

RF Test Data for Bluetooth (Conducted Measurements)

General Description of EUT	
Product Name:	Head mounted Bluetooth earphones
Test Model:	Y01
Sample ID:	HC-C-202409-0006-01-01
Environmental Conditions	
Temperature:	24.6°C
Relative Humidity:	52.1%
Test Voltage:	DC 3.7V
Test Engineer:	Jolin Lee
Note: For a more detailed features description, please refer to the report TBR-C-202409-0006-6 The report only show the worst case data.	

Contents

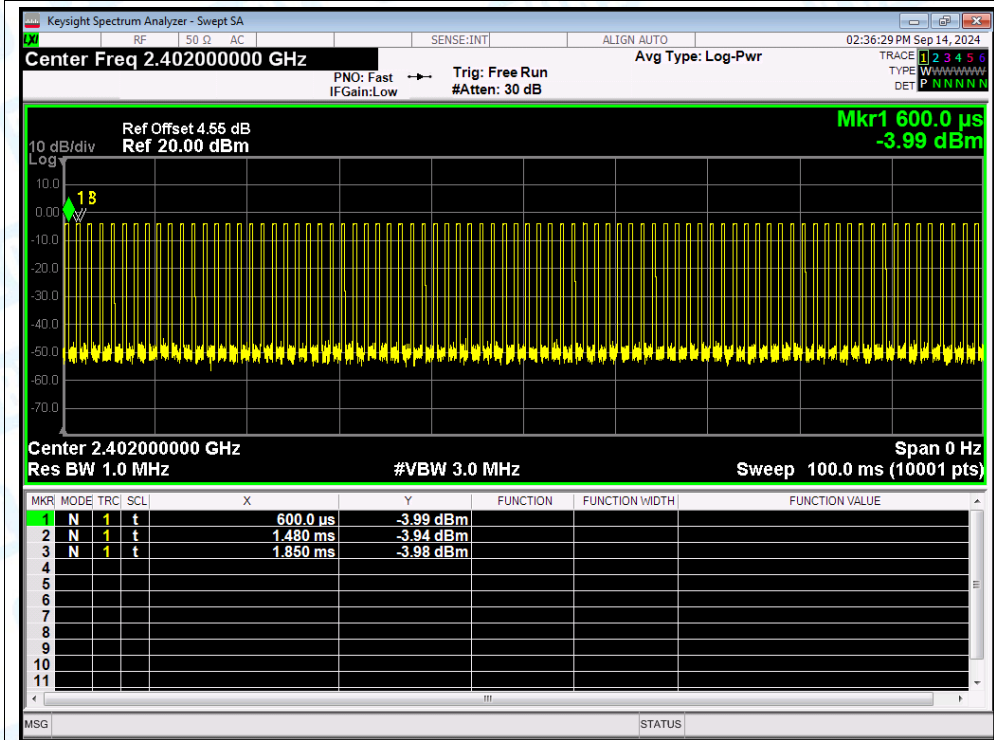
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1. Duty Cycle

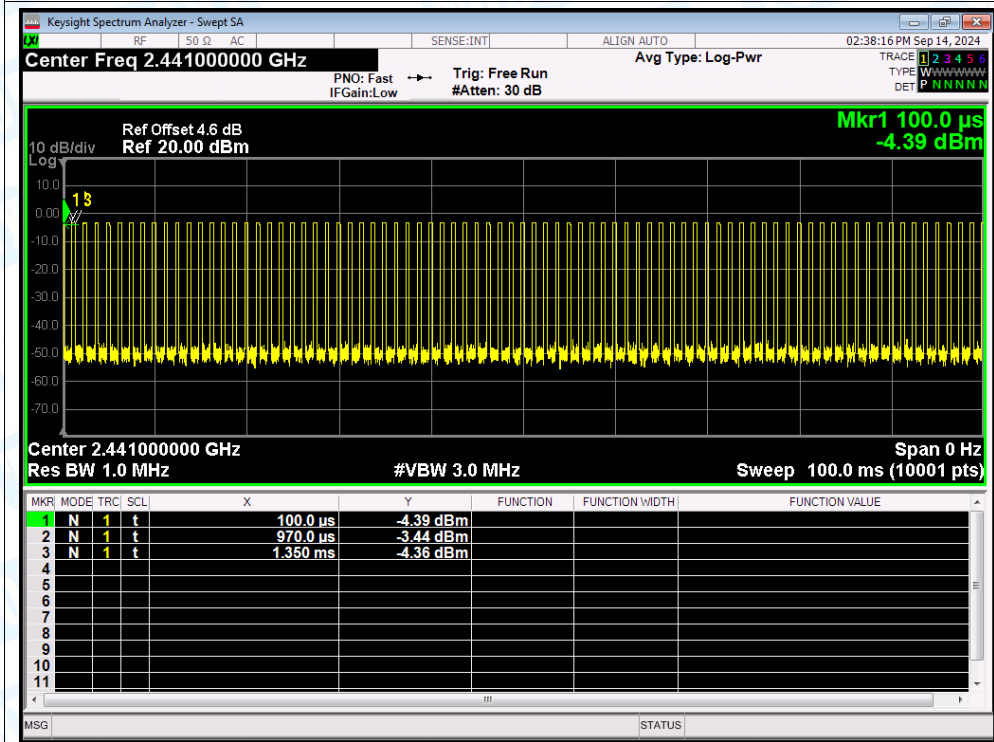
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH1	2402	Ant1	29.6	5.29	2.7
NVNT	1-DH1	2441	Ant1	30.4	5.17	2.63
NVNT	1-DH1	2480	Ant1	30.4	5.17	2.63
NVNT	2-DH1	2402	Ant1	30.4	5.17	2.63
NVNT	2-DH1	2441	Ant1	30.4	5.17	2.63
NVNT	2-DH1	2480	Ant1	30.4	5.17	2.63
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	30.4	5.17	2.63

Test Graphs

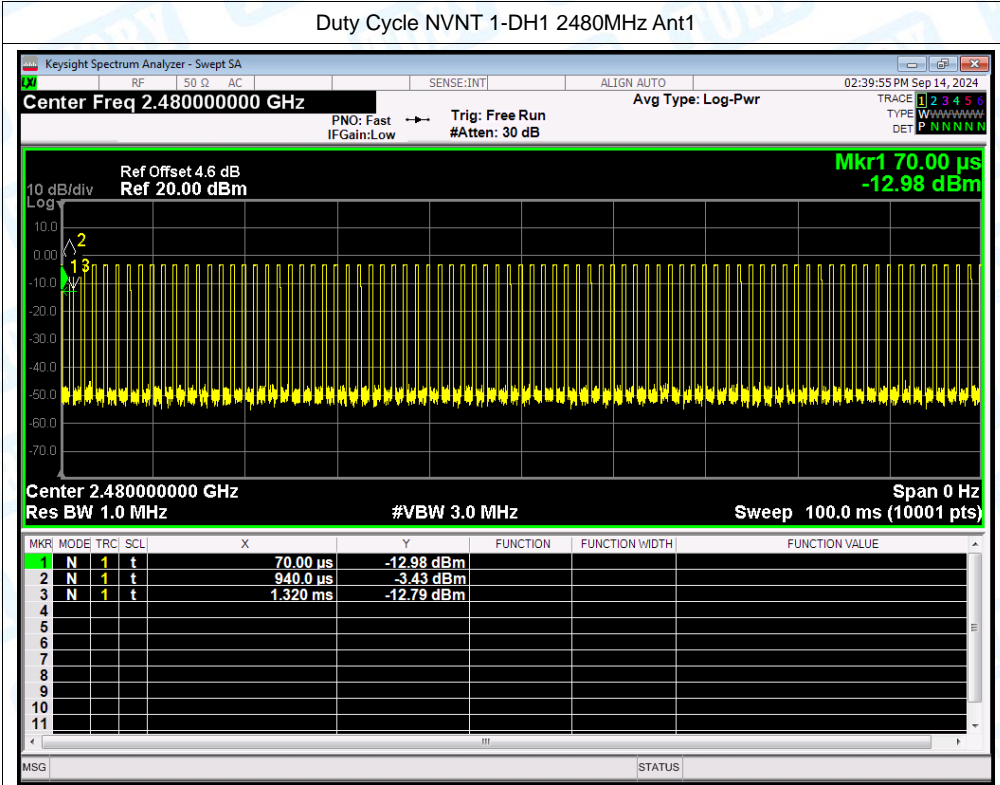
Duty Cycle NVNT 1-DH1 2402MHz Ant1



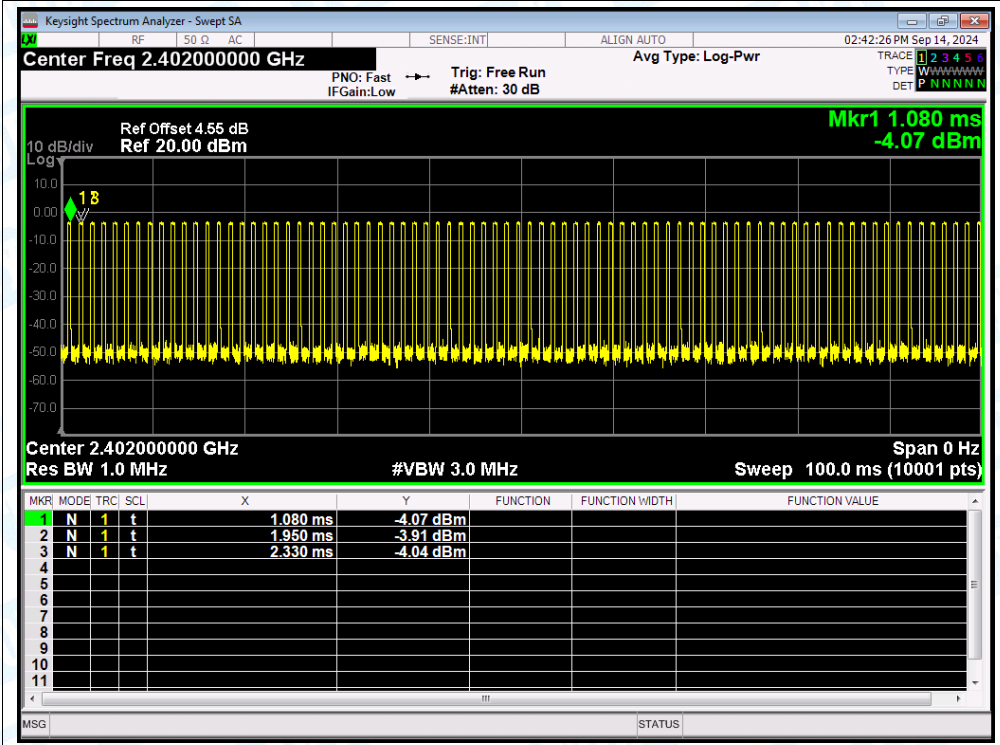
Duty Cycle NVNT 1-DH1 2441MHz Ant1



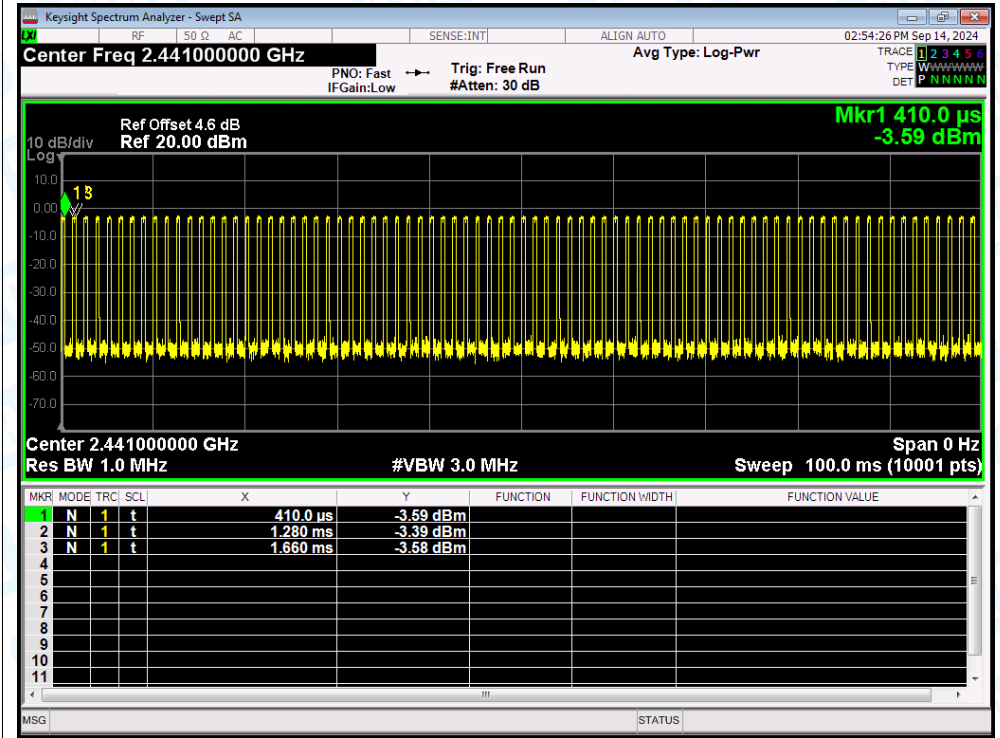
Duty Cycle NVNT 1-DH1 2480MHz Ant1



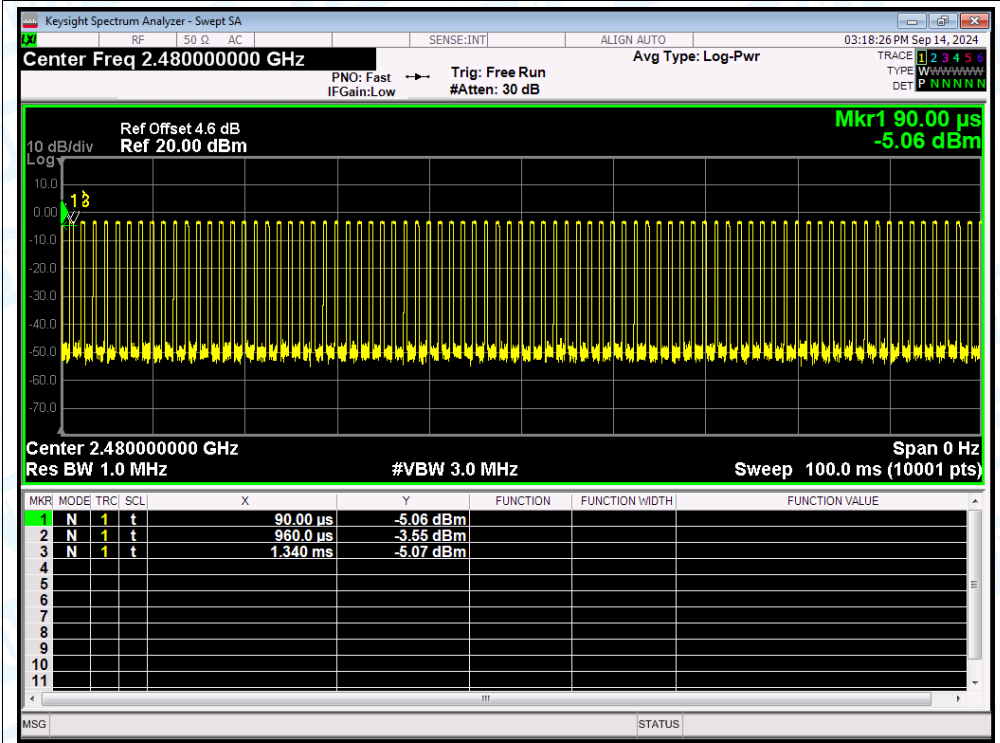
Duty Cycle NVNT 2-DH1 2402MHz Ant1



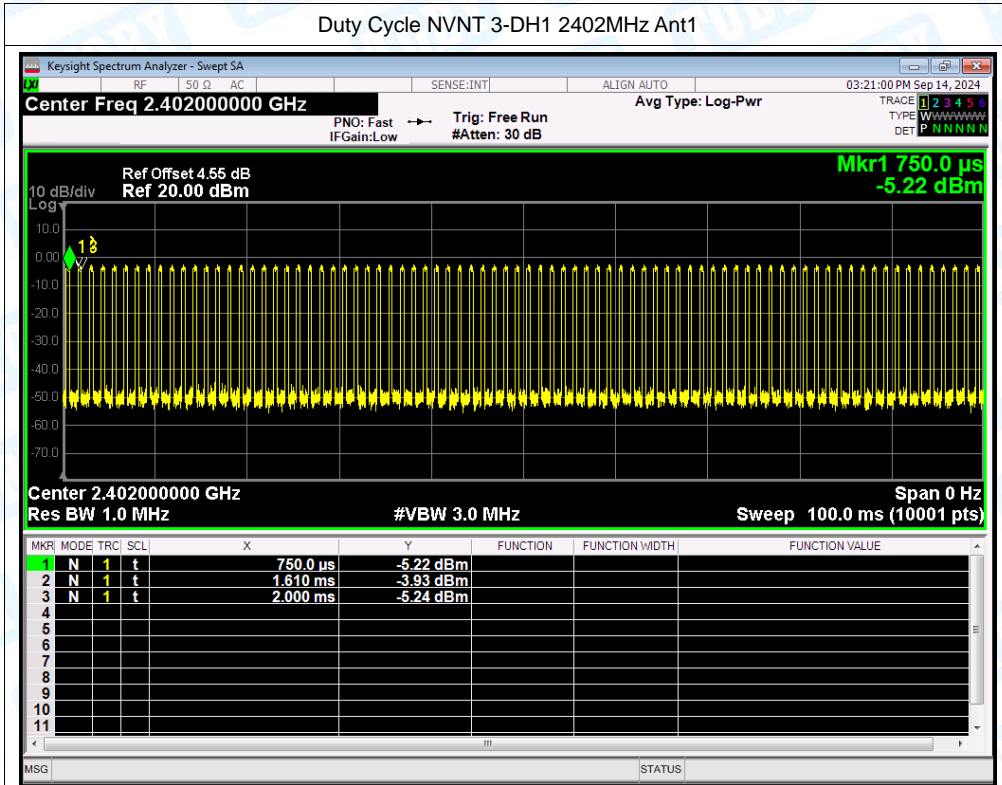
Duty Cycle NVNT 2-DH1 2441MHz Ant1



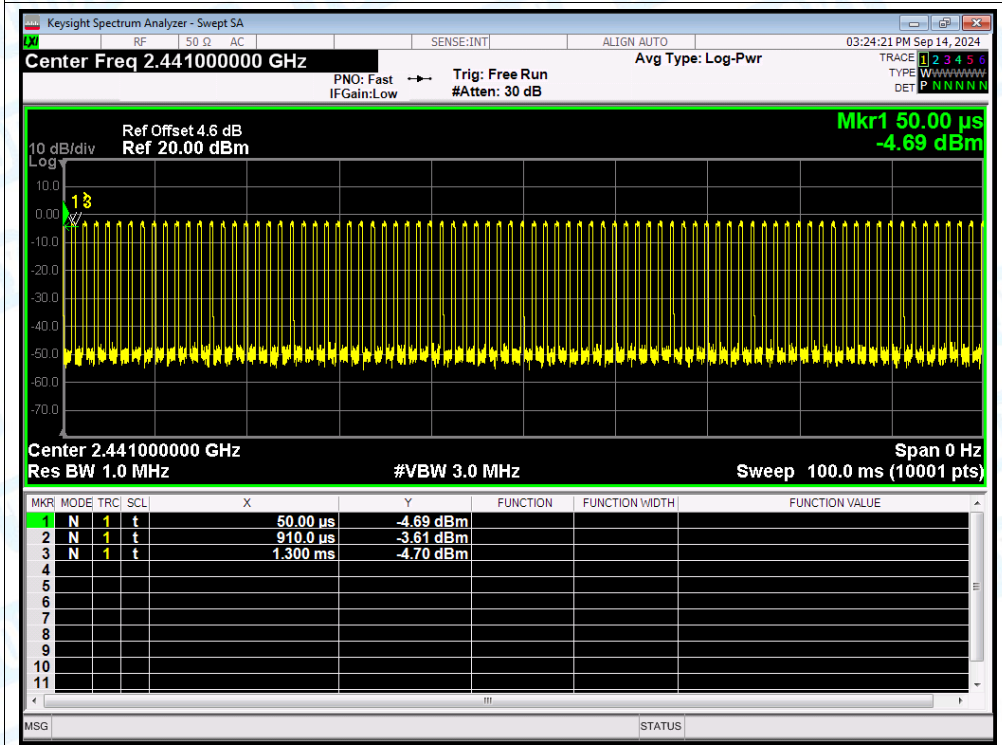
Duty Cycle NVNT 2-DH1 2480MHz Ant1

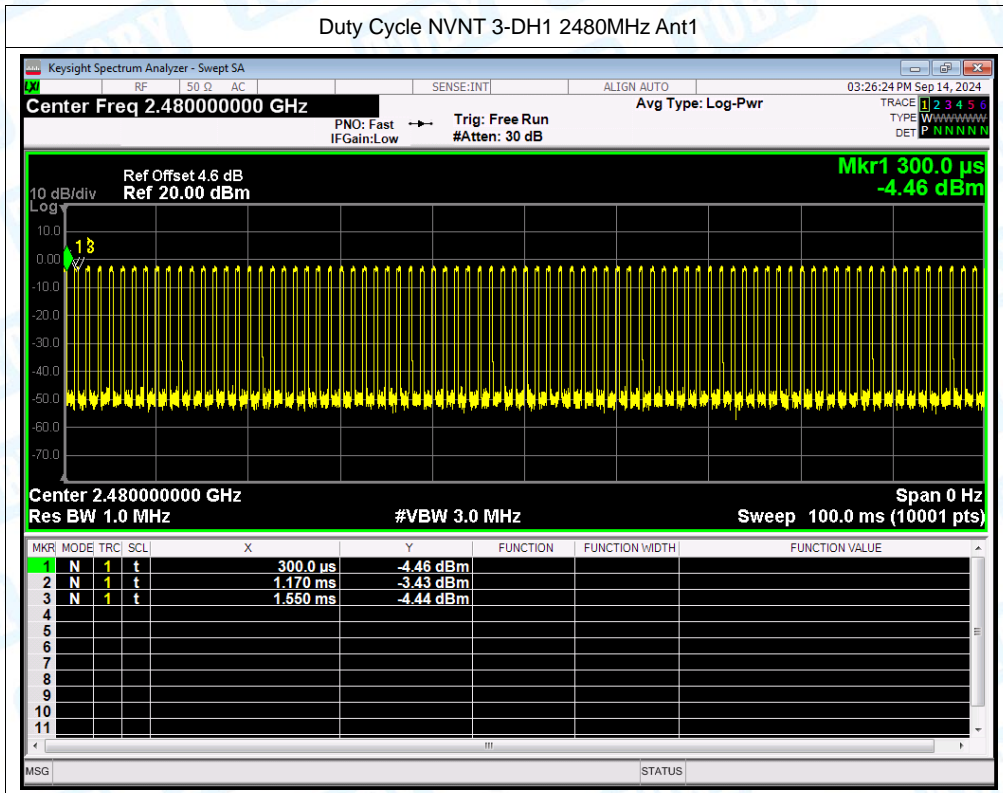


Duty Cycle NVNT 3-DH1 2402MHz Ant1



Duty Cycle NVNT 3-DH1 2441MHz Ant1



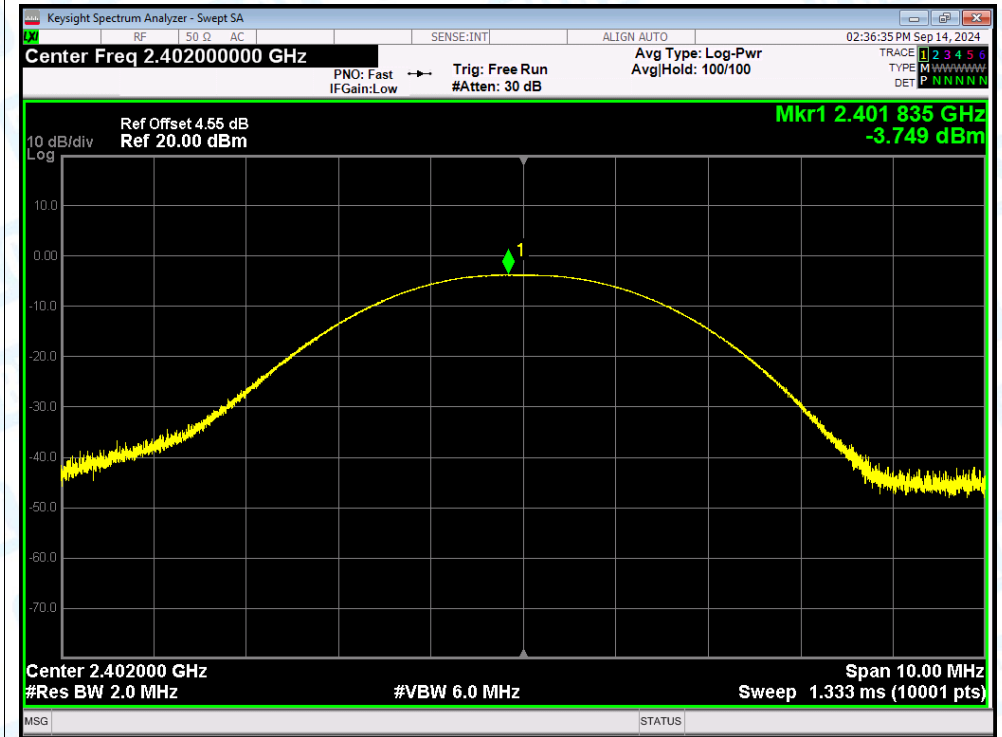


2. Maximum Conducted Output Power

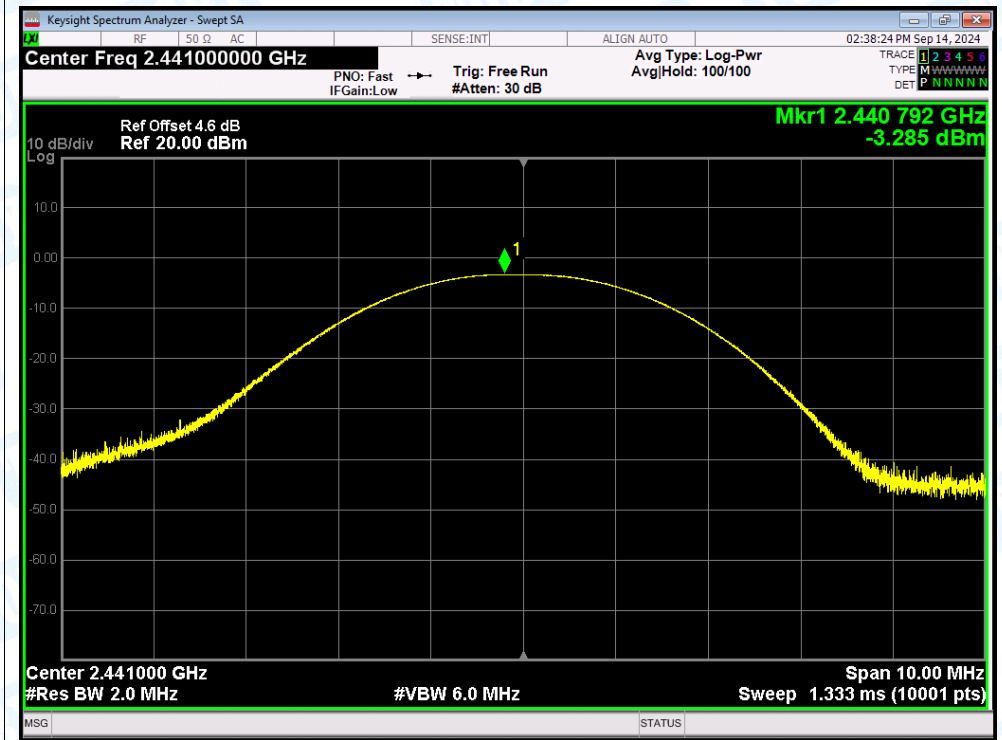
Condition	Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	-3.749	21	Pass
NVNT	1-DH1	2441	Ant1	-3.285	21	Pass
NVNT	1-DH1	2480	Ant1	-3.239	21	Pass
NVNT	2-DH1	2402	Ant1	-2.915	21	Pass
NVNT	2-DH1	2441	Ant1	-2.352	21	Pass
NVNT	2-DH1	2480	Ant1	-2.488	21	Pass
NVNT	3-DH1	2402	Ant1	-2.3	21	Pass
NVNT	3-DH1	2441	Ant1	-1.832	21	Pass
NVNT	3-DH1	2480	Ant1	-1.949	21	Pass

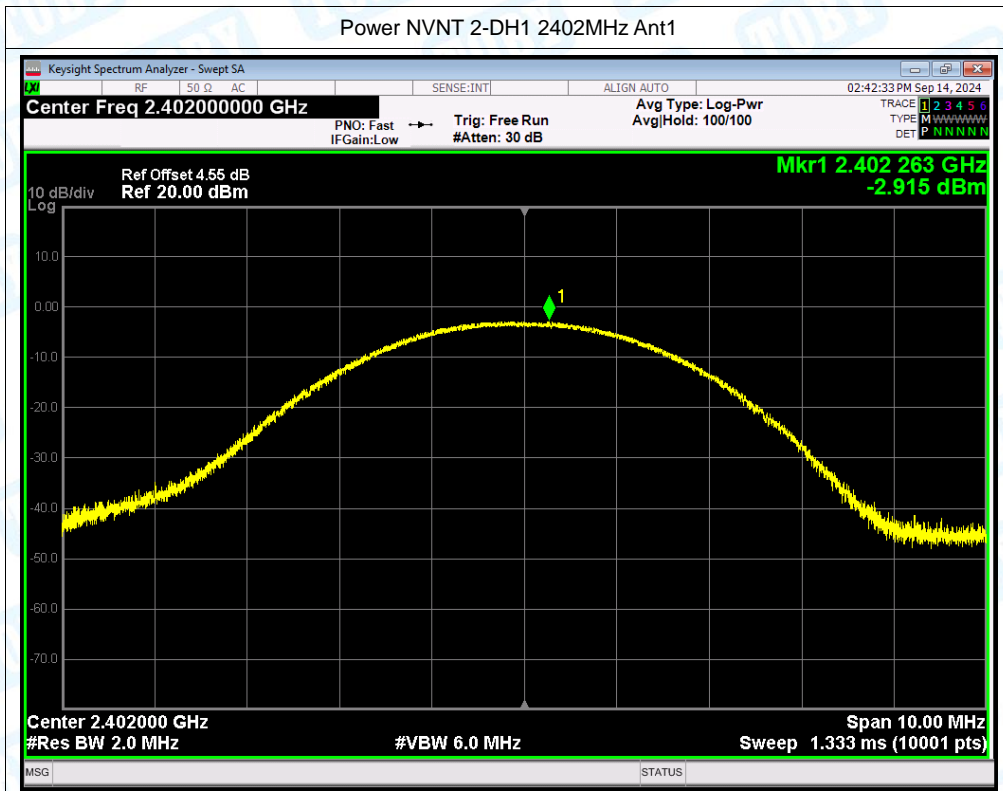
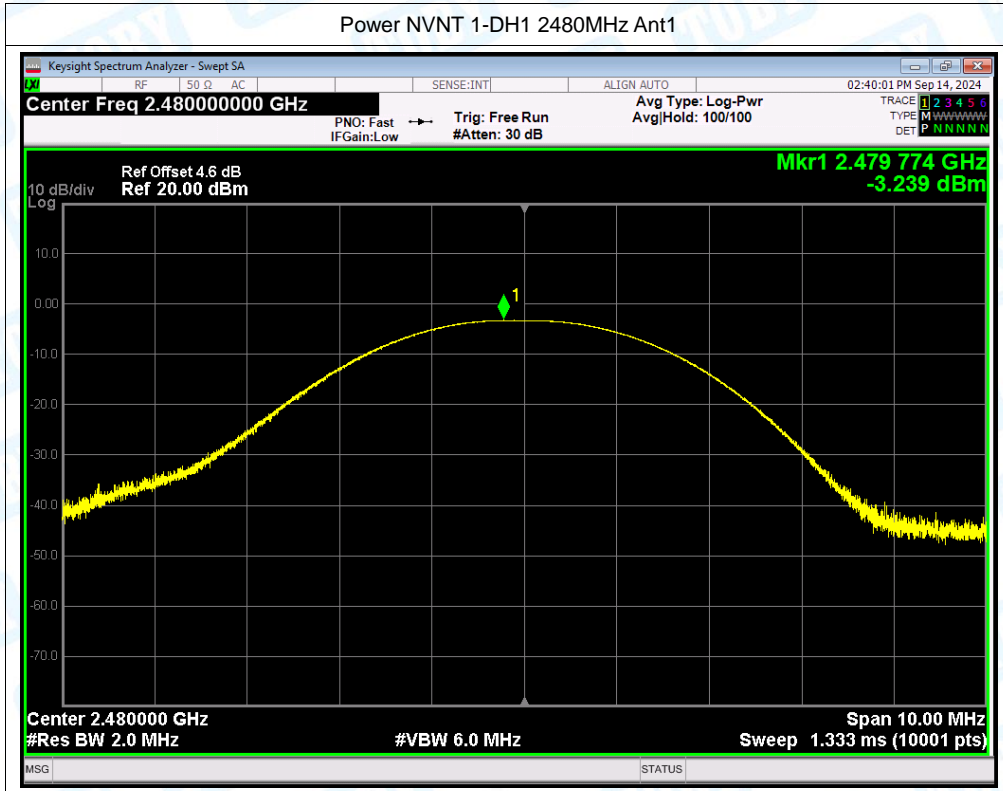
Test Graphs

