

Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: projector

Test Model: Z18

Environmental Conditions

Temperature:	24.3°C
Relative Humidity:	53.6%
ATM Pressure:	100.0 kPa
Test Engineer:	Ting He
Supervised by:	Fengliu Tang

A.1 -20dB Bandwidth

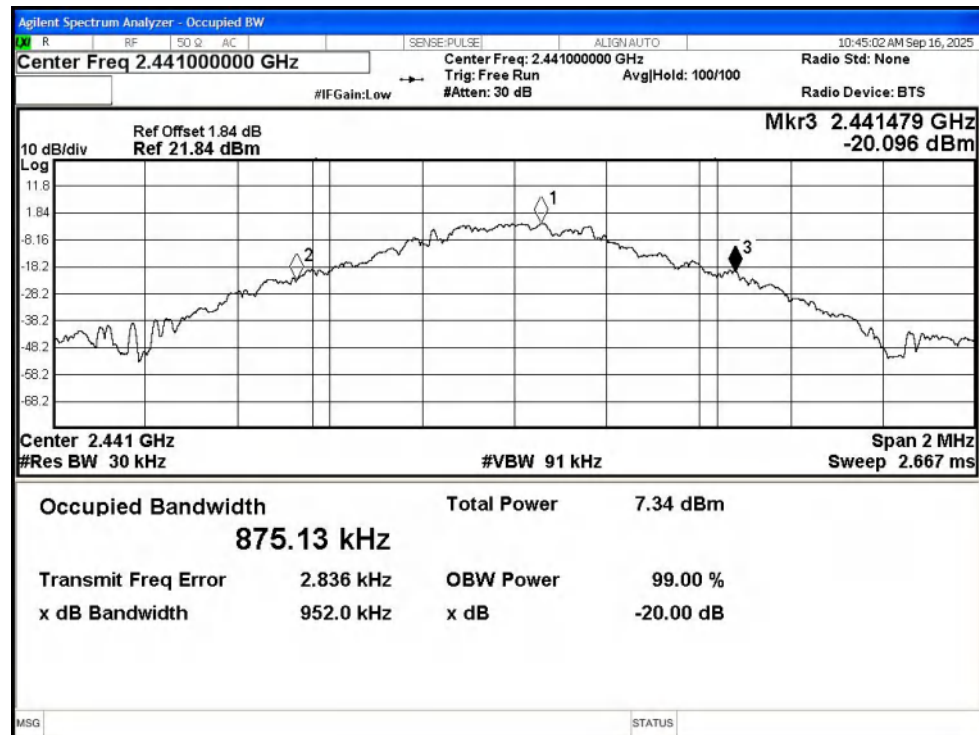
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH5	2402	Ant1	0.987	N/A	Pass
NVNT	1-DH5	2441	Ant1	0.952	N/A	Pass
NVNT	1-DH5	2480	Ant1	0.949	N/A	Pass
NVNT	2-DH5	2402	Ant1	1.321	N/A	Pass
NVNT	2-DH5	2441	Ant1	1.273	N/A	Pass
NVNT	2-DH5	2480	Ant1	1.284	N/A	Pass
NVNT	3-DH5	2402	Ant1	1.292	N/A	Pass
NVNT	3-DH5	2441	Ant1	1.287	N/A	Pass
NVNT	3-DH5	2480	Ant1	1.285	N/A	Pass

Test Graphs

-20dB Bandwidth NVNT 1-DH5 2402MHz Ant1



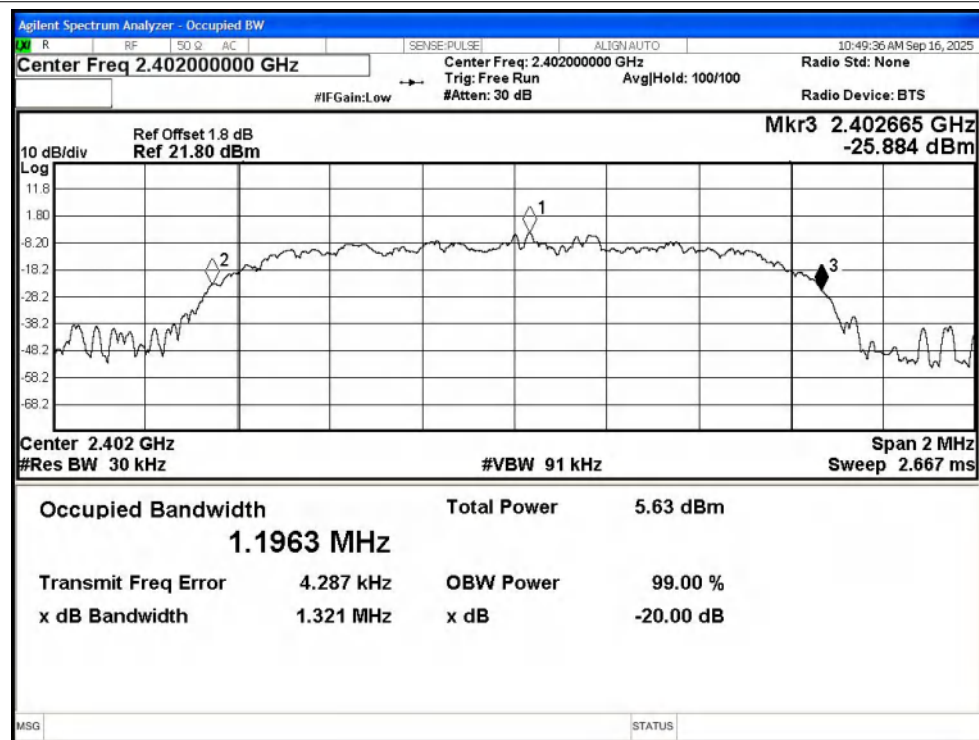
-20dB Bandwidth NVNT 1-DH5 2441MHz Ant1



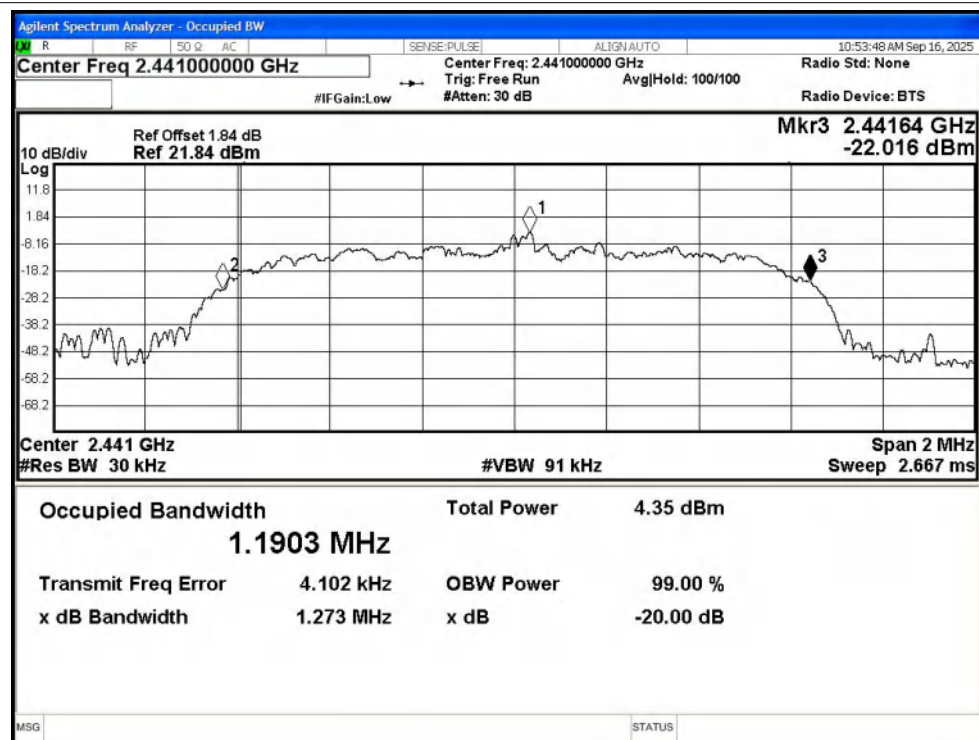
-20dB Bandwidth NVNT 1-DH5 2480MHz Ant1



-20dB Bandwidth NVNT 2-DH5 2402MHz Ant1



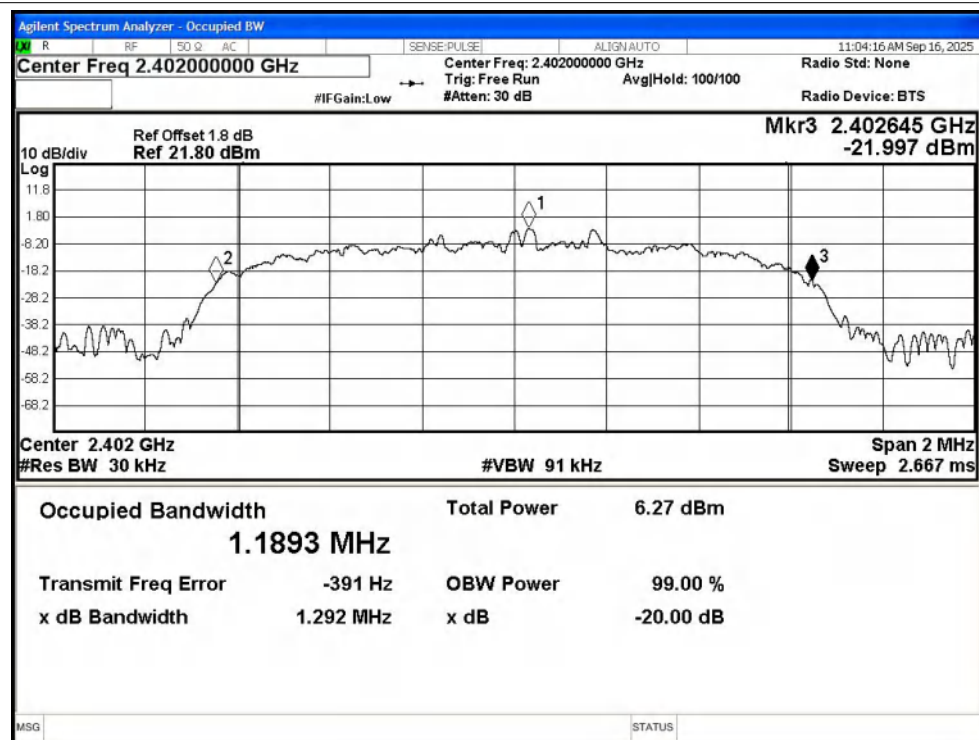
-20dB Bandwidth NVNT 2-DH5 2441MHz Ant1



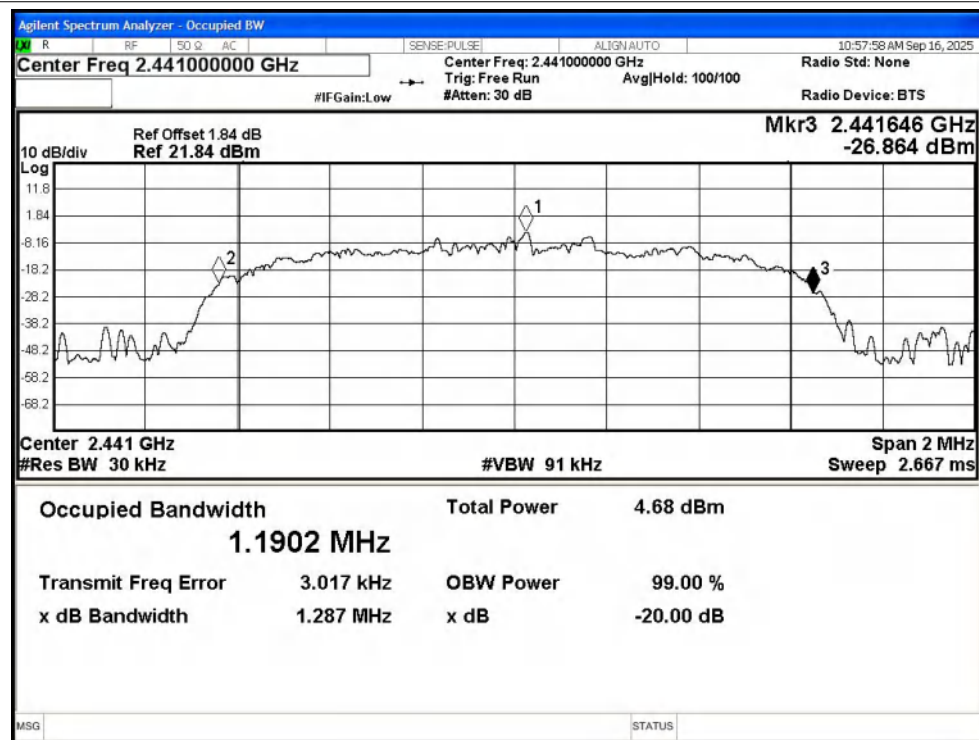
-20dB Bandwidth NVNT 2-DH5 2480MHz Ant1



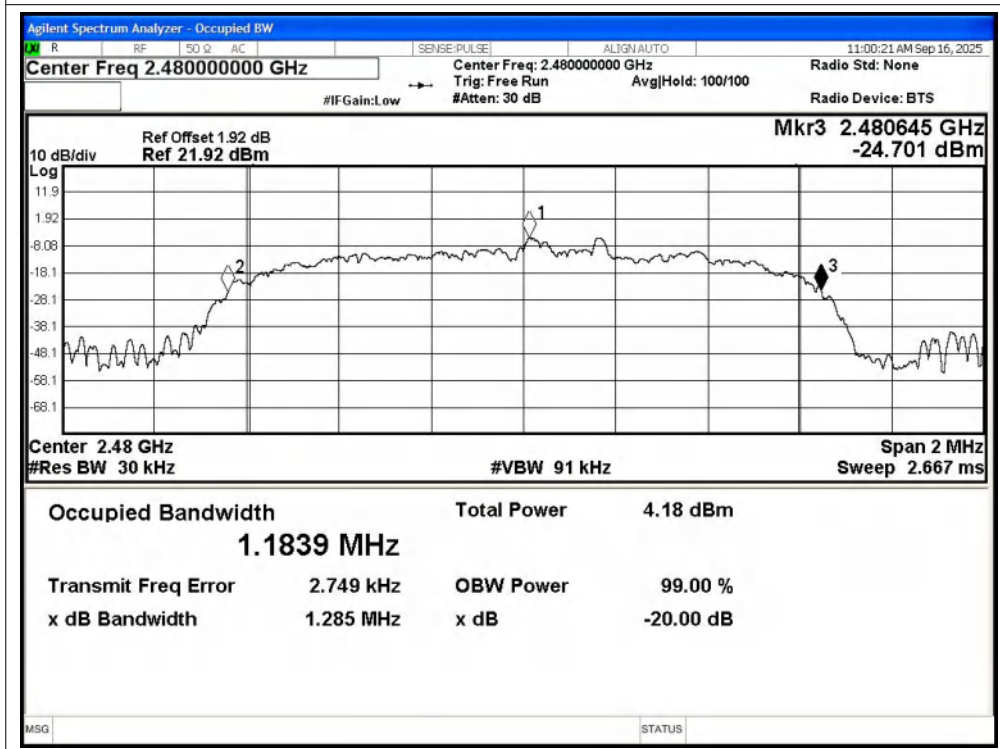
-20dB Bandwidth NVNT 3-DH5 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH5 2441MHz Ant1



-20dB Bandwidth NVNT 3-DH5 2480MHz Ant1

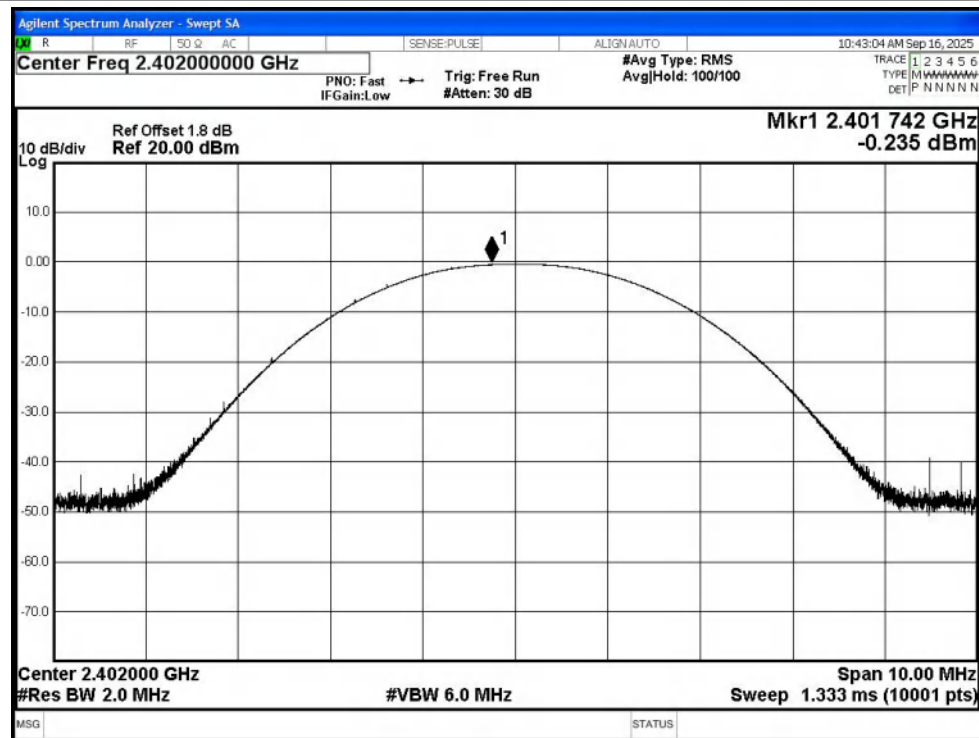


A.2 Maximum Peak Conducted Output Power

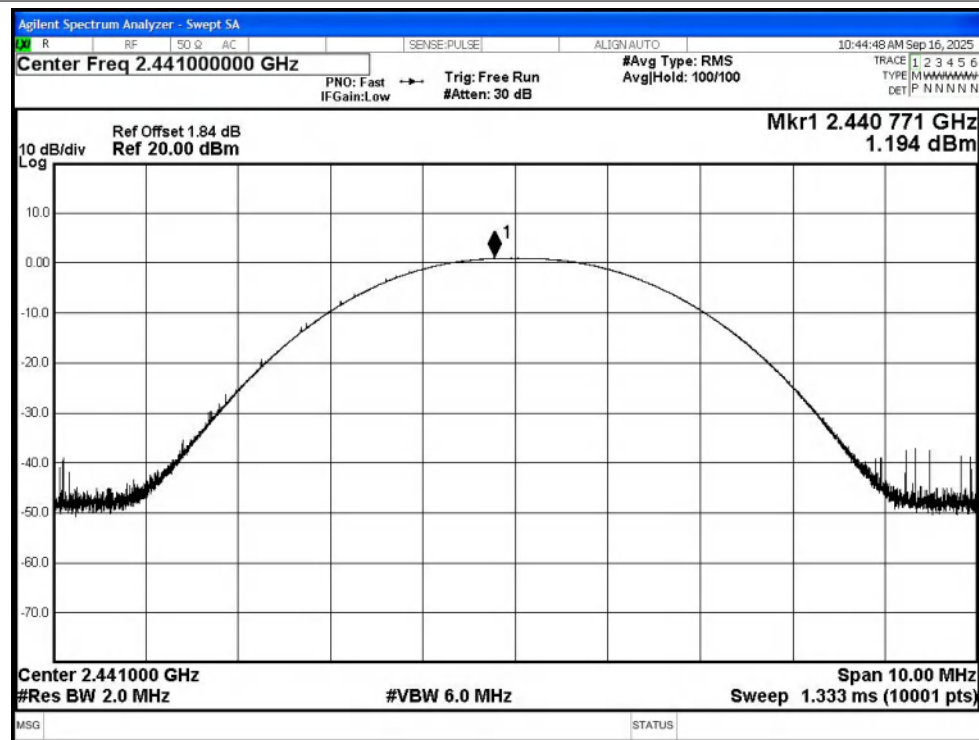
Condition	Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH5	2402	Ant1	-0.24	21	Pass
NVNT	1-DH5	2441	Ant1	1.19	21	Pass
NVNT	1-DH5	2480	Ant1	0.78	21	Pass
NVNT	2-DH5	2402	Ant1	1.35	21	Pass
NVNT	2-DH5	2441	Ant1	0.14	21	Pass
NVNT	2-DH5	2480	Ant1	-0.56	21	Pass
NVNT	3-DH5	2402	Ant1	1.60	21	Pass
NVNT	3-DH5	2441	Ant1	0.53	21	Pass
NVNT	3-DH5	2480	Ant1	-0.33	21	Pass

