

RF Test Data for Bluetooth (Conducted Measurements)

General Description of EUT	
Product Name:	SMART WATCH
Test Model:	H1
Sample ID:	HC-C-202504-0141-01-01
Environmental Conditions	
Temperature:	24.6℃
Relative Humidity:	52.6%
Test Voltage:	DC 3.8V
Test Engineer:	Lily zhang
Note: For a more detailed features description, please refer to the report TBR-C-202504-0141-25 The report only show the worst case data.	

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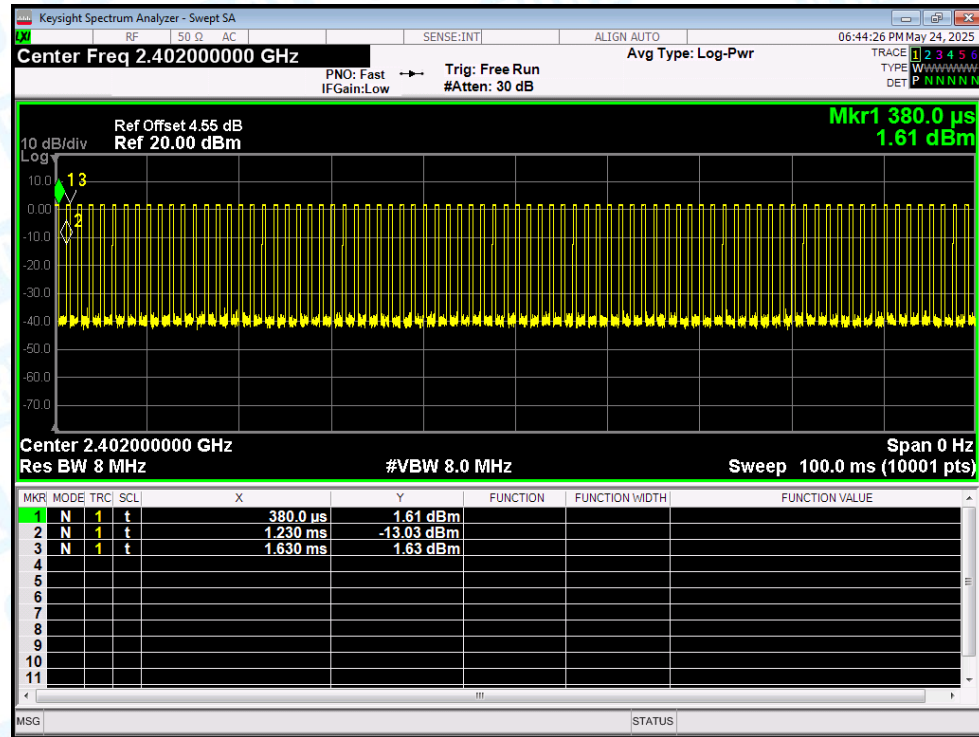
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1. Duty Cycle

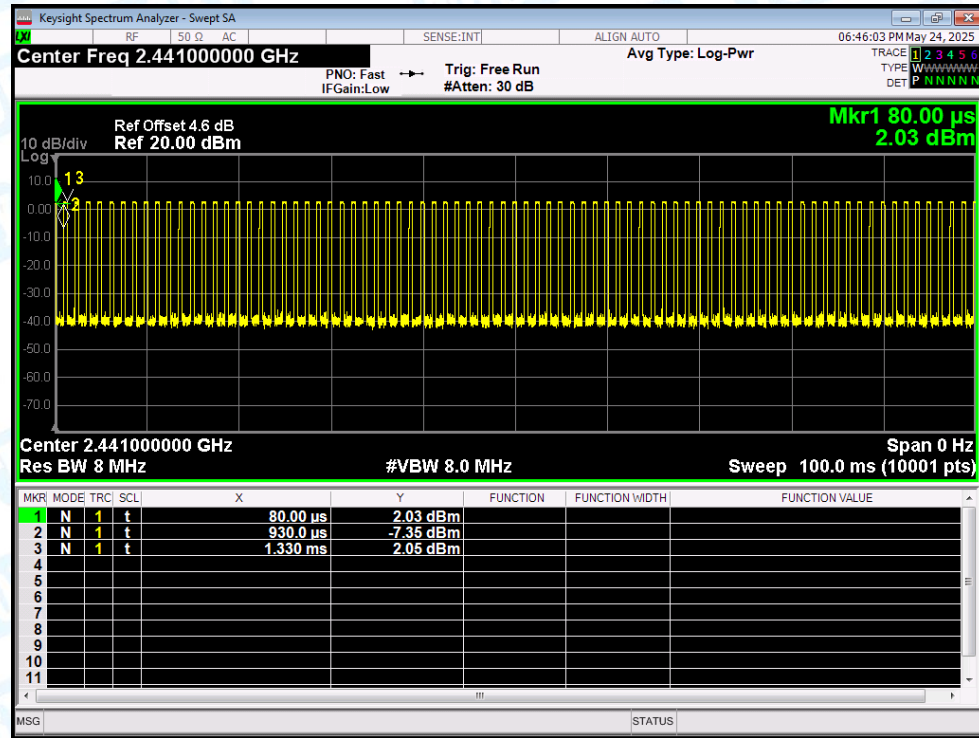
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH1	2402	Ant1	32	4.95	2.5
NVNT	1-DH1	2441	Ant1	32	4.95	2.5
NVNT	1-DH1	2480	Ant1	32	4.95	2.5
NVNT	2-DH1	2402	Ant1	32.8	4.84	2.44
NVNT	2-DH1	2441	Ant1	32.8	4.84	2.44
NVNT	2-DH1	2480	Ant1	32.8	4.84	2.44
NVNT	3-DH1	2402	Ant1	32.8	4.84	2.44
NVNT	3-DH1	2441	Ant1	32	4.95	2.5
NVNT	3-DH1	2480	Ant1	32.8	4.84	2.44

Test Graphs

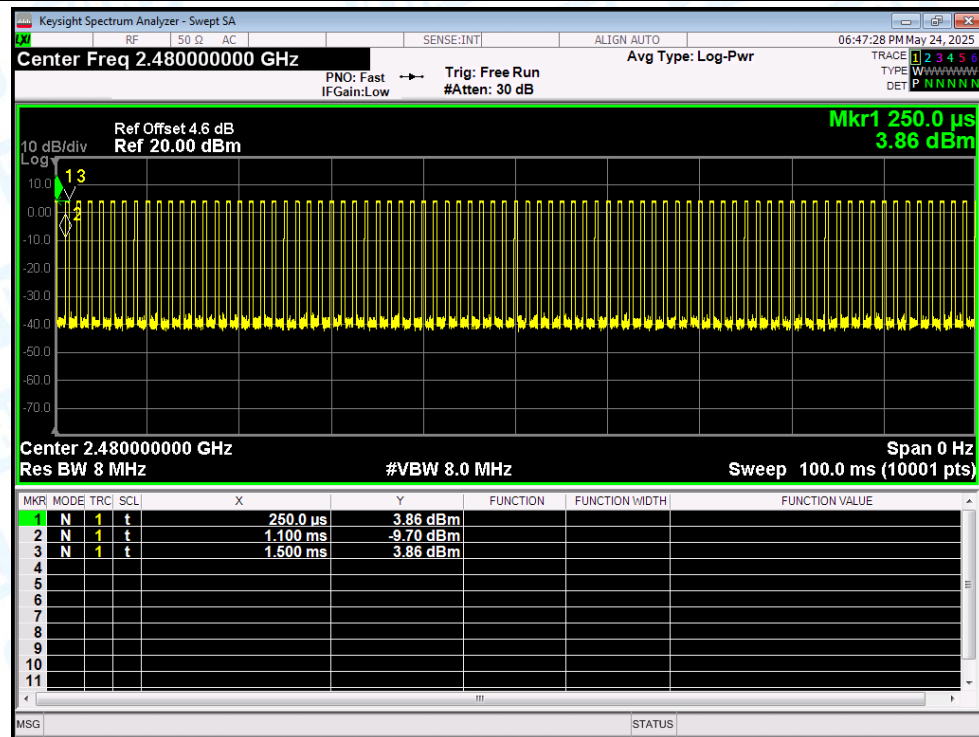
Duty Cycle NVNT 1-DH1 2402MHz Ant1



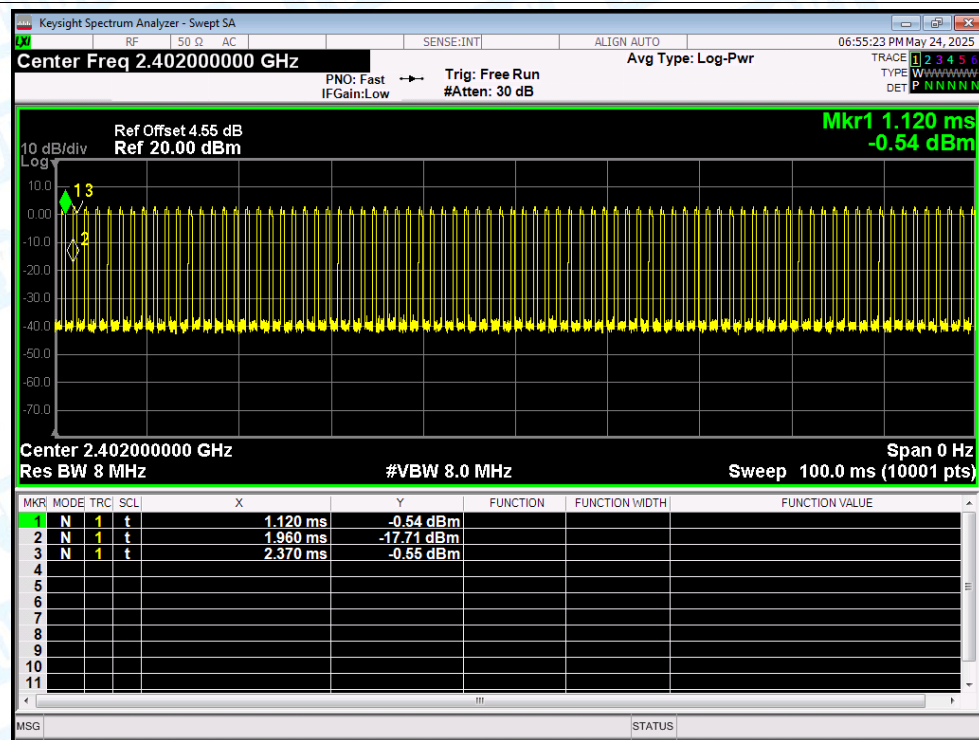
Duty Cycle NVNT 1-DH1 2441MHz Ant1



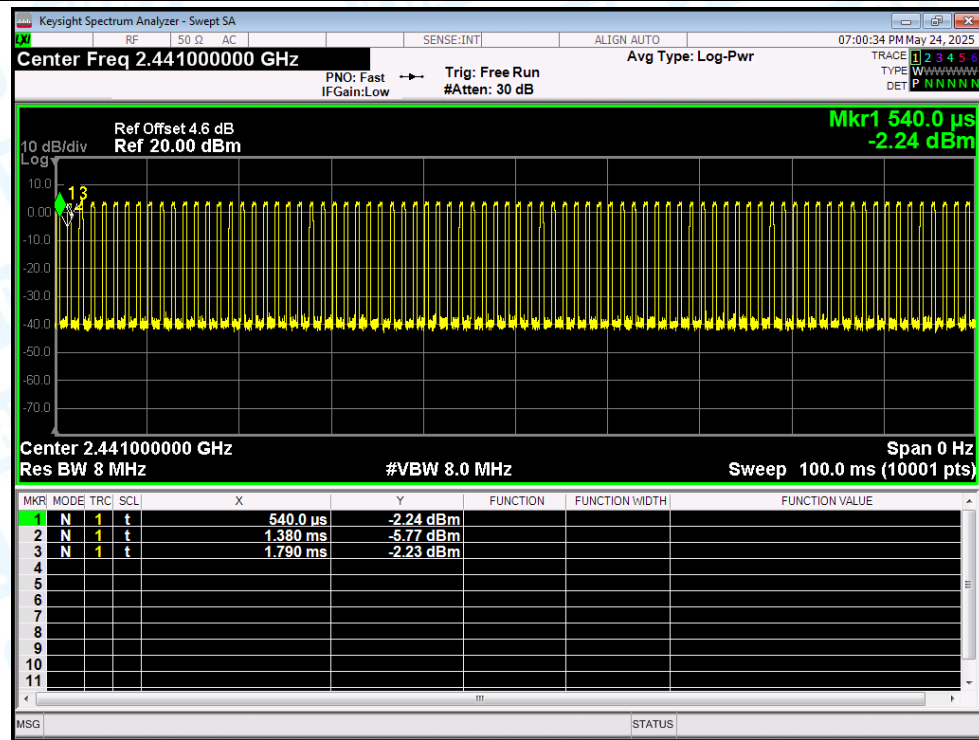
Duty Cycle NVNT 1-DH1 2480MHz Ant1



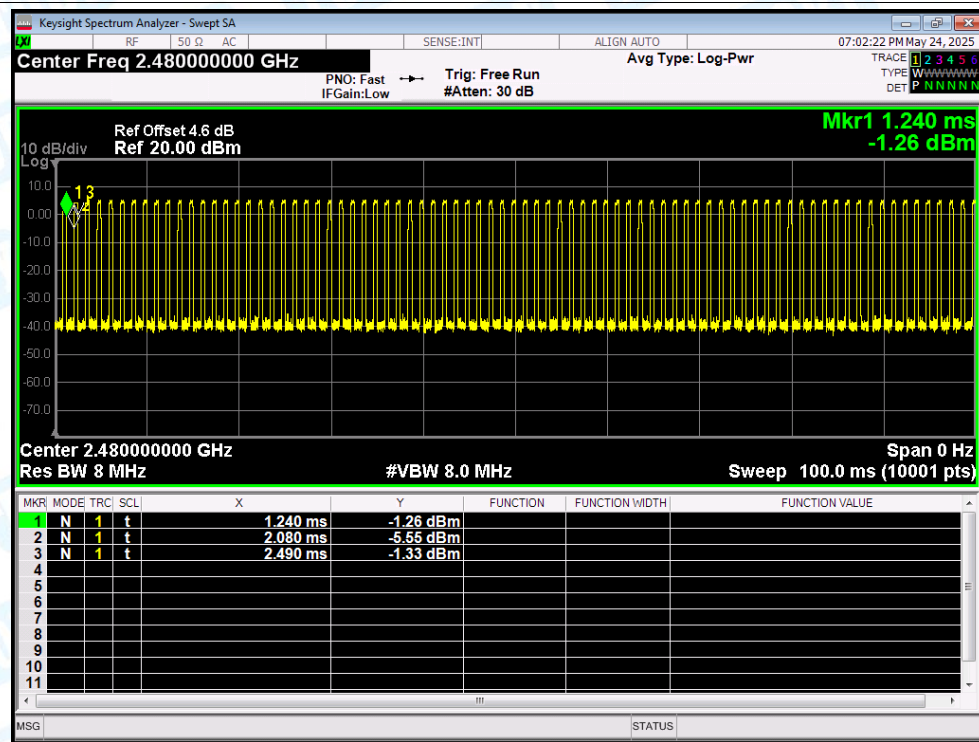
Duty Cycle NVNT 2-DH1 2402MHz Ant1



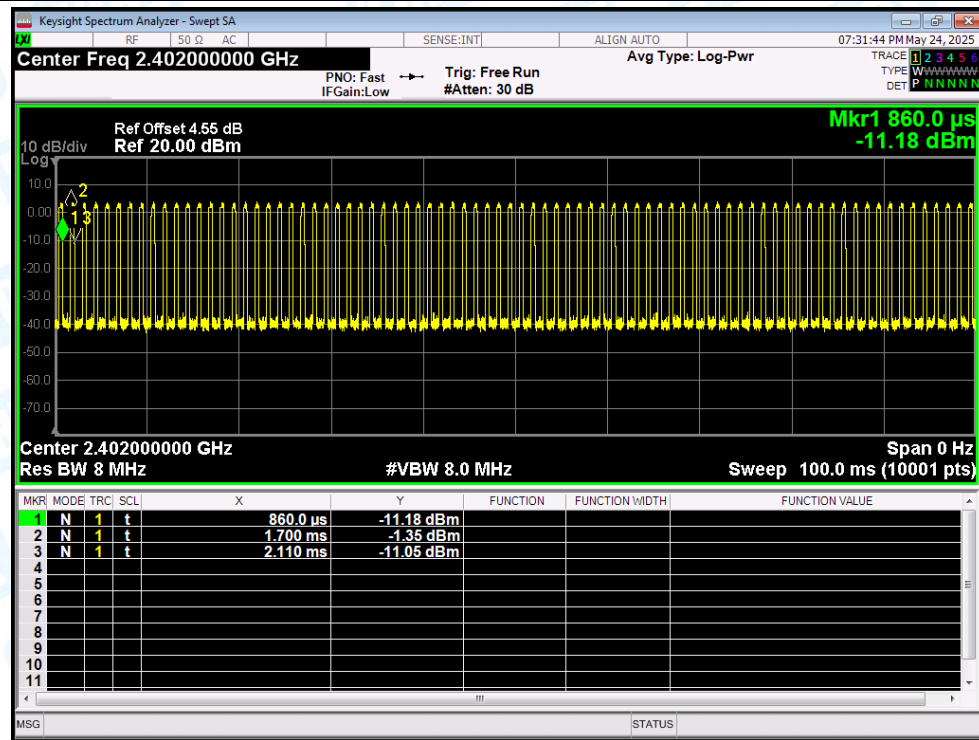
Duty Cycle NVNT 2-DH1 2441MHz Ant1



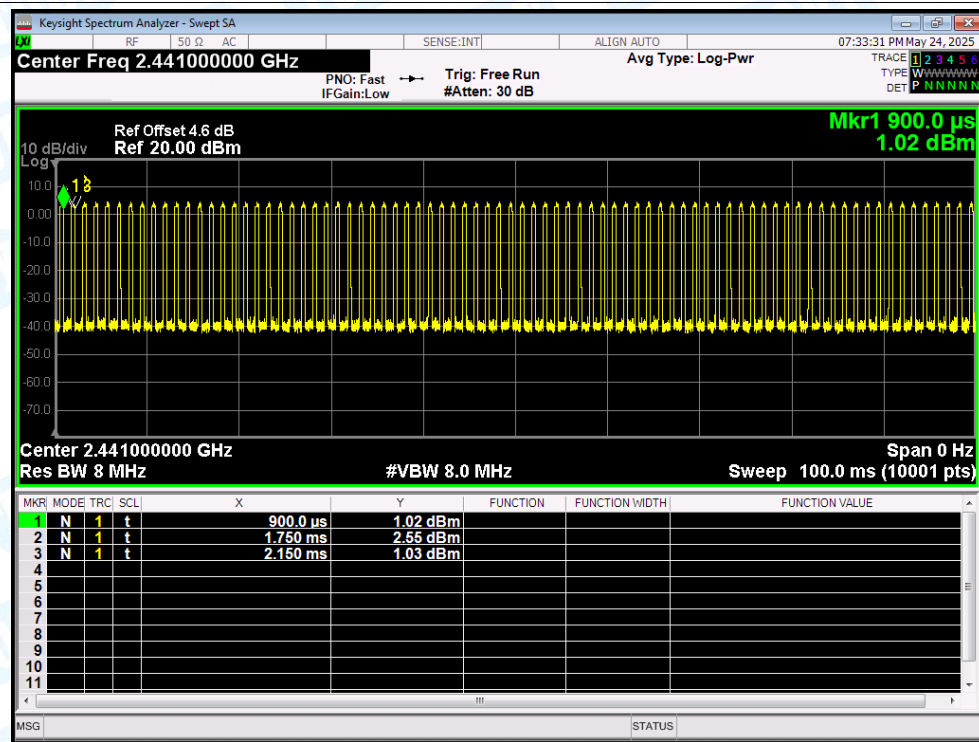
Duty Cycle NVNT 2-DH1 2480MHz Ant1

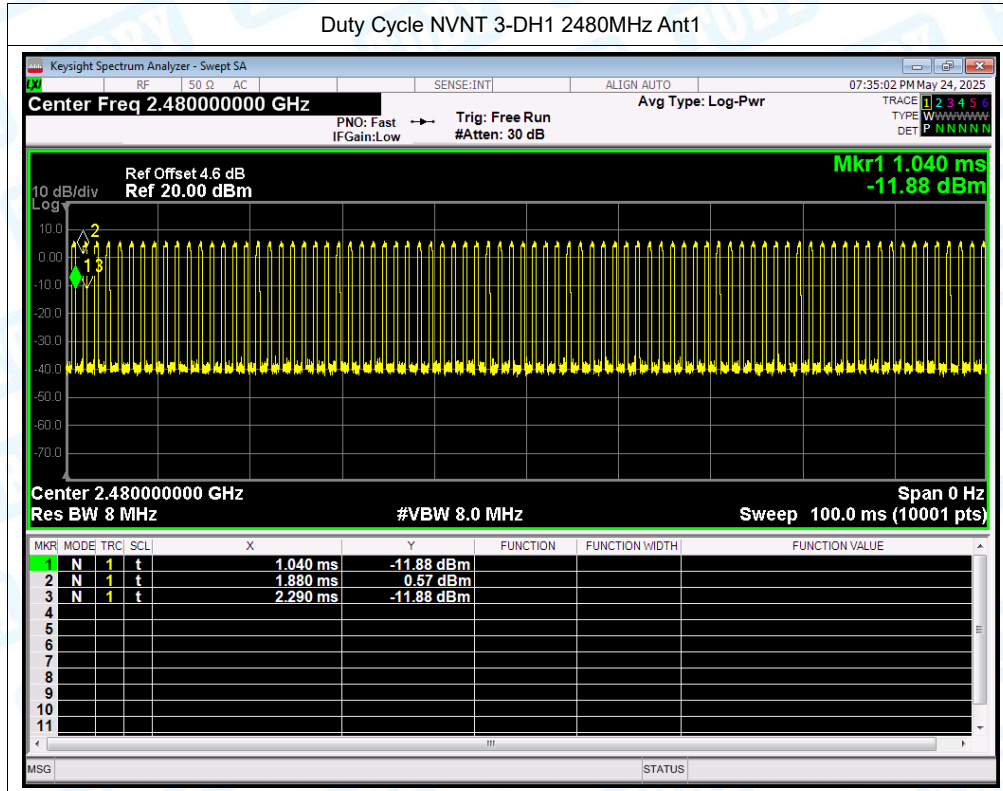


Duty Cycle NVNT 3-DH1 2402MHz Ant1



Duty Cycle NVNT 3-DH1 2441MHz Ant1



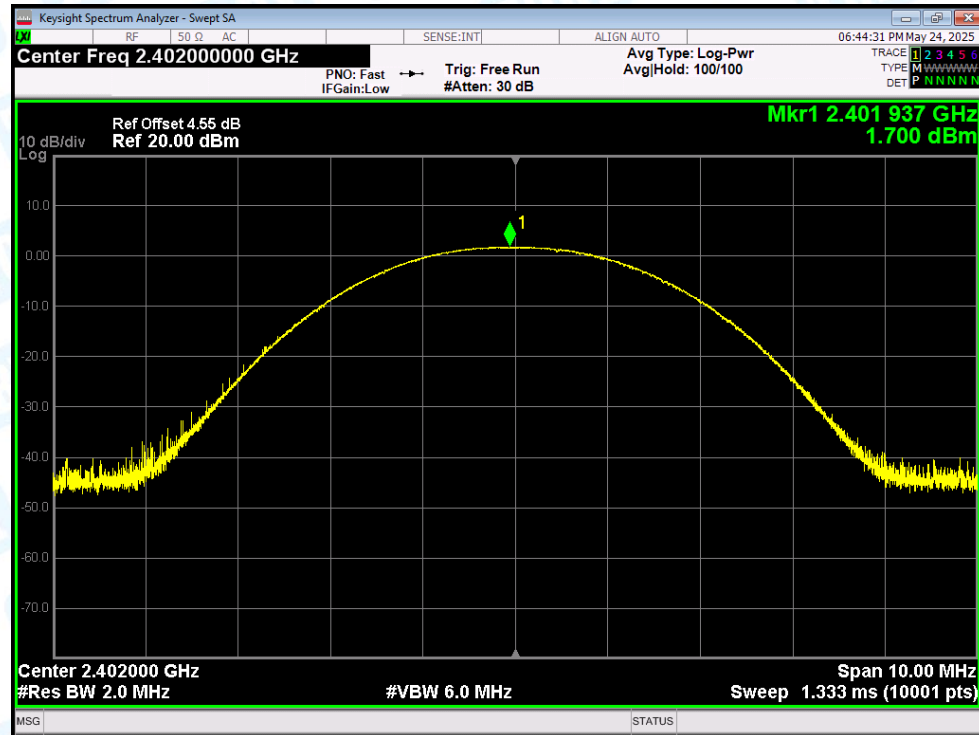


2. Maximum Conducted Output Power

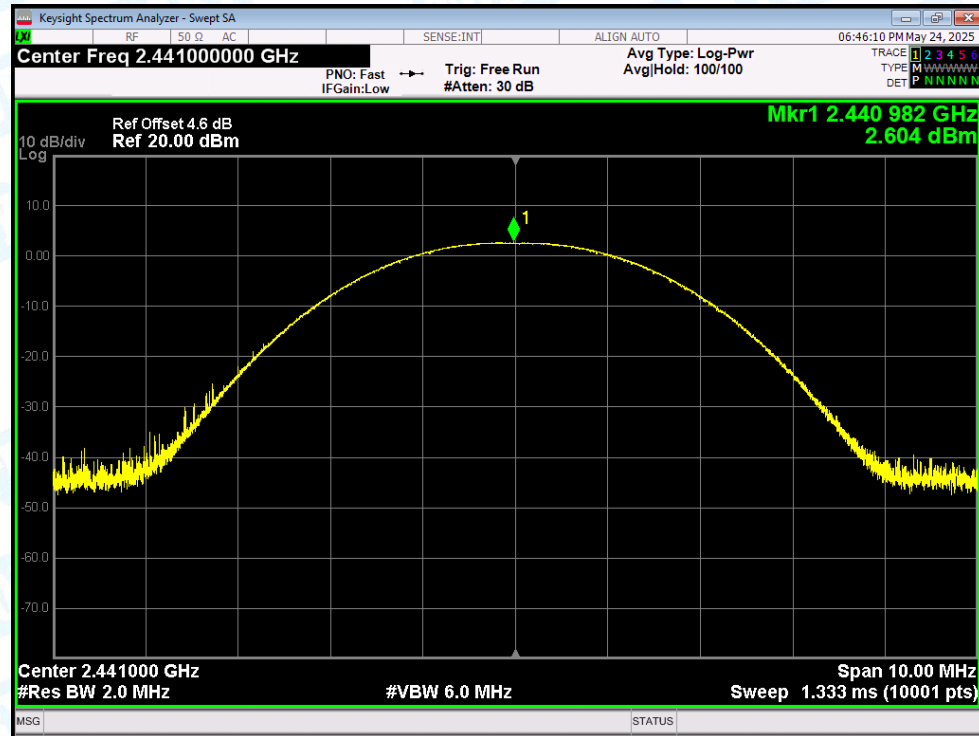
Condition	Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	1.7	21	Pass
NVNT	1-DH1	2441	Ant1	2.604	21	Pass
NVNT	1-DH1	2480	Ant1	4	21	Pass
NVNT	2-DH1	2402	Ant1	2.437	21	Pass
NVNT	2-DH1	2441	Ant1	3.314	21	Pass
NVNT	2-DH1	2480	Ant1	4.733	21	Pass
NVNT	3-DH1	2402	Ant1	3.425	21	Pass
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NVNT	3-DH1	2480	Ant1	5.636	21	Pass

