Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: Wireless Earphones

Test Model: C6

Environmental Conditions

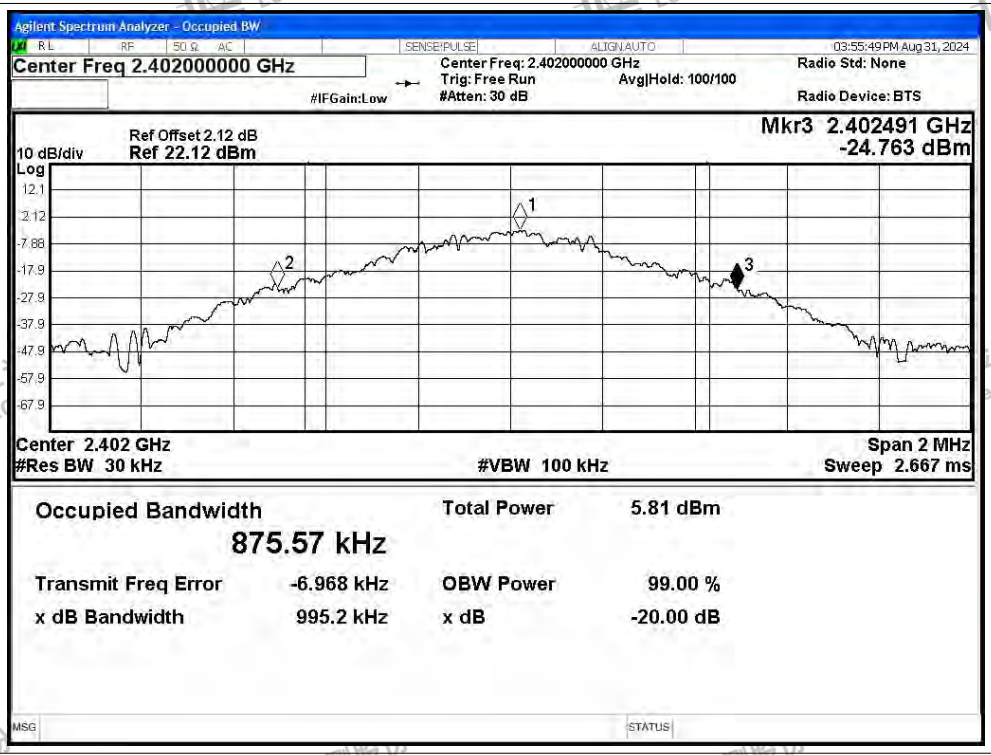
Temperature:	23.8°C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Jose Zhu
Supervised by:	Nick Peng

A.1 -20dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH5	2402	Ant1	0.995	N/A	Pass
NVNT	1-DH5	2441	Ant1	0.998	N/A	Pass
NVNT	1-DH5	2480	Ant1	1.015	N/A	Pass
NVNT	2-DH5	2402	Ant1	1.282	N/A	Pass
NVNT	2-DH5	2441	Ant1	1.286	N/A	Pass
NVNT	2-DH5	2480	Ant1	1.288	N/A	Pass
NVNT	3-DH5	2402	Ant1	1.284	N/A	Pass
NVNT	3-DH5	2441	Ant1	1.311	N/A	Pass
NVNT	3-DH5	2480	Ant1	1.297	N/A	Pass

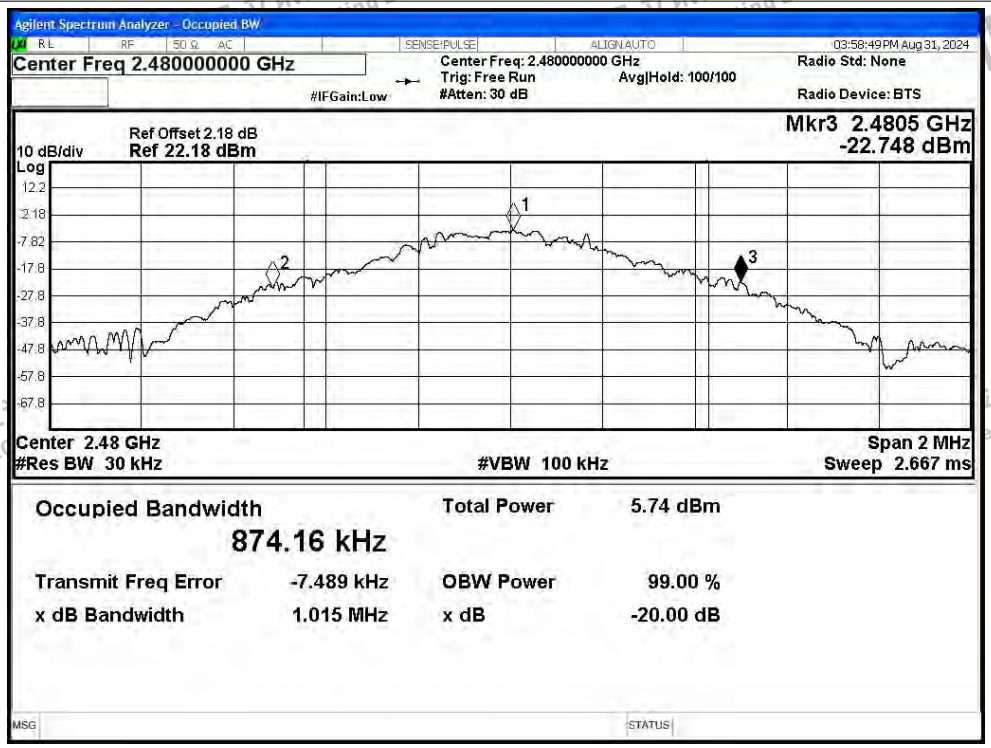
Test Graphs

-20dB Bandwidth NVNT 1-DH5 2402MHz Ant1

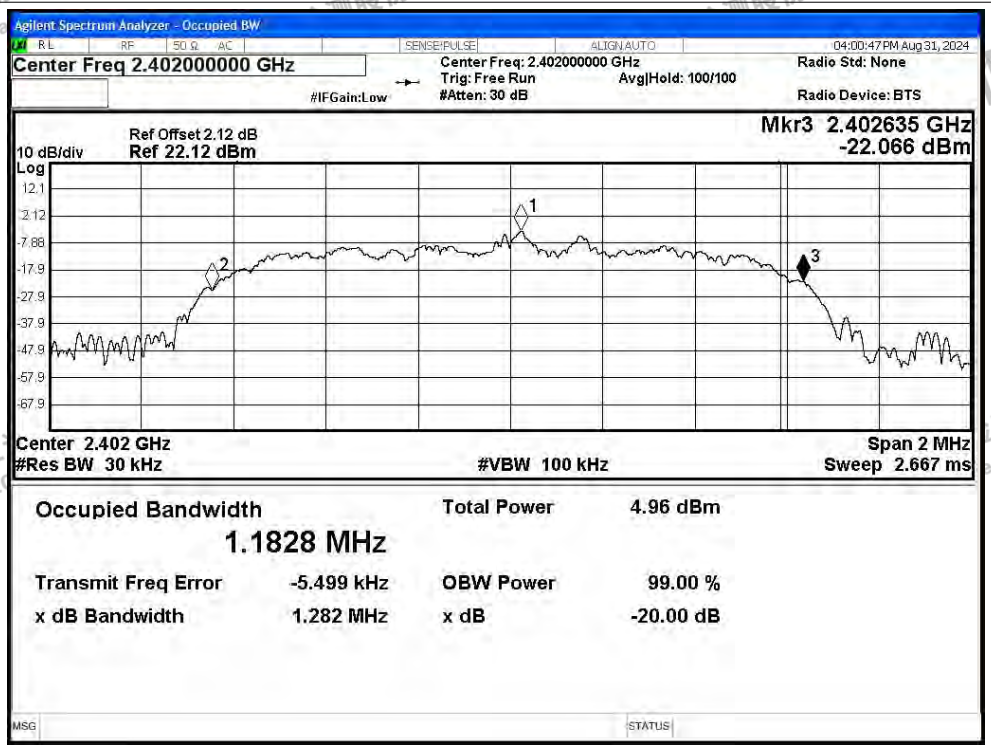


-20dB Bandwidth NVNT 1-DH5 2441MHz Ant1

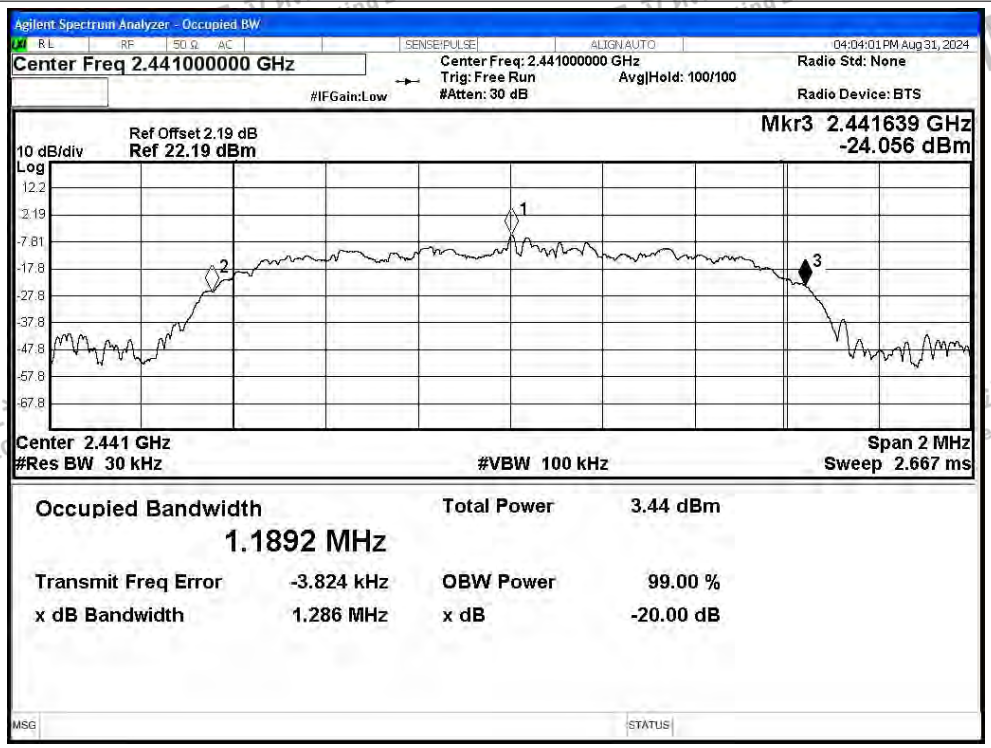
-20dB Bandwidth NVNT 1-DH5 2480MHz Ant1



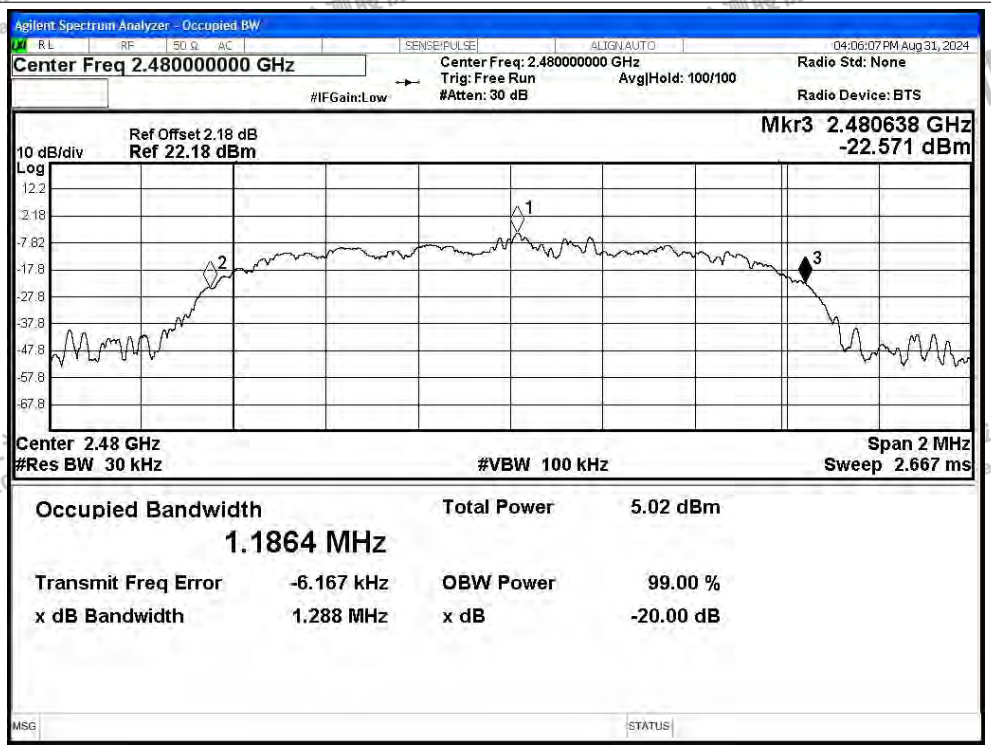
-20dB Bandwidth NVNT 2-DH5 2402MHz Ant1



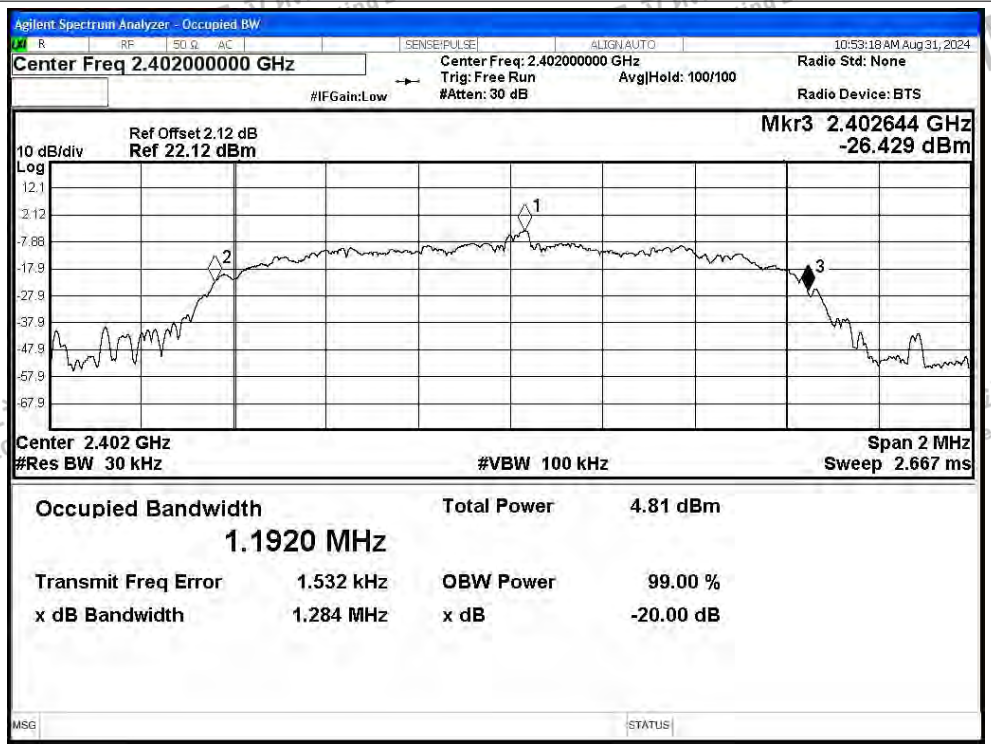
-20dB Bandwidth NVNT 2-DH5 2441MHz Ant1



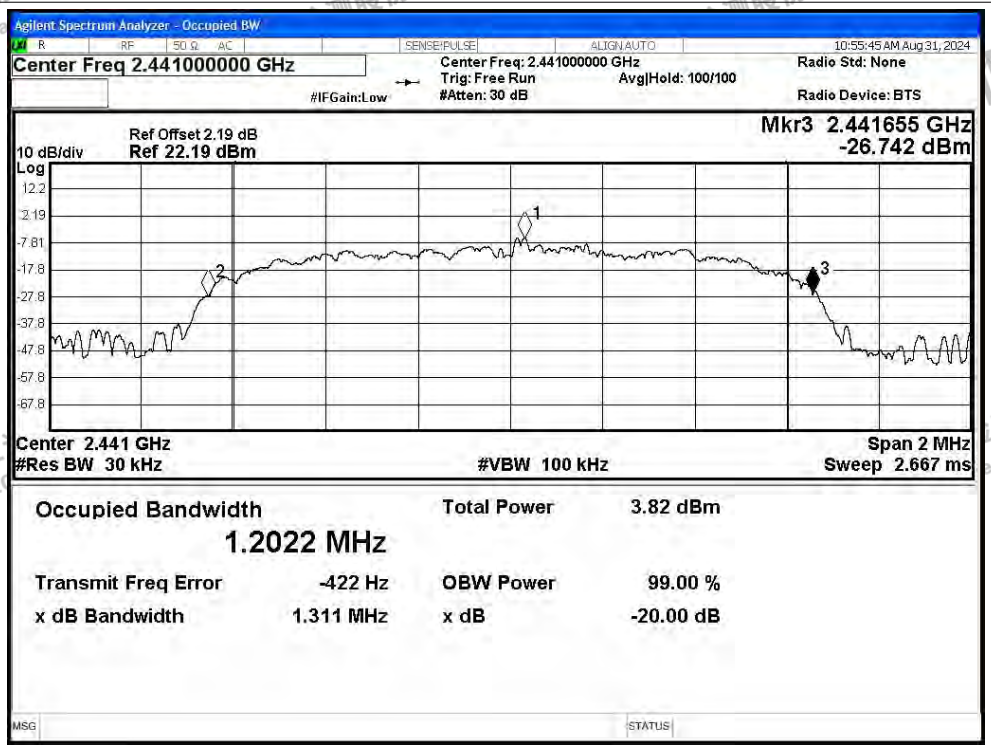
-20dB Bandwidth NVNT 2-DH5 2480MHz Ant1



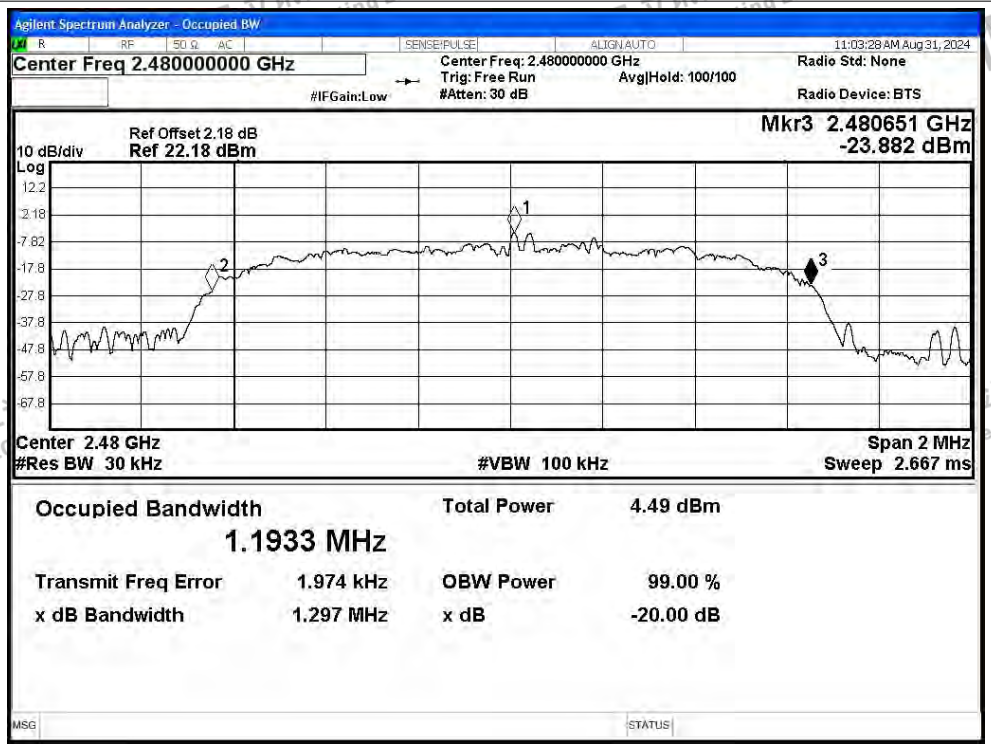
-20dB Bandwidth NVNT 3-DH5 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH5 2441MHz Ant1



-20dB Bandwidth NVNT 3-DH5 2480MHz Ant1

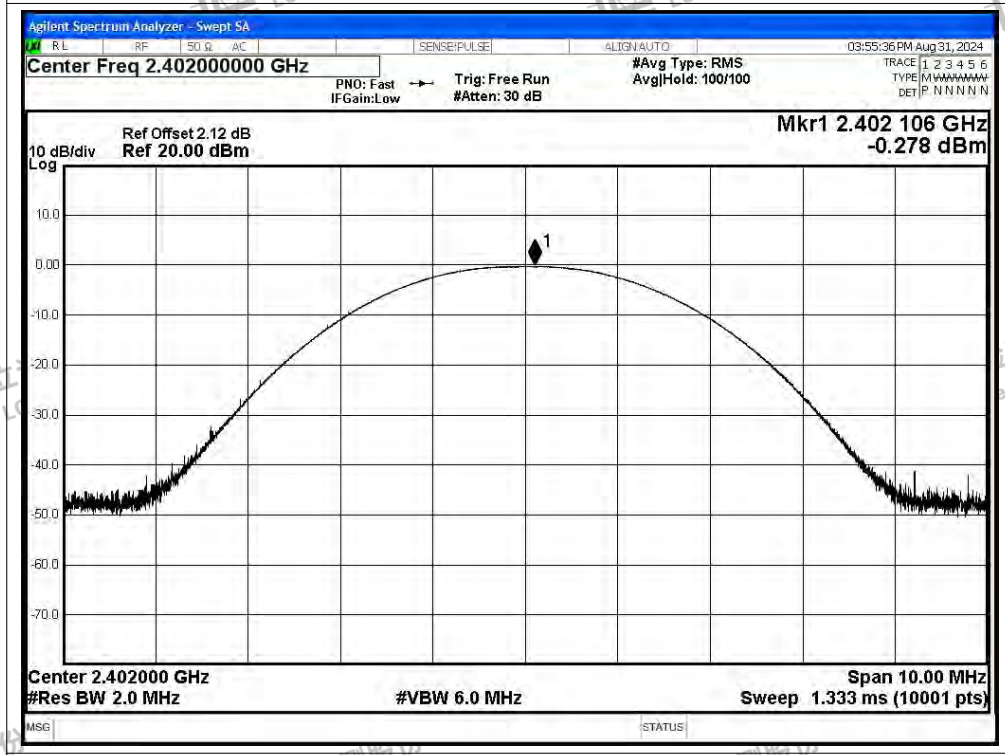


A.2 Maximum Conducted Output Power

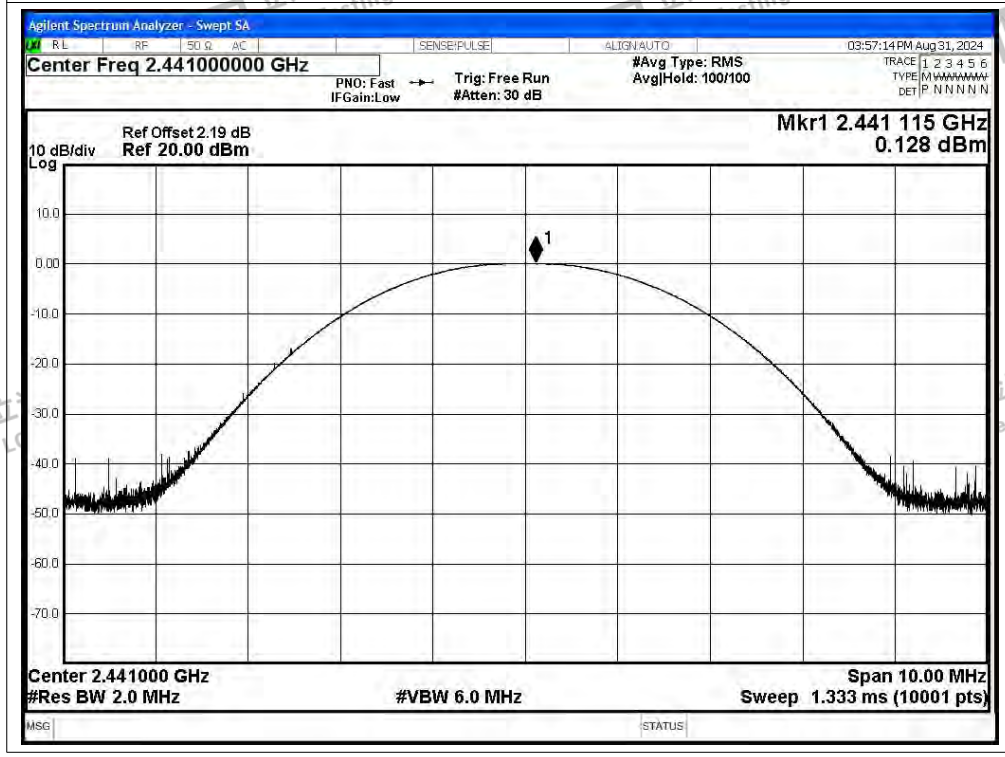
Condition	Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH5	2402	Ant1	-0.28	21	Pass
NVNT	1-DH5	2441	Ant1	0.13	21	Pass
NVNT	1-DH5	2480	Ant1	-0.60	21	Pass
NVNT	2-DH5	2402	Ant1	0.67	21	Pass
NVNT	2-DH5	2441	Ant1	-0.83	21	Pass
NVNT	2-DH5	2480	Ant1	0.68	21	Pass
NVNT	3-DH5	2402	Ant1	0.77	21	Pass
NVNT	3-DH5	2441	Ant1	0.02	21	Pass
NVNT	3-DH5	2480	Ant1	0.58	21	Pass