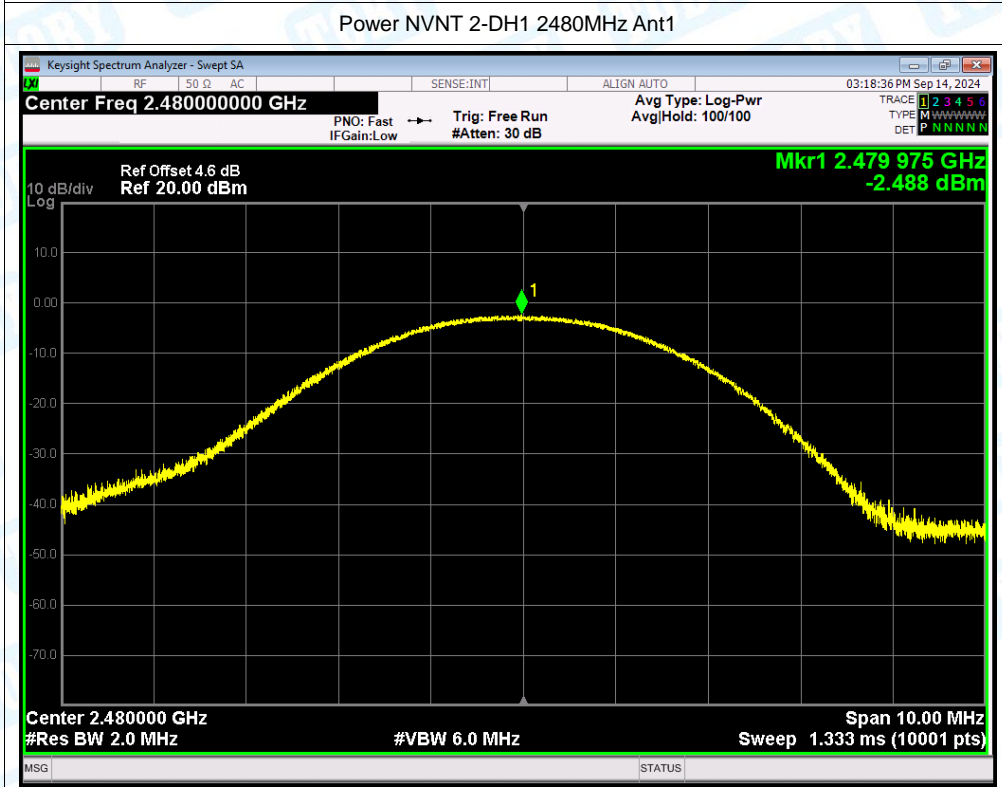
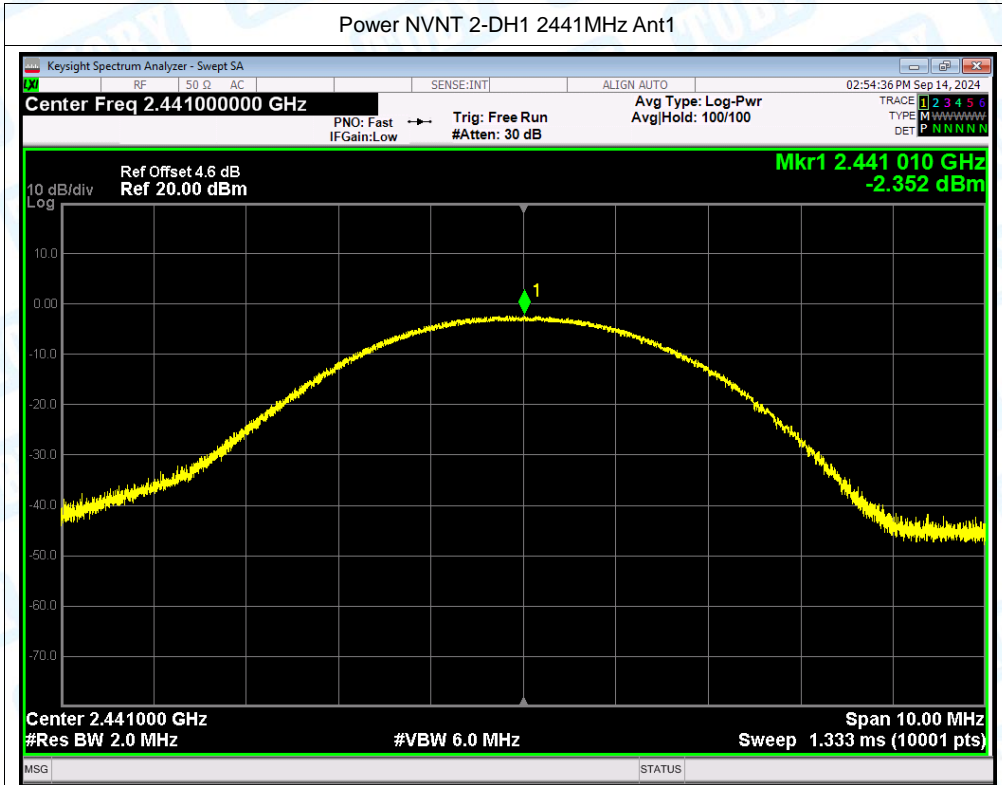
Power NVNT 1-DH1 2402MHz Ant1



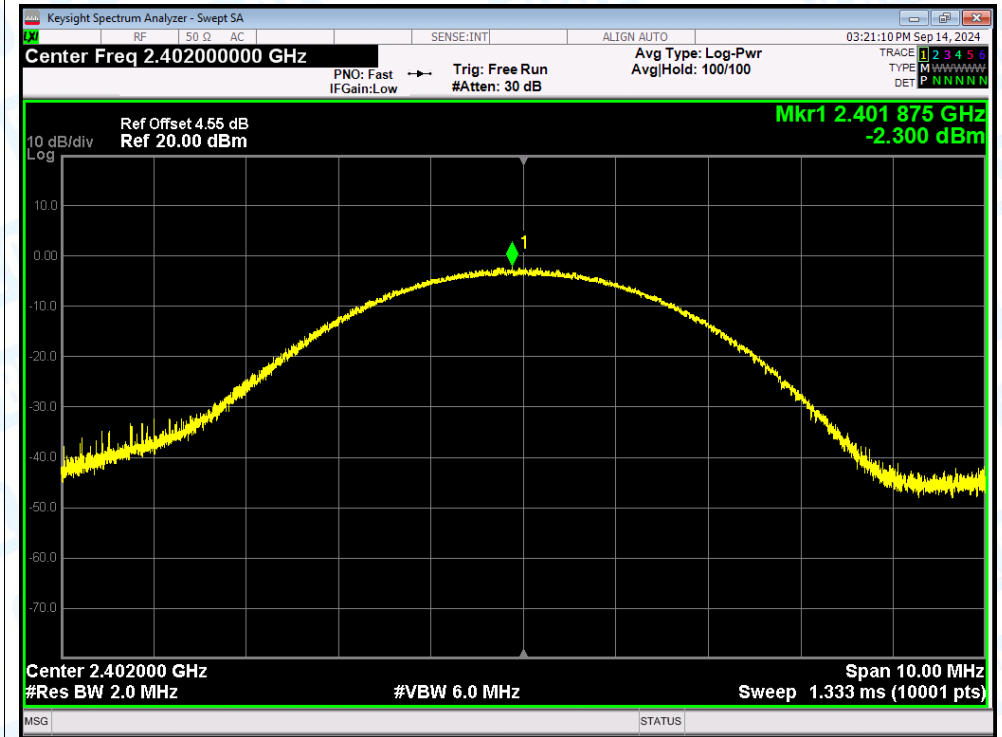
Power NVNT 1-DH1 2441MHz Ant1



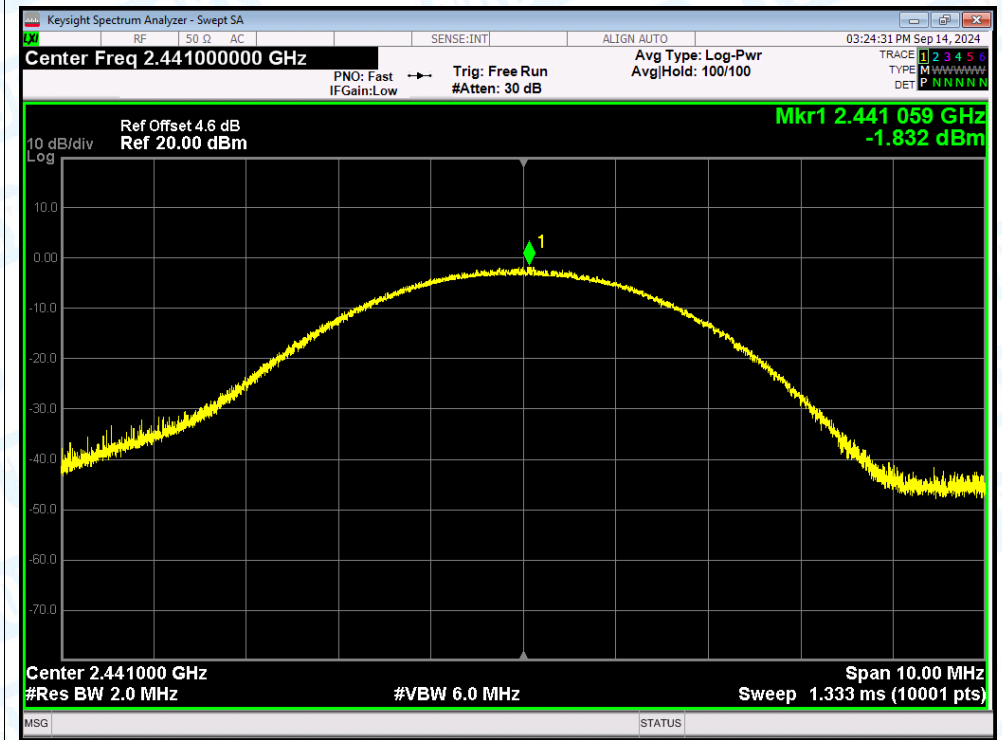


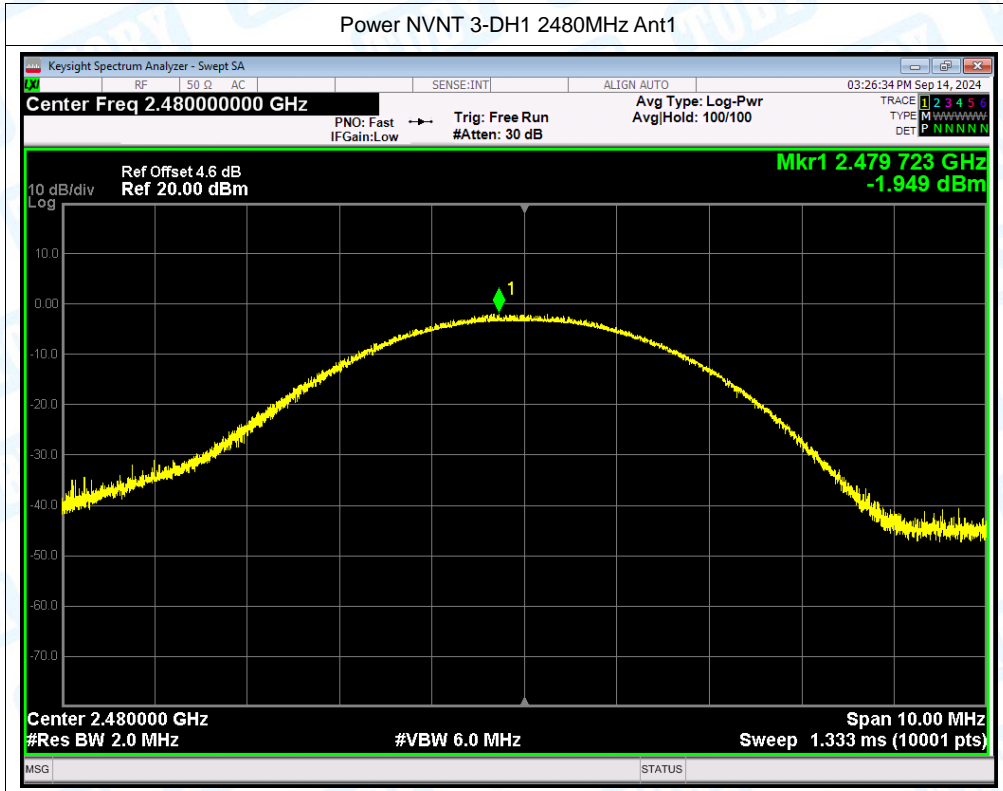


Power NVNT 3-DH1 2402MHz Ant1



Power NVNT 3-DH1 2441MHz Ant1



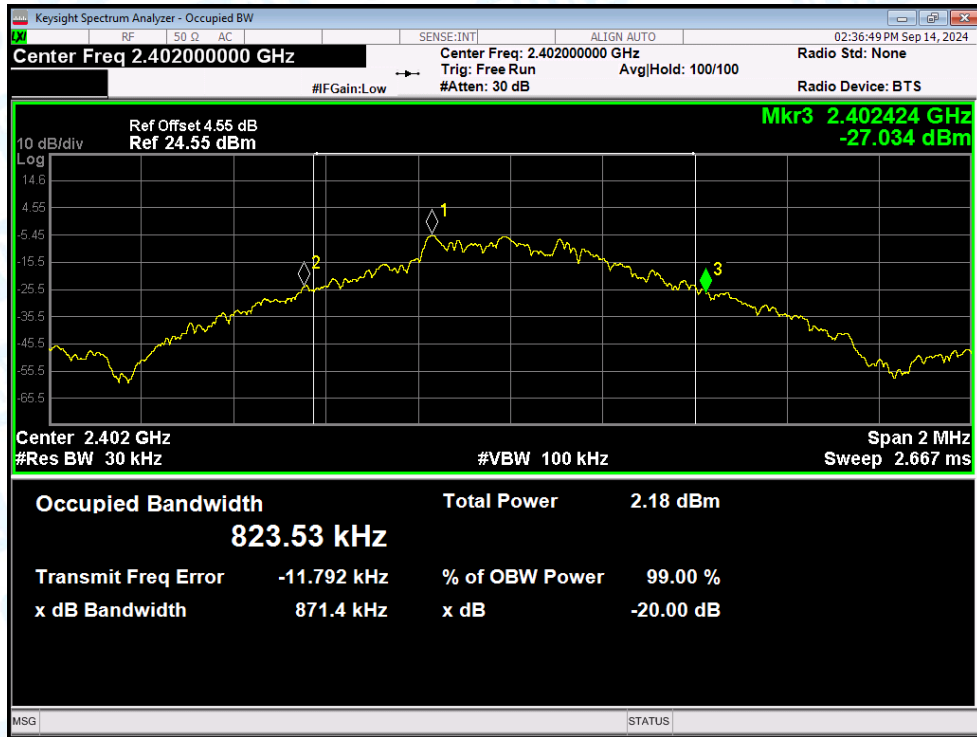


3. -20dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	0.87	0	Pass
NVNT	1-DH1	2441	Ant1	0.88	0	Pass
NVNT	1-DH1	2480	Ant1	0.88	0	Pass
NVNT	2-DH1	2402	Ant1	1.24	0	Pass
NVNT	2-DH1	2441	Ant1	1.25	0	Pass
NVNT	2-DH1	2480	Ant1	1.24	0	Pass
NVNT	3-DH1	2402	Ant1	1.21	0	Pass
NVNT	3-DH1	2441	Ant1	1.21	0	Pass
NVNT	3-DH1	2480	Ant1	1.2	0	Pass

Test Graphs

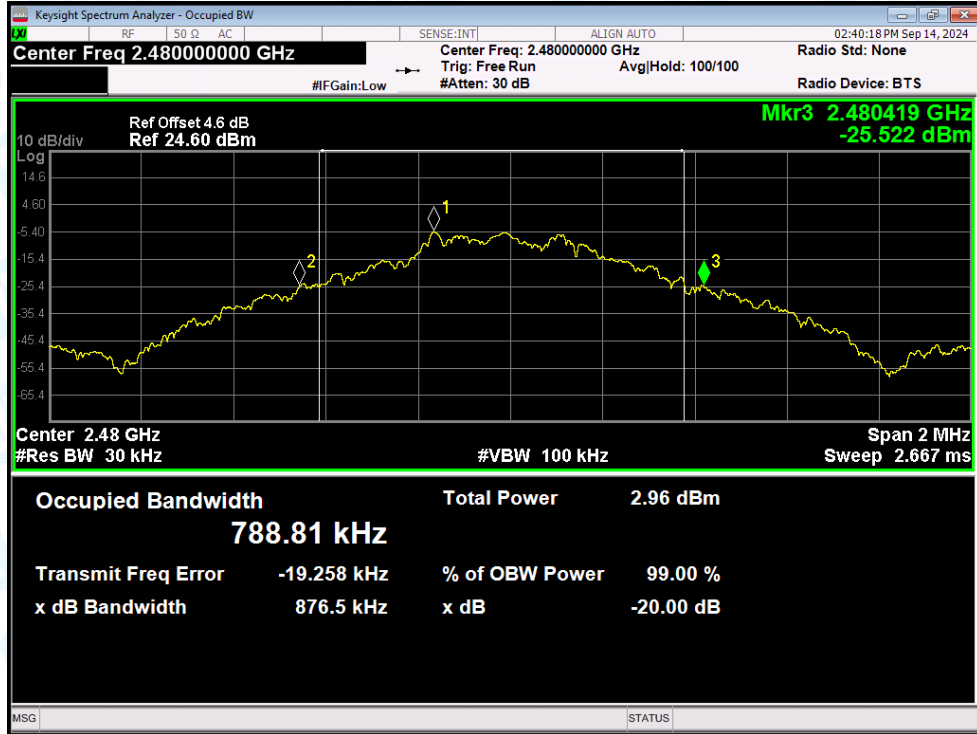
-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1



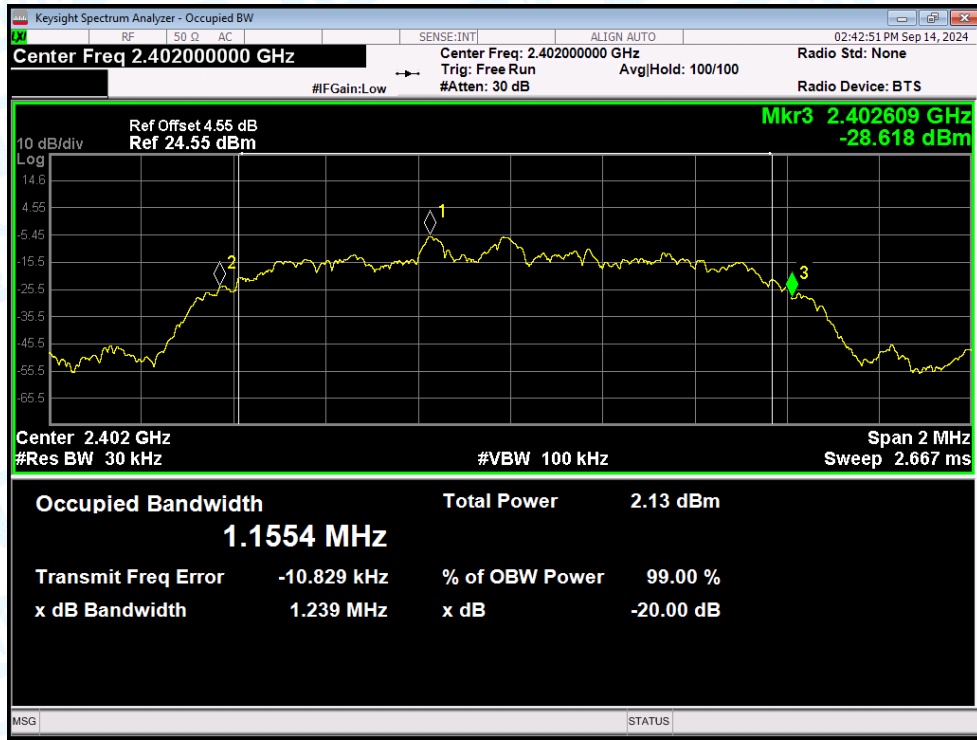
-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1



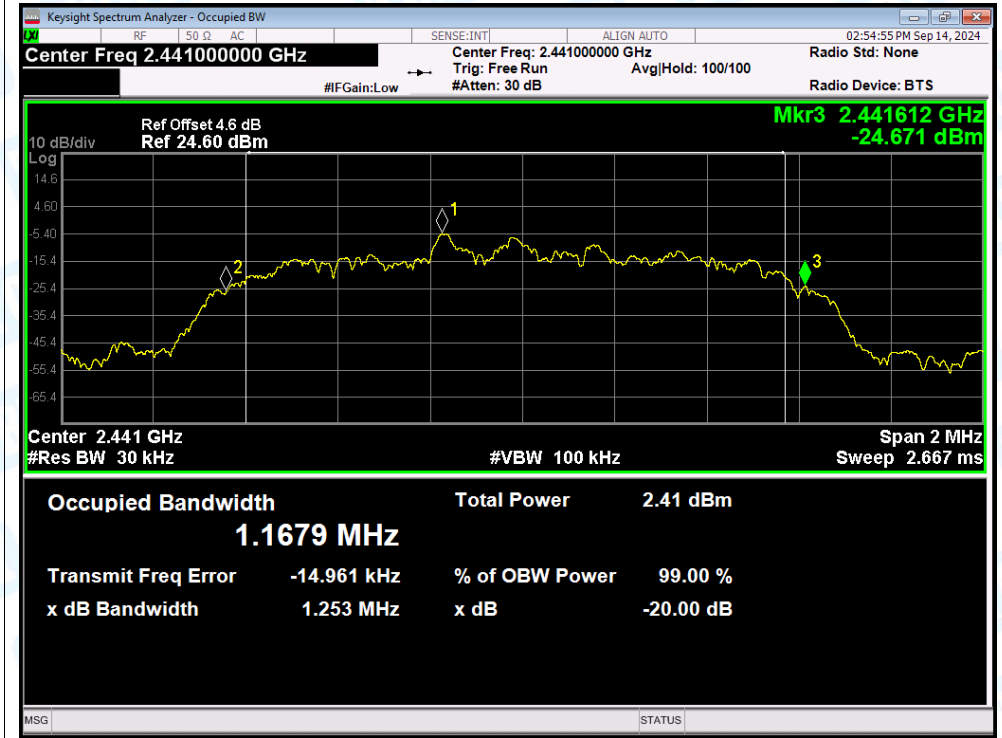
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



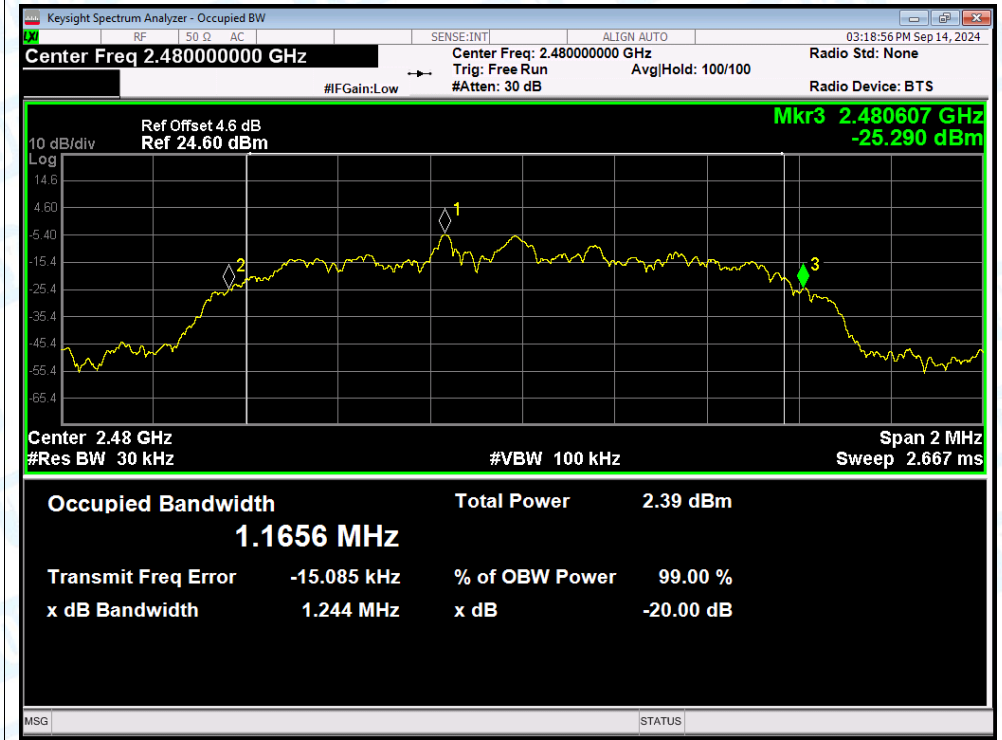
-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



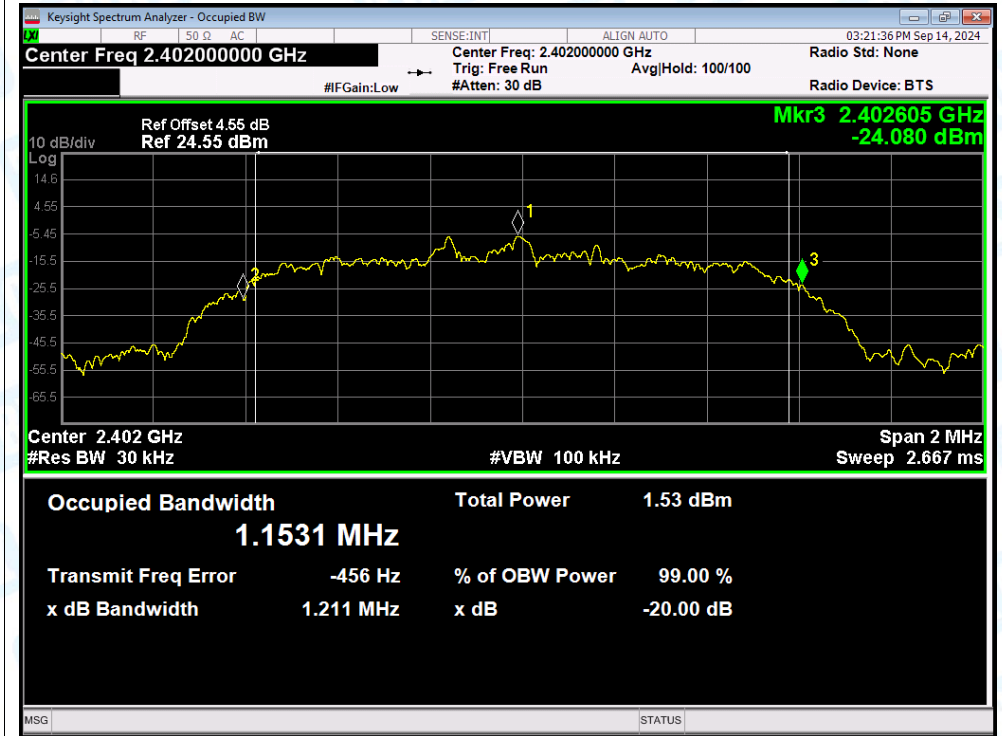
-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



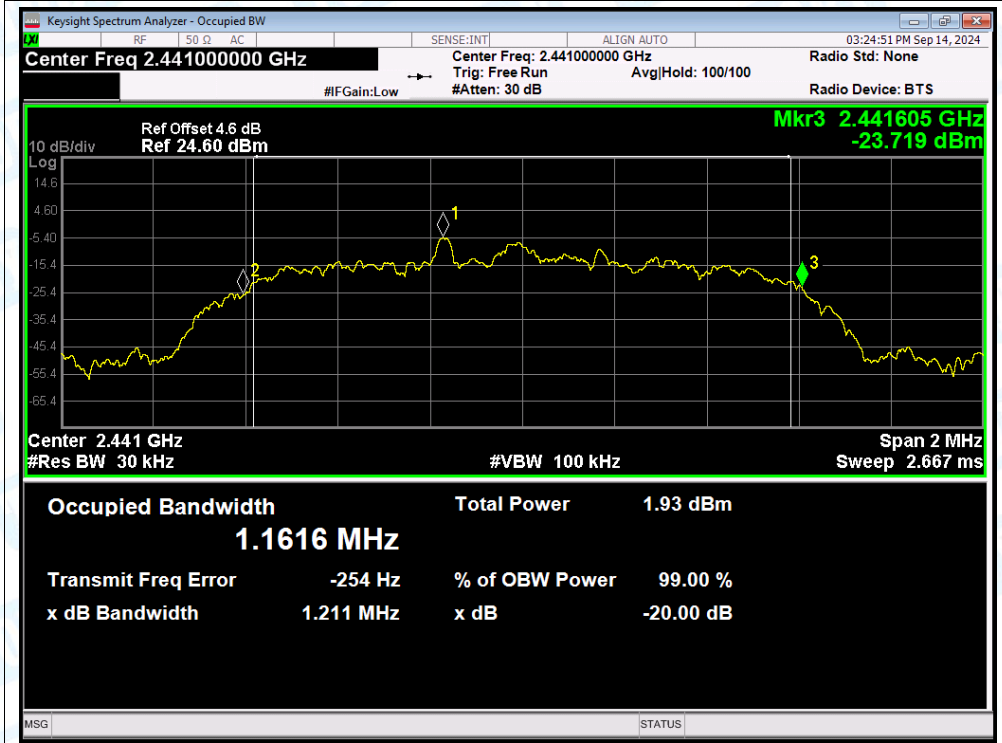
-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1

