

# RF Test Data for Bluetooth(BR+EDR) (Conducted Measurements)

General Description of EUT	
<b>Product Name:</b>	Wireless headset
<b>Test Model:</b>	PRO
<b>Sample ID:</b>	202310-0175-5-2#
Environmental Conditions	
<b>Temperature:</b>	25°C
<b>Relative Humidity:</b>	55%
<b>Test Voltage:</b>	DC 3.7V
<b>Test Engineer:</b>	Zhang Chen Xi
Note: For a more detailed features description, please refer to the report TBR-C-202310-0175-7 The report only show the worst case data.	

## Contents

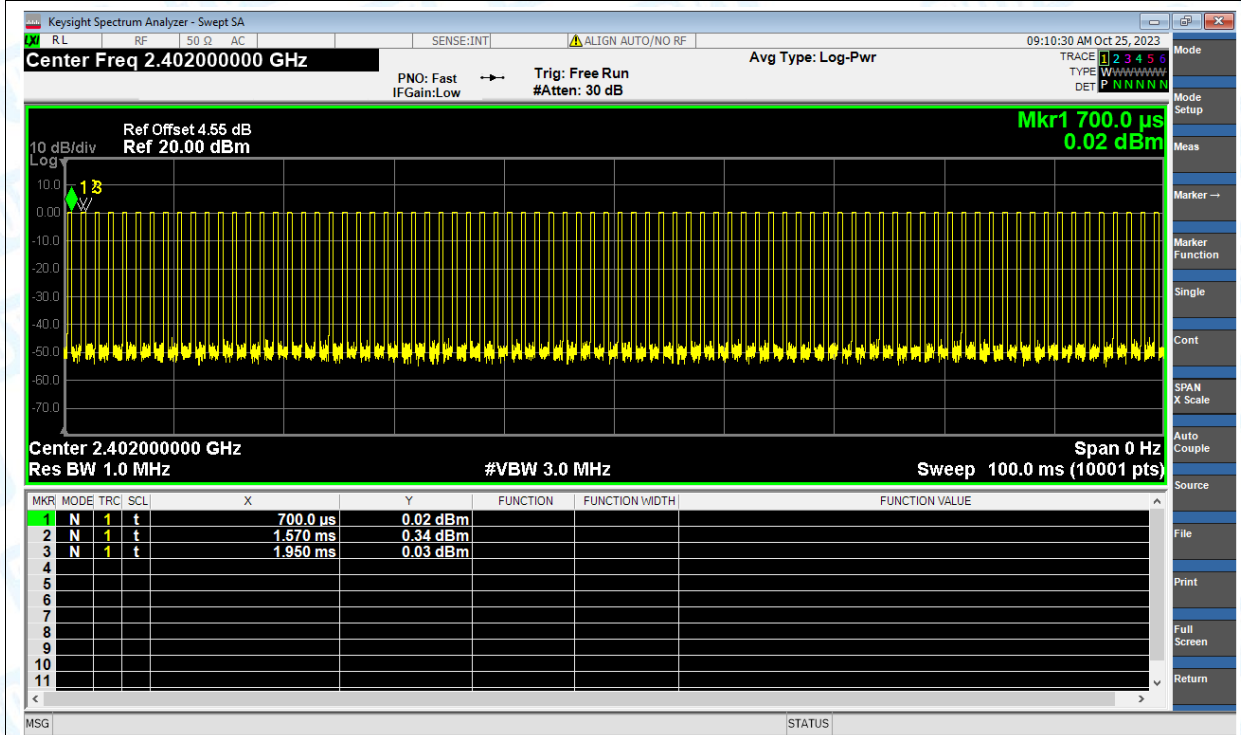
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## 1. Duty Cycle

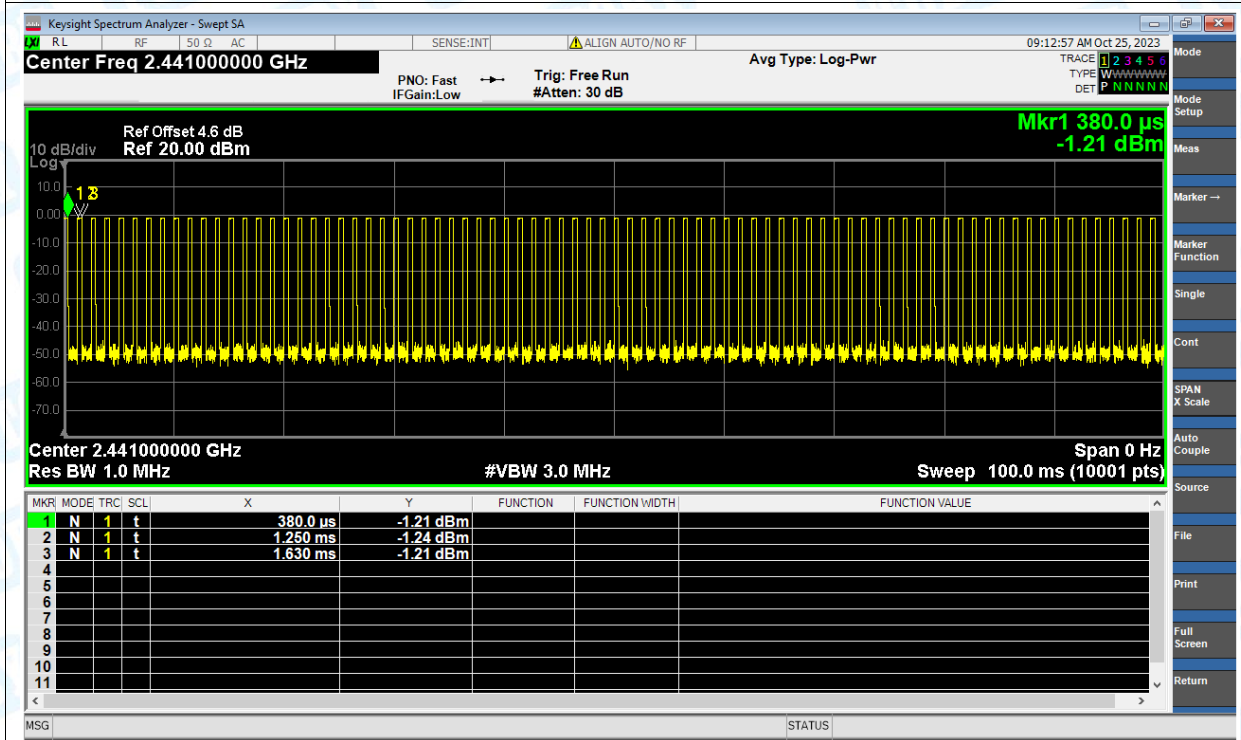
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH1	2402	Ant1	30.4	5.17	2.63
NVNT	1-DH1	2441	Ant1	30.4	5.17	2.63
NVNT	1-DH1	2480	Ant1	30.4	5.17	2.63
NVNT	2-DH1	2402	Ant1	32	4.95	2.50
NVNT	2-DH1	2441	Ant1	31.2	5.06	2.56
NVNT	2-DH1	2480	Ant1	31.2	5.06	2.56

