

RF Test Data for Bluetooth (Conducted Measurements)

General Description of EUT	
Product Name:	Wireless Headphone
Test Model:	picun R2
Sample ID:	HC-C-202407-0220-01-02
Environmental Conditions	
Temperature:	24.6℃
Relative Humidity:	52.6%
Test Voltage:	DC 3.7V
Test Engineer:	Jolin Lee
Note: For a more detailed features description, please refer to the report TBR-C-202407-0220-11 The report only show the worst case data.	

Contents

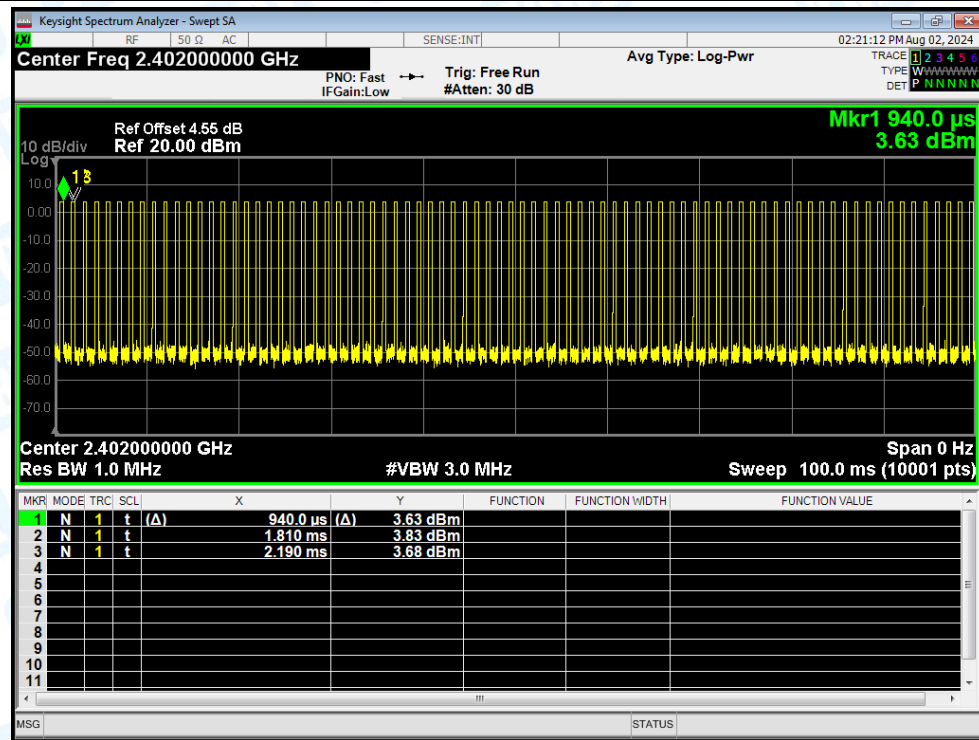
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1. Duty Cycle

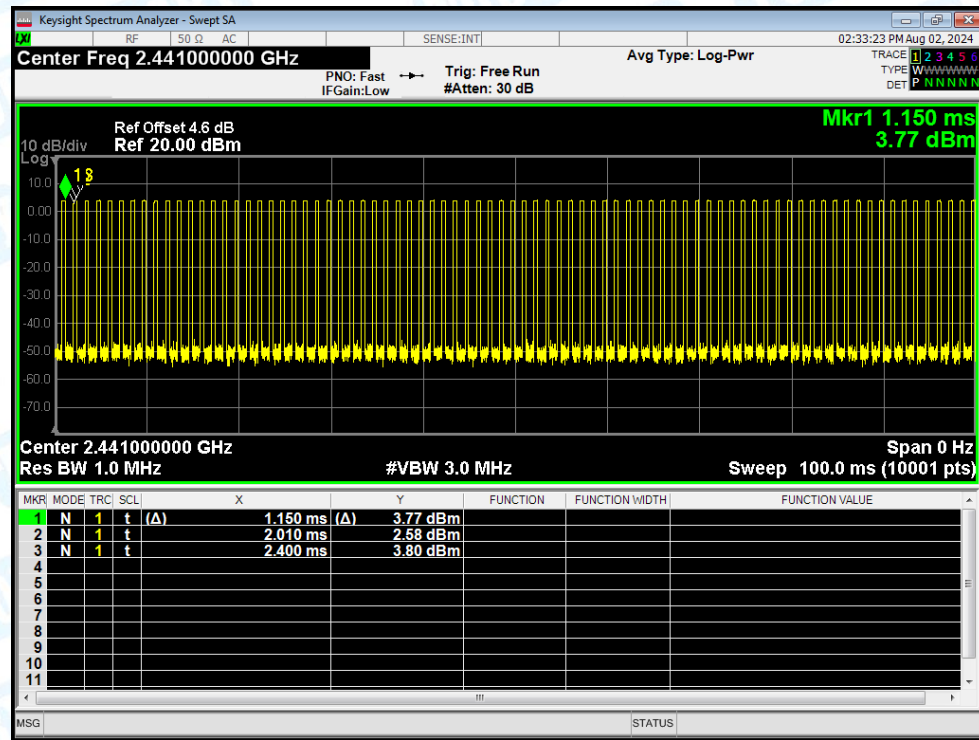
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH1	2402	Ant1	30.4	5.17	2.63
NVNT	1-DH1	2441	Ant1	31.2	5.06	2.56
NVNT	1-DH1	2480	Ant1	30.4	5.17	2.63
NVNT	2-DH1	2402	Ant1	31.2	5.06	2.56
NVNT	2-DH1	2441	Ant1	31.2	5.06	2.56
NVNT	2-DH1	2480	Ant1	32	4.95	2.5
NVNT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

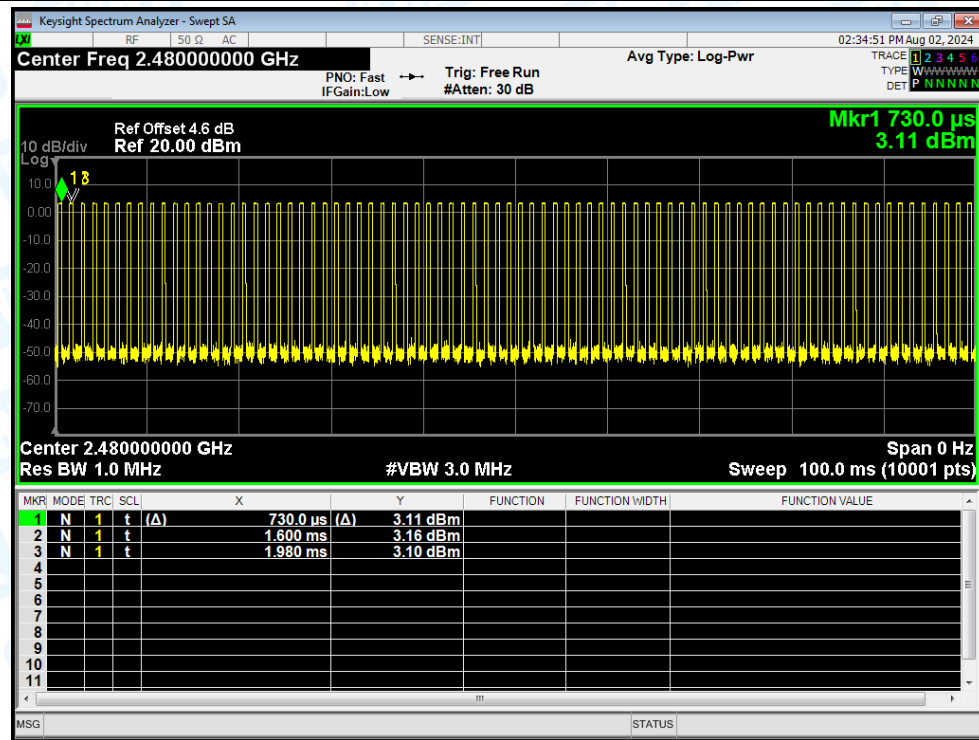
Duty Cycle NVNT 1-DH1 2402MHz Ant1



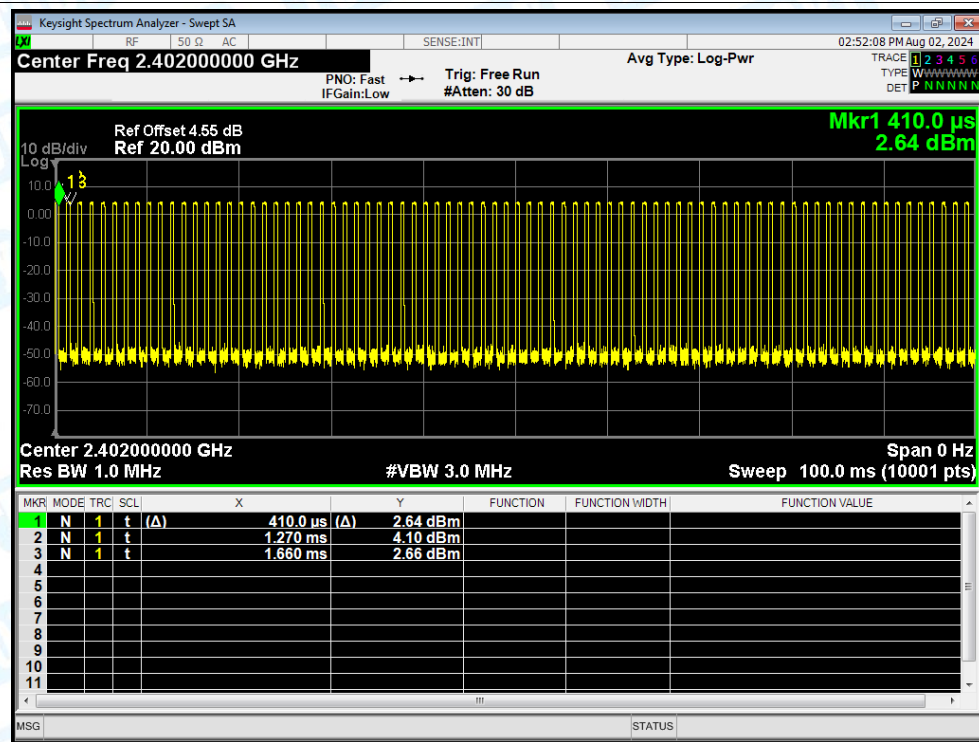
Duty Cycle NVNT 1-DH1 2441MHz Ant1



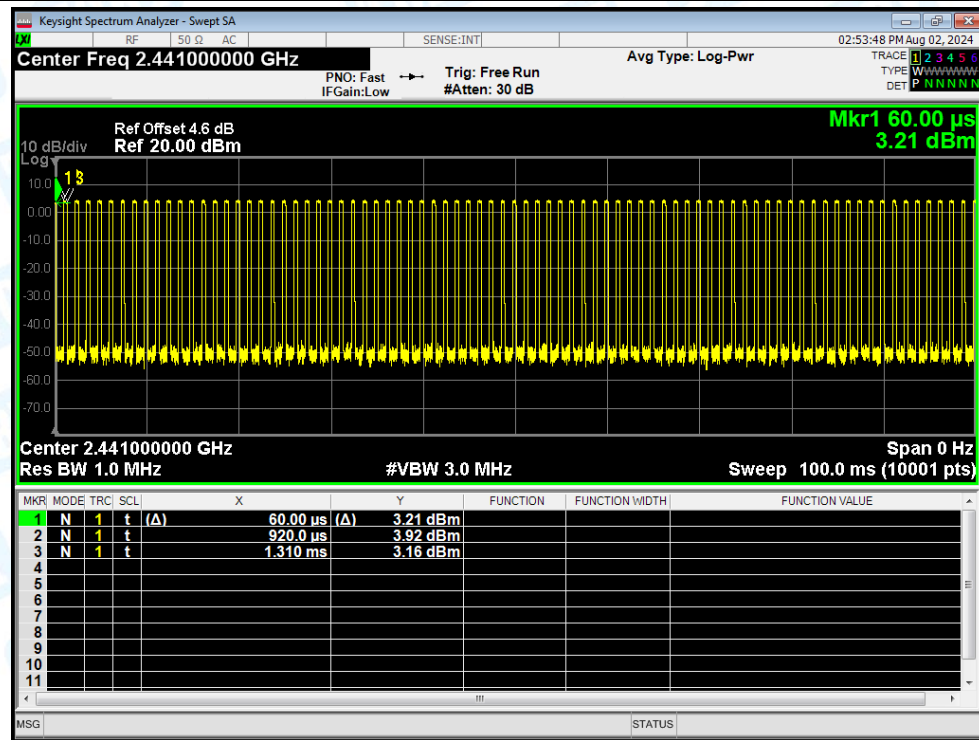
Duty Cycle NVNT 1-DH1 2480MHz Ant1



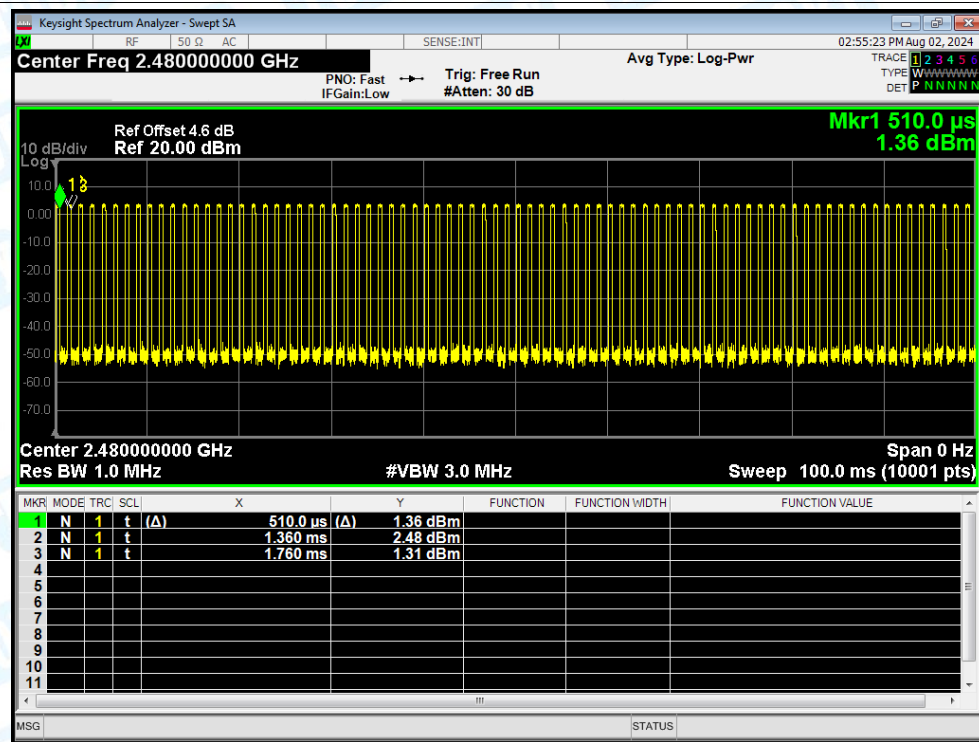
Duty Cycle NVNT 2-DH1 2402MHz Ant1



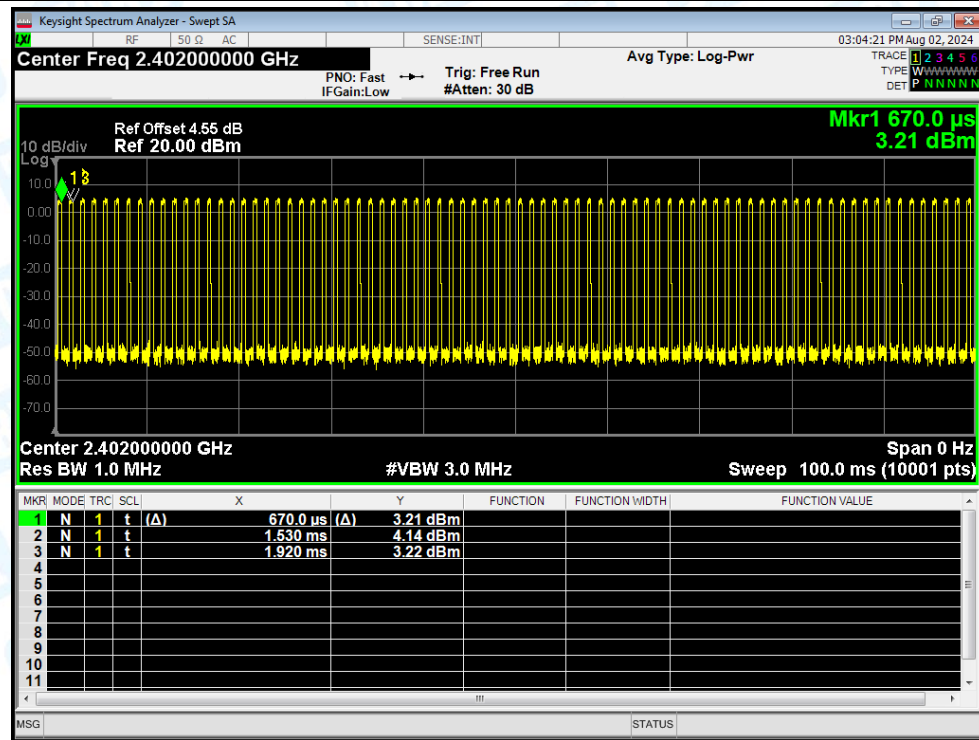
Duty Cycle NVNT 2-DH1 2441MHz Ant1



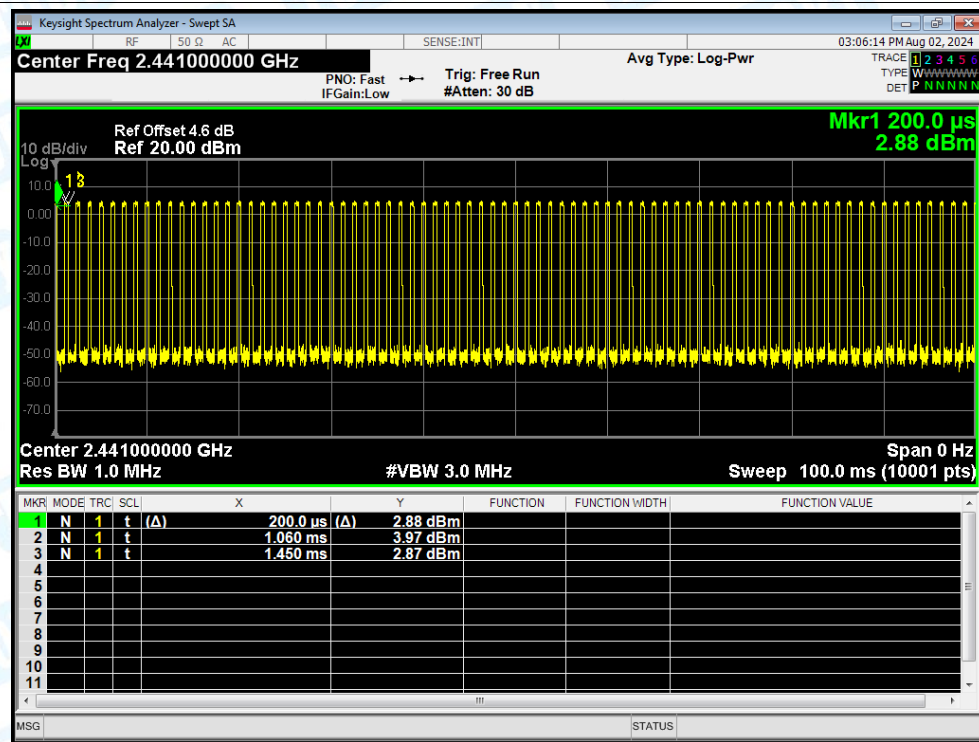
Duty Cycle NVNT 2-DH1 2480MHz Ant1

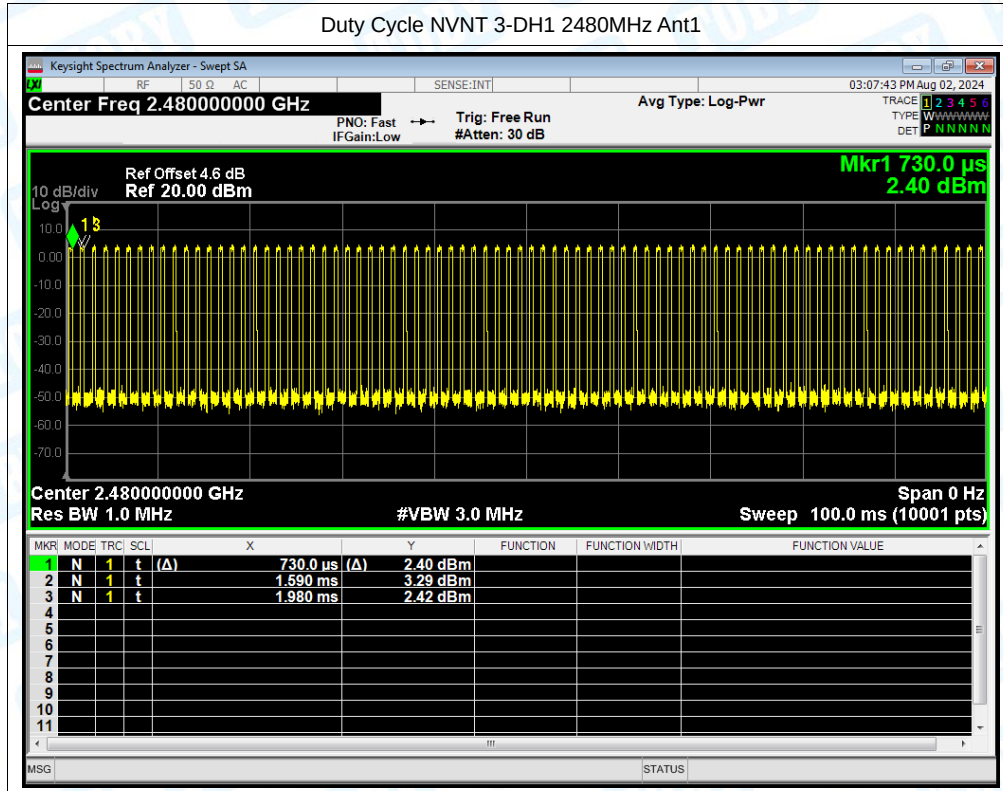


Duty Cycle NVNT 3-DH1 2402MHz Ant1



Duty Cycle NVNT 3-DH1 2441MHz Ant1



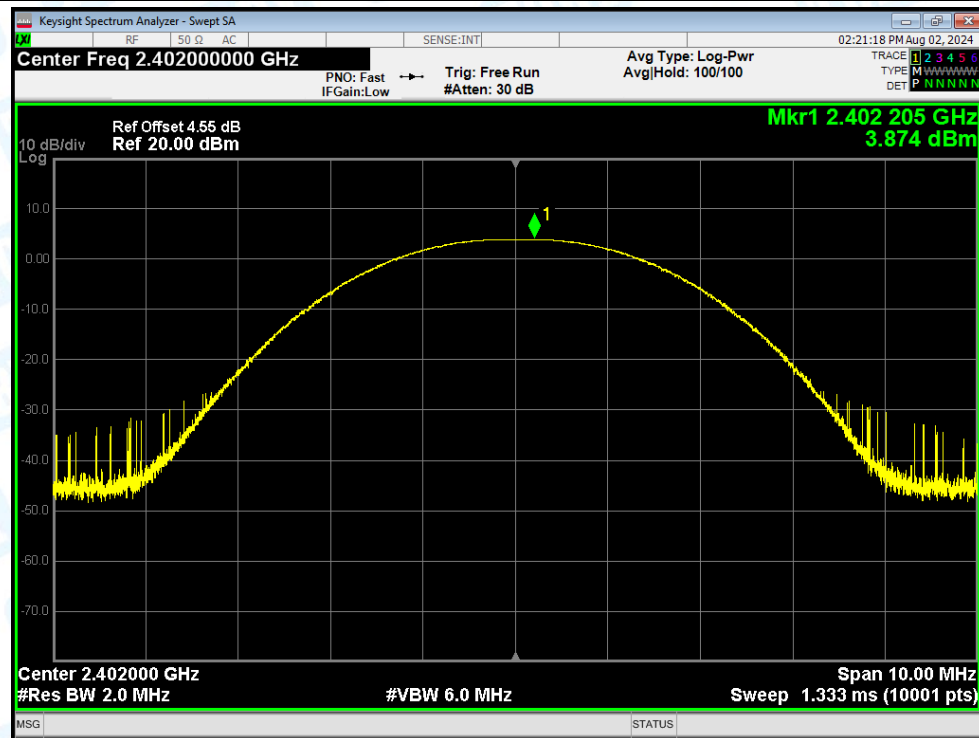


2 Maximum Conducted Output Power

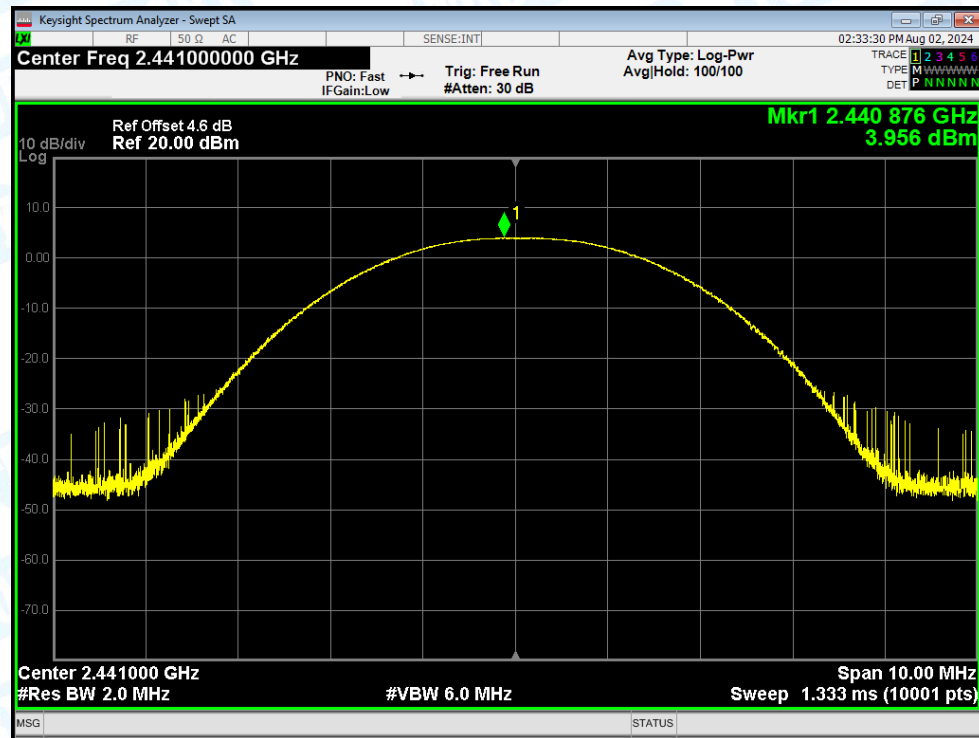
Condition	Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	3.874	21	Pass
NVNT	1-DH1	2441	Ant1	3.956	21	Pass
NVNT	1-DH1	2480	Ant1	3.311	21	Pass
NVNT	2-DH1	2402	Ant1	4.872	21	Pass
NVNT	2-DH1	2441	Ant1	4.745	21	Pass
NVNT	2-DH1	2480	Ant1	4.132	21	Pass
NVNT	3-DH1	2402	Ant1	5.374	21	Pass
NVNT	3-DH1	2441	Ant1	5.302	21	Pass
NVNT	3-DH1	2480	Ant1	4.719	21	Pass

