

RF Test Data for Bluetooth (Conducted Measurements)

General Description of EUT	
Product Name:	kids wireless headphone
Test Model:	E65
Sample ID:	HC-C-202408-0119-02-01
Environmental Conditions	
Temperature:	25.1 °C
Relative Humidity:	42.8%
Test Voltage:	DC 3.7V
Test Engineer:	Rike Chen
Note: For a more detailed features description, please refer to the report TBR-C-202408-0119-51 The report only show the worst case data.	

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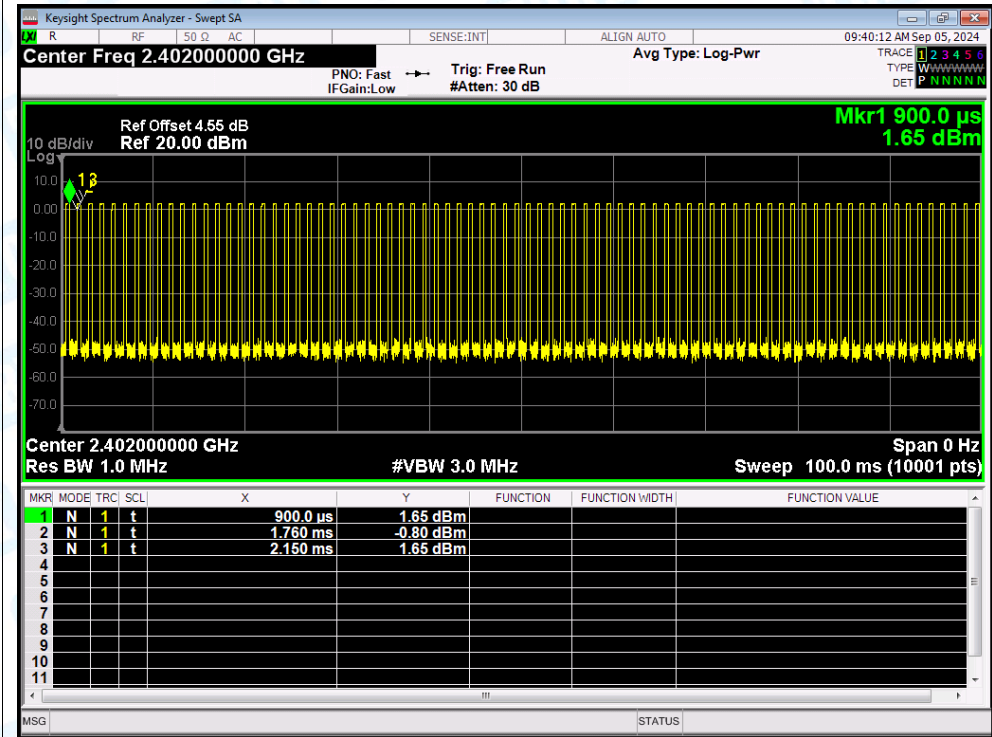
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1. Duty Cycle

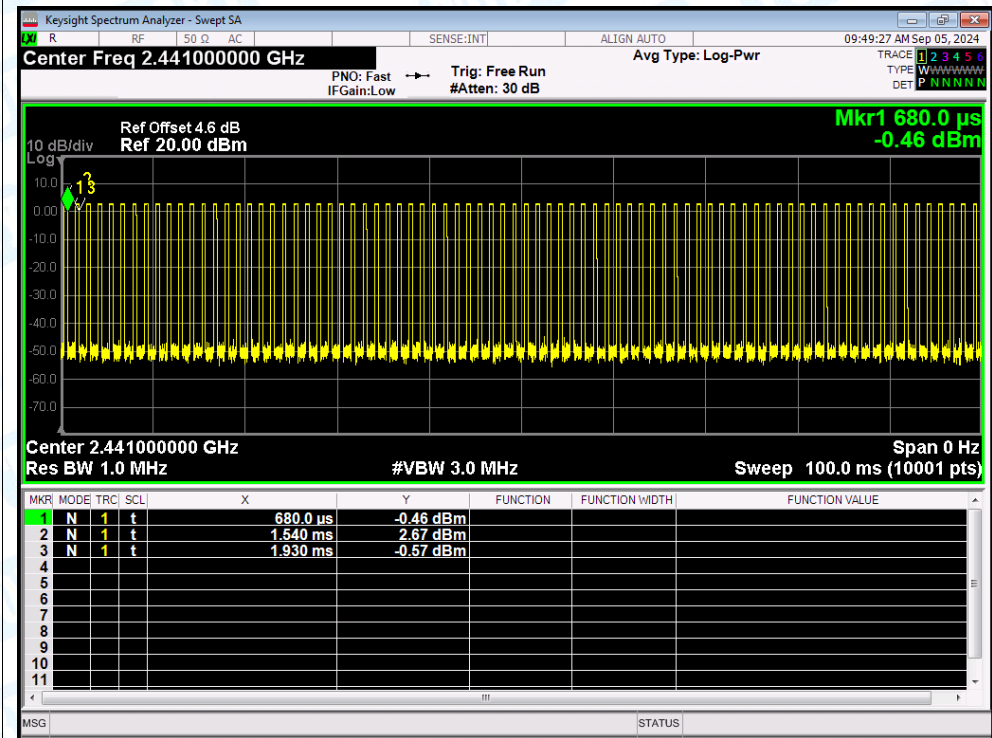
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH1	2402	Ant1	31.2	5.06	2.56
NVNT	1-DH1	2441	Ant1	31.2	5.06	2.56
NVNT	1-DH1	2480	Ant1	31.2	5.06	2.56
NVNT	2-DH1	2402	Ant1	31.2	5.06	2.56
NVNT	2-DH1	2441	Ant1	31.2	5.06	2.56
NVNT	2-DH1	2480	Ant1	31.2	5.06	2.56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

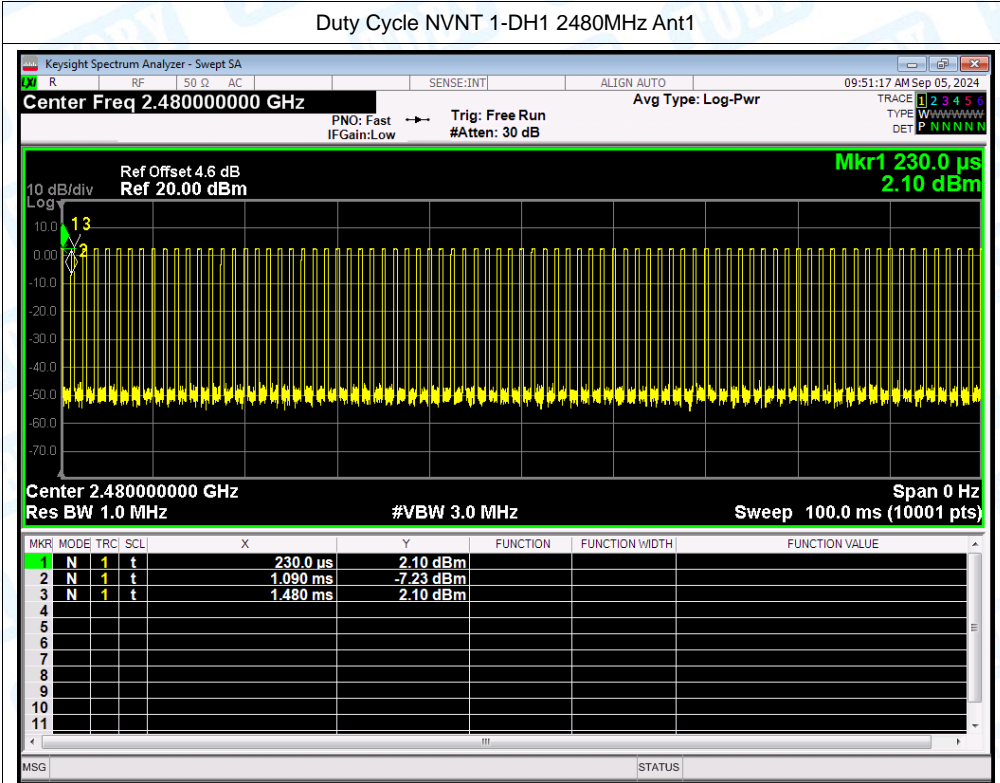
Duty Cycle NVNT 1-DH1 2402MHz Ant1



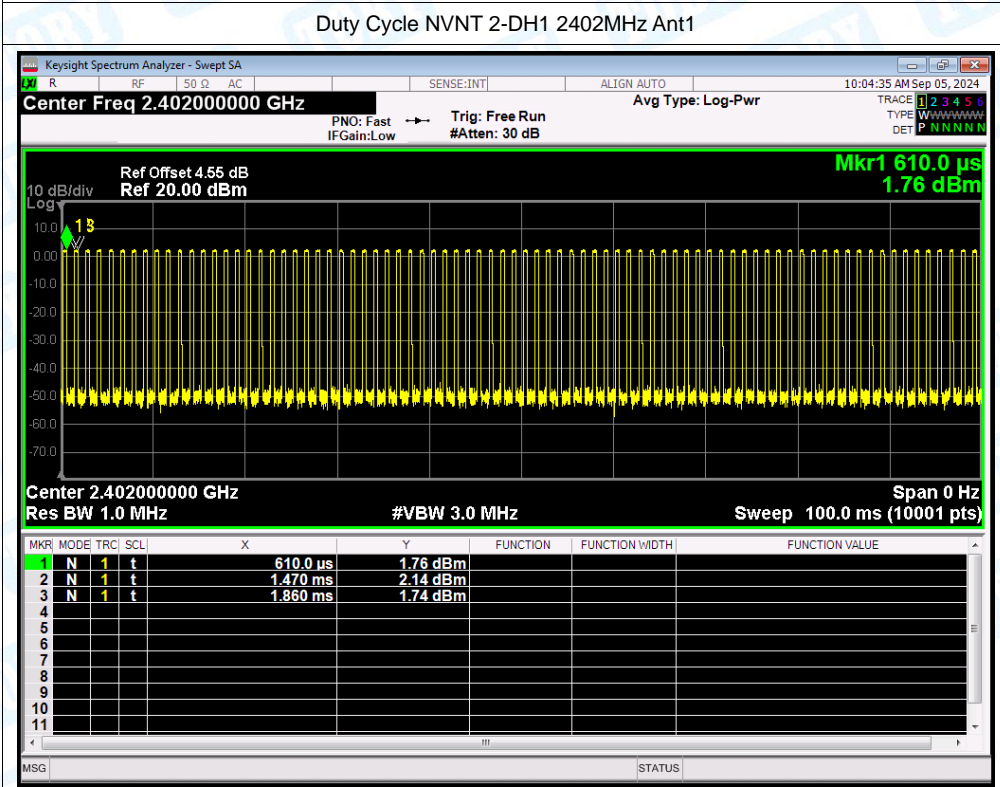
Duty Cycle NVNT 1-DH1 2441MHz Ant1



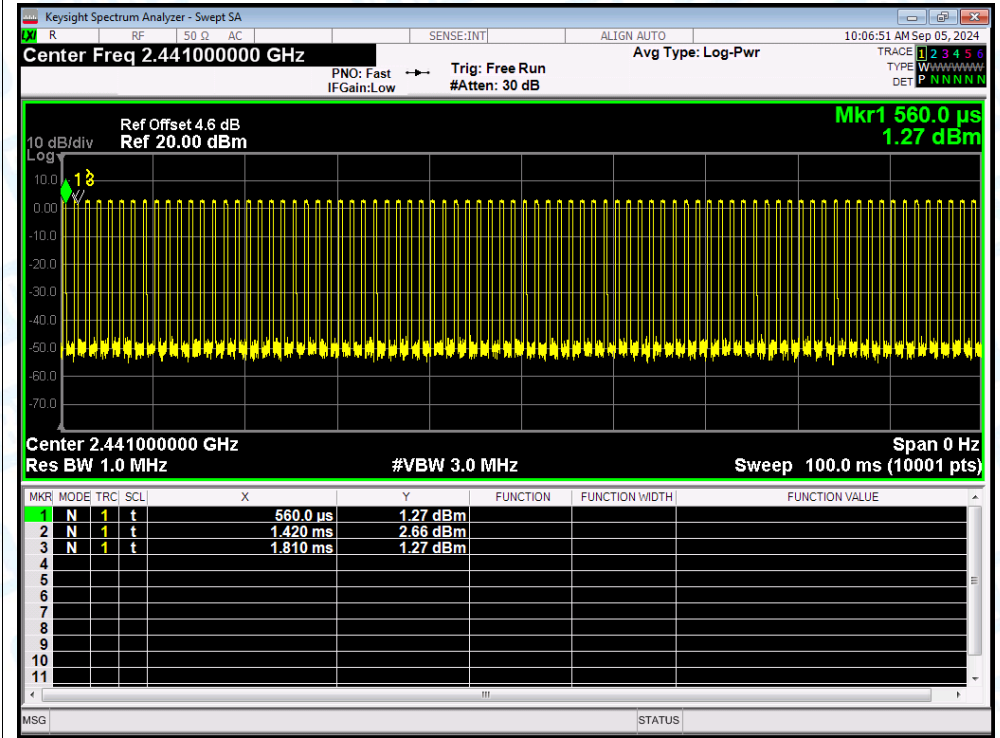
Duty Cycle NVNT 1-DH1 2480MHz Ant1



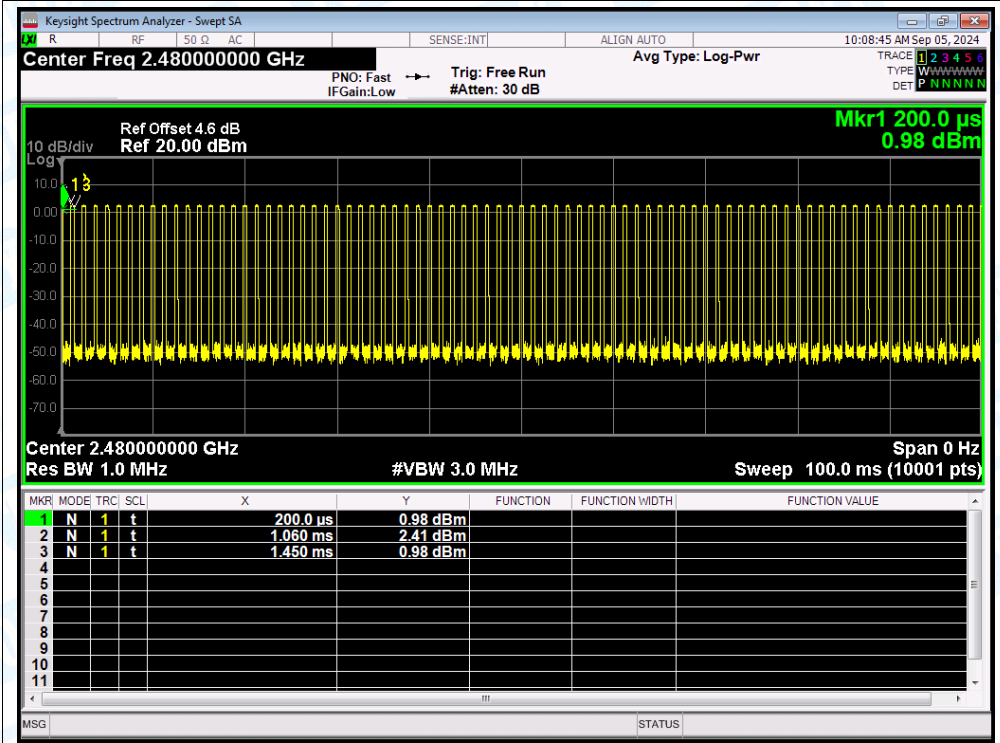
Duty Cycle NVNT 2-DH1 2402MHz Ant1



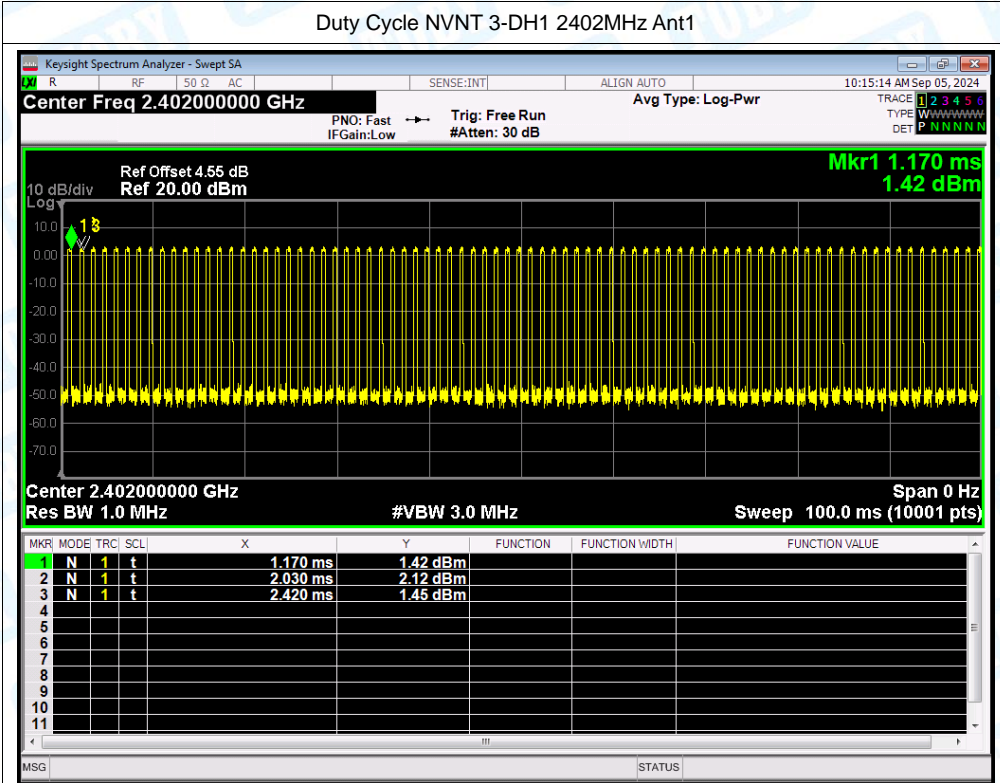
Duty Cycle NVNT 2-DH1 2441MHz Ant1



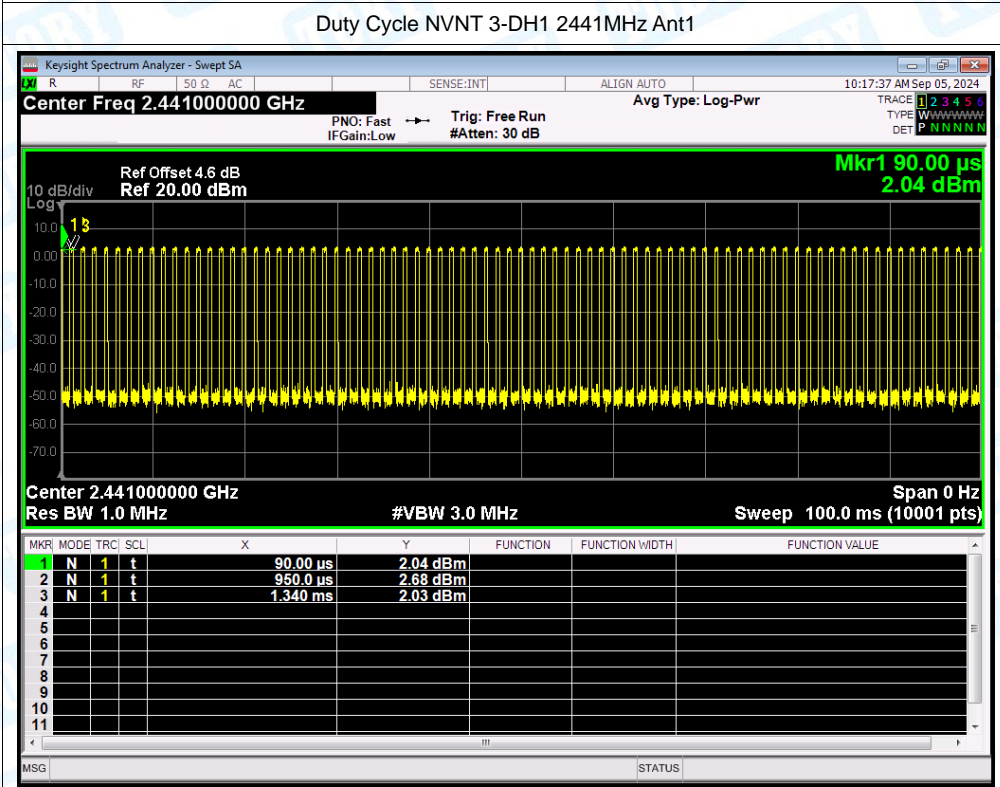
Duty Cycle NVNT 2-DH1 2480MHz Ant1

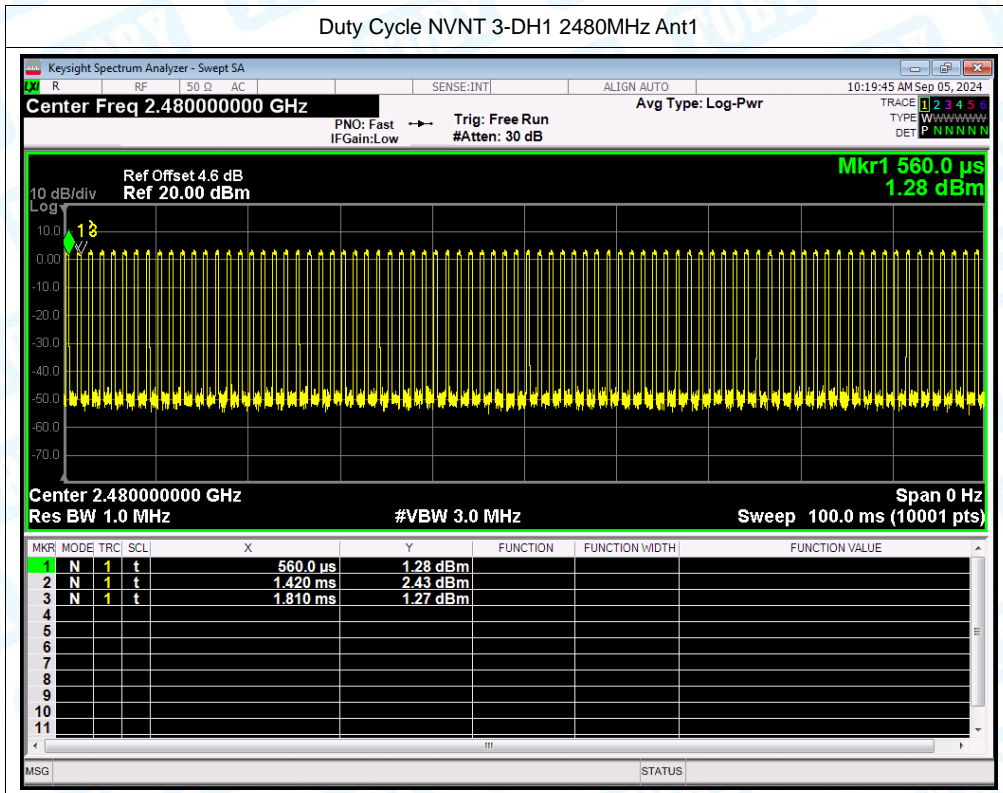


Duty Cycle NVNT 3-DH1 2402MHz Ant1



Duty Cycle NVNT 3-DH1 2441MHz Ant1



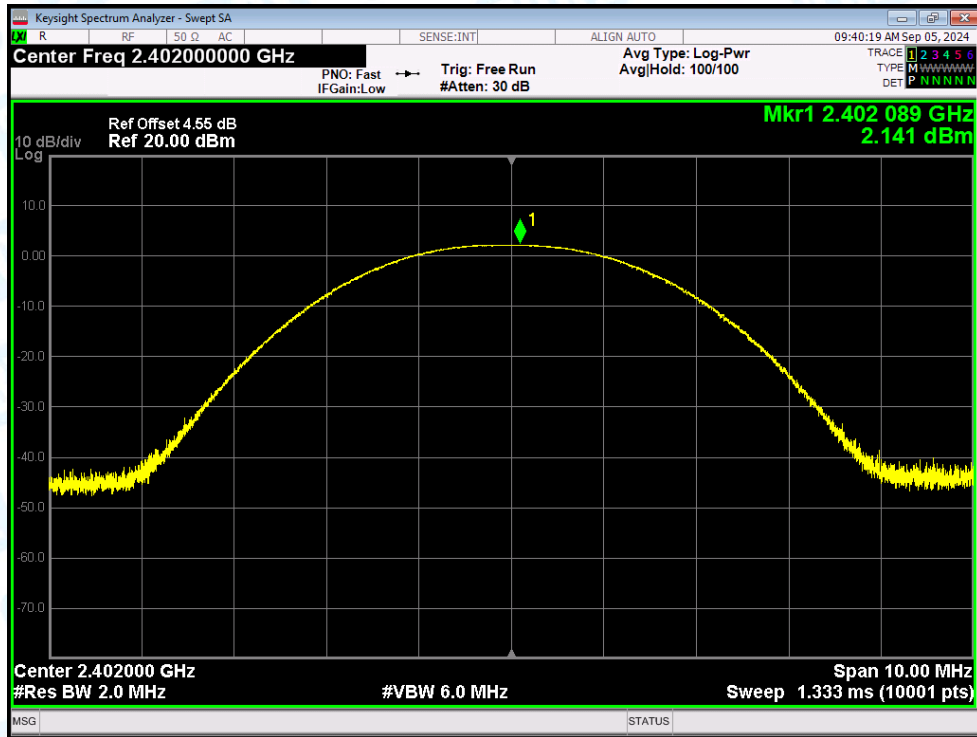


2. Maximum Conducted Output Power

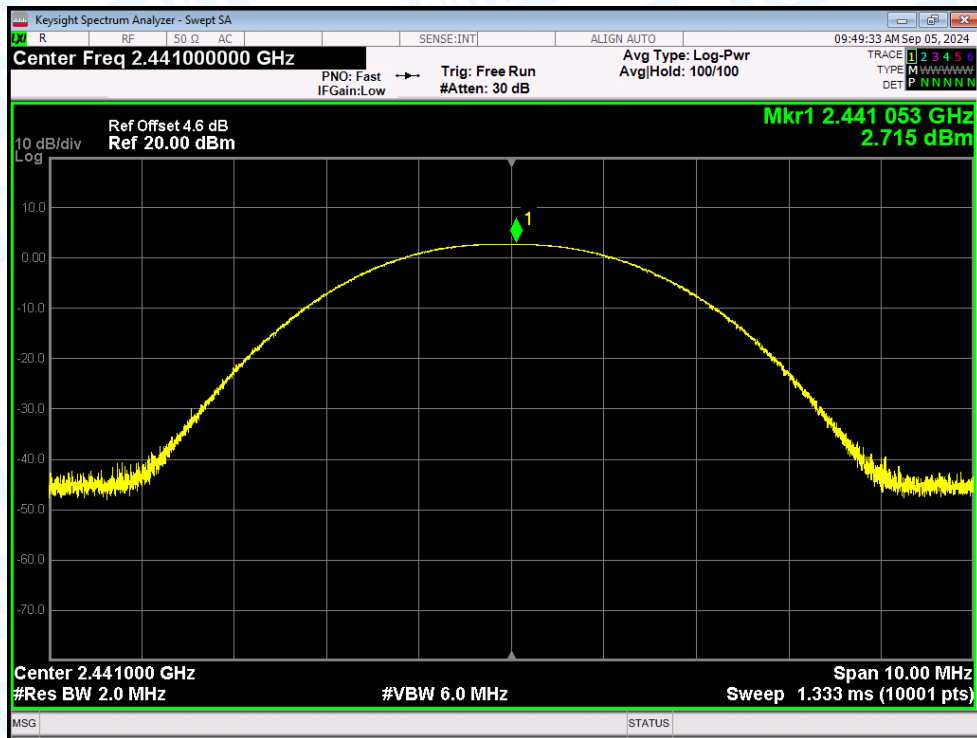
Condition	Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	2.141	21	Pass
NVNT	1-DH1	2441	Ant1	2.715	21	Pass
NVNT	1-DH1	2480	Ant1	2.462	21	Pass
NVNT	2-DH1	2402	Ant1	2.808	21	Pass
NVNT	2-DH1	2441	Ant1	3.372	21	Pass
NVNT	2-DH1	2480	Ant1	3.118	21	Pass
NVNT	3-DH1	2402	Ant1	3.318	21	Pass
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NVNT	3-DH1	2480	Ant1	3.711	21	Pass

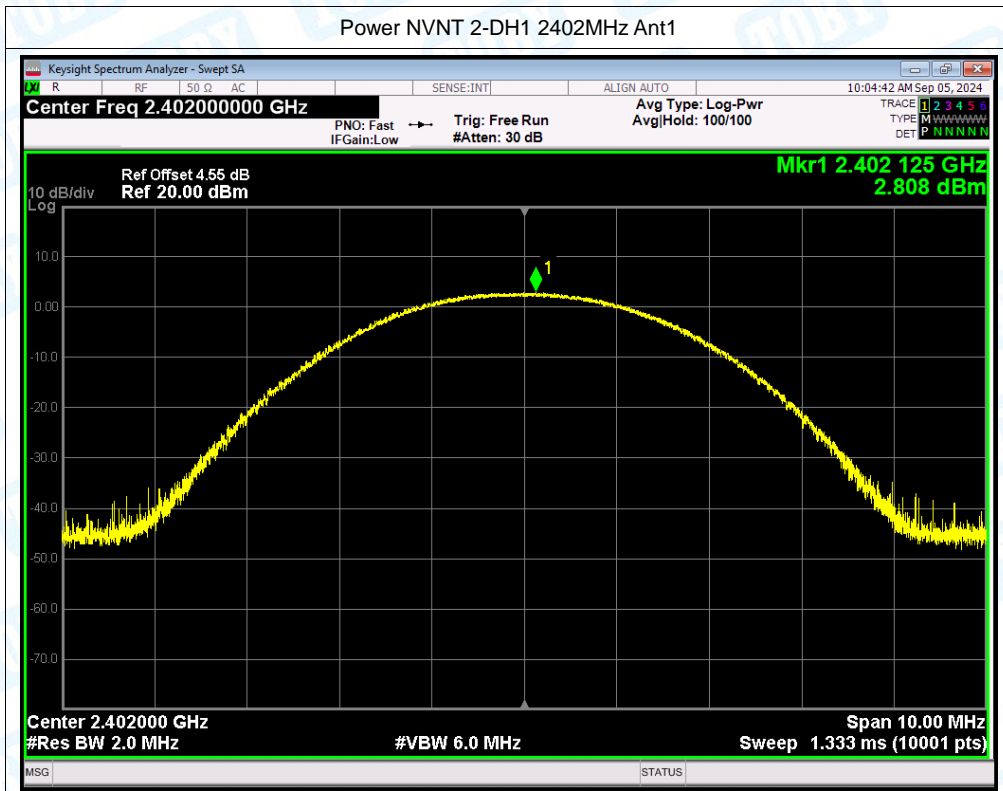
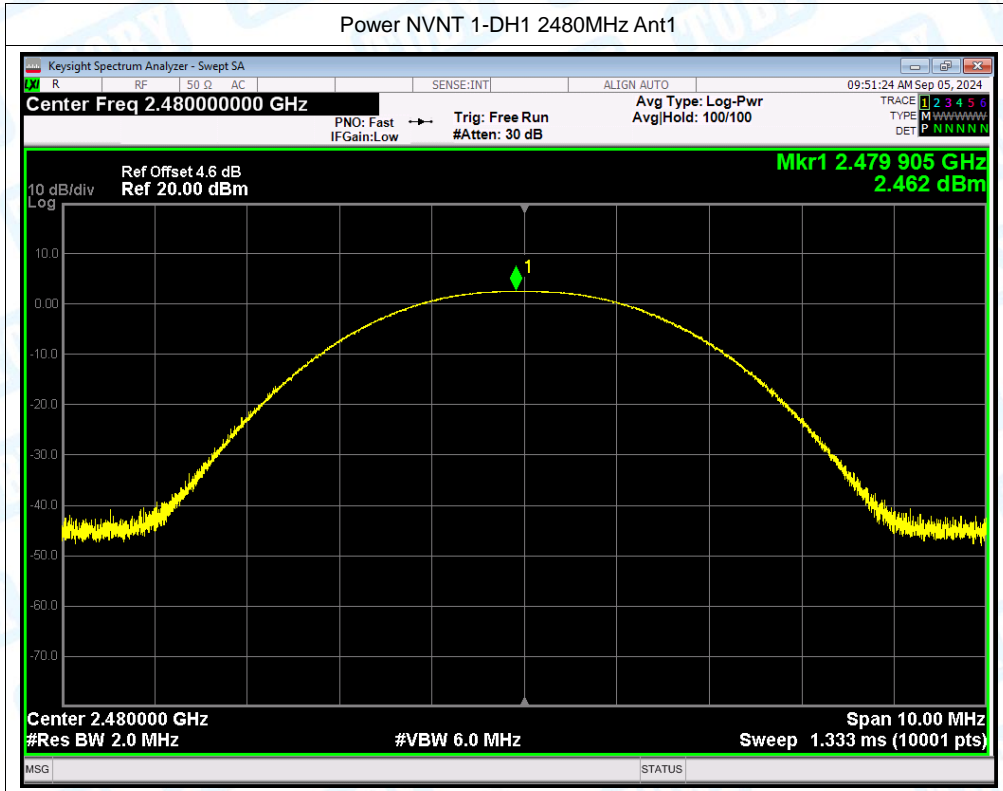
Test Graphs

