

RF Test Data for Bluetooth (Conducted Measurements)

General Description of EUT	
Product Name:	Bluetooth headset
Test Model:	Headset
Sample ID:	HC-C-202503-1210-02-2#
Environmental Conditions	
Temperature:	24.2℃
Relative Humidity:	51%
Test Voltage:	DC 3.7V
Test Engineer:	Lily Zhang
Note: For a more detailed features description, please refer to the report TBR-C-202503-1210-31 The report only show the worst case data.	

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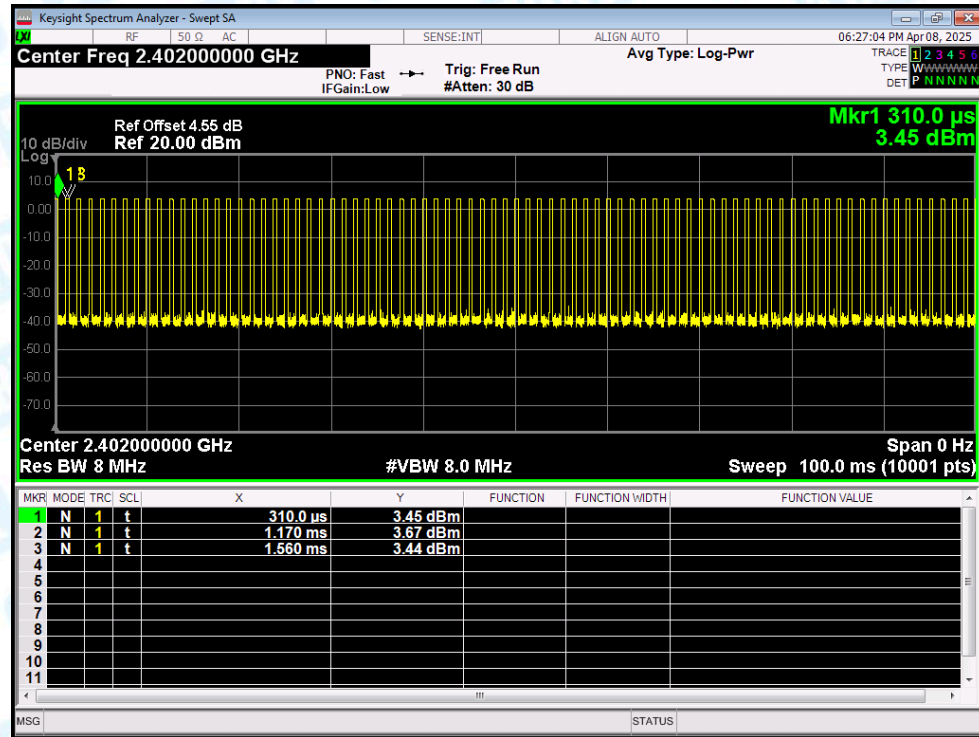
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1. Duty Cycle

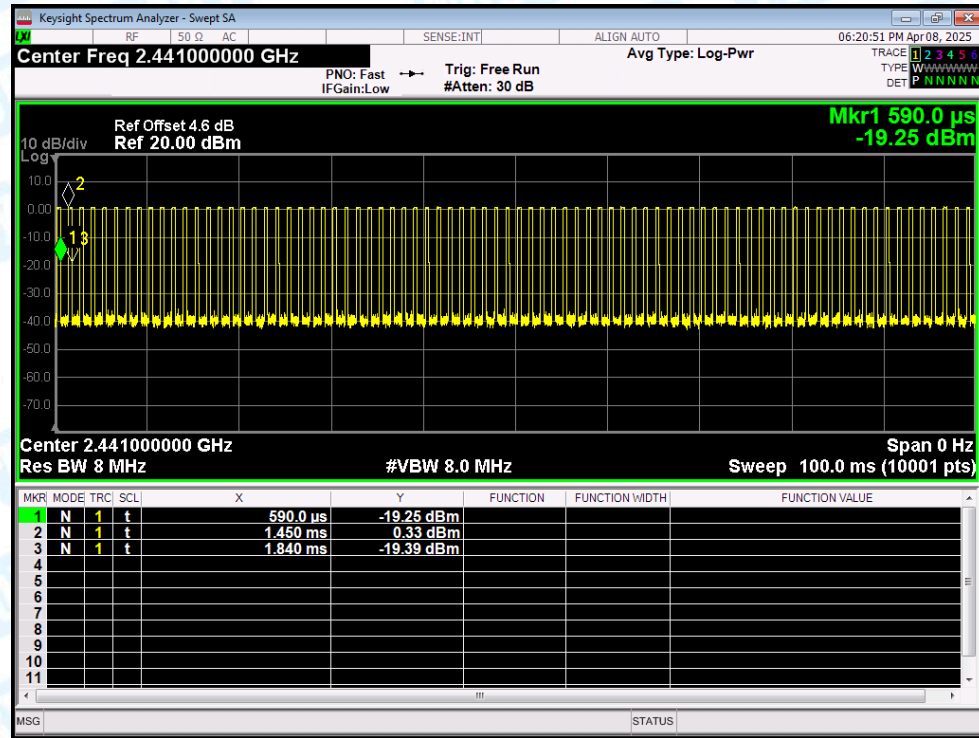
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH1	2402	Ant1	31.2	5.06	2.56
NVNT	1-DH1	2441	Ant1	31.2	5.06	2.56
NVNT	1-DH1	2480	Ant1	31.2	5.06	2.56
NVNT	2-DH1	2402	Ant1	32	4.95	2.5
NVNT	2-DH1	2441	Ant1	32	4.95	2.5
NVNT	2-DH1	2480	Ant1	32	4.95	2.5

Test Graphs

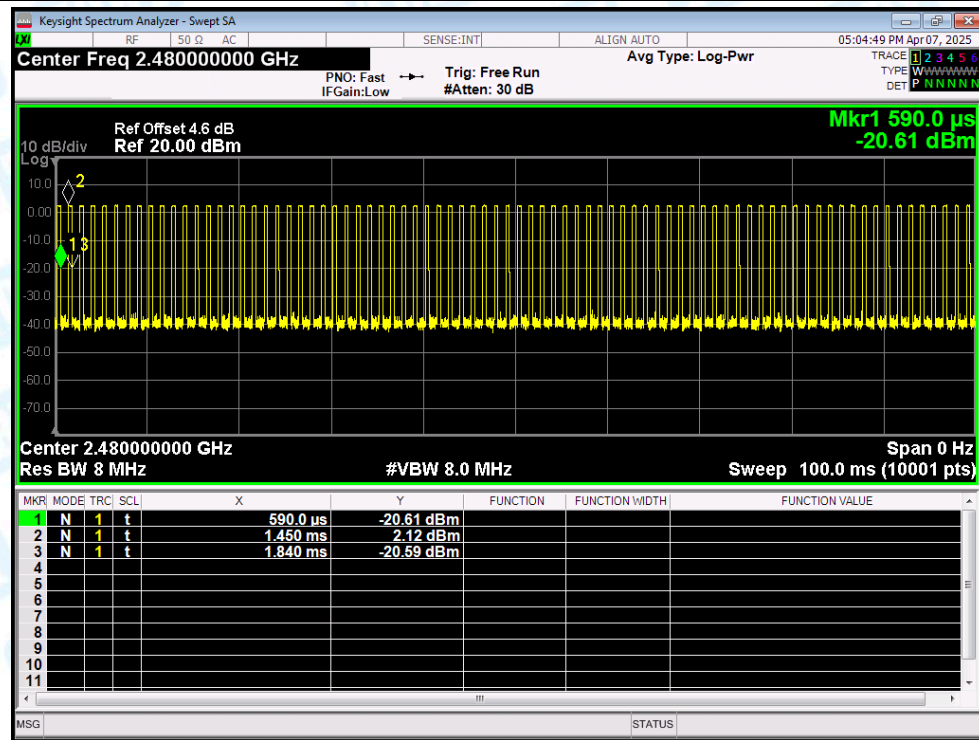
Duty Cycle NVNT 1-DH1 2402MHz Ant1



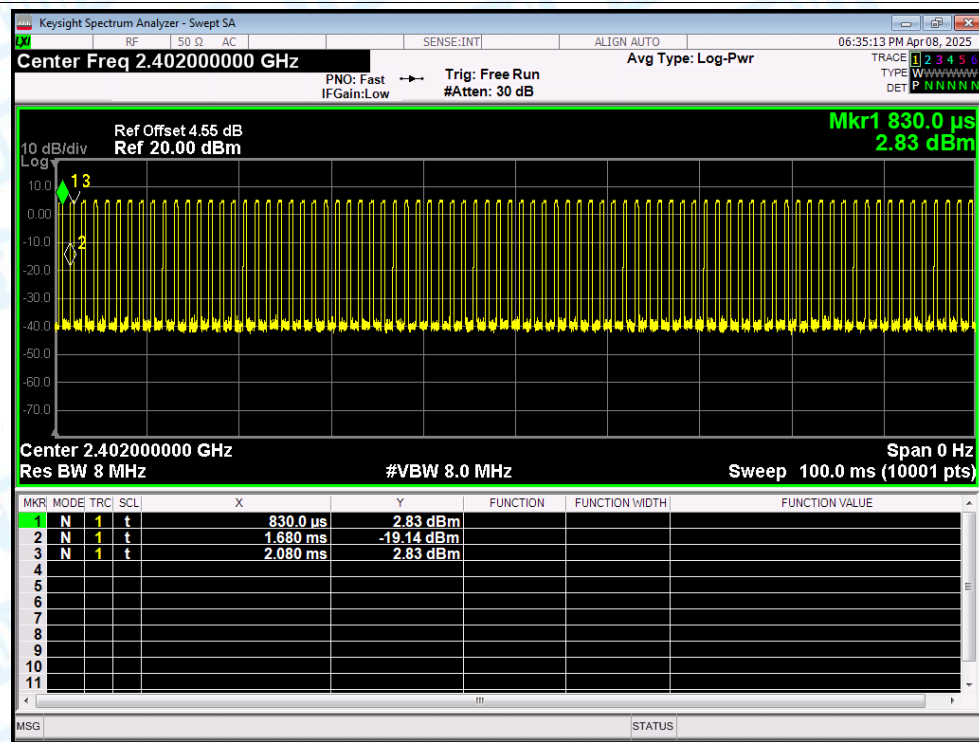
Duty Cycle NVNT 1-DH1 2441MHz Ant1



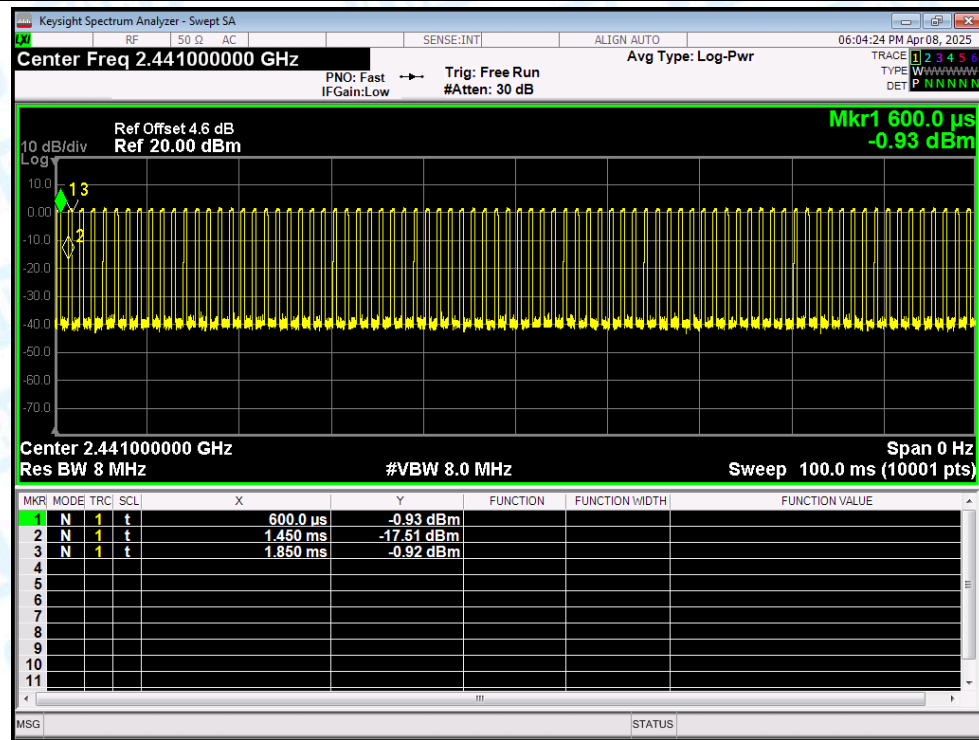
Duty Cycle NVNT 1-DH1 2480MHz Ant1



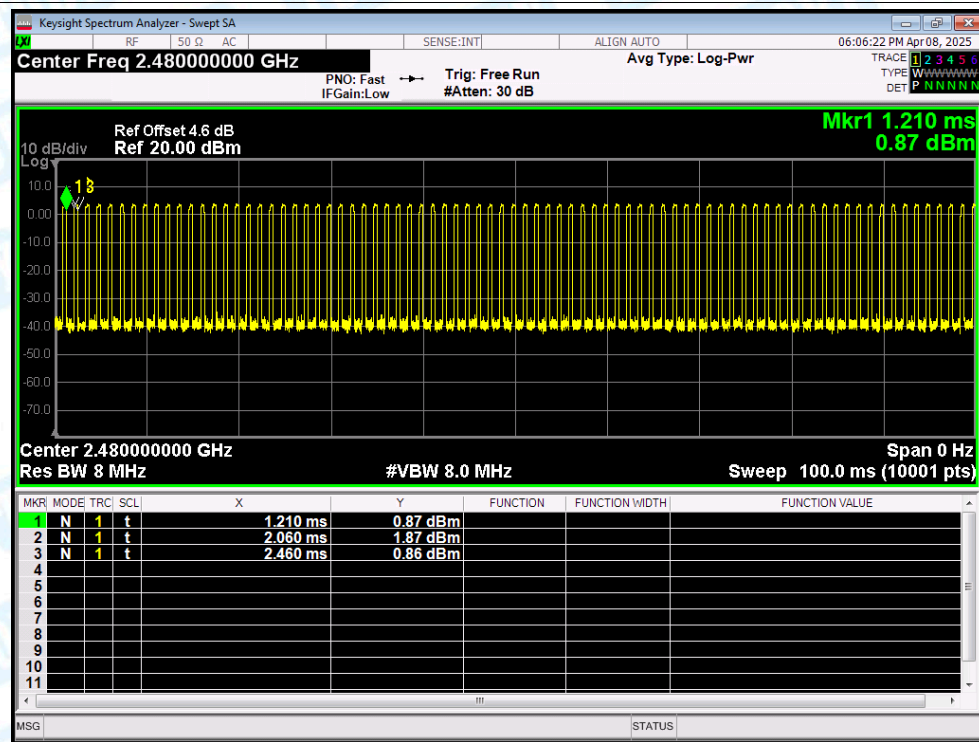
Duty Cycle NVNT 2-DH1 2402MHz Ant1



Duty Cycle NVNT 2-DH1 2441MHz Ant1



Duty Cycle NVNT 2-DH1 2480MHz Ant1

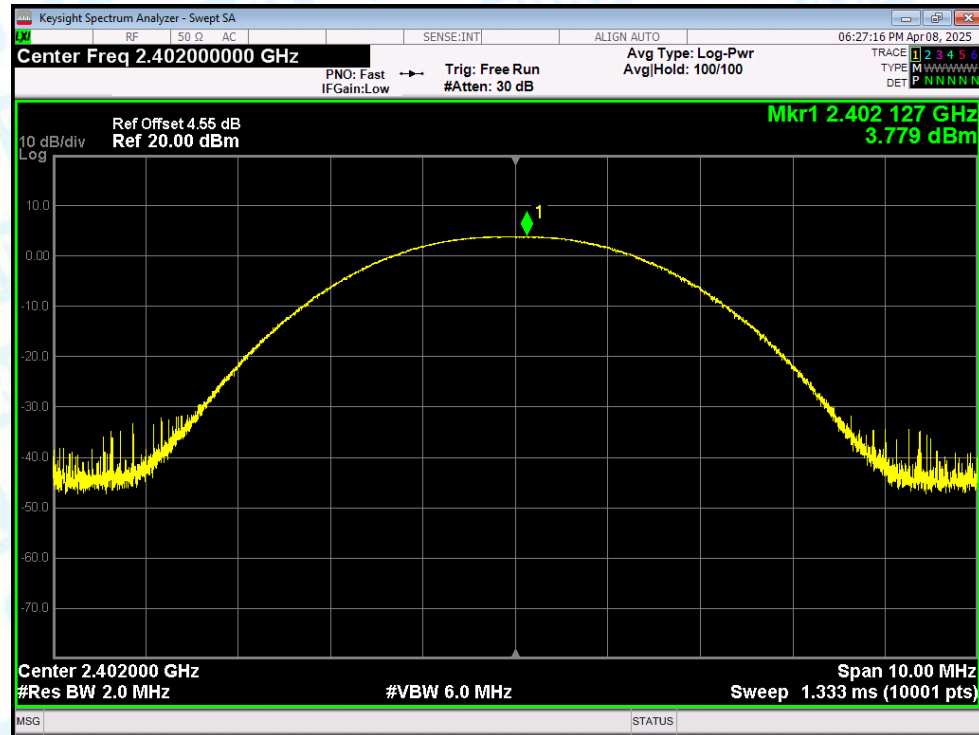


2. Maximum Conducted Output Power

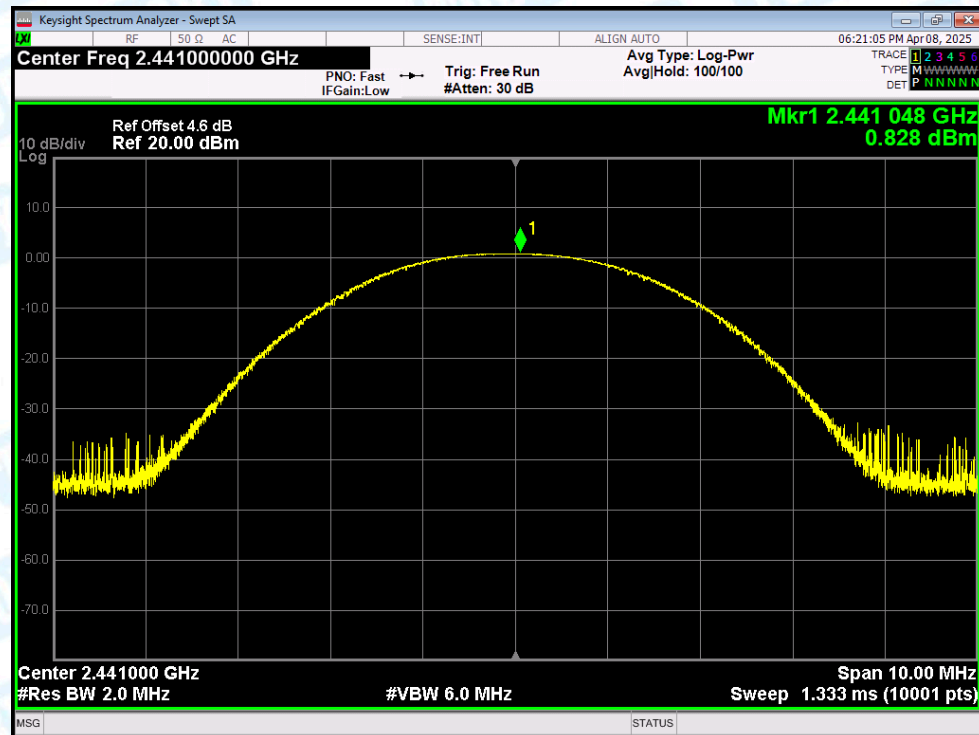
Condition	Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	3.779	21	Pass
NVNT	1-DH1	2441	Ant1	0.828	21	Pass
NVNT	1-DH1	2480	Ant1	2.53	24	Pass
NVNT	1-DH3	2441	Ant1	0.596	21	Pass
NVNT	1-DH5	2441	Ant1	0.574	21	Pass
NVNT	2-DH1	2402	Ant1	5.007	21	Pass
NVNT	2-DH1	2441	Ant1	1.357	21	Pass
NVNT	2-DH1	2480	Ant1	3.504	21	Pass
NVNT	2-DH3	2441	Ant1	1.474	21	Pass
NVNT	2-DH5	2441	Ant1	1.482	21	Pass