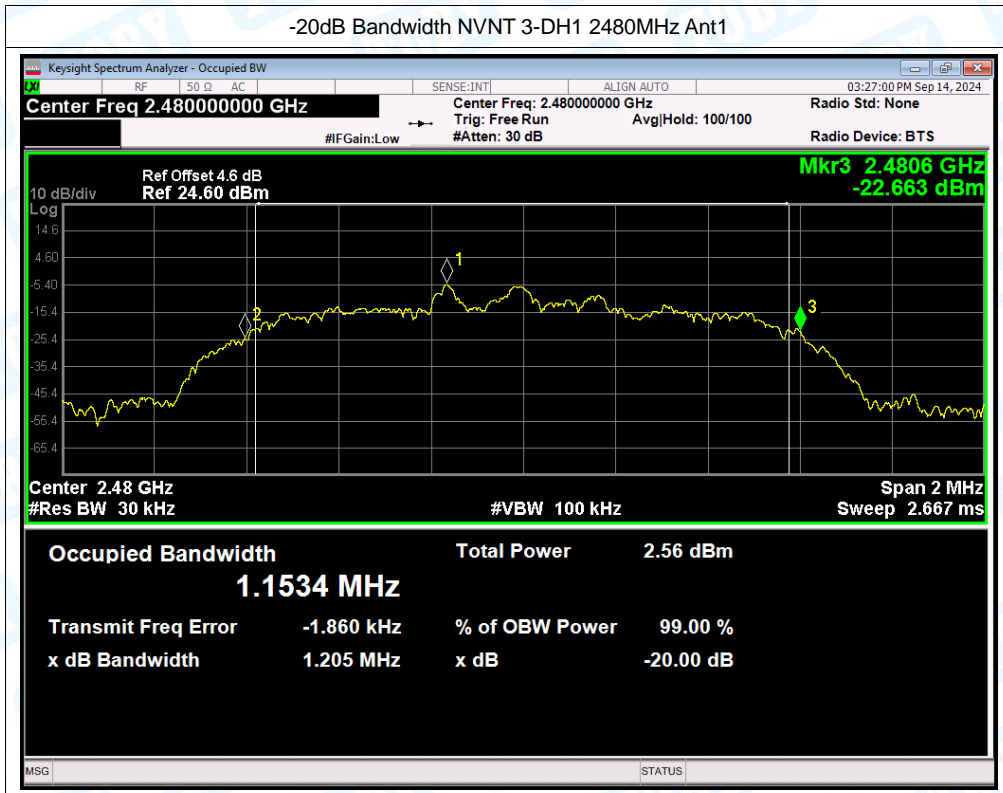


-20dB Bandwidth NVNT 3-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2441MHz Ant1



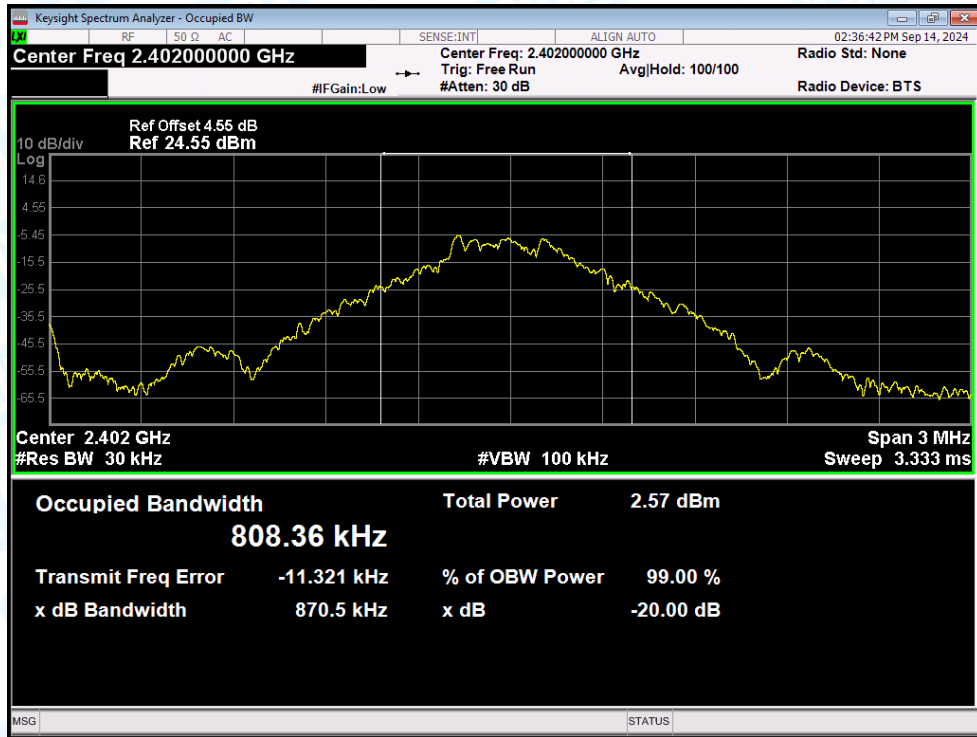


4. Occupied Channel Bandwidth

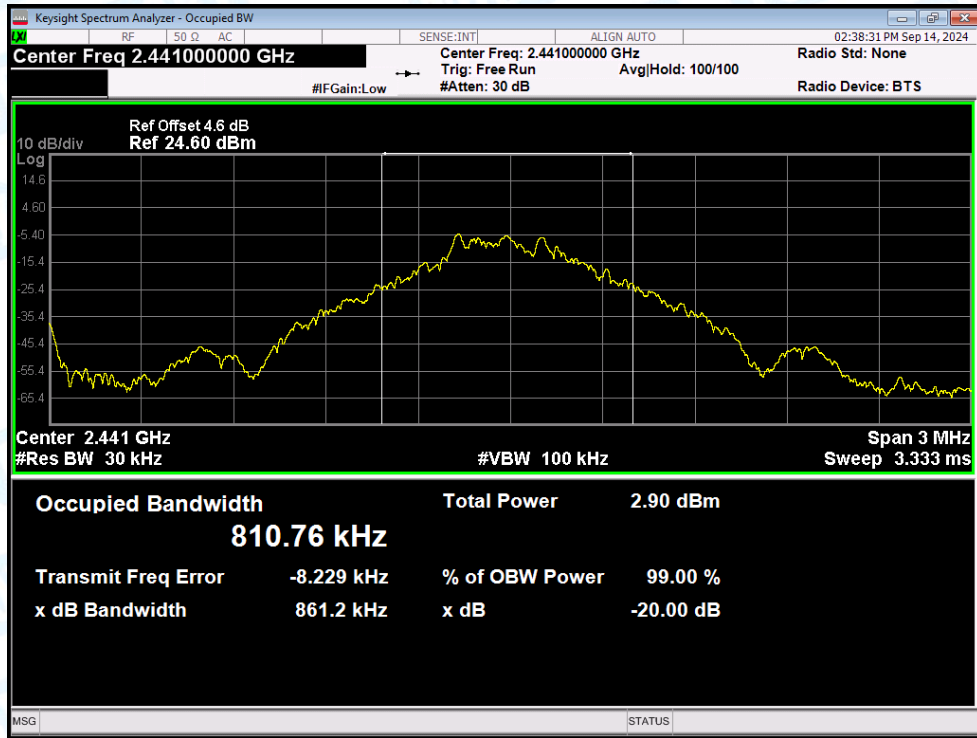
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH1	2402	Ant1	0.808
NVNT	1-DH1	2441	Ant1	0.811
NVNT	1-DH1	2480	Ant1	0.818
NVNT	2-DH1	2402	Ant1	1.167
NVNT	2-DH1	2441	Ant1	1.15
NVNT	2-DH1	2480	Ant1	1.162
NVNT	3-DH1	2402	Ant1	1.151
NVNT	3-DH1	2441	Ant1	1.16
NVNT	3-DH1	2480	Ant1	1.167

Test Graphs

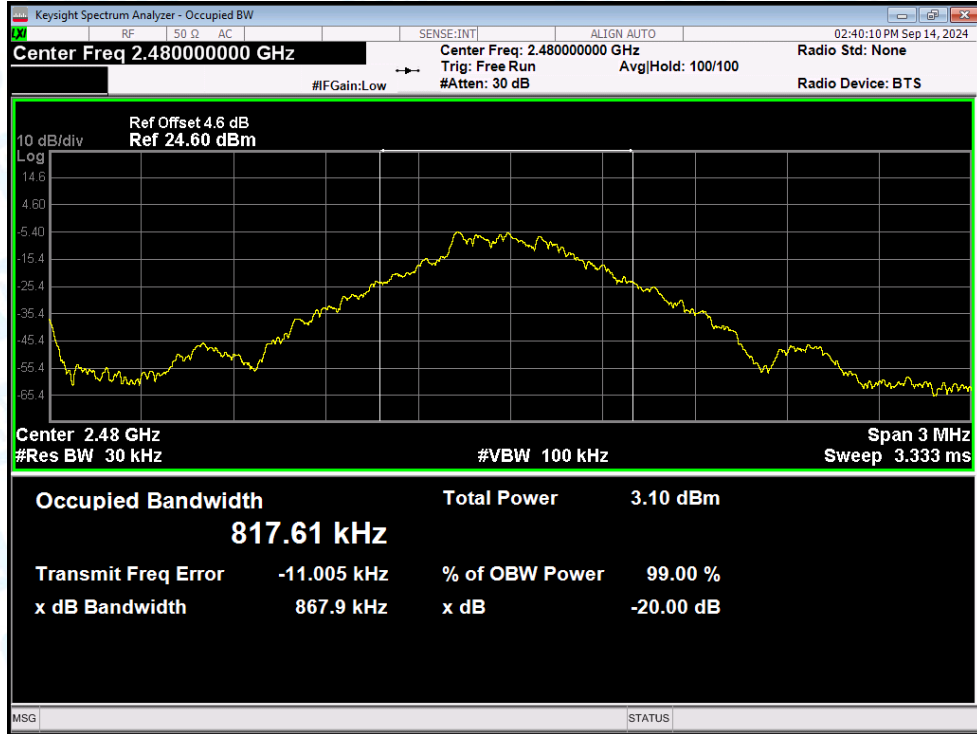
OBW NVNT 1-DH1 2402MHz Ant1



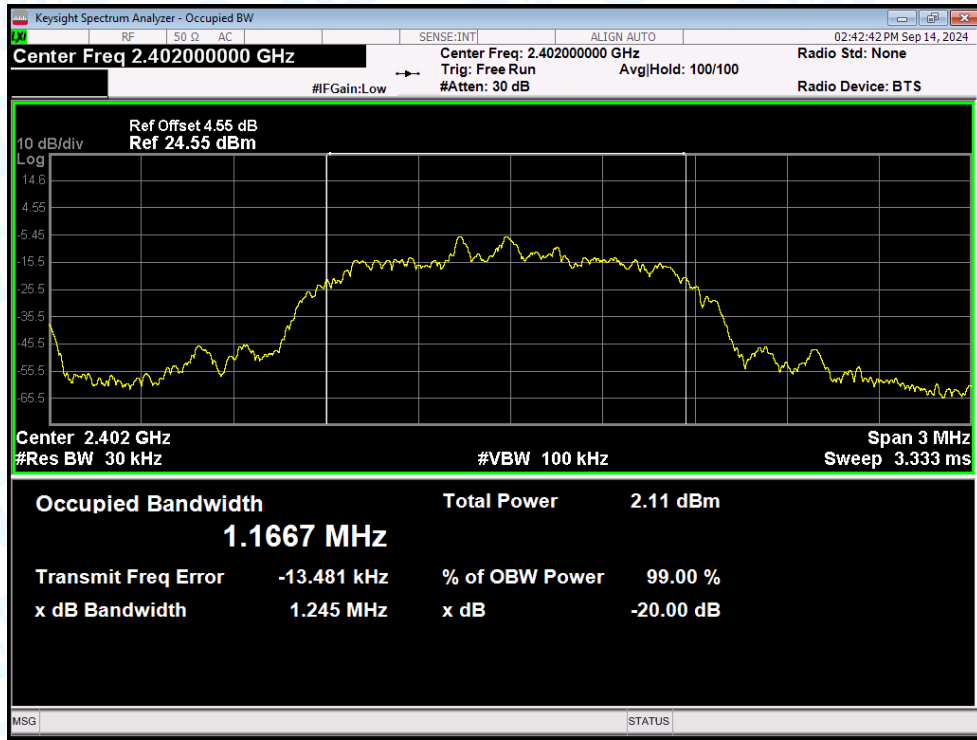
OBW NVNT 1-DH1 2441MHz Ant1



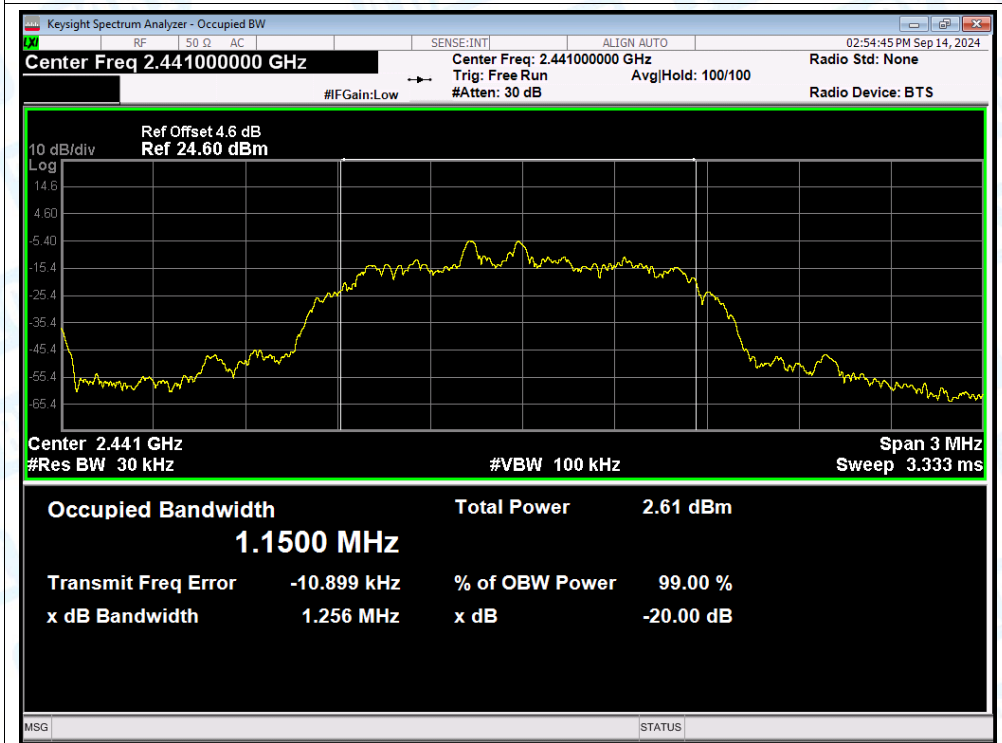
OBW NVNT 1-DH1 2480MHz Ant1



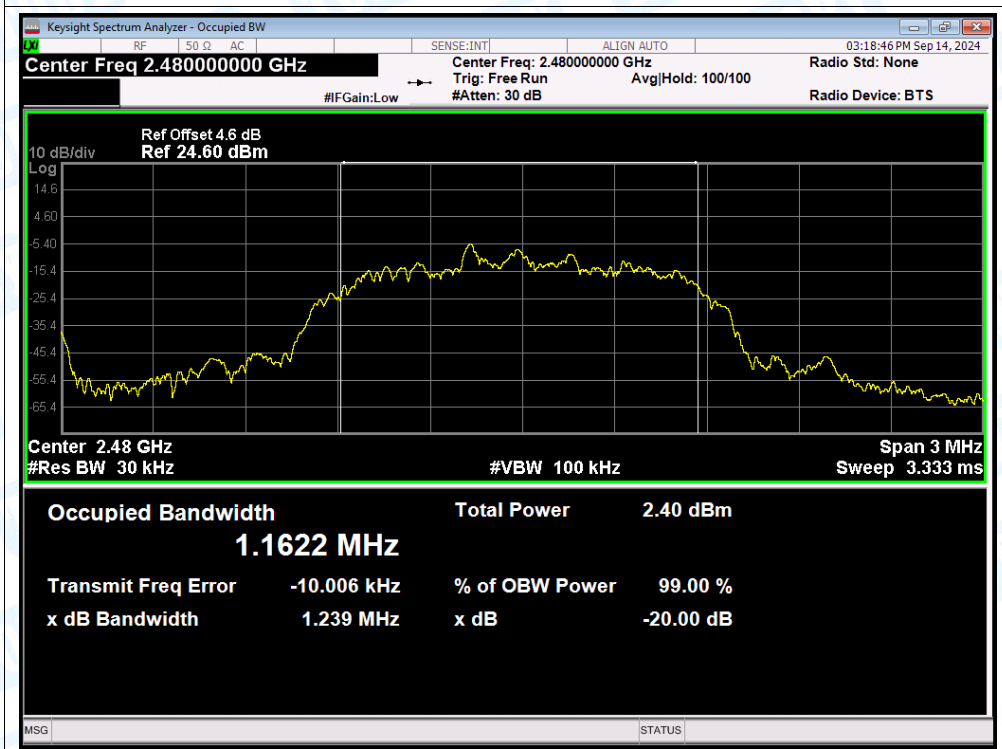
OBW NVNT 2-DH1 2402MHz Ant1



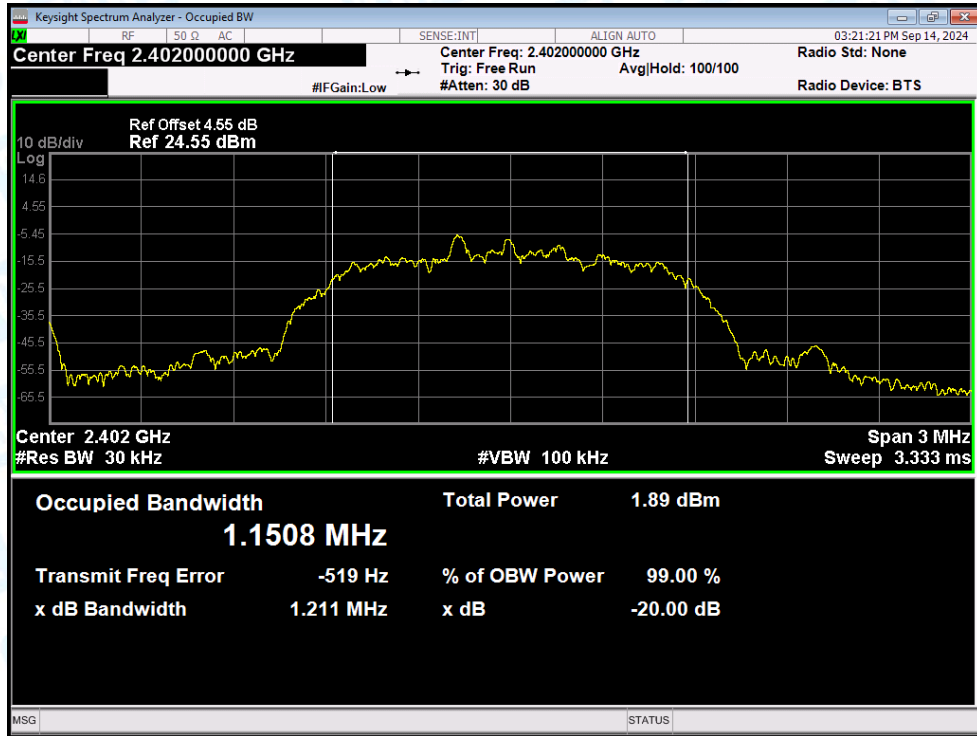
OBW NVNT 2-DH1 2441MHz Ant1



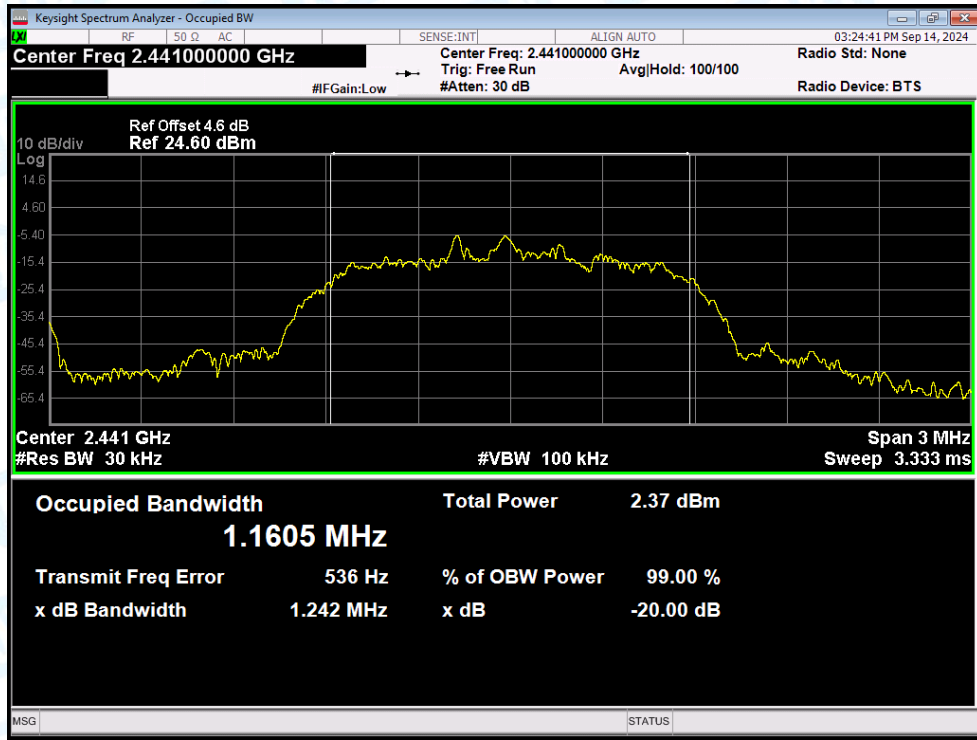
OBW NVNT 2-DH1 2480MHz Ant1

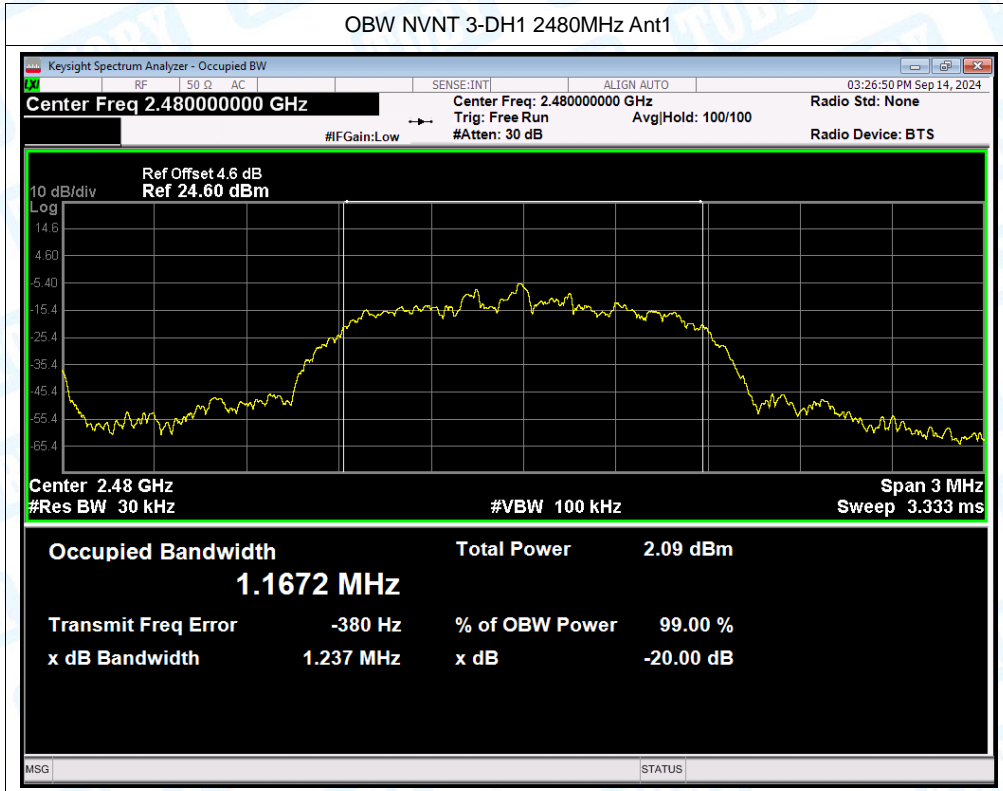


OBW NVNT 3-DH1 2402MHz Ant1



OBW NVNT 3-DH1 2441MHz Ant1



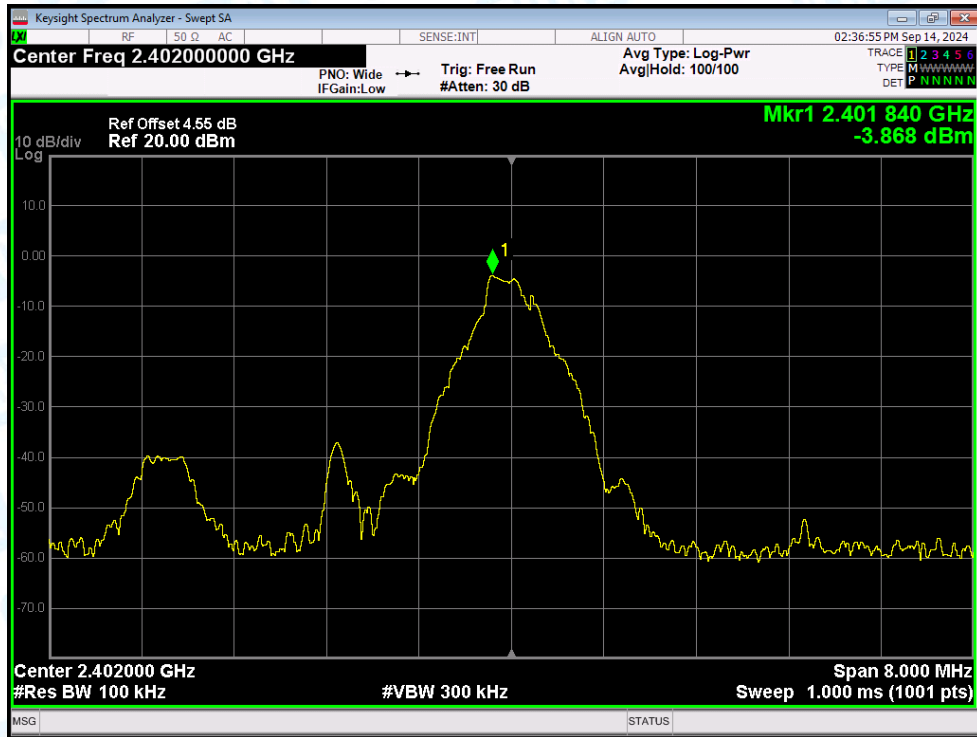


5. Band Edge

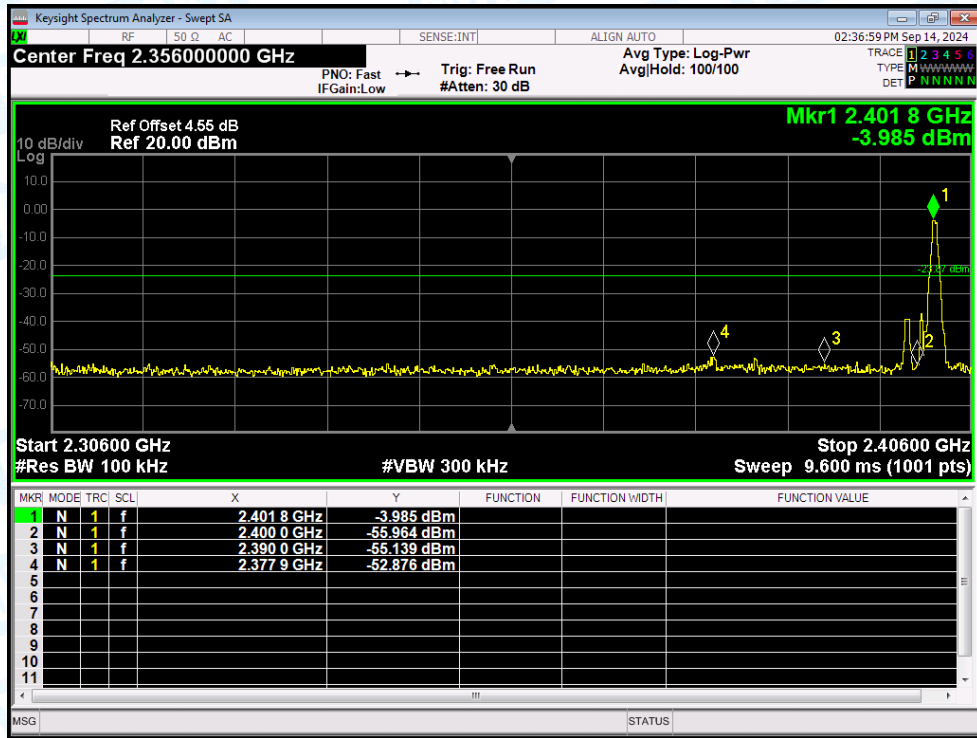
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-49.01	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-49.49	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-49.18	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-49.57	-20	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	-49.87	-20	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	-48.23	-20	Pass

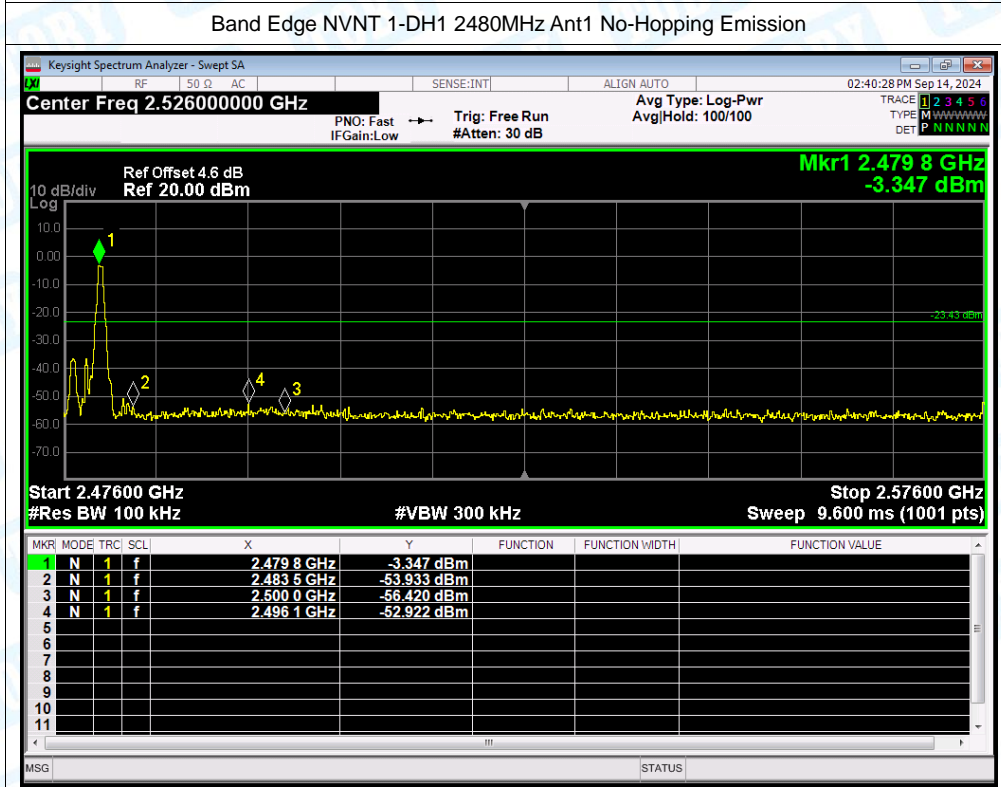
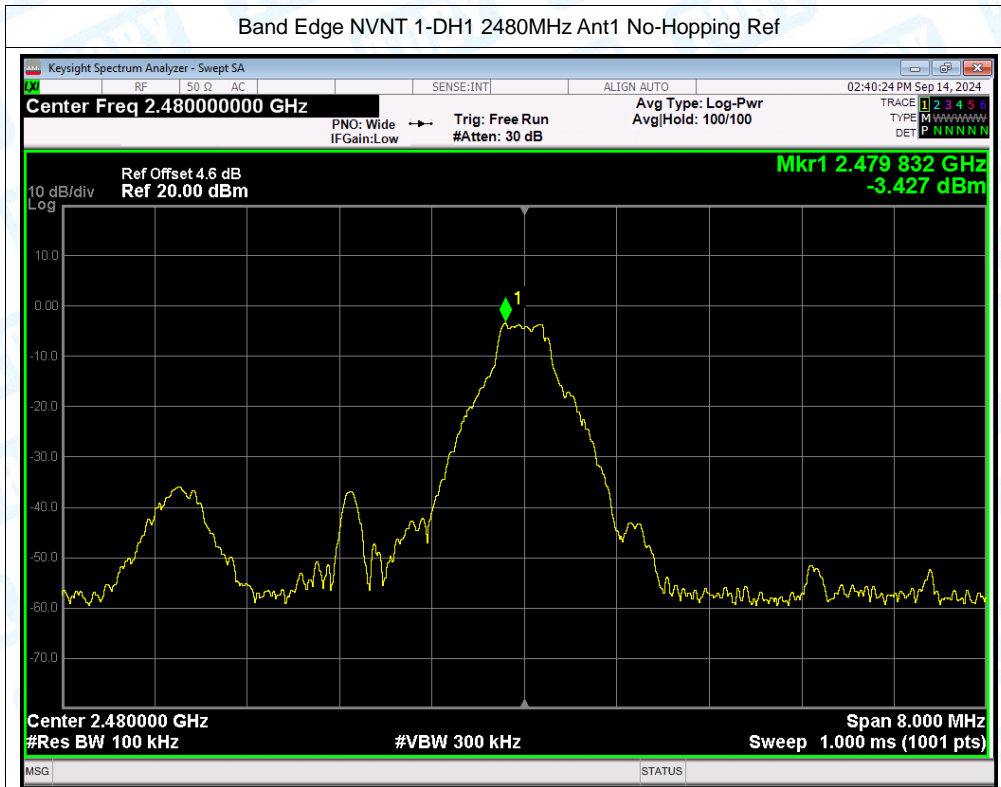
Test Graphs

