

Appendix A

RF Test Data for BT(Conducted Measurement)

Product Name: Translator Earbuds

Test Model: F56

Environmental Conditions

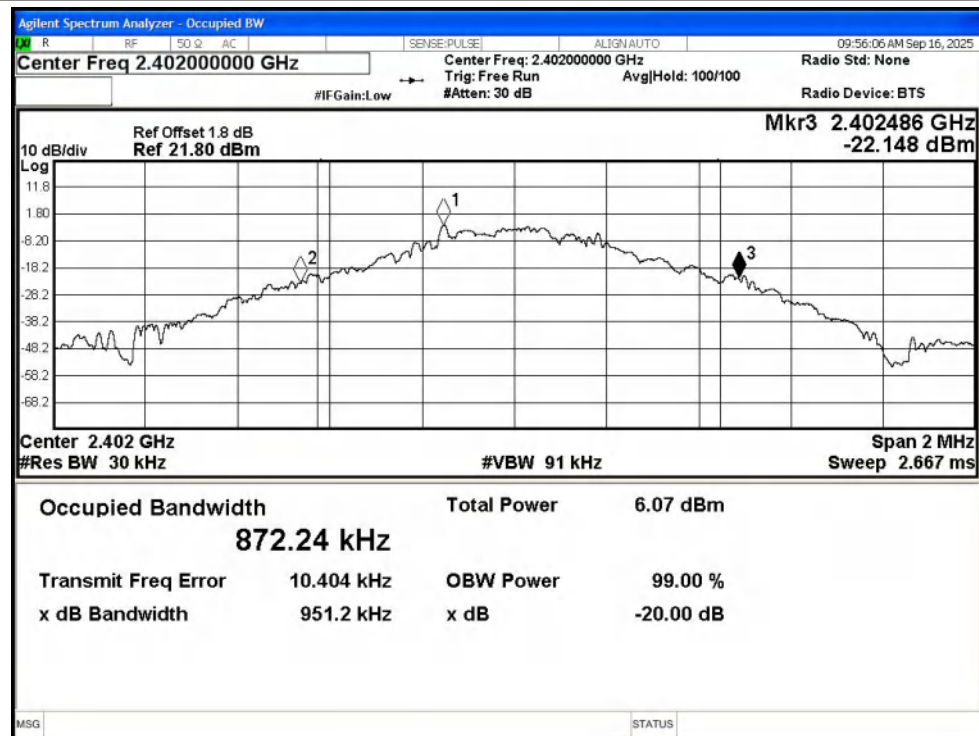
Temperature:	23.6°C
Relative Humidity:	52.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Jone.Lee
Supervised by:	Yan Chen

A.1 -20dB Bandwidth

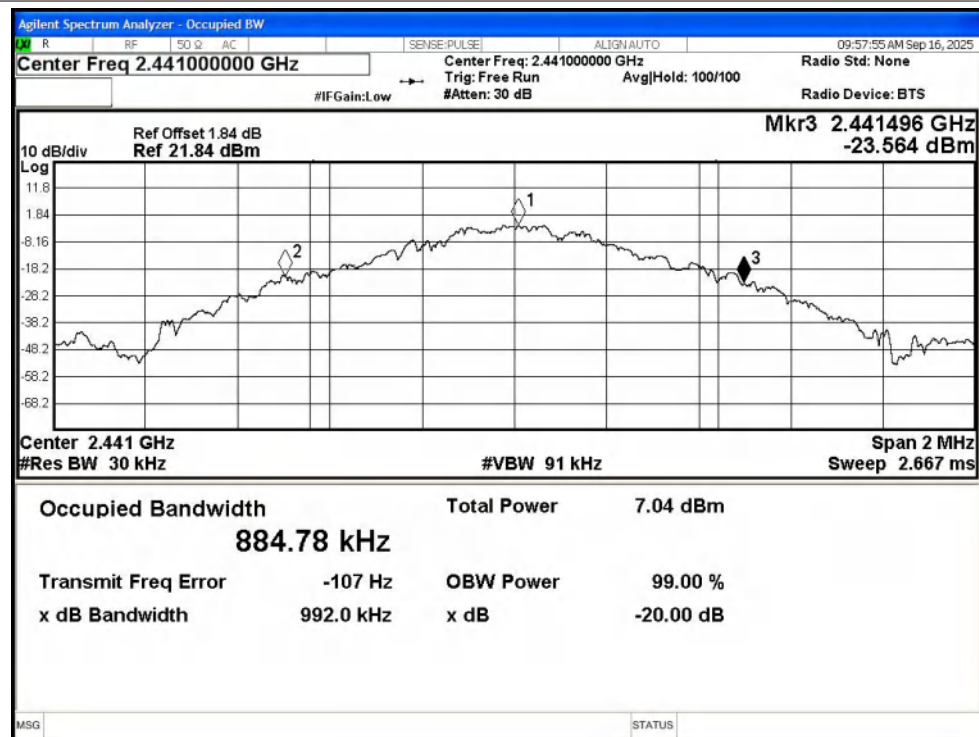
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH5	2402	Ant1	0.951	N/A	Pass
NVNT	1-DH5	2441	Ant1	0.992	N/A	Pass
NVNT	1-DH5	2480	Ant1	0.982	N/A	Pass
NVNT	2-DH5	2402	Ant1	1.285	N/A	Pass
NVNT	2-DH5	2441	Ant1	1.279	N/A	Pass
NVNT	2-DH5	2480	Ant1	1.309	N/A	Pass
NVNT	3-DH5	2402	Ant1	1.296	N/A	Pass
NVNT	3-DH5	2441	Ant1	1.312	N/A	Pass
NVNT	3-DH5	2480	Ant1	1.302	N/A	Pass

Test Graphs

-20dB Bandwidth NVNT 1-DH5 2402MHz Ant1



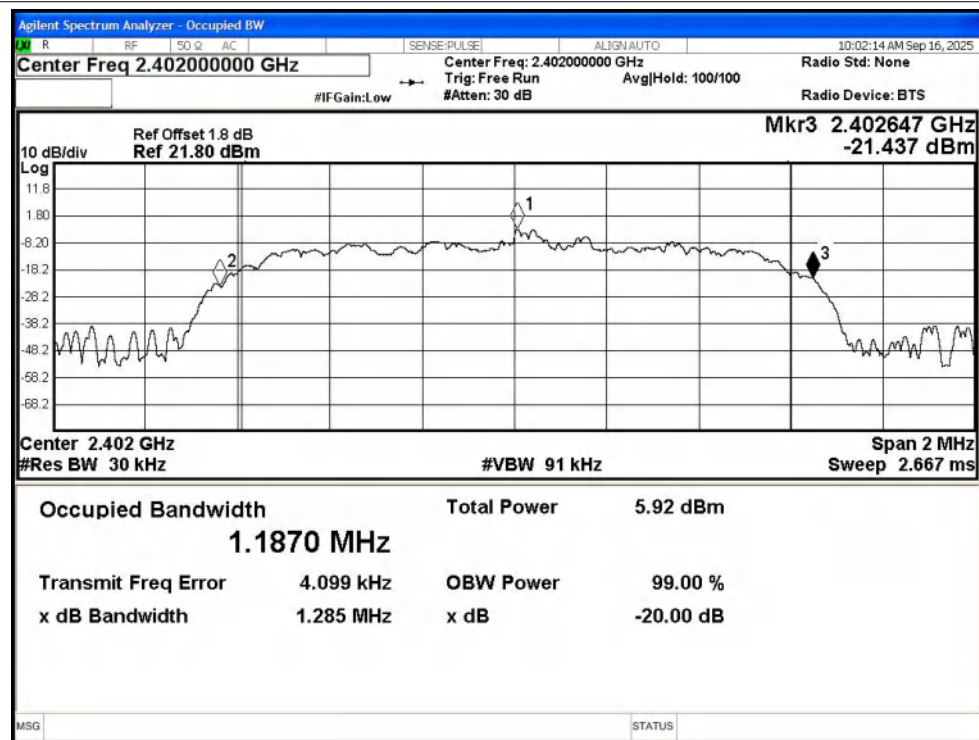
-20dB Bandwidth NVNT 1-DH5 2441MHz Ant1



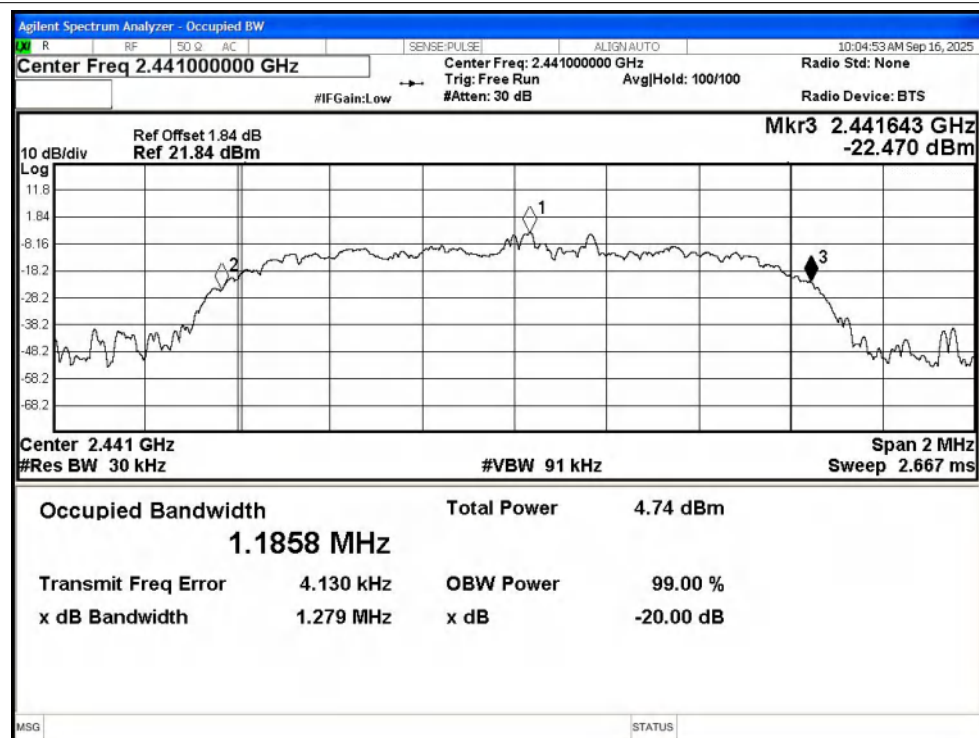
-20dB Bandwidth NVNT 1-DH5 2480MHz Ant1



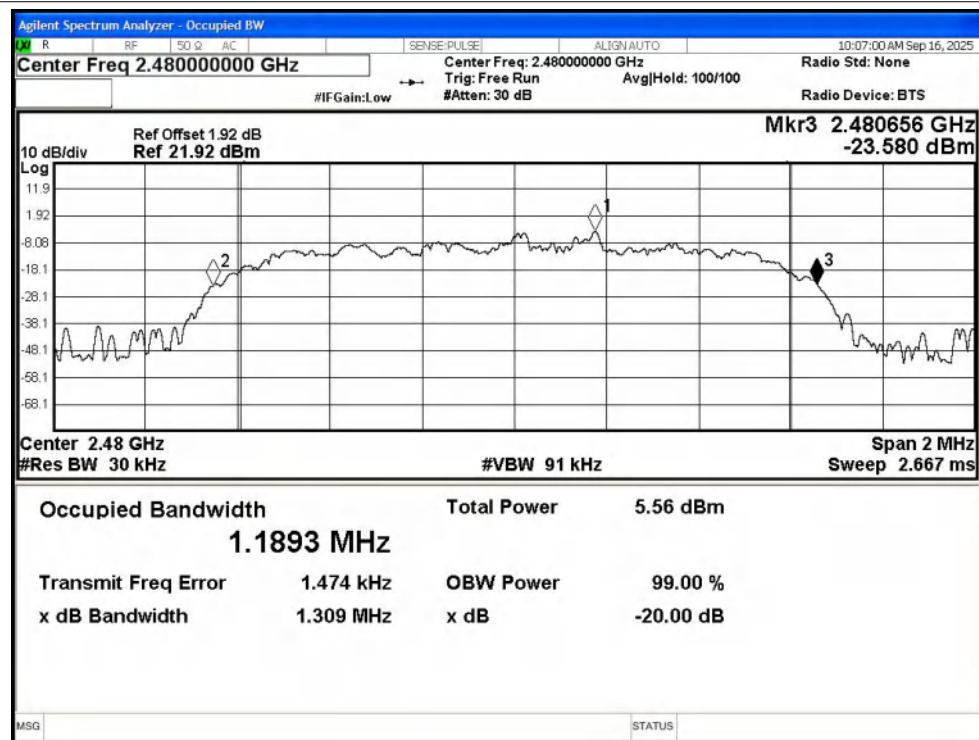
-20dB Bandwidth NVNT 2-DH5 2402MHz Ant1



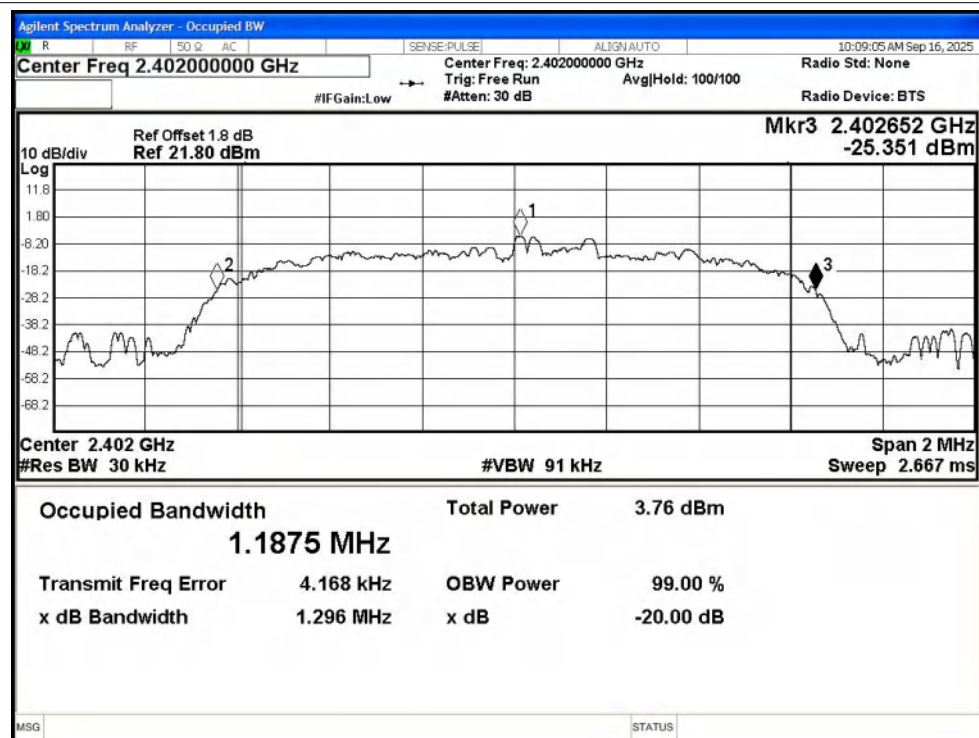
-20dB Bandwidth NVNT 2-DH5 2441MHz Ant1



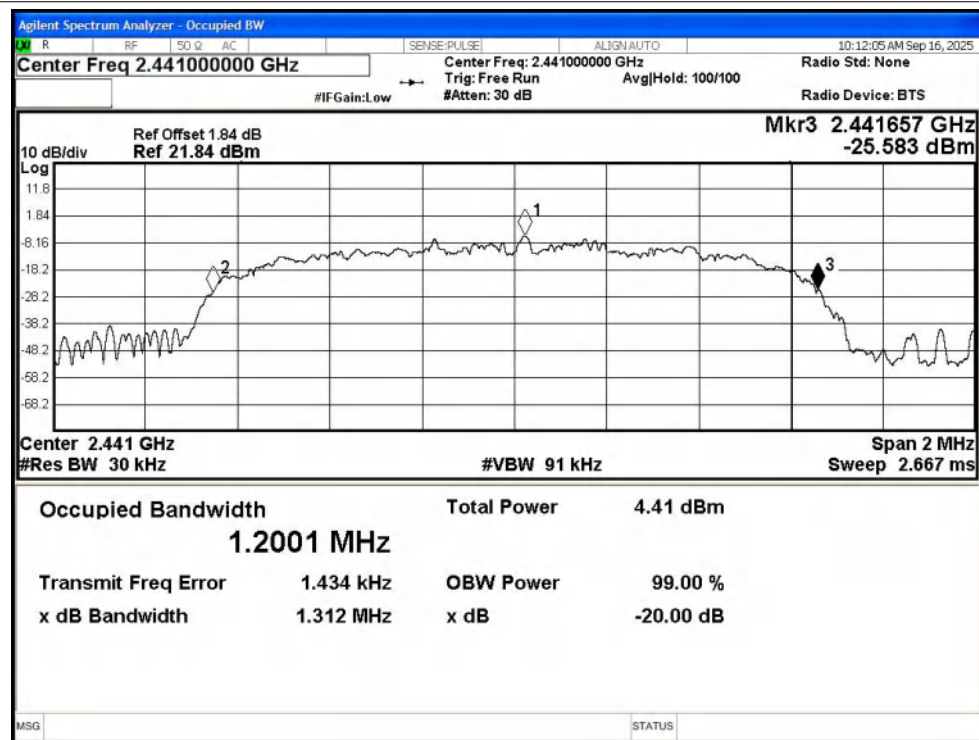
-20dB Bandwidth NVNT 2-DH5 2480MHz Ant1

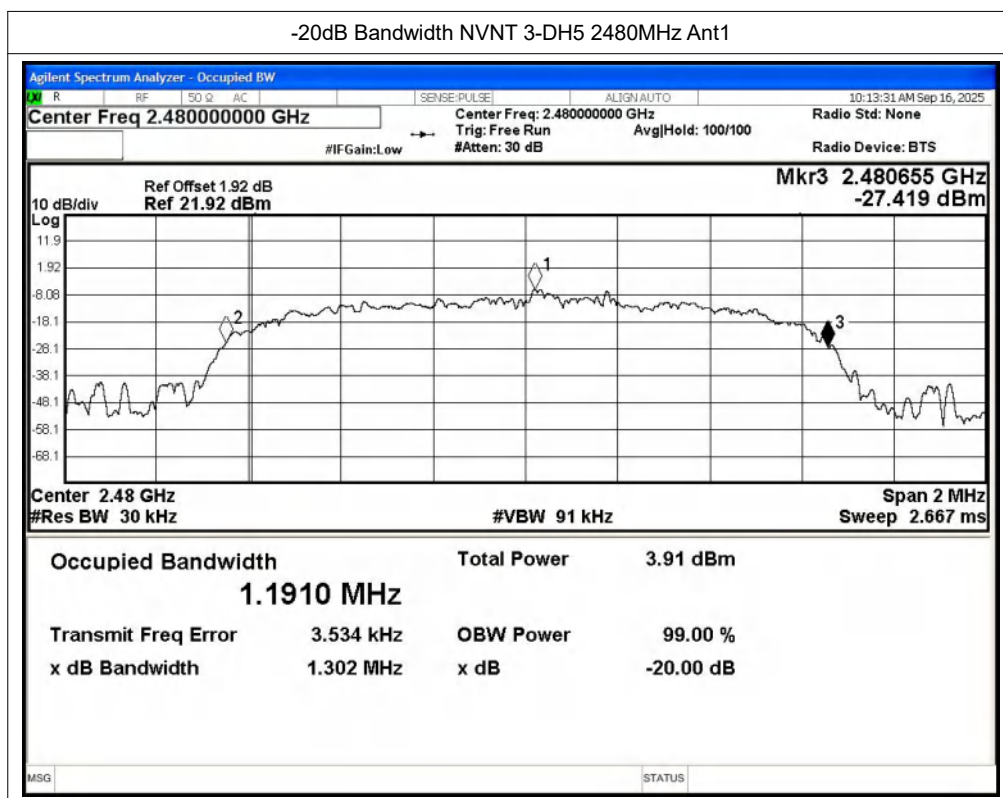


-20dB Bandwidth NVNT 3-DH5 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH5 2441MHz Ant1



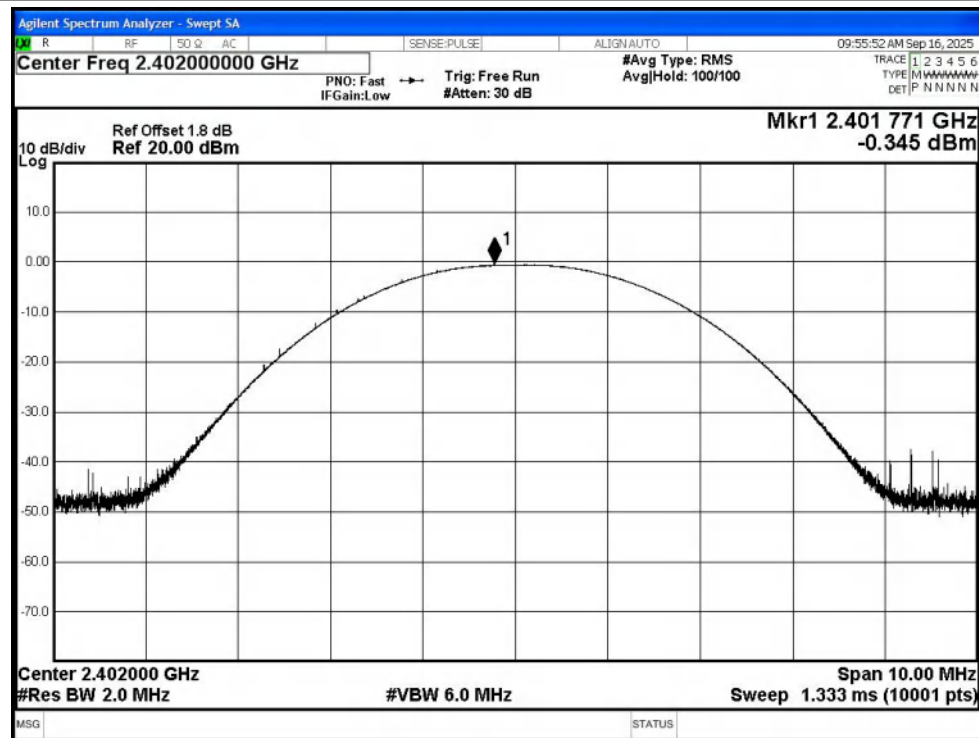


A.2 Maximum Peak Conducted Output Power

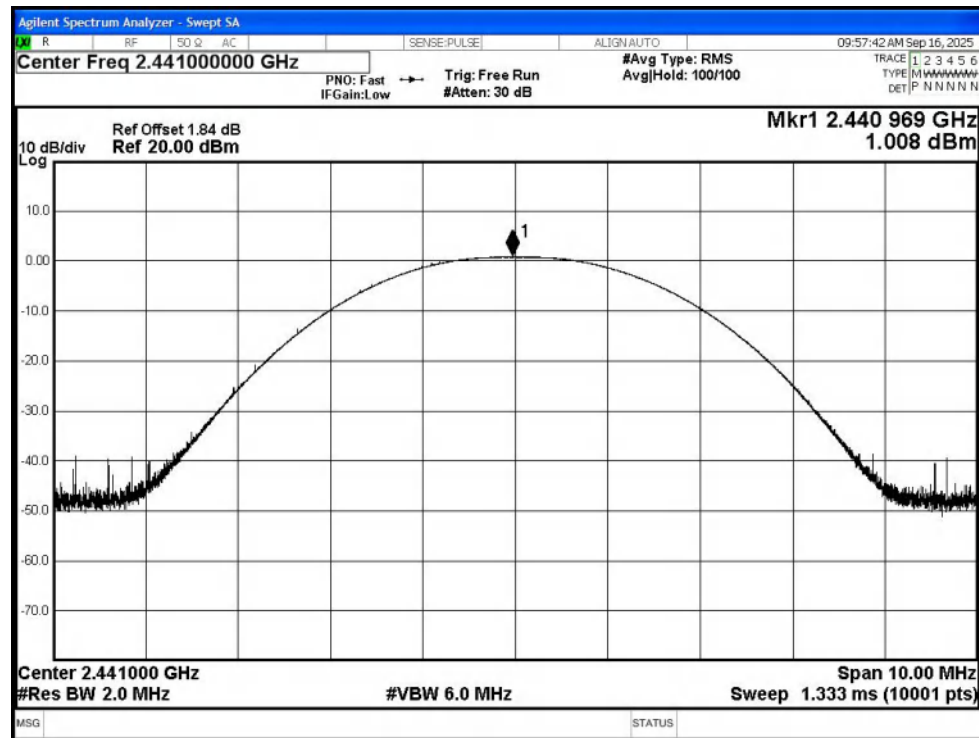
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH5	2402	Ant1	-0.35	21	Pass
NVNT	1-DH5	2441	Ant1	1.01	21	Pass
NVNT	1-DH5	2480	Ant1	0.5	21	Pass
NVNT	2-DH5	2402	Ant1	1.3	21	Pass
NVNT	2-DH5	2441	Ant1	0.24	21	Pass
NVNT	2-DH5	2480	Ant1	1.19	21	Pass
NVNT	3-DH5	2402	Ant1	-0.23	21	Pass
NVNT	3-DH5	2441	Ant1	0.62	21	Pass
NVNT	3-DH5	2480	Ant1	-0.2	21	Pass