Test Graphs

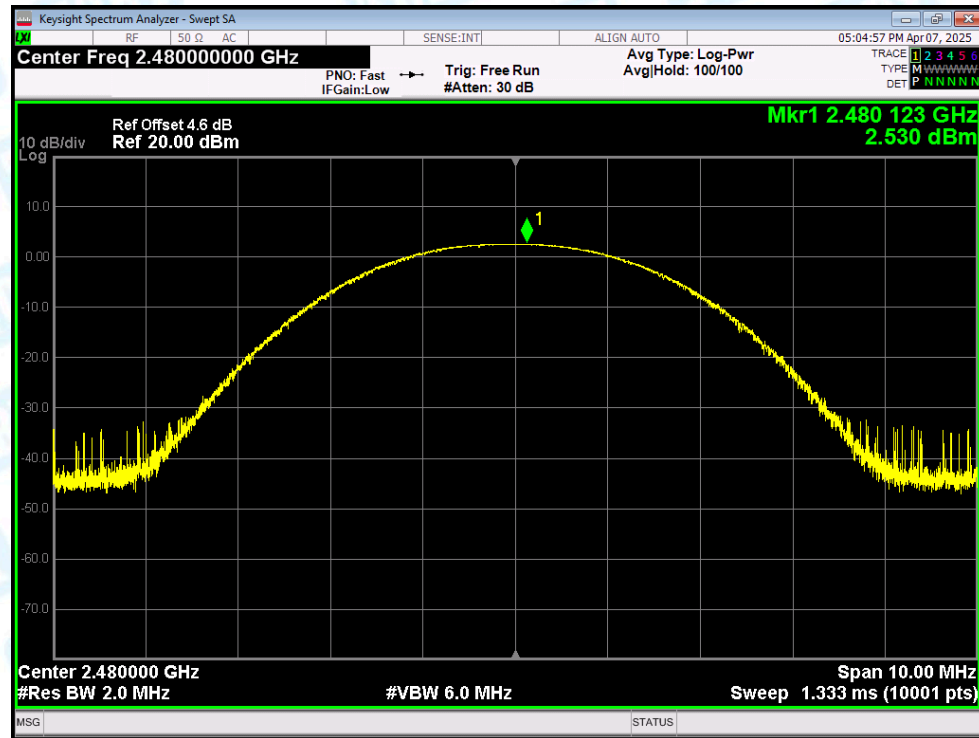
Power NVNT 1-DH1 2402MHz Ant1



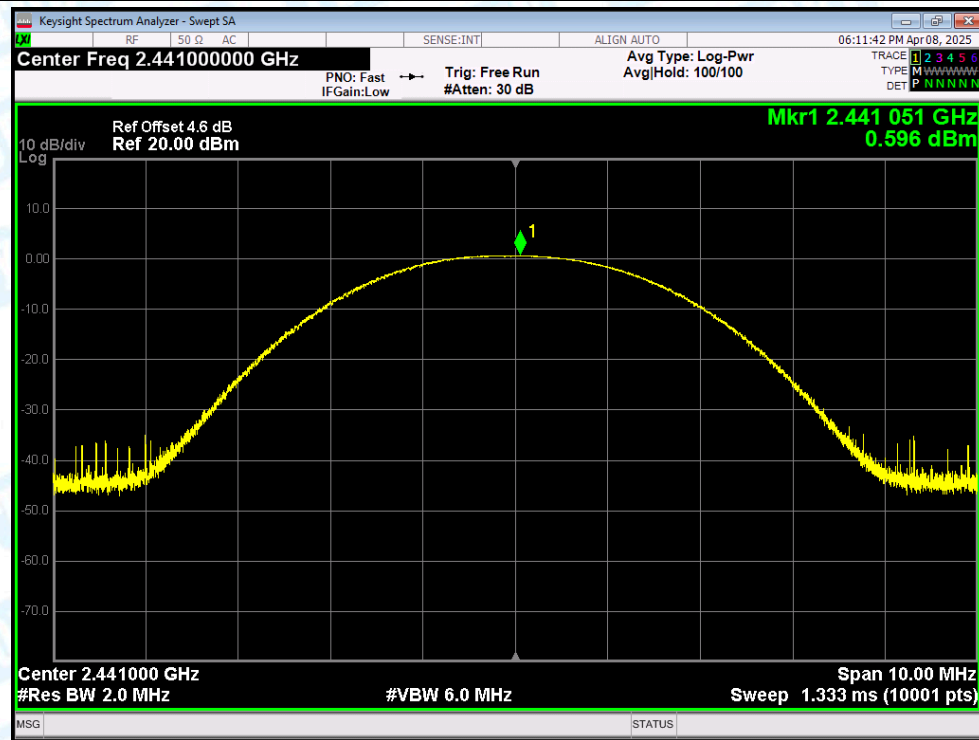
Power NVNT 1-DH1 2441MHz Ant1



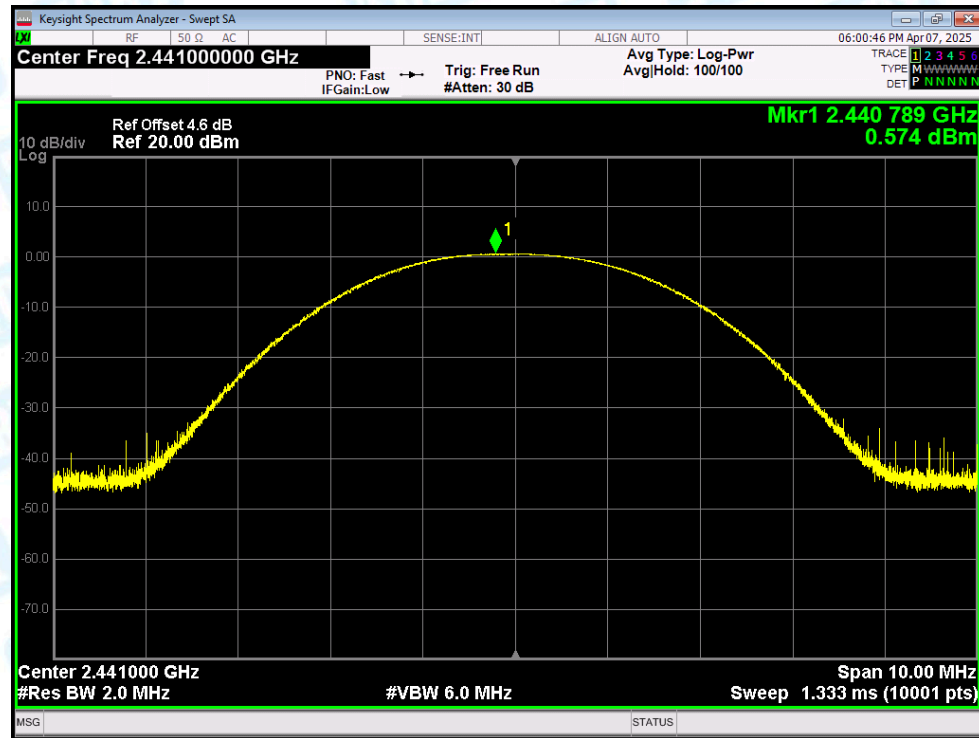
Power NVNT 1-DH1 2480MHz Ant1



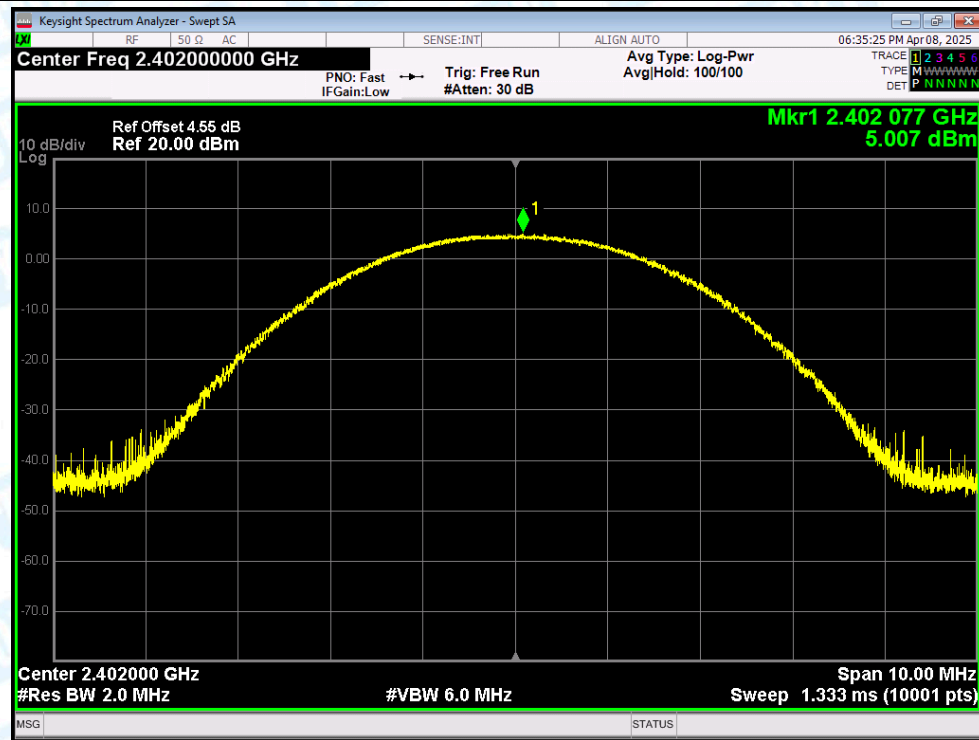
Power NVNT 1-DH3 2441MHz Ant1



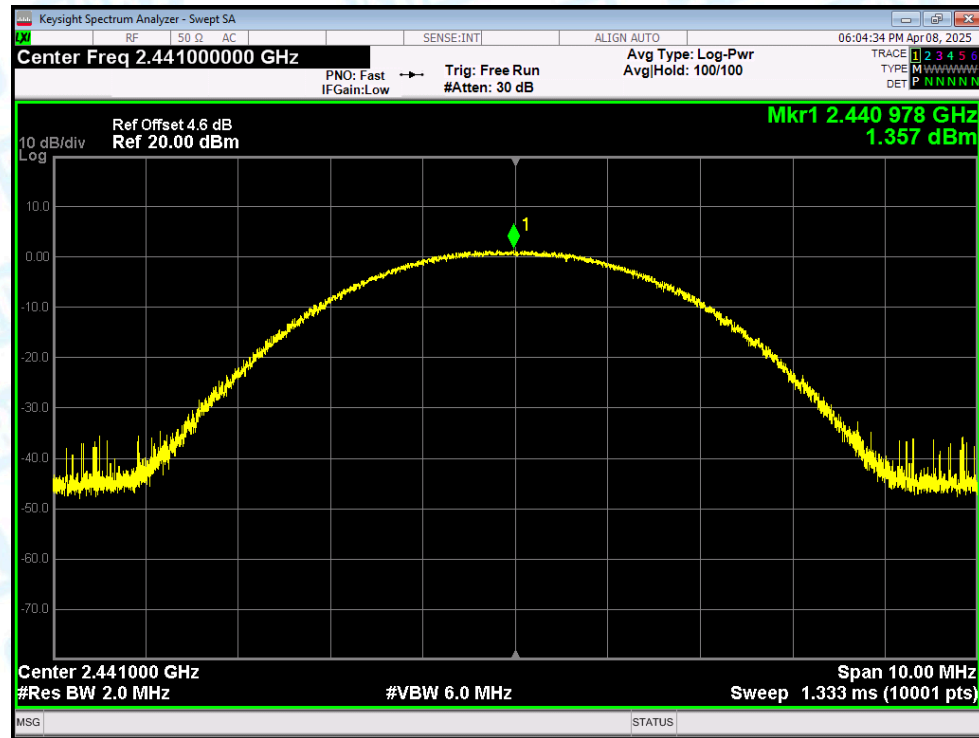
Power NVNT 1-DH5 2441MHz Ant1



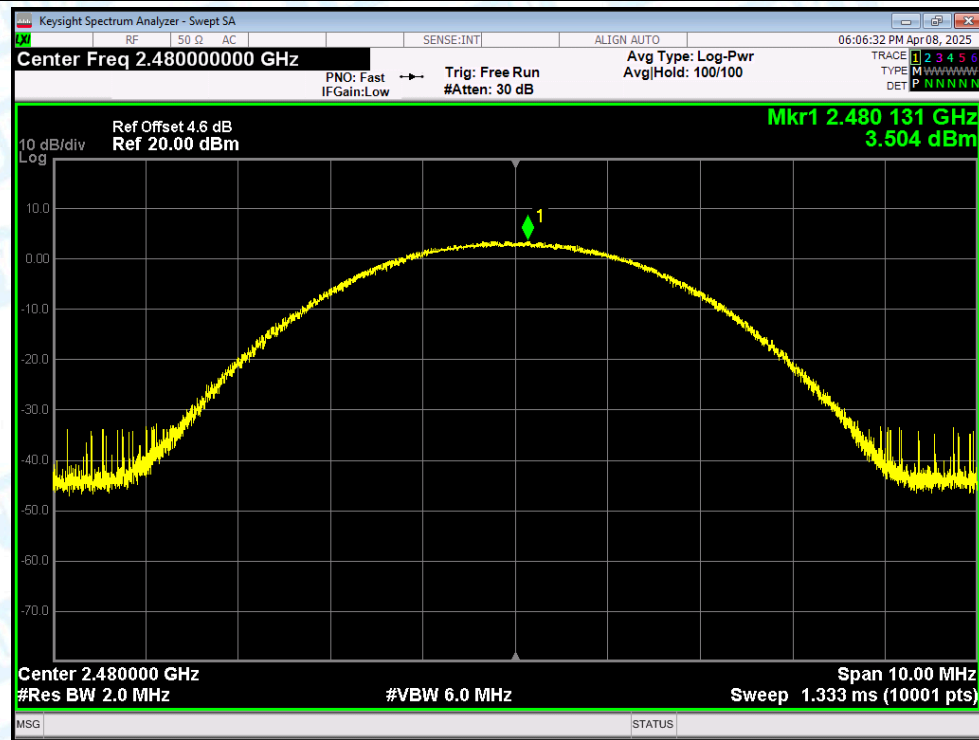
Power NVNT 2-DH1 2402MHz Ant1



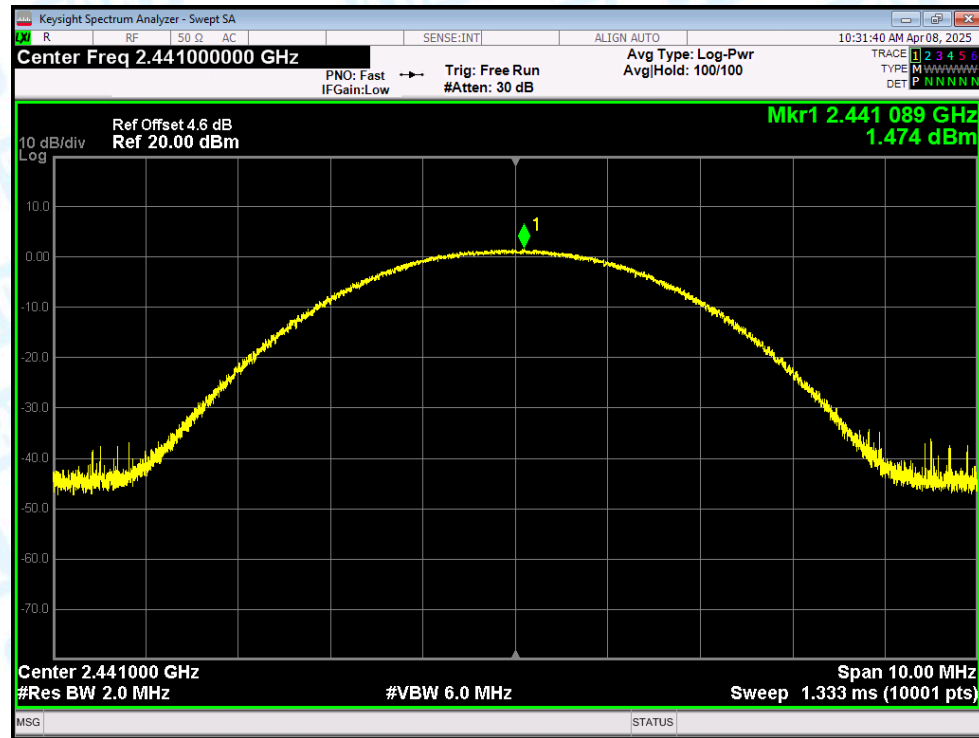
Power NVNT 2-DH1 2441MHz Ant1



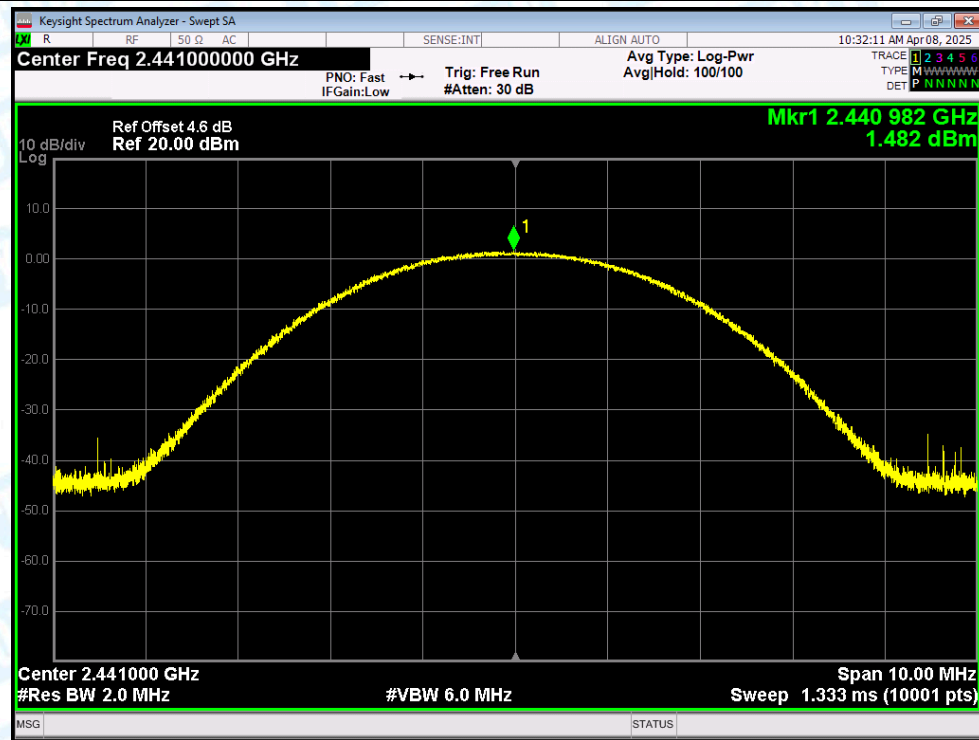
Power NVNT 2-DH1 2480MHz Ant1



Power NVNT 2-DH3 2441MHz Ant1



Power NVNT 2-DH5 2441MHz Ant1

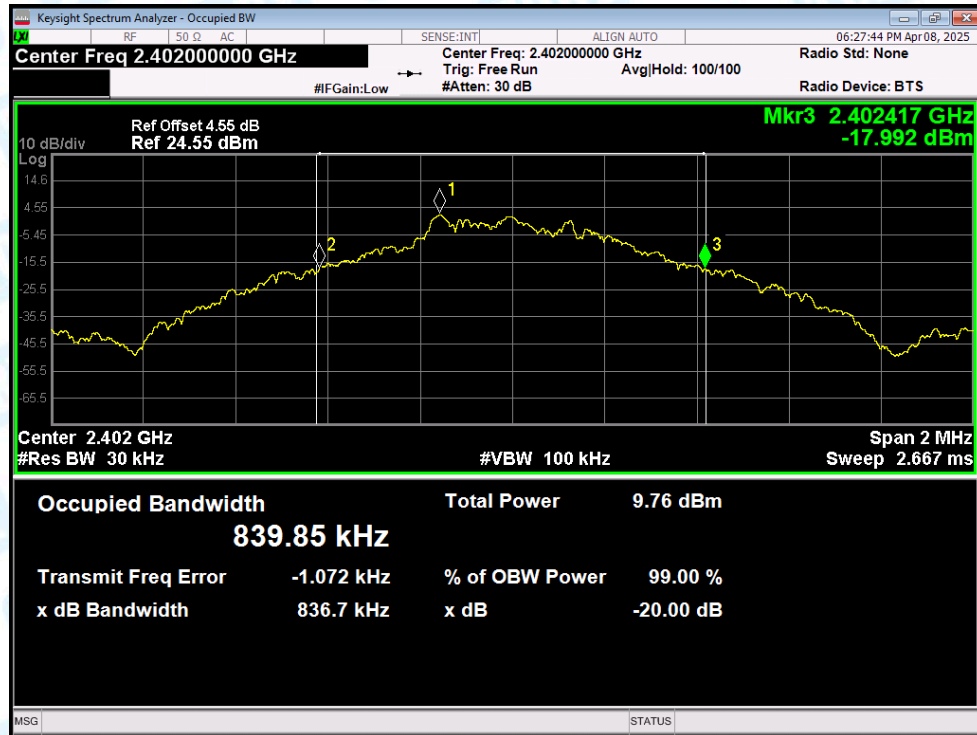


3. -20dB Bandwidth

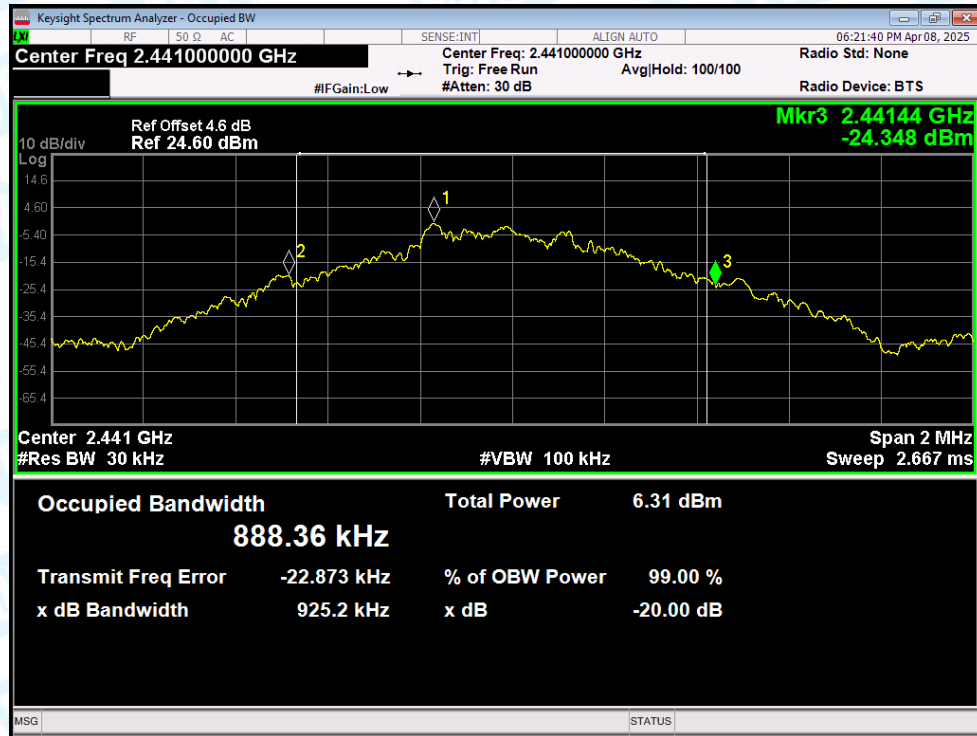
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	0.84	0	Pass
NVNT	1-DH1	2441	Ant1	0.93	0	Pass
NVNT	1-DH1	2480	Ant1	0.93	0	Pass
NVNT	2-DH1	2402	Ant1	1.25	0	Pass
NVNT	2-DH1	2441	Ant1	1.25	0	Pass
NVNT	2-DH1	2480	Ant1	1.24	0	Pass