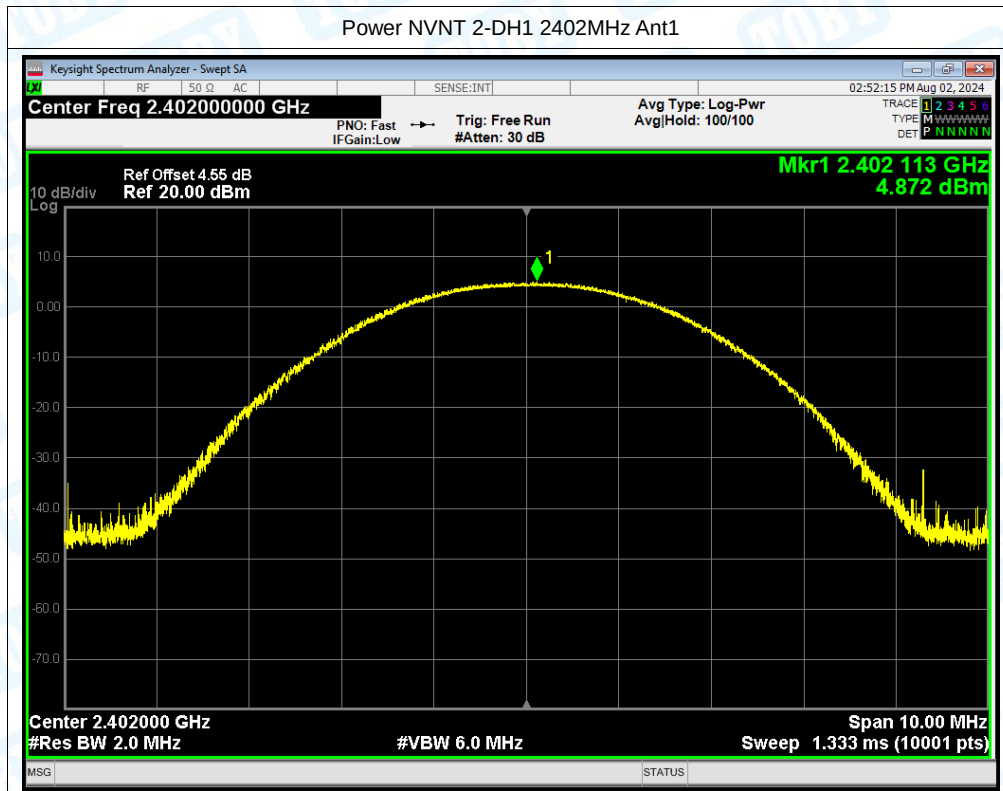
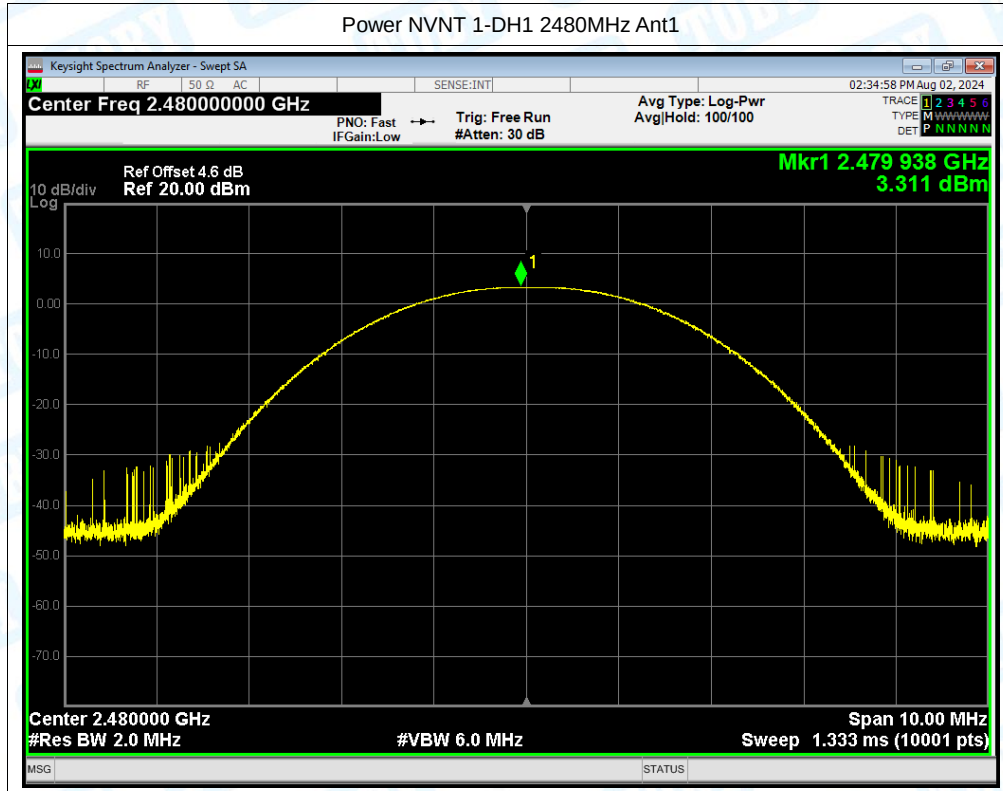
Test Graphs

Power NVNT 1-DH1 2402MHz Ant1

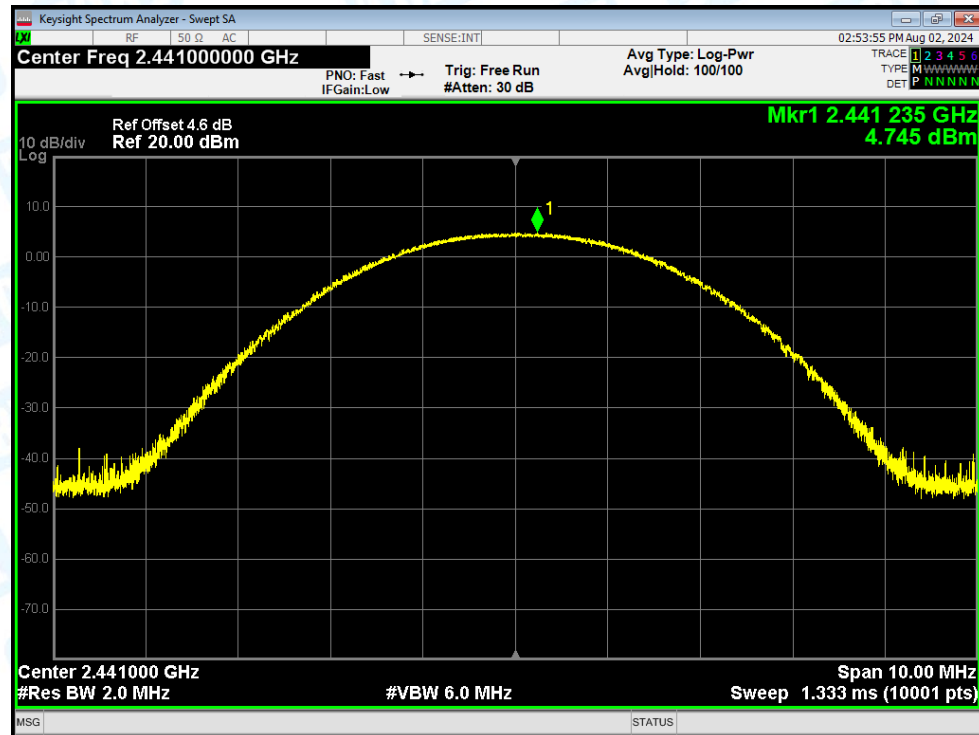


Power NVNT 1-DH1 2441MHz Ant1

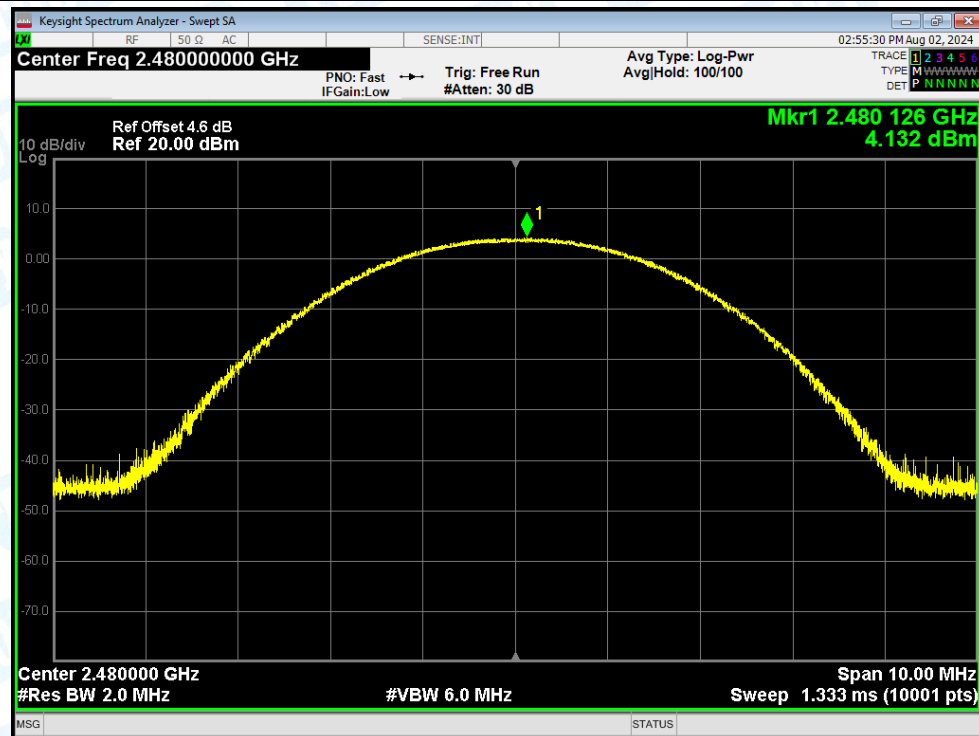




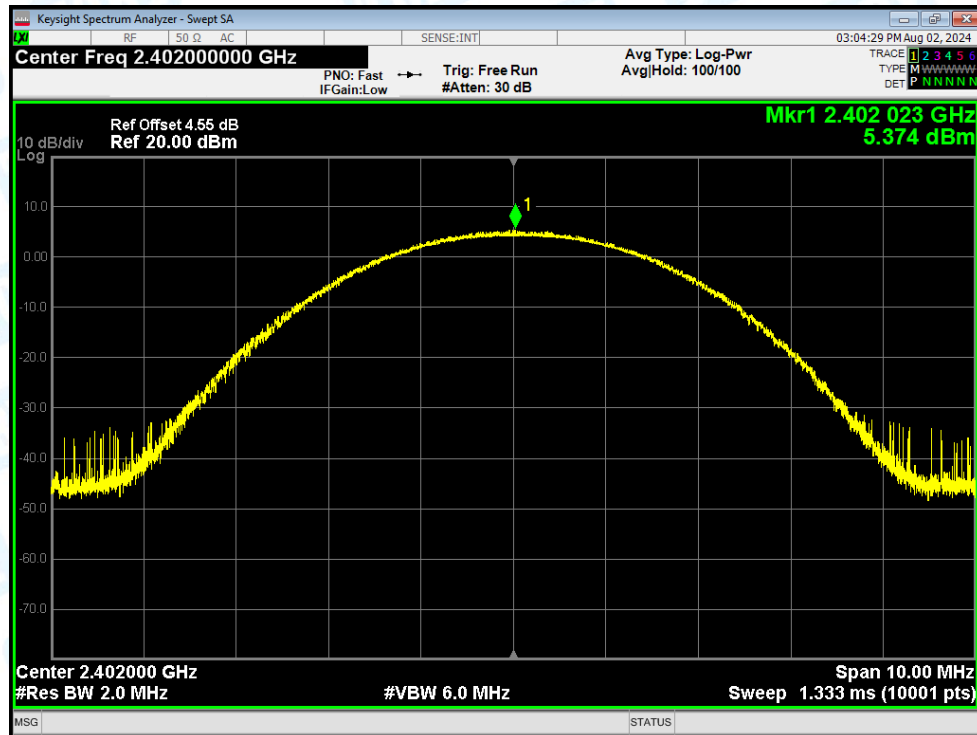
Power NVNT 2-DH1 2441MHz Ant1



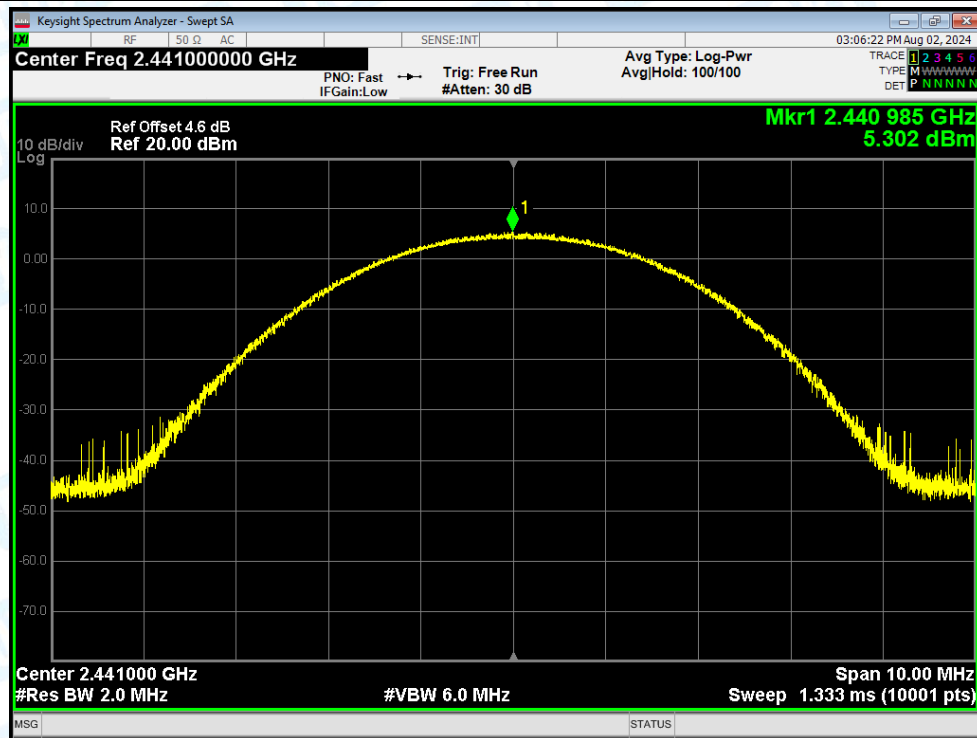
Power NVNT 2-DH1 2480MHz Ant1

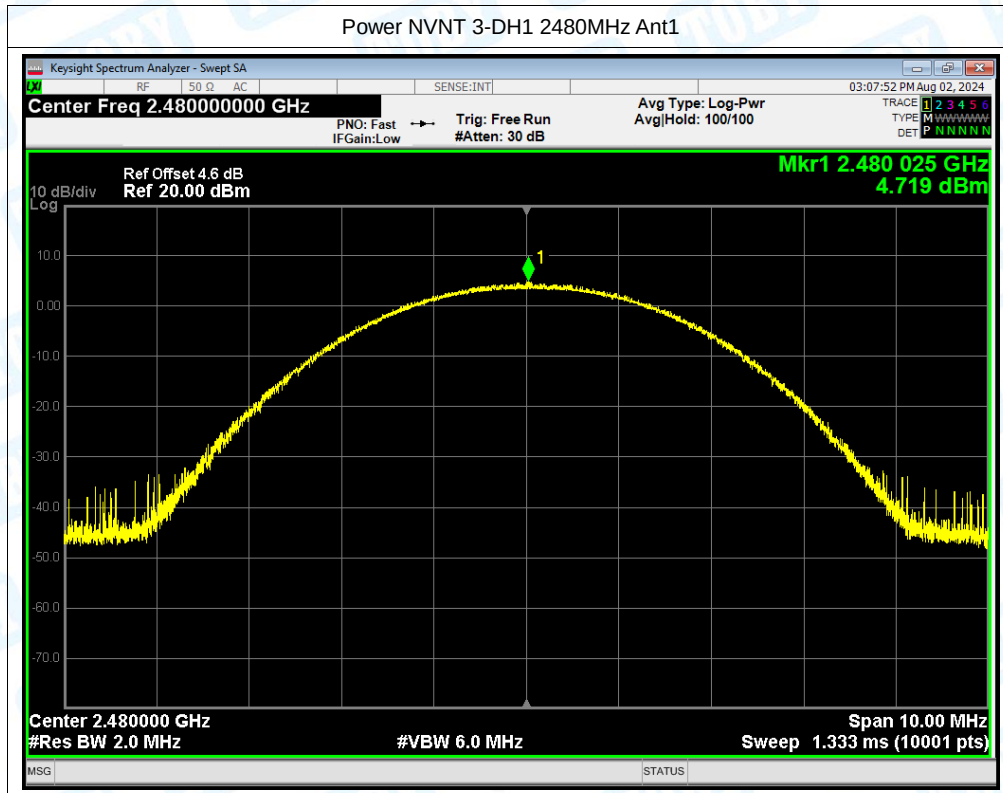


Power NVNT 3-DH1 2402MHz Ant1



Power NVNT 3-DH1 2441MHz Ant1



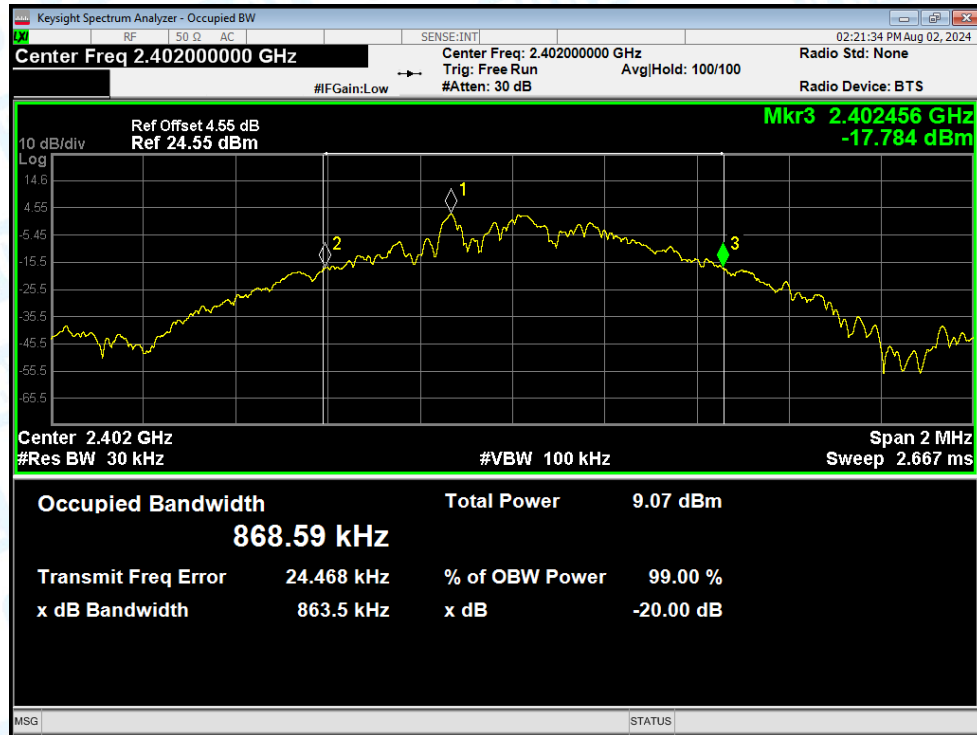


3 -20dB Bandwidth

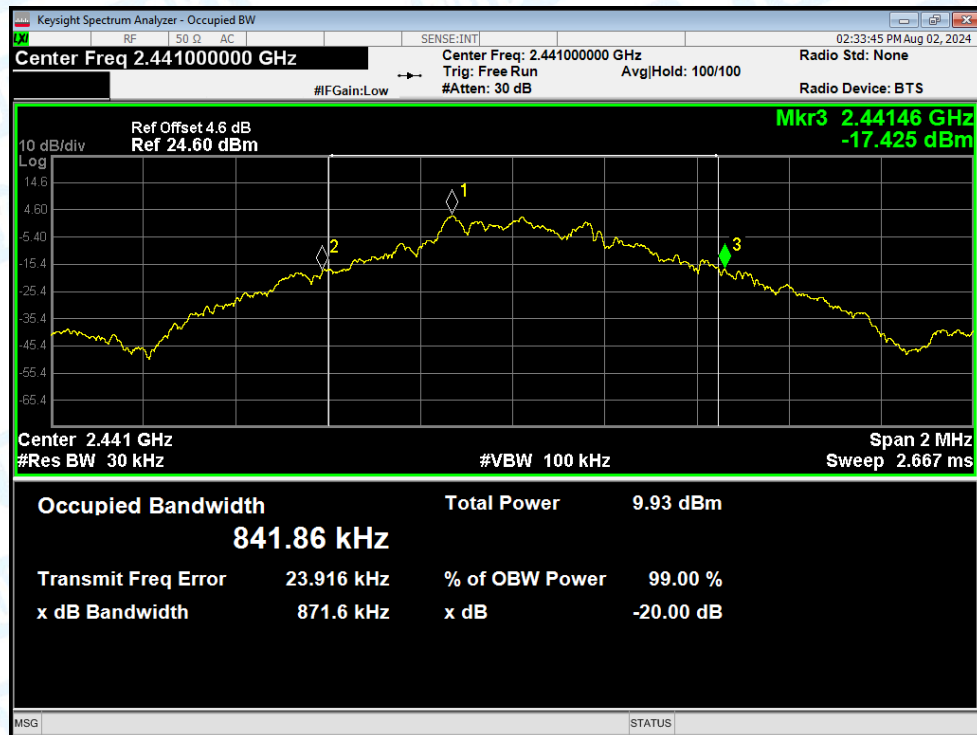
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	0.86	0	Pass
NVNT	1-DH1	2441	Ant1	0.87	0	Pass
NVNT	1-DH1	2480	Ant1	0.92	0	Pass
NVNT	2-DH1	2402	Ant1	1.26	0	Pass
NVNT	2-DH1	2441	Ant1	1.27	0	Pass
NVNT	2-DH1	2480	Ant1	1.25	0	Pass
NVNT	3-DH1	2402	Ant1	1.22	0	Pass
NVNT	3-DH1	2441	Ant1	1.21	0	Pass
NVNT	3-DH1	2480	Ant1	1.22	0	Pass

Test Graphs

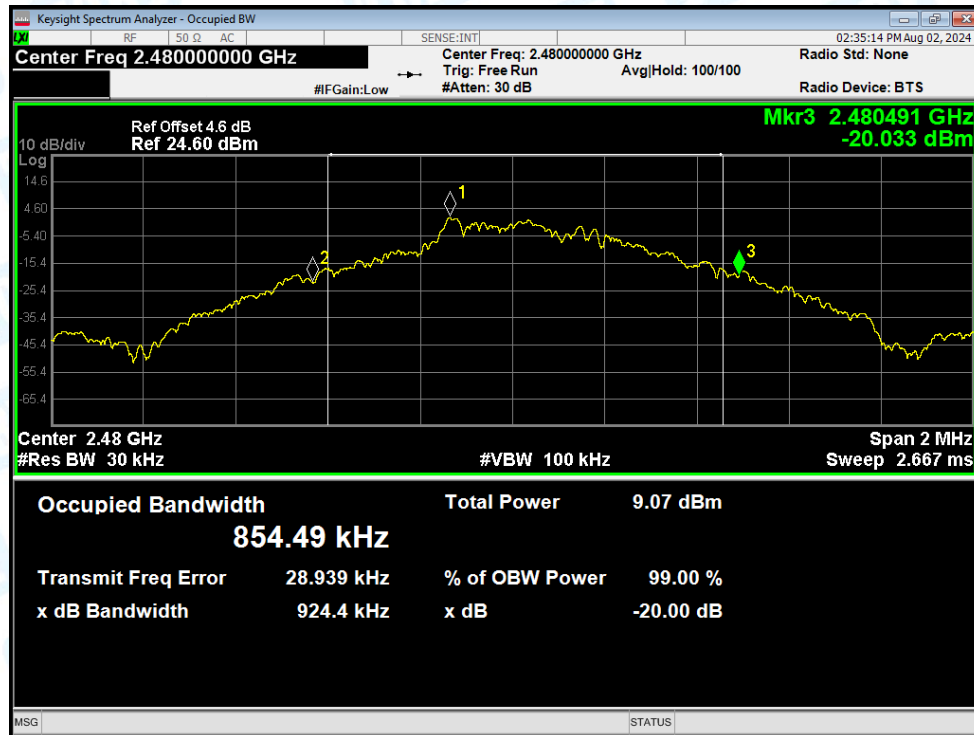
-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1



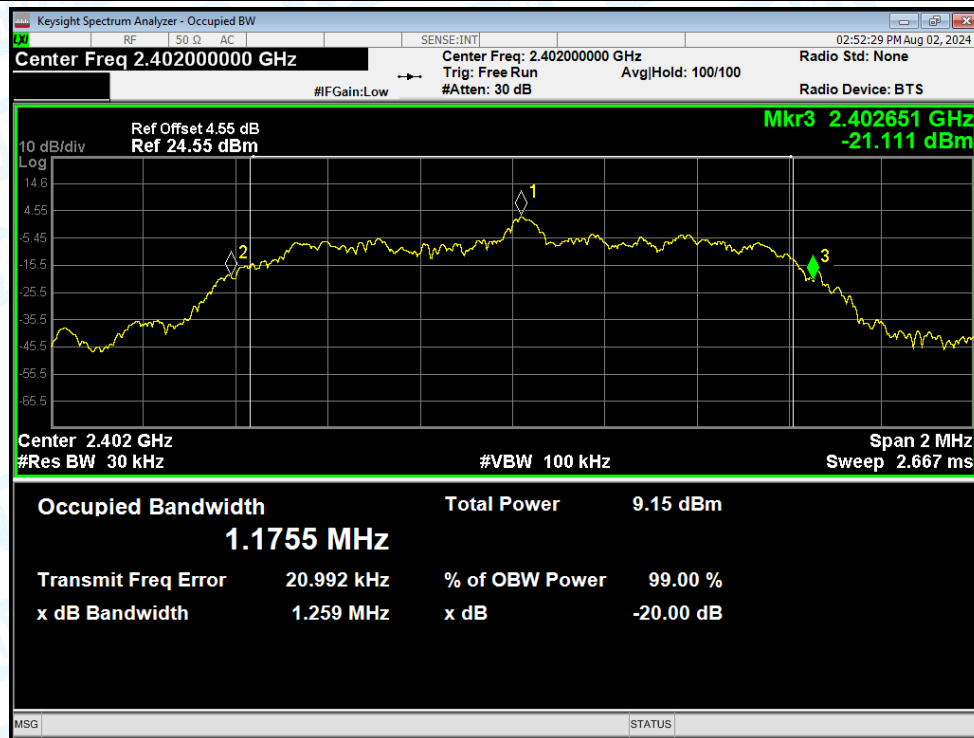
-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1



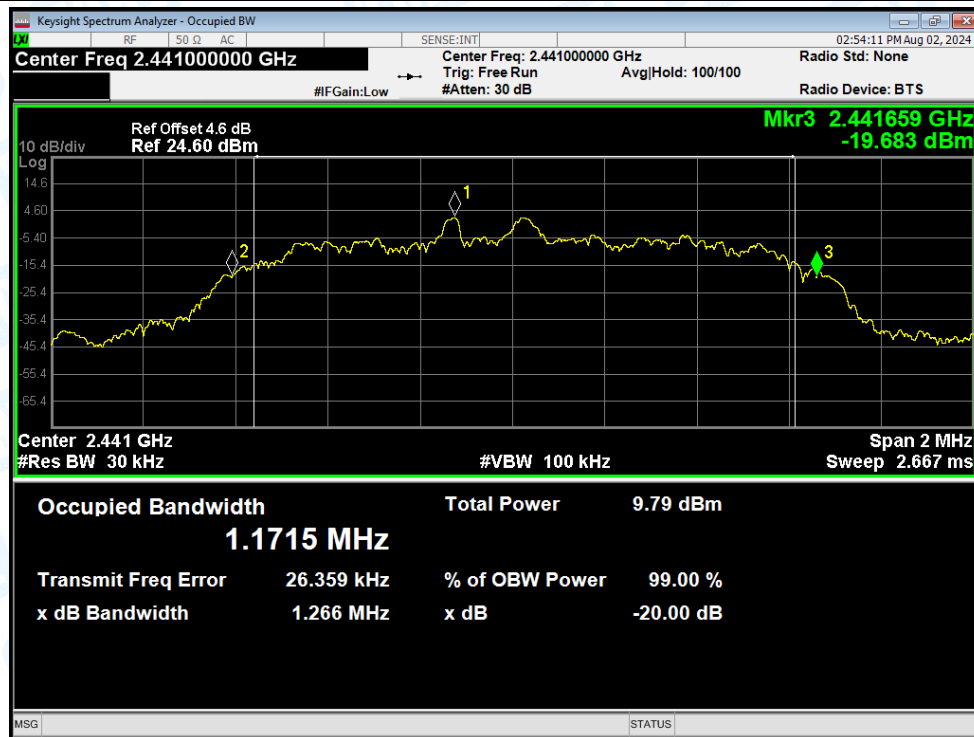
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



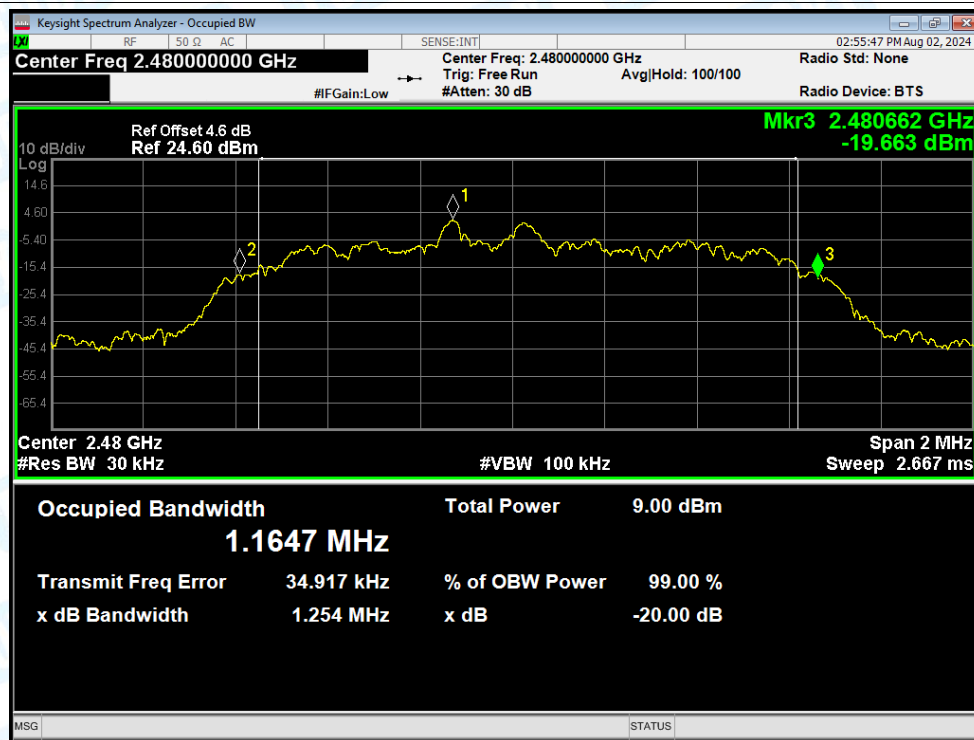
-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