Test Graphs

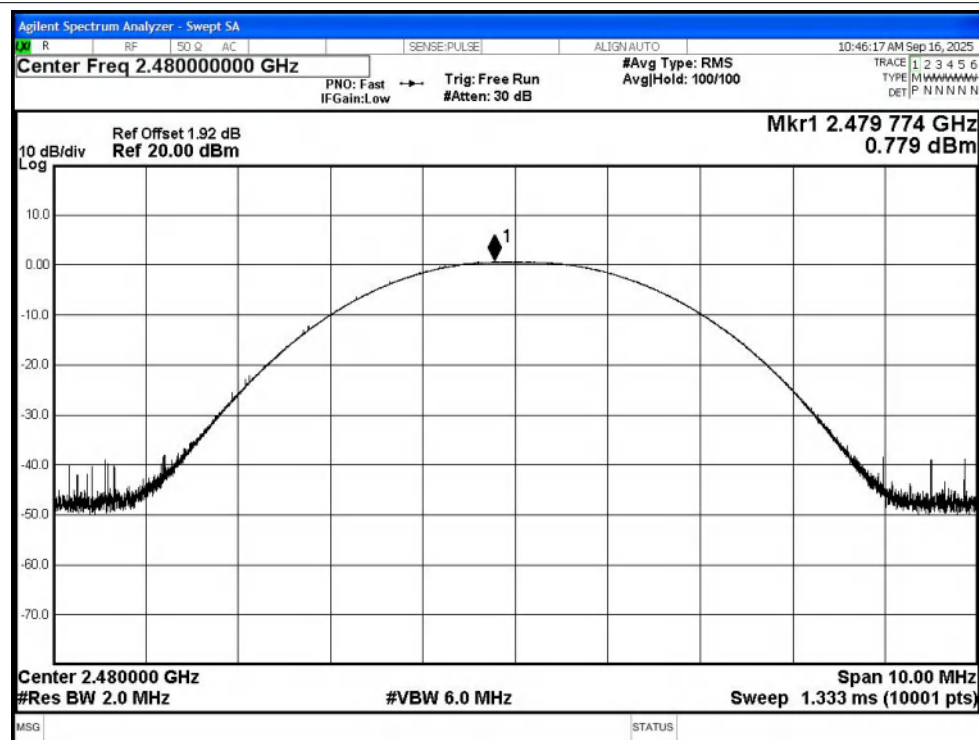
Power NVNT 1-DH5 2402MHz Ant1



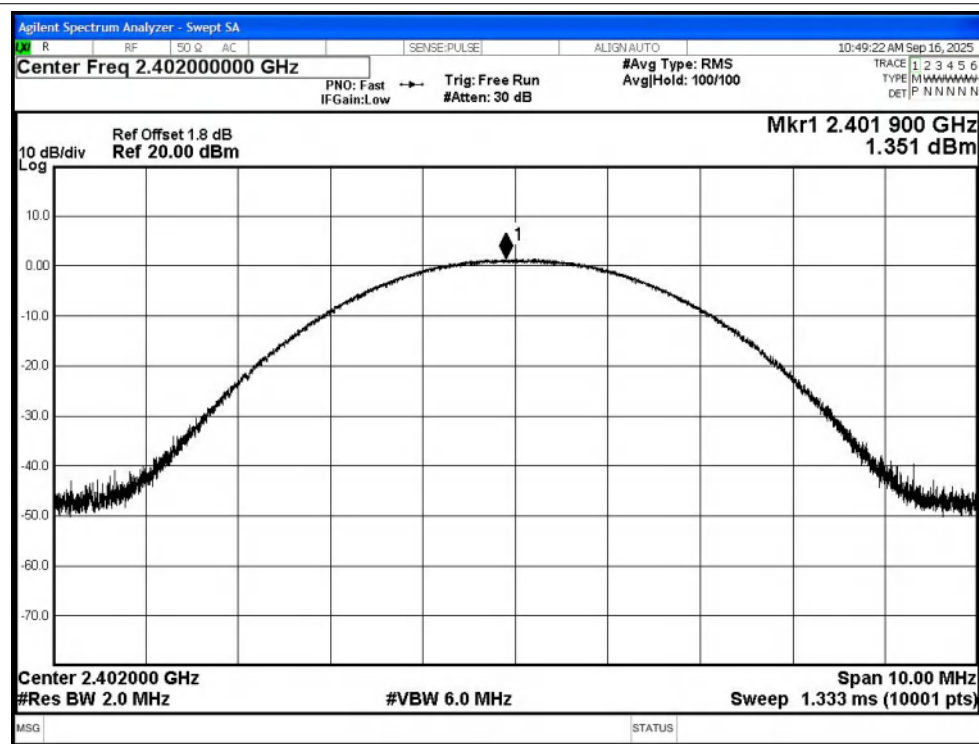
Power NVNT 1-DH5 2441MHz Ant1



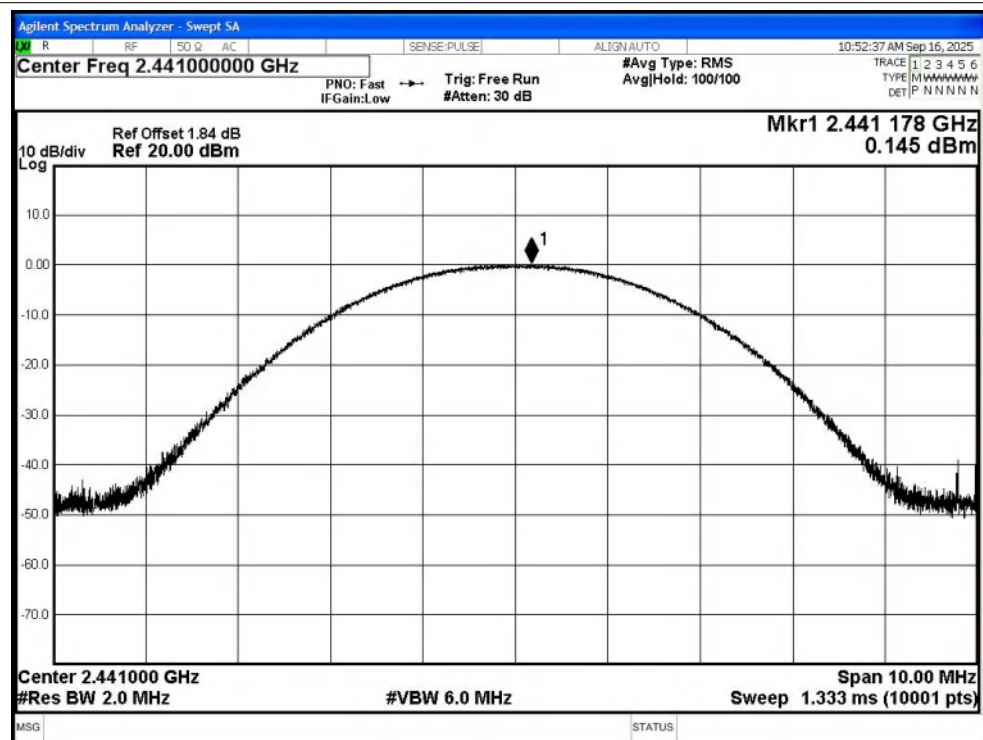
Power NVNT 1-DH5 2480MHz Ant1



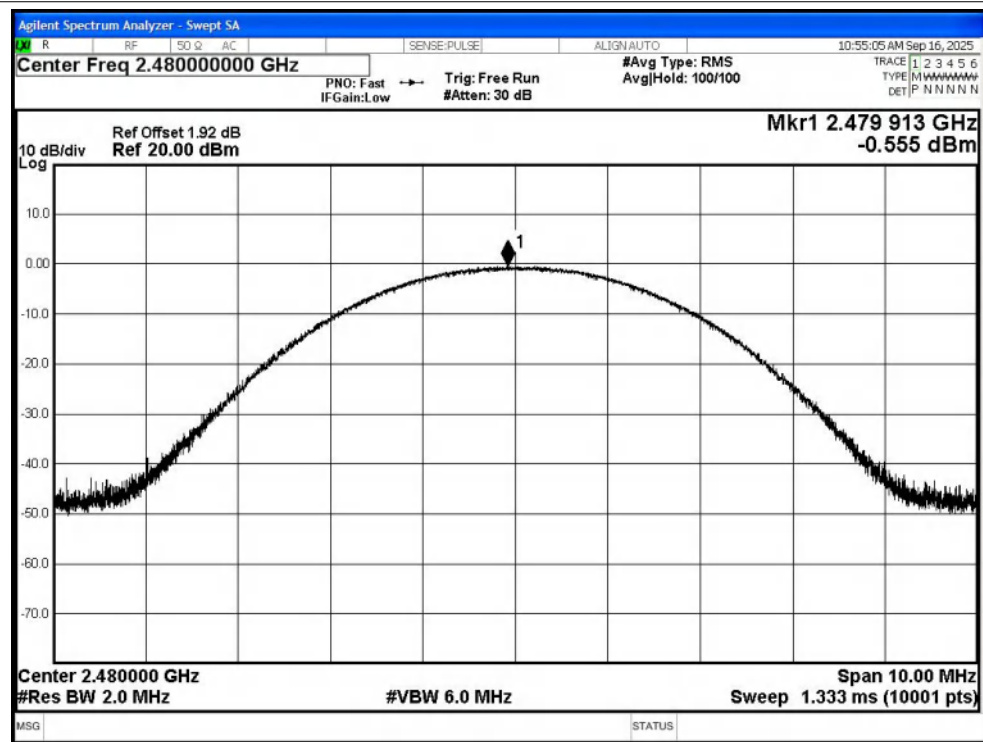
Power NVNT 2-DH5 2402MHz Ant1



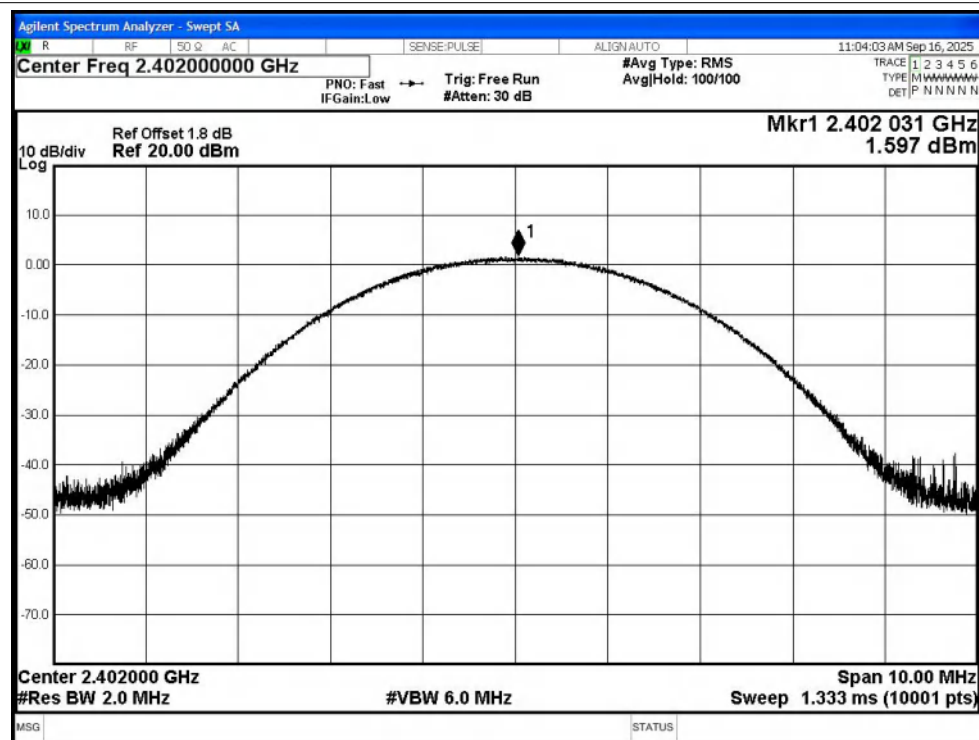
Power NVNT 2-DH5 2441MHz Ant1



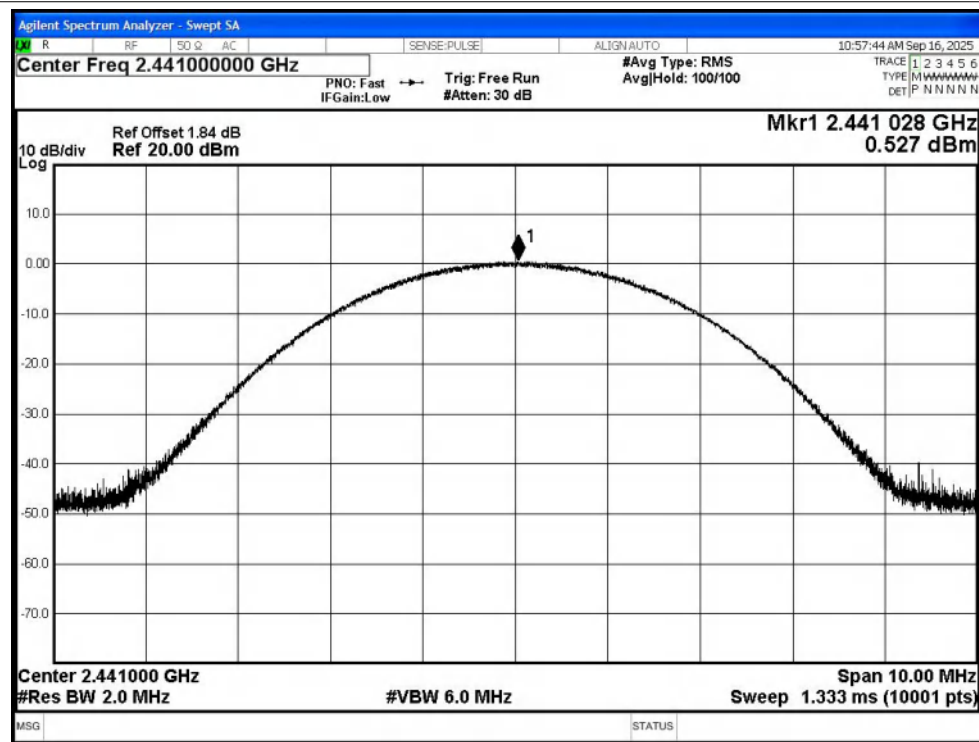
Power NVNT 2-DH5 2480MHz Ant1

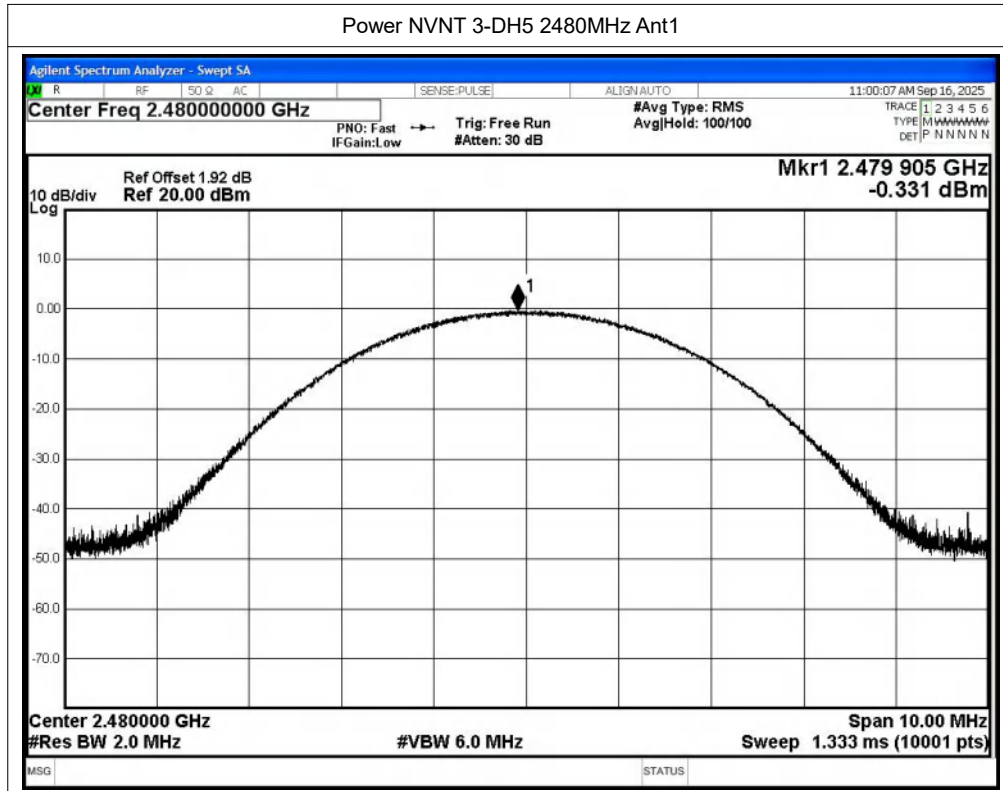


Power NVNT 3-DH5 2402MHz Ant1



Power NVNT 3-DH5 2441MHz Ant1



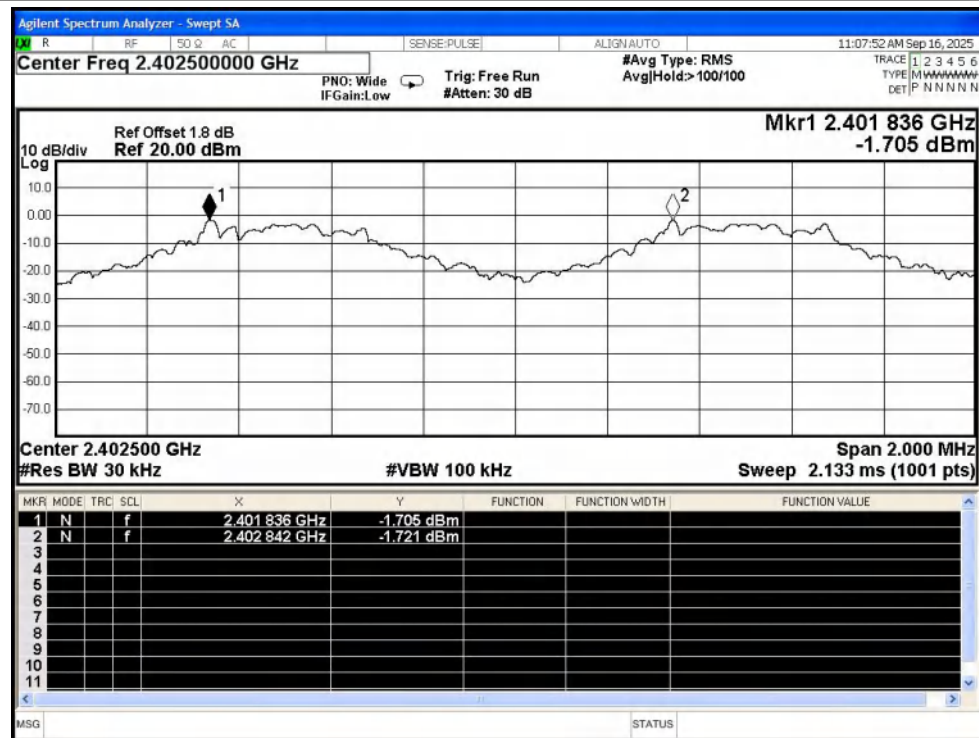


A.3 Carrier Frequencies Separation

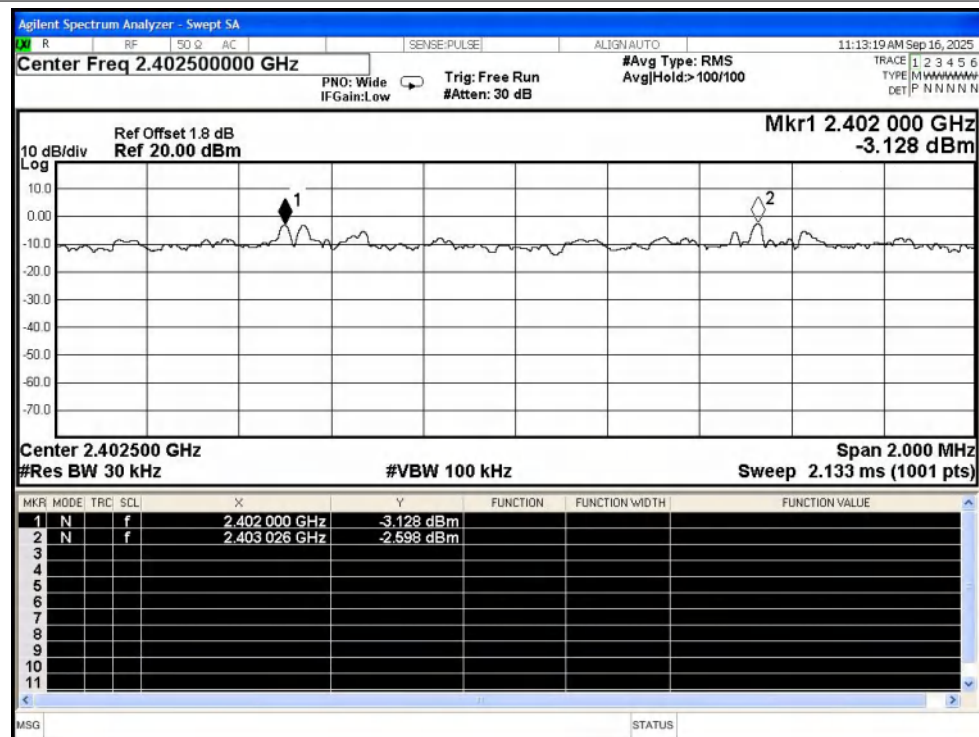
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH5	Ant1	2401.836	2402.842	1.006	0.658	Pass
NVNT	2-DH5	Ant1	2402	2403.026	1.026	0.881	Pass
NVNT	3-DH5	Ant1	2402.036	2403.01	0.974	0.861	Pass

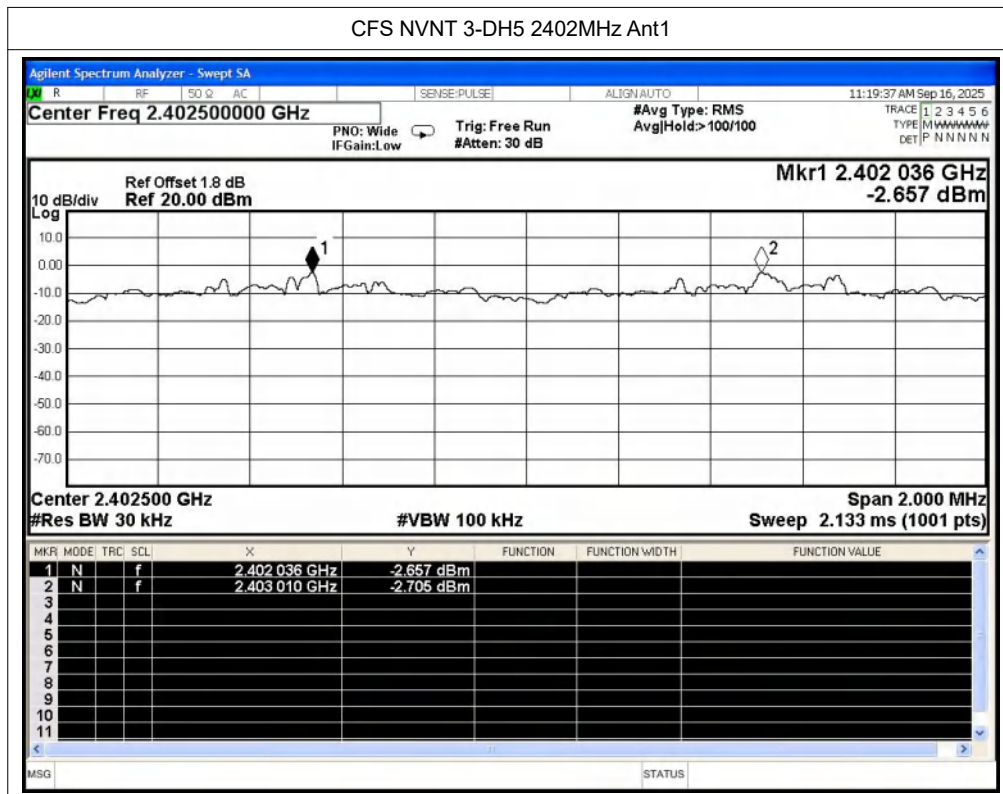
Test Graphs

CFS NVNT 1-DH5 2402MHz Ant1



CFS NVNT 2-DH5 2402MHz Ant1



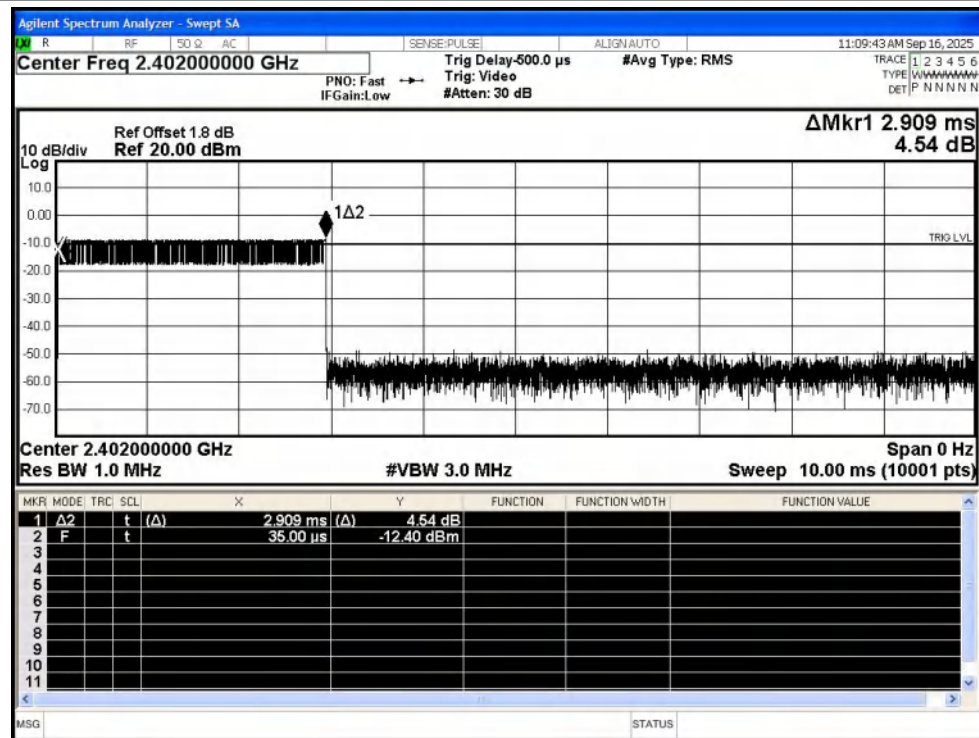


A.4 Dwell Time

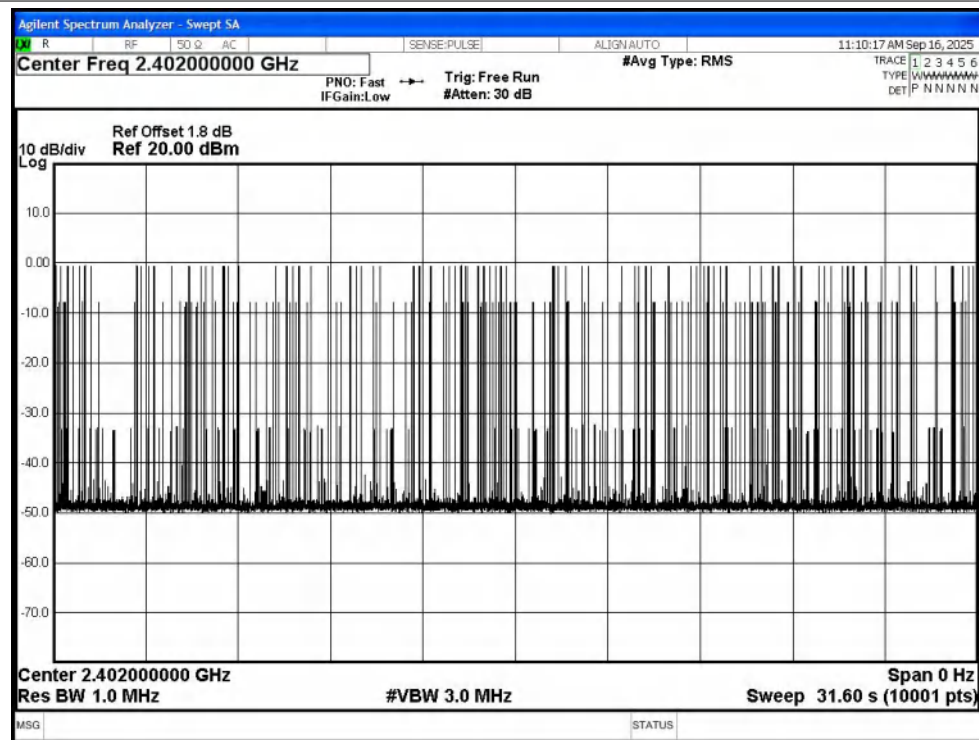
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH5	2402	Ant1	2.909	308.354	106	31600	400	Pass
NVNT	2-DH5	2402	Ant1	2.898	278.208	96	31600	400	Pass
NVNT	3-DH5	2402	Ant1	2.897	318.67	110	31600	400	Pass

