



Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: 32" Dolby 2.0.2CH Atmos Soundbar

Test Model: SB-2133

Environmental Conditions

Temperature:	23.8° C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Joker Hu
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	0.953	N/A	Pass
NVNT	1-DH5	2441	Ant1	0.968	N/A	Pass
NVNT	1-DH5	2480	Ant1	0.961	N/A	Pass
NVNT	2-DH5	2402	Ant1	1.288	N/A	Pass
NVNT	2-DH5	2441	Ant1	1.315	N/A	Pass
NVNT	2-DH5	2480	Ant1	1.276	N/A	Pass



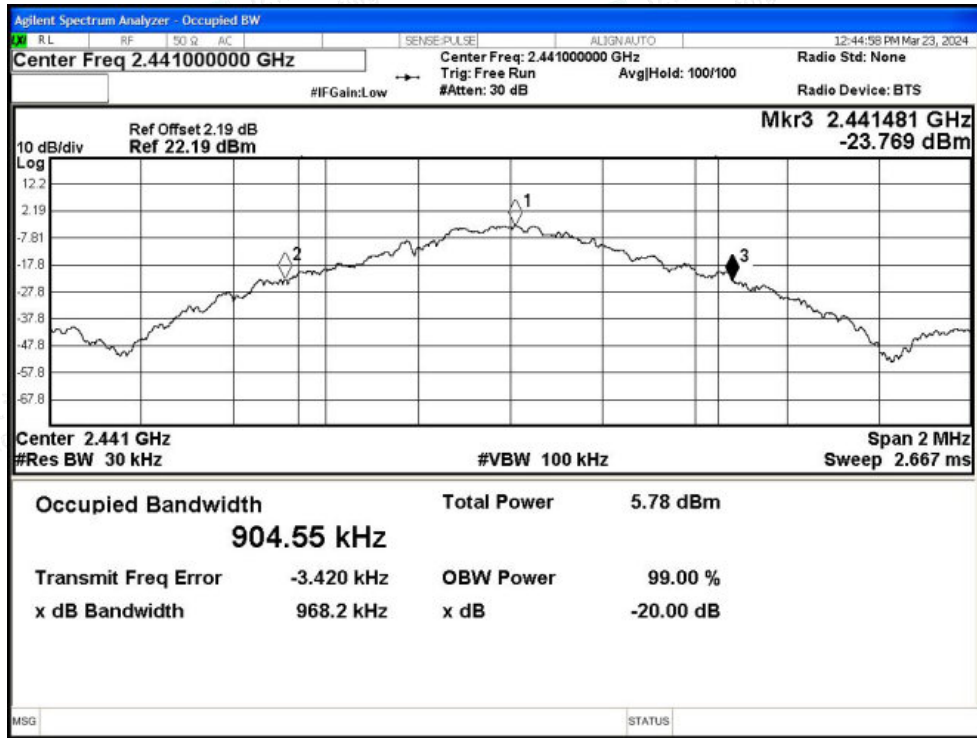


Test Graphs

-20dB Bandwidth NVNT 1-DH5 2402MHz Ant1

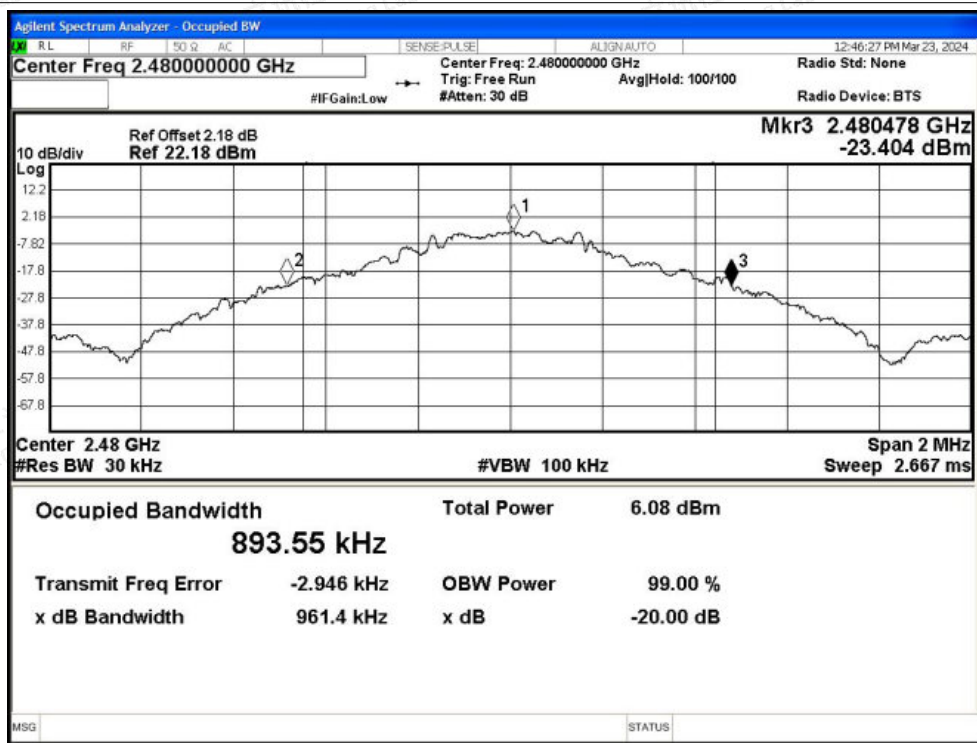


-20dB Bandwidth NVNT 1-DH5 2441MHz Ant1

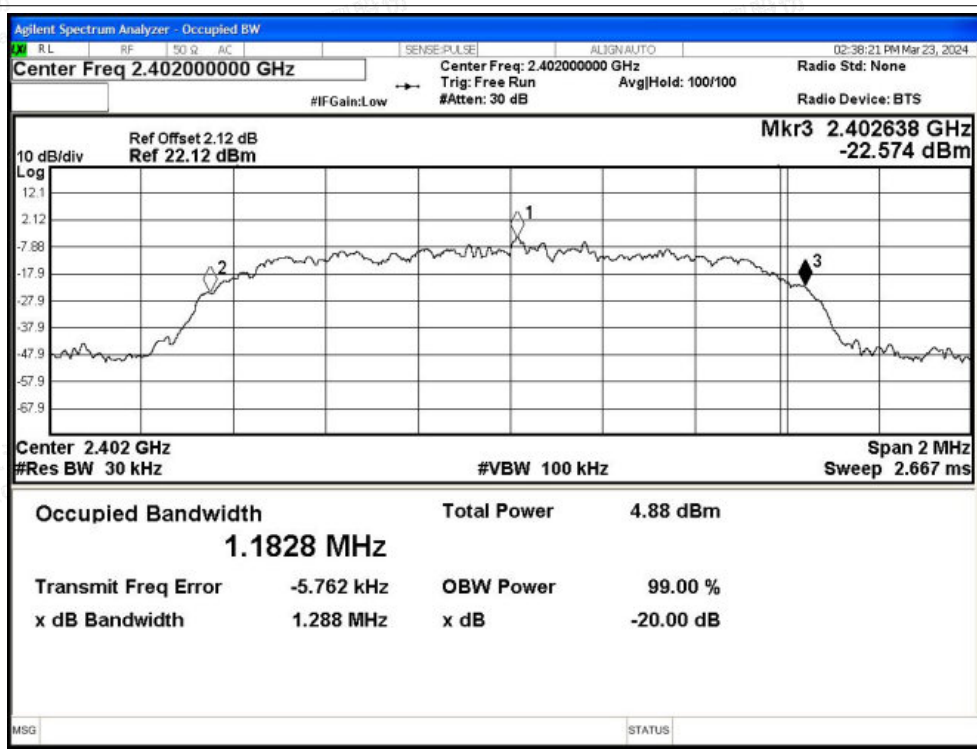




-20dB Bandwidth NVNT 1-DH5 2480MHz Ant1

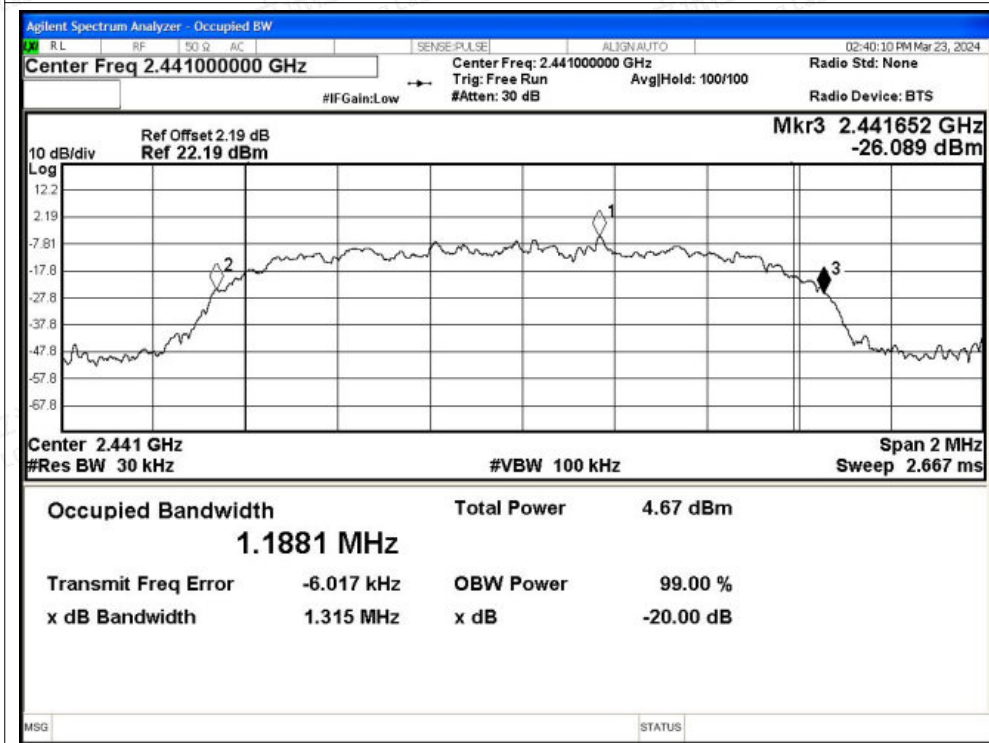


-20dB Bandwidth NVNT 2-DH5 2402MHz Ant1

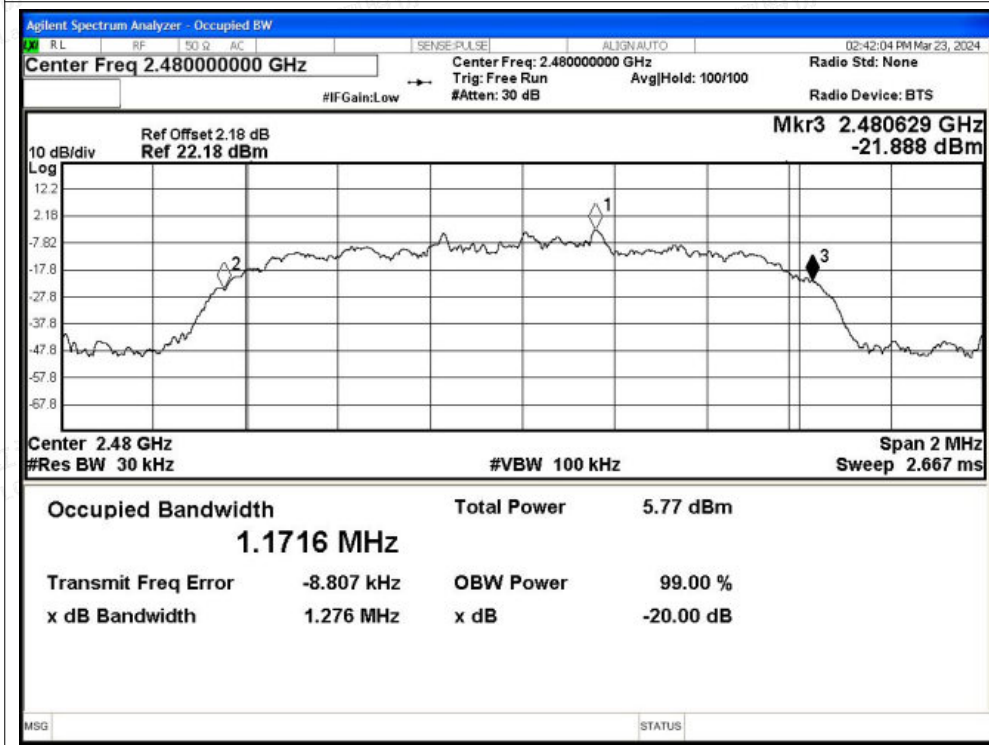




-20dB Bandwidth NVNT 2-DH5 2441MHz Ant1



-20dB Bandwidth NVNT 2-DH5 2480MHz Ant1





A.2 Maximum Peak Conducted Output Power

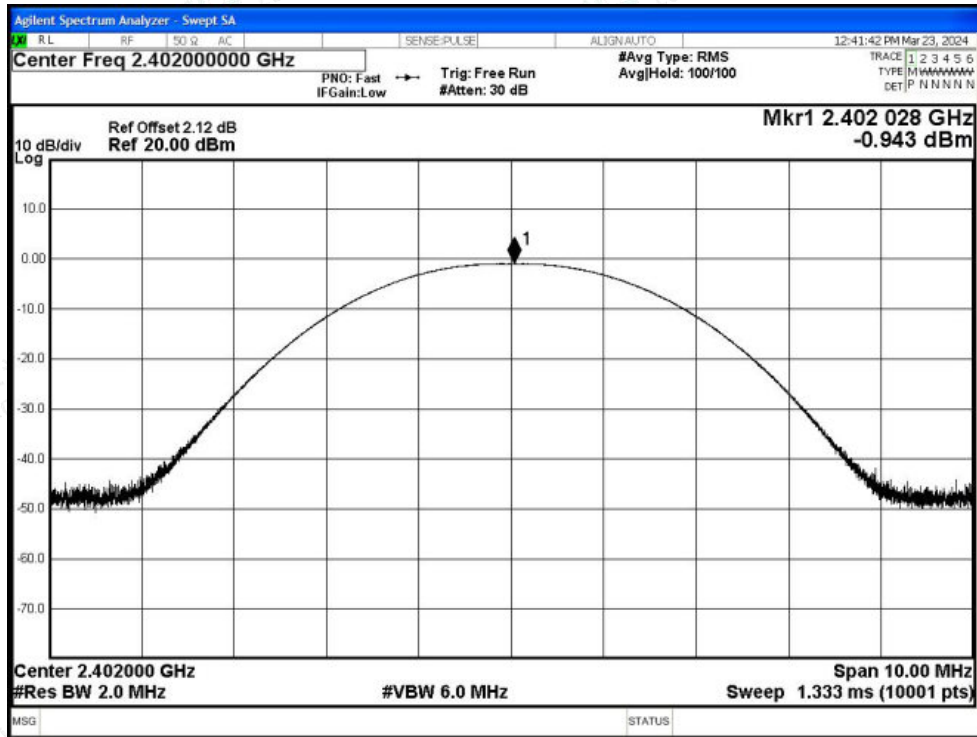
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH5	2402	Ant1	-0.94	21	Pass
NVNT	1-DH5	2441	Ant1	-0.34	21	Pass
NVNT	1-DH5	2480	Ant1	-0.29	21	Pass
NVNT	2-DH5	2402	Ant1	0.64	21	Pass
NVNT	2-DH5	2441	Ant1	0.76	21	Pass
NVNT	2-DH5	2480	Ant1	0.85	21	Pass



