

RF Test Data for Bluetooth (Conducted Measurements)

General Description of EUT	
Product Name:	PuppyGo3 AI Dog
Test Model:	D05E
Sample ID:	HC-C-202404-0185-01-01
Environmental Conditions	
Temperature:	24.5℃
Relative Humidity:	51.2%
Test Voltage:	DC 3.7V
Test Engineer:	Jolin Lee
Note: For a more detailed features description, please refer to the report TBR-C-202404-0185-8 The report only show the worst case data.	

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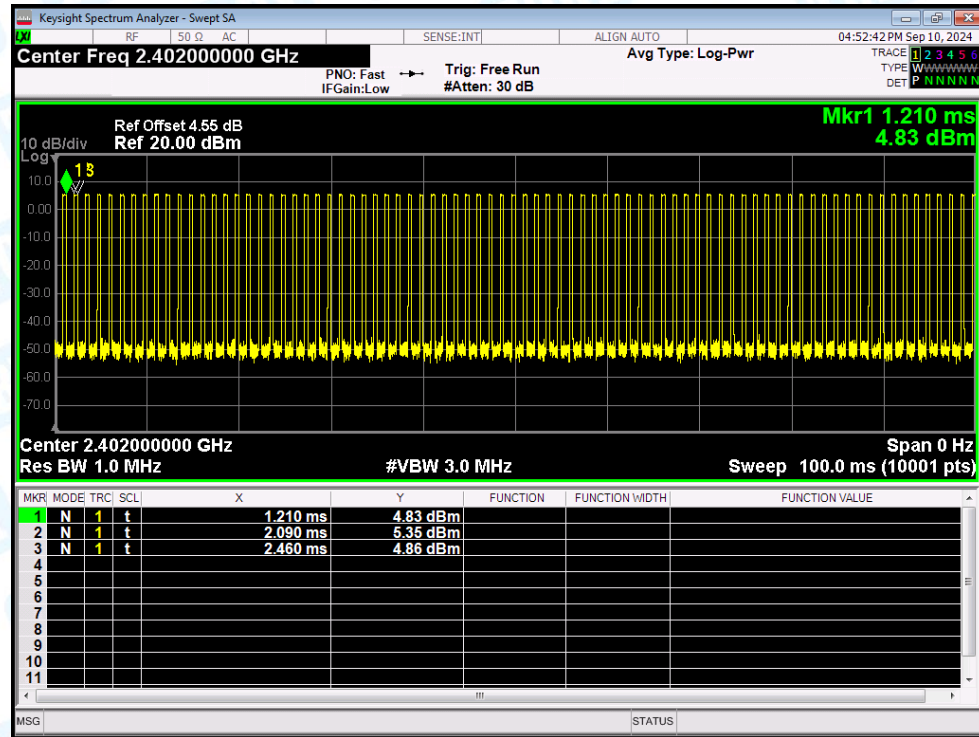
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1. Duty Cycle

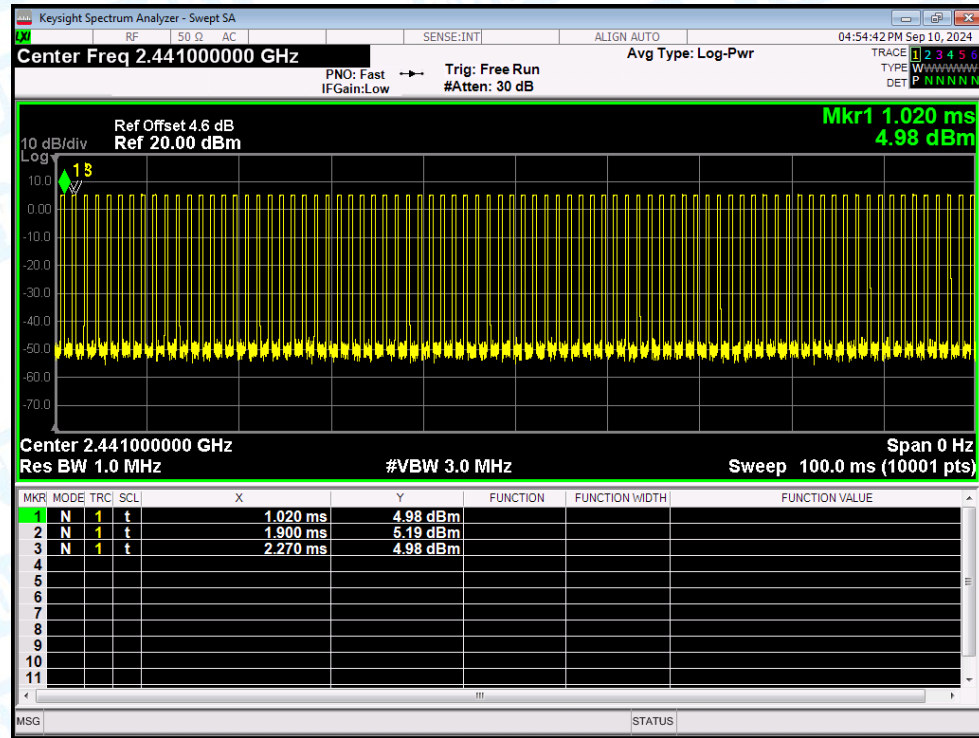
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH1	2402	Ant1	29.6	5.29	2.7
NVNT	1-DH1	2441	Ant1	29.6	5.29	2.7
NVNT	1-DH1	2480	Ant1	30.4	5.17	2.63
NVNT	2-DH1	2402	Ant1	30.4	5.17	2.63
NVNT	2-DH1	2441	Ant1	30.4	5.17	2.63
NVNT	2-DH1	2480	Ant1	31.2	5.06	2.56
NVNT	3-DH1	2402	Ant1	30.4	5.17	2.63
NVNT	3-DH1	2441	Ant1	31.2	5.06	2.56
NVNT	3-DH1	2480	Ant1	30.4	5.17	2.63

Test Graphs

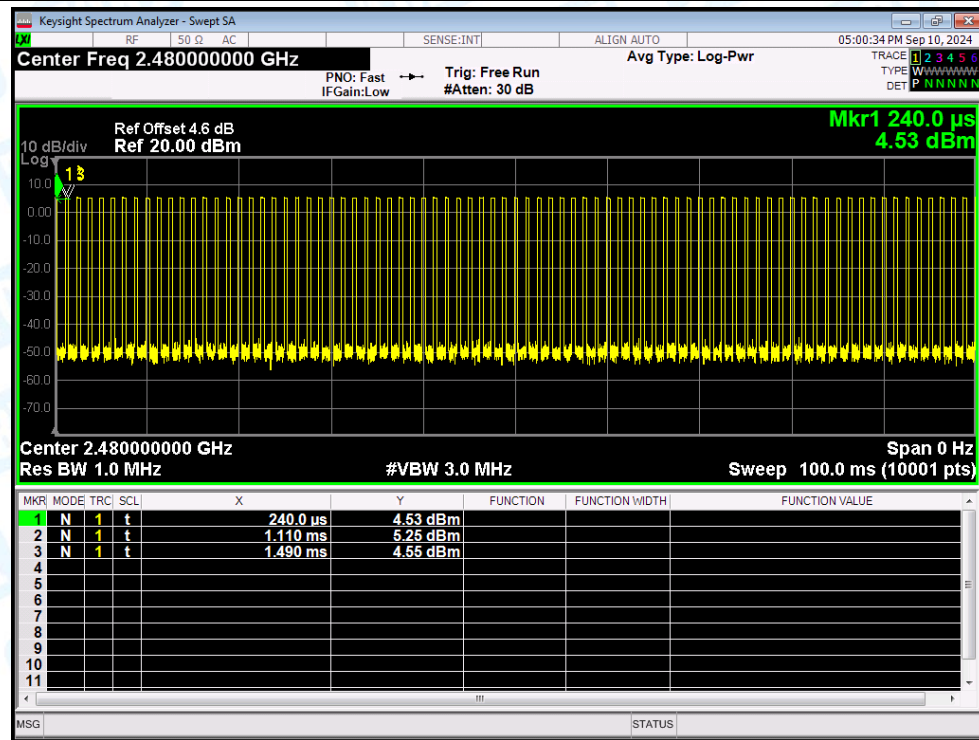
Duty Cycle NVNT 1-DH1 2402MHz Ant1



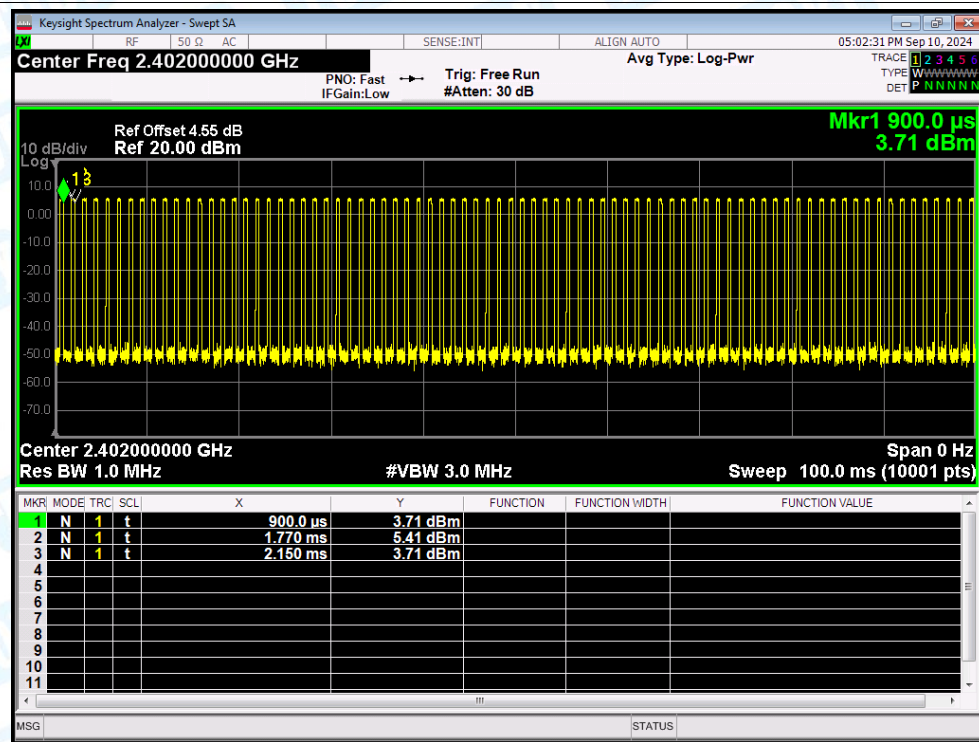
Duty Cycle NVNT 1-DH1 2441MHz Ant1



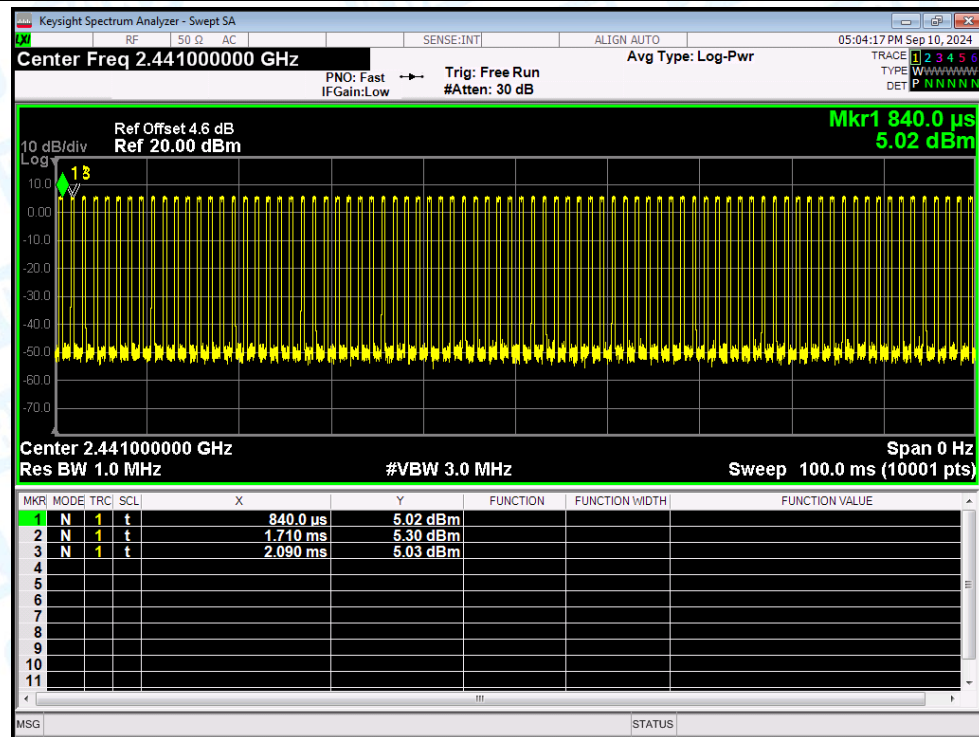
Duty Cycle NVNT 1-DH1 2480MHz Ant1



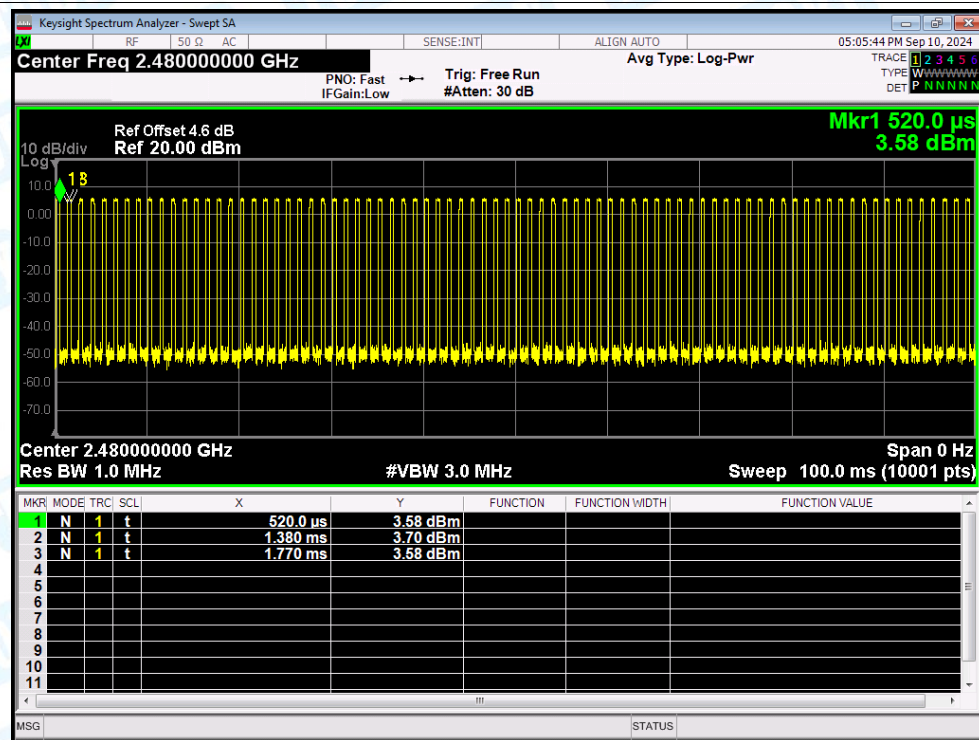
Duty Cycle NVNT 2-DH1 2402MHz Ant1



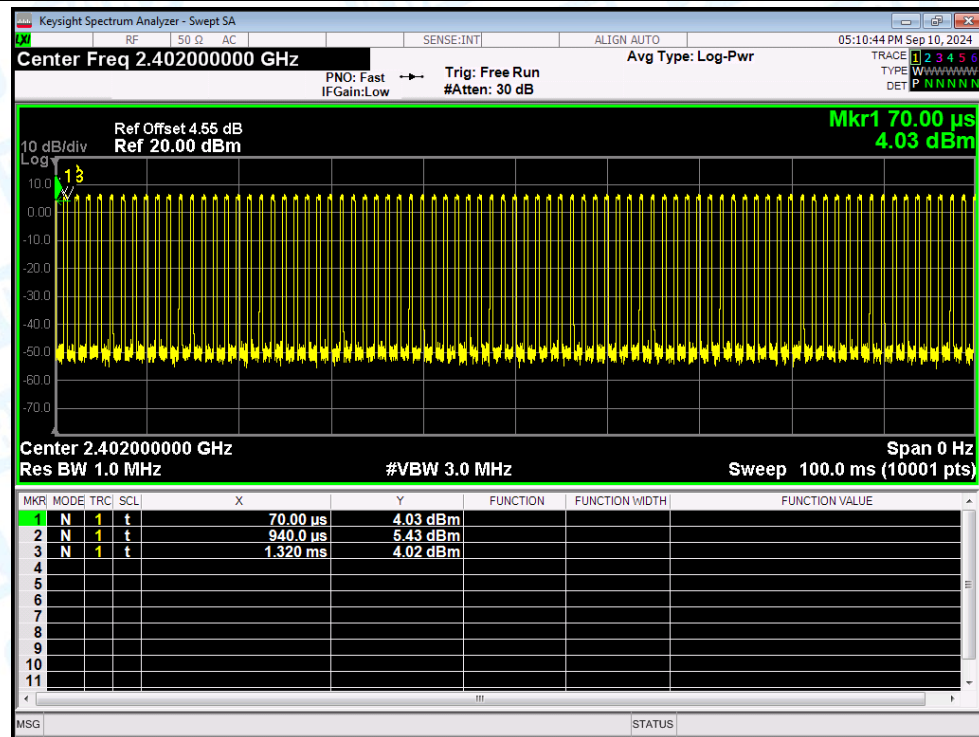
Duty Cycle NVNT 2-DH1 2441MHz Ant1



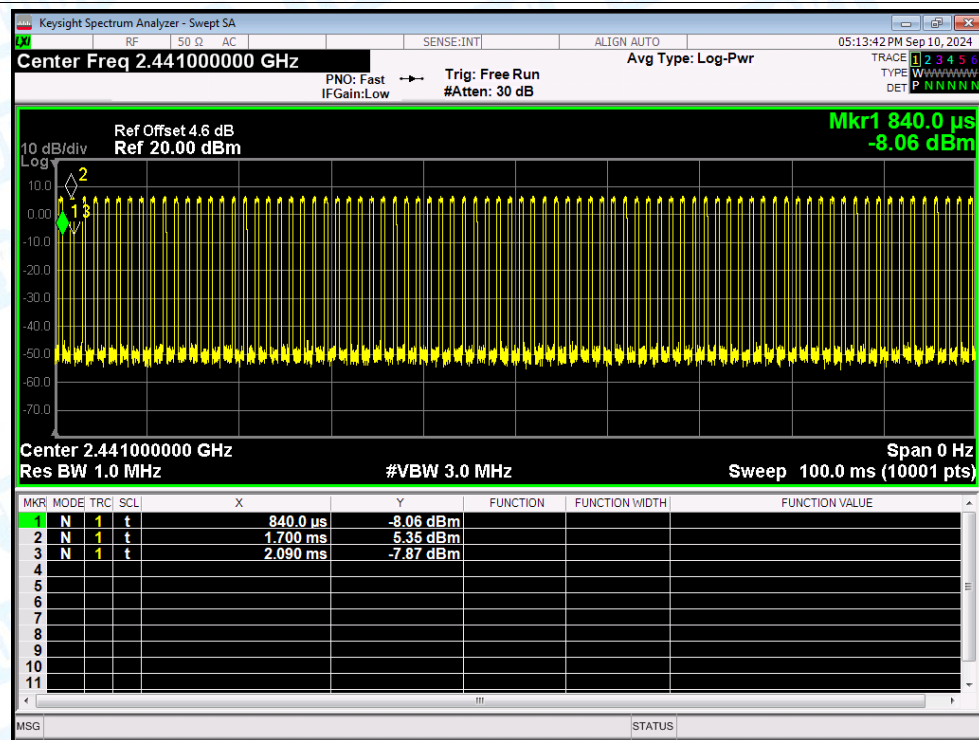
Duty Cycle NVNT 2-DH1 2480MHz Ant1

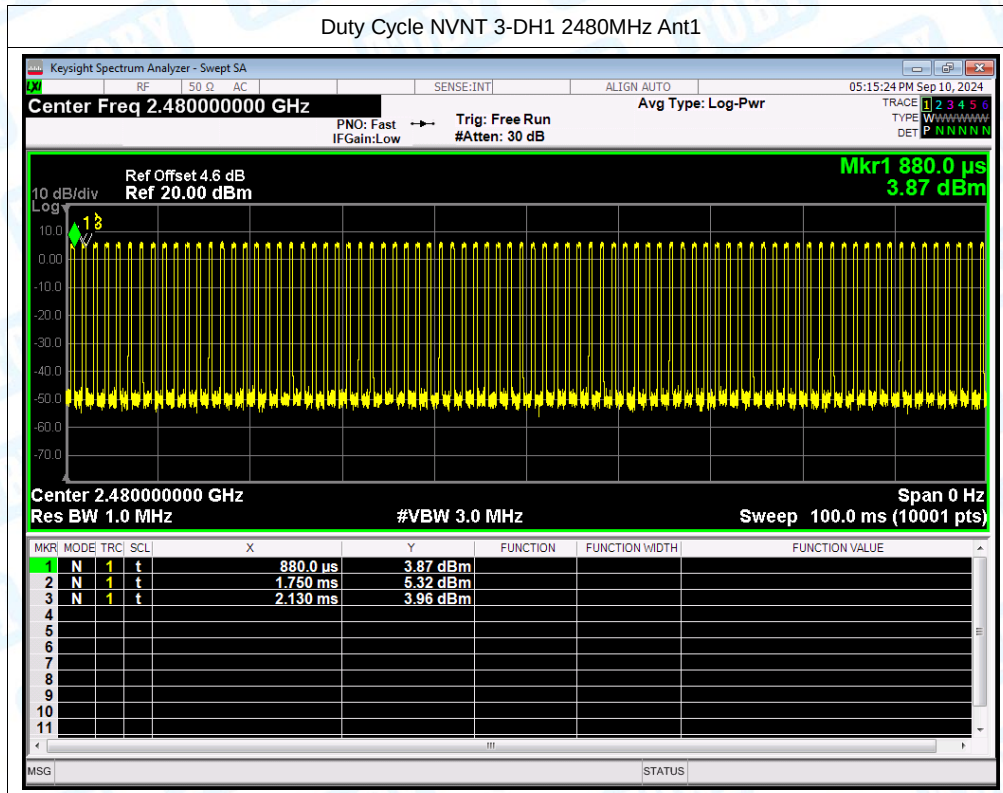


Duty Cycle NVNT 3-DH1 2402MHz Ant1



Duty Cycle NVNT 3-DH1 2441MHz Ant1



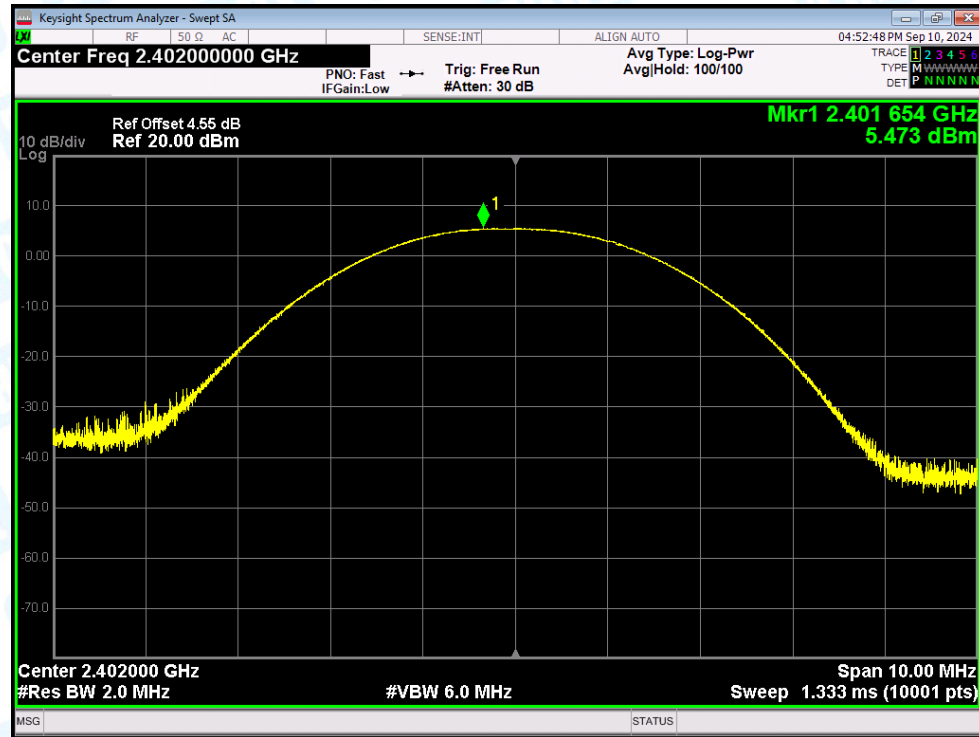


2. Maximum Conducted Output Power

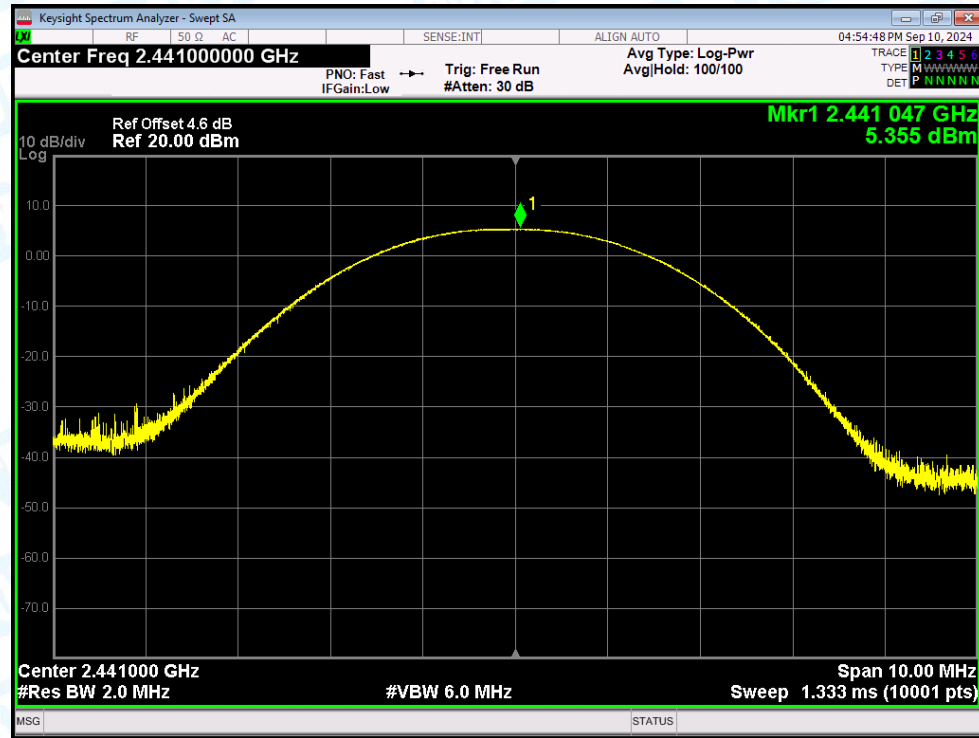
Condition	Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	5.473	21	Pass
NVNT	1-DH1	2441	Ant1	5.355	21	Pass
NVNT	1-DH1	2480	Ant1	5.389	21	Pass
NVNT	2-DH1	2402	Ant1	6.404	21	Pass
NVNT	2-DH1	2441	Ant1	6.213	21	Pass
NVNT	2-DH1	2480	Ant1	6.248	21	Pass
NVNT	3-DH1	2402	Ant1	6.845	21	Pass
NVNT	3-DH1	2441	Ant1	6.699	21	Pass
NVNT	3-DH1	2480	Ant1	6.691	21	Pass