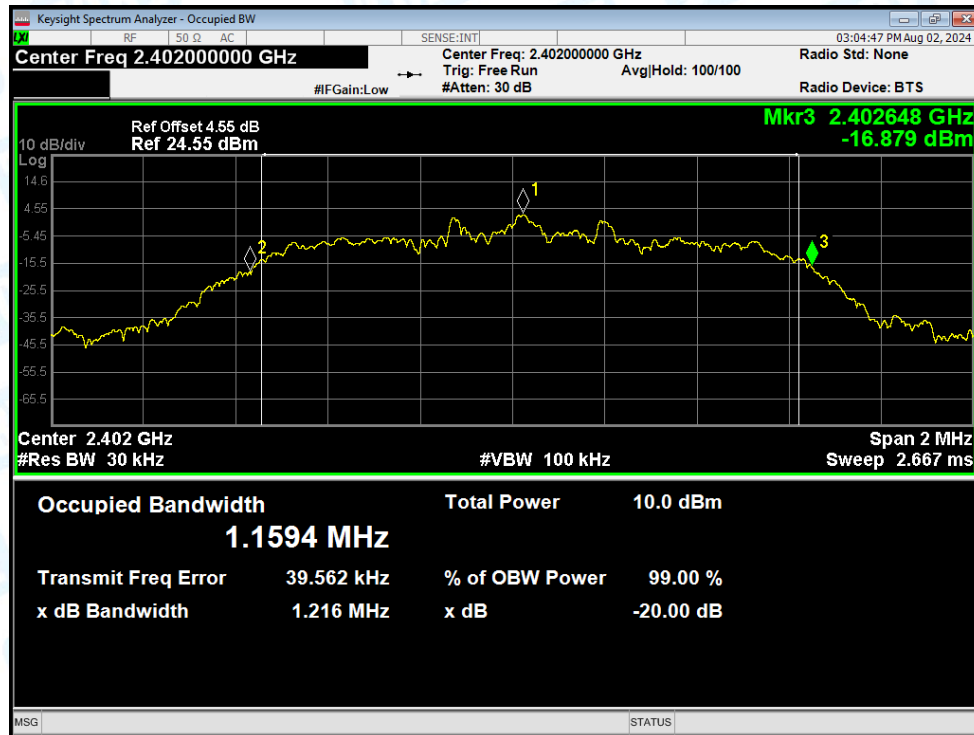
-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



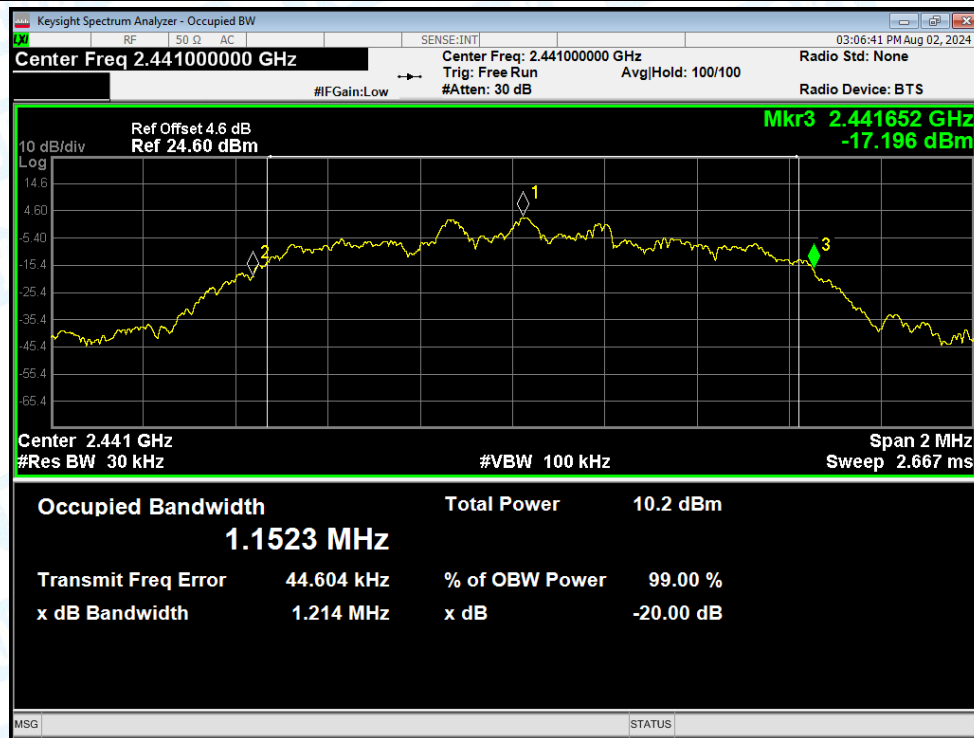
-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1

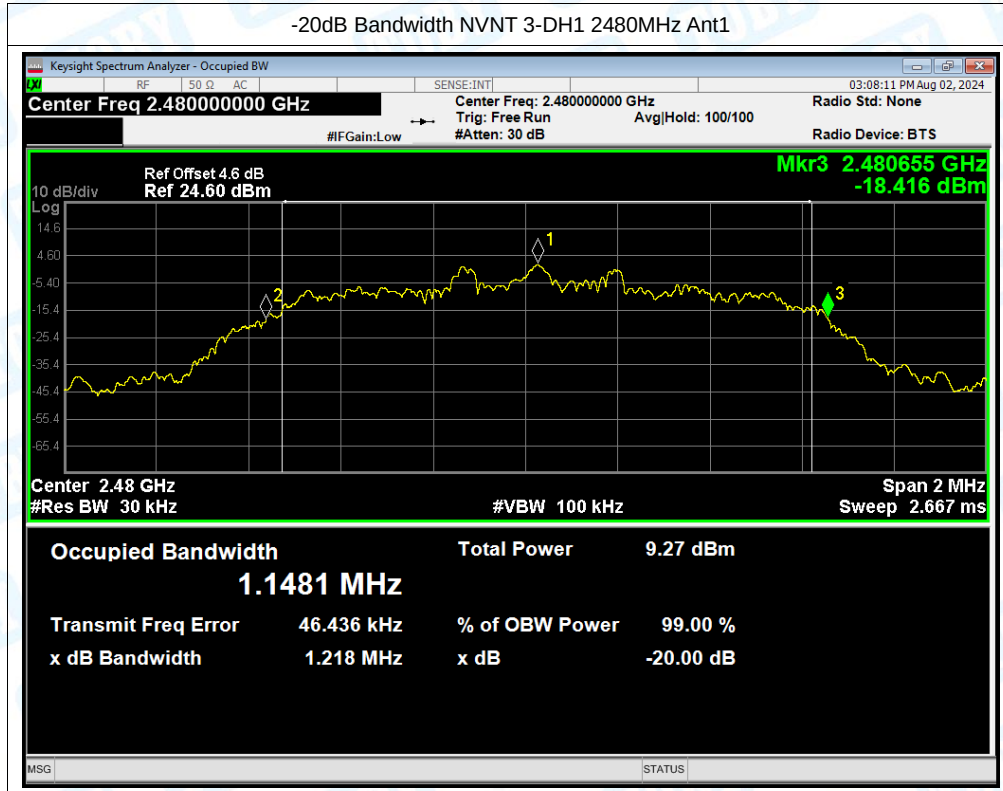


-20dB Bandwidth NVNT 3-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2441MHz Ant1



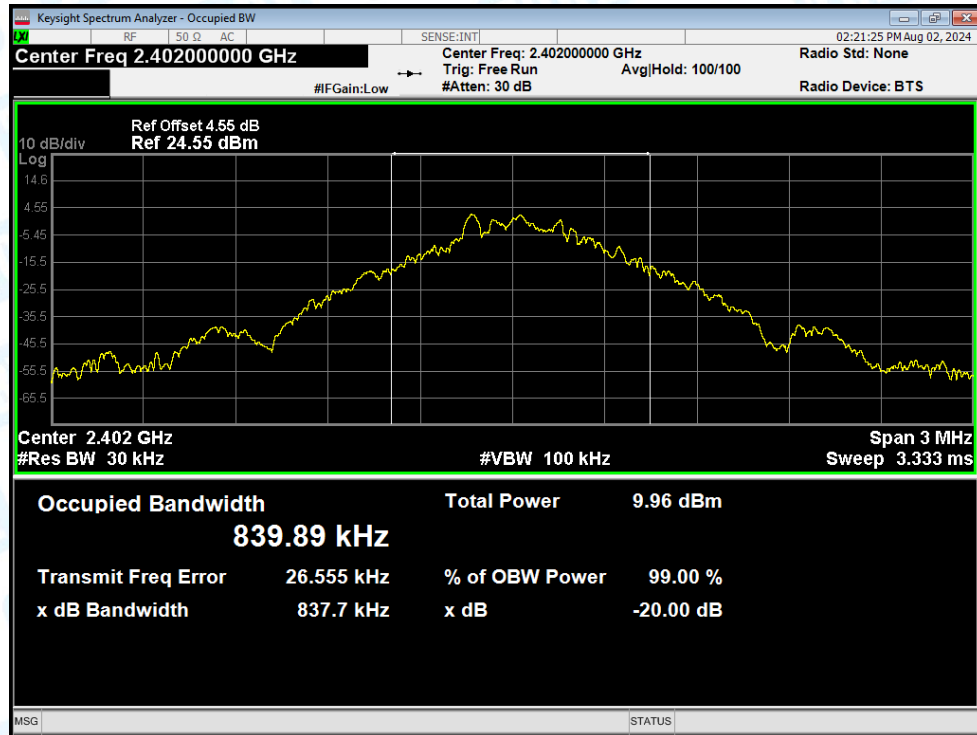


4 Occupied Channel Bandwidth

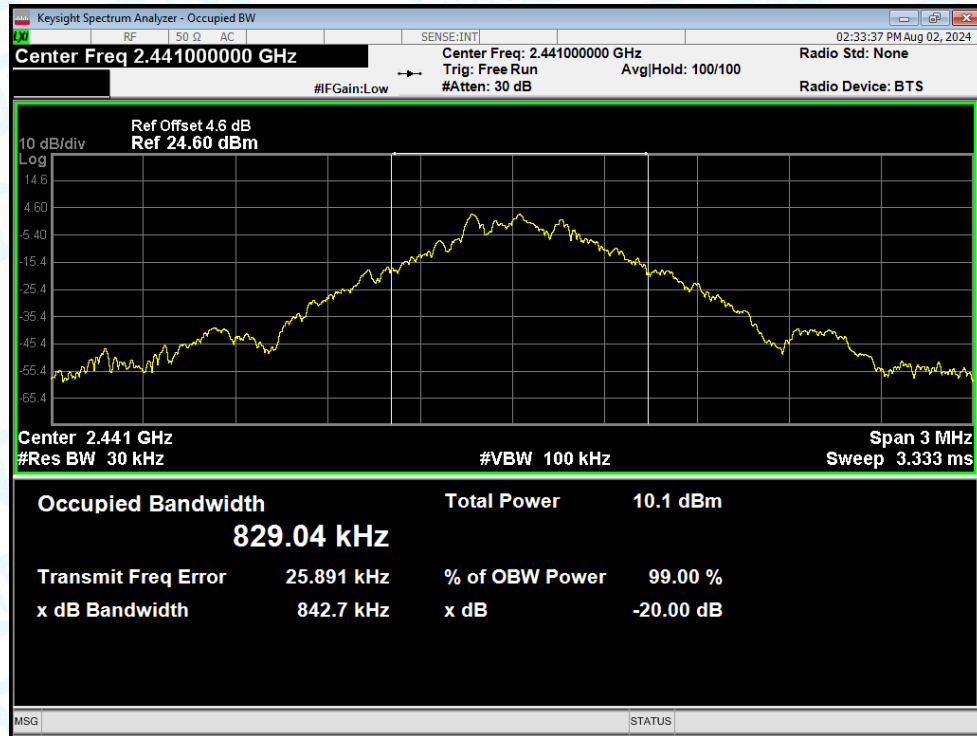
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH1	2402	Ant1	0.84
NVNT	1-DH1	2441	Ant1	0.829
NVNT	1-DH1	2480	Ant1	0.852
NVNT	2-DH1	2402	Ant1	1.143
NVNT	2-DH1	2441	Ant1	1.185
NVNT	2-DH1	2480	Ant1	1.163
NVNT	3-DH1	2402	Ant1	1.167
NVNT	3-DH1	2441	Ant1	1.144
NVNT	3-DH1	2480	Ant1	1.157

Test Graphs

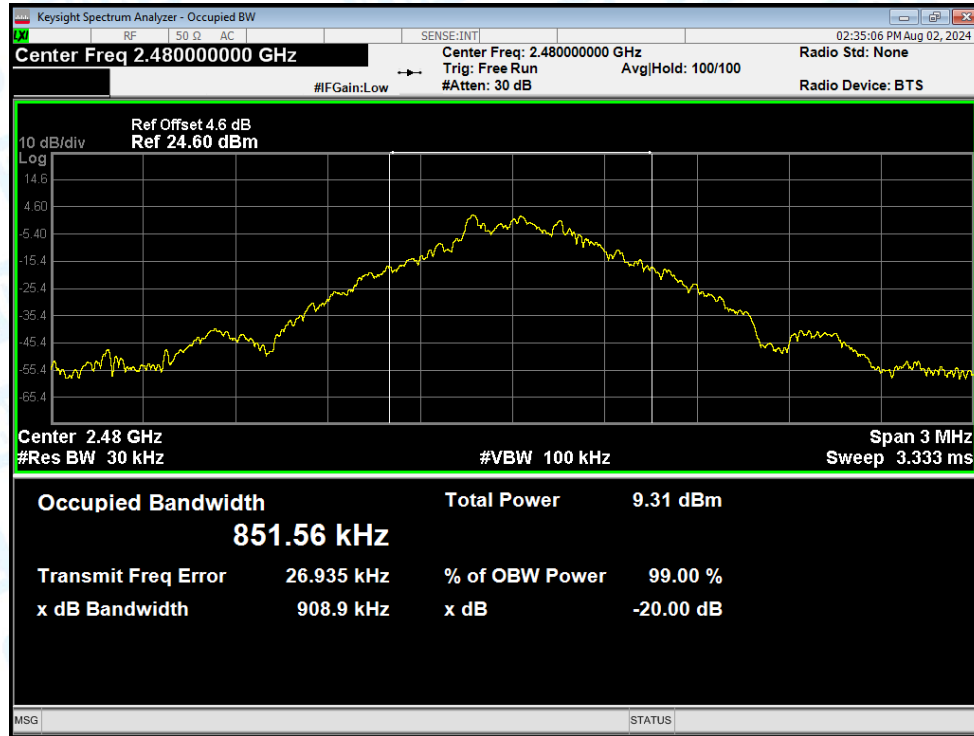
OBW NVNT 1-DH1 2402MHz Ant1



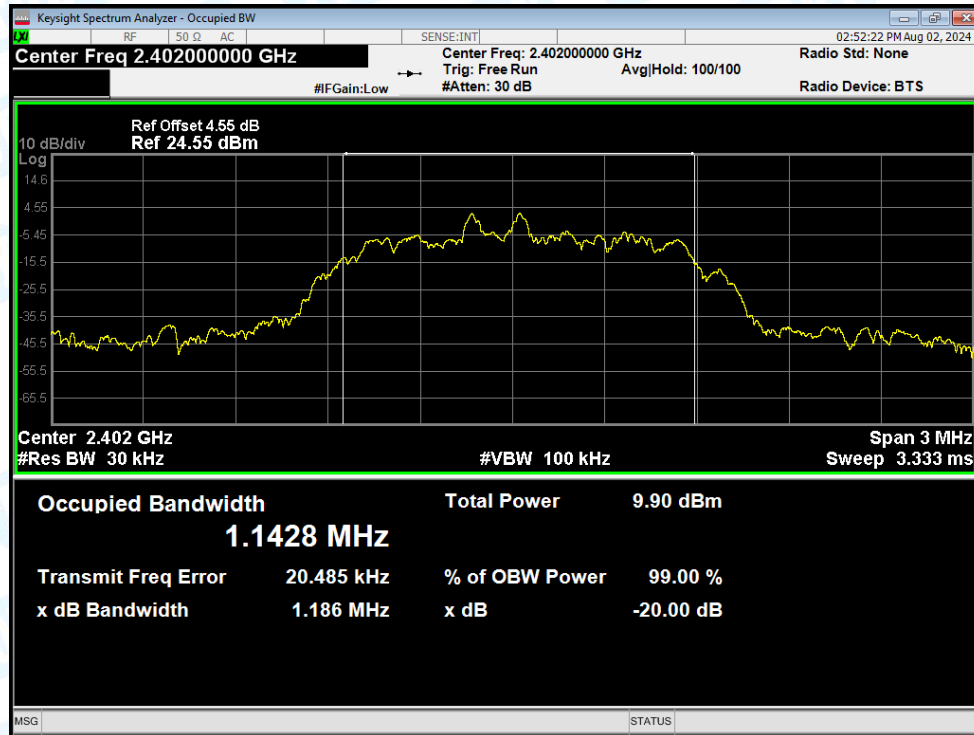
OBW NVNT 1-DH1 2441MHz Ant1



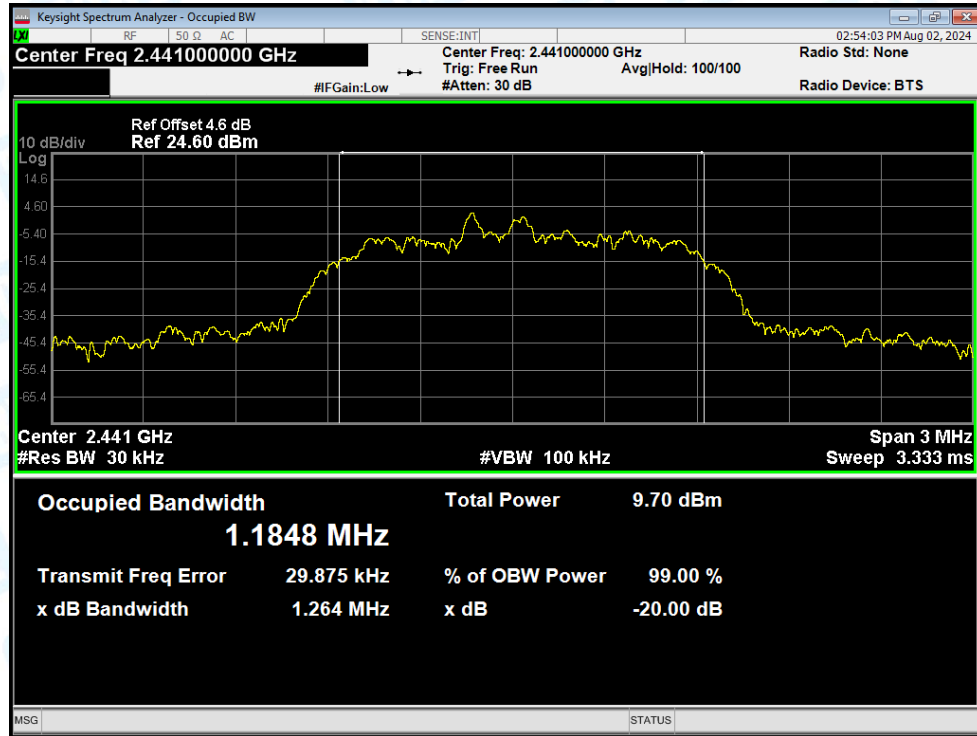
OBW NVNT 1-DH1 2480MHz Ant1



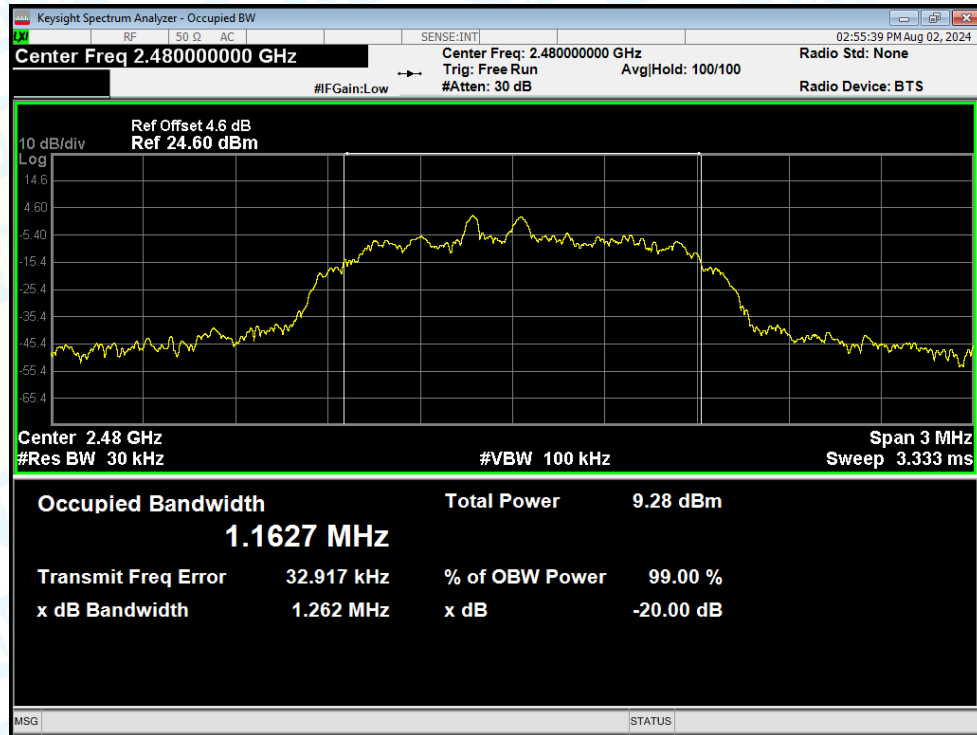
OBW NVNT 2-DH1 2402MHz Ant1



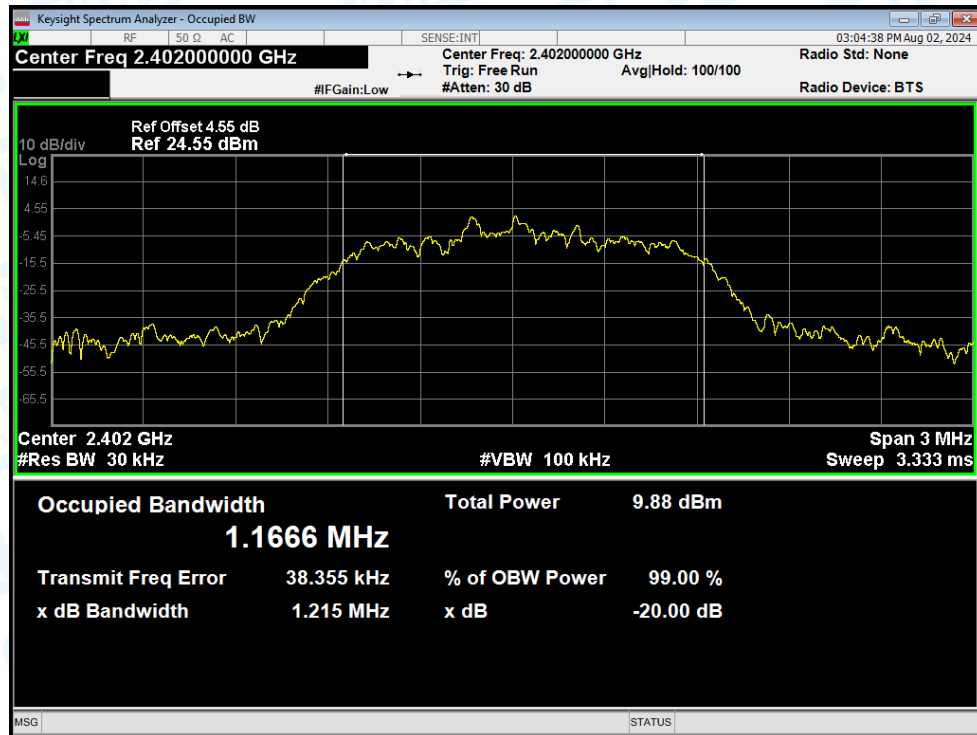
OBW NVNT 2-DH1 2441MHz Ant1



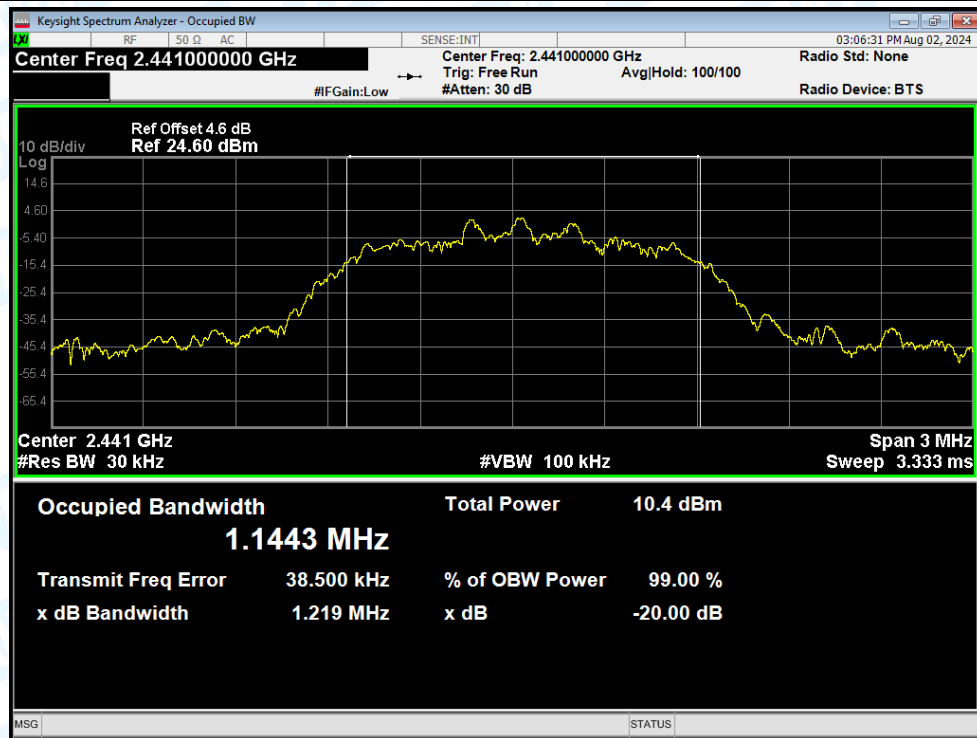
OBW NVNT 2-DH1 2480MHz Ant1

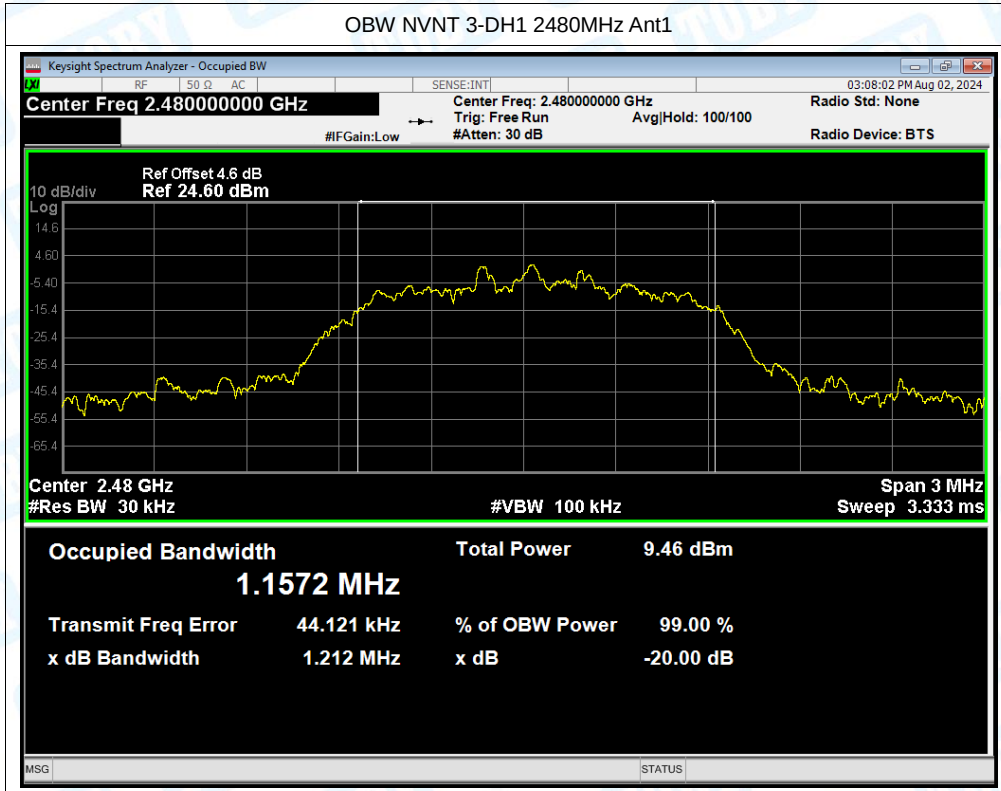


OBW NVNT 3-DH1 2402MHz Ant1



OBW NVNT 3-DH1 2441MHz Ant1



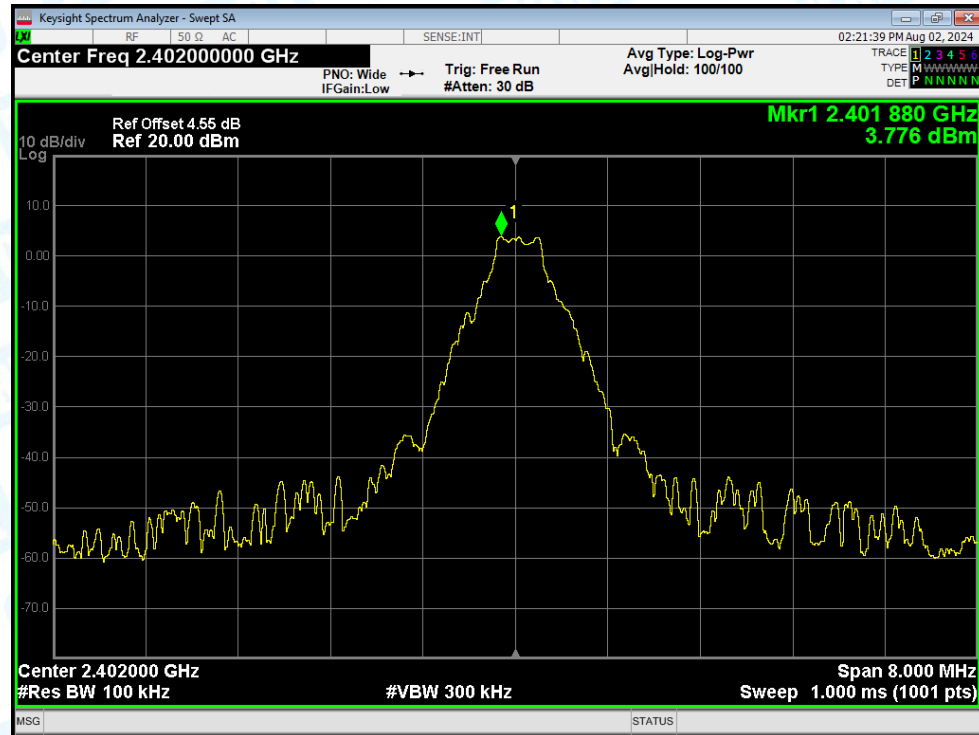


5 Band Edge

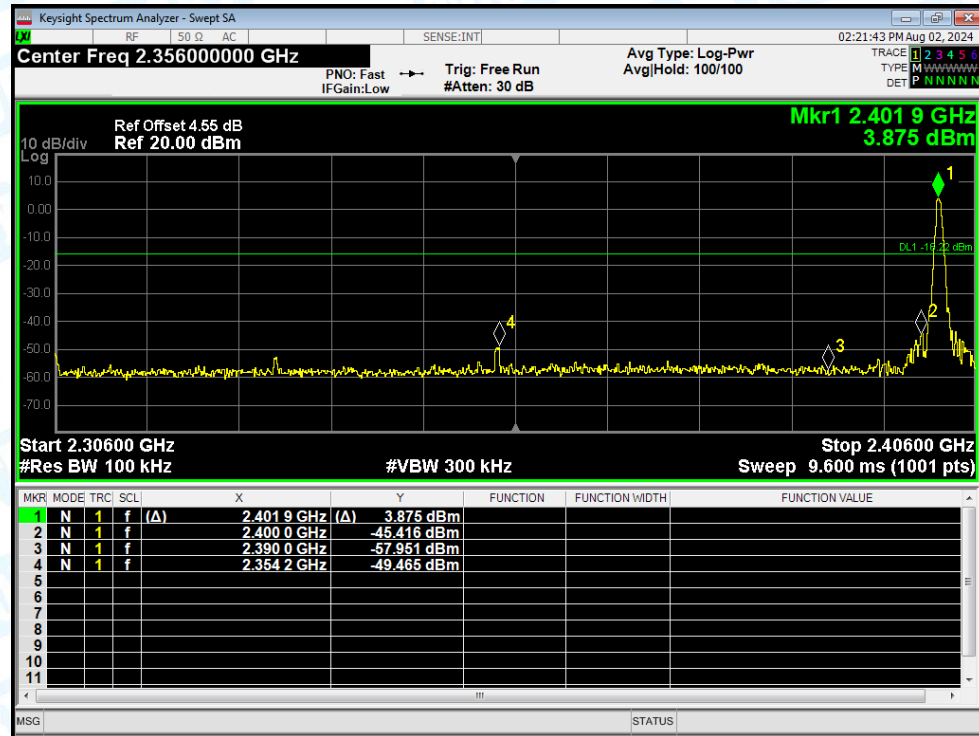
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-53.25	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-56.16	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-53.53	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-57.89	-20	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	-53.66	-20	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	-57.74	-20	Pass