Test Graphs

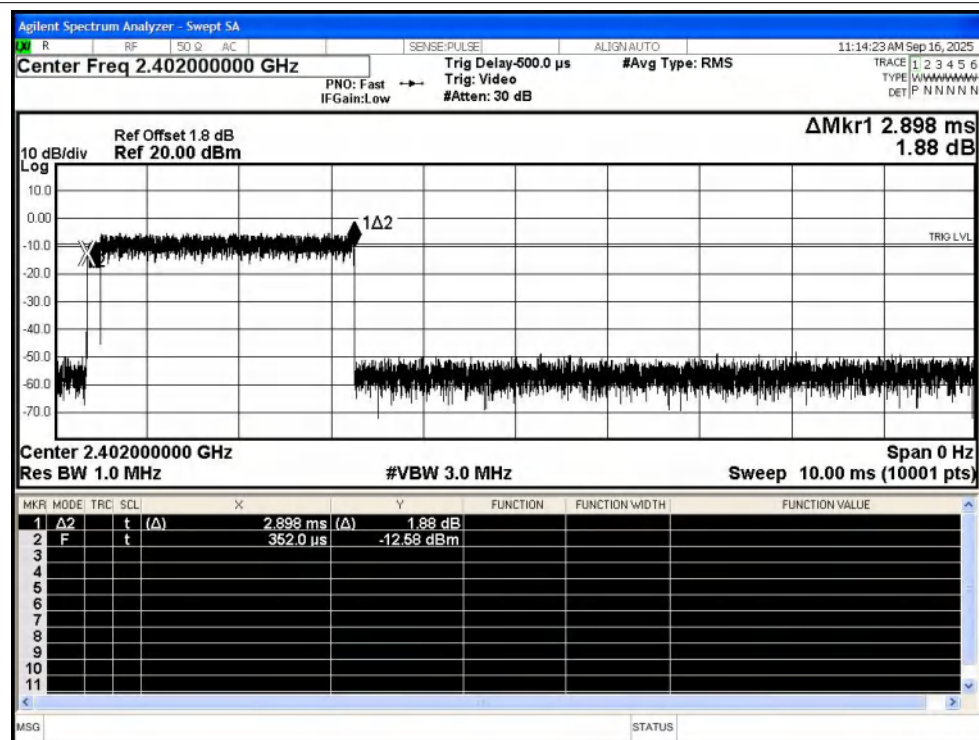
Dwell NVNT 1-DH5 2402MHz Ant1 One Burst



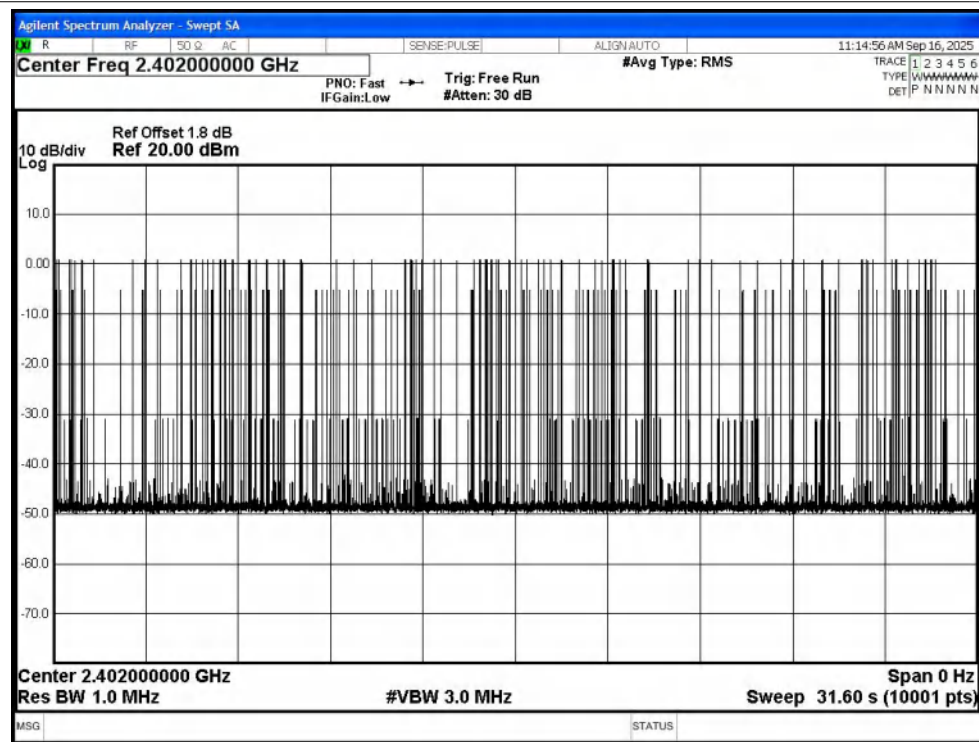
Dwell NVNT 1-DH5 2402MHz Ant1 Accumulated



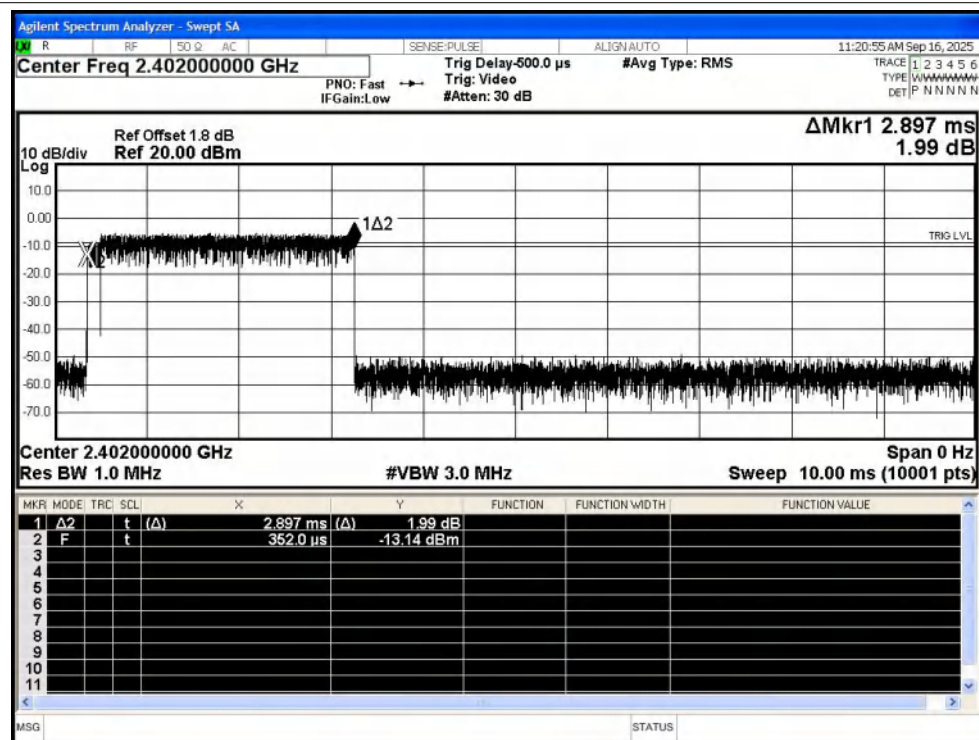
Dwell NVNT 2-DH5 2402MHz Ant1 One Burst



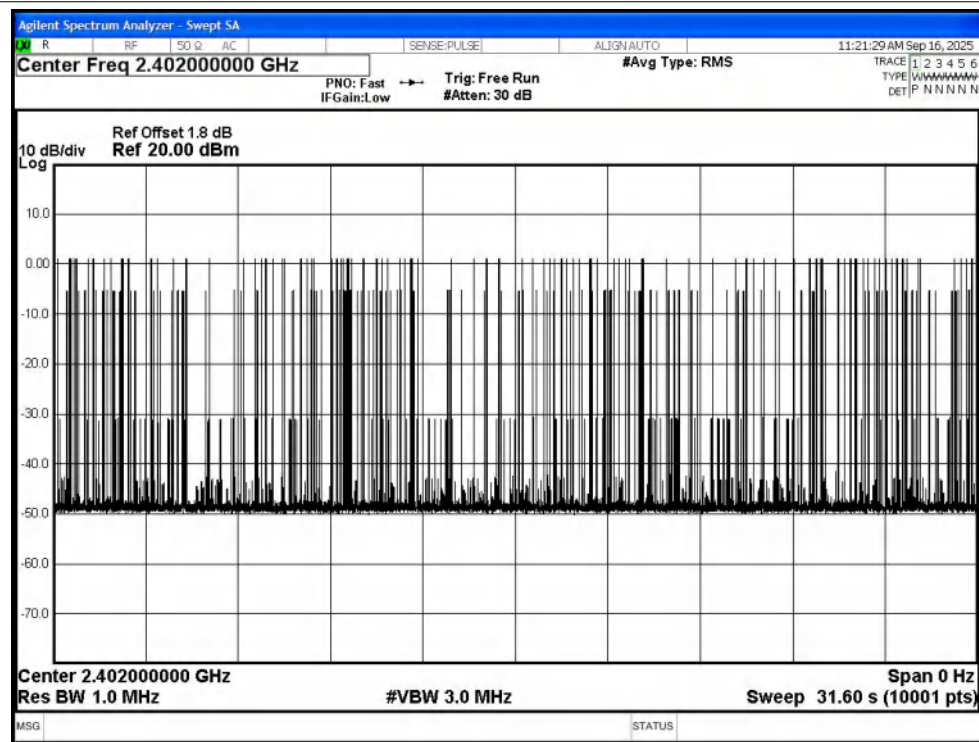
Dwell NVNT 2-DH5 2402MHz Ant1 Accumulated



Dwell NVNT 3-DH5 2402MHz Ant1 One Burst



Dwell NVNT 3-DH5 2402MHz Ant1 Accumulated

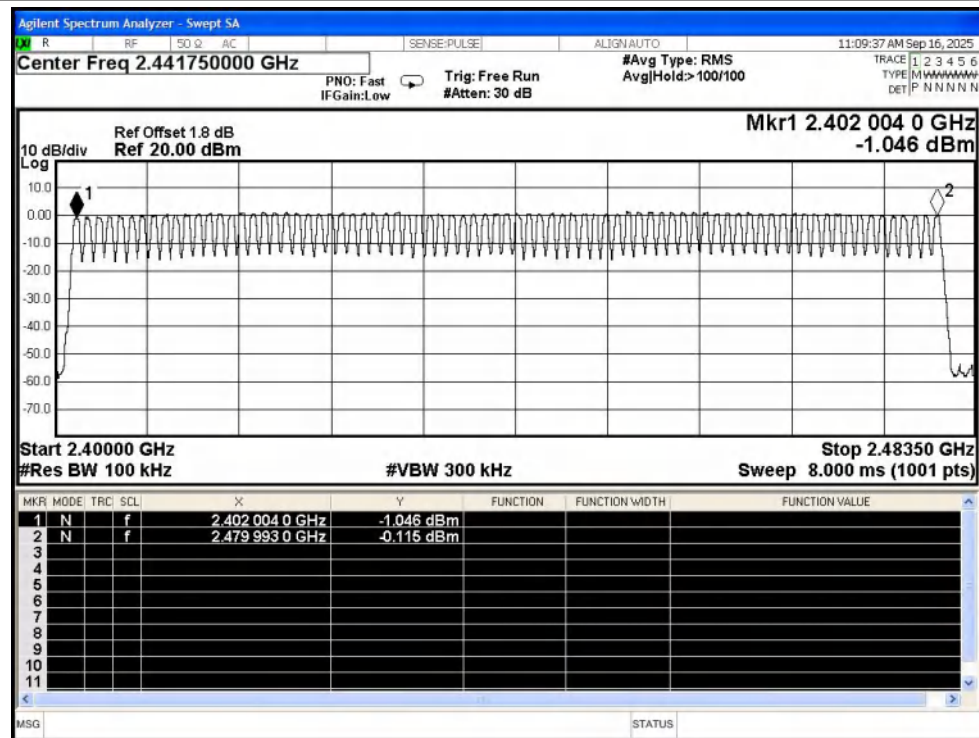


A.5 Number of Hopping Channel

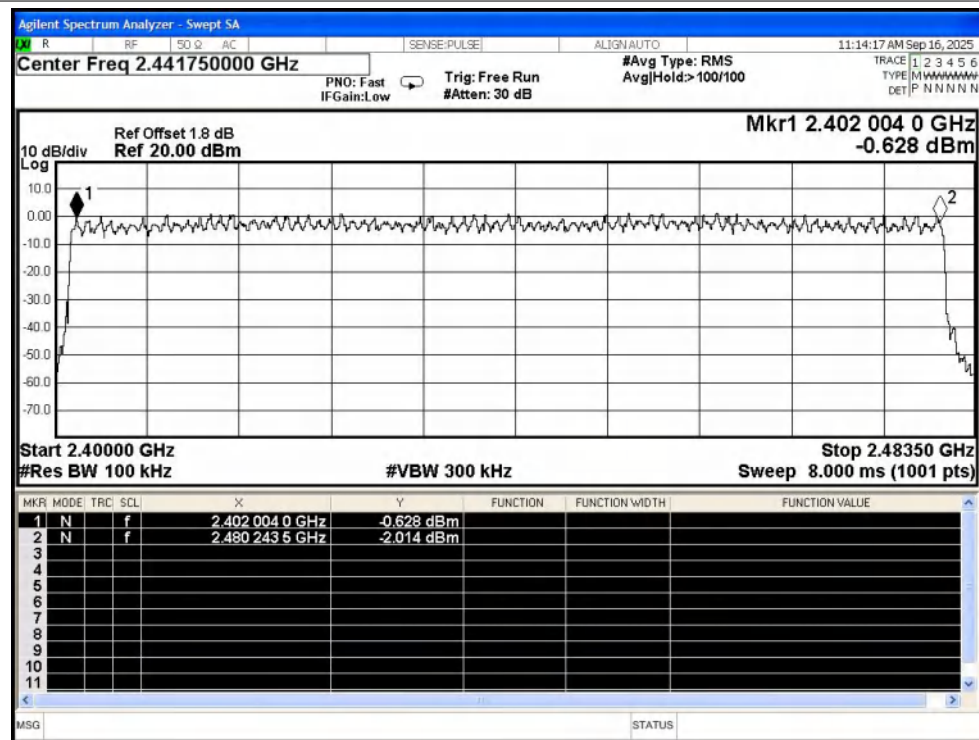
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH5	Ant1	79	15	Pass
NVNT	2-DH5	Ant1	79	15	Pass
NVNT	3-DH5	Ant1	79	15	Pass

Test Graphs

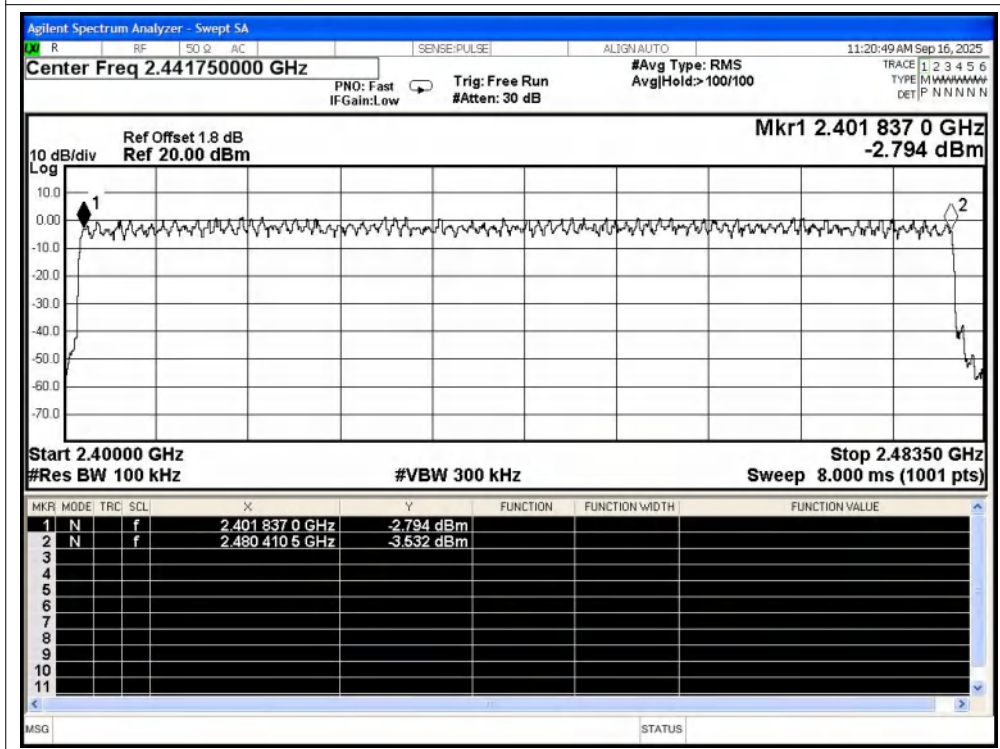
Hopping No. NVNT 1-DH5 2402MHz Ant1



Hopping No. NVNT 2-DH5 2402MHz Ant1



Hopping No. NVNT 3-DH5 2402MHz Ant1

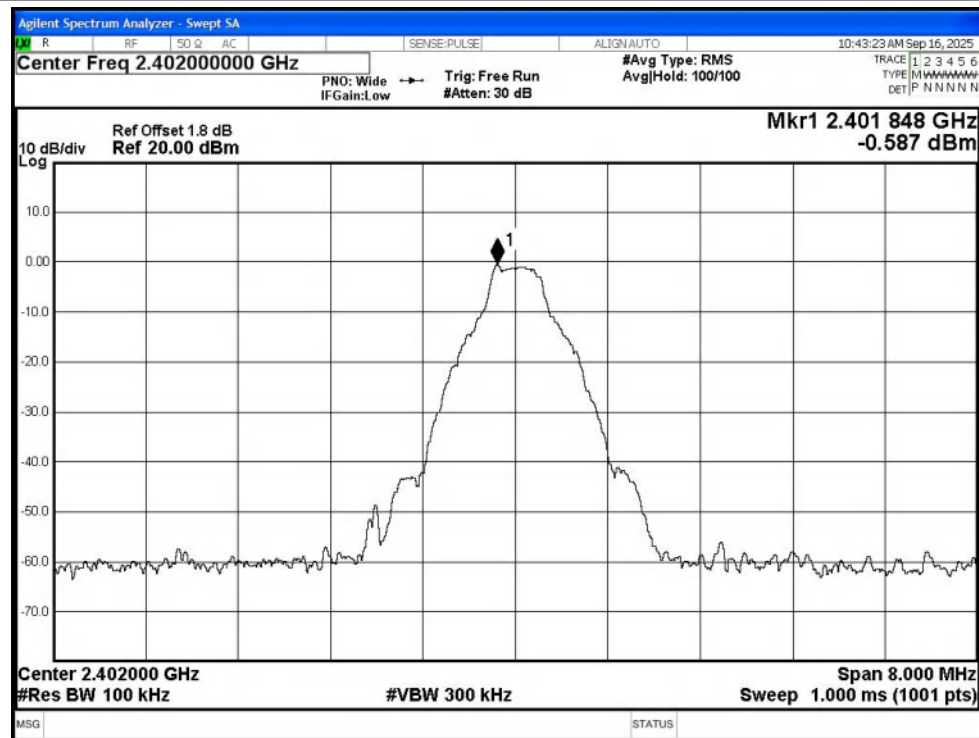


A.6 Band Edge

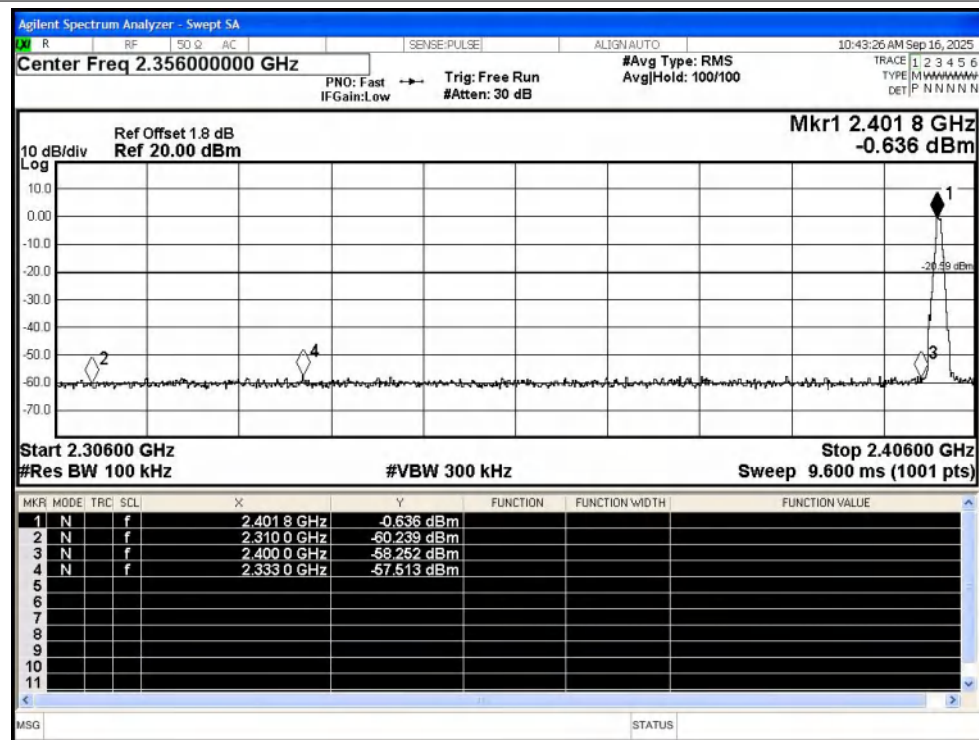
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	-56.93	-20	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	-57.46	-20	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	-51.69	-20	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	-52.89	-20	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	-53.87	-20	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	-55.17	-20	Pass

Test Graphs

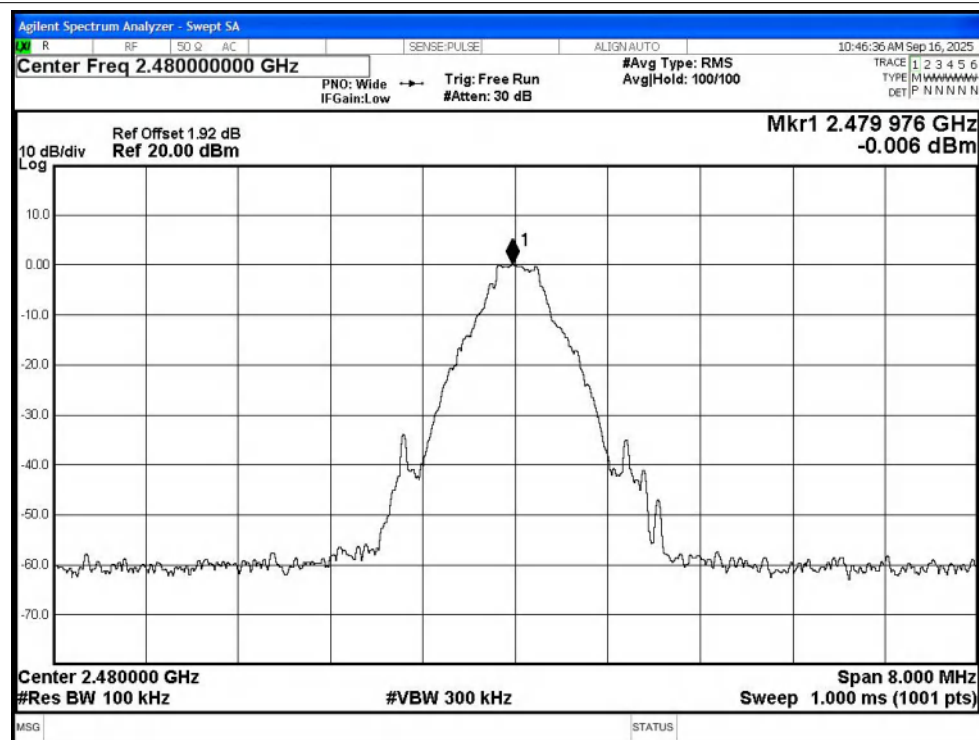
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Ref



