



Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: 42 inch bluetooth soundbar

Test Model: EHS-2004

Environmental Conditions

Temperature:	23.1° C
Relative Humidity:	52.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Nick Peng
Supervised by:	Ling Zhu





A.1 -20dB Bandwidth

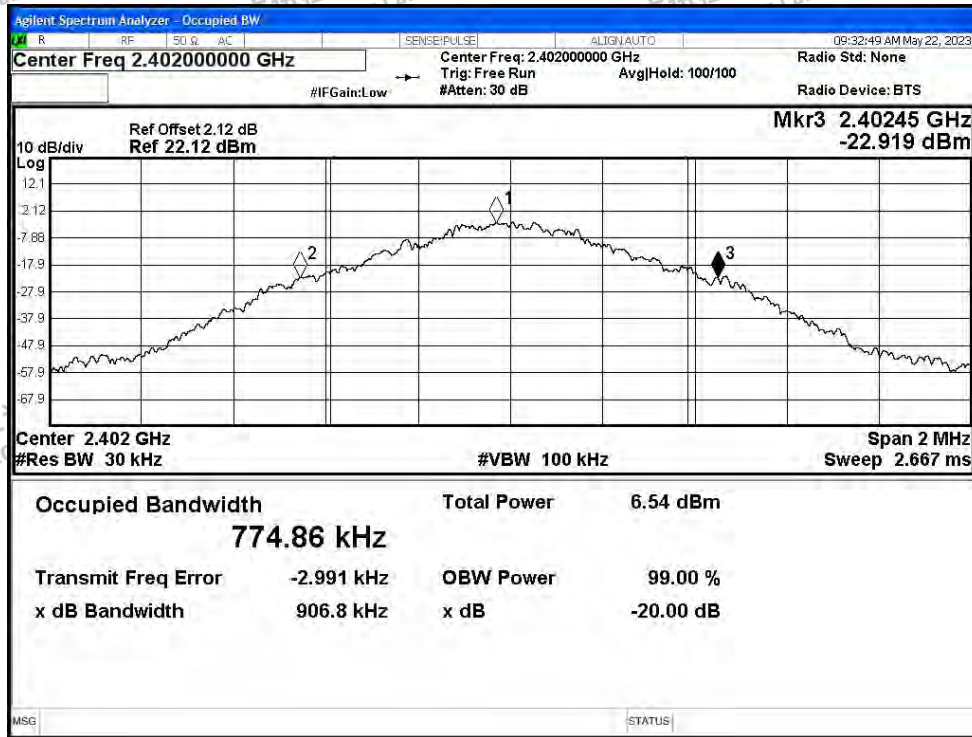
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH5	2402	Ant1	0.907	N/A	Pass
NVNT	1-DH5	2441	Ant1	0.919	N/A	Pass
NVNT	1-DH5	2480	Ant1	0.917	N/A	Pass
NVNT	2-DH5	2402	Ant1	1.31	N/A	Pass
NVNT	2-DH5	2441	Ant1	1.277	N/A	Pass
NVNT	2-DH5	2480	Ant1	1.312	N/A	Pass
NVNT	3-DH5	2402	Ant1	1.301	N/A	Pass
NVNT	3-DH5	2441	Ant1	1.298	N/A	Pass
NVNT	3-DH5	2480	Ant1	1.273	N/A	Pass





Test Graphs

-20dB Bandwidth NVNT 1-DH5 2402MHz Ant1

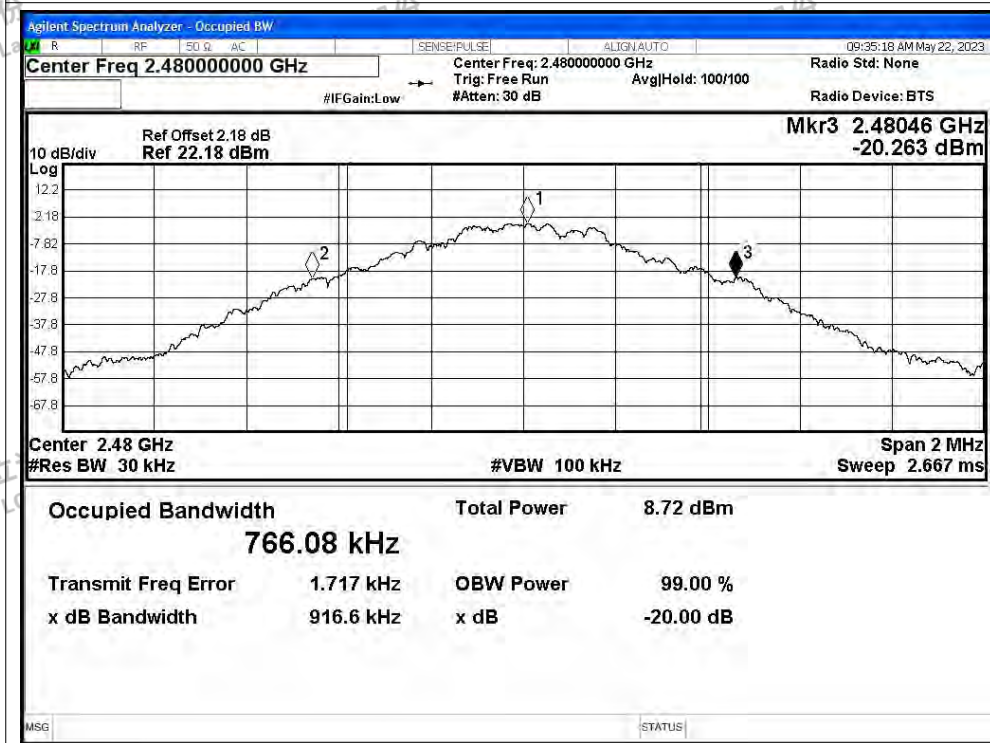


-20dB Bandwidth NVNT 1-DH5 2441MHz Ant1

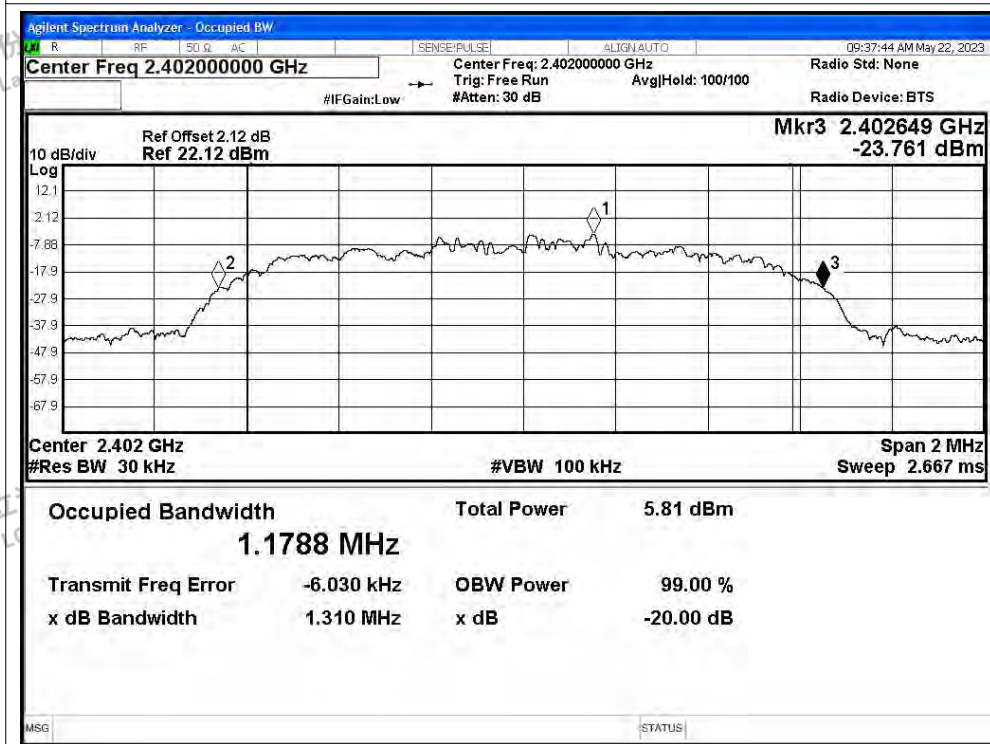




-20dB Bandwidth NVNT 1-DH5 2480MHz Ant1



-20dB Bandwidth NVNT 2-DH5 2402MHz Ant1

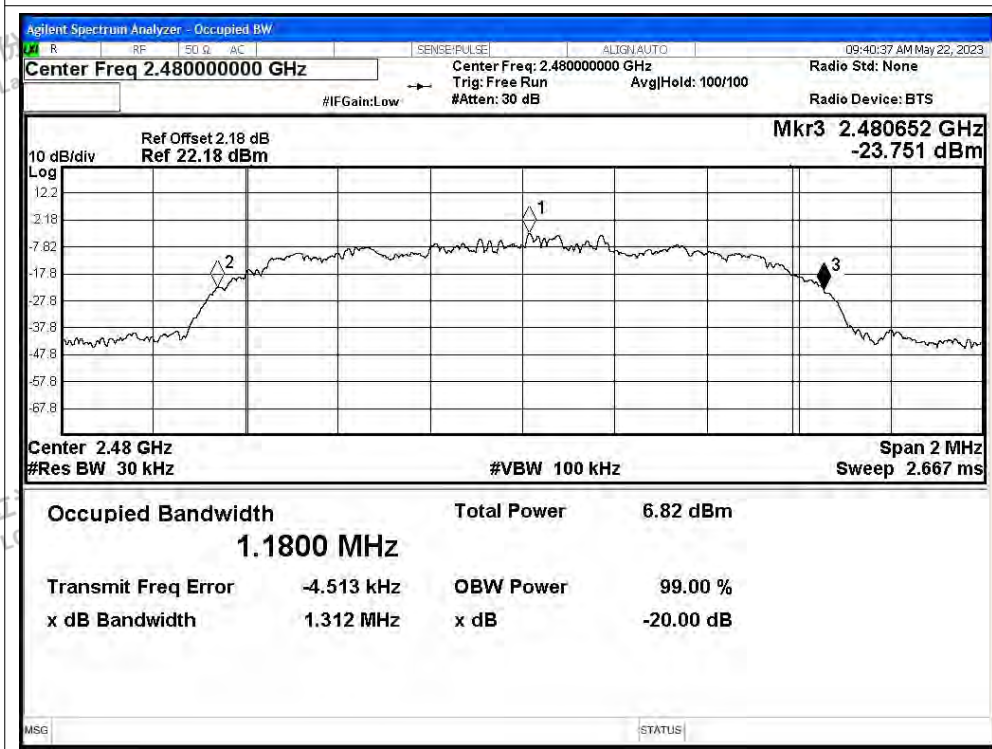




-20dB Bandwidth NVNT 2-DH5 2441MHz Ant1

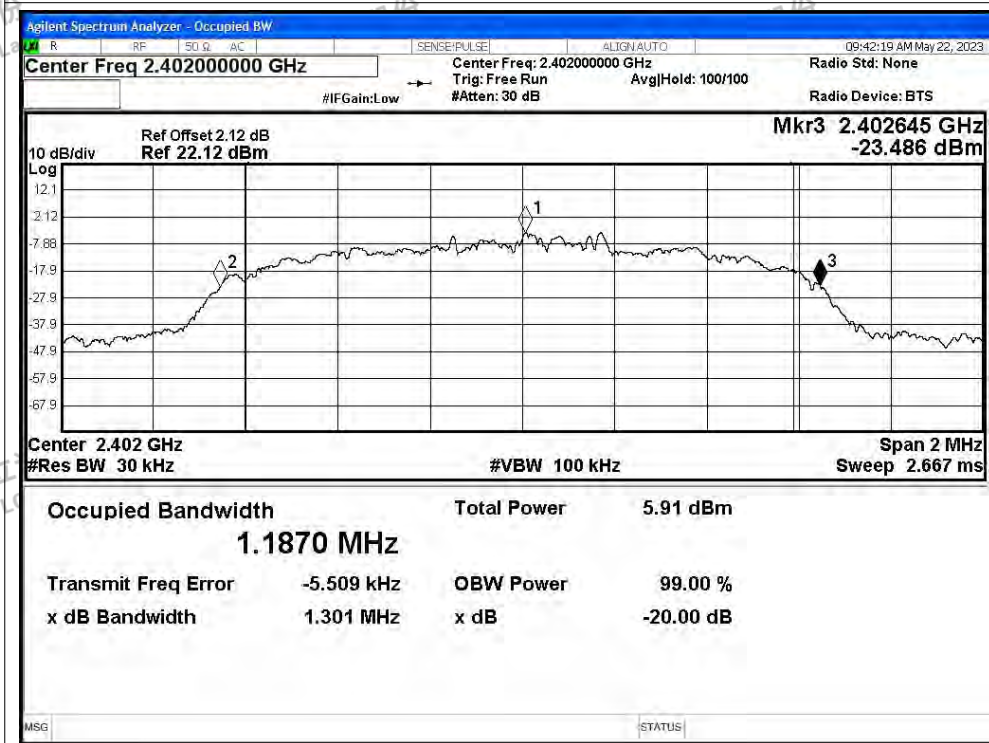


-20dB Bandwidth NVNT 2-DH5 2480MHz Ant1

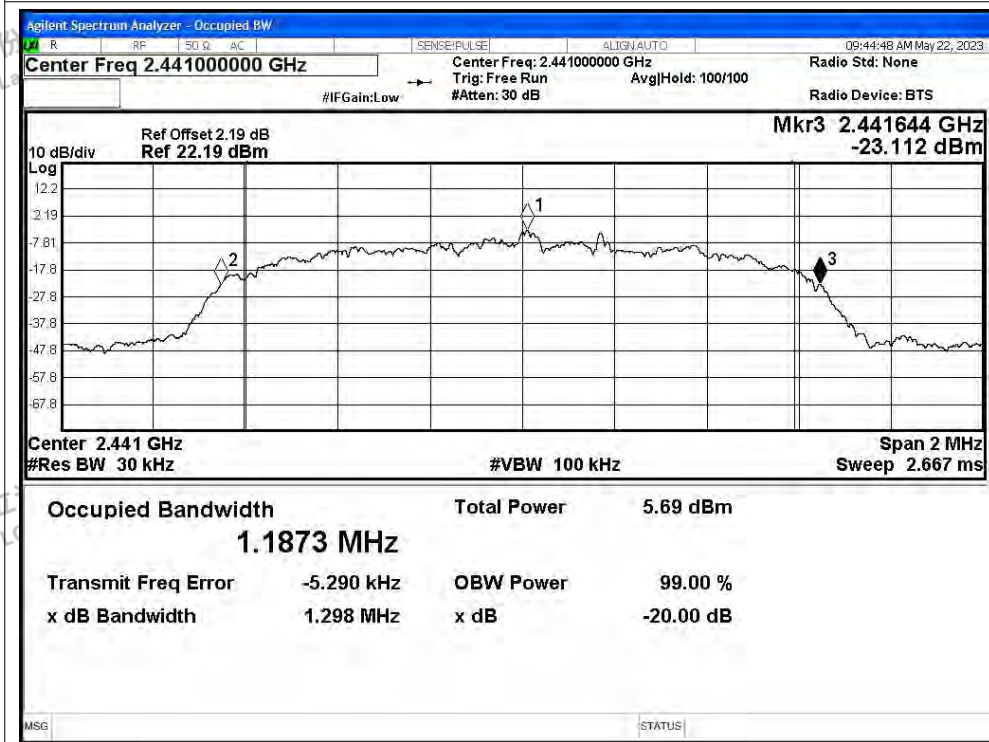


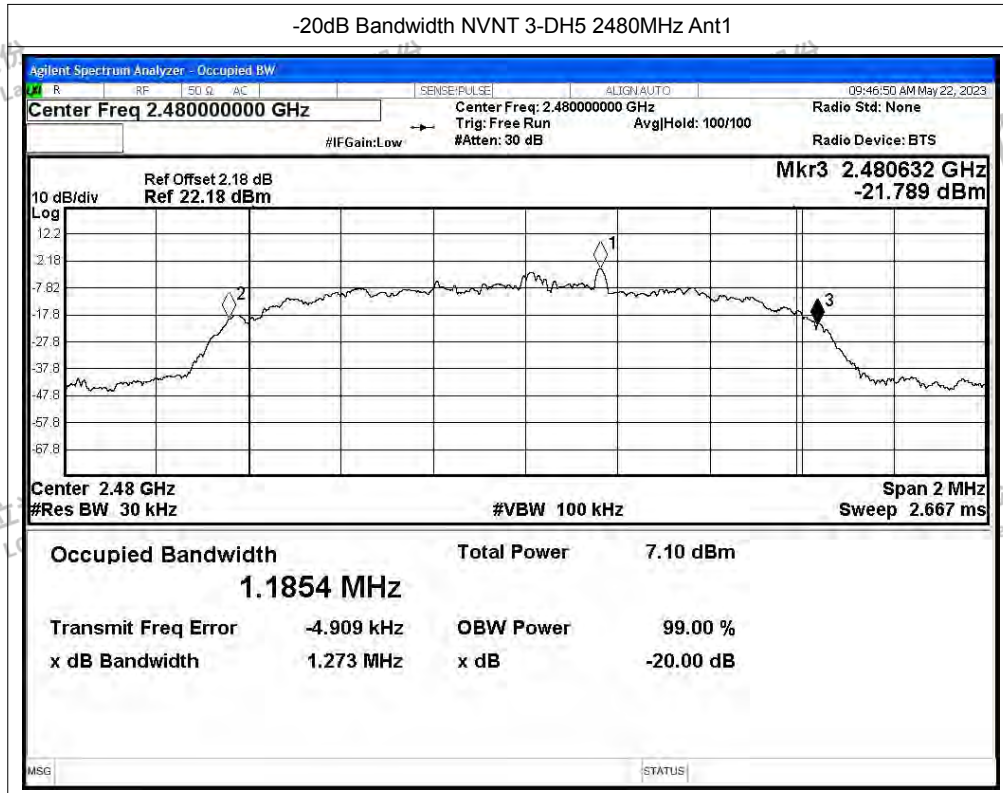


-20dB Bandwidth NVNT 3-DH5 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH5 2441MHz Ant1







A.2 Maximum Conducted Output Power

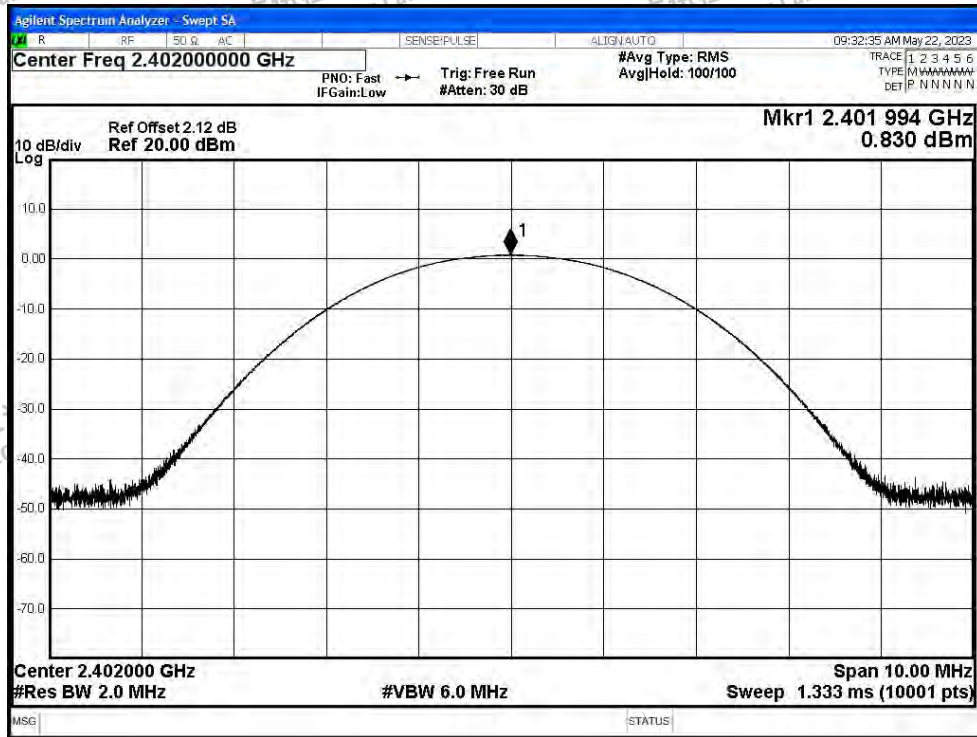
Condition	Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH5	2402	Ant1	0.83	21	Pass
NVNT	1-DH5	2441	Ant1	1.7	21	Pass
NVNT	1-DH5	2480	Ant1	2.71	21	Pass
NVNT	2-DH5	2402	Ant1	0.93	21	Pass
NVNT	2-DH5	2441	Ant1	1.17	21	Pass
NVNT	2-DH5	2480	Ant1	2.33	21	Pass
NVNT	3-DH5	2402	Ant1	0.91	21	Pass
NVNT	3-DH5	2441	Ant1	1.16	21	Pass
NVNT	3-DH5	2480	Ant1	2.3	21	Pass



