



Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: Voice Amplifier

Test Model: K11

Environmental Conditions

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





A.1 -20dB Bandwidth

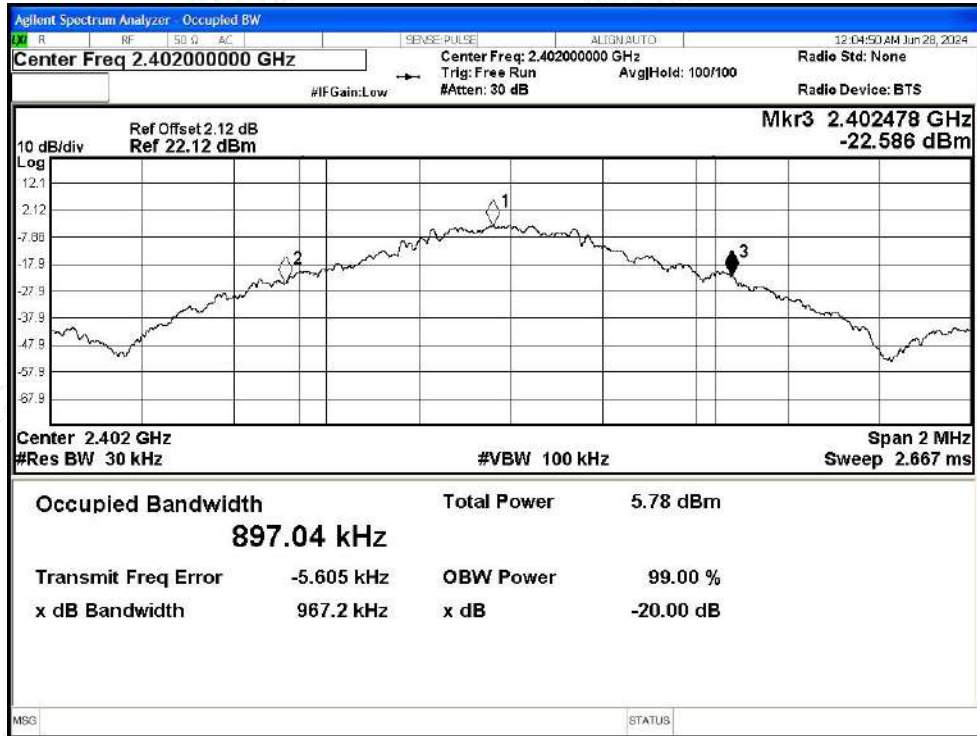
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH5	2402	Ant1	0.967	N/A	Pass
NVNT	1-DH5	2441	Ant1	1.026	N/A	Pass
NVNT	1-DH5	2480	Ant1	1.026	N/A	Pass
NVNT	2-DH5	2402	Ant1	1.324	N/A	Pass
NVNT	2-DH5	2441	Ant1	1.283	N/A	Pass
NVNT	2-DH5	2480	Ant1	1.309	N/A	Pass
NVNT	3-DH5	2402	Ant1	1.3	N/A	Pass
NVNT	3-DH5	2441	Ant1	1.279	N/A	Pass
NVNT	3-DH5	2480	Ant1	1.312	N/A	Pass



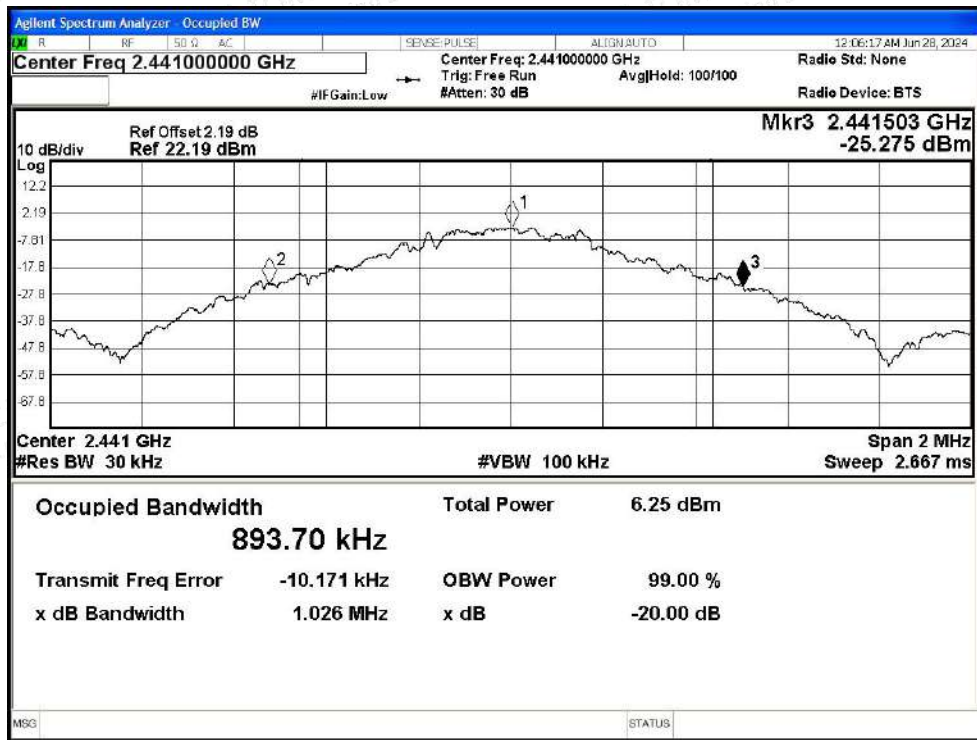


Test Graphs

-20dB Bandwidth NVNT 1-DH5 2402MHz Ant1

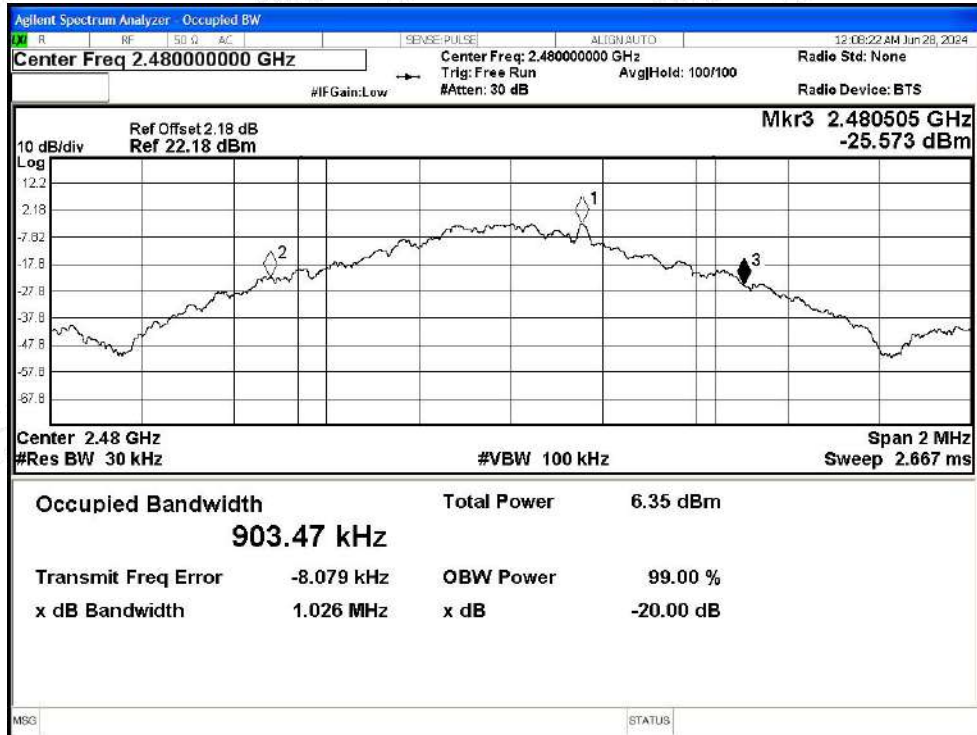


-20dB Bandwidth NVNT 1-DH5 2441MHz Ant1

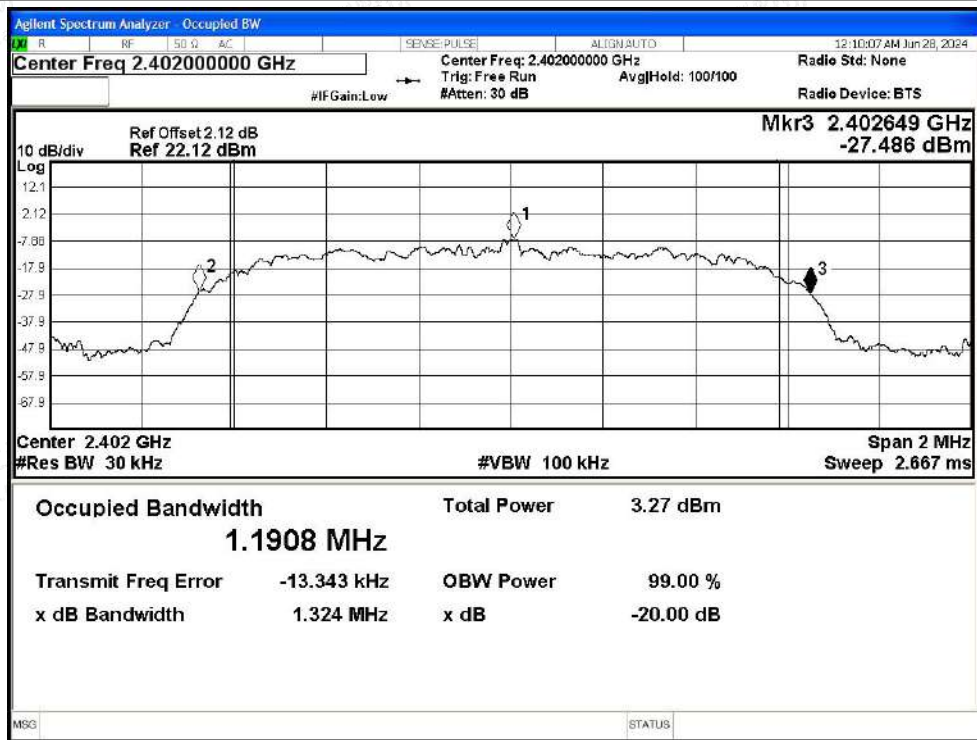




-20dB Bandwidth NVNT 1-DH5 2480MHz Ant1



-20dB Bandwidth NVNT 2-DH5 2402MHz Ant1





-20dB Bandwidth NVNT 2-DH5 2441MHz Ant1

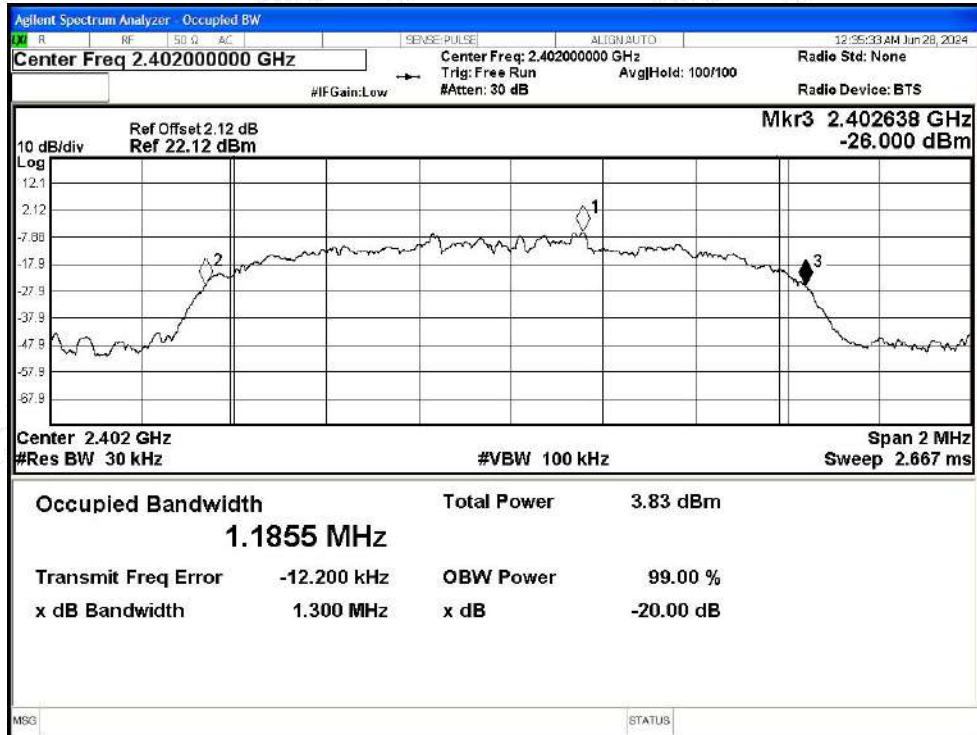


-20dB Bandwidth NVNT 2-DH5 2480MHz Ant1

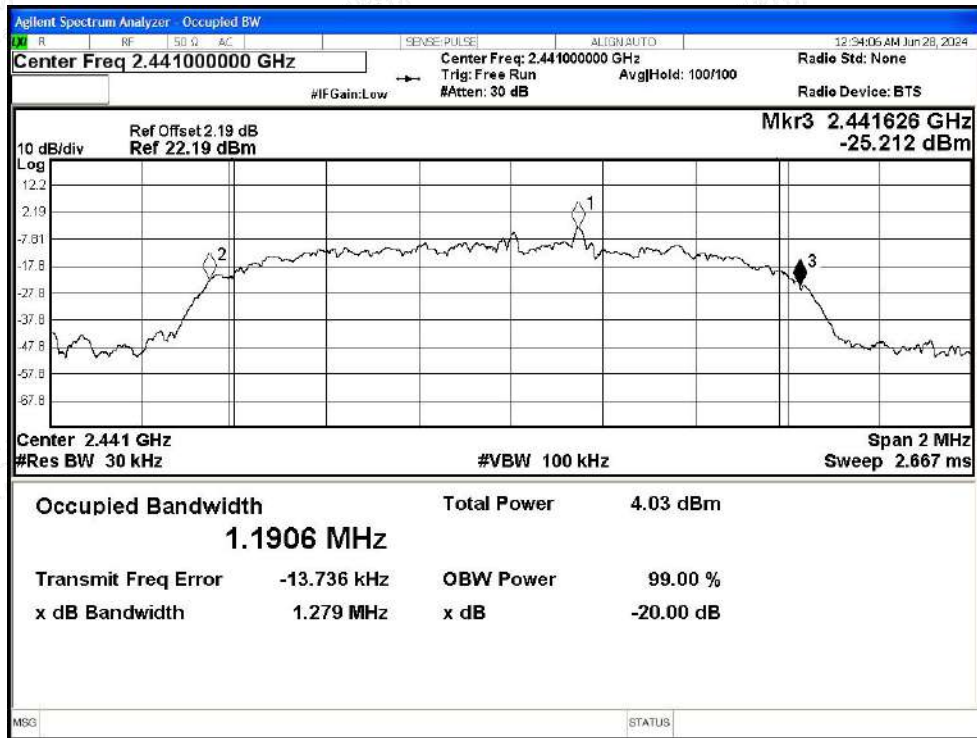


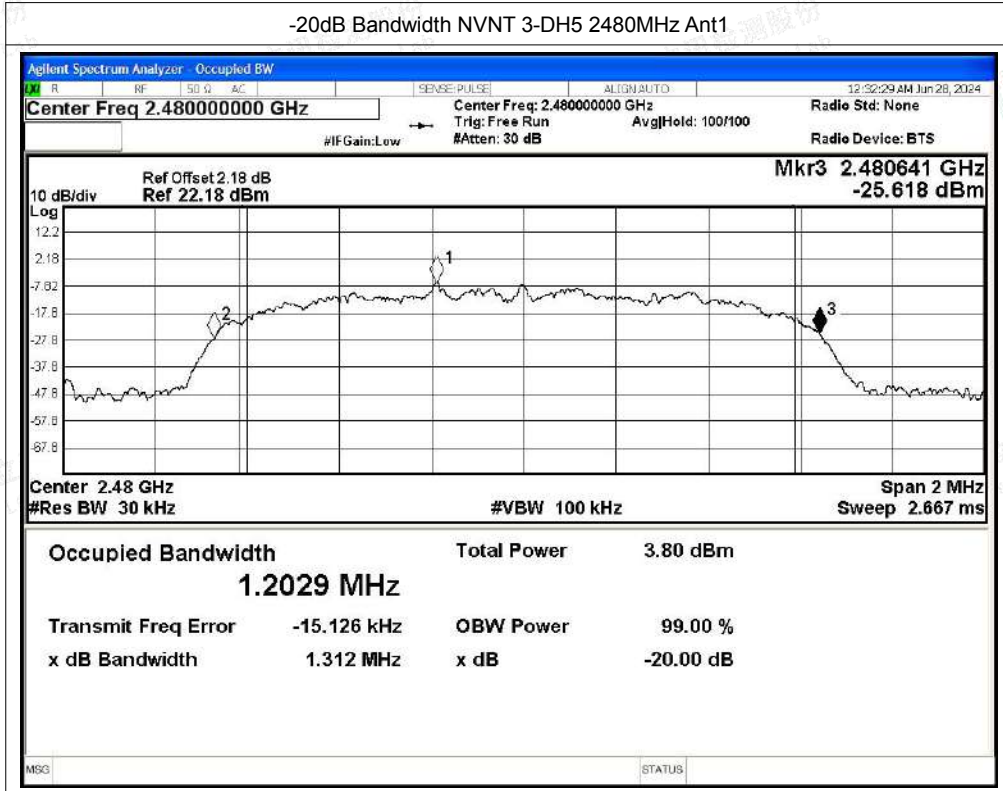


-20dB Bandwidth NVNT 3-DH5 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH5 2441MHz Ant1







A.2 Maximum Conducted Output Power

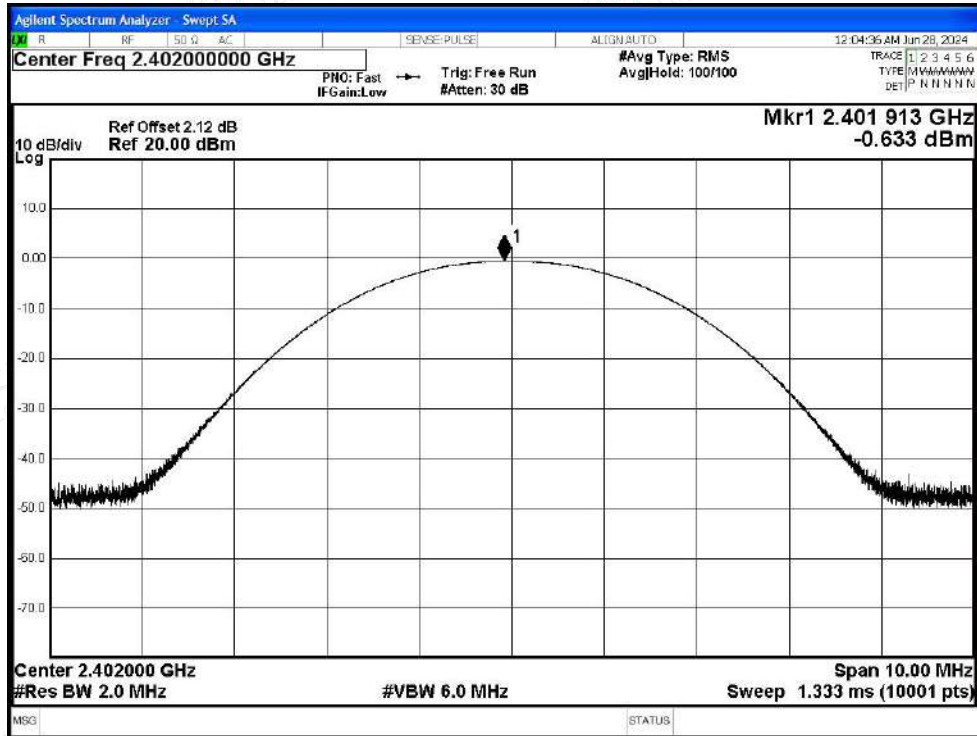
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH5	2402	Ant1	-0.63	21	Pass
NVNT	1-DH5	2441	Ant1	-0.13	21	Pass
NVNT	1-DH5	2480	Ant1	0.1	21	Pass
NVNT	2-DH5	2402	Ant1	-0.82	21	Pass
NVNT	2-DH5	2441	Ant1	-0.41	21	Pass
NVNT	2-DH5	2480	Ant1	-0.09	21	Pass
NVNT	3-DH5	2402	Ant1	-0.77	21	Pass
NVNT	3-DH5	2441	Ant1	-0.26	21	Pass
NVNT	3-DH5	2480	Ant1	-0.02	21	Pass