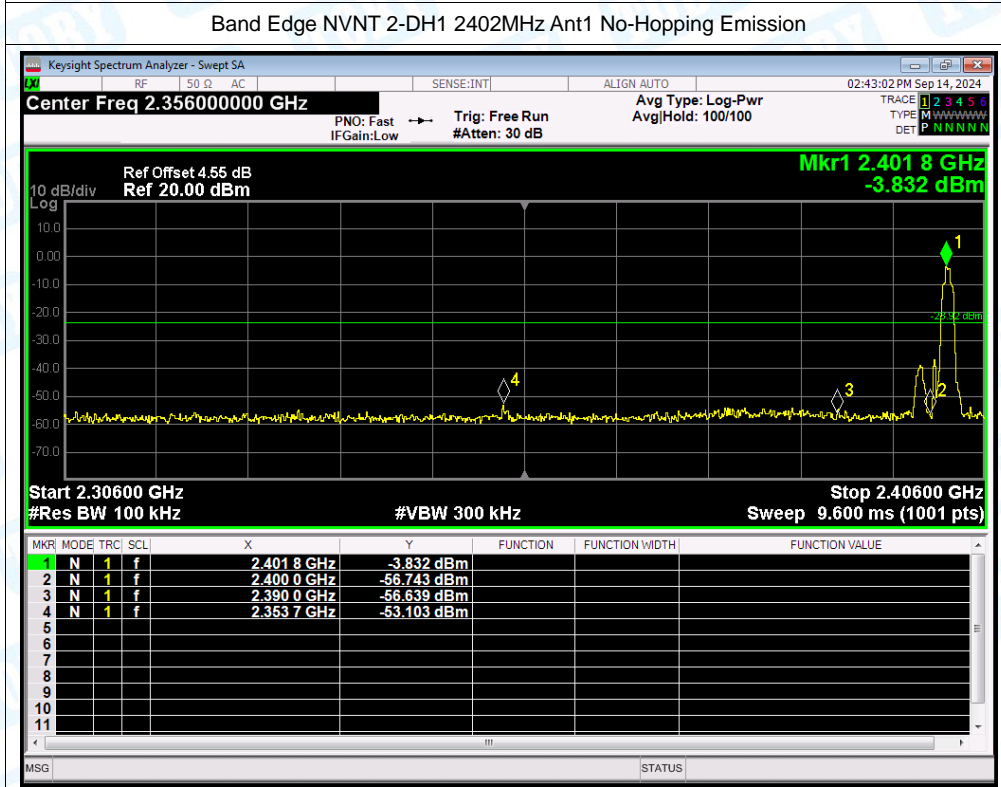
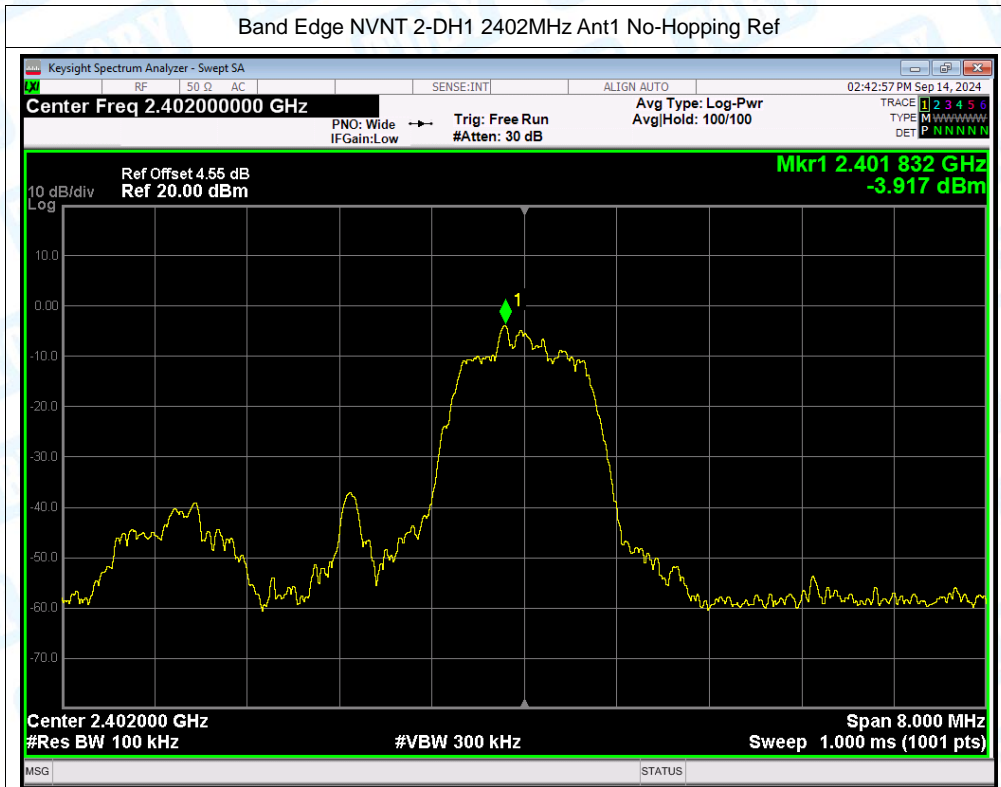
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Ref

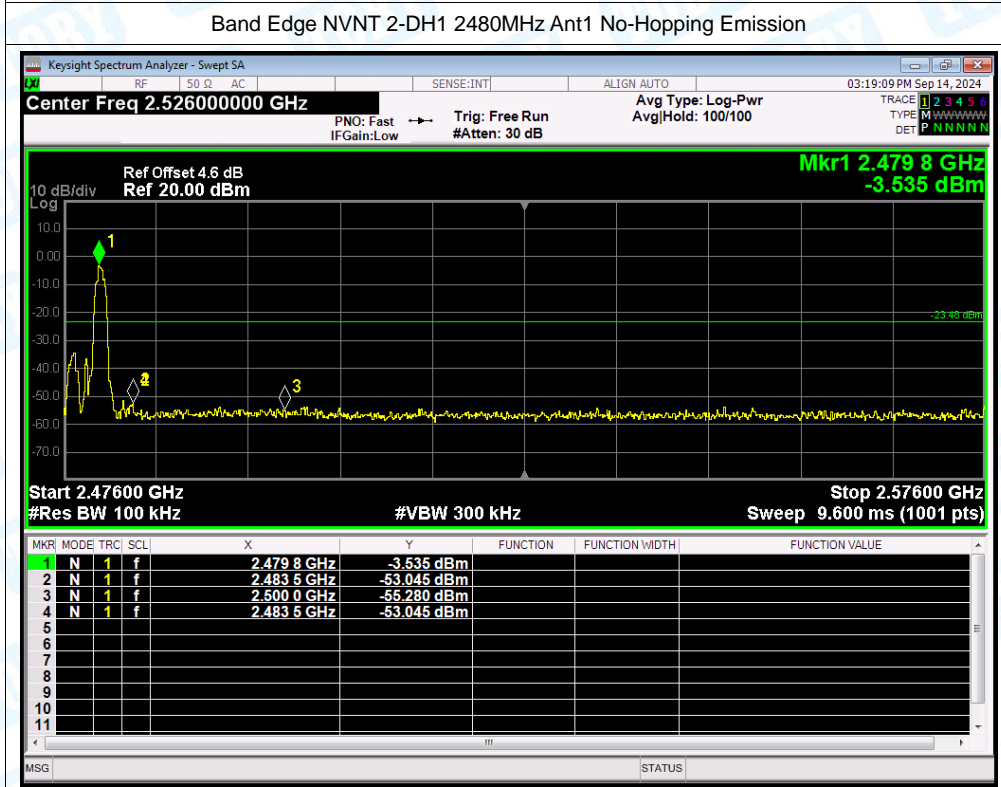
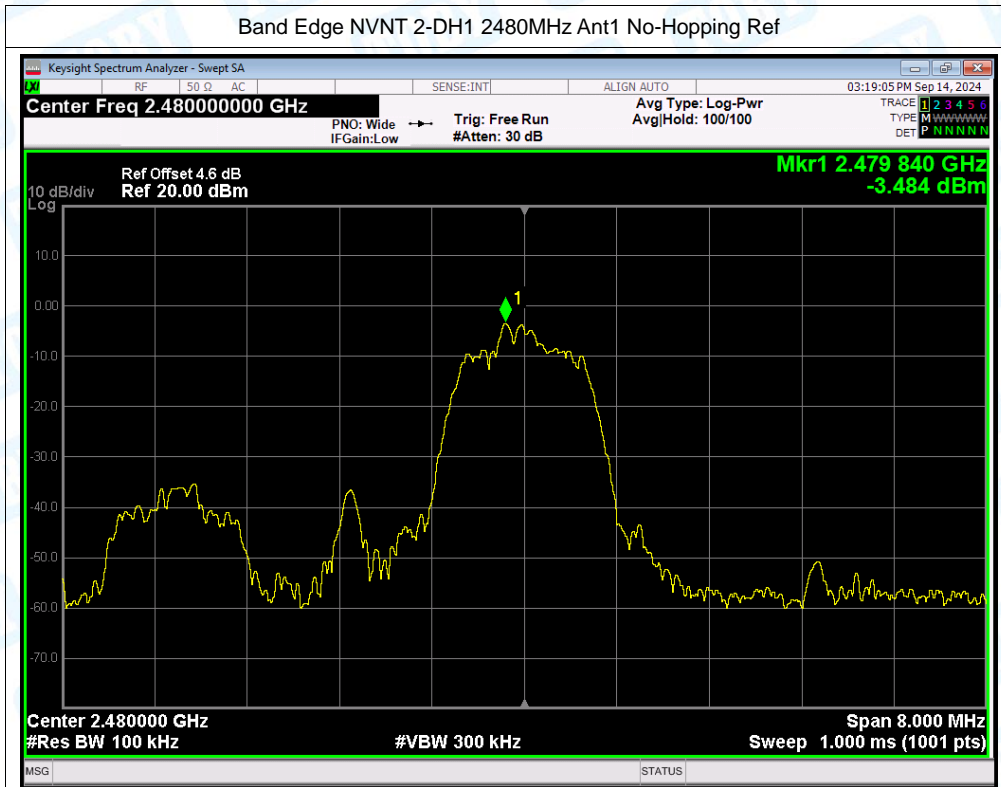


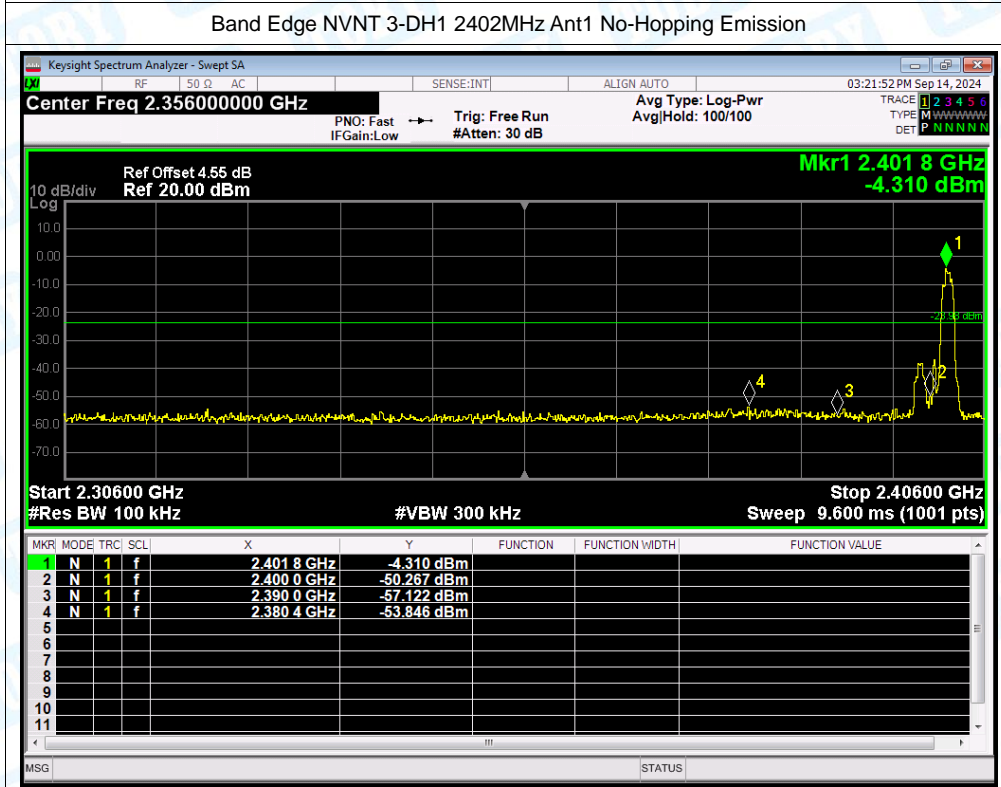
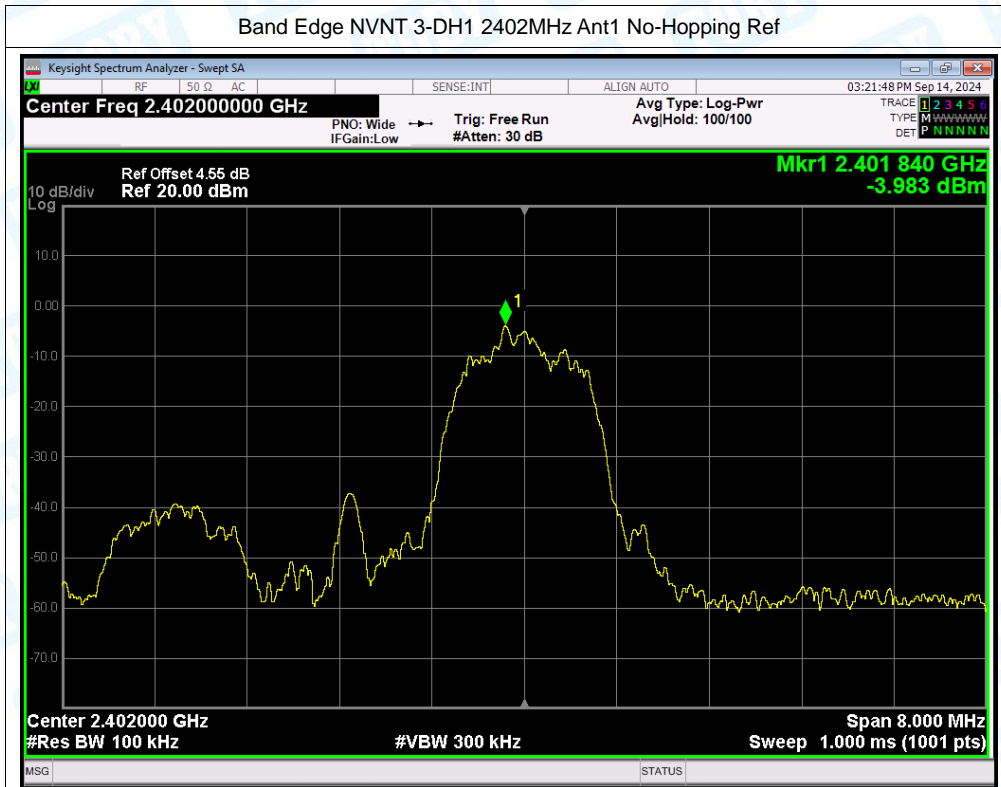
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission

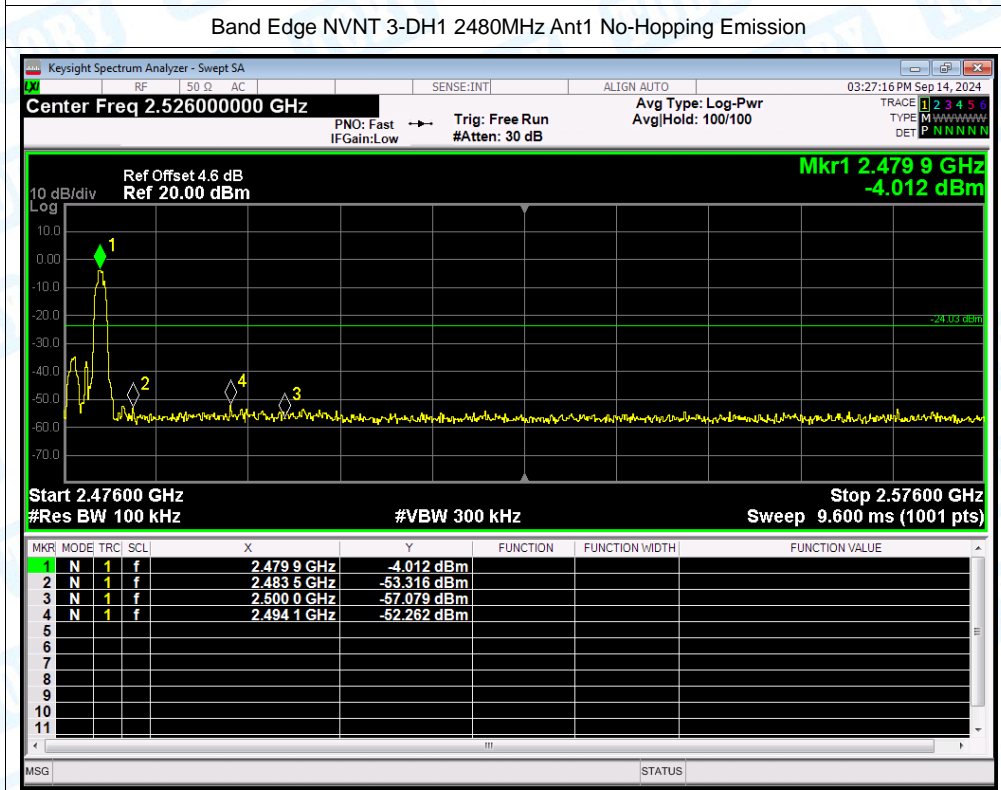
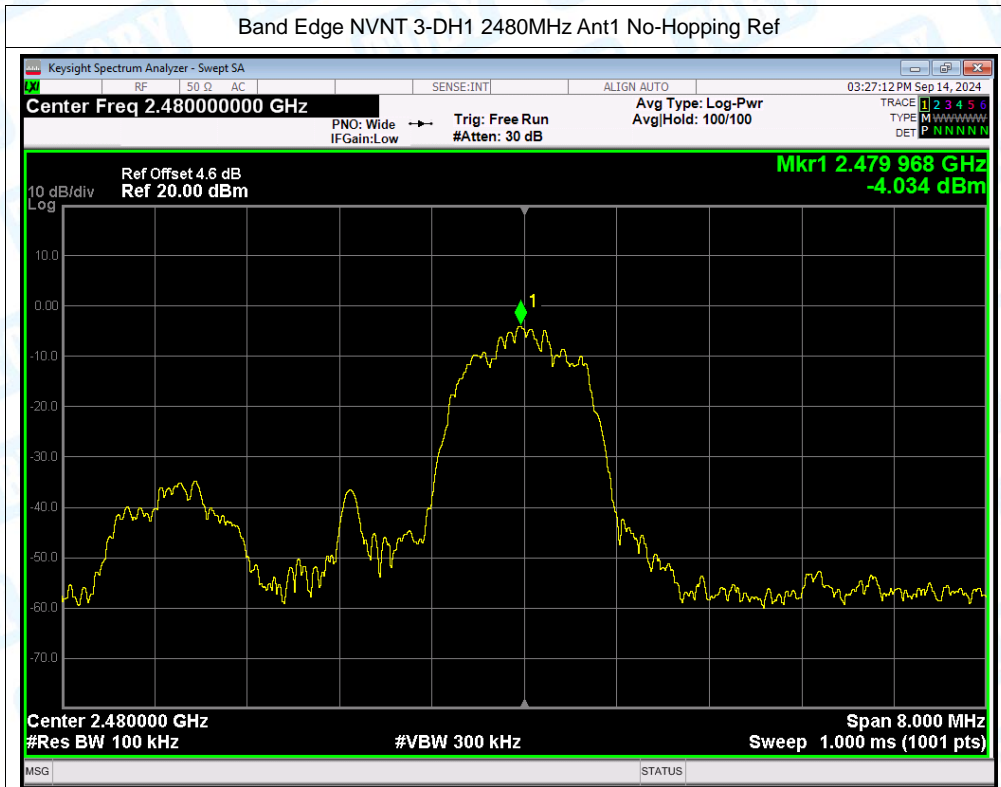










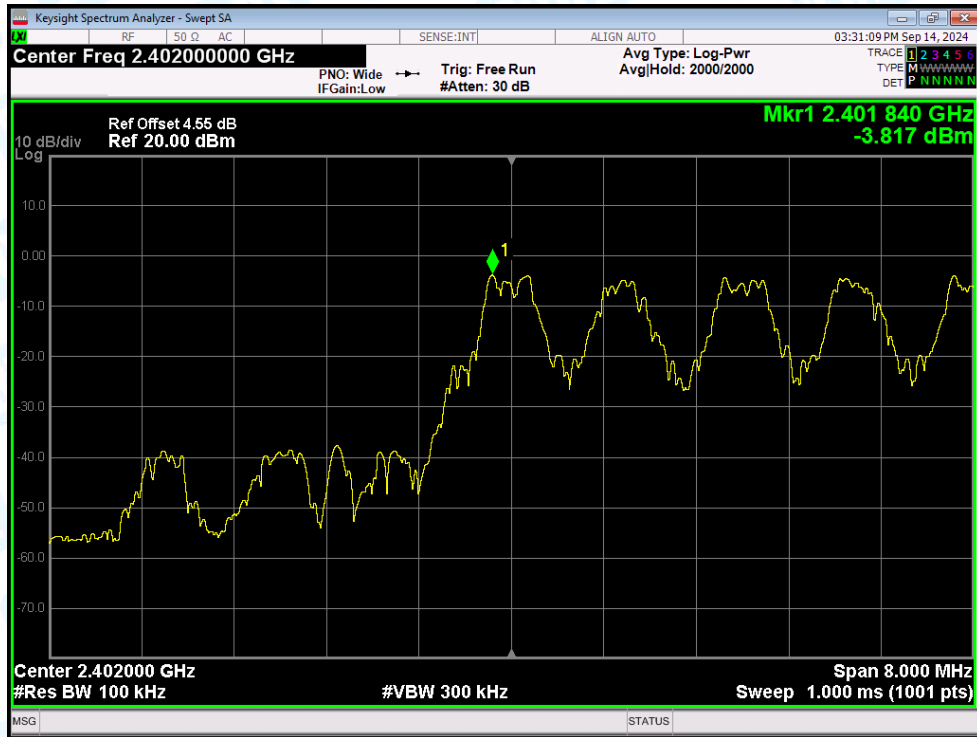


6. Band Edge(Hopping)

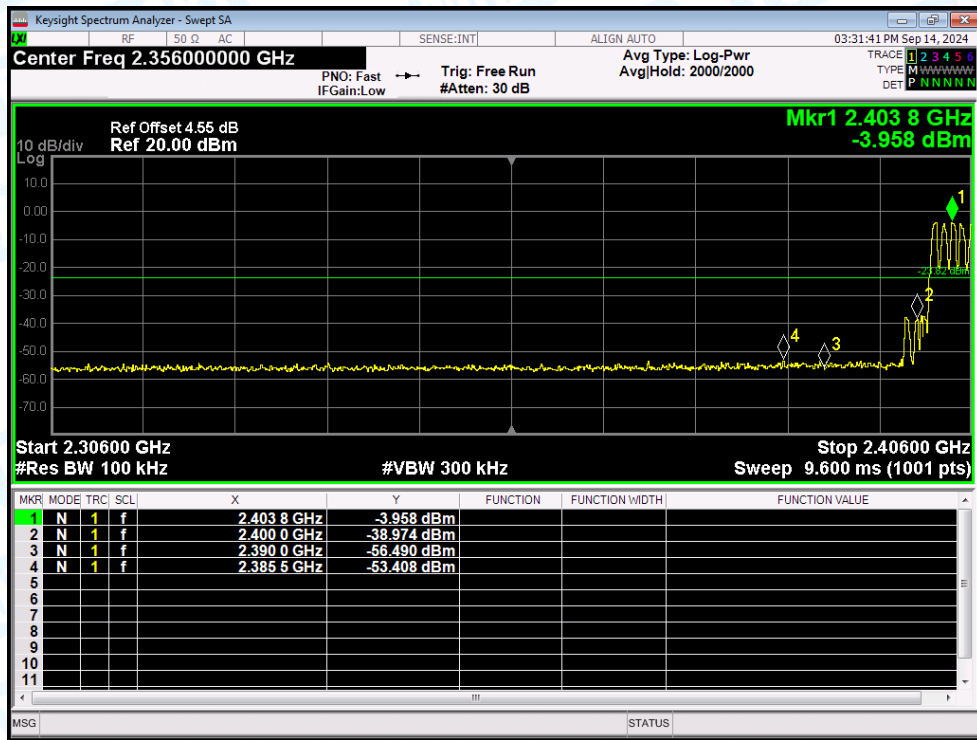
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-49.59	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-48.9	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-47.78	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-48.86	-20	Pass
NVNT	3-DH1	2402	Ant1	Hopping	-48.69	-20	Pass
NVNT	3-DH1	2480	Ant1	Hopping	-49.39	-20	Pass

Test Graphs

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



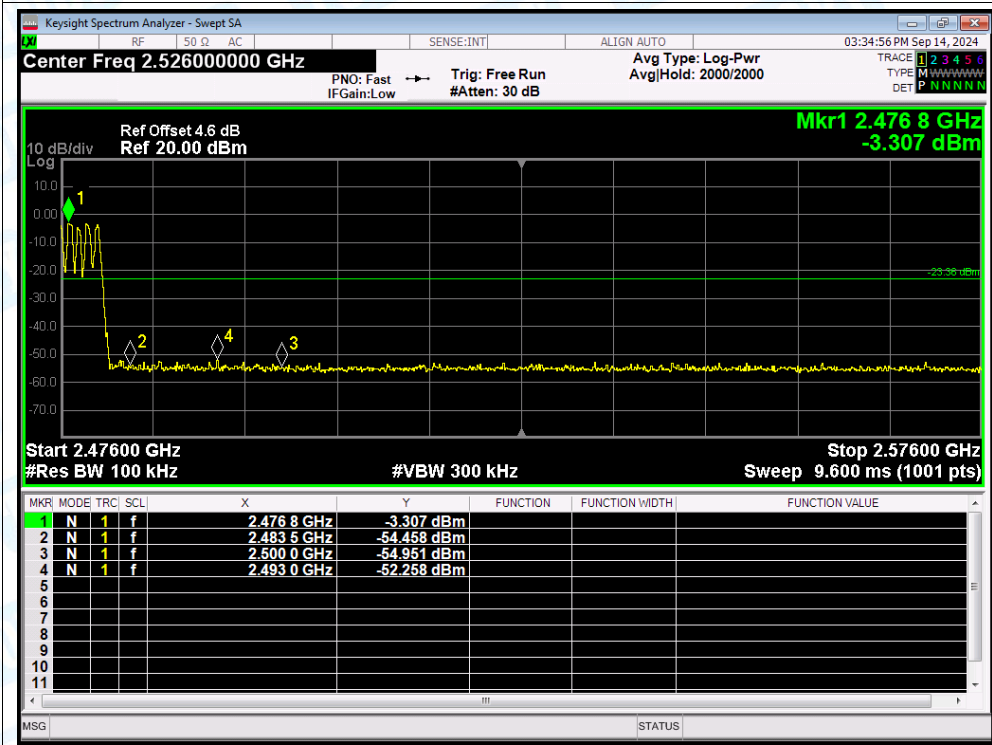
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Emission

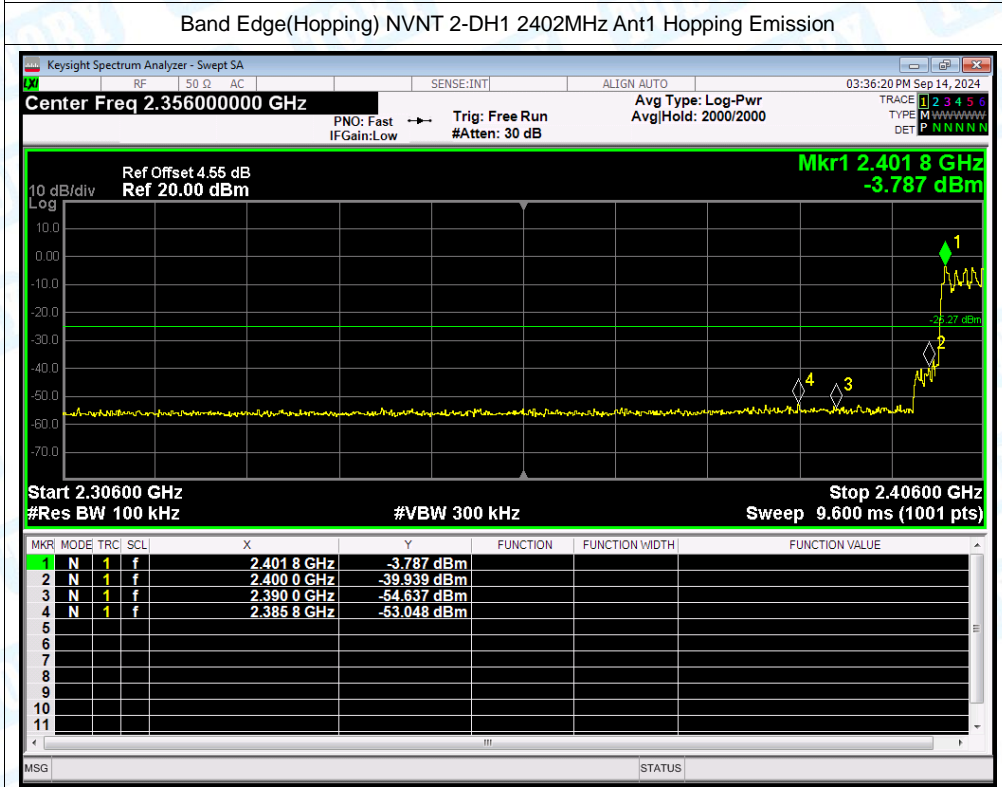
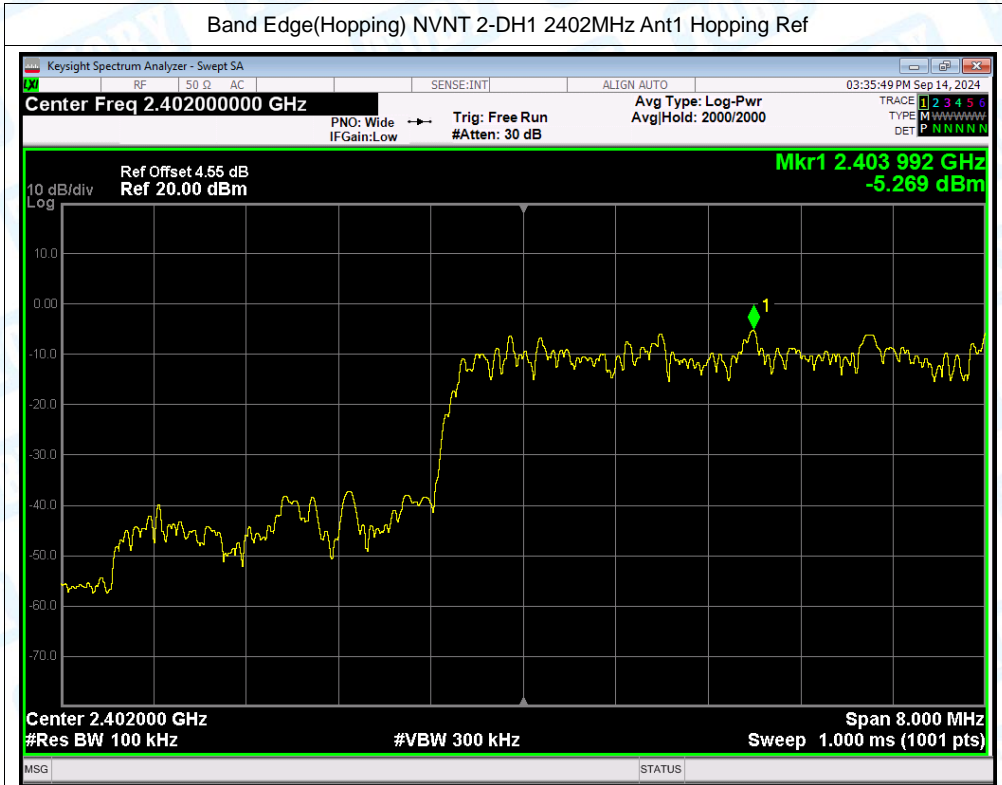


Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Ref

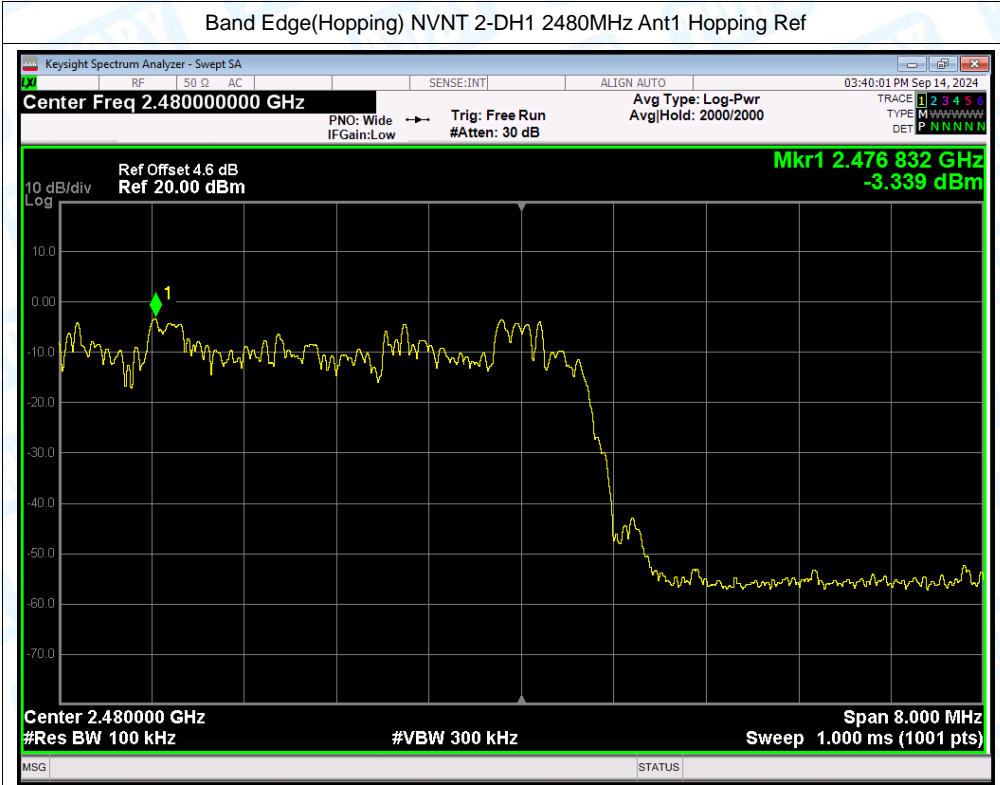


Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Emission

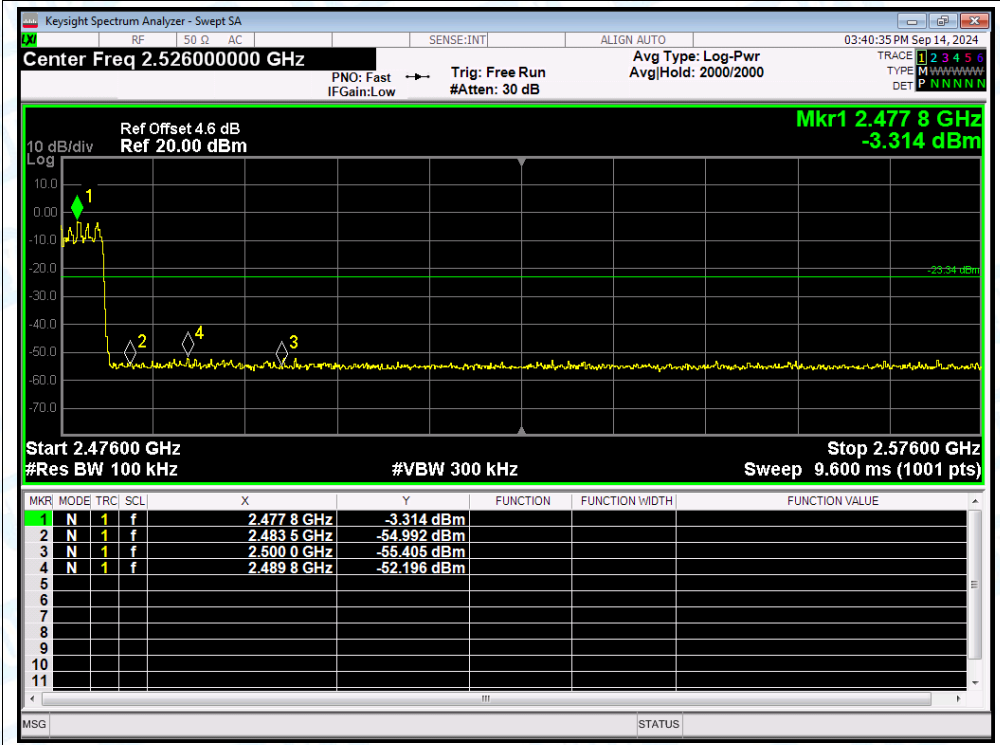




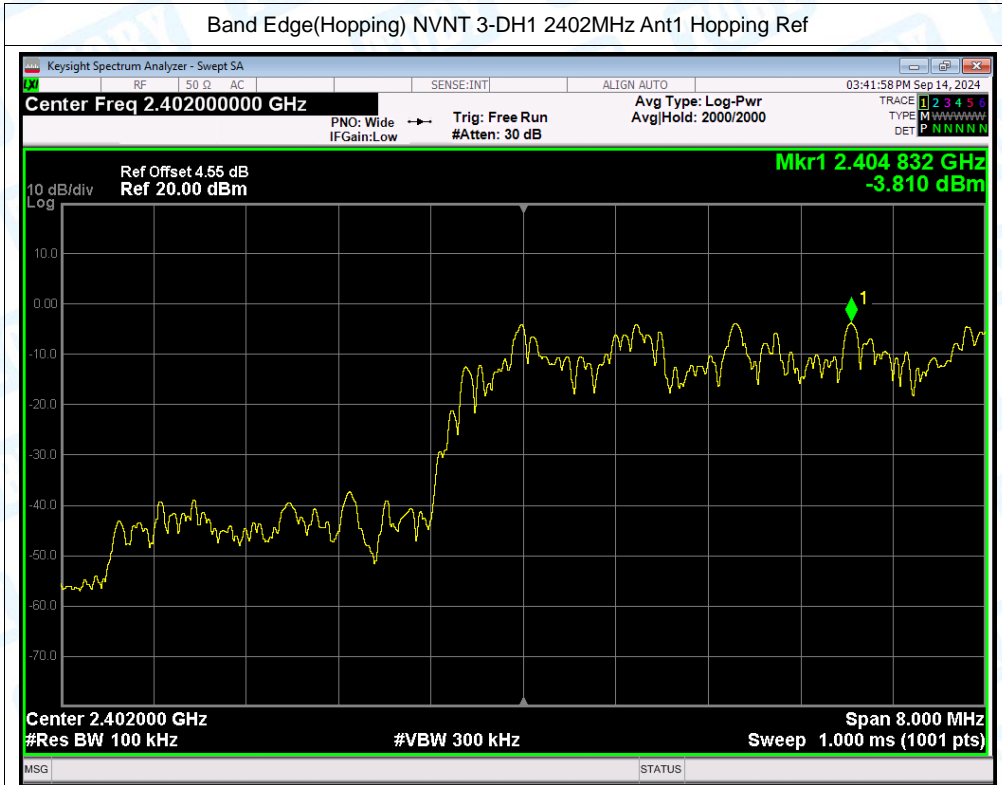
Band Edge(Hopping) NVNT 2-DH1 2480MHz Ant1 Hopping Ref



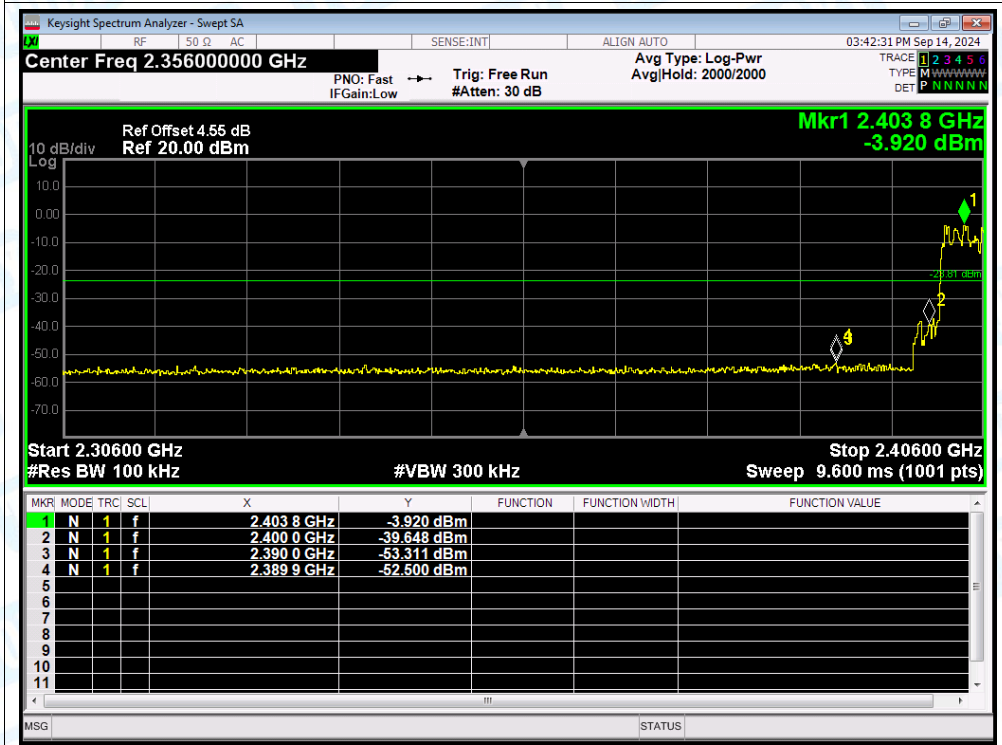
Band Edge(Hopping) NVNT 2-DH1 2480MHz Ant1 Hopping Emission

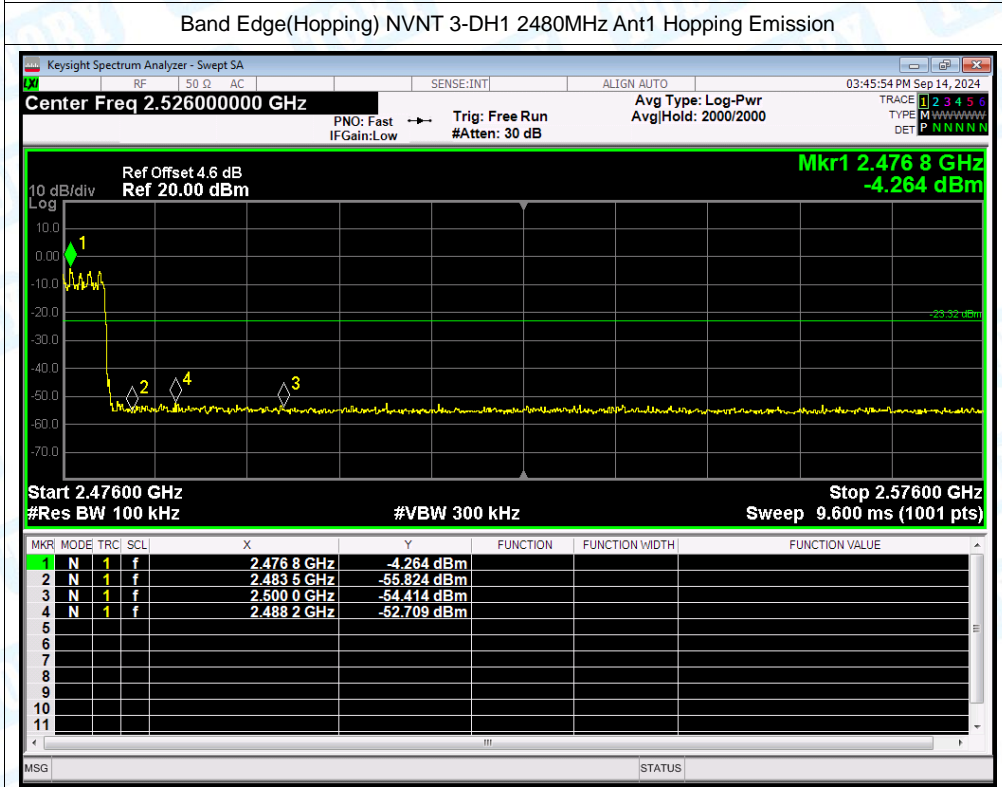


Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Ref



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



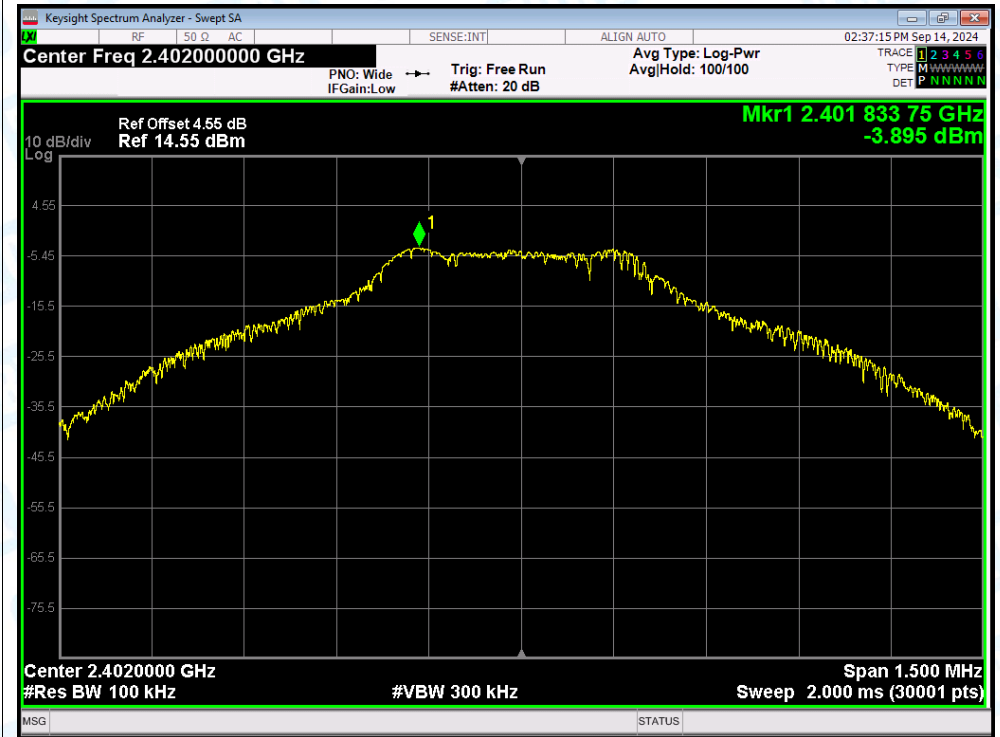


7. Conducted RF Spurious Emission

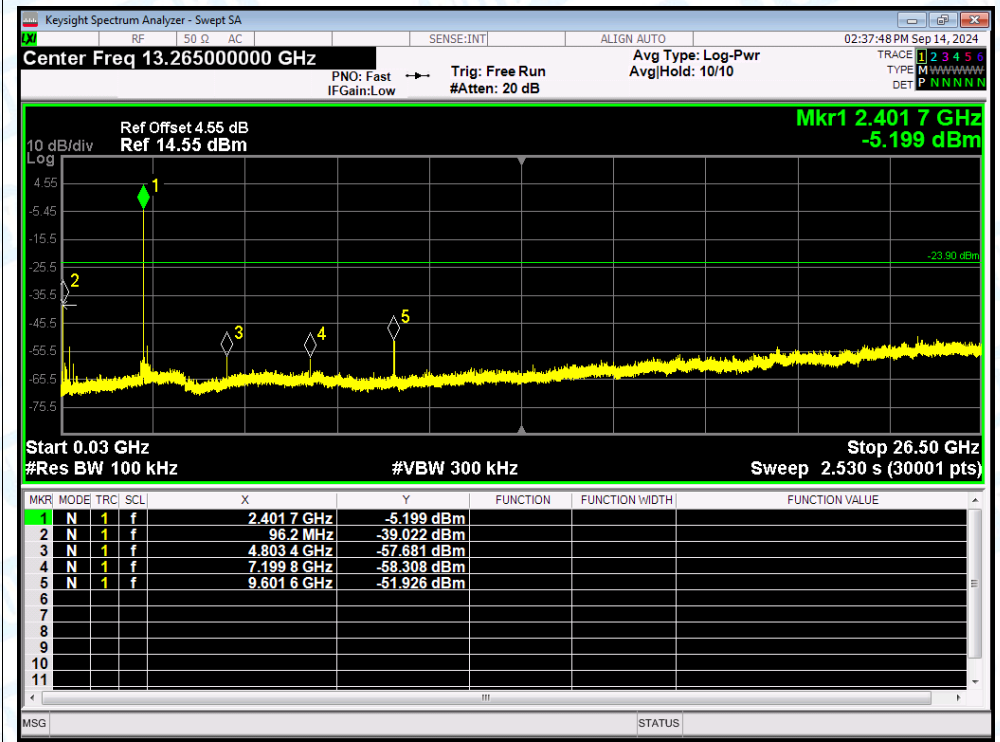
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	-35.13	-20	Pass
NVNT	1-DH1	2441	Ant1	-35.32	-20	Pass
NVNT	1-DH1	2480	Ant1	-35.6	-20	Pass
NVNT	2-DH1	2402	Ant1	-47.21	-20	Pass
NVNT	2-DH1	2441	Ant1	-35.44	-20	Pass
NVNT	2-DH1	2480	Ant1	-45.76	-20	Pass
NVNT	3-DH1	2402	Ant1	-46.97	-20	Pass
NVNT	3-DH1	2441	Ant1	-46.38	-20	Pass
NVNT	3-DH1	2480	Ant1	-45.67	-20	Pass

Test Graphs

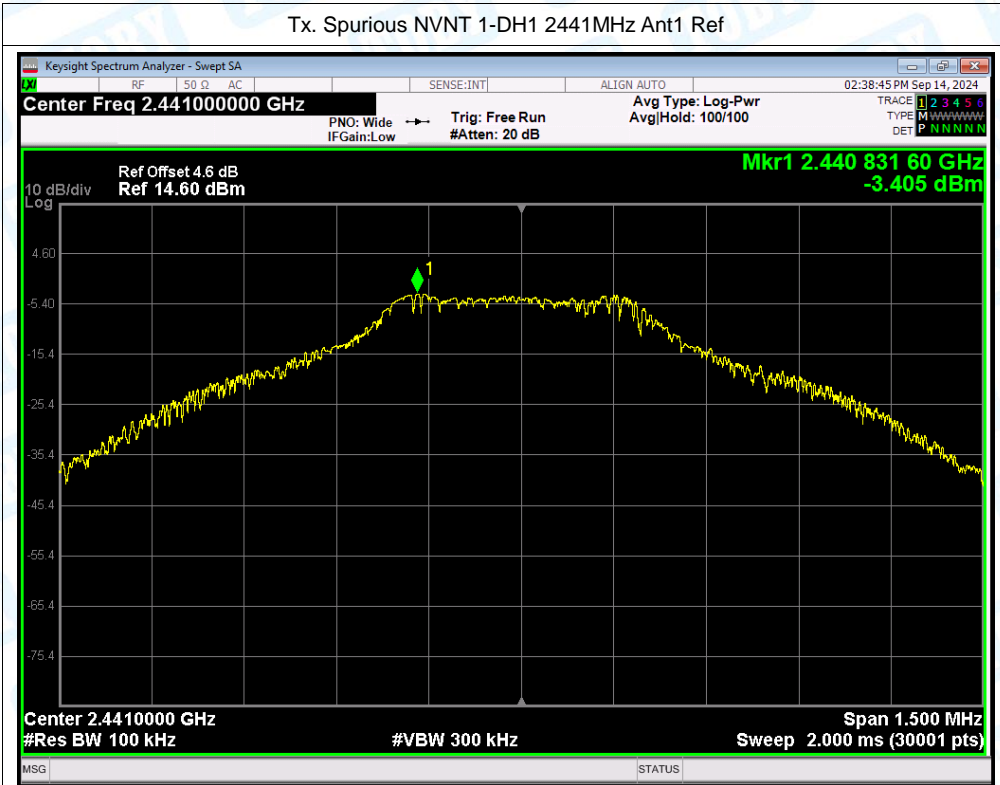
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Ref



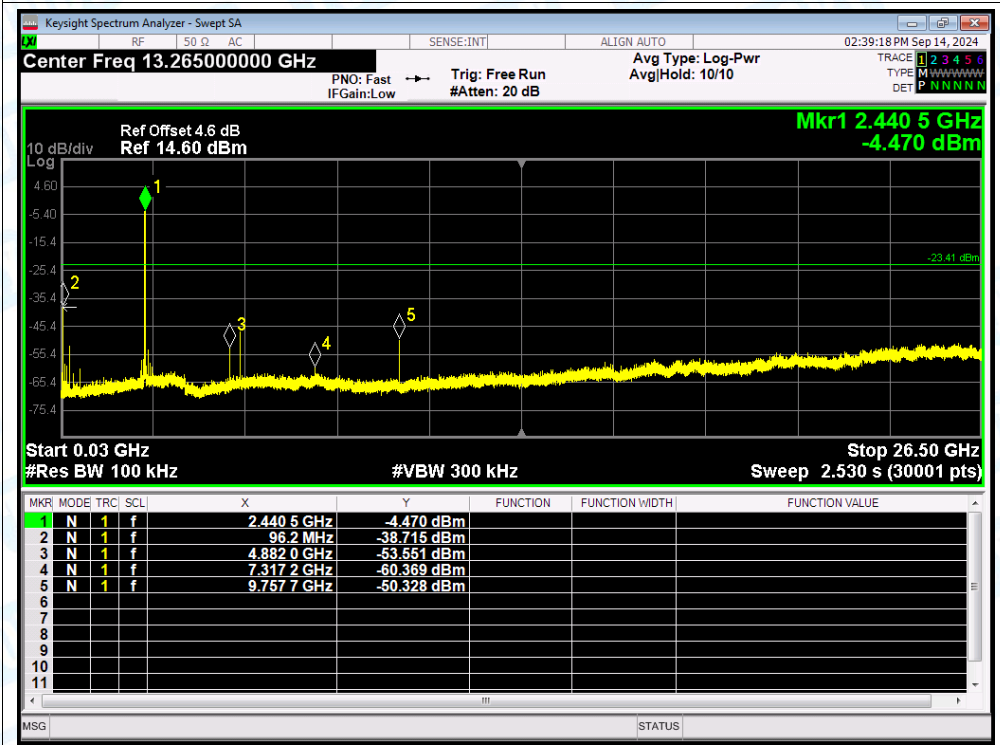
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Emission



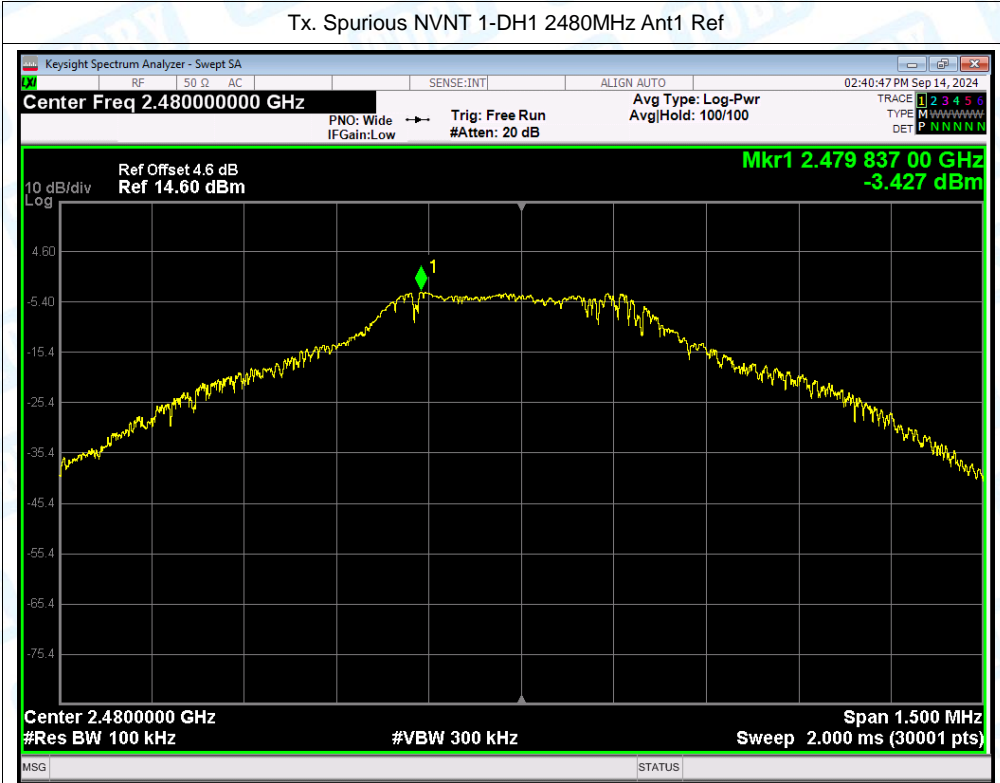
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Ref



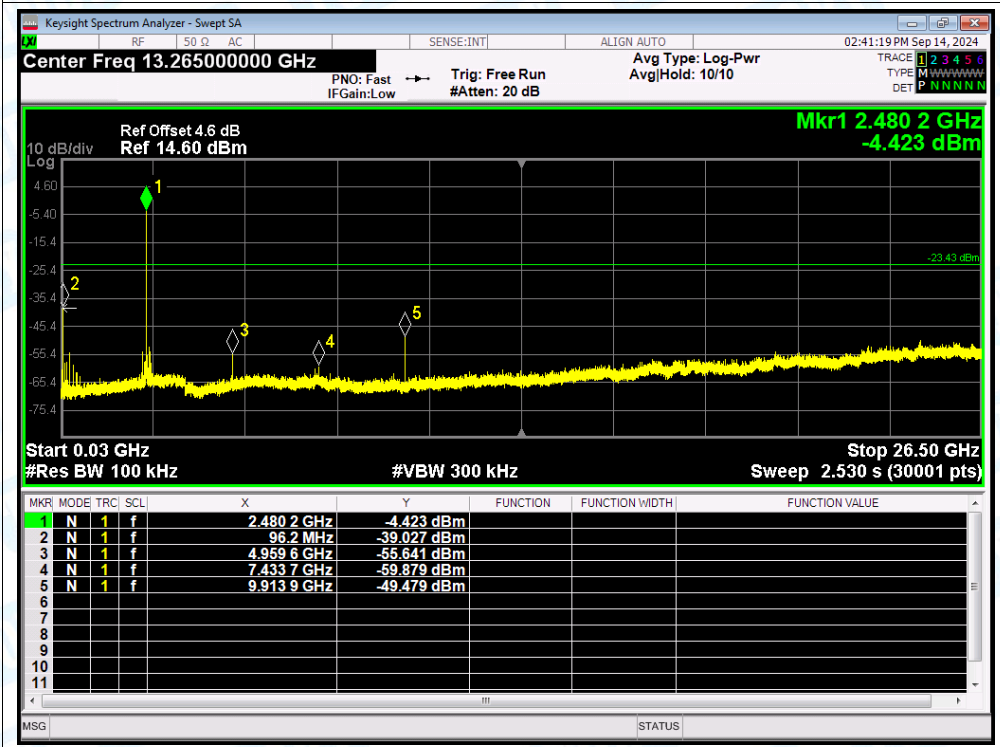
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Emission



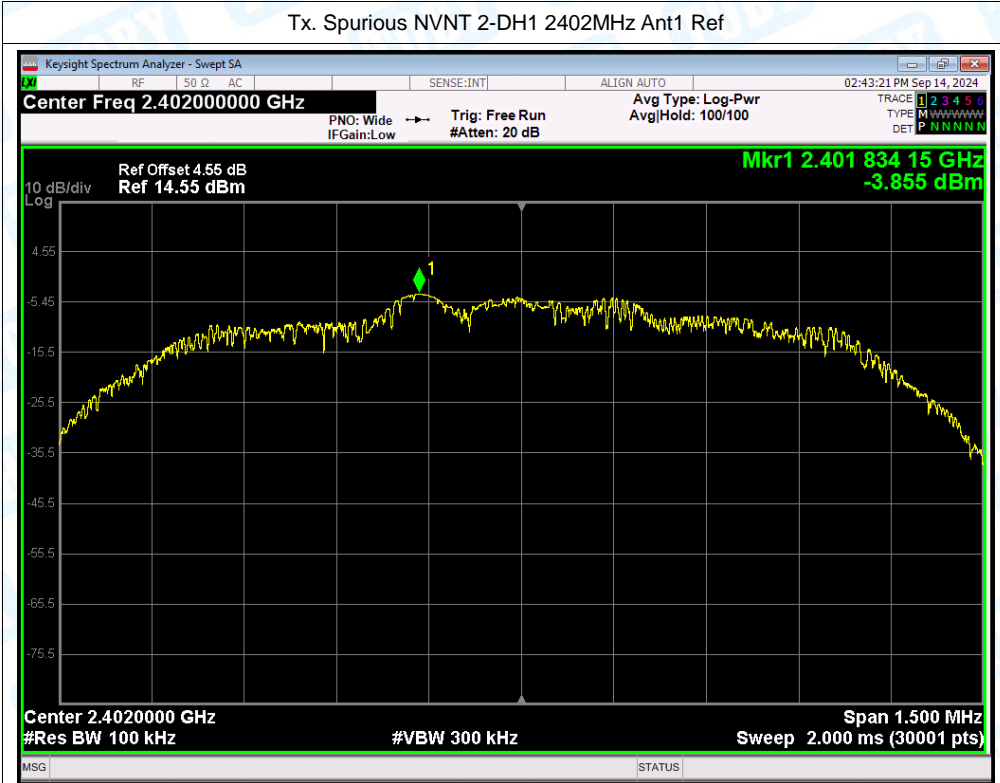
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Ref