Test Graphs

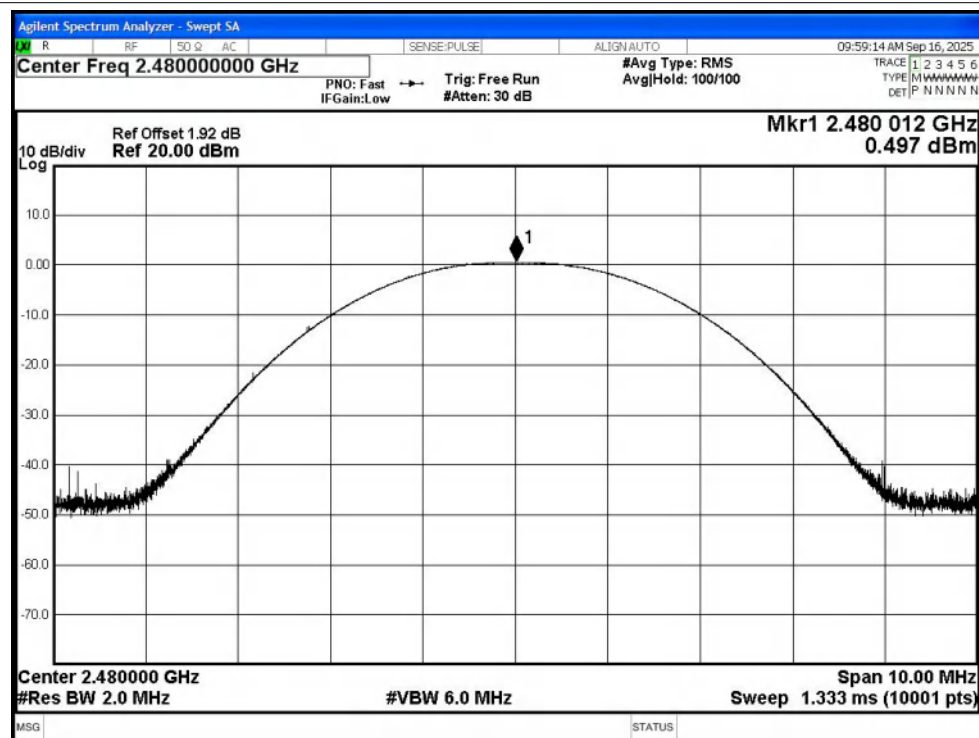
Power NVNT 1-DH5 2402MHz Ant1



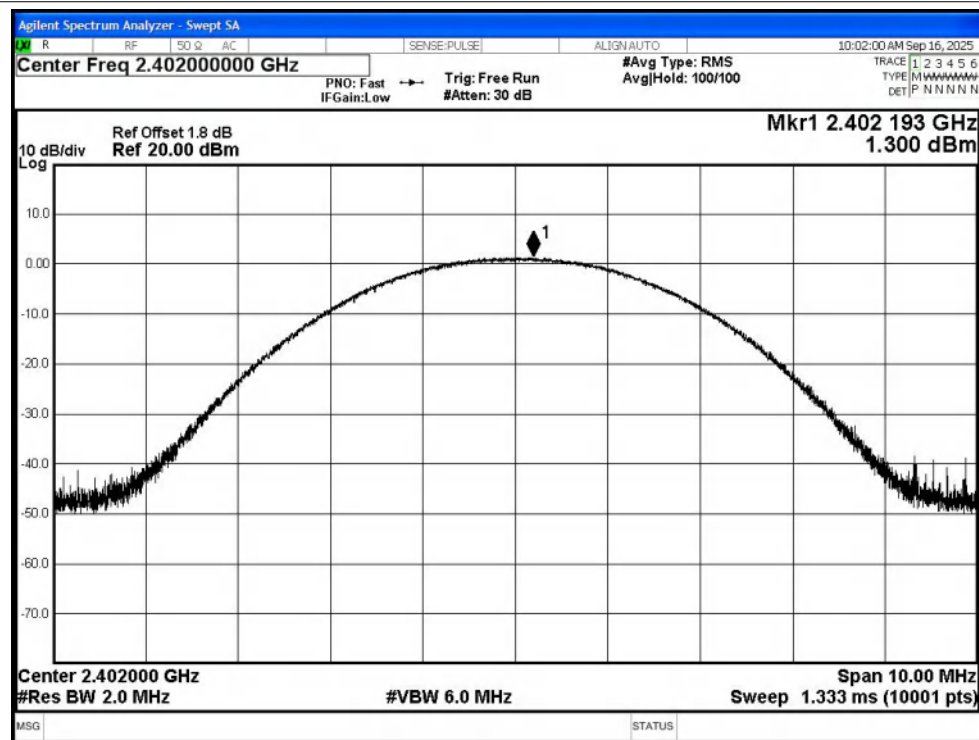
Power NVNT 1-DH5 2441MHz Ant1



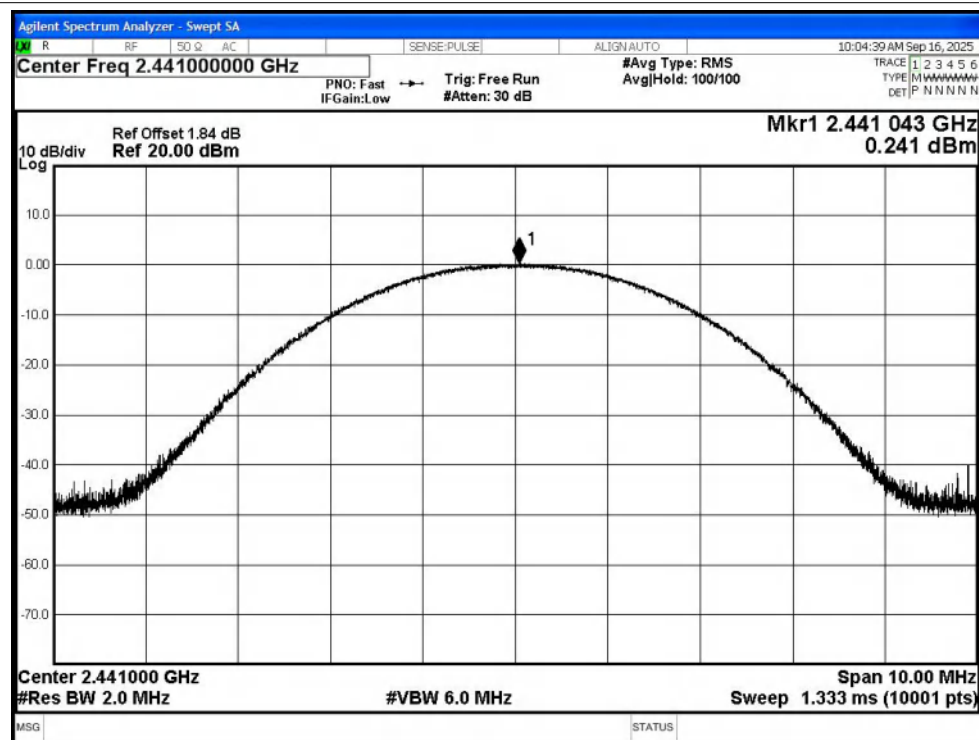
Power NVNT 1-DH5 2480MHz Ant1



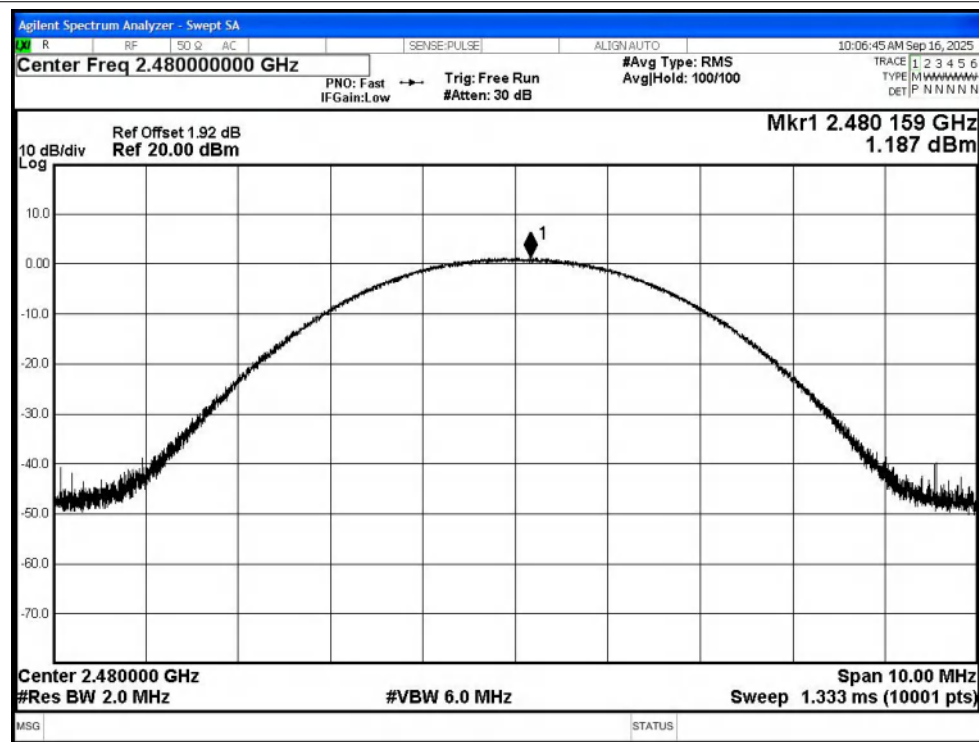
Power NVNT 2-DH5 2402MHz Ant1



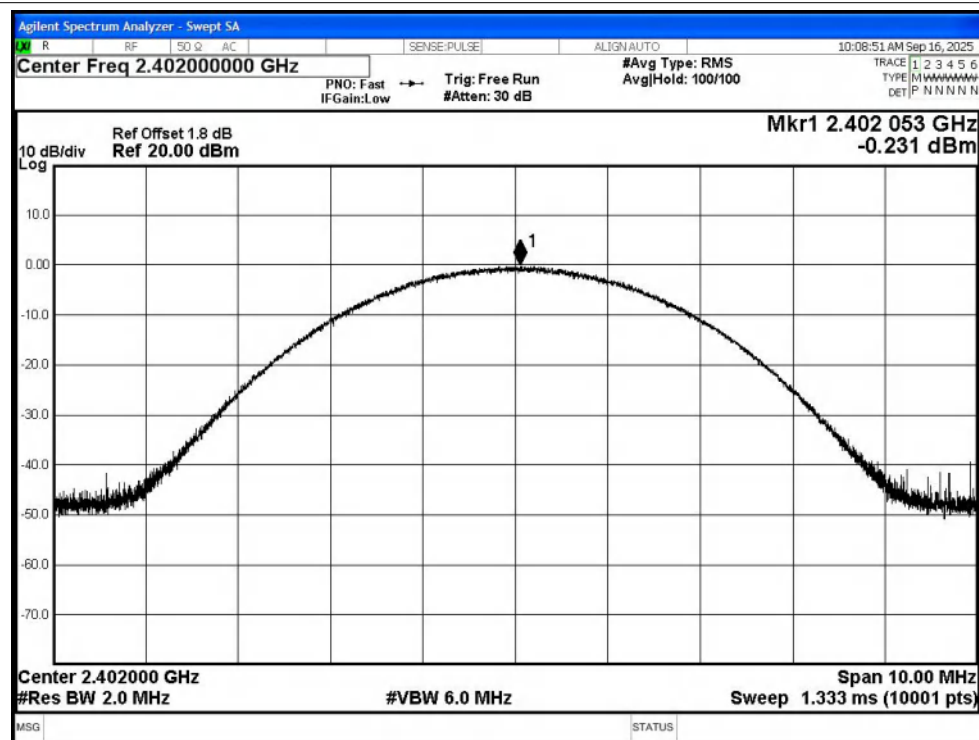
Power NVNT 2-DH5 2441MHz Ant1



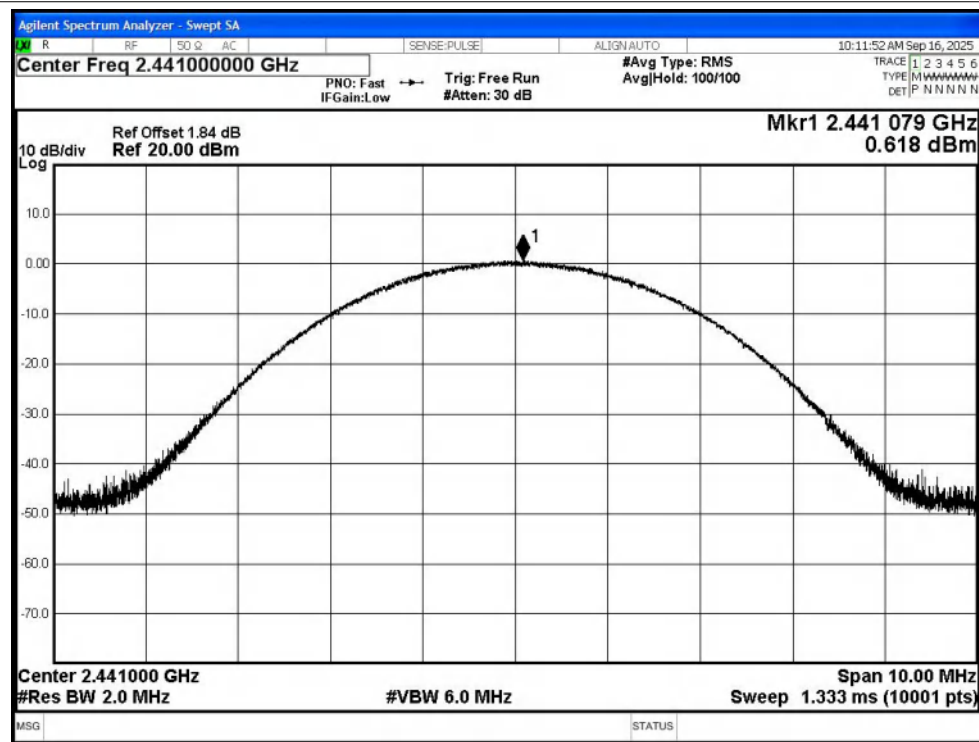
Power NVNT 2-DH5 2480MHz Ant1

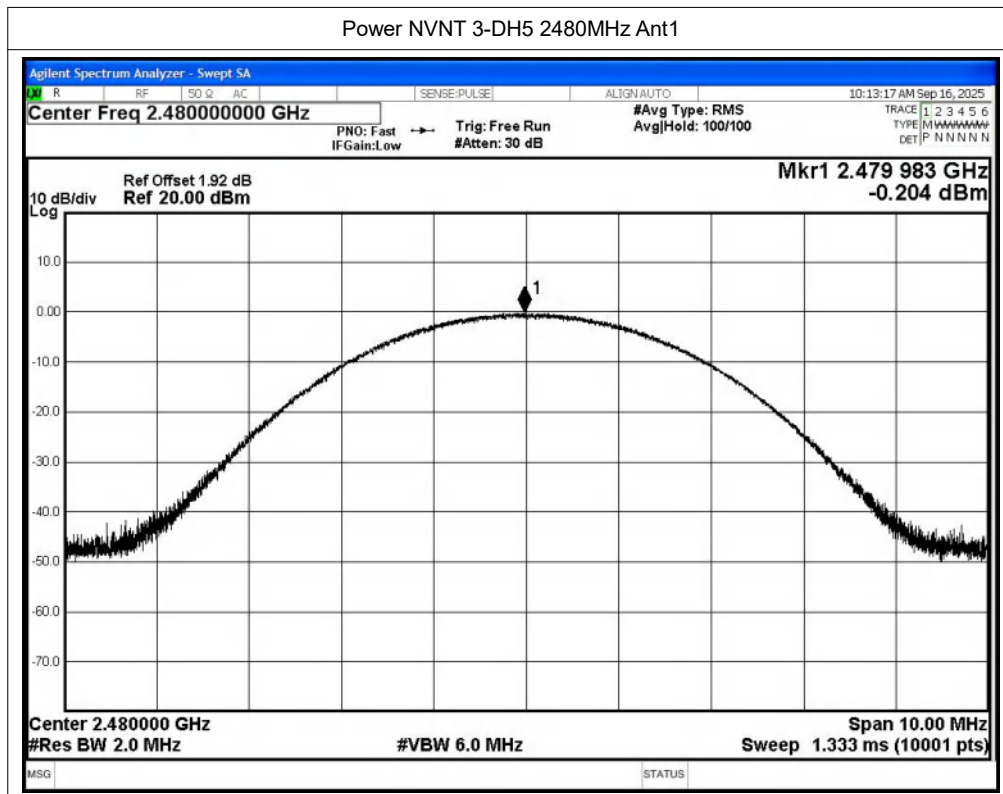


Power NVNT 3-DH5 2402MHz Ant1



Power NVNT 3-DH5 2441MHz Ant1





A.3 Carrier Frequencies Separation

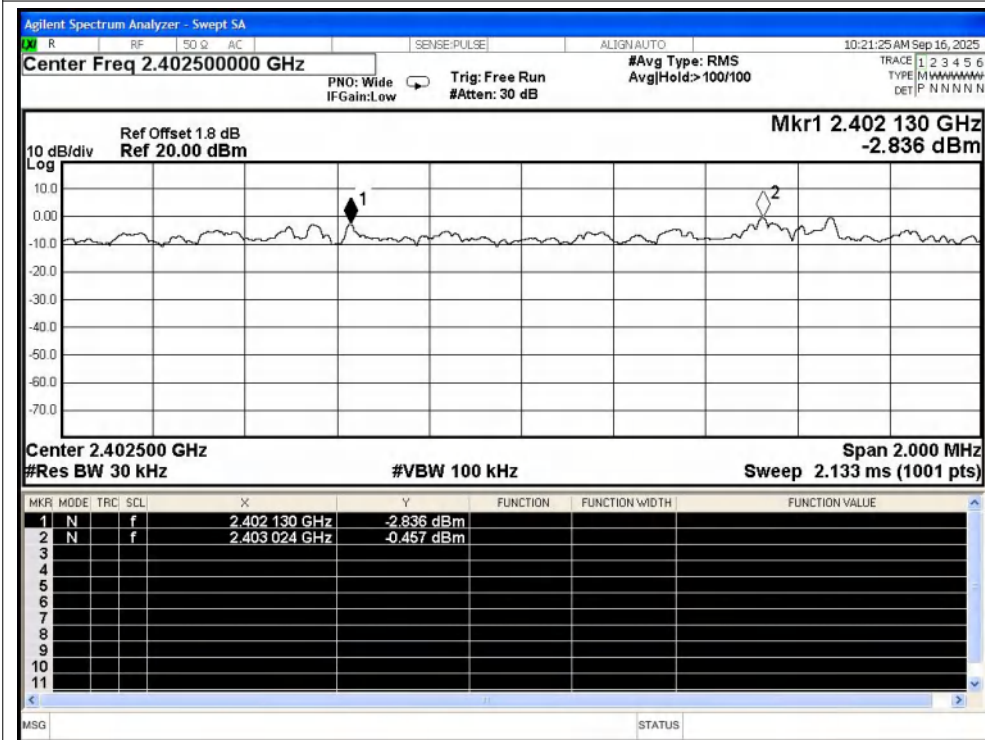
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH5	Ant1	2402.026	2403.018	0.992	0.634	Pass
NVNT	2-DH5	Ant1	2402.13	2403.024	0.894	0.857	Pass
NVNT	3-DH5	Ant1	2402.014	2403.162	1.148	0.864	Pass

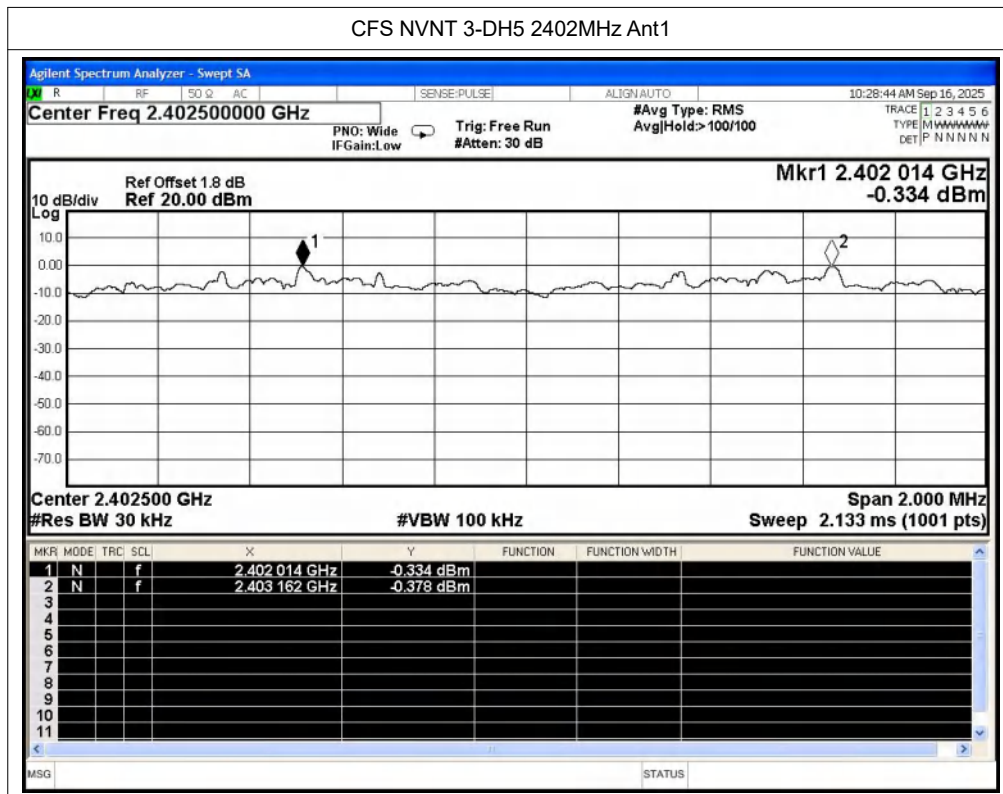
Test Graphs

CFS NVNT 1-DH5 2402MHz Ant1



CFS NVNT 2-DH5 2402MHz Ant1



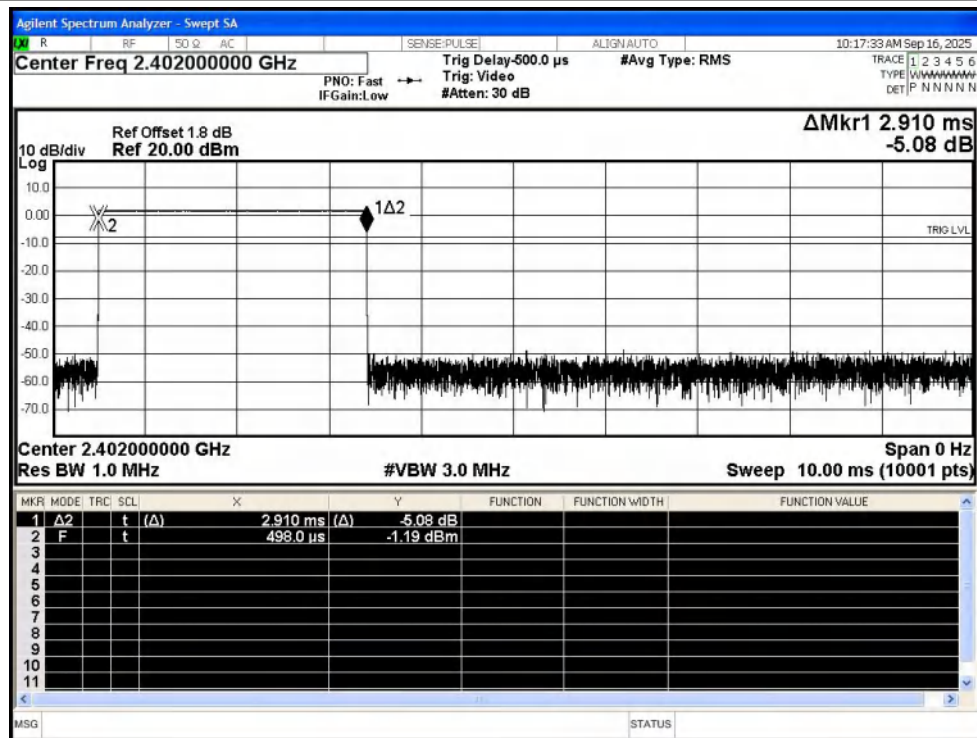


A.4 Dwell Time

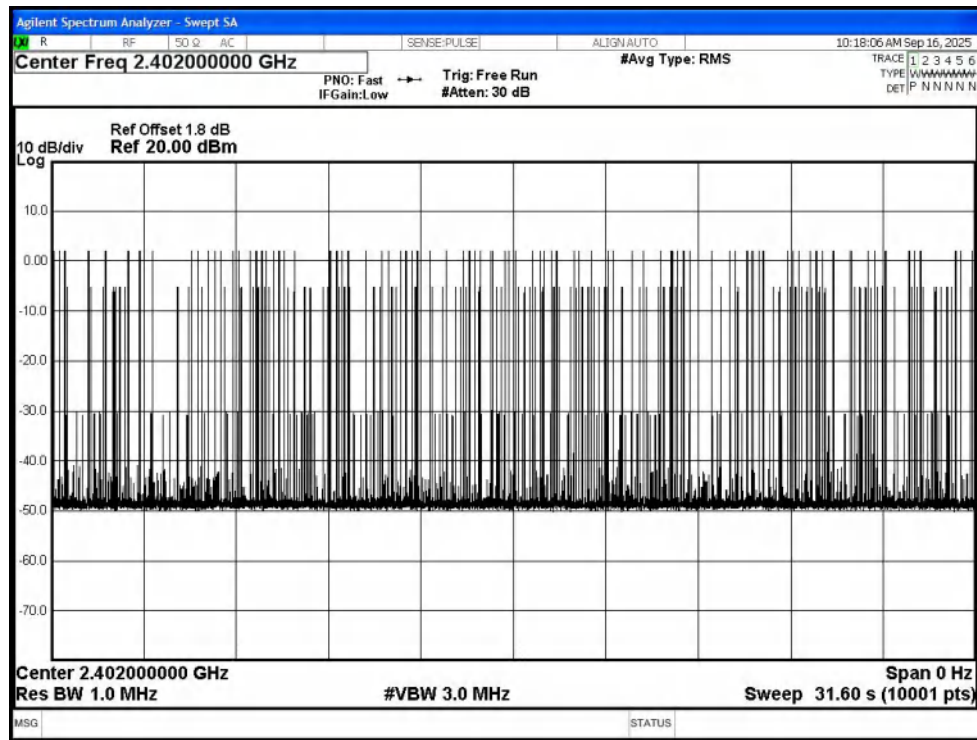
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH5	2402	Ant1	2.91	305.55	105	31600	400	Pass
NVNT	2-DH5	2402	Ant1	2.898	321.678	111	31600	400	Pass
NVNT	3-DH5	2402	Ant1	2.897	321.567	111	31600	400	Pass

Test Graphs

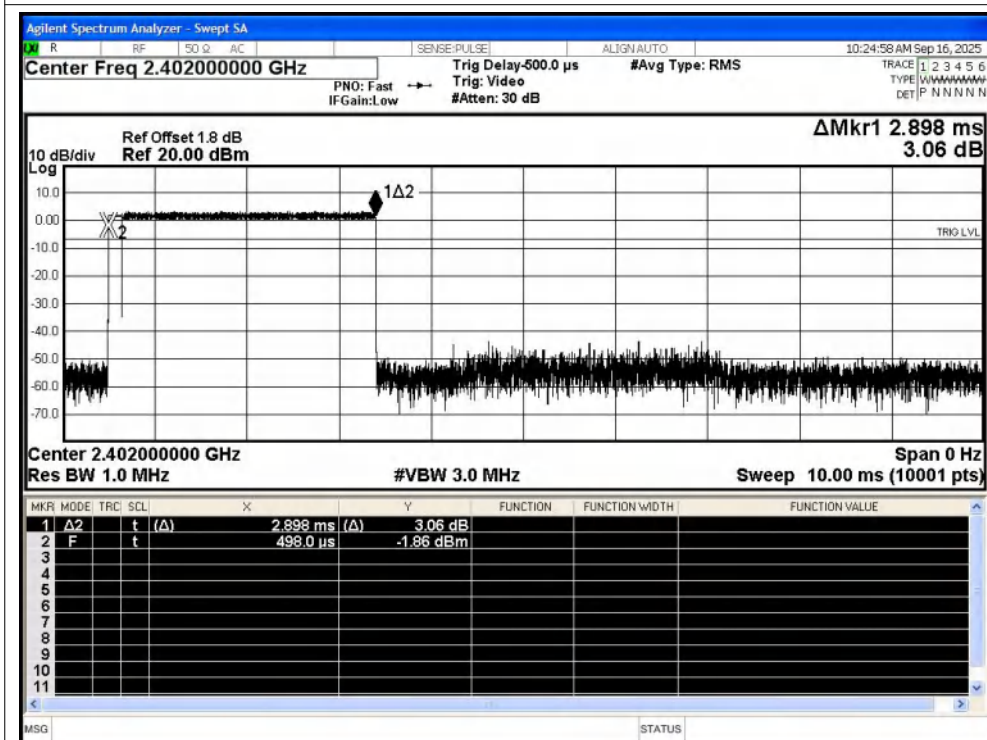
Dwell NVNT 1-DH5 2402MHz Ant1 One Burst



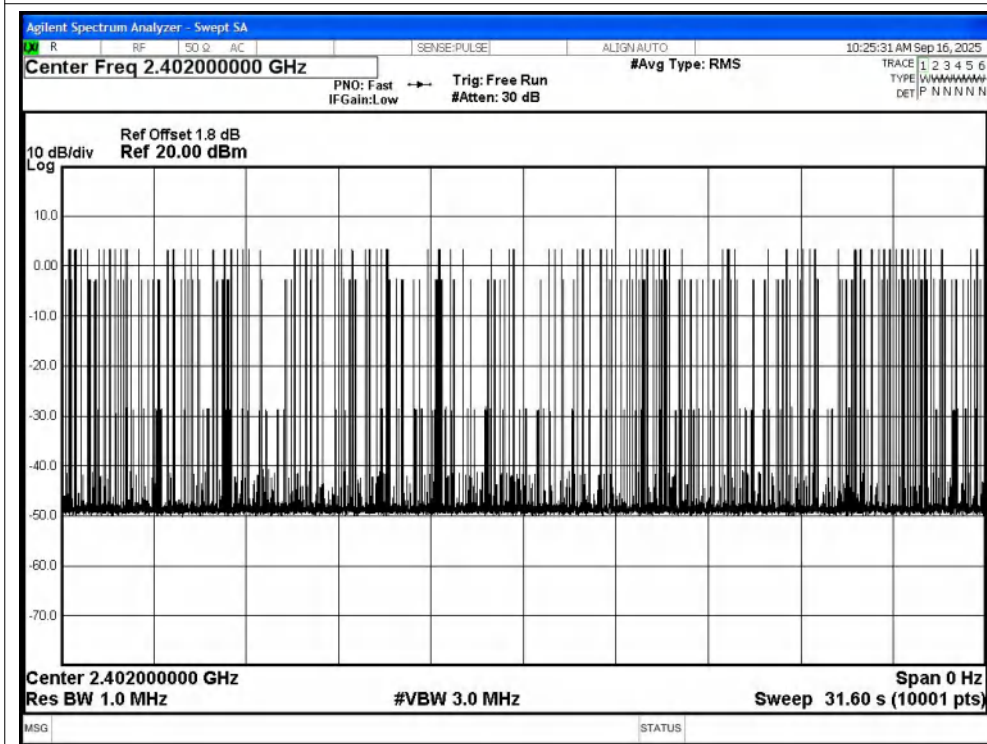
Dwell NVNT 1-DH5 2402MHz Ant1 Accumulated



