

RF Test Data for Bluetooth (Conducted Measurements)

General Description of EUT	
Product Name:	Wireless Headphone
Test Model:	picun W3
Sample ID:	HC-C-202407-0220-02-01
Environmental Conditions	
Temperature:	24.6°C
Relative Humidity:	52.4%
Test Voltage:	DC 3.7V
Test Engineer:	Jolin Lee
Note: For a more detailed features description, please refer to the report TBR-C-202407-0220-3 The report only show the worst case data.	

Contents

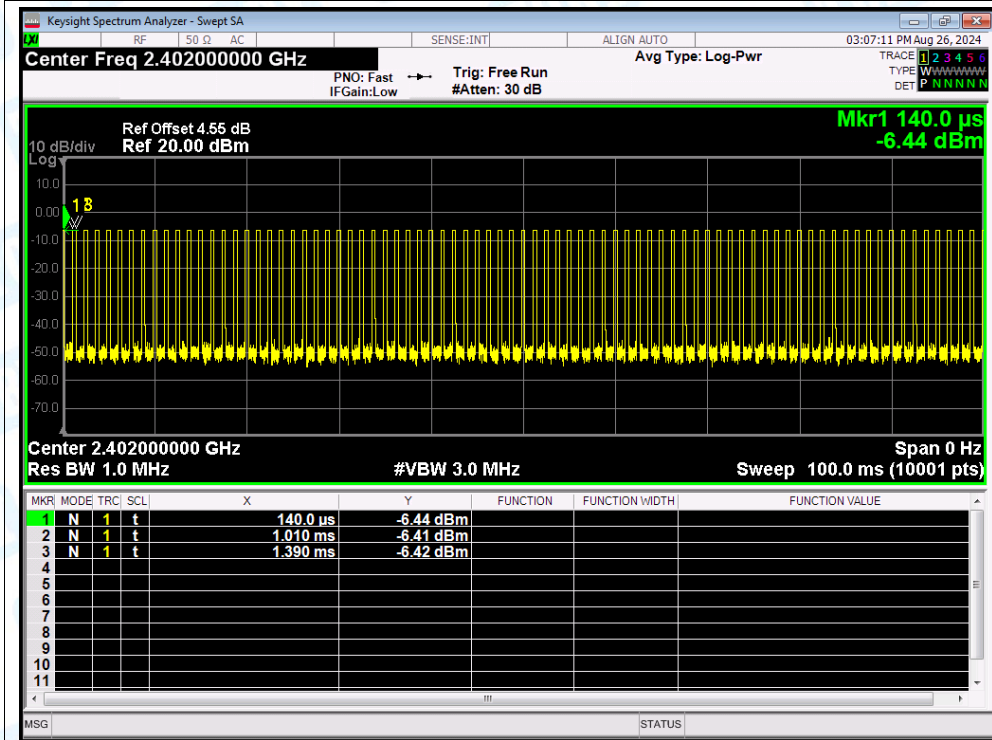
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1. Duty Cycle

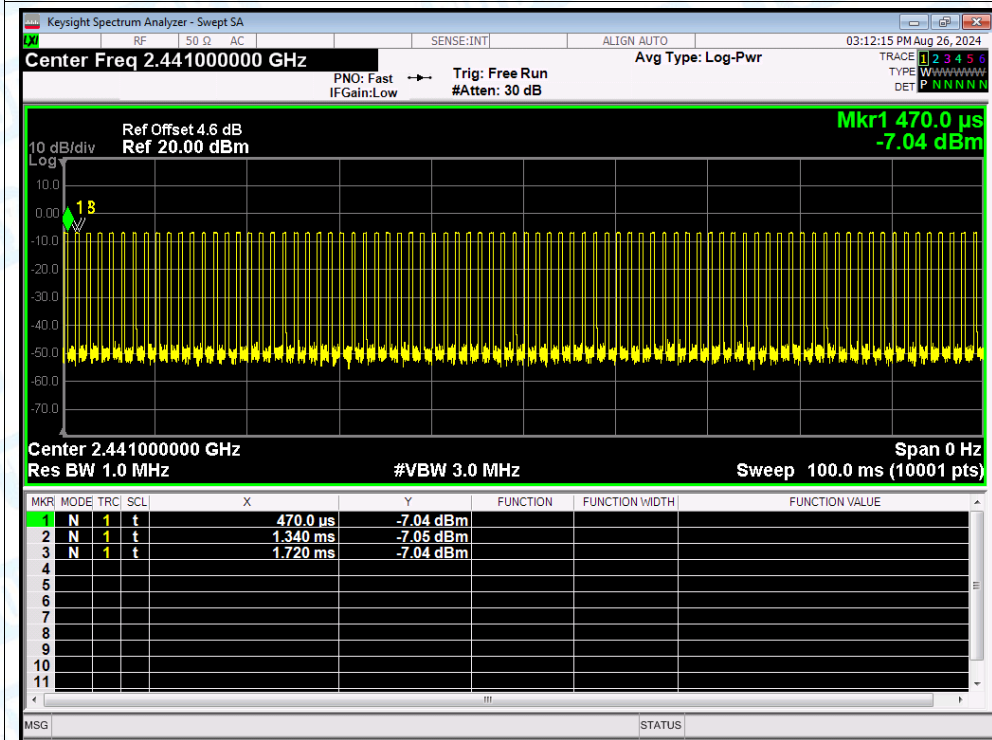
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH1	2402	Ant1	30.4	5.17	2.63
NVNT	1-DH1	2441	Ant1	30.4	5.17	2.63
NVNT	1-DH1	2480	Ant1	30.4	5.17	2.63
NVNT	2-DH1	2402	Ant1	31.2	5.06	2.56
NVNT	2-DH1	2441	Ant1	32	4.95	2.5
NVNT	2-DH1	2480	Ant1	32	4.95	2.5
NVNT	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

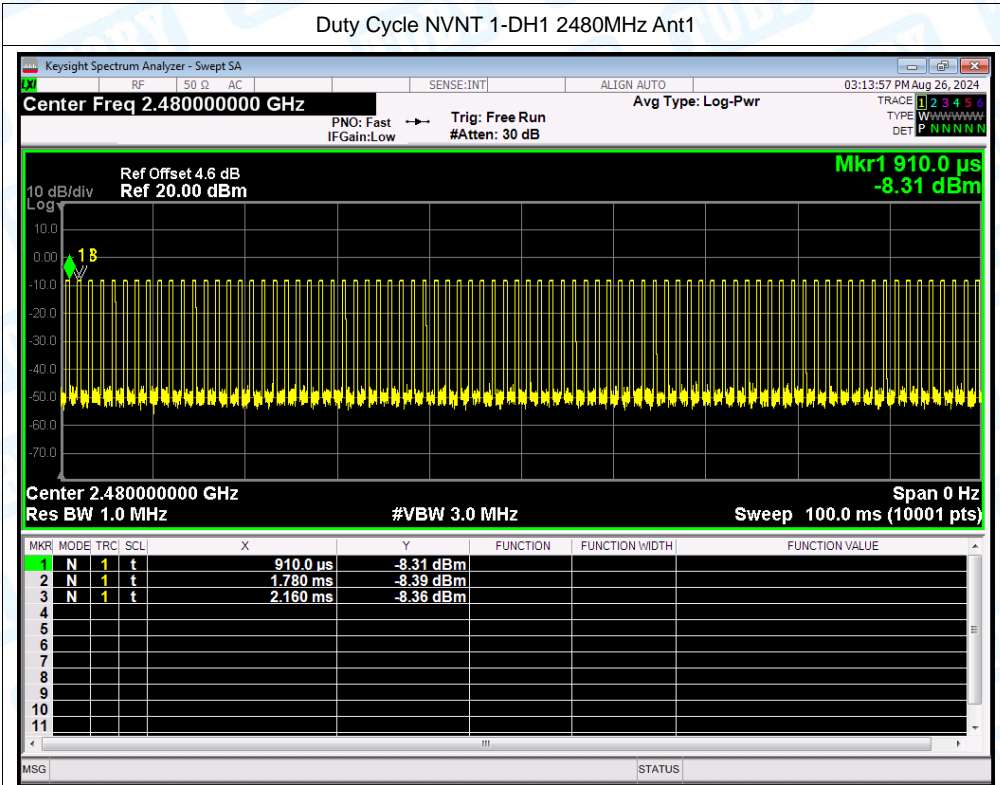
Duty Cycle NVNT 1-DH1 2402MHz Ant1



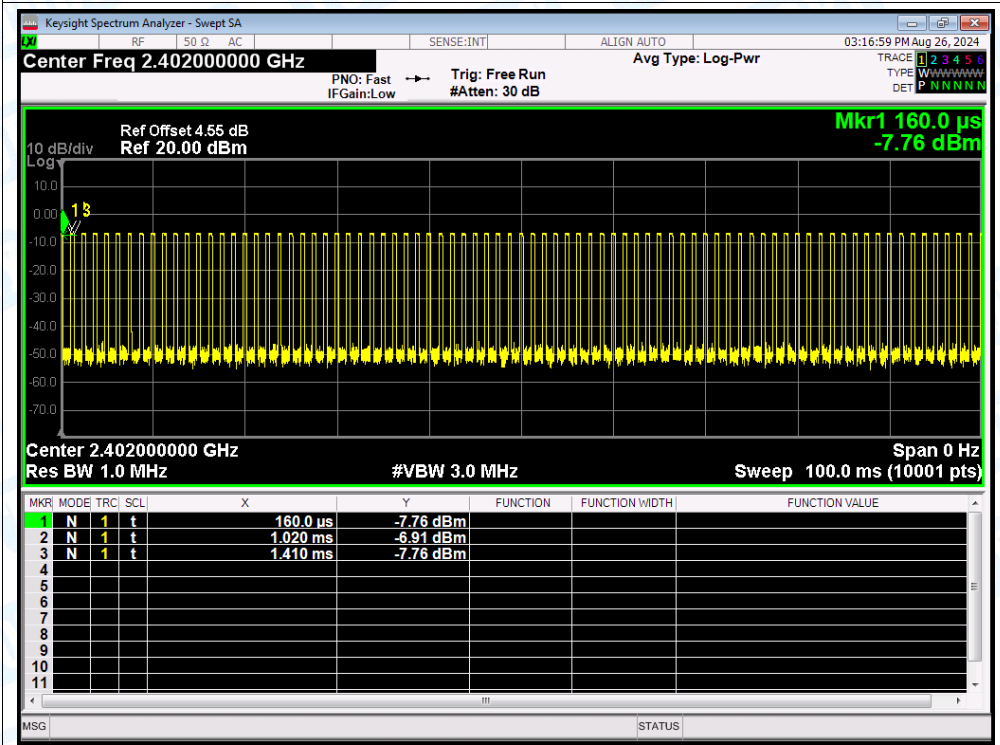
Duty Cycle NVNT 1-DH1 2441MHz Ant1



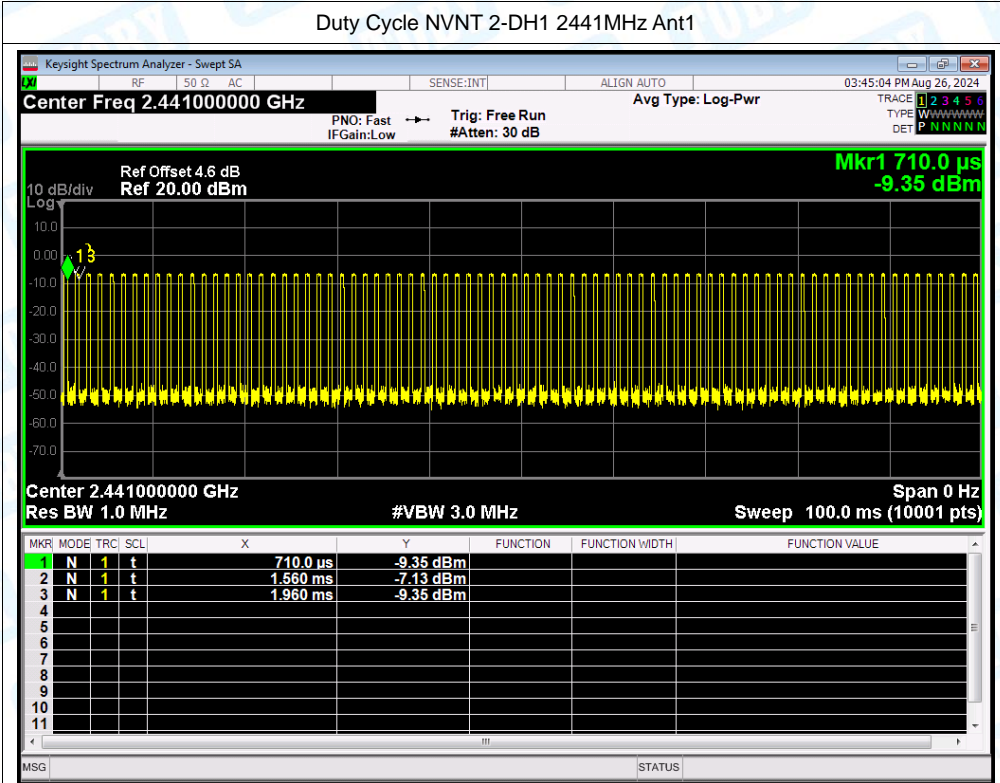
Duty Cycle NVNT 1-DH1 2480MHz Ant1



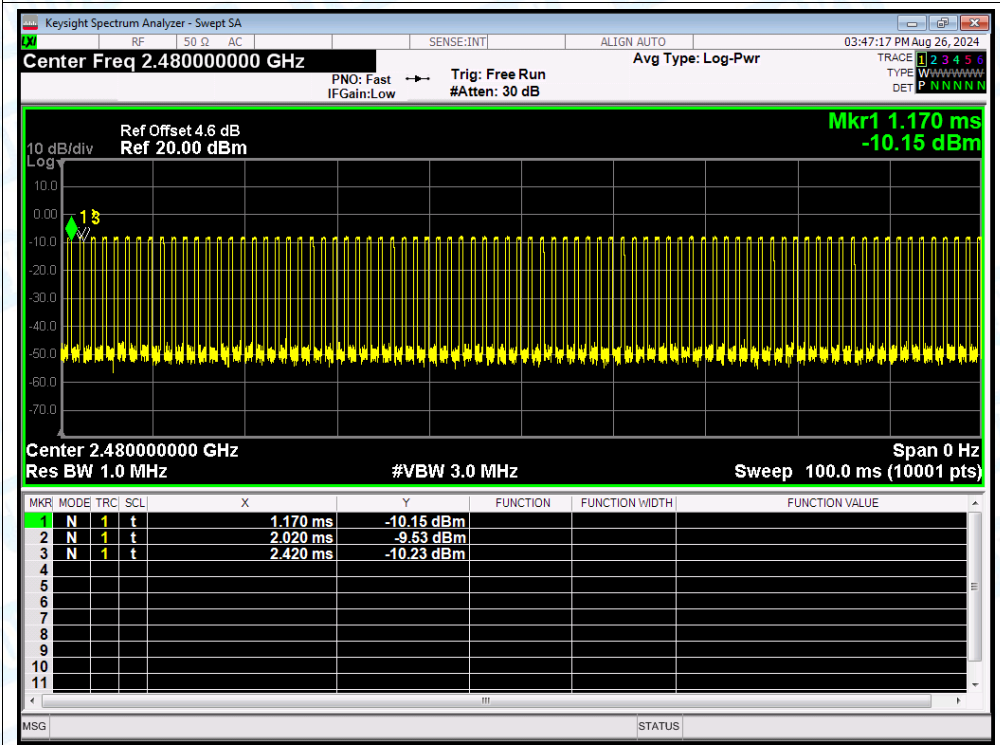
Duty Cycle NVNT 2-DH1 2402MHz Ant1



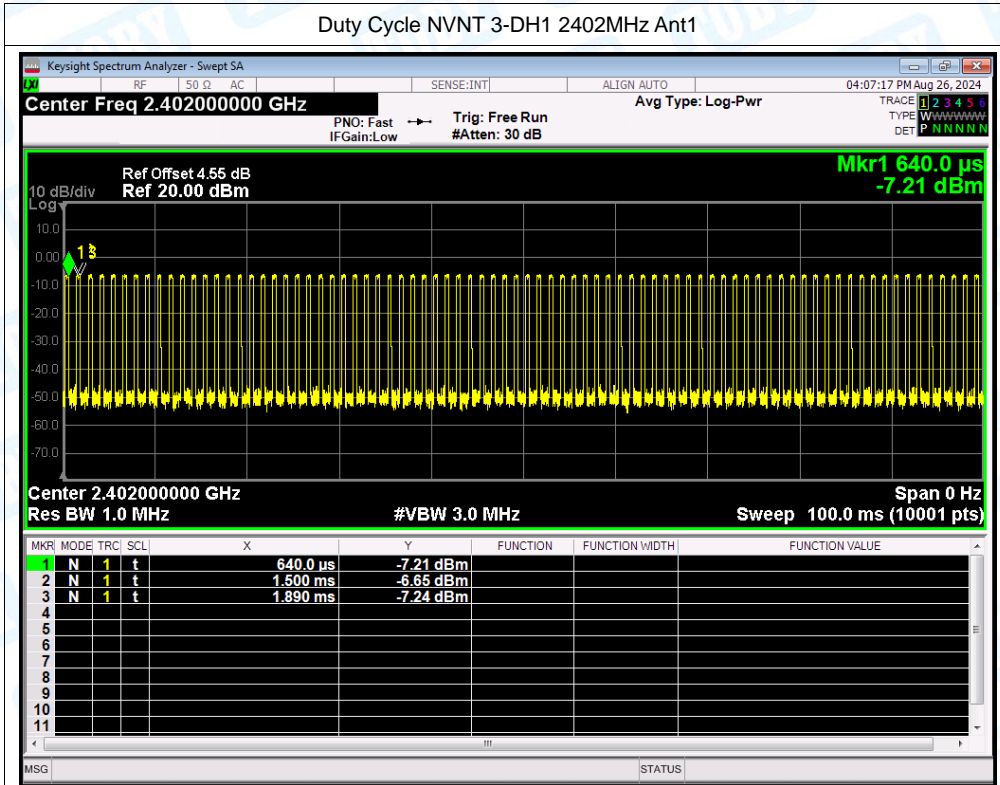
Duty Cycle NVNT 2-DH1 2441MHz Ant1



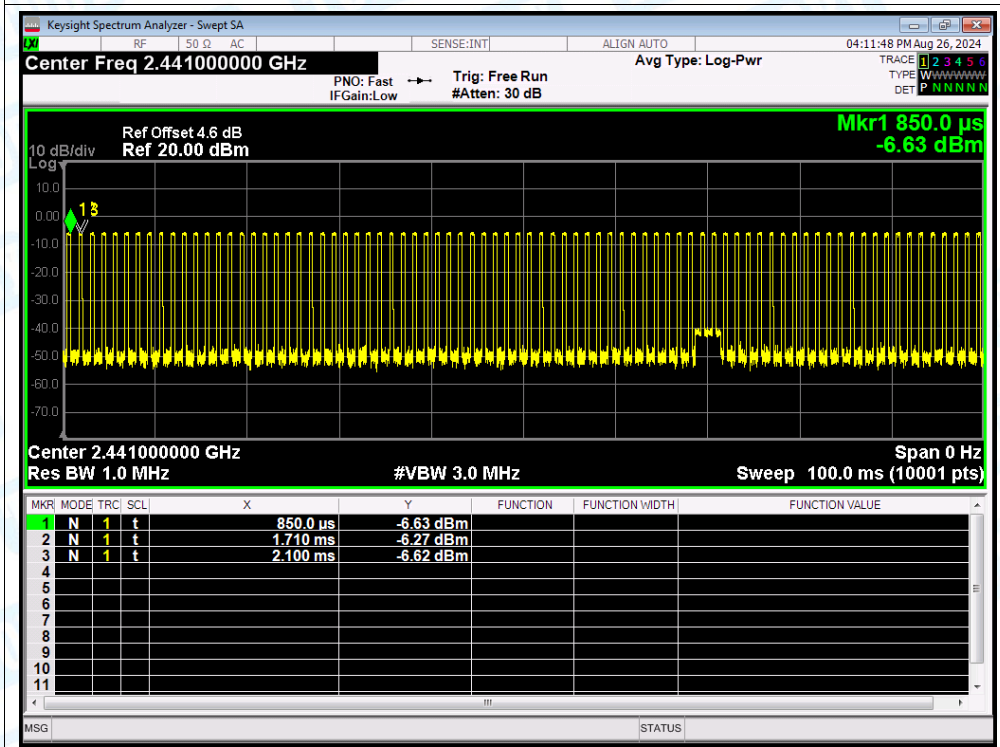
Duty Cycle NVNT 2-DH1 2480MHz Ant1

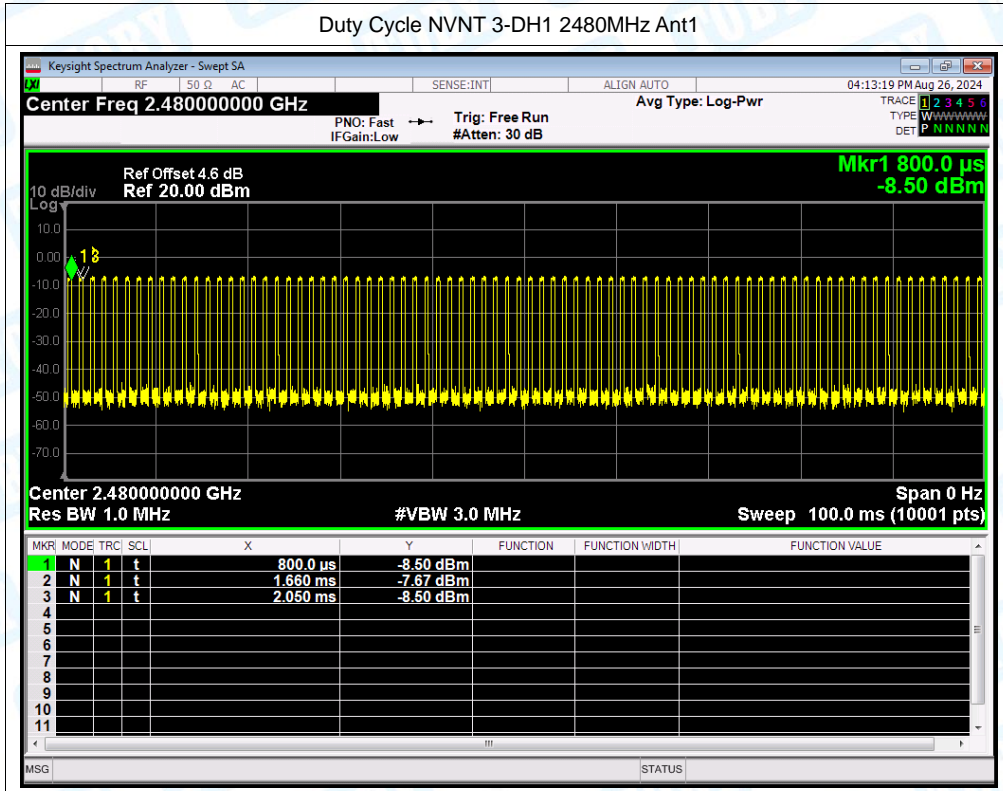


Duty Cycle NVNT 3-DH1 2402MHz Ant1



Duty Cycle NVNT 3-DH1 2441MHz Ant1



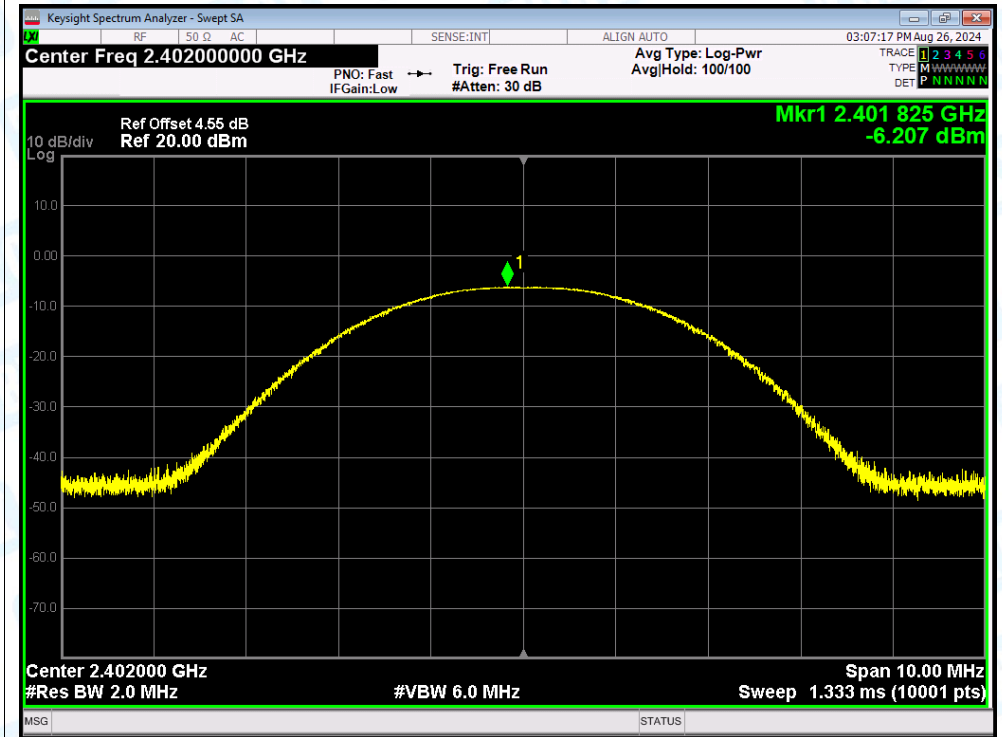


2. Maximum Conducted Output Power

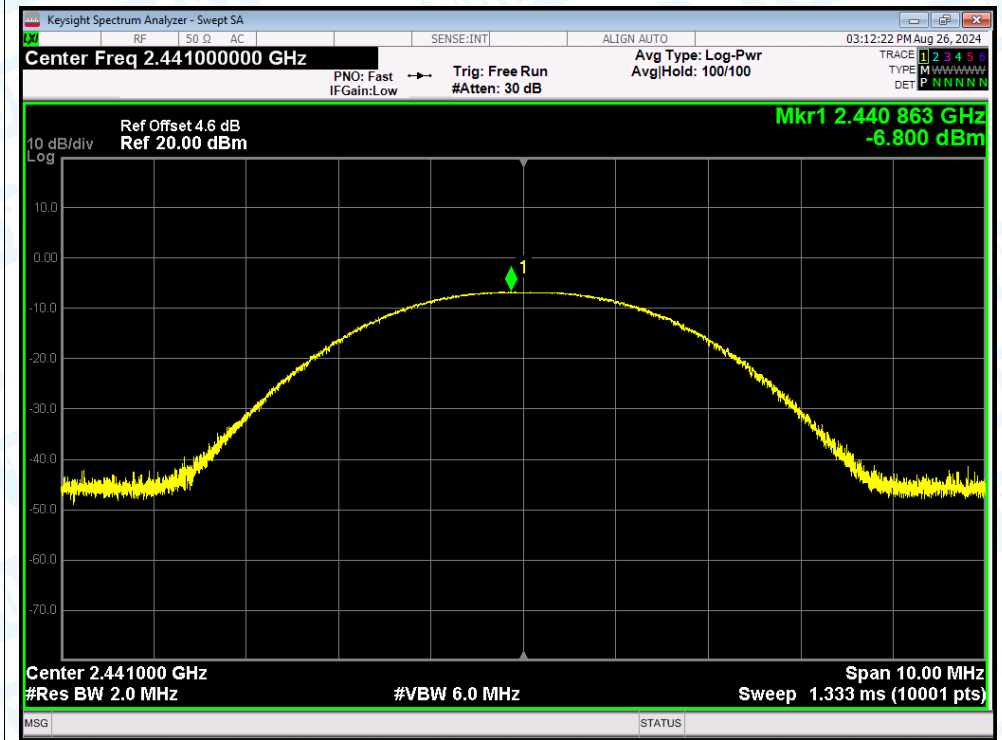
Condition	Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	-6.207	21	Pass
NVNT	1-DH1	2441	Ant1	-6.8	21	Pass
NVNT	1-DH1	2480	Ant1	-8.107	21	Pass
NVNT	2-DH1	2402	Ant1	-6.339	21	Pass
NVNT	2-DH1	2441	Ant1	-6.237	21	Pass
NVNT	2-DH1	2480	Ant1	-7.504	21	Pass
NVNT	3-DH1	2402	Ant1	-5.721	21	Pass
NVNT	3-DH1	2441	Ant1	-5.301	21	Pass
NVNT	3-DH1	2480	Ant1	-6.361	21	Pass

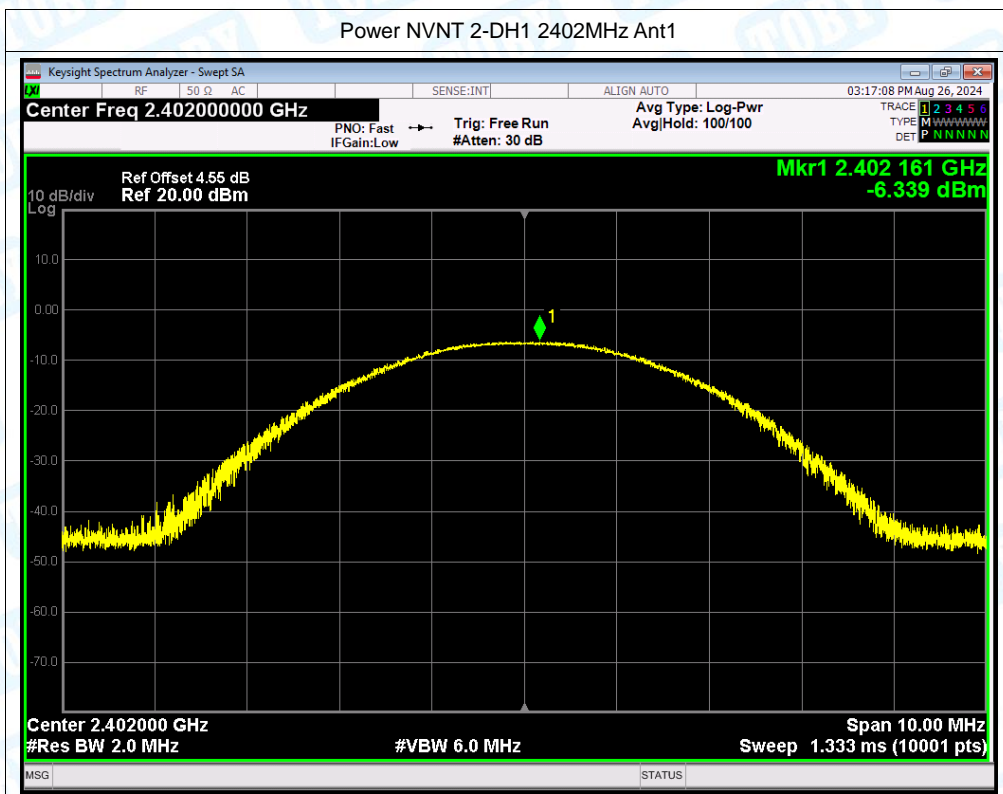
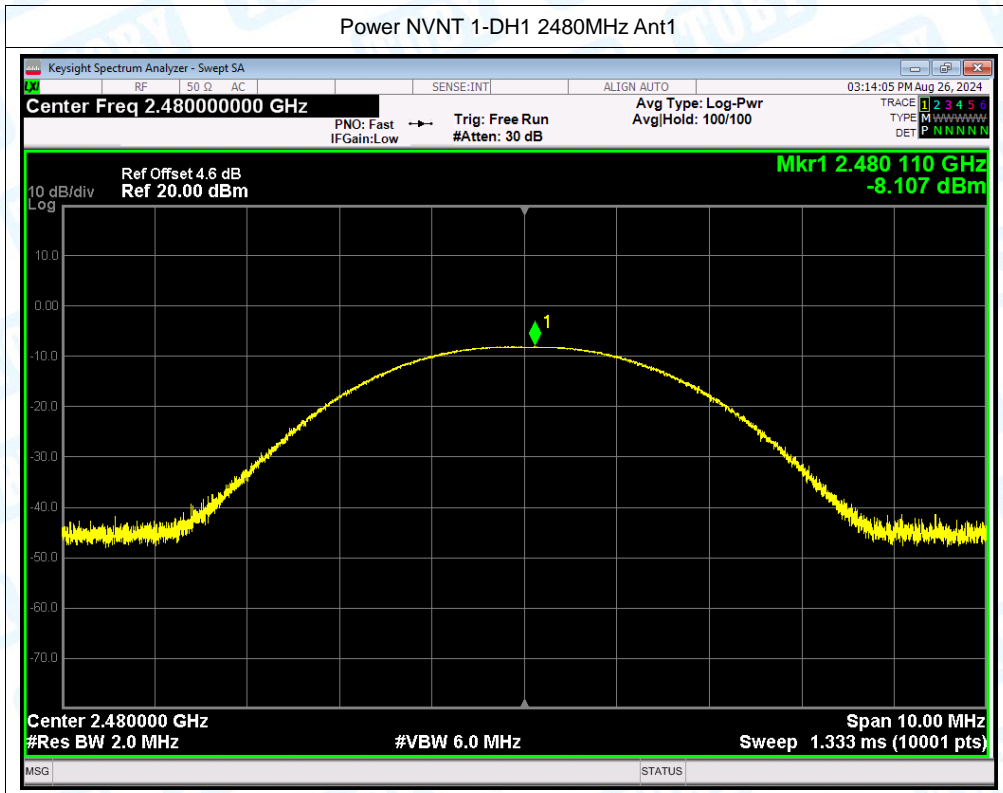
Test Graphs