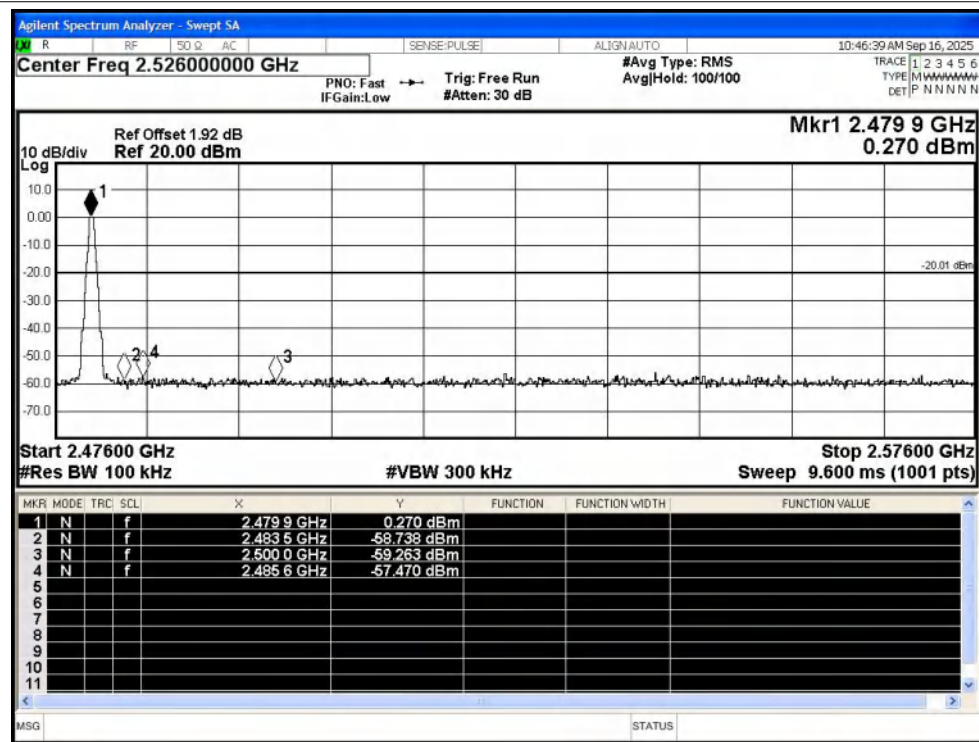
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Emission



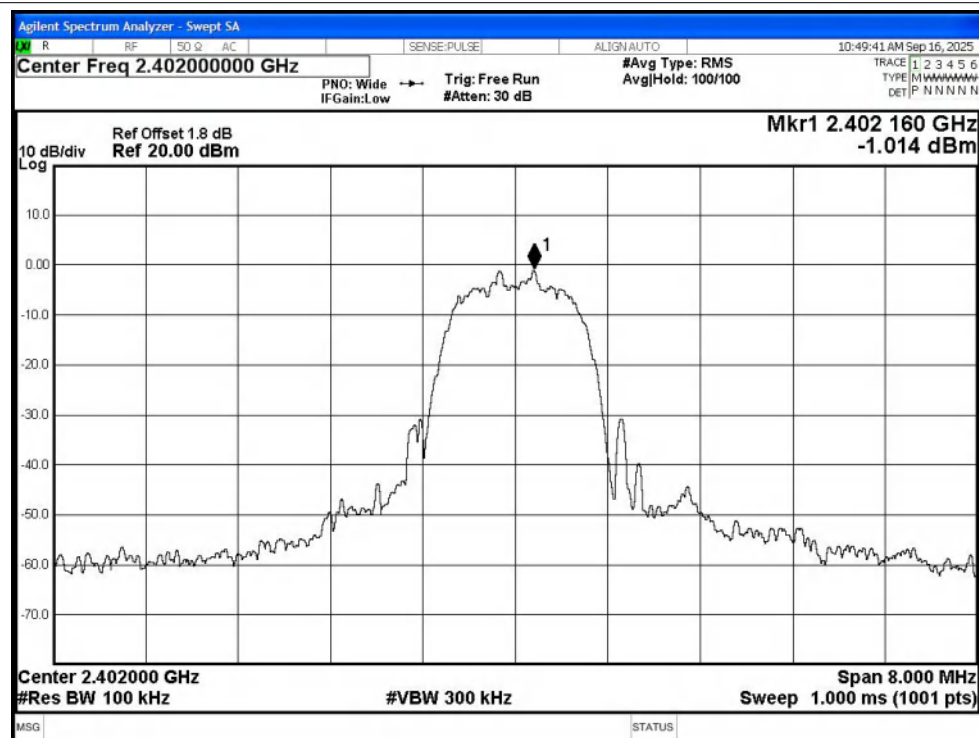
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref



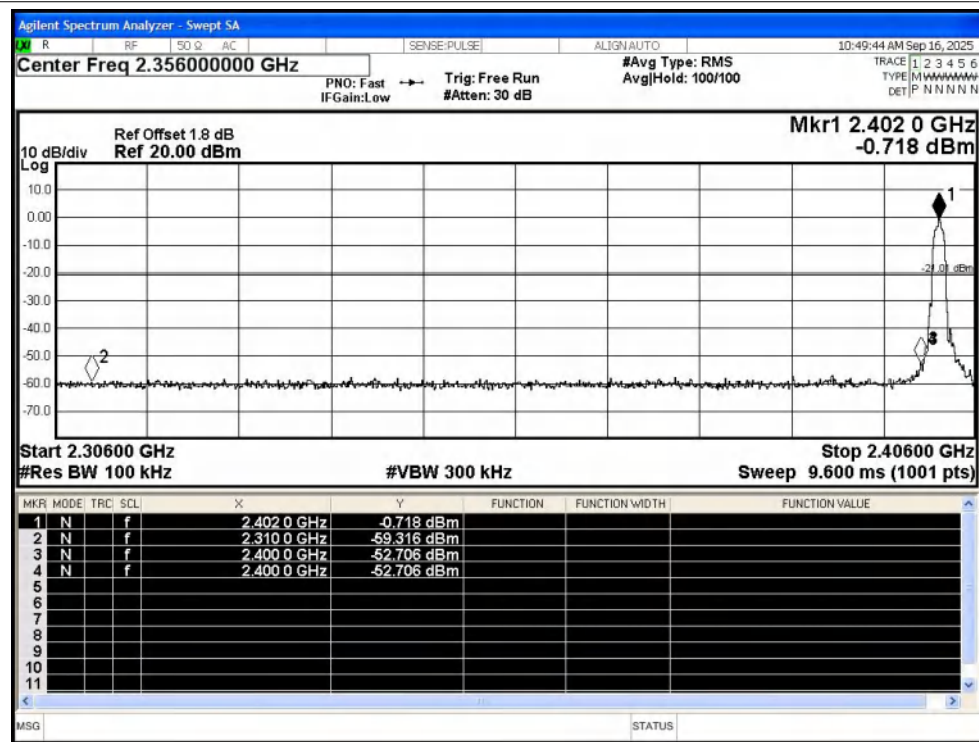
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Emission



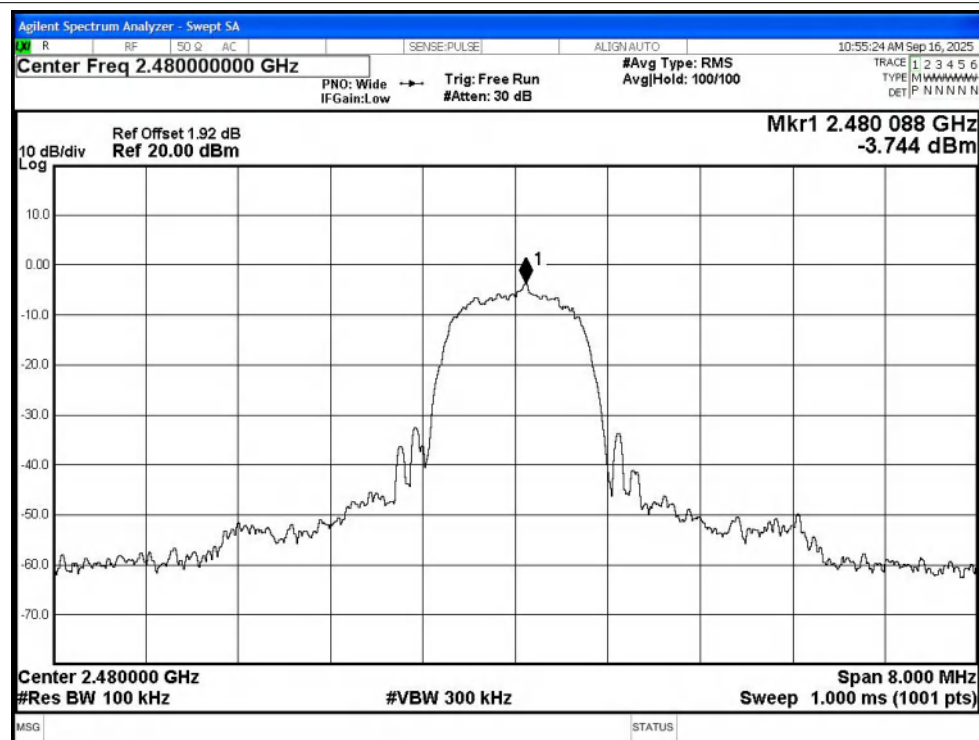
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Ref



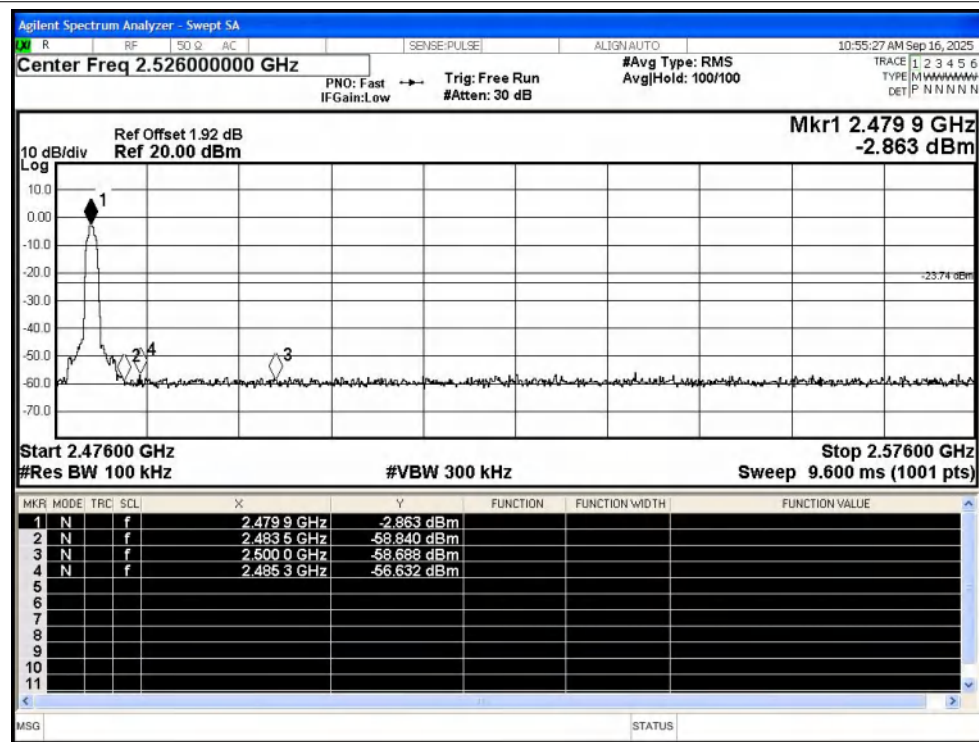
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Emission



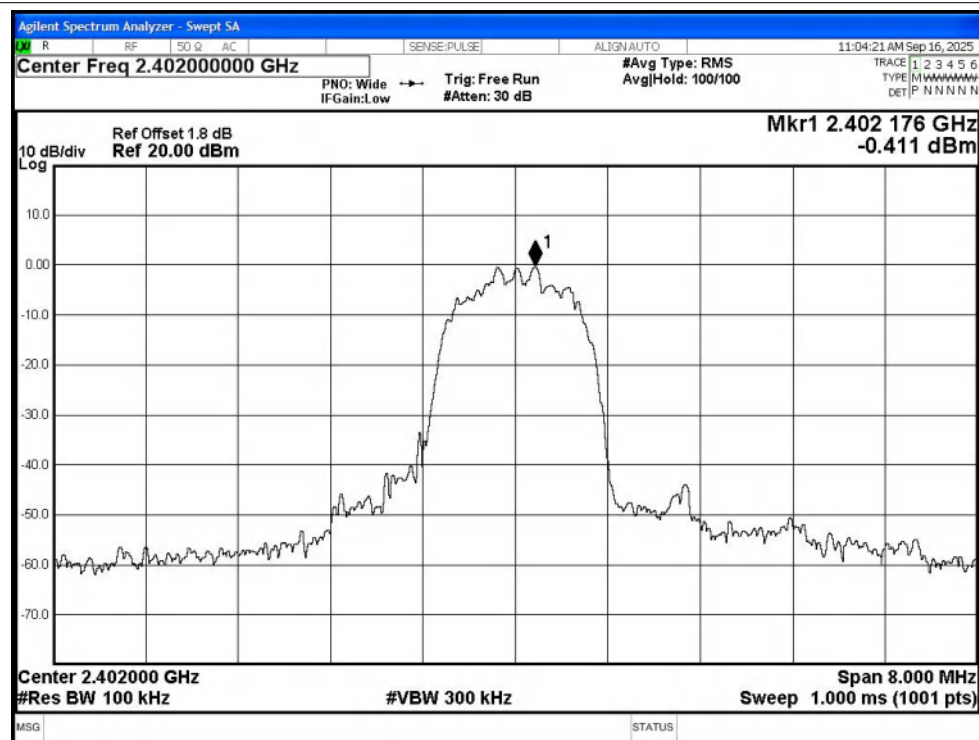
Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Ref



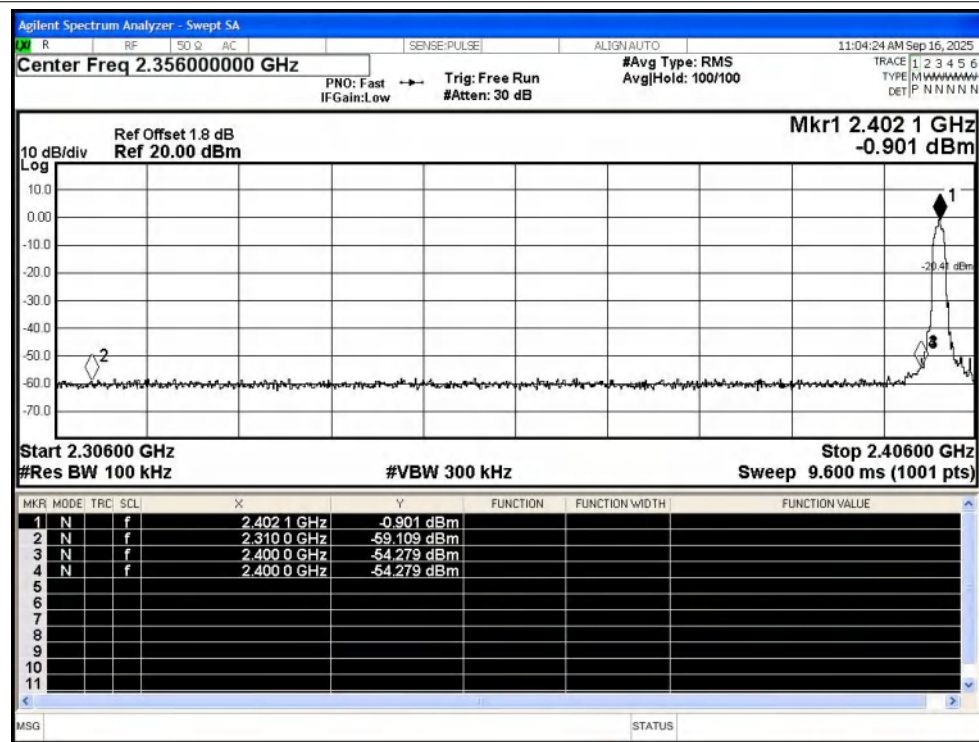
Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Emission



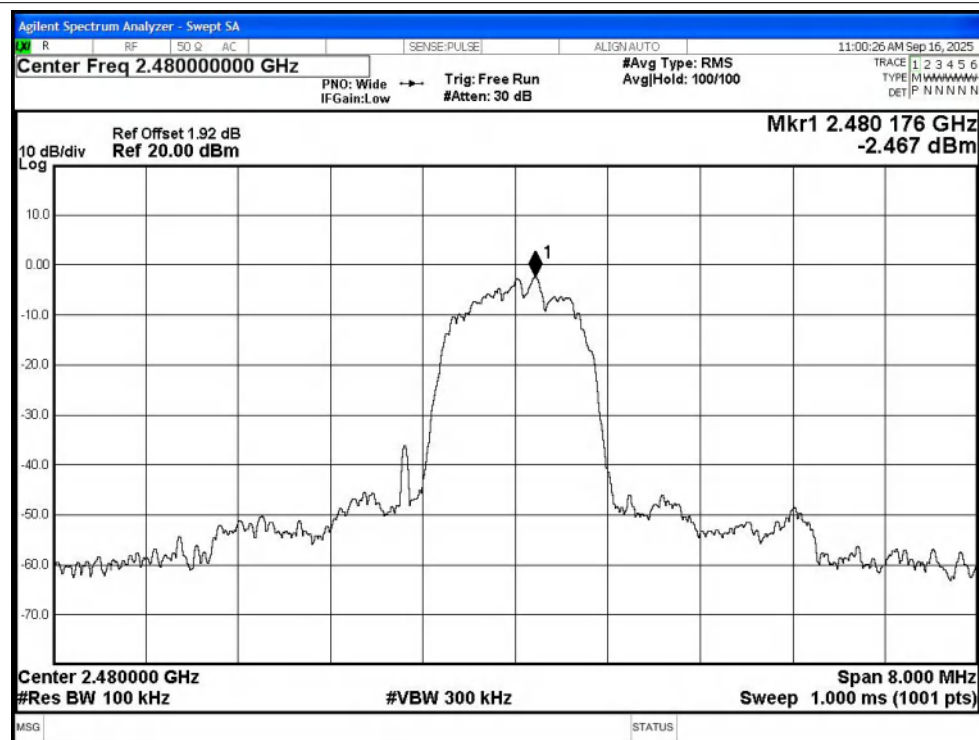
Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Ref



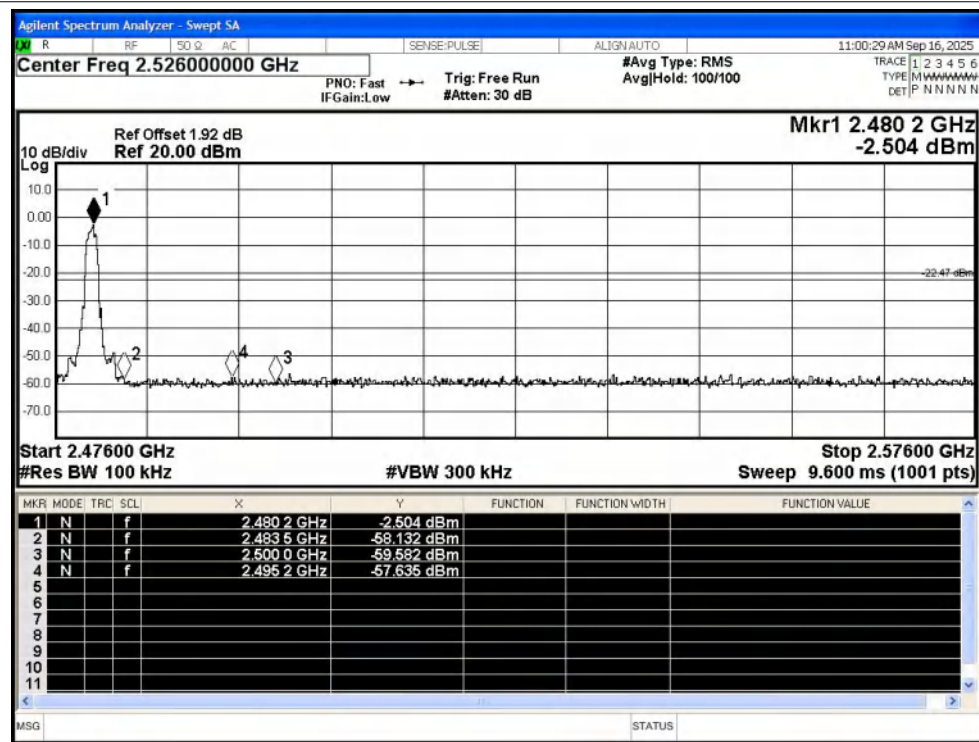
Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Emission



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



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

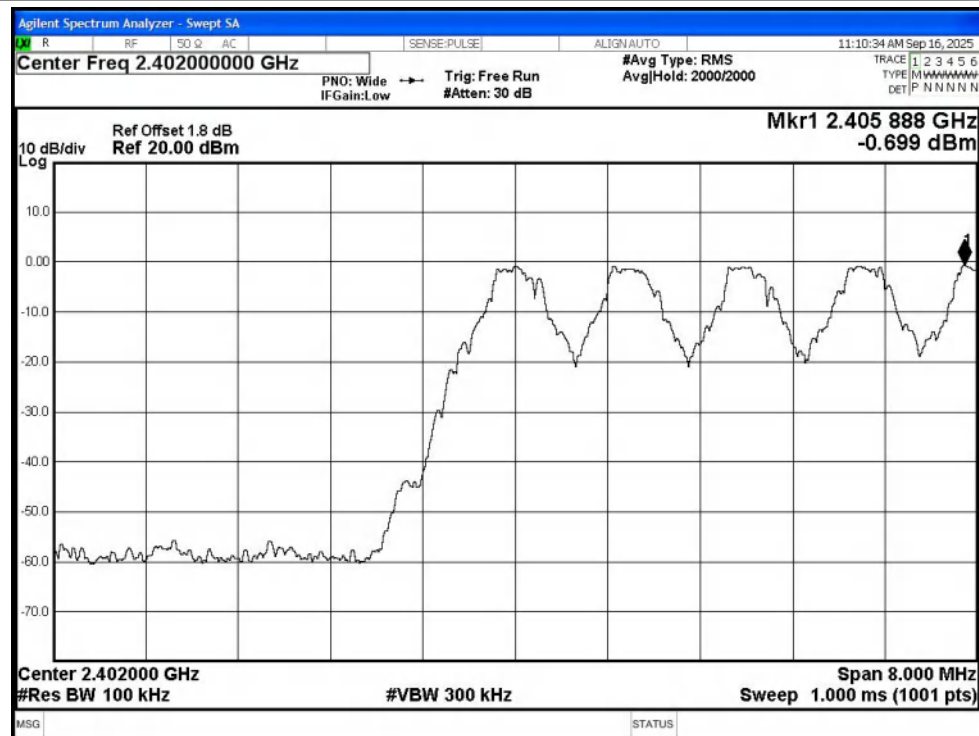


(Hopping)