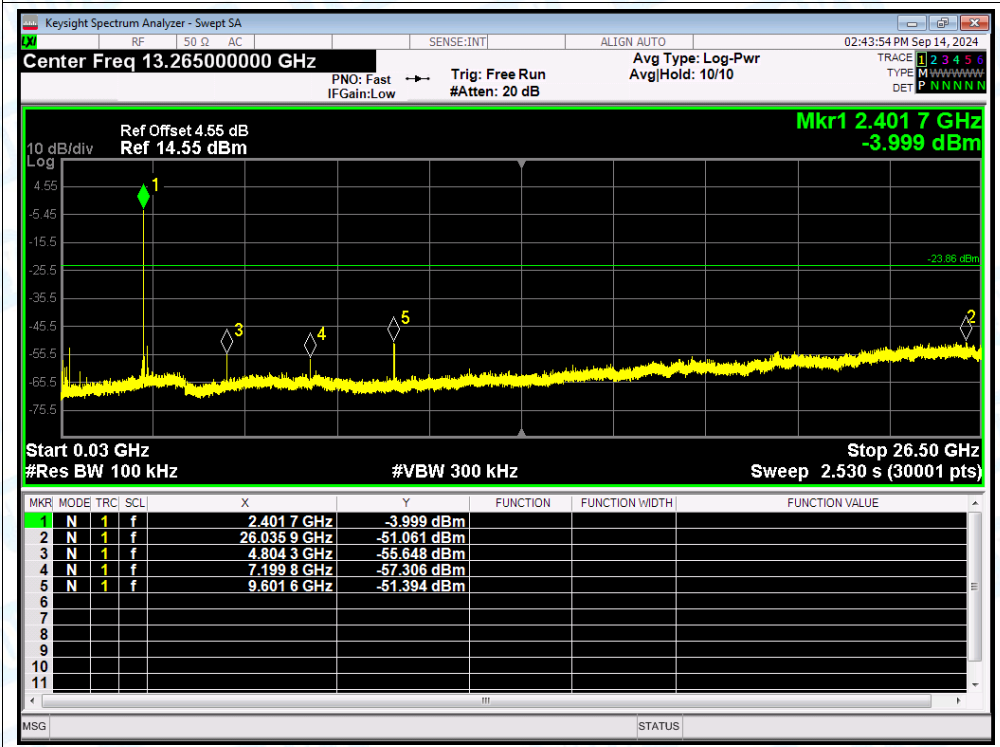
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Emission



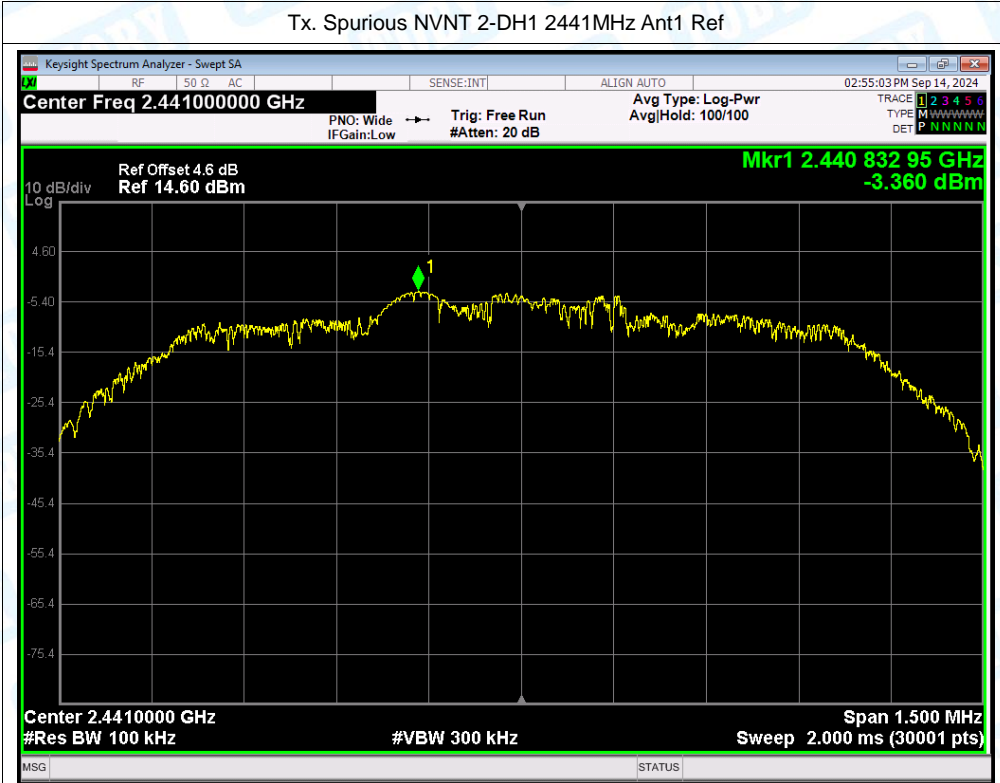
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Ref



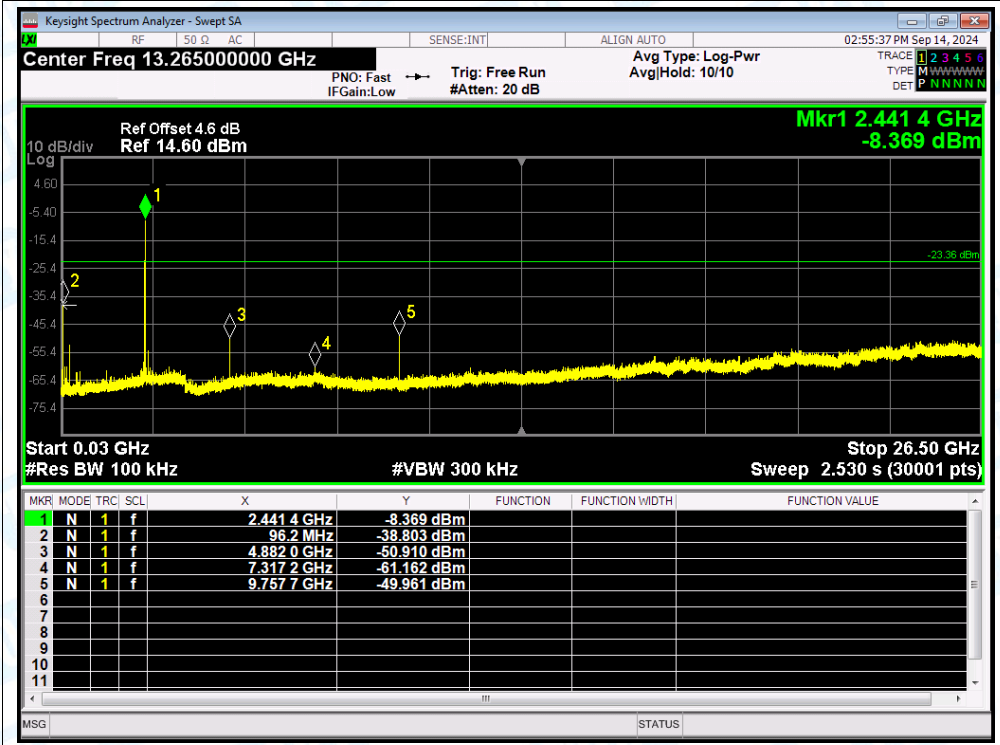
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Emission



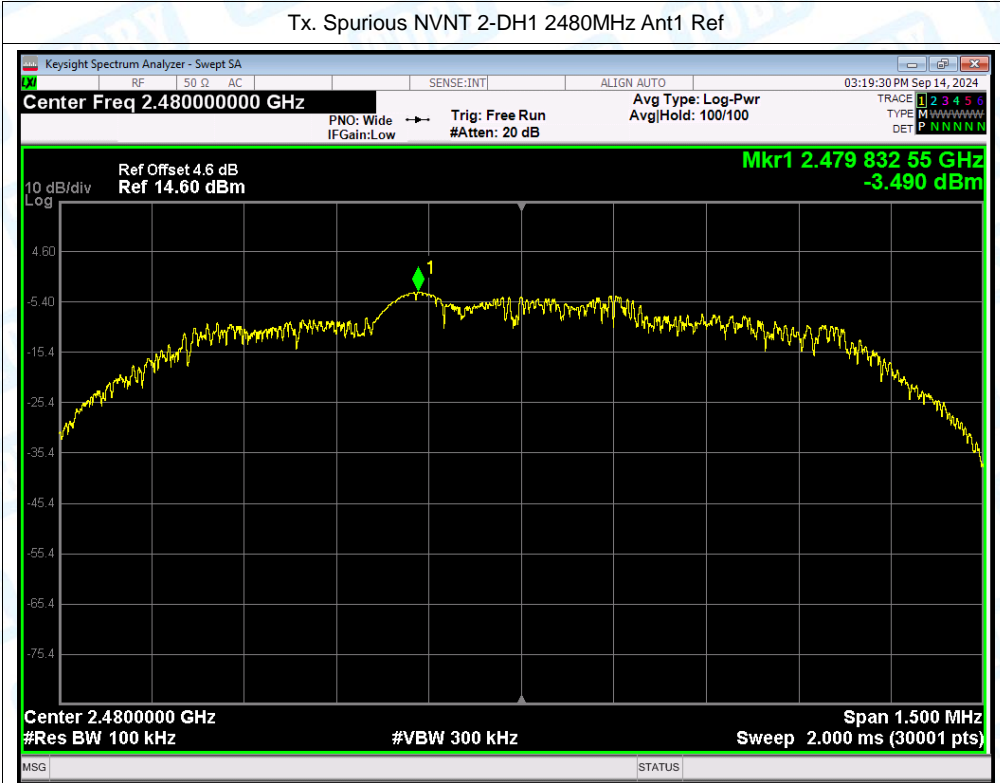
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Ref



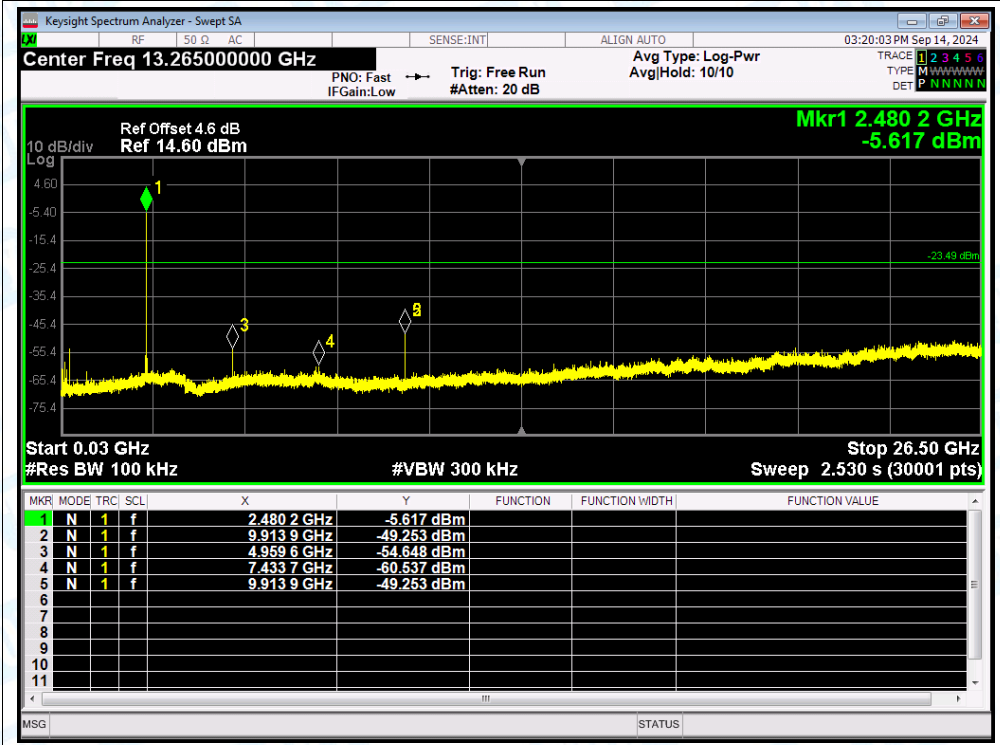
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Emission



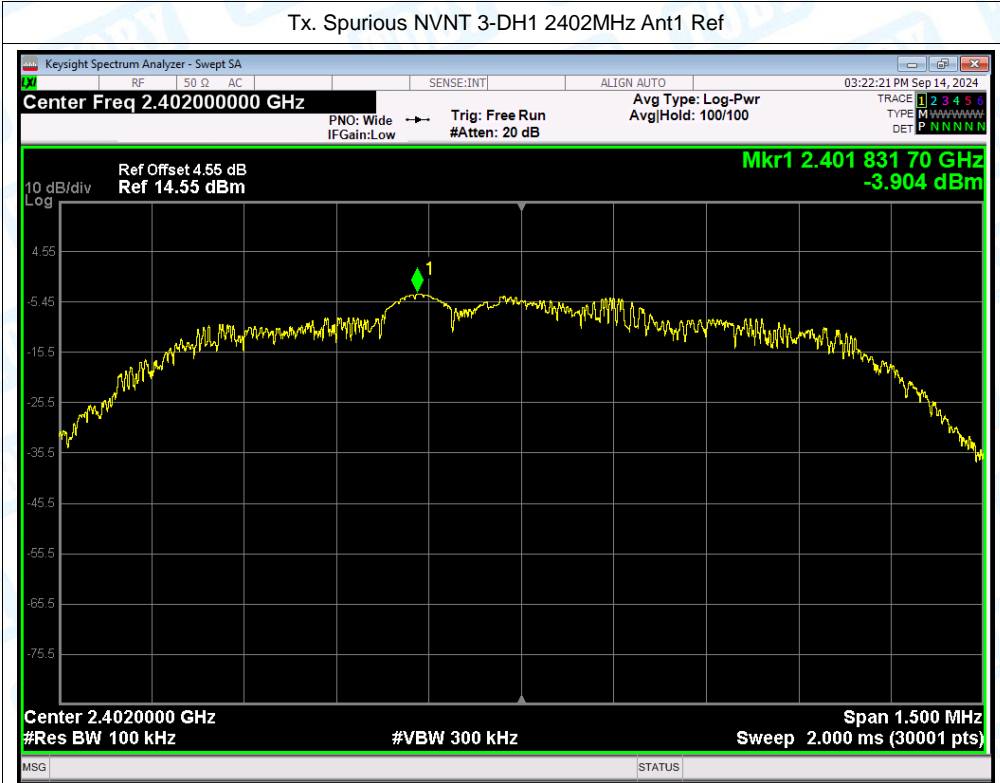
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Ref



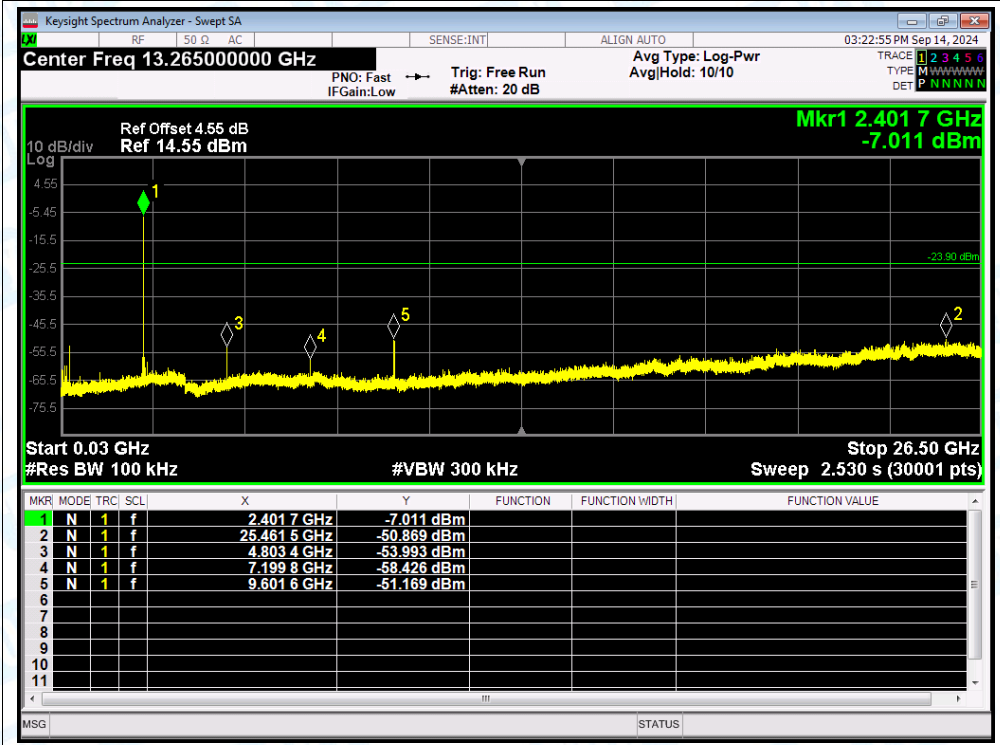
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Emission



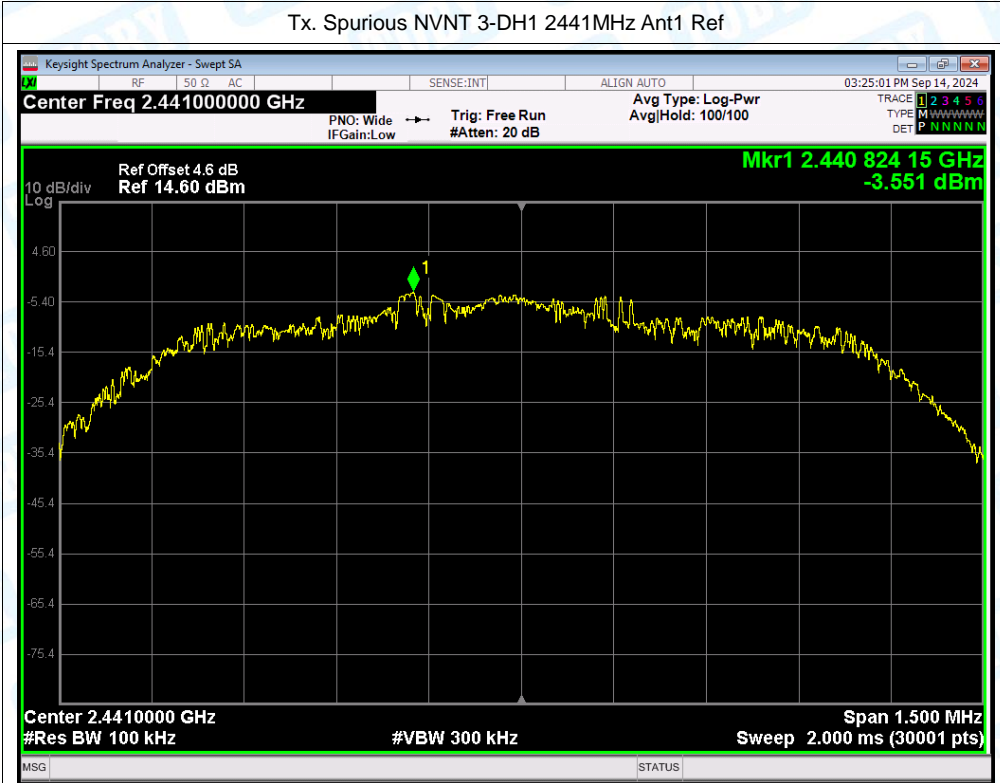
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Ref



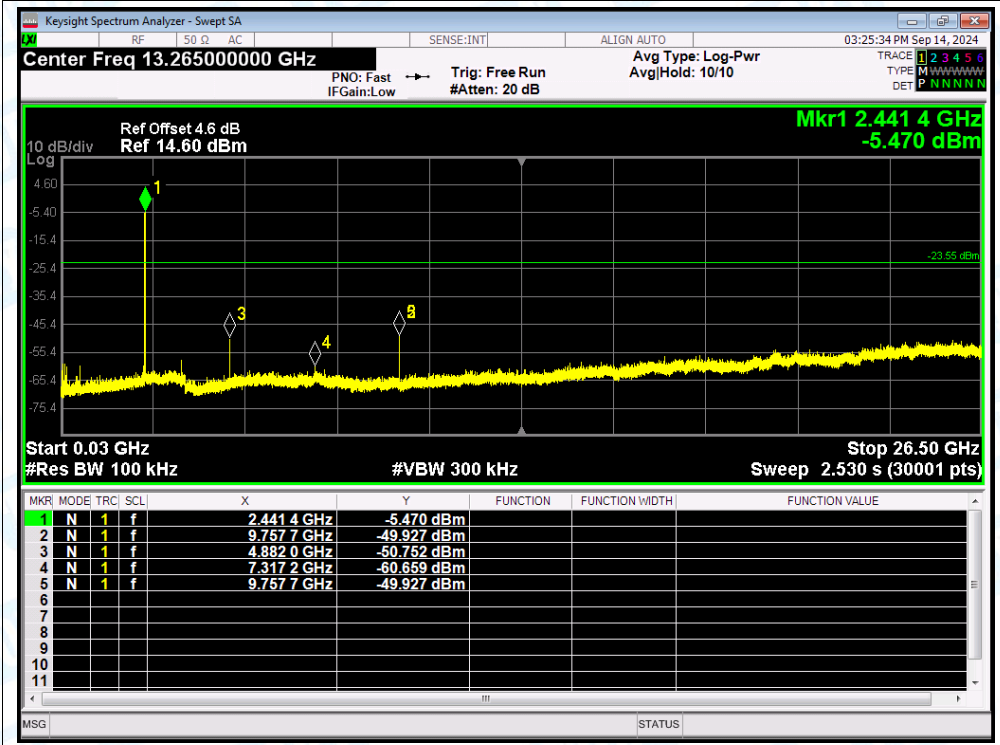
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Emission



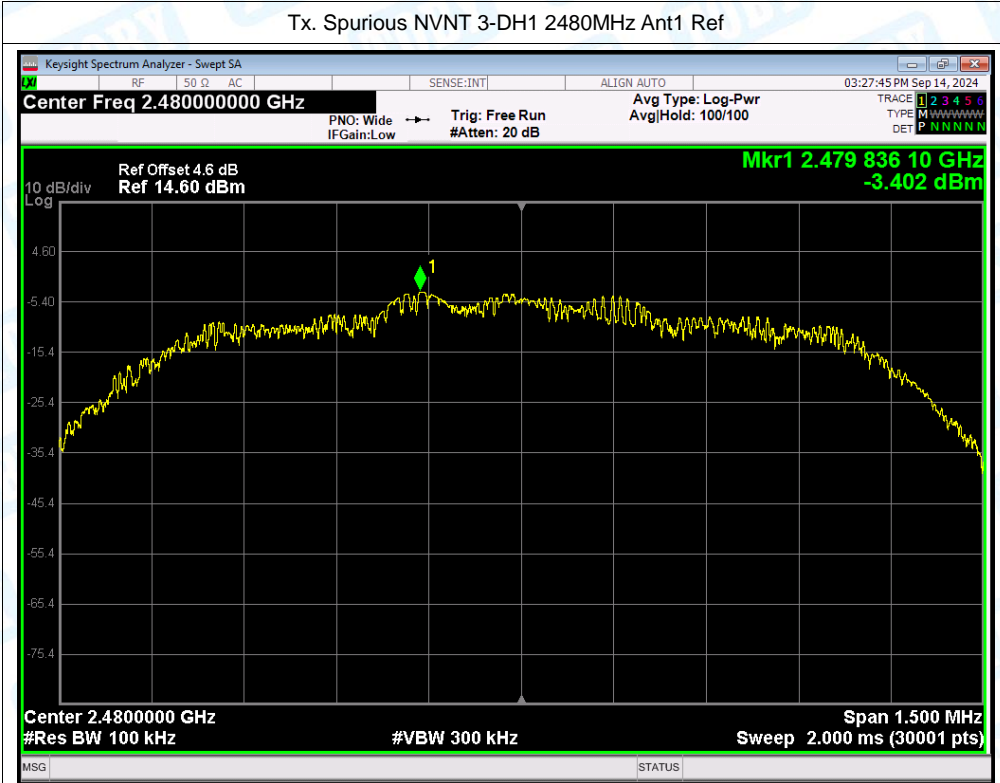
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Ref



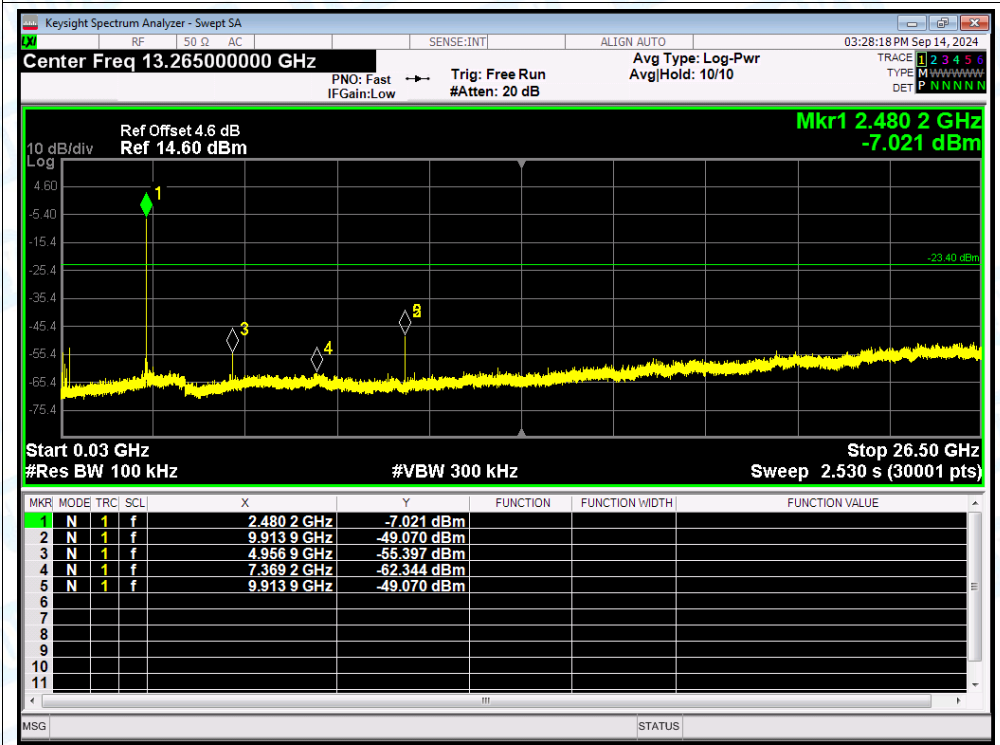
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Emission

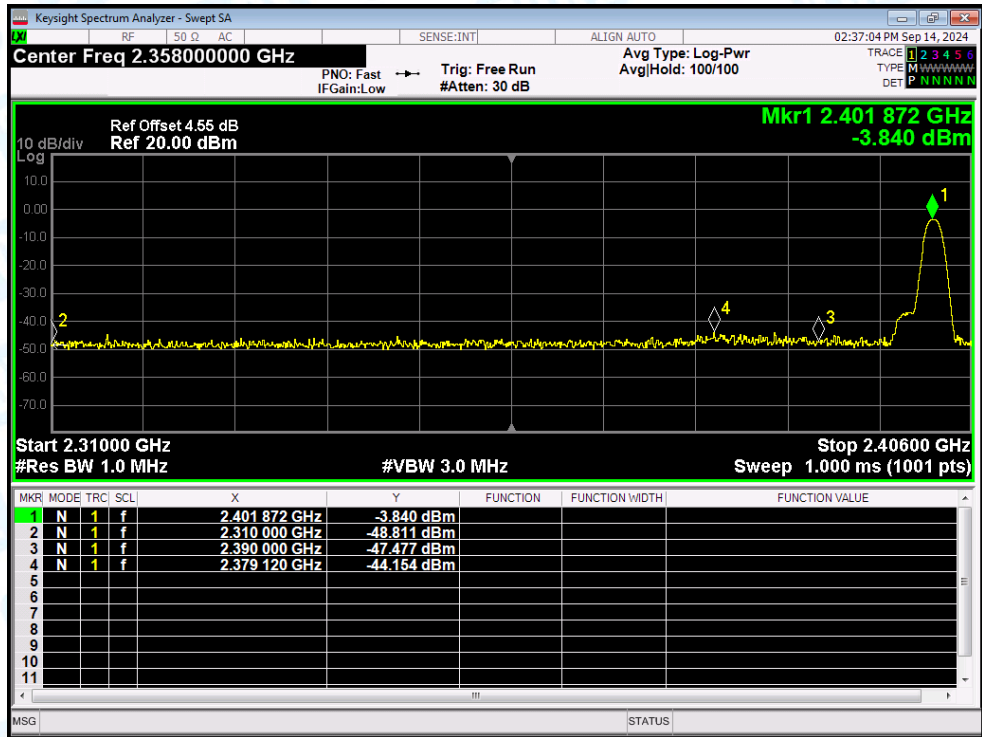


8. Restrict Band

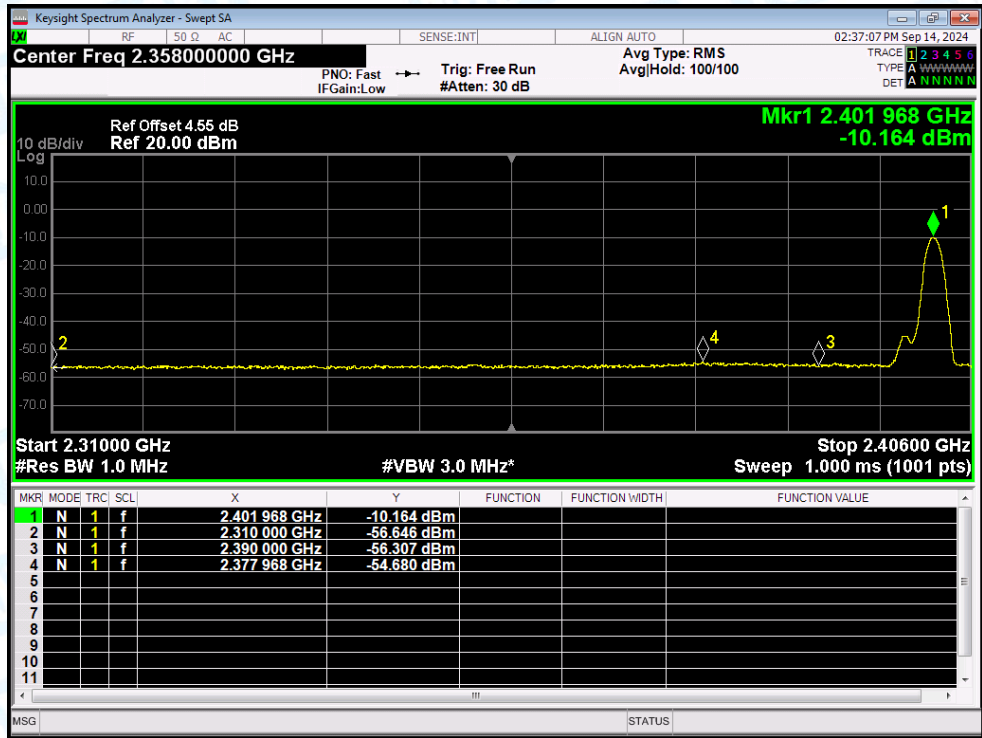
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-48.81	2	-	48.45	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-56.65	2	5.29	45.9	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2379.12	-44.15	2	-	53.11	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2377.968	-54.68	2	5.29	47.87	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-47.48	2	-	49.78	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-56.31	2	5.29	46.24	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-46.19	2	-	51.07	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-54.61	2	5.17	47.82	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2498.776	-43.28	2	-	53.98	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2497.144	-54.01	2	5.17	48.42	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-47.35	2	-	49.91	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-54.84	2	5.17	47.59	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-49.19	2	-	48.07	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-56.47	2	5.17	45.96	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2379.504	-43.2	2	-	54.06	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2386.8	-54.8	2	5.17	47.63	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-46.21	2	-	51.05	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-55.46	2	5.17	46.97	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-46.93	2	-	50.33	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-55.26	2	5.17	47.17	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2497.048	-43.27	2	-	53.99	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2497.936	-53.96	2	5.17	48.47	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-46.43	2	-	50.83	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-54.53	2	5.17	47.9	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-47.64	2	-	49.62	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-56.3	2	5.06	46.02	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2383.344	-44.41	2	-	52.85	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2382.576	-54.33	2	5.06	47.99	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-47.92	2	-	49.34	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-55.45	2	5.06	46.87	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-46.51	2	-	50.75	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-55.23	2	5.17	47.2	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2496.52	-42.26	2	-	55	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2495.608	-54	2	5.17	48.43	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-46.42	2	-	50.84	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-54.8	2	5.17	47.63	Average	54	Pass