Test Graphs

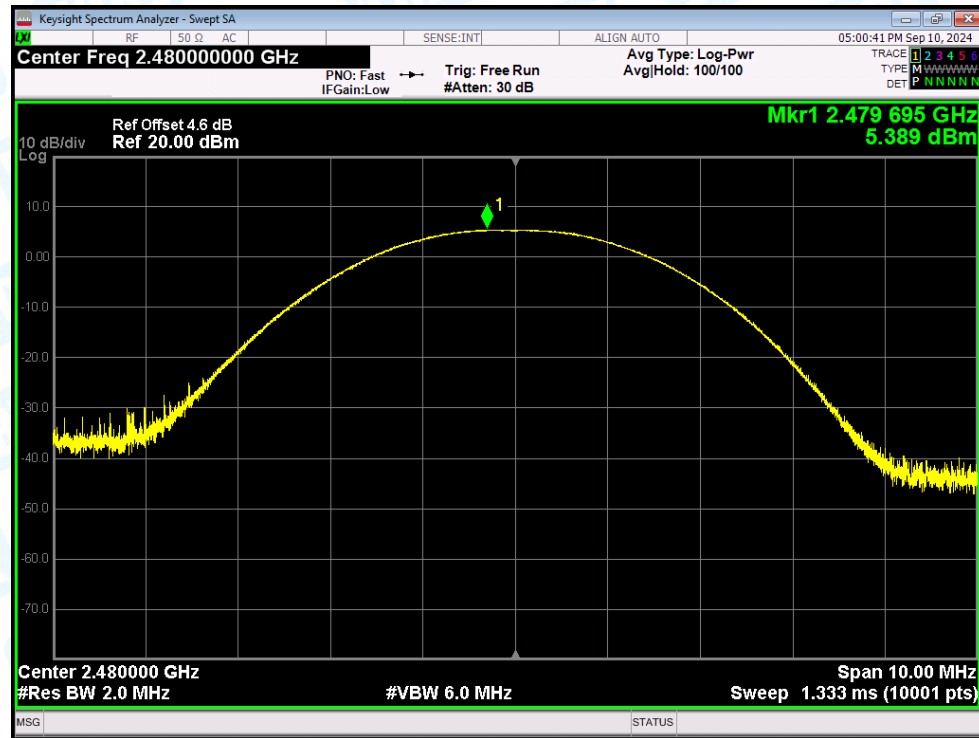
Power NVNT 1-DH1 2402MHz Ant1



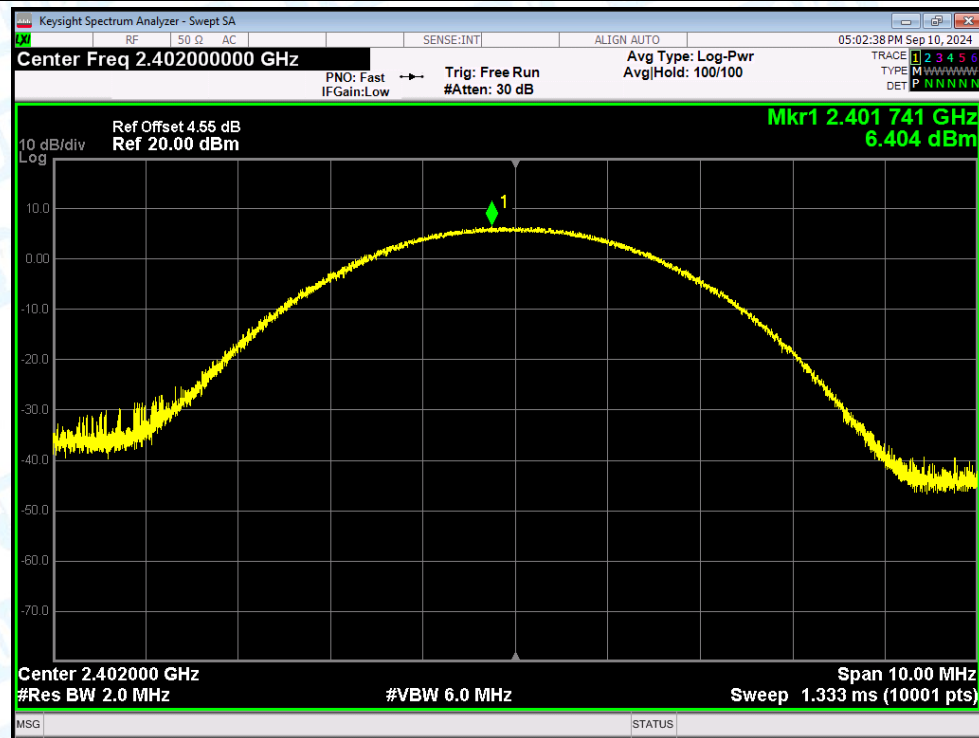
Power NVNT 1-DH1 2441MHz Ant1



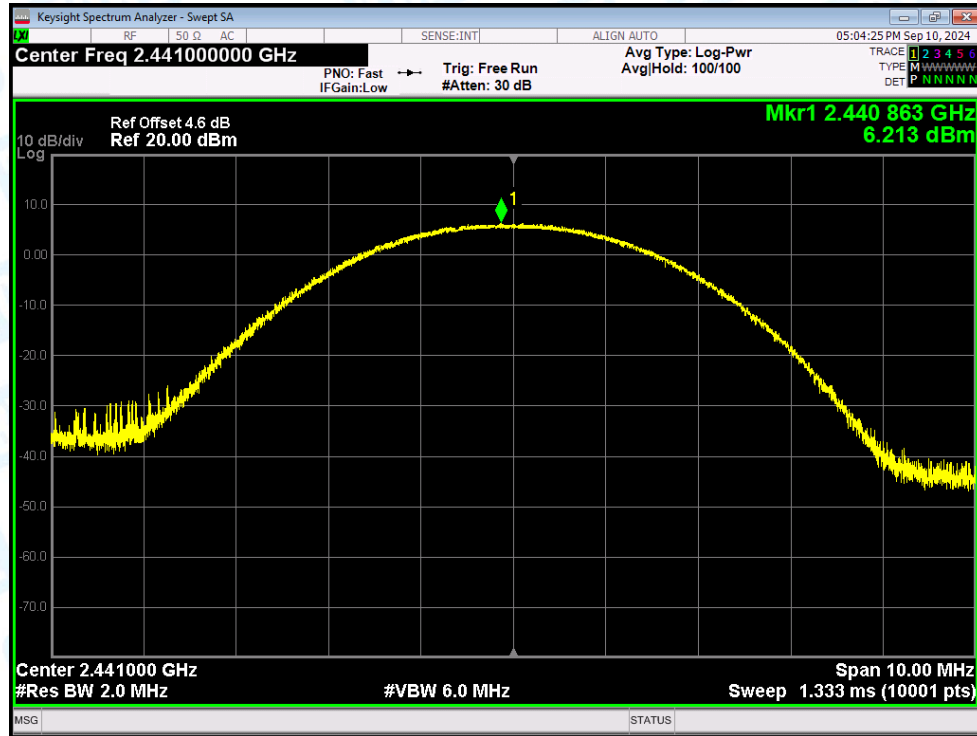
Power NVNT 1-DH1 2480MHz Ant1



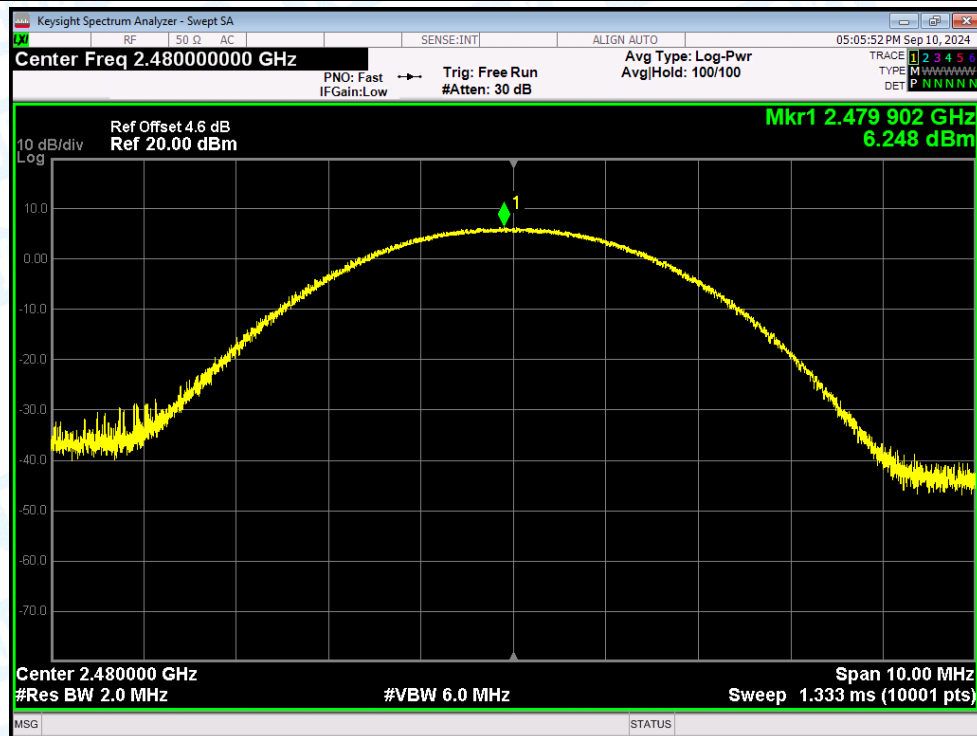
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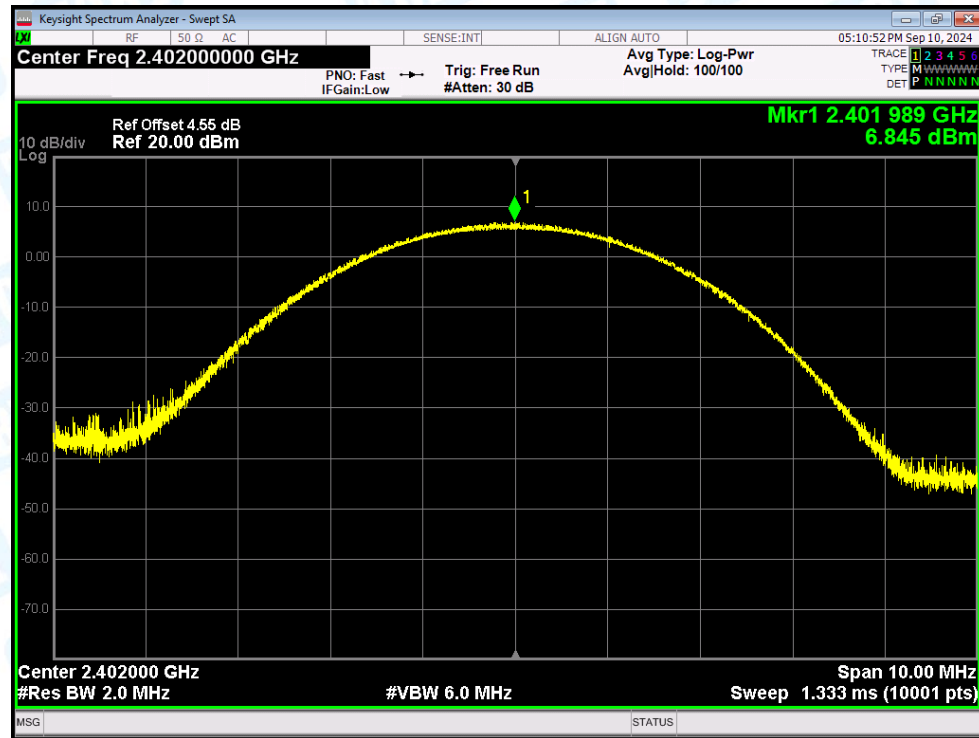
Power NVNT 2-DH1 2441MHz Ant1



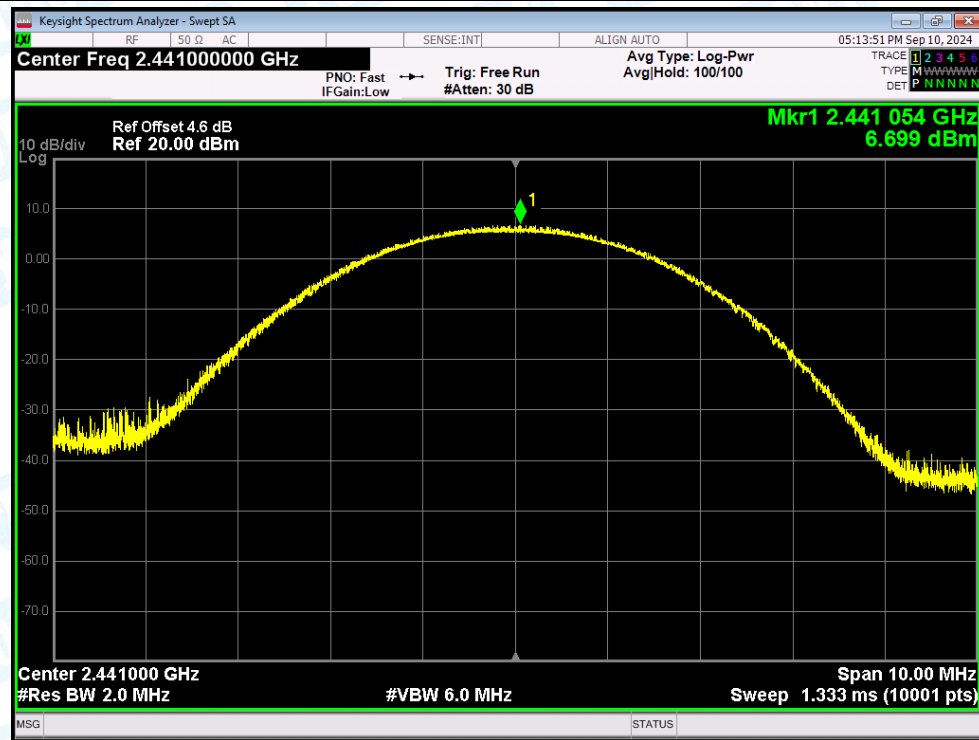
Power NVNT 2-DH1 2480MHz Ant1

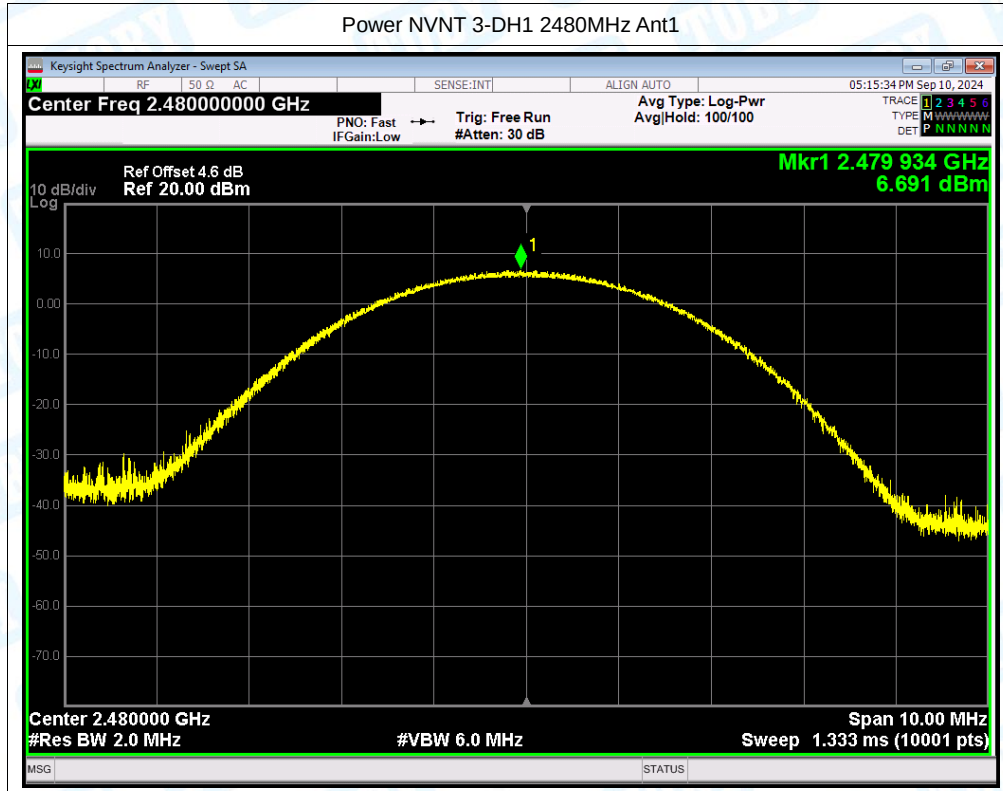


Power NVNT 3-DH1 2402MHz Ant1



Power NVNT 3-DH1 2441MHz Ant1



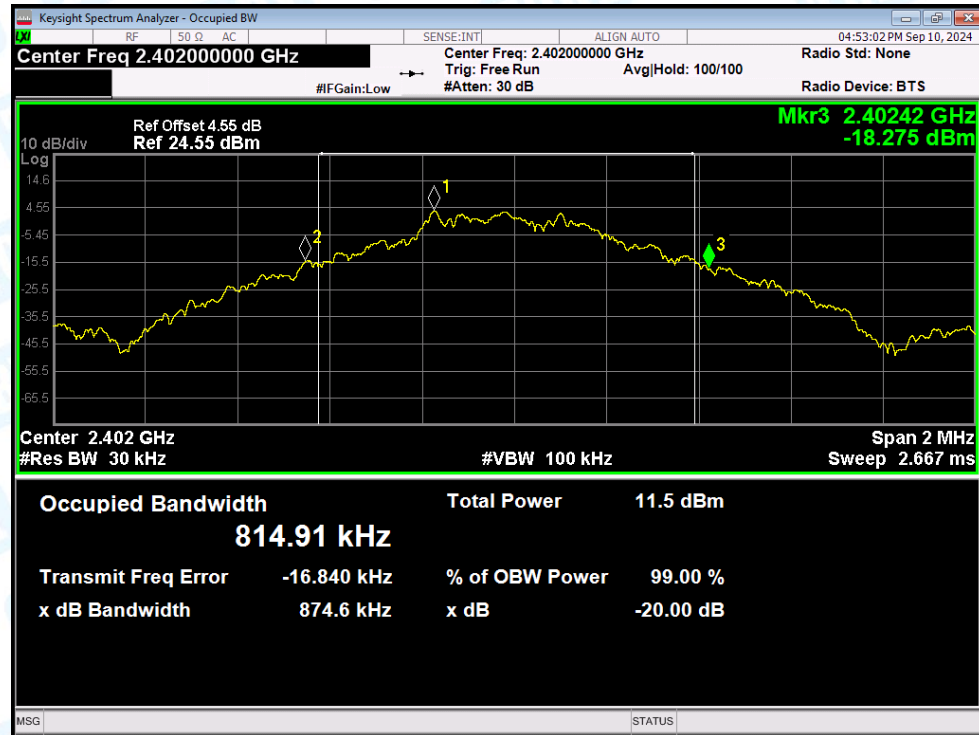


3. -20dB Bandwidth

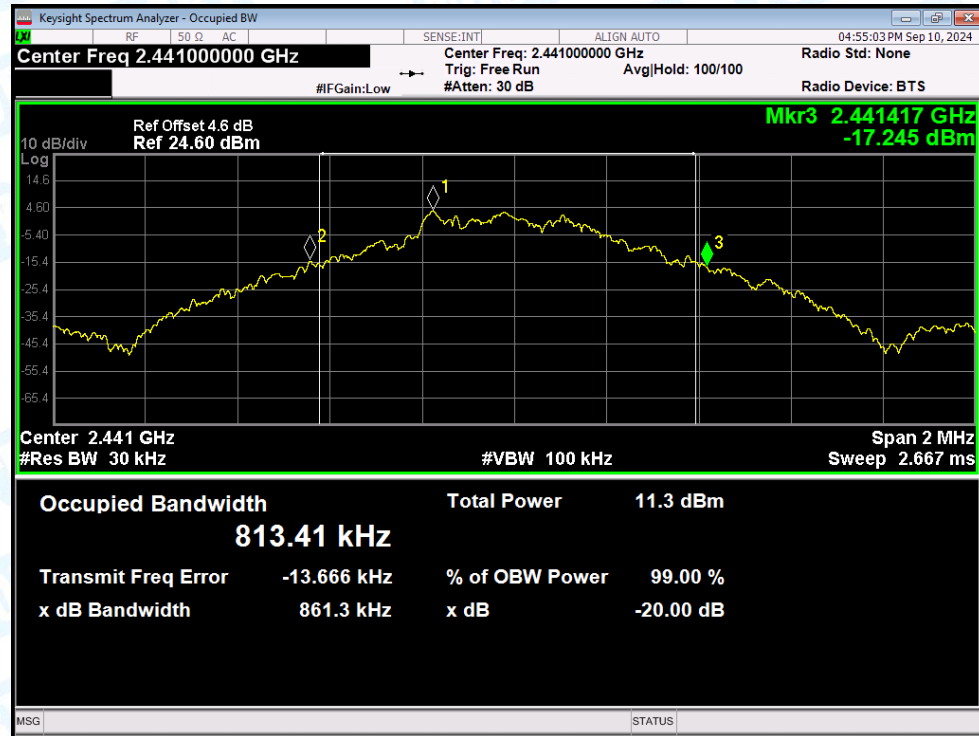
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	0.87	0	Pass
NVNT	1-DH1	2441	Ant1	0.86	0	Pass
NVNT	1-DH1	2480	Ant1	0.88	0	Pass
NVNT	2-DH1	2402	Ant1	1.25	0	Pass
NVNT	2-DH1	2441	Ant1	1.24	0	Pass
NVNT	2-DH1	2480	Ant1	1.25	0	Pass
NVNT	3-DH1	2402	Ant1	1.21	0	Pass
NVNT	3-DH1	2441	Ant1	1.25	0	Pass
NVNT	3-DH1	2480	Ant1	1.21	0	Pass

Test Graphs

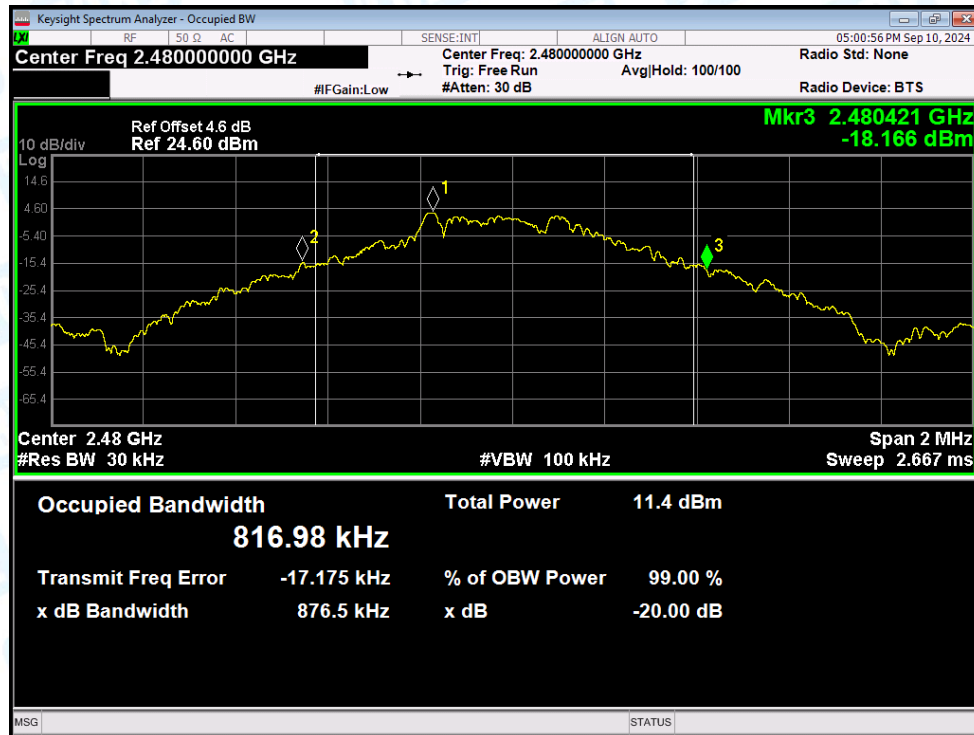
-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1



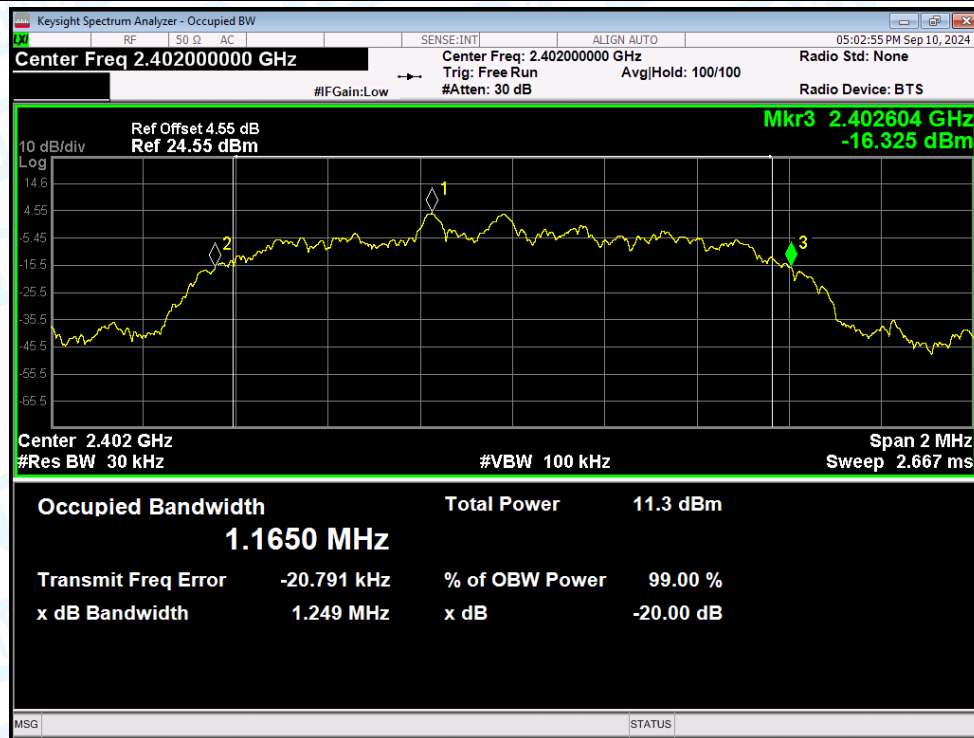
-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1



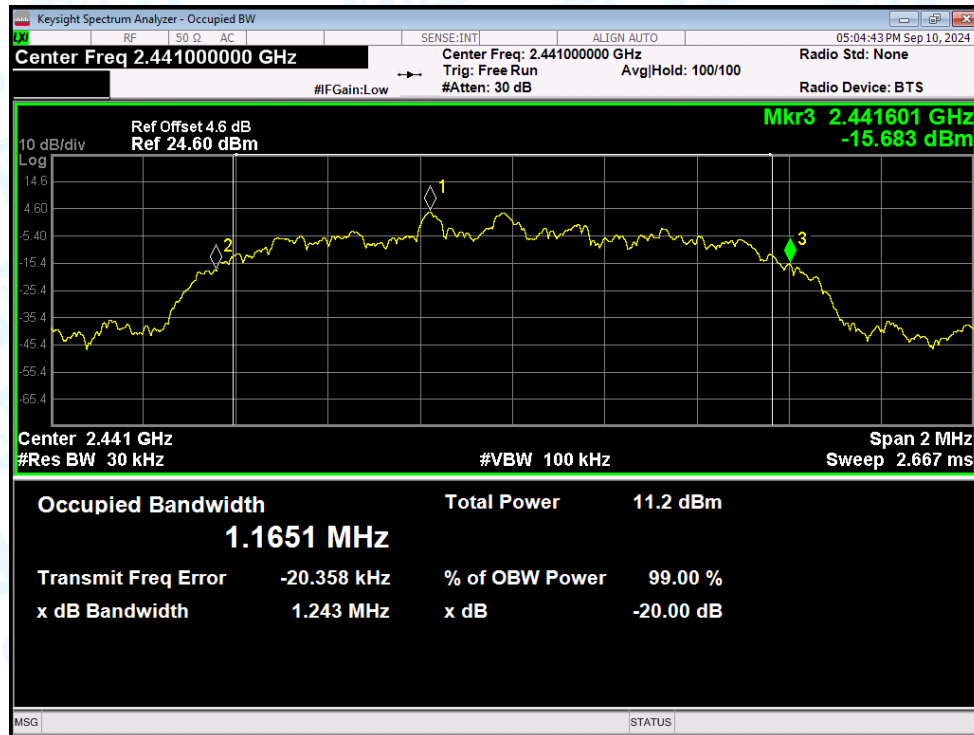
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



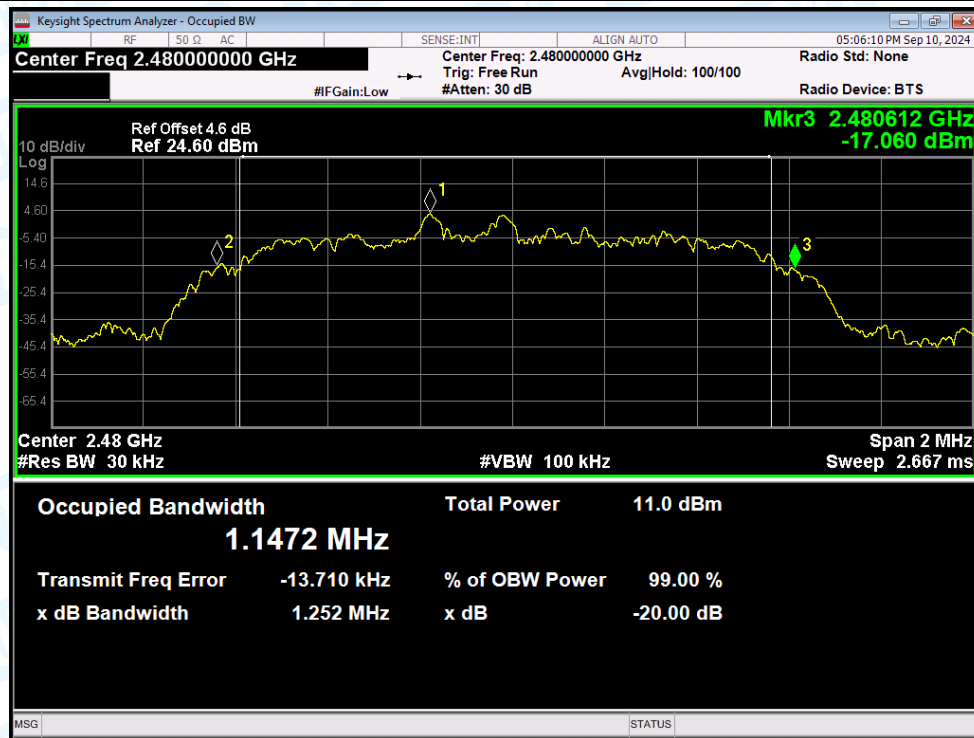
-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



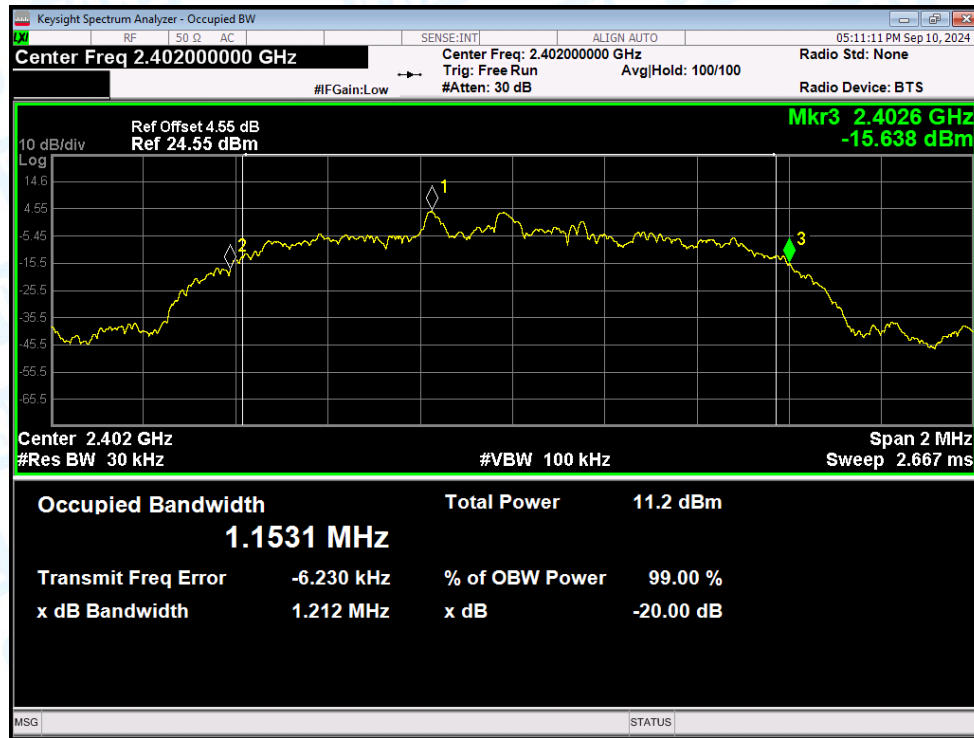
-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