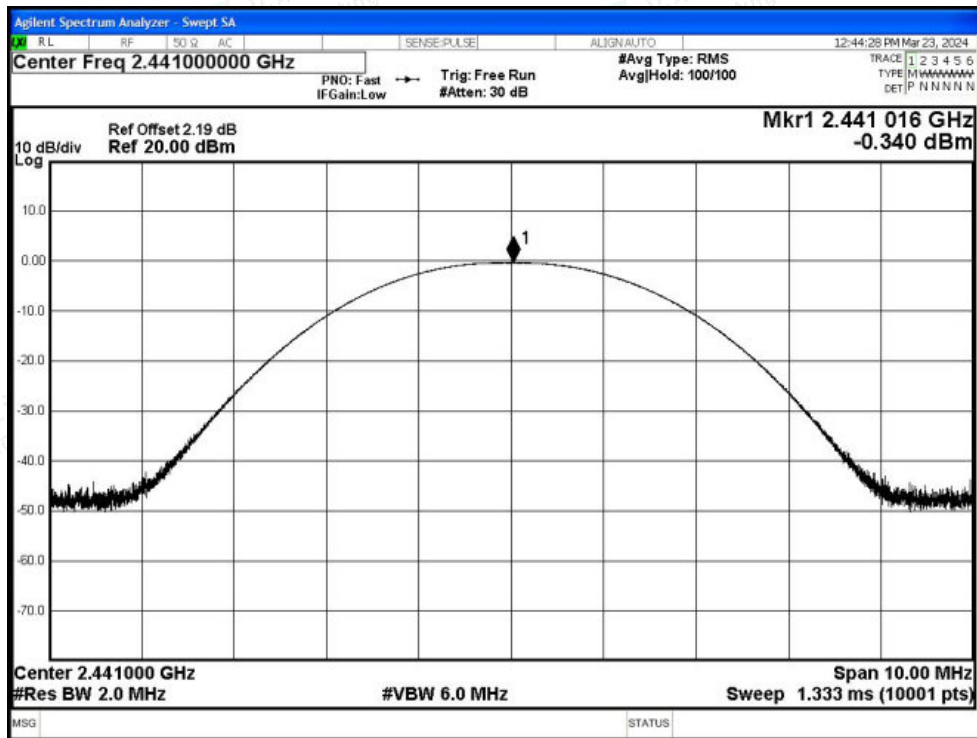


Test Graphs

Power NVNT 1-DH5 2402MHz Ant1

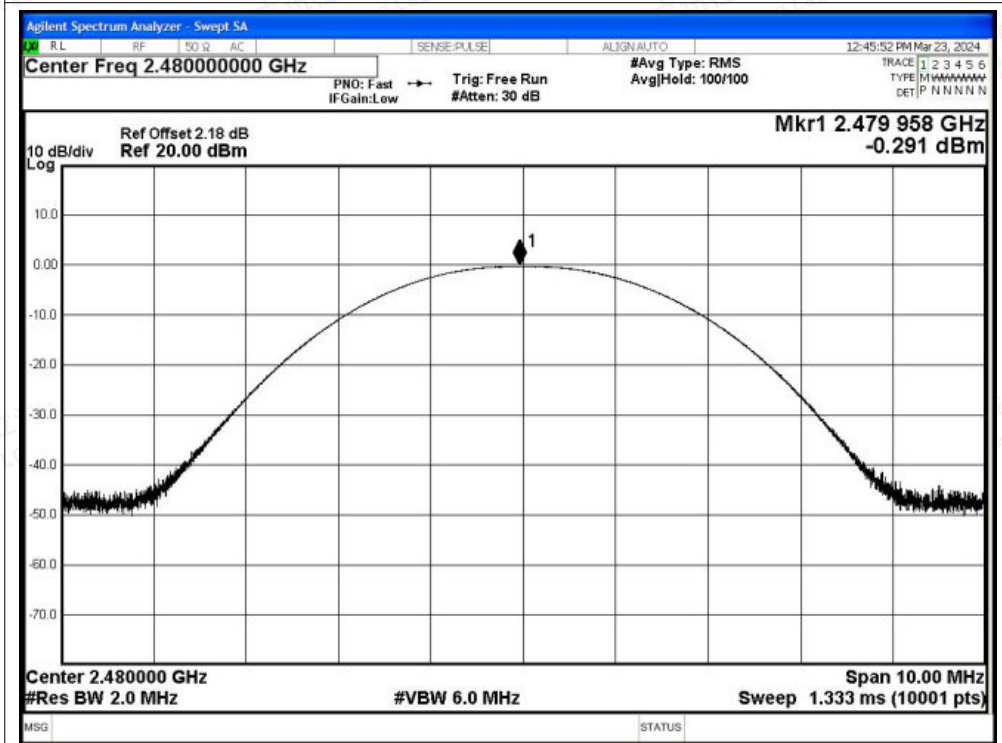


Power NVNT 1-DH5 2441MHz Ant1

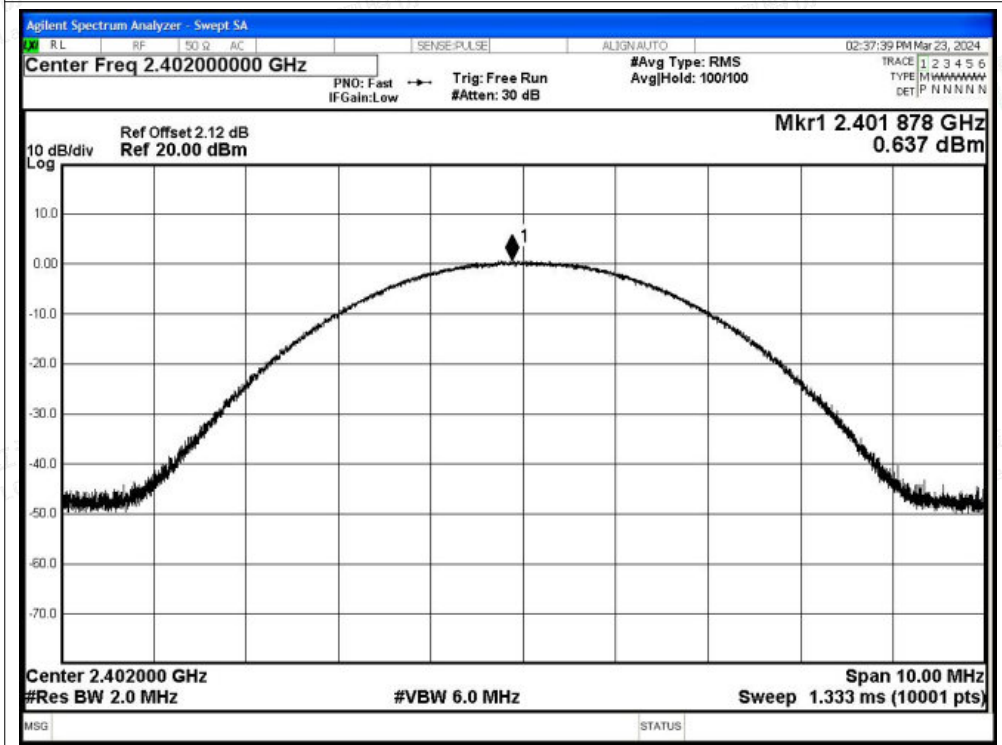




Power NVNT 1-DH5 2480MHz Ant1

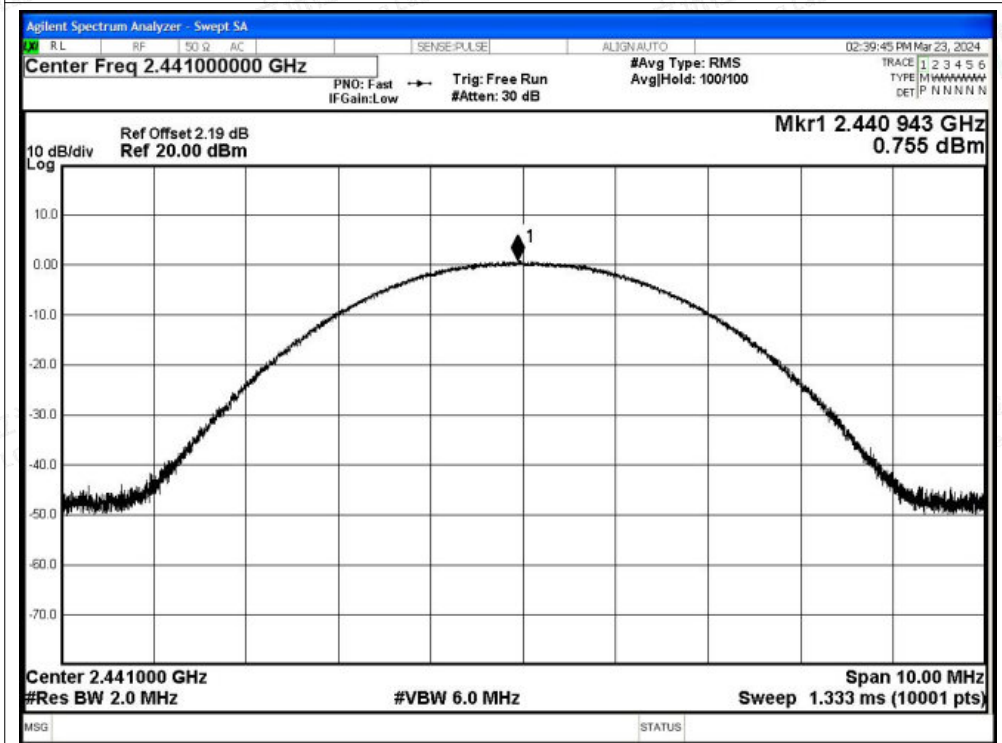


Power NVNT 2-DH5 2402MHz Ant1

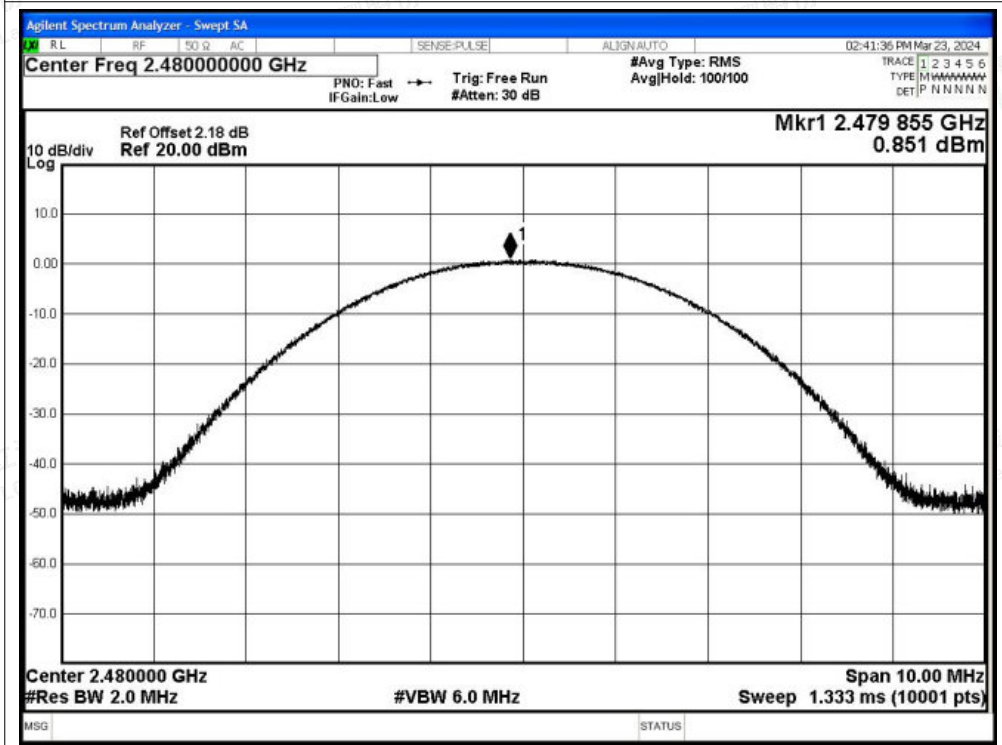




Power NVNT 2-DH5 2441MHz Ant1



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	2402.004	2403.004	1	0.645	Pass
NVNT	2-DH5	Ant1	2402.158	2403.15	0.992	0.877	Pass

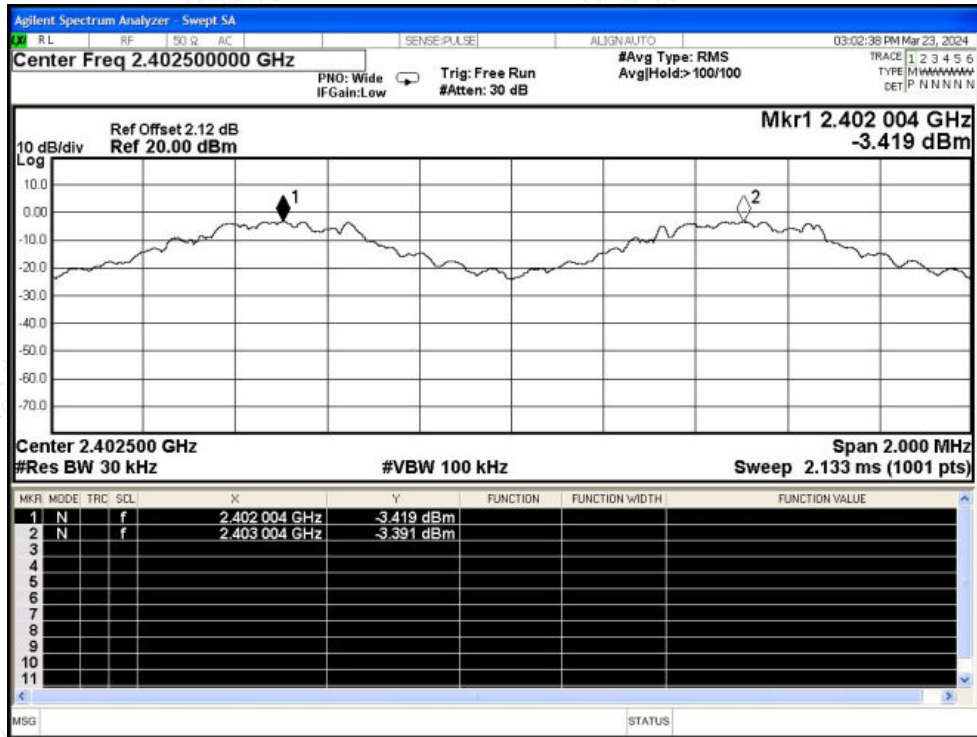


Shenzhen LCS Compliance Testing Laboratory Ltd.
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com
Scan code to check authenticity

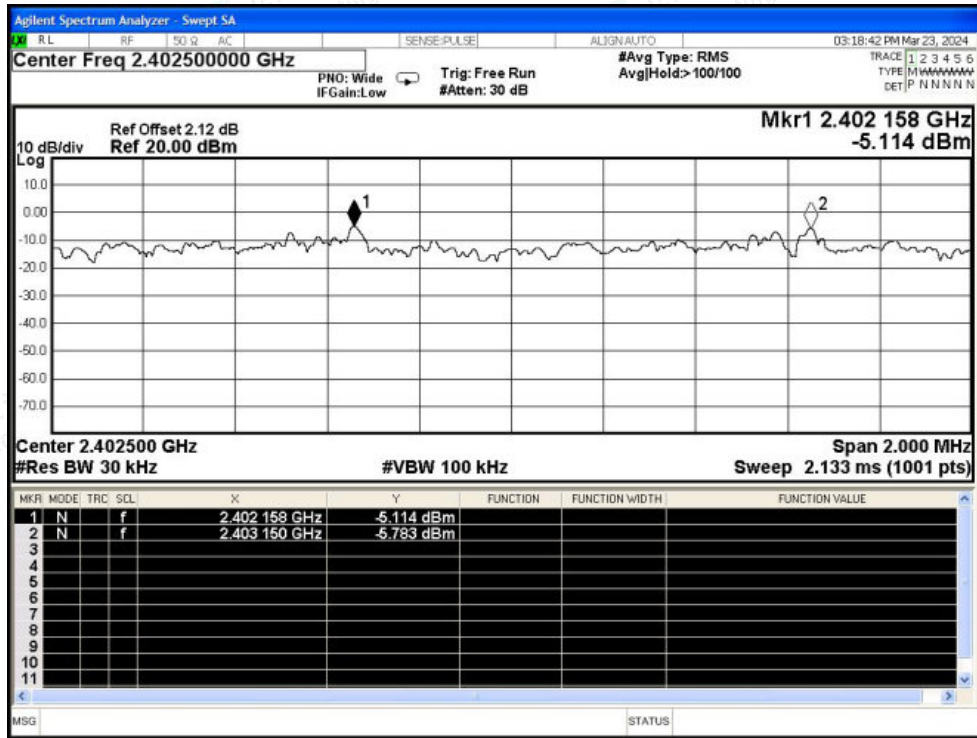


Test Graphs

CFS NVNT 1-DH5 2402MHz Ant1



CFS NVNT 2-DH5 2402MHz Ant1





A.4 Dwell Time

Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH5	2402	Ant1	2.881	311.148	108	31600	400	Pass
NVNT	2-DH5	2402	Ant1	2.88	299.52	104	31600	400	Pass

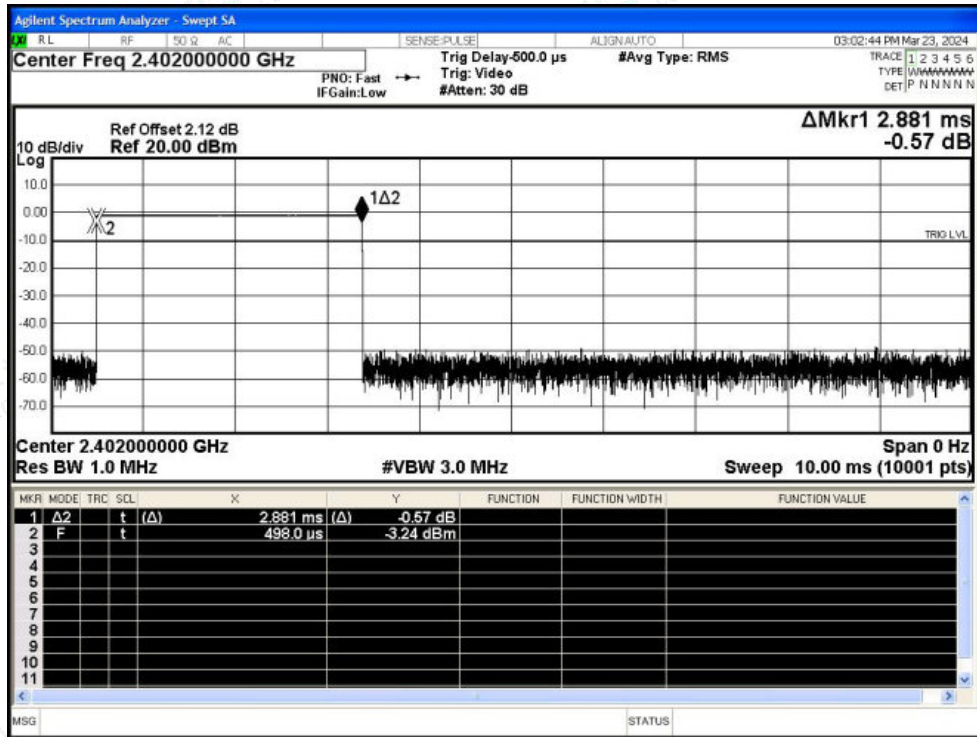


Shenzhen LCS Compliance Testing Laboratory Ltd.
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com
Scan code to check authenticity

