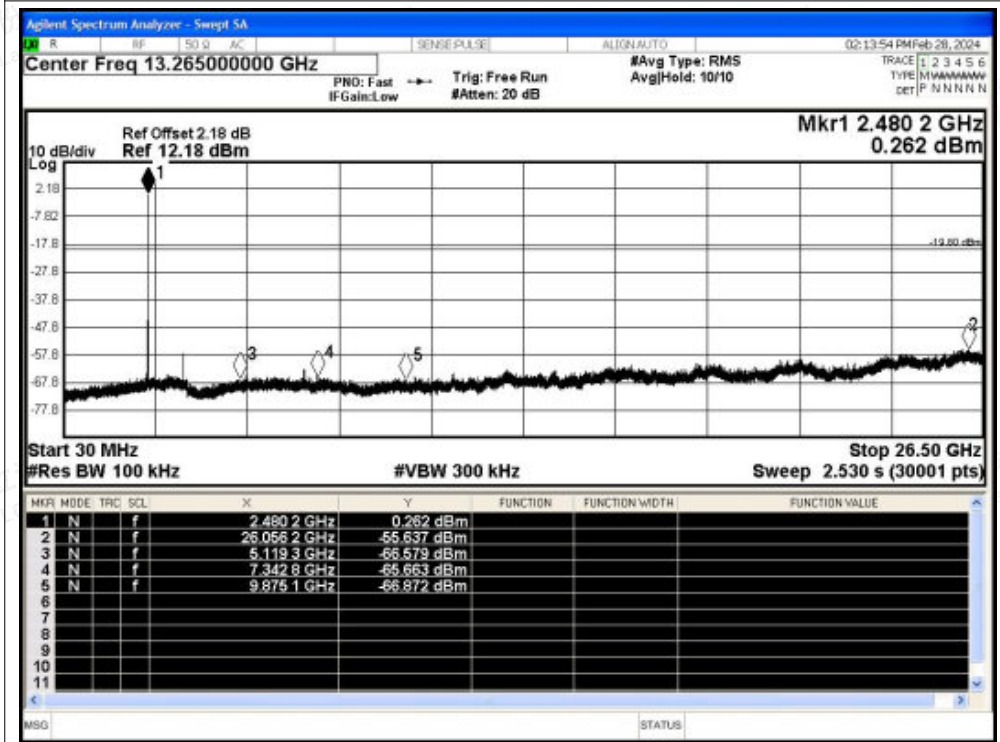




Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref

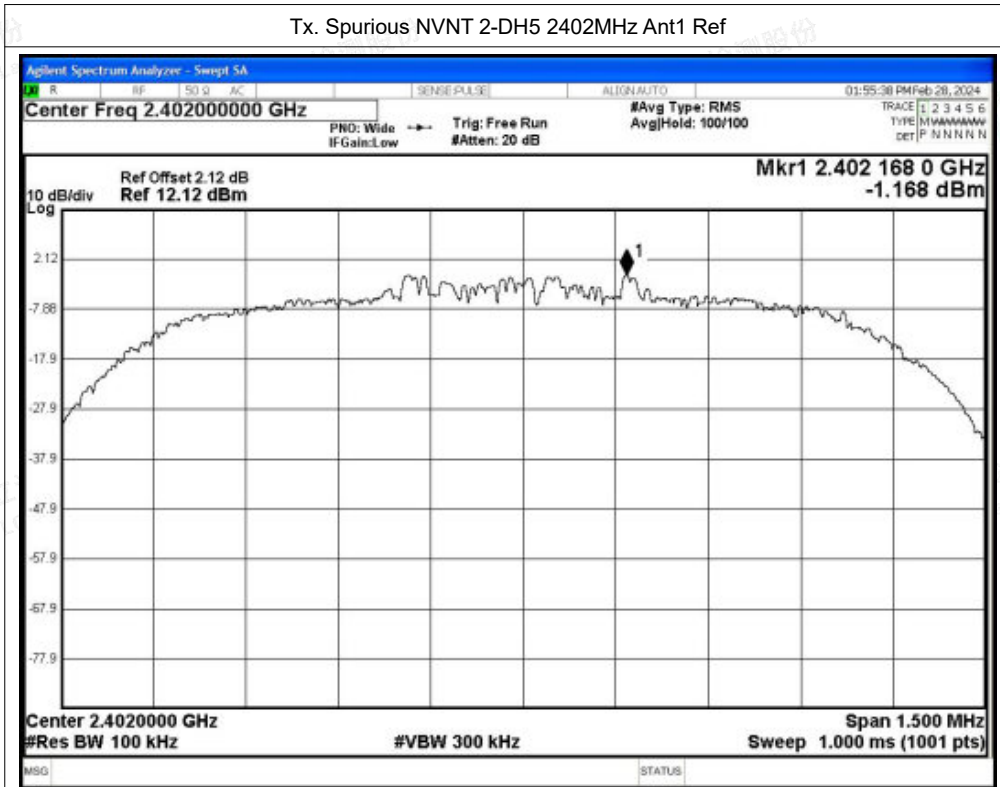


Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Emission

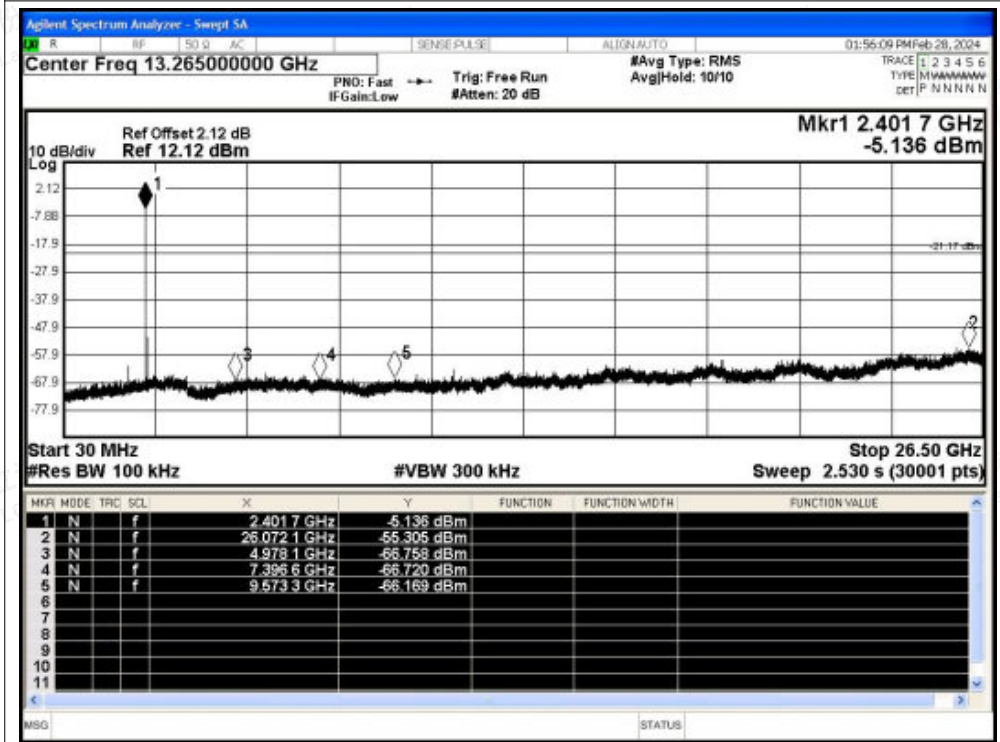




Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Ref

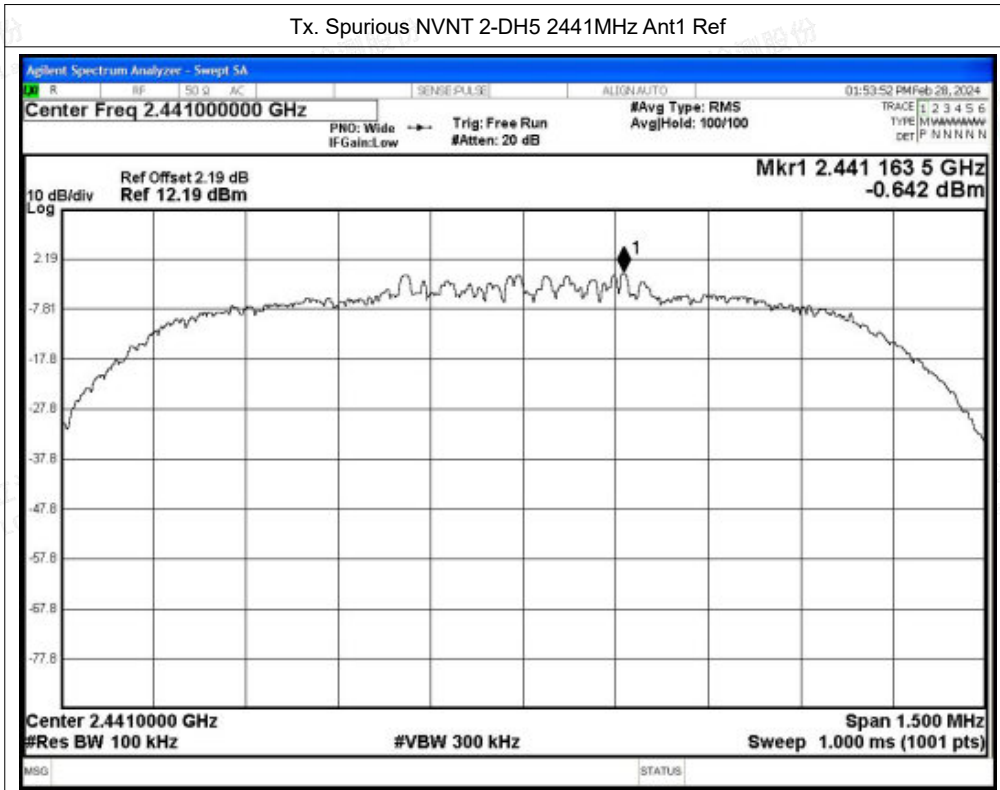


Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Emission

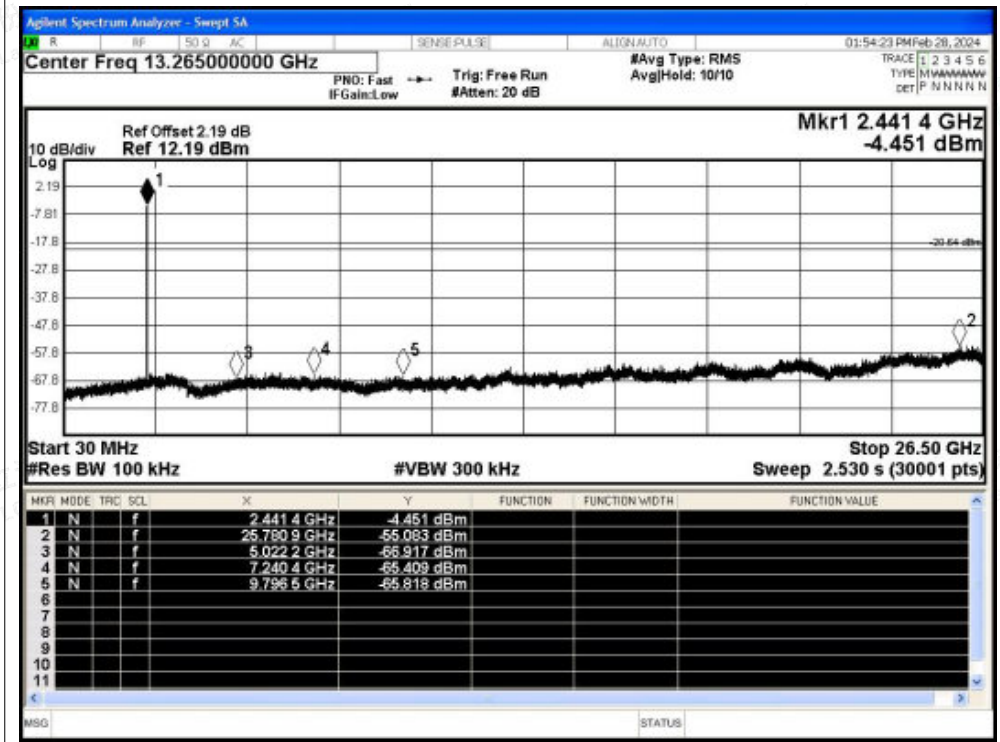




Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Ref

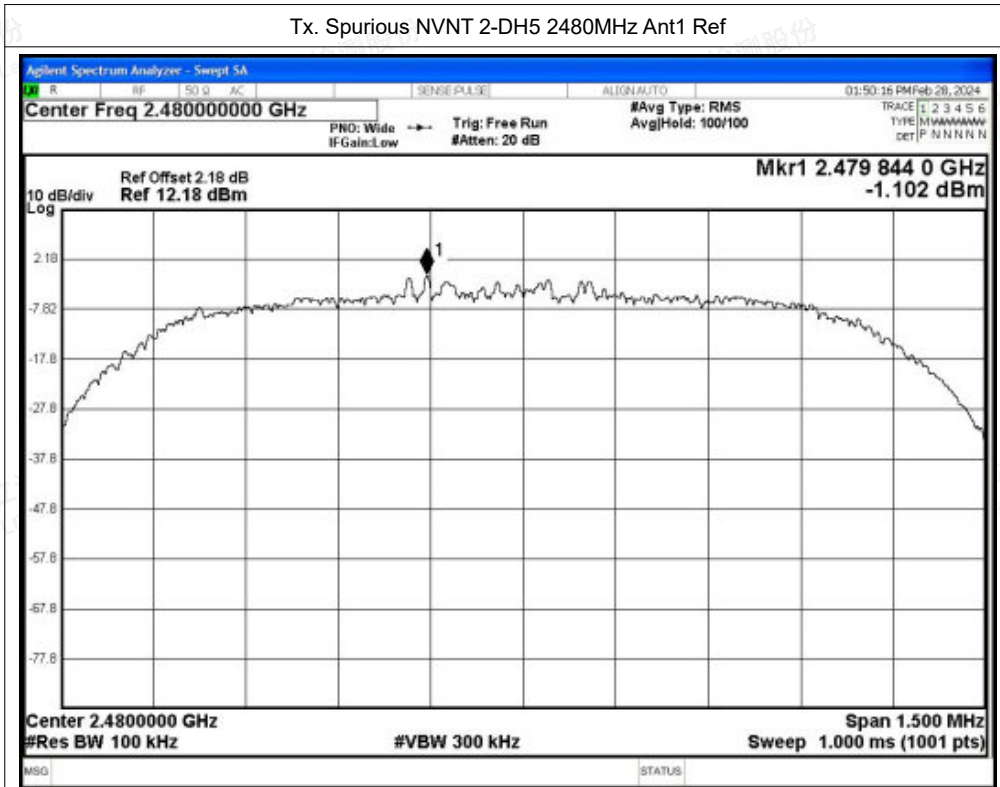


Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Emission

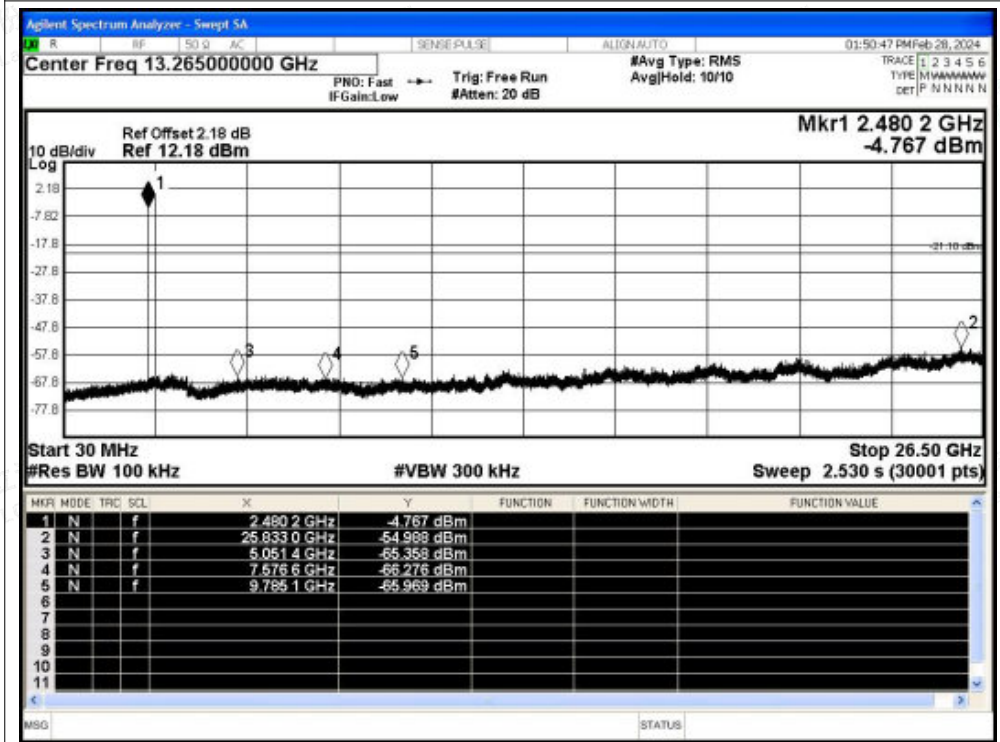




Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Ref

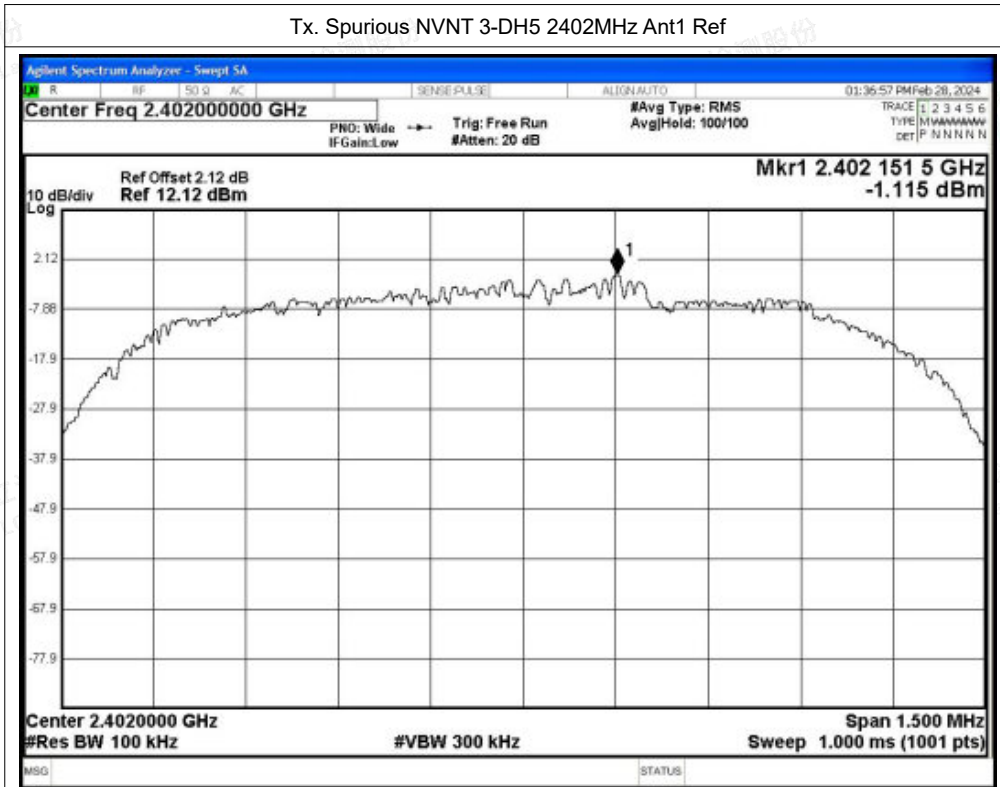


Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Emission

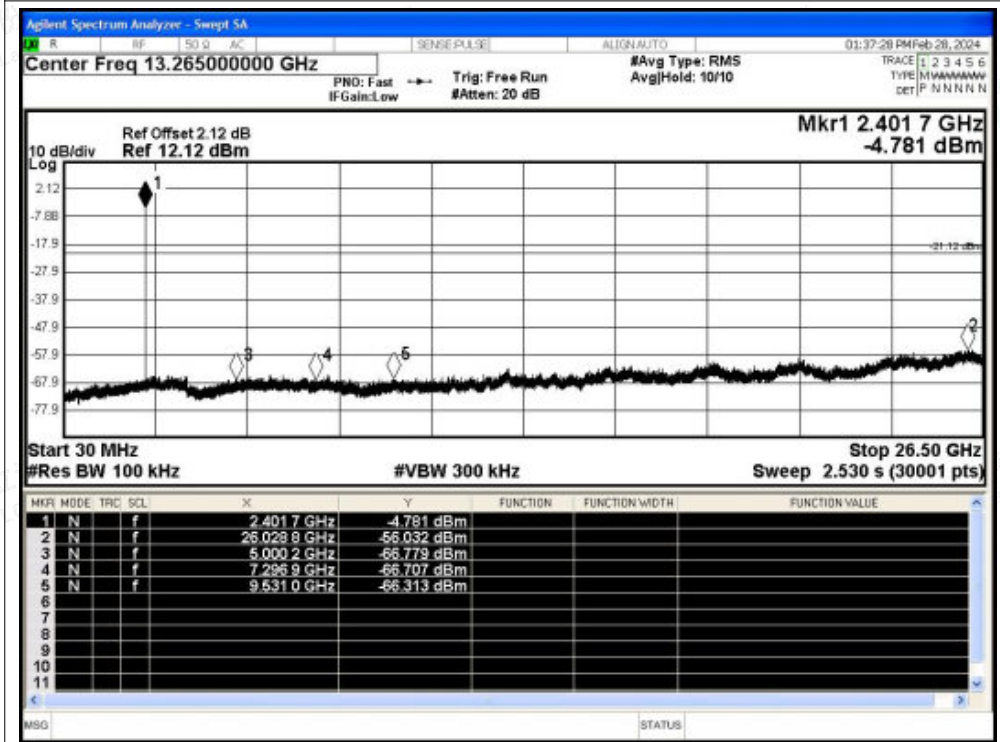




Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Ref

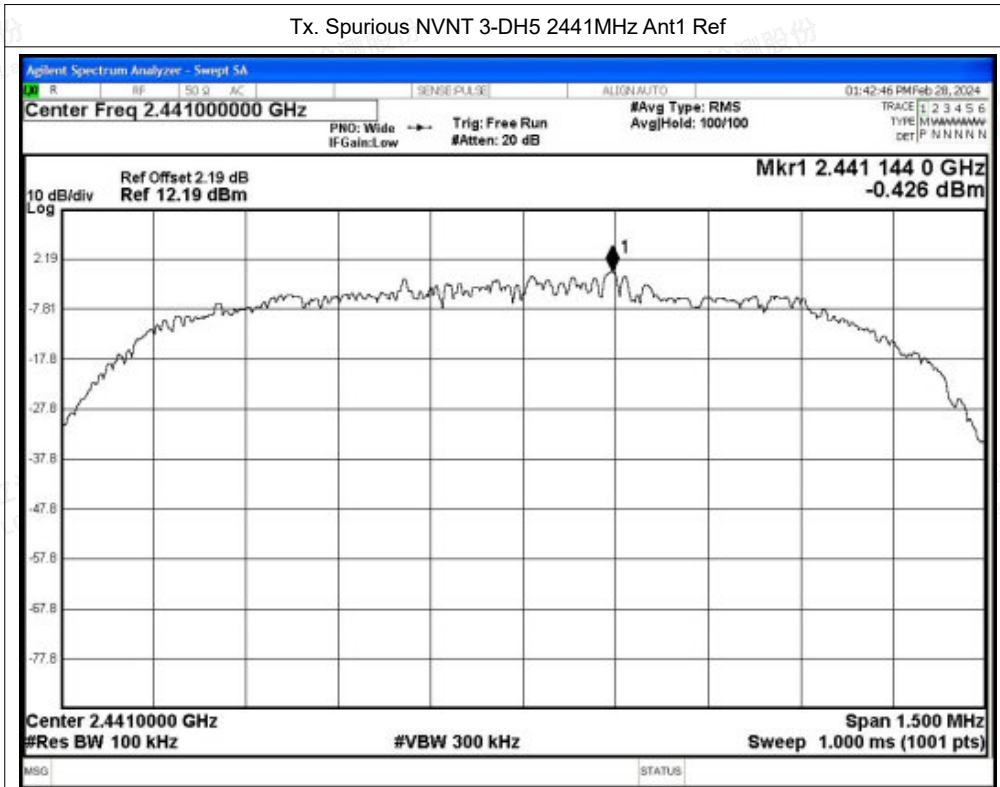


Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Emission

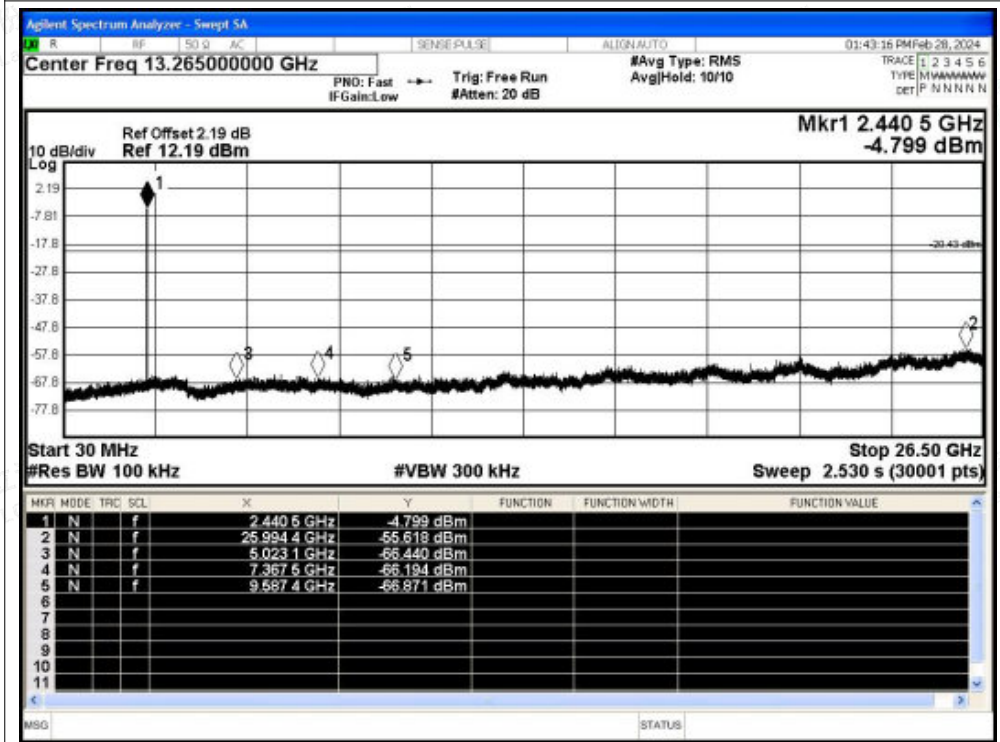




Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Ref