Test Graphs

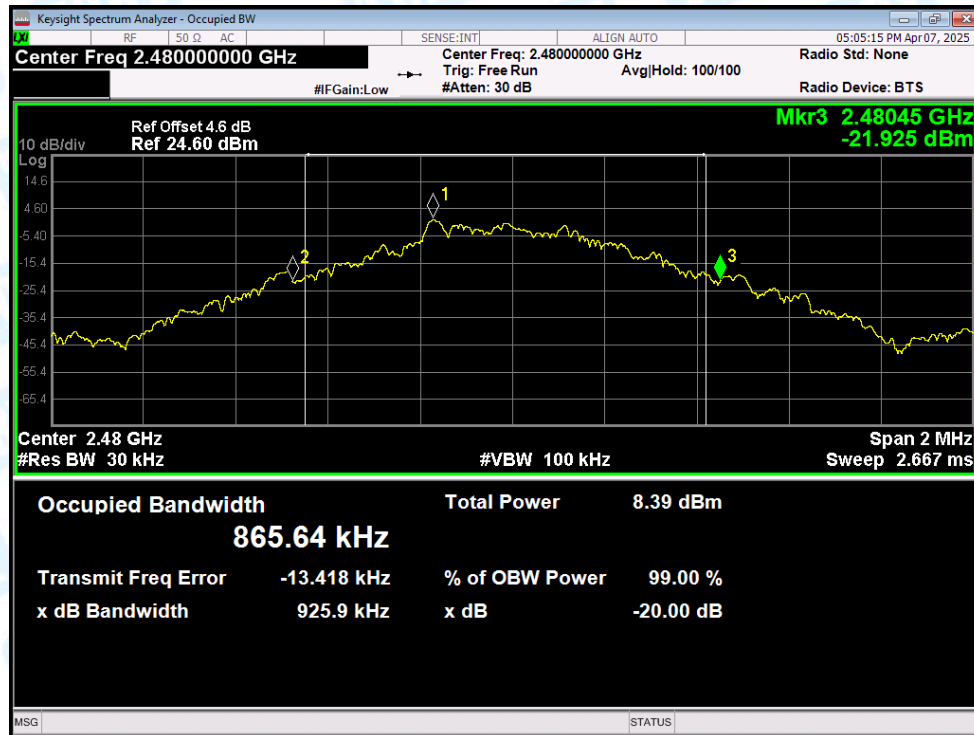
-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1



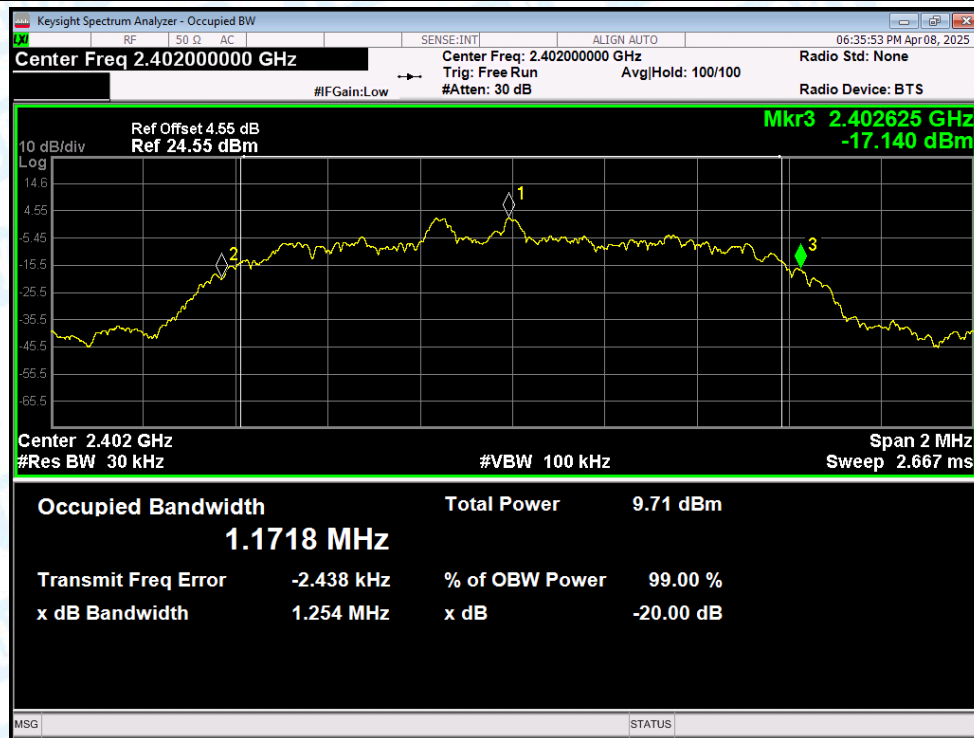
-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1



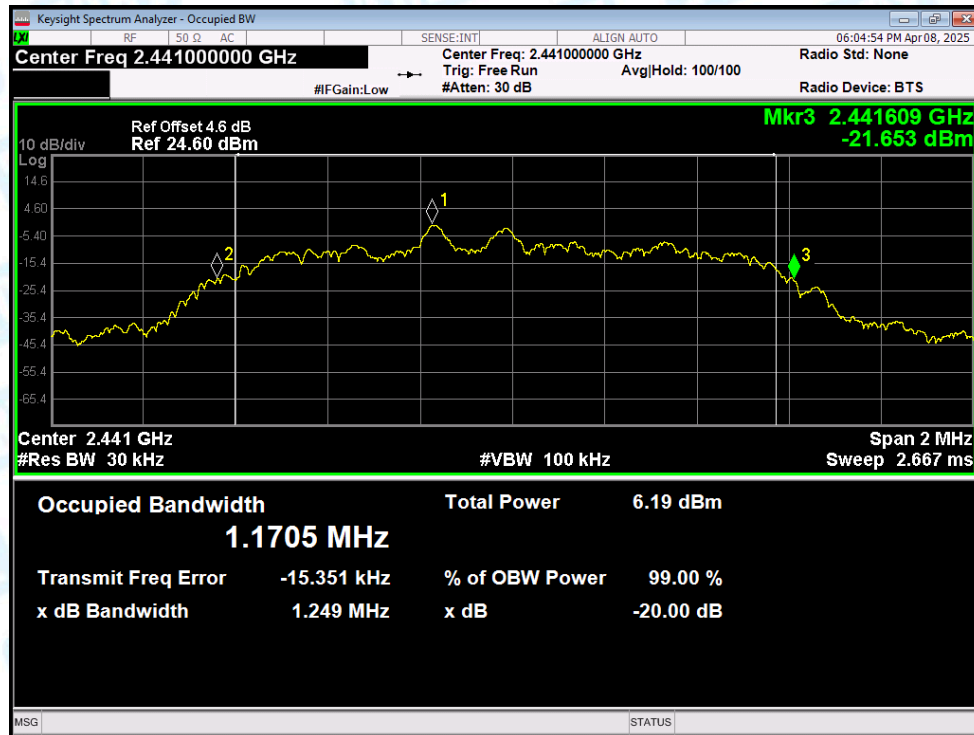
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



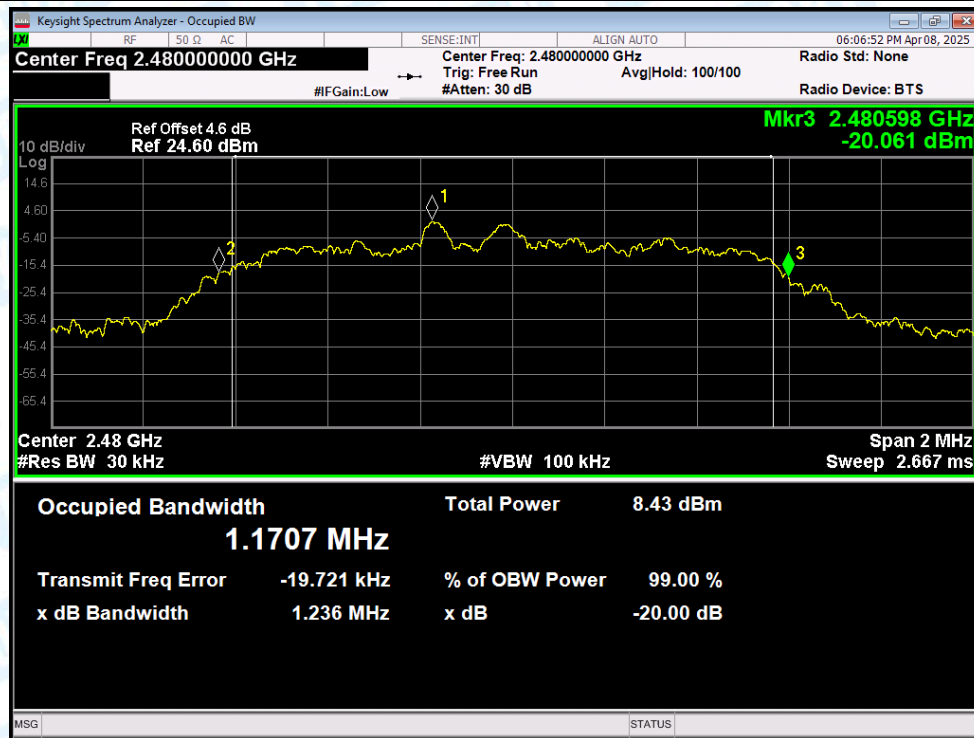
-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1

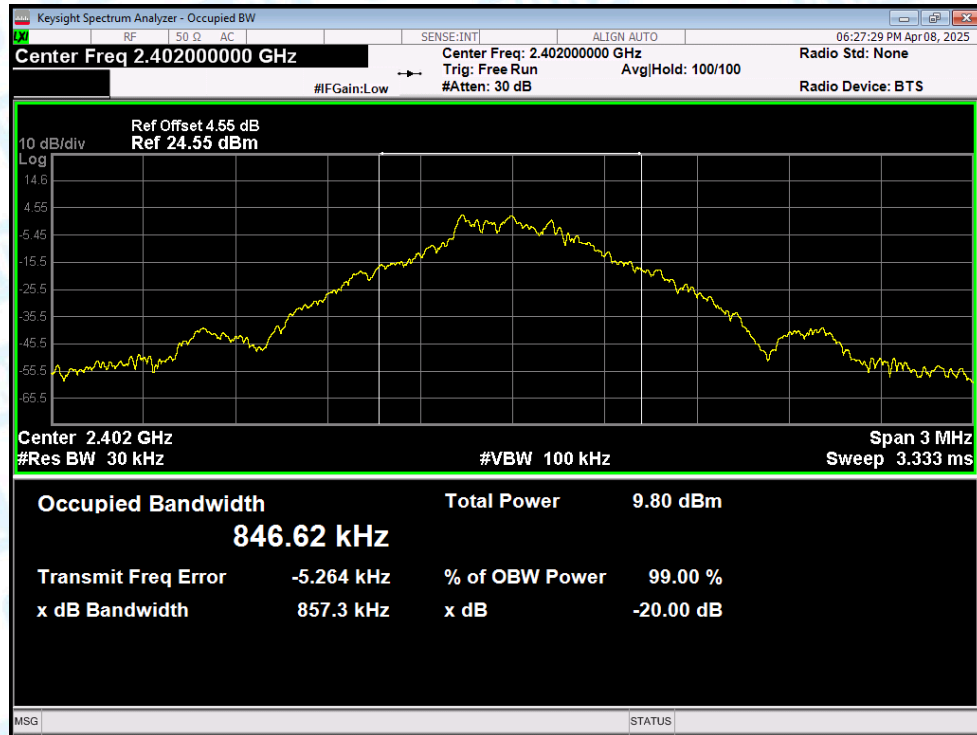


4. Occupied Channel Bandwidth

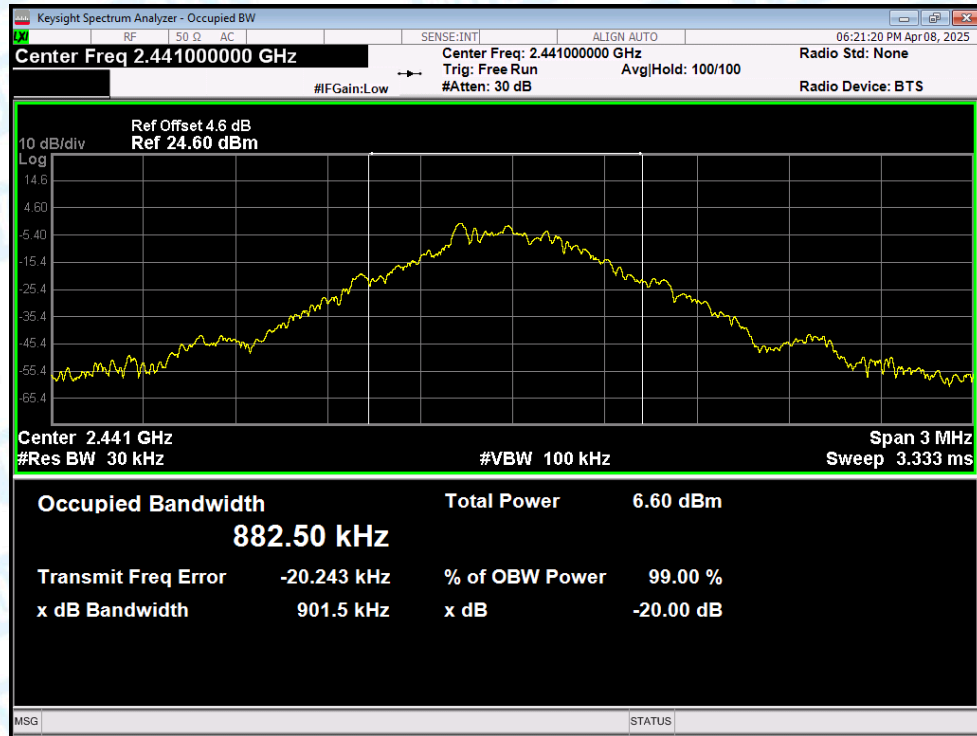
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH1	2402	Ant1	0.847
NVNT	1-DH1	2441	Ant1	0.883
NVNT	1-DH1	2480	Ant1	0.86
NVNT	2-DH1	2402	Ant1	1.138
NVNT	2-DH1	2441	Ant1	1.184
NVNT	2-DH1	2480	Ant1	1.178