Power NVNT 1-DH1 2402MHz Ant1

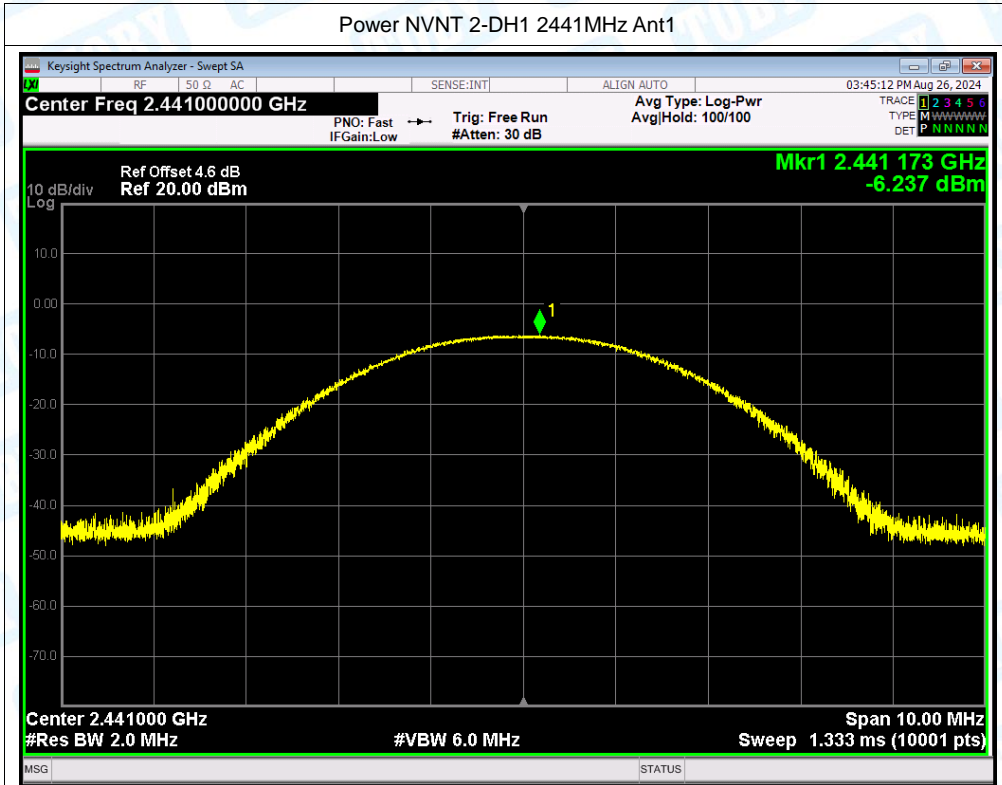


Power NVNT 1-DH1 2441MHz Ant1

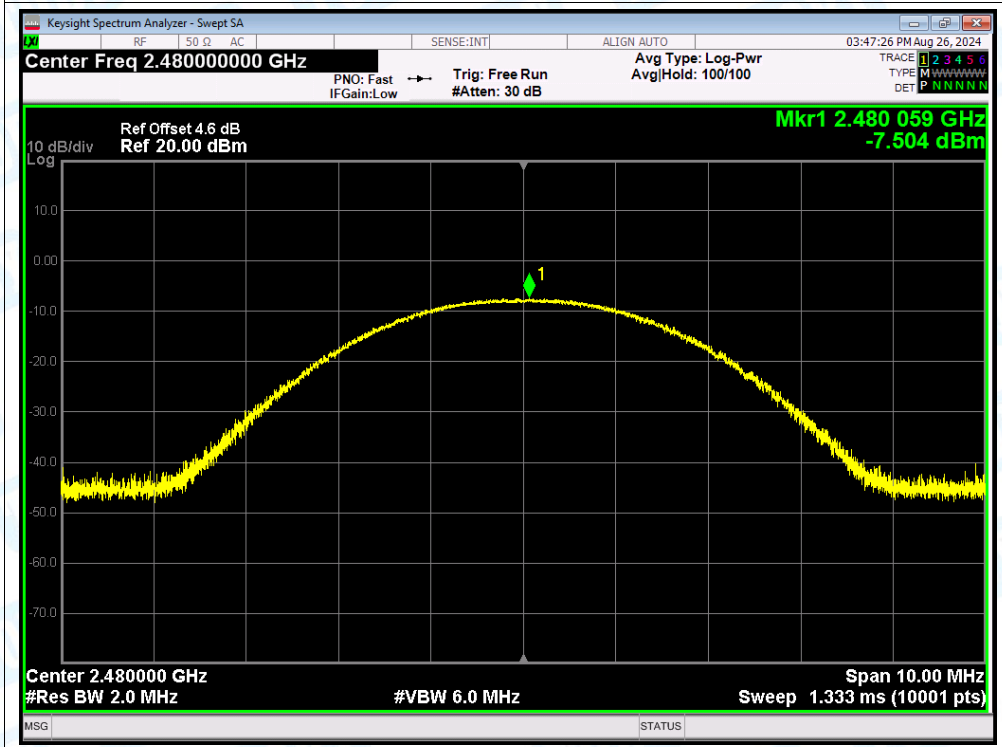


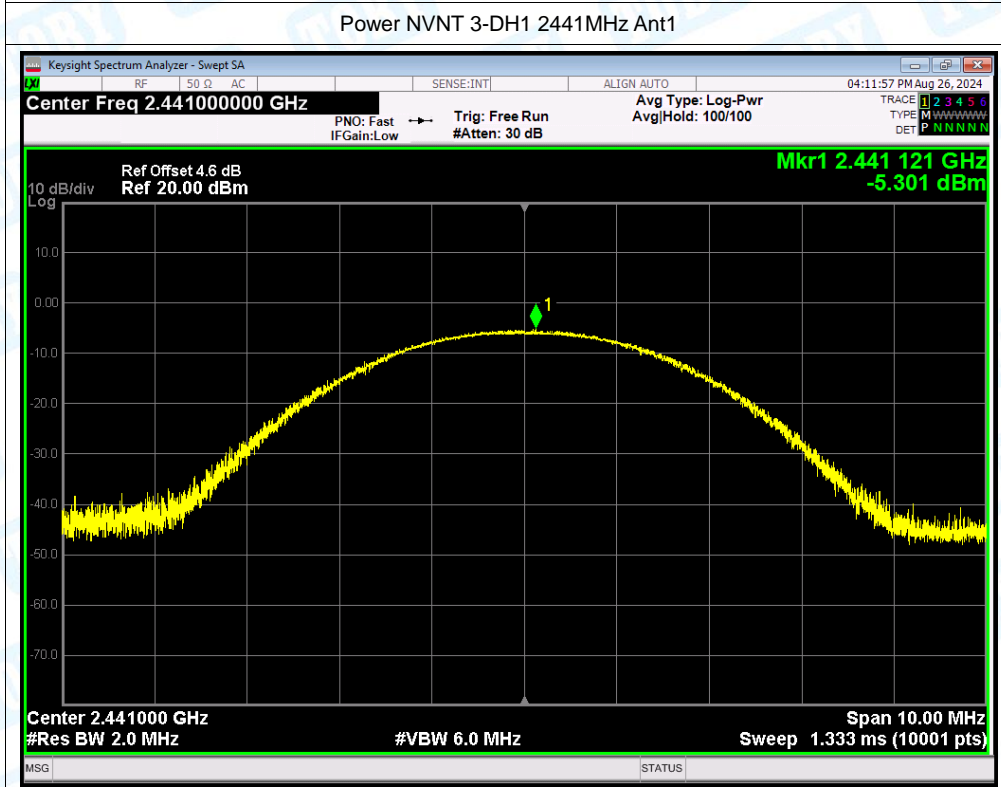
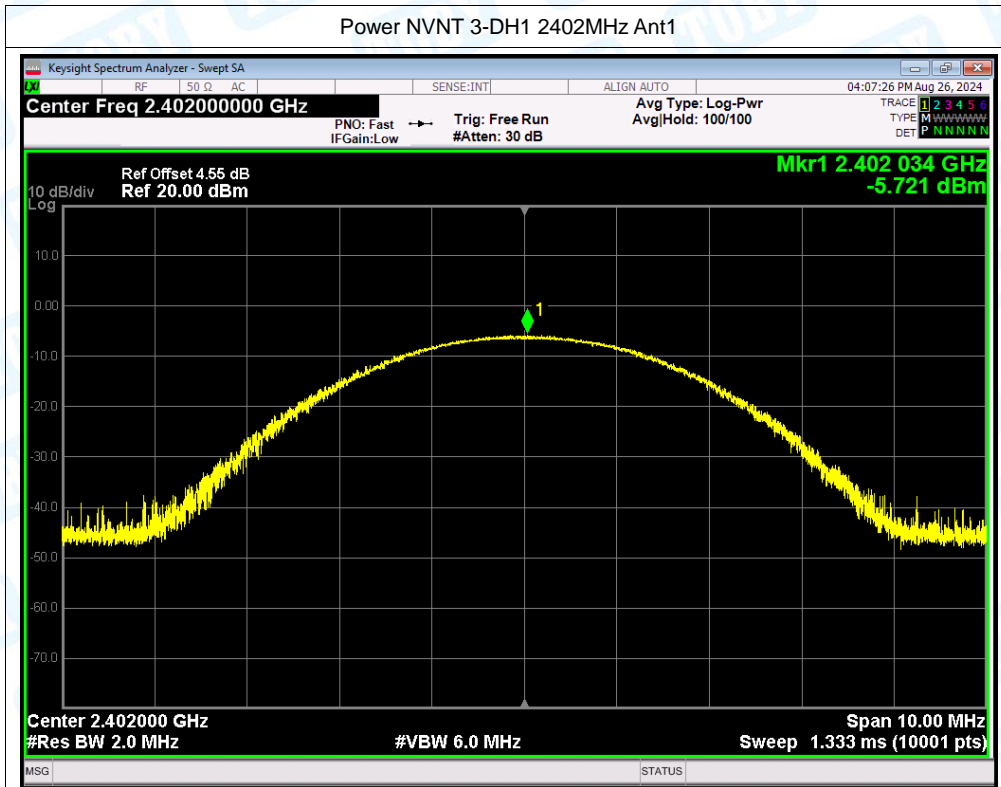


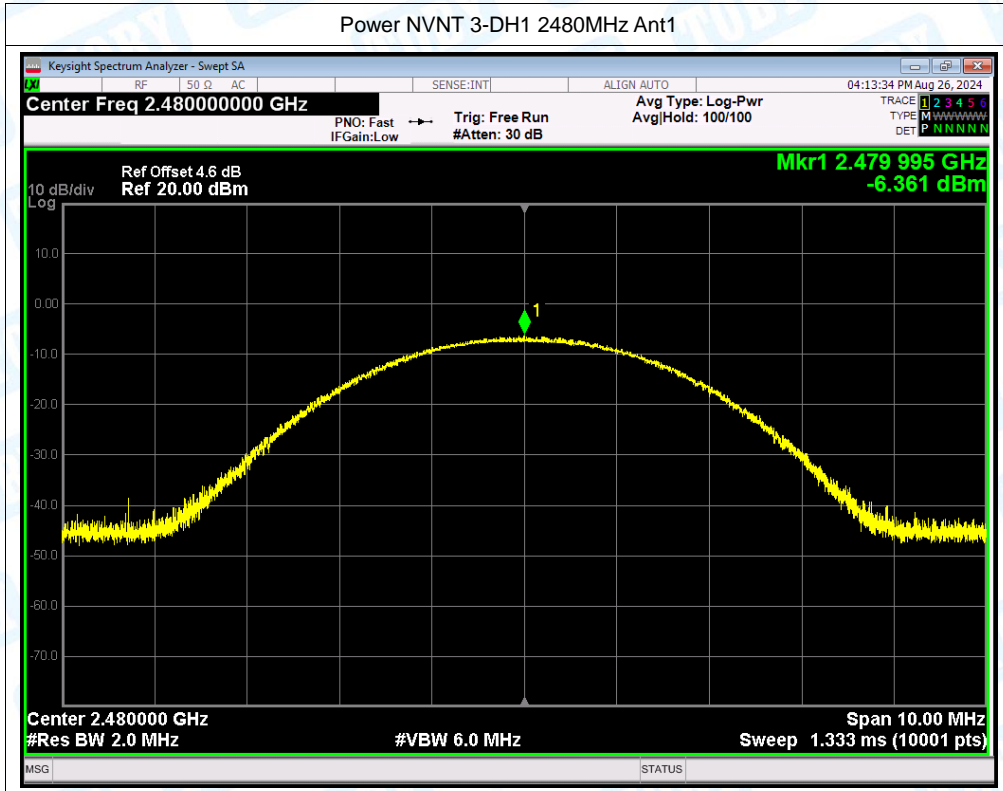
Power NVNT 2-DH1 2441MHz Ant1



Power NVNT 2-DH1 2480MHz Ant1





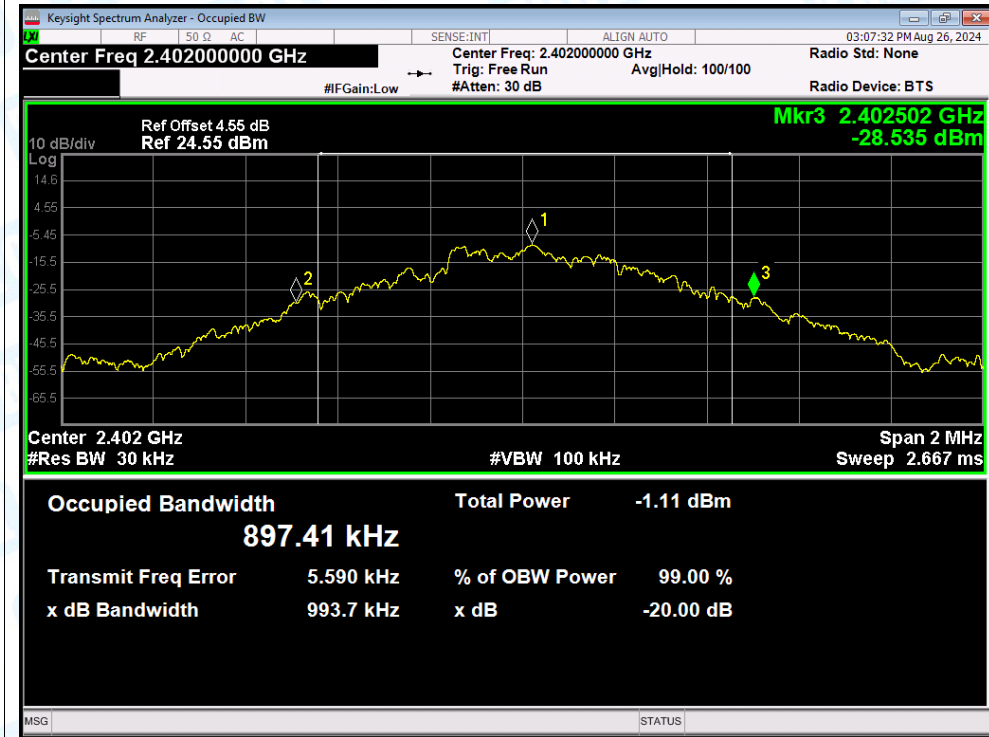


3. -20dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	0.99	0	Pass
NVNT	1-DH1	2441	Ant1	1.01	0	Pass
NVNT	1-DH1	2480	Ant1	0.93	0	Pass
NVNT	2-DH1	2402	Ant1	1.3	0	Pass
NVNT	2-DH1	2441	Ant1	1.27	0	Pass
NVNT	2-DH1	2480	Ant1	1.24	0	Pass
NVNT	3-DH1	2402	Ant1	1.22	0	Pass
NVNT	3-DH1	2441	Ant1	1.25	0	Pass
NVNT	3-DH1	2480	Ant1	1.25	0	Pass

Test Graphs

-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1



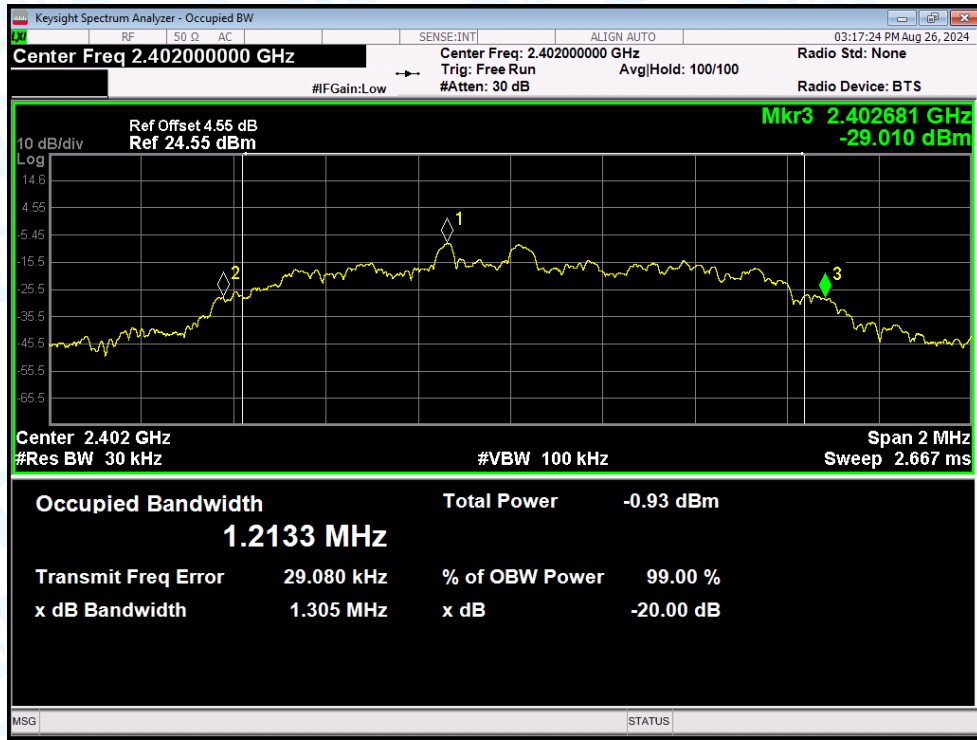
-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1



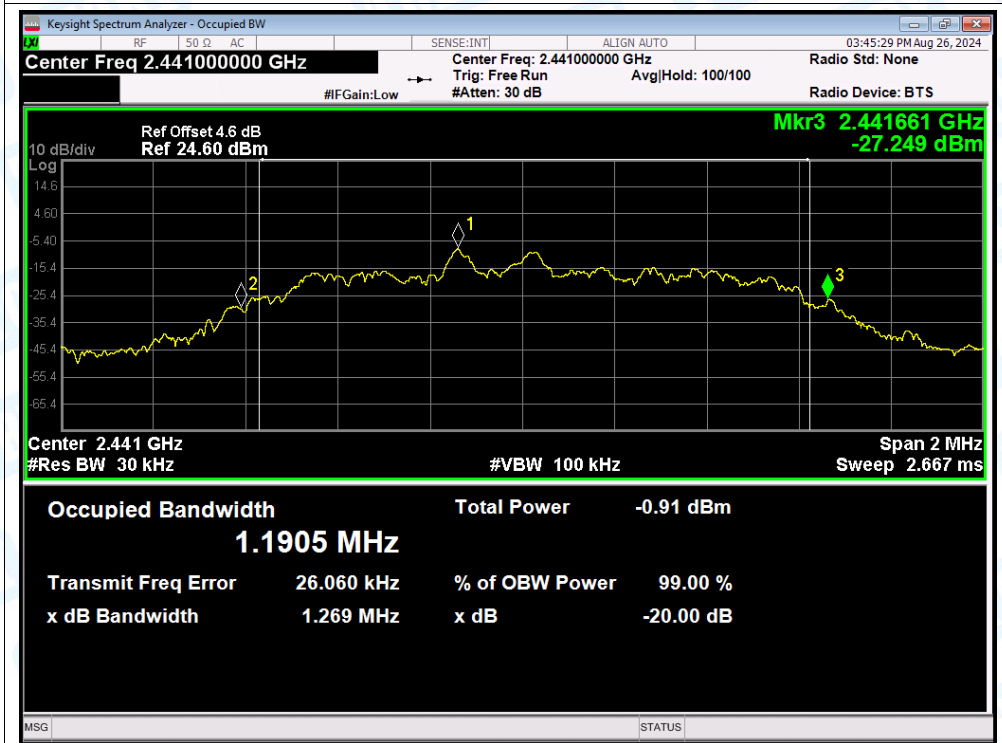
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



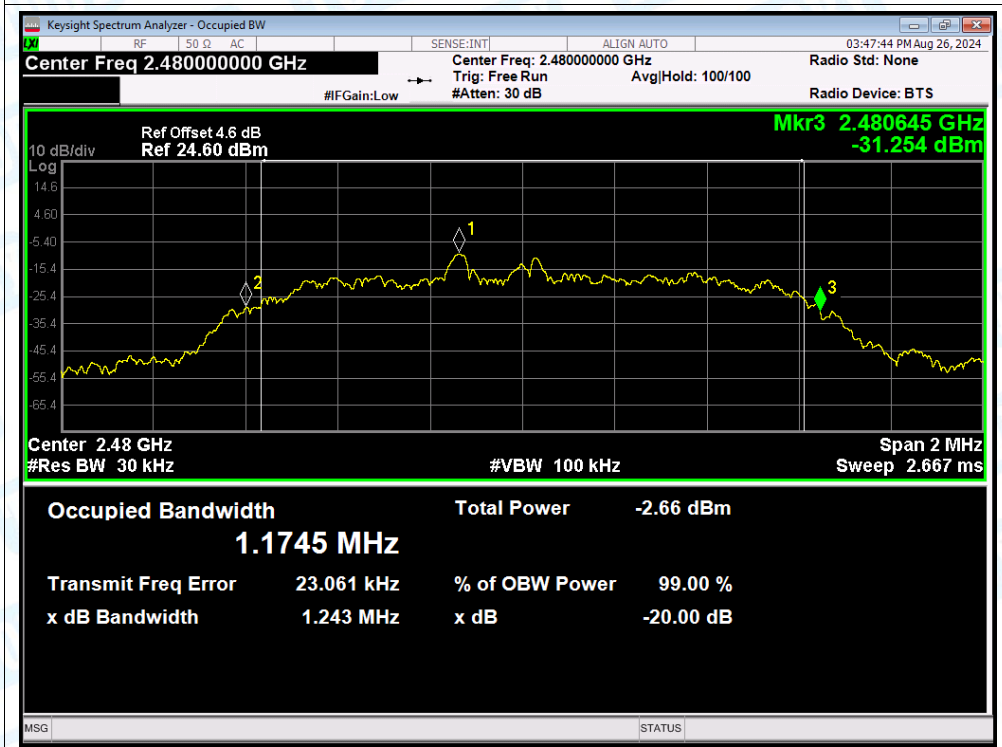
-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



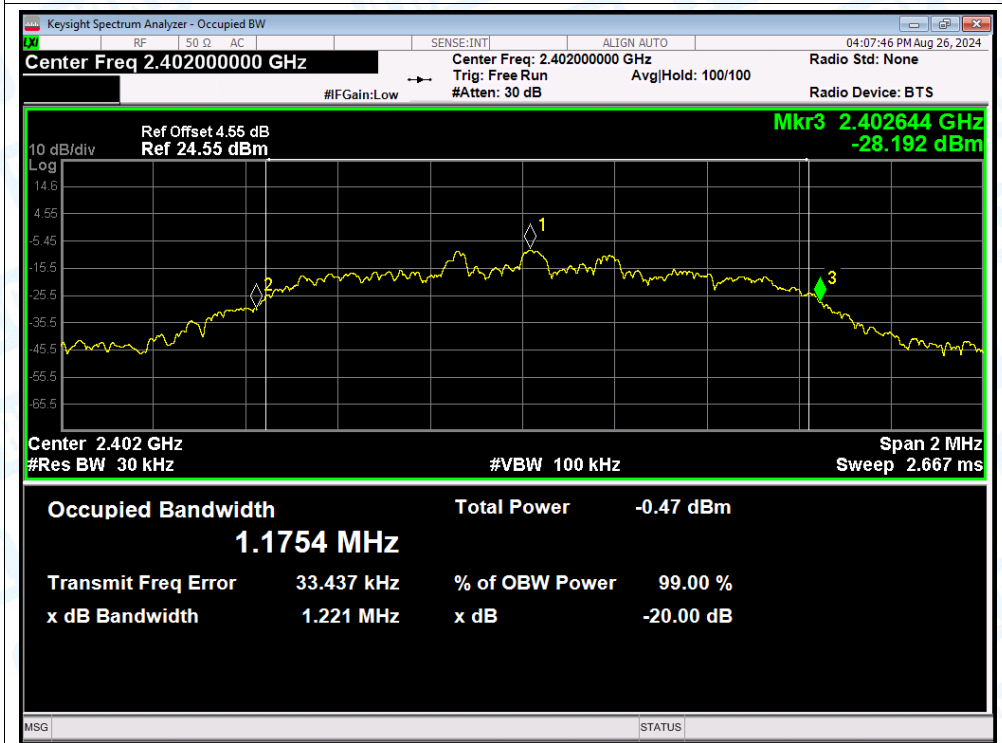
-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



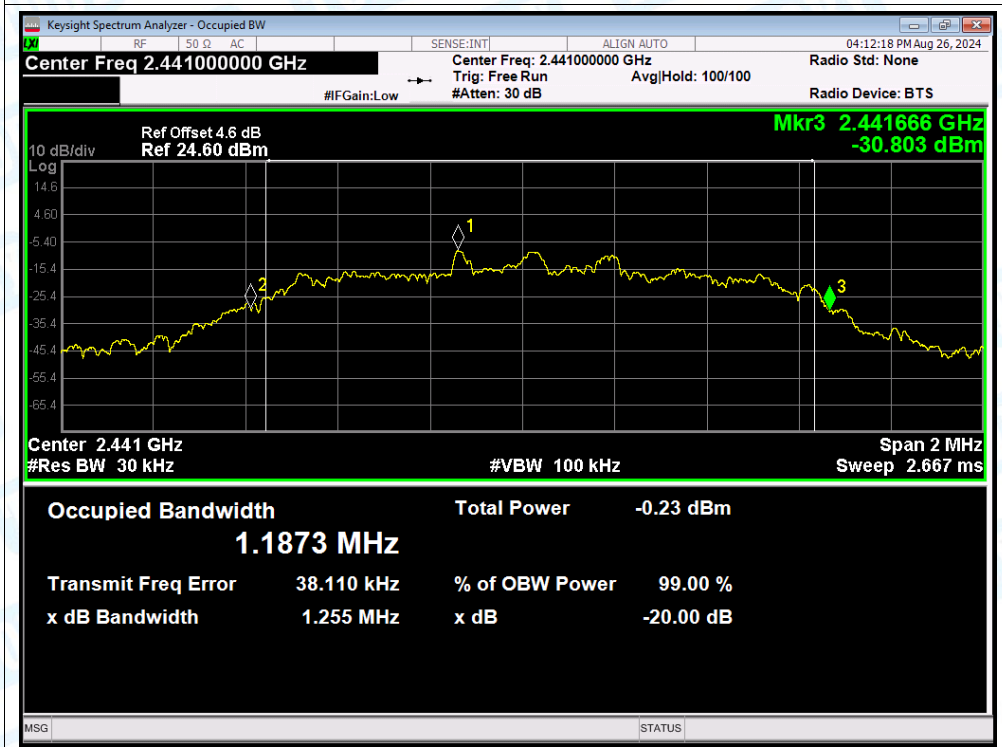
-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1

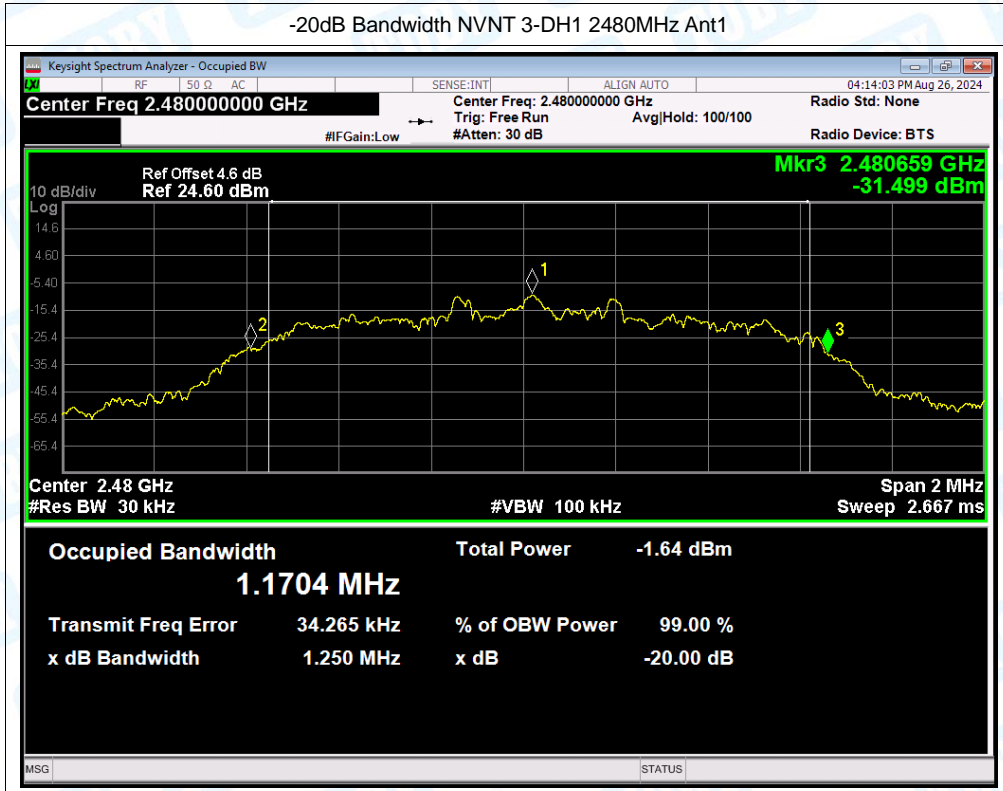


-20dB Bandwidth NVNT 3-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2441MHz Ant1