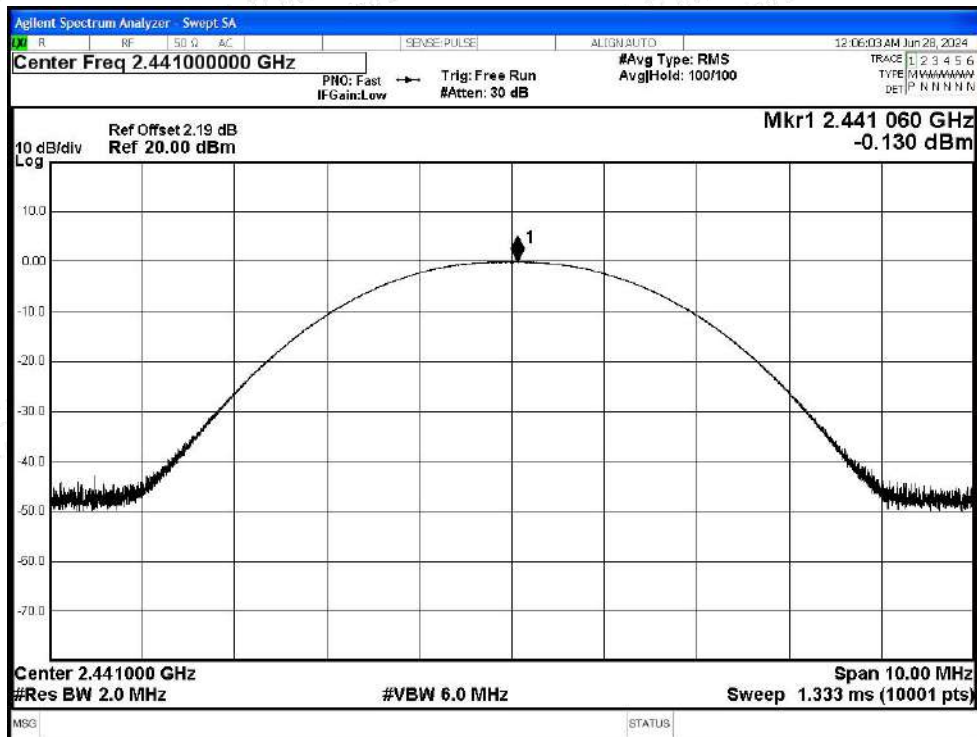


Test Graphs

Power NVNT 1-DH5 2402MHz Ant1

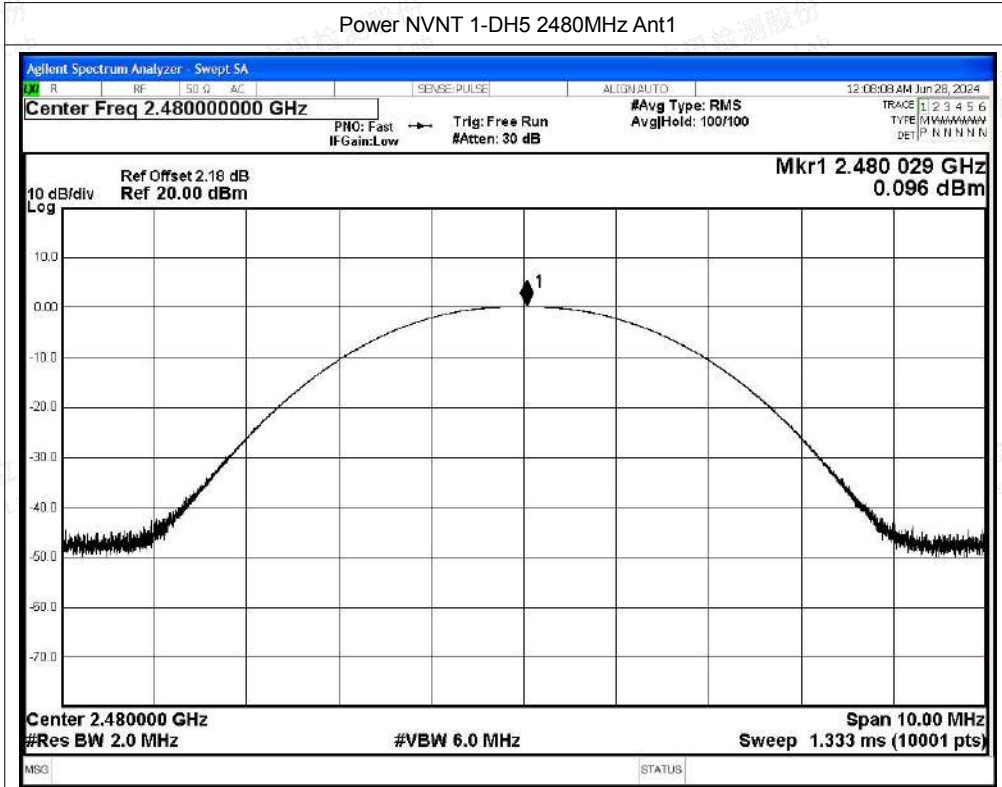


Power NVNT 1-DH5 2441MHz Ant1

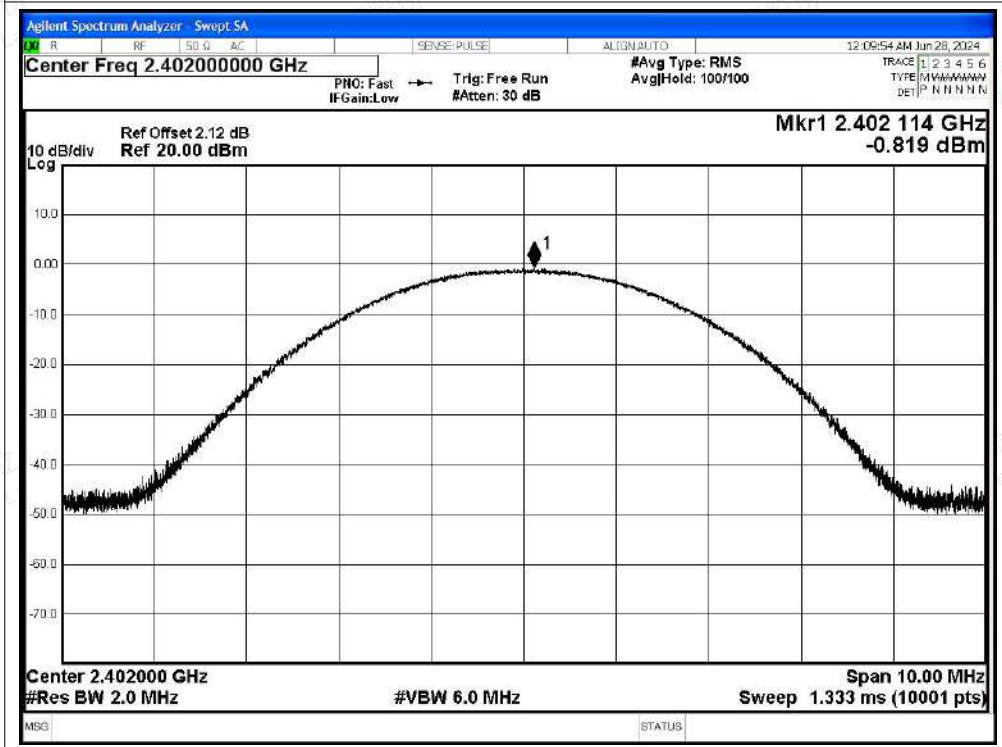




Power NVNT 1-DH5 2480MHz Ant1

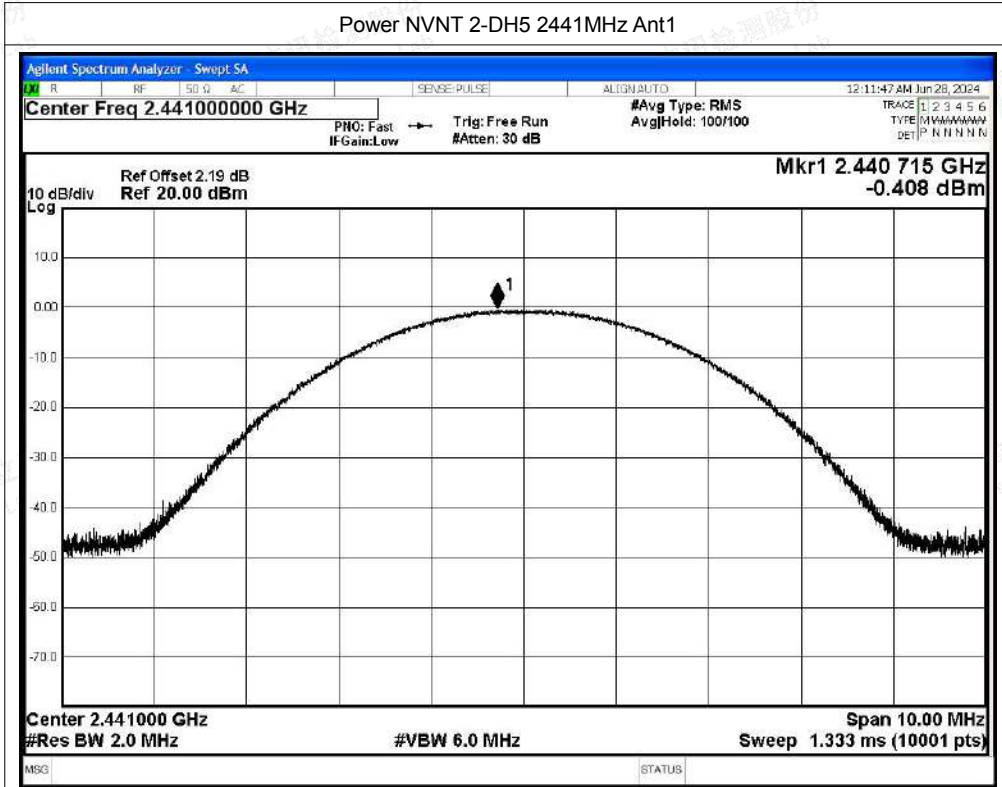


Power NVNT 2-DH5 2402MHz Ant1

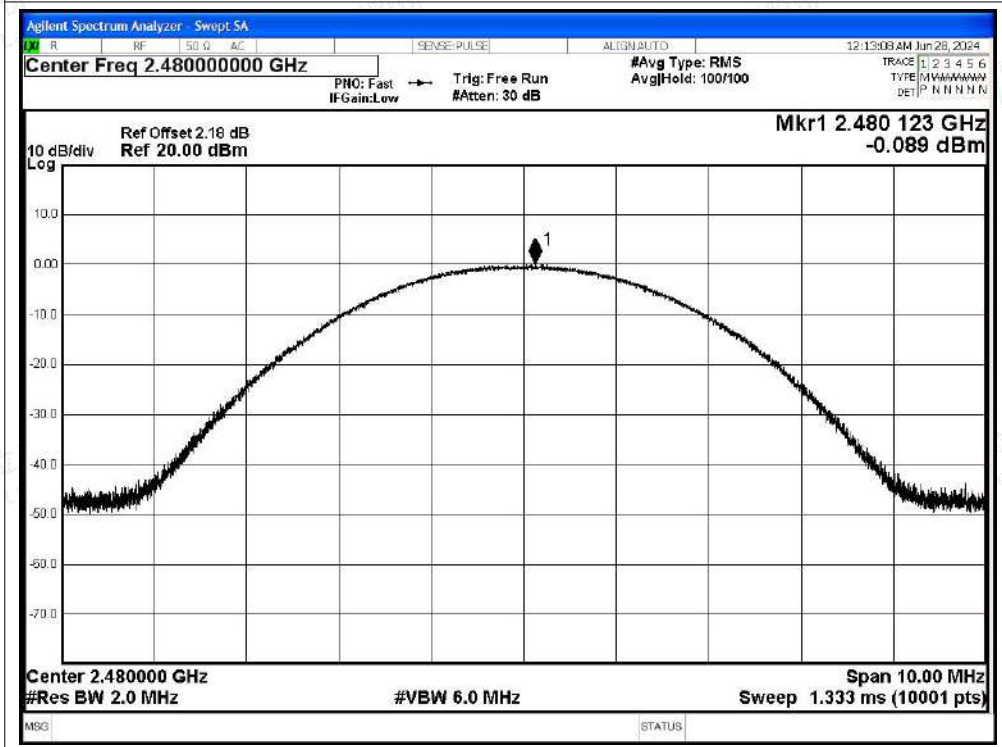




Power NVNT 2-DH5 2441MHz Ant1

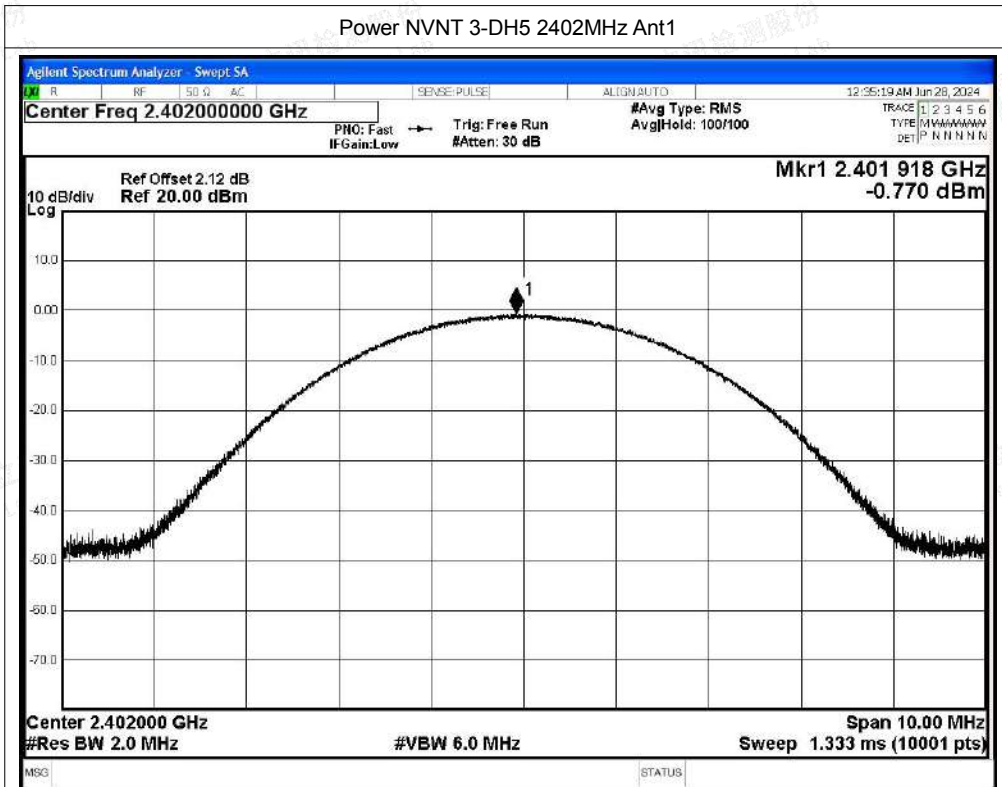


Power NVNT 2-DH5 2480MHz Ant1

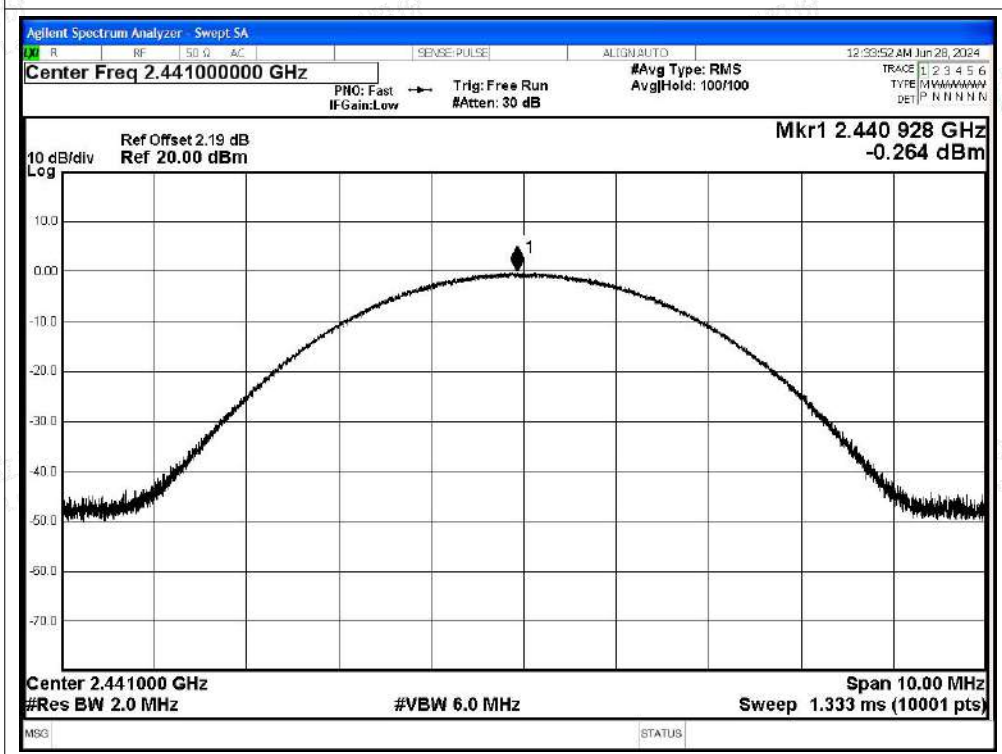


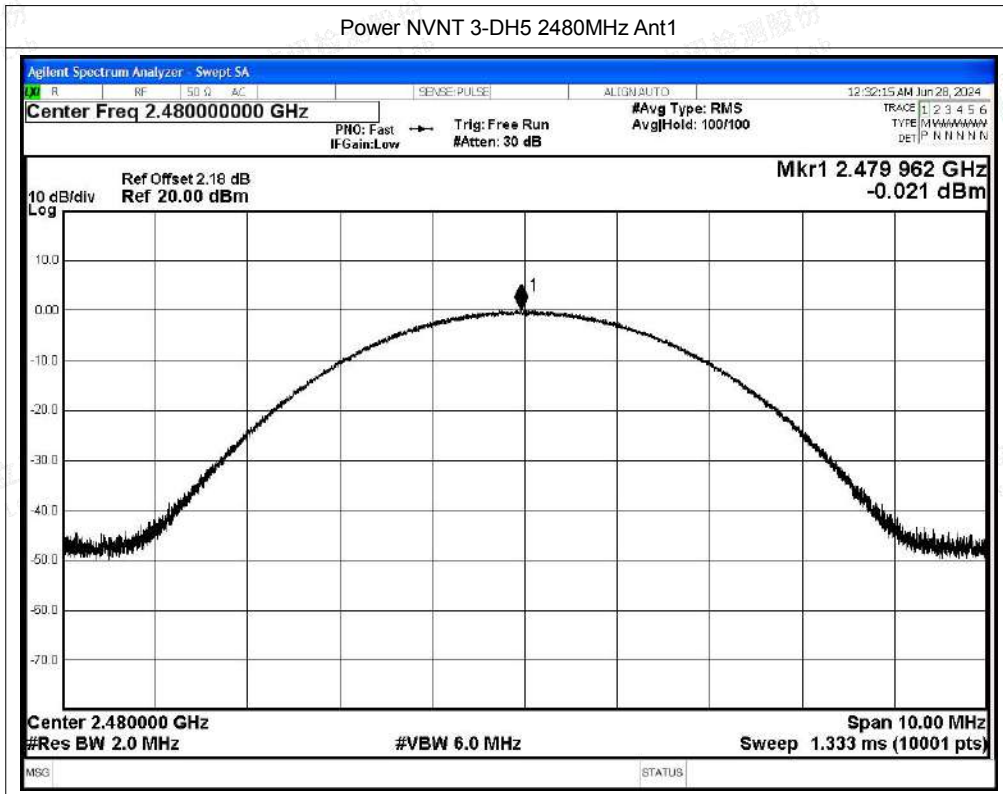


Power NVNT 3-DH5 2402MHz Ant1



Power NVNT 3-DH5 2441MHz Ant1







A.3 Carrier Frequencies Separation

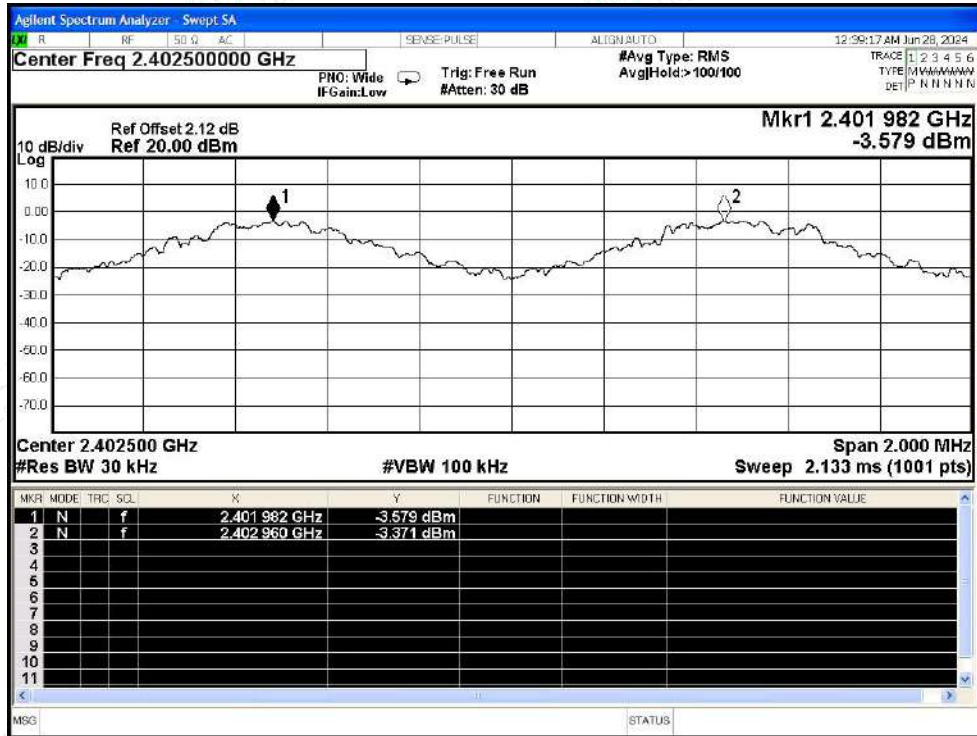
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH5	Ant1	2401.982	2402.96	0.978	0.684	Pass
NVNT	2-DH5	Ant1	2401.998	2403.072	1.074	0.883	Pass
NVNT	3-DH5	Ant1	2402.014	2403.146	1.132	0.875	Pass



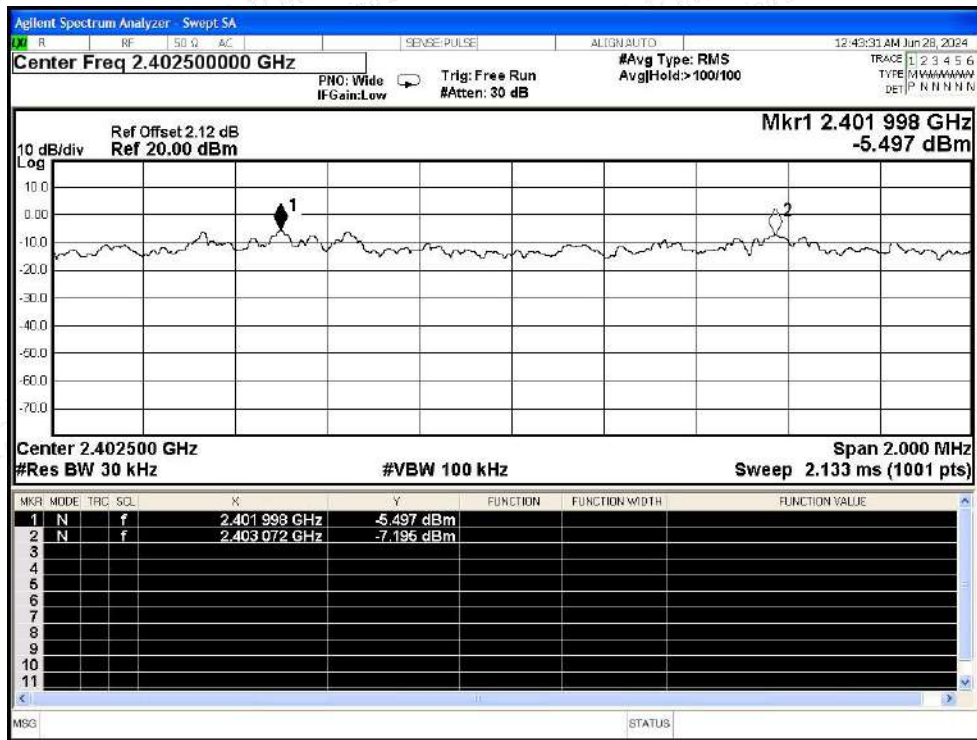


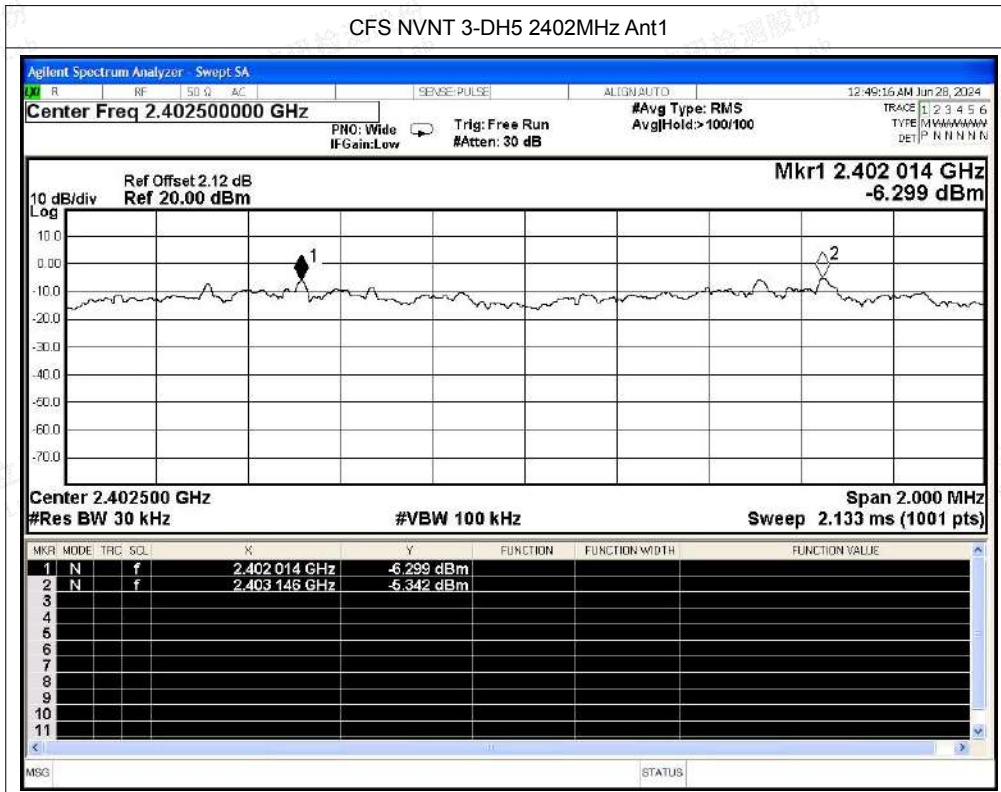
Test Graphs

CFS NVNT 1-DH5 2402MHz Ant1



CFS NVNT 2-DH5 2402MHz Ant1







A.4 Dwell Time

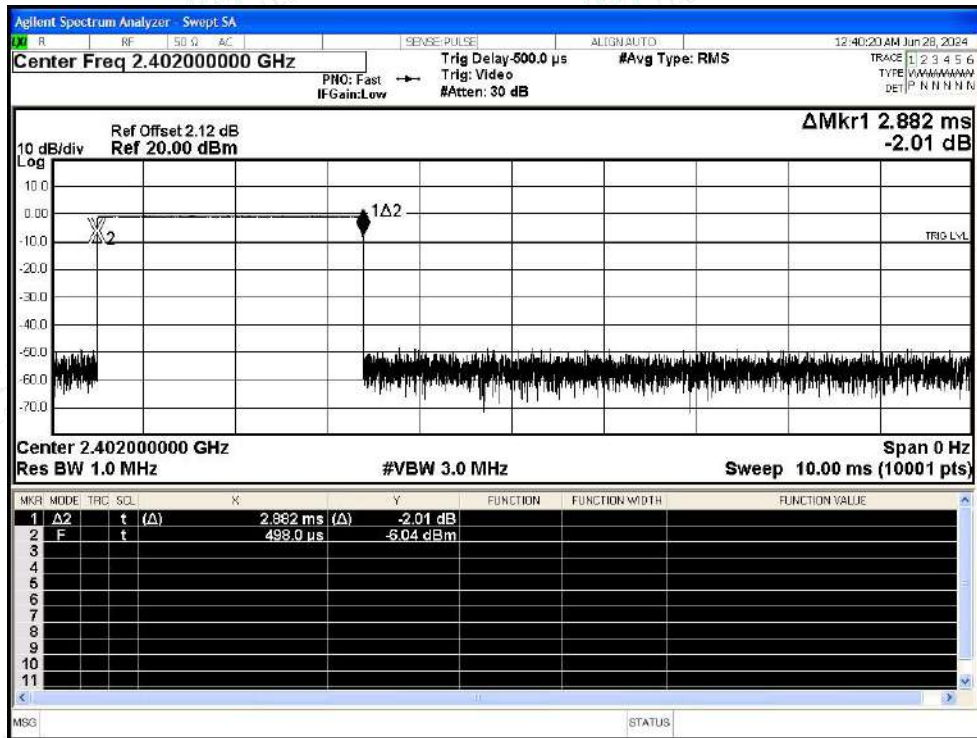
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH5	2402	Ant1	2.882	302.61	105	31600	400	Pass
NVNT	2-DH5	2402	Ant1	2.885	305.81	106	31600	400	Pass
NVNT	3-DH5	2402	Ant1	2.886	311.688	108	31600	400	Pass