Test Graphs

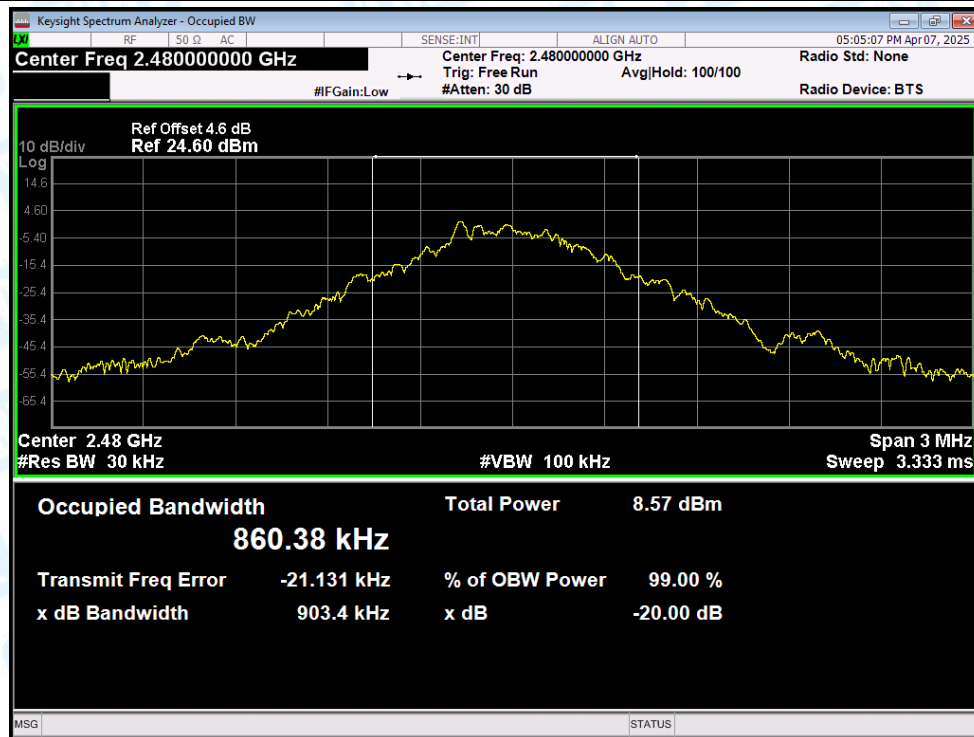
OBW NVNT 1-DH1 2402MHz Ant1



OBW NVNT 1-DH1 2441MHz Ant1



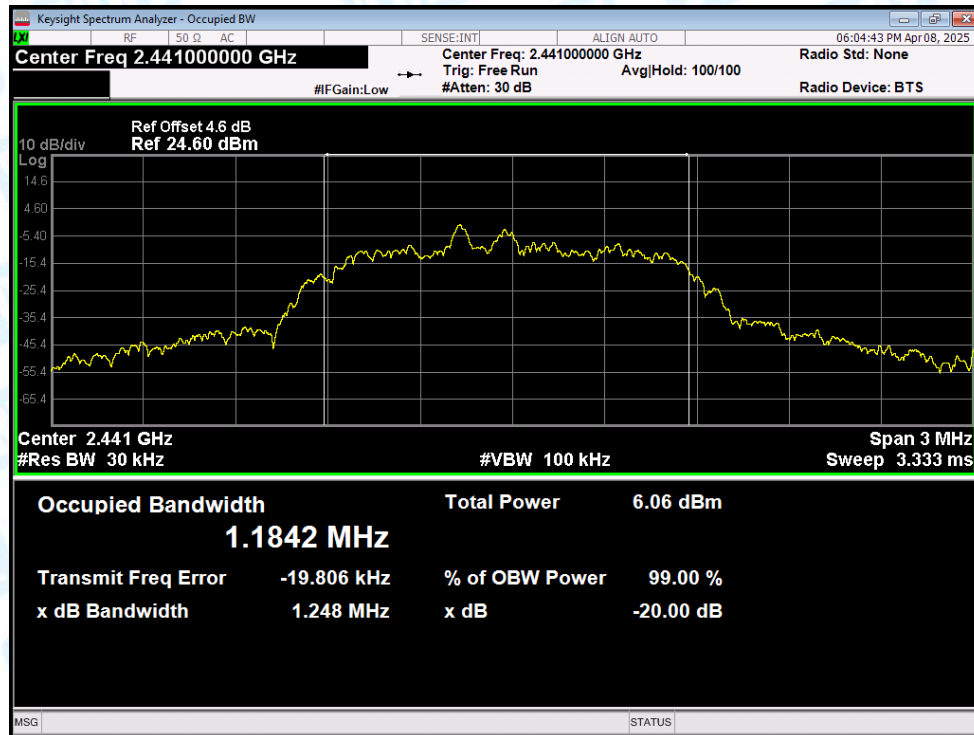
OBW NVNT 1-DH1 2480MHz Ant1



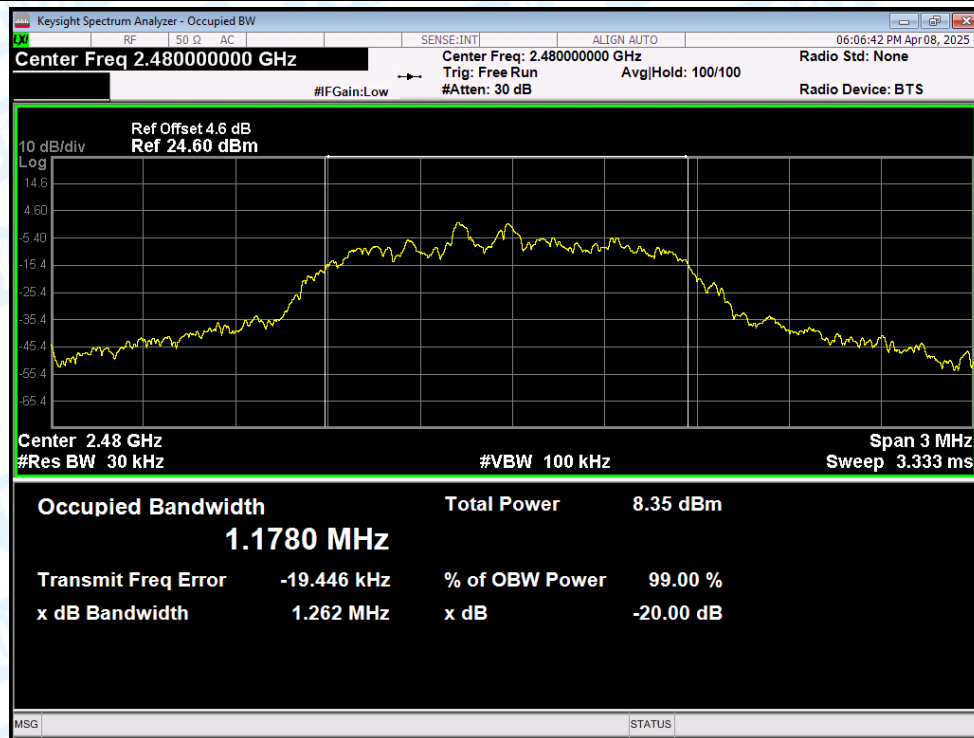
OBW NVNT 2-DH1 2402MHz Ant1



OBW NVNT 2-DH1 2441MHz Ant1



OBW NVNT 2-DH1 2480MHz Ant1

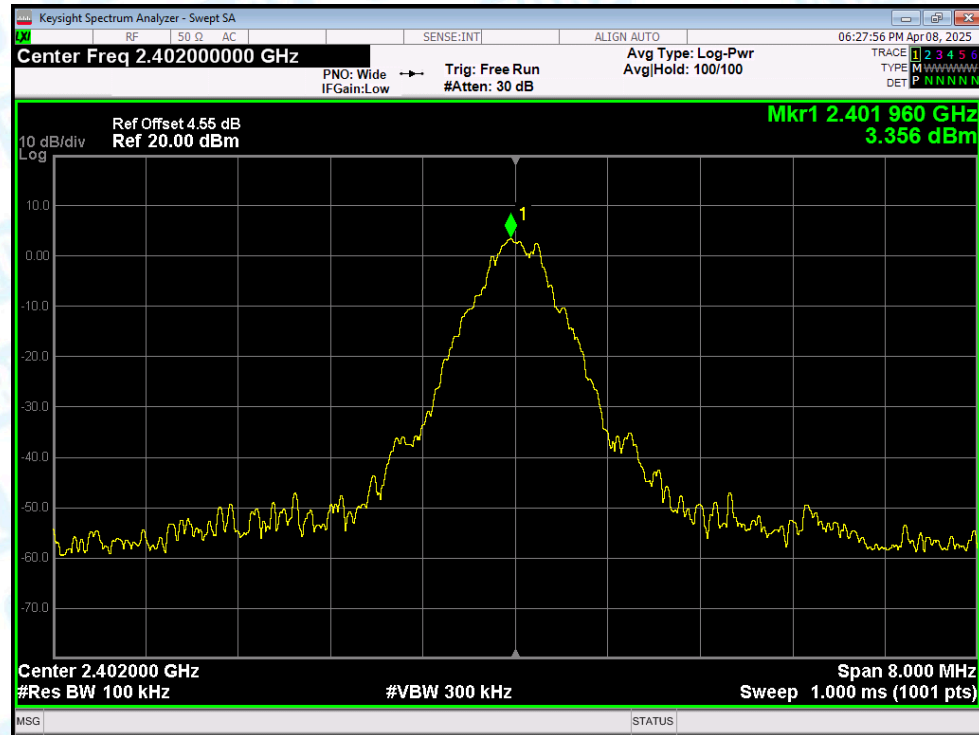


5. Band Edge

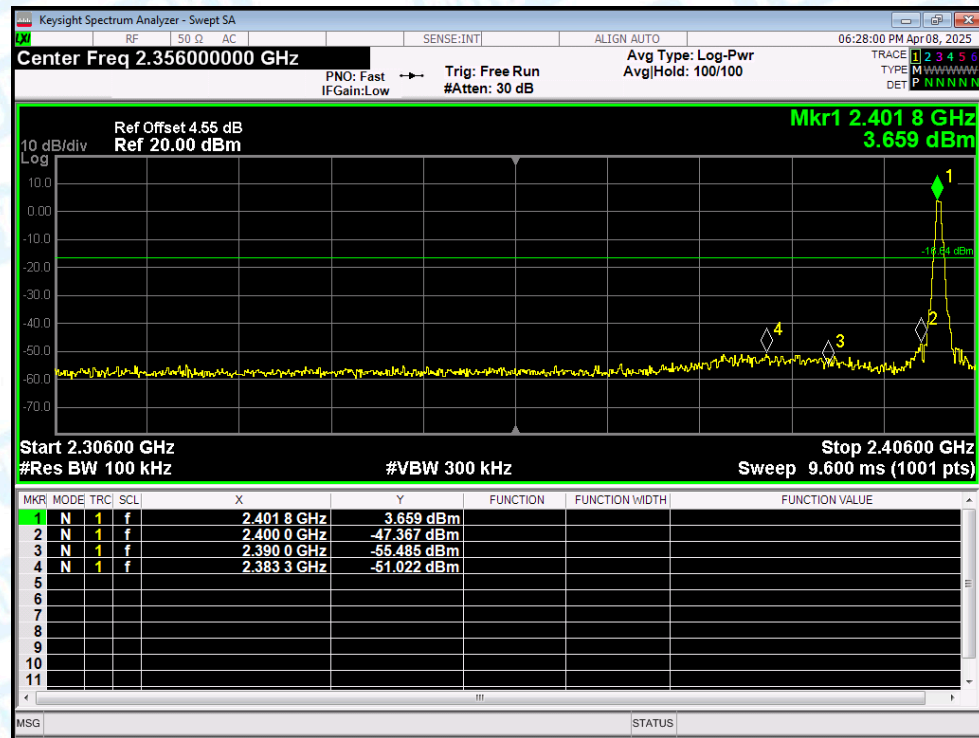
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-54.38	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-51.69	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-52.81	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-53.99	-20	Pass

Test Graphs

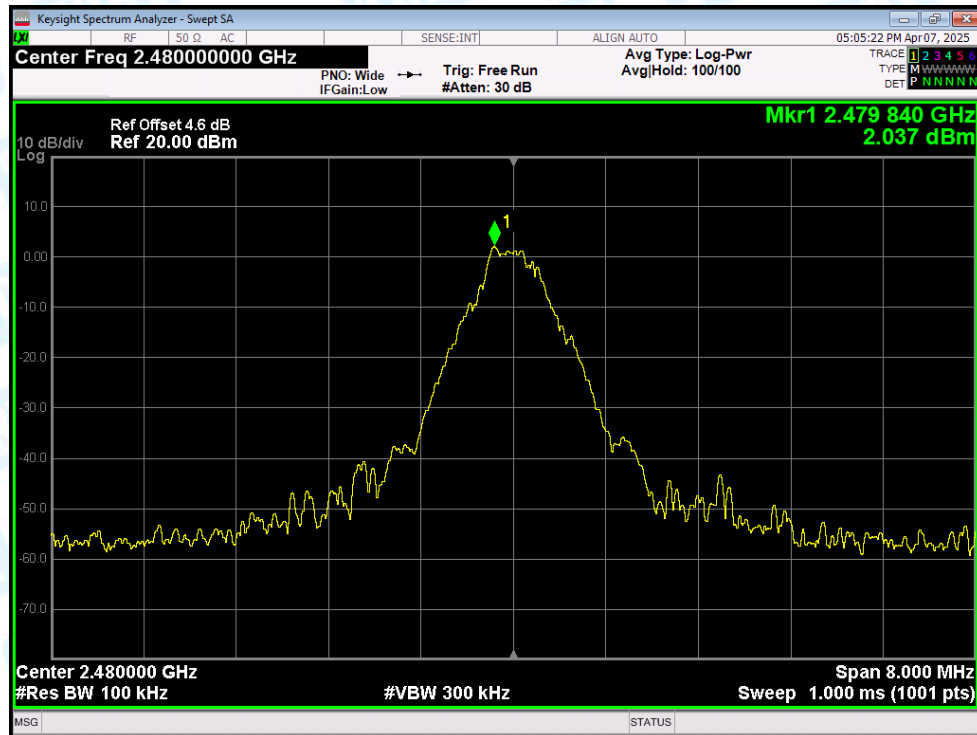
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Ref



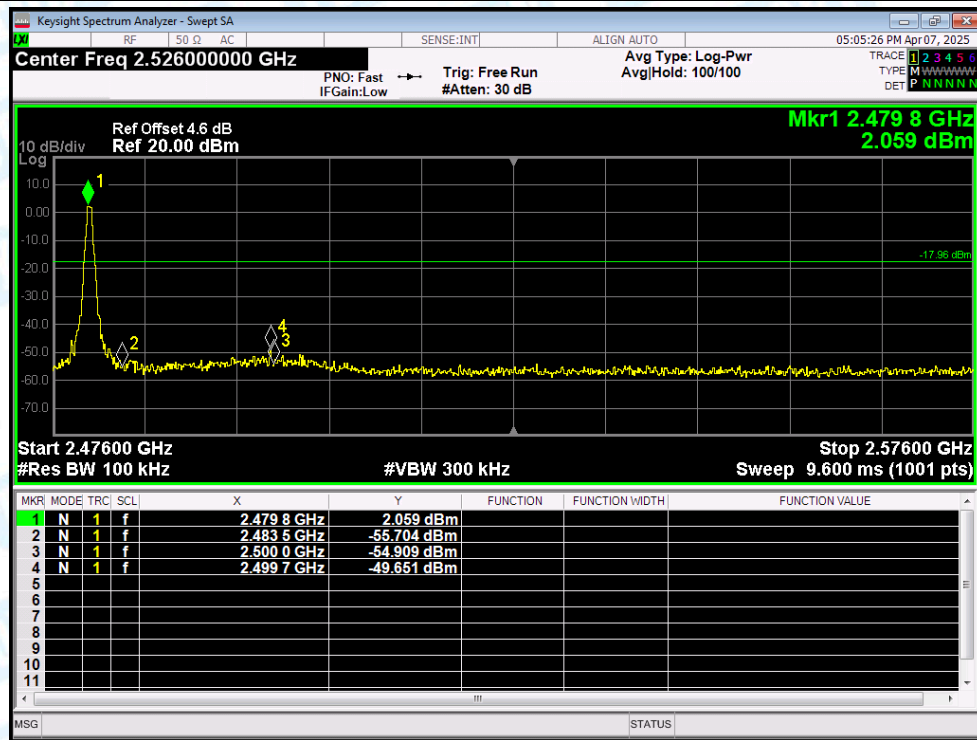
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission



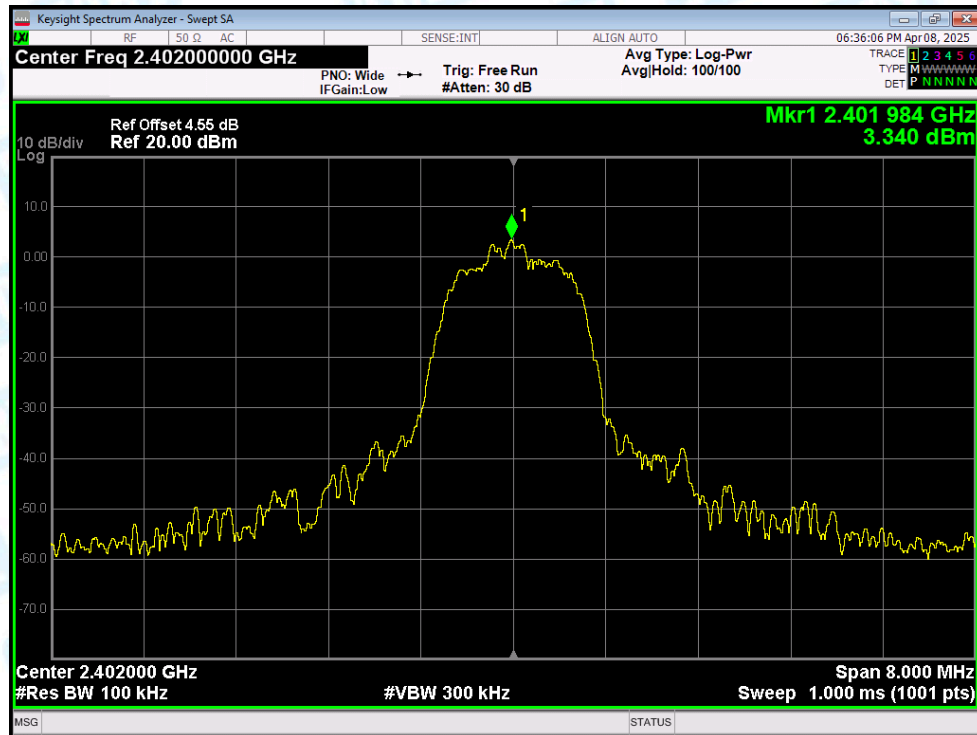
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Ref



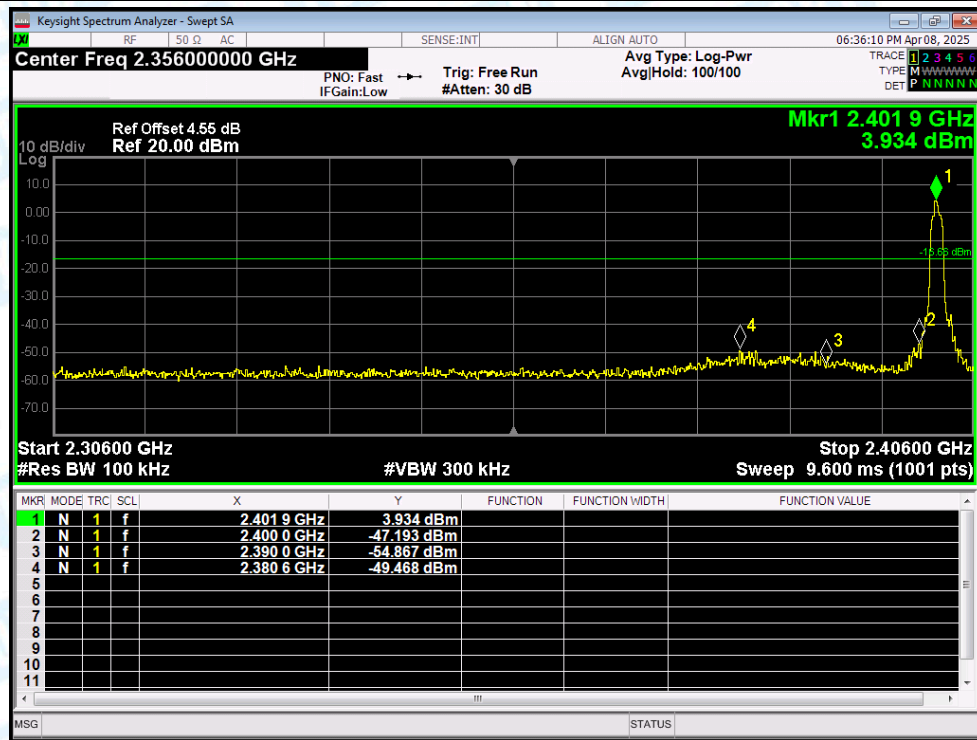
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Emission



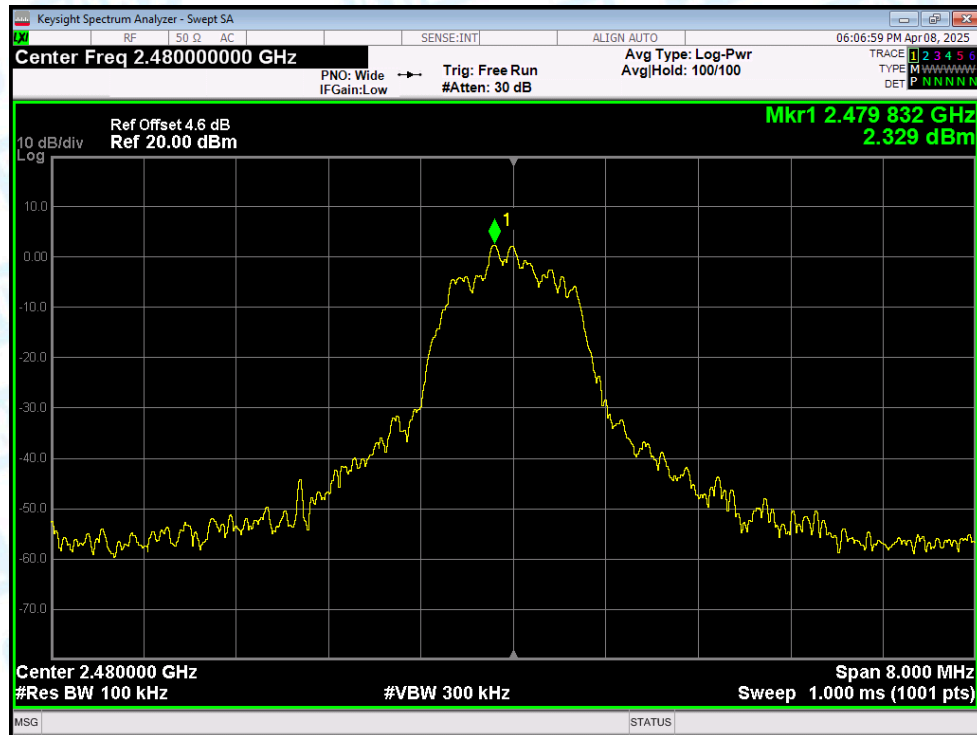
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Ref