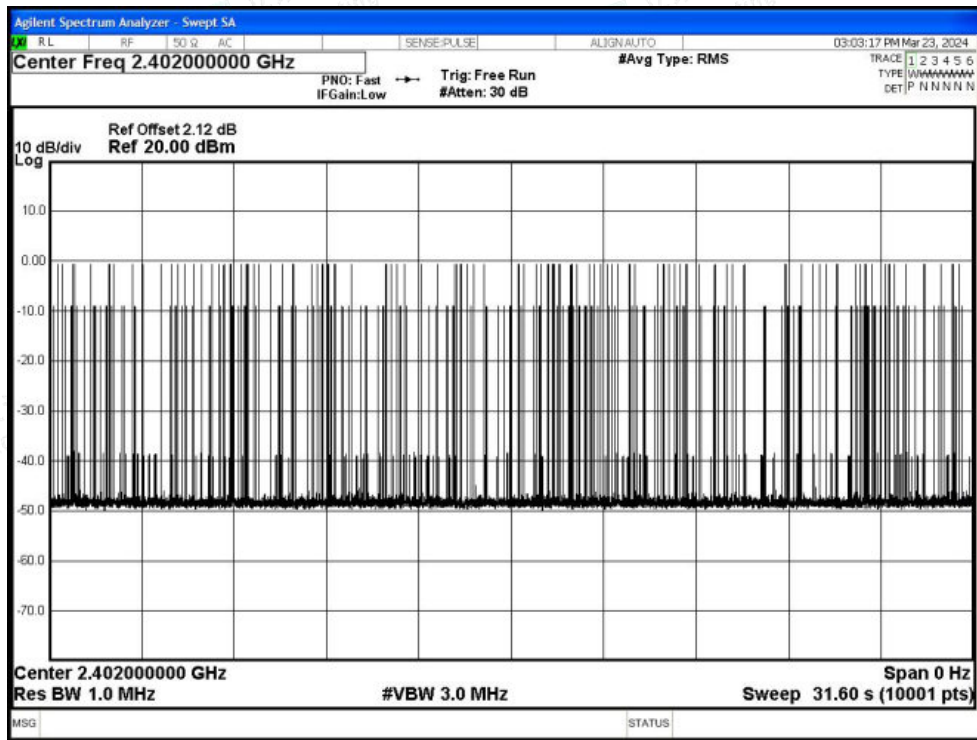


Test Graphs

Dwell NVNT 1-DH5 2402MHz Ant1 One Burst

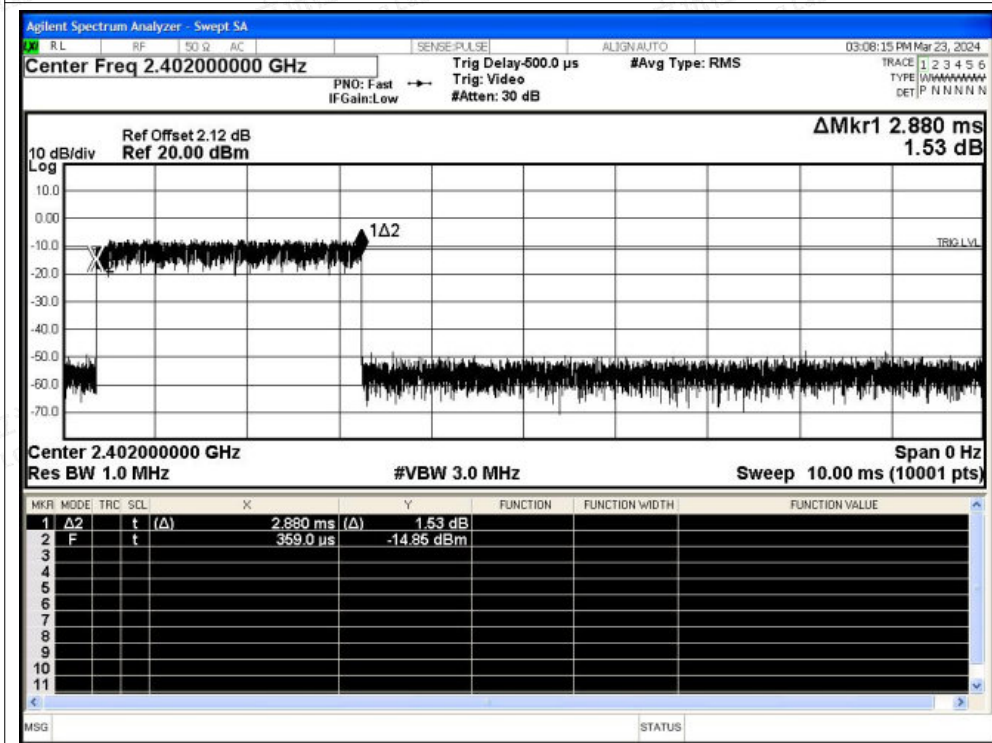


Dwell NVNT 1-DH5 2402MHz Ant1 Accumulated

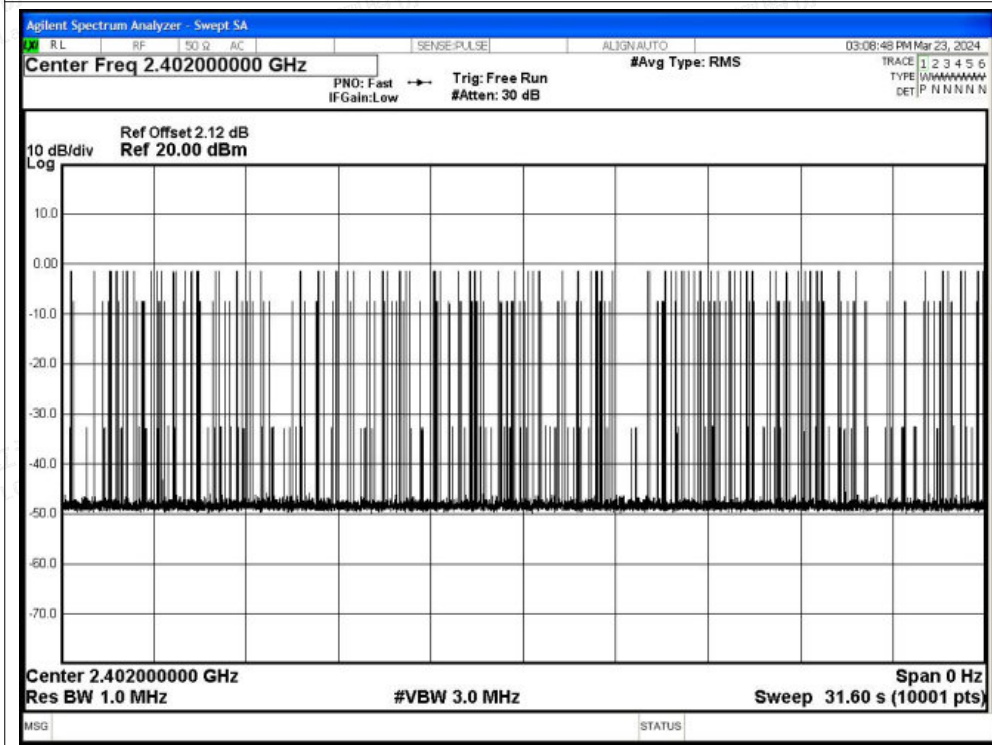




Dwell NVNT 2-DH5 2402MHz Ant1 One Burst



Dwell NVNT 2-DH5 2402MHz Ant1 Accumulated





A.5 Number of Hopping Channel

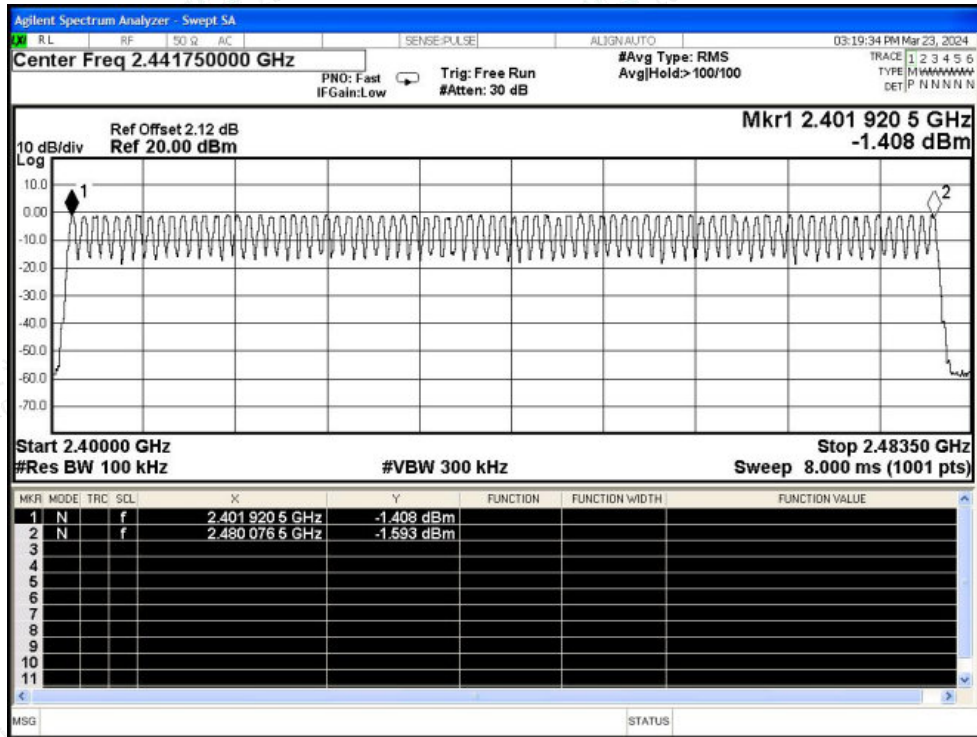
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH5	Ant1	79	15	Pass
NVNT	2-DH5	Ant1	79	15	Pass



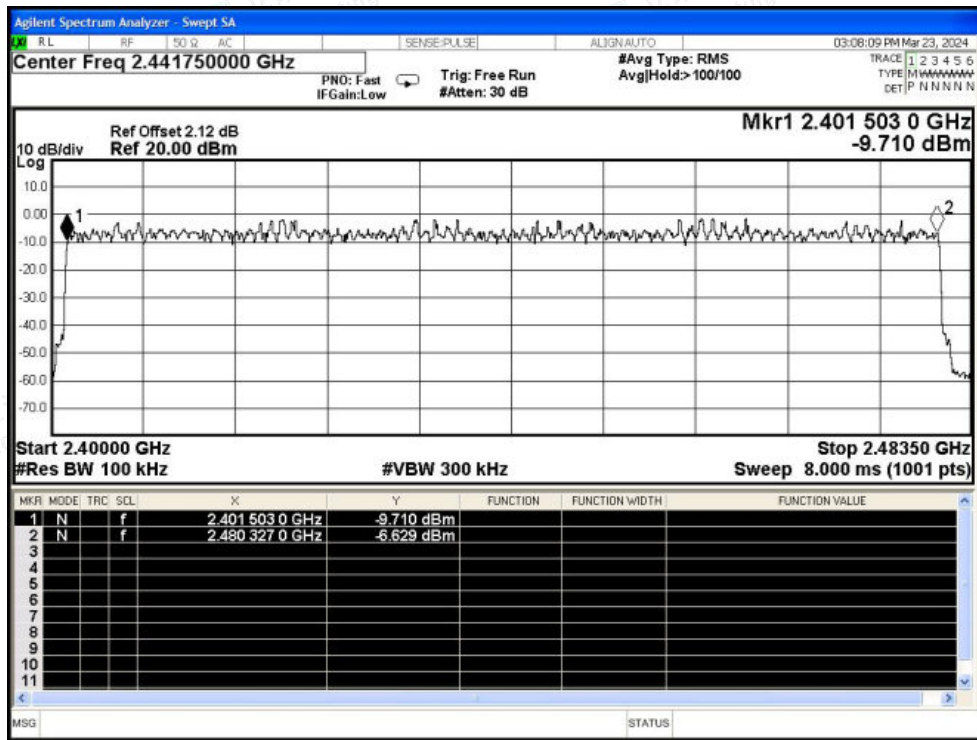


Test Graphs

Hopping No. NVNT 1-DH5 2402MHz Ant1



Hopping No. NVNT 2-DH5 2402MHz Ant1





A.6 Band Edge

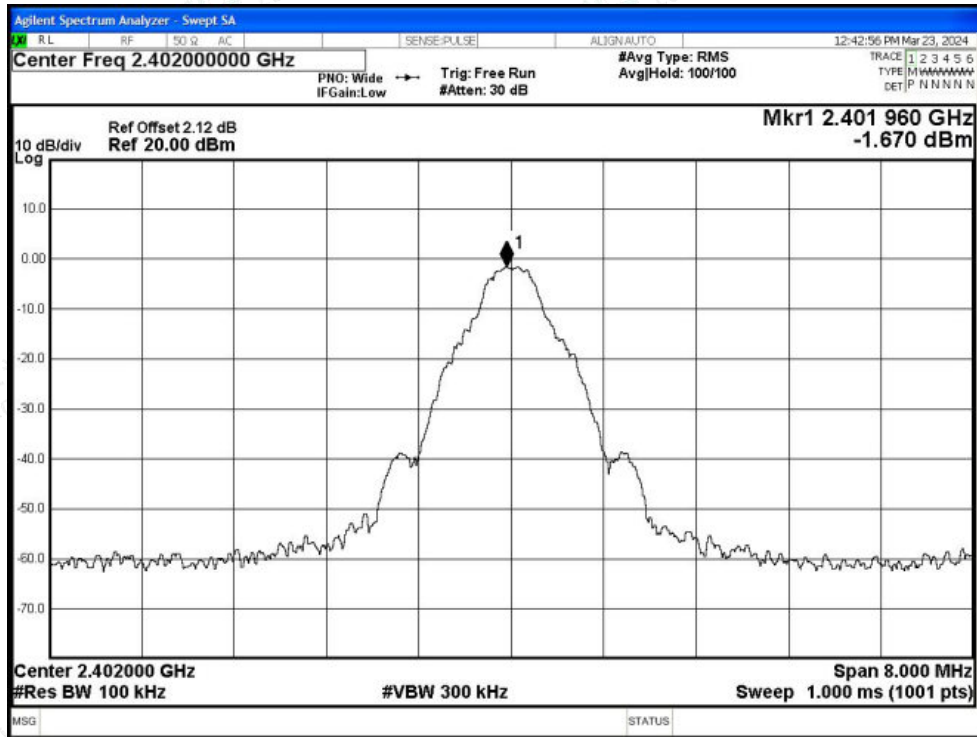
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	-55.42	-20	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	-56.31	-20	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	-54.53	-20	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	-55.21	-20	Pass