Test Graphs

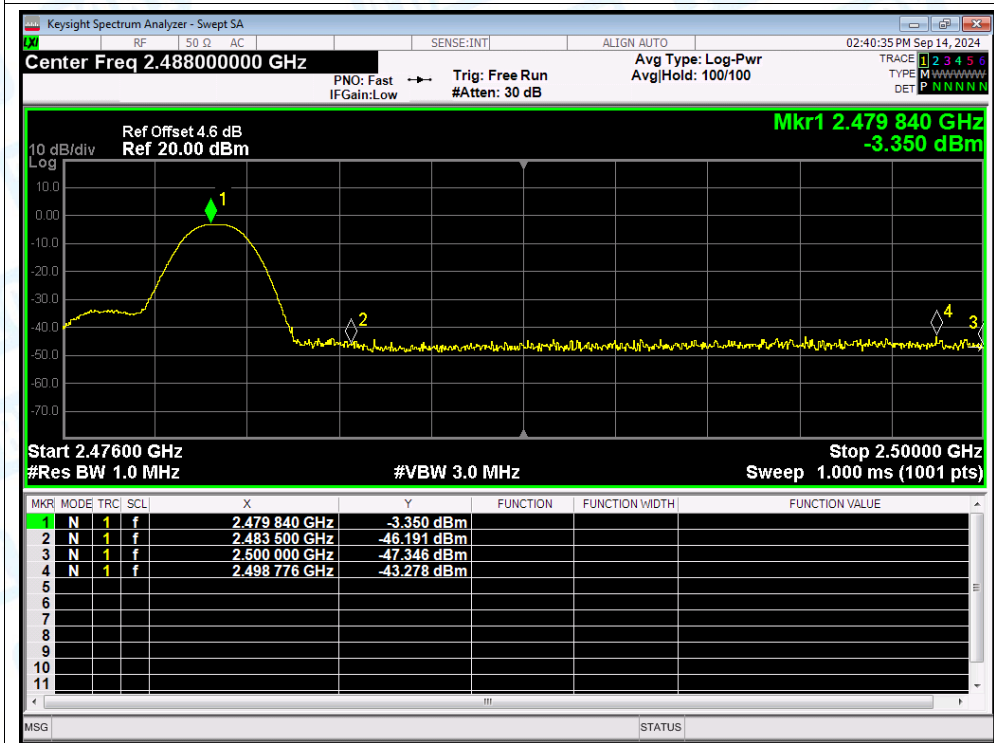
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Peak



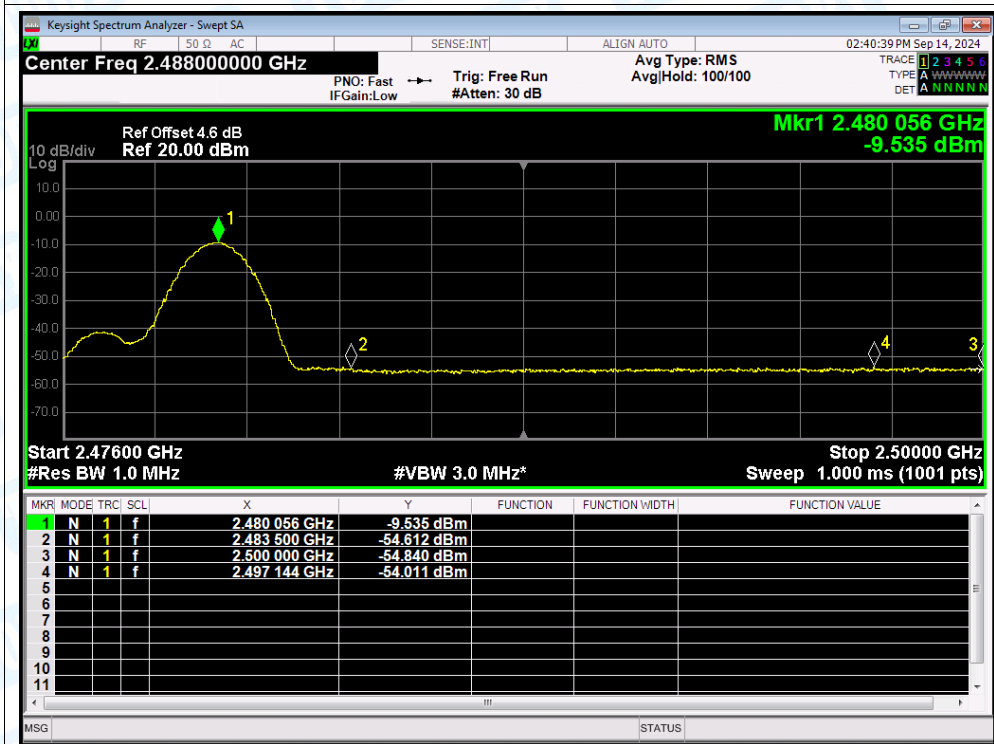
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Average

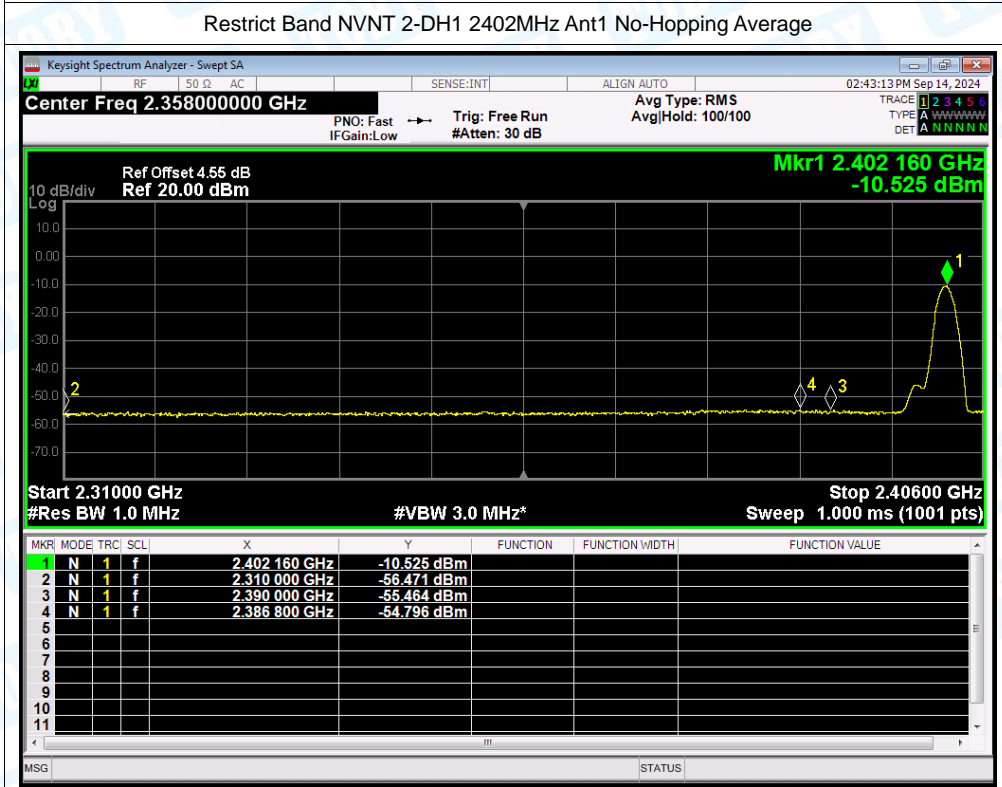
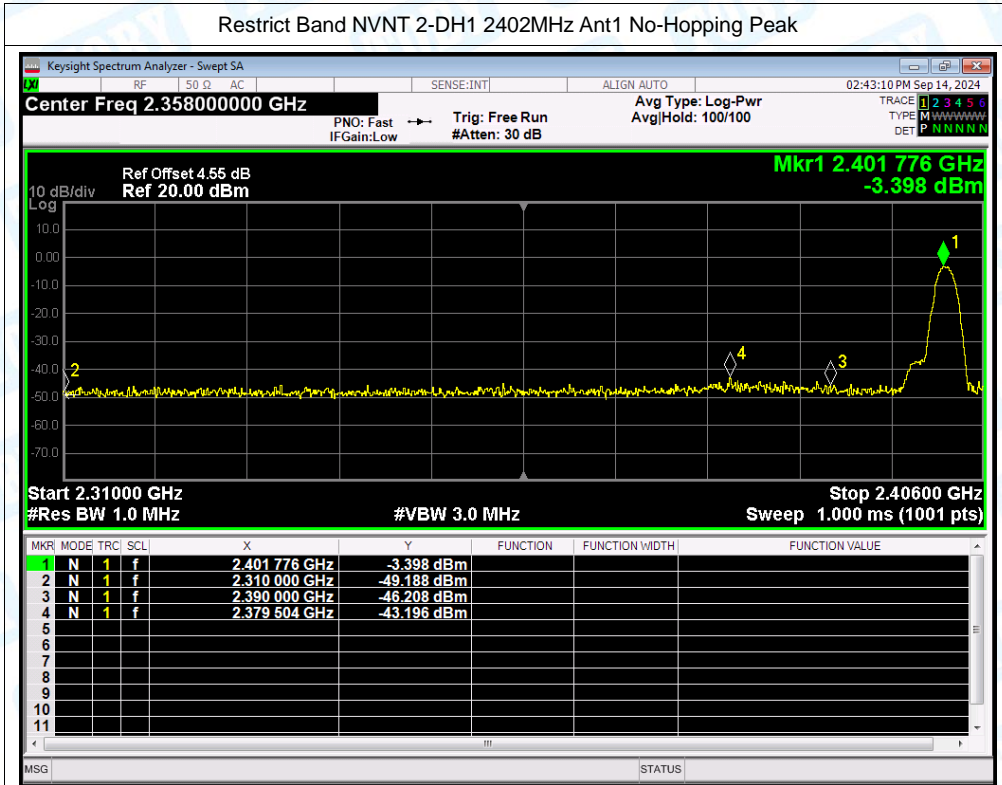


Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Peak

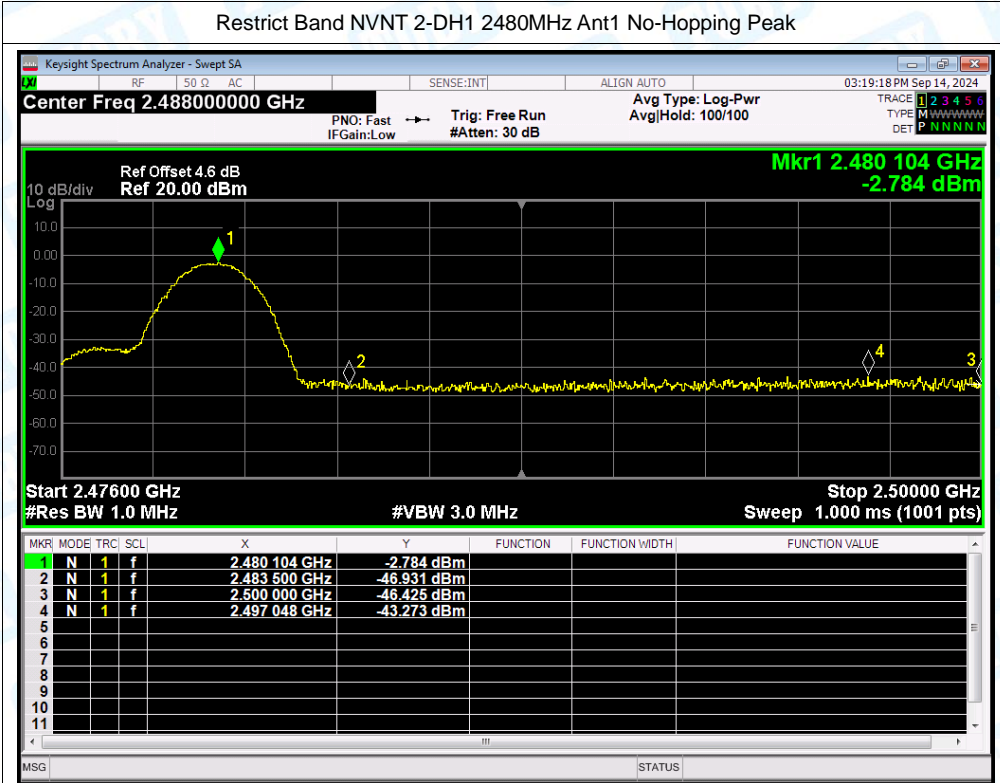


Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Average

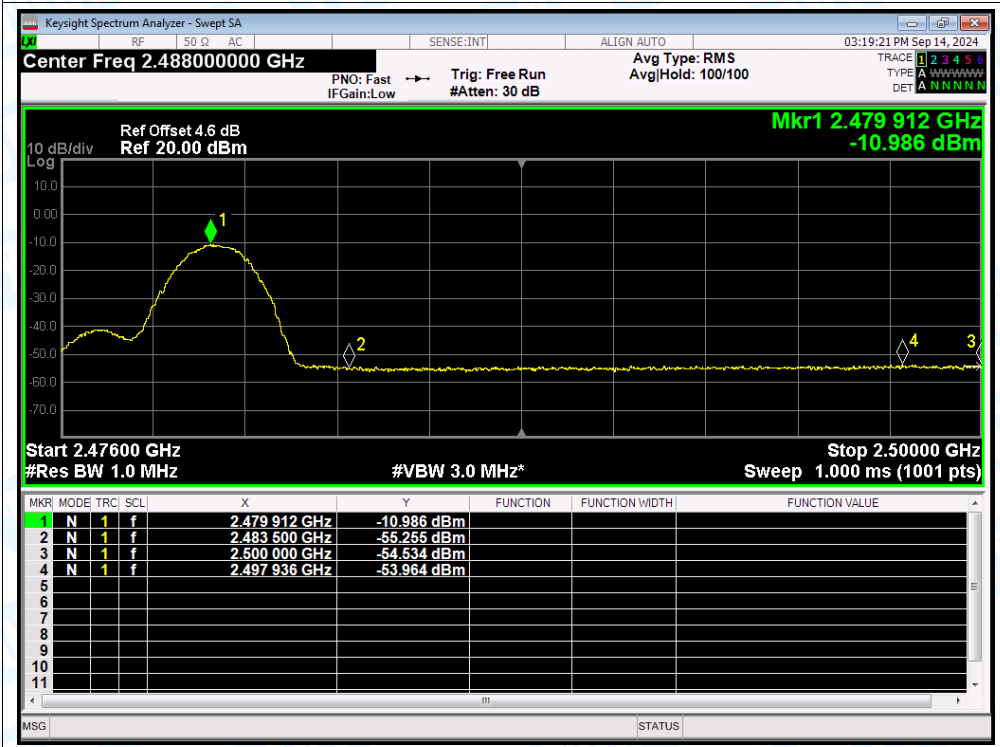




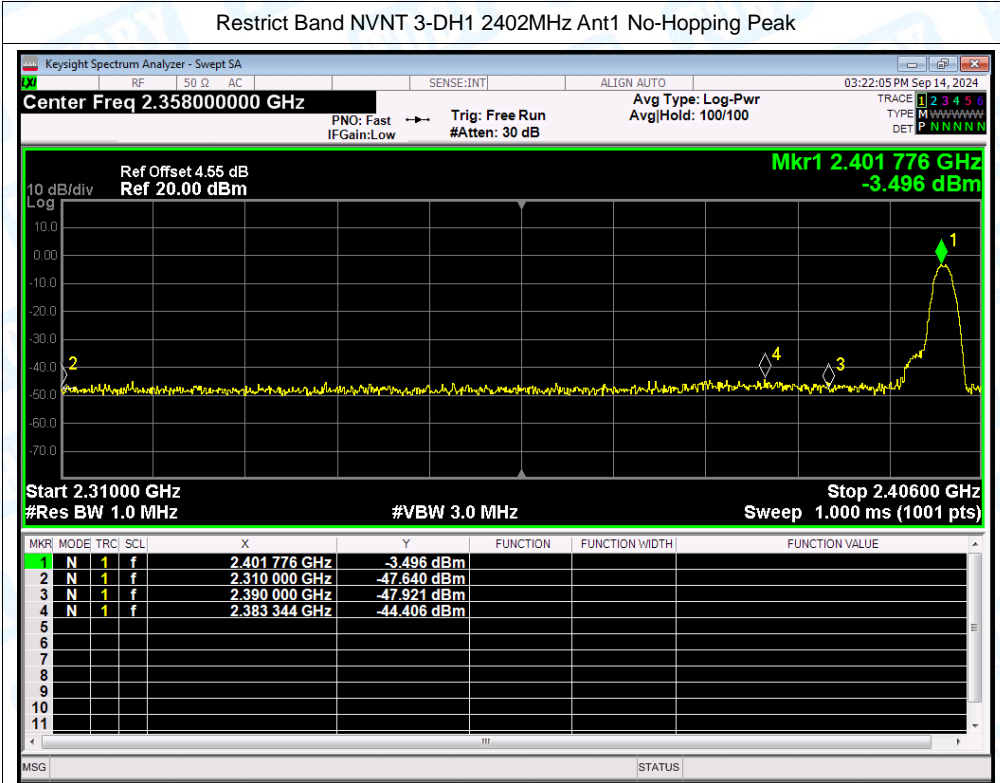
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Peak



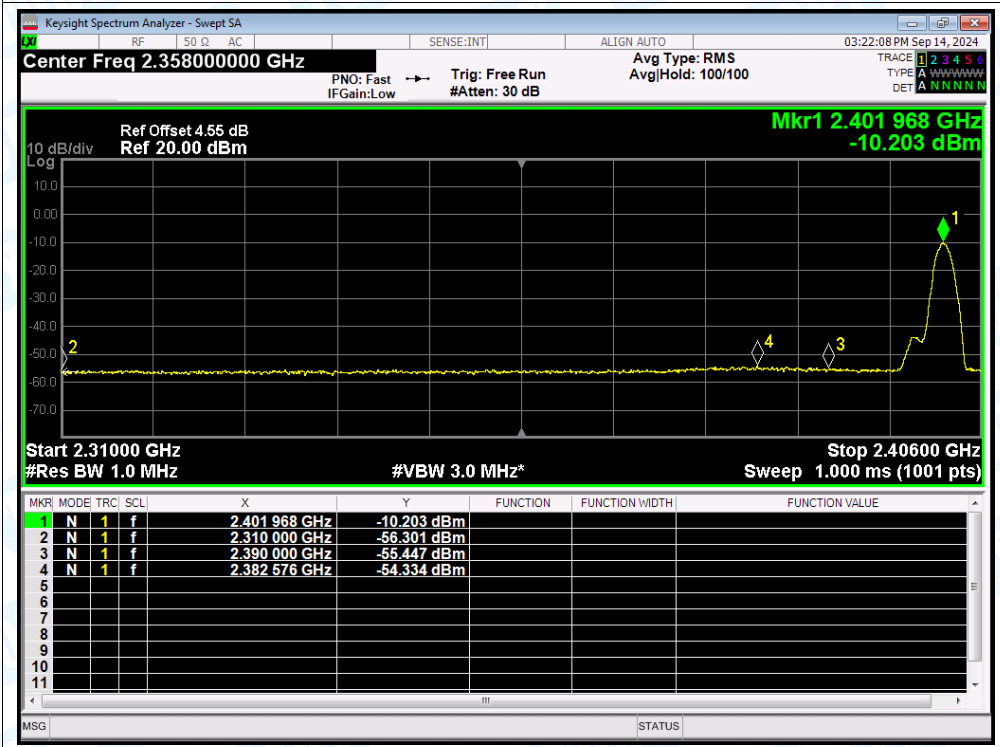
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Average



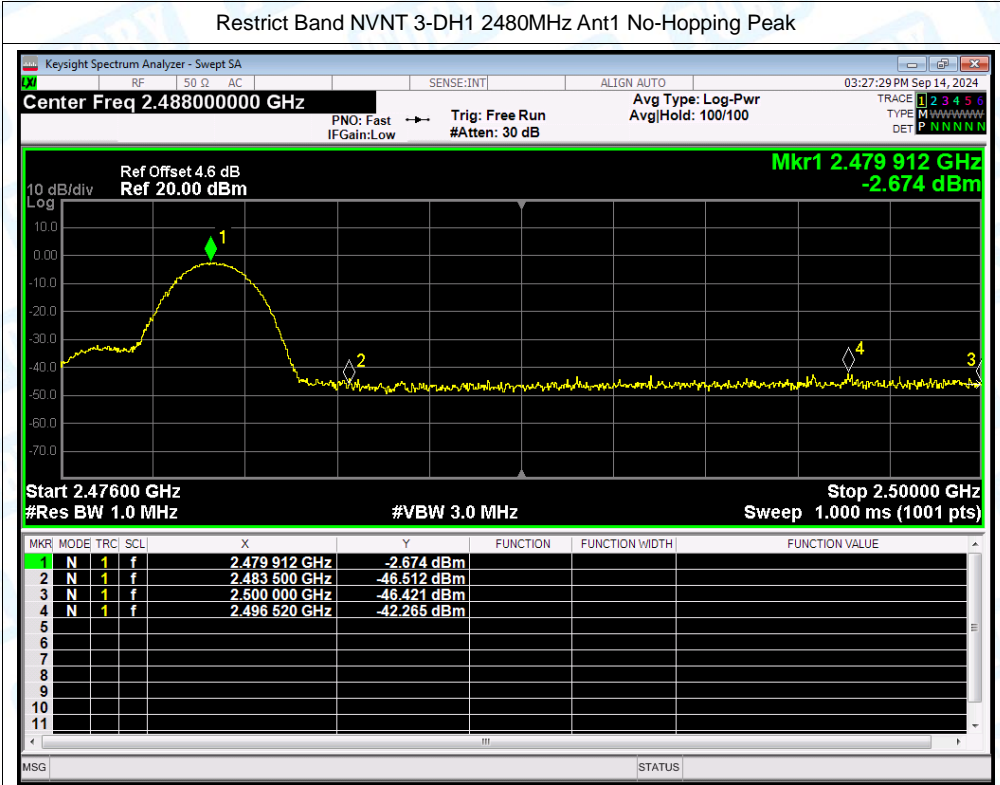
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Peak



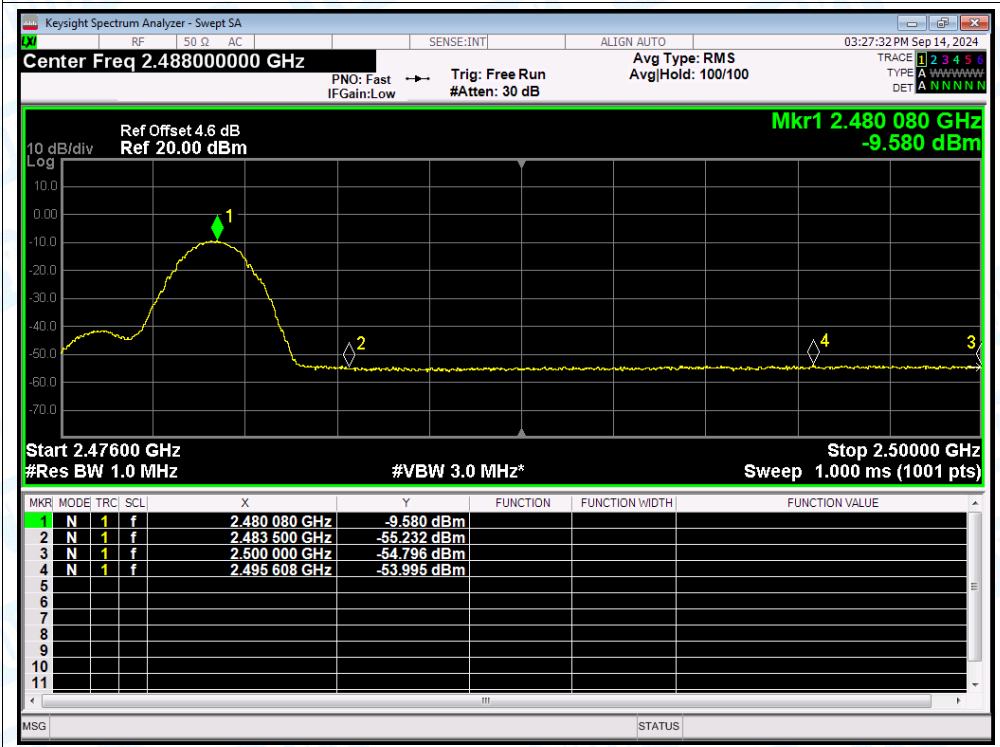
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Average



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



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

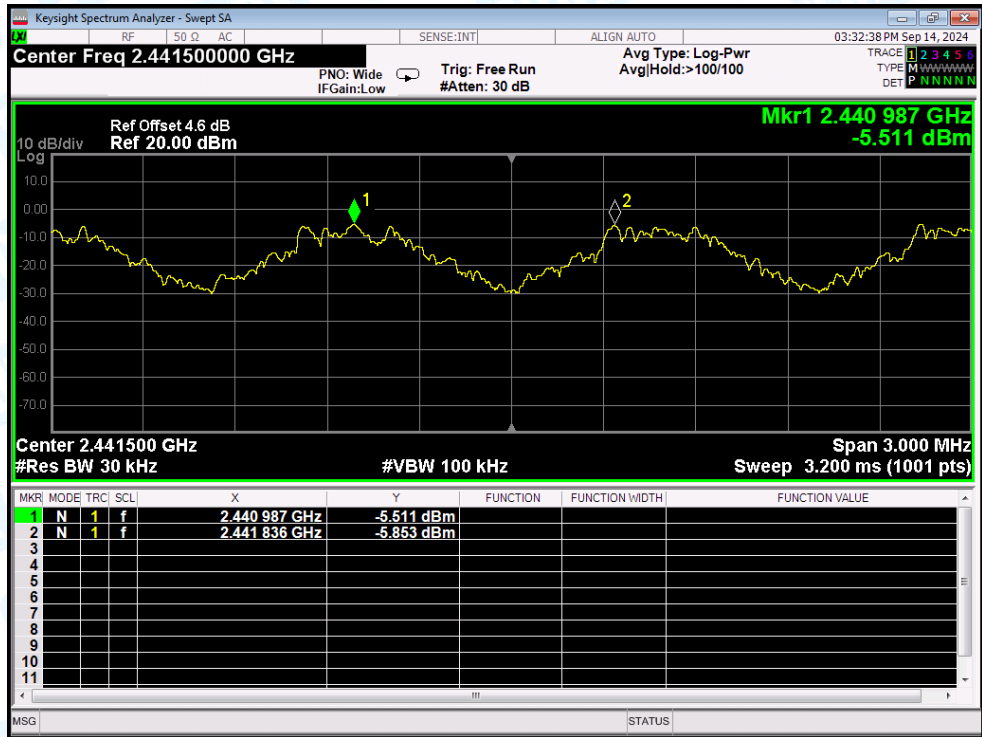


9. Carrier Frequencies Separation

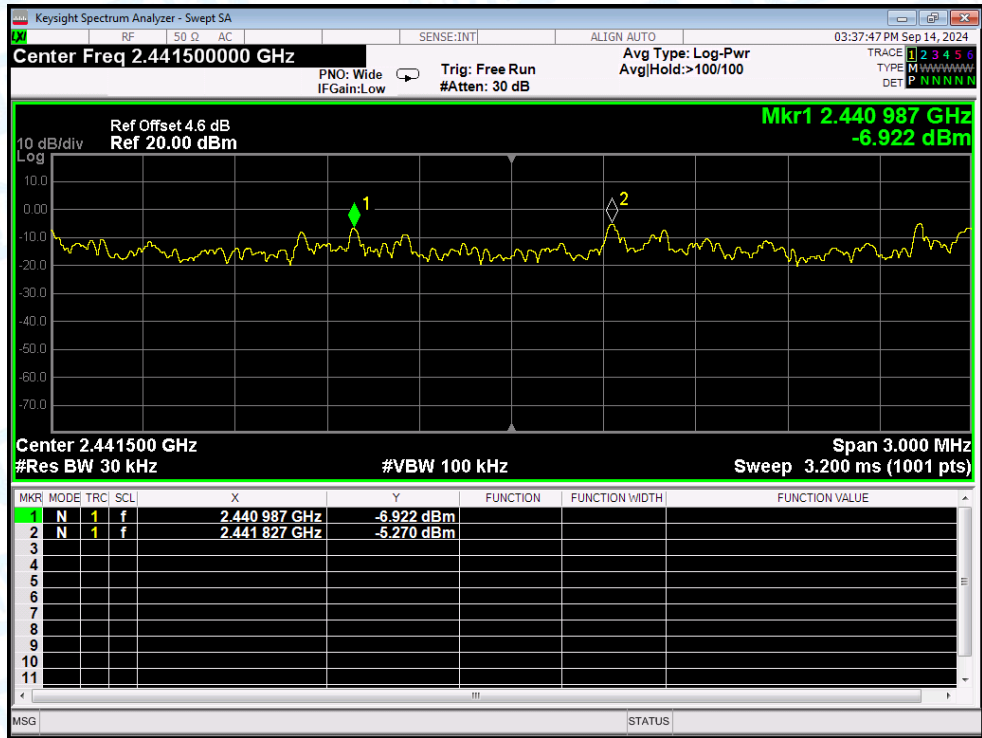
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH1	Ant1	2440.987	2441.836	0.849	0.587	Pass
NVNT	2-DH1	Ant1	2440.987	2441.827	0.84	0.833	Pass
NVNT	3-DH1	Ant1	2440.831	2441.983	1.152	0.807	Pass