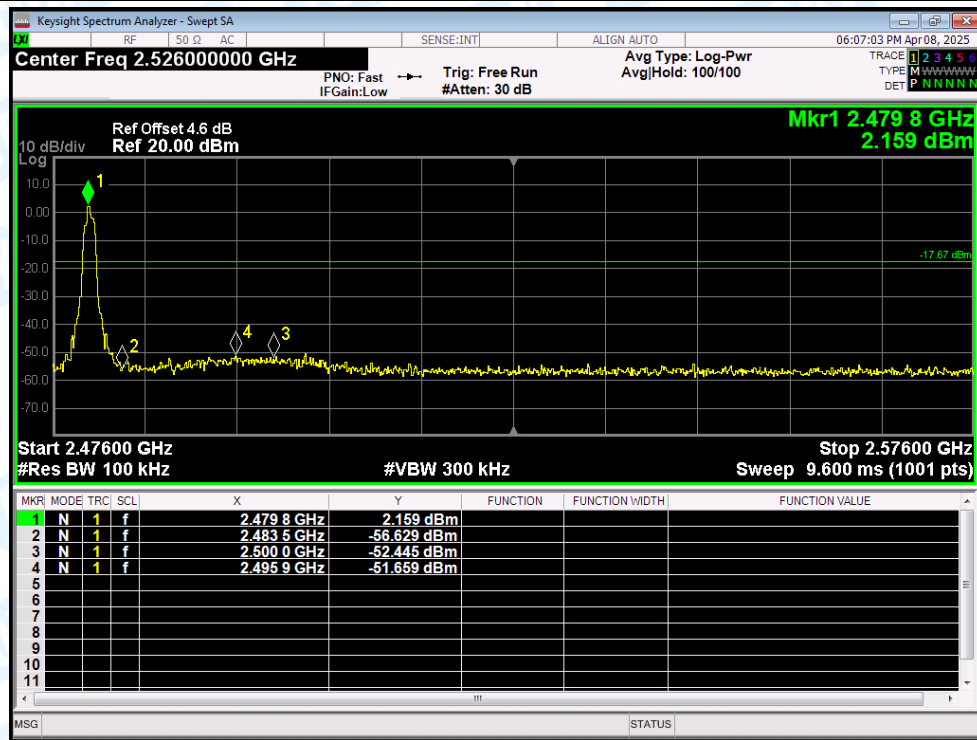
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Emission



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



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

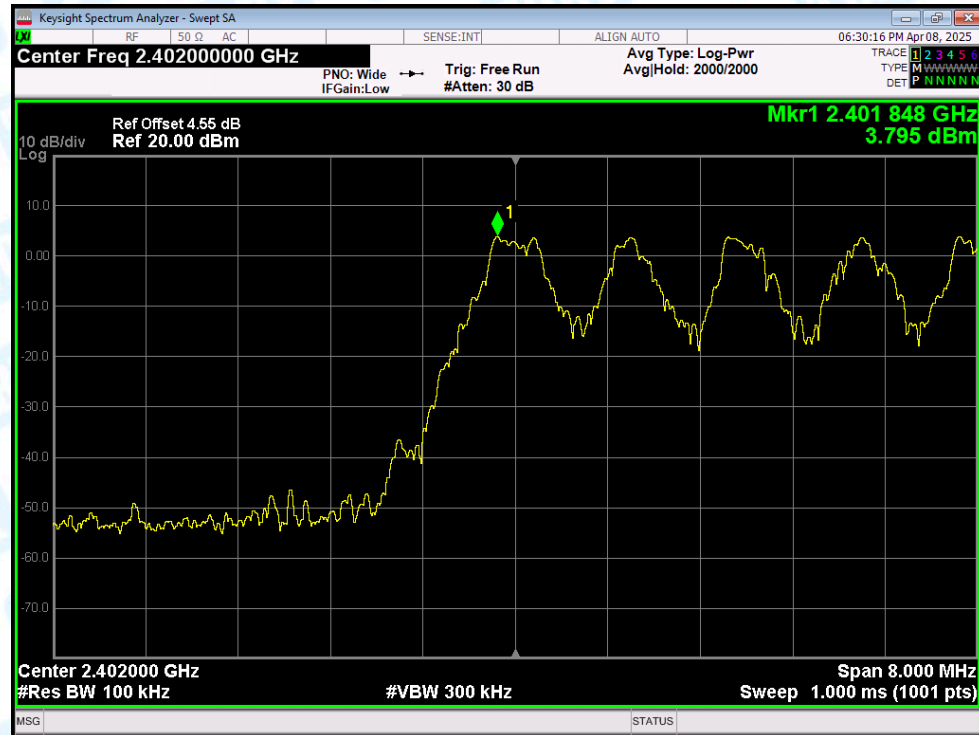


6. Band Edge(Hopping)

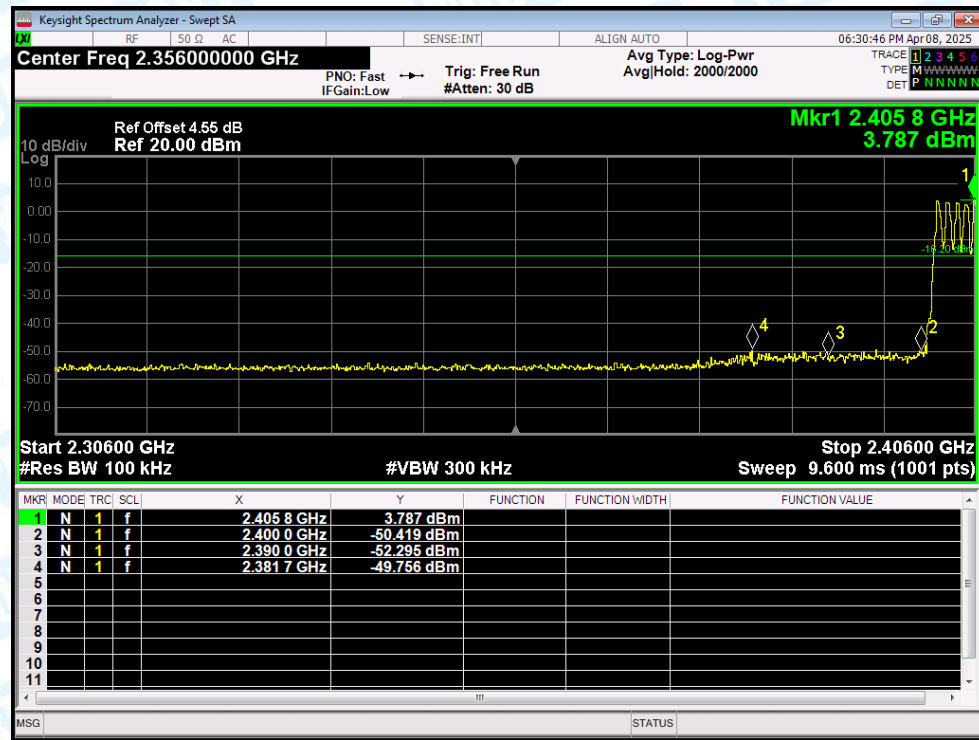
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-53.56	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-52.46	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-53.88	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-53.09	-20	Pass

Test Graphs

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



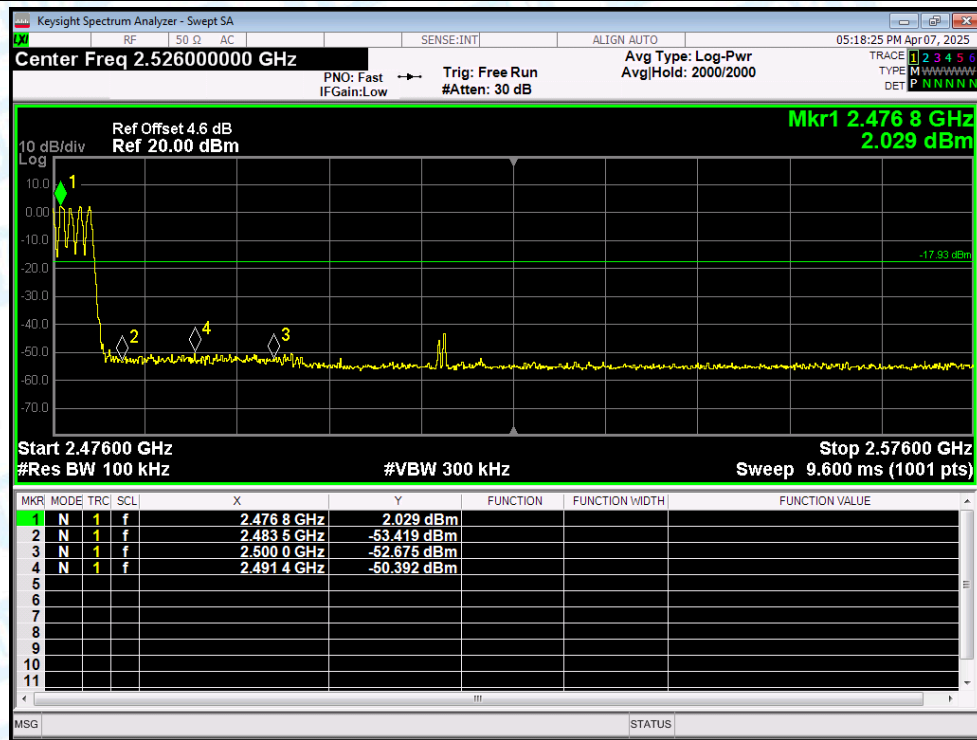
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Emission



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



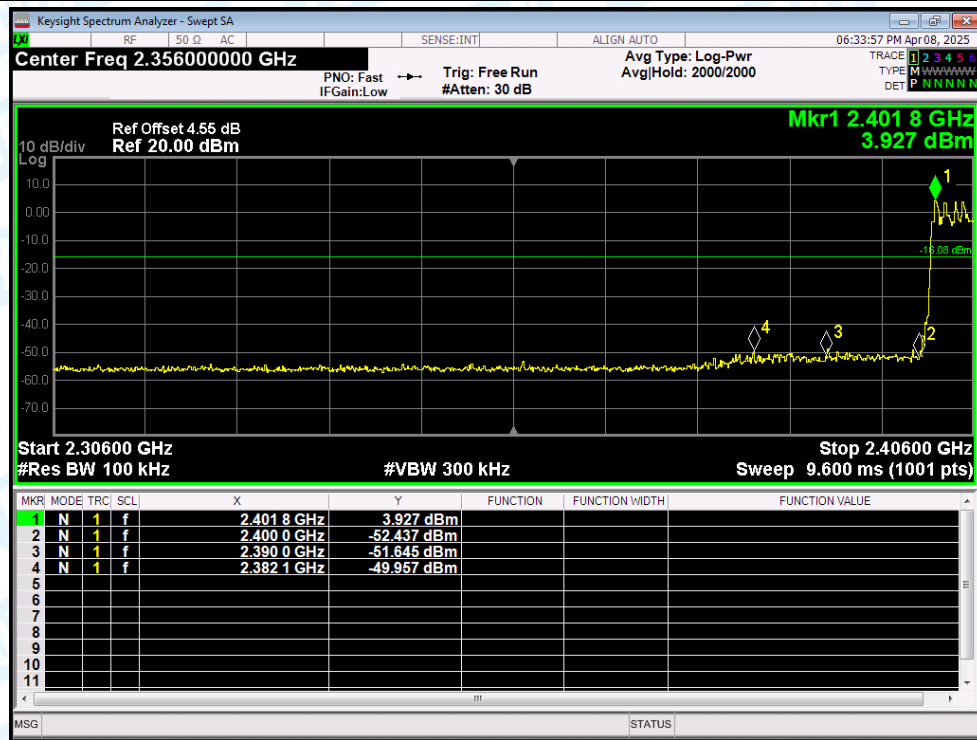
Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Emission



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



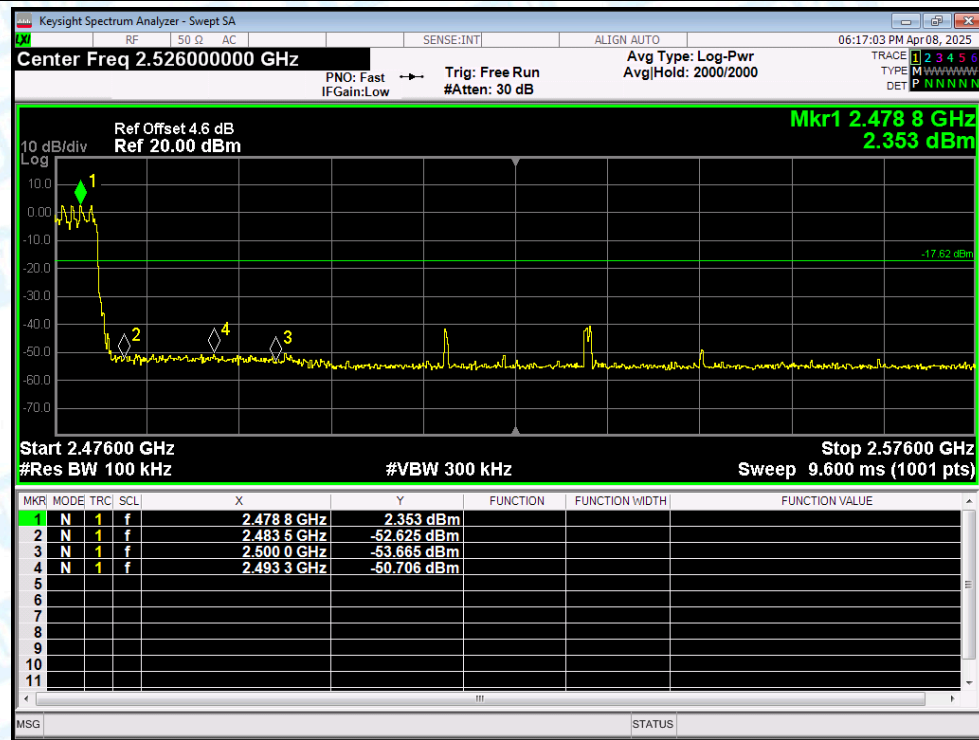
Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Emission



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



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

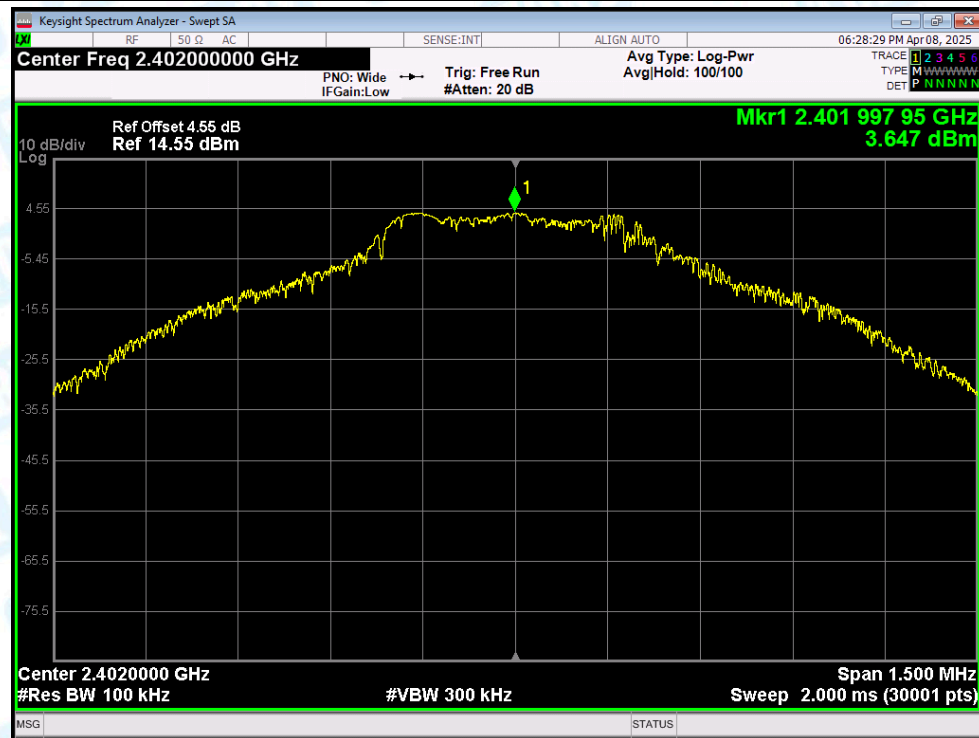


7. Conducted RF Spurious Emission

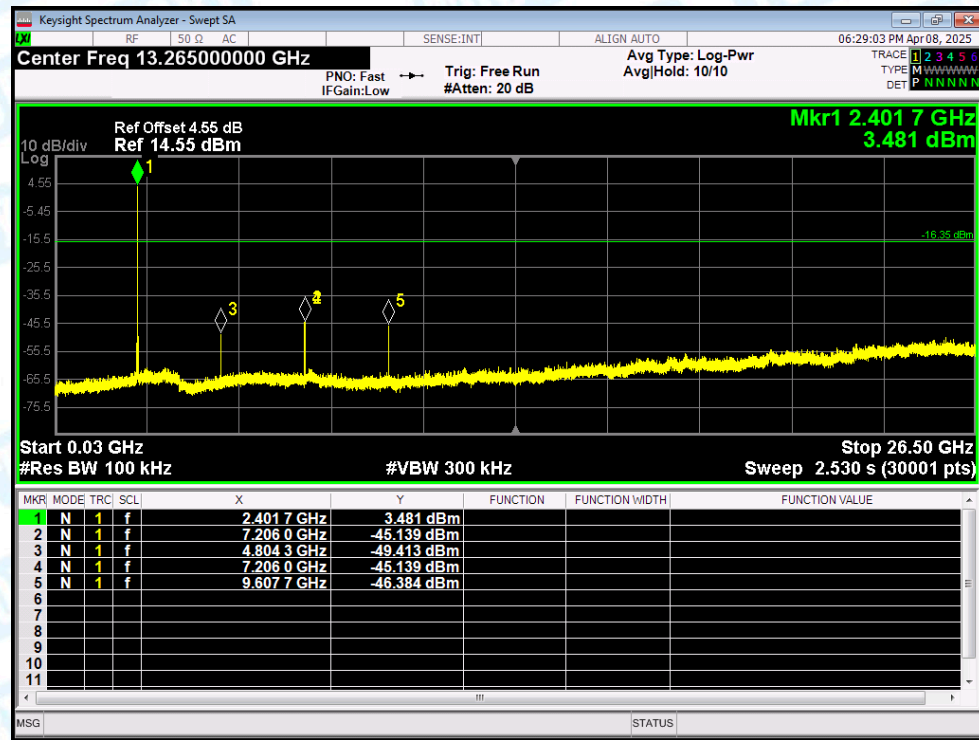
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	-48.79	-20	Pass
NVNT	1-DH1	2441	Ant1	-47.67	-20	Pass
NVNT	1-DH1	2480	Ant1	-46.19	-20	Pass
NVNT	2-DH1	2402	Ant1	-48.6	-20	Pass
NVNT	2-DH1	2441	Ant1	-48	-20	Pass
NVNT	2-DH1	2480	Ant1	-45.45	-20	Pass

Test Graphs

Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Ref



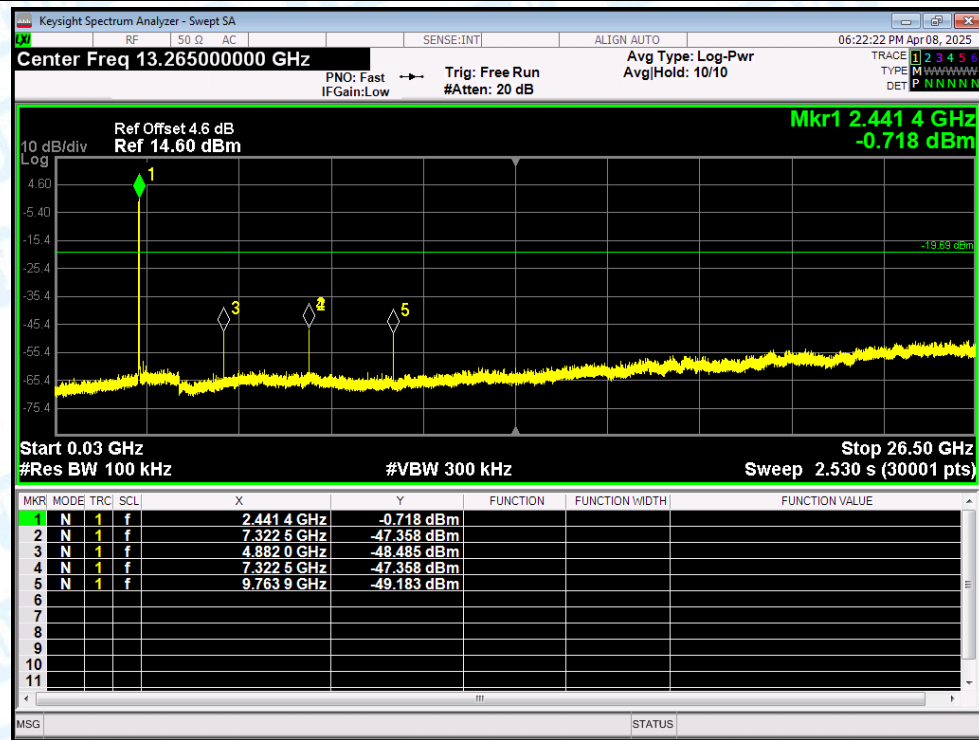
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Emission