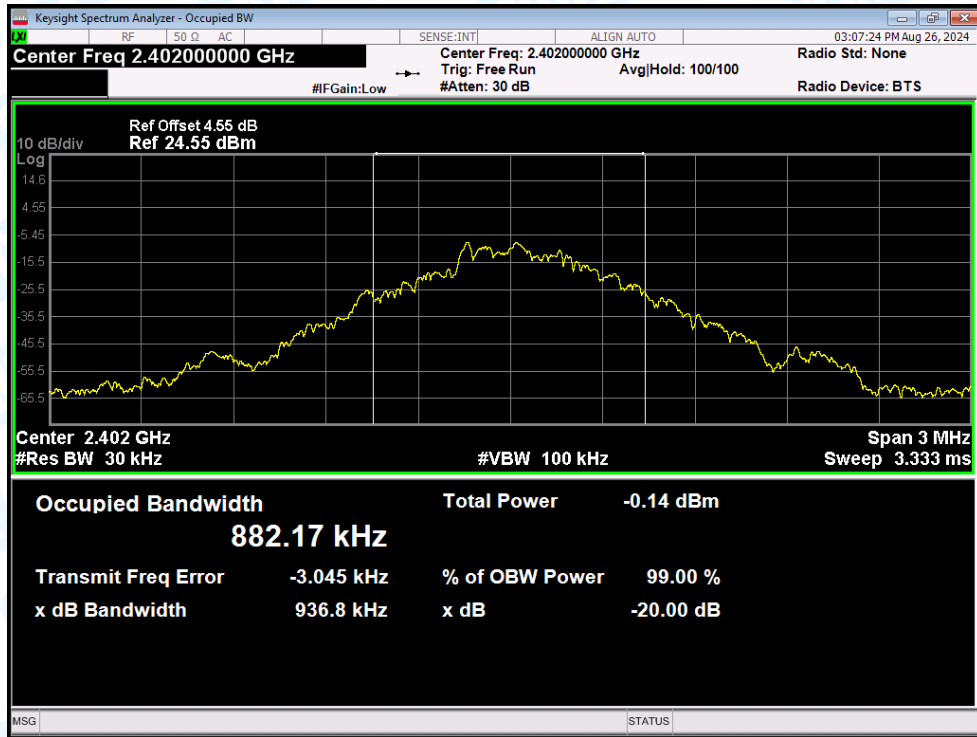


4. Occupied Channel Bandwidth

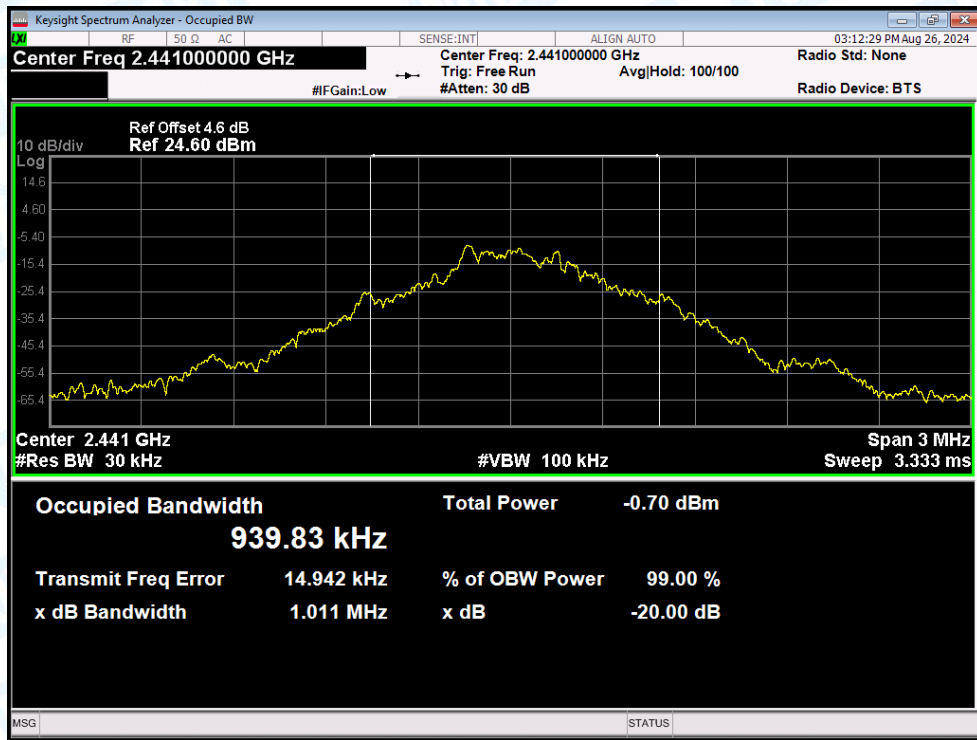
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH1	2402	Ant1	0.882
NVNT	1-DH1	2441	Ant1	0.94
NVNT	1-DH1	2480	Ant1	0.884
NVNT	2-DH1	2402	Ant1	1.24
NVNT	2-DH1	2441	Ant1	1.234
NVNT	2-DH1	2480	Ant1	1.172
NVNT	3-DH1	2402	Ant1	1.19
NVNT	3-DH1	2441	Ant1	1.193
NVNT	3-DH1	2480	Ant1	1.185

Test Graphs

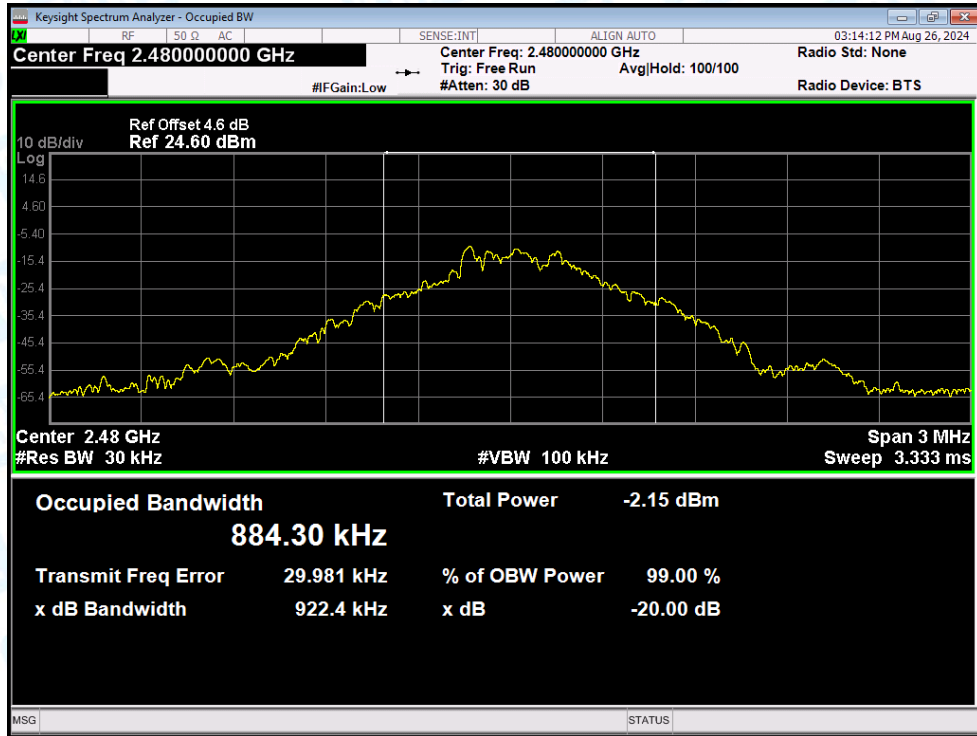
OBW NVNT 1-DH1 2402MHz Ant1



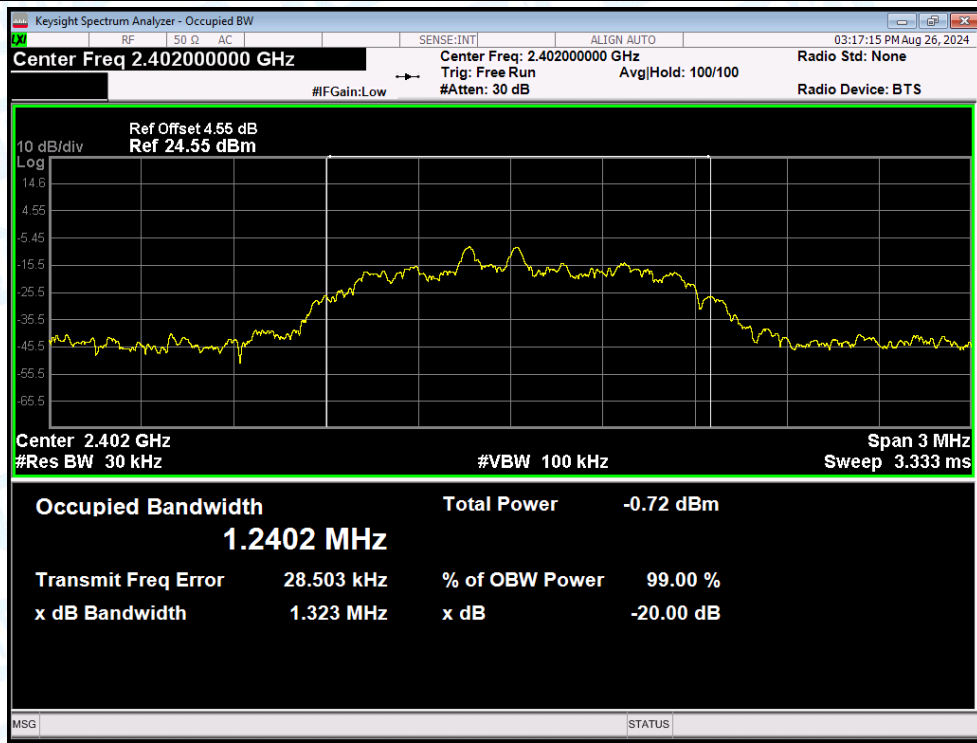
OBW NVNT 1-DH1 2441MHz Ant1



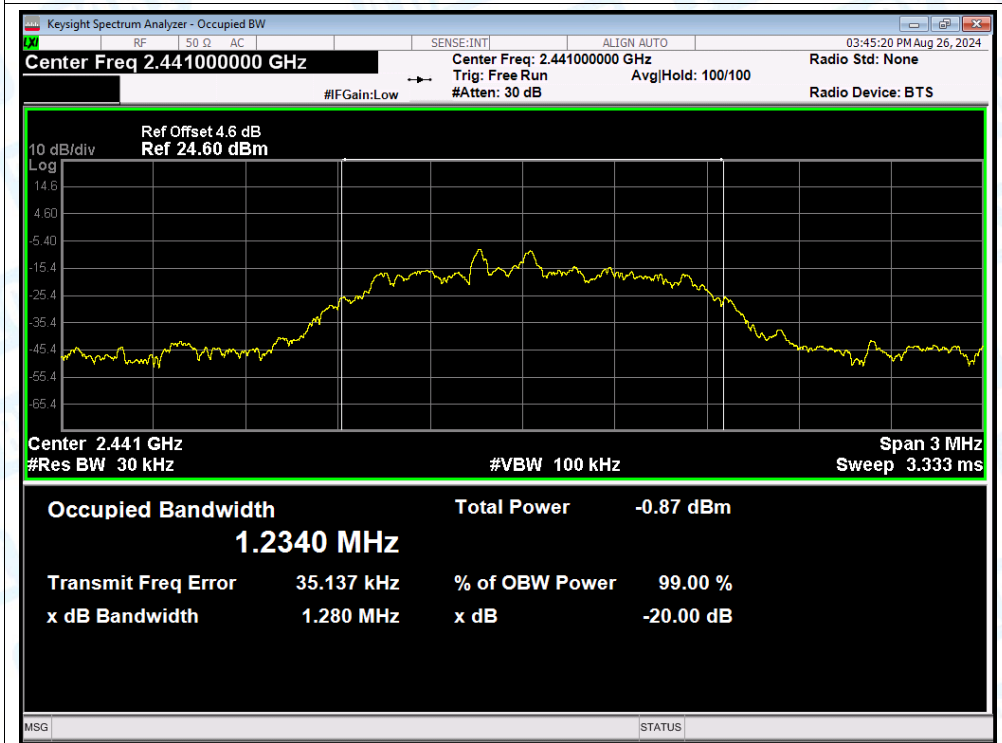
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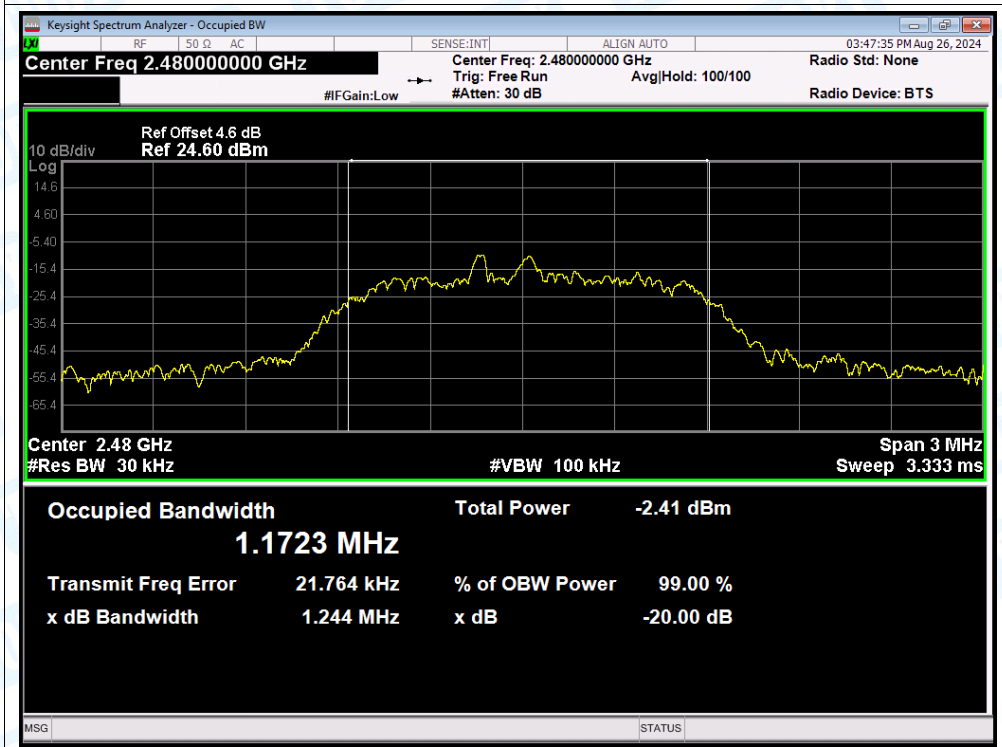
OBW NVNT 2-DH1 2402MHz Ant1



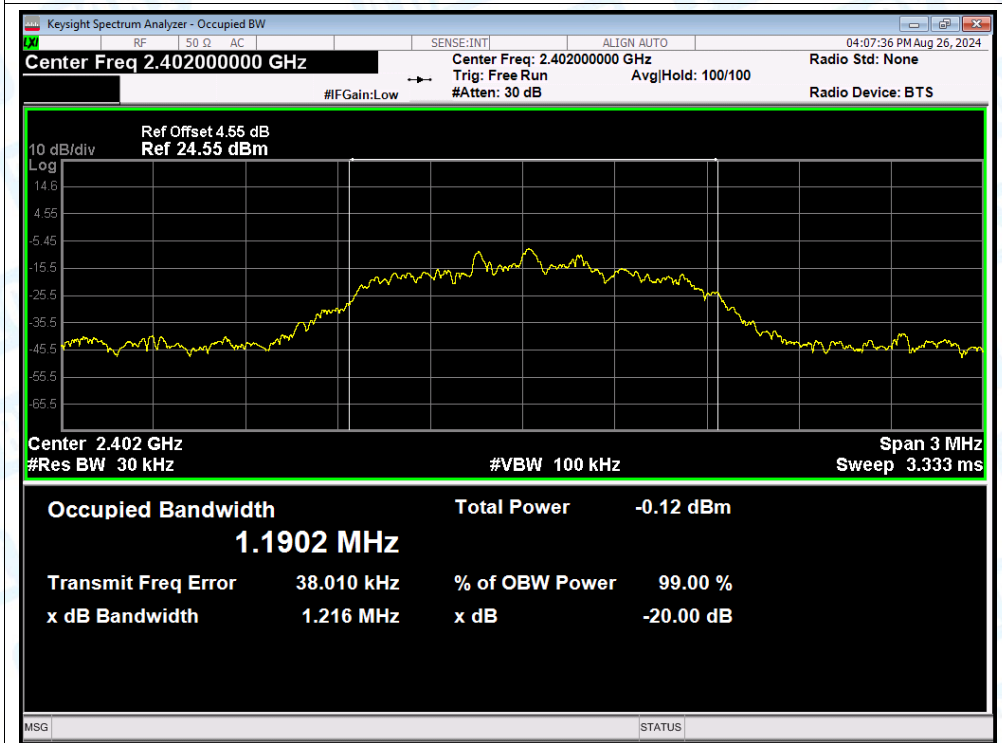
OBW NVNT 2-DH1 2441MHz Ant1



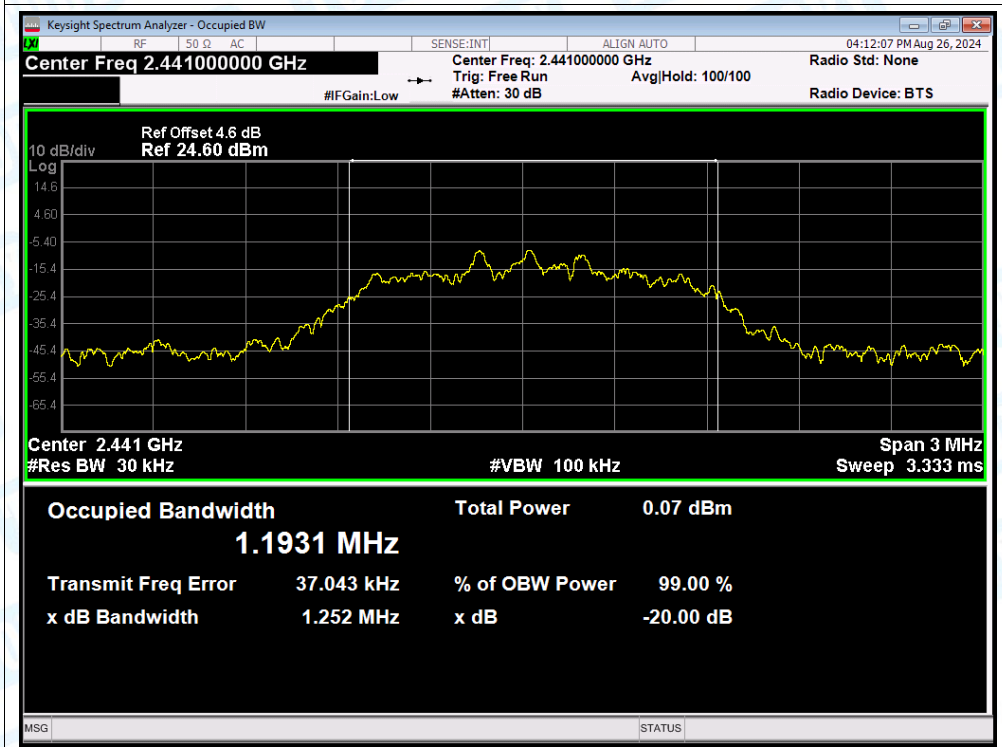
OBW NVNT 2-DH1 2480MHz Ant1

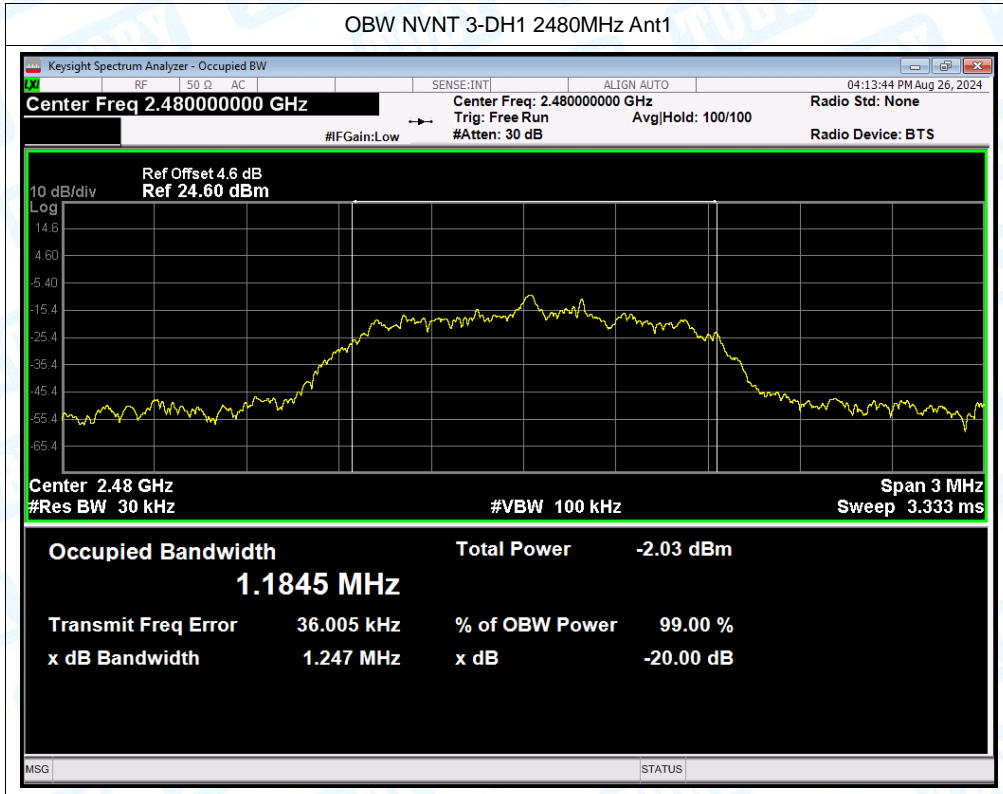


OBW NVNT 3-DH1 2402MHz Ant1



OBW NVNT 3-DH1 2441MHz Ant1



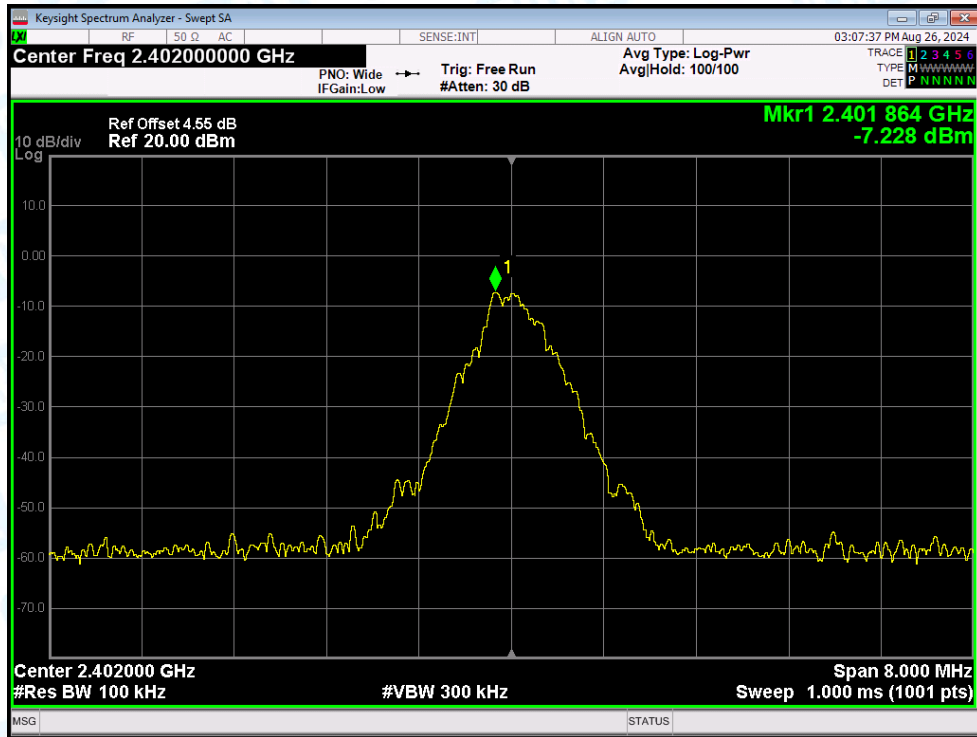


5. Band Edge

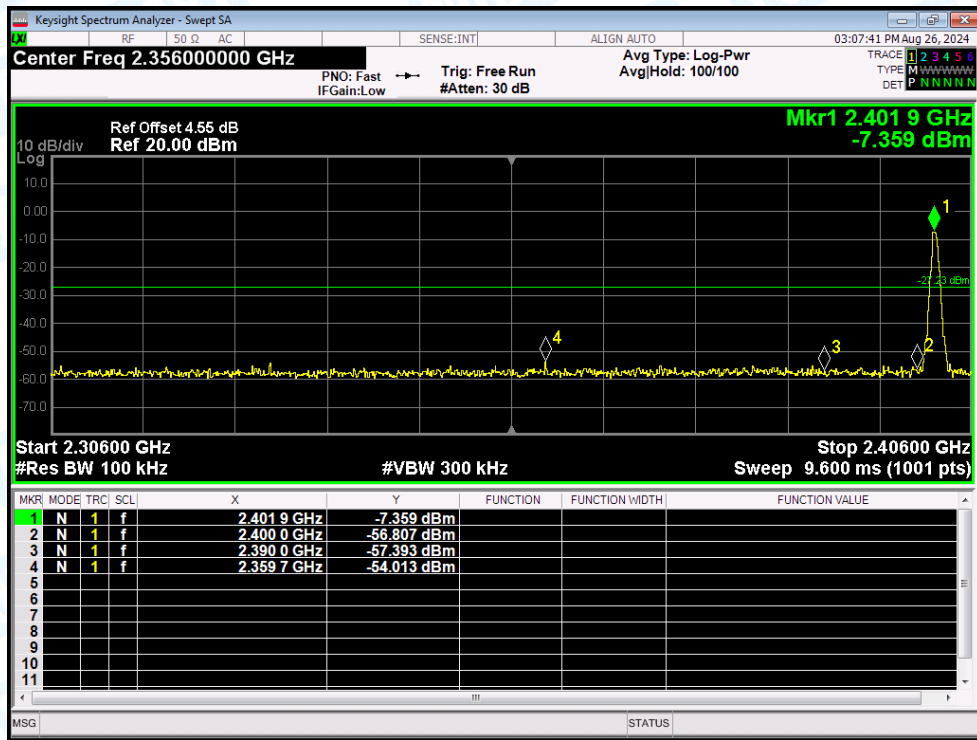
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-46.78	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-46.17	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-47.72	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-46.13	-20	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	-47.29	-20	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	-46.83	-20	Pass

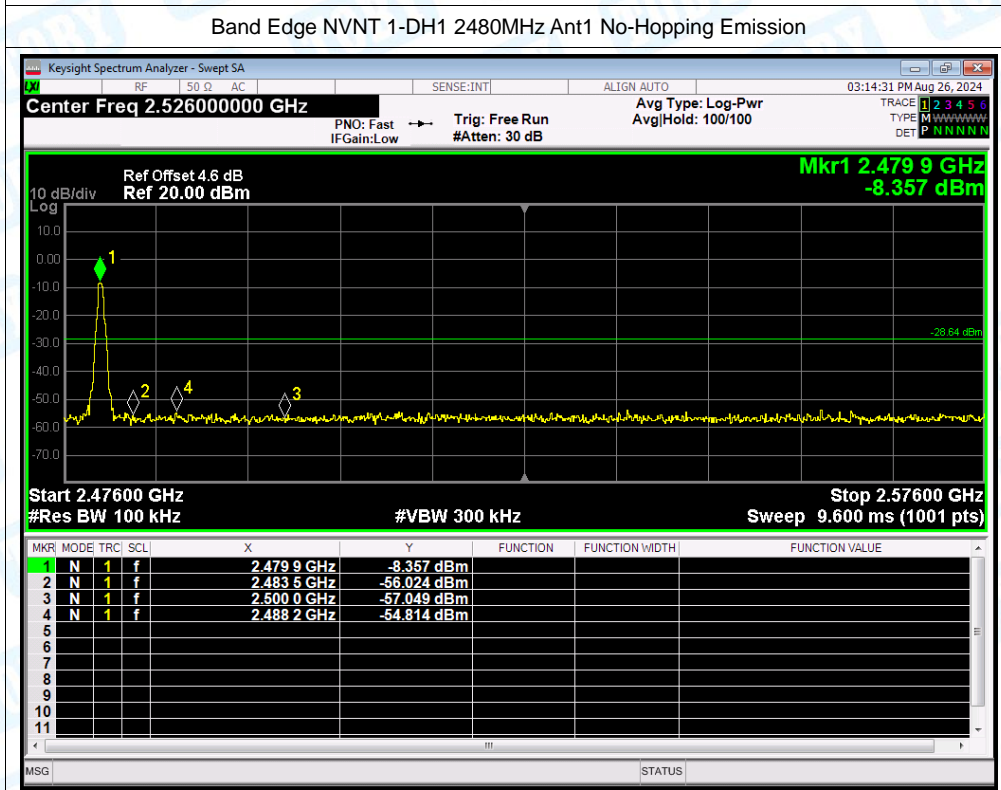
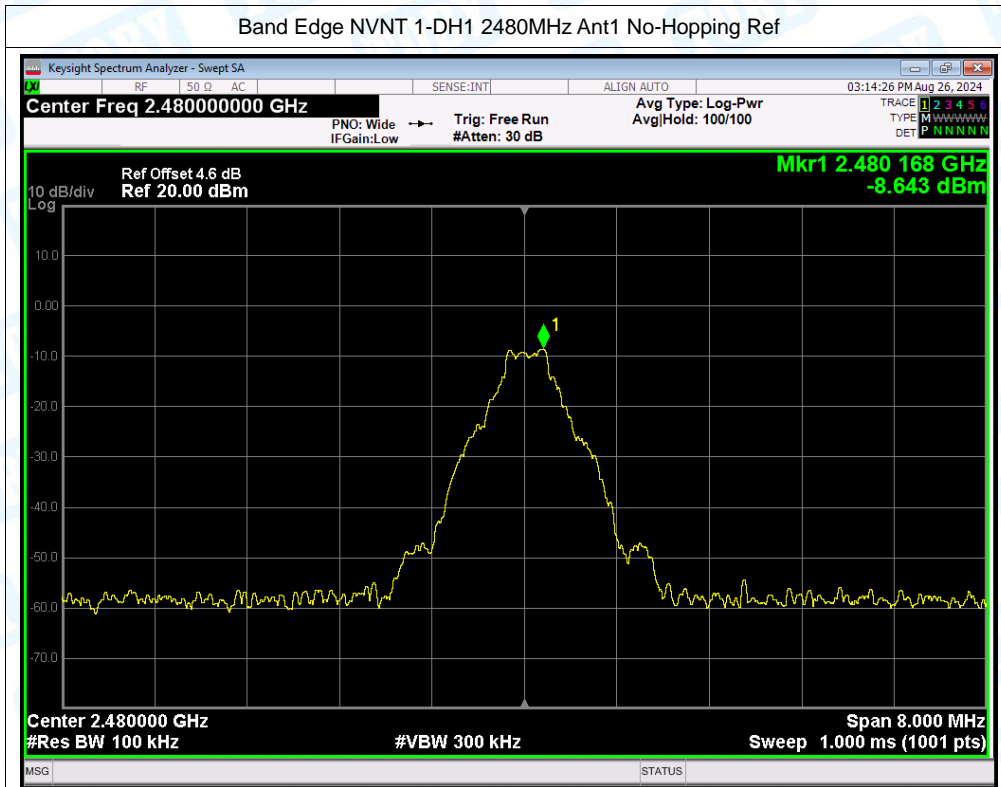
Test Graphs