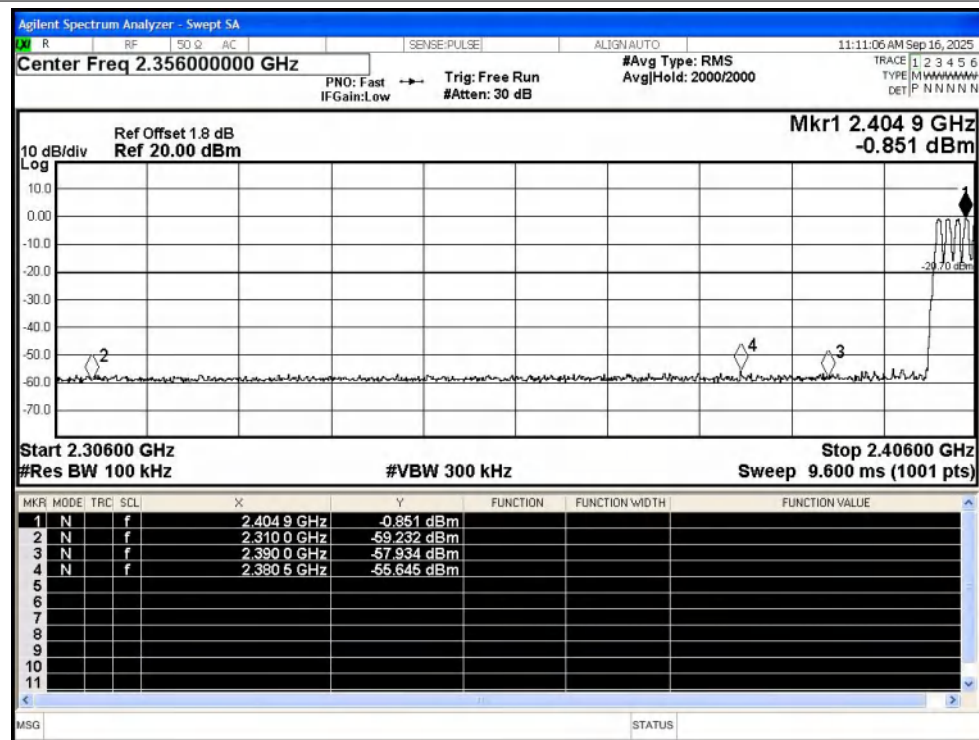
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	Hopping	-54.95	-20	Pass
NVNT	1-DH5	2480	Ant1	Hopping	-54.88	-20	Pass
NVNT	2-DH5	2402	Ant1	Hopping	-55.75	-20	Pass
NVNT	2-DH5	2480	Ant1	Hopping	-55.48	-20	Pass
NVNT	3-DH5	2402	Ant1	Hopping	-55.71	-20	Pass
NVNT	3-DH5	2480	Ant1	Hopping	-56.06	-20	Pass

Test Graphs

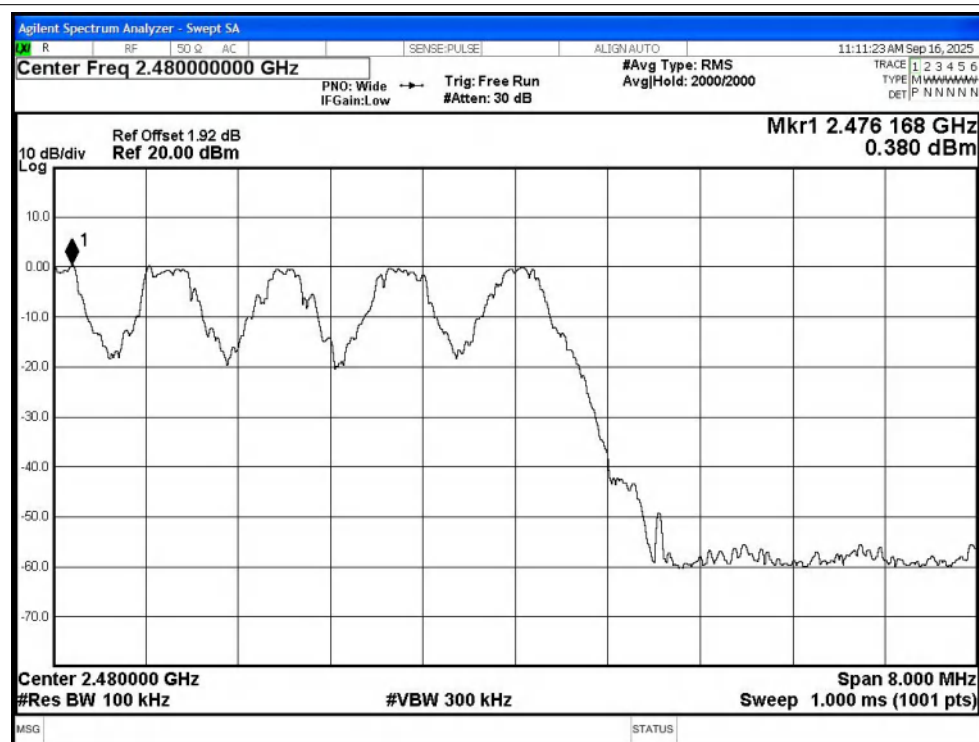
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Ref



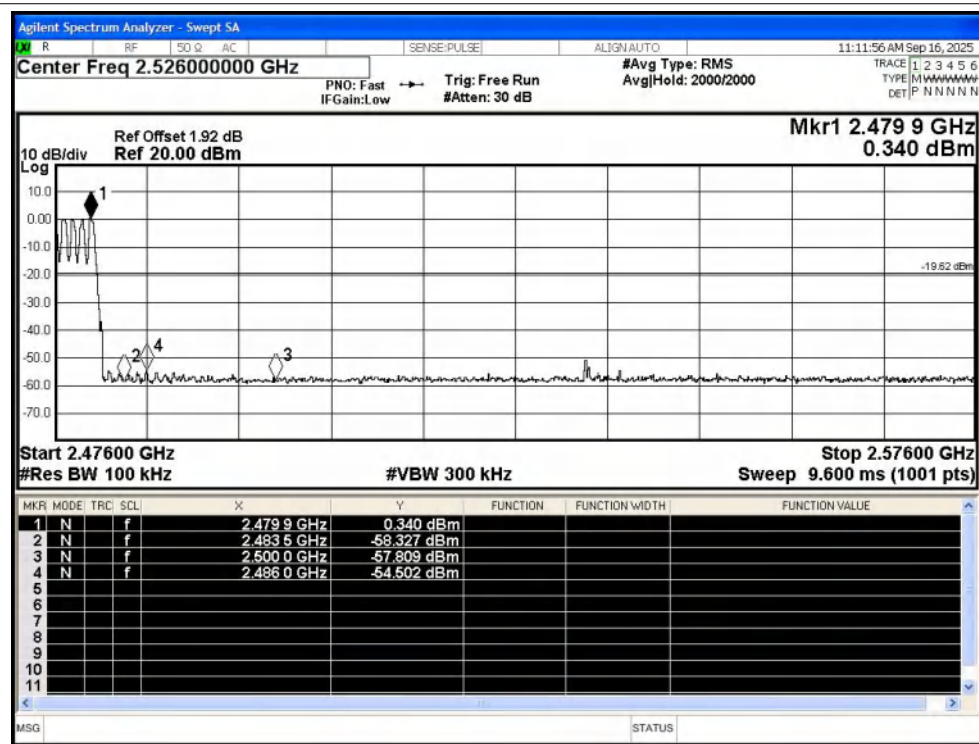
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission



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



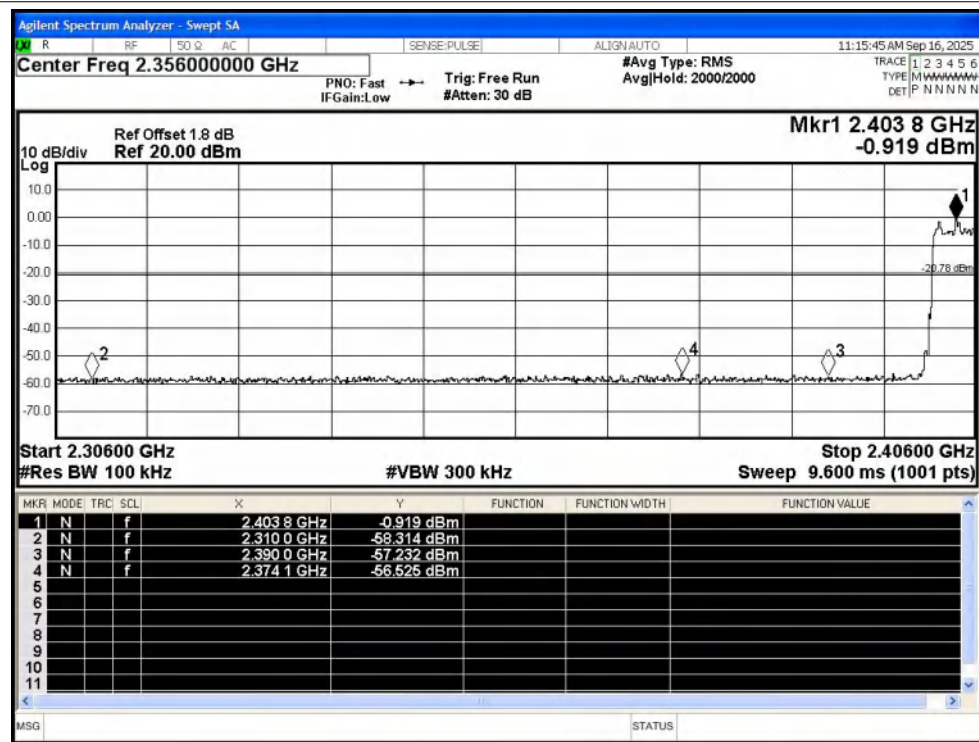
Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Emission



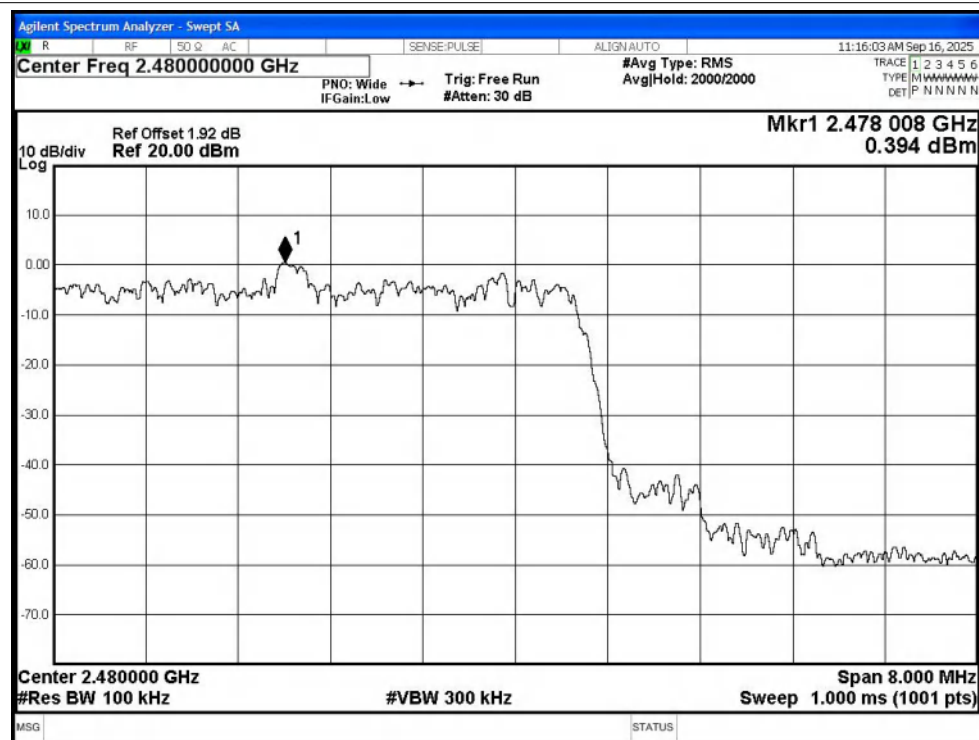
Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Ref



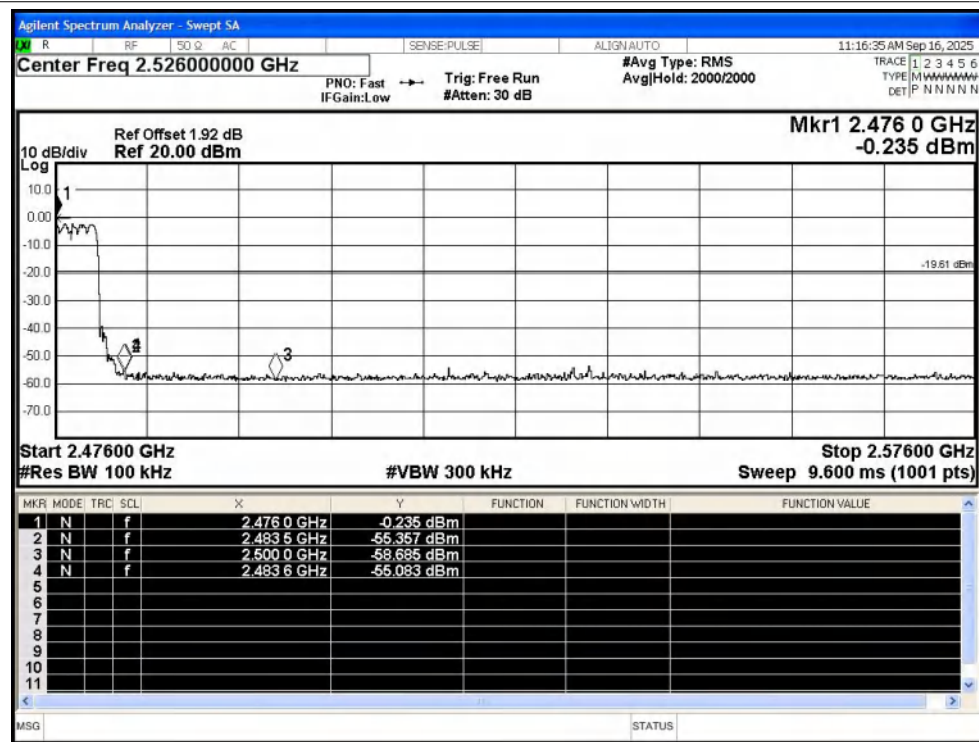
Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Emission



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



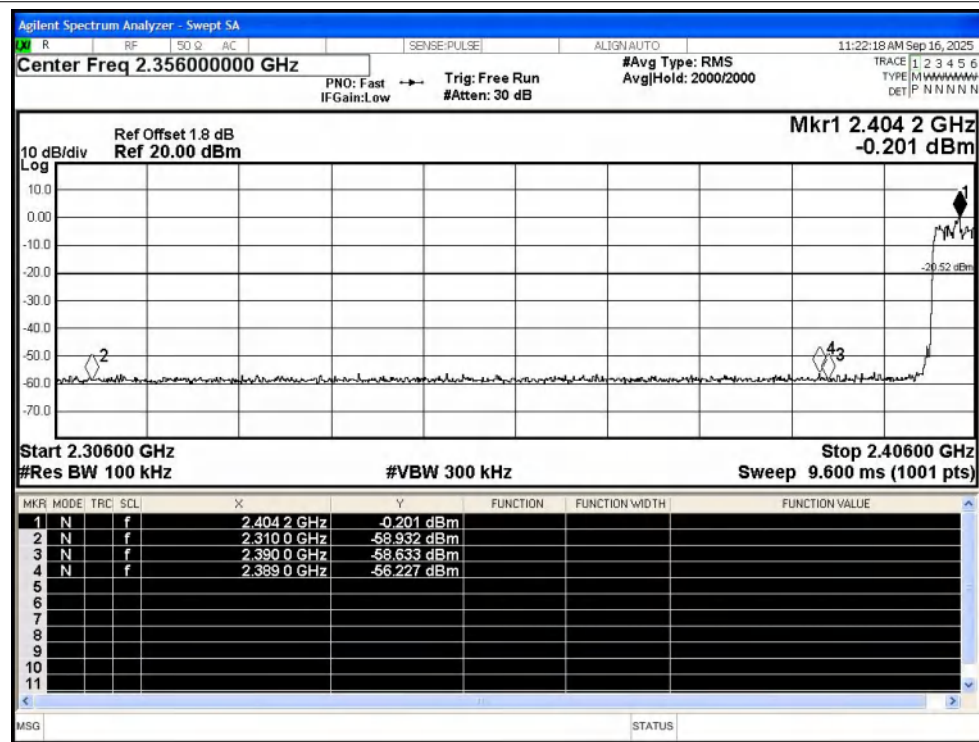
Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Emission



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



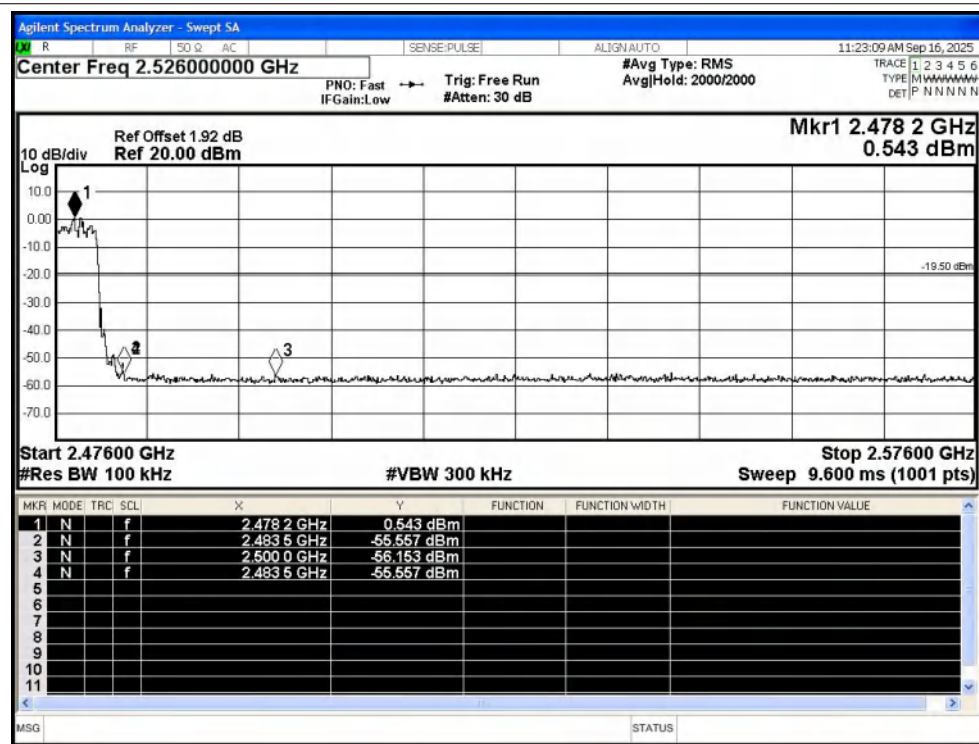
Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Emission



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



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

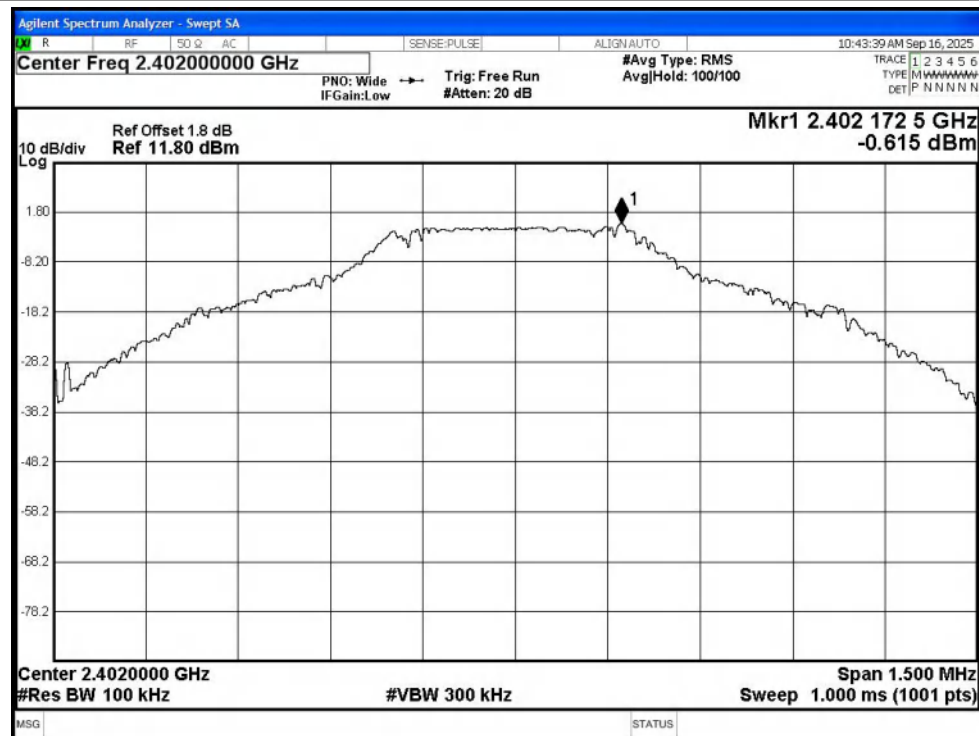


A.7 Conducted RF Spurious Emission

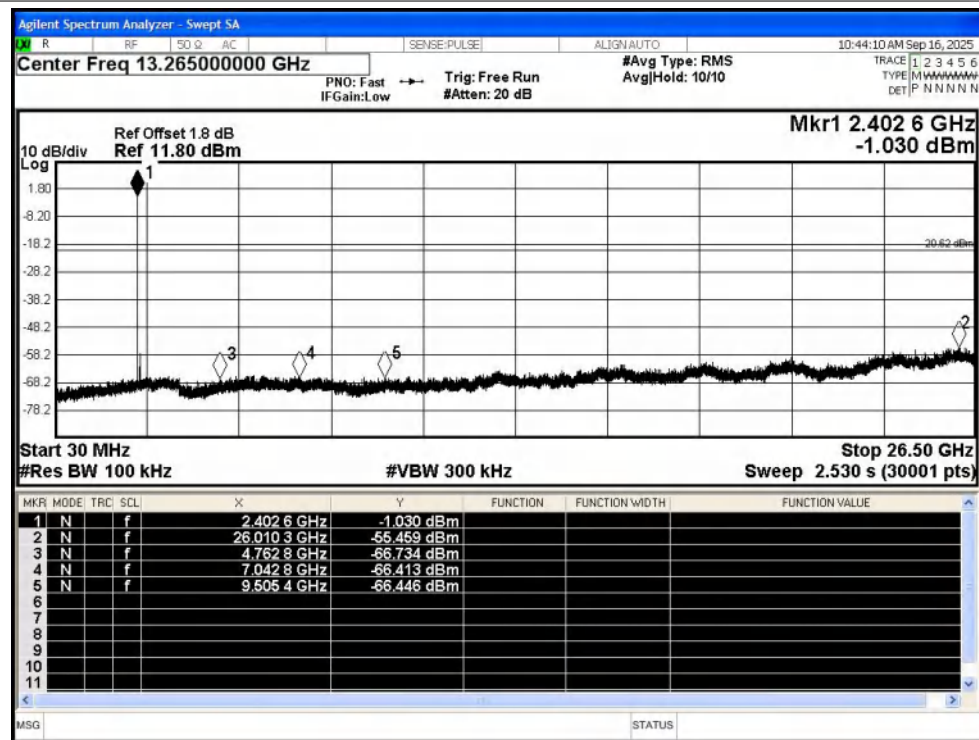
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	-54.84	-20	Pass
NVNT	1-DH5	2441	Ant1	-56.56	-20	Pass
NVNT	1-DH5	2480	Ant1	-55.72	-20	Pass
NVNT	2-DH5	2402	Ant1	-54.02	-20	Pass
NVNT	2-DH5	2441	Ant1	-53.1	-20	Pass
NVNT	2-DH5	2480	Ant1	-52.64	-20	Pass
NVNT	3-DH5	2402	Ant1	-53.97	-20	Pass
NVNT	3-DH5	2441	Ant1	-52.93	-20	Pass
NVNT	3-DH5	2480	Ant1	-52.25	-20	Pass

