



Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: Wireless Earphones

Test Model: T15

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

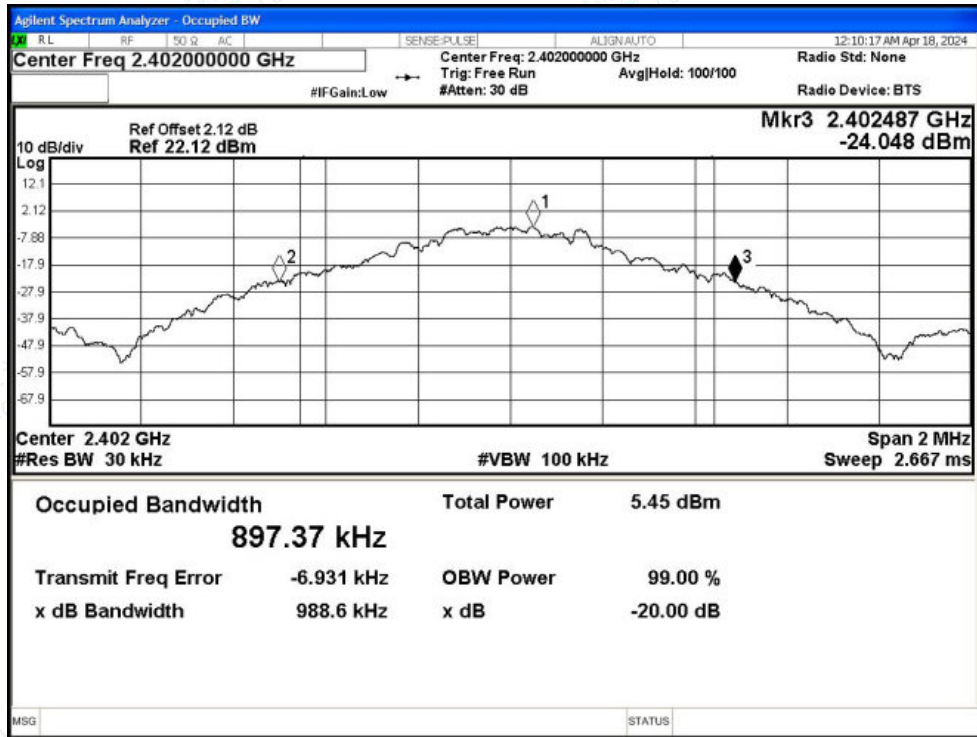
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH5	2402	Ant1	0.989	N/A	Pass
NVNT	1-DH5	2441	Ant1	0.96	N/A	Pass
NVNT	1-DH5	2480	Ant1	0.986	N/A	Pass
NVNT	2-DH5	2402	Ant1	1.273	N/A	Pass
NVNT	2-DH5	2441	Ant1	1.288	N/A	Pass
NVNT	2-DH5	2480	Ant1	1.29	N/A	Pass





Test Graphs

-20dB Bandwidth NVNT 1-DH5 2402MHz Ant1



-20dB Bandwidth NVNT 1-DH5 2441MHz Ant1

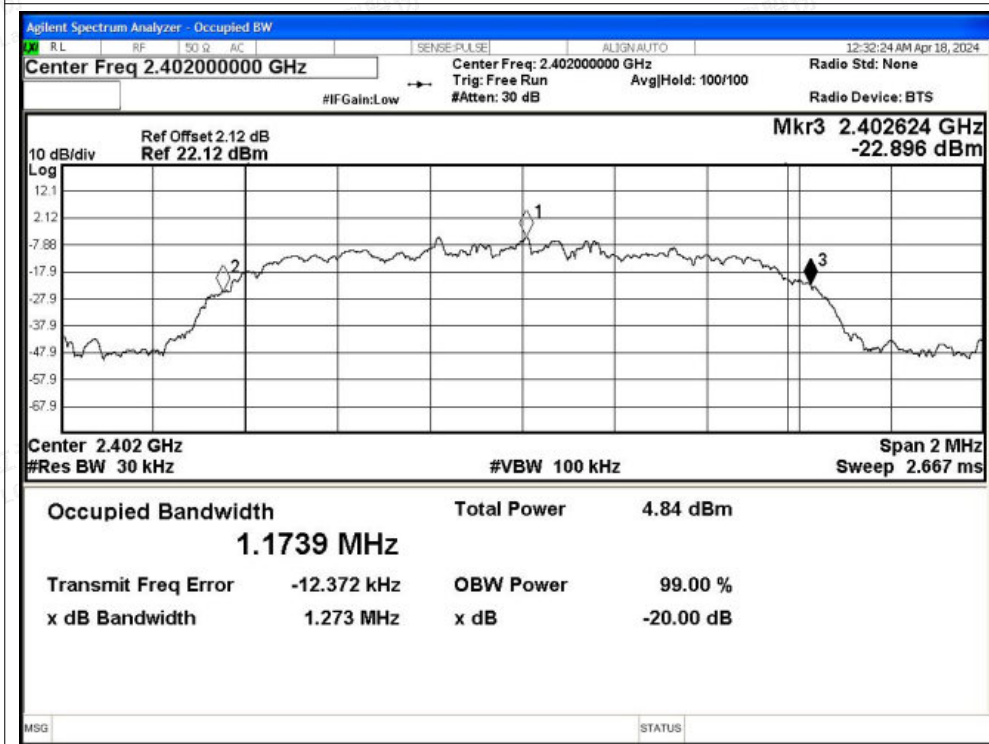




-20dB Bandwidth NVNT 1-DH5 2480MHz Ant1

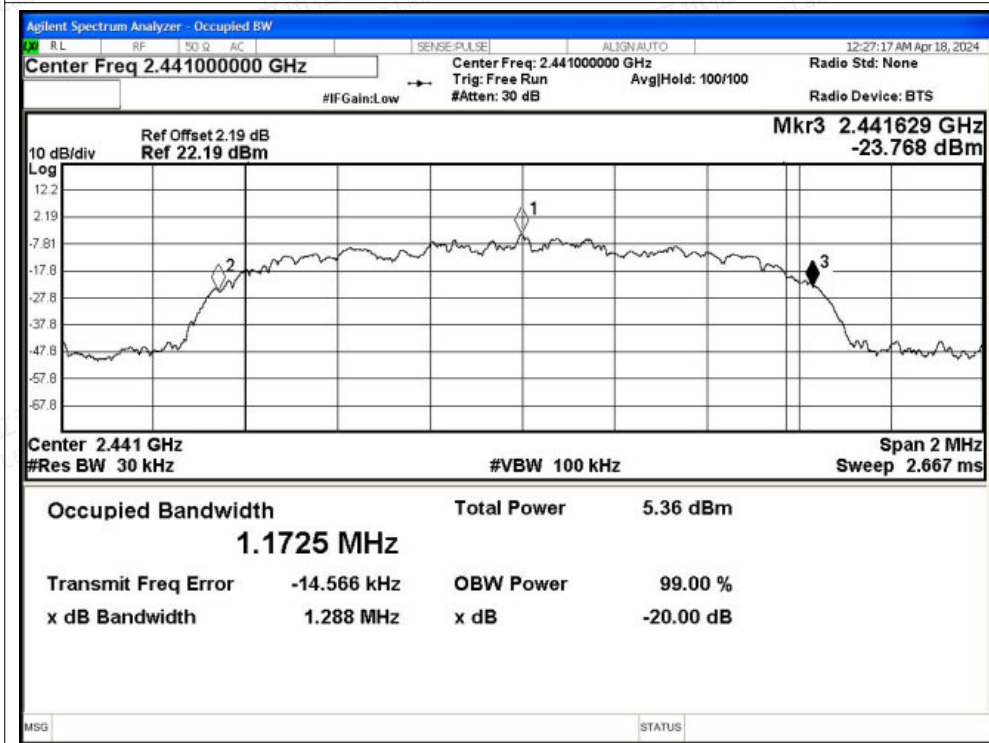


-20dB Bandwidth NVNT 2-DH5 2402MHz Ant1

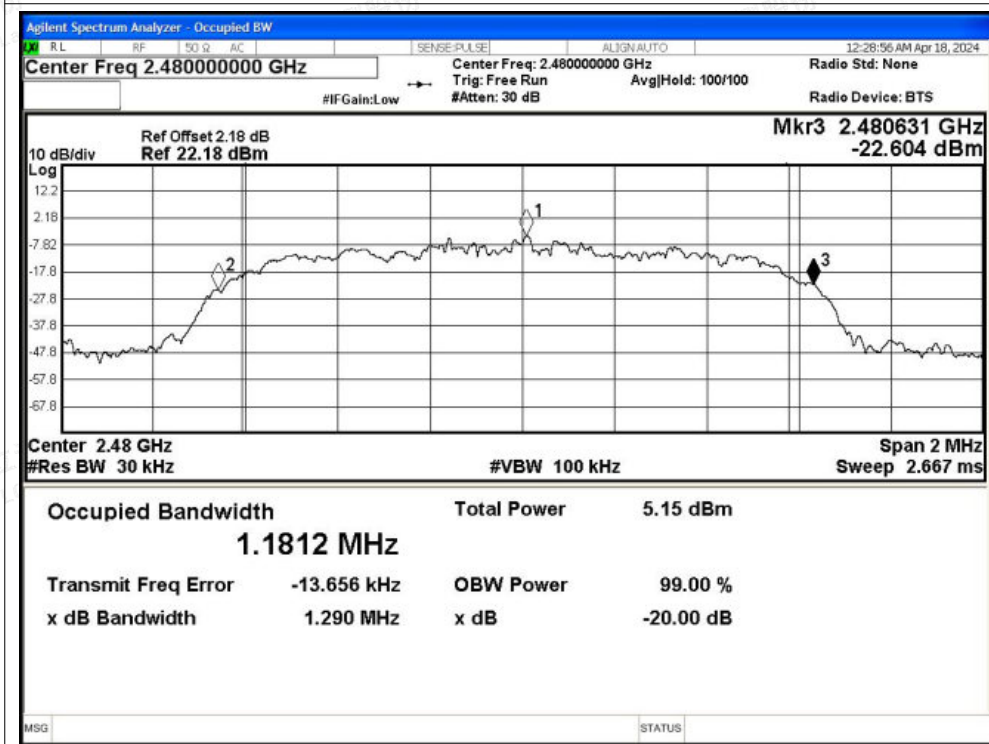




-20dB Bandwidth NVNT 2-DH5 2441MHz Ant1



-20dB Bandwidth NVNT 2-DH5 2480MHz Ant1





A.2 Maximum Peak Conducted Output Power

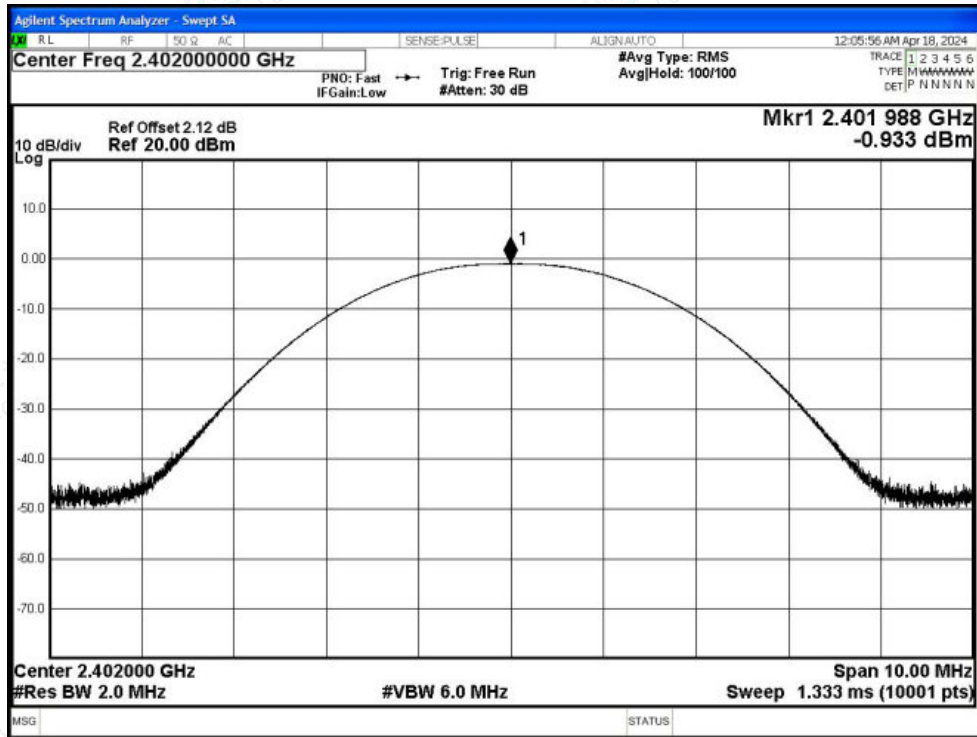
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH5	2402	Ant1	-0.93	21	Pass
NVNT	1-DH5	2441	Ant1	-0.69	21	Pass
NVNT	1-DH5	2480	Ant1	-0.7	21	Pass
NVNT	2-DH5	2402	Ant1	0.21	21	Pass
NVNT	2-DH5	2441	Ant1	0.58	21	Pass
NVNT	2-DH5	2480	Ant1	0.69	21	Pass