Test Graphs

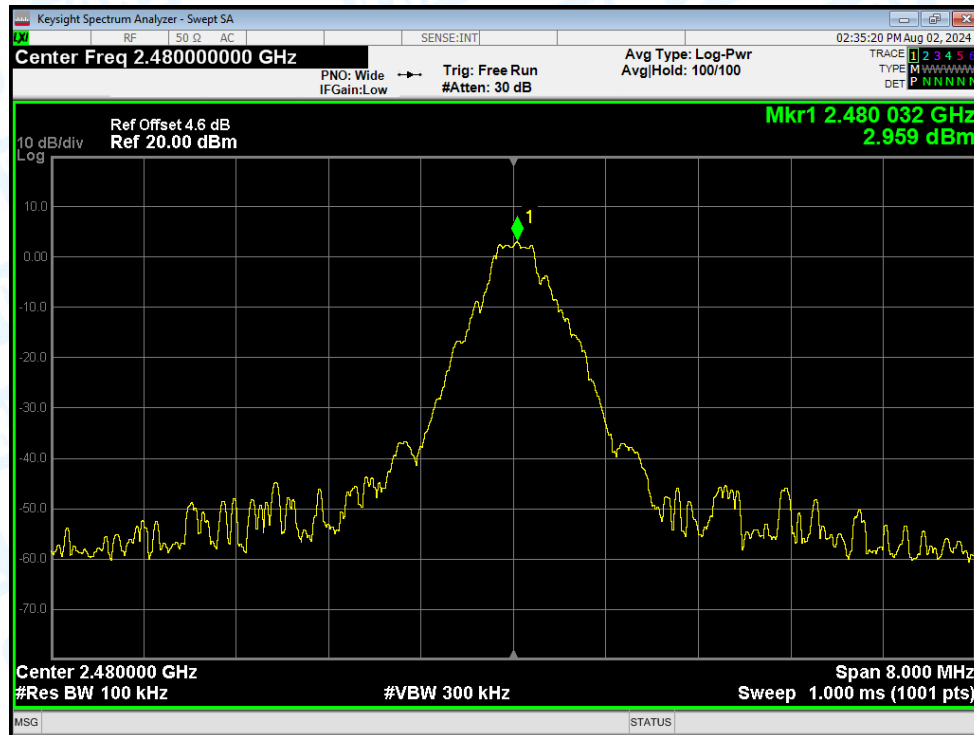
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Ref



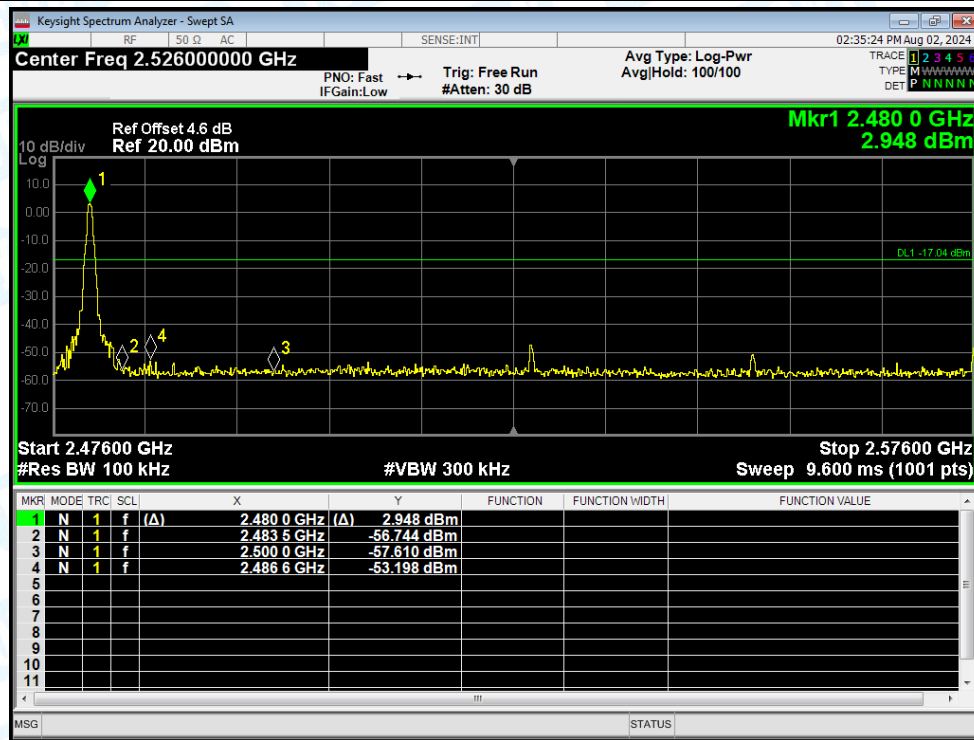
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission



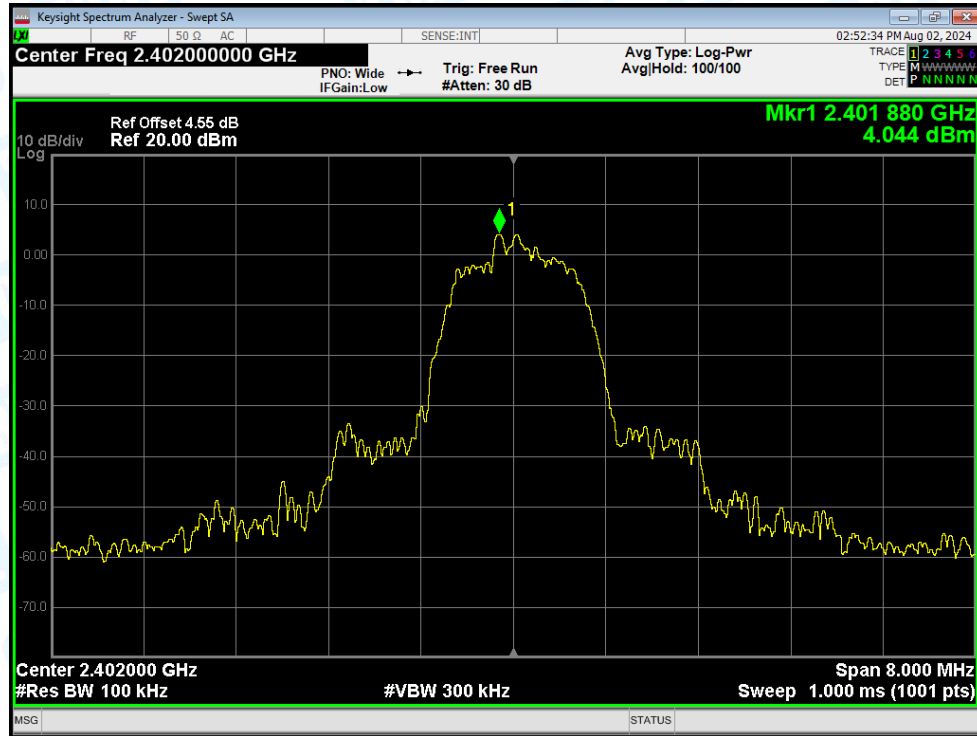
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Ref



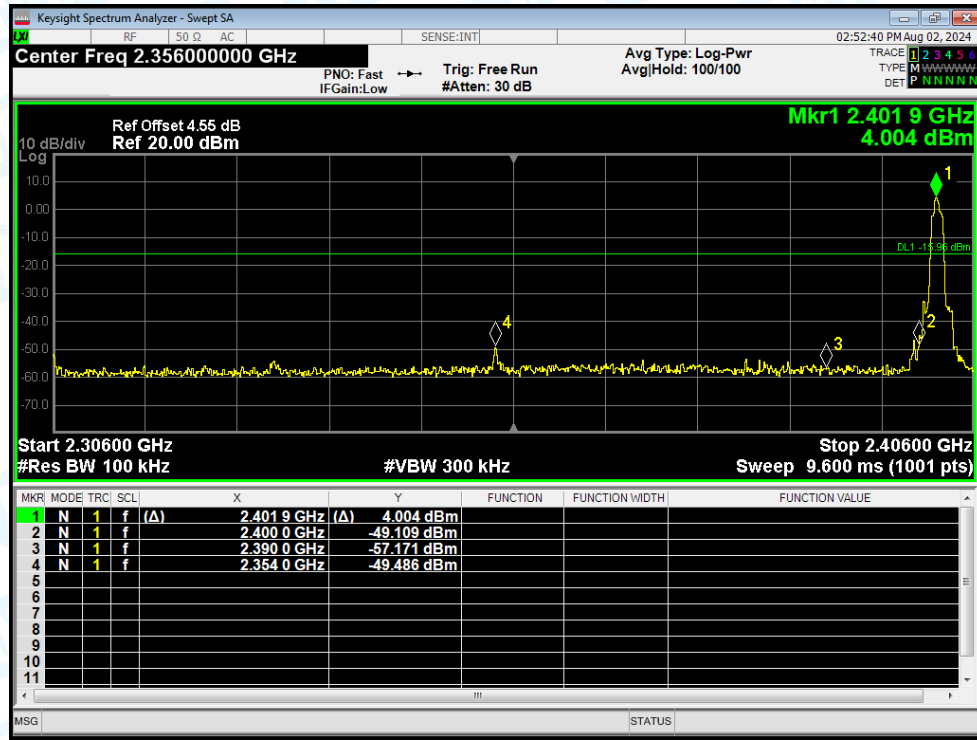
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Emission



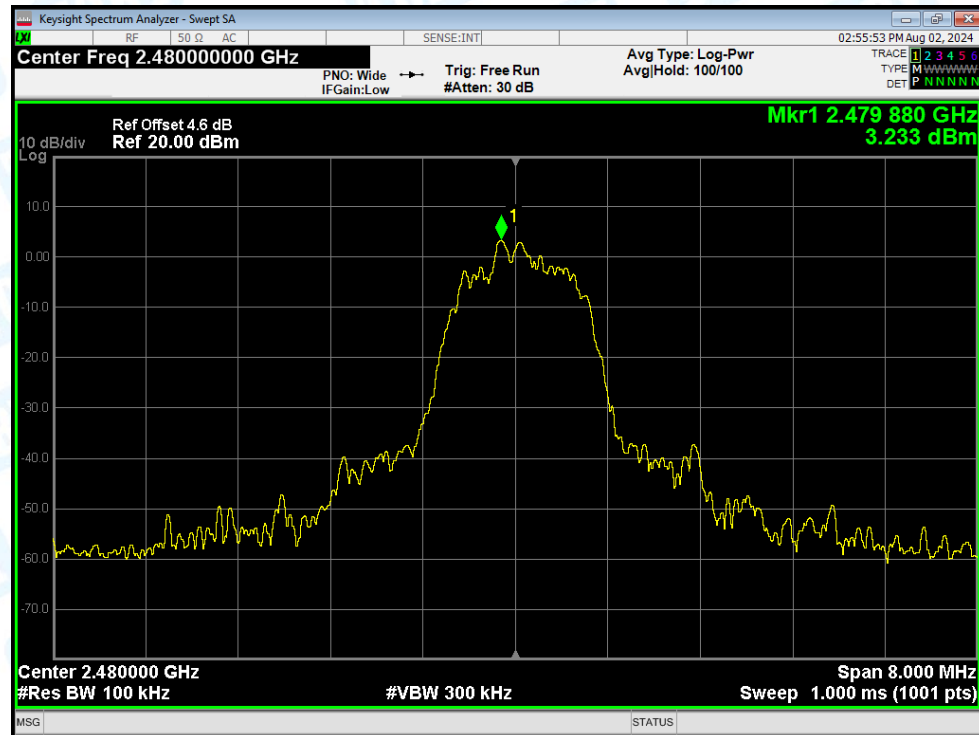
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Ref



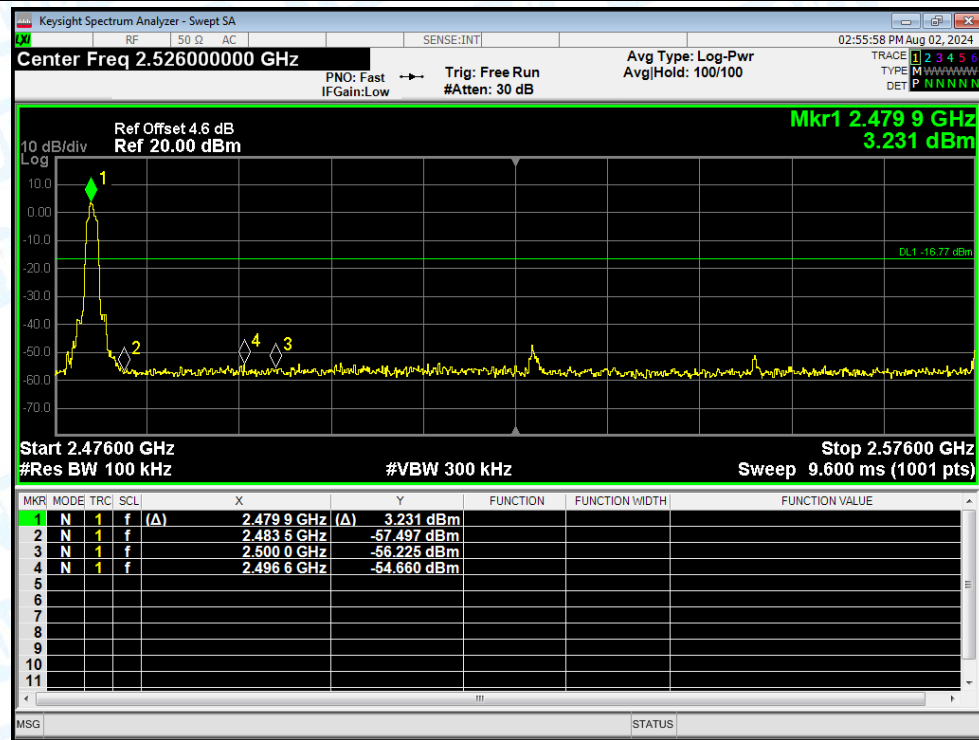
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Emission



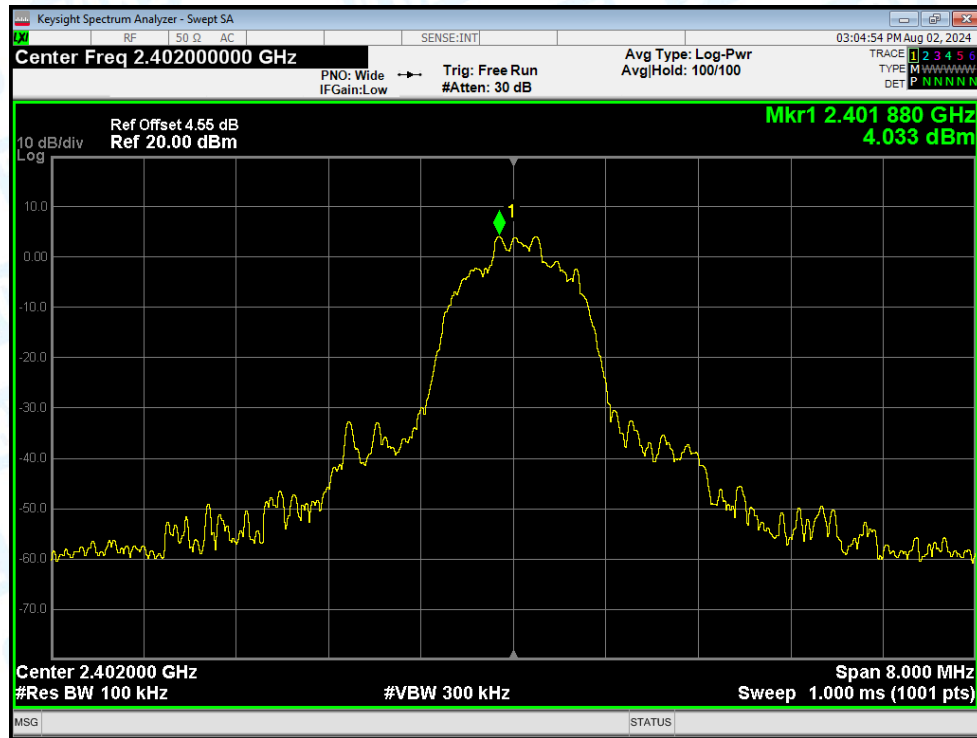
Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Ref



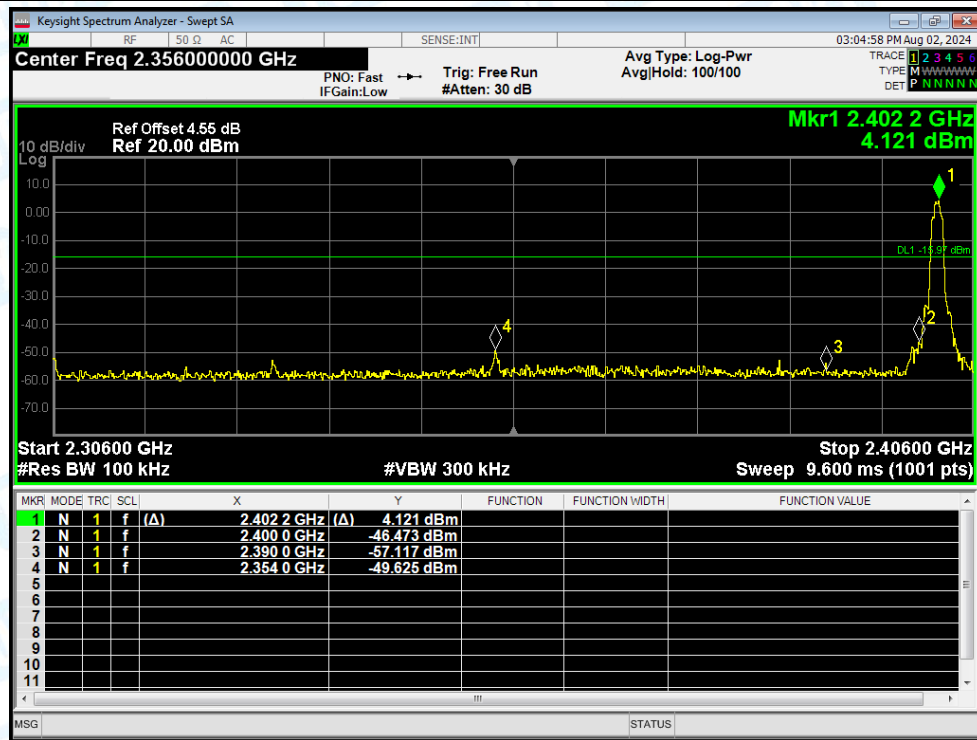
Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Emission



Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Ref



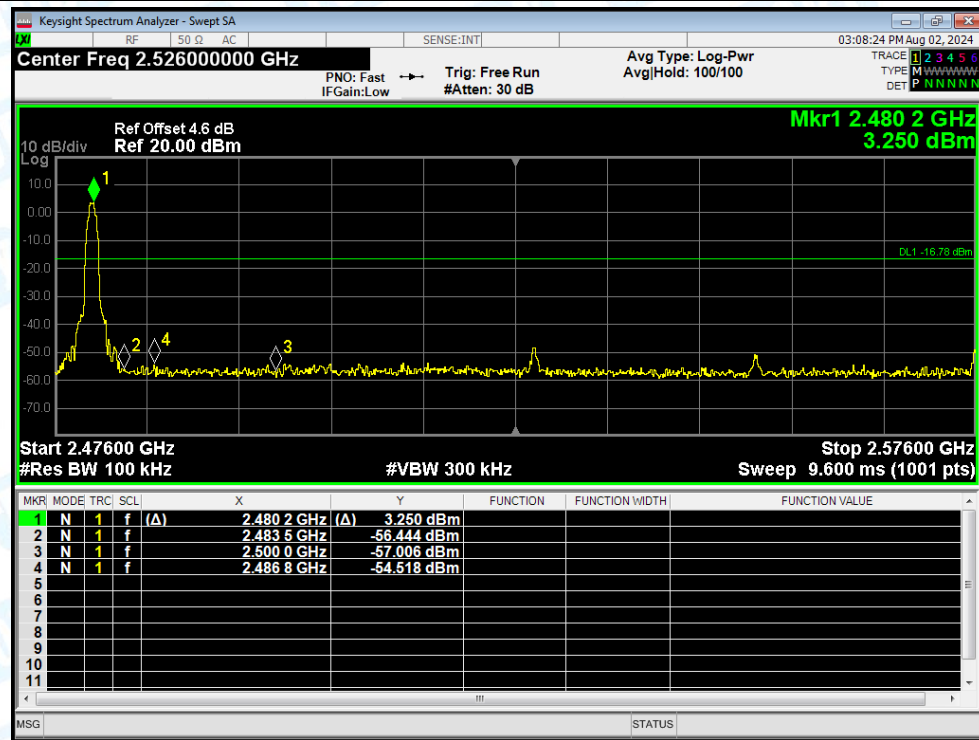
Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Emission



Band Edge NVNT 3-DH1 2480MHz Ant1 No-Hopping Ref



Band Edge NVNT 3-DH1 2480MHz Ant1 No-Hopping Emission

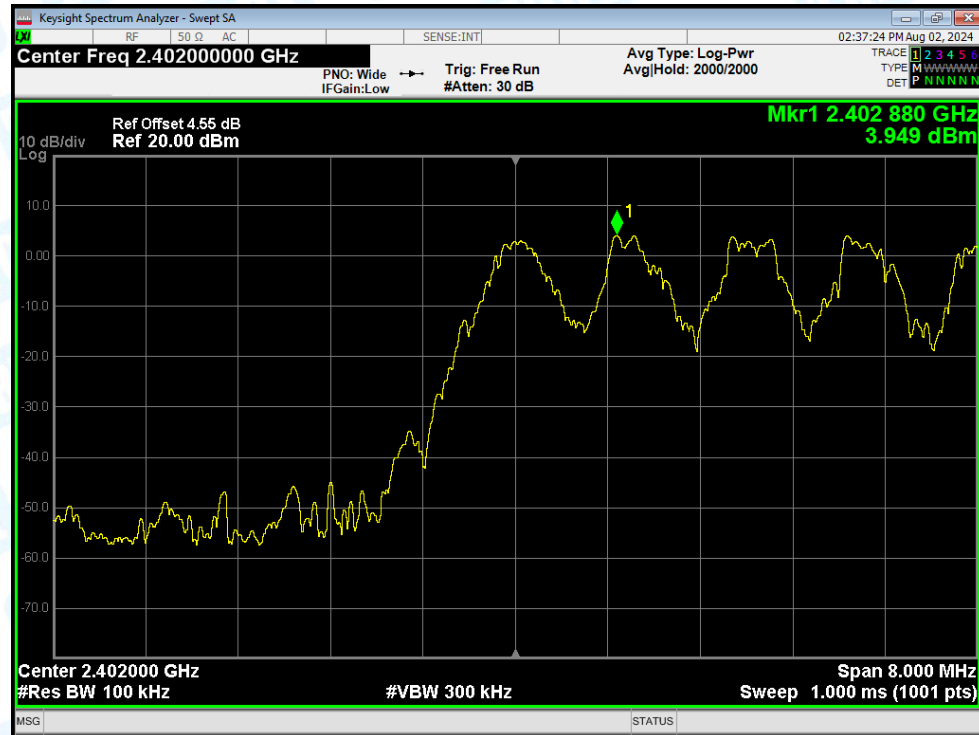


6 Band Edge(Hopping)

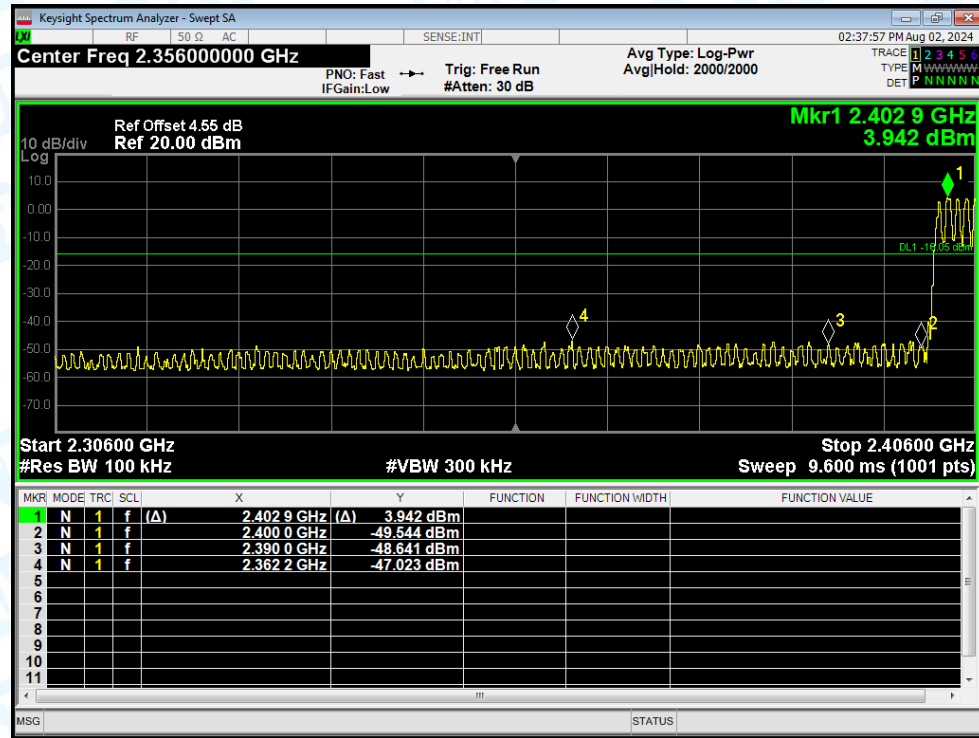
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-50.97	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-49.67	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-51.6	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-49.91	-20	Pass
NVNT	3-DH1	2402	Ant1	Hopping	-51.32	-20	Pass
NVNT	3-DH1	2480	Ant1	Hopping	-50.83	-20	Pass

