

RF Test Data for Bluetooth (Conducted Measurements)

General Description of EUT	
Product Name:	projector
Test Model:	HRSZ03
Sample ID:	HC-C-202407-0282-01-01-2#
Environmental Conditions	
Temperature:	23.8°C
Relative Humidity:	48%
Test Voltage:	DC 15V
Test Engineer:	ZKN ZHOU
Note: For a more detailed features description, please refer to the report TBR-C-202407-0282-1 The report only show the worst case data.	

Contents

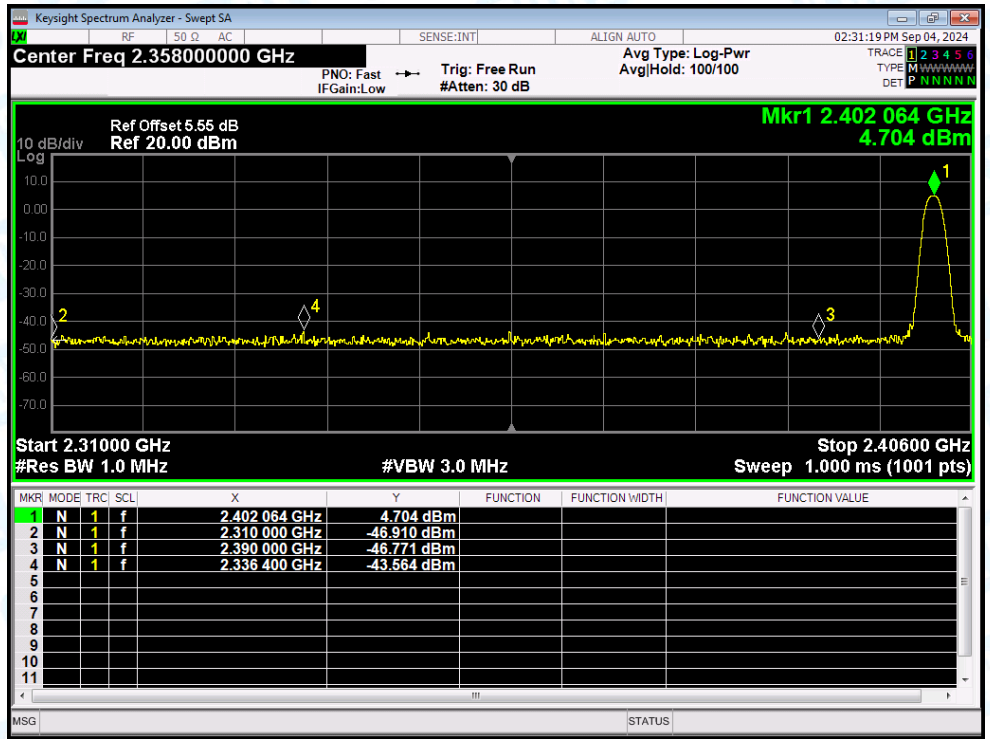
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1. Restrict Band

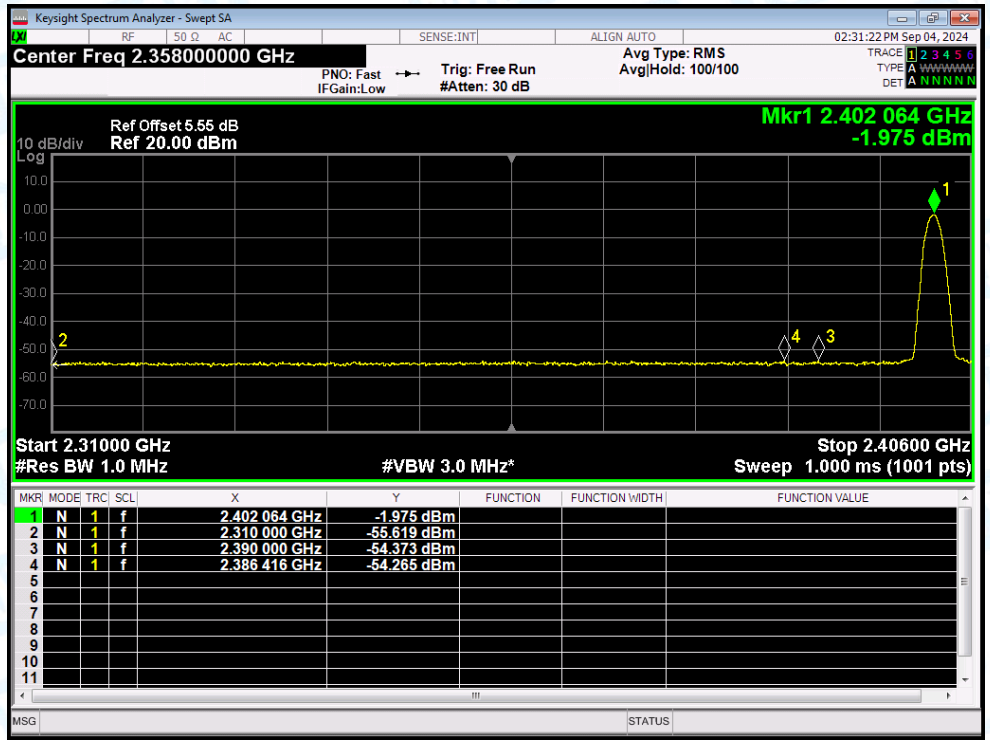
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-46.91	2	-	50.35	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-55.62	2	5.17	46.81	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2336.4	-43.56	2	-	53.7	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2386.416	-54.27	2	5.17	48.16	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-46.77	2	-	50.49	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-54.37	2	5.17	48.06	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-46.79	2	-	50.47	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-54.62	2	5.17	47.81	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2495.32	-43.09	2	-	54.17	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2489.2	-53.54	2	5.17	48.89	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-45.71	2	-	51.55	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-54.32	2	5.17	48.11	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-46.62	2	-	50.64	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-55.44	2	5.06	46.88	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2350.512	-44.17	2	-	53.09	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2374.704	-54.35	2	5.06	47.97	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-46.77	2	-	50.49	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-54.92	2	5.06	47.4	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-47.68	2	-	49.58	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-53.96	2	5.06	48.36	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2499.088	-43.91	2	-	53.35	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2495.128	-53.8	2	5.06	48.52	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-46.15	2	-	51.11	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-54.84	2	5.06	47.48	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-48.57	2	-	48.69	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-55.41	2	5.06	46.91	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2321.712	-44.29	2	-	52.97	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2384.784	-54.14	2	5.06	48.18	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-47.31	2	-	49.95	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-54.82	2	5.06	47.5	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-45.83	2	-	51.43	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-54.83	2	5.06	47.49	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2486.248	-43.14	2	-	54.12	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2488.168	-53.83	2	5.06	48.49	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-46.21	2	-	51.05	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-54.47	2	5.06	47.85	Average	54	Pass

Test Graphs

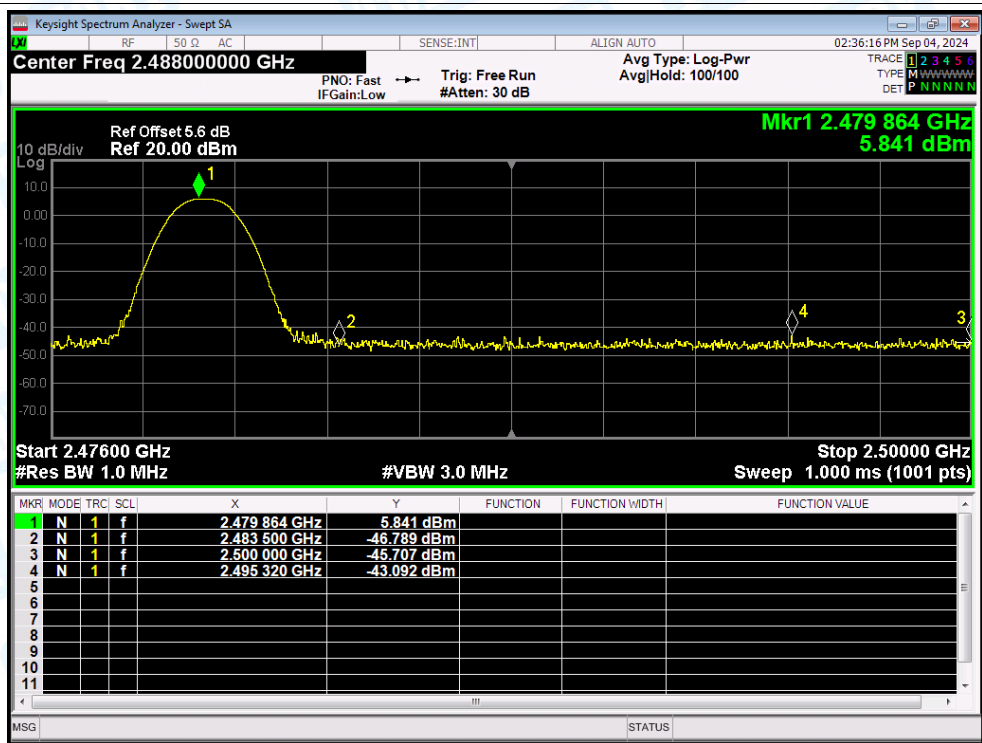
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Peak



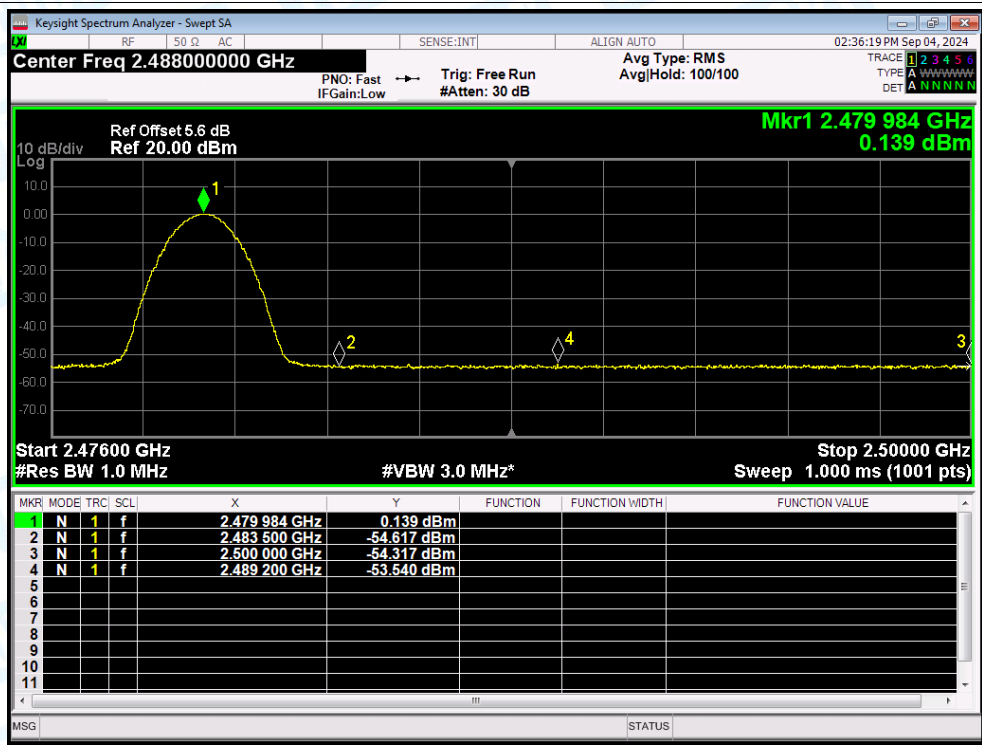
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Average



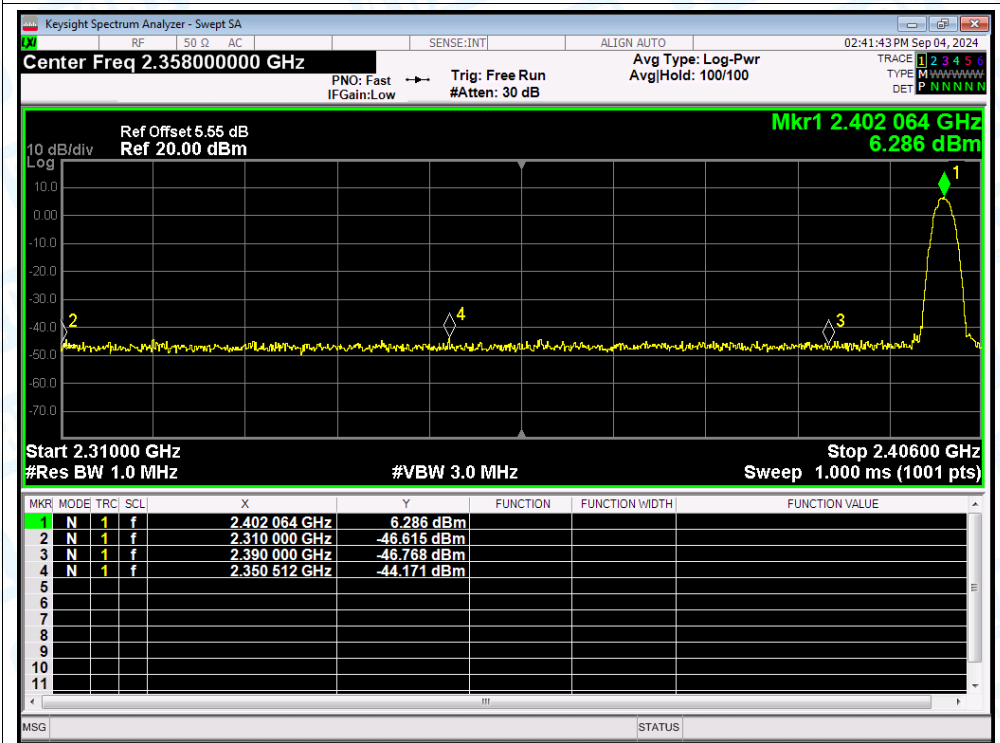
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Peak



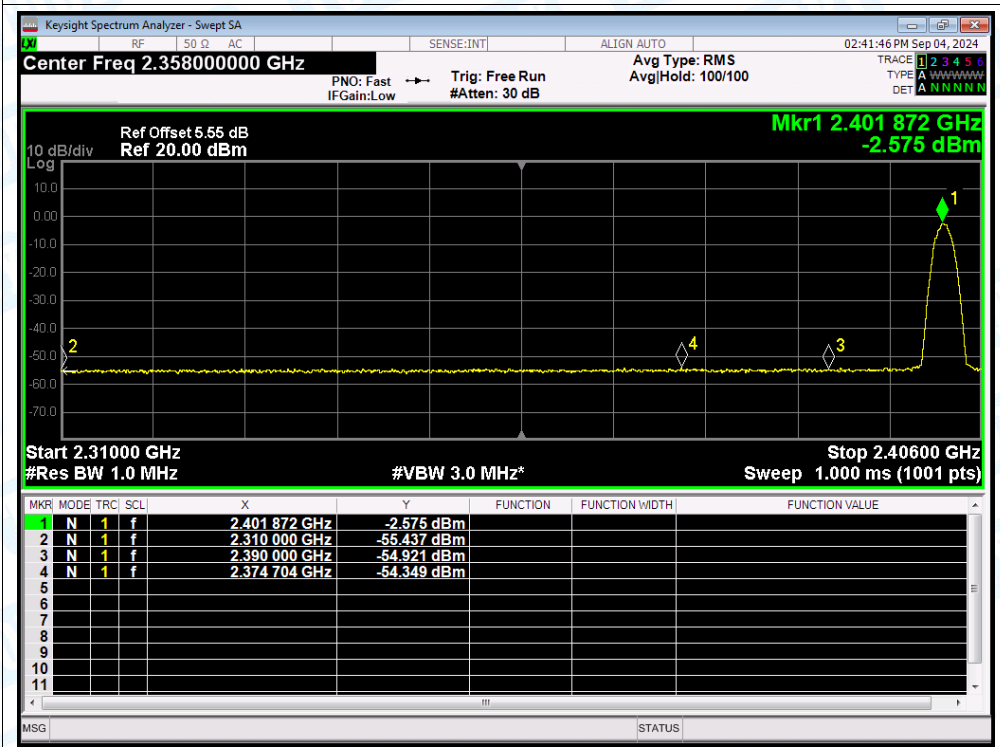
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Average



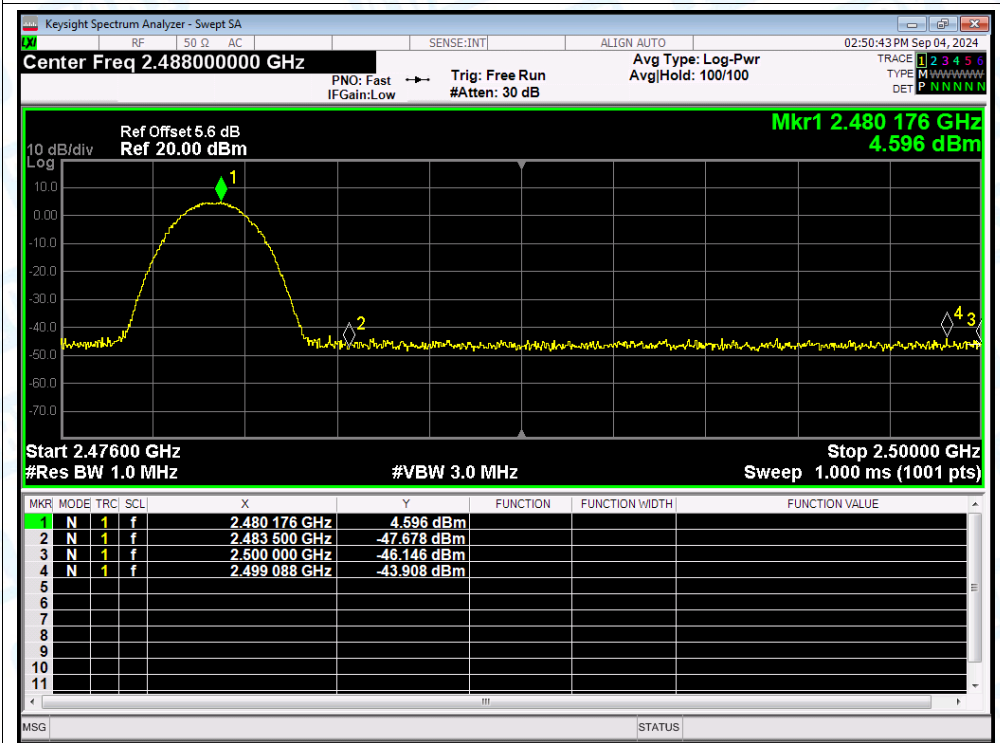
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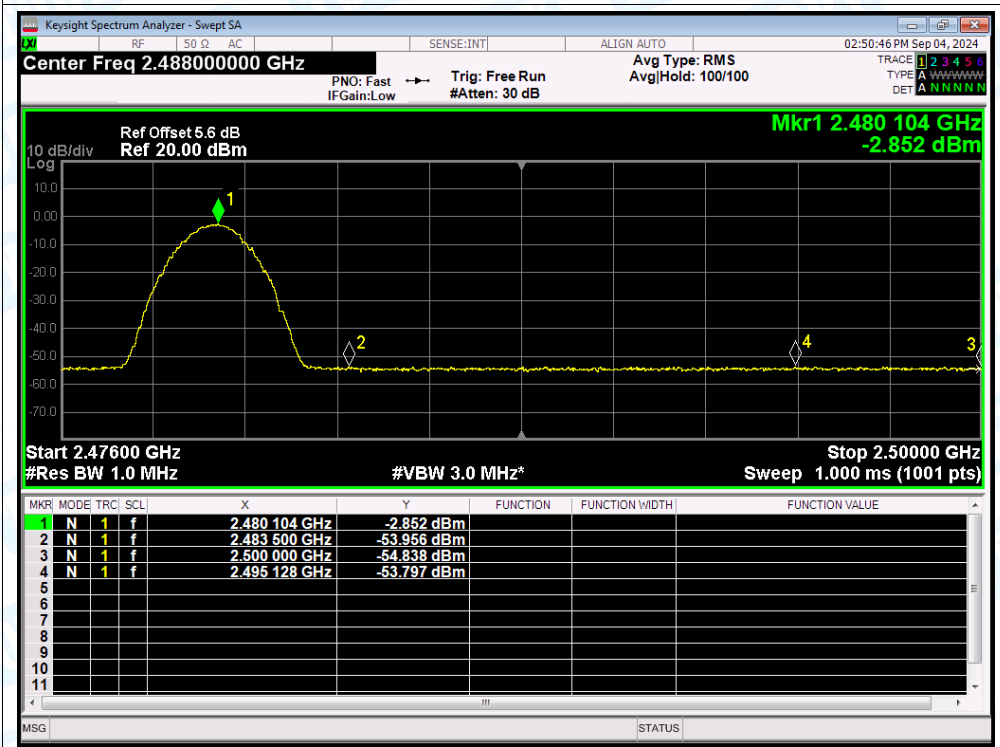
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Average



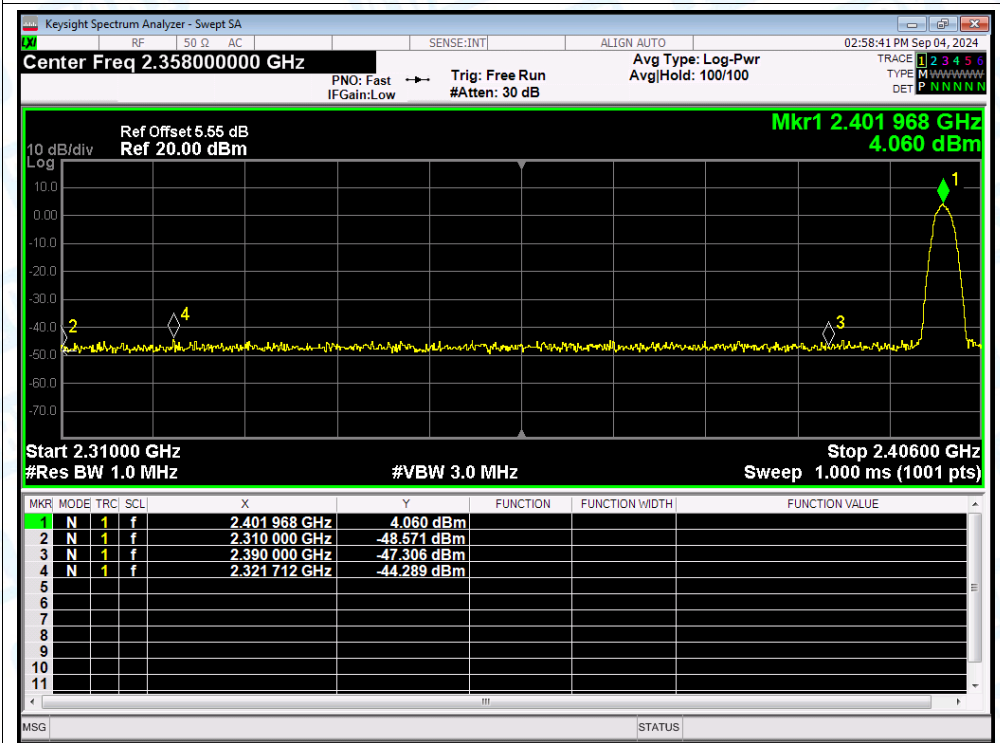
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Peak



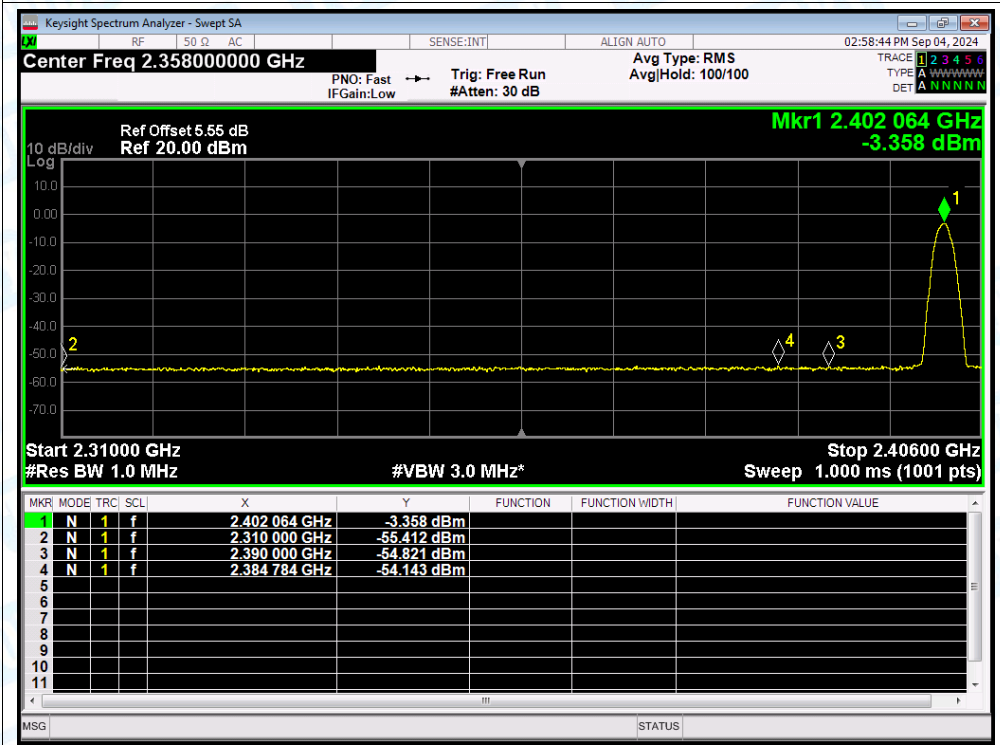
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Average



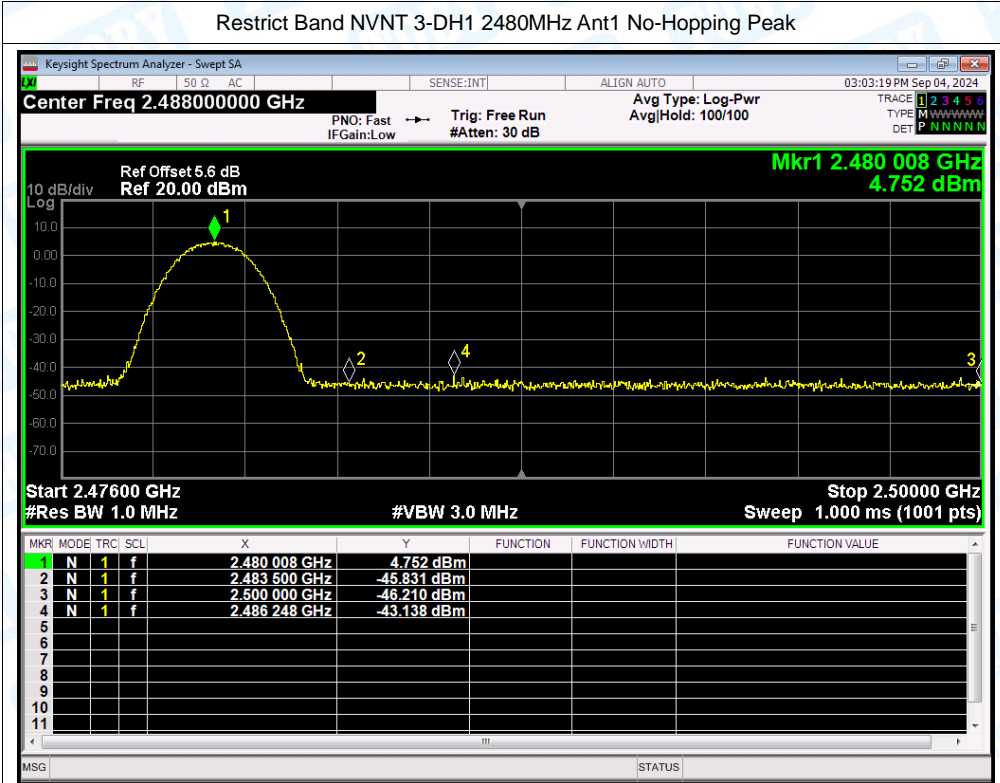
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Peak



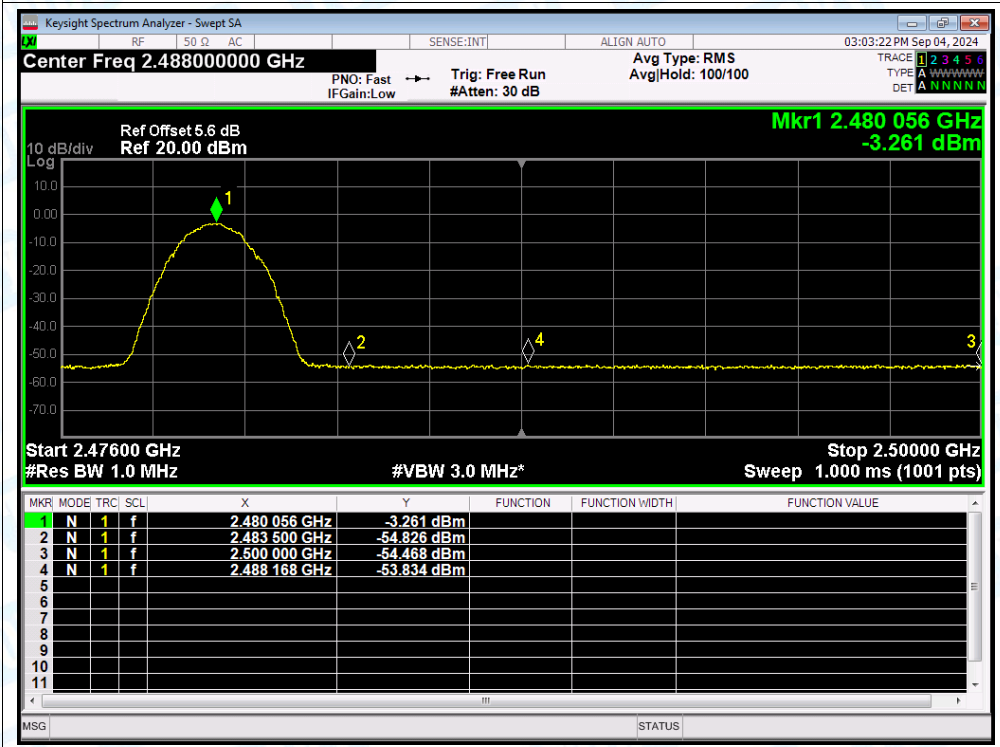
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Average