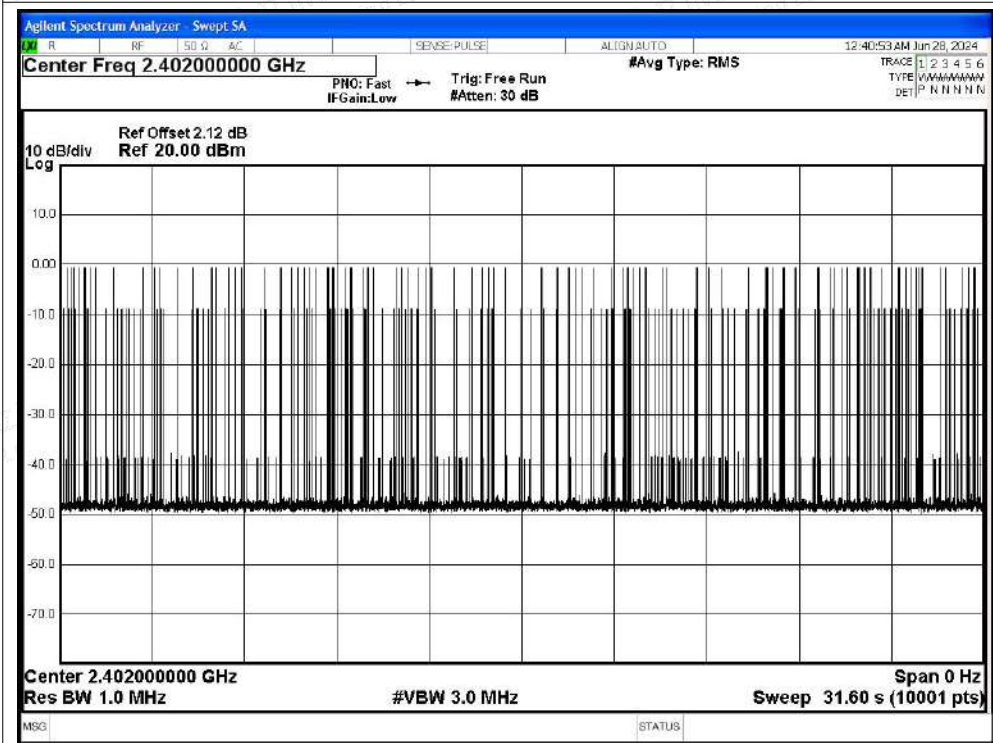


Test Graphs

Dwell NVNT 1-DH5 2402MHz Ant1 One Burst

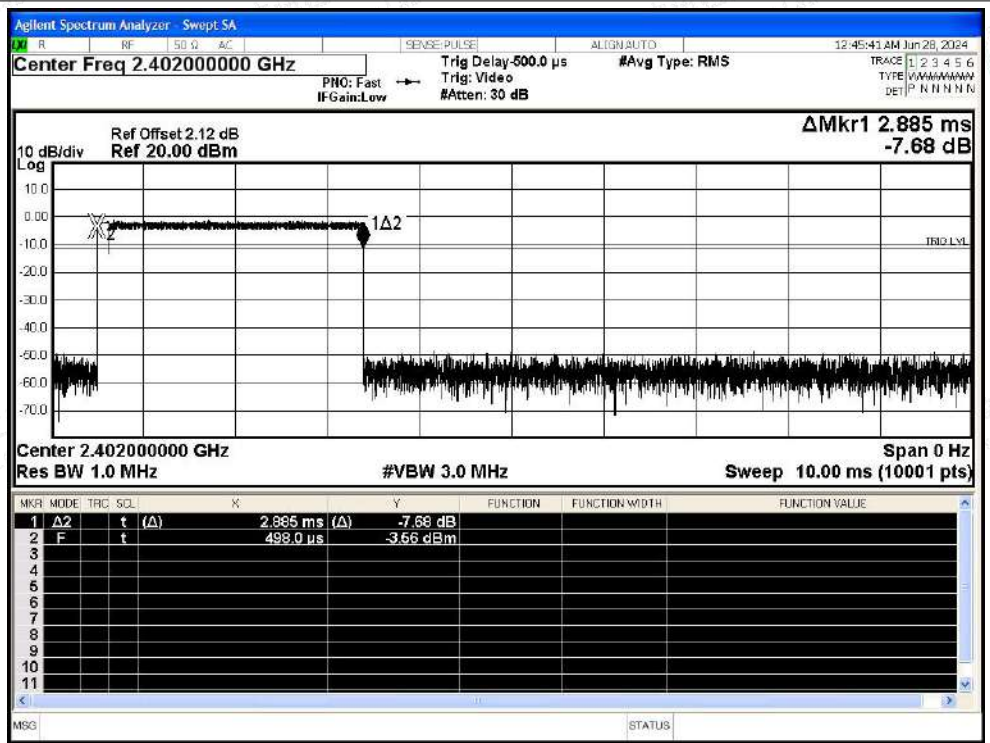


Dwell NVNT 1-DH5 2402MHz Ant1 Accumulated

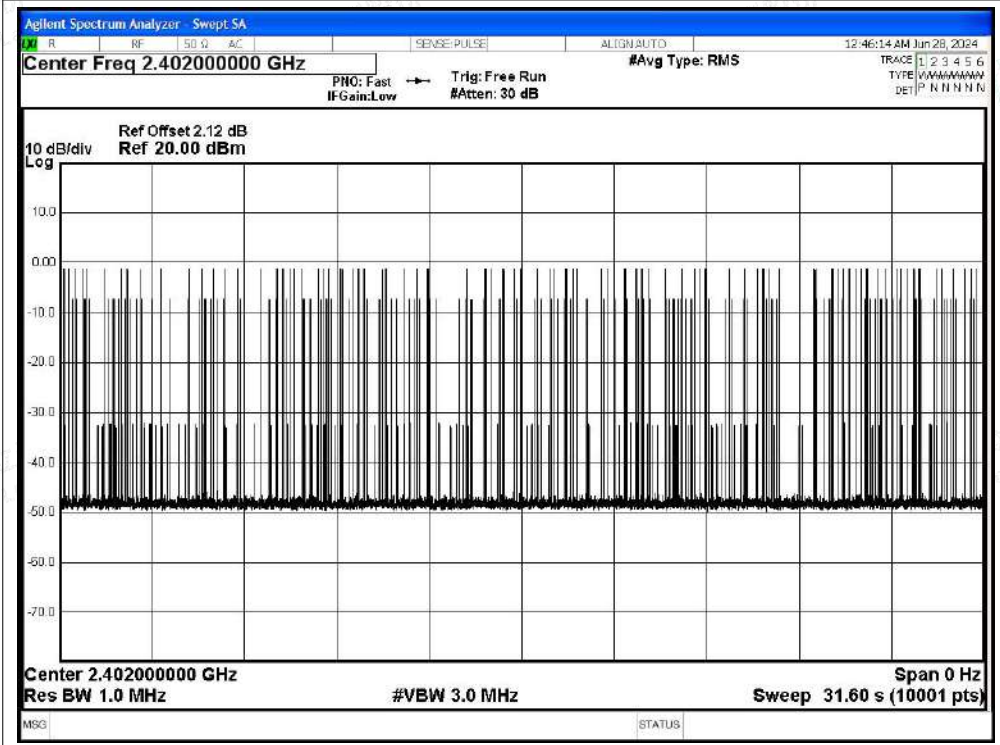




Dwell NVNT 2-DH5 2402MHz Ant1 One Burst

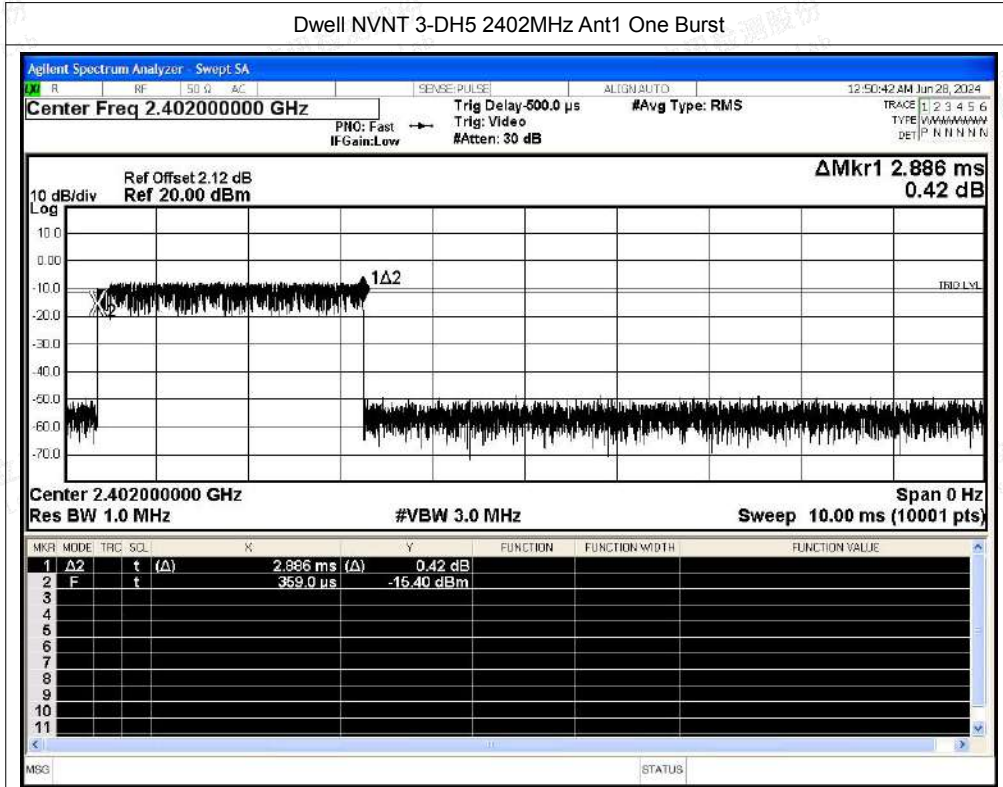


Dwell NVNT 2-DH5 2402MHz Ant1 Accumulated

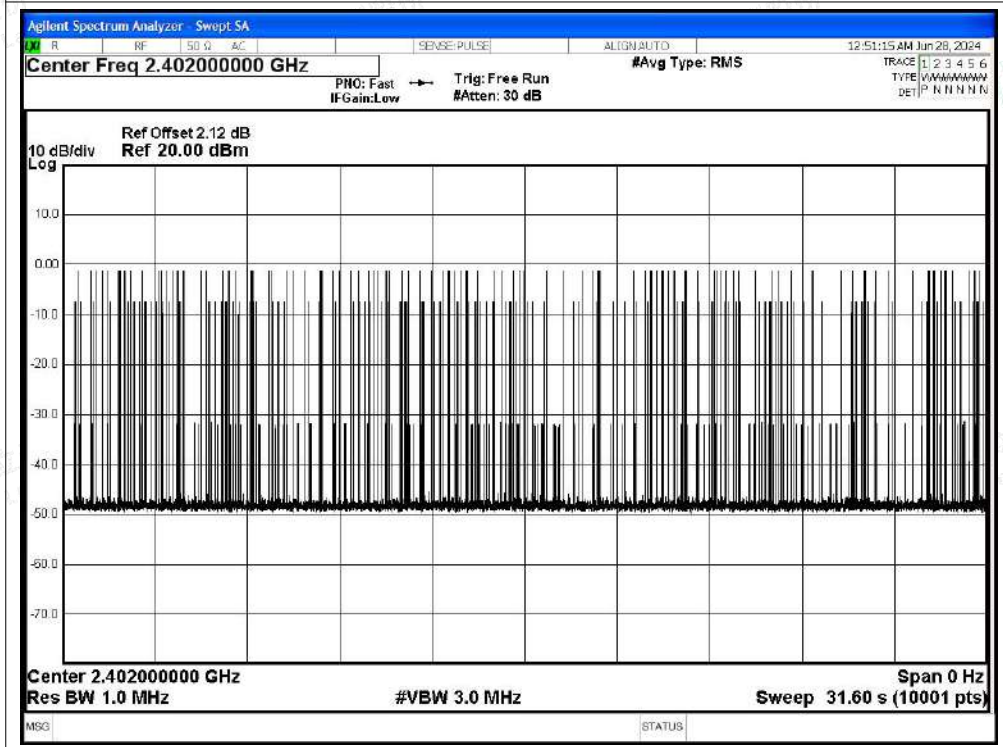




Dwell NVNT 3-DH5 2402MHz Ant1 One Burst



Dwell NVNT 3-DH5 2402MHz Ant1 Accumulated





A.5 Number of Hopping Channel

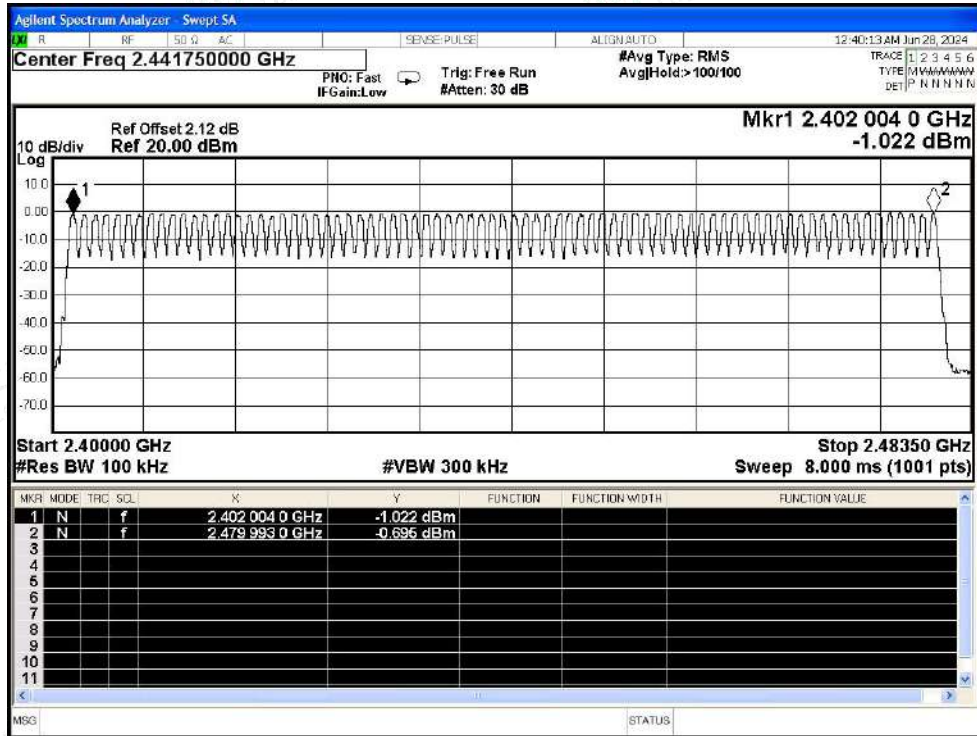
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH5	Ant1	79	15	Pass
NVNT	2-DH5	Ant1	79	15	Pass
NVNT	3-DH5	Ant1	79	15	Pass



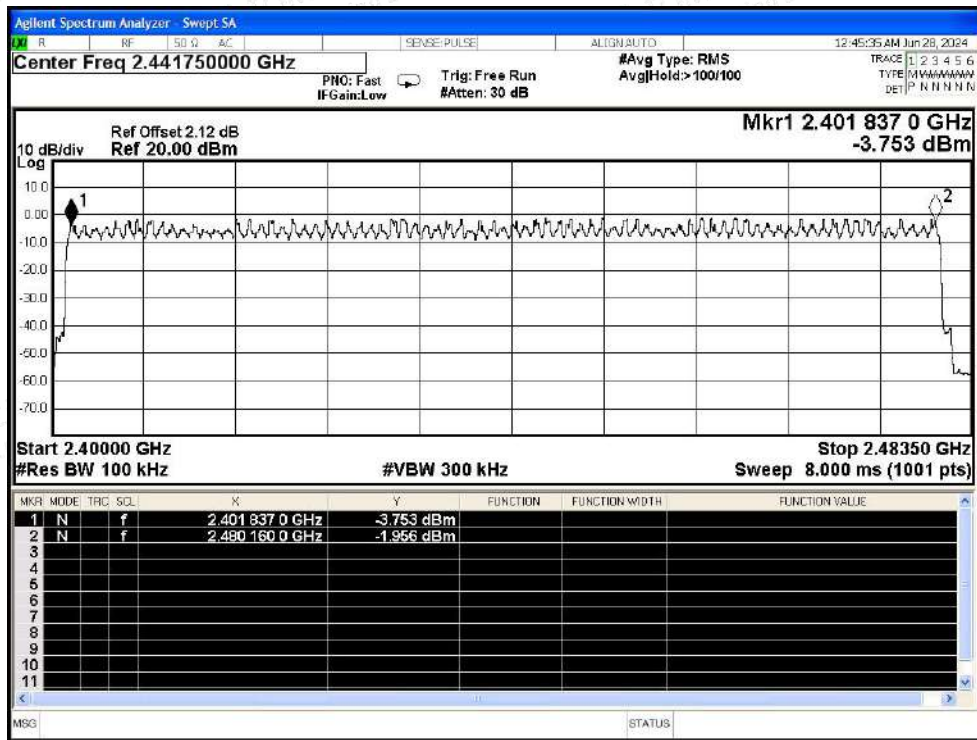


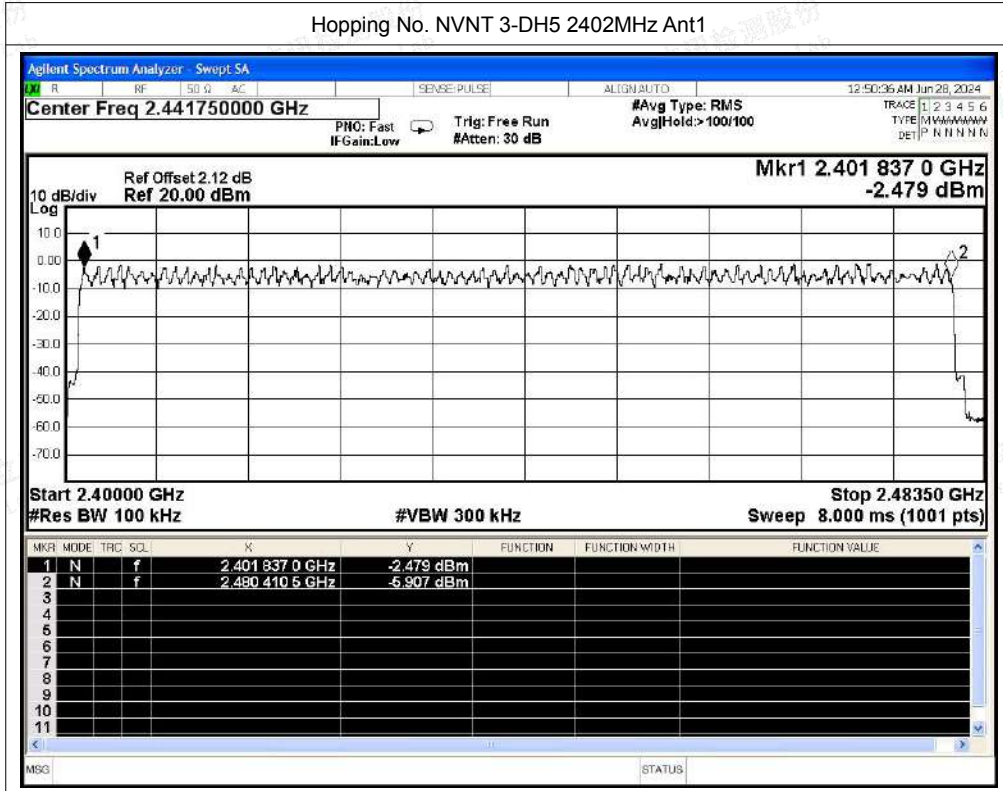
Test Graphs

Hopping No. NVNT 1-DH5 2402MHz Ant1



Hopping No. NVNT 2-DH5 2402MHz Ant1







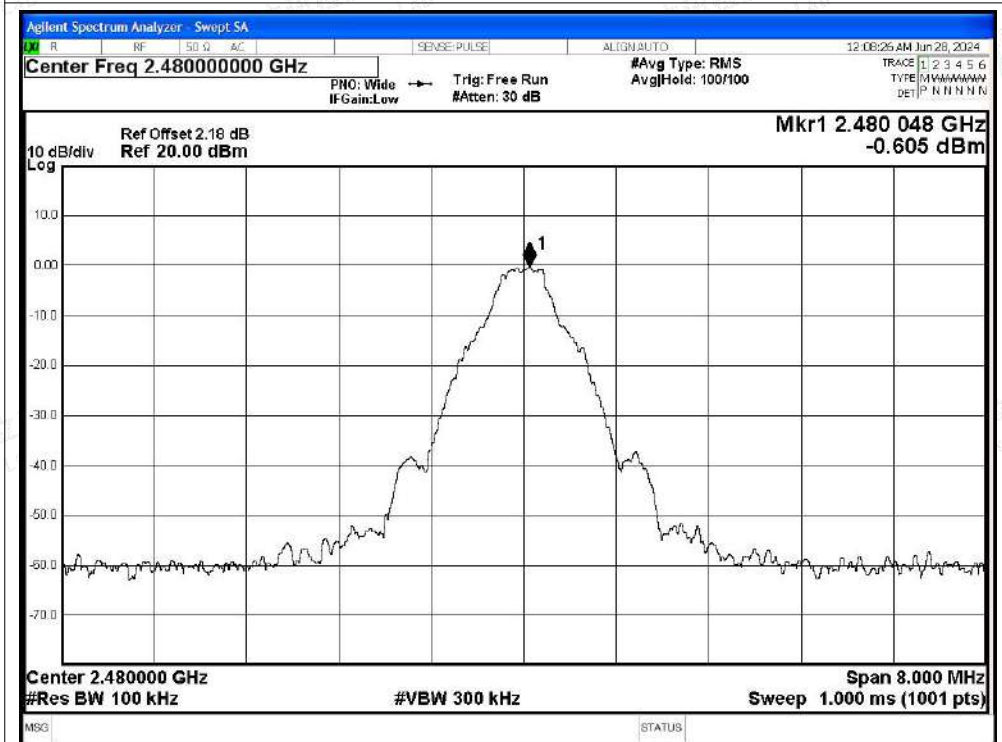
A.6 Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	-55.15	-20	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	-56.13	-20	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	-54.76	-20	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	-55.12	-20	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	-52.59	-20	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	-54.51	-20	Pass