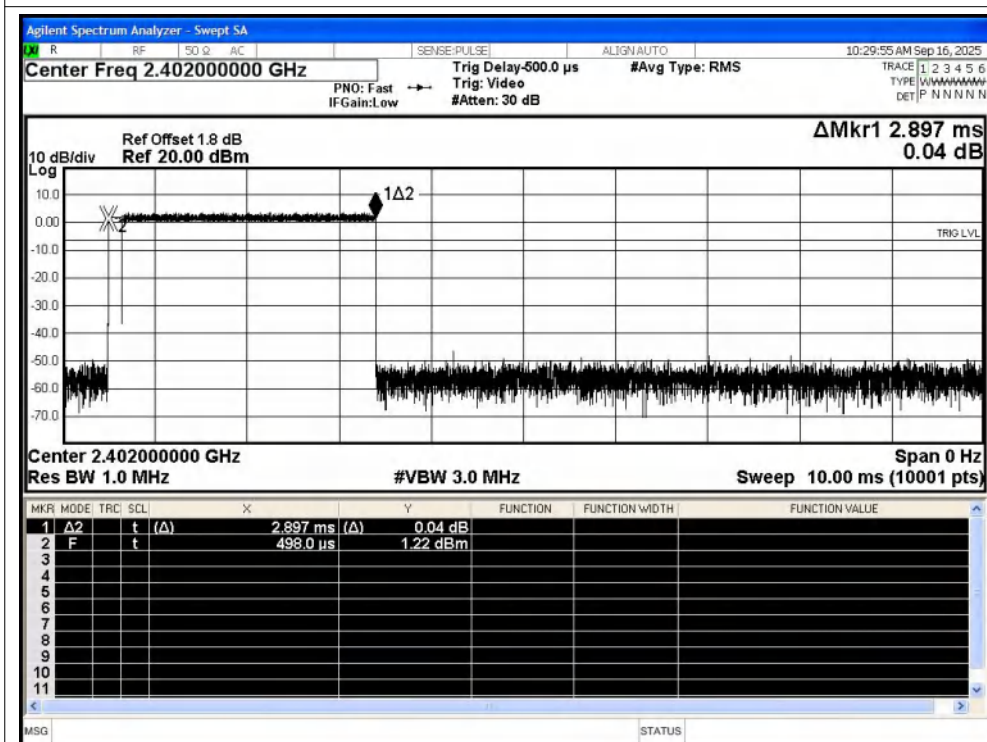
Dwell NVNT 2-DH5 2402MHz Ant1 One Burst



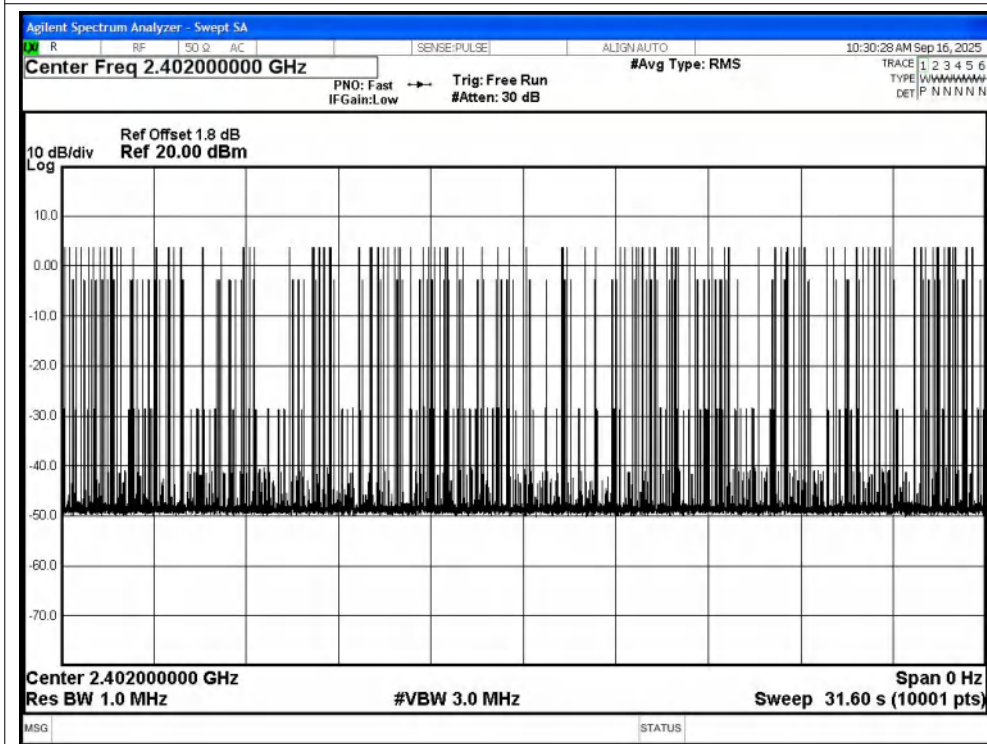
Dwell NVNT 2-DH5 2402MHz Ant1 Accumulated



Dwell NVNT 3-DH5 2402MHz Ant1 One Burst



Dwell NVNT 3-DH5 2402MHz Ant1 Accumulated

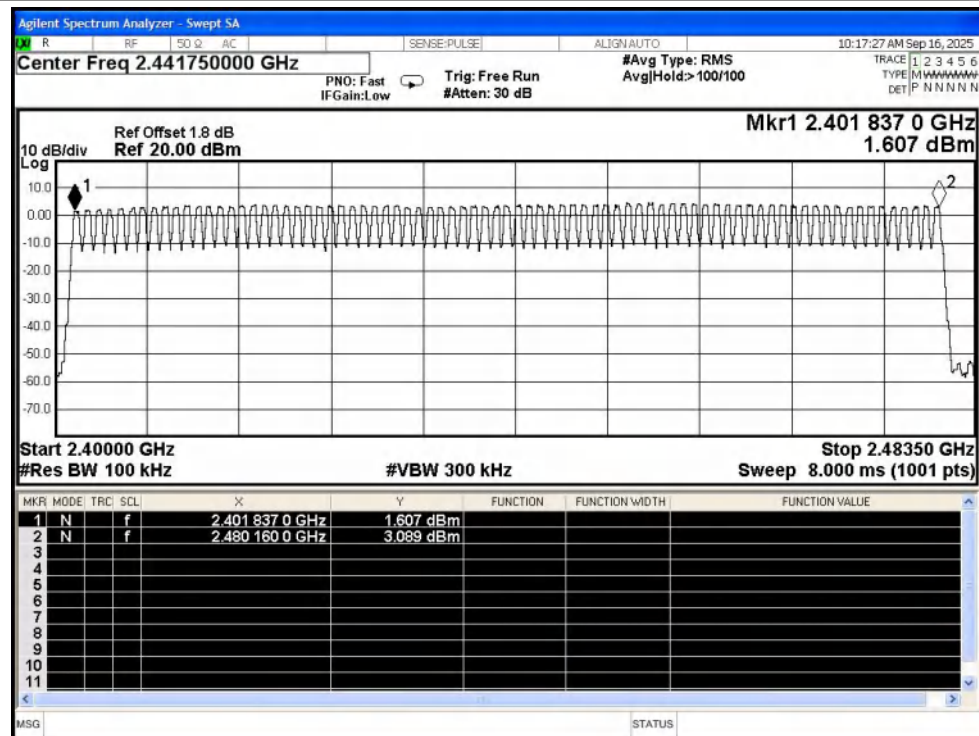


A.5 Number of Hopping Channel

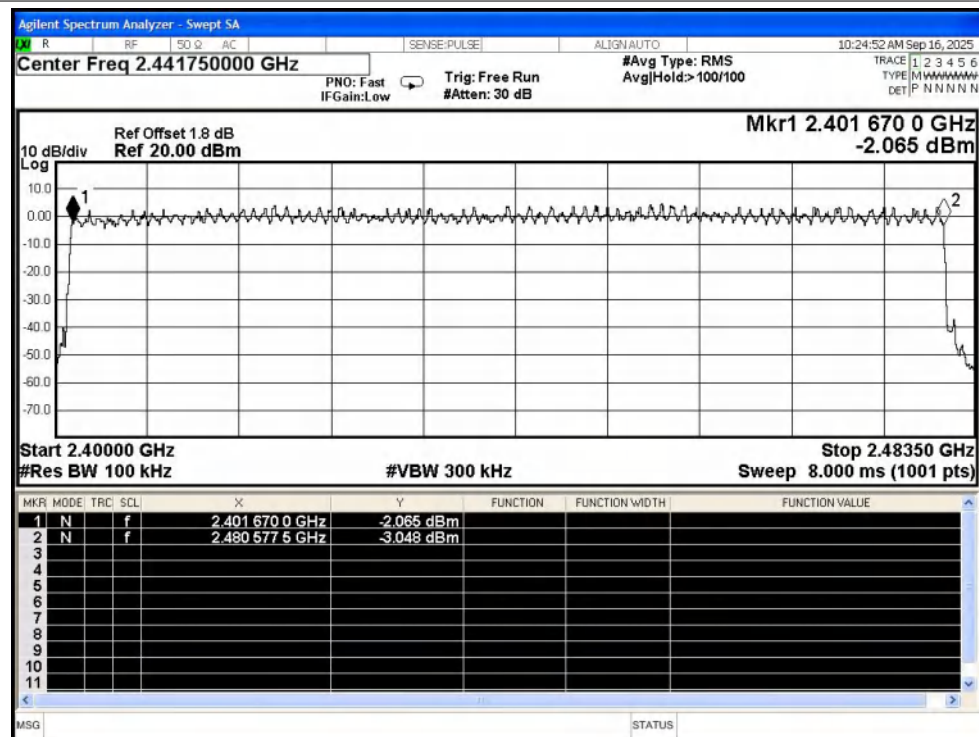
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH5	Ant1	79	15	Pass
NVNT	2-DH5	Ant1	79	15	Pass
NVNT	3-DH5	Ant1	79	15	Pass

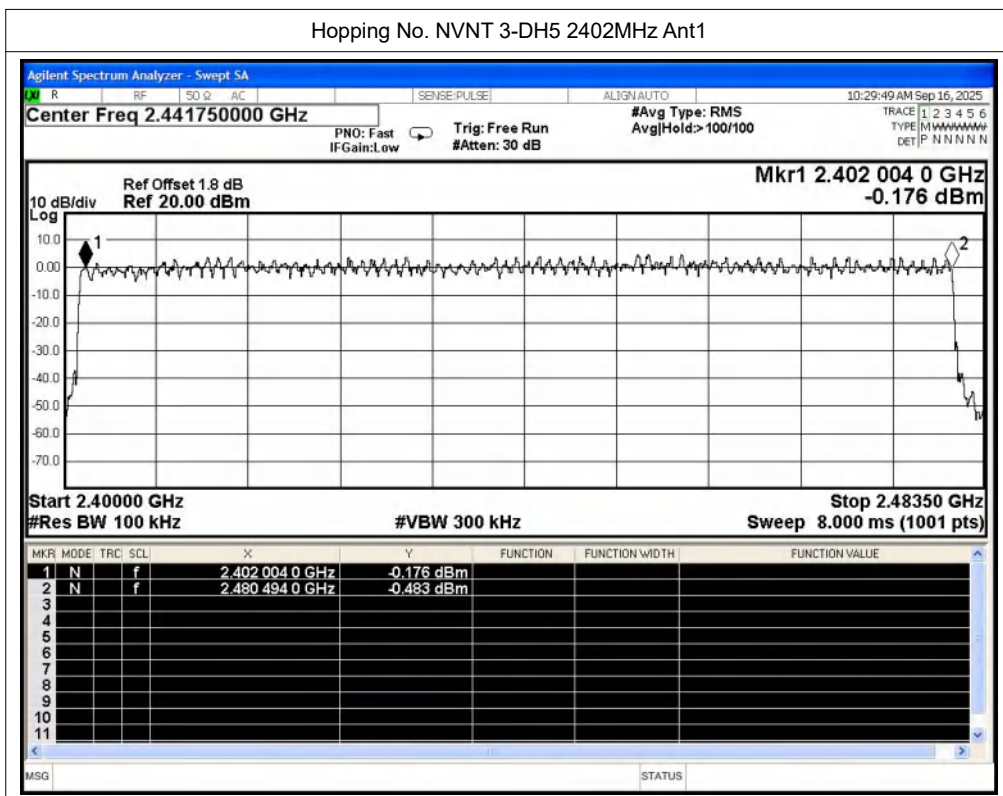
Test Graphs

Hopping No. NVNT 1-DH5 2402MHz Ant1



Hopping No. NVNT 2-DH5 2402MHz Ant1



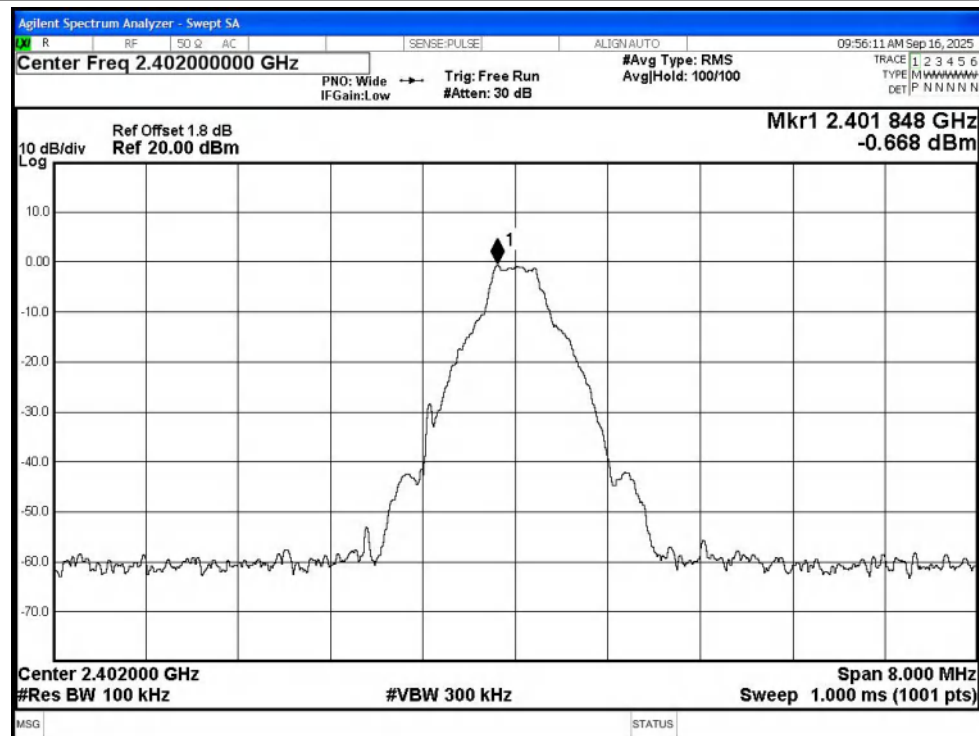


A.6 Band Edge

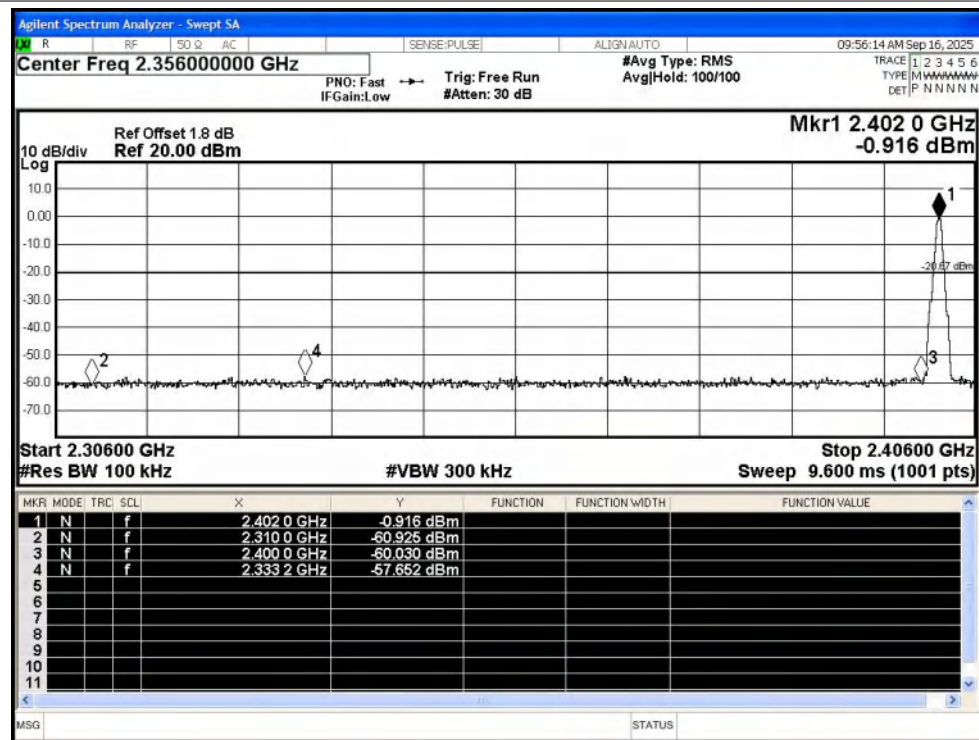
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	-56.98	-20	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	-57.14	-20	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	-53.64	-20	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	-55.87	-20	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	-51.33	-20	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	-54.68	-20	Pass

Test Graphs

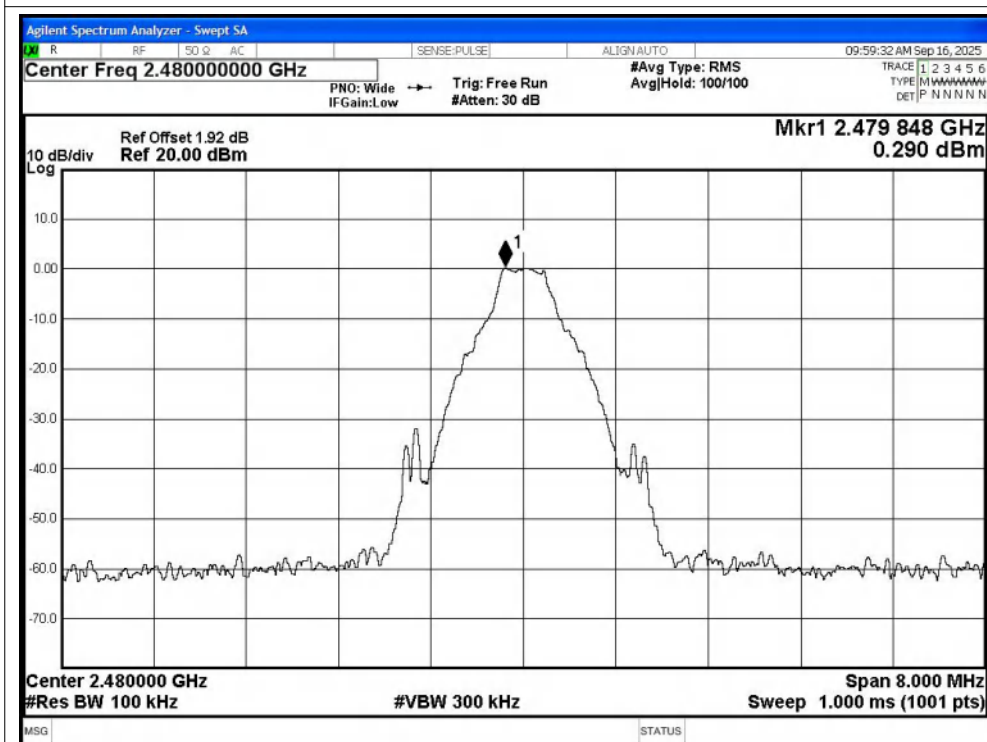
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Ref



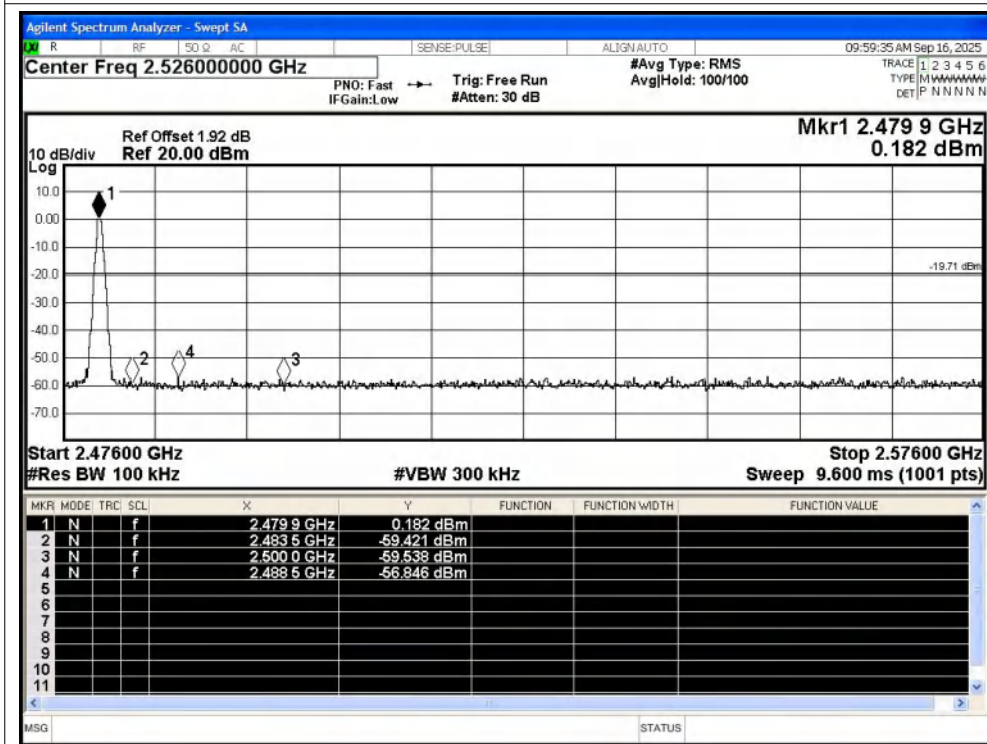
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Emission



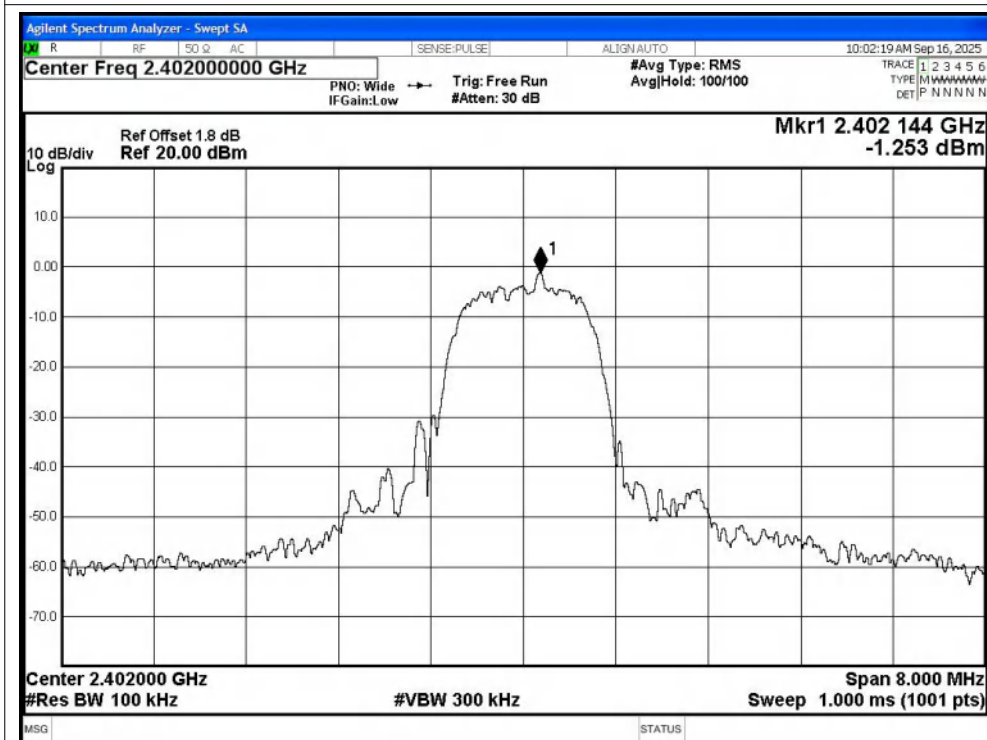
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref