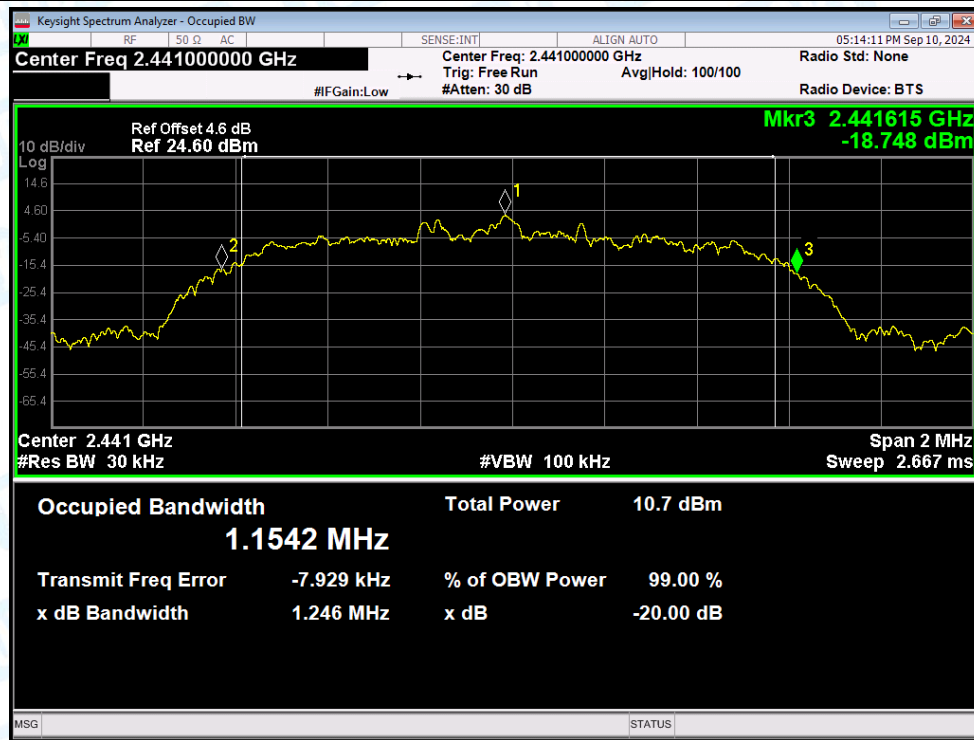
-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1

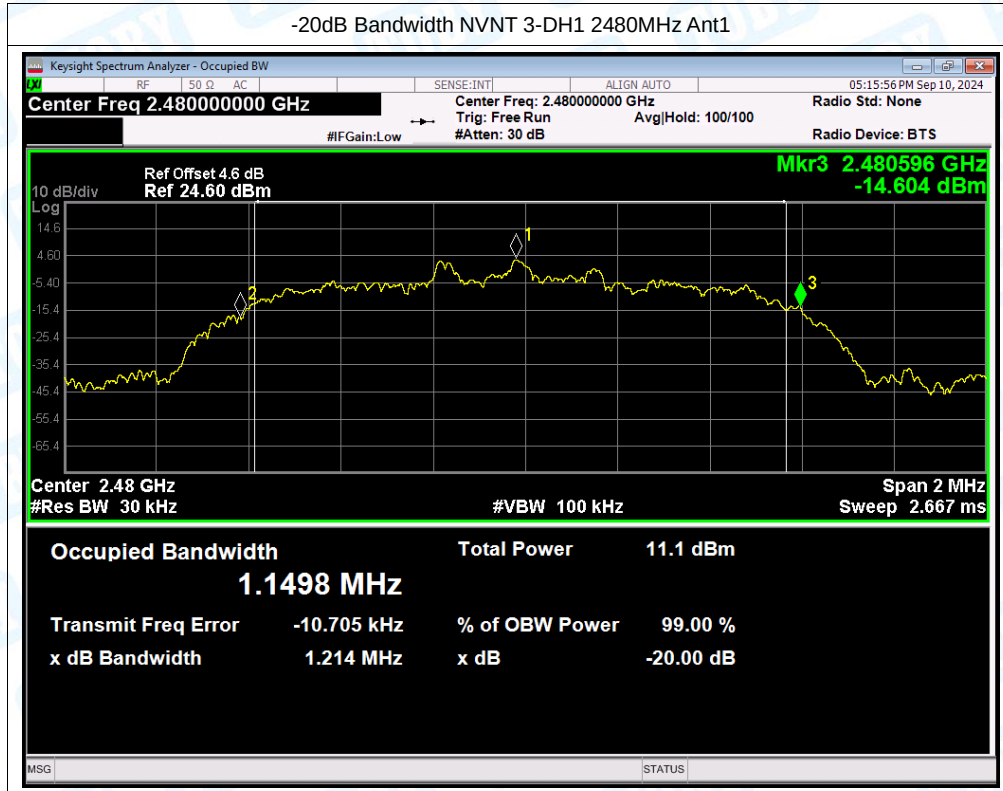


-20dB Bandwidth NVNT 3-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2441MHz Ant1



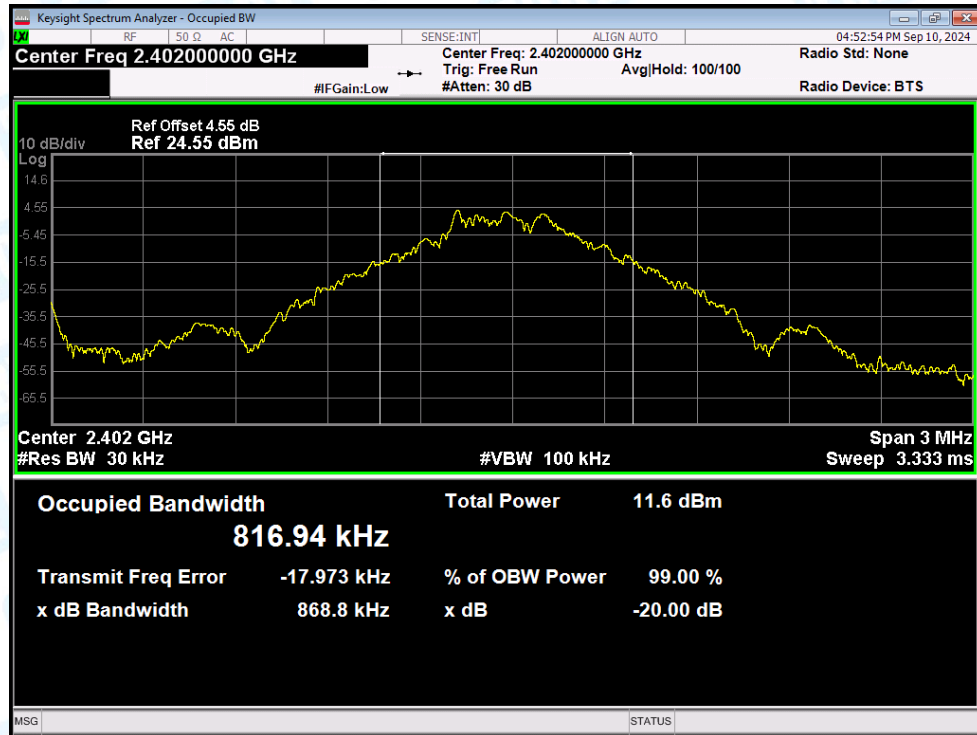


4. Occupied Channel Bandwidth

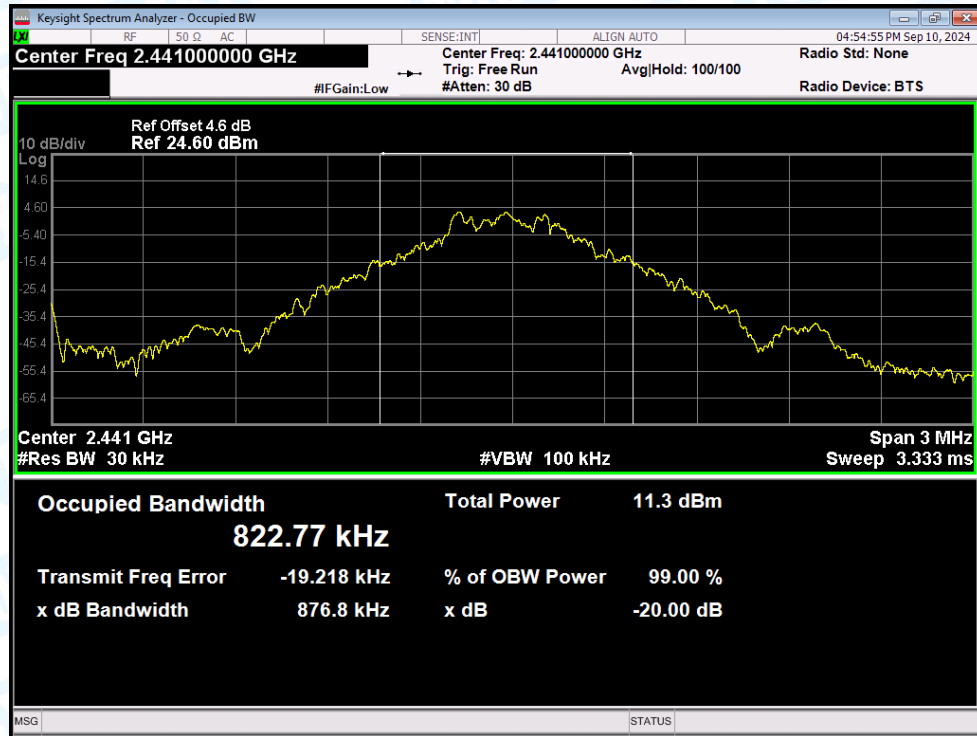
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH1	2402	Ant1	0.817
NVNT	1-DH1	2441	Ant1	0.823
NVNT	1-DH1	2480	Ant1	0.808
NVNT	2-DH1	2402	Ant1	1.165
NVNT	2-DH1	2441	Ant1	1.156
NVNT	2-DH1	2480	Ant1	1.169
NVNT	3-DH1	2402	Ant1	1.162
NVNT	3-DH1	2441	Ant1	1.16
NVNT	3-DH1	2480	Ant1	1.16

Test Graphs

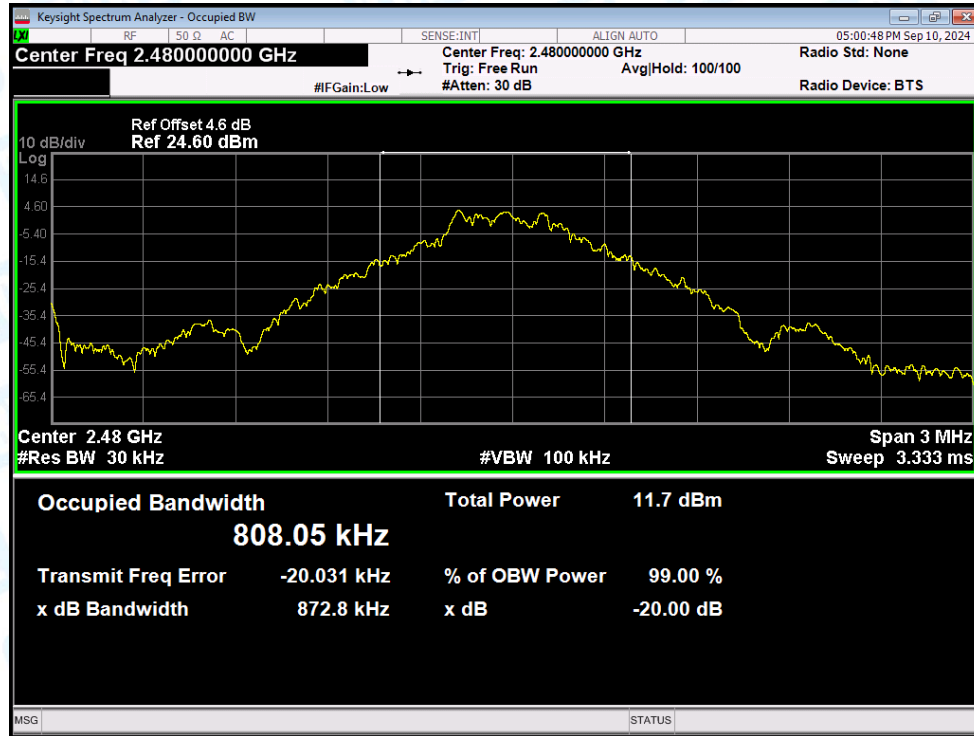
OBW NVNT 1-DH1 2402MHz Ant1



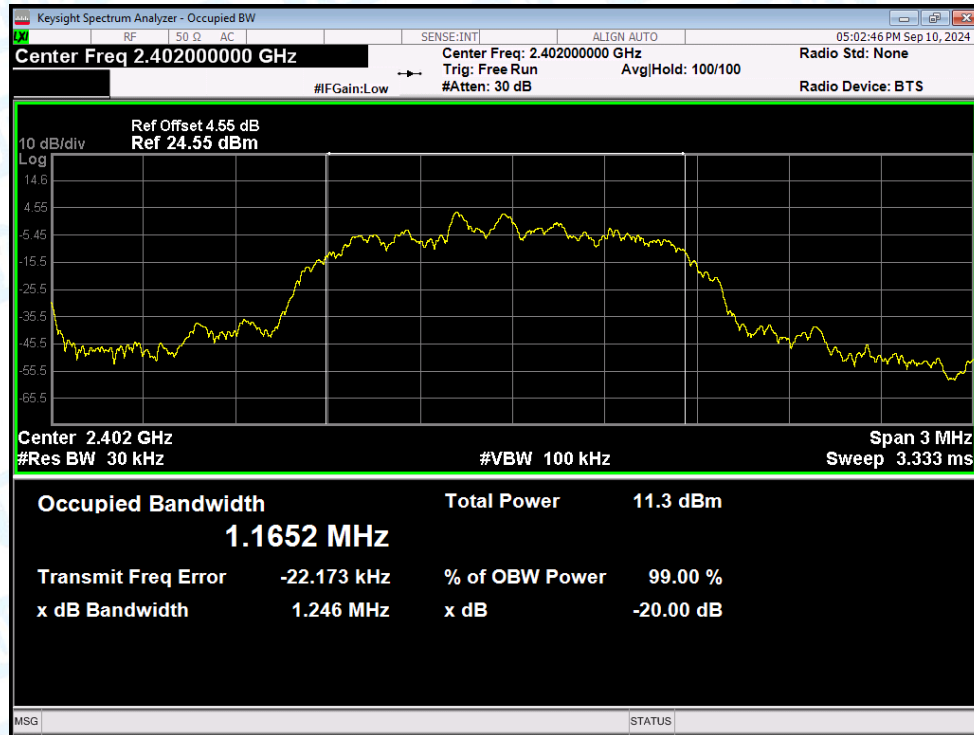
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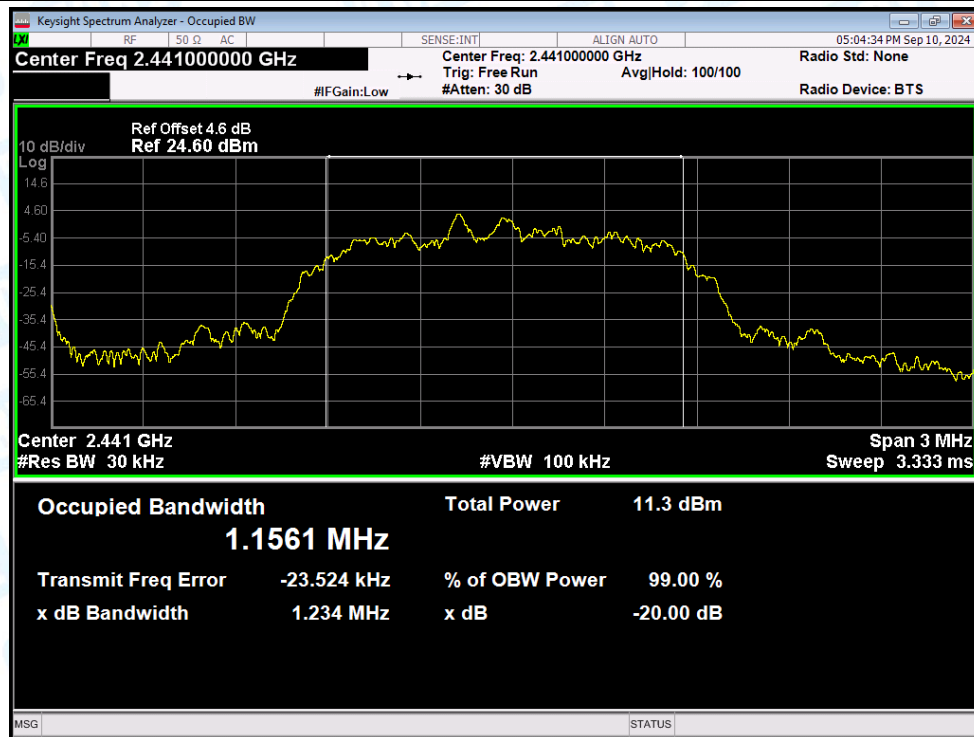
OBW NVNT 1-DH1 2480MHz Ant1



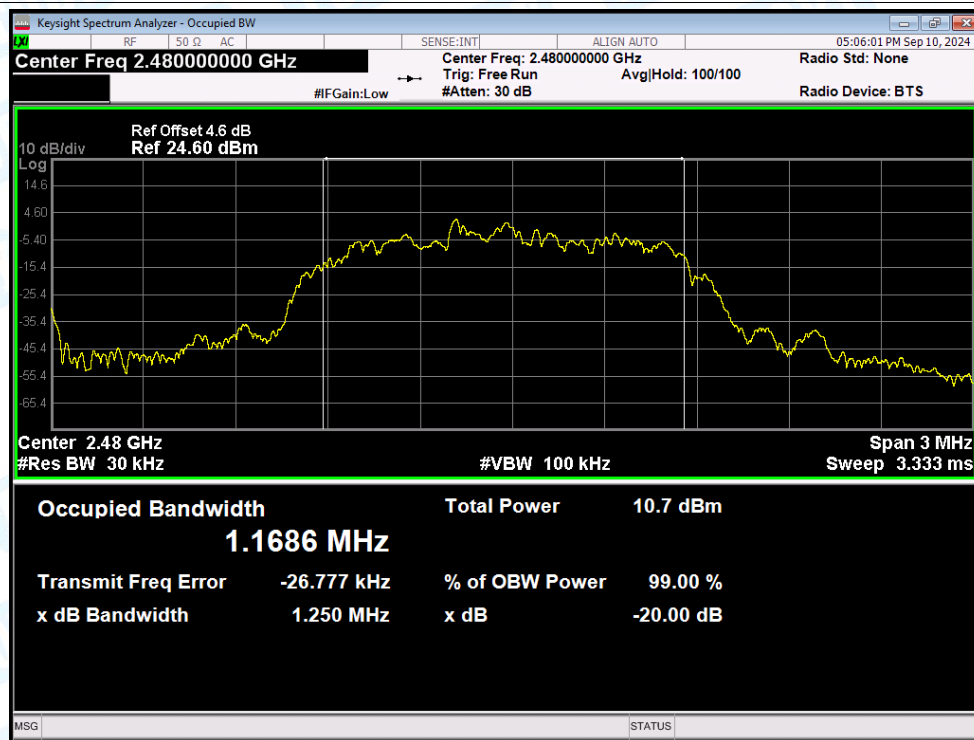
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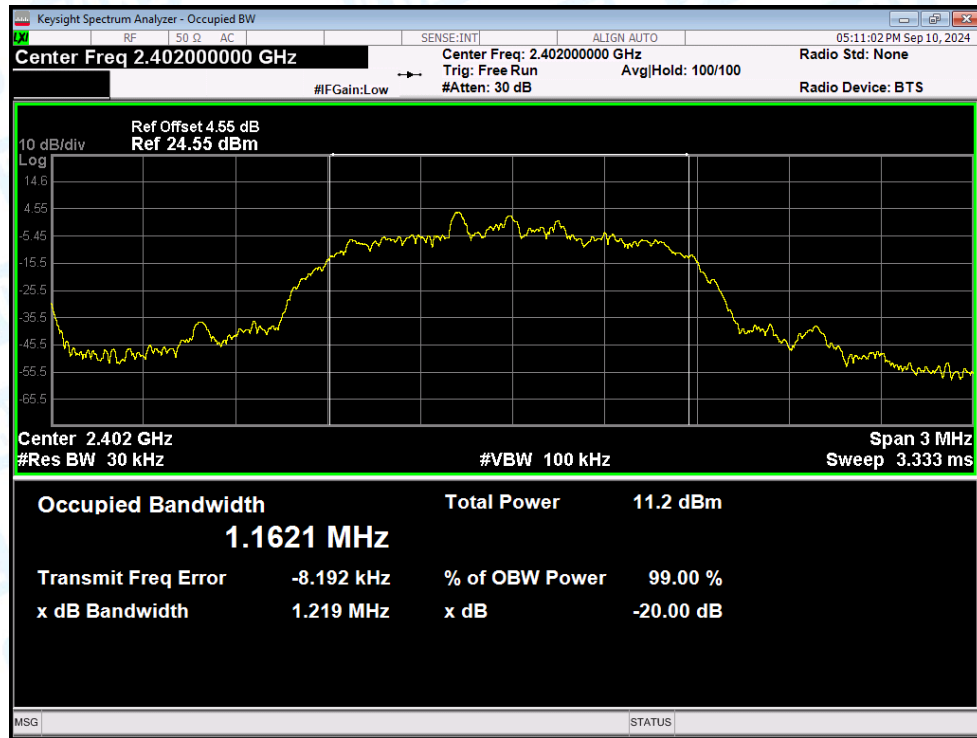
OBW NVNT 2-DH1 2441MHz Ant1



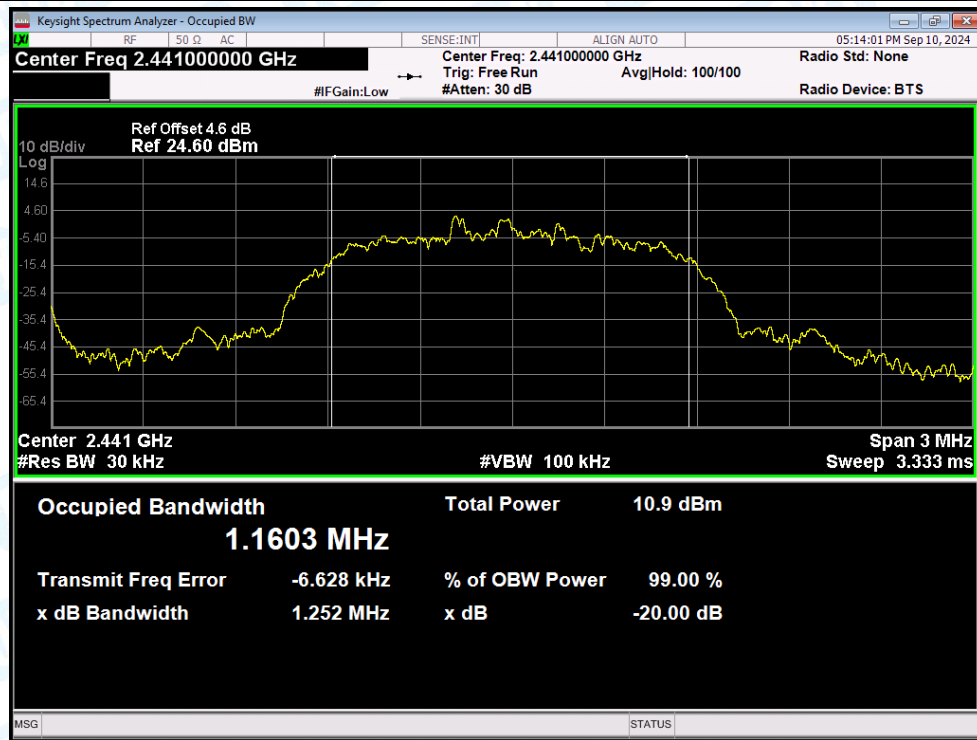
OBW NVNT 2-DH1 2480MHz Ant1

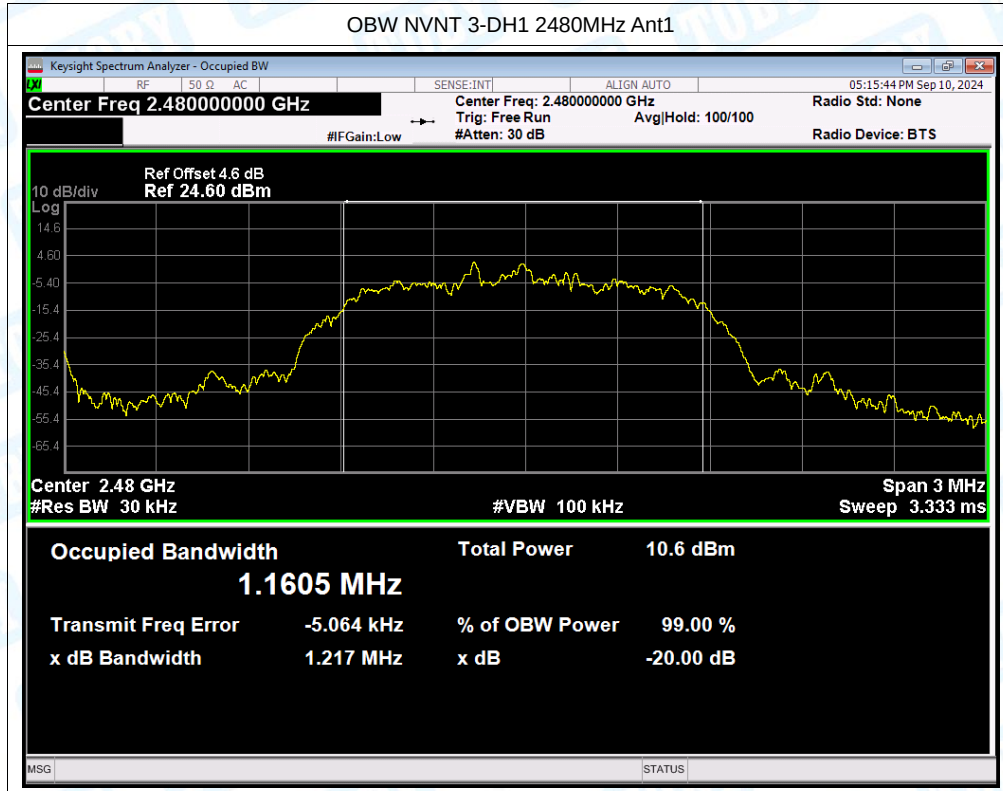


OBW NVNT 3-DH1 2402MHz Ant1



OBW NVNT 3-DH1 2441MHz Ant1



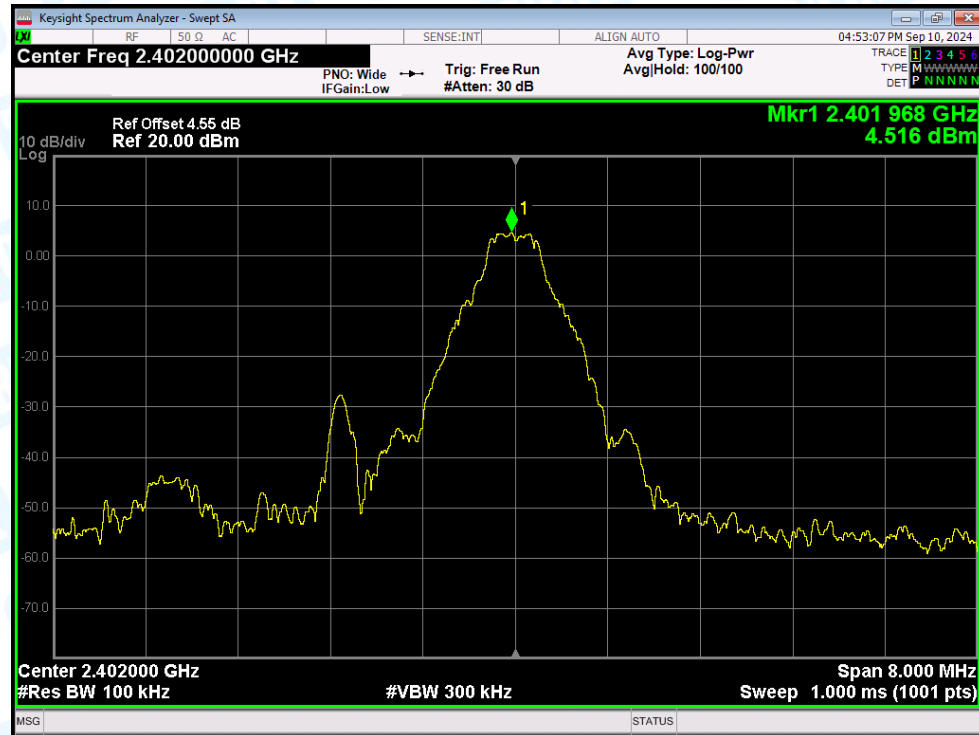


5. Band Edge

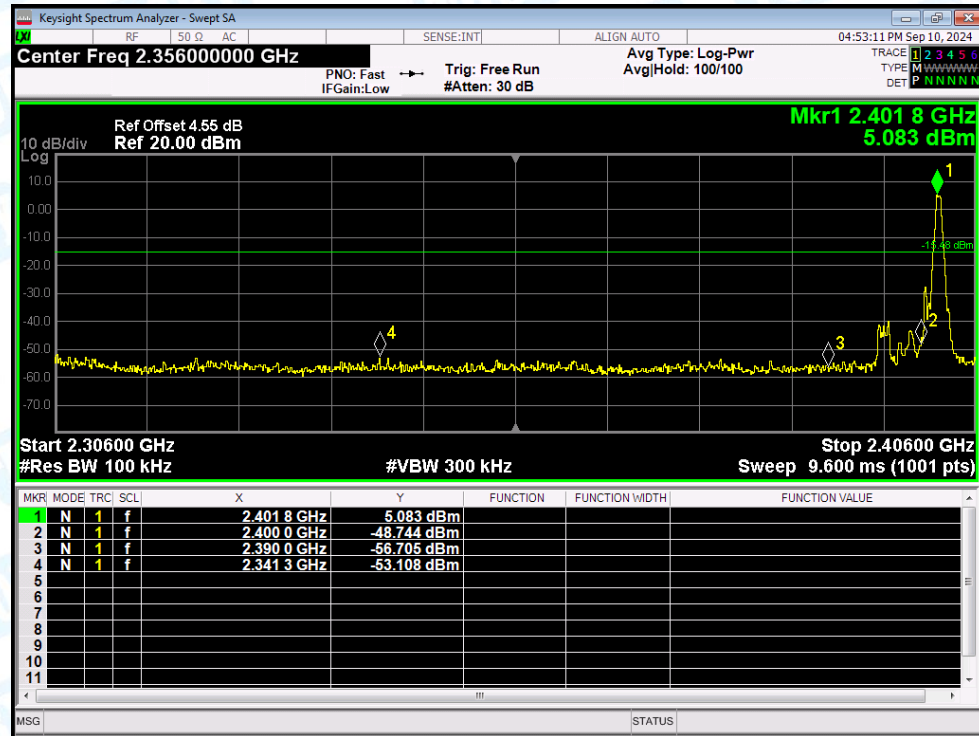
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-57.63	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-58.23	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-57.93	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-57.65	-20	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	-58.13	-20	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	-58.15	-20	Pass