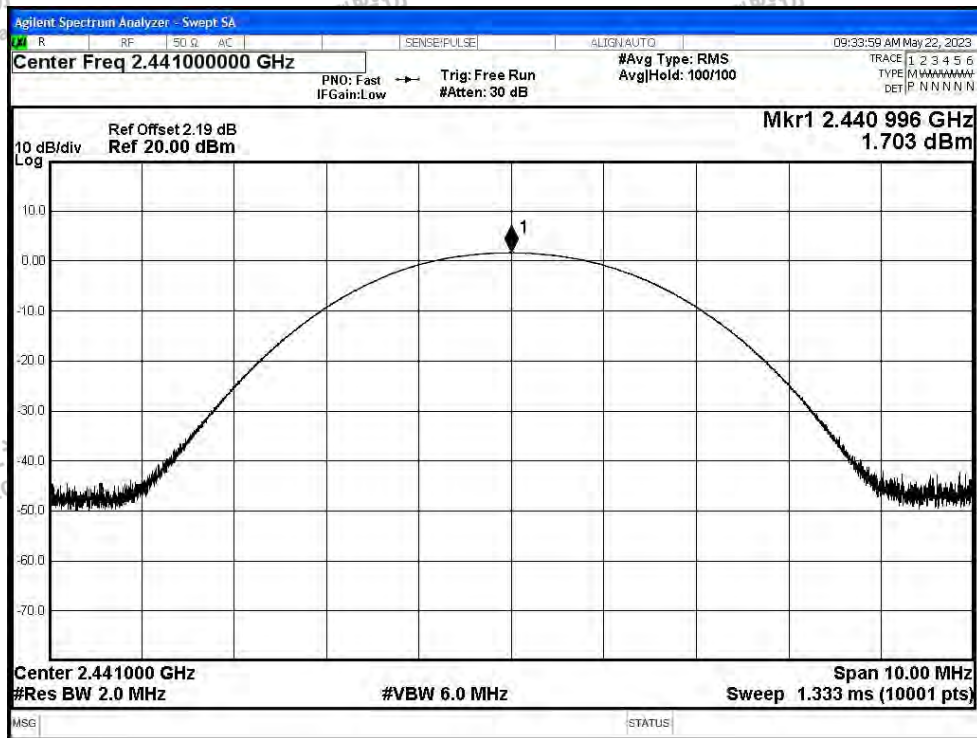


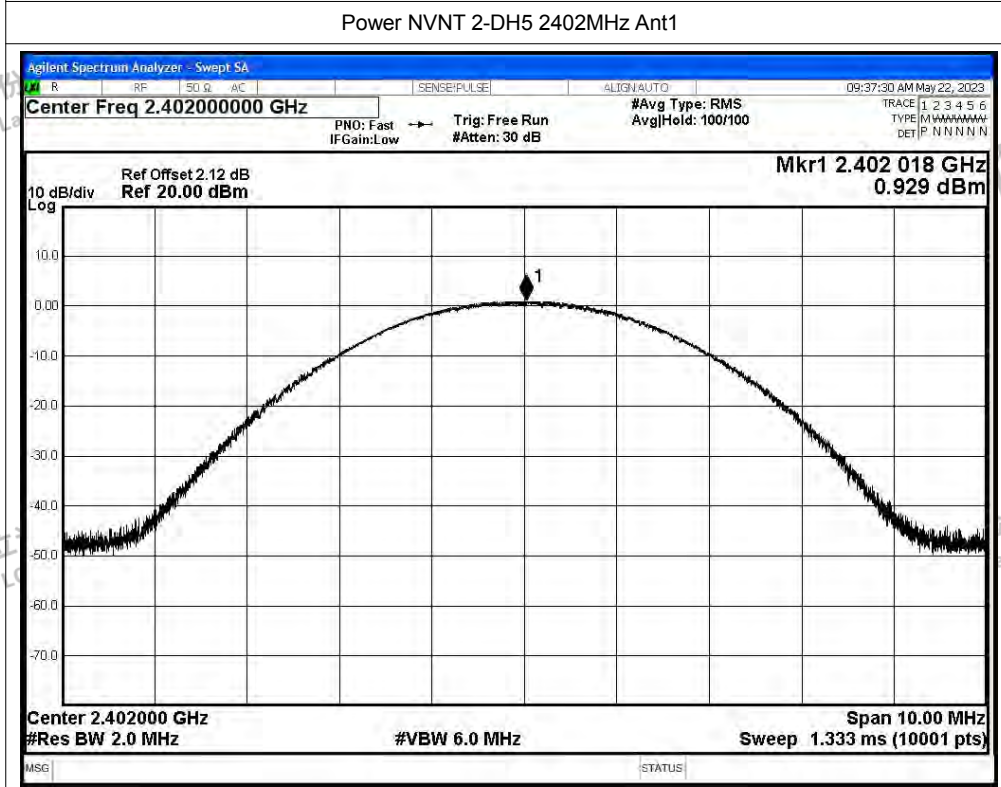
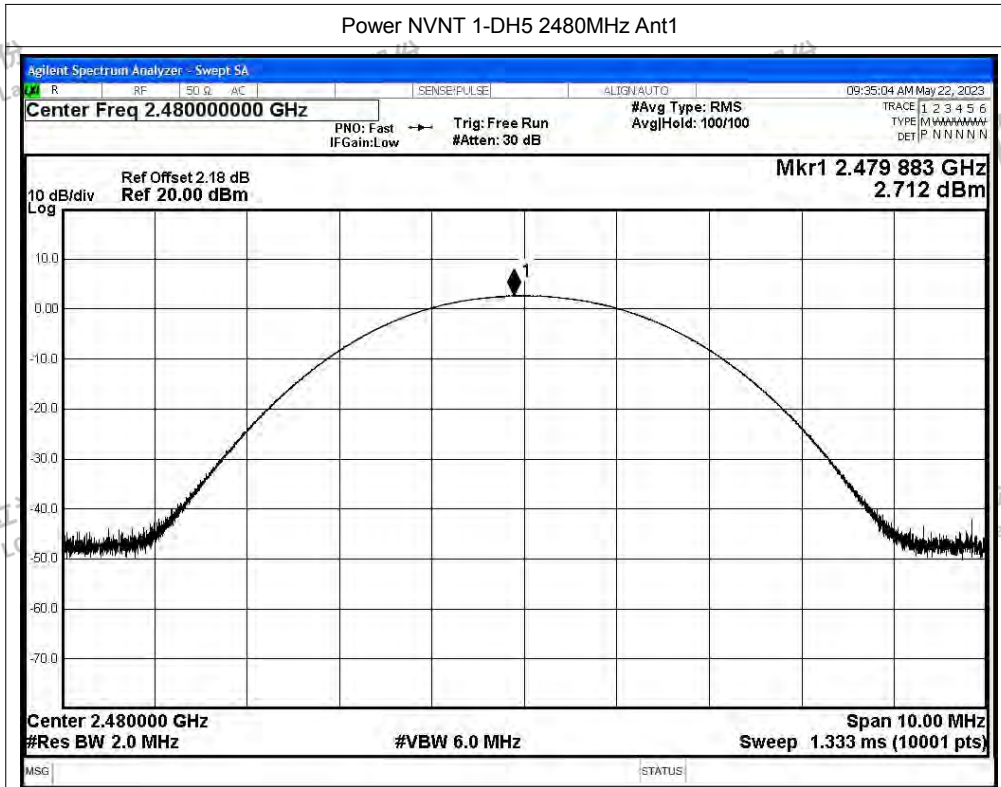
Test Graphs

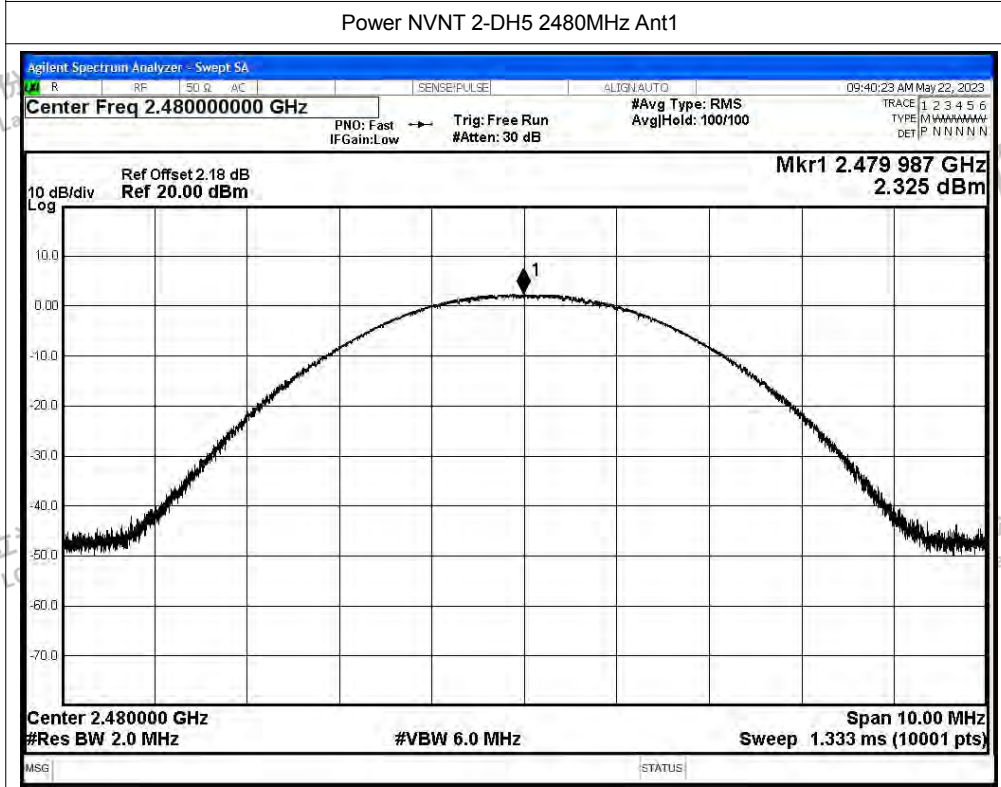
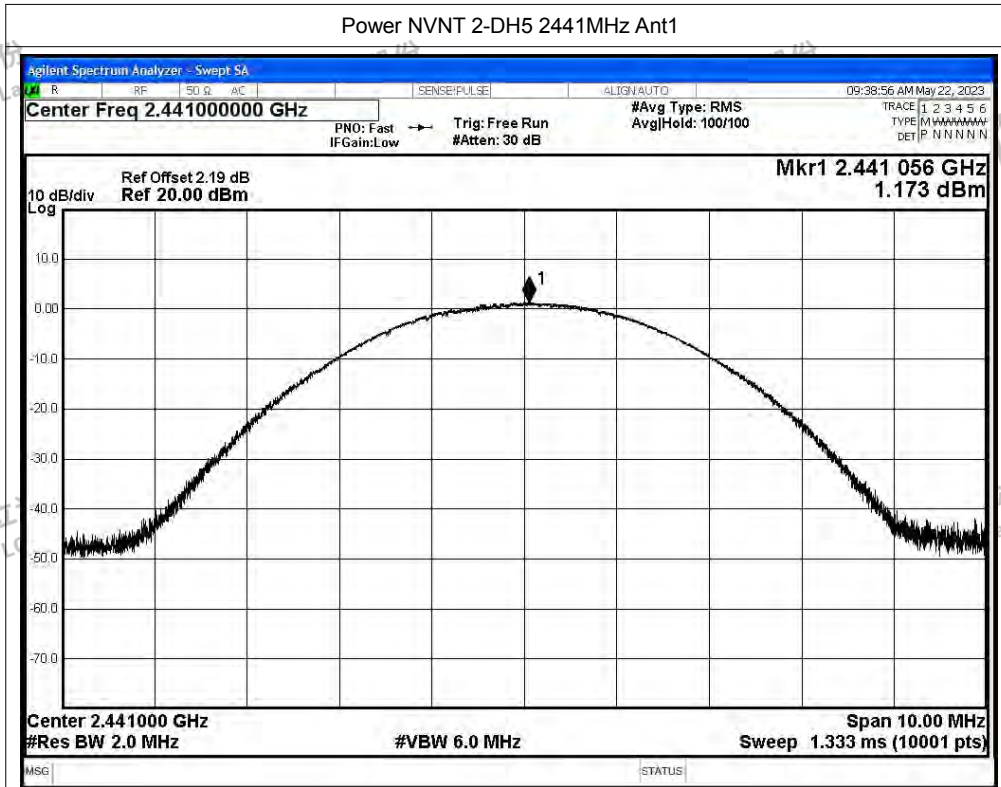
Power NVNT 1-DH5 2402MHz Ant1

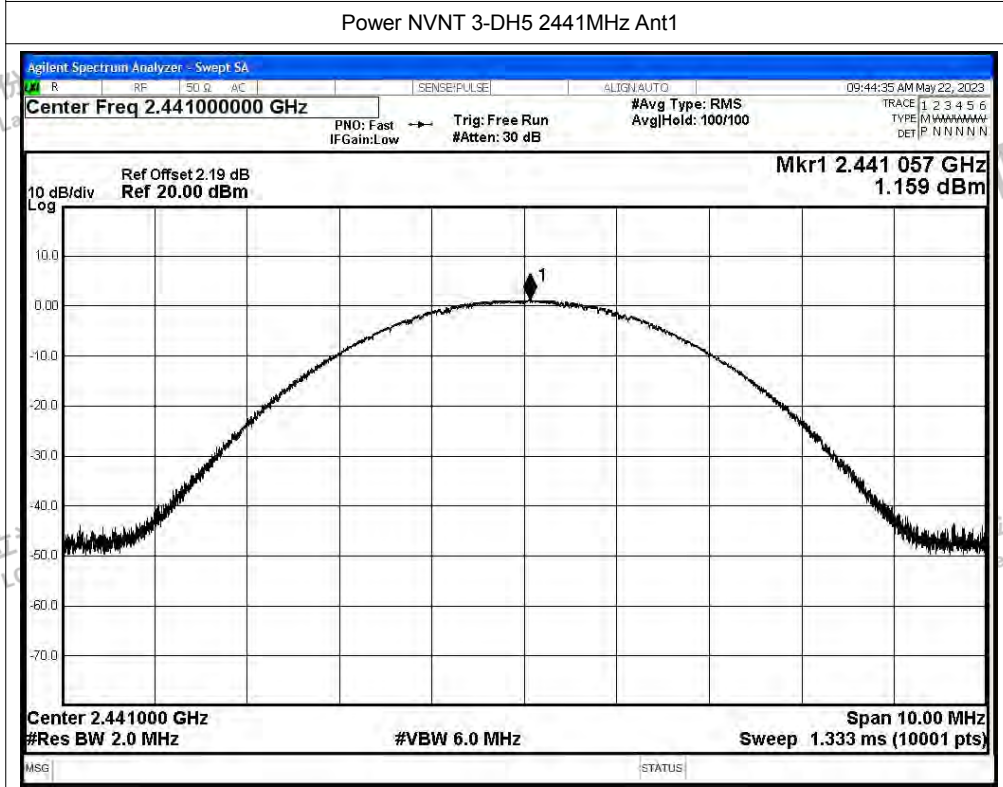
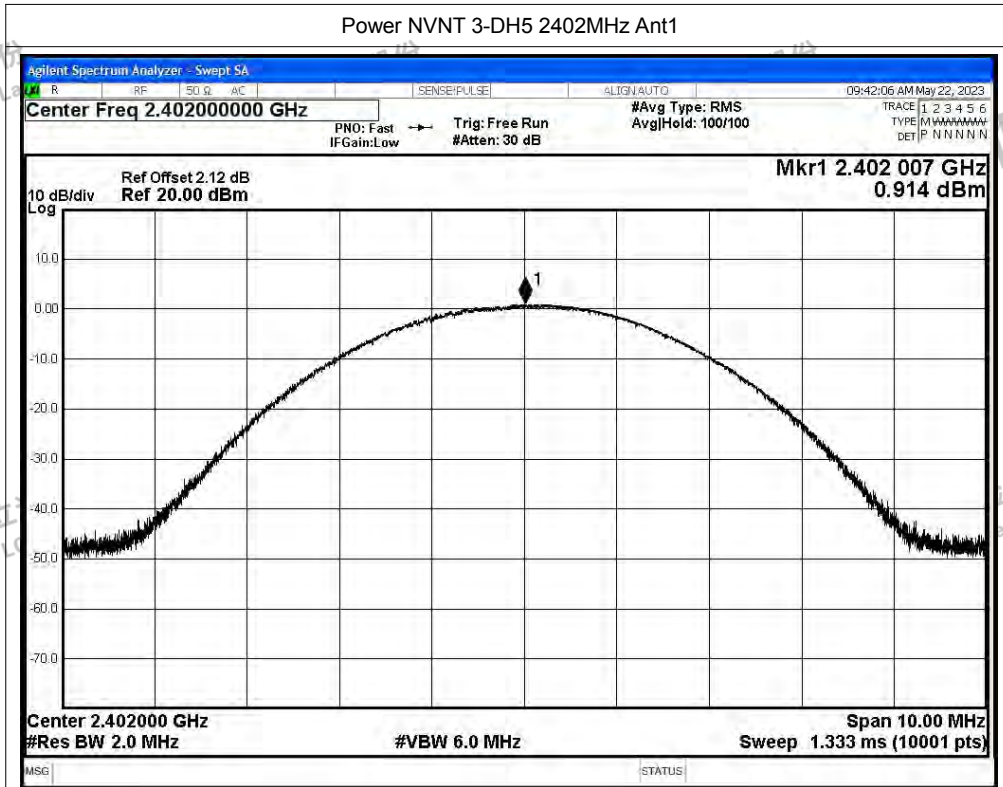


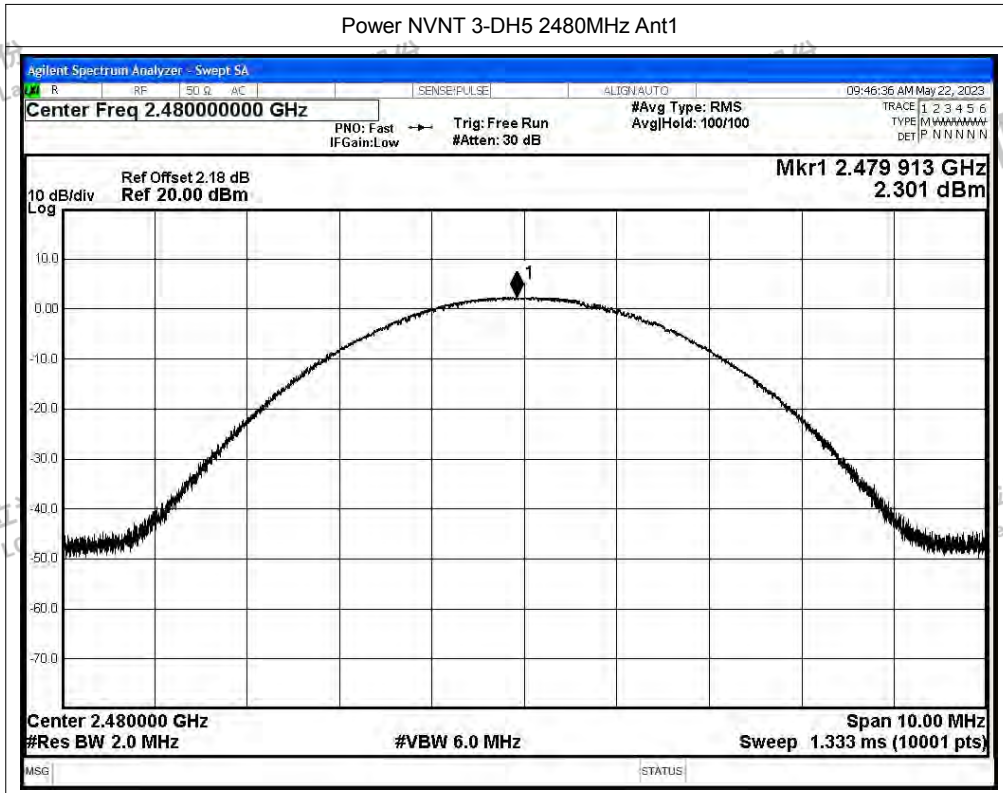
Power NVNT 1-DH5 2441MHz Ant1













A.3 Carrier Frequencies Separation

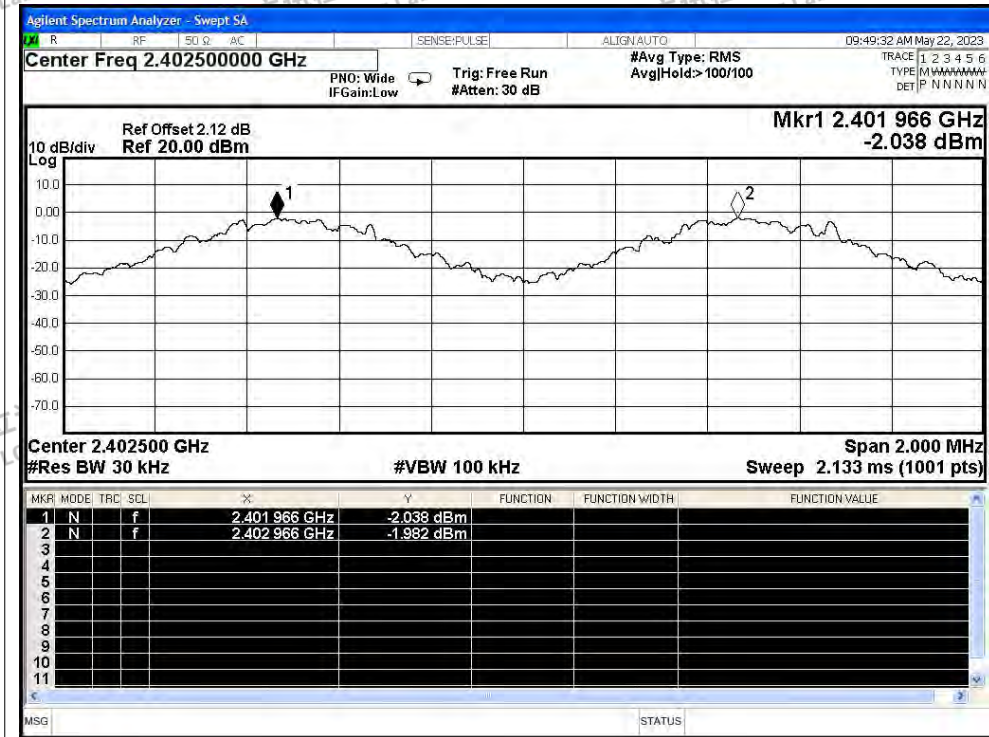
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH5	Ant1	2401.966	2402.966	1	0.613	Pass
NVNT	2-DH5	Ant1	2402.158	2403.16	1.002	0.875	Pass
NVNT	3-DH5	Ant1	2402.16	2403.158	0.998	0.867	Pass



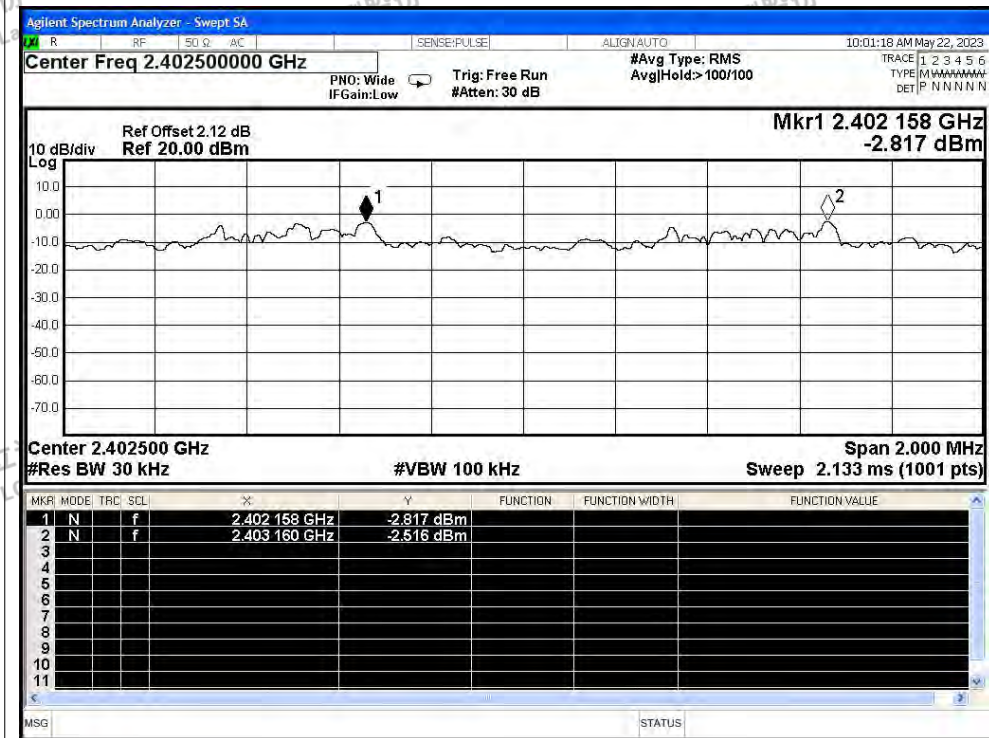


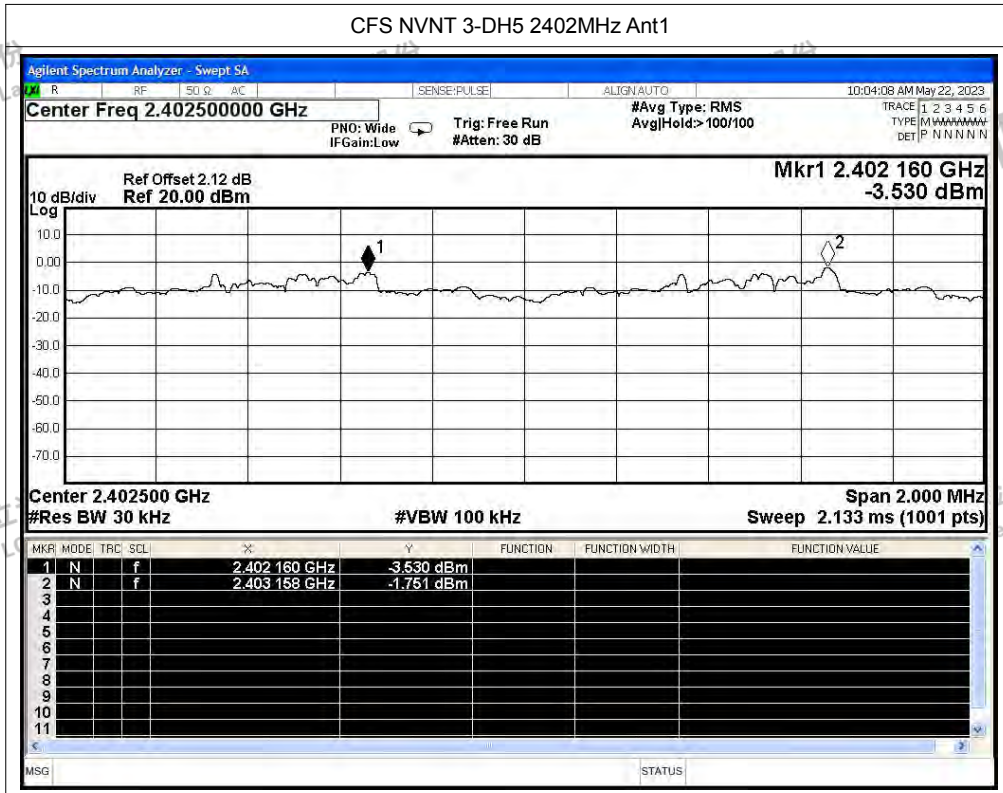
Test Graphs

CFS NVNT 1-DH5 2402MHz Ant1



CFS NVNT 2-DH5 2402MHz Ant1







A.4 Dwell Time

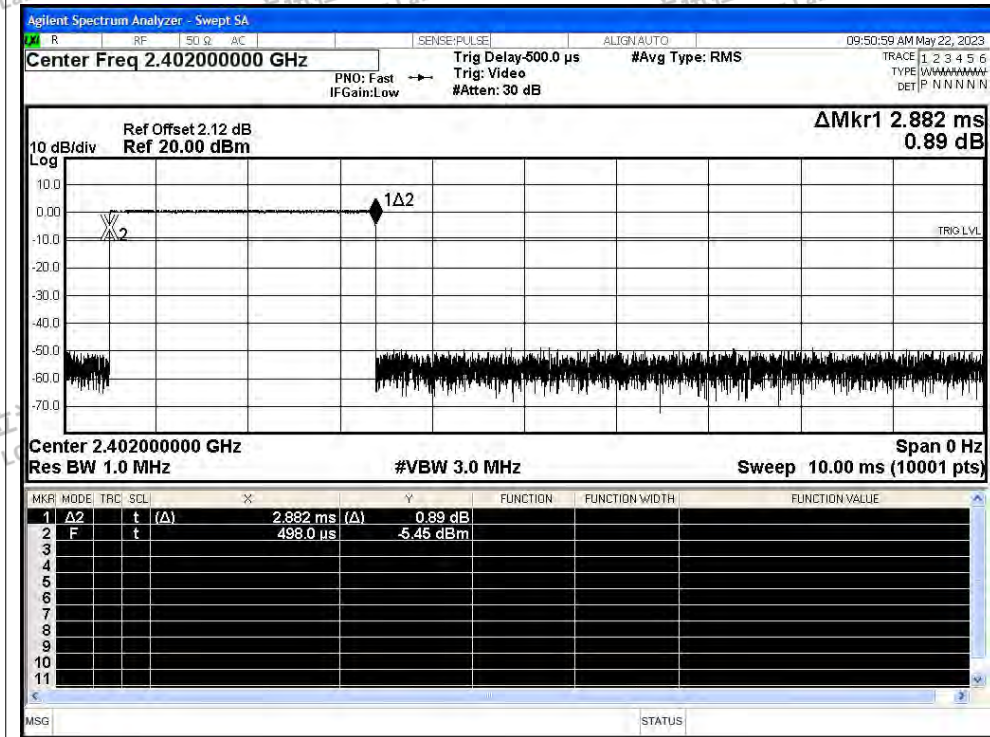
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH5	2402	Ant1	2.882	314.138	109	31600	400	Pass
NVNT	2-DH5	2402	Ant1	2.882	302.61	105	31600	400	Pass
NVNT	3-DH5	2402	Ant1	2.887	294.474	102	31600	400	Pass