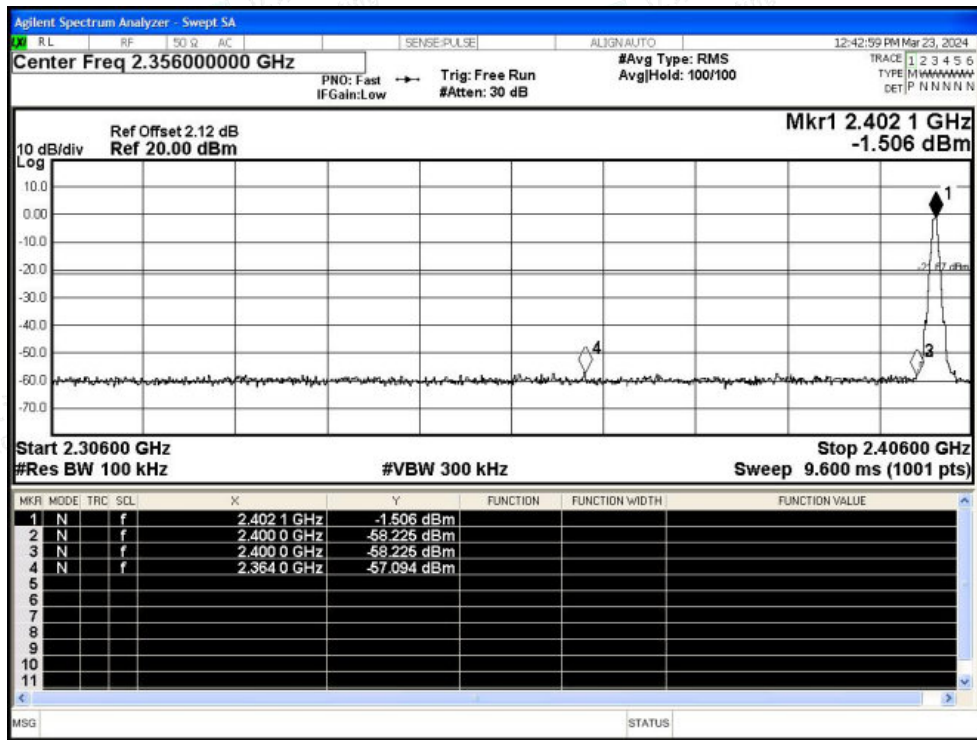


Test Graphs

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

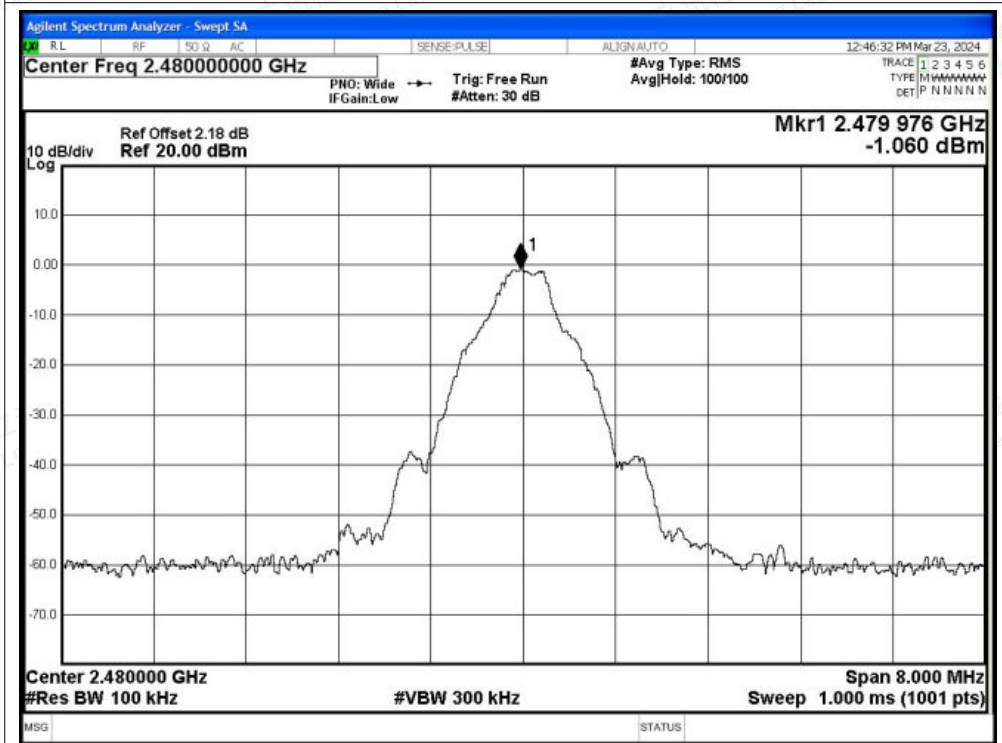


Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Emission

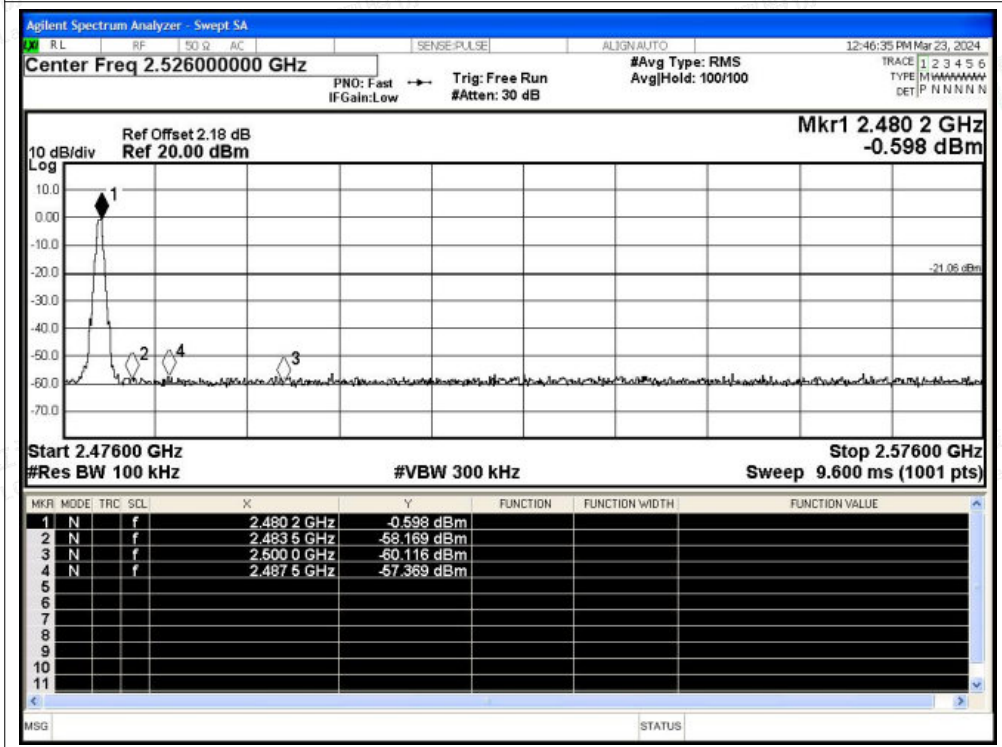




Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref

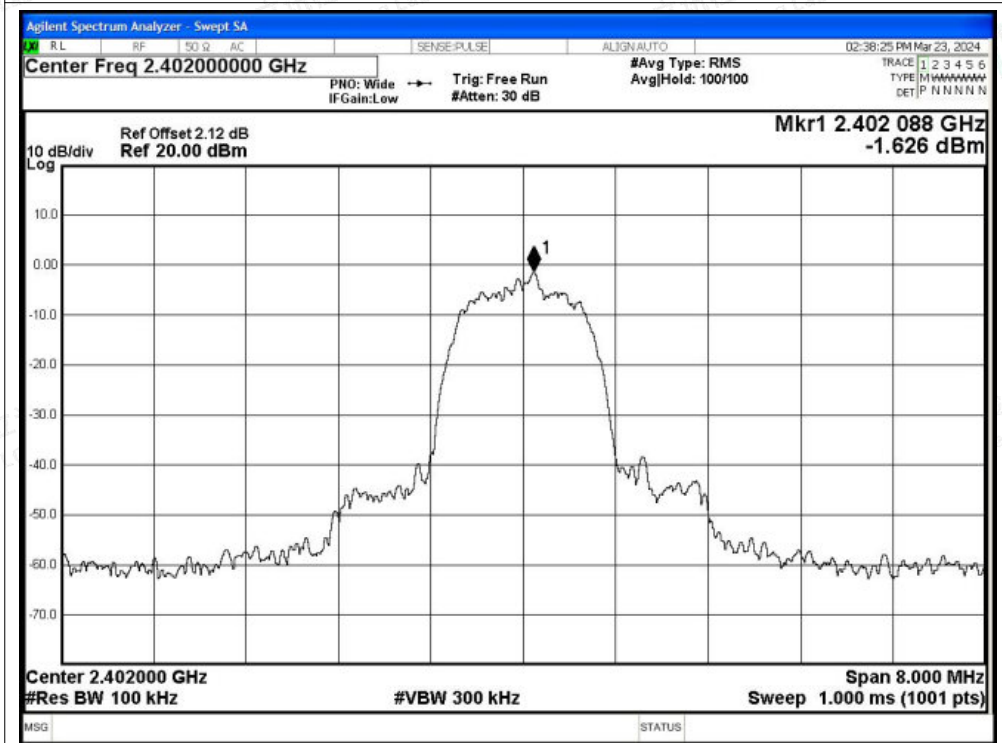


Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Emission

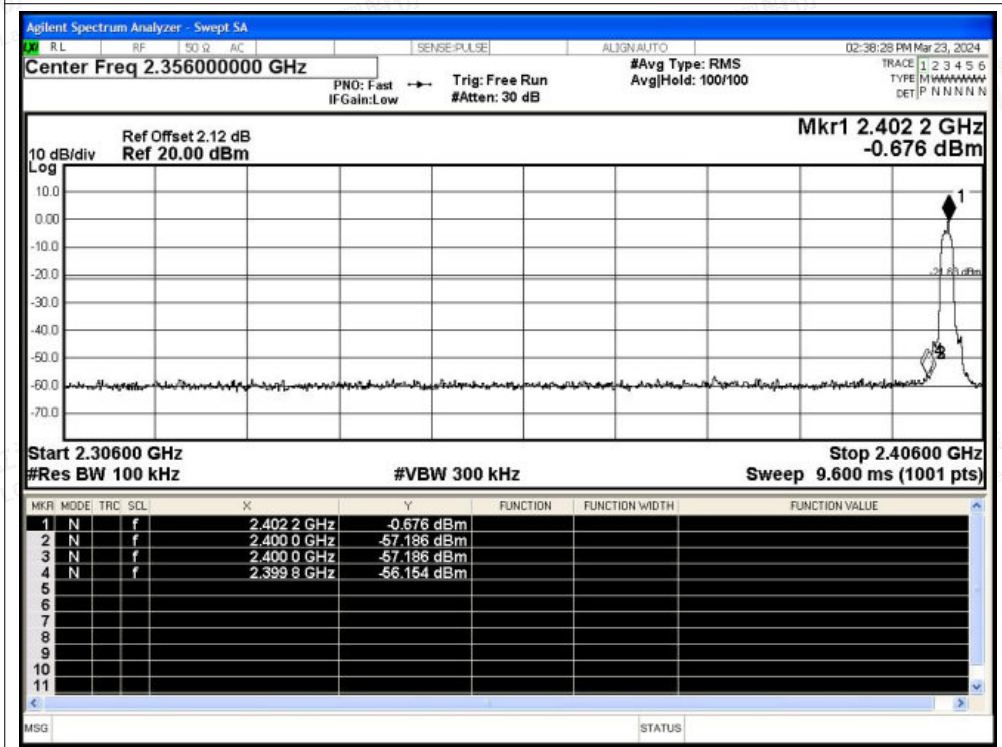




Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Ref

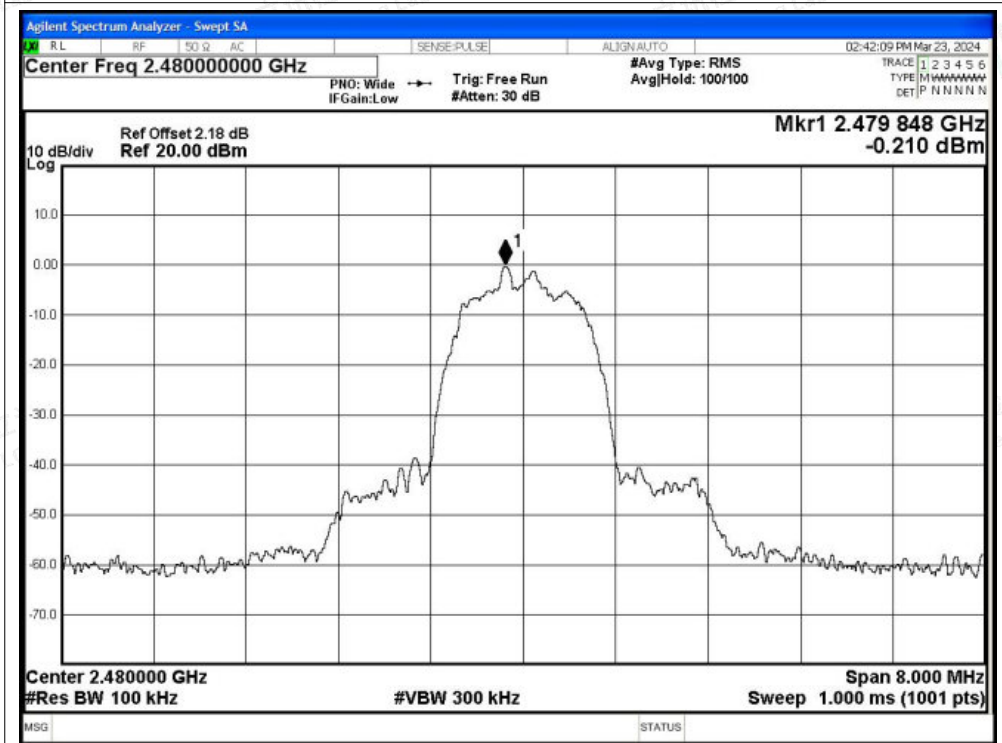


Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Emission

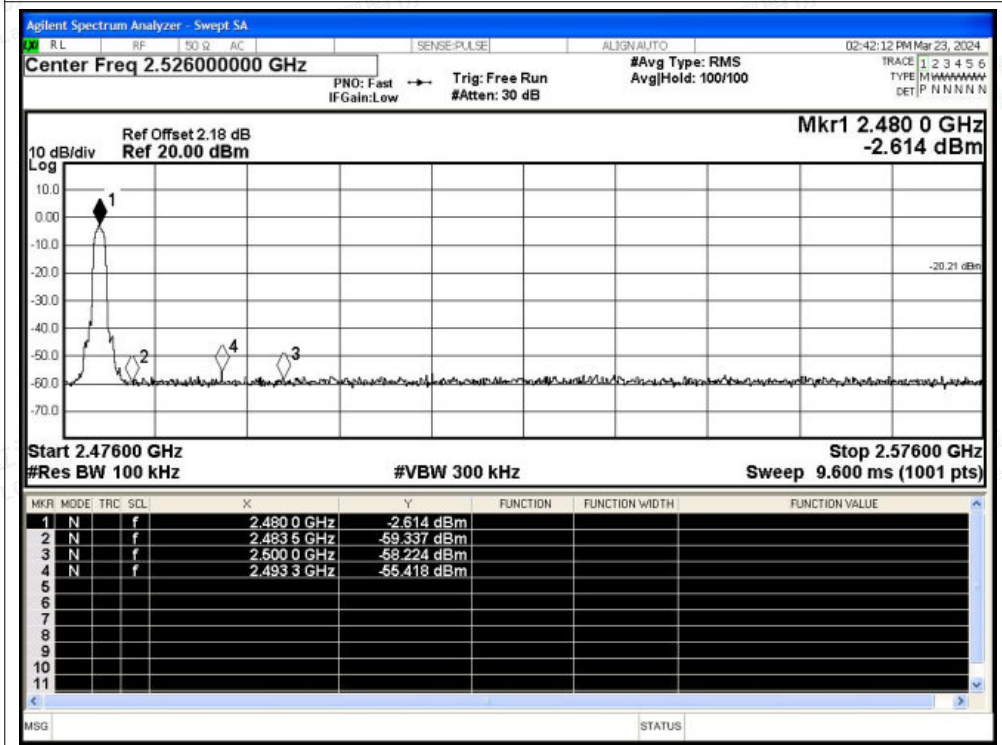




Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Ref



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





(Hopping)

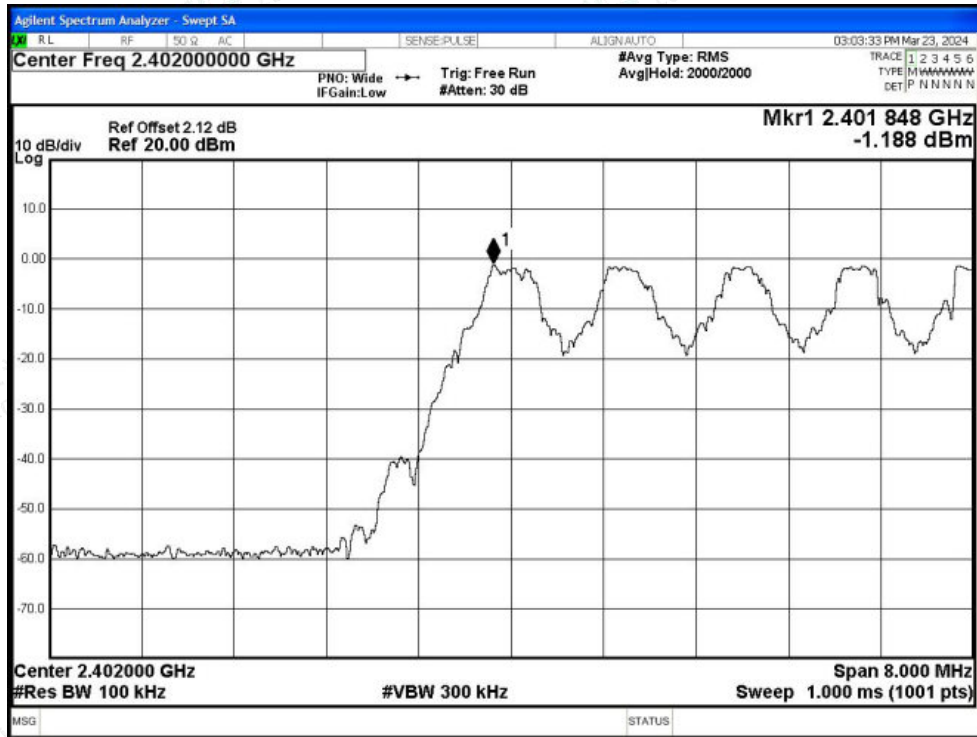
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	Hopping	-54.84	-20	Pass
NVNT	1-DH5	2480	Ant1	Hopping	-55.02	-20	Pass
NVNT	2-DH5	2402	Ant1	Hopping	-53.79	-20	Pass
NVNT	2-DH5	2480	Ant1	Hopping	-54.1	-20	Pass