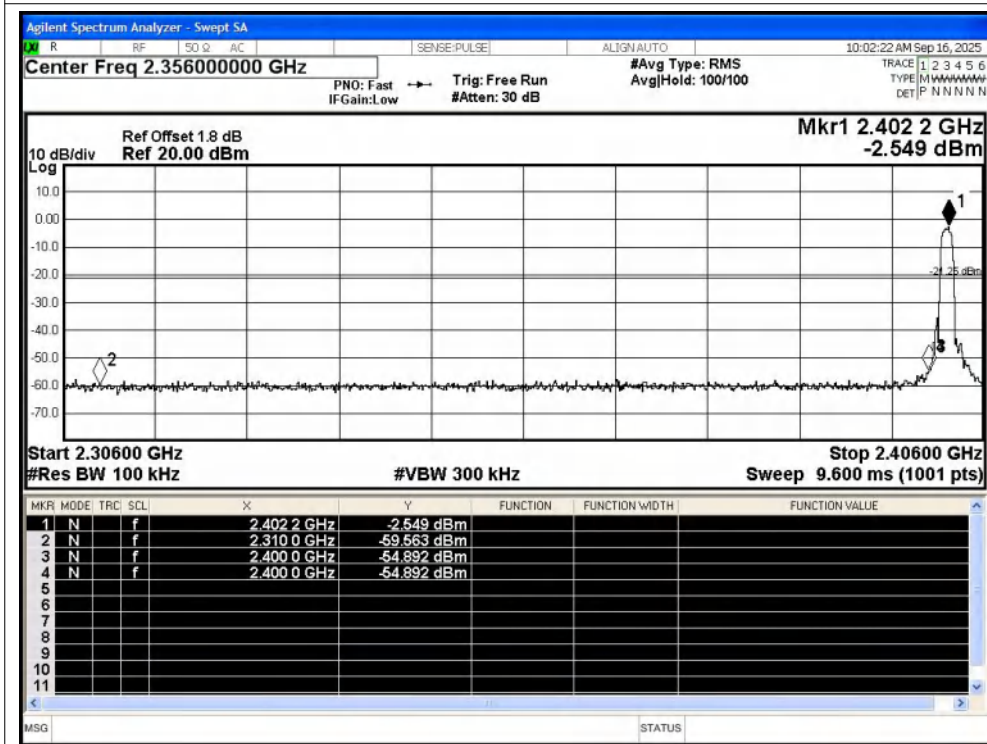
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Emission



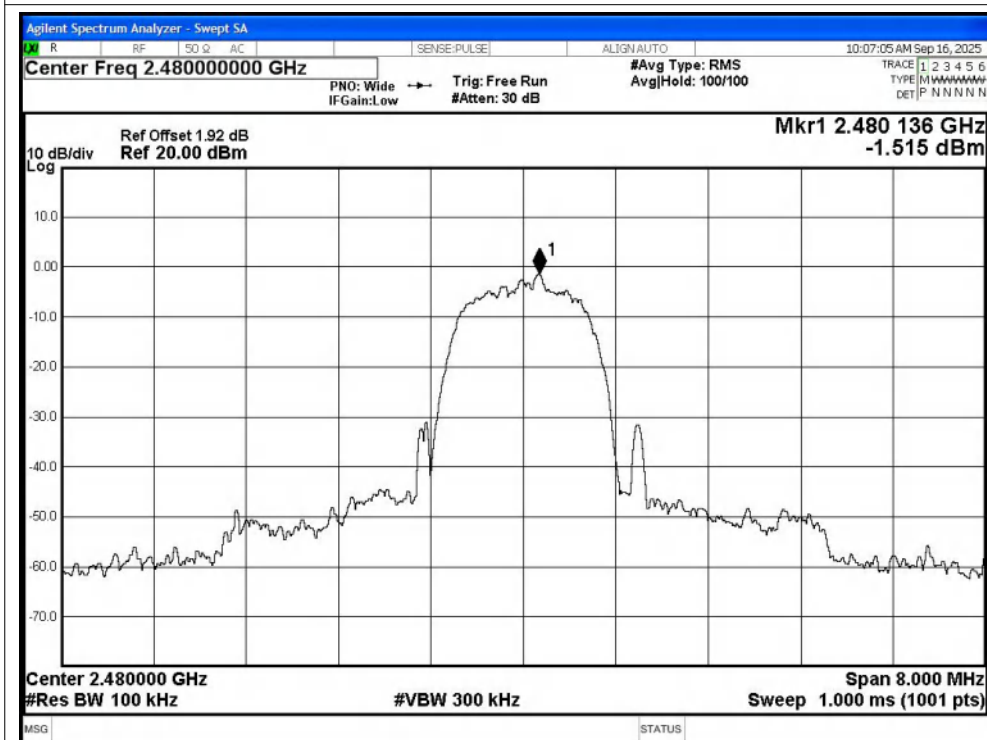
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Ref



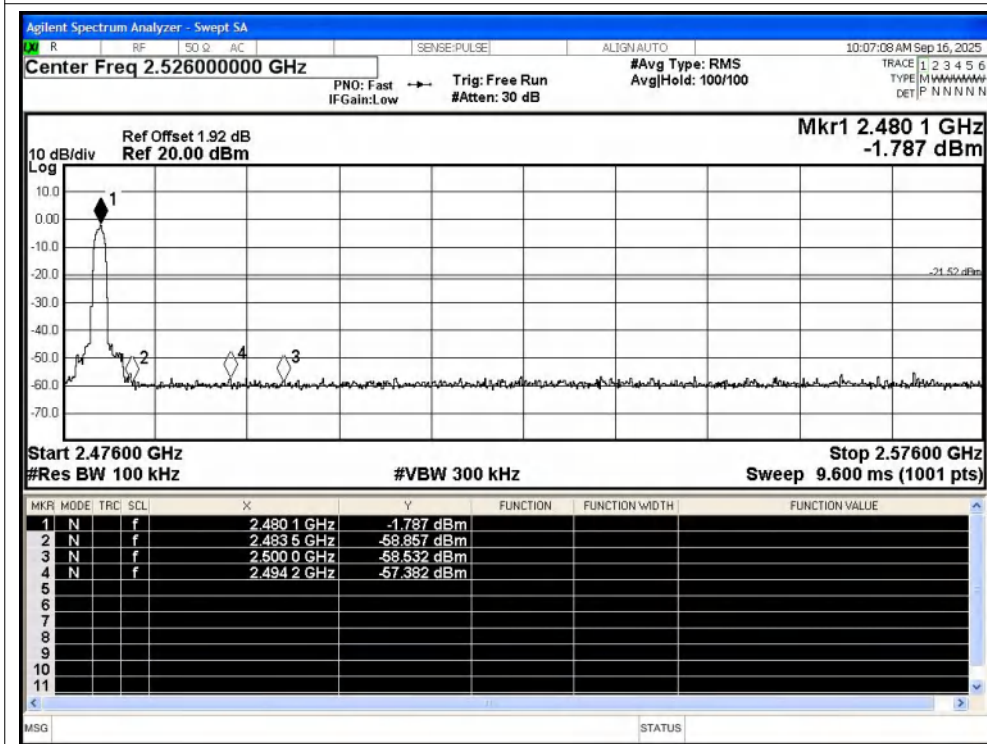
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Emission



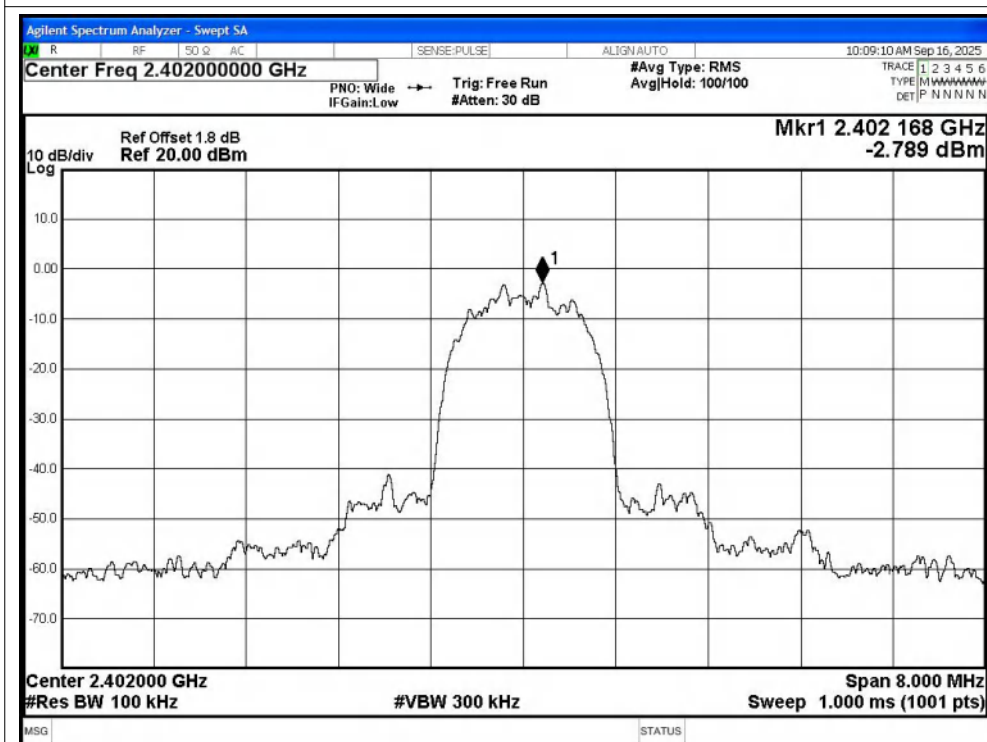
Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Ref



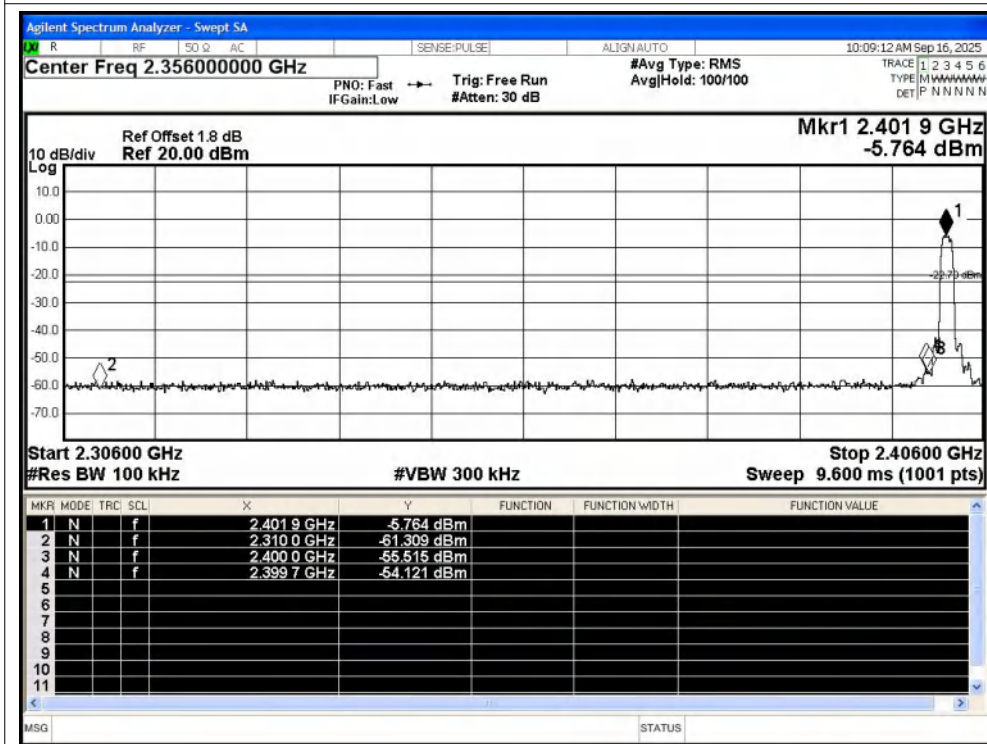
Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Emission



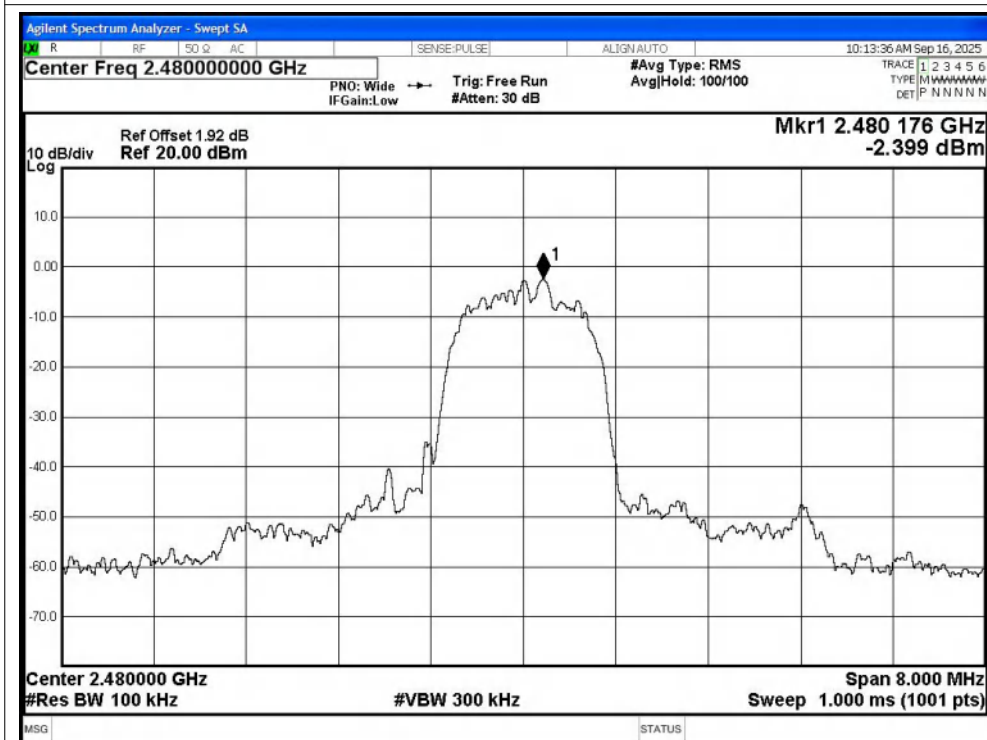
Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Ref



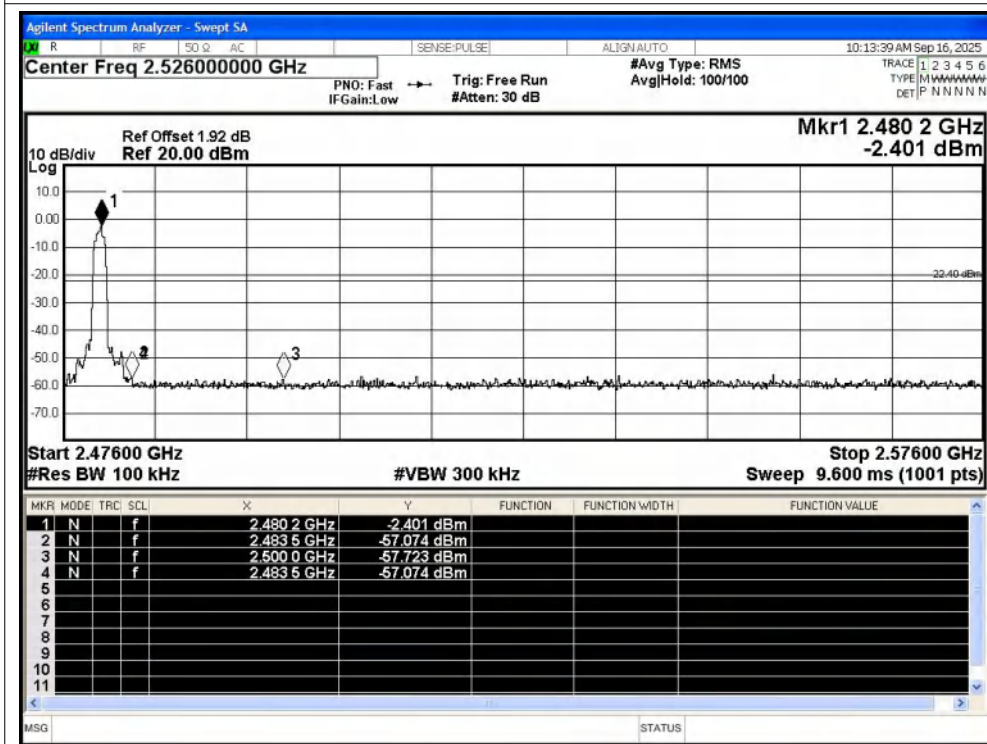
Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Emission



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



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

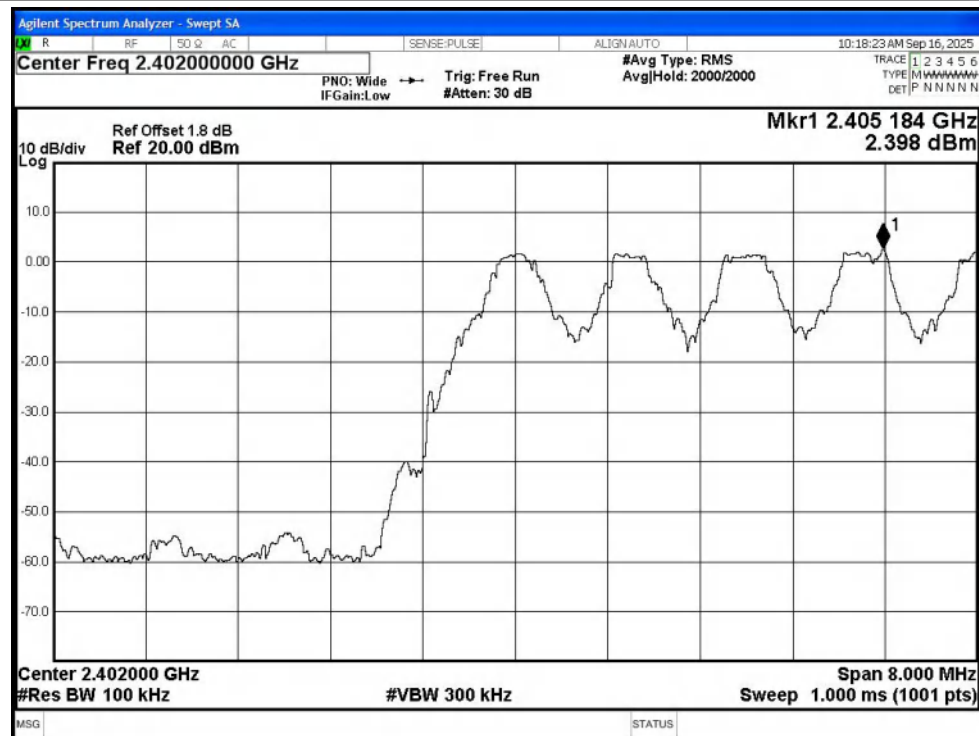


(Hopping)

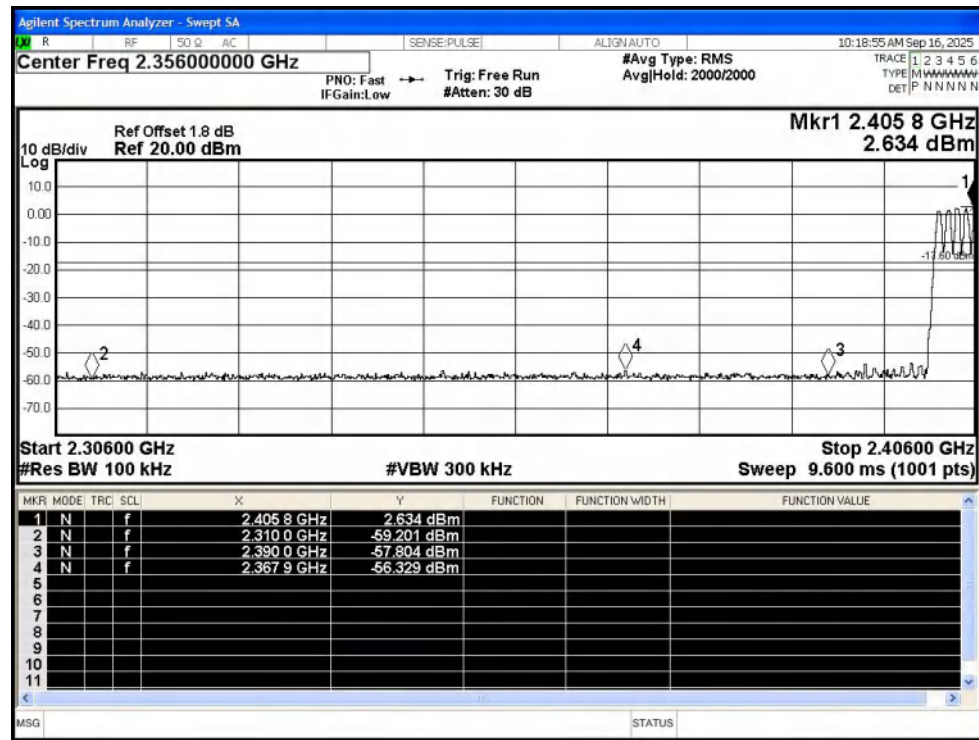
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	Hopping	-58.73	-20	Pass
NVNT	1-DH5	2480	Ant1	Hopping	-56.08	-20	Pass
NVNT	2-DH5	2402	Ant1	Hopping	-57.82	-20	Pass
NVNT	2-DH5	2480	Ant1	Hopping	-57.51	-20	Pass
NVNT	3-DH5	2402	Ant1	Hopping	-58.75	-20	Pass
NVNT	3-DH5	2480	Ant1	Hopping	-56.13	-20	Pass

Test Graphs

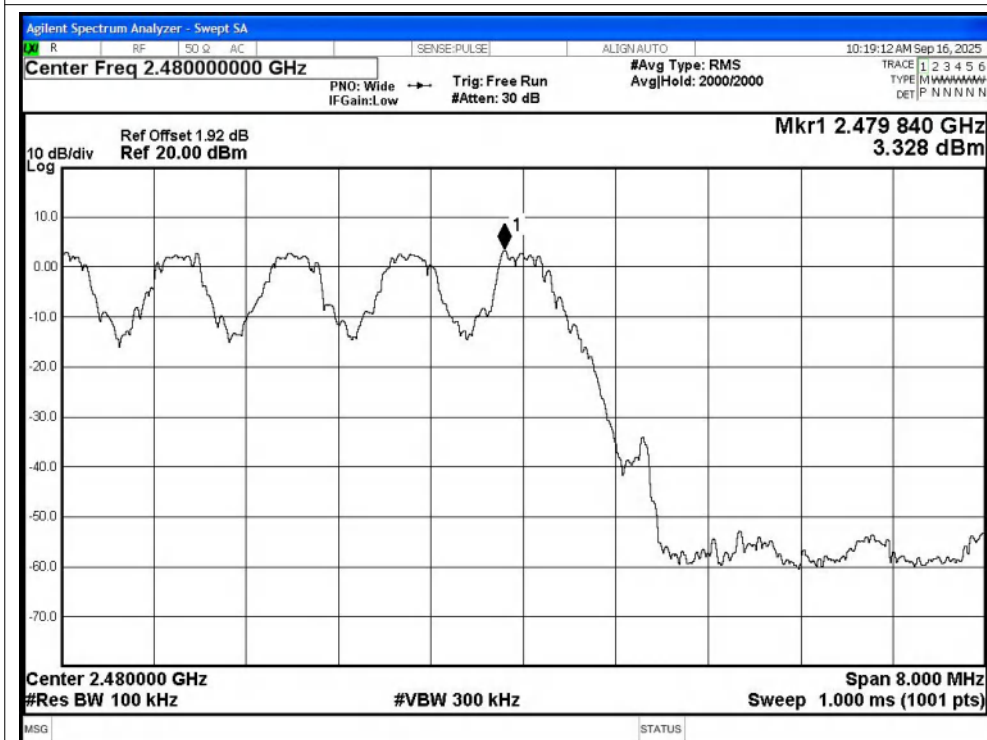
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Ref



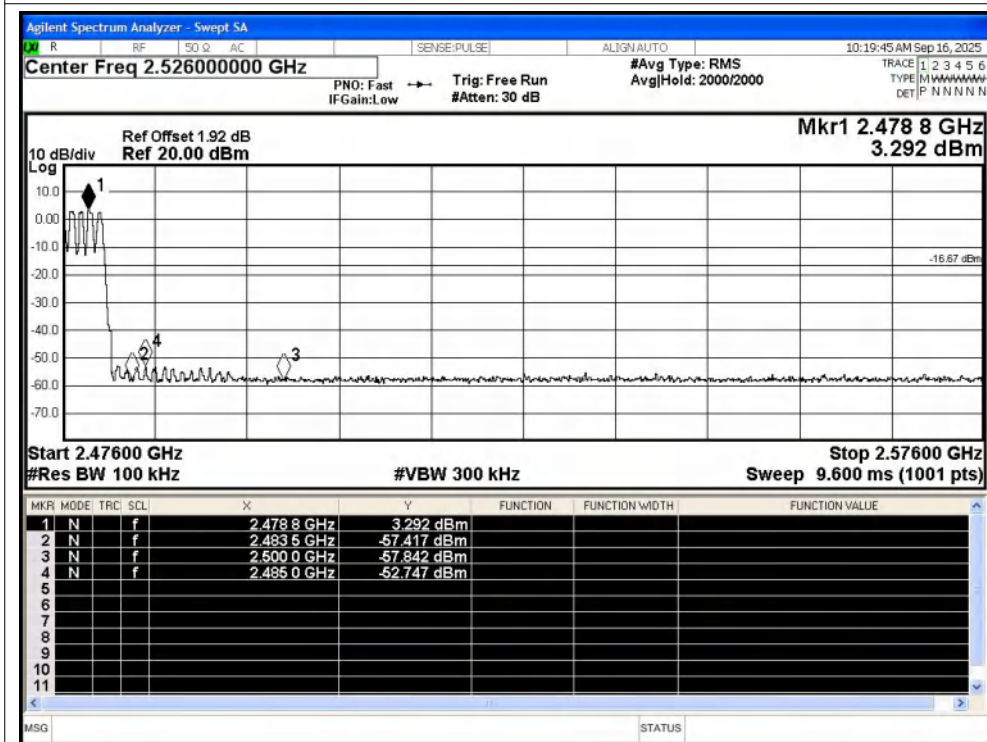
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission



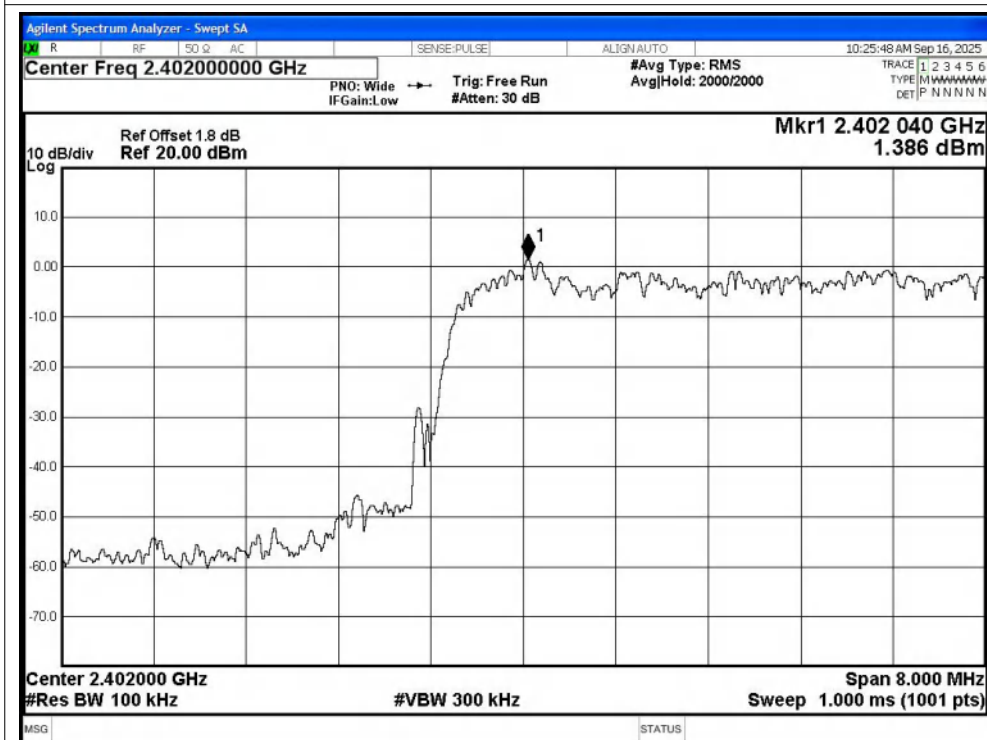
Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Ref