Test Graphs

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



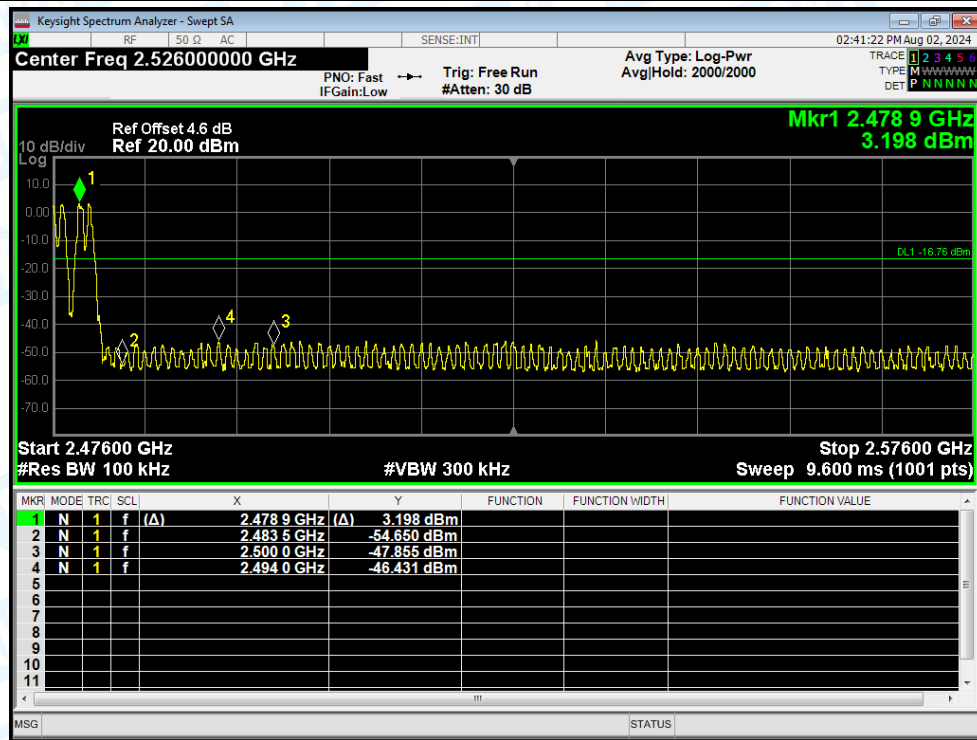
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Emission



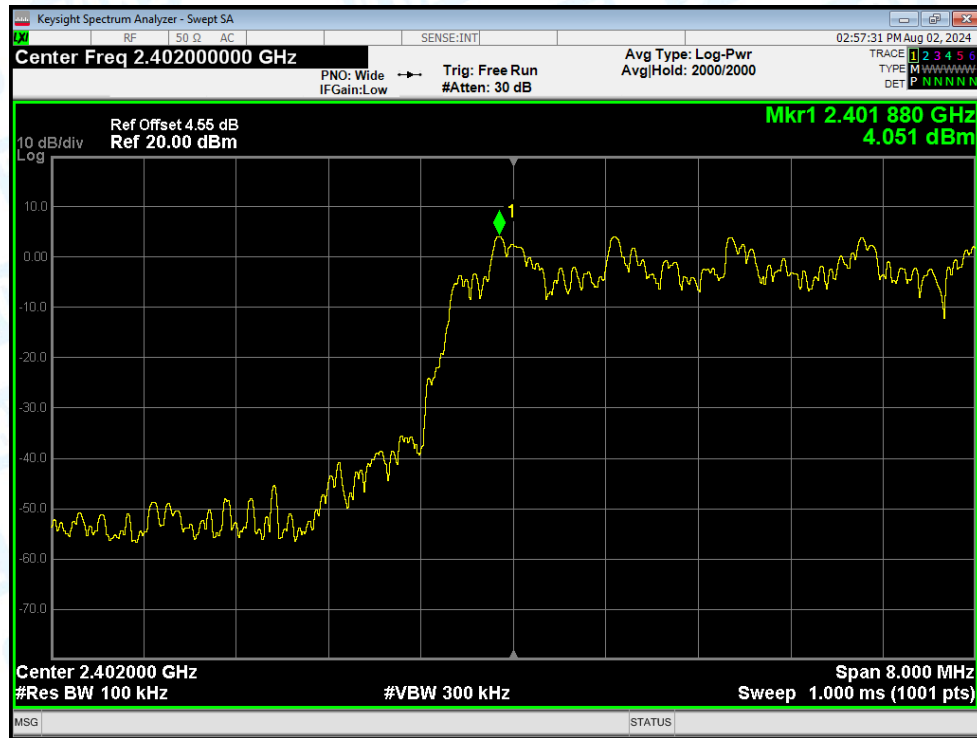
Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Ref



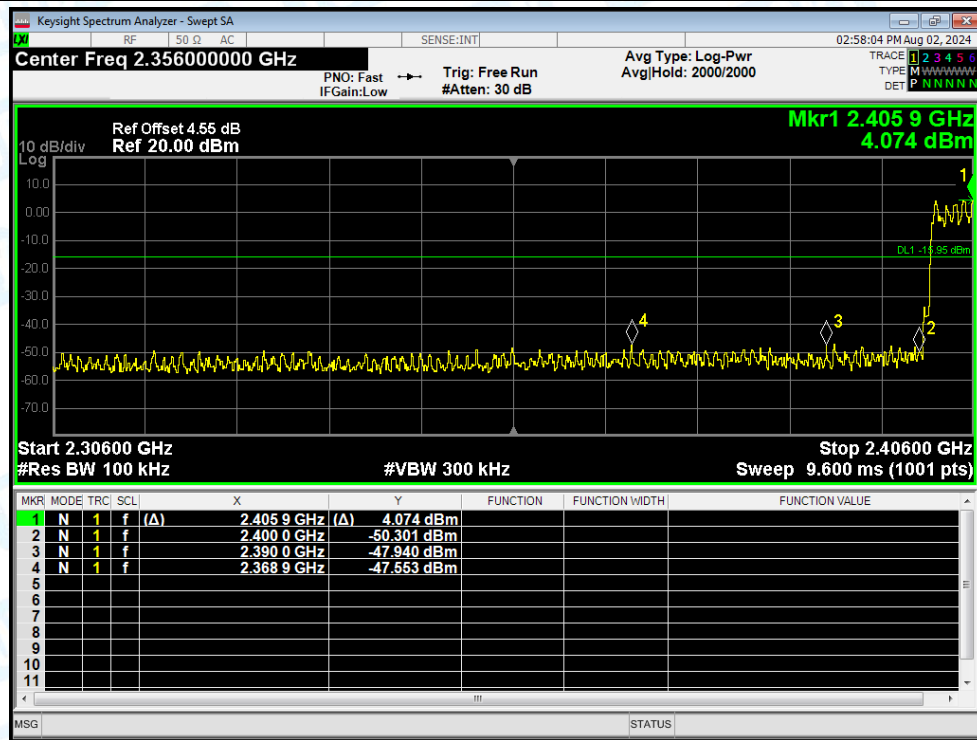
Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Emission



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



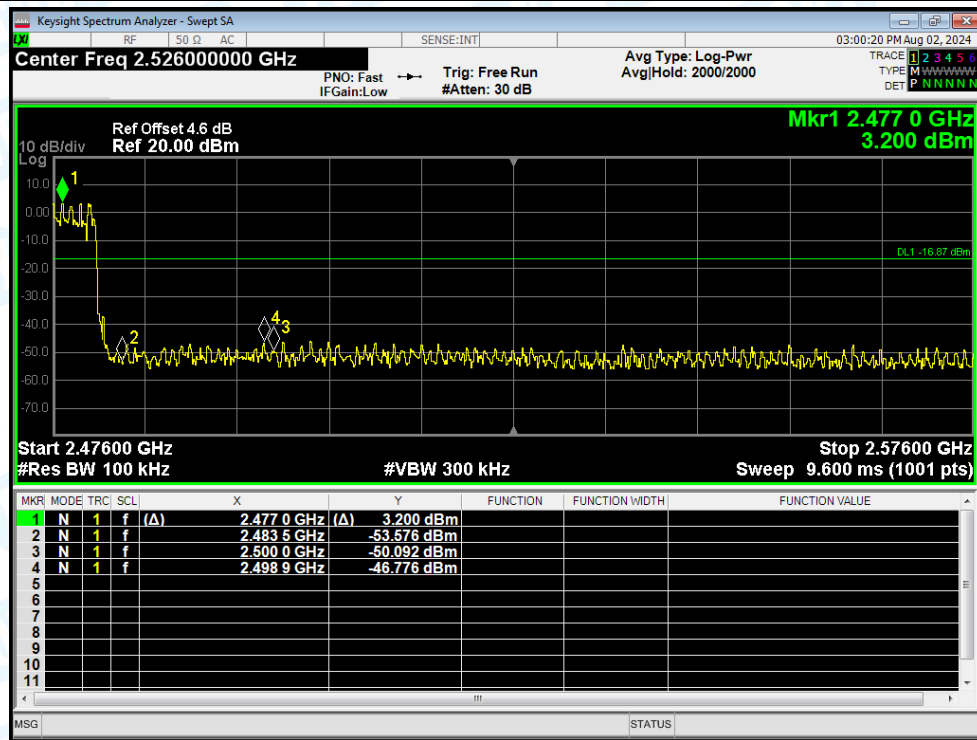
Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Emission



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



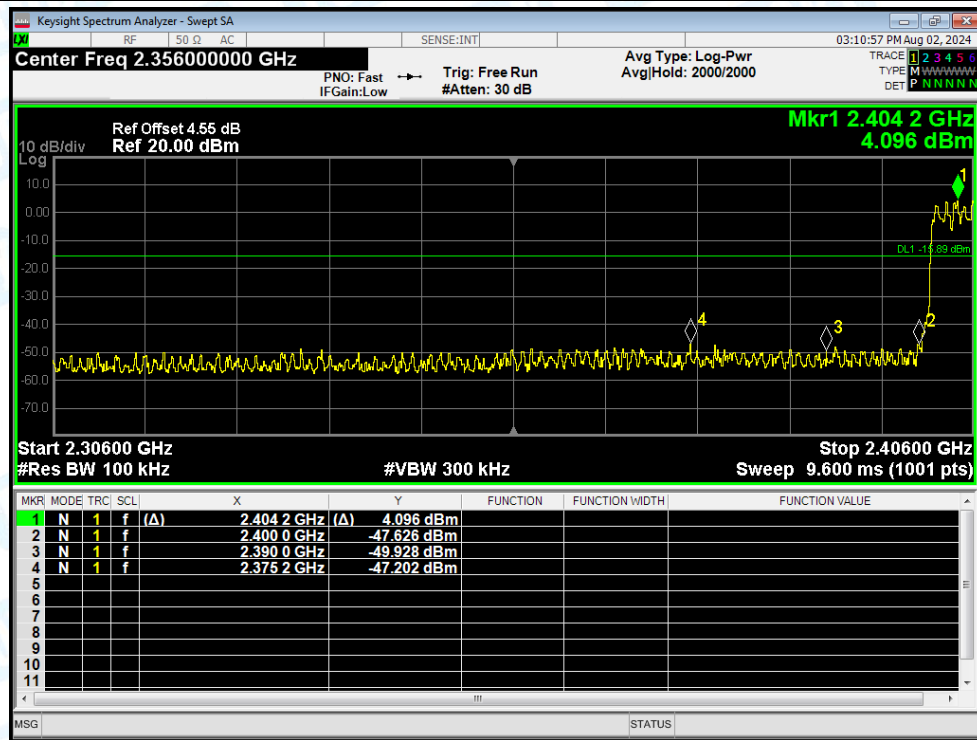
Band Edge(Hopping) NVNT 2-DH1 2480MHz Ant1 Hopping Emission

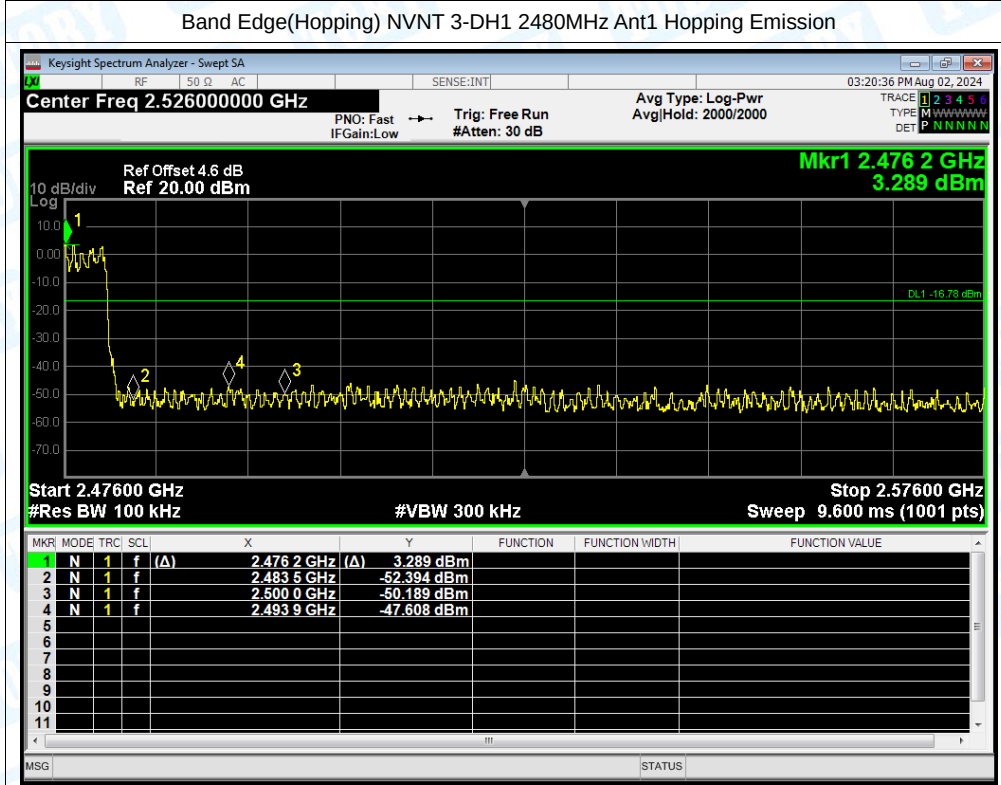
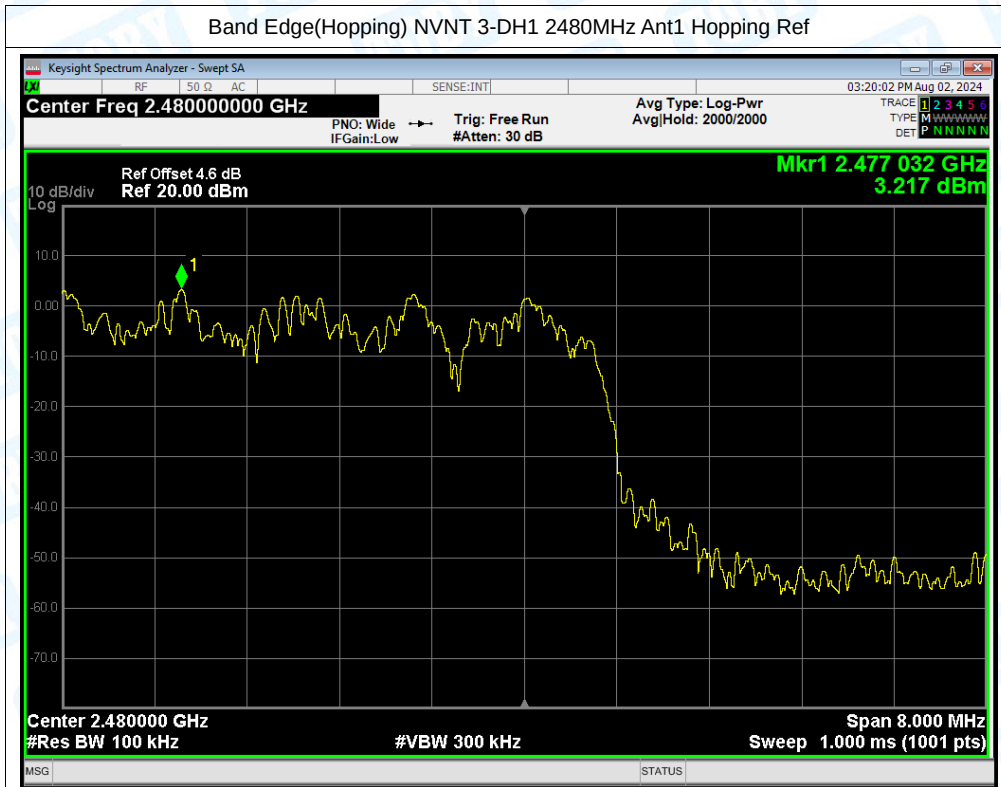


Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Ref



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



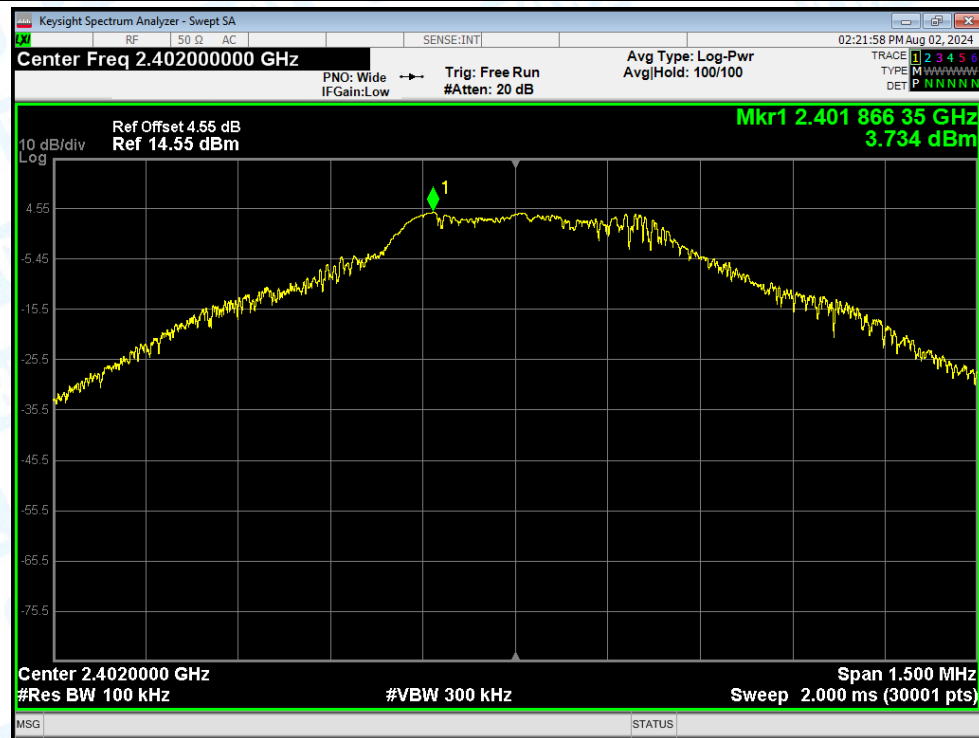


7 Conducted RF Spurious Emission

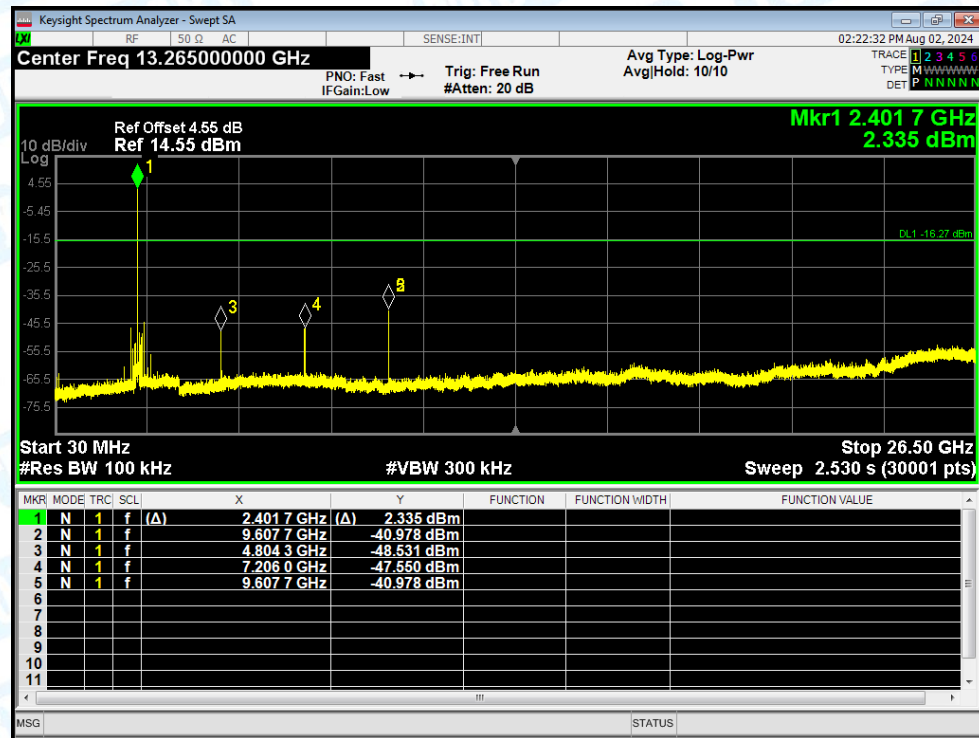
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	-44.71	-20	Pass
NVNT	1-DH1	2441	Ant1	-44.68	-20	Pass
NVNT	1-DH1	2480	Ant1	-43.13	-20	Pass
NVNT	2-DH1	2402	Ant1	-44.15	-20	Pass
NVNT	2-DH1	2441	Ant1	-42.97	-20	Pass
NVNT	2-DH1	2480	Ant1	-42.91	-20	Pass
NVNT	3-DH1	2402	Ant1	-43.66	-20	Pass
NVNT	3-DH1	2441	Ant1	-43.55	-20	Pass
NVNT	3-DH1	2480	Ant1	-43.52	-20	Pass

Test Graphs

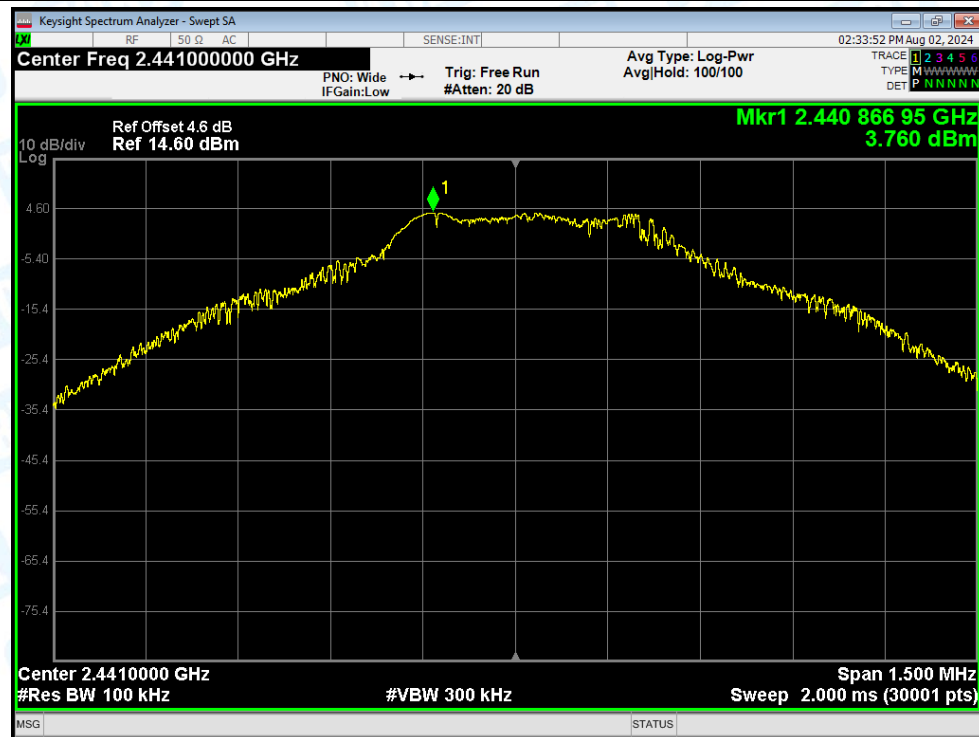
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Ref



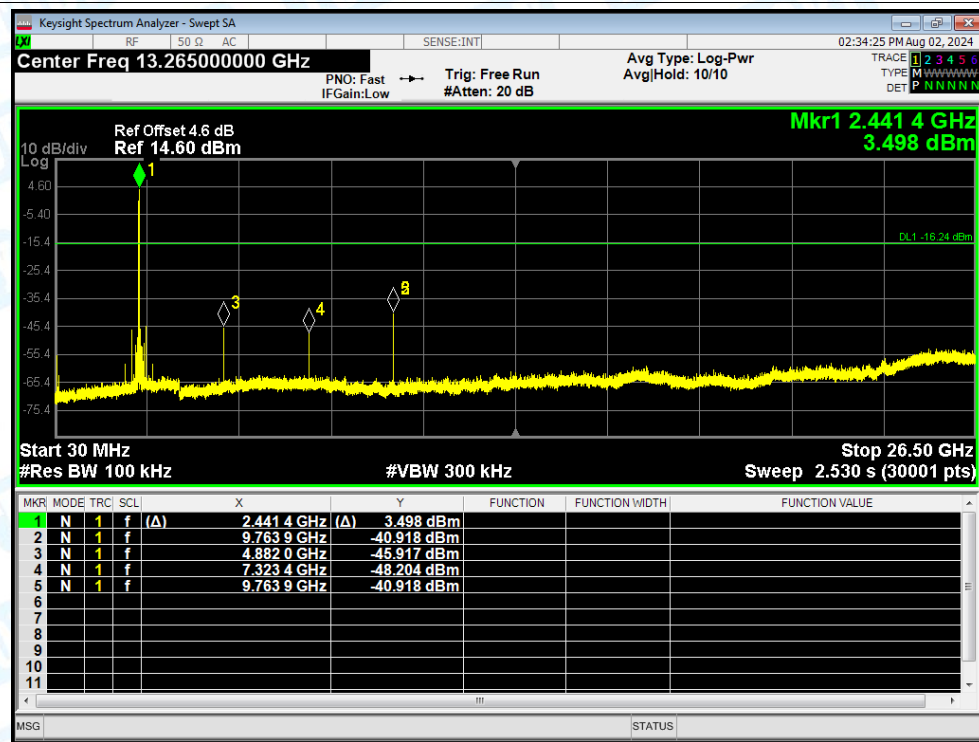
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Emission



Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Ref



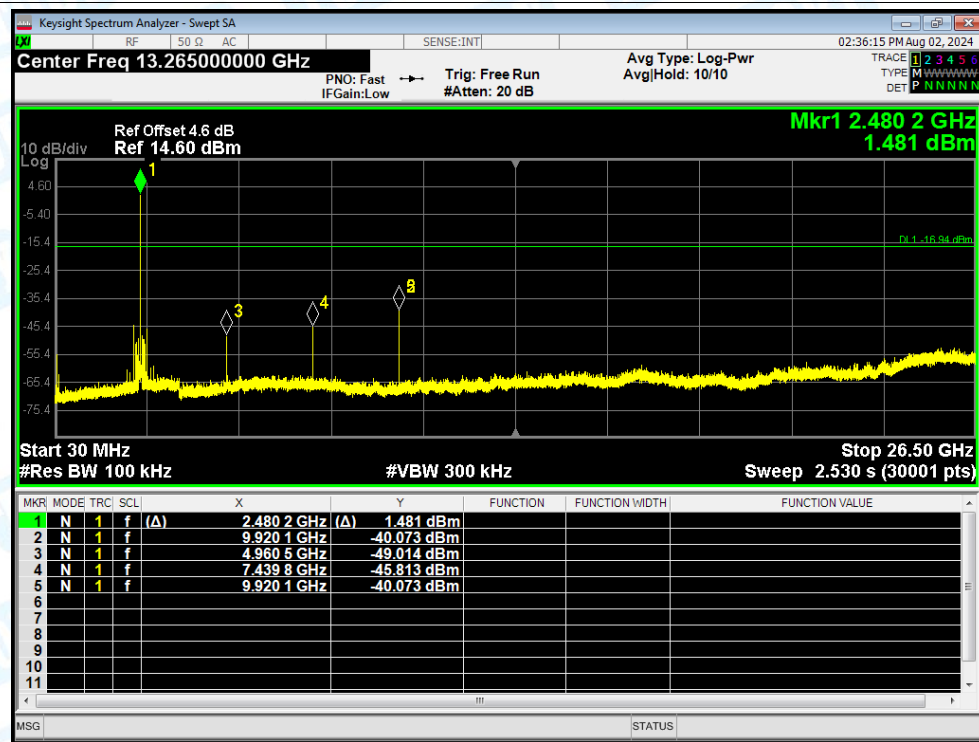
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Emission



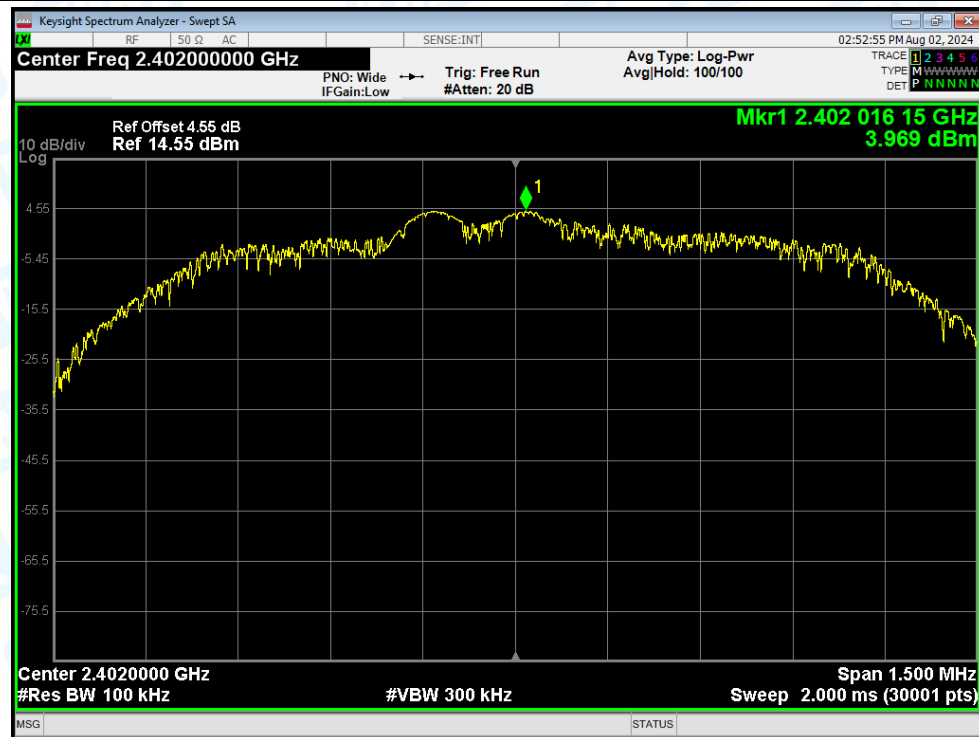
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Ref