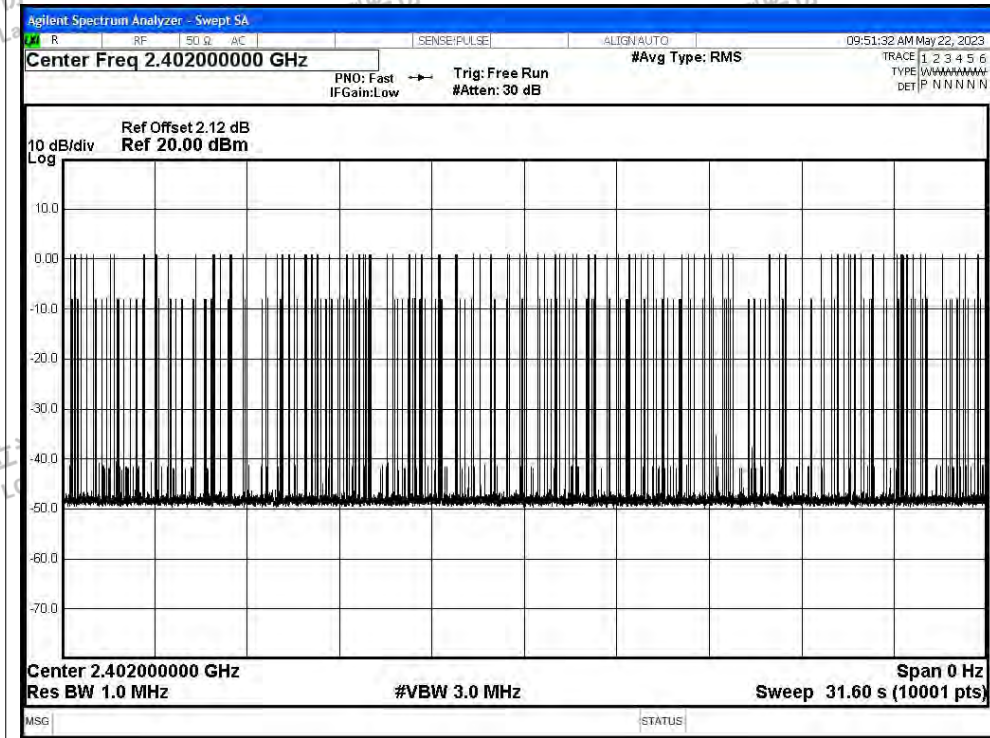


Test Graphs

Dwell NVNT 1-DH5 2402MHz Ant1 One Burst

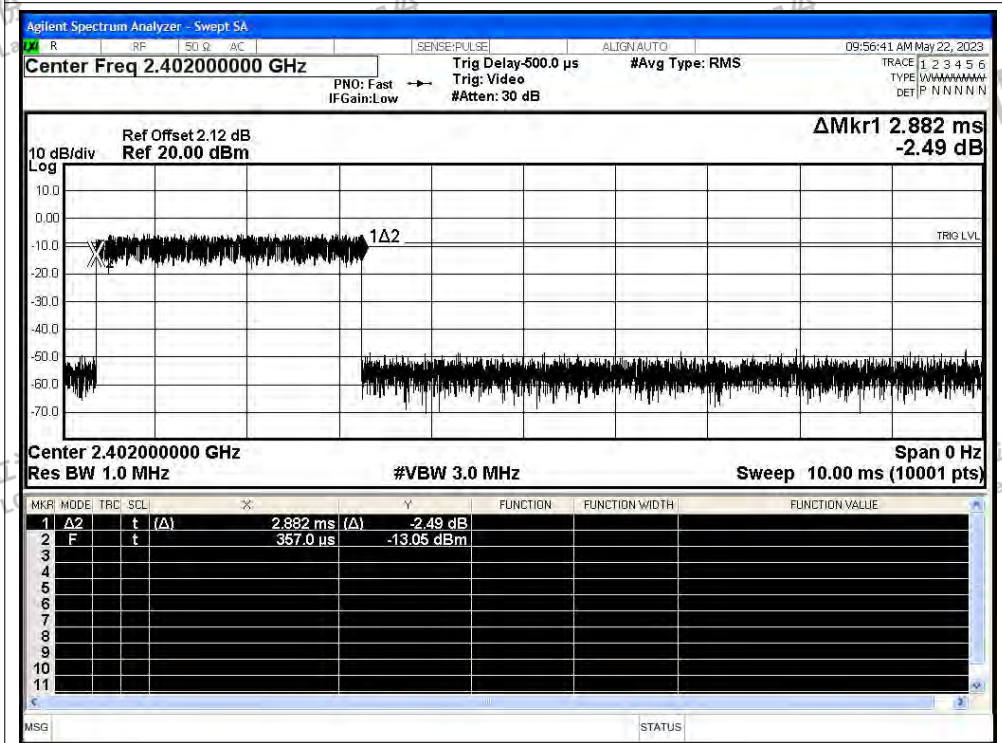


Dwell NVNT 1-DH5 2402MHz Ant1 Accumulated

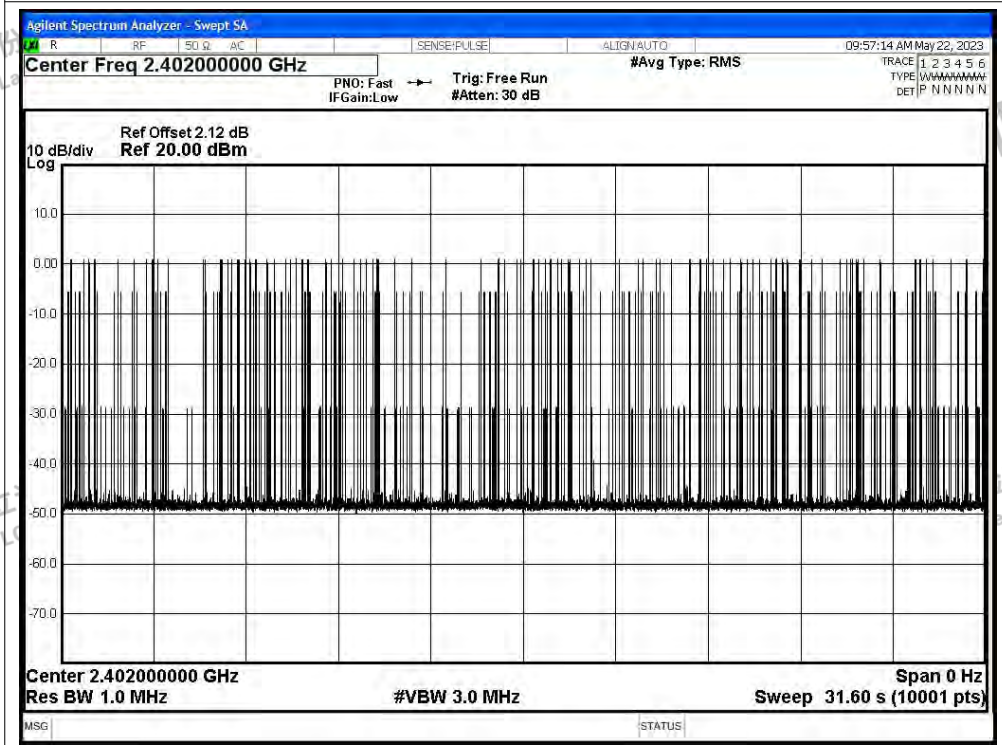




Dwell NVNT 2-DH5 2402MHz Ant1 One Burst

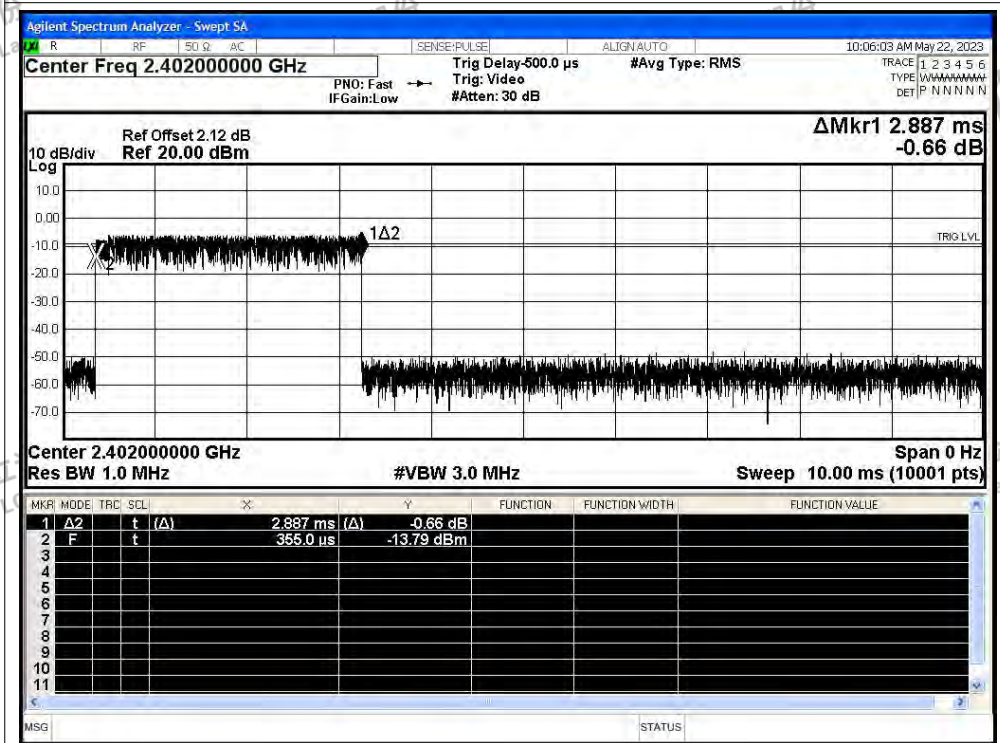


Dwell NVNT 2-DH5 2402MHz Ant1 Accumulated

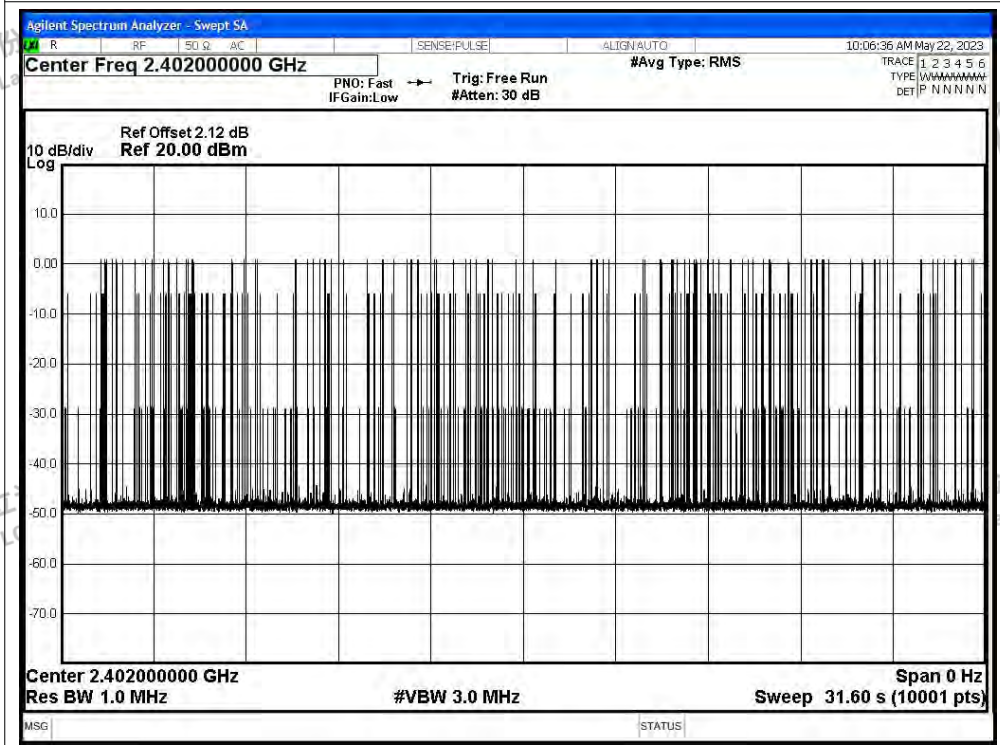




Dwell NVNT 3-DH5 2402MHz Ant1 One Burst



Dwell NVNT 3-DH5 2402MHz Ant1 Accumulated





A.5 Number of Hopping Channel

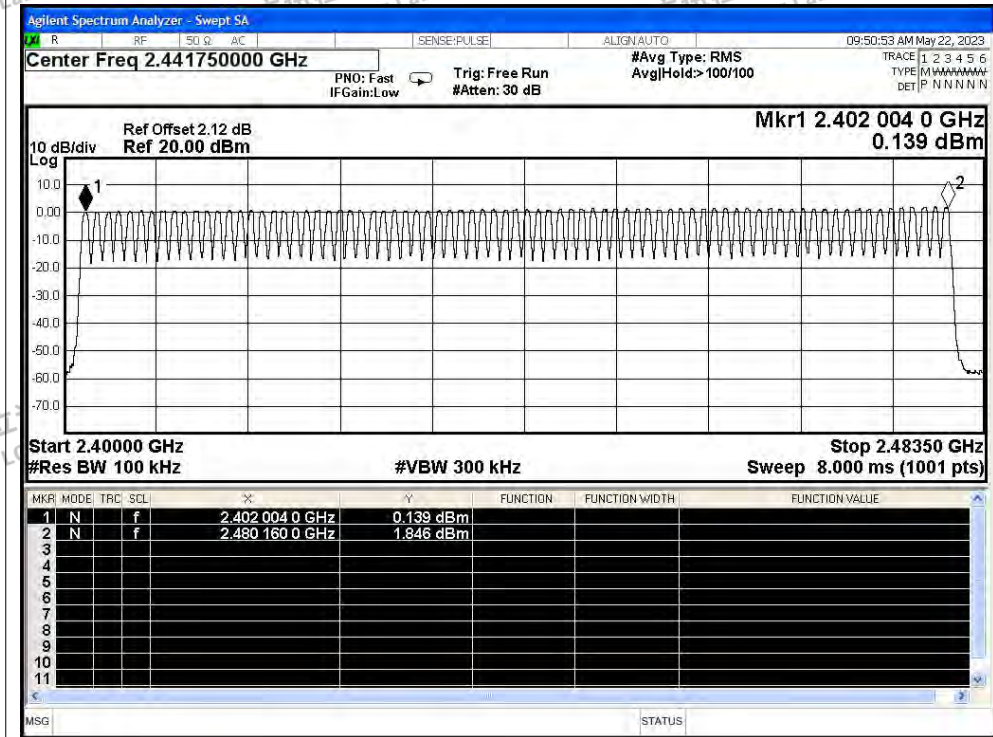
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH5	Ant1	79	15	Pass
NVNT	2-DH5	Ant1	79	15	Pass
NVNT	3-DH5	Ant1	79	15	Pass



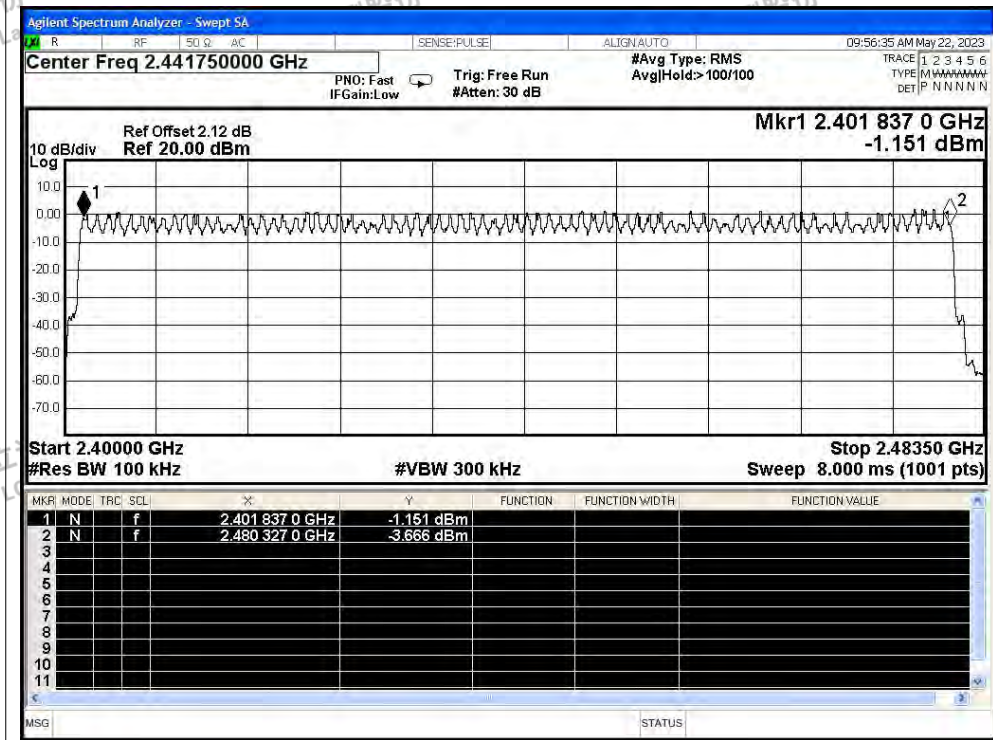


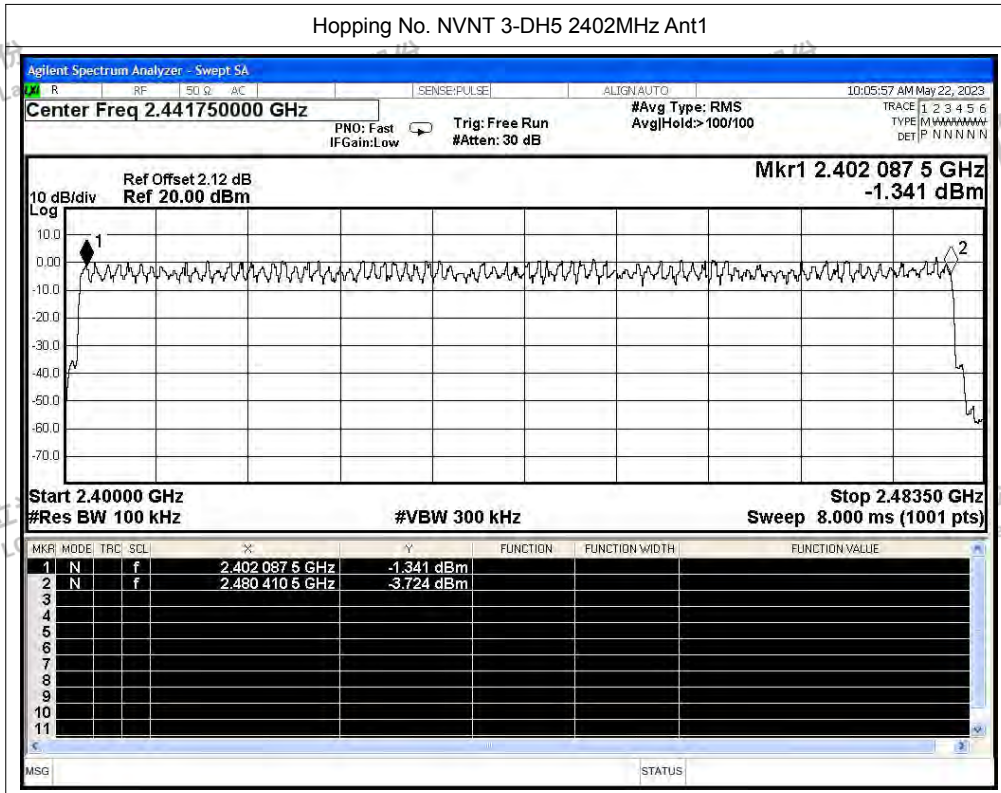
Test Graphs

Hopping No. NVNT 1-DH5 2402MHz Ant1



Hopping No. NVNT 2-DH5 2402MHz Ant1







A.6 Band Edge

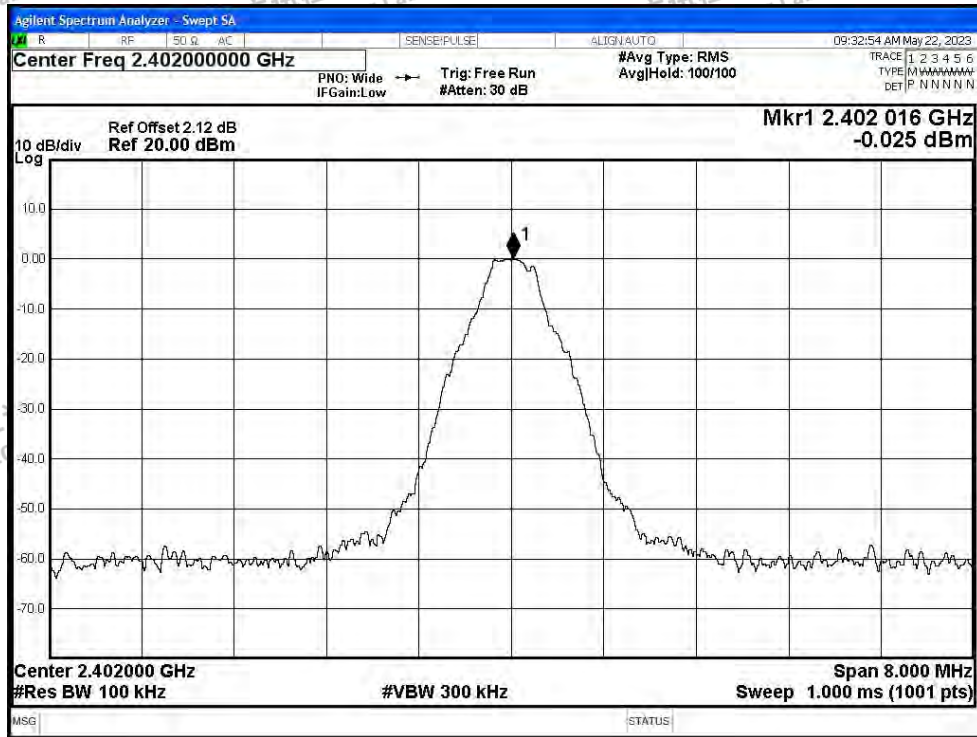
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	-56.43	-20	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	-58.89	-20	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	-52.02	-20	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	-54.82	-20	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	-53.23	-20	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	-58.82	-20	Pass