Test Graphs

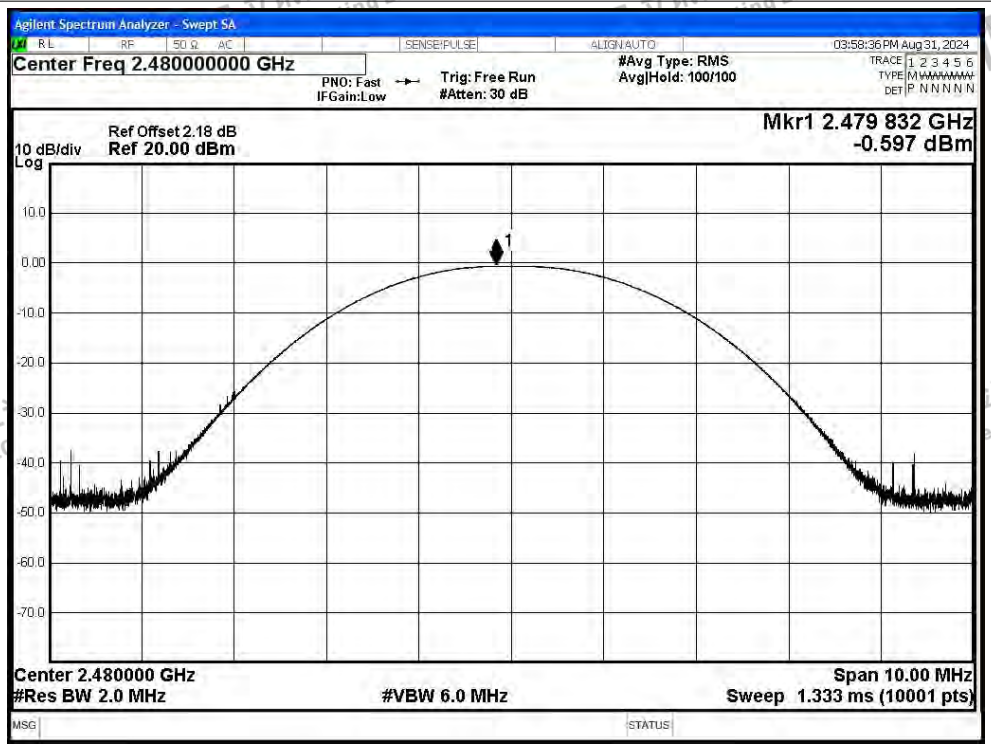
Power NVNT 1-DH5 2402MHz Ant1



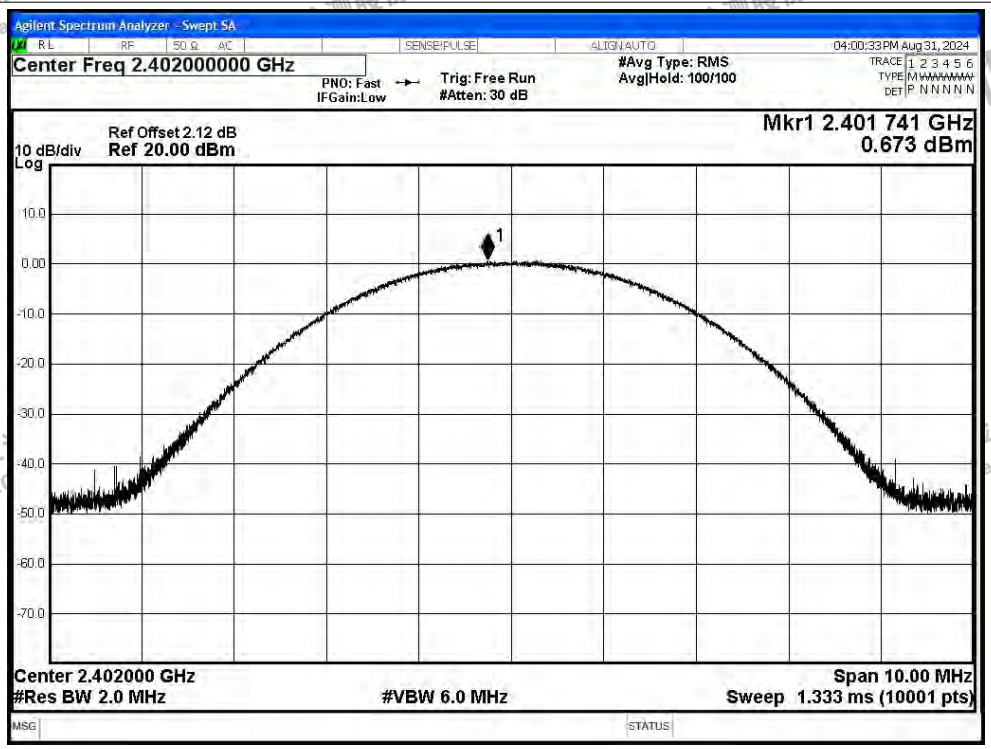
Power NVNT 1-DH5 2441MHz Ant1



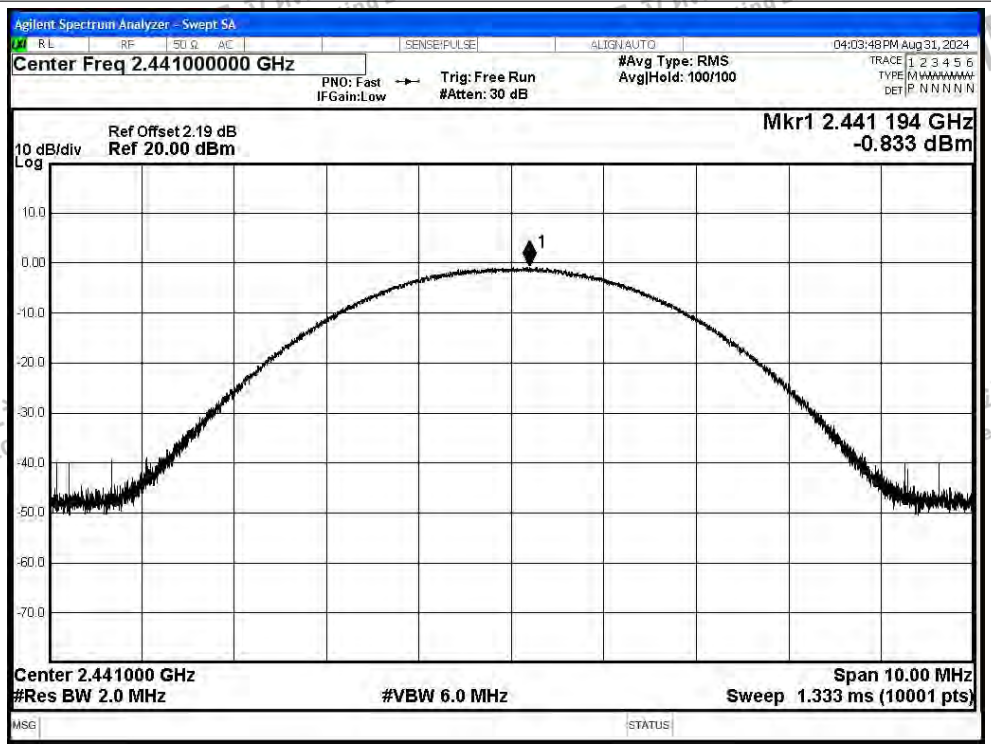
Power NVNT 1-DH5 2480MHz Ant1



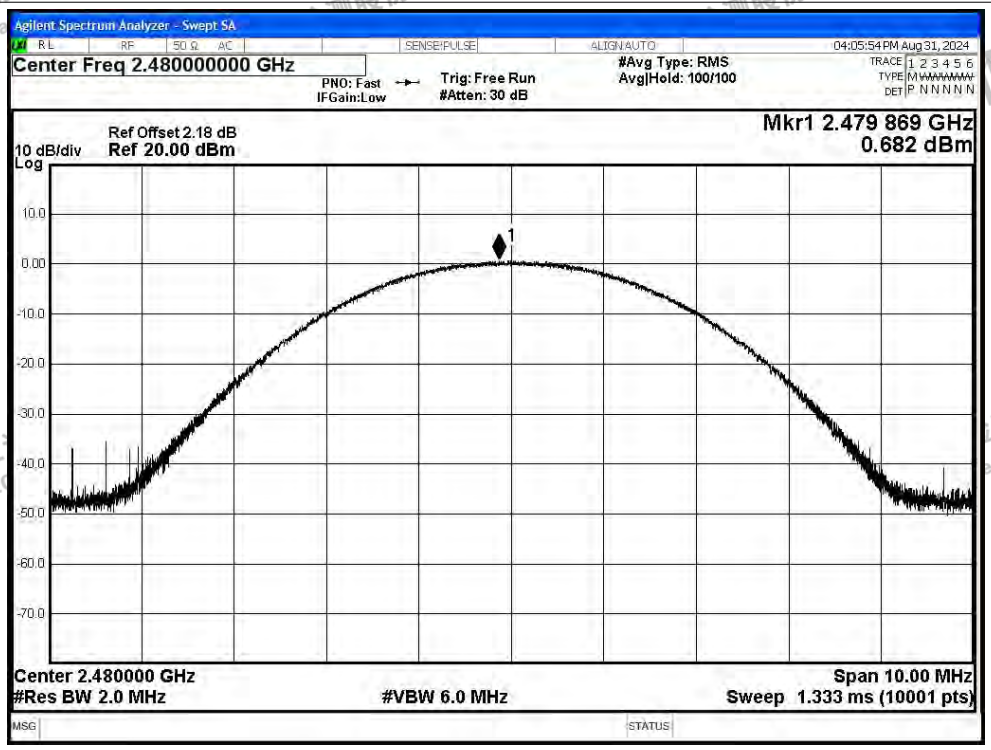
Power NVNT 2-DH5 2402MHz Ant1



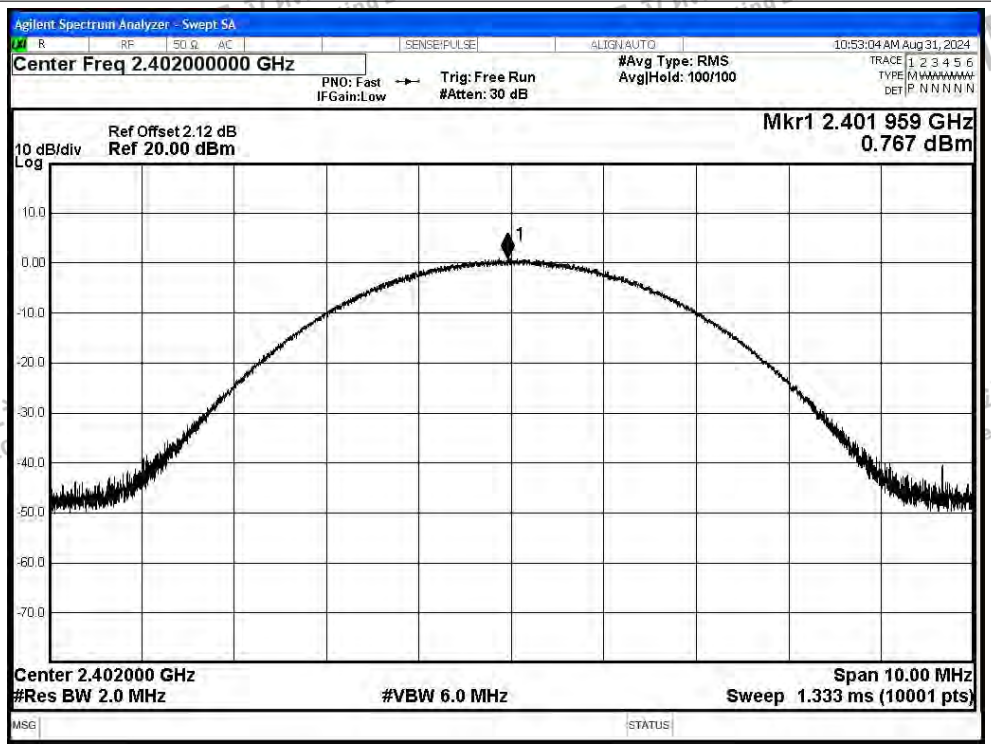
Power NVNT 2-DH5 2441MHz Ant1



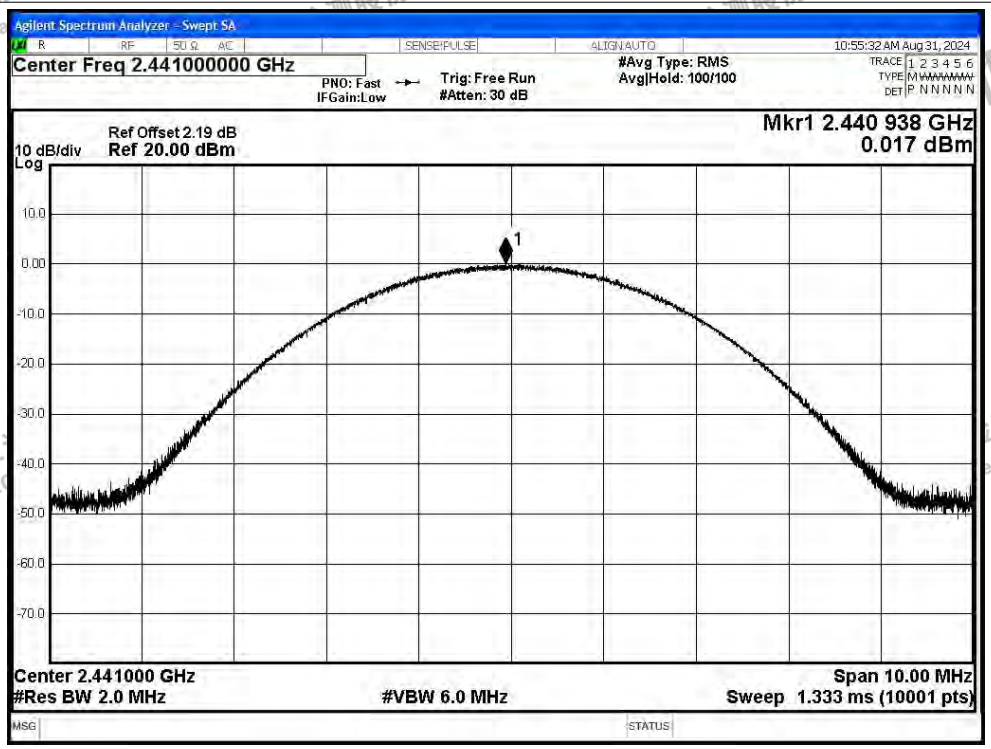
Power NVNT 2-DH5 2480MHz Ant1



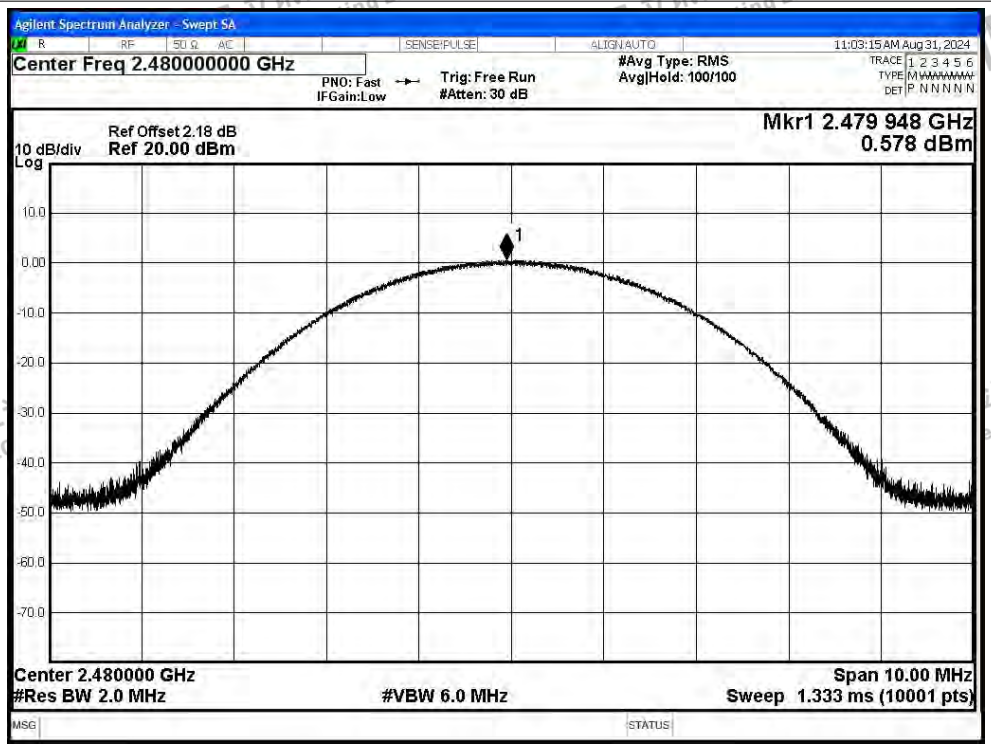
Power NVNT 3-DH5 2402MHz Ant1



Power NVNT 3-DH5 2441MHz Ant1



Power NVNT 3-DH5 2480MHz Ant1

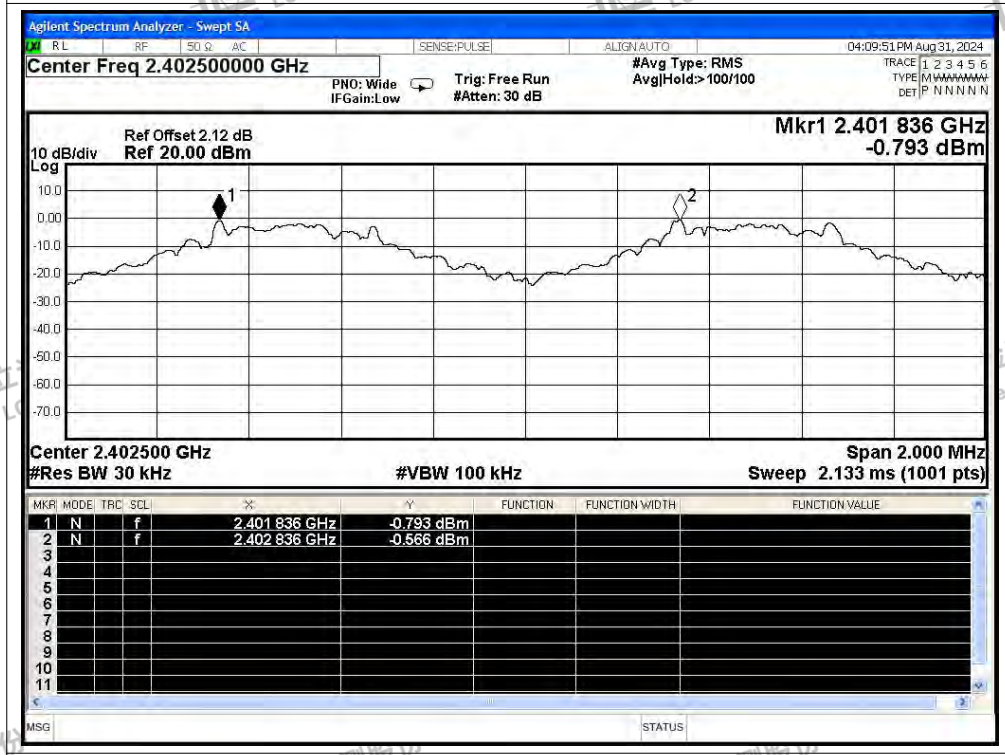


A.3 Carrier Frequencies Separation

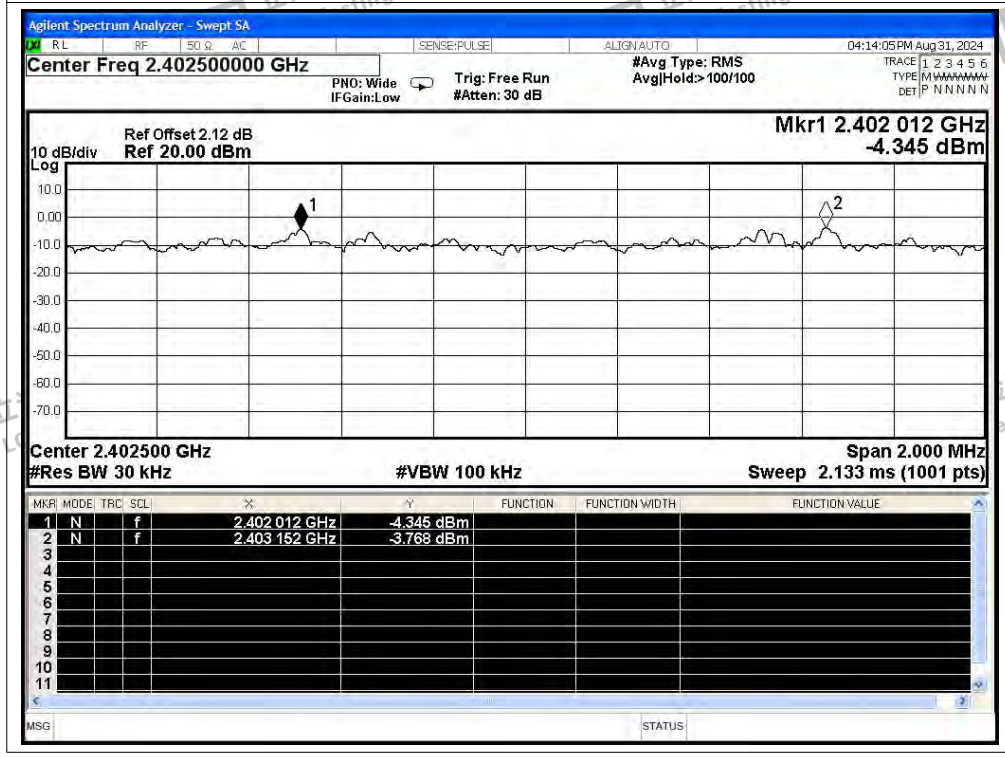
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH5	Ant1	2401.836	2402.836	1	0.677	Pass
NVNT	2-DH5	Ant1	2402.012	2403.152	1.14	0.859	Pass
NVNT	3-DH5	Ant1	2402.034	2403.022	0.988	0.874	Pass

Test Graphs

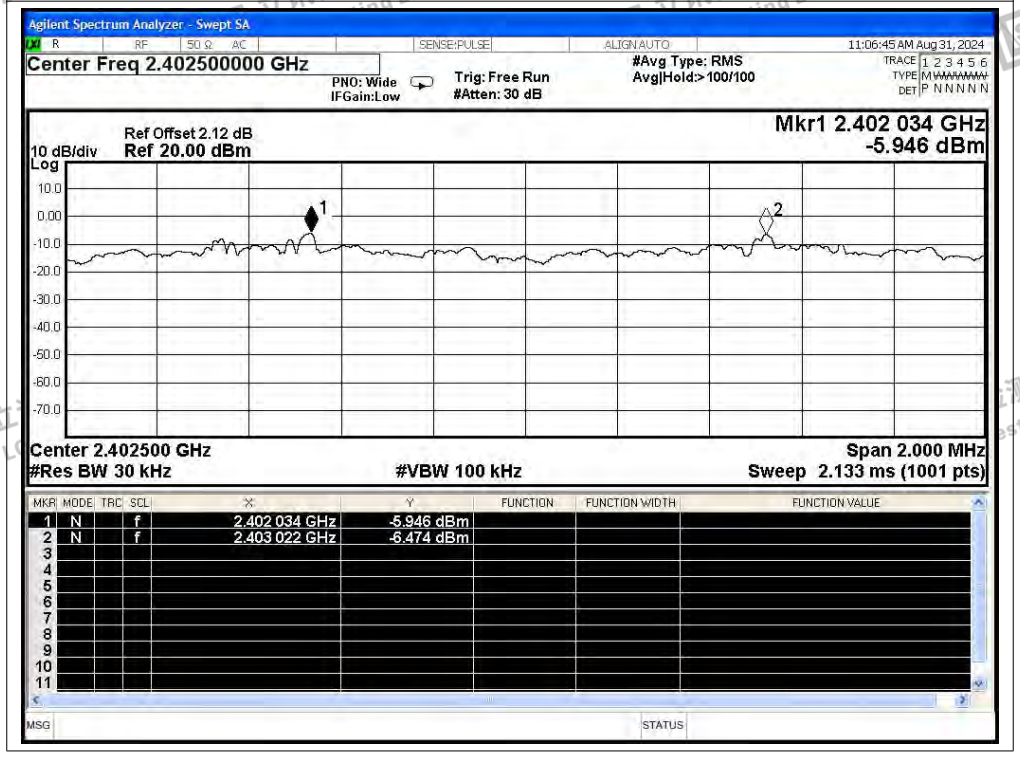
CFS NVNT 1-DH5 2402MHz Ant1



CFS NVNT 2-DH5 2402MHz Ant1



CFS NVNT 3-DH5 2402MHz Ant1

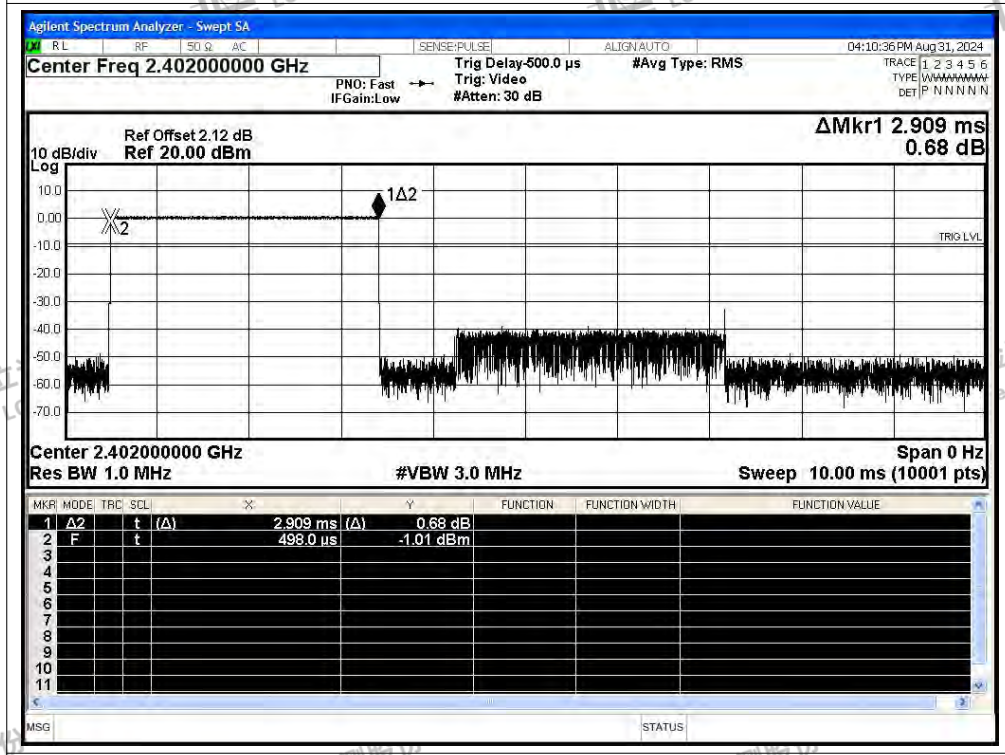


A.4 Dwell Time

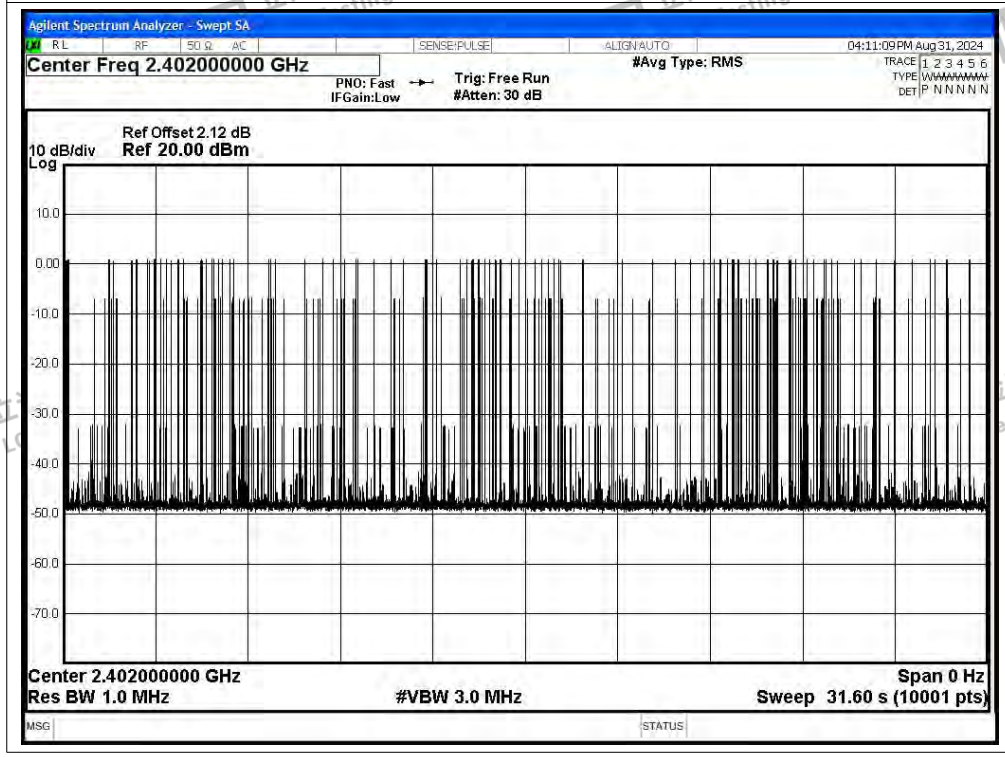
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH5	2402	Ant1	2.909	305.445	105	31600	400	Pass
NVNT	2-DH5	2402	Ant1	2.898	289.8	100	31600	400	Pass
NVNT	3-DH5	2402	Ant1	2.897	321.567	111	31600	400	Pass