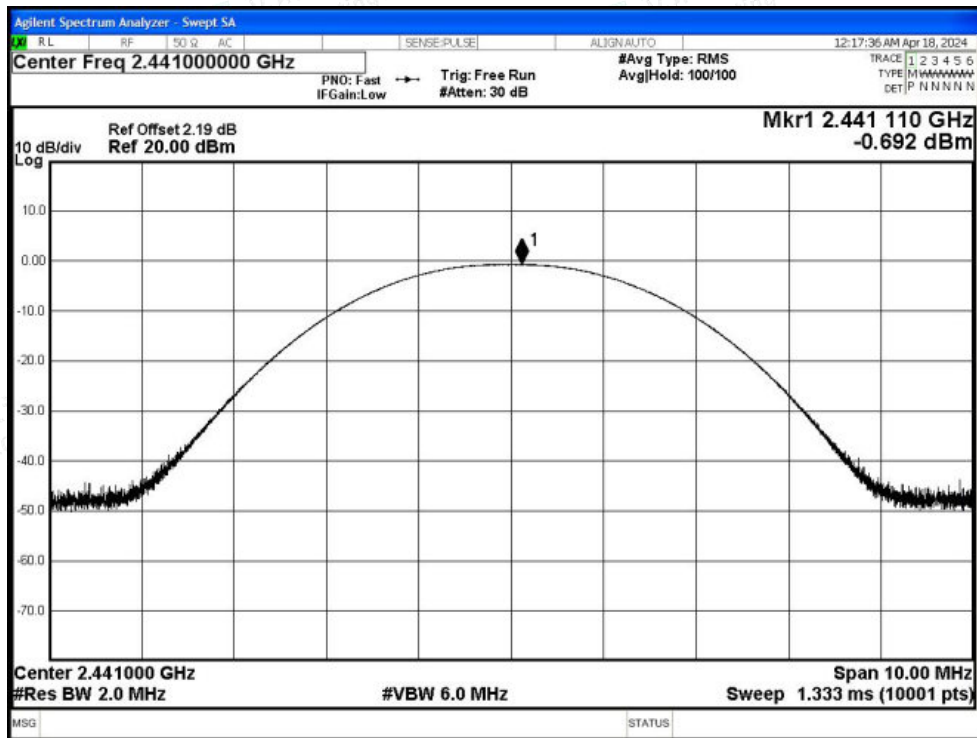


Test Graphs

Power NVNT 1-DH5 2402MHz Ant1

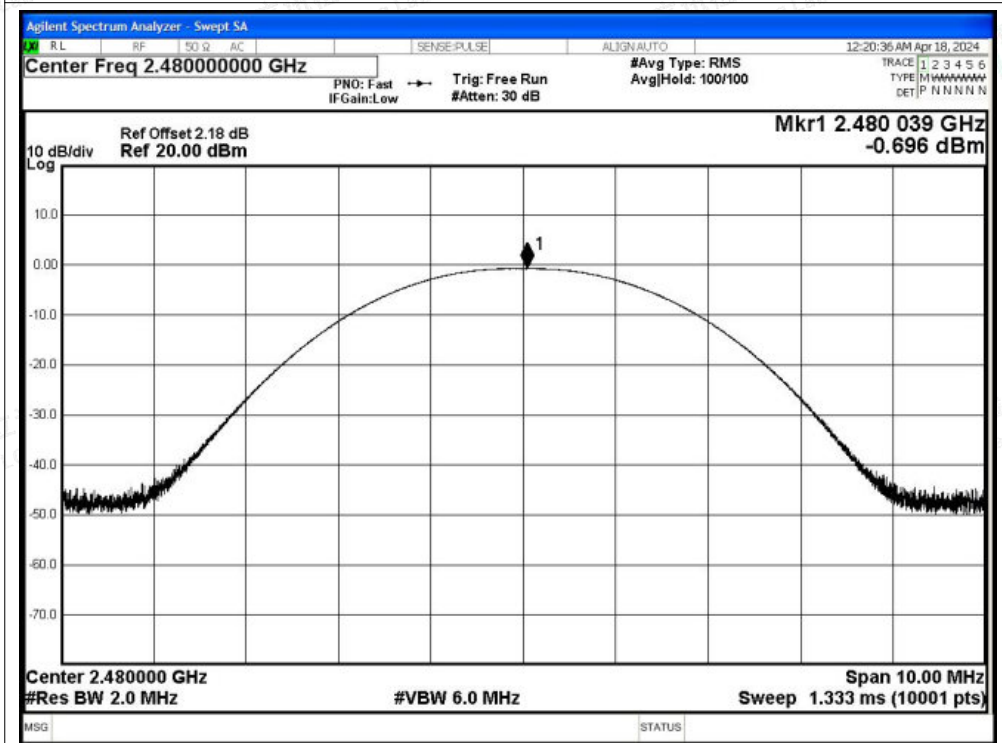


Power NVNT 1-DH5 2441MHz Ant1

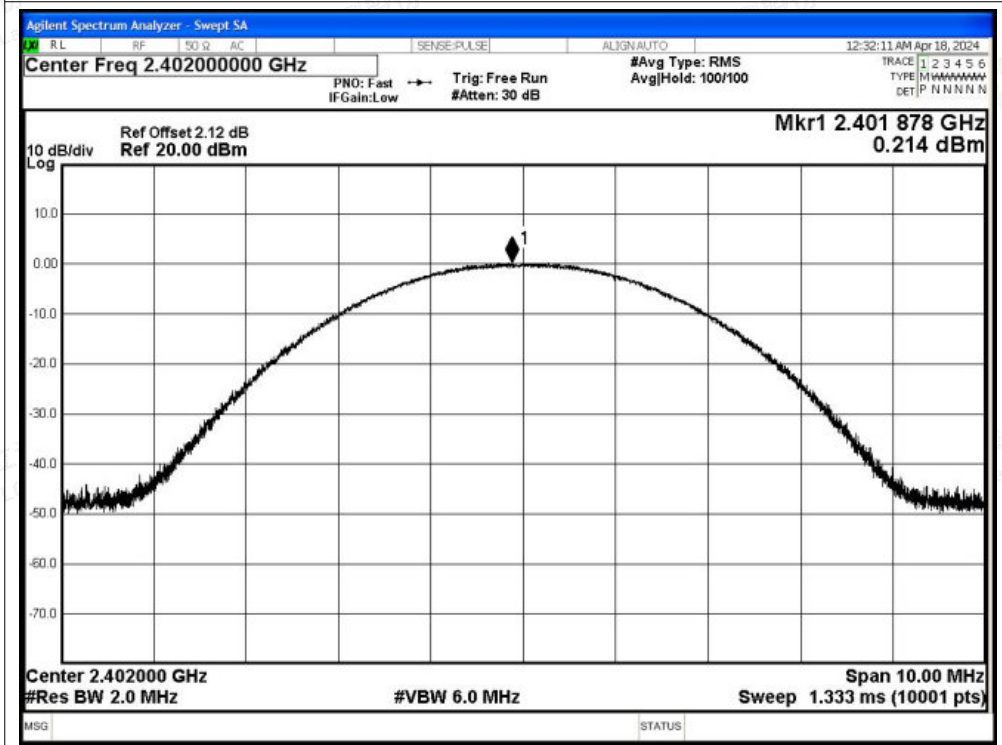




Power NVNT 1-DH5 2480MHz Ant1

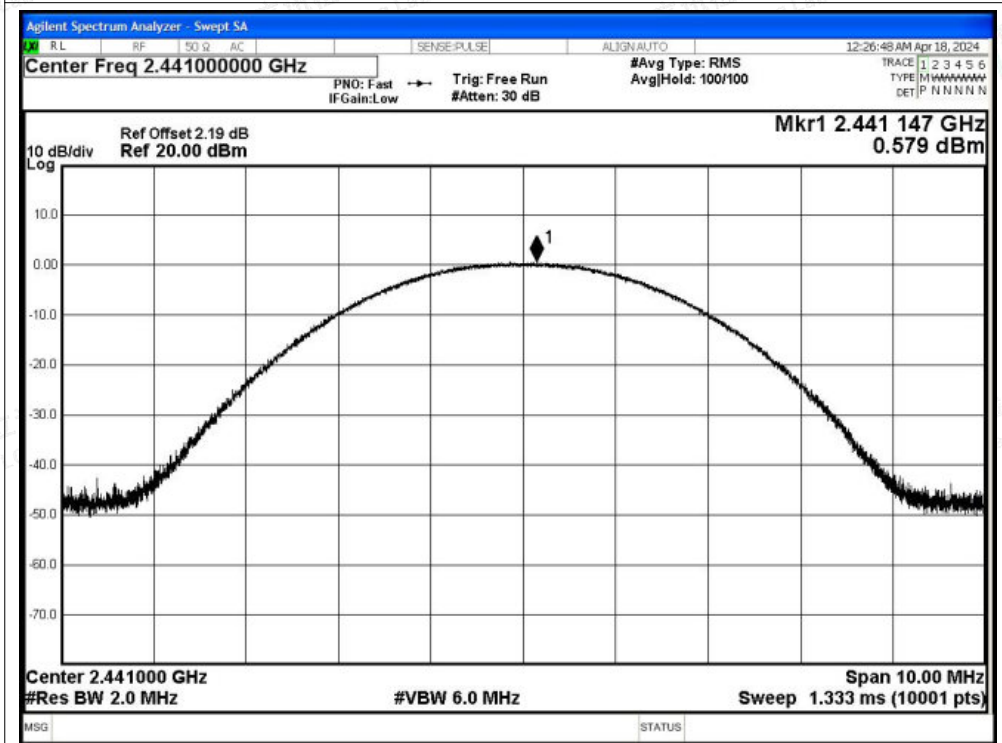


Power NVNT 2-DH5 2402MHz Ant1

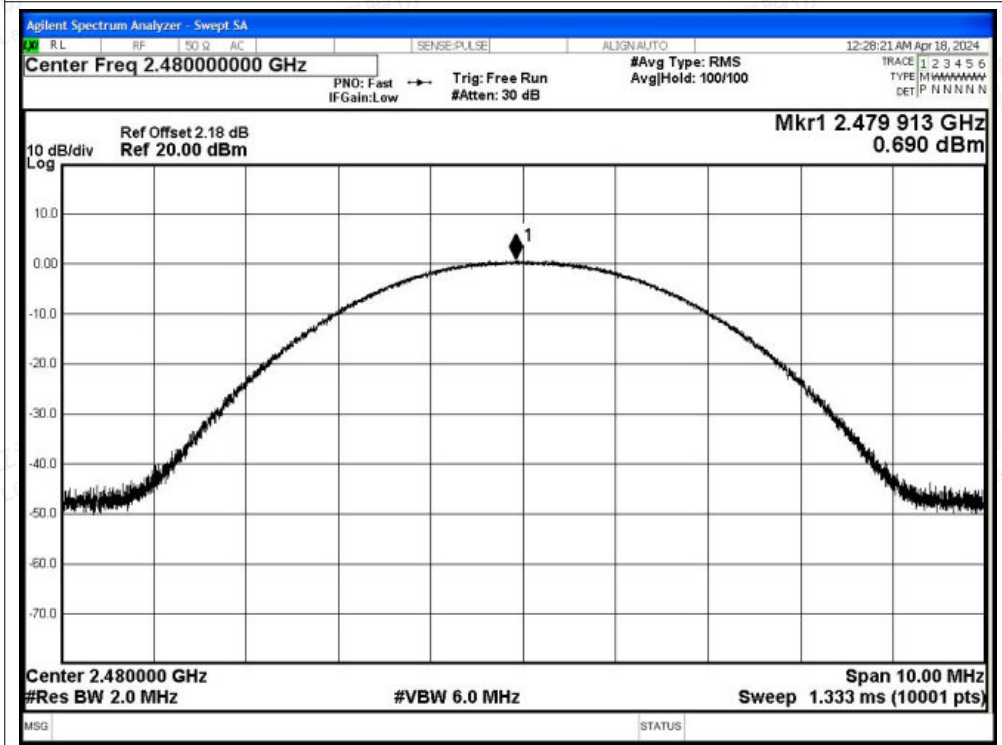




Power NVNT 2-DH5 2441MHz Ant1



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	2402.002	2403.002	1	0.659	Pass
NVNT	2-DH5	Ant1	2401.832	2403.148	1.316	0.860	Pass

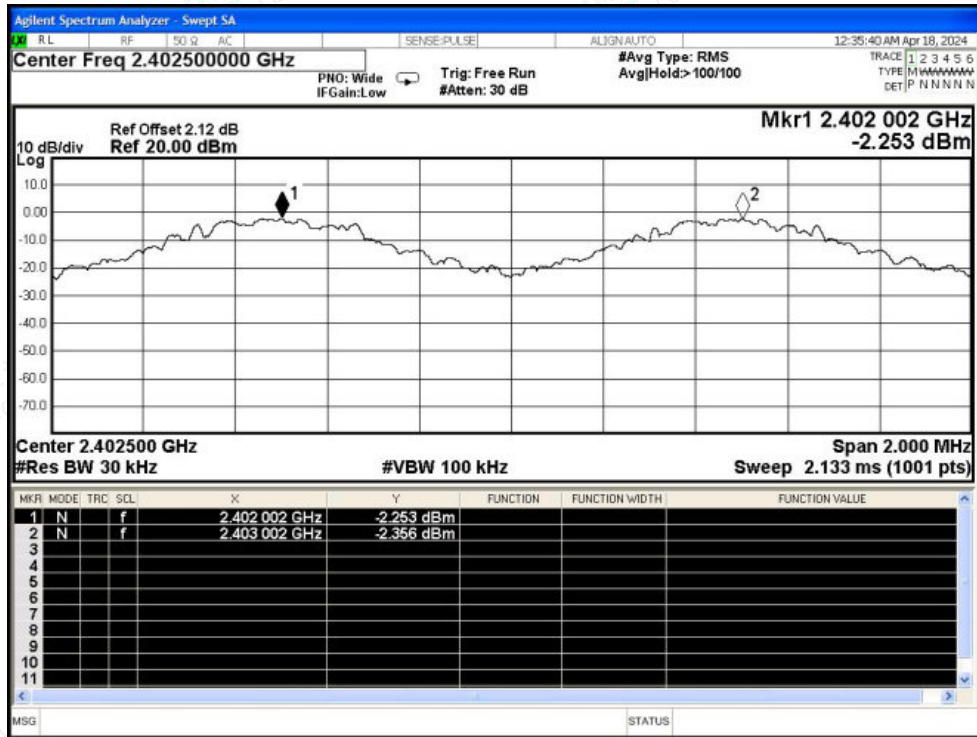


Shenzhen LCS Compliance Testing Laboratory Ltd.
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com
Scan code to check authenticity

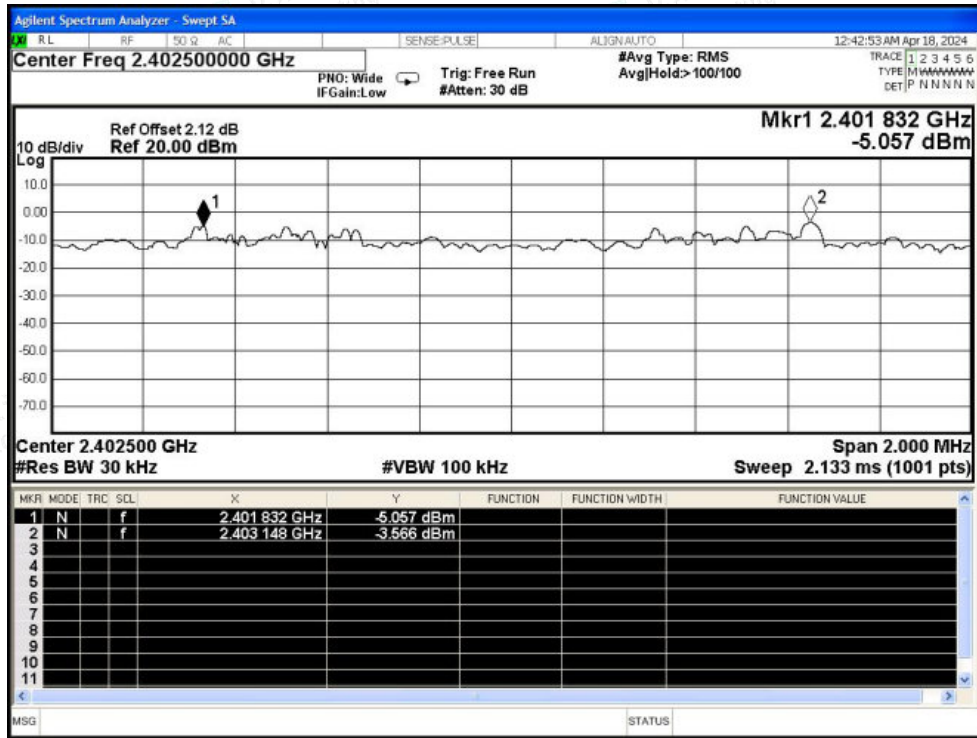


Test Graphs

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	2.882	291.082	101	31600	400	Pass
NVNT	2-DH5	2402	Ant1	2.88	299.52	104	31600	400	Pass

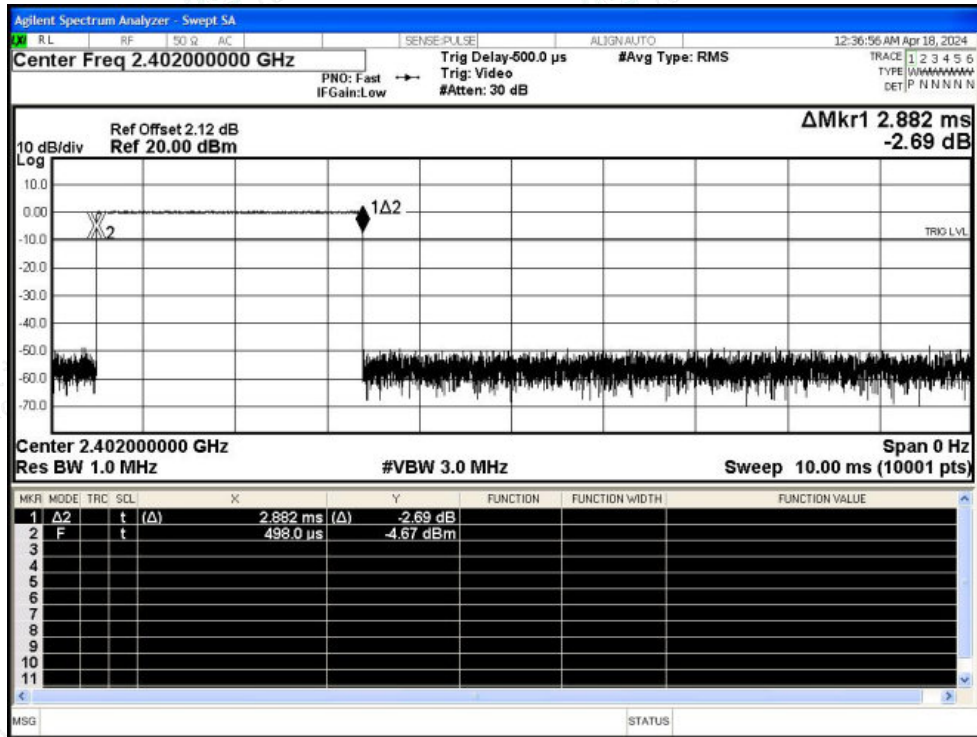


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Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com
Scan code to check authenticity