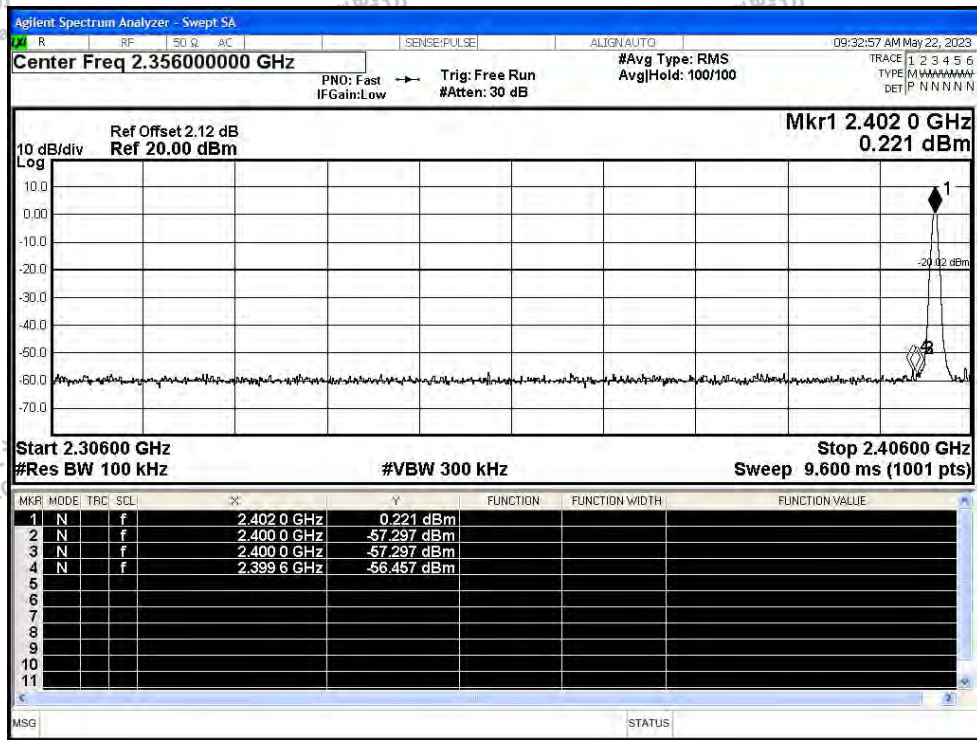


Test Graphs

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

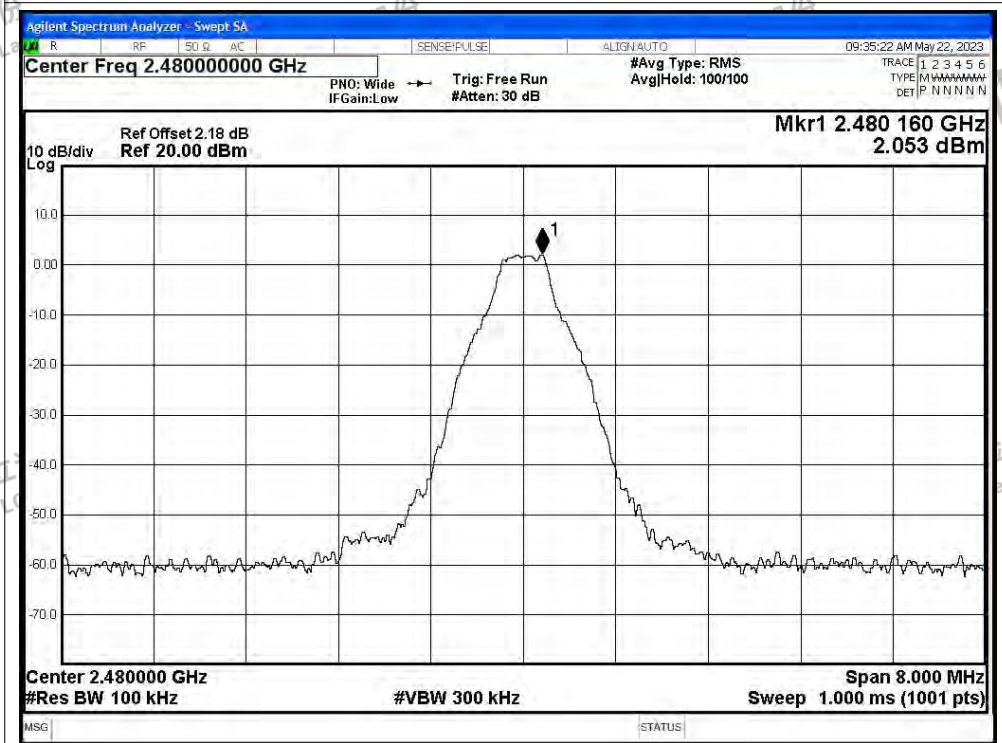


Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Emission

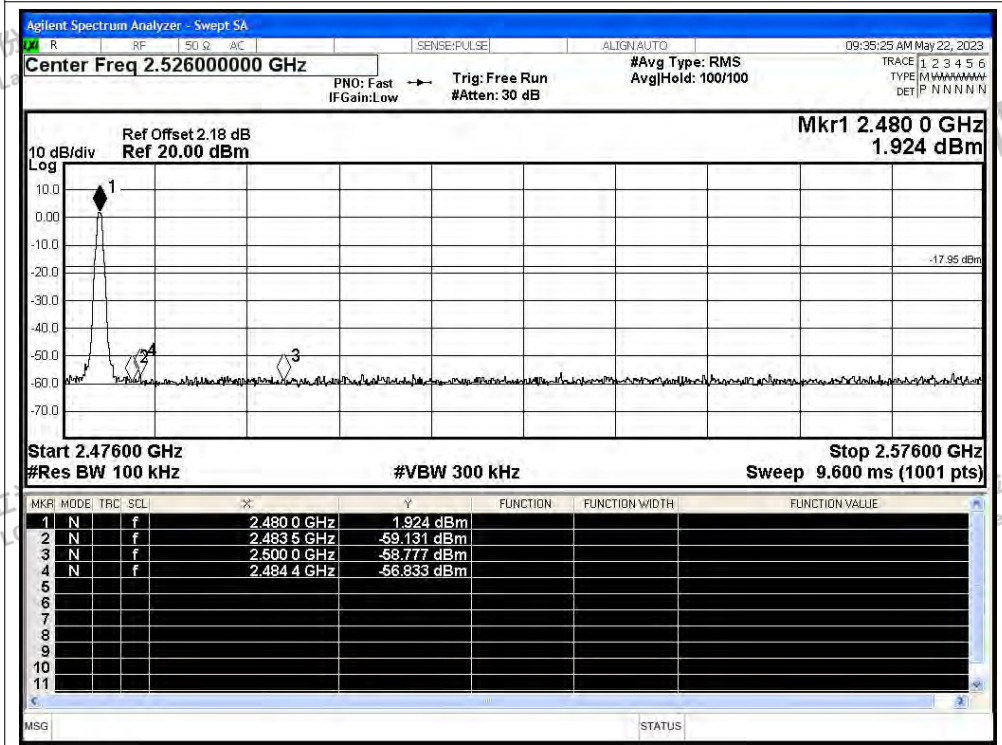


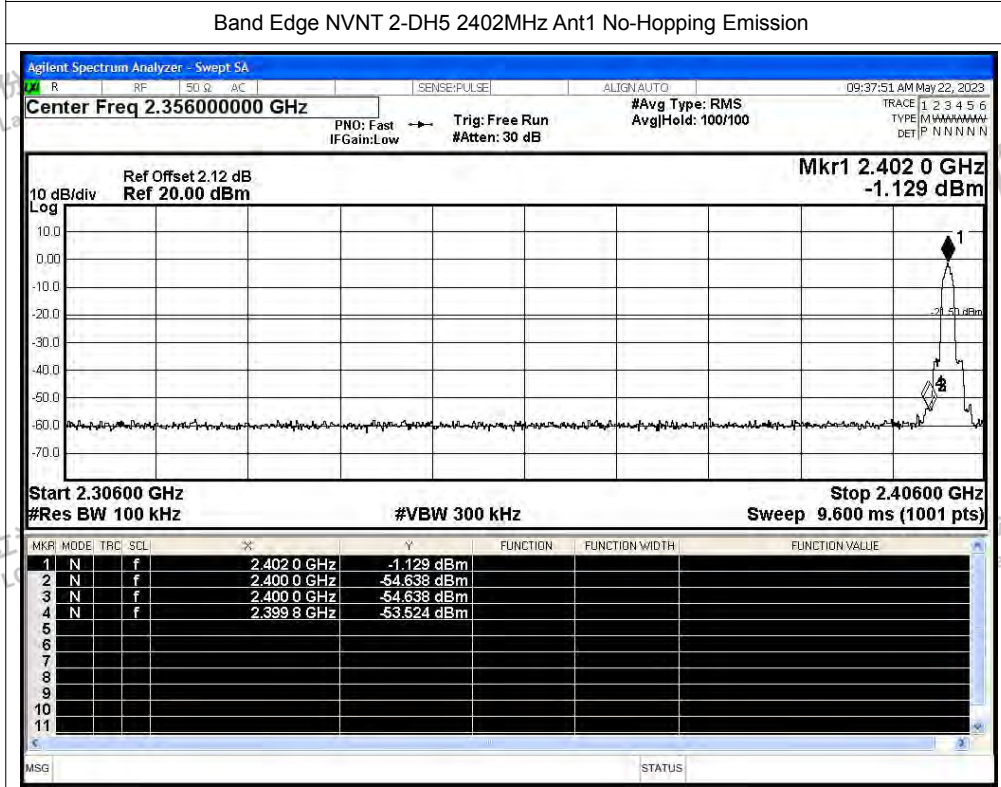
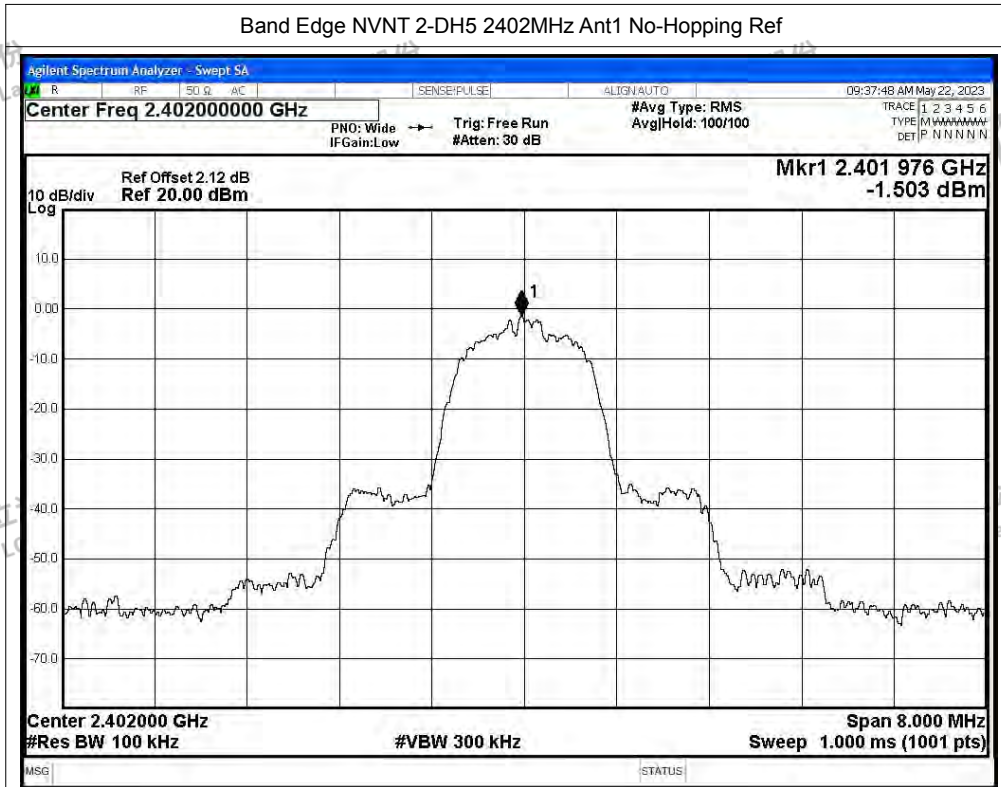


Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref



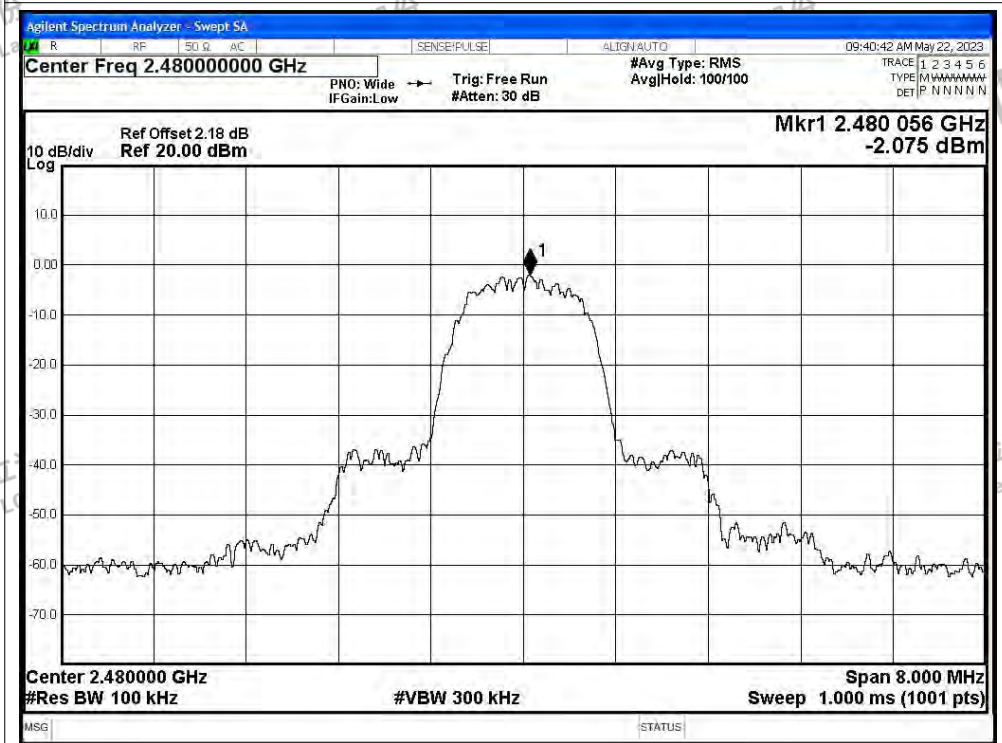
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Emission



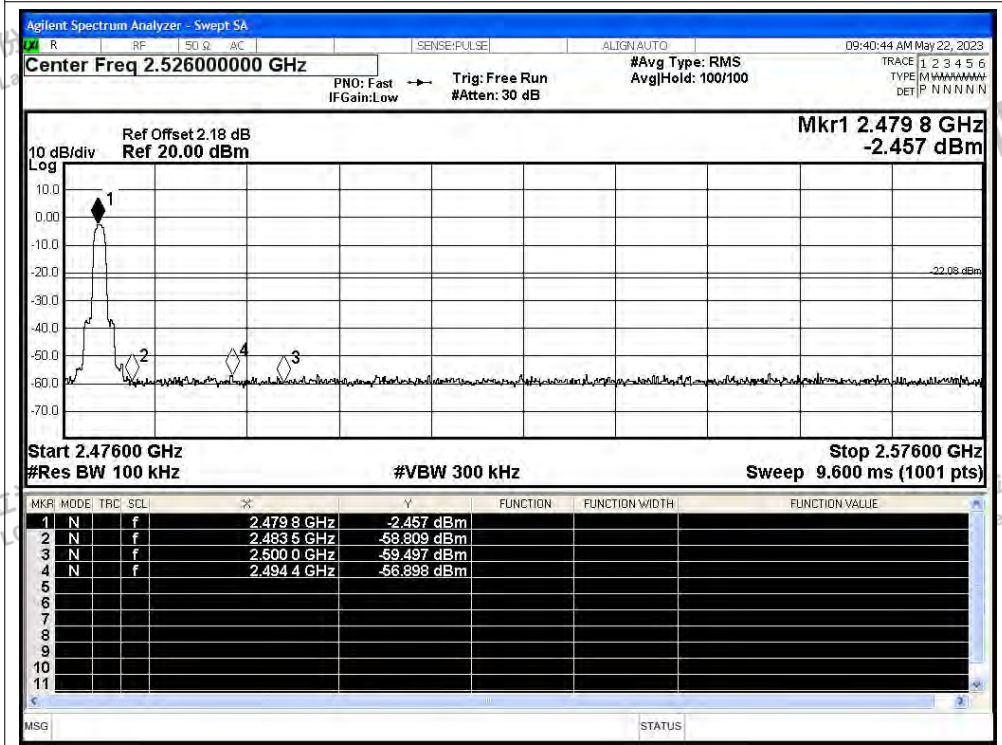




Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Ref

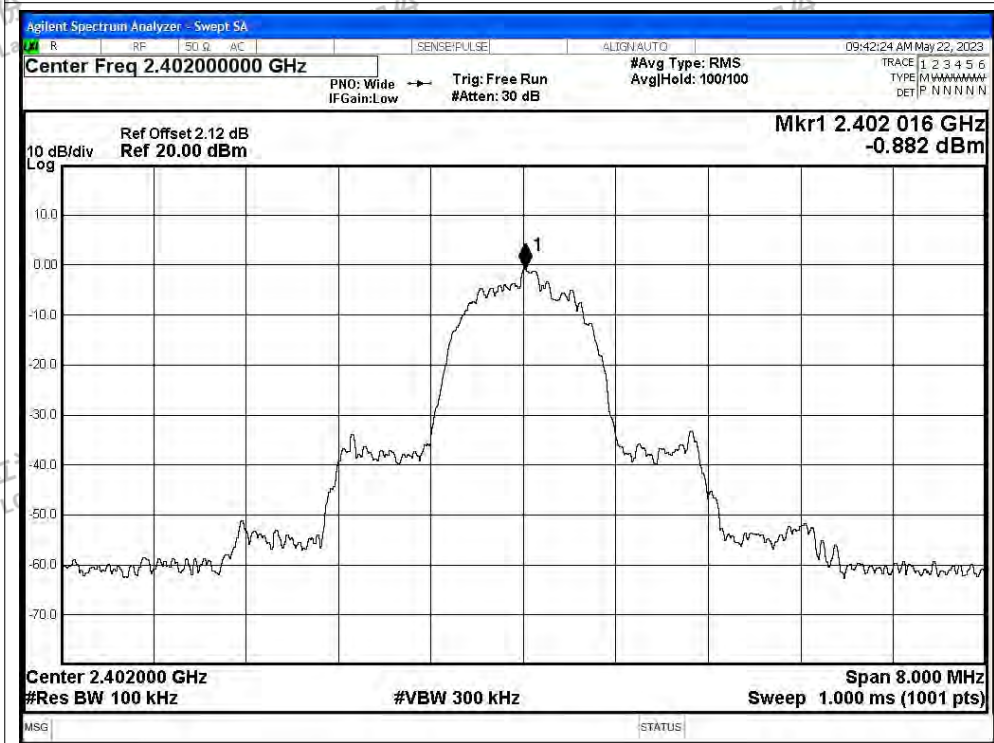


Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Emission

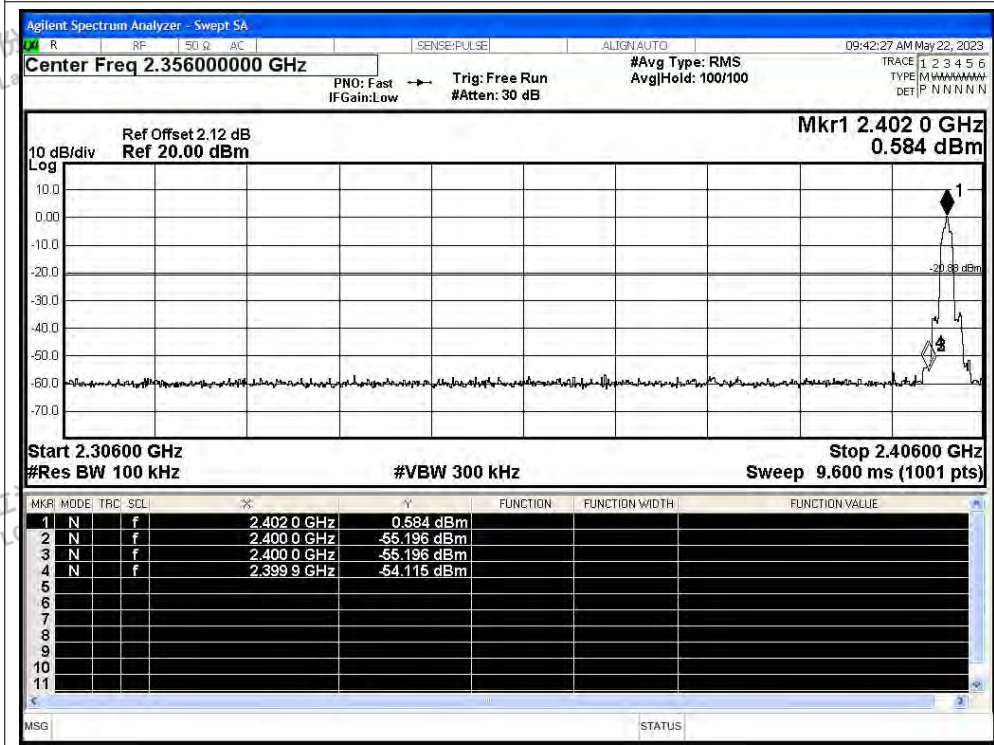




Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Ref

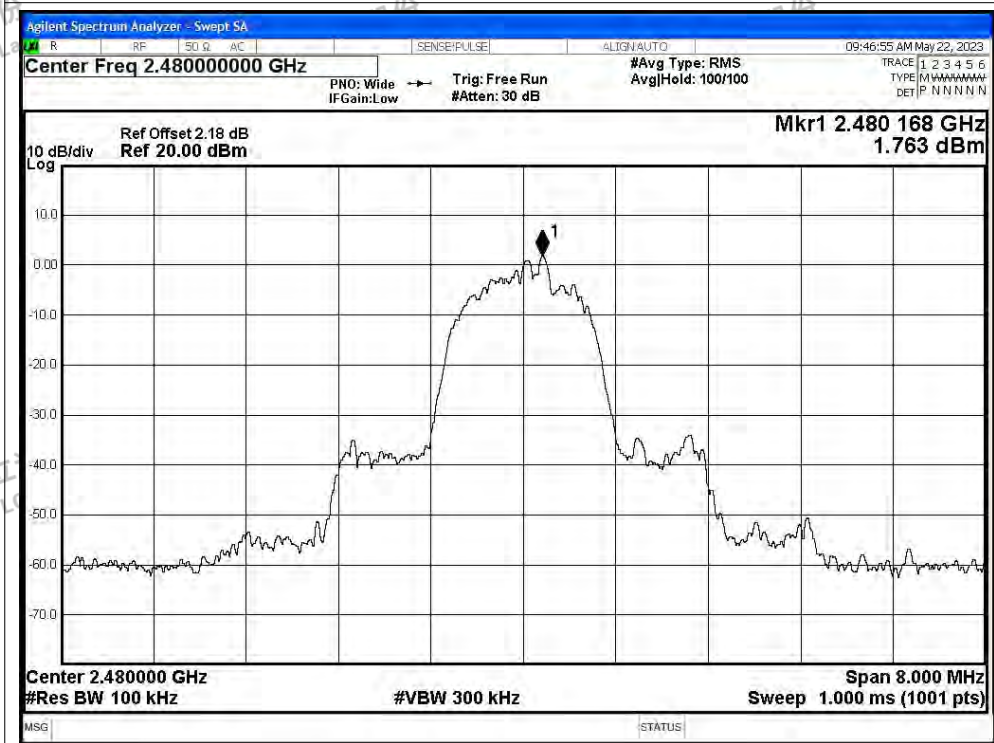


Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Emission

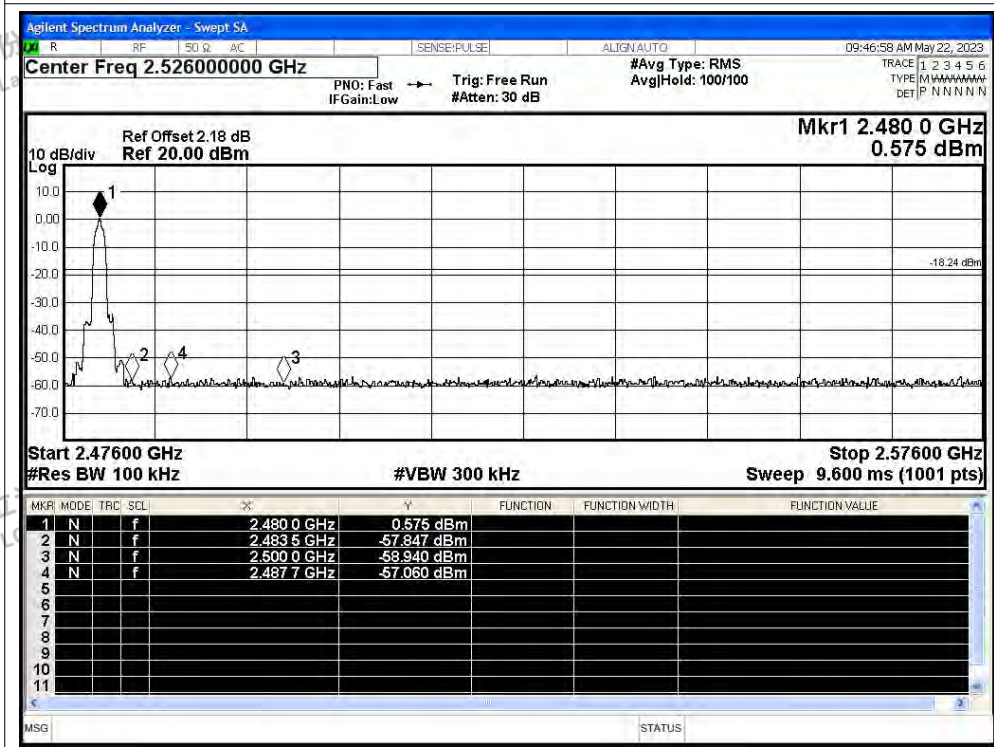




Band Edge NVNT 3-DH5 2480MHz Ant1 No-Hopping Ref



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





(Hopping)

