Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: Smartphone

Test Model: NS65

Environmental Conditions

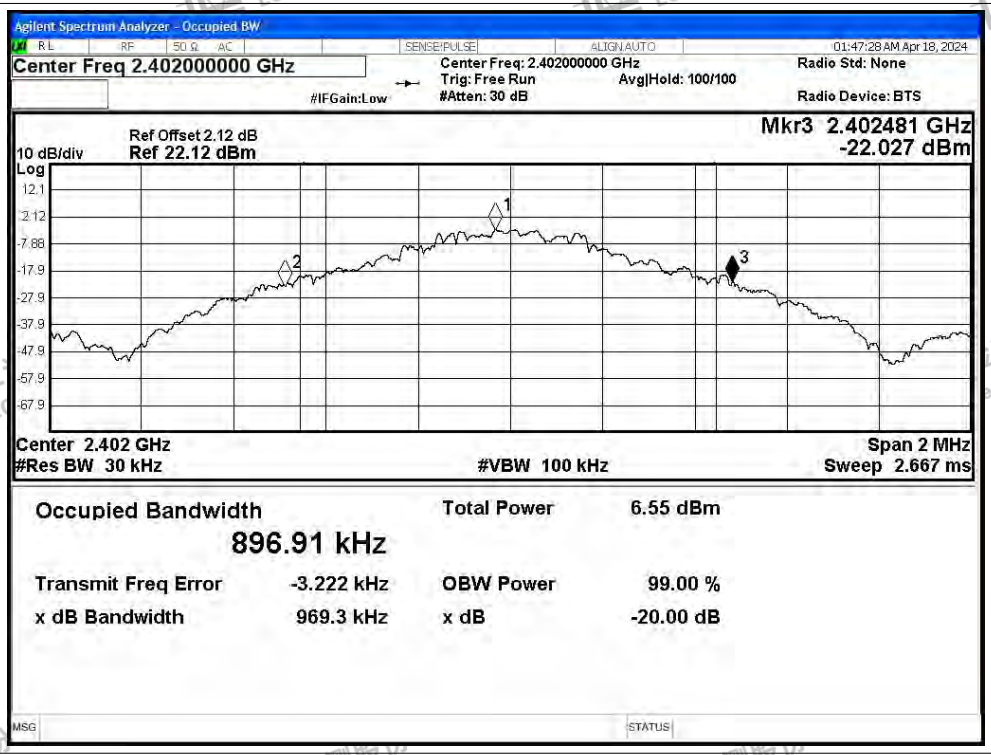
Temperature:	23.8°C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Paddi Chen
Supervised by:	Nick Peng

A.1 -20dB Bandwidth

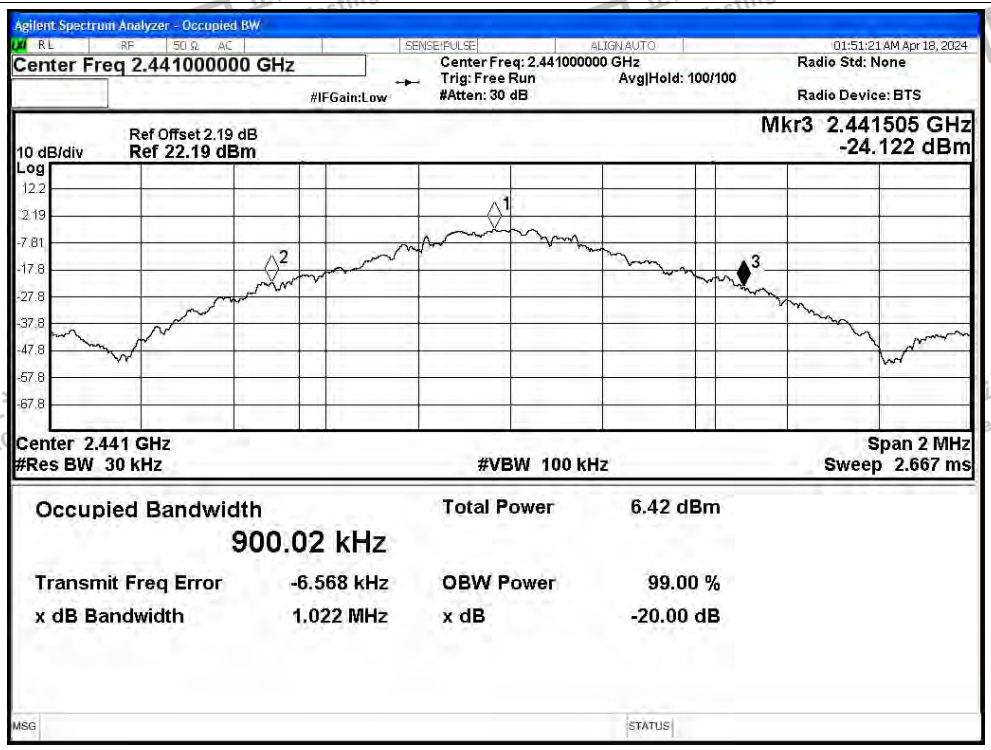
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH5	2402	Ant1	0.969	N/A	Pass
NVNT	1-DH5	2441	Ant1	1.022	N/A	Pass
NVNT	1-DH5	2480	Ant1	1.021	N/A	Pass
NVNT	2-DH5	2402	Ant1	1.281	N/A	Pass
NVNT	2-DH5	2441	Ant1	1.272	N/A	Pass
NVNT	2-DH5	2480	Ant1	1.288	N/A	Pass

Test Graphs

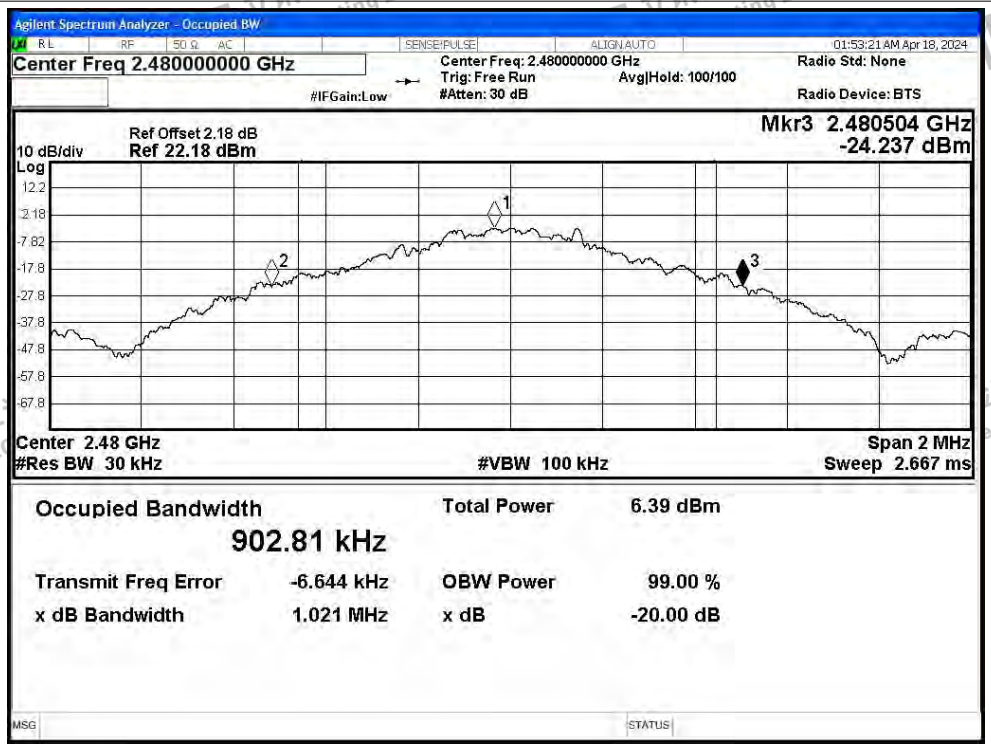
-20dB Bandwidth NVNT 1-DH5 2402MHz Ant1



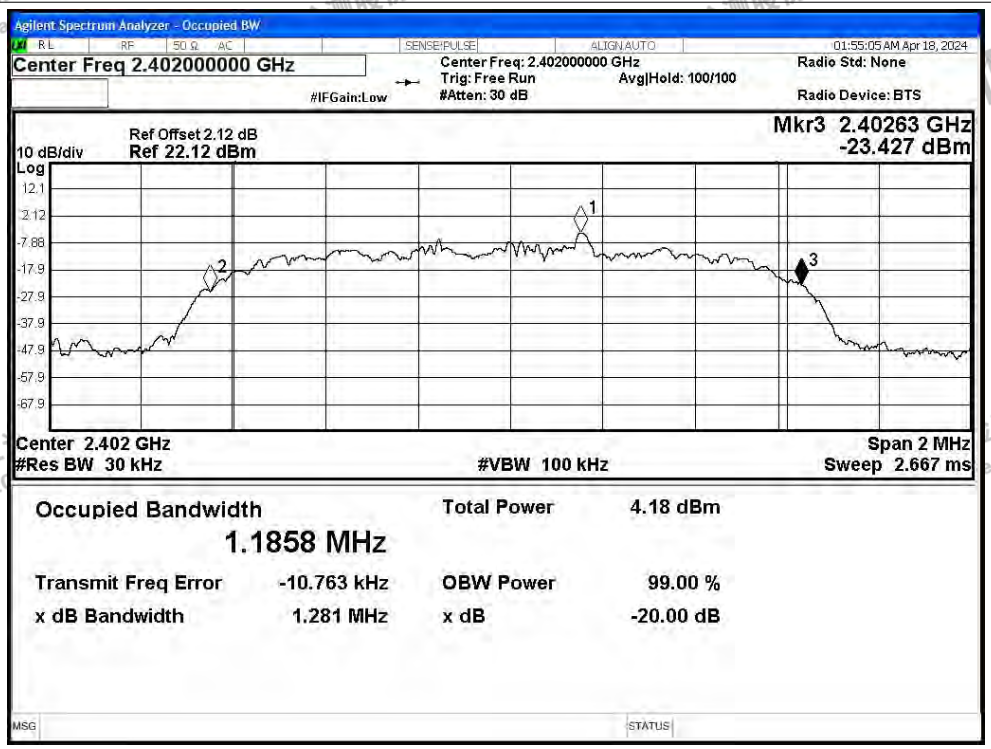
-20dB Bandwidth NVNT 1-DH5 2441MHz Ant1



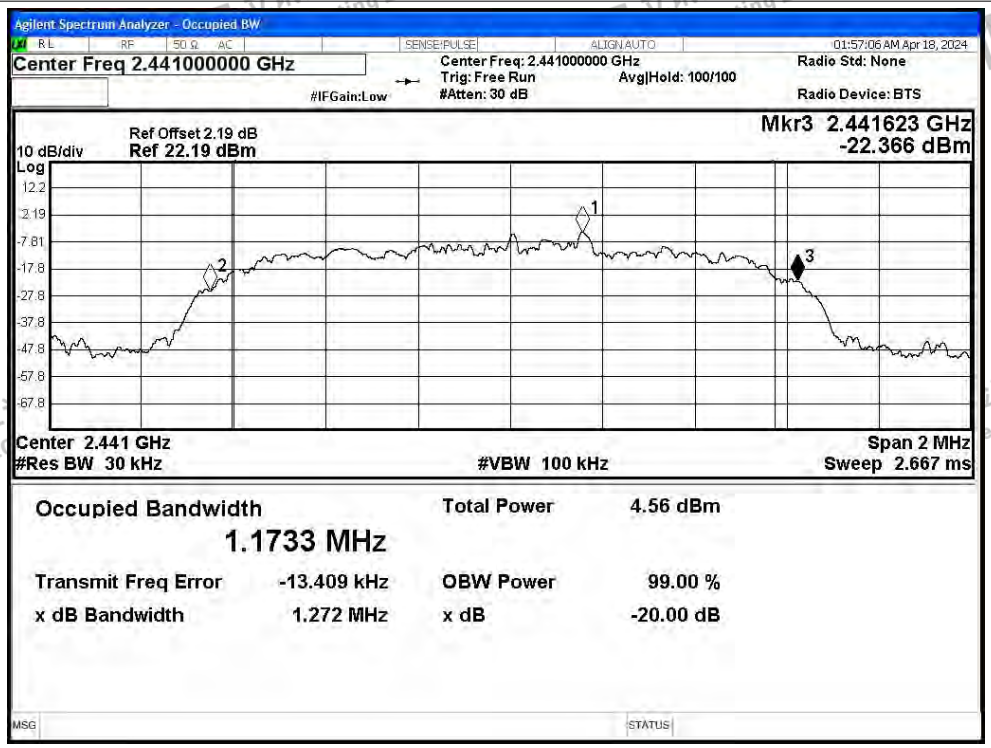
-20dB Bandwidth NVNT 1-DH5 2480MHz Ant1



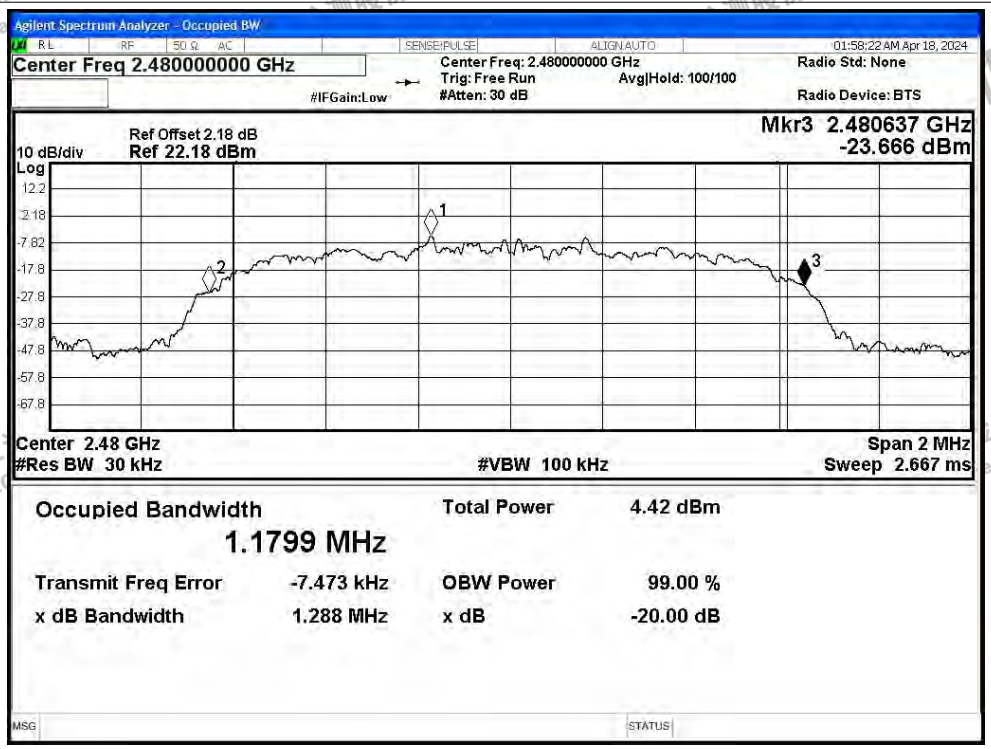
-20dB Bandwidth NVNT 2-DH5 2402MHz Ant1



-20dB Bandwidth NVNT 2-DH5 2441MHz Ant1



-20dB Bandwidth NVNT 2-DH5 2480MHz Ant1

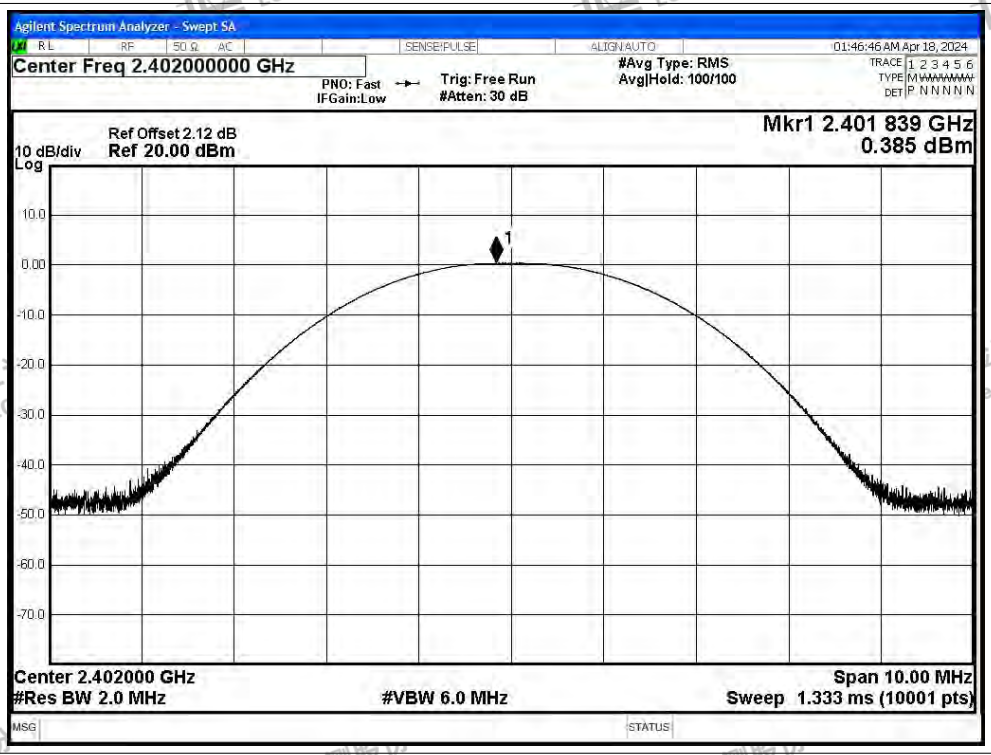


A.2 Maximum Conducted Output Power

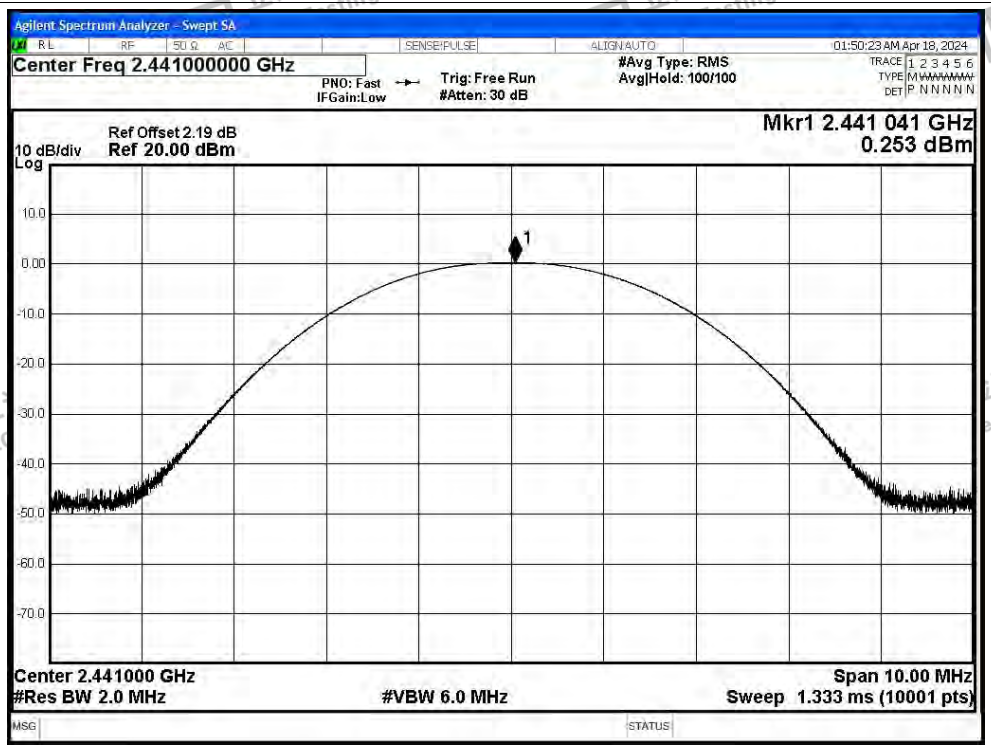
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH5	2402	Ant1	0.39	21	Pass
NVNT	1-DH5	2441	Ant1	0.25	21	Pass
NVNT	1-DH5	2480	Ant1	0.18	21	Pass
NVNT	2-DH5	2402	Ant1	-0.39	21	Pass
NVNT	2-DH5	2441	Ant1	-0.04	21	Pass
NVNT	2-DH5	2480	Ant1	-0.03	21	Pass