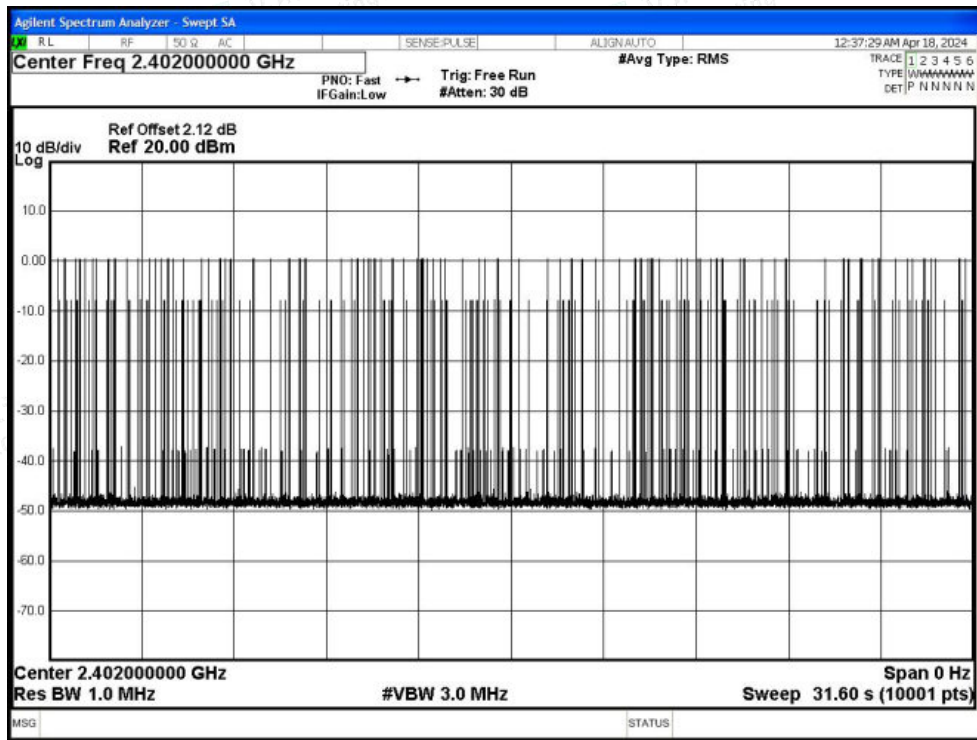


Test Graphs

Dwell NVNT 1-DH5 2402MHz Ant1 One Burst

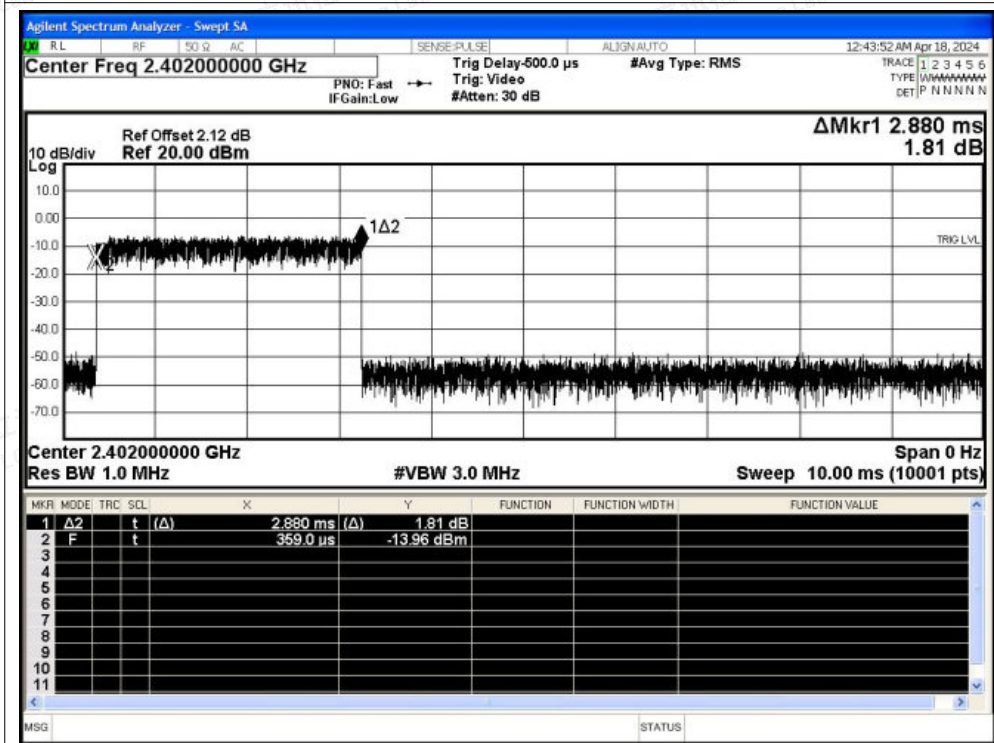


Dwell NVNT 1-DH5 2402MHz Ant1 Accumulated

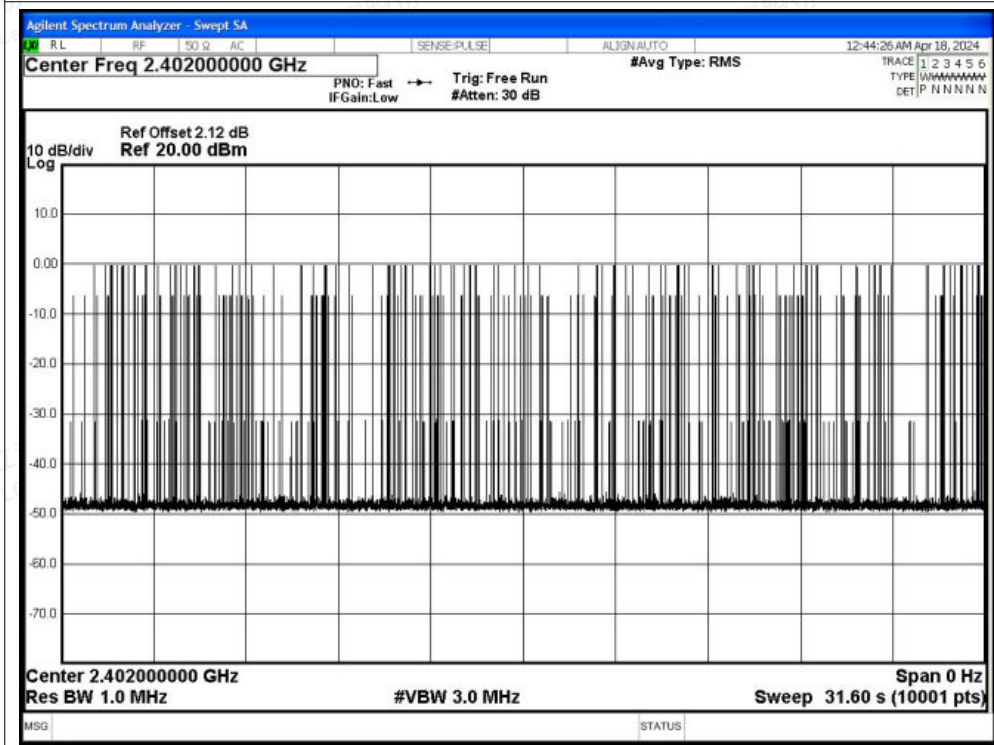




Dwell NVNT 2-DH5 2402MHz Ant1 One Burst



Dwell NVNT 2-DH5 2402MHz Ant1 Accumulated





A.5 Number of Hopping Channel

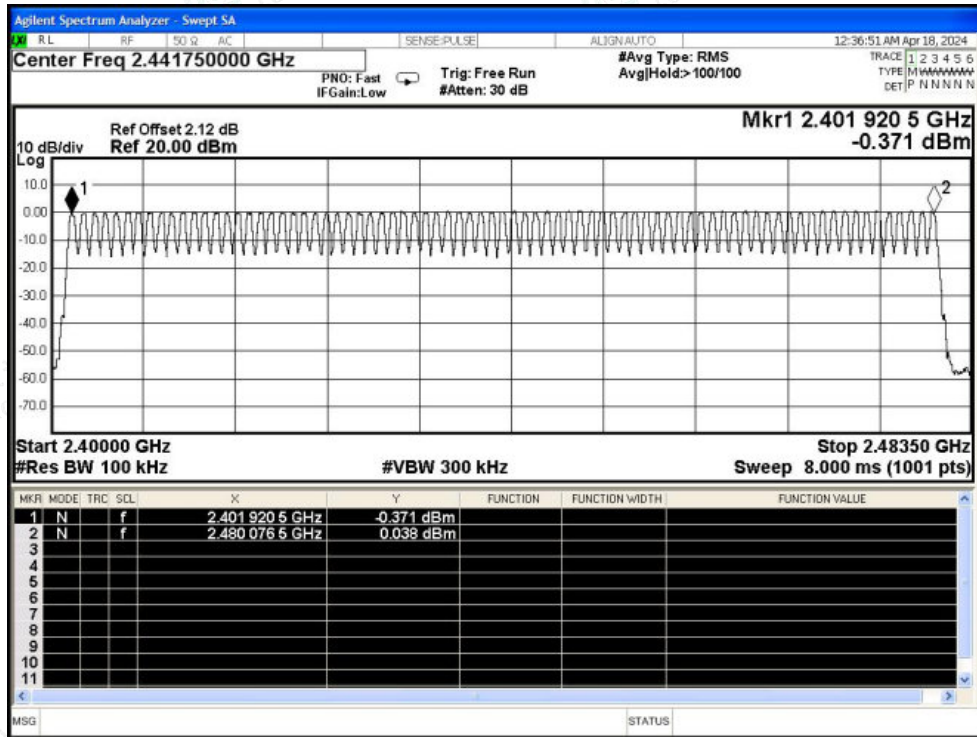
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH5	Ant1	79	15	Pass
NVNT	2-DH5	Ant1	79	15	Pass



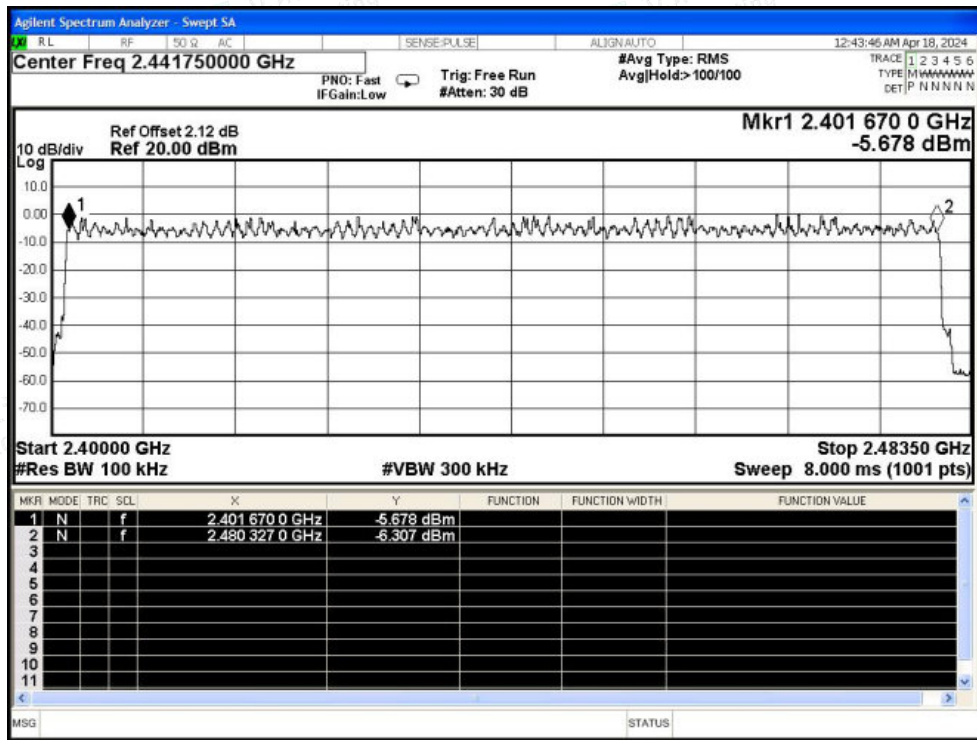


Test Graphs

Hopping No. NVNT 1-DH5 2402MHz Ant1



Hopping No. NVNT 2-DH5 2402MHz Ant1





A.6 Band Edge

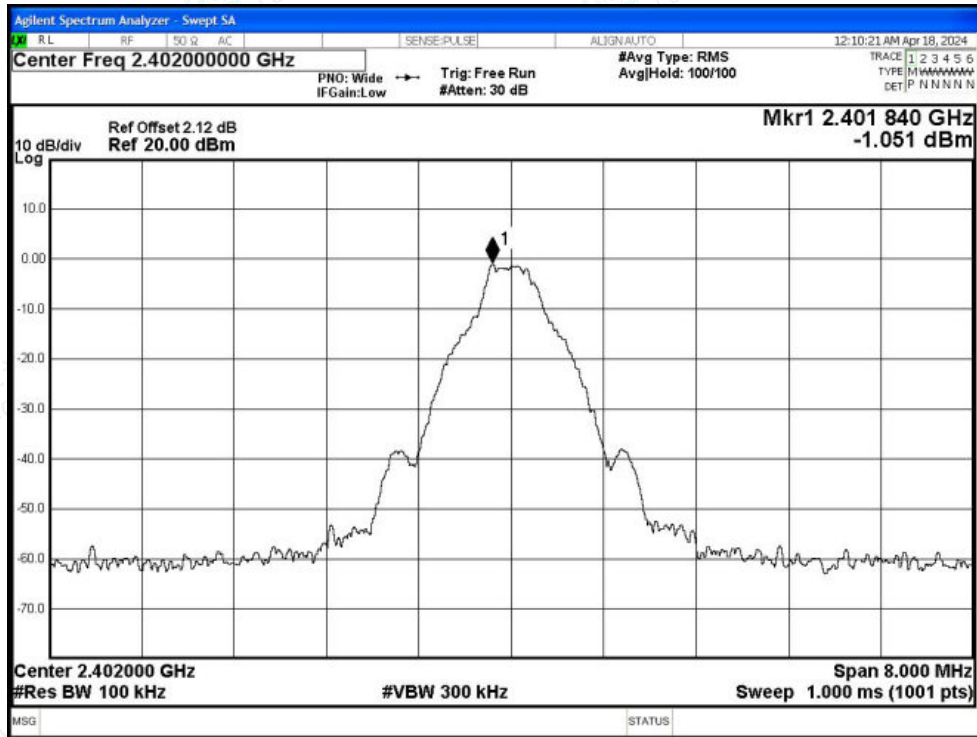
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	-55.33	-20	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	-55.35	-20	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	-54.74	-20	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	-53.7	-20	Pass