Test Graphs

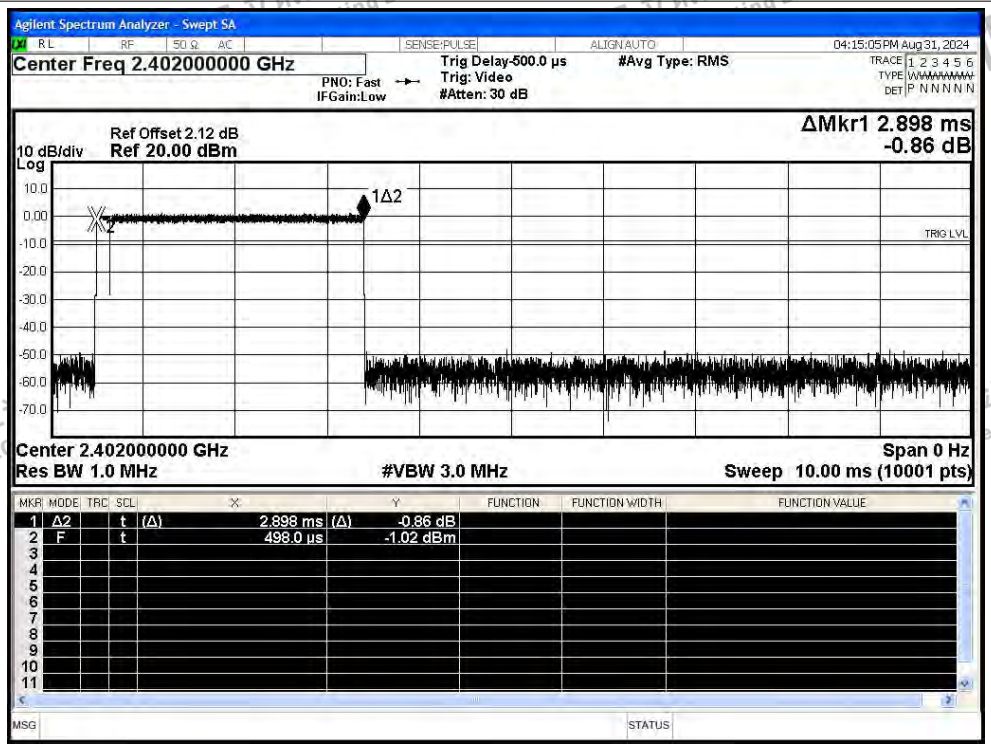
Dwell NVNT 1-DH5 2402MHz Ant1 One Burst



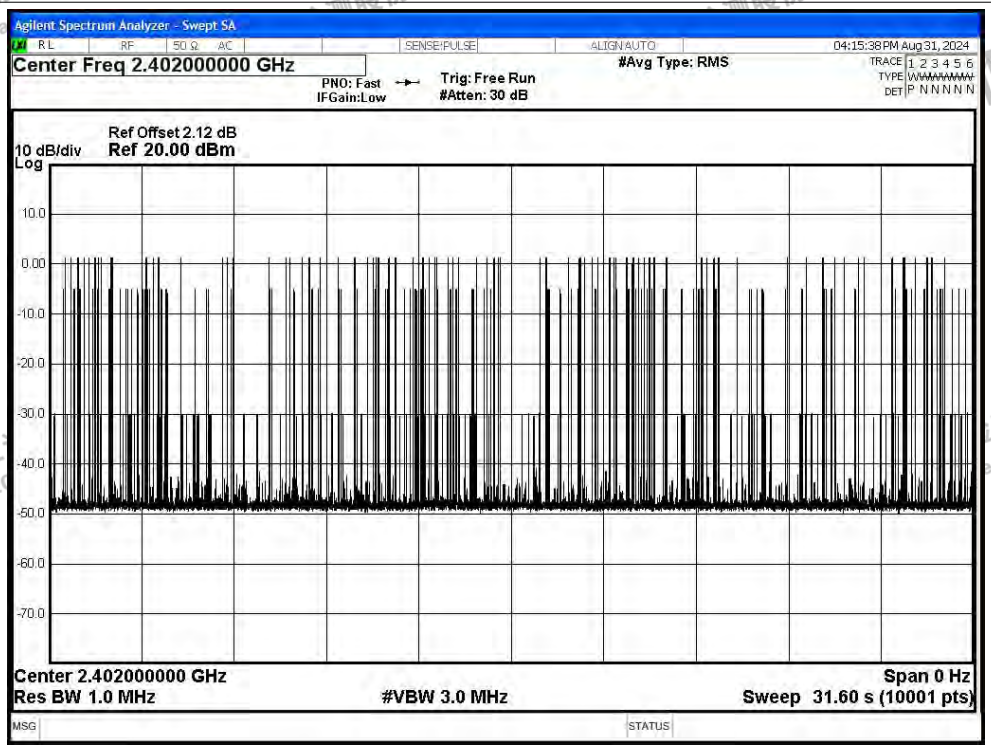
Dwell NVNT 1-DH5 2402MHz Ant1 Accumulated



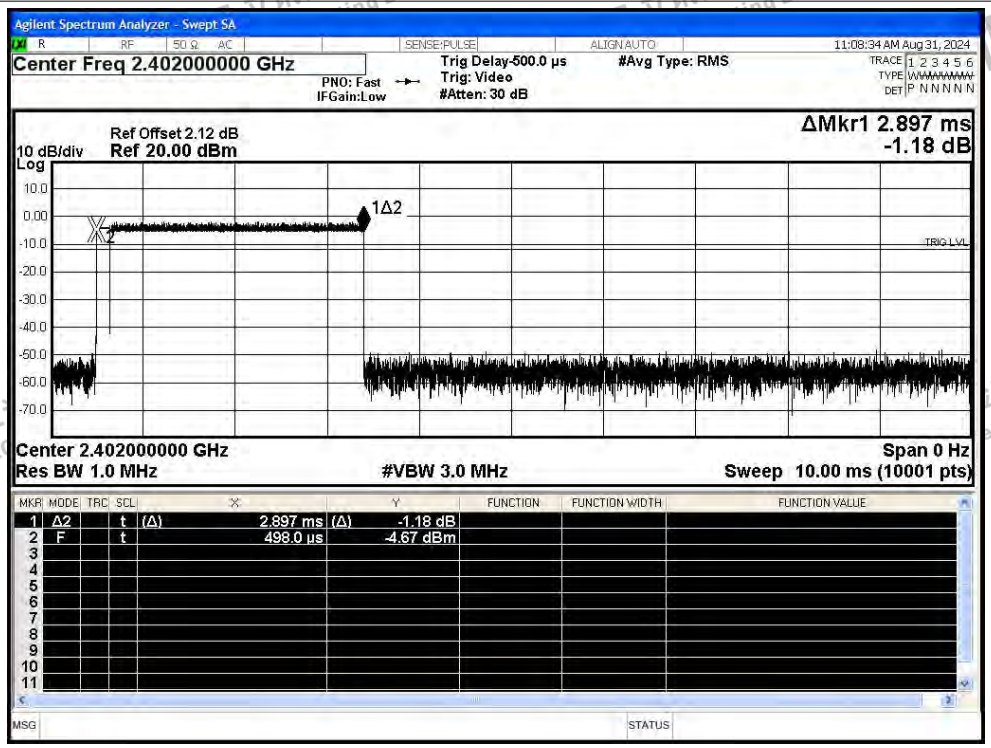
Dwell NVNT 2-DH5 2402MHz Ant1 One Burst



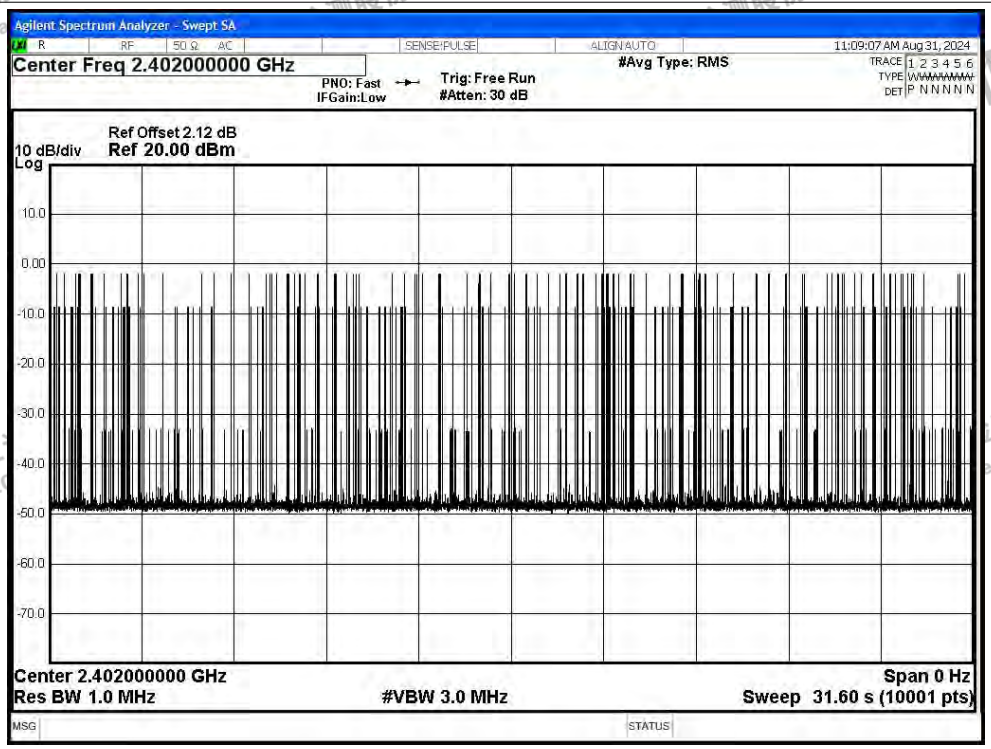
Dwell NVNT 2-DH5 2402MHz Ant1 Accumulated



Dwell NVNT 3-DH5 2402MHz Ant1 One Burst



Dwell NVNT 3-DH5 2402MHz Ant1 Accumulated

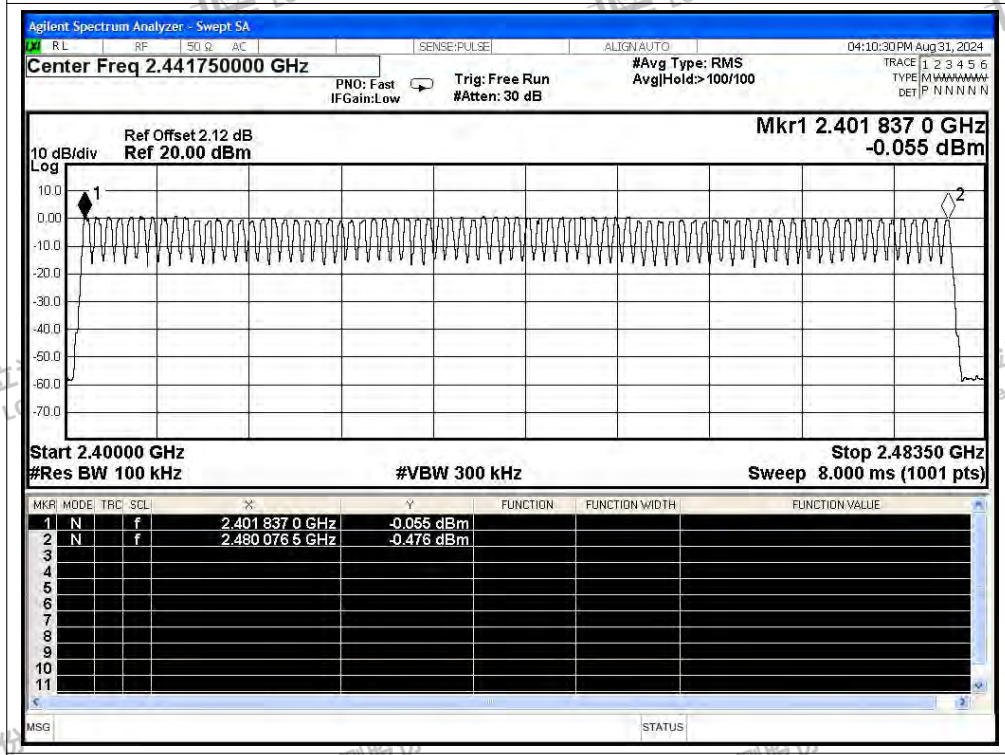


A.5 Number of Hopping Channel

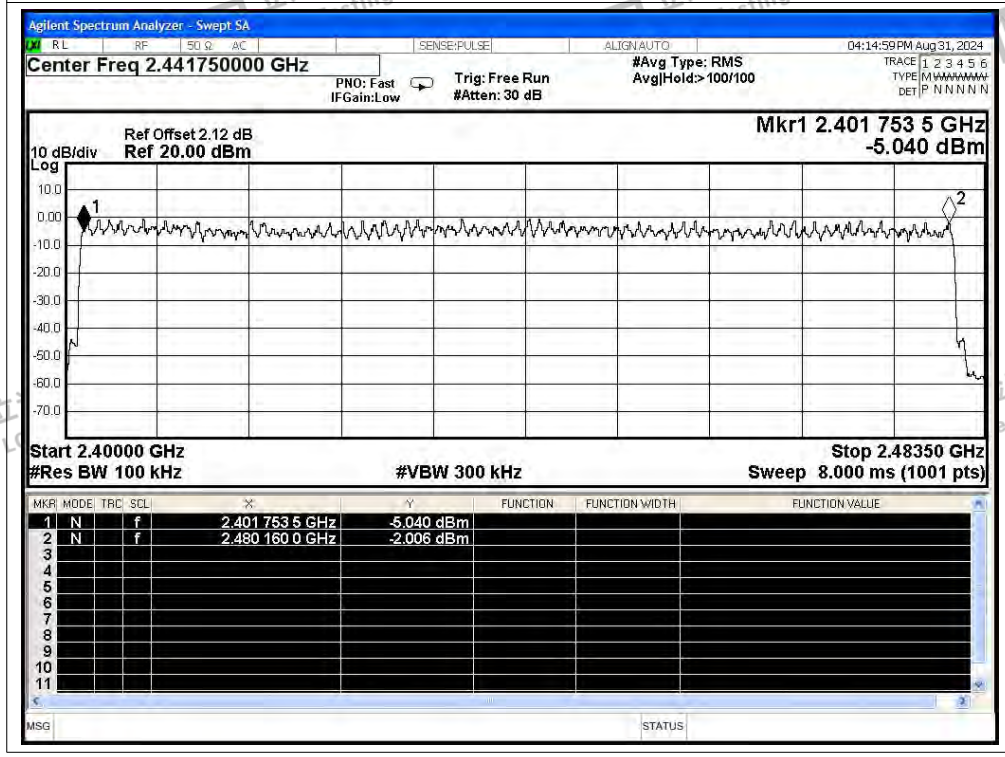
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH5	Ant1	79	15	Pass
NVNT	2-DH5	Ant1	79	15	Pass
NVNT	3-DH5	Ant1	79	15	Pass

Test Graphs

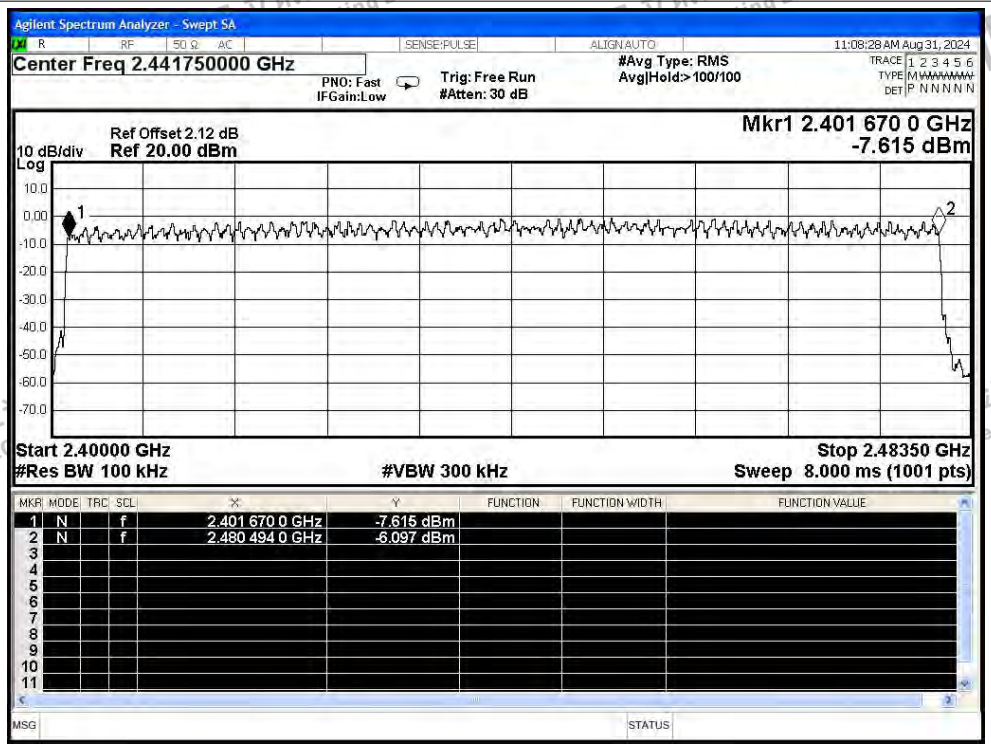
Hopping No. NVNT 1-DH5 2402MHz Ant1



Hopping No. NVNT 2-DH5 2402MHz Ant1



Hopping No. NVNT 3-DH5 2402MHz Ant1

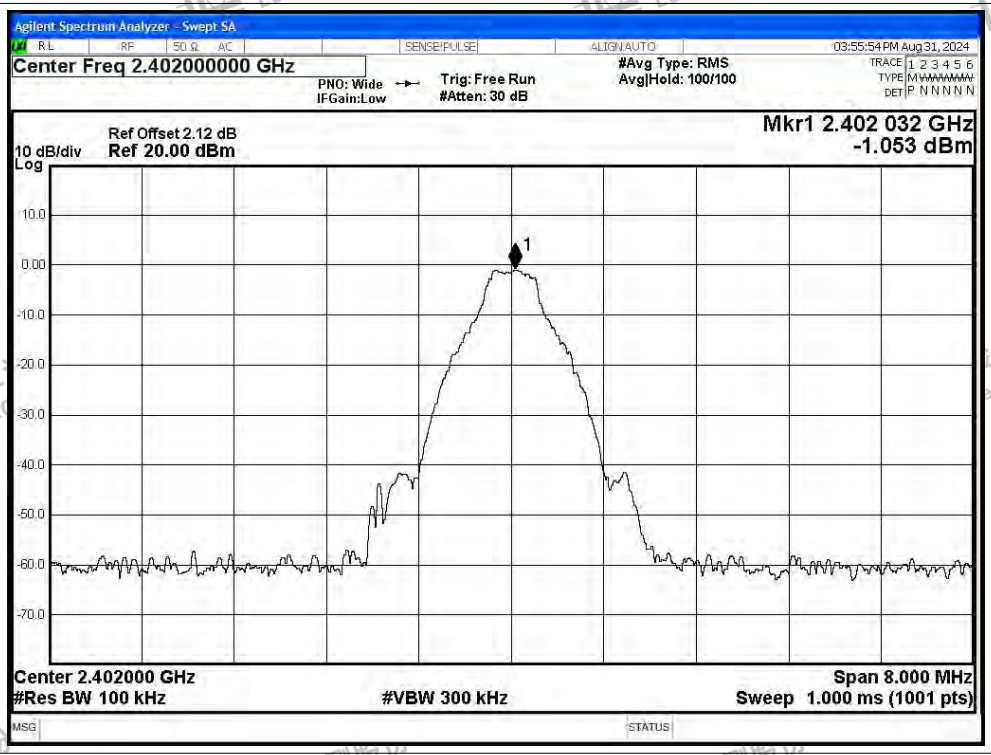


A.6 Band Edge

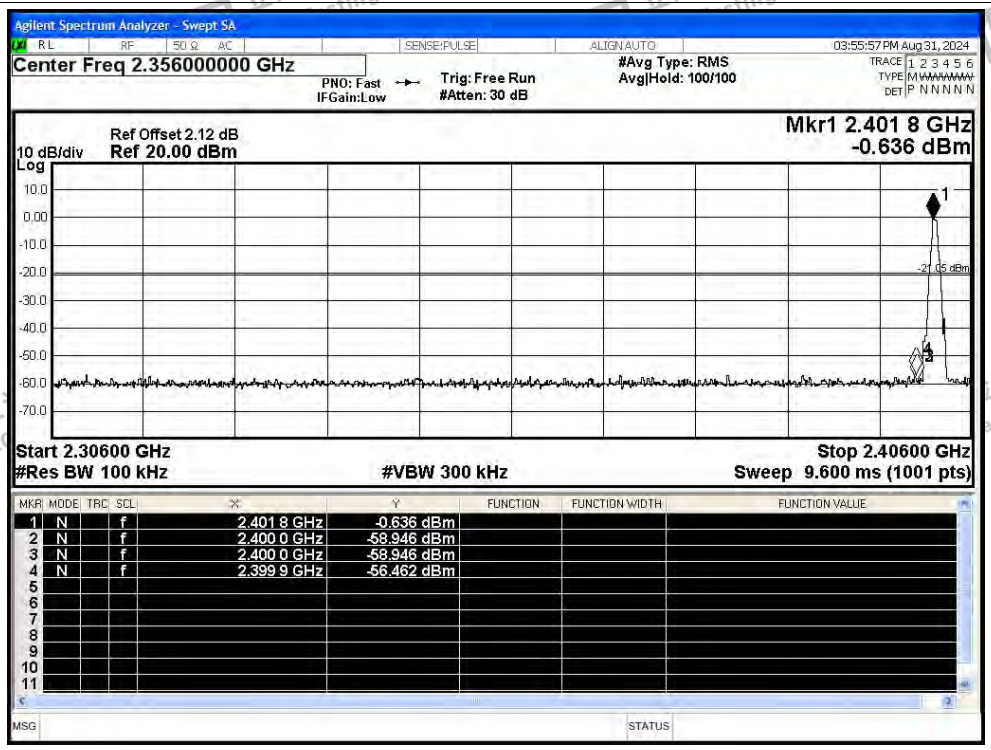
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	-55.41	-20	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	-56.03	-20	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	-53.64	-20	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	-55.58	-20	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	-52.04	-20	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	-53.64	-20	Pass

Test Graphs

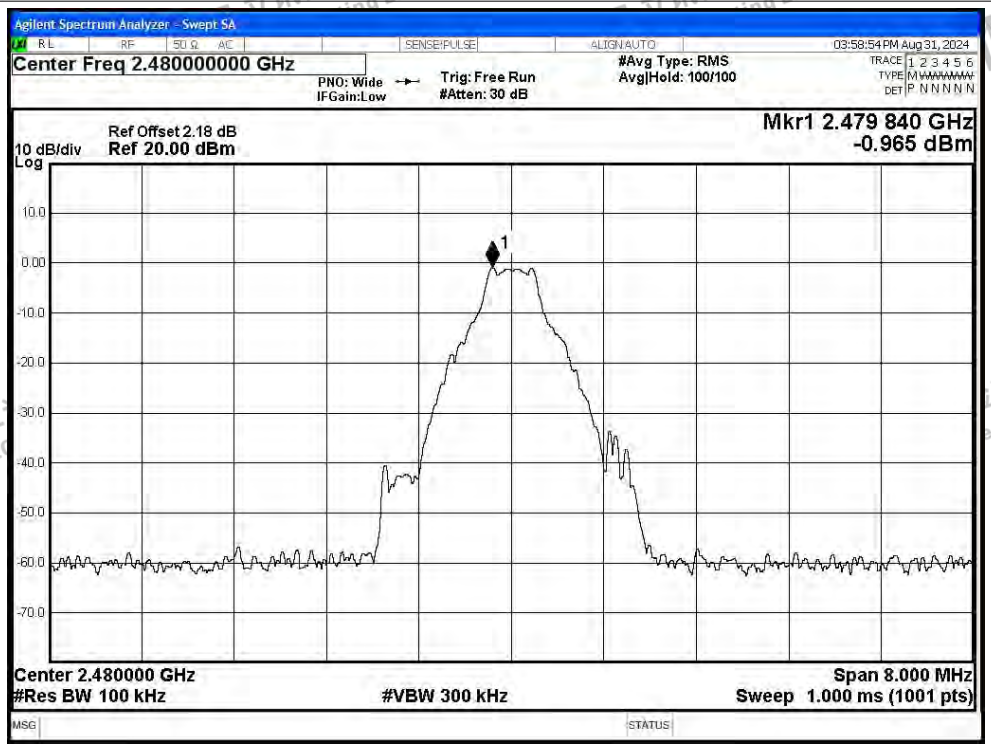
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Ref



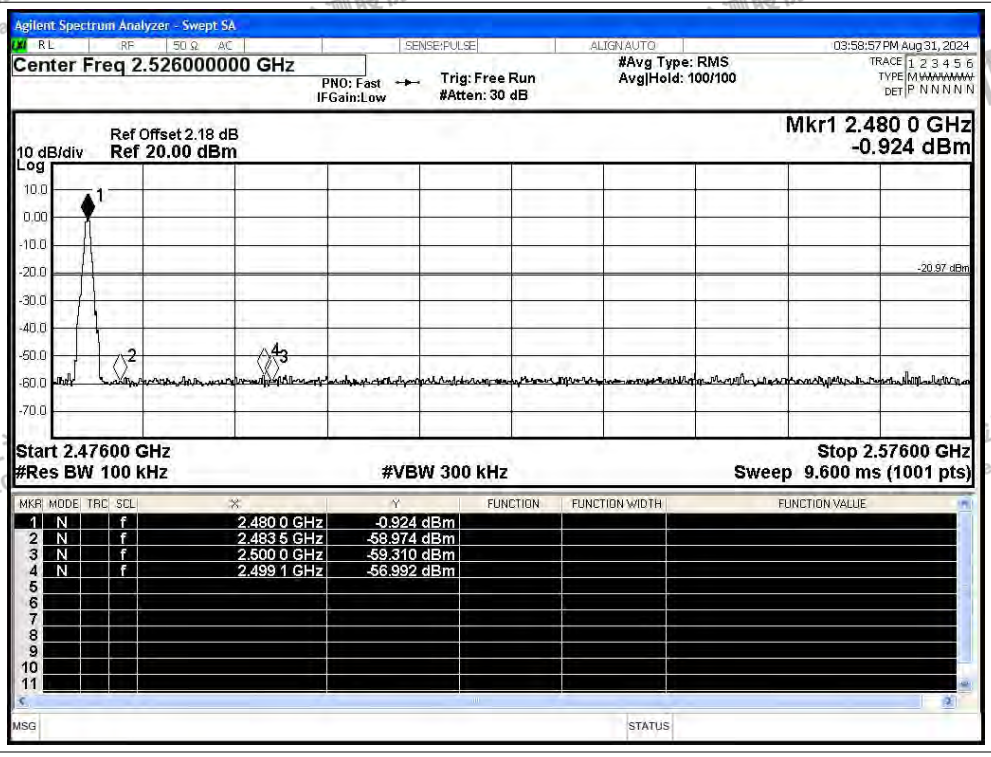
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Emission