Test Graphs

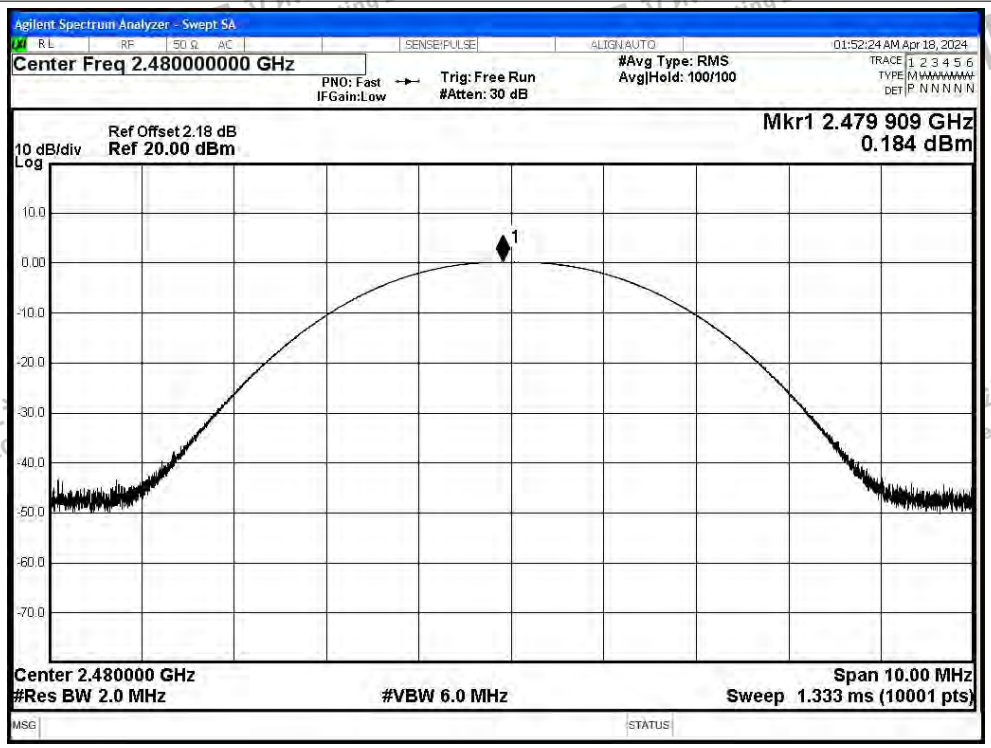
Power NVNT 1-DH5 2402MHz Ant1



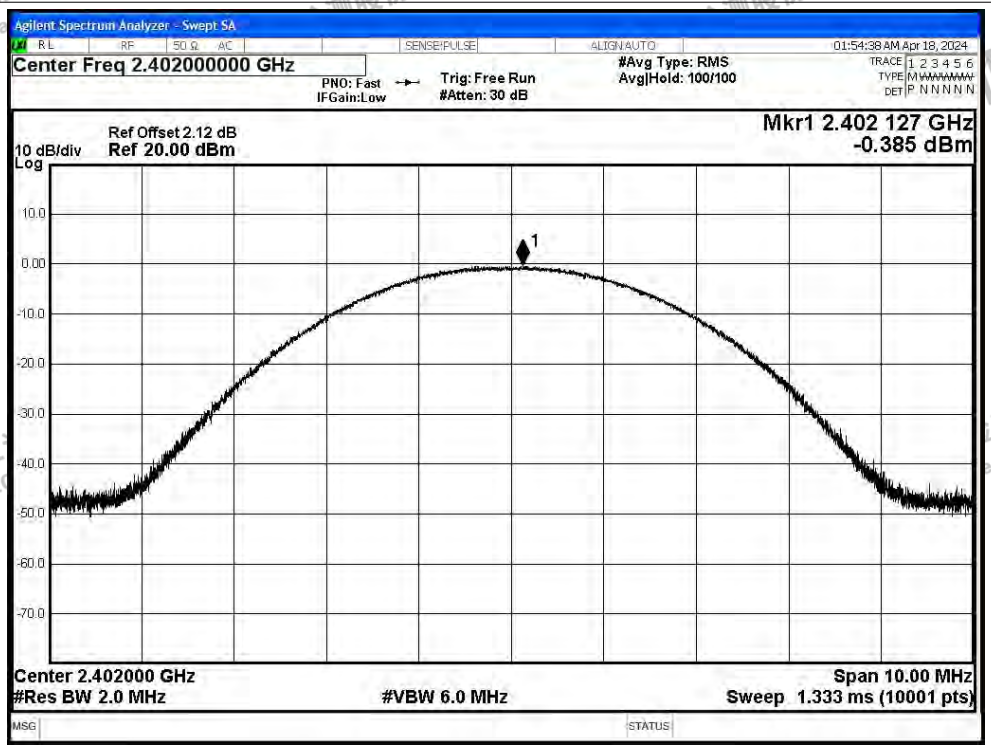
Power NVNT 1-DH5 2441MHz Ant1



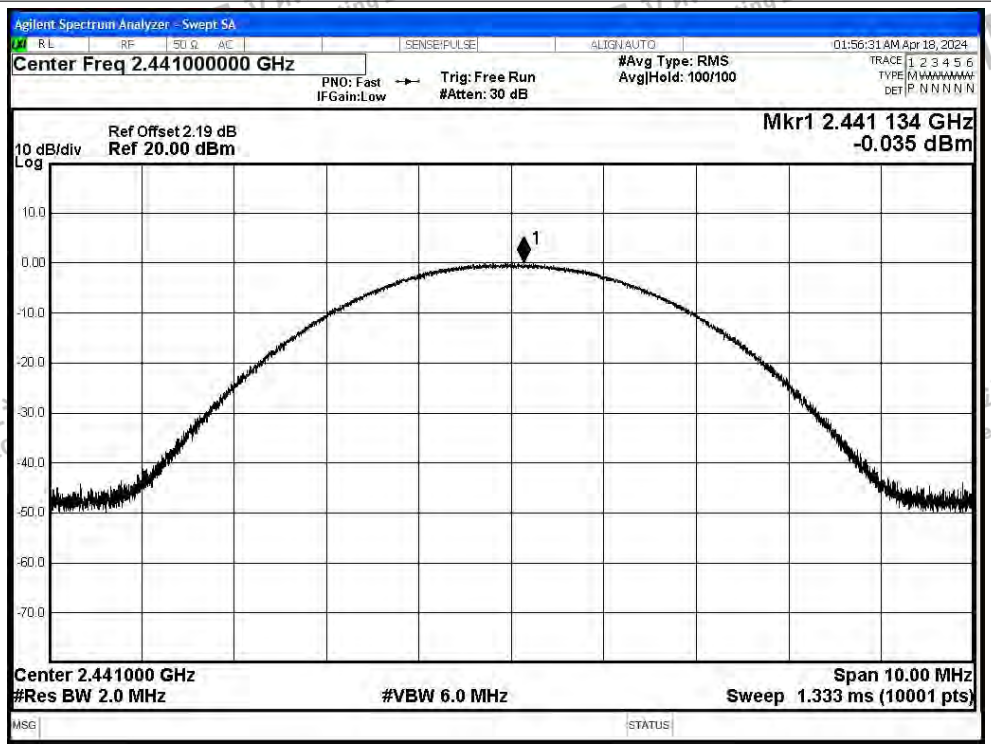
Power NVNT 1-DH5 2480MHz Ant1



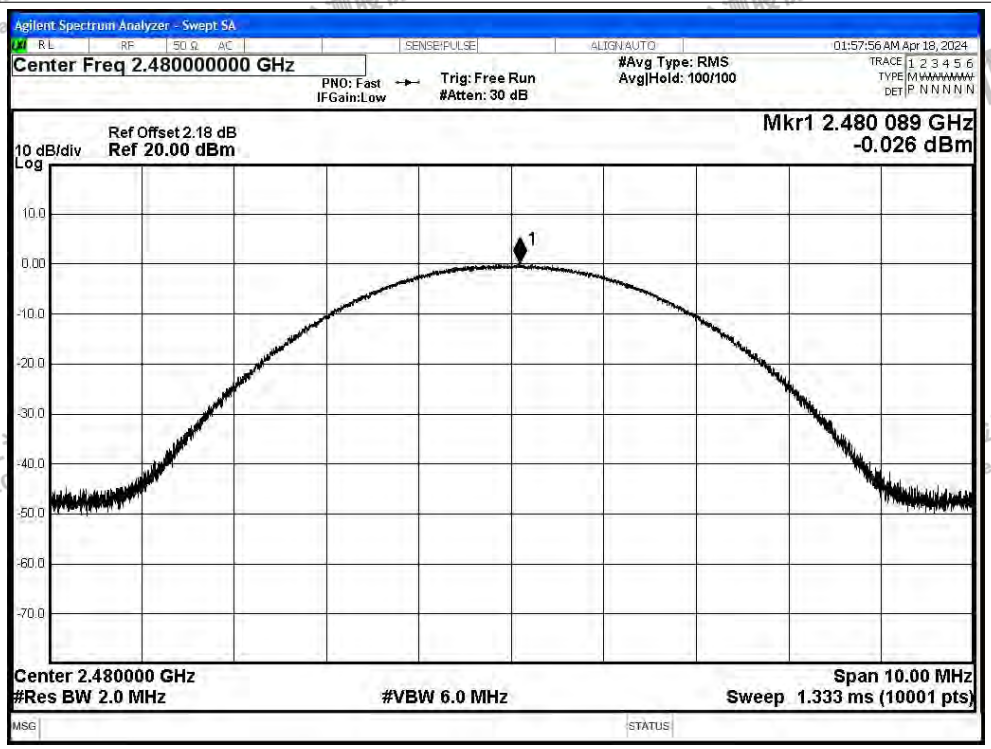
Power NVNT 2-DH5 2402MHz Ant1



Power NVNT 2-DH5 2441MHz Ant1



Power NVNT 2-DH5 2480MHz Ant1

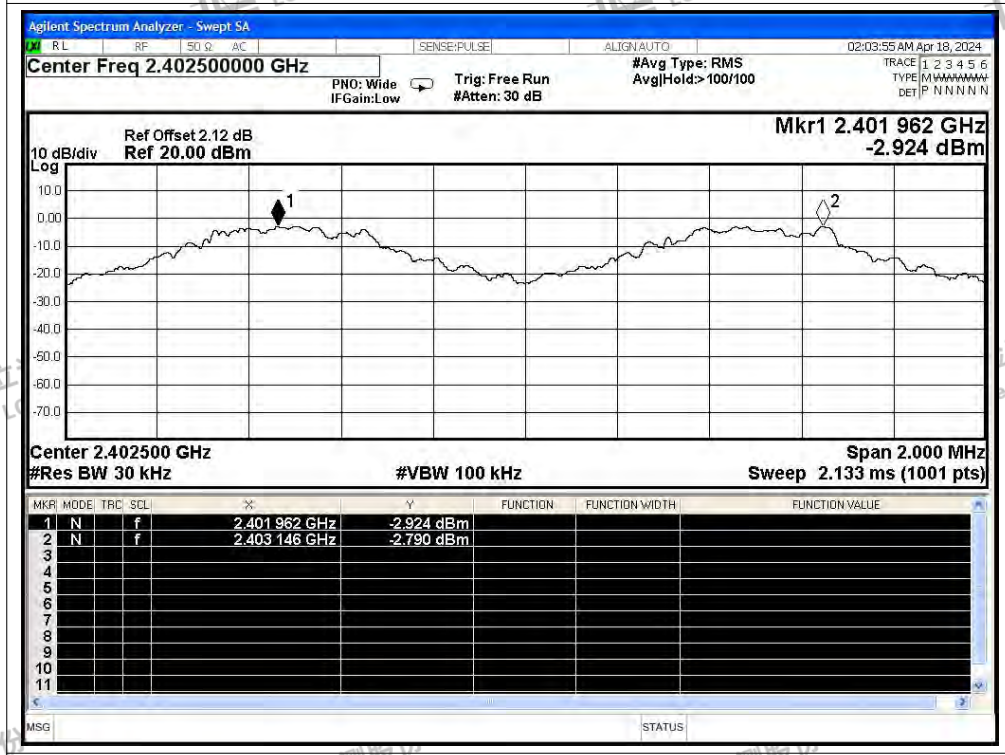


A.3 Carrier Frequencies Separation

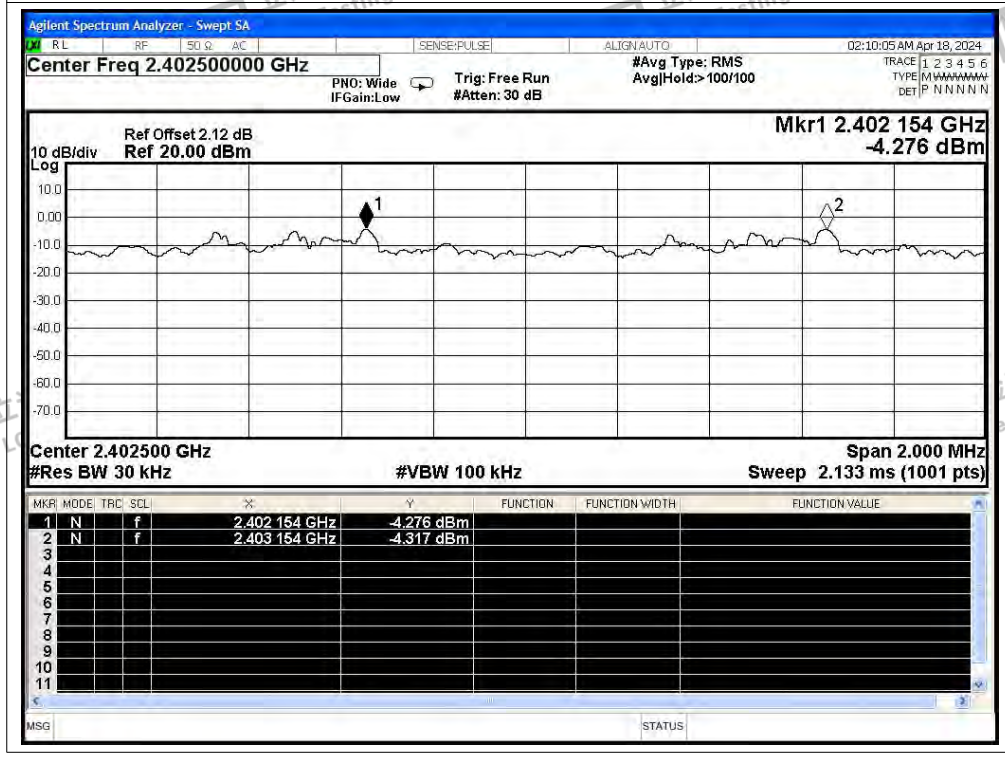
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH5	Ant1	2401.962	2403.146	1.184	0.681	Pass
NVNT	2-DH5	Ant1	2402.154	2403.154	1	0.859	Pass