Test Graphs

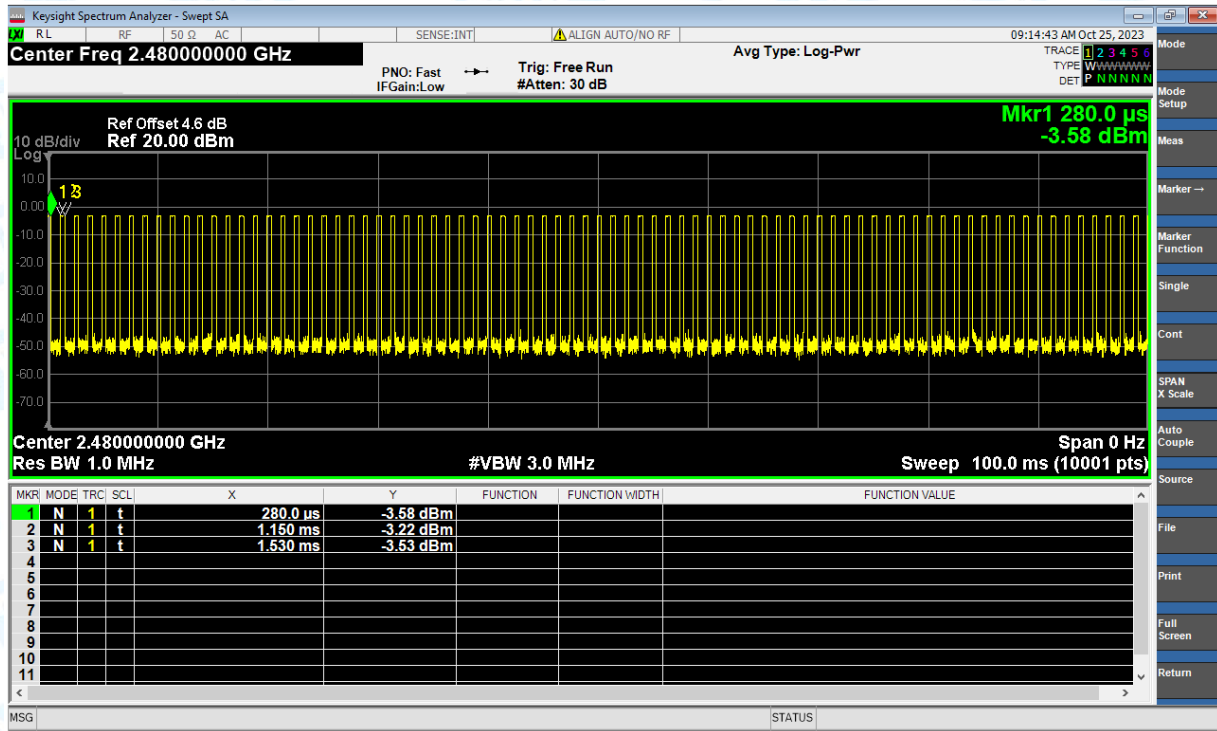
Duty Cycle NVNT 1-DH1 2402MHz Ant1



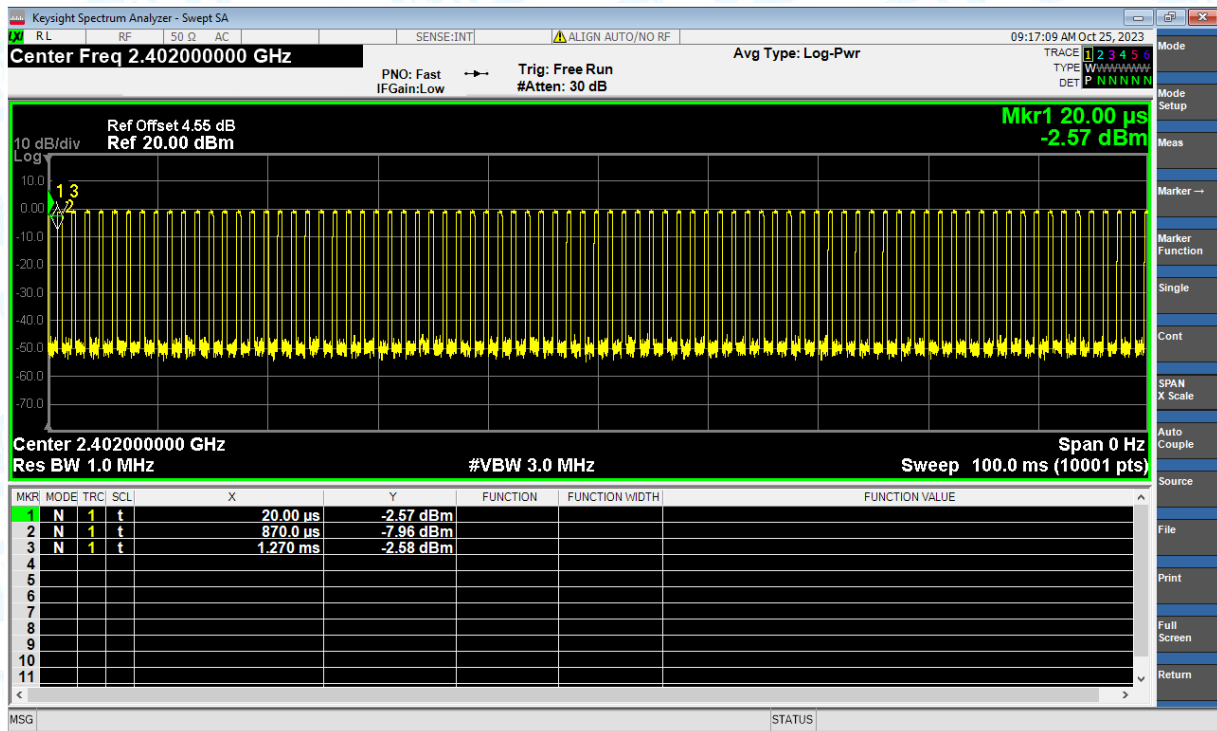
Duty Cycle NVNT 1-DH1 2441MHz Ant1



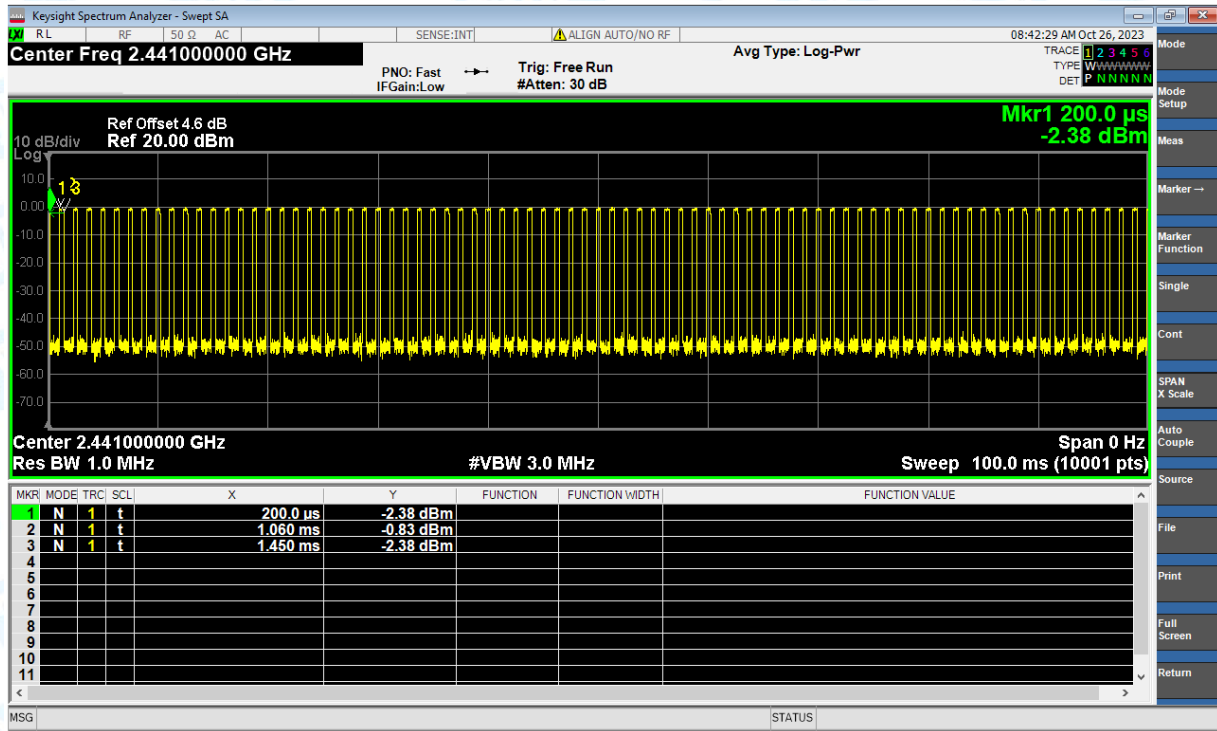
Duty Cycle NVNT 1-DH1 2480MHz Ant1



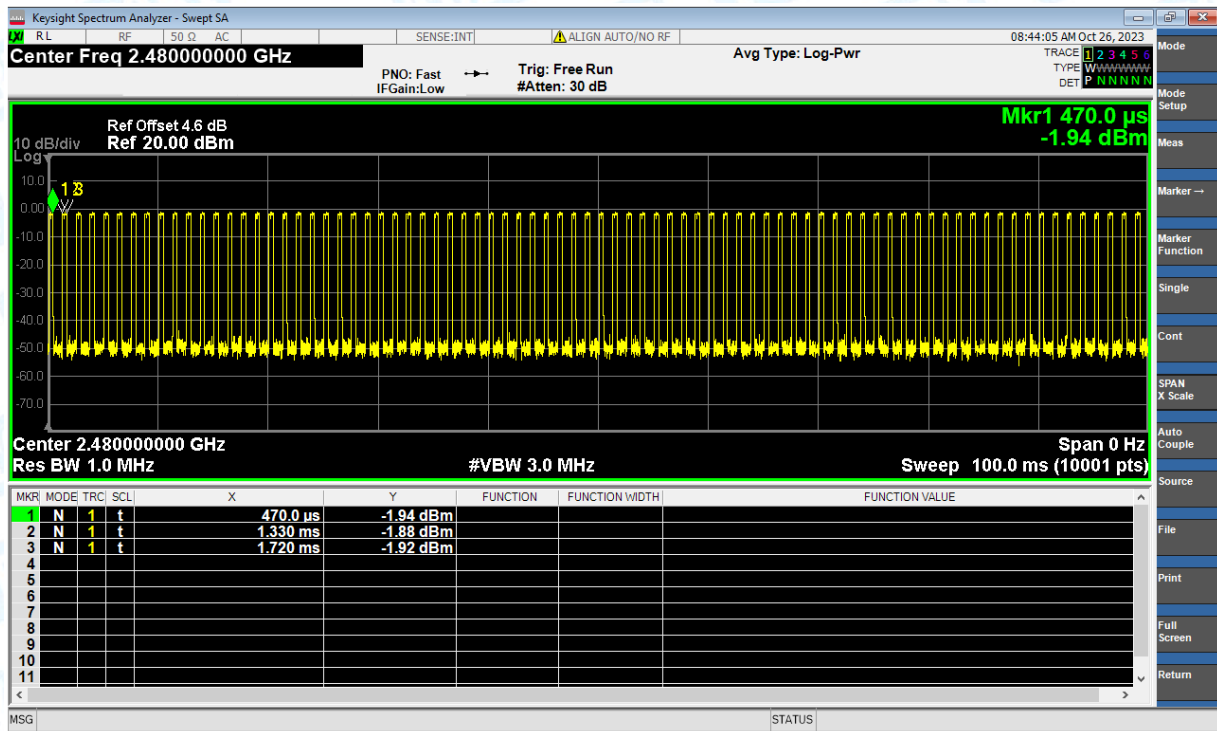
Duty Cycle NVNT 2-DH1 2402MHz Ant1



Duty Cycle NVNT 2-DH1 2441MHz Ant1



Duty Cycle NVNT 2-DH1 2480MHz Ant1

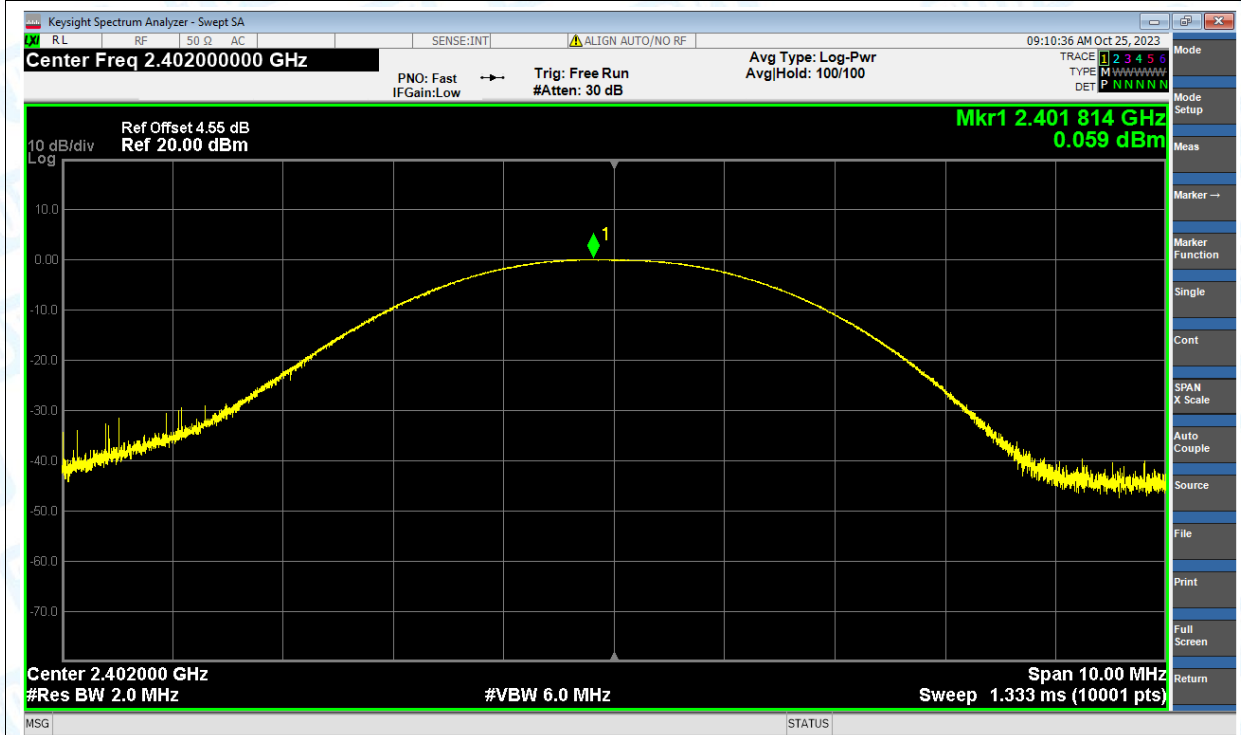


## 2. Maximum Conducted Output Power

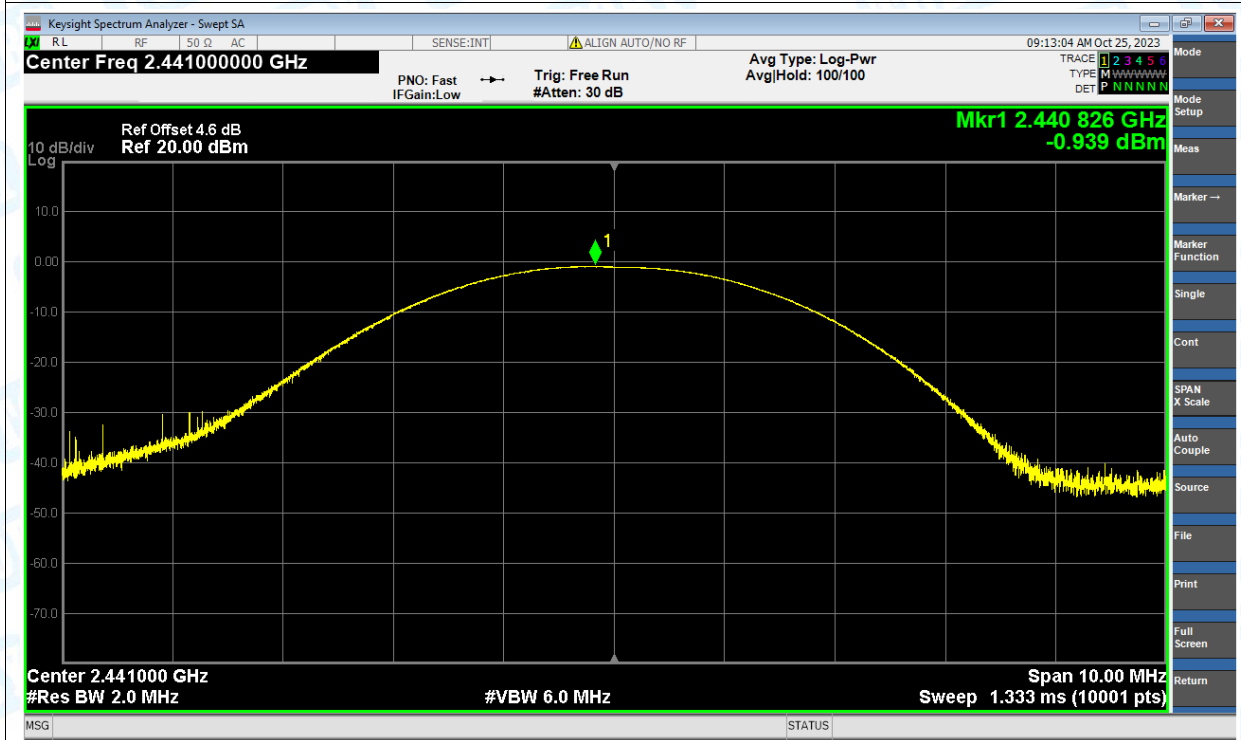
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	0.059	21	Pass
NVNT	1-DH1	2441	Ant1	-0.939	21	Pass
NVNT	1-DH1	2480	Ant1	-2.989	21	Pass
NVNT	2-DH1	2402	Ant1	0.318	21	Pass
NVNT	2-DH1	2441	Ant1	0.261	21	Pass
NVNT	2-DH1	2480	Ant1	-0.690	21	Pass

Test Graphs

Power NVNT 1-DH1 2402MHz Ant1

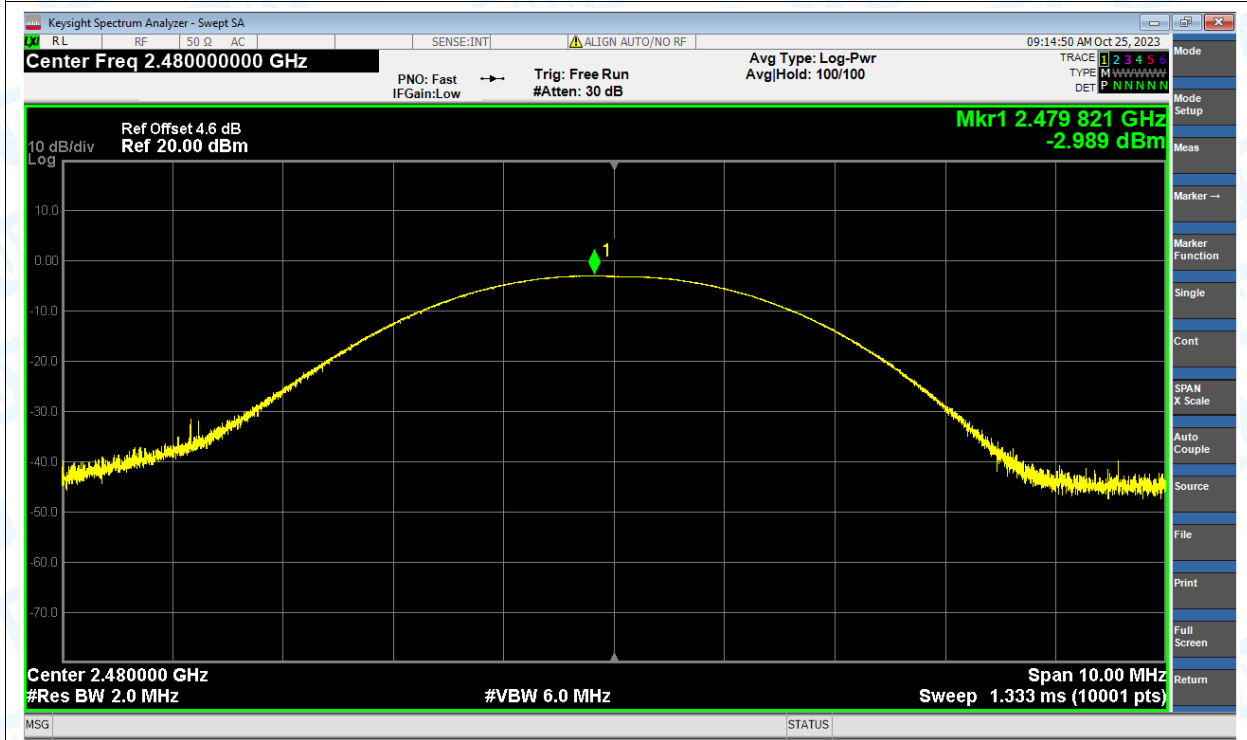


Power NVNT 1-DH1 2441MHz Ant1

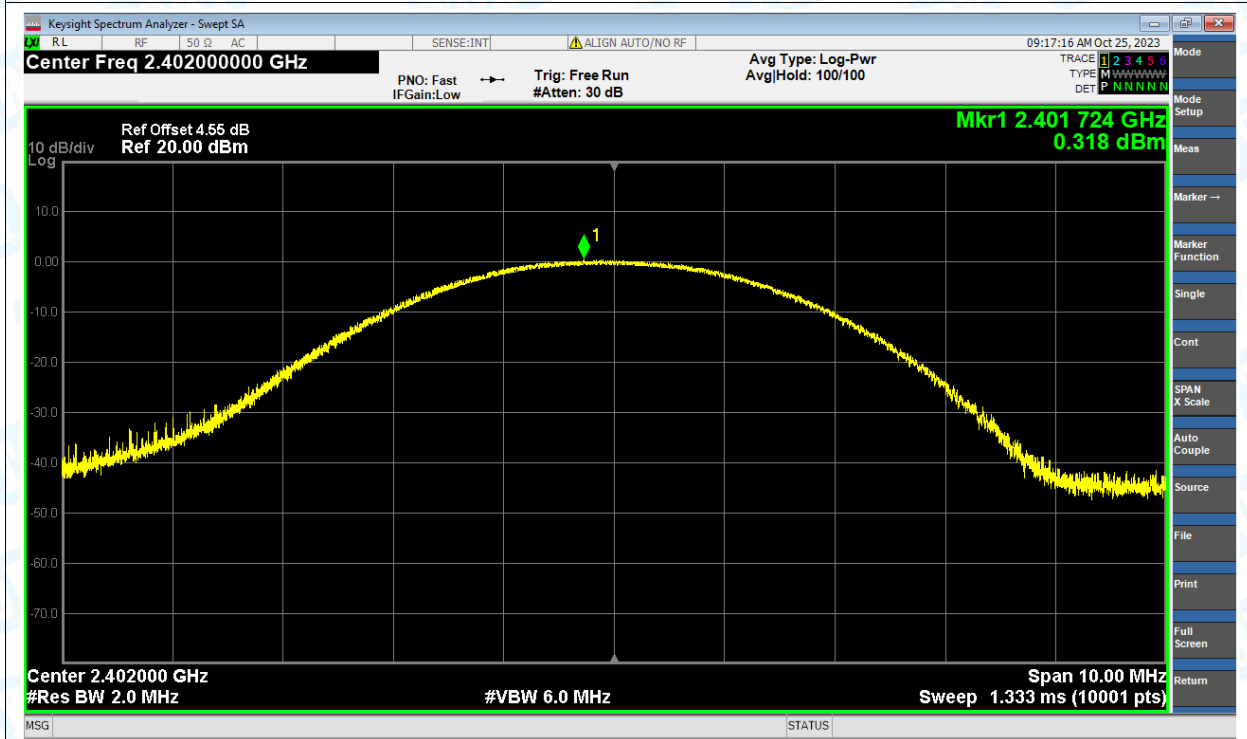




Power NVNT 1-DH1 2480MHz Ant1



Power NVNT 2-DH1 2402MHz Ant1



Power NVNT 2-DH1 2441MHz Ant1



Power NVNT 2-DH1 2480MHz Ant1

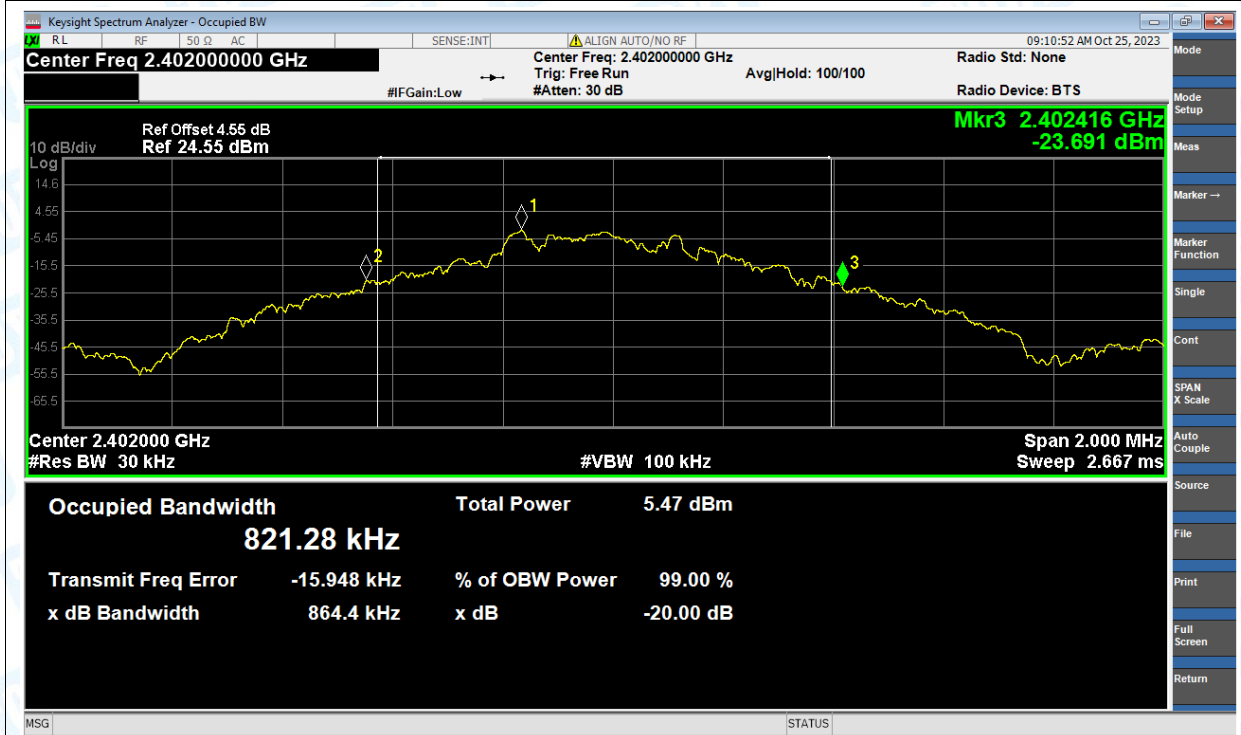


### 3. -20dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	0.86	----	Pass
NVNT	1-DH1	2441	Ant1	0.85	----	Pass
NVNT	1-DH1	2480	Ant1	0.86	----	Pass
NVNT	2-DH1	2402	Ant1	1.25	----	Pass
NVNT	2-DH1	2441	Ant1	1.21	----	Pass
NVNT	2-DH1	2480	Ant1	1.24	----	Pass