Restrict Band NVNT 3-DH1 2480MHz Ant1 No-Hopping Peak



Restrict Band NVNT 3-DH1 2480MHz Ant1 No-Hopping Average

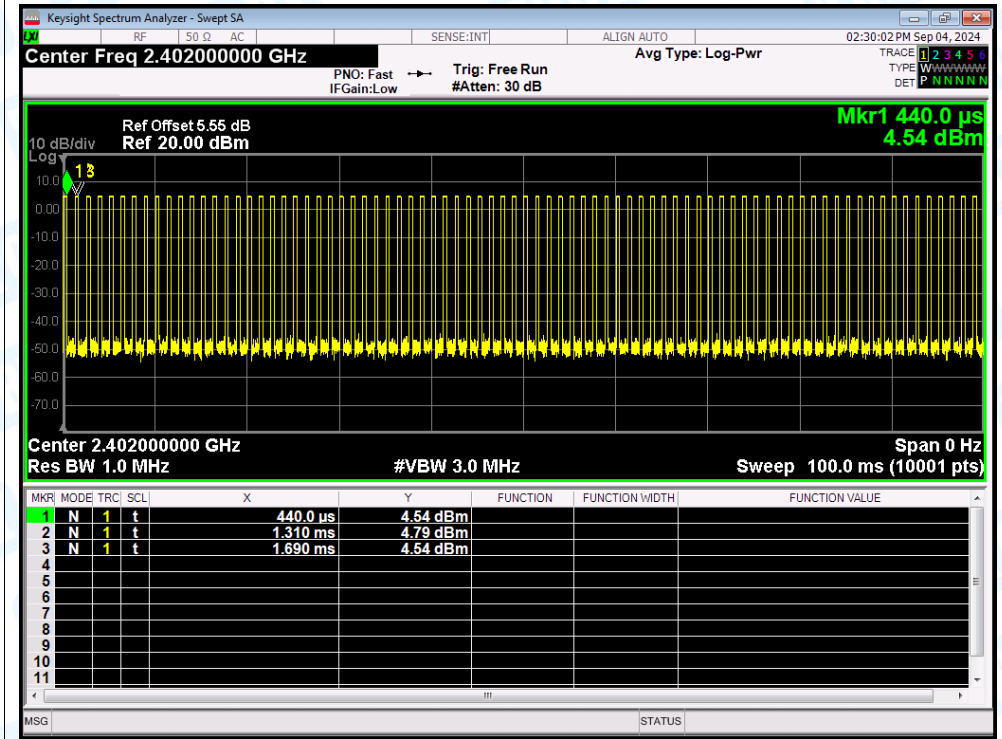


2. Duty Cycle

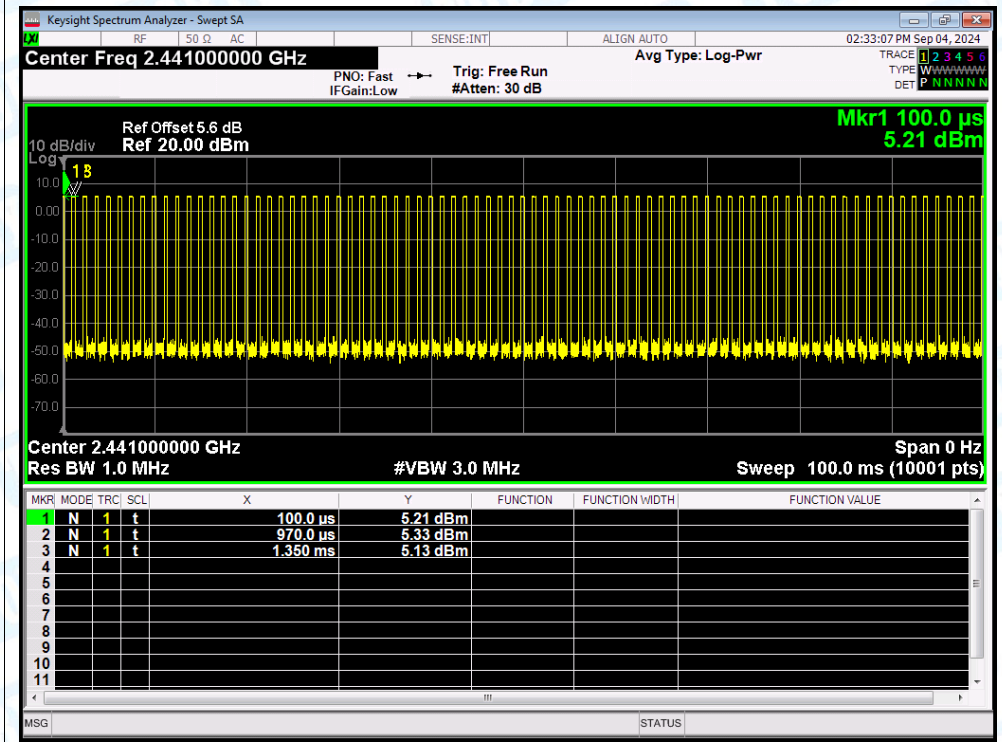
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH1	2402	Ant1	30.4	5.17	2.63
NVNT	1-DH1	2441	Ant1	30.4	5.17	2.63
NVNT	1-DH1	2480	Ant1	30.4	5.17	2.63
NVNT	2-DH1	2402	Ant1	31.2	5.06	2.56
NVNT	2-DH1	2441	Ant1	31.2	5.06	2.56
NVNT	2-DH1	2480	Ant1	31.2	5.06	2.56
NVNT	3-DH1	2402	Ant1	31.2	5.06	2.56
NVNT	3-DH1	2441	Ant1	31.2	5.06	2.56
NVNT	3-DH1	2480	Ant1	31.2	5.06	2.56

Test Graphs

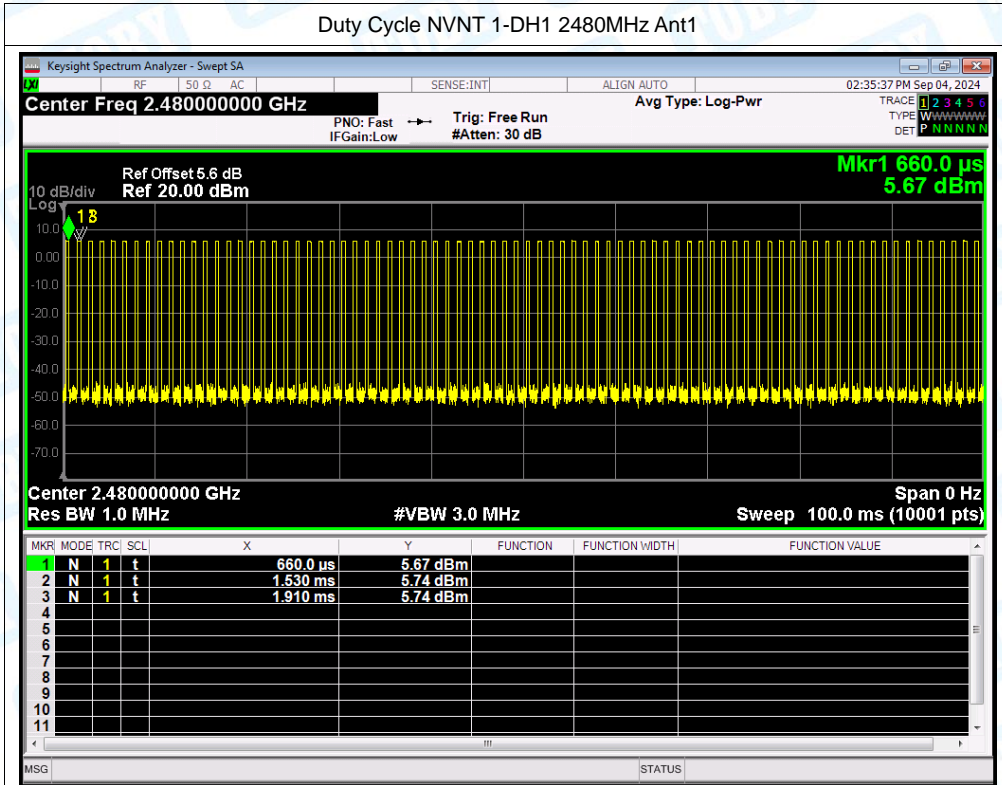
Duty Cycle NVNT 1-DH1 2402MHz Ant1



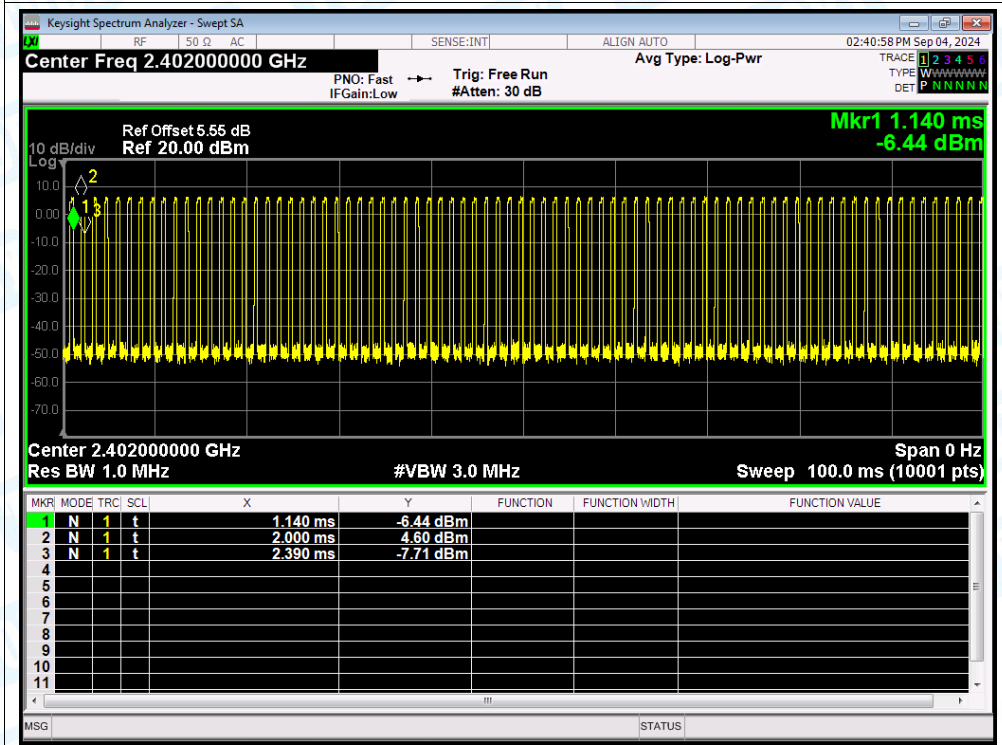
Duty Cycle NVNT 1-DH1 2441MHz Ant1



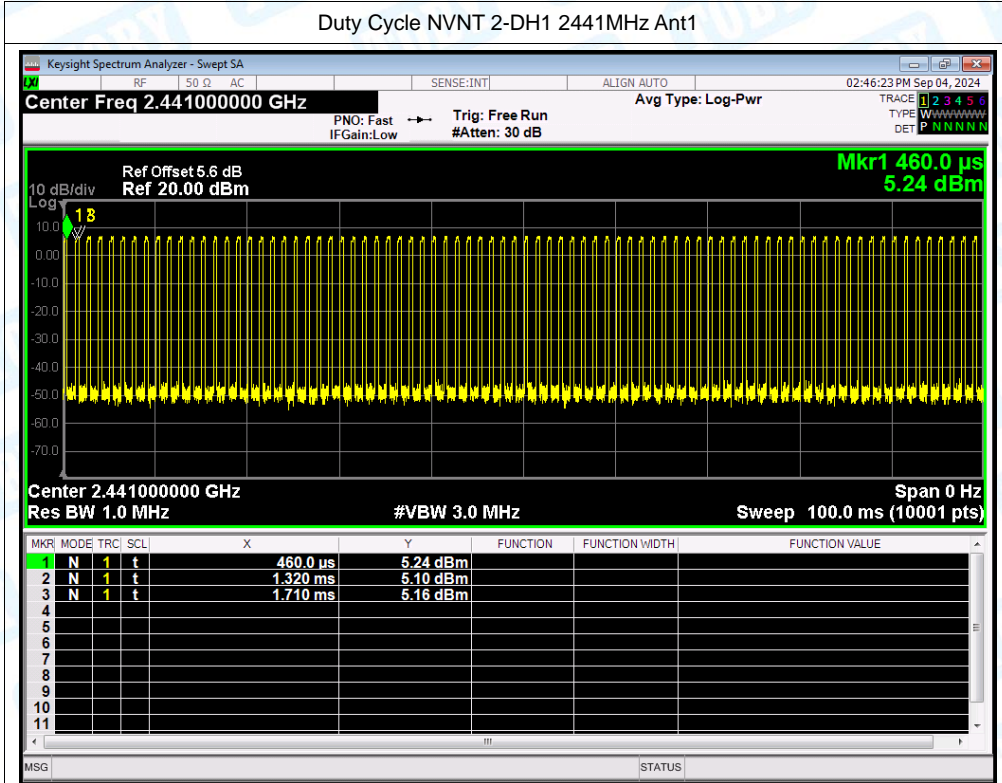
Duty Cycle NVNT 1-DH1 2480MHz Ant1



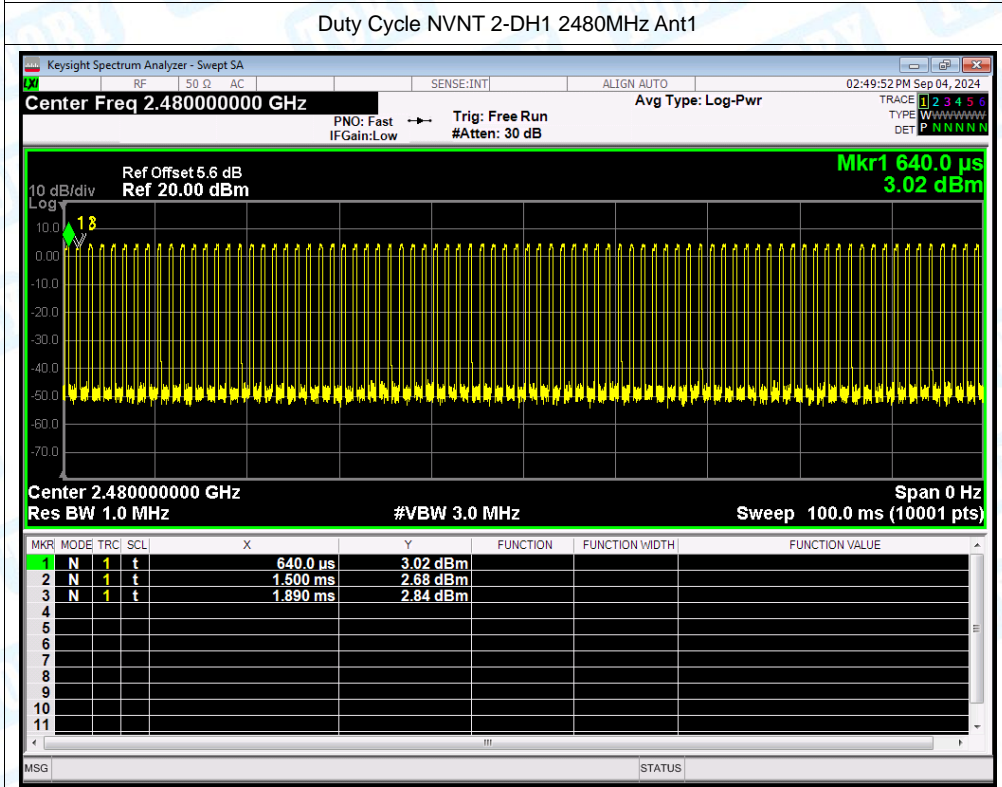
Duty Cycle NVNT 2-DH1 2402MHz Ant1



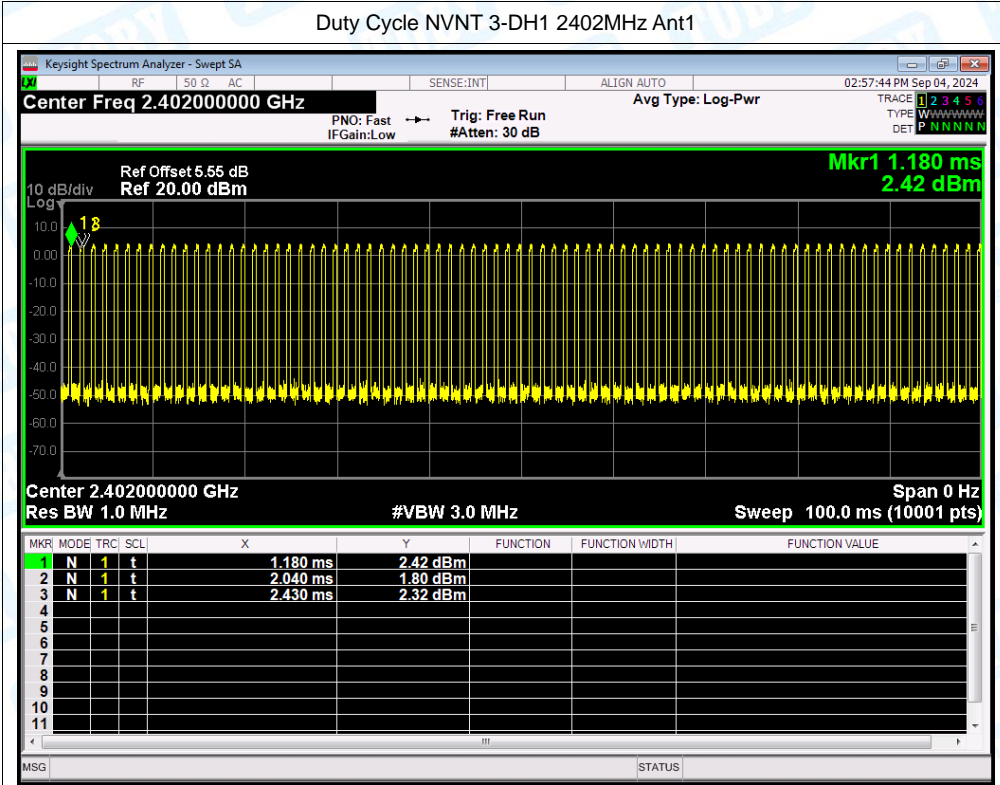
Duty Cycle NVNT 2-DH1 2441MHz Ant1



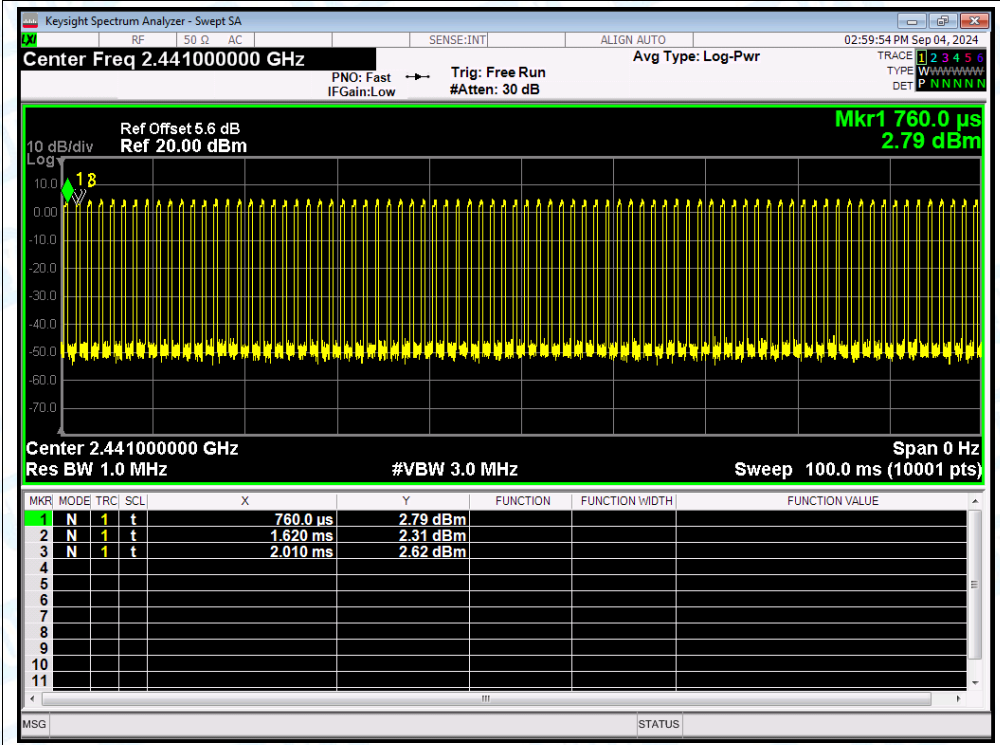
Duty Cycle NVNT 2-DH1 2480MHz Ant1

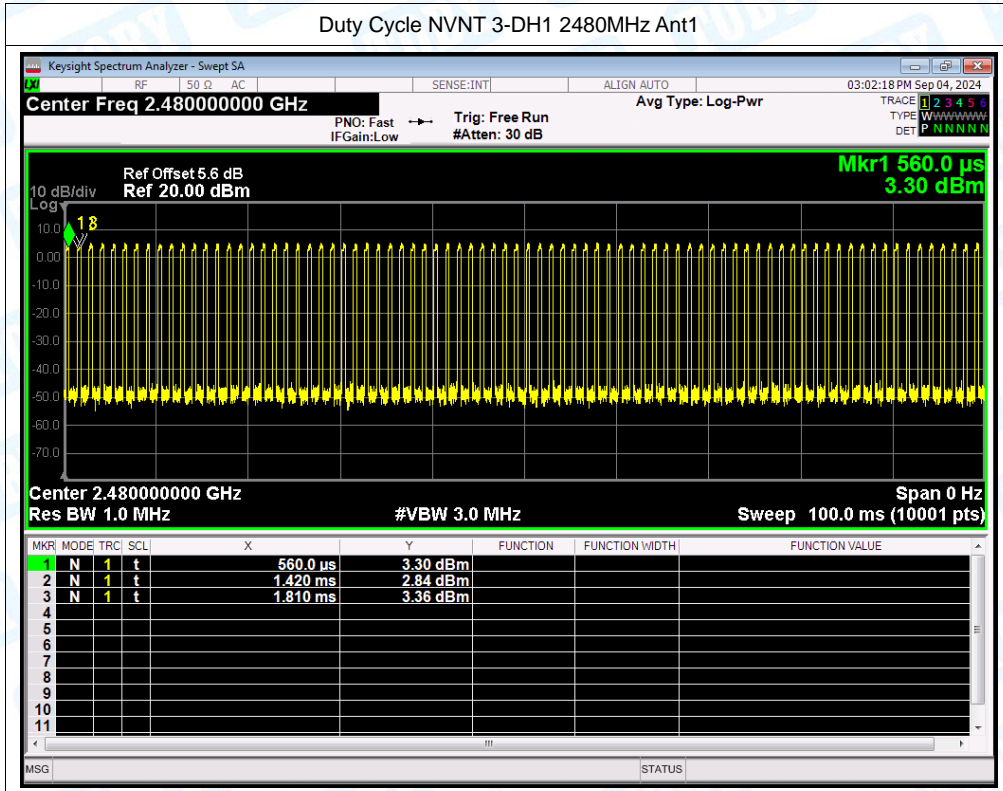


Duty Cycle NVNT 3-DH1 2402MHz Ant1



Duty Cycle NVNT 3-DH1 2441MHz Ant1



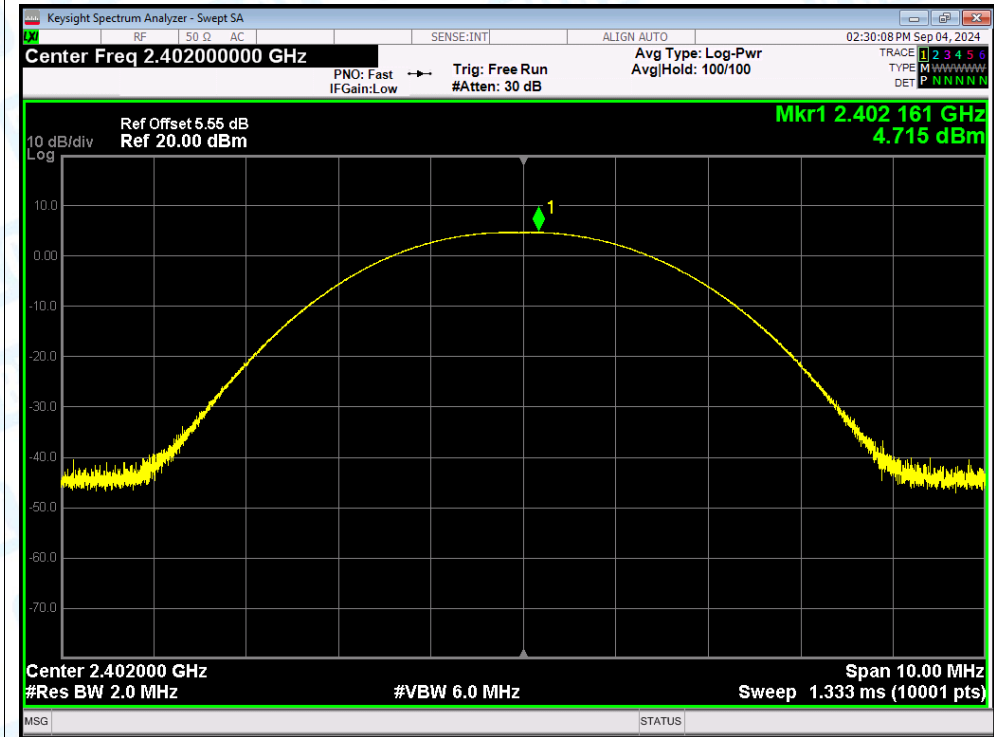


3. Maximum Conducted Output Power

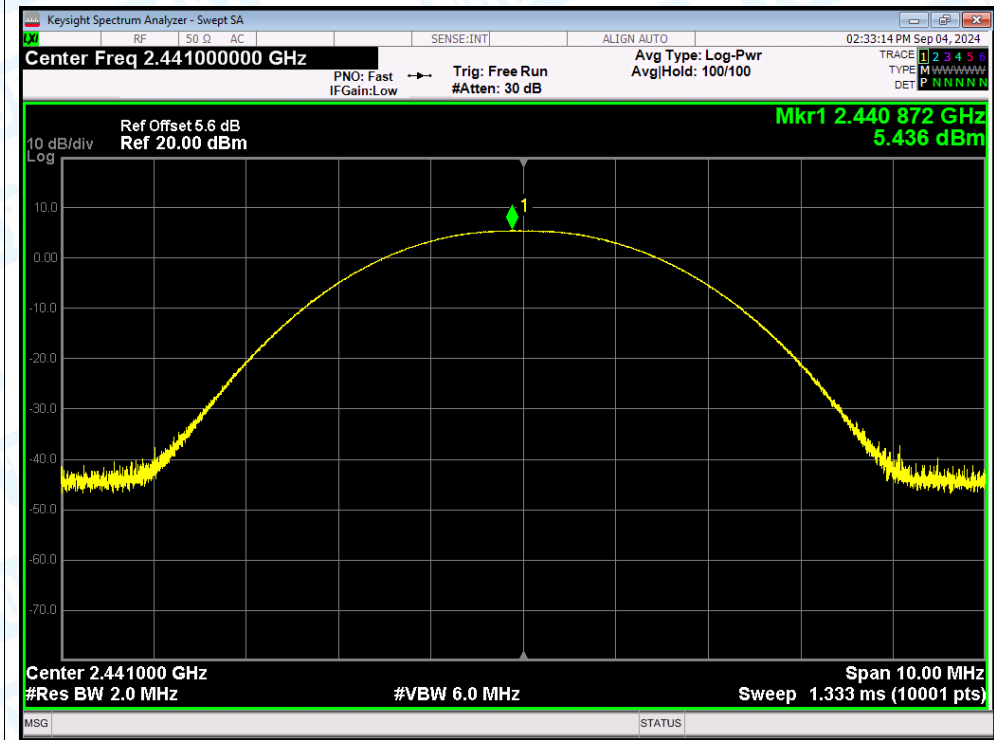
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	4.715	21	Pass
NVNT	1-DH1	2441	Ant1	5.436	21	Pass
NVNT	1-DH1	2480	Ant1	5.888	21	Pass
NVNT	2-DH1	2402	Ant1	4.16	21	Pass
NVNT	2-DH1	2441	Ant1	4.652	21	Pass
NVNT	2-DH1	2480	Ant1	5.065	21	Pass
NVNT	3-DH1	2402	Ant1	4.645	21	Pass
NVNT	3-DH1	2441	Ant1	5.214	21	Pass
NVNT	3-DH1	2480	Ant1	5.525	21	Pass

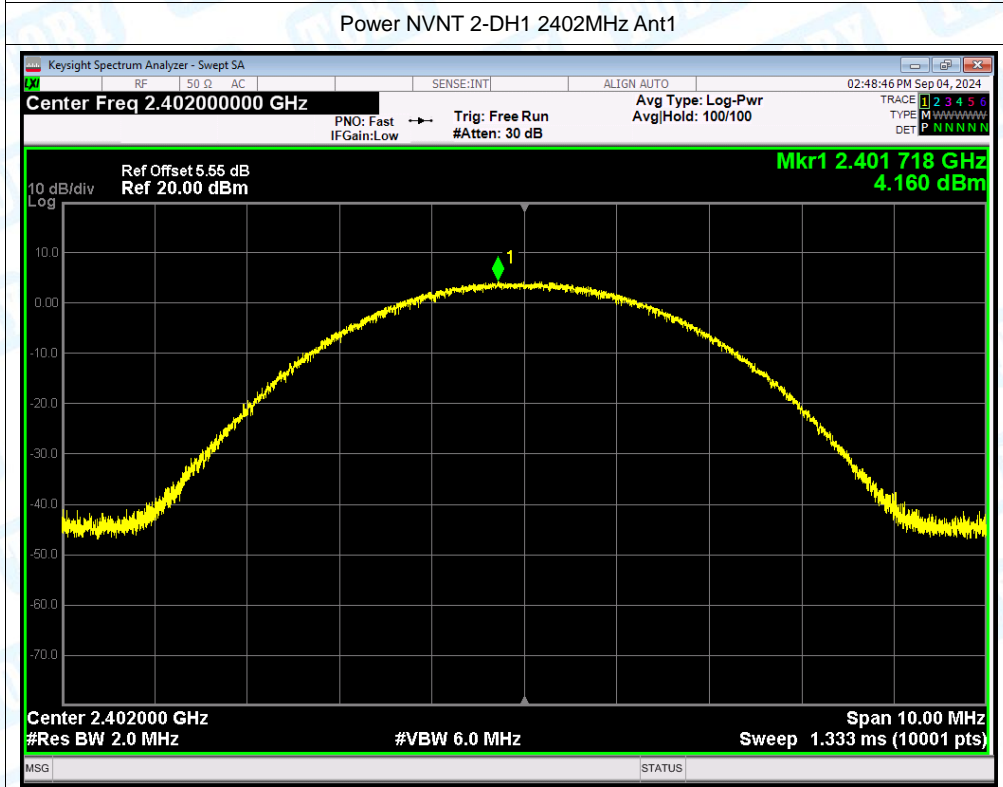
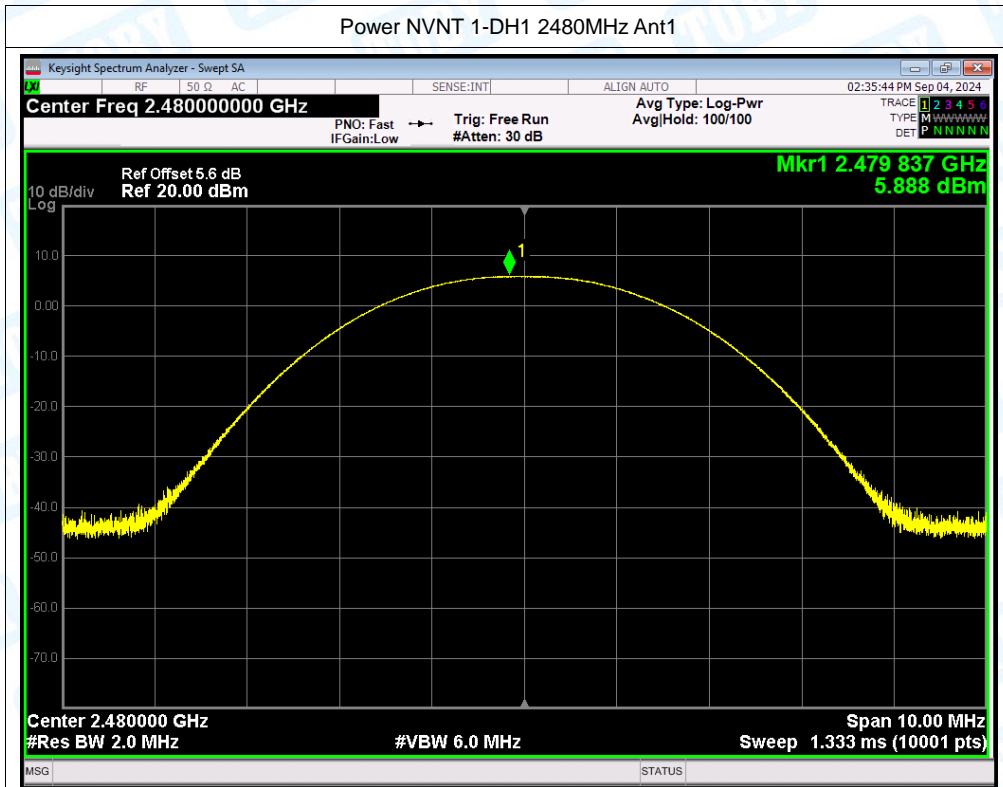
Test Graphs