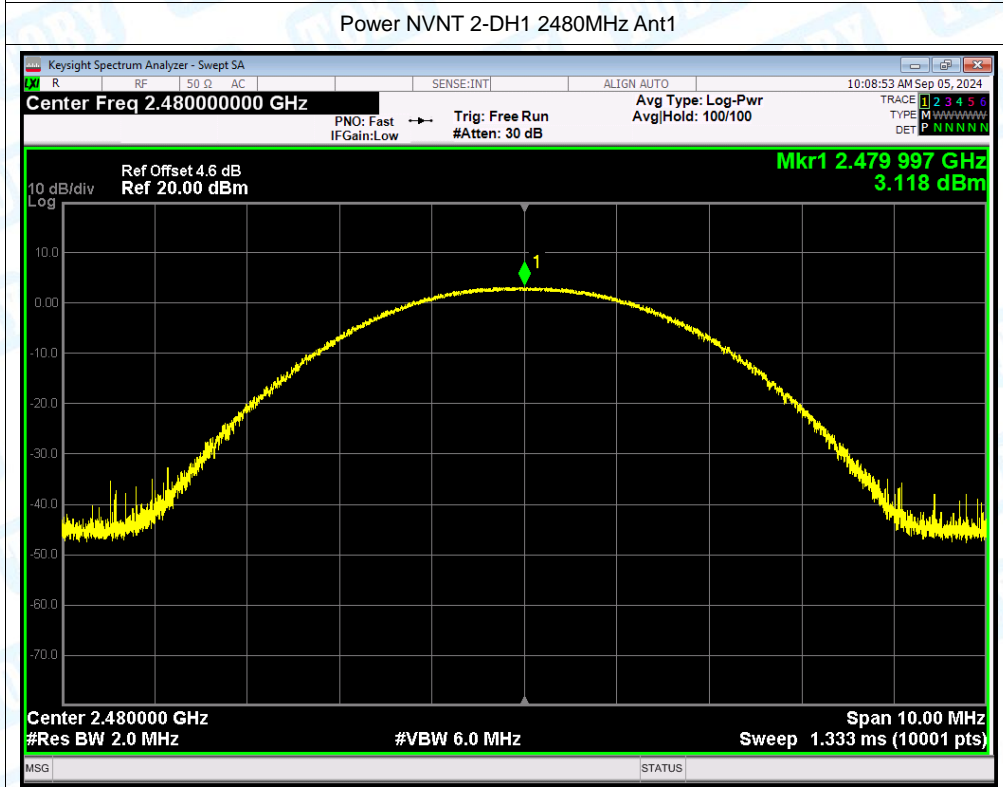
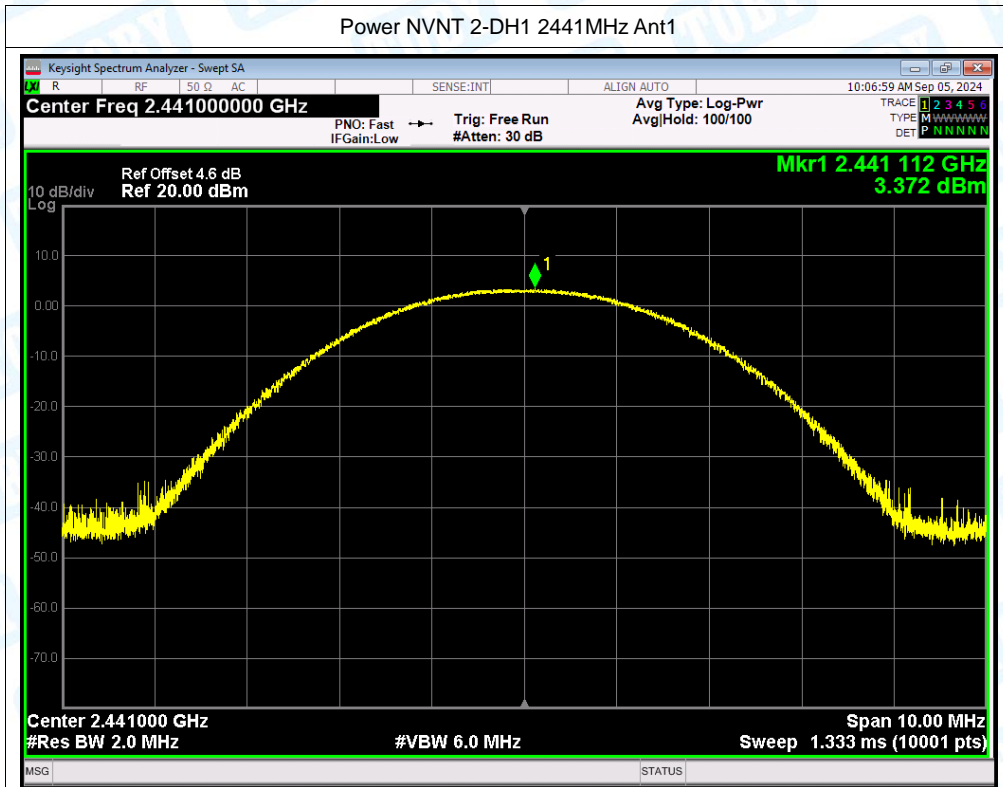
Power NVNT 1-DH1 2402MHz Ant1

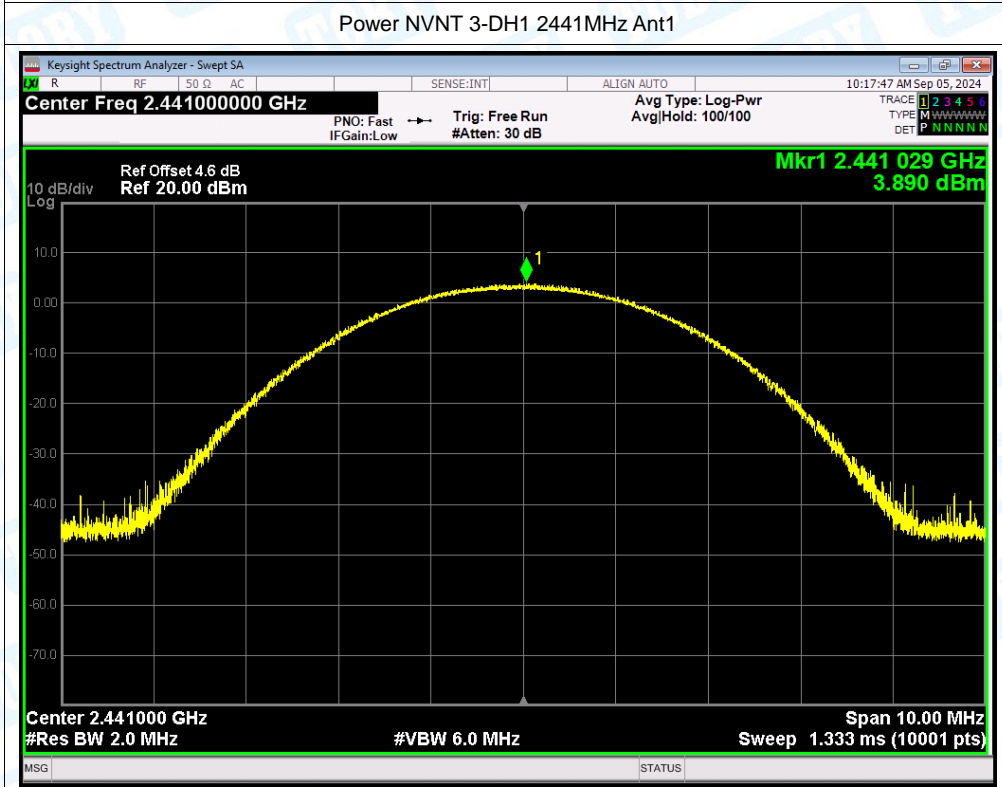
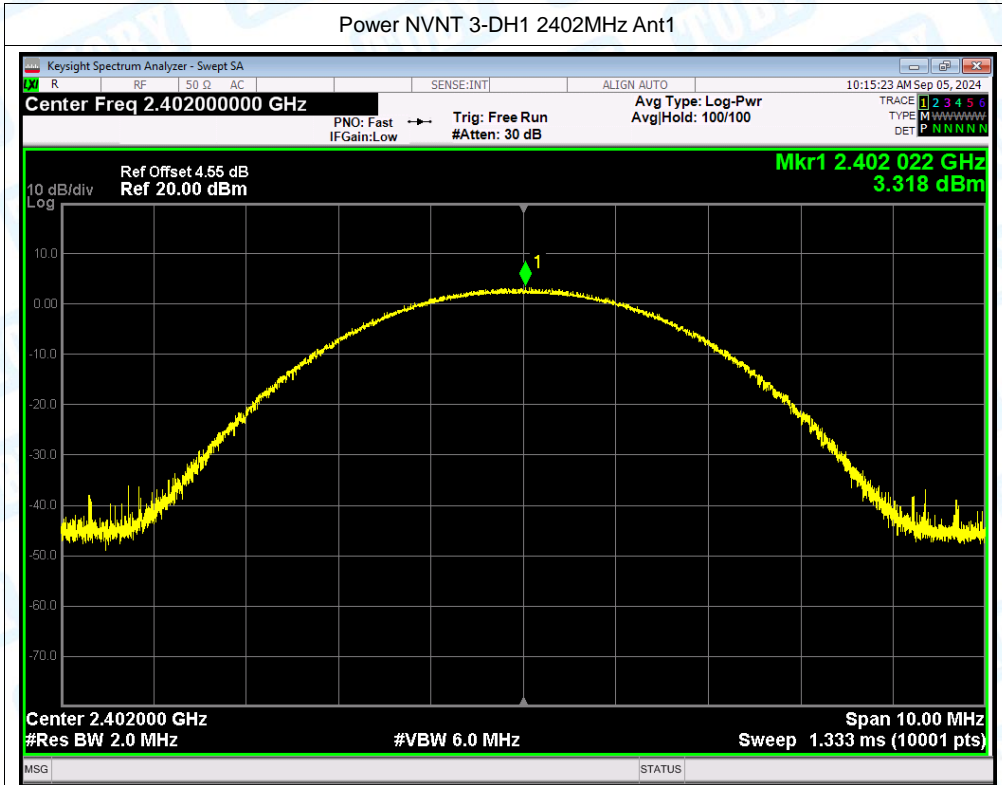


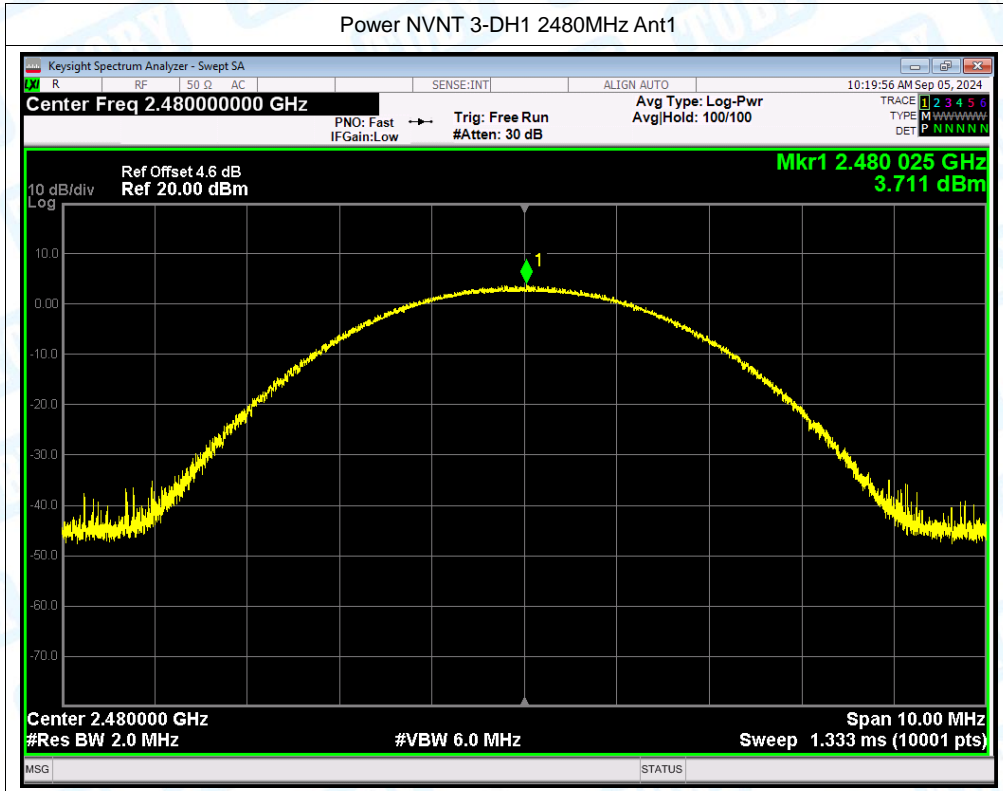
Power NVNT 1-DH1 2441MHz Ant1









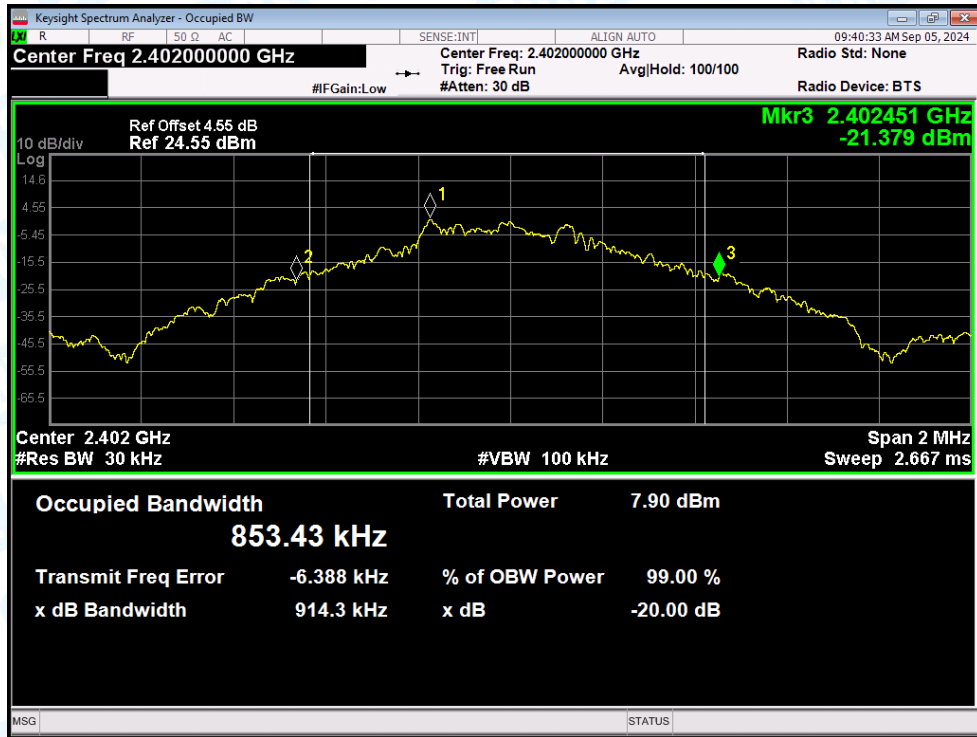


3. -20dB Bandwidth

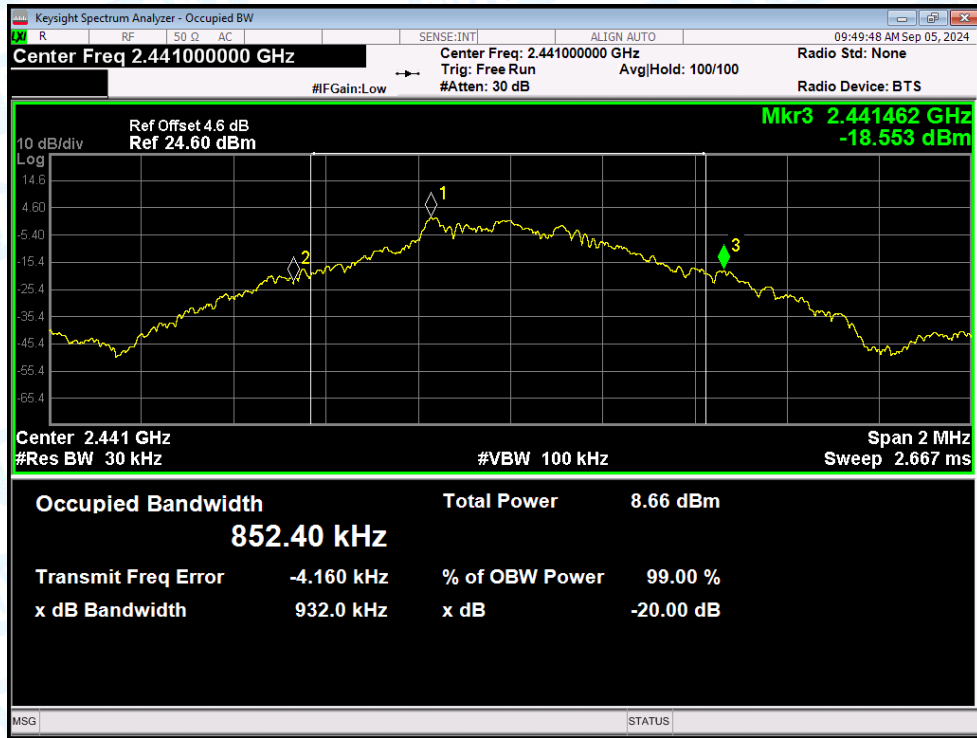
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	0.91	0	Pass
NVNT	1-DH1	2441	Ant1	0.93	0	Pass
NVNT	1-DH1	2480	Ant1	0.86	0	Pass
NVNT	2-DH1	2402	Ant1	1.26	0	Pass
NVNT	2-DH1	2441	Ant1	1.26	0	Pass
NVNT	2-DH1	2480	Ant1	1.24	0	Pass
NVNT	3-DH1	2402	Ant1	1.24	0	Pass
NVNT	3-DH1	2441	Ant1	1.21	0	Pass
NVNT	3-DH1	2480	Ant1	1.25	0	Pass

Test Graphs

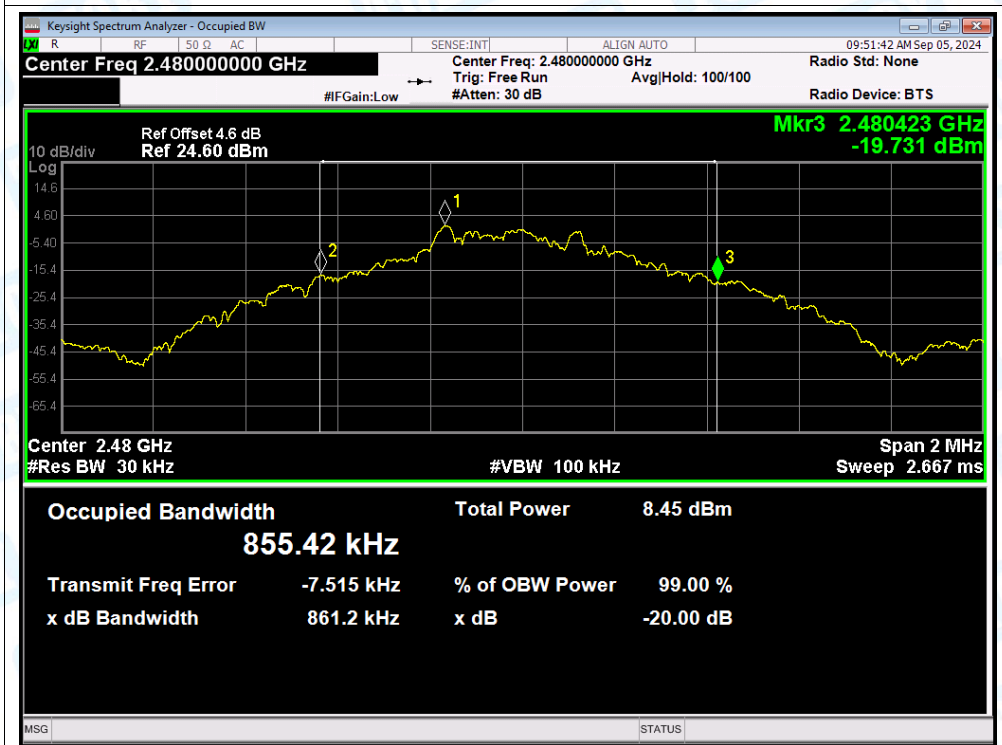
-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1



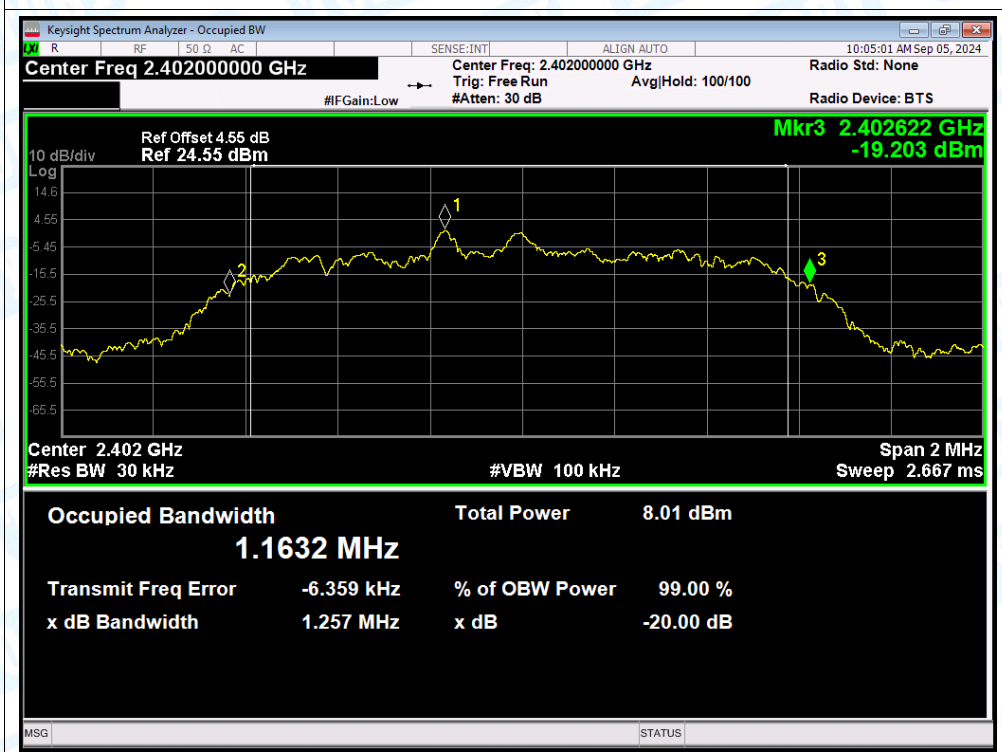
-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1



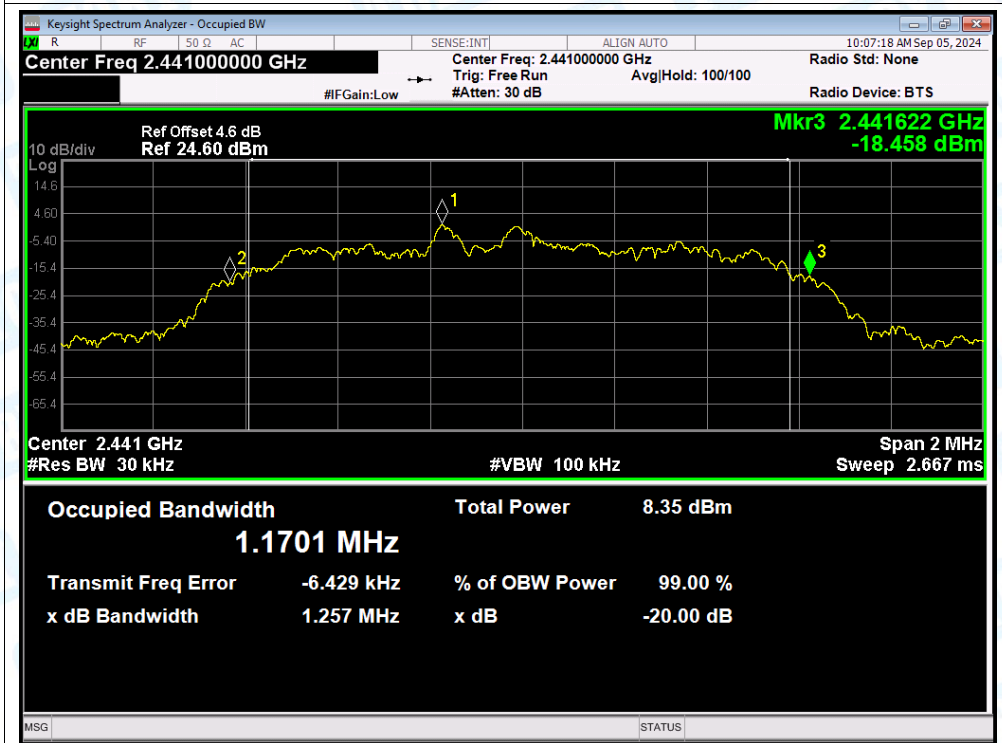
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



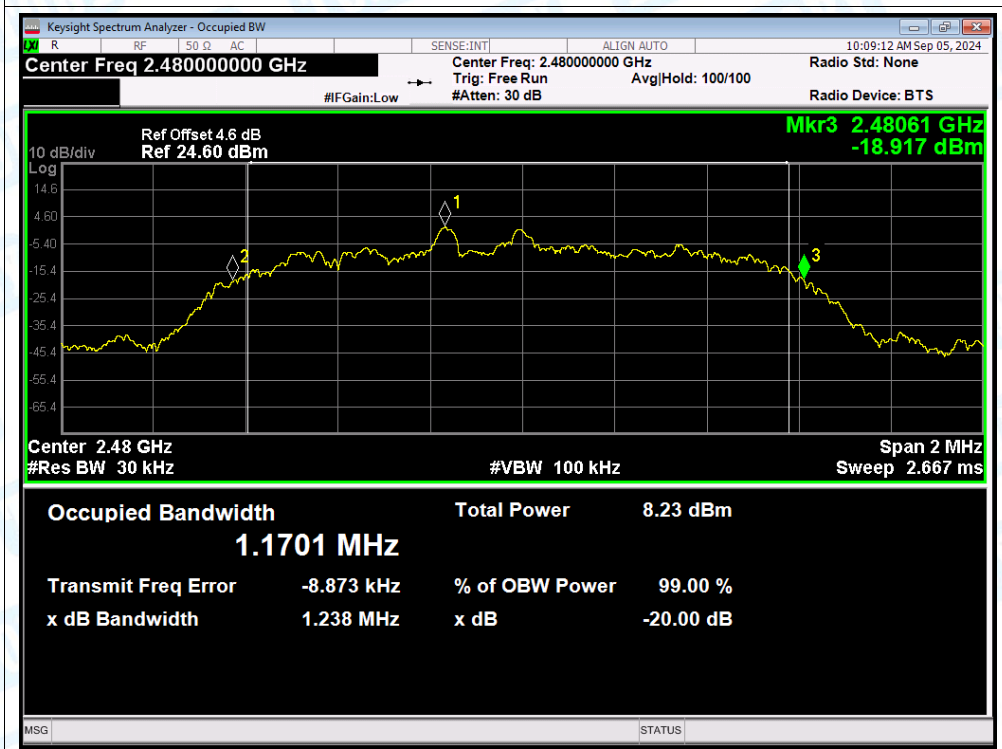
-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



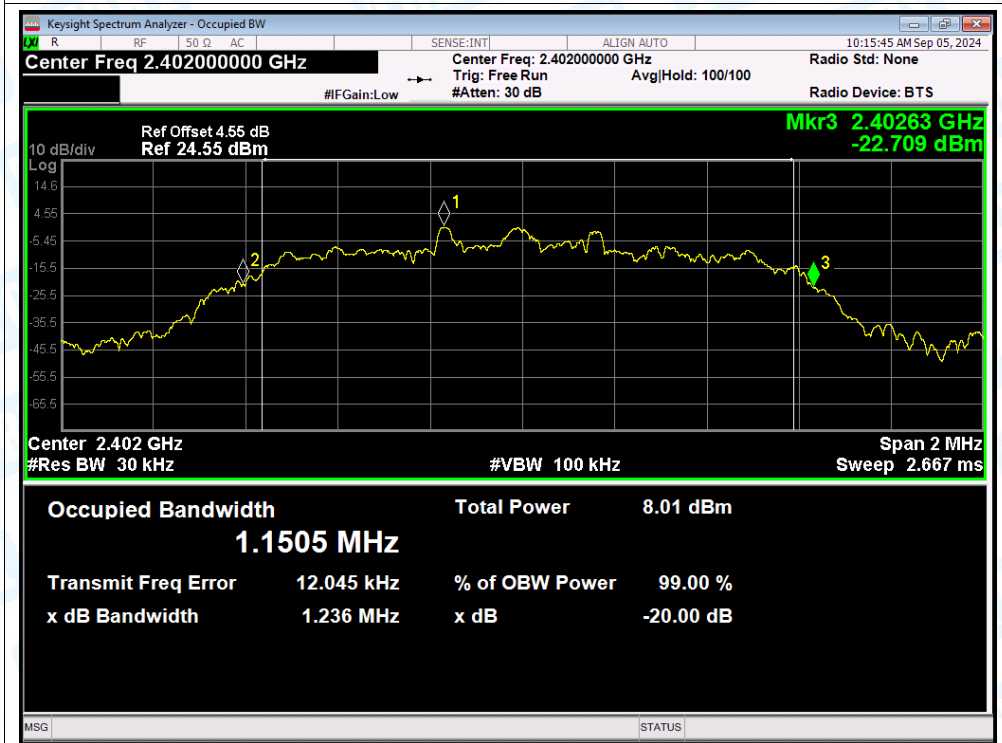
-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