Test Graphs

-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1



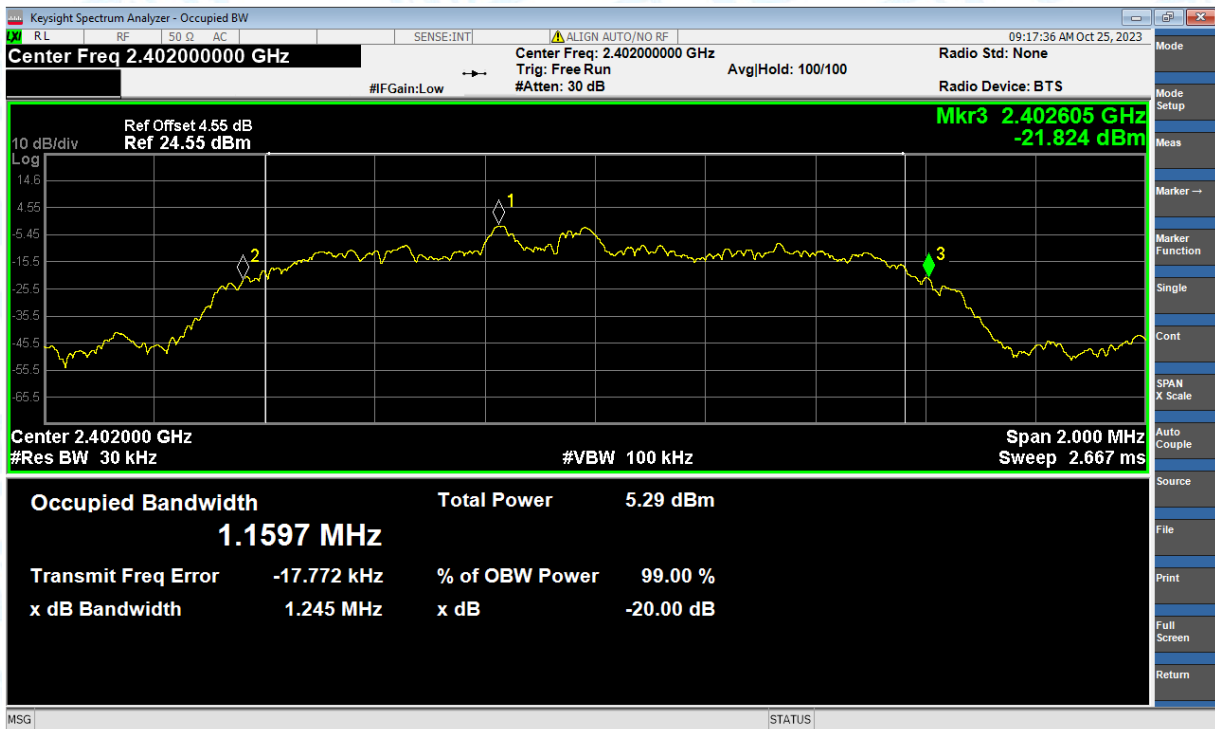
-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1



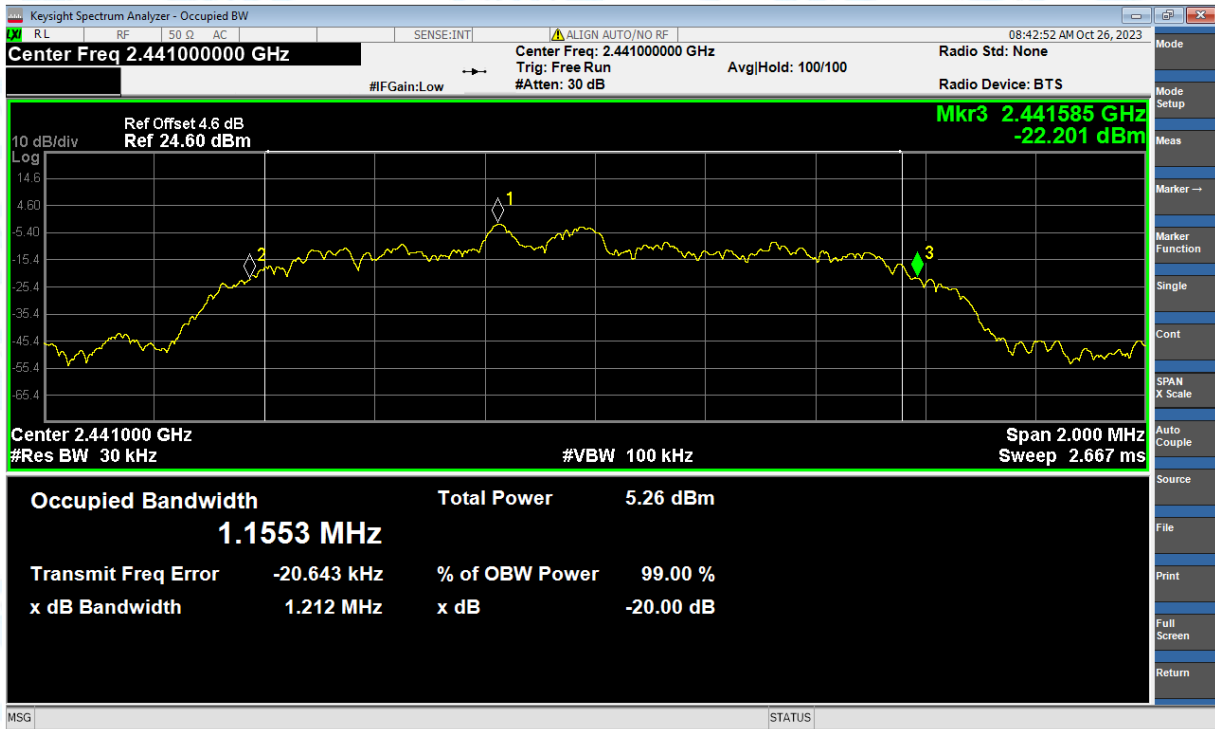
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



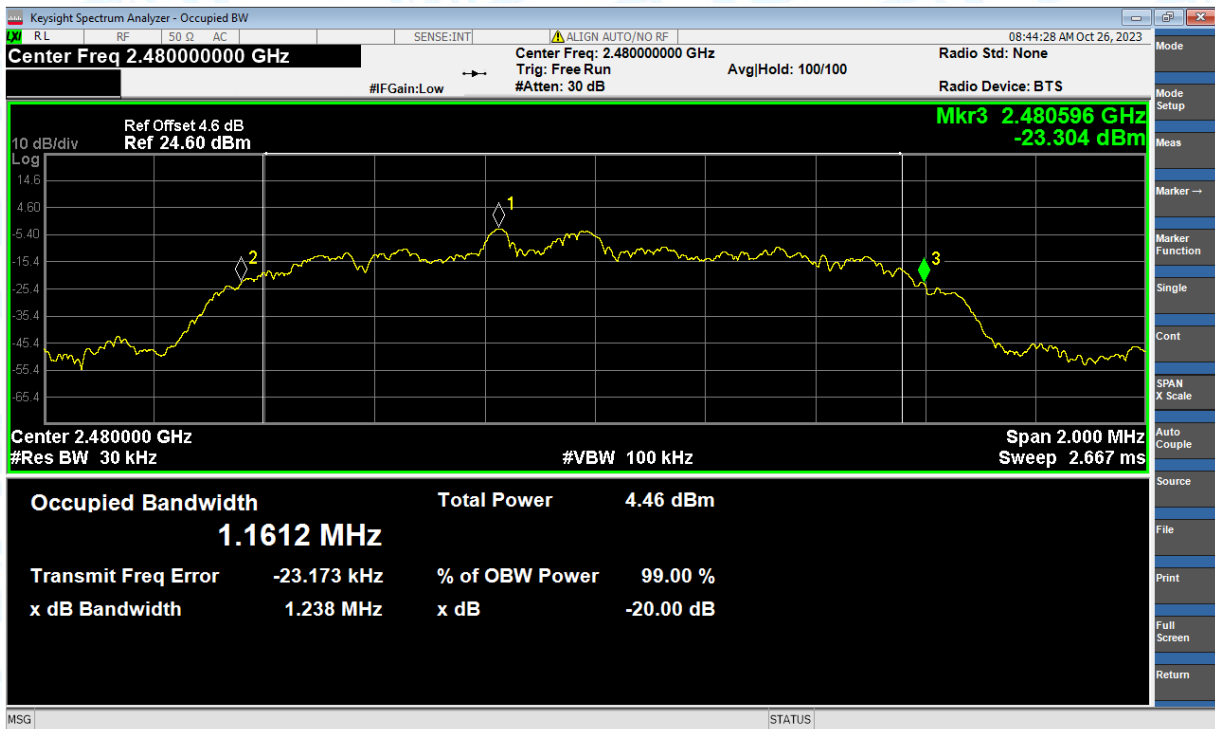
-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1

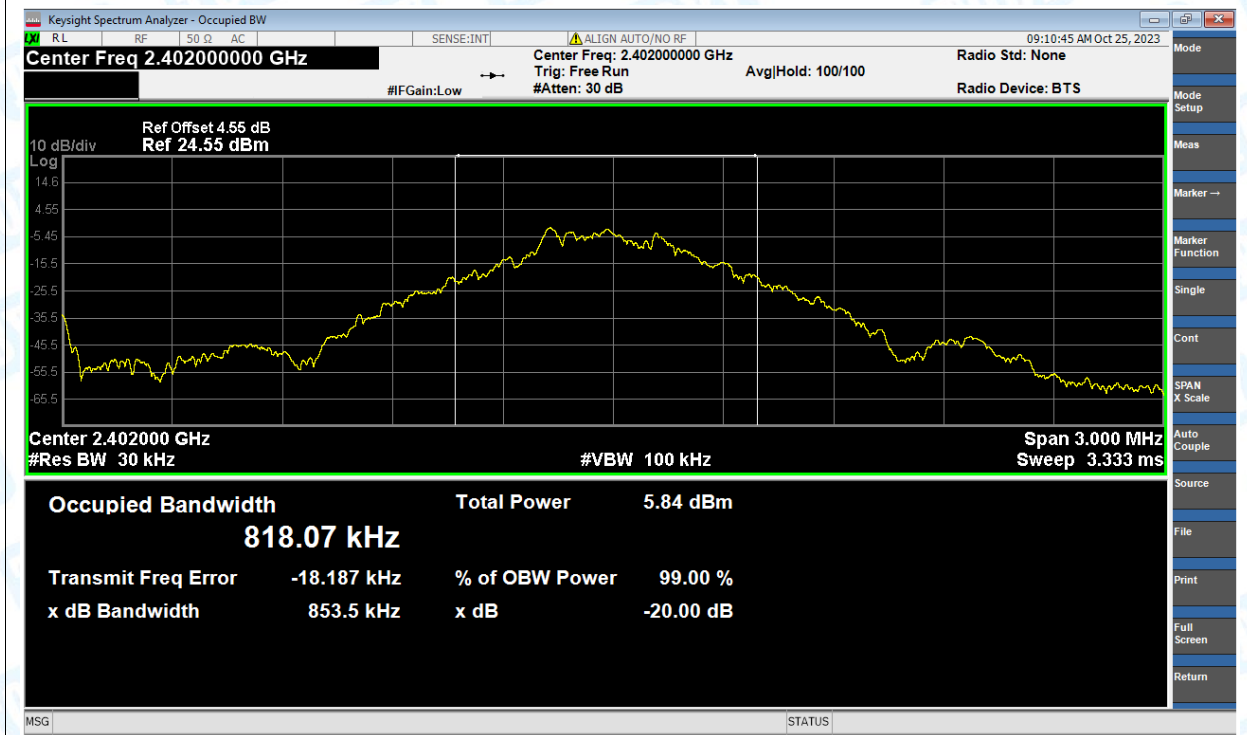


## 4. Occupied Channel Bandwidth

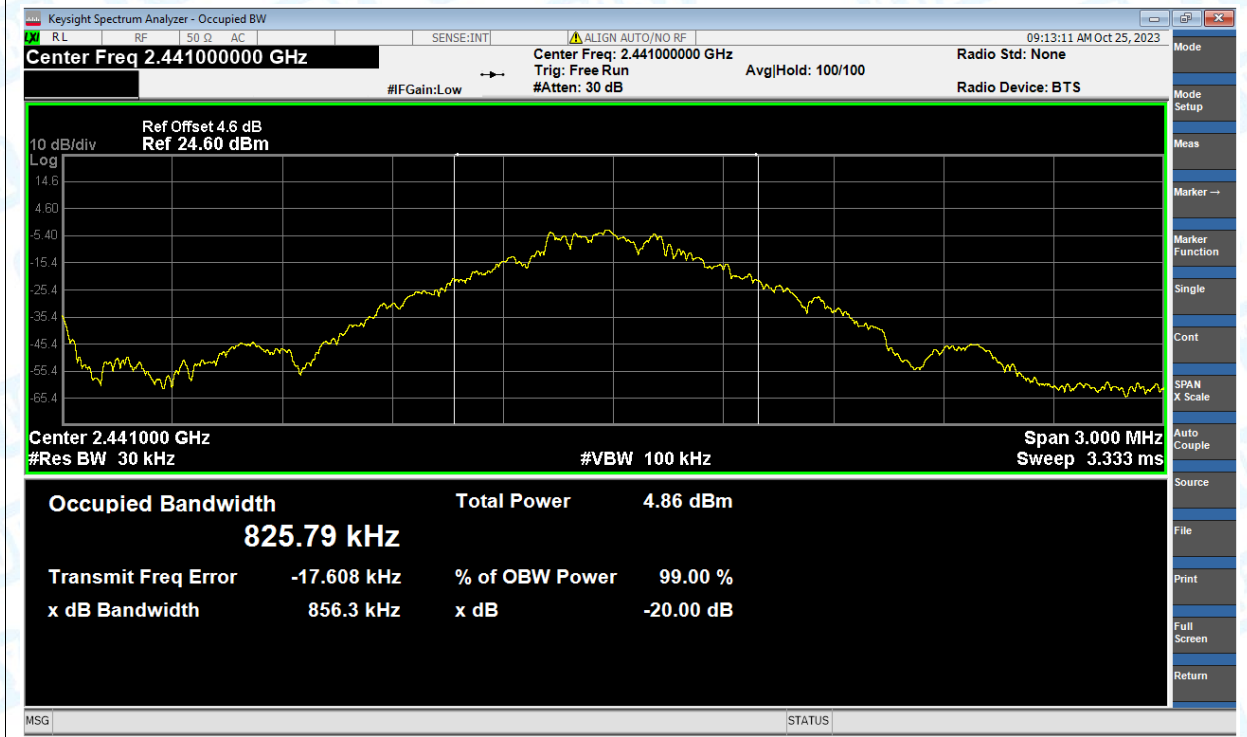
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH1	2402	Ant1	0.818
NVNT	1-DH1	2441	Ant1	0.826
NVNT	1-DH1	2480	Ant1	0.828
NVNT	2-DH1	2402	Ant1	1.152
NVNT	2-DH1	2441	Ant1	1.159
NVNT	2-DH1	2480	Ant1	1.158