Test Graphs

Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref



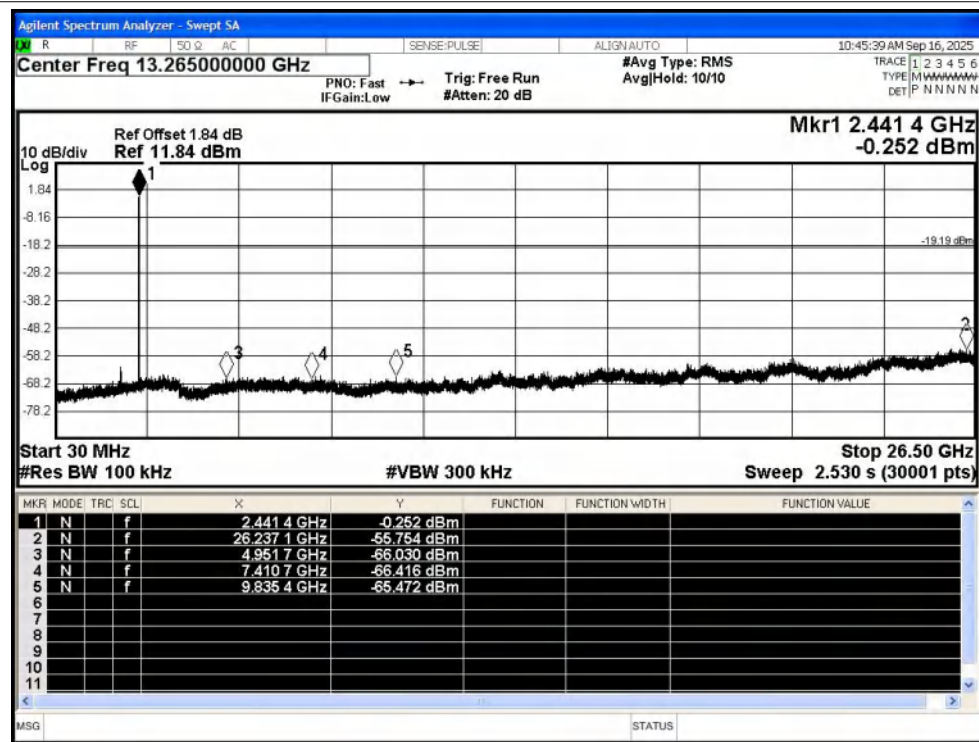
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission



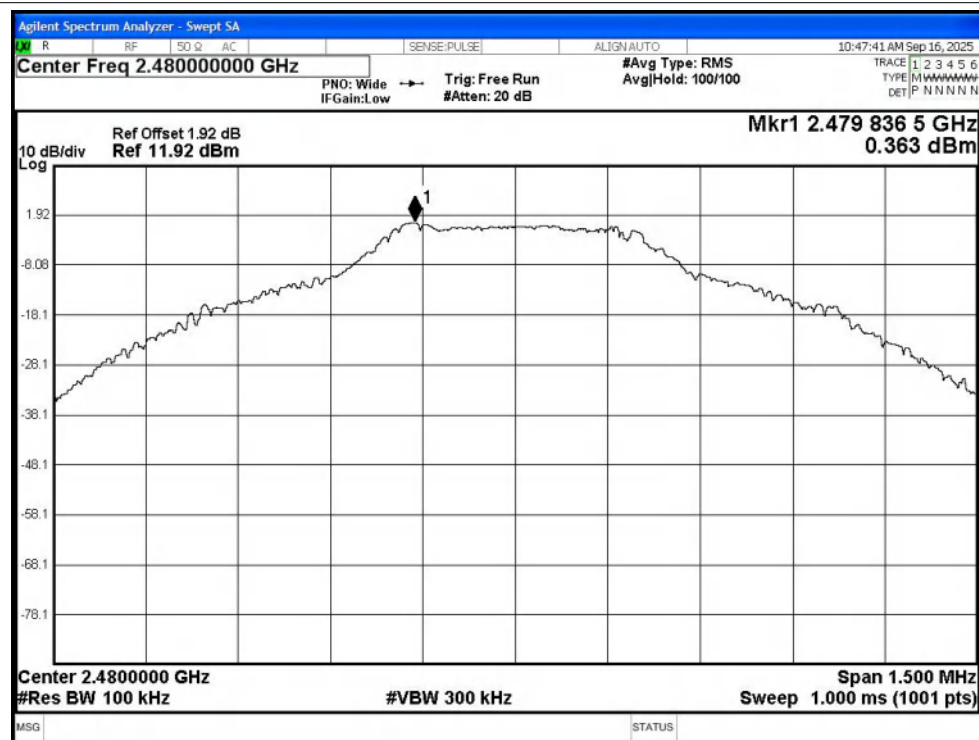
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref



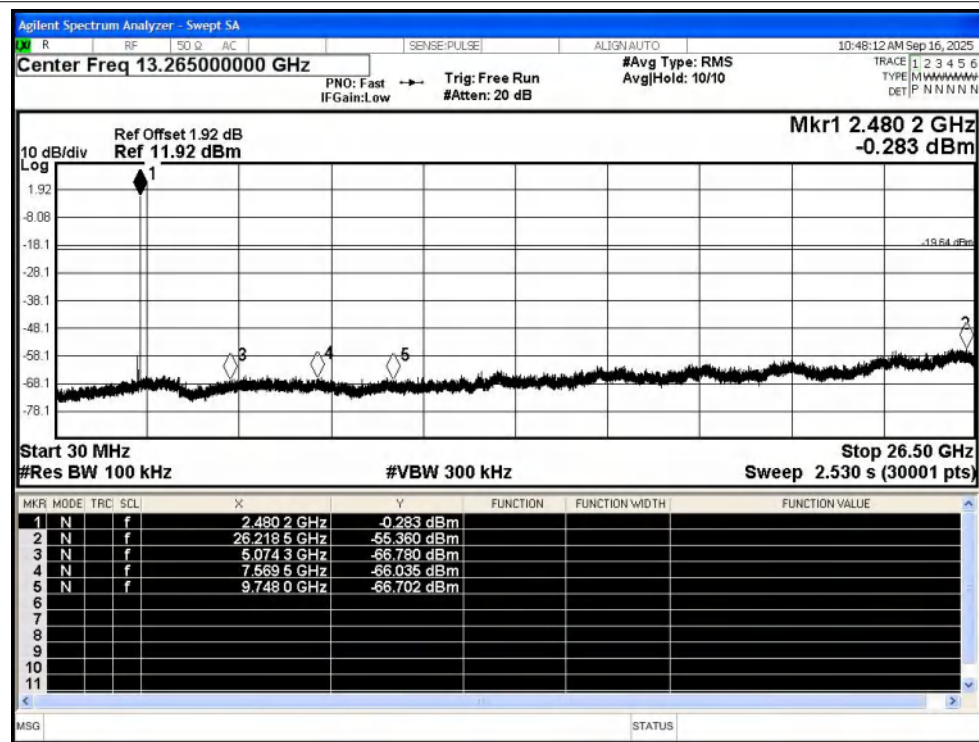
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission



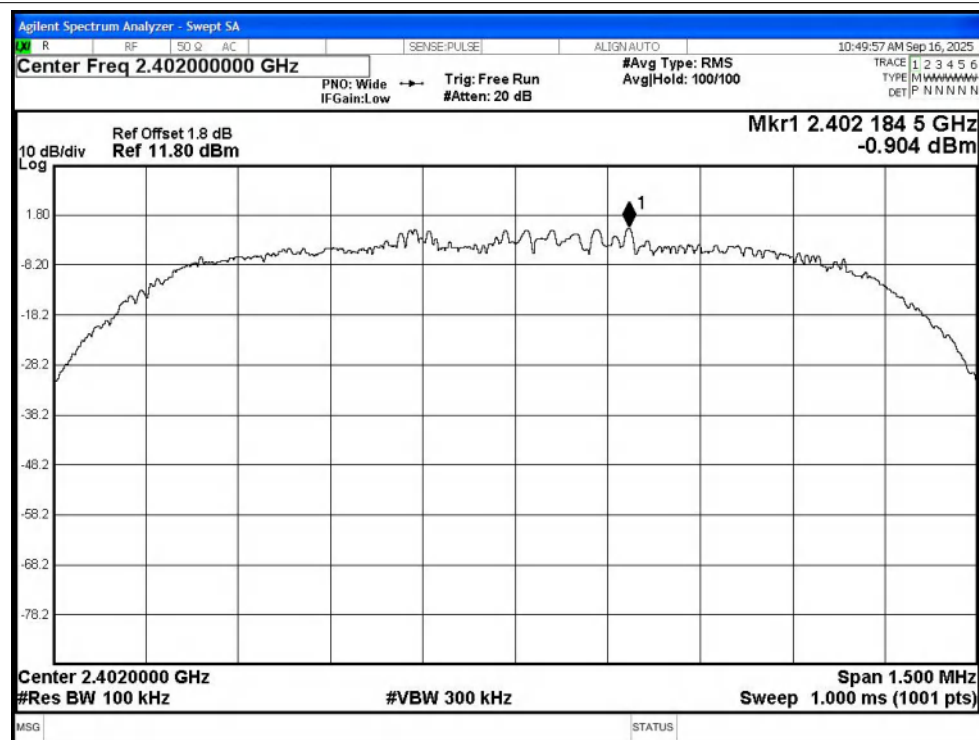
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref



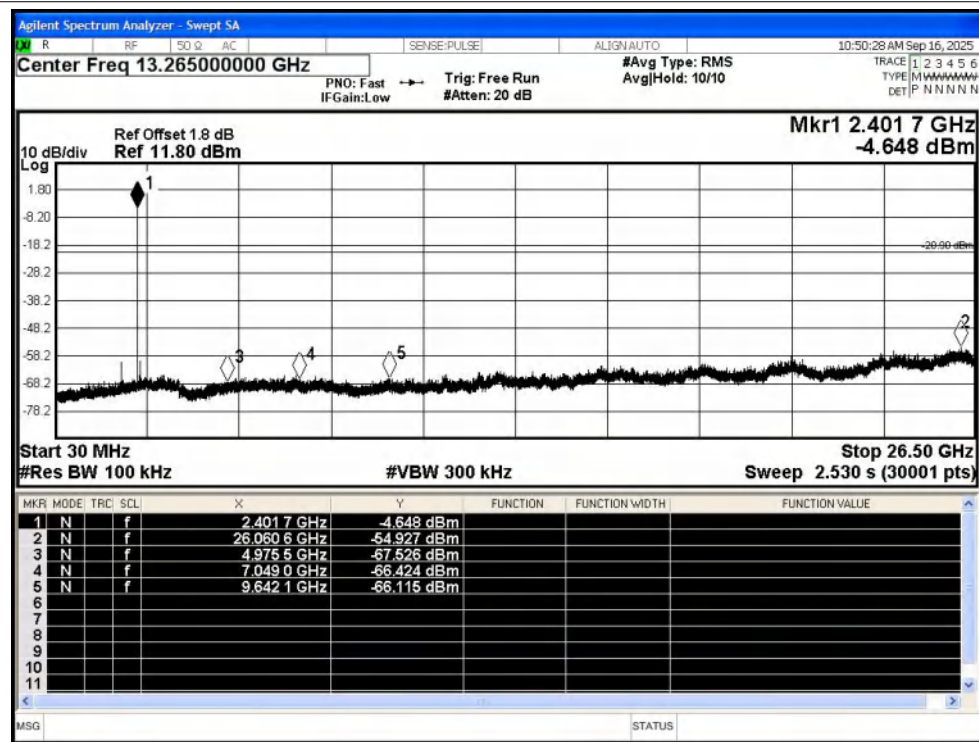
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Emission



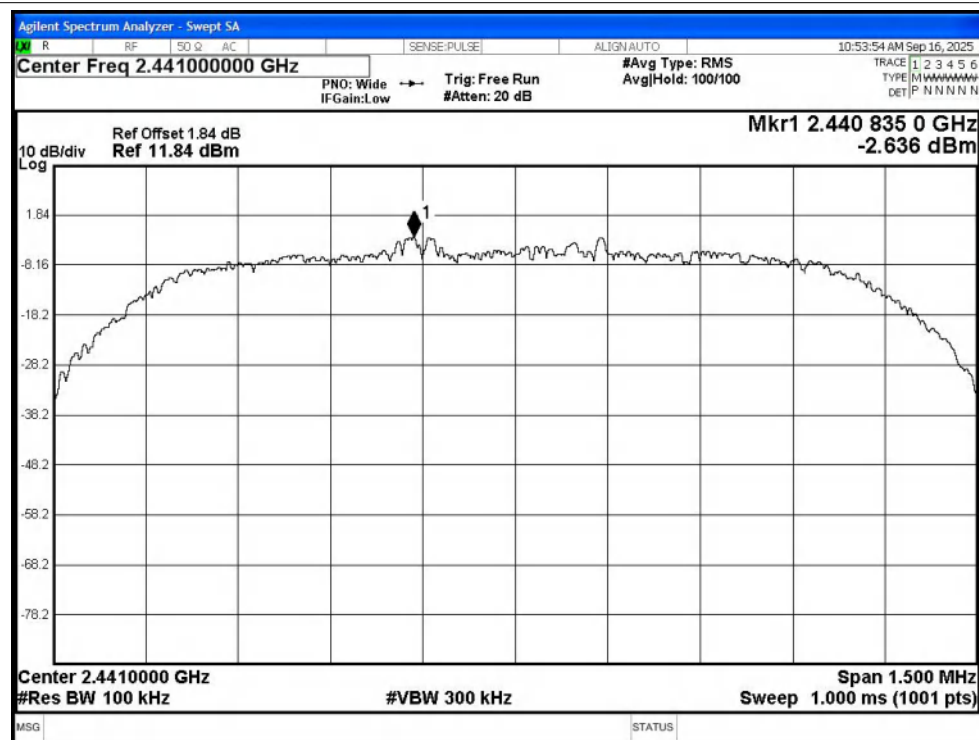
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Ref



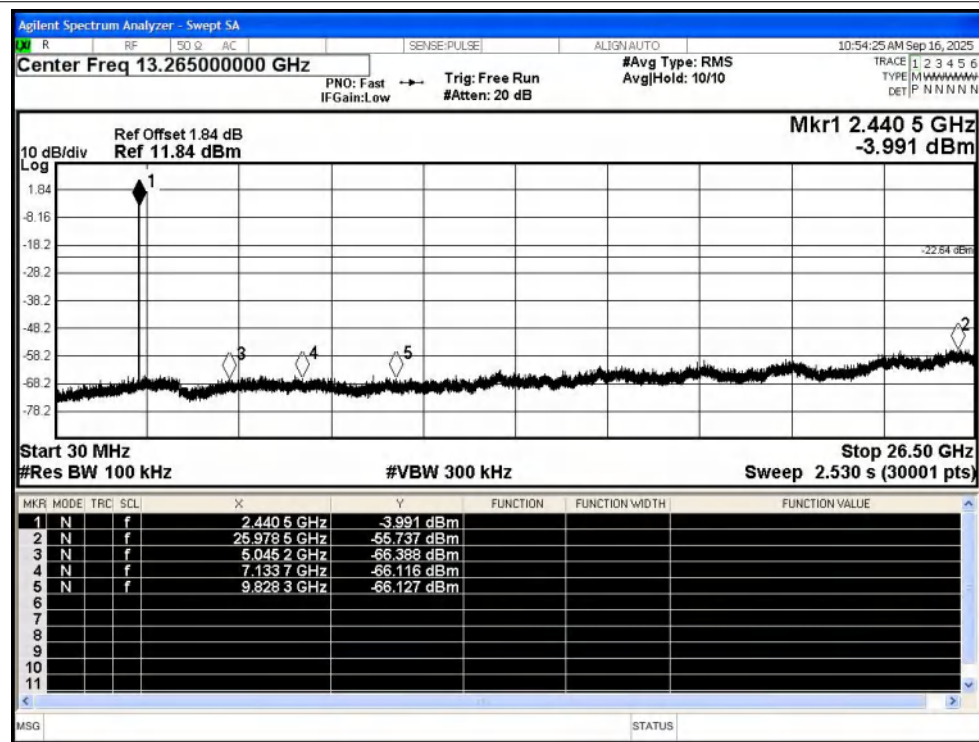
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Emission



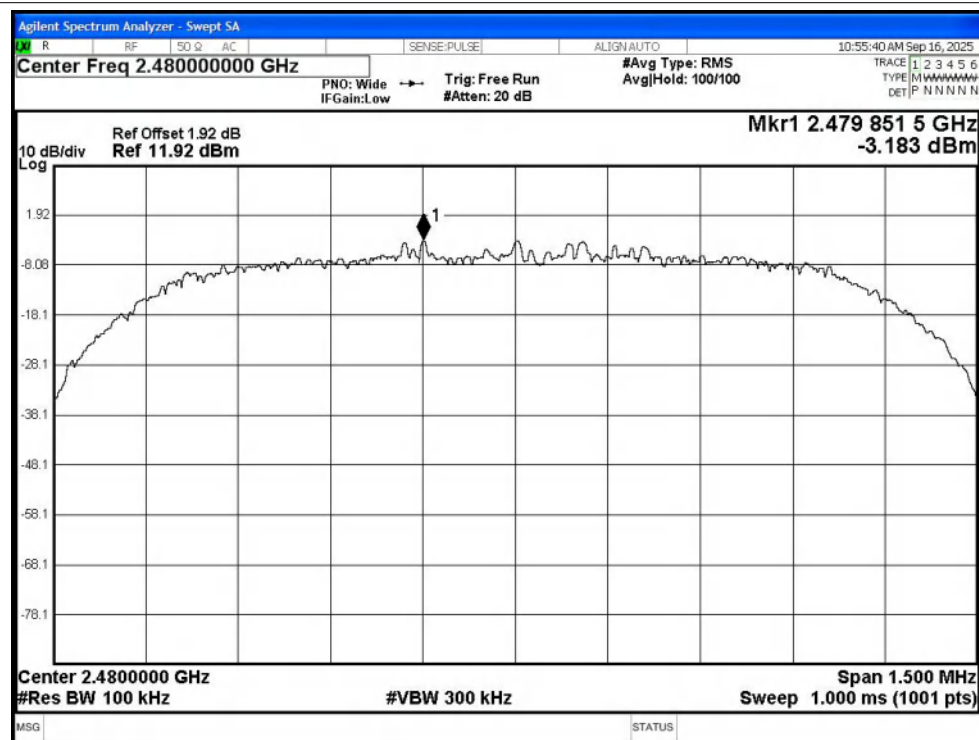
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Ref



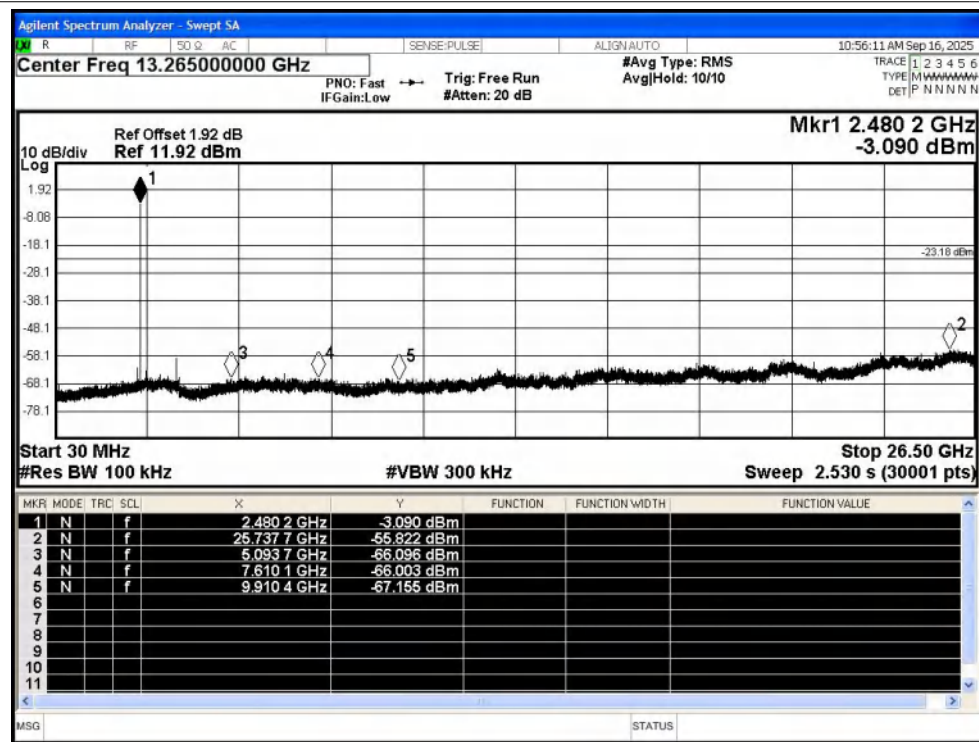
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Emission



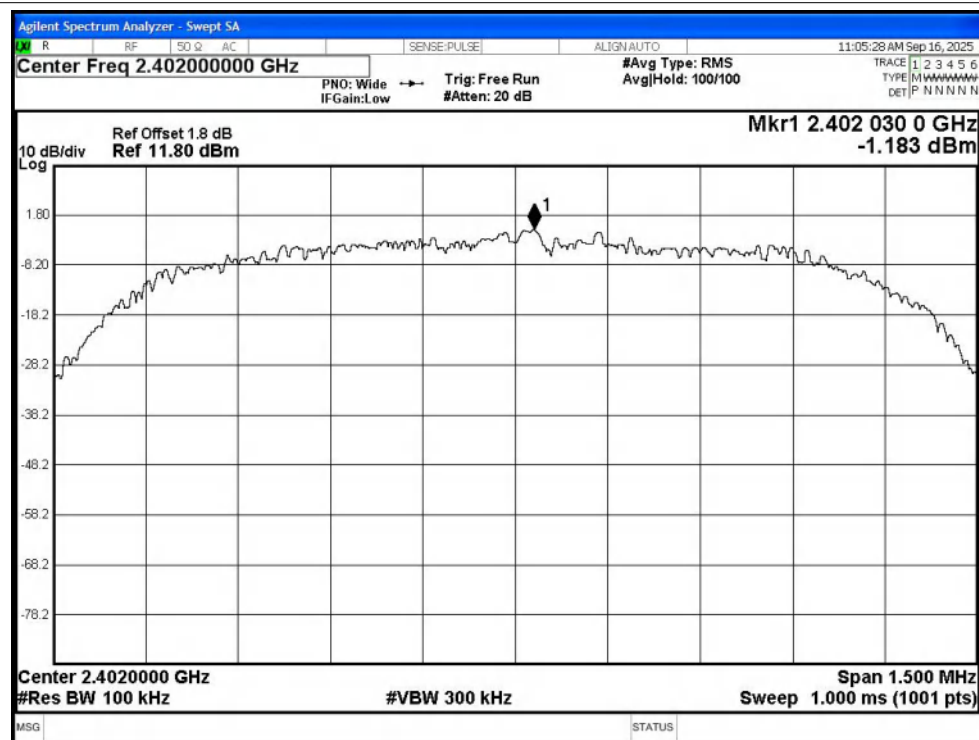
Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Ref



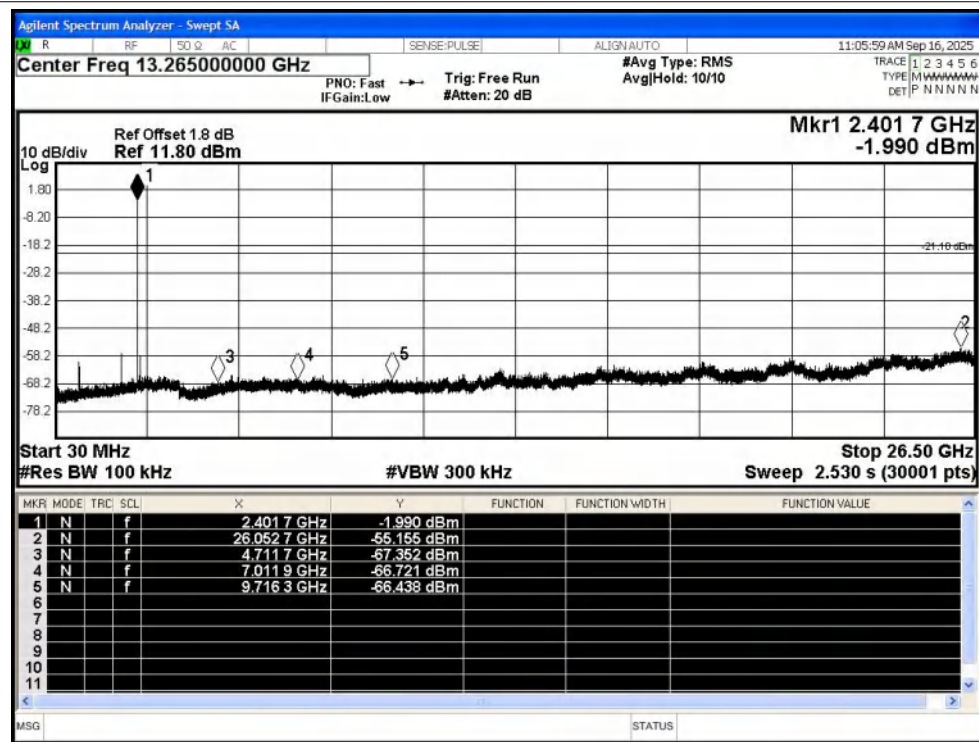
Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Emission