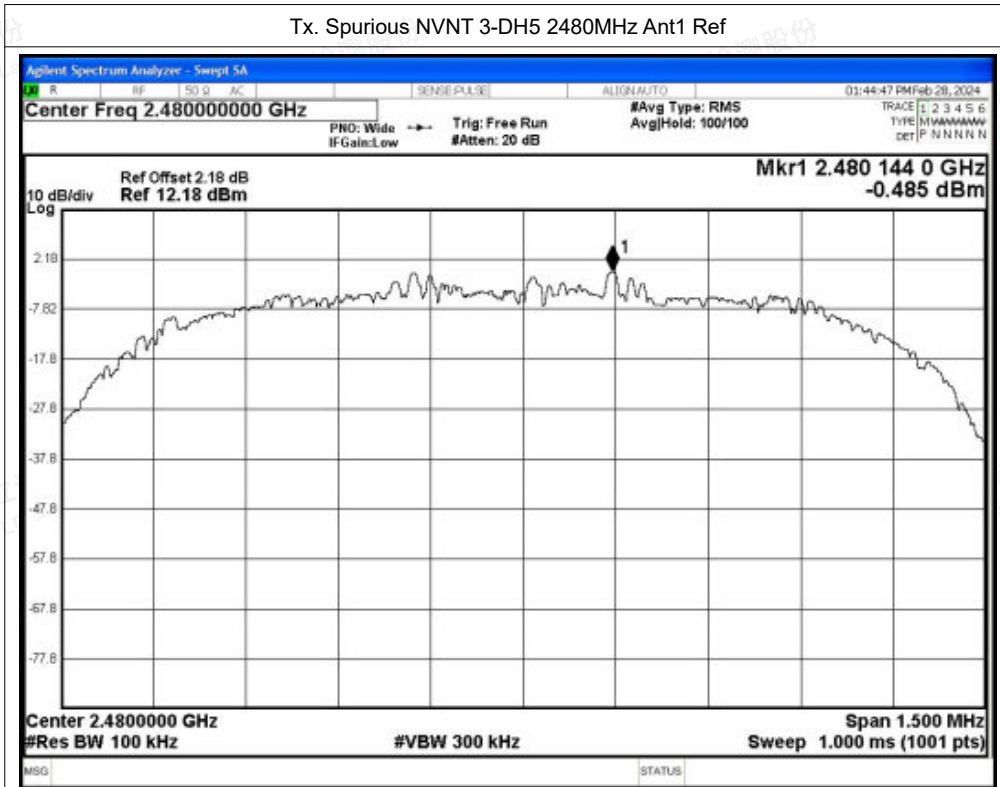


Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Emission

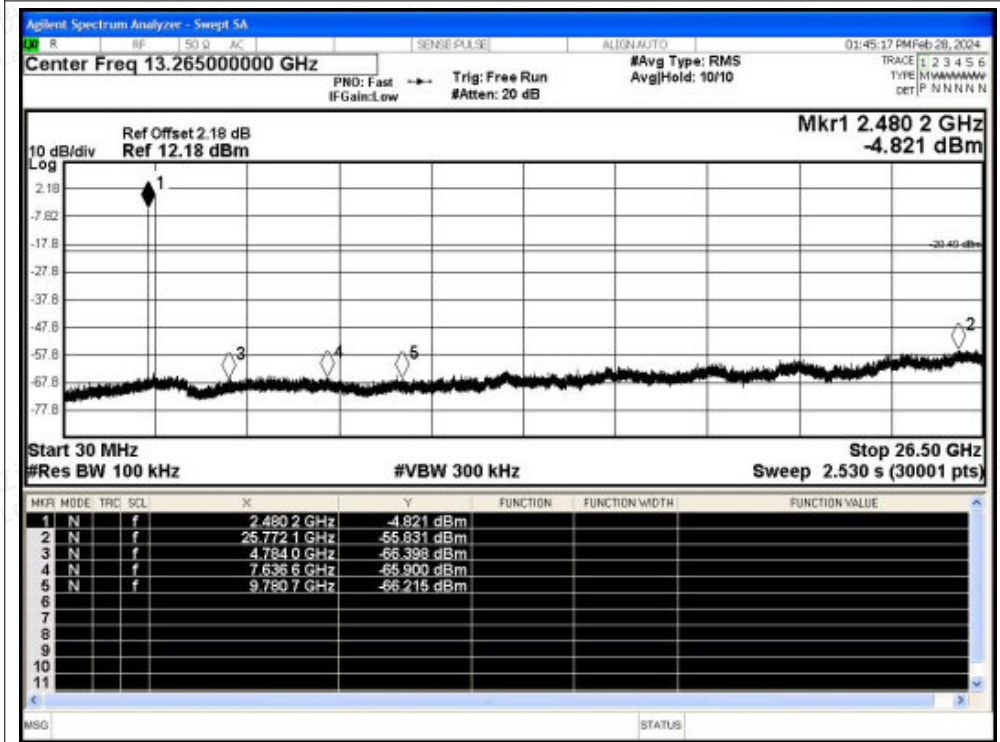




Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Ref



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	76.88	1.14	0.35
NVNT	1-DH5	2441	Ant1	76.88	1.14	0.35
NVNT	1-DH5	2480	Ant1	76.88	1.14	0.35
NVNT	2-DH5	2402	Ant1	76.96	1.14	0.35
NVNT	2-DH5	2441	Ant1	76.96	1.14	0.35
NVNT	2-DH5	2480	Ant1	76.99	1.14	0.35
NVNT	3-DH5	2402	Ant1	77.04	1.13	0.35
NVNT	3-DH5	2441	Ant1	77.01	1.13	0.35
NVNT	3-DH5	2480	Ant1	77.01	1.13	0.35