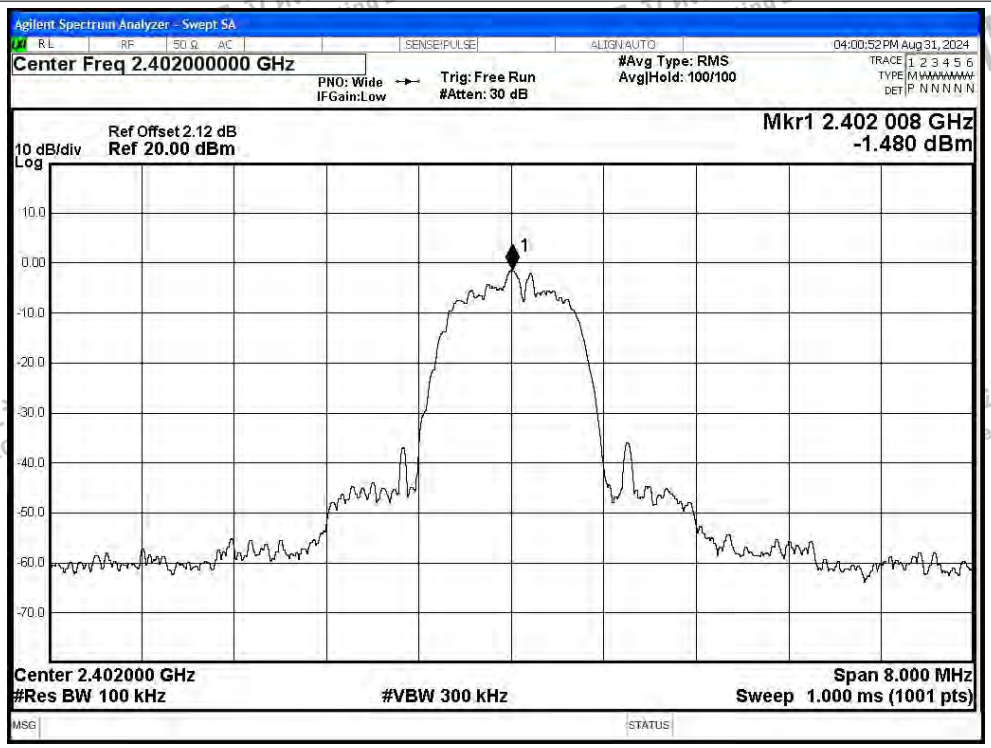
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref



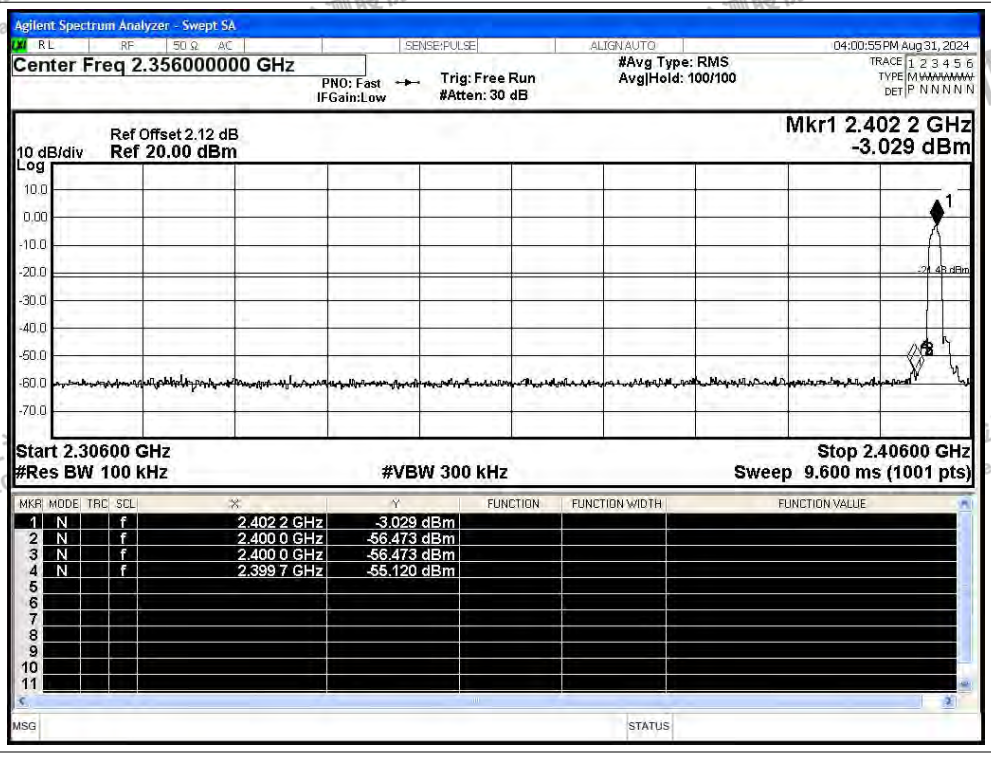
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Emission



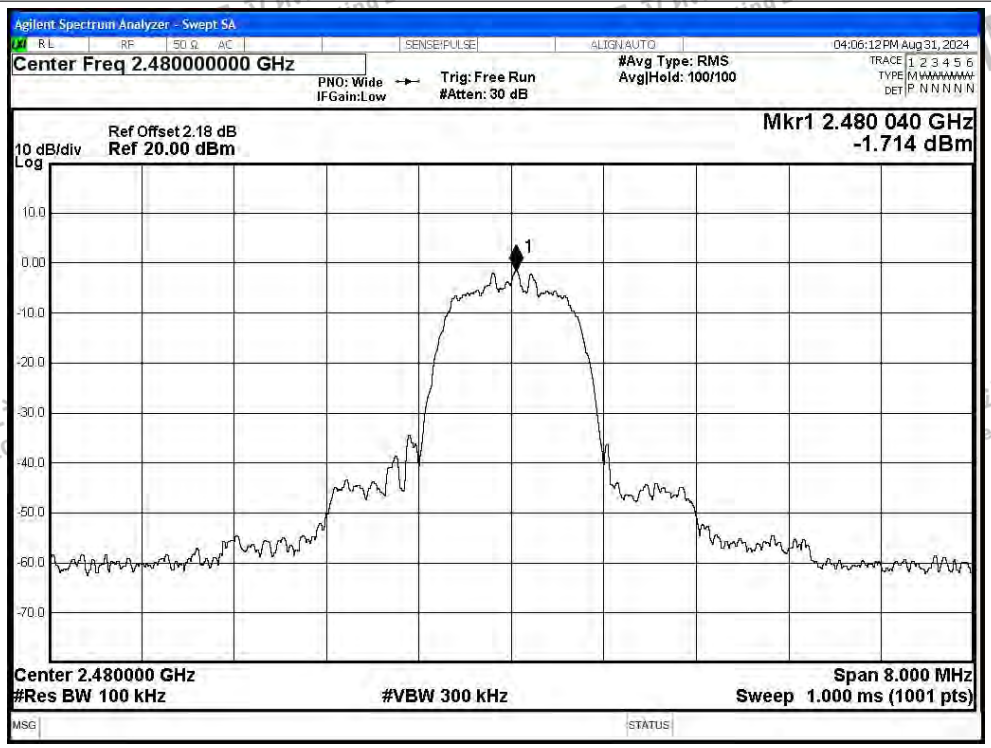
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Ref



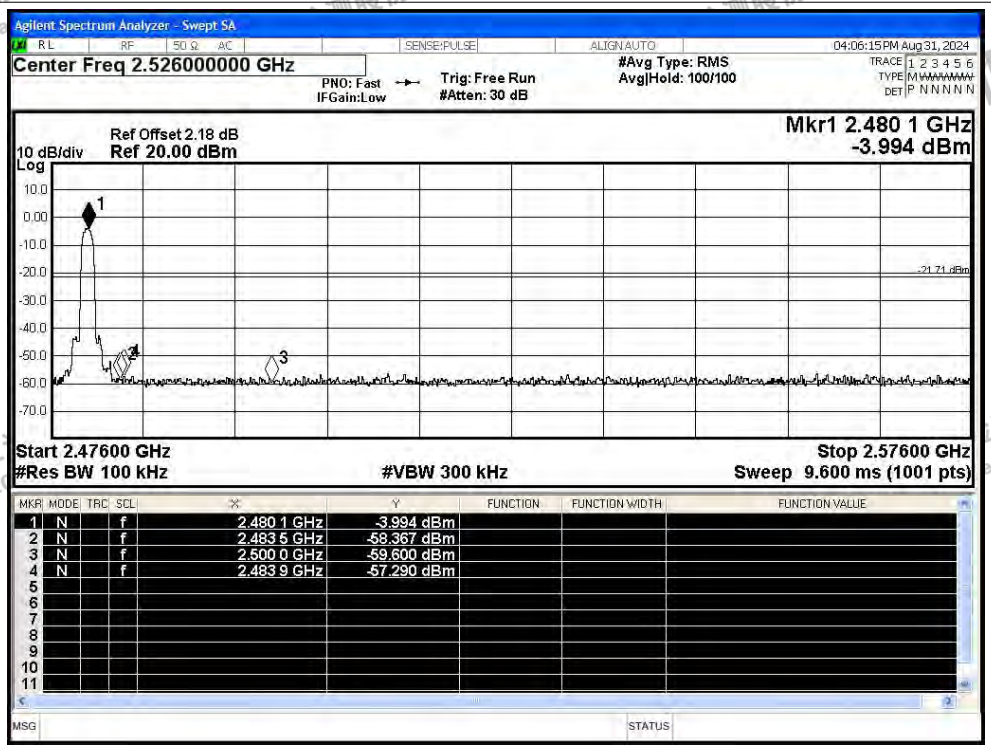
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Emission



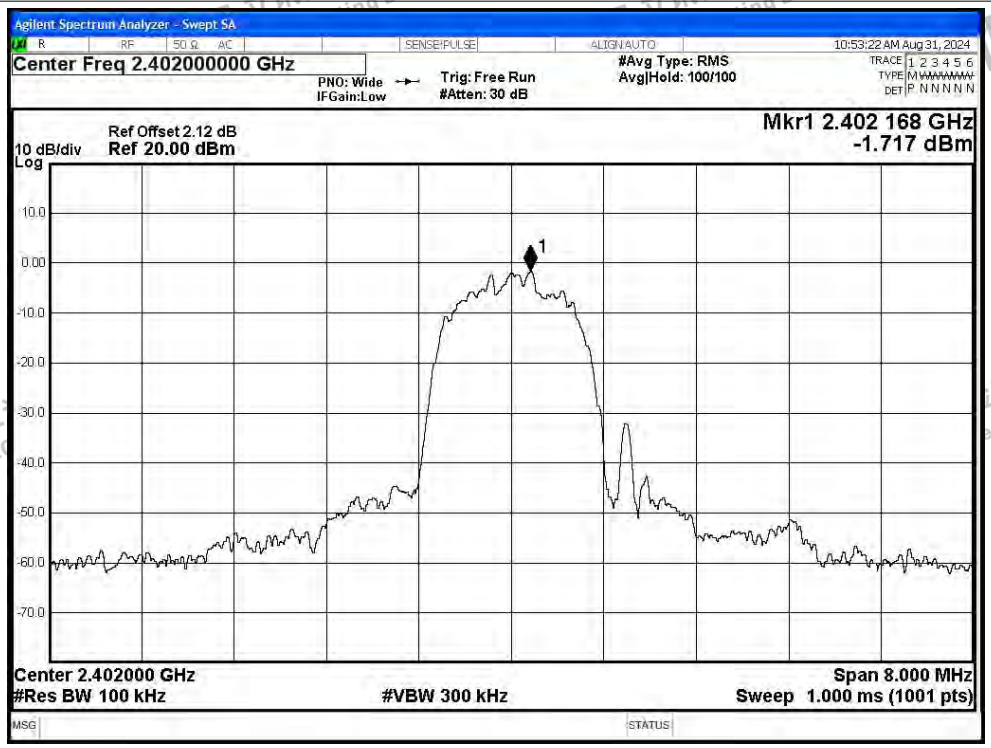
Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Ref



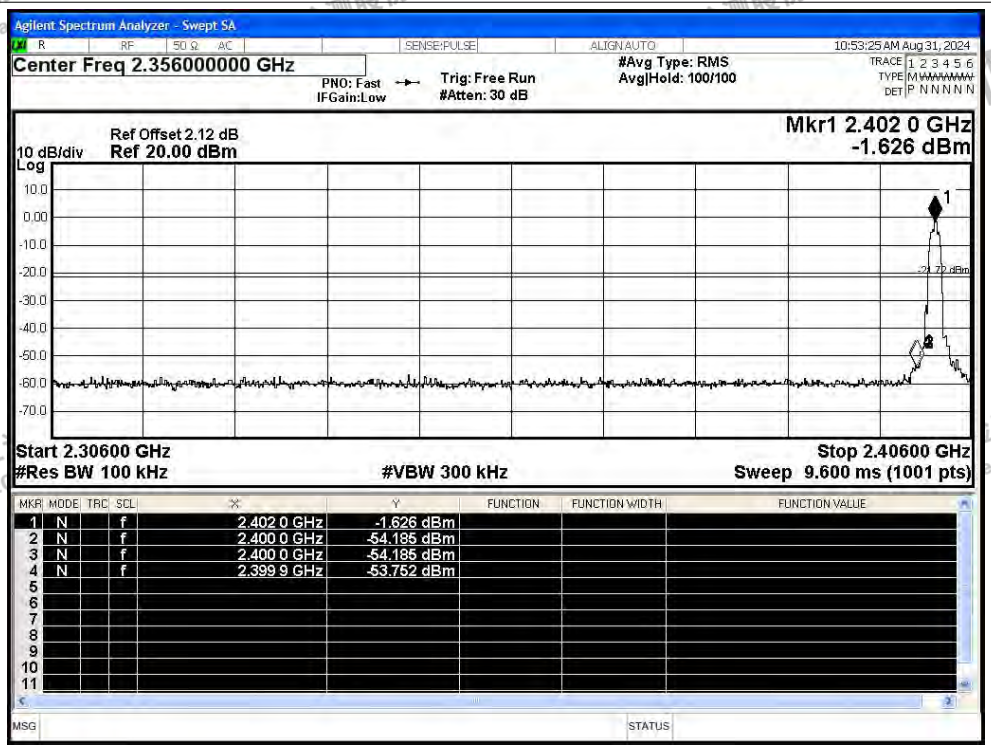
Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Emission



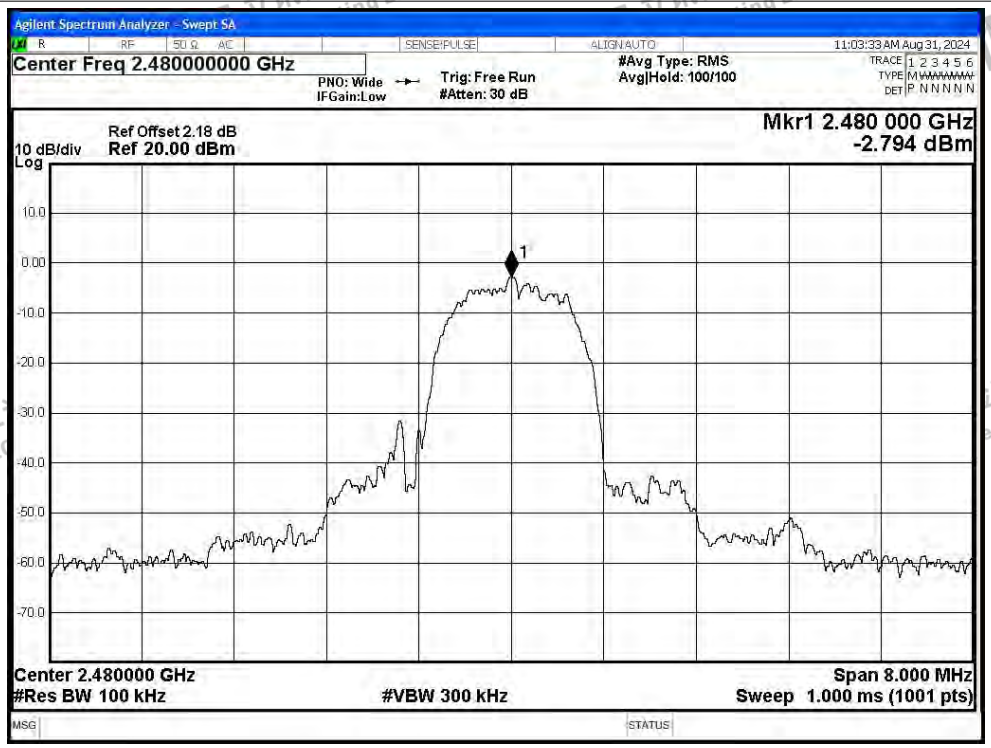
Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Ref



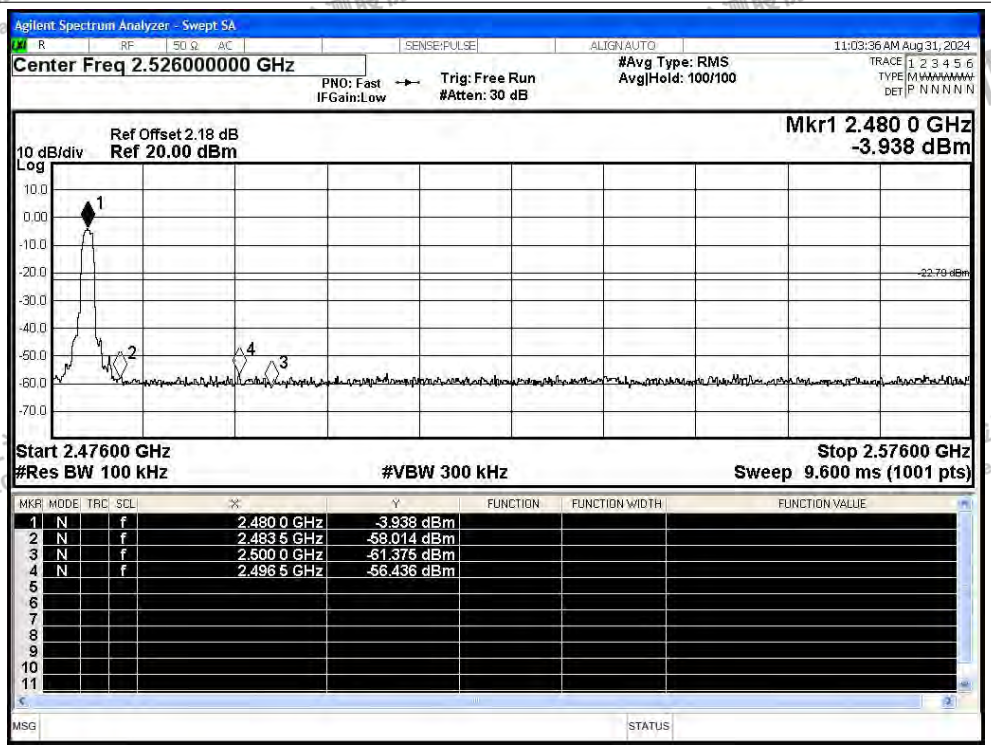
Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Emission



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



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



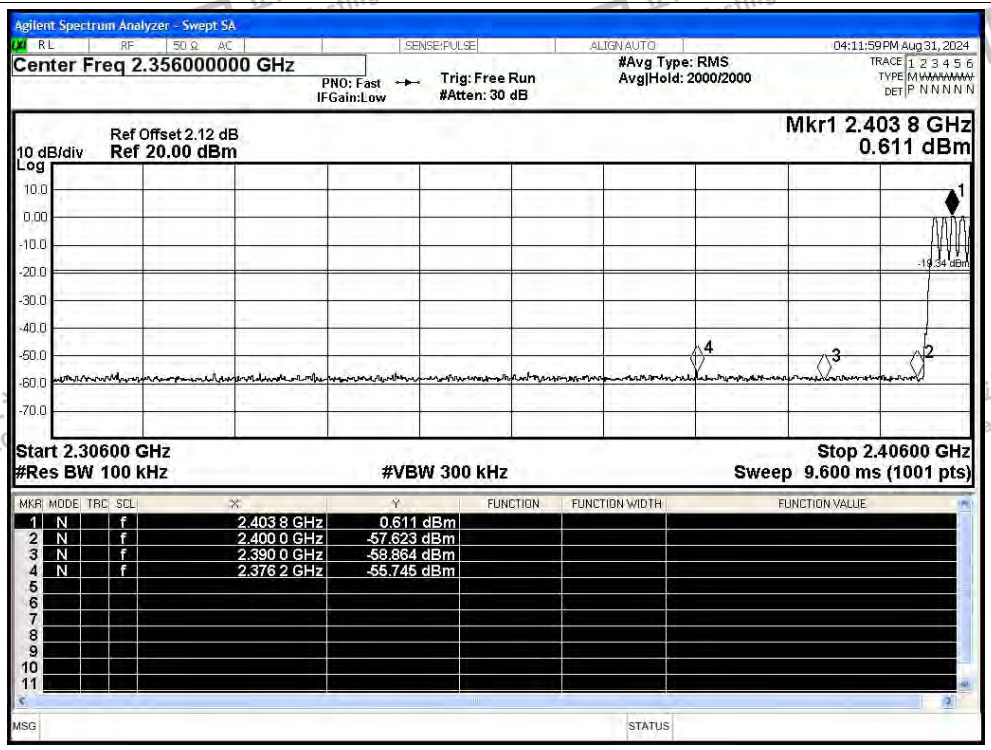
(Hopping)

Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	Hopping	-56.4	-20	Pass
NVNT	1-DH5	2480	Ant1	Hopping	-55.88	-20	Pass
NVNT	2-DH5	2402	Ant1	Hopping	-55.12	-20	Pass
NVNT	2-DH5	2480	Ant1	Hopping	-54.33	-20	Pass
NVNT	3-DH5	2402	Ant1	Hopping	-52.49	-20	Pass
NVNT	3-DH5	2480	Ant1	Hopping	-53.78	-20	Pass

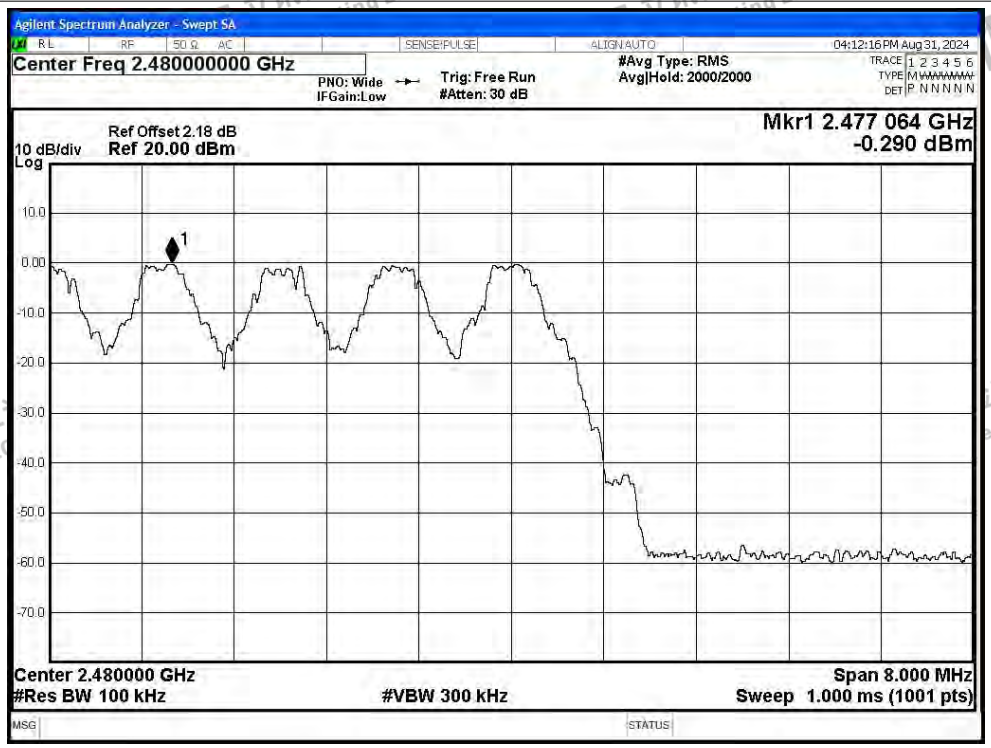
Test Graphs

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

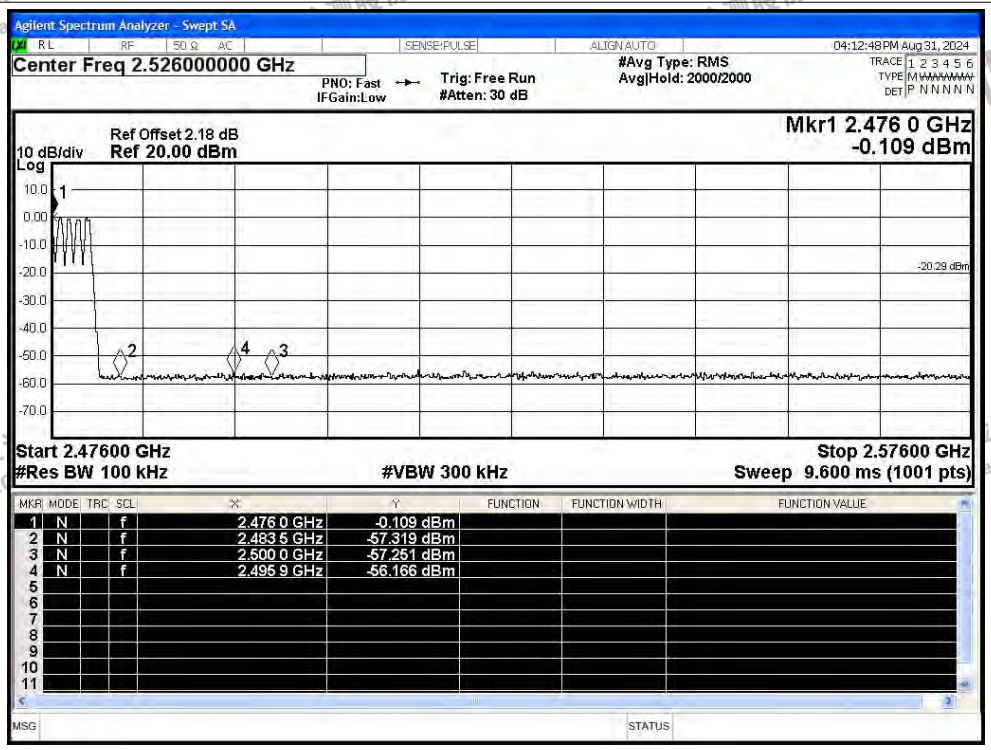
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission



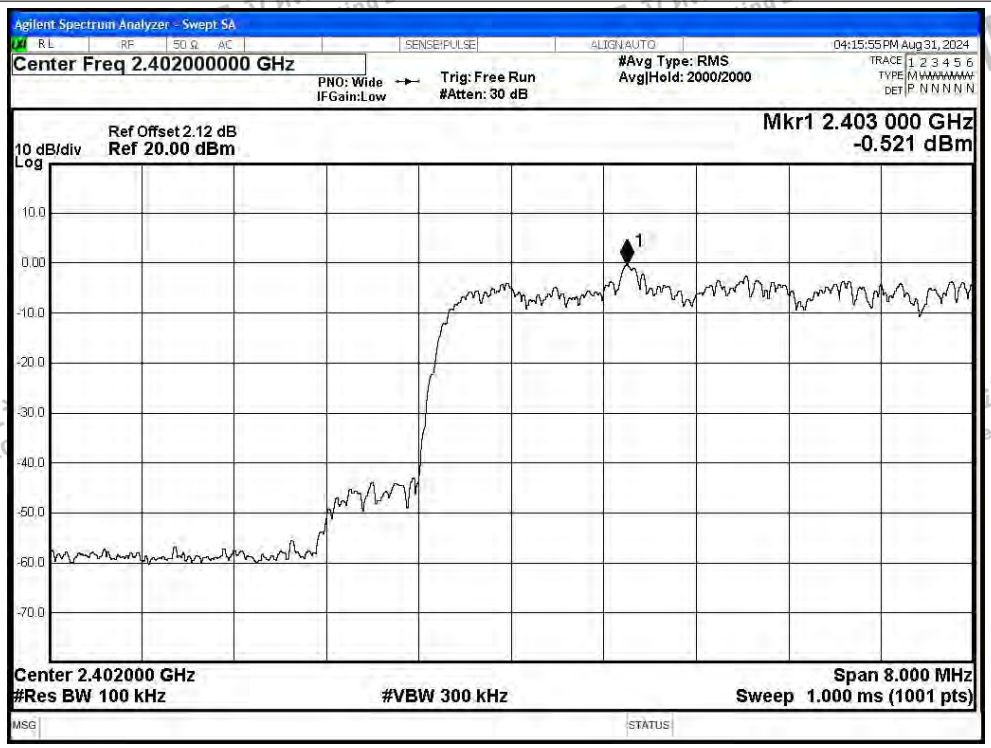
Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Ref