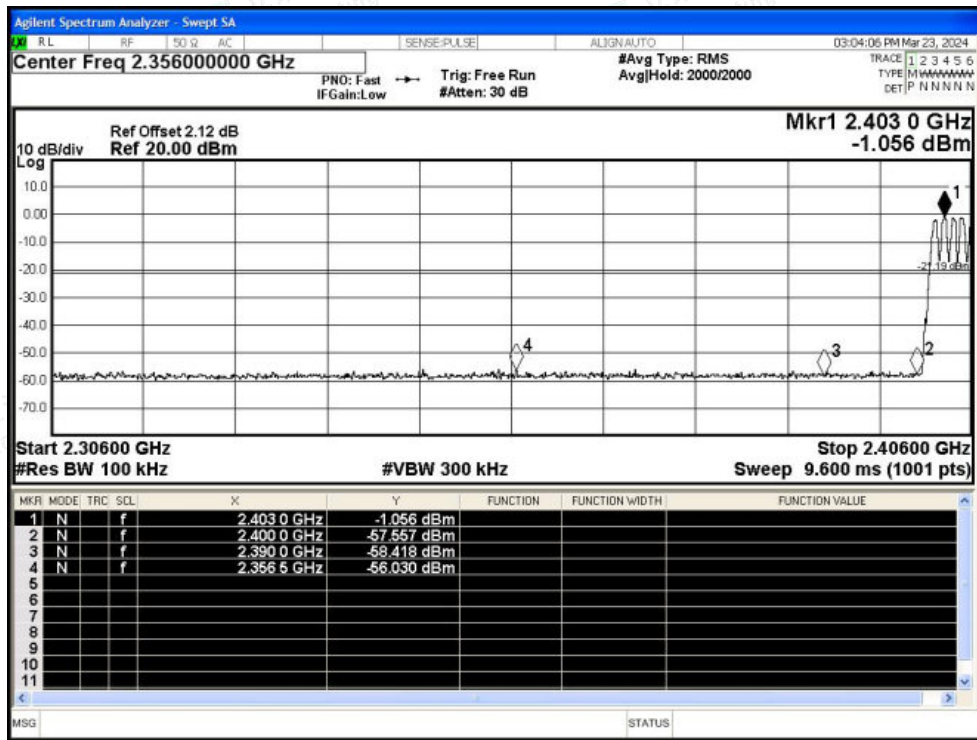


Test Graphs

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

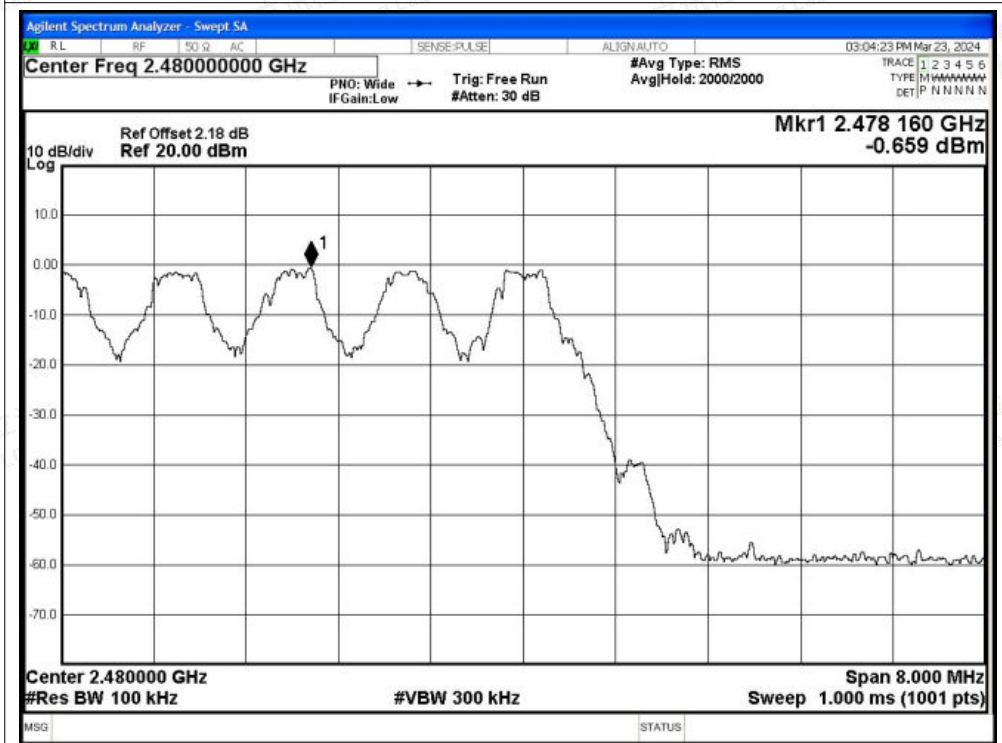


Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission

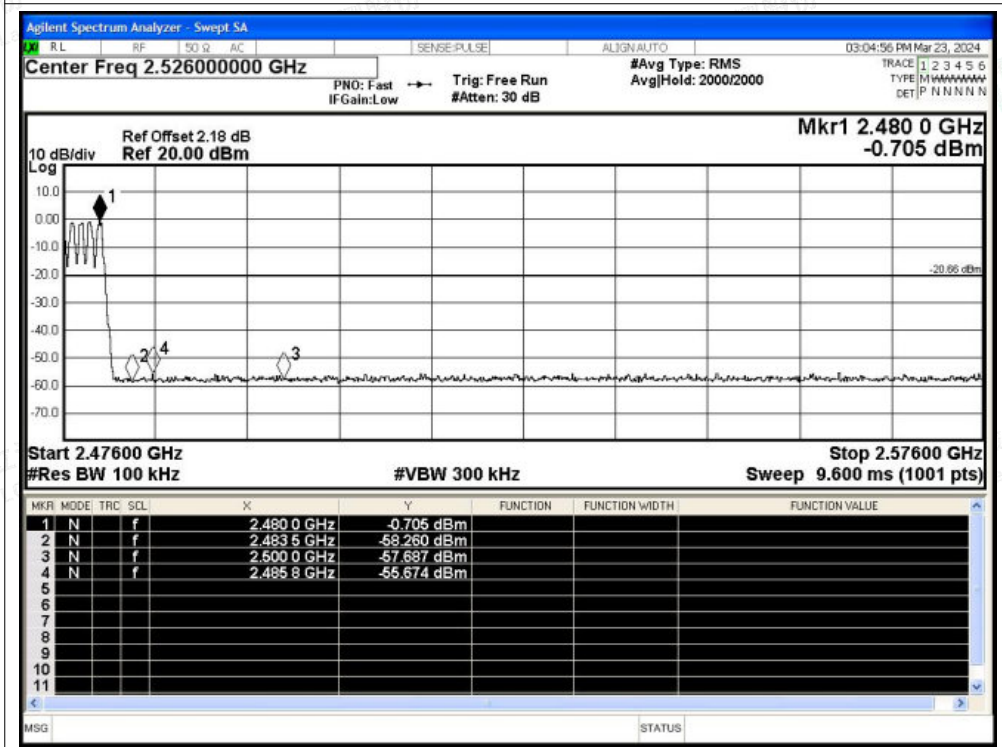




Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Ref



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

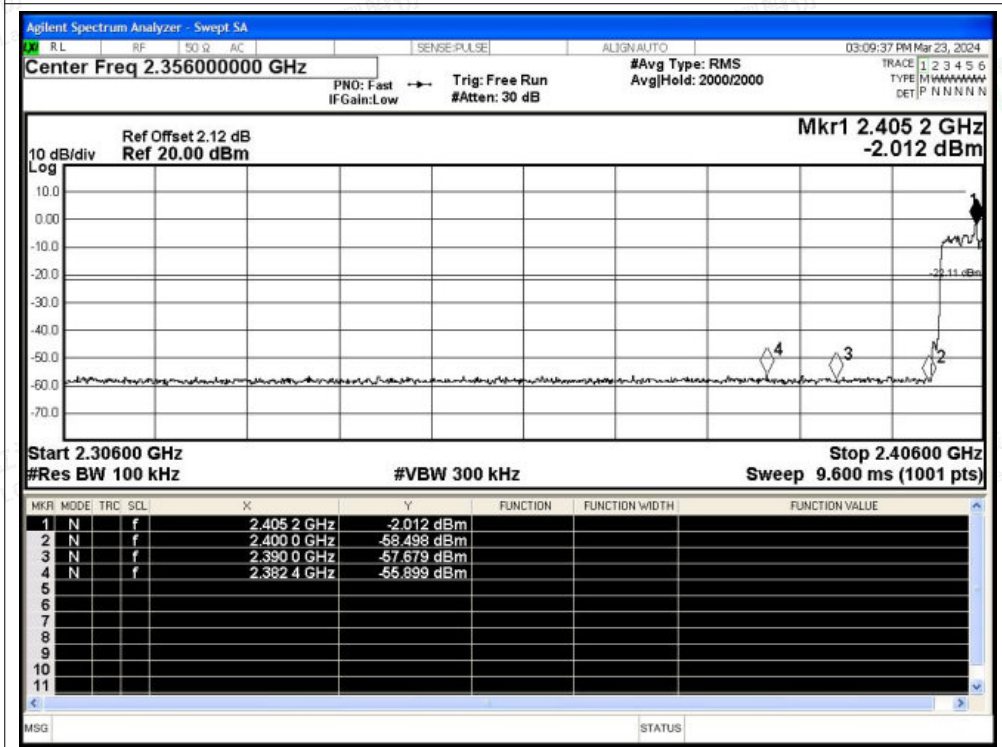




Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Ref

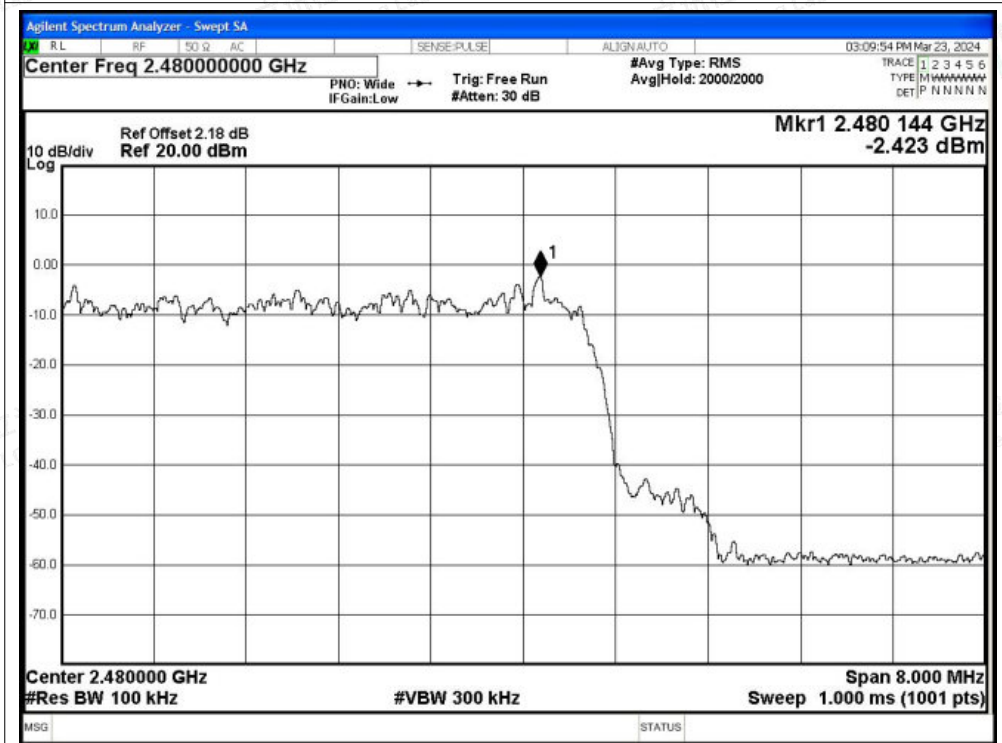


Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Emission

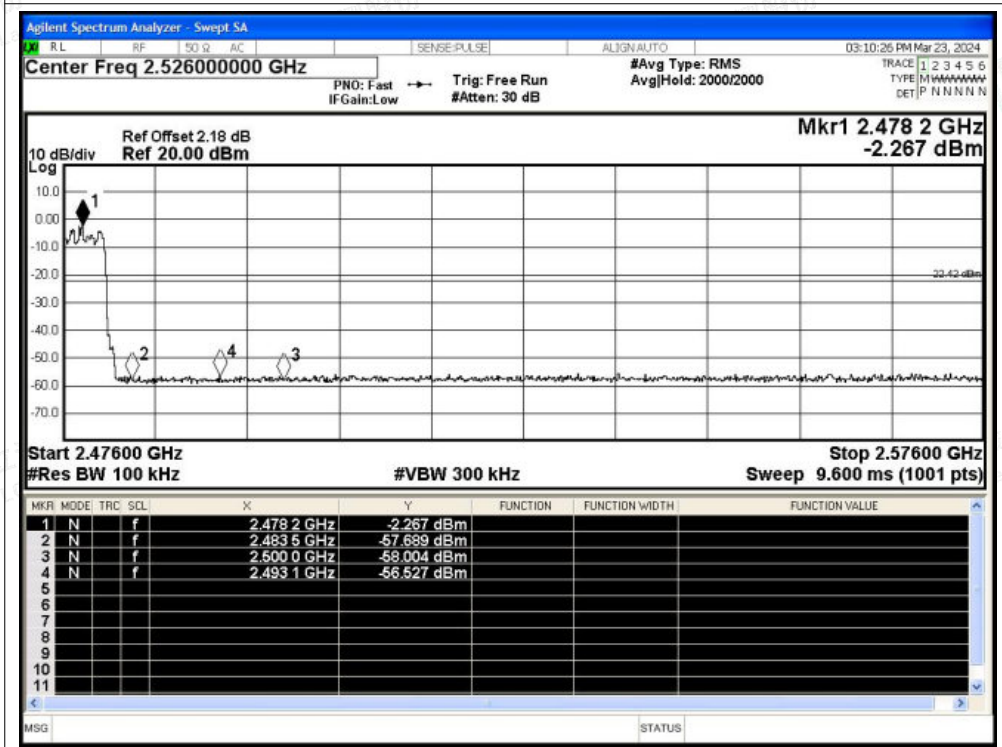




Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Ref



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





A.7 Conducted RF Spurious Emission

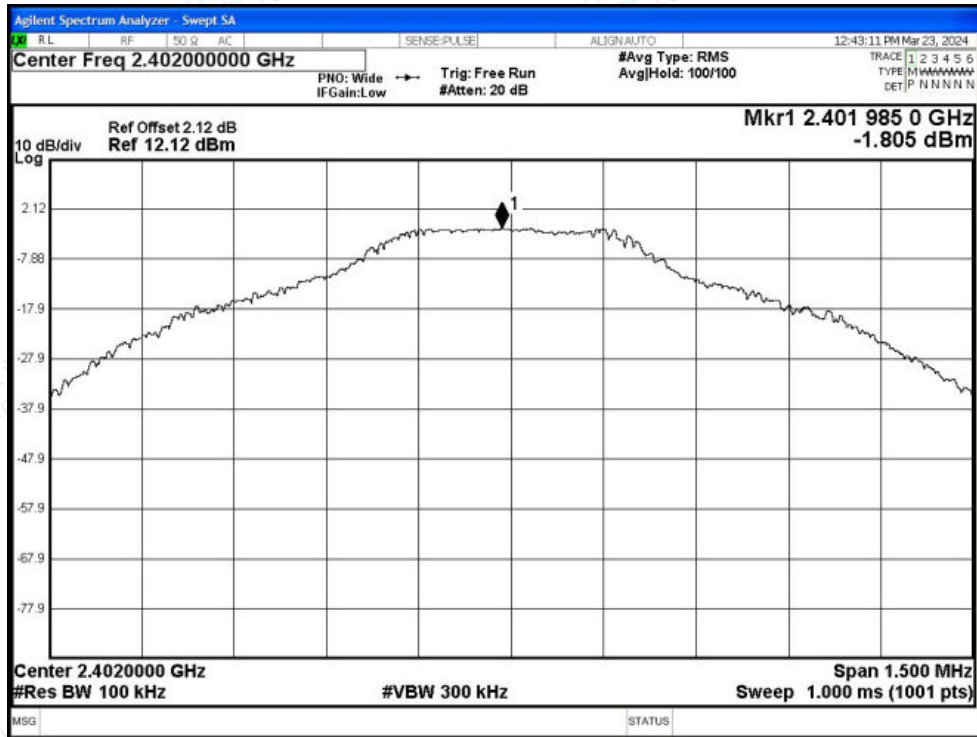
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	-53.74	-20	Pass
NVNT	1-DH5	2441	Ant1	-54.88	-20	Pass
NVNT	1-DH5	2480	Ant1	-50.92	-20	Pass
NVNT	2-DH5	2402	Ant1	-54.28	-20	Pass
NVNT	2-DH5	2441	Ant1	-54.49	-20	Pass
NVNT	2-DH5	2480	Ant1	-50.73	-20	Pass