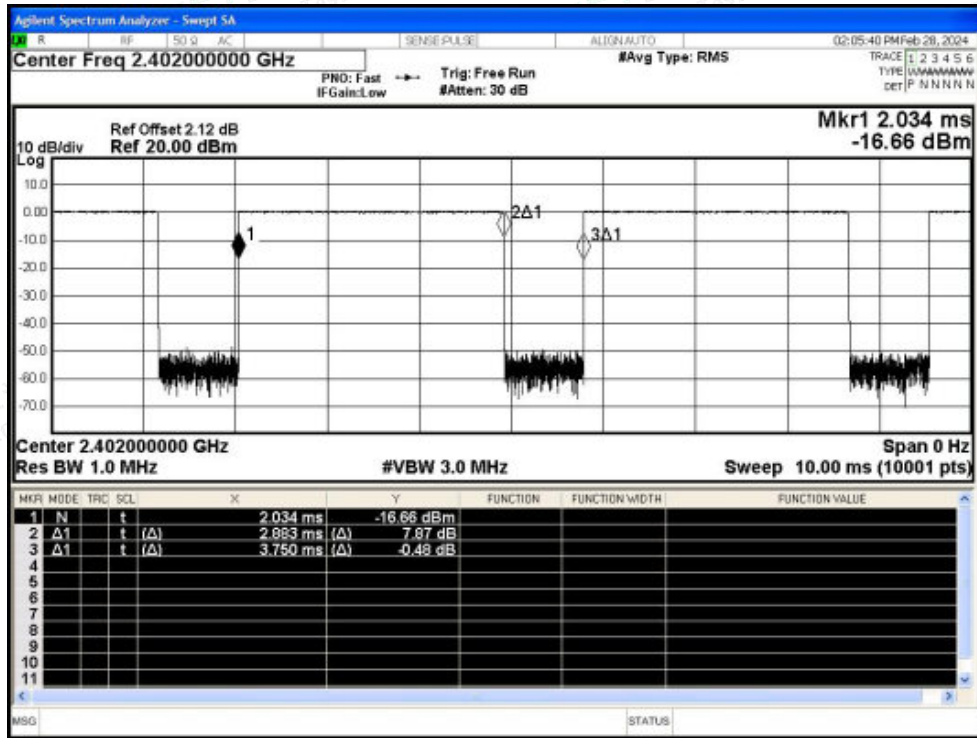




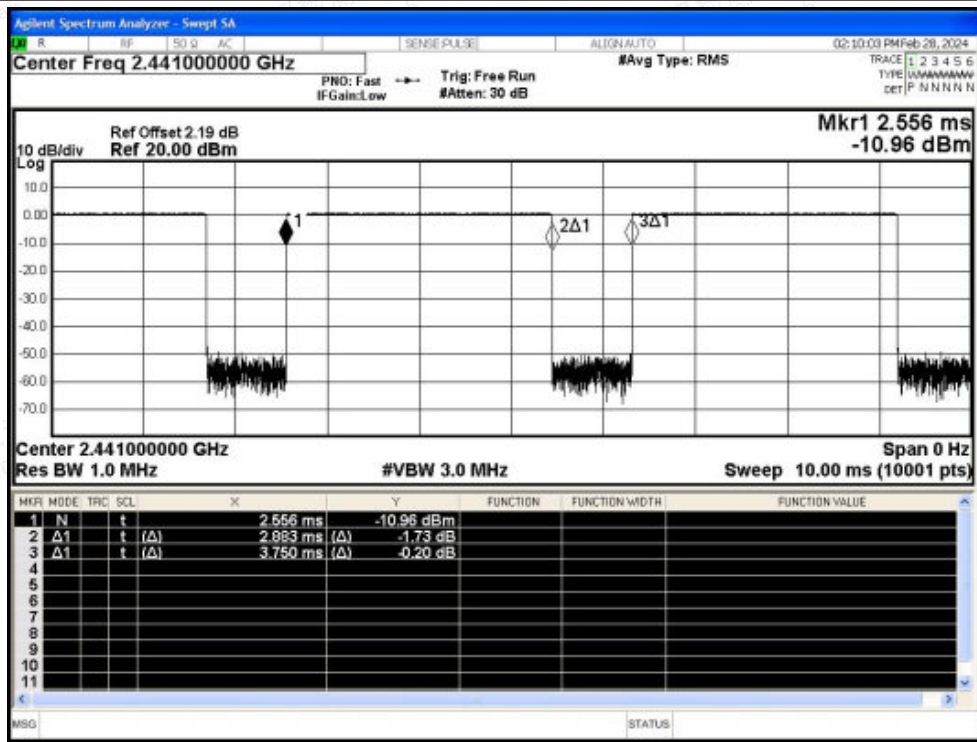


Test Graphs

Duty Cycle NVNT 1-DH5 2402MHz Ant1

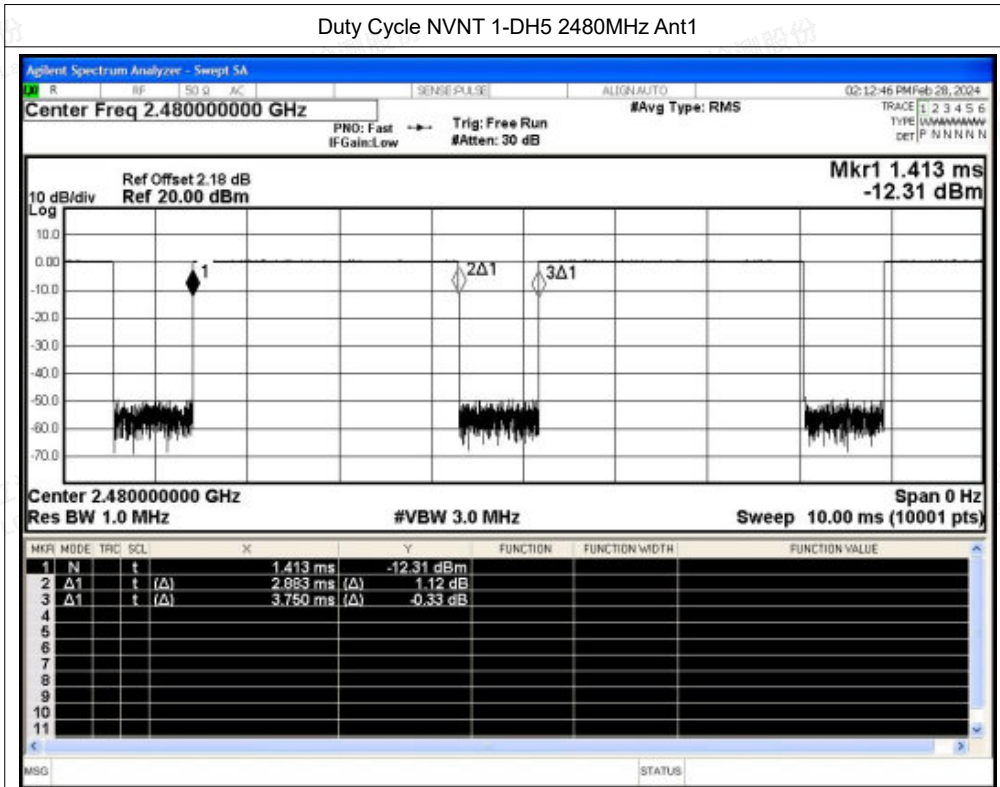


Duty Cycle NVNT 1-DH5 2441MHz Ant1

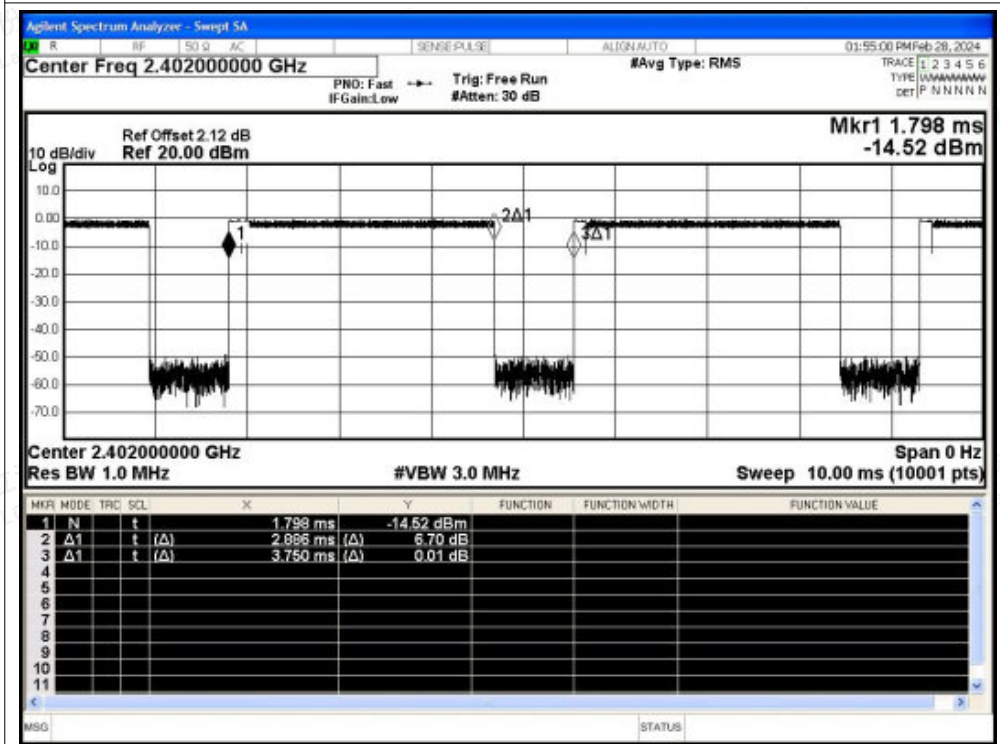




Duty Cycle NVNT 1-DH5 2480MHz Ant1

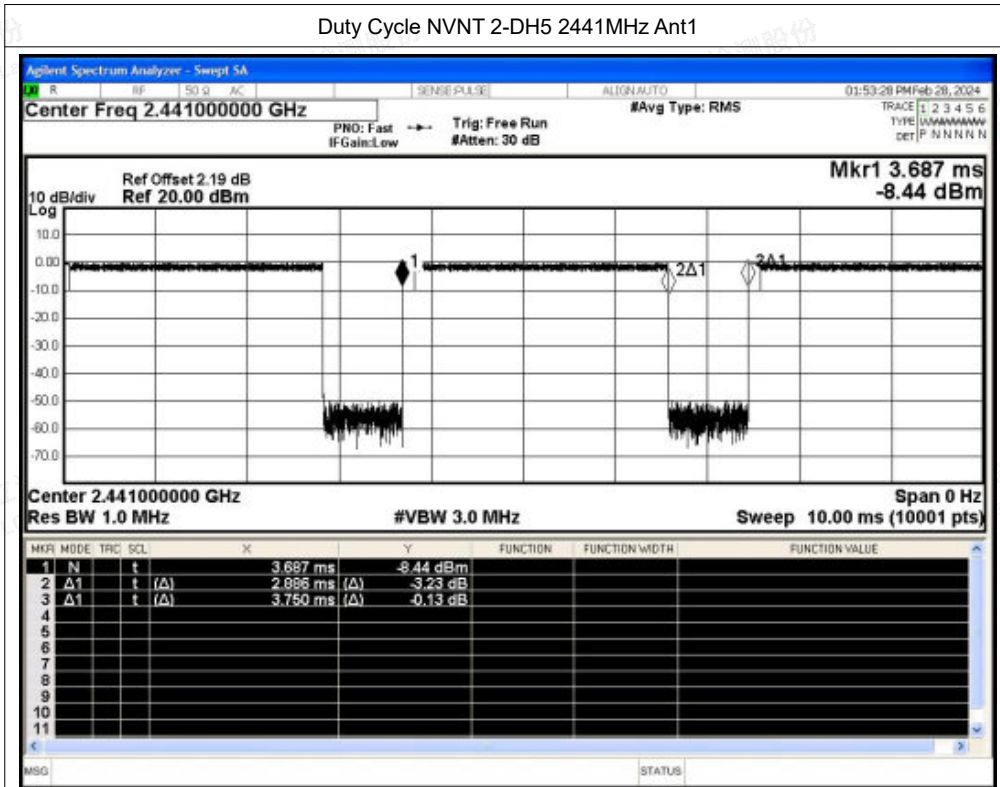


Duty Cycle NVNT 2-DH5 2402MHz Ant1

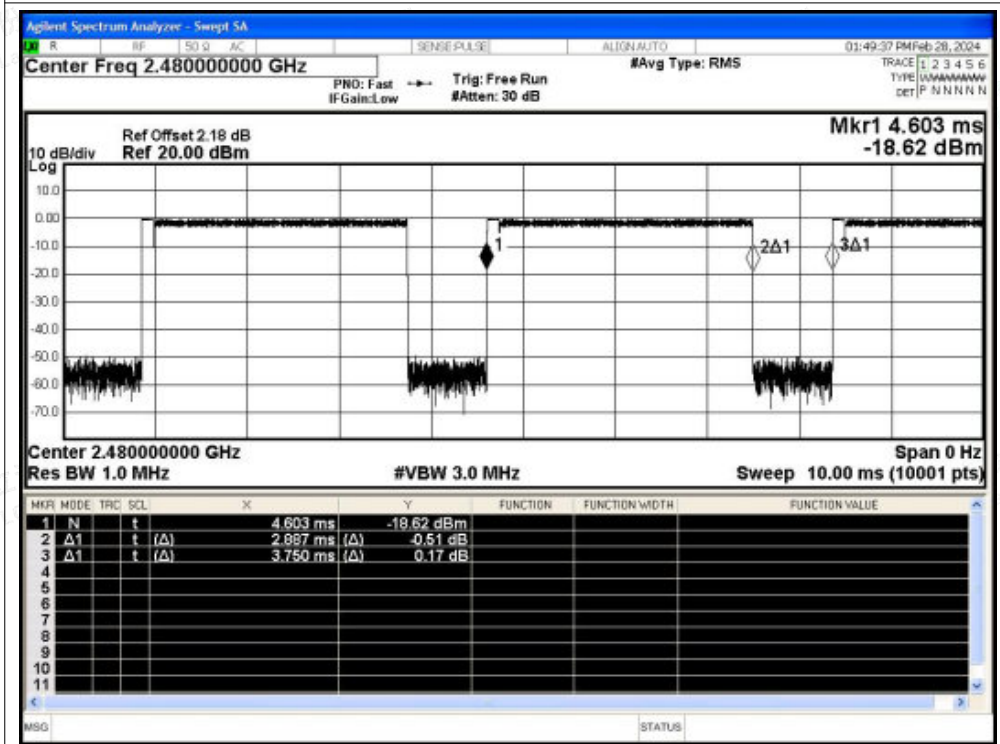




Duty Cycle NVNT 2-DH5 2441MHz Ant1

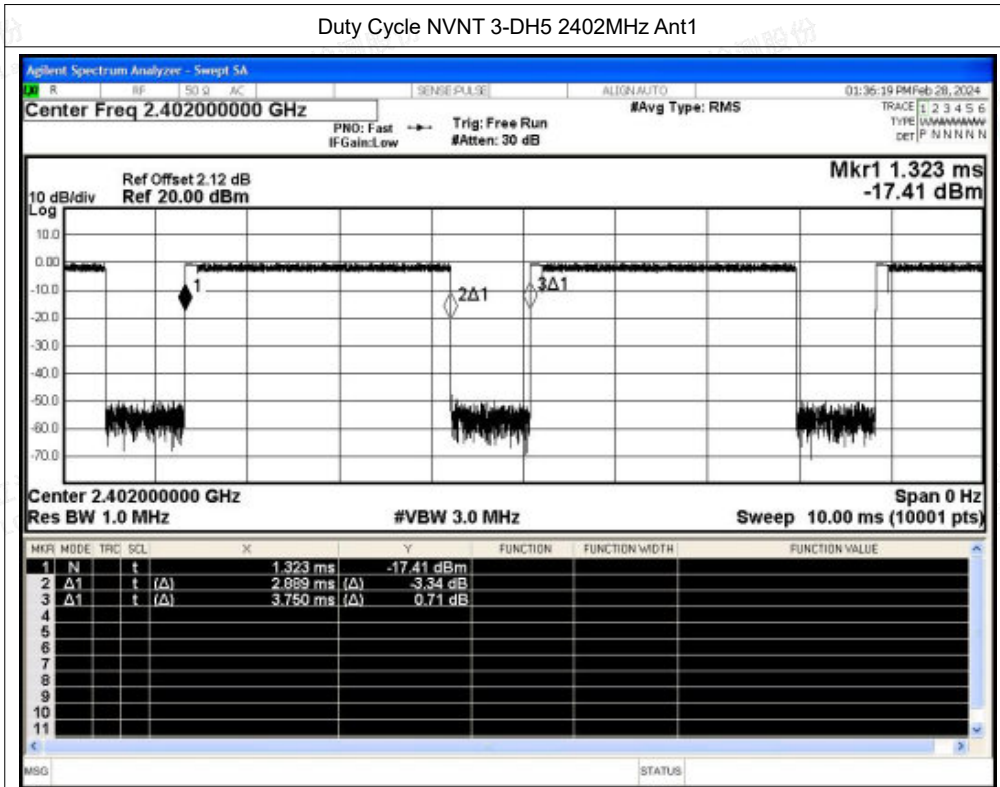


Duty Cycle NVNT 2-DH5 2480MHz Ant1

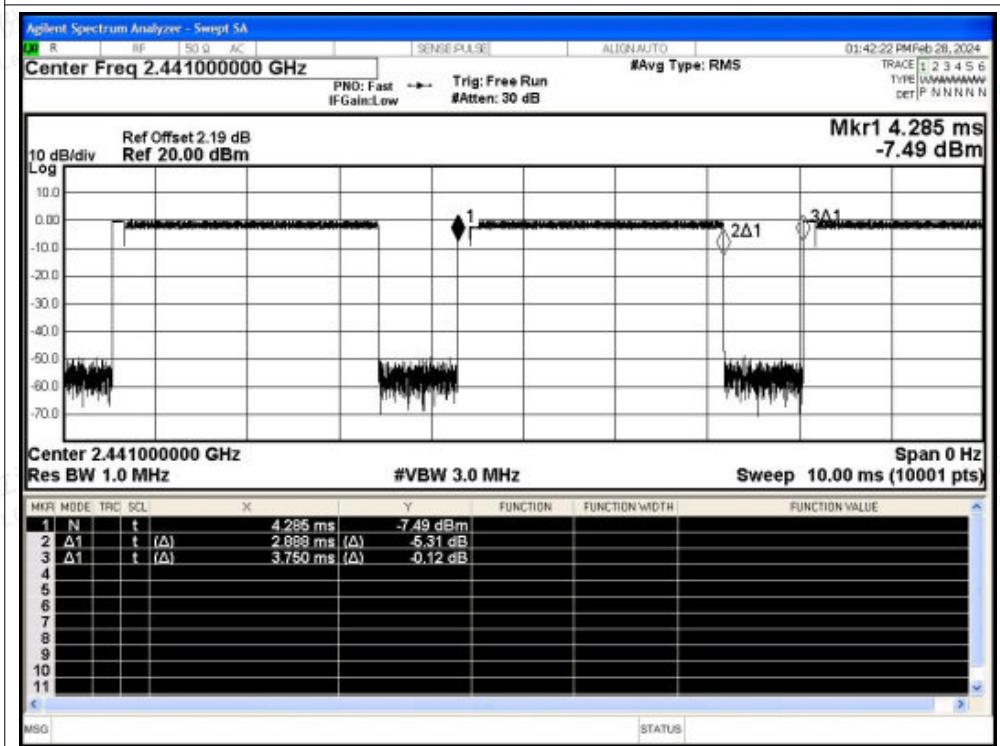




Duty Cycle NVNT 3-DH5 2402MHz Ant1

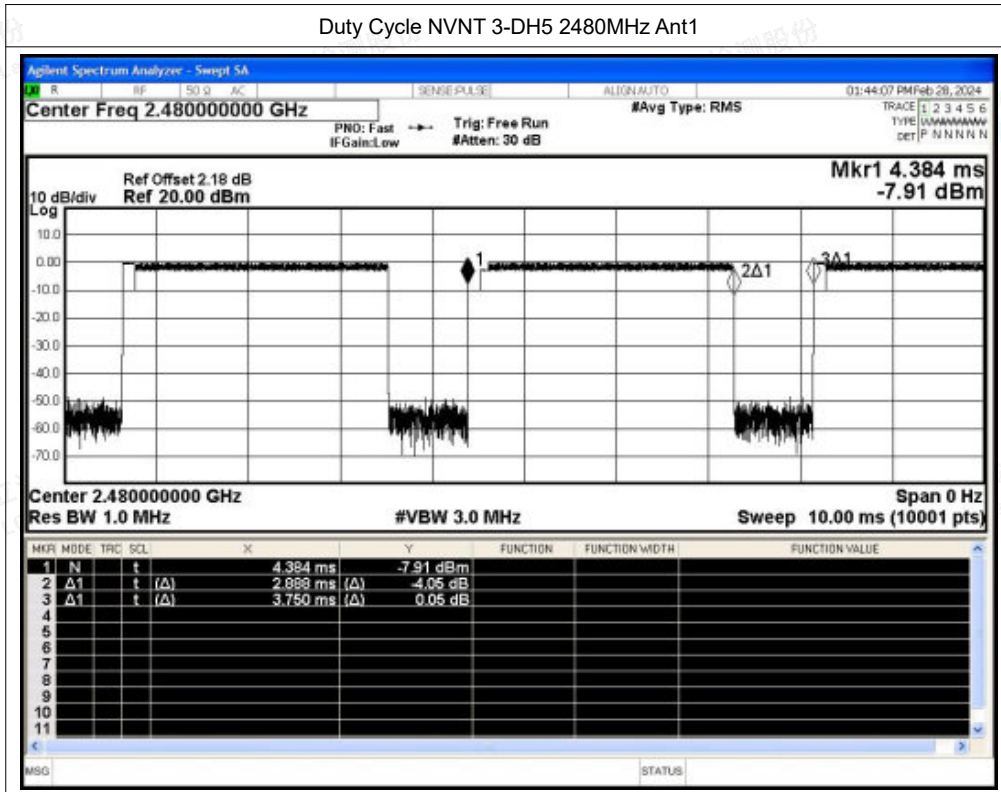


Duty Cycle NVNT 3-DH5 2441MHz Ant1





Duty Cycle NVNT 3-DH5 2480MHz Ant1





### A.9 Restrict Band

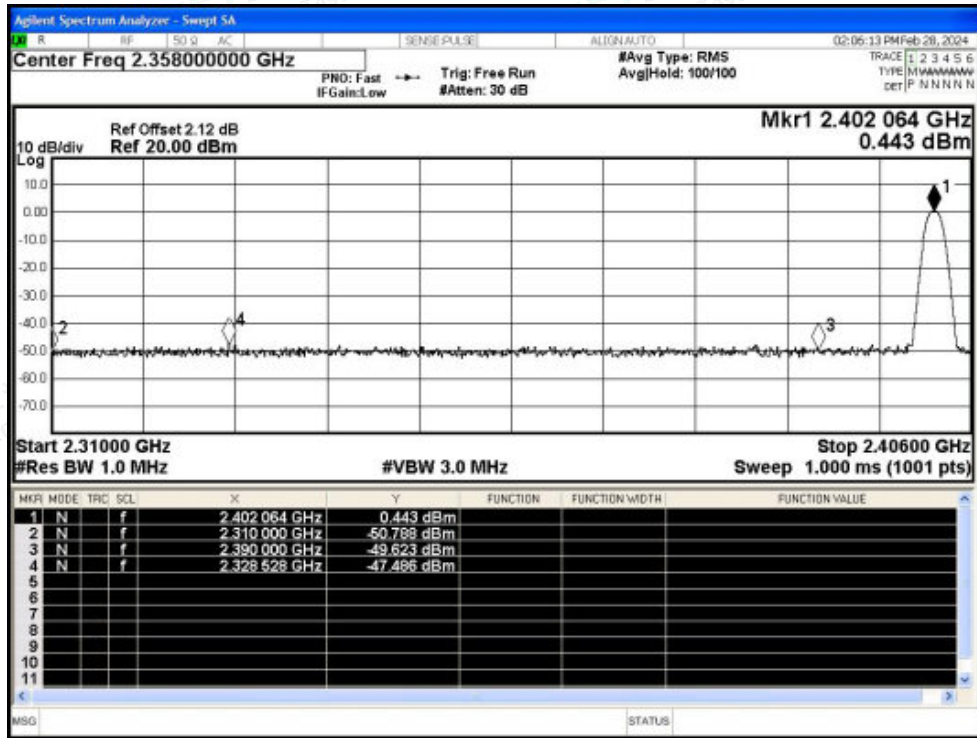
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-50.79	4.30	-	48.77	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-58.81	4.30	1.14	41.89	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2328.528	-47.49	4.30	-	52.07	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2368.368	-57.59	4.30	1.14	43.11	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-49.62	4.30	-	49.94	