Test Graphs

OBW NVNT 1-DH1 2402MHz Ant1

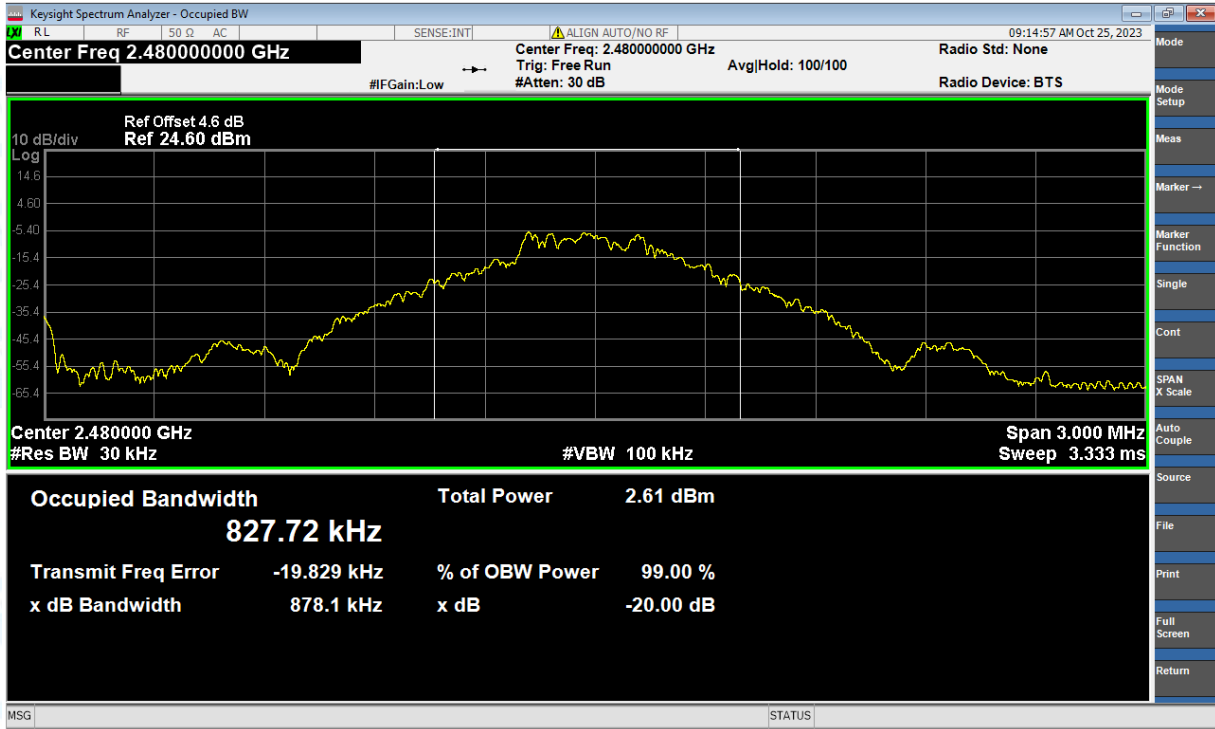


OBW NVNT 1-DH1 2441MHz Ant1

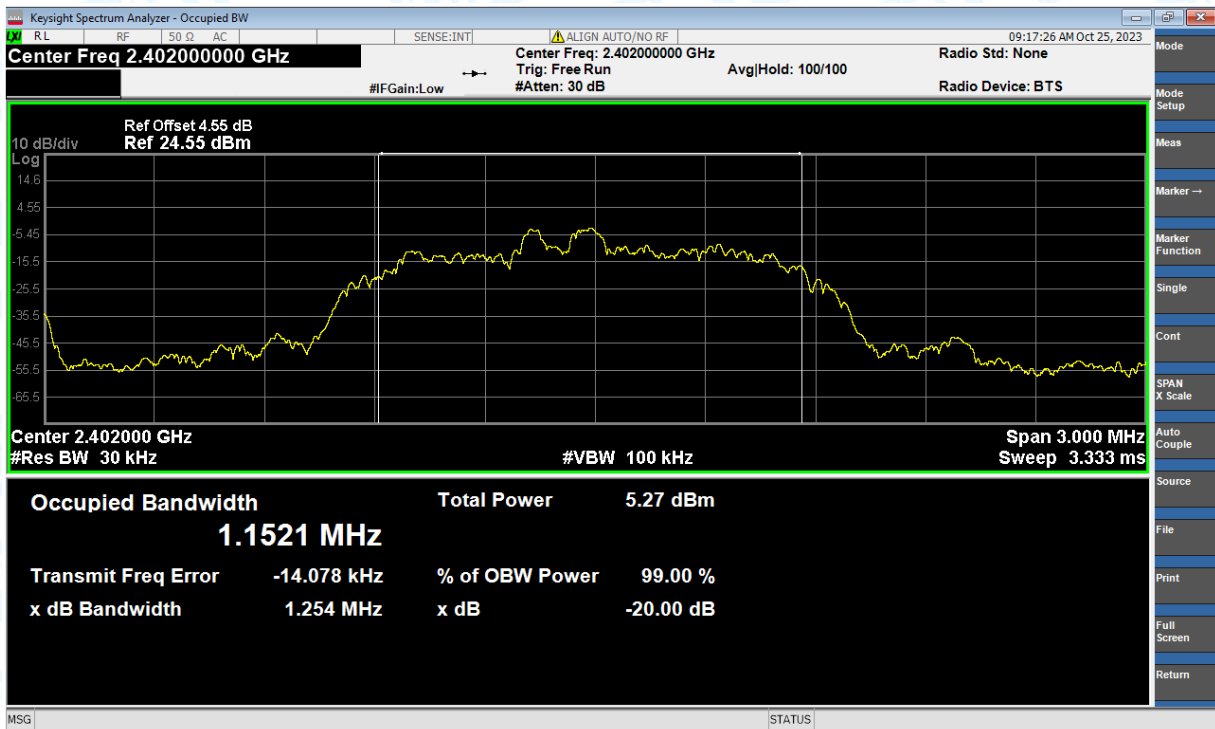




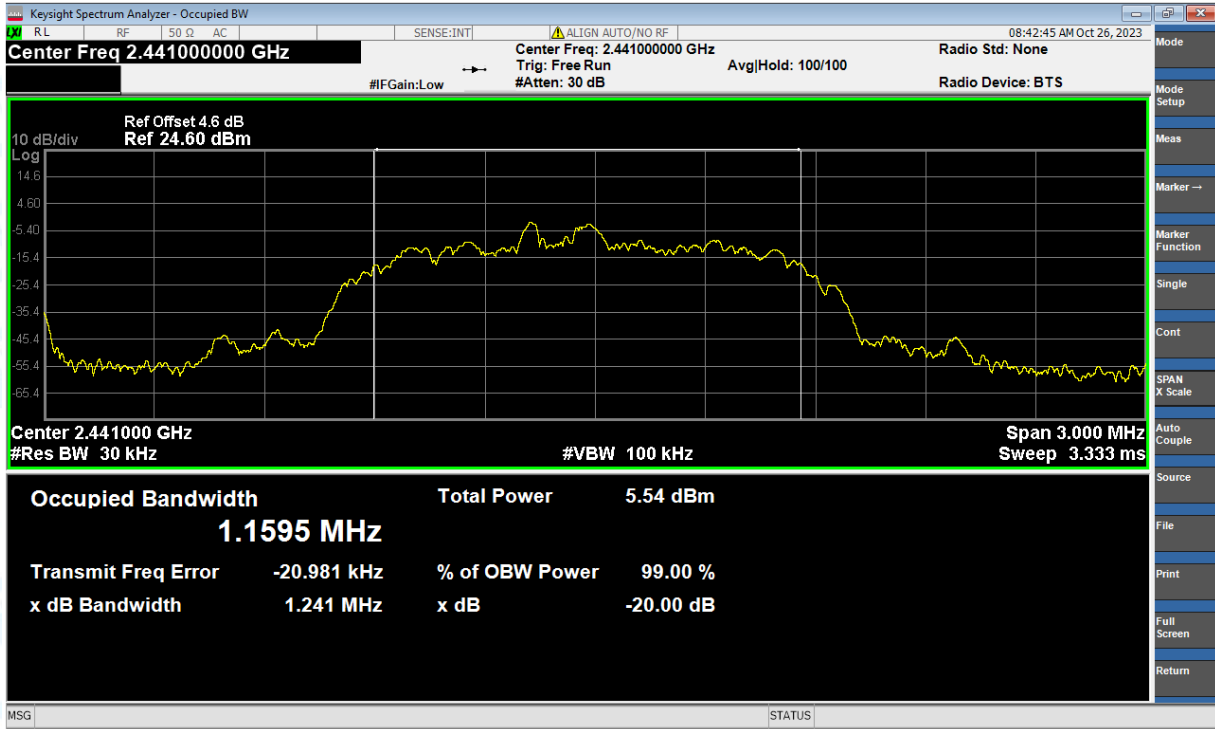
OBW NVNT 1-DH1 2480MHz Ant1



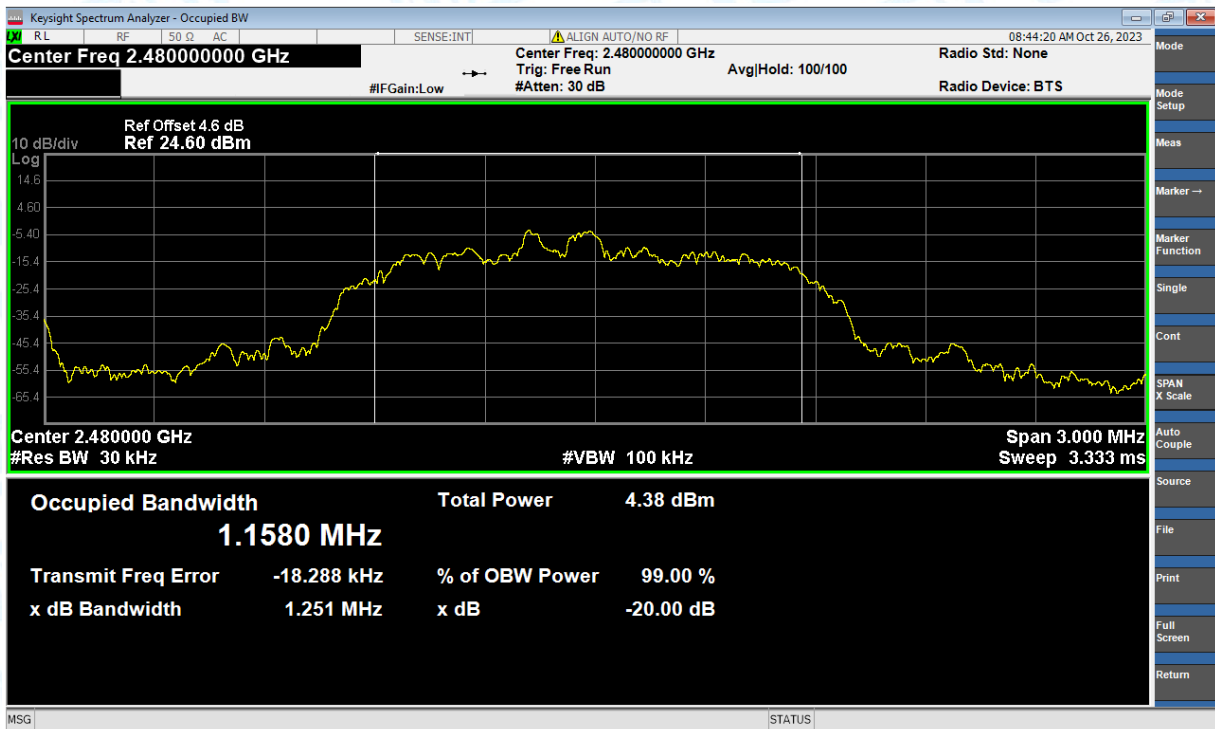
OBW NVNT 2-DH1 2402MHz Ant1



OBW NVNT 2-DH1 2441MHz Ant1



OBW NVNT 2-DH1 2480MHz Ant1

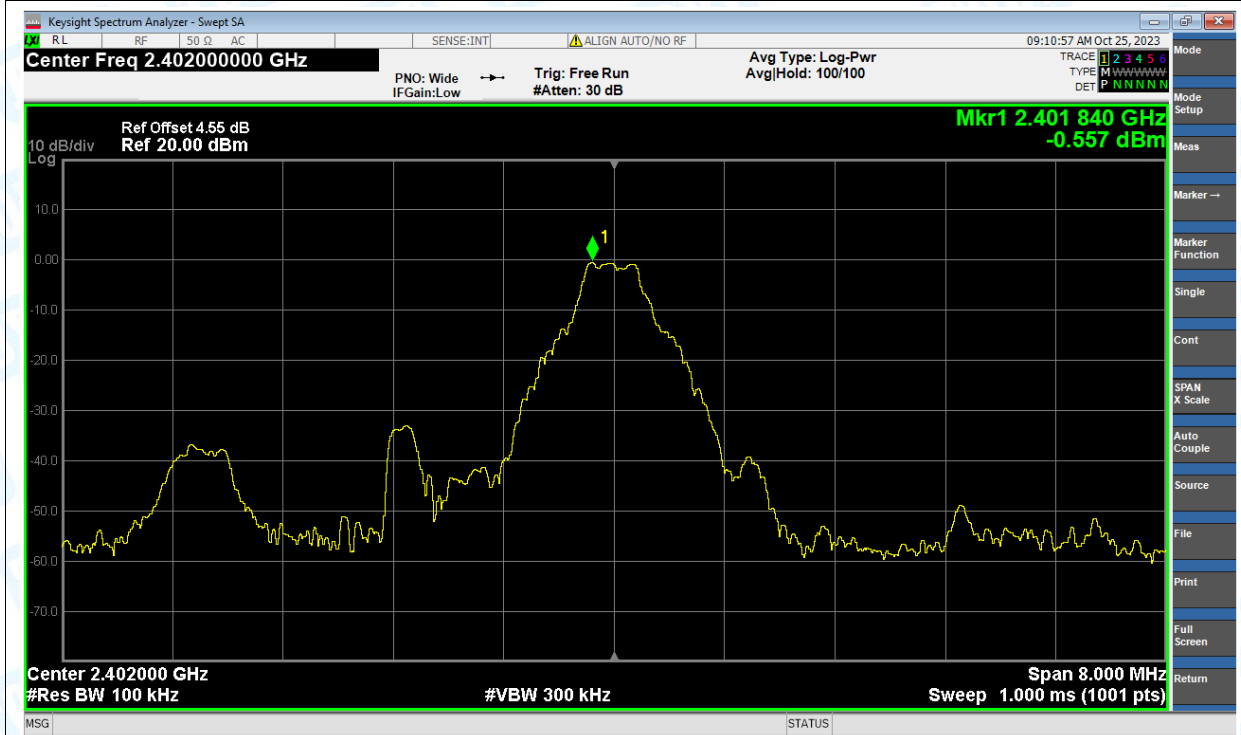


## 5. Band Edge

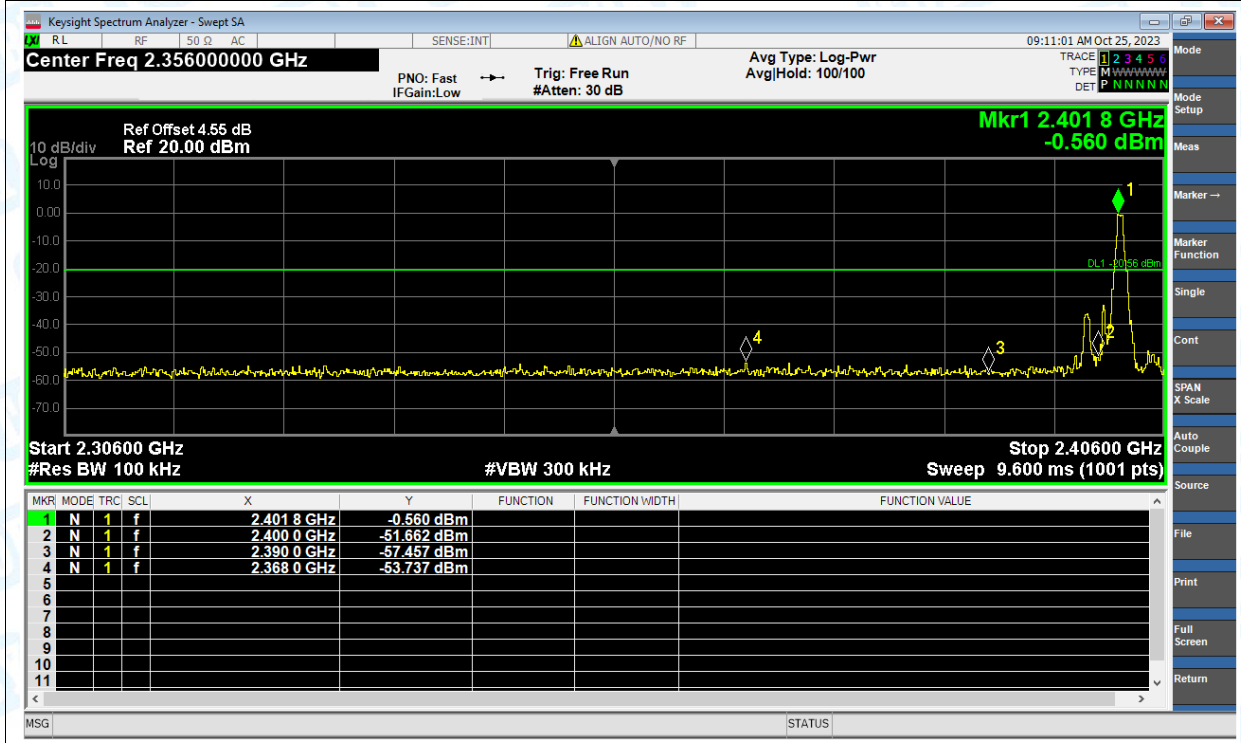
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-53.18	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-51.46	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-53.26	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-52.78	-20	Pass

Test Graphs

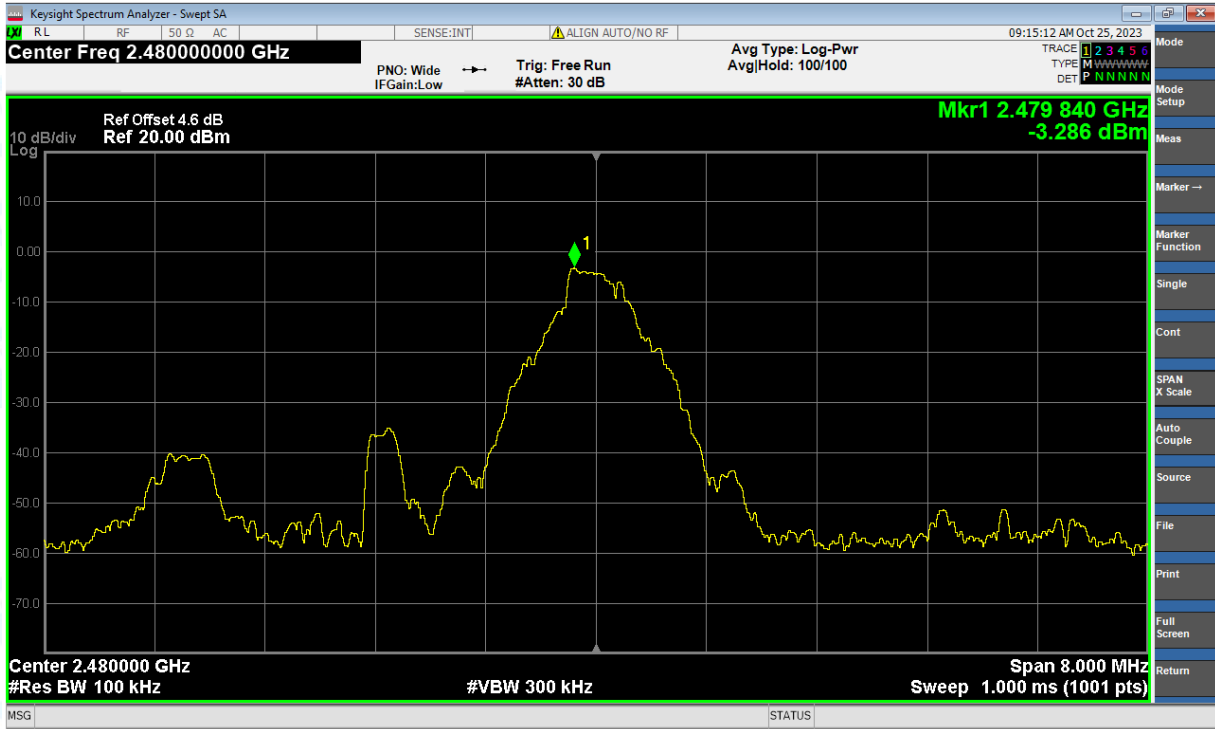
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Ref



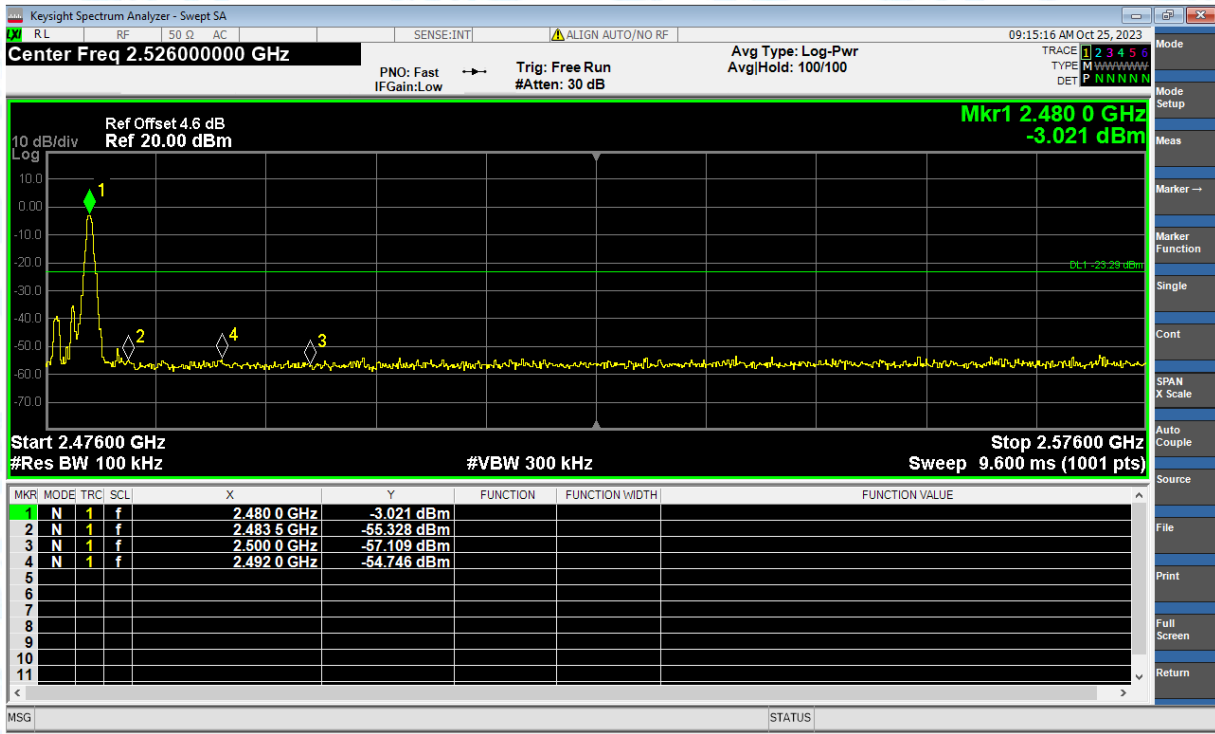
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission