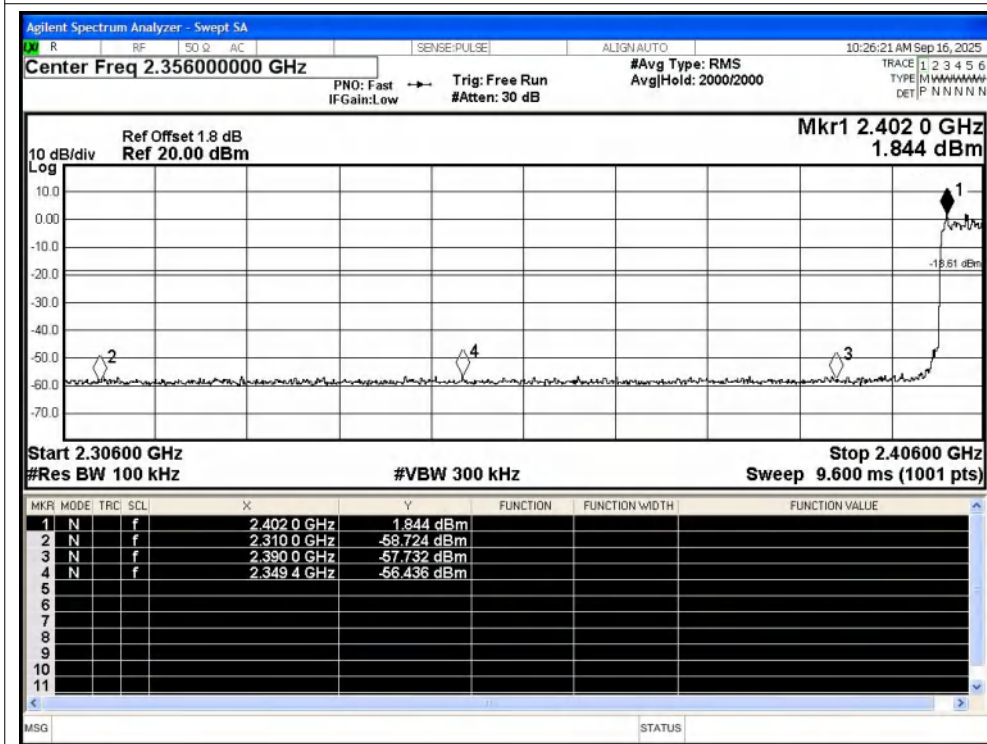
Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Emission



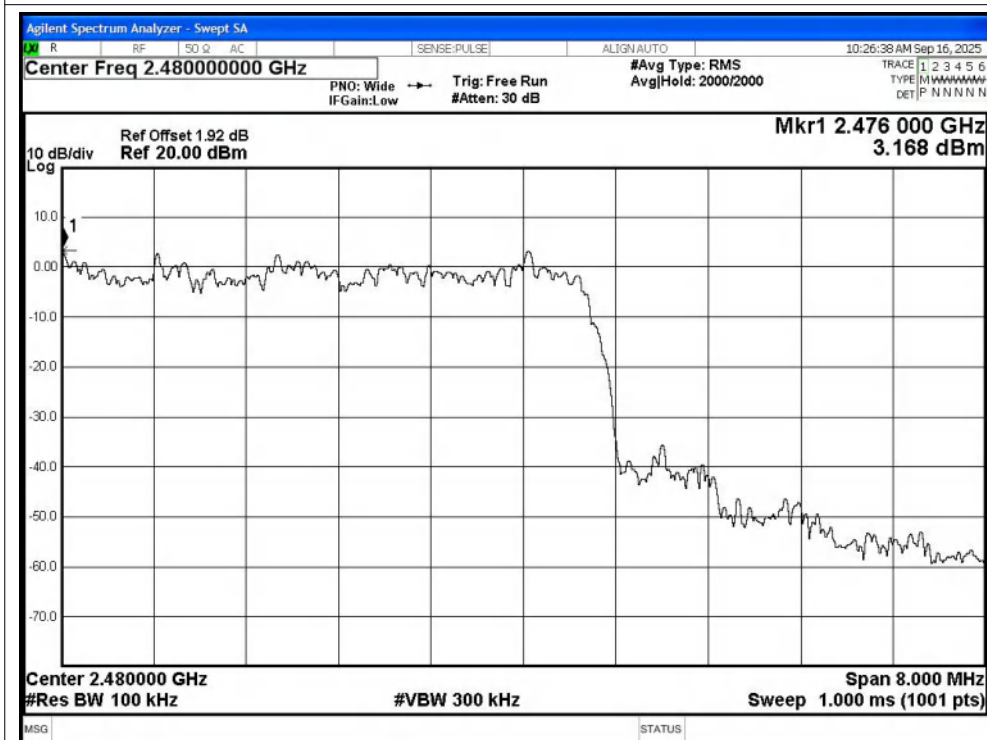
Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Ref



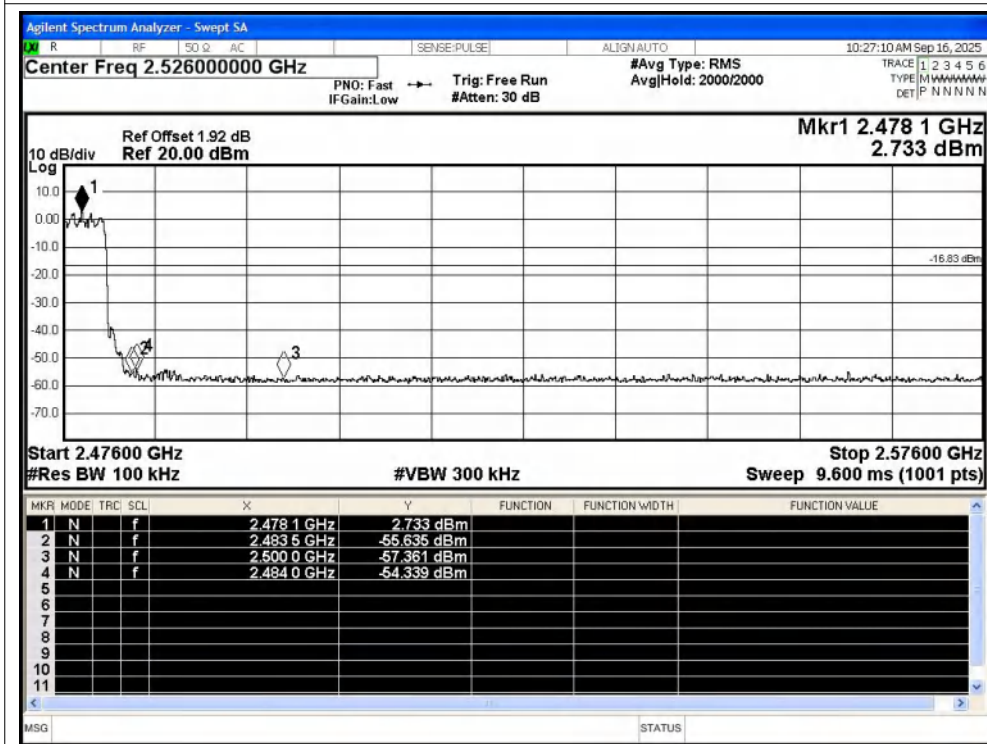
Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Emission



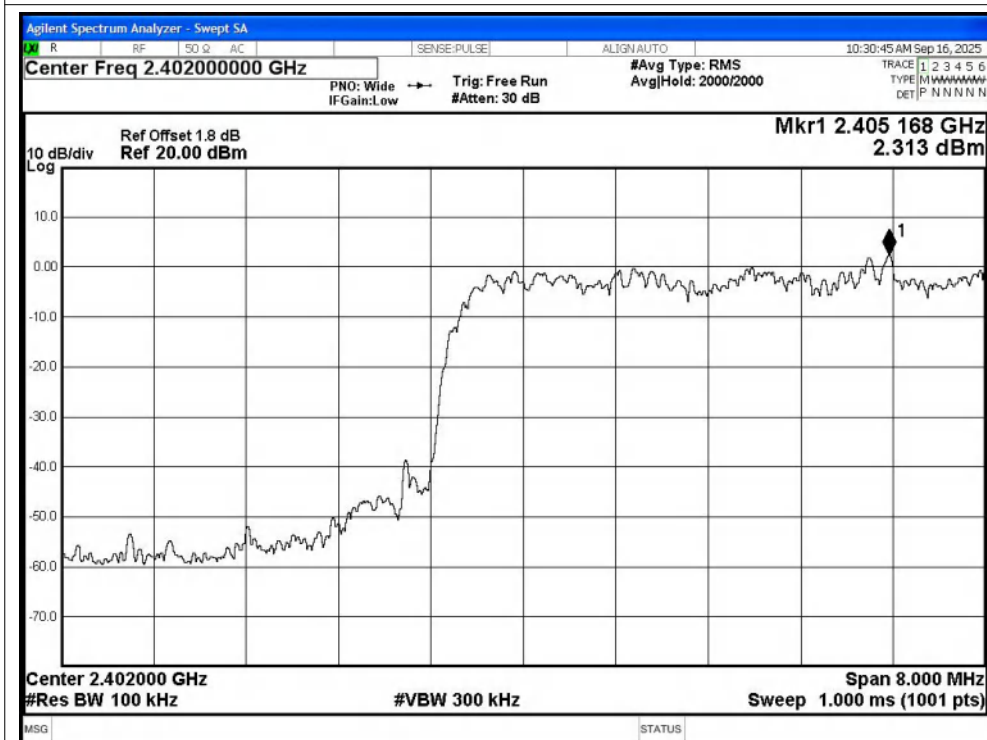
Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Ref



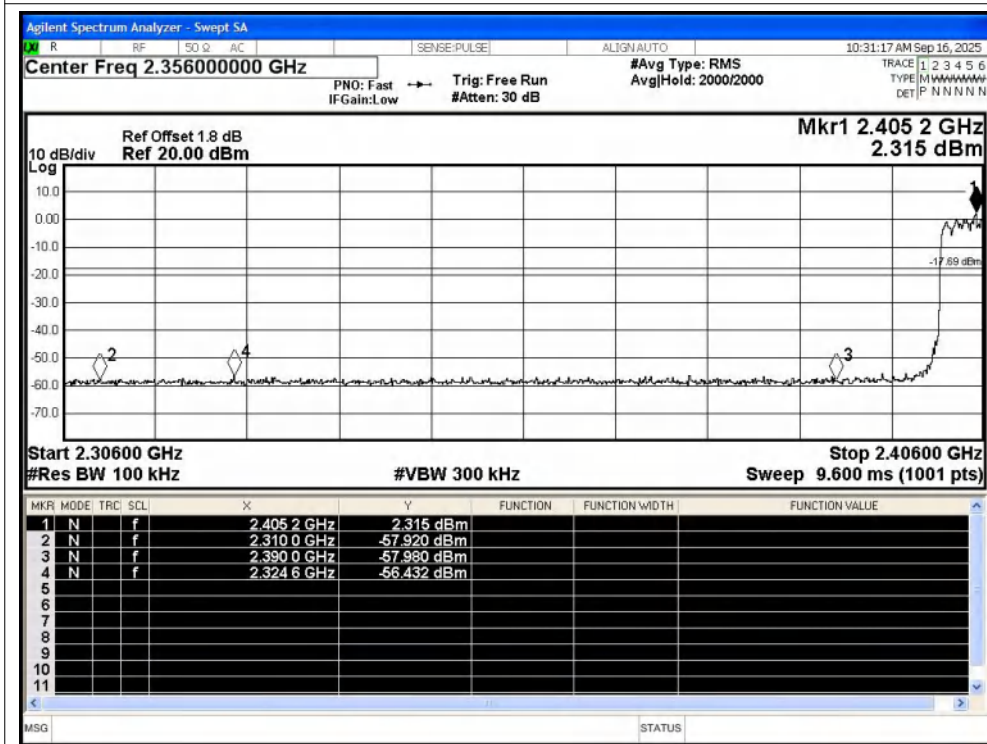
Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Emission



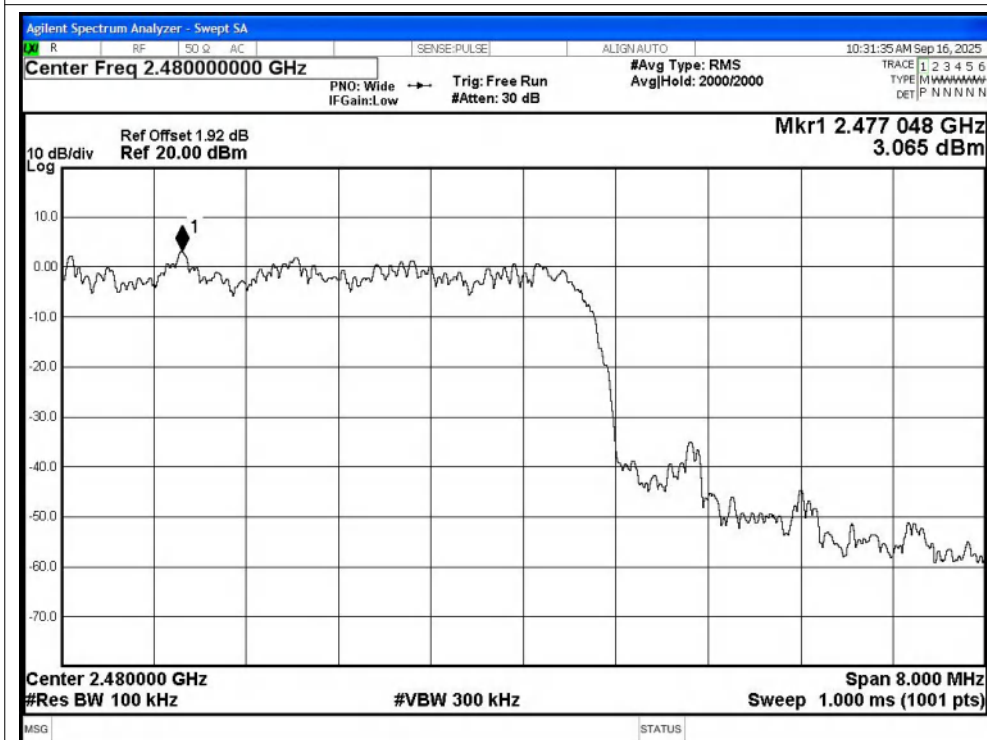
Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Ref



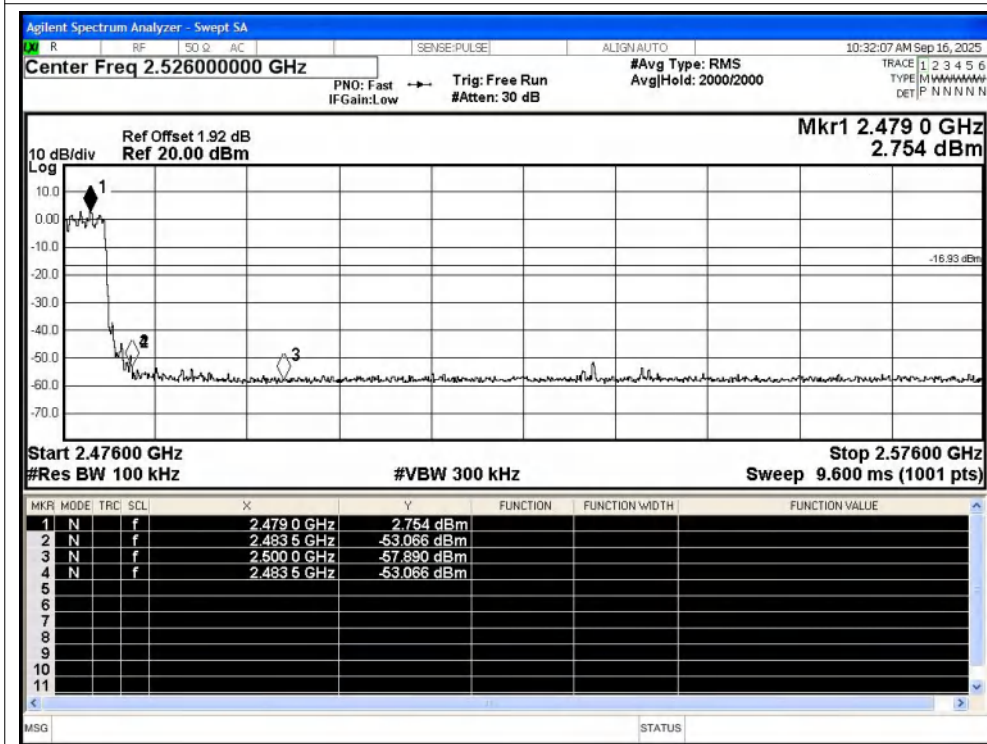
Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Emission



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



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

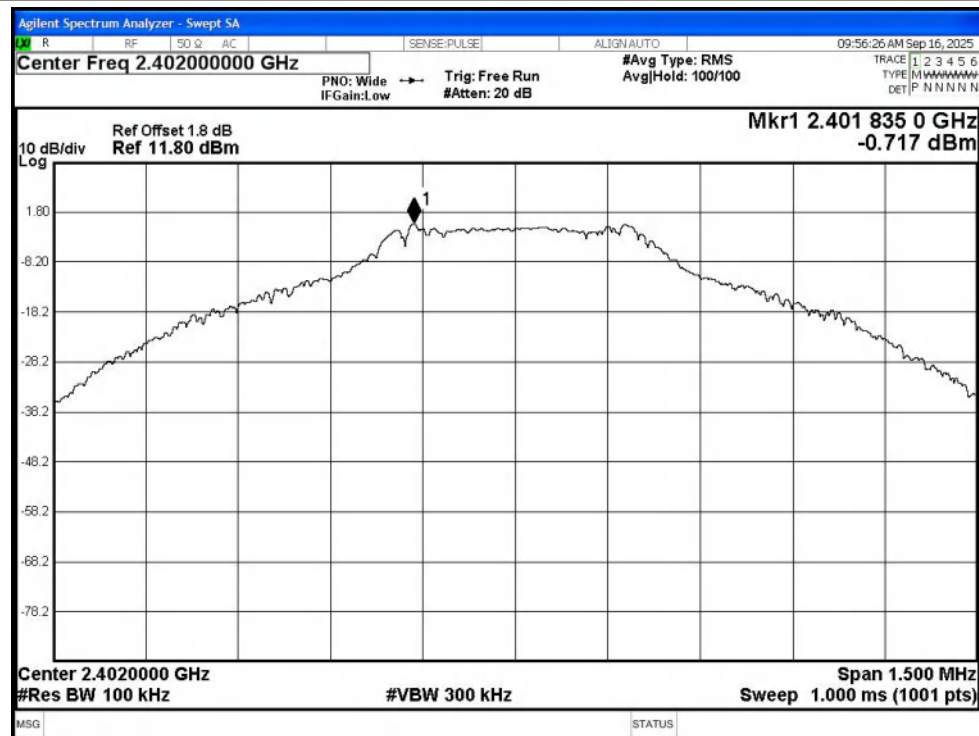


A.7 Conducted RF Spurious Emission

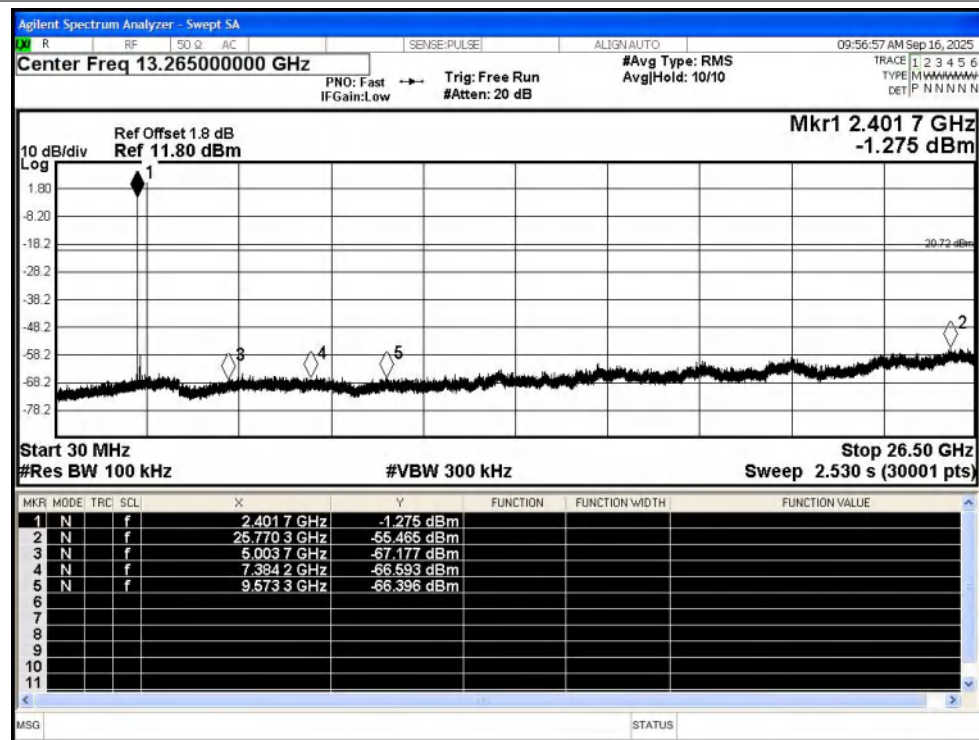
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	-54.75	-20	Pass
NVNT	1-DH5	2441	Ant1	-56.27	-20	Pass
NVNT	1-DH5	2480	Ant1	-54.53	-20	Pass
NVNT	2-DH5	2402	Ant1	-54.79	-20	Pass
NVNT	2-DH5	2441	Ant1	-53.75	-20	Pass
NVNT	2-DH5	2480	Ant1	-53.93	-20	Pass
NVNT	3-DH5	2402	Ant1	-52.83	-20	Pass
NVNT	3-DH5	2441	Ant1	-53.86	-20	Pass
NVNT	3-DH5	2480	Ant1	-50.15	-20	Pass

Test Graphs

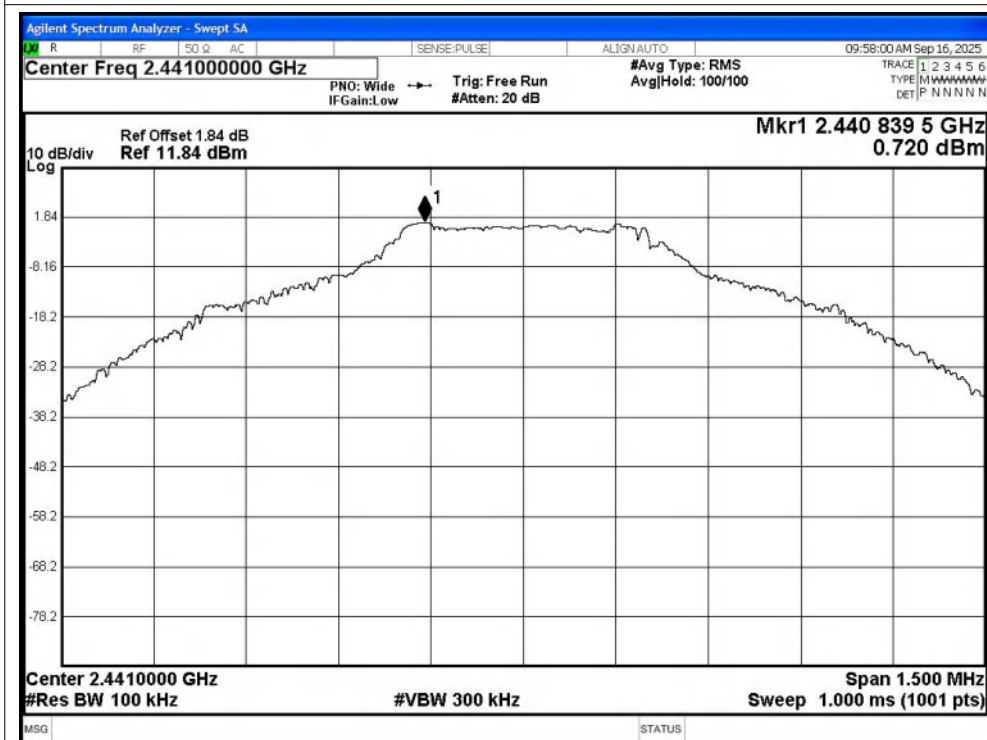
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref



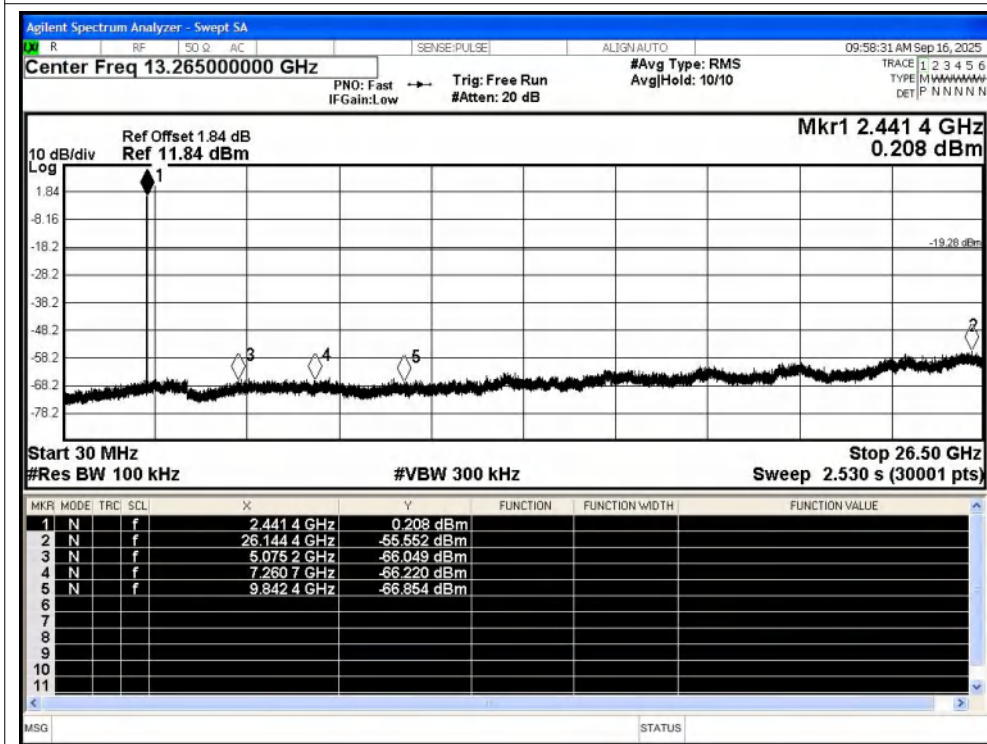
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission



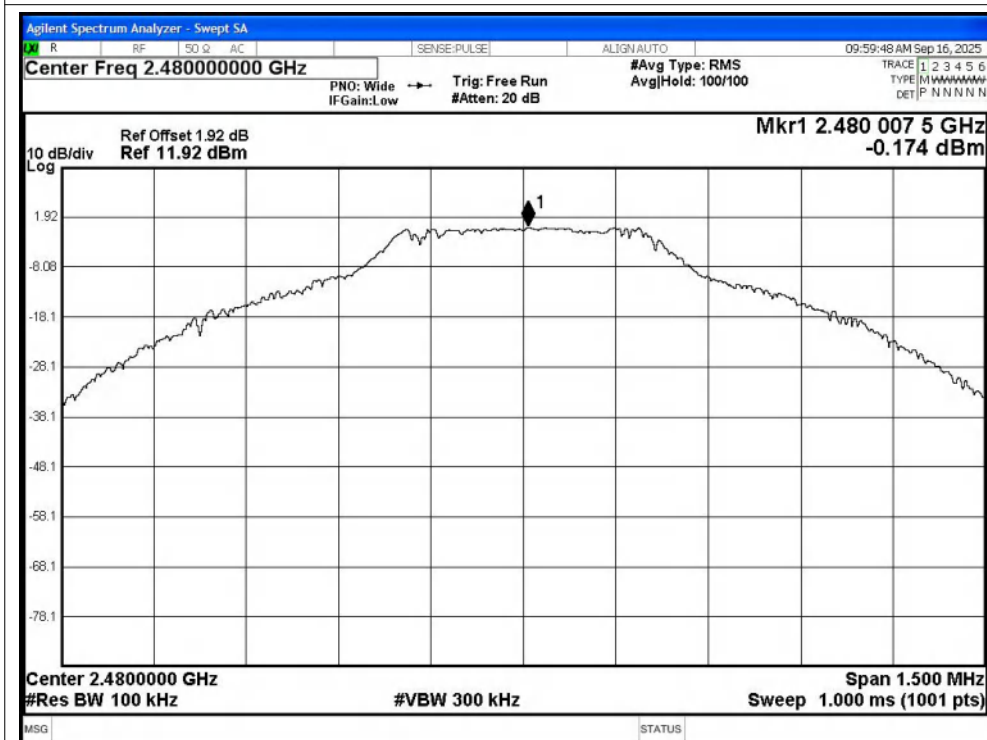
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref



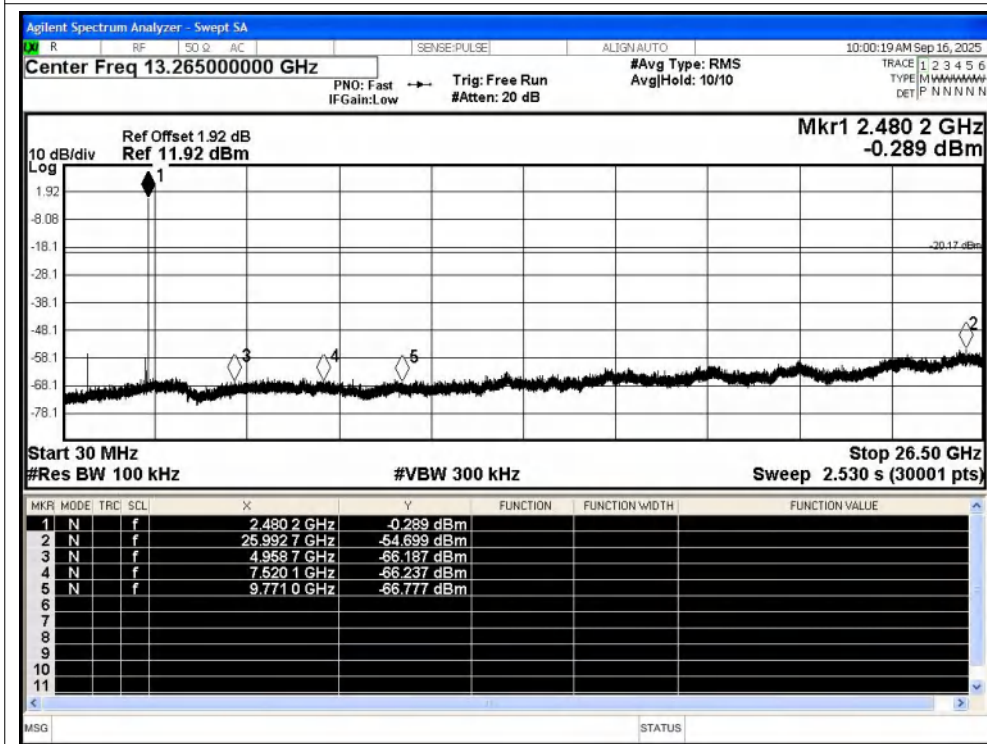
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission



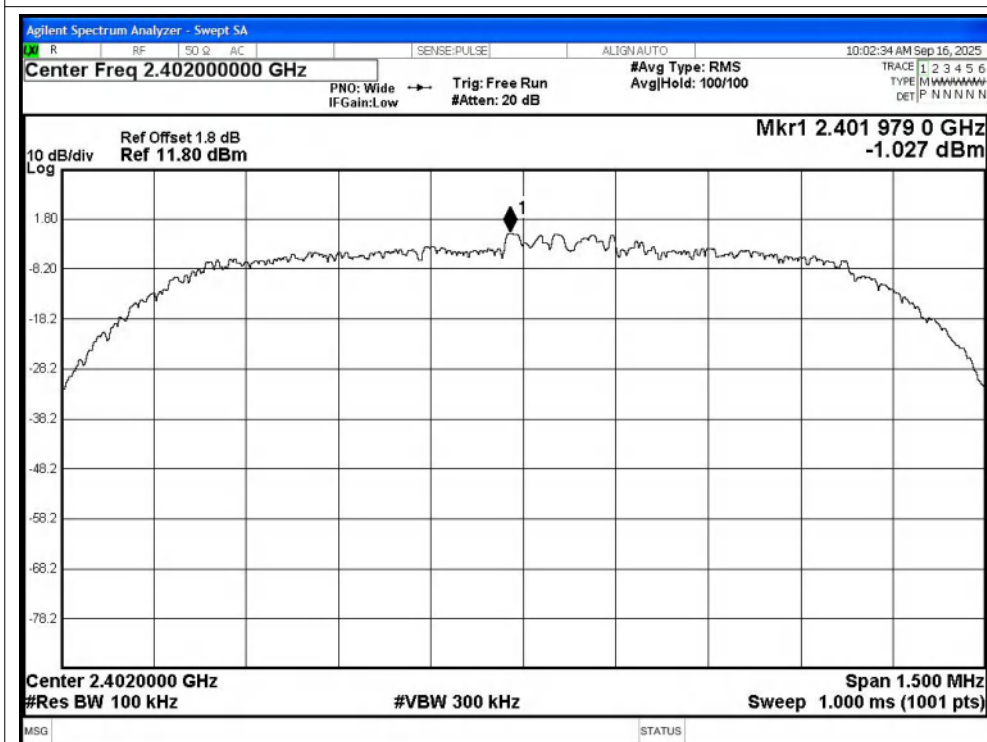
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref



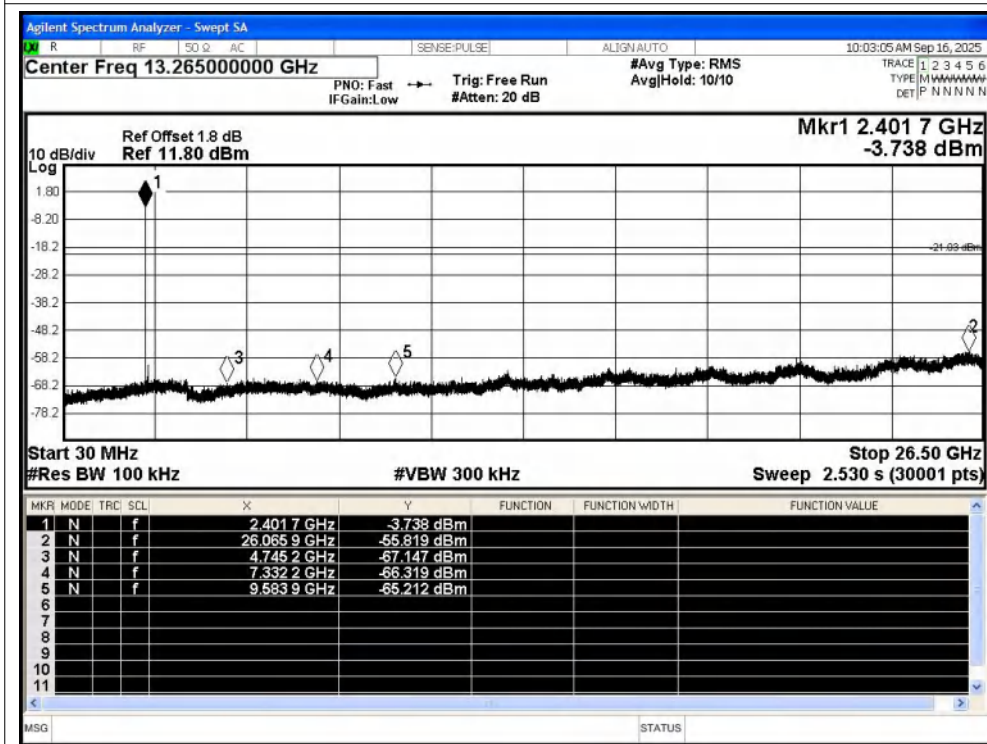
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Emission



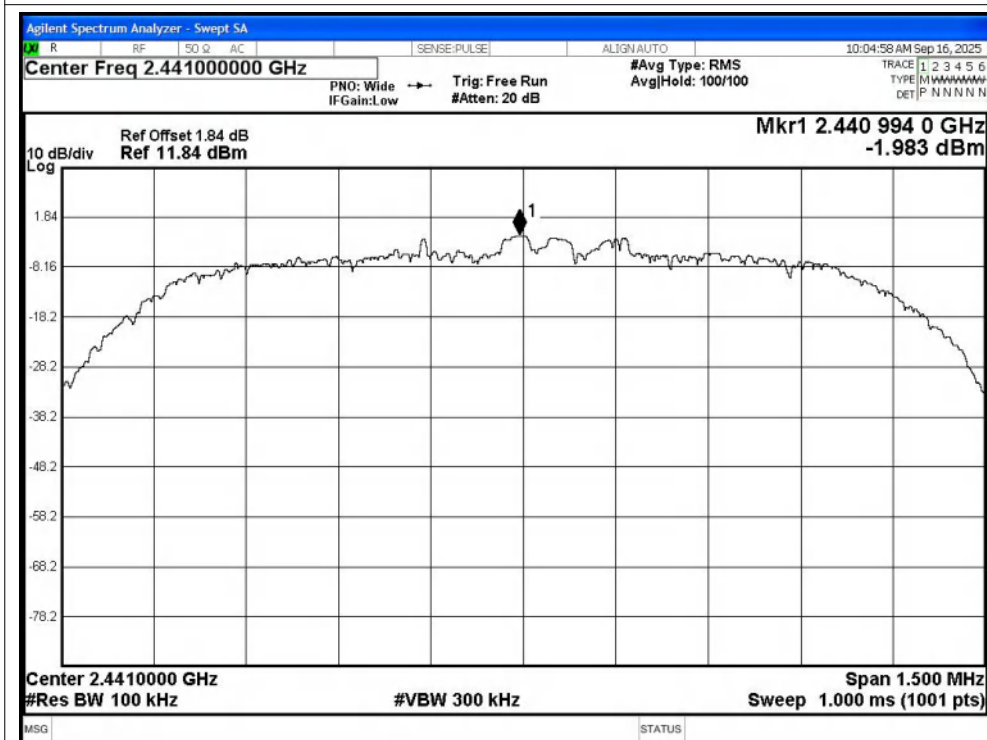
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Ref



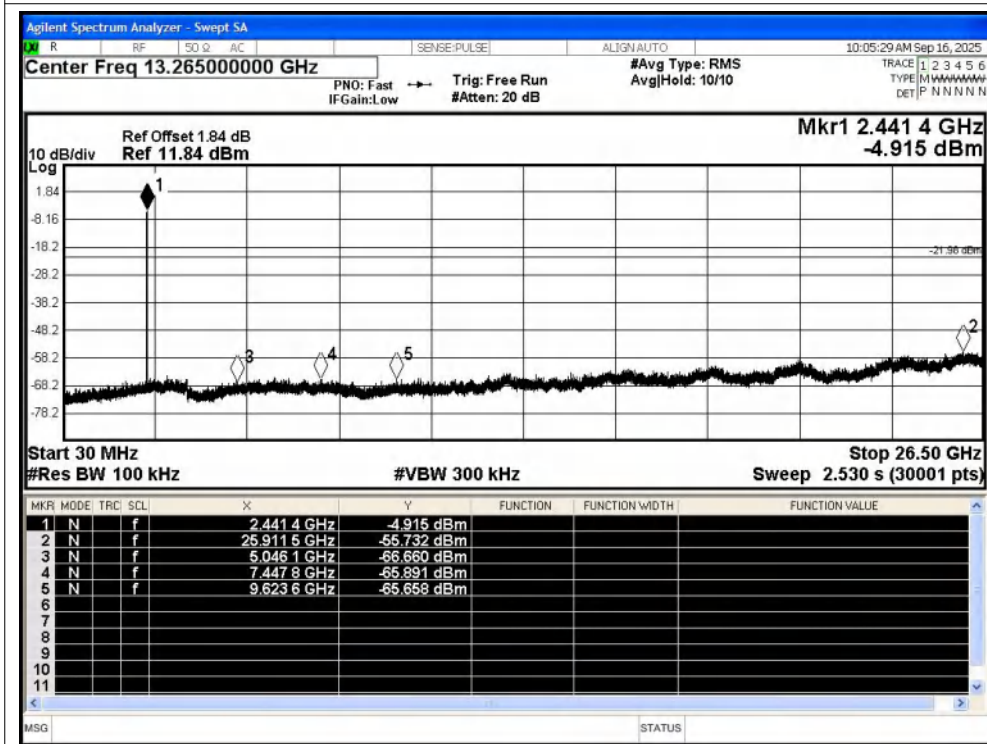
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Emission



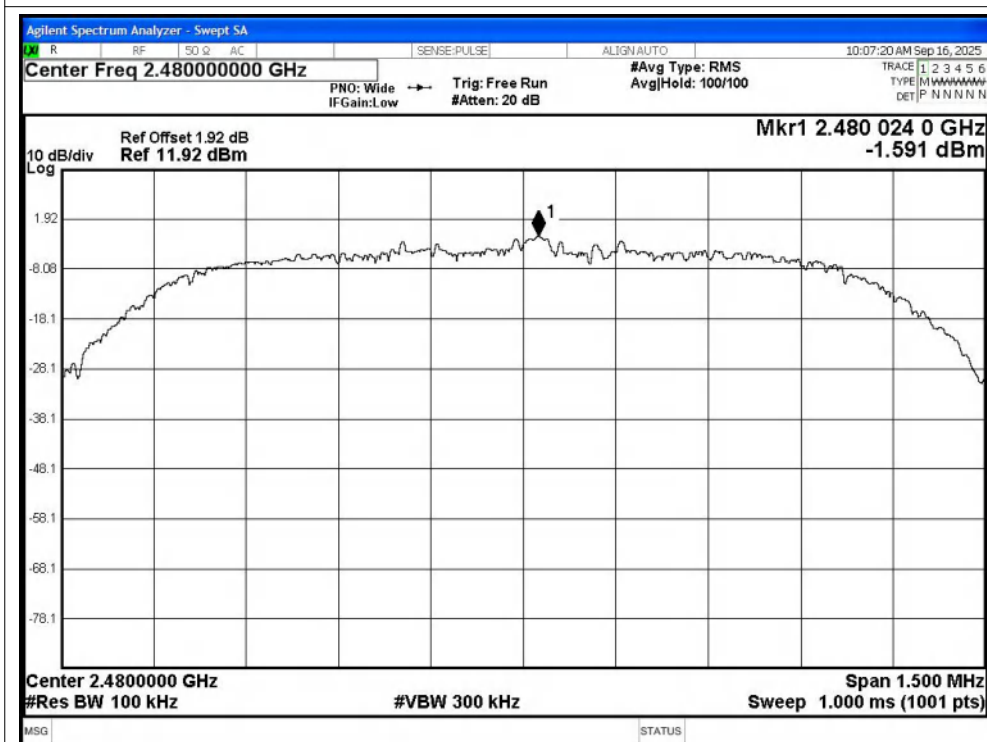
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Ref



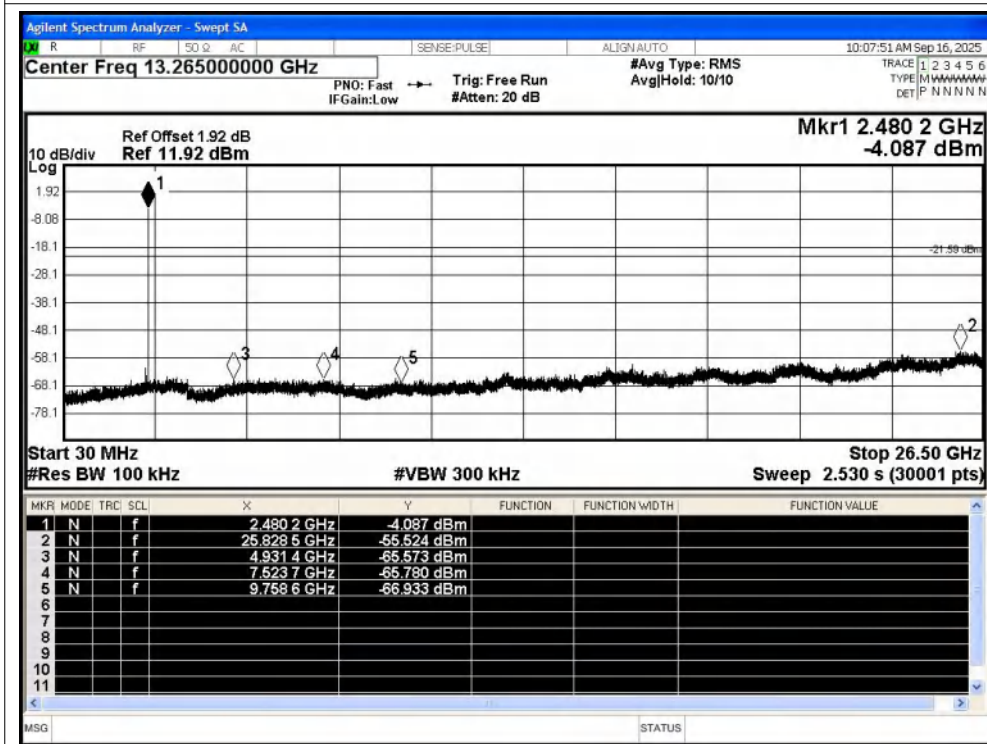
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Emission



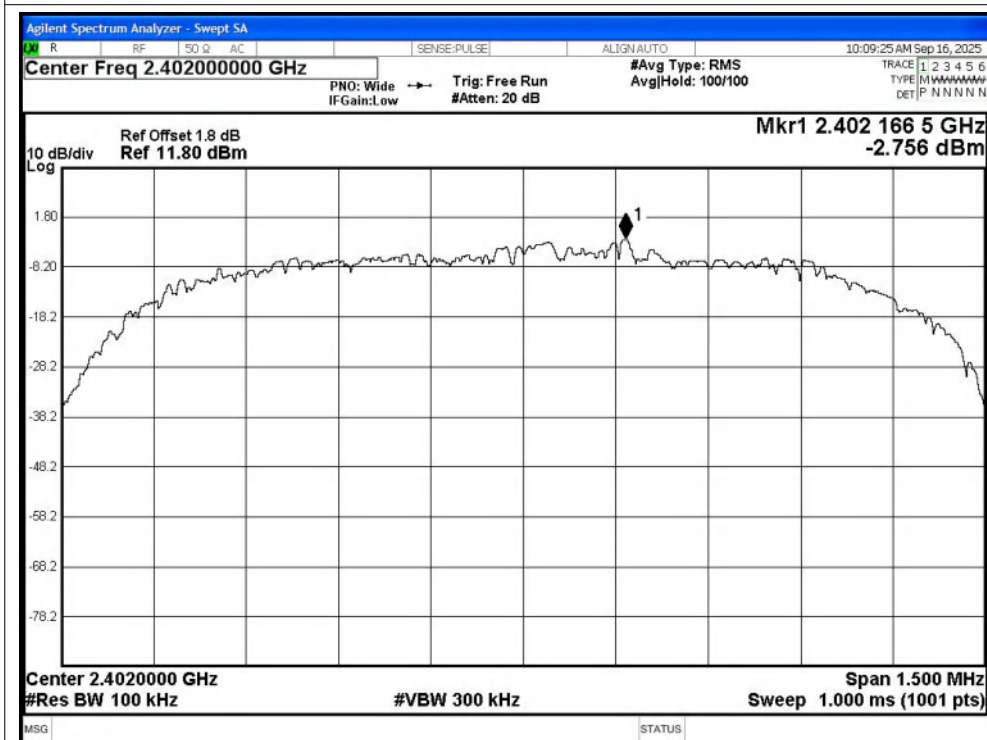
Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Ref



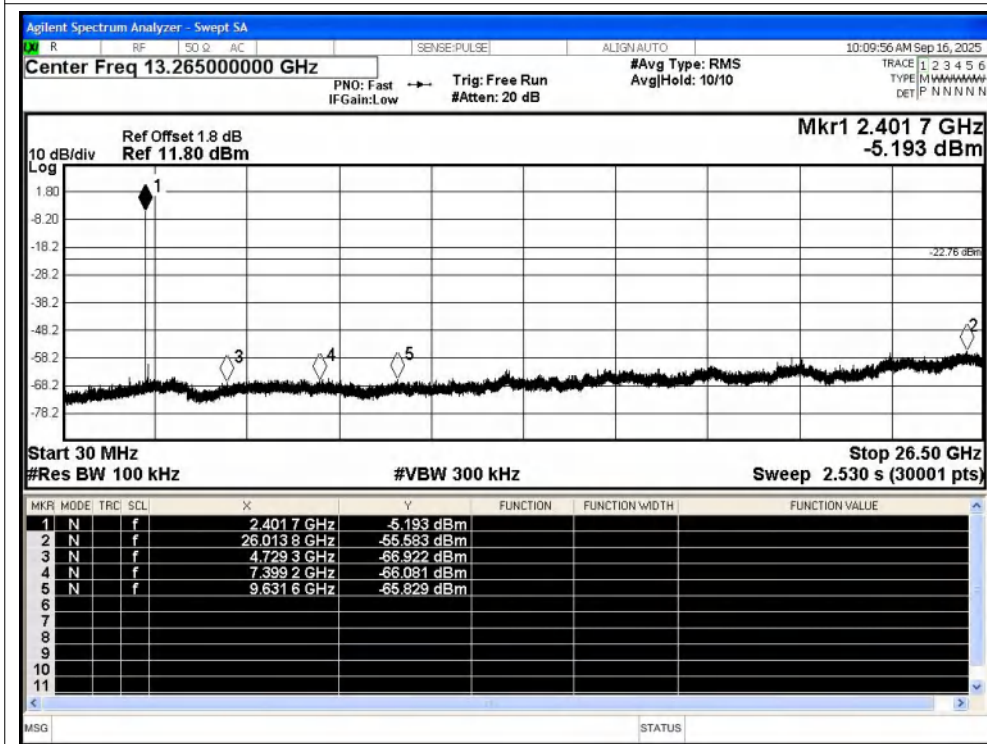
Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Emission



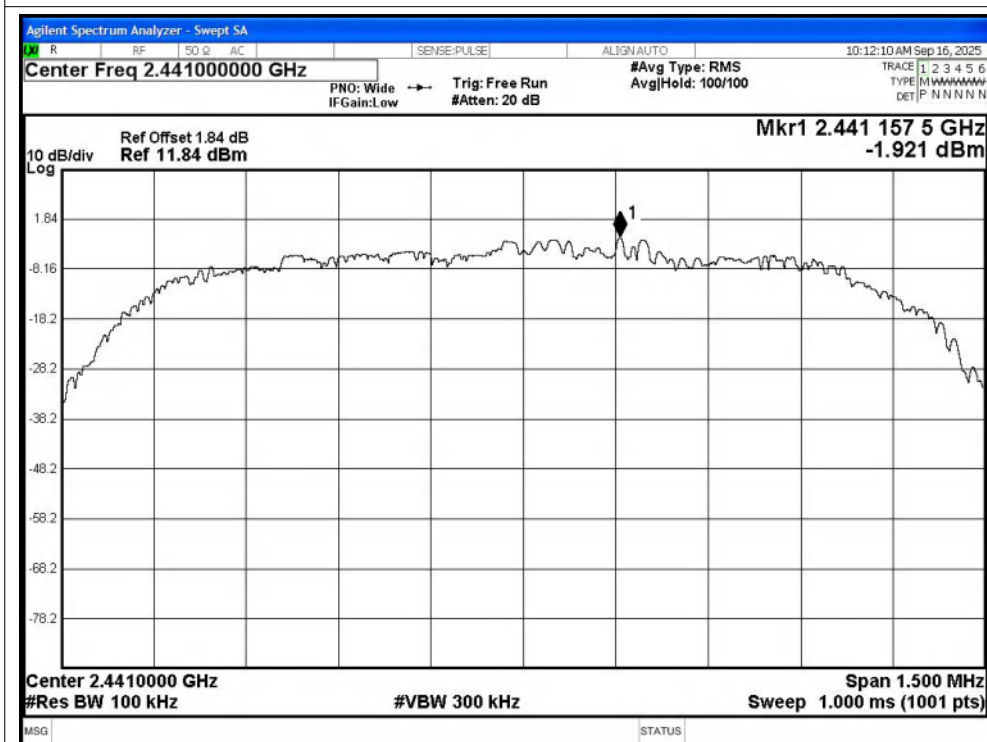
Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Ref



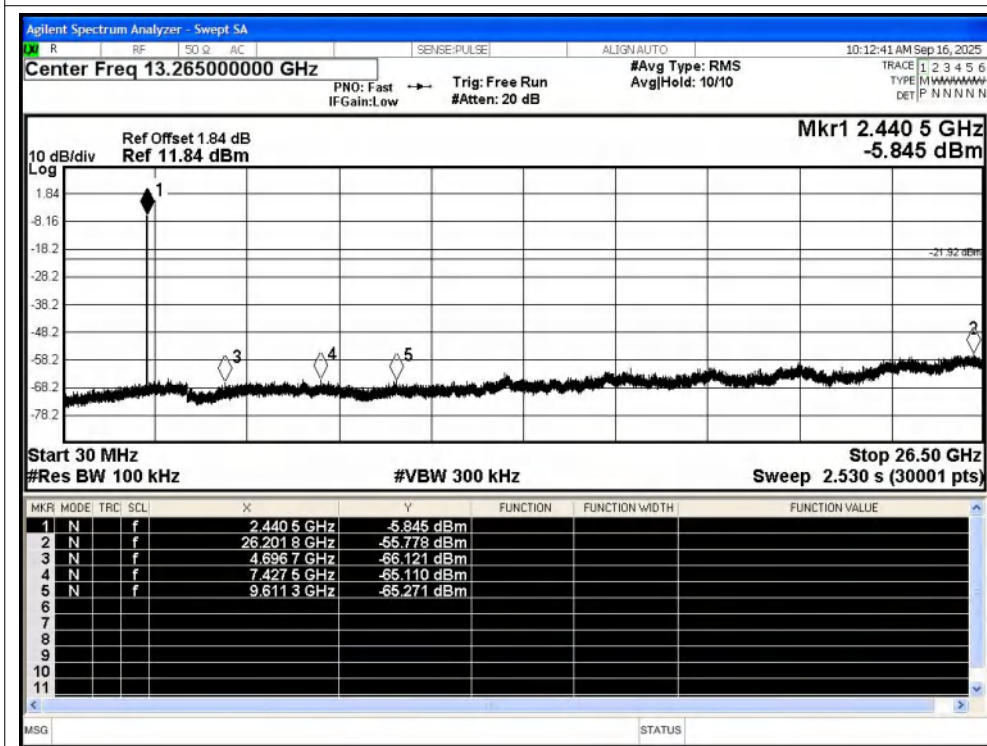
Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Emission