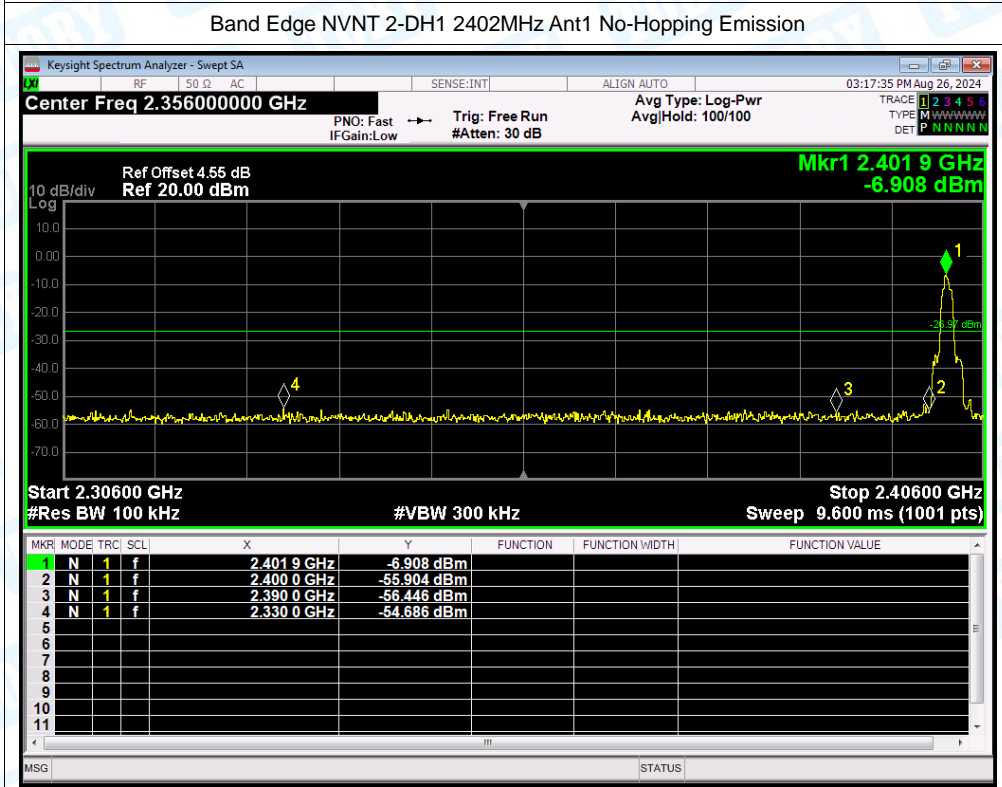
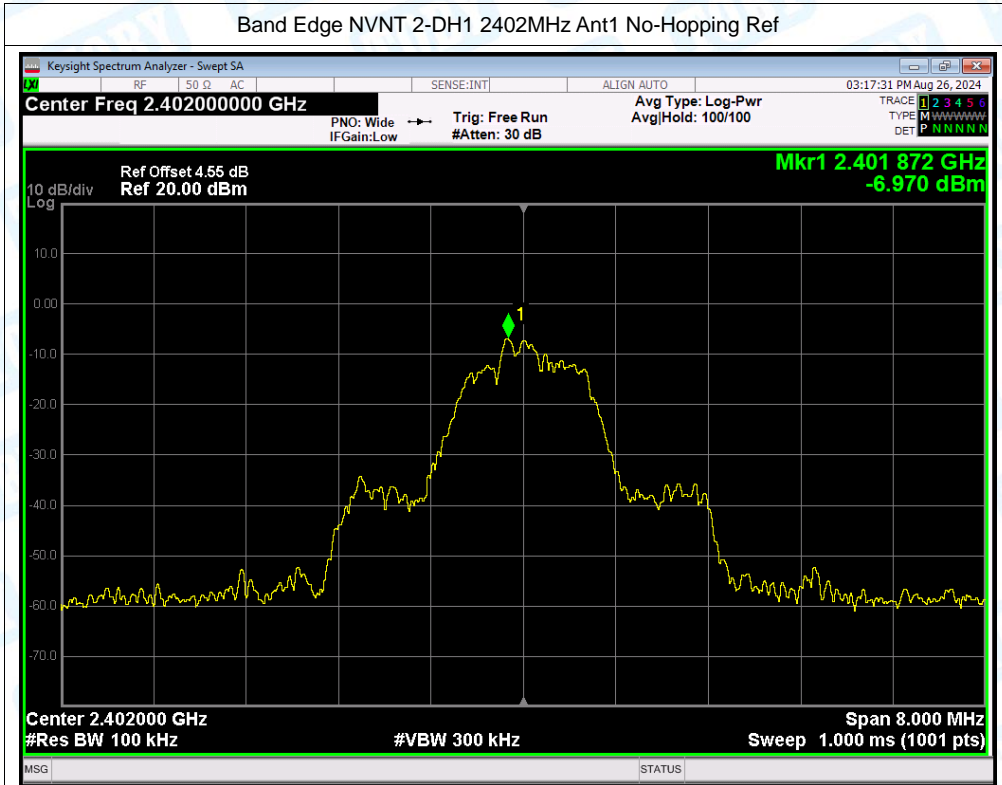
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Ref

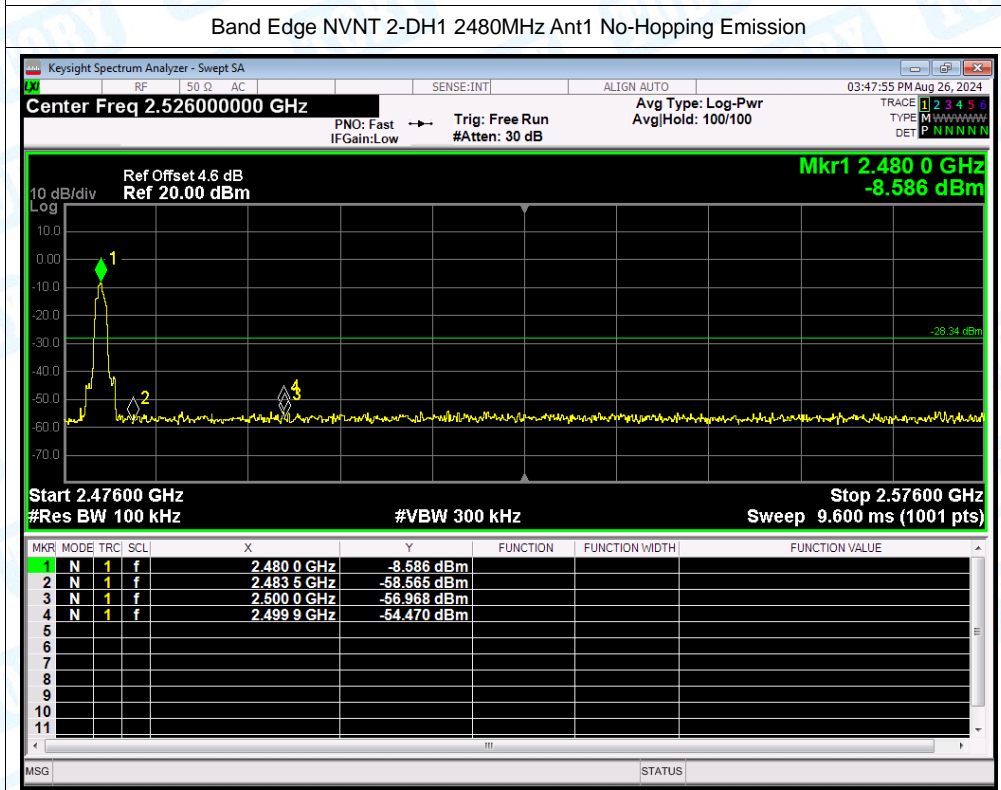
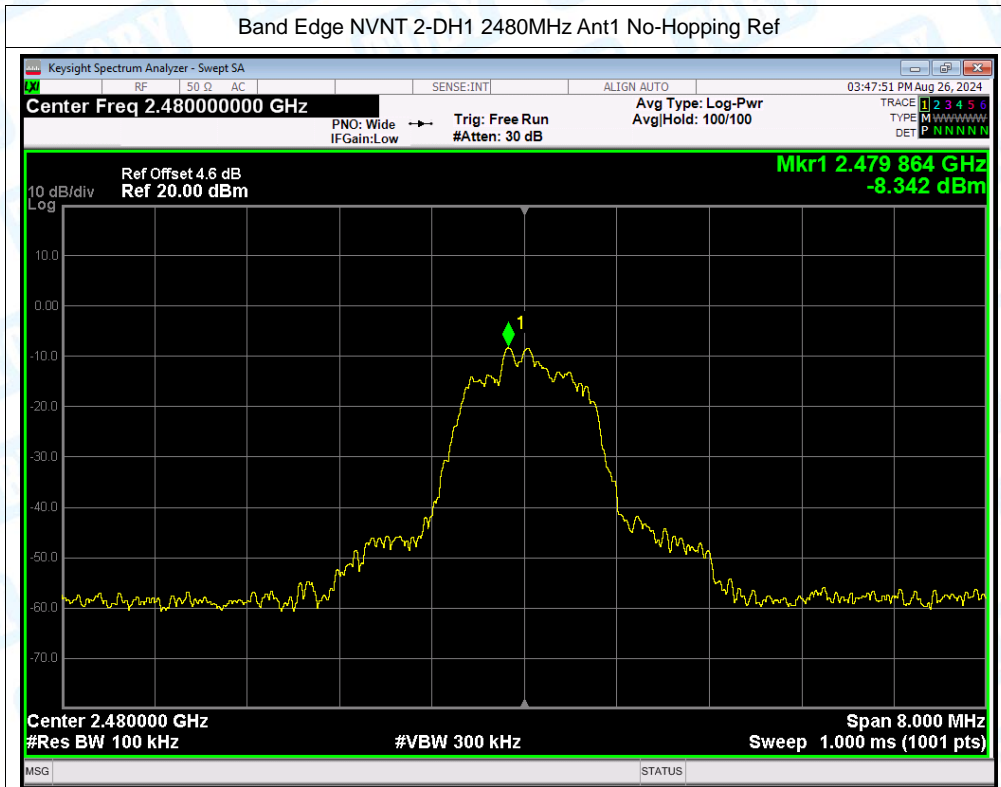


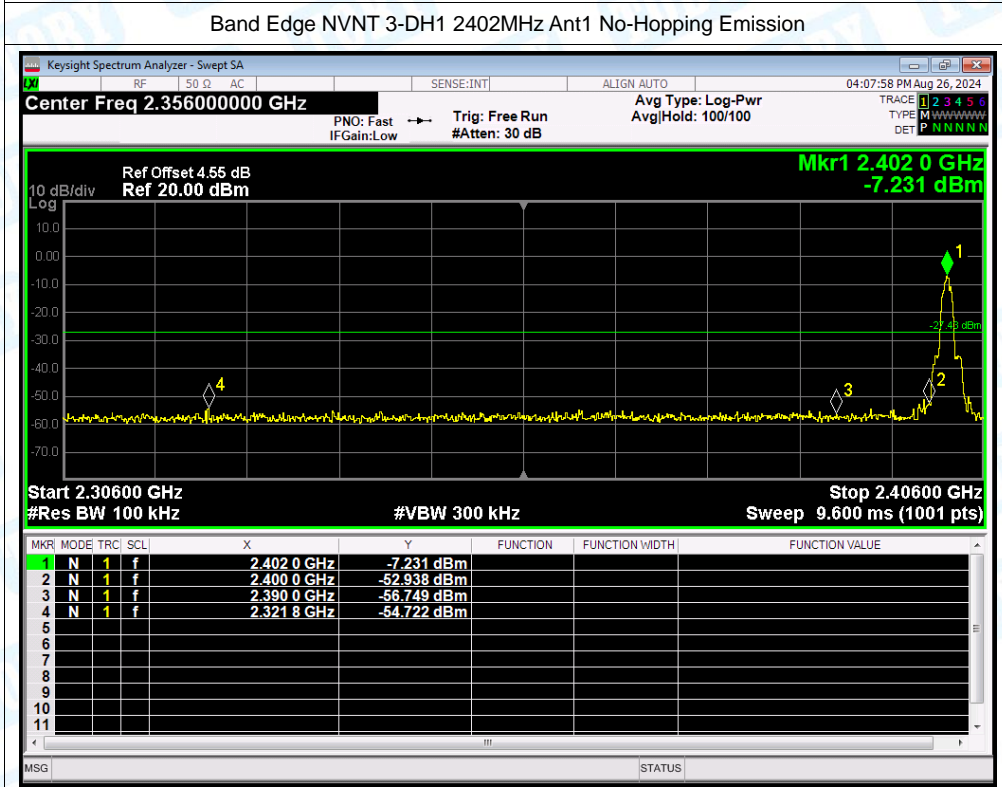
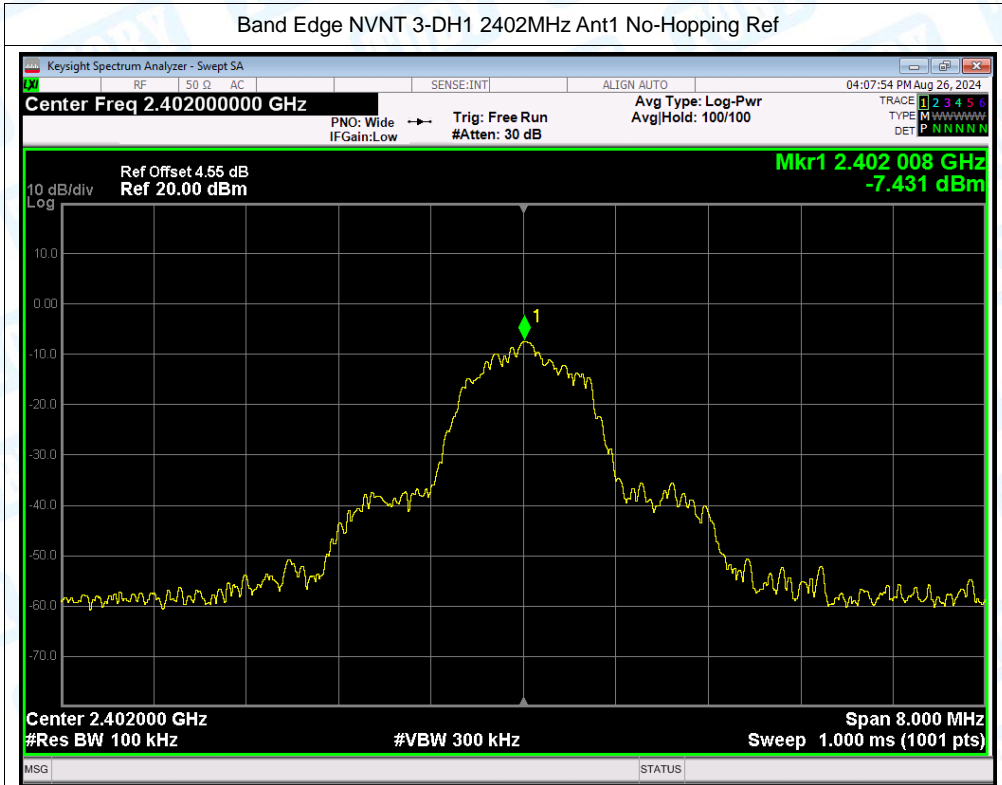
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission

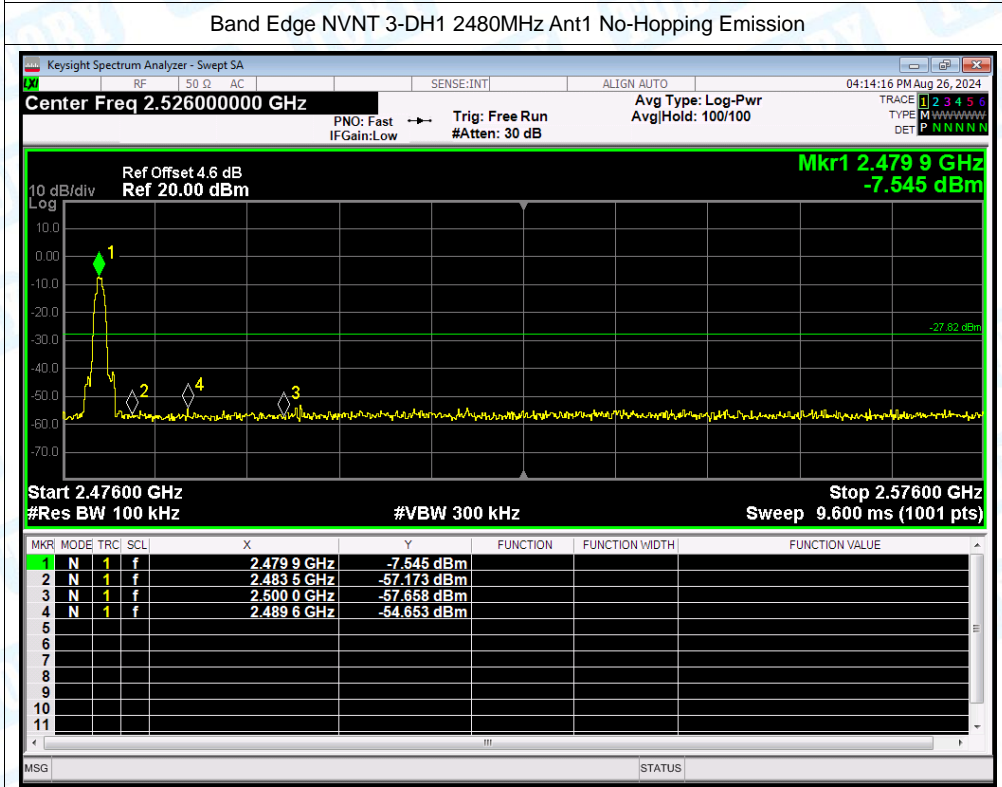
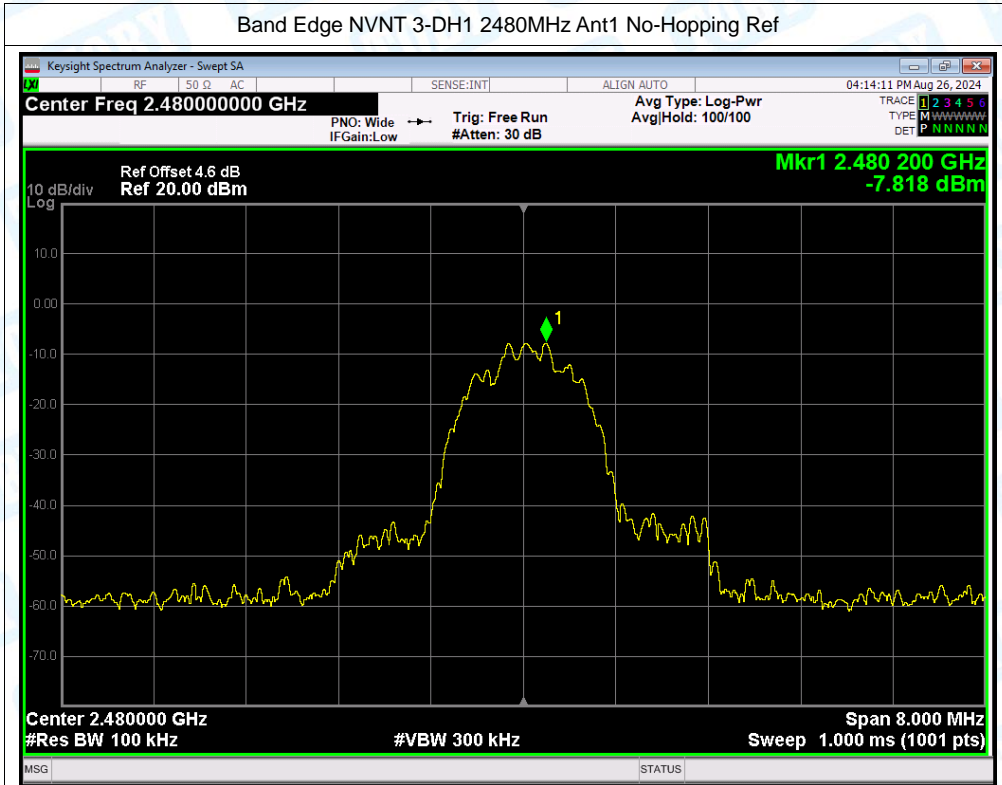












6. Band Edge(Hopping)

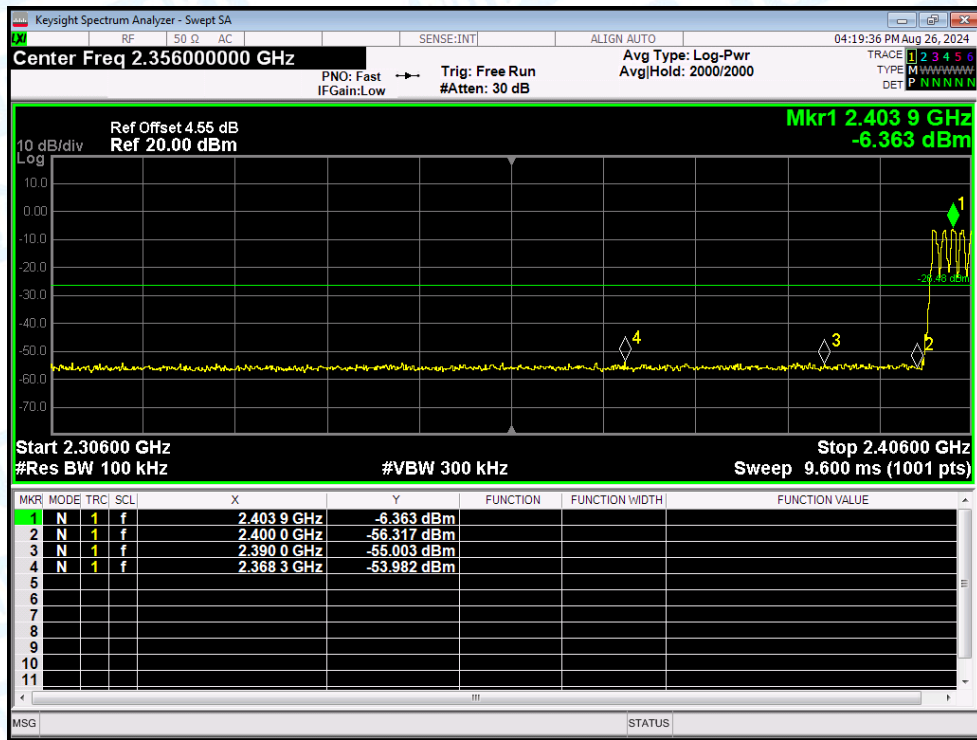
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-47.5	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-46.43	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-47.18	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-46.3	-20	Pass
NVNT	3-DH1	2402	Ant1	Hopping	-46.08	-20	Pass
NVNT	3-DH1	2480	Ant1	Hopping	-46.22	-20	Pass

Test Graphs

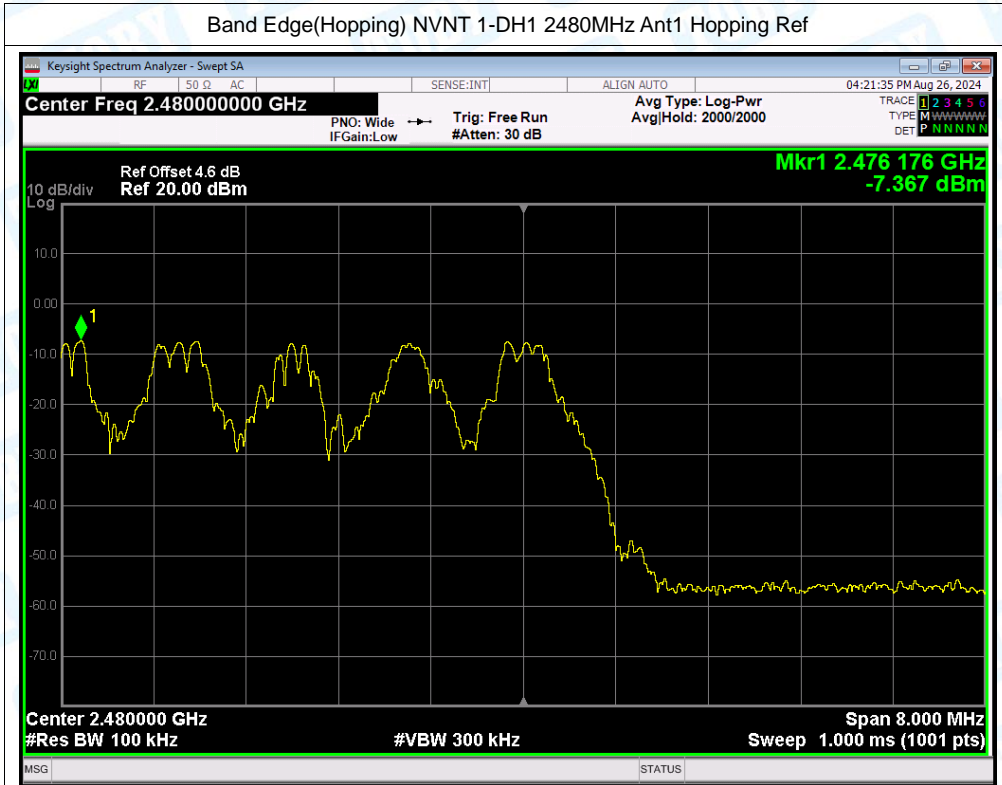
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Ref



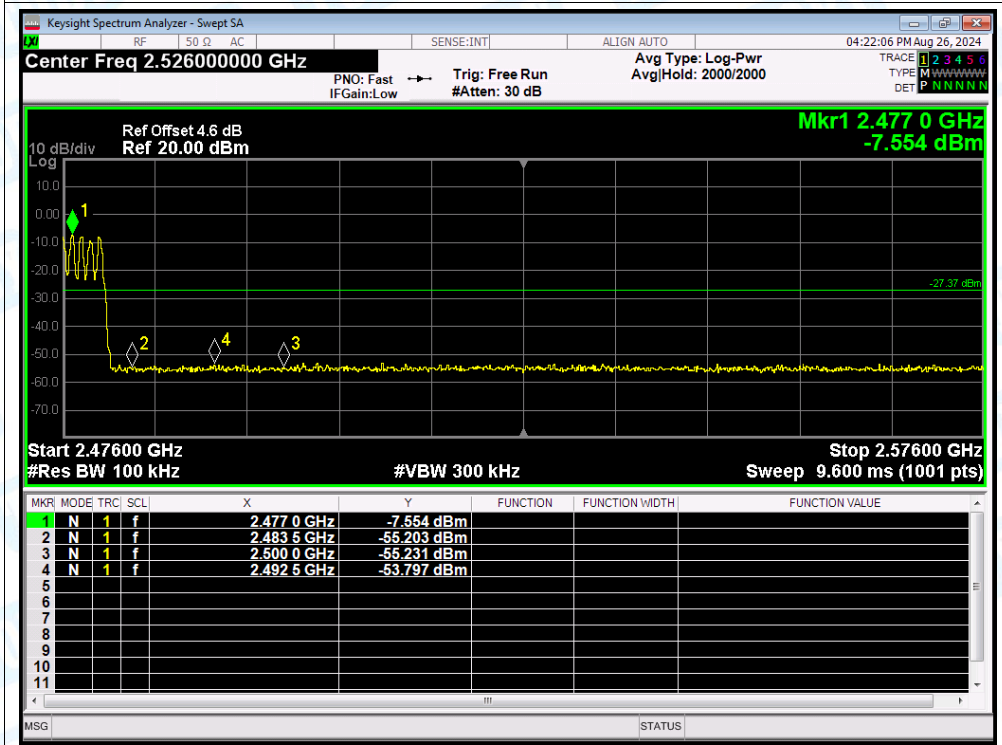
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Emission



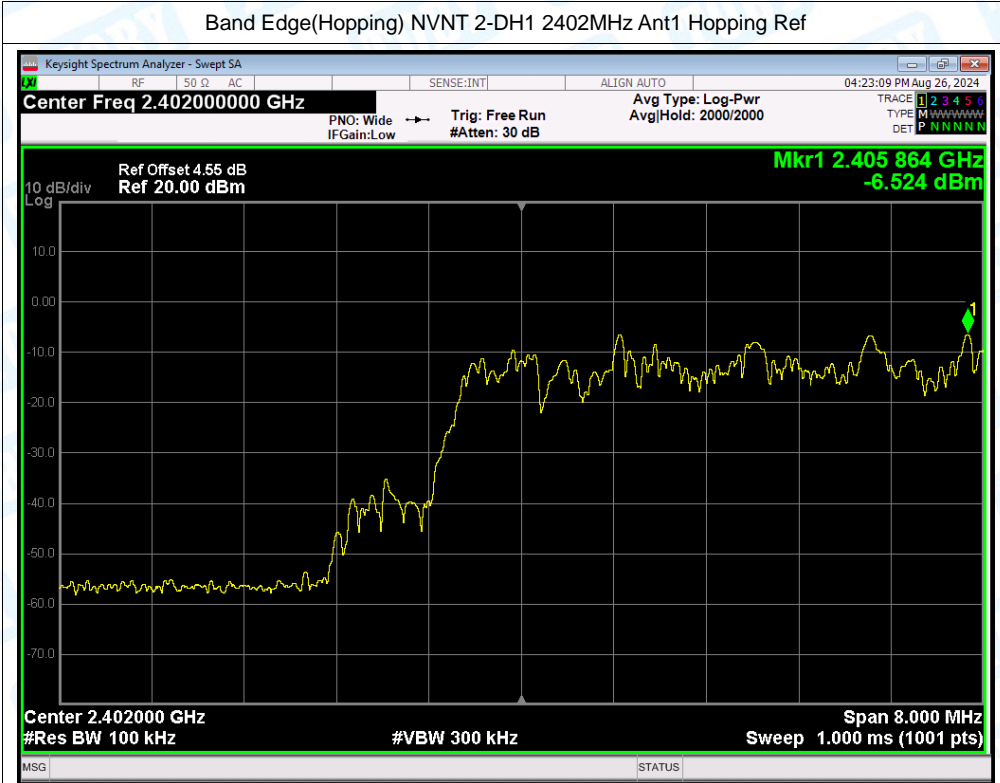
Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Ref