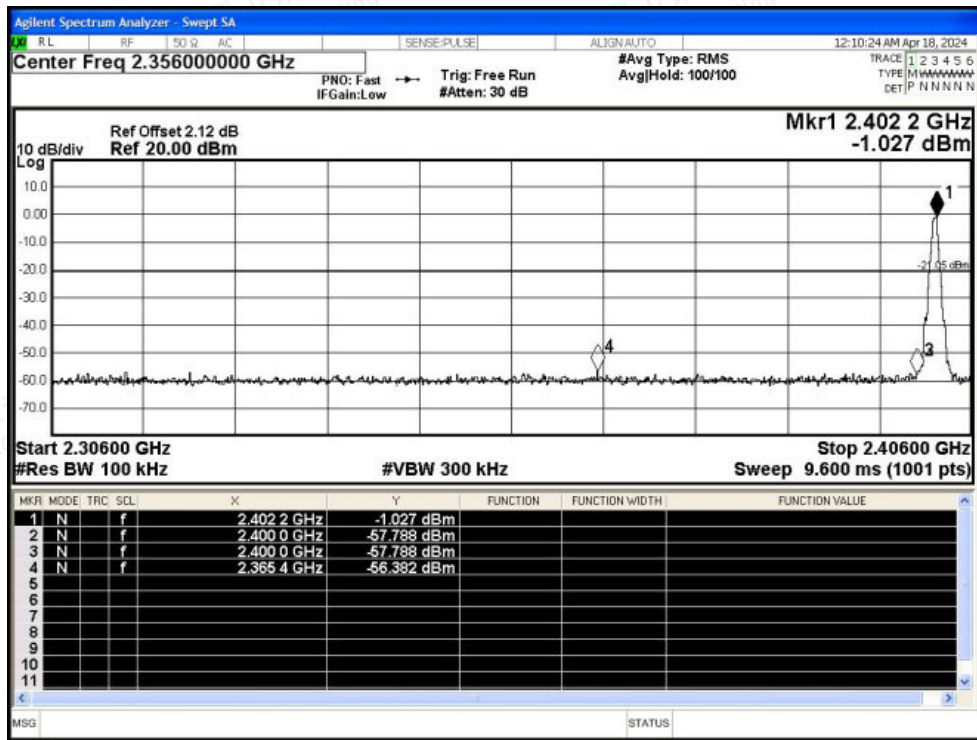


Test Graphs

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

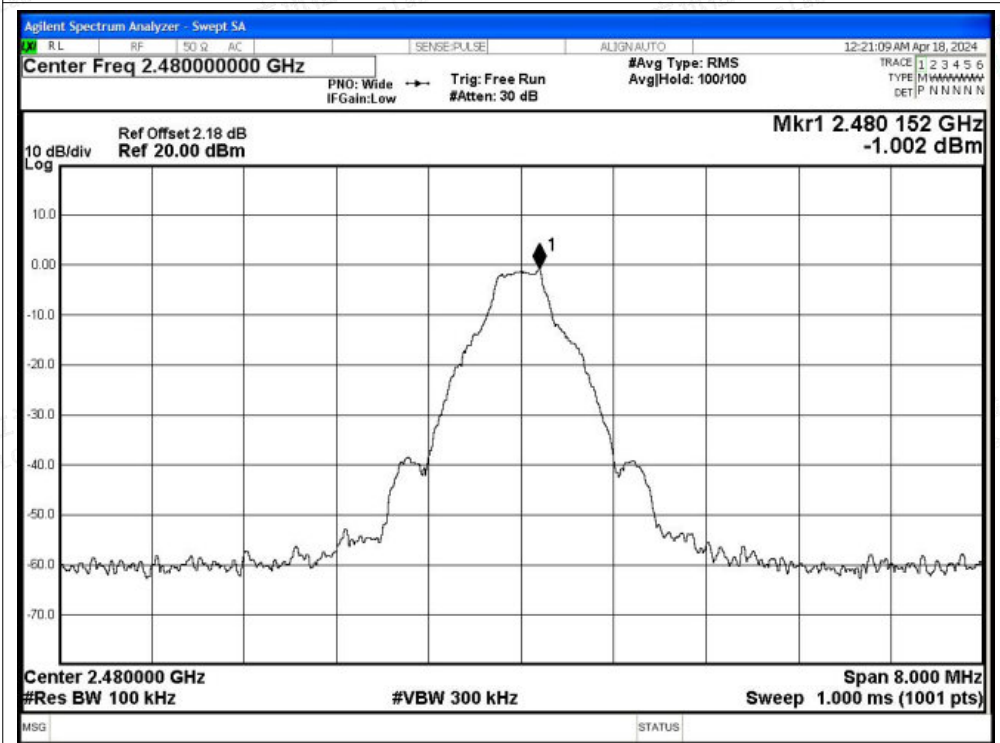


Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Emission

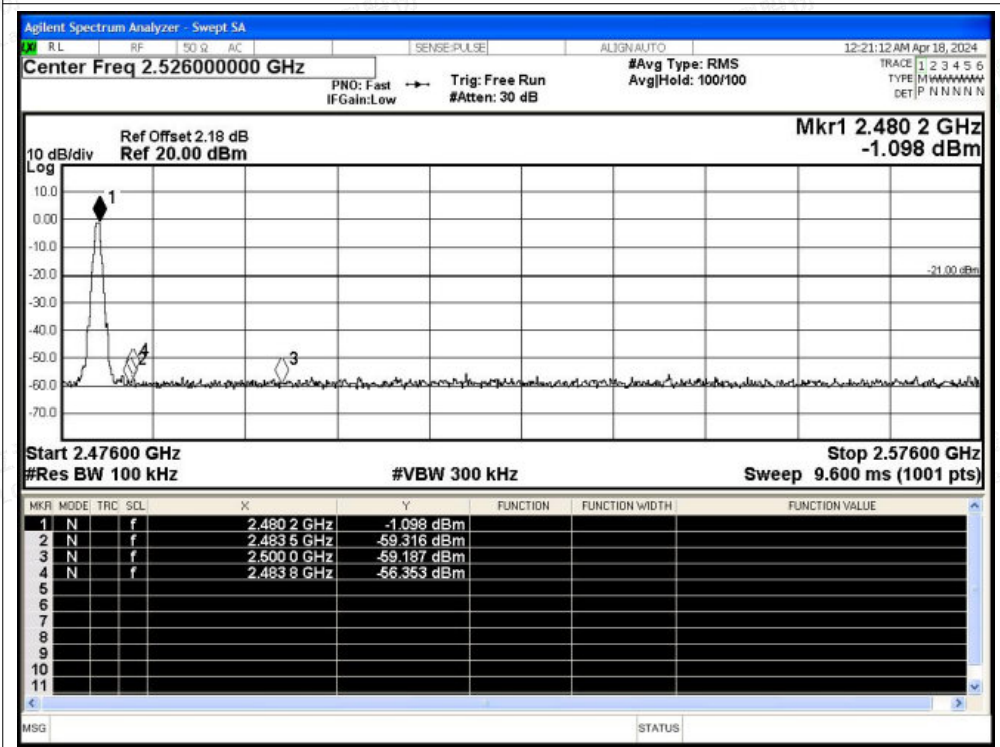




Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref

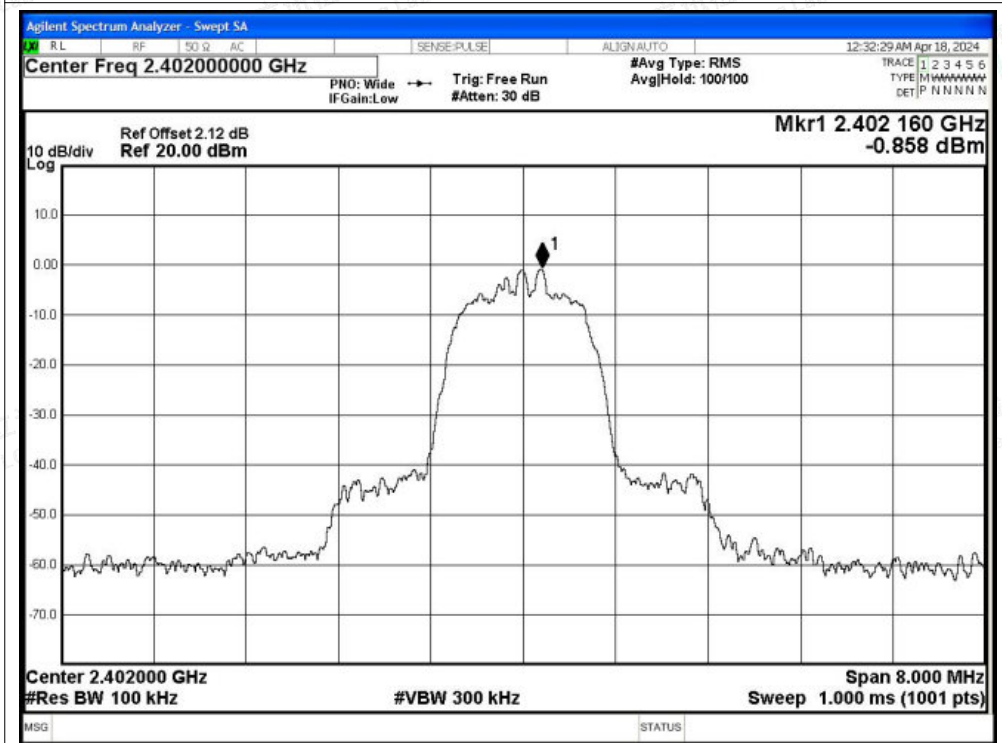


Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Emission

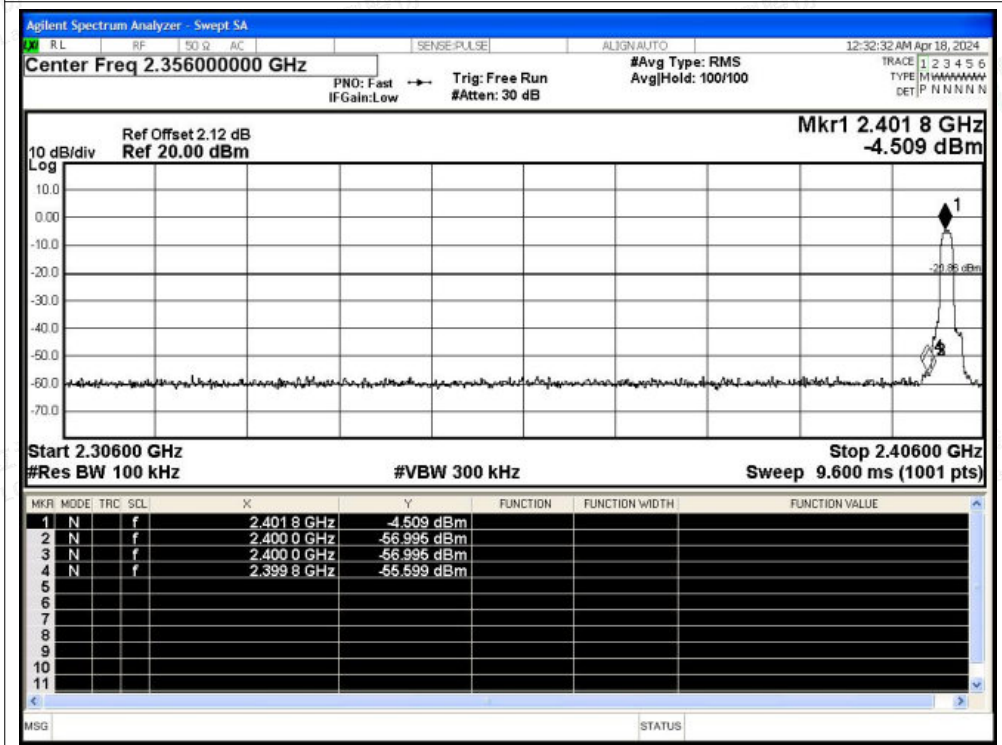




Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Ref

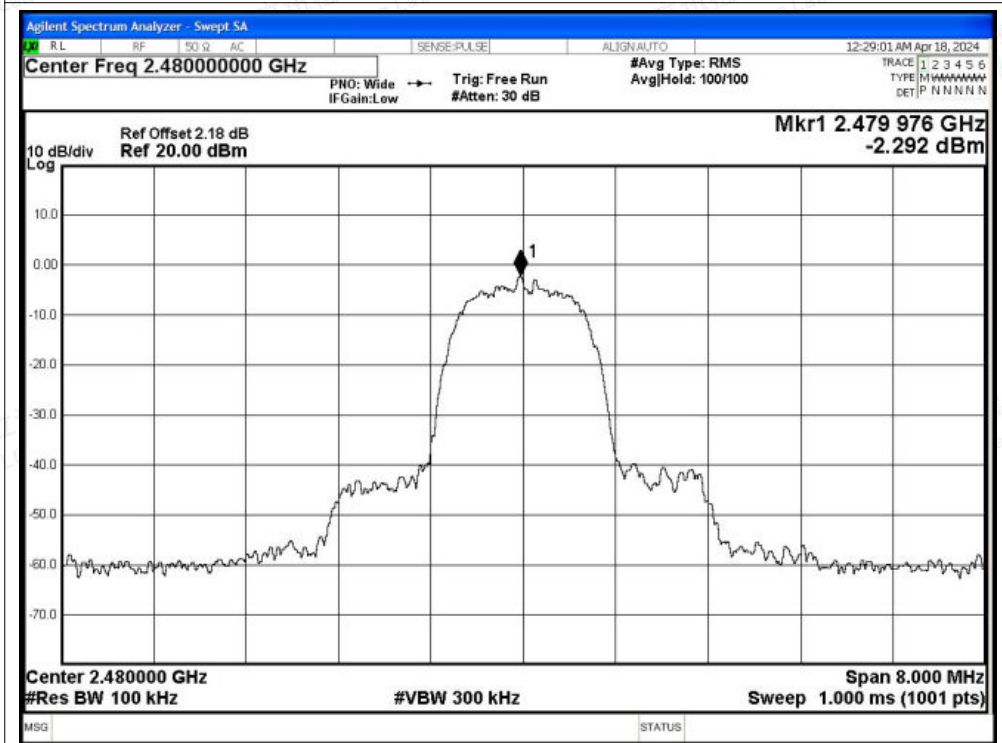


Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Emission

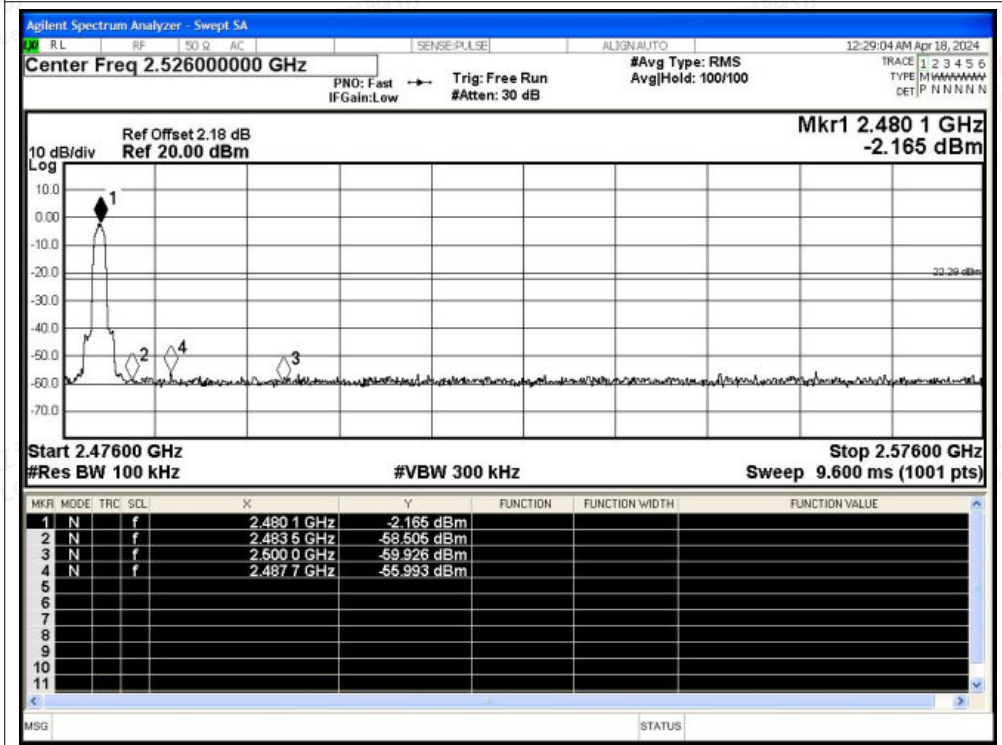




Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Ref



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	-55.58	-20	Pass
NVNT	1-DH5	2480	Ant1	Hopping	-55.8	-20	Pass
NVNT	2-DH5	2402	Ant1	Hopping	-53.69	-20	Pass
NVNT	2-DH5	2480	Ant1	Hopping	-55.53	-20	Pass

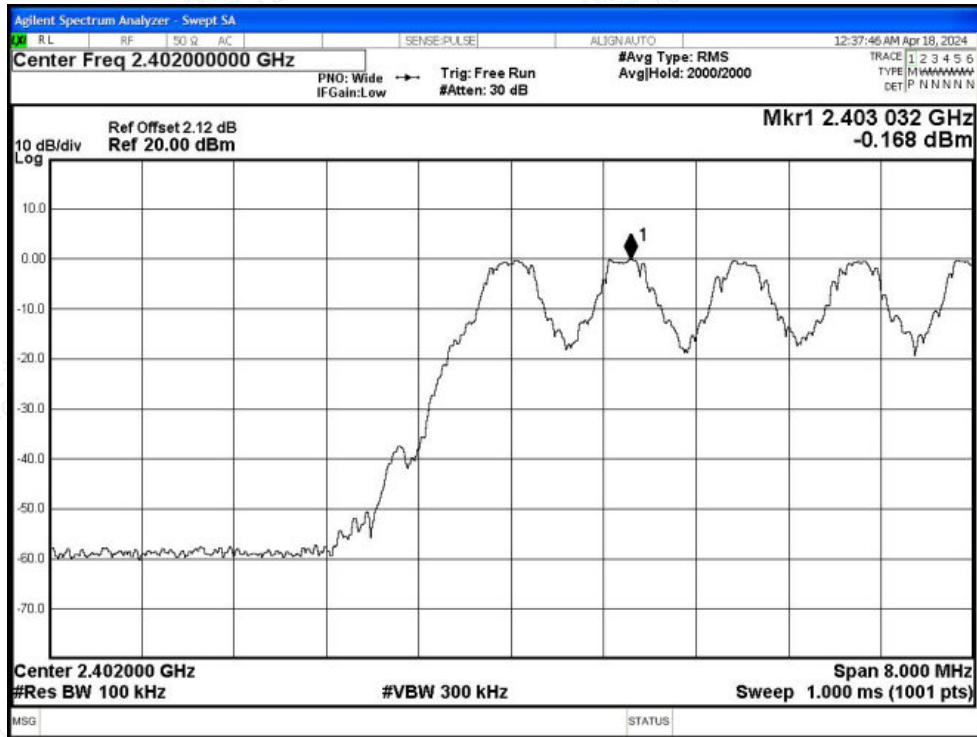


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Scan code to check authenticity