Power NVNT 1-DH1 2402MHz Ant1

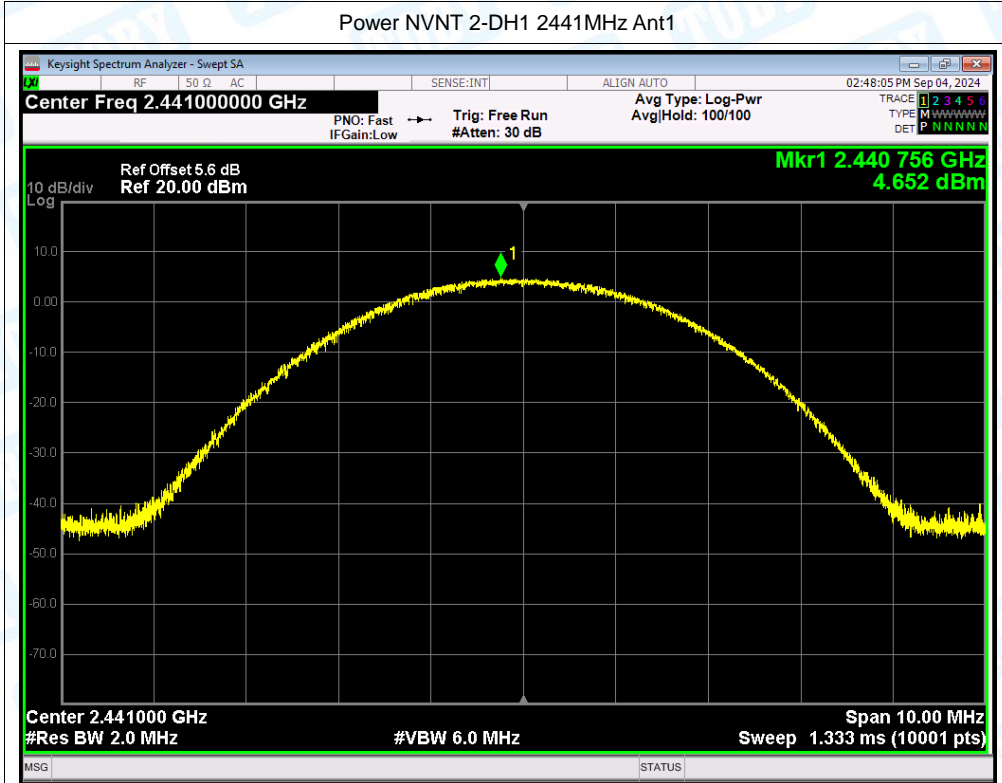


Power NVNT 1-DH1 2441MHz Ant1

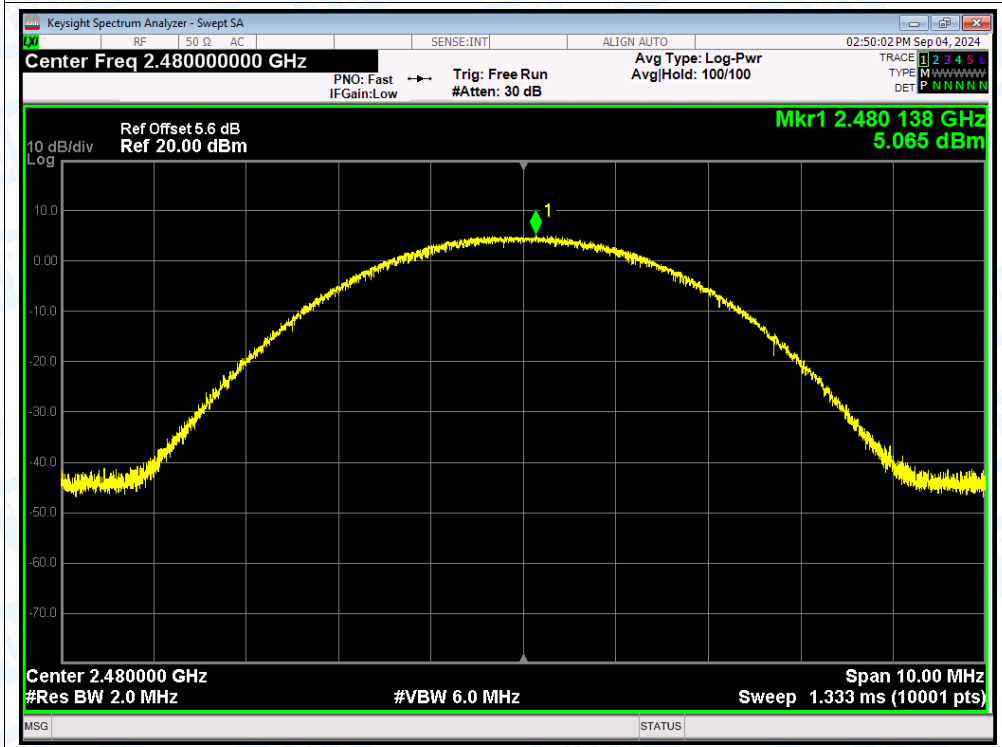


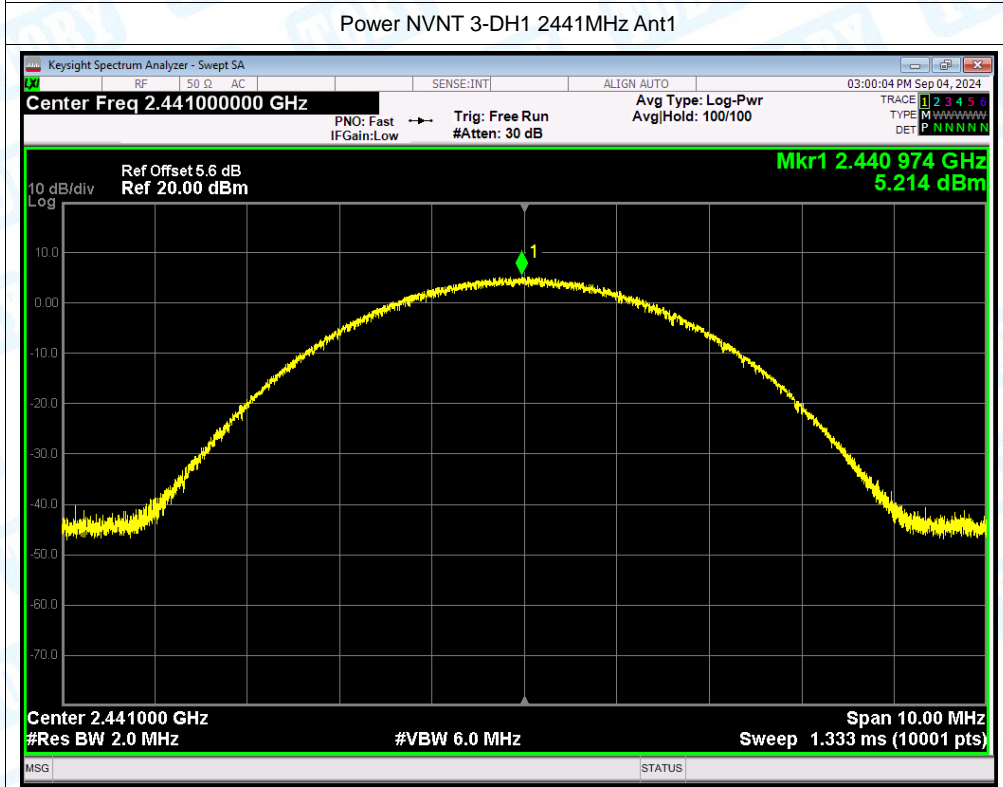
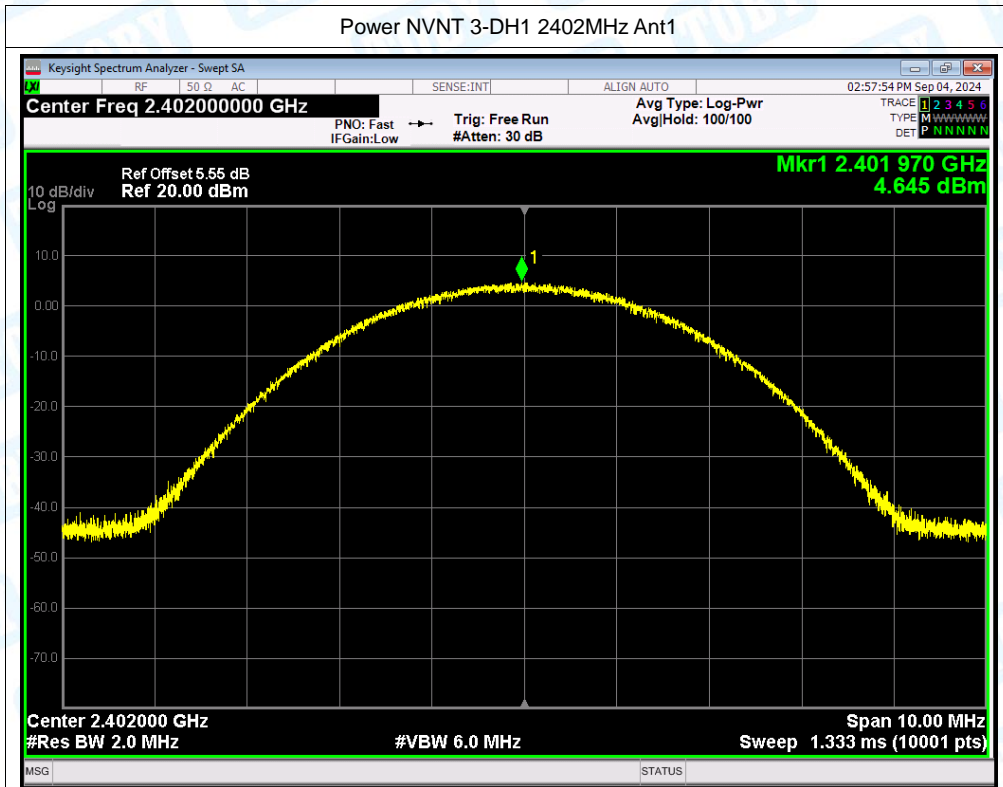


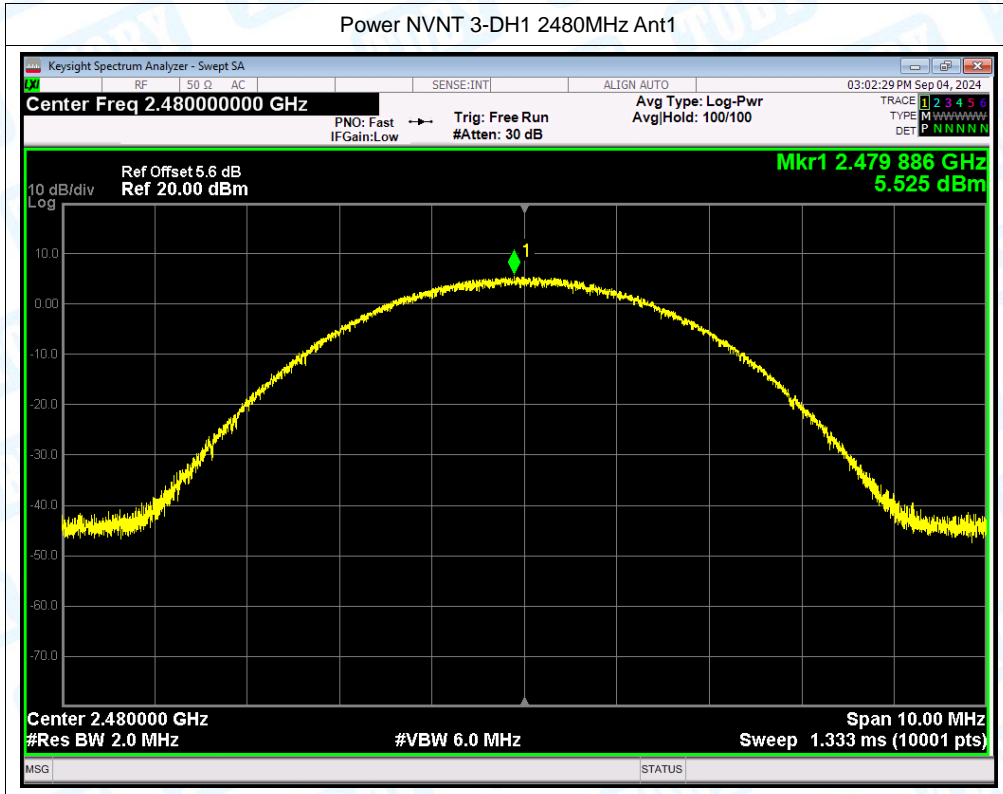
Power NVNT 2-DH1 2441MHz Ant1



Power NVNT 2-DH1 2480MHz Ant1





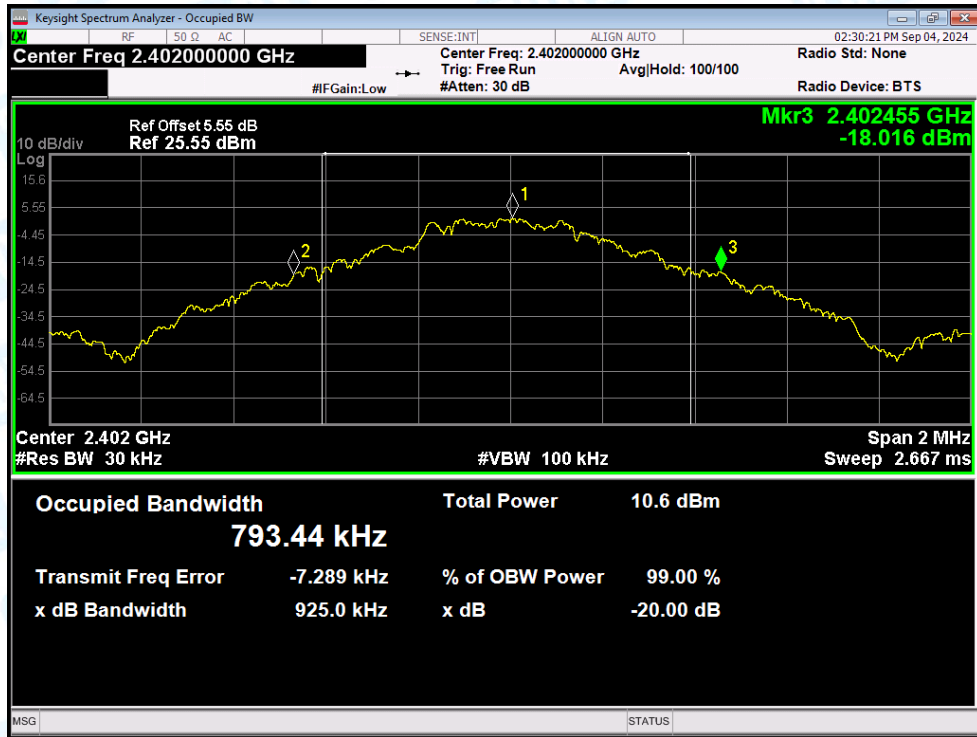


4. -20dB Bandwidth

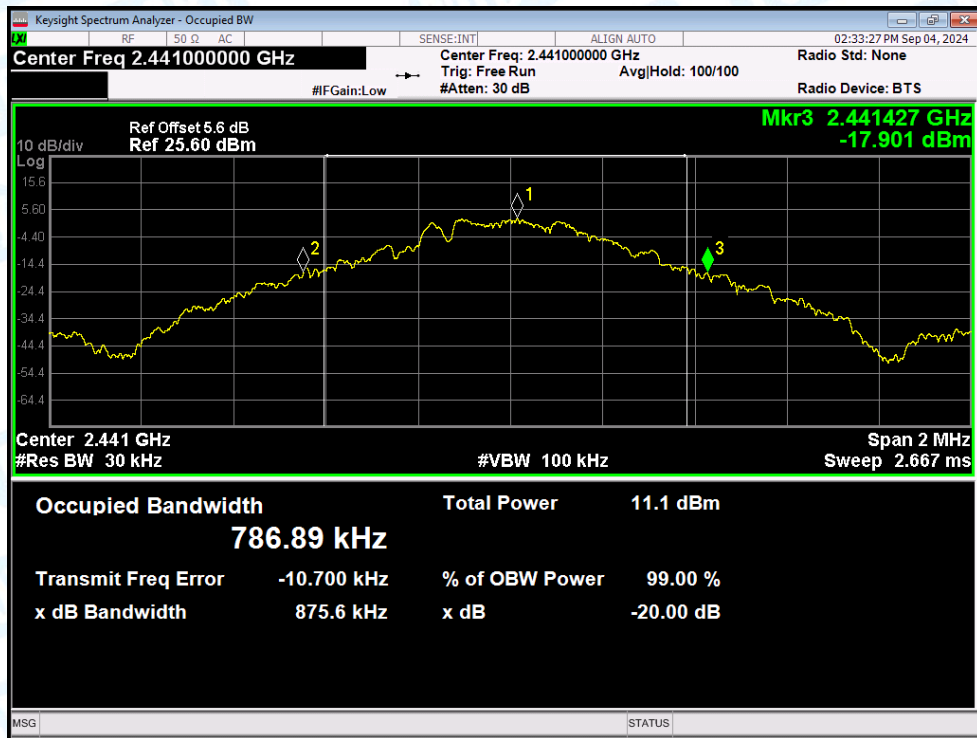
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	0.92	----	Pass
NVNT	1-DH1	2441	Ant1	0.88	----	Pass
NVNT	1-DH1	2480	Ant1	0.91	----	Pass
NVNT	2-DH1	2402	Ant1	1.25	----	Pass
NVNT	2-DH1	2441	Ant1	1.30	----	Pass
NVNT	2-DH1	2480	Ant1	1.27	----	Pass
NVNT	3-DH1	2402	Ant1	1.26	----	Pass
NVNT	3-DH1	2441	Ant1	1.26	----	Pass
NVNT	3-DH1	2480	Ant1	1.27	----	Pass

Test Graphs

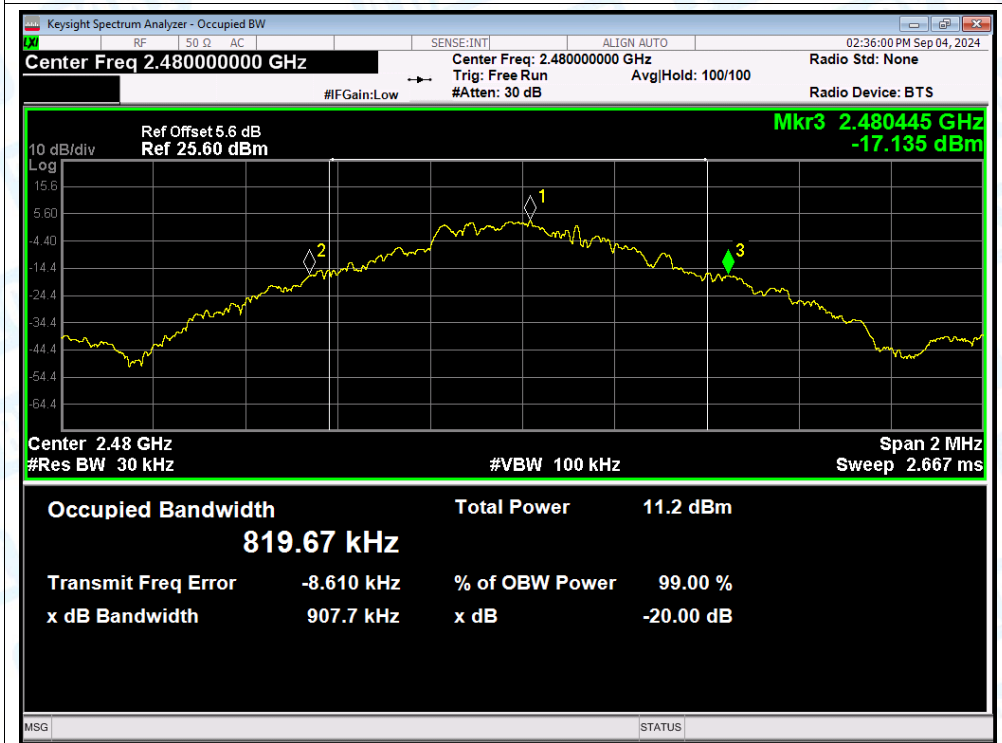
-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1



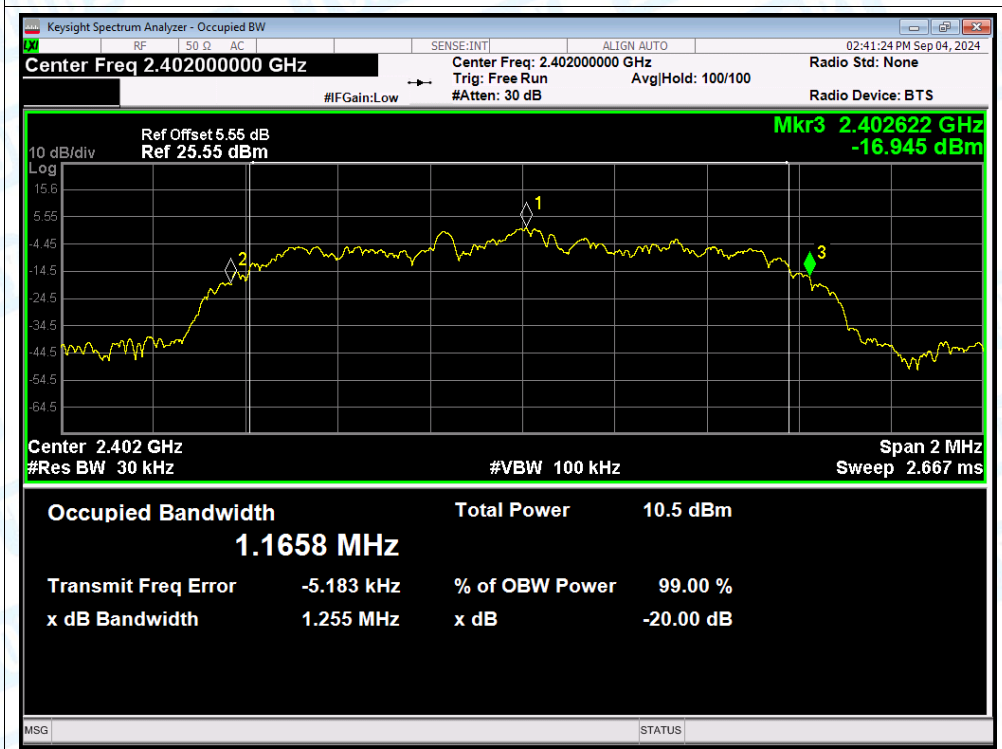
-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1



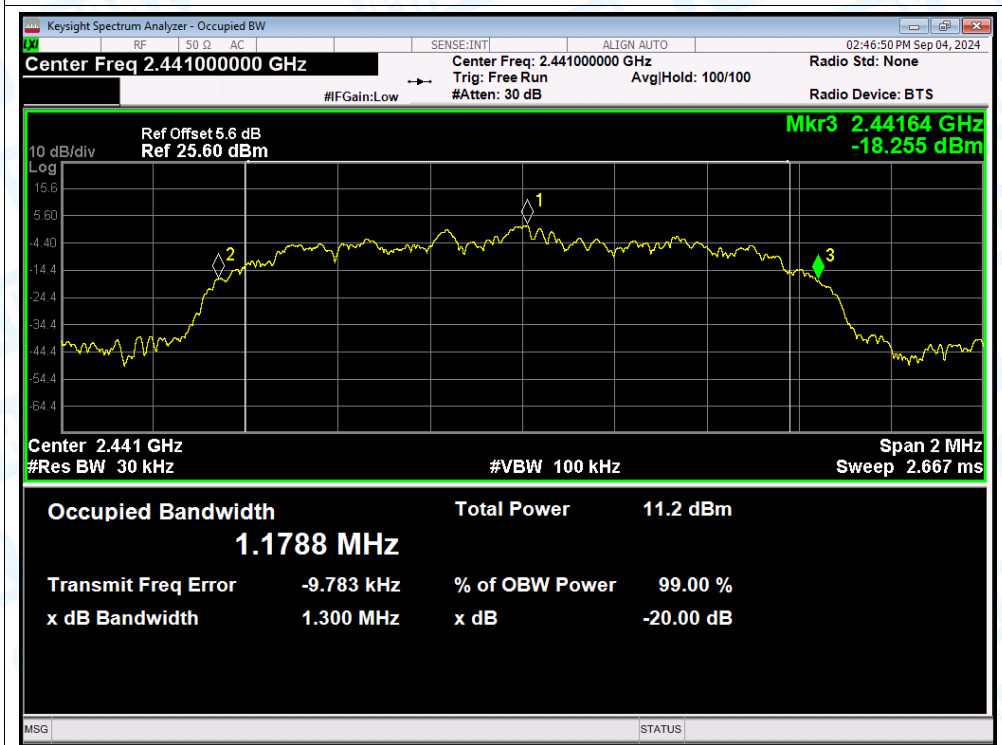
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



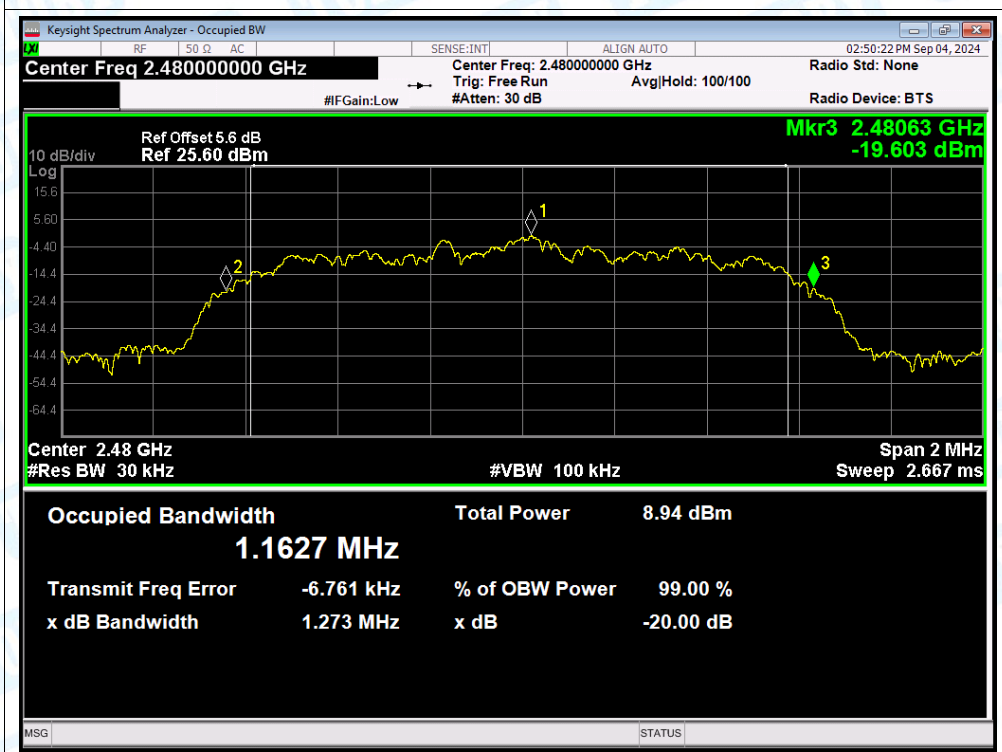
-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



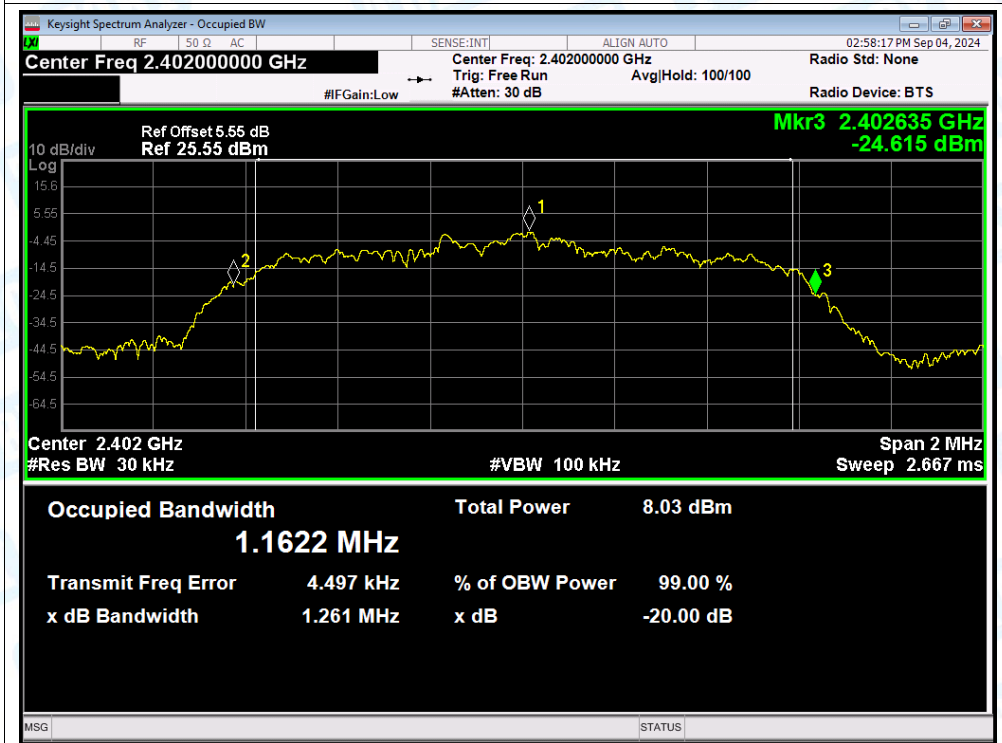
-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



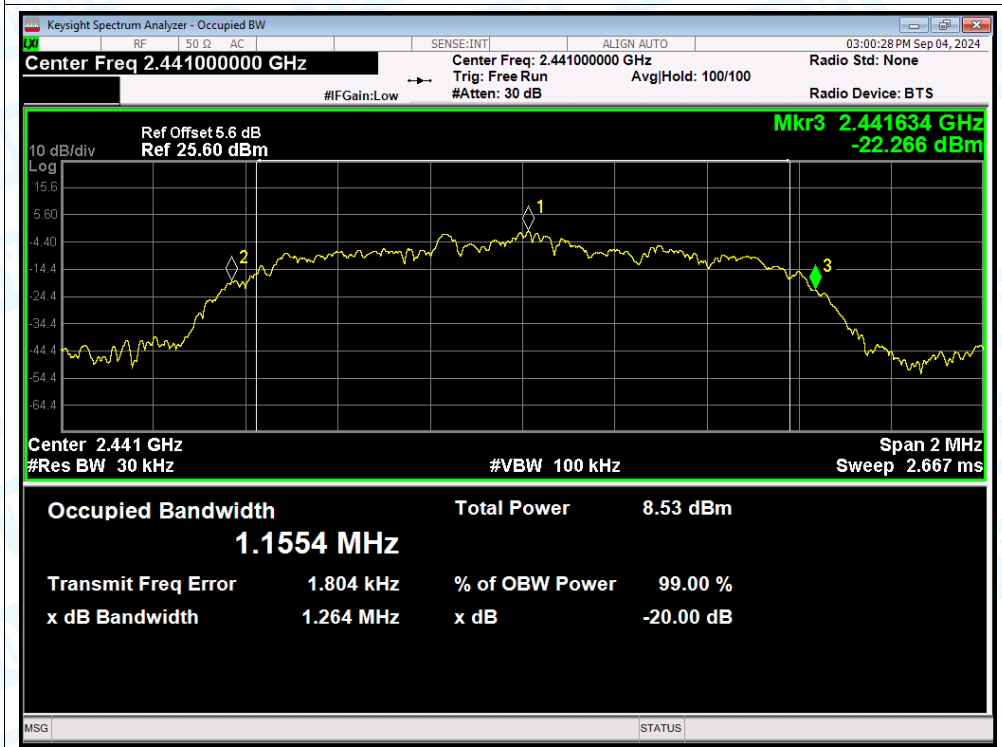
-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1