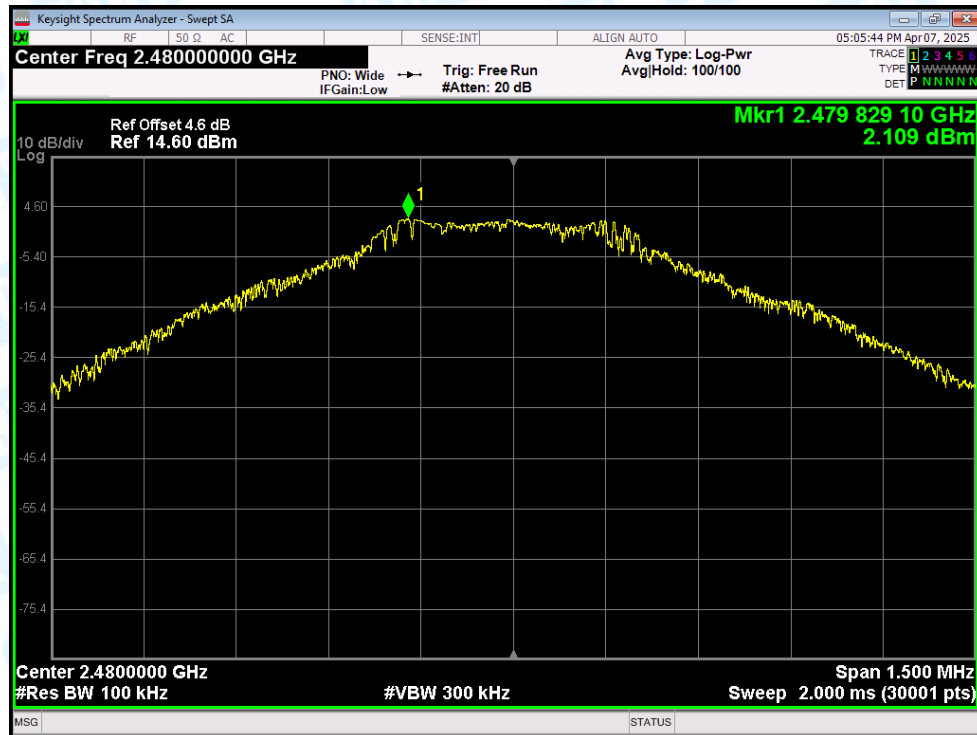
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Ref



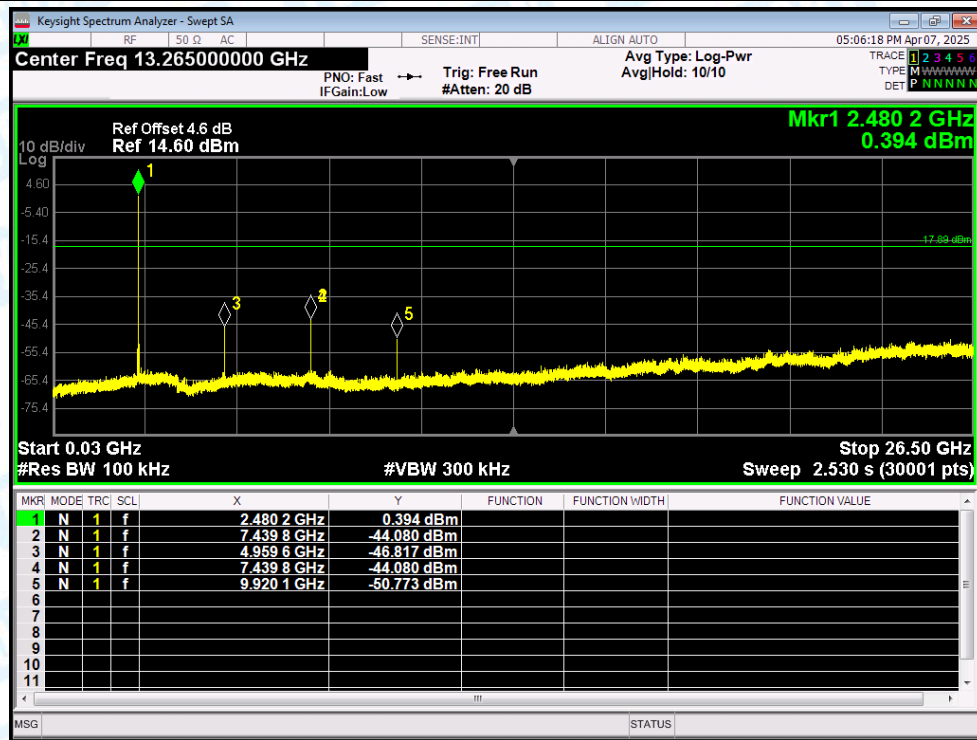
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Emission



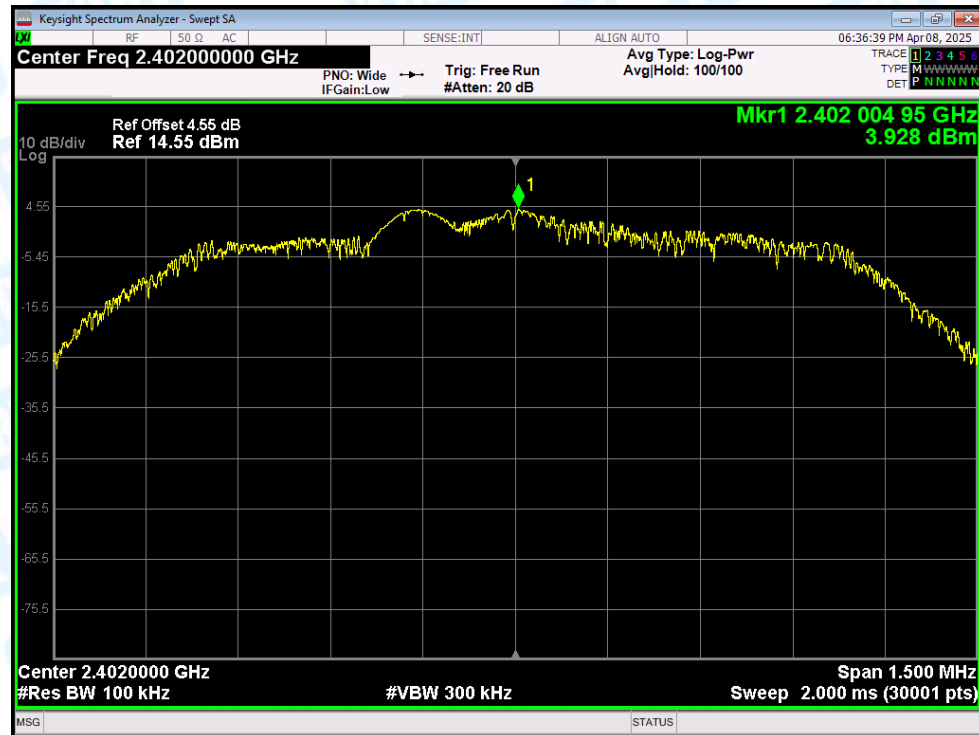
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Ref



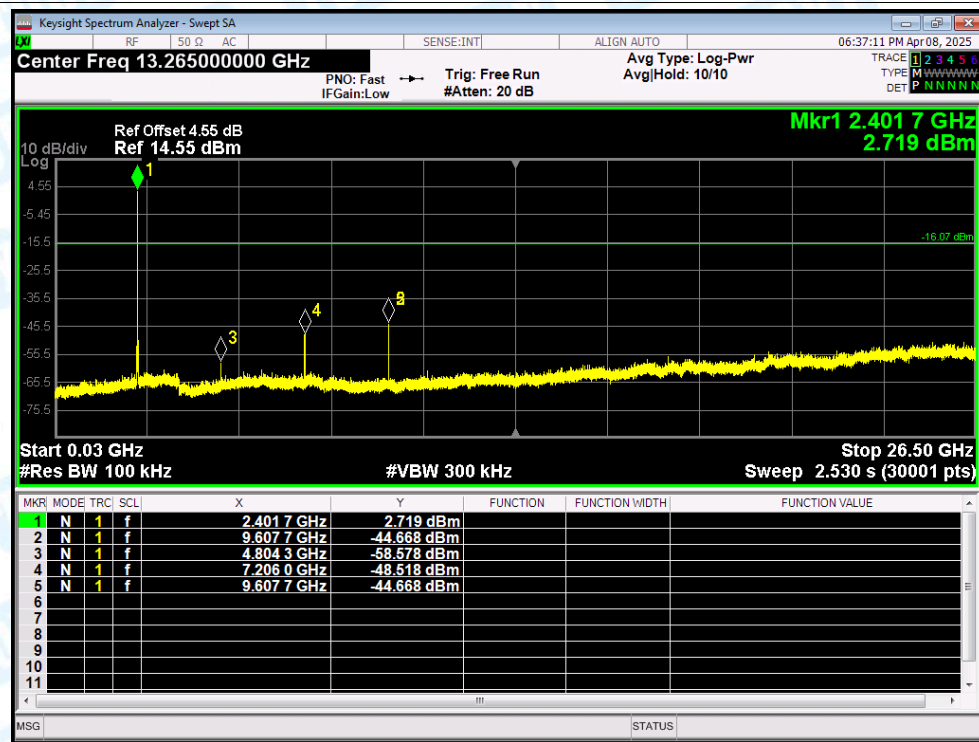
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Emission



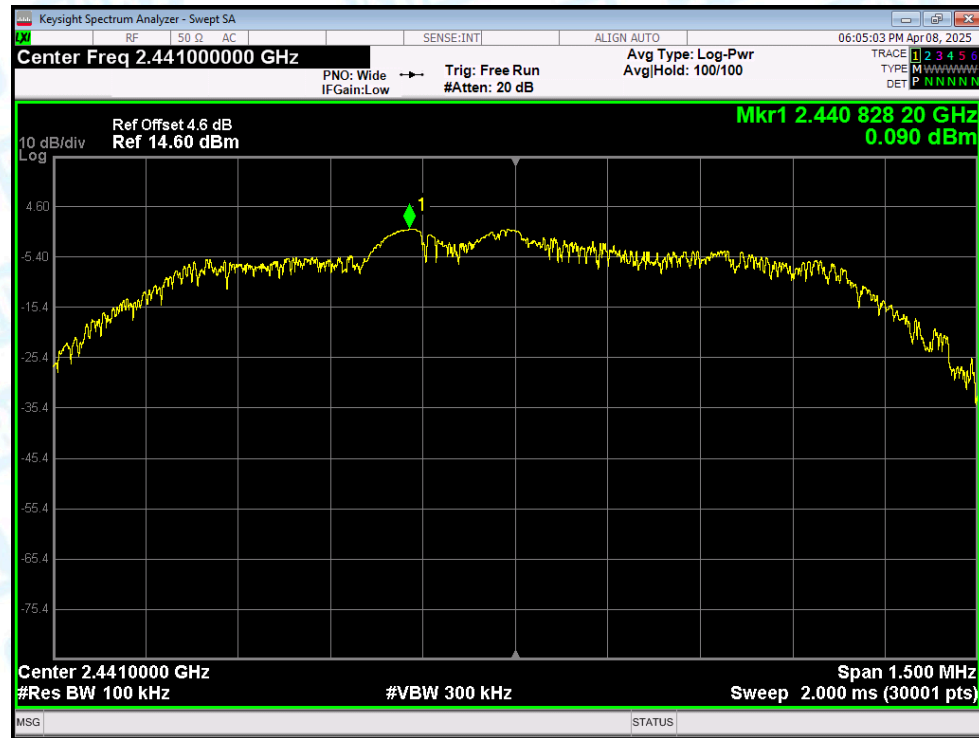
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Ref



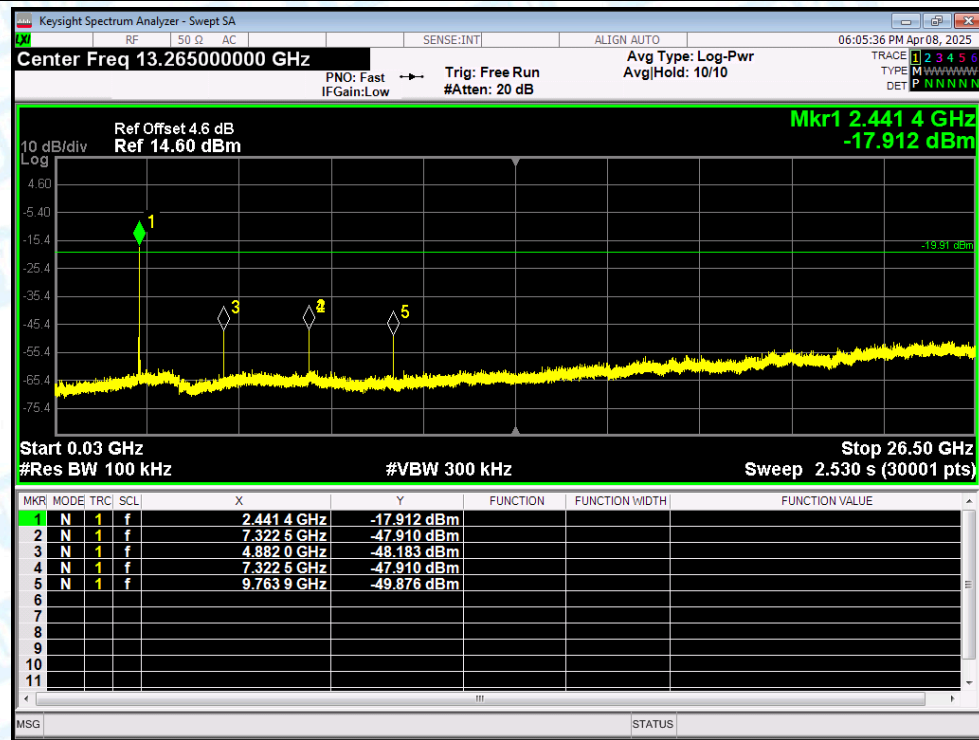
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Emission



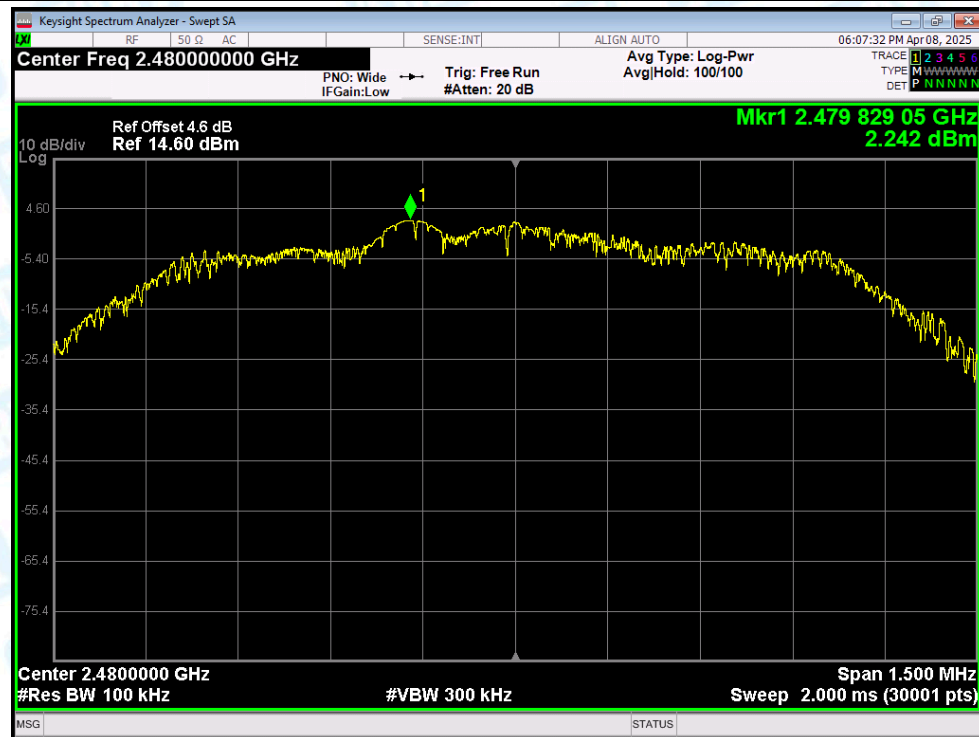
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Ref



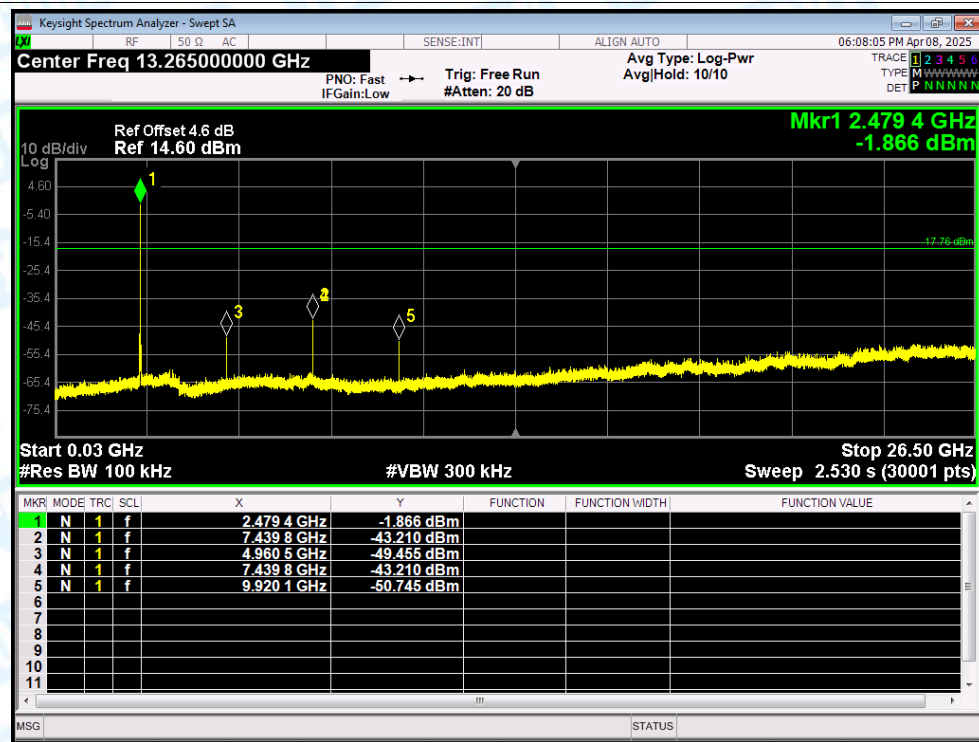
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Ref



Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Emission

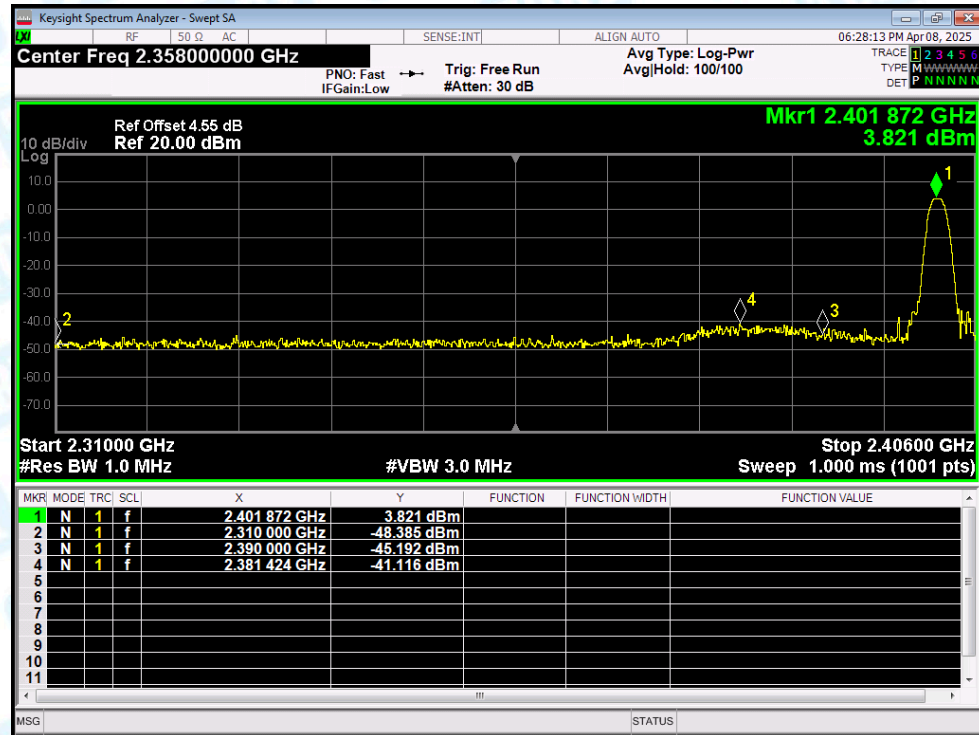


8. Restrict Band

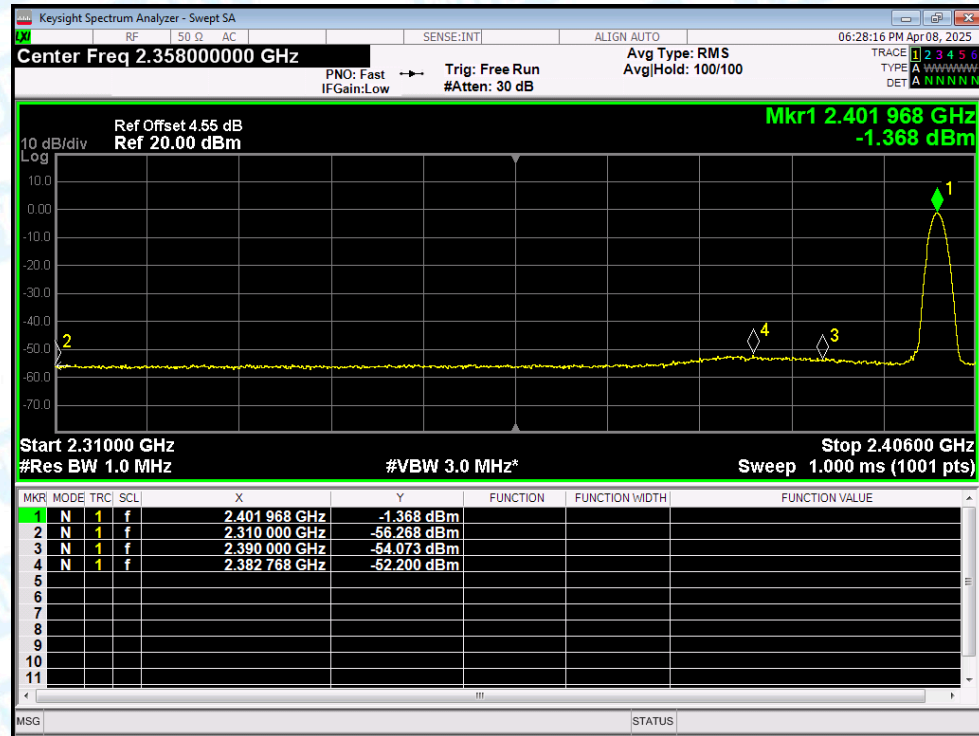
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-48.39	2.5	-	49.37	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-56.27	2.5	5.06	46.55	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2381.424	-41.12	2.5	-	56.64	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2382.768	-52.2	2.5	5.06	50.62	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-45.19	2.5	-	52.57	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-54.07	2.5	5.06	48.75	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-45.08	2.5	-	52.68	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-54.55	2.5	5.06	48.27	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2484.904	-37.08	2.5	-	60.68	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2497.744	-52.76	2.5	5.06	50.06	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-42.48	2.5	-	55.28	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-53.5	2.5	5.06	49.32	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-48.74	2.5	-	49.02	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-56.57	2.5	4.95	46.14	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2382	-40.99	2.5	-	56.77	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2382.192	-52.13	2.5	4.95	50.58	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-44.46	2.5	-	53.3	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-53.91	2.5	4.95	48.8	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-45.86	2.5	-	51.9	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-54.35	2.5	4.95	48.36	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2484.544	-36.72	2.5	-	61.04	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2499.76	-52.4	2.5	4.95	50.31	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-43.79	2.5	-	53.97	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-53.47	2.5	4.95	49.24	Average	54	Pass

Test Graphs

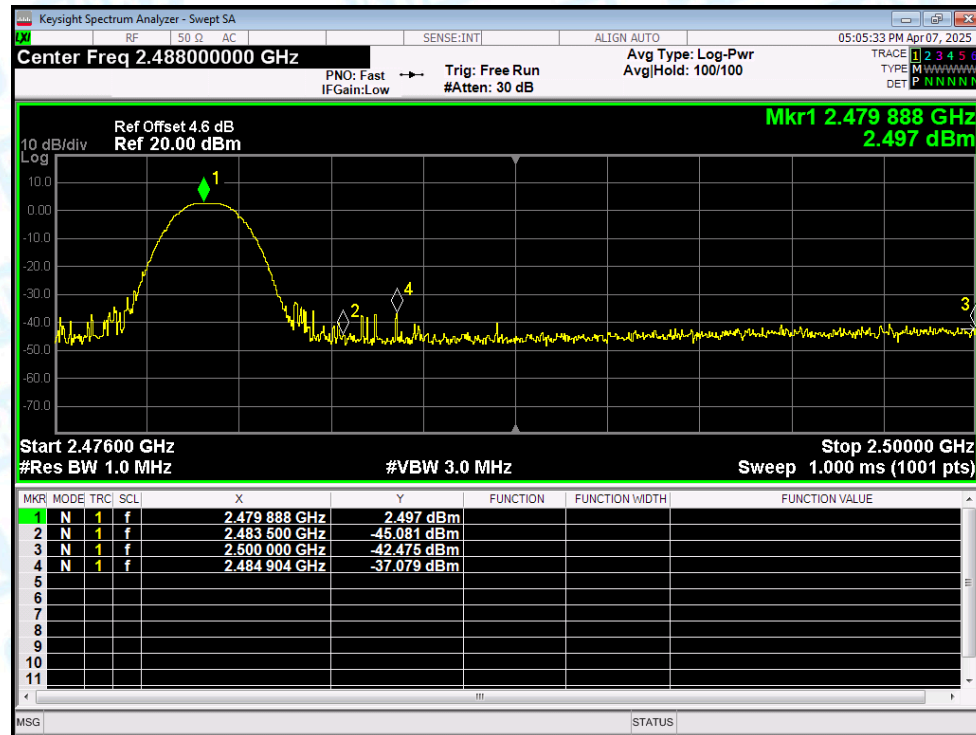
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Peak



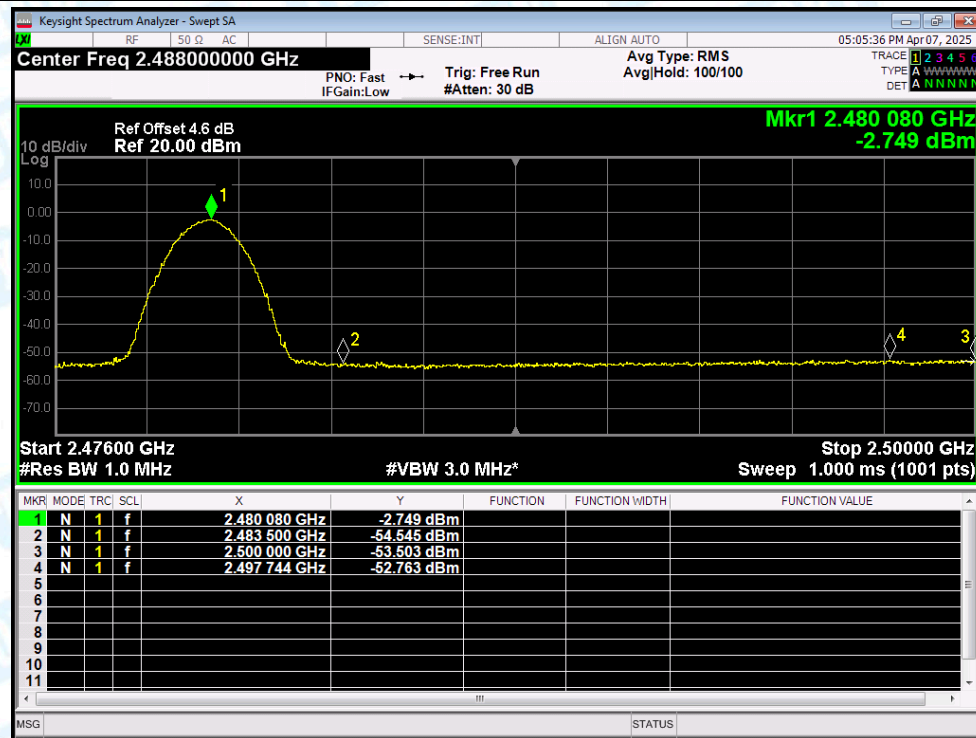
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Average



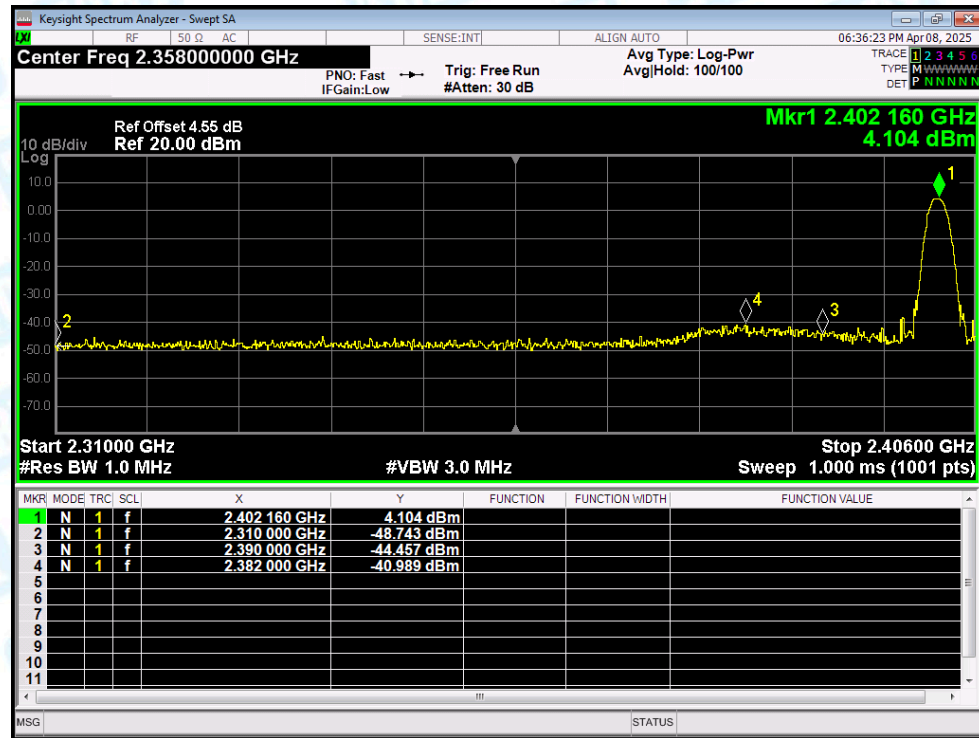
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Peak



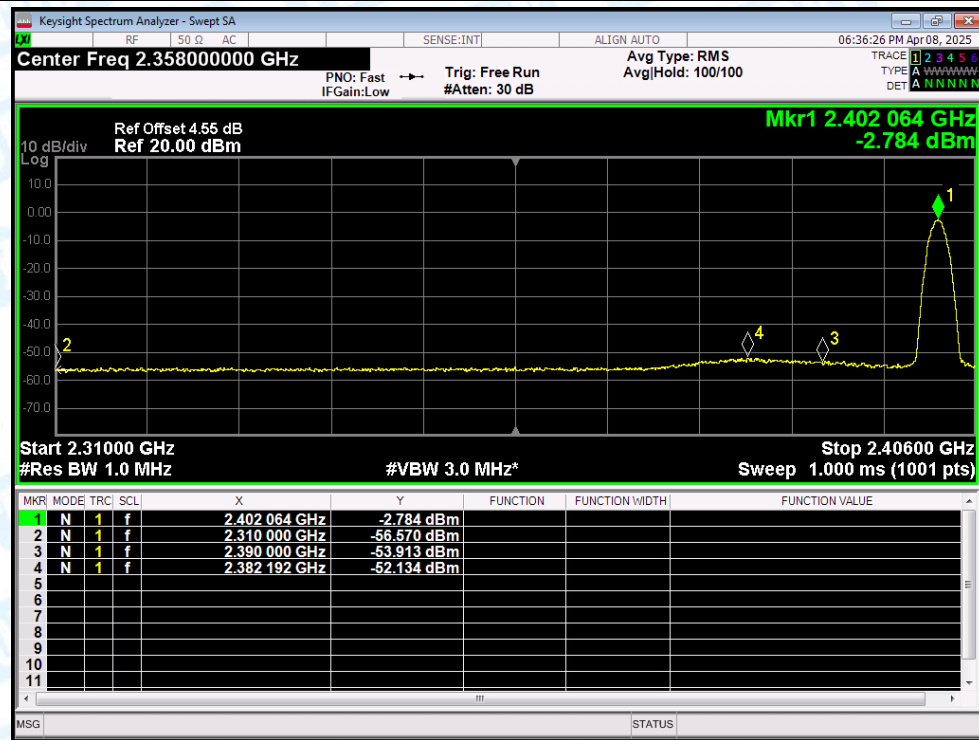
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Average



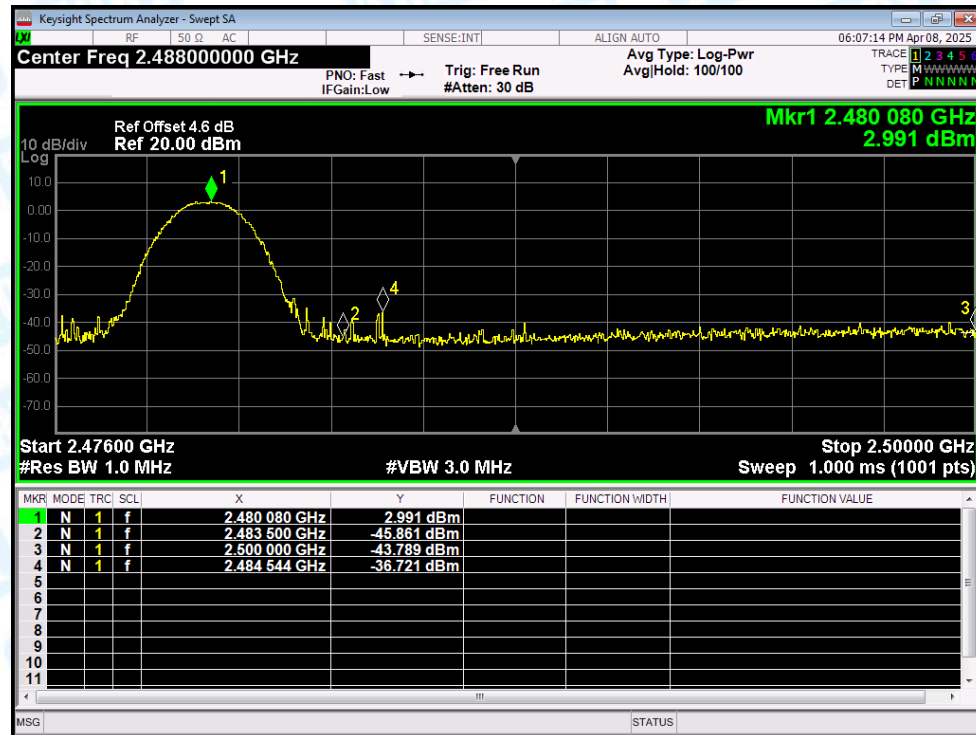
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Peak



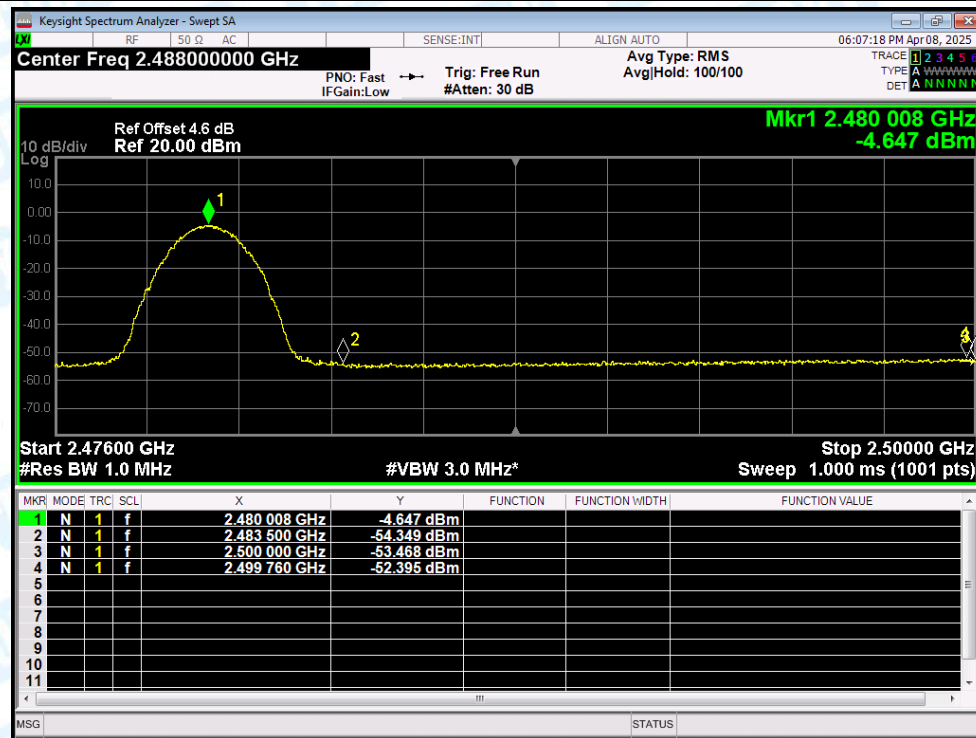
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Average



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



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

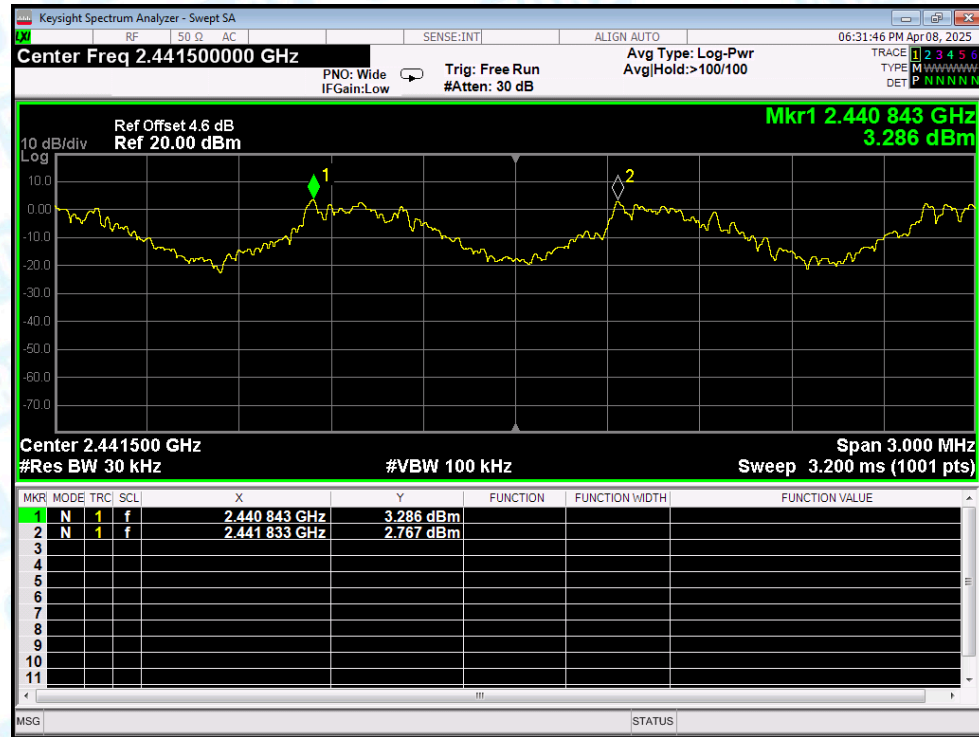


9. Carrier Frequencies Separation

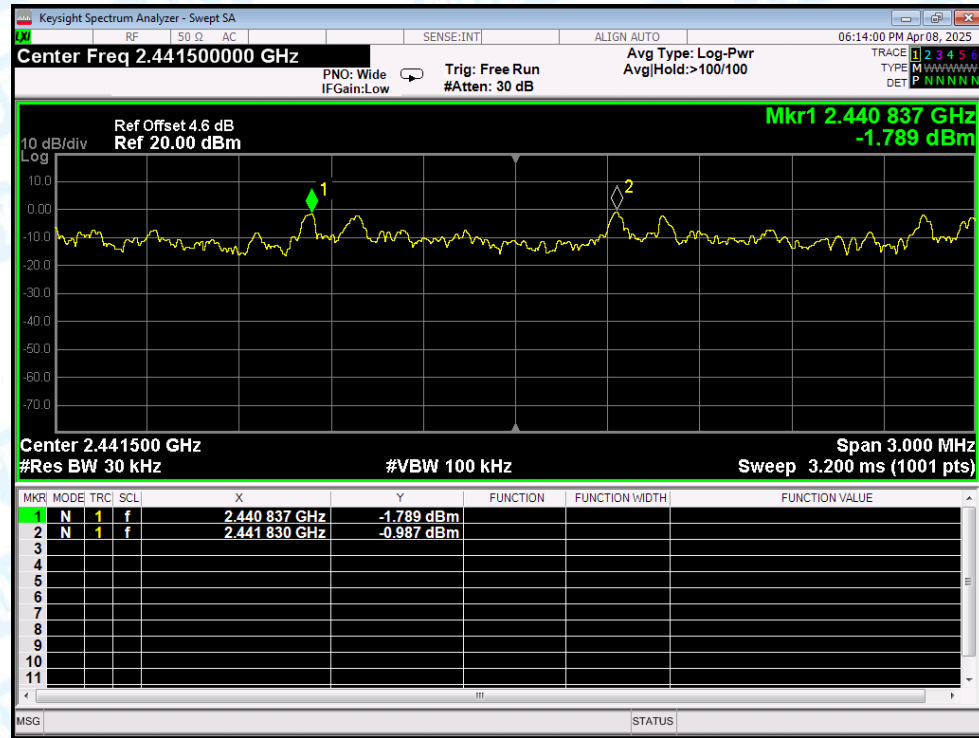
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH1	Ant1	2440.843	2441.833	0.99	0.62	Pass
NVNT	2-DH1	Ant1	2440.837	2441.83	0.993	0.833	Pass