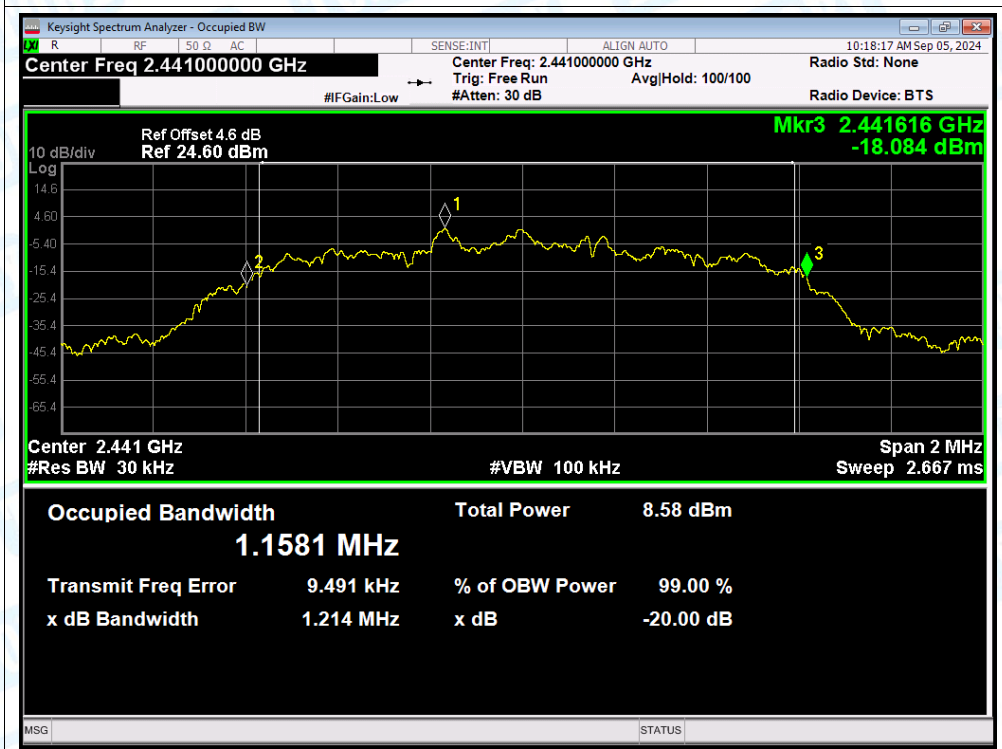
-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1

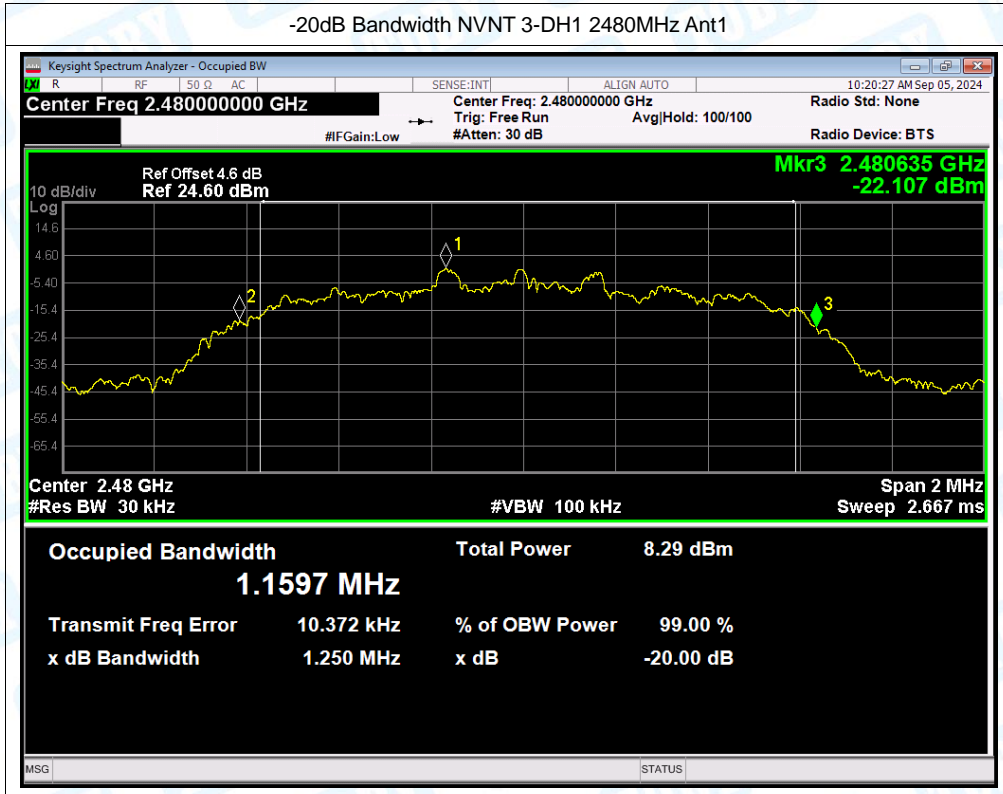


-20dB Bandwidth NVNT 3-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2441MHz Ant1



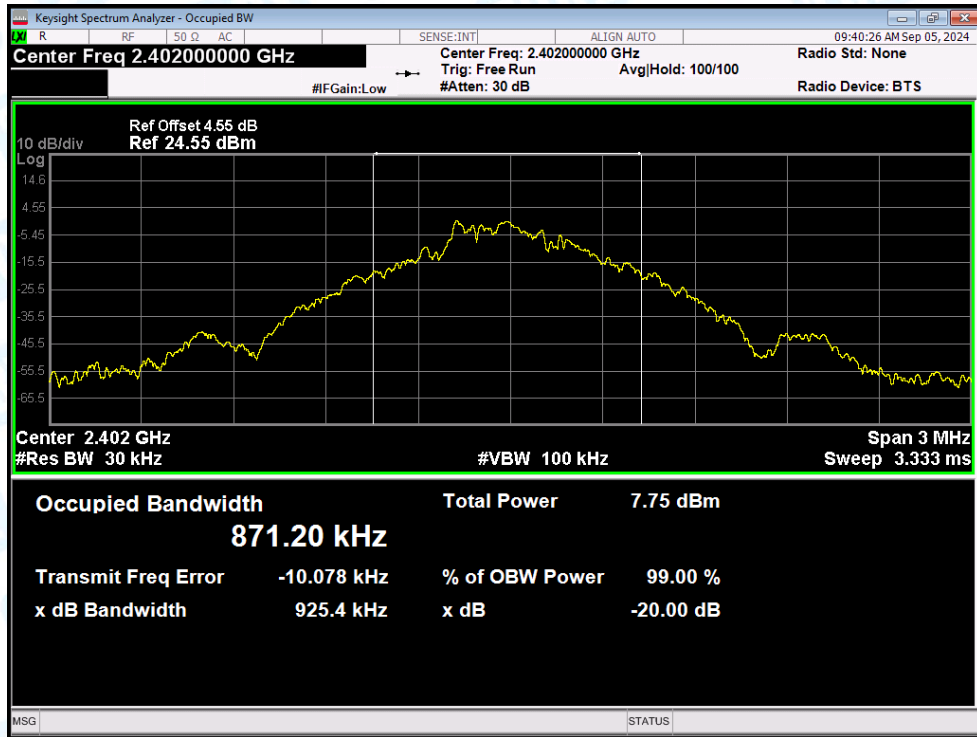


4. Occupied Channel Bandwidth

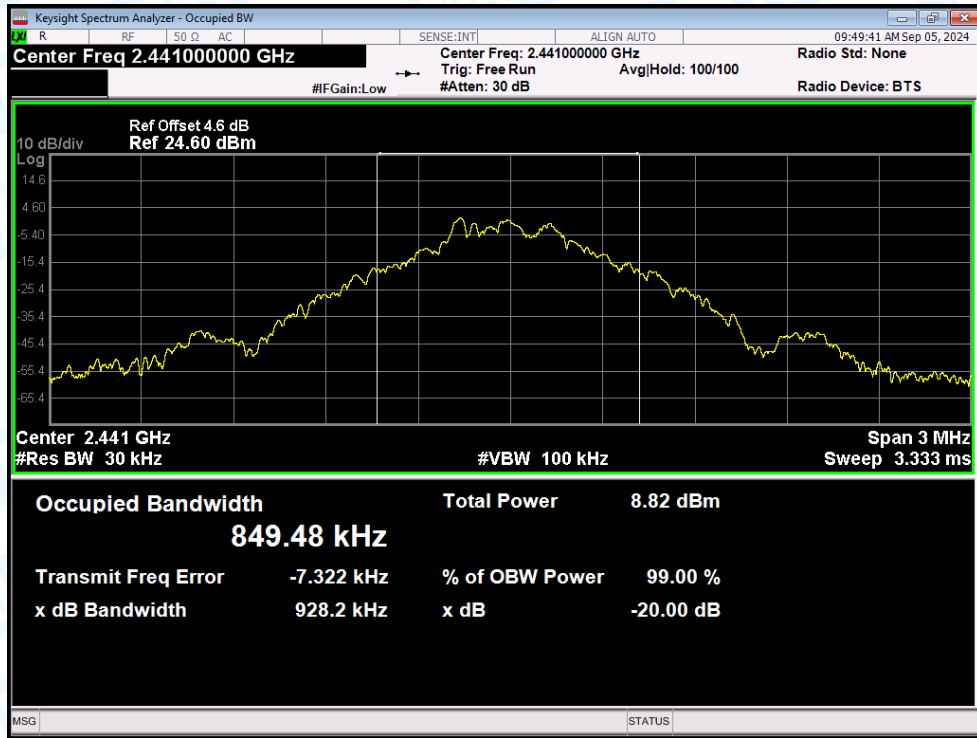
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH1	2402	Ant1	0.871
NVNT	1-DH1	2441	Ant1	0.849
NVNT	1-DH1	2480	Ant1	0.847
NVNT	2-DH1	2402	Ant1	1.179
NVNT	2-DH1	2441	Ant1	1.177
NVNT	2-DH1	2480	Ant1	1.151
NVNT	3-DH1	2402	Ant1	1.152
NVNT	3-DH1	2441	Ant1	1.166
NVNT	3-DH1	2480	Ant1	1.161

Test Graphs

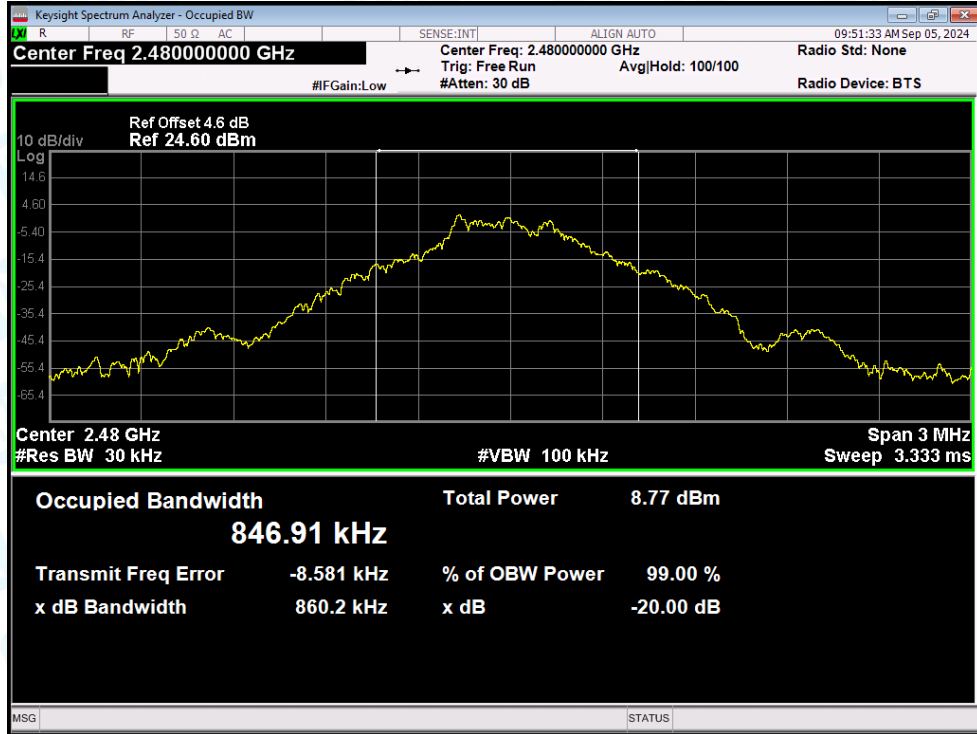
OBW NVNT 1-DH1 2402MHz Ant1



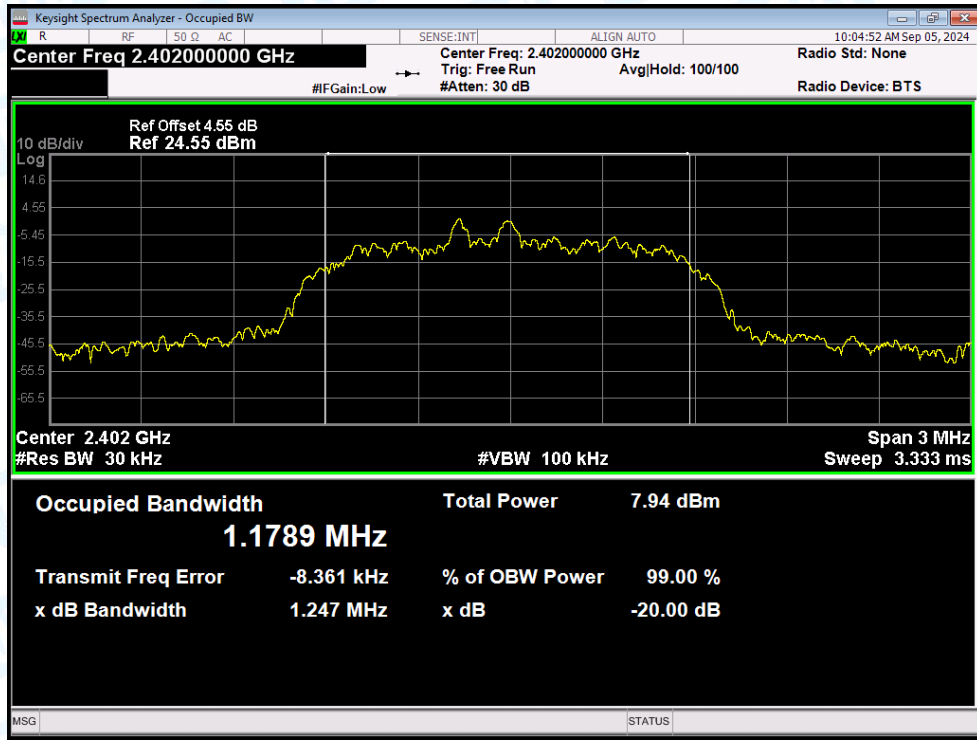
OBW NVNT 1-DH1 2441MHz Ant1



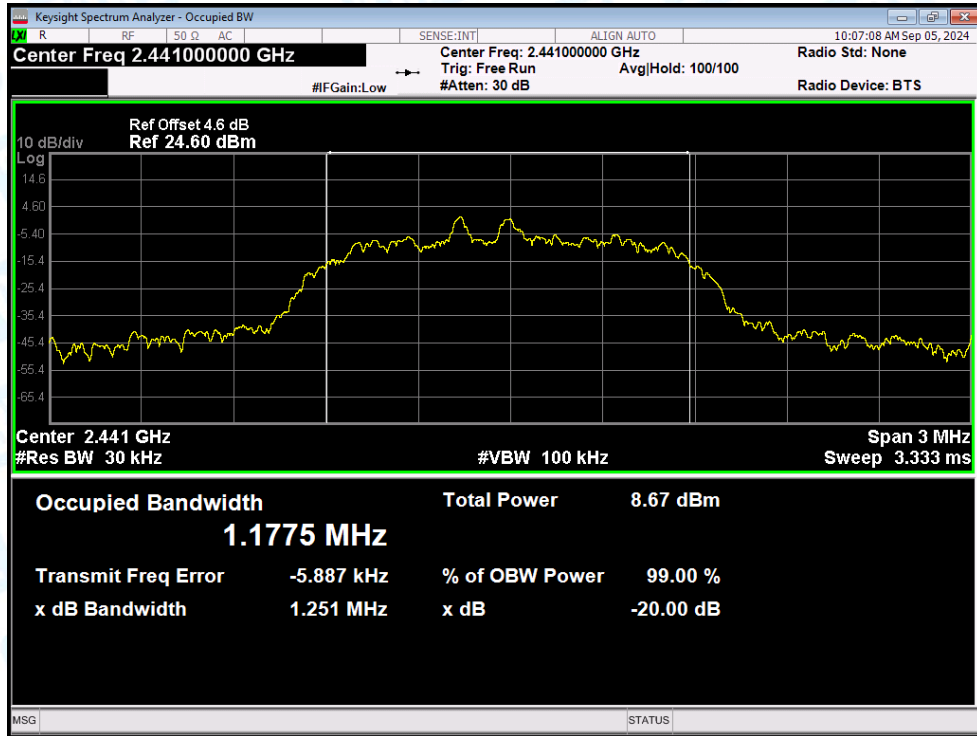
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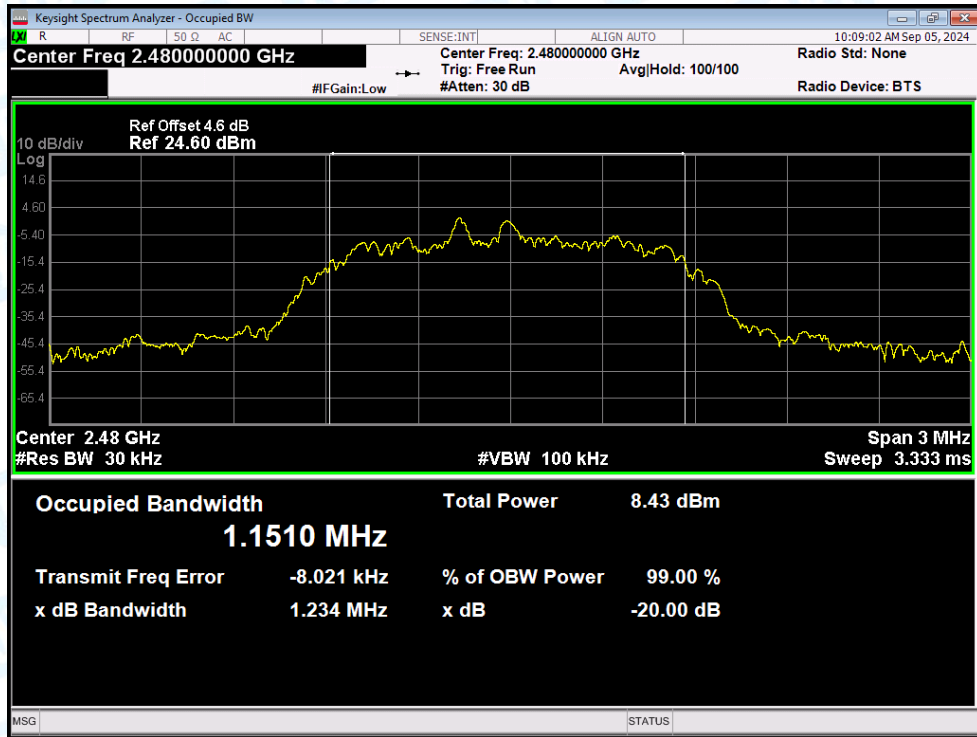
OBW NVNT 2-DH1 2402MHz Ant1



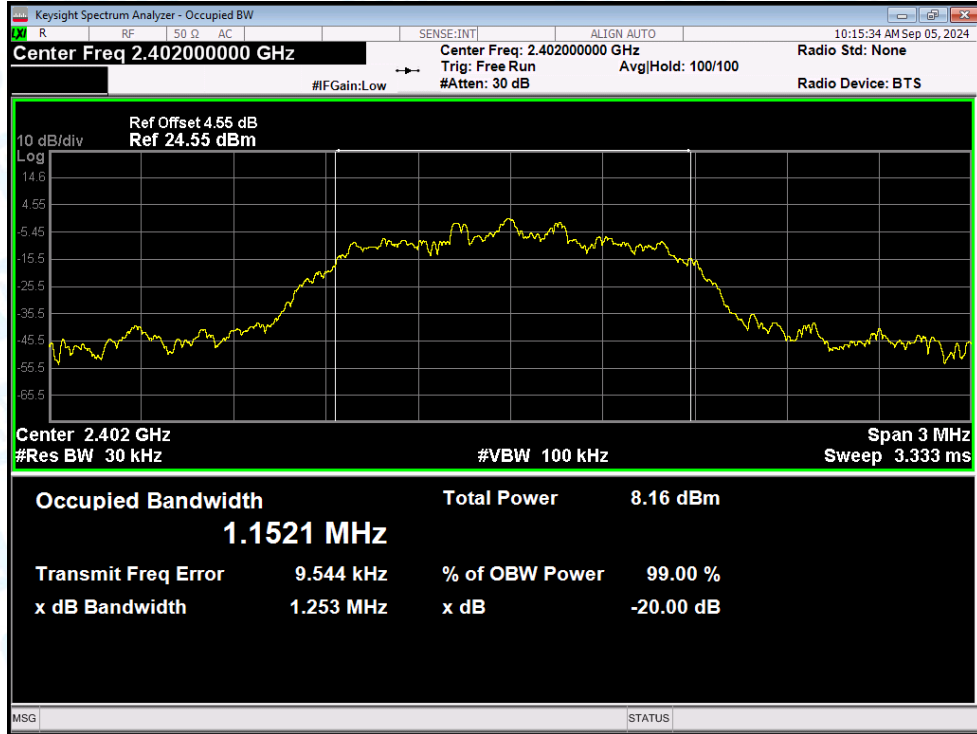
OBW NVNT 2-DH1 2441MHz Ant1



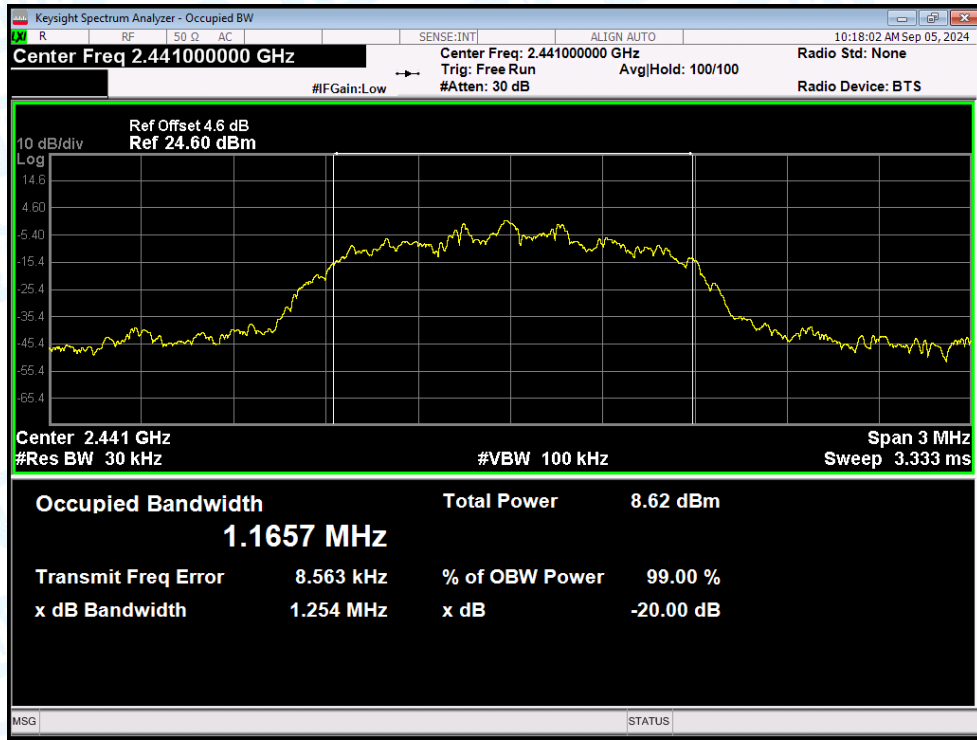
OBW NVNT 2-DH1 2480MHz Ant1

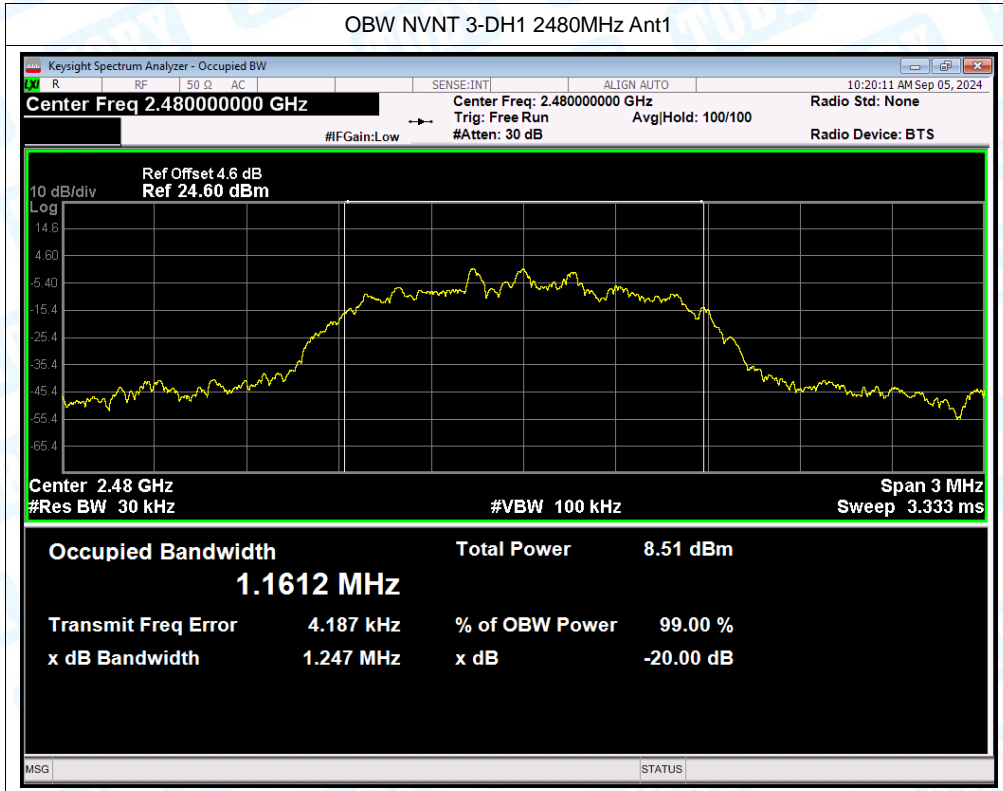


OBW NVNT 3-DH1 2402MHz Ant1



OBW NVNT 3-DH1 2441MHz Ant1



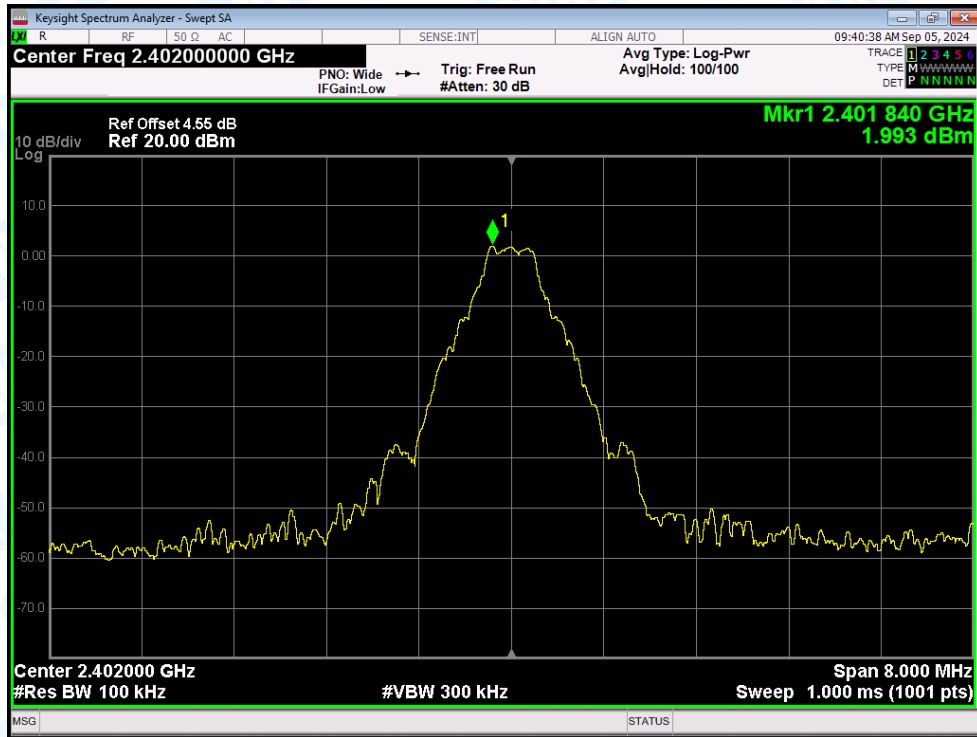


5. Band Edge

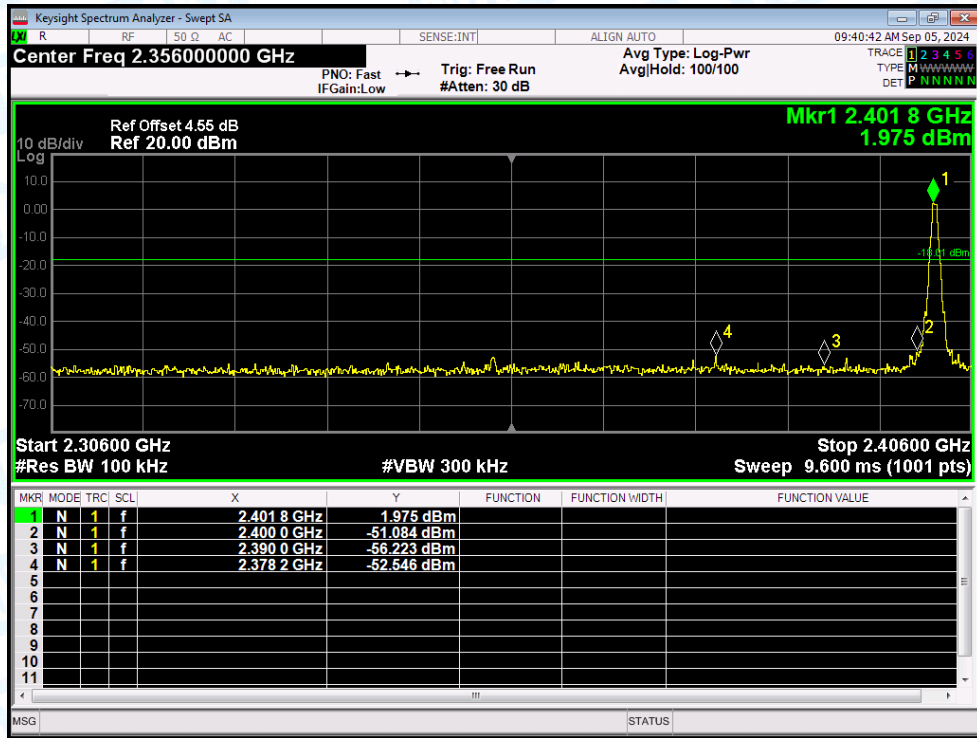
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-54.54	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-56.44	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-54.89	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-55.36	-20	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	-53.09	-20	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	-56.13	-20	Pass