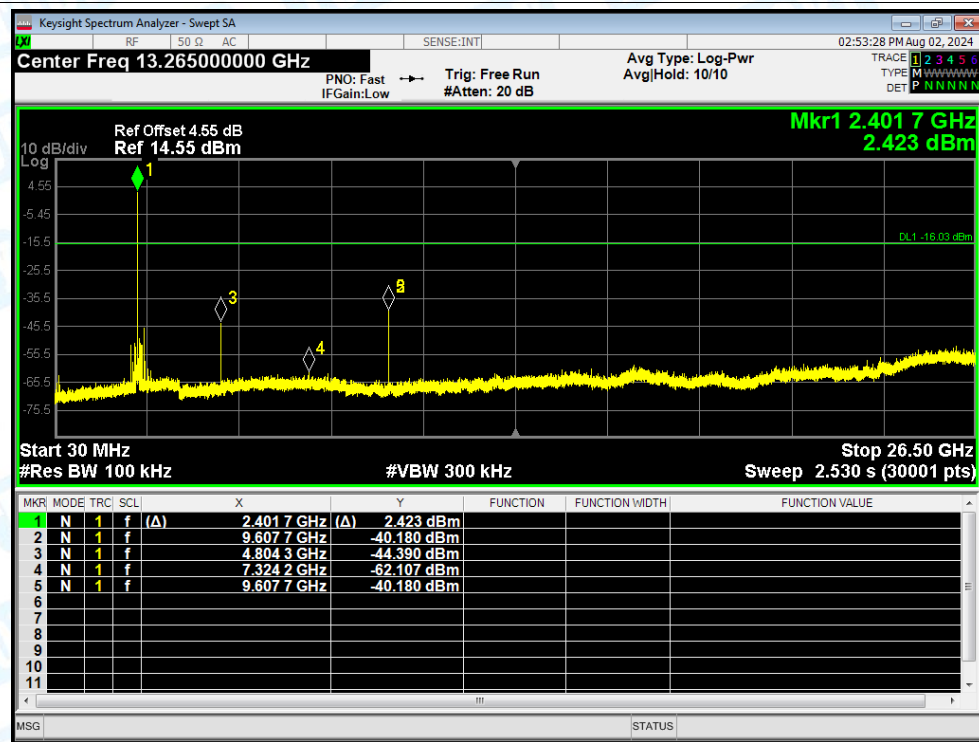
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Emission



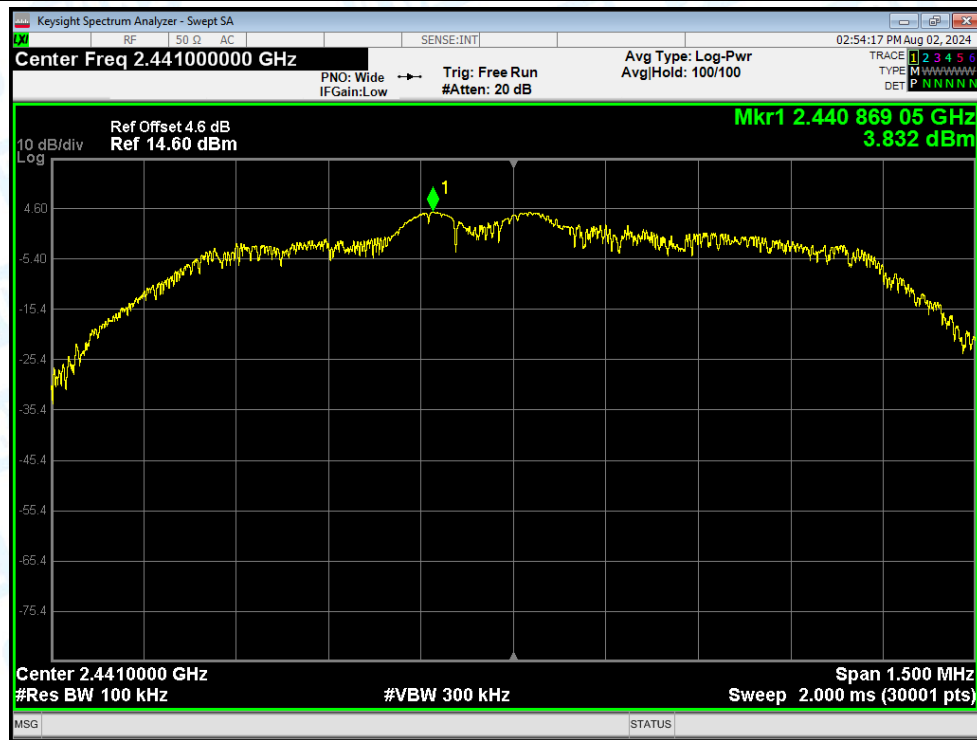
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Ref



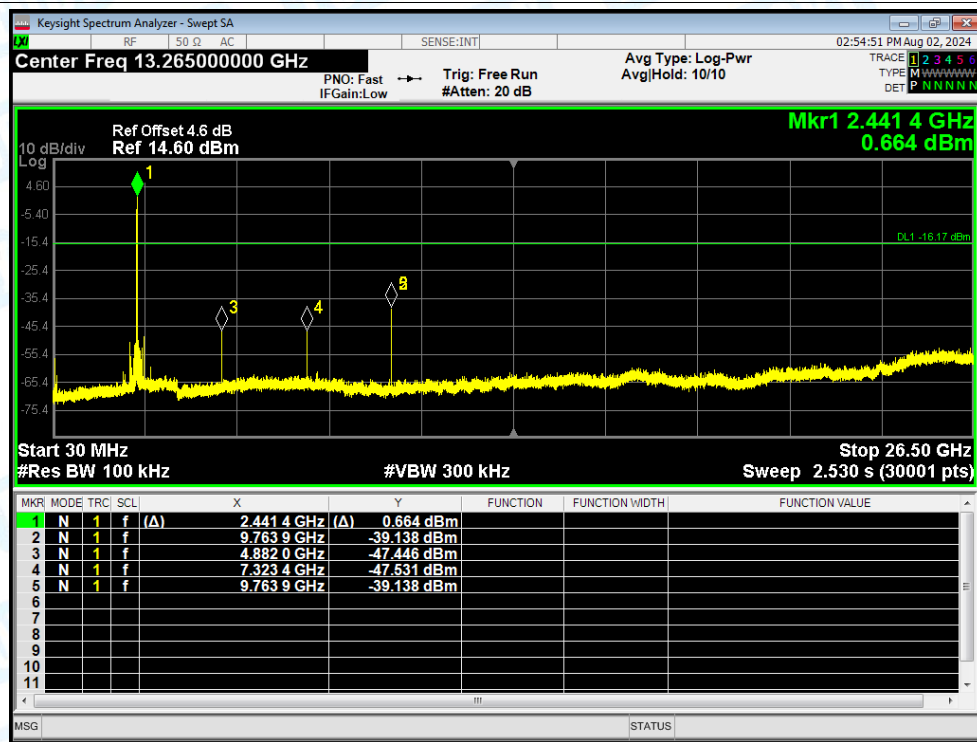
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Emission



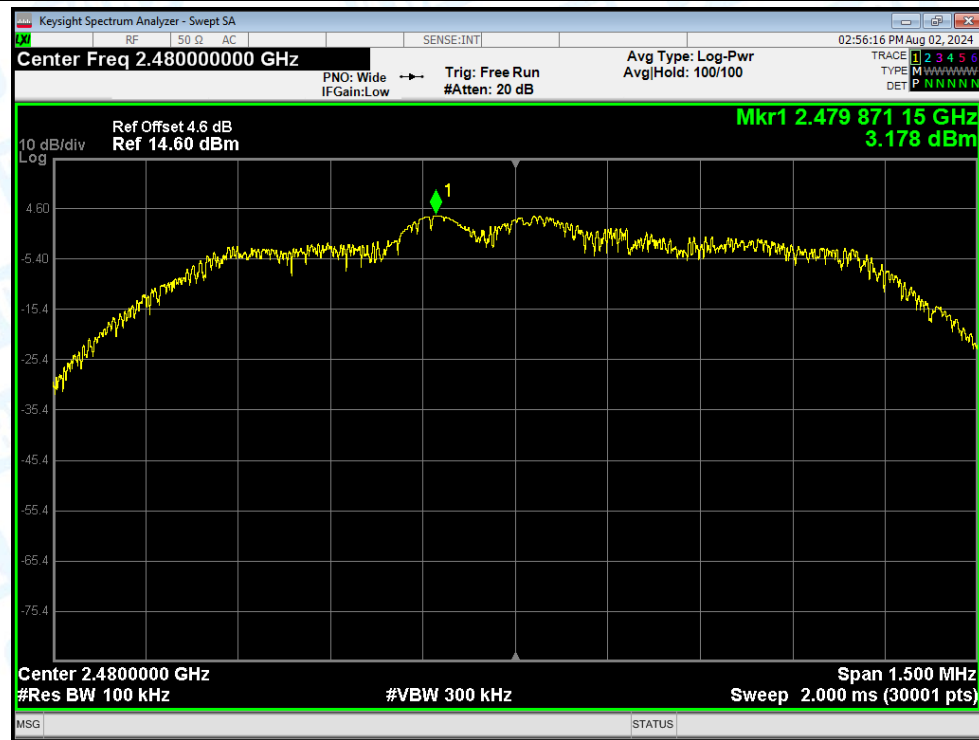
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Ref



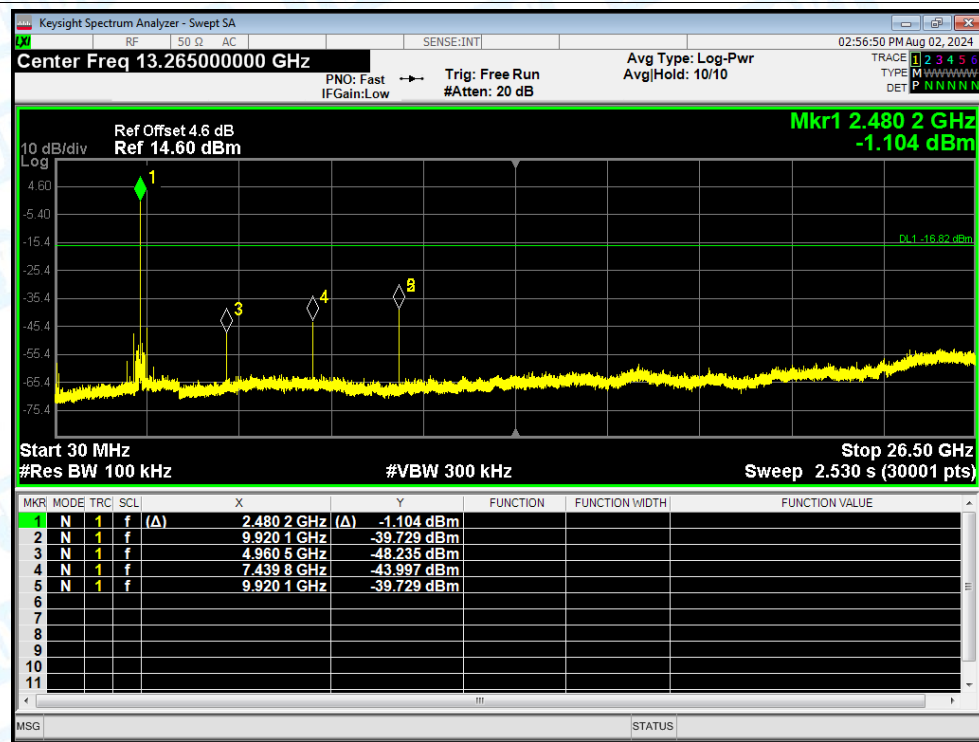
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Emission



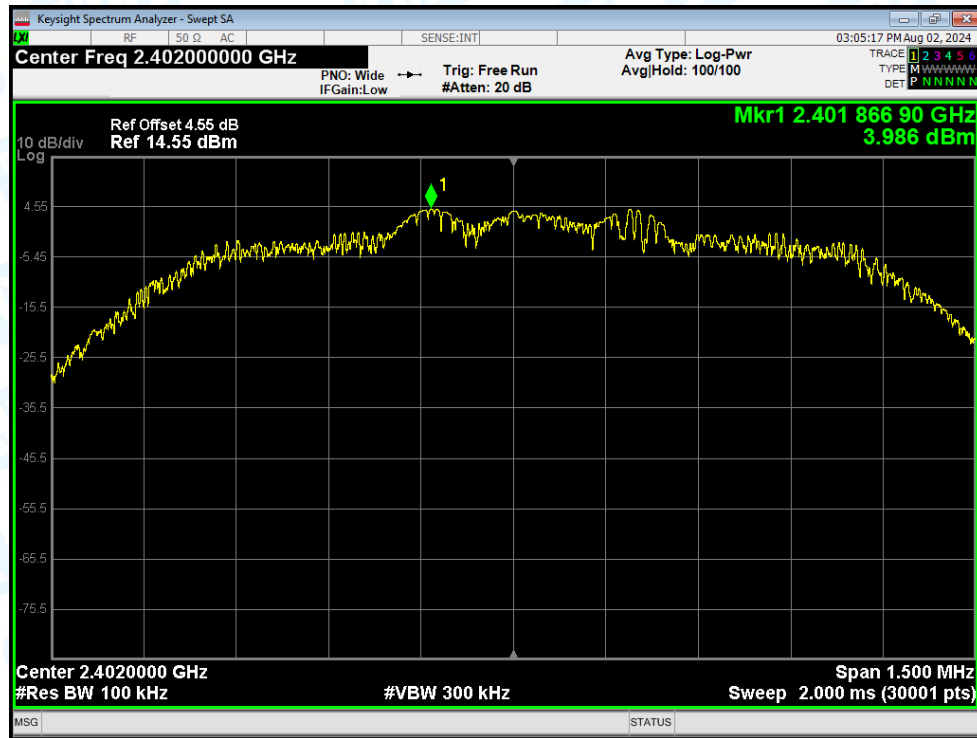
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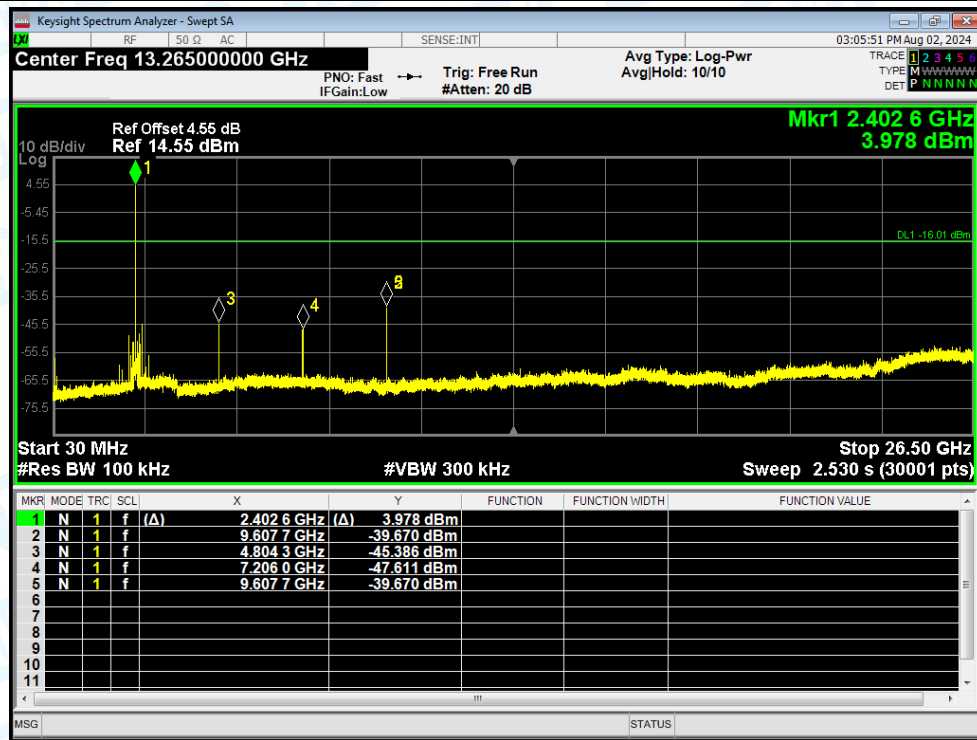
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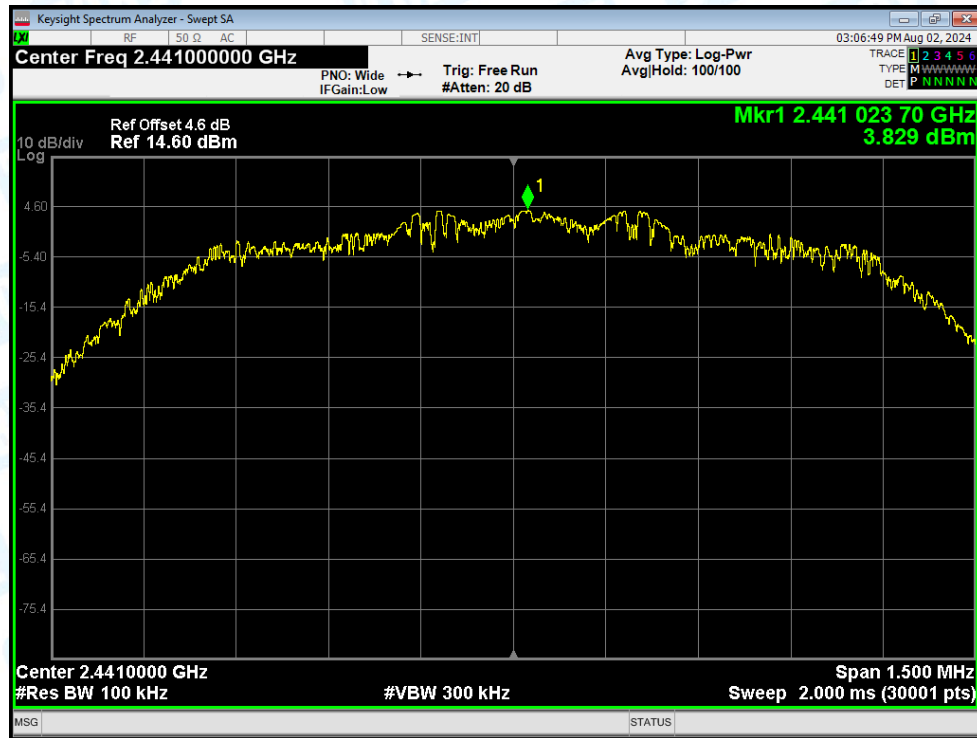
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Ref



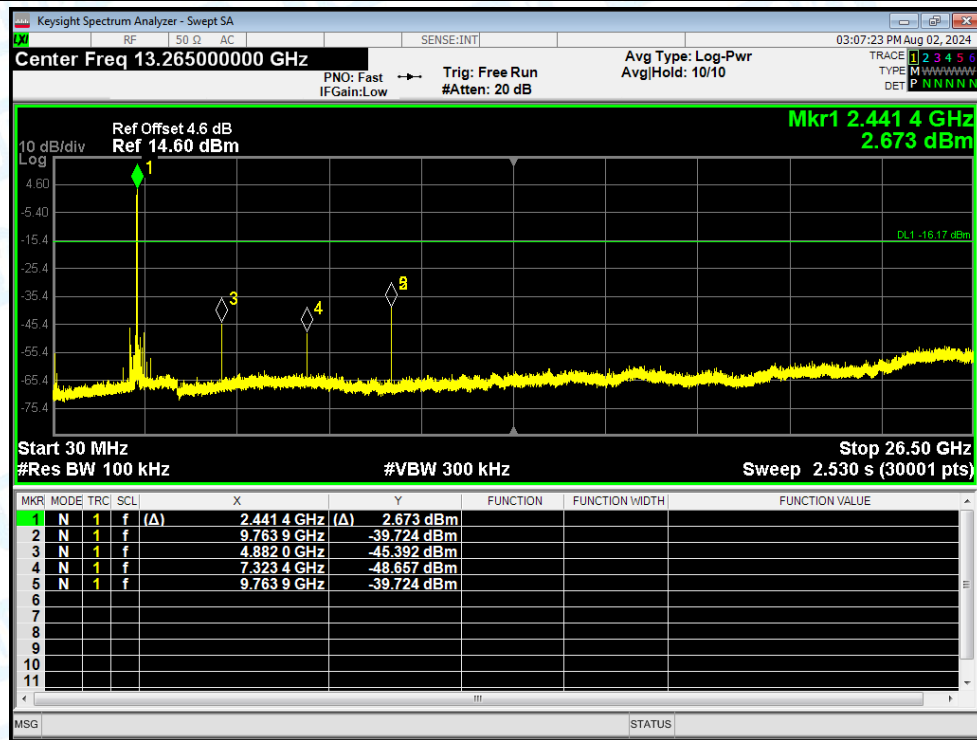
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Emission



Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Ref



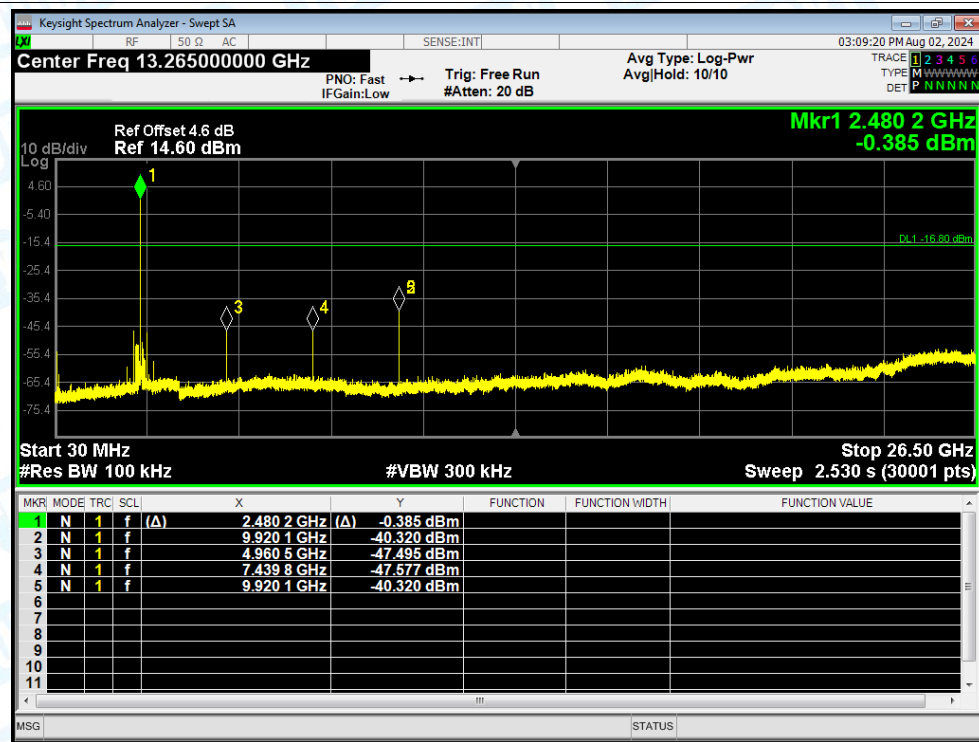
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Emission

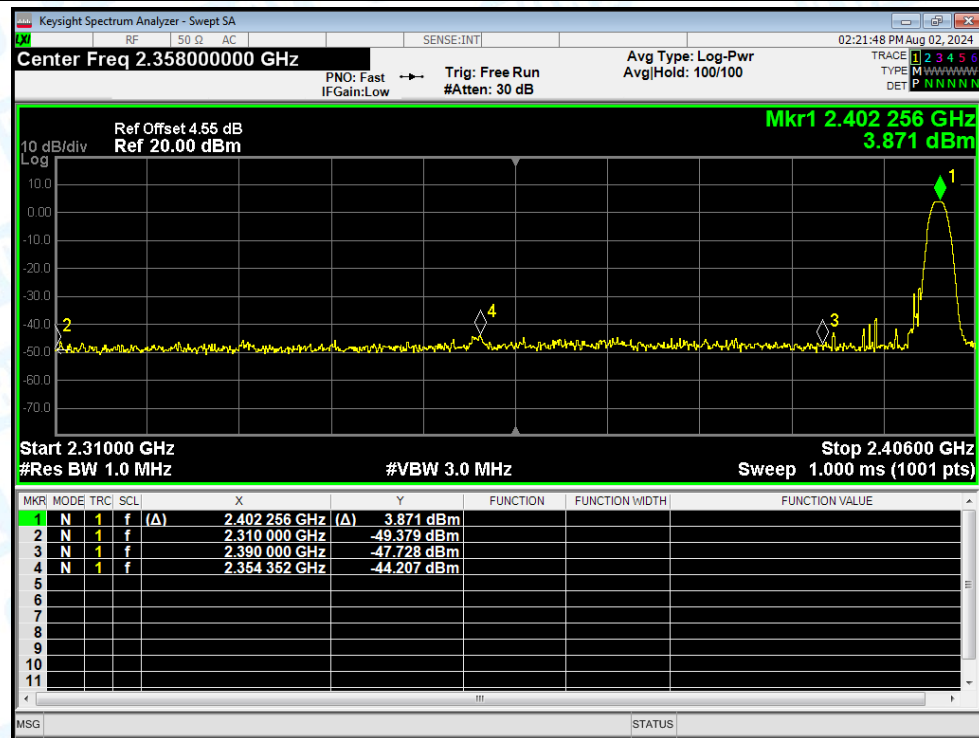


8 Restrict Band

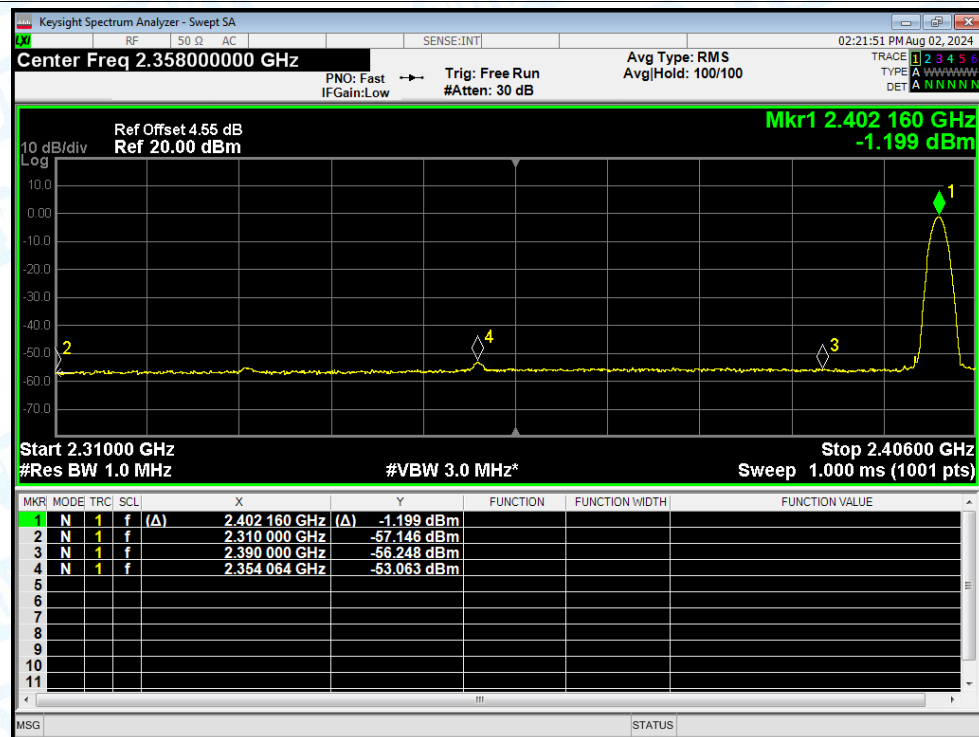
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-49.38	2	-	47.88	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-57.15	2	5.17	45.28	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2354.352	-44.21	2	-	53.05	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2354.064	-53.06	2	5.17	49.37	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-47.73	2	-	49.53	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-56.25	2	5.17	46.18	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-45.62	2	-	51.64	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-55.09	2	5.17	47.34	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2485.936	-39	2	-	58.26	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.536	-53.99	2	5.17	48.44	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-48.09	2	-	49.17	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-56.33	2	5.17	46.1	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-49.37	2	-	47.89	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-56.63	2	5.06	45.69	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2354.064	-43.92	2	-	53.34	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2354.544	-53.57	2	5.06	48.75	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-46.81	2	-	50.45	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-56.19	2	5.06	46.13	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-47.99	2	-	49.27	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-55.99	2	4.95	46.22	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2486.104	-40.48	2	-	56.78	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2484.496	-54.9	2	4.95	47.31	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-47.13	2	-	50.13	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-55.99	2	4.95	46.22	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-47.98	2	-	49.28	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-57.03	2	5.06	45.29	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2354.448	-42.82	2	-	54.44	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2353.968	-53.29	2	5.06	49.03	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-48.08	2	-	49.18	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-56.37	2	5.06	45.95	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-44.56	2	-	52.7	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-55.46	2	5.06	46.86	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2486.632	-41.07	2	-	56.19	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2494.456	-54.61	2	5.06	47.71	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-47.3	2	-	49.96	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-55.64	2	5.06	46.68	Average	54	Pass