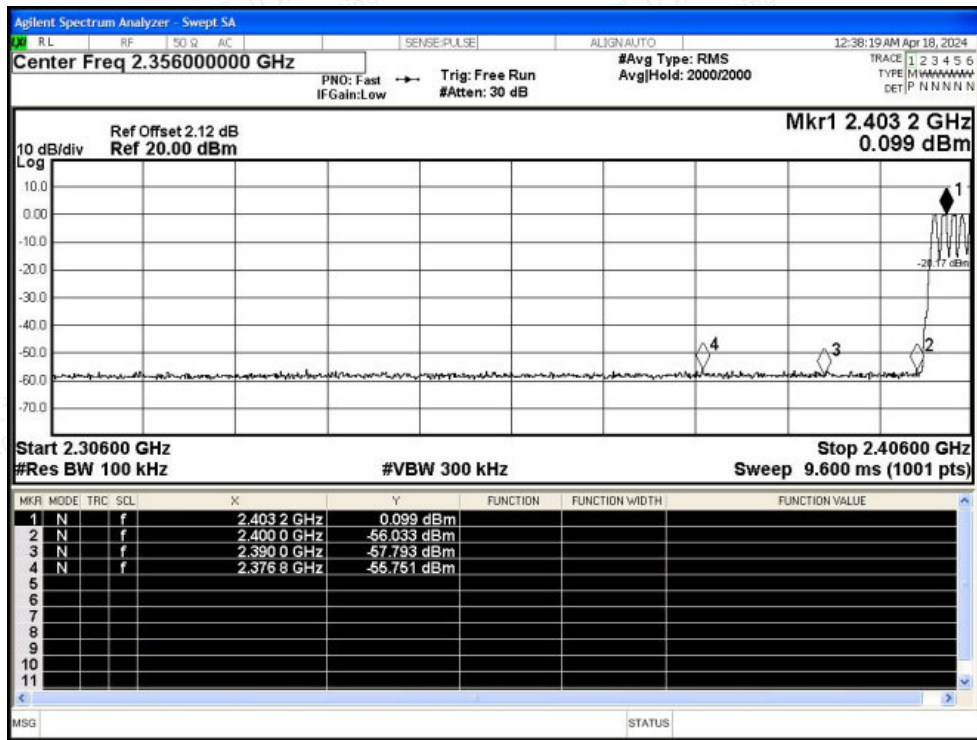


Test Graphs

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

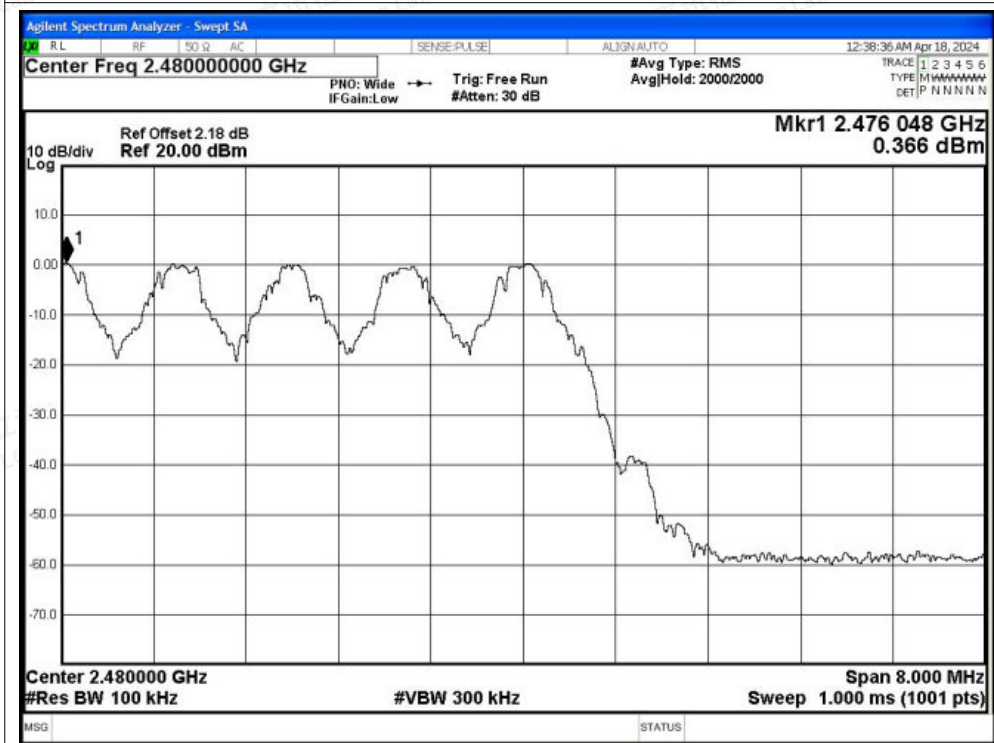


Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission

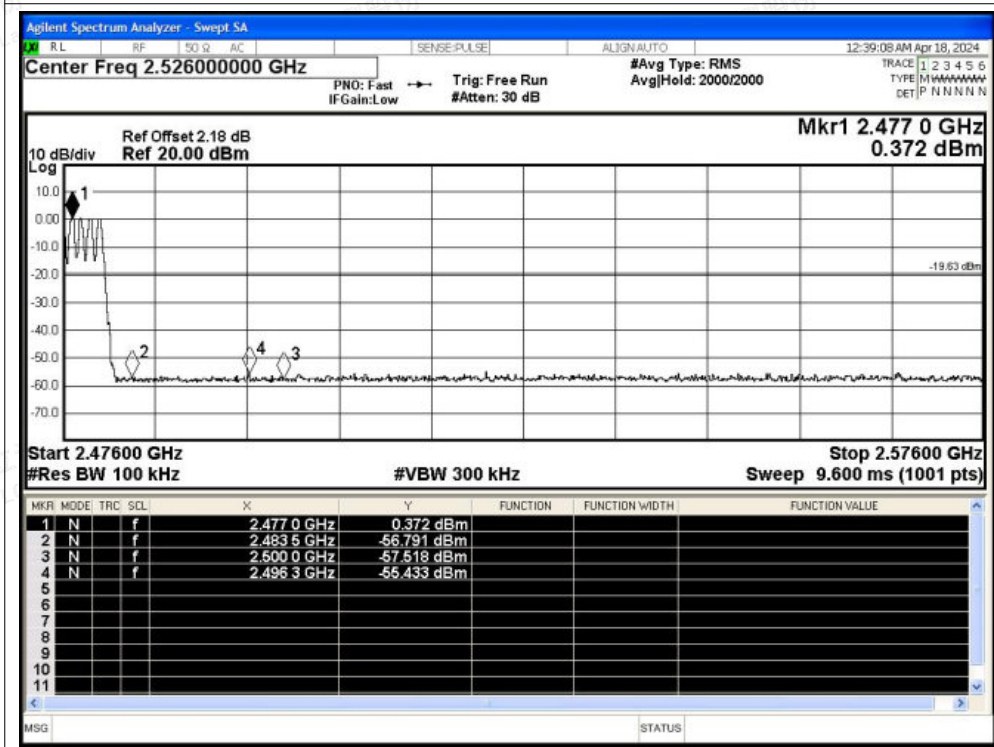




Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Ref



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

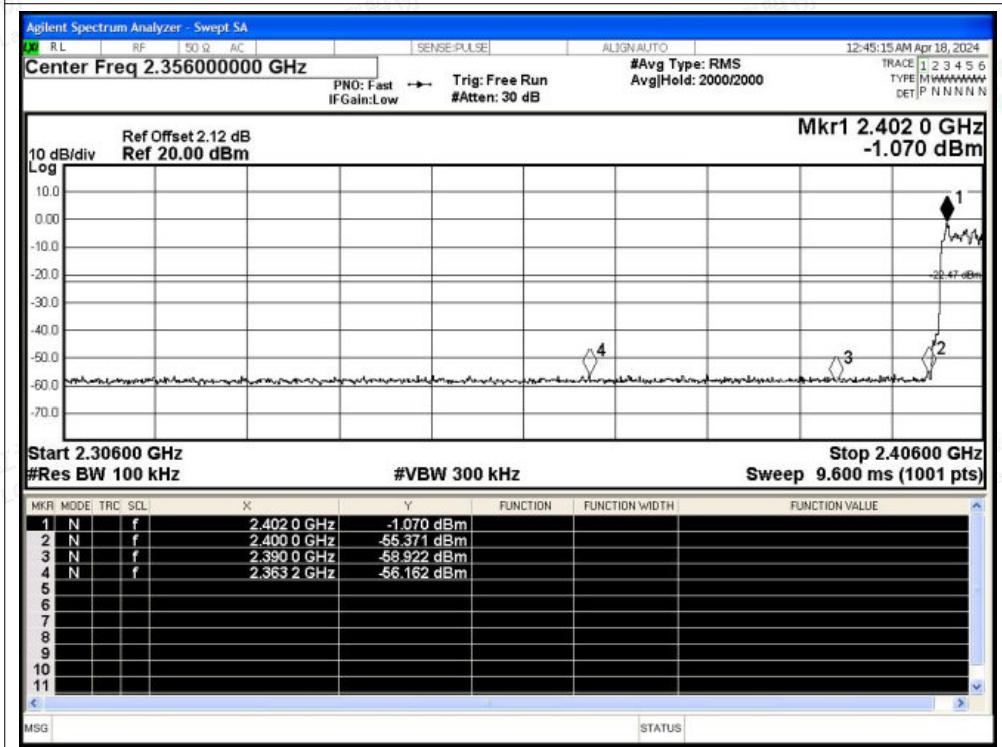




Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Ref

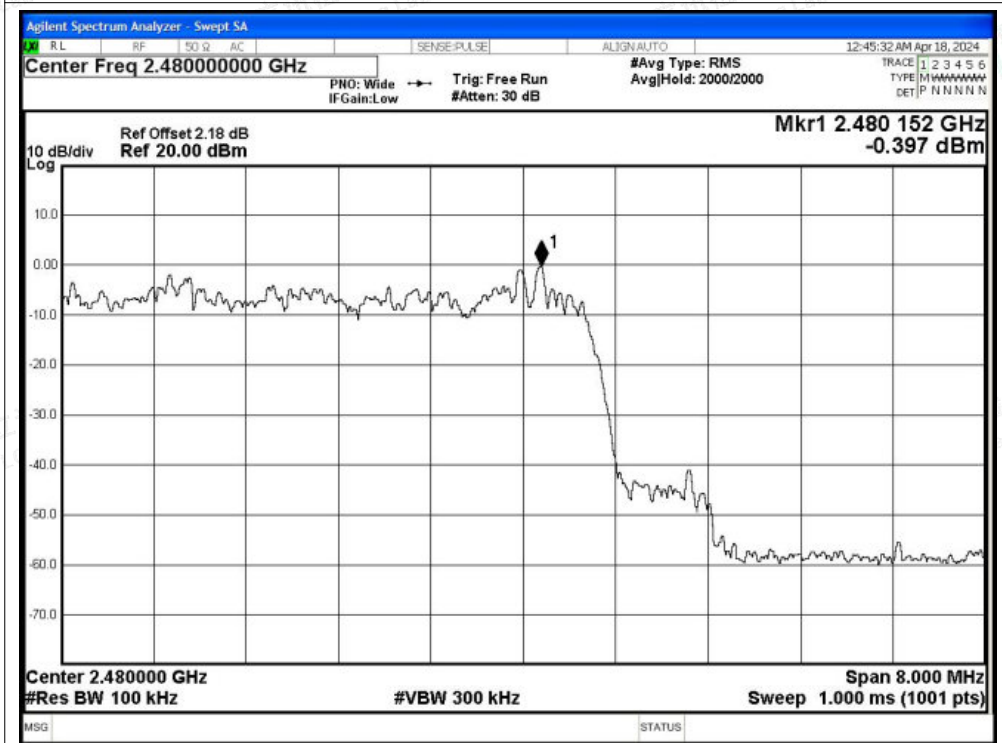


Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Emission

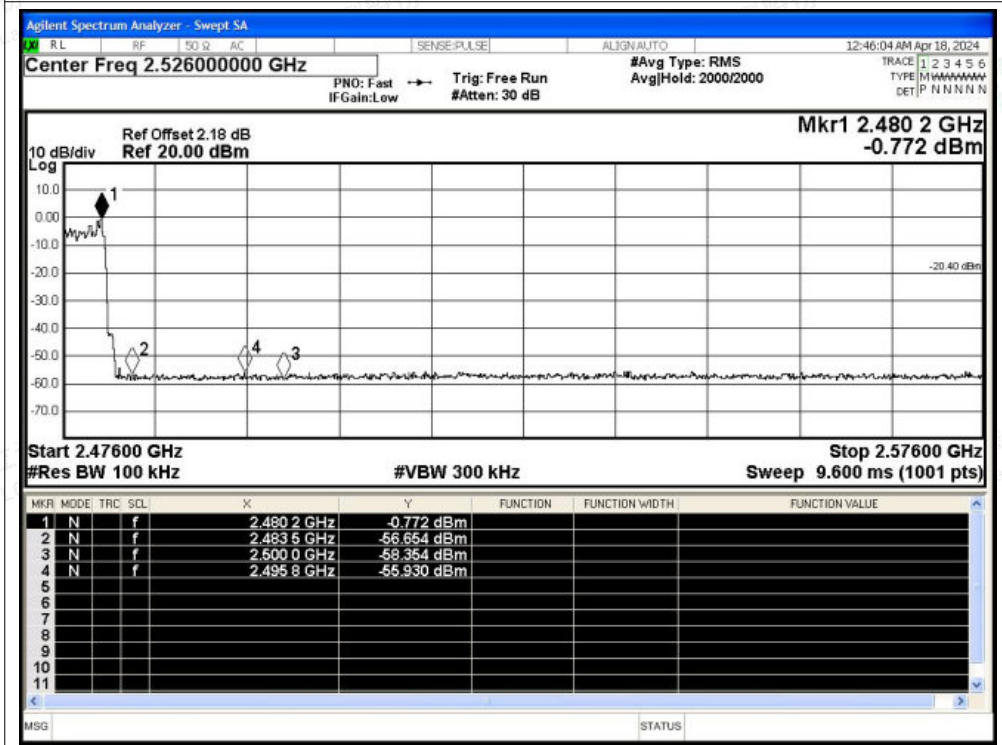




Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Ref



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





A.7 Conducted RF Spurious Emission

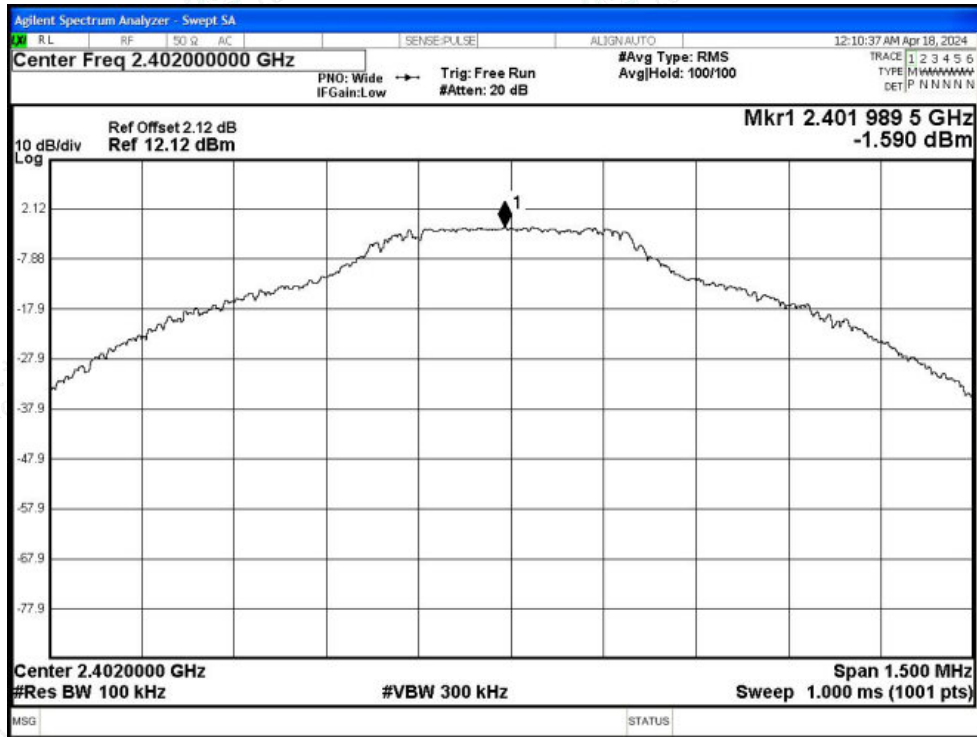
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	-53.63	-20	Pass
NVNT	1-DH5	2441	Ant1	-53.77	-20	Pass
NVNT	1-DH5	2480	Ant1	-53.83	-20	Pass
NVNT	2-DH5	2402	Ant1	-53.87	-20	Pass
NVNT	2-DH5	2441	Ant1	-54.14	-20	Pass
NVNT	2-DH5	2480	Ant1	-54.8	-20	Pass