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-57.95	4.30	1.14	42.75	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-50.69	4.30	-	48.87	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-57.58	4.30	1.14	43.12	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2490.904	-47.37	4.30	-	52.19	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2499.808	-56.96	4.30	1.14	43.74	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-49.74	4.30	-	49.82	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-58.02	4.30	1.14	42.68	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-52.14	4.30	-	47.42	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-58.96	4.30	1.14	41.74	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2356.752	-47.83	4.30	-	51.73	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2388.144	-57.55	4.30	1.14	43.15	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-51.22	4.30	-	48.34	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-58.52	4.30	1.14	42.18	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-50.04	4.30	-	49.52	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-57.57	4.30	1.14	43.13	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2486.968	-47.08	4.30	-	52.48	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2493.688	-57.26	4.30	1.14	43.44	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-49.58	4.30	-	49.98	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-58.74	4.30	1.14	41.96	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-51.4	4.30	-	48.16	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-58.92	4.30	1.13	41.77	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2339.28	-47.57	4.30	-	51.99	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2383.056	-57.57	4.30	1.13	43.12	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-50.92	4.30	-	48.64	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-58.29	4.30	1.13	42.40	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-49.54	4.30	-	50.02	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-58.14	4.30	1.13	42.55	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2499.16	-47.39	4.30	-	52.17	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2488.816	-57.02	4.30	1.13	43.67	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-49.23	4.30	-	50.33	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-57.86	4.30	1.13	42.83	Average	54	Pass