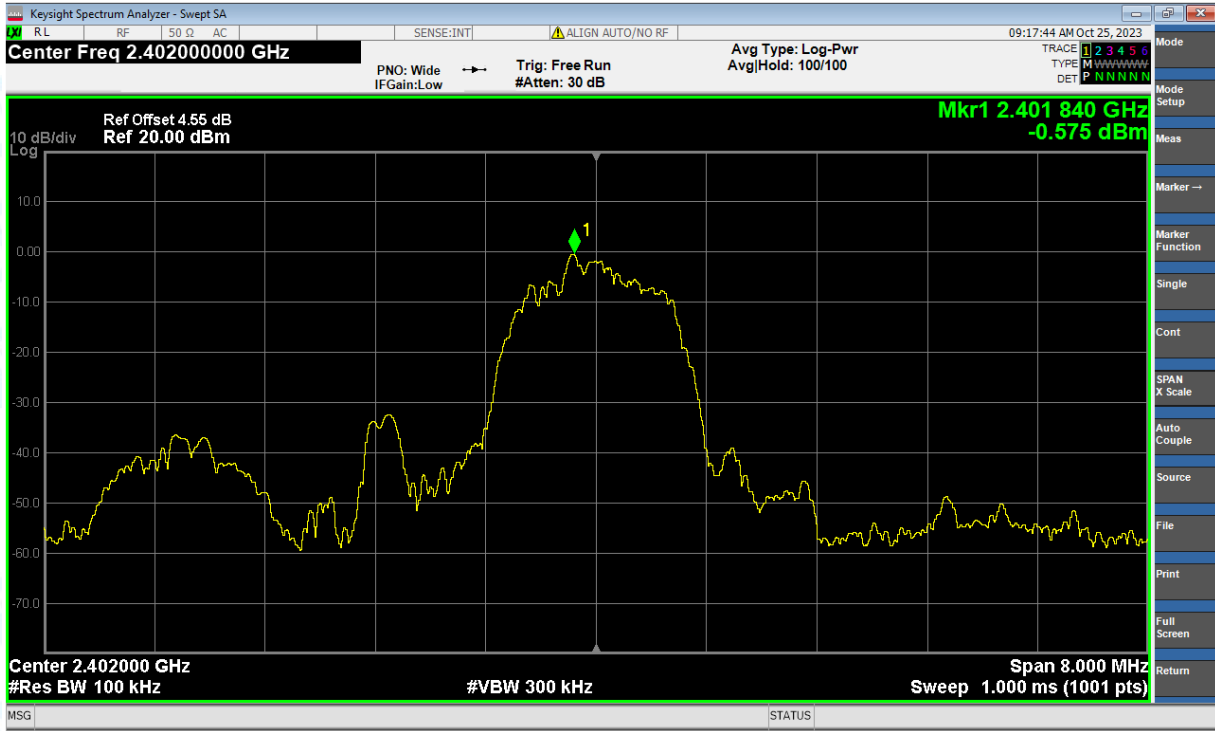
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Ref



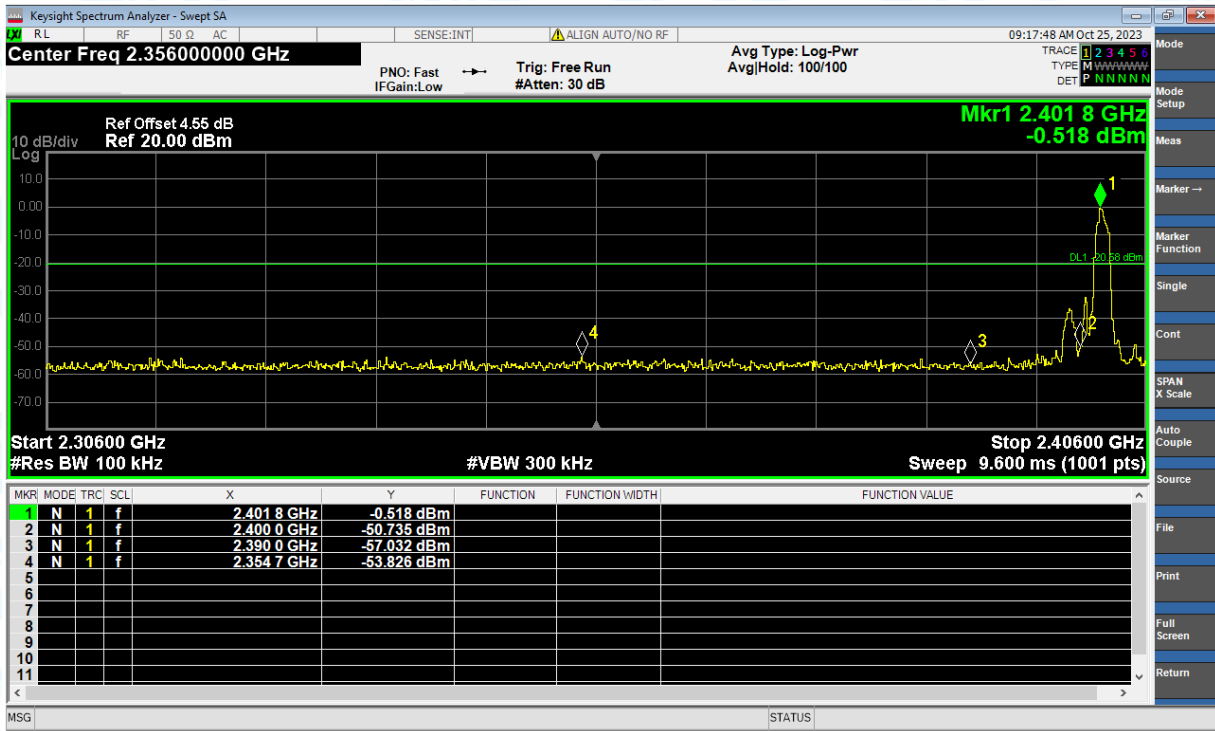
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Emission



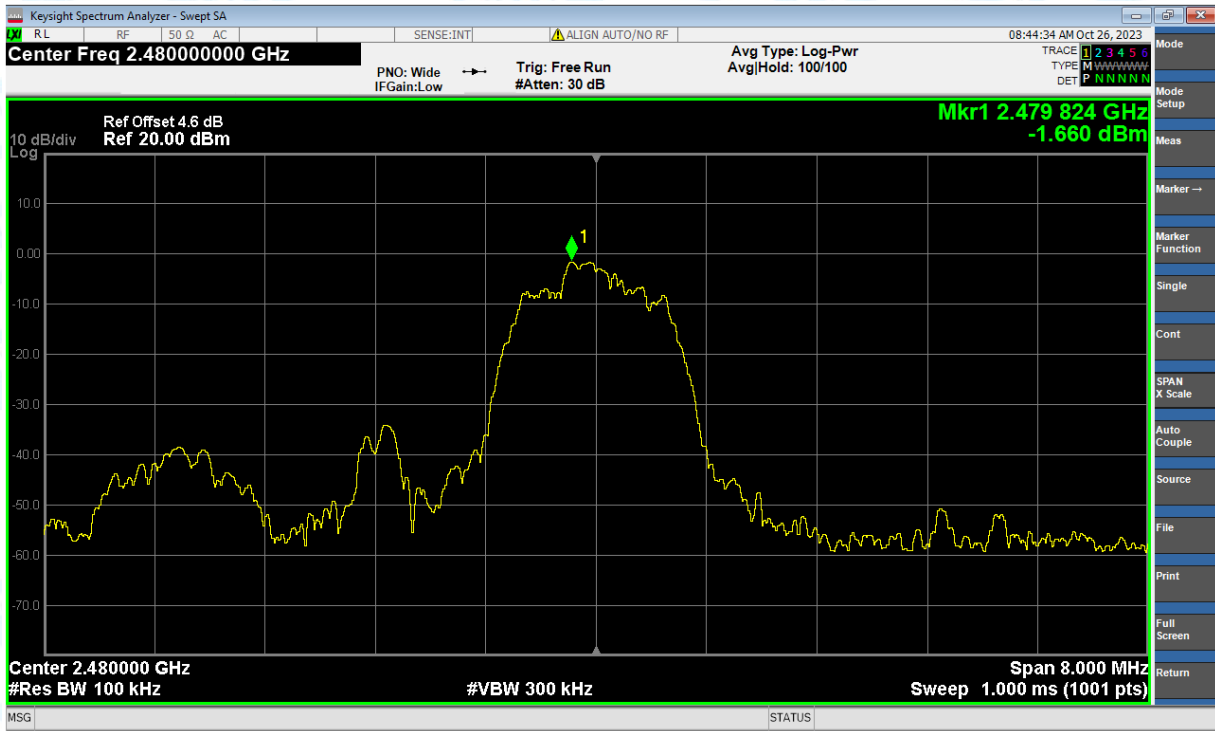
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Ref



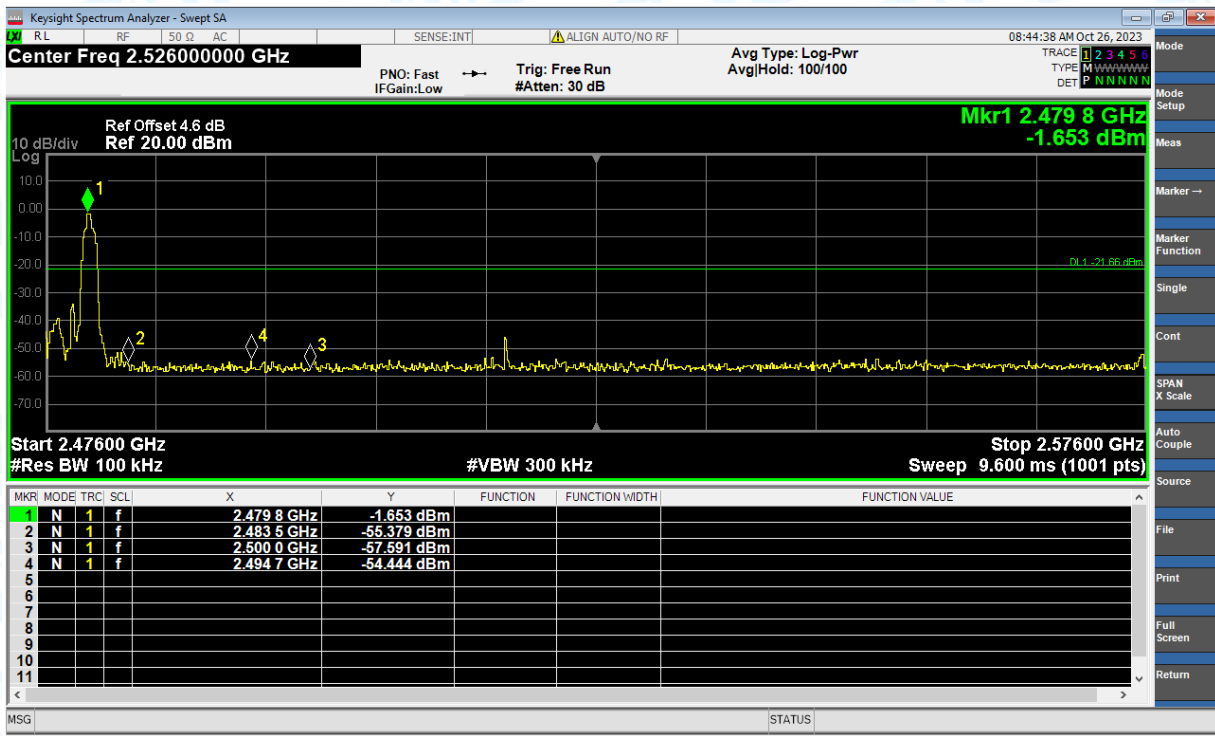
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Emission



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	-53.37	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-51.10	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-53.48	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-52.10	-20	Pass

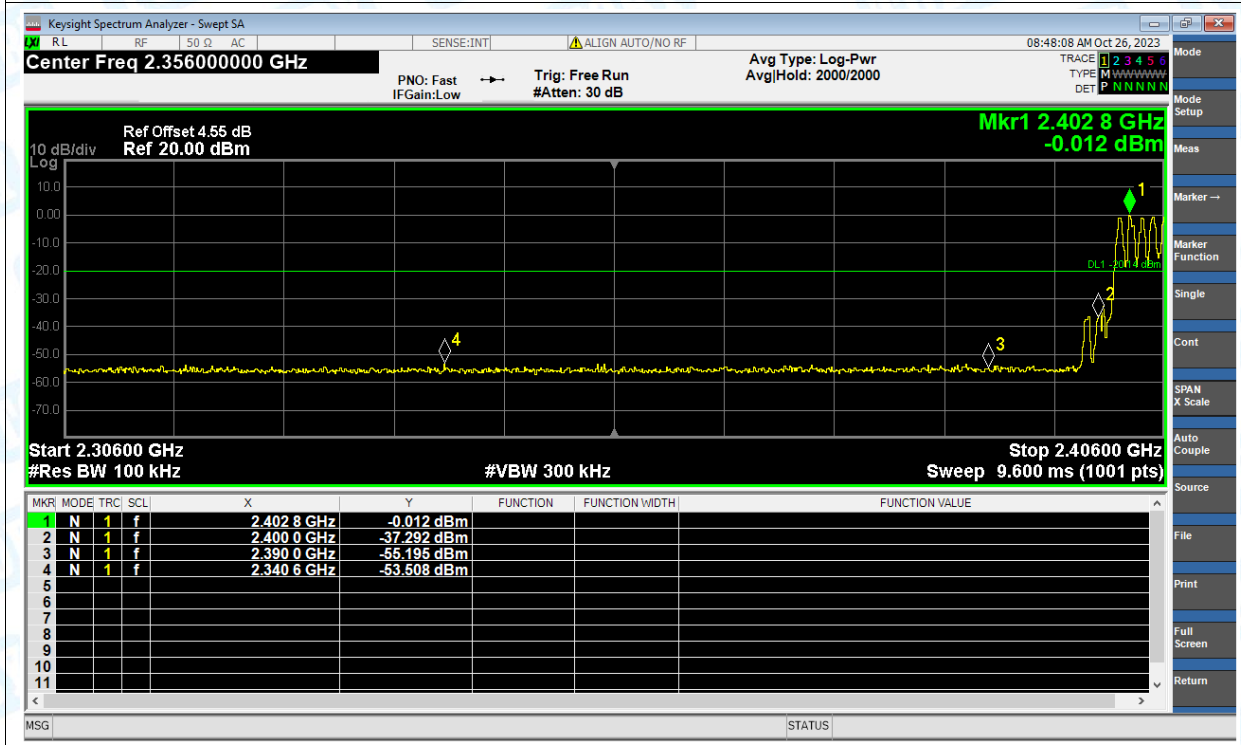


Test Graphs

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



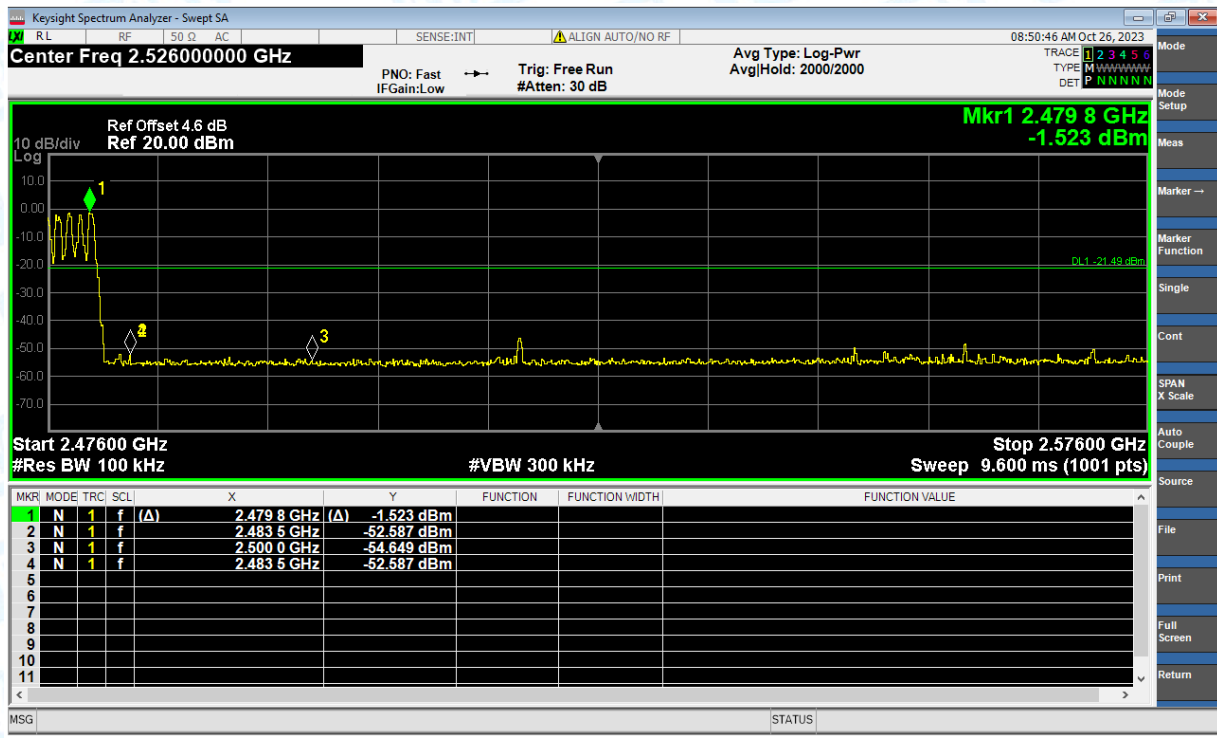
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Emission