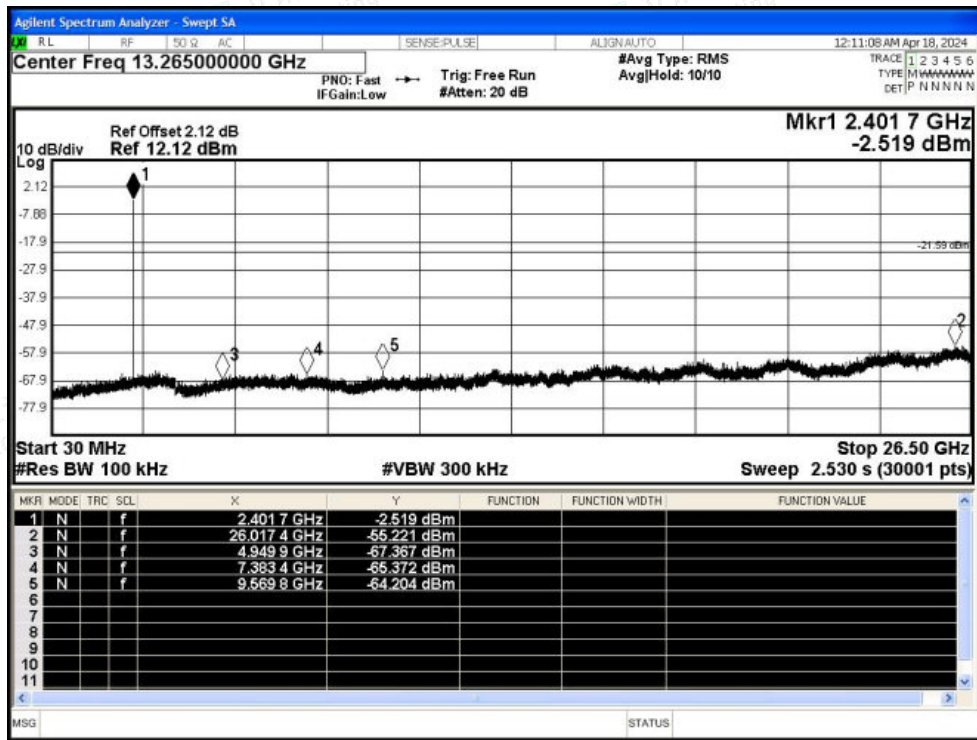


Test Graphs

Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref



Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission

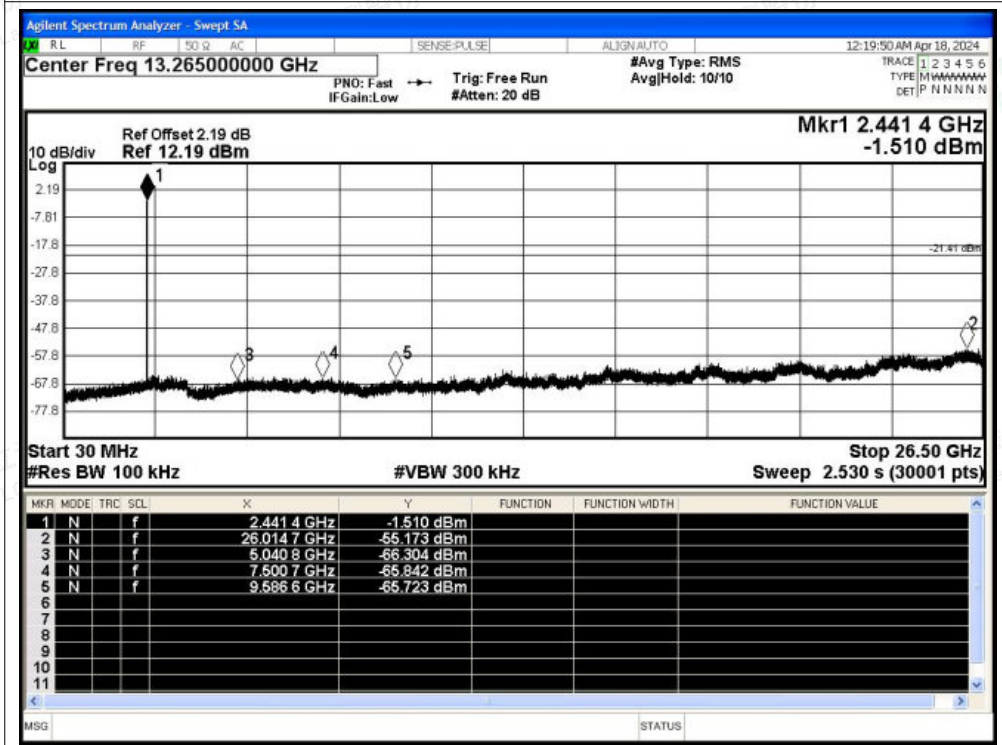




Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref

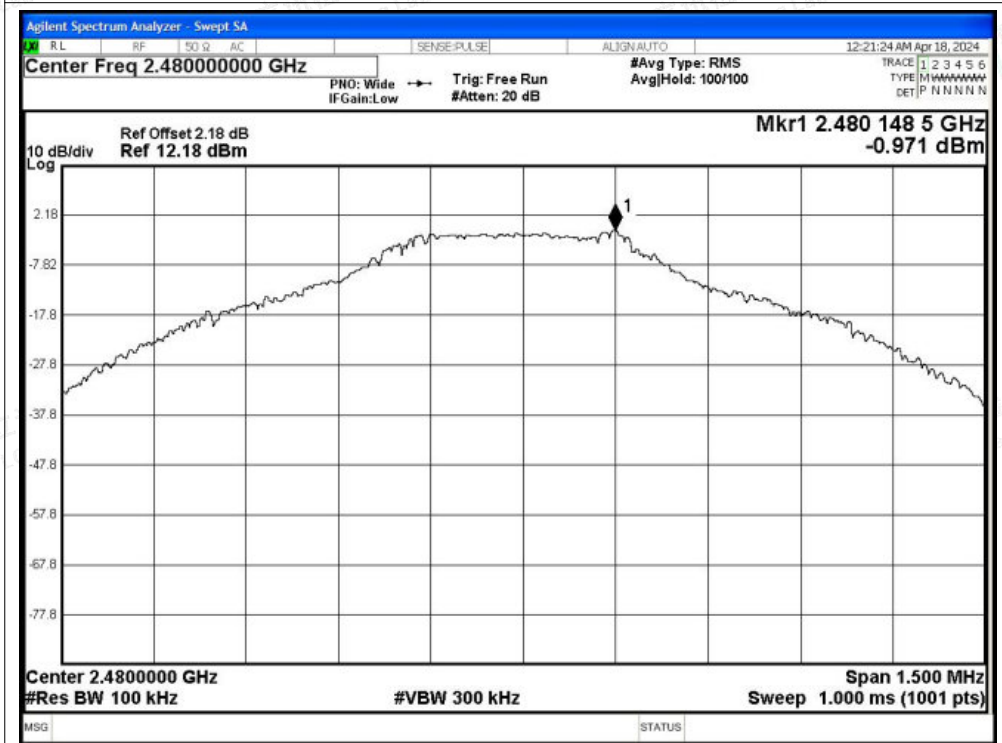


Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission

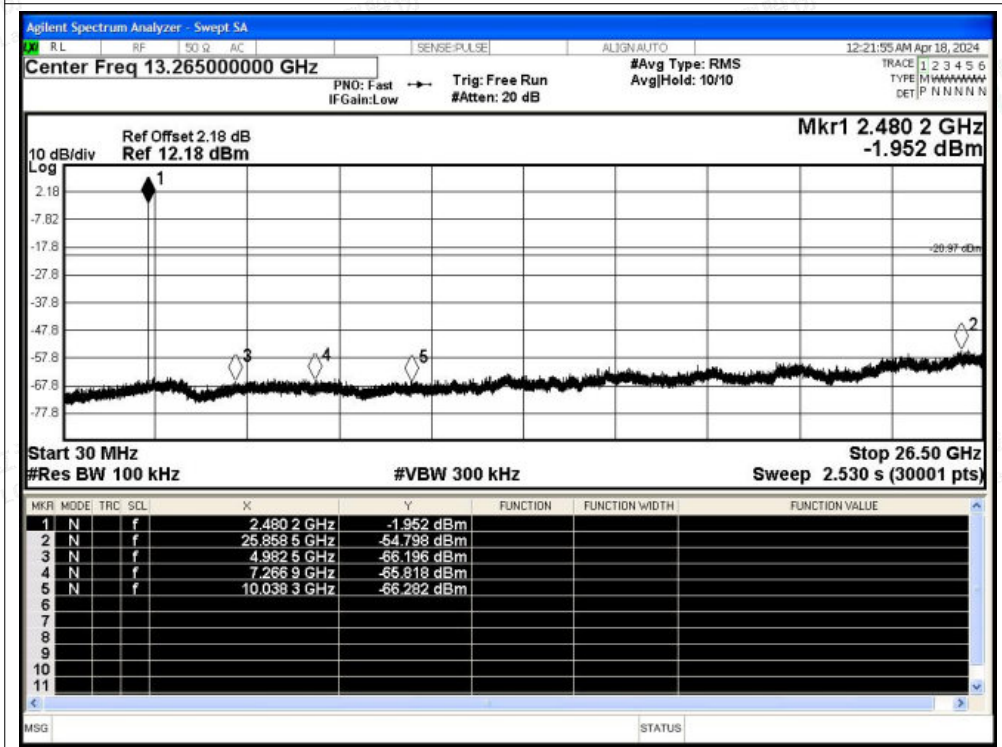




Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref

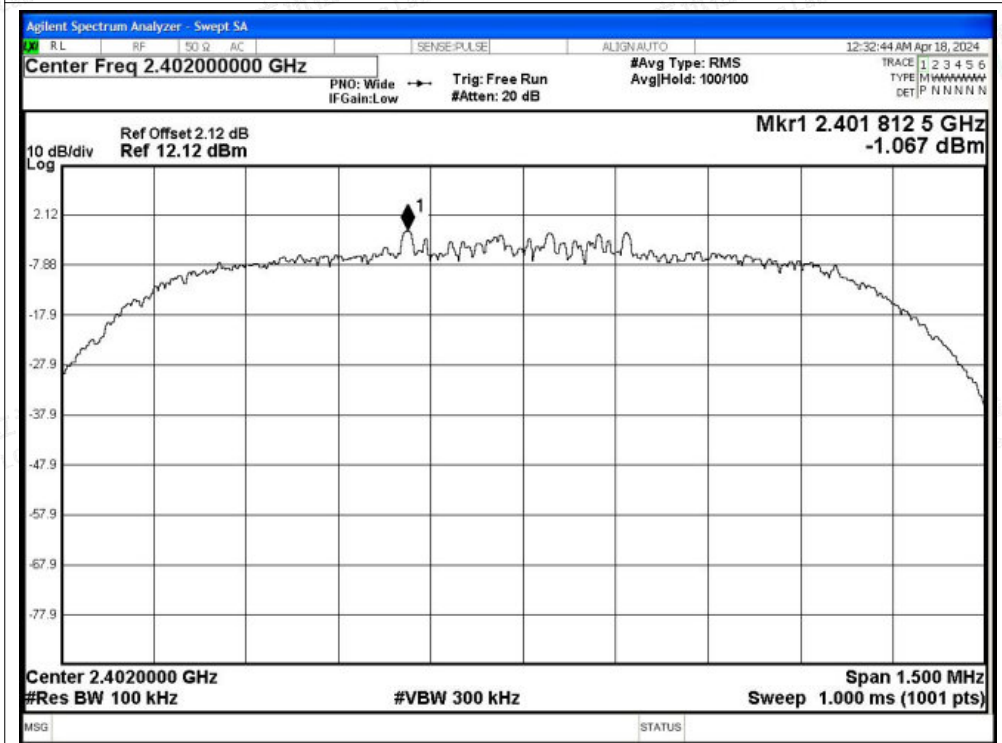


Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Emission

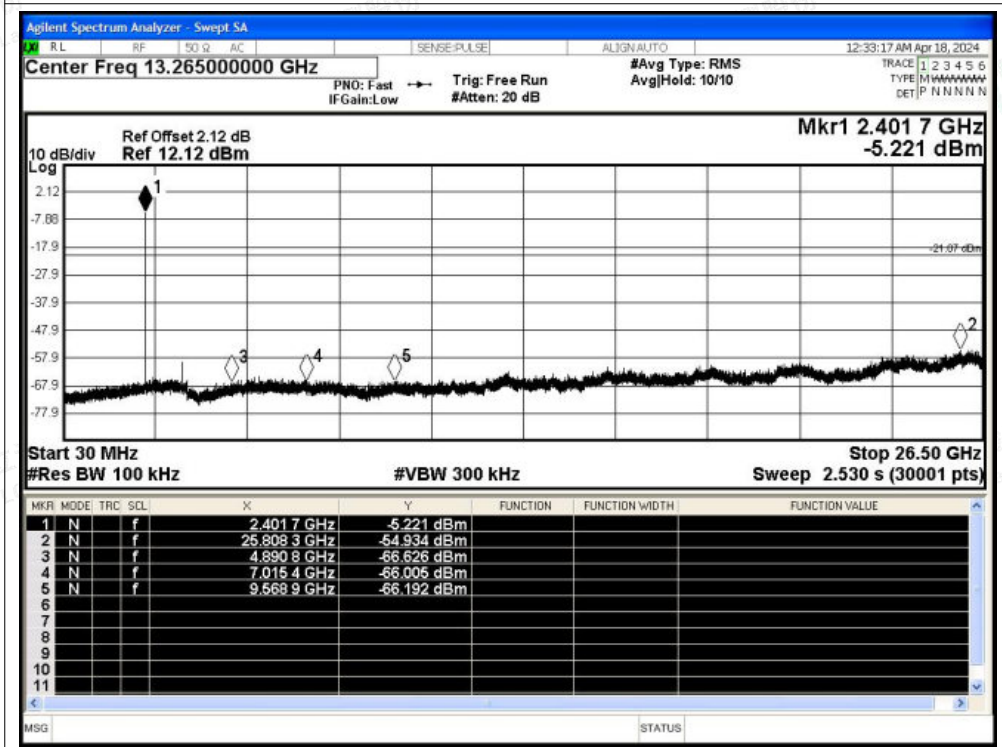




Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Ref

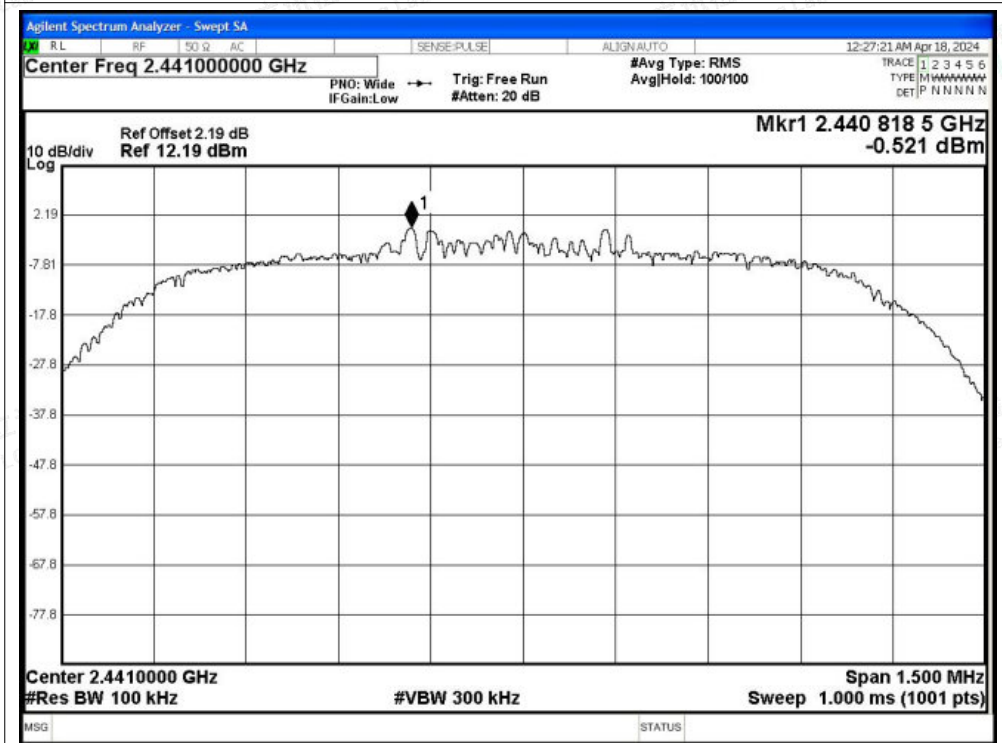


Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Emission

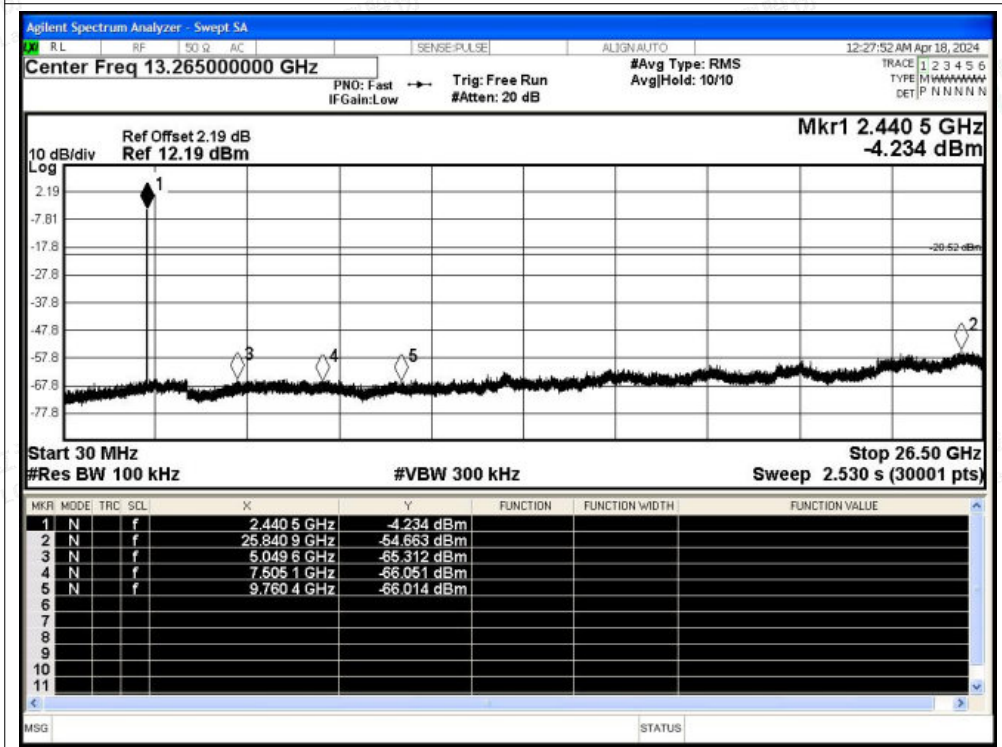




Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Ref

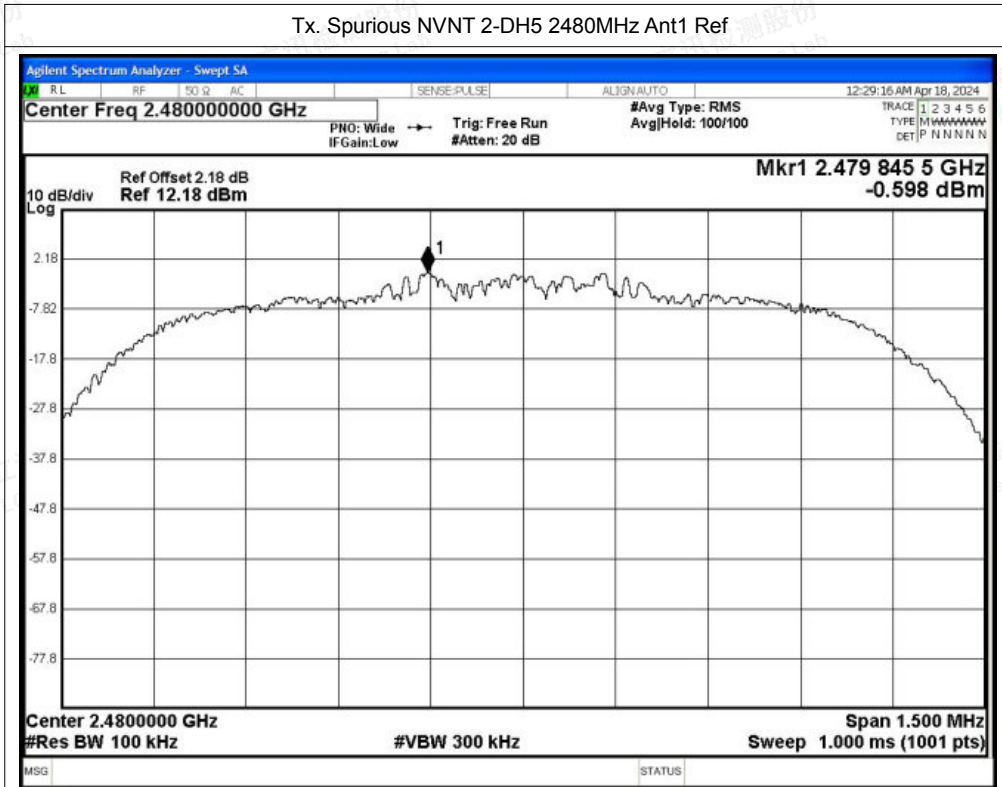


Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Emission

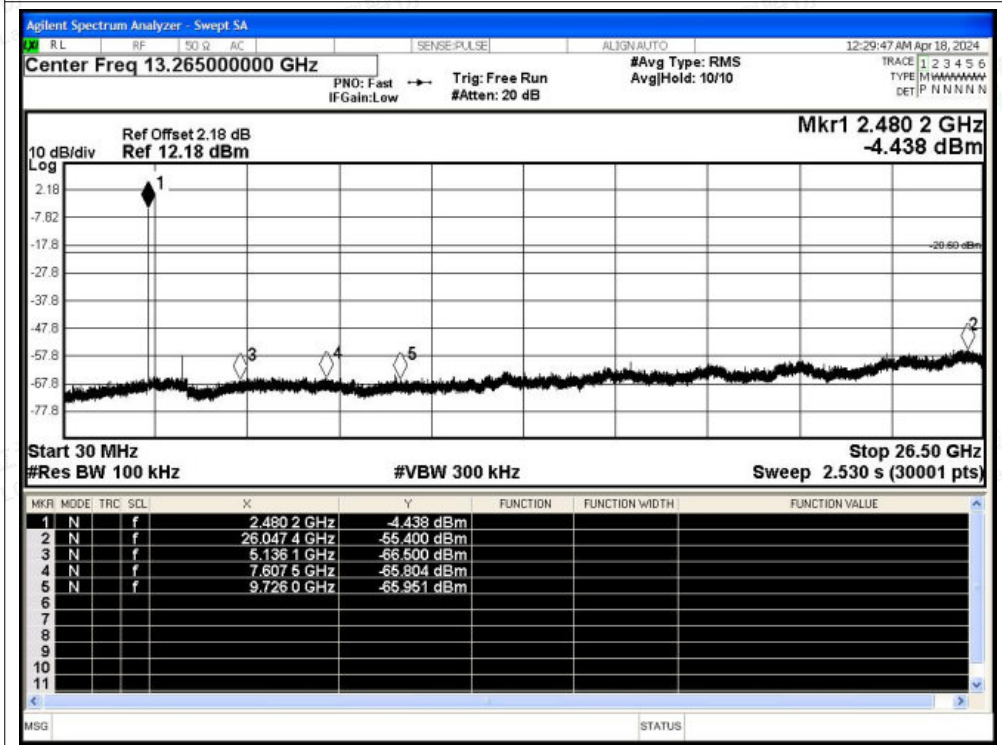




Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Ref



Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Emission





A.8 Duty Cycle

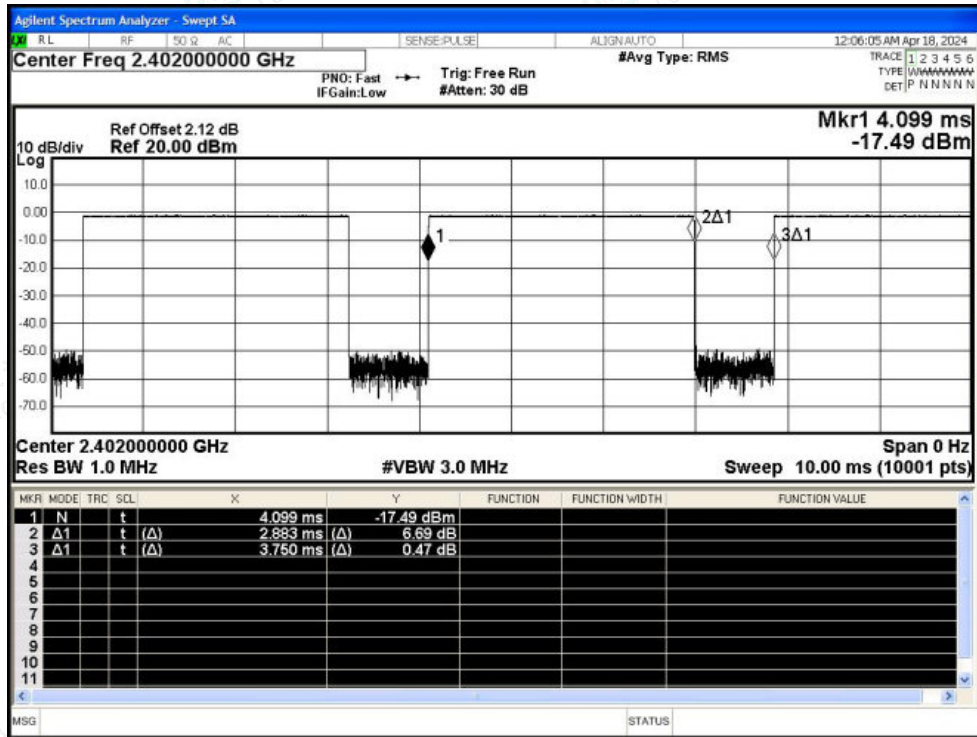
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH5	2402	Ant1	76.88	1.14	0.35
NVNT	1-DH5	2441	Ant1	76.88	1.14	0.35
NVNT	1-DH5	2480	Ant1	76.88	1.14	0.35
NVNT	2-DH5	2402	Ant1	76.96	1.14	0.35
NVNT	2-DH5	2441	Ant1	73.89	1.31	0.36
NVNT	2-DH5	2480	Ant1	73.87	1.32	0.36