Test Graphs

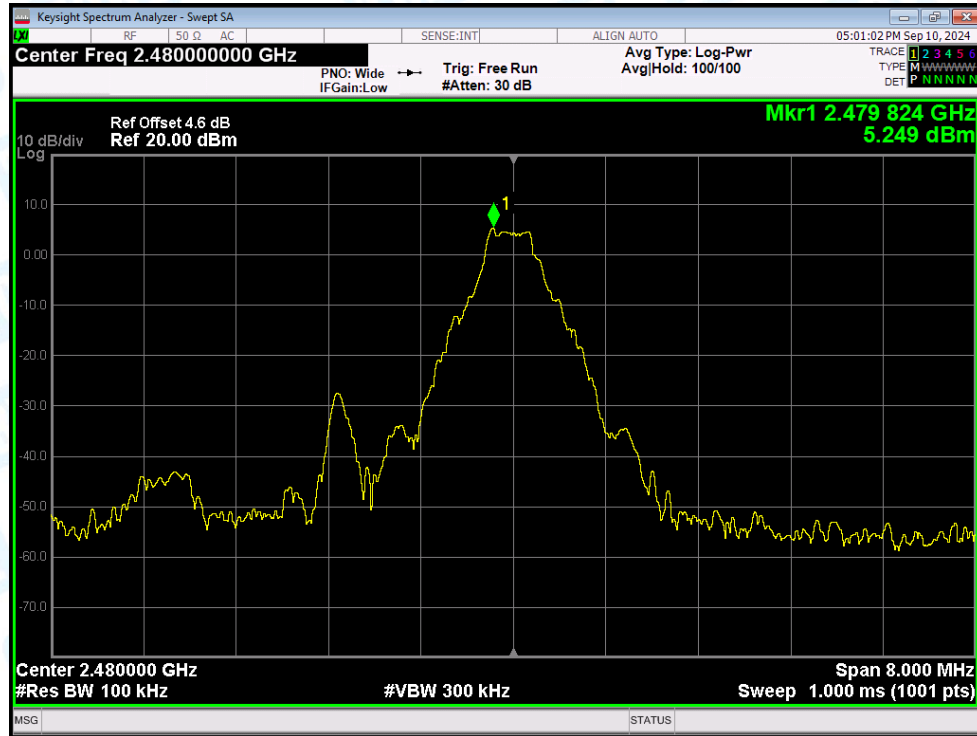
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Ref



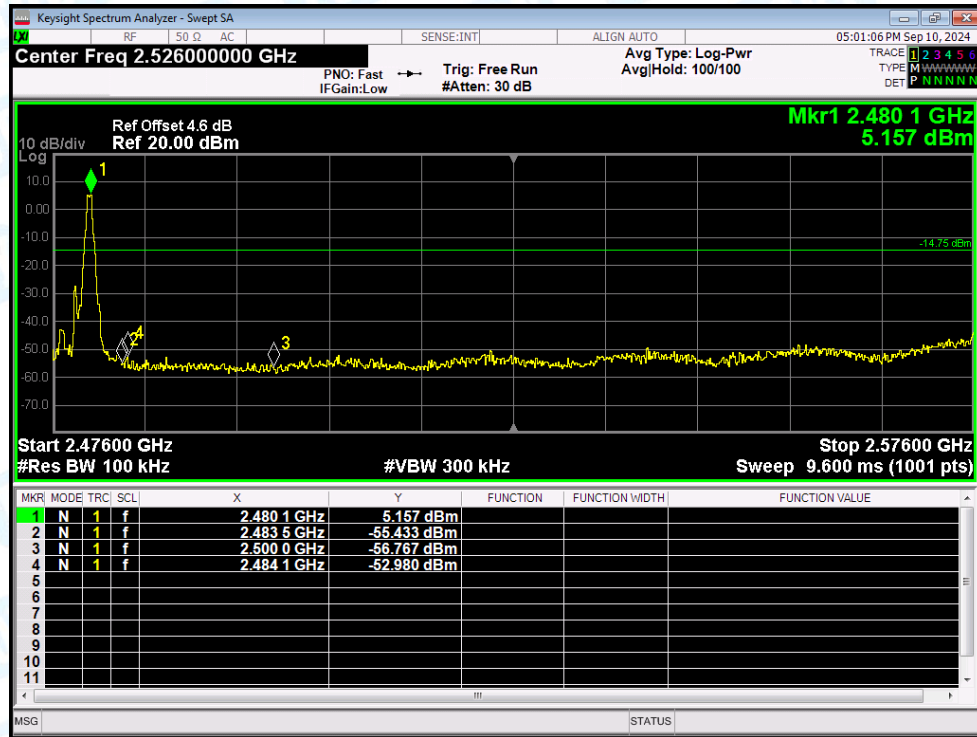
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission



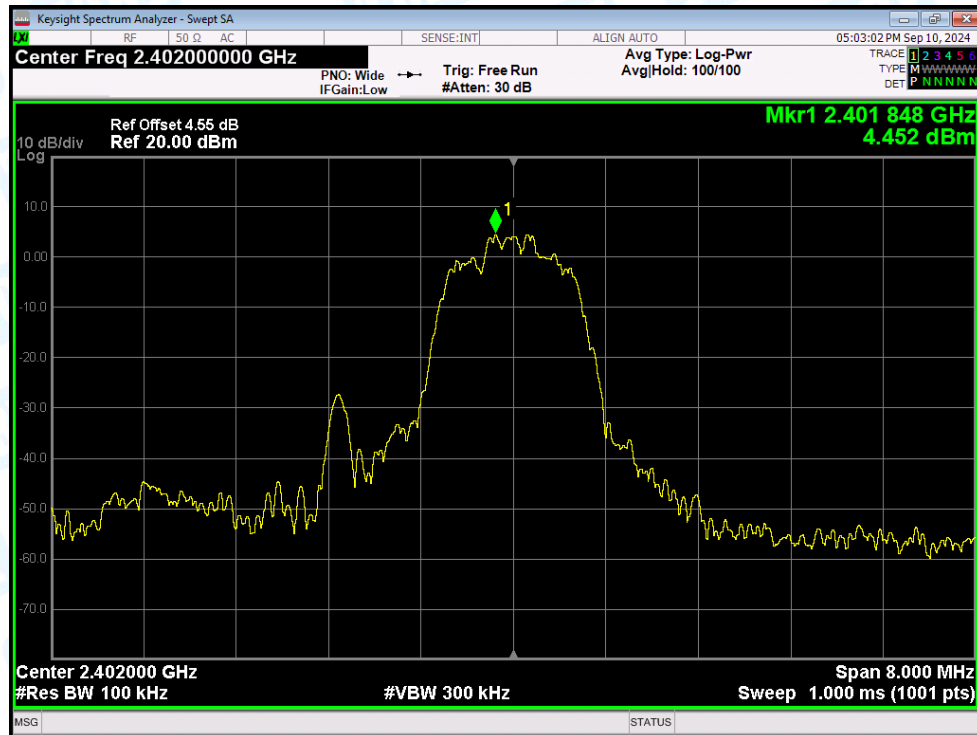
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Ref



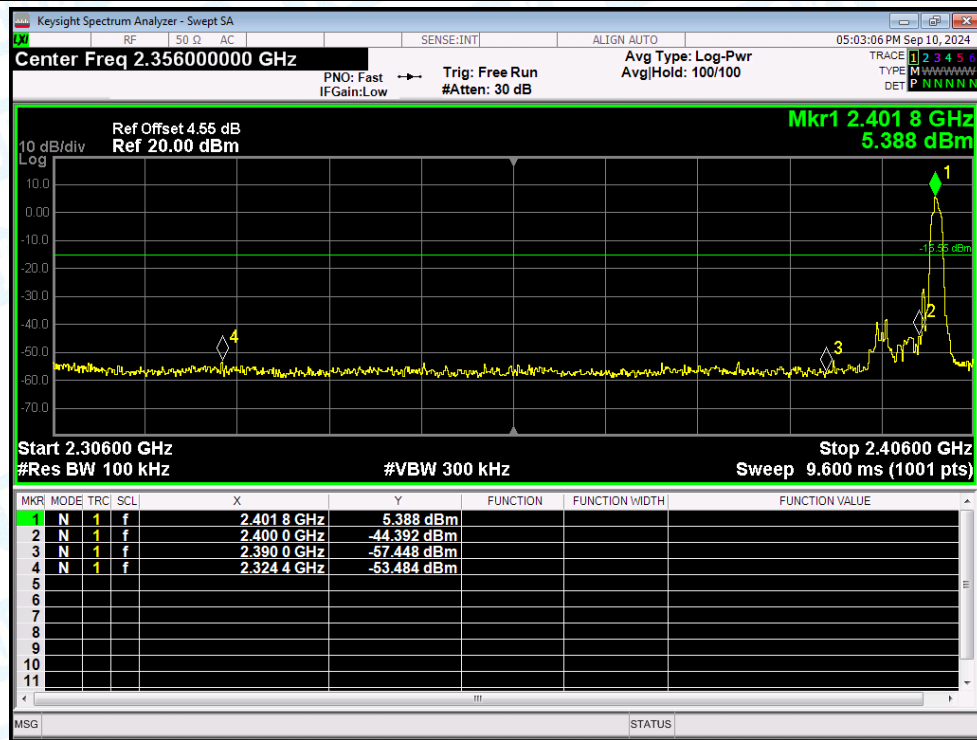
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Emission

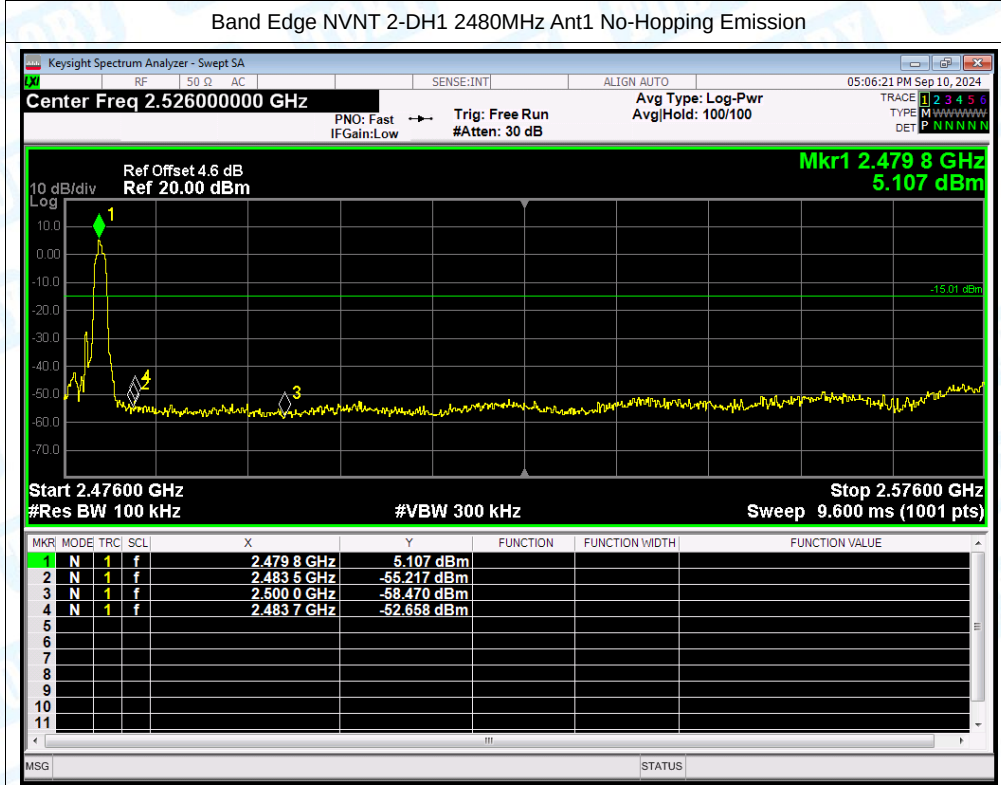
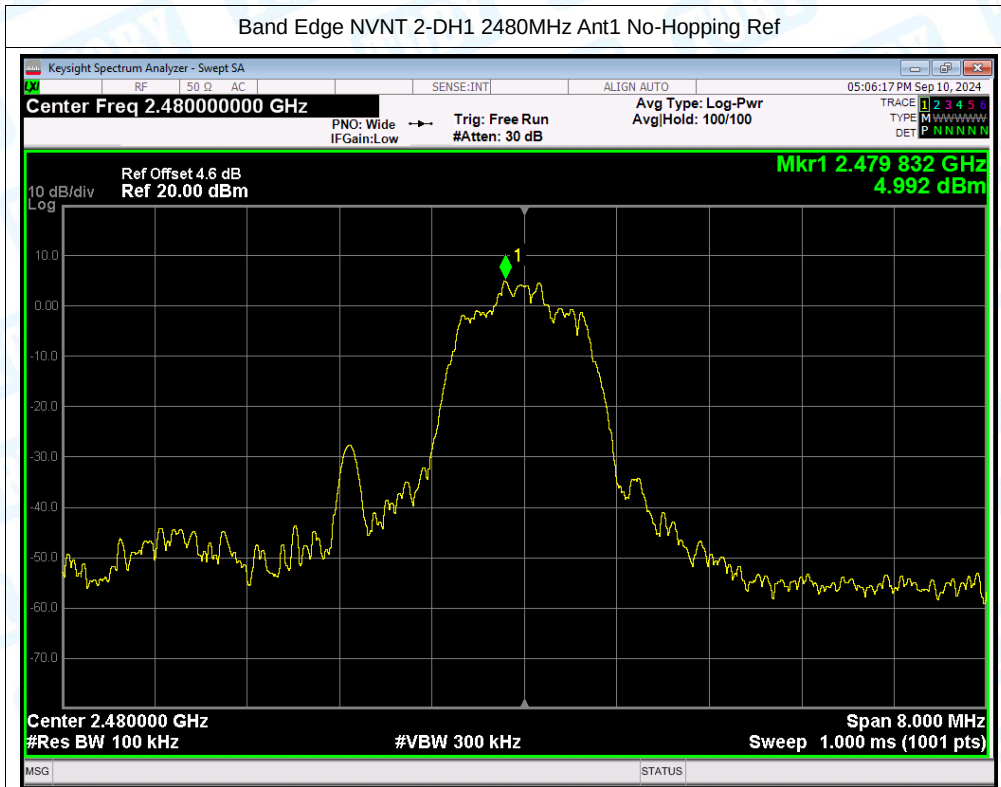


Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Ref



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

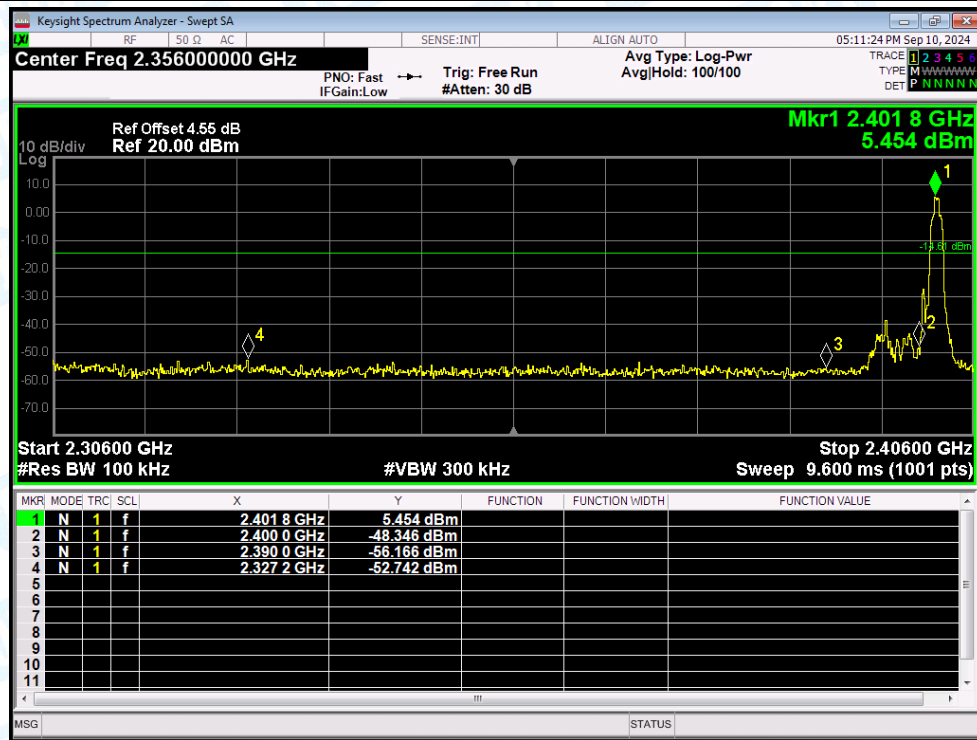




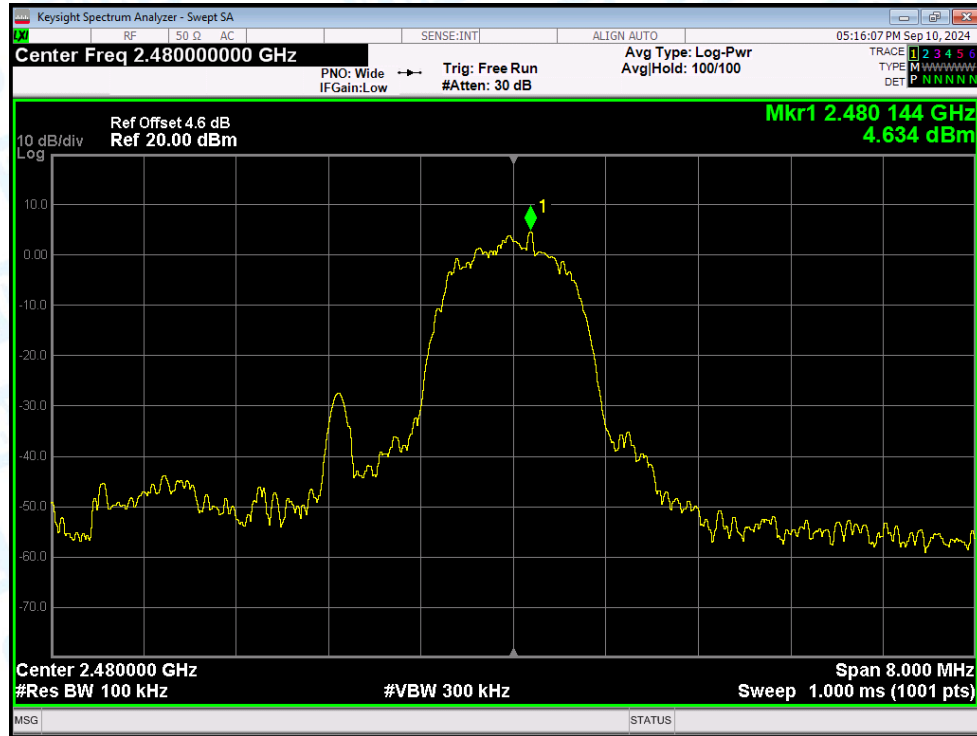
Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Ref



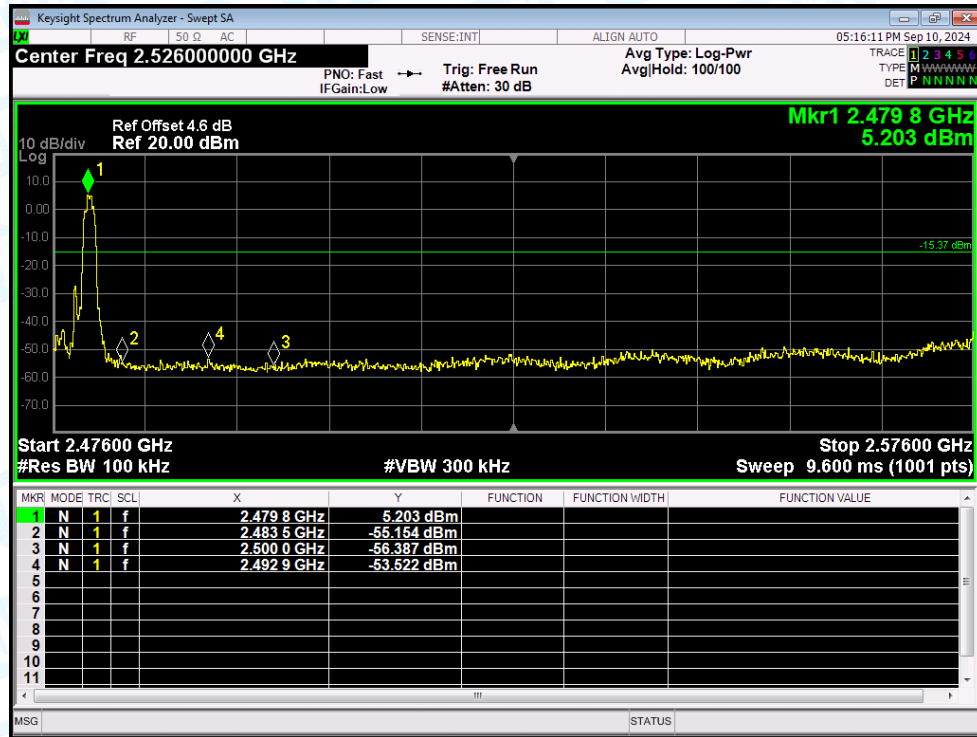
Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Emission



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



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

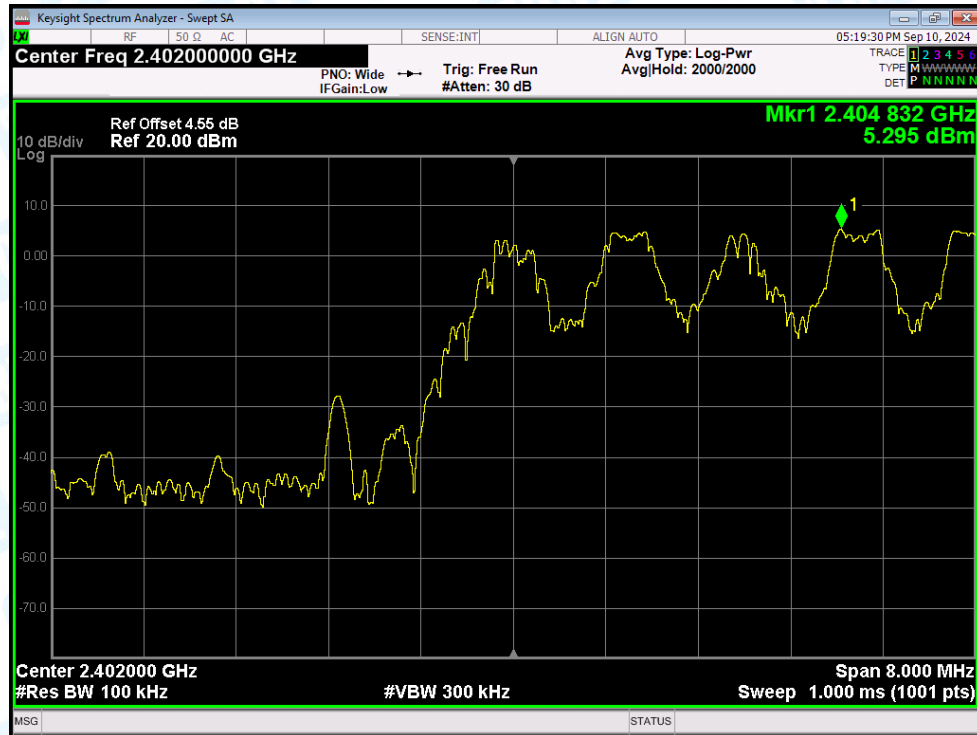


6. Band Edge(Hopping)

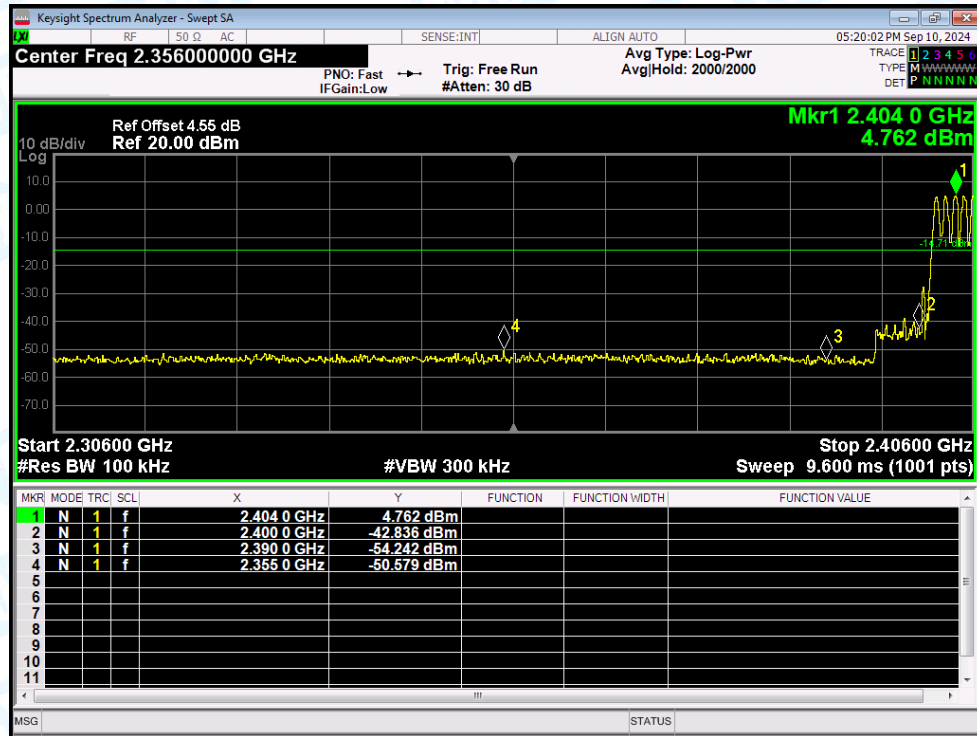
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-55.88	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-50.27	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-55.16	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-50.64	-20	Pass
NVNT	3-DH1	2402	Ant1	Hopping	-56.68	-20	Pass
NVNT	3-DH1	2480	Ant1	Hopping	-48.67	-20	Pass

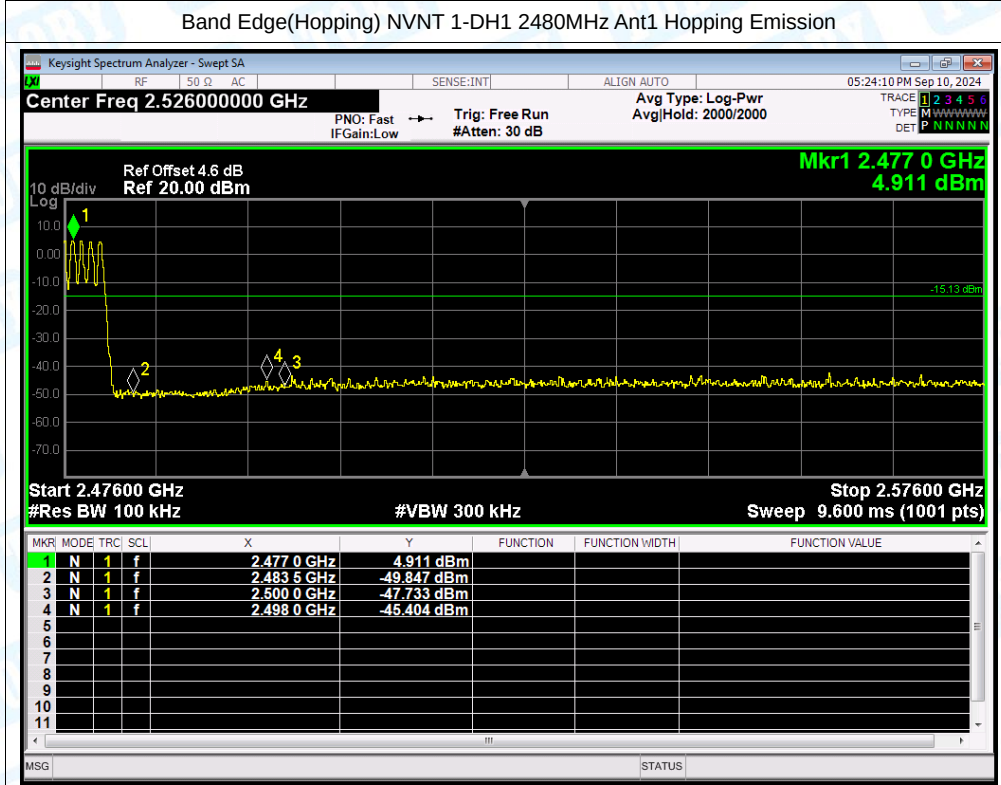
Test Graphs

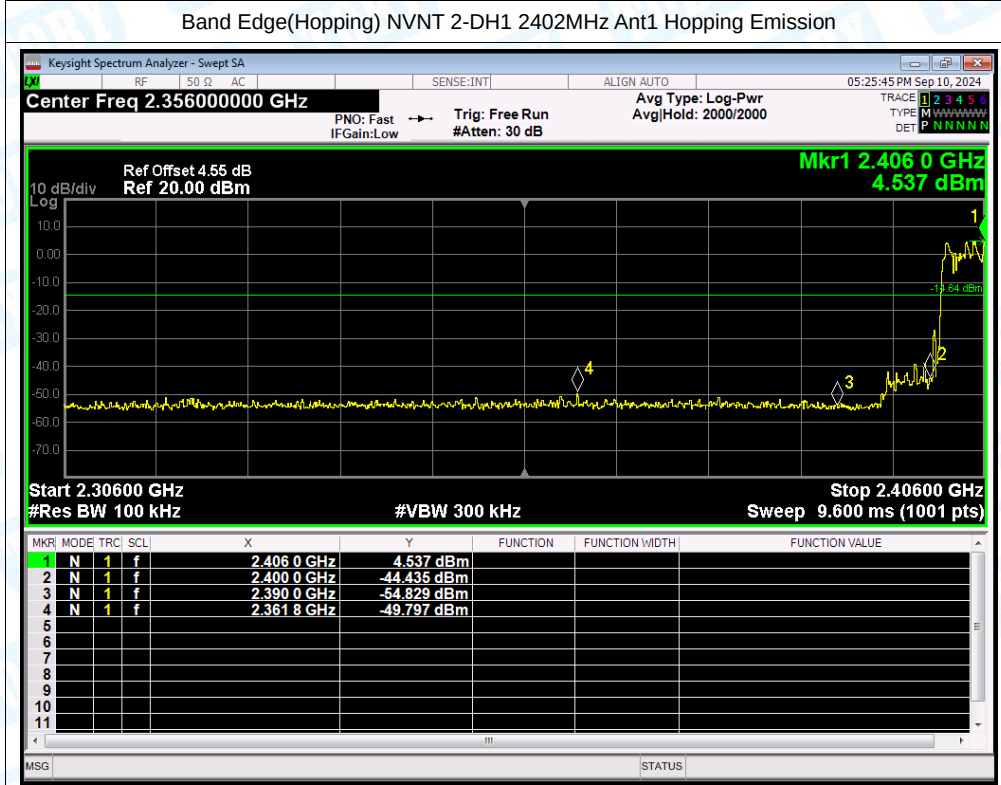
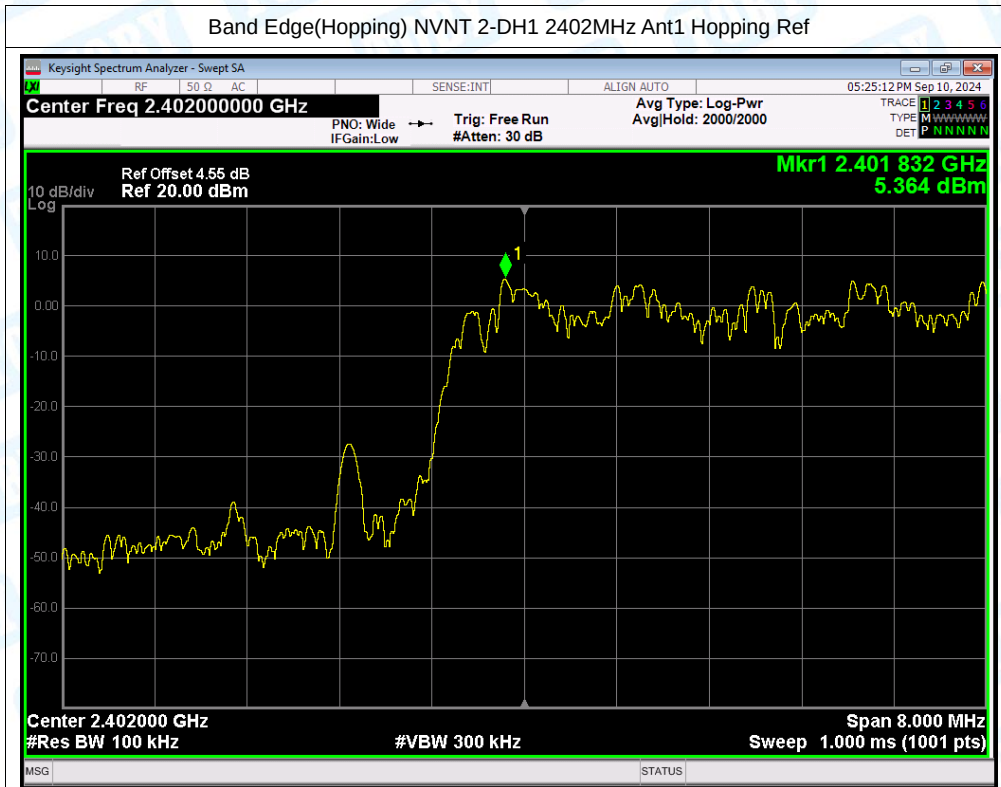
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Ref