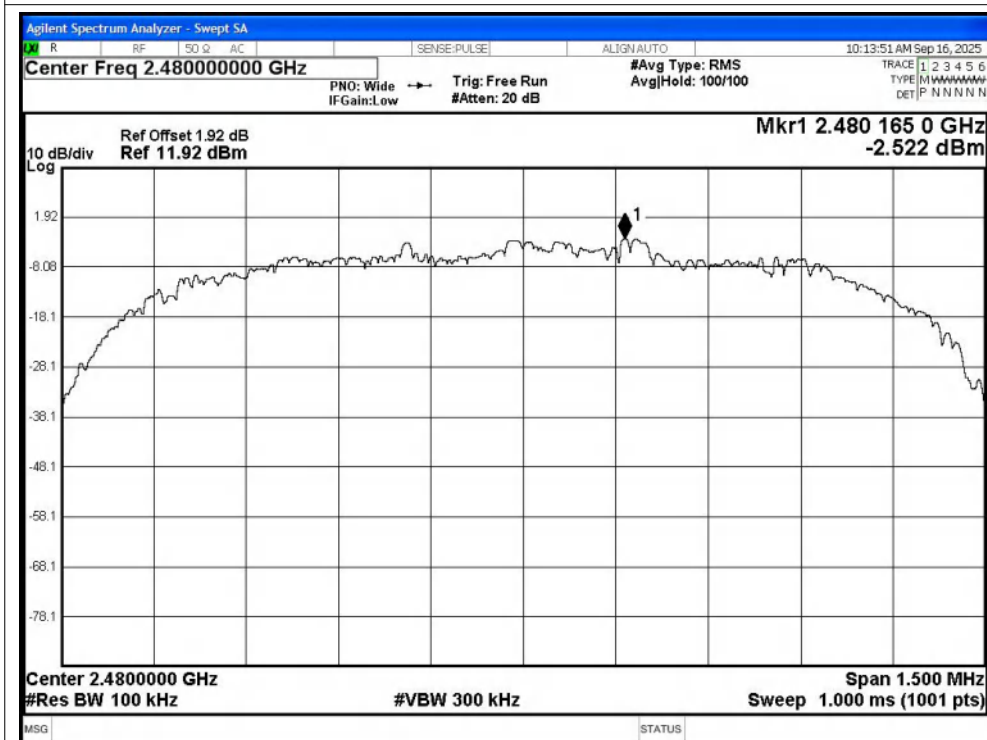
Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Ref



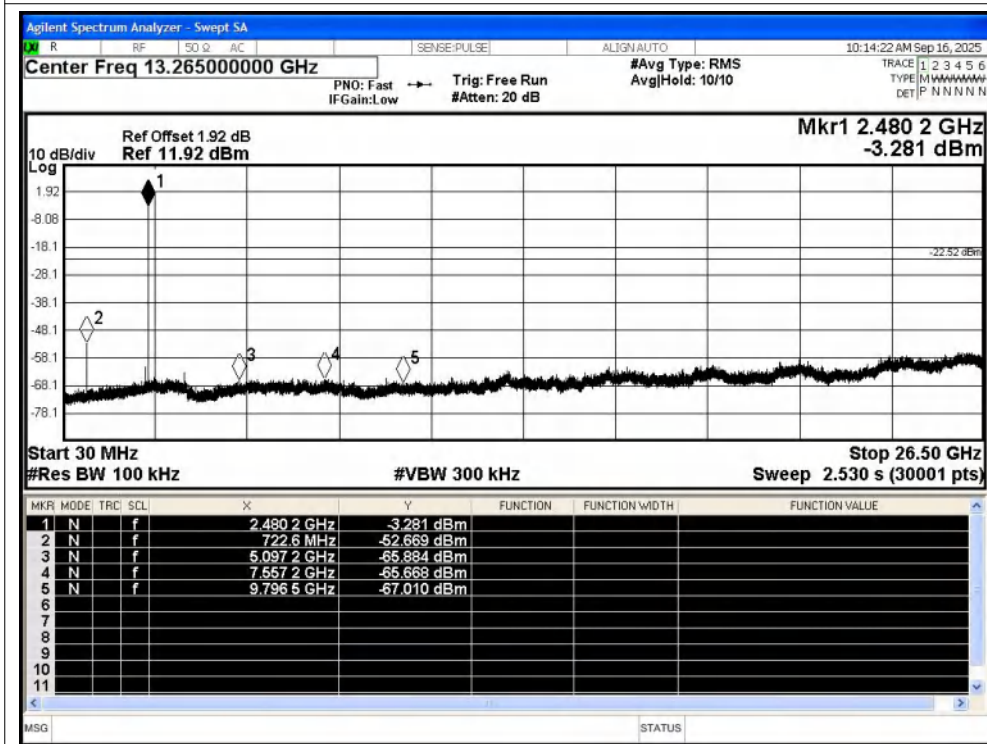
Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Emission

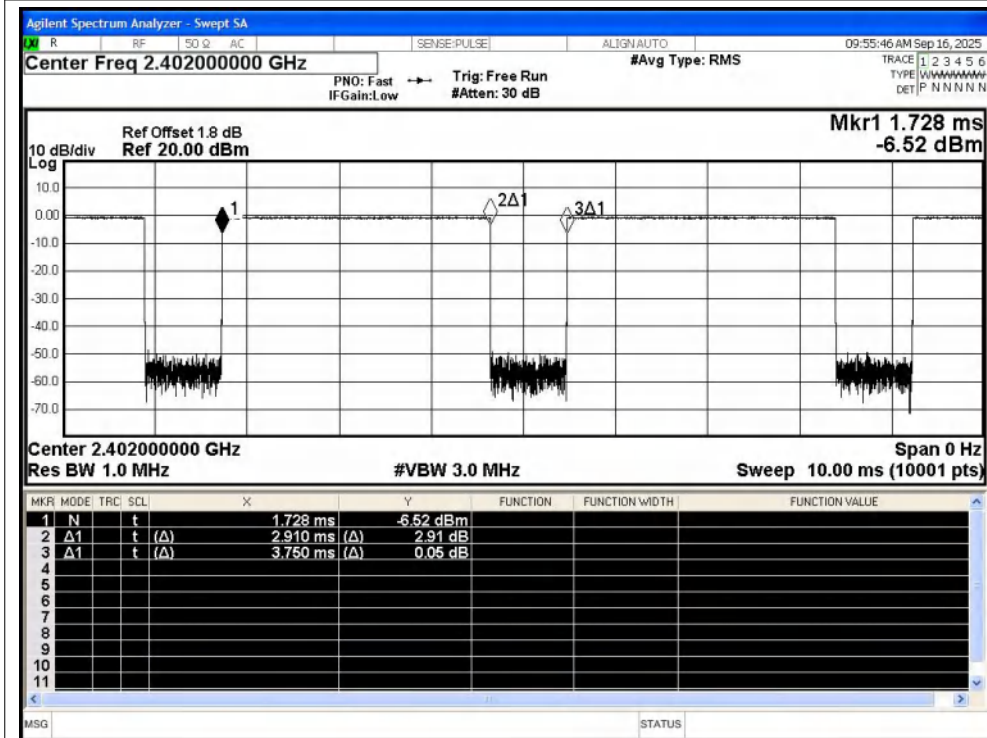


A.8 Duty Cycle

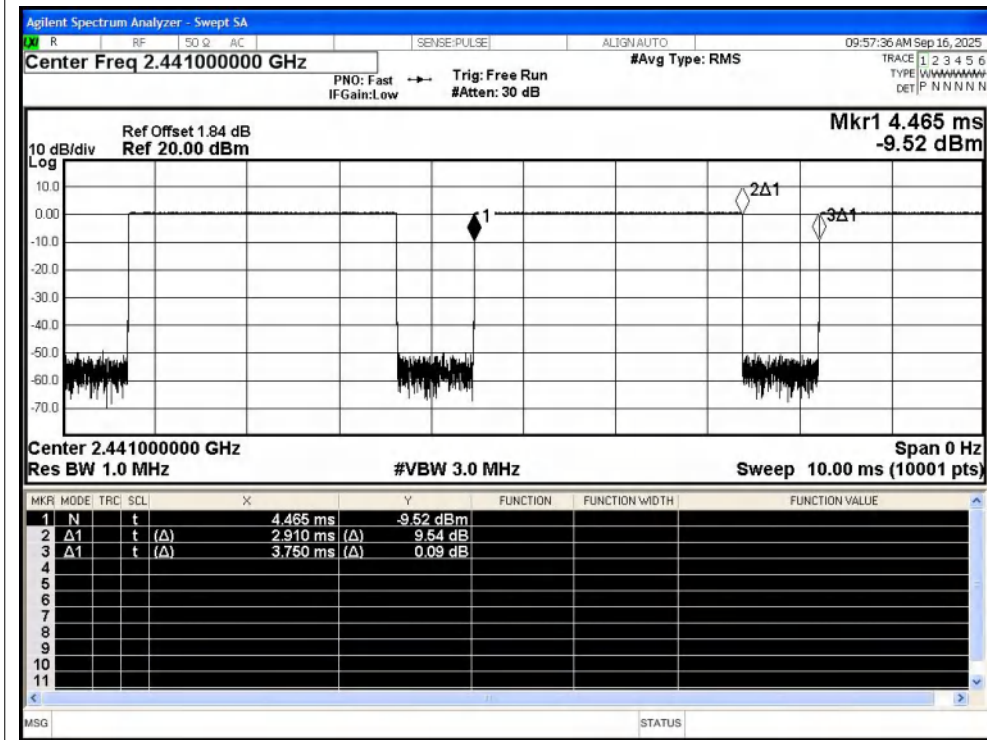
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH5	2402	Ant1	77.6	1.1	0.34
NVNT	1-DH5	2441	Ant1	77.6	1.1	0.34
NVNT	1-DH5	2480	Ant1	77.6	1.1	0.34
NVNT	2-DH5	2402	Ant1	77.28	1.12	0.35
NVNT	2-DH5	2441	Ant1	77.28	1.12	0.35
NVNT	2-DH5	2480	Ant1	77.28	1.12	0.35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