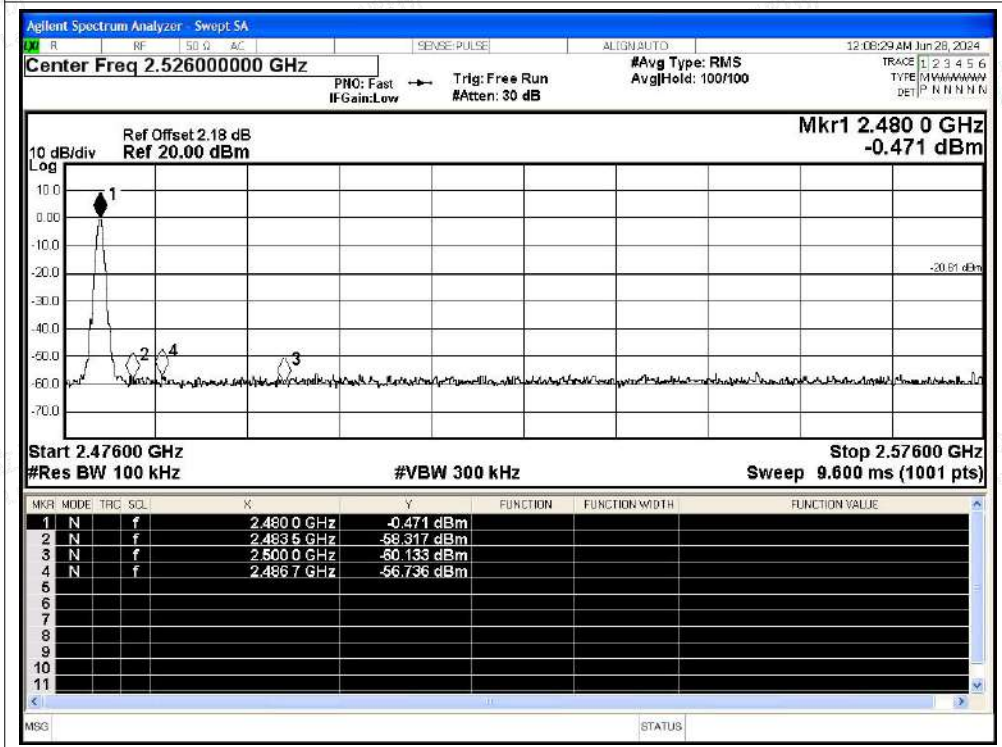




Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref

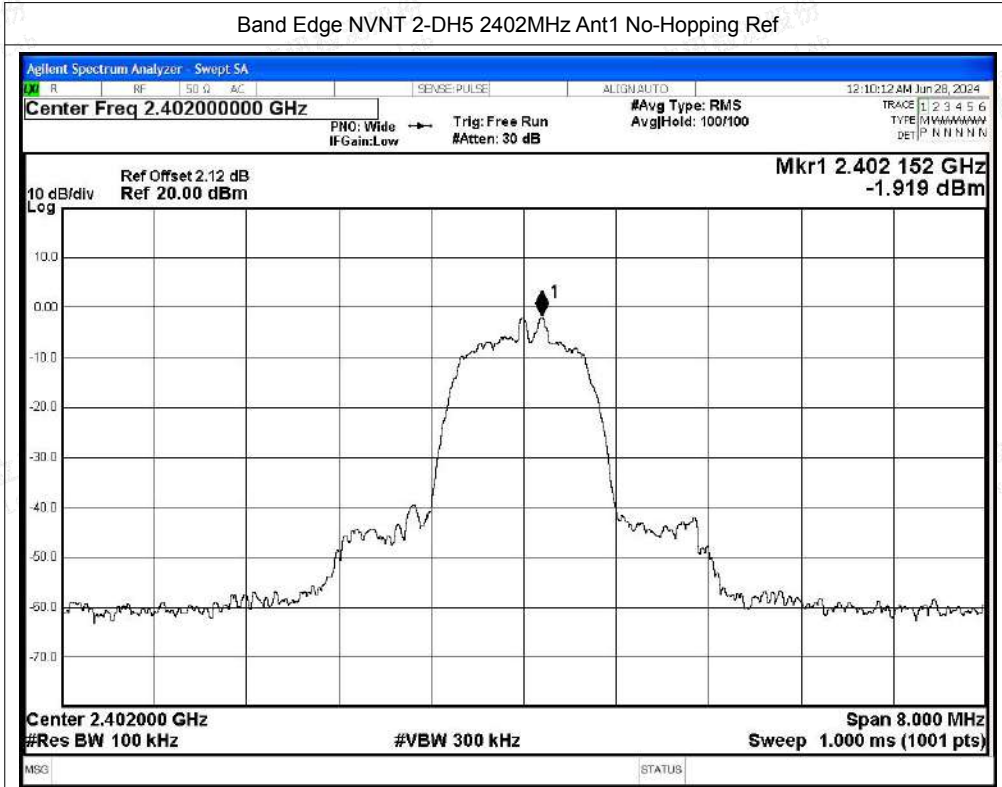


Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Emission

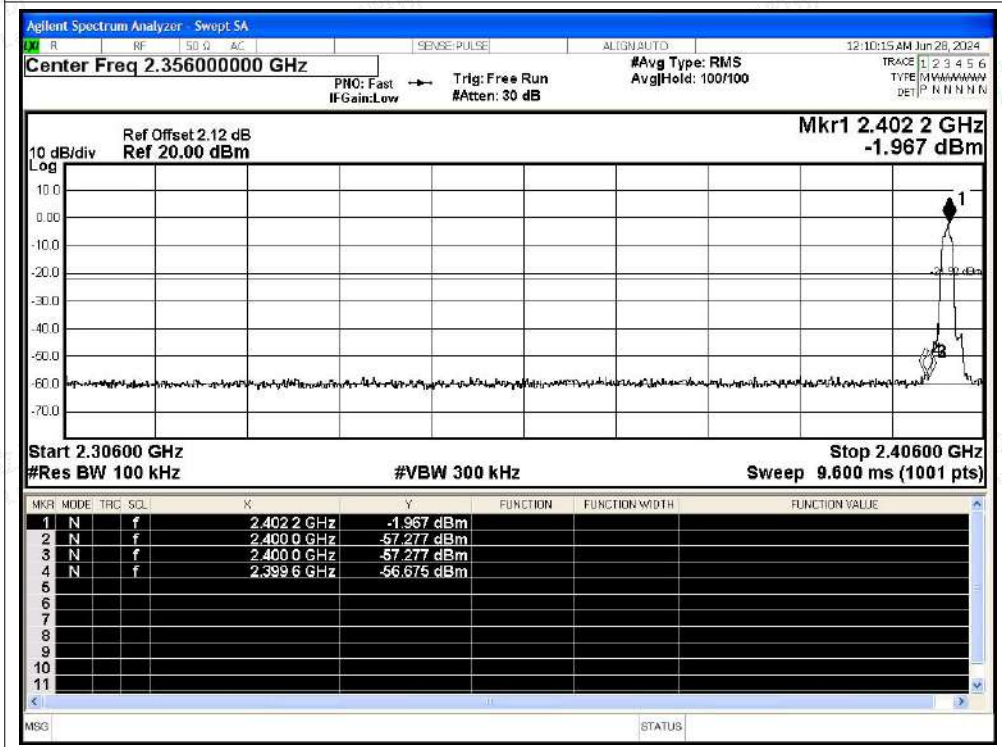




Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Ref

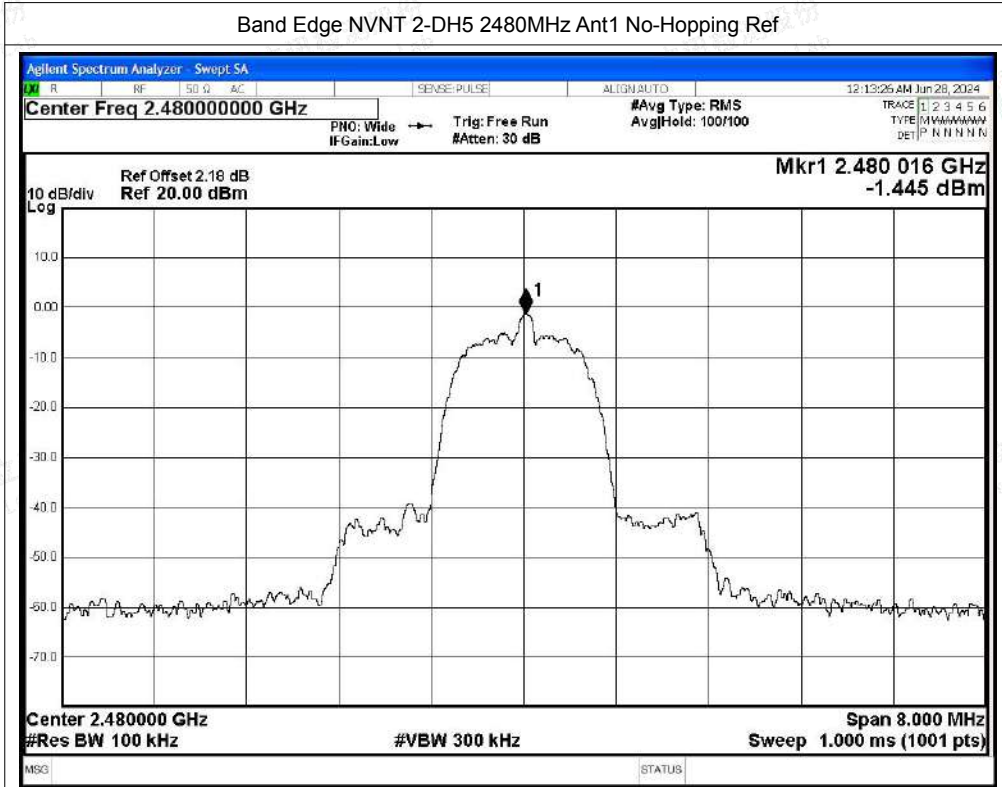


Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Emission

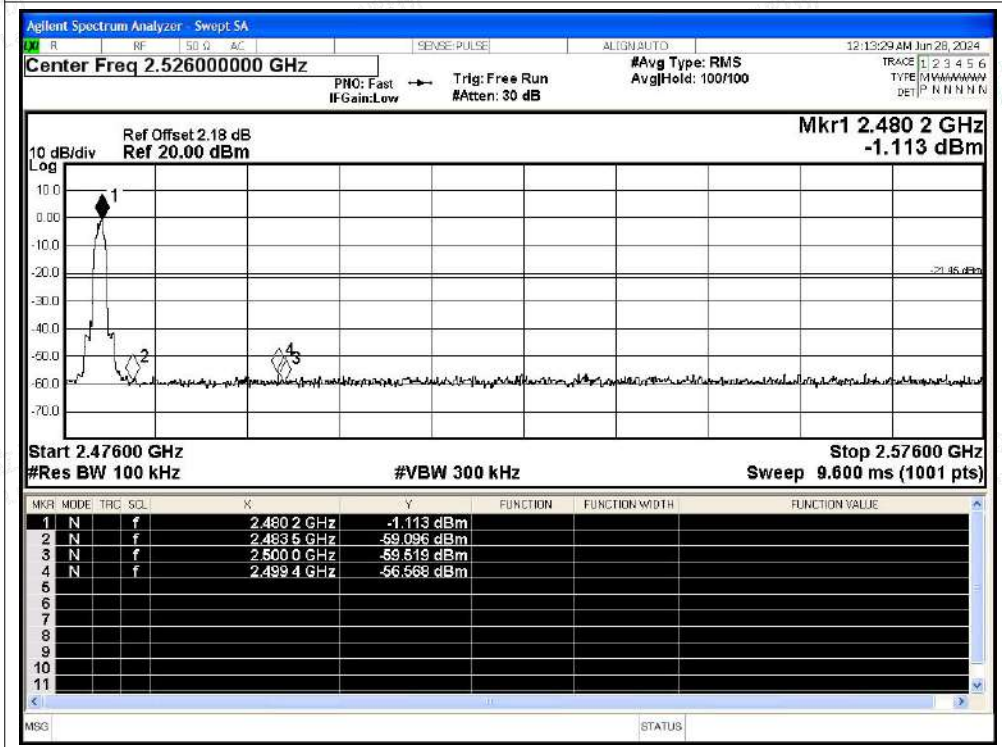




Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Ref

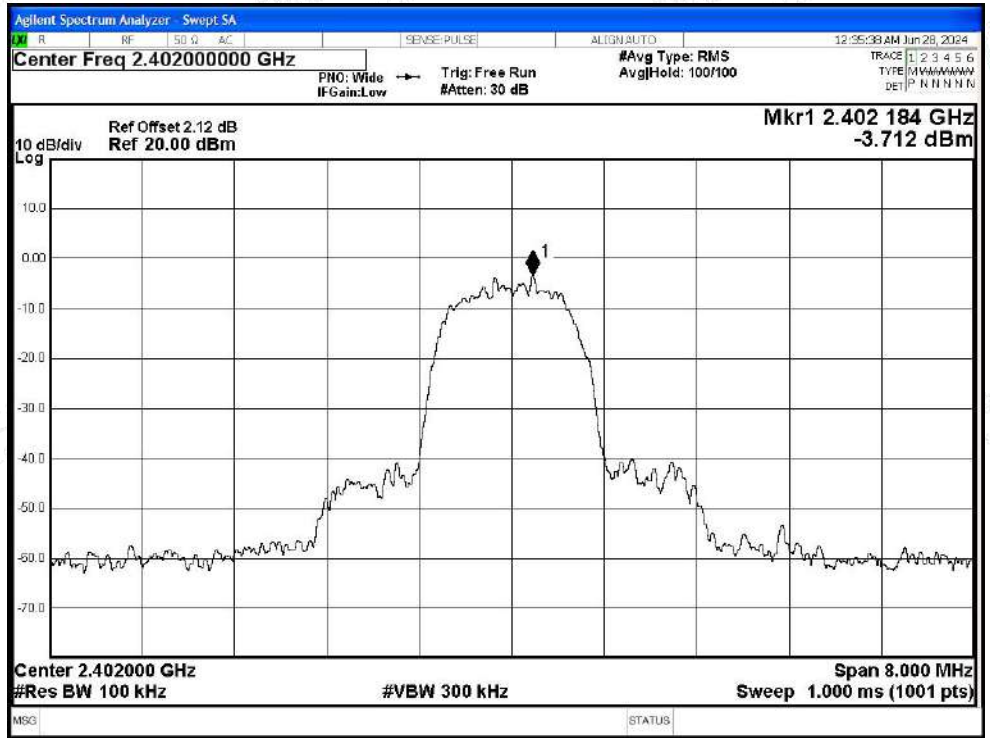


Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Emission

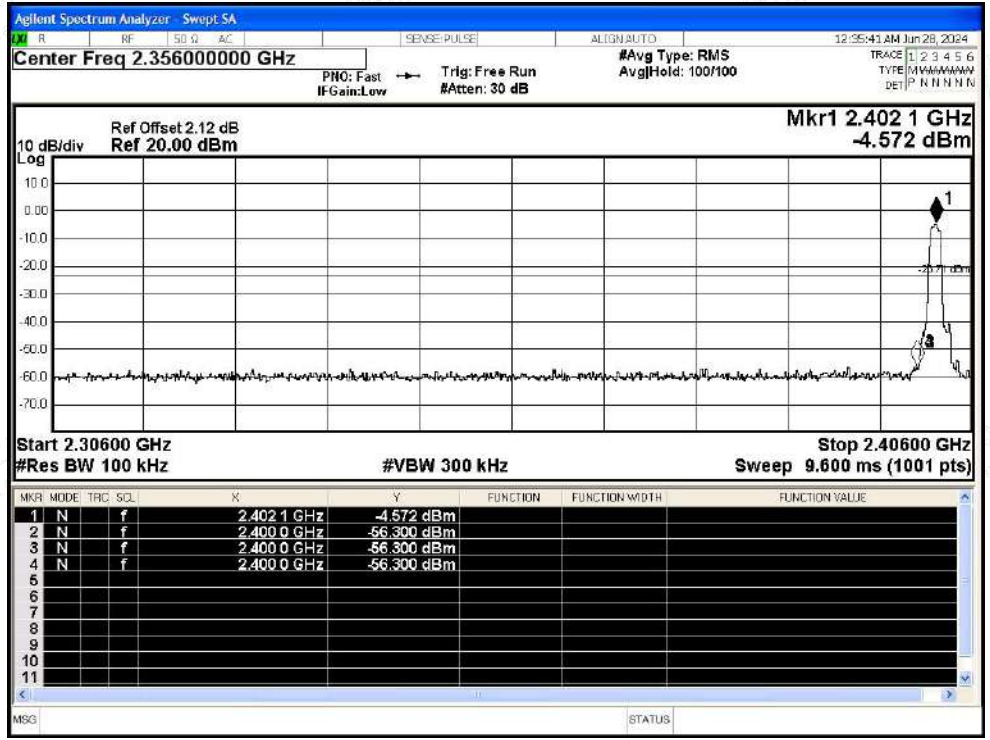




Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Ref

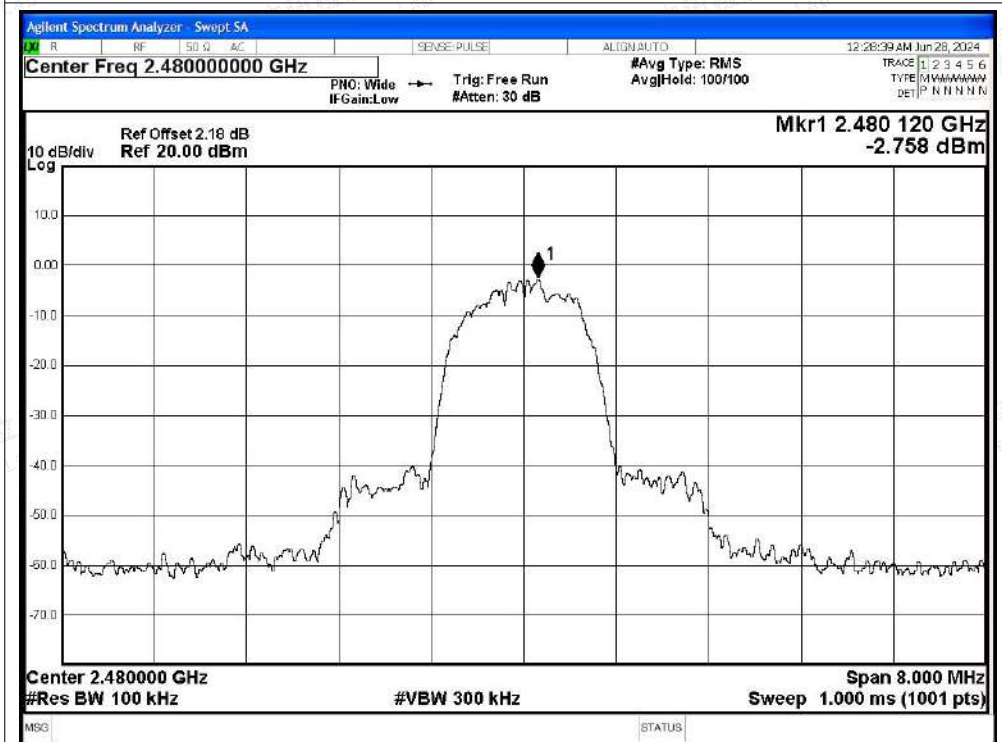


Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Emission

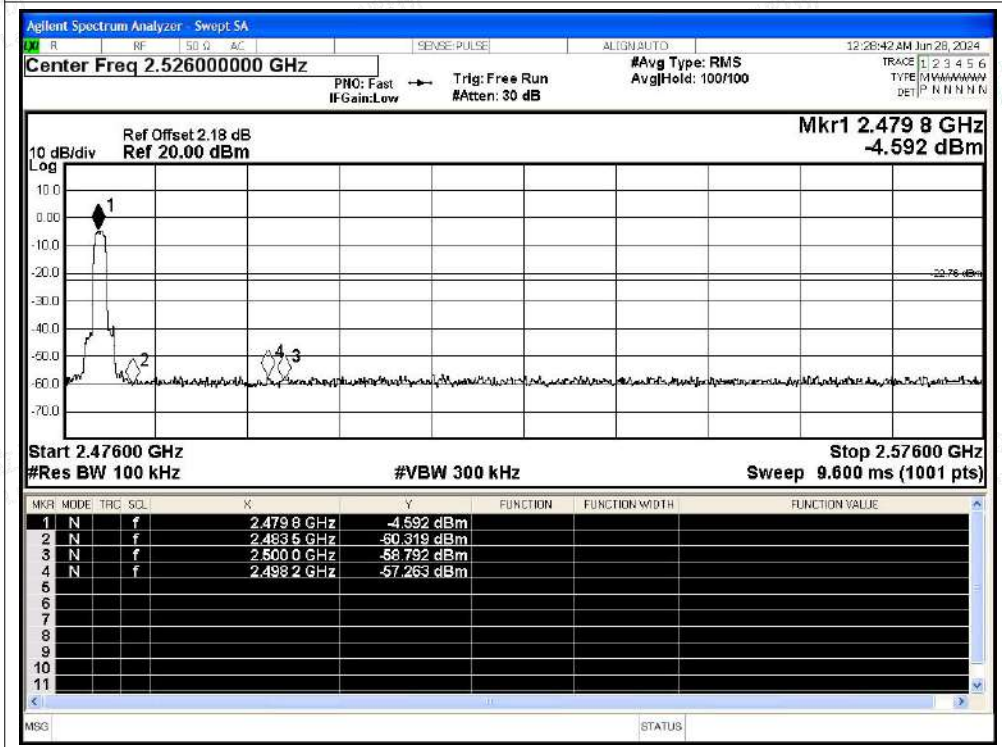




Band Edge NVNT 3-DH5 2480MHz Ant1 No-Hopping Ref



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





(Hopping)

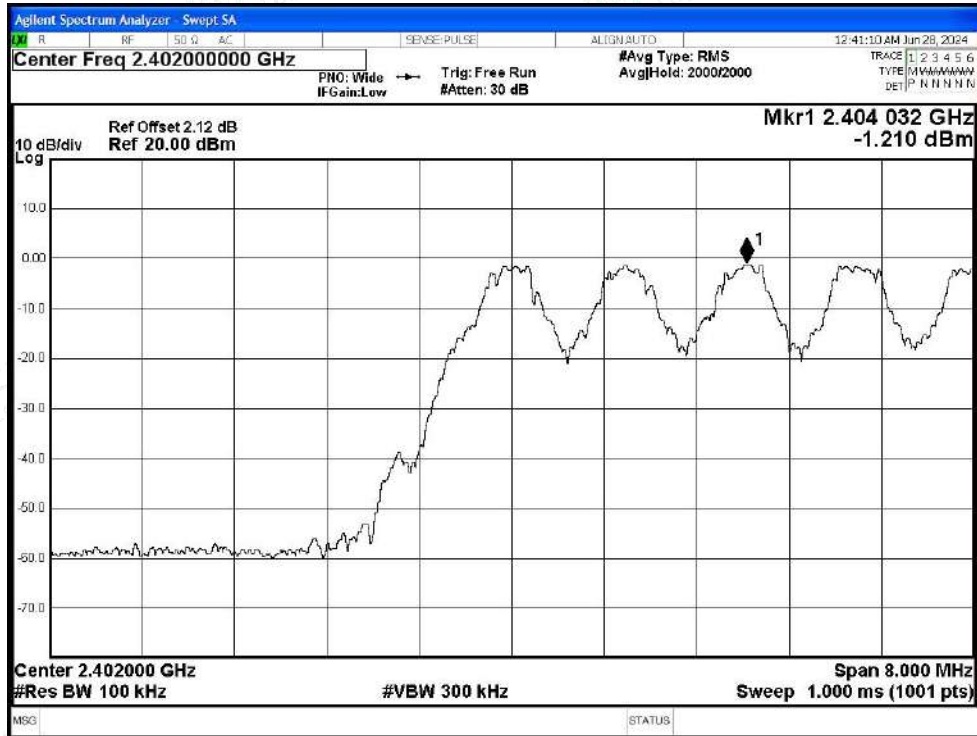
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	Hopping	-55.03	-20	Pass
NVNT	1-DH5	2480	Ant1	Hopping	-55.76	-20	Pass
NVNT	2-DH5	2402	Ant1	Hopping	-53.46	-20	Pass
NVNT	2-DH5	2480	Ant1	Hopping	-55.37	-20	Pass
NVNT	3-DH5	2402	Ant1	Hopping	-53.13	-20	Pass
NVNT	3-DH5	2480	Ant1	Hopping	-53.3	-20	Pass