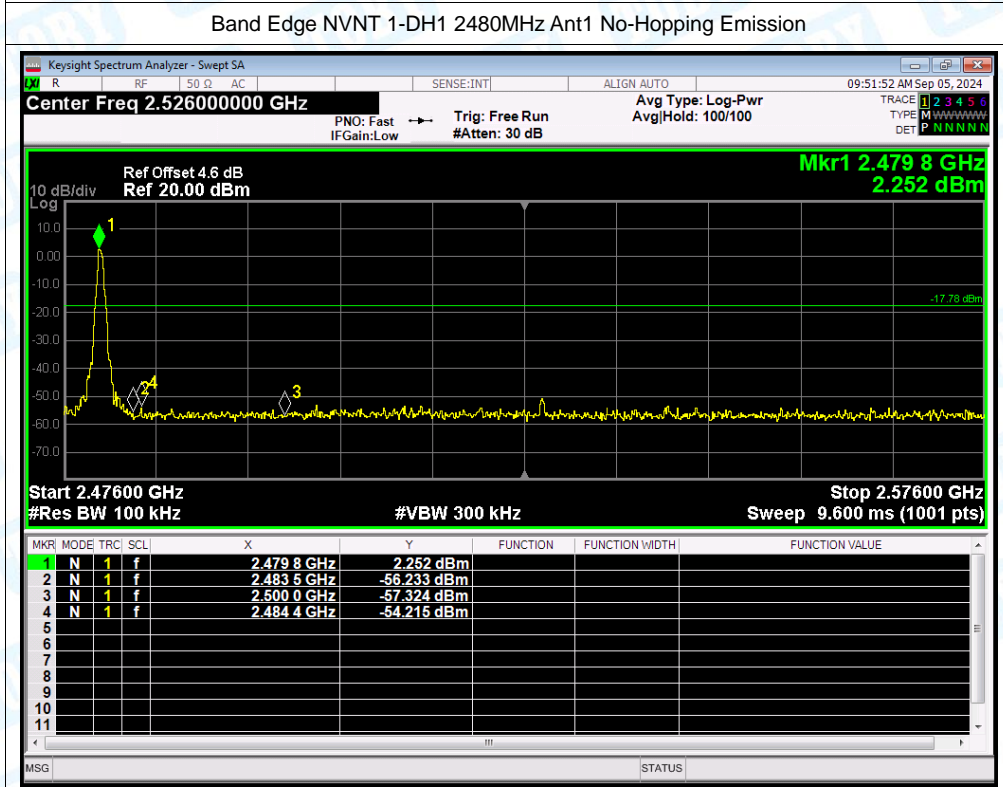
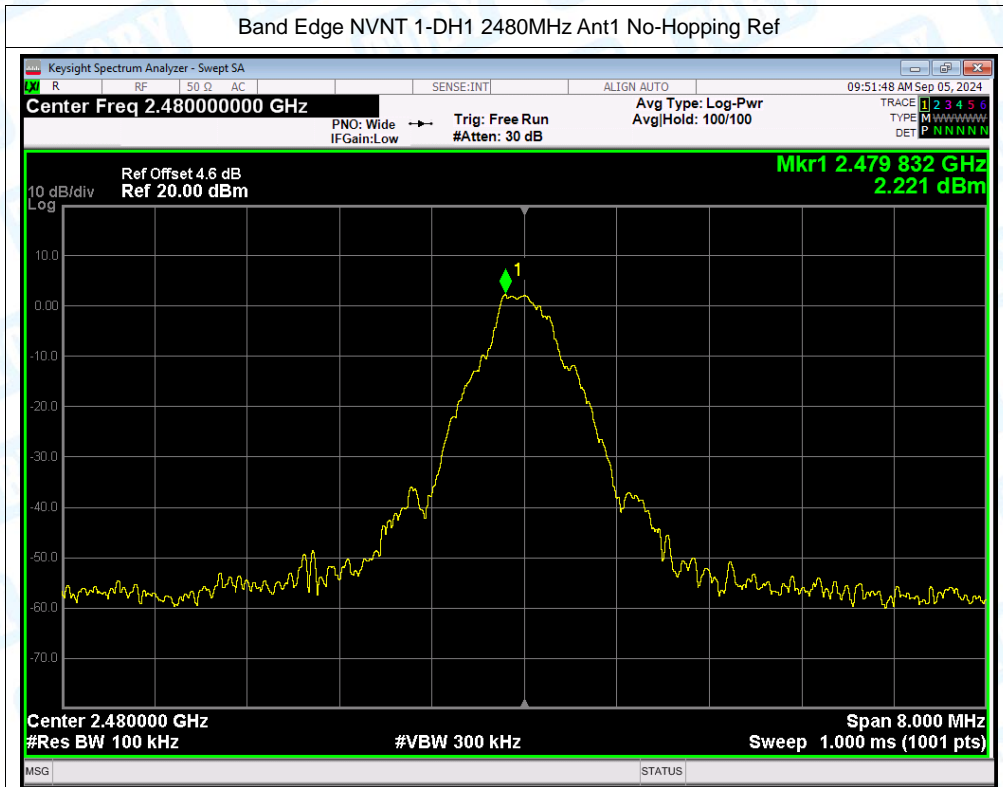
Test Graphs

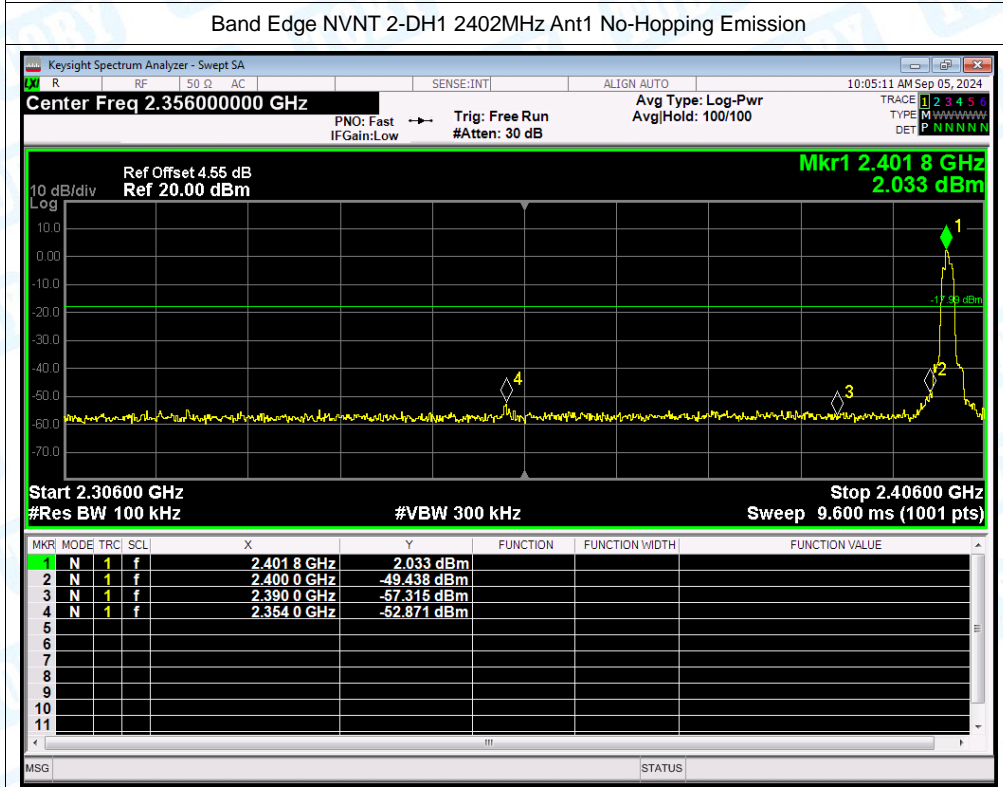
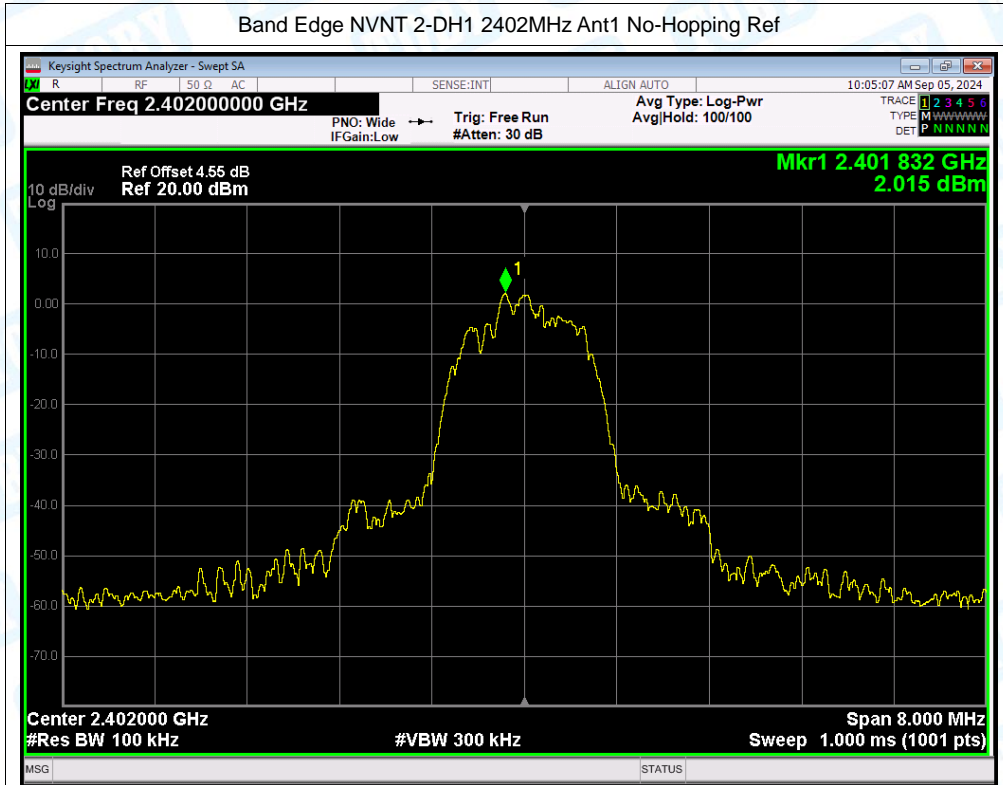
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Ref

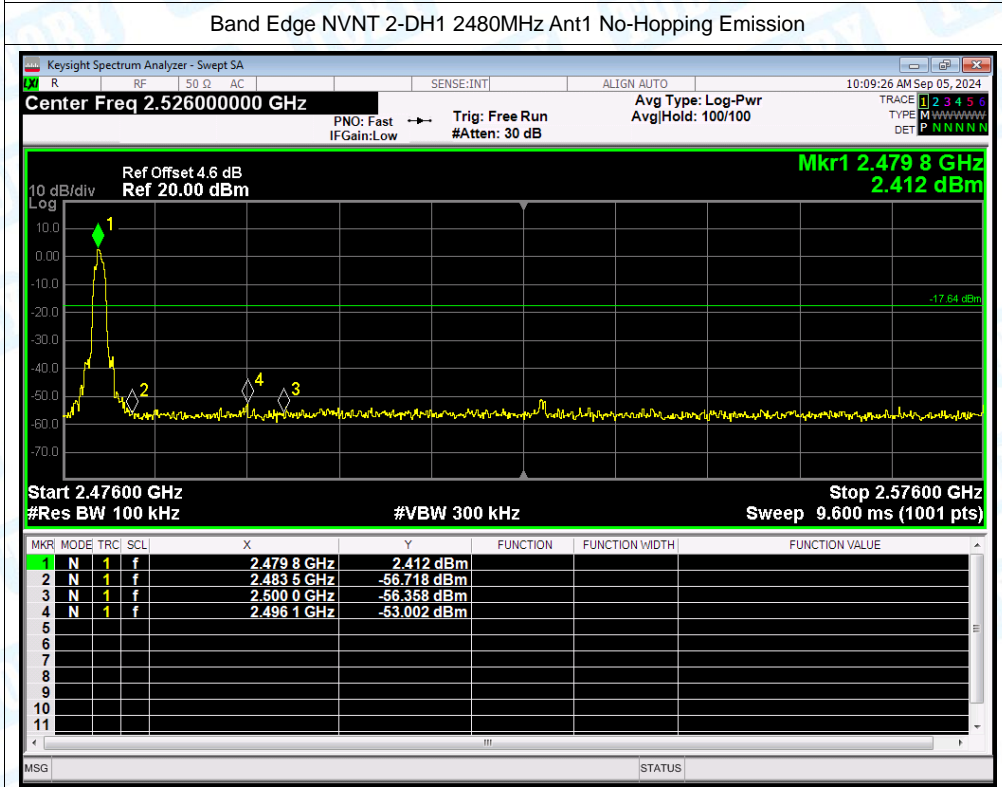
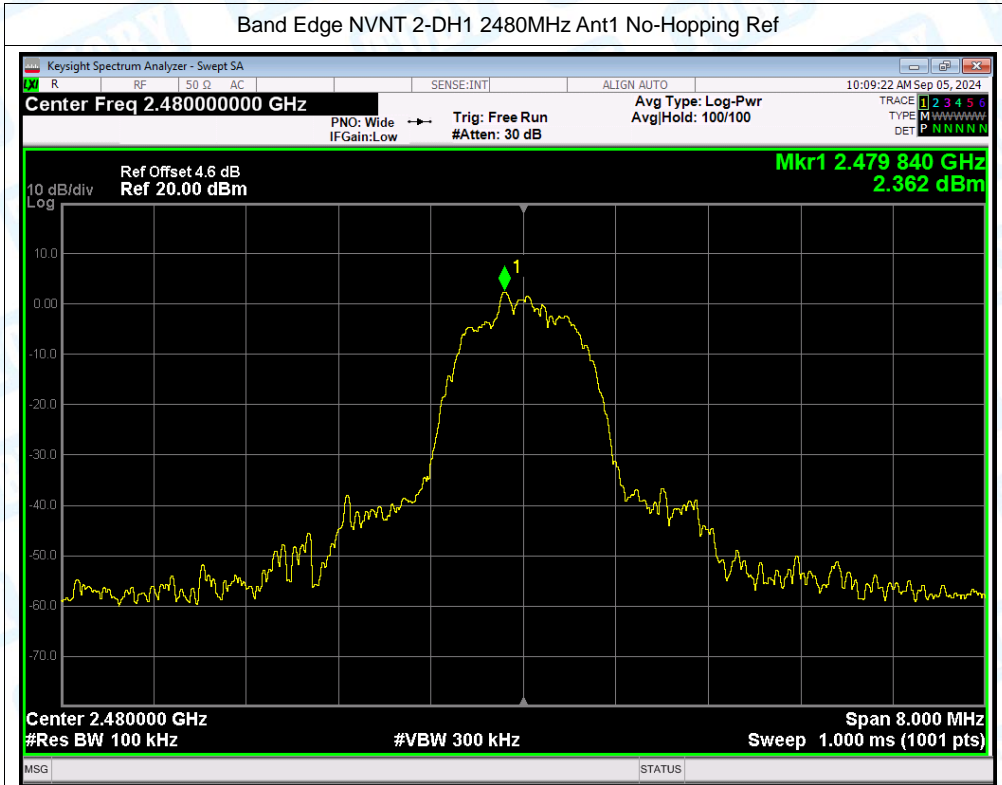


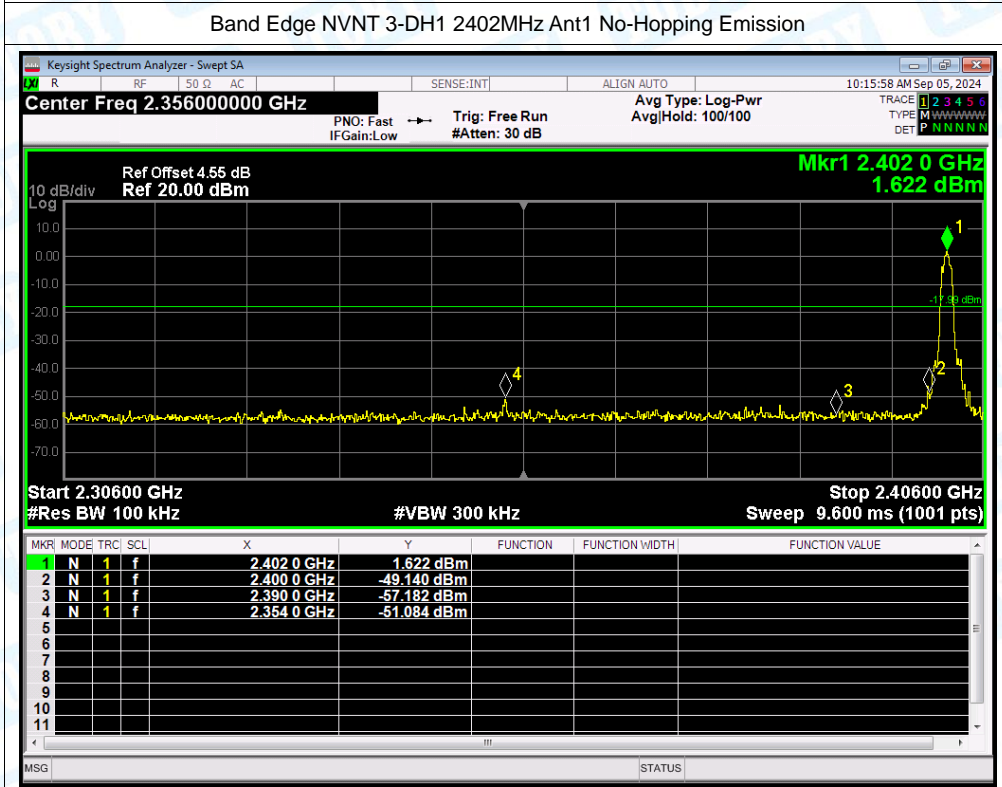
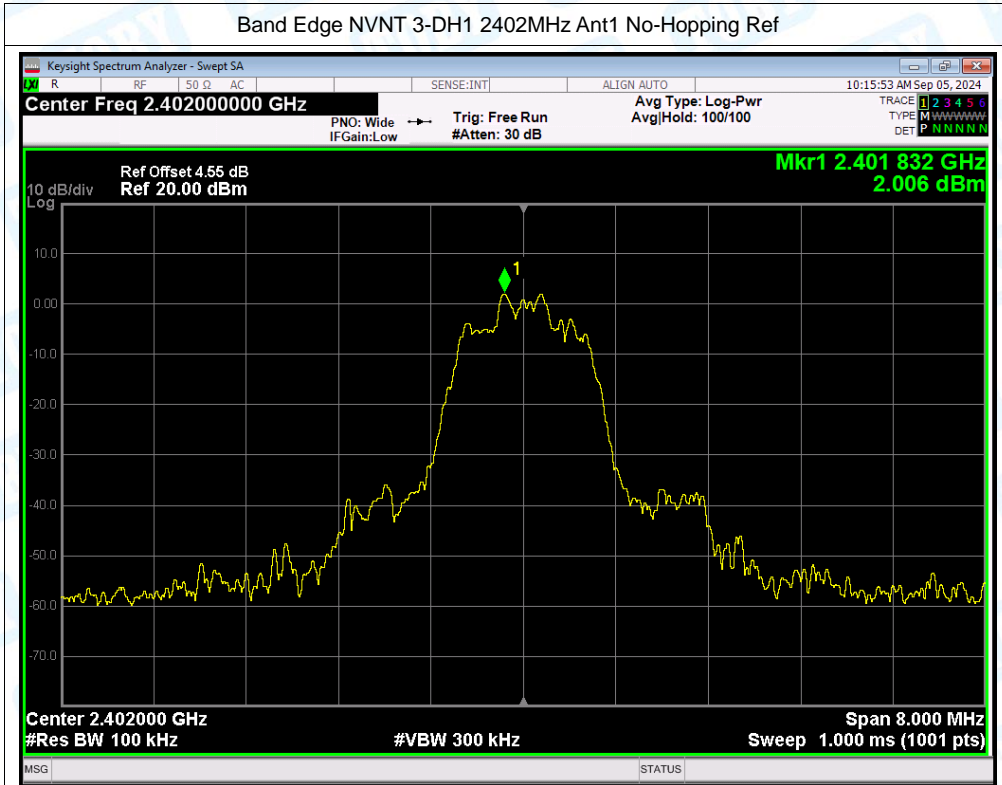
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission

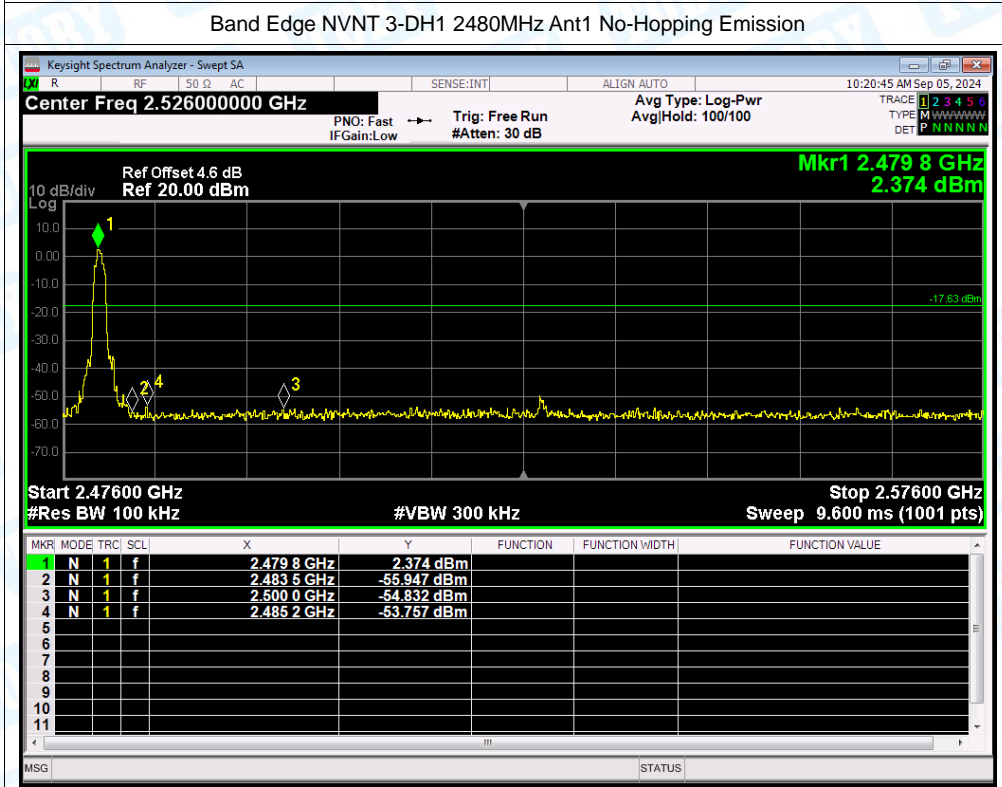
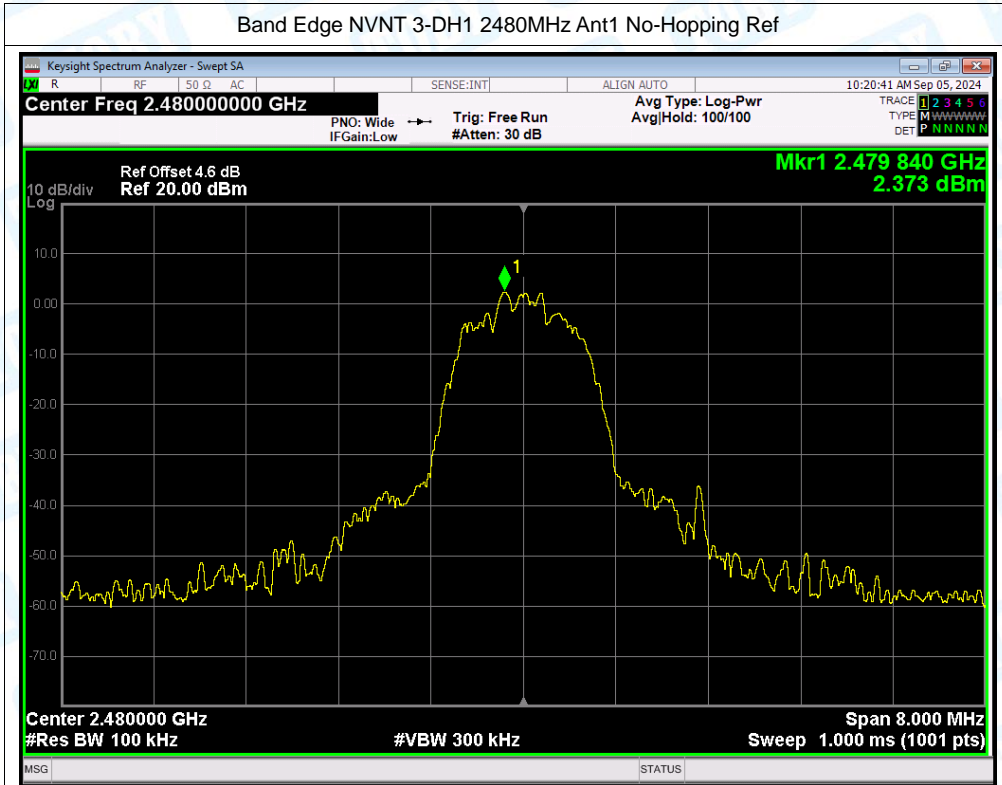










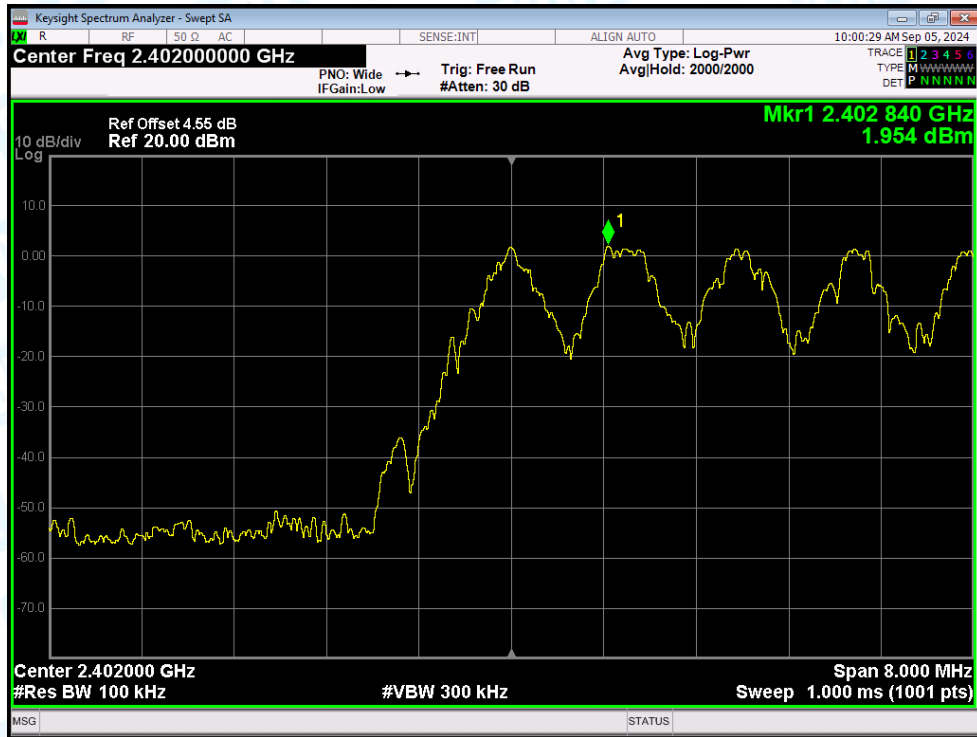


6. Band Edge(Hopping)

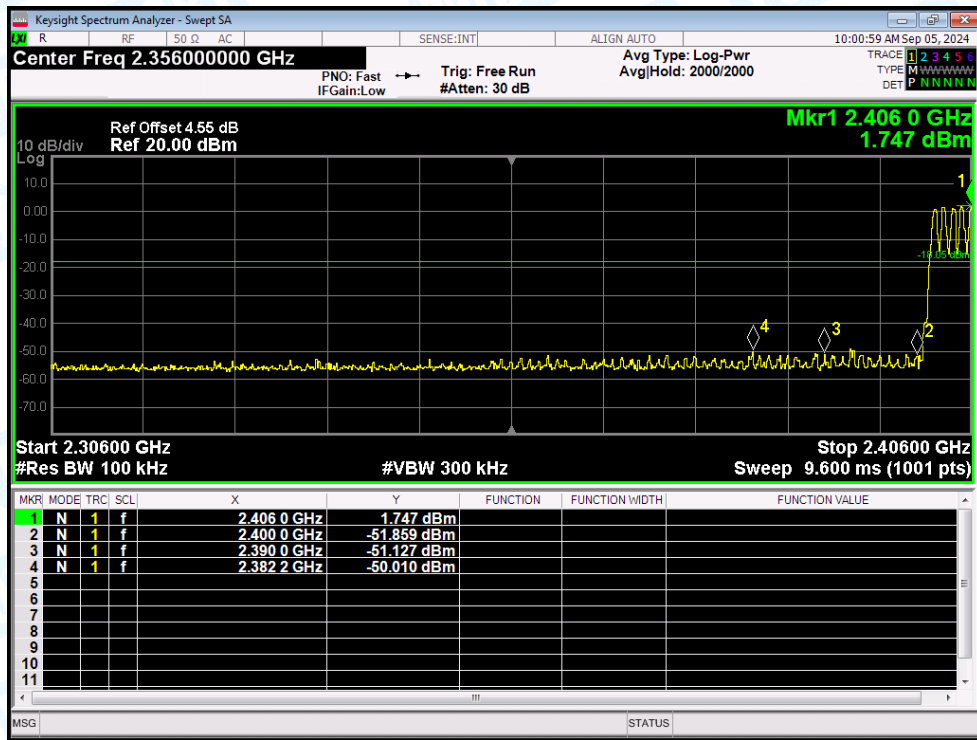
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-51.96	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-52.1	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-53.07	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-52.19	-20	Pass
NVNT	3-DH1	2402	Ant1	Hopping	-52.35	-20	Pass
NVNT	3-DH1	2480	Ant1	Hopping	-50.99	-20	Pass

Test Graphs

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



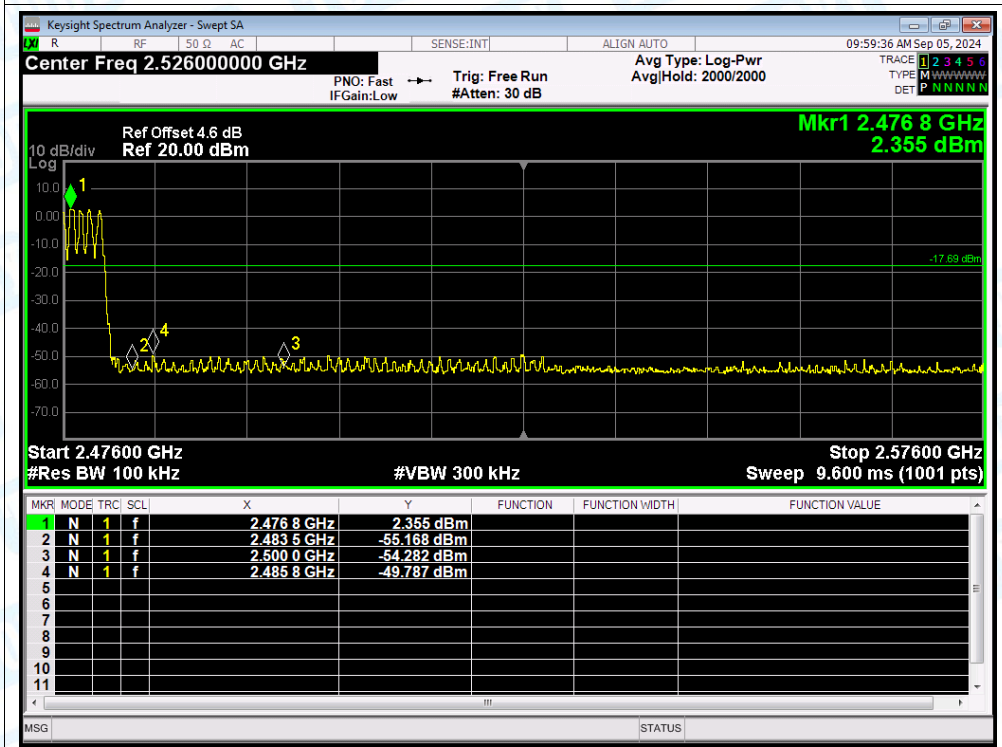
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Emission