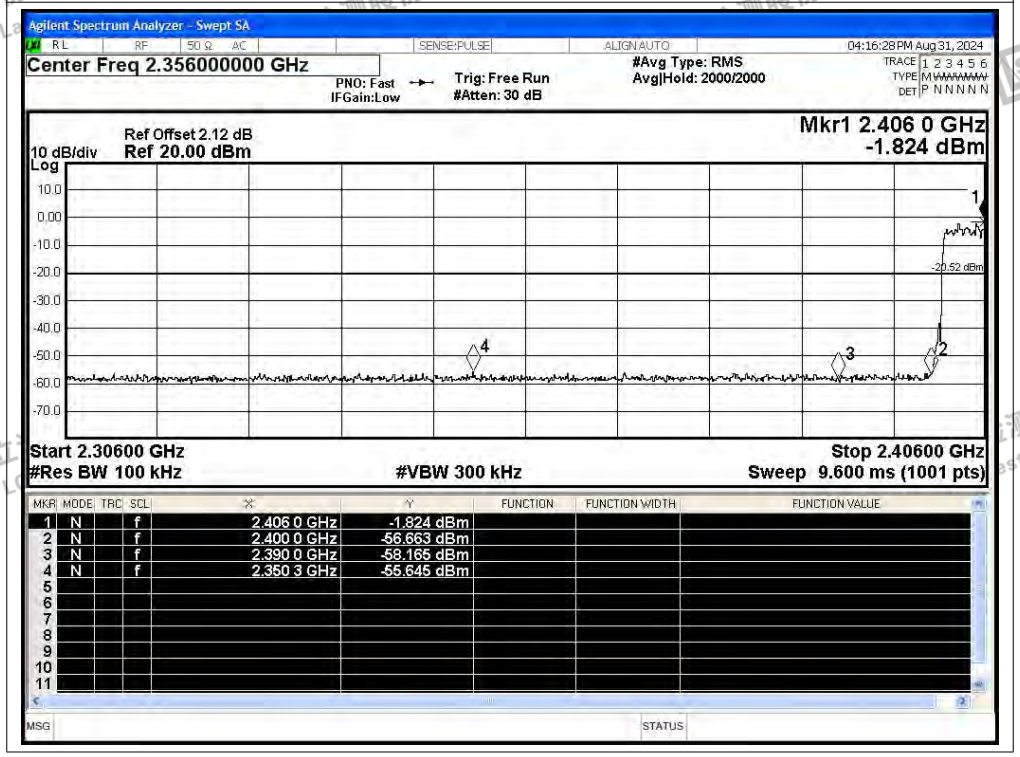
Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Emission



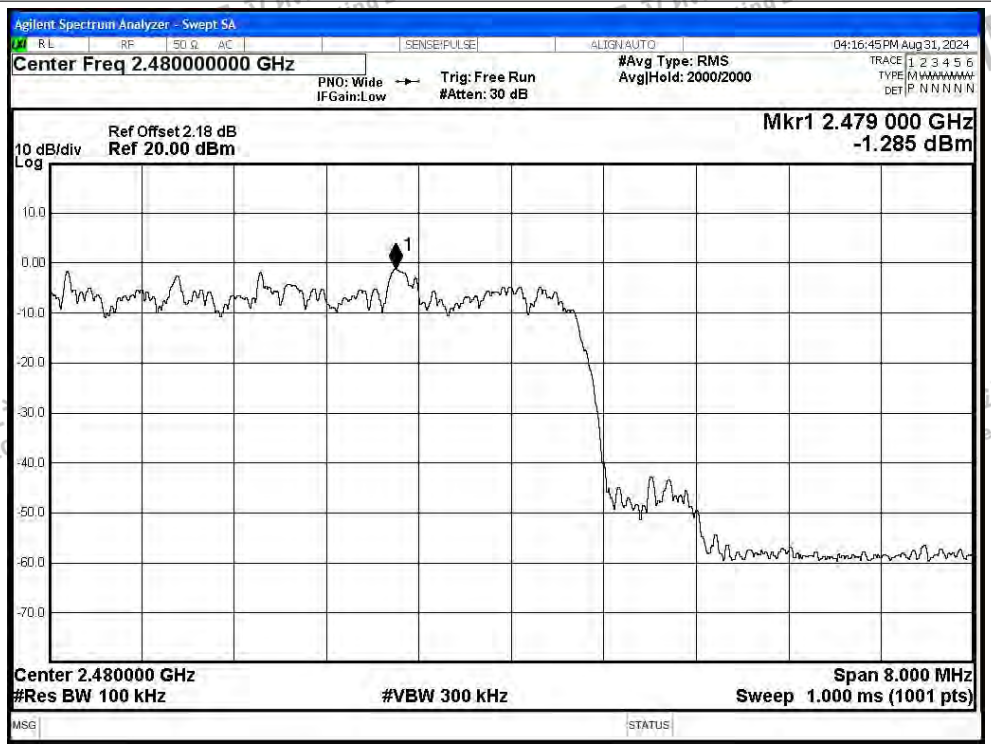
Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Ref



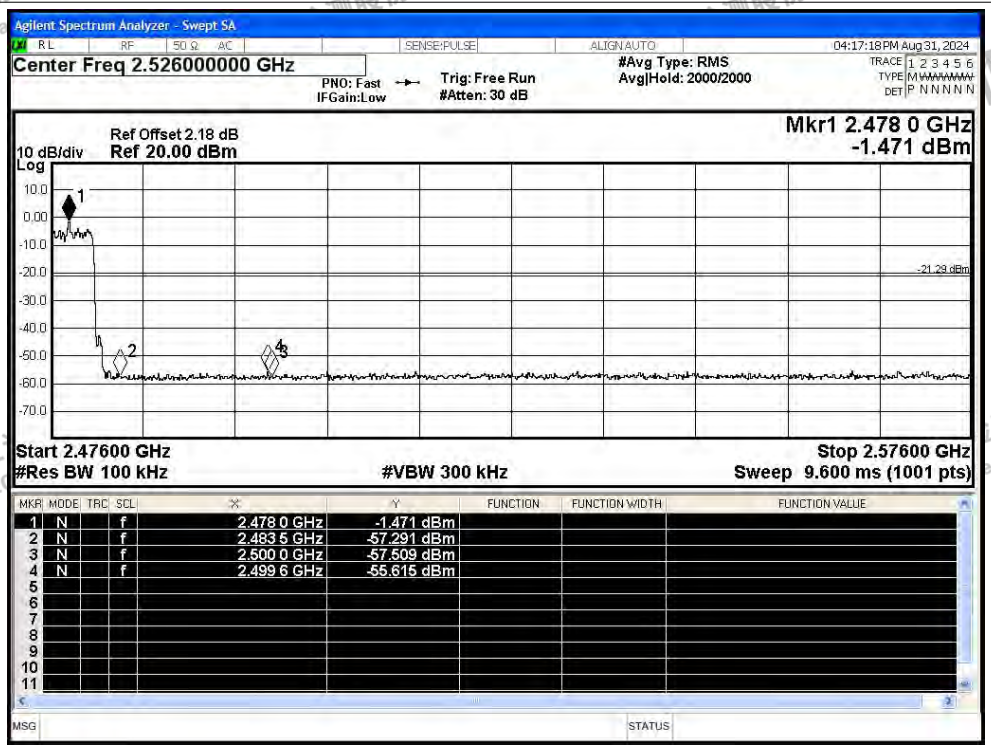
Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Emission



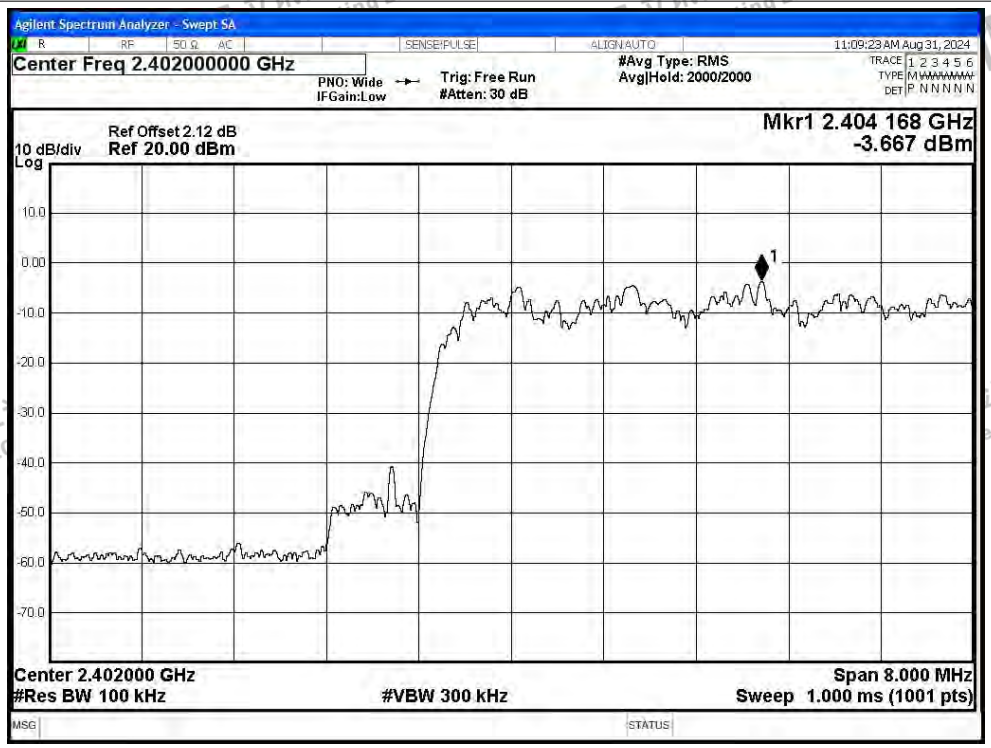
Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Ref



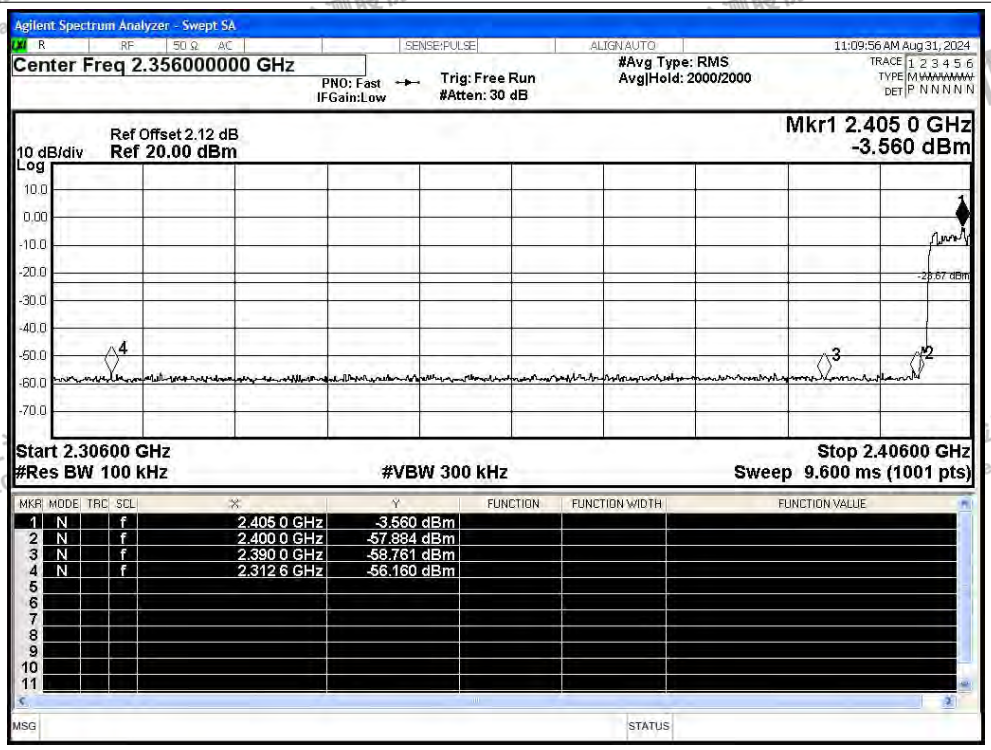
Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Emission



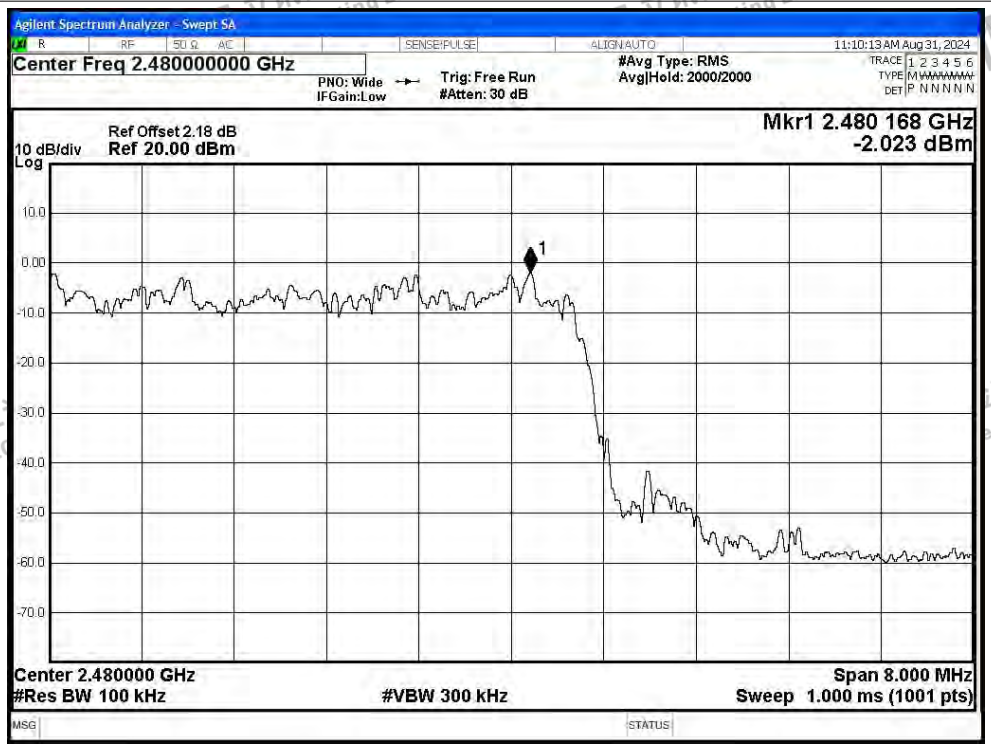
Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Ref



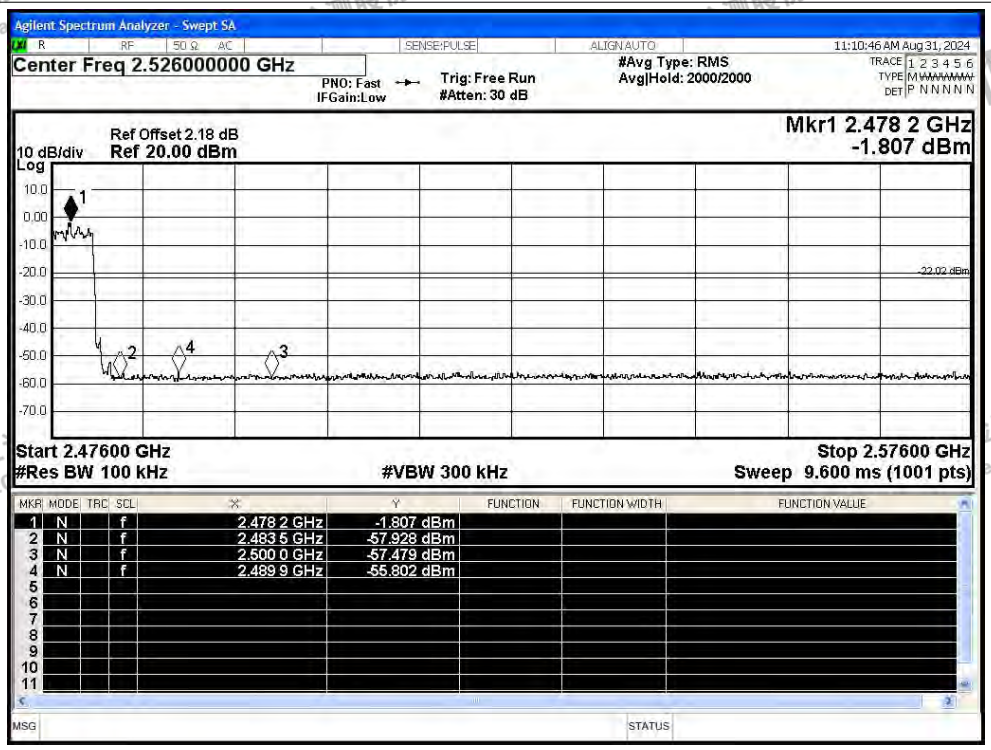
Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Emission



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



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



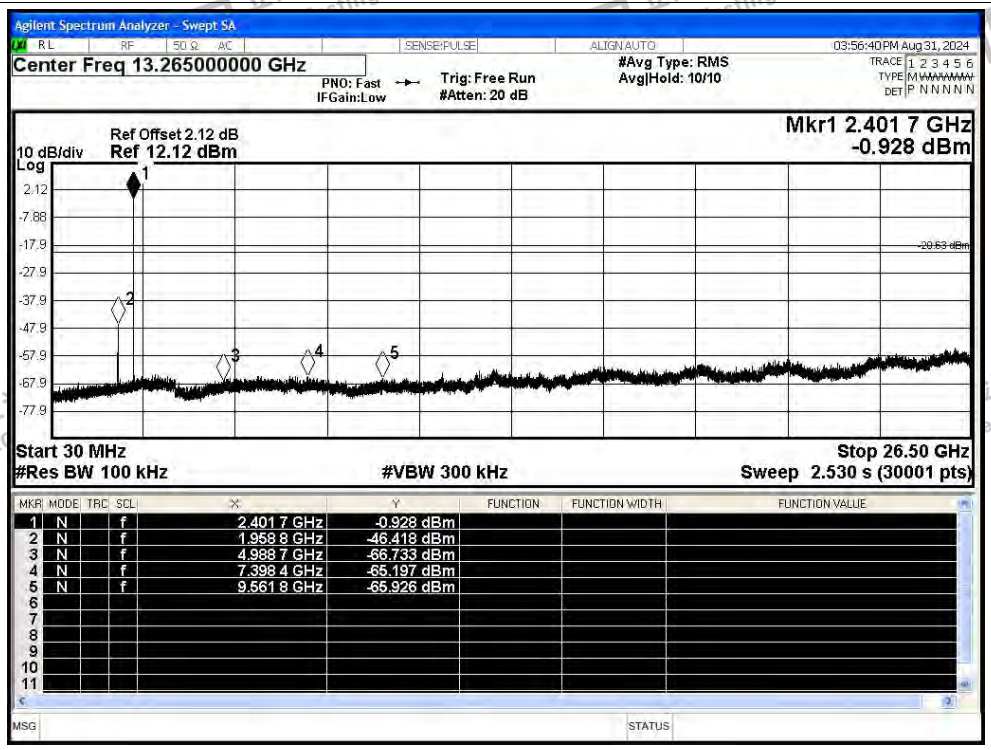
A.7 Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	-45.79	-20	Pass
NVNT	1-DH5	2441	Ant1	-51.84	-20	Pass
NVNT	1-DH5	2480	Ant1	-54.7	-20	Pass
NVNT	2-DH5	2402	Ant1	-53.45	-20	Pass
NVNT	2-DH5	2441	Ant1	-52.24	-20	Pass
NVNT	2-DH5	2480	Ant1	-53.1	-20	Pass
NVNT	3-DH5	2402	Ant1	-53.21	-20	Pass
NVNT	3-DH5	2441	Ant1	-52.19	-20	Pass
NVNT	3-DH5	2480	Ant1	-53.24	-20	Pass

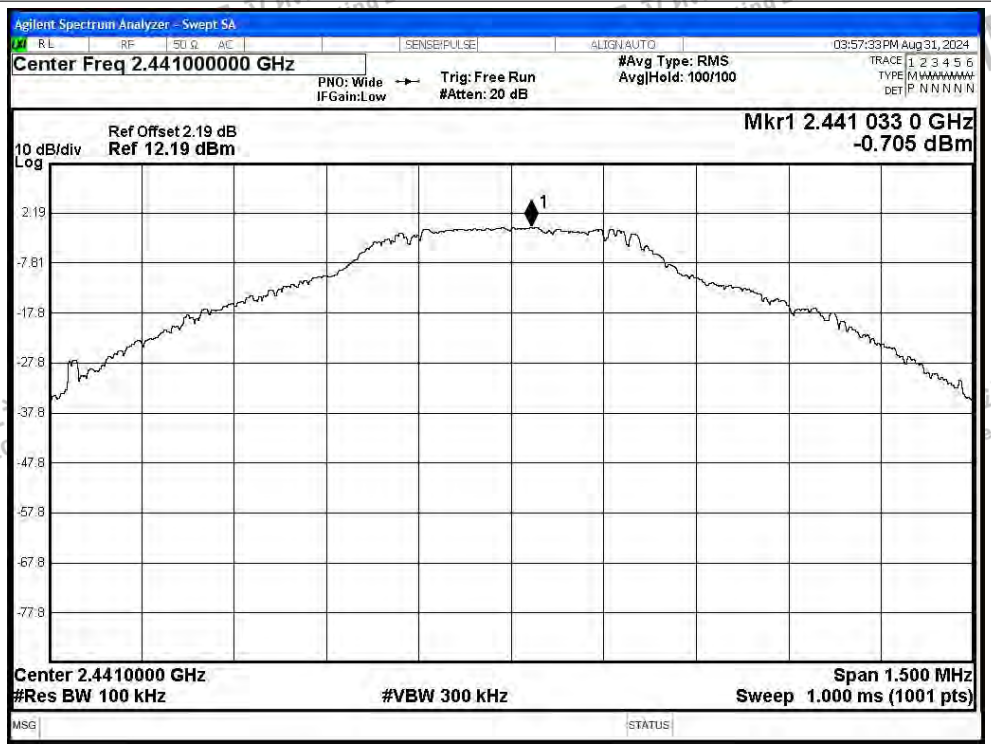
Test Graphs

Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref

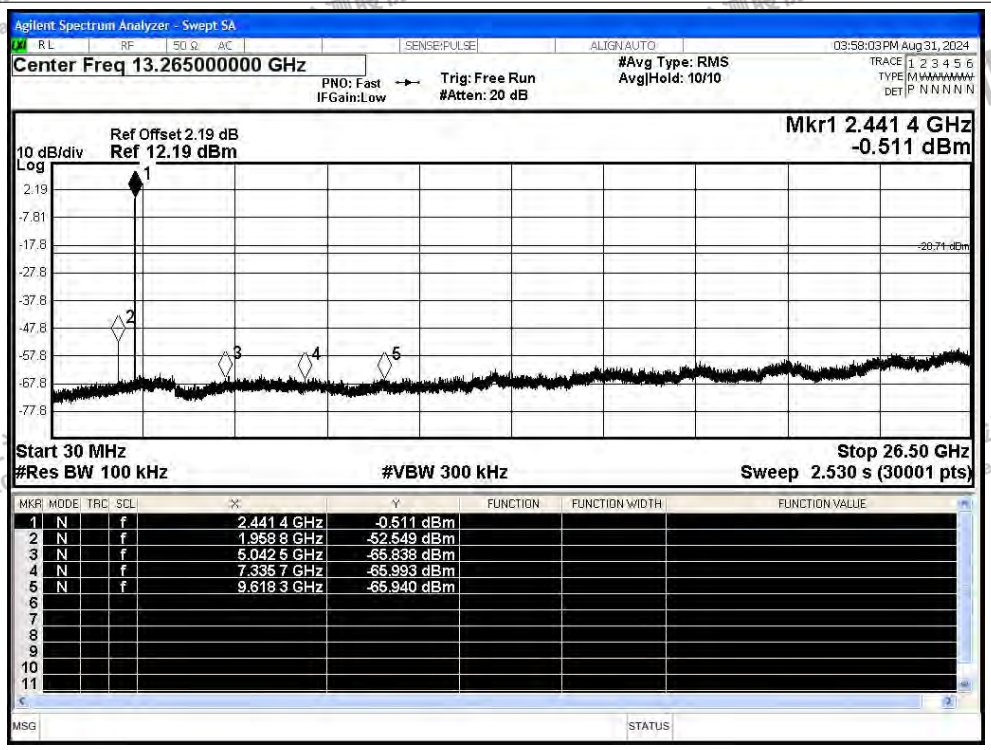
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission



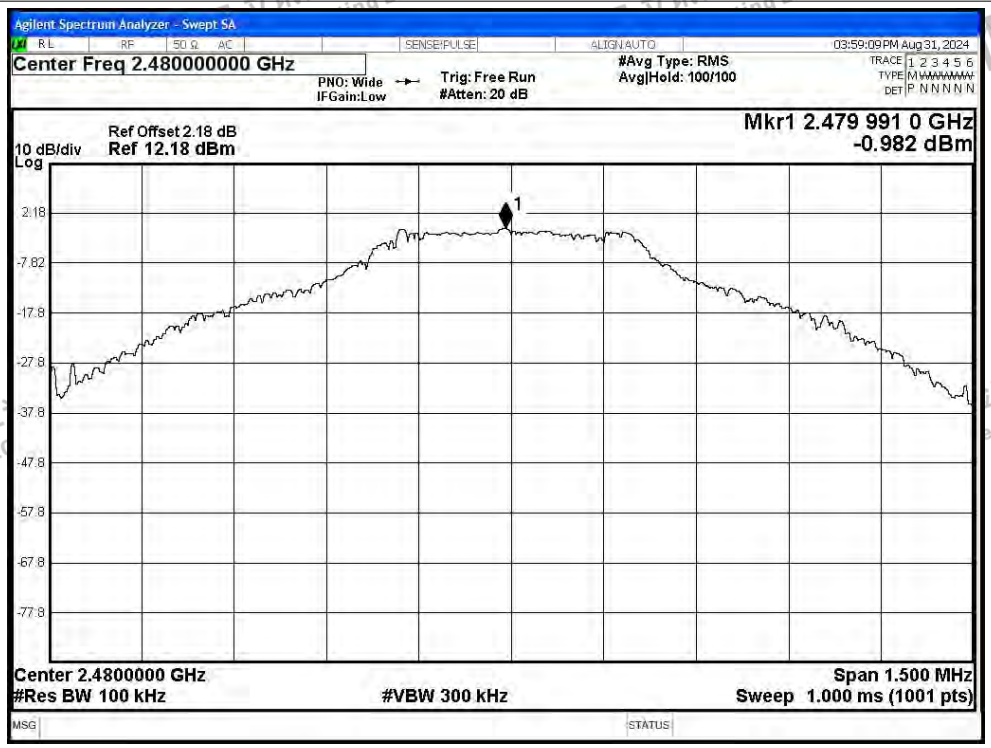
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref