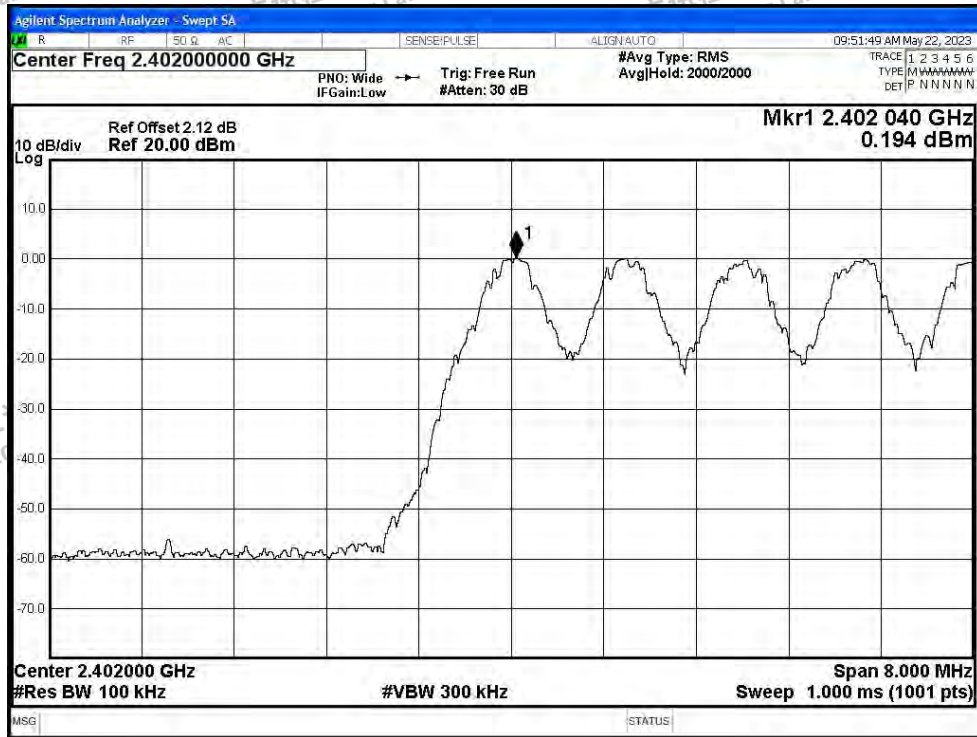
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	Hopping	-56.36	-20	Pass
NVNT	1-DH5	2480	Ant1	Hopping	-56.91	-20	Pass
NVNT	2-DH5	2402	Ant1	Hopping	-55.29	-20	Pass
NVNT	2-DH5	2480	Ant1	Hopping	-57.3	-20	Pass
NVNT	3-DH5	2402	Ant1	Hopping	-55.59	-20	Pass
NVNT	3-DH5	2480	Ant1	Hopping	-56.2	-20	Pass



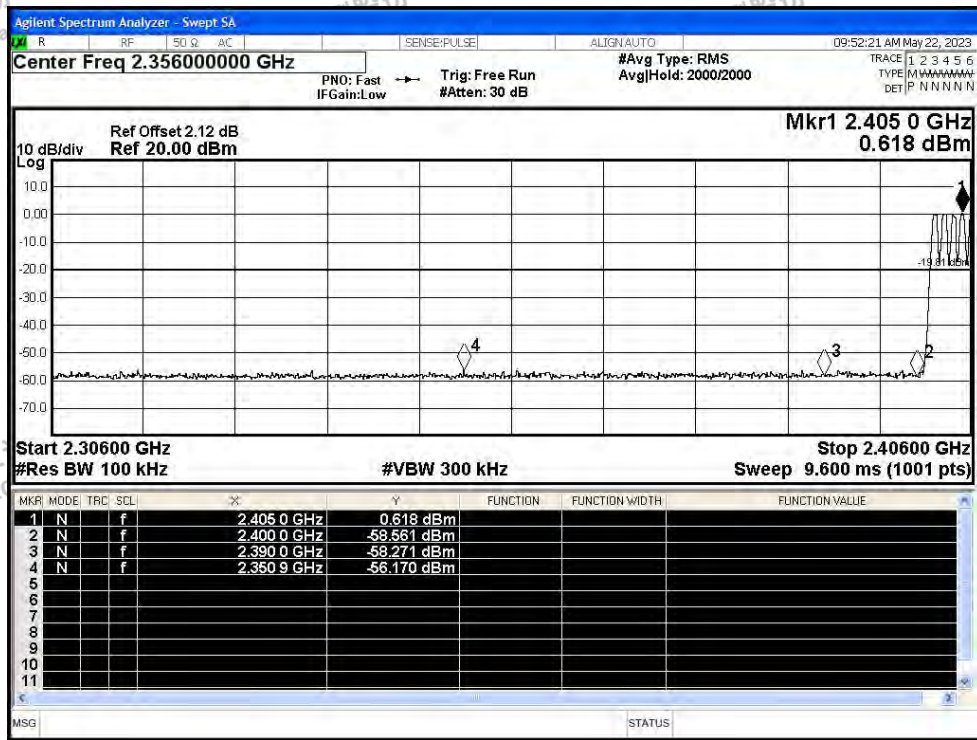


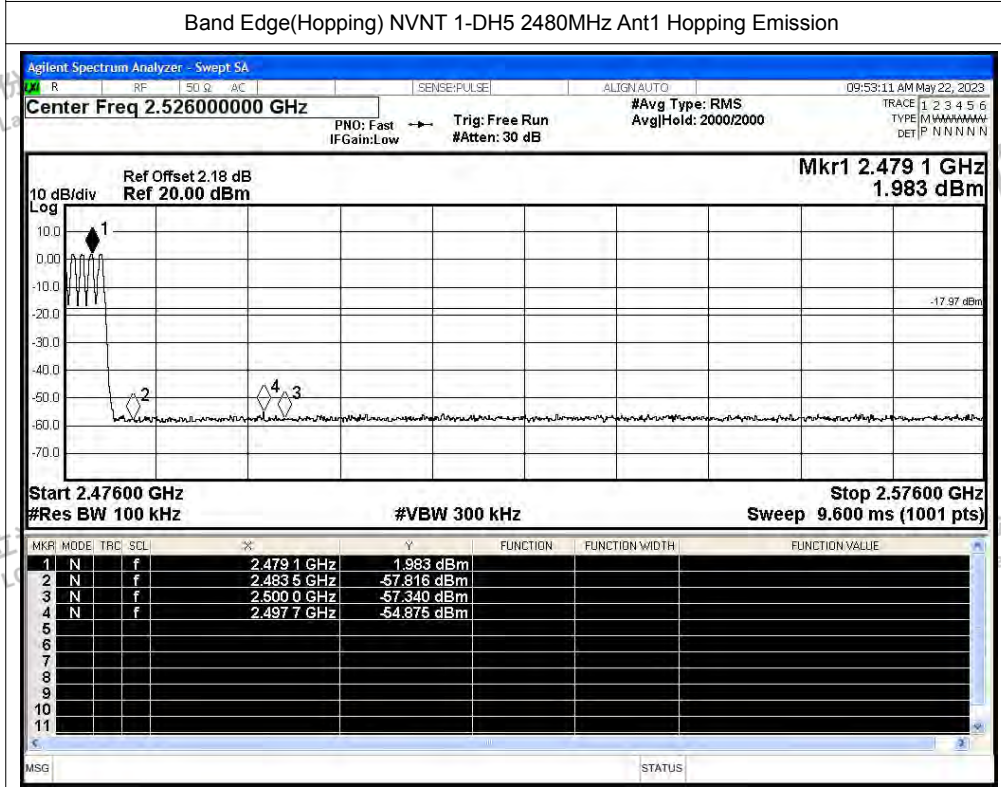
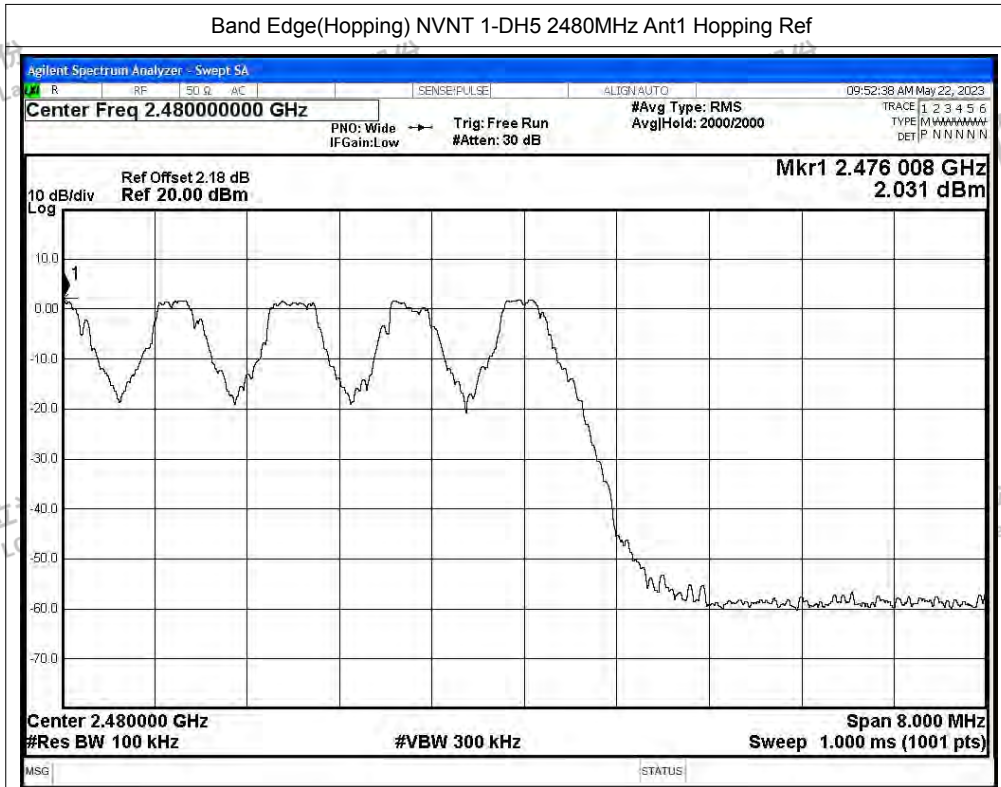
Test Graphs

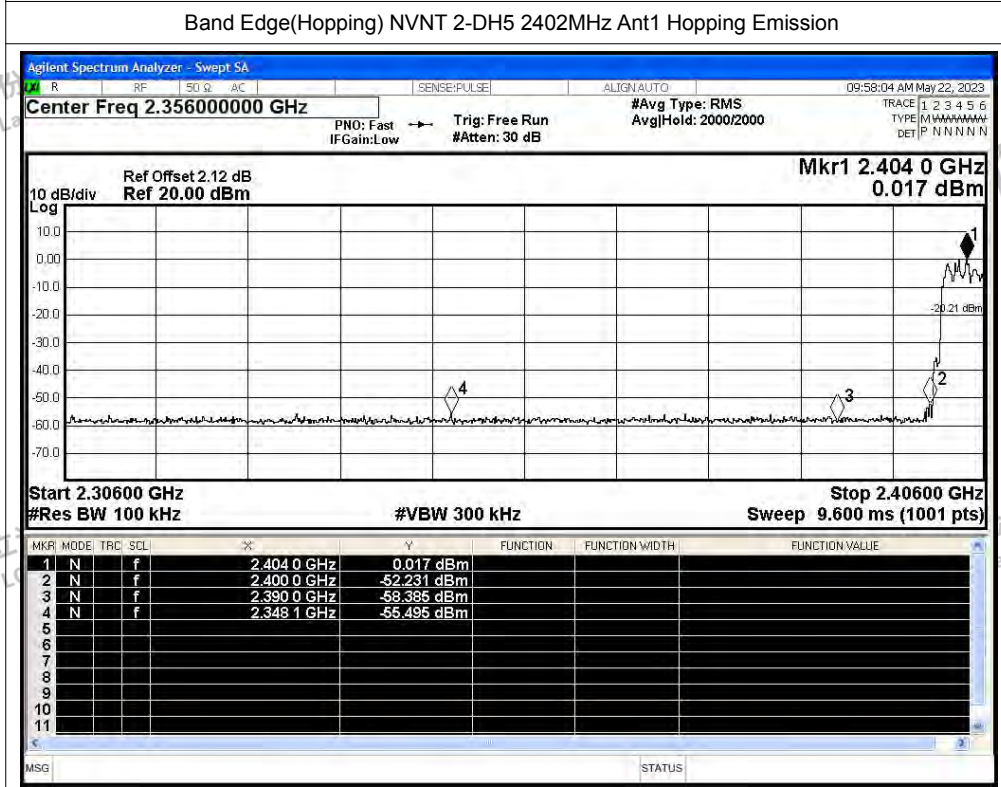
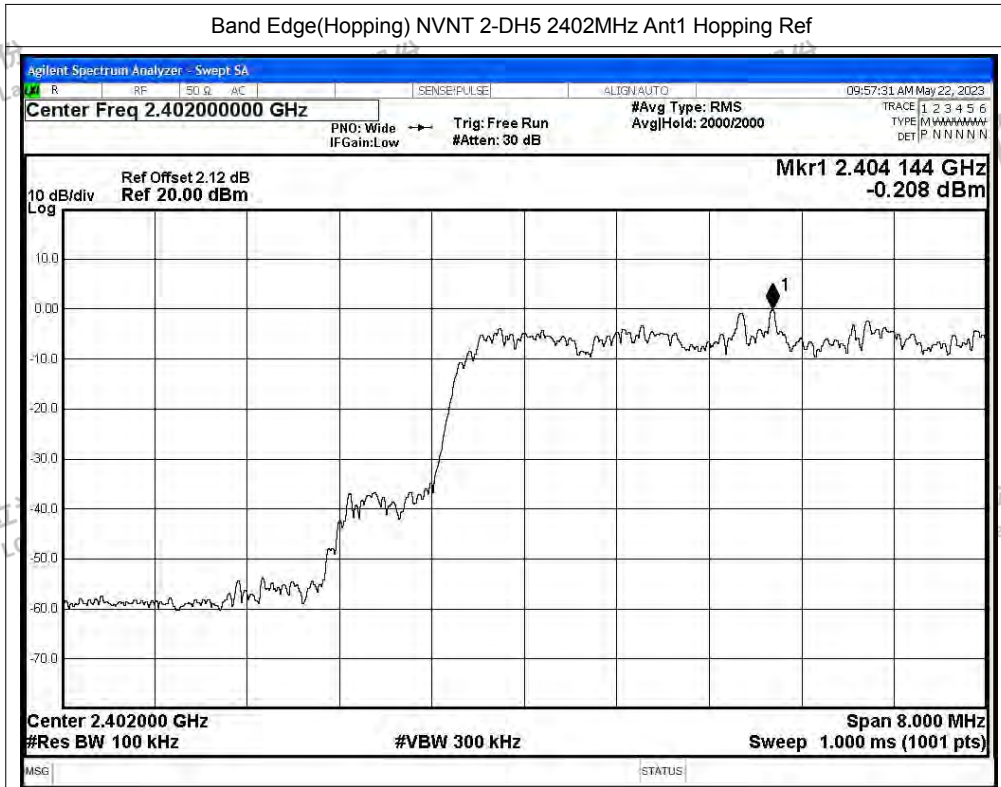
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Ref

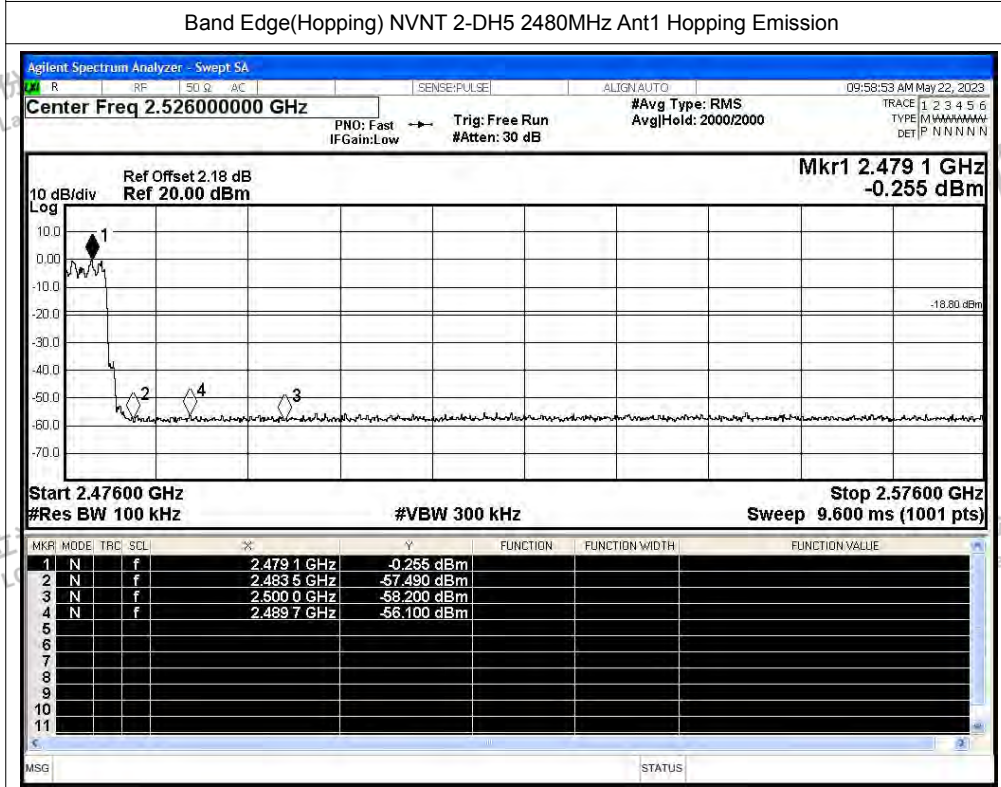
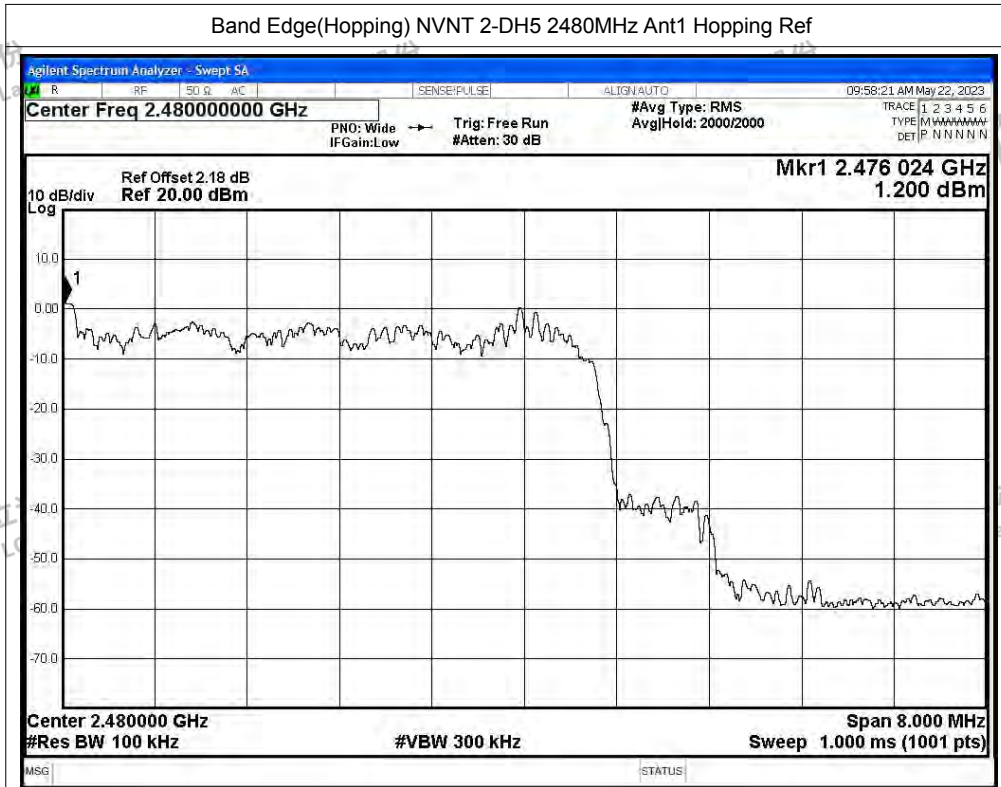


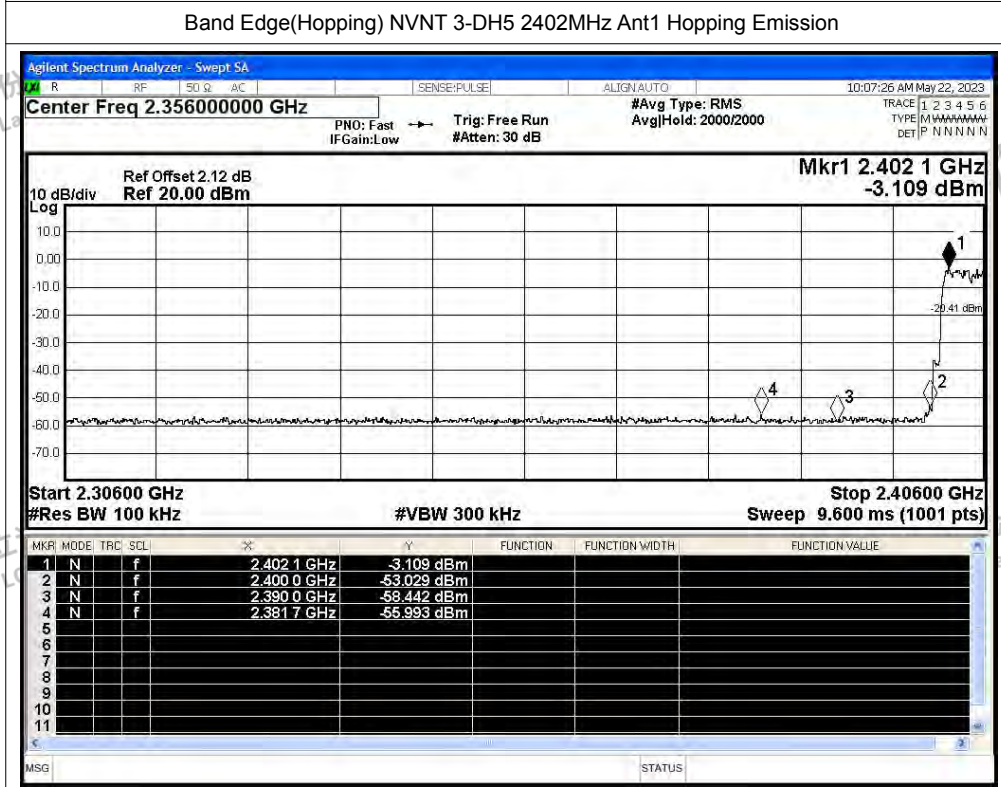
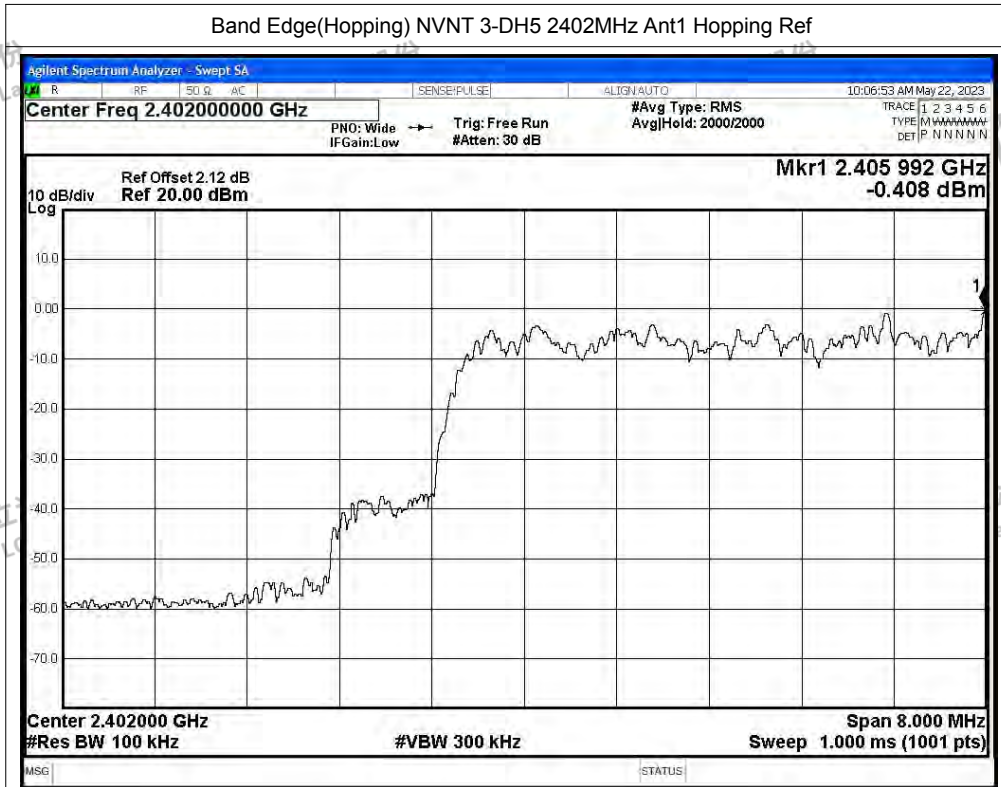
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission