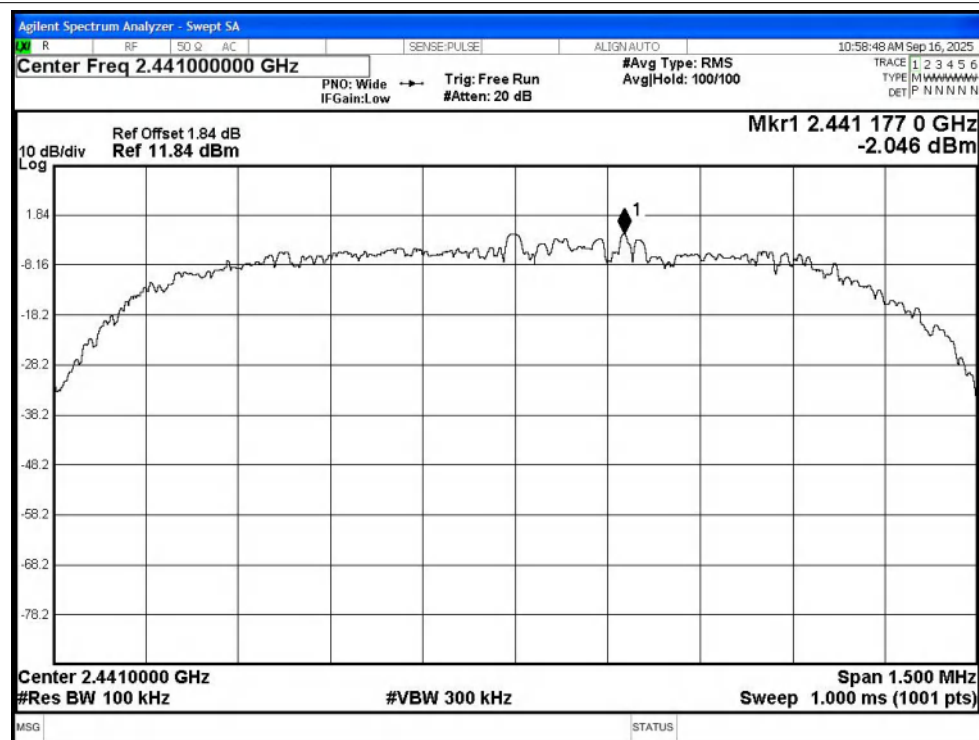
Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Ref



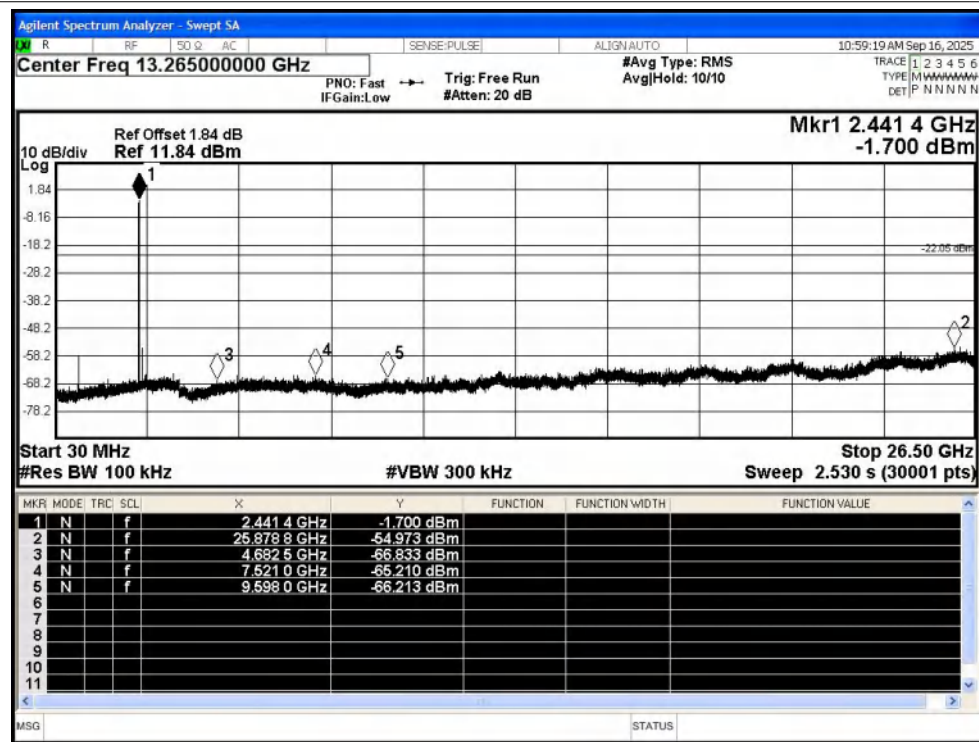
Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Emission



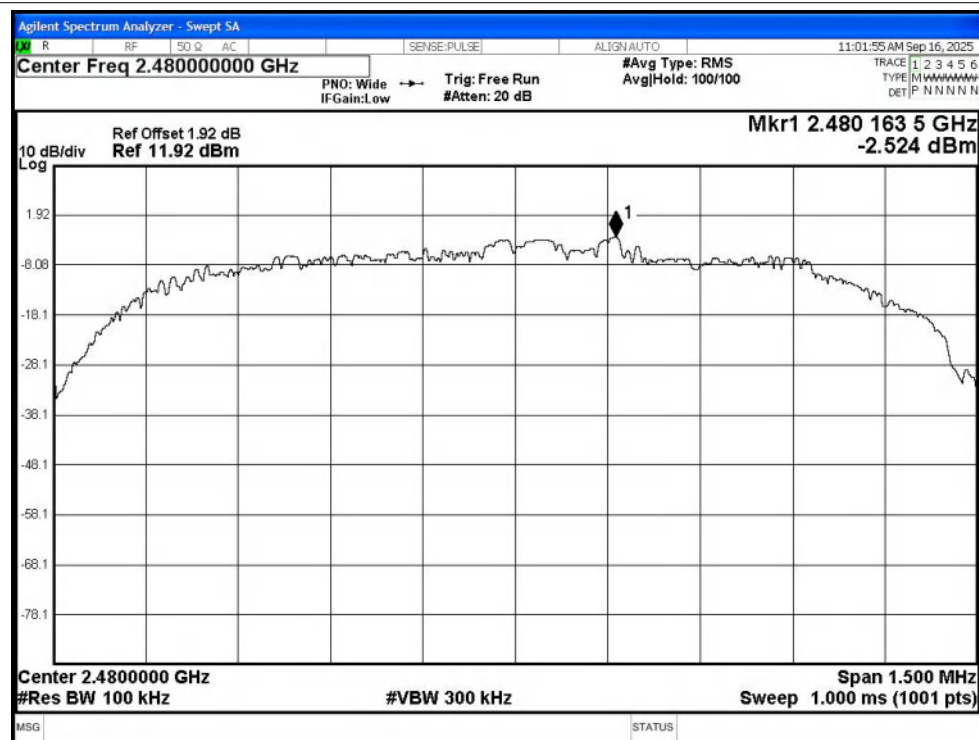
Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Ref



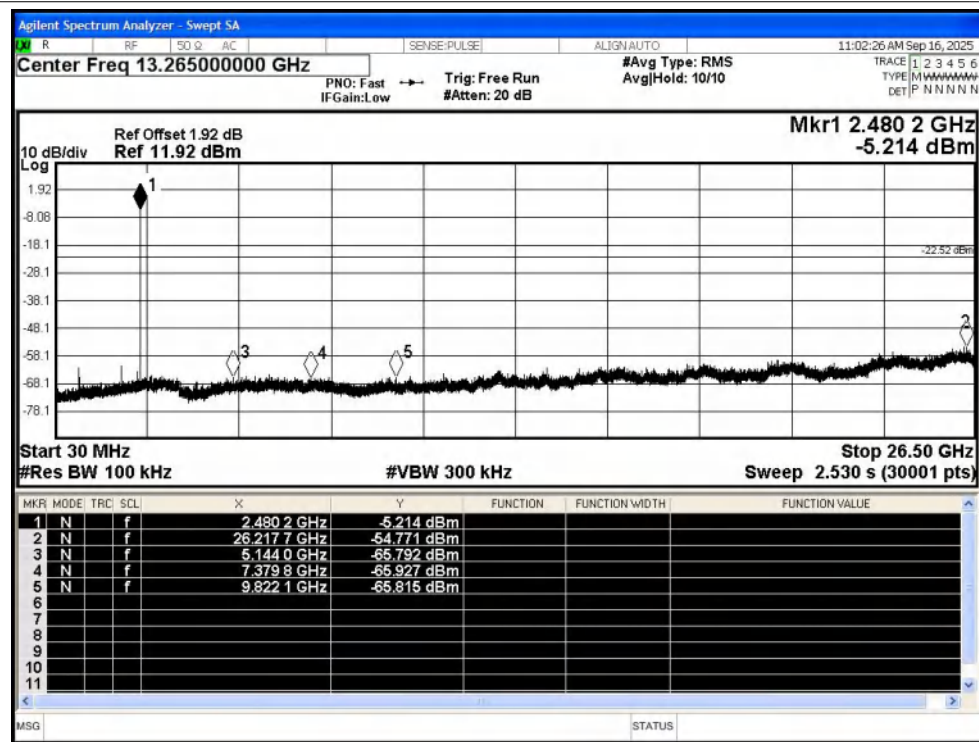
Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Emission

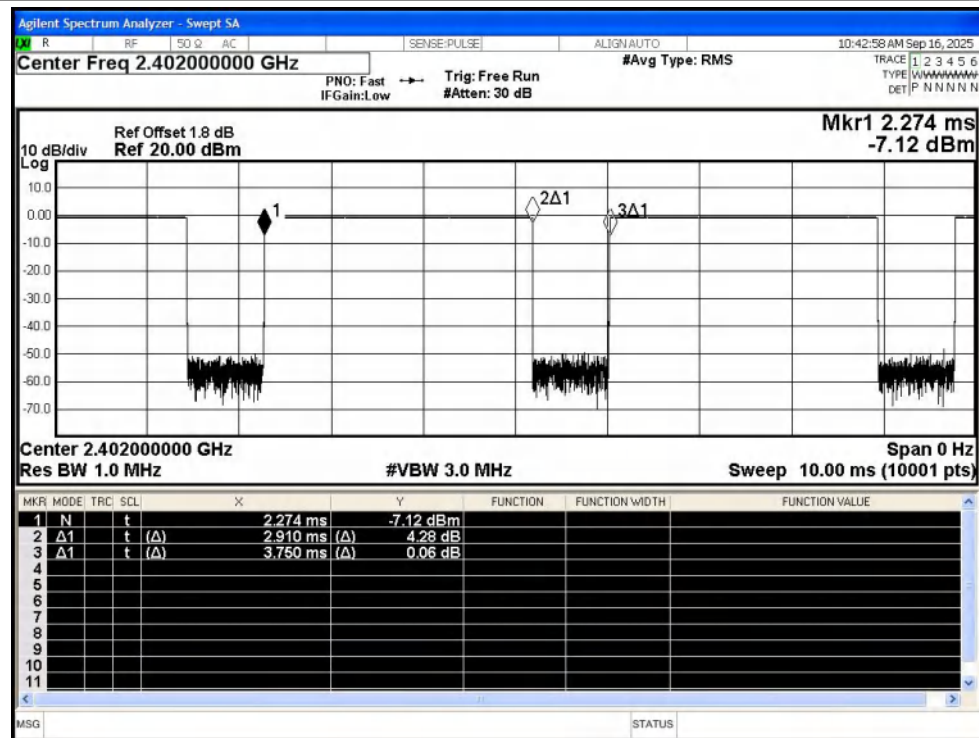


A.8 Duty Cycle

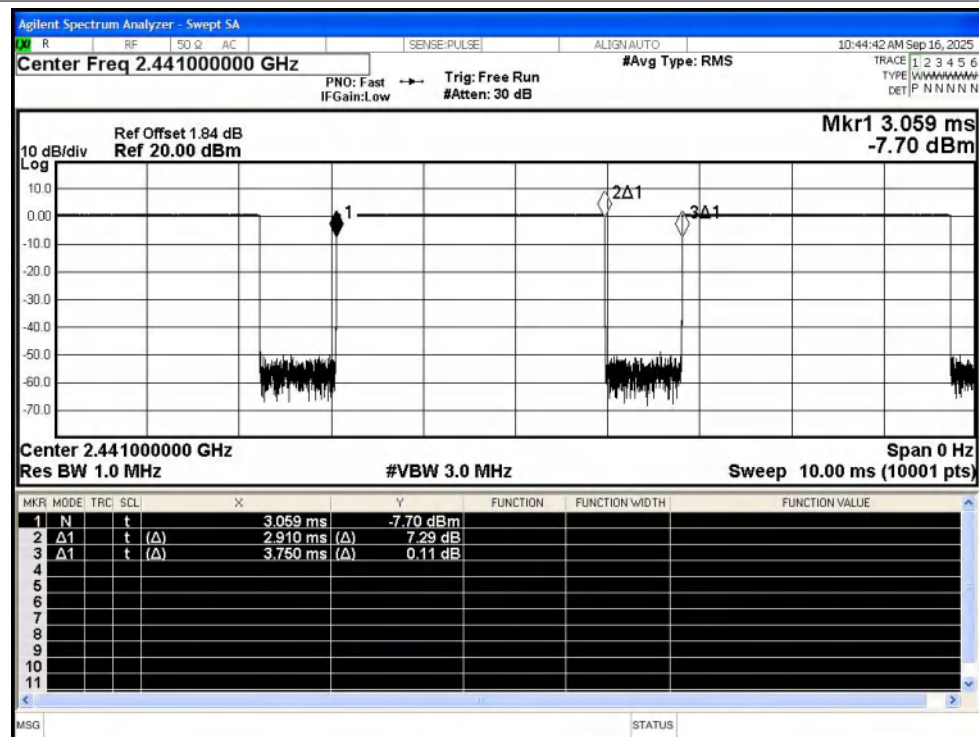
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH5	2402	Ant1	77.6	1.1	0.34
NVNT	1-DH5	2441	Ant1	77.6	1.1	0.34
NVNT	1-DH5	2480	Ant1	77.6	1.1	0.34
NVNT	2-DH5	2402	Ant1	77.33	1.12	0.34
NVNT	2-DH5	2441	Ant1	77.28	1.12	0.35
NVNT	2-DH5	2480	Ant1	77.28	1.12	0.35
NVNT	3-DH5	2402	Ant1	77.28	1.12	0.35
NVNT	3-DH5	2441	Ant1	77.33	1.12	0.34
NVNT	3-DH5	2480	Ant1	77.28	1.12	0.35