Test Graphs

CFS NVNT 1-DH5 2402MHz Ant1



CFS NVNT 2-DH5 2402MHz Ant1

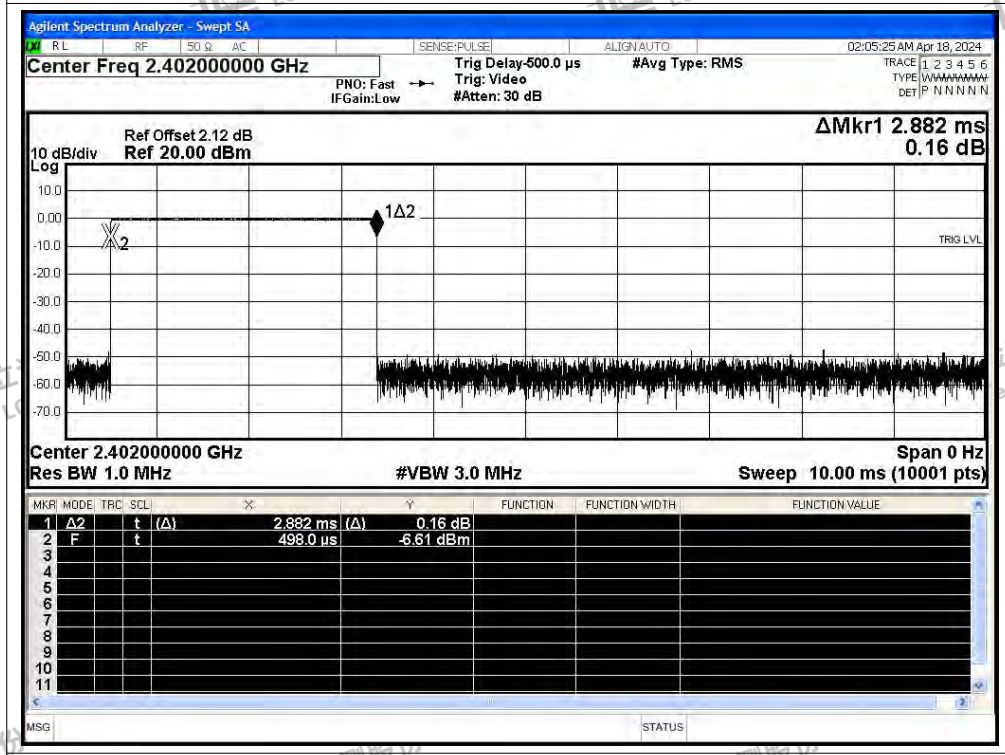


A.4 Dwell Time

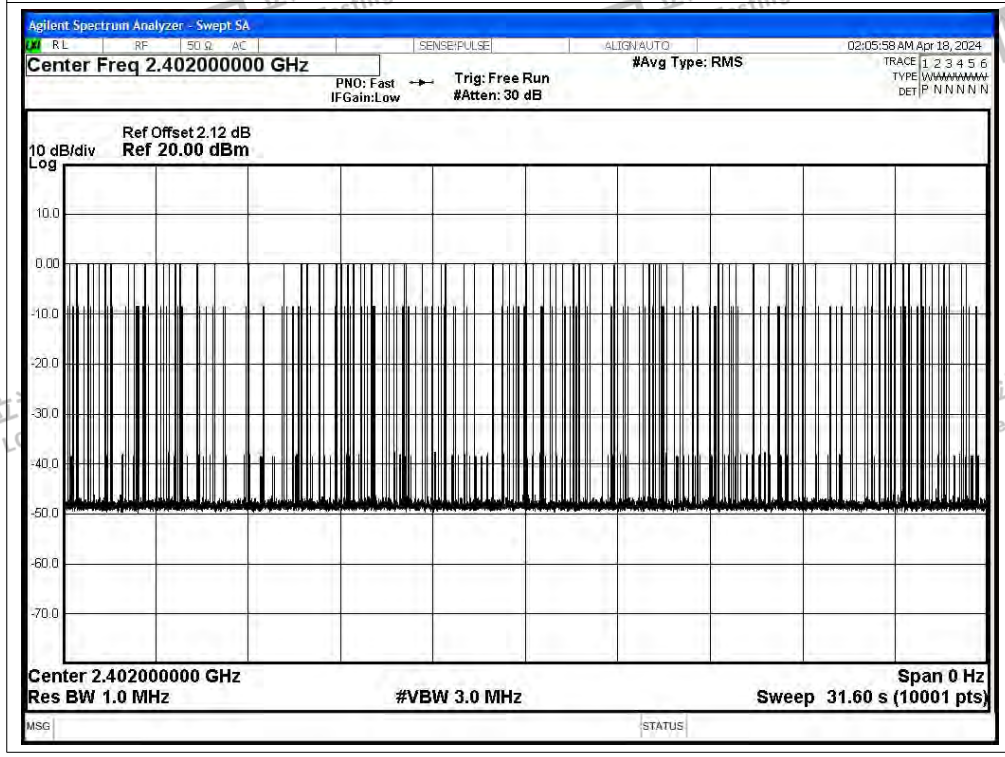
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH5	2402	Ant1	2.882	314.138	109	31600	400	Pass
NVNT	2-DH5	2402	Ant1	2.88	288	100	31600	400	Pass

Test Graphs

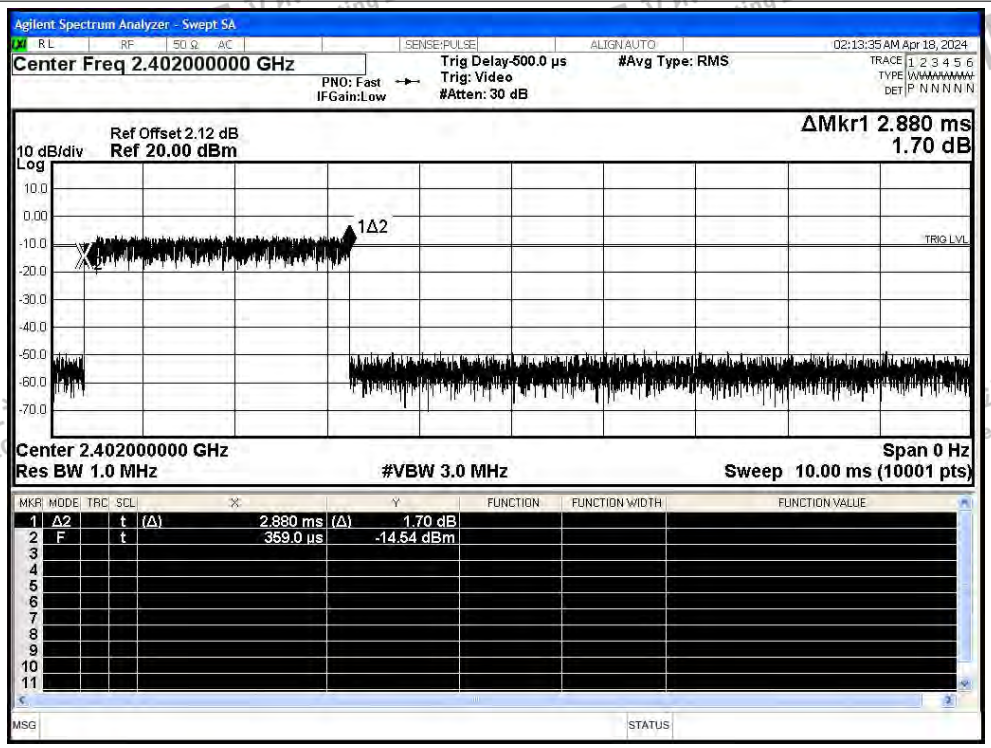
Dwell NVNT 1-DH5 2402MHz Ant1 One Burst



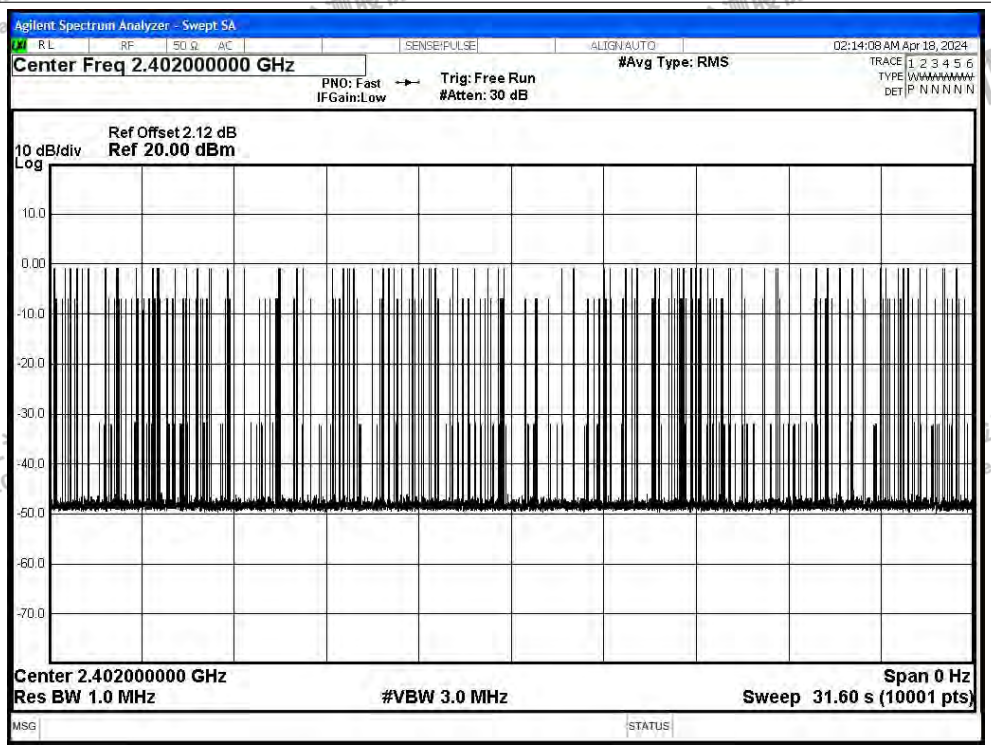
Dwell NVNT 1-DH5 2402MHz Ant1 Accumulated



Dwell NVNT 2-DH5 2402MHz Ant1 One Burst



Dwell NVNT 2-DH5 2402MHz Ant1 Accumulated

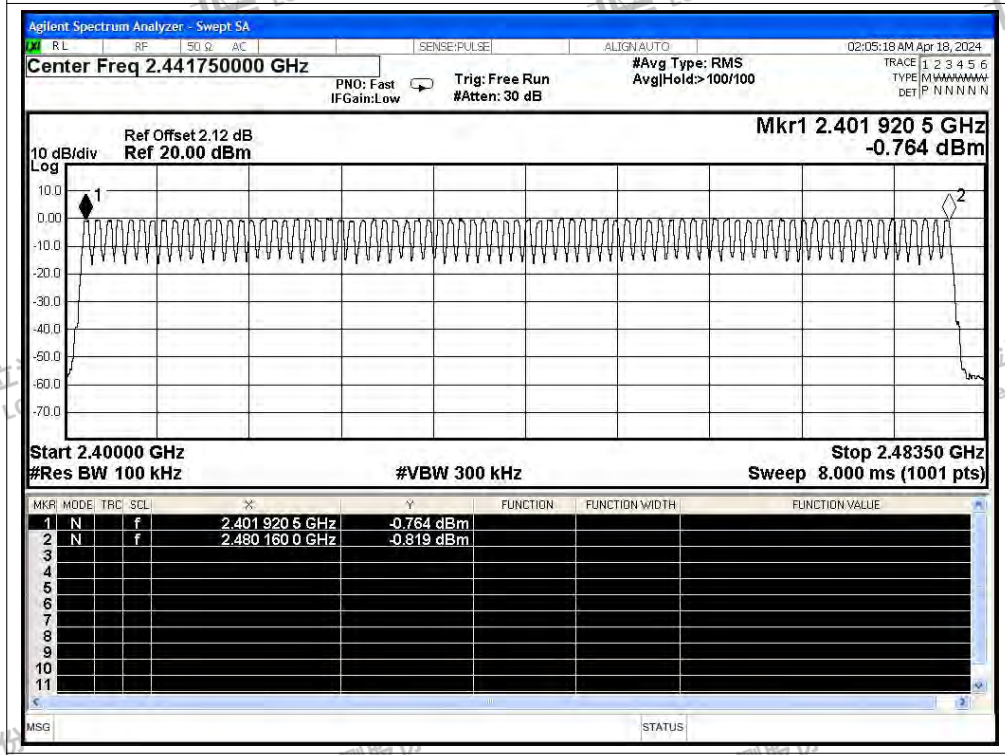


A.5 Number of Hopping Channel

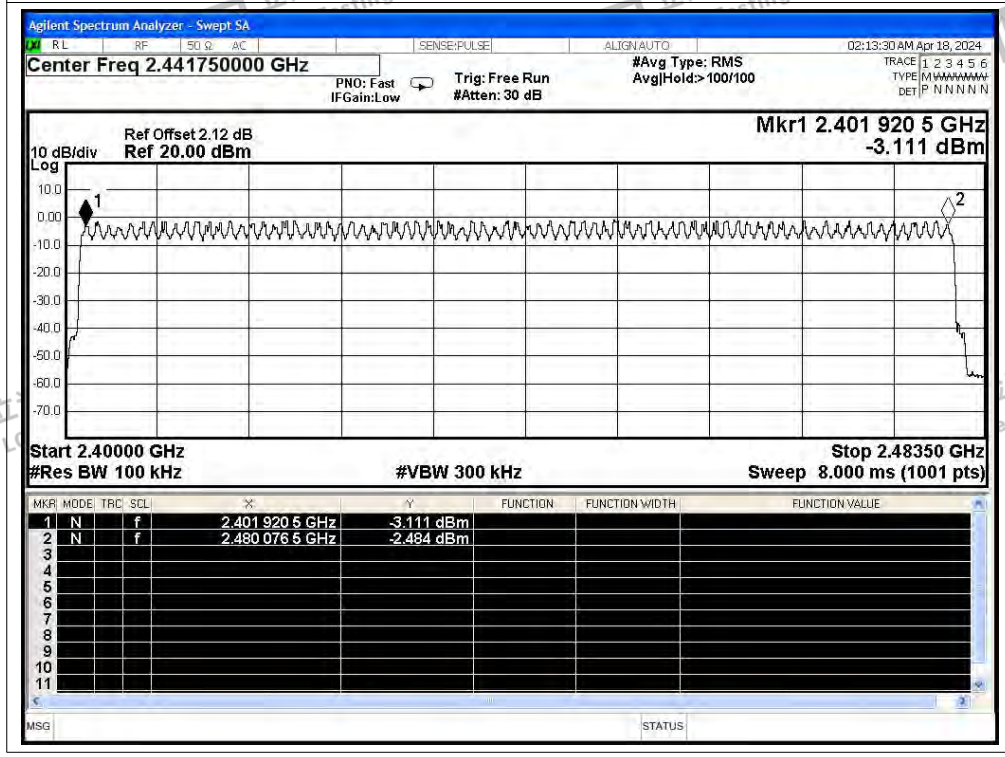
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH5	Ant1	79	15	Pass
NVNT	2-DH5	Ant1	79	15	Pass

Test Graphs

Hopping No. NVNT 1-DH5 2402MHz Ant1



Hopping No. NVNT 2-DH5 2402MHz Ant1

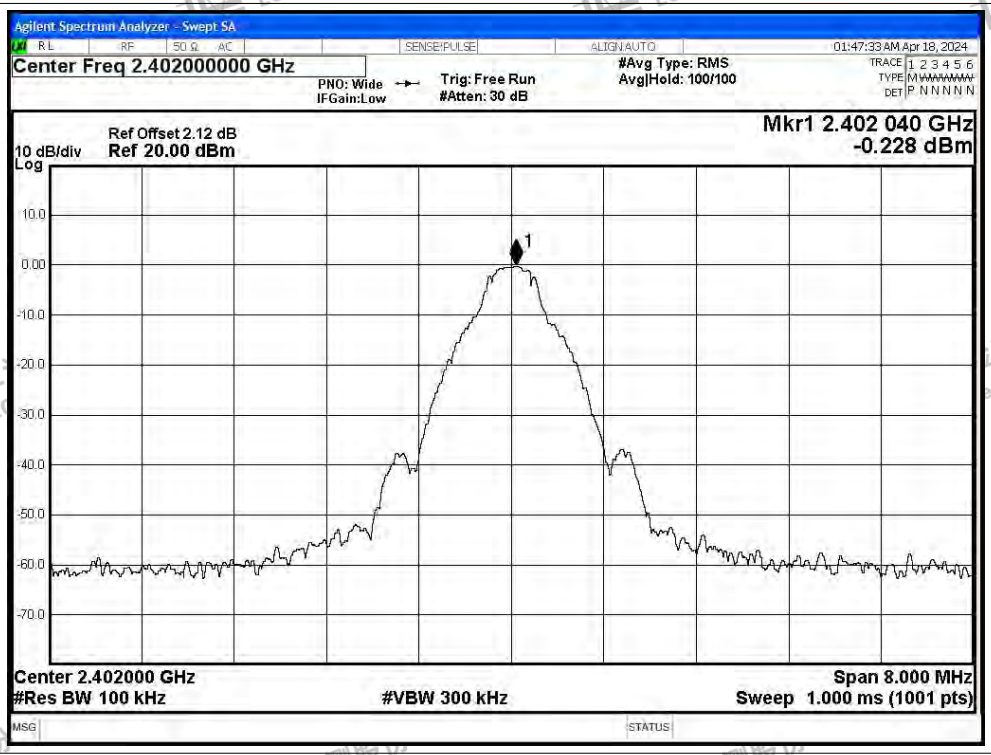


A.6 Band Edge

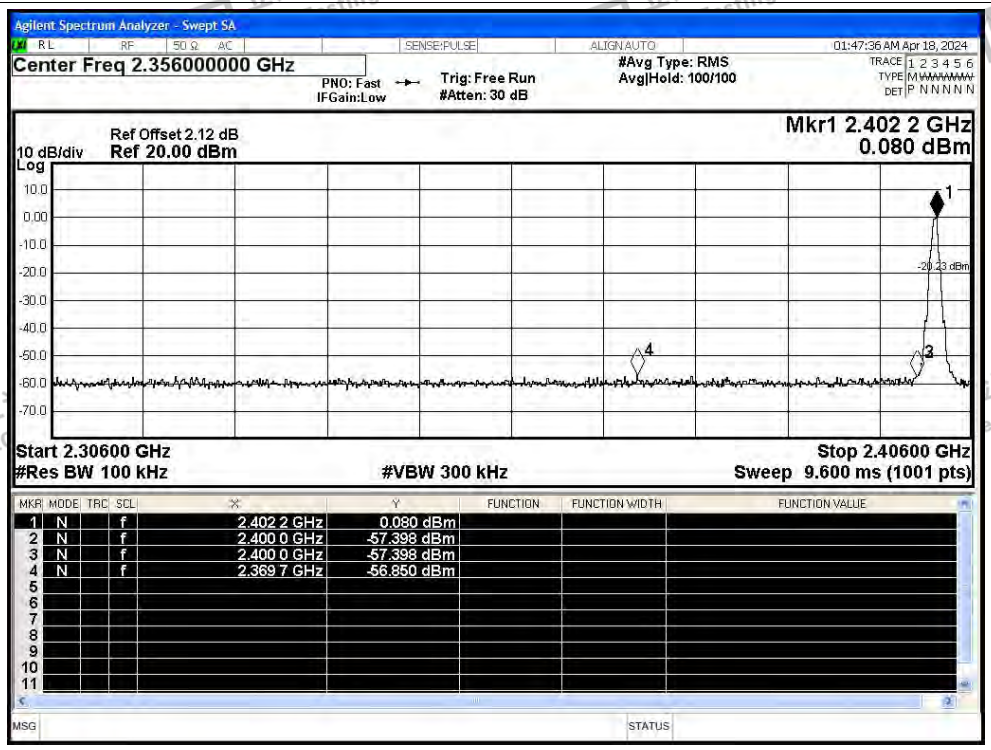
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	-56.62	-20	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	-56.89	-20	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	-54.56	-20	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	-54.4	-20	Pass