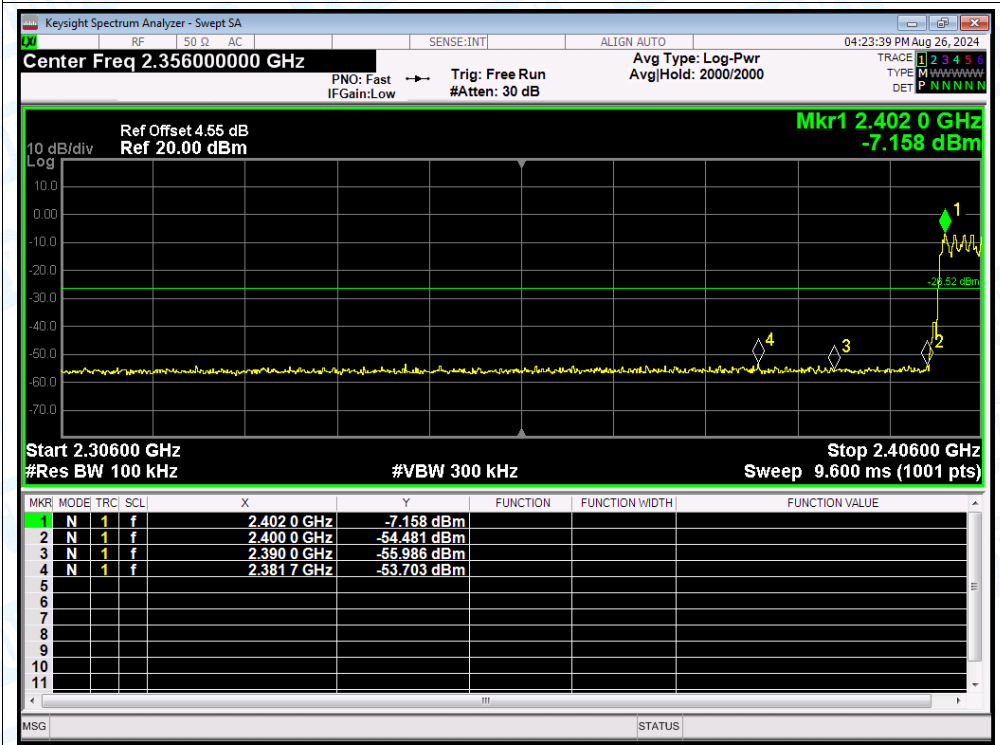
Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Emission

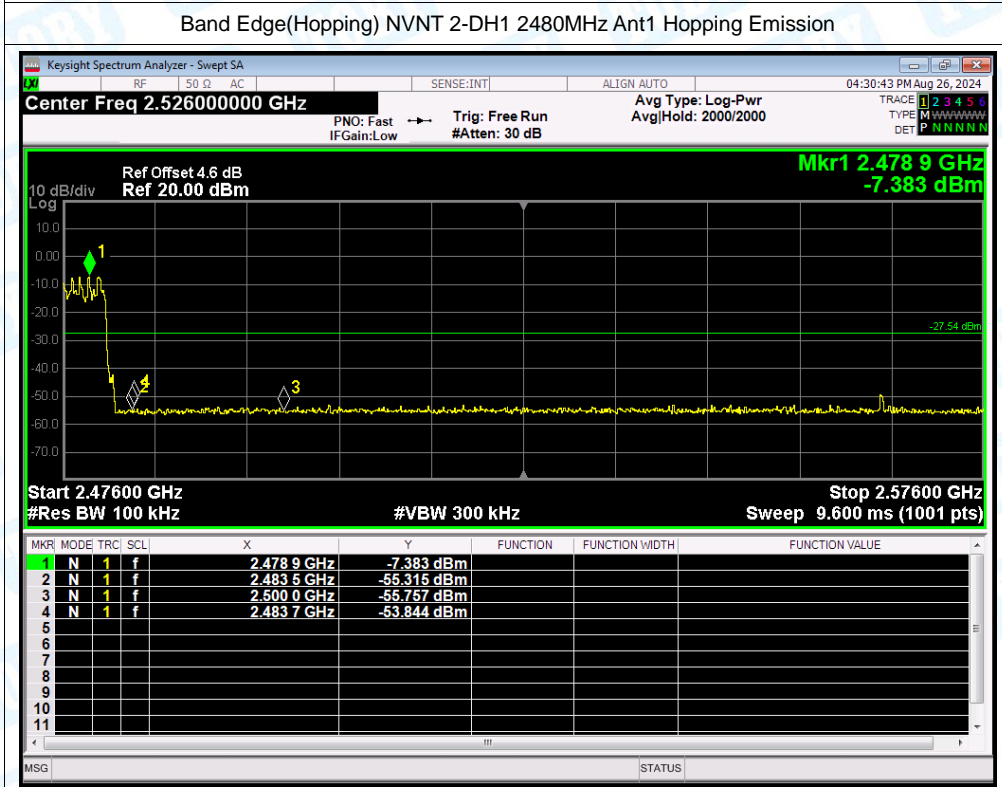
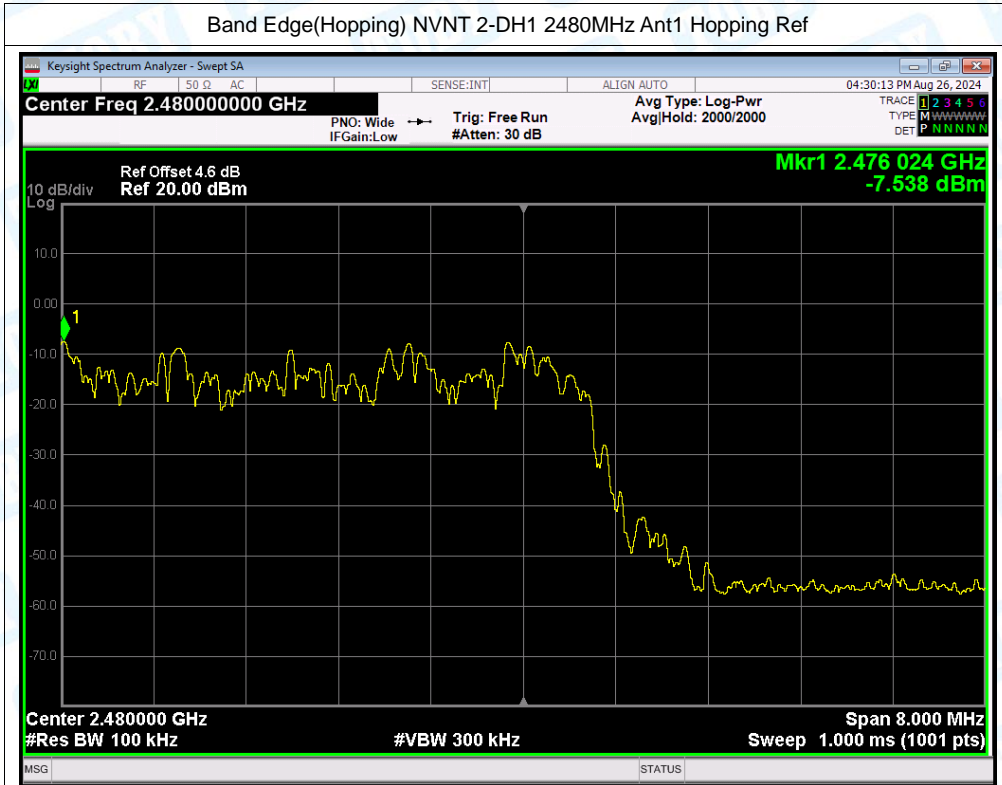


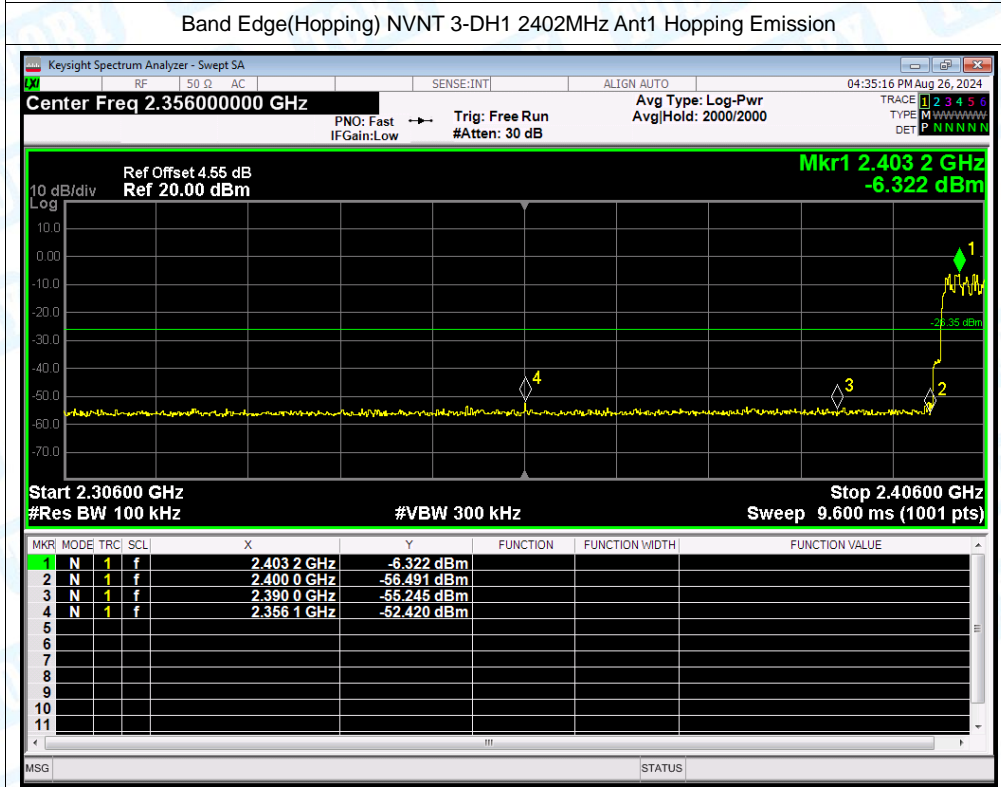
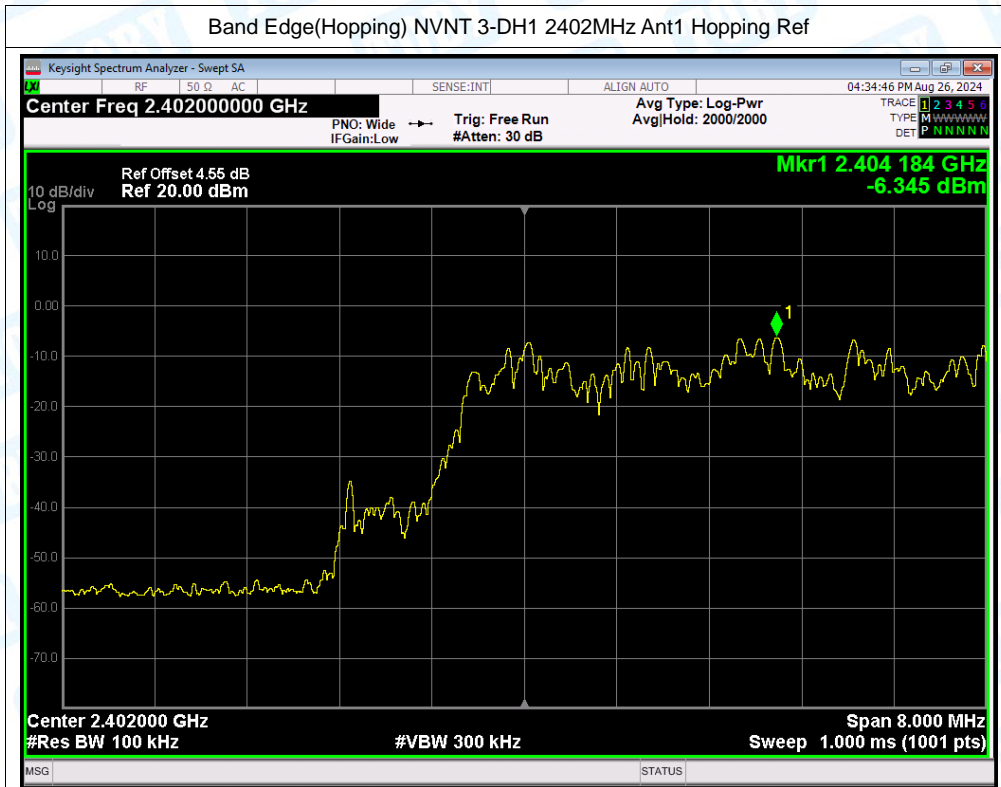
Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Ref

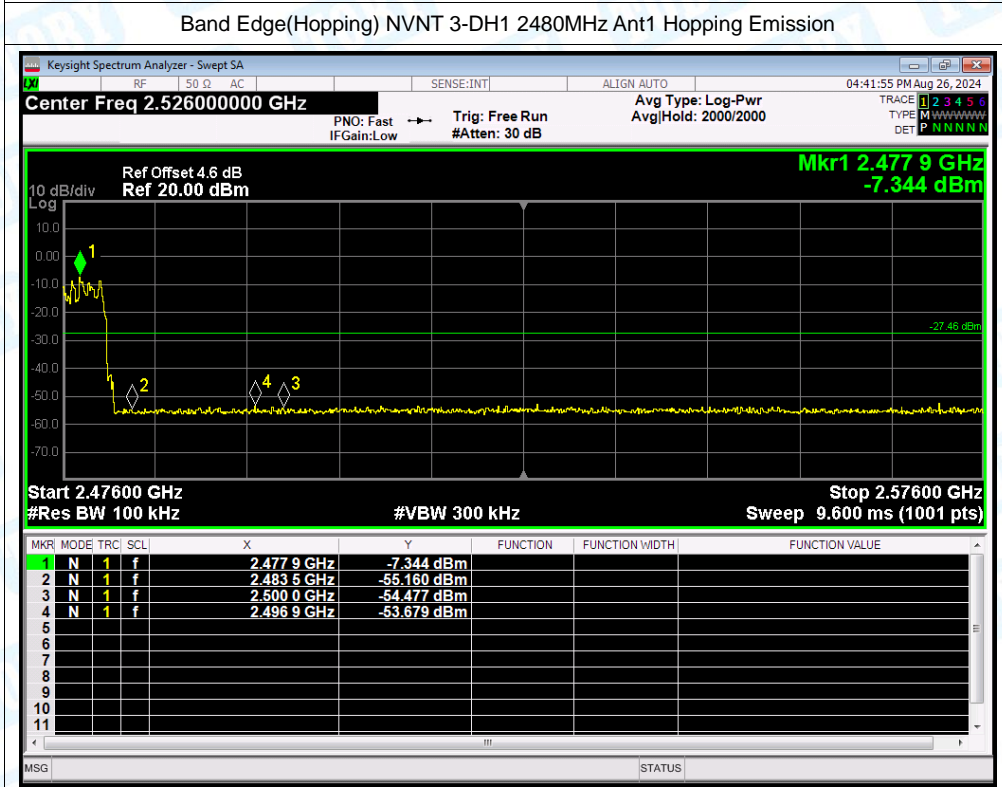


Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Emission







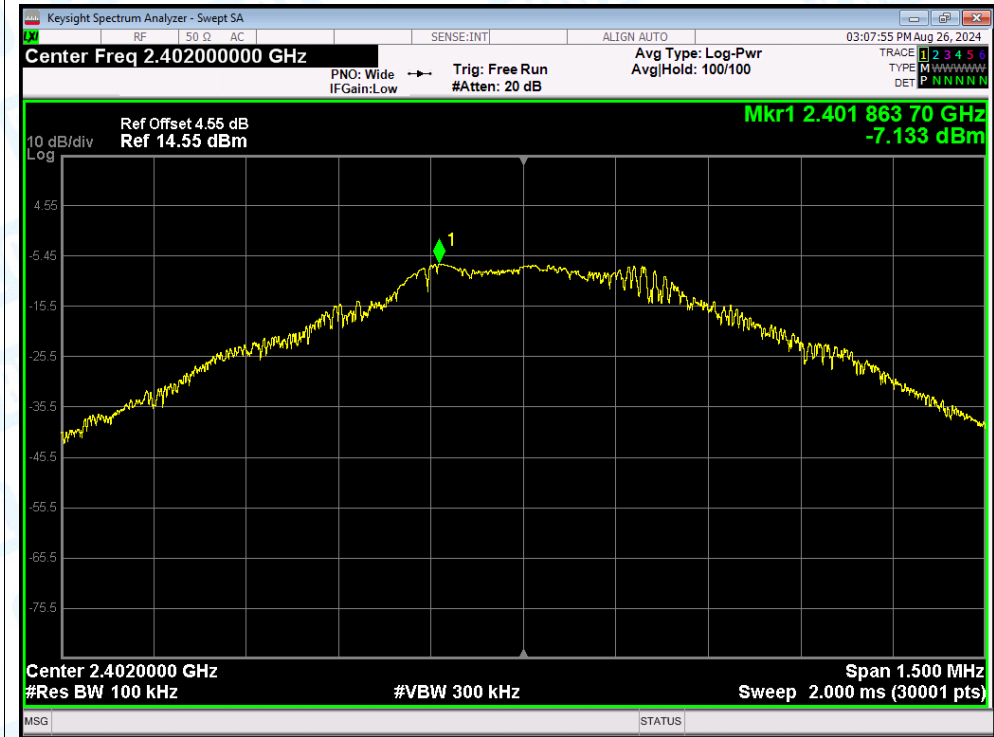


7. Conducted RF Spurious Emission

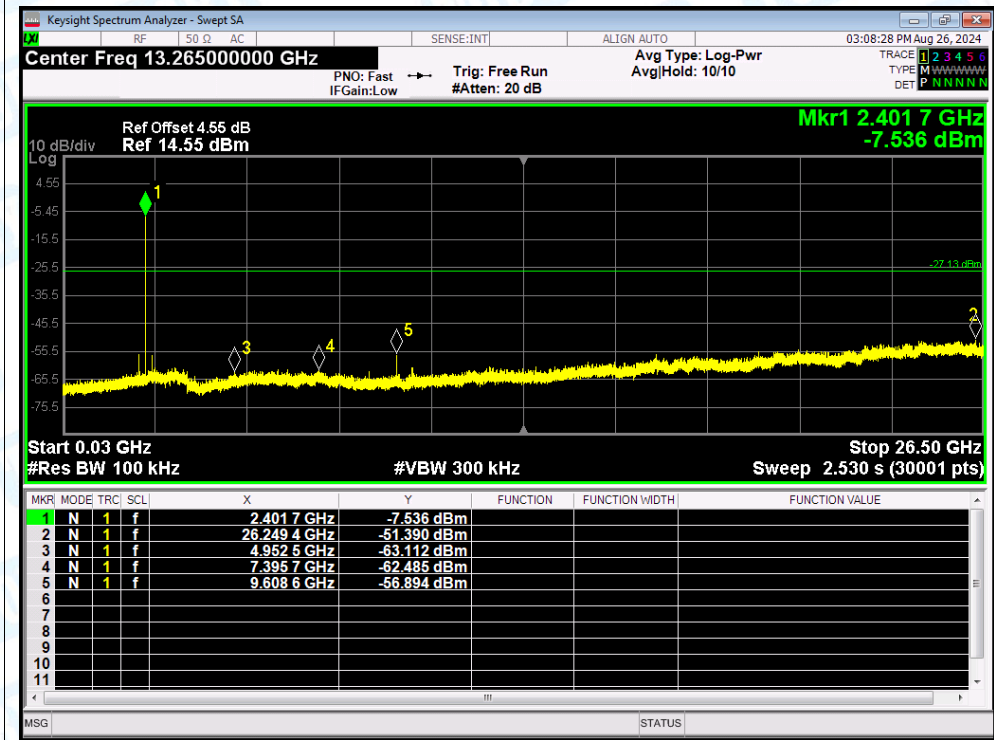
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	-44.26	-20	Pass
NVNT	1-DH1	2441	Ant1	-44.52	-20	Pass
NVNT	1-DH1	2480	Ant1	-38.55	-20	Pass
NVNT	2-DH1	2402	Ant1	-44.96	-20	Pass
NVNT	2-DH1	2441	Ant1	-44.21	-20	Pass
NVNT	2-DH1	2480	Ant1	-40.72	-20	Pass
NVNT	3-DH1	2402	Ant1	-43.95	-20	Pass
NVNT	3-DH1	2441	Ant1	-43.71	-20	Pass
NVNT	3-DH1	2480	Ant1	-37.44	-20	Pass

Test Graphs

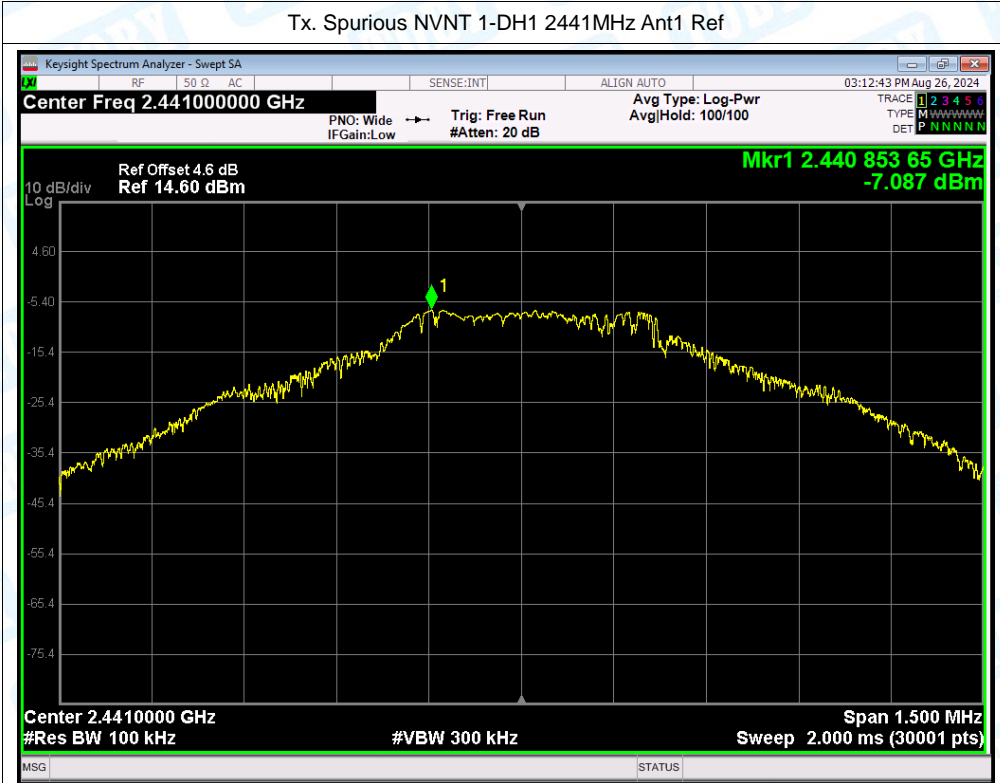
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Ref



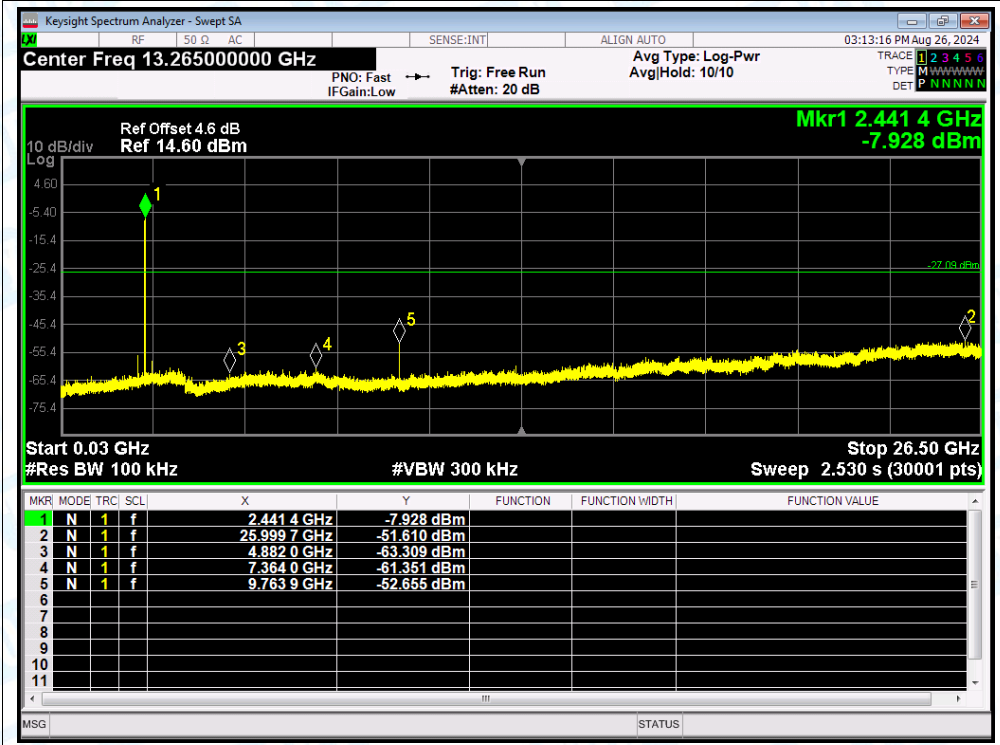
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Emission



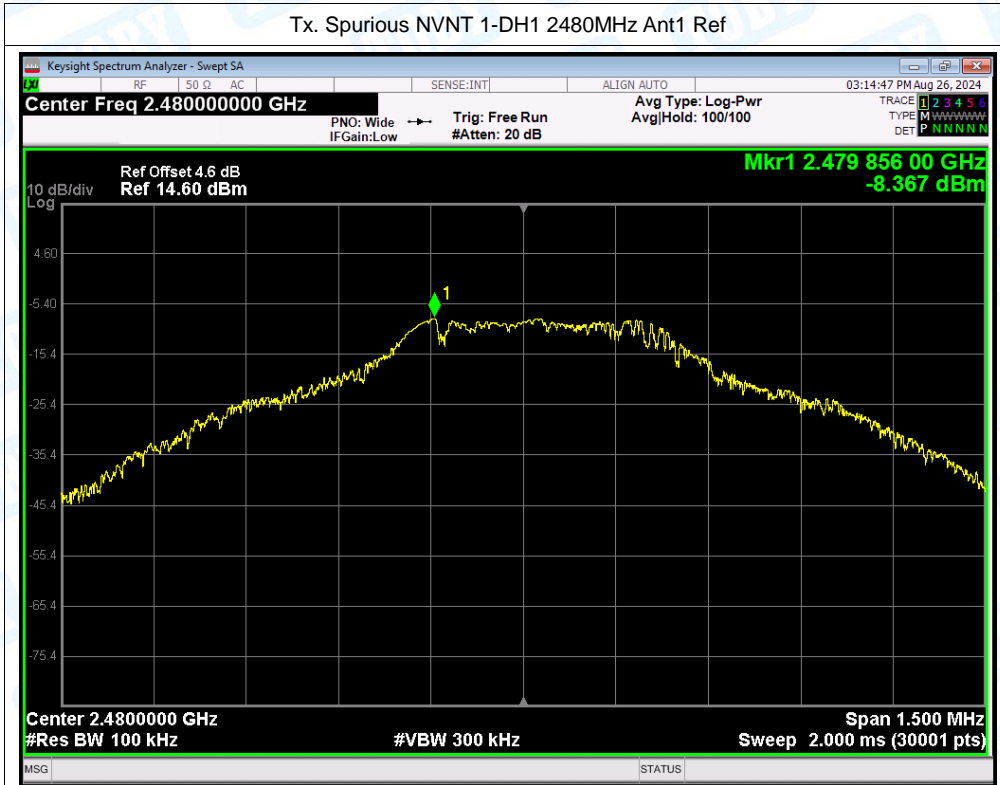
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Ref



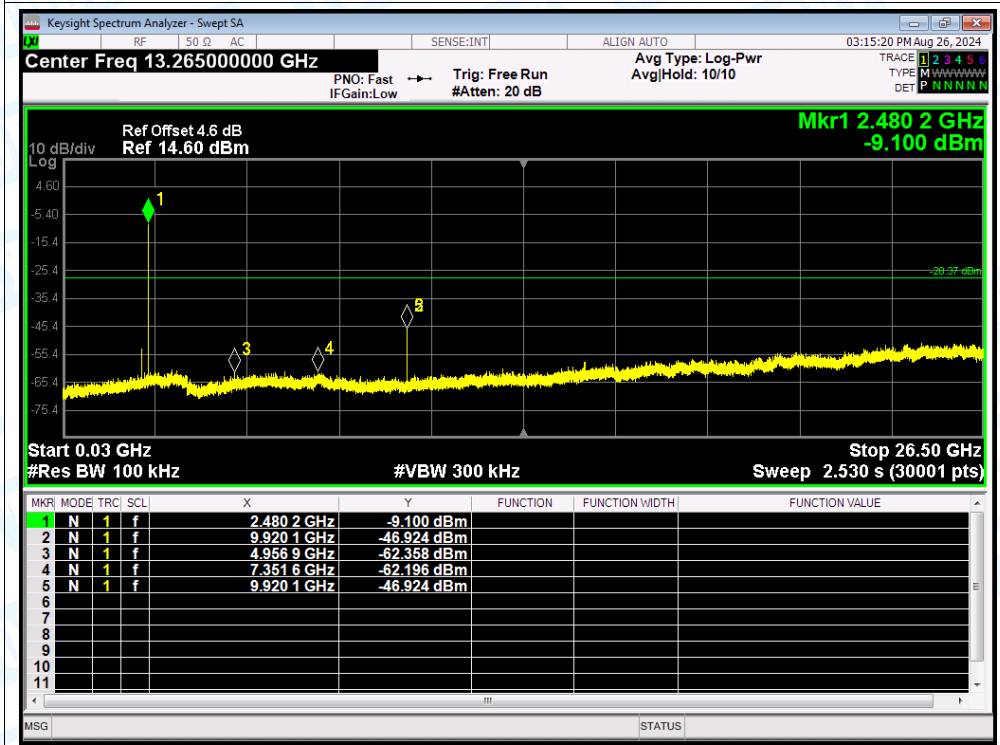
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Ref