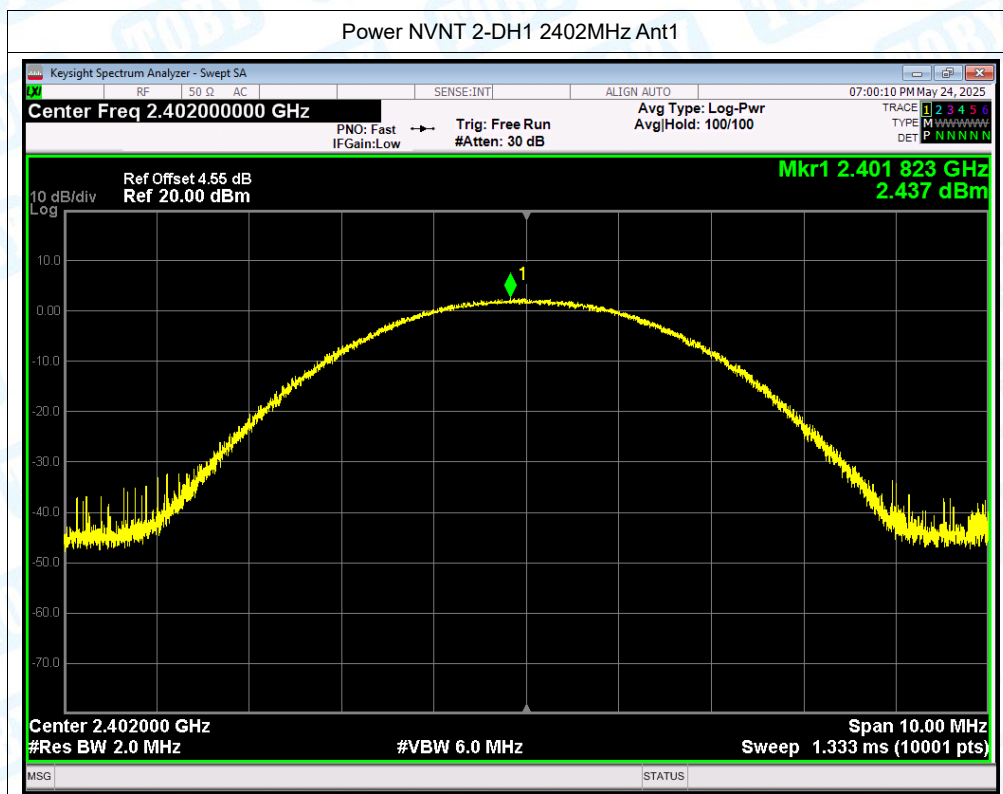
Test Graphs

Power NVNT 1-DH1 2402MHz Ant1

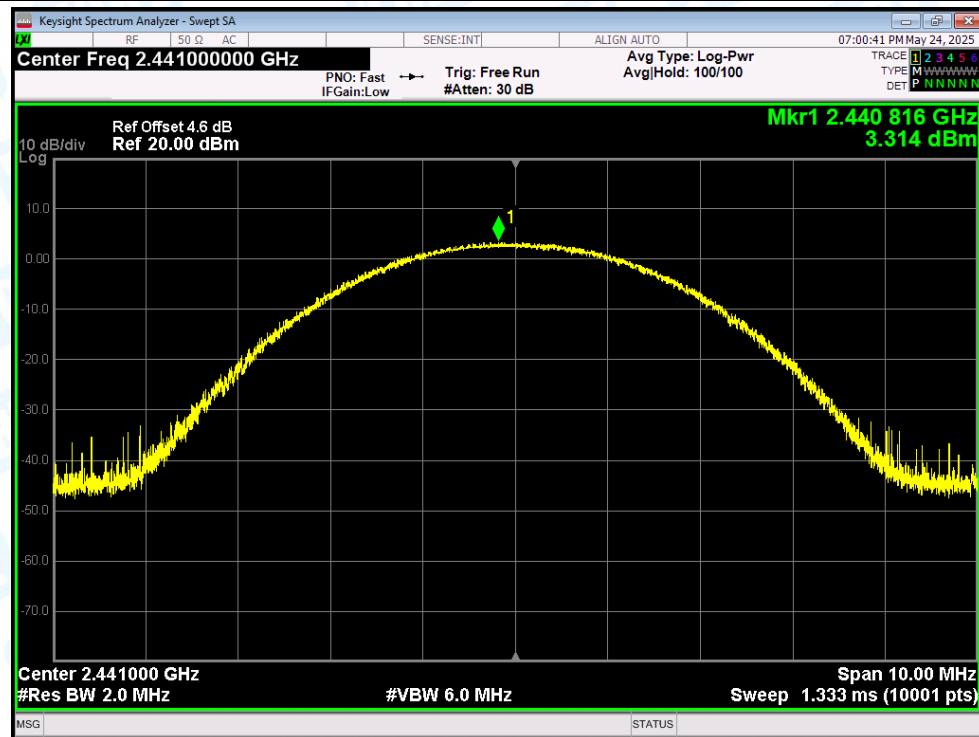


Power NVNT 1-DH1 2441MHz Ant1

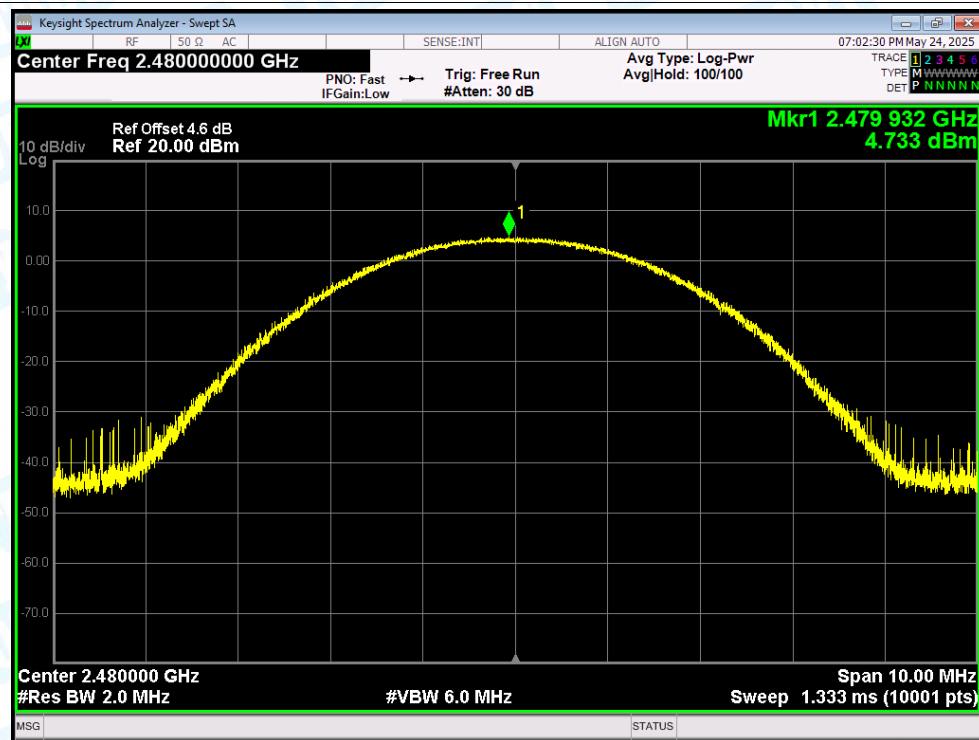




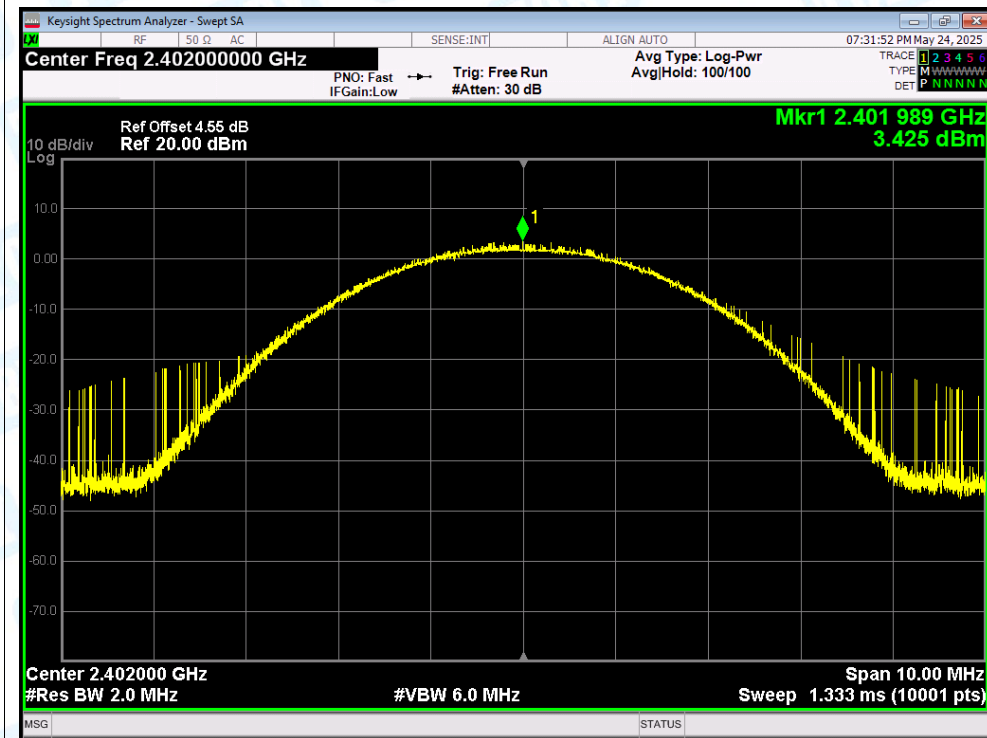
Power NVNT 2-DH1 2441MHz Ant1



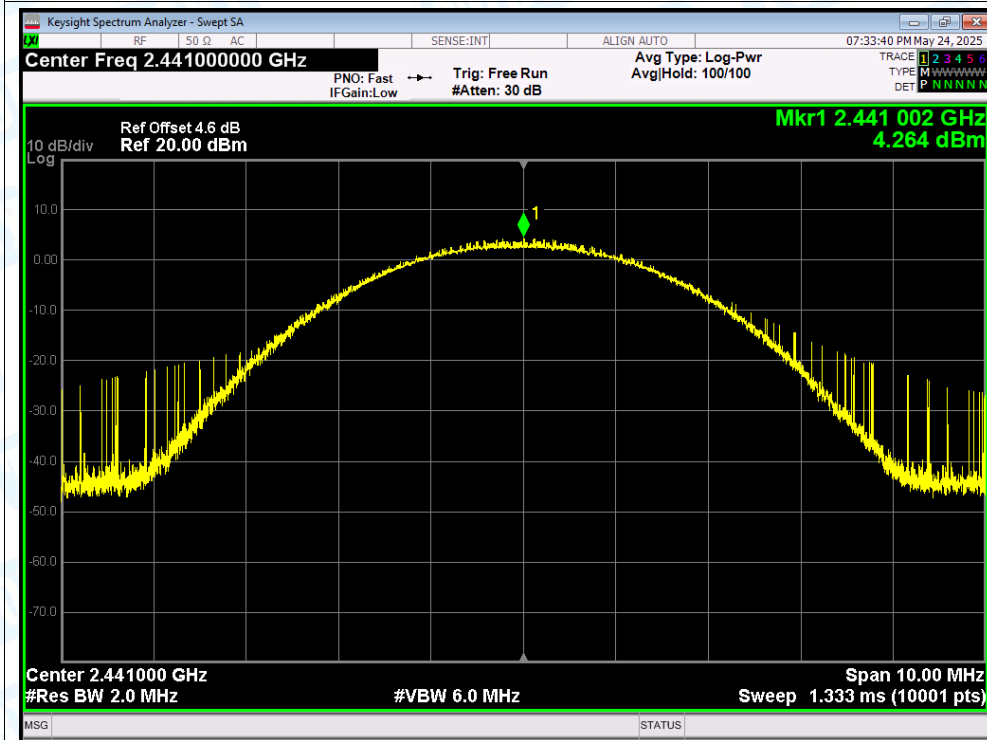
Power NVNT 2-DH1 2480MHz Ant1

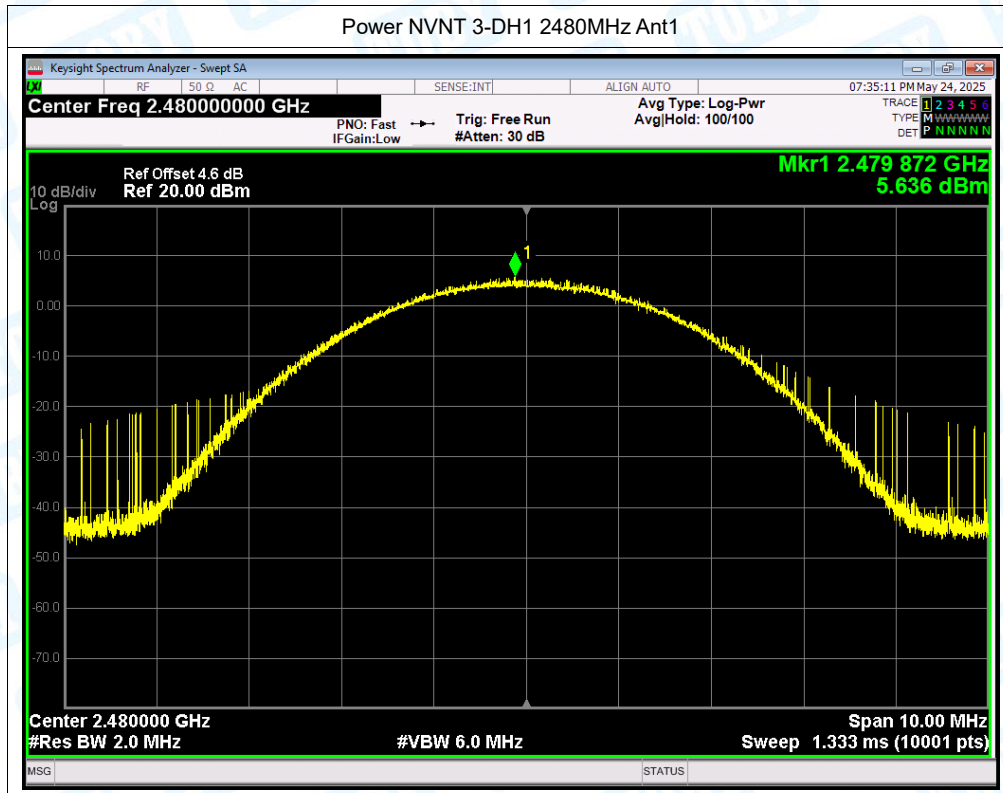


Power NVNT 3-DH1 2402MHz Ant1



Power NVNT 3-DH1 2441MHz Ant1



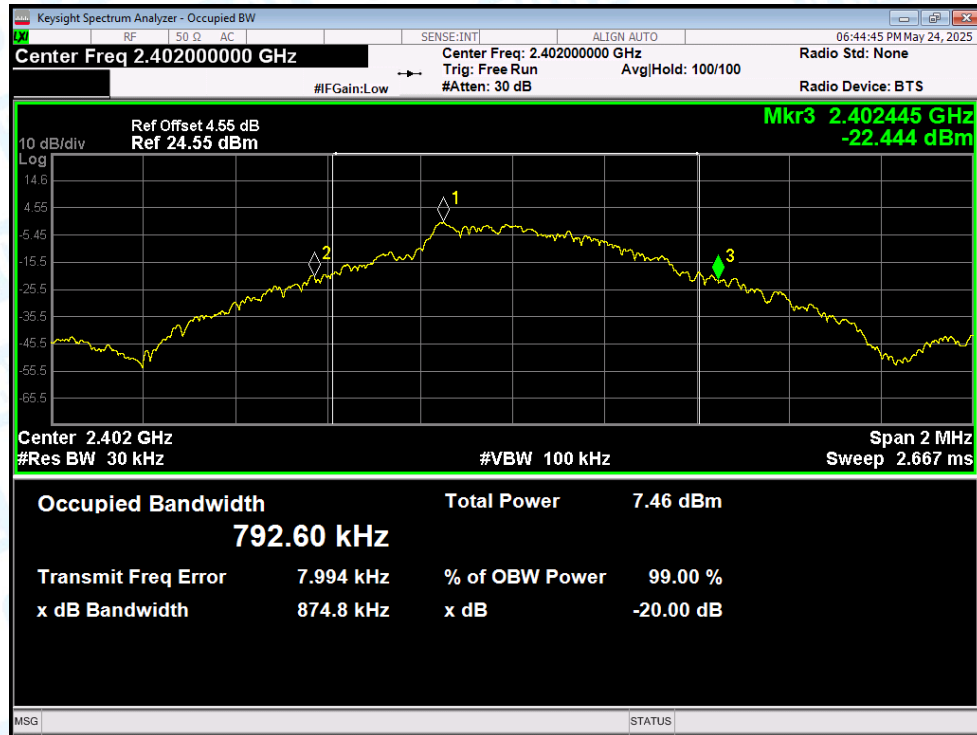


3. -20dB Bandwidth

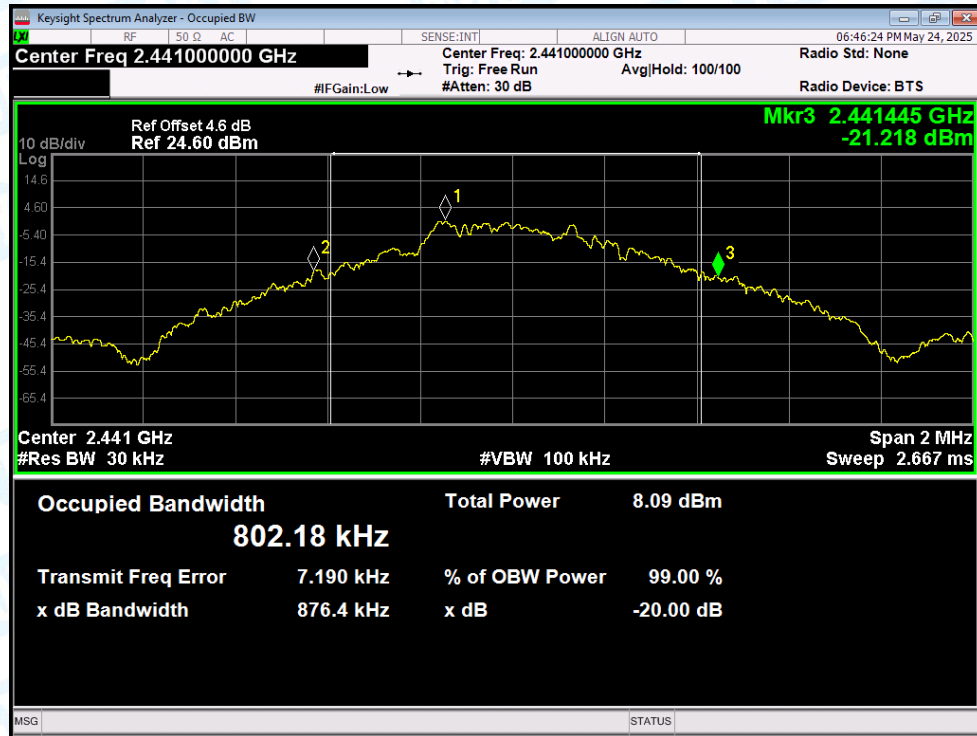
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	0.87	0	Pass
NVNT	1-DH1	2441	Ant1	0.88	0	Pass
NVNT	1-DH1	2480	Ant1	0.88	0	Pass
NVNT	2-DH1	2402	Ant1	1.11	0	Pass
NVNT	2-DH1	2441	Ant1	1.25	0	Pass
NVNT	2-DH1	2480	Ant1	1.24	0	Pass
NVNT	3-DH1	2402	Ant1	1.24	0	Pass
NVNT	3-DH1	2441	Ant1	1.24	0	Pass
NVNT	3-DH1	2480	Ant1	1.24	0	Pass

Test Graphs

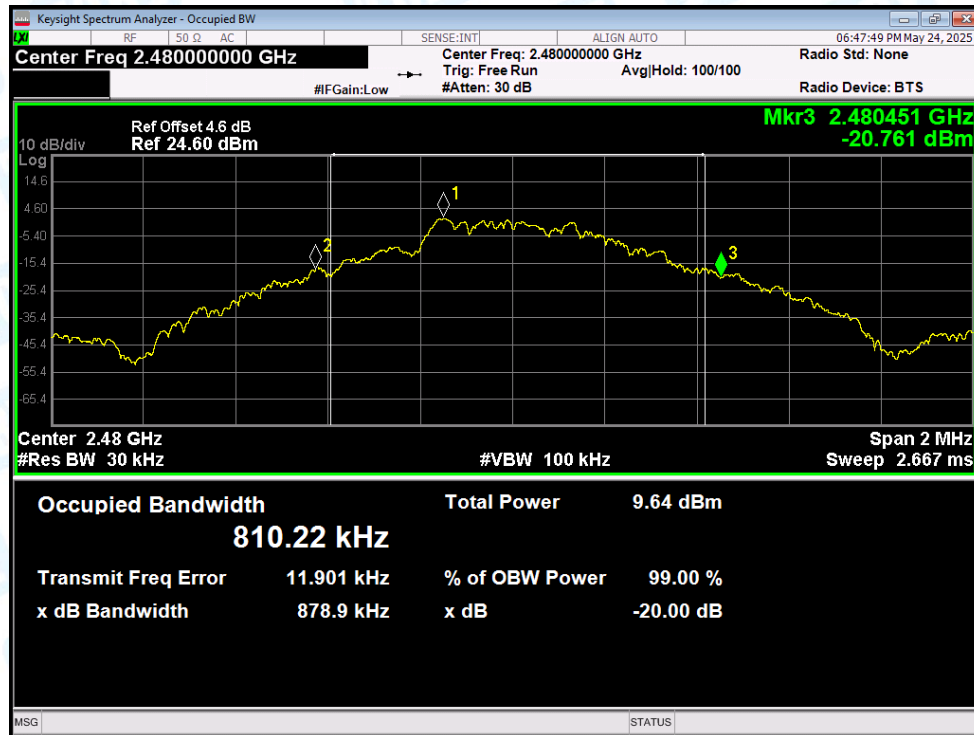
-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1



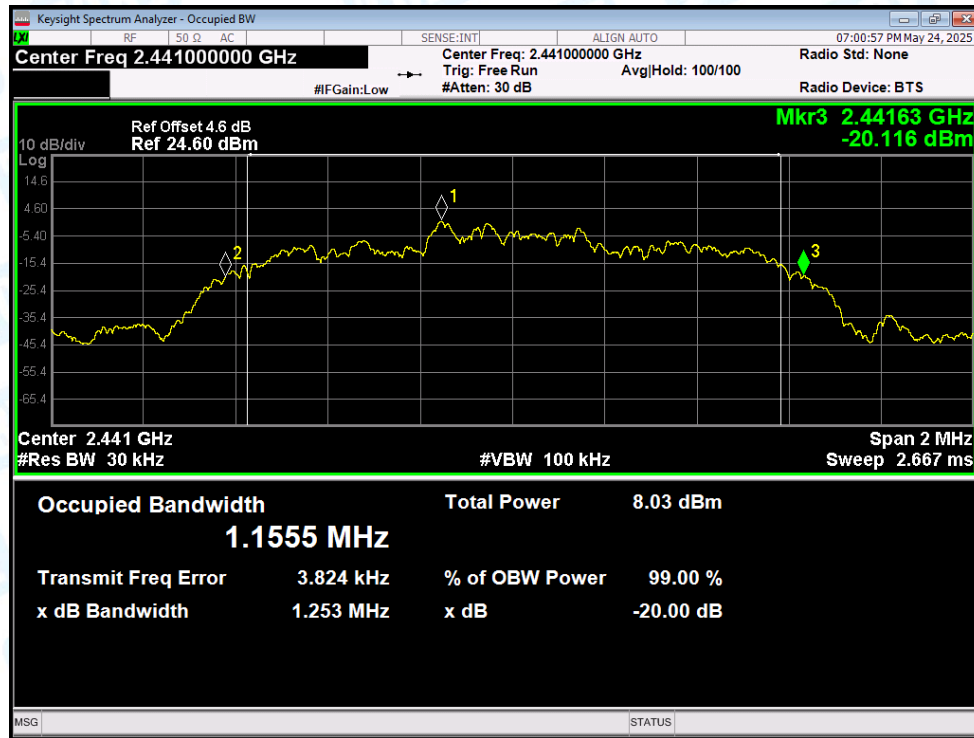
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



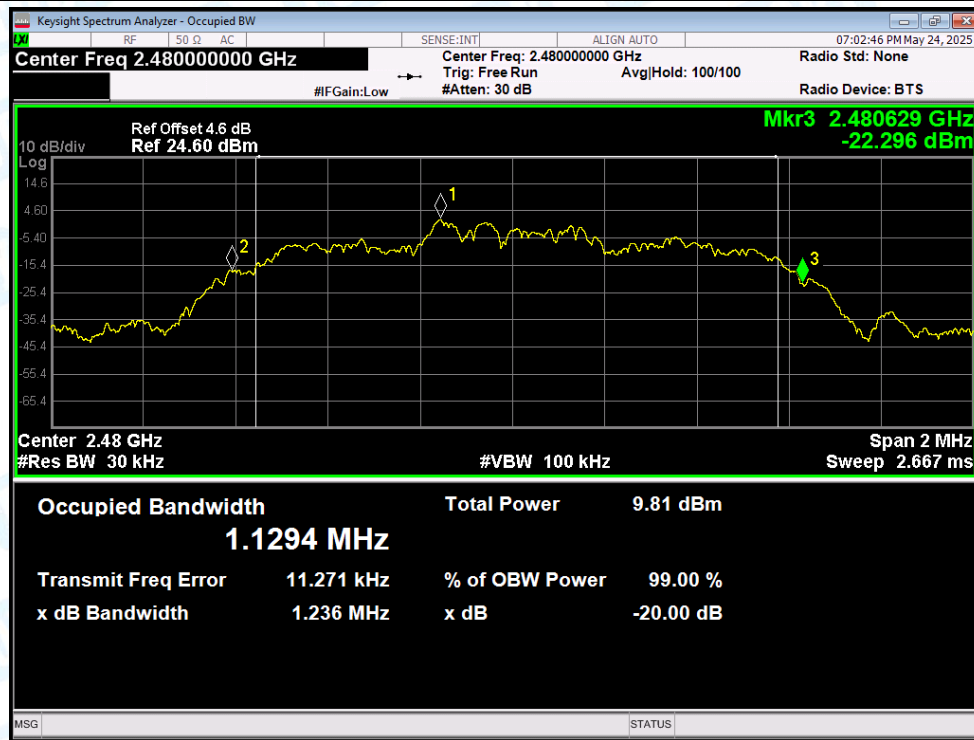
-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



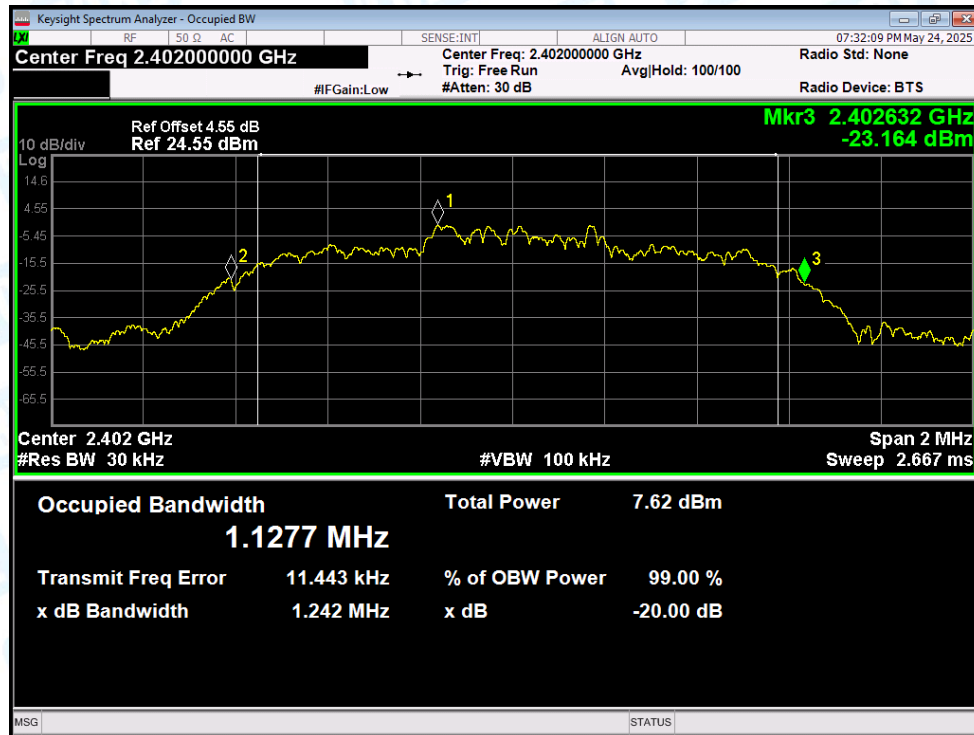
-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