Test Graphs

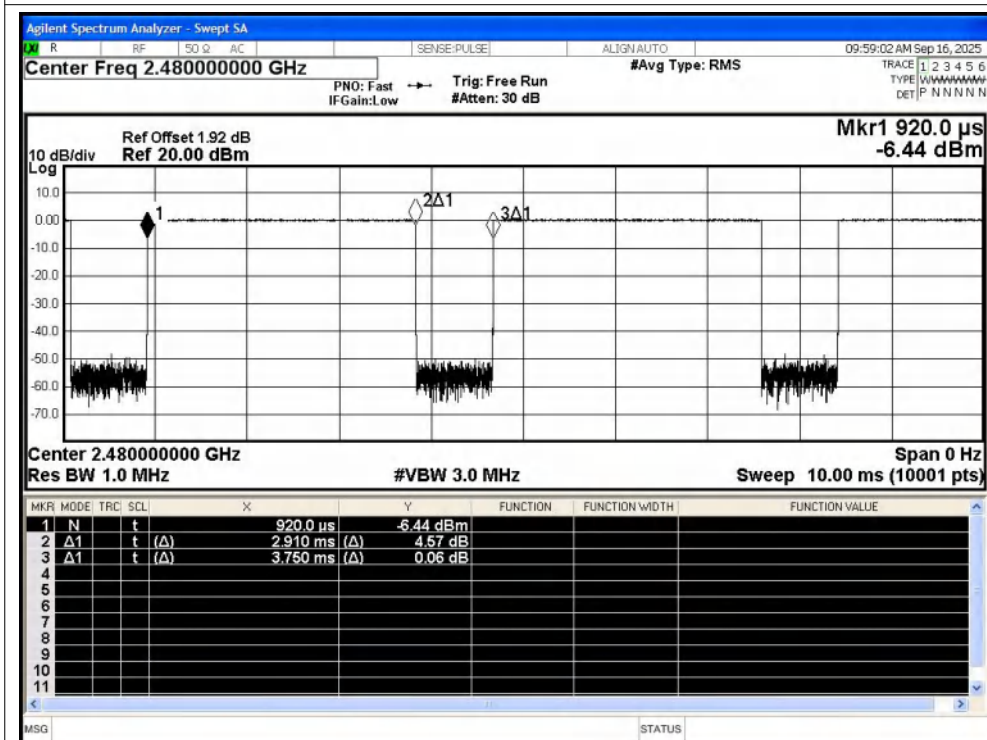
Duty Cycle NVNT 1-DH5 2402MHz Ant1



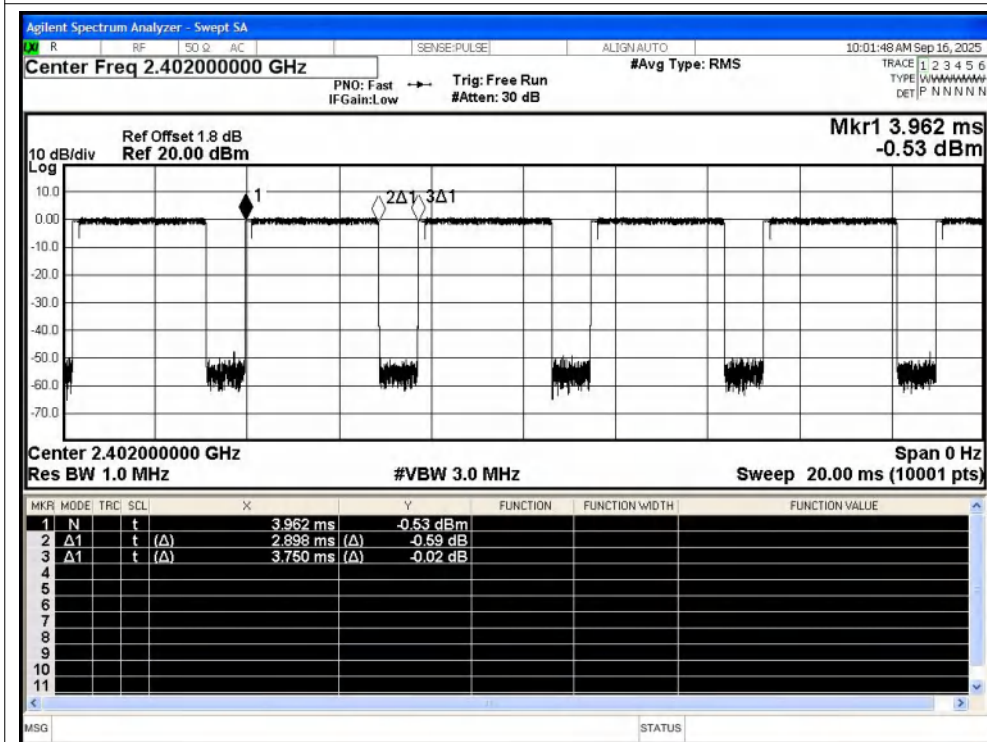
Duty Cycle NVNT 1-DH5 2441MHz Ant1



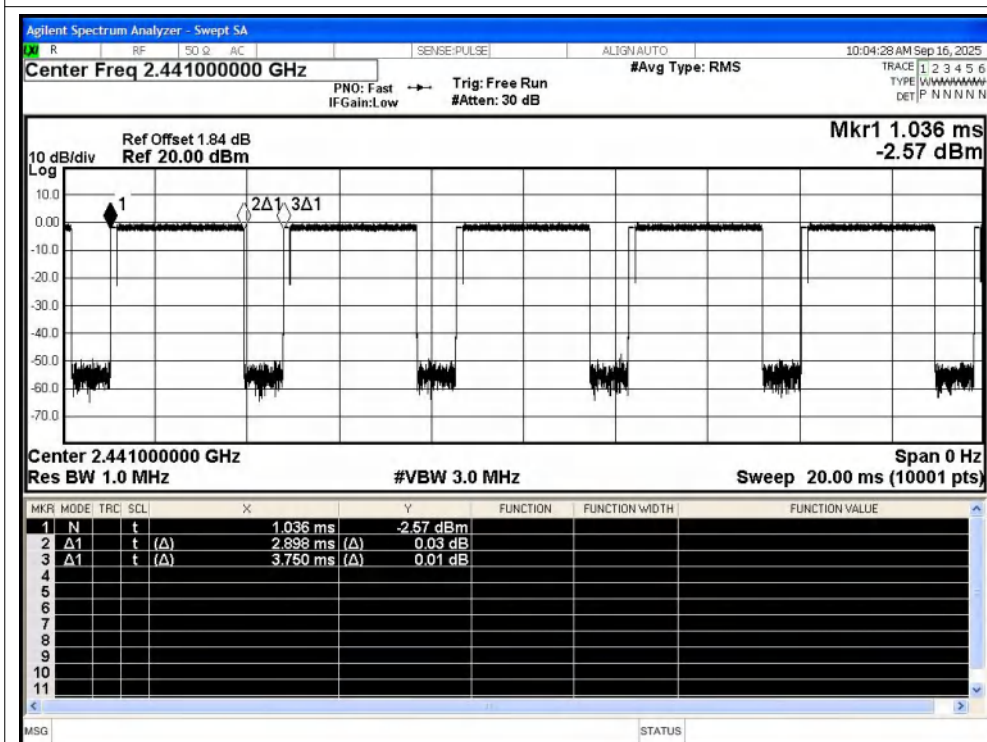
Duty Cycle NVNT 1-DH5 2480MHz Ant1



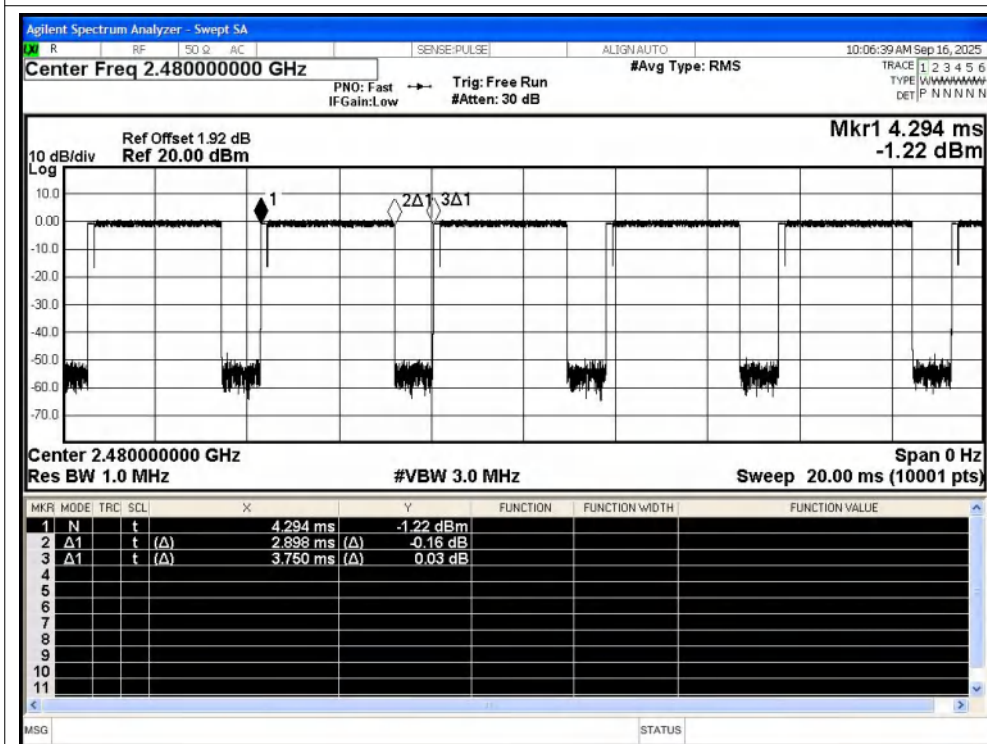
Duty Cycle NVNT 2-DH5 2402MHz Ant1



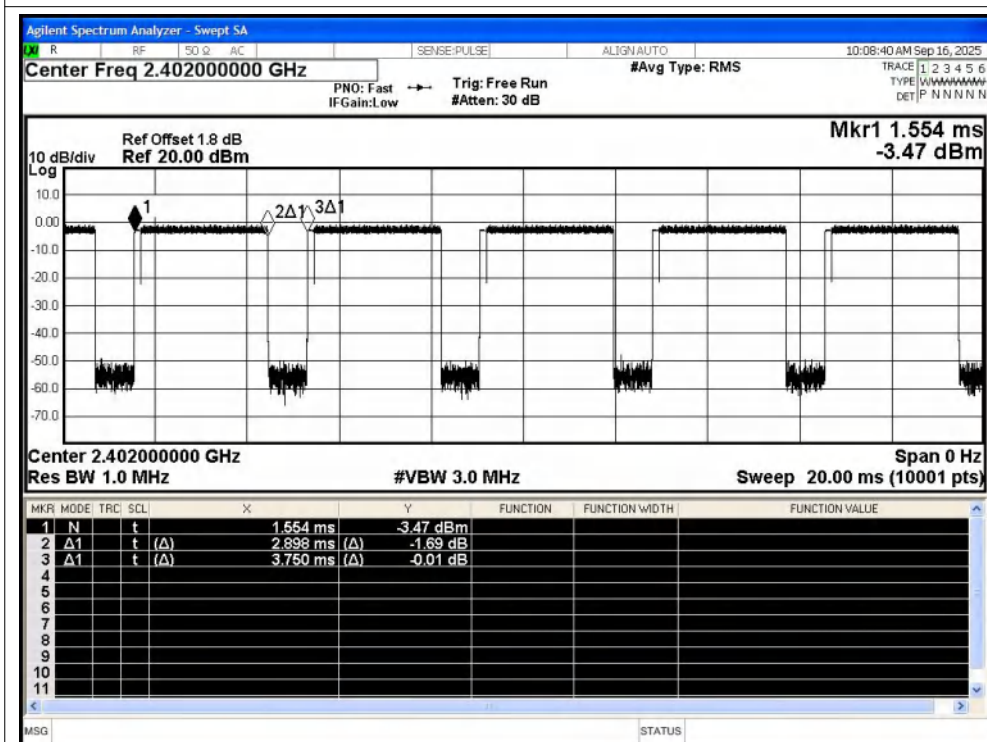
Duty Cycle NVNT 2-DH5 2441MHz Ant1



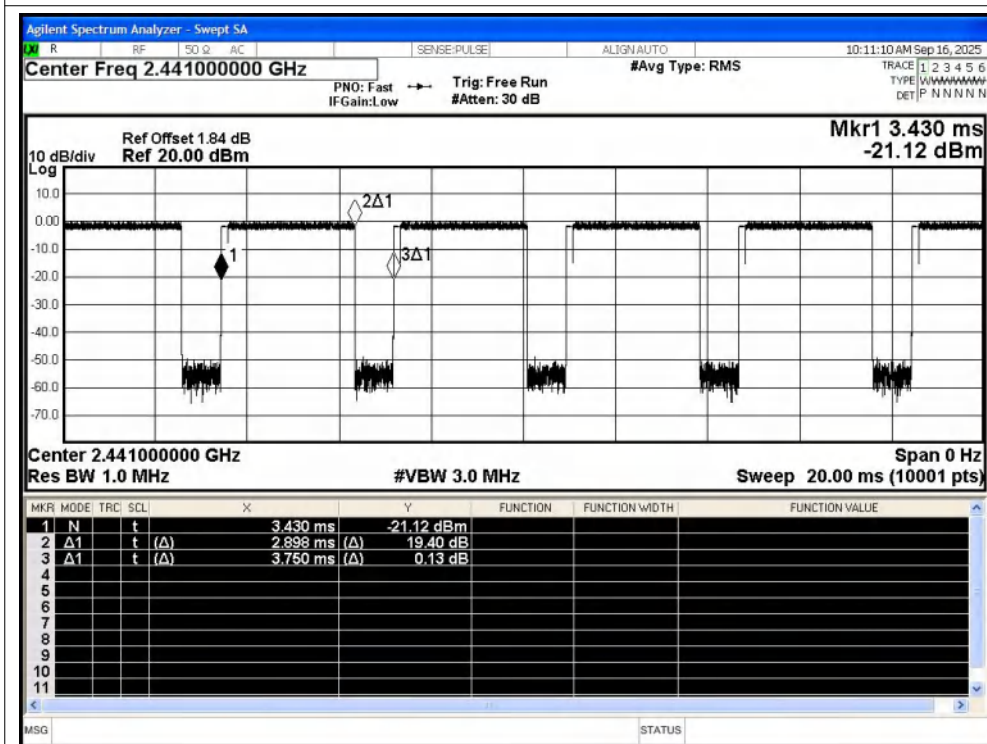
Duty Cycle NVNT 2-DH5 2480MHz Ant1

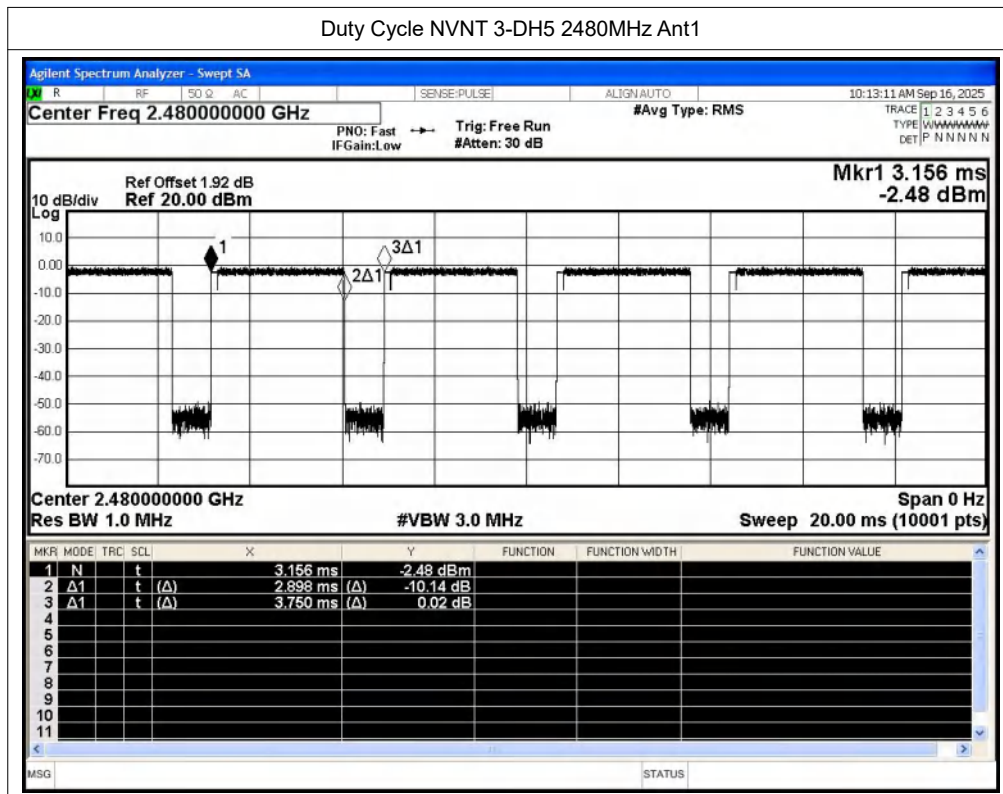


Duty Cycle NVNT 3-DH5 2402MHz Ant1



Duty Cycle NVNT 3-DH5 2441MHz Ant1



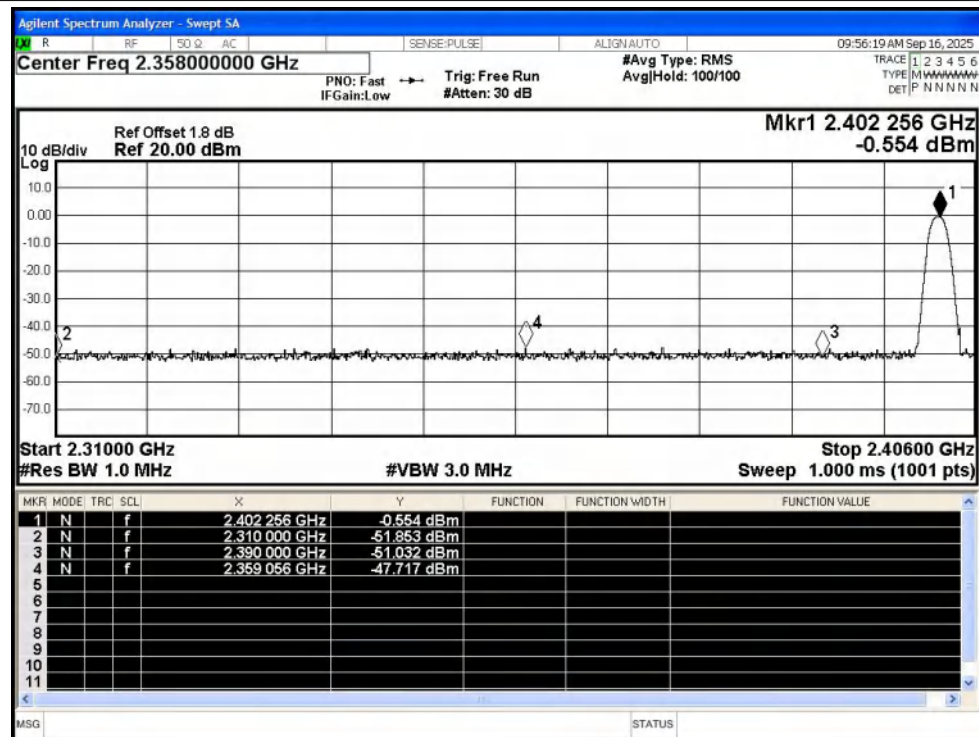


A.9 Restrict Band

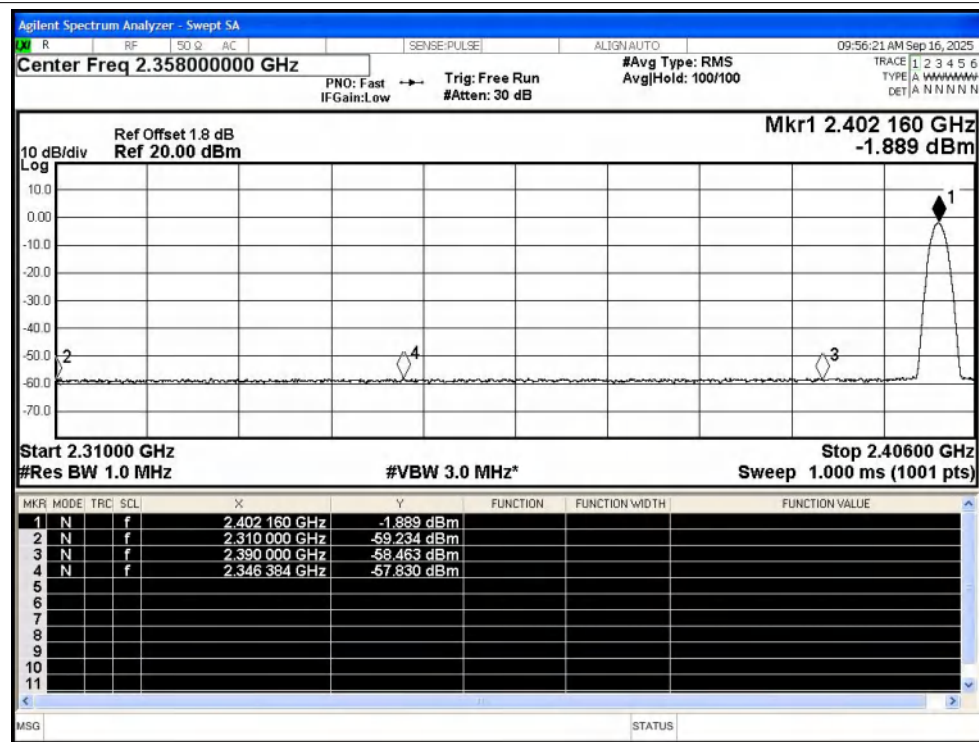
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-51.85	2	-	45.41	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-59.23	2	1.1	39.13	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2359.056	-47.72	2	-	49.54	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2346.384	-57.83	2	1.1	40.53	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-51.03	2	-	46.23	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-58.46	2	1.1	39.9	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-49.17	2	-	48.09	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-58	2	1.1	40.36	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.632	-44.7	2	-	52.56	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2486.272	-57.27	2	1.1	41.09	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-50.49	2	-	46.77	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-58.85	2	1.1	39.51	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-51.12	2	-	46.14	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-58.82	2	1.12	39.56	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2356.464	-48.23	2	-	49.03	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2365.488	-58.03	2	1.12	40.35	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-51.57	2	-	45.69	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-58.51	2	1.12	39.87	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-47.14	2	-	50.12	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-57.87	2	1.12	40.51	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.872	-46.34	2	-	50.92	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.68	-56.91	2	1.12	41.47	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-50.77	2	-	46.49	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-58.18	2	1.12	40.2	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-50.32	2	-	46.94	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-58.6	2	1.12	39.78	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2360.592	-47.52	2	-	49.74	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2356.848	-58	2	1.12	40.38	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-49.95	2	-	47.31	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-58.81	2	1.12	39.57	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-47	2	-	50.26	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-57.36	2	1.12	41.02	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.584	-43.49	2	-	53.77	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.56	-56.98	2	1.12	41.4	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-50.42	2	-	46.84	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-57.32	2	1.12	41.06	Average	54	Pass

Test Graphs

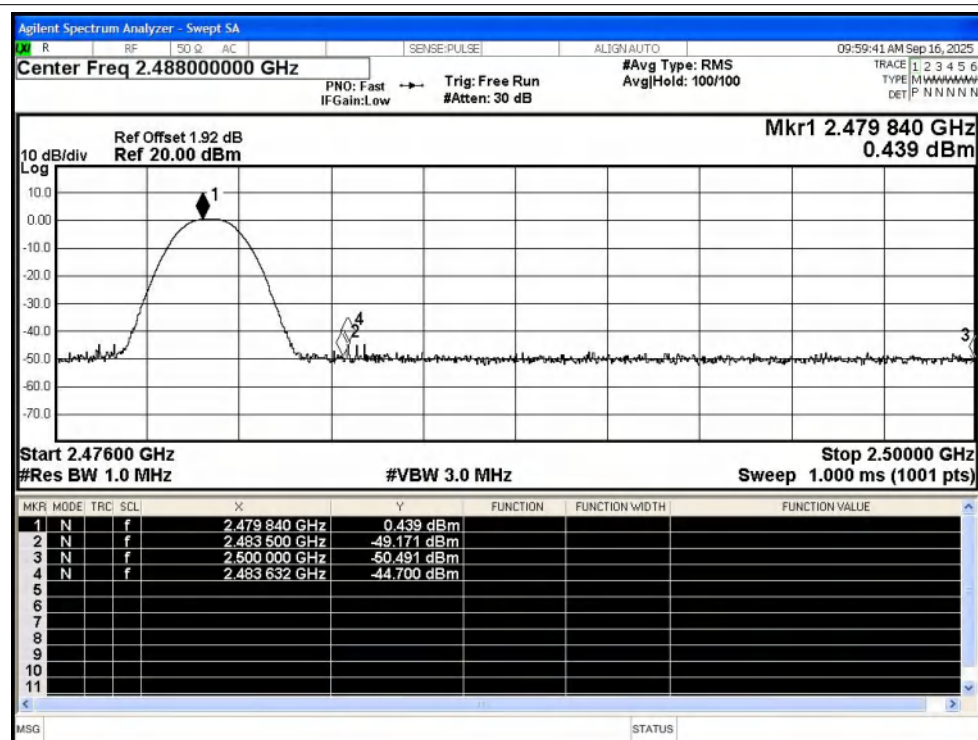
Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Peak



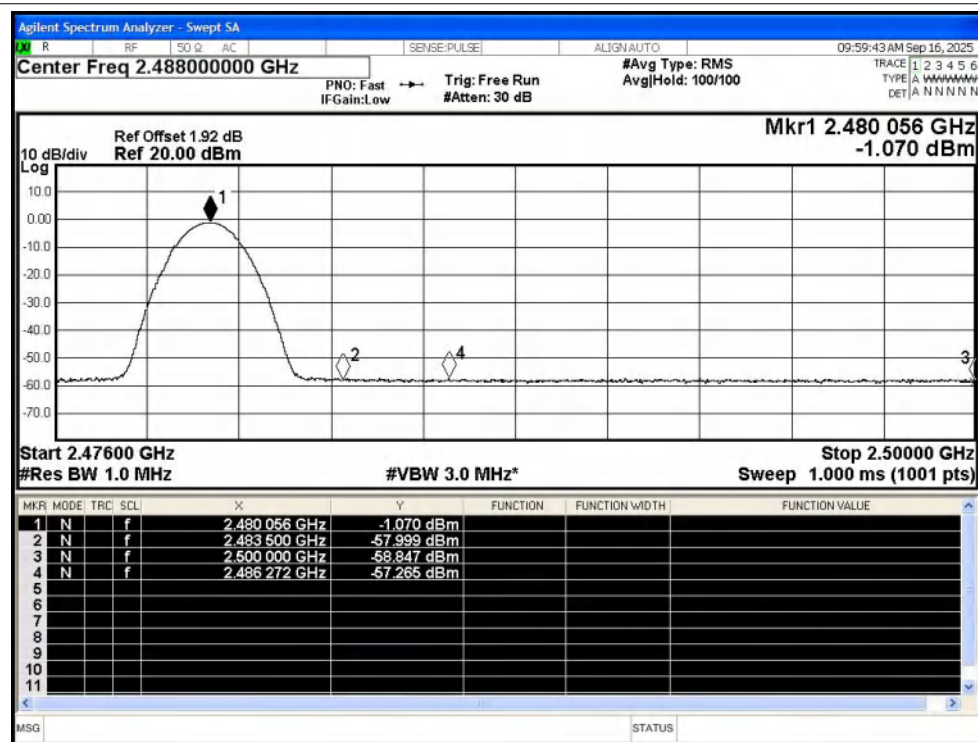
Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Average



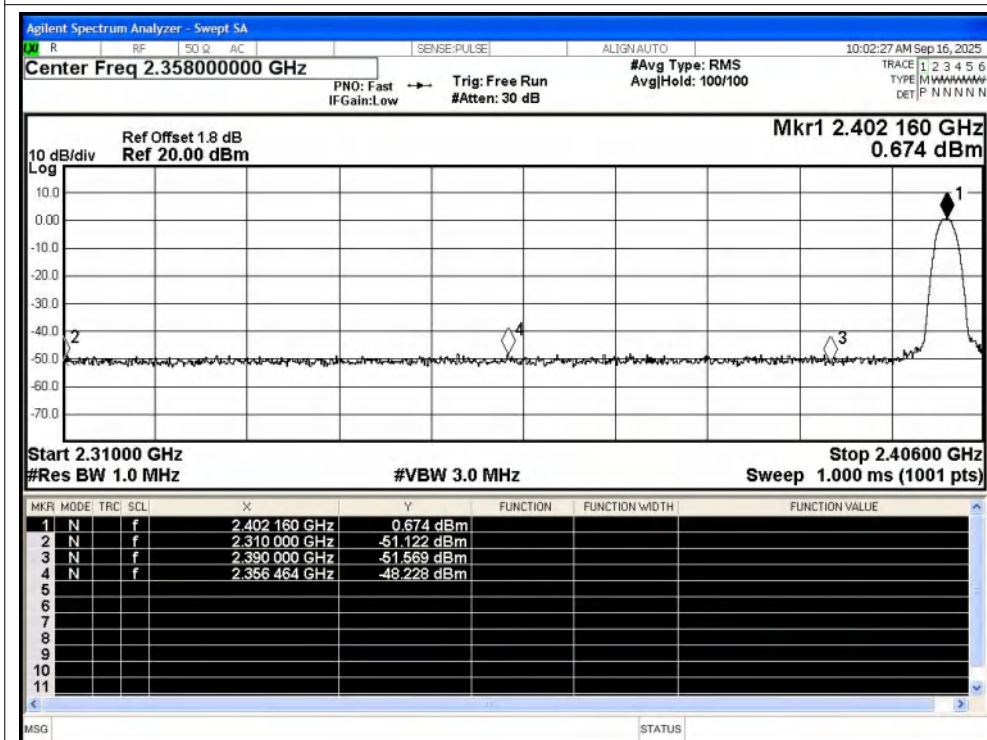
Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Peak



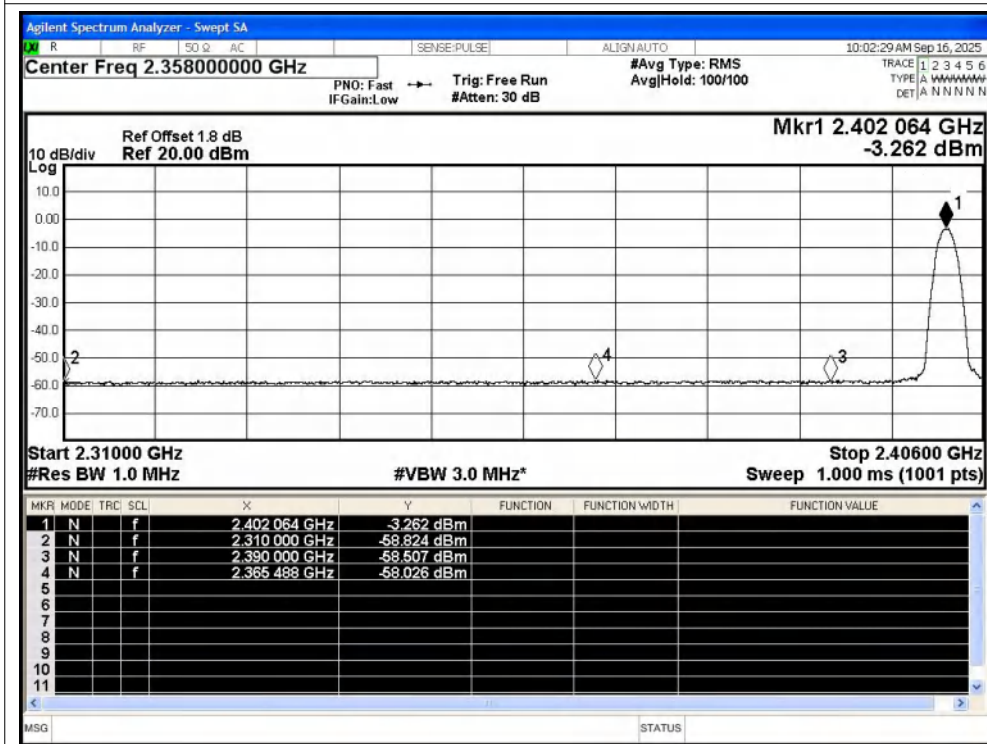
Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Average



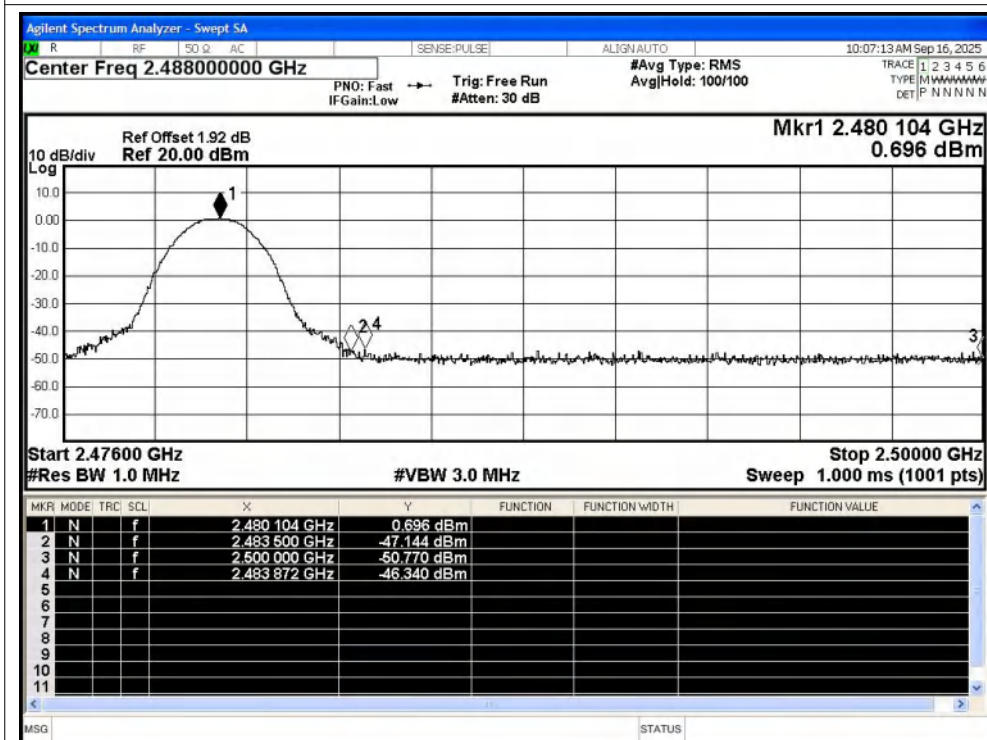
Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Peak



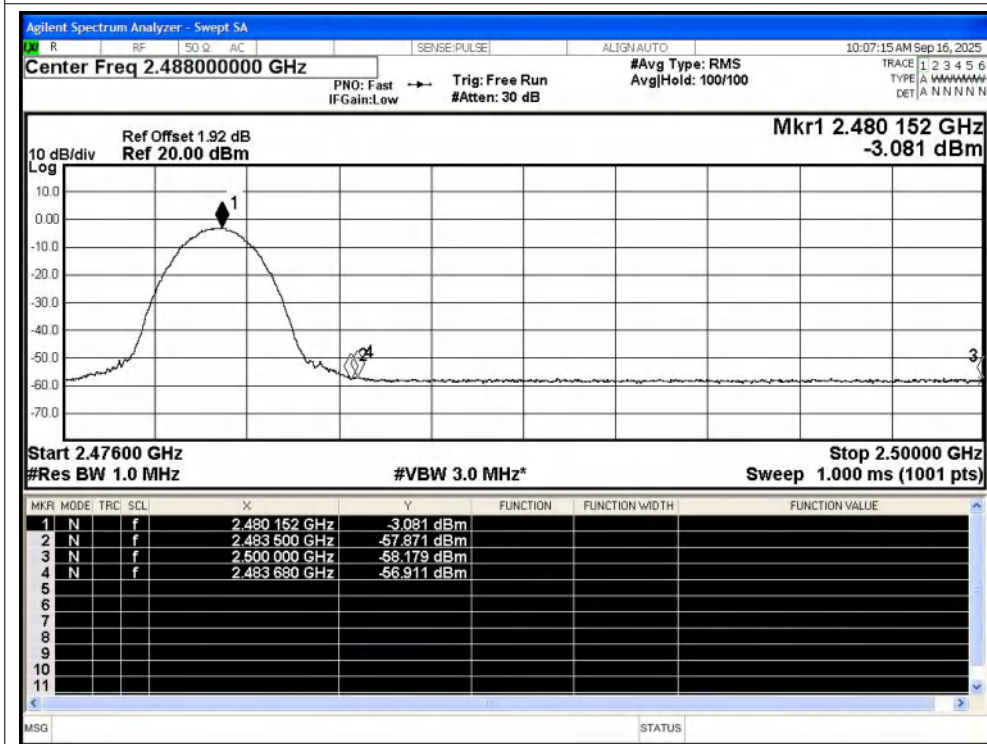
Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Average



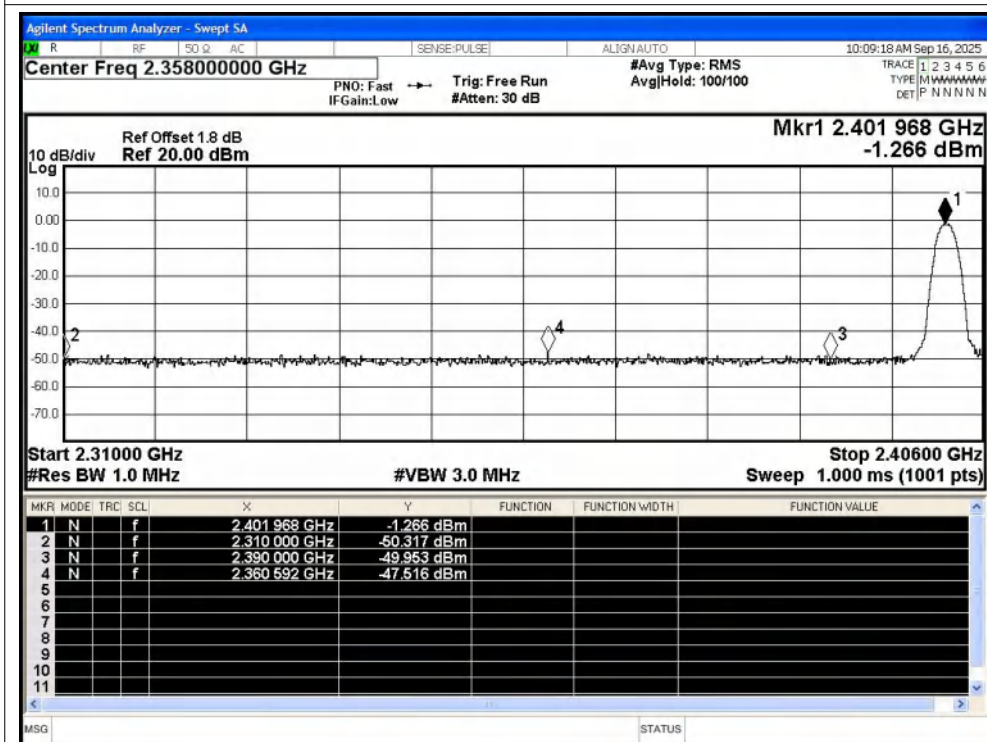
Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Peak



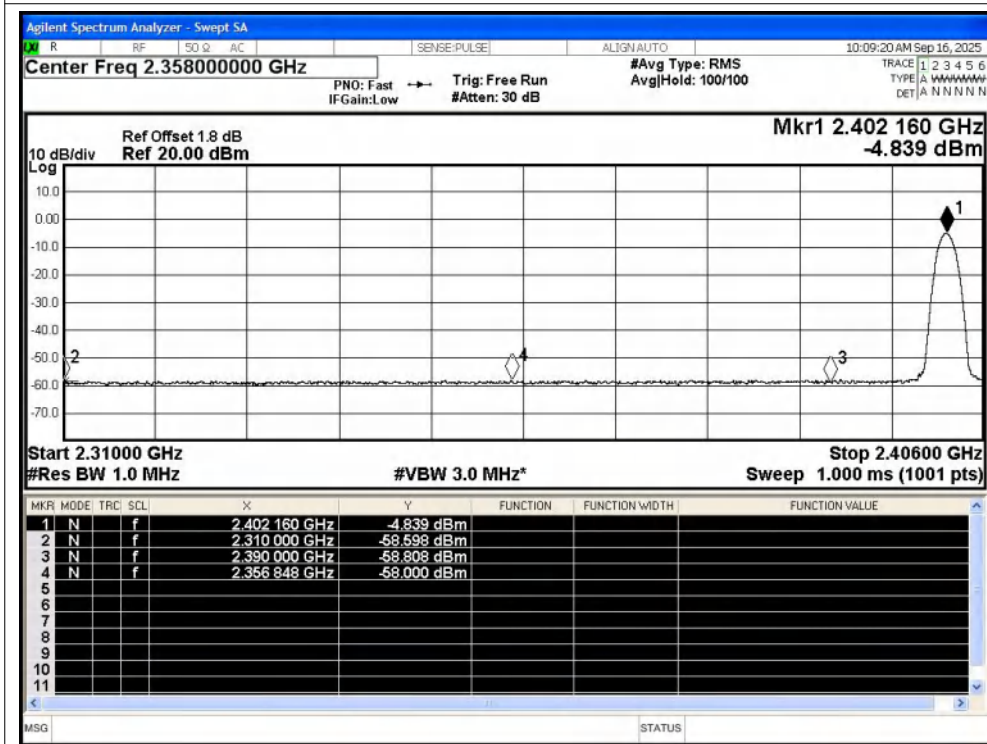
Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Average



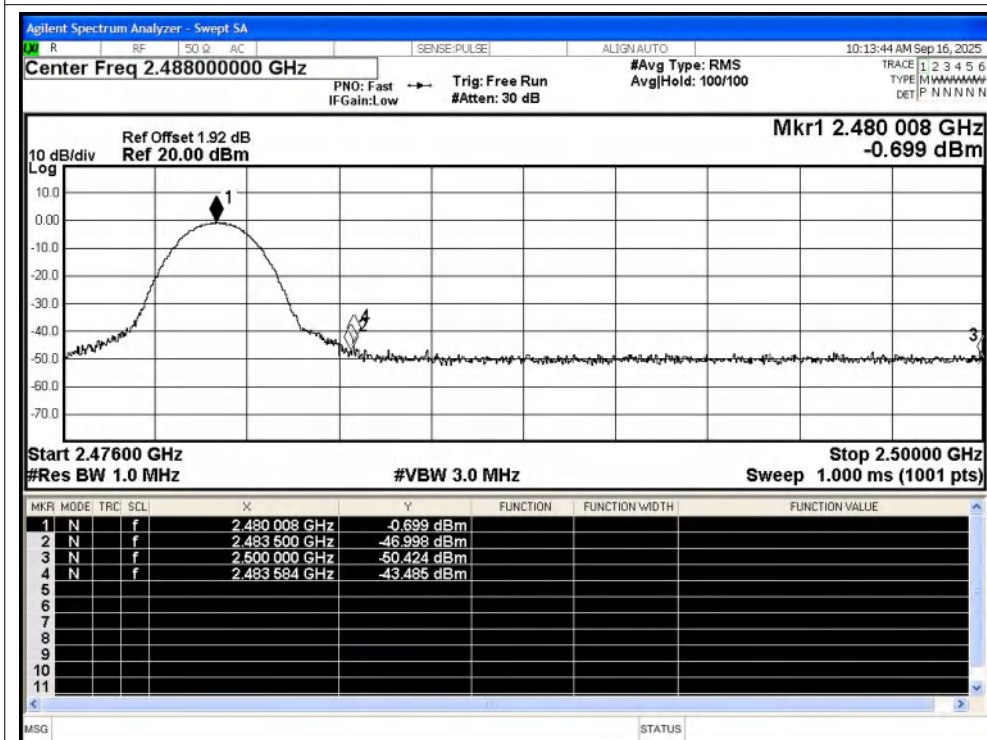
Restrict Band NVNT 3-DH5 2402MHz Ant1 No-Hopping Peak



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



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



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