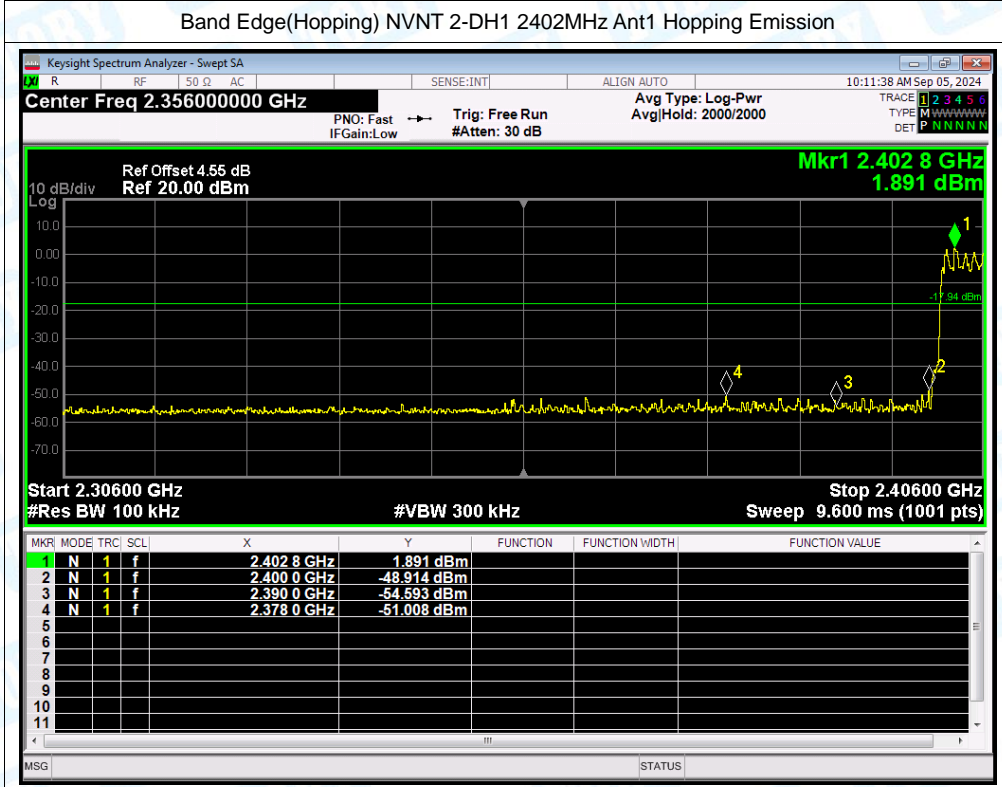
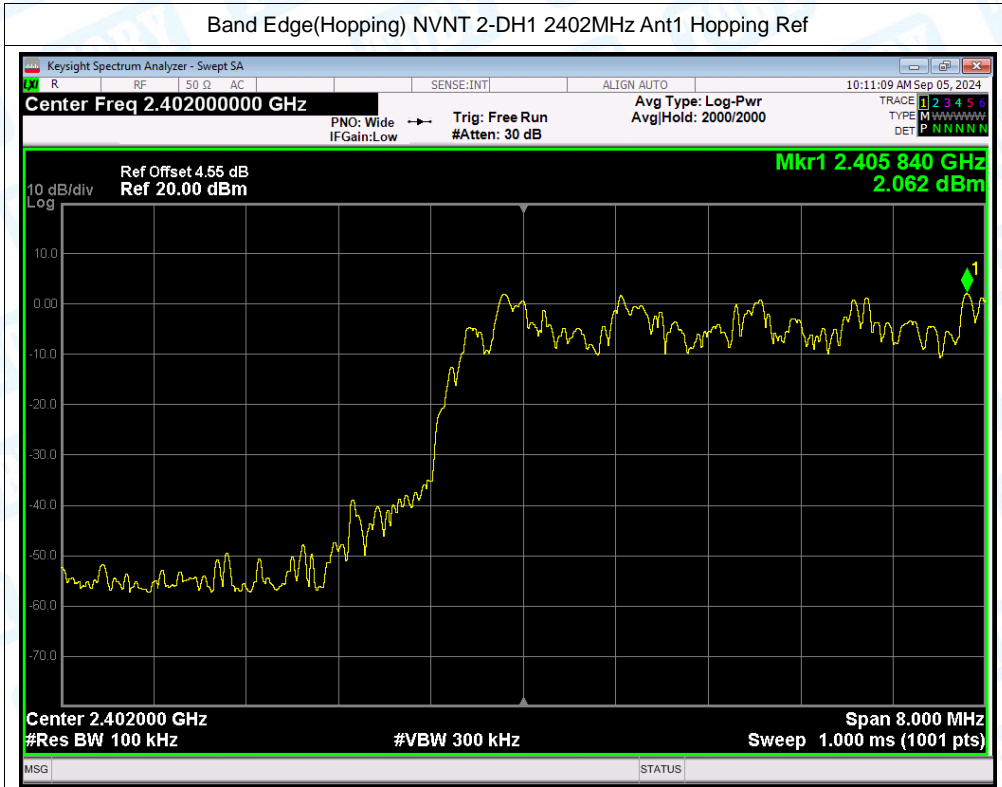


Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Ref



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

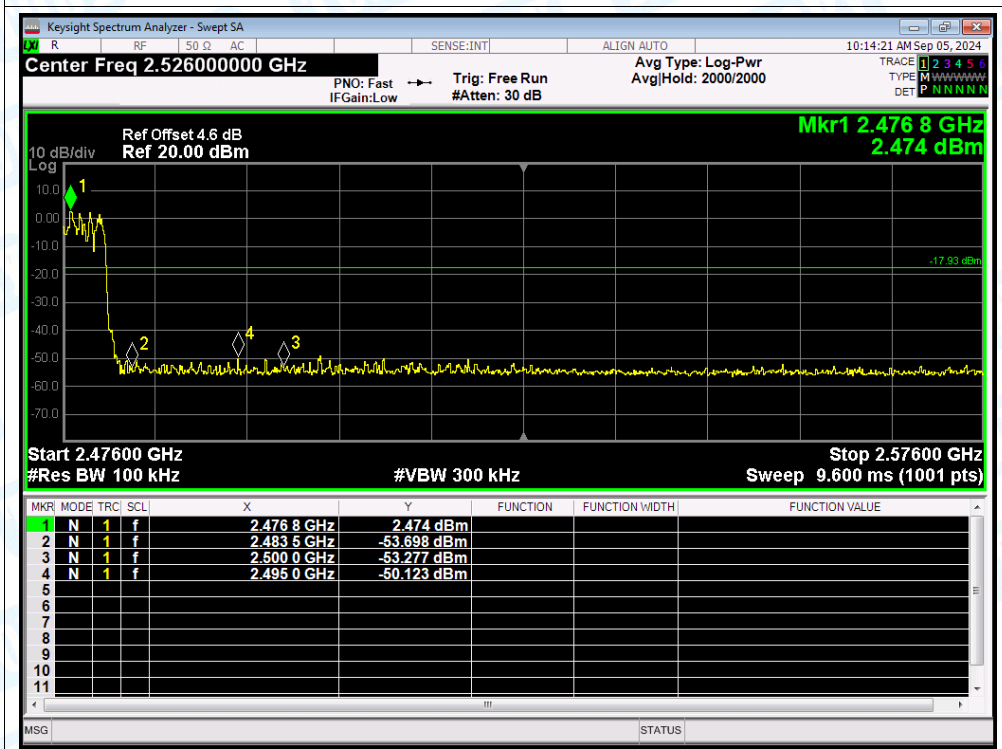


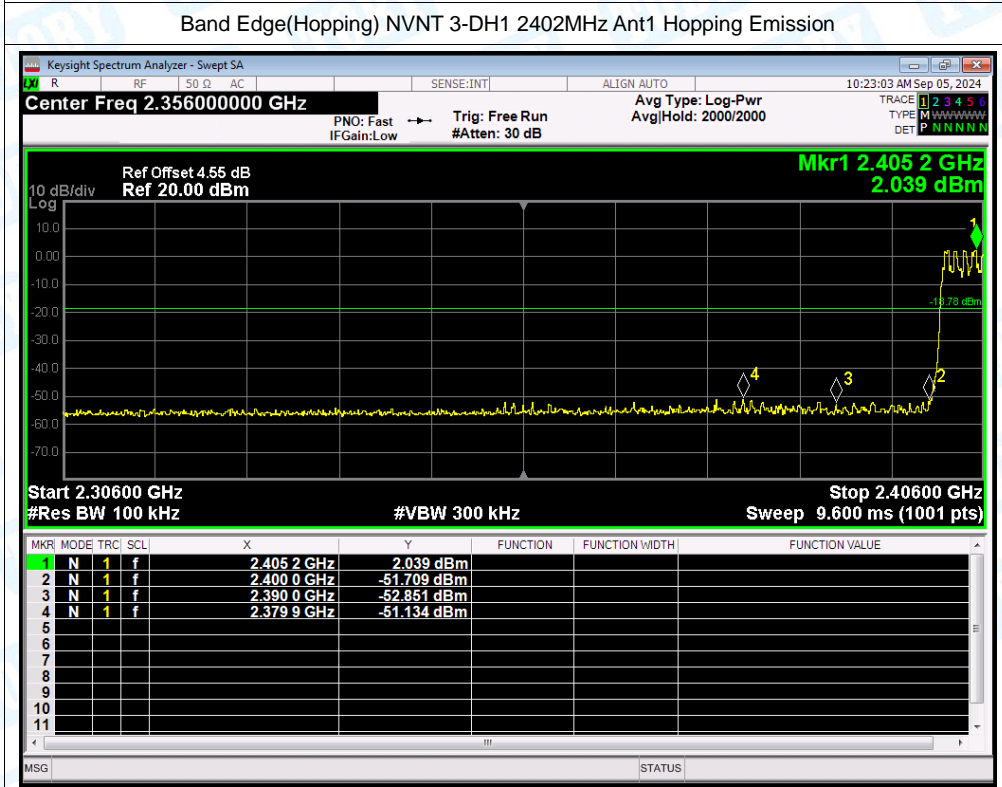
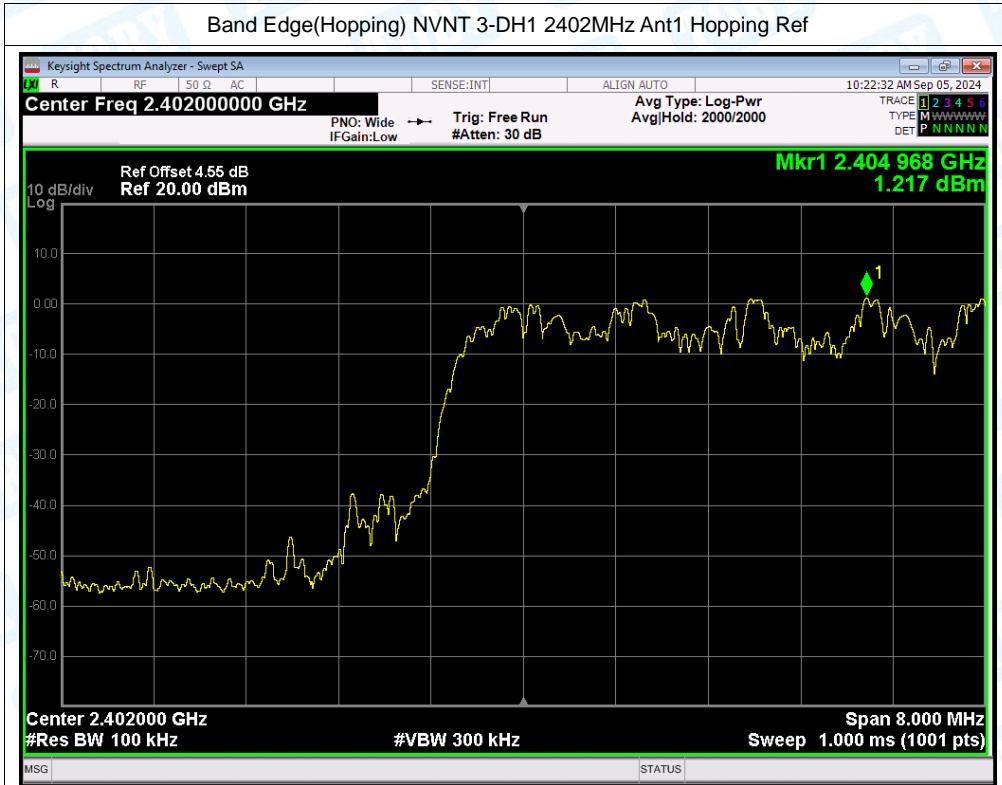


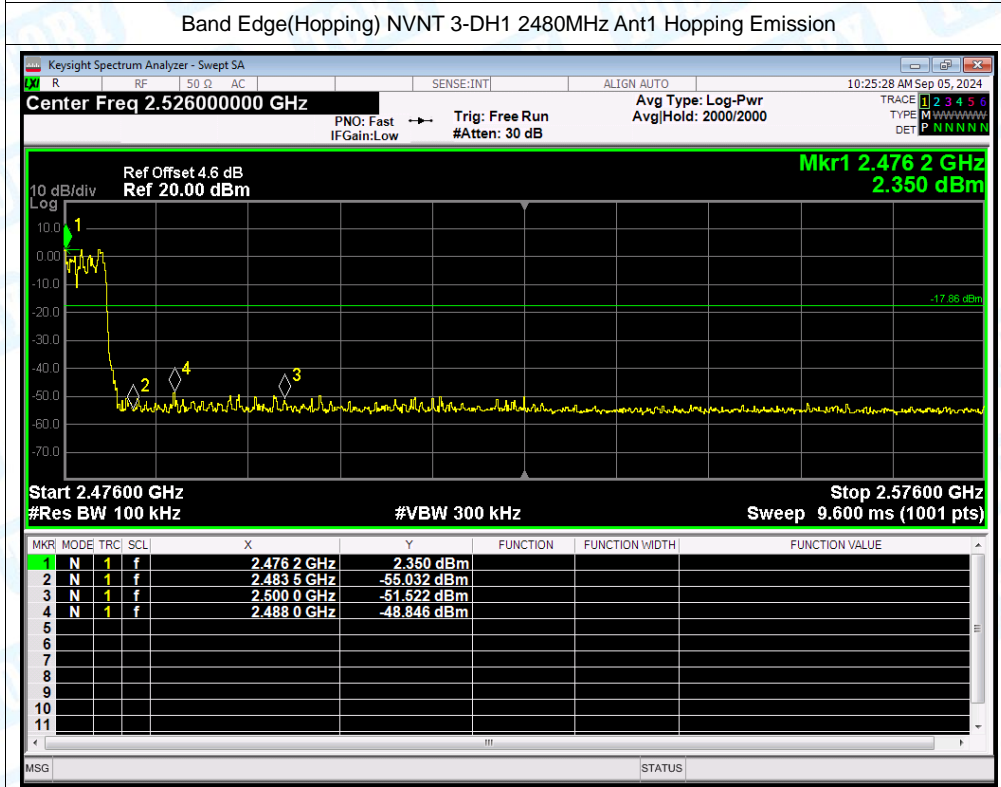
Band Edge(Hopping) NVNT 2-DH1 2480MHz Ant1 Hopping Ref



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





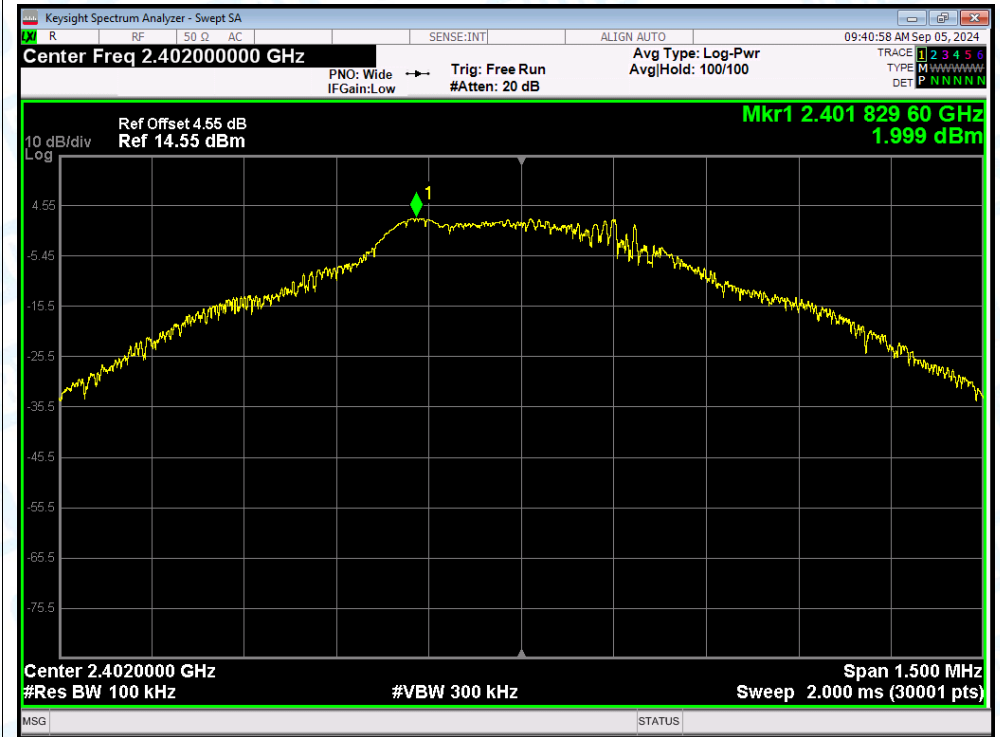


7. Conducted RF Spurious Emission

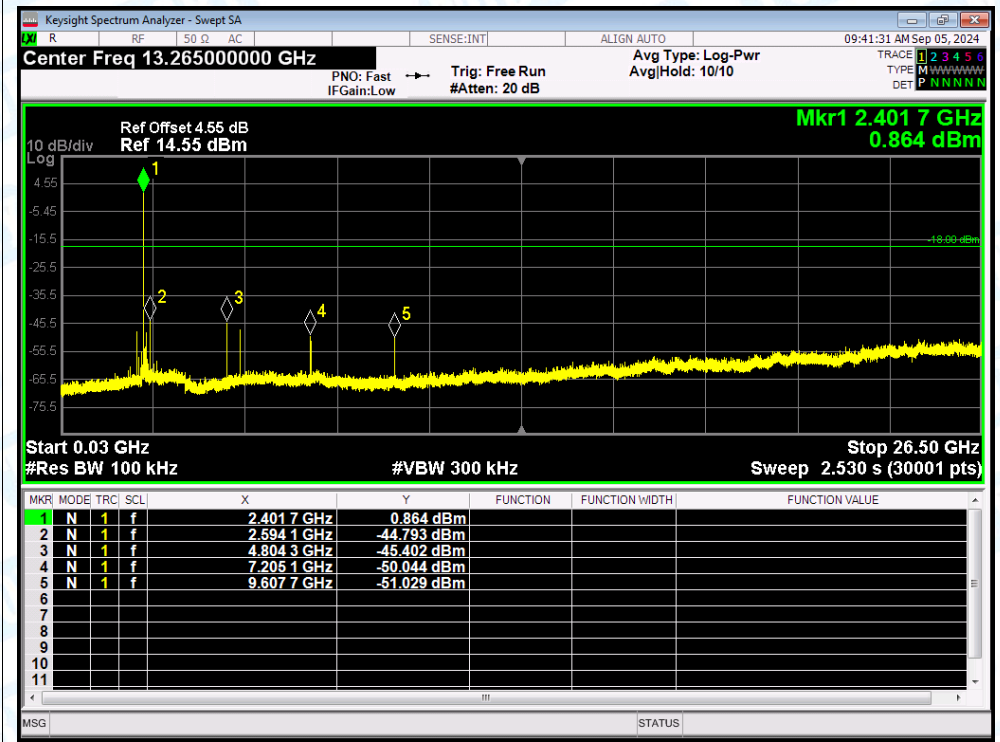
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	-46.79	-20	Pass
NVNT	1-DH1	2441	Ant1	-46.06	-20	Pass
NVNT	1-DH1	2480	Ant1	-47.64	-20	Pass
NVNT	2-DH1	2402	Ant1	-47.46	-20	Pass
NVNT	2-DH1	2441	Ant1	-47.78	-20	Pass
NVNT	2-DH1	2480	Ant1	-48.04	-20	Pass
NVNT	3-DH1	2402	Ant1	-47.38	-20	Pass
NVNT	3-DH1	2441	Ant1	-49.6	-20	Pass
NVNT	3-DH1	2480	Ant1	-47.38	-20	Pass

Test Graphs

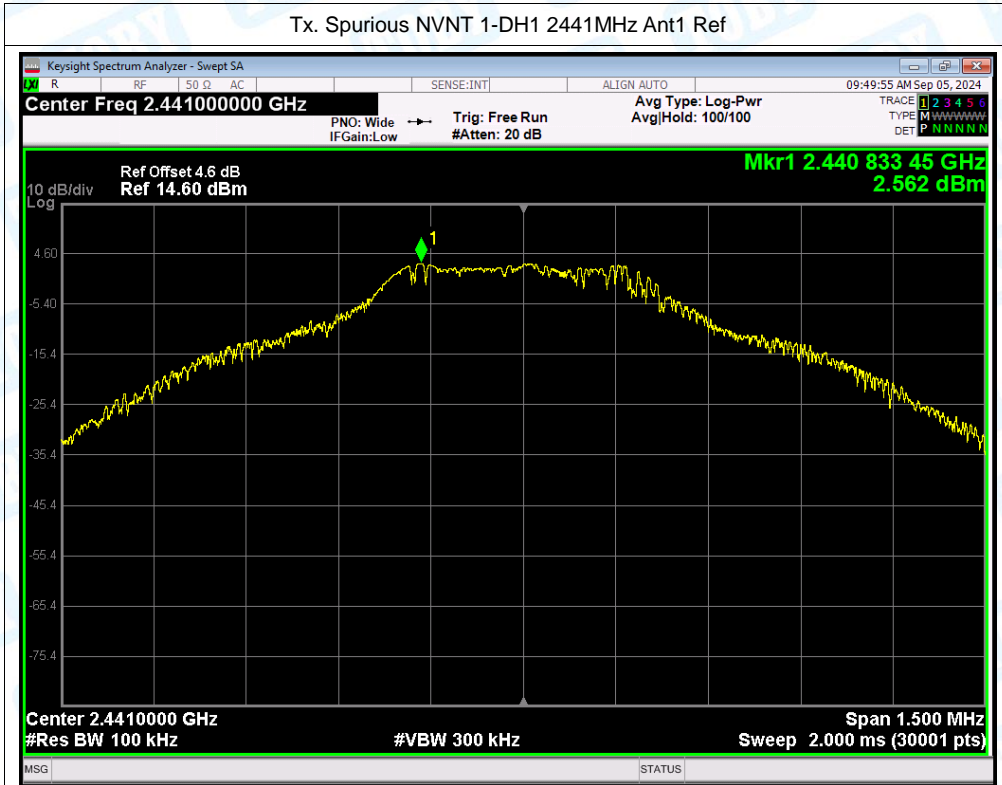
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Ref



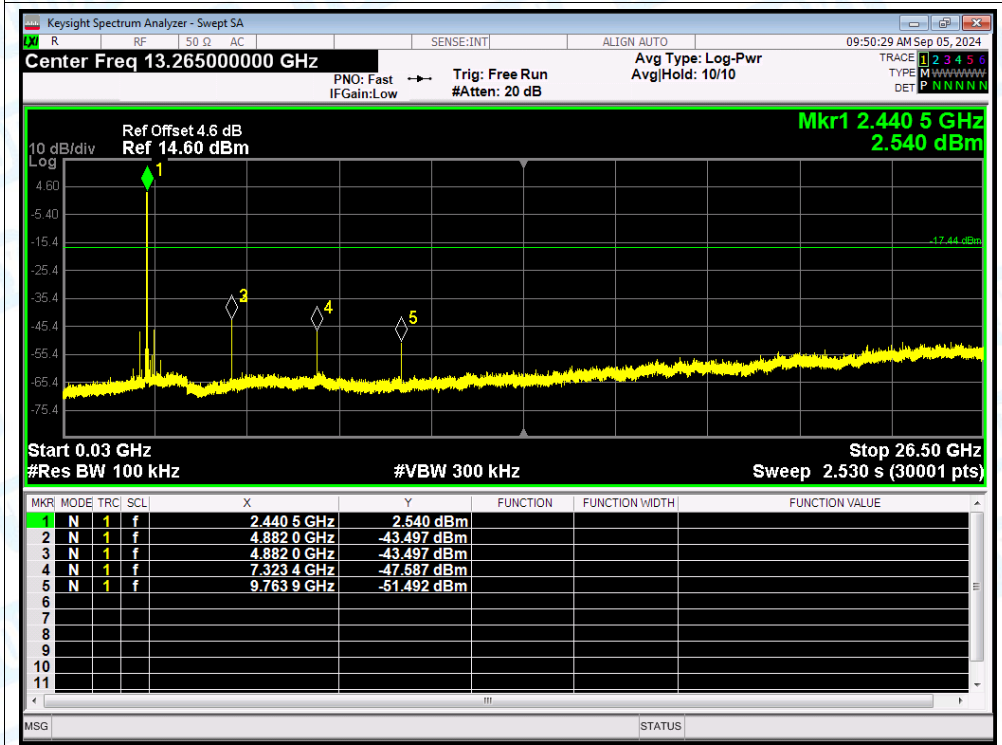
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Emission



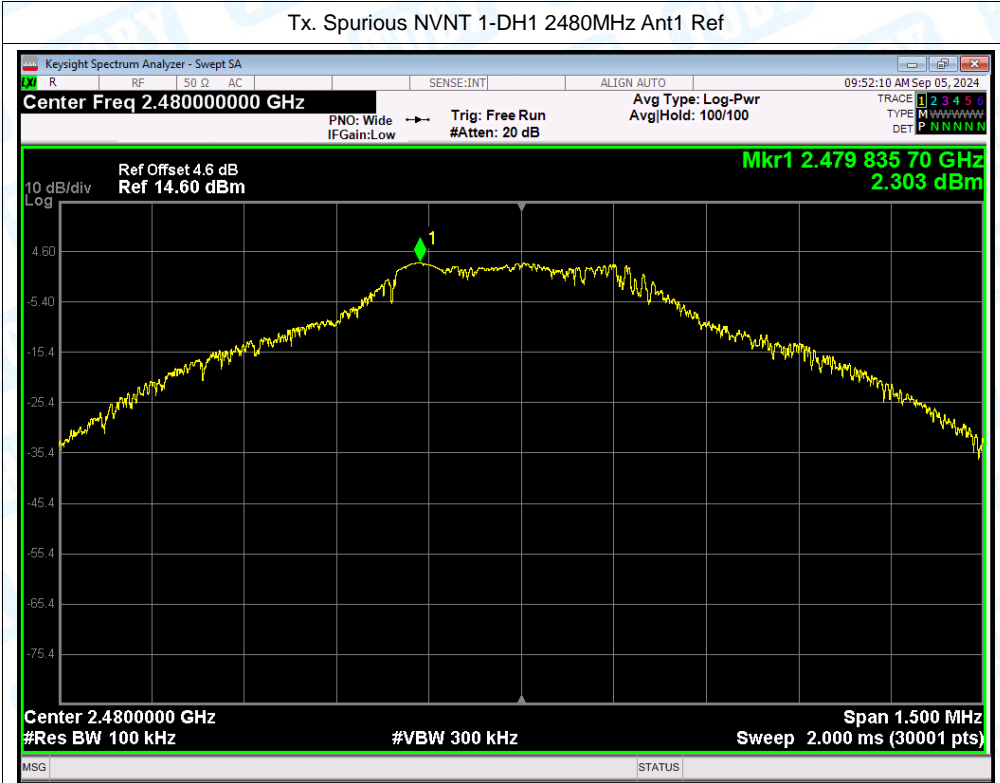
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Ref



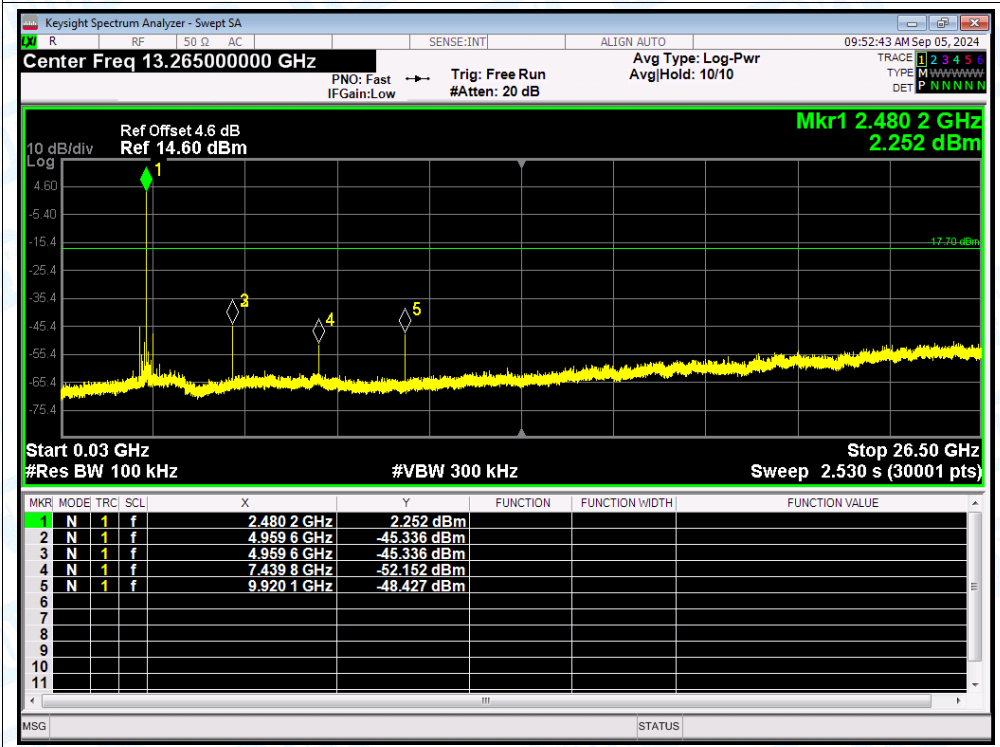
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Emission



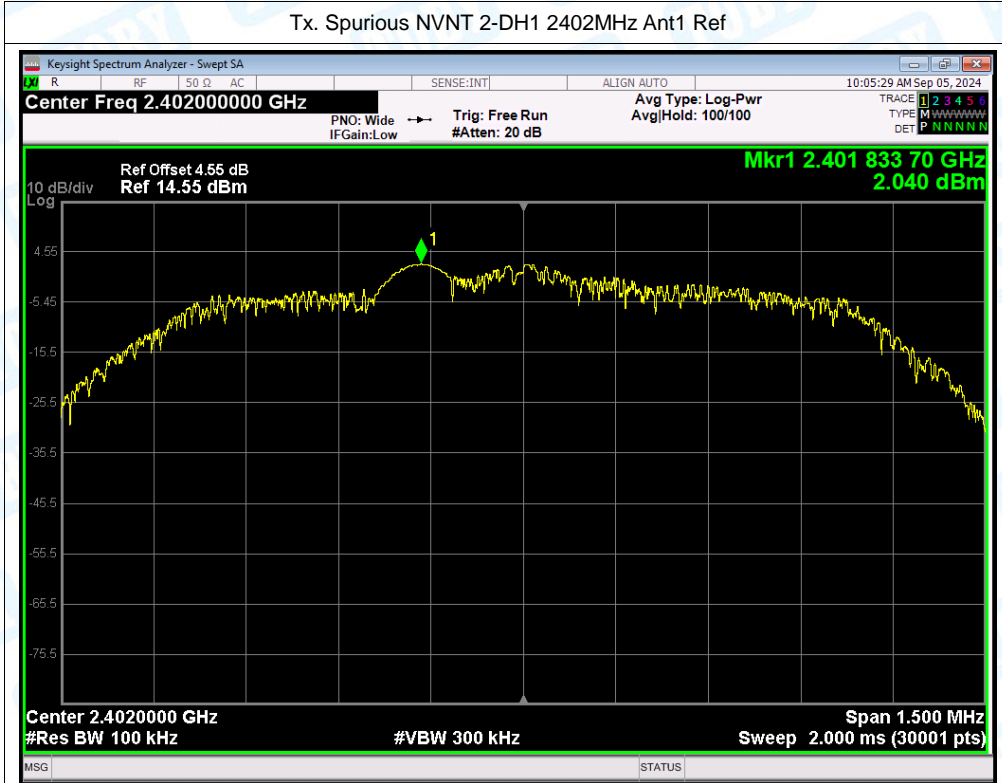
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Ref