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



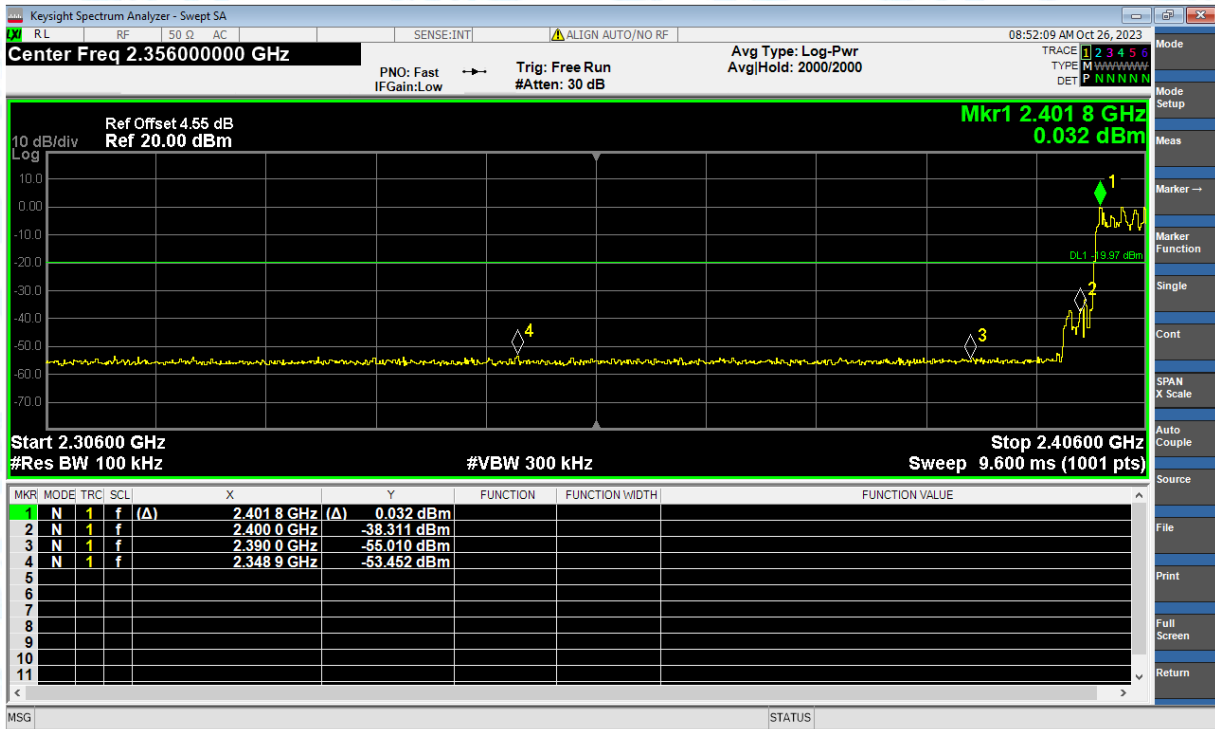
Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Emission



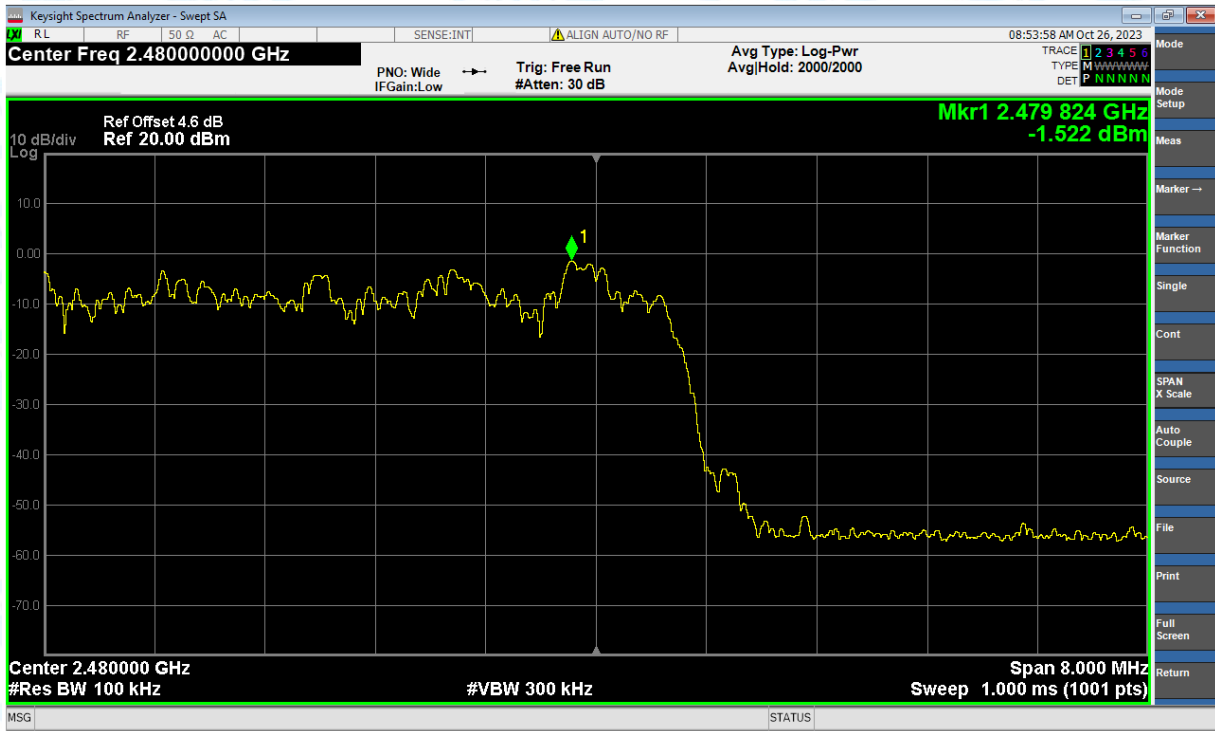
Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Ref



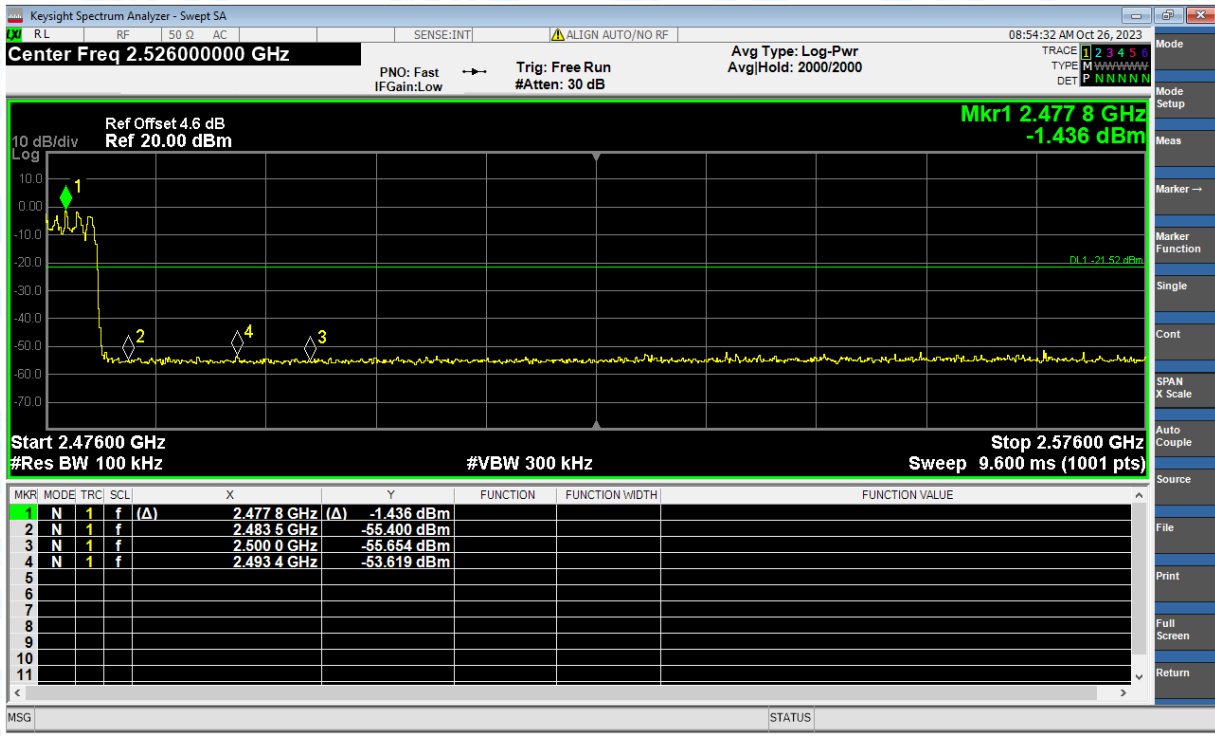
Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Emission



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



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

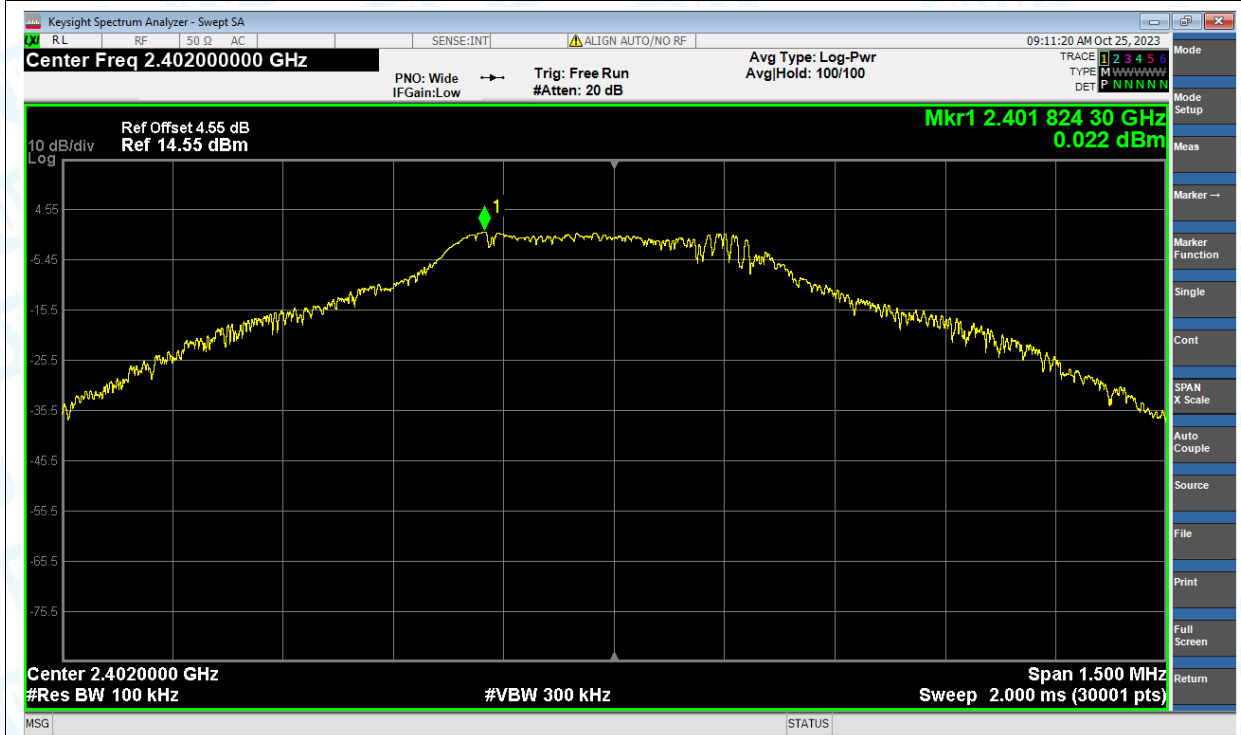


## 7. Conducted RF Spurious Emission

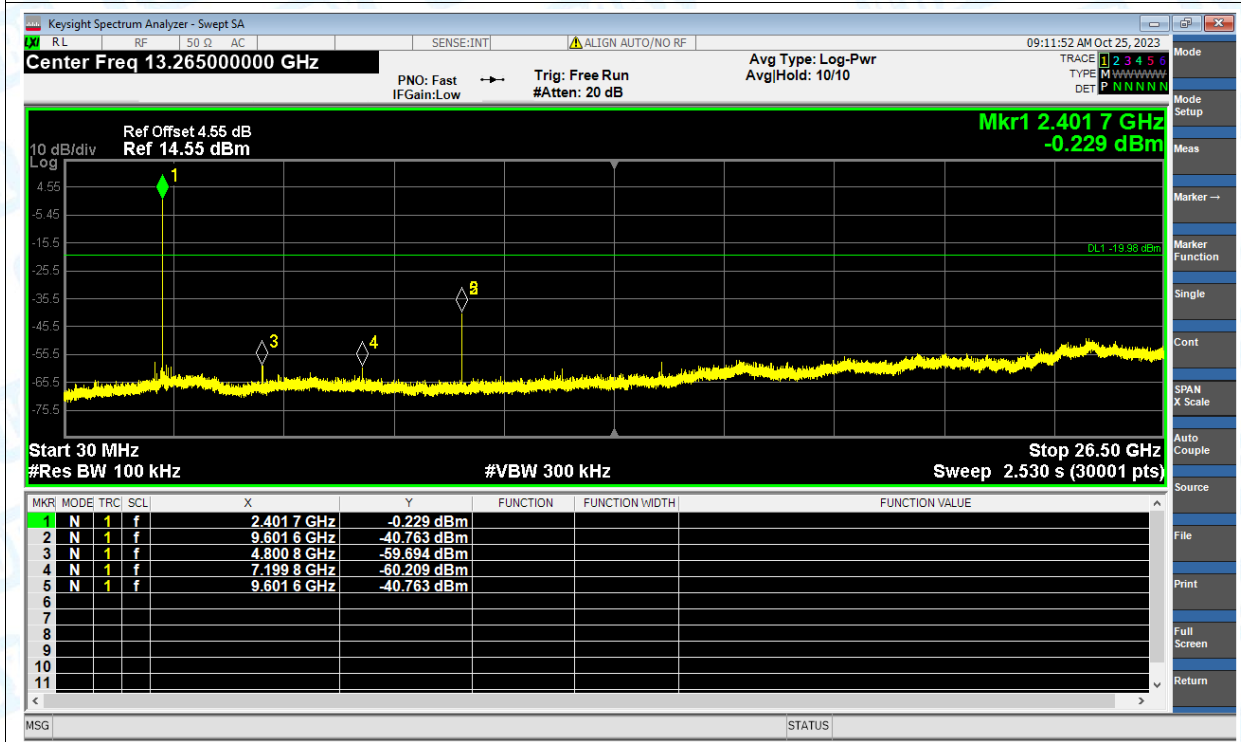
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	-40.78	-20	Pass
NVNT	1-DH1	2441	Ant1	-40.69	-20	Pass
NVNT	1-DH1	2480	Ant1	-37.46	-20	Pass
NVNT	2-DH1	2402	Ant1	-40.47	-20	Pass
NVNT	2-DH1	2441	Ant1	-41.96	-20	Pass
NVNT	2-DH1	2480	Ant1	-41.68	-20	Pass

Test Graphs

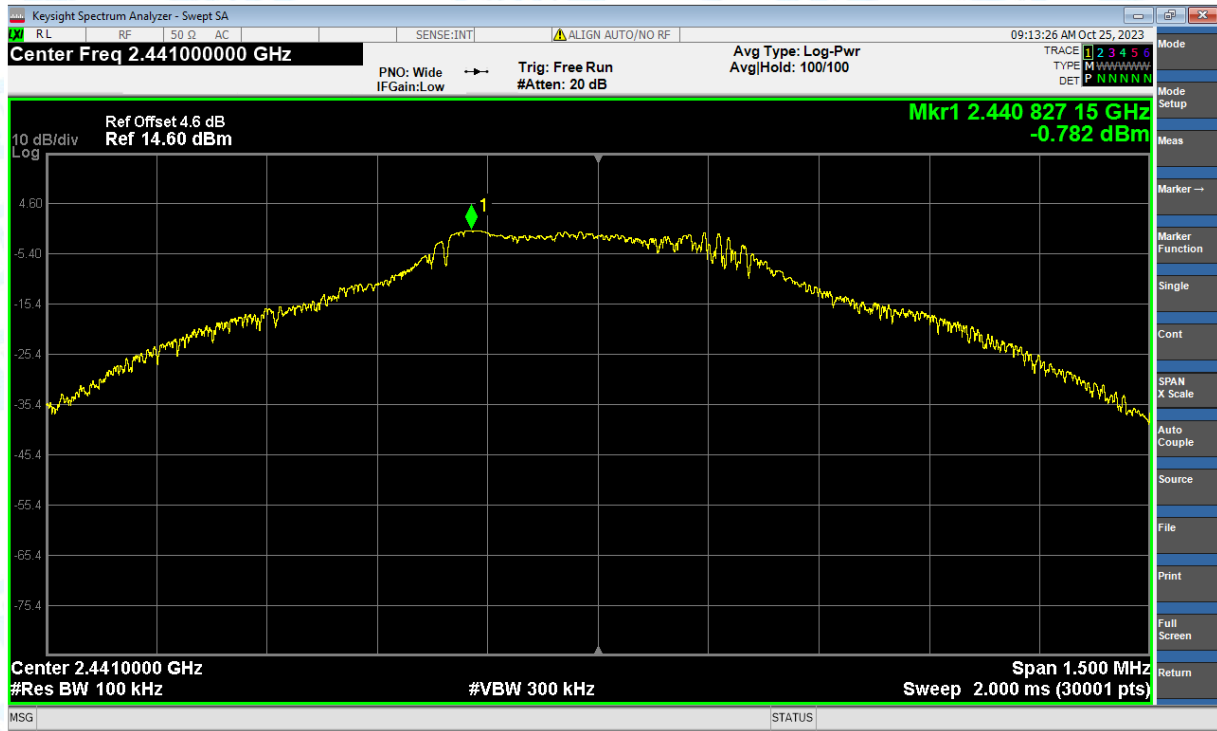
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Ref