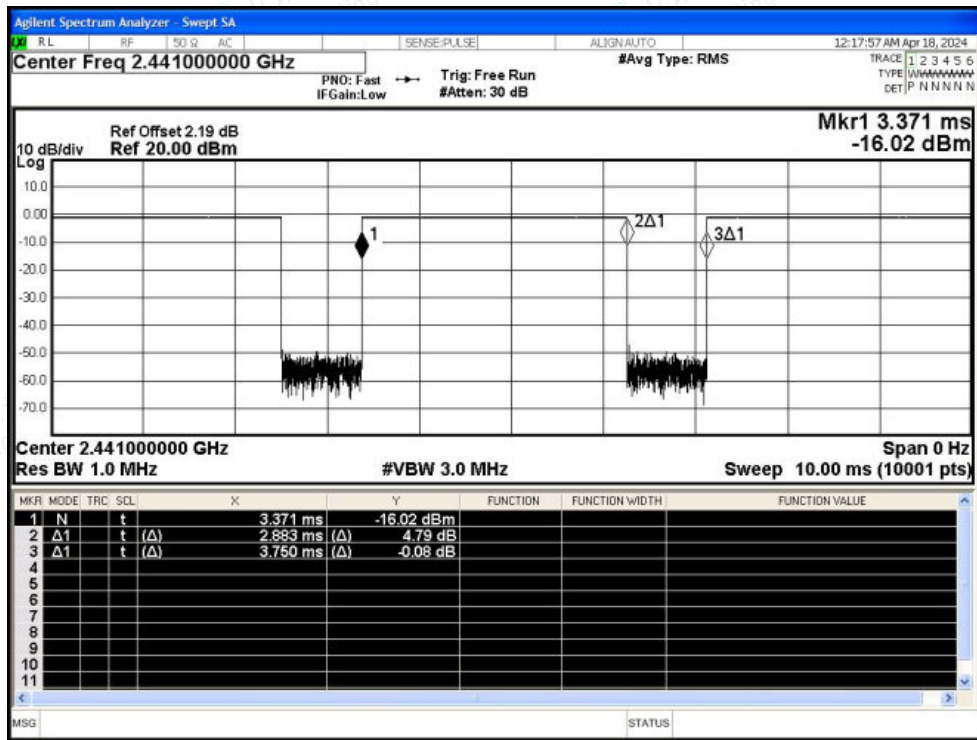


Test Graphs

Duty Cycle NVNT 1-DH5 2402MHz Ant1

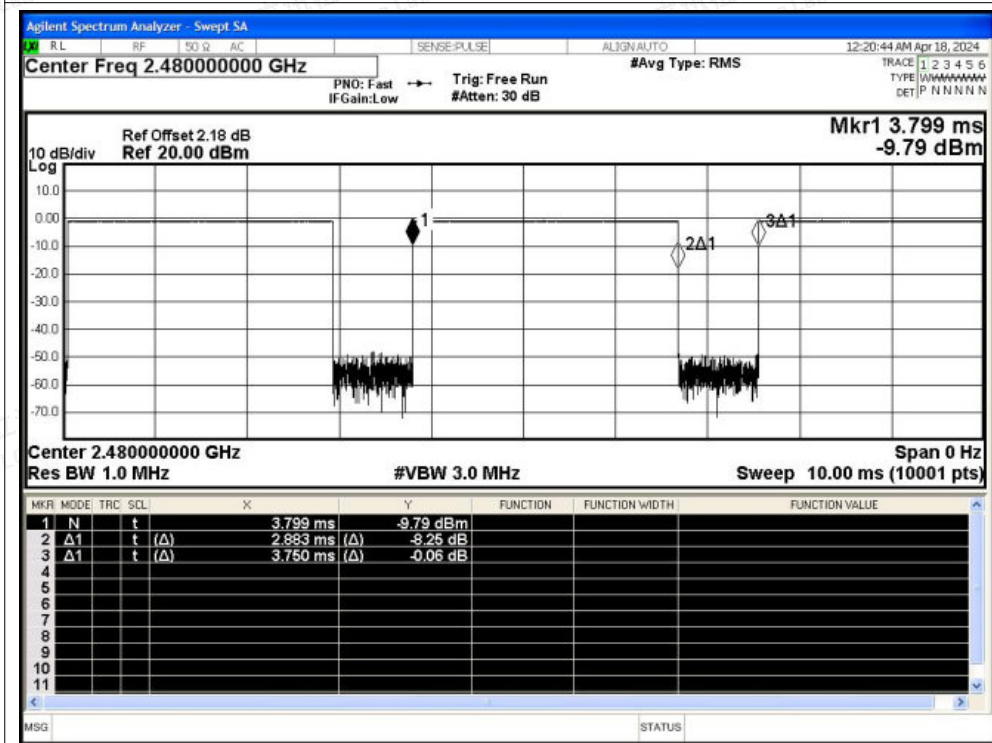


Duty Cycle NVNT 1-DH5 2441MHz Ant1

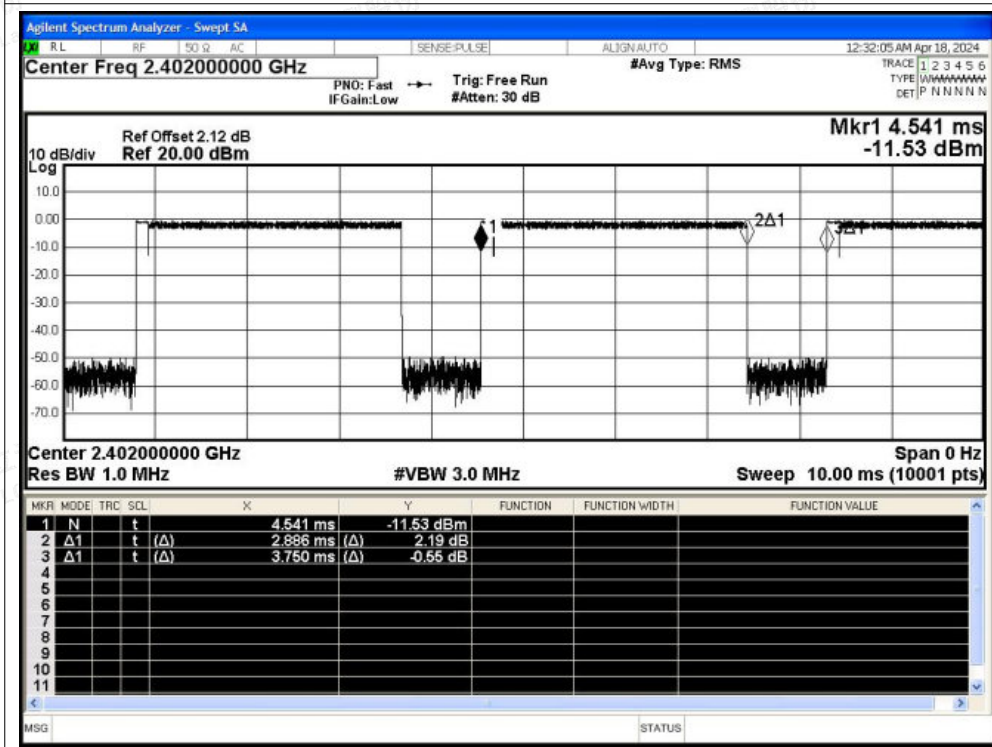




Duty Cycle NVNT 1-DH5 2480MHz Ant1

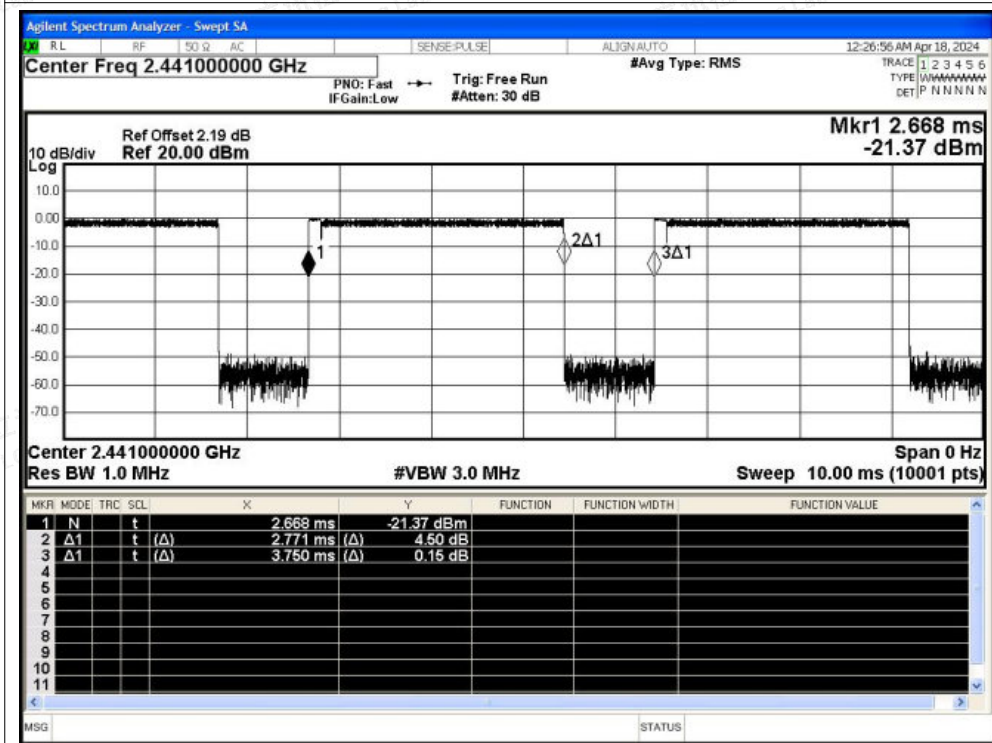


Duty Cycle NVNT 2-DH5 2402MHz Ant1

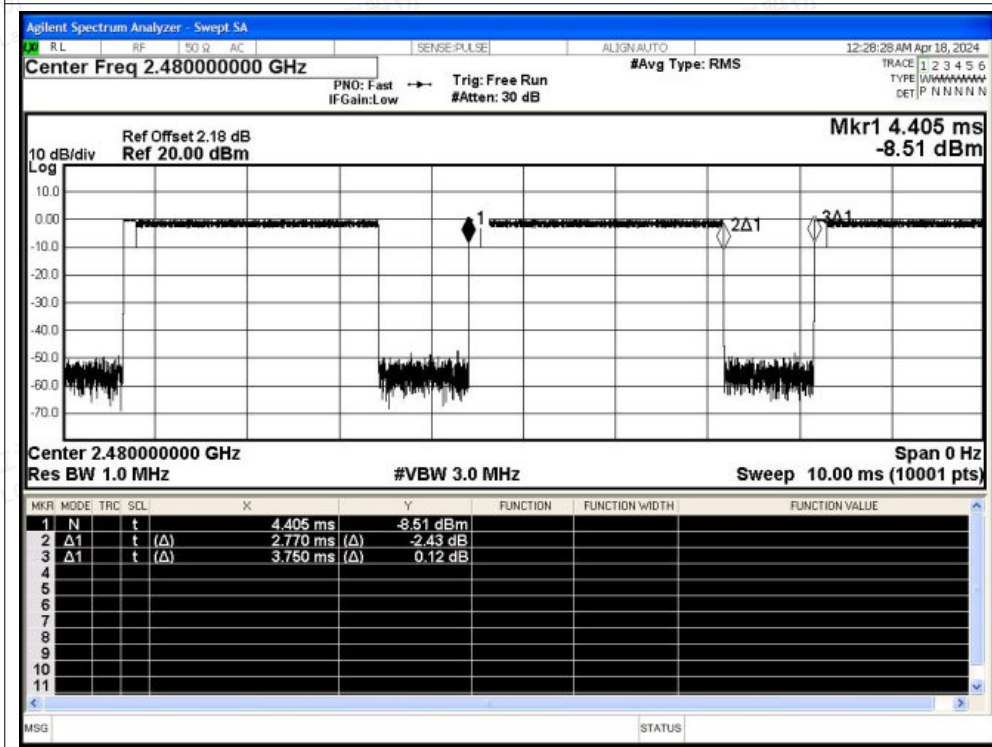




Duty Cycle NVNT 2-DH5 2441MHz Ant1



Duty Cycle NVNT 2-DH5 2480MHz Ant1





A.9 Restrict Band

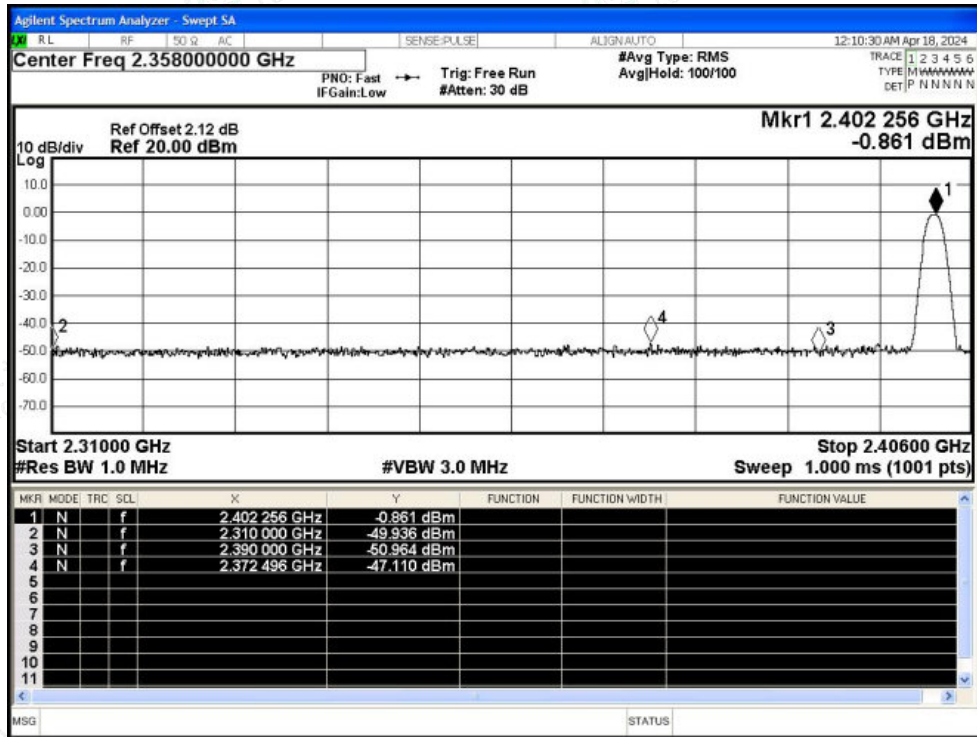
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-49.94	2.78	-	48.1	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-58.47	2.78	1.14	40.71	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2372.496	-47.11	2.78	-	50.93	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2378.64	-57.61	2.78	1.14	41.57	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-50.96	2.78	-	47.08	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-58.73	2.78	1.14	40.45	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-49.34	2.78	-	48.7	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-58.18	2.78	1.14	41	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2495.872	-47.09	2.78	-	50.95	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2488.264	-57.04	2.78	1.14	42.14	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-50.97	2.78	-	47.07	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-58.1	2.78	1.14	41.08	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-49.12	2.78	-	48.92	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-58.67	