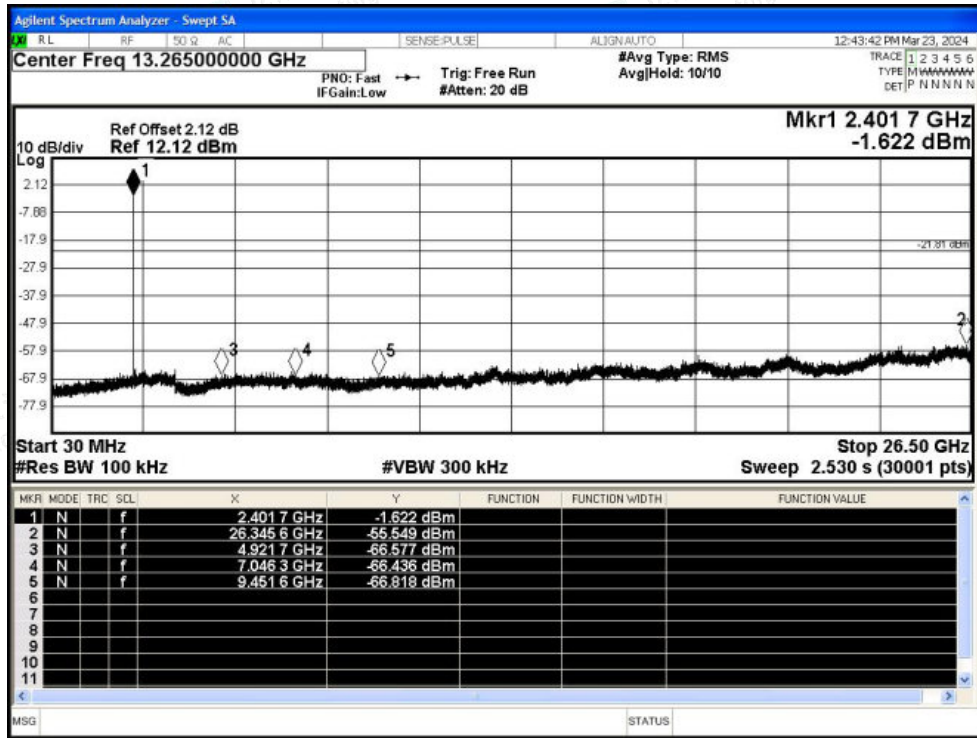


Test Graphs

Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref



Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission

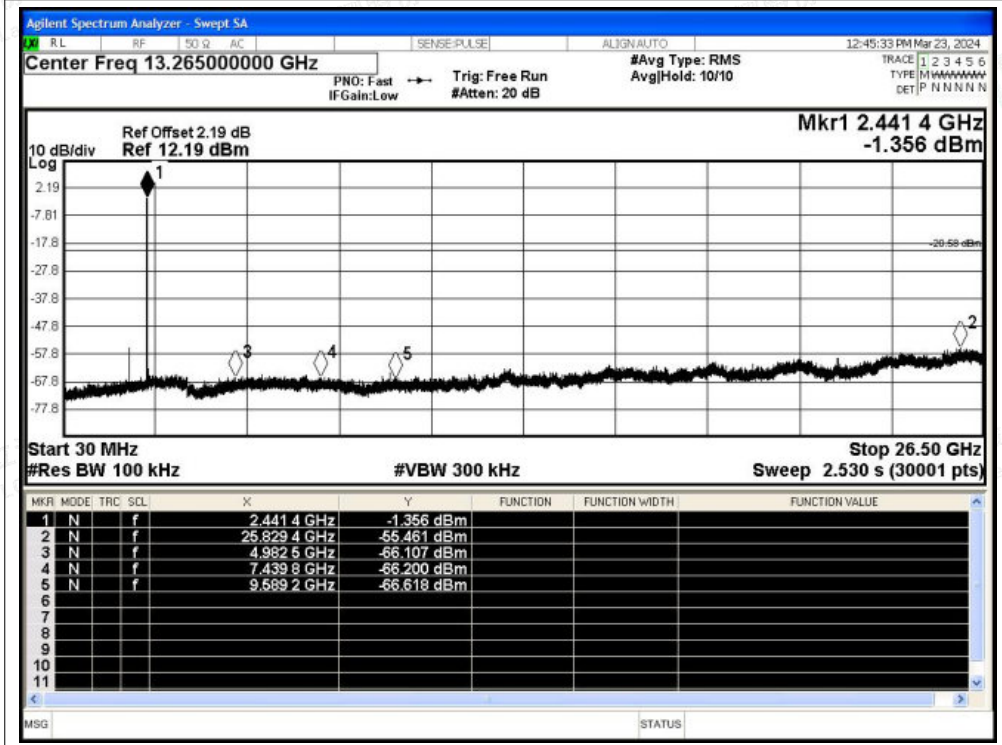




Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref

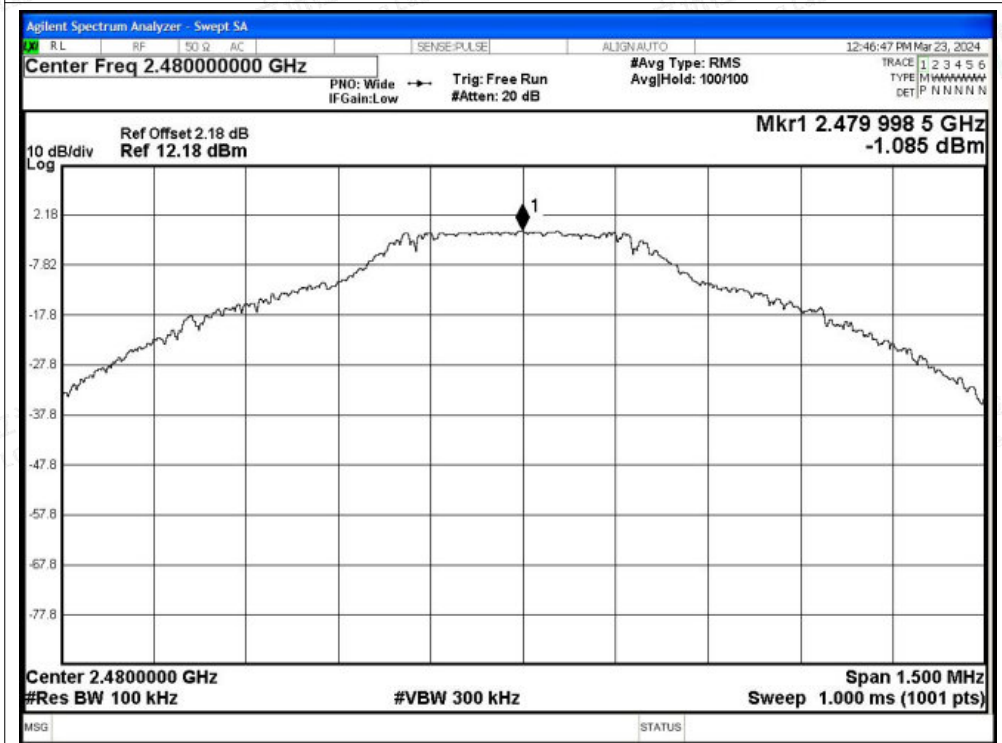


Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission

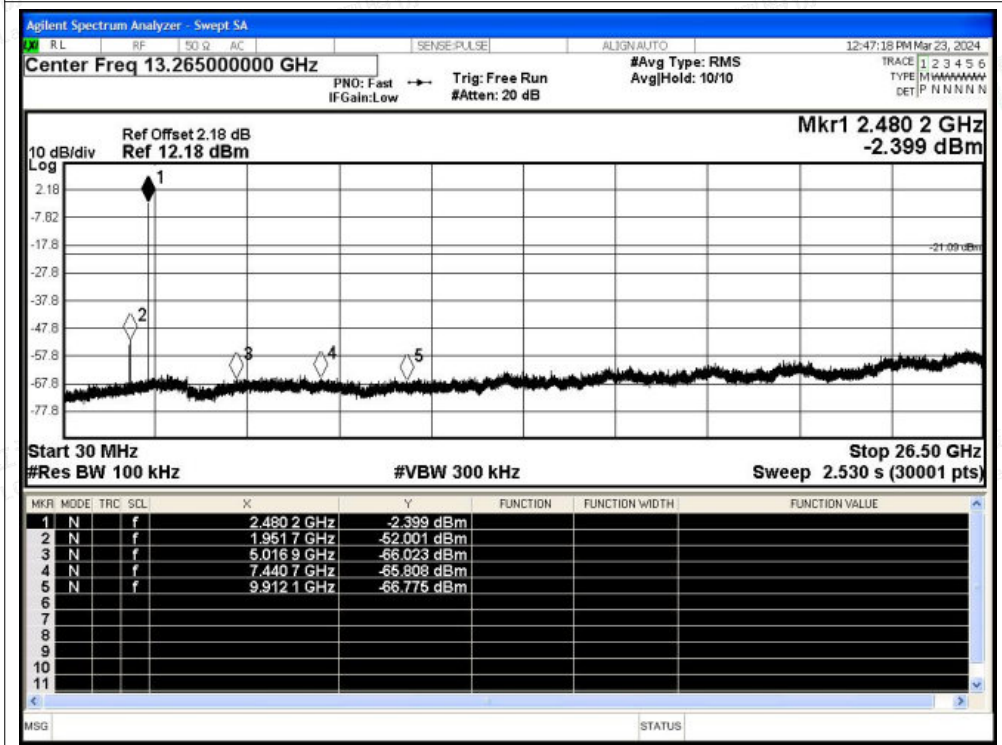




Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref

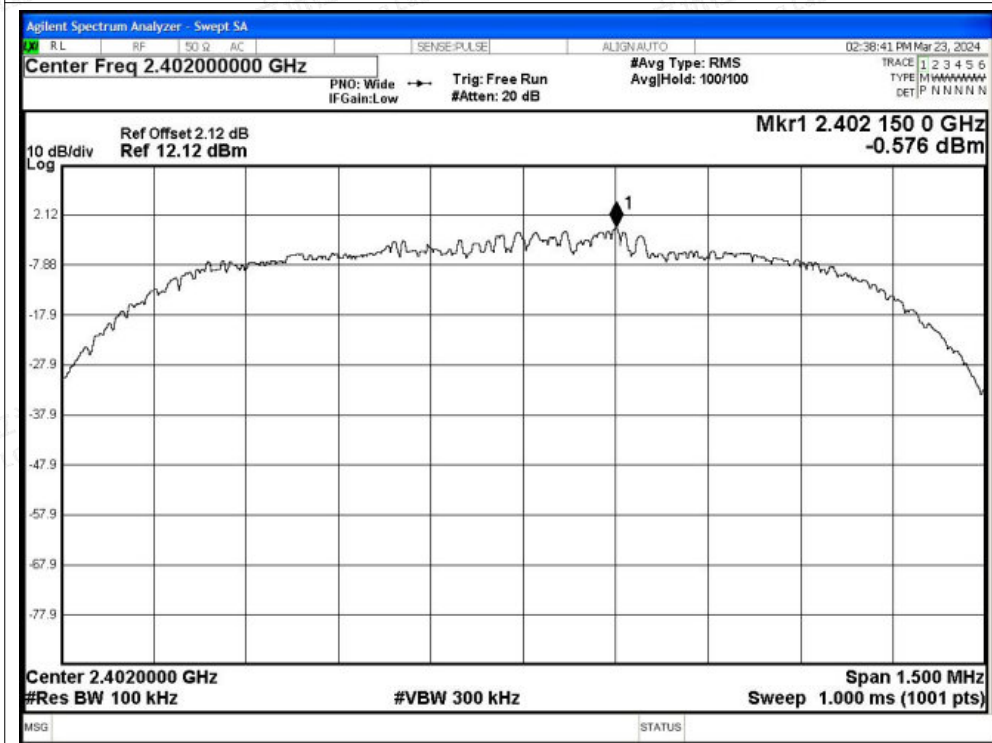


Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Emission

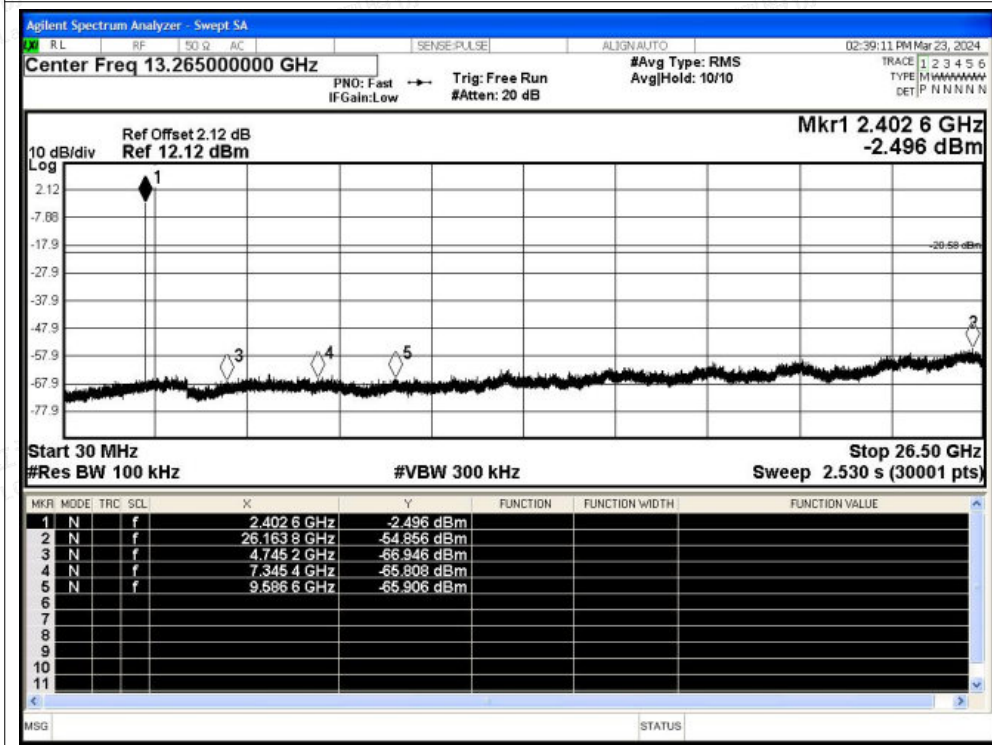




Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Ref

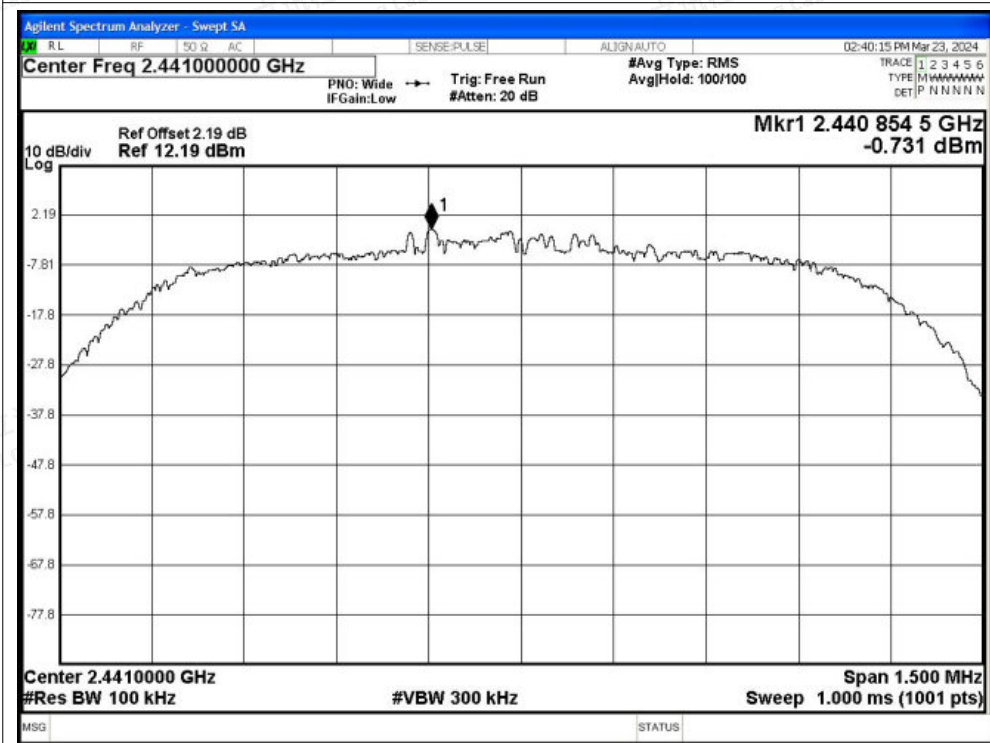


Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Emission

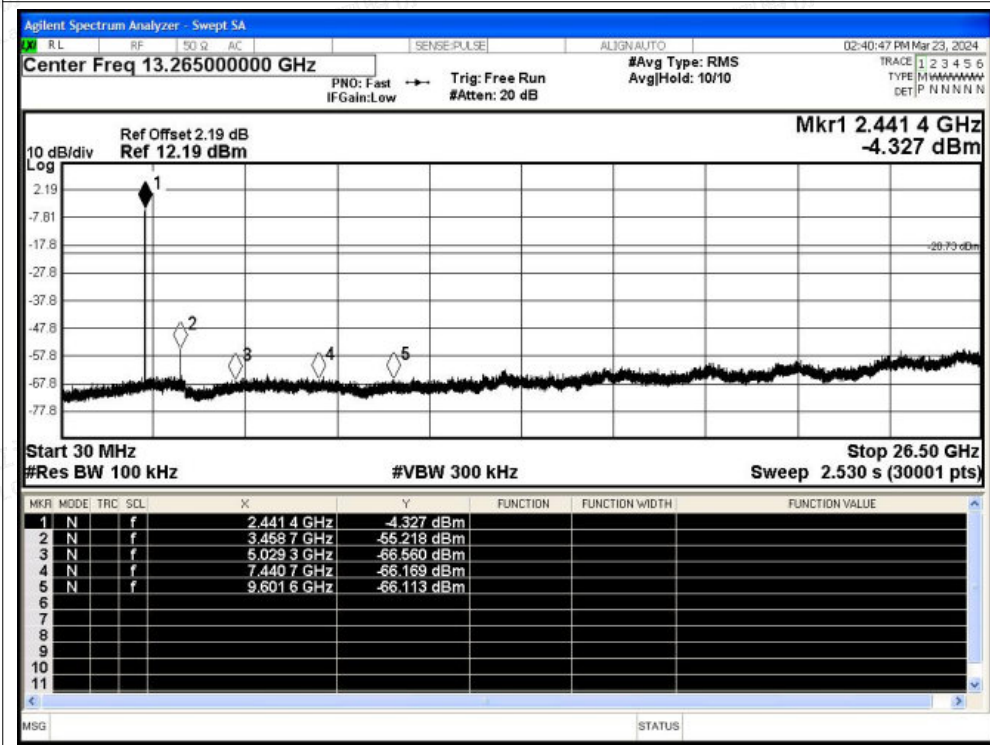




Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Ref

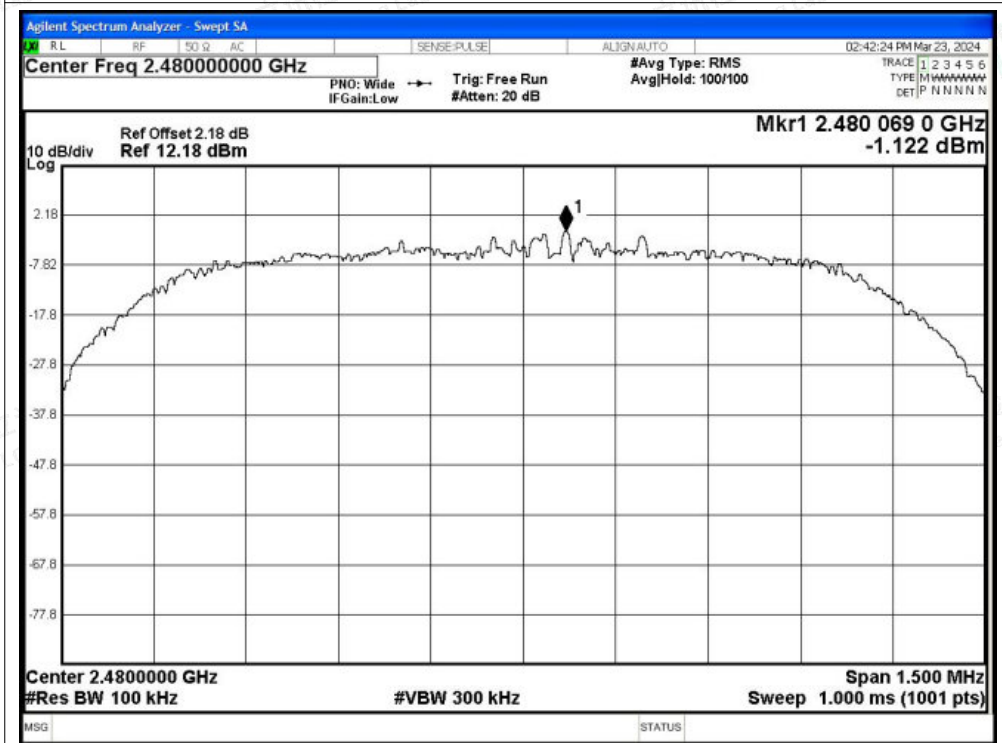


Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Emission

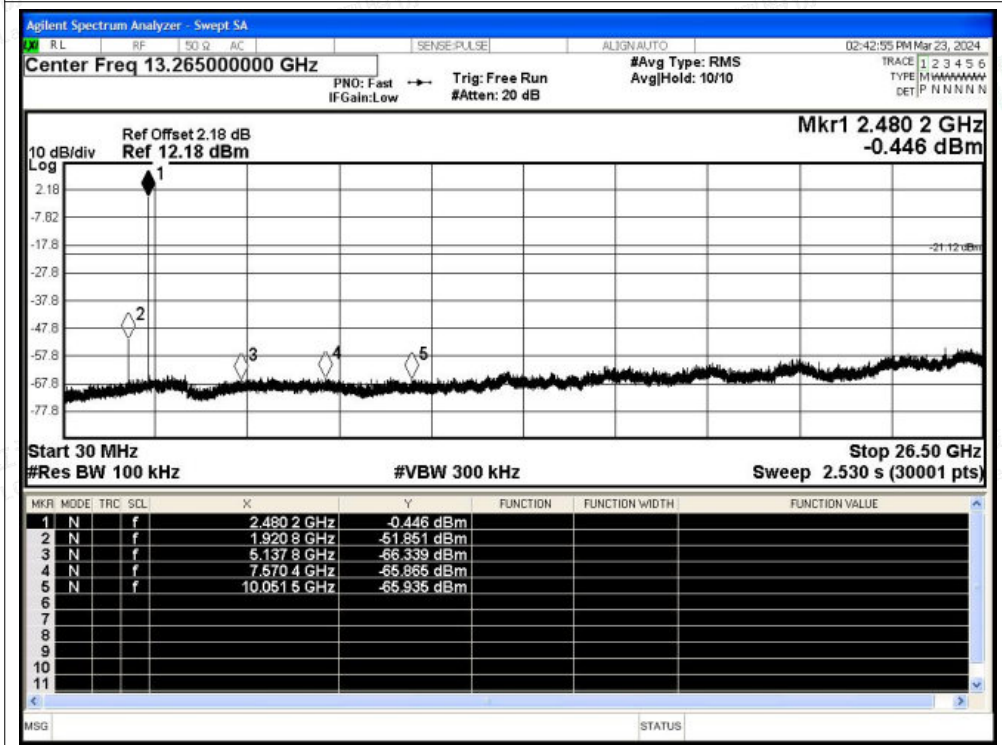




Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Ref



Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Emission





A.8 Duty Cycle

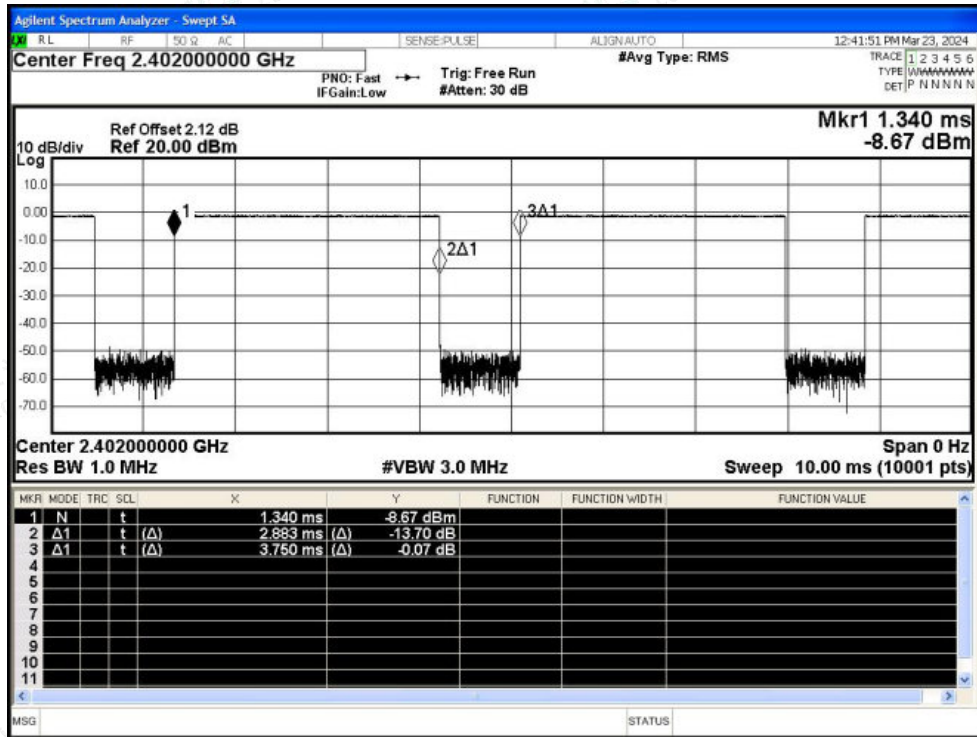
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH5	2402	Ant1	76.88	1.14	0.35
NVNT	1-DH5	2441	Ant1	76.85	1.14	0.35
NVNT	1-DH5	2480	Ant1	76.88	1.14	0.35
NVNT	2-DH5	2402	Ant1	76.96	1.14	0.35
NVNT	2-DH5	2441	Ant1	76.96	1.14	0.35
NVNT	2-DH5	2480	Ant1	76.96	1.14	0.35



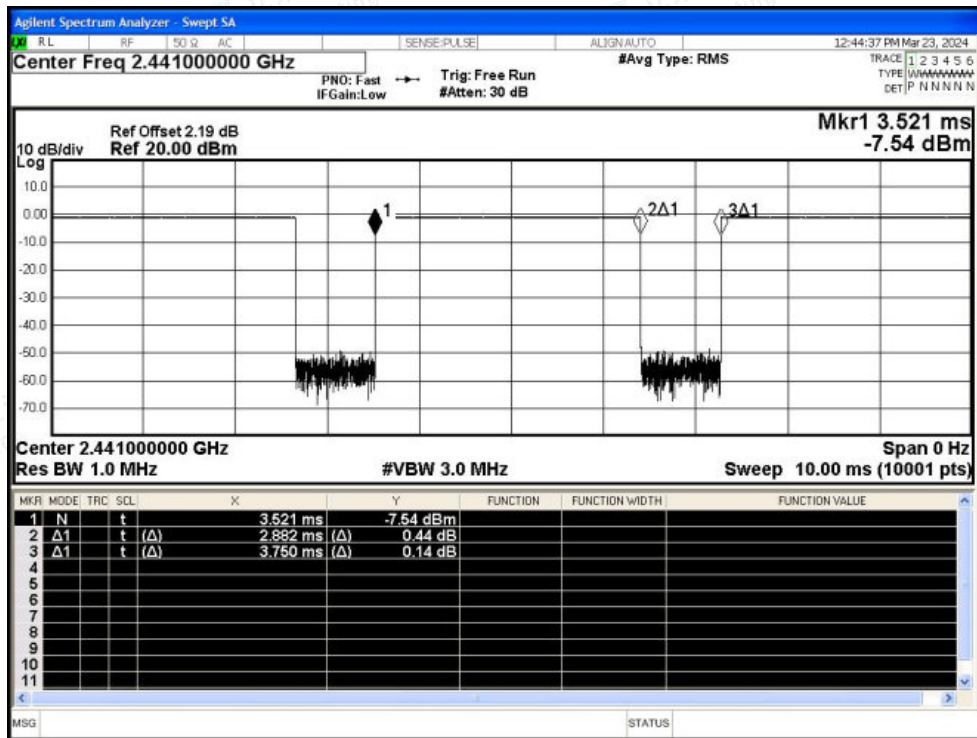


Test Graphs

Duty Cycle NVNT 1-DH5 2402MHz Ant1

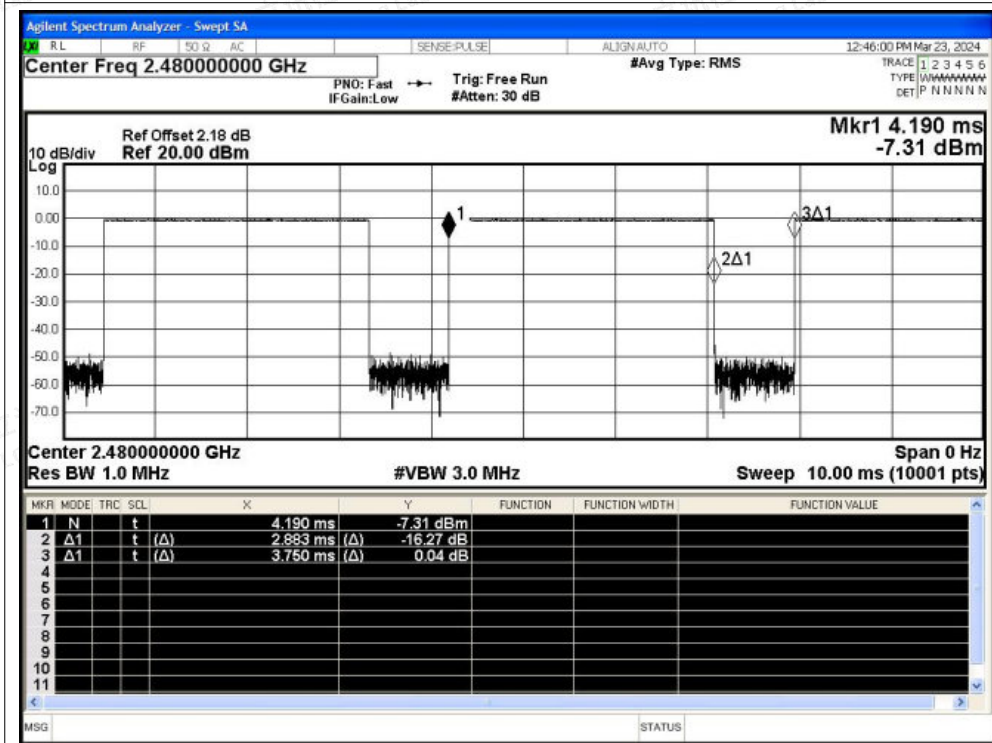


Duty Cycle NVNT 1-DH5 2441MHz Ant1

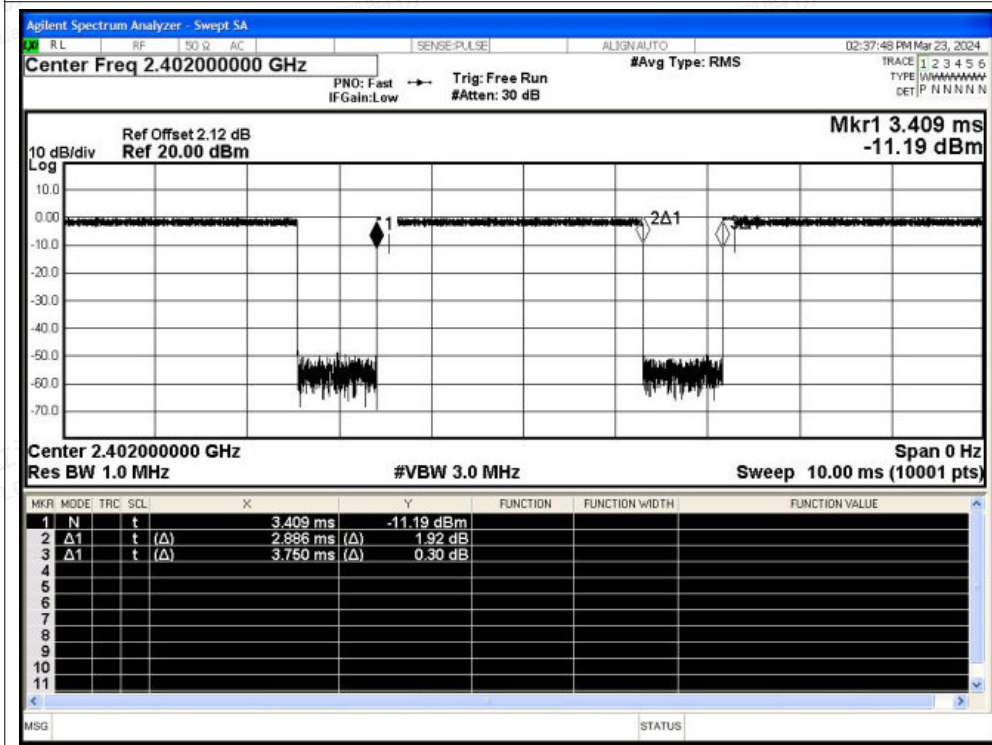




Duty Cycle NVNT 1-DH5 2480MHz Ant1

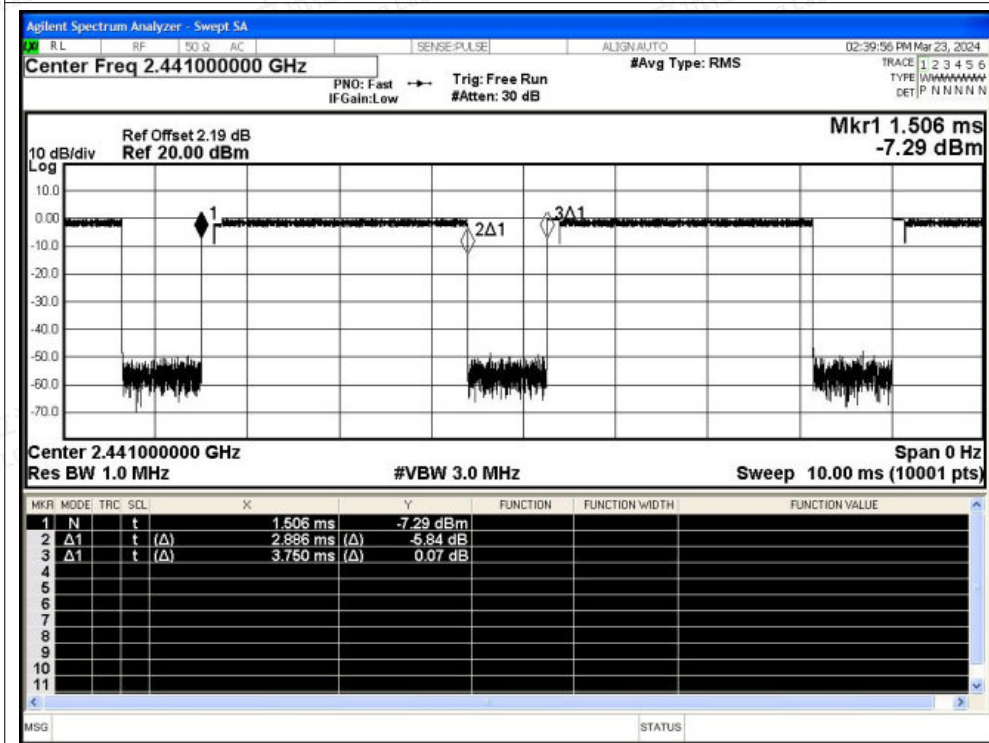


Duty Cycle NVNT 2-DH5 2402MHz Ant1