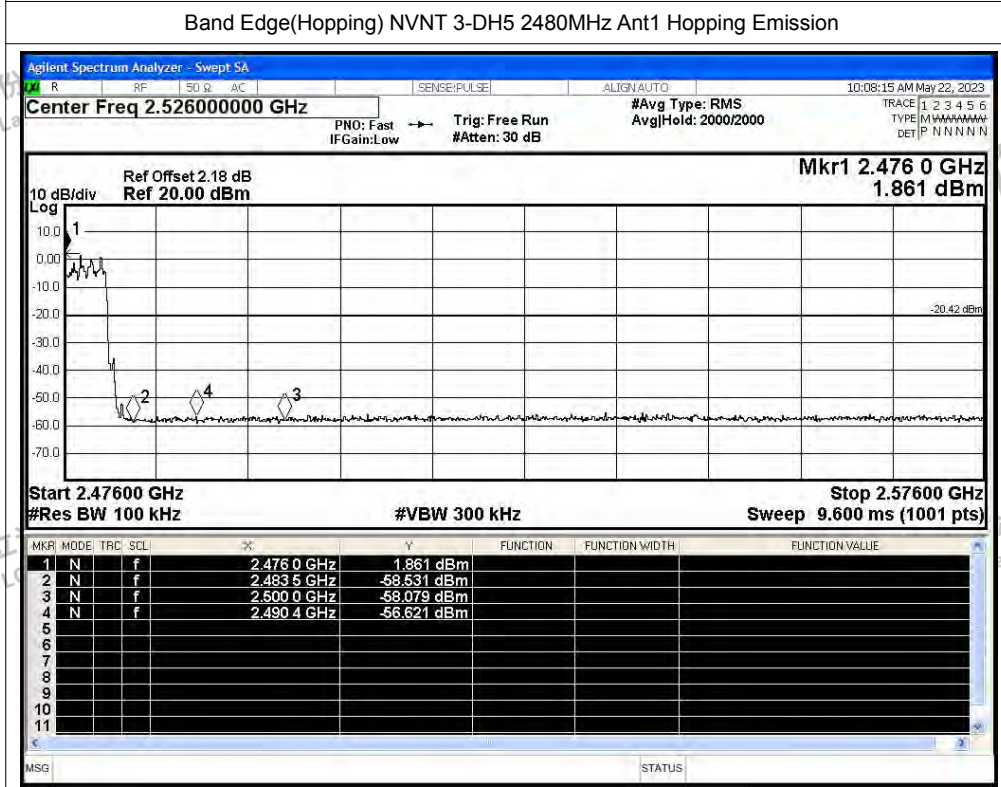
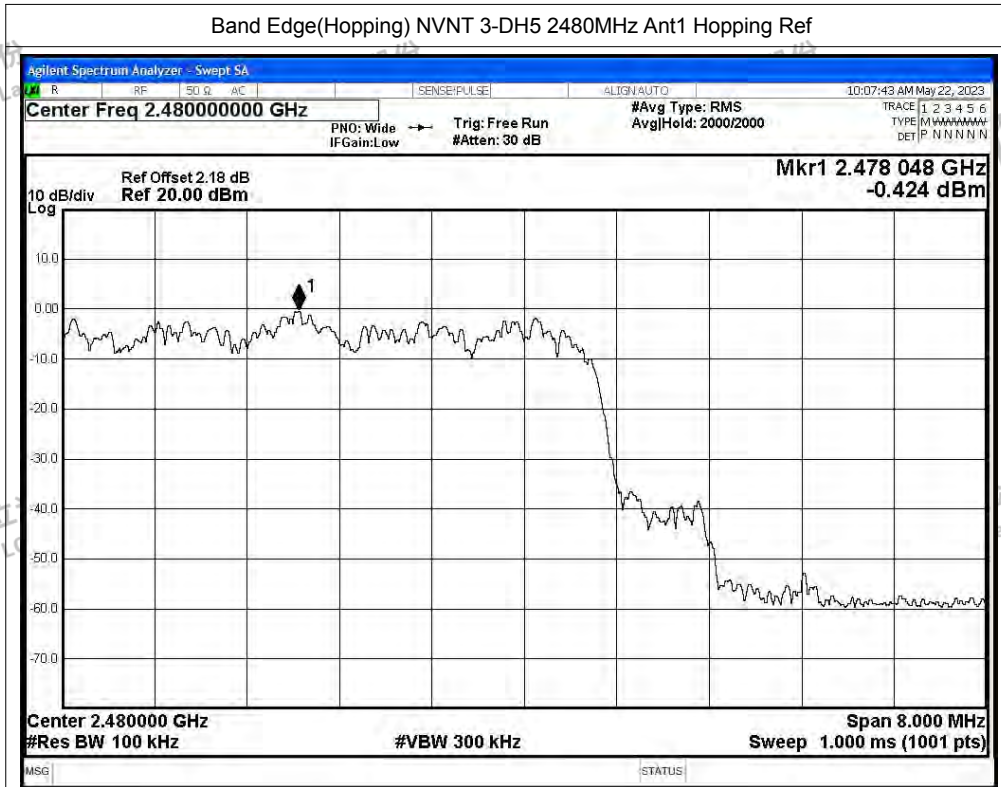














A.7 Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	-55.66	-20	Pass
NVNT	1-DH5	2441	Ant1	-56.99	-20	Pass
NVNT	1-DH5	2480	Ant1	-57.32	-20	Pass
NVNT	2-DH5	2402	Ant1	-54.82	-20	Pass
NVNT	2-DH5	2441	Ant1	-54.22	-20	Pass
NVNT	2-DH5	2480	Ant1	-56.18	-20	Pass
NVNT	3-DH5	2402	Ant1	-55.66	-20	Pass
NVNT	3-DH5	2441	Ant1	-55	-20	Pass
NVNT	3-DH5	2480	Ant1	-57.25	-20	Pass