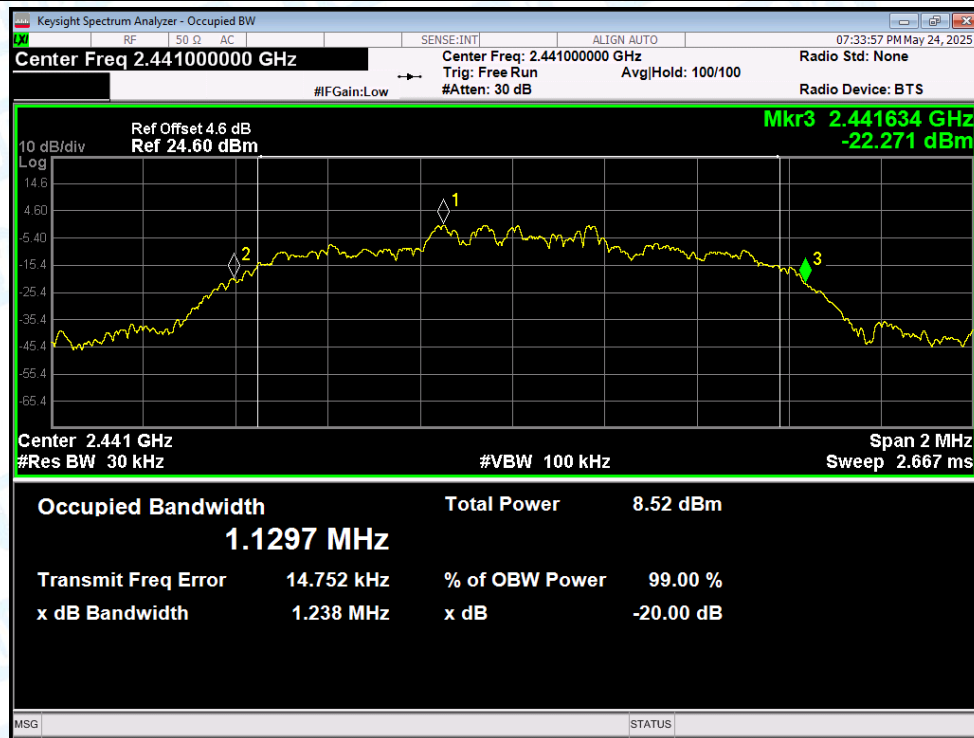
-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1

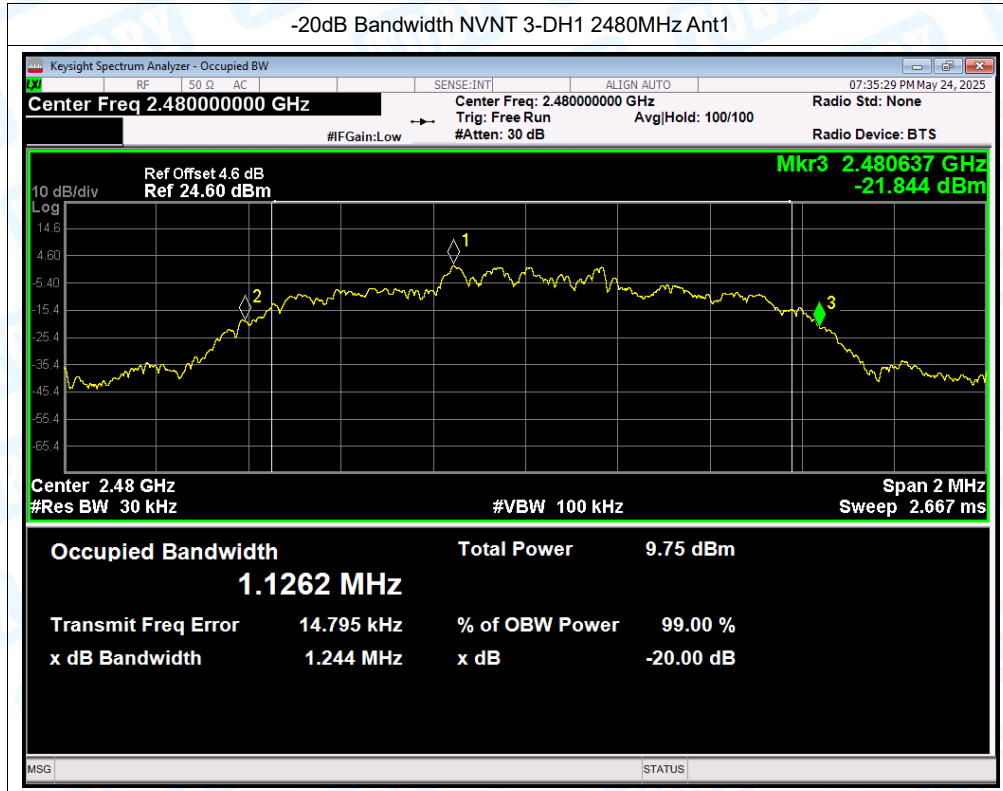


-20dB Bandwidth NVNT 3-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2441MHz Ant1



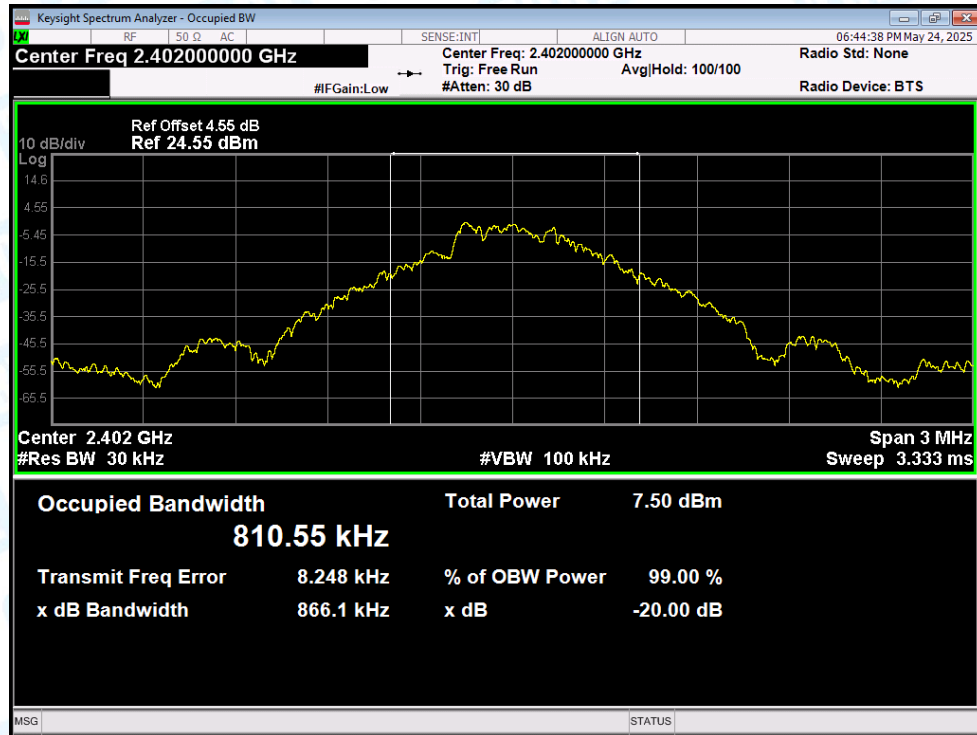


4. Occupied Channel Bandwidth

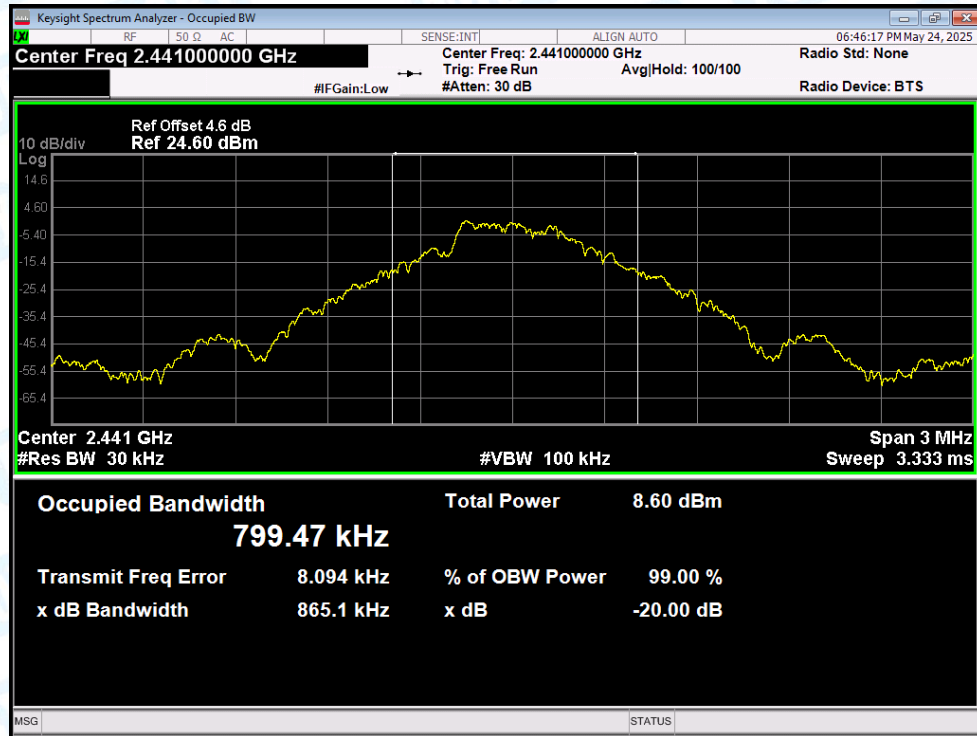
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH1	2402	Ant1	0.811
NVNT	1-DH1	2441	Ant1	0.799
NVNT	1-DH1	2480	Ant1	0.81
NVNT	2-DH1	2402	Ant1	1.059
NVNT	2-DH1	2441	Ant1	1.124
NVNT	2-DH1	2480	Ant1	1.154
NVNT	3-DH1	2402	Ant1	1.145
NVNT	3-DH1	2441	Ant1	1.13
NVNT	3-DH1	2480	Ant1	1.134

Test Graphs

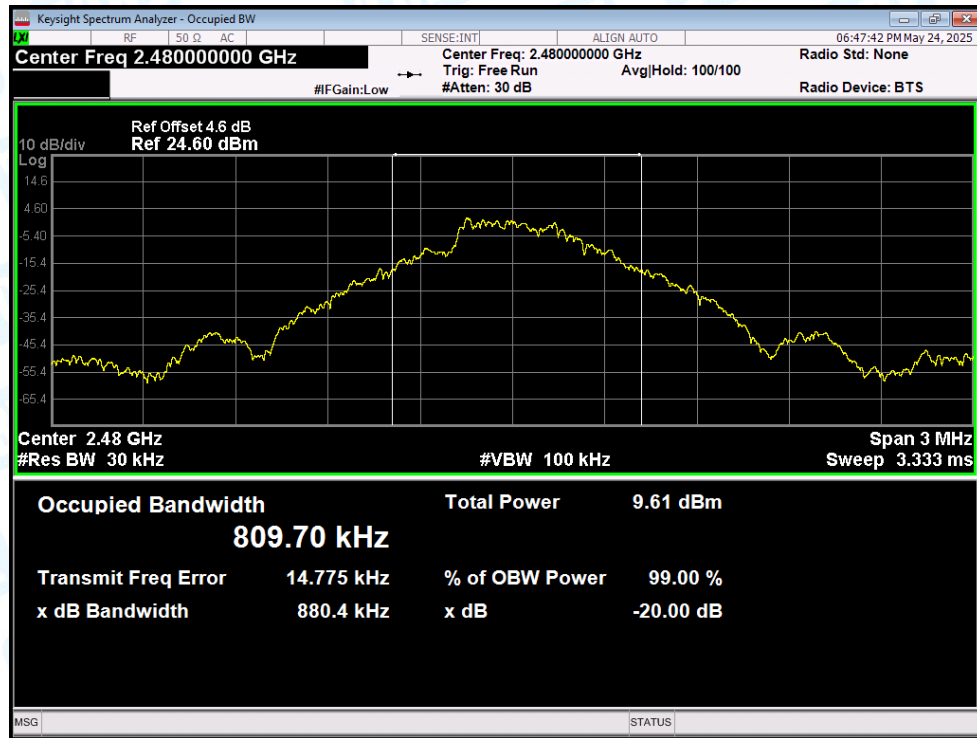
OBW NVNT 1-DH1 2402MHz Ant1



OBW NVNT 1-DH1 2441MHz Ant1



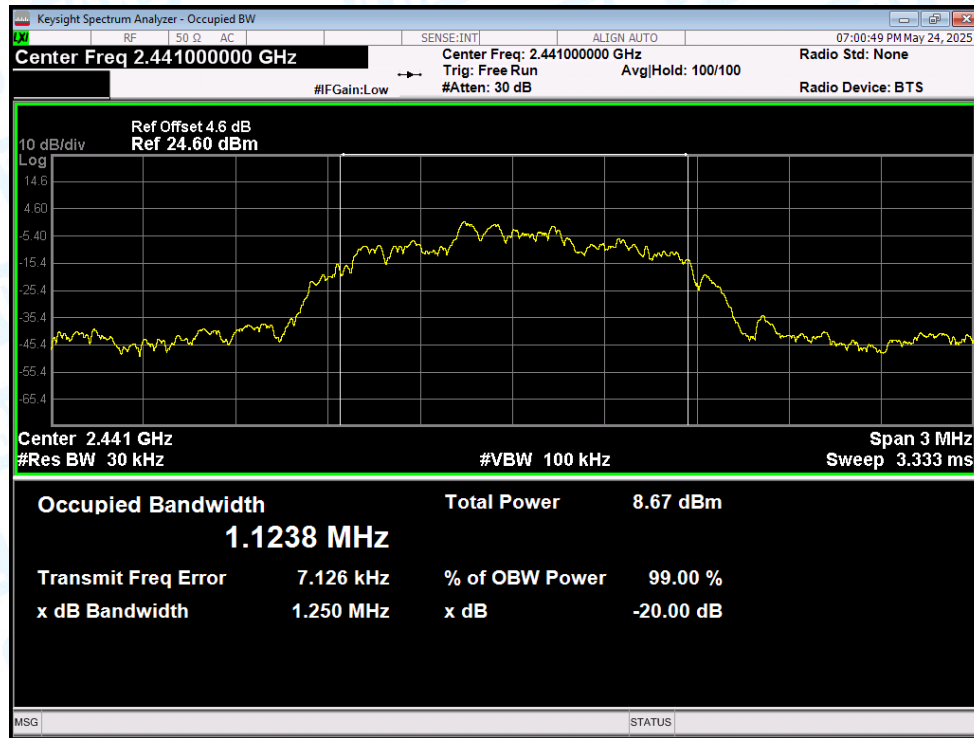
OBW NVNT 1-DH1 2480MHz Ant1



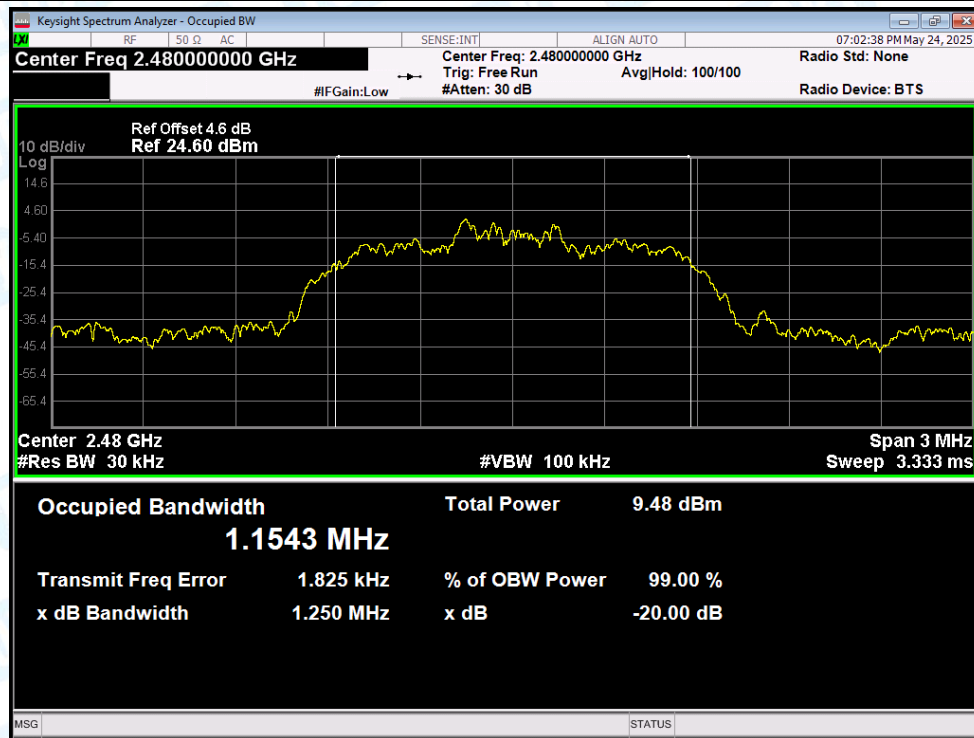
OBW NVNT 2-DH1 2402MHz Ant1



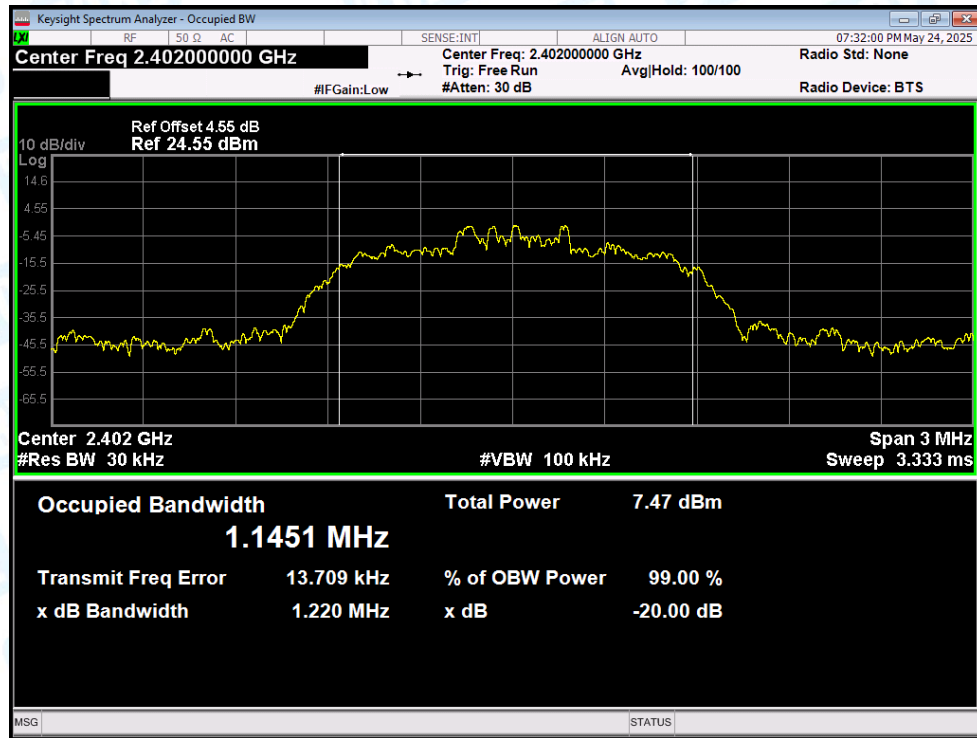
OBW NVNT 2-DH1 2441MHz Ant1



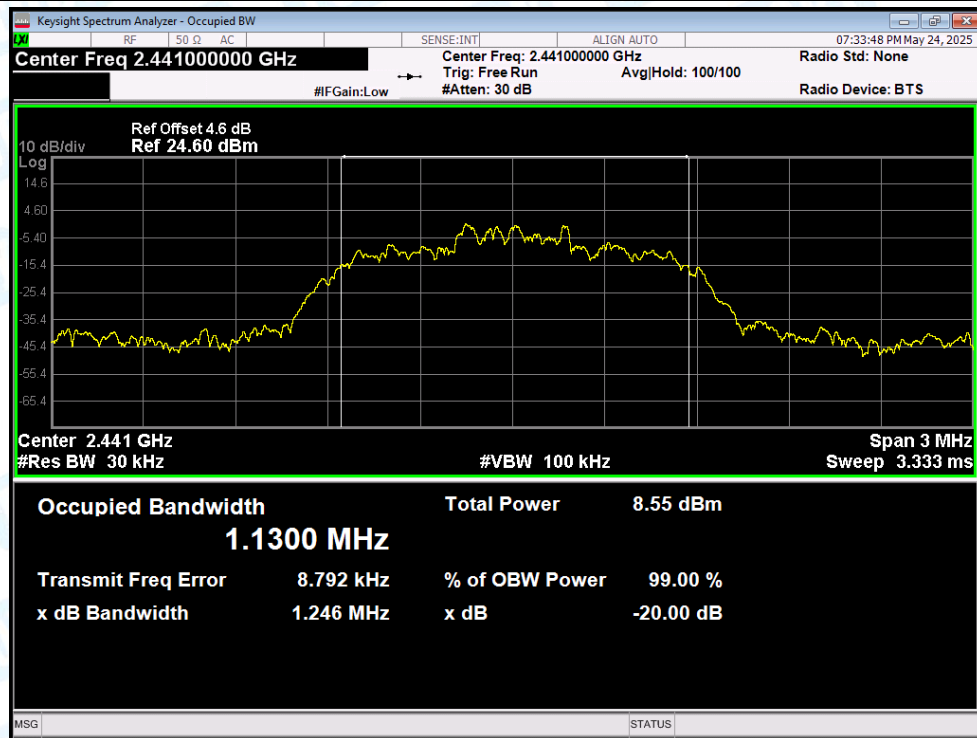
OBW NVNT 2-DH1 2480MHz Ant1

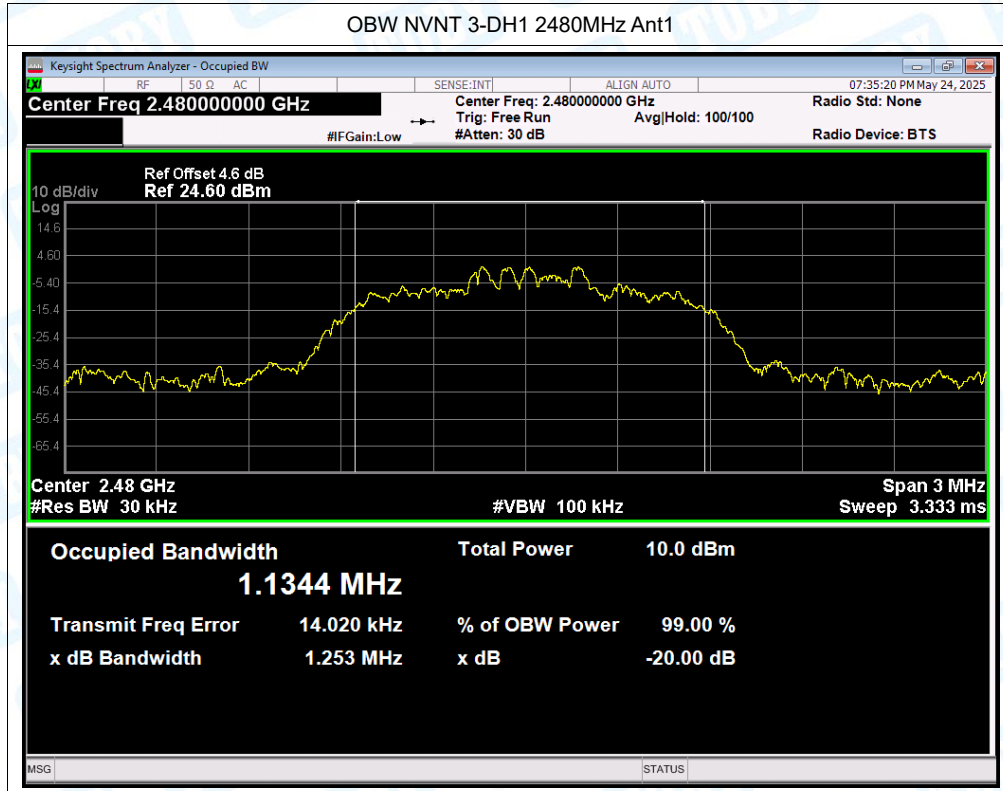


OBW NVNT 3-DH1 2402MHz Ant1



OBW NVNT 3-DH1 2441MHz Ant1



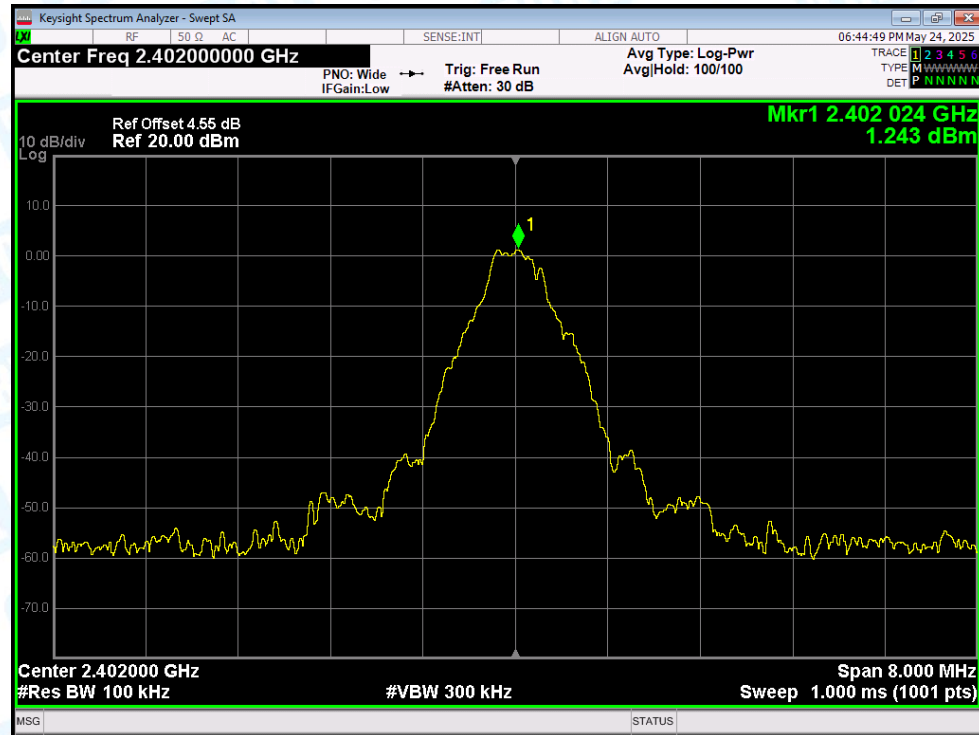


5. Band Edge

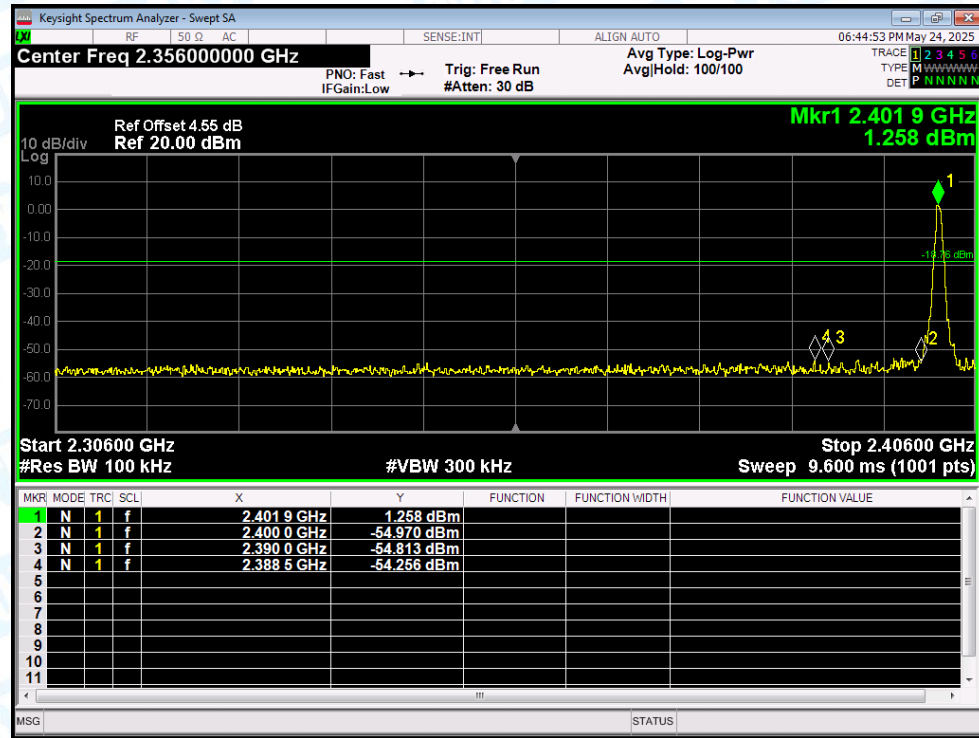
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-55.5	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-56.1	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-55.6	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-54.59	-20	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	-55.86	-20	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	-50.02	-20	Pass