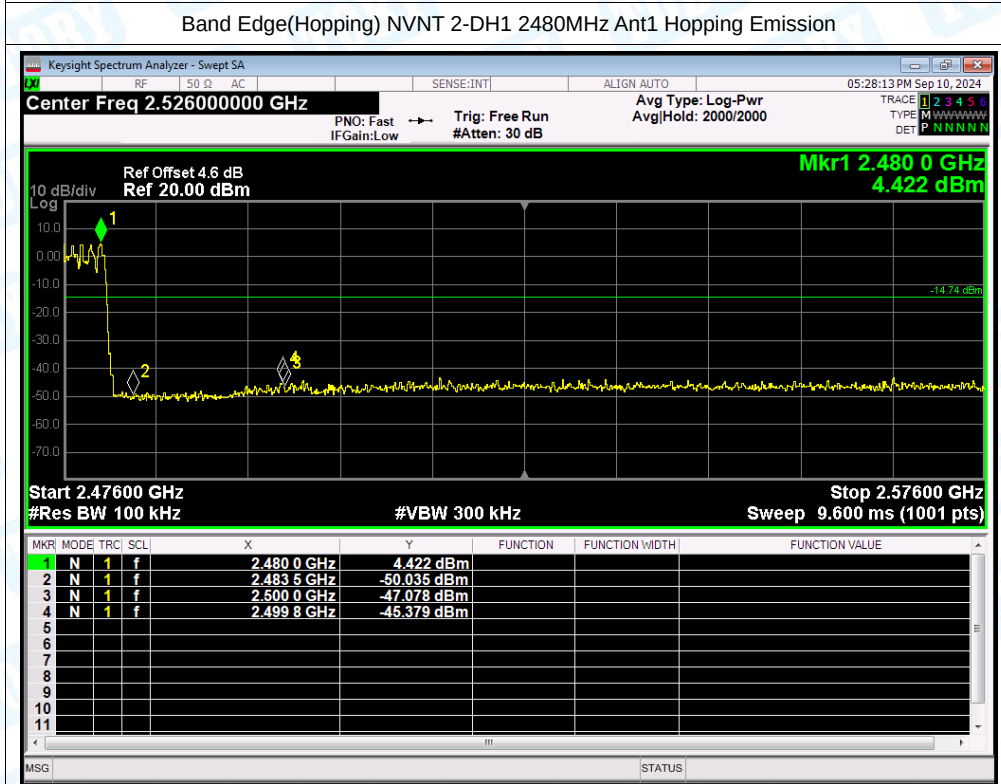
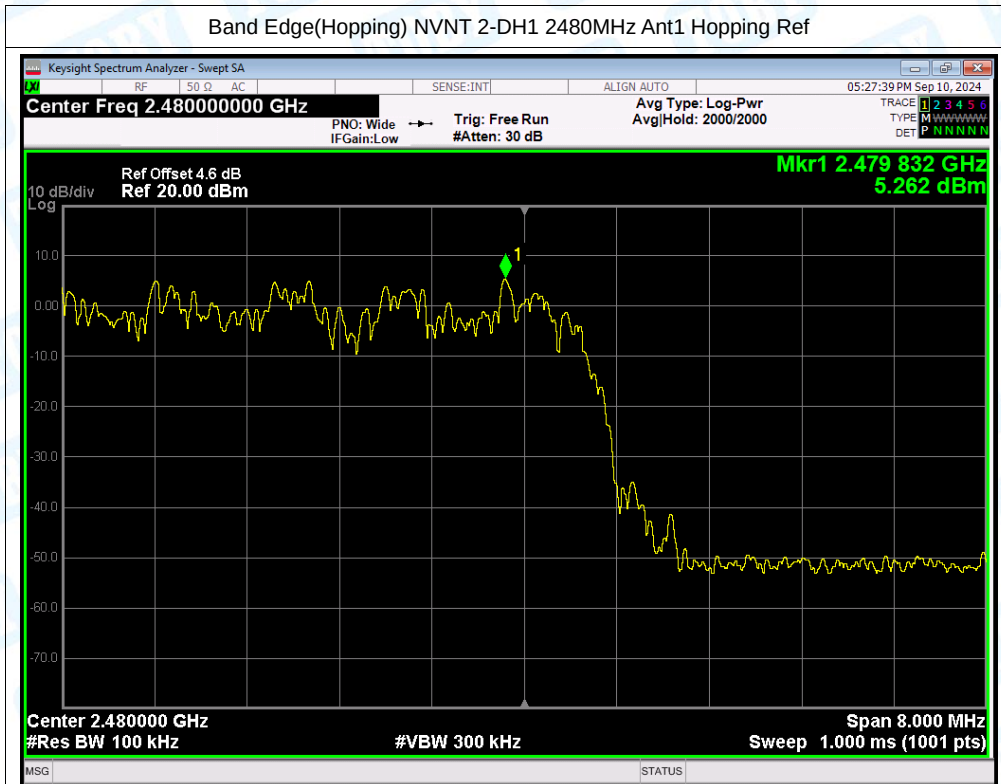


Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Emission

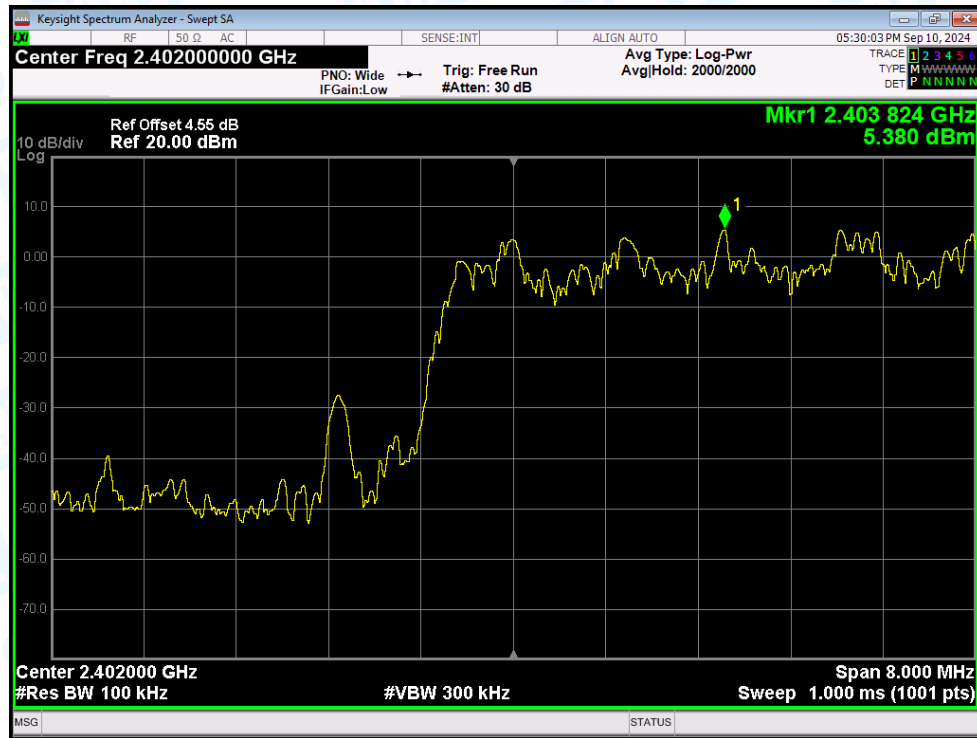




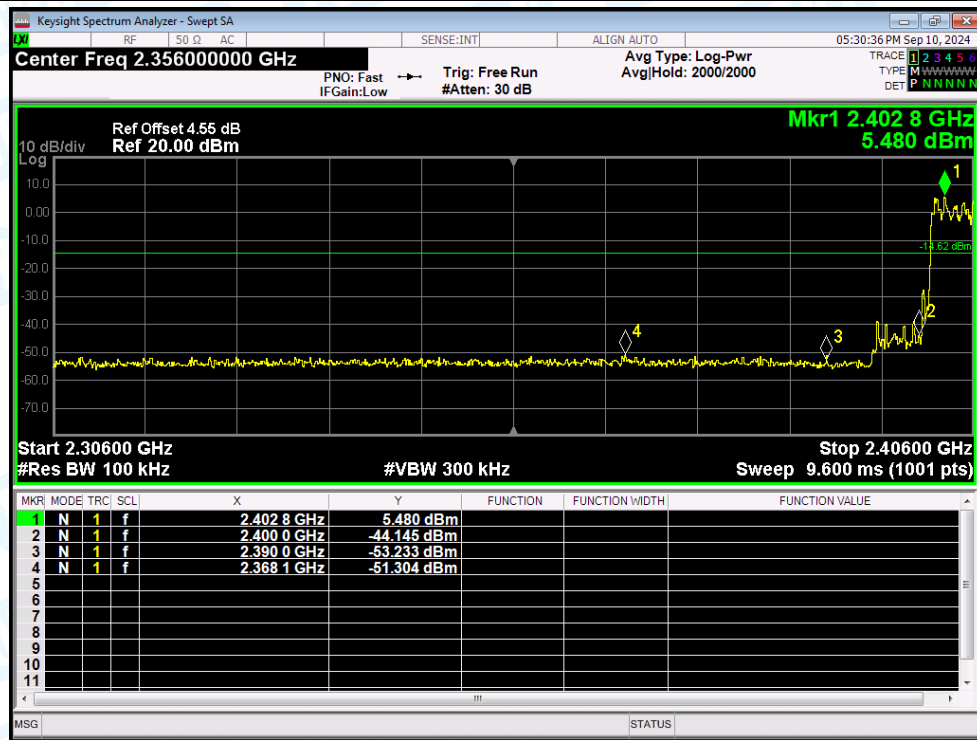


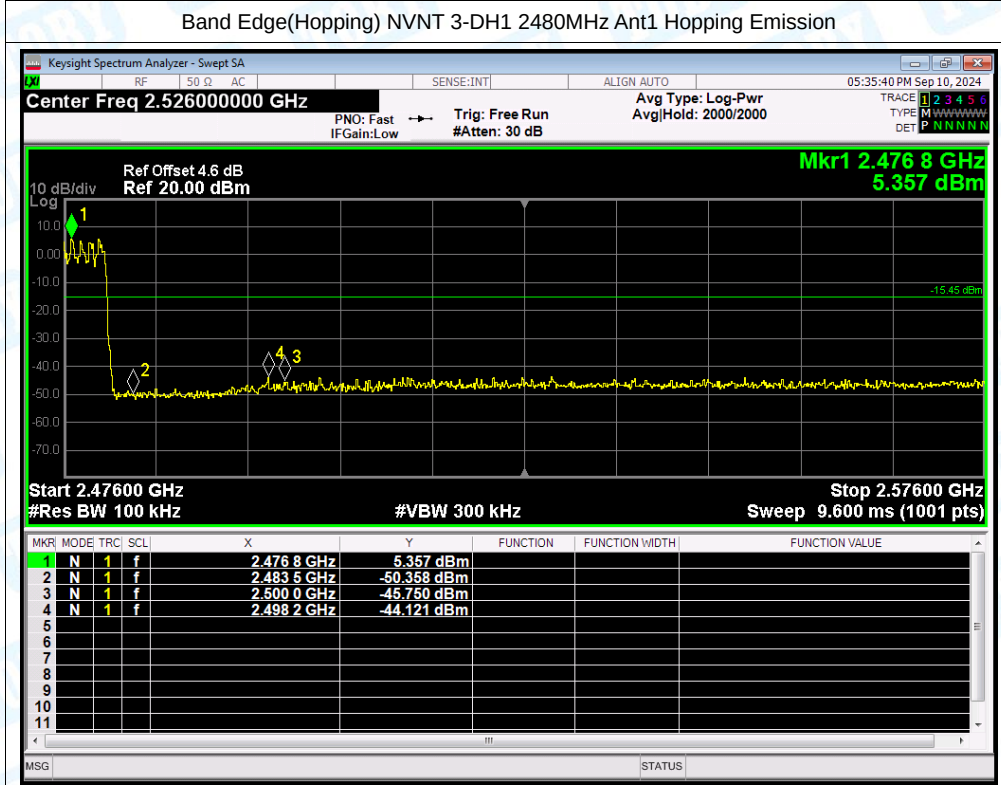


Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Ref



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



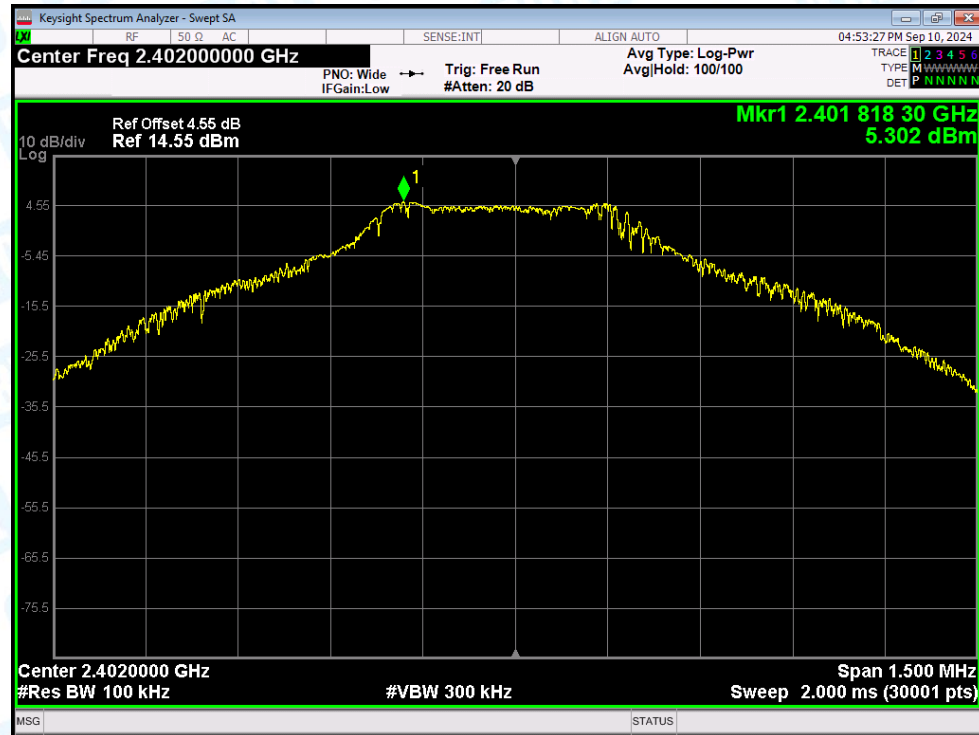


7. Conducted RF Spurious Emission

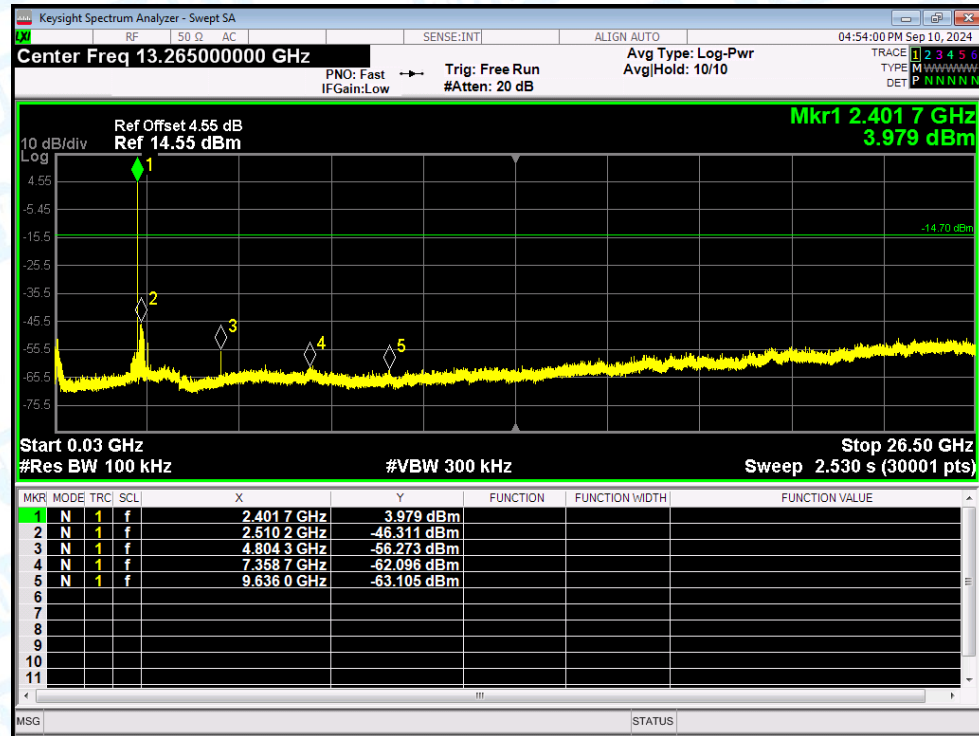
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	-51.61	-20	Pass
NVNT	1-DH1	2441	Ant1	-51.22	-20	Pass
NVNT	1-DH1	2480	Ant1	-51.57	-20	Pass
NVNT	2-DH1	2402	Ant1	-52.52	-20	Pass
NVNT	2-DH1	2441	Ant1	-51.97	-20	Pass
NVNT	2-DH1	2480	Ant1	-52.46	-20	Pass
NVNT	3-DH1	2402	Ant1	-51.81	-20	Pass
NVNT	3-DH1	2441	Ant1	-51.22	-20	Pass
NVNT	3-DH1	2480	Ant1	-52.05	-20	Pass

Test Graphs

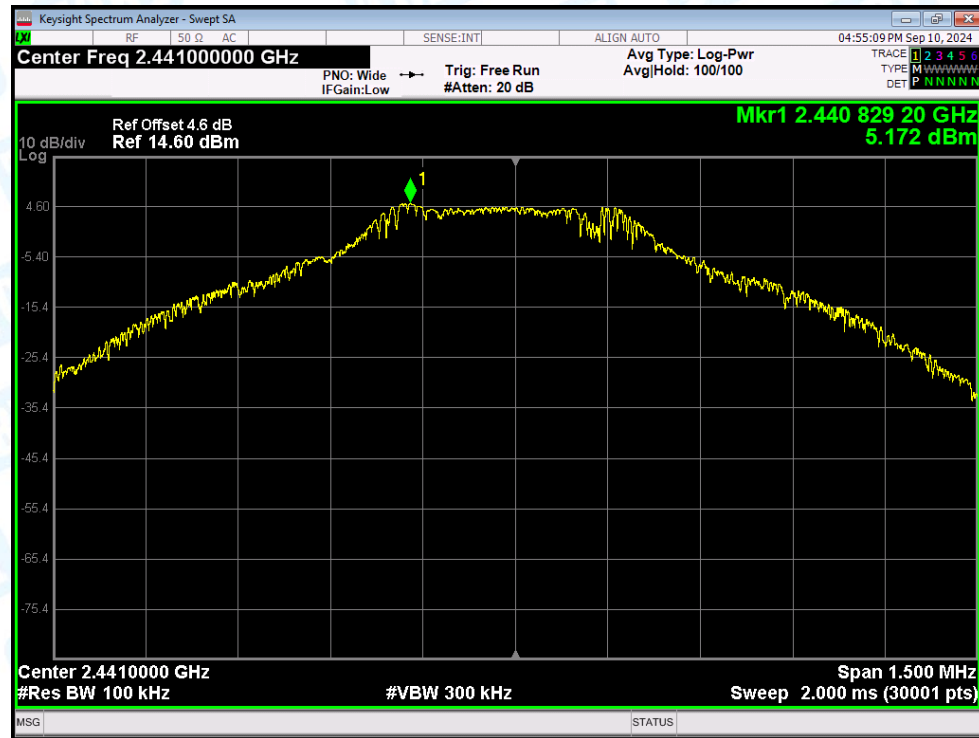
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Ref



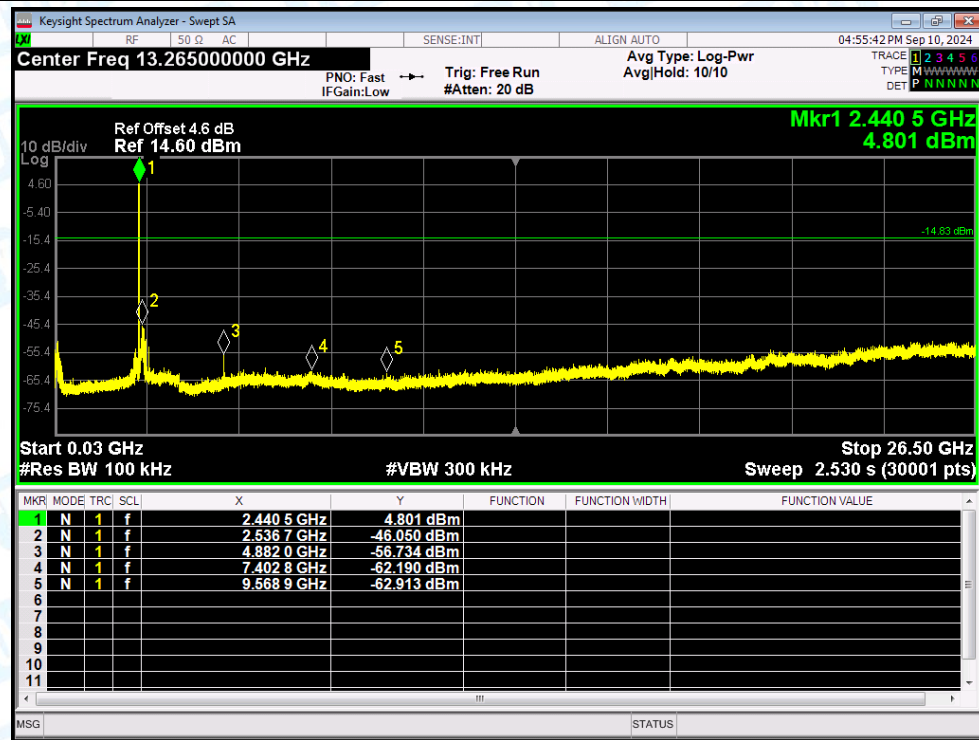
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Emission



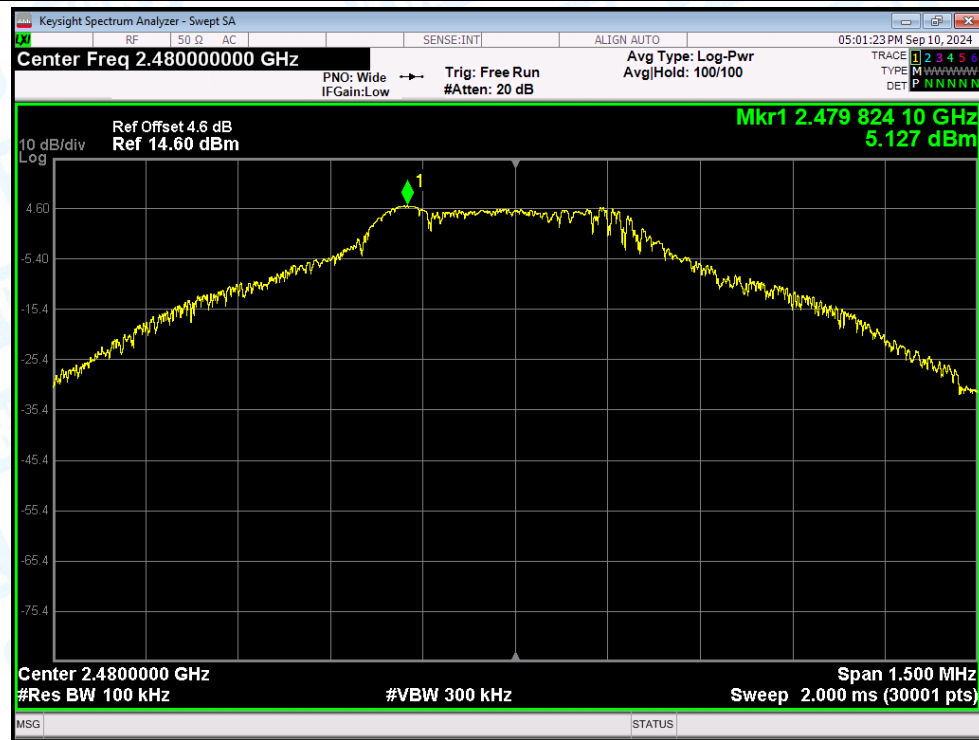
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Ref



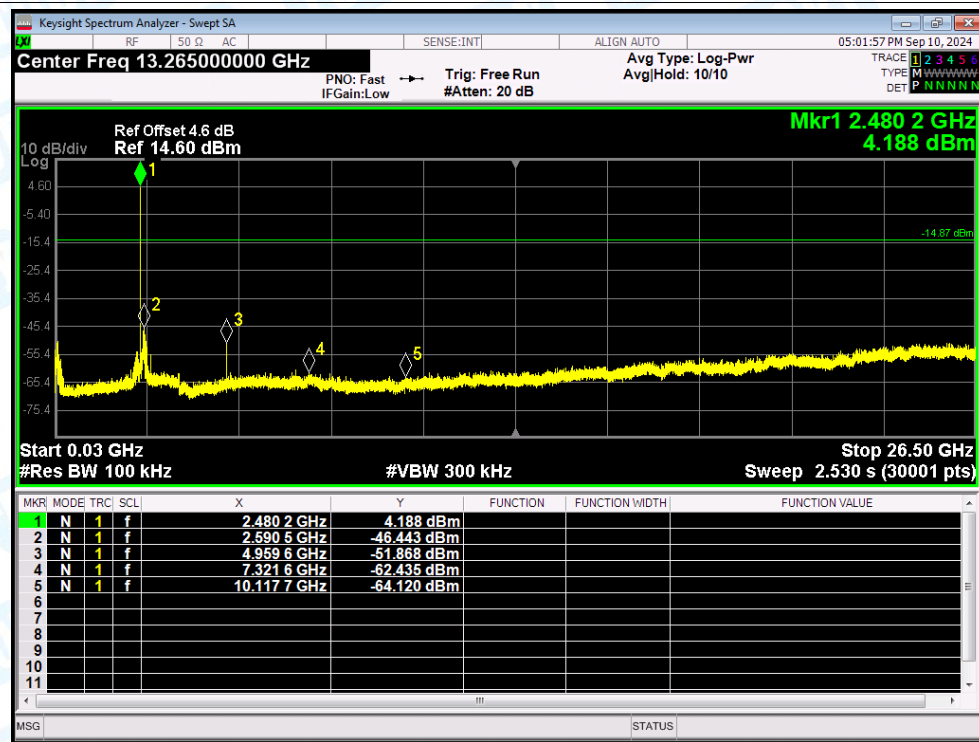
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Emission



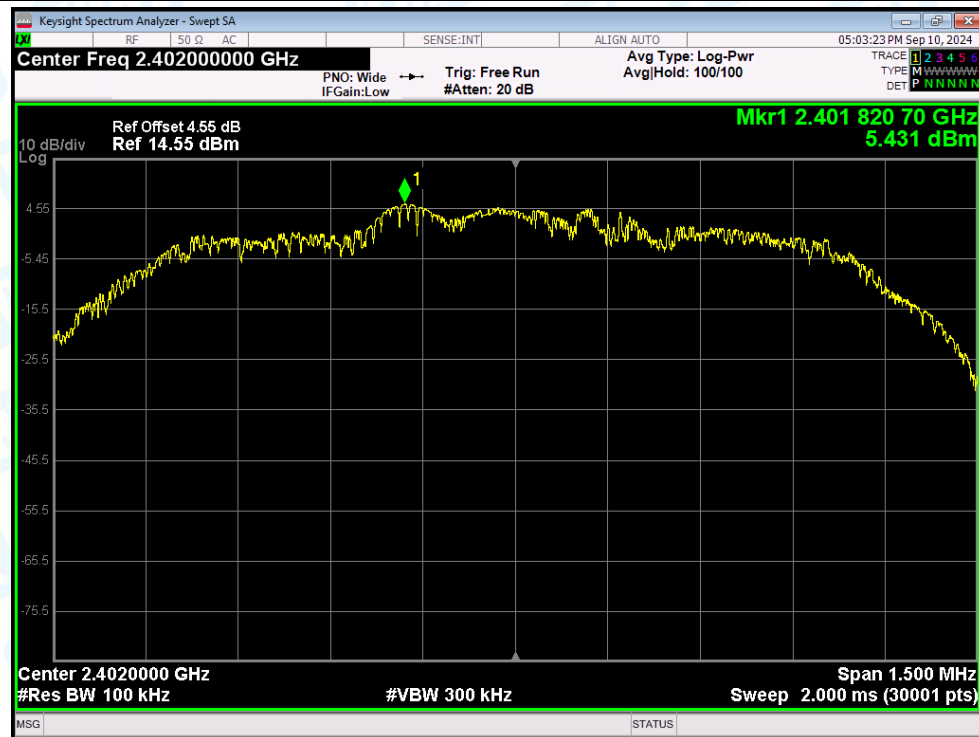
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Ref