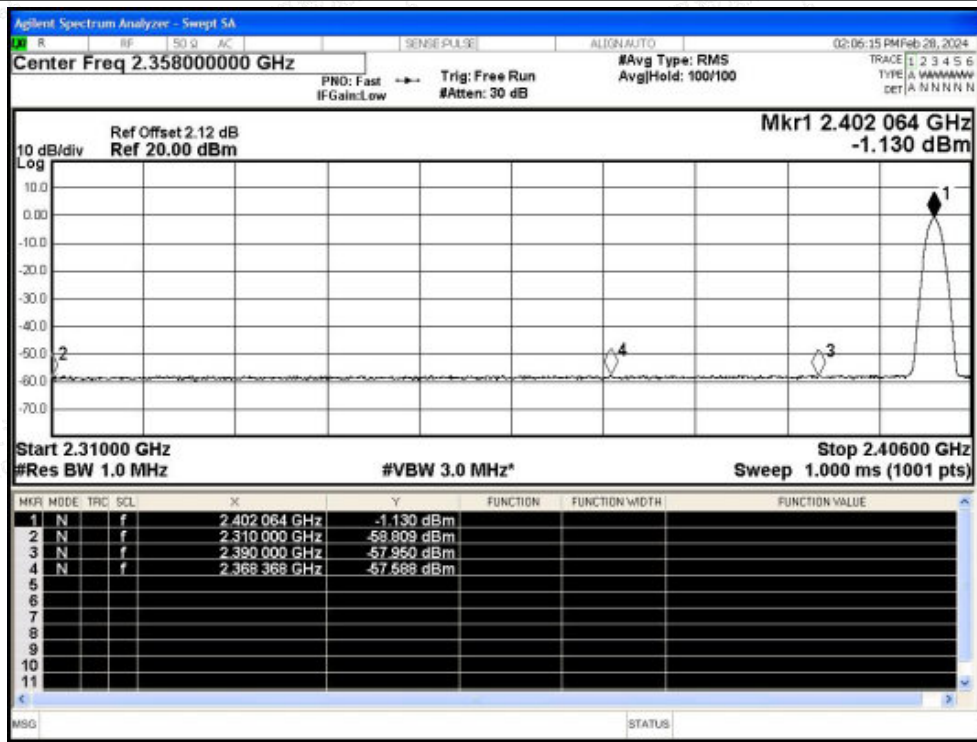


Test Graphs

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

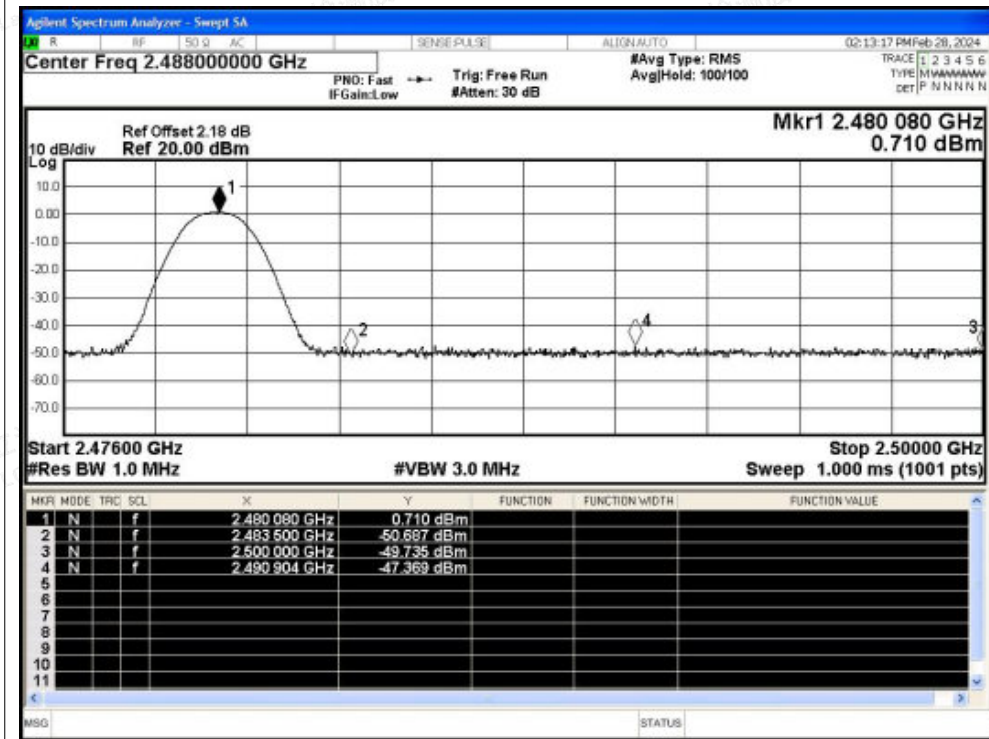


Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Average

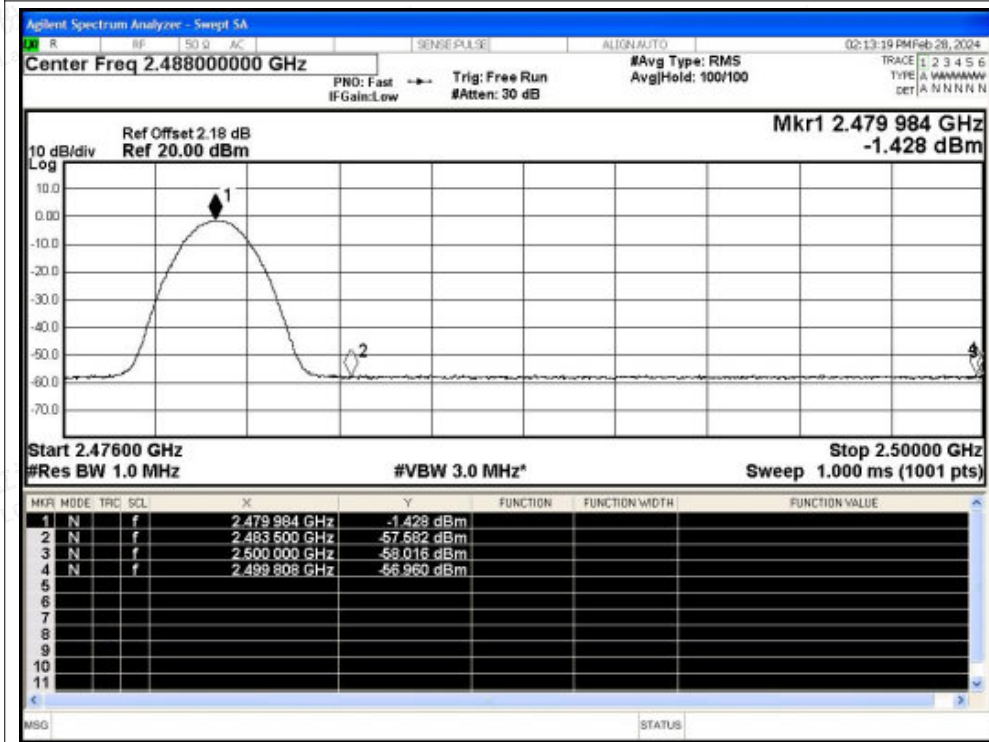




Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Peak



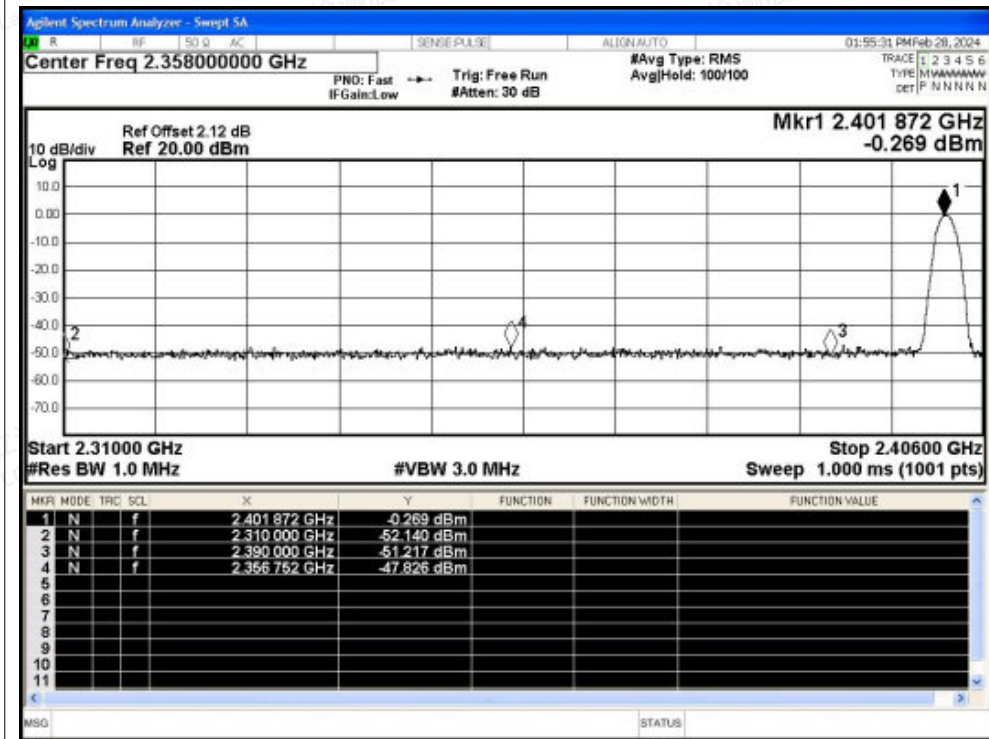
Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Average