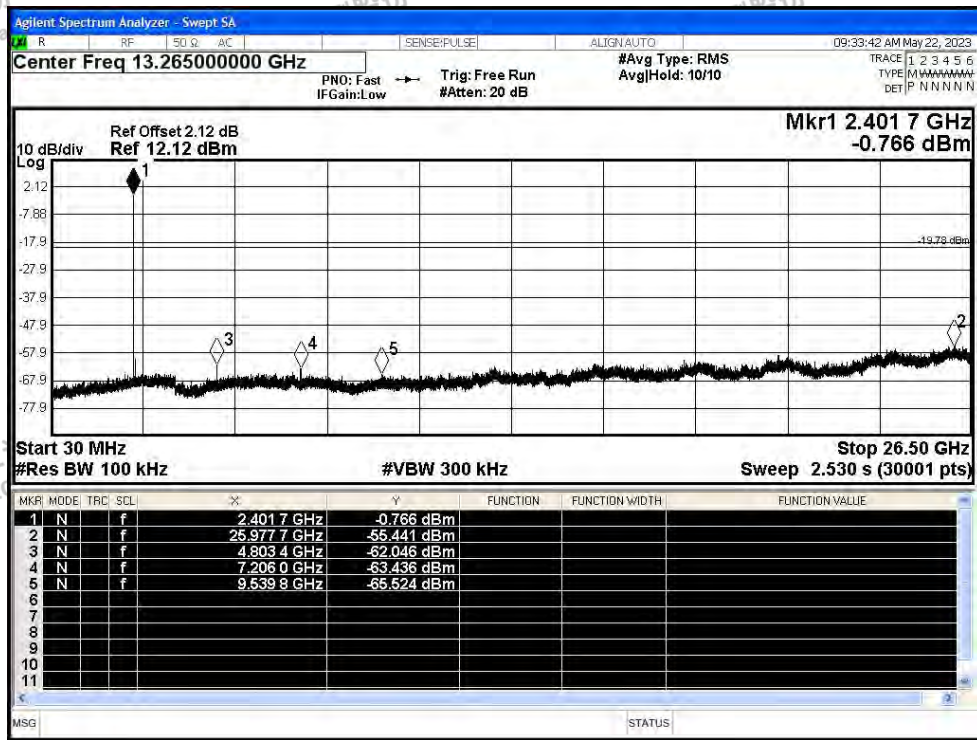


Test Graphs

Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref

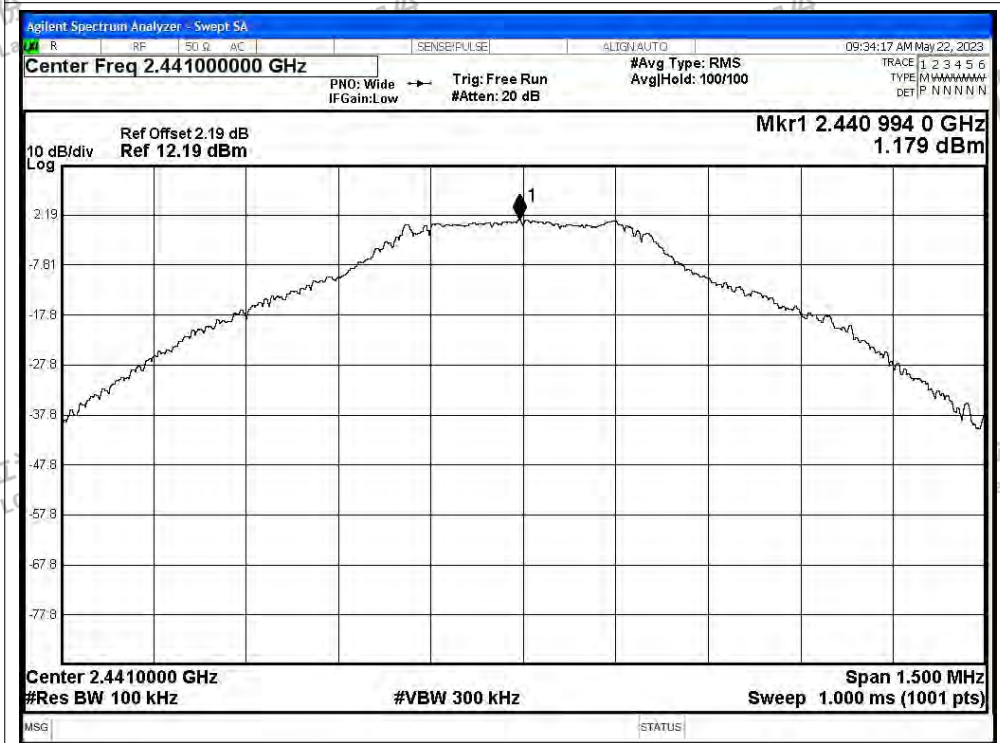


Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission

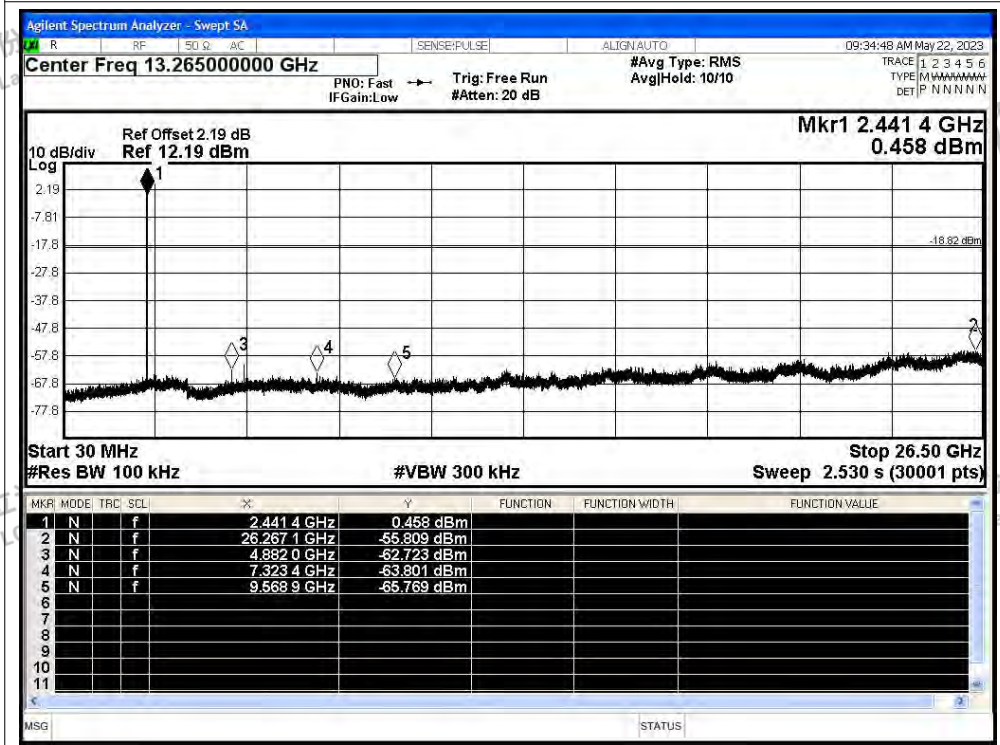




Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref



Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission

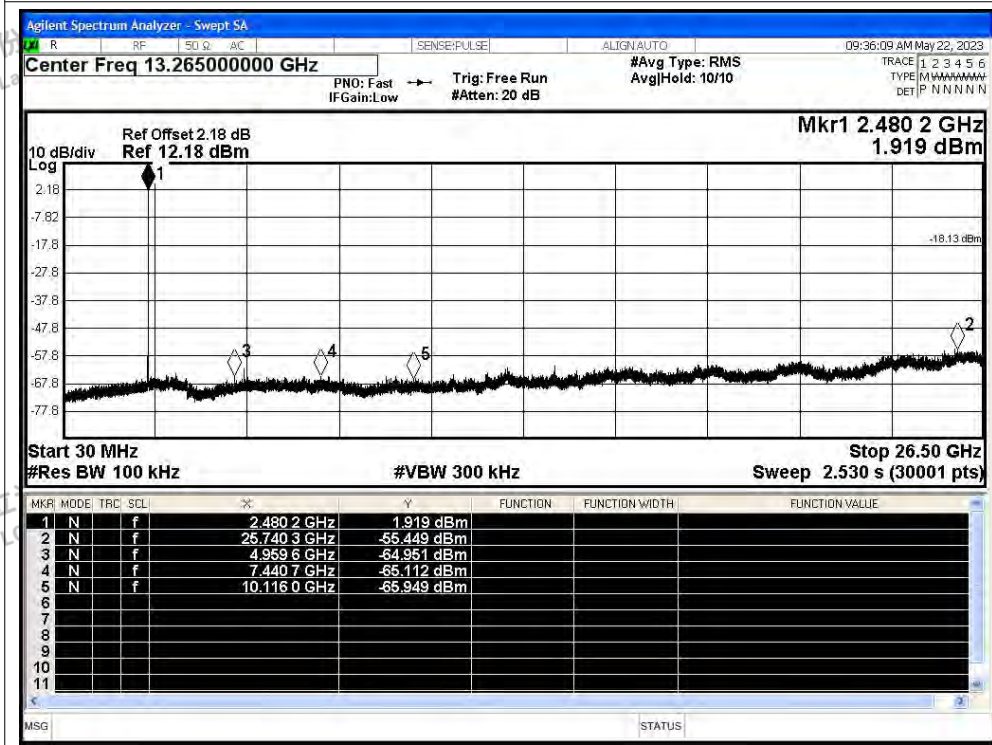




Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref

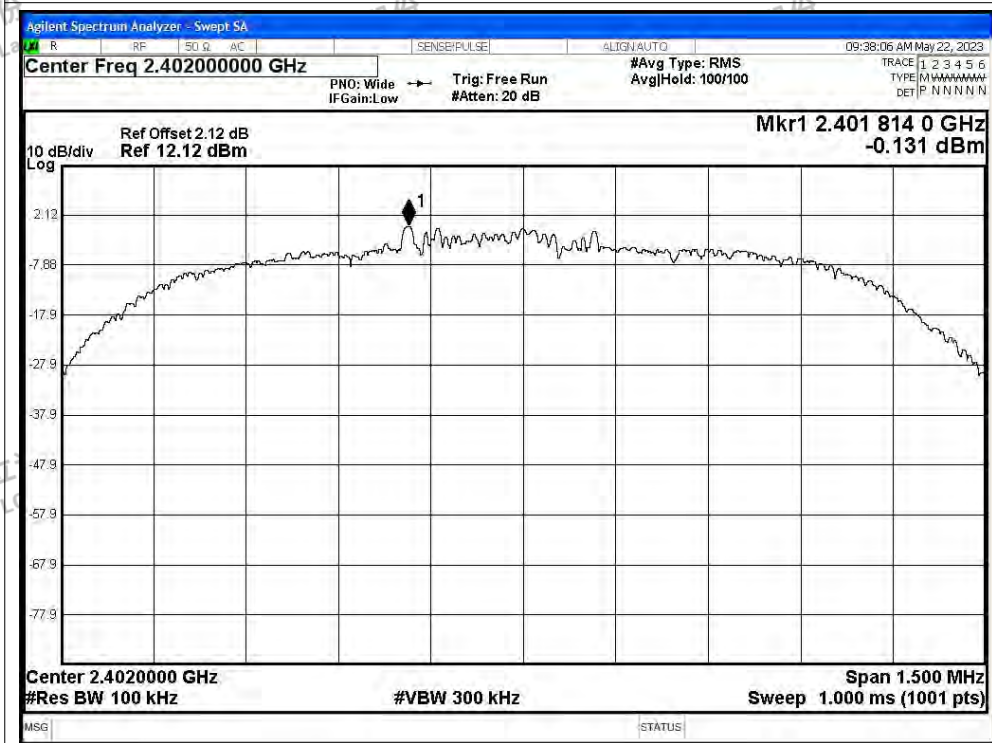


Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Emission

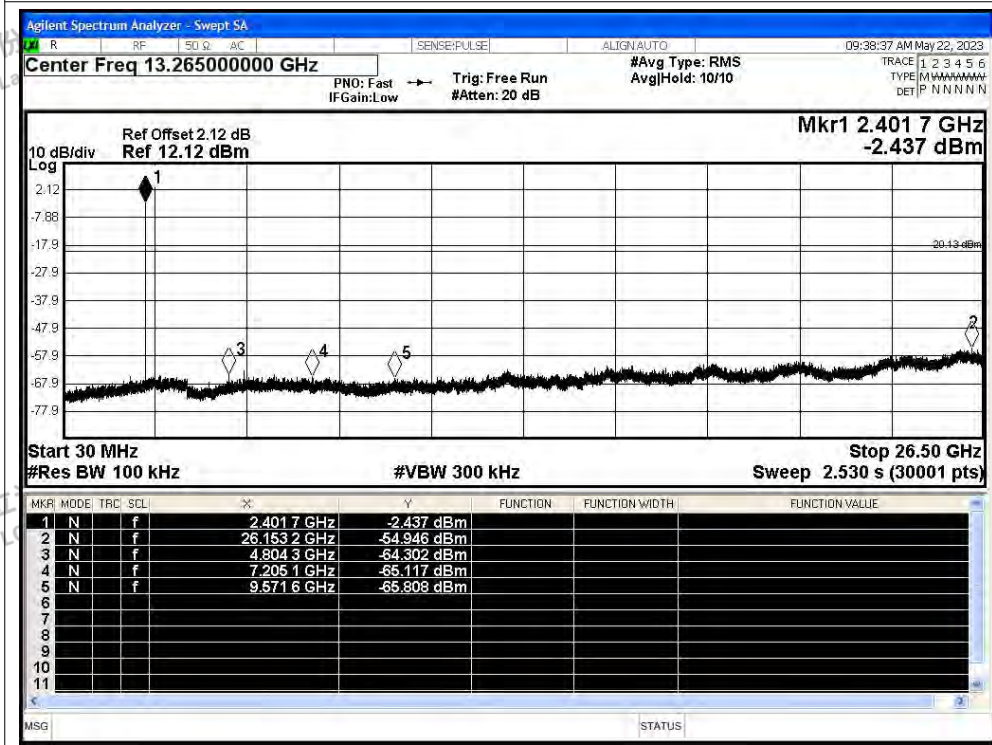




Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Ref

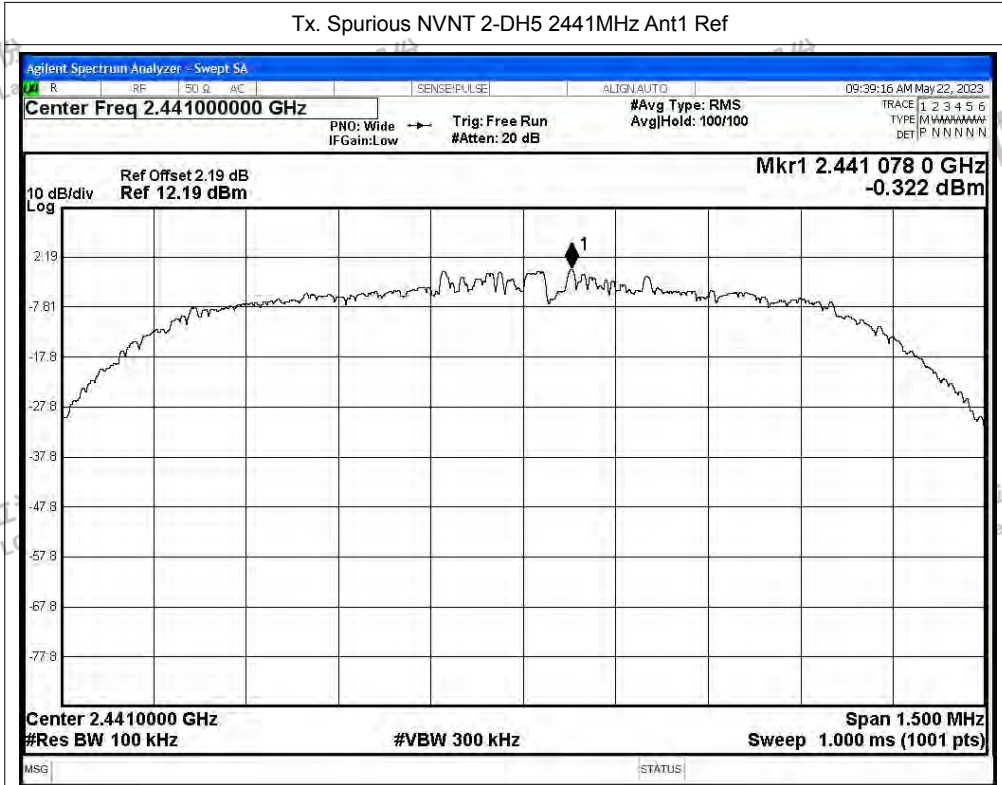


Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Emission

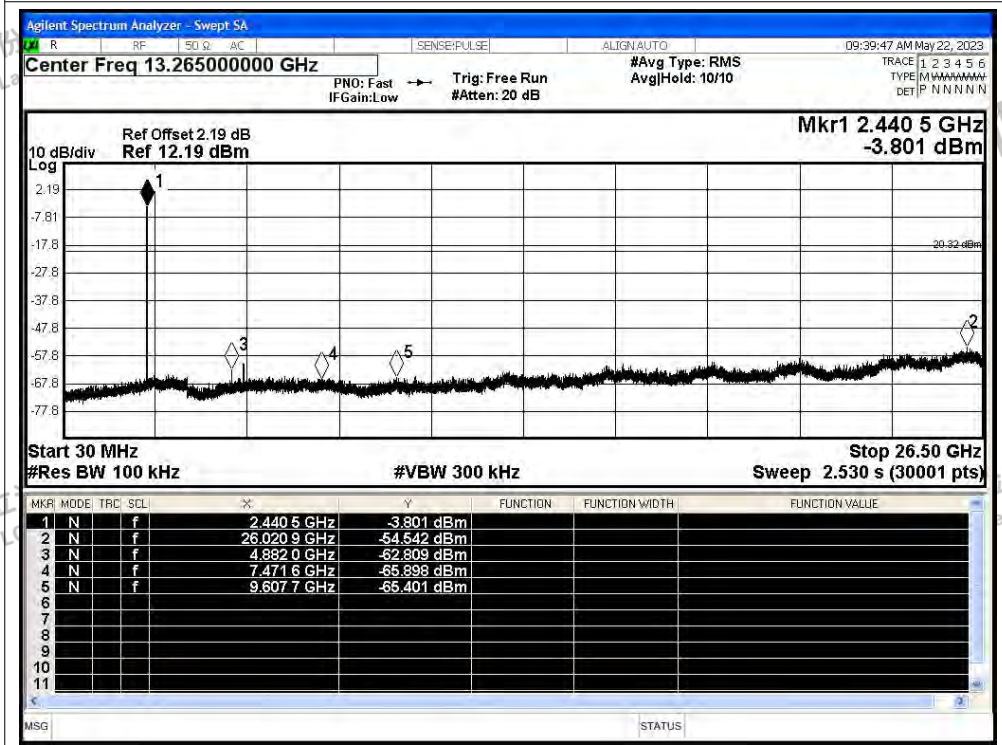




Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Ref

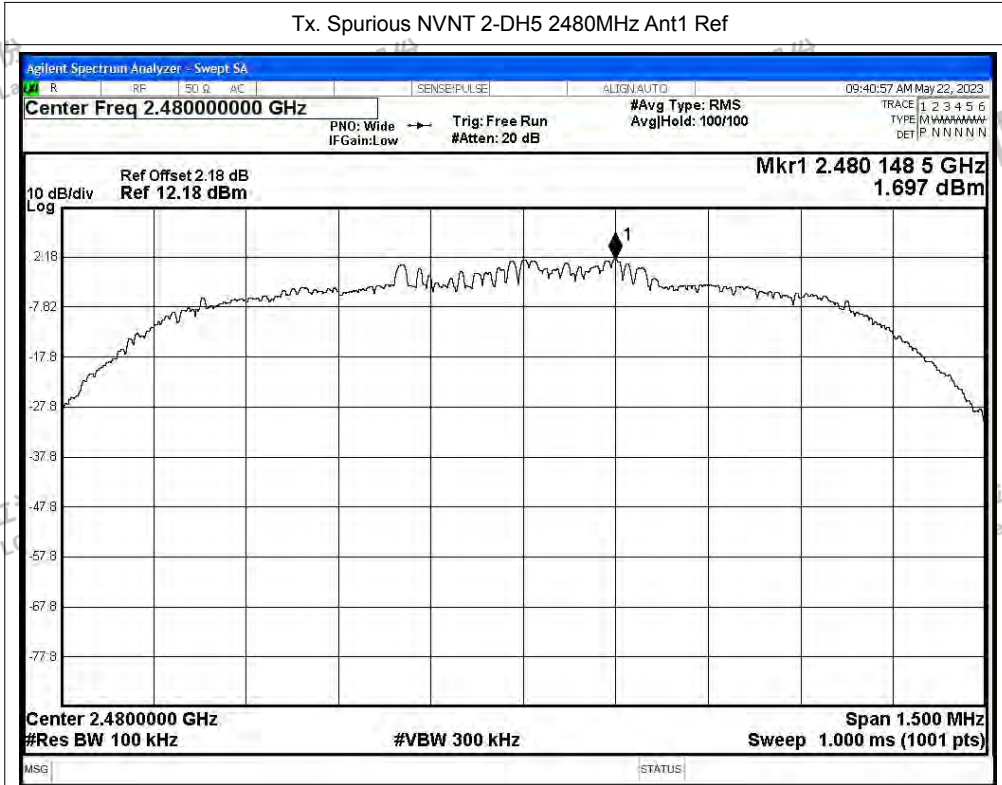


Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Emission

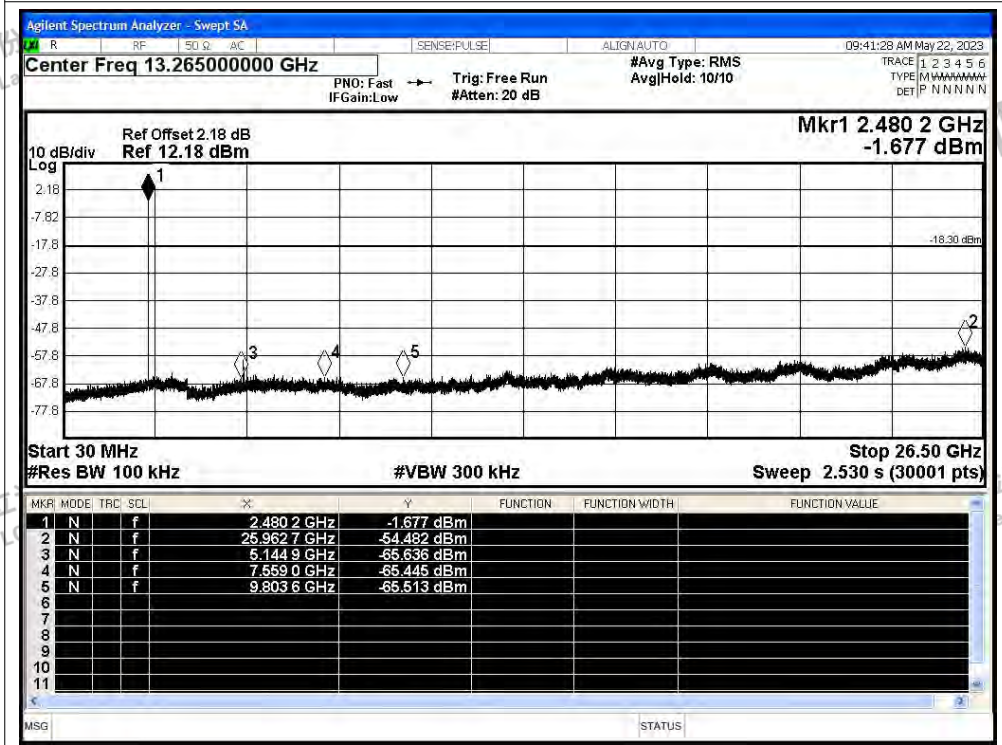




Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Ref

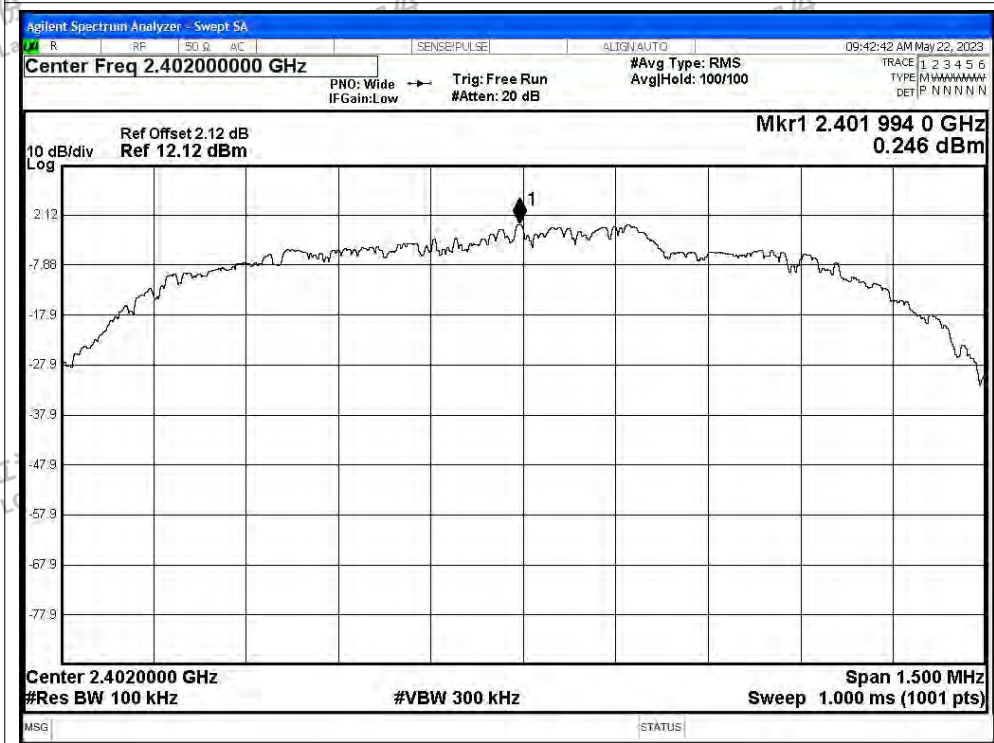


Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Emission

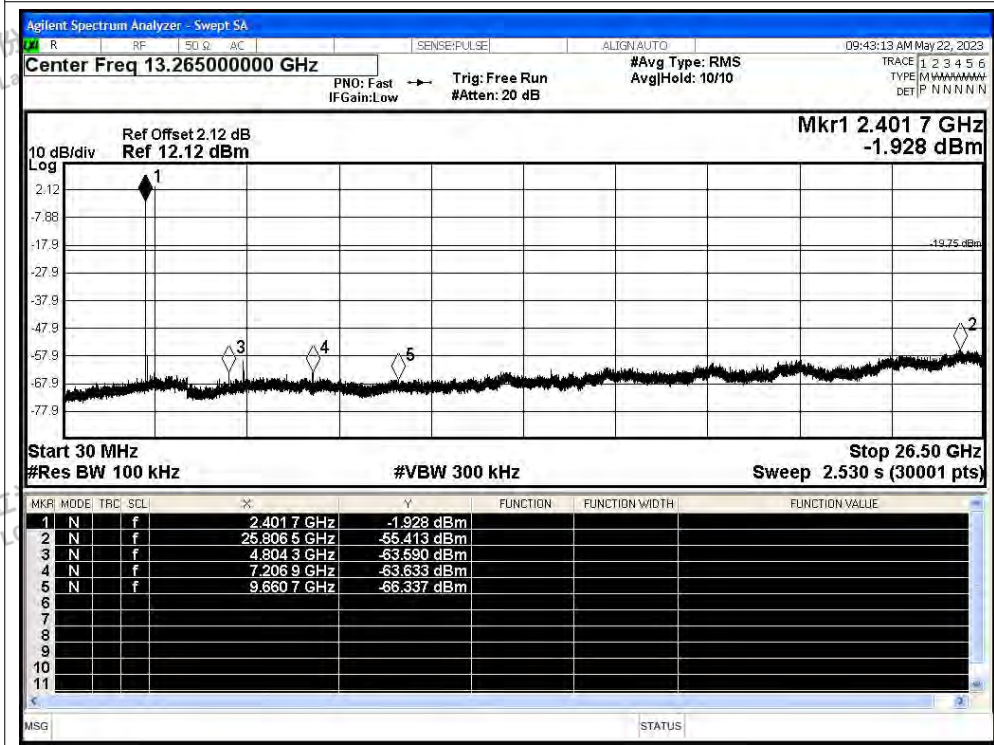




Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Ref

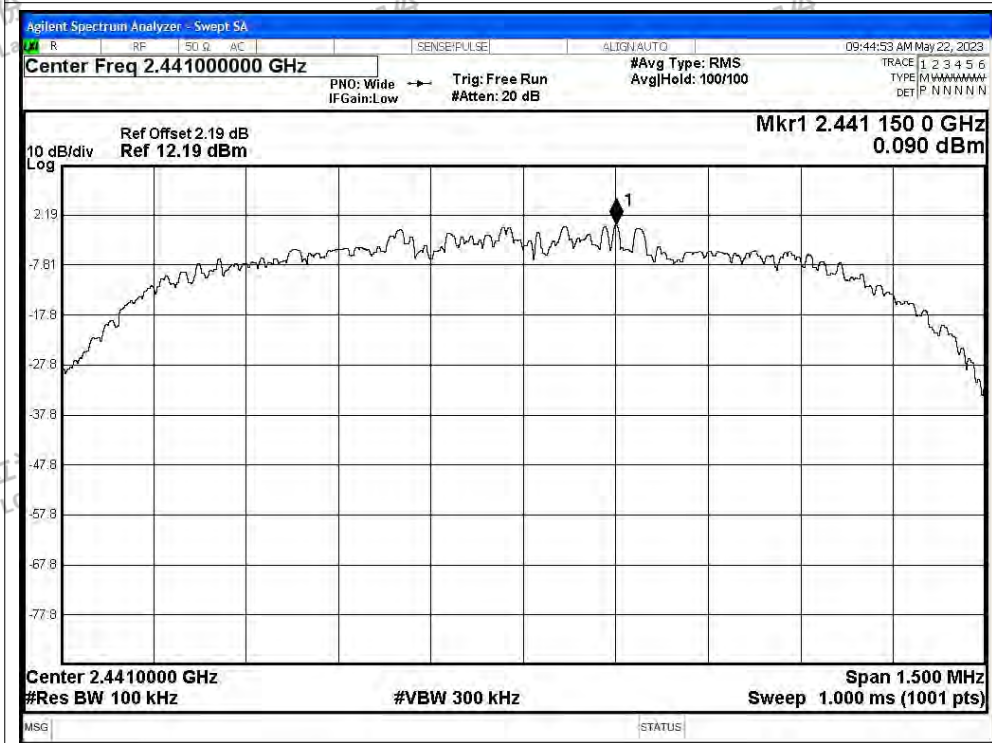


Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Emission

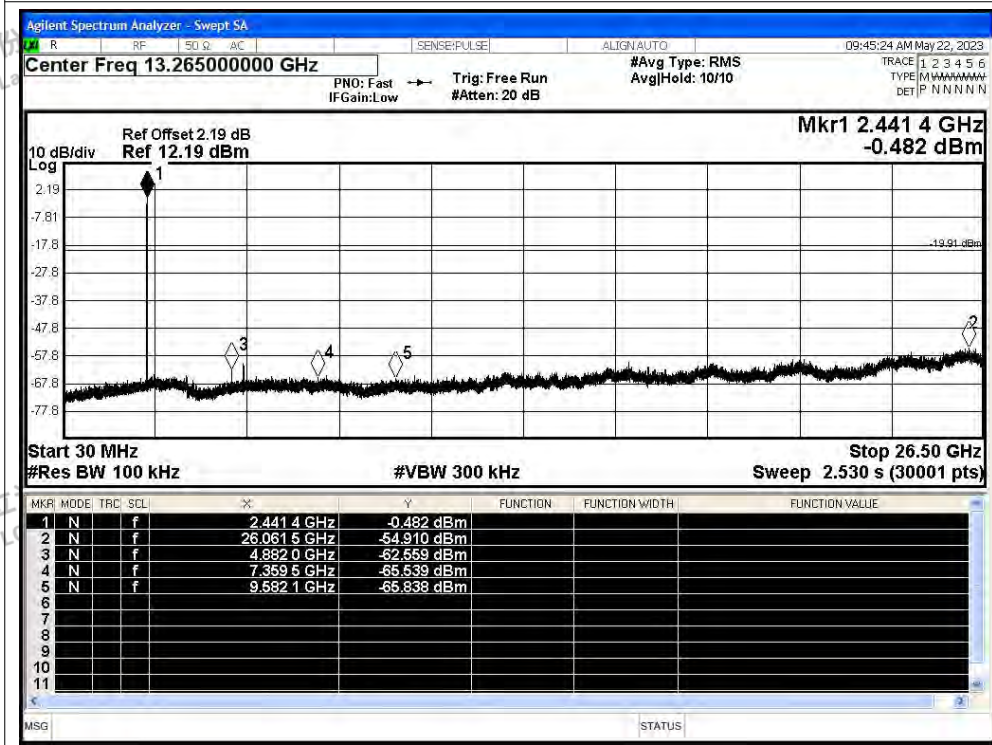




Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Ref

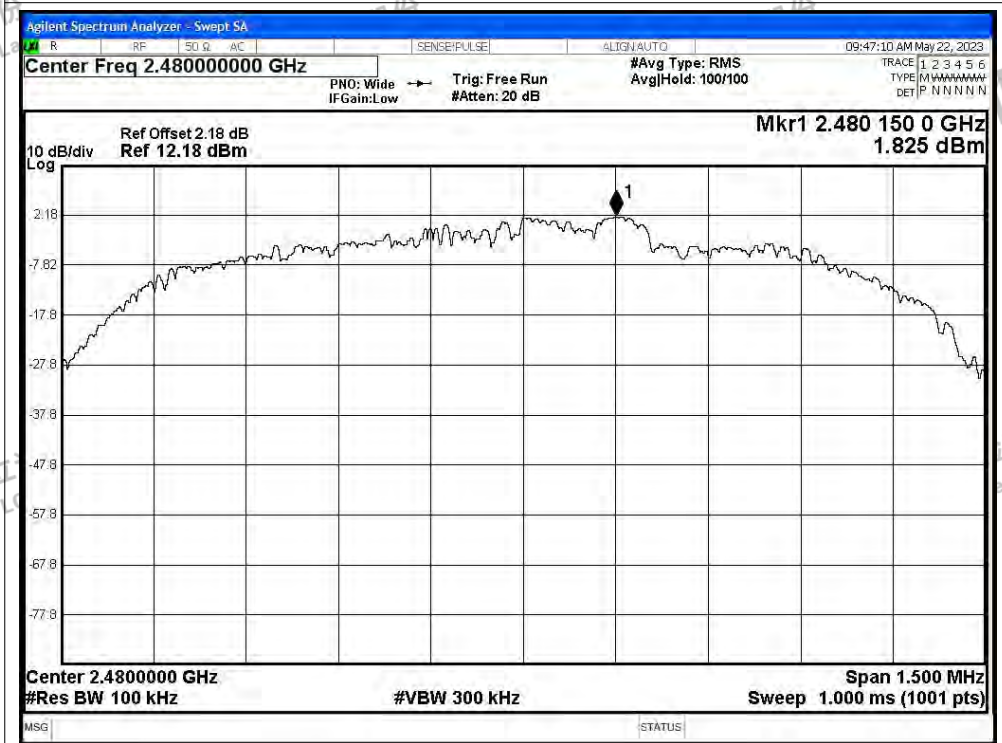


Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Emission

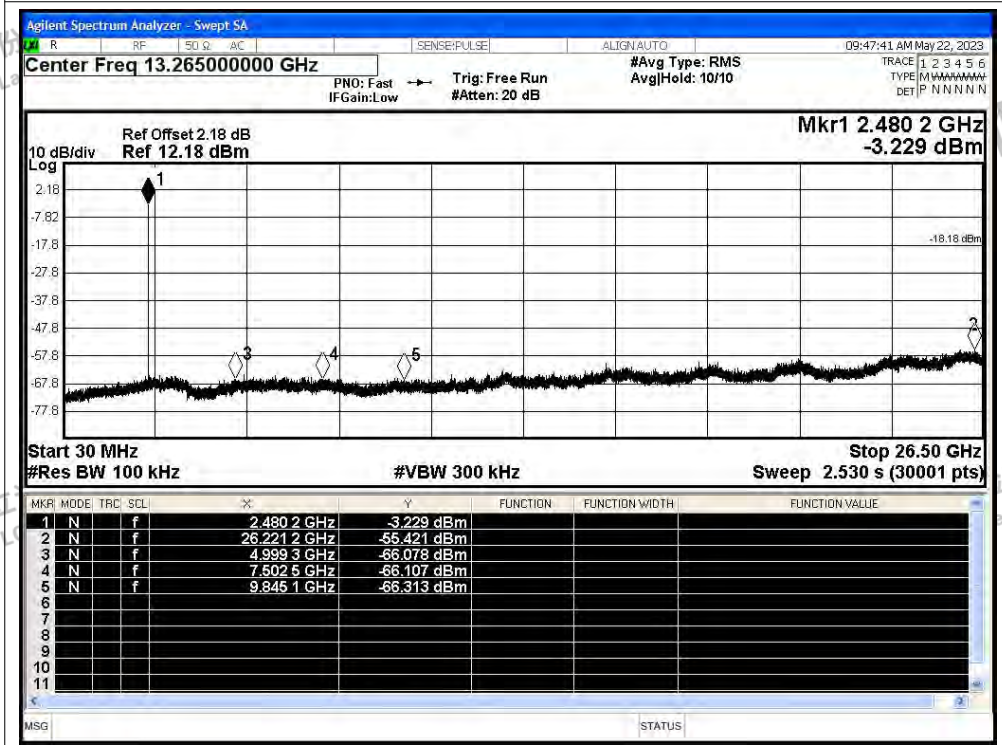




Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Emission





A.8 Restrict Band

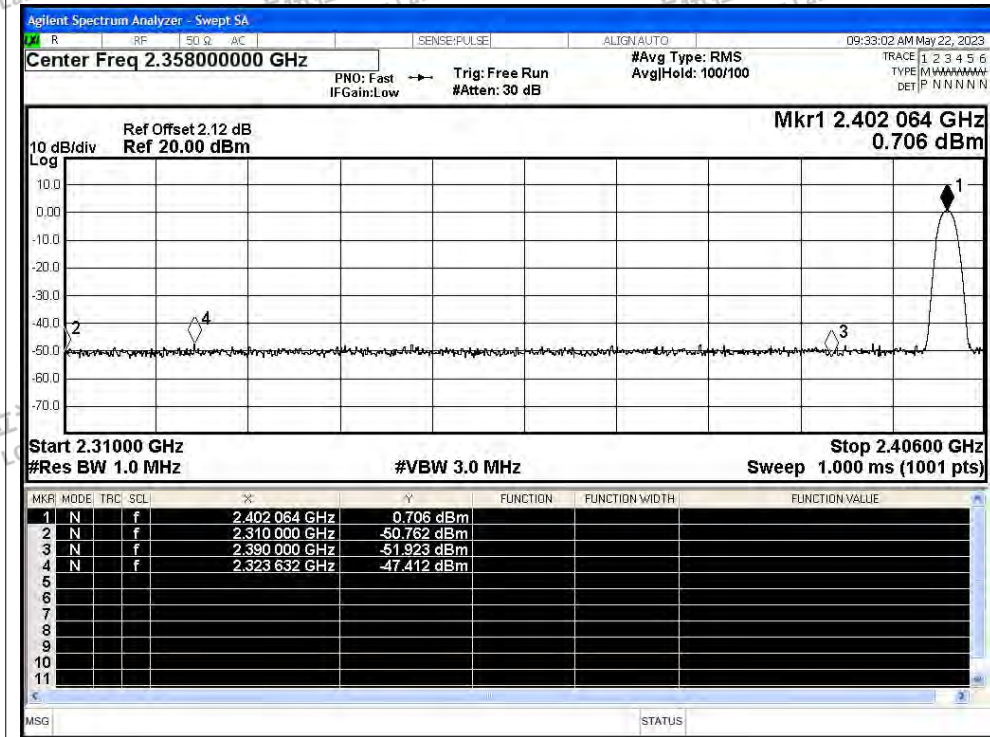
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-50.76	2	46.5	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-57.86	2	39.4	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2323.632	-47.41	2	49.85	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2388.336	-57.34	2	39.92	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-51.92	2	45.34	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-57.56	2	39.7	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-49.61	2	47.65	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-54.94	2	42.32	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2490.304	-46.93	2	50.33	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.512	-54.94	2	42.32	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-48.57	2	48.69	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-57	2	40.26	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-50.62	2	46.64	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-57.85	2	39.41	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2374.8	-47.05	2	50.21	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2389.008	-57.25	2	40.01	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-49.26	2	48	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-57.52	2	39.74	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-47.74	2	49.52	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-54.55	2	42.71	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2484.544	-46.06	2	51.2	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.512	-54.55	2	42.71	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-49.41	2	47.85	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-57.18	2	40.08	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-50.11	2	47.15	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-57.94	2	39.32	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2354.16	-47.55	2	49.71	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2387.28	-57.3	2	39.96	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-50.96	2	46.3	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-57.4	2	39.86	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-50.47	2	46.79	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-54.41	2	42.85	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2495.776	-46.76	2	50.5	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.512	-54.41	2	42.85	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-48.68	2	48.58	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-57.16	2	40.1	Average	54	Pass