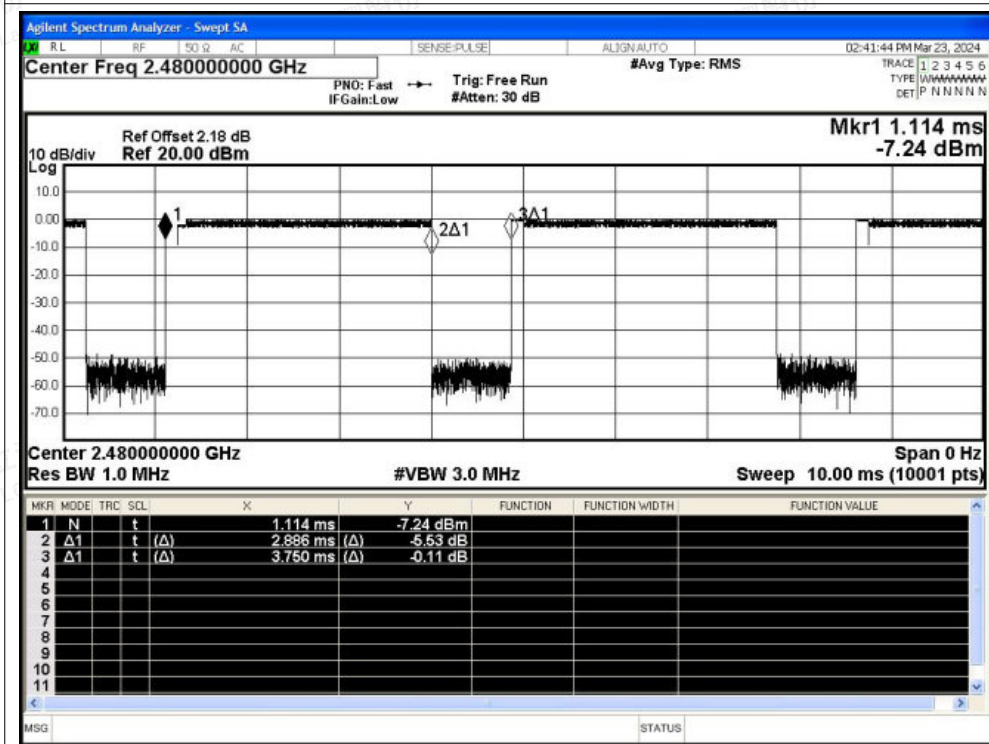




Duty Cycle NVNT 2-DH5 2441MHz Ant1



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	-50.2	2	-	47.06	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-58.93	2	1.14	39.47	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2357.04	-47.61	2	-	49.65	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2359.344	-57.56	2	1.14	40.84	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-50.31	2	-	46.95	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-58.64	2	1.14	39.76	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-50.99	2	-	46.27	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-57.77	2	1.14	40.63	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2494.192	-47.21	2	-	50.05	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2499.424	-57.05	2	1.14	41.35	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-49.26	2	-	48	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-57.64	2	1.14	40.76	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-49.95	2	-	47.31	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-58.7	2	1.14	39.7	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2379.984	-47.26	2	-	50	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2389.872	-57.75	2	1.14	40.65	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-49.51	2	-	47.75	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-58.01	2	1.14	40.39	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-50.31	2	-	46.95	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-57.73	2	1.14	40.67	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2492.896	-47.26	2	-	50	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2486.584	-57.14	2	1.14	41.26	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-49.62	2	-	47.64	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-57.61	2	1.14	40.79	Average	54	Pass