Test Graphs

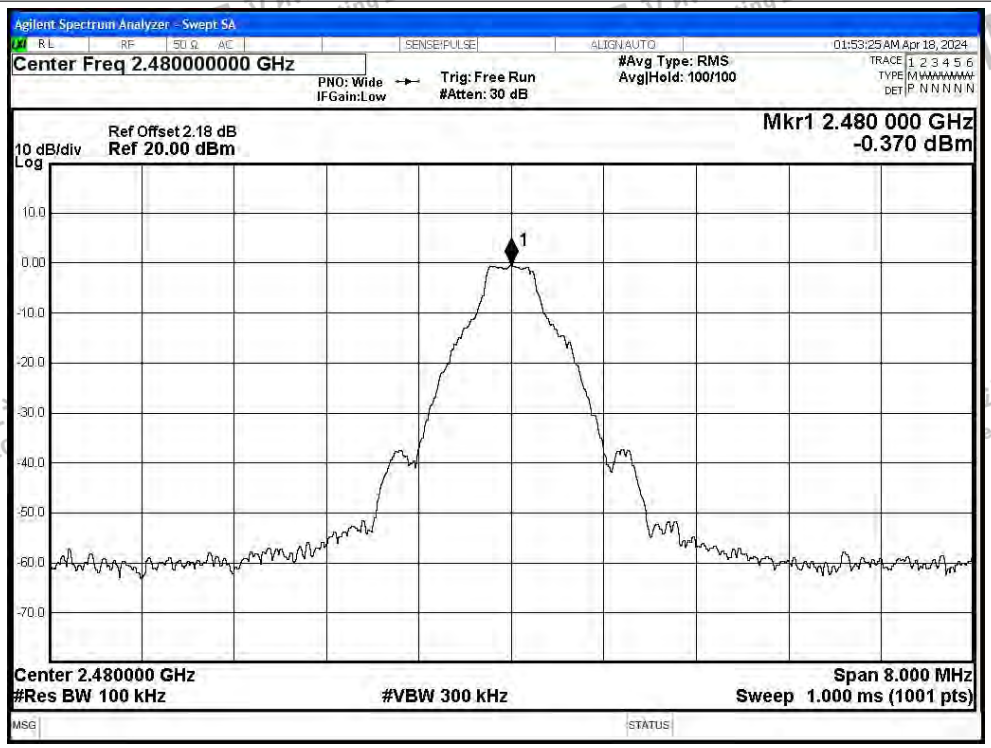
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Ref



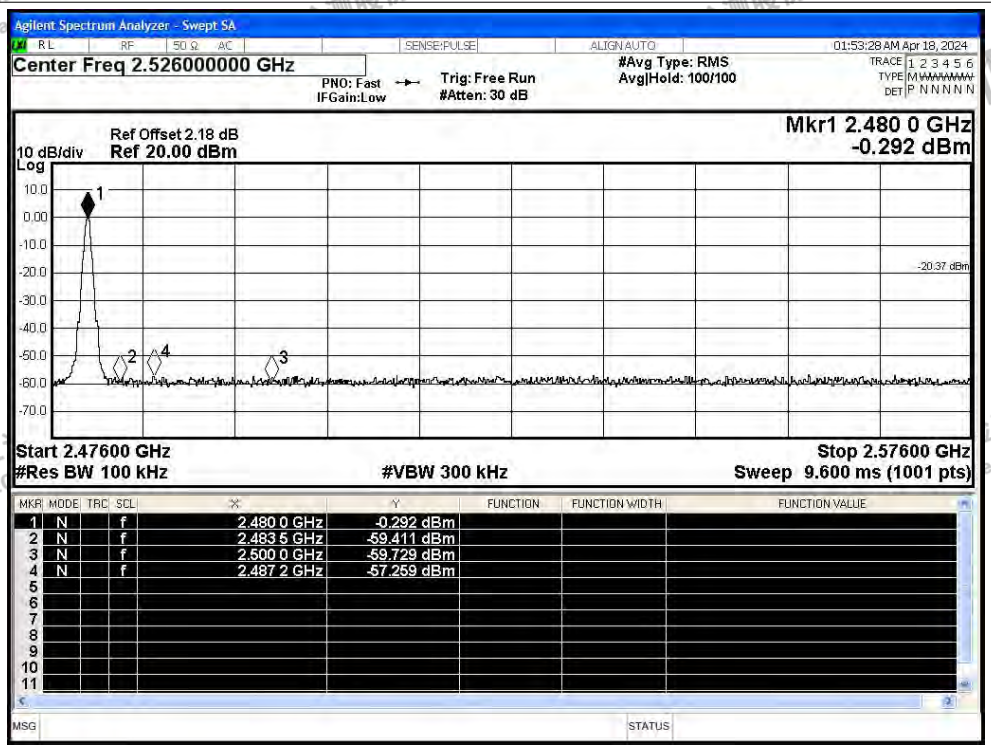
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Emission



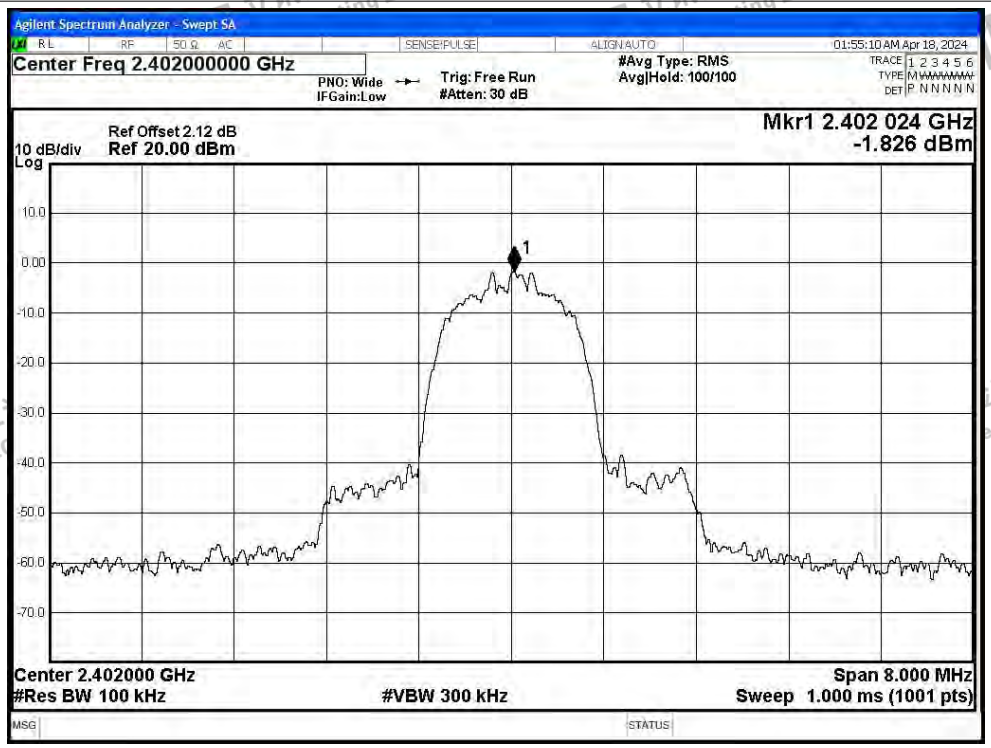
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref



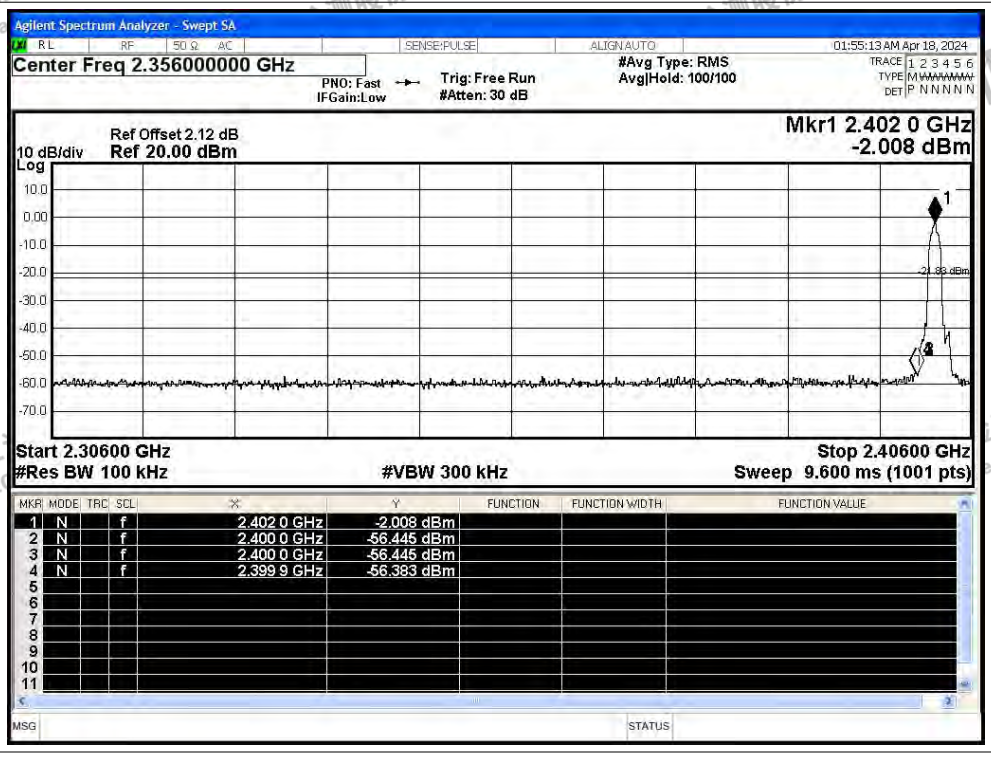
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Emission



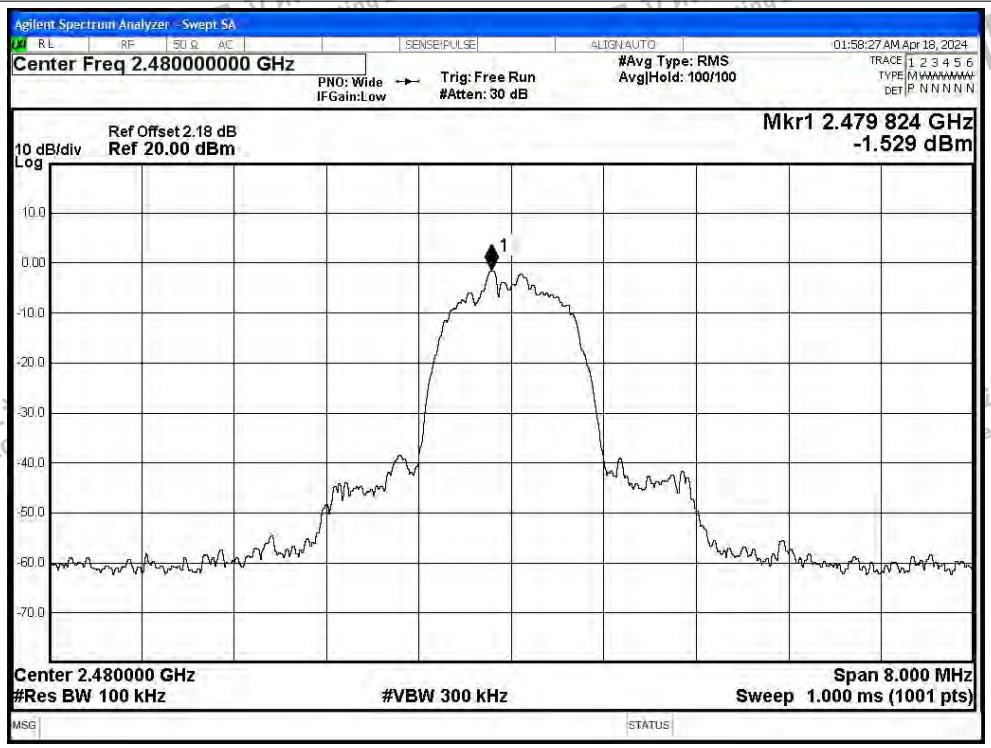
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Ref



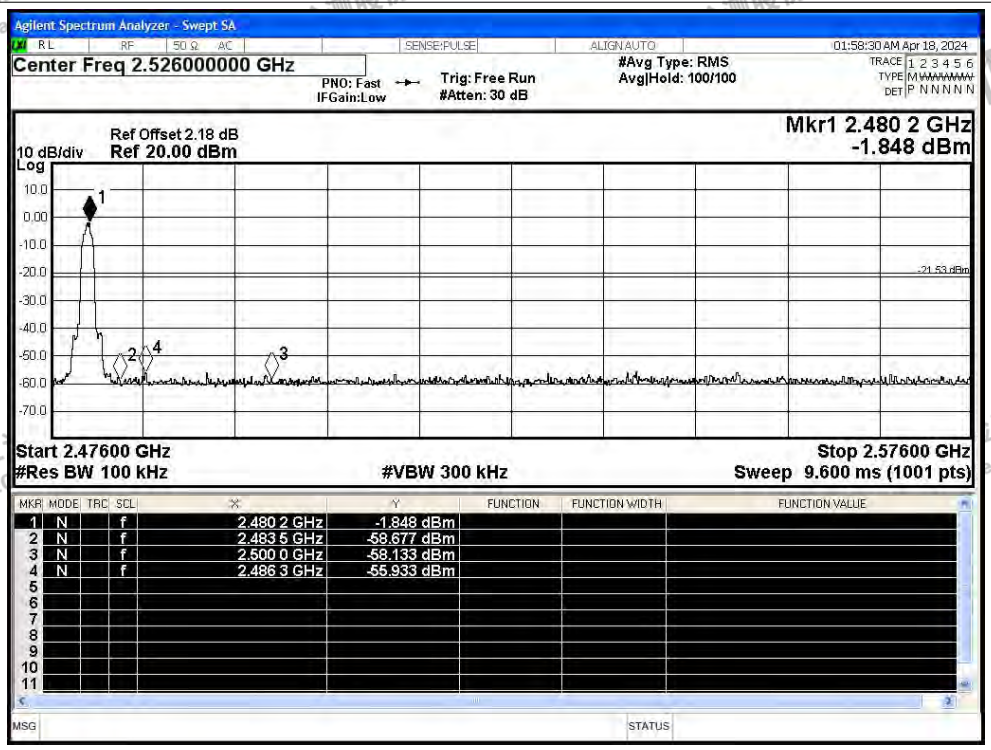
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Emission



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



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

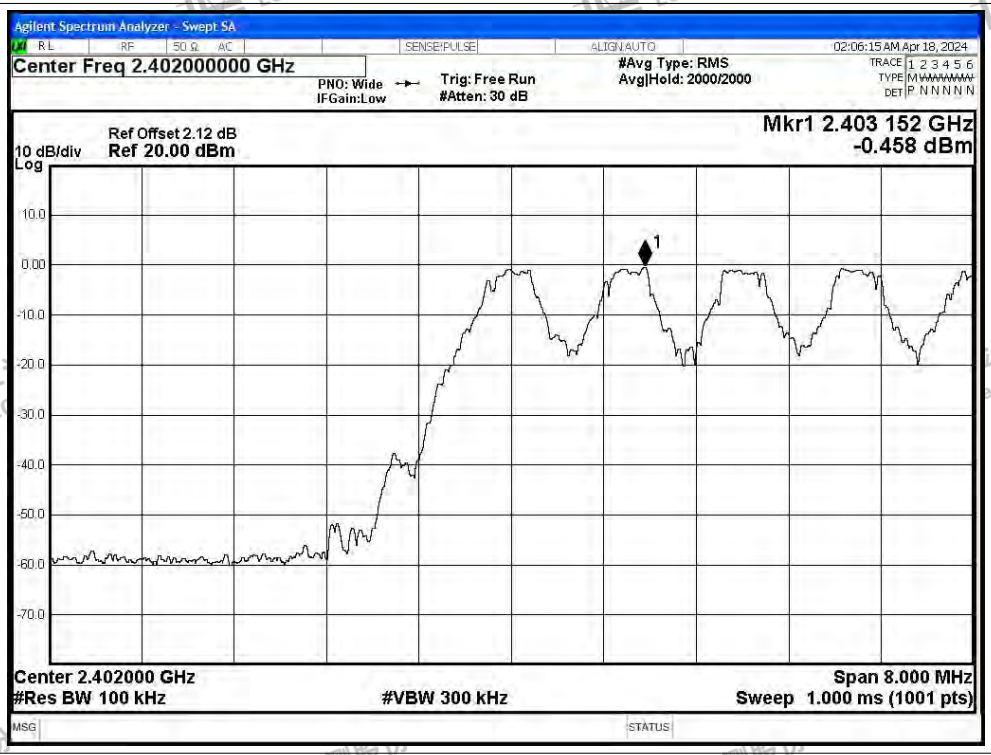


(Hopping)