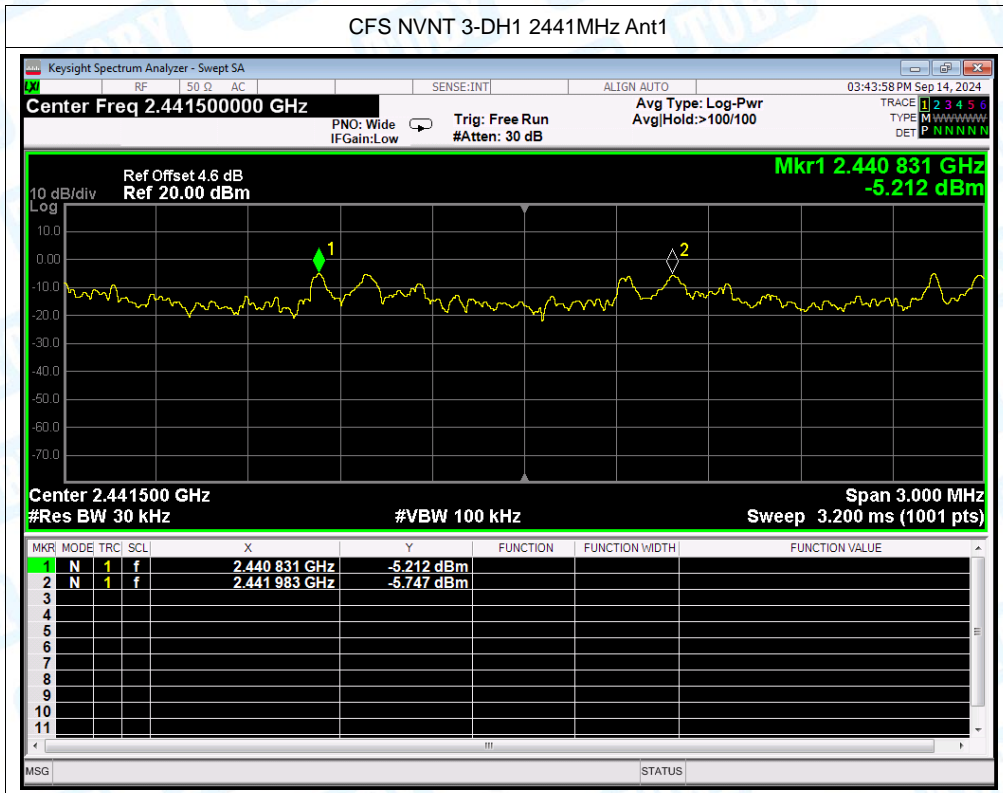
Test Graphs

CFS NVNT 1-DH1 2441MHz Ant1



CFS NVNT 2-DH1 2441MHz Ant1



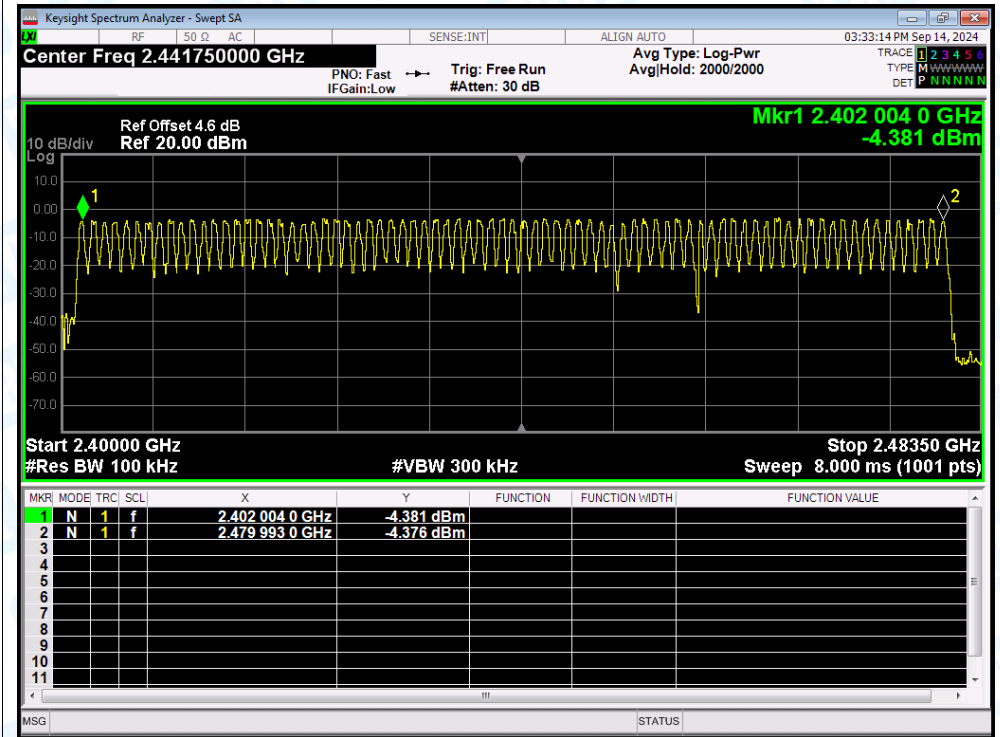


10. Number of Hopping Channel

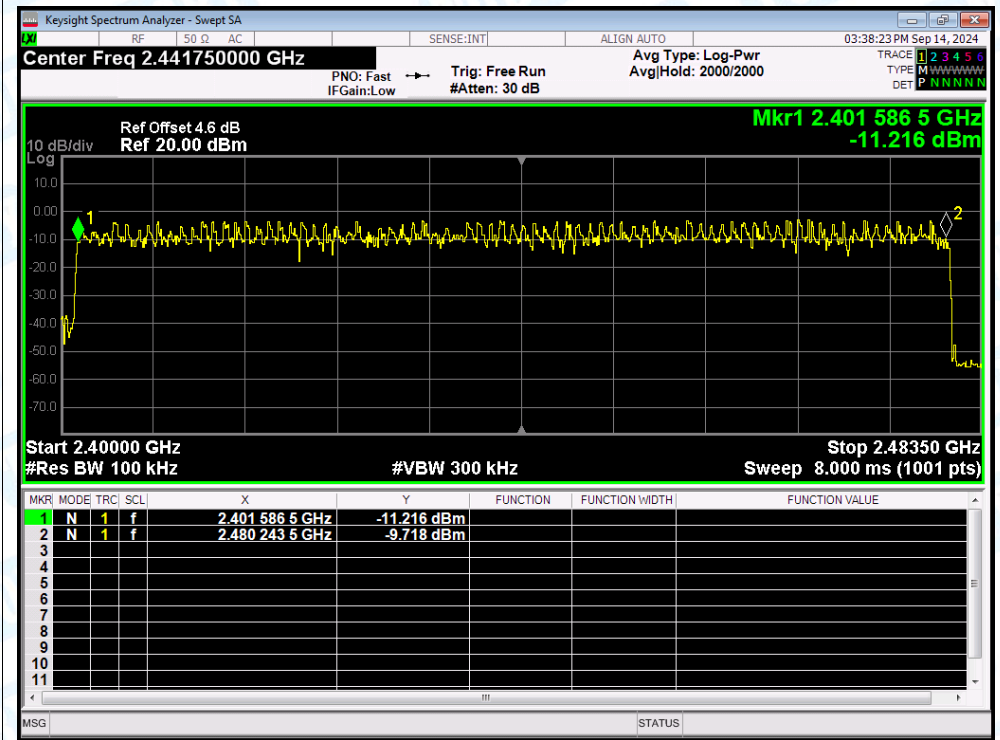
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH1	Ant1	79	15	Pass
NVNT	2-DH1	Ant1	79	15	Pass
NVNT	3-DH1	Ant1	79	15	Pass

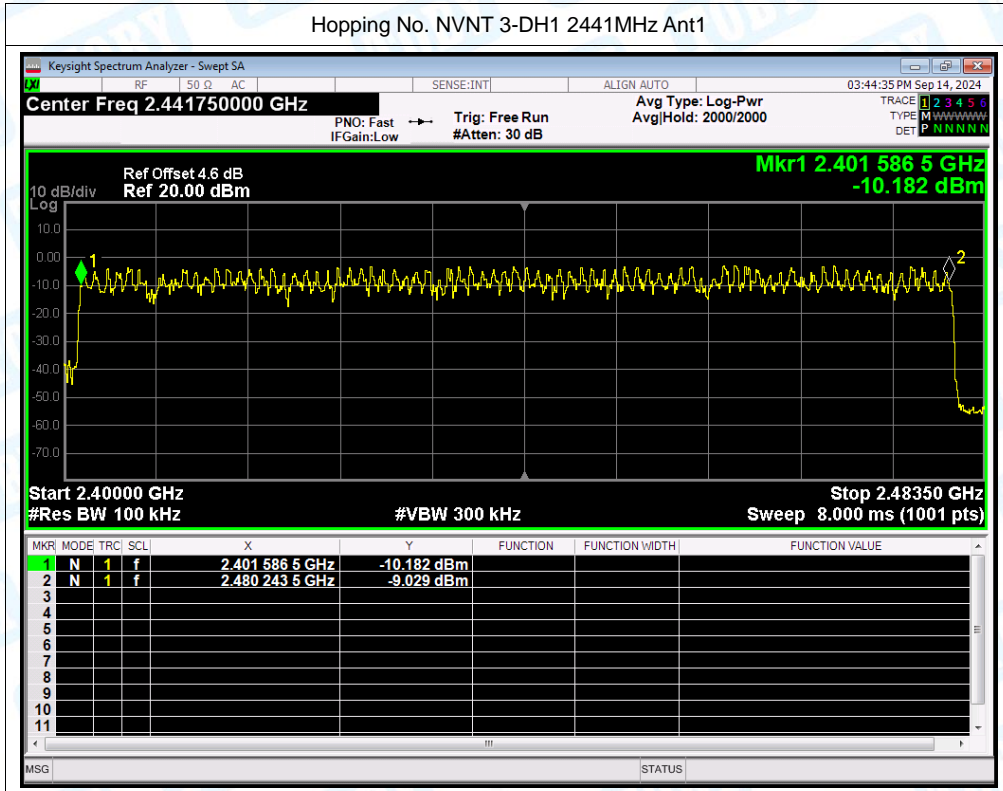
Test Graphs

Hopping No. NVNT 1-DH1 2441MHz Ant1



Hopping No. NVNT 2-DH1 2441MHz Ant1



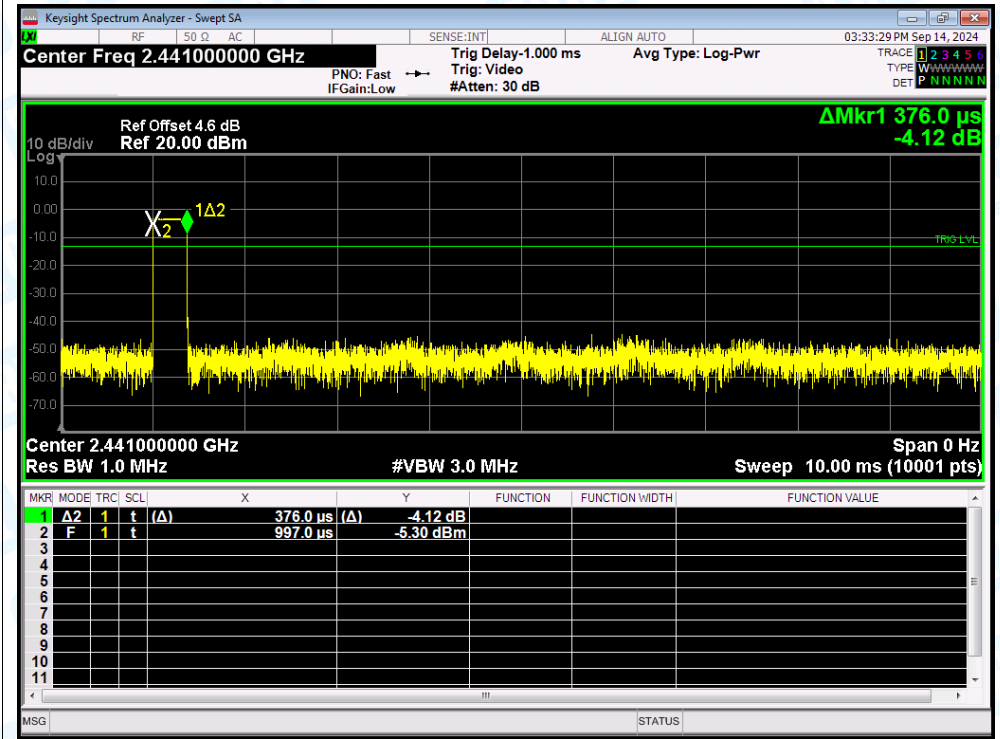


11. Dwell Time

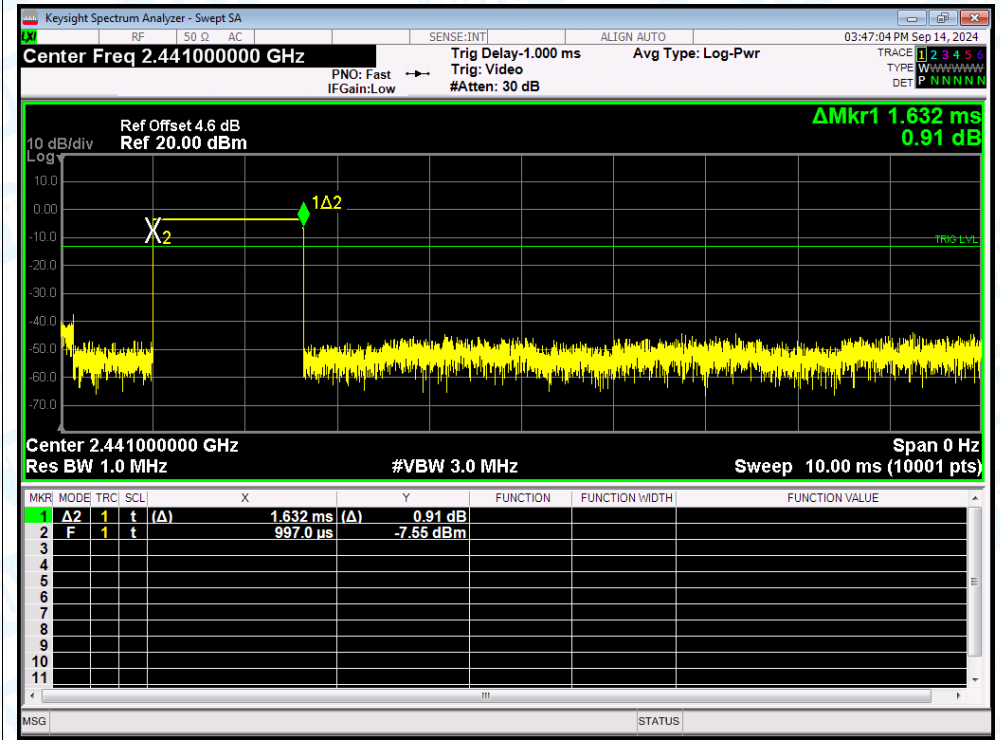
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	Ant1	0.376	120.32	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.632	261.12	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.88	307.2	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.386	123.52	31600	400	Pass
NVNT	2-DH3	2441	Ant1	1.637	261.92	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.886	307.84	31600	400	Pass
NVNT	3-DH1	2441	Ant1	0.386	123.52	31600	400	Pass
NVNT	3-DH3	2441	Ant1	1.637	261.92	31600	400	Pass
NVNT	3-DH5	2441	Ant1	2.888	308.053	31600	400	Pass

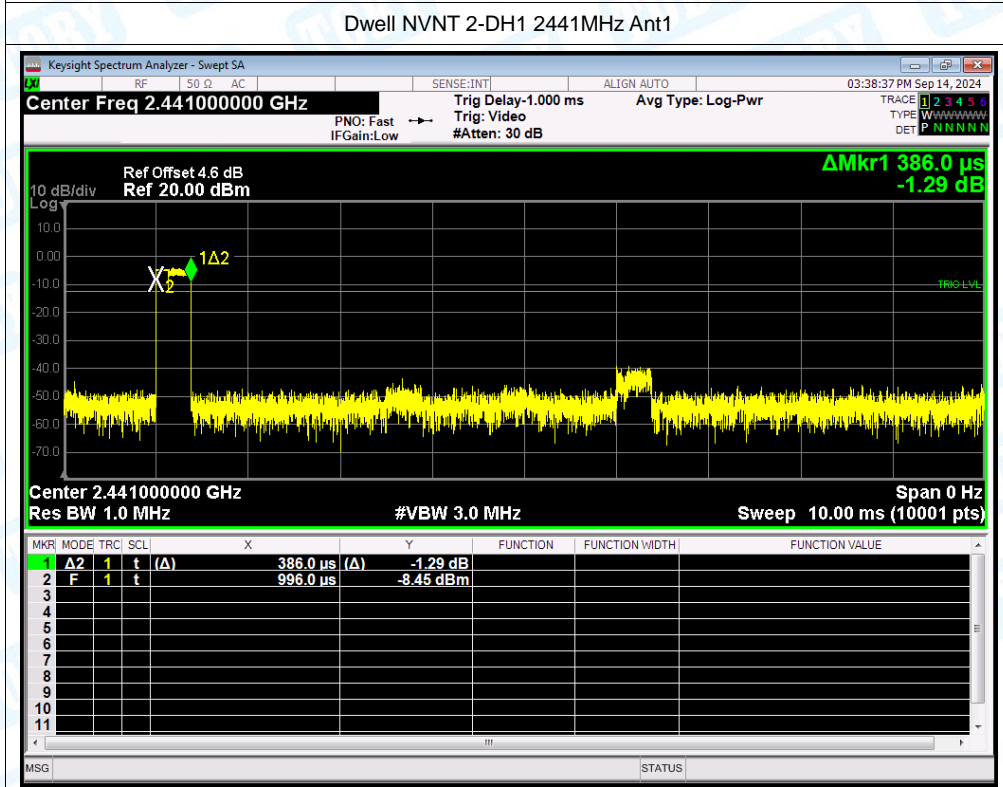
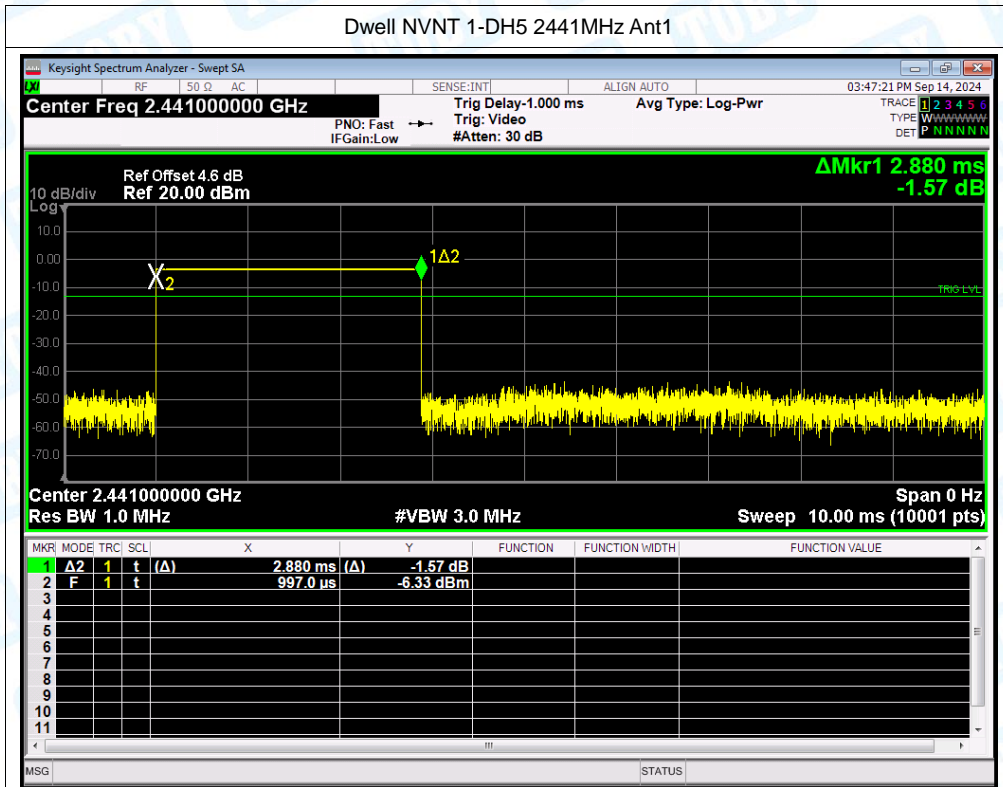
Test Graphs

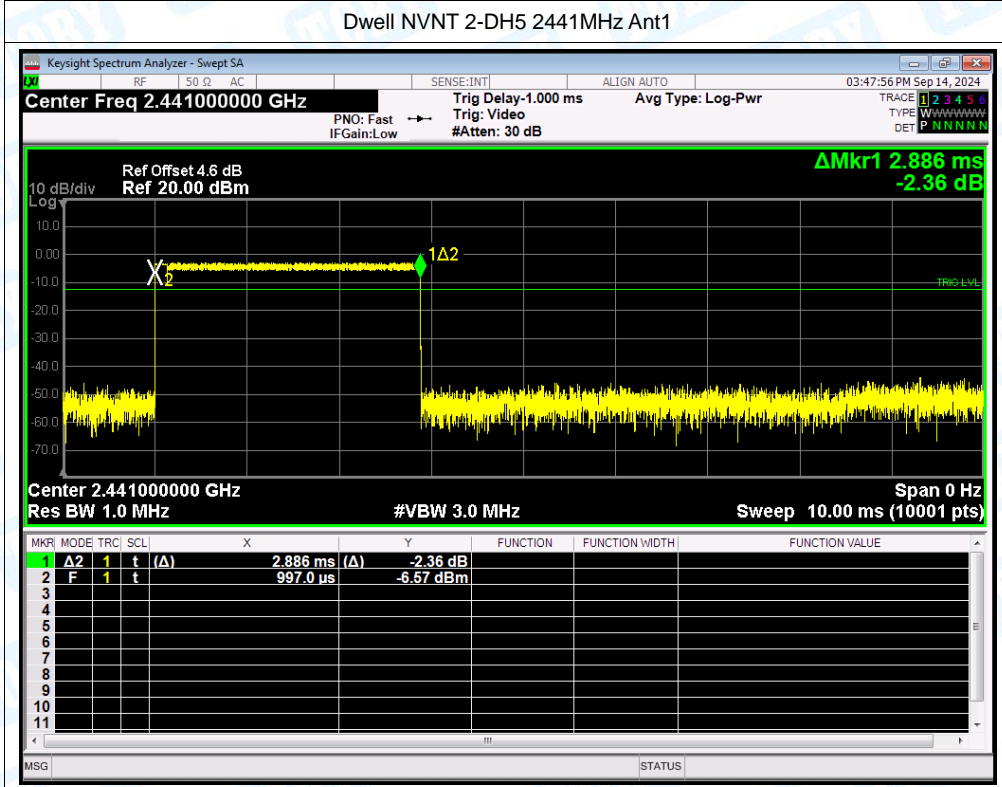
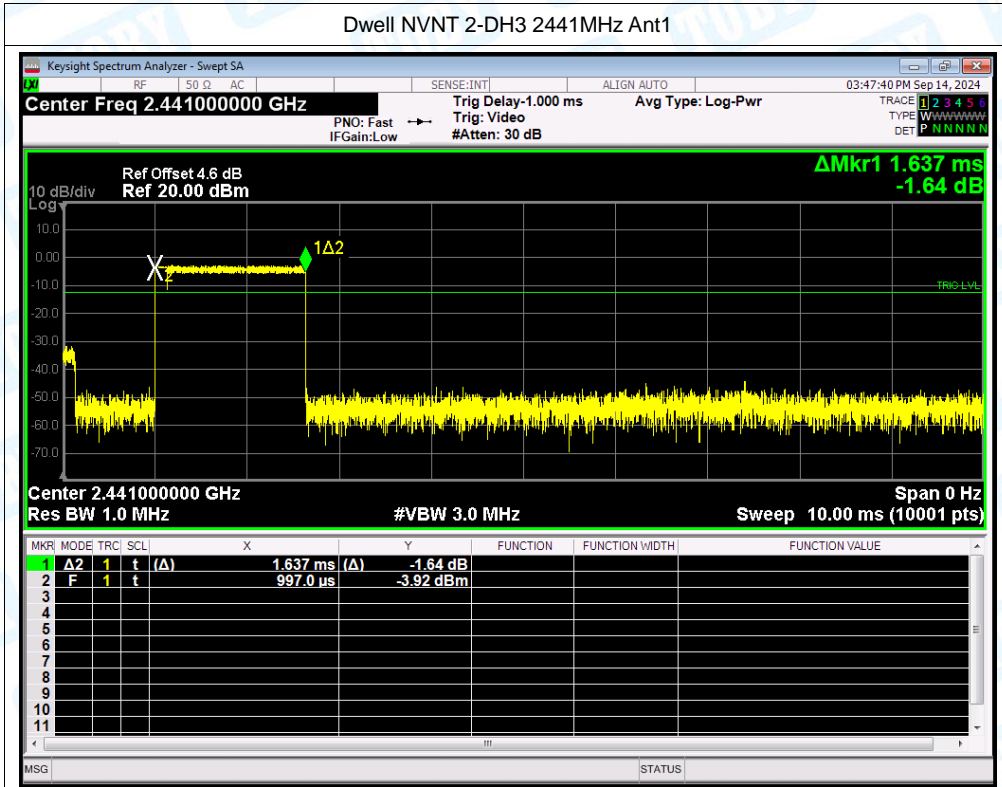
Dwell NVNT 1-DH1 2441MHz Ant1

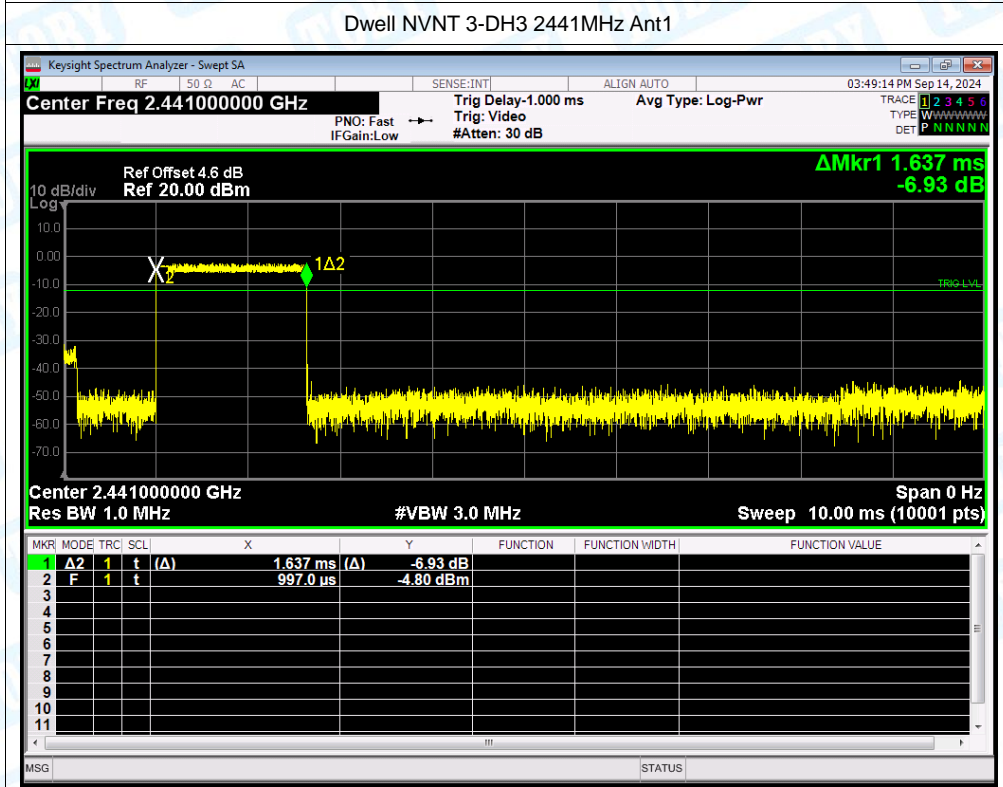
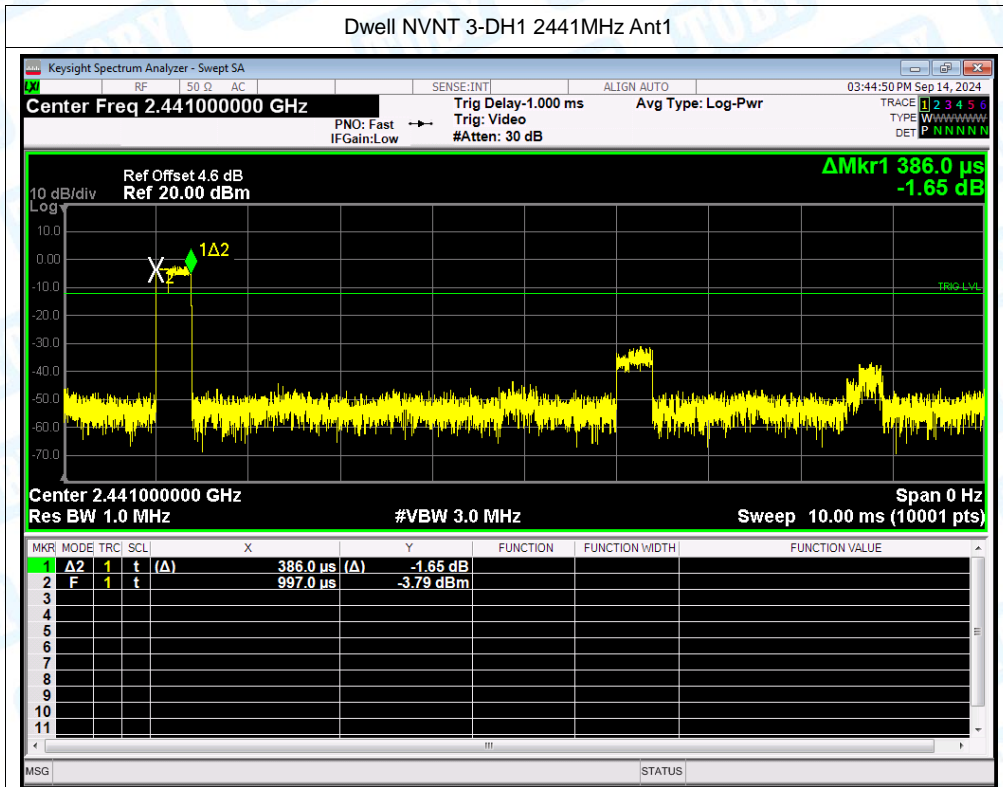


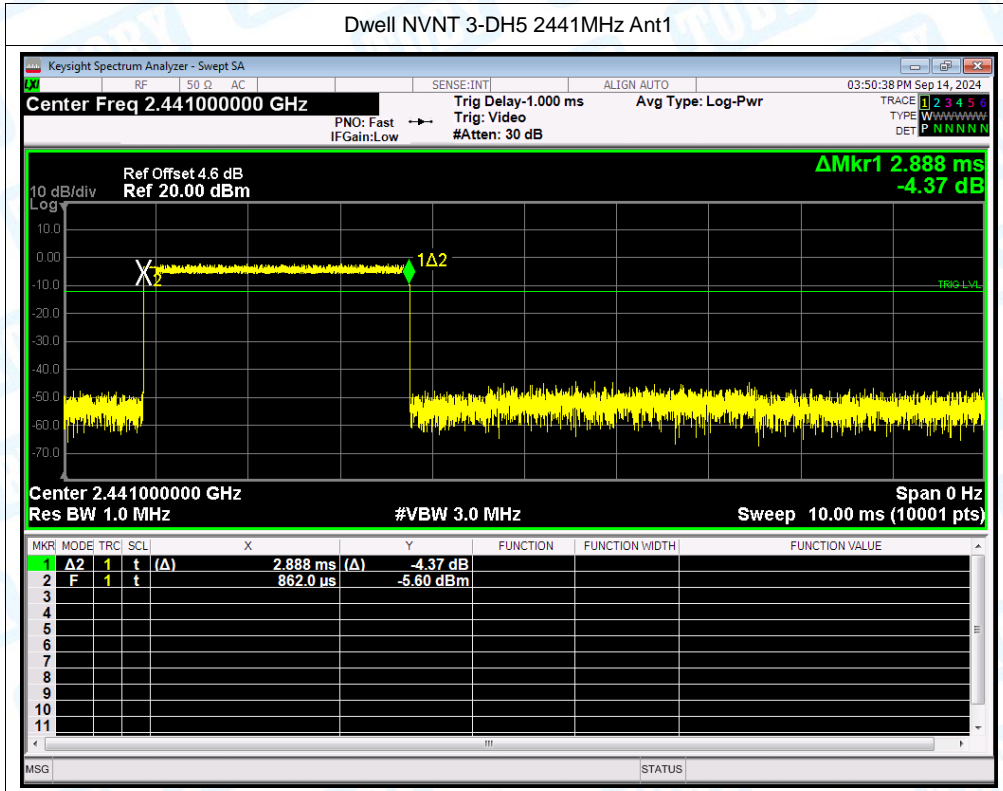
Dwell NVNT 1-DH3 2441MHz Ant1











---- END OF REPORT ----