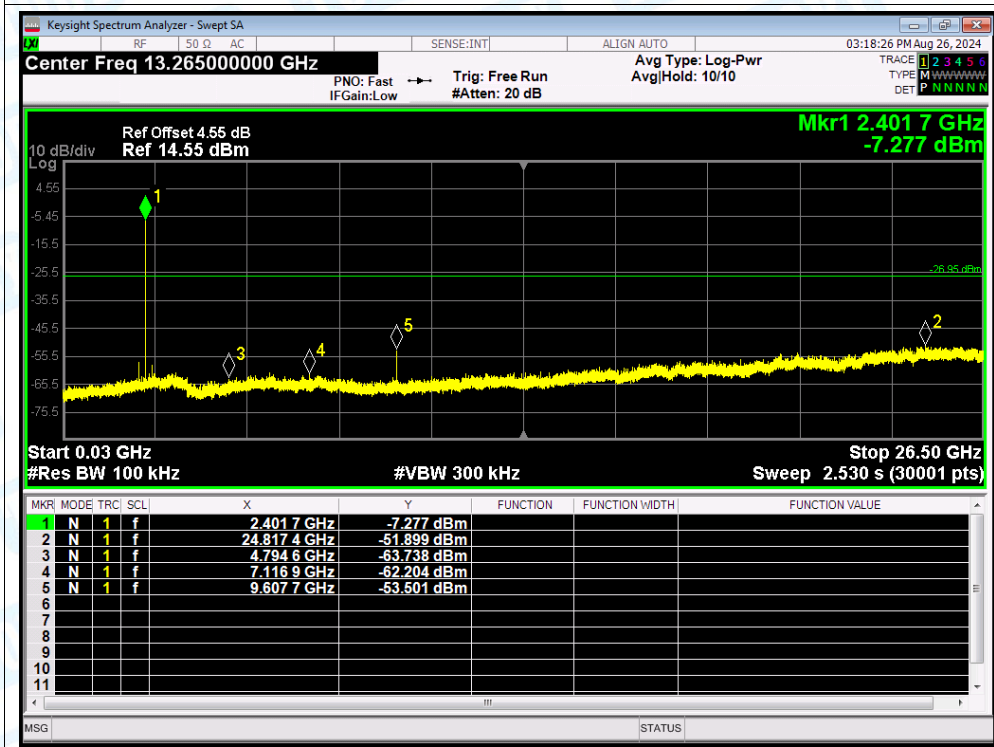
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Emission



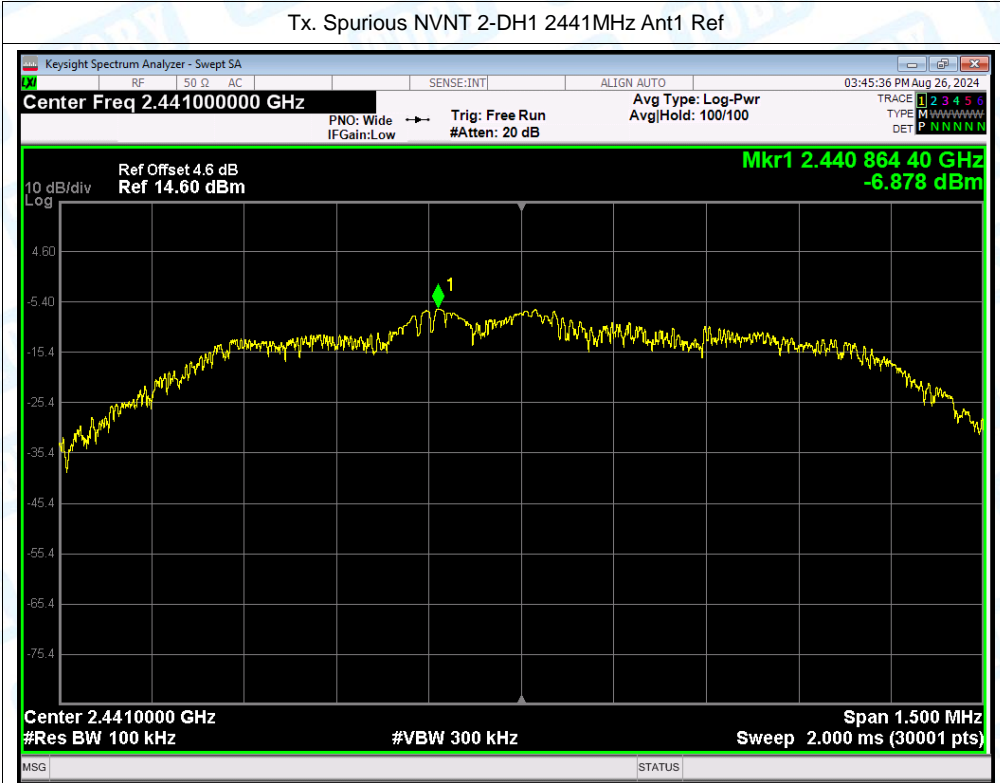
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Ref



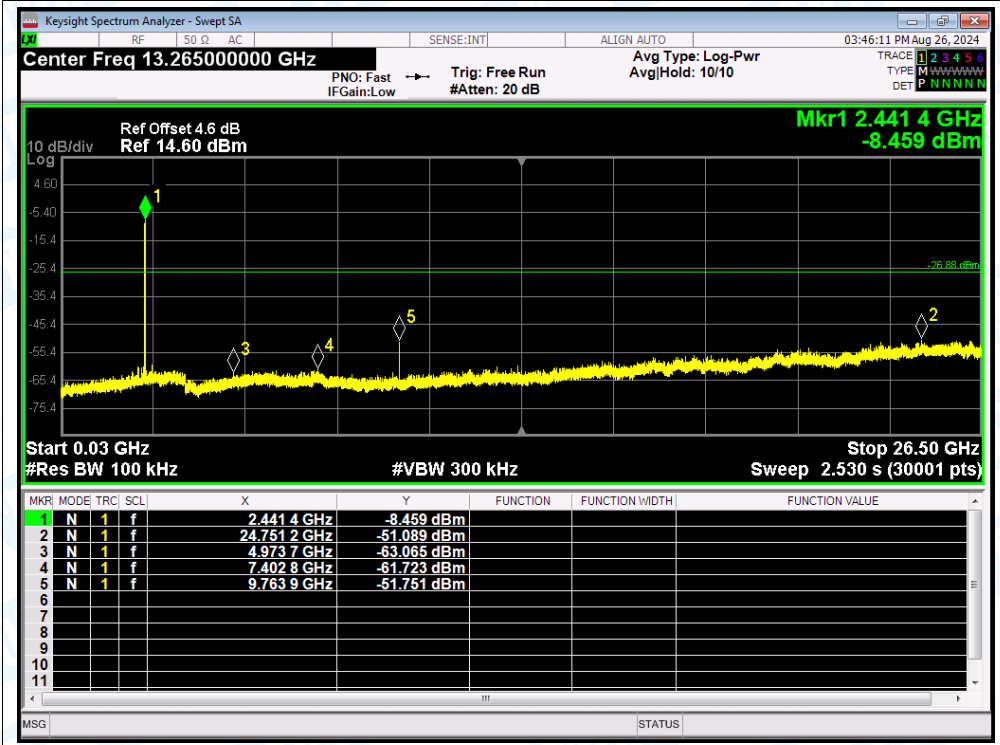
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Emission



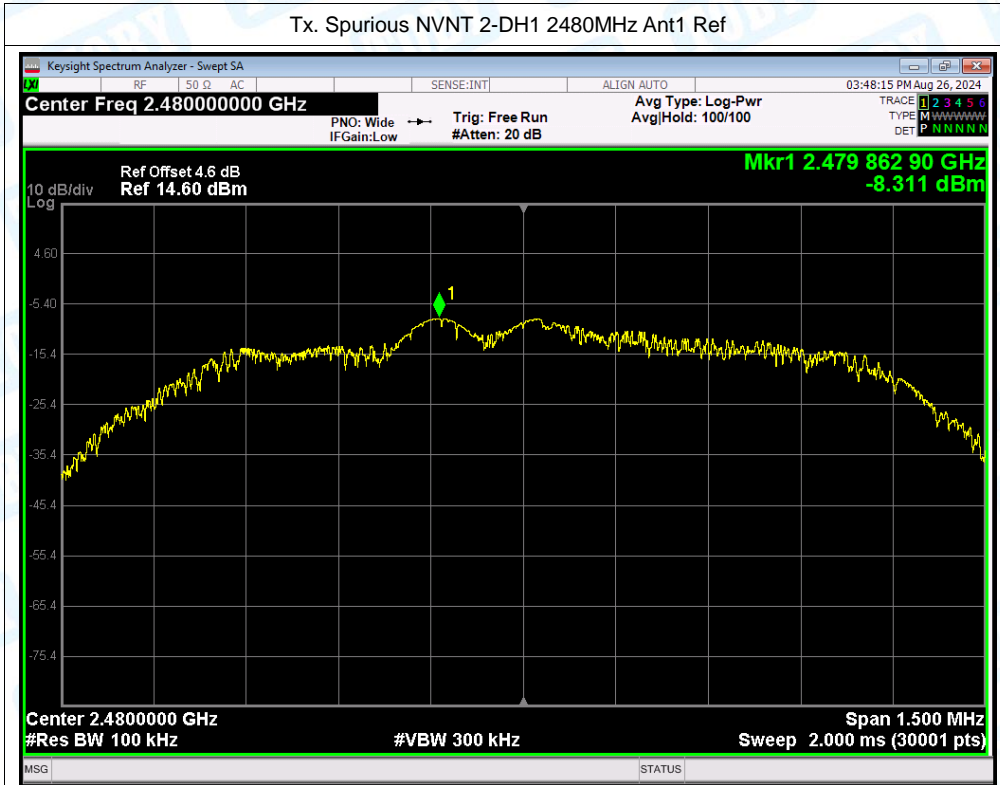
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Ref



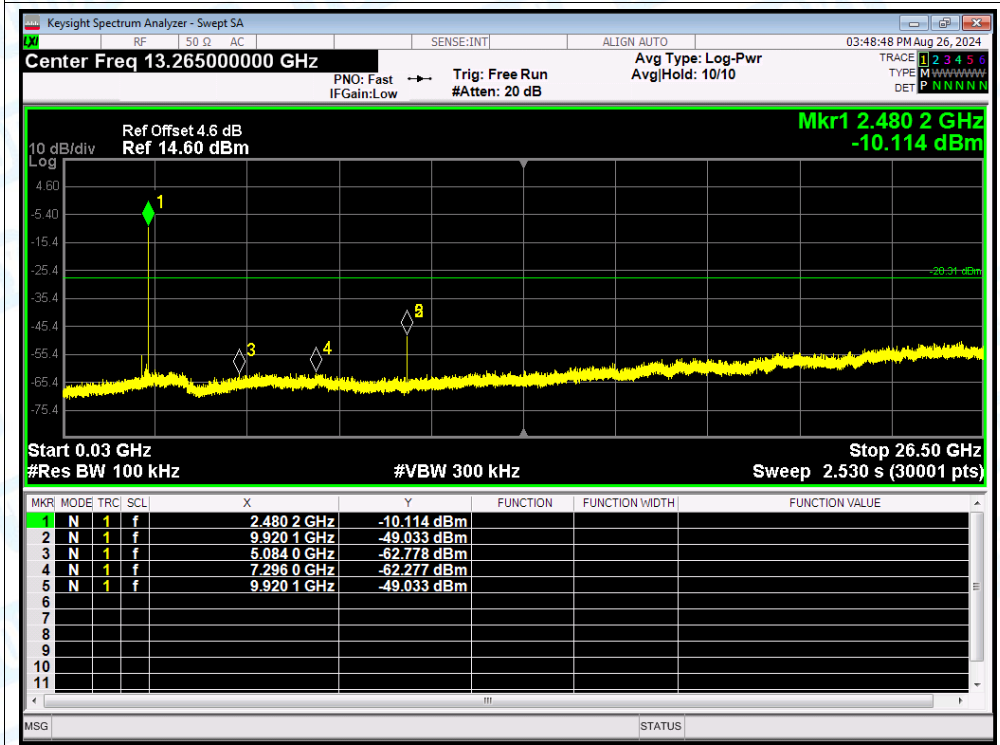
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Emission



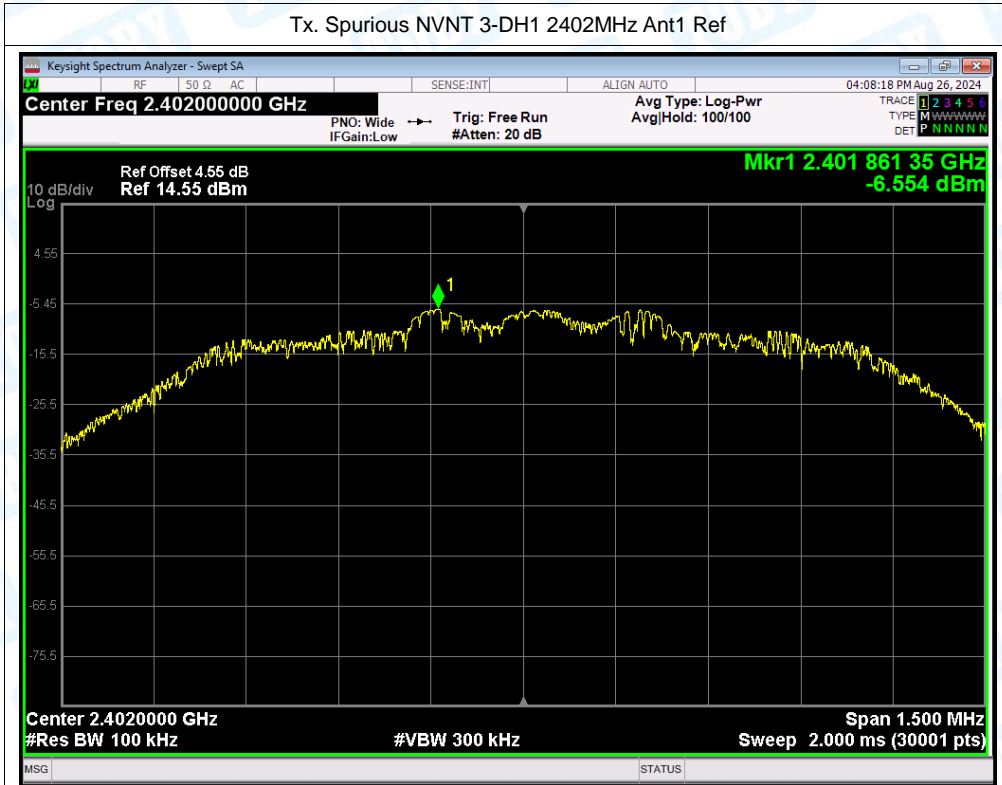
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Ref



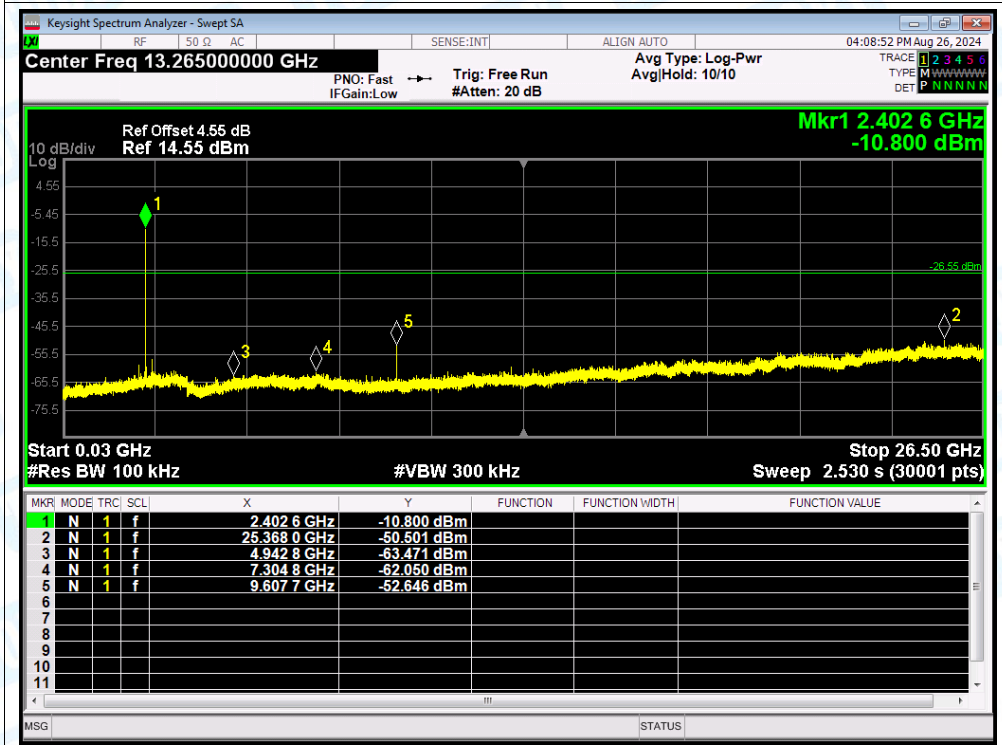
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Emission



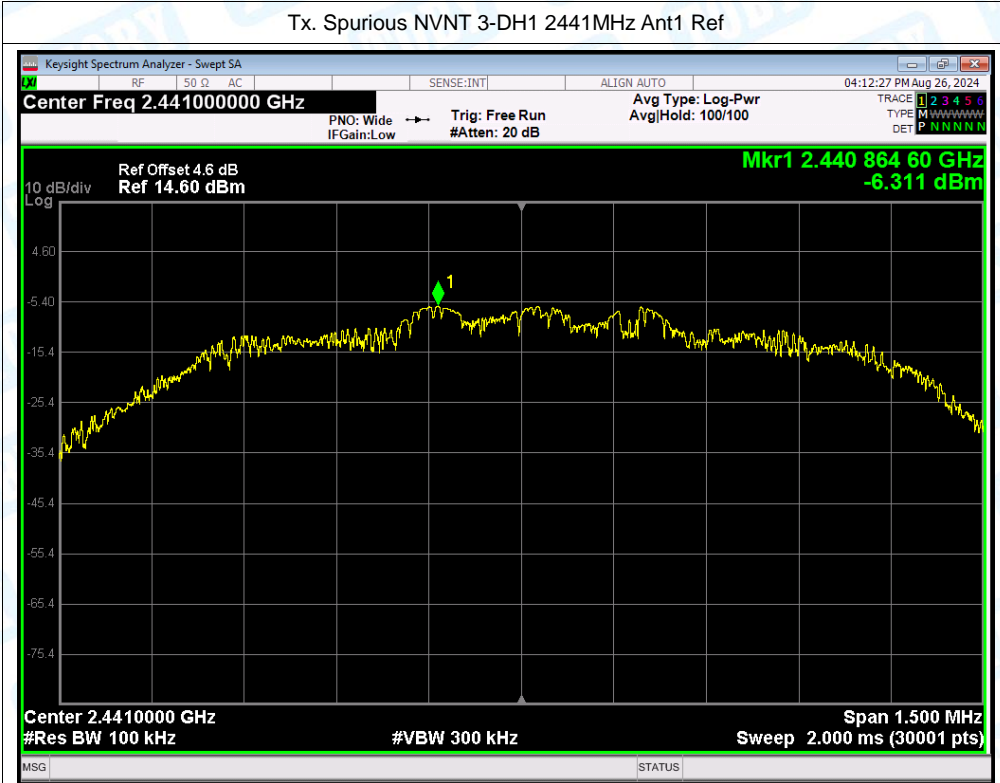
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Ref



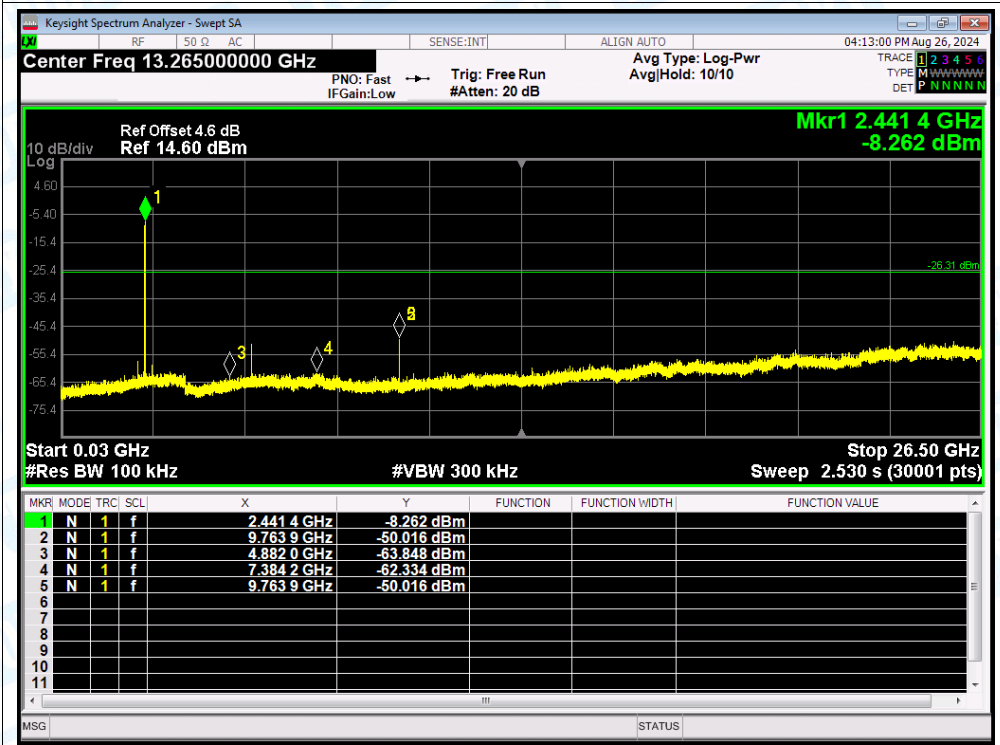
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Emission



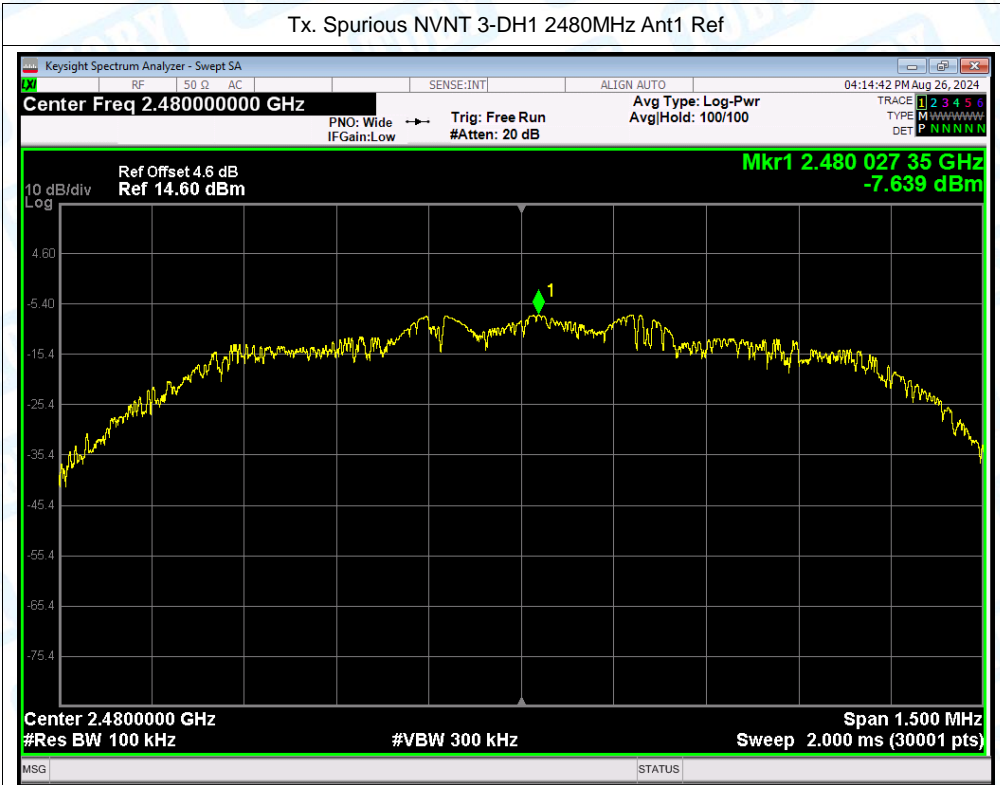
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Ref



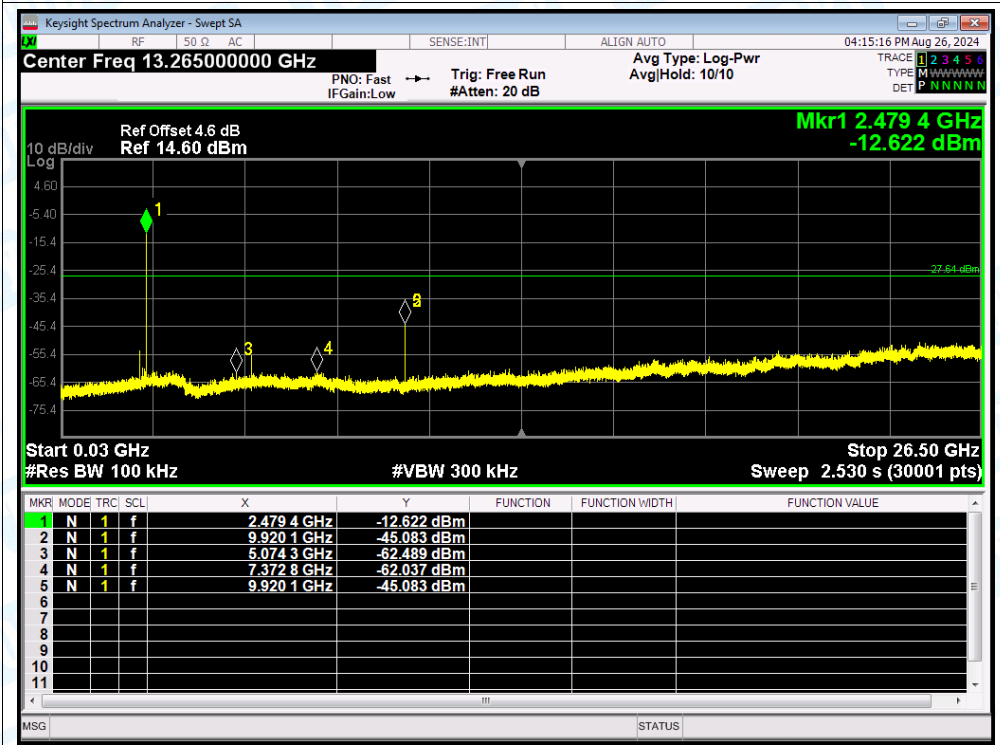
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Emission

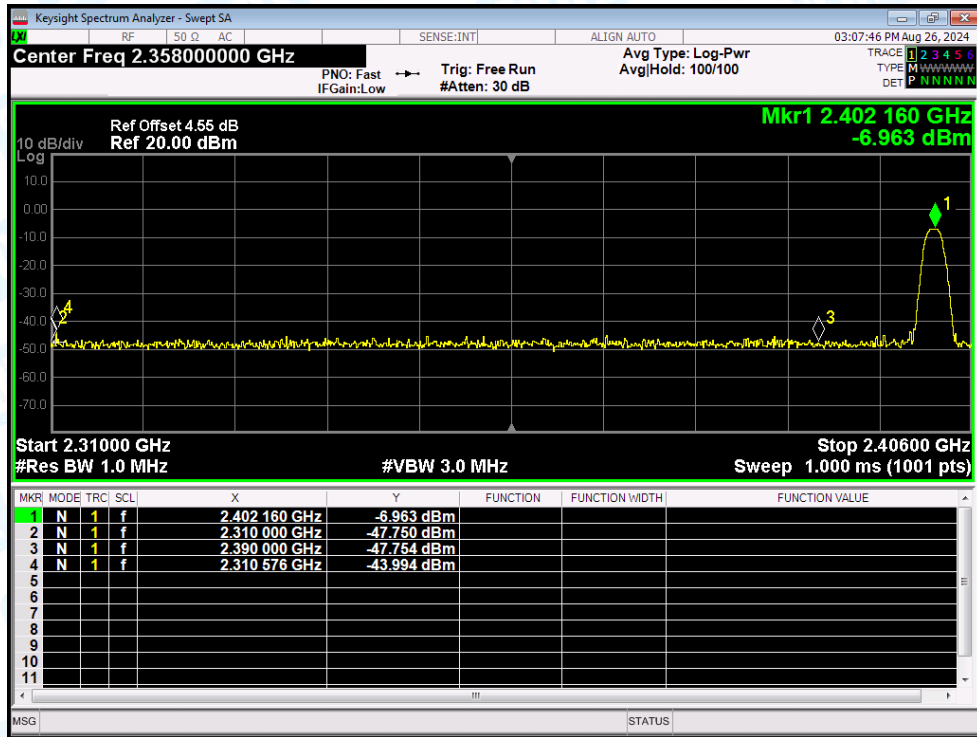


8. Restrict Band

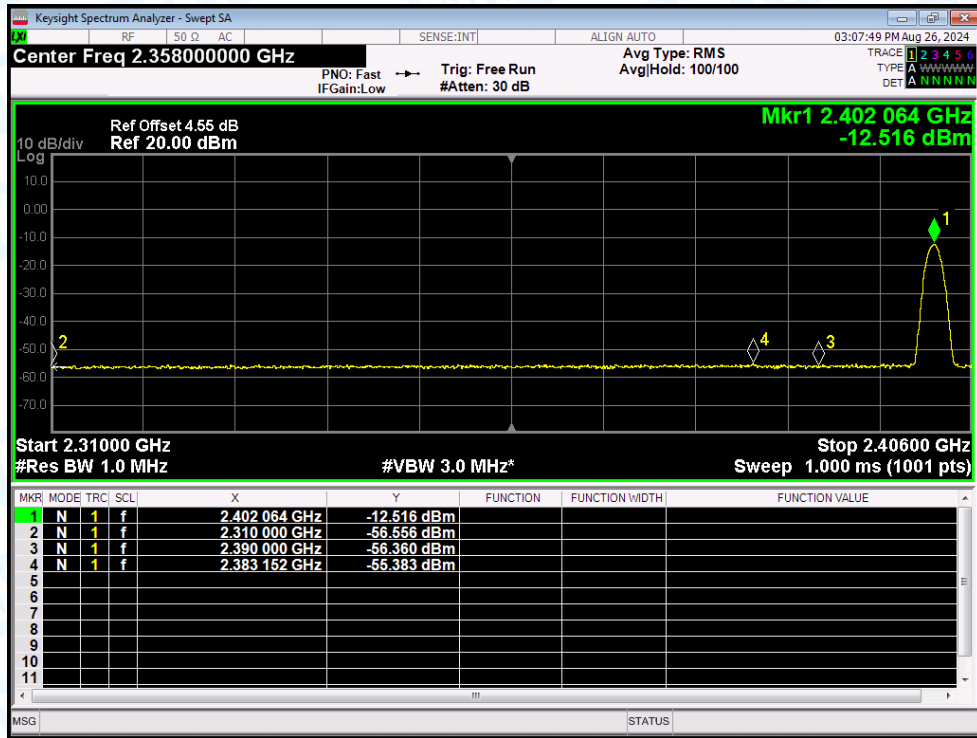
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-47.75	2.02	-	49.53	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-56.56	2.02	5.17	45.89	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2310.576	-43.99	2.02	-	53.29	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2383.152	-55.38	2.02	5.17	47.07	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-47.75	2.02	-	49.53	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-56.36	2.02	5.17	46.09	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-47.74	2.02	-	49.54	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-56.03	2.02	5.17	46.42	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2485.816	-44.61	2.02	-	52.67	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2492.824	-54.89	2.02	5.17	47.56	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-46.78	2.02	-	50.5	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-55.1	2.02	5.17	47.35	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-47.98	2.02	-	49.3	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-56.44	2.02	5.06	45.9	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2355.888	-44.89	2.02	-	52.39	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2379.408	-55.39	2.02	5.06	46.95	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-48.7	2.02	-	48.58	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-56.34	2.02	5.06	46	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-47.66	2.02	-	49.62	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-55.99	2.02	4.95	46.24	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2495.536	-43.84	2.02	-	53.44	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-54.79	2.02	4.95	47.44	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-48.08	2.02	-	49.2	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-47.02	2.02	-	50.26	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-56.05	2.02	5.06	46.29	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2353.584	-45.11	2.02	-	52.17	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2377.008	-55.35	2.02	5.06	46.99	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-47.78	2.02	-	49.5	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-55.99	2.02	5.06	46.35	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-47.46	2.02	-	49.82	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-55.57	2.02	5.06	46.77	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2487.808	-44.62	2.02	-	52.66	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2499.52	-54.82	2.02	5.06	47.52	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-47.48	2.02	-	49.8	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-55.42	2.02	5.06	46.92	Average	54	Pass