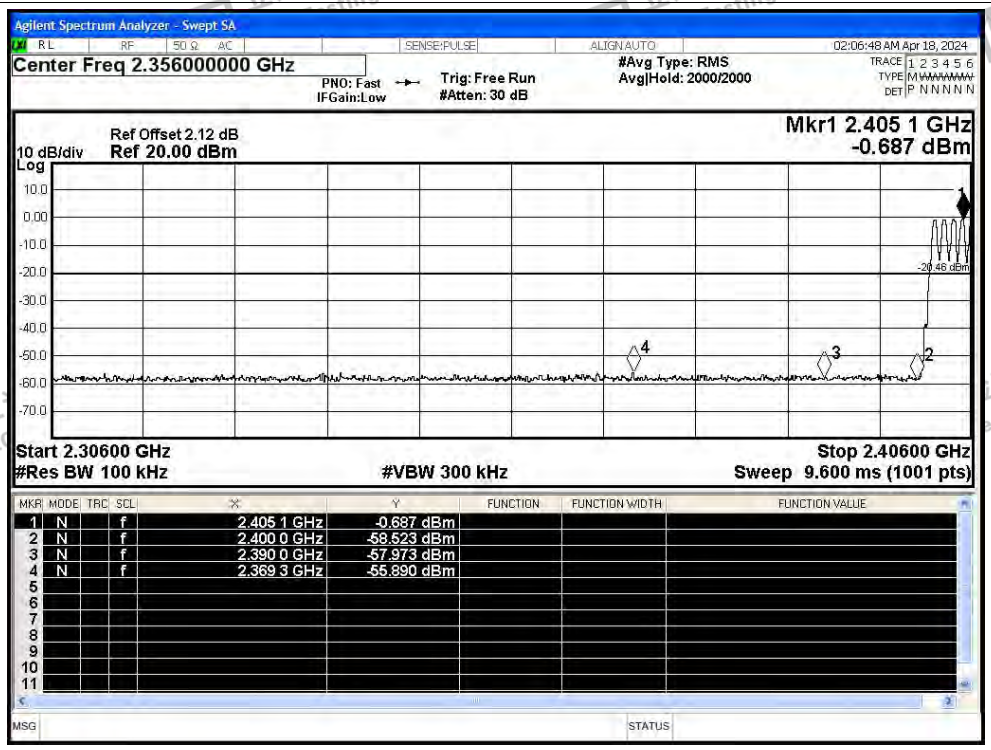
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	Hopping	-55.43	-20	Pass
NVNT	1-DH5	2480	Ant1	Hopping	-55.75	-20	Pass
NVNT	2-DH5	2402	Ant1	Hopping	-53.97	-20	Pass
NVNT	2-DH5	2480	Ant1	Hopping	-54.79	-20	Pass

Test Graphs

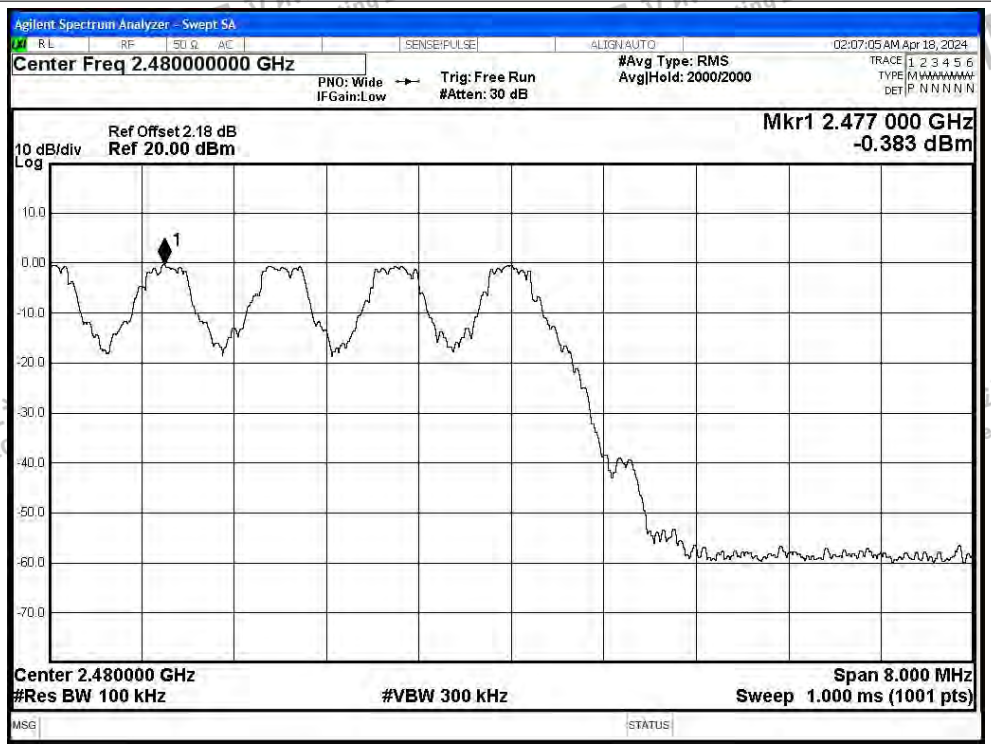
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Ref



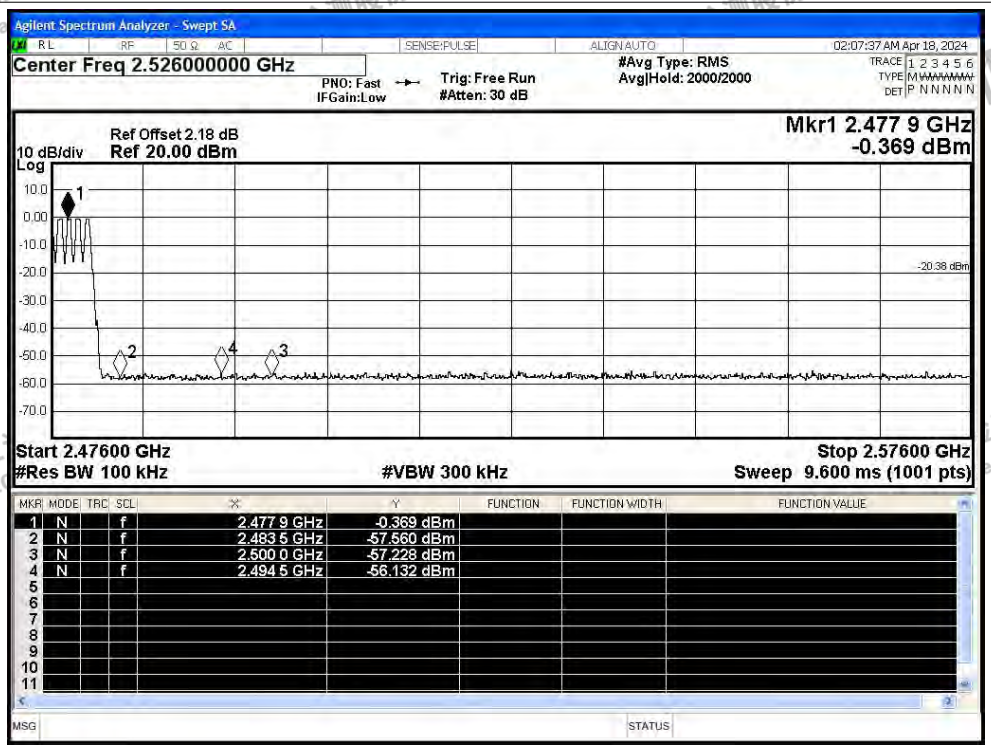
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission



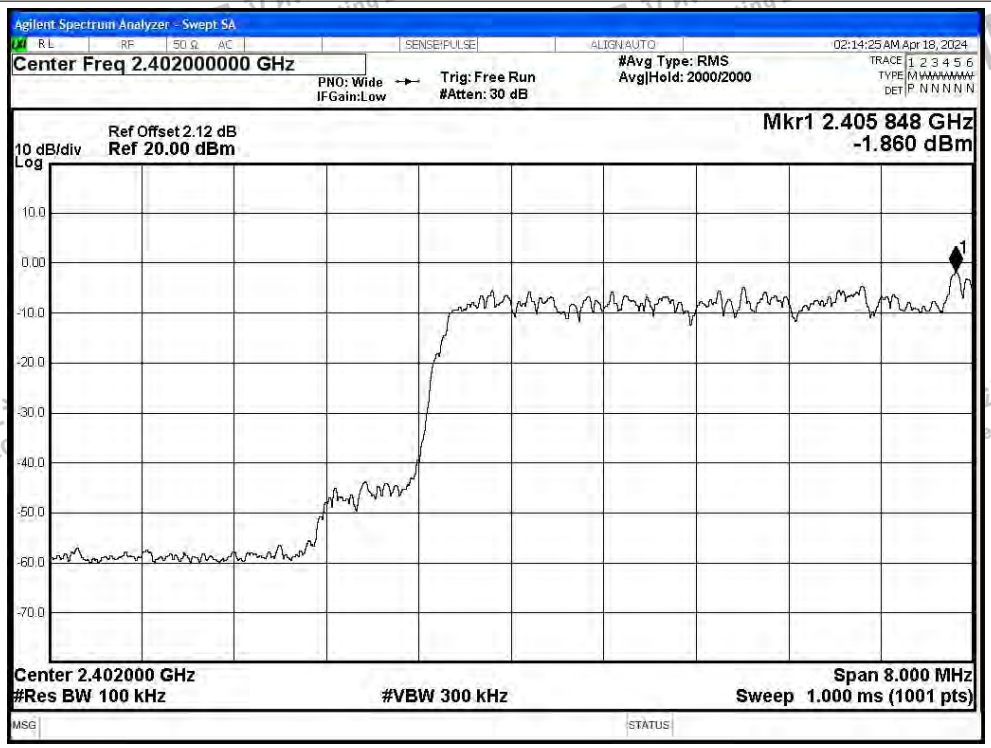
Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Ref



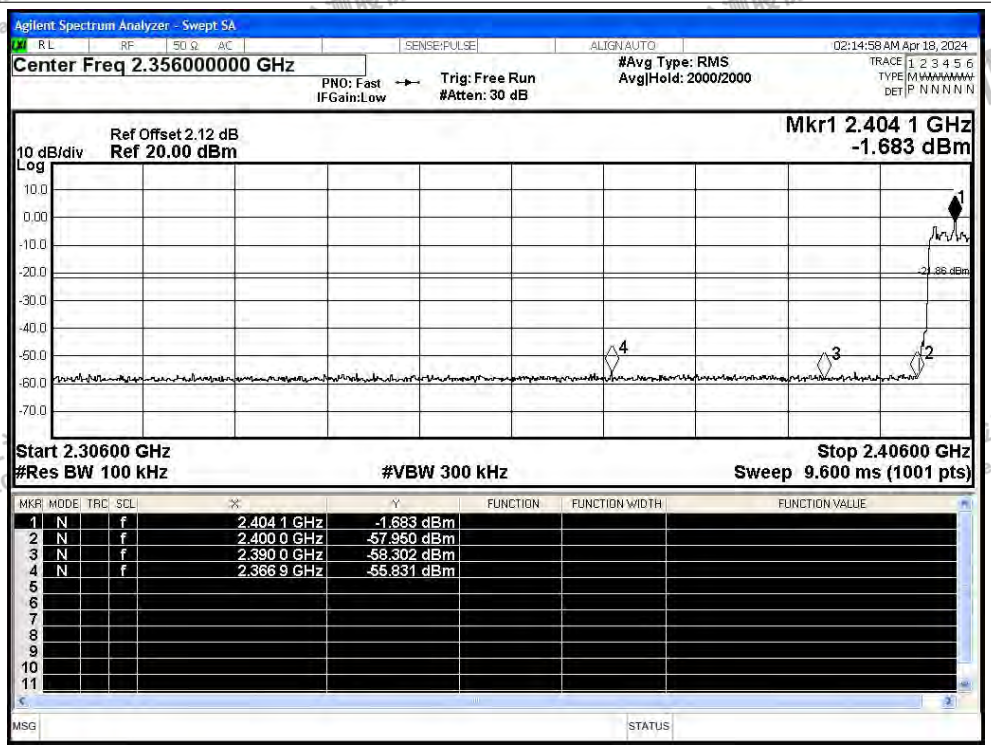
Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Emission



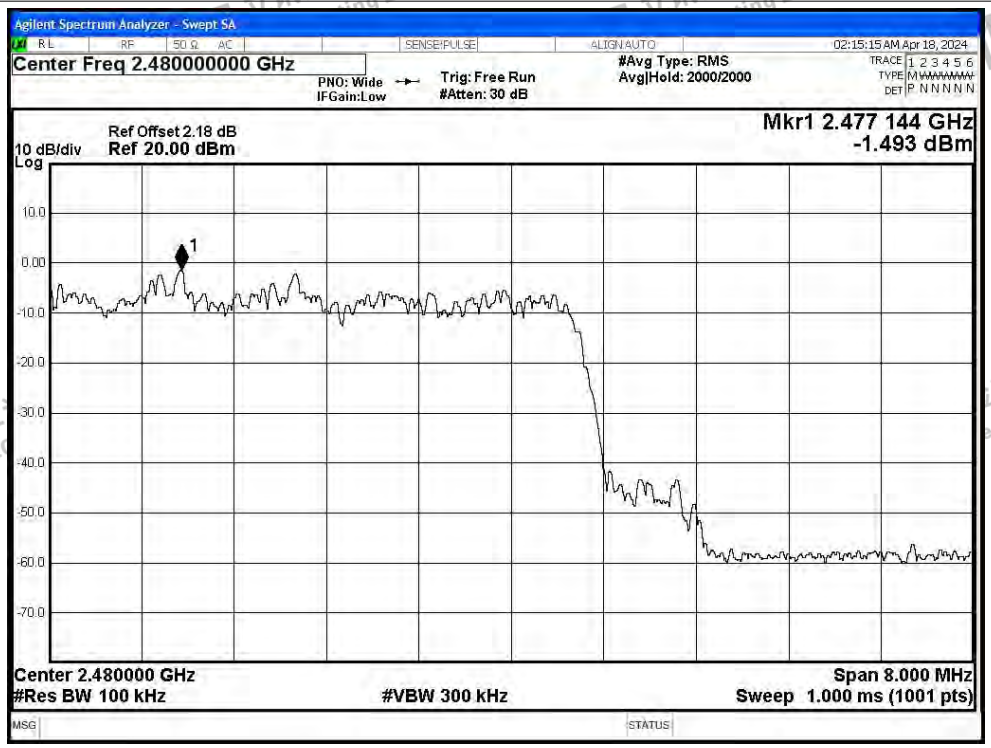
Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Ref



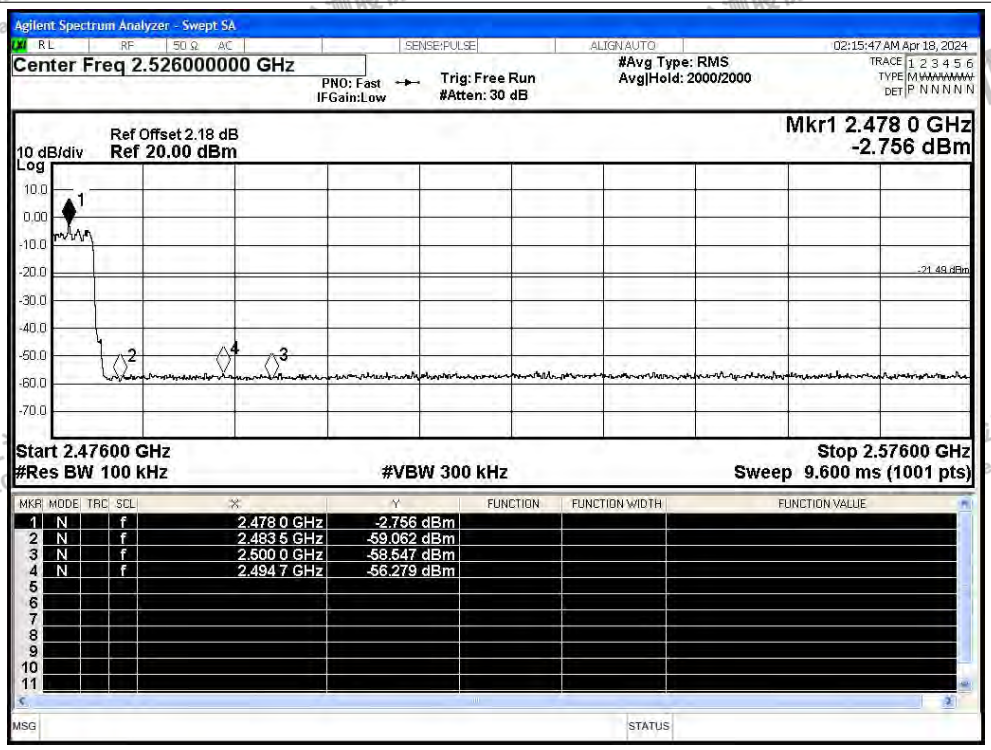
Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Emission



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



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



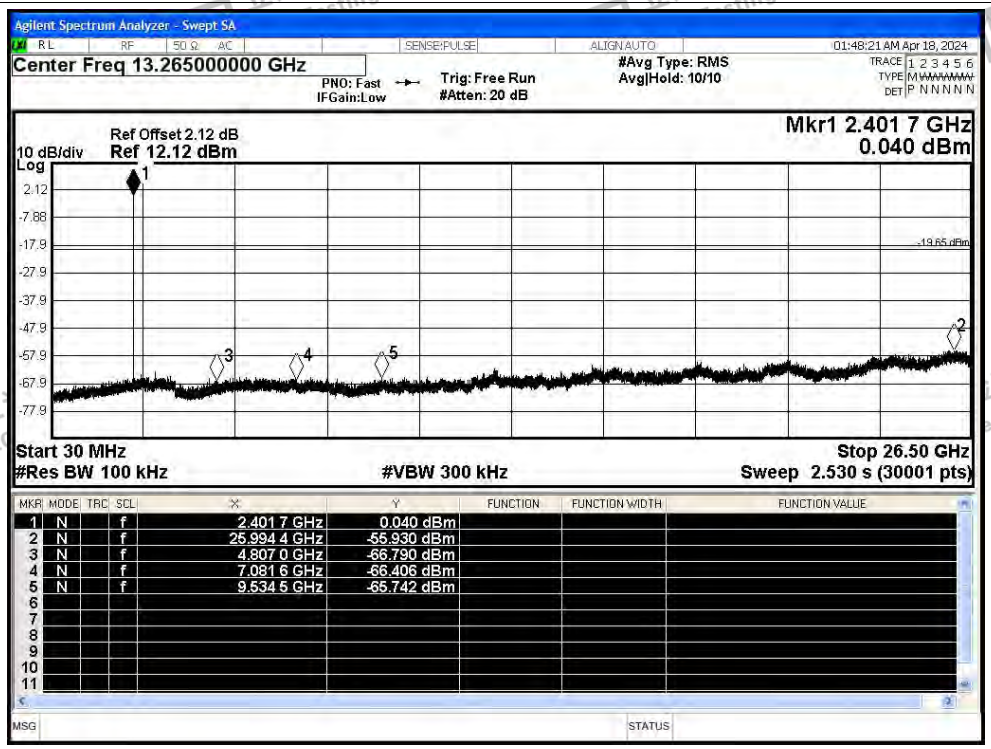
A.7 Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	-56.28	-20	Pass
NVNT	1-DH5	2441	Ant1	-54.29	-20	Pass
NVNT	1-DH5	2480	Ant1	-55.29	-20	Pass
NVNT	2-DH5	2402	Ant1	-53.79	-20	Pass
NVNT	2-DH5	2441	Ant1	-39.78	-20	Pass
NVNT	2-DH5	2480	Ant1	-53.27	-20	Pass