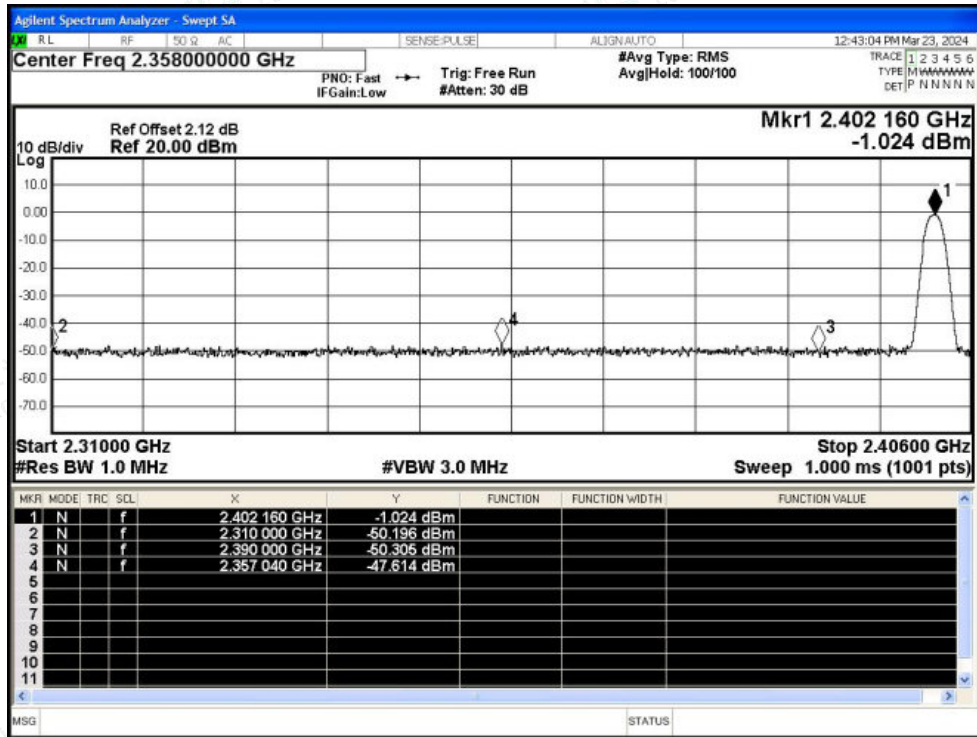


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 Scan code to check authenticity

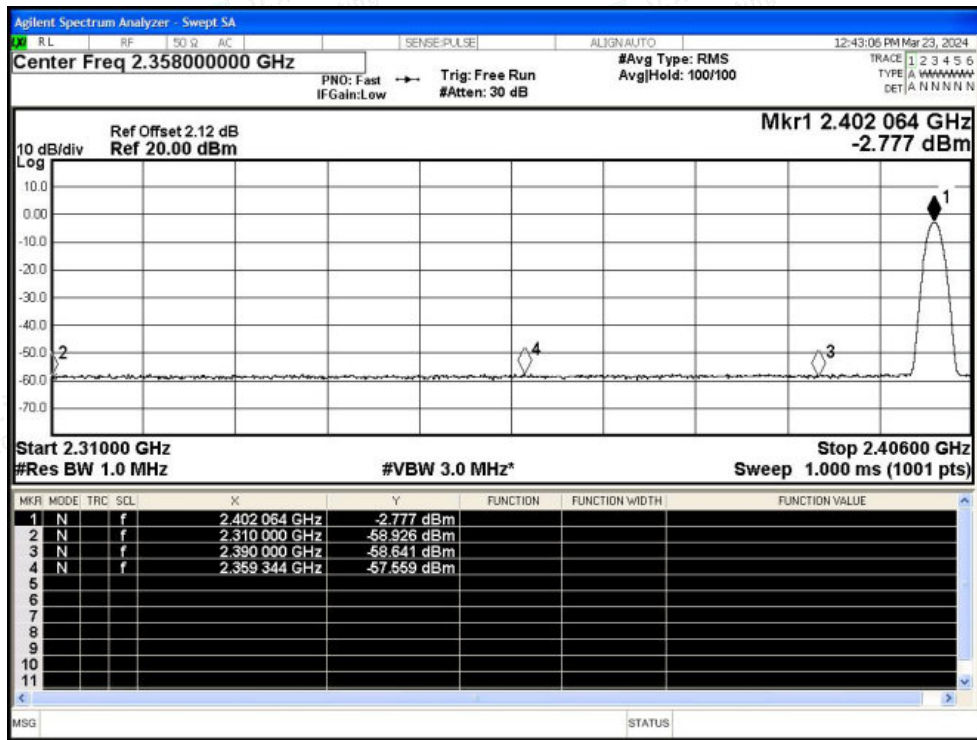


Test Graphs

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

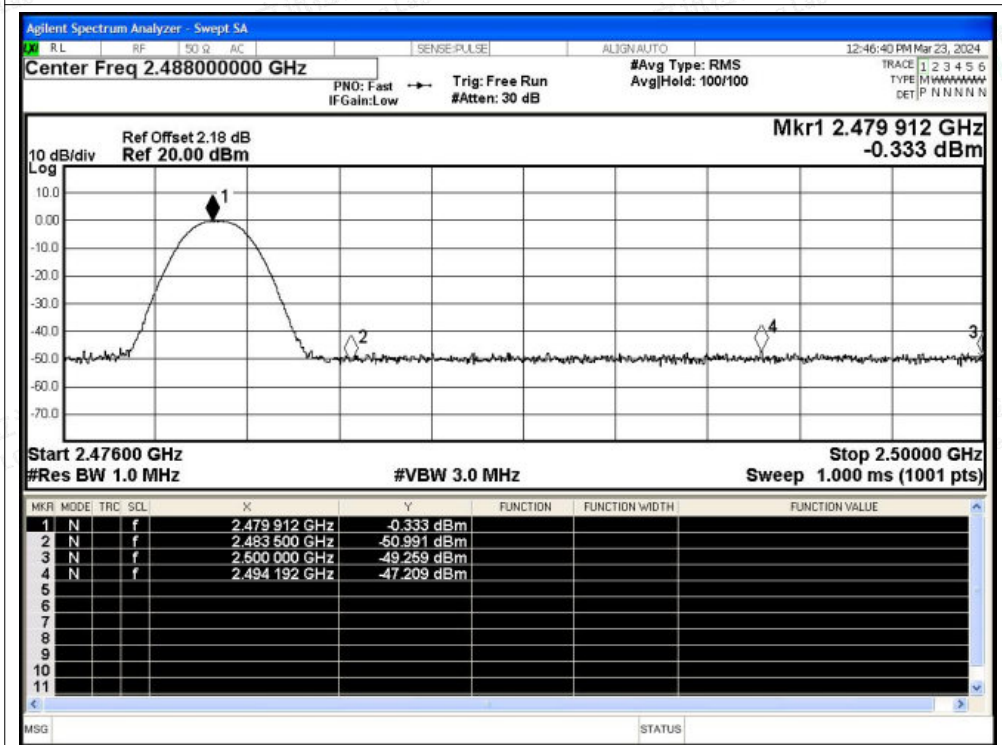


Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Average

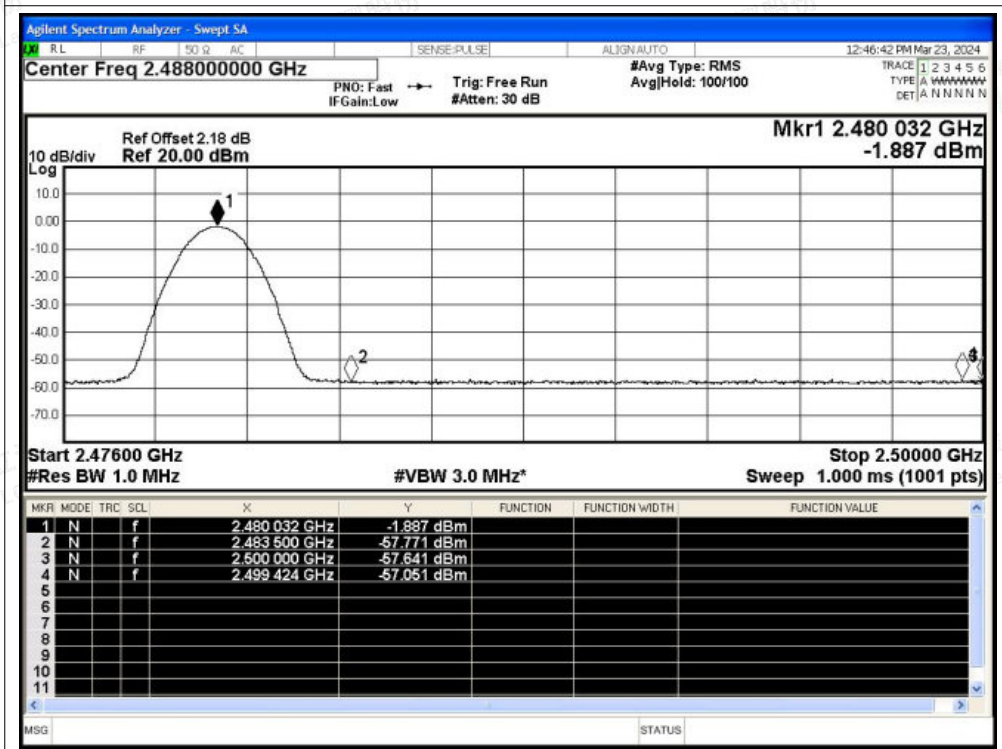




Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Peak

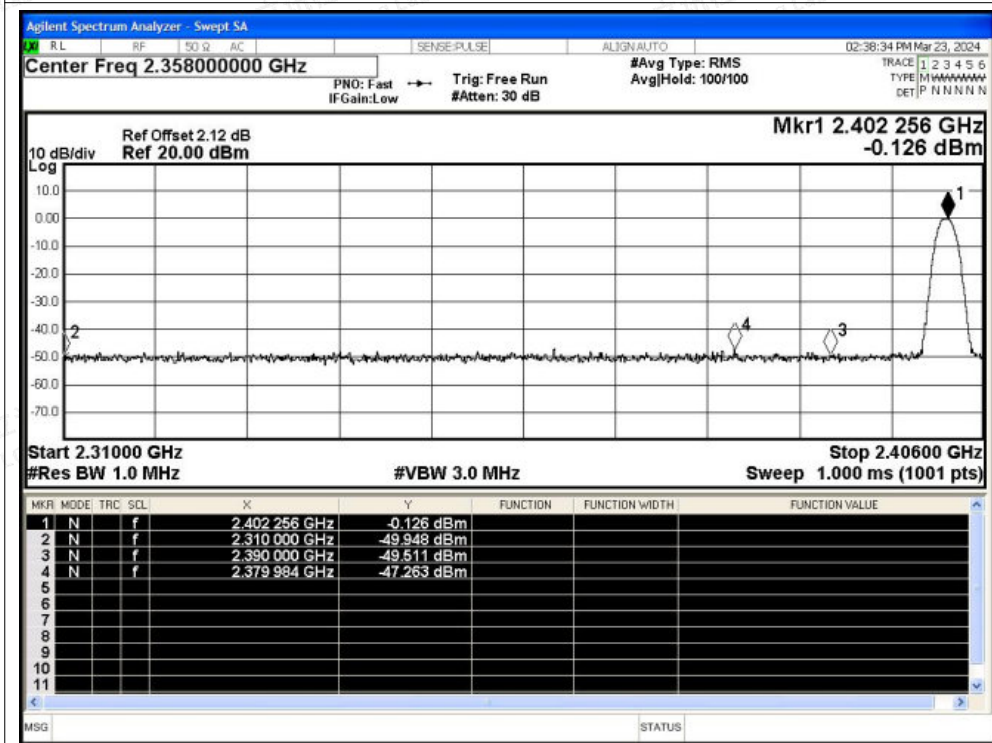


Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Average

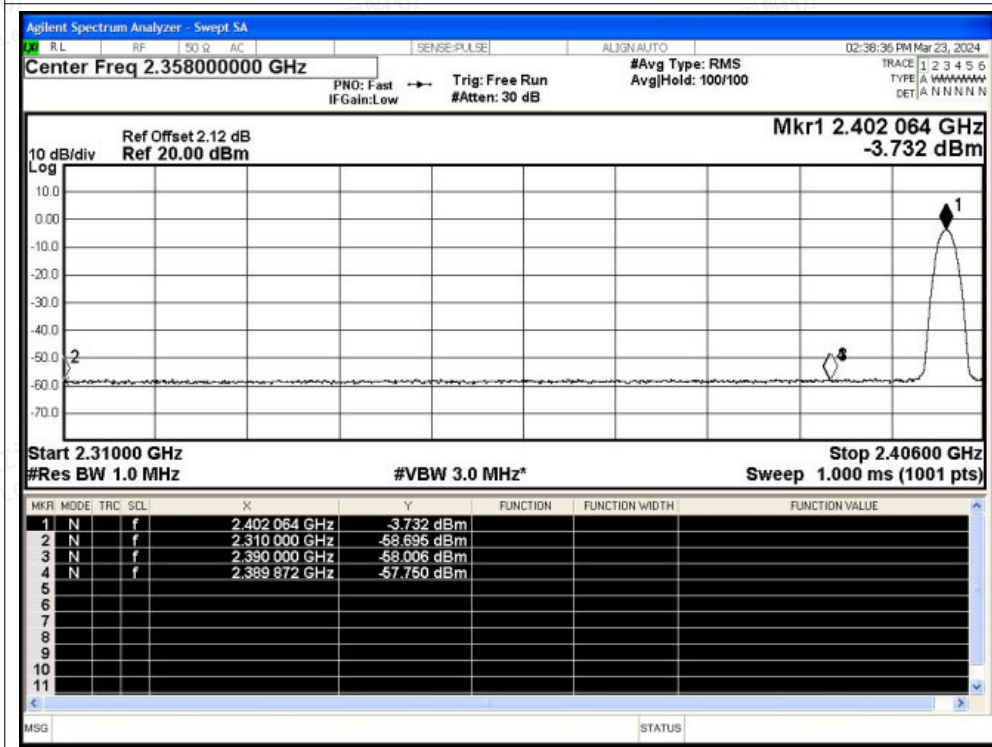




Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Peak

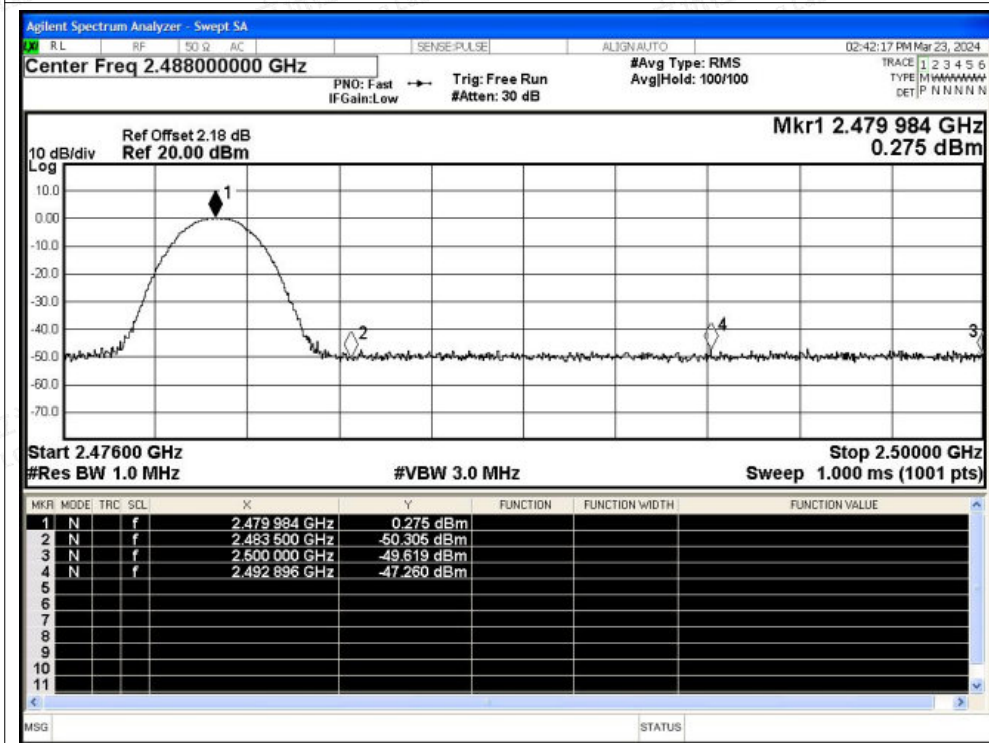


Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Average





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



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