Test Graphs

CFS NVNT 1-DH1 2441MHz Ant1



CFS NVNT 2-DH1 2441MHz Ant1

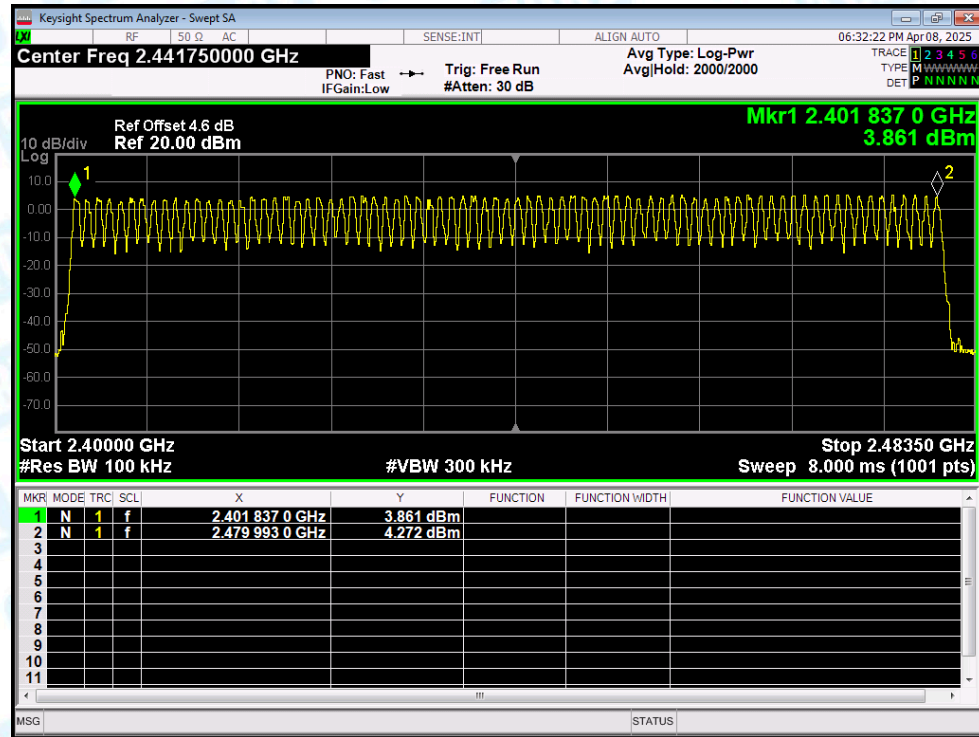


10. Number of Hopping Channel

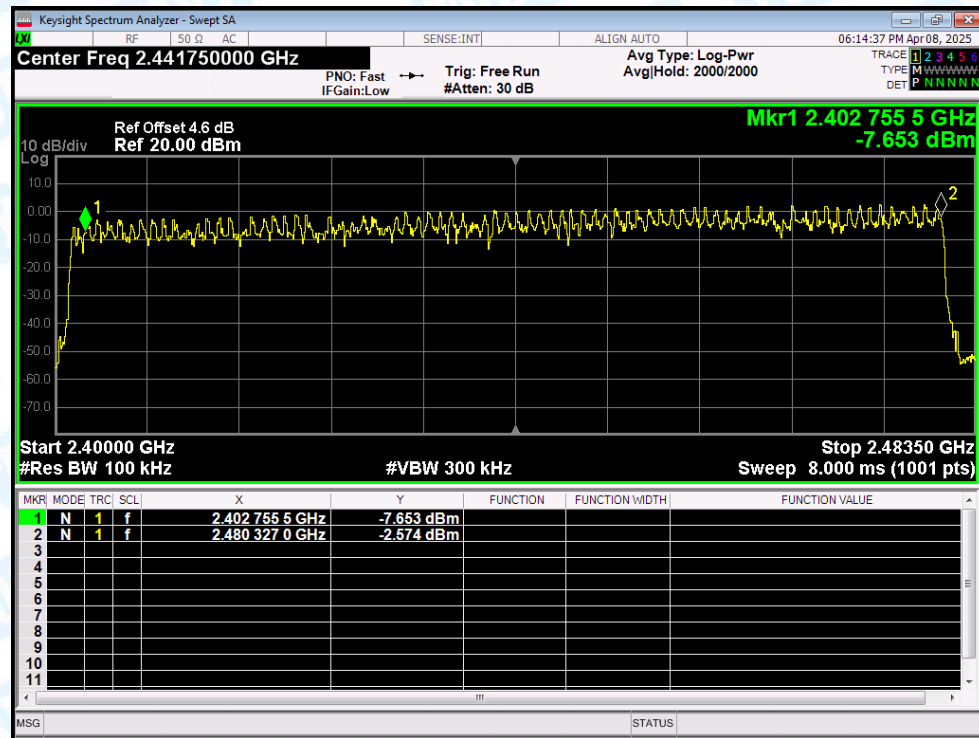
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH1	Ant1	79	15	Pass
NVNT	2-DH1	Ant1	79	15	Pass

Test Graphs

Hopping No. NVNT 1-DH1 2441MHz Ant1



Hopping No. NVNT 2-DH1 2441MHz Ant1

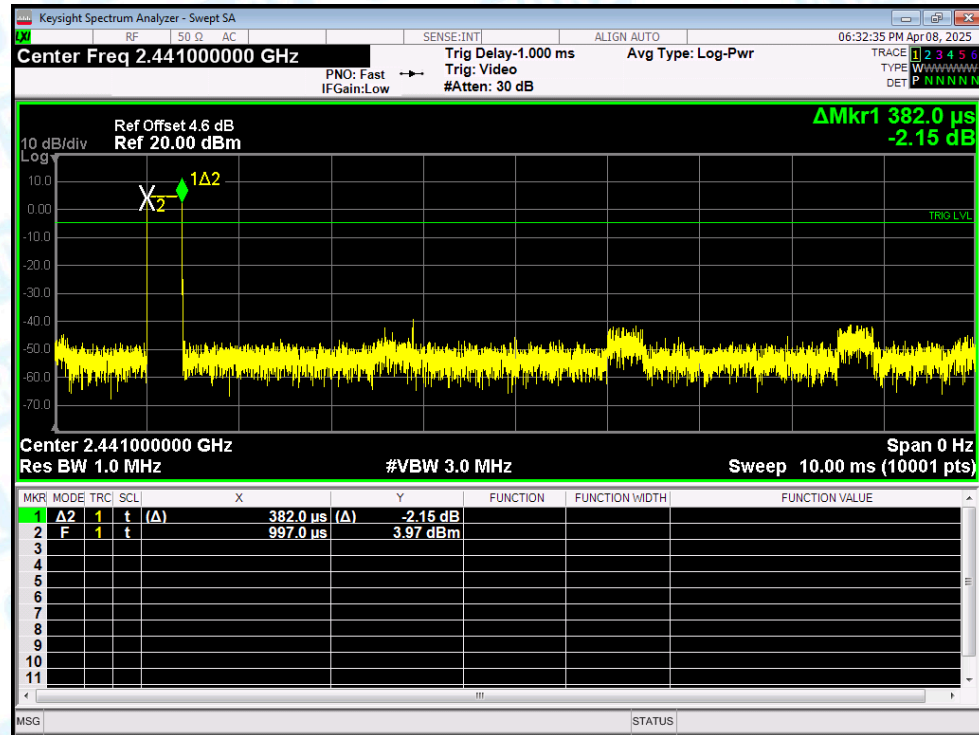


11. Dwell Time

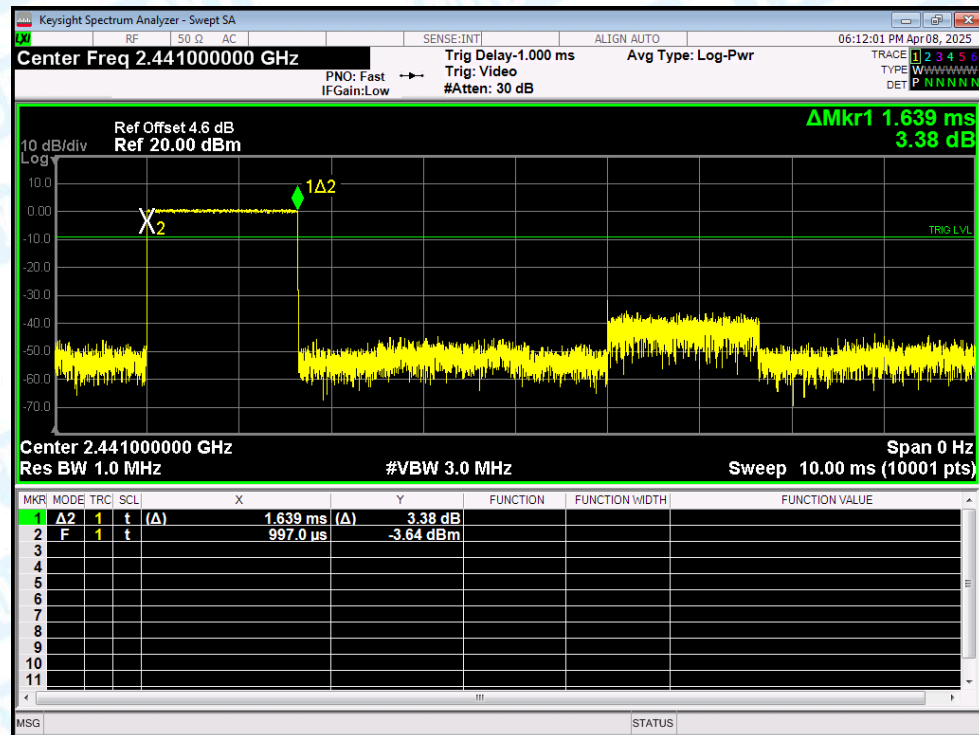
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	Ant1	0.382	122.24	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.639	262.24	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.886	307.84	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.392	125.44	31600	400	Pass
NVNT	2-DH3	2441	Ant1	1.644	263.04	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.892	308.48	31600	400	Pass

Test Graphs

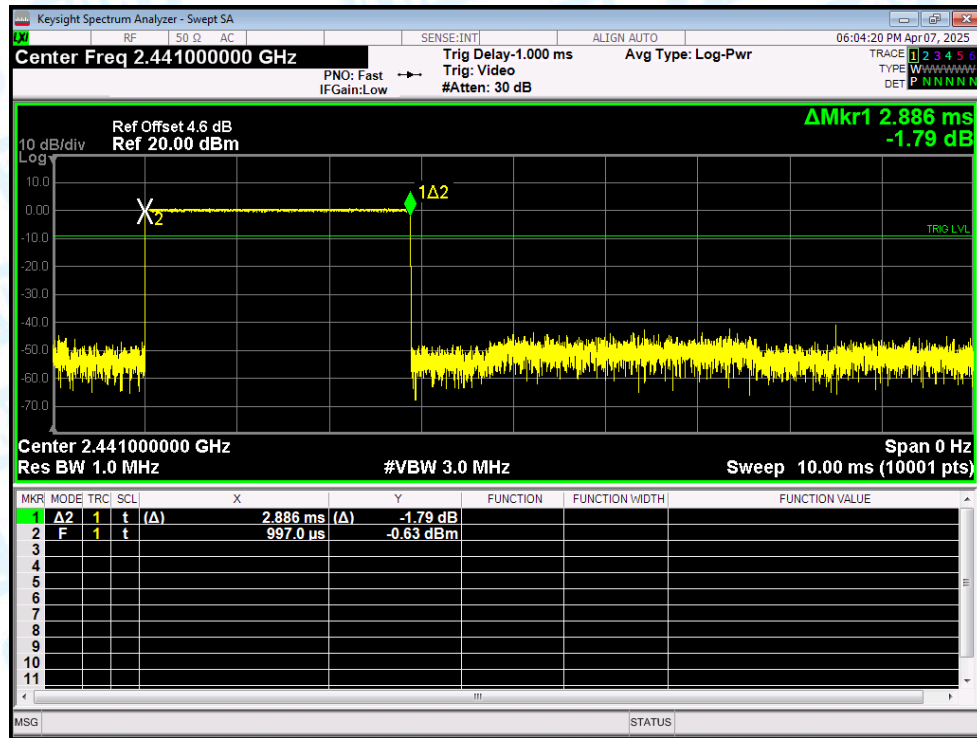
Dwell NVNT 1-DH1 2441MHz Ant1



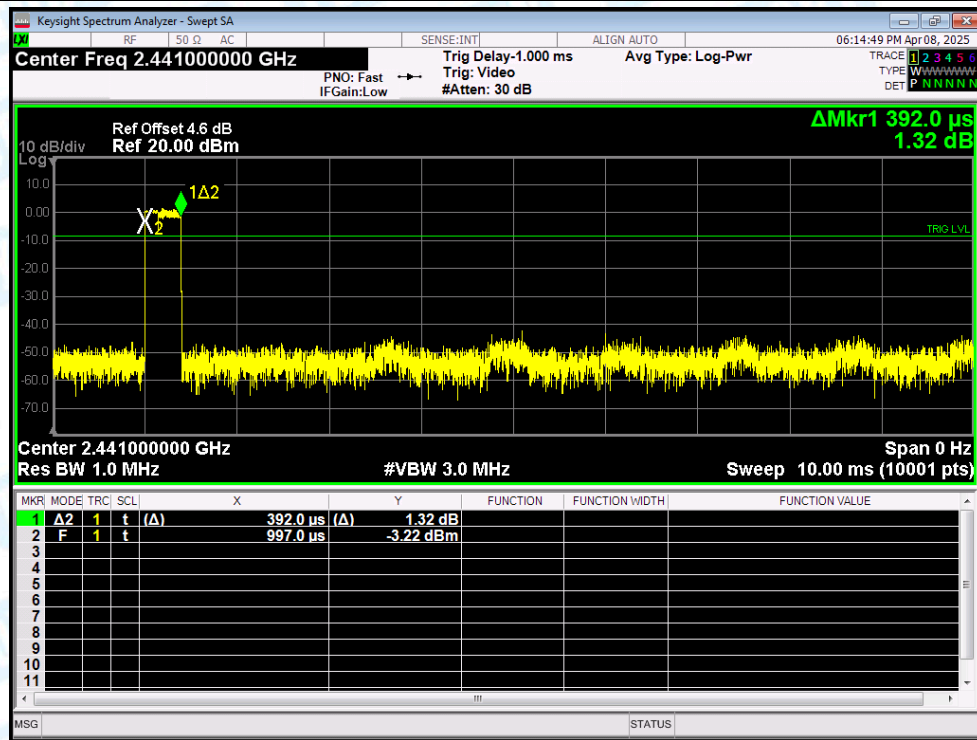
Dwell NVNT 1-DH3 2441MHz Ant1



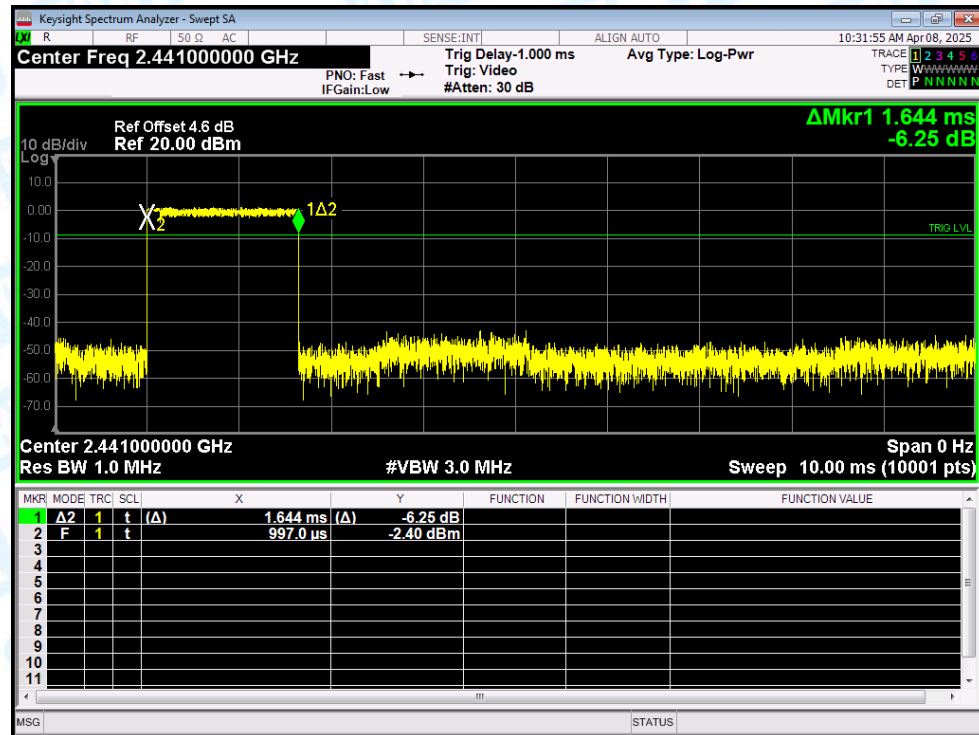
Dwell NVNT 1-DH5 2441MHz Ant1



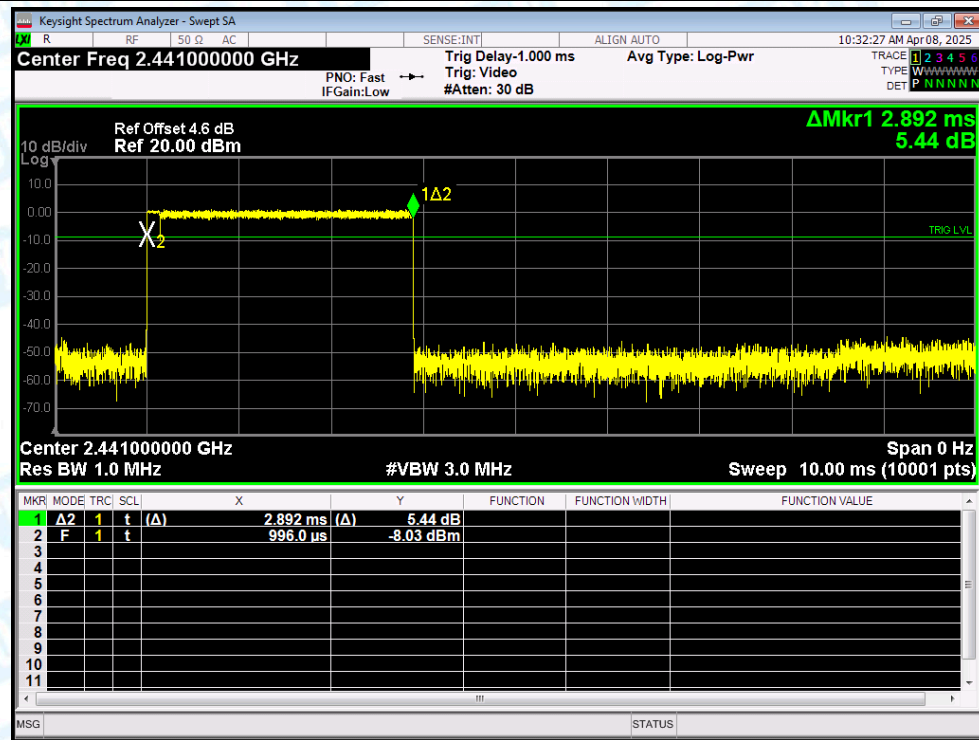
Dwell NVNT 2-DH1 2441MHz Ant1



Dwell NVNT 2-DH3 2441MHz Ant1



Dwell NVNT 2-DH5 2441MHz Ant1



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