Test Graphs

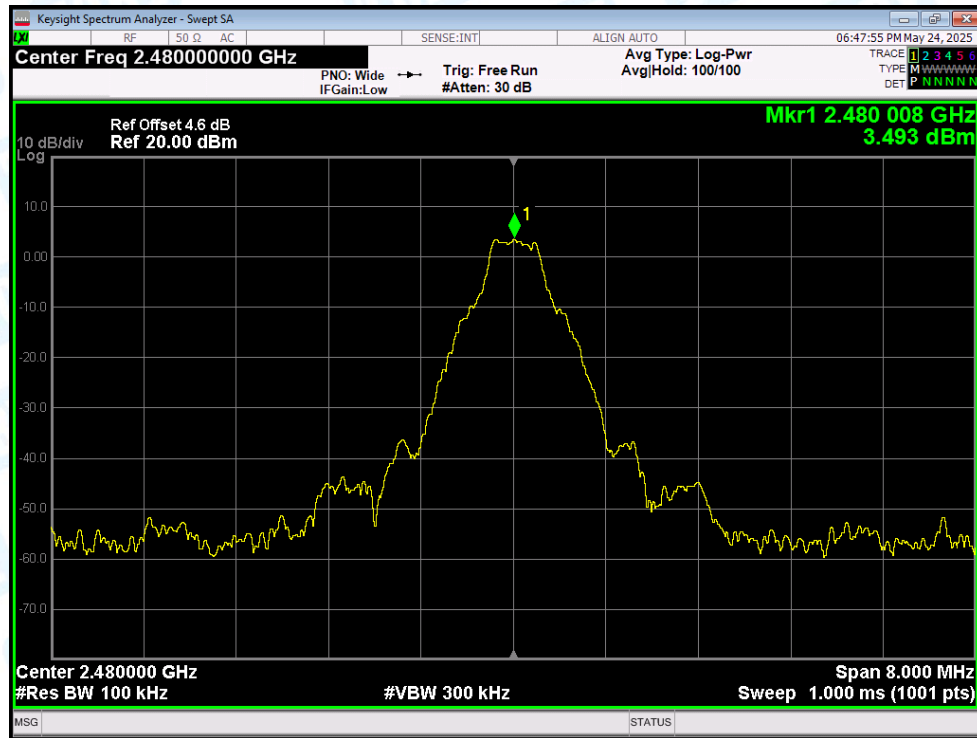
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Ref



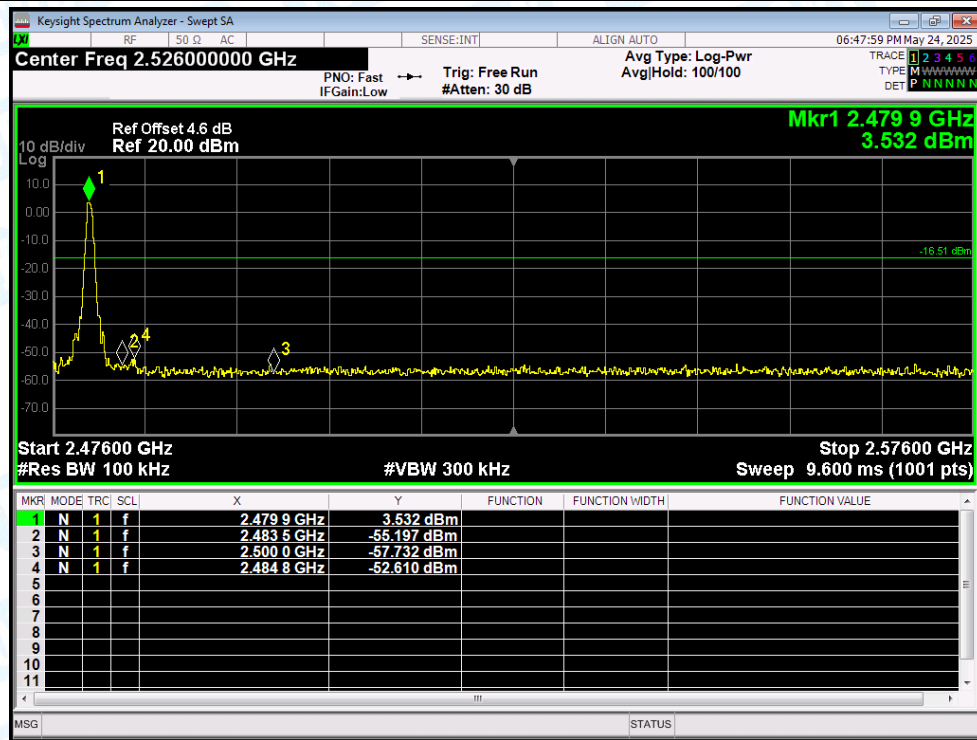
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission

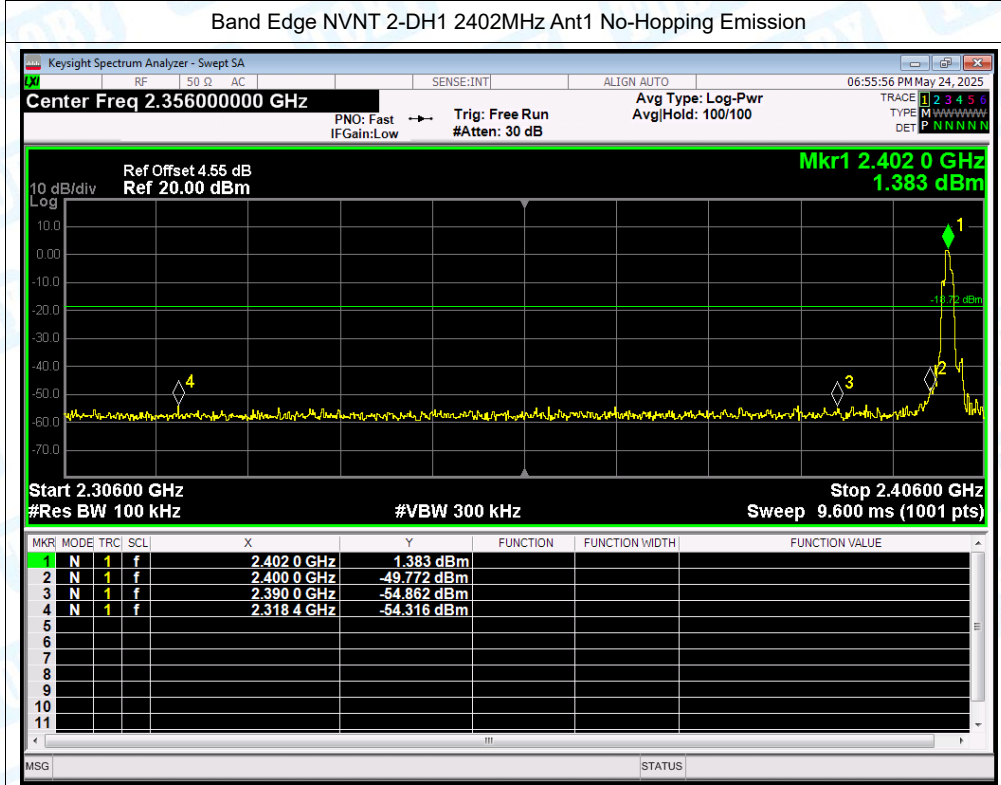


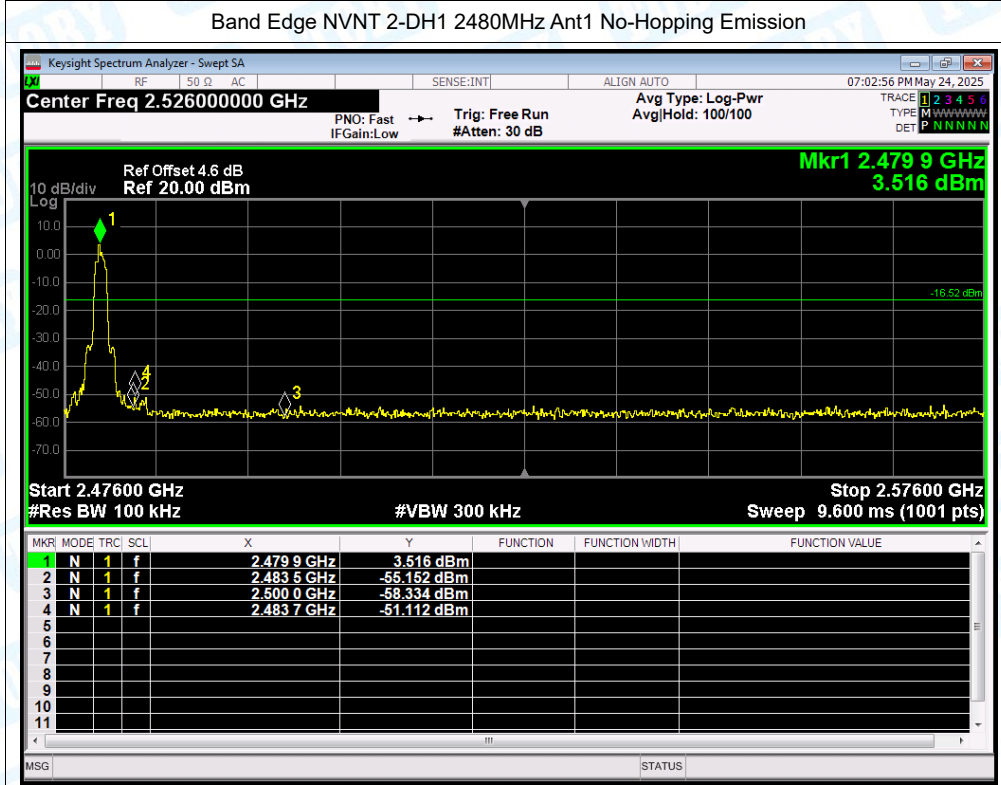
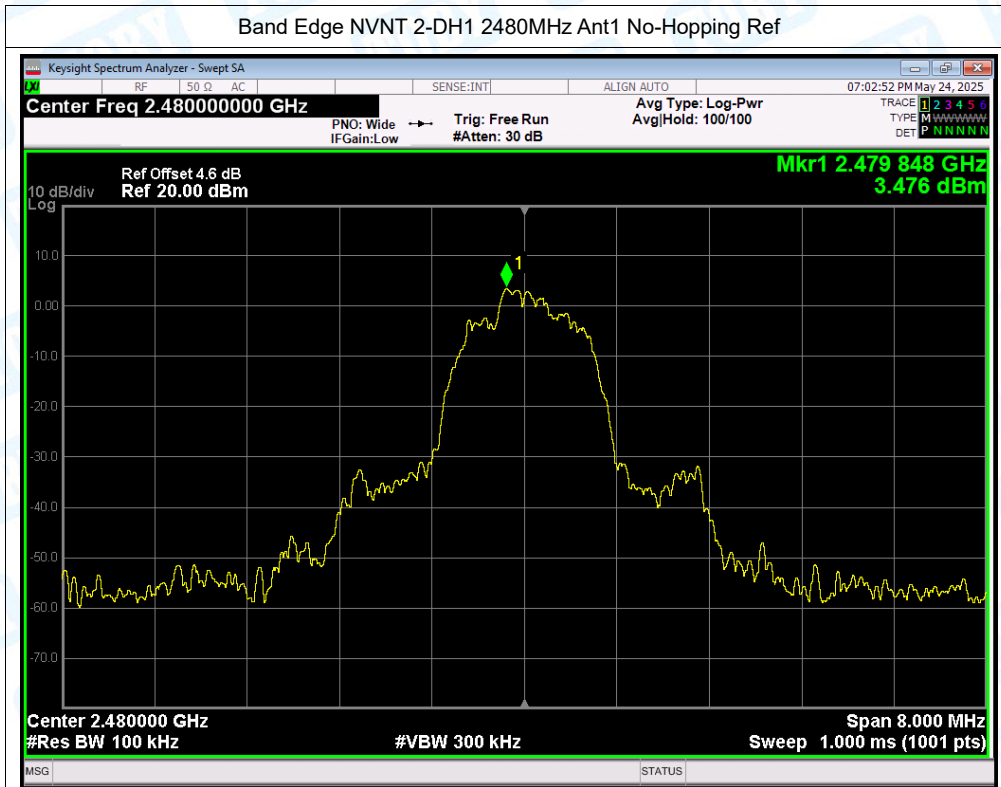
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Ref

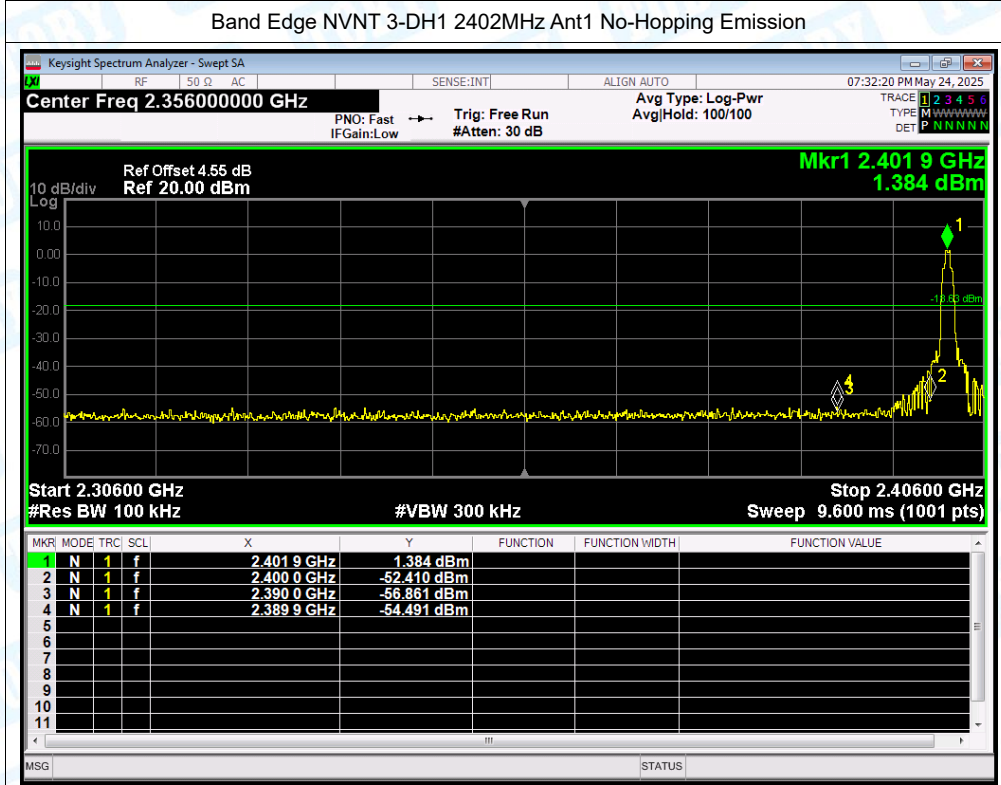
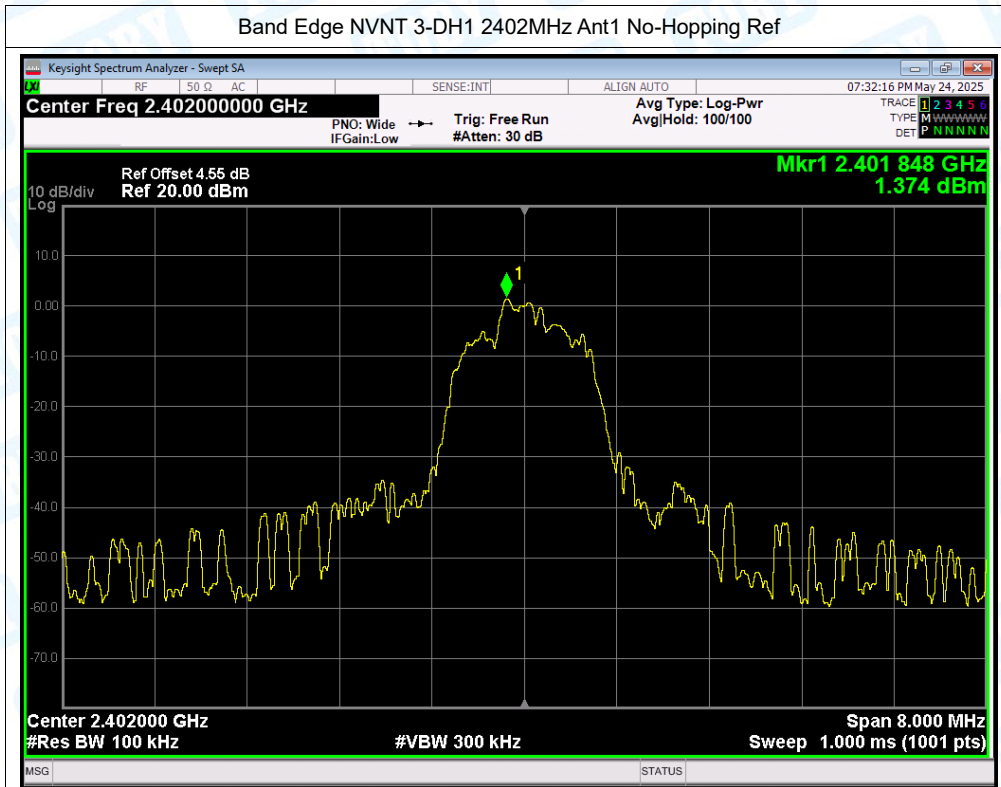


Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Emission





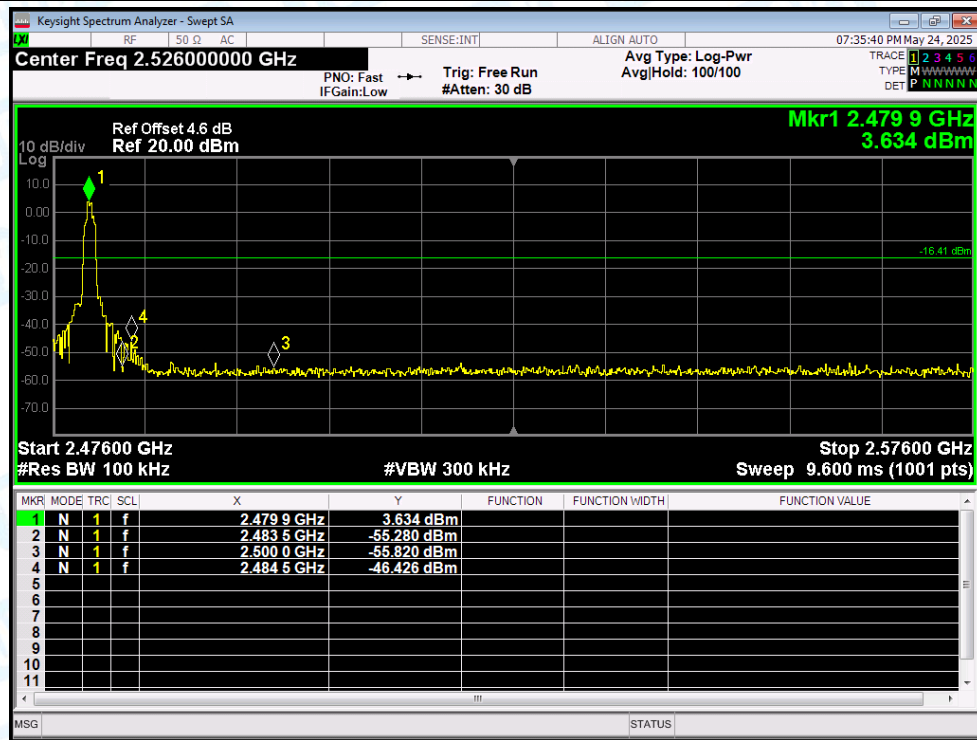




Band Edge NVNT 3-DH1 2480MHz Ant1 No-Hopping Ref



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

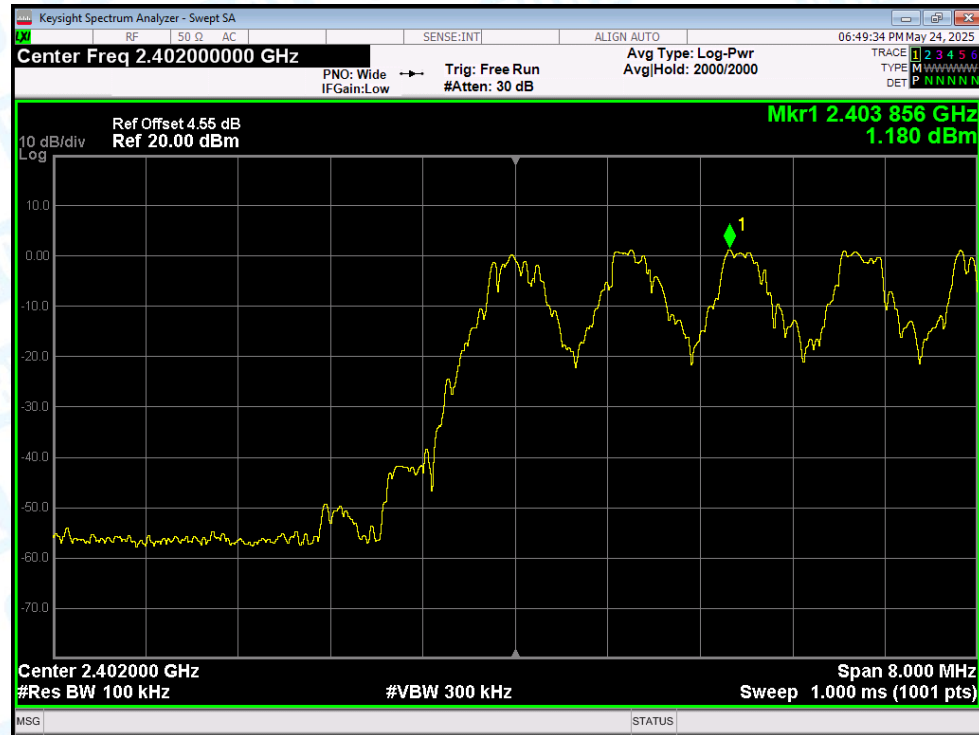


6. Band Edge(Hopping)

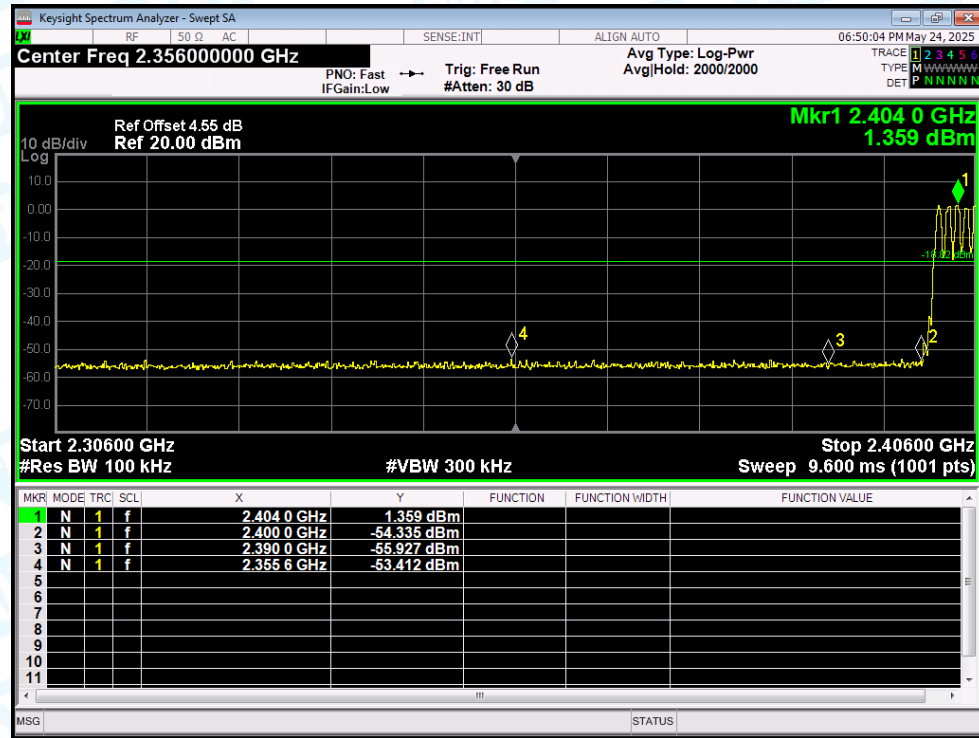
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-54.59	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-54.55	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-55.04	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-54.76	-20	Pass
NVNT	3-DH1	2402	Ant1	Hopping	-54.93	-20	Pass
NVNT	3-DH1	2480	Ant1	Hopping	-49.02	-20	Pass