Test Graphs

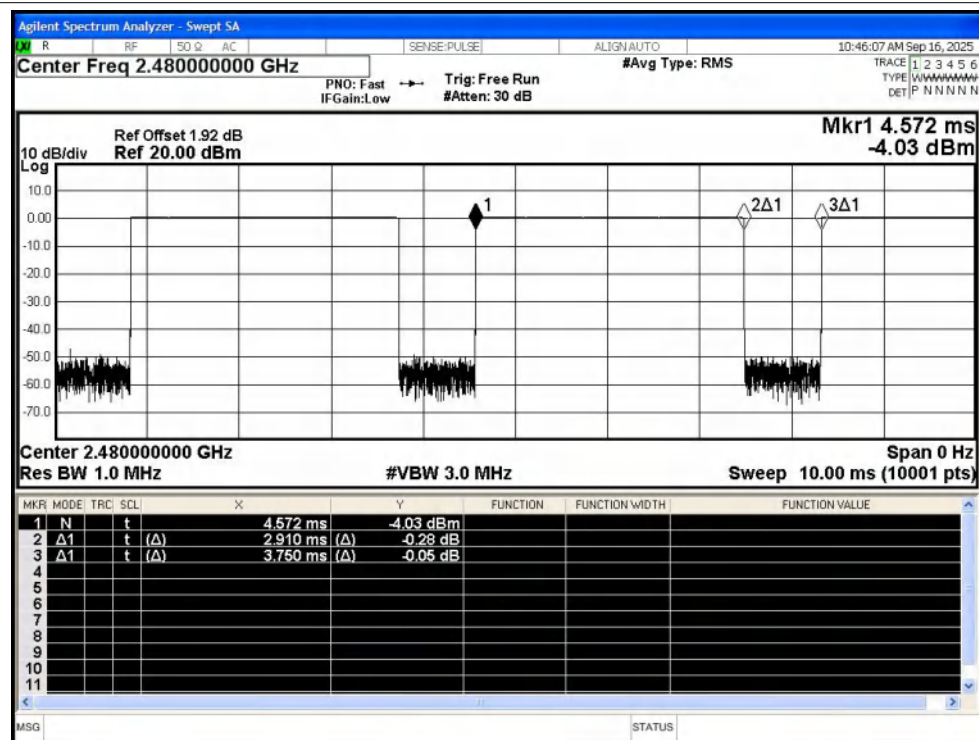
Duty Cycle NVNT 1-DH5 2402MHz Ant1



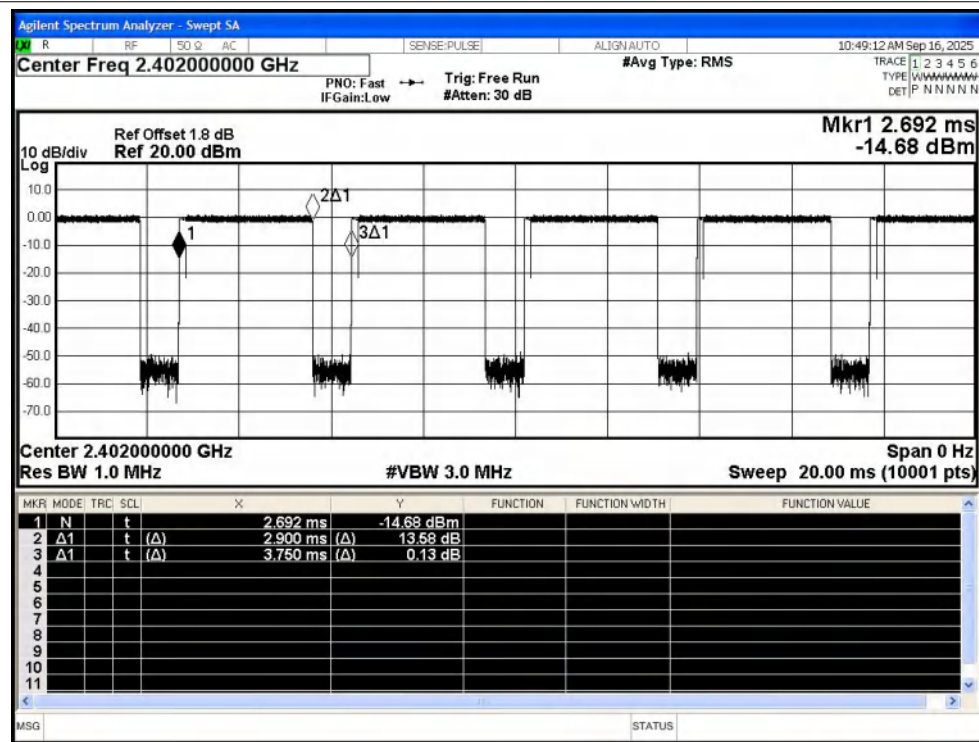
Duty Cycle NVNT 1-DH5 2441MHz Ant1



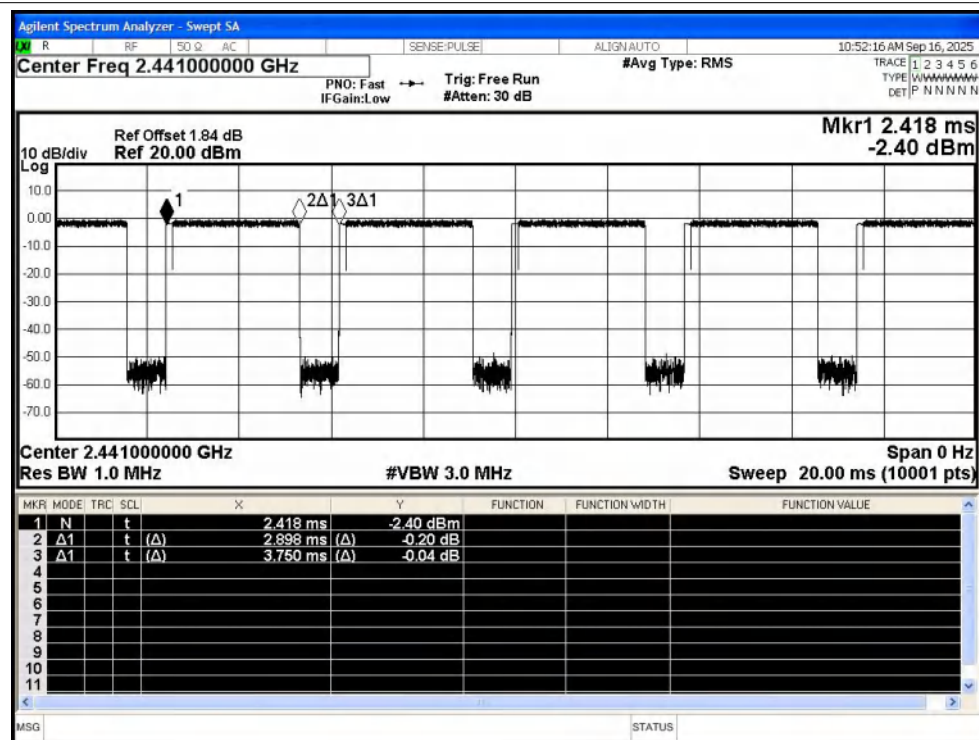
Duty Cycle NVNT 1-DH5 2480MHz Ant1



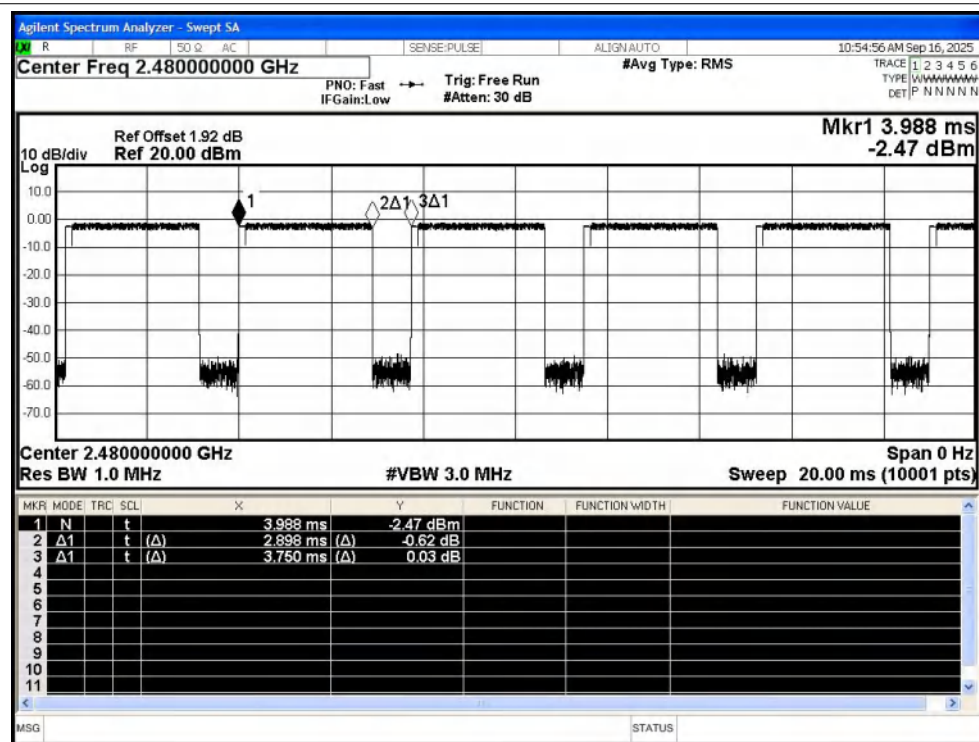
Duty Cycle NVNT 2-DH5 2402MHz Ant1

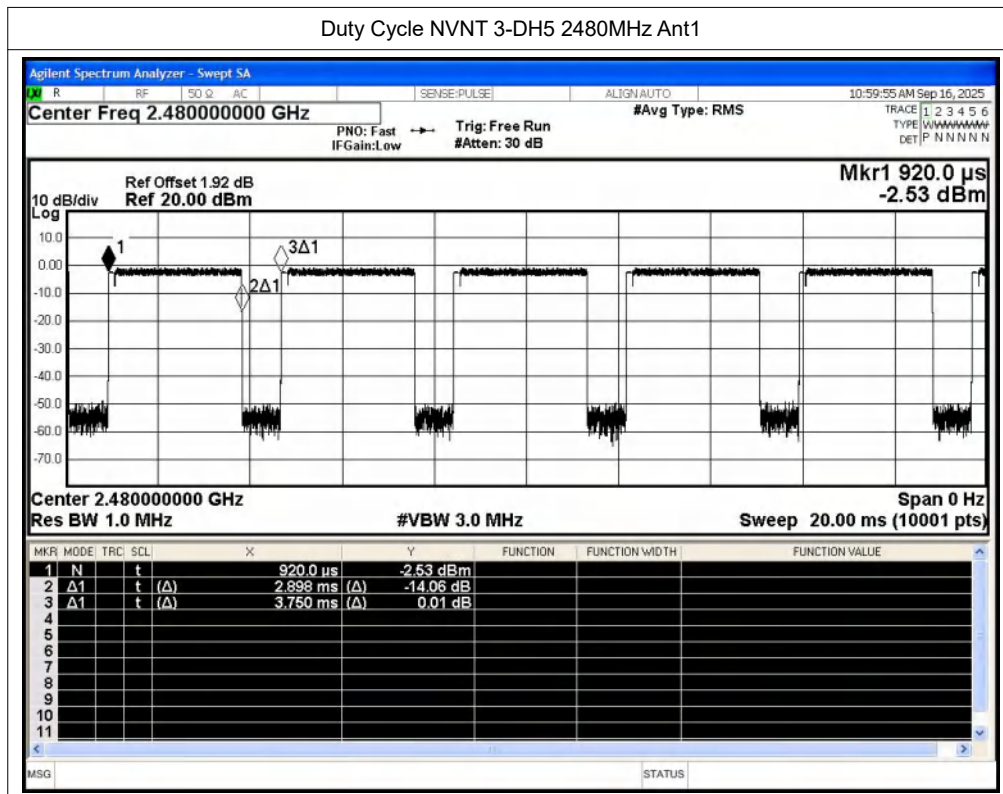


Duty Cycle NVNT 2-DH5 2441MHz Ant1



Duty Cycle NVNT 2-DH5 2480MHz Ant1



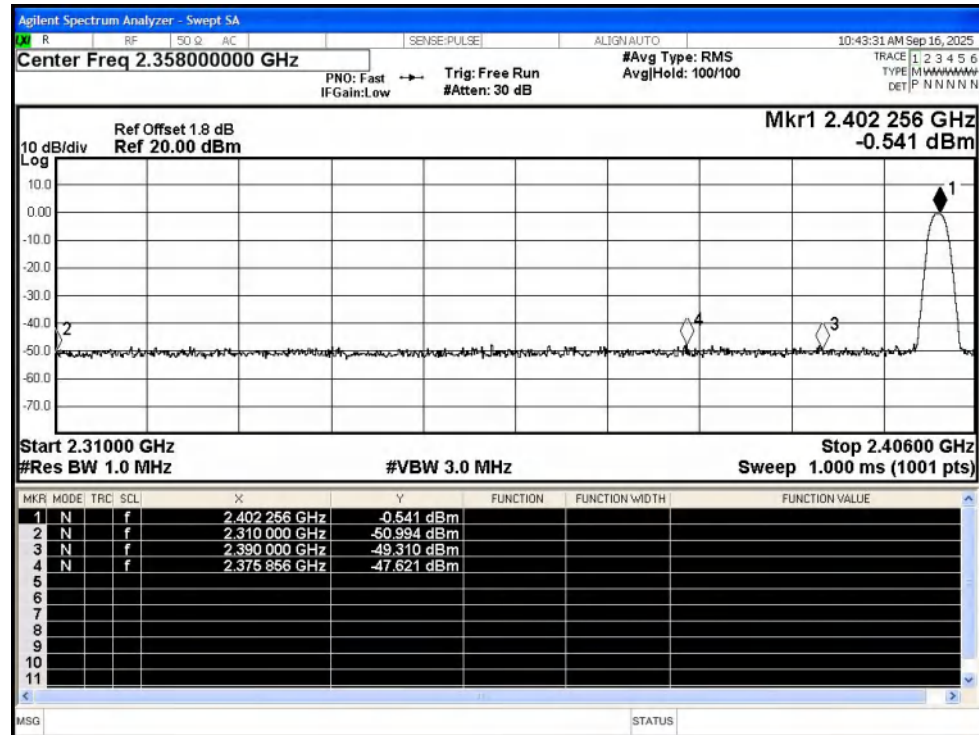


A.9 Restrict Band

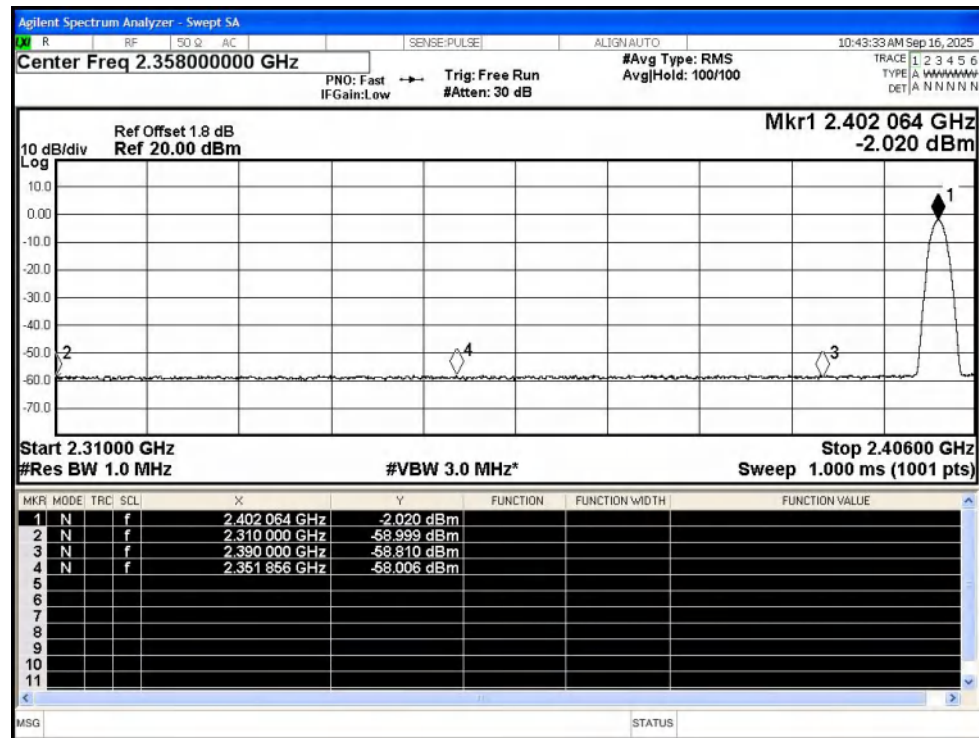
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-50.99	2	-	46.27	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-59	2	1.1	39.36	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2375.856	-47.62	2	-	49.64	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2351.856	-58.01	2	1.1	40.35	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-49.31	2	-	47.95	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-58.81	2	1.1	39.55	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-51.34	2	-	45.92	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-58.03	2	1.1	40.33	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2485.96	-45.42	2	-	51.84	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2484.232	-57.12	2	1.1	41.24	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-50.35	2	-	46.91	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-58.68	2	1.1	39.68	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-50.87	2	-	46.39	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-59.28	2	1.12	39.1	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2327.28	-48	2	-	49.26	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2358.768	-57.98	2	1.12	40.4	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-51.17	2	-	46.09	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-58.55	2	1.12	39.83	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-48.12	2	-	49.14	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-57.34	2	1.12	41.04	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2488.864	-47.05	2	-	50.21	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.92	-57.2	2	1.12	41.18	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-49.85	2	-	47.41	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-58.51	2	1.12	39.87	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-50.83	2	-	46.43	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-59.9	2	1.12	38.48	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2370.672	-48.17	2	-	49.09	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2371.44	-57.9	2	1.12	40.48	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-49.3	2	-	47.96	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-58.89	2	1.12	39.49	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-46.97	2	-	50.29	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-56.97	2	1.12	41.41	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.632	-45.3	2	-	51.96	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.512	-56.97	2	1.12	41.41	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-47.79	2	-	49.47	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-58.51	2	1.12	39.87	Average	54	Pass

Test Graphs

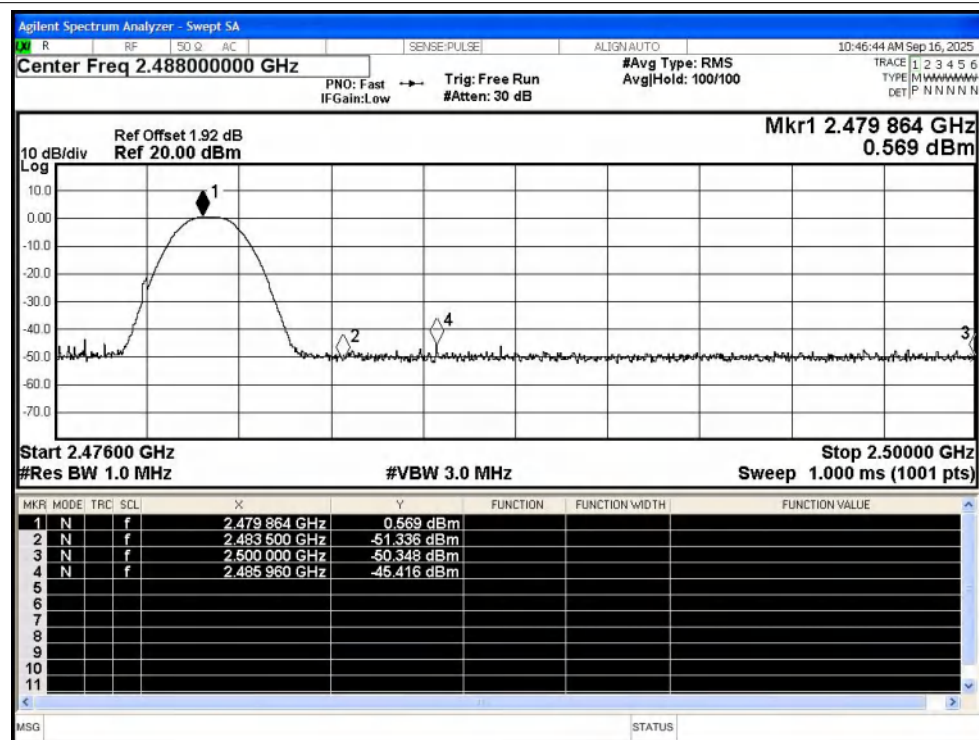
Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Peak



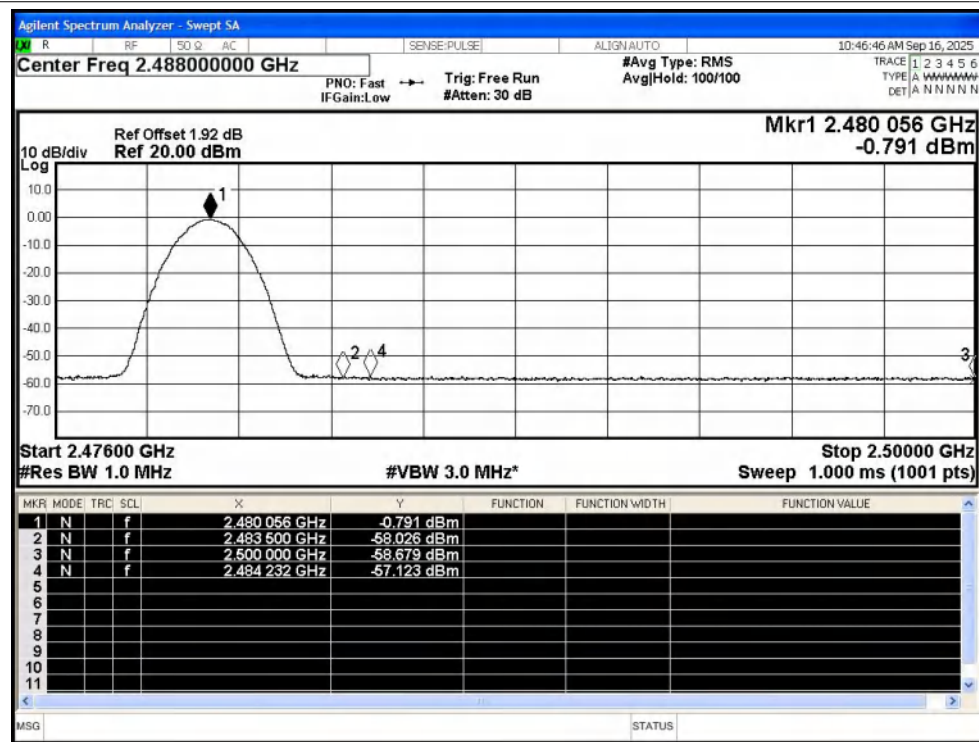
Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Average



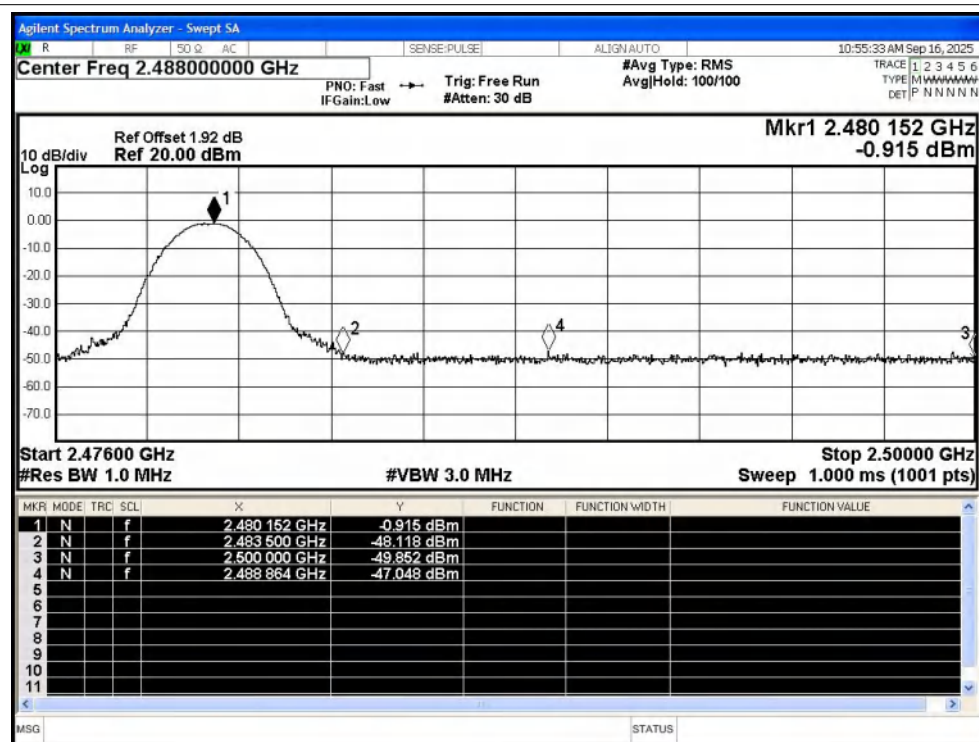
Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Peak



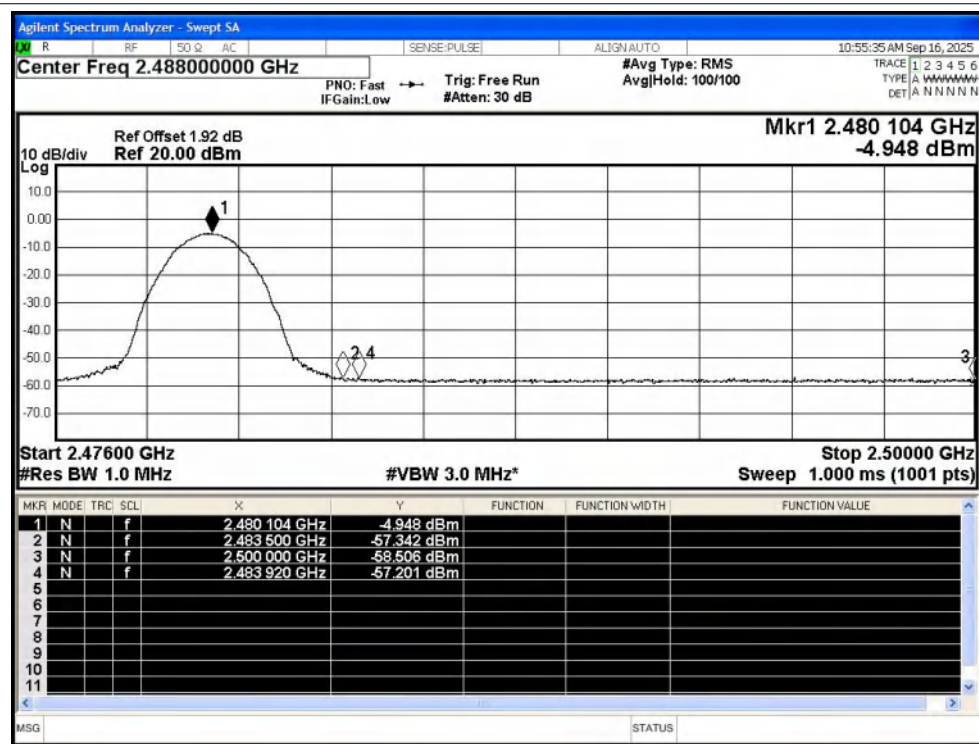
Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Average



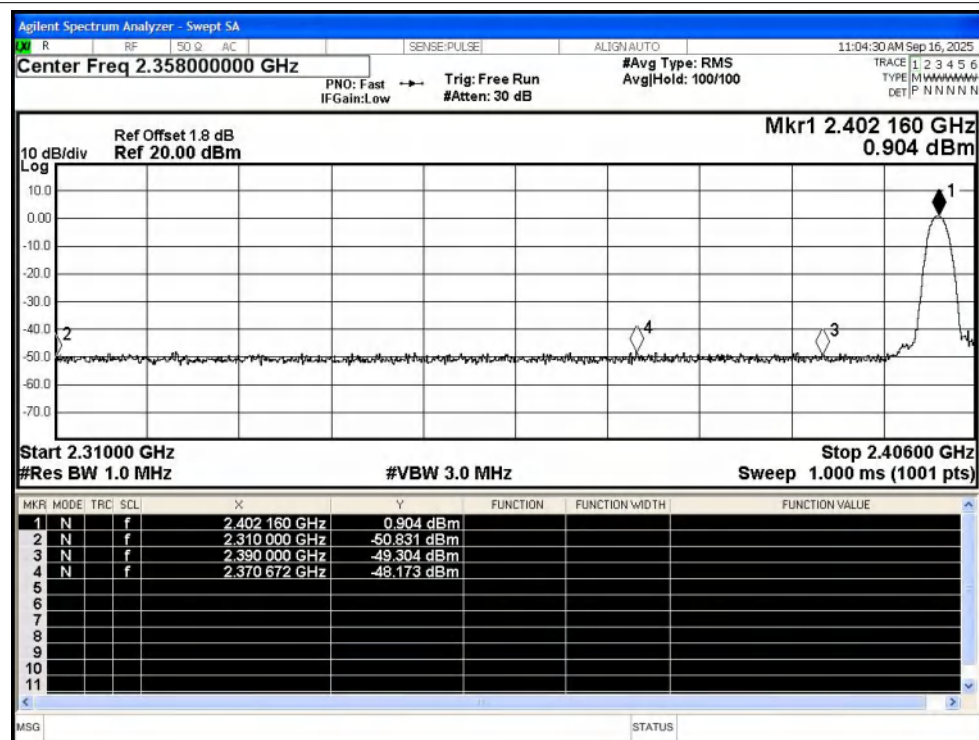
Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Peak



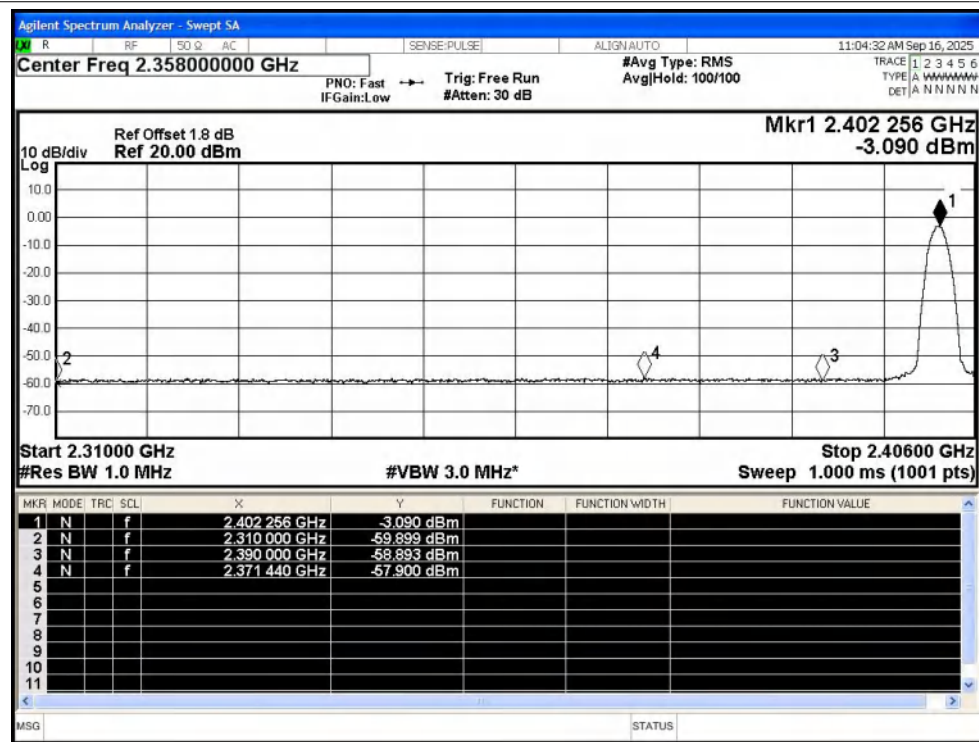
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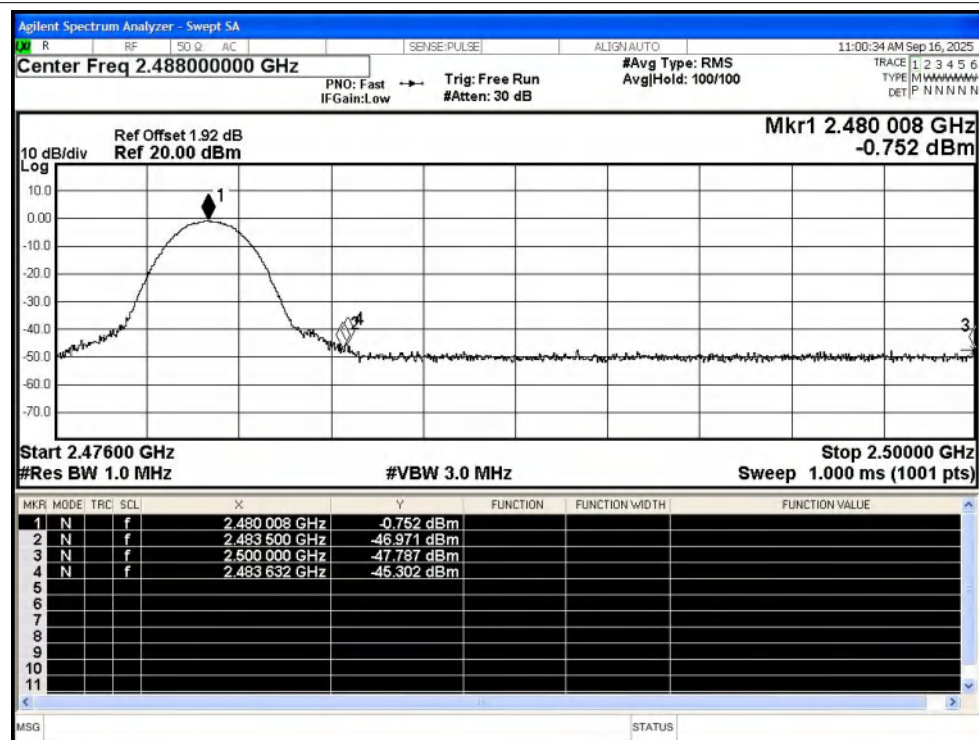
Restrict Band NVNT 3-DH5 2402MHz Ant1 No-Hopping Peak



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