Test Graphs

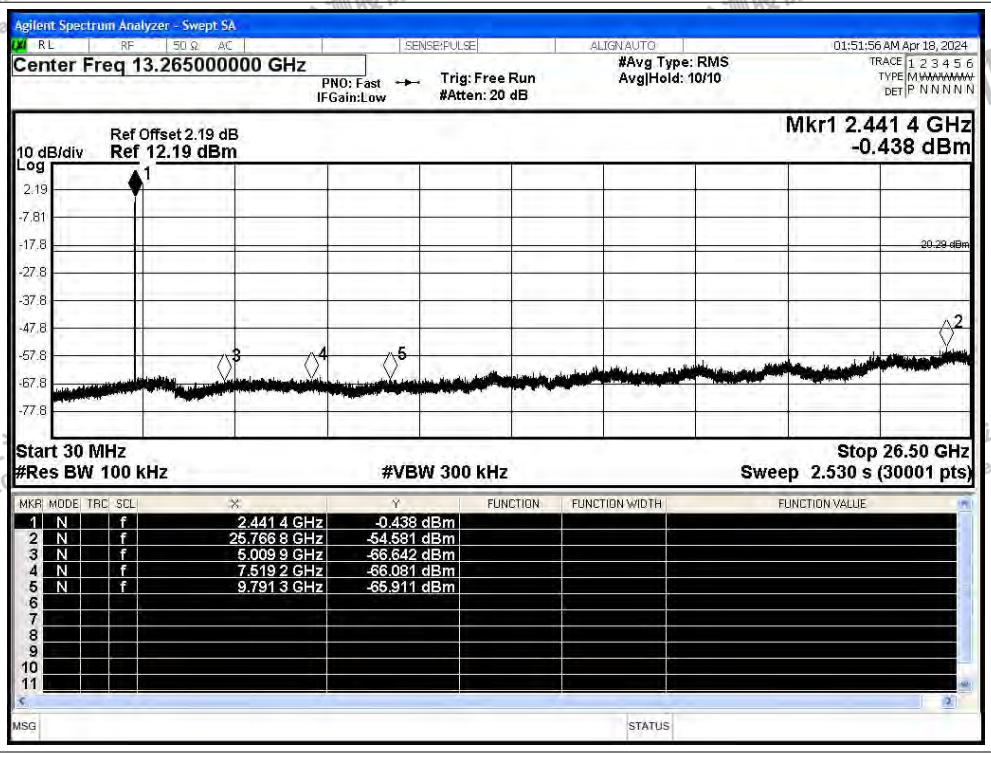
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref

Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission

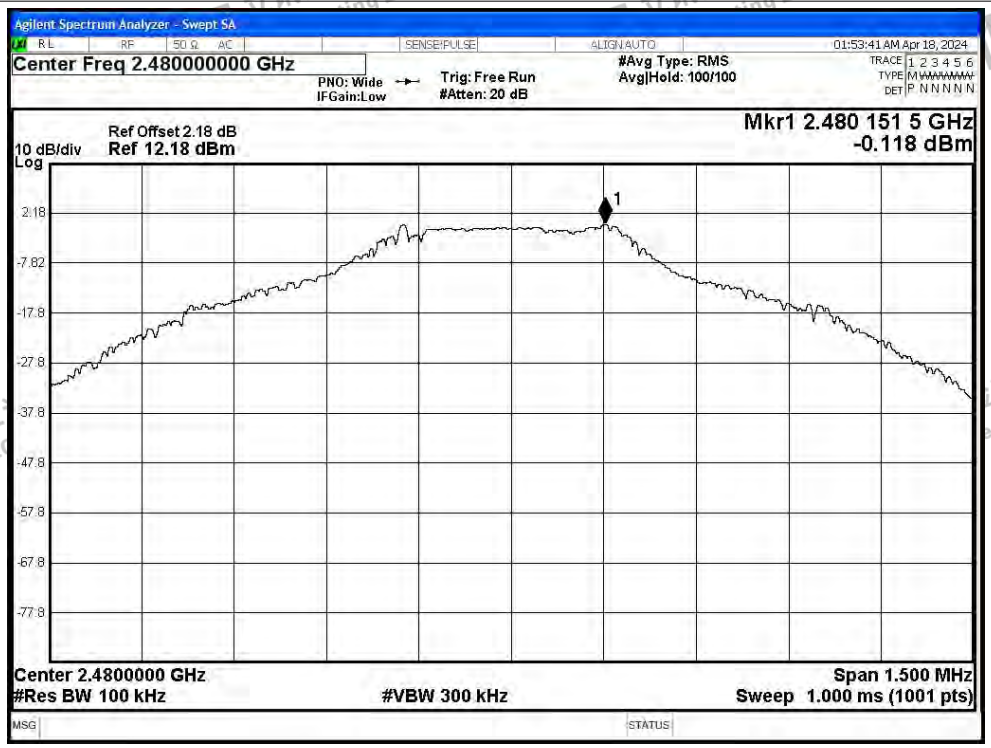


Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref

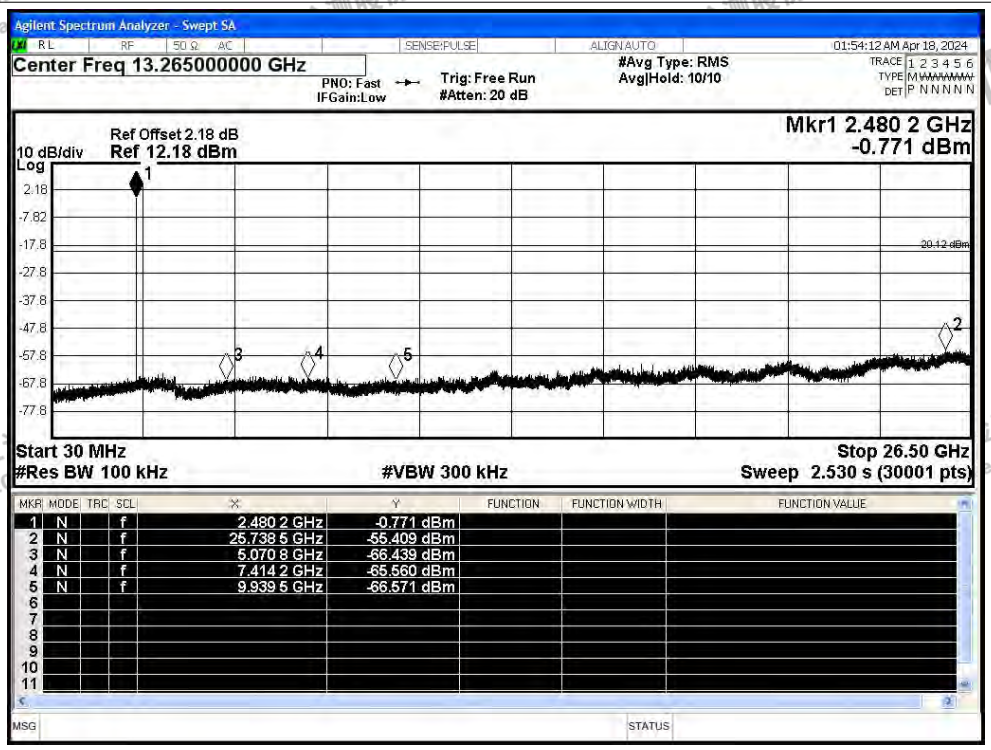
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission



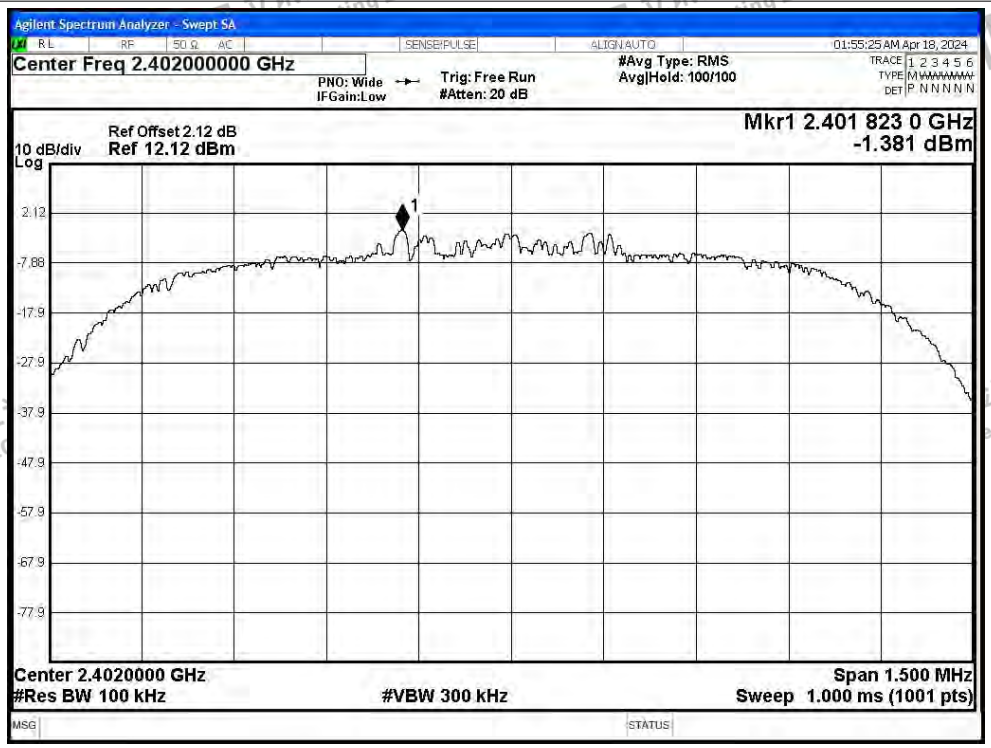
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref



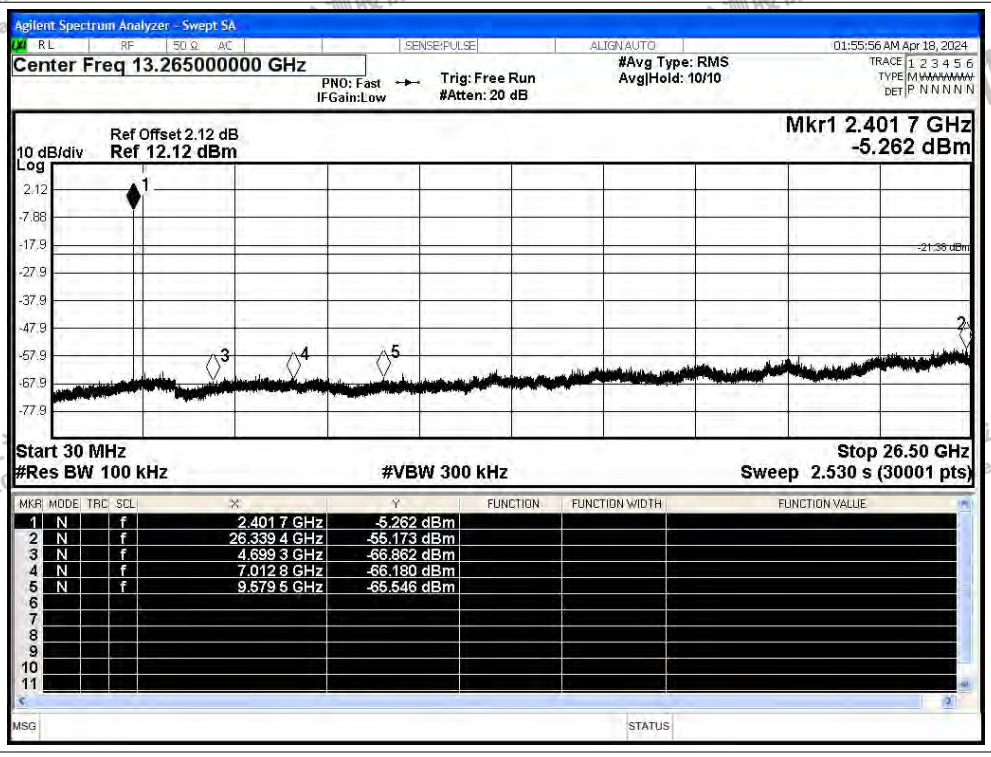
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Emission



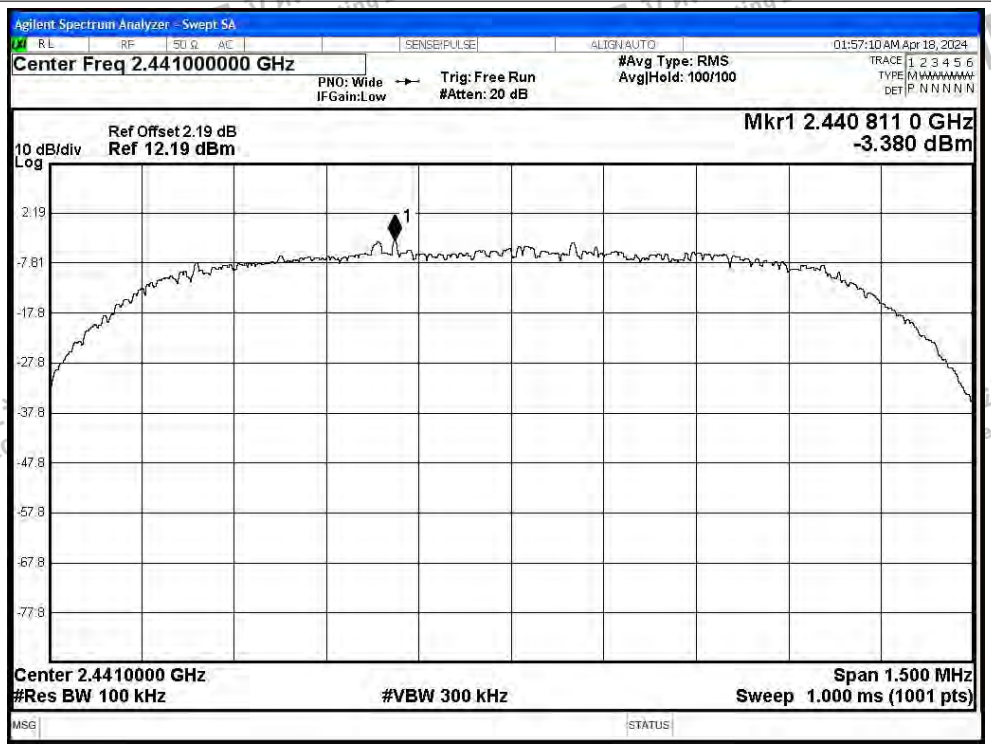
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Ref



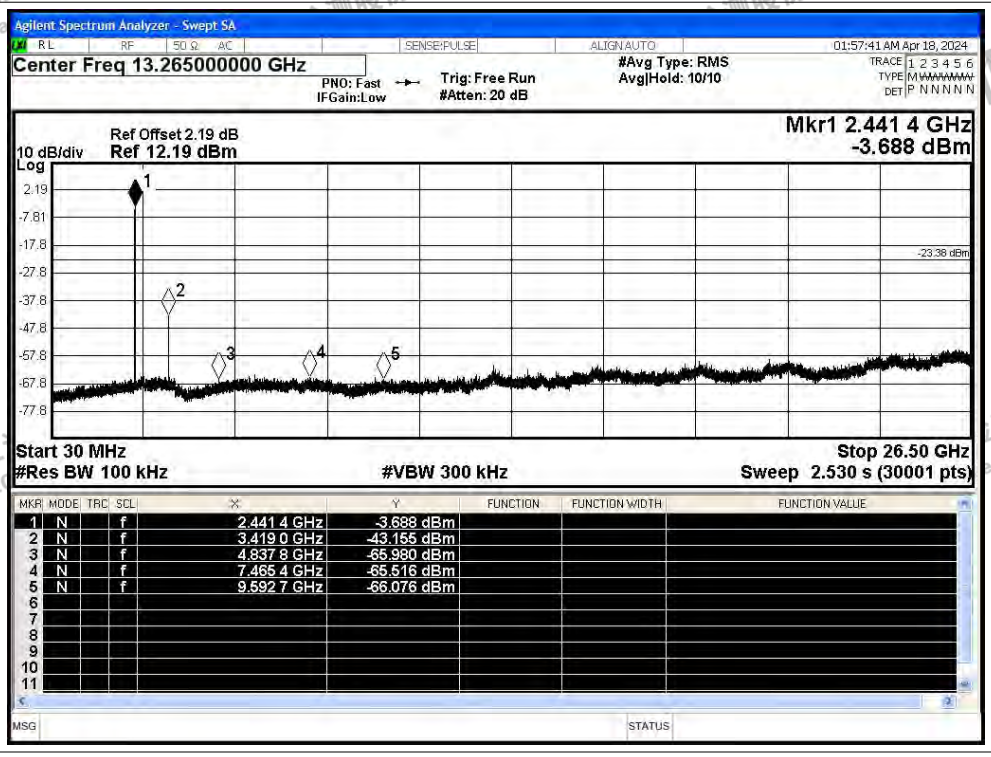
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Emission



Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Ref

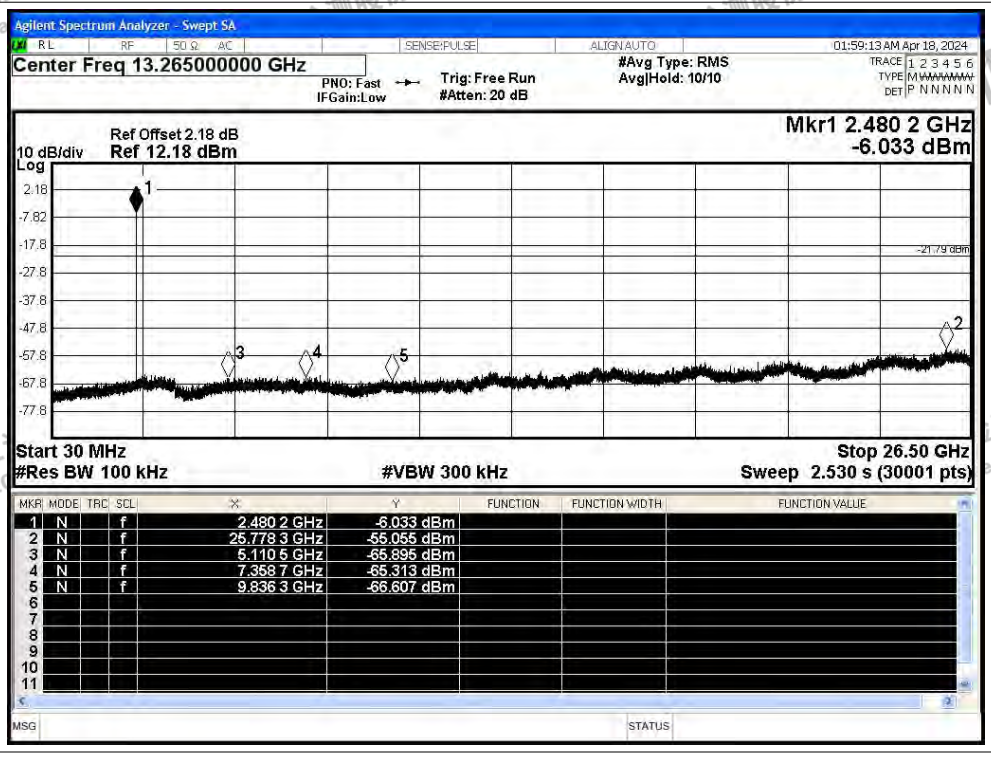


Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Emission



Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Ref

Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Emission

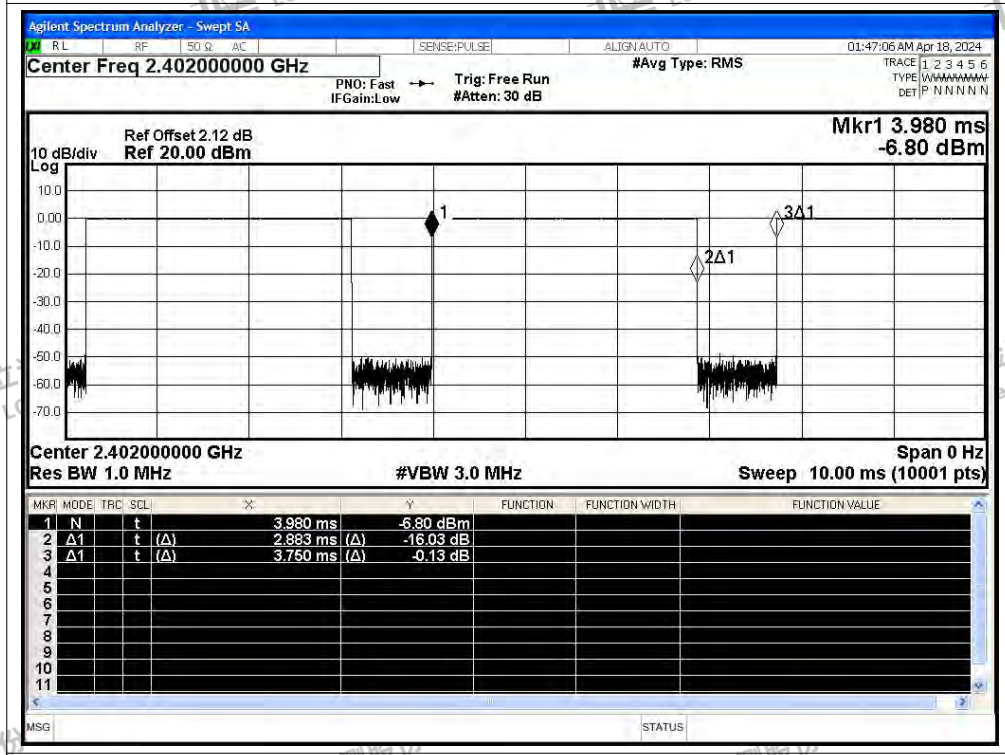


A.8 Duty Cycle

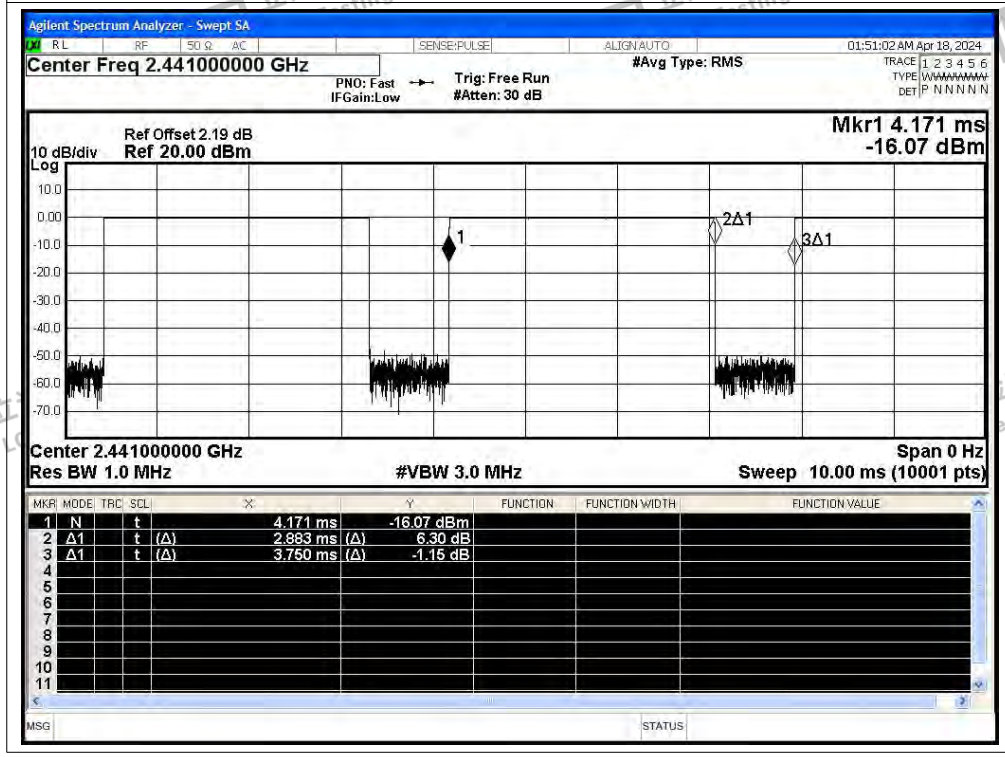
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH5	2402	Ant1	76.88	1.14	0.35
NVNT	1-DH5	2441	Ant1	76.88	1.14	0.35
NVNT	1-DH5	2480	Ant1	76.88	1.14	0.35
NVNT	2-DH5	2402	Ant1	76.96	1.14	0.35
NVNT	2-DH5	2441	Ant1	76.99	1.14	0.35
NVNT	2-DH5	2480	Ant1	76.96	1.14	0.35