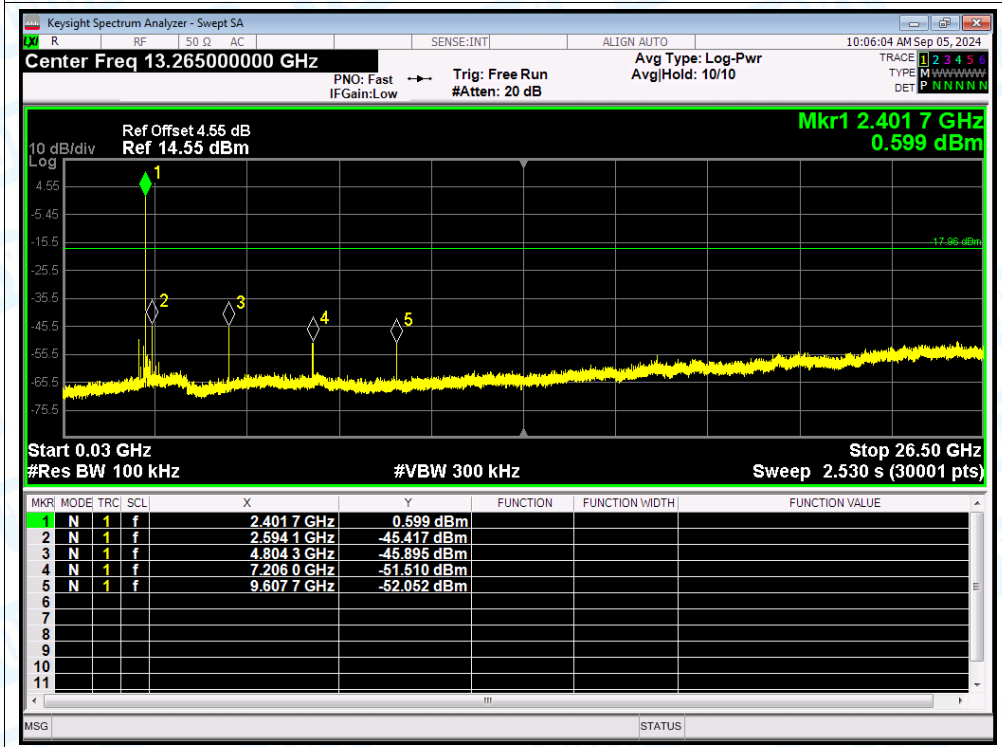
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Emission



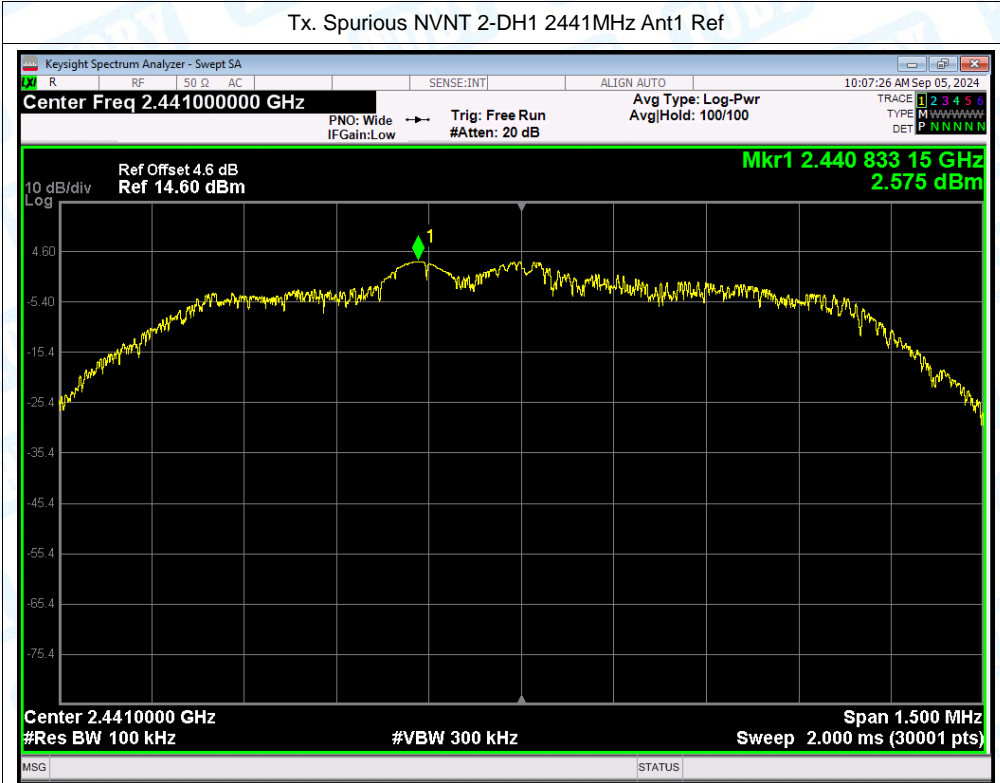
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Ref



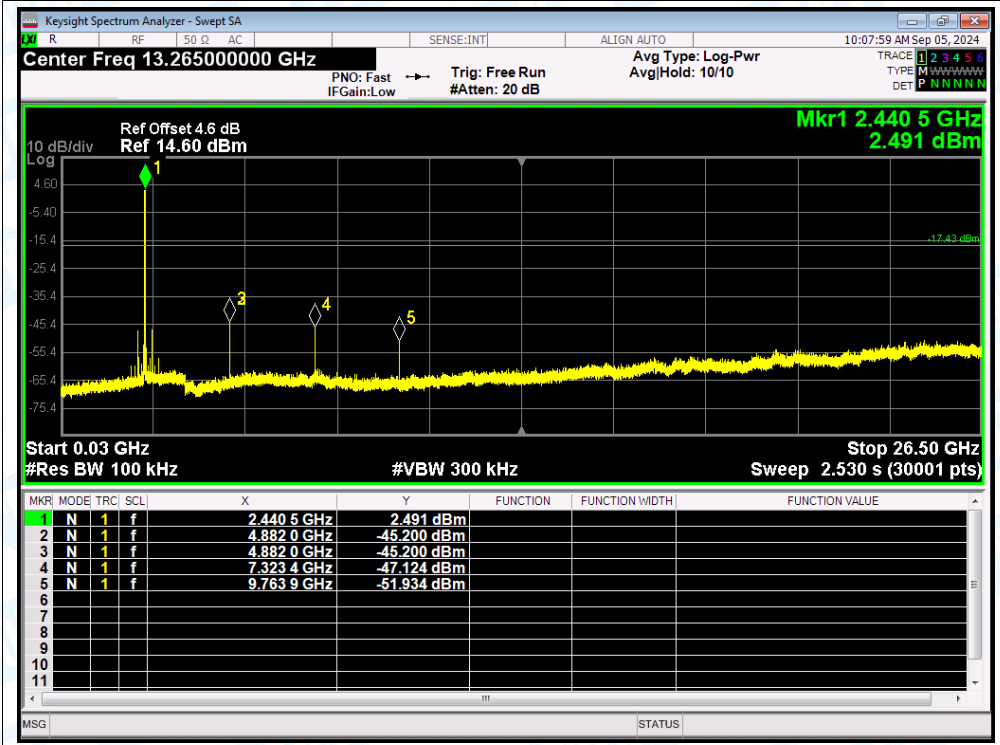
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Emission



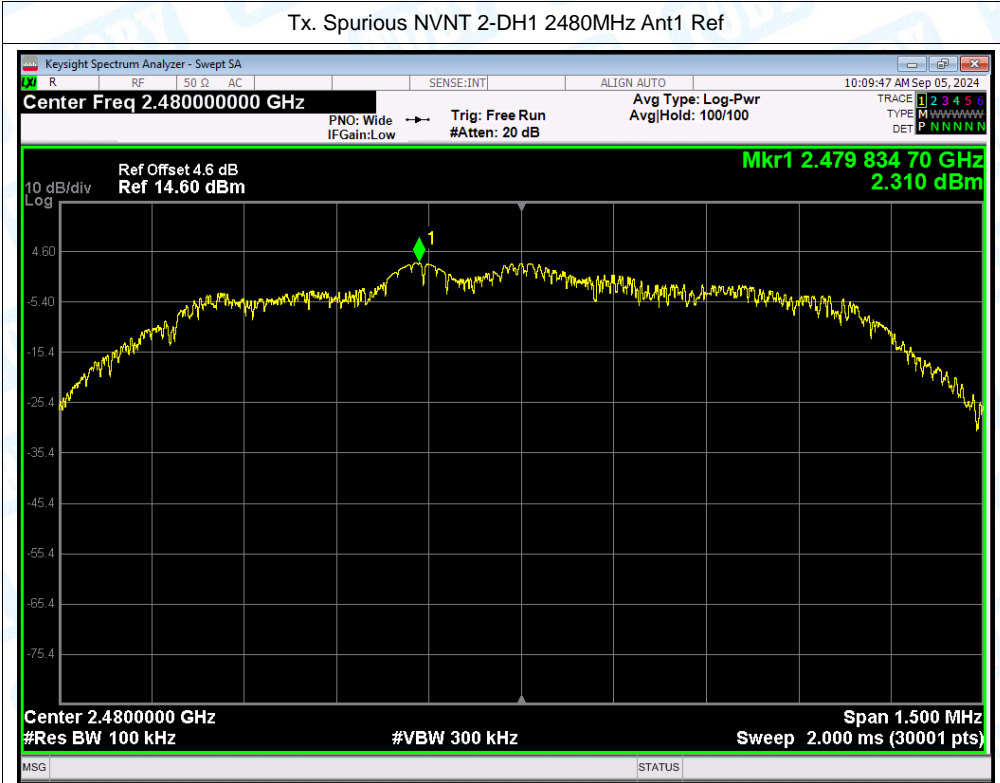
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Ref



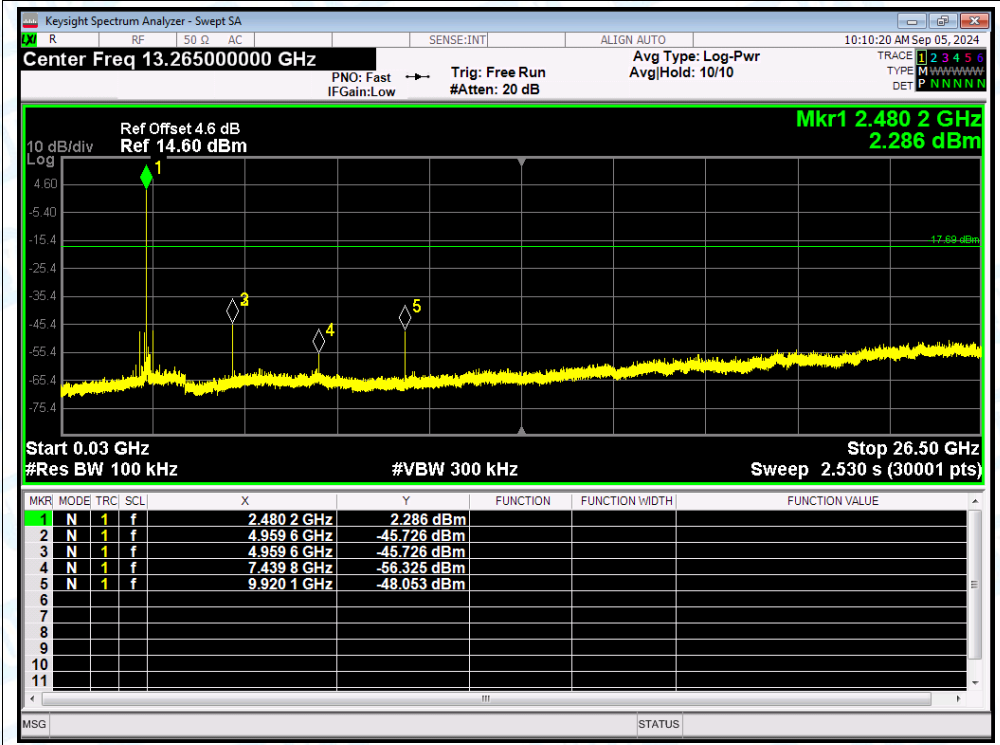
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Emission



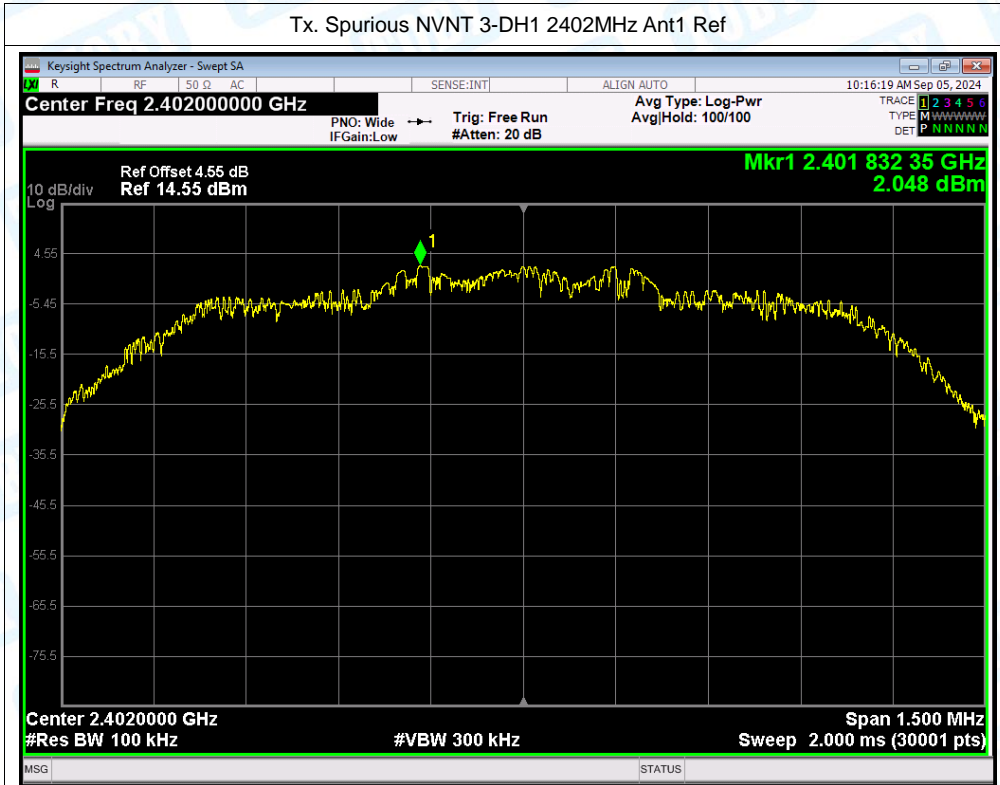
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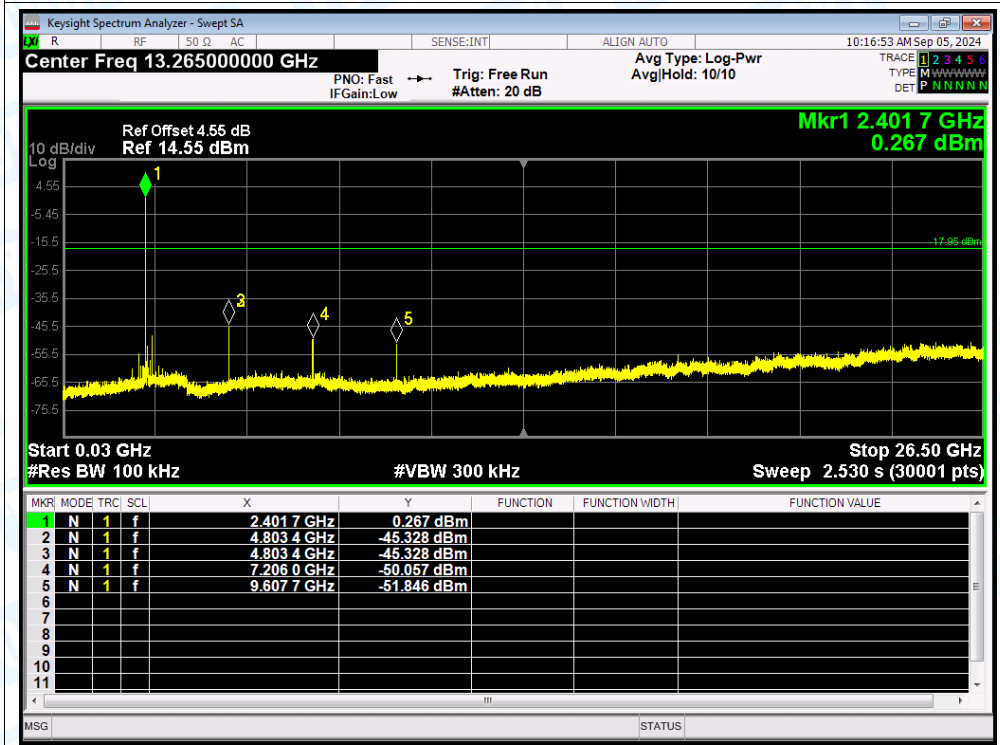
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Emission



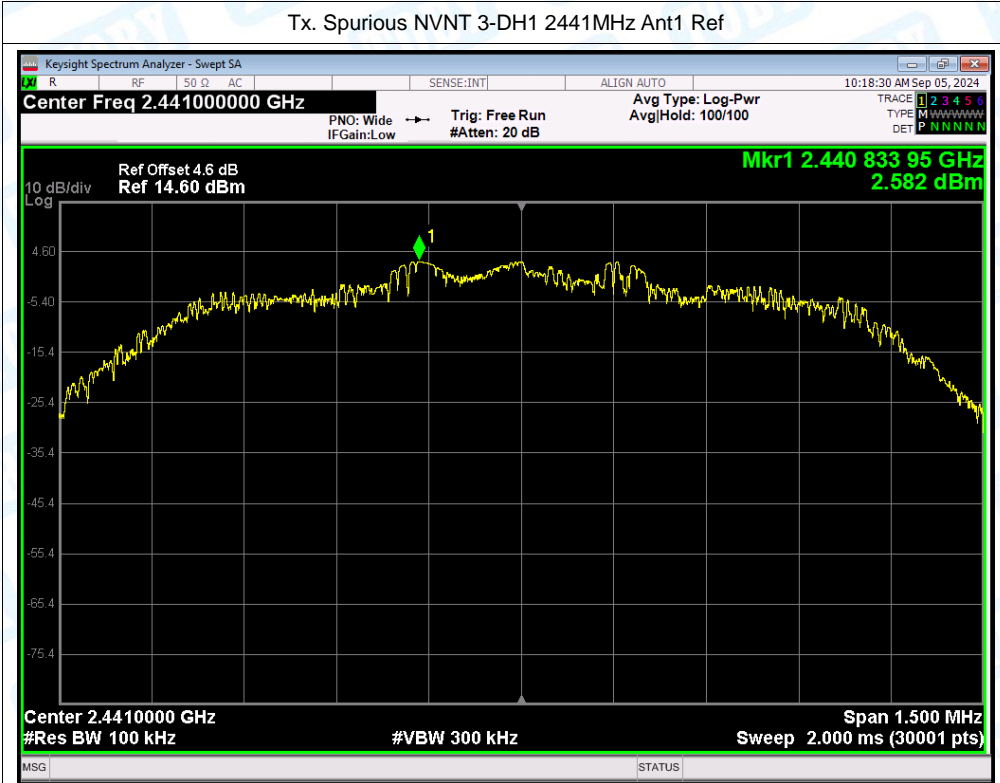
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Ref



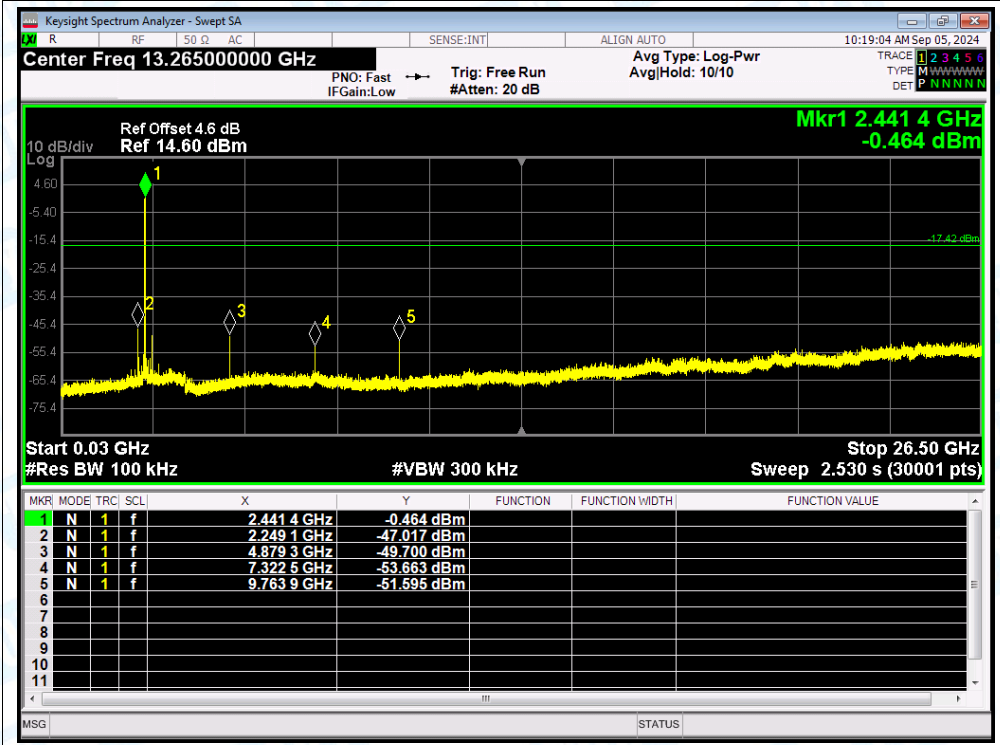
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Emission



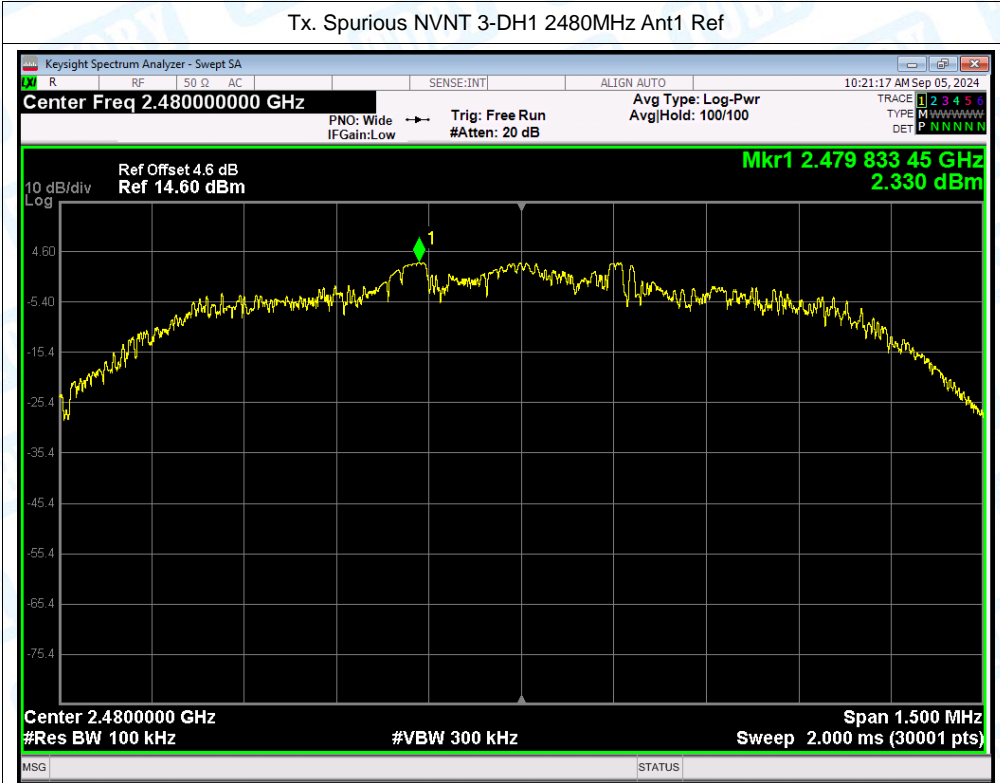
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Ref



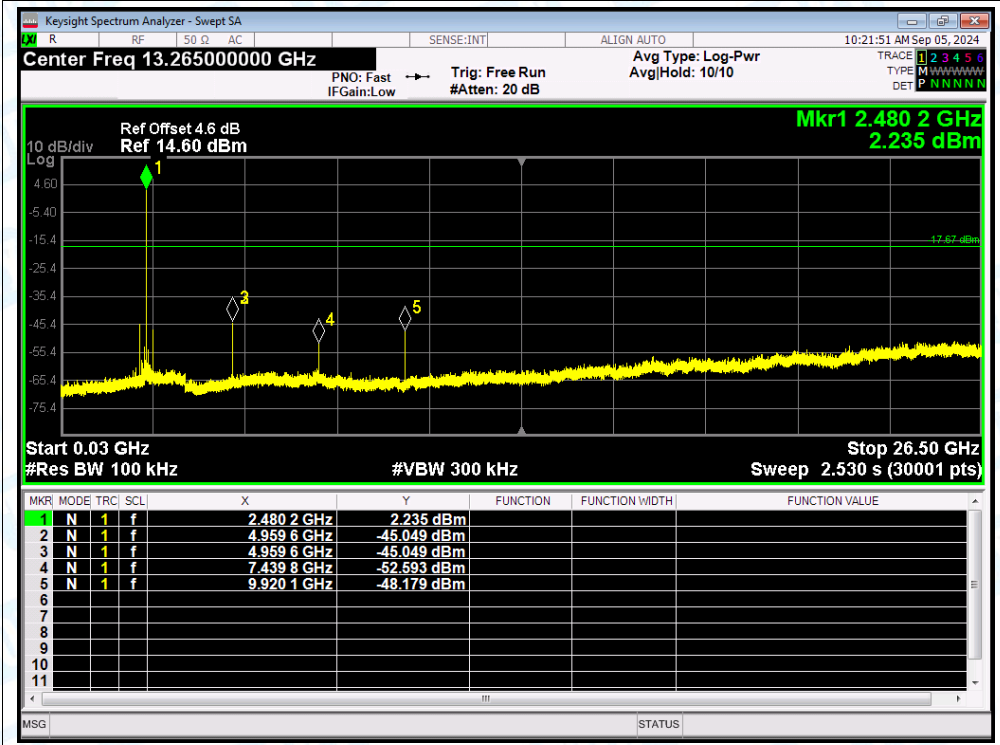
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Emission

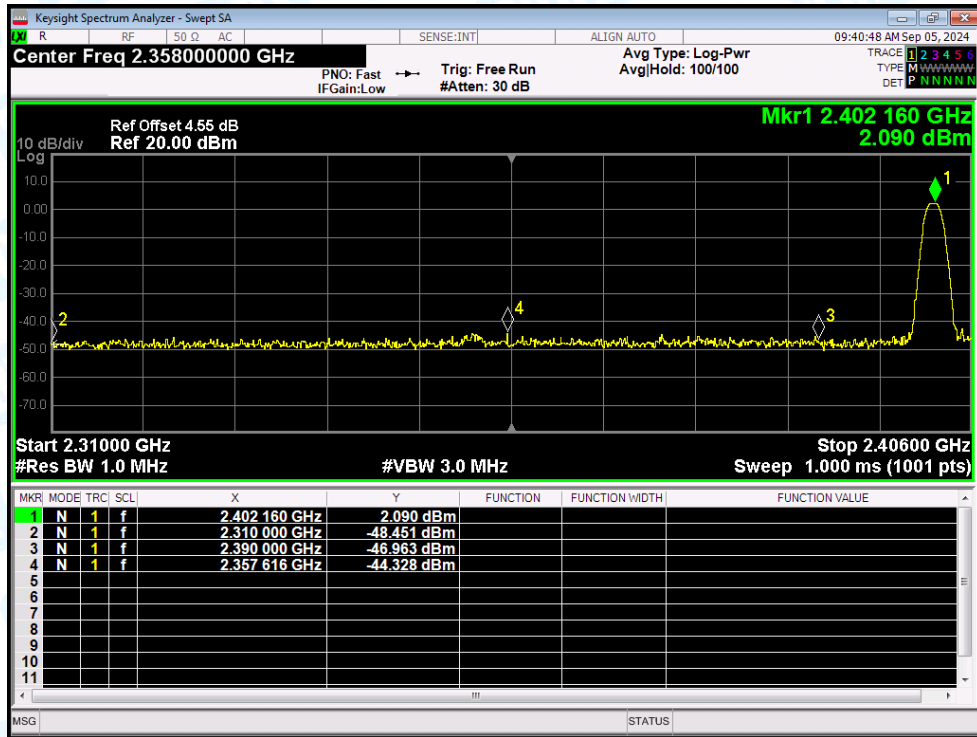


8. Restrict Band

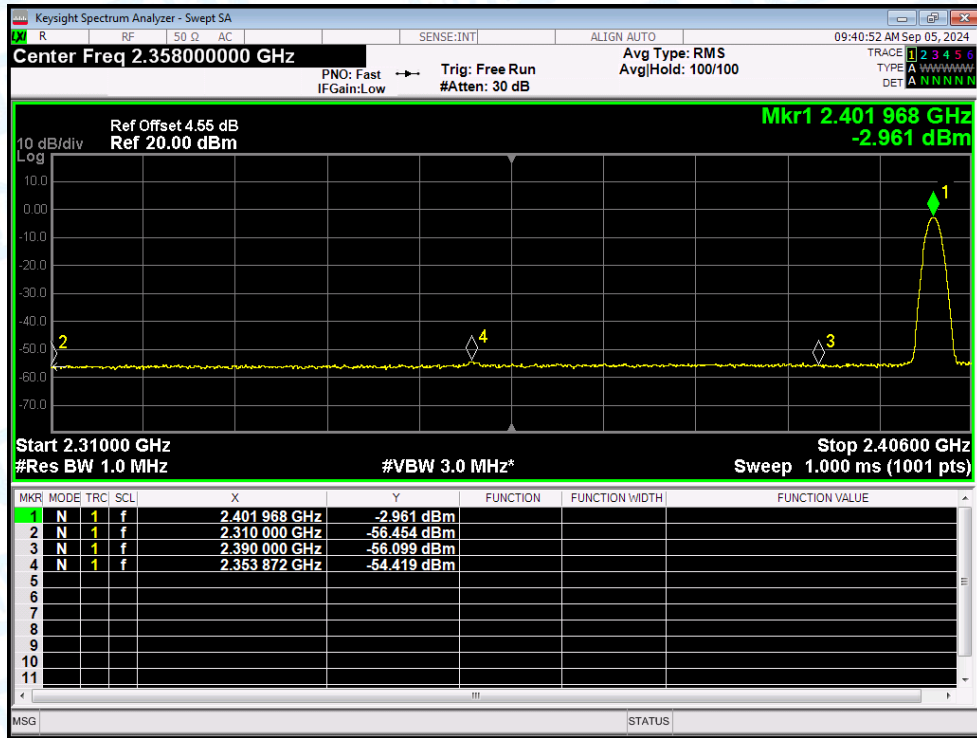
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-48.45	2	-	48.81	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-56.45	2	5.06	45.87	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2357.616	-44.33	2	-	52.93	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2353.872	-54.42	2	5.06	47.9	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-46.96	2	-	50.3	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-56.1	2	5.06	46.22	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-48.76	2	-	48.5	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-54.63	2	5.06	47.69	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2492.944	-44.24	2	-	53.02	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2499.952	-54.56	2	5.06	47.76	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-45.54	2	-	51.72	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-55.21	2	5.06	47.11	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-48.54	2	-	48.72	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-56.52	2	5.06	45.8	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2354.352	-44.45	2	-	52.81	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2354.16	-54.6	2	5.06	47.72	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-46.05	2	-	51.21	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-55.81	2	5.06	46.51	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-46.7	2	-	50.56	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-55.03	2	5.06	47.29	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2484.088	-41.03	2	-	56.23	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2499.112	-54.47	2	5.06	47.85	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-47.4	2	-	49.86	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-55.47	2	5.06	46.85	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-48.55	2	-	48.71	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-56.02	2	5.06	46.3	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2354.256	-44.45	2	-	52.81	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2354.16	-54.42	2	5.06	47.9	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-47.06	2	-	50.2	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-55.76	2	5.06	46.56	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-47.3	2	-	49.96	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-55.55	2	5.06	46.77	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.608	-38.49	2	-	58.77	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2488.408	-54.52	2	5.06	47.8	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-47.81	2	-	49.45	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-55.04	2	5.06	47.28	Average	54	Pass