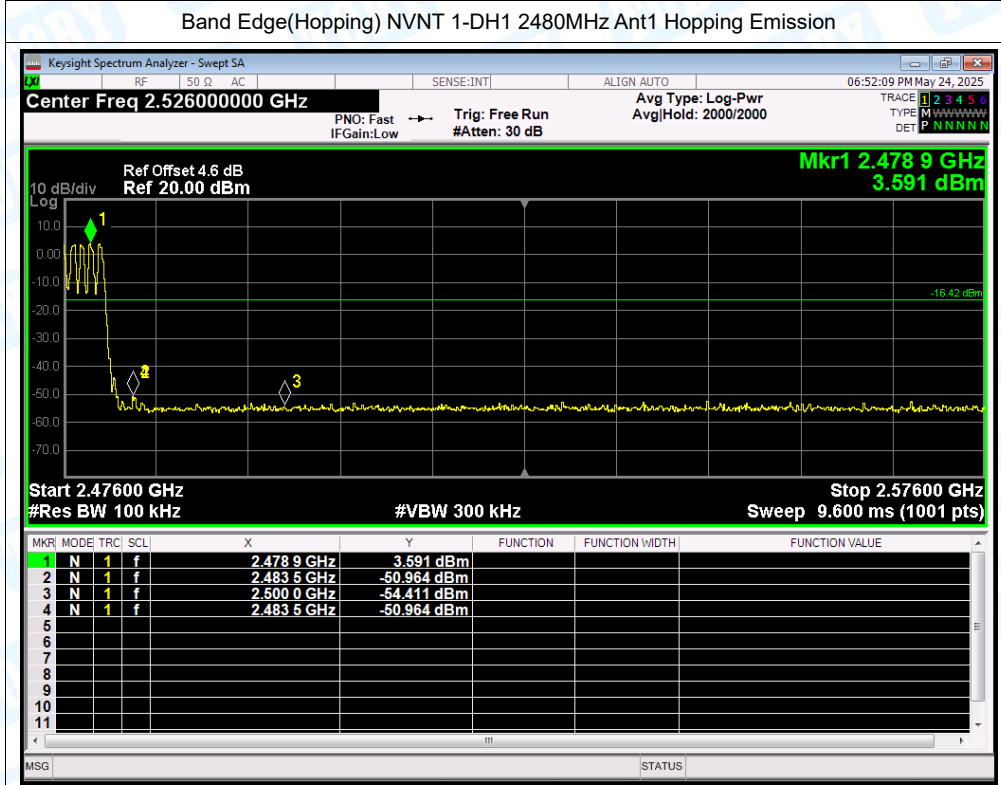
Test Graphs

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



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

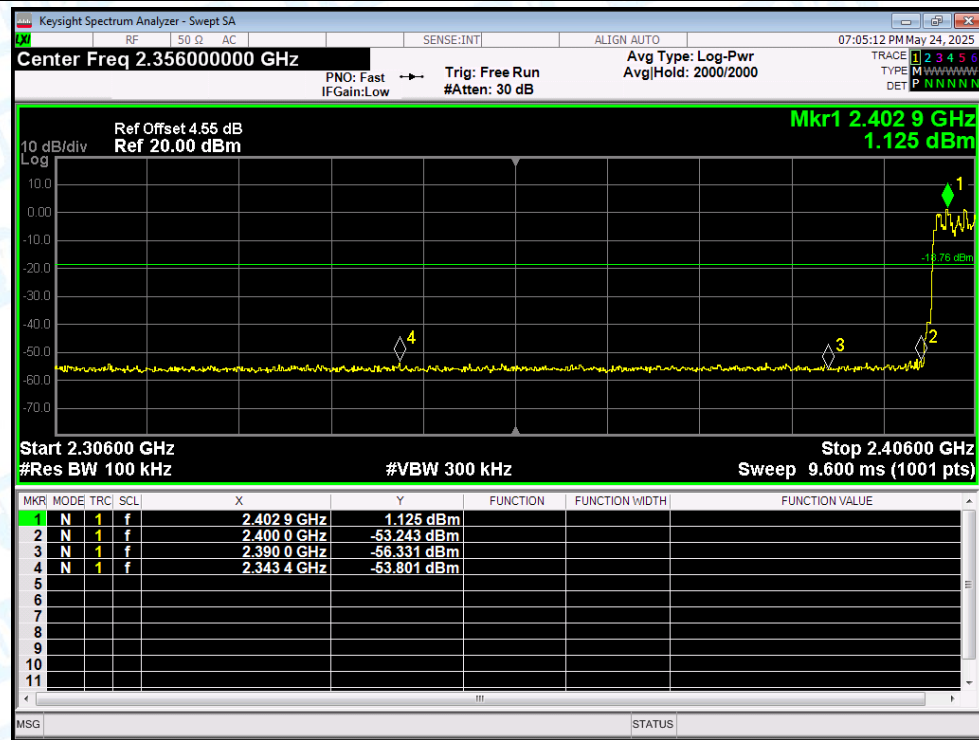


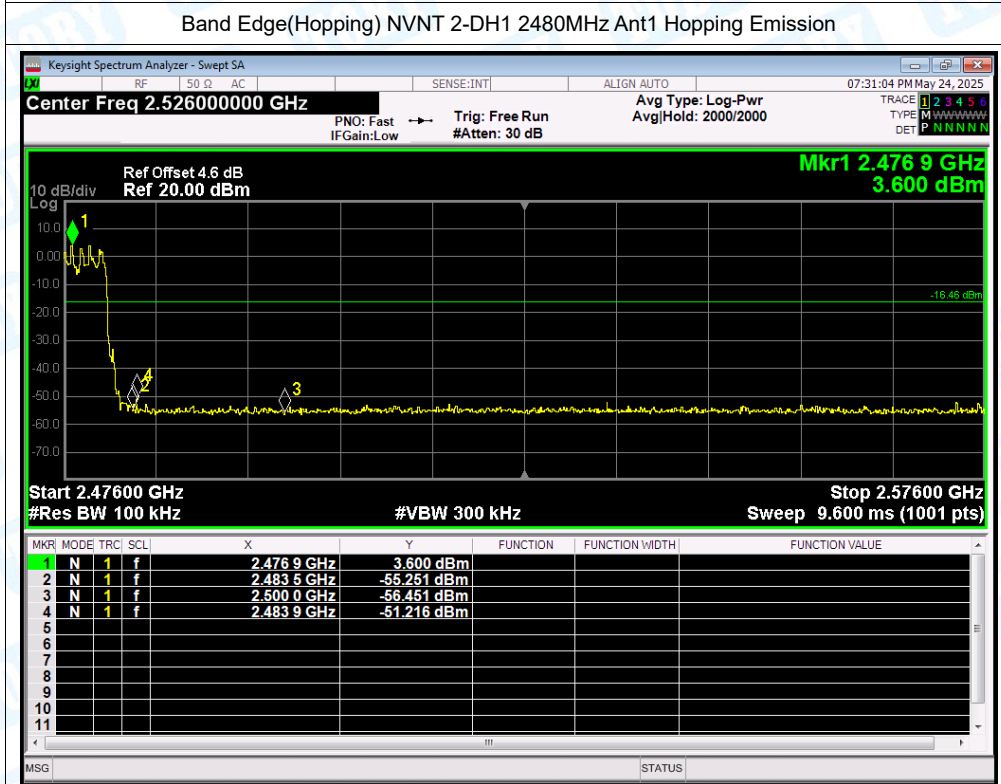
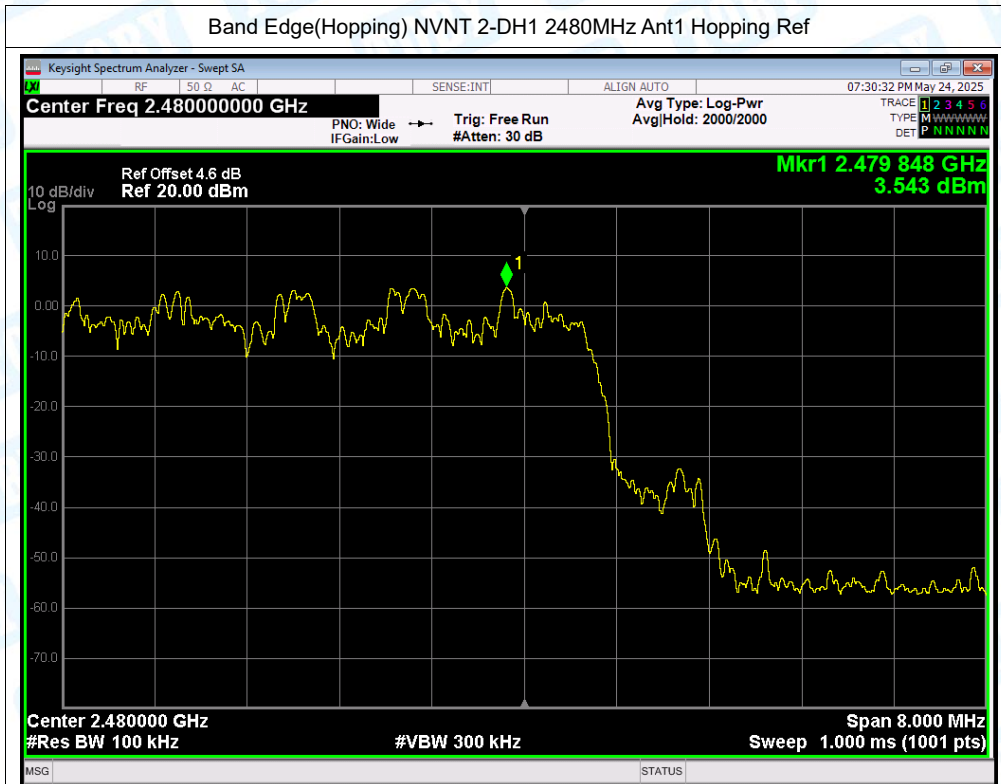


Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Ref



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

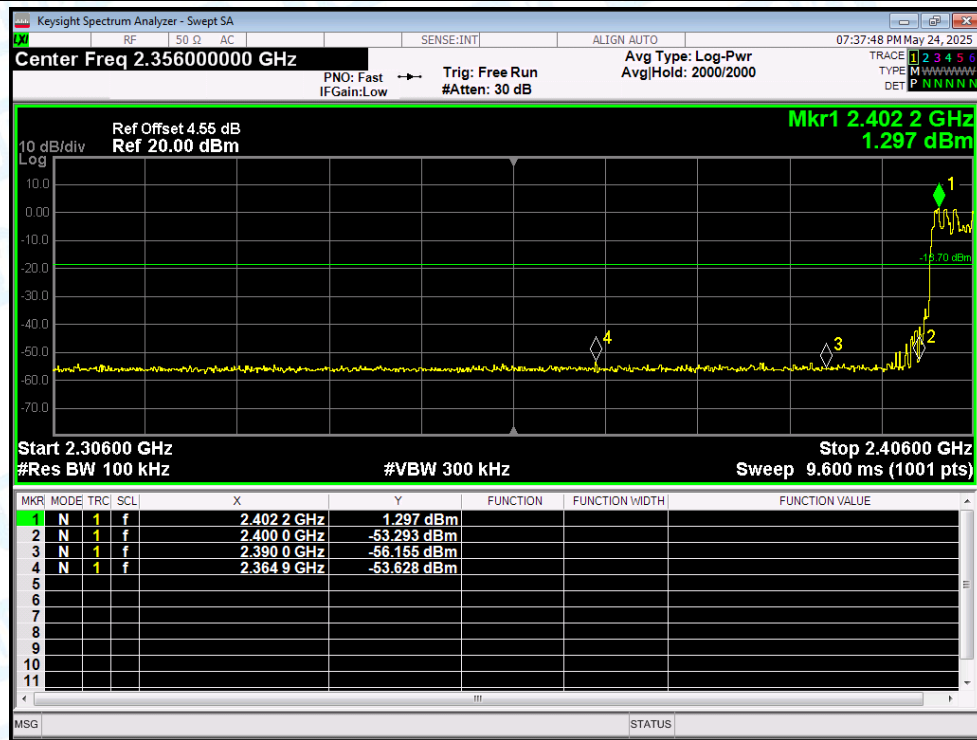


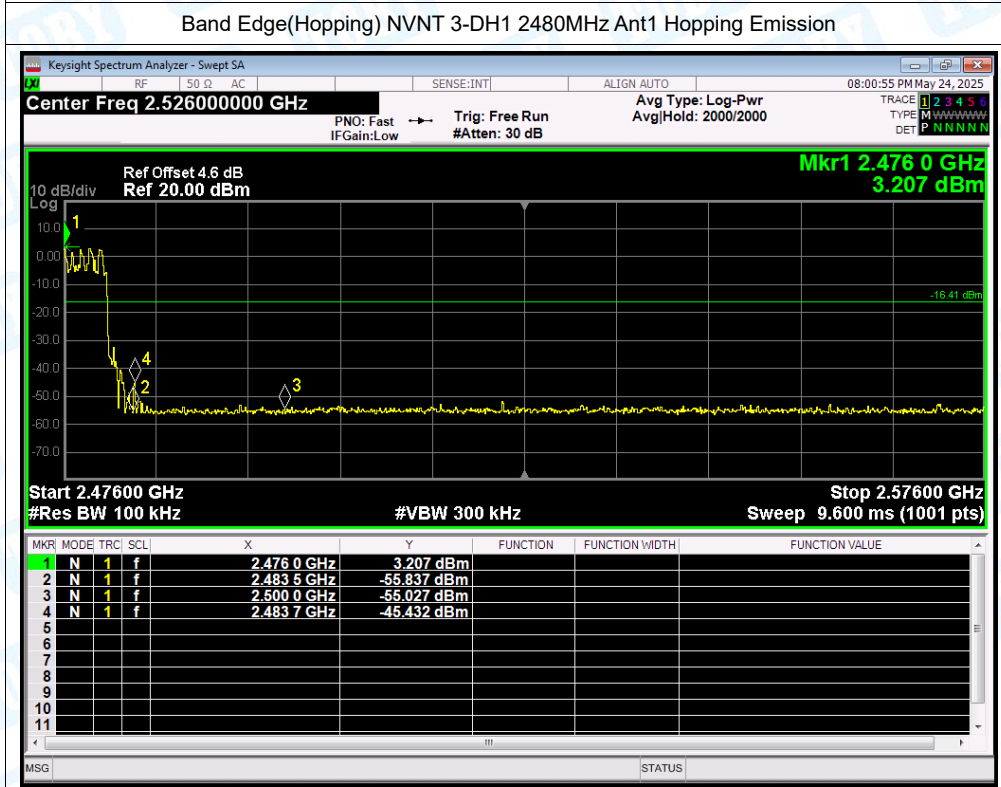
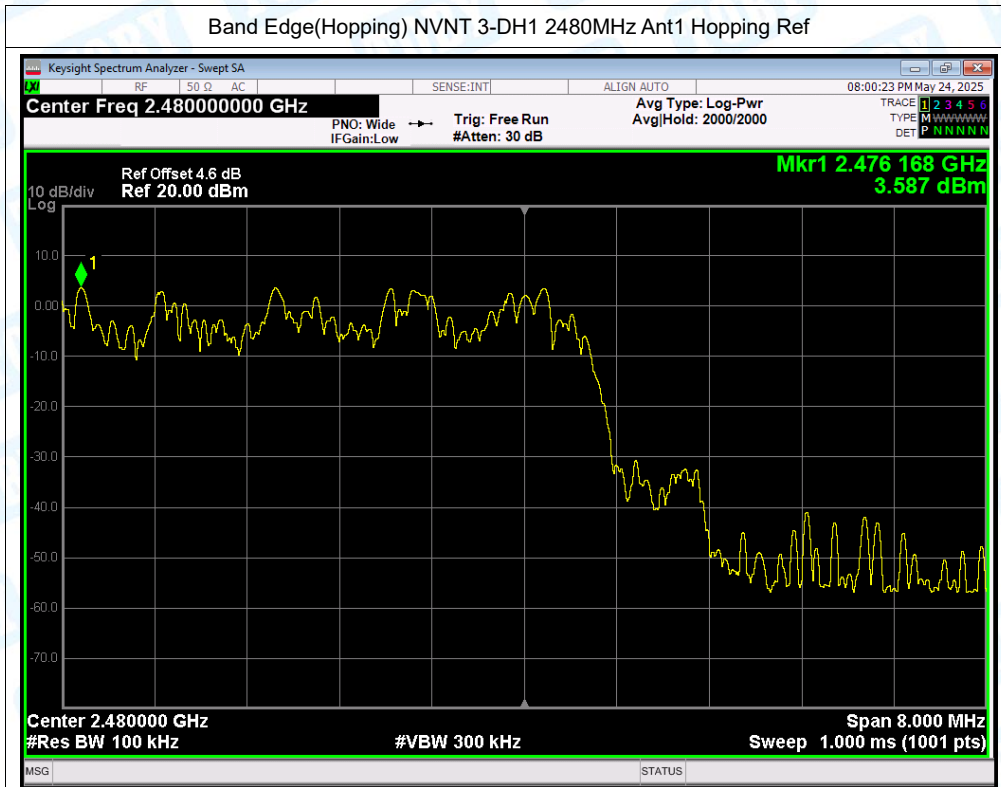


Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Ref



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



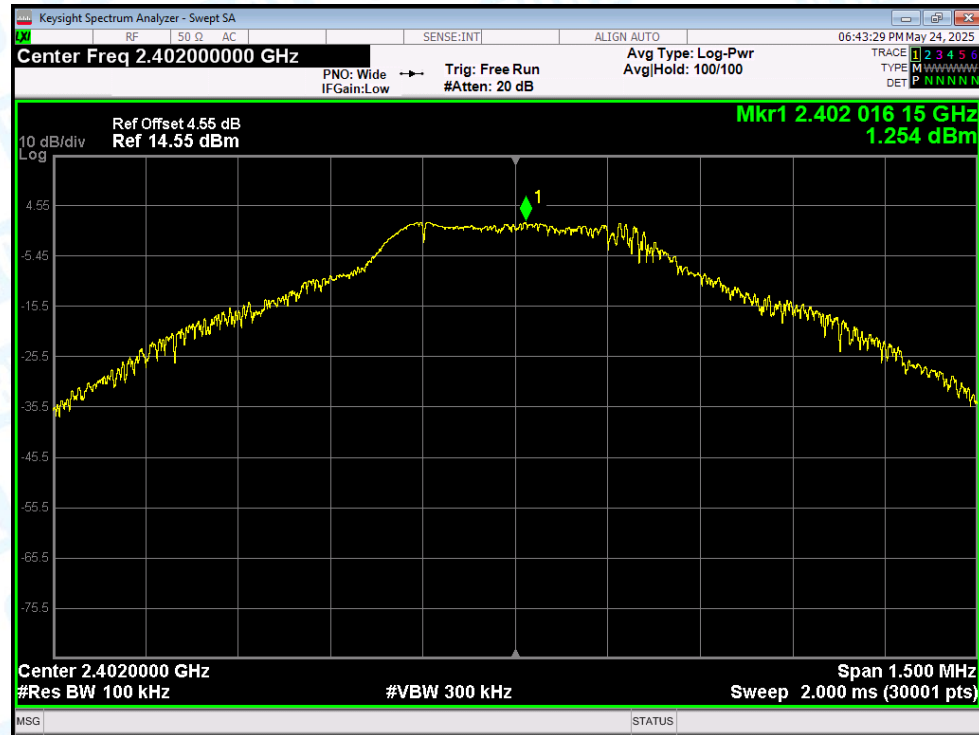


7. Conducted RF Spurious Emission

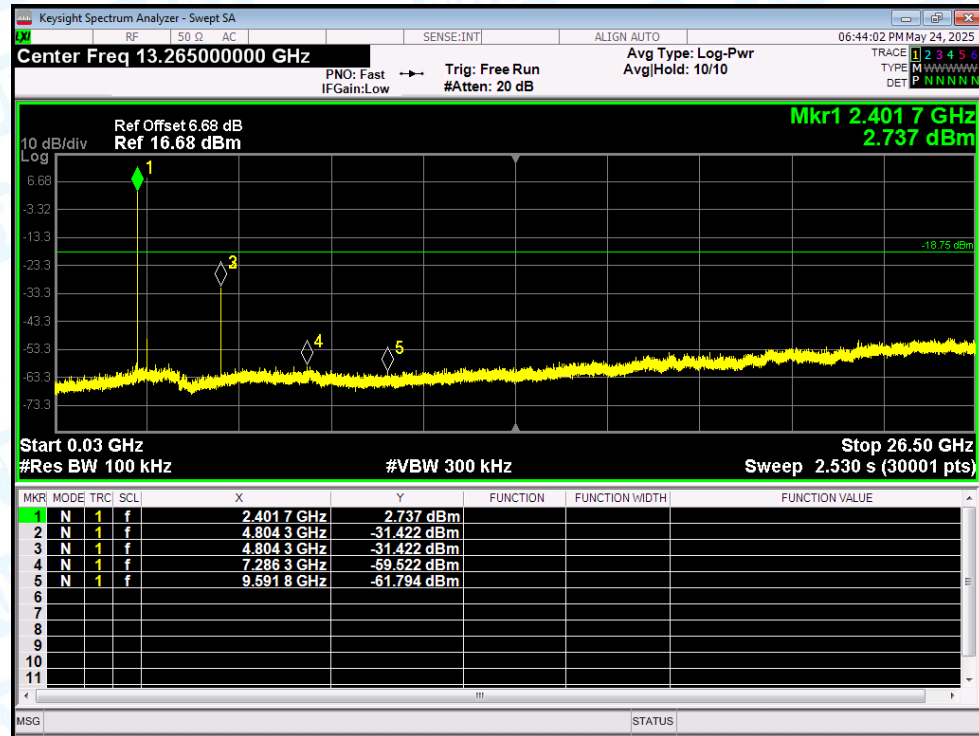
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	-32.67	-20	Pass
NVNT	1-DH1	2441	Ant1	-30.55	-20	Pass
NVNT	1-DH1	2480	Ant1	-34.3	-20	Pass
NVNT	2-DH1	2402	Ant1	-30.9	-20	Pass
NVNT	2-DH1	2441	Ant1	-32.49	-20	Pass
NVNT	2-DH1	2480	Ant1	-30.29	-20	Pass
NVNT	3-DH1	2402	Ant1	-29.69	-20	Pass
NVNT	3-DH1	2441	Ant1	-36.38	-20	Pass
NVNT	3-DH1	2480	Ant1	-32.04	-20	Pass

Test Graphs

Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Ref



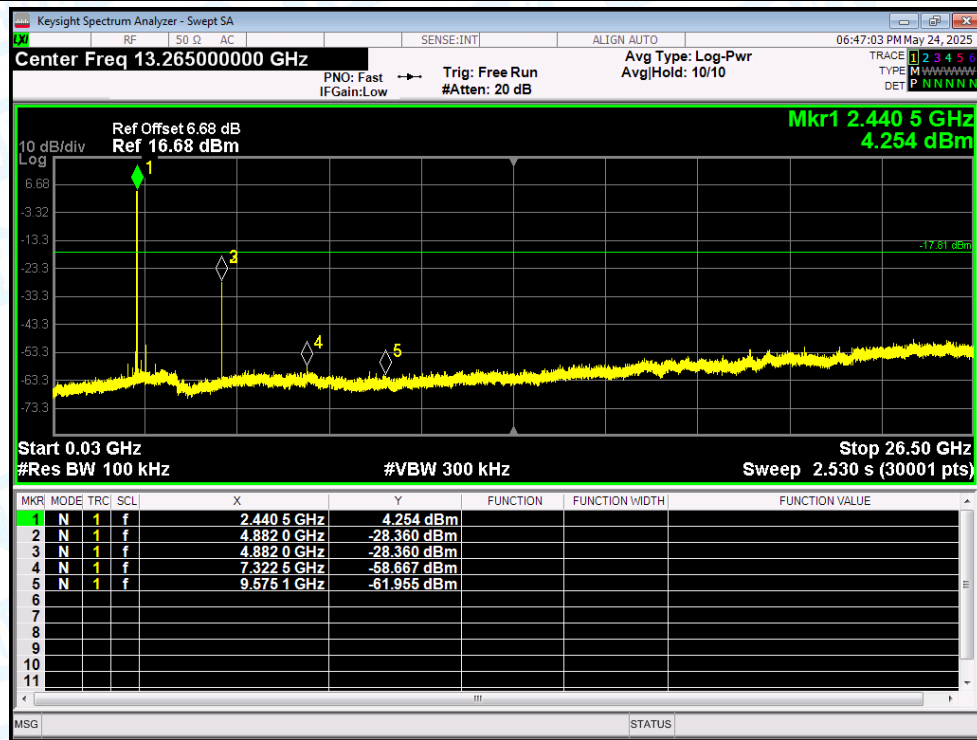
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Emission



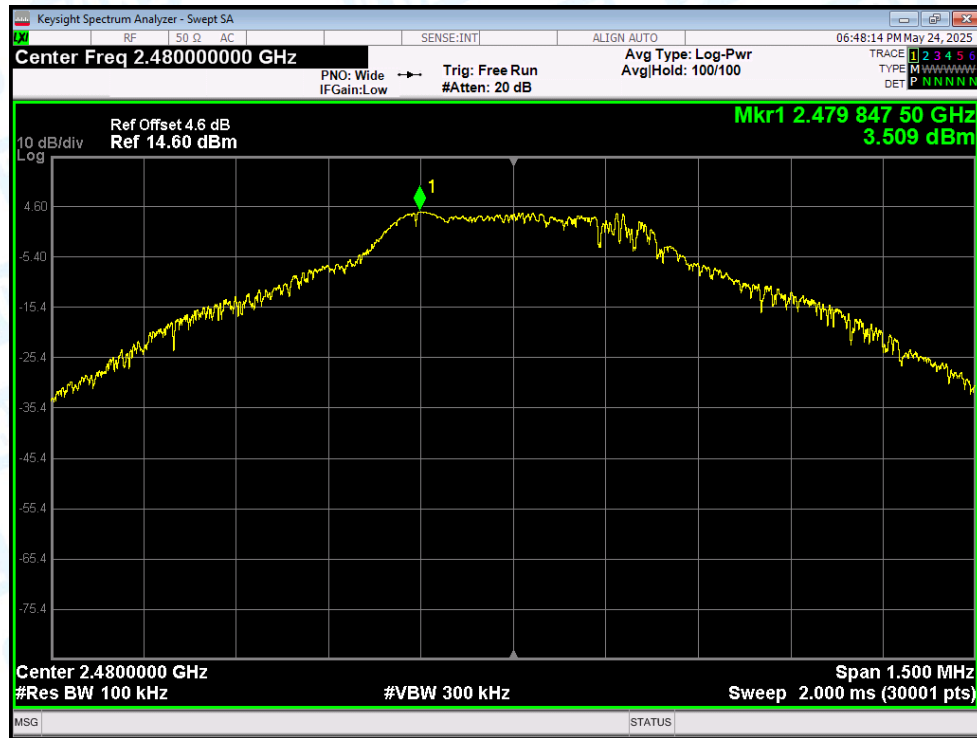
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Ref



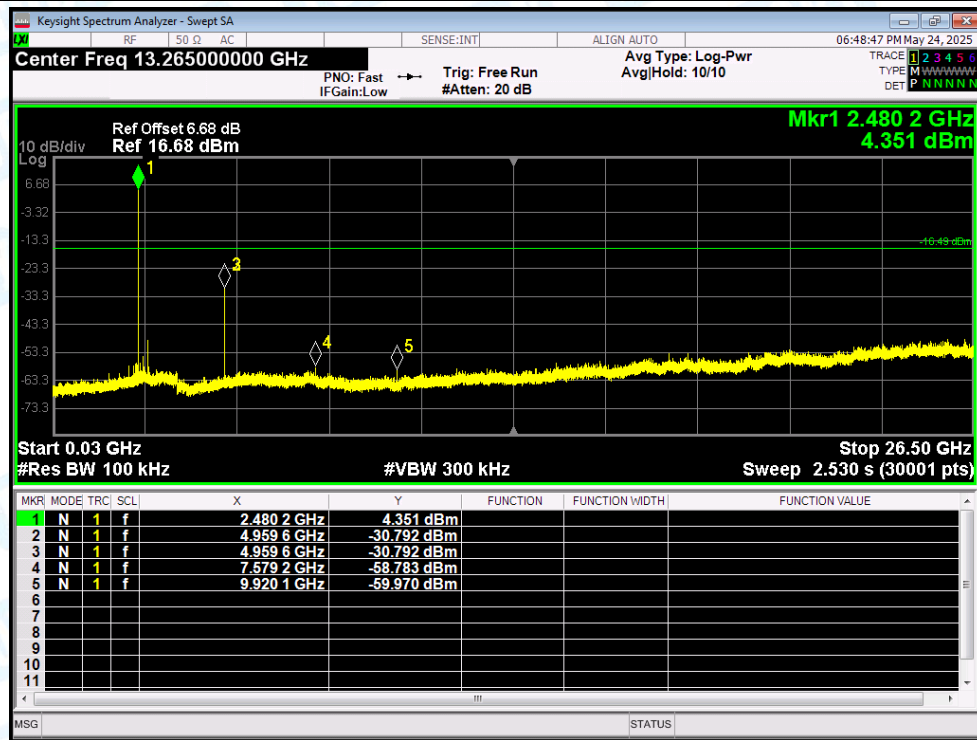
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Emission



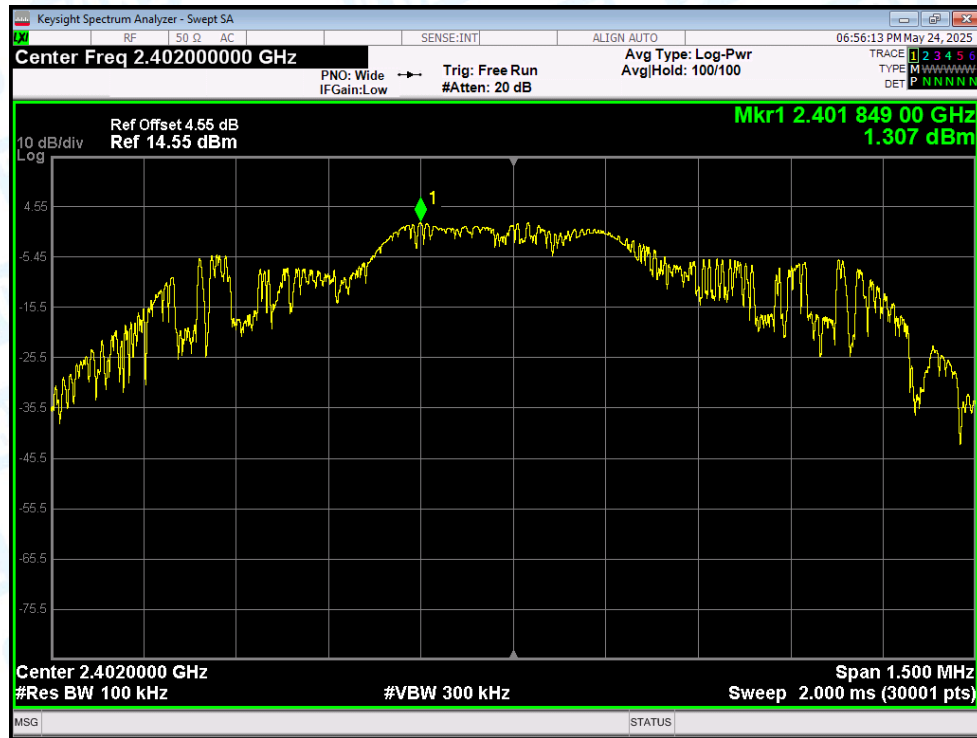
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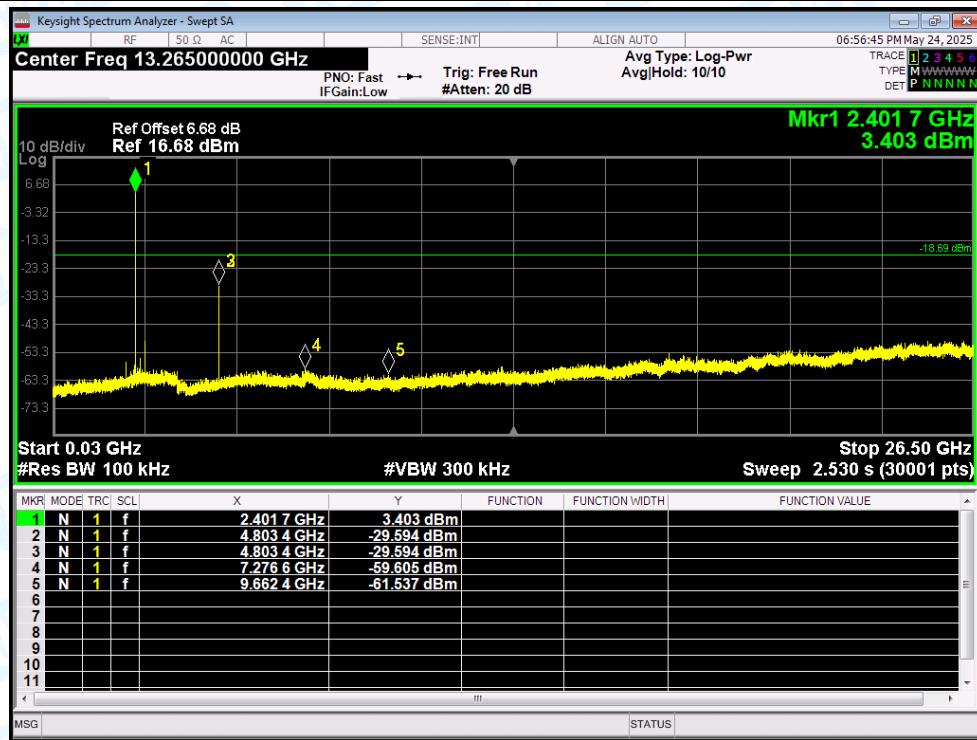
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Emission