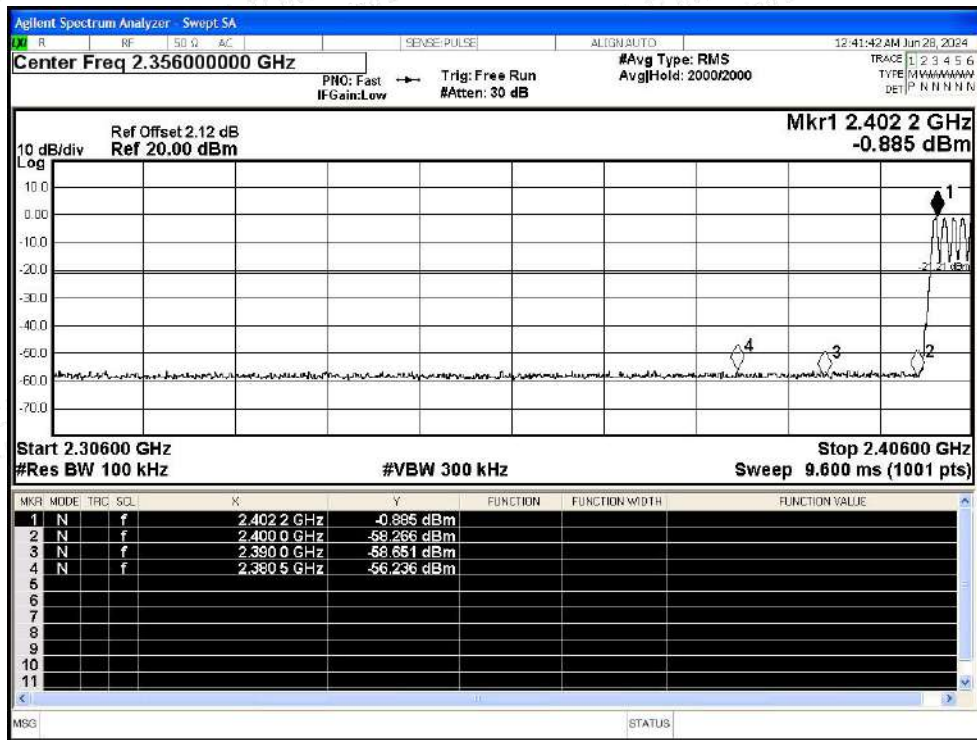


Test Graphs

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

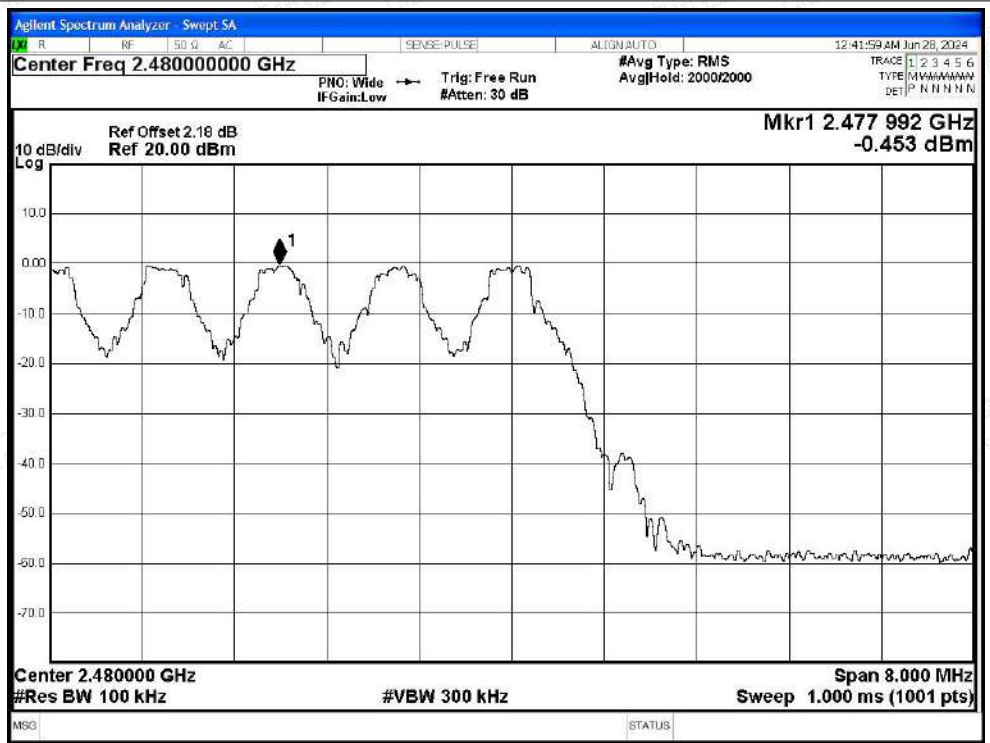


Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission

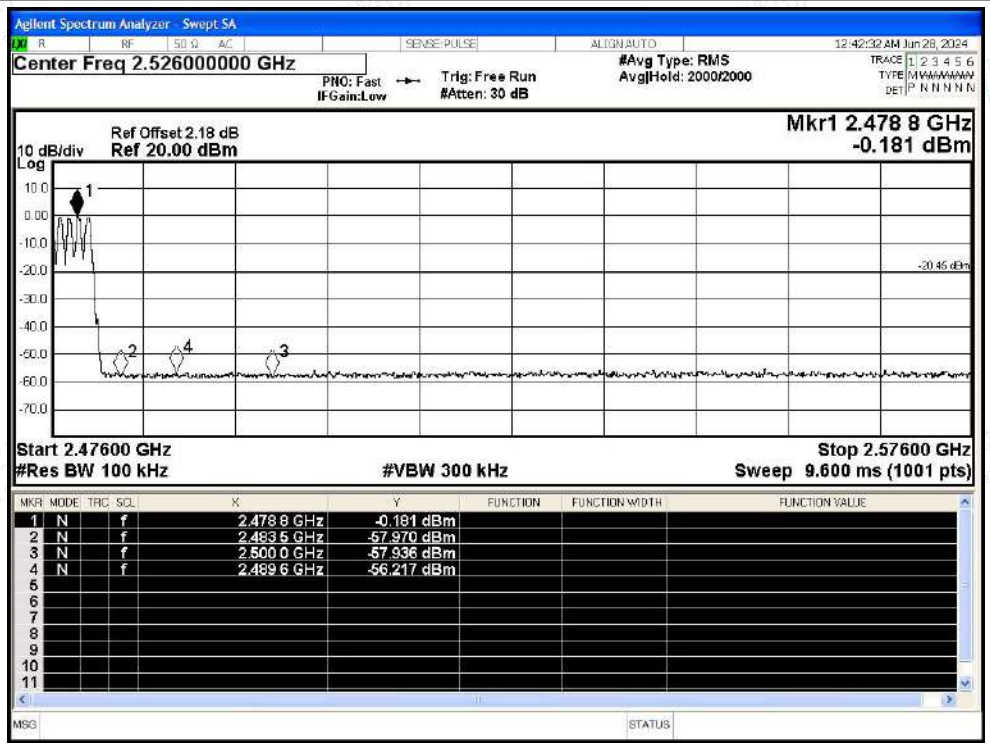




Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Ref

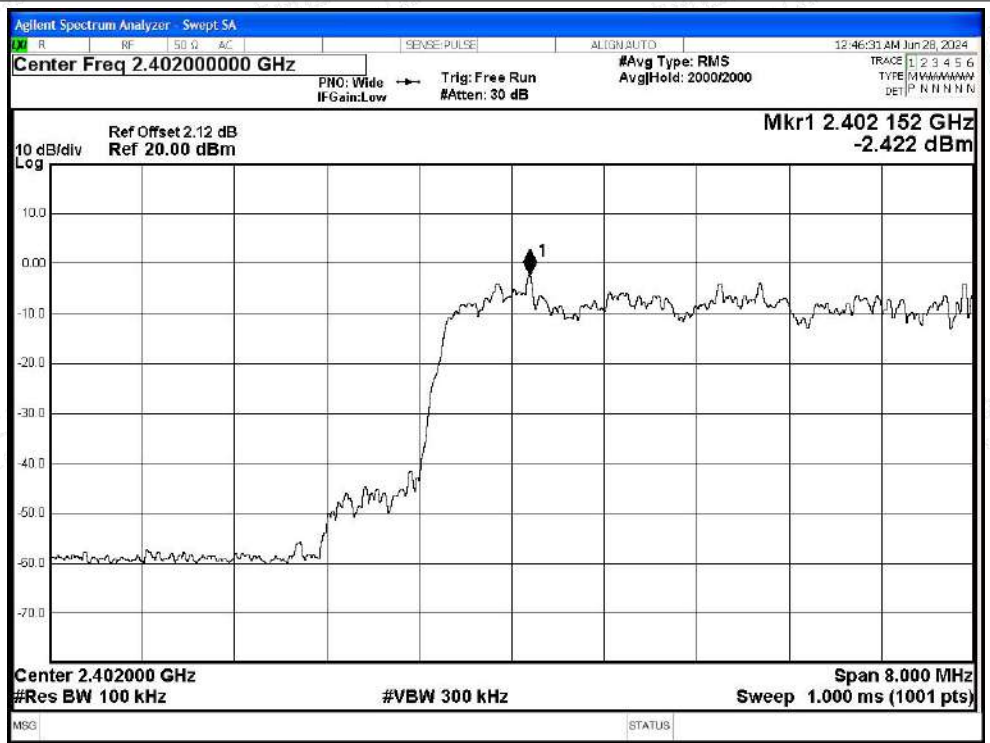


Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Emission

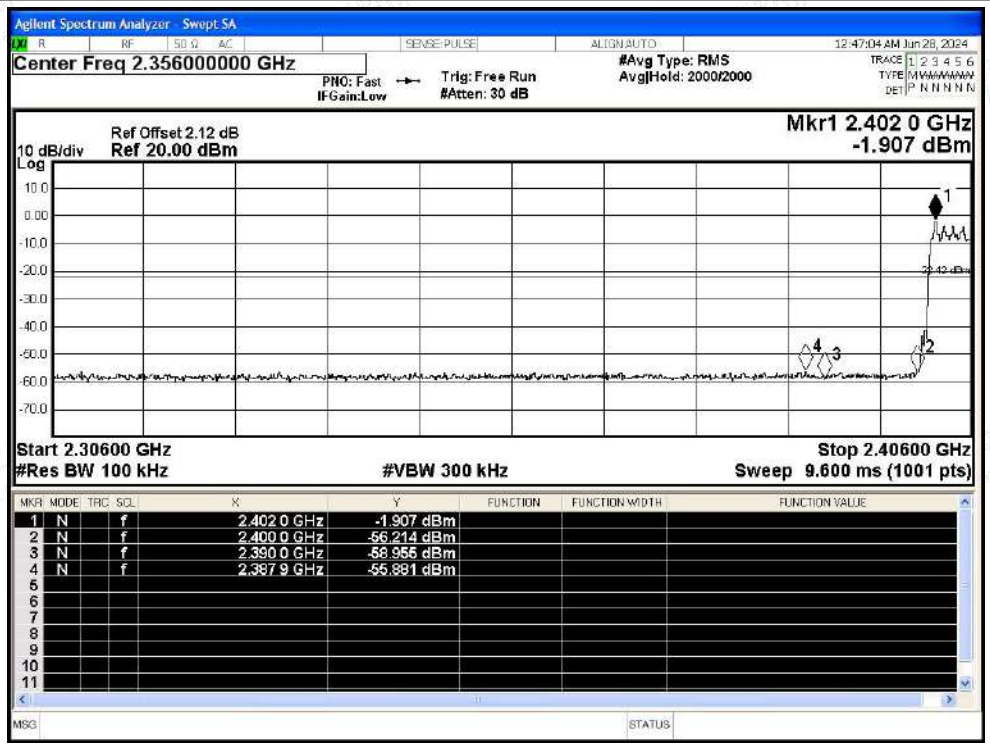




Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Ref

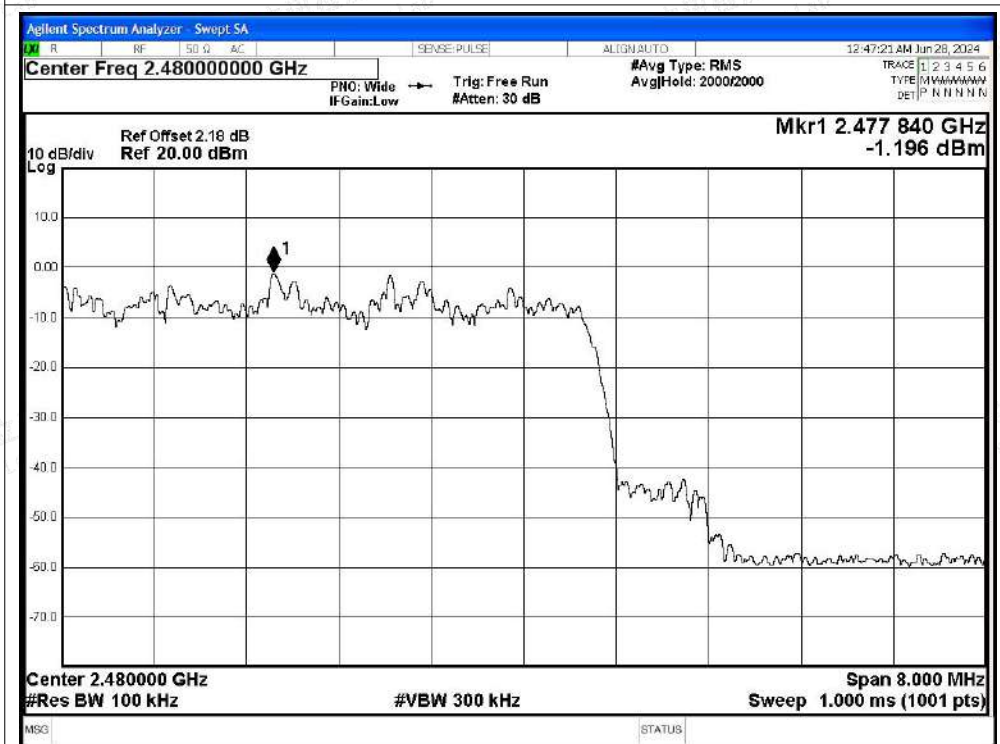


Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Emission

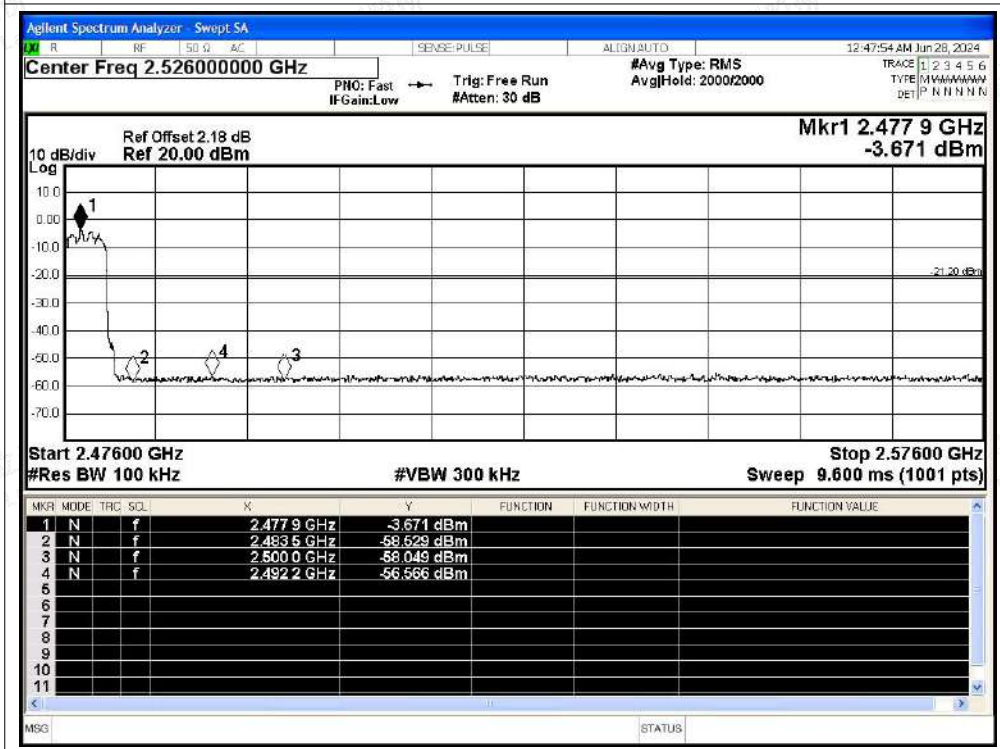




Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Ref

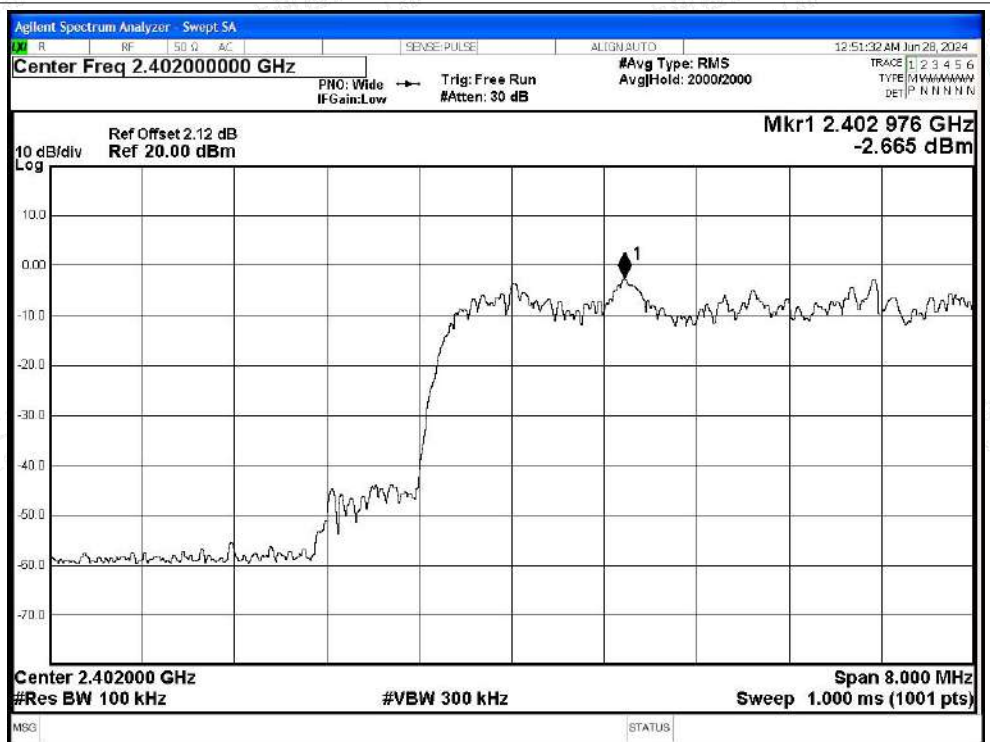


Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Emission

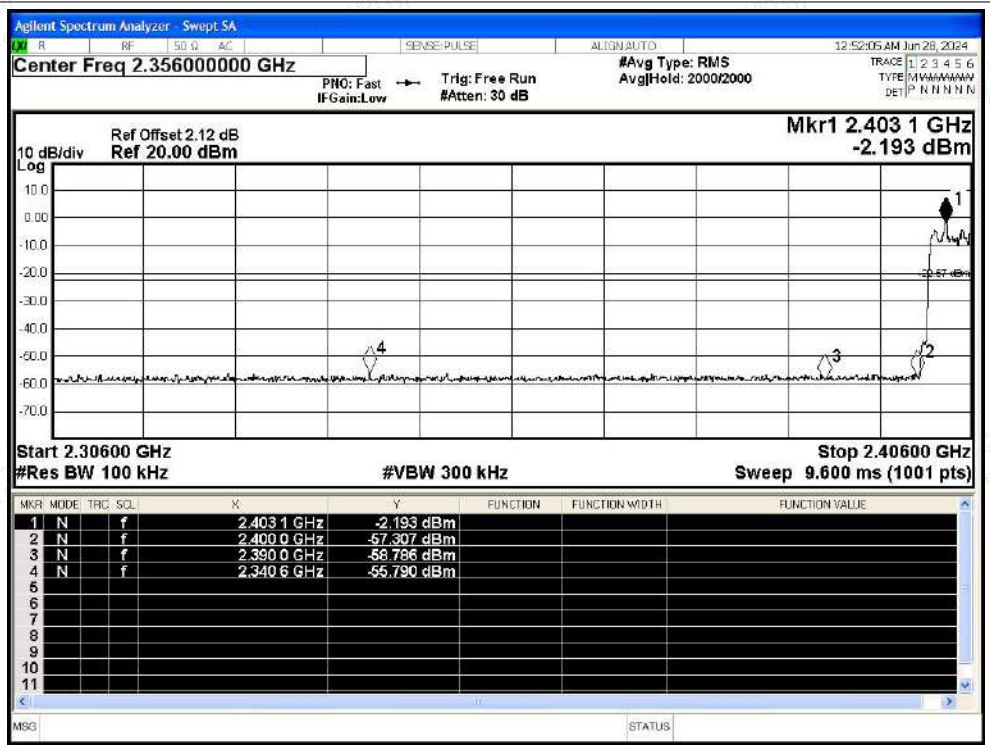




Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Ref

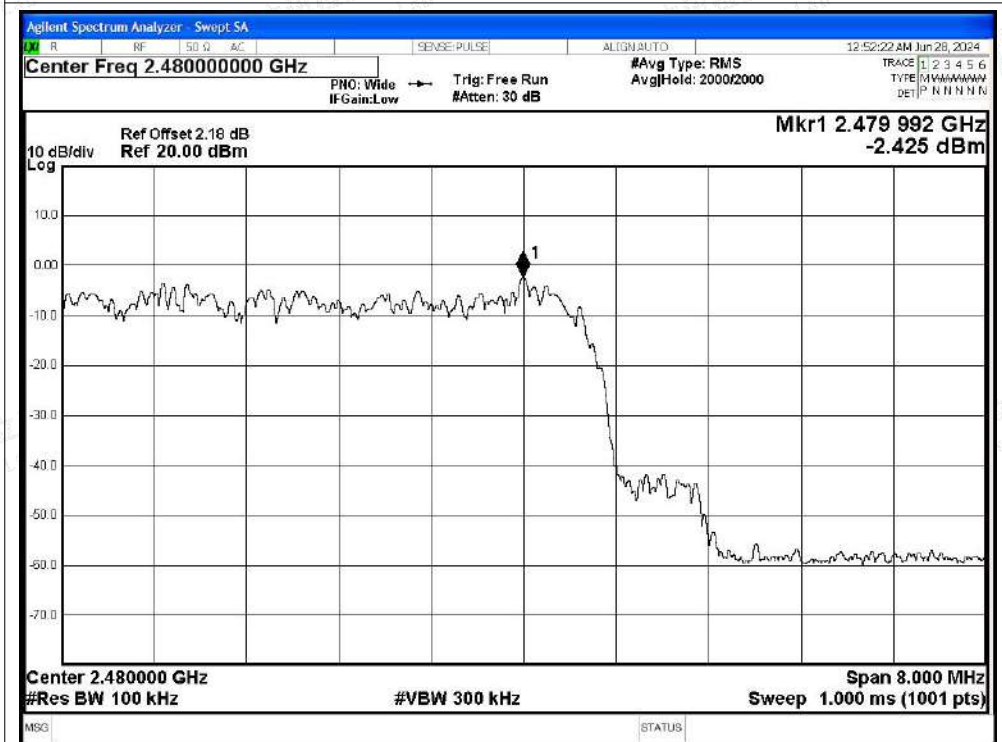


Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Emission

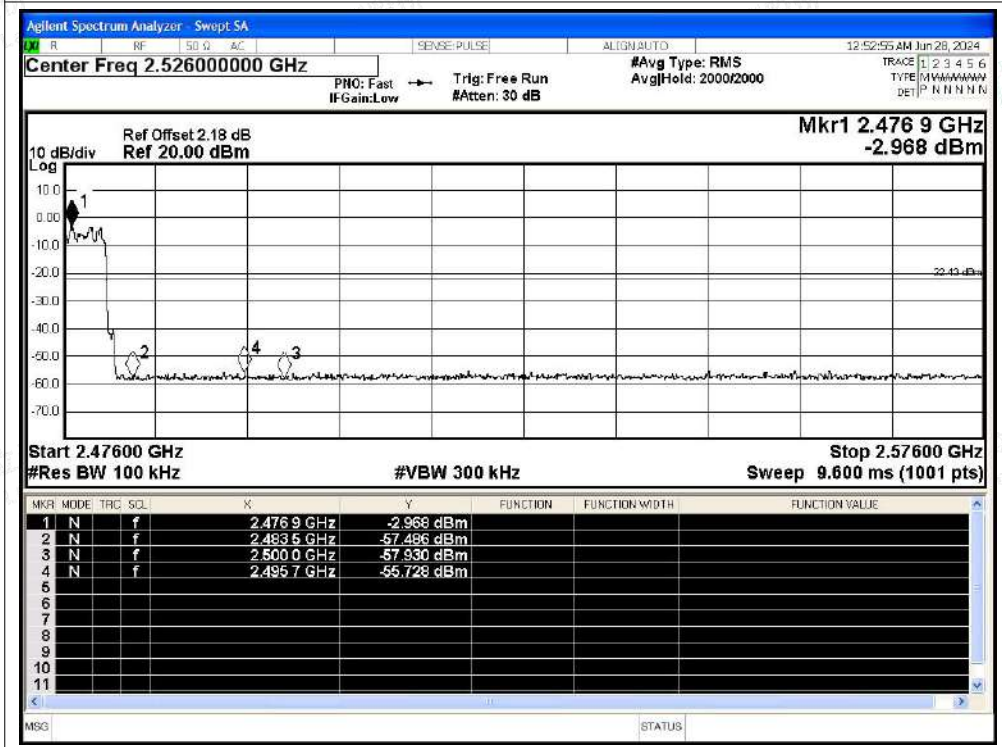




Band Edge(Hopping) NVNT 3-DH5 2480MHz Ant1 Hopping Ref



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	-53.78	-20	Pass
NVNT	1-DH5	2441	Ant1	-55.01	-20	Pass
NVNT	1-DH5	2480	Ant1	-54.59	-20	Pass
NVNT	2-DH5	2402	Ant1	-50.46	-20	Pass
NVNT	2-DH5	2441	Ant1	-53.75	-20	Pass
NVNT	2-DH5	2480	Ant1	-53.8	-20	Pass
NVNT	3-DH5	2402	Ant1	-53.02	-20	Pass
NVNT	3-DH5	2441	Ant1	-52.32	-20	Pass
NVNT	3-DH5	2480	Ant1	-52.99	-20	Pass