Test Graphs

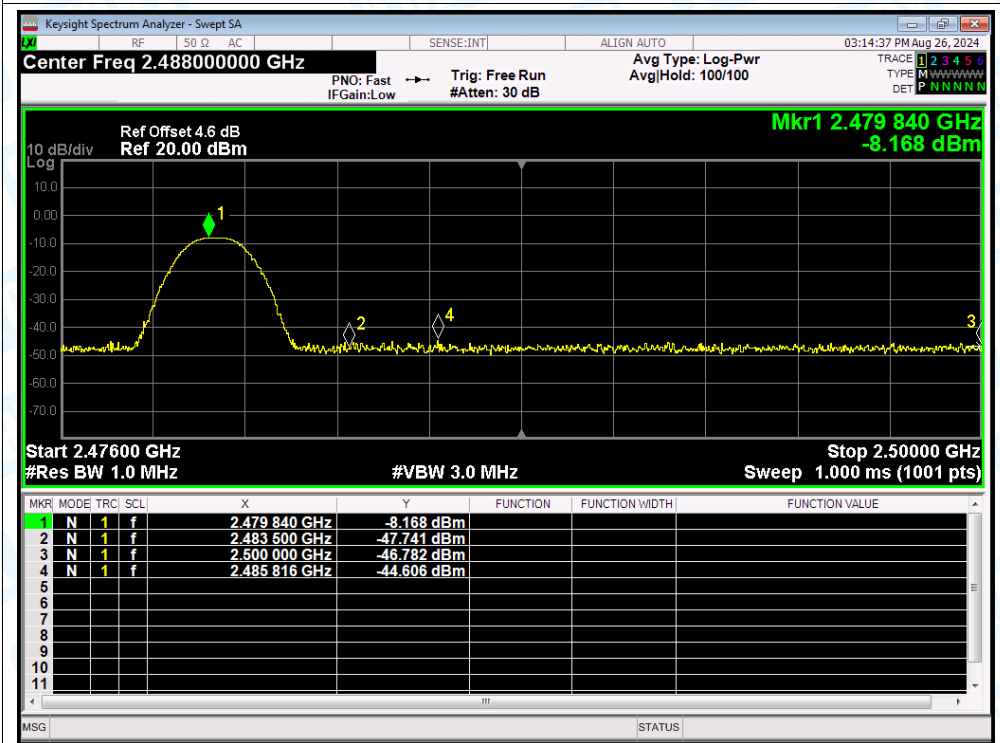
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Peak



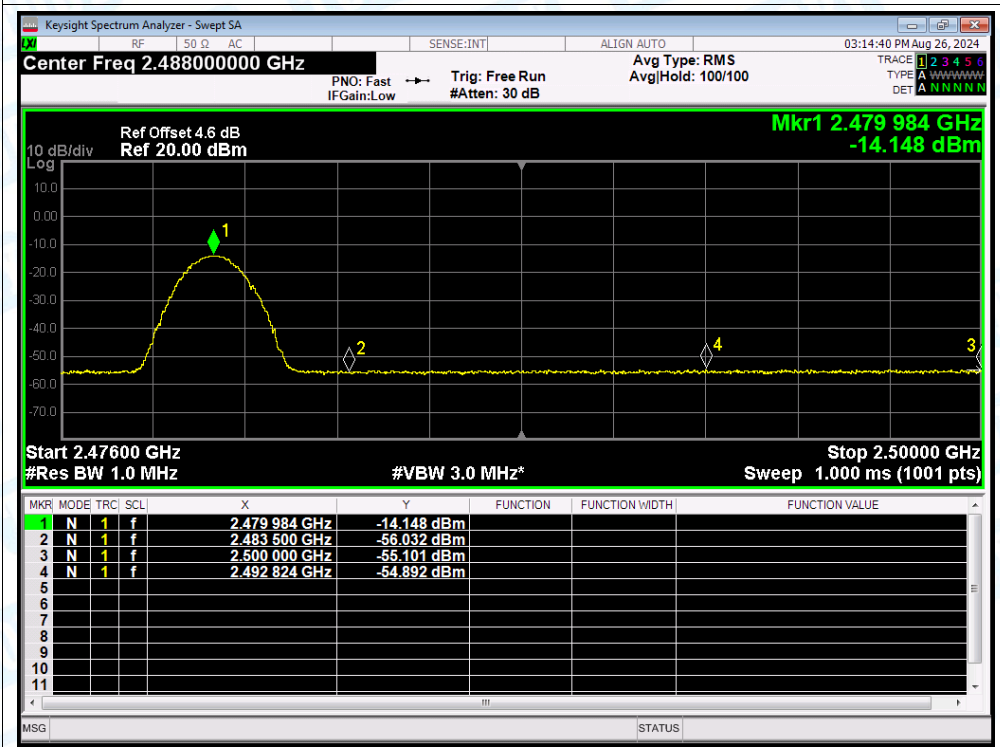
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Average



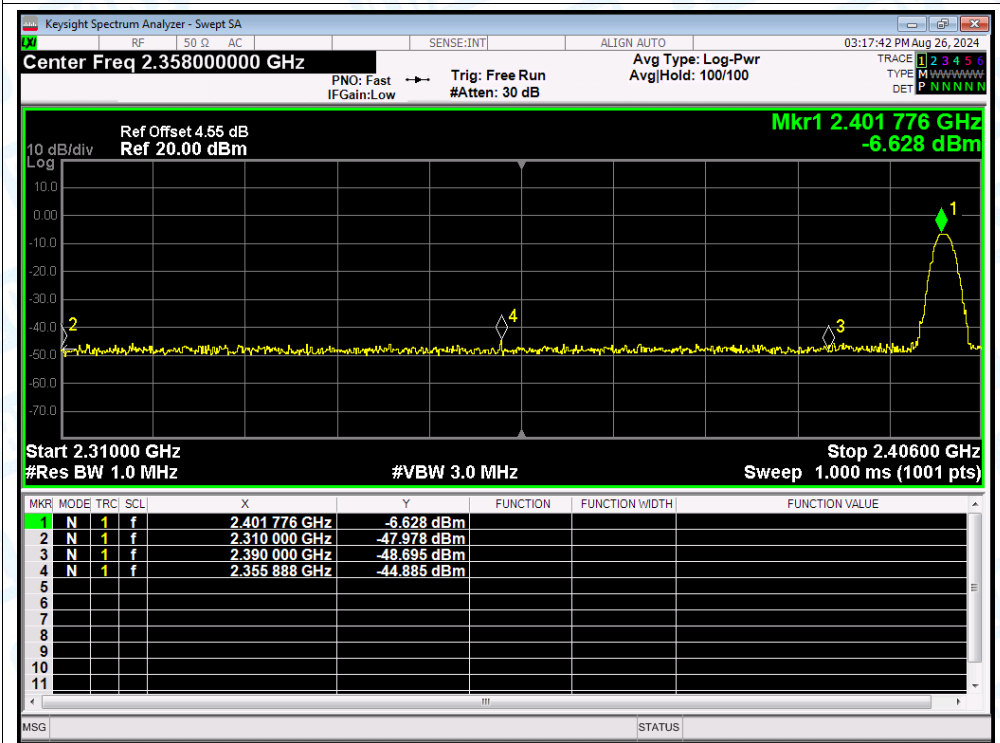
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Peak



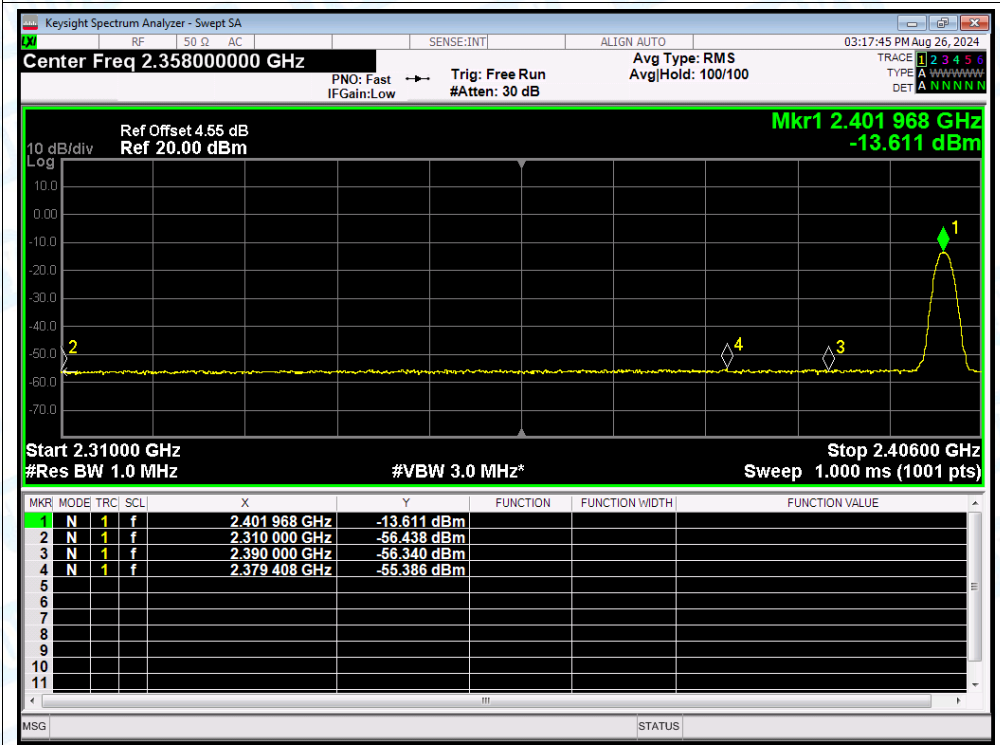
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Average



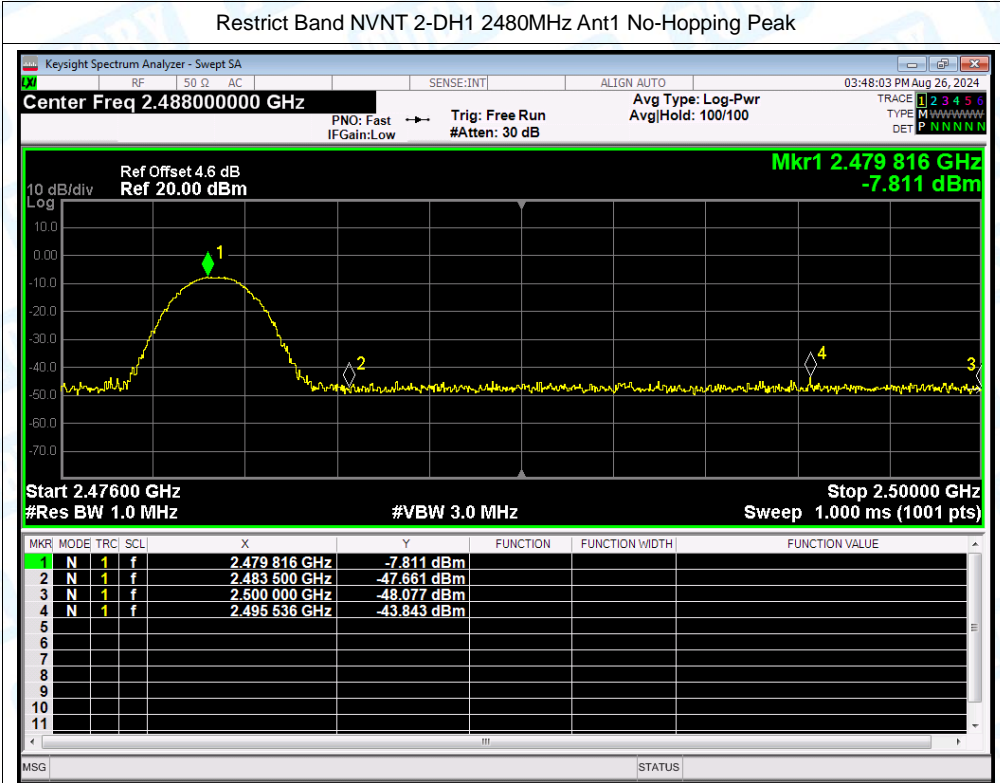
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Peak



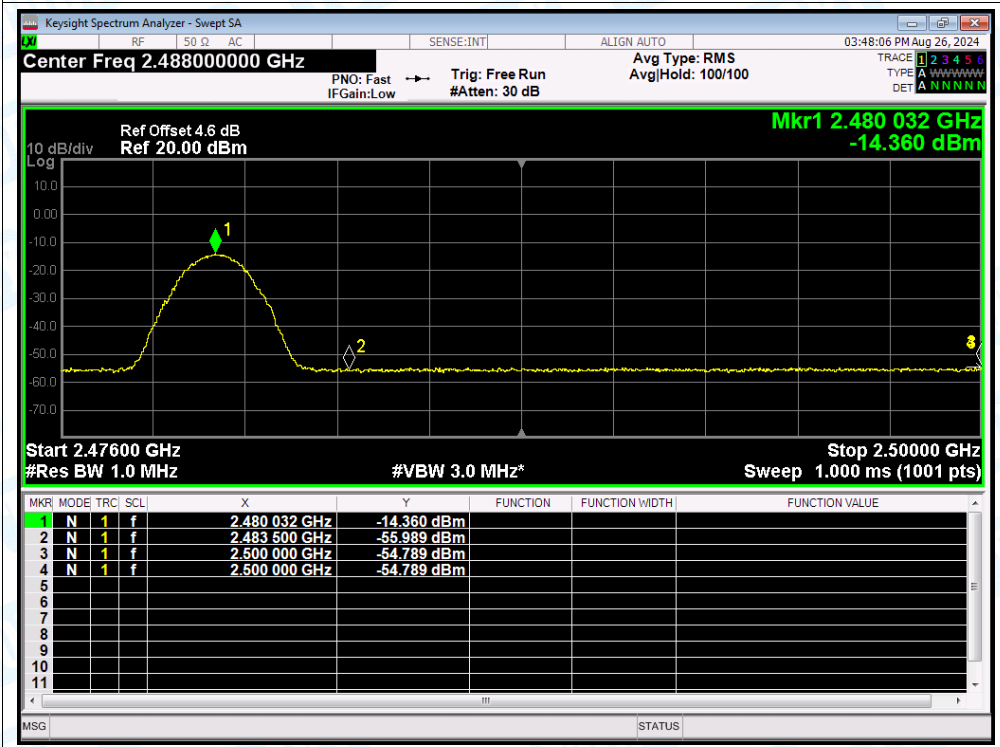
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Average



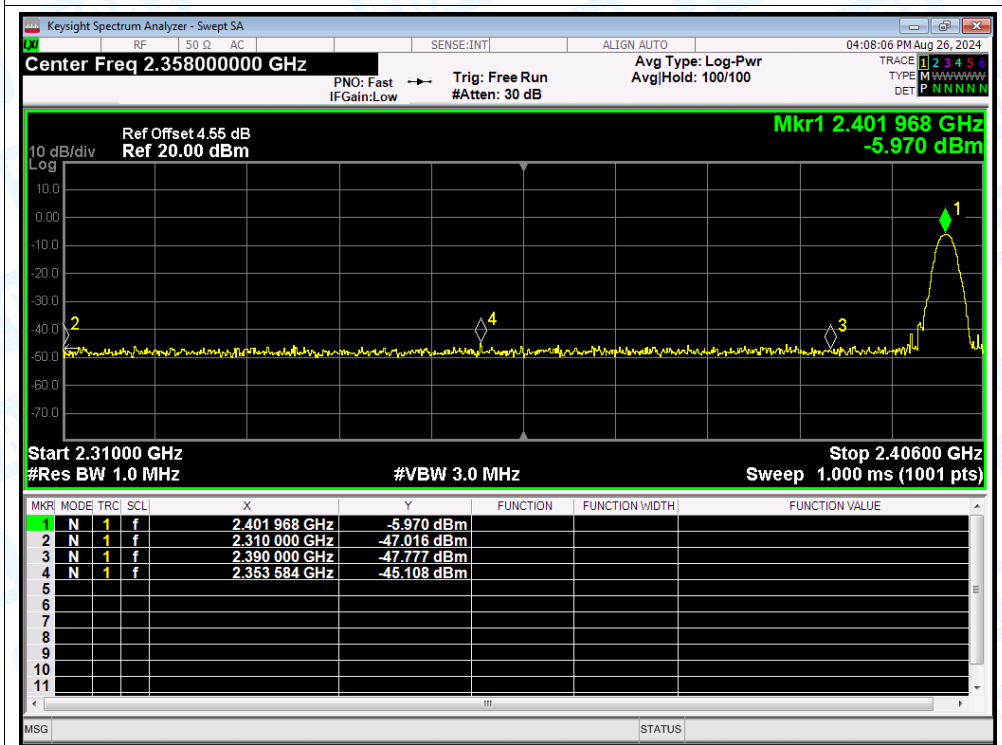
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Peak



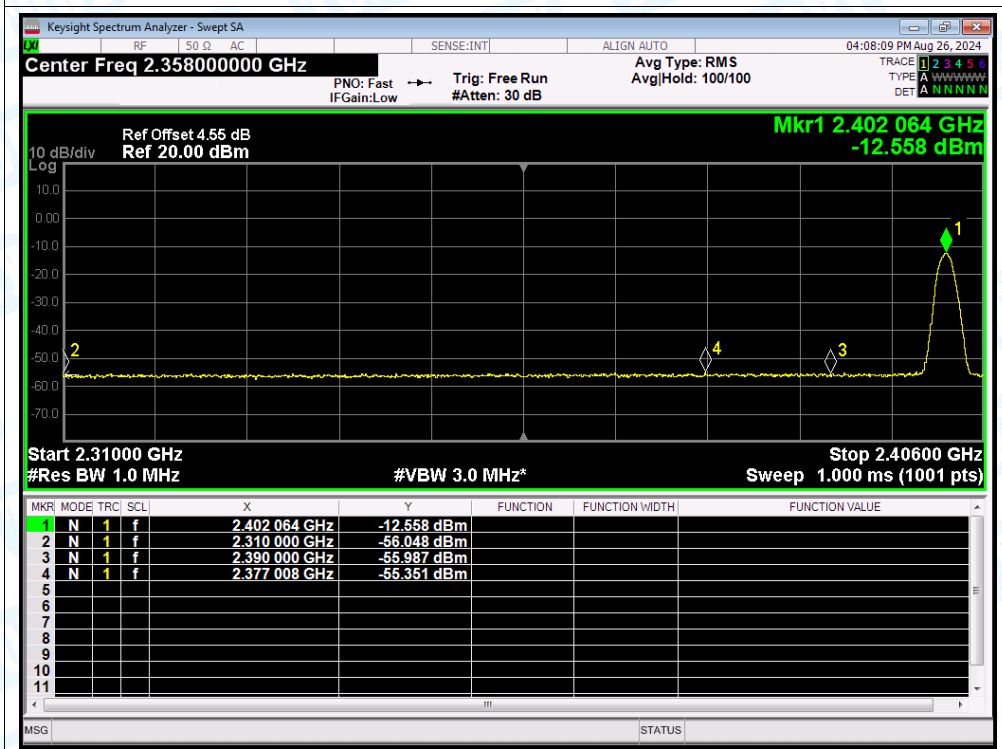
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Average



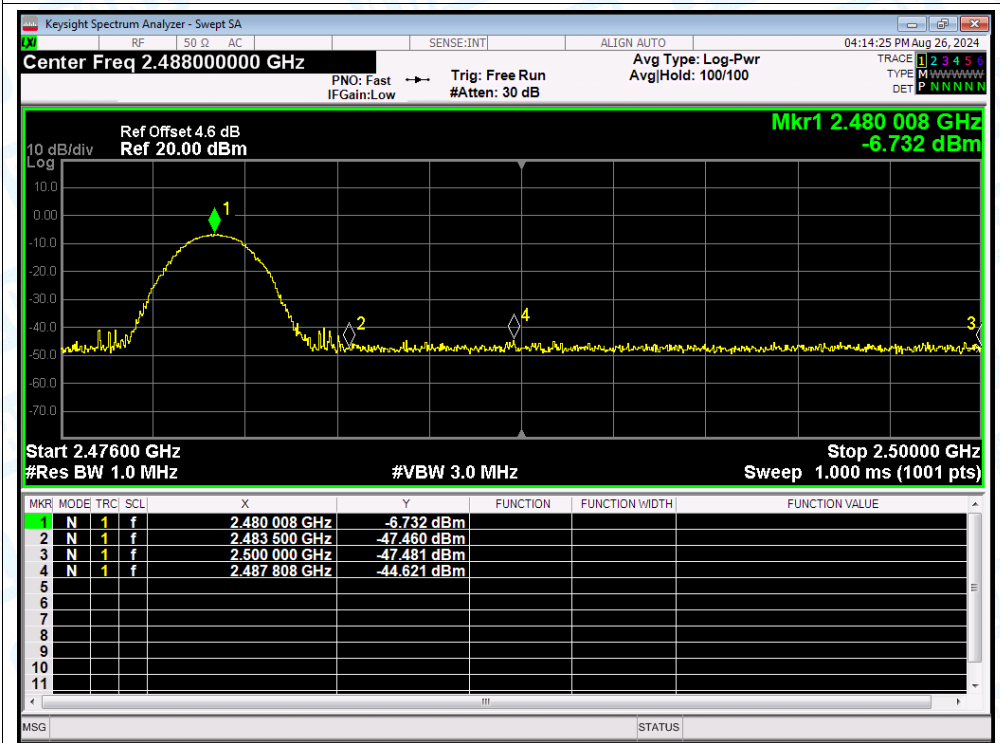
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Peak



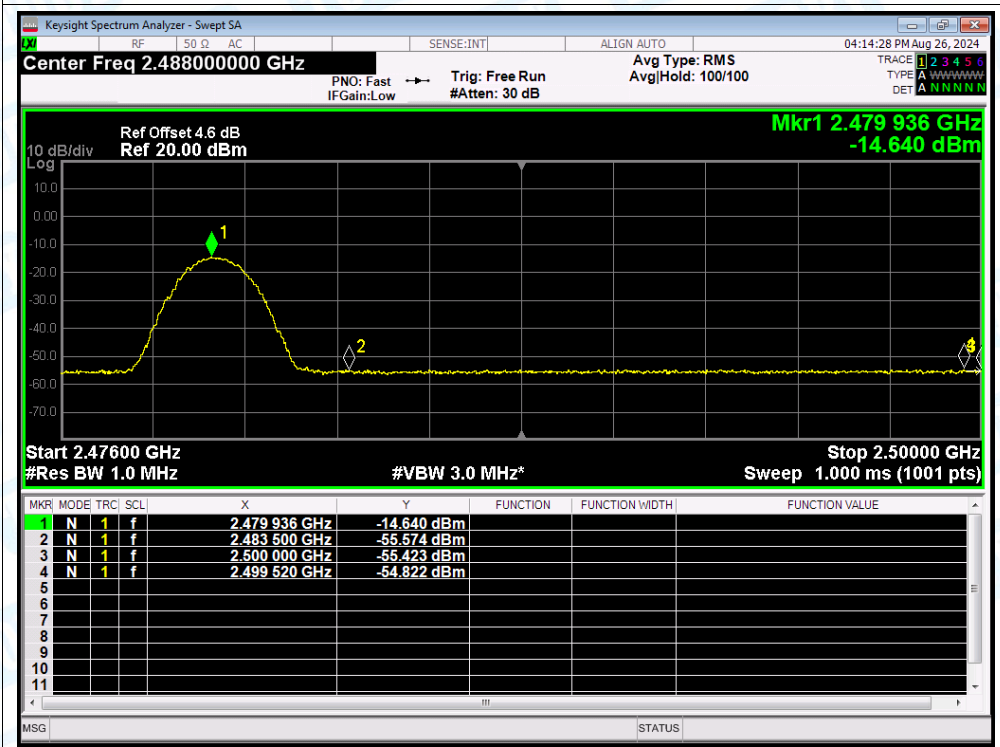
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Average



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



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

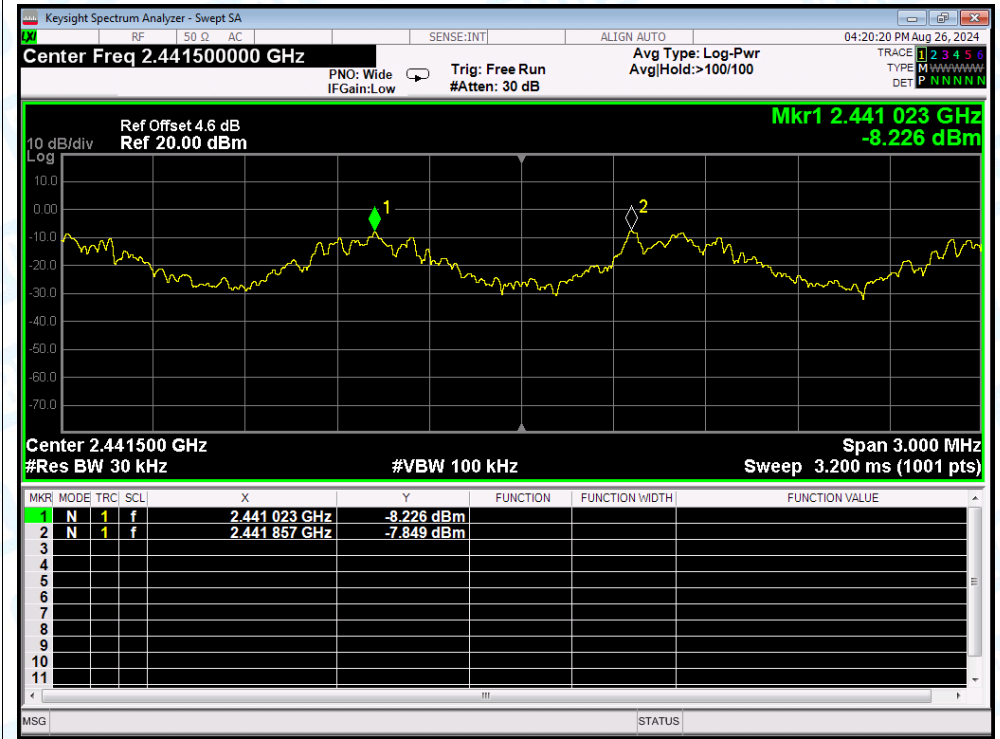


9. Carrier Frequencies Separation

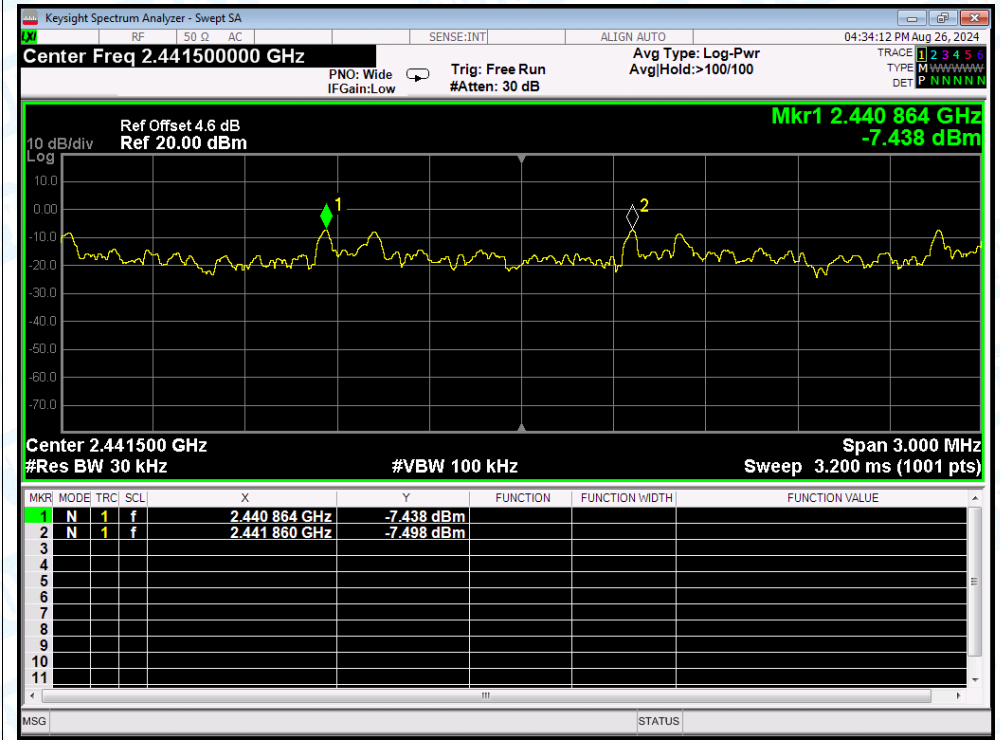
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH1	Ant1	2441.023	2441.857	0.834	0.673	Pass
NVNT	2-DH1	Ant1	2440.864	2441.86	0.996	0.847	Pass
NVNT	3-DH1	Ant1	2440.864	2442.019	1.155	0.833	Pass