Test Graphs

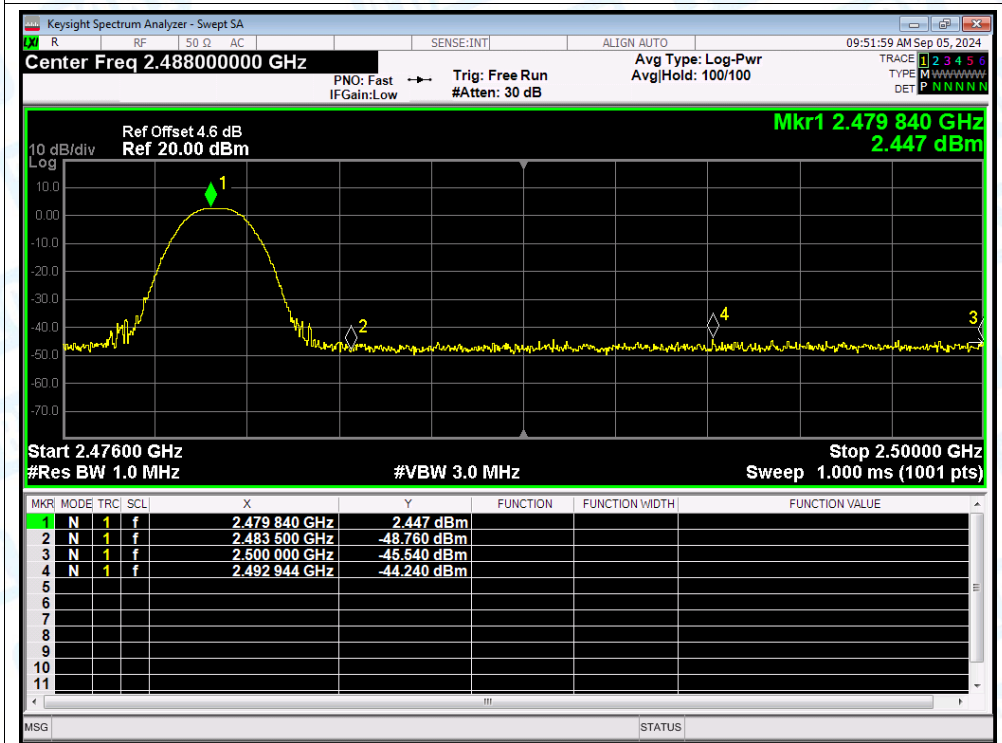
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Peak



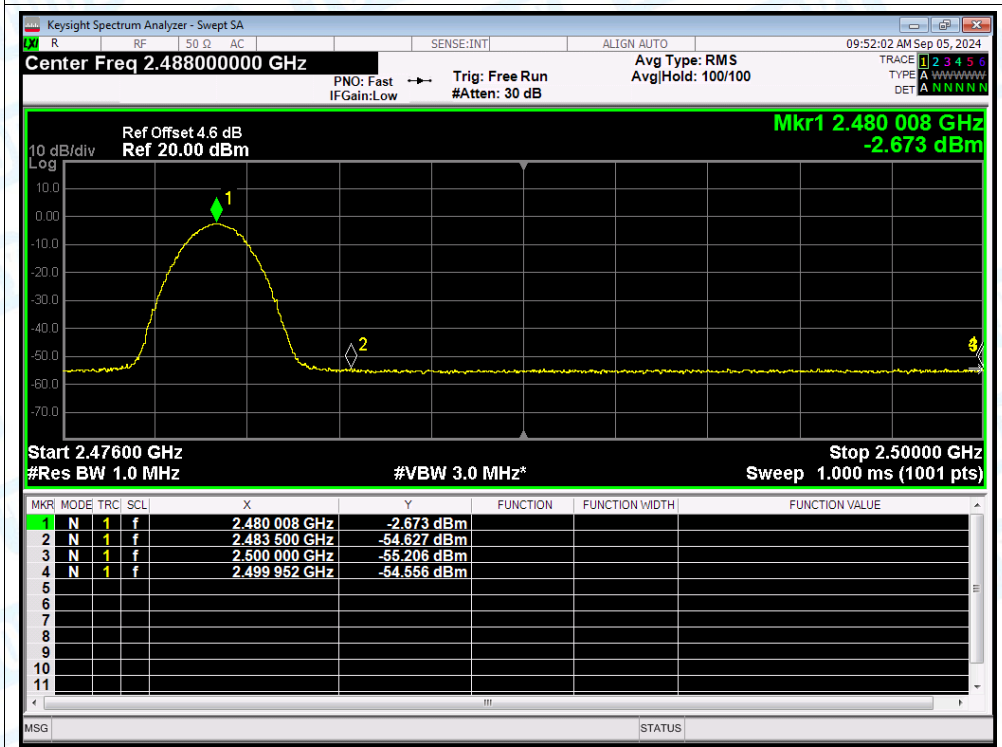
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Average



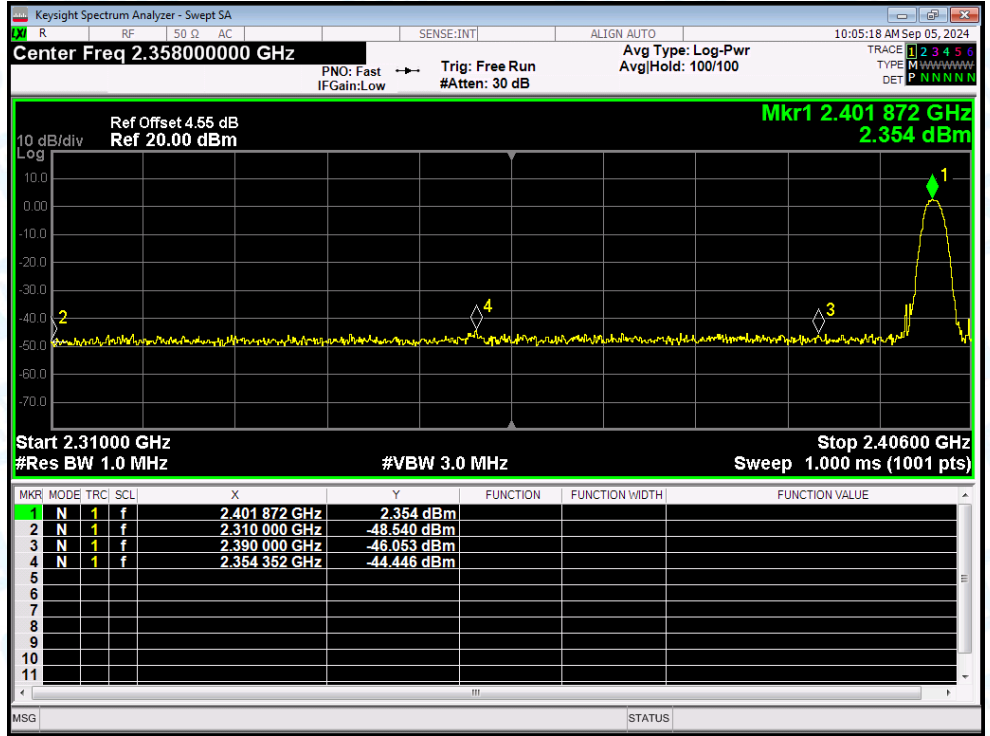
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Peak



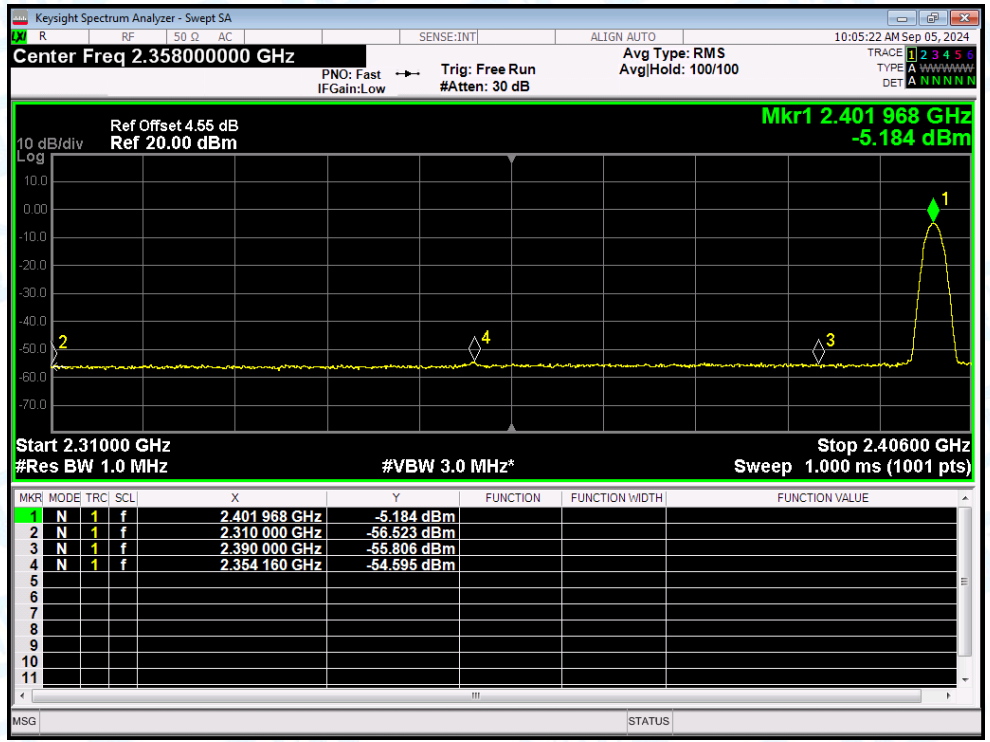
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Average



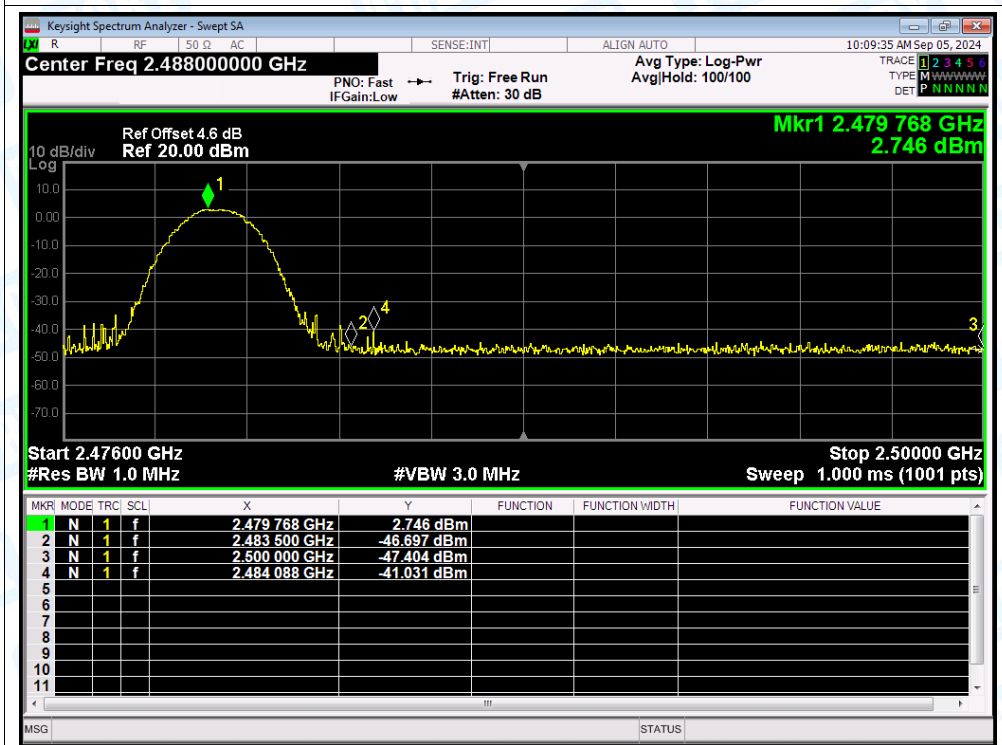
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Peak



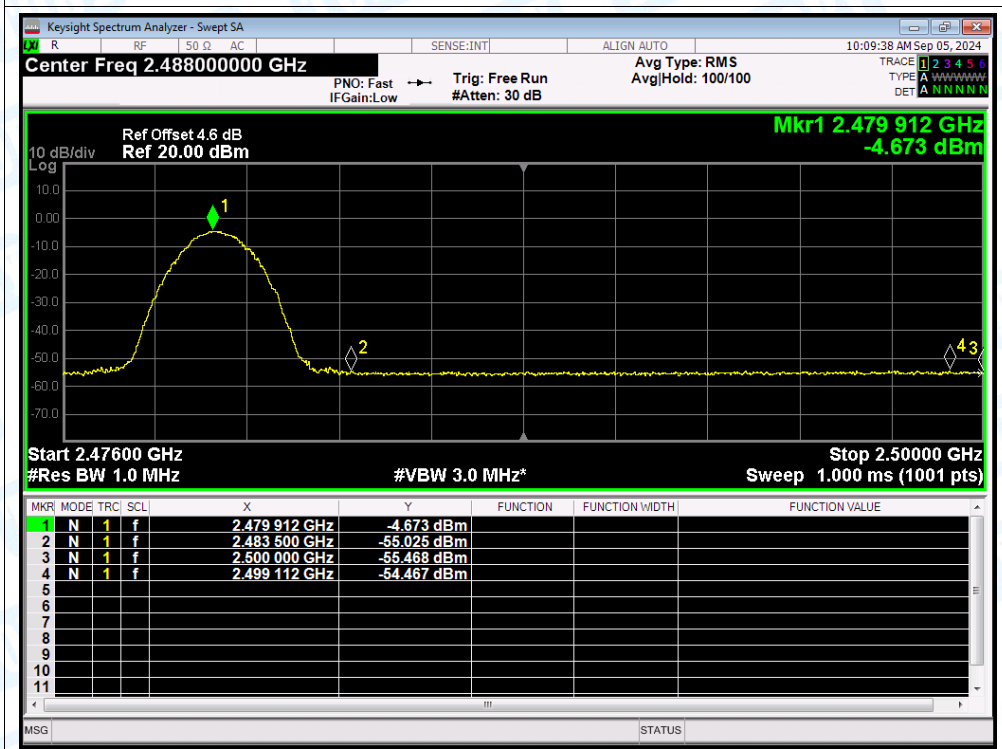
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Average



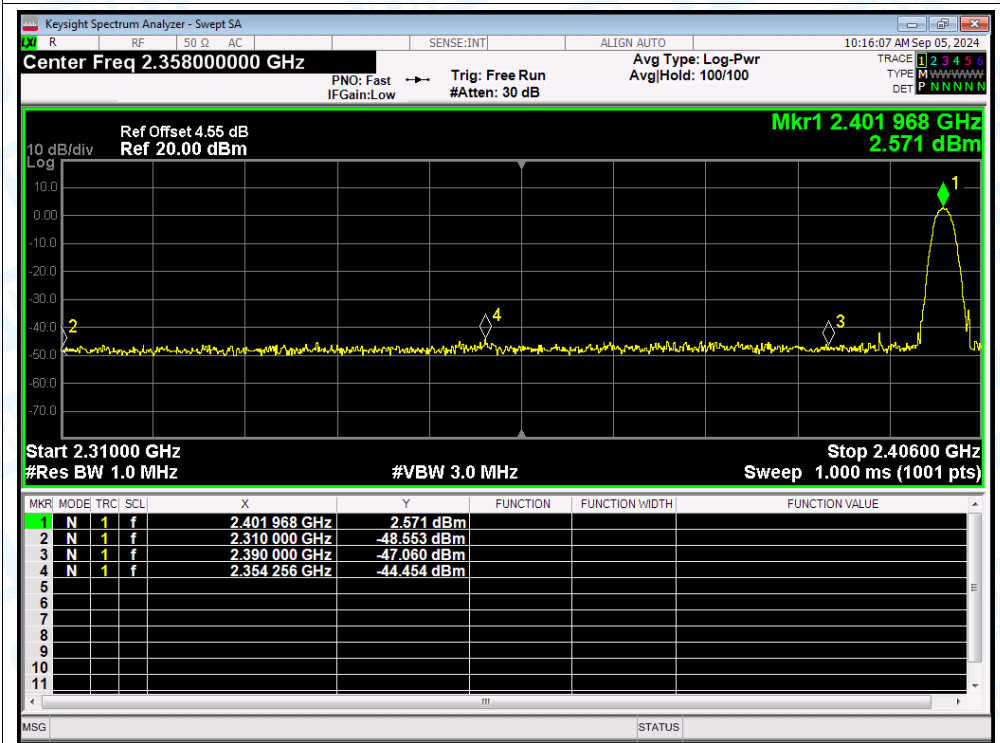
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Peak



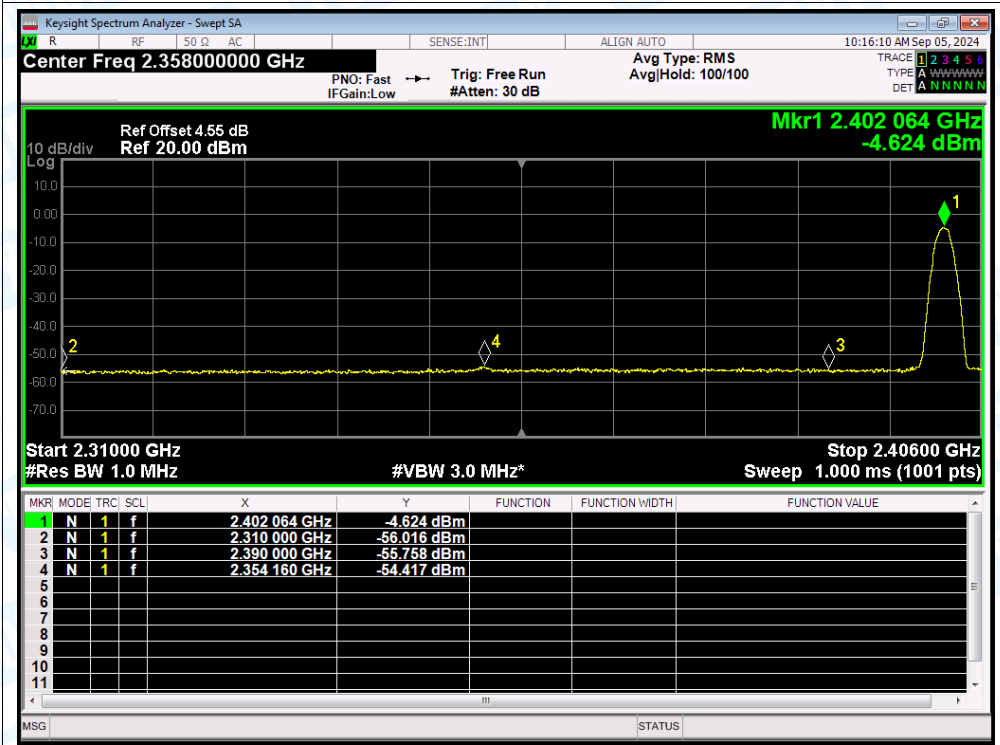
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Average



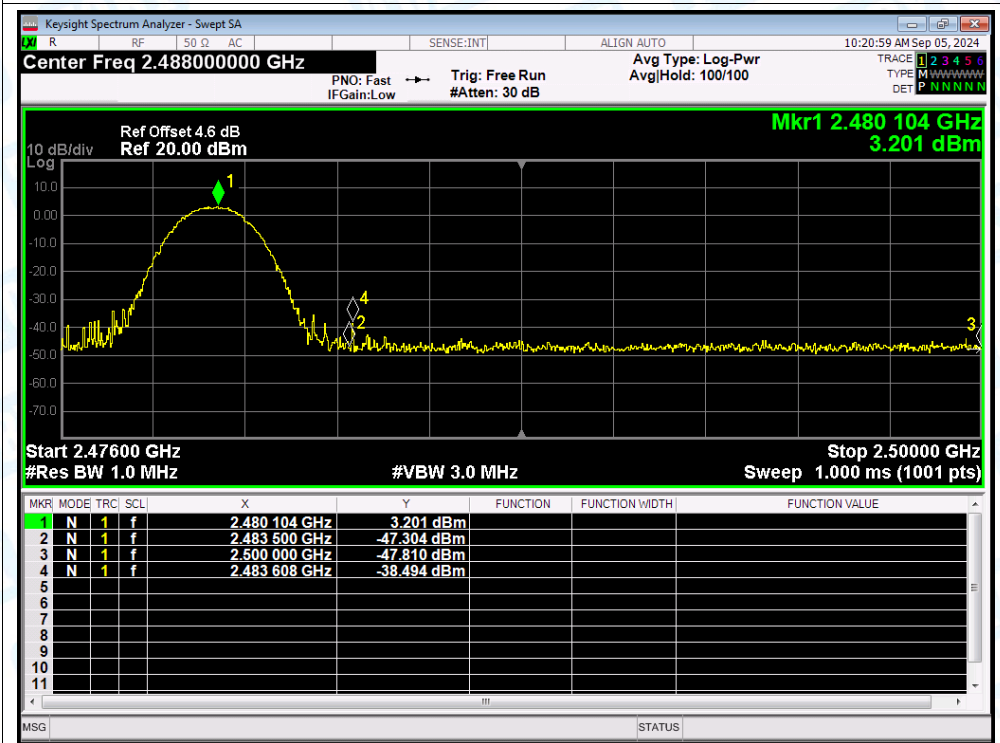
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Peak



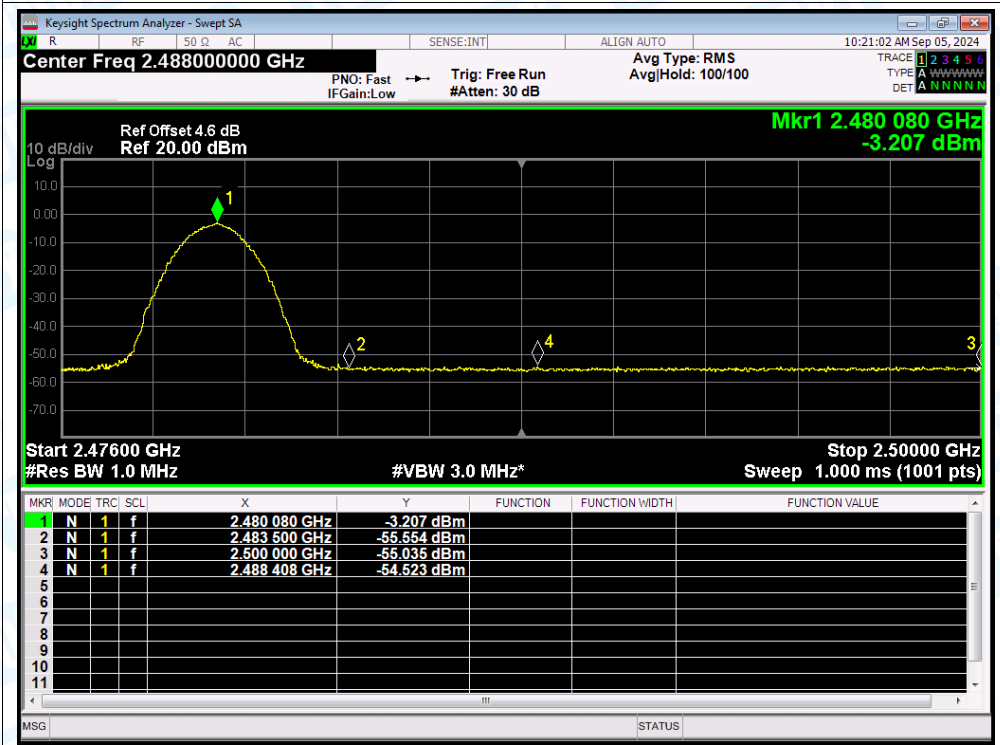
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Average



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



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

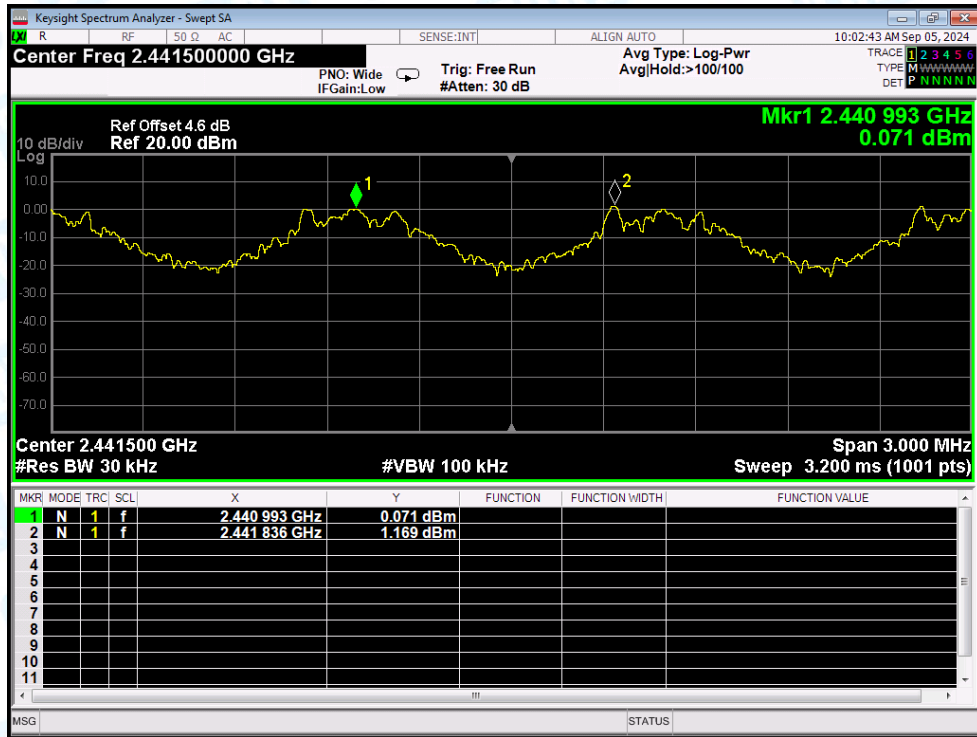


9. Carrier Frequencies Separation

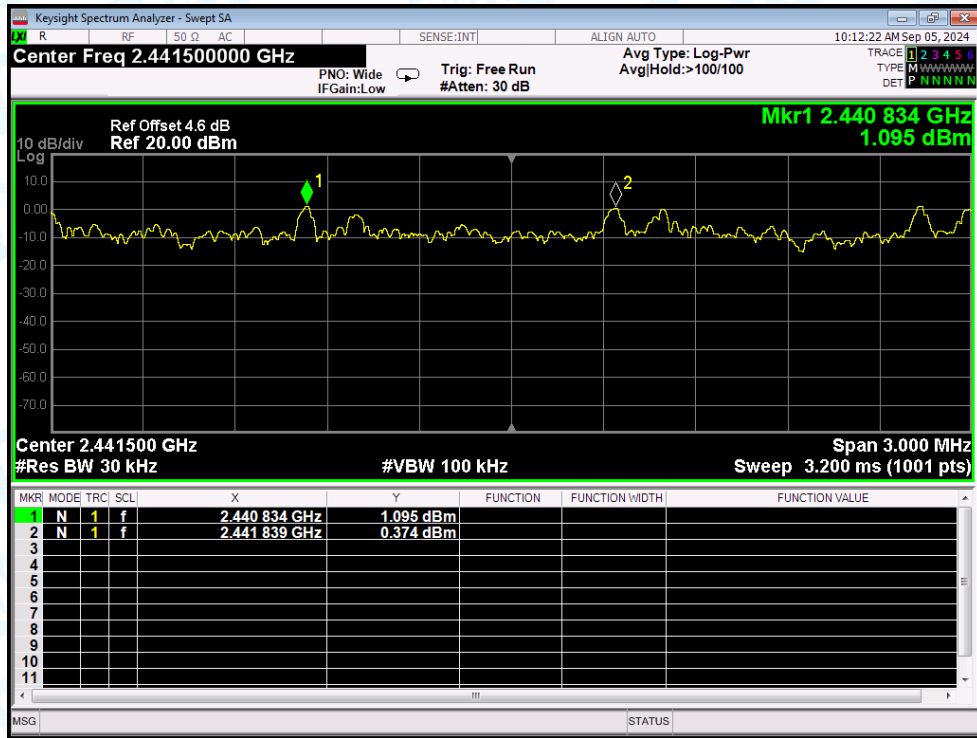
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH1	Ant1	2440.993	2441.836	0.843	0.62	Pass
NVNT	2-DH1	Ant1	2440.834	2441.839	1.005	0.84	Pass
NVNT	3-DH1	Ant1	2440.99	2441.995	1.005	0.807	Pass