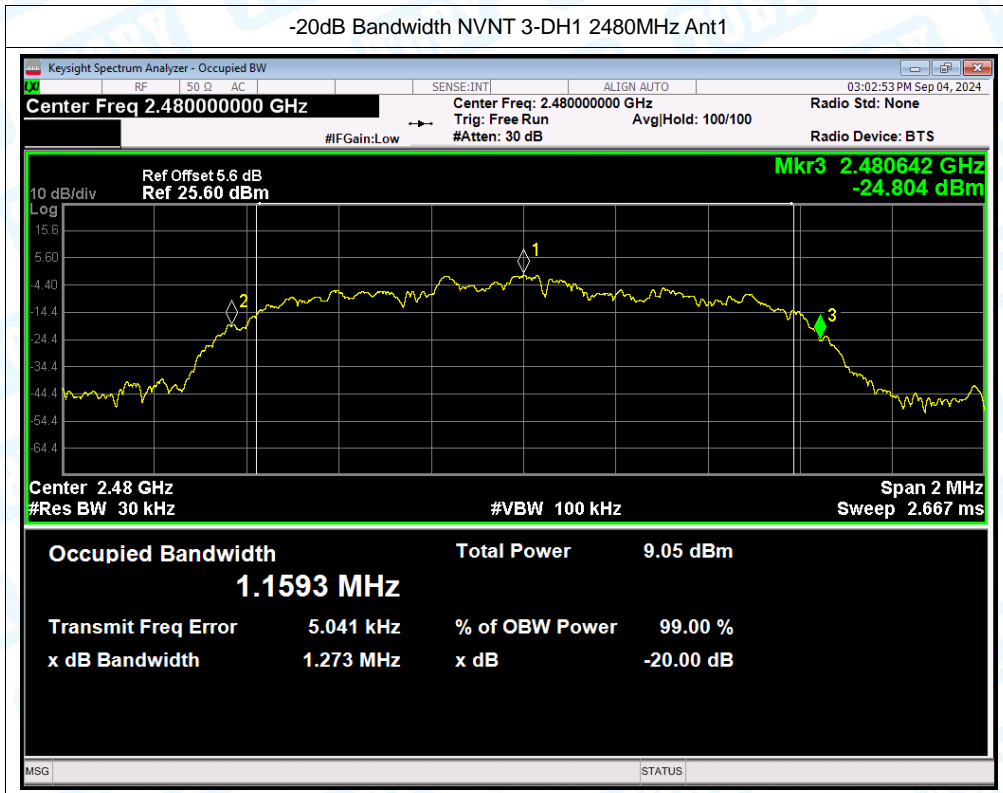


-20dB Bandwidth NVNT 3-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2441MHz Ant1



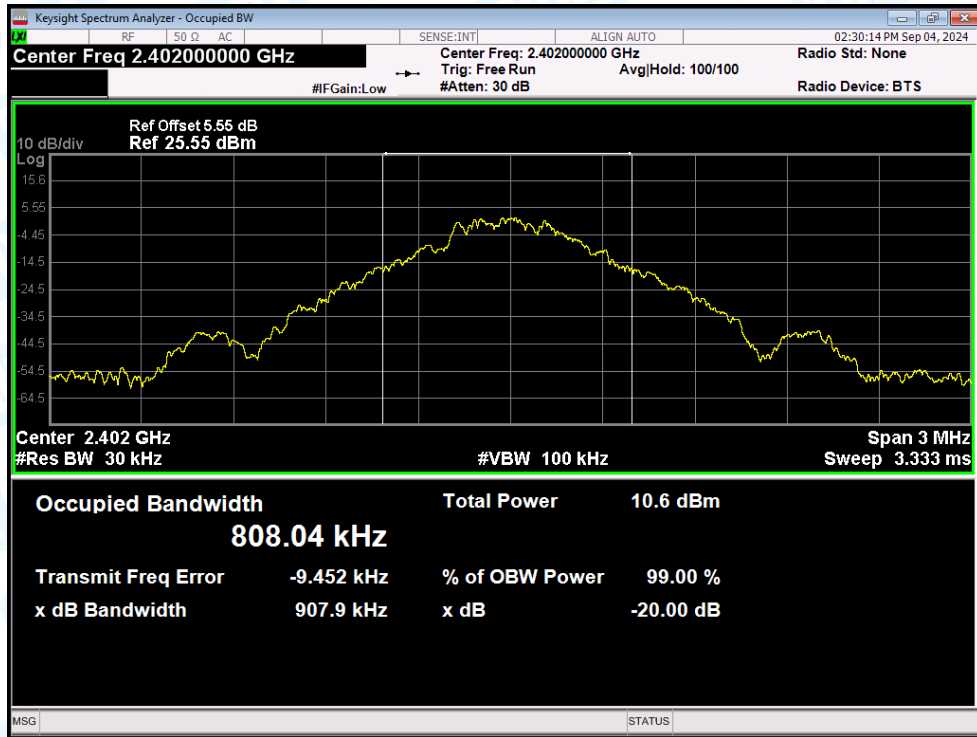


5. Occupied Channel Bandwidth

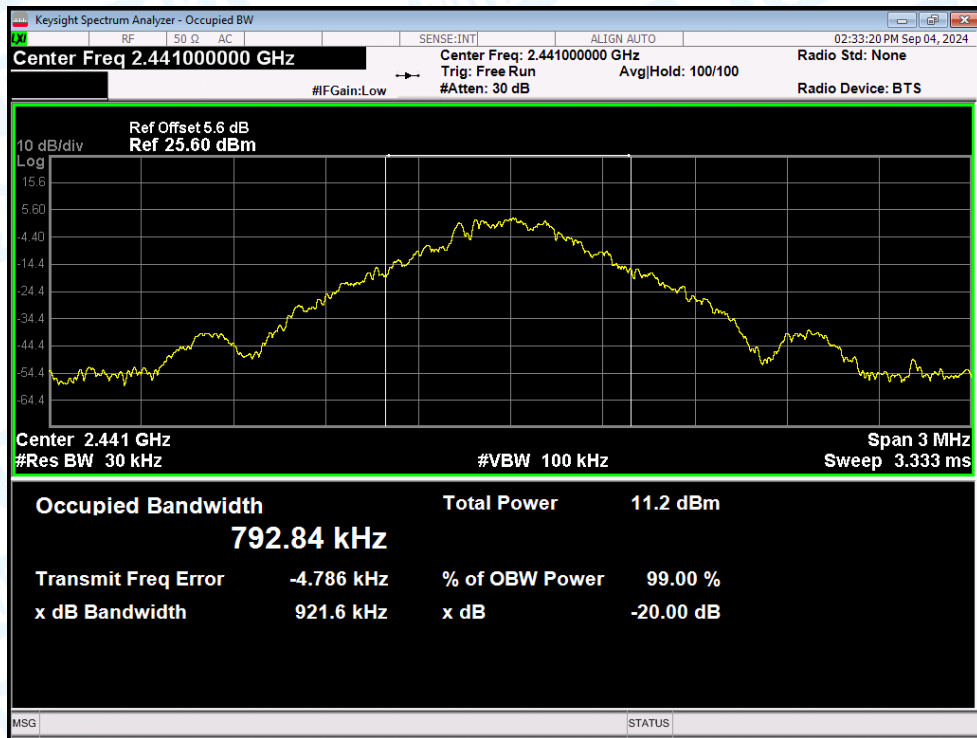
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH1	2402	Ant1	0.808
NVNT	1-DH1	2441	Ant1	0.793
NVNT	1-DH1	2480	Ant1	0.814
NVNT	2-DH1	2402	Ant1	1.166
NVNT	2-DH1	2441	Ant1	1.169
NVNT	2-DH1	2480	Ant1	1.166
NVNT	3-DH1	2402	Ant1	1.160
NVNT	3-DH1	2441	Ant1	1.160
NVNT	3-DH1	2480	Ant1	1.155

Test Graphs

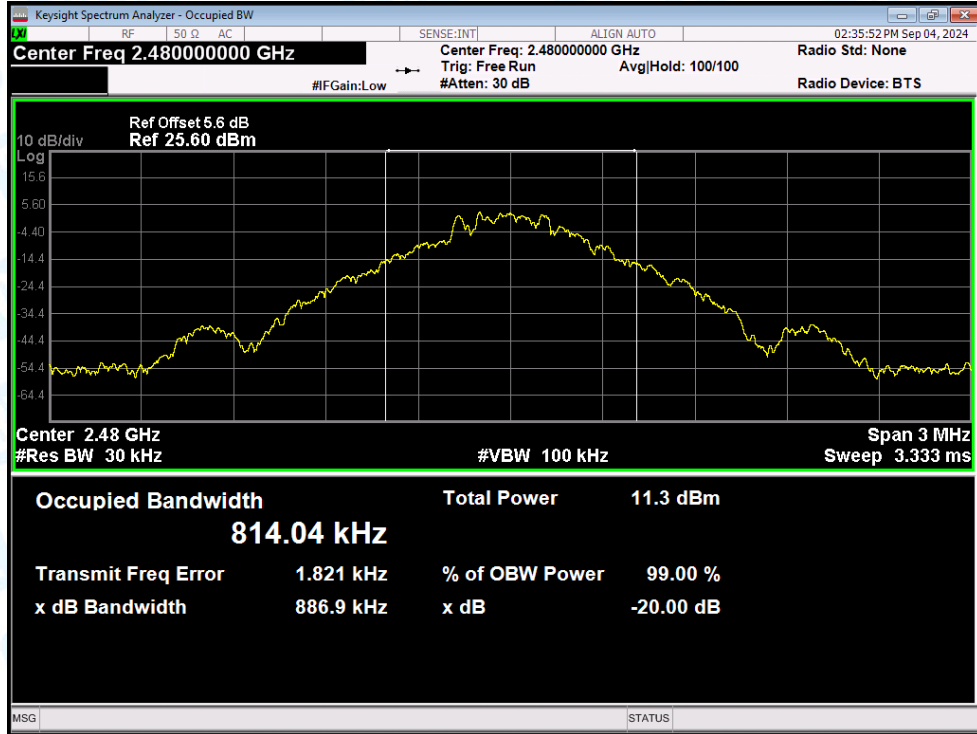
OBW NVNT 1-DH1 2402MHz Ant1



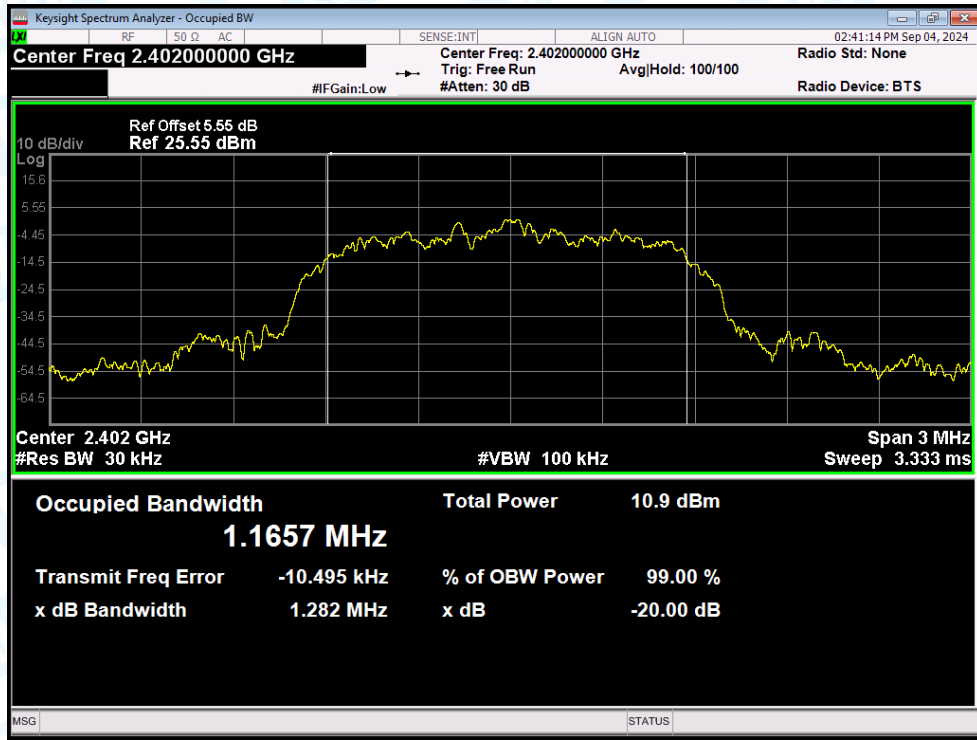
OBW NVNT 1-DH1 2441MHz Ant1



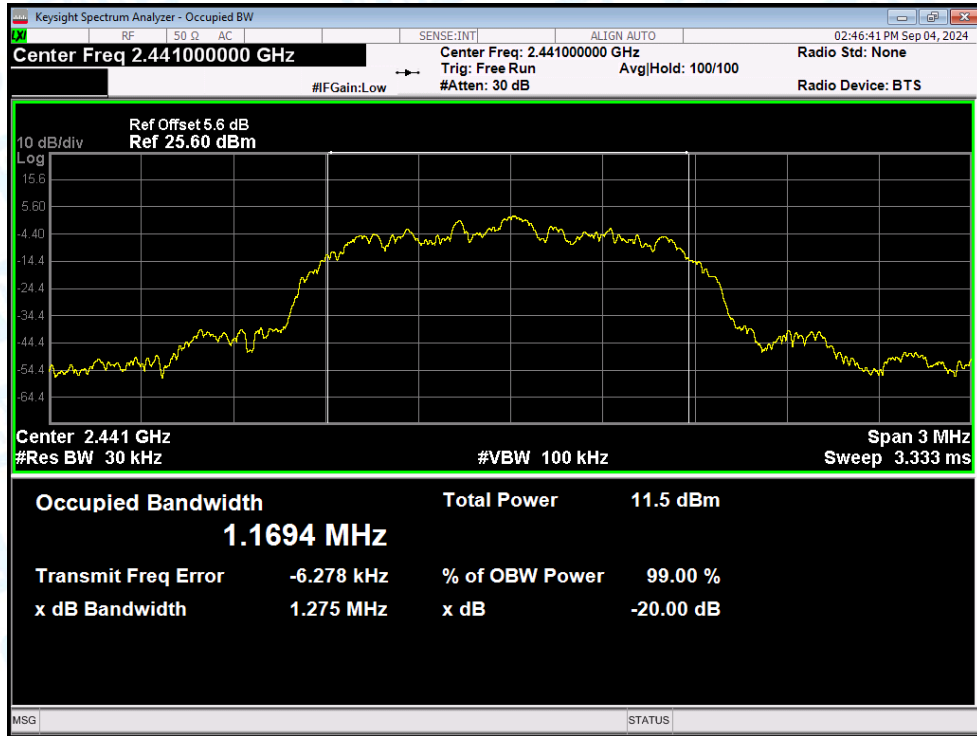
OBW NVNT 1-DH1 2480MHz Ant1



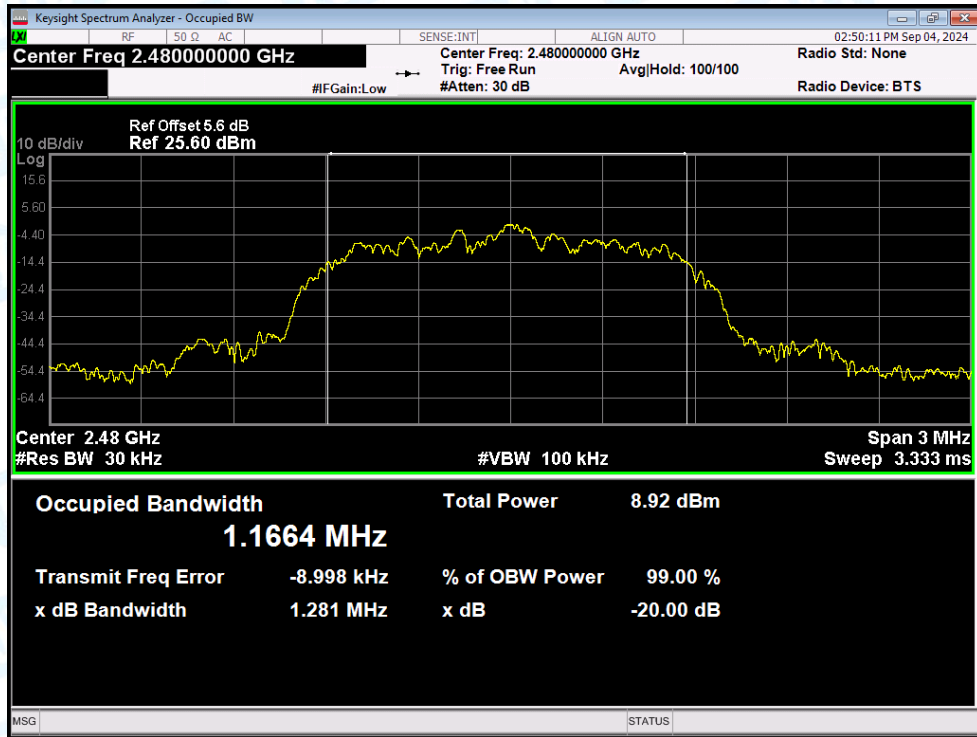
OBW NVNT 2-DH1 2402MHz Ant1



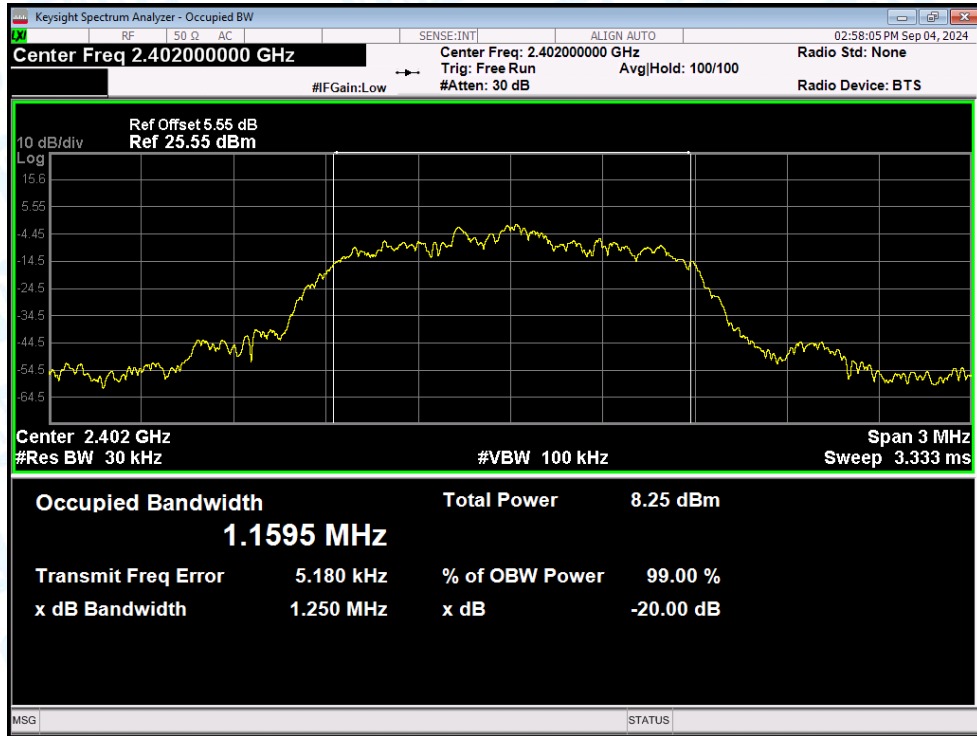
OBW NVNT 2-DH1 2441MHz Ant1



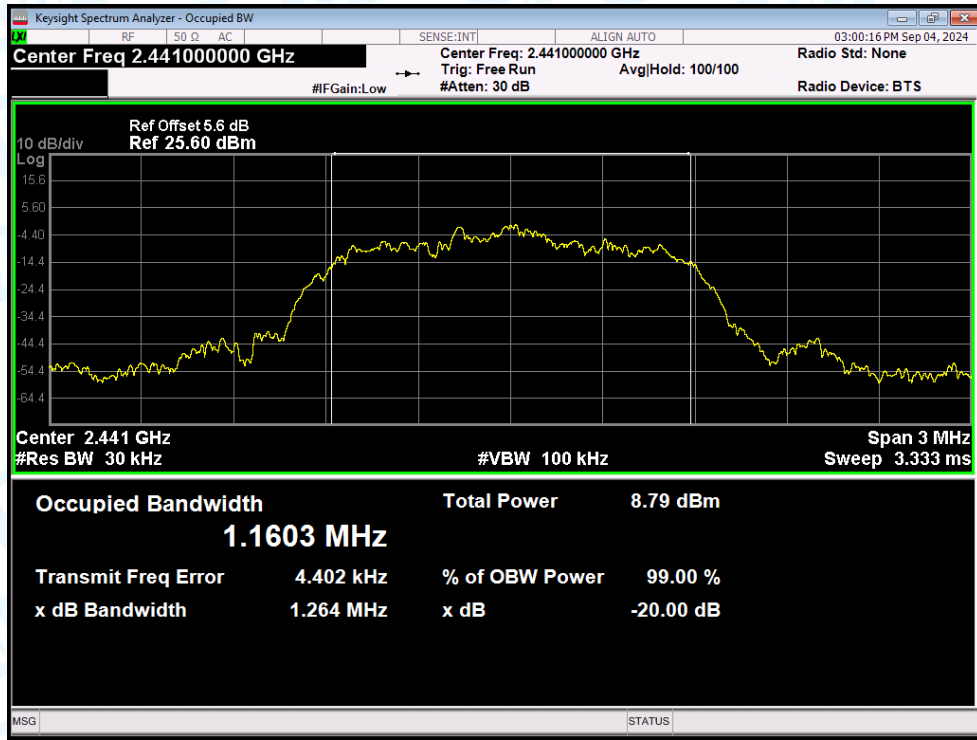
OBW NVNT 2-DH1 2480MHz Ant1

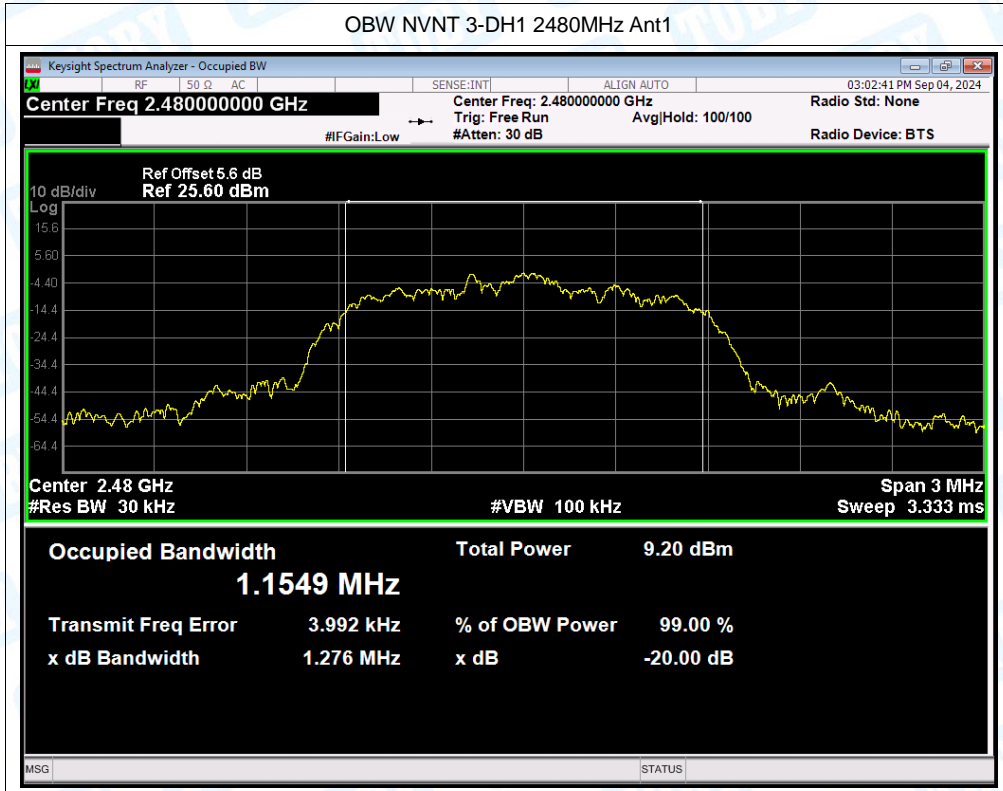


OBW NVNT 3-DH1 2402MHz Ant1



OBW NVNT 3-DH1 2441MHz Ant1



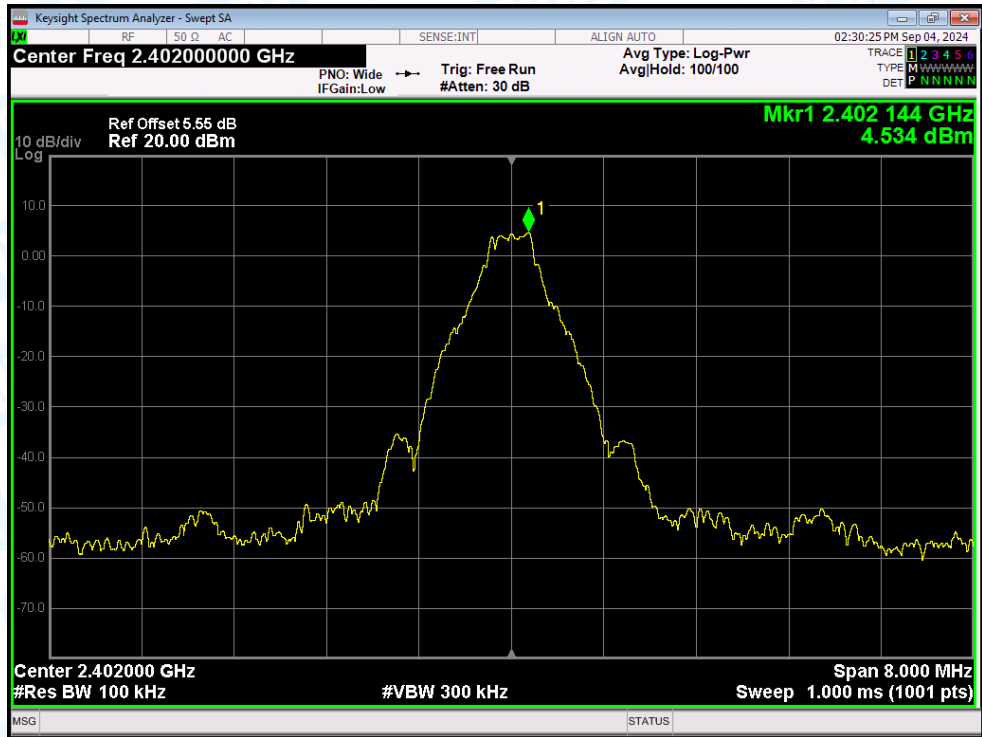


6. Band Edge

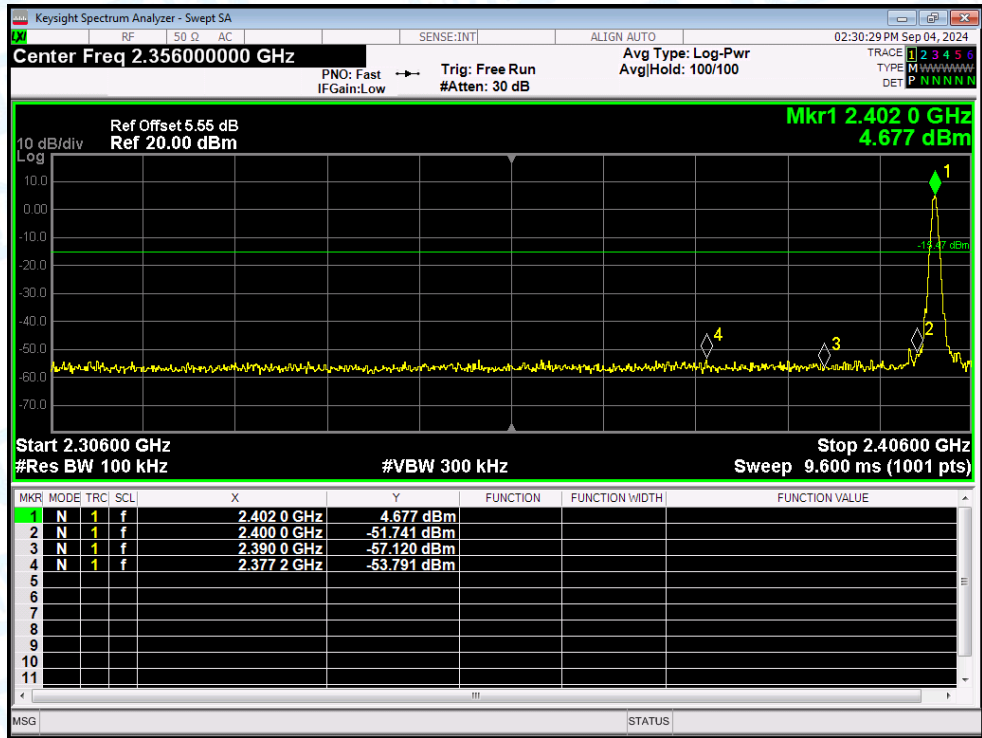
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-58.32	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-59.08	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-56.91	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-55.62	-20	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	-55.5	-20	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	-56.43	-20	Pass

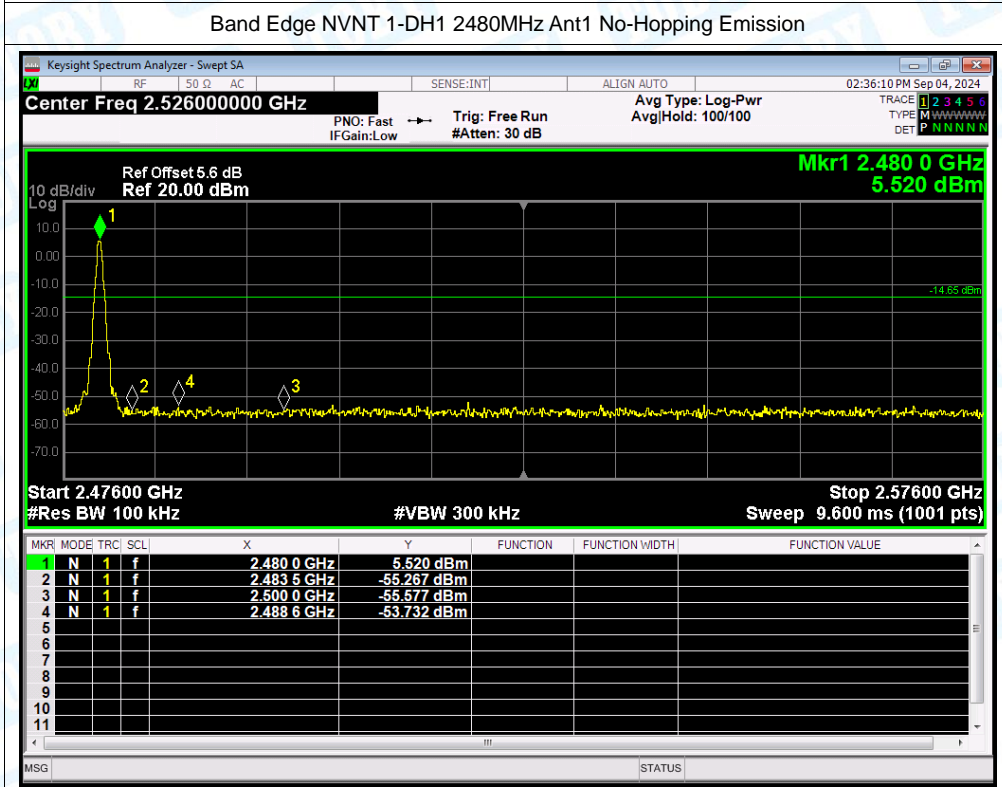
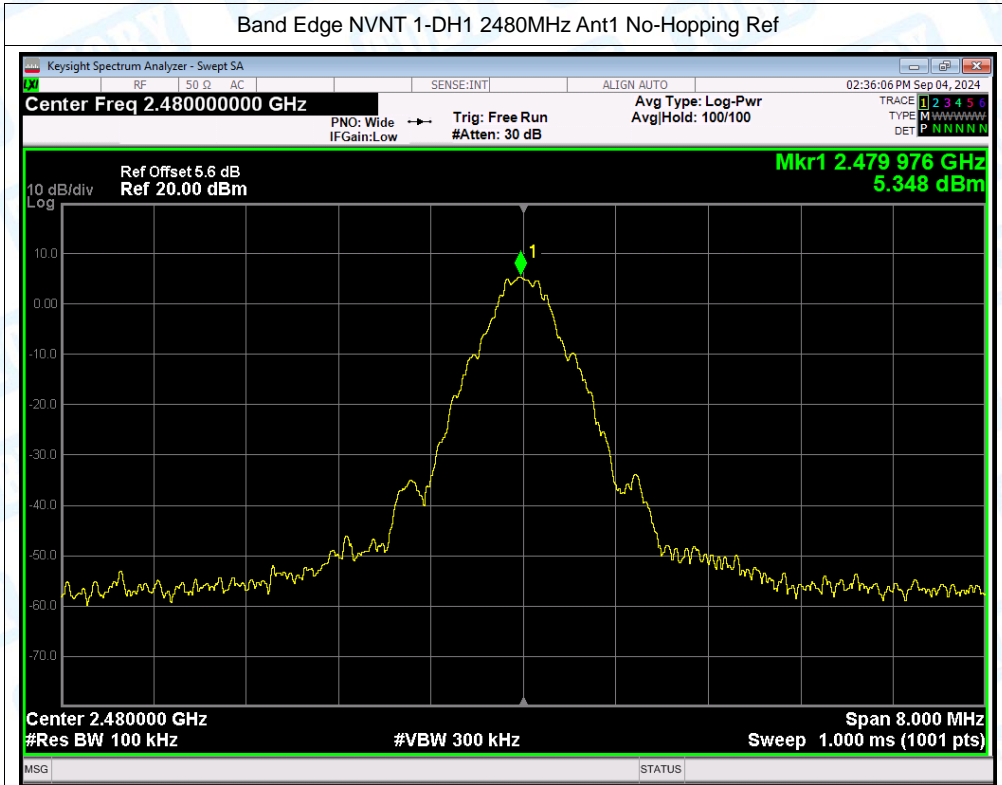
Test Graphs