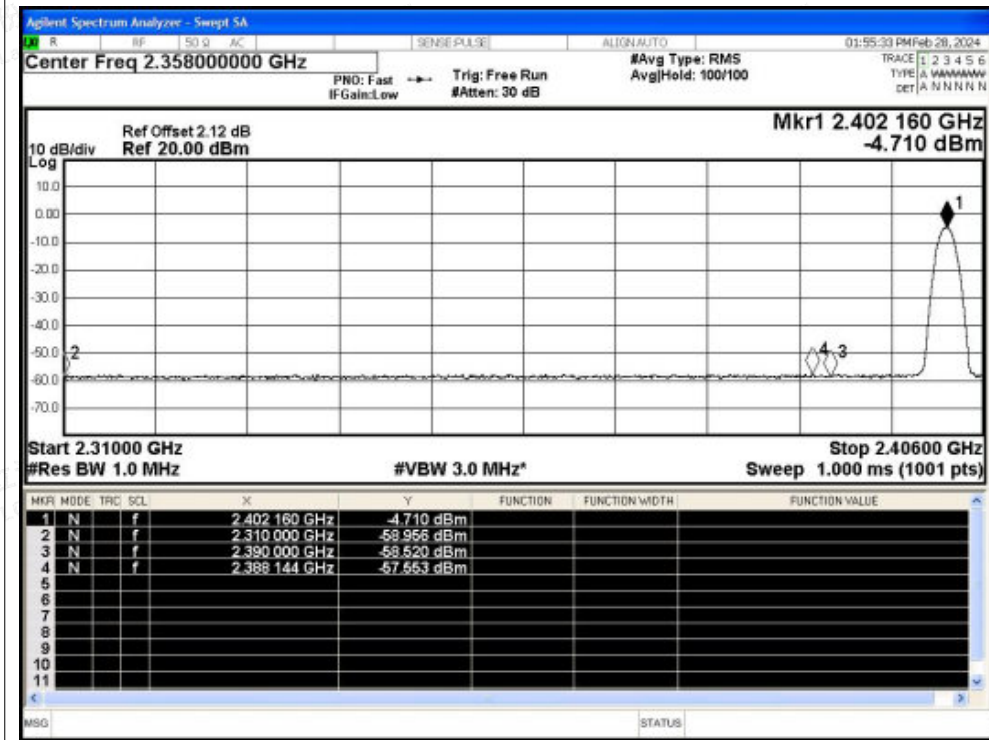




Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Peak

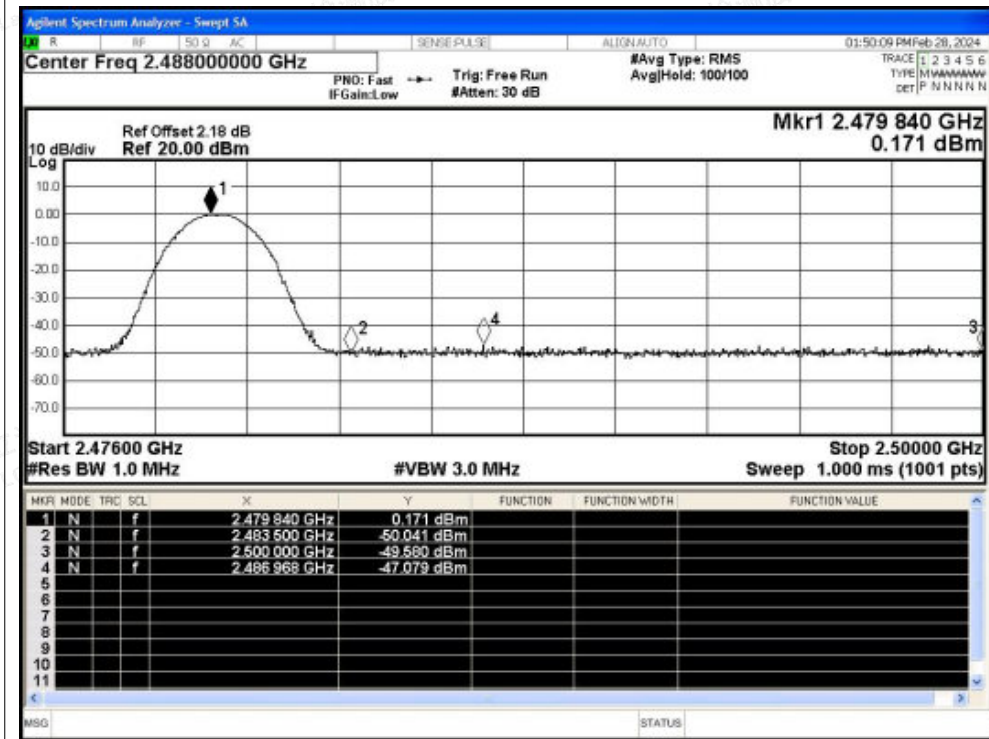


Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Average

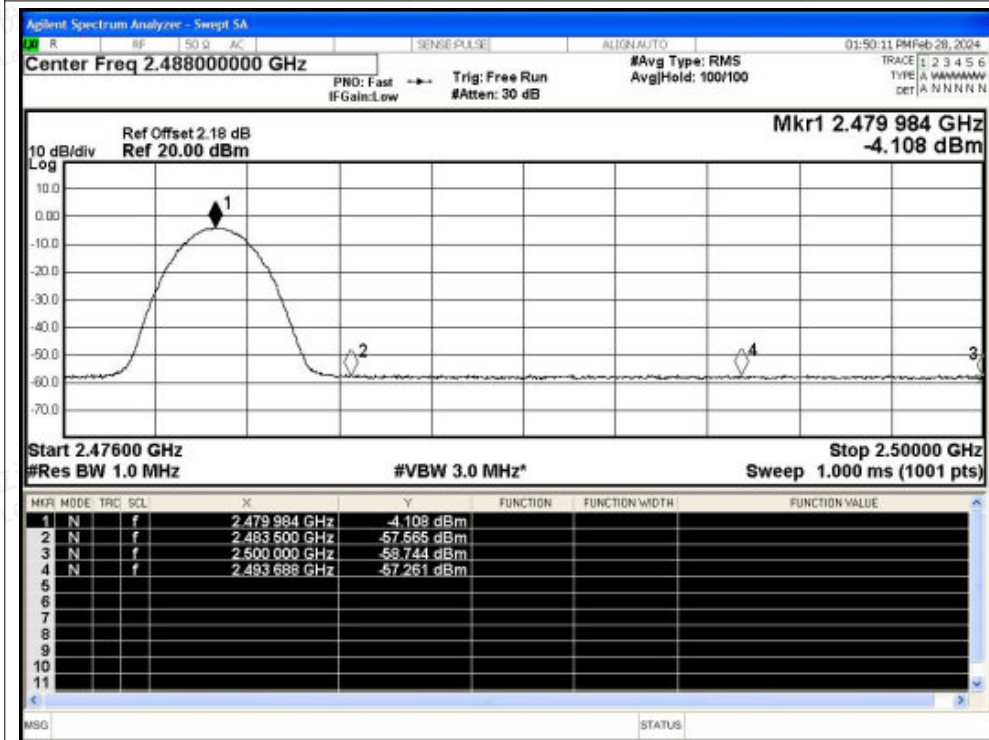




Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Peak

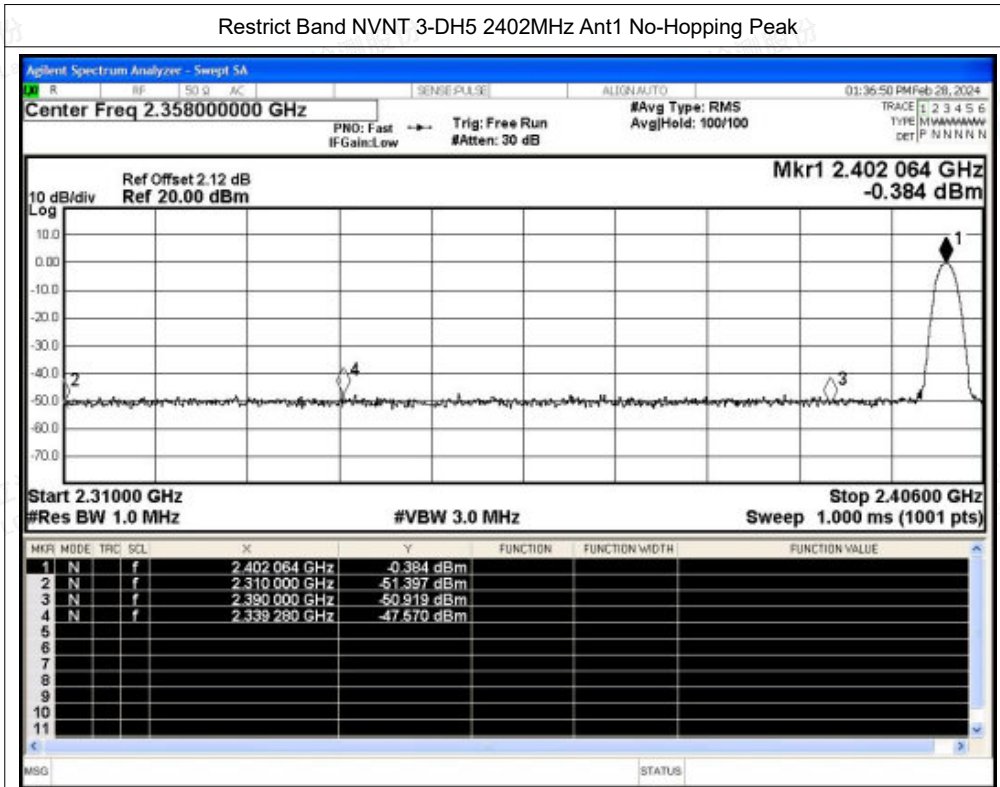


Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Average

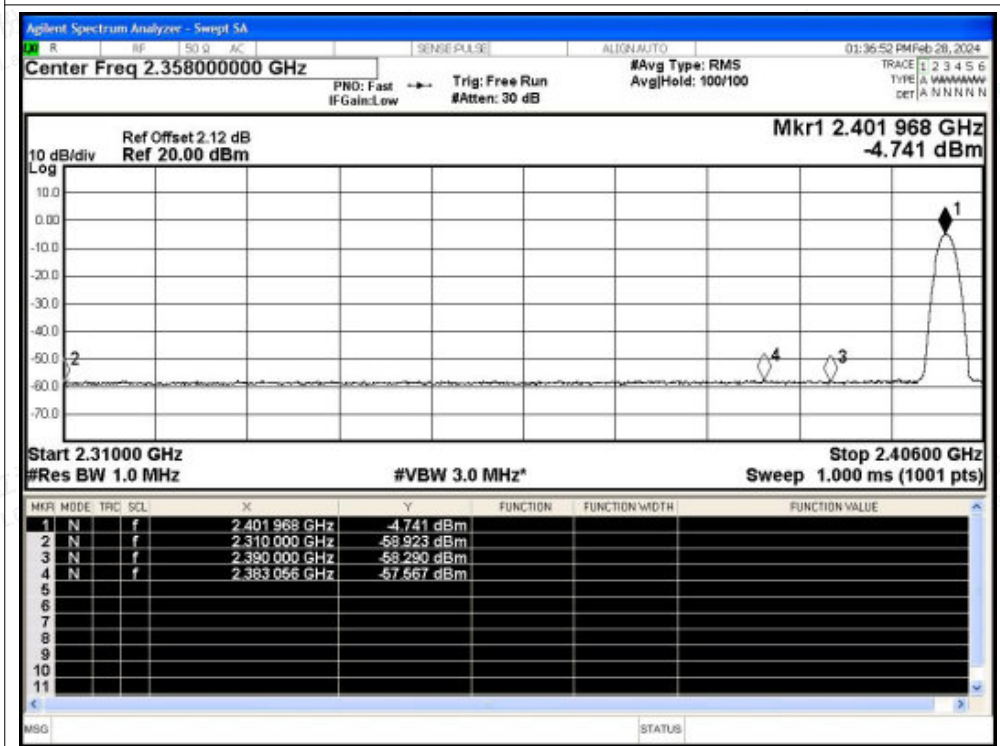




Restrict Band NVNT 3-DH5 2402MHz Ant1 No-Hopping Peak

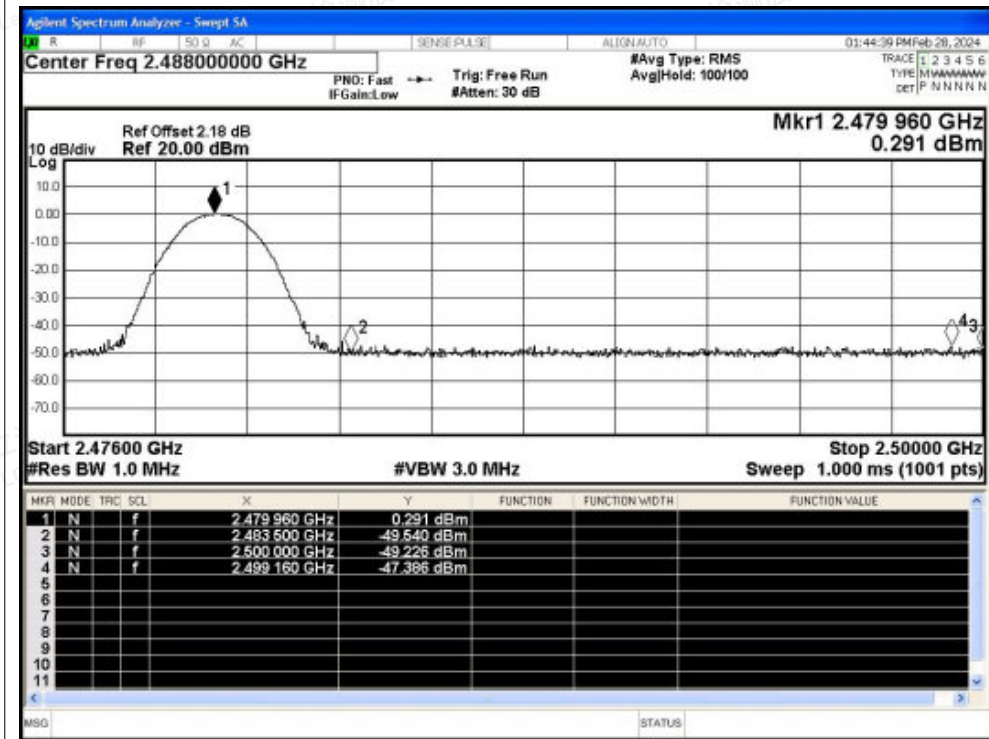


Restrict Band NVNT 3-DH5 2402MHz Ant1 No-Hopping Average





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



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