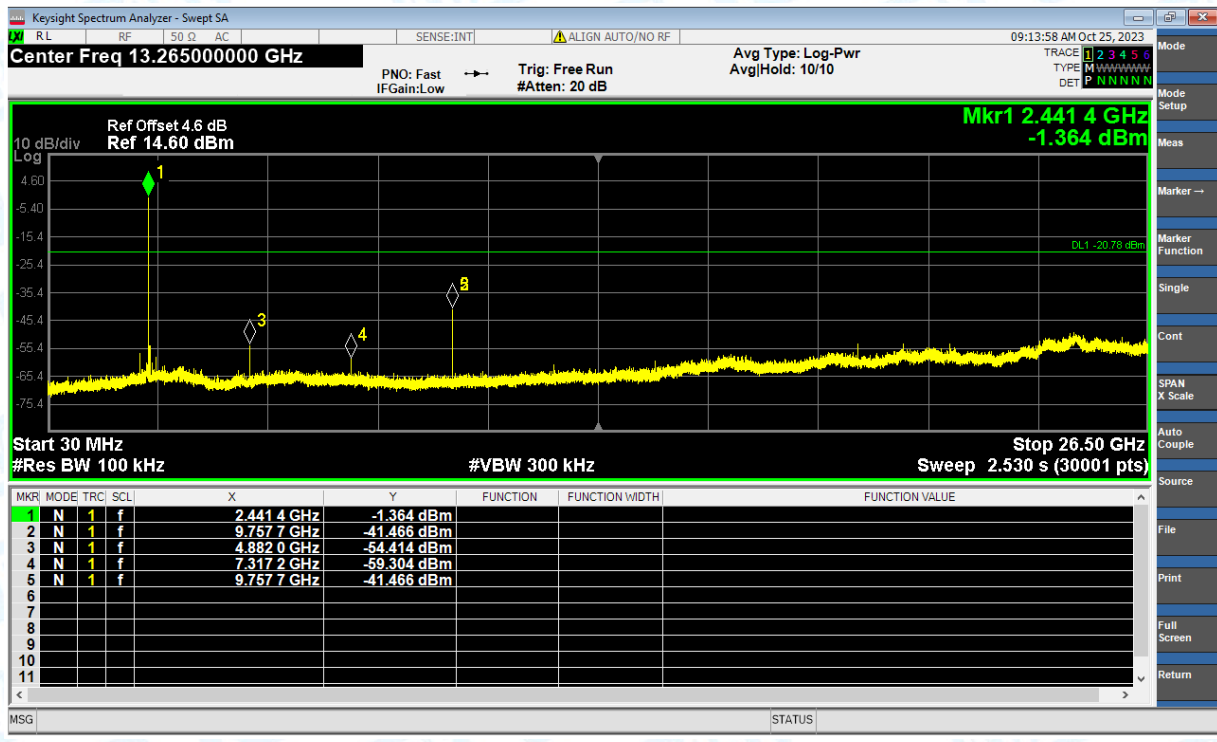
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Emission



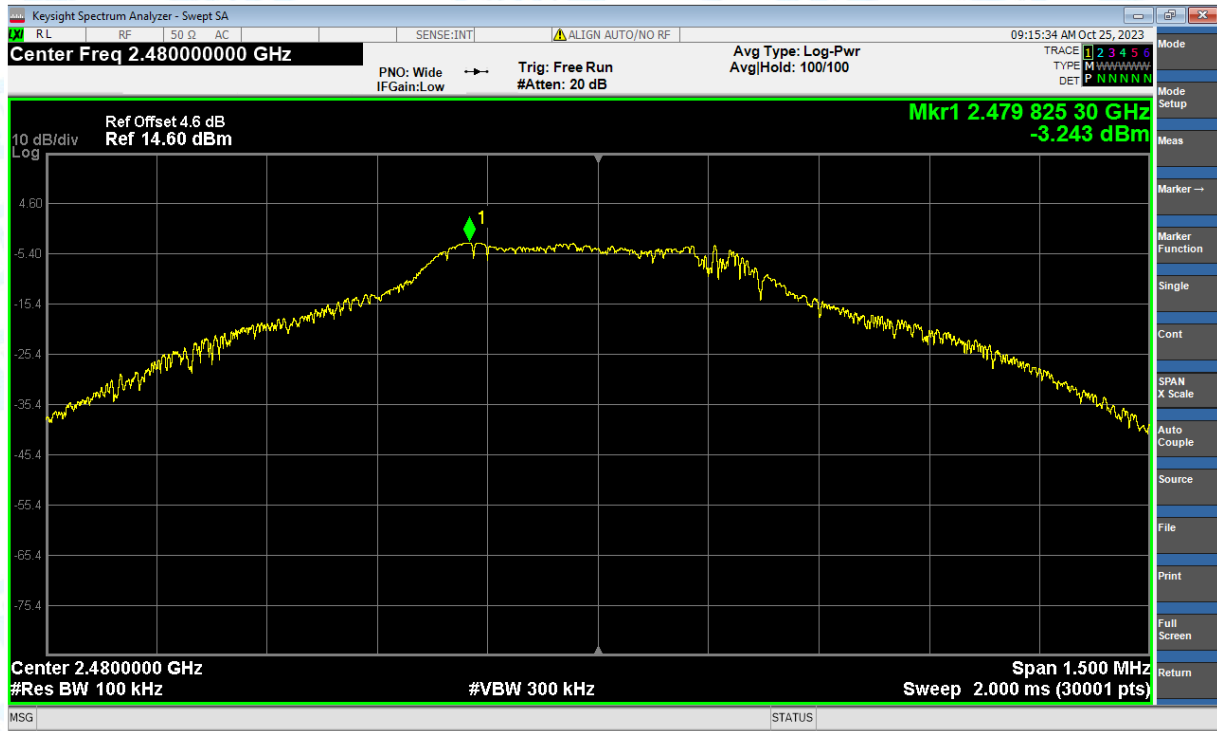
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Ref



Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Ref

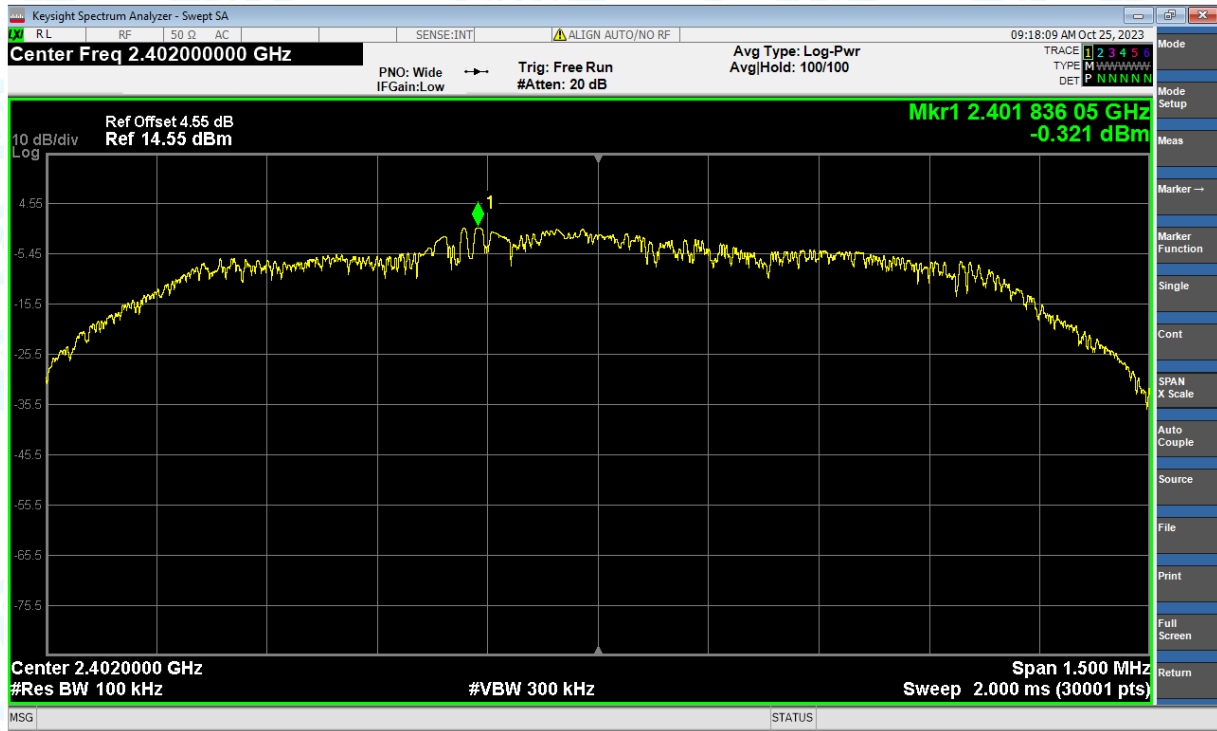


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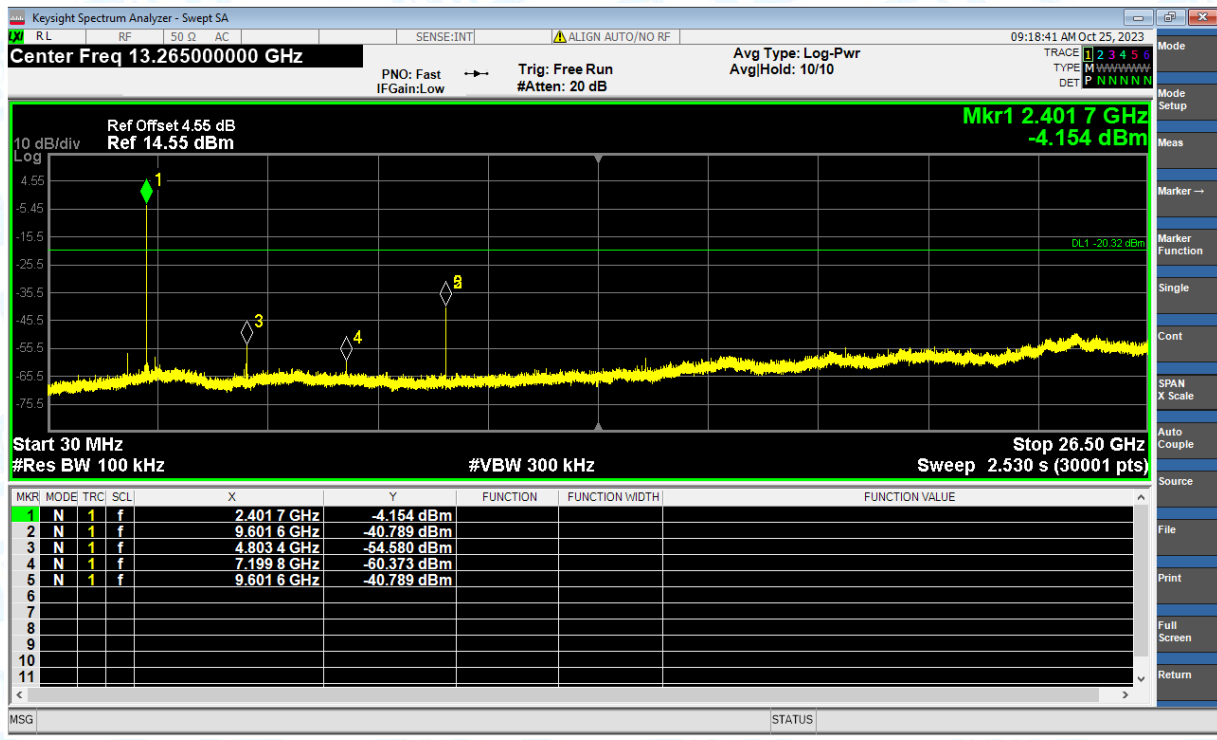




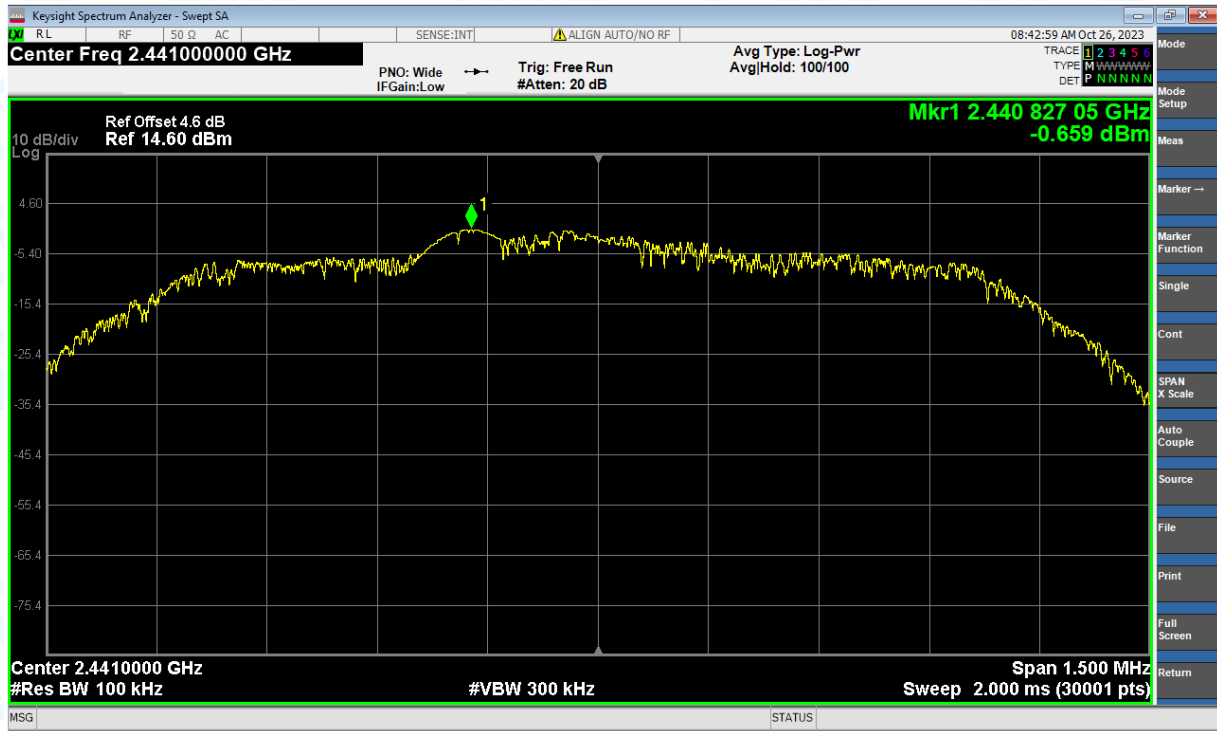
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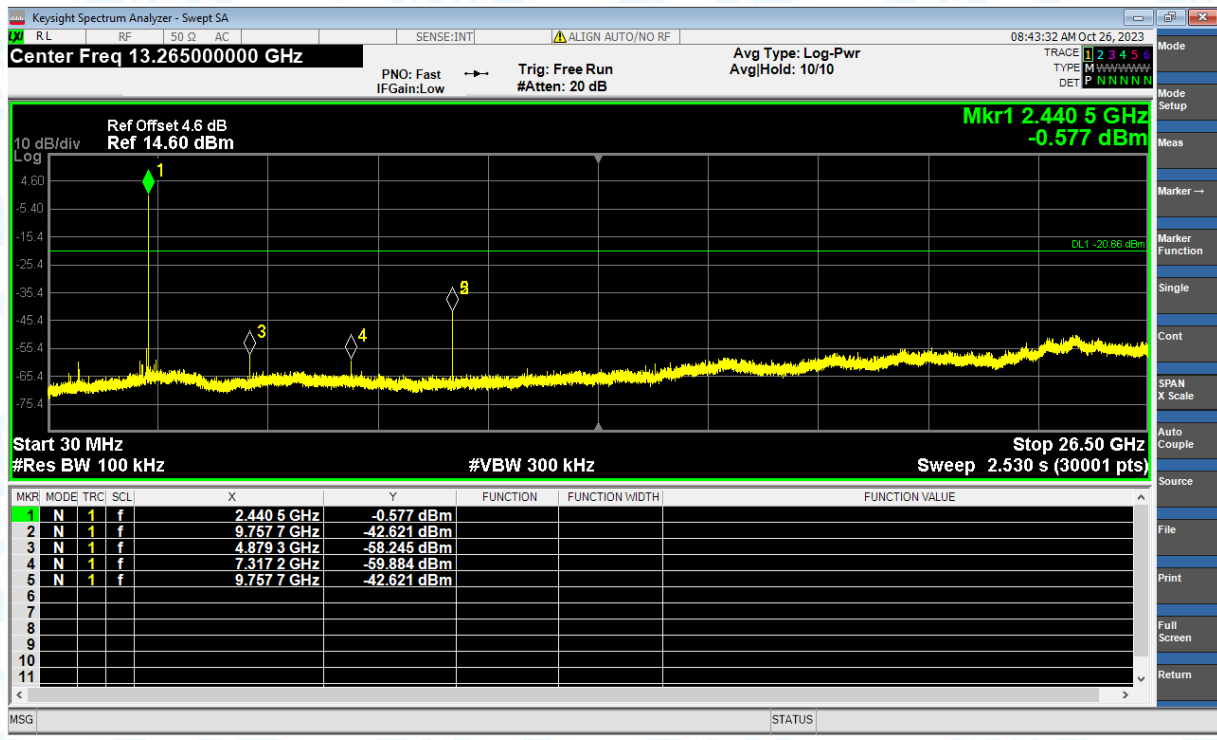
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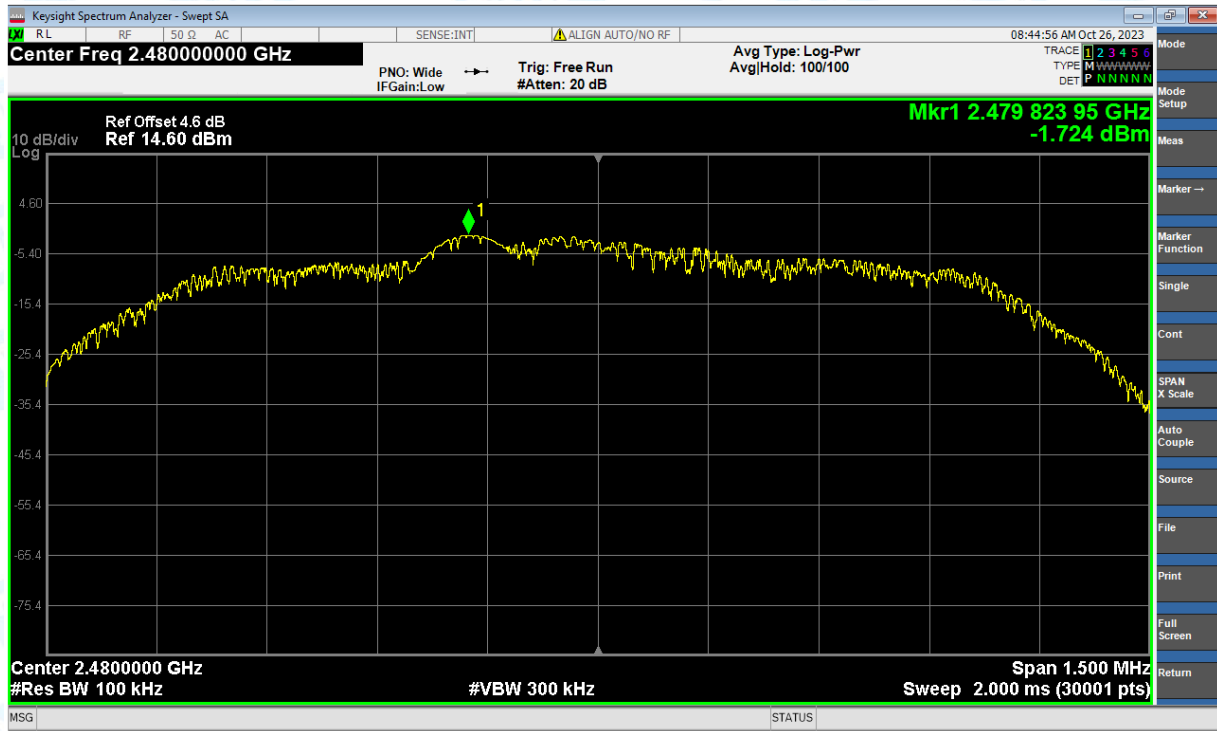
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Ref