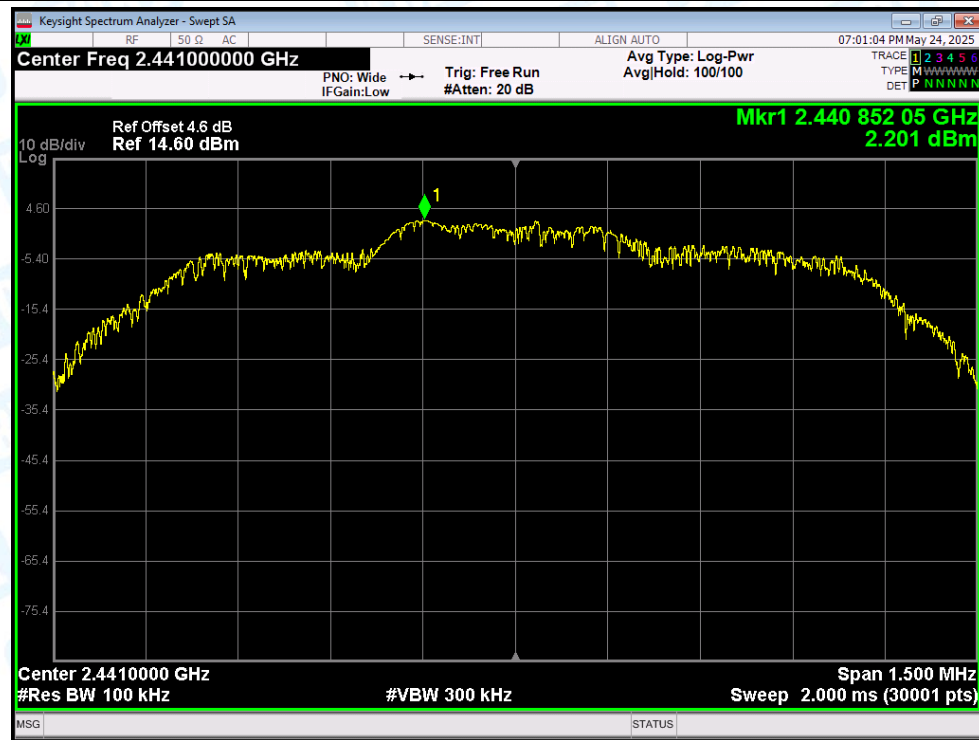
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Ref



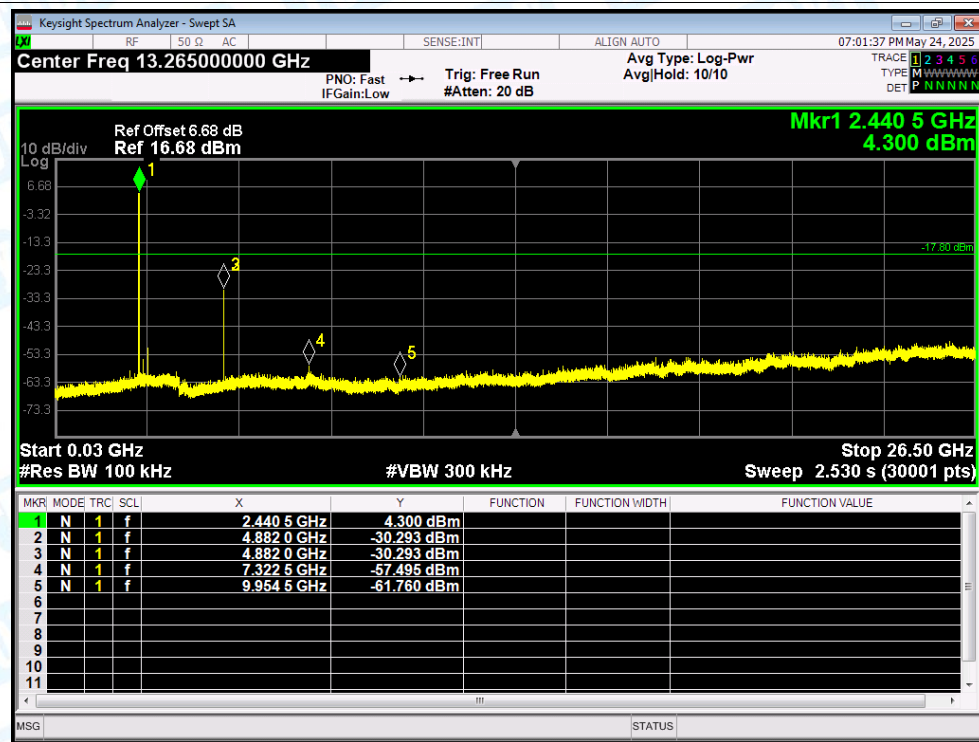
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Emission



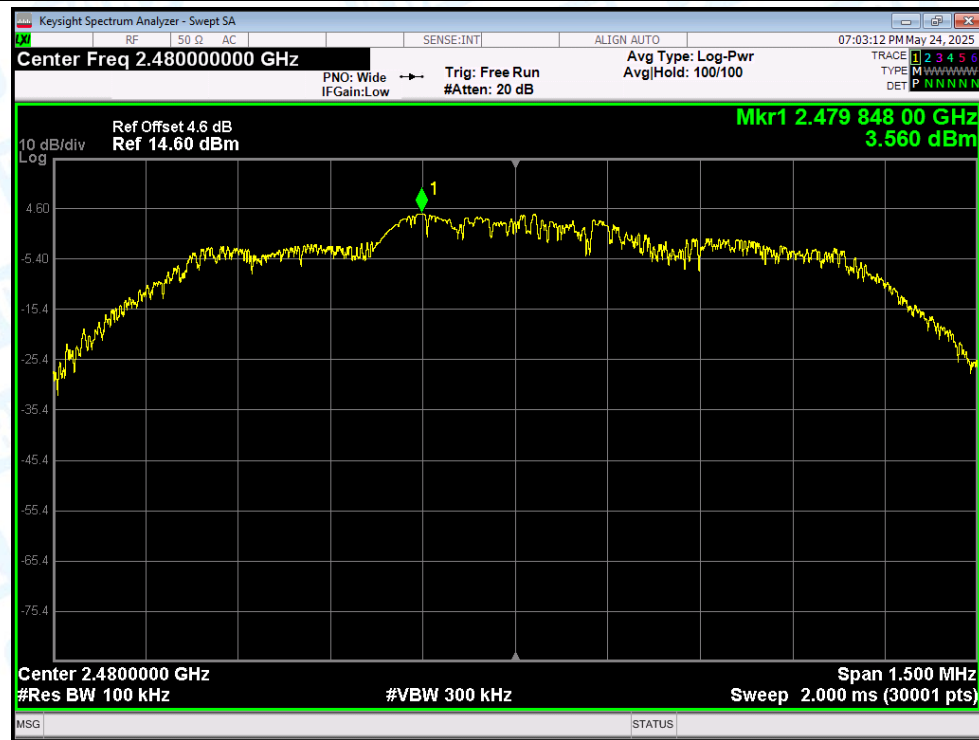
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Ref



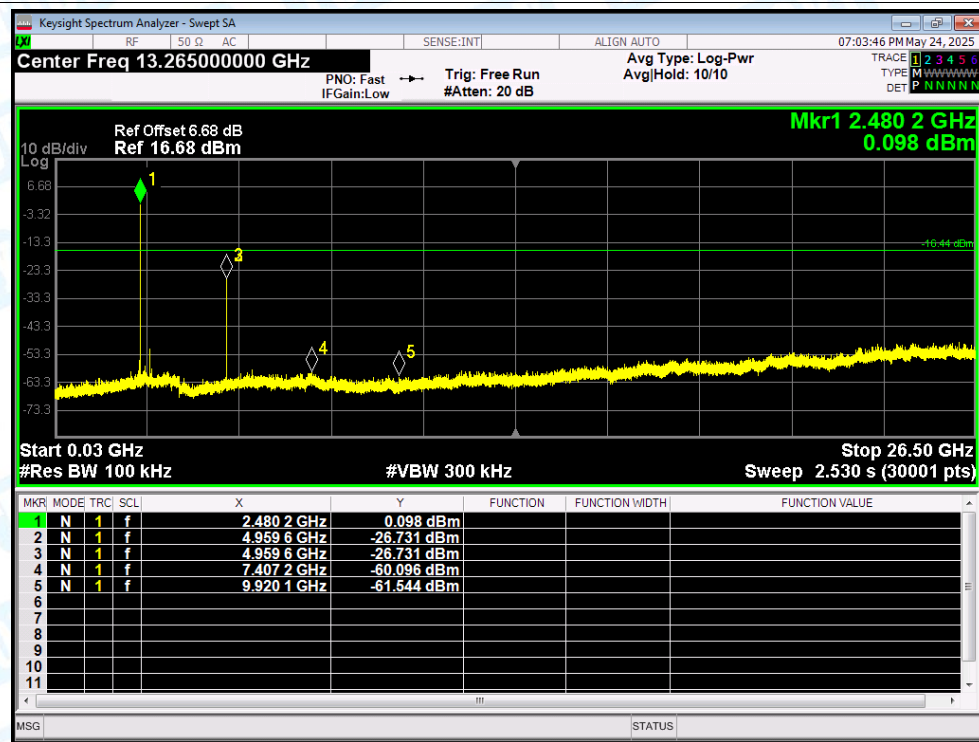
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Emission



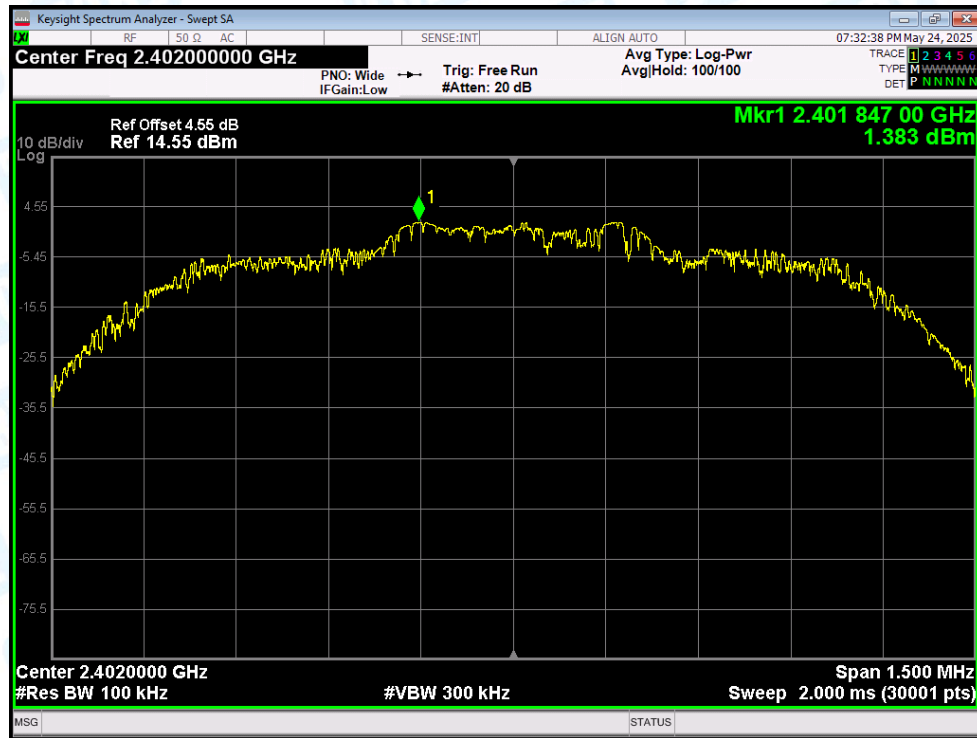
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Ref



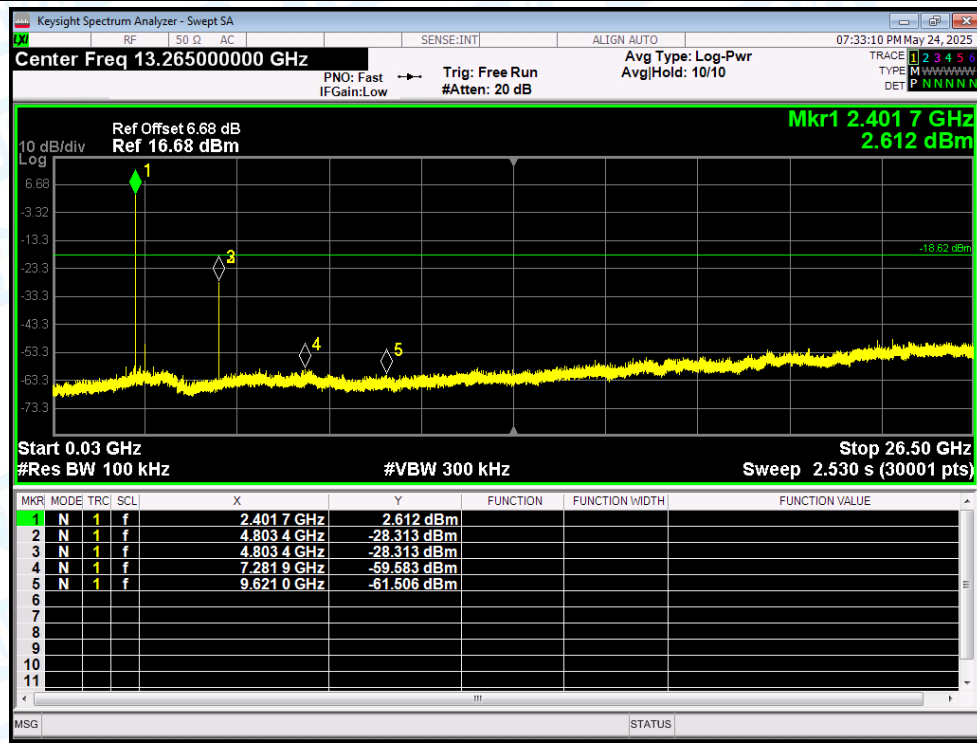
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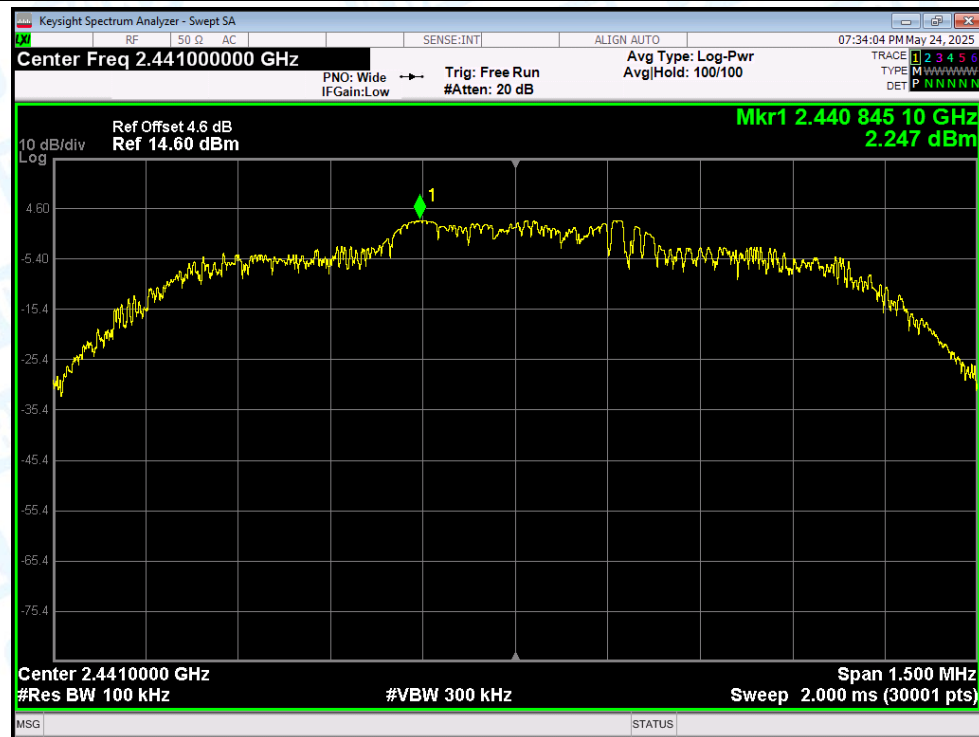
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Ref



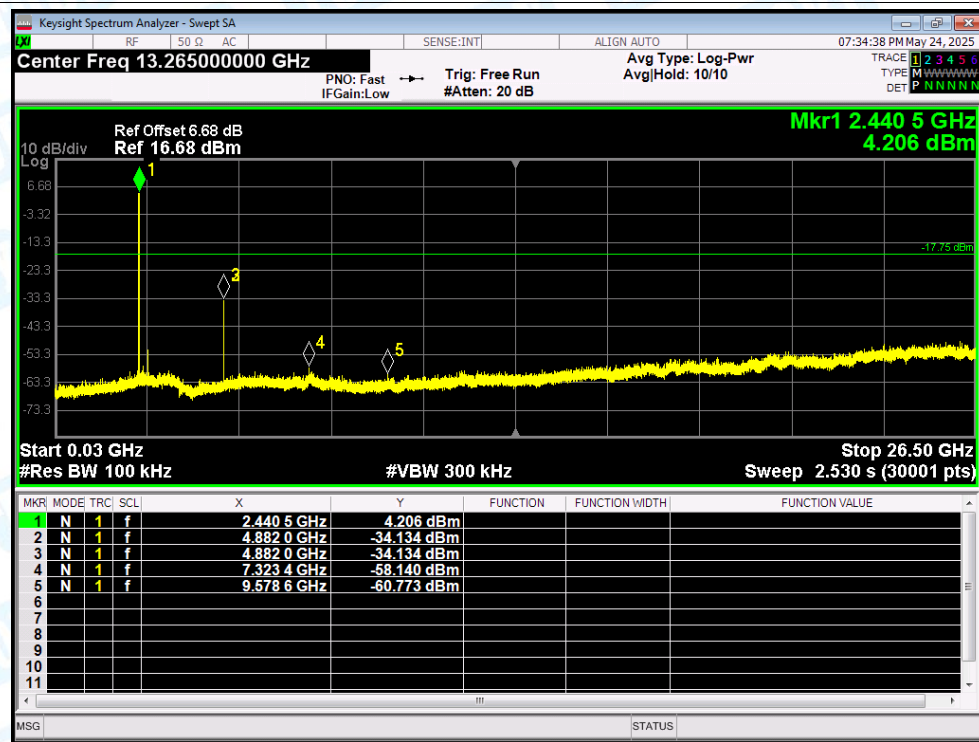
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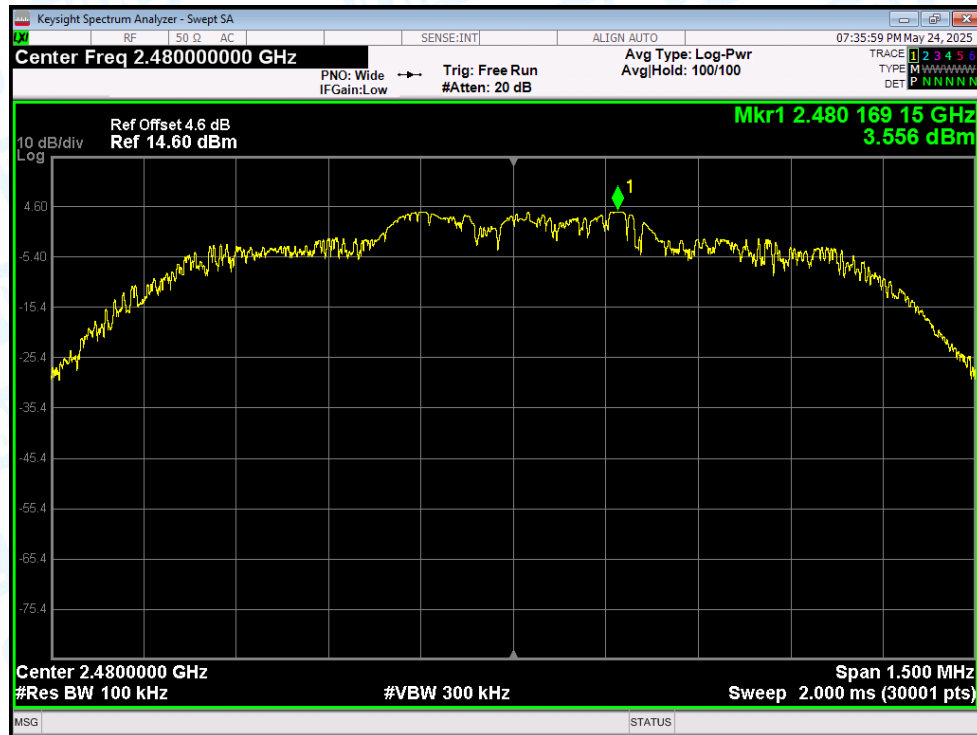
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Ref



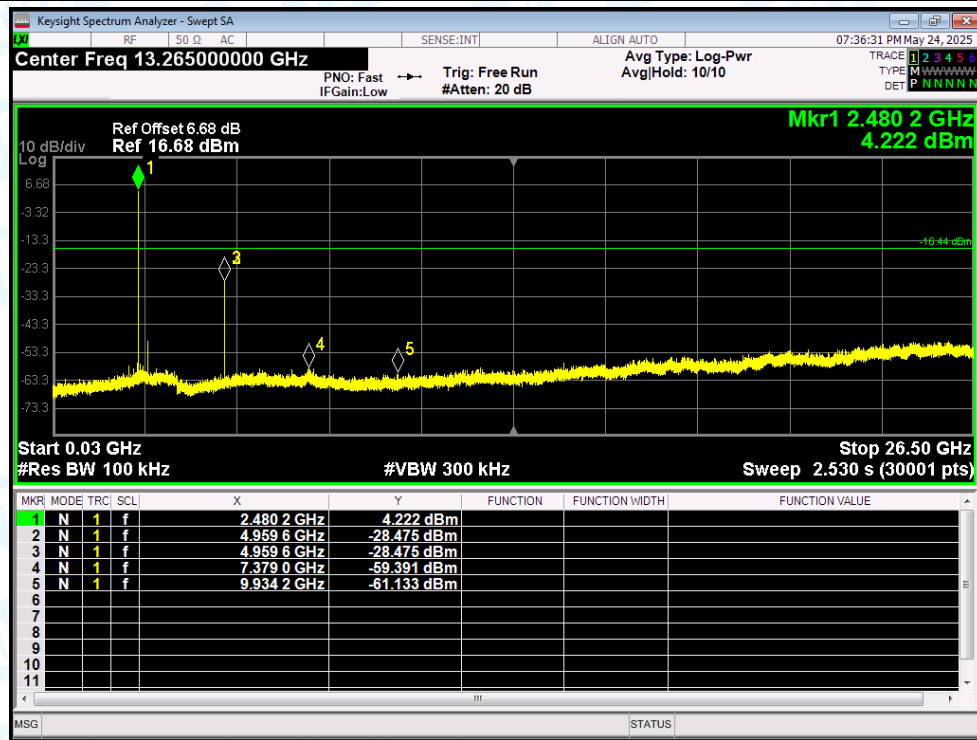
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Emission

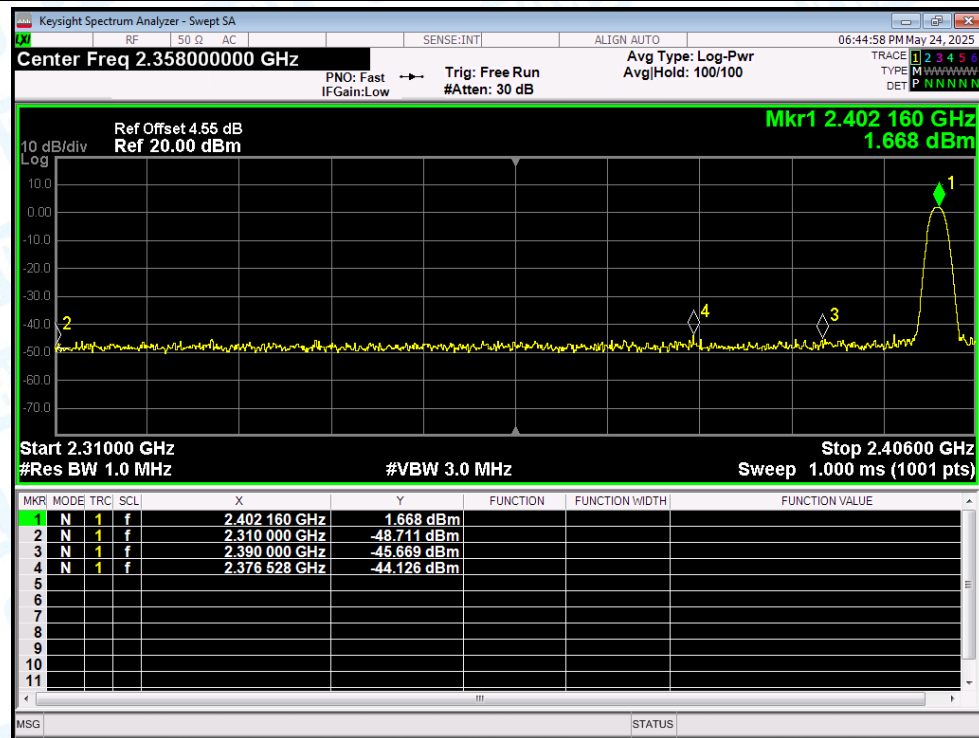


8. Restrict Band

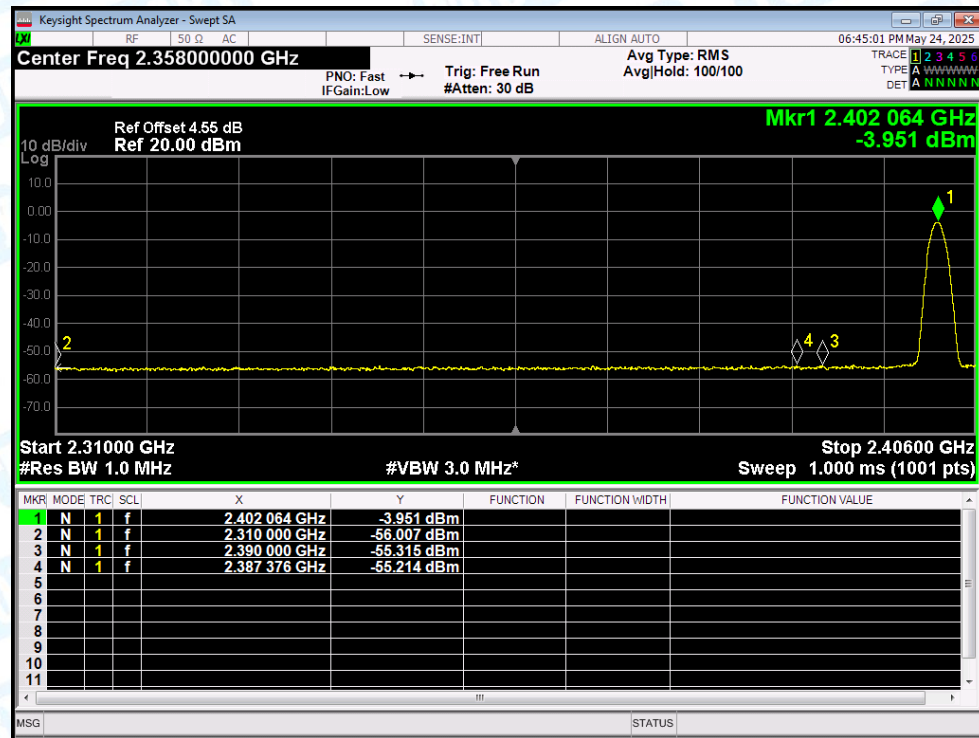
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-48.71	2	-	48.55	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-56.01	2	4.95	46.2	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2376.528	-44.13	2	-	53.13	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2387.376	-55.21	2	4.95	47	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-45.67	2	-	51.59	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-55.32	2	4.95	46.89	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-45.7	2	-	51.56	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-54.12	2	4.95	48.09	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2484.976	-41.29	2	-	55.97	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2484.592	-52.94	2	4.95	49.27	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-44.83	2	-	52.43	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-55.62	2	4.95	46.59	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-47.76	2	-	49.5	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-56.33	2	4.84	45.77	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2367.696	-44.83	2	-	52.43	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2383.344	-55.29	2	4.84	46.81	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-48.09	2	-	49.17	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-55.77	2	4.84	46.33	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-38.58	2	-	58.68	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-54.46	2	4.84	47.64	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.68	-38.51	2	-	58.75	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.992	-53.5	2	4.84	48.6	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-47.68	2	-	49.58	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-55.73	2	4.84	46.37	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-48.36	2	-	48.9	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-56.84	2	4.84	45.26	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2364.624	-45.22	2	-	52.04	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2385.264	-55.27	2	4.84	46.83	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-47.44	2	-	49.82	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-56.28	2	4.84	45.82	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-45.13	2	-	52.13	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-54.4	2	4.84	47.7	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.968	-27.99	2	-	69.27	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.704	-48.83	2	4.84	53.27	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-46.51	2	-	50.75	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-55.38	2	4.84	46.72	Average	54	Pass