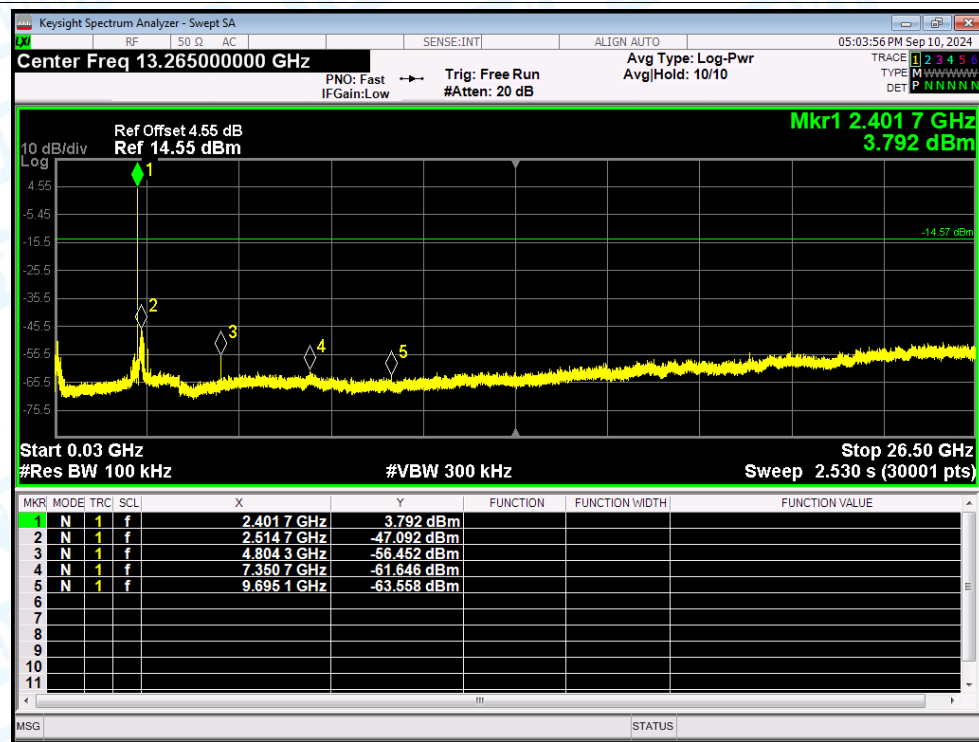
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Emission



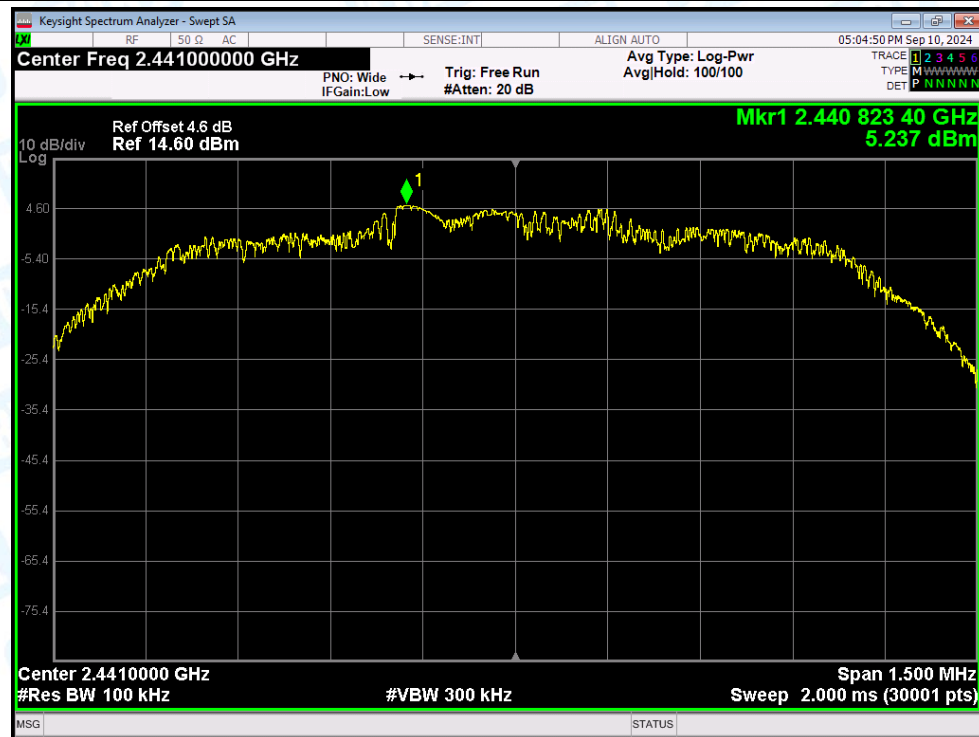
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Ref



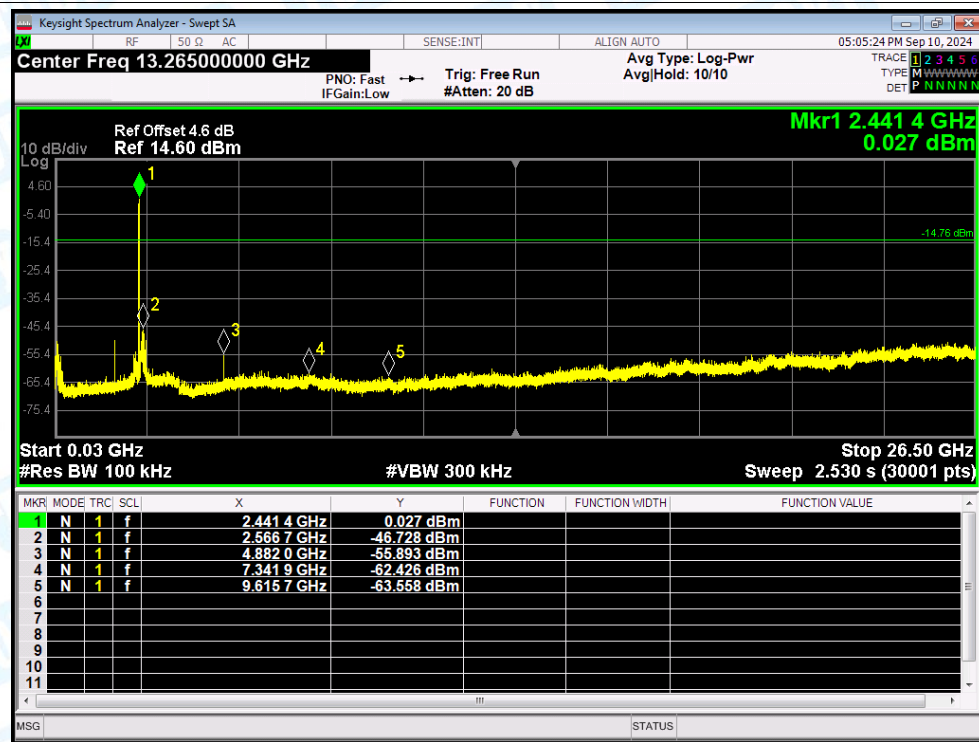
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Emission



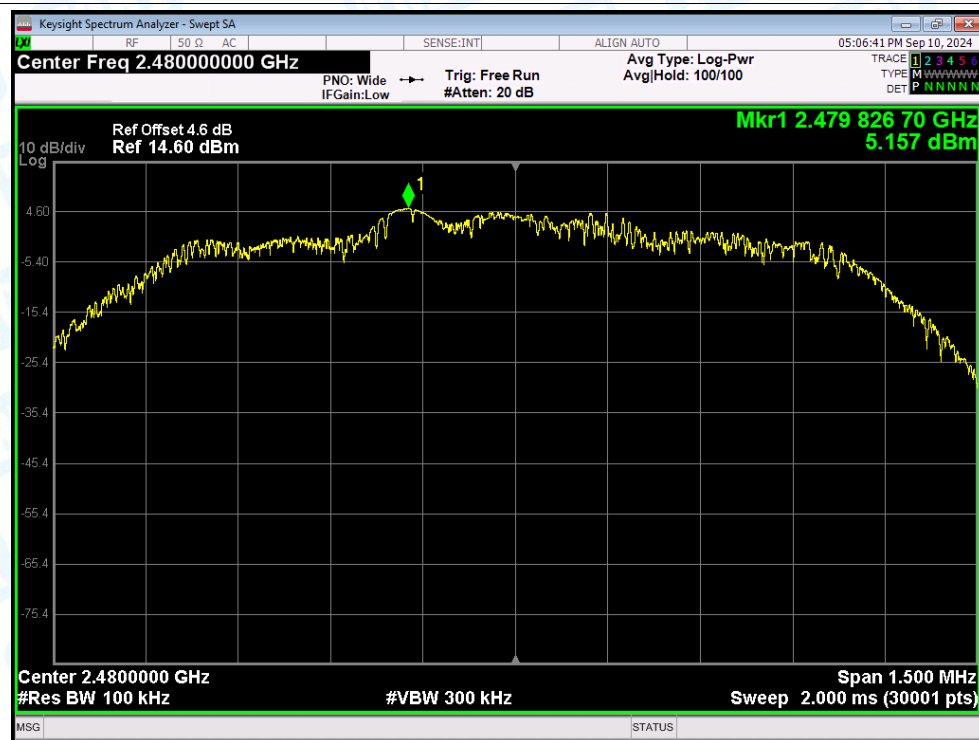
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Ref



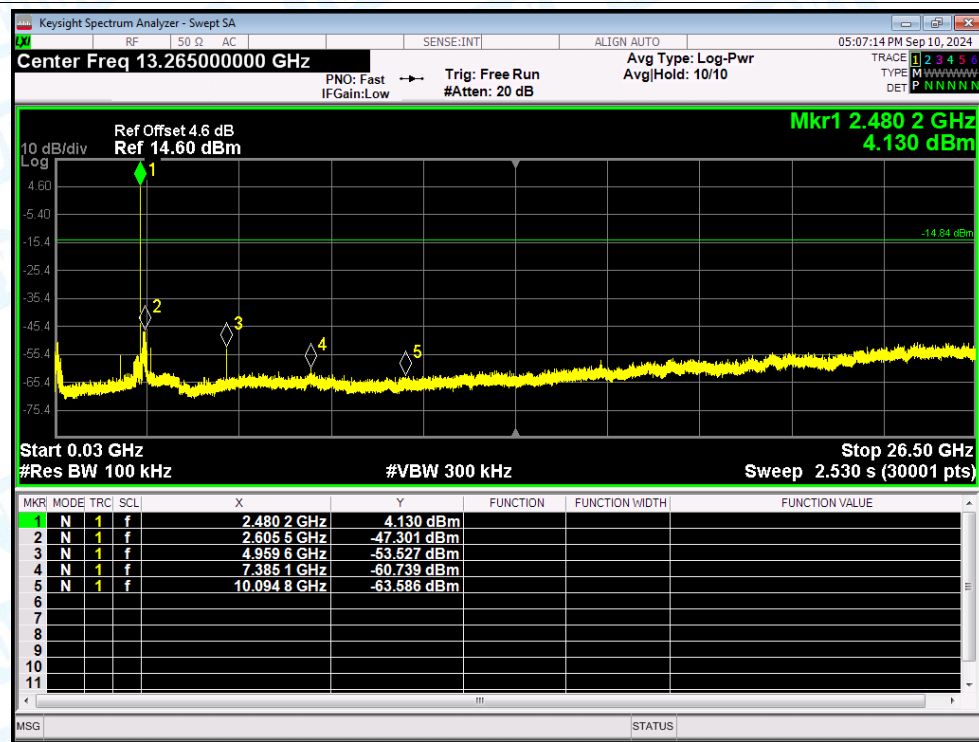
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Emission



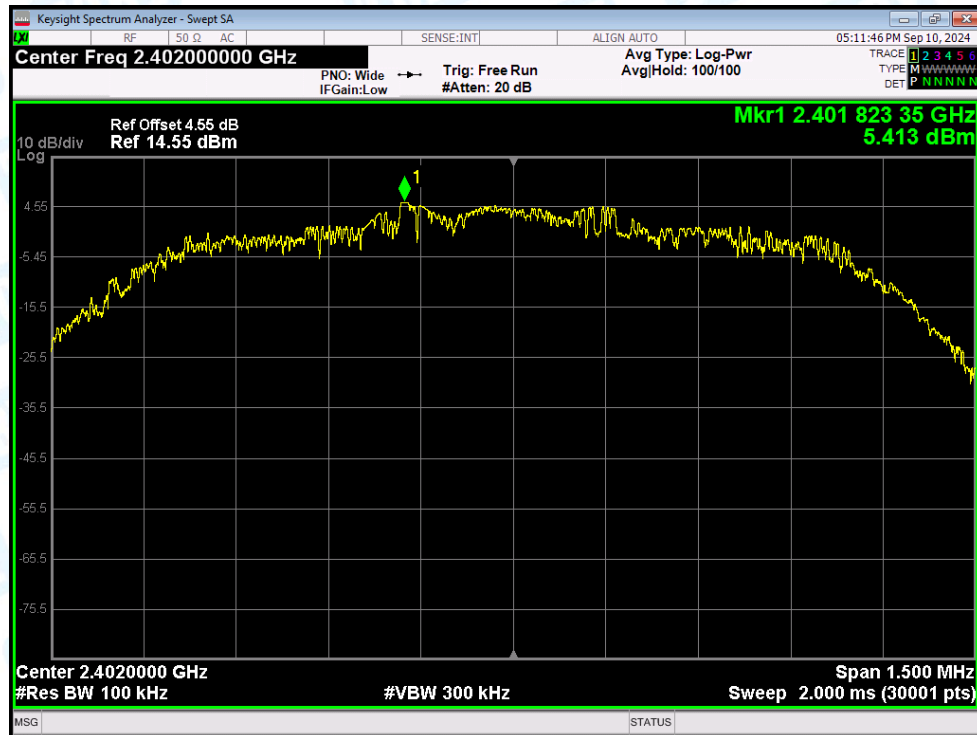
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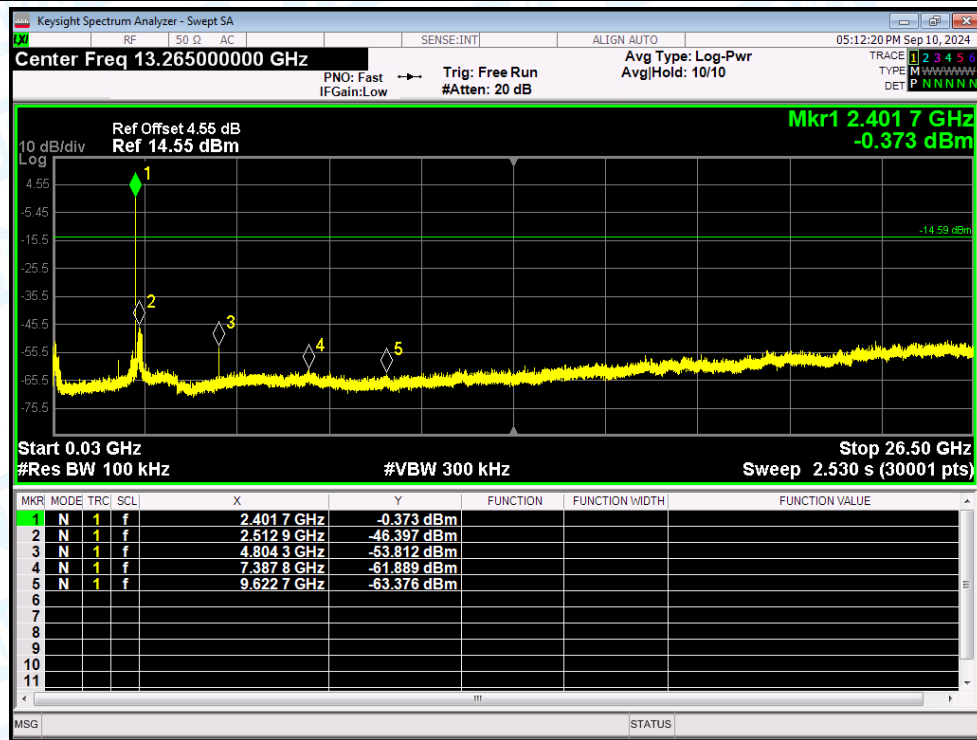
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Emission



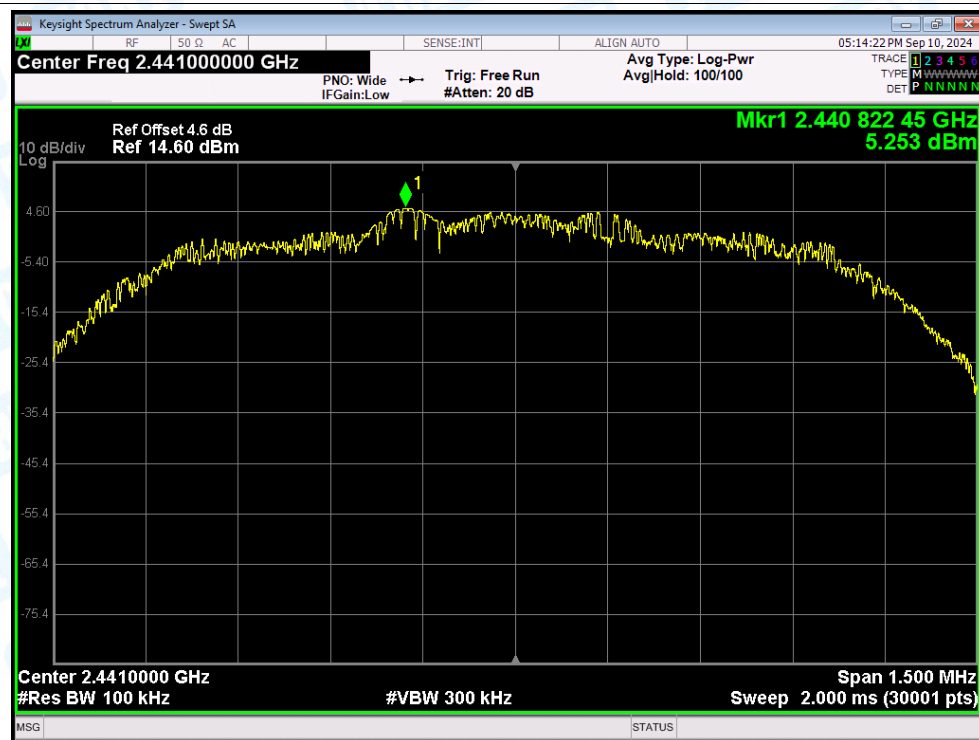
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Ref



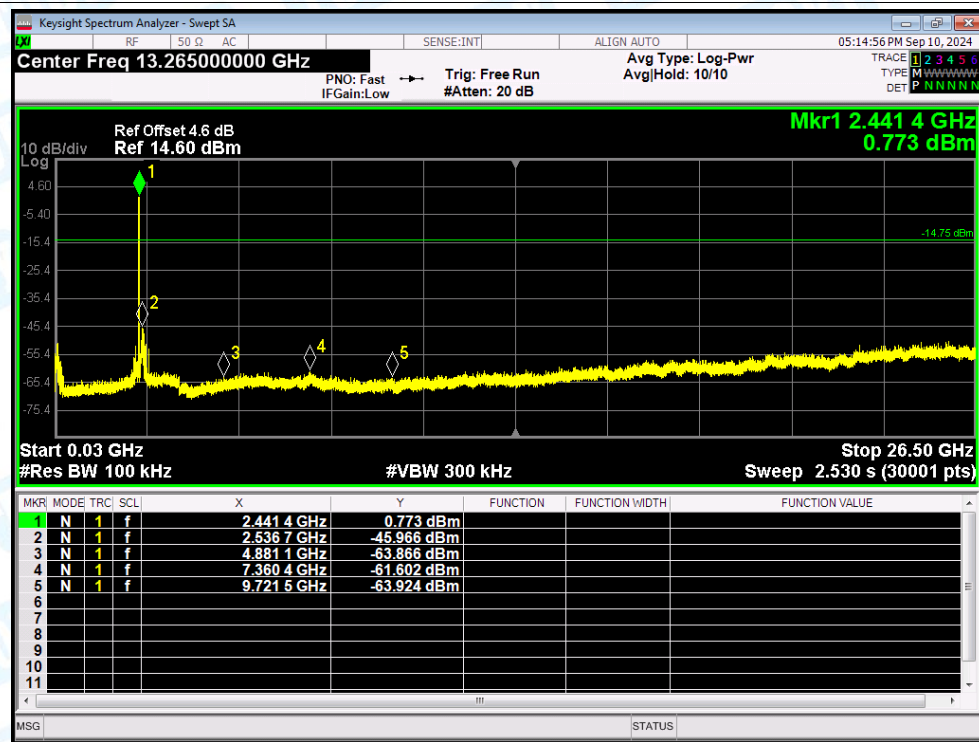
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Emission



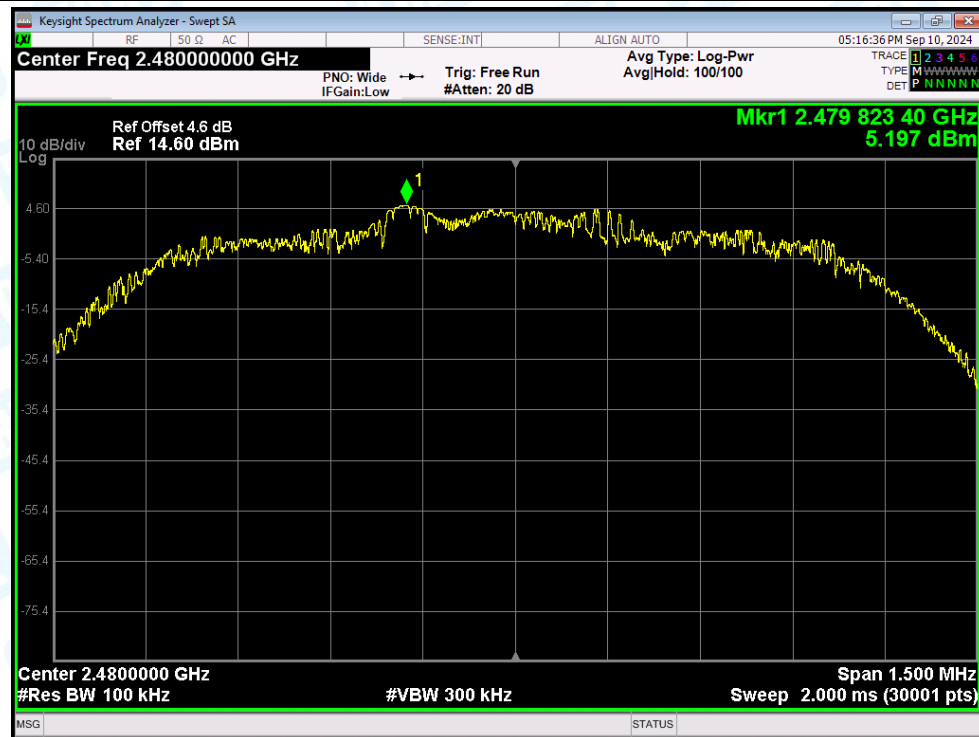
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Ref



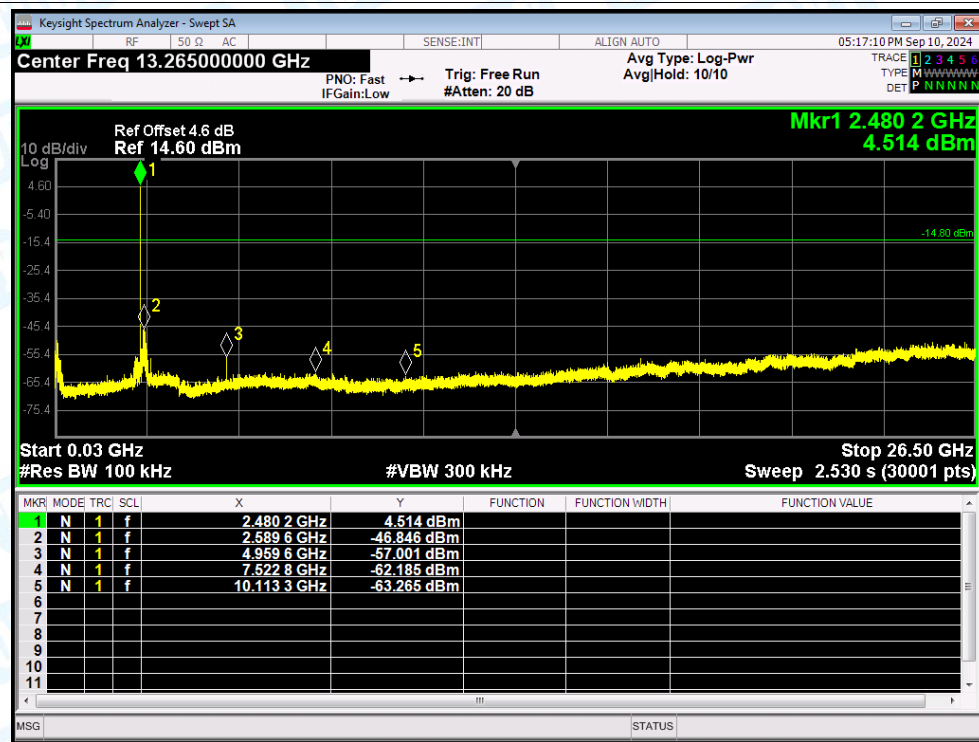
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Emission

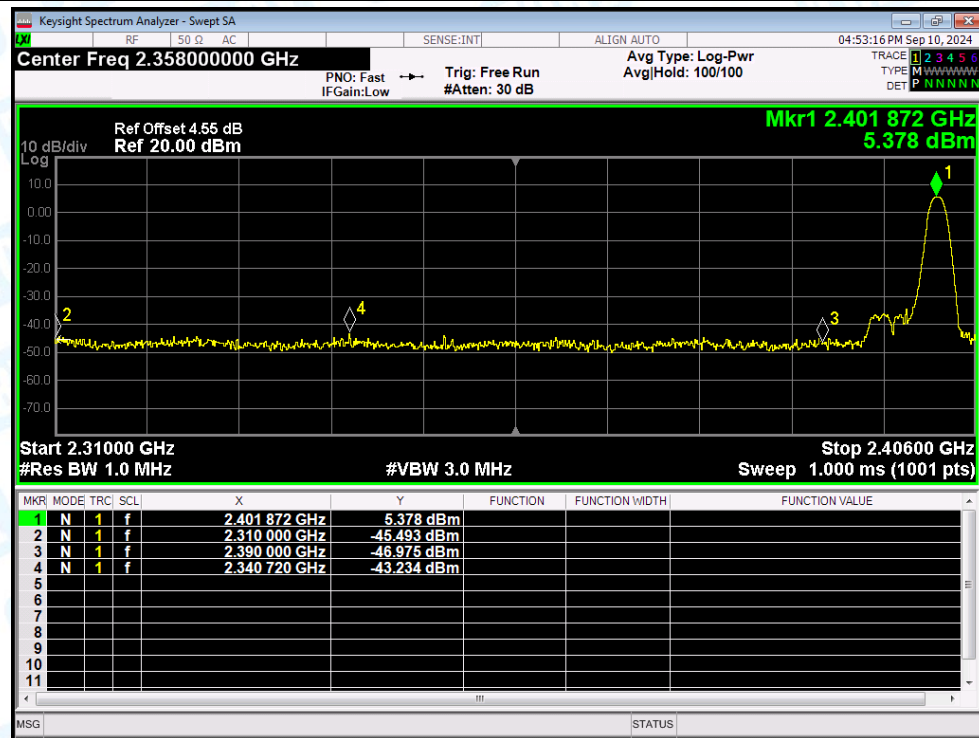


8. Restrict Band

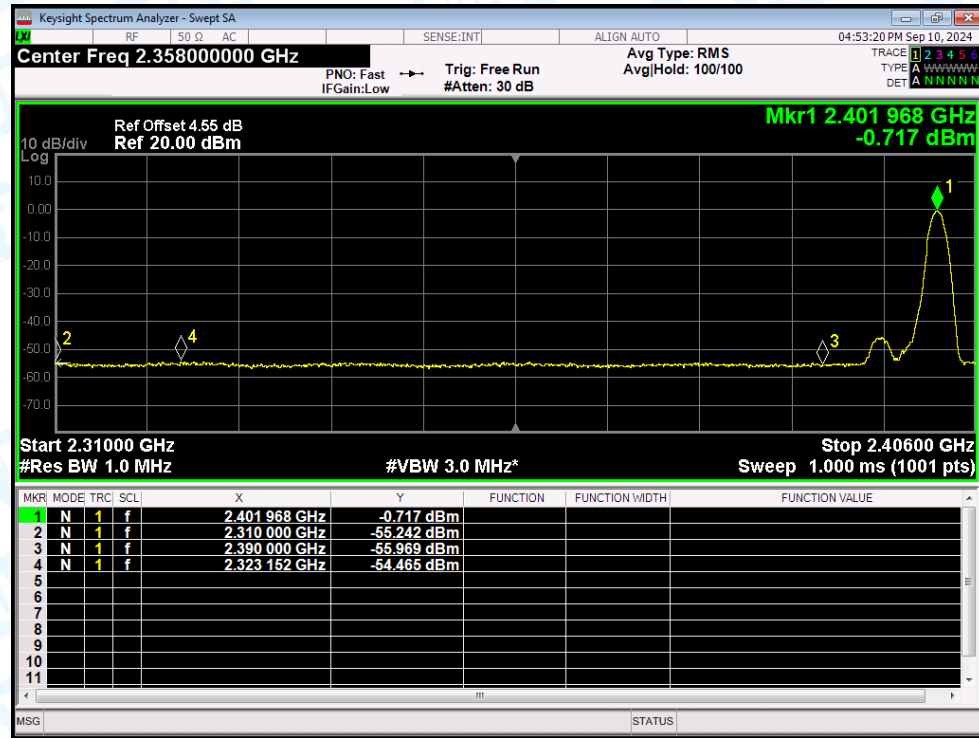
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-45.49	2.85	-	52.62	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-55.24	2.85	5.29	48.16	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2340.72	-43.23	2.85	-	54.88	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2323.152	-54.46	2.85	5.29	48.94	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-46.98	2.85	-	51.13	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-55.97	2.85	5.29	47.43	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-45.74	2.85	-	52.37	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-54.11	2.85	5.17	49.17	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2484.4	-43.2	2.85	-	54.91	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2484.472	-53.98	2.85	5.17	49.3	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-45.23	2.85	-	52.88	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-55.57	2.85	5.17	47.71	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-47.25	2.85	-	50.86	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-55.02	2.85	5.17	48.26	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2322.864	-44.16	2.85	-	53.95	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310.672	-54.73	2.85	5.17	48.55	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-46.04	2.85	-	52.07	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-55.37	2.85	5.17	47.91	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-44.44	2.85	-	53.67	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-54.26	2.85	5.06	48.91	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2493.04	-43.15	2.85	-	54.96	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.632	-54.19	2.85	5.06	48.98	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-48.37	2.85	-	49.74	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-55.09	2.85	5.06	48.08	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-45.11	2.85	-	53	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-55.47	2.85	5.17	47.81	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2311.92	-44.1	2.85	-	54.01	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310.096	-54.65	2.85	5.17	48.63	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-47.83	2.85	-	50.28	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-55.98	2.85	5.17	47.3	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-45.35	2.85	-	52.76	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-54.72	2.85	5.17	48.56	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2484.616	-41.44	2.85	-	56.67	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2484.088	-53.95	2.85	5.17	49.33	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-46.98	2.85	-	51.13	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-54.53	2.85	5.17	48.75	Average	54	Pass