Test Graphs

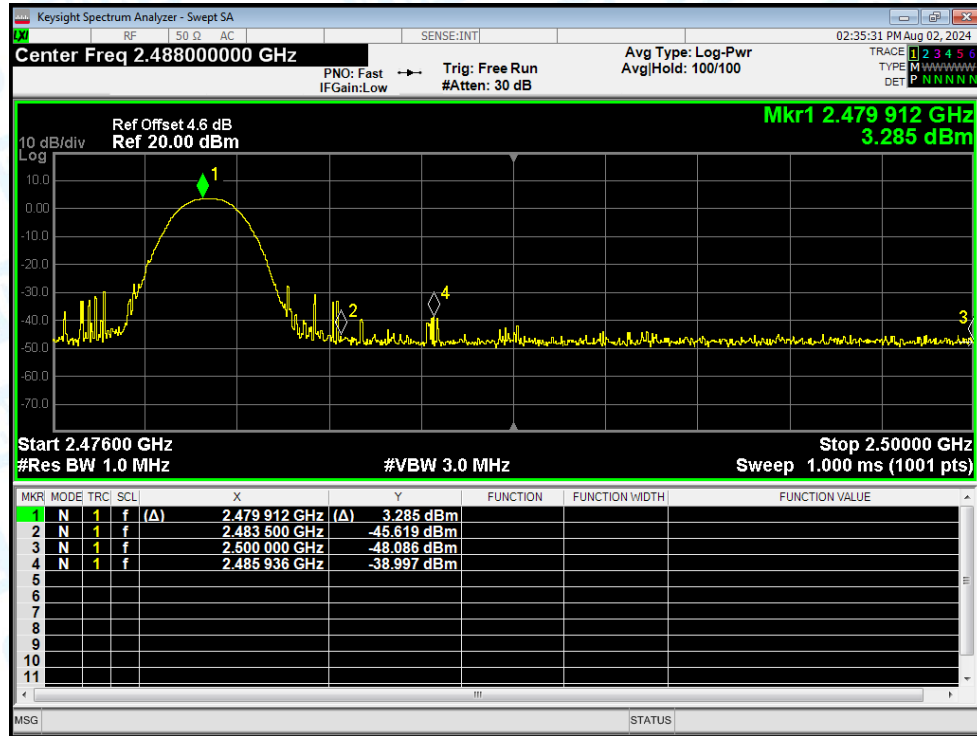
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Peak



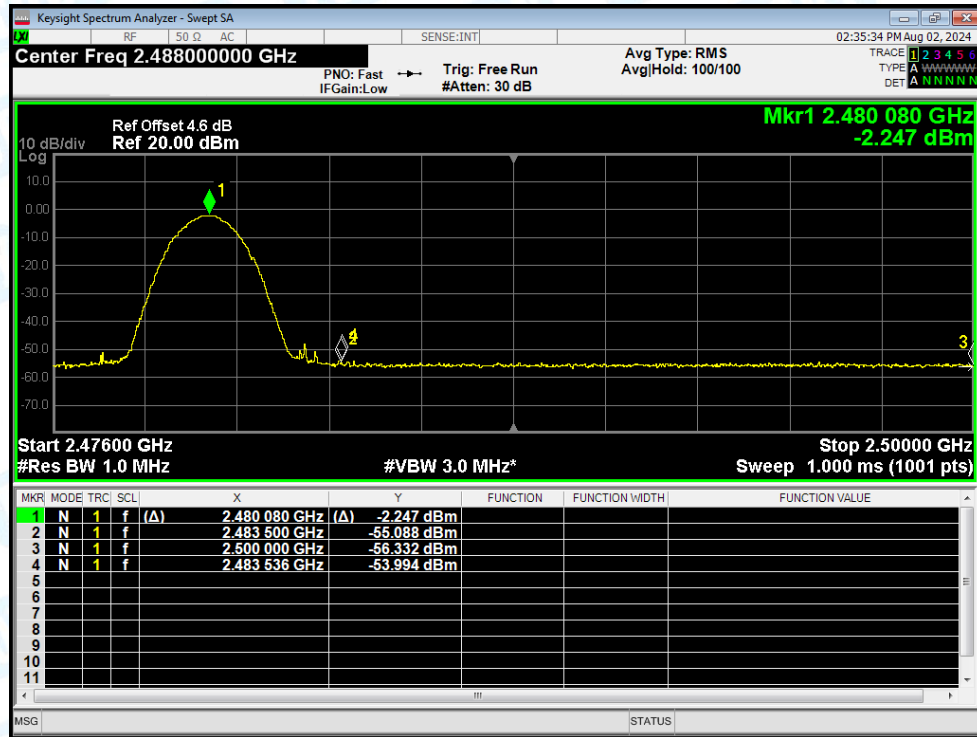
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Average



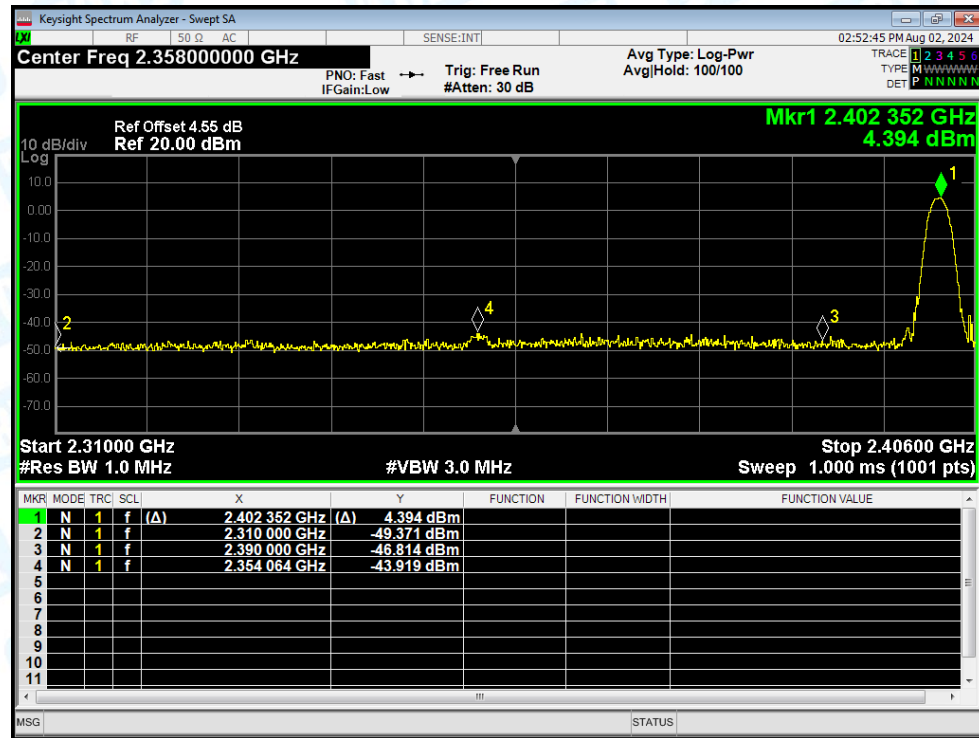
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Peak



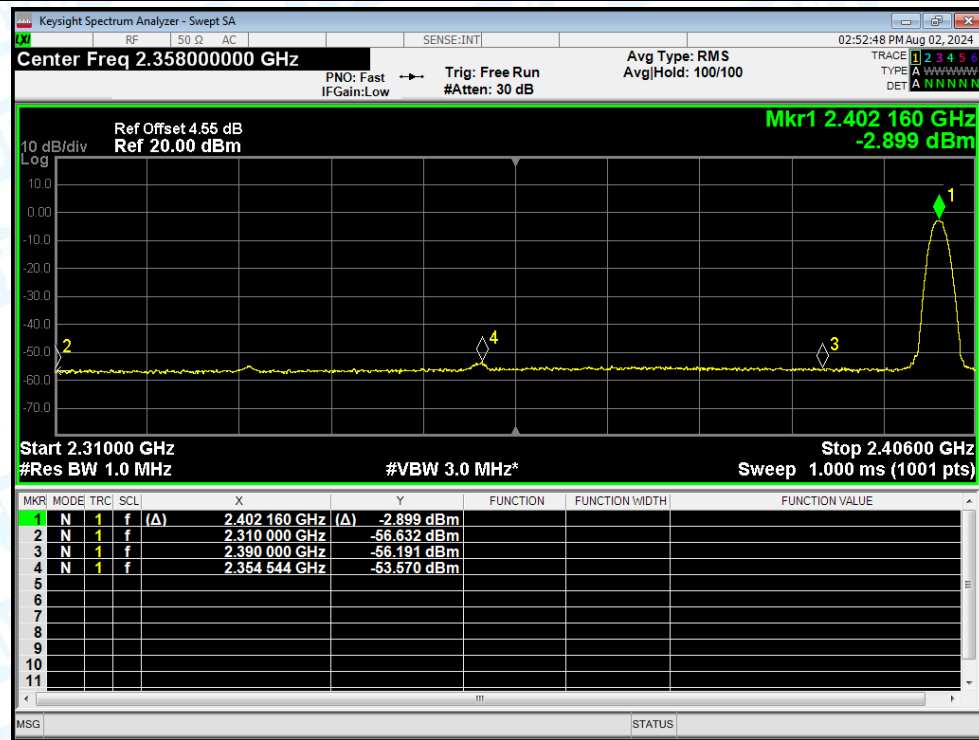
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Average



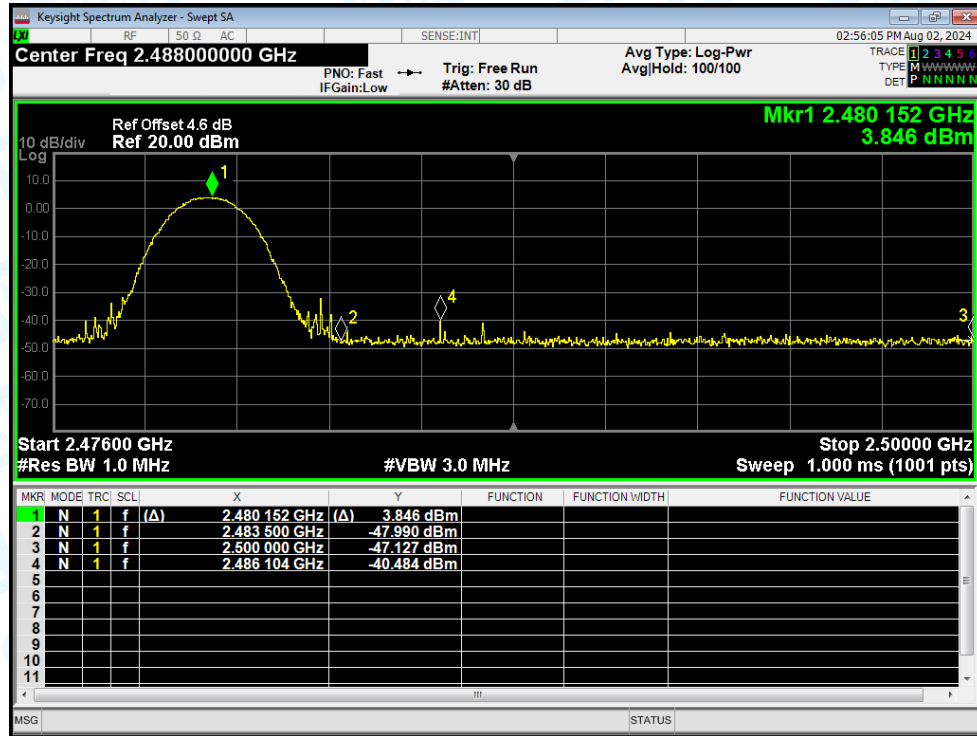
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Peak



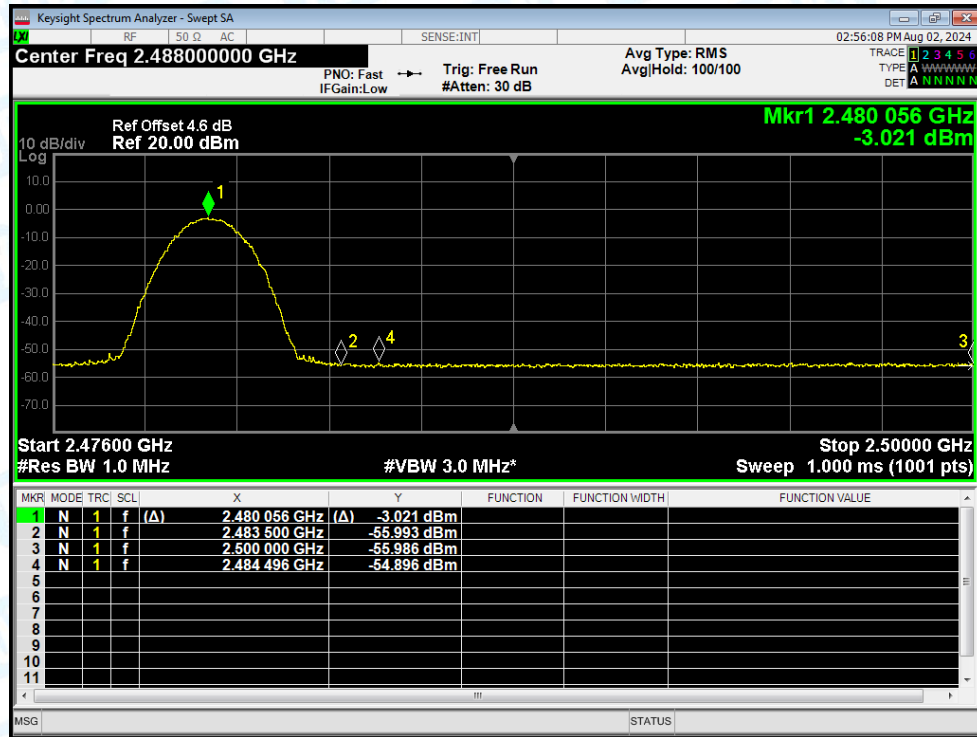
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Average



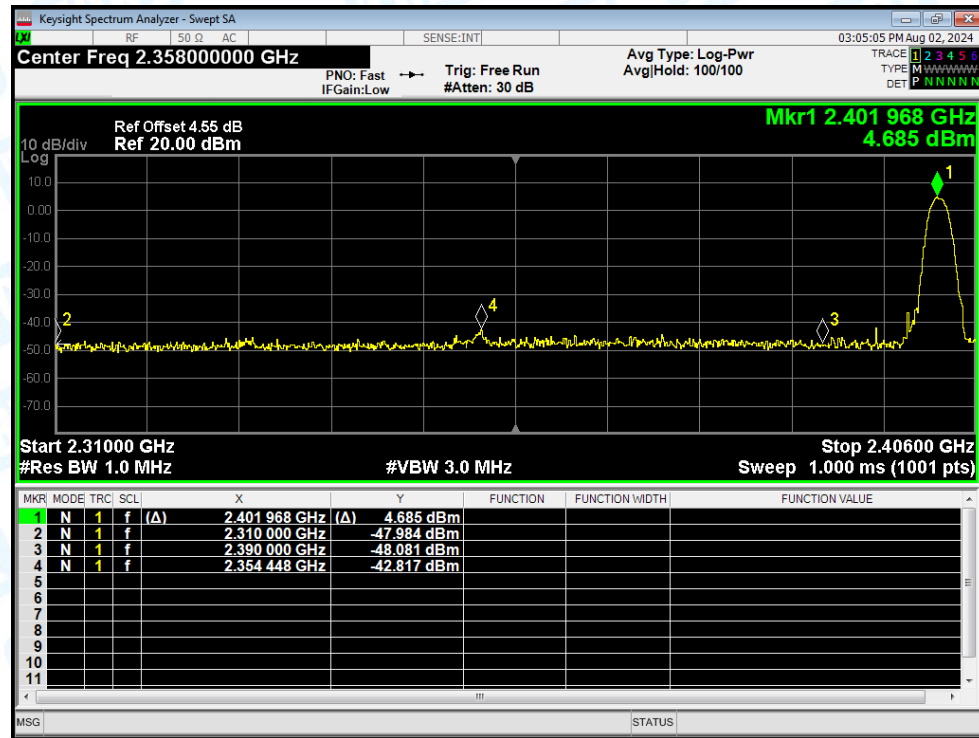
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Peak



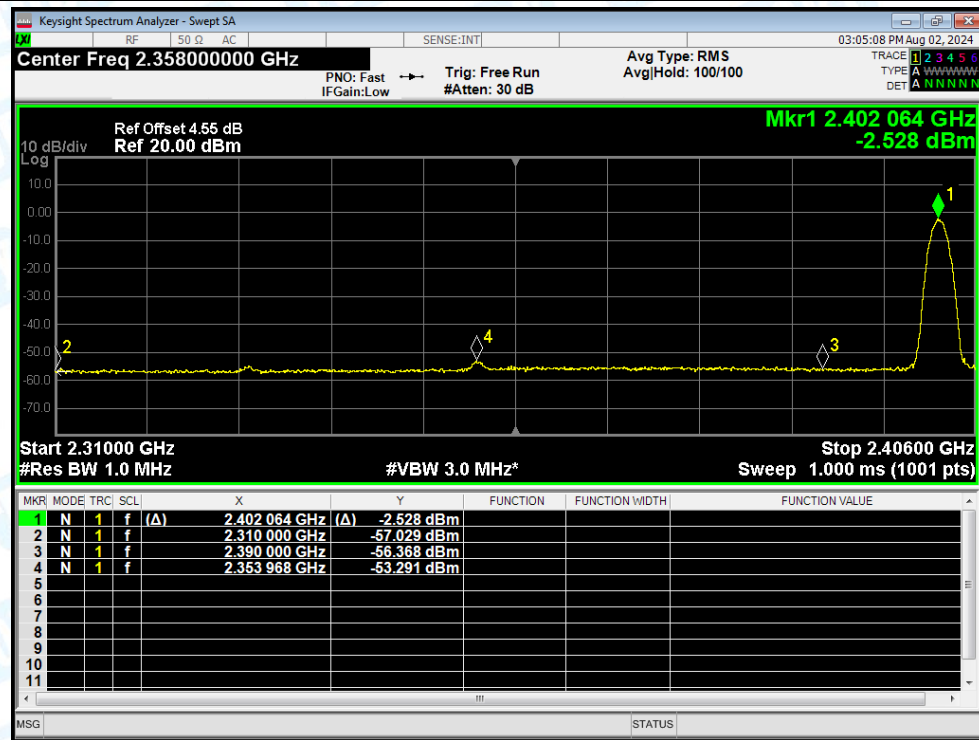
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Average



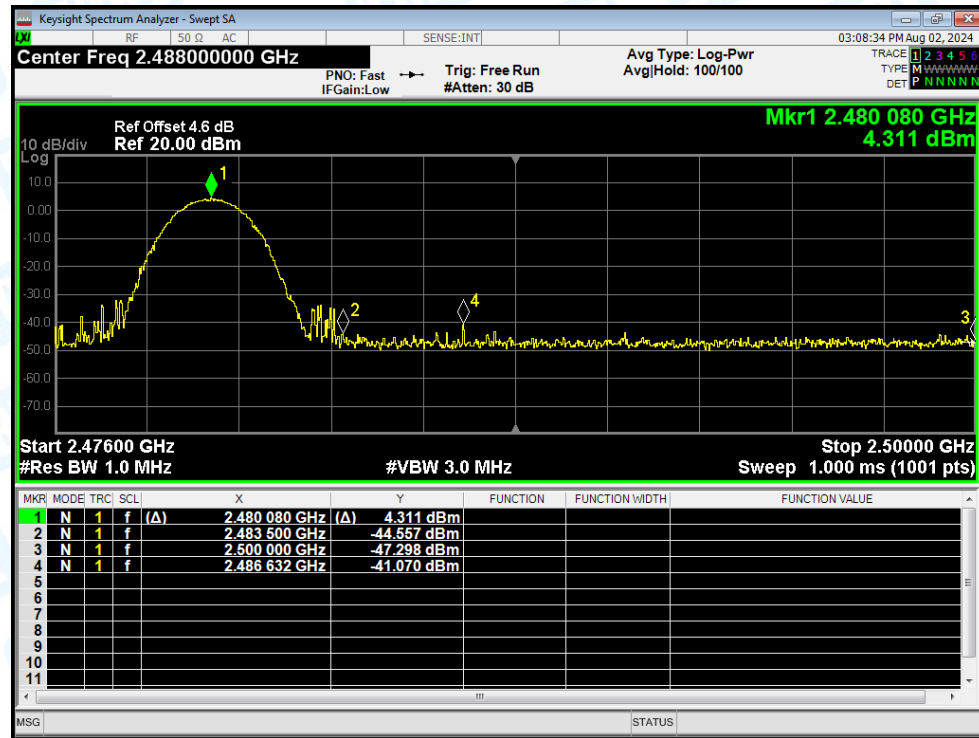
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Peak



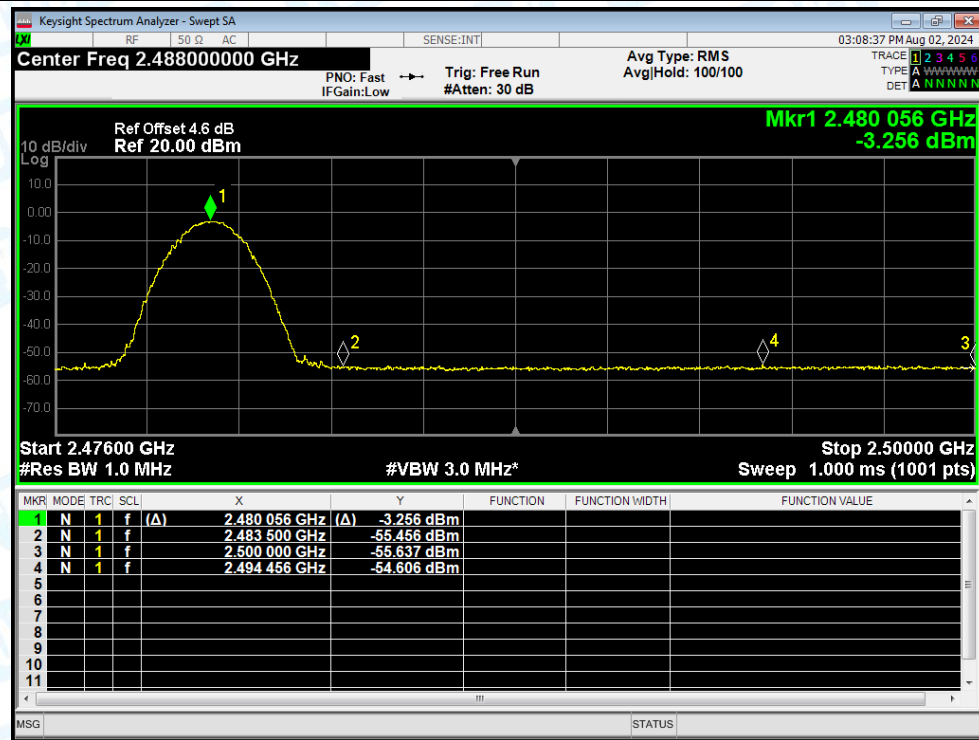
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Average



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



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

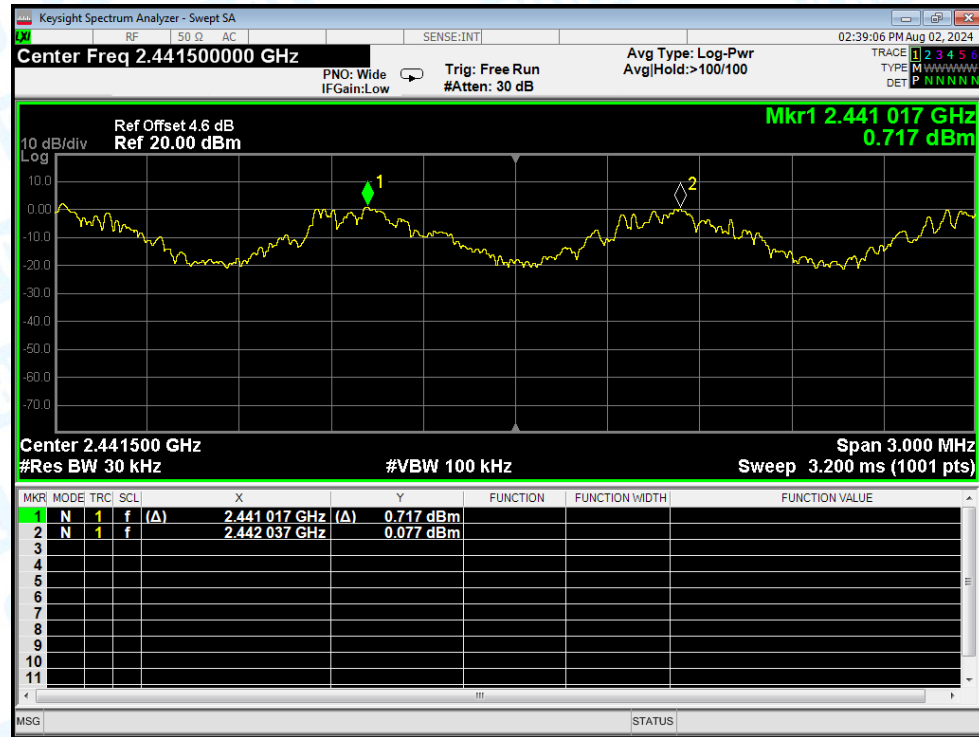


9 Carrier Frequencies Separation

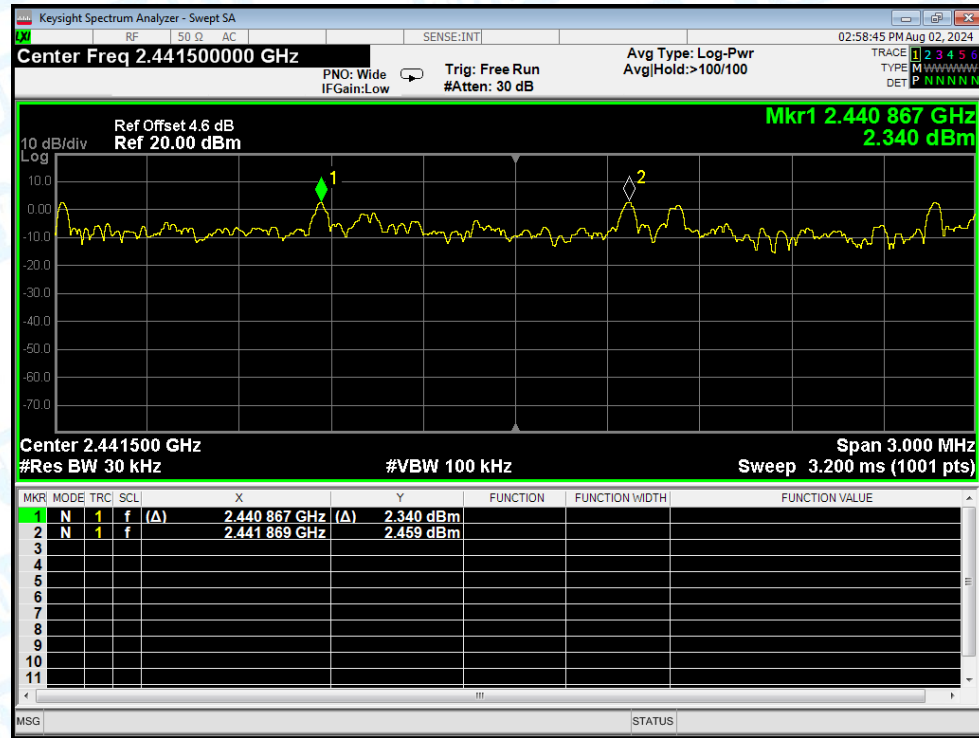
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH1	Ant1	2441.017	2442.037	1.02	0.58	Pass
NVNT	2-DH1	Ant1	2440.867	2441.869	1.002	0.847	Pass
NVNT	3-DH1	Ant1	2441.029	2442.031	1.002	0.807	Pass