2.78	1.14	40.51	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2315.088	-46.66	2.78	-	51.38	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2384.976	-57.52	2.78	1.14	41.66	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-51.35	2.78	-	46.69	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-58.42	2.78	1.14	40.76	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-49.91	2.78	-	48.13	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-58.15	2.78	1.32	41.21	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2488.144	-46.86	2.78	-	51.18	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2490.808	-57.09	2.78	1.32	42.27	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-50.15	2.78	-	47.89	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-58.35	2.78	1.32	41.01	Average	54	Pass



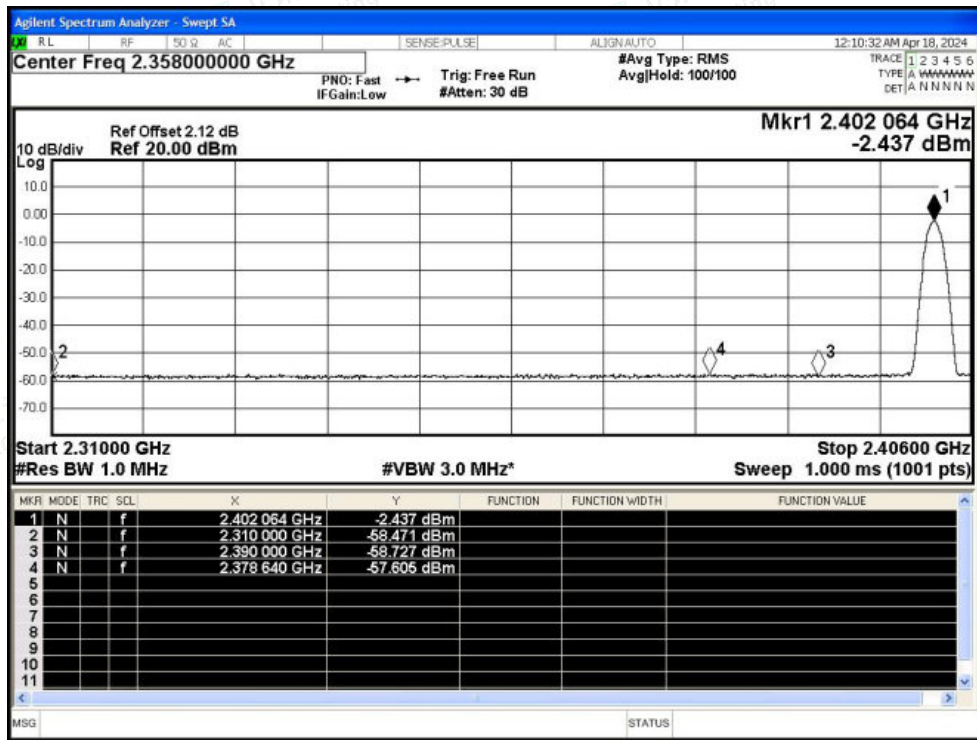


Test Graphs

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

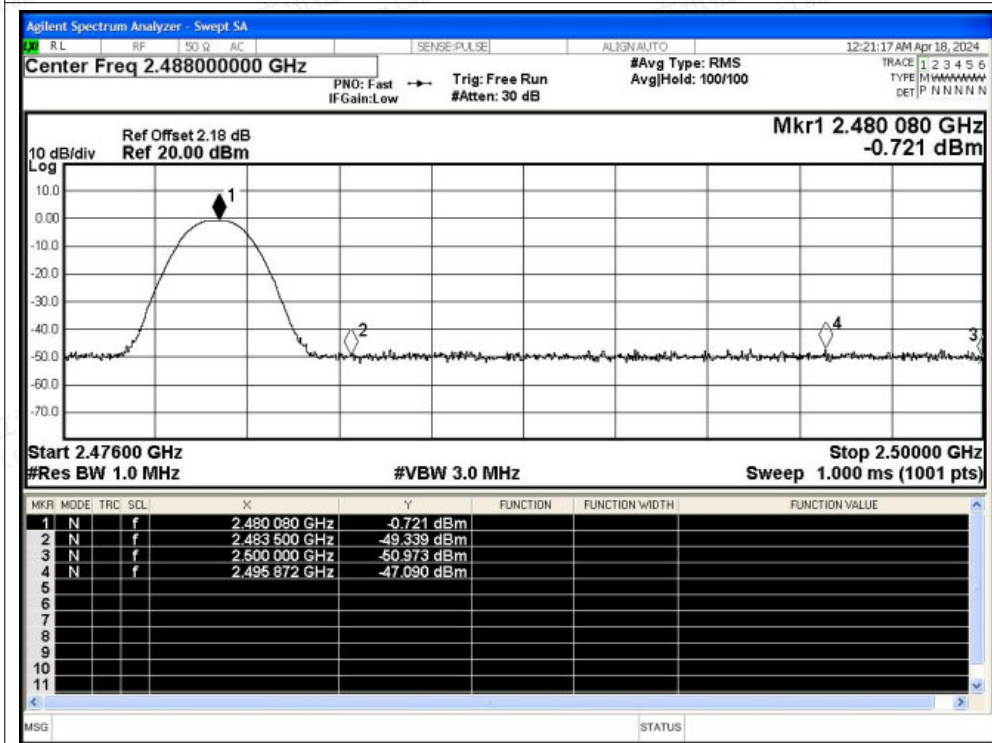


Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Average

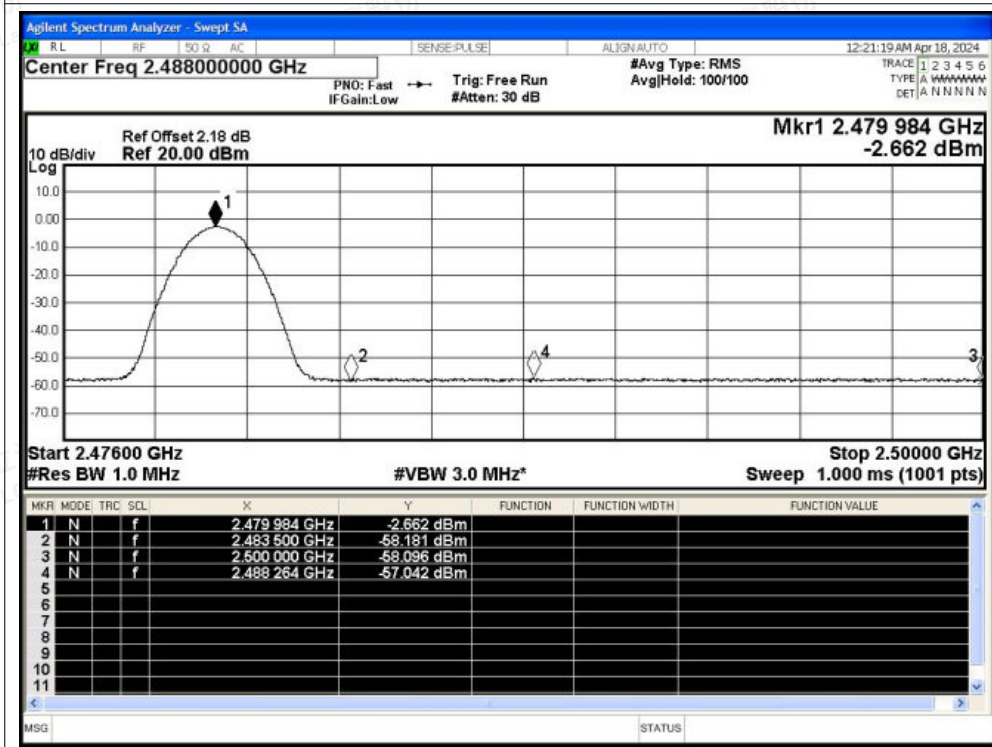




Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Peak

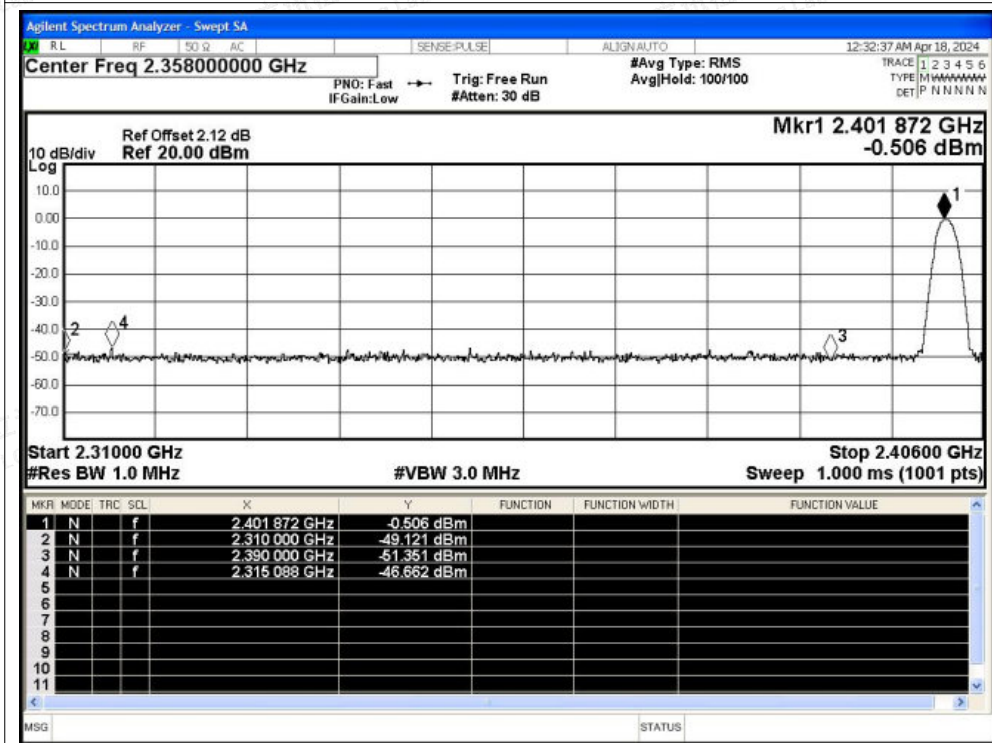


Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Average

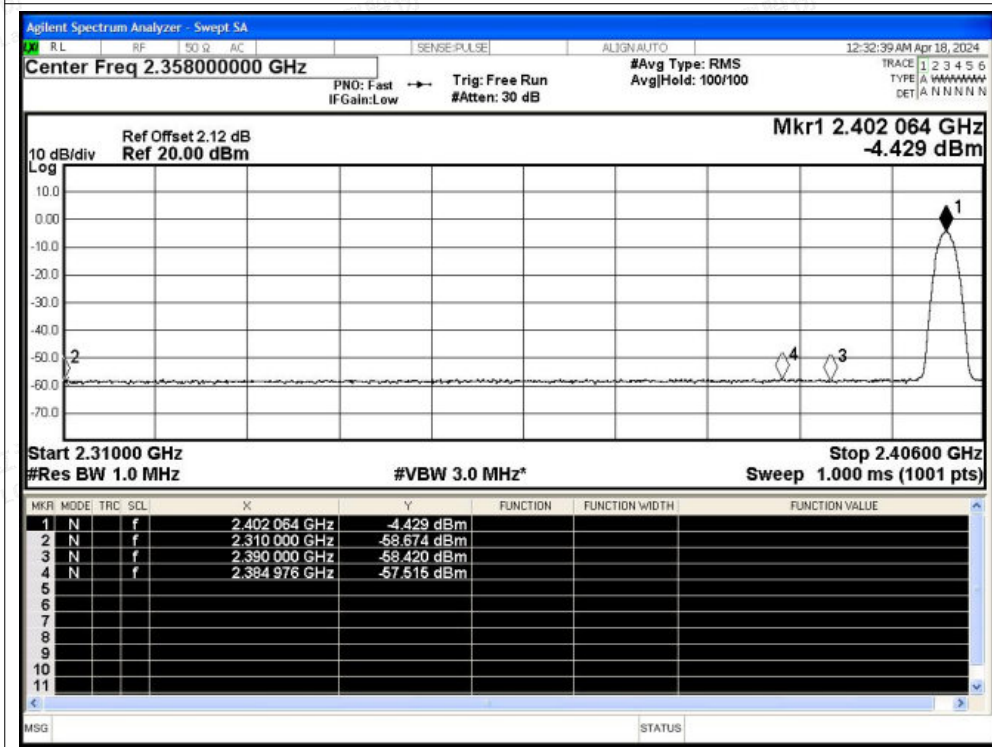




Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Peak

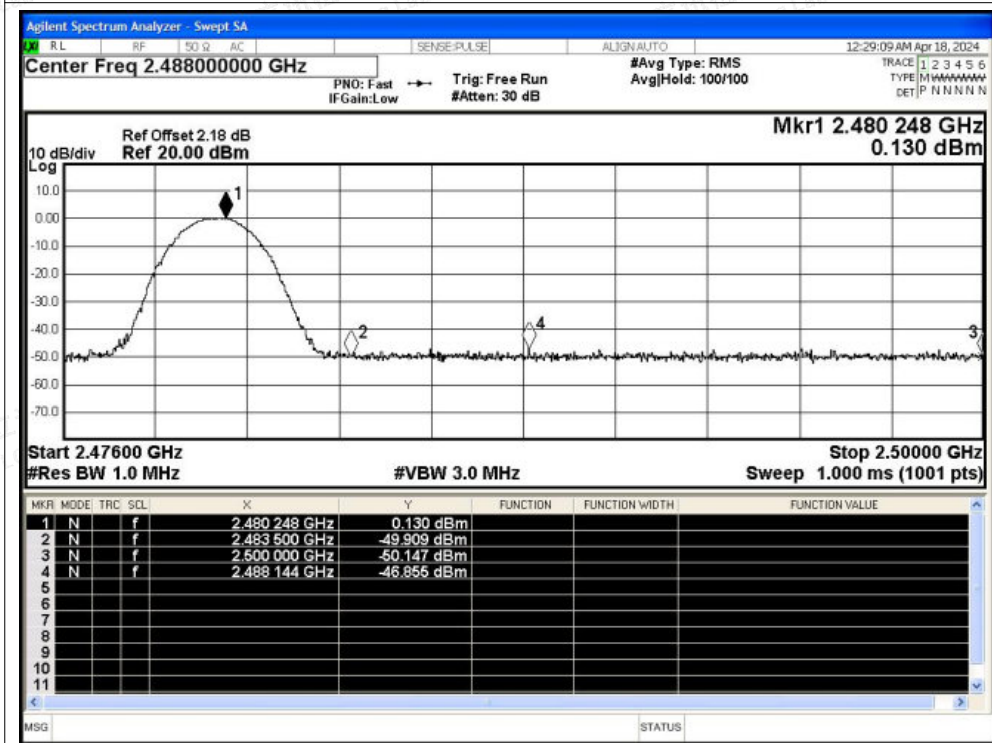


Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Average





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



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