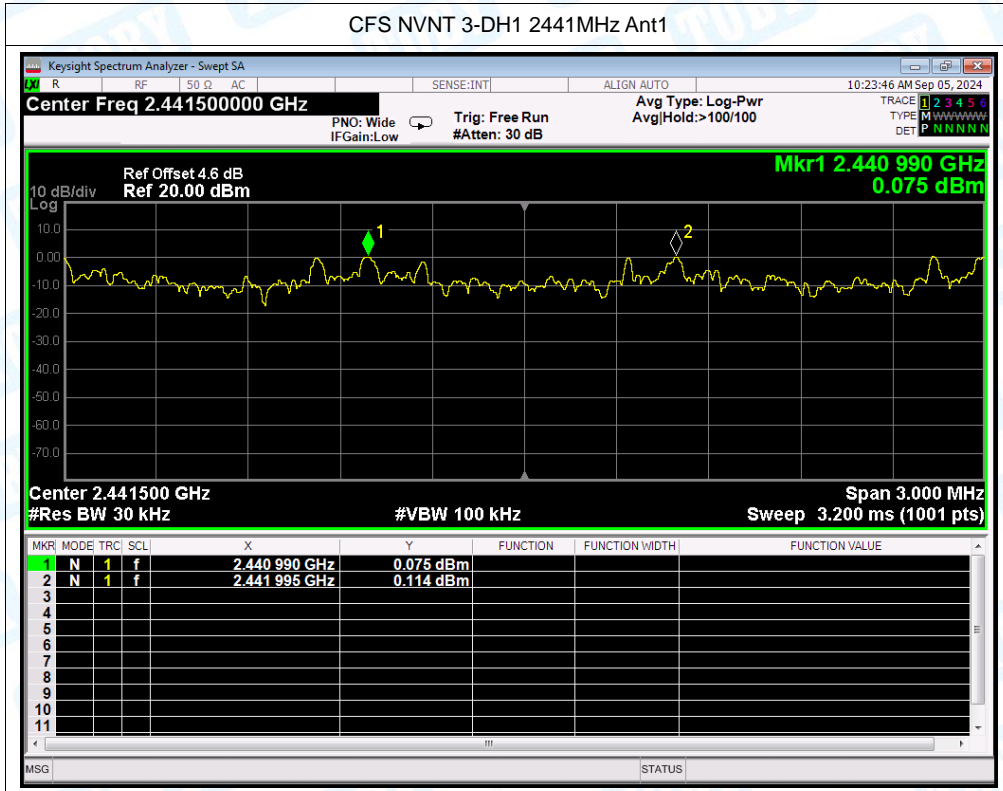
Test Graphs

CFS NVNT 1-DH1 2441MHz Ant1



CFS NVNT 2-DH1 2441MHz Ant1



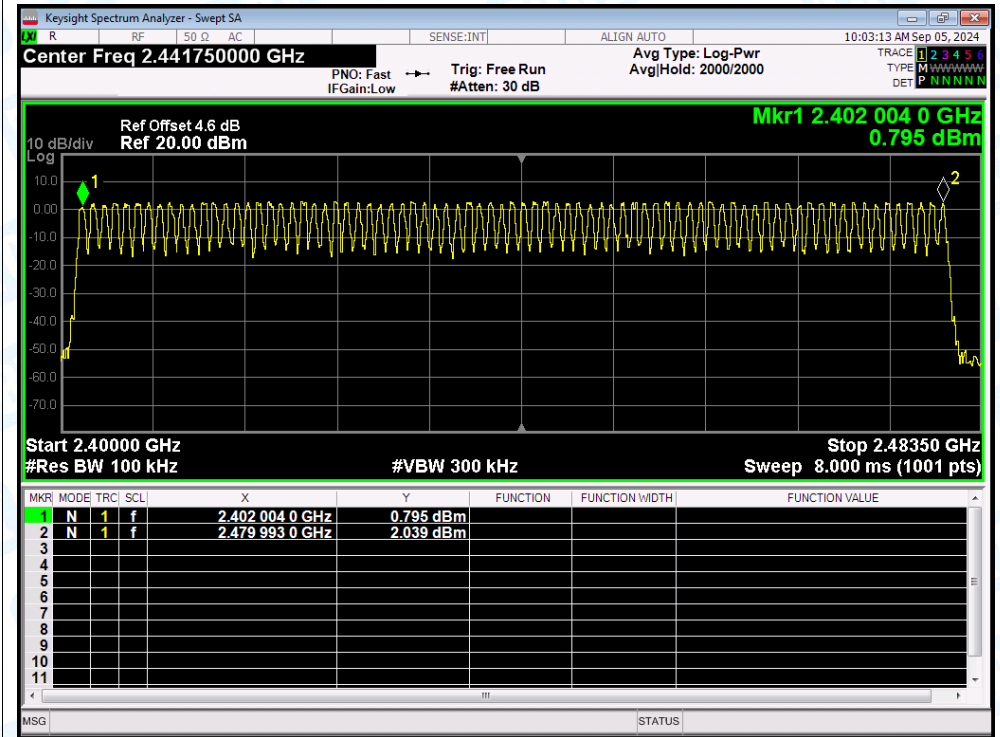


10. Number of Hopping Channel

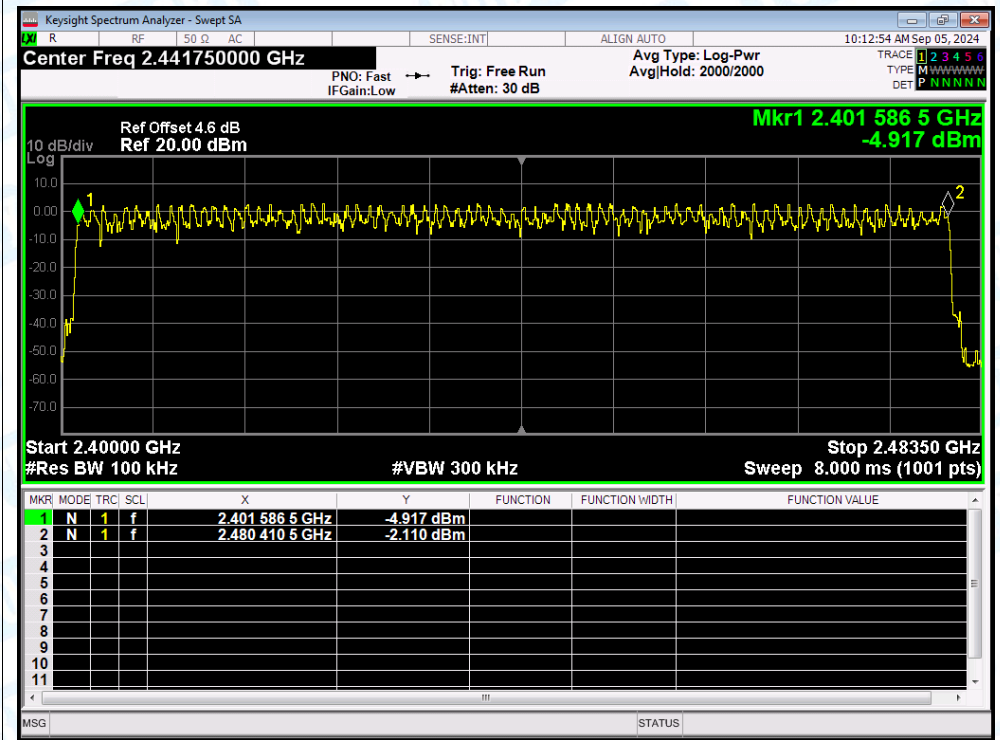
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH1	Ant1	79	15	Pass
NVNT	2-DH1	Ant1	79	15	Pass
NVNT	3-DH1	Ant1	79	15	Pass

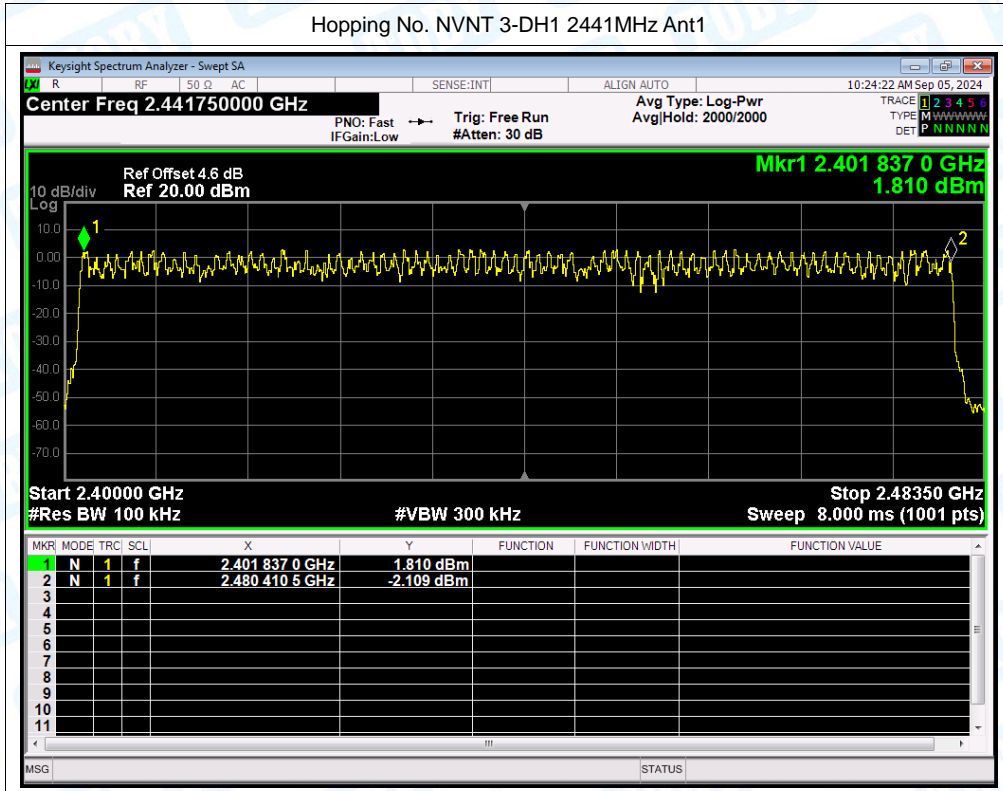
Test Graphs

Hopping No. NVNT 1-DH1 2441MHz Ant1



Hopping No. NVNT 2-DH1 2441MHz Ant1



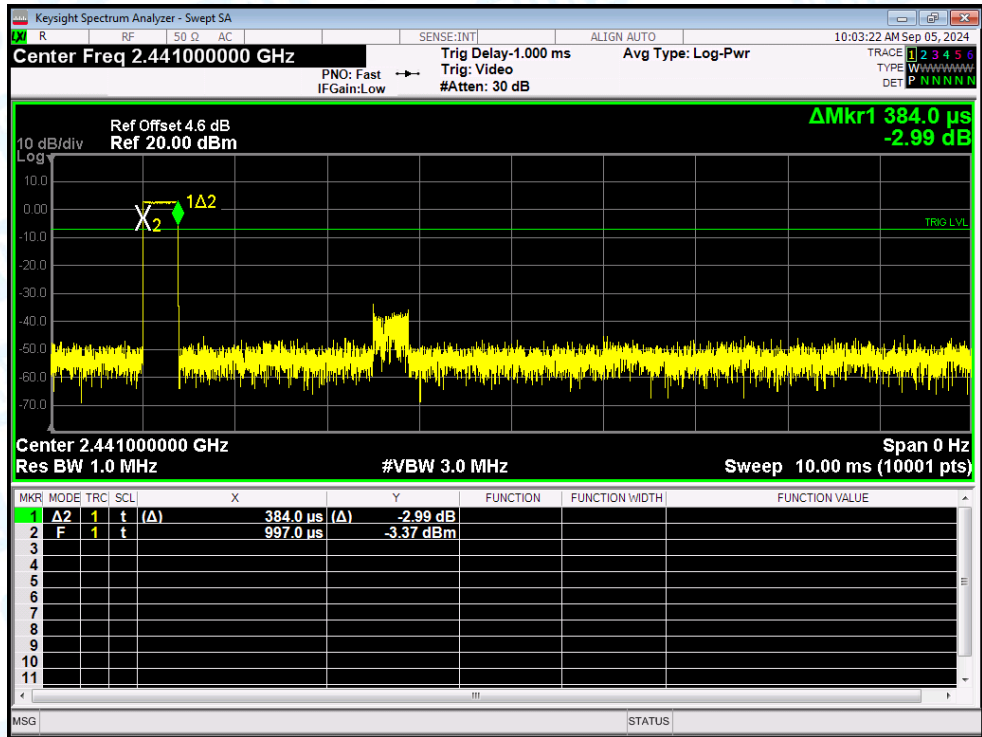


11. Dwell Time

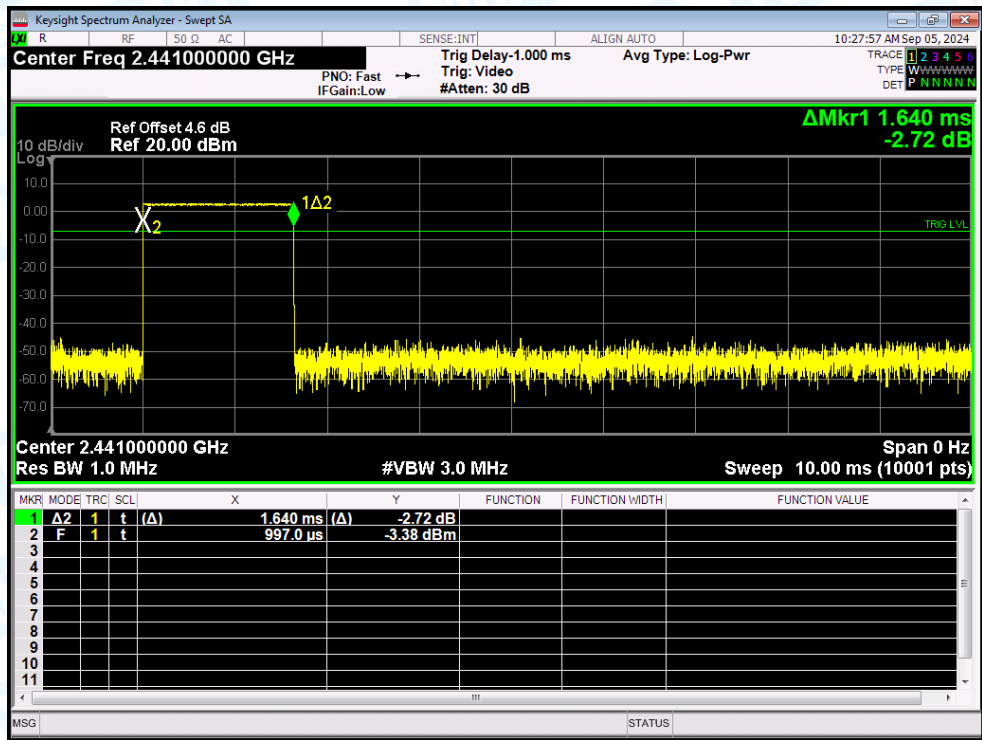
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	Ant1	0.384	122.88	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.64	262.4	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.887	307.947	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.393	125.76	31600	400	Pass
NVNT	2-DH3	2441	Ant1	1.645	263.2	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.892	308.48	31600	400	Pass
NVNT	3-DH1	2441	Ant1	0.392	125.44	31600	400	Pass
NVNT	3-DH3	2441	Ant1	1.643	262.88	31600	400	Pass
NVNT	3-DH5	2441	Ant1	2.895	308.8	31600	400	Pass

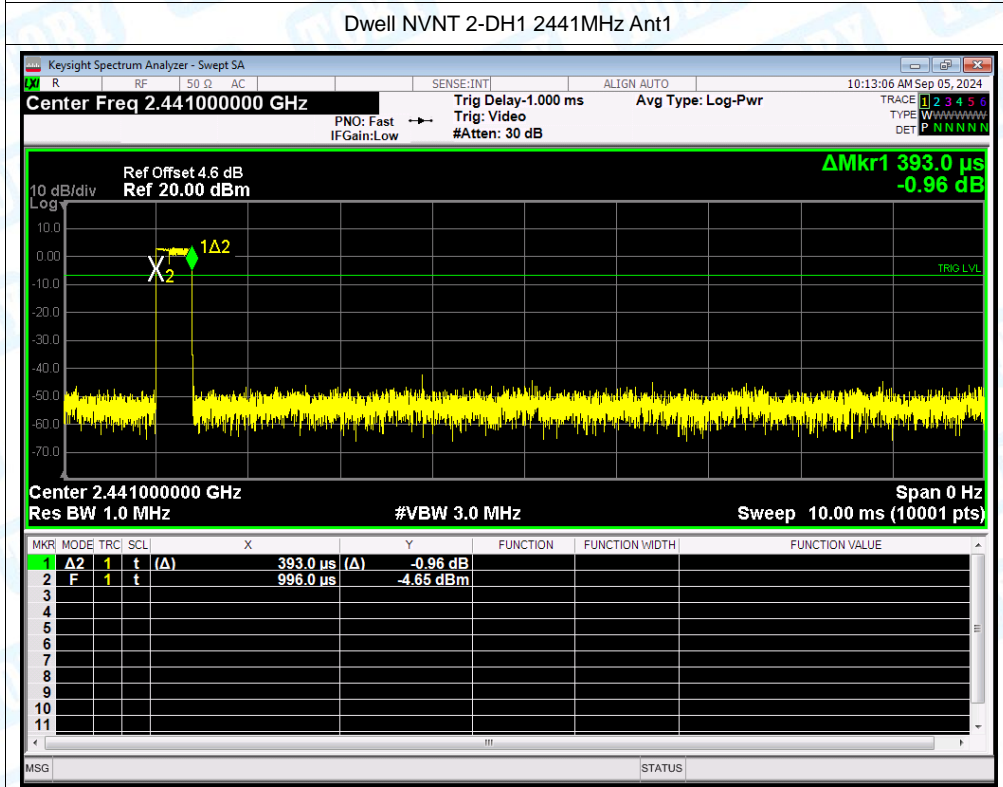
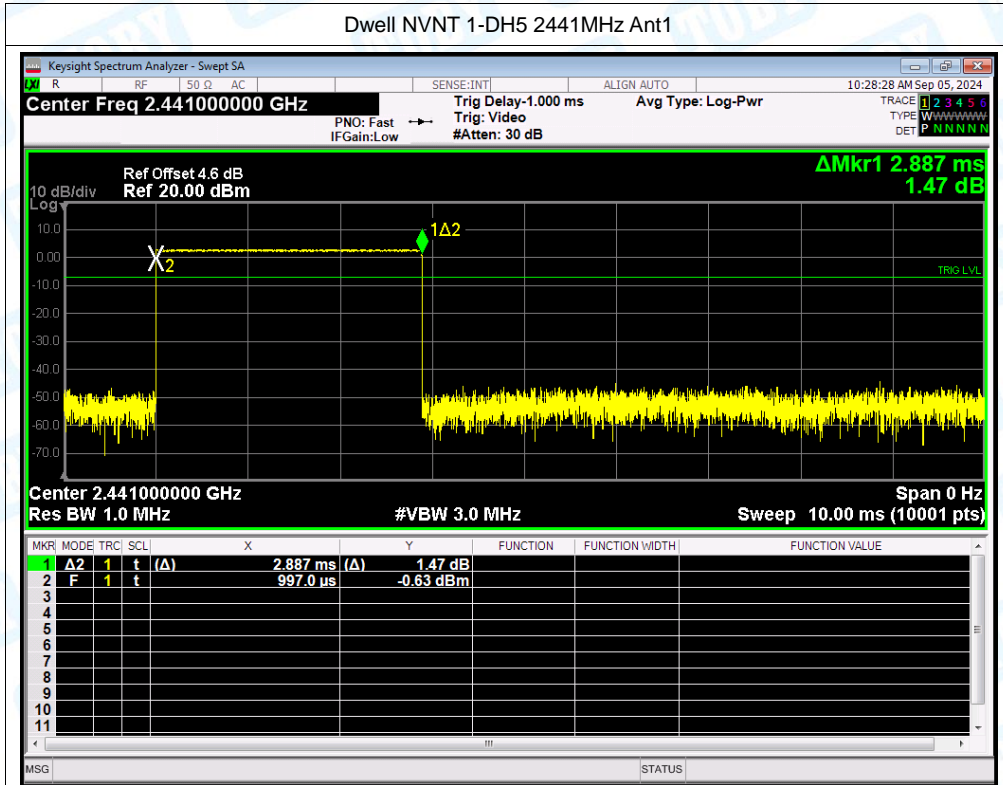
Test Graphs

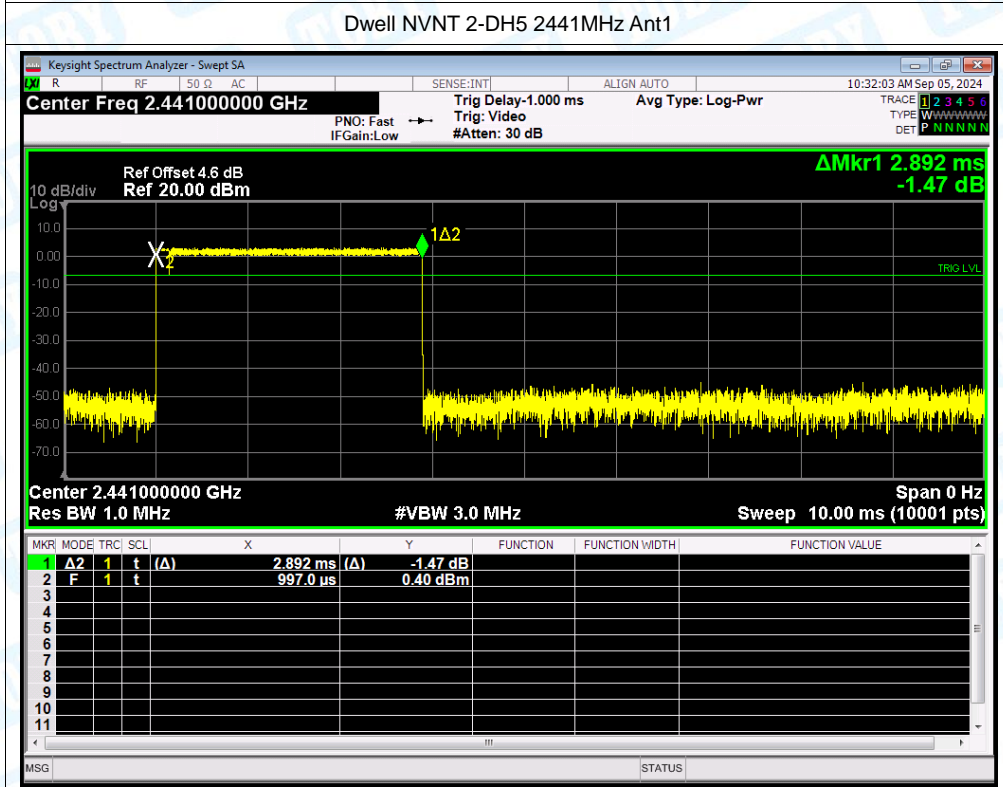
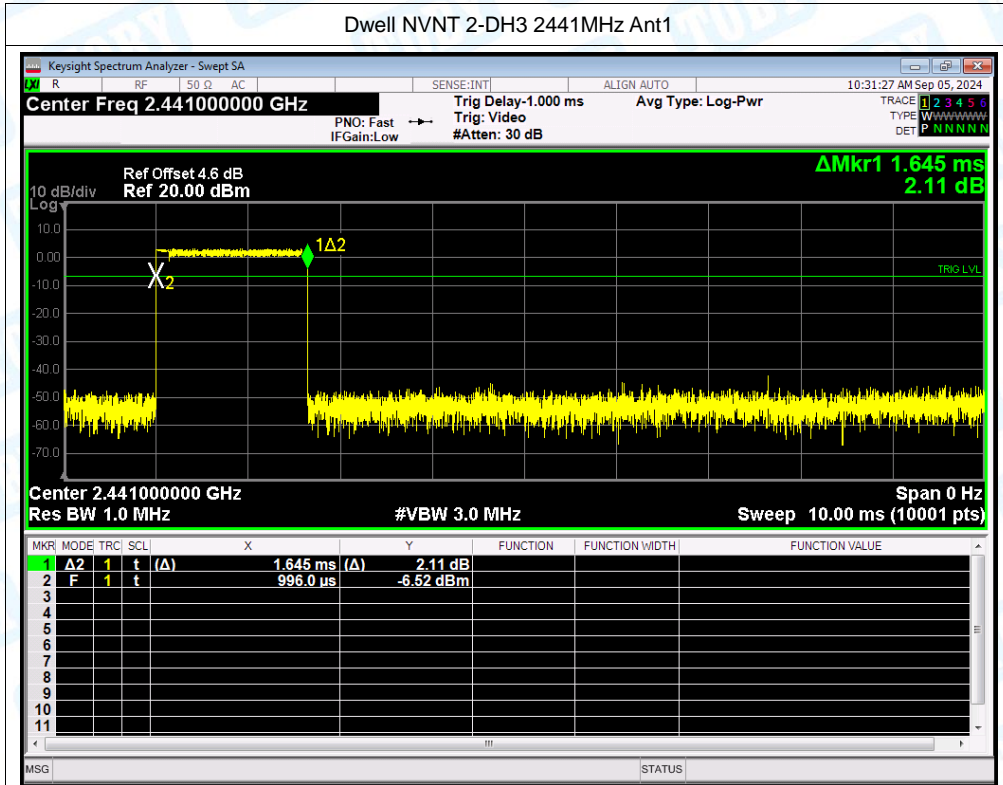
Dwell NVNT 1-DH1 2441MHz Ant1

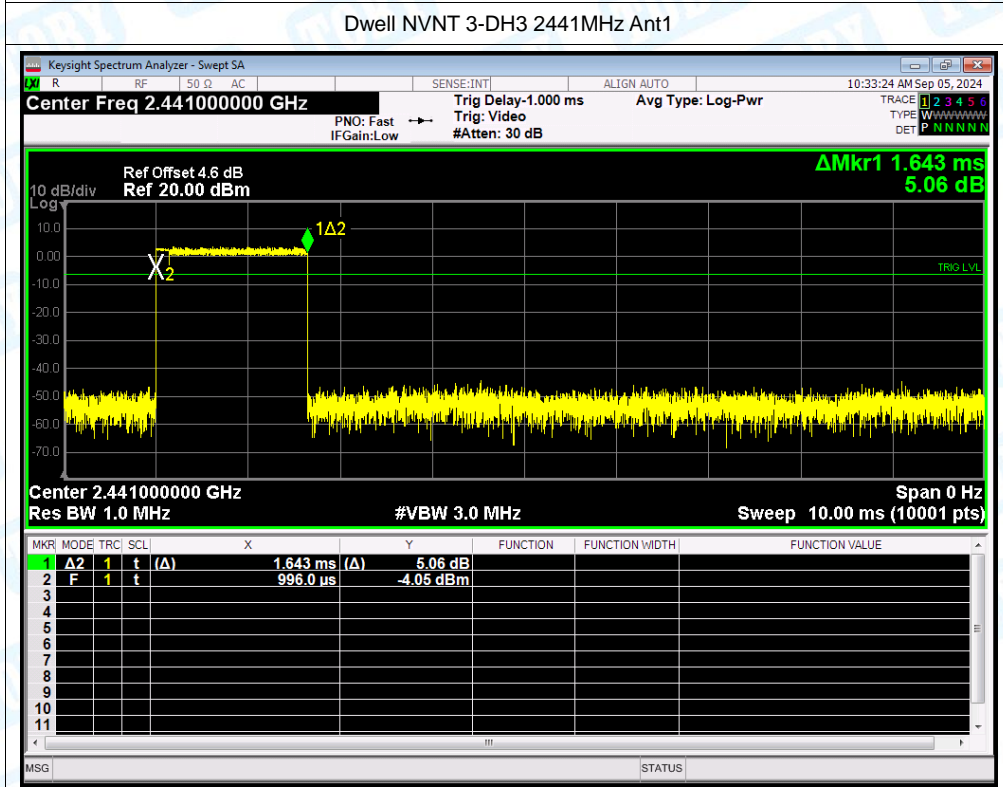
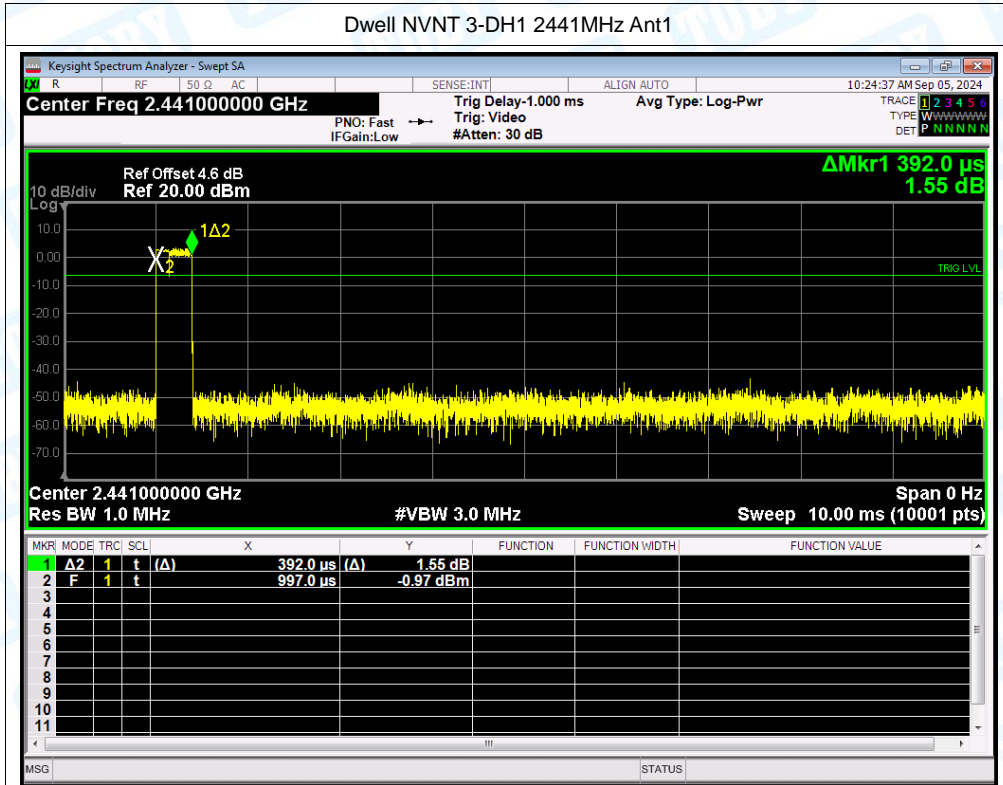


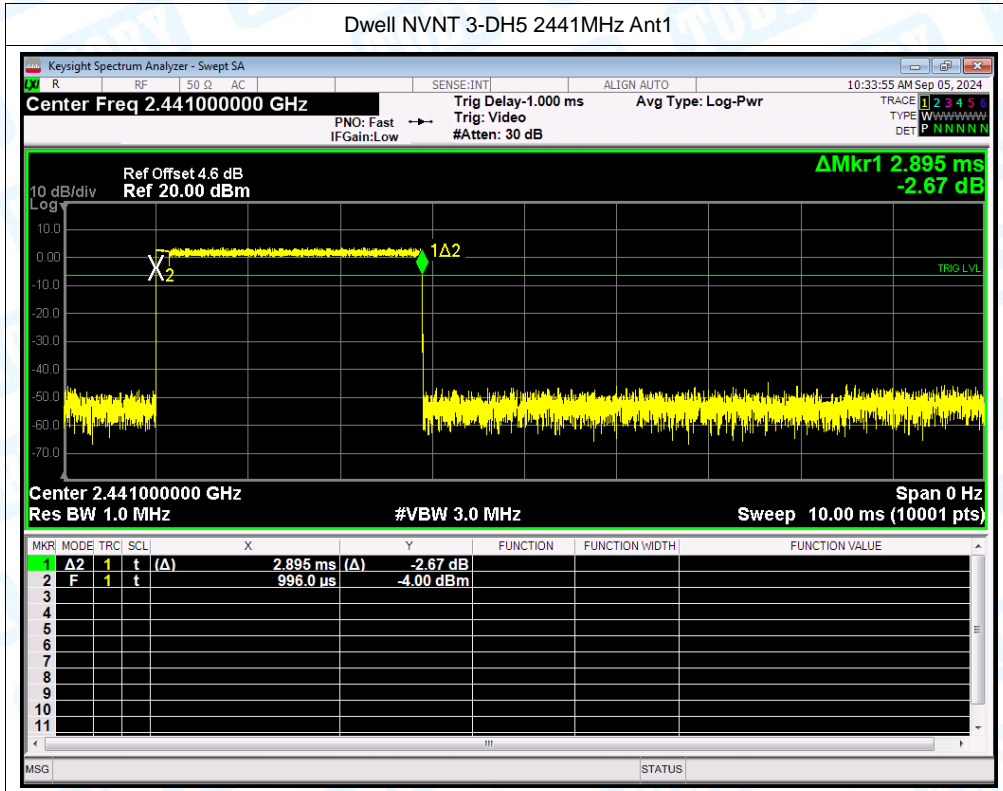
Dwell NVNT 1-DH3 2441MHz Ant1











--- END OF REPORT ---