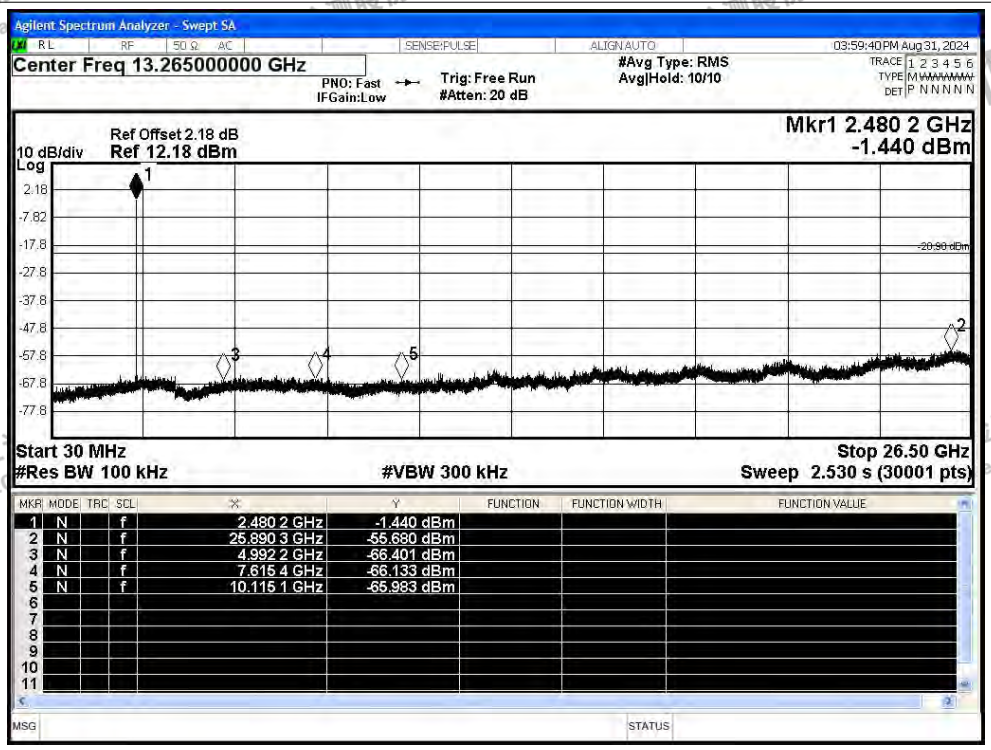
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission



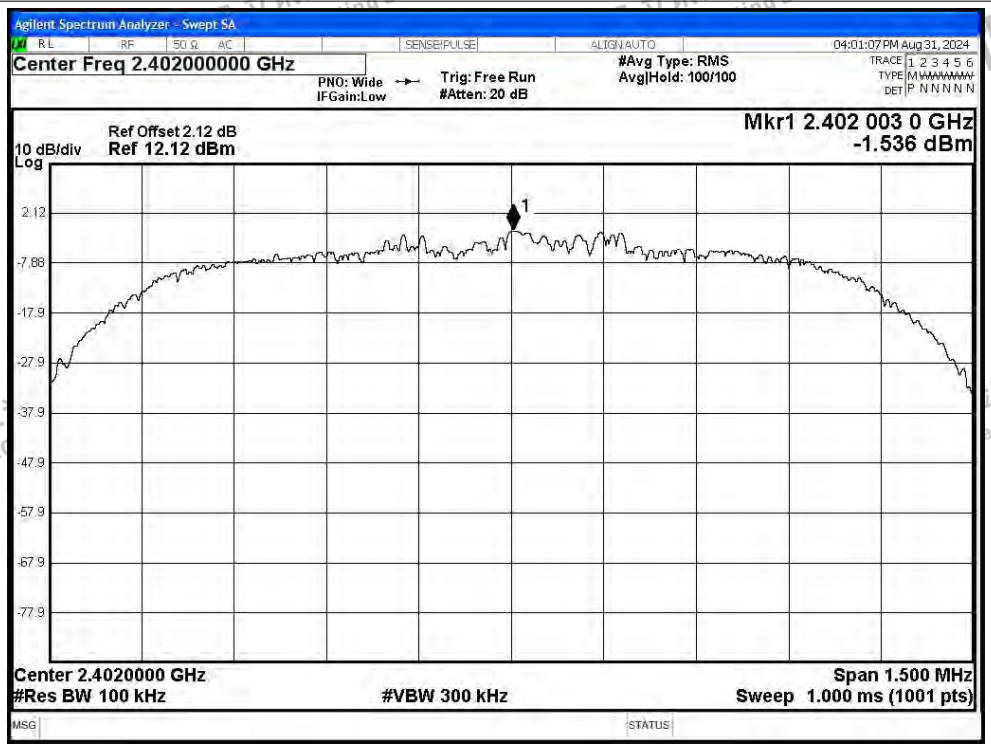
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref



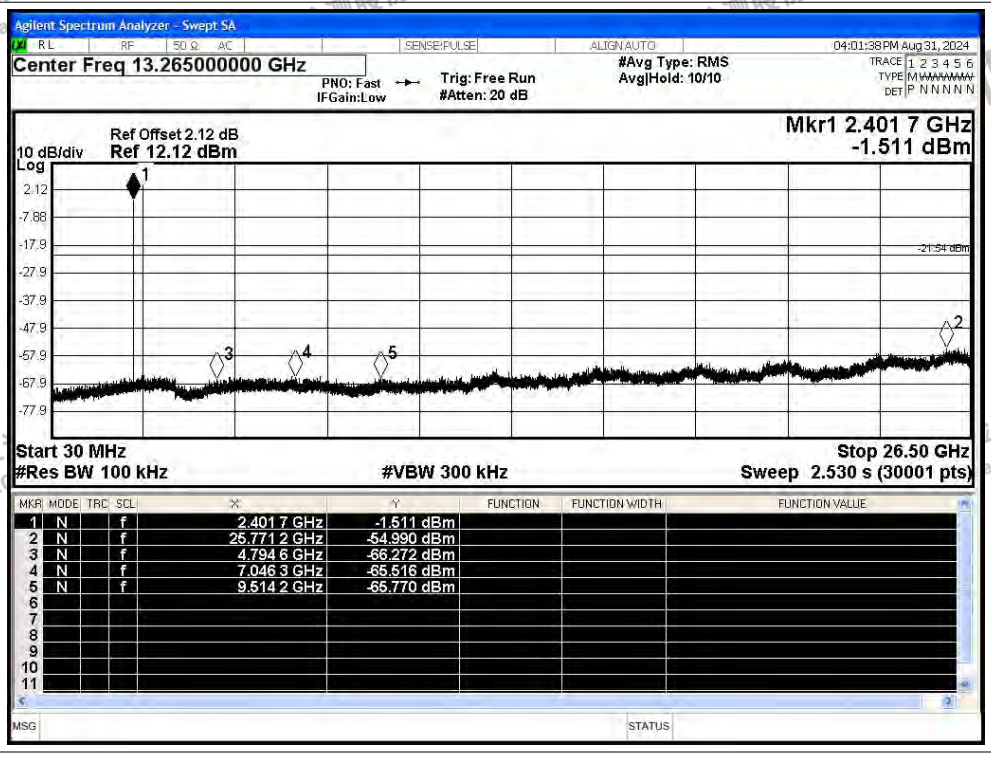
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Emission



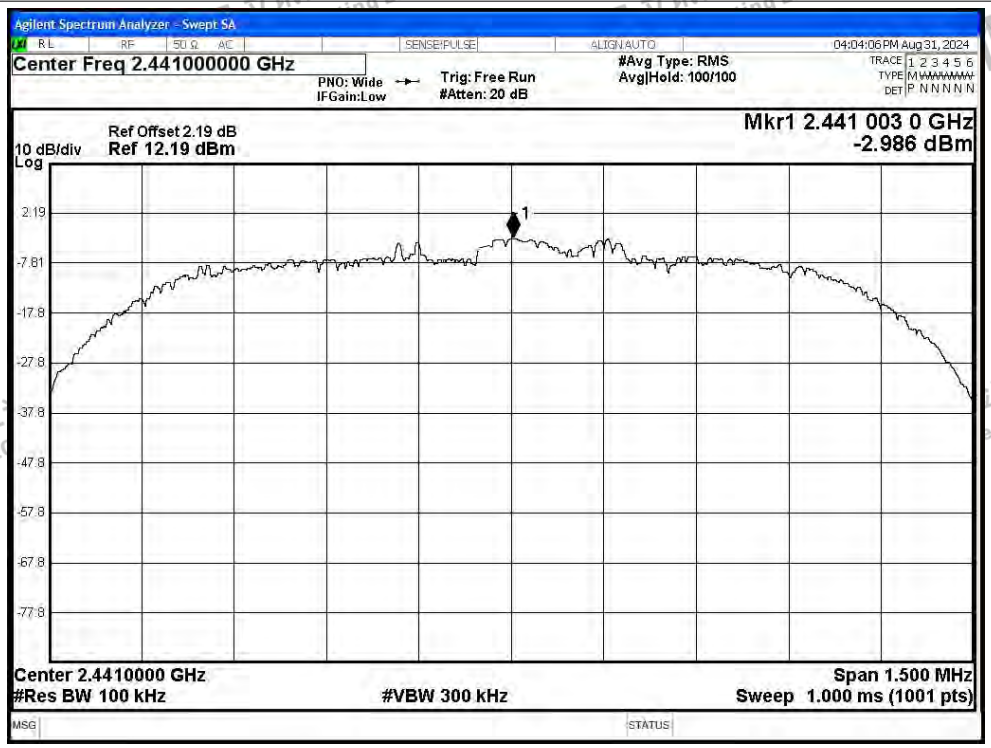
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Ref



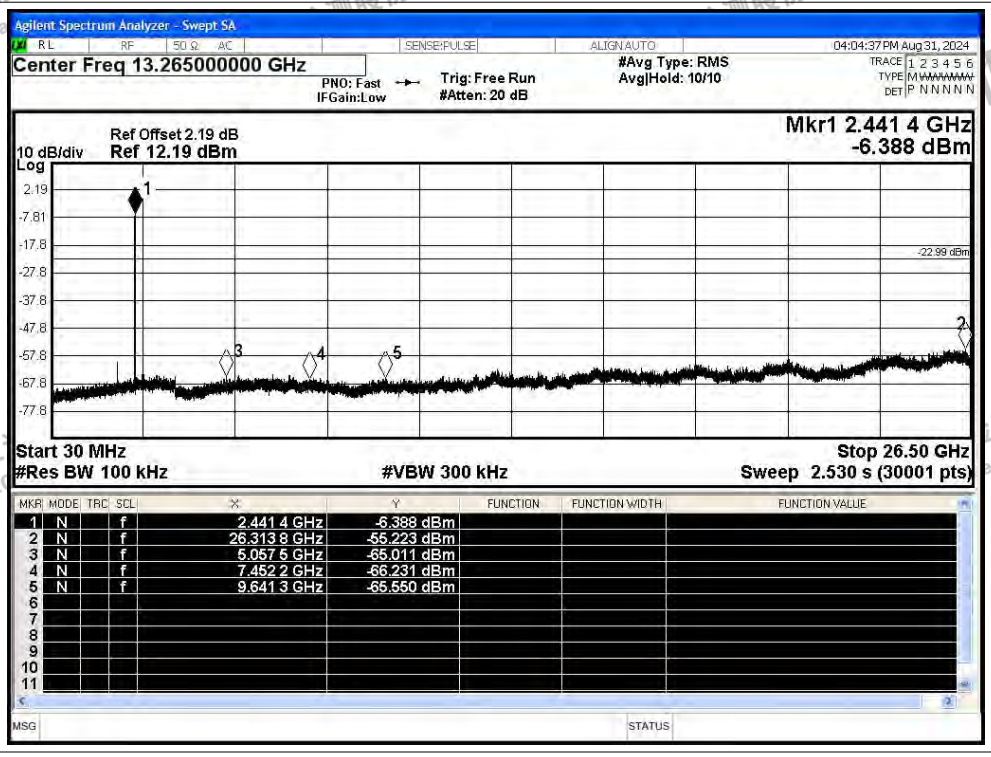
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Emission



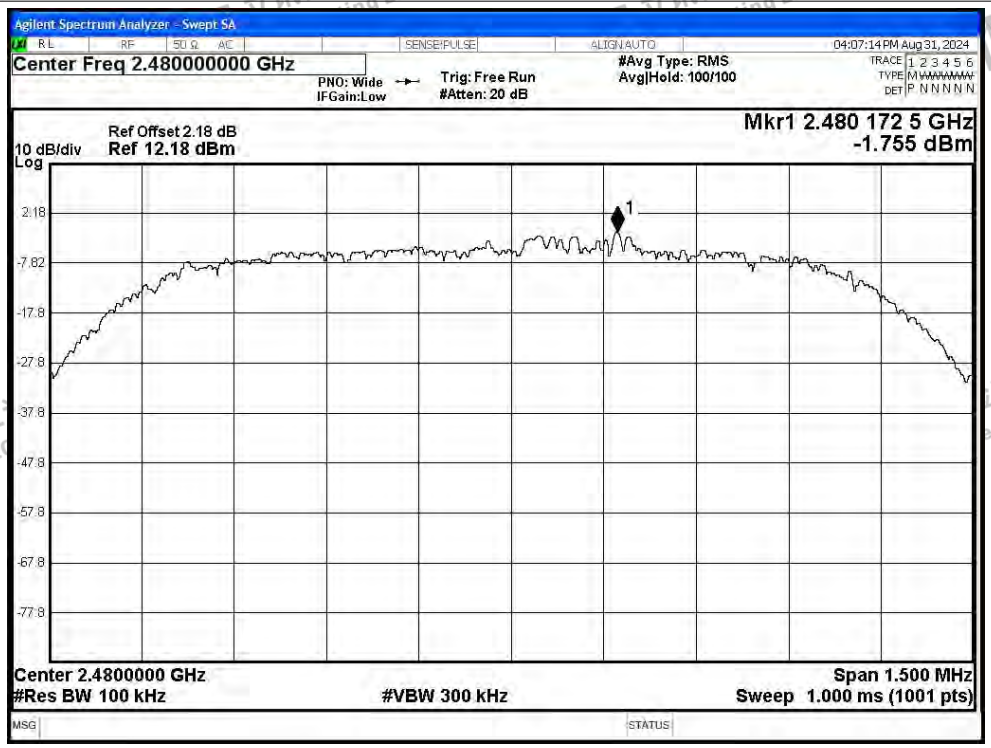
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Ref



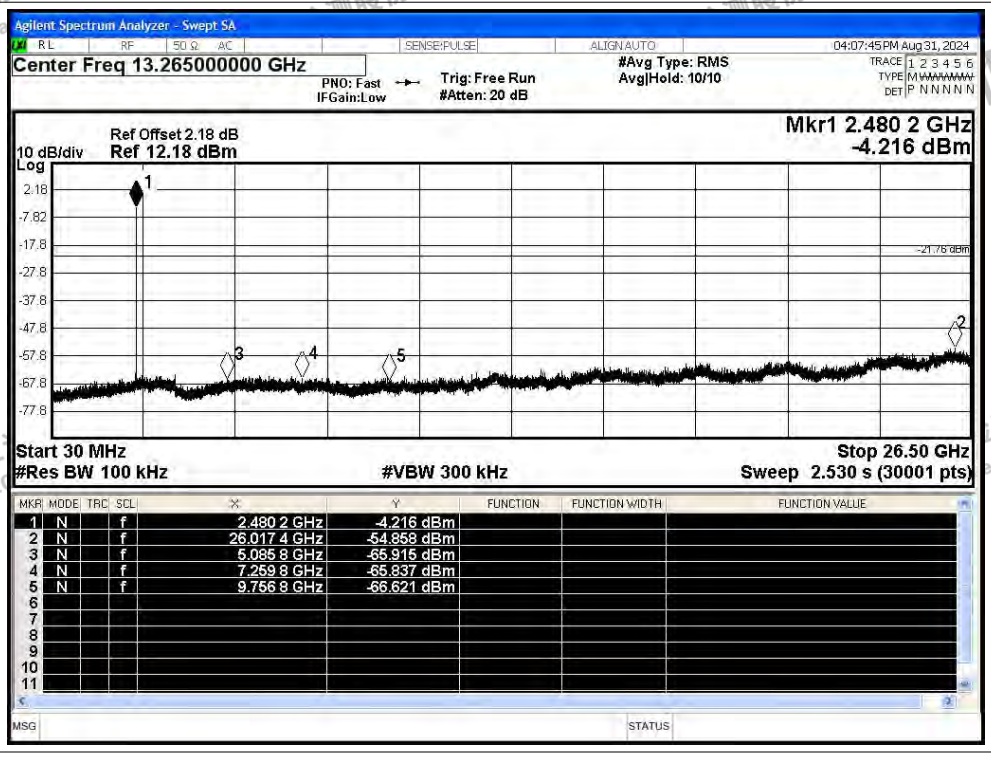
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Emission



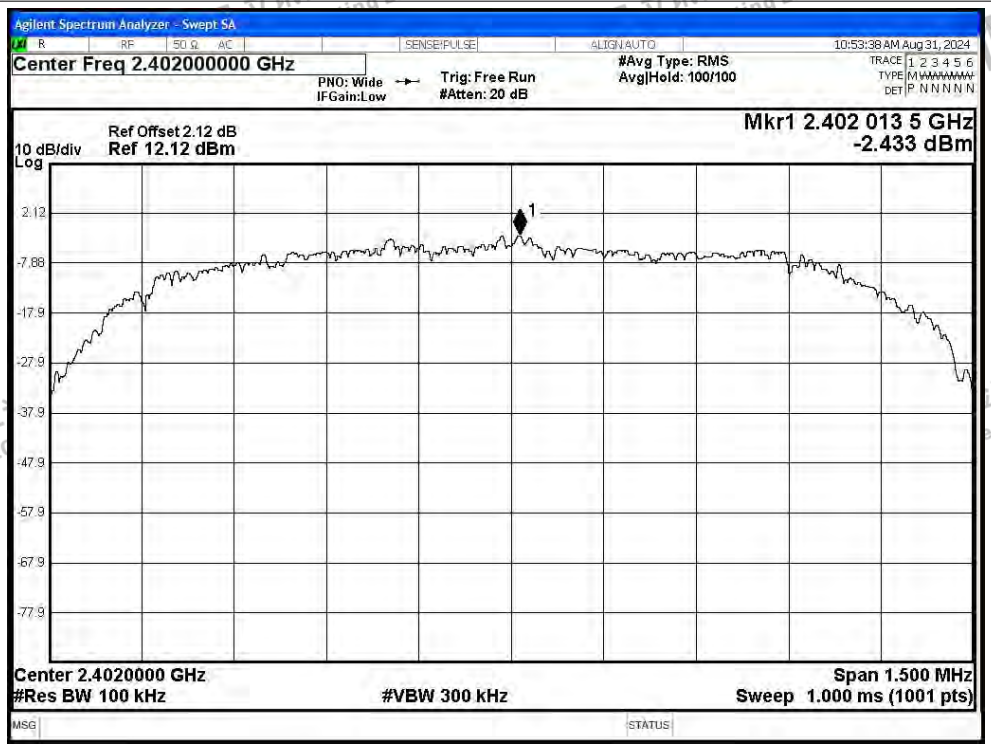
Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Ref



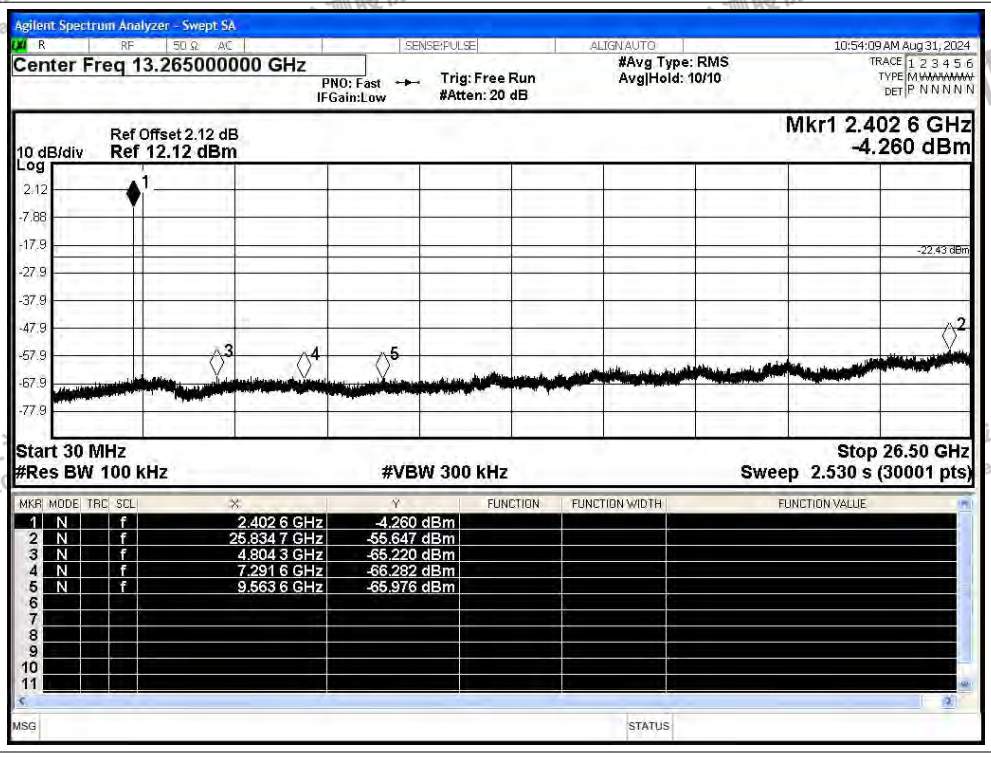
Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Emission



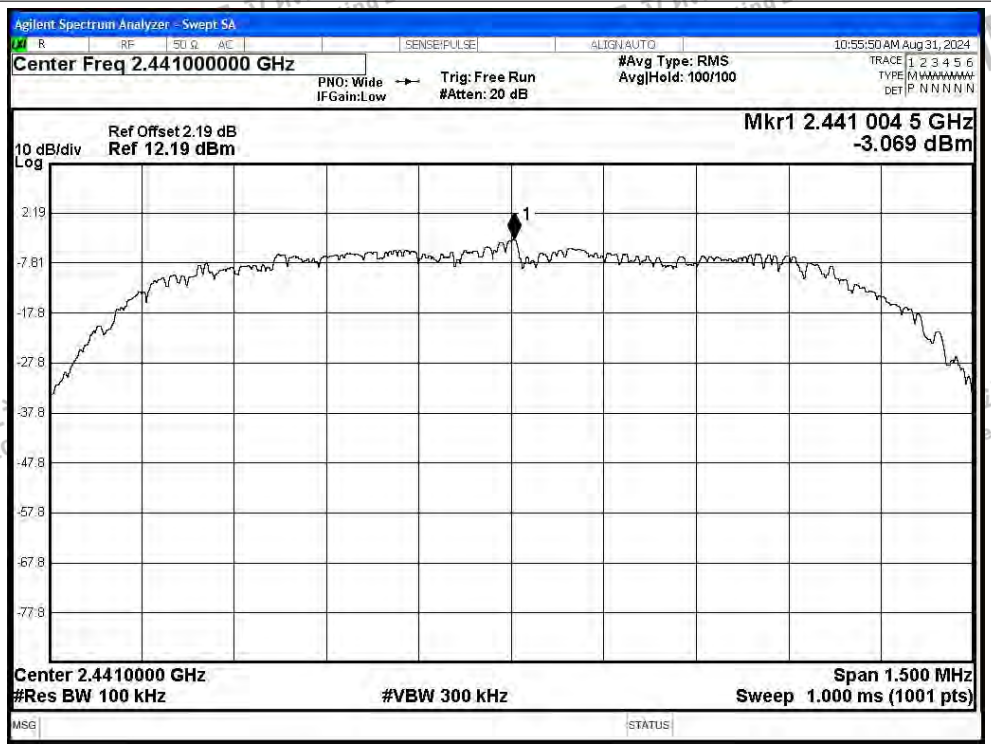
Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Ref



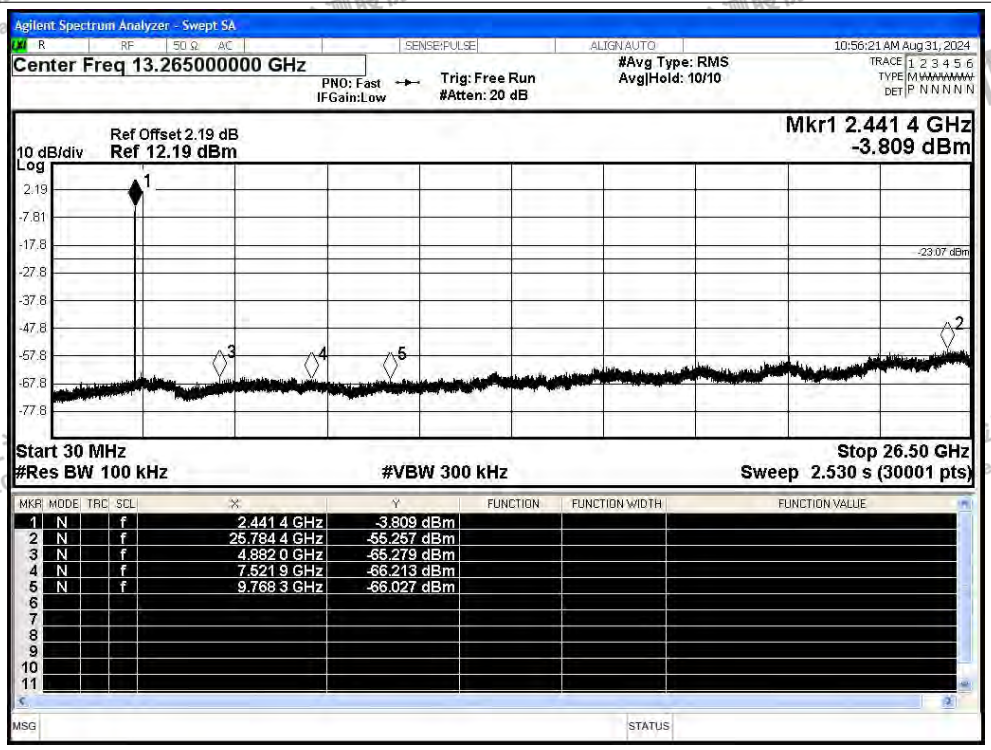
Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Emission



Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Ref

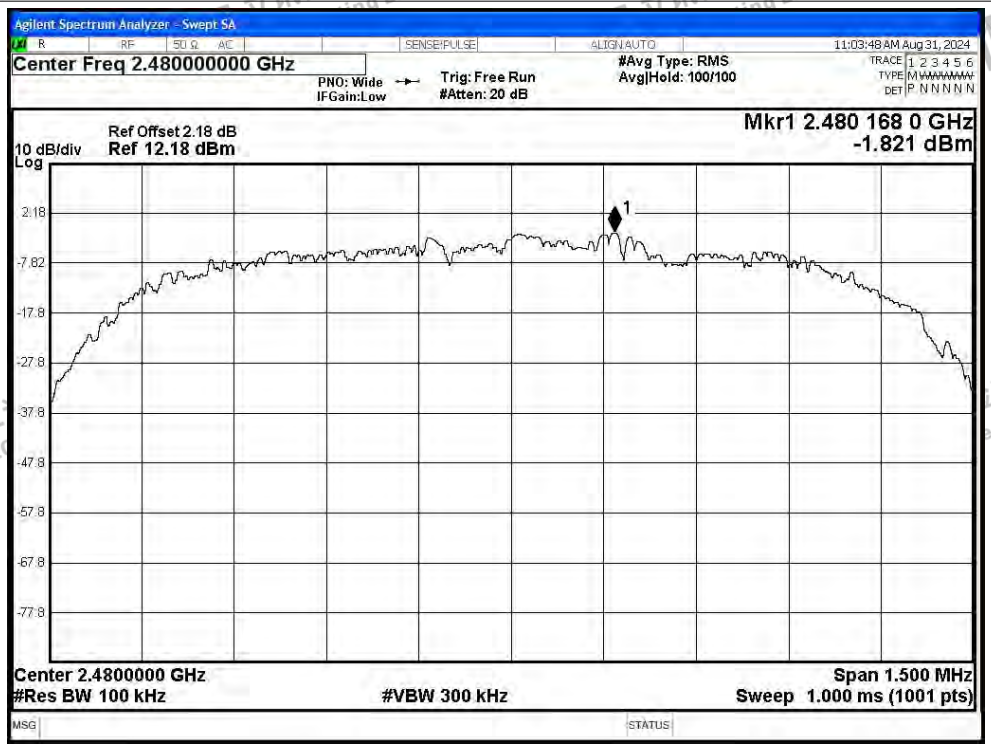


Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Emission

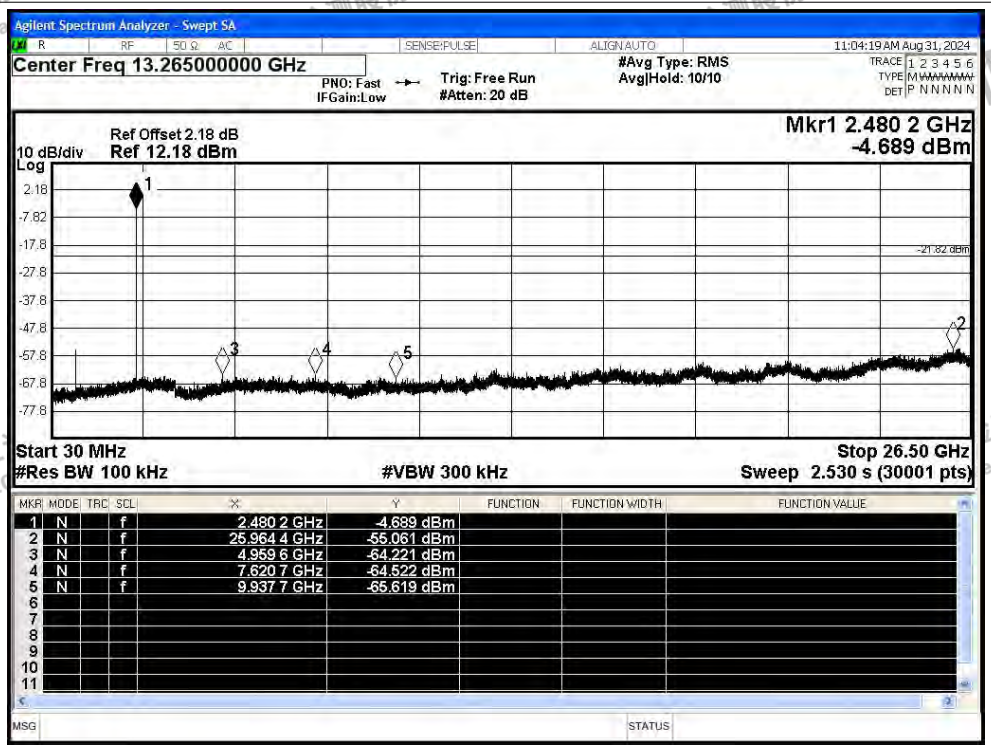


MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N		f	2.441 4 GHz	-3.809 dBm			
2	N		f	25.784 4 GHz	-55.257 dBm			
3	N		f	4.882 0 GHz	-65.279 dBm			
4	N		f	7.521 9 GHz	-66.213 dBm			
5	N		f	9.768 3 GHz	-66.027 dBm			
6								
7								
8								
9								
10								
11								

Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Emission

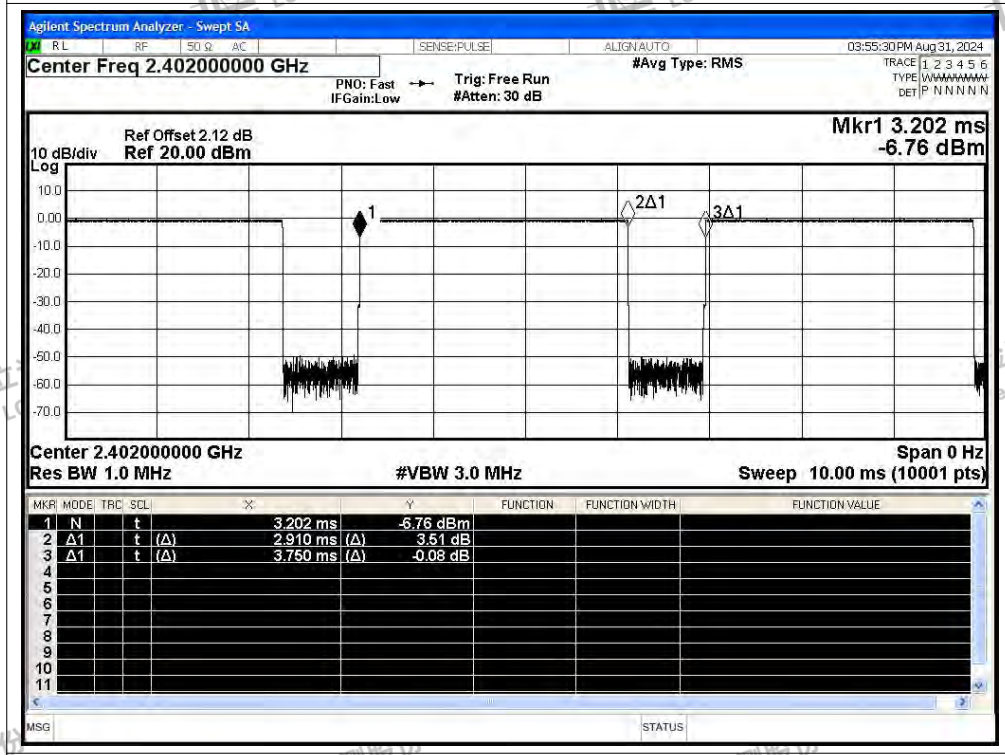


A.8 Duty Cycle

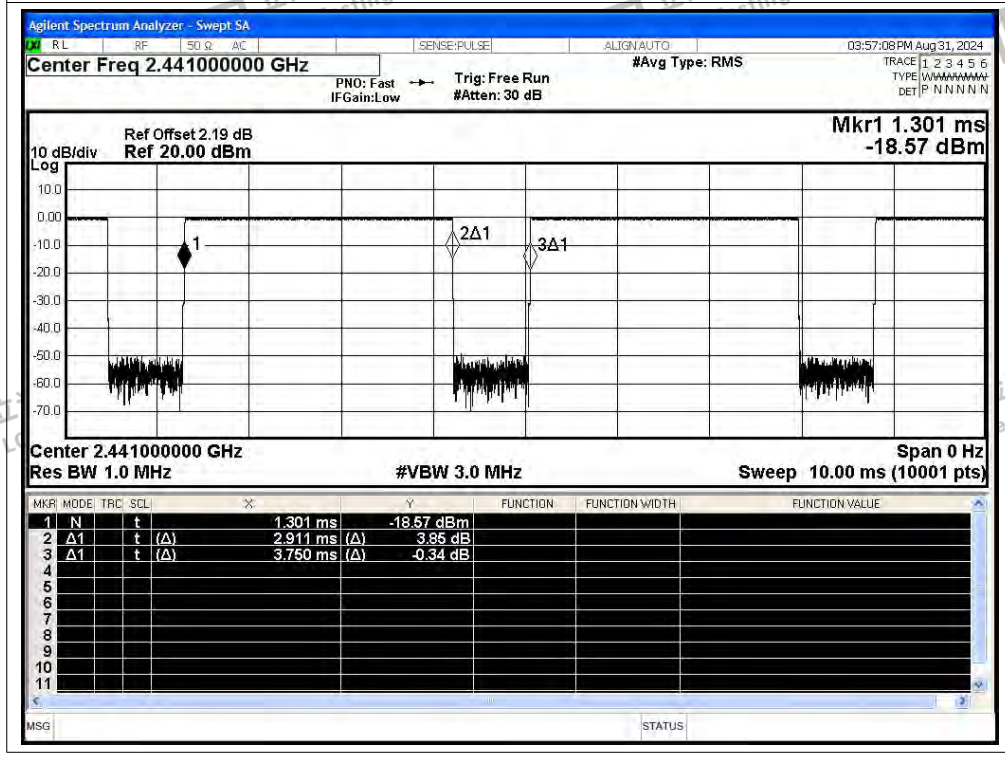
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH5	2402	Ant1	77.6	1.1	0.34
NVNT	1-DH5	2441	Ant1	77.63	1.1	0.34
NVNT	1-DH5	2480	Ant1	77.6	1.1	0.34
NVNT	2-DH5	2402	Ant1	77.28	1.12	0.35
NVNT	2-DH5	2441	Ant1	77.28	1.12	0.35
NVNT	2-DH5	2480	Ant1	77.33	1.12	0.34
NVNT	3-DH5	2402	Ant1	77.28	1.12	0.35
NVNT	3-DH5	2441	Ant1	77.23	1.12	0.35
NVNT	3-DH5	2480	Ant1	77.28	1.12	0.35

Test Graphs

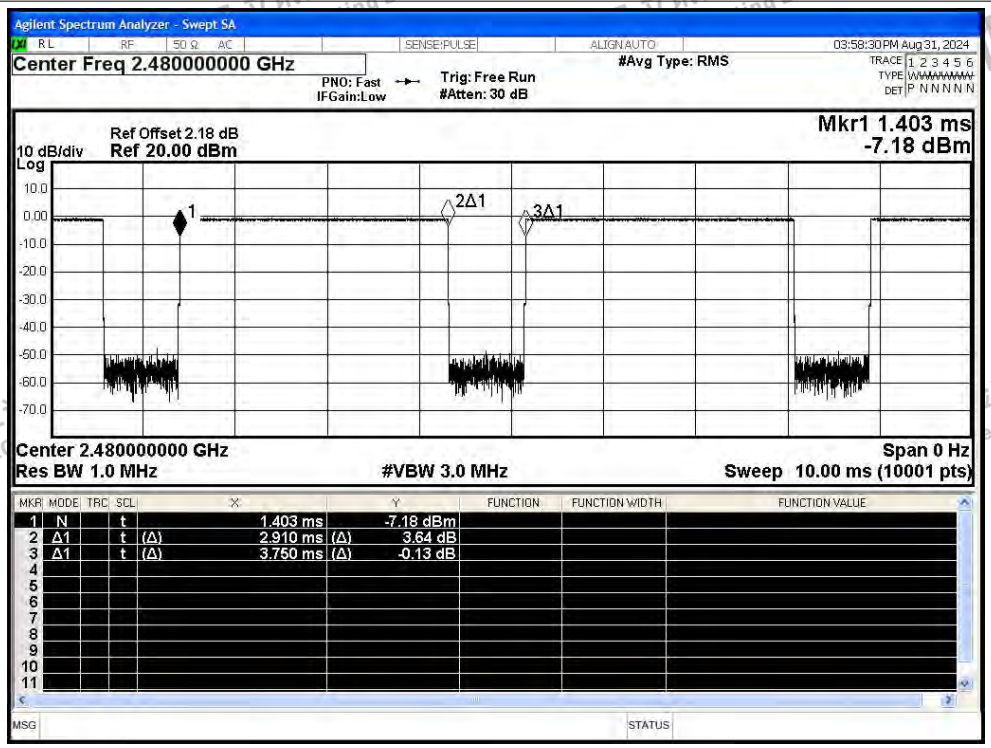
Duty Cycle NVNT 1-DH5 2402MHz Ant1



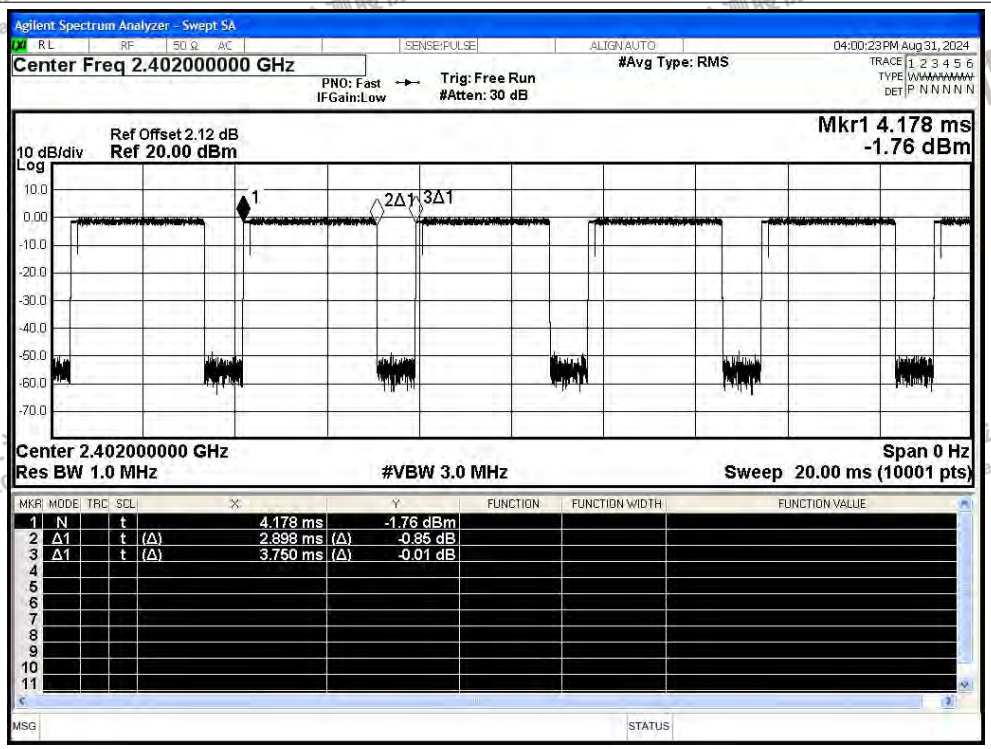
Duty Cycle NVNT 1-DH5 2441MHz Ant1



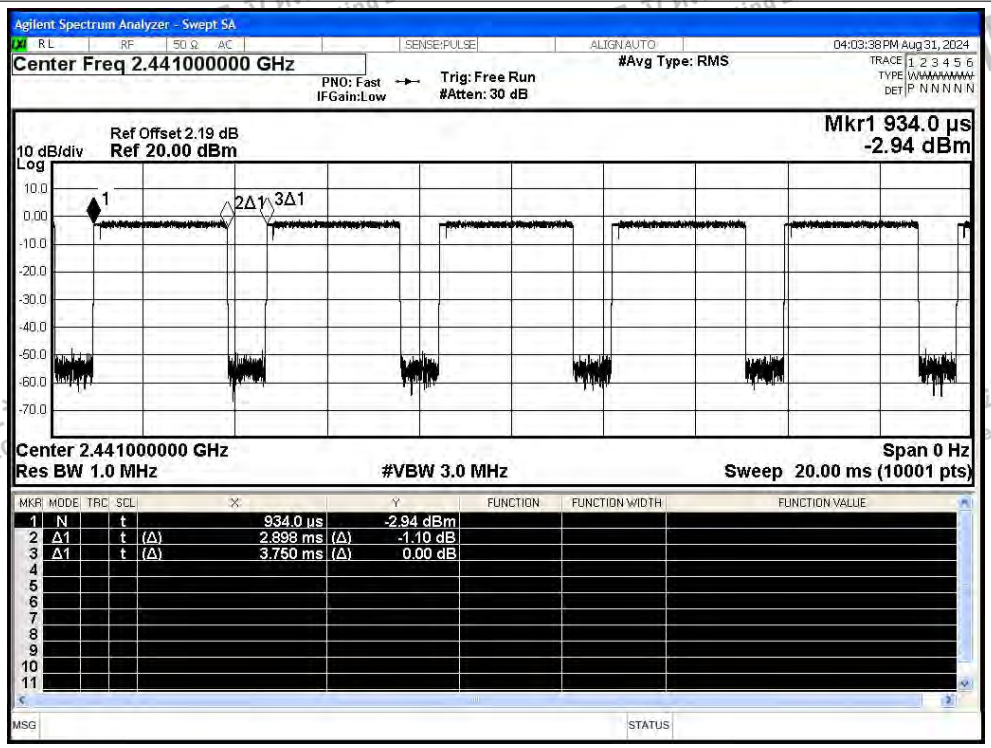
Duty Cycle NVNT 1-DH5 2480MHz Ant1



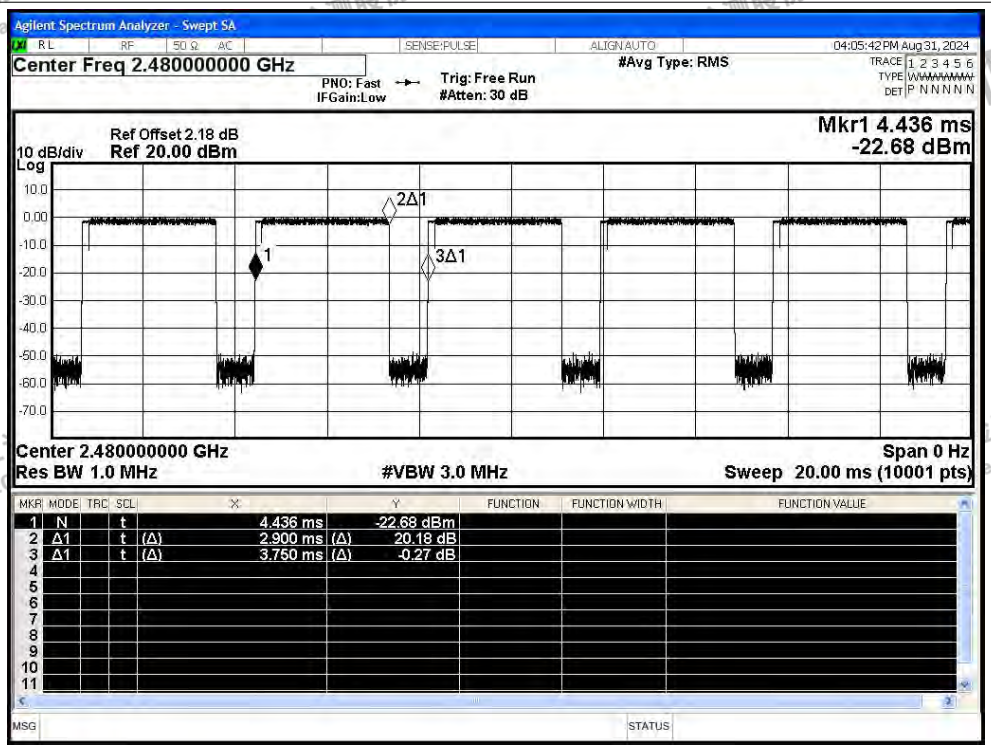
Duty Cycle NVNT 2-DH5 2402MHz Ant1



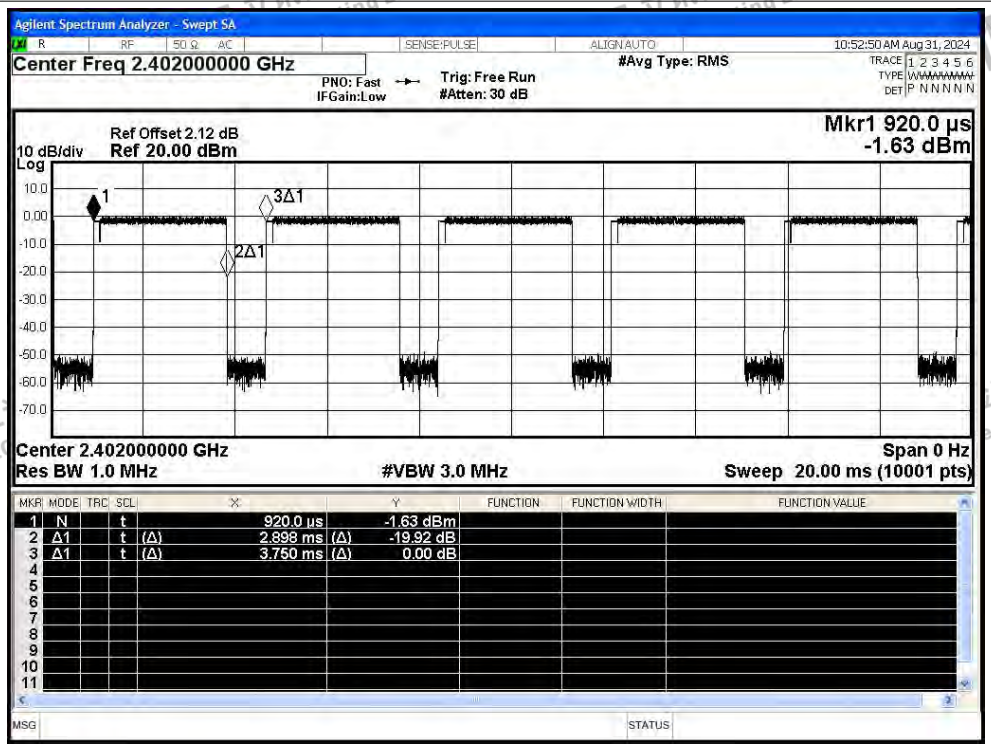
Duty Cycle NVNT 2-DH5 2441MHz Ant1



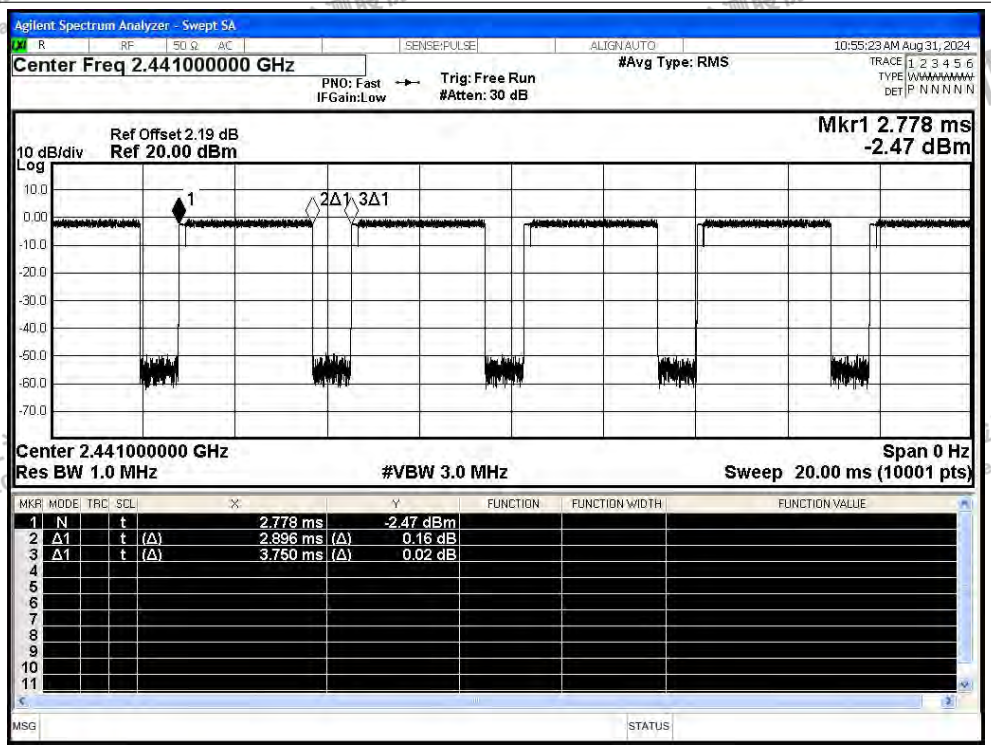
Duty Cycle NVNT 2-DH5 2480MHz Ant1



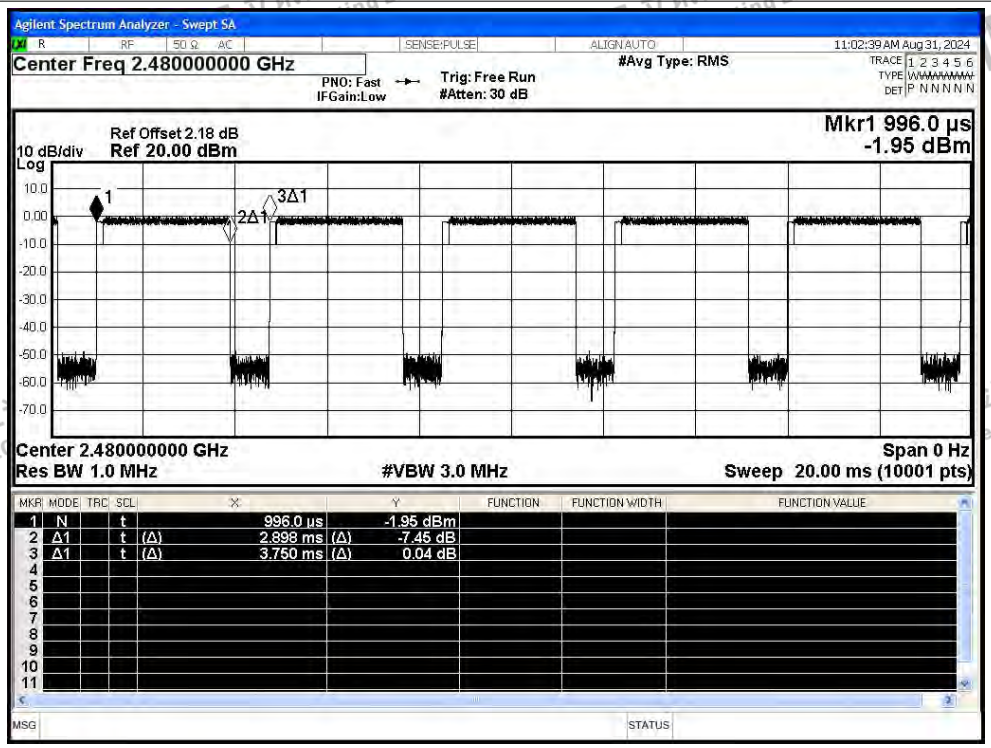
Duty Cycle NVNT 3-DH5 2402MHz Ant1



Duty Cycle NVNT 3-DH5 2441MHz Ant1



Duty Cycle NVNT 3-DH5 2480MHz Ant1

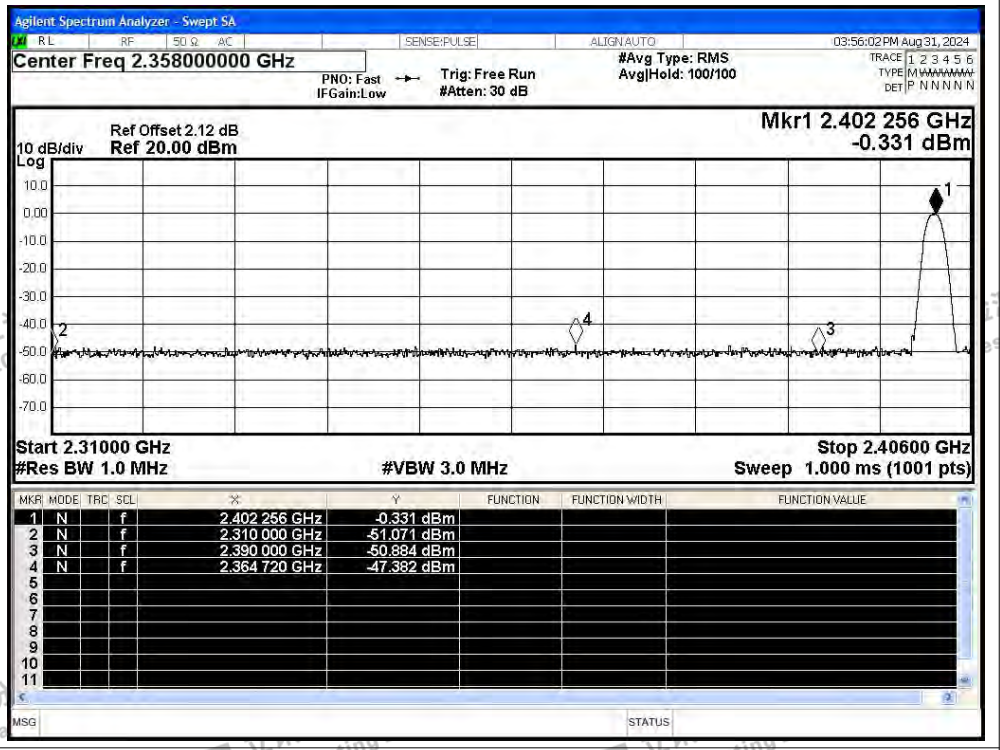


A.9 Restrict Band

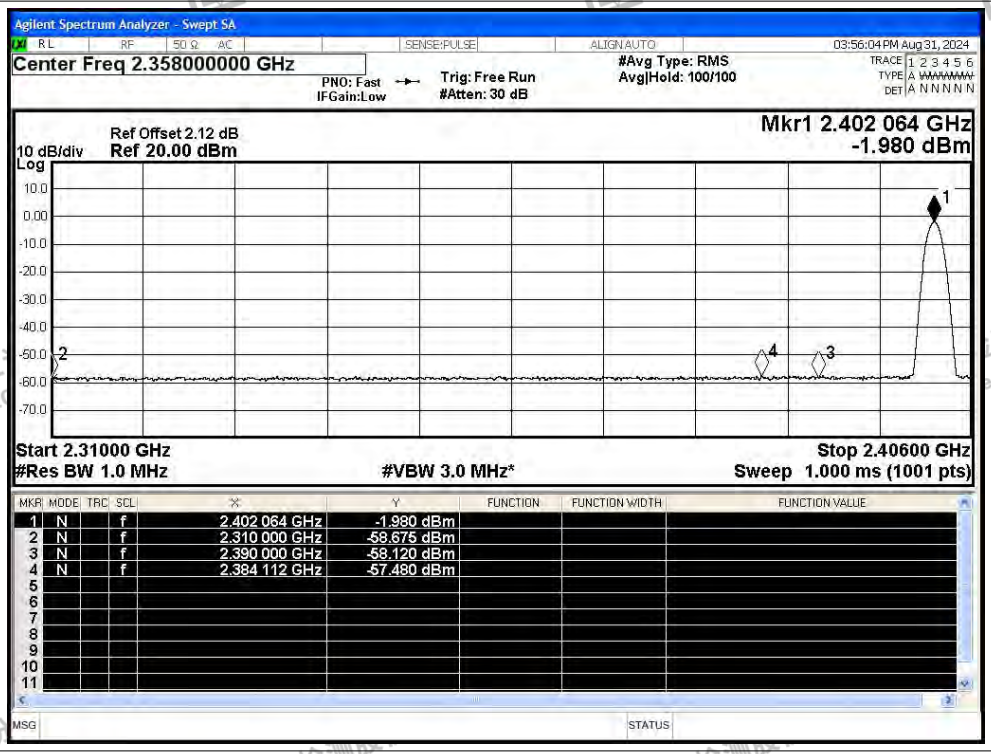
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-51.07	3.0	-	47.19	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-58.68	3.0	1.1	40.68	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2364.72	-47.38	3.0	-	50.88	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2384.112	-57.48	3.0	1.1	41.88	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-50.88	3.0	-	47.38	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-58.12	3.0	1.1	41.24	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-50.4	3.0	-	47.86	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-58.19	3.0	1.1	41.17	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2485.576	-45.99	3.0	-	52.27	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2497.888	-56.83	3.0	1.1	42.53	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-49.67	3.0	-	48.59	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-58.29	3.0	1.1	41.07	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-50.42	3.0	-	47.84	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-58.42	3.0	1.12	40.96	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310.96	-47.18	3.0	-	51.08	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2381.232	-57.42	3.0	1.12	41.96	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-49.03	3.0	-	49.23	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-58.86	3.0	1.12	40.52	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-46.3	3.0	-	51.96	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-57.83	3.0	1.12	41.55	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2484.616	-44.2	3.0	-	54.06	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2492.872	-57.03	3.0	1.12	42.35	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-50.02	3.0	-	48.24	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-57.79	3.0	1.12	41.59	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-52.22	3.0	-	46.04	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-59.14	3.0	1.12	40.24	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2317.104	-47.69	3.0	-	50.57	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2332.848	-57.76	3.0	1.12	41.62	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-48.97	3.0	-	49.29	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-58.42	3.0	1.12	40.96	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-49.05	3.0	-	49.21	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-57.45	3.0	1.12	41.93	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2496.712	-46.21	3.0	-	52.05	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.68	-56.9	3.0	1.12	42.48	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-49.72	3.0	-	48.54	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-57.46	3.0	1.12	41.92	Average	54	Pass