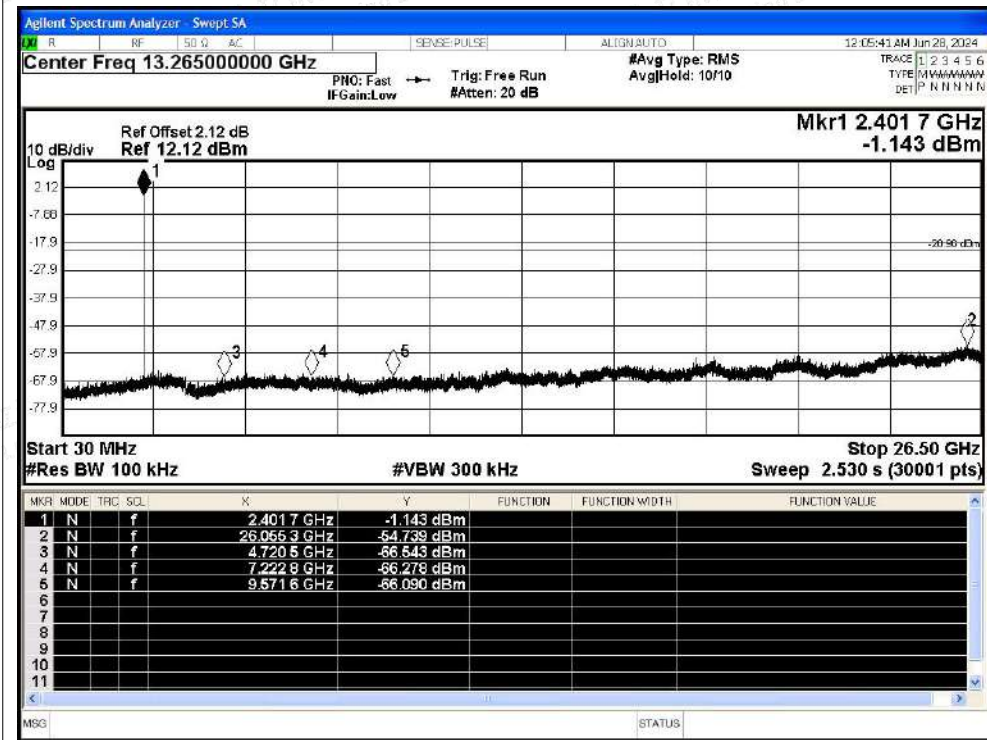


Test Graphs

Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref



Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission

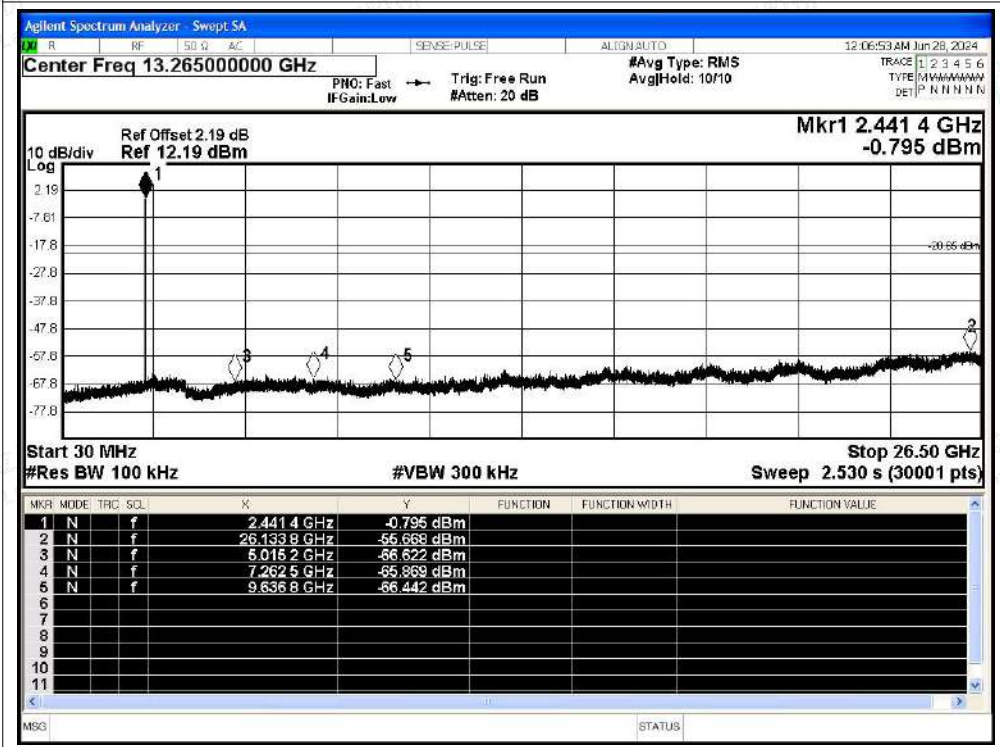




Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref

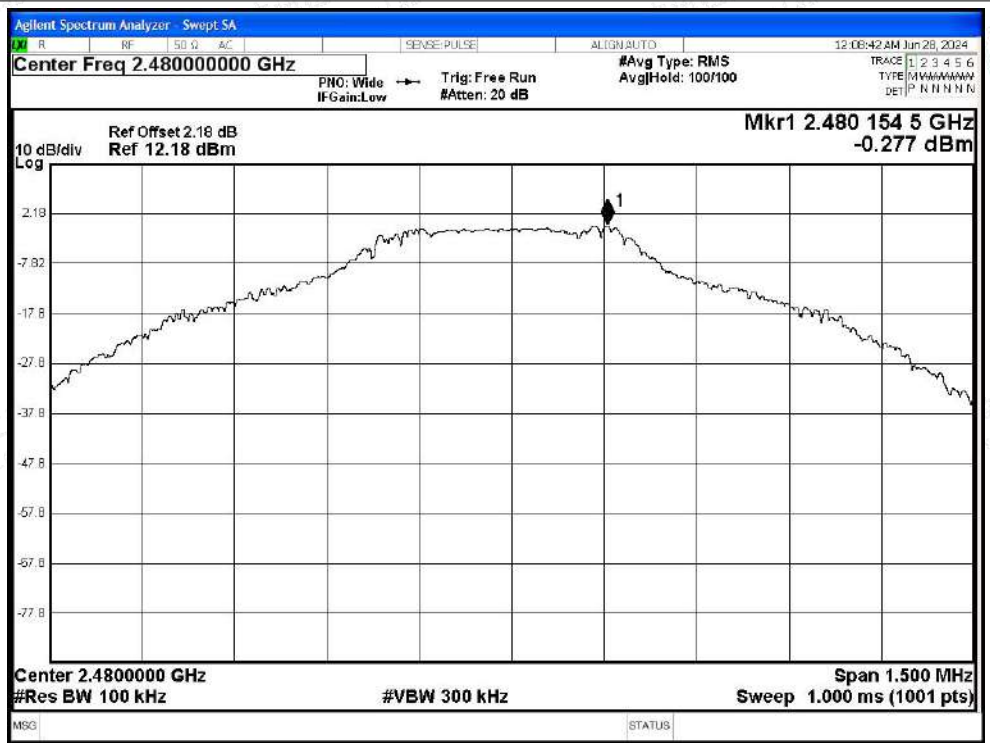


Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission

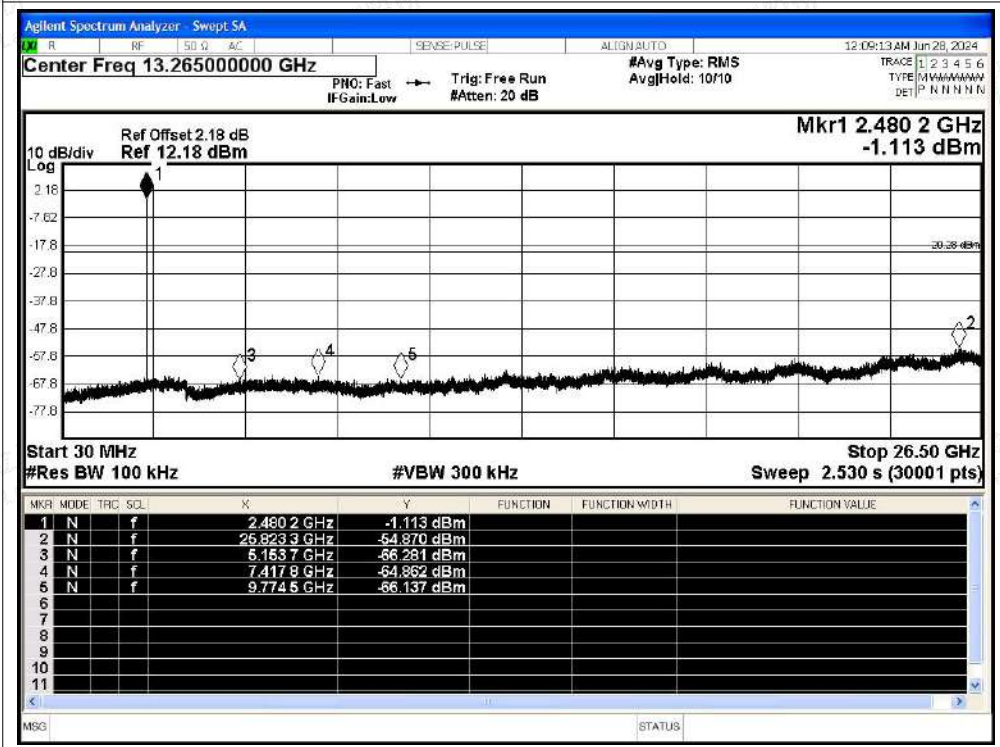




Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref

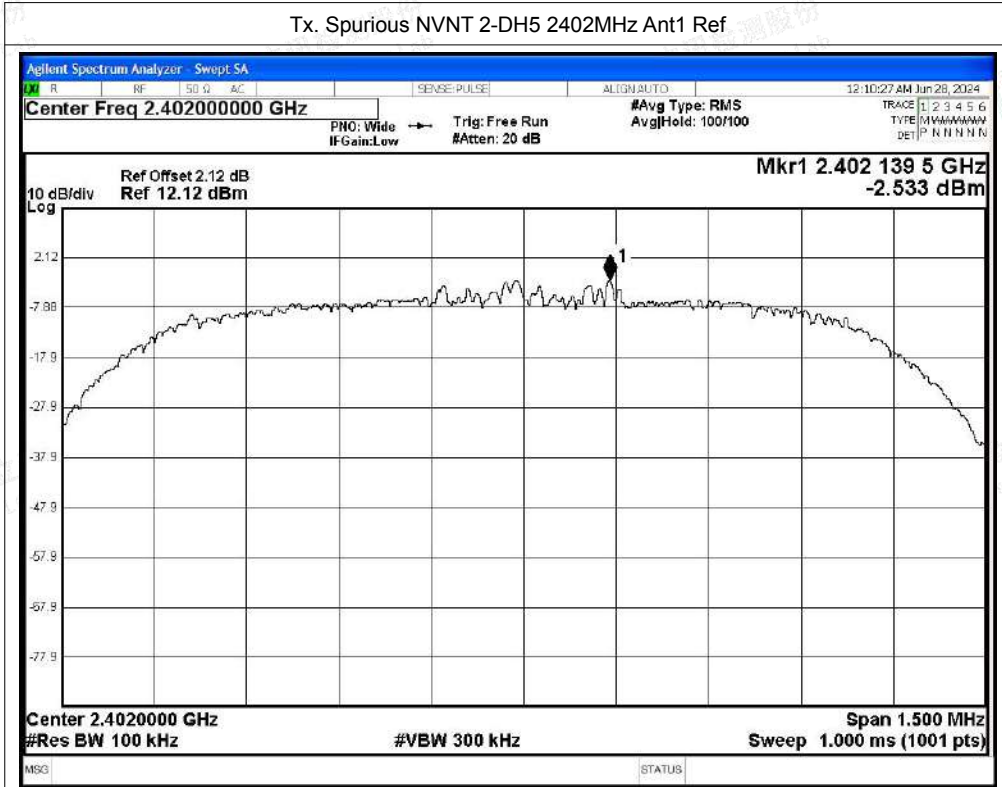


Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Emission

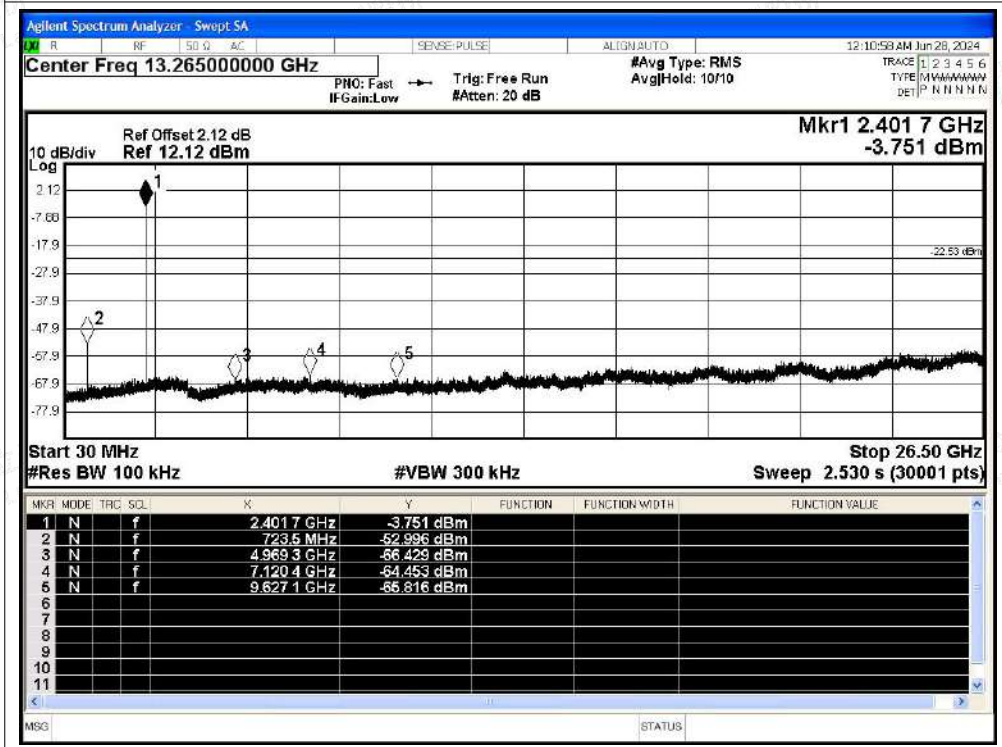




Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Ref

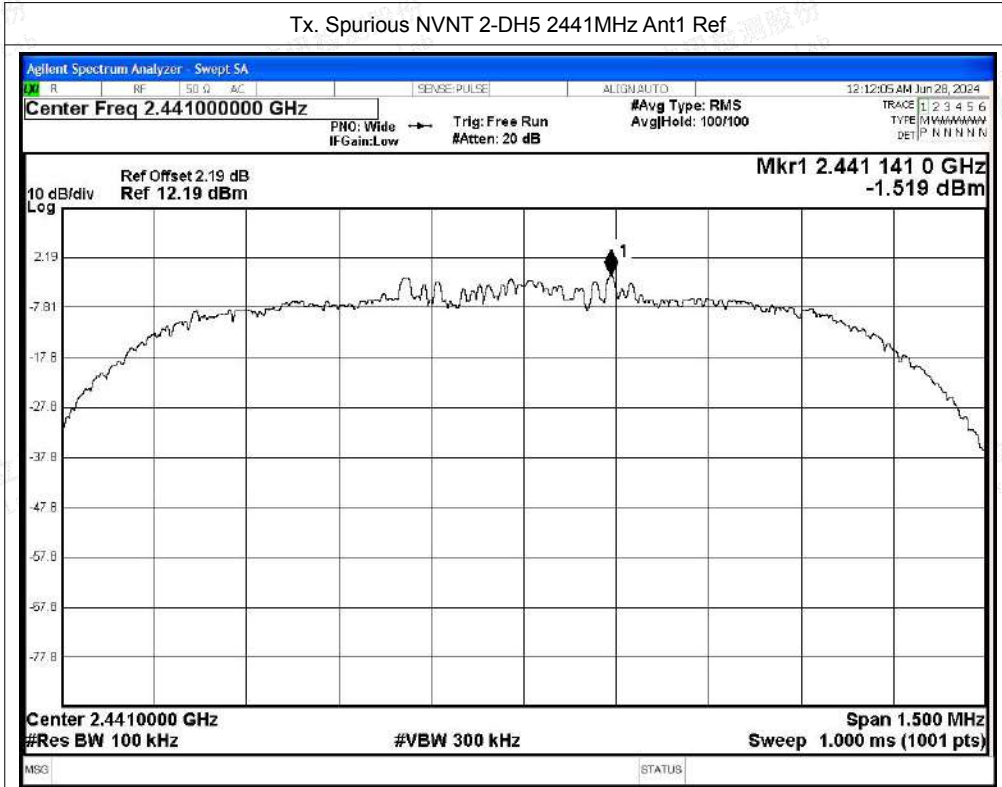


Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Emission

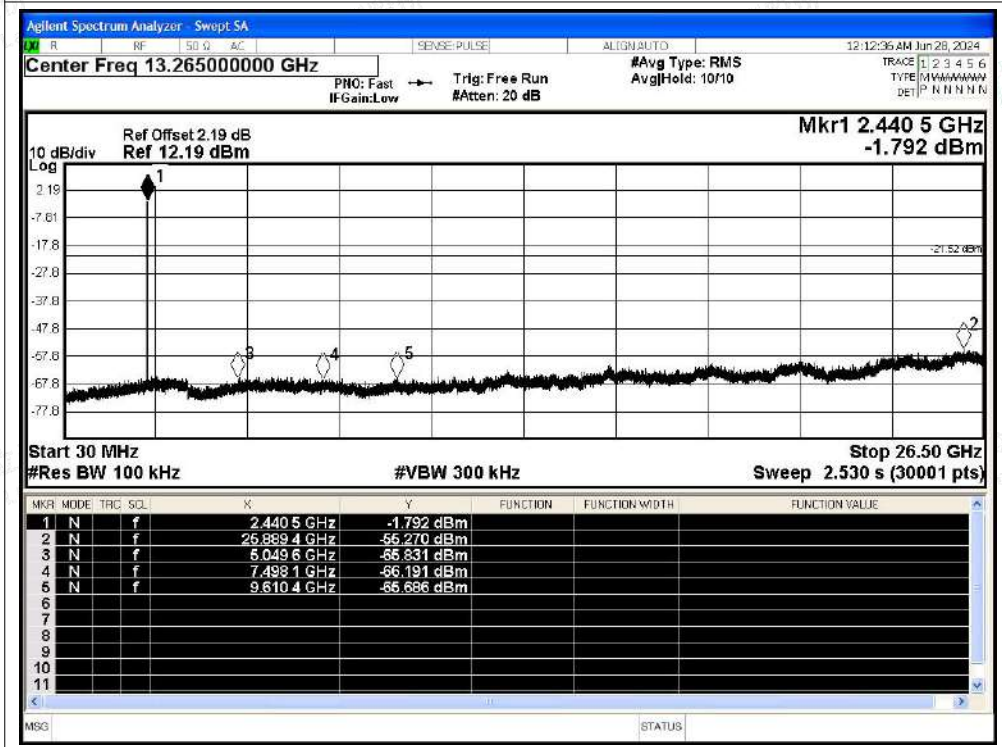




Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Ref

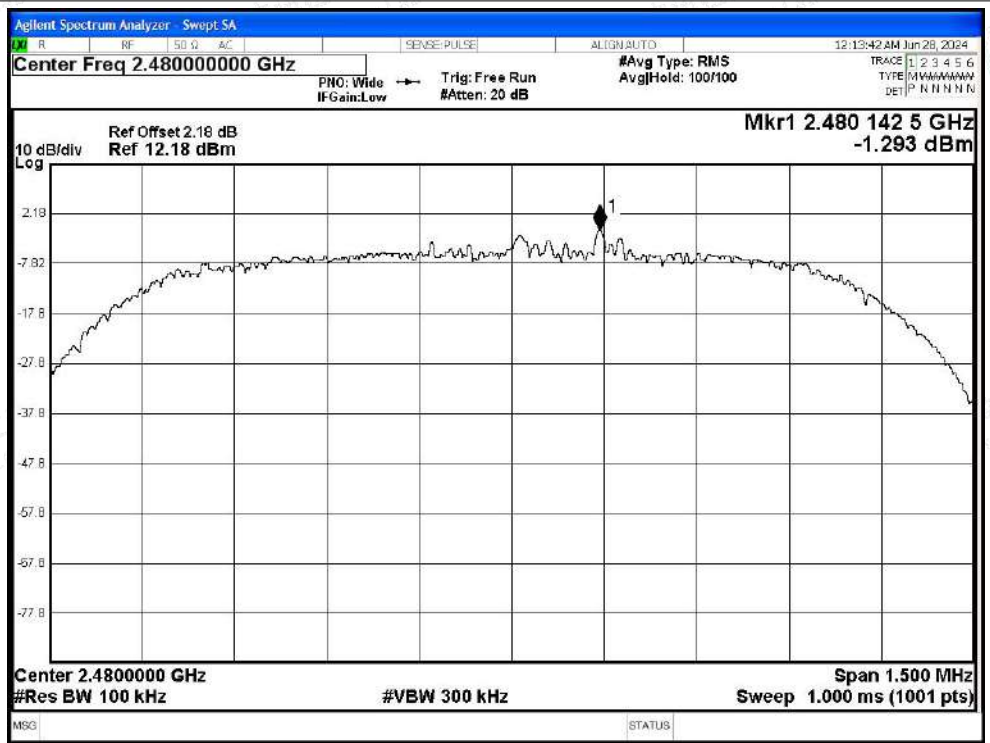


Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Emission

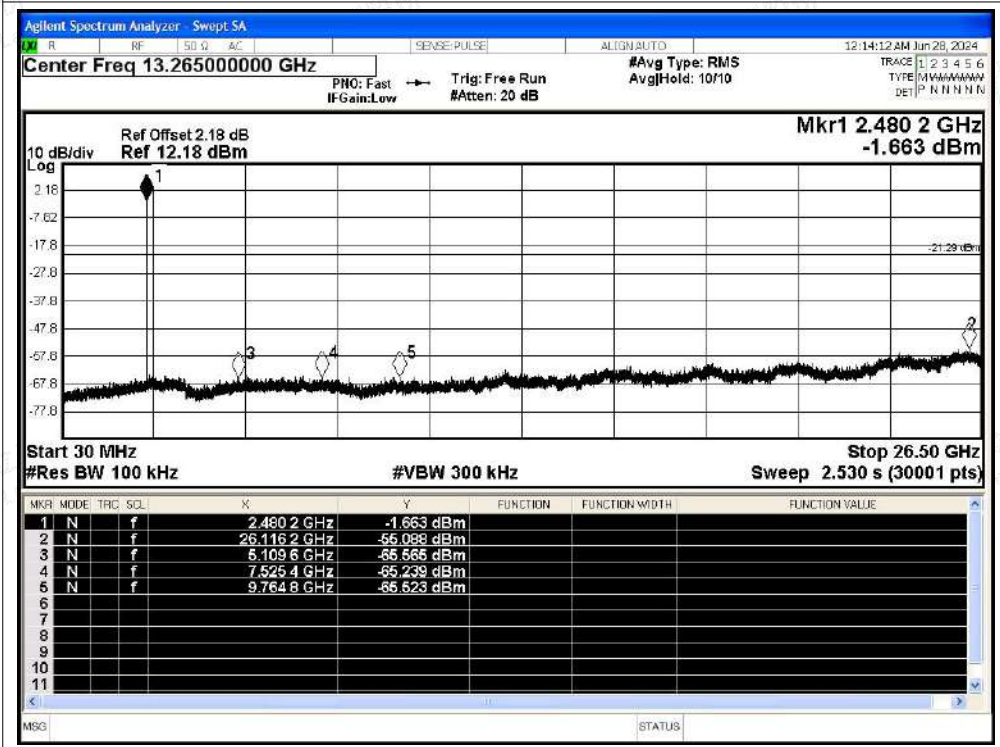




Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Ref

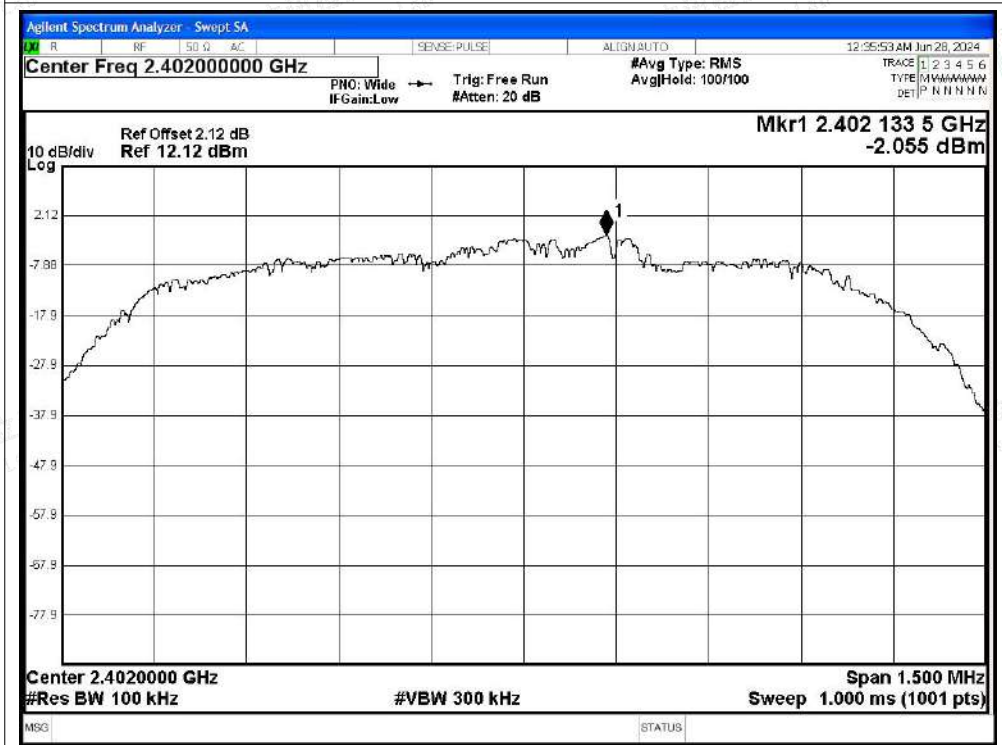


Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Emission

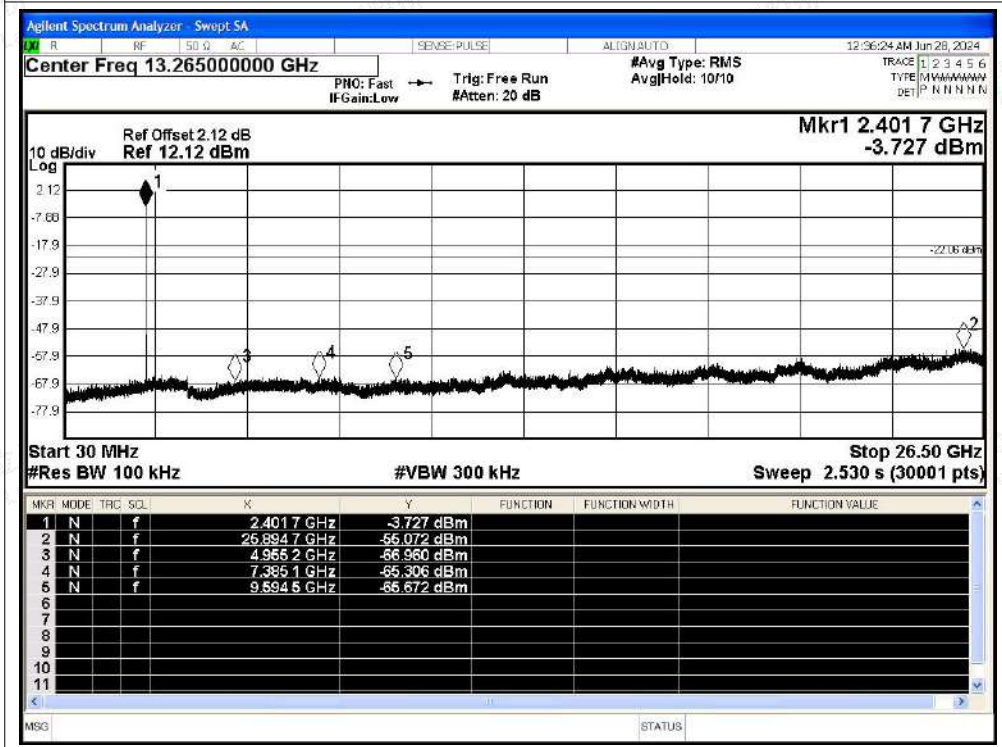




Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Ref

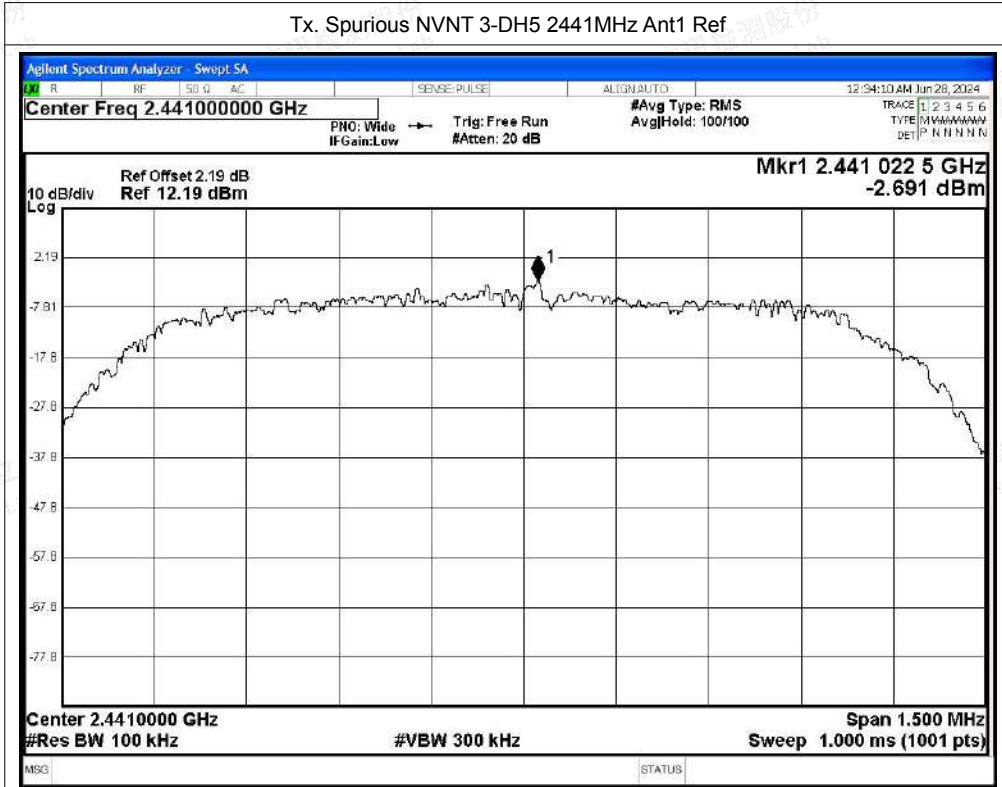


Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Emission

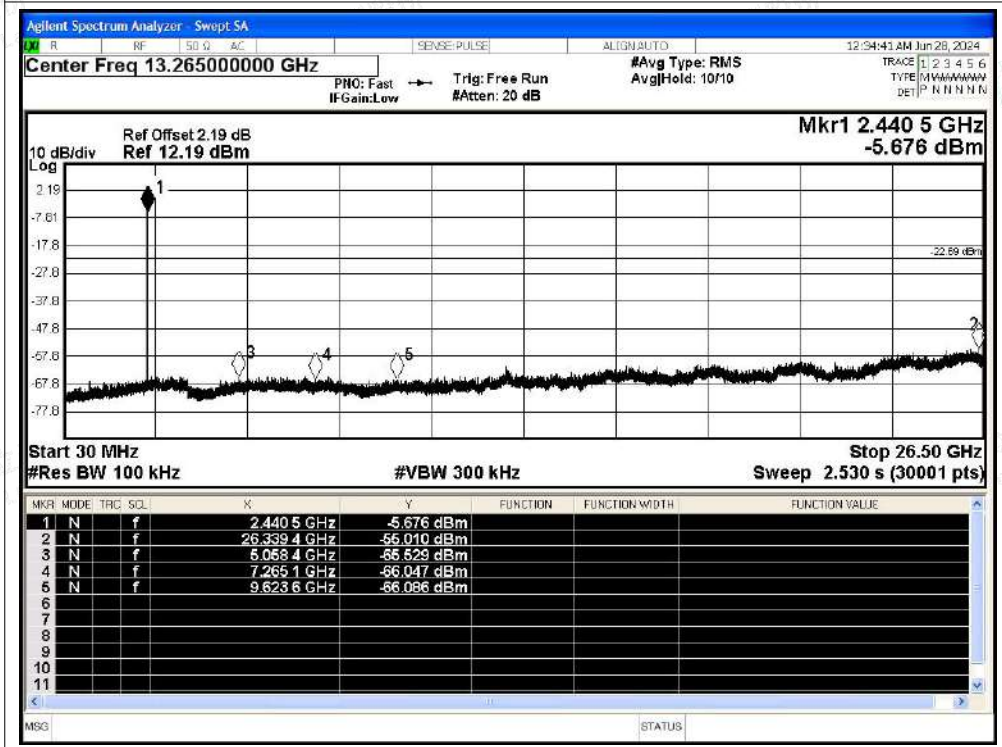




Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Ref

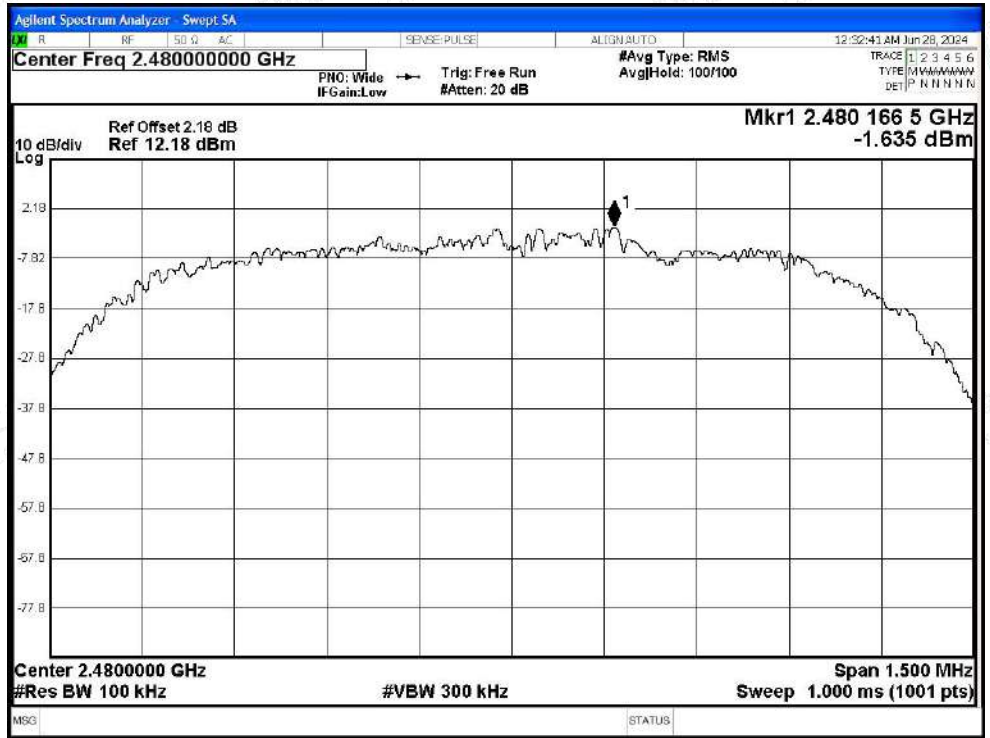


Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Emission

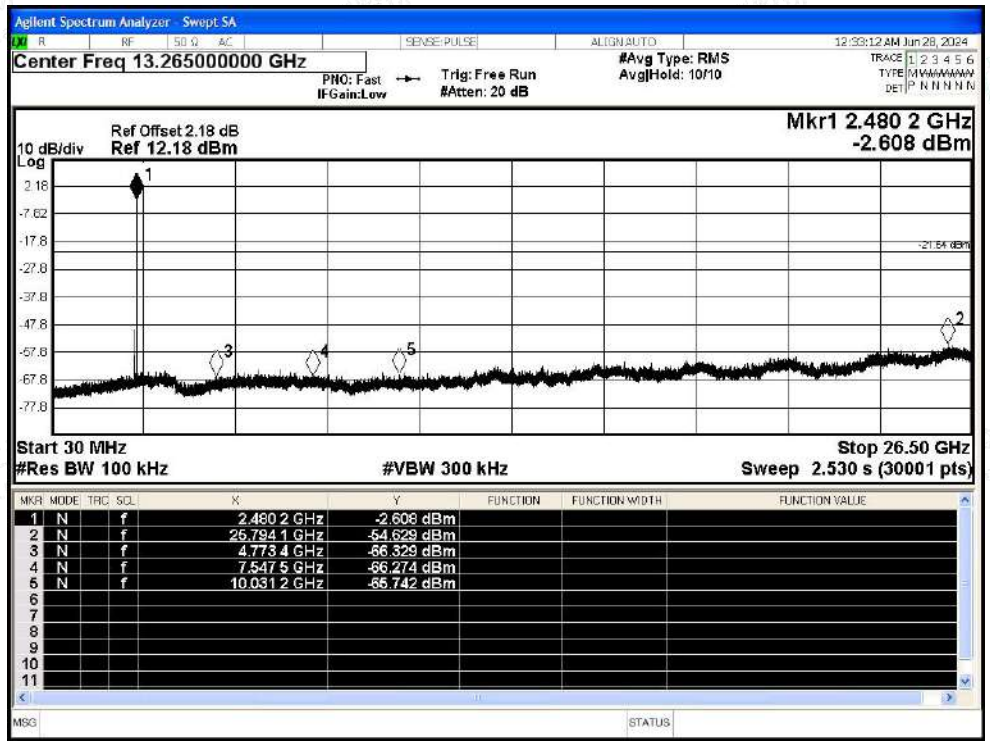




Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Emission





A.8 Duty Cycle

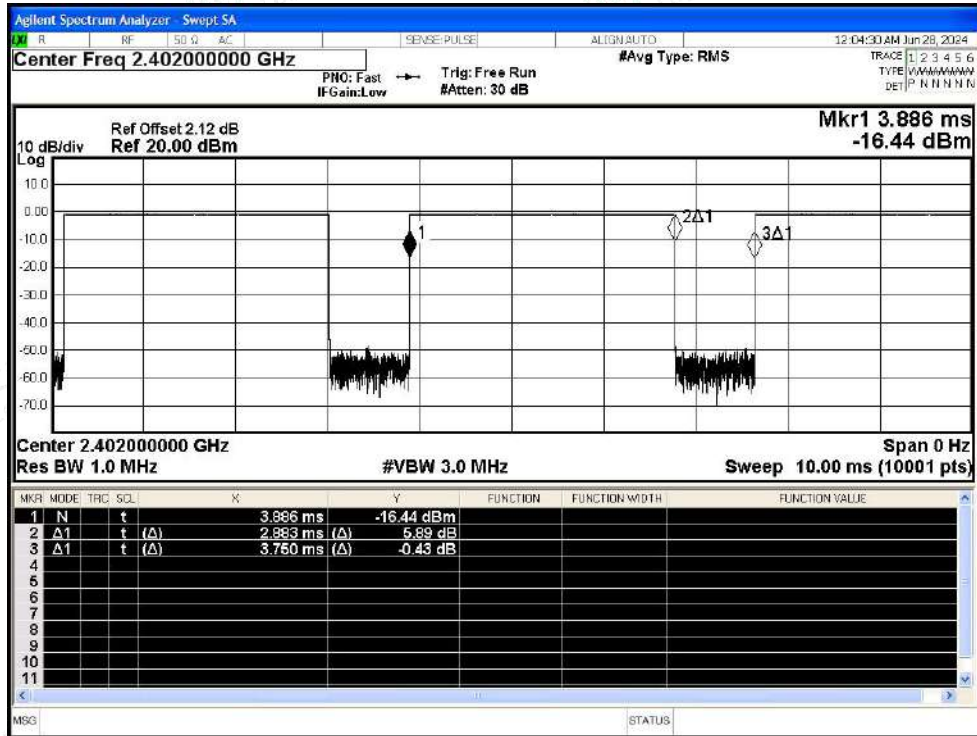
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH5	2402	Ant1	76.88	1.14	0.35
NVNT	1-DH5	2441	Ant1	76.88	1.14	0.35
NVNT	1-DH5	2480	Ant1	76.88	1.14	0.35
NVNT	2-DH5	2402	Ant1	76.97	1.14	0.35
NVNT	2-DH5	2441	Ant1	76.96	1.14	0.35
NVNT	2-DH5	2480	Ant1	76.96	1.14	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



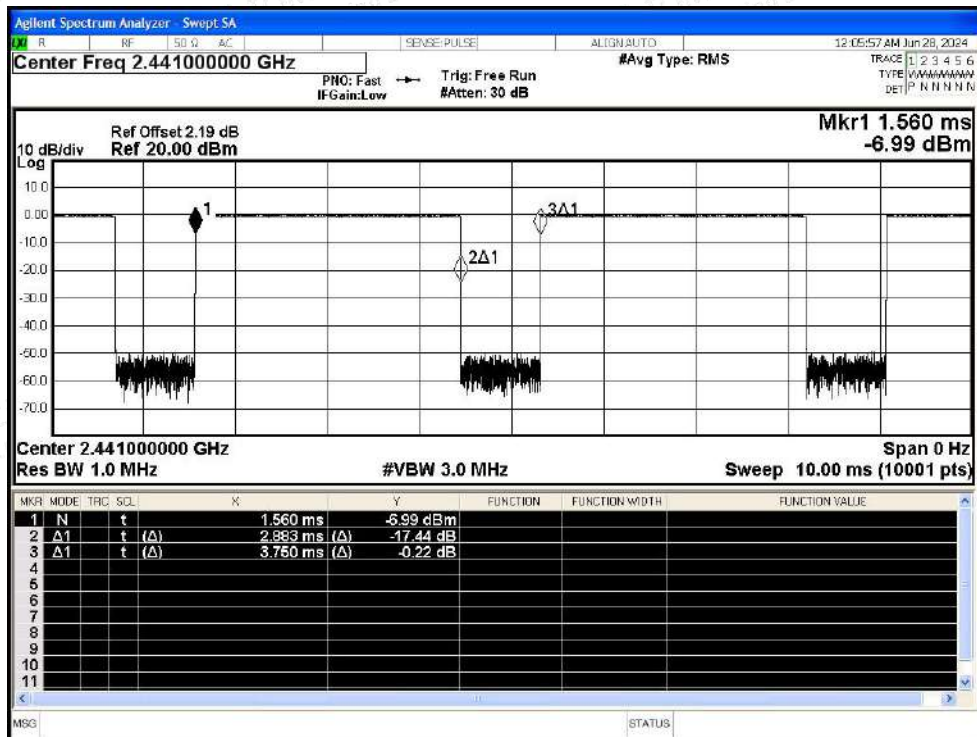


Test Graphs

Duty Cycle NVNT 1-DH5 2402MHz Ant1

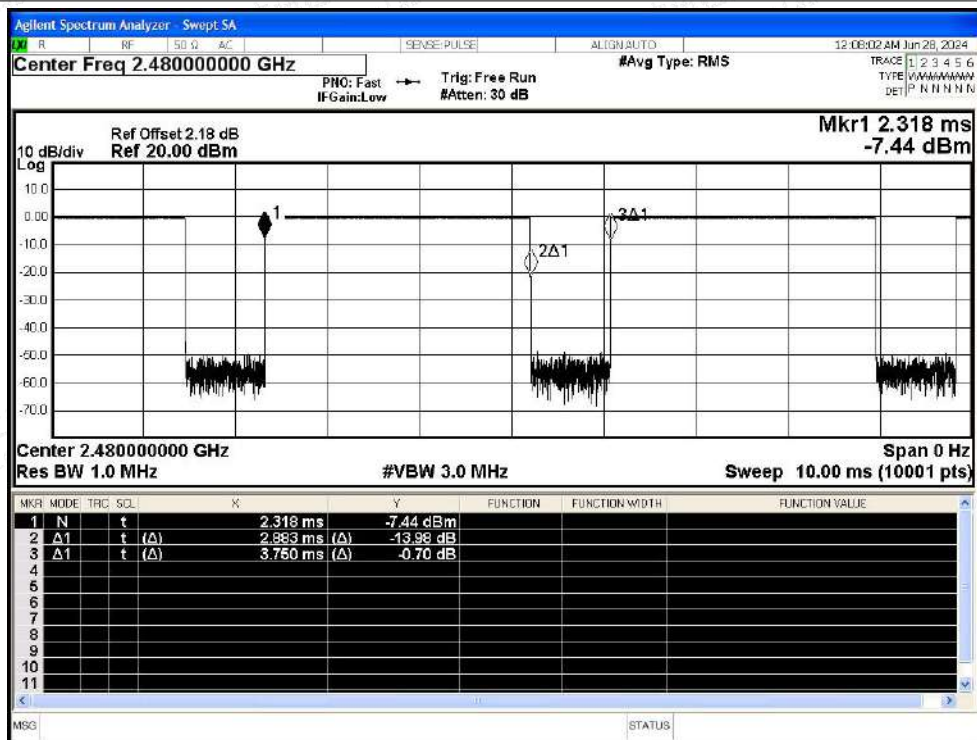


Duty Cycle NVNT 1-DH5 2441MHz Ant1

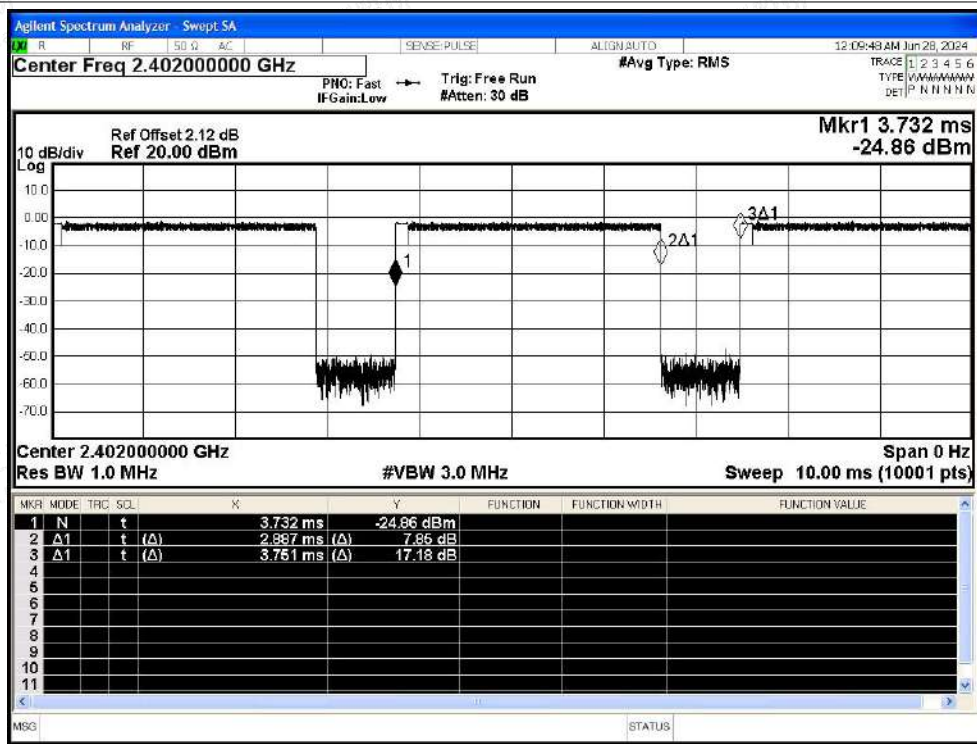




Duty Cycle NVNT 1-DH5 2480MHz Ant1

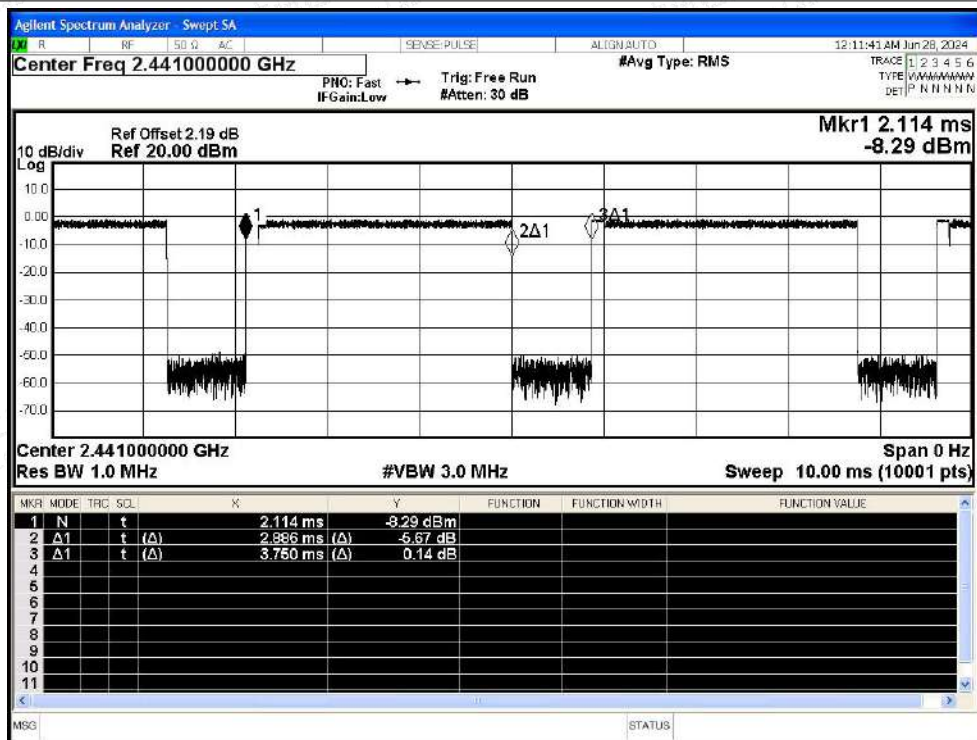


Duty Cycle NVNT 2-DH5 2402MHz Ant1

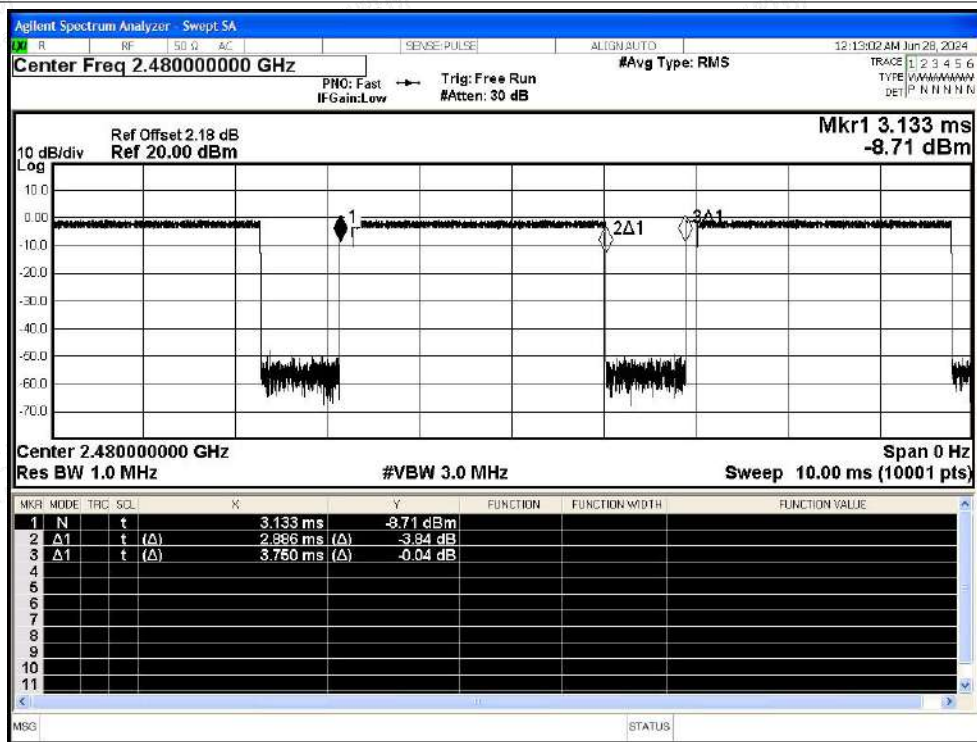




Duty Cycle NVNT 2-DH5 2441MHz Ant1

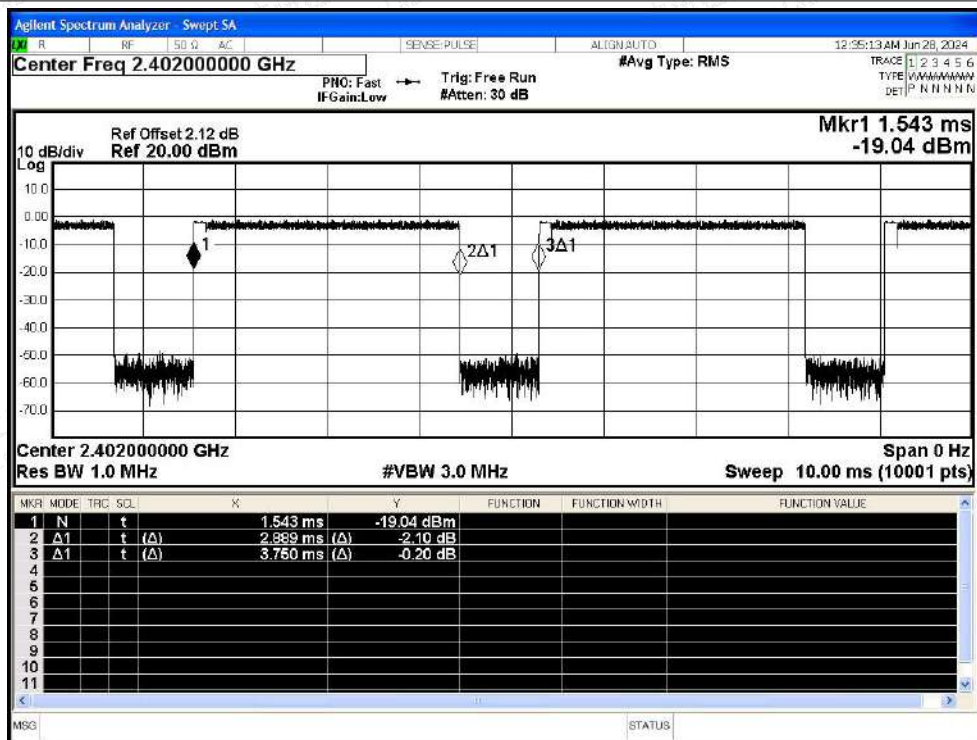


Duty Cycle NVNT 2-DH5 2480MHz Ant1

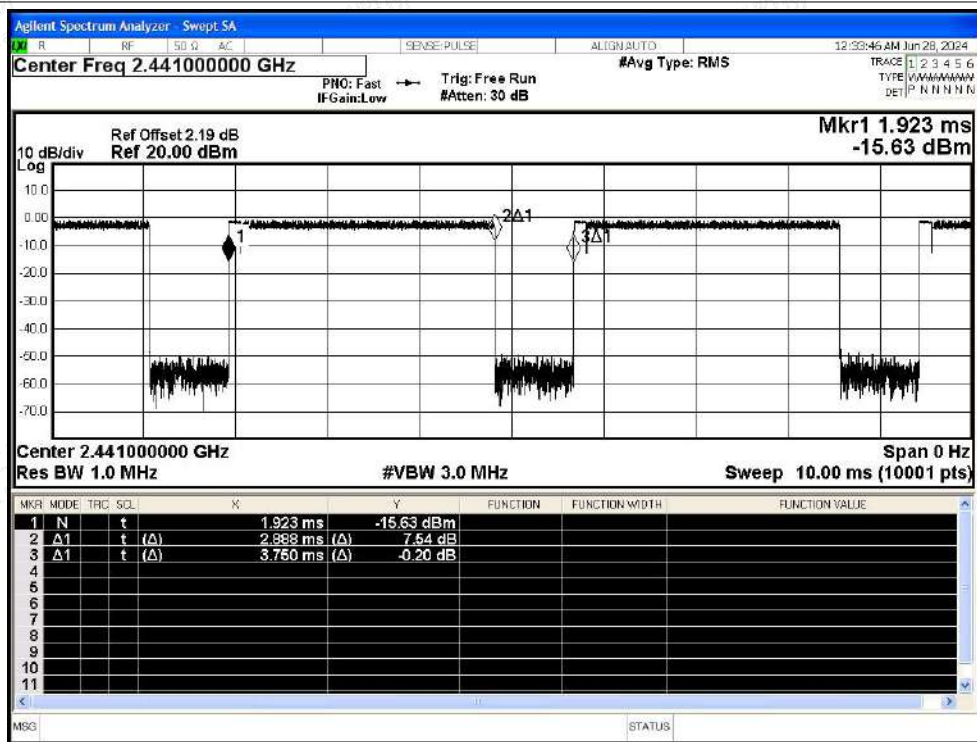


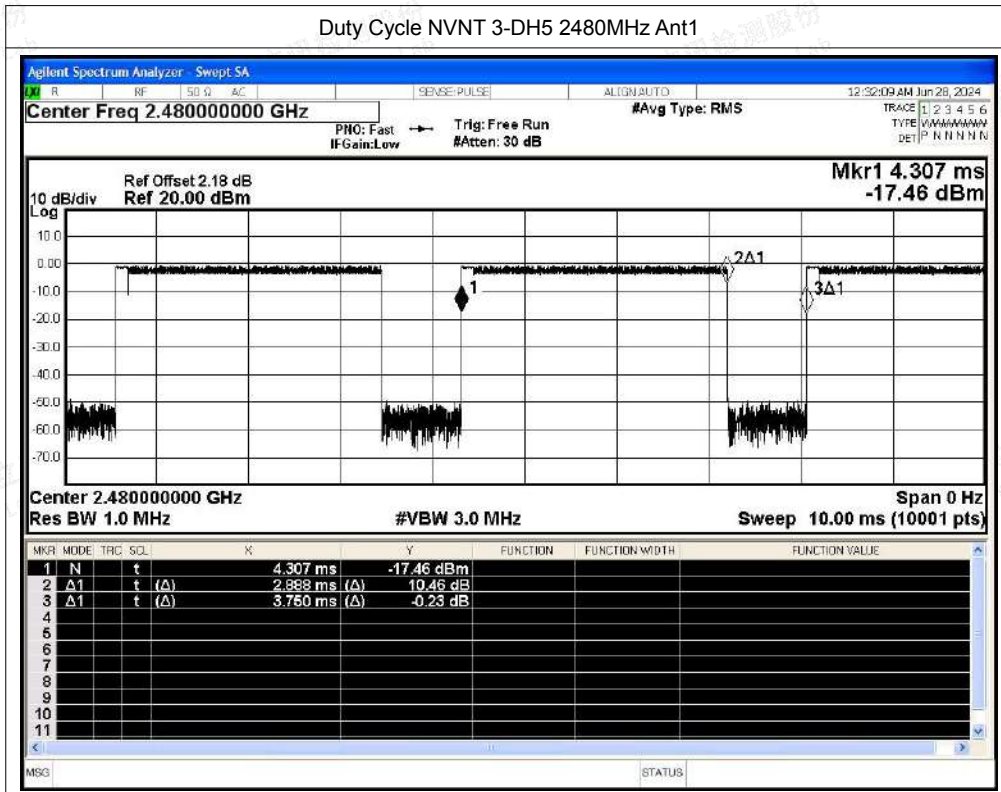


Duty Cycle NVNT 3-DH5 2402MHz Ant1



Duty Cycle NVNT 3-DH5 2441MHz Ant1