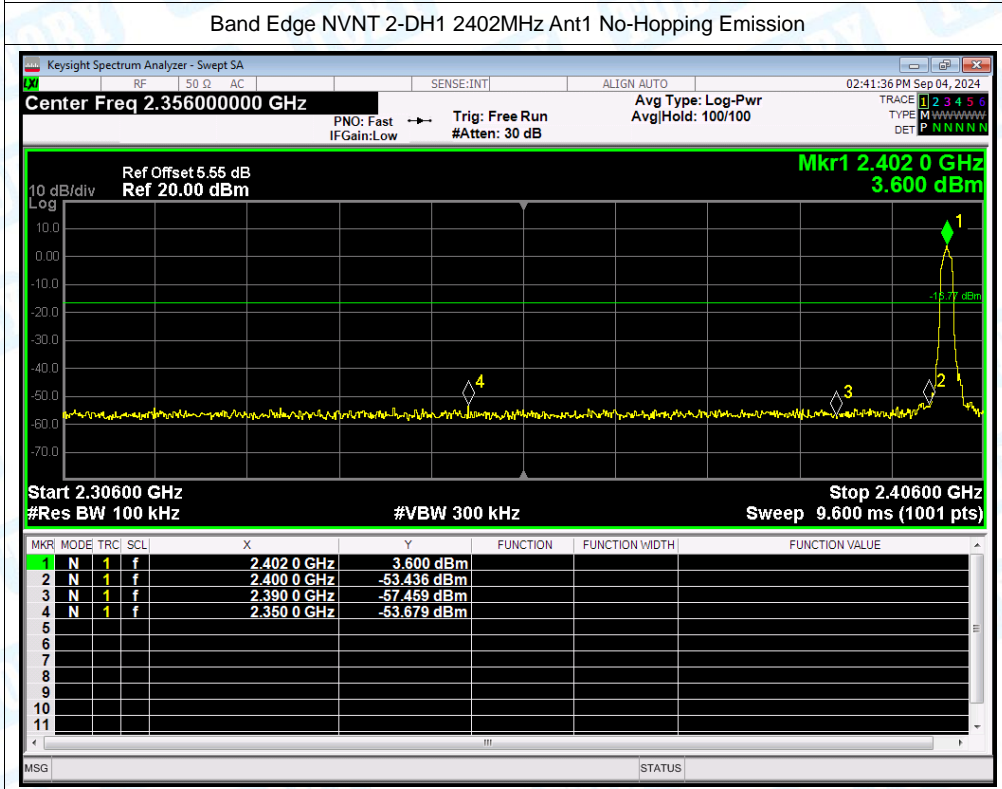
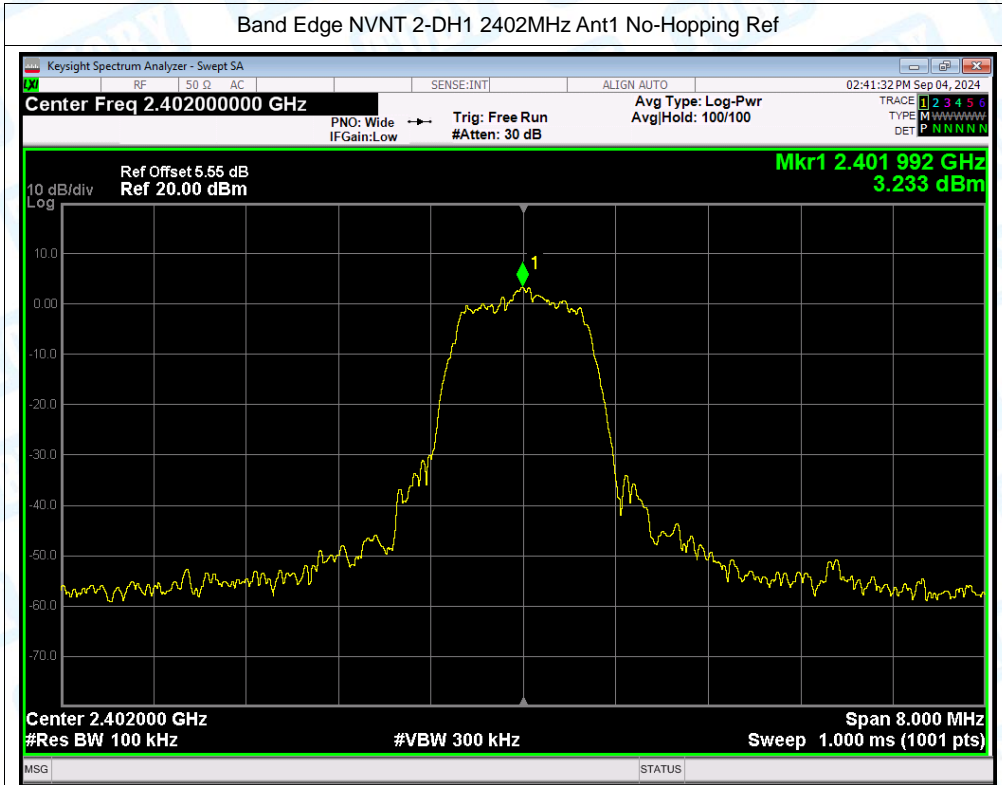
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Ref

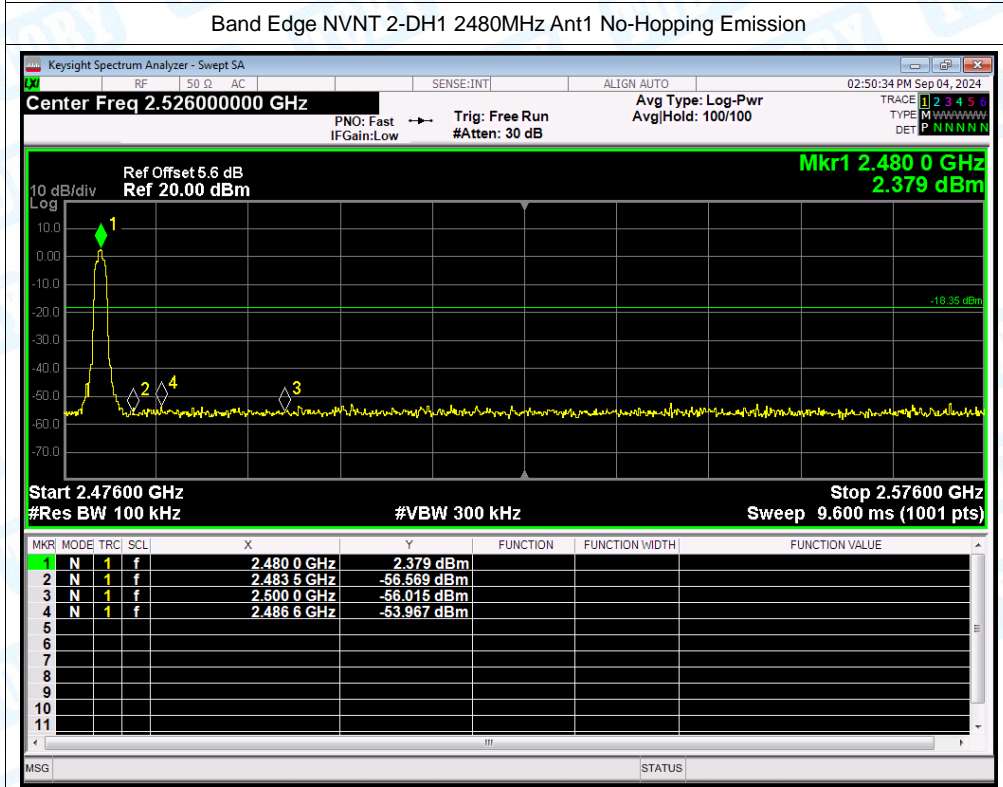
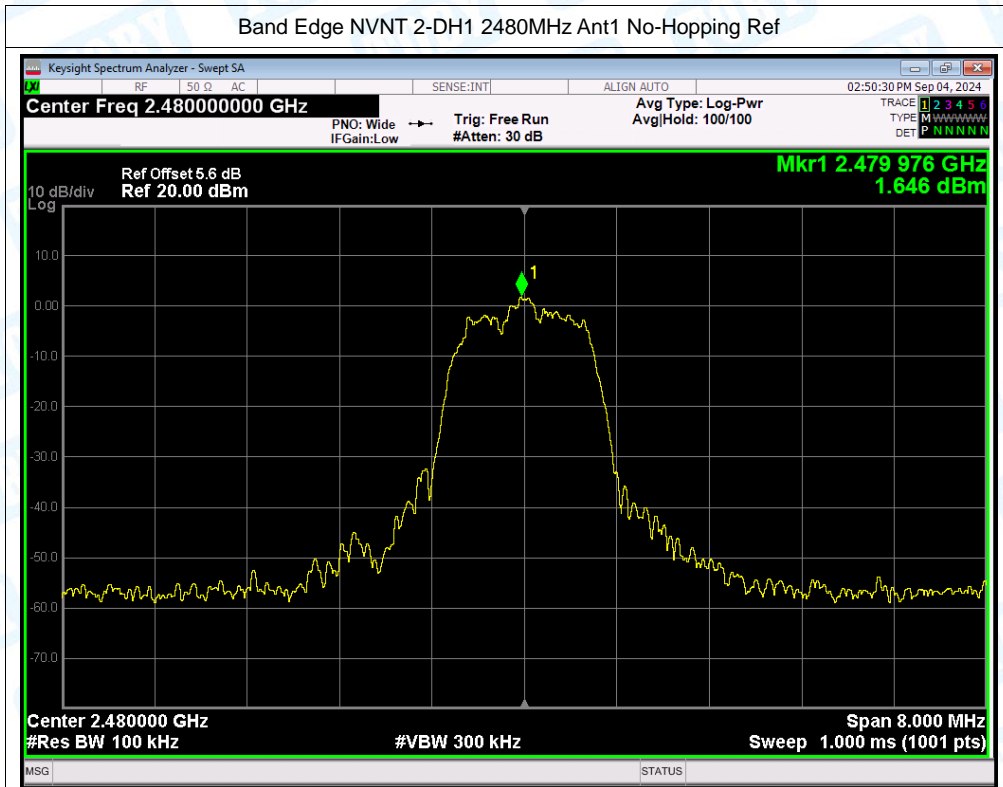


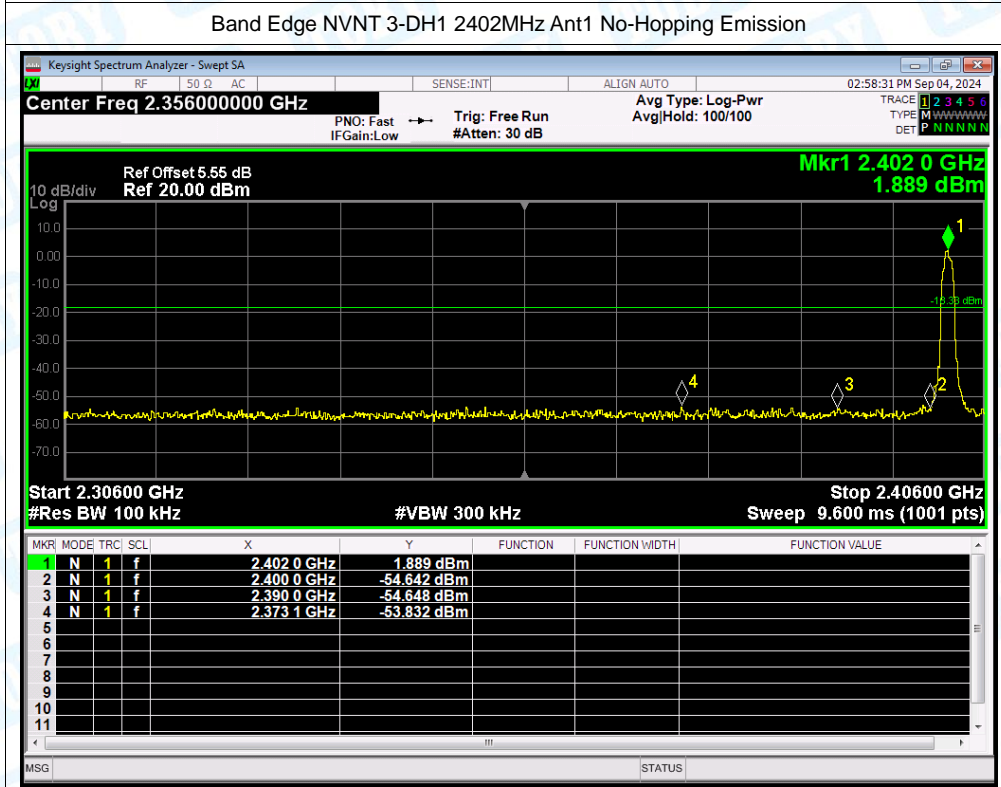
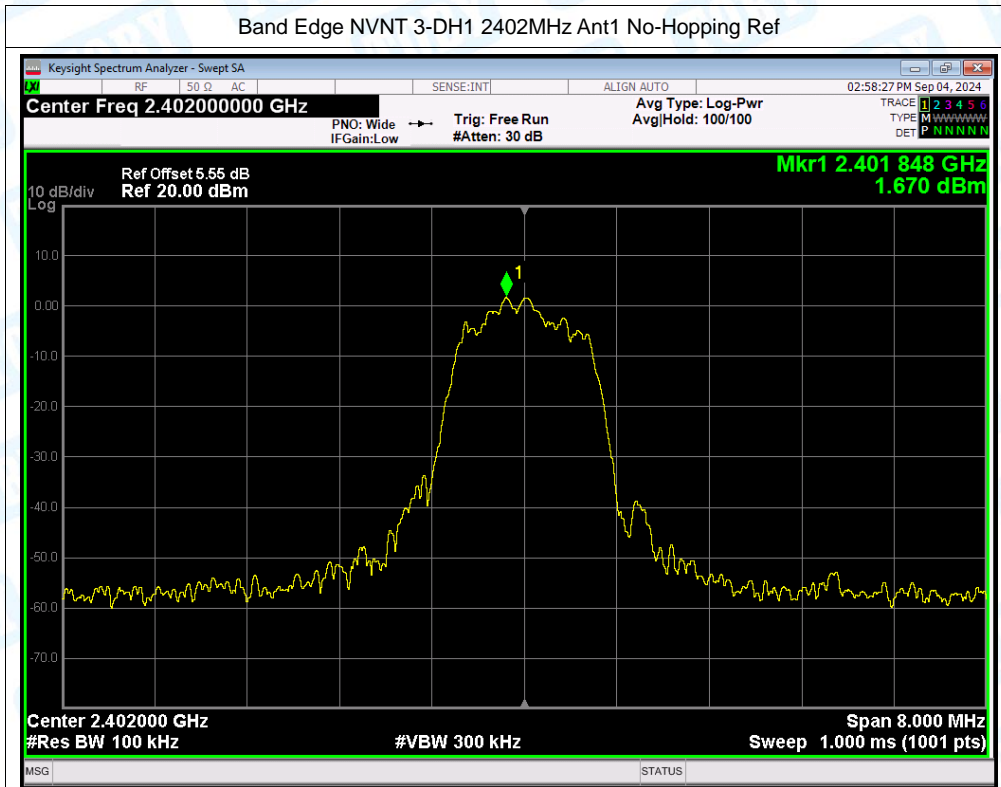
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission

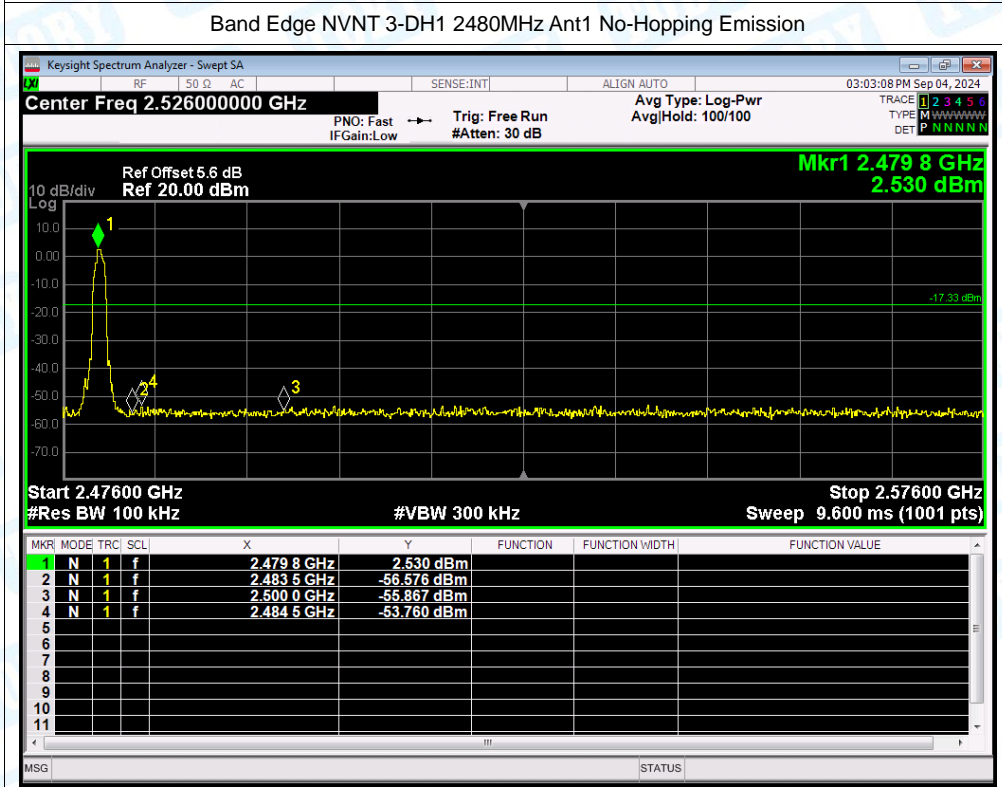
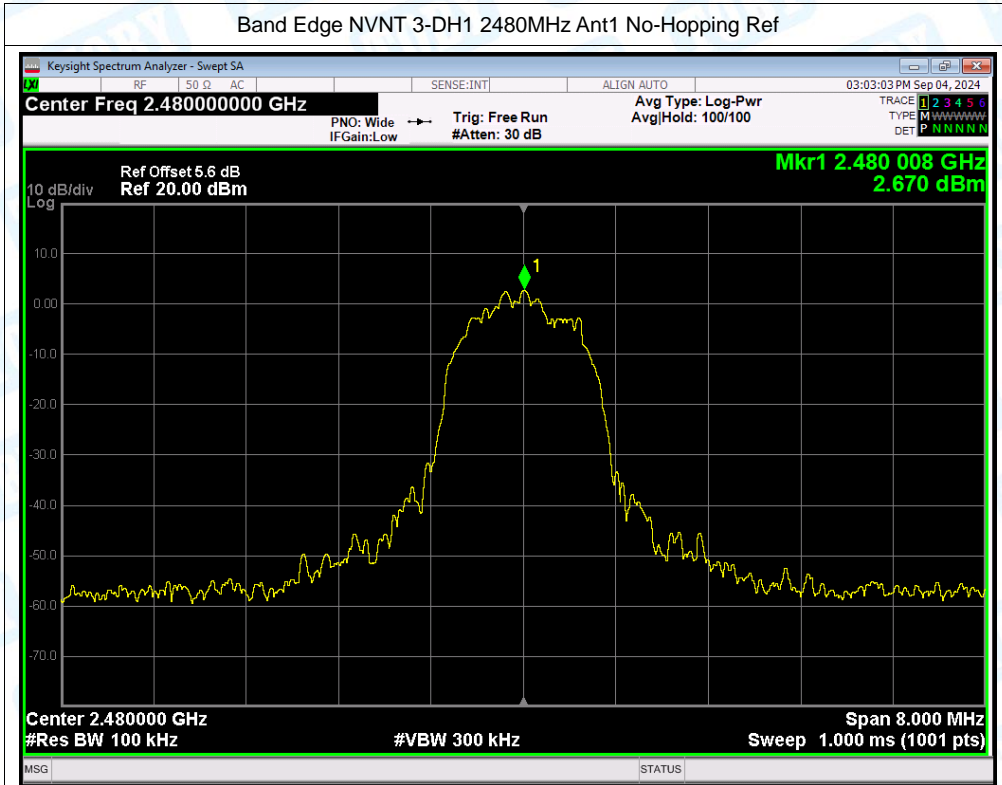










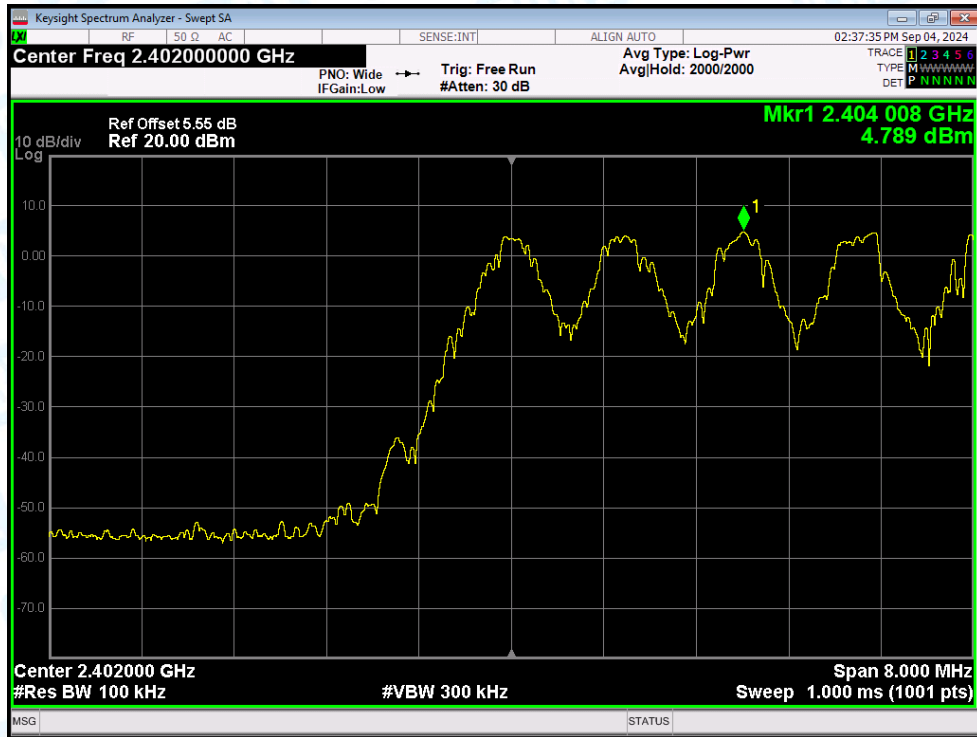


7. Band Edge(Hopping)

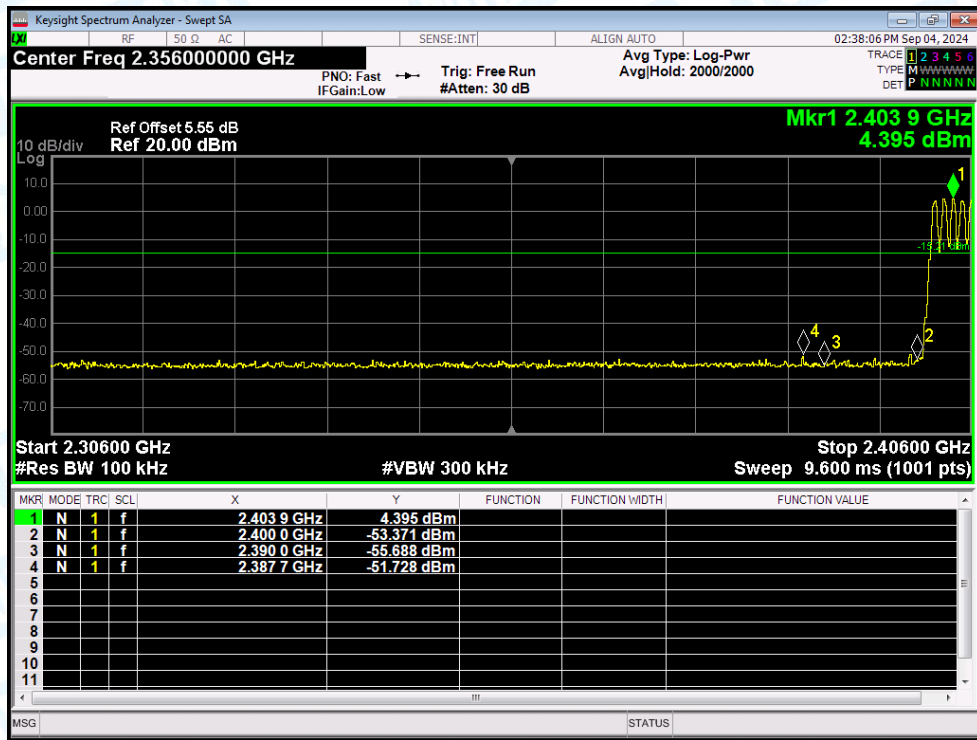
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-56.52	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-57.68	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-53.53	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-54.3	-20	Pass
NVNT	3-DH1	2402	Ant1	Hopping	-54.85	-20	Pass
NVNT	3-DH1	2480	Ant1	Hopping	-55.86	-20	Pass

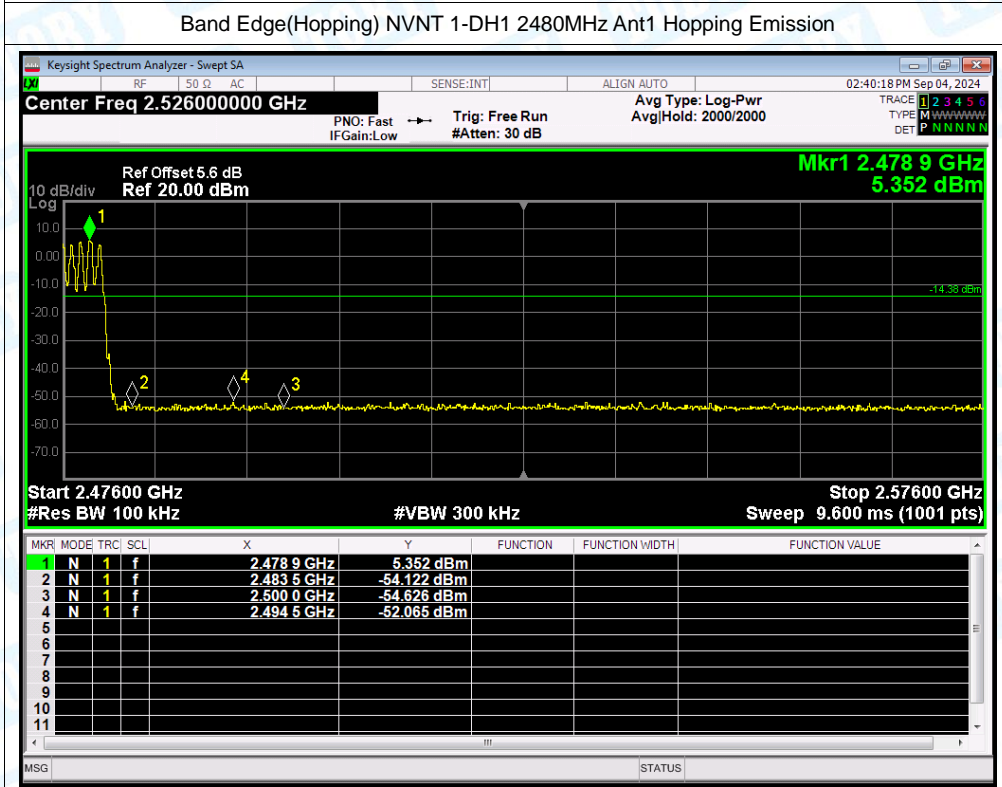
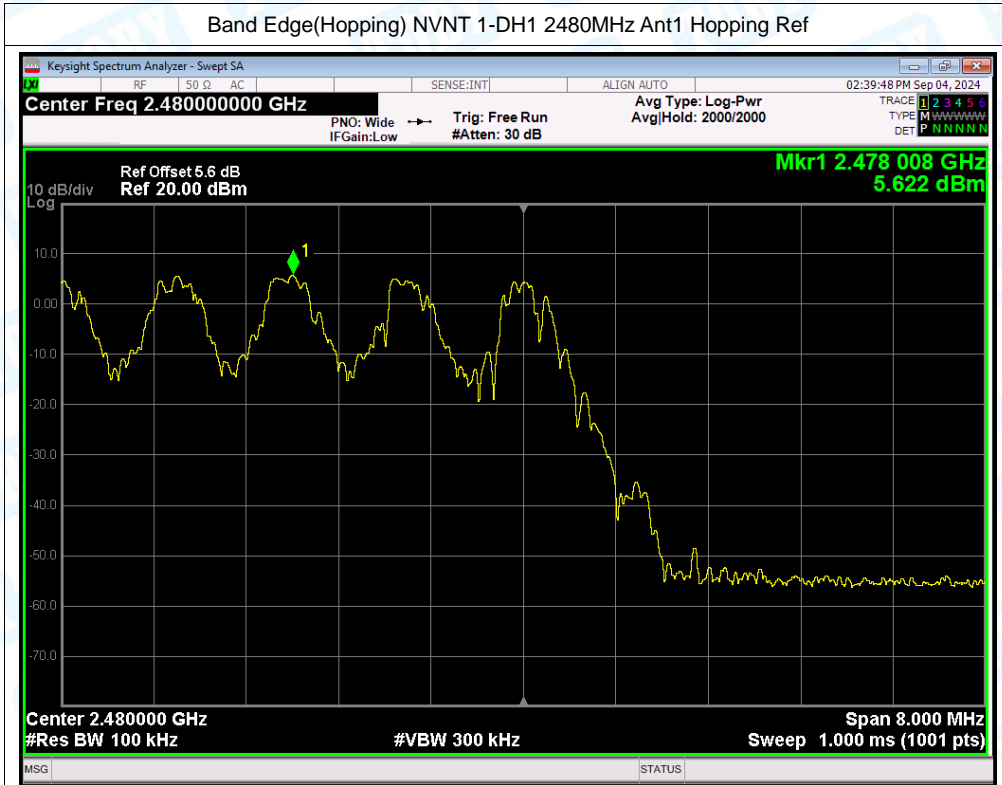
Test Graphs

Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Ref

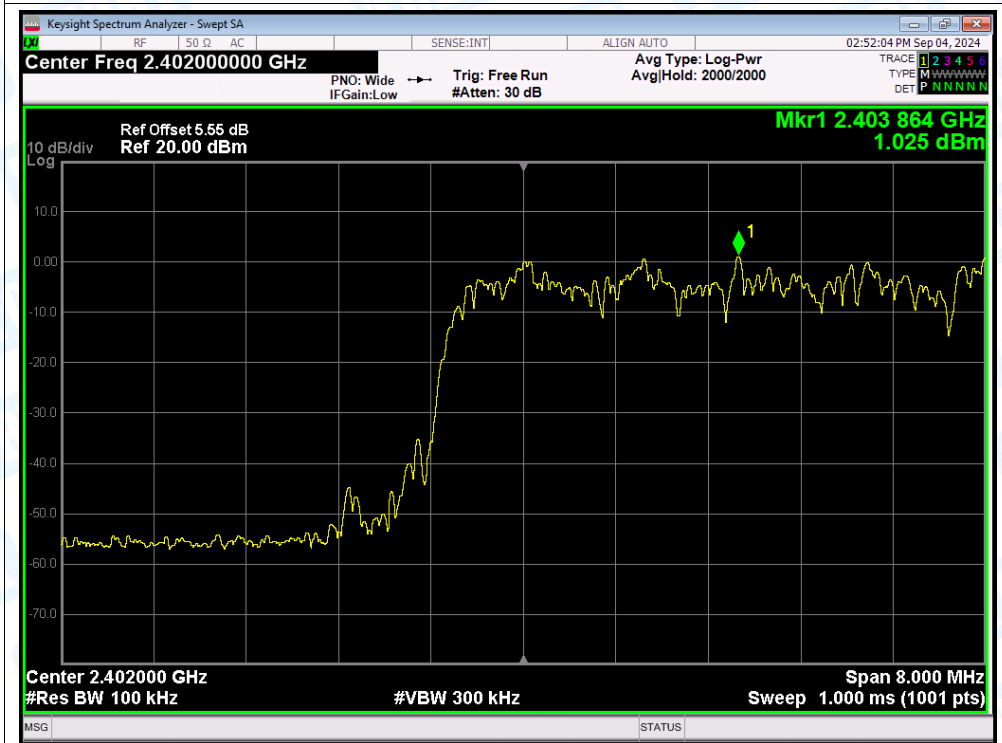


Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Emission

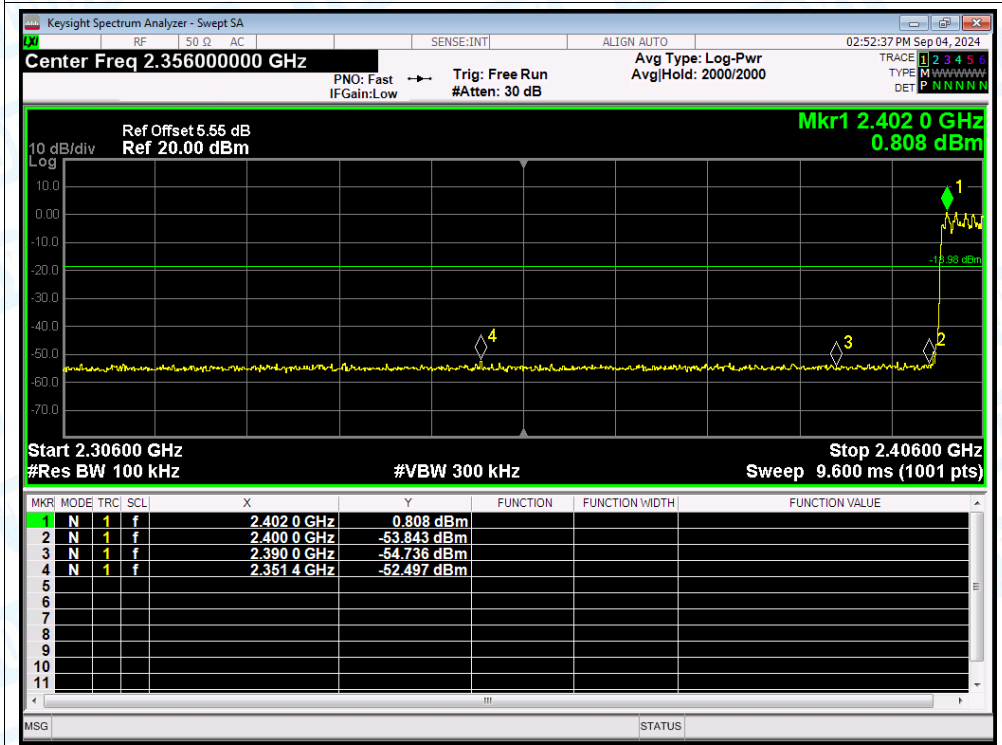


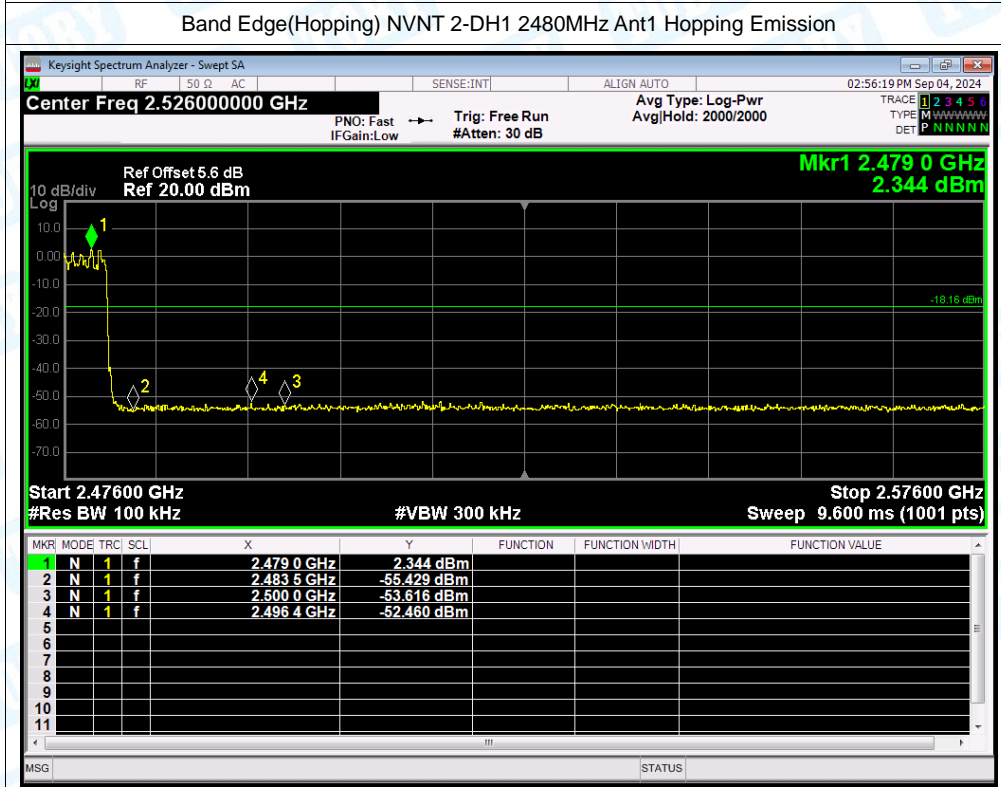
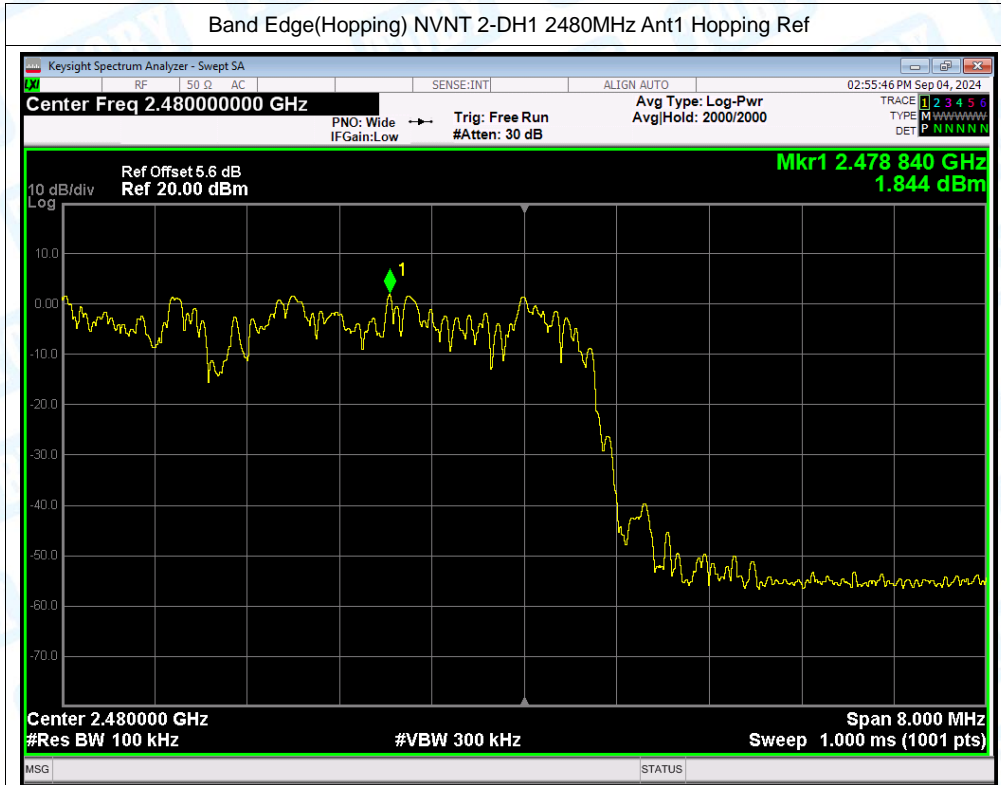


Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Ref



Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Emission

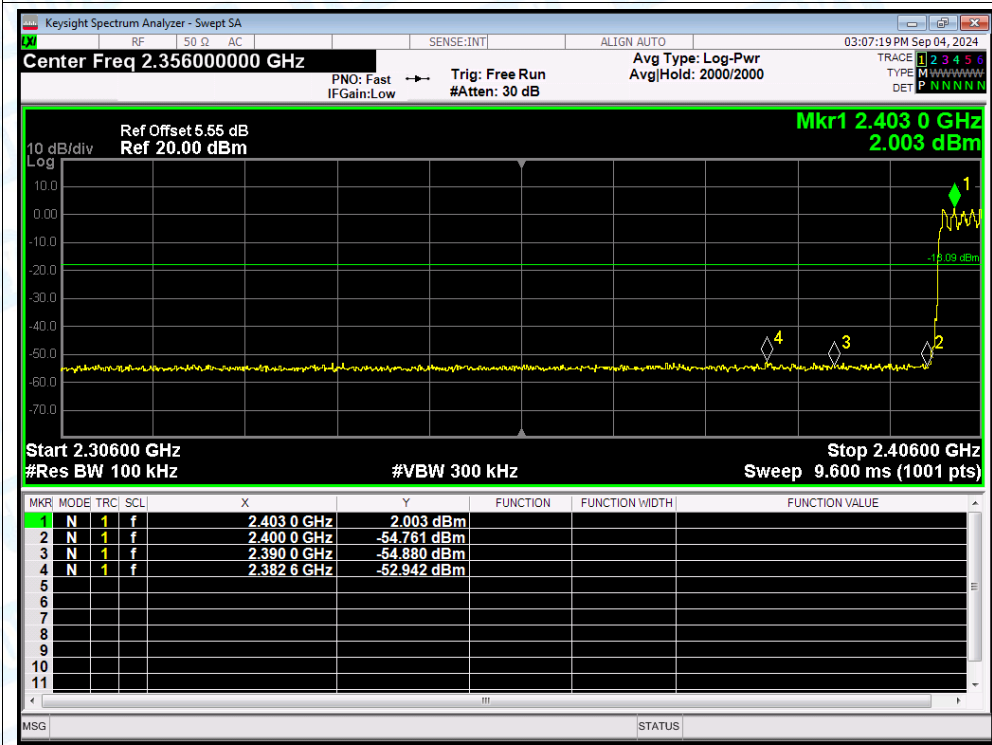


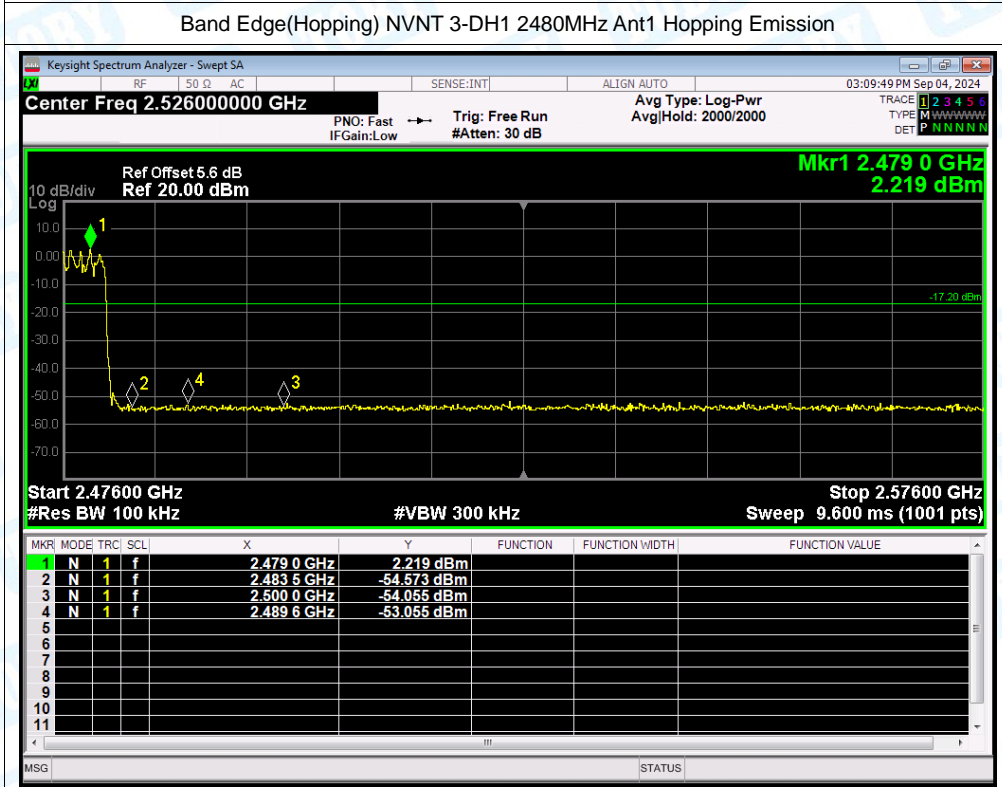


Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Ref



Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Emission



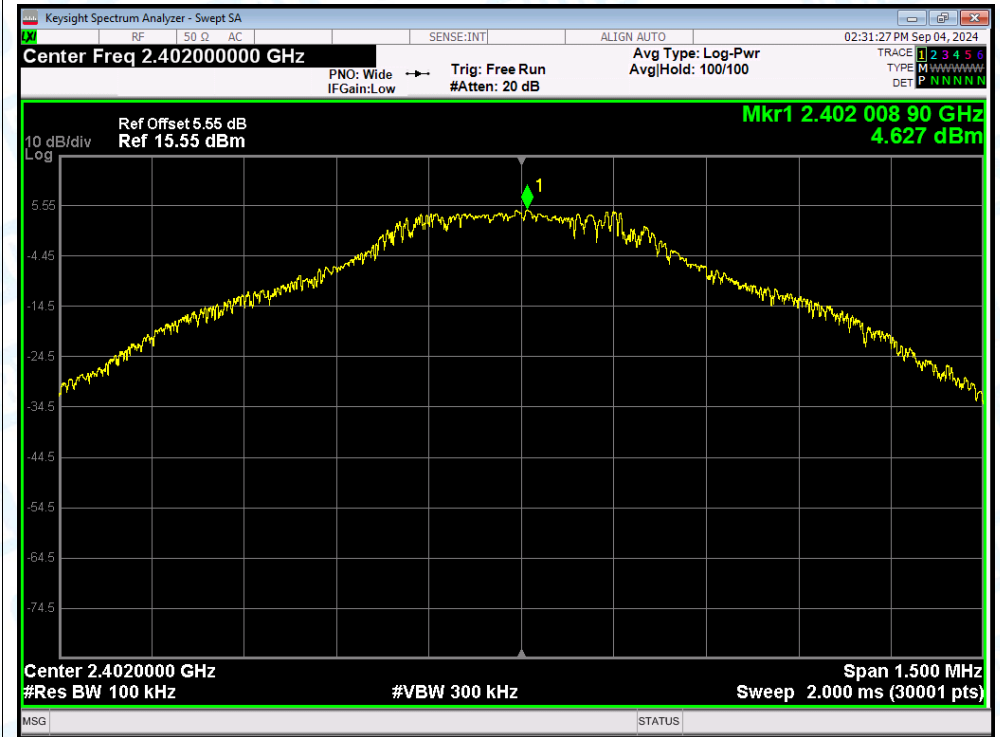


8. Conducted RF Spurious Emission

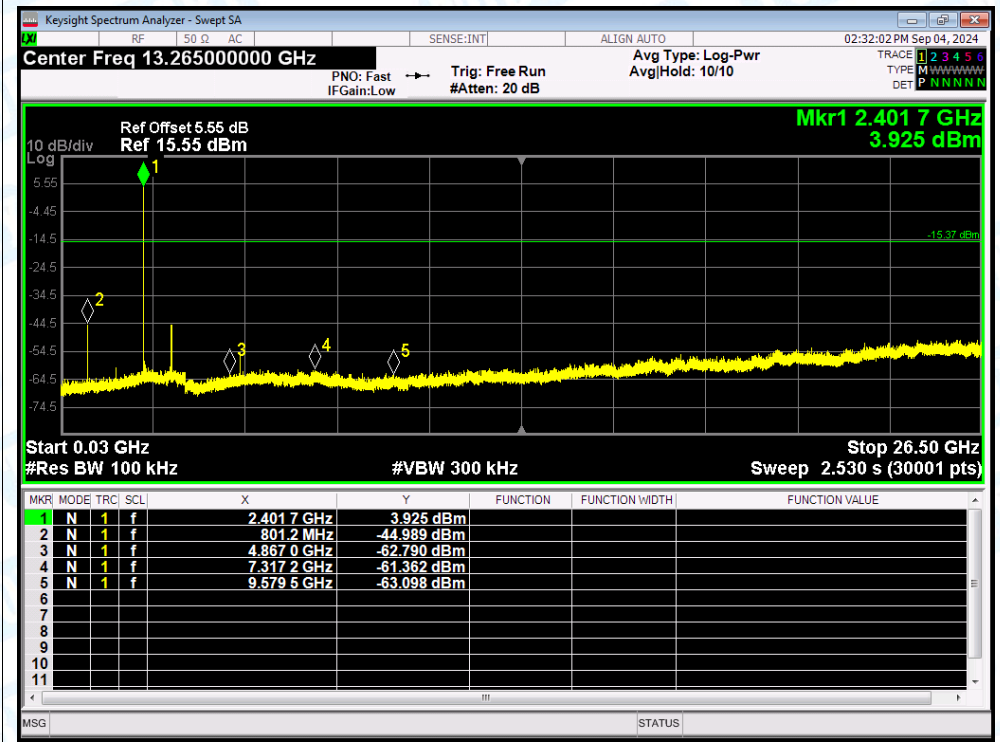
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	-49.62	-20	Pass
NVNT	1-DH1	2441	Ant1	-47.95	-20	Pass
NVNT	1-DH1	2480	Ant1	-48.42	-20	Pass
NVNT	2-DH1	2402	Ant1	-49.7	-20	Pass
NVNT	2-DH1	2441	Ant1	-49.69	-20	Pass
NVNT	2-DH1	2480	Ant1	-49.54	-20	Pass
NVNT	3-DH1	2402	Ant1	-47.99	-20	Pass
NVNT	3-DH1	2441	Ant1	-49.76	-20	Pass
NVNT	3-DH1	2480	Ant1	-49.28	-20	Pass

Test Graphs

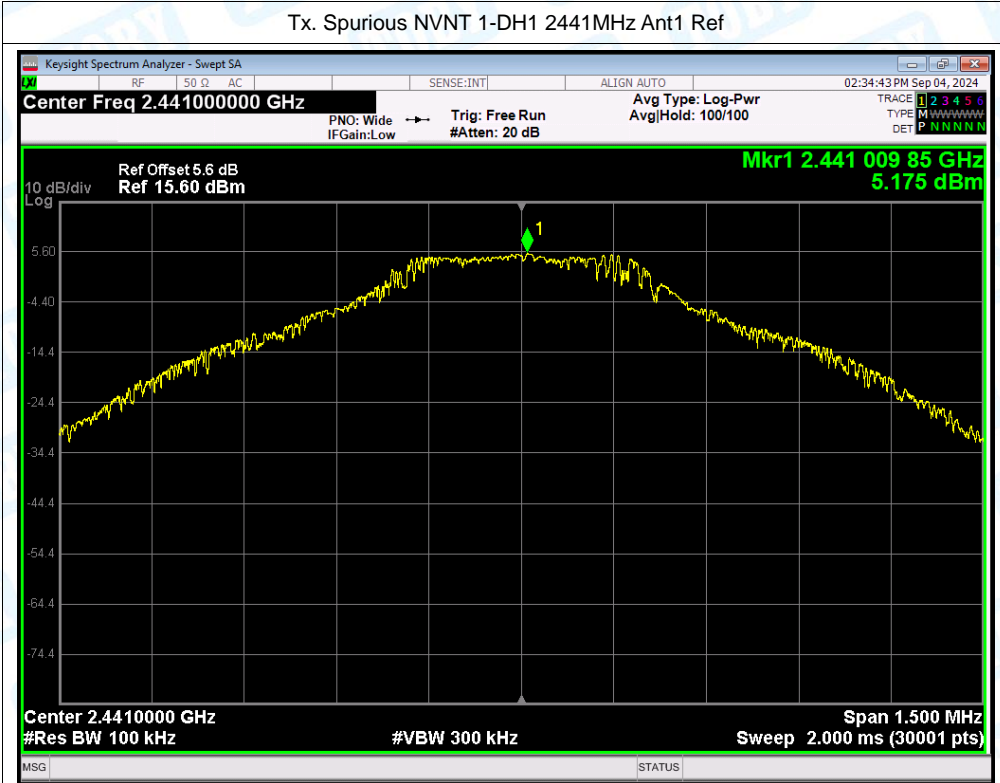
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Ref



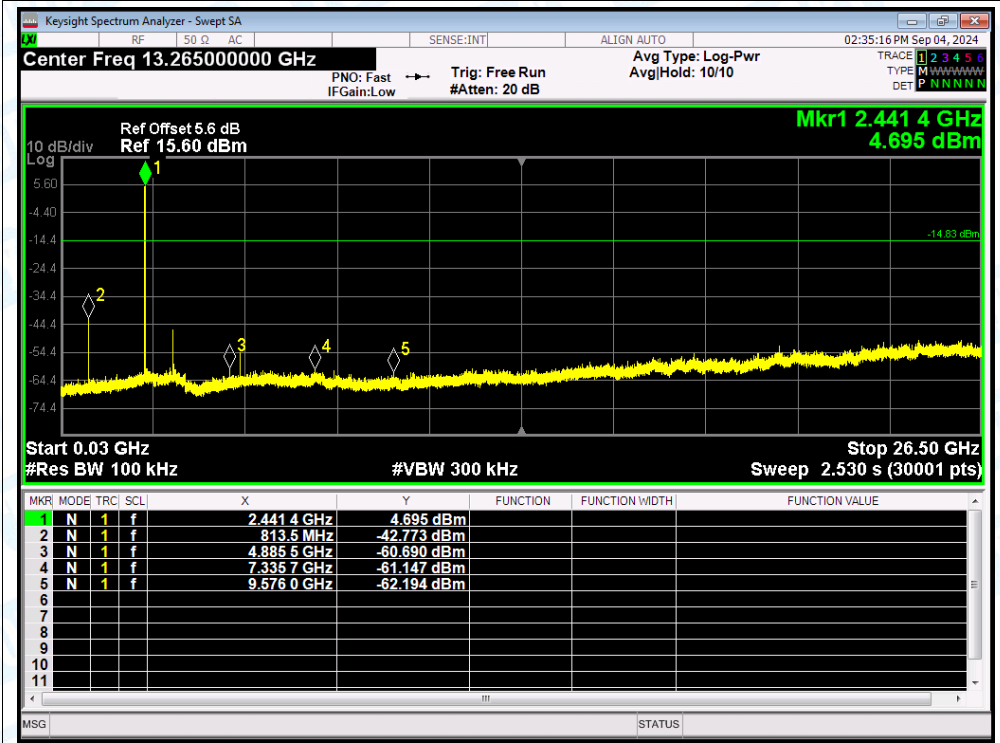
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Emission



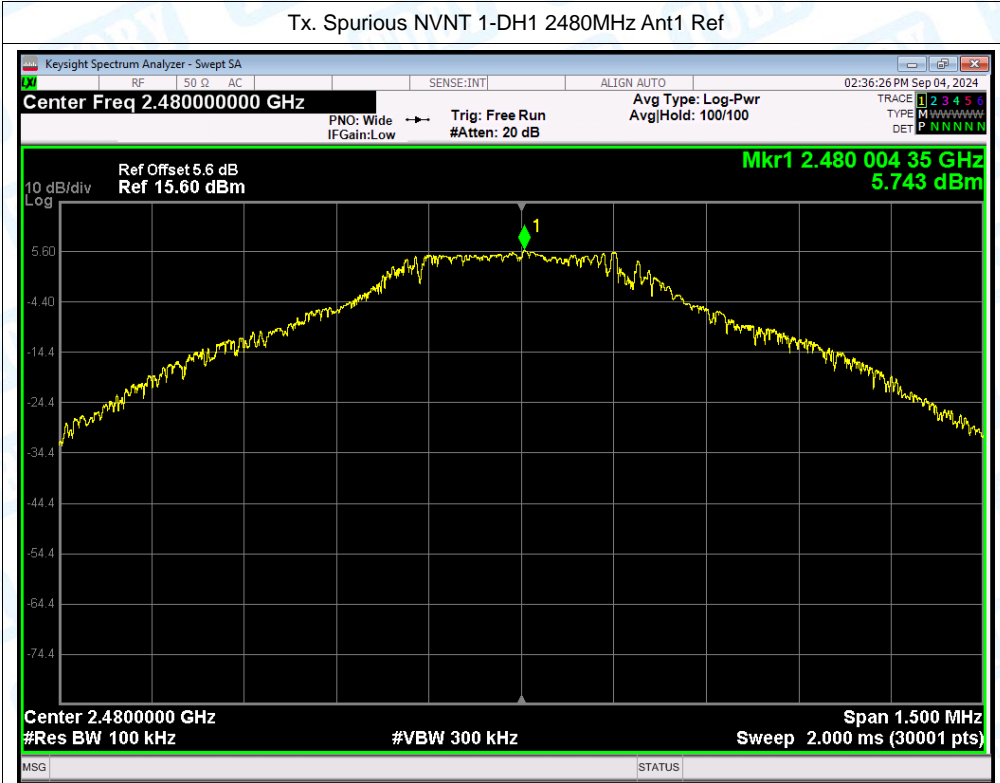
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Ref



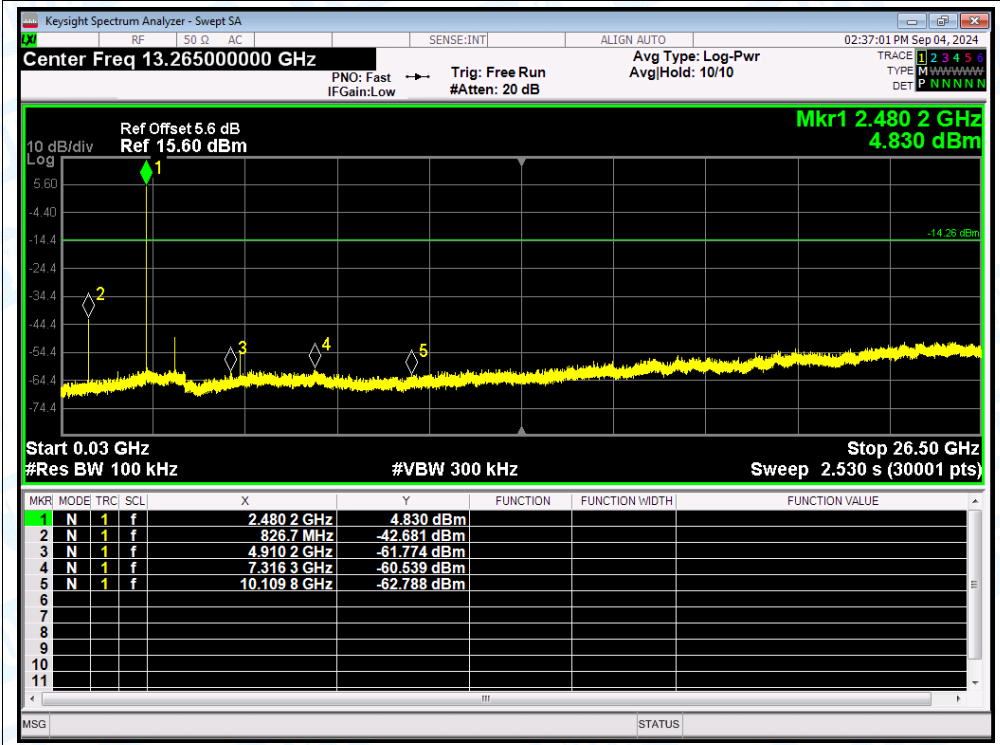
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Emission



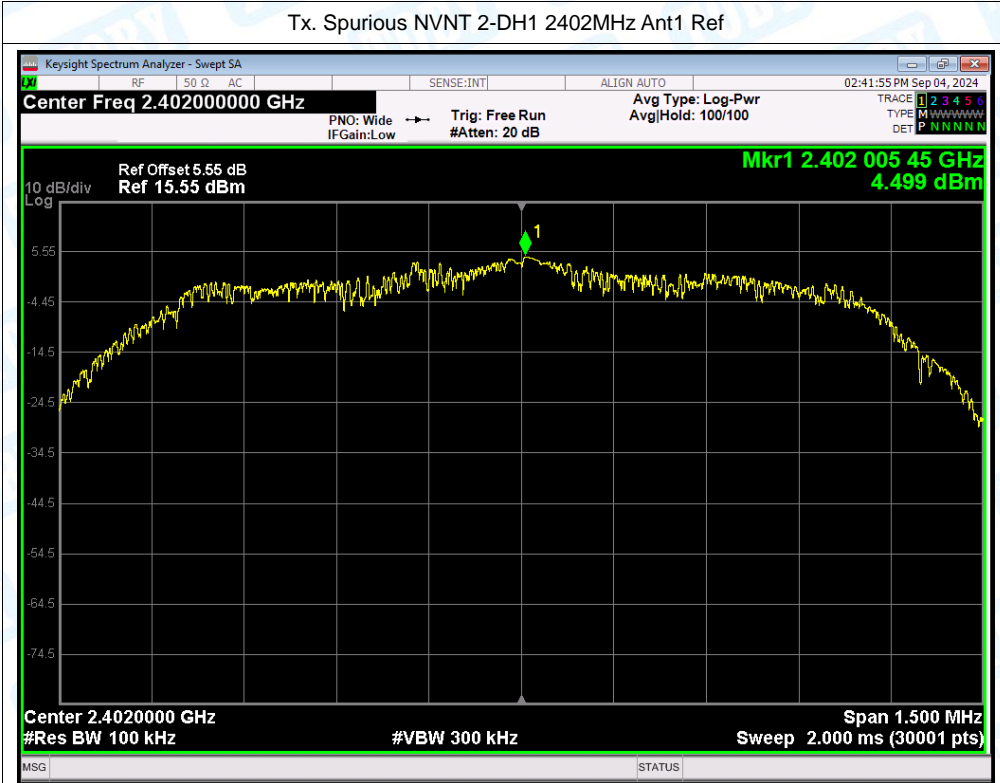
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Ref