Test Graphs

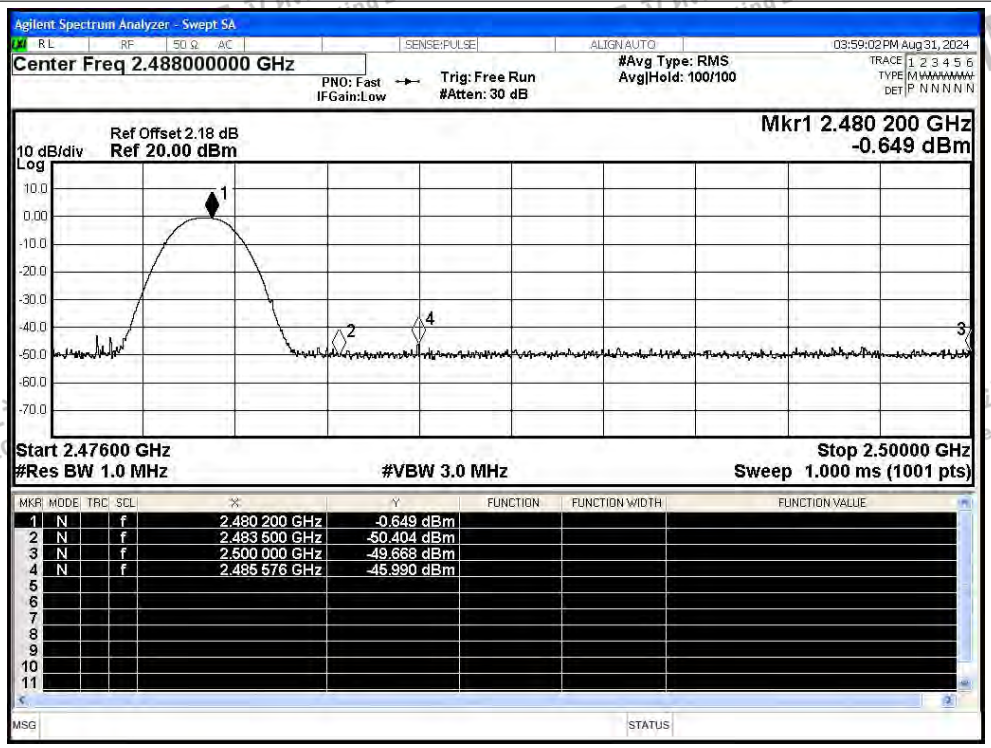
Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Peak



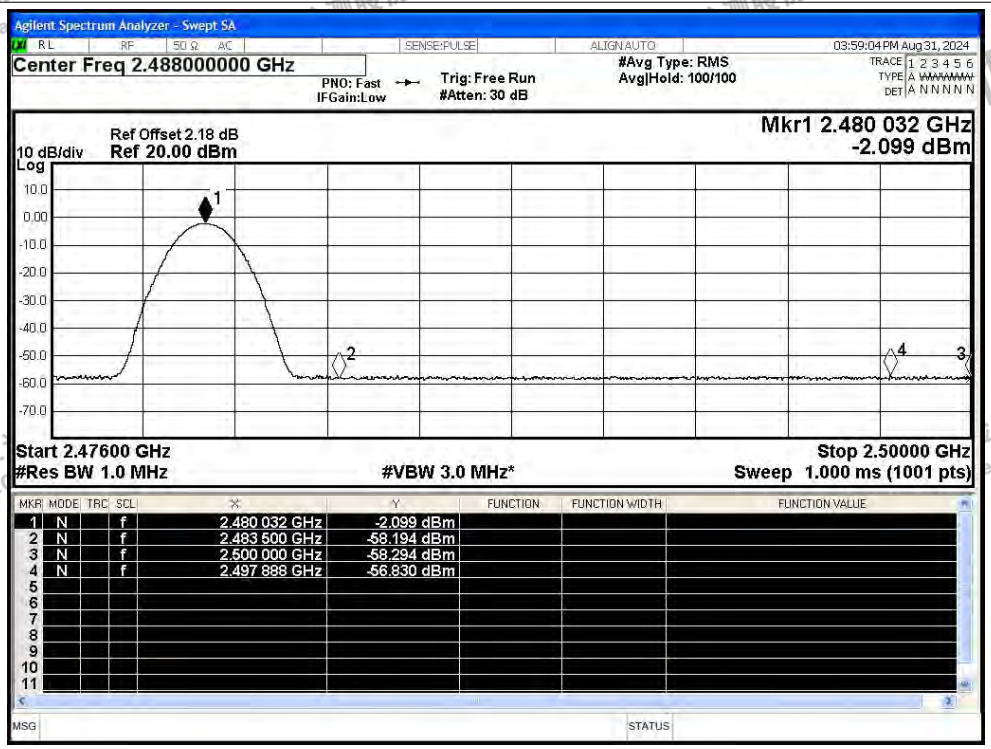
Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Average



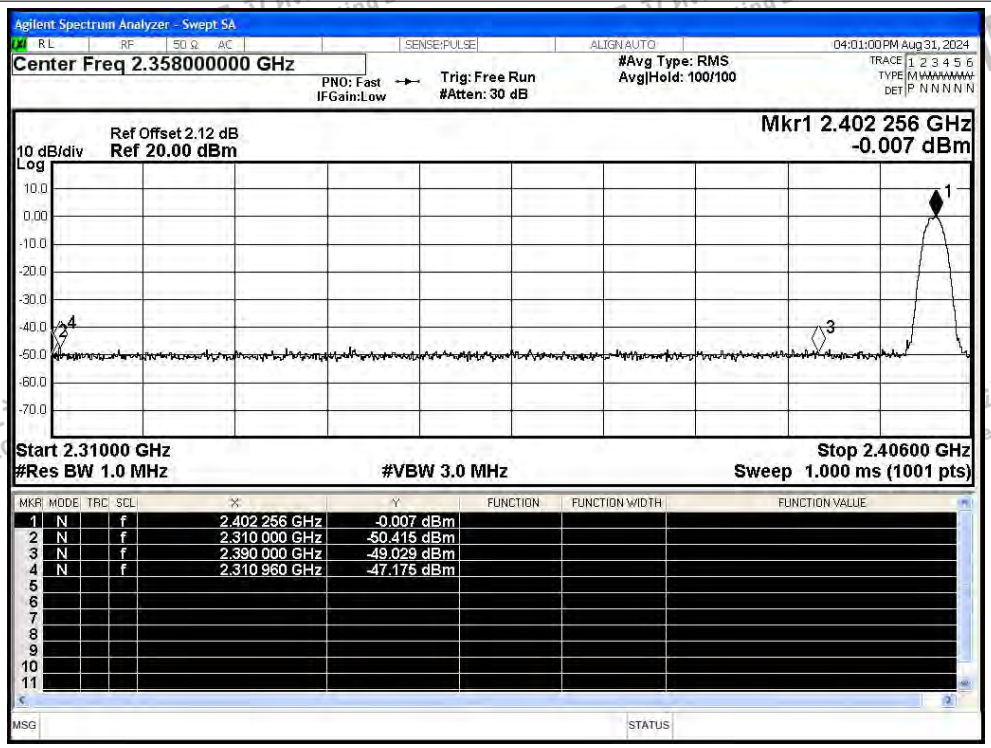
Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Peak



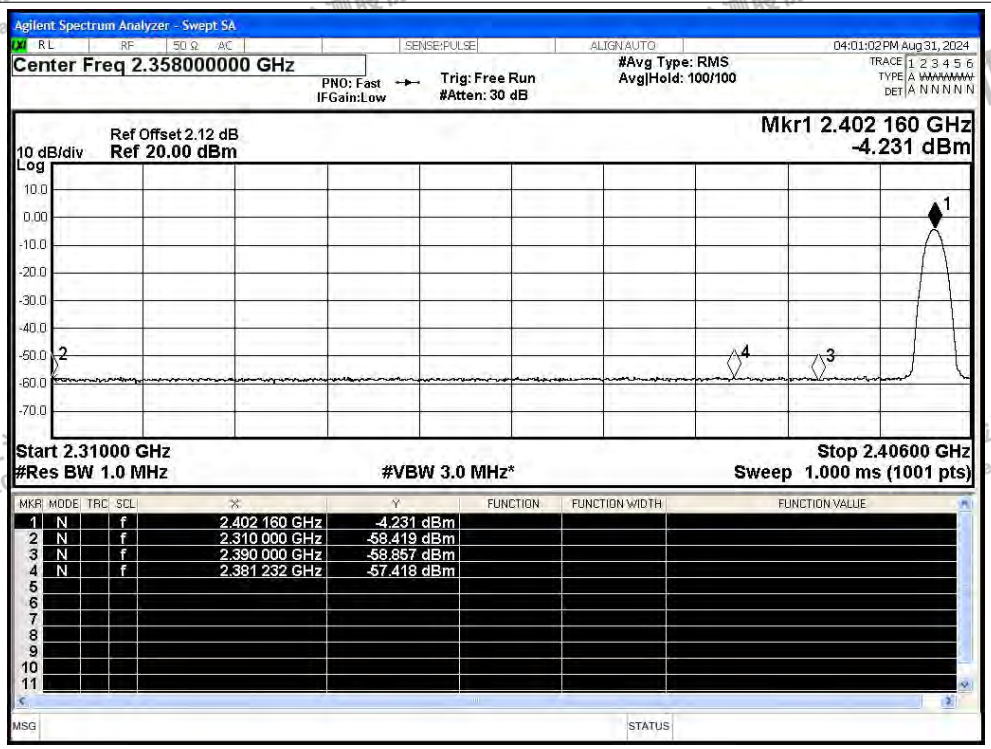
Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Average



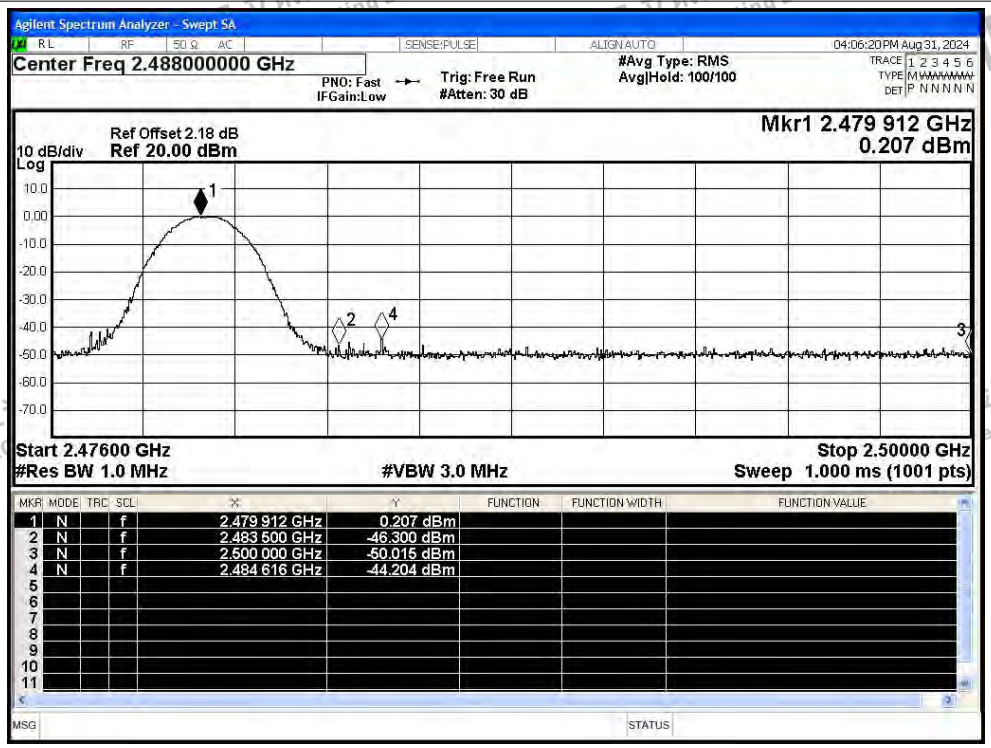
Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Peak



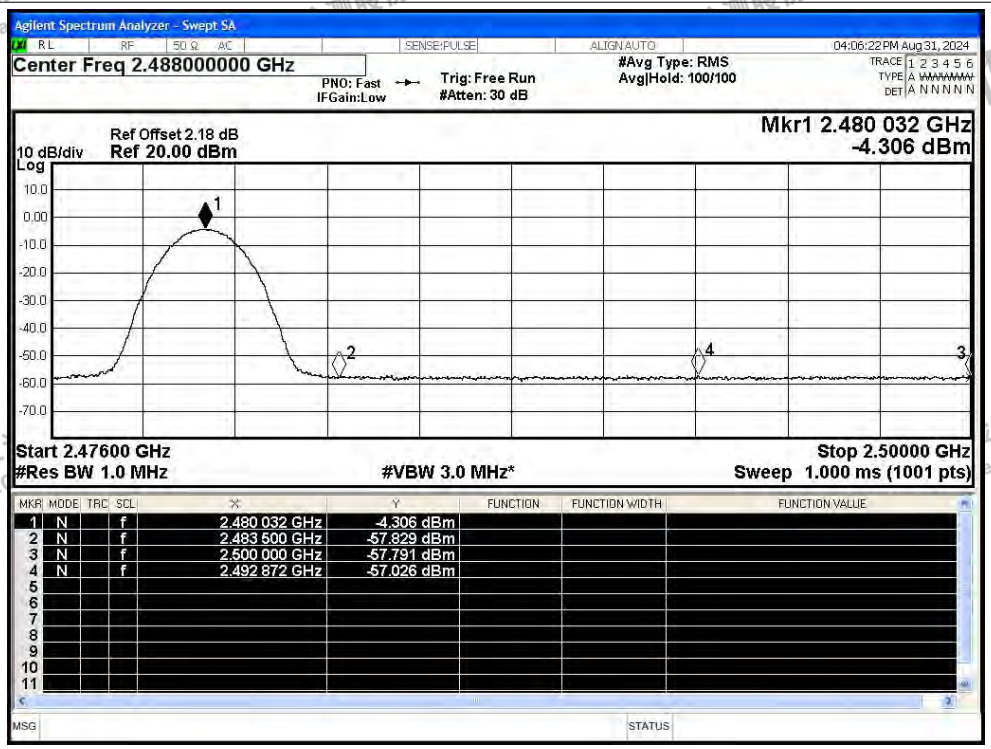
Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Average



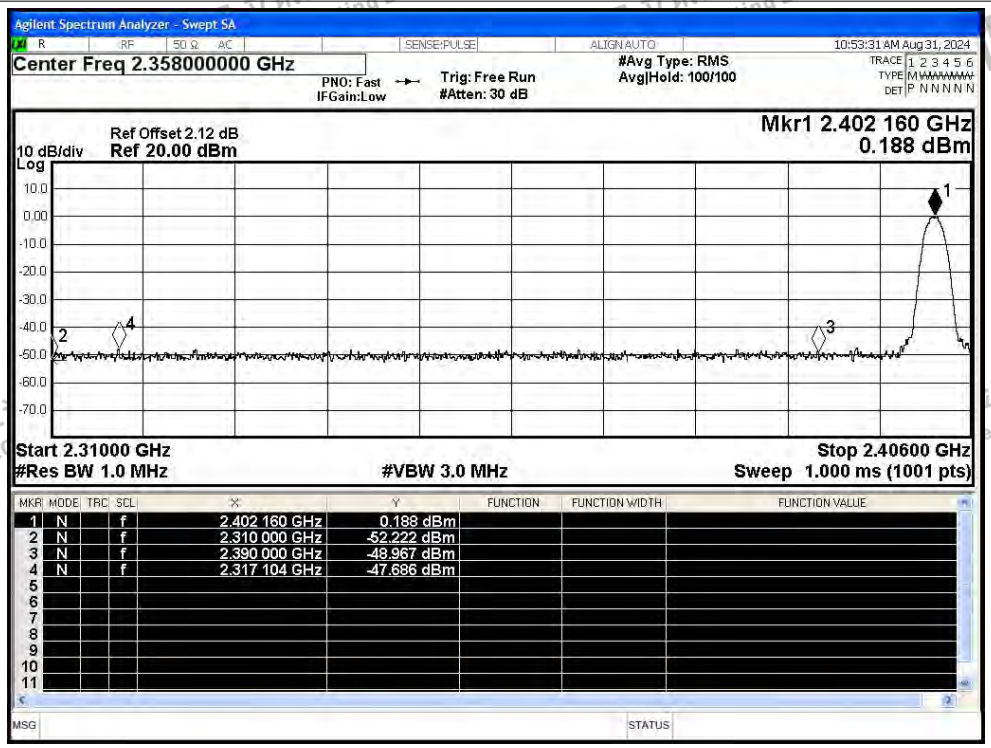
Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Peak



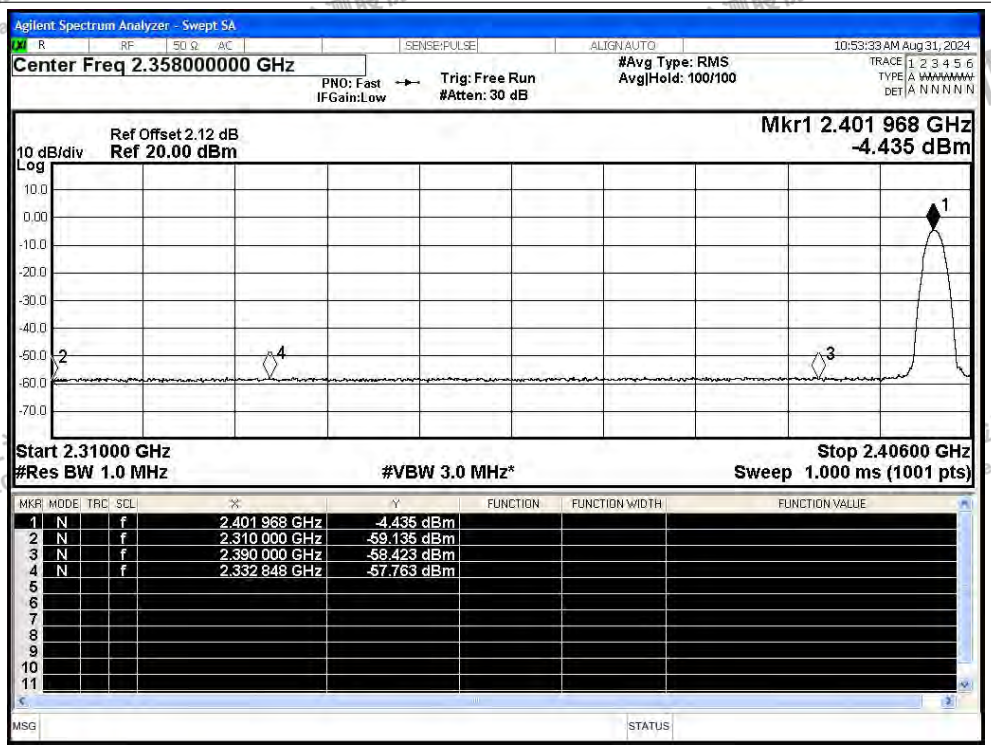
Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Average



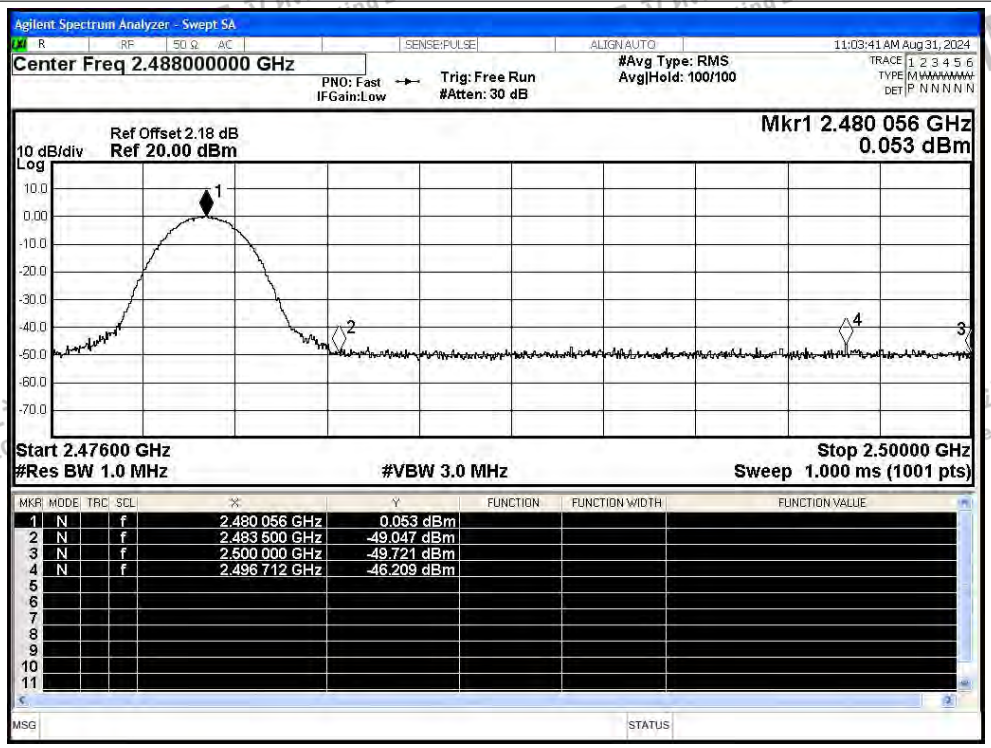
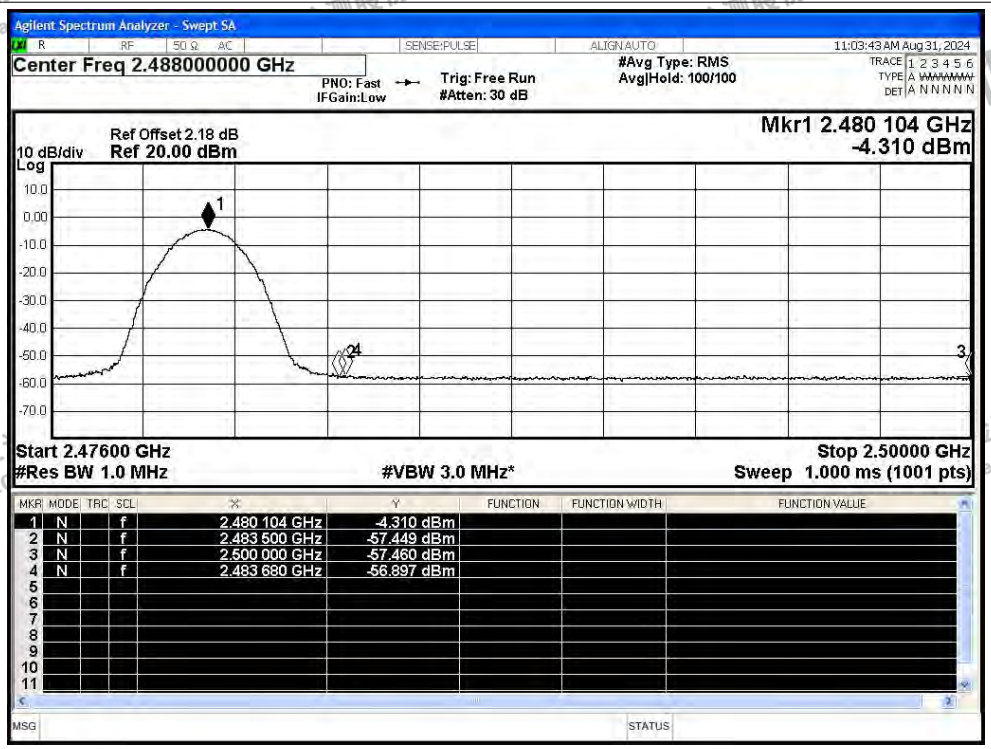
Restrict Band NVNT 3-DH5 2402MHz Ant1 No-Hopping Peak



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