Test Graphs

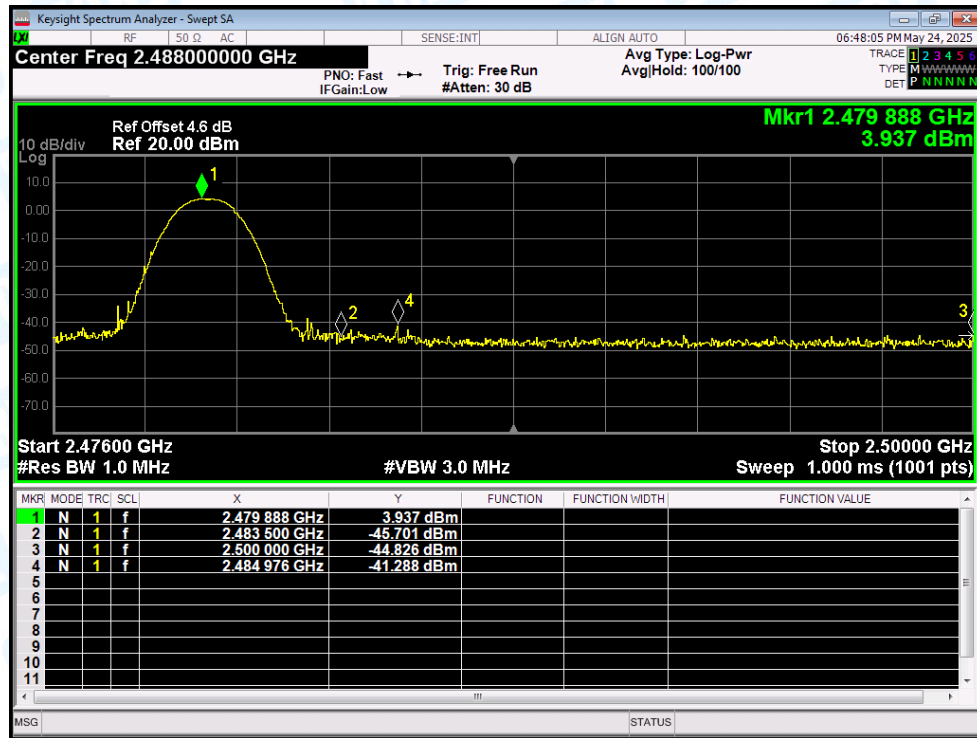
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Peak



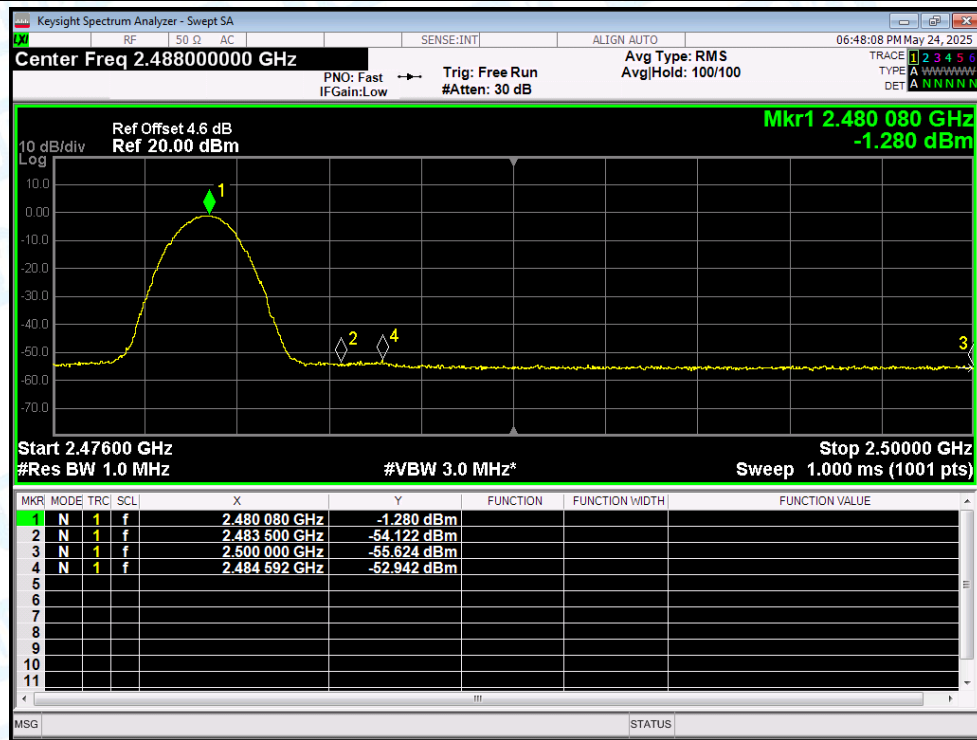
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Average



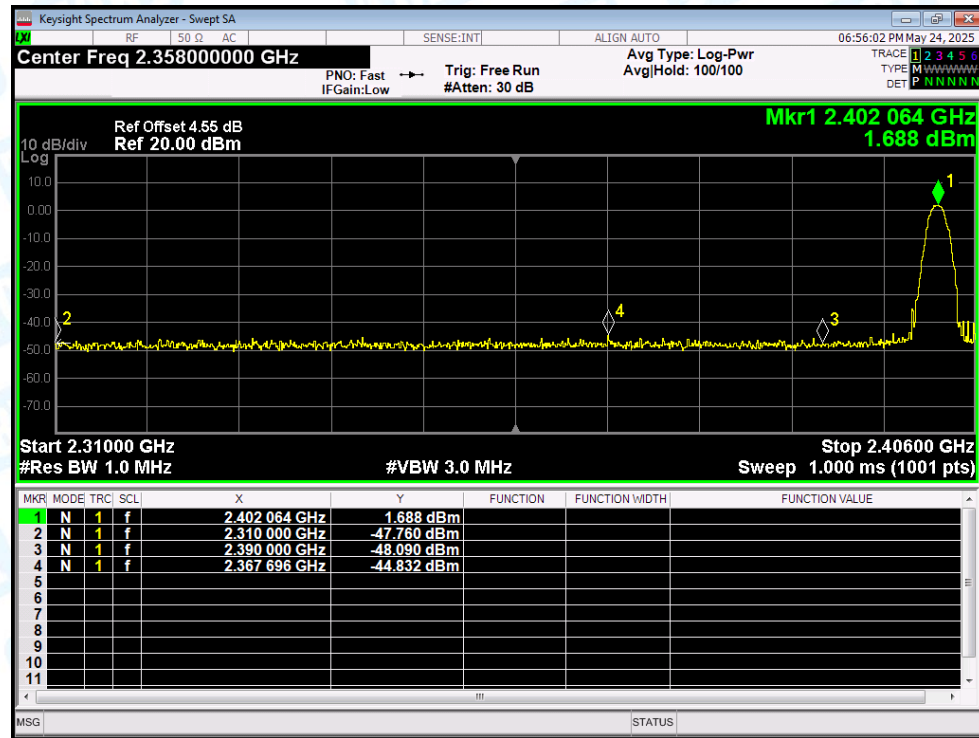
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Peak



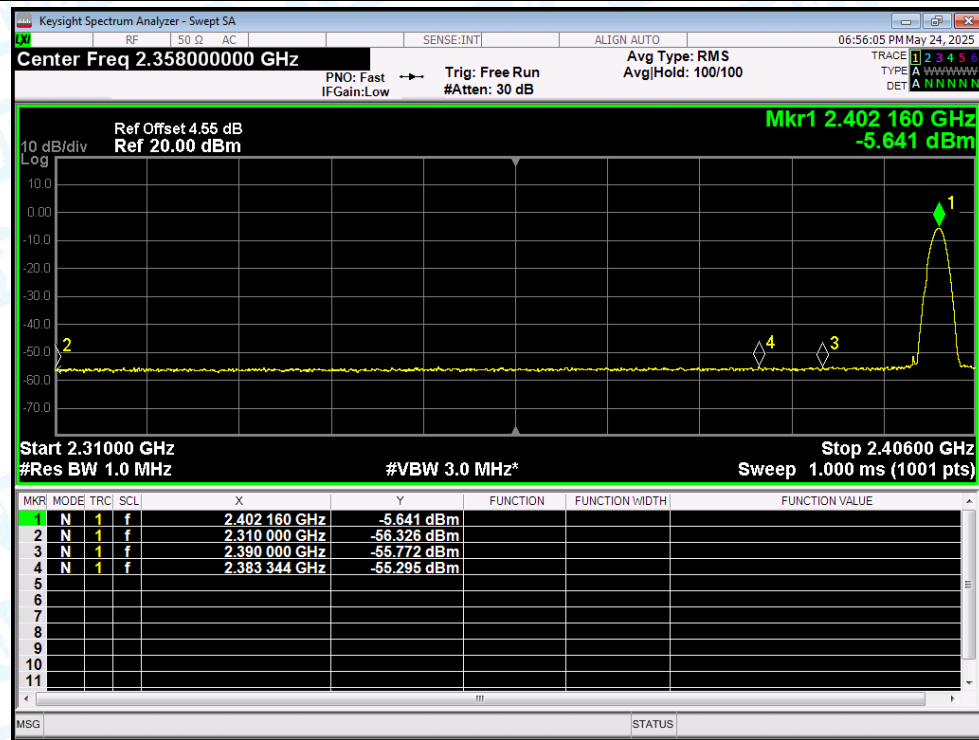
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Average



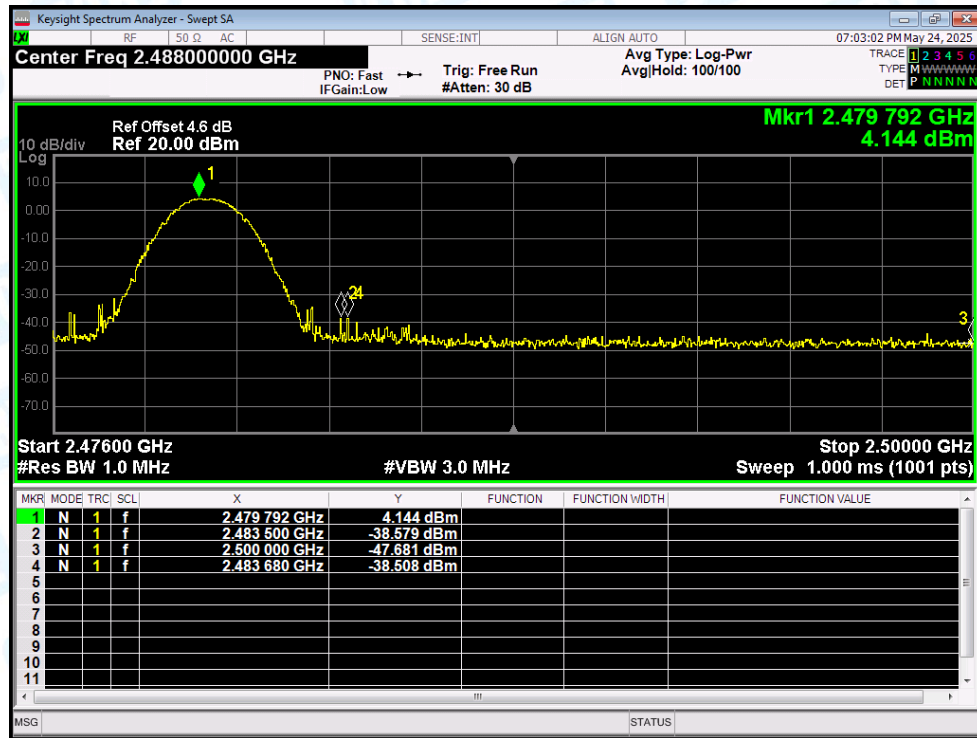
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Peak



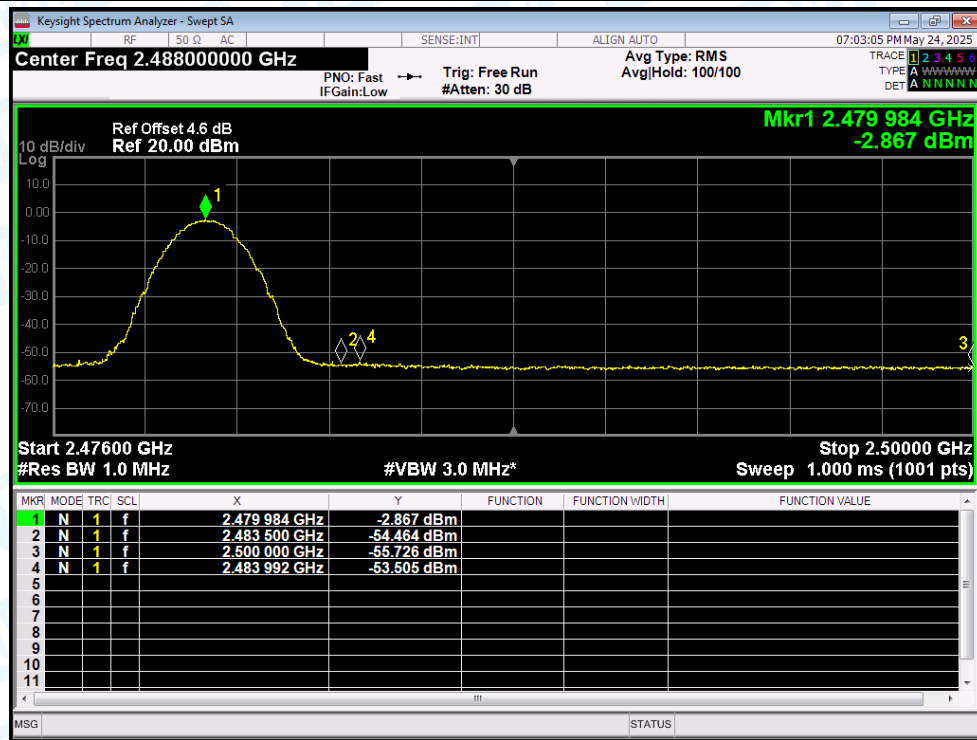
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Average



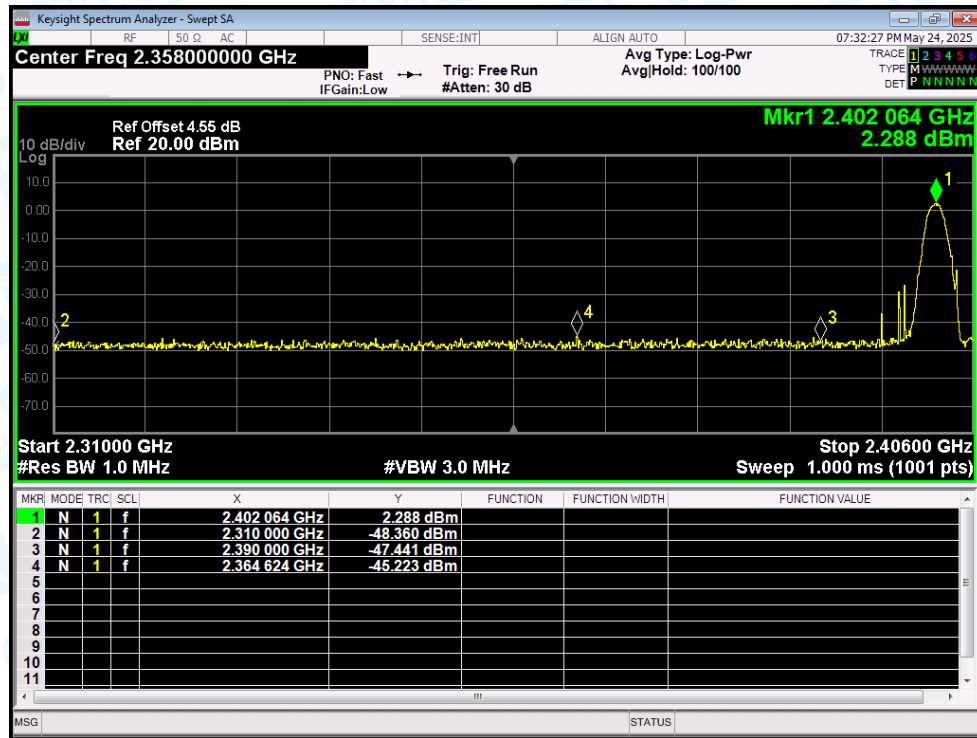
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Peak



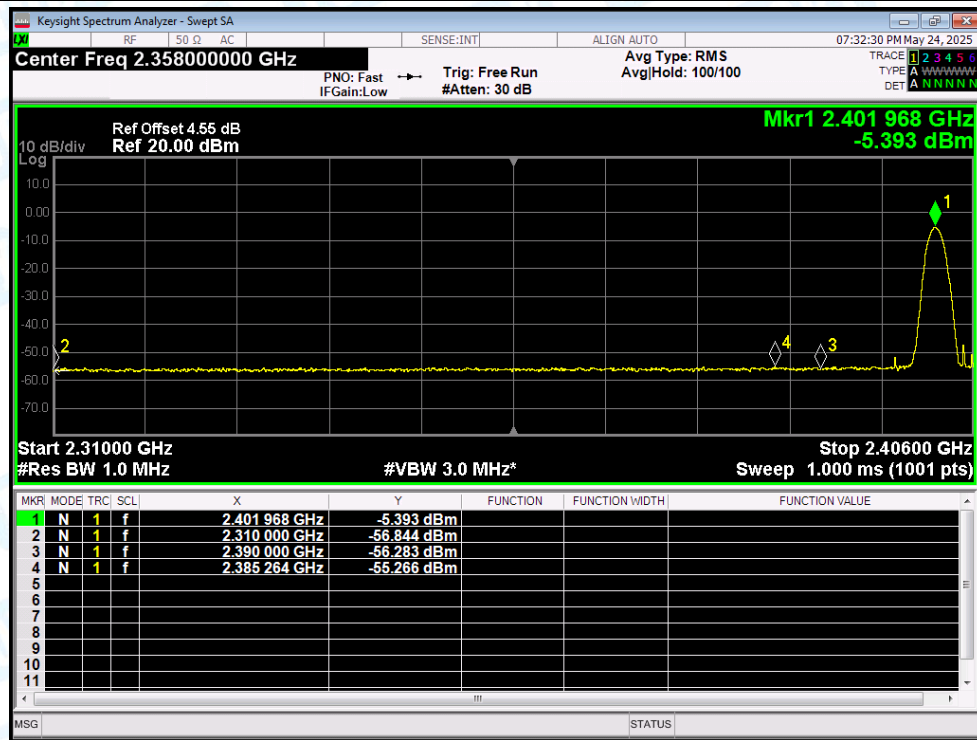
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Average



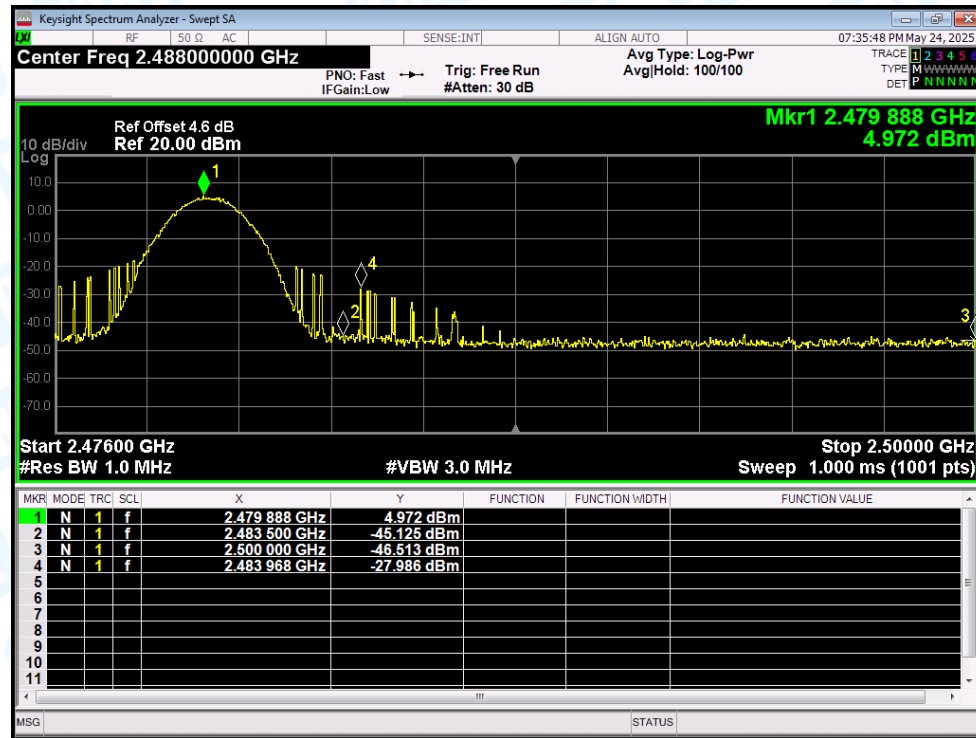
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Peak



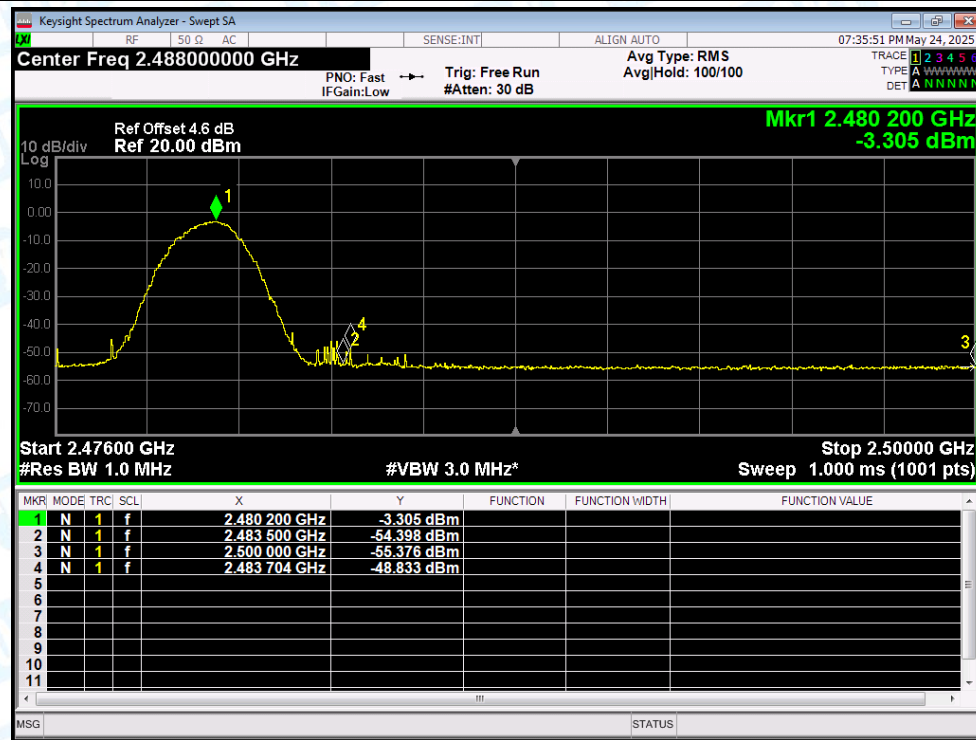
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Average



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



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



9. Carrier Frequencies Separation

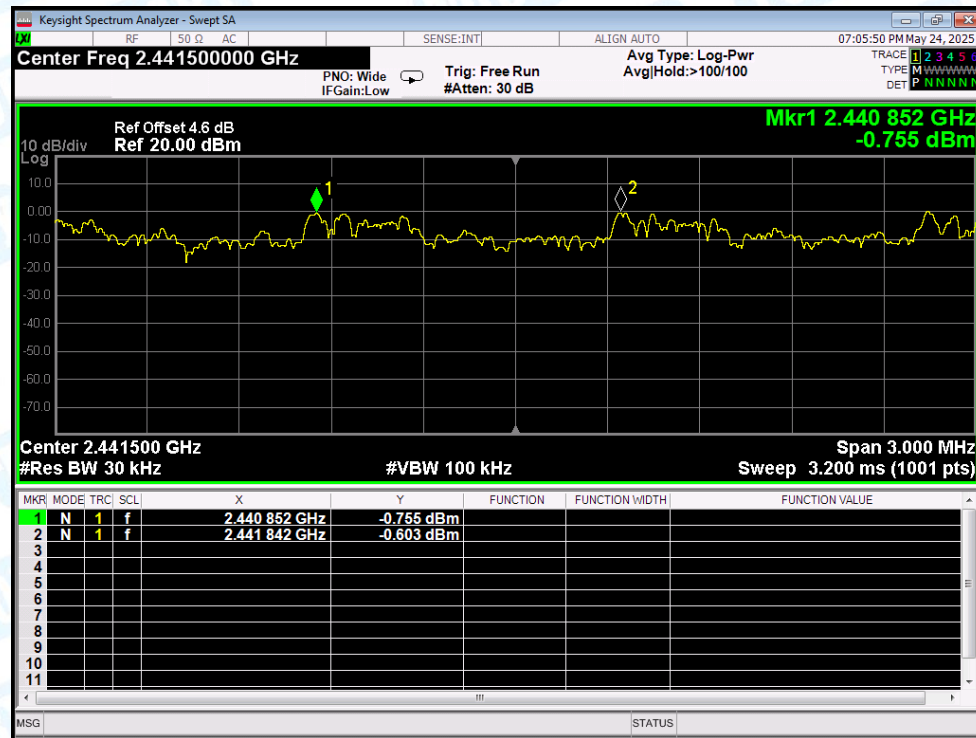
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH1	Ant1	2440.849	2441.845	0.996	0.587	Pass
NVNT	2-DH1	Ant1	2440.852	2441.842	0.99	0.833	Pass
NVNT	3-DH1	Ant1	2440.84	2441.86	1.02	0.827	Pass