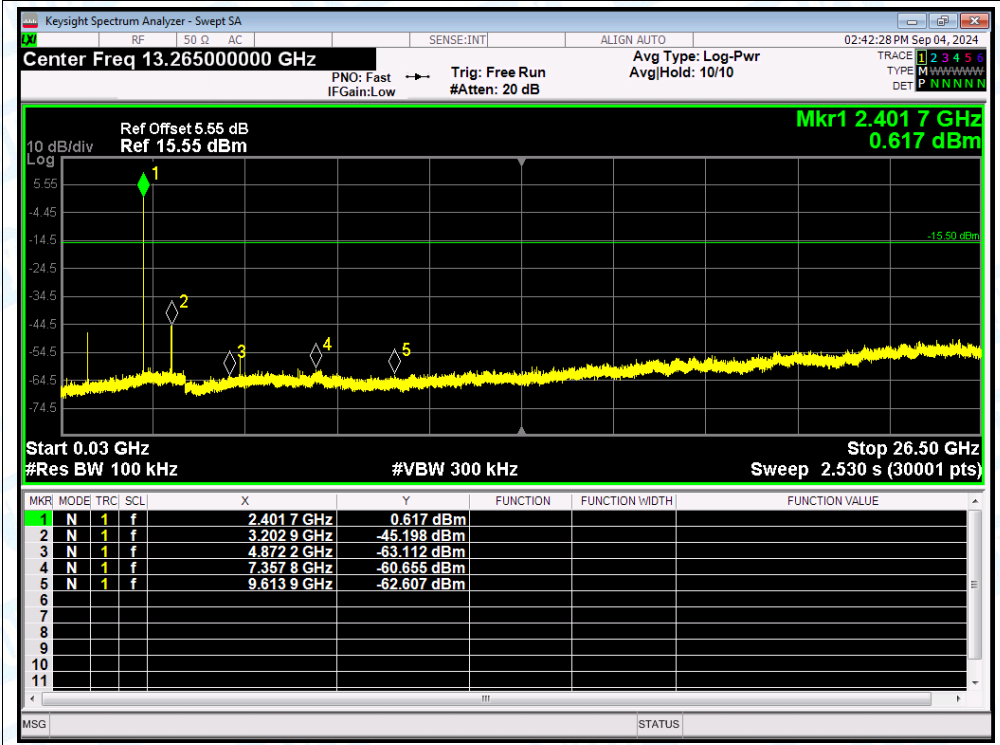
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Emission



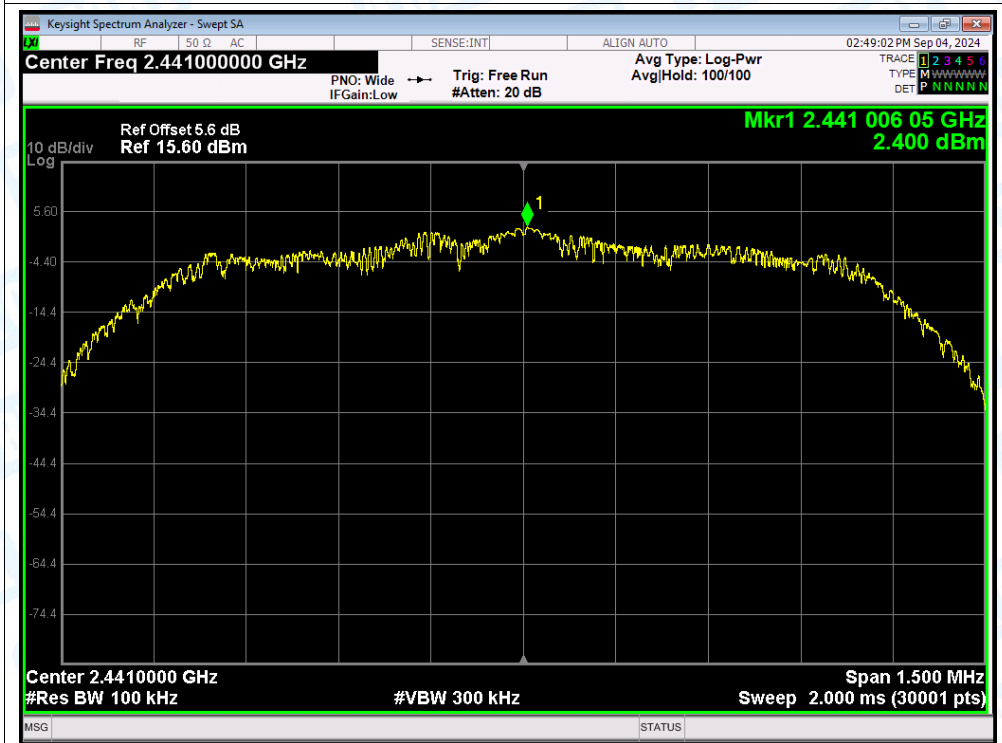
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Ref



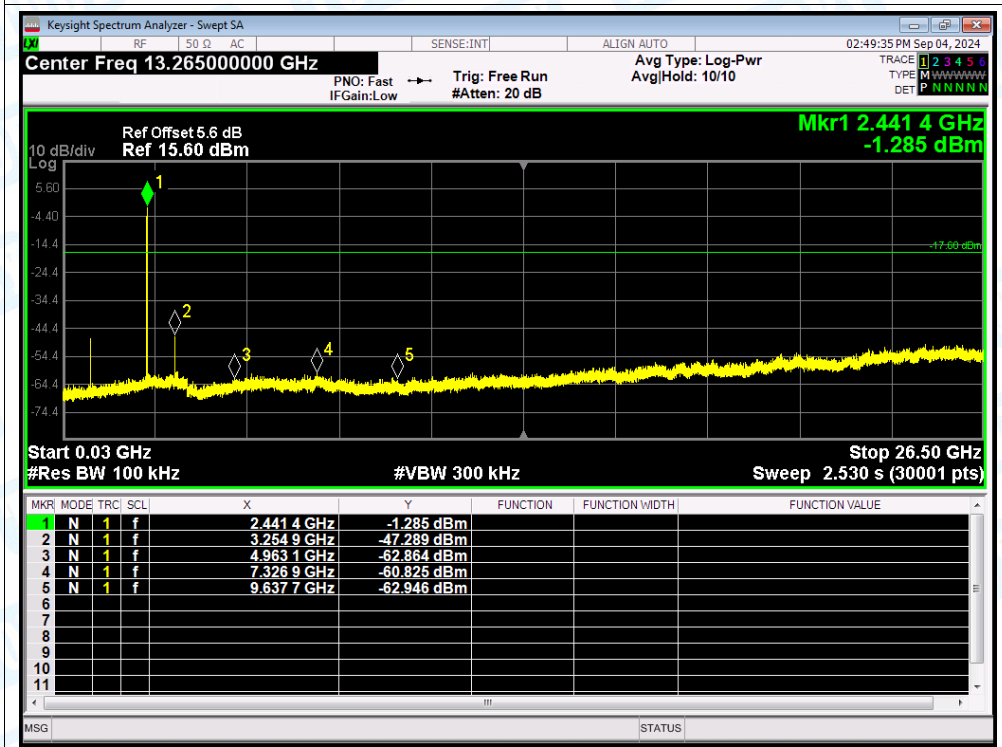
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Emission



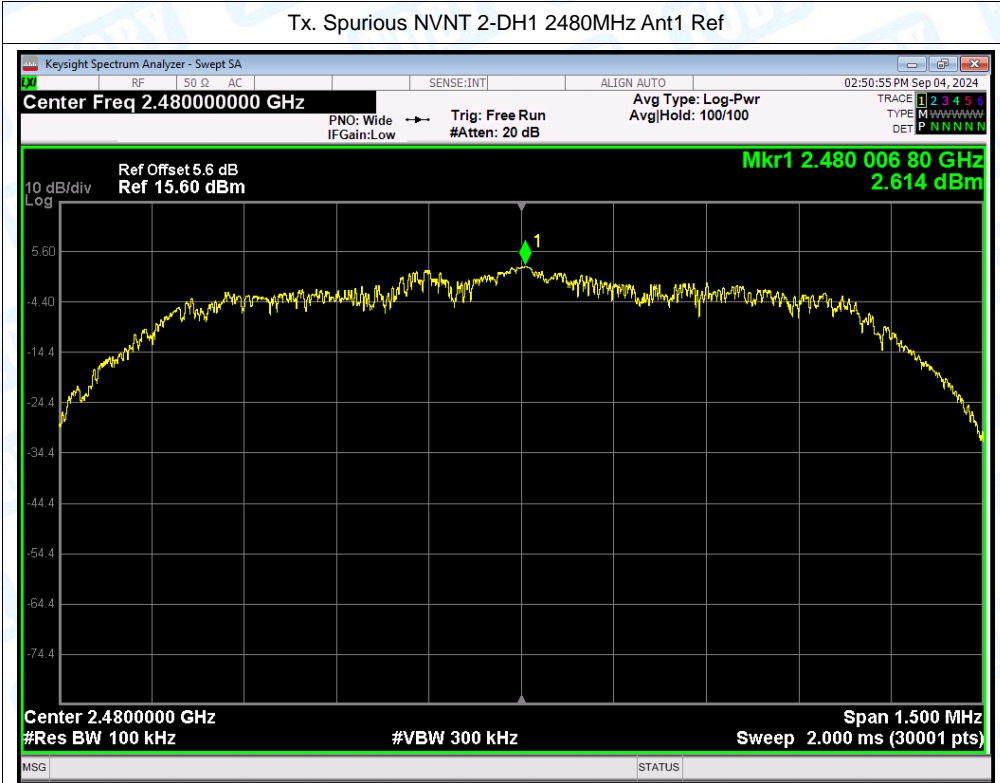
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Ref



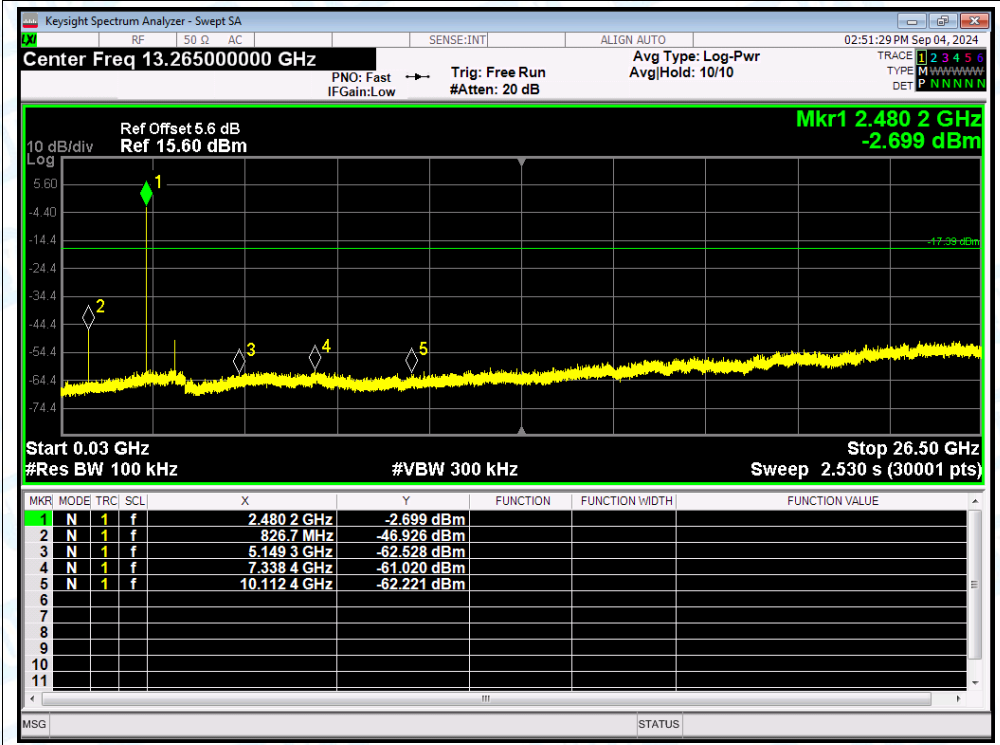
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Emission



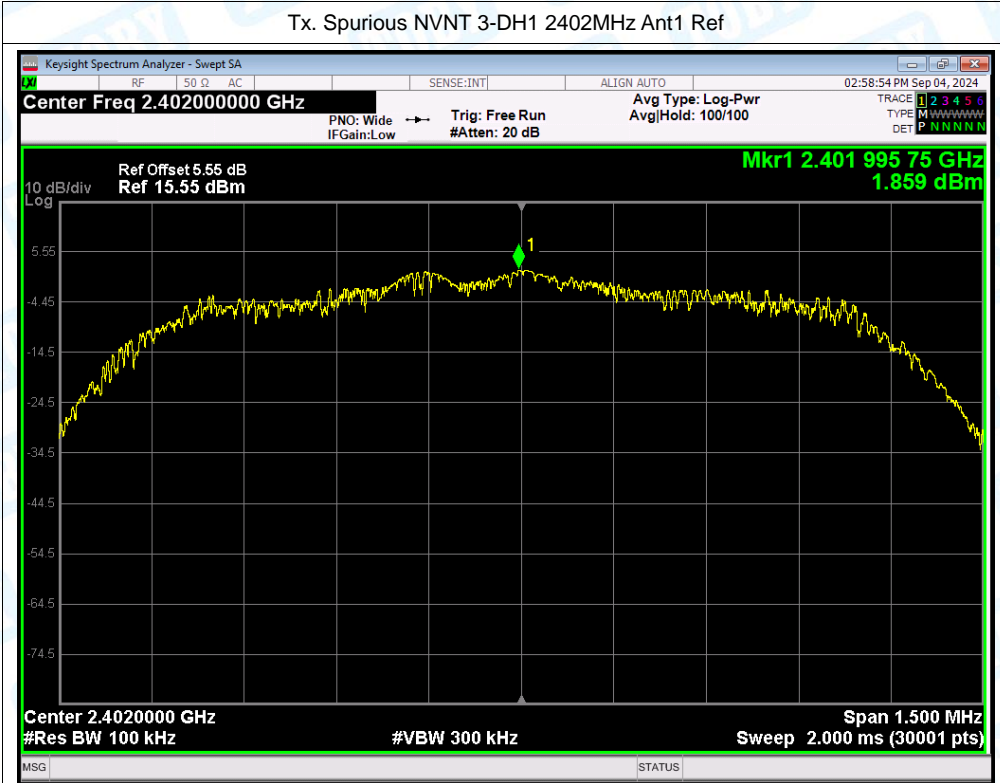
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Ref



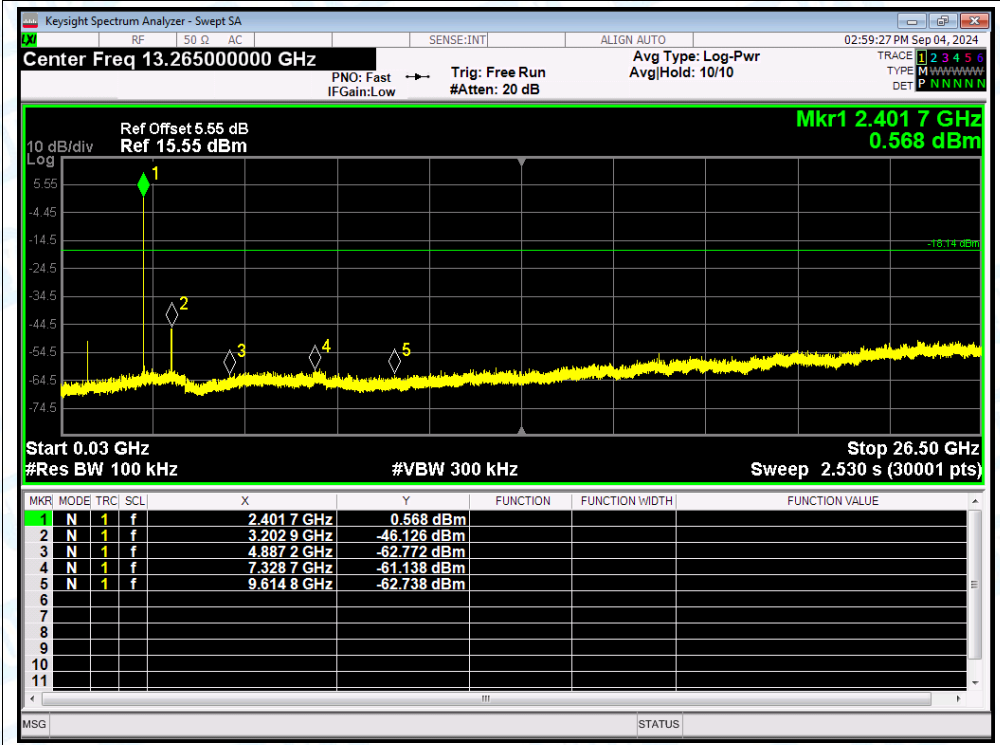
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Emission



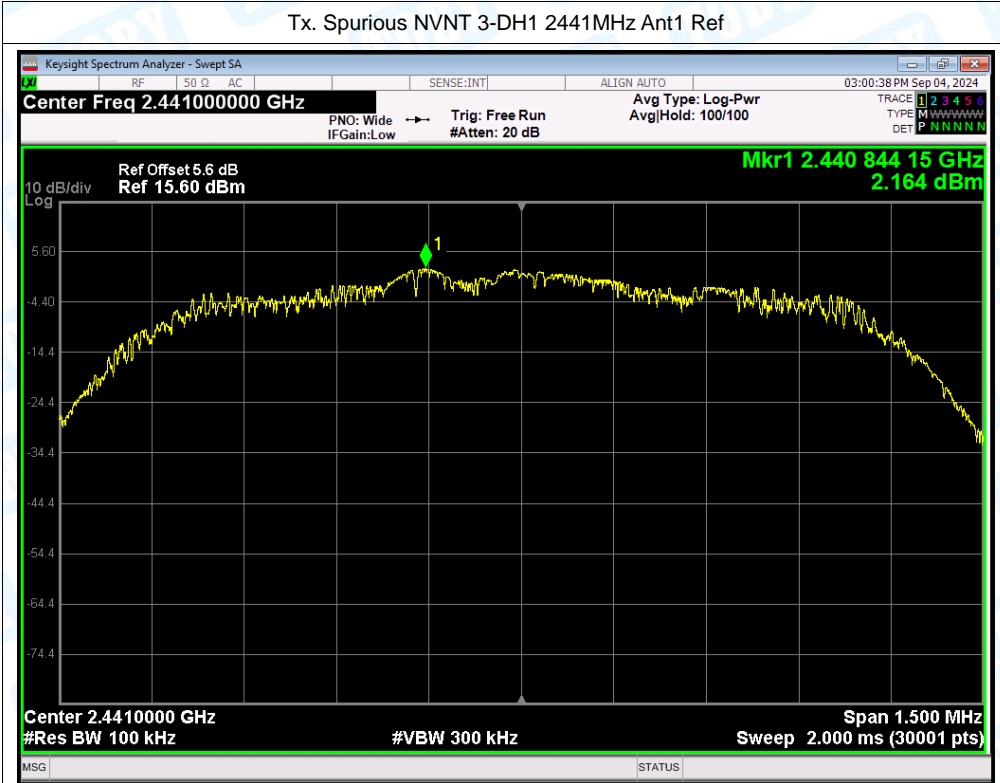
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Ref



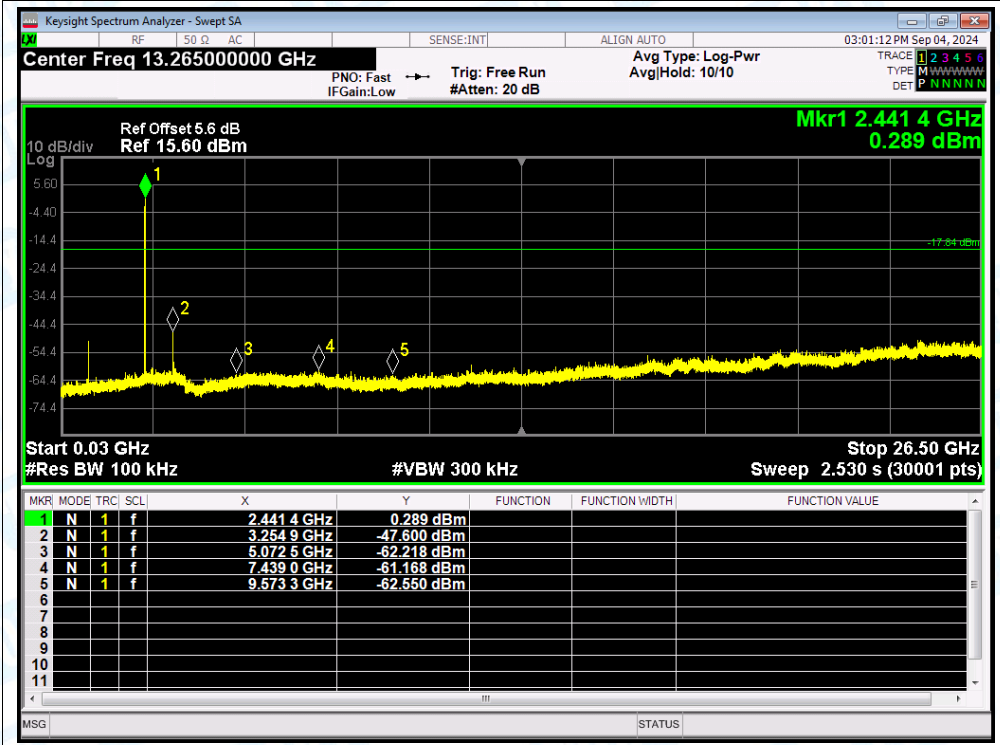
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Emission



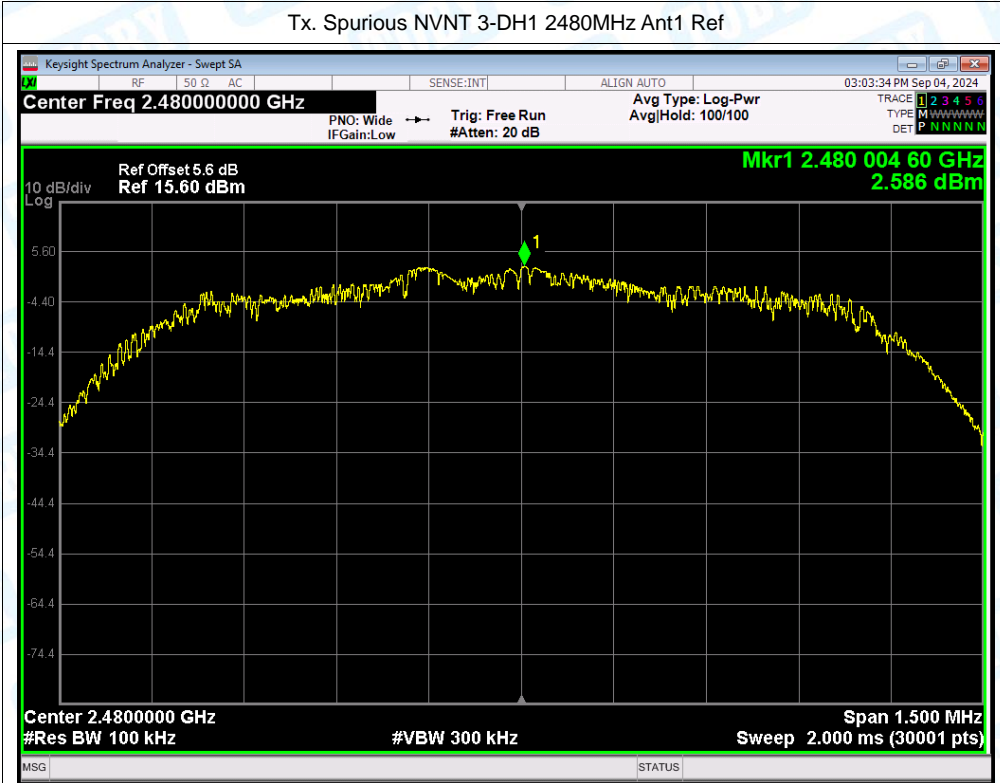
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Ref



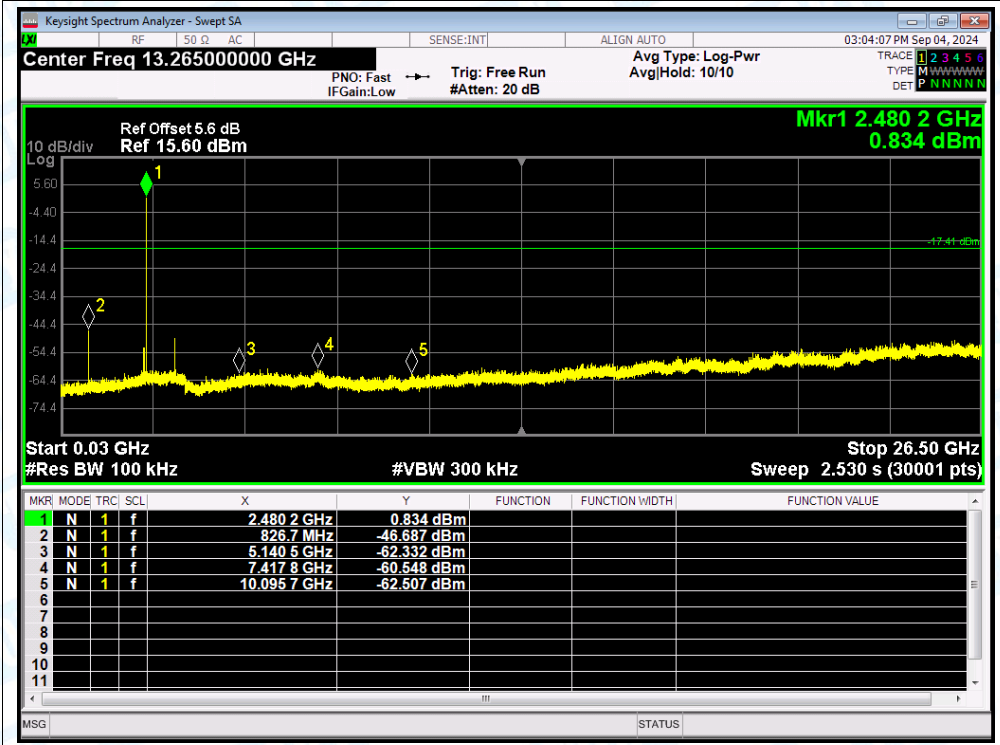
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Emission

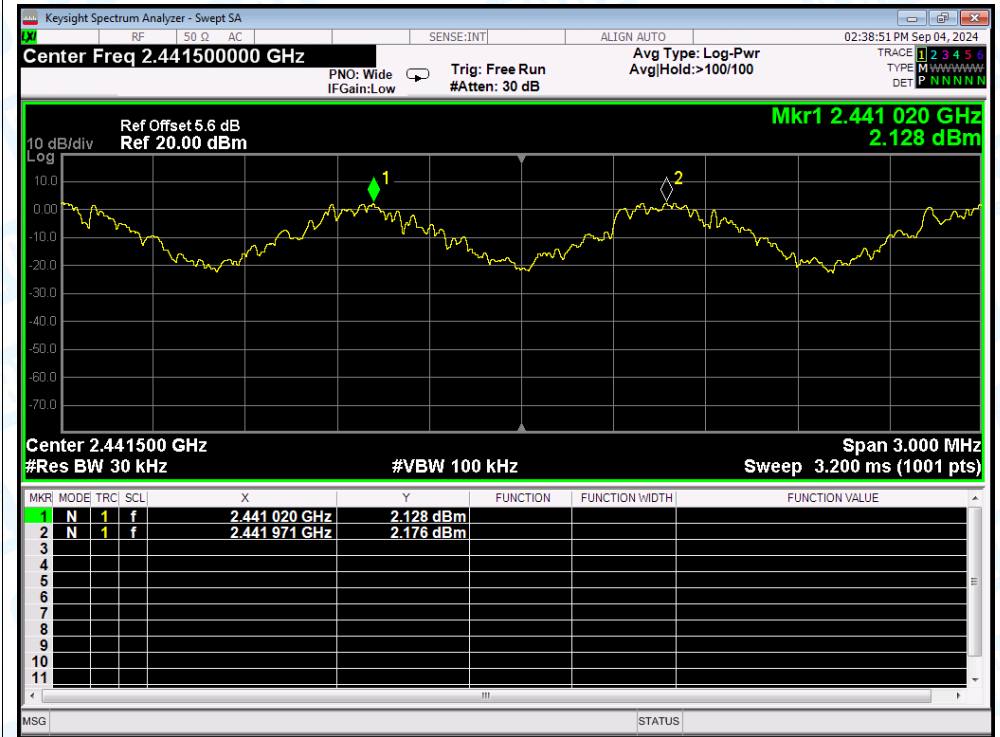


9. Carrier Frequencies Separation

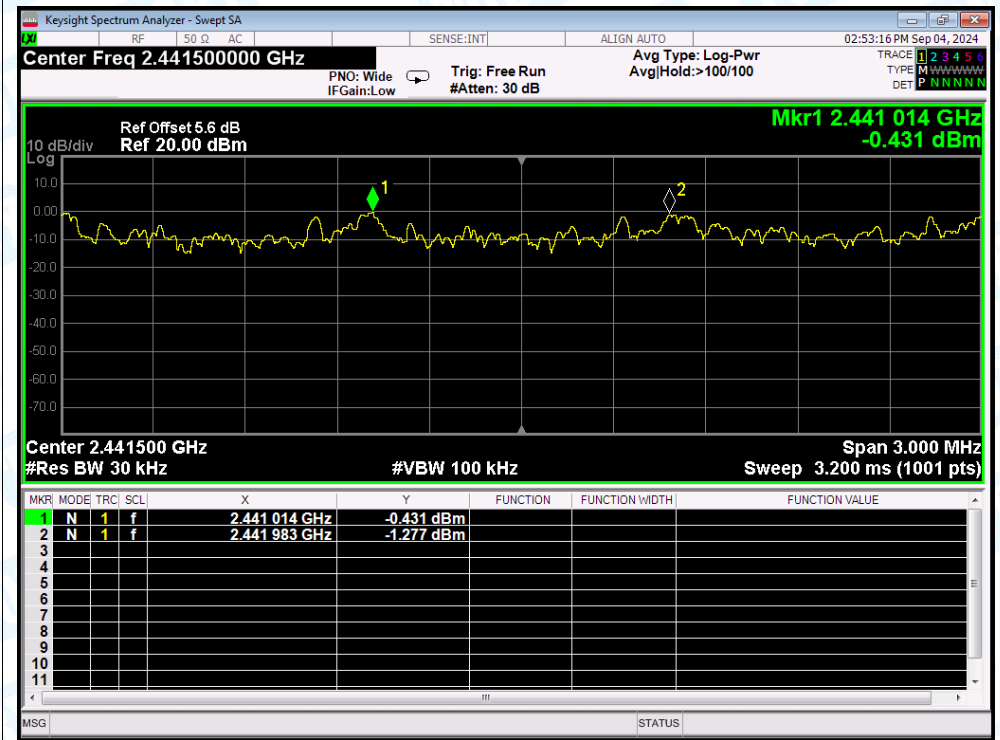
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH1	Ant1	2441.02	2441.971	0.951	0.613	Pass
NVNT	2-DH1	Ant1	2441.014	2441.983	0.969	0.867	Pass
NVNT	3-DH1	Ant1	2441.02	2442.004	0.984	0.847	Pass