Test Graphs

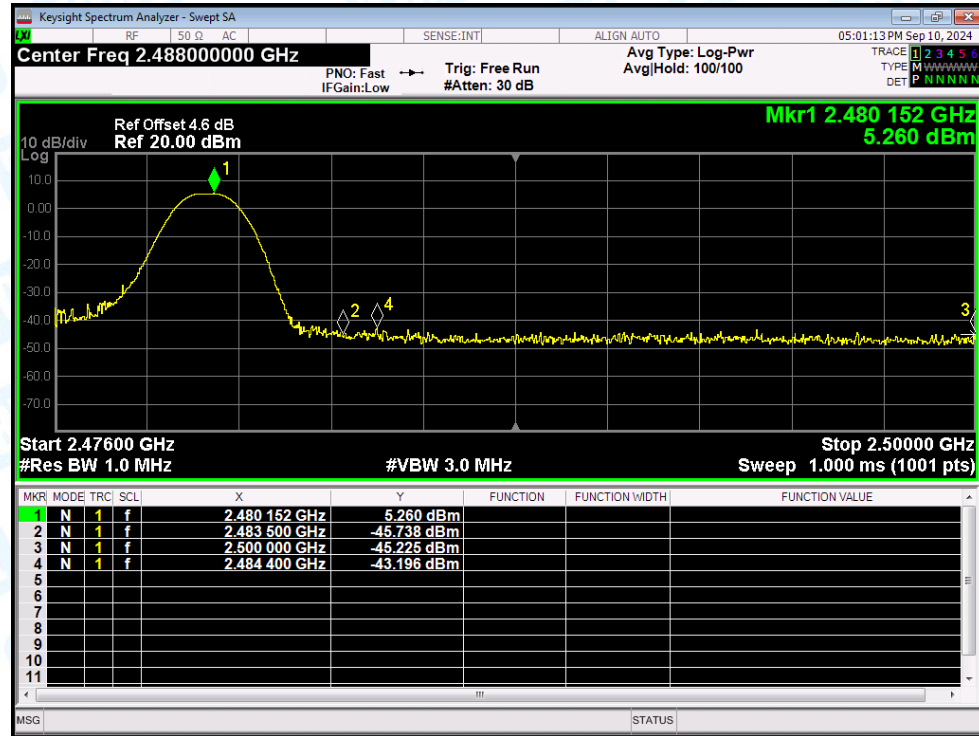
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Peak



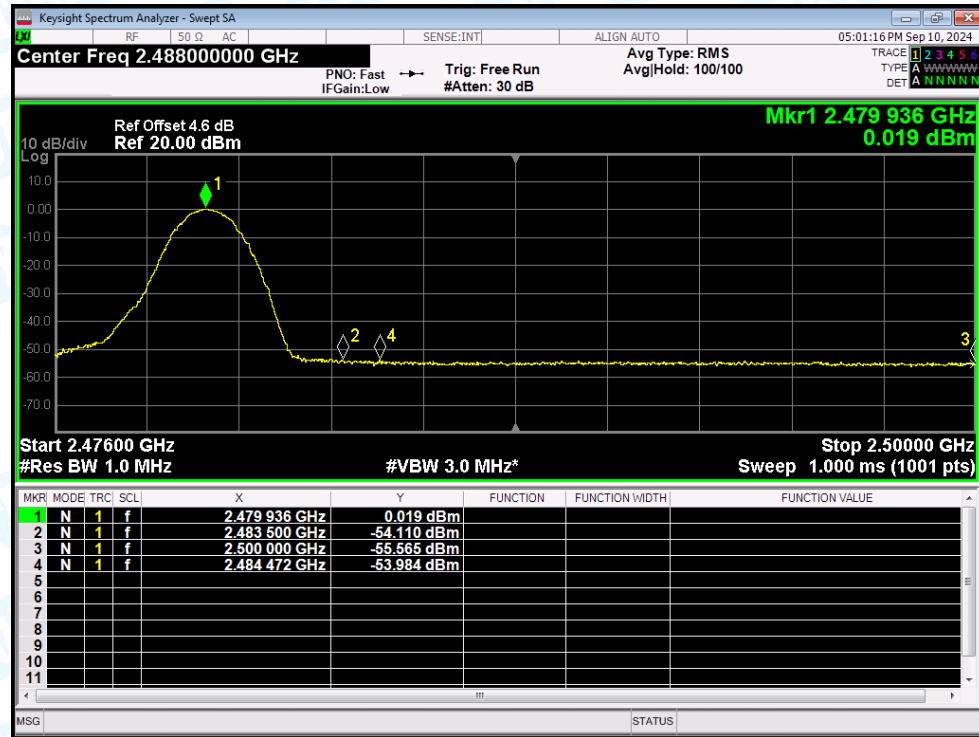
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Average



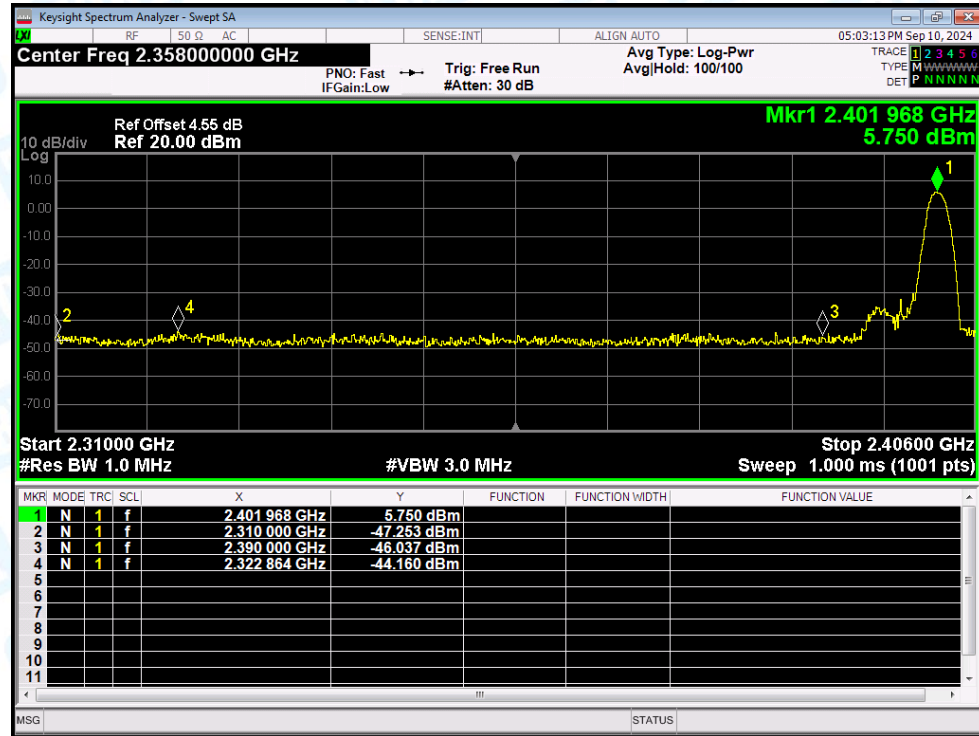
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Peak



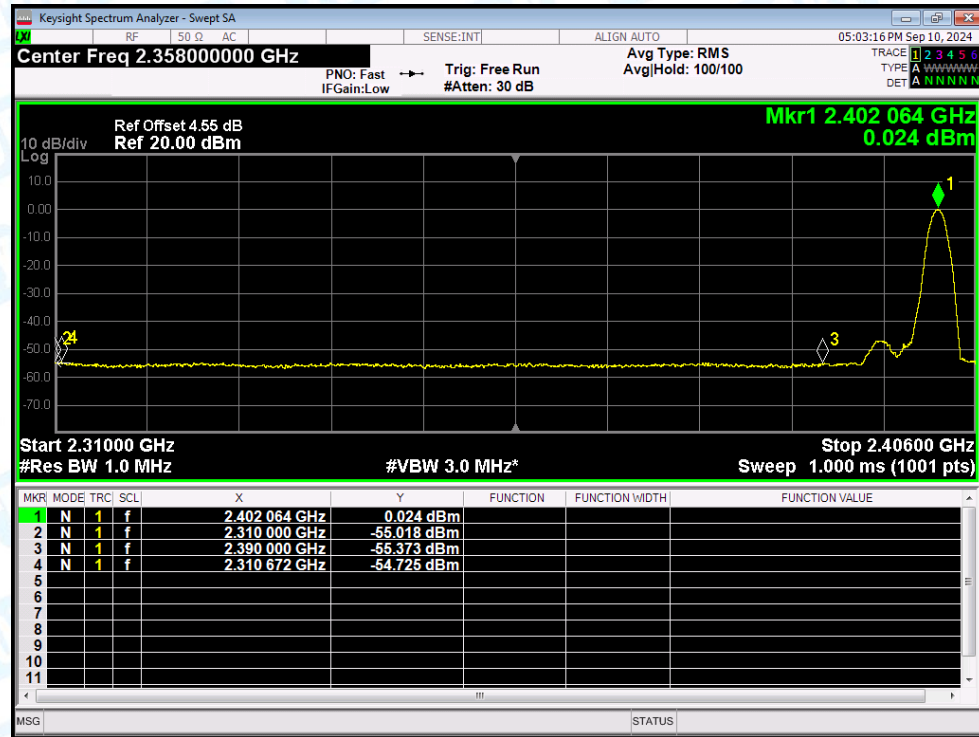
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Average



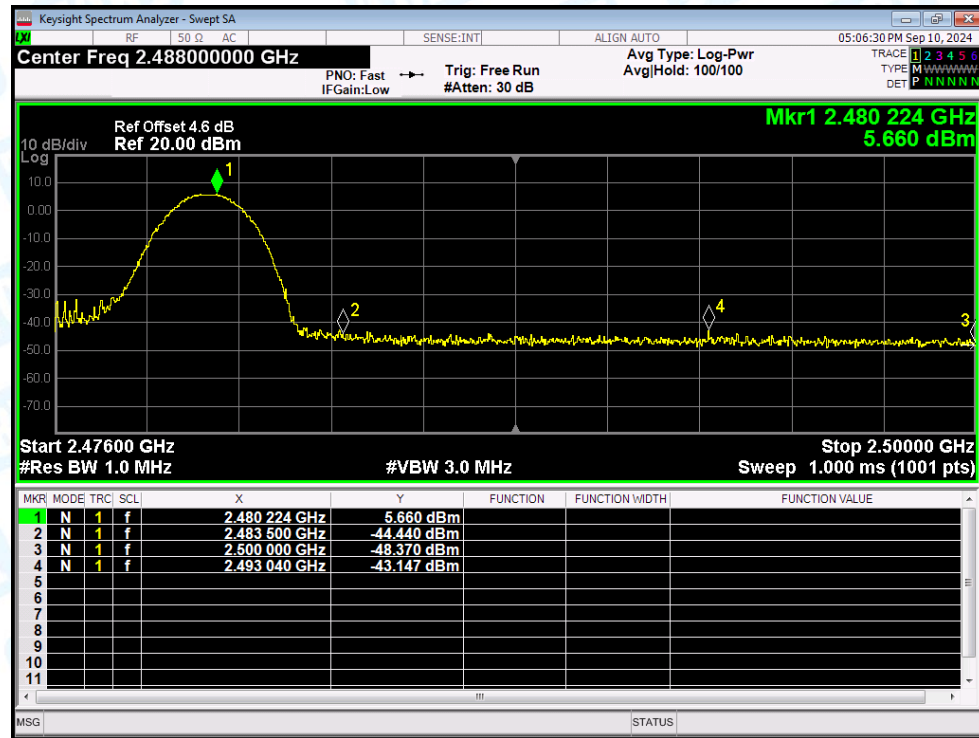
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Peak



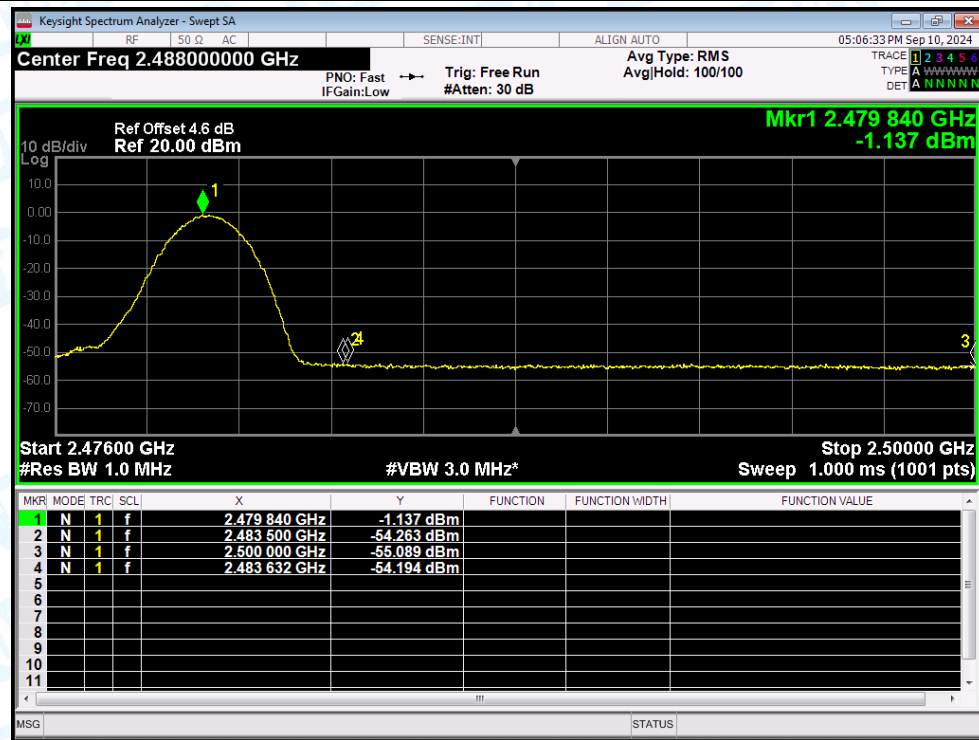
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Average



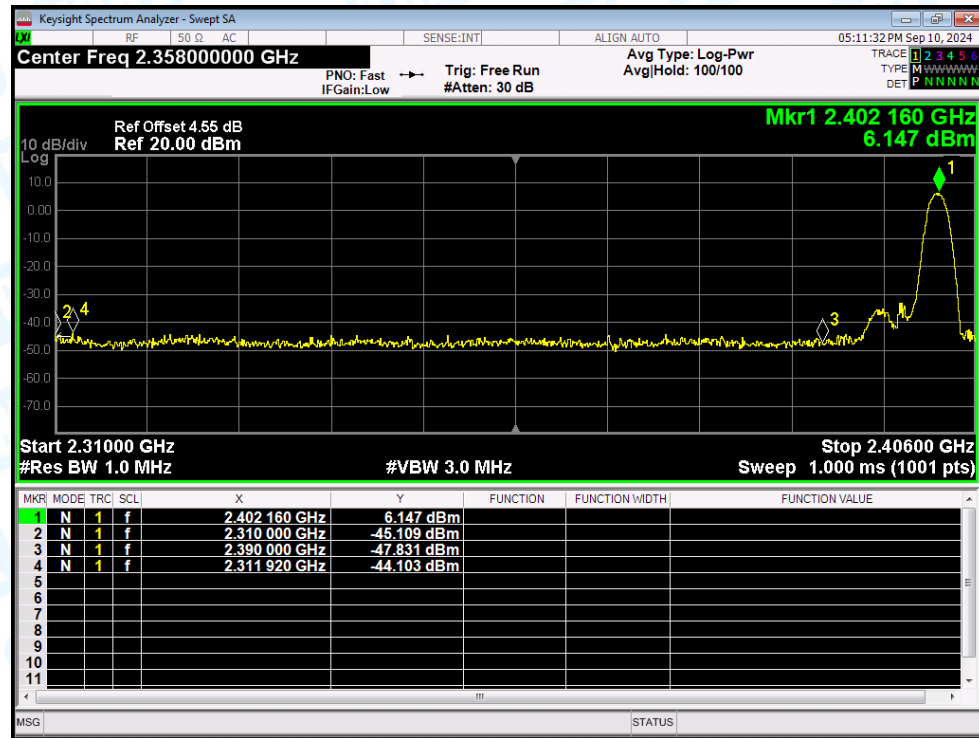
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Peak



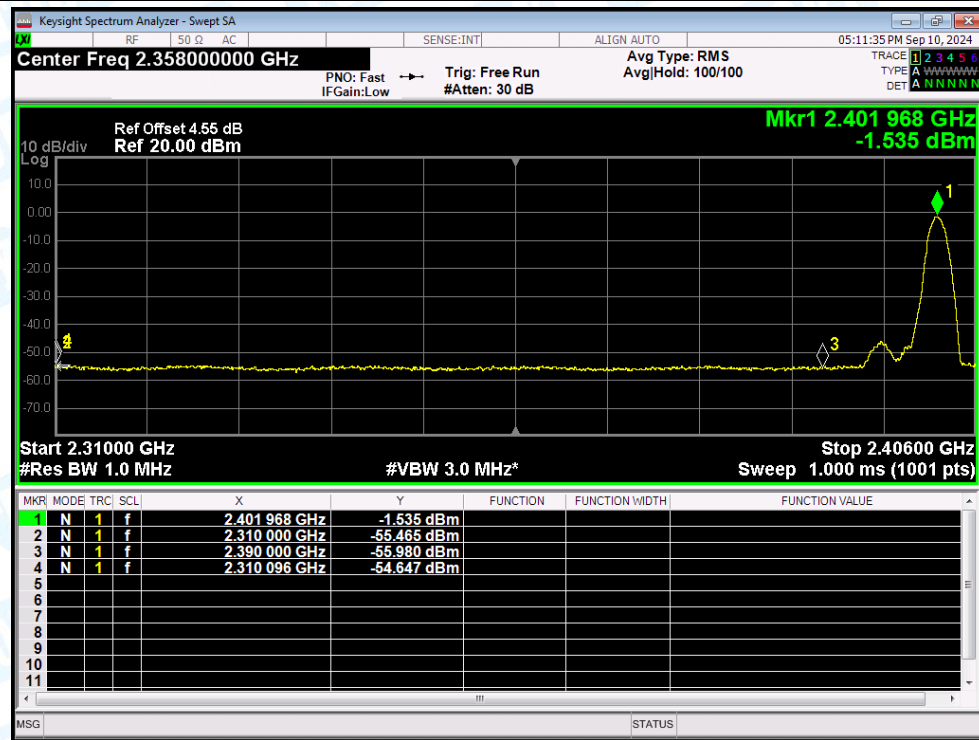
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Average



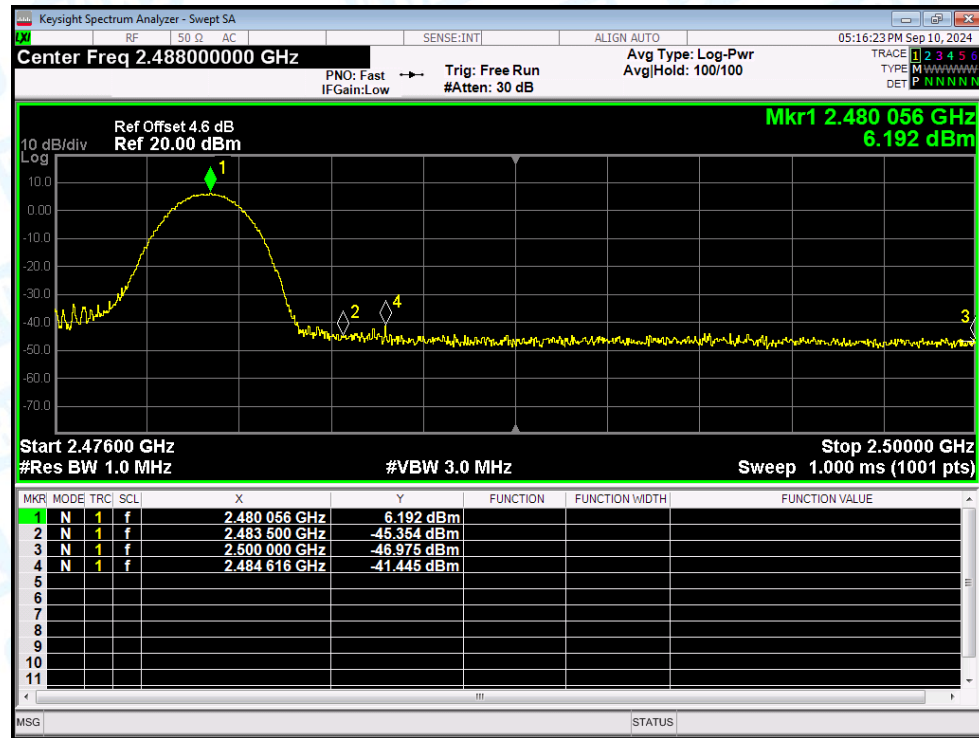
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Peak



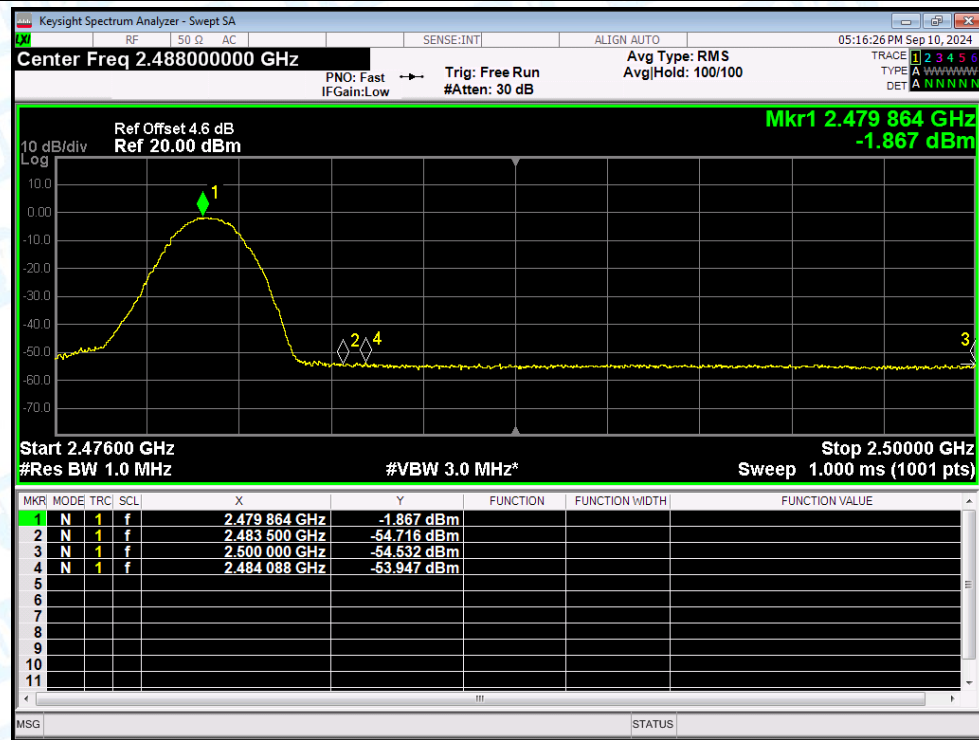
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Average



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



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

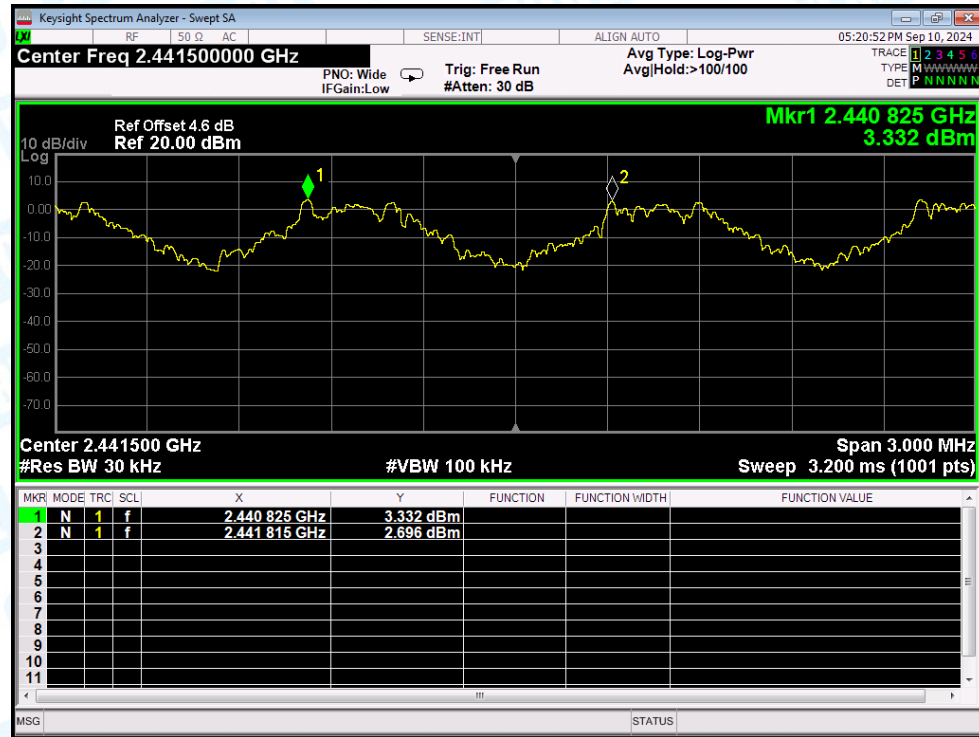


9. Carrier Frequencies Separation

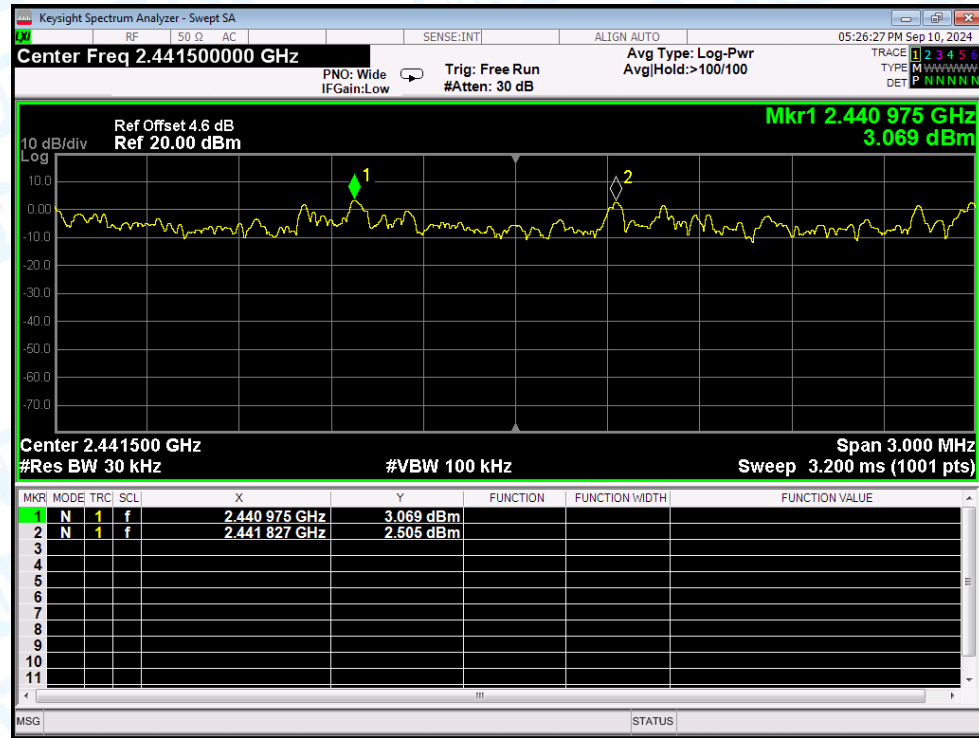
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH1	Ant1	2440.825	2441.815	0.99	0.573	Pass
NVNT	2-DH1	Ant1	2440.975	2441.827	0.852	0.827	Pass
NVNT	3-DH1	Ant1	2440.984	2441.977	0.993	0.833	Pass