Test Graphs

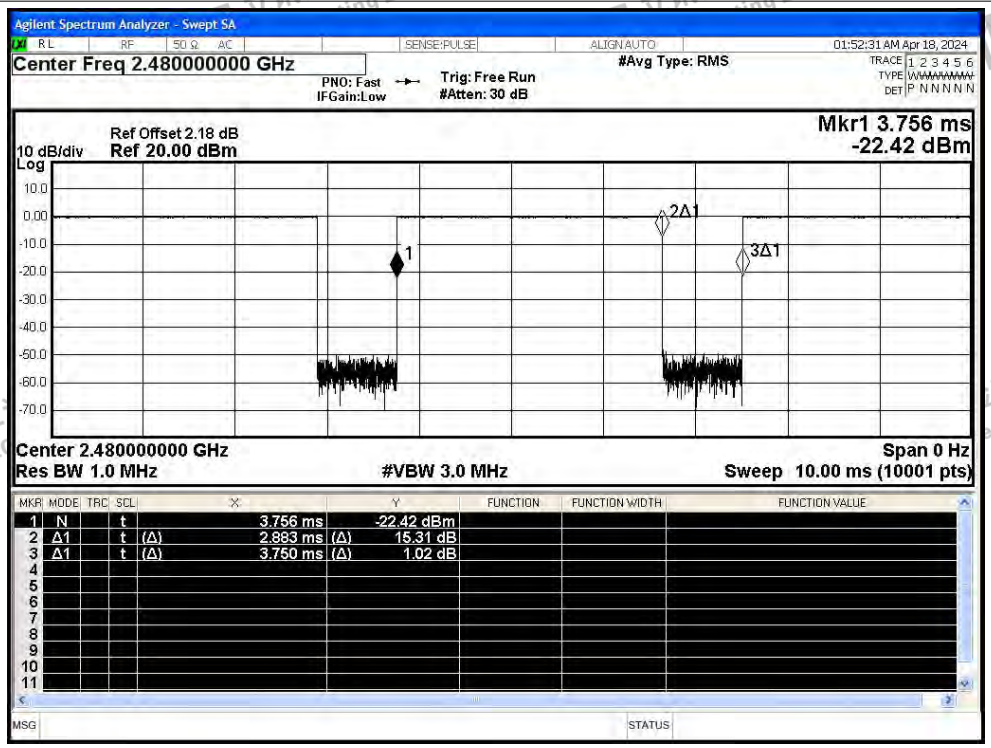
Duty Cycle NVNT 1-DH5 2402MHz Ant1



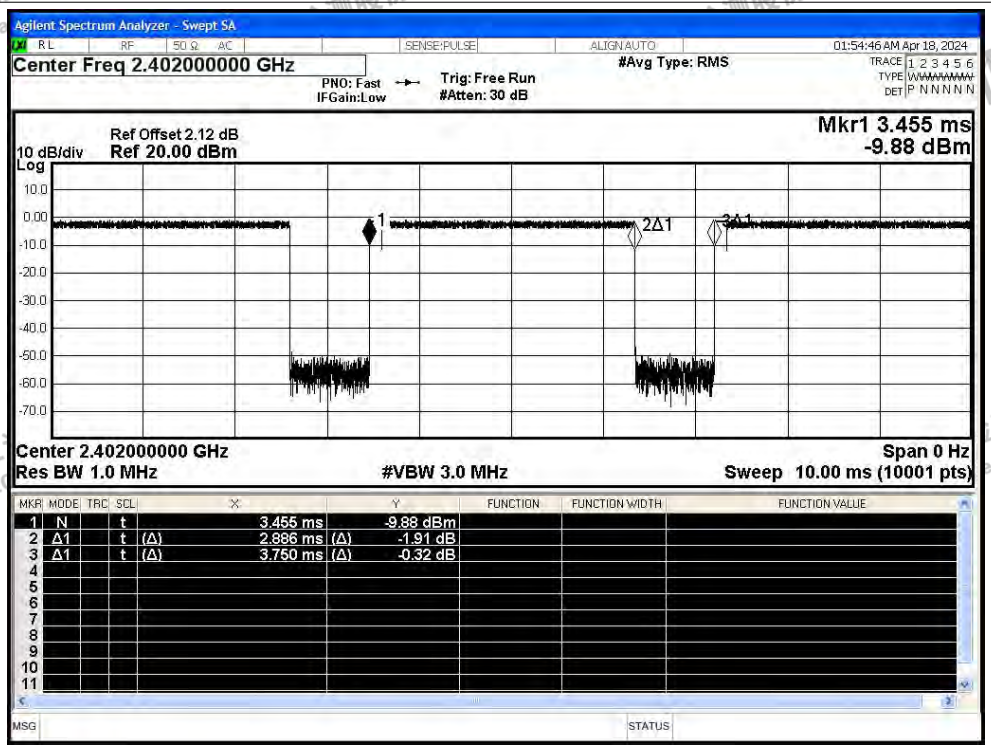
Duty Cycle NVNT 1-DH5 2441MHz Ant1



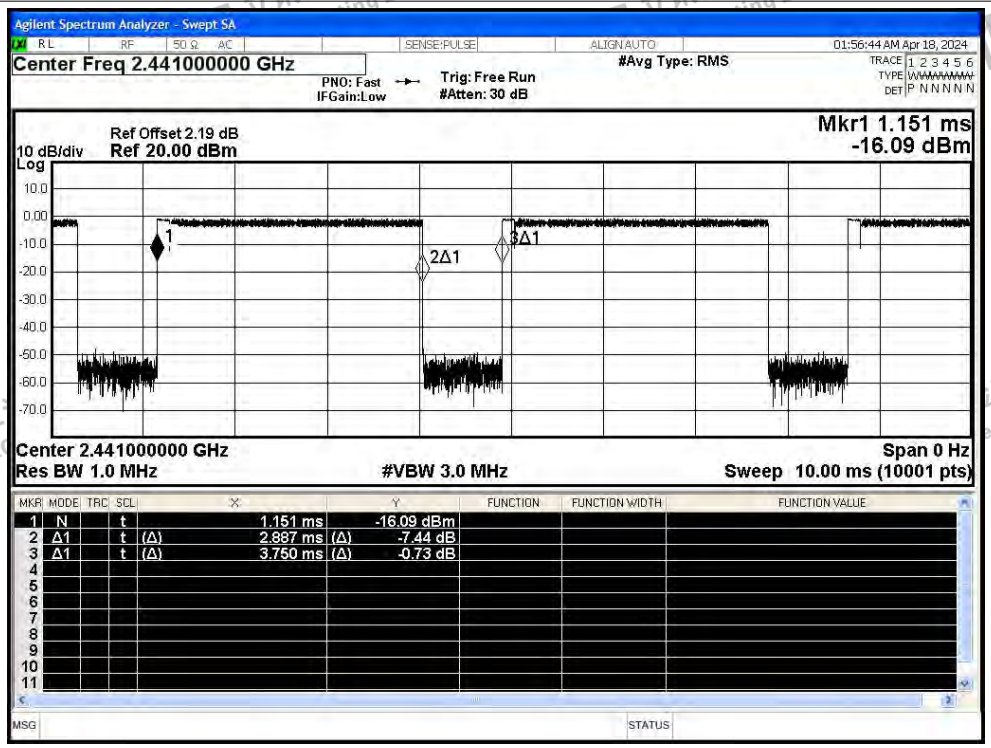
Duty Cycle NVNT 1-DH5 2480MHz Ant1



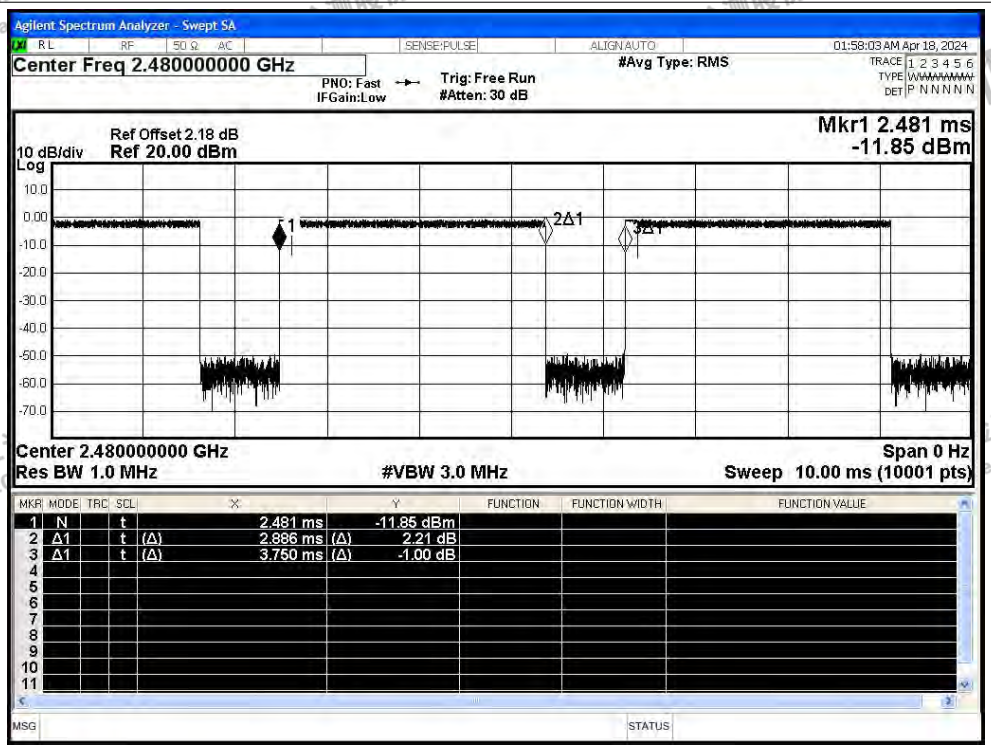
Duty Cycle NVNT 2-DH5 2402MHz Ant1



Duty Cycle NVNT 2-DH5 2441MHz Ant1



Duty Cycle NVNT 2-DH5 2480MHz Ant1

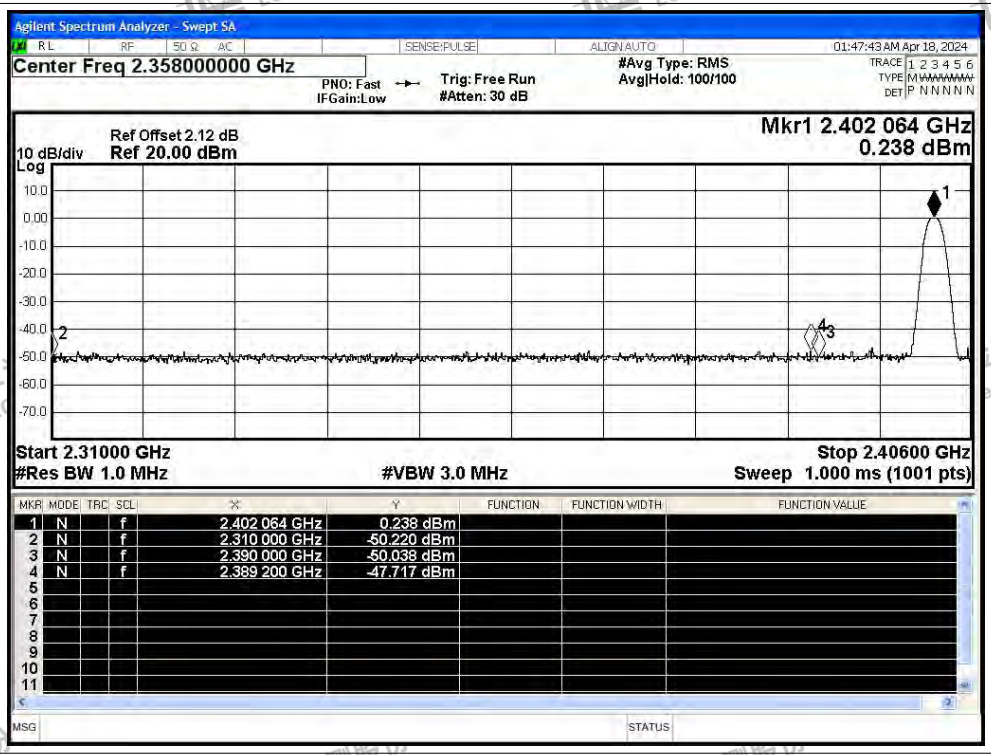


A.9 Restrict Band

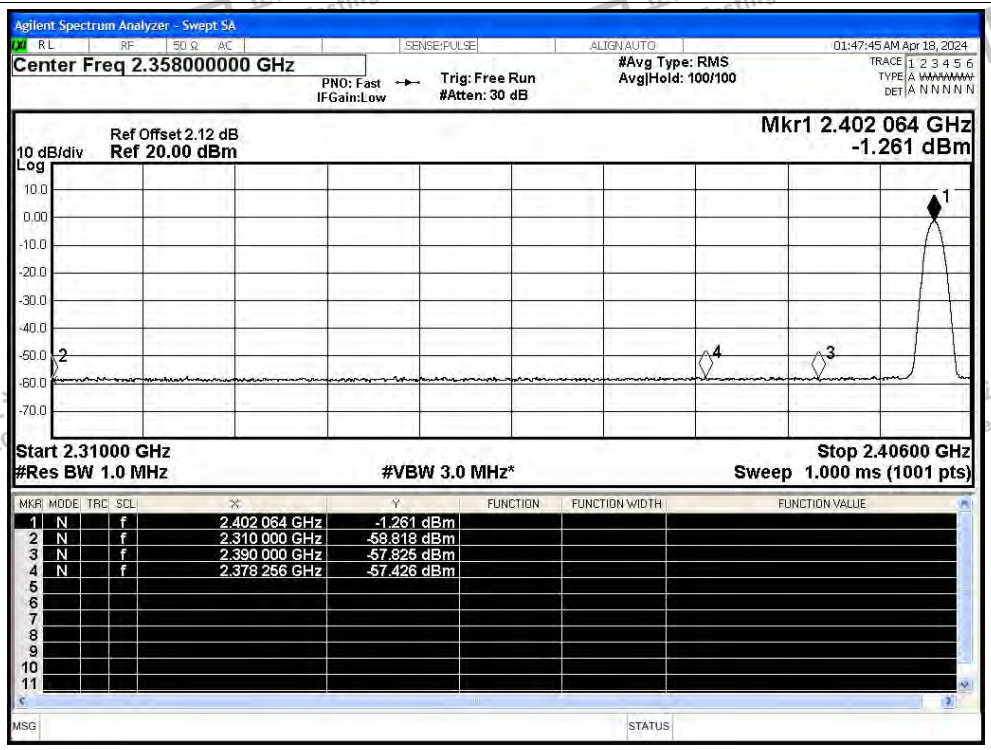
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-50.22	2	-	47.04	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-58.82	2	1.14	39.58	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2389.2	-47.72	2	-	49.54	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2378.256	-57.43	2	1.14	40.97	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-50.04	2	-	47.22	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-57.83	2	1.14	40.57	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-48.83	2	-	48.43	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-57.61	2	1.14	40.79	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2496.016	-46.94	2	-	50.32	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2497.984	-57.17	2	1.14	41.23	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-50.39	2	-	46.87	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-57.85	2	1.14	40.55	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-50.93	2	-	46.33	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-58.65	2	1.14	39.75	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2388.048	-47.31	2	-	49.95	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2347.248	-57.35	2	1.14	41.05	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-51.05	2	-	46.21	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-57.81	2	1.14	40.59	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-49.68	2	-	47.58	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-58.05	2	1.14	40.35	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2488.552	-46.33	2	-	50.93	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2489.392	-57.11	2	1.14	41.29	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-50.1	2	-	47.16	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-57.85	2	1.14	40.55	Average	54	Pass

Test Graphs

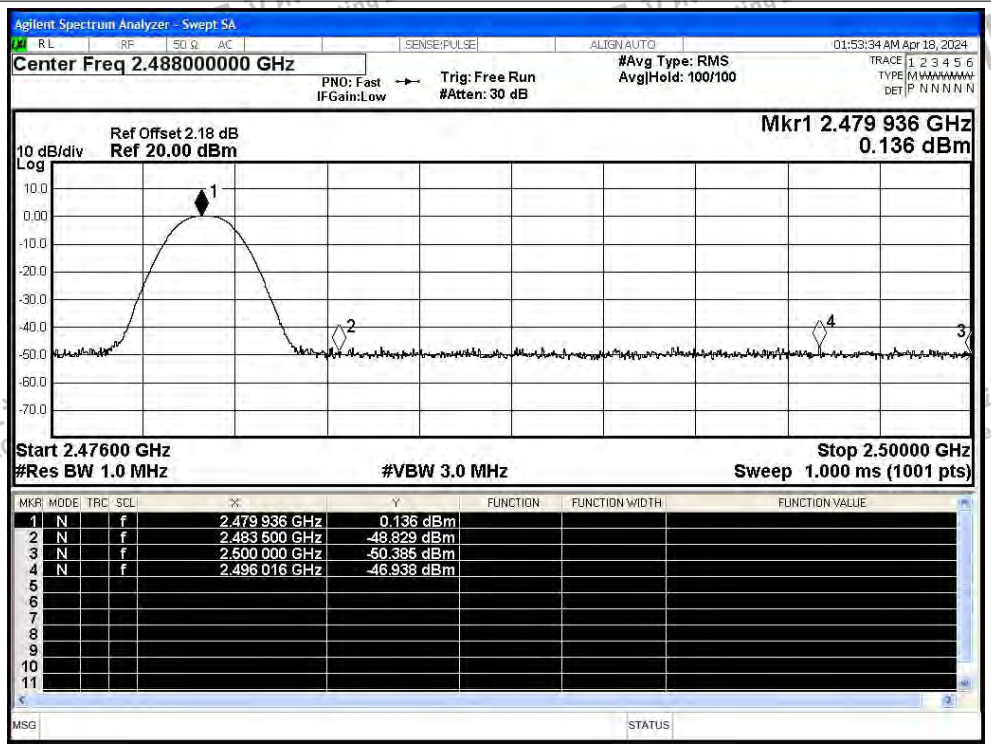
Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Peak



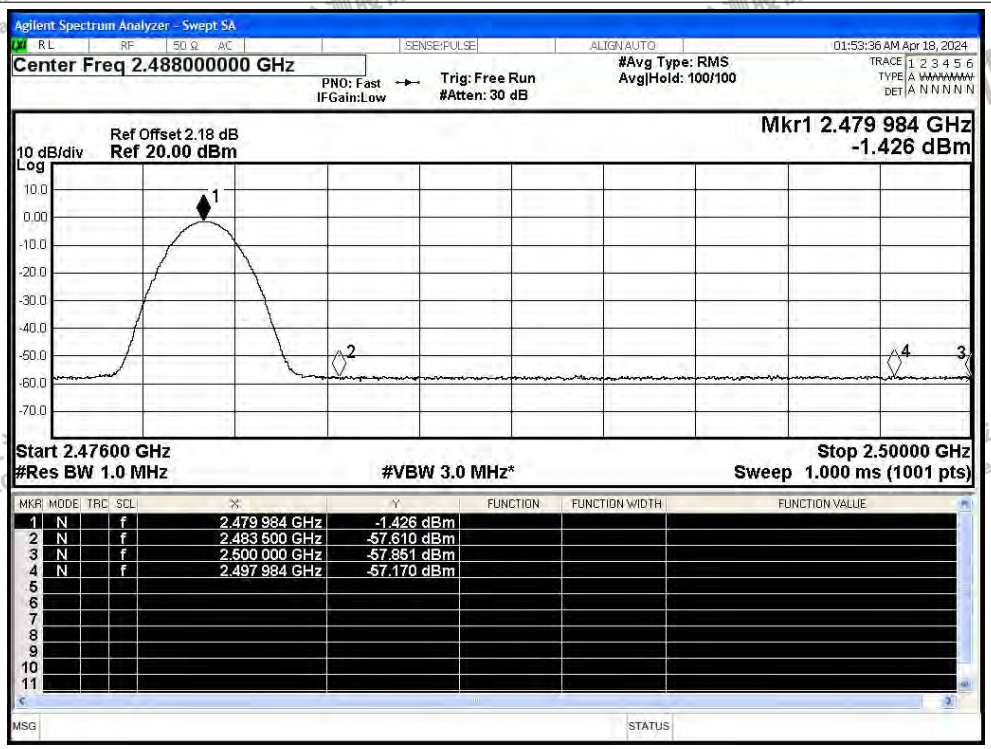
Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Average



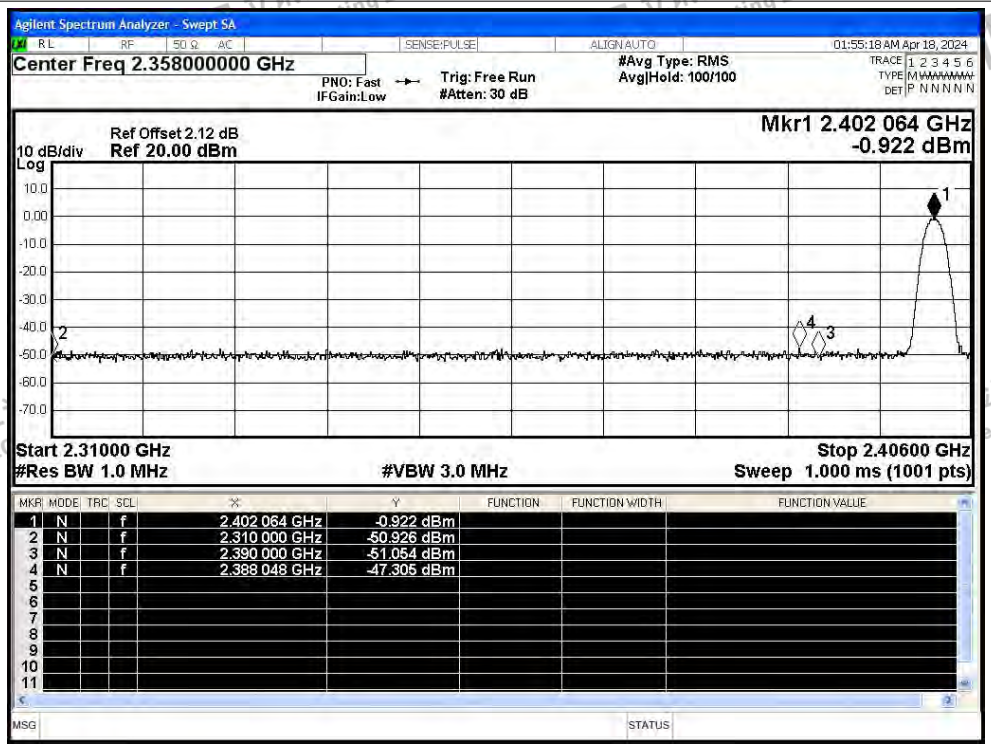
Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Peak



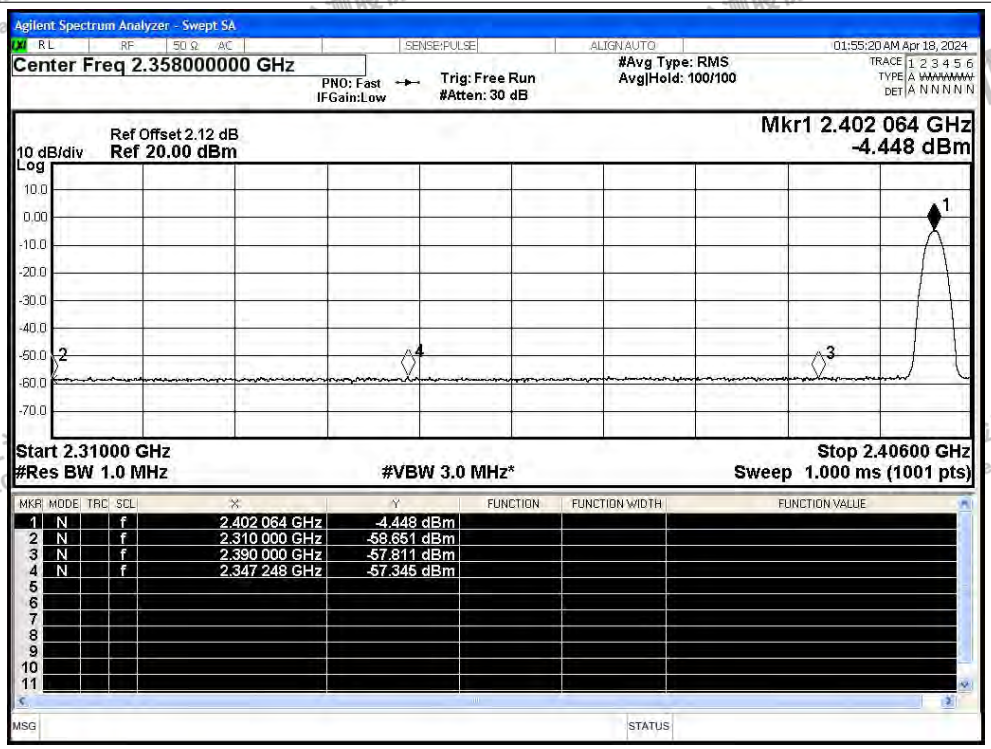
Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Average



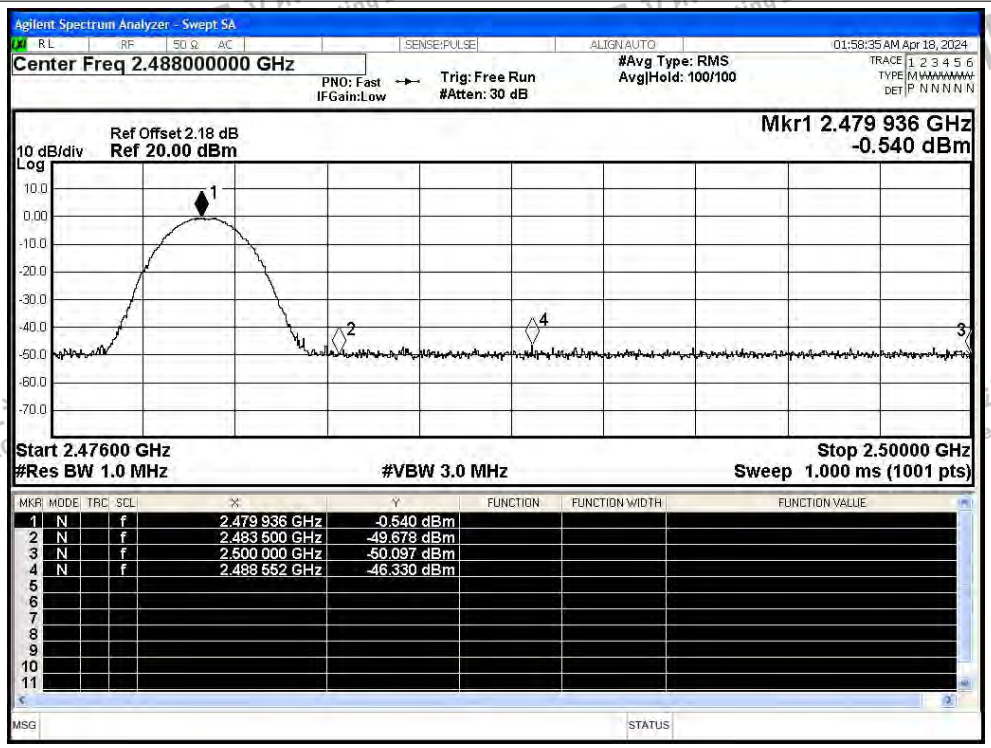
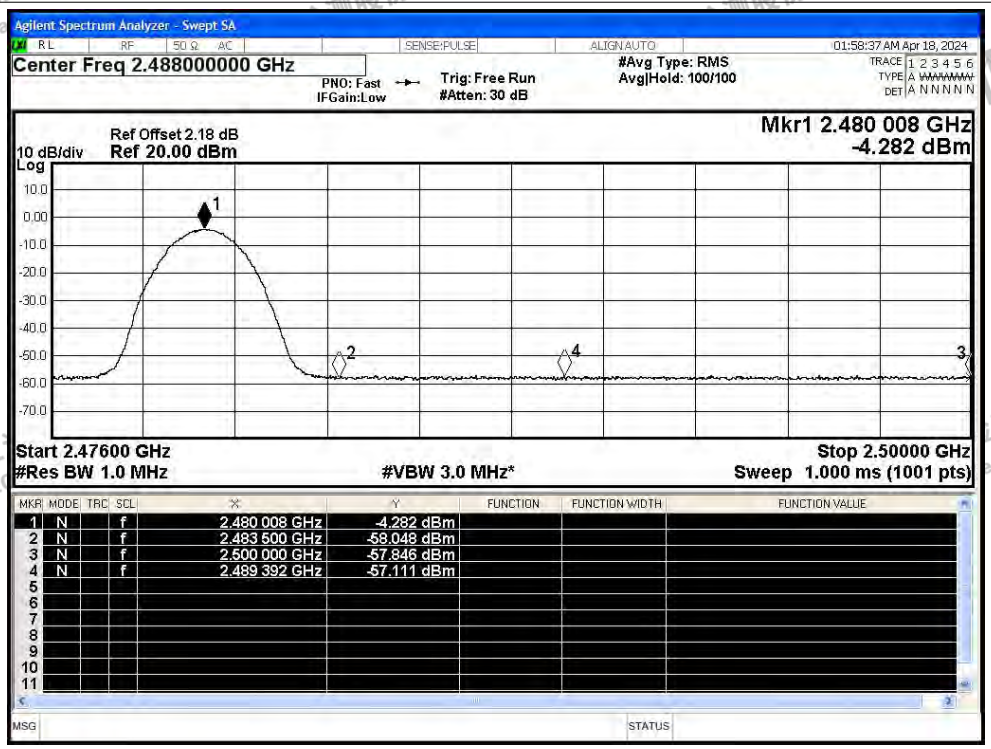
Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Peak



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