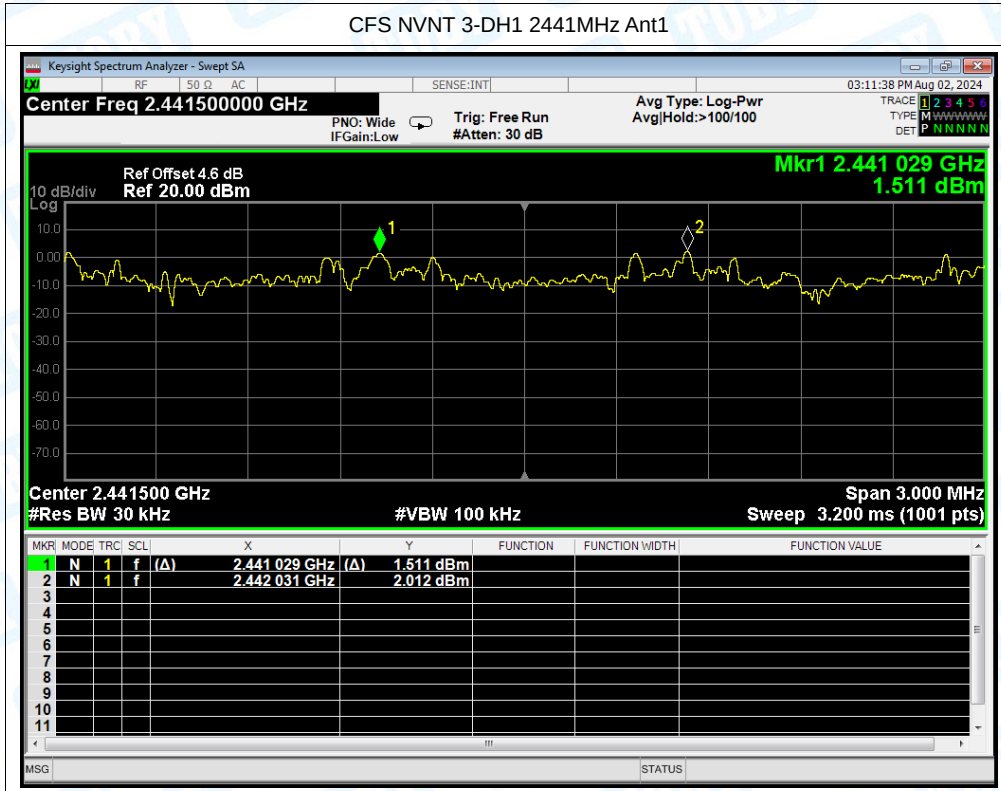
Test Graphs

CFS NVNT 1-DH1 2441MHz Ant1



CFS NVNT 2-DH1 2441MHz Ant1



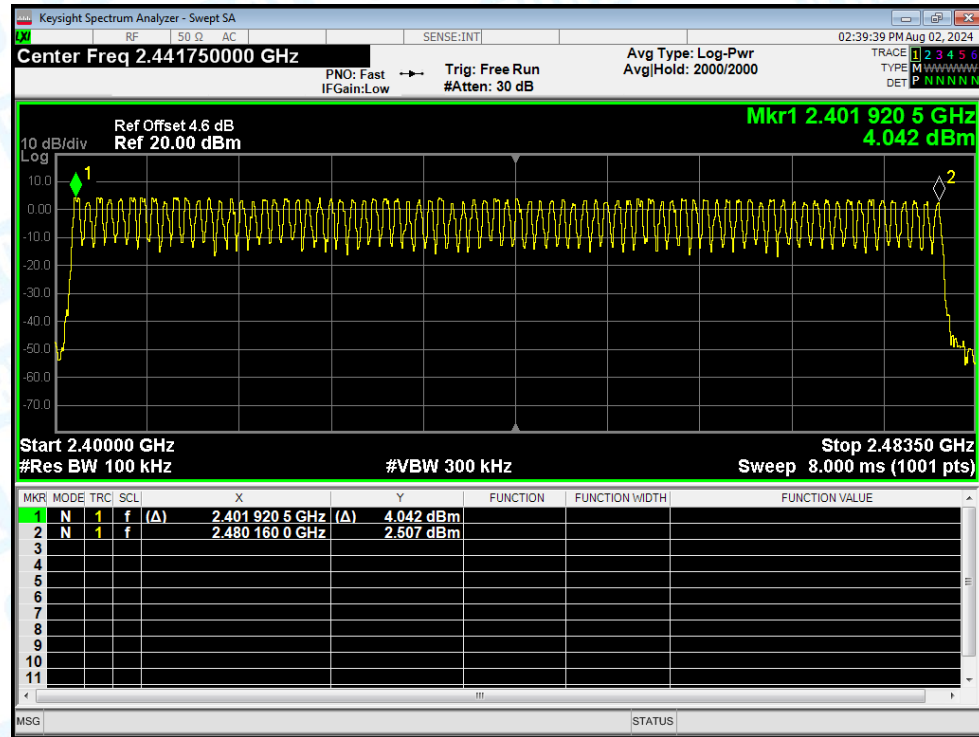


10 Number of Hopping Channel

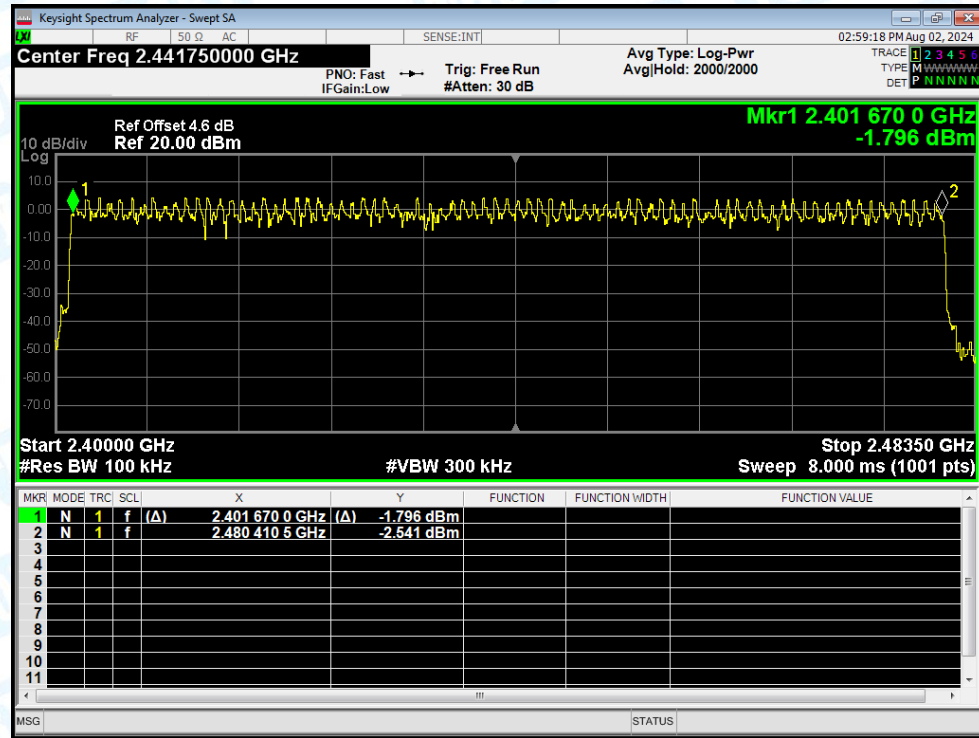
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH1	Ant1	79	15	Pass
NVNT	2-DH1	Ant1	79	15	Pass
NVNT	3-DH1	Ant1	79	15	Pass

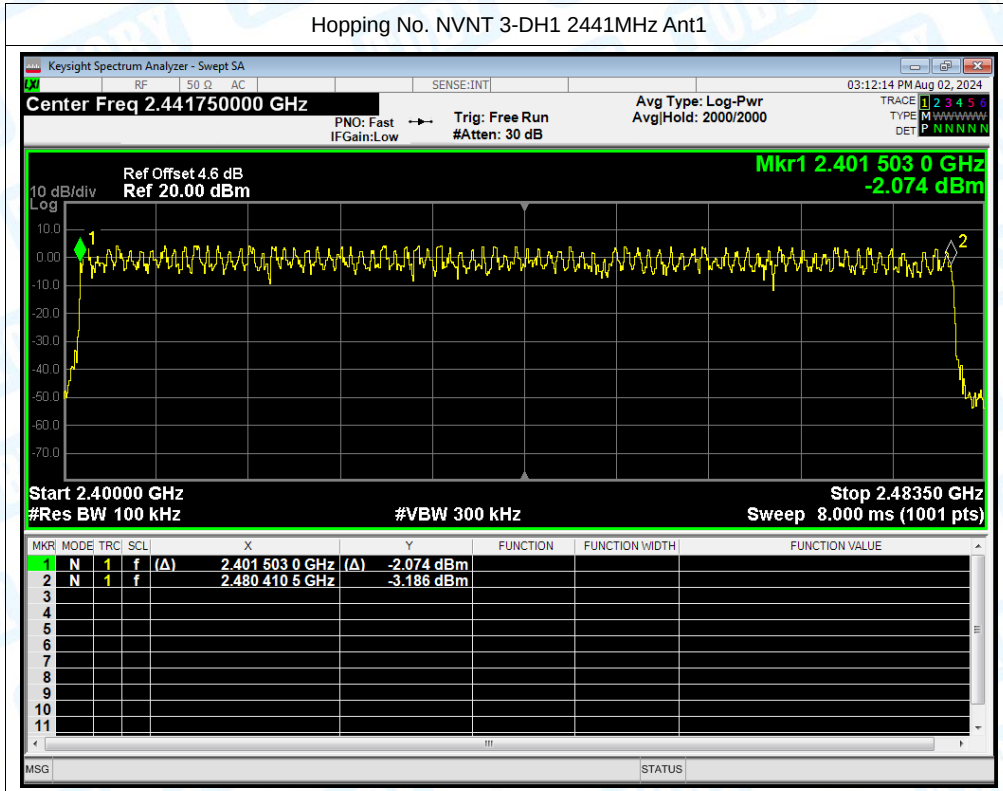
Test Graphs

Hopping No. NVNT 1-DH1 2441MHz Ant1



Hopping No. NVNT 2-DH1 2441MHz Ant1



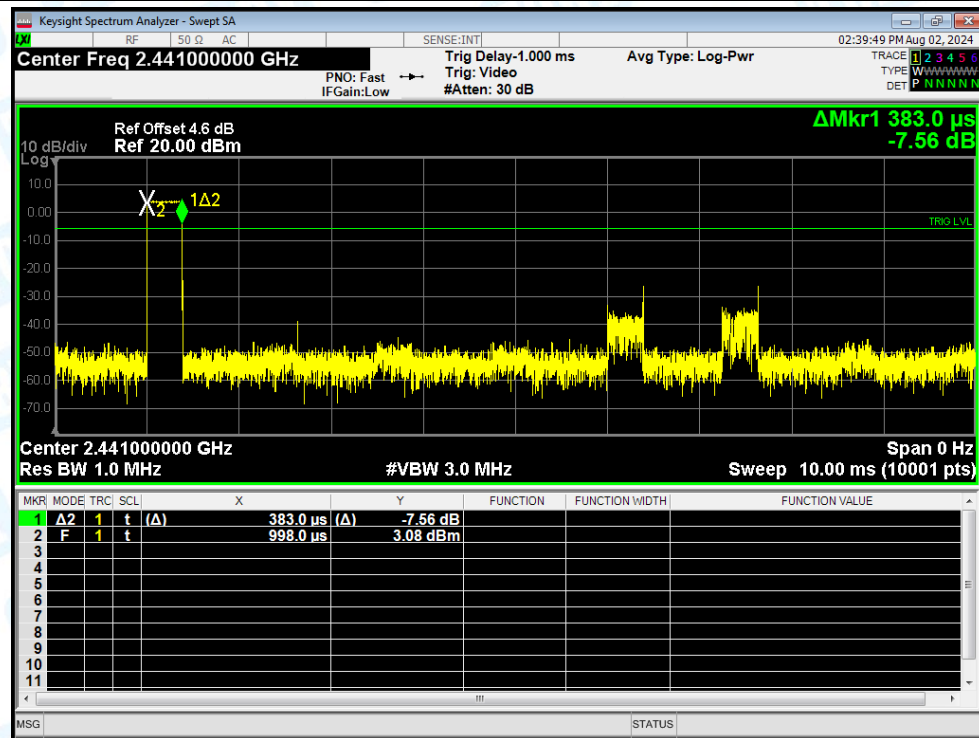


11 Dwell Time

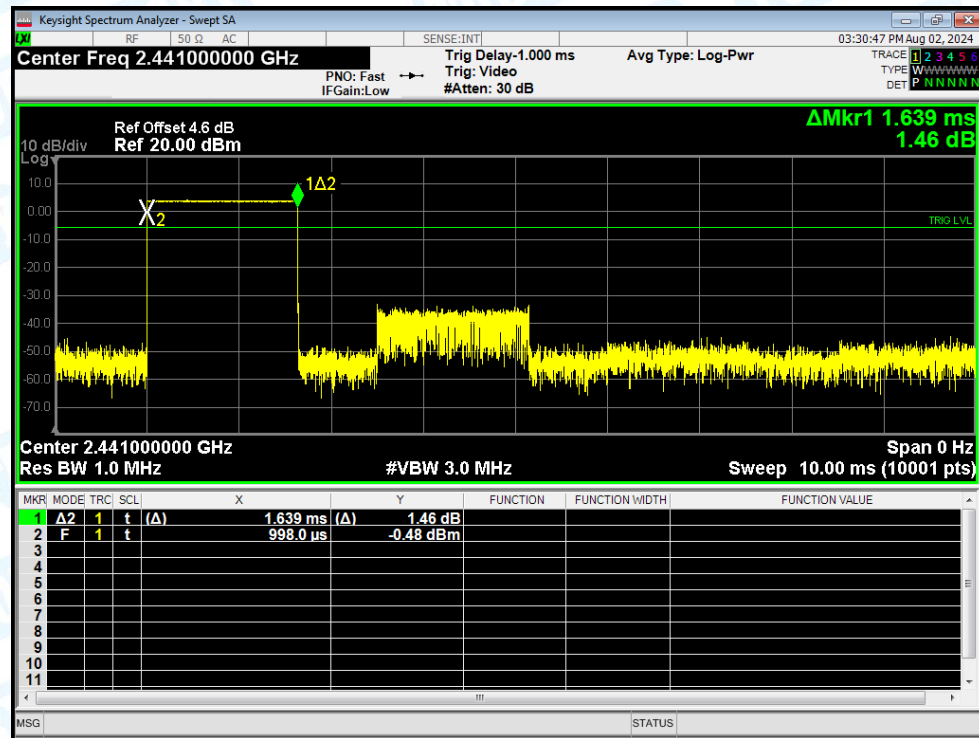
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	Ant1	0.383	122.56	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.639	262.24	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.887	307.947	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.392	125.44	31600	400	Pass
NVNT	2-DH3	2441	Ant1	1.643	262.88	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	2.894	308.693	31600	400	Pass

Test Graphs

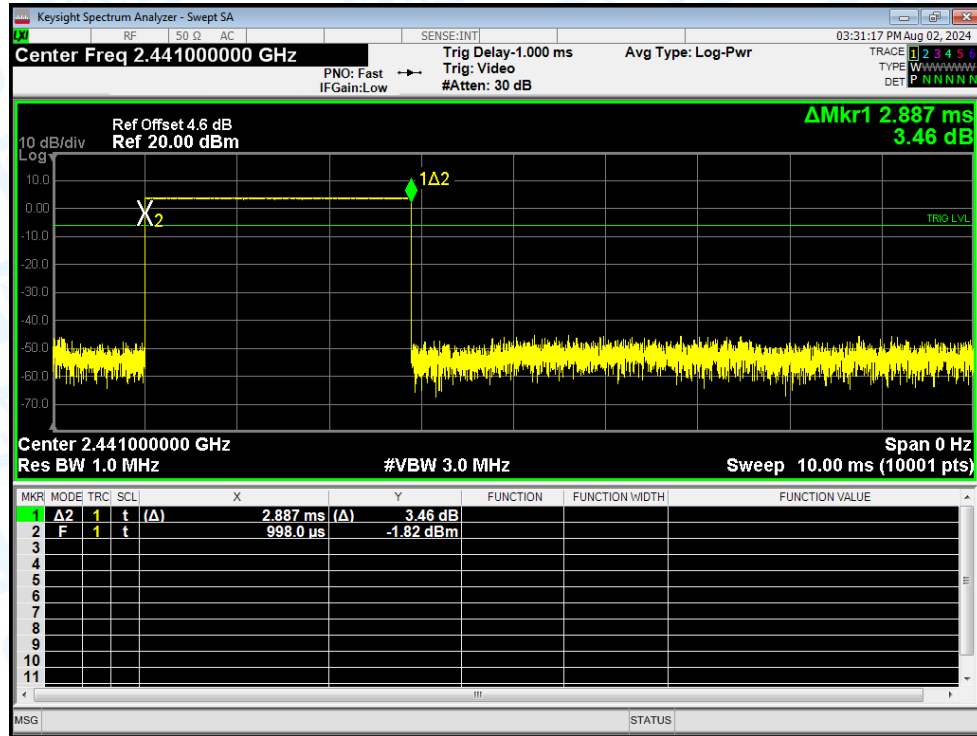
Dwell NVNT 1-DH1 2441MHz Ant1



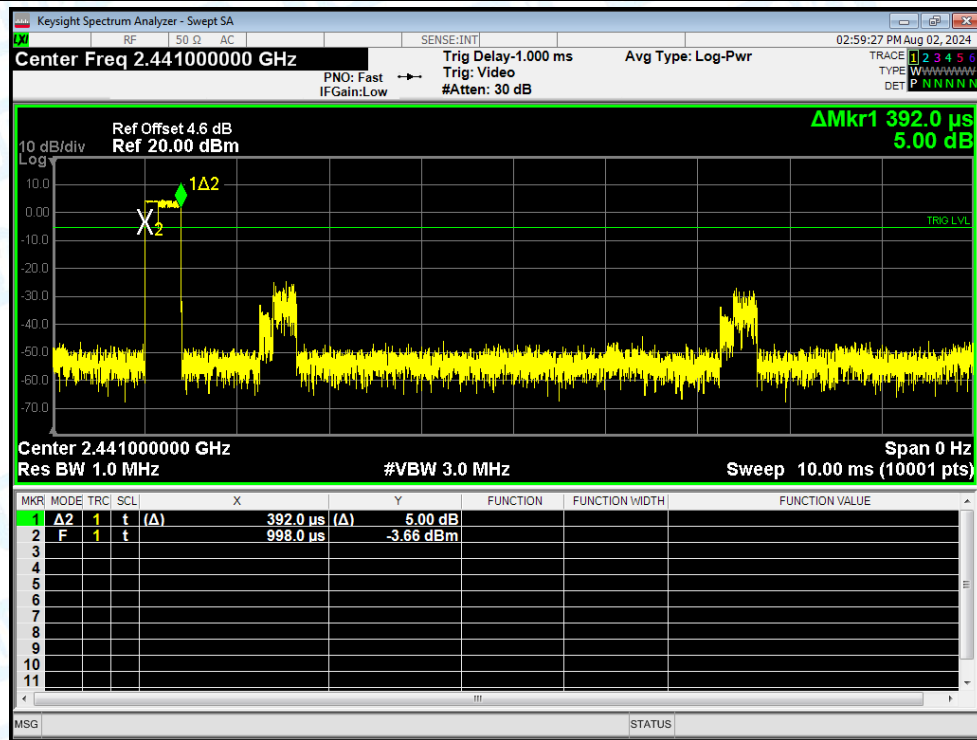
Dwell NVNT 1-DH3 2441MHz Ant1



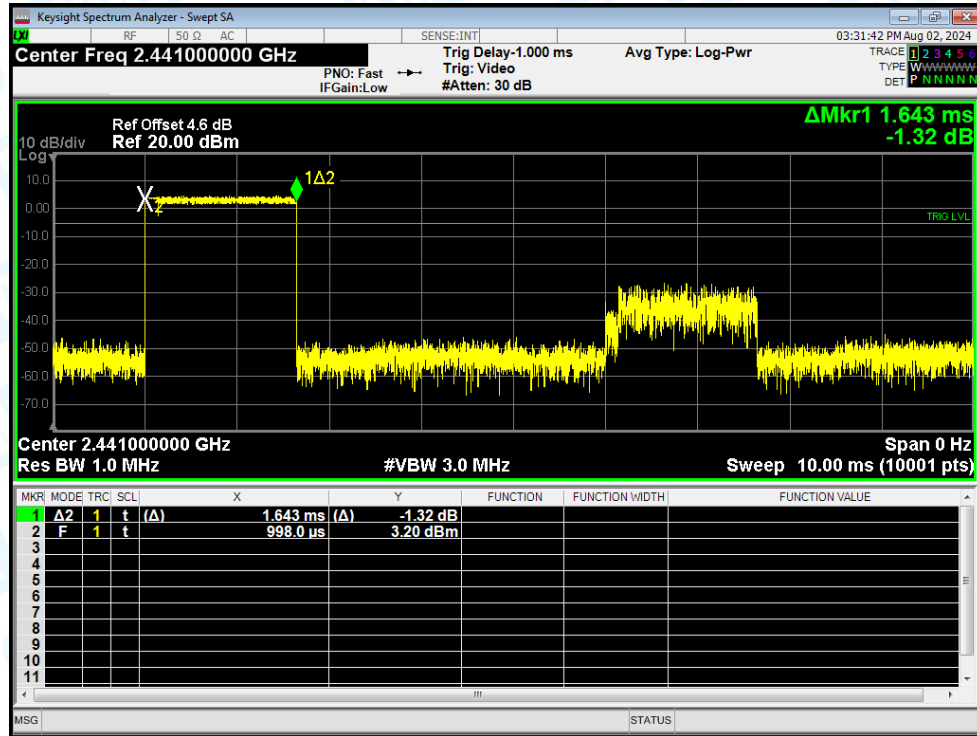
Dwell NVNT 1-DH5 2441MHz Ant1



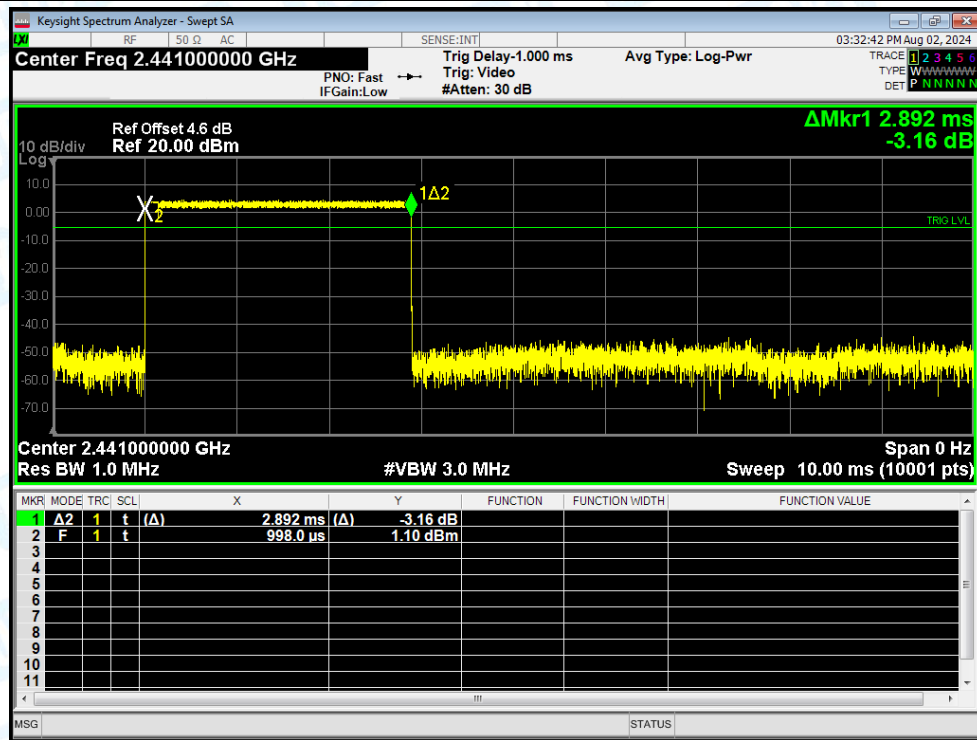
Dwell NVNT 2-DH1 2441MHz Ant1



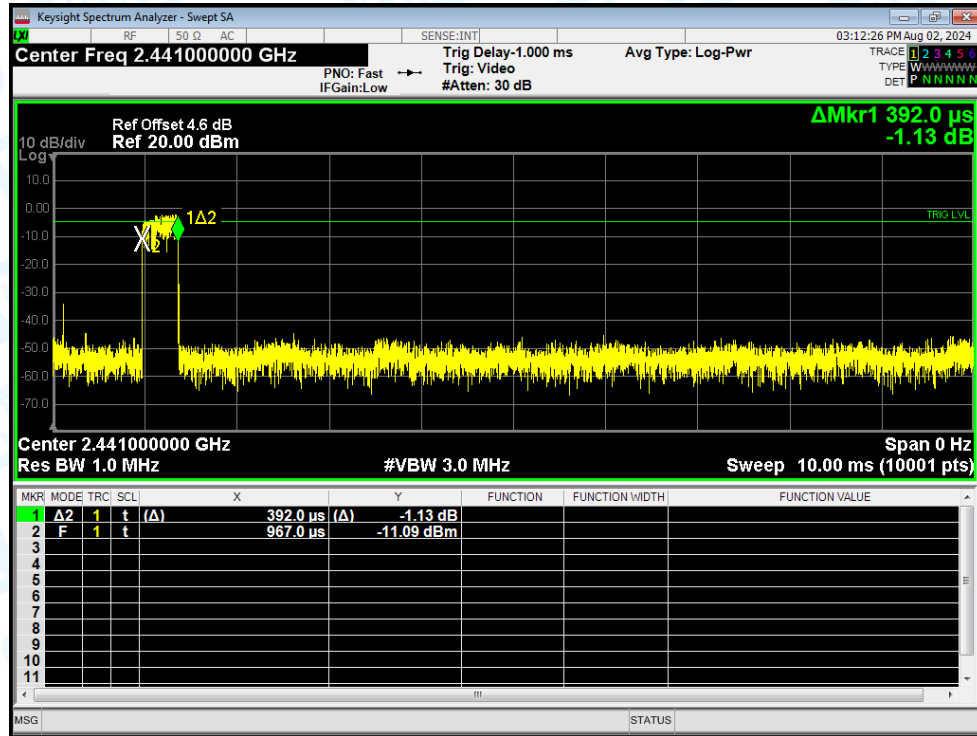
Dwell NVNT 2-DH3 2441MHz Ant1



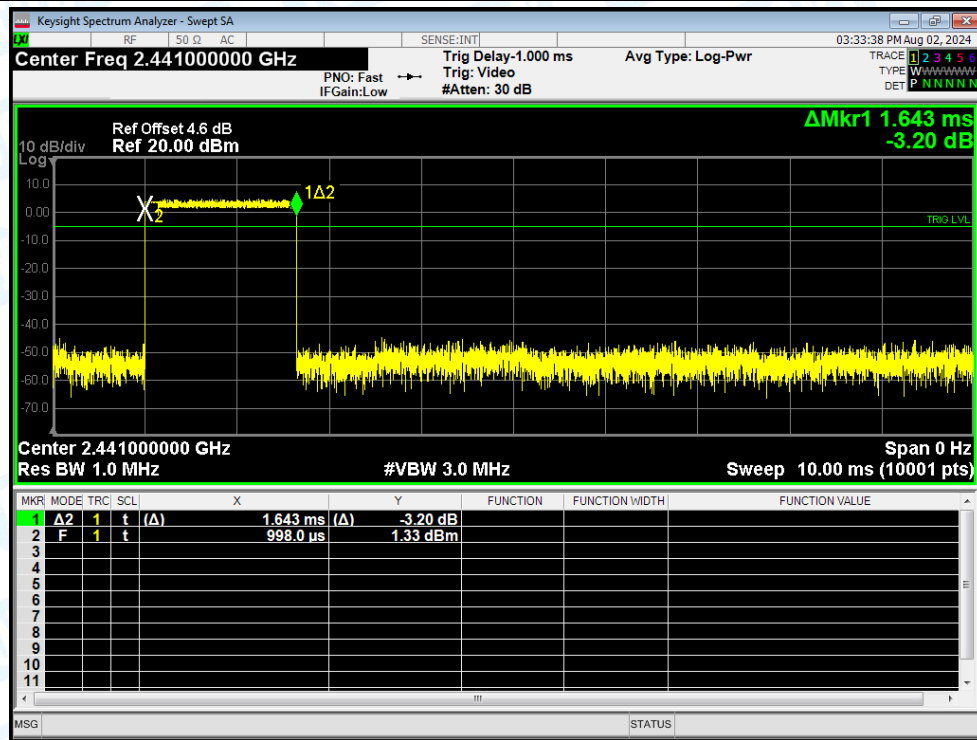
Dwell NVNT 2-DH5 2441MHz Ant1

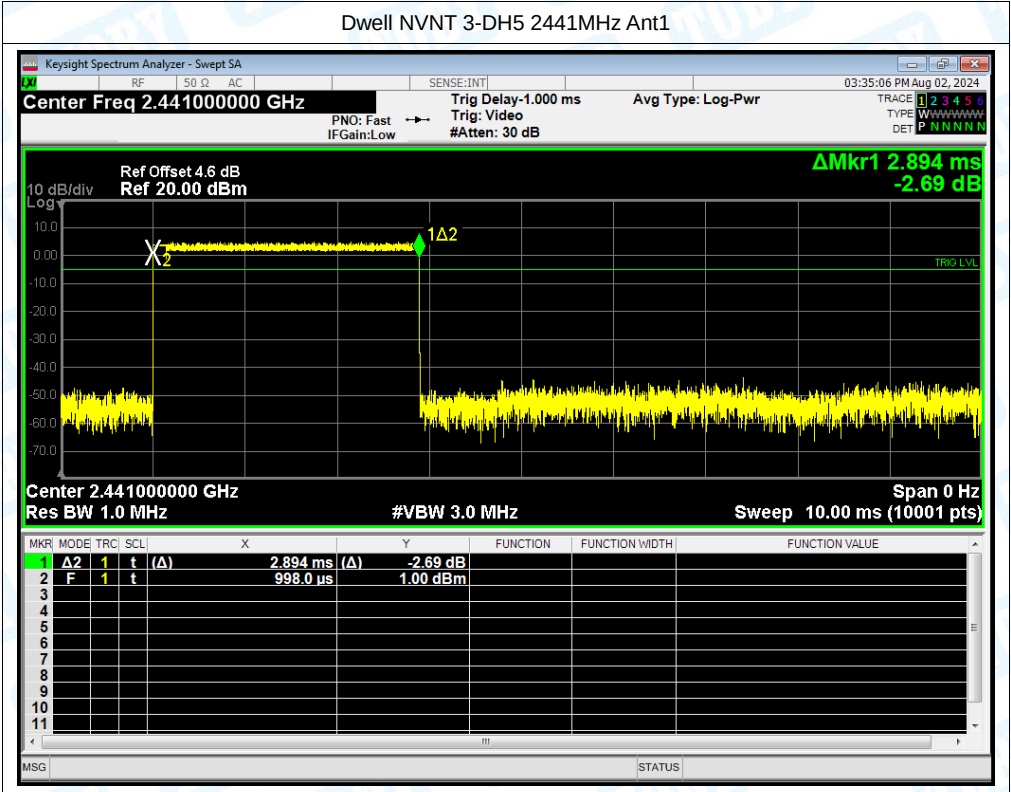


Dwell NVNT 3-DH1 2441MHz Ant1



Dwell NVNT 3-DH3 2441MHz Ant1





---- END OF REPORT ----