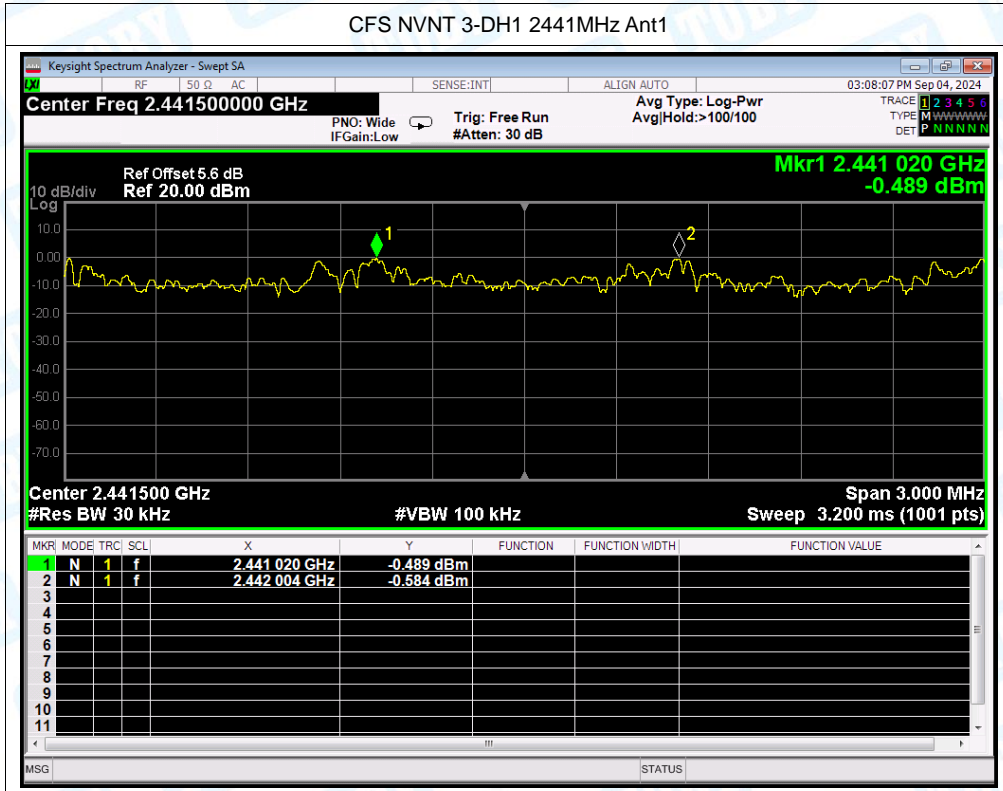
Test Graphs

CFS NVNT 1-DH1 2441MHz Ant1



CFS NVNT 2-DH1 2441MHz Ant1



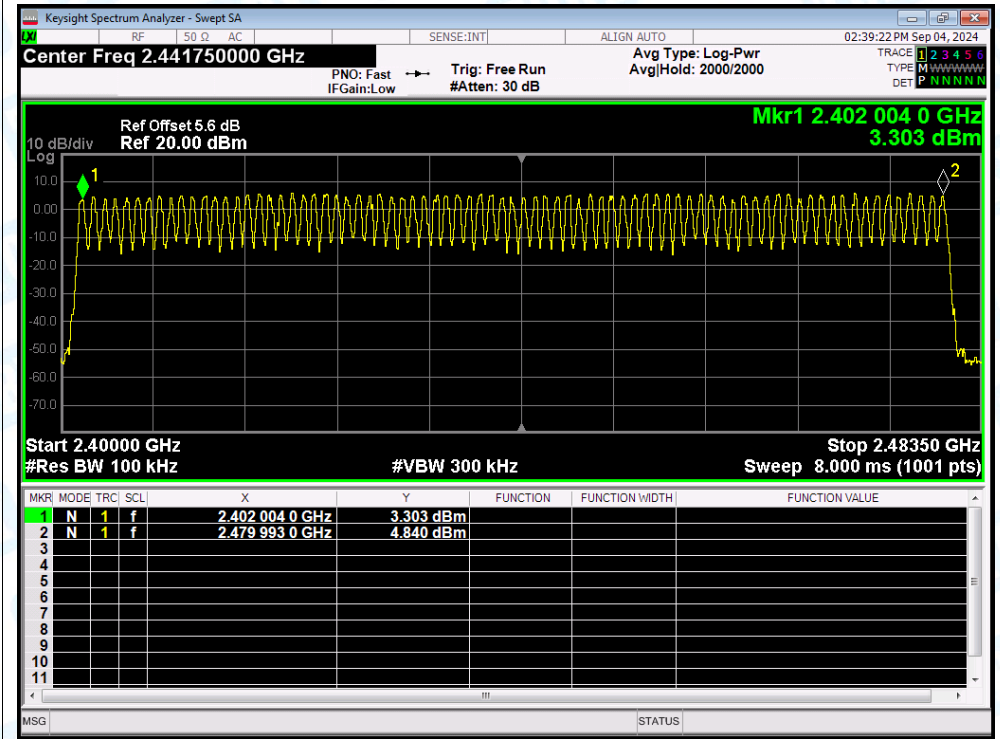


10. Number of Hopping Channel

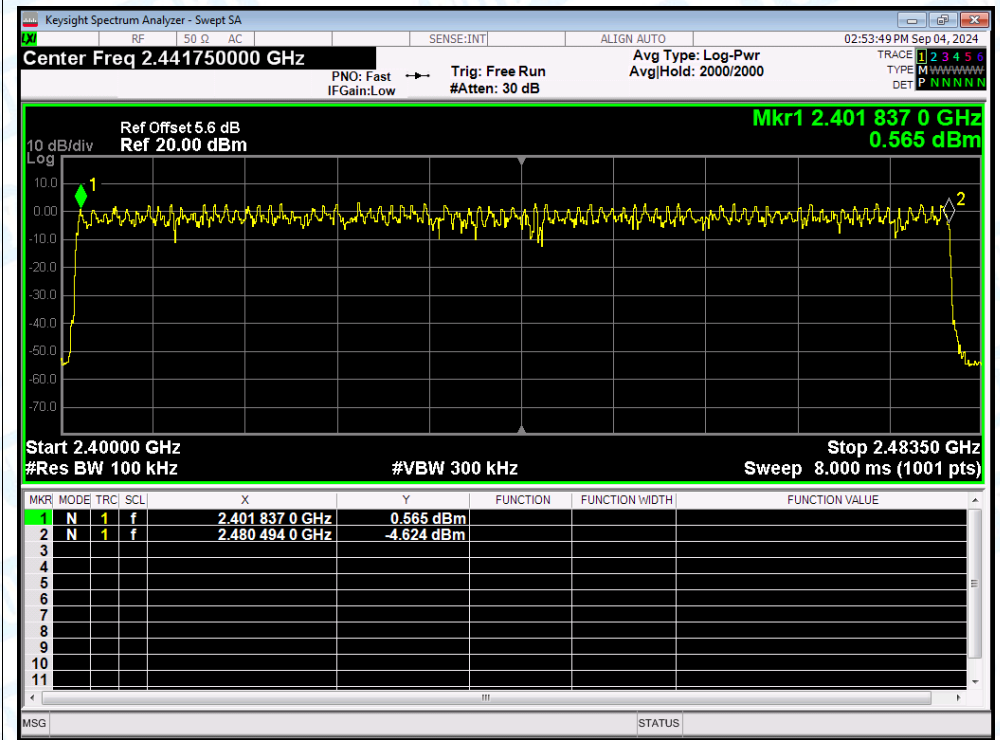
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH1	Ant1	79	15	Pass
NVNT	2-DH1	Ant1	79	15	Pass
NVNT	3-DH1	Ant1	79	15	Pass

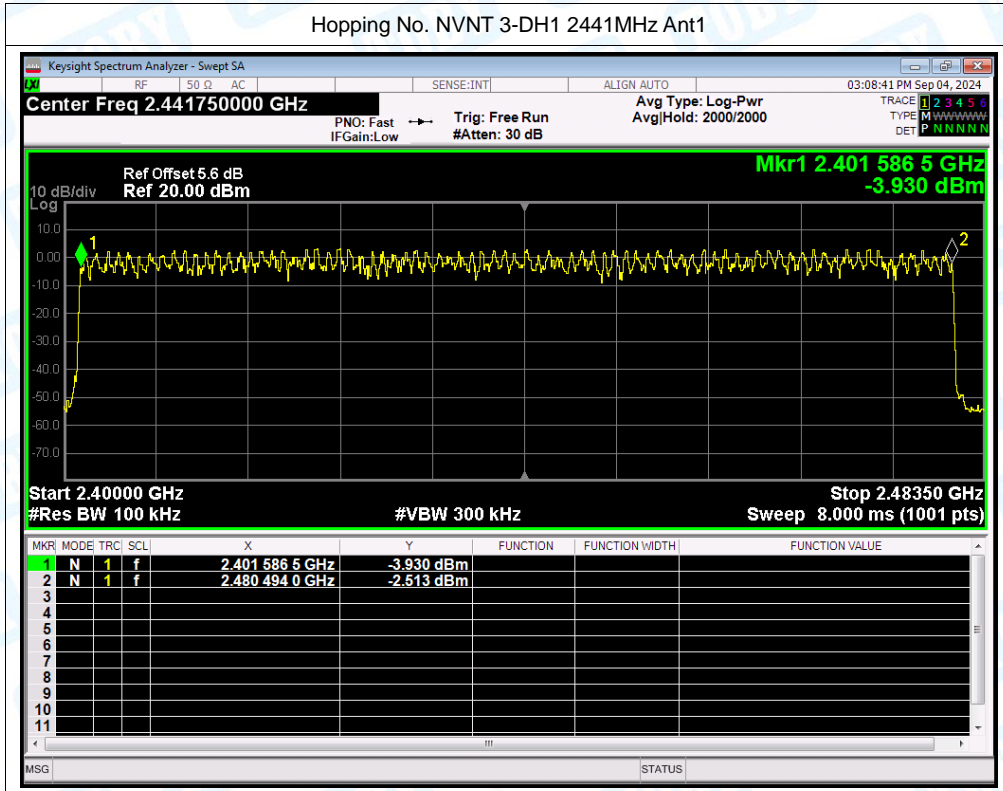
Test Graphs

Hopping No. NVNT 1-DH1 2441MHz Ant1



Hopping No. NVNT 2-DH1 2441MHz Ant1



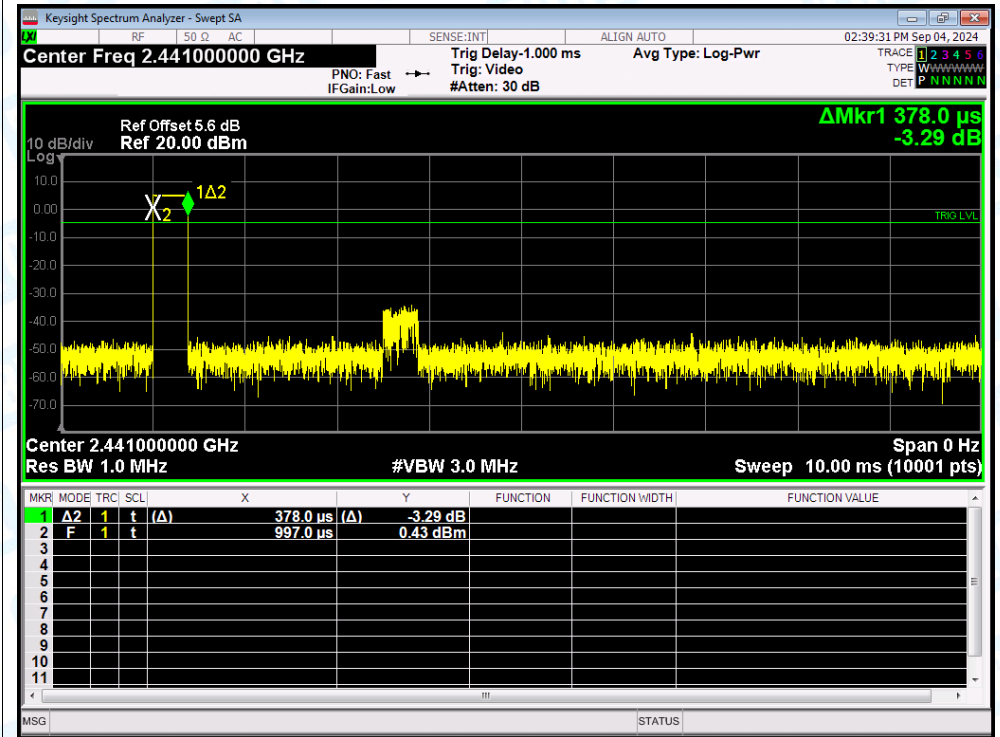


11. Dwell Time

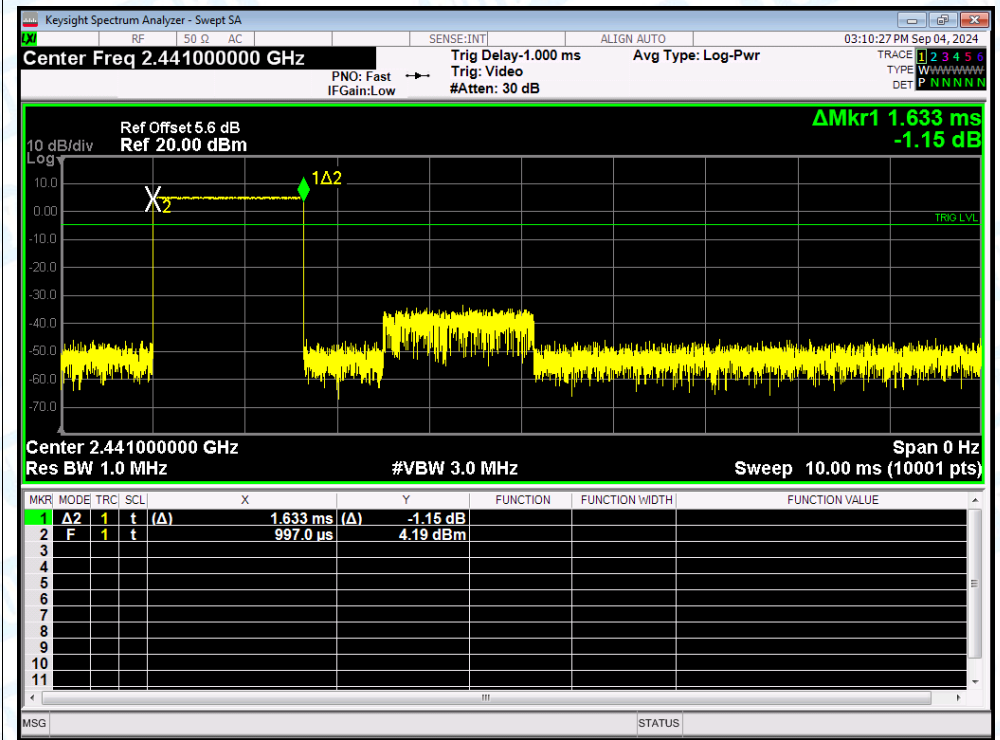
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	Ant1	0.378	120.96	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.633	261.28	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.882	307.413	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.388	124.16	31600	400	Pass
NVNT	2-DH3	2441	Ant1	1.64	262.4	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.888	308.053	31600	400	Pass
NVNT	3-DH1	2441	Ant1	0.389	124.48	31600	400	Pass
NVNT	3-DH3	2441	Ant1	1.64	262.4	31600	400	Pass
NVNT	3-DH5	2441	Ant1	2.891	308.373	31600	400	Pass

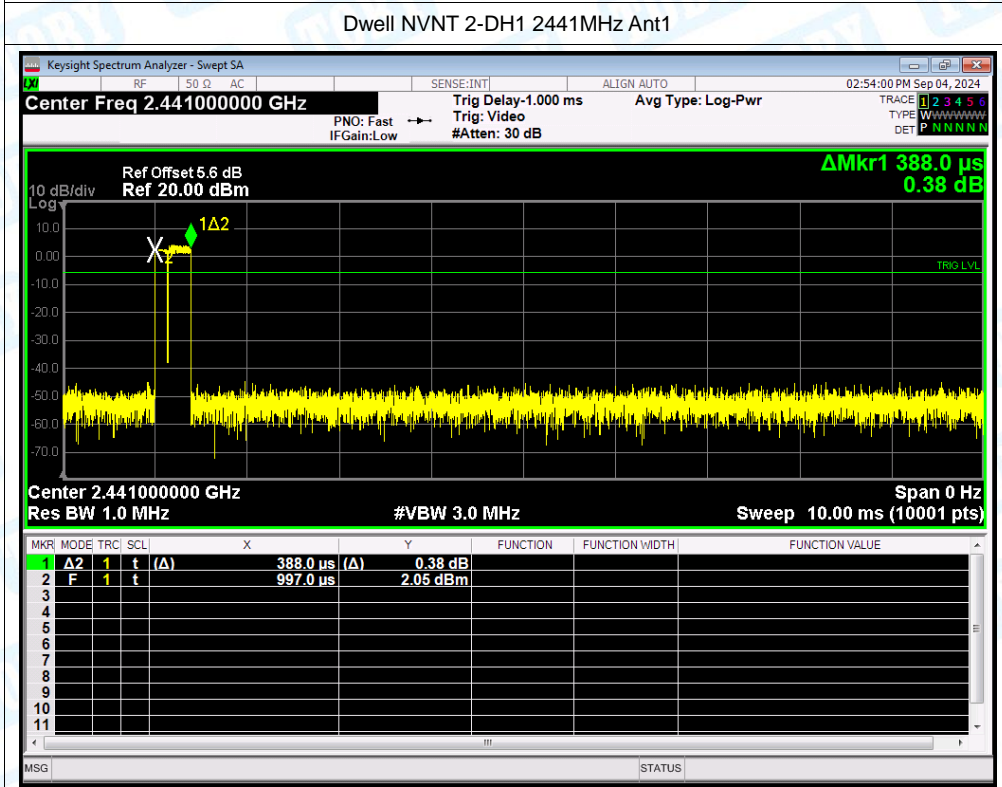
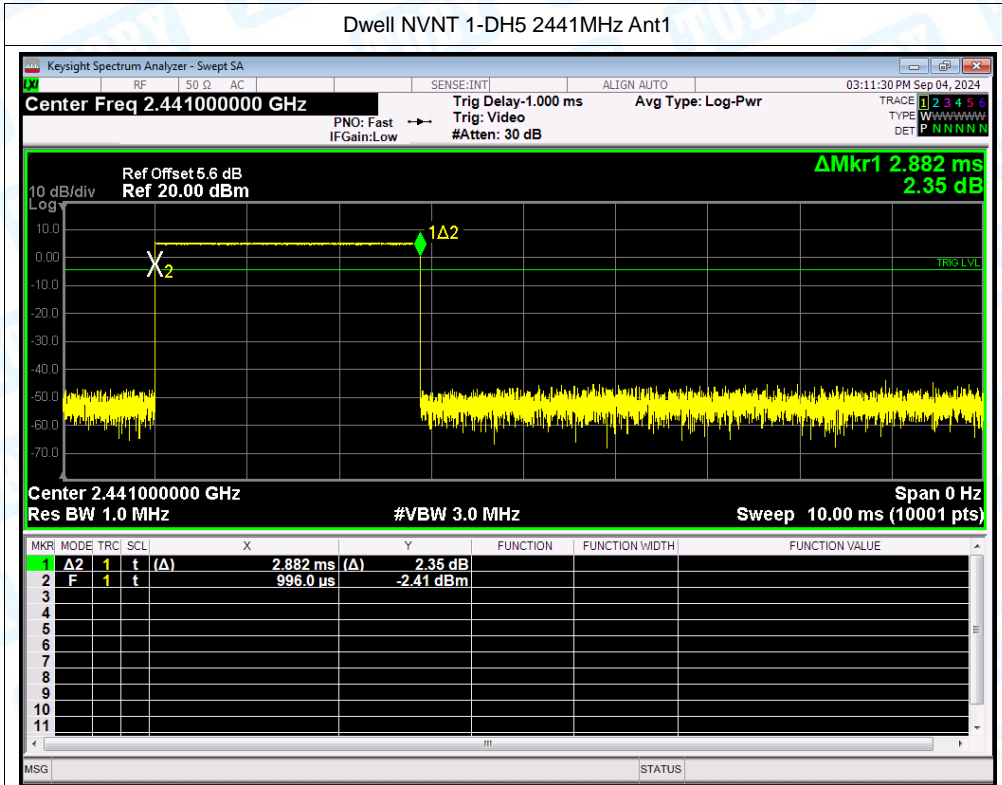
Test Graphs

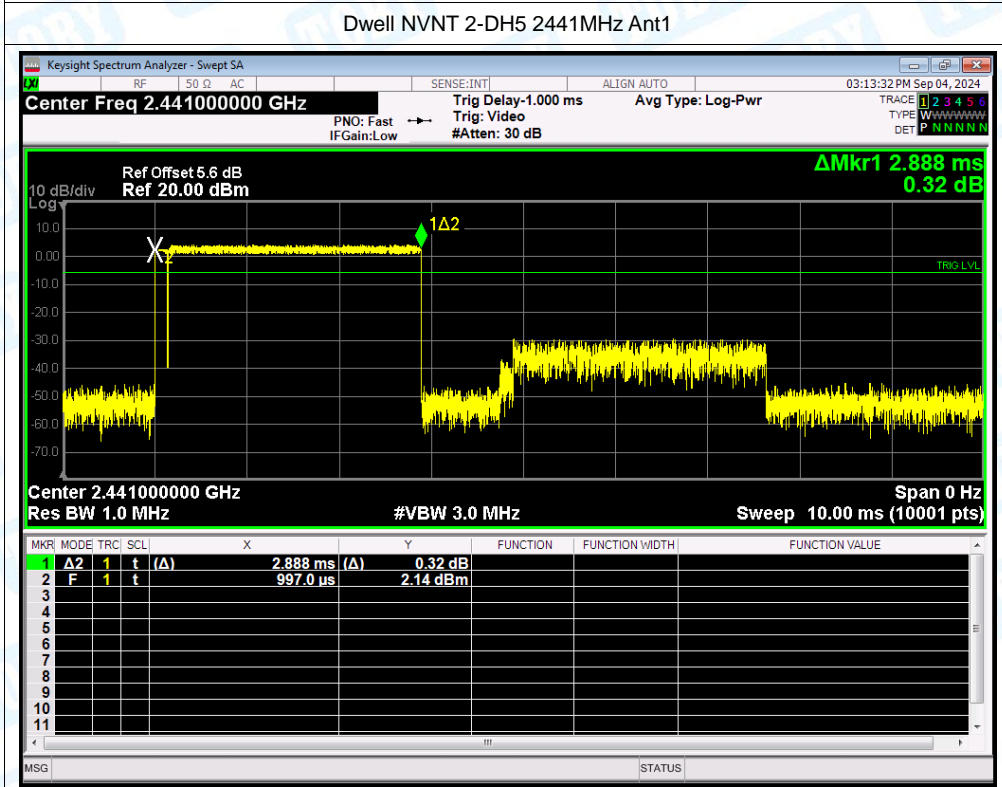
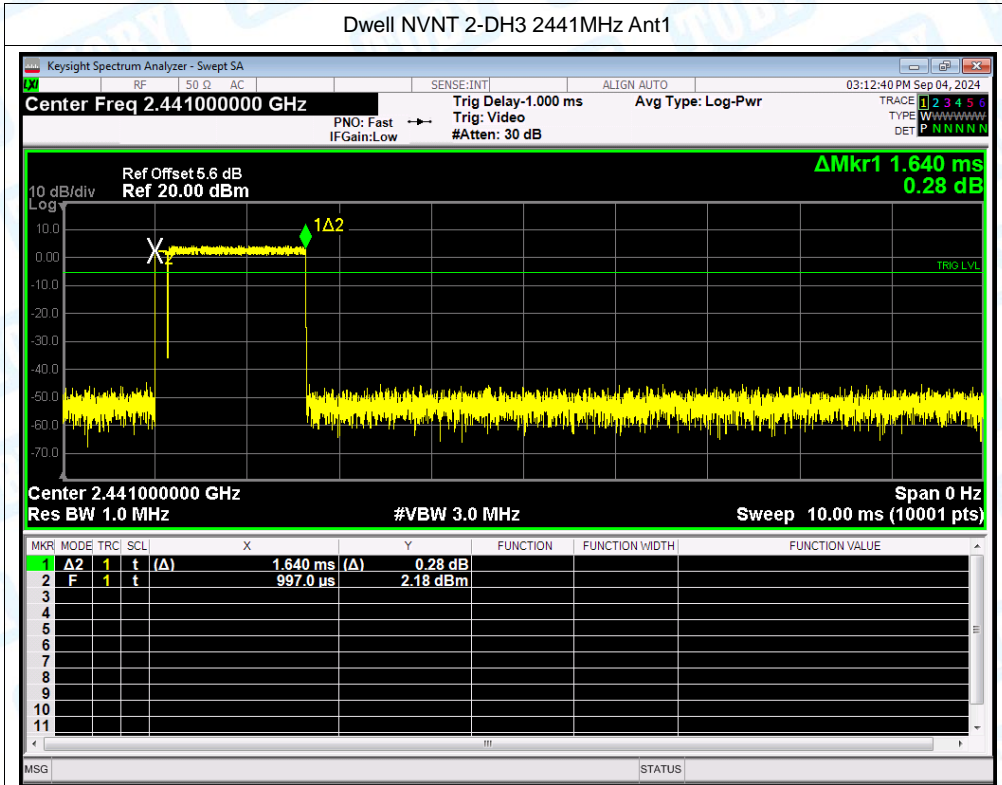
Dwell NVNT 1-DH1 2441MHz Ant1

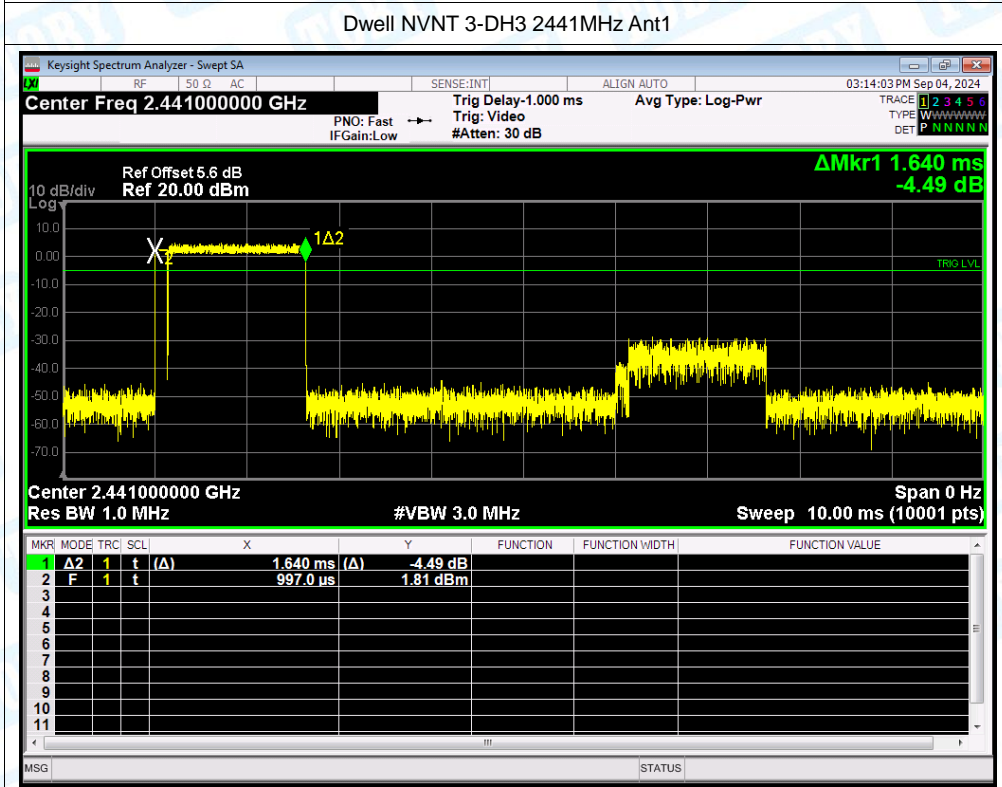
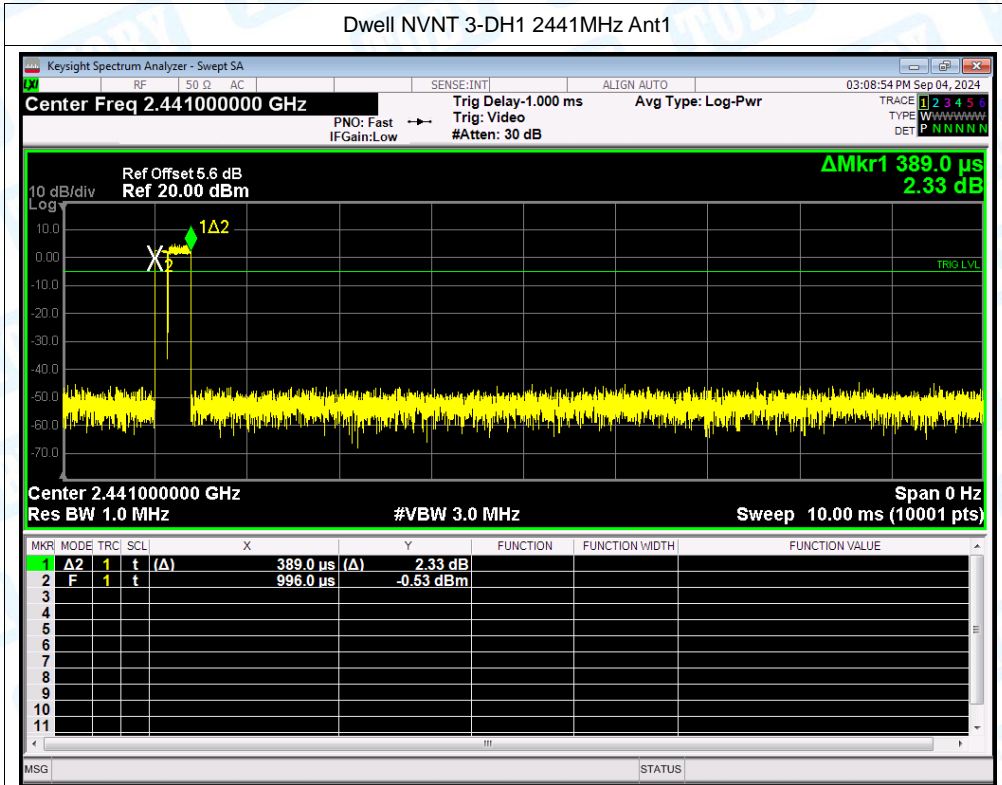


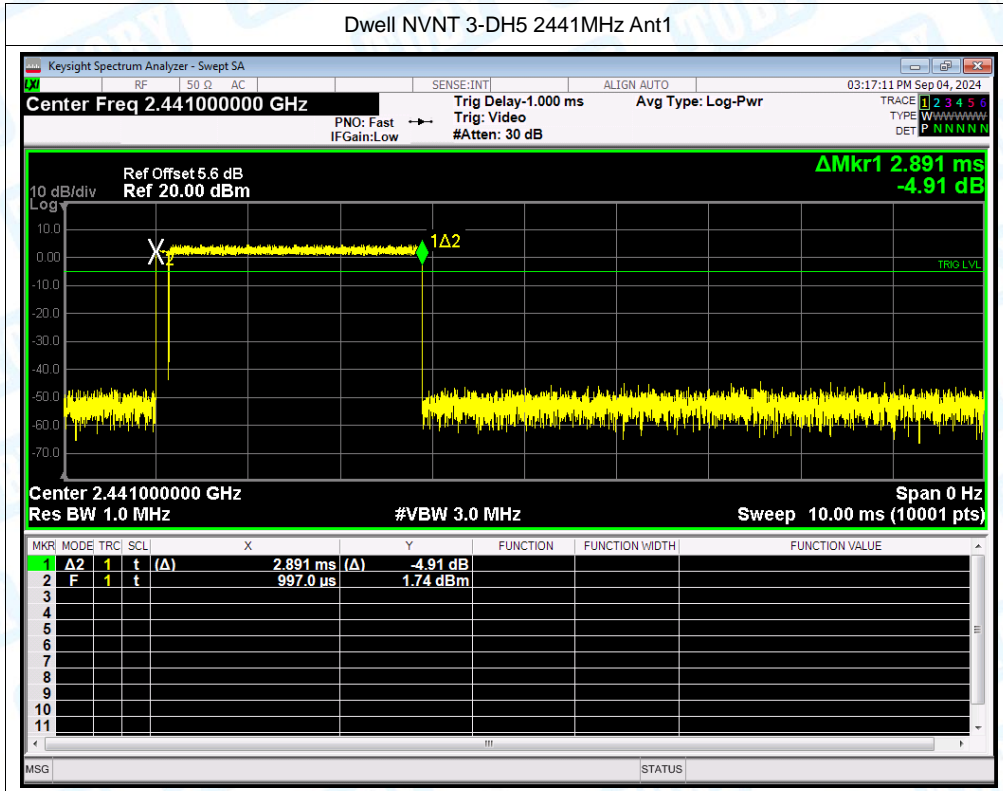
Dwell NVNT 1-DH3 2441MHz Ant1











-----END OF THE REPORT-----