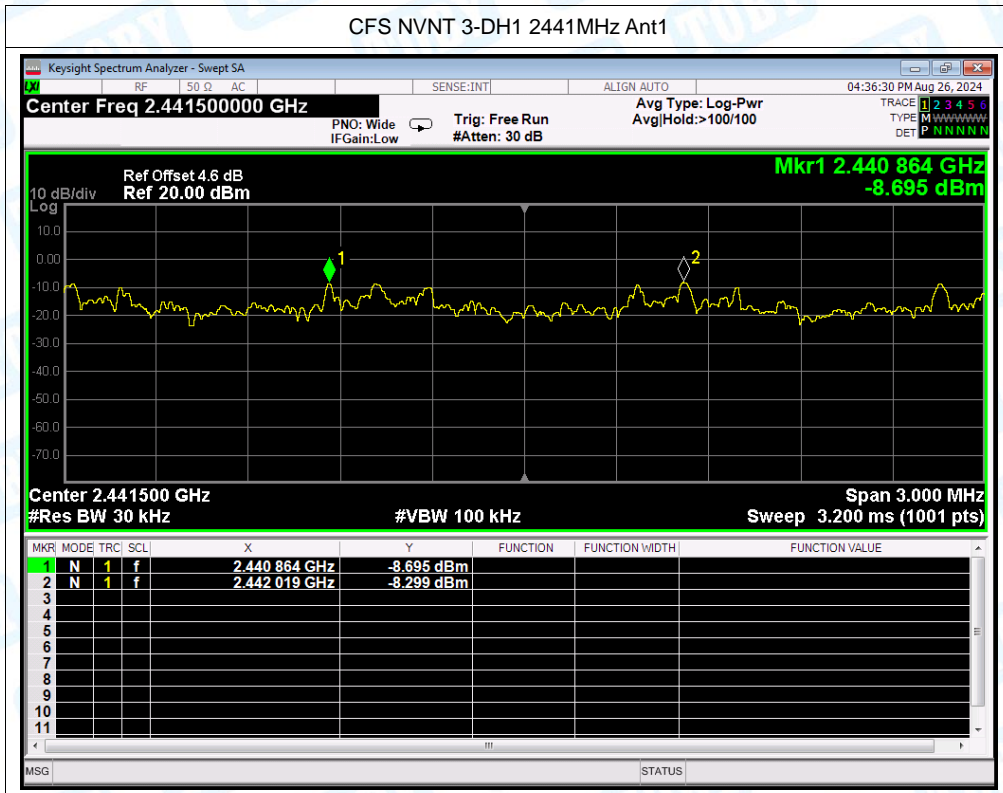
Test Graphs

CFS NVNT 1-DH1 2441MHz Ant1



CFS NVNT 2-DH1 2441MHz Ant1



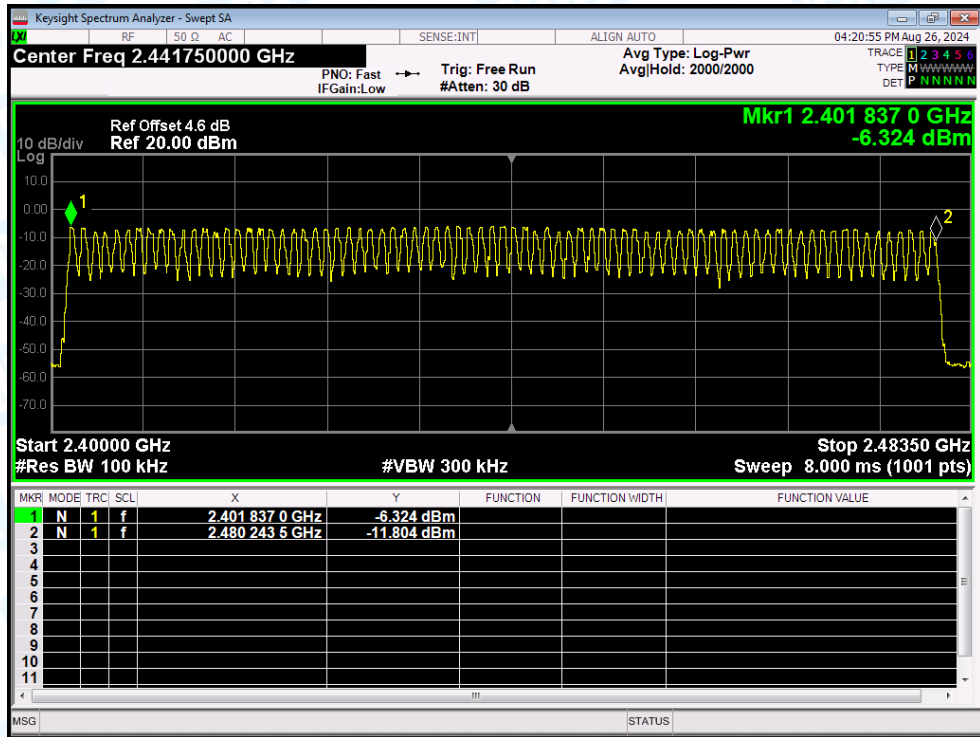


10. Number of Hopping Channel

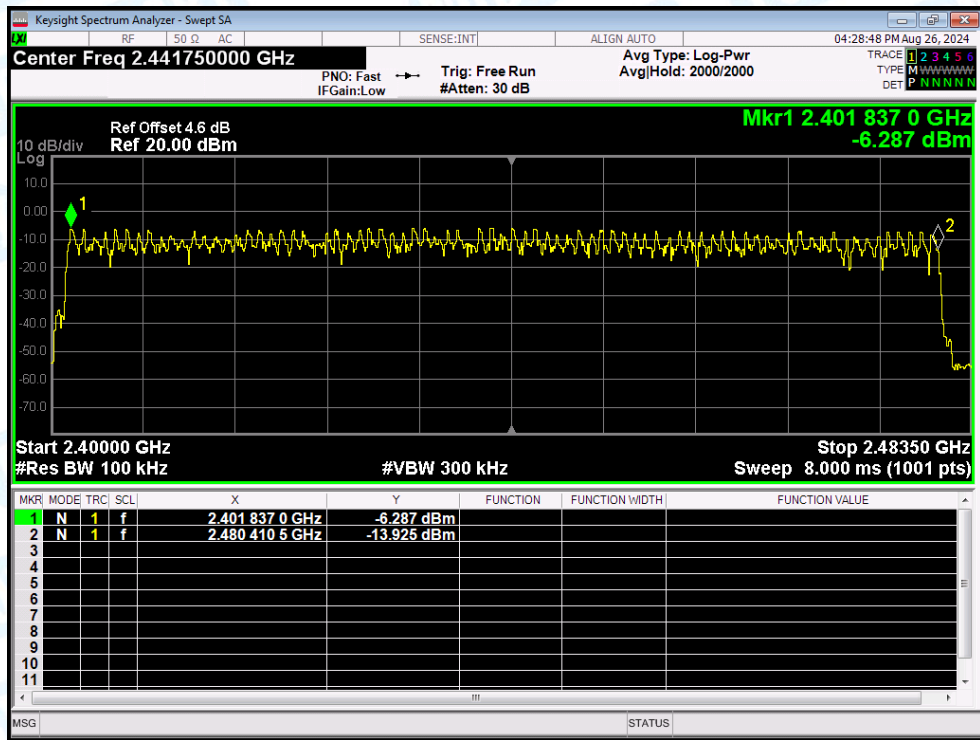
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH1	Ant1	79	15	Pass
NVNT	2-DH1	Ant1	79	15	Pass
NVNT	3-DH1	Ant1	79	15	Pass

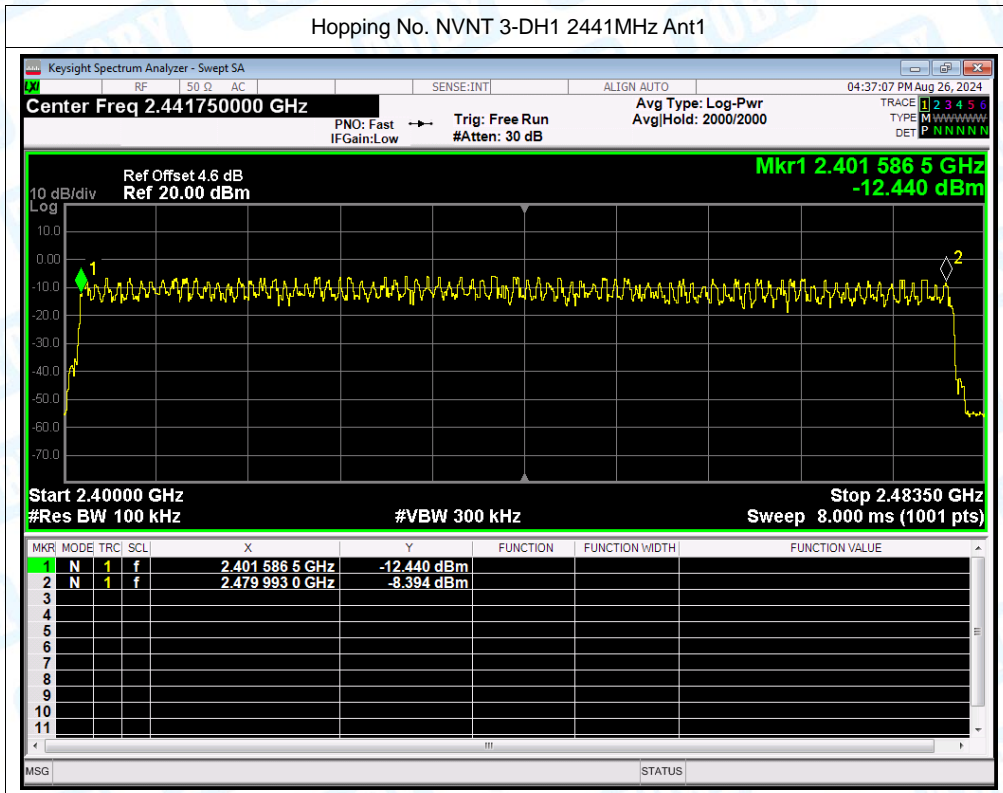
Test Graphs

Hopping No. NVNT 1-DH1 2441MHz Ant1



Hopping No. NVNT 2-DH1 2441MHz Ant1



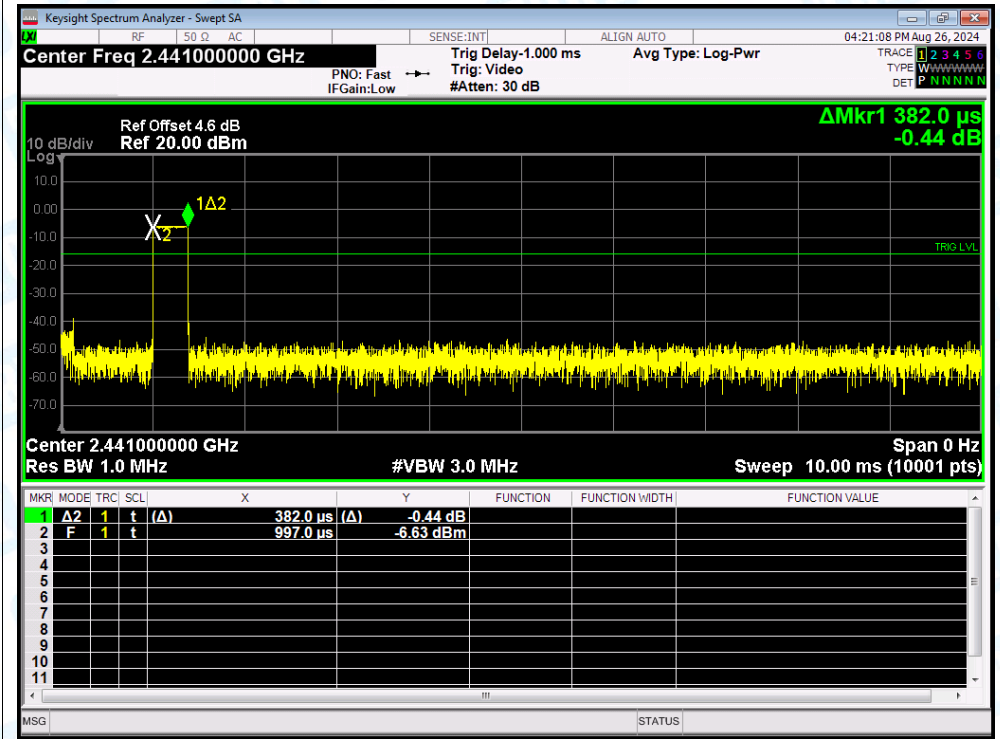


11. Dwell Time

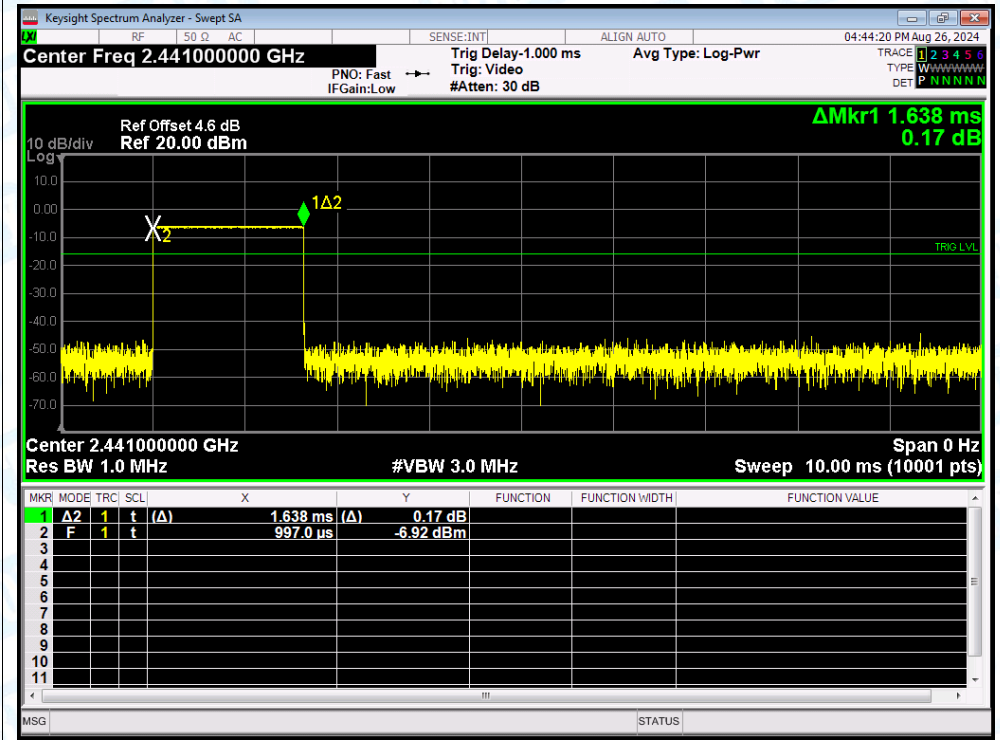
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	Ant1	0.382	122.24	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.638	262.08	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.887	307.947	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.391	125.12	31600	400	Pass
NVNT	2-DH3	2441	Ant1	1.644	263.04	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.892	308.48	31600	400	Pass
NVNT	3-DH1	2441	Ant1	0.391	125.12	31600	400	Pass
NVNT	3-DH3	2441	Ant1	1.643	262.88	31600	400	Pass
NVNT	3-DH5	2441	Ant1	2.894	308.693	31600	400	Pass

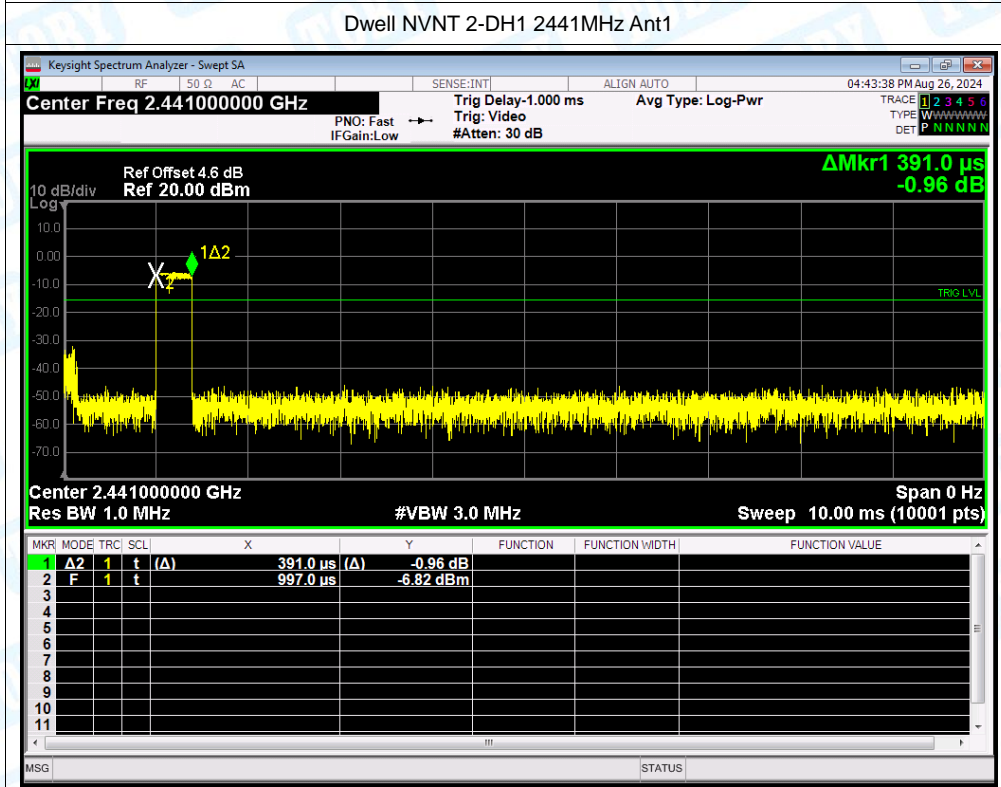
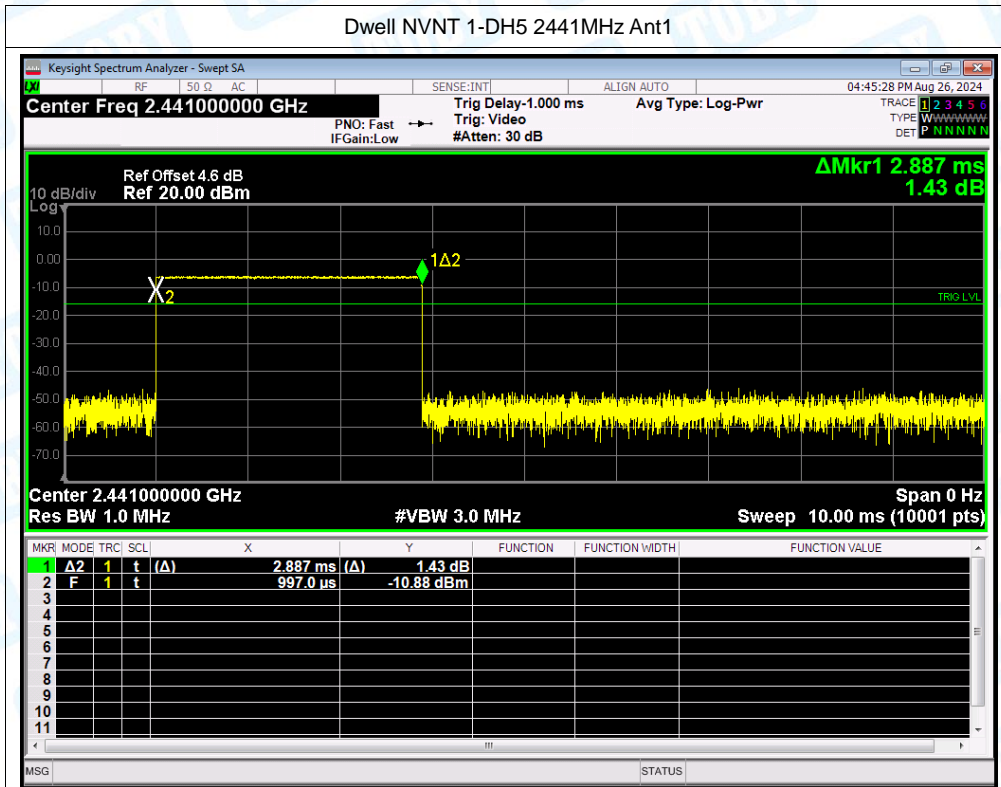
Test Graphs

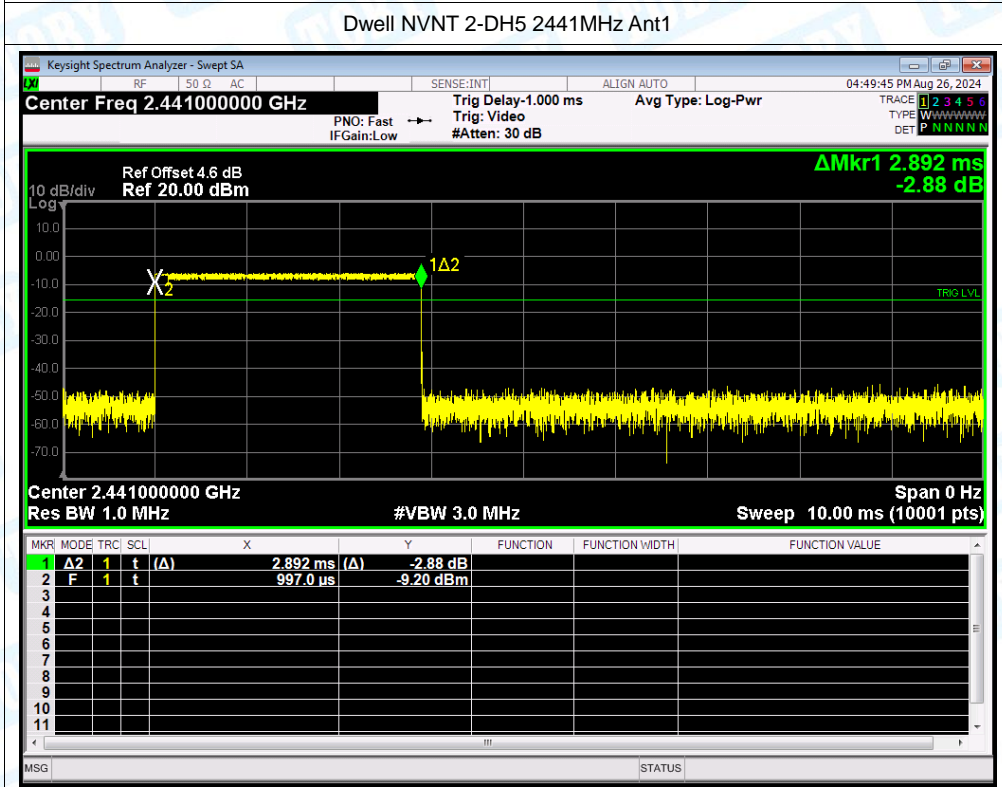
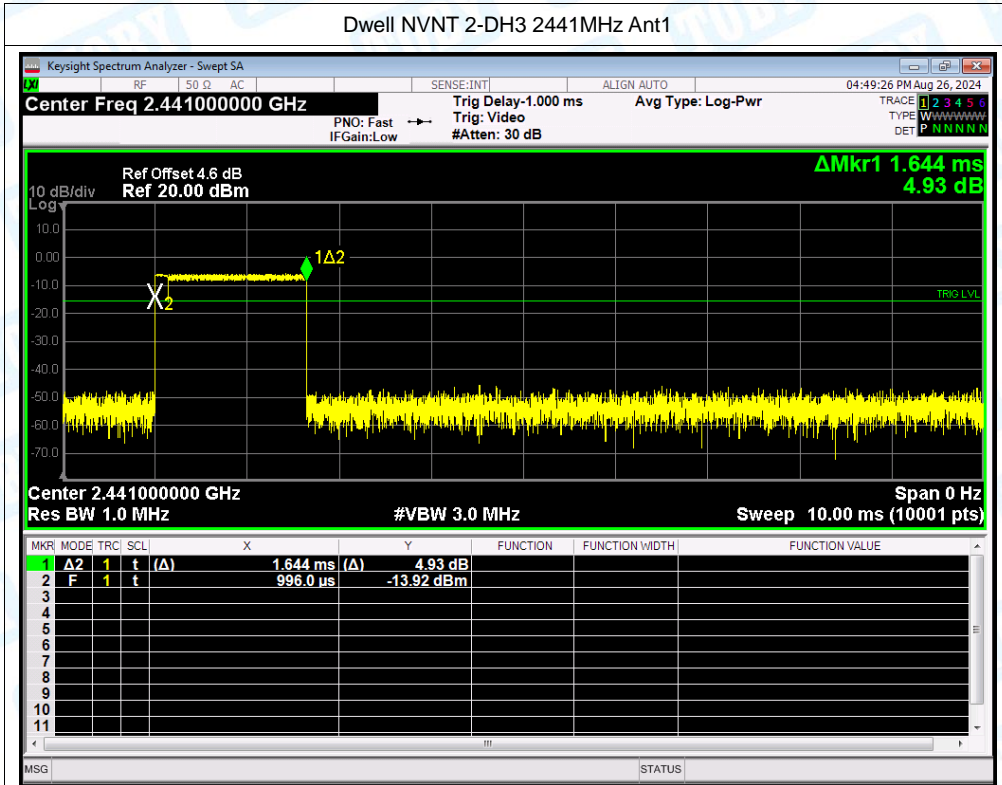
Dwell NVNT 1-DH1 2441MHz Ant1

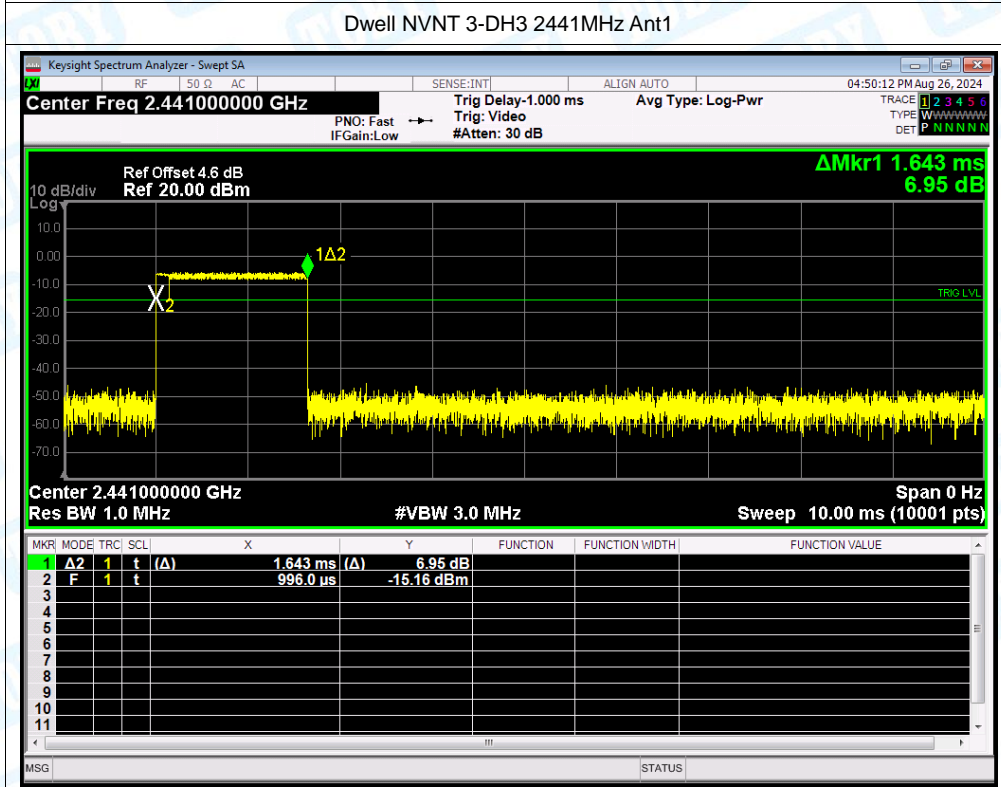
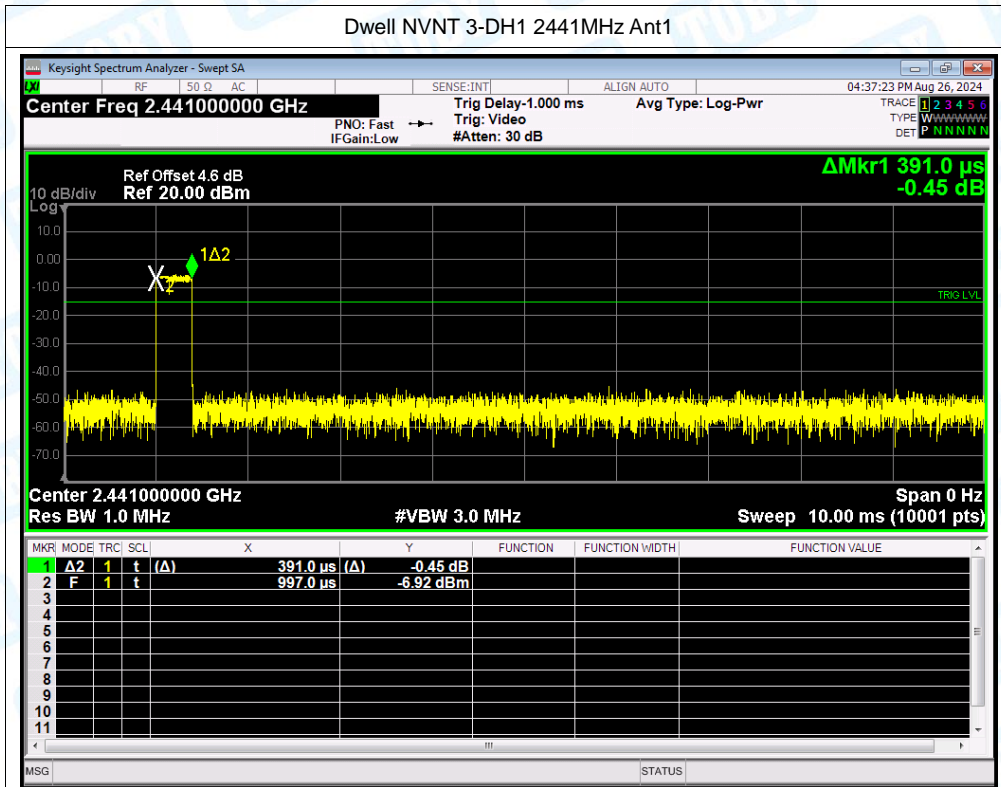


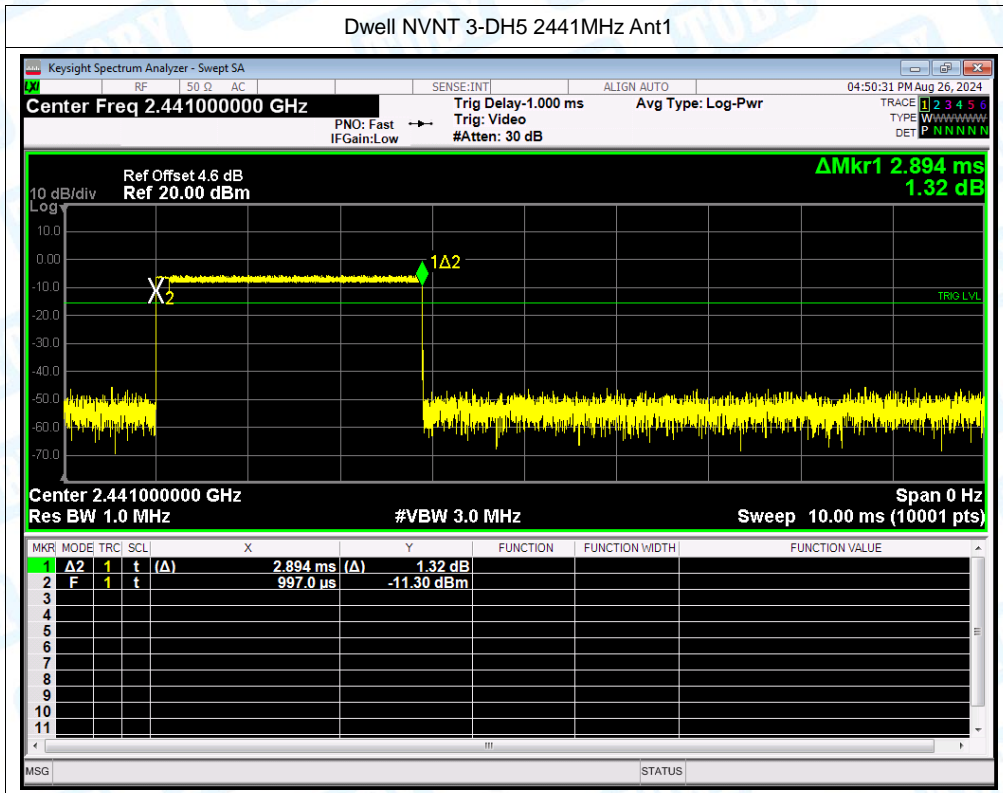
Dwell NVNT 1-DH3 2441MHz Ant1











---- END OF REPORT ----