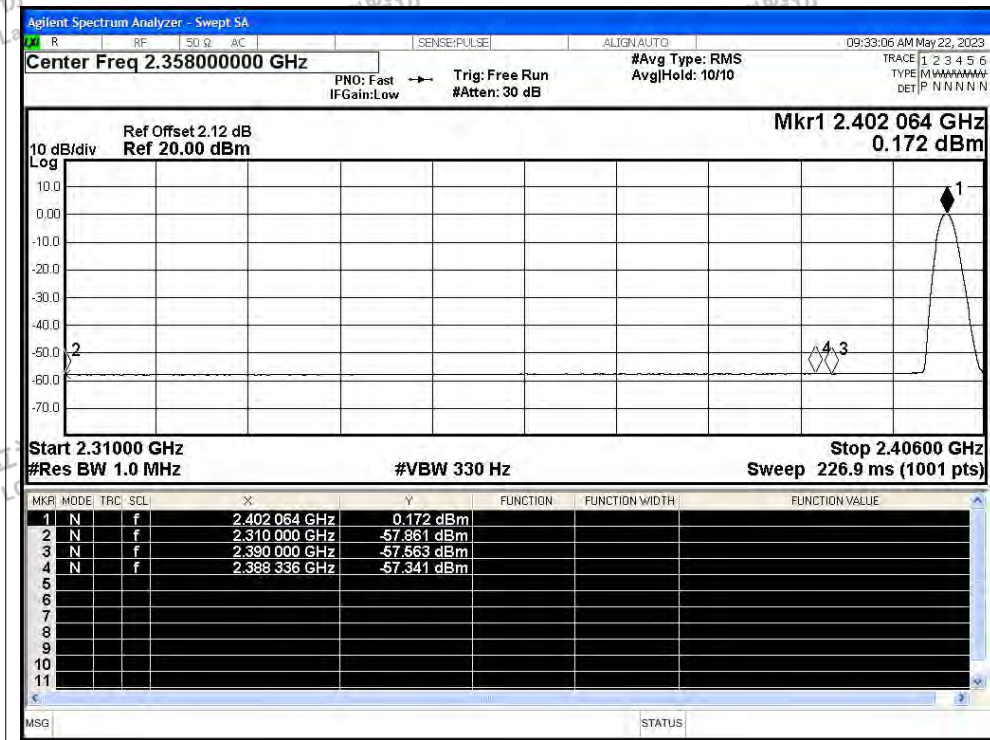


Test Graphs

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

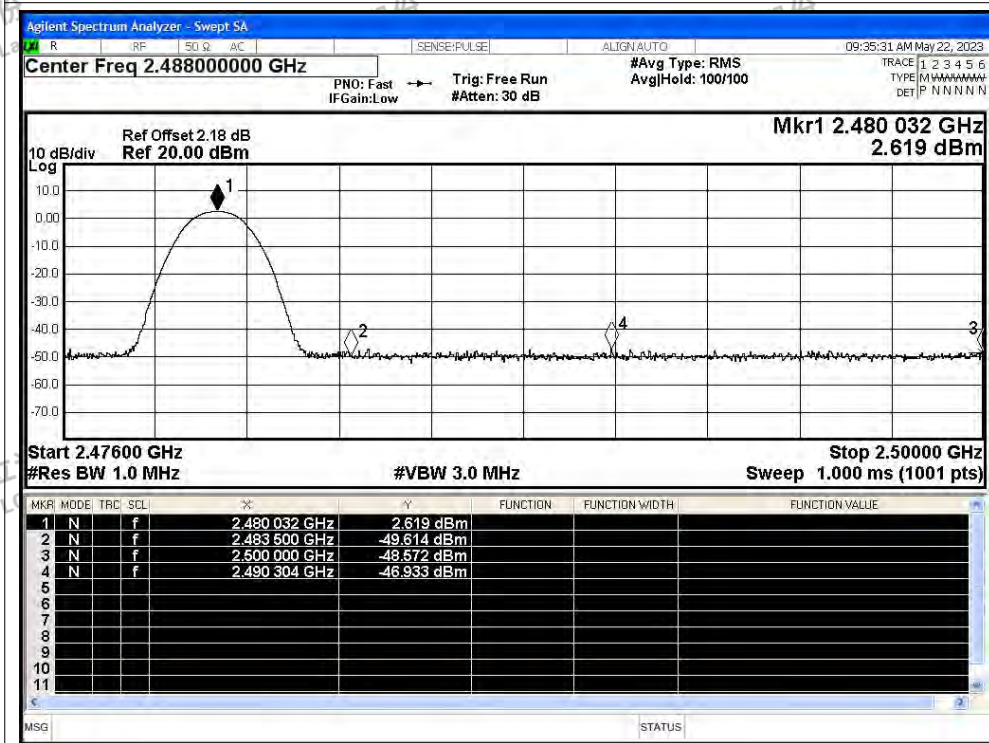


Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Average

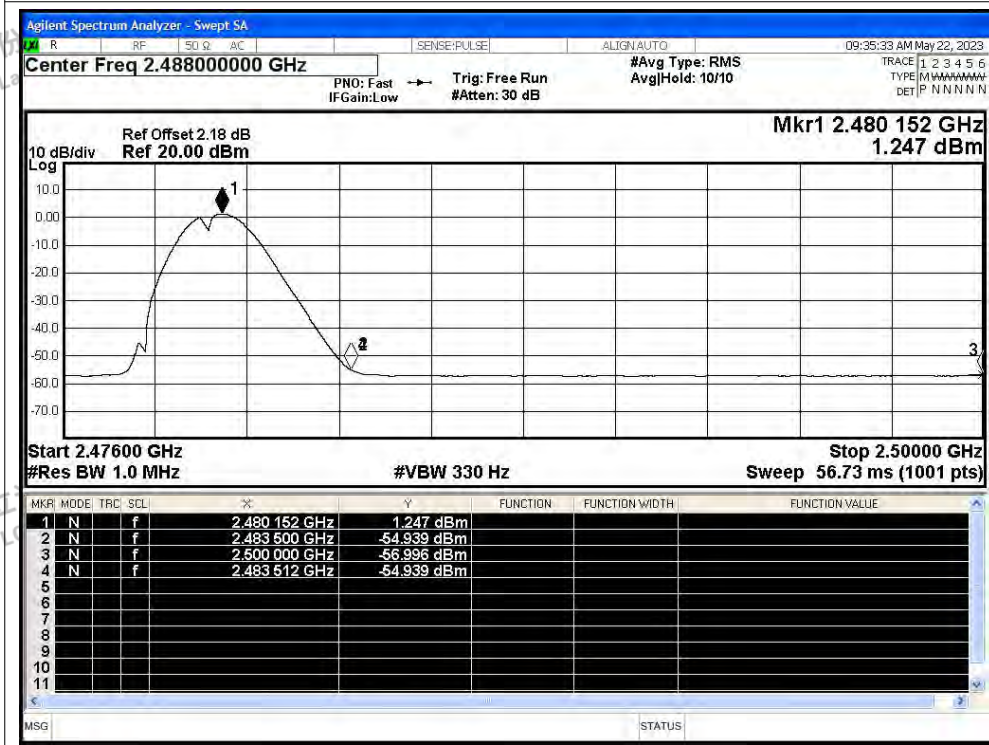




Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Peak

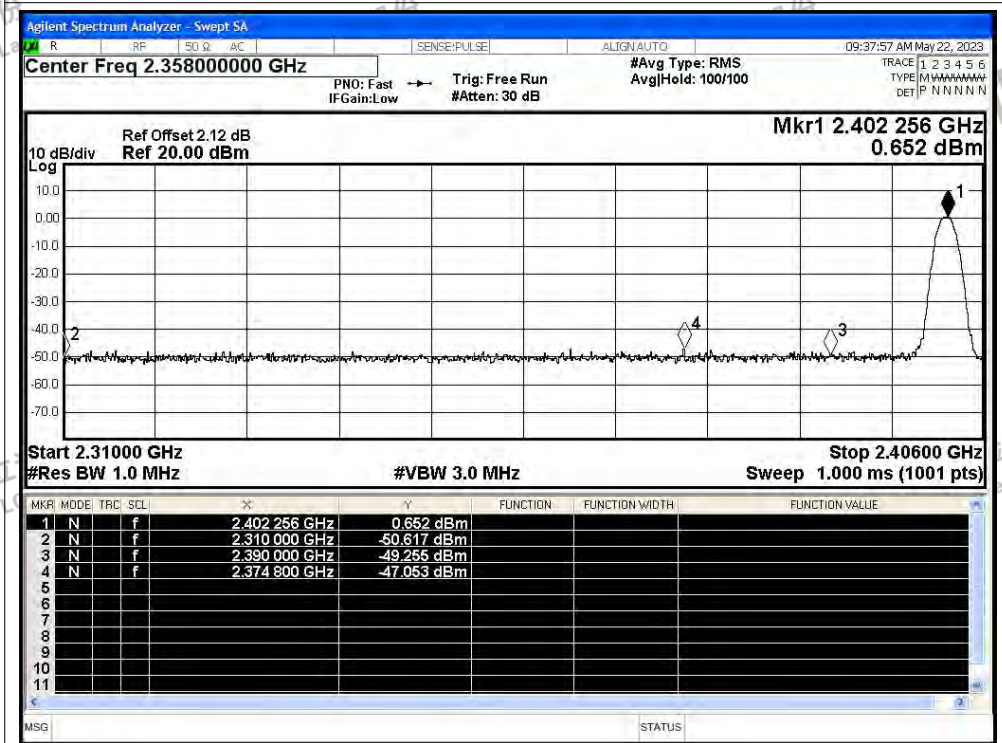


Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Average

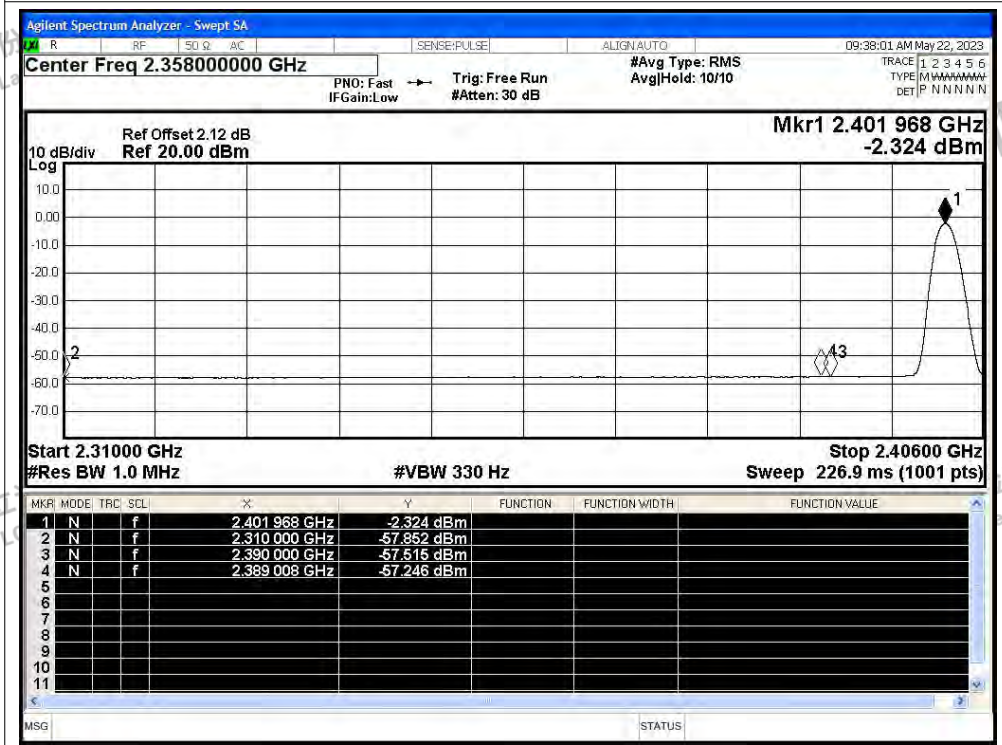




Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Peak

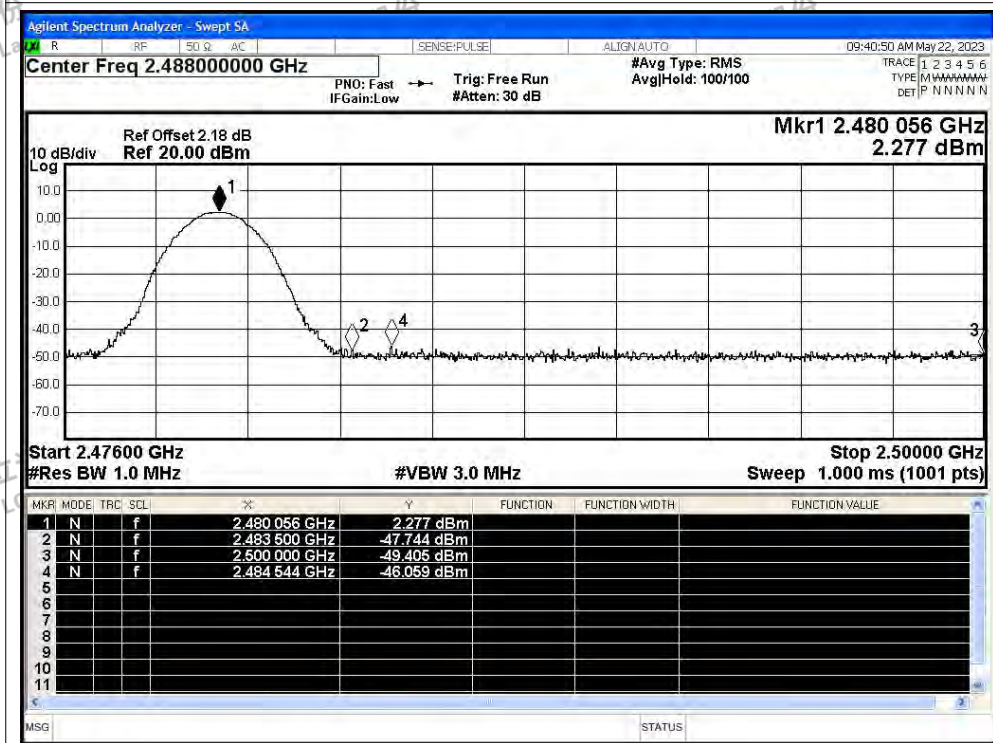


Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Average

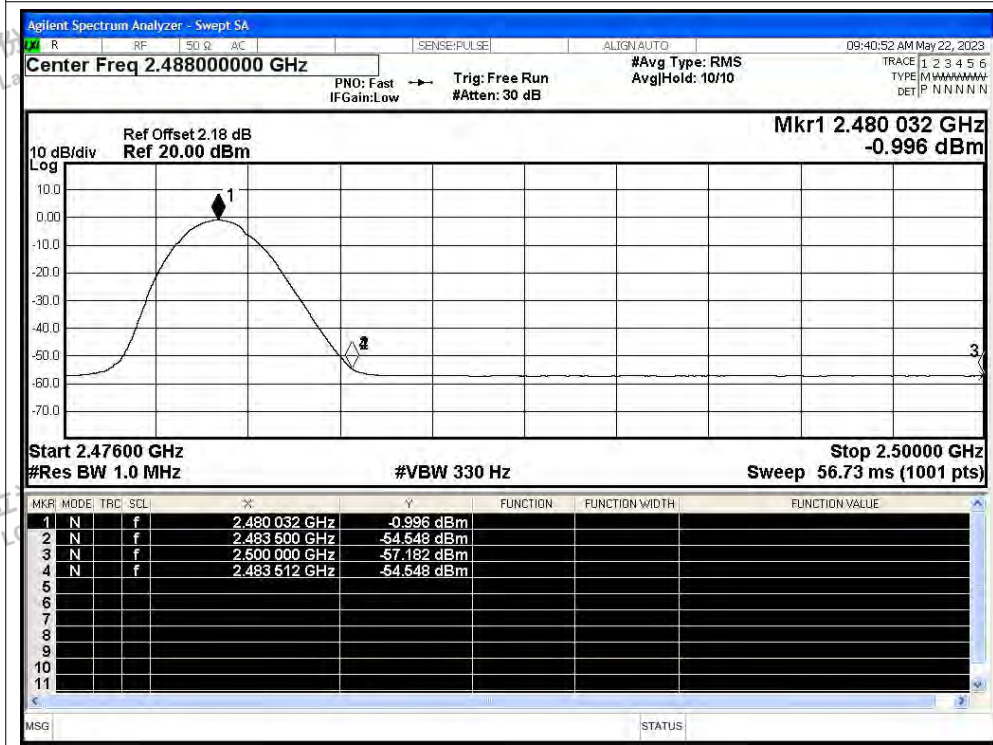




Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Peak

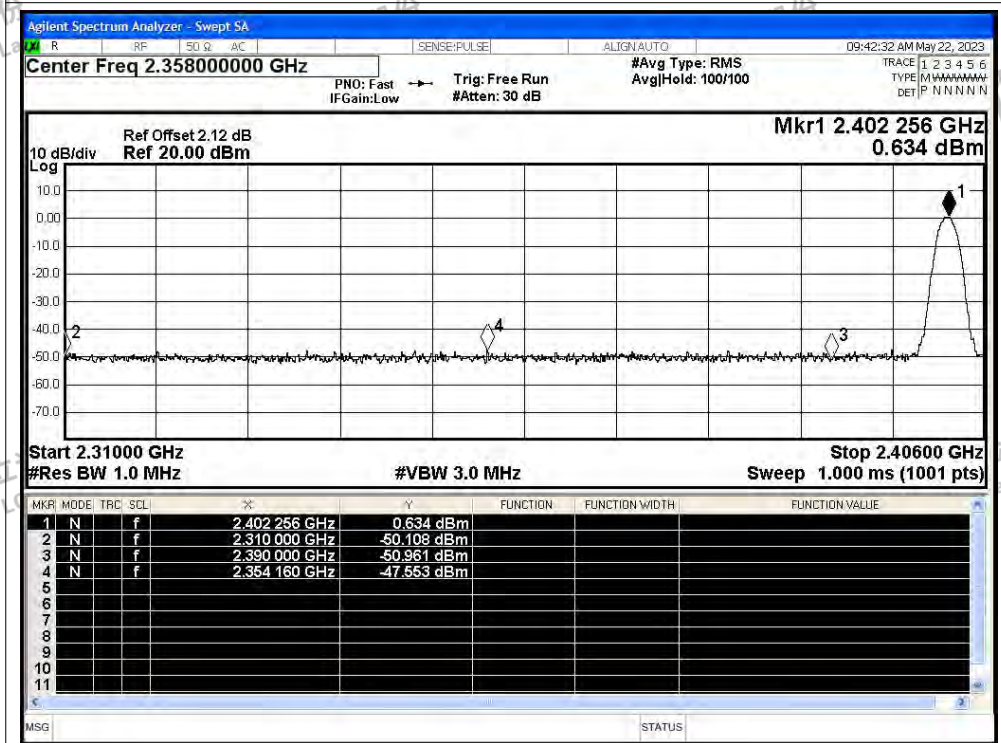


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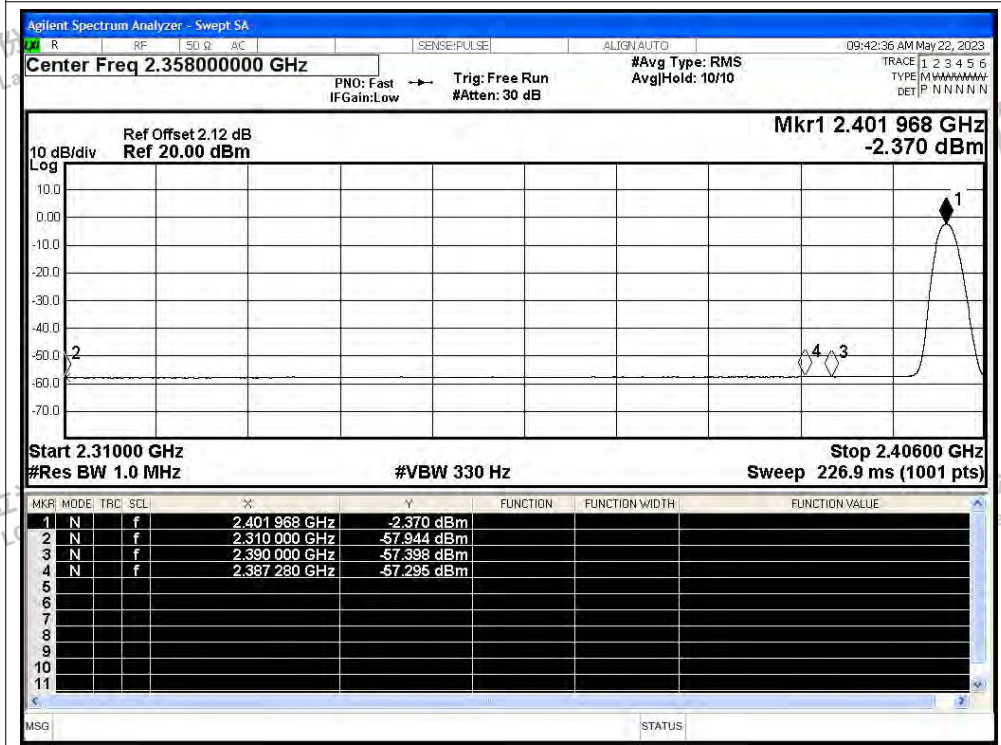




Restrict Band NVNT 3-DH5 2402MHz Ant1 No-Hopping Peak

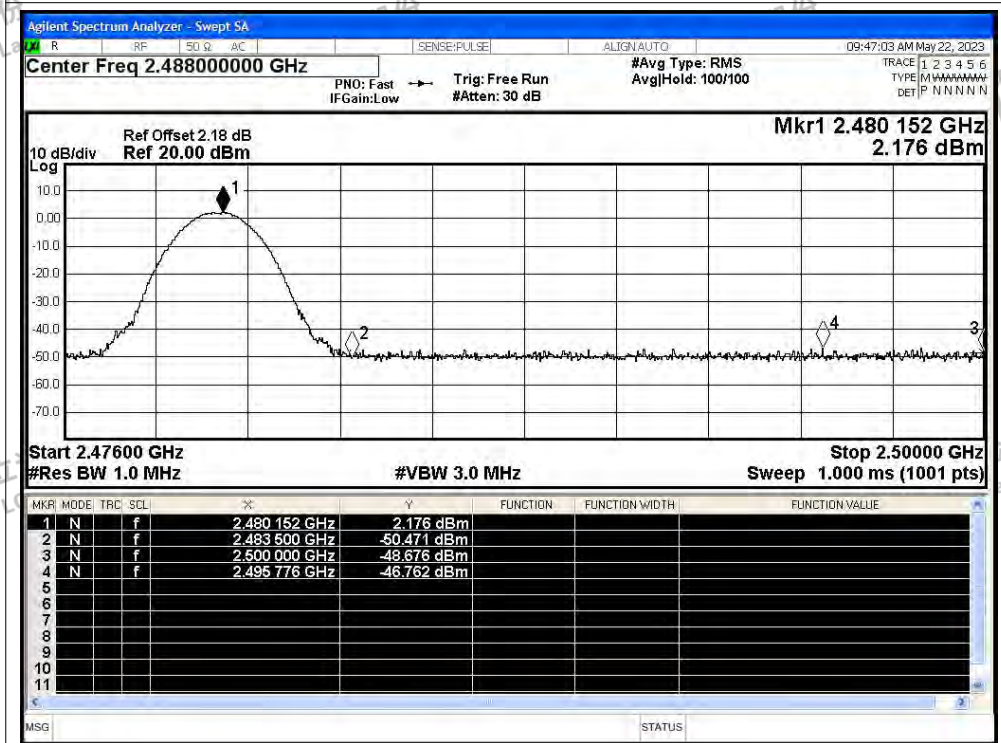


Restrict Band NVNT 3-DH5 2402MHz Ant1 No-Hopping Average





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



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