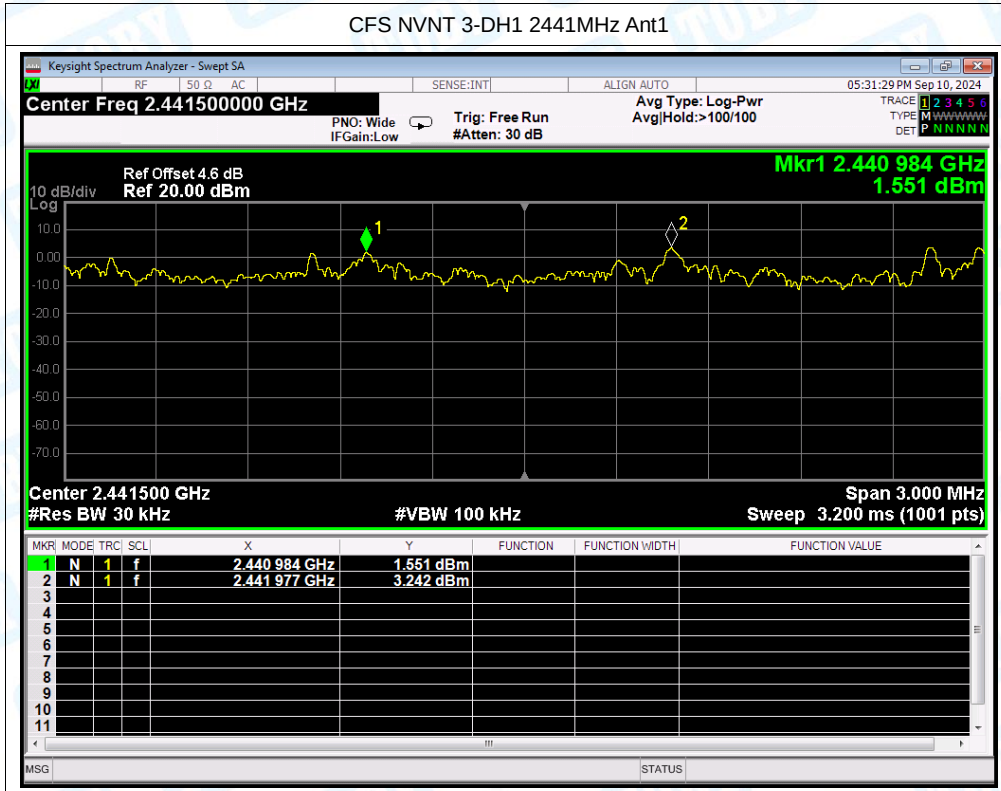
Test Graphs

CFS NVNT 1-DH1 2441MHz Ant1



CFS NVNT 2-DH1 2441MHz Ant1



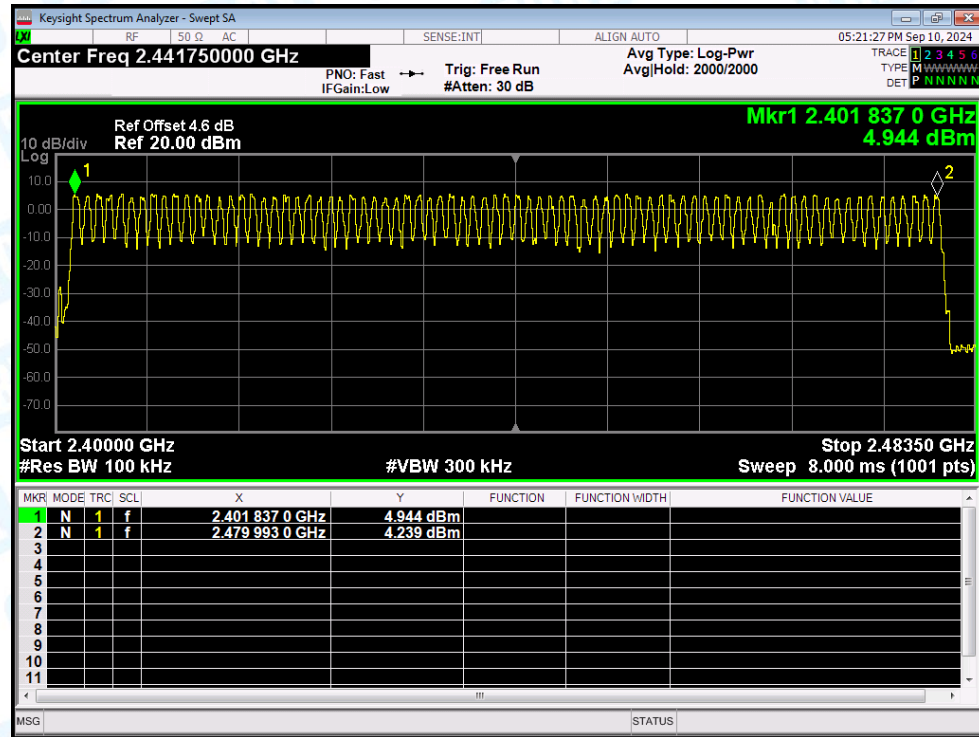


10. Number of Hopping Channel

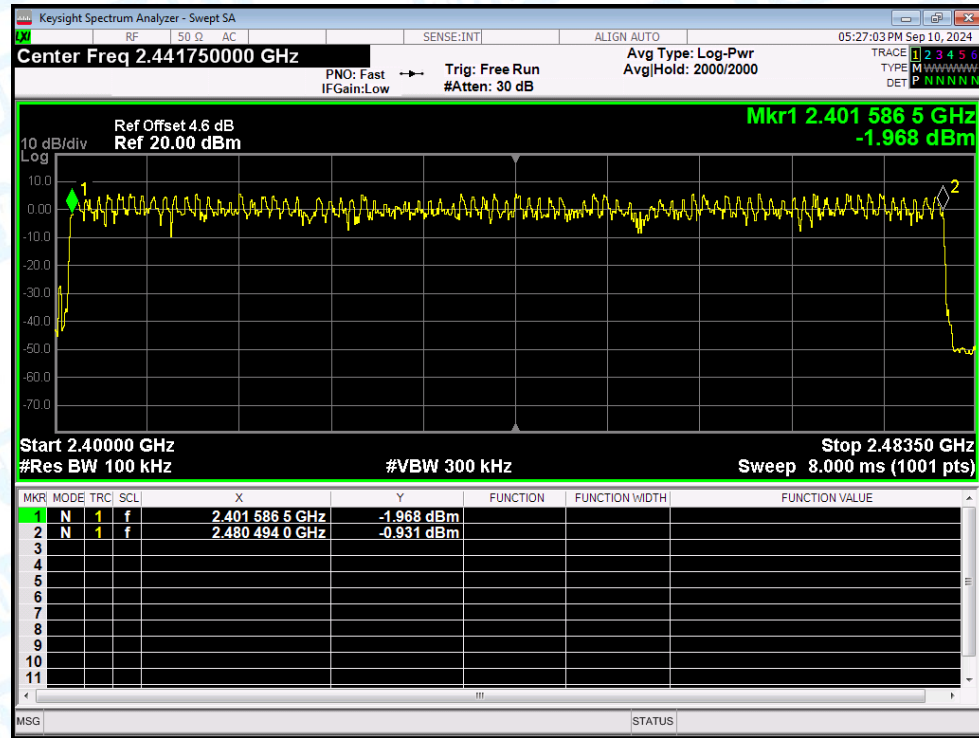
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH1	Ant1	79	15	Pass
NVNT	2-DH1	Ant1	79	15	Pass
NVNT	3-DH1	Ant1	79	15	Pass

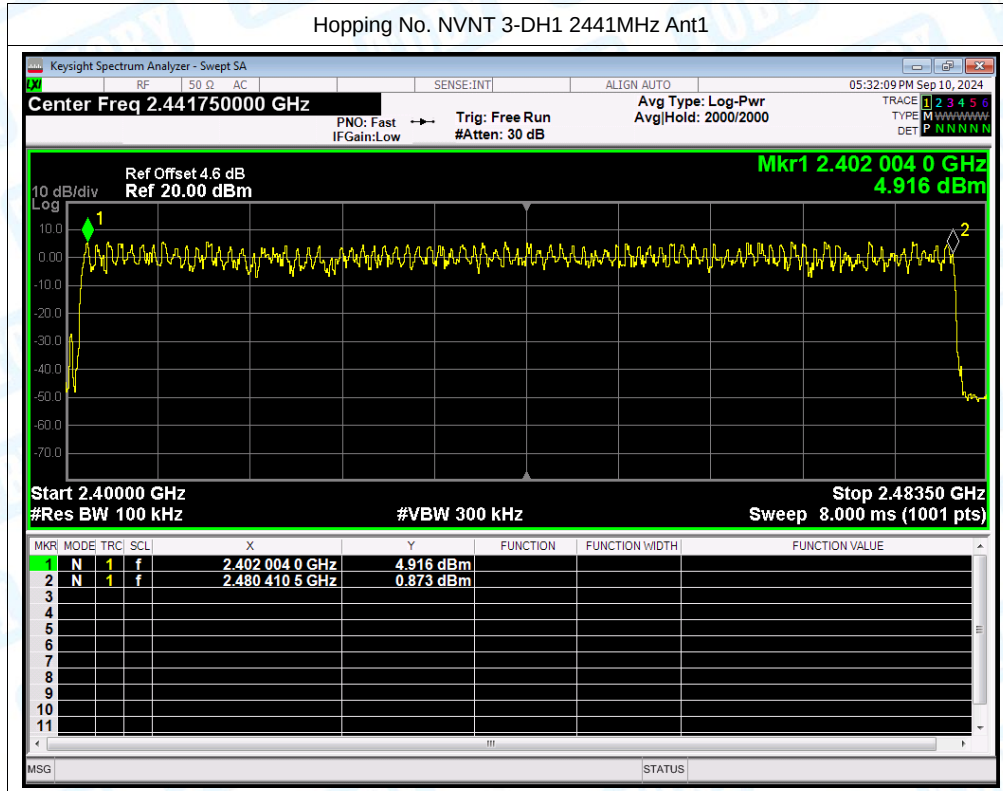
Test Graphs

Hopping No. NVNT 1-DH1 2441MHz Ant1



Hopping No. NVNT 2-DH1 2441MHz Ant1



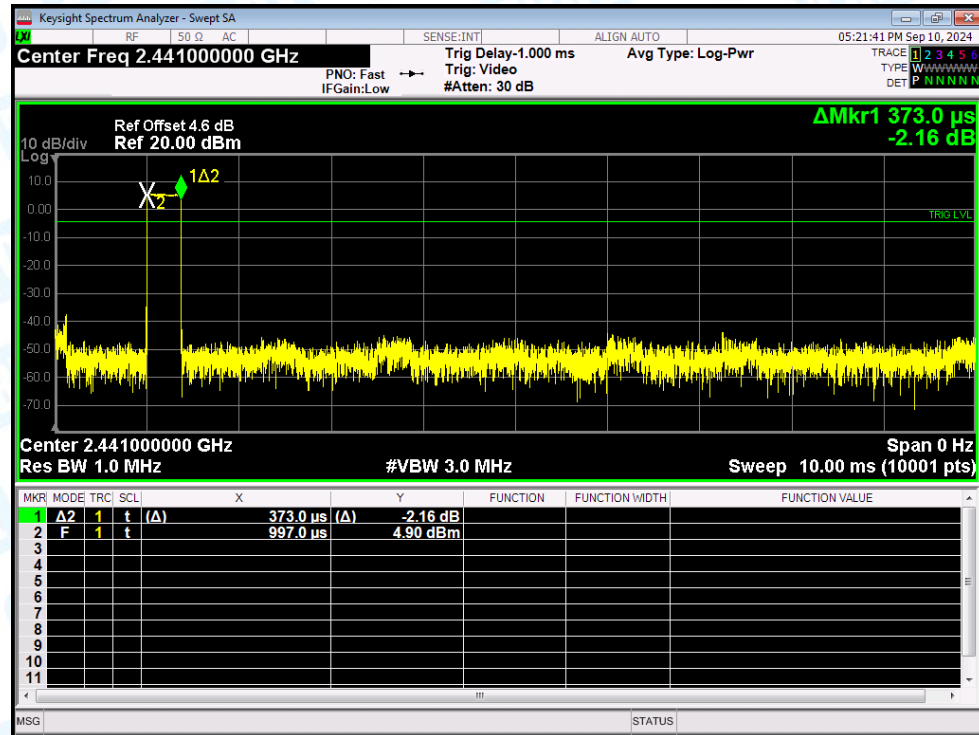


11. Dwell Time

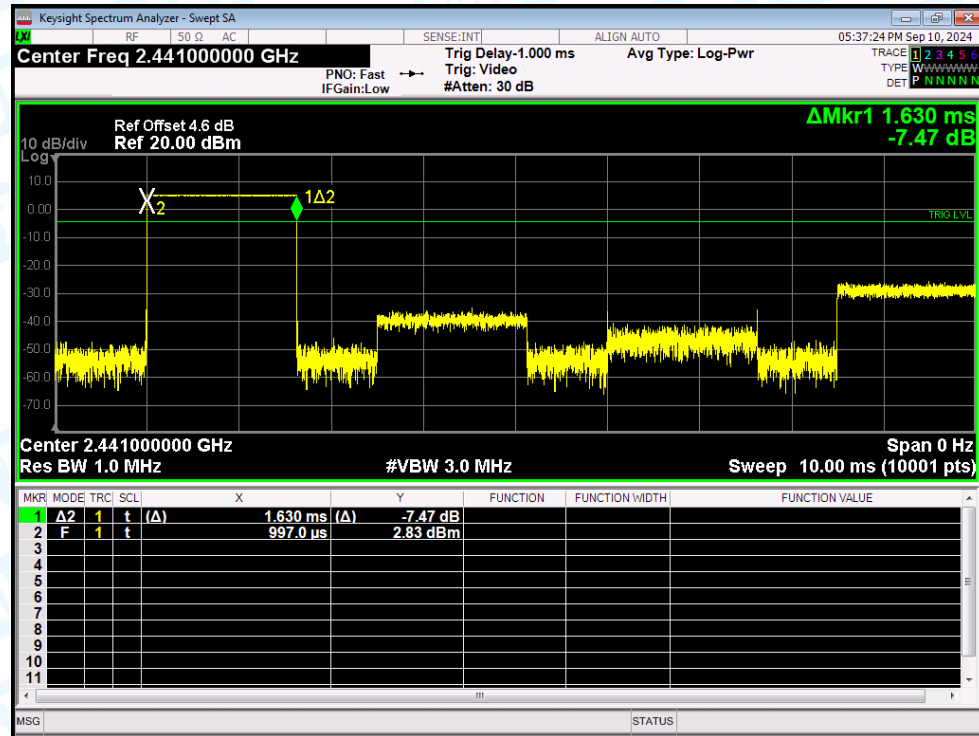
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	Ant1	0.373	119.36	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.63	260.8	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.877	306.88	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.383	122.56	31600	400	Pass
NVNT	2-DH3	2441	Ant1	1.636	261.76	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.883	307.52	31600	400	Pass
NVNT	3-DH1	2441	Ant1	0.384	122.88	31600	400	Pass
NVNT	3-DH3	2441	Ant1	1.635	261.6	31600	400	Pass
NVNT	3-DH5	2441	Ant1	2.886	307.84	31600	400	Pass

Test Graphs

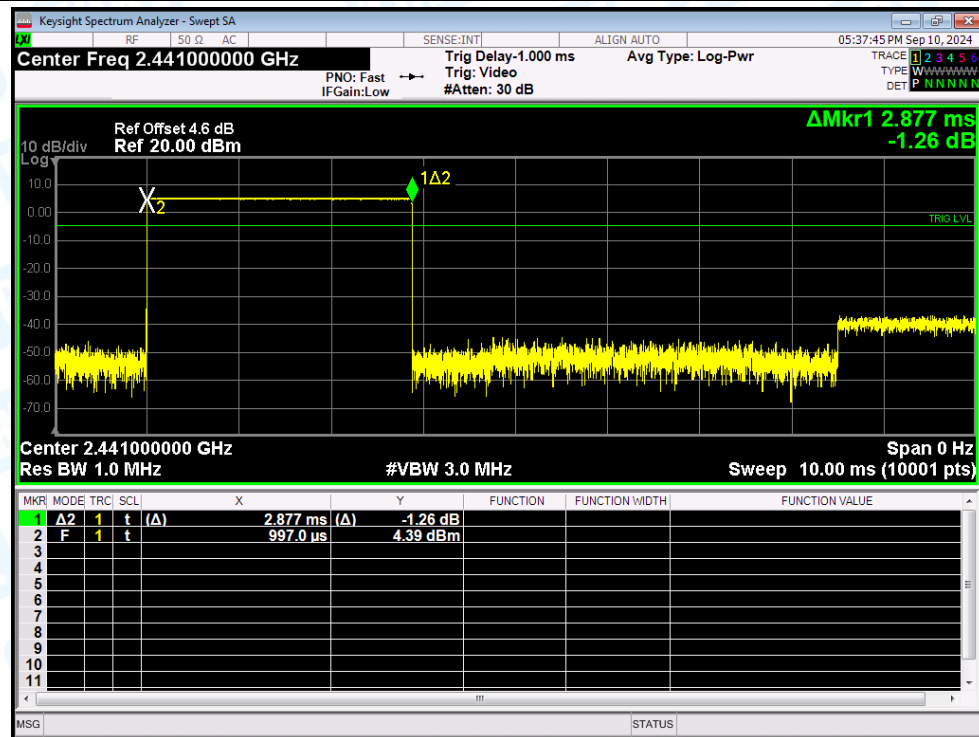
Dwell NVNT 1-DH1 2441MHz Ant1



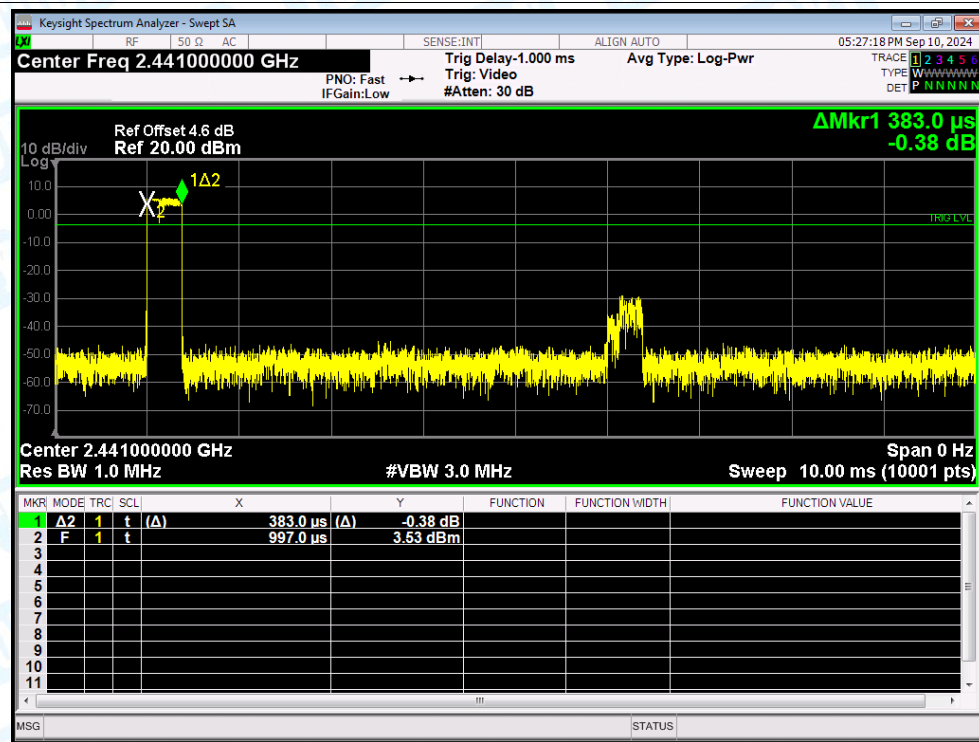
Dwell NVNT 1-DH3 2441MHz Ant1



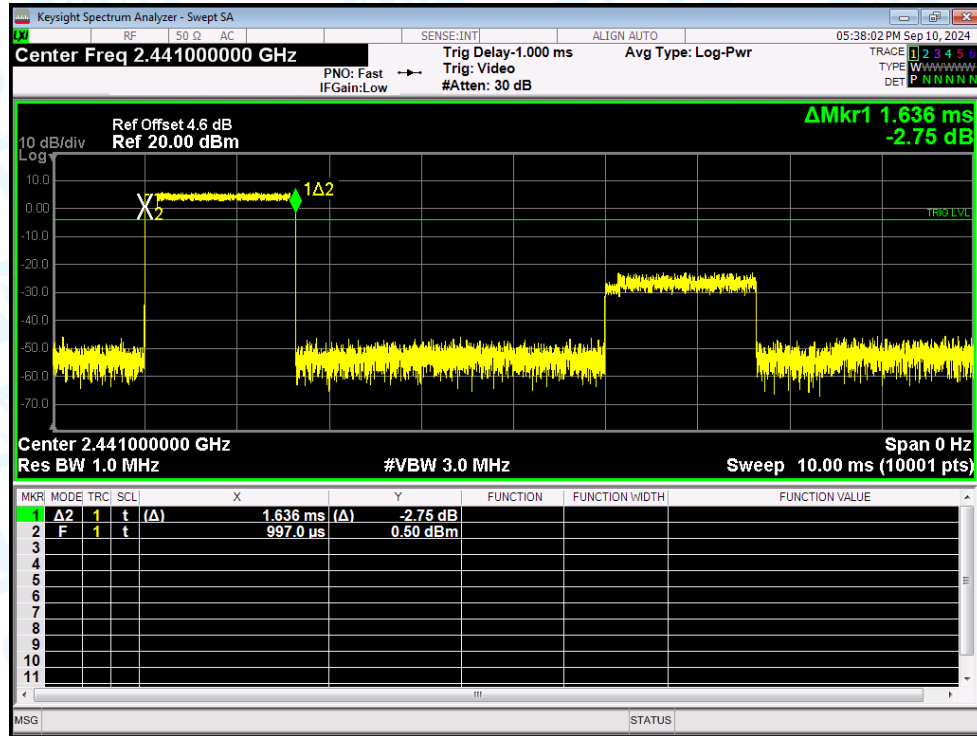
Dwell NVNT 1-DH5 2441MHz Ant1



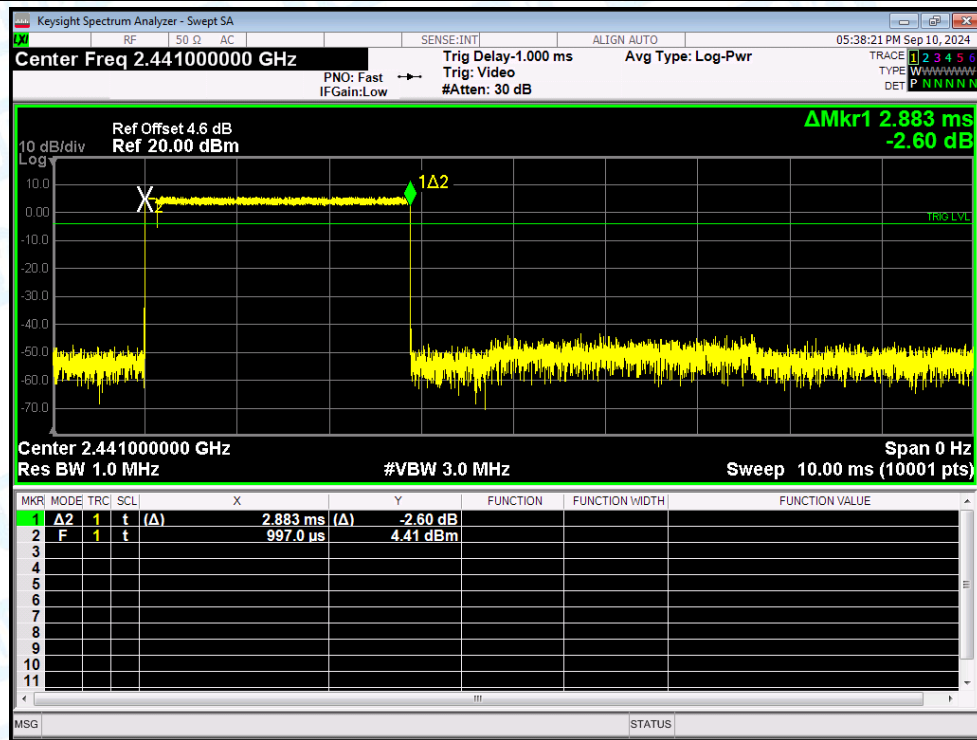
Dwell NVNT 2-DH1 2441MHz Ant1



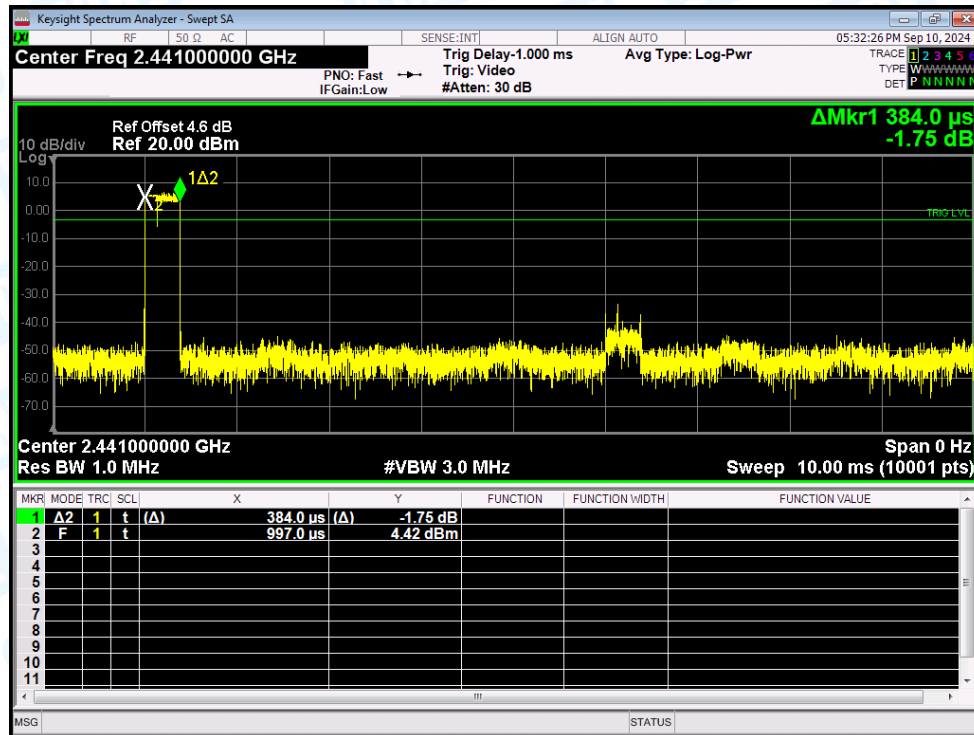
Dwell NVNT 2-DH3 2441MHz Ant1



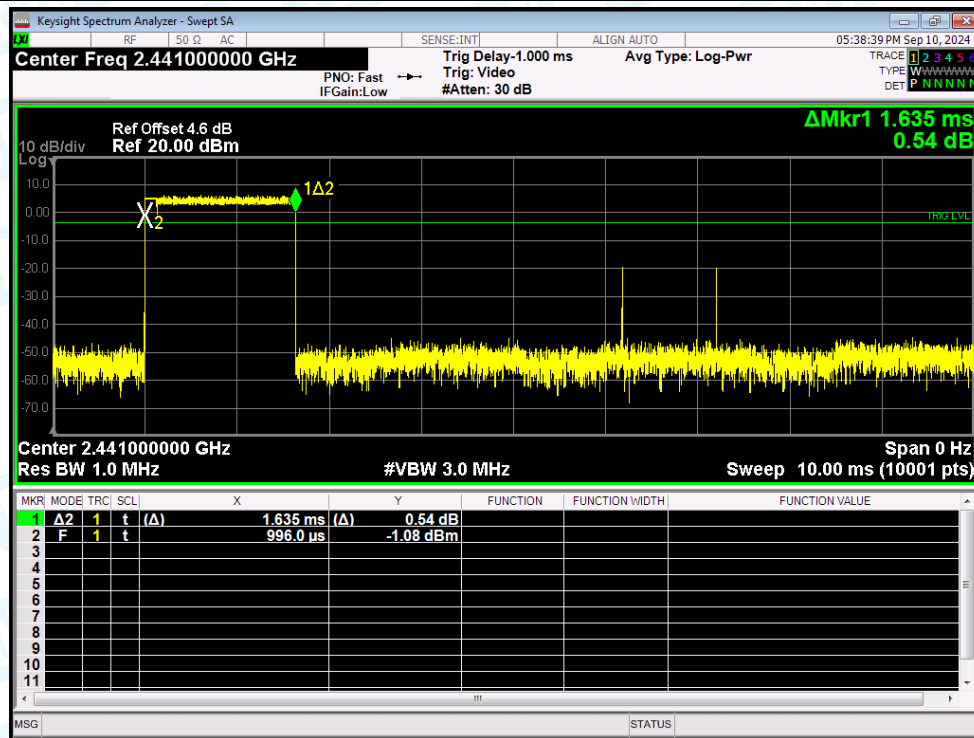
Dwell NVNT 2-DH5 2441MHz Ant1

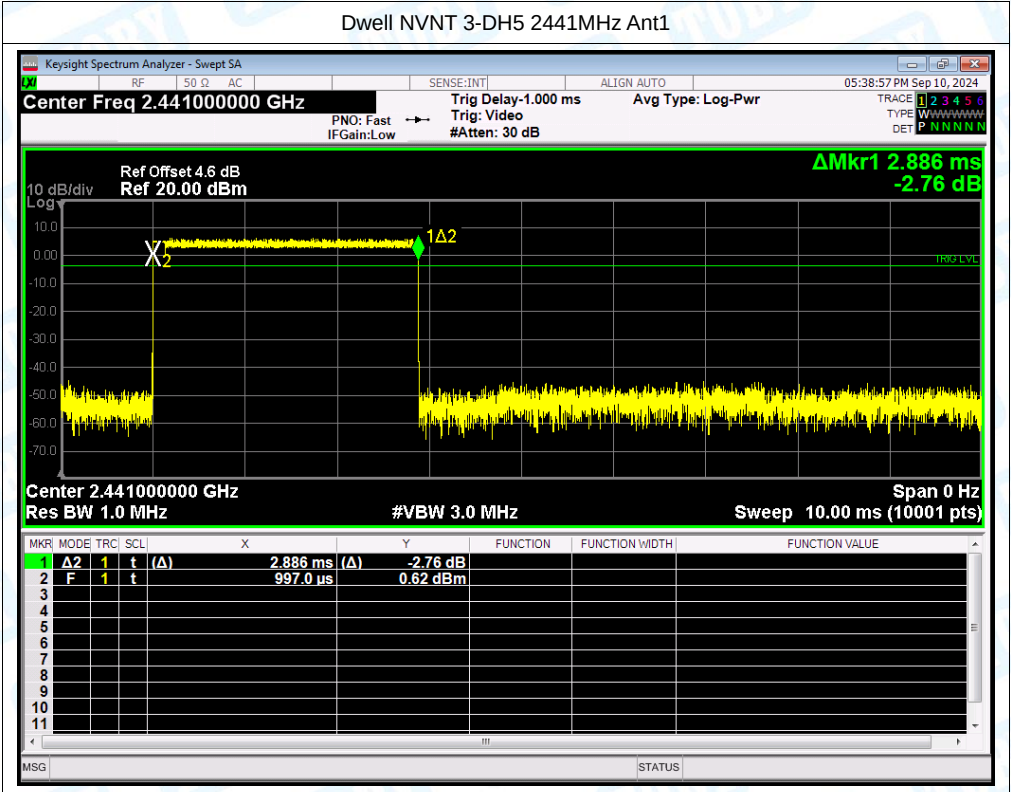


Dwell NVNT 3-DH1 2441MHz Ant1



Dwell NVNT 3-DH3 2441MHz Ant1





--- END OF THR REPORT ---