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	-49.93	2.00	-	47.33	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-58.61	2.00	1.14	39.79	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2384.4	-47.54	2.00	-	49.72	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2349.936	-57.48	2.00	1.14	40.92	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-50.47	2.00	-	46.79	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-58.2	2.00	1.14	40.20	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-50.61	2.00	-	46.65	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-57.83	2.00	1.14	40.57	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2486.104	-46.55	2.00	-	50.71	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2488.768	-57.09	2.00	1.14	41.31	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-49.55	2.00	-	47.71	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-58.2	2.00	1.14	40.20	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-50.82	2.00	-	46.44	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-58.19	2.00	1.14	40.21	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2312.208	-47.59	2.00	-	49.67	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2369.808	-57.39	2.00	1.14	41.01	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-50.43	2.00	-	46.83	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-58.41	2.00	1.14	39.99	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-48.98	2.00	-	48.28	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-57.39	2.00	1.14	41.01	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2498.344	-47.04	2.00	-	50.22	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2495.968	-57.02	2.00	1.14	41.38	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-50.04	2.00	-	47.22	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-57.57	2.00	1.14	40.83	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-51.38	2.00	-	45.88	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-58.81	2.00	1.13	39.58	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2330.832	-47.16	2.00	-	50.10	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2388.72	-57.57	2.00	1.13	40.82	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-50.15	2.00	-	47.11	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-58.14	2.00	1.13	40.25	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-49.02	2.00	-	48.24	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-58.05	2.00	1.13	40.34	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2487.352	-46.91	2.00	-	50.35	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2486.848	-57.15	2.00	1.13	41.24	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-49.8	2.00	-	47.46	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-58.18	2.00	1.13	40.21	Average	54	Pass



Shenzhen LCS Compliance Testing Laboratory Ltd.

Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

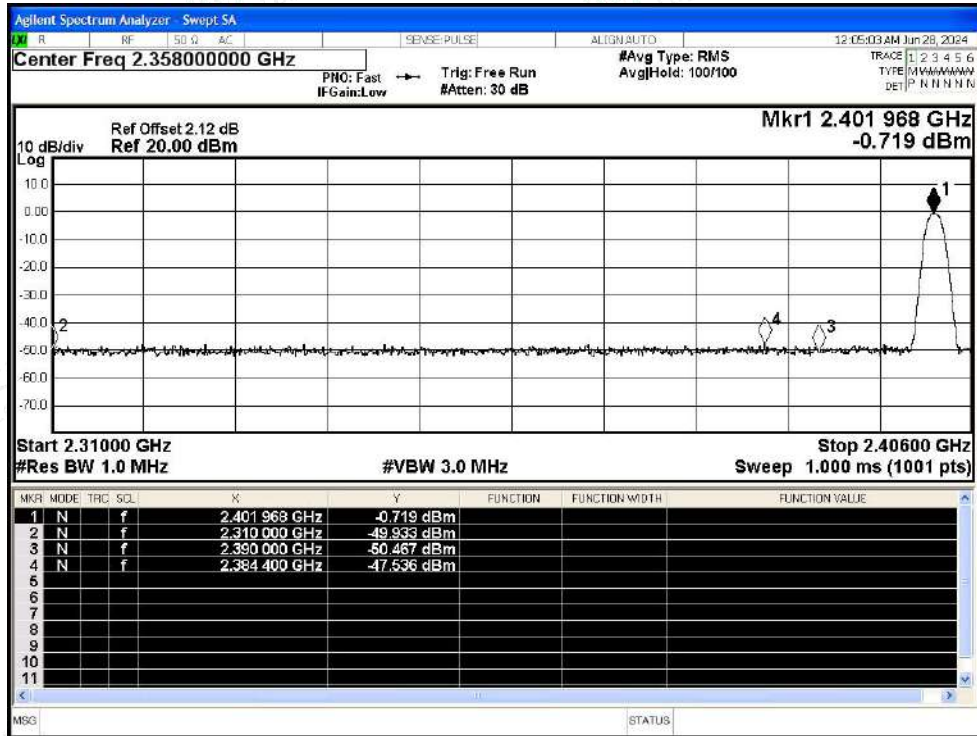
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity

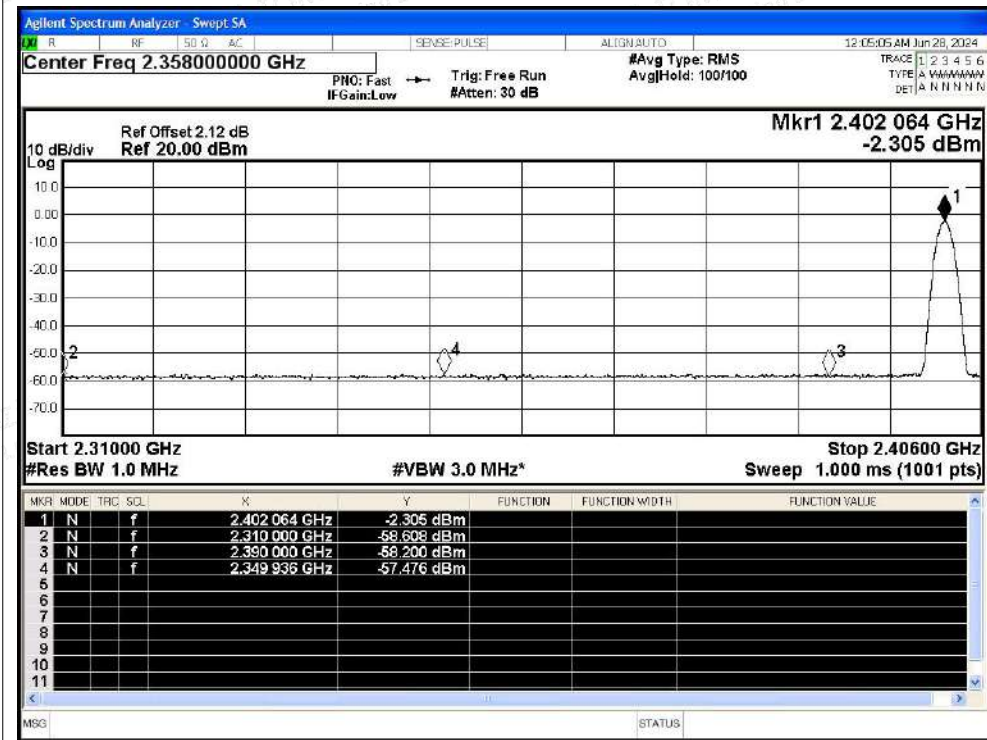


Test Graphs

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

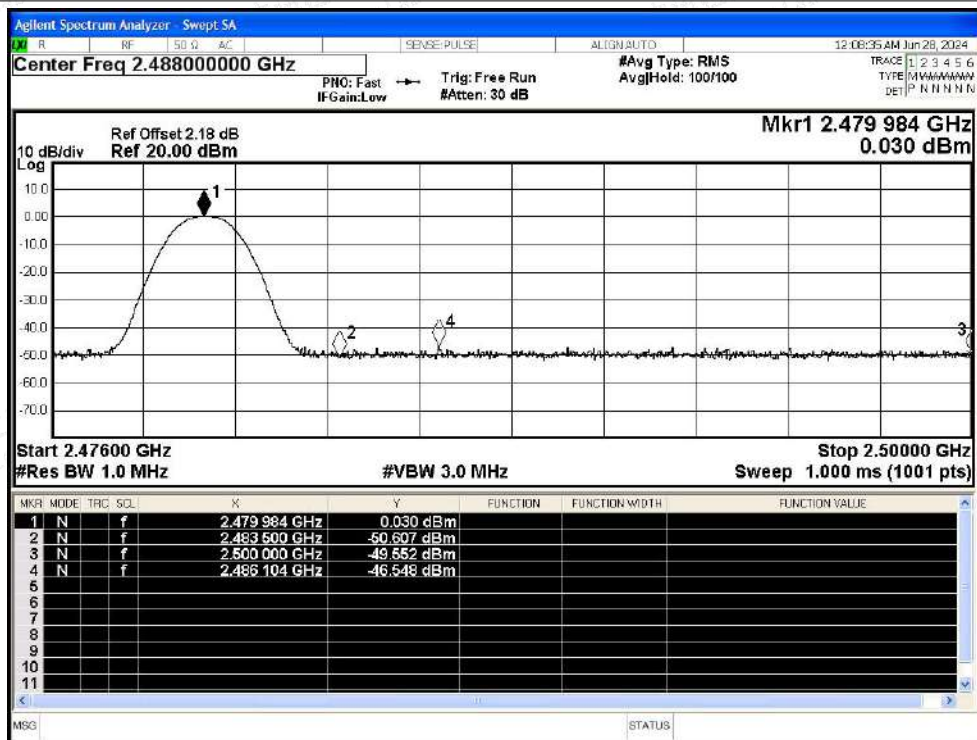


Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Average

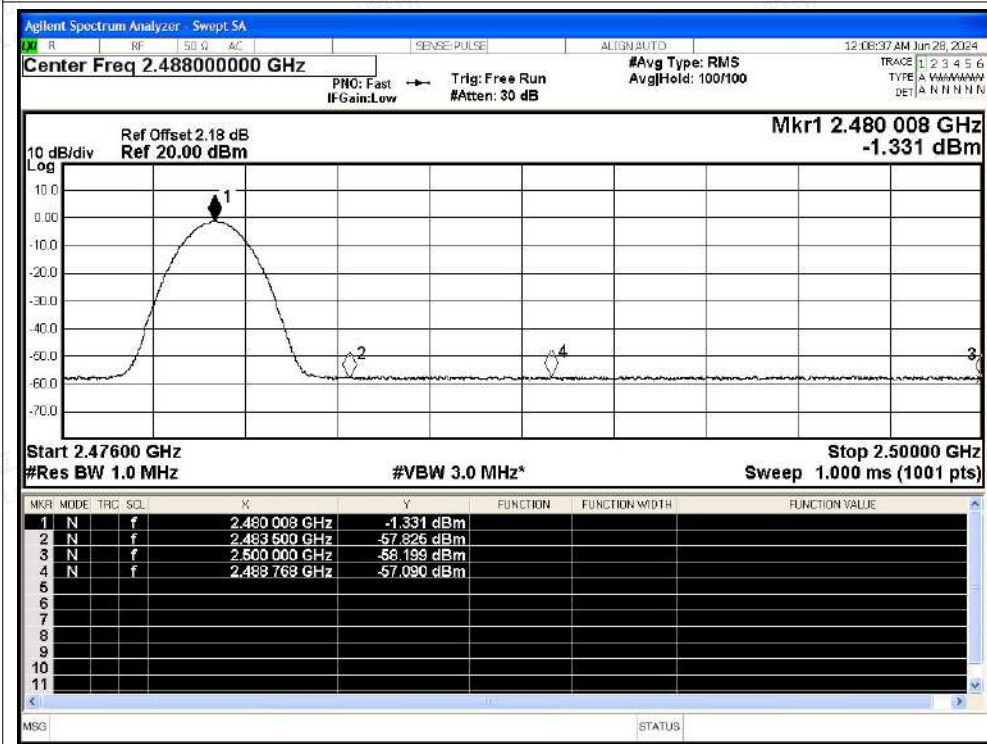




Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Peak

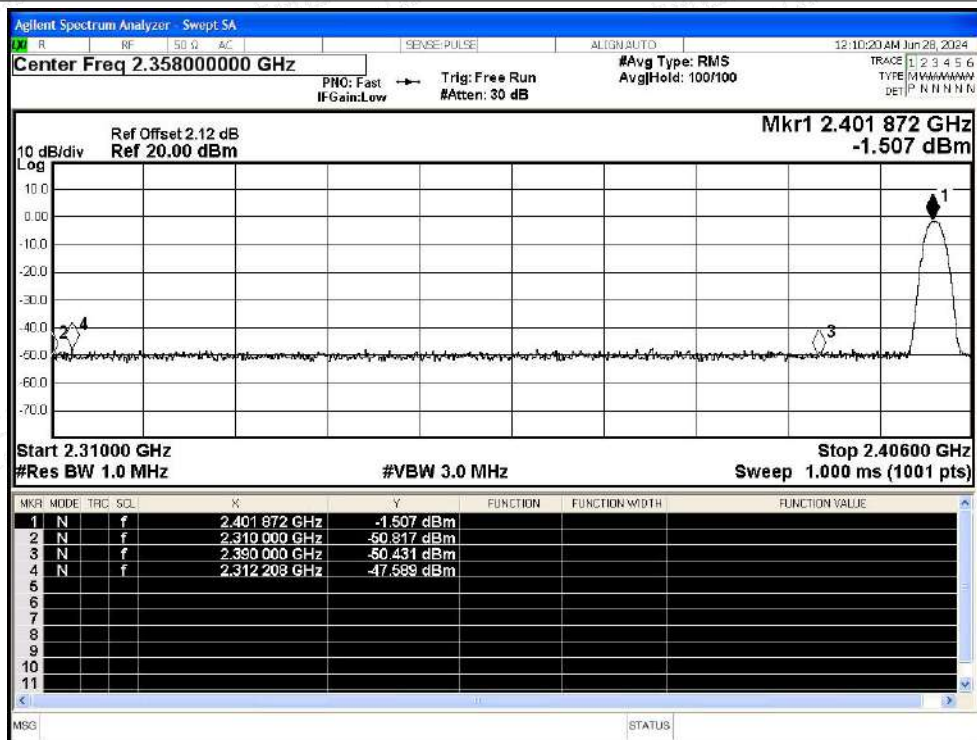


Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Average

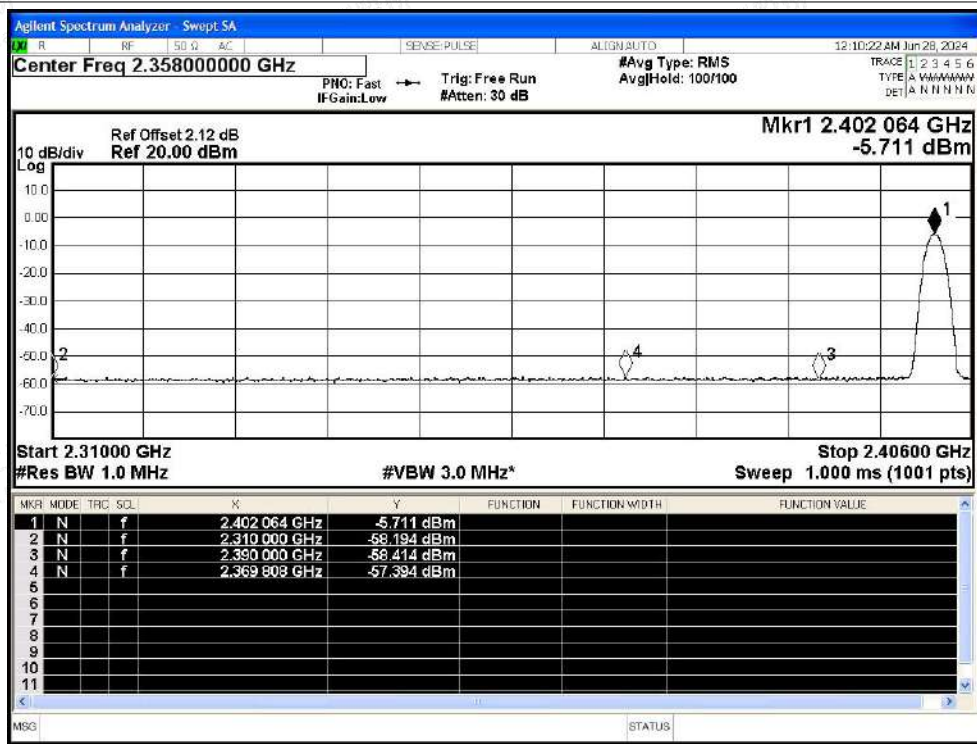




Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Peak

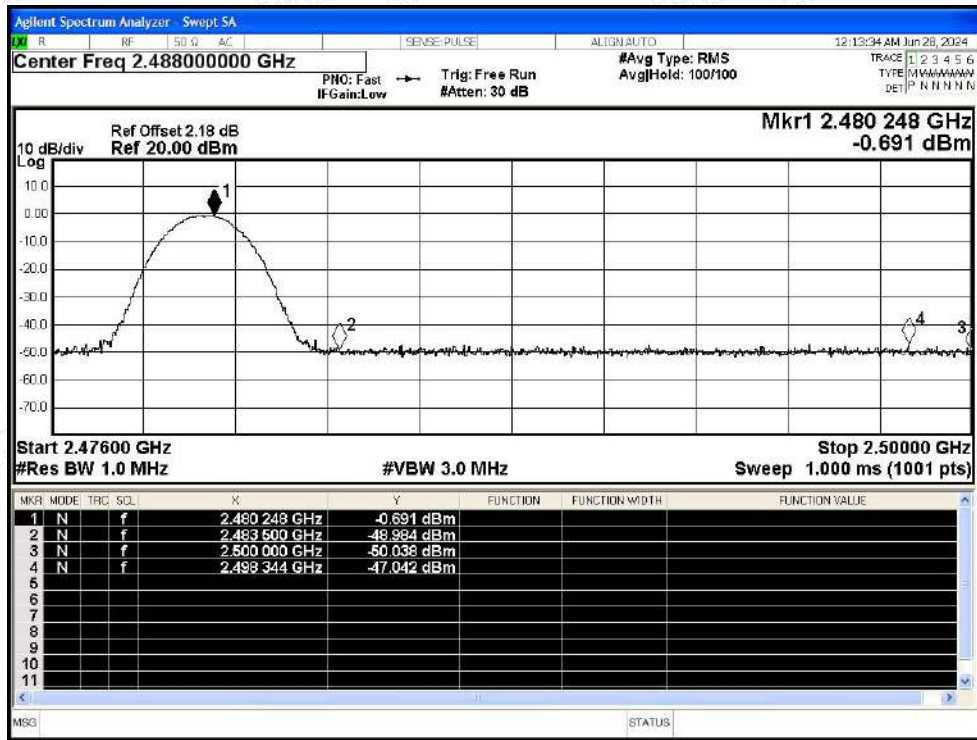


Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Average

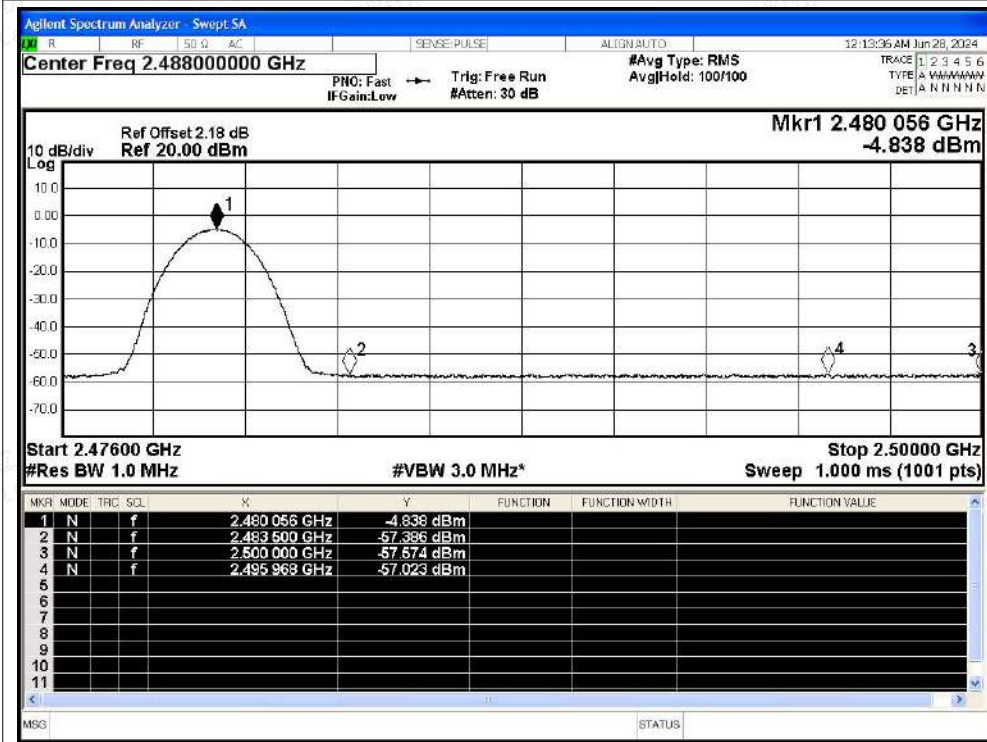




Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Peak

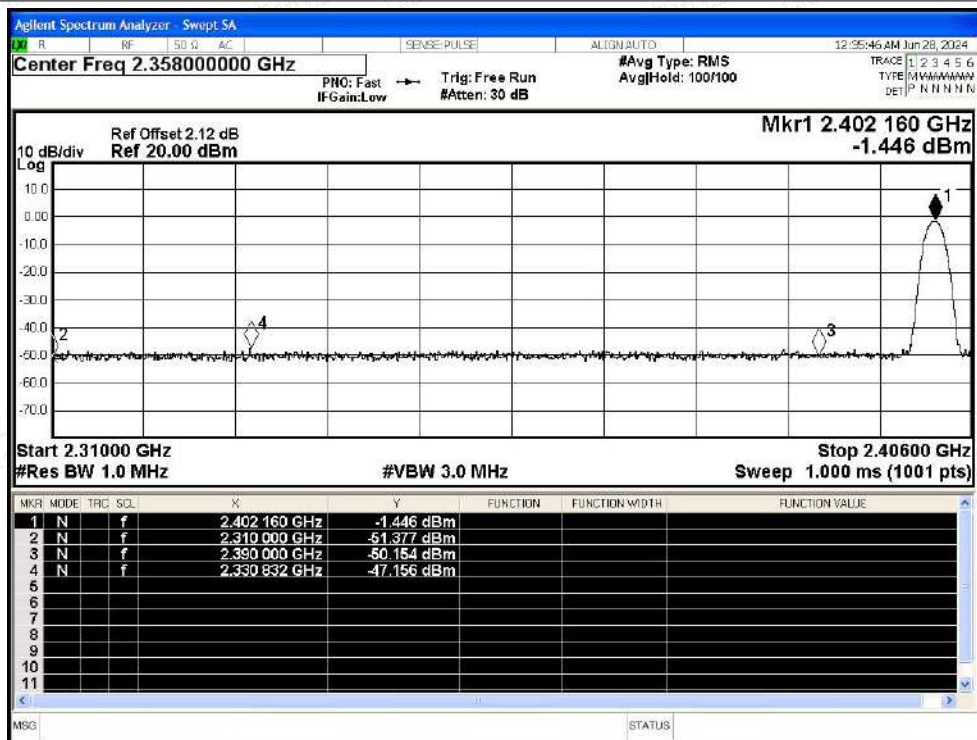


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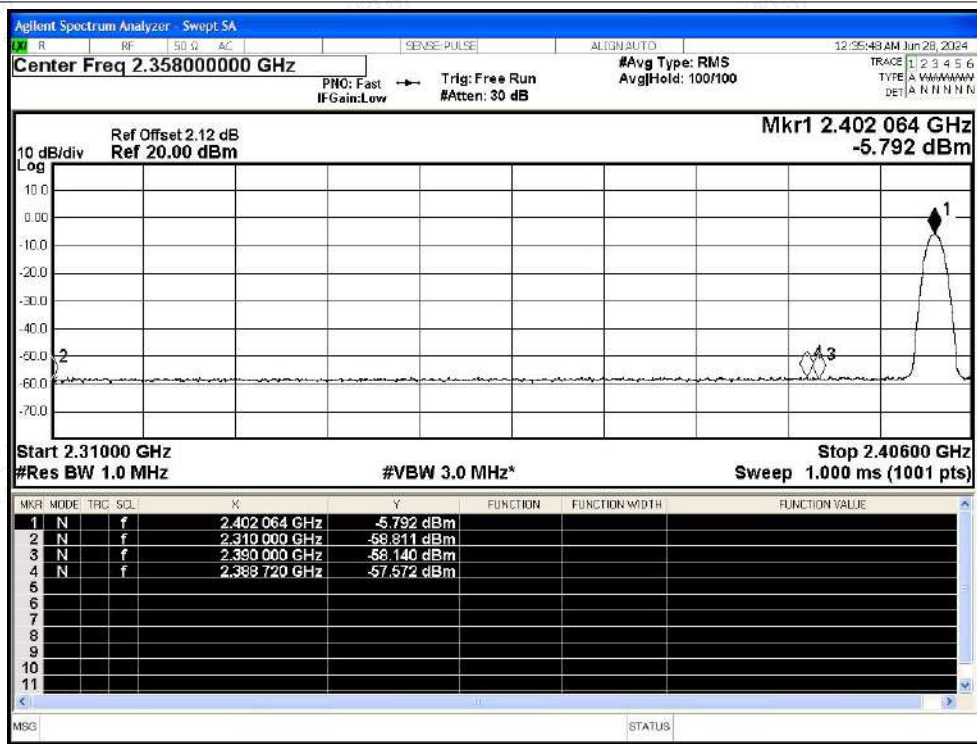




Restrict Band NVNT 3-DH5 2402MHz Ant1 No-Hopping Peak

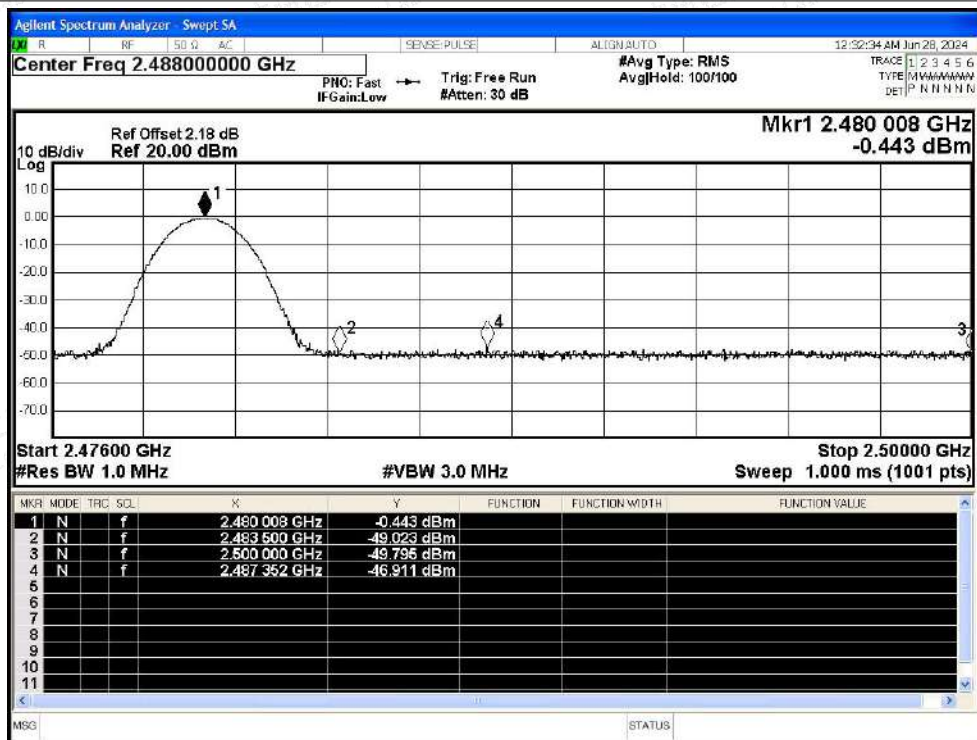


Restrict Band NVNT 3-DH5 2402MHz Ant1 No-Hopping Average





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



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