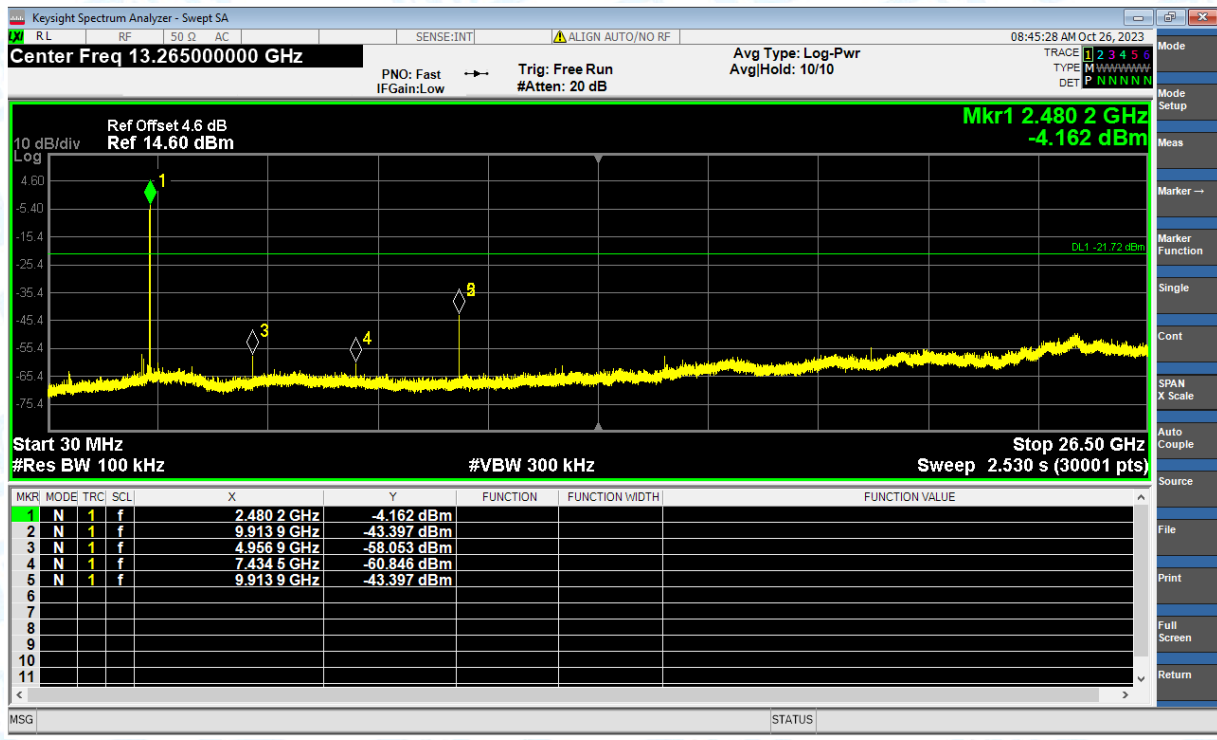
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Ref



Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Emission

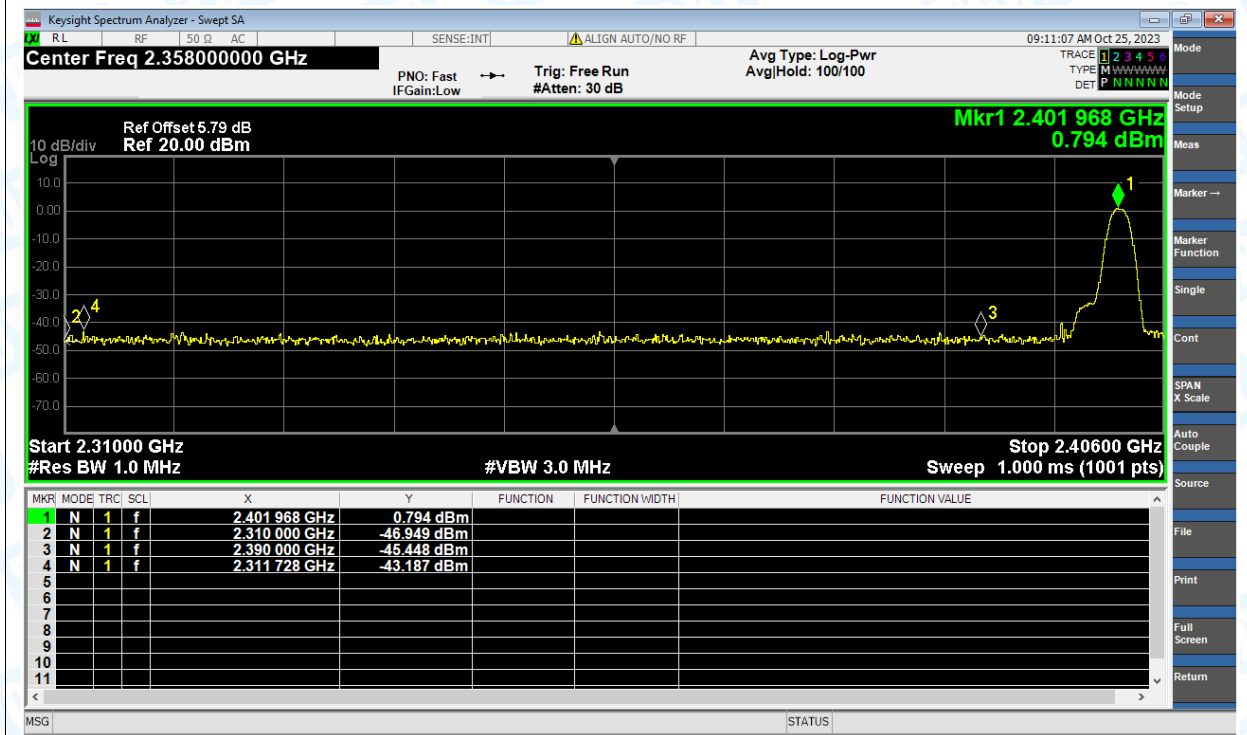


## 8. Restrict Band

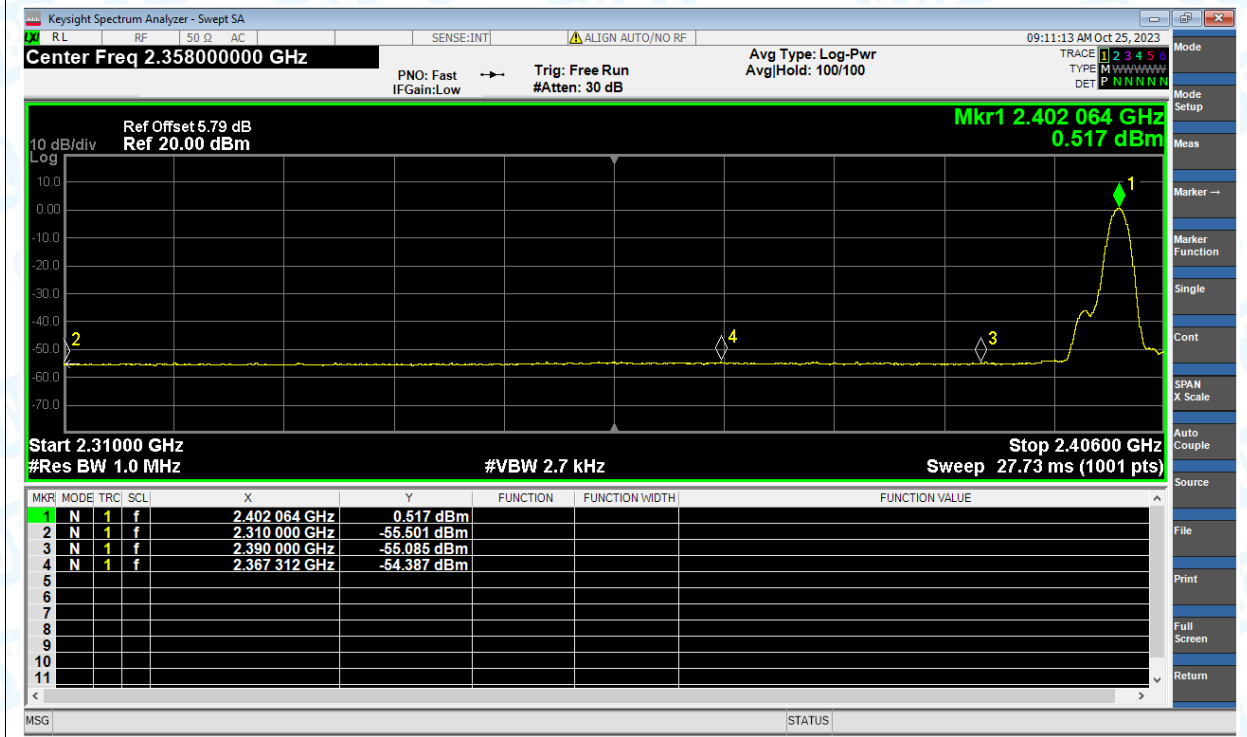
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-46.95	2	50.31	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-55.5	2	41.76	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2311.728	-43.19	2	54.07	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2367.312	-54.39	2	42.87	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-45.95	2	51.31	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-54.94	2	42.32	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-46.09	2	51.17	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-53.39	2	43.87	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2487.688	-43.41	2	53.85	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.512	-53.39	2	43.87	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-45.52	2	51.74	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-55.46	2	41.8	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-45.86	2	51.4	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-55.37	2	41.89	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2363.28	-43.49	2	53.77	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2361.264	-54.13	2	43.13	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-45.73	2	51.53	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-54.94	2	42.32	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-44.91	2	52.35	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-53.77	2	43.49	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2491.768	-43.35	2	53.91	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.728	-53.58	2	43.68	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-46.79	2	50.47	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-55.27	2	41.99	Average	54	Pass

Test Graphs

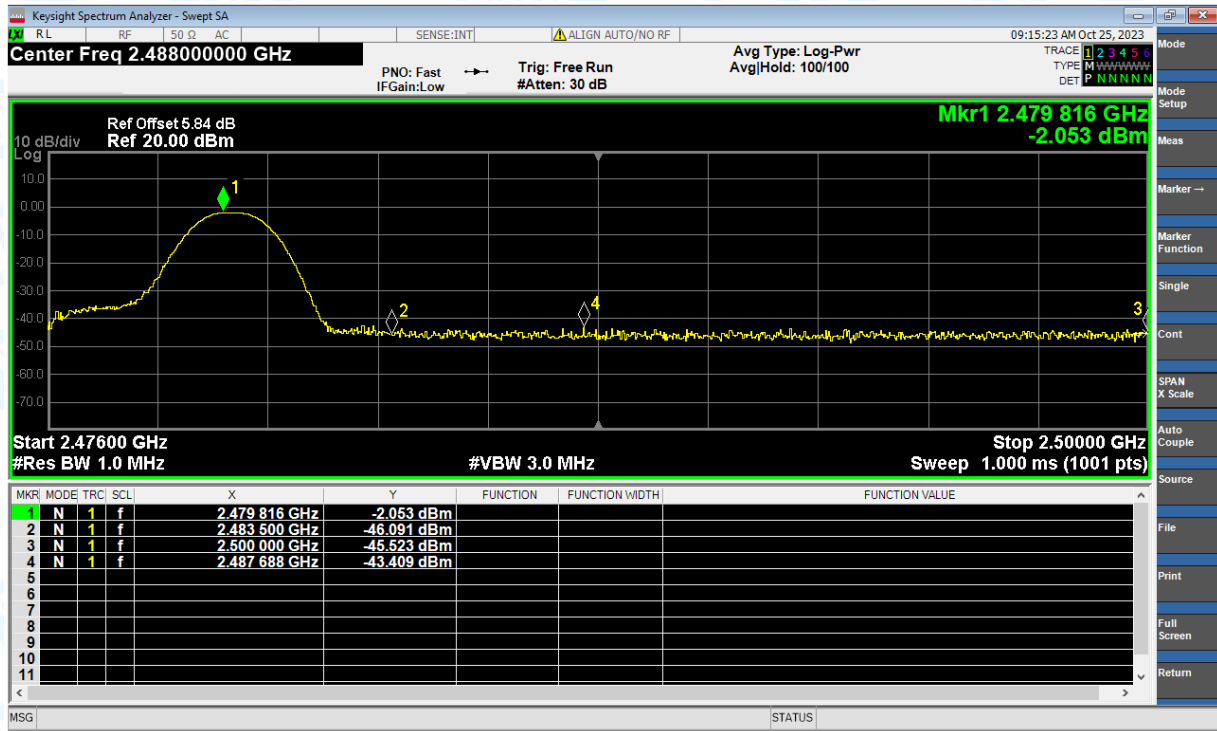
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Peak



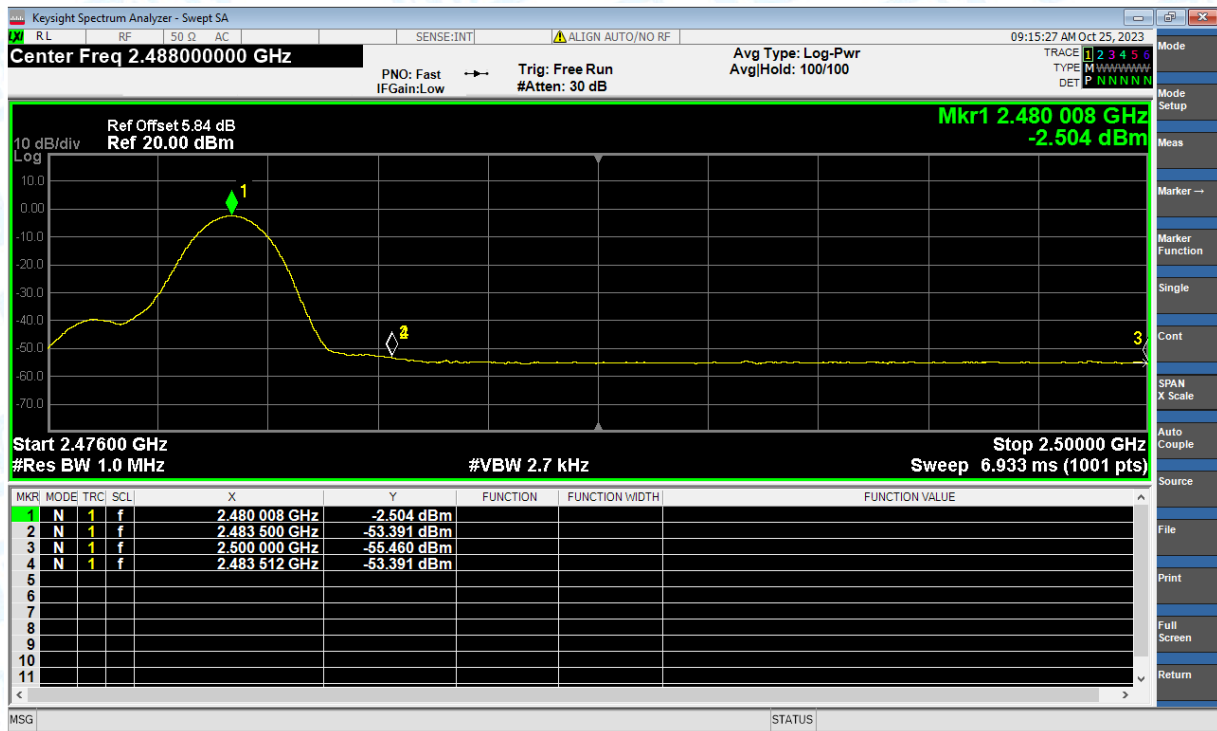
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Average