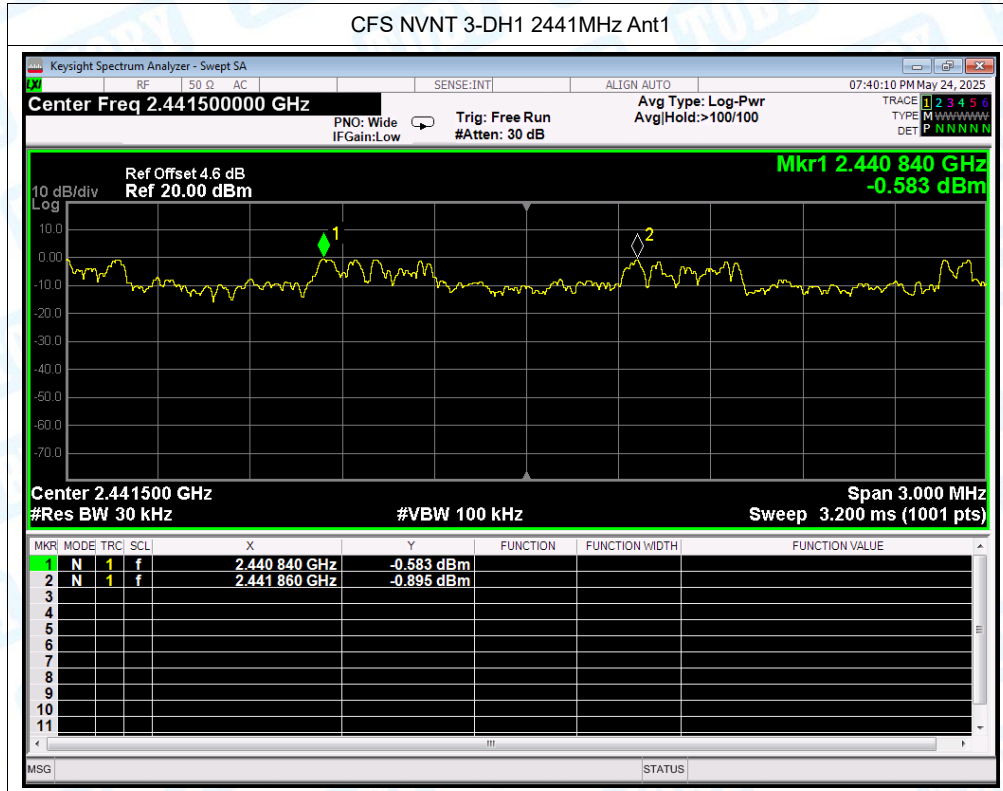
Test Graphs

CFS NVNT 1-DH1 2441MHz Ant1



CFS NVNT 2-DH1 2441MHz Ant1



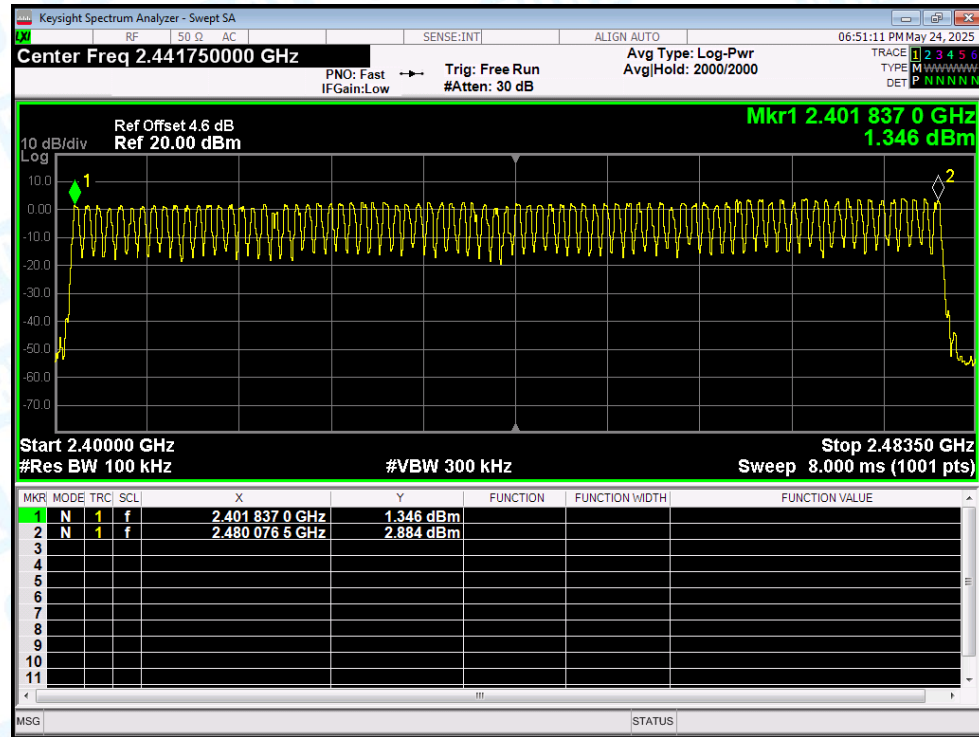


10. Number of Hopping Channel

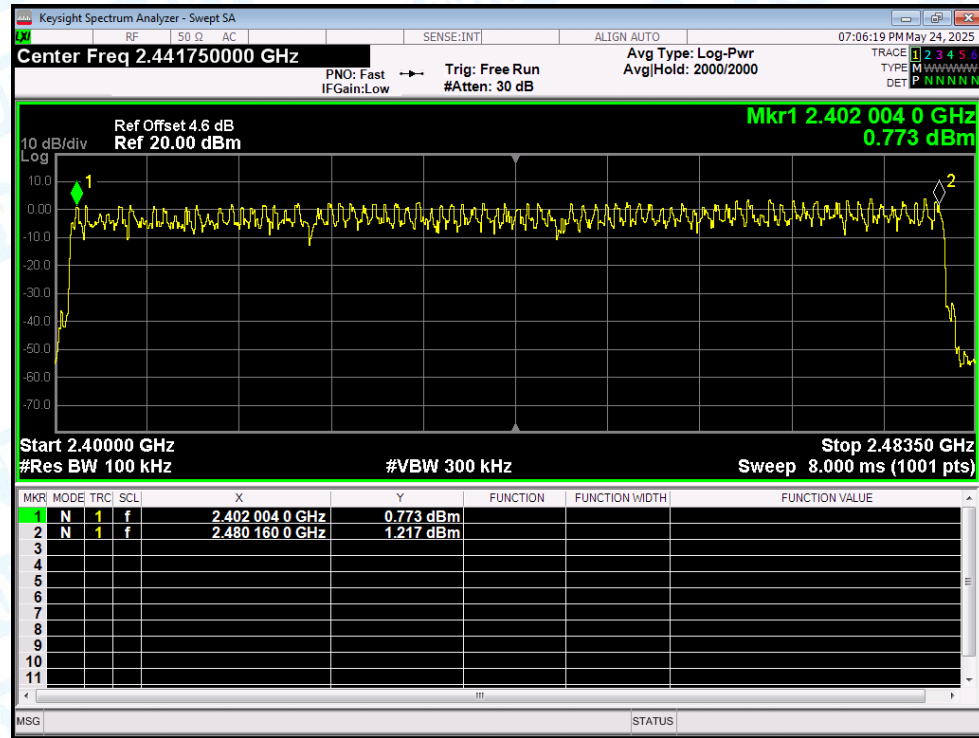
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH1	Ant1	79	15	Pass
NVNT	2-DH1	Ant1	79	15	Pass
NVNT	3-DH1	Ant1	79	15	Pass

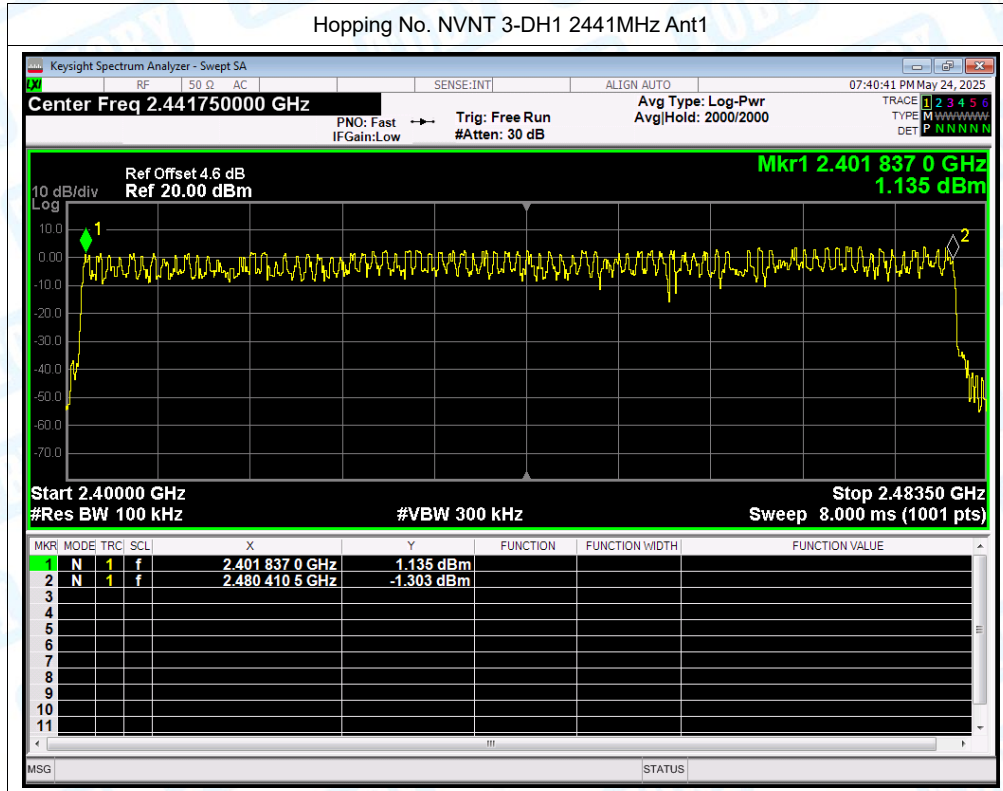
Test Graphs

Hopping No. NVNT 1-DH1 2441MHz Ant1



Hopping No. NVNT 2-DH1 2441MHz Ant1



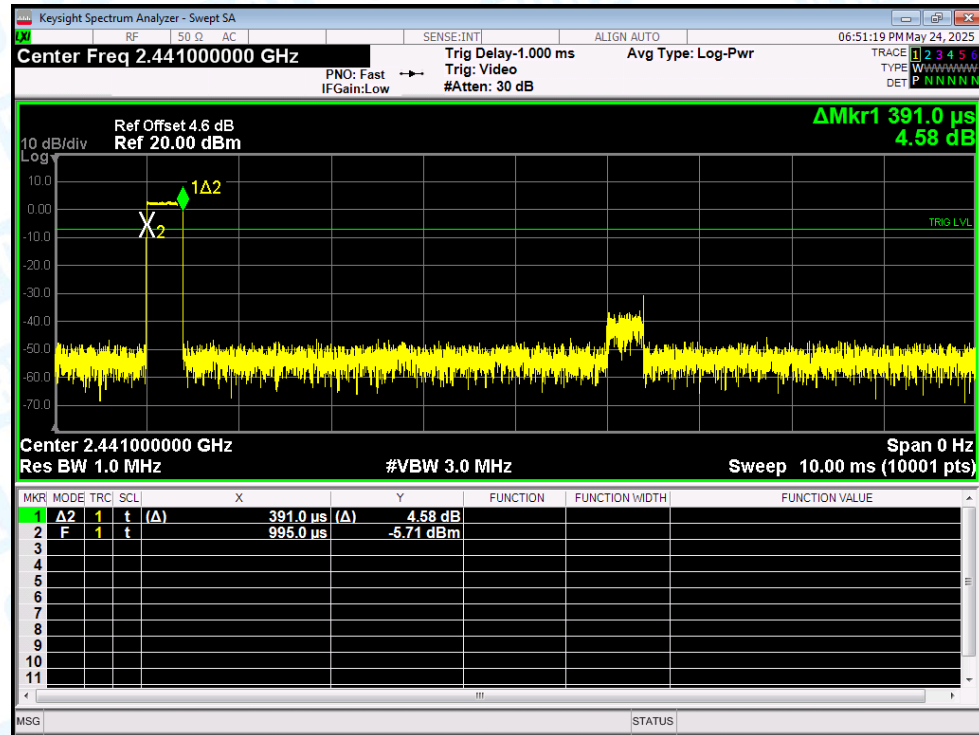


11. Dwell Time

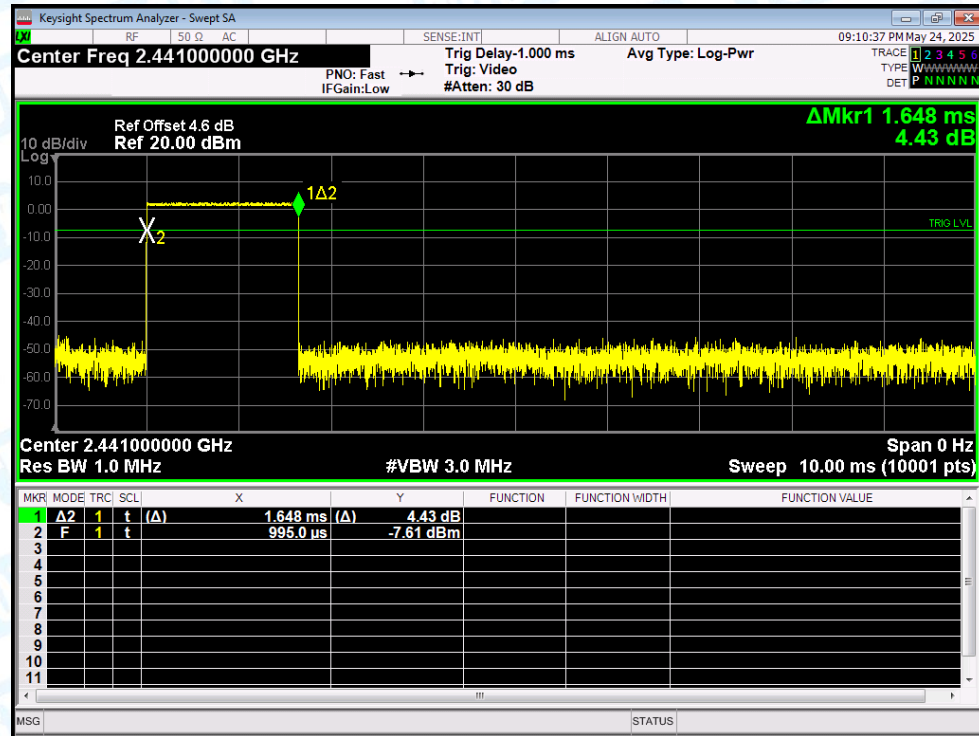
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	Ant1	0.391	125.12	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.648	263.68	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.896	308.907	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.401	128.32	31600	400	Pass
NVNT	2-DH3	2441	Ant1	1.653	264.48	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.901	309.44	31600	400	Pass
NVNT	3-DH1	2441	Ant1	0.401	128.32	31600	400	Pass
NVNT	3-DH3	2441	Ant1	1.652	264.32	31600	400	Pass
NVNT	3-DH5	2441	Ant1	2.903	309.653	31600	400	Pass

Test Graphs

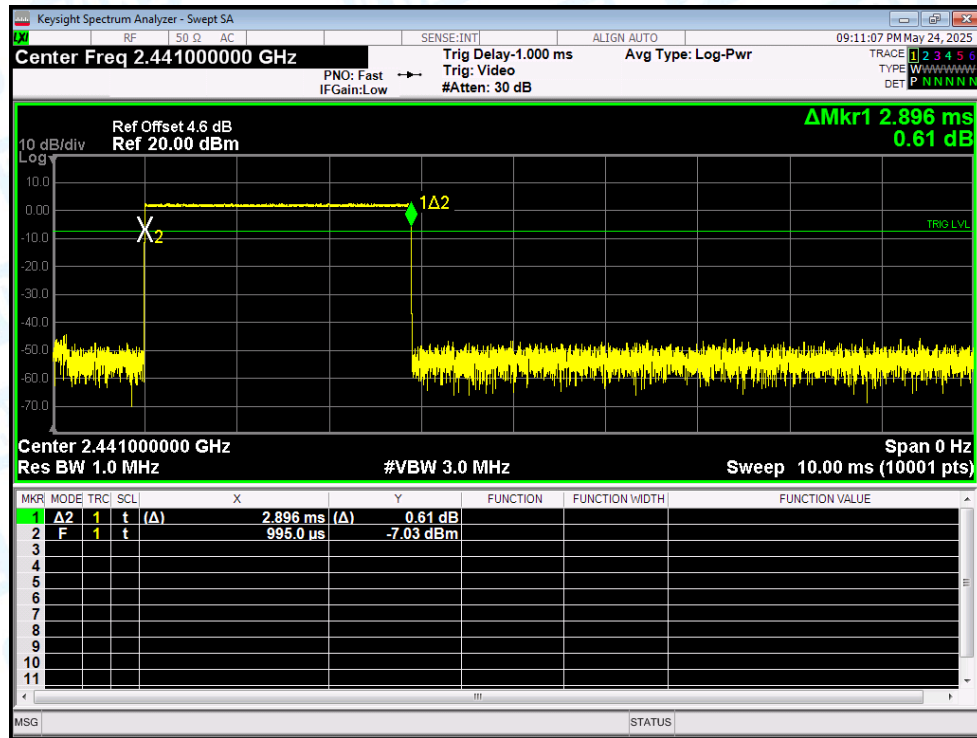
Dwell NVNT 1-DH1 2441MHz Ant1



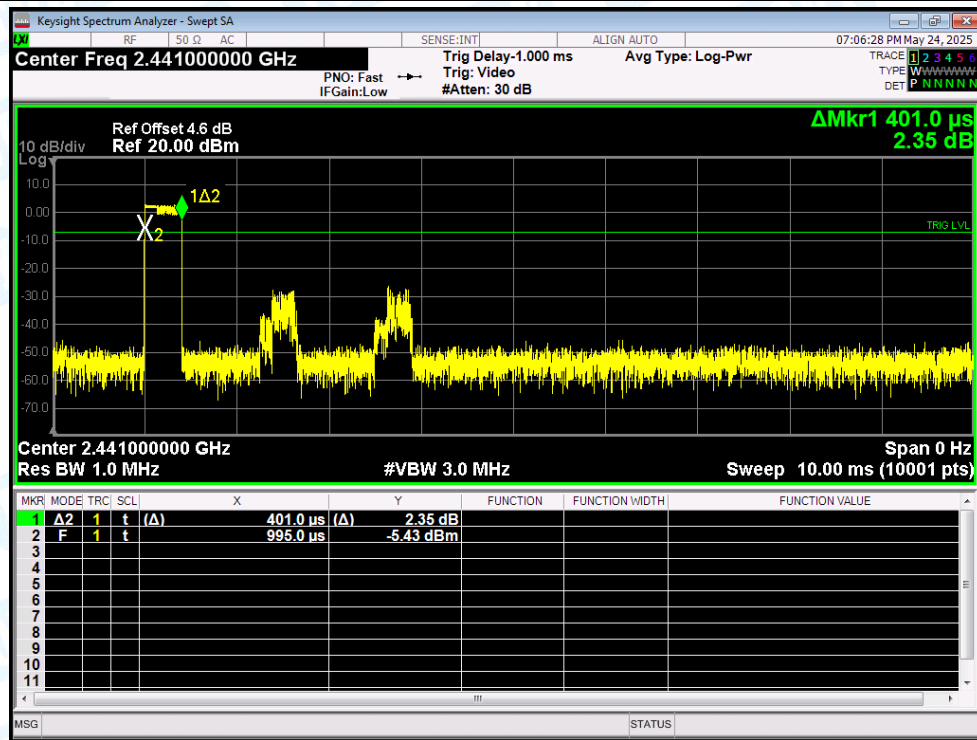
Dwell NVNT 1-DH3 2441MHz Ant1



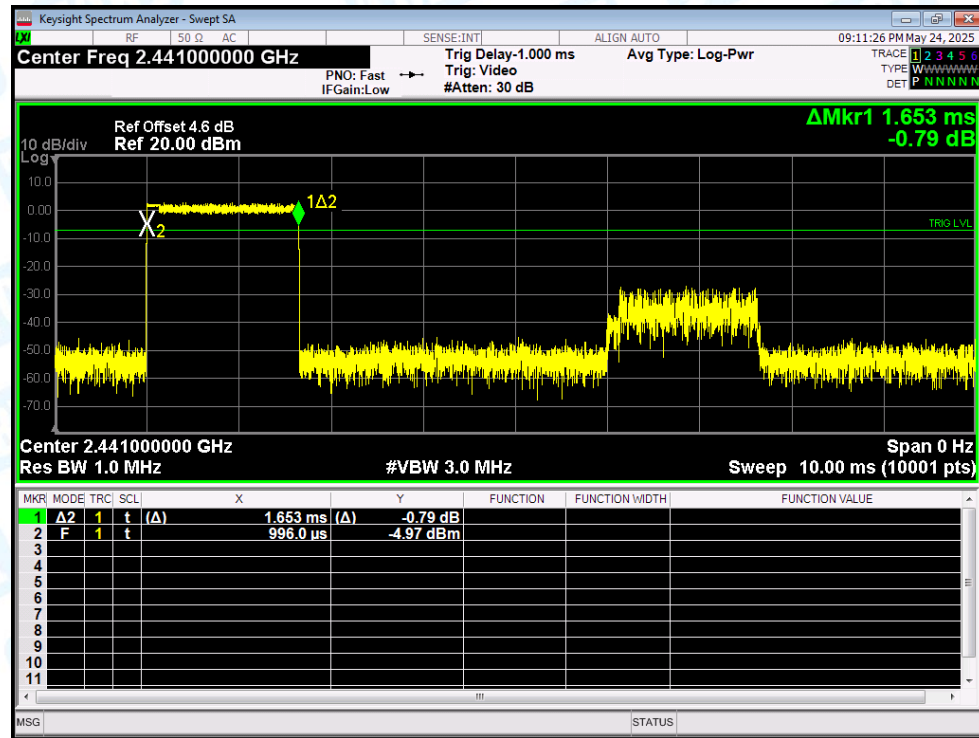
Dwell NVNT 1-DH5 2441MHz Ant1



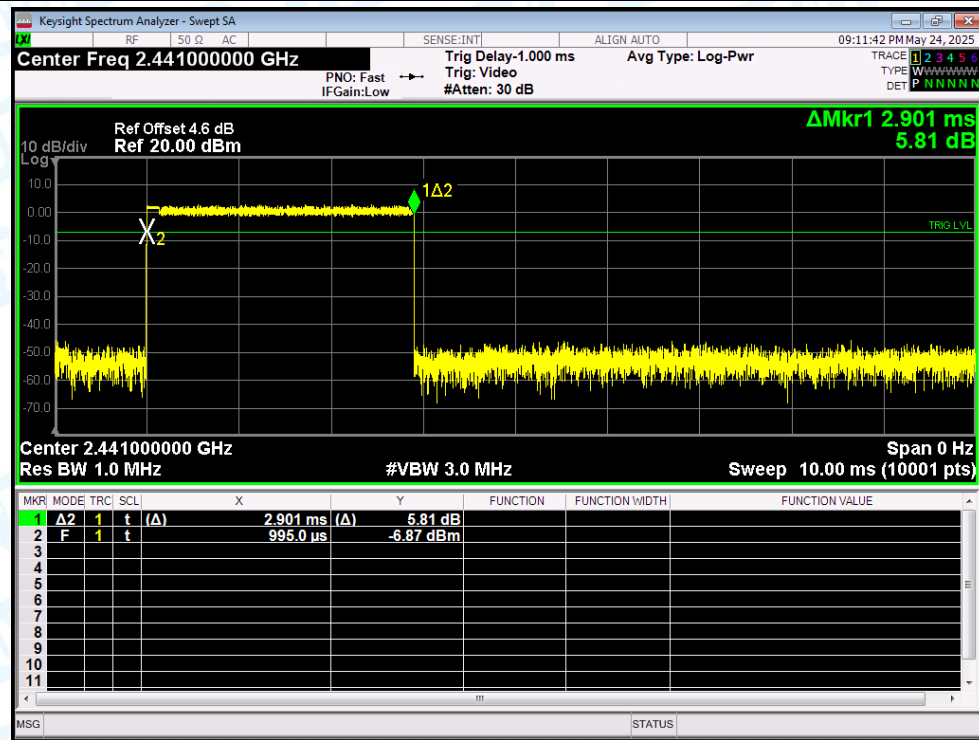
Dwell NVNT 2-DH1 2441MHz Ant1



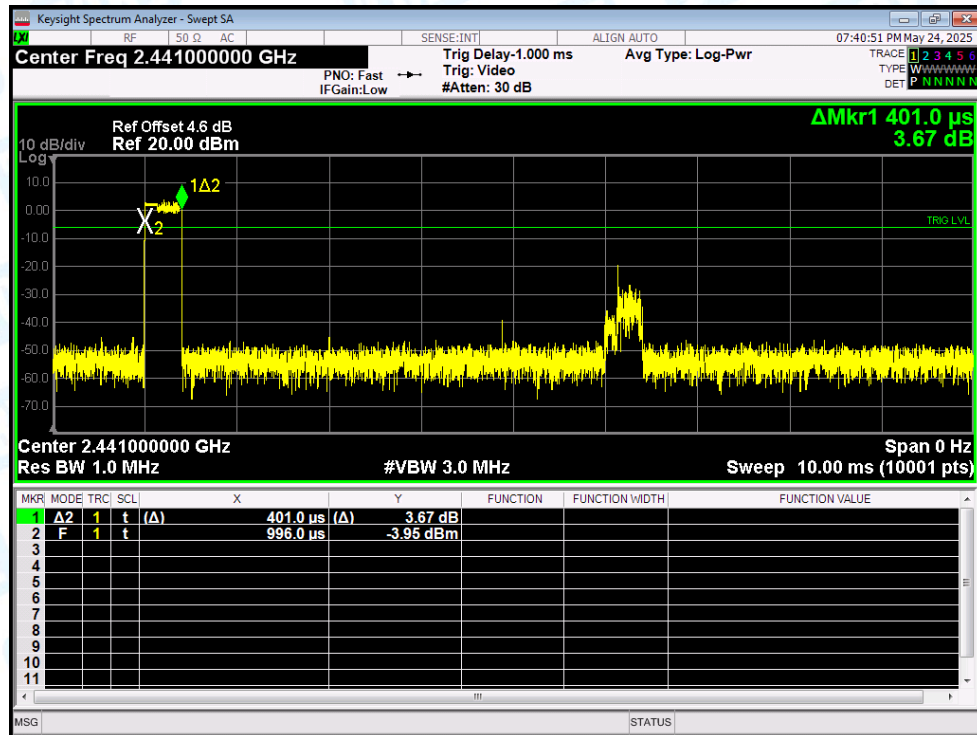
Dwell NVNT 2-DH3 2441MHz Ant1



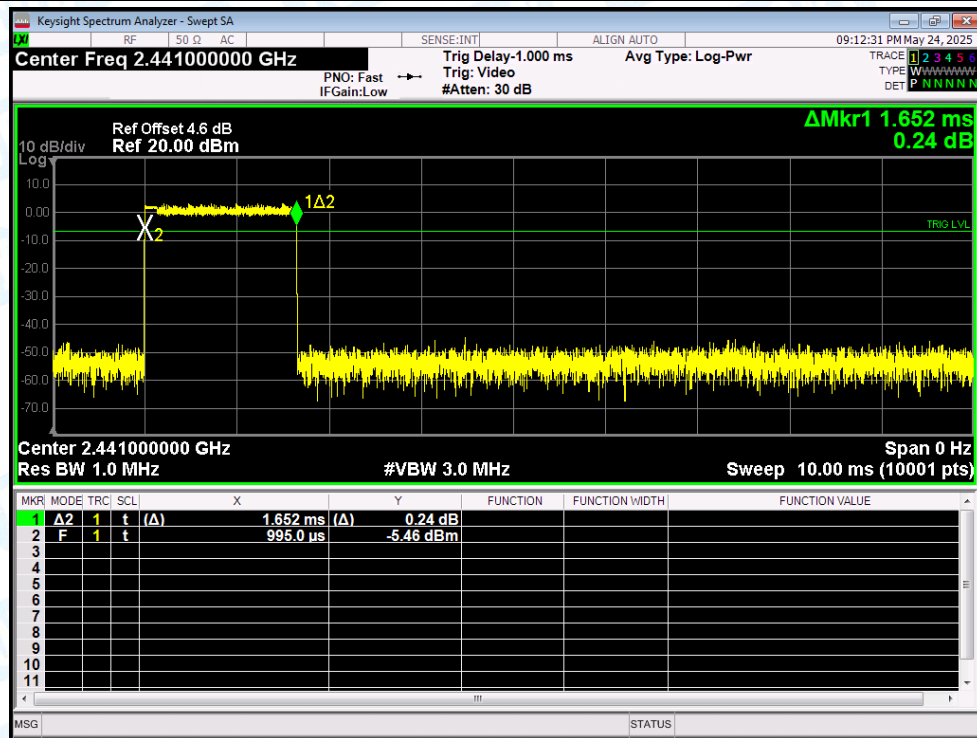
Dwell NVNT 2-DH5 2441MHz Ant1

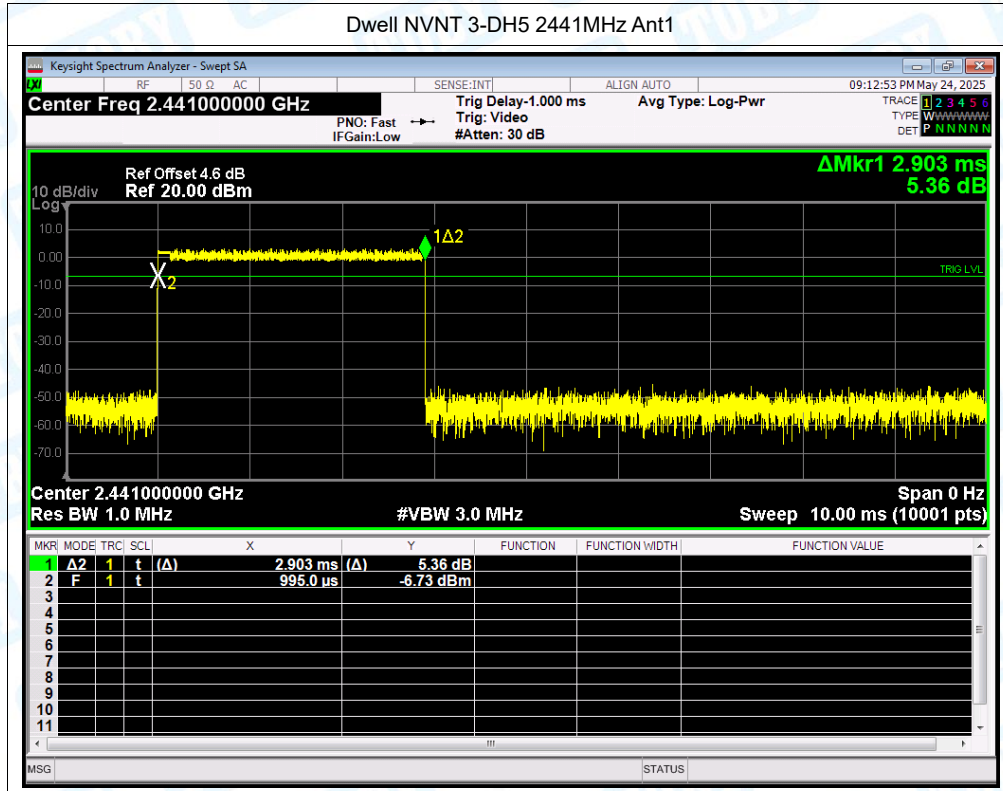


Dwell NVNT 3-DH1 2441MHz Ant1



Dwell NVNT 3-DH3 2441MHz Ant1





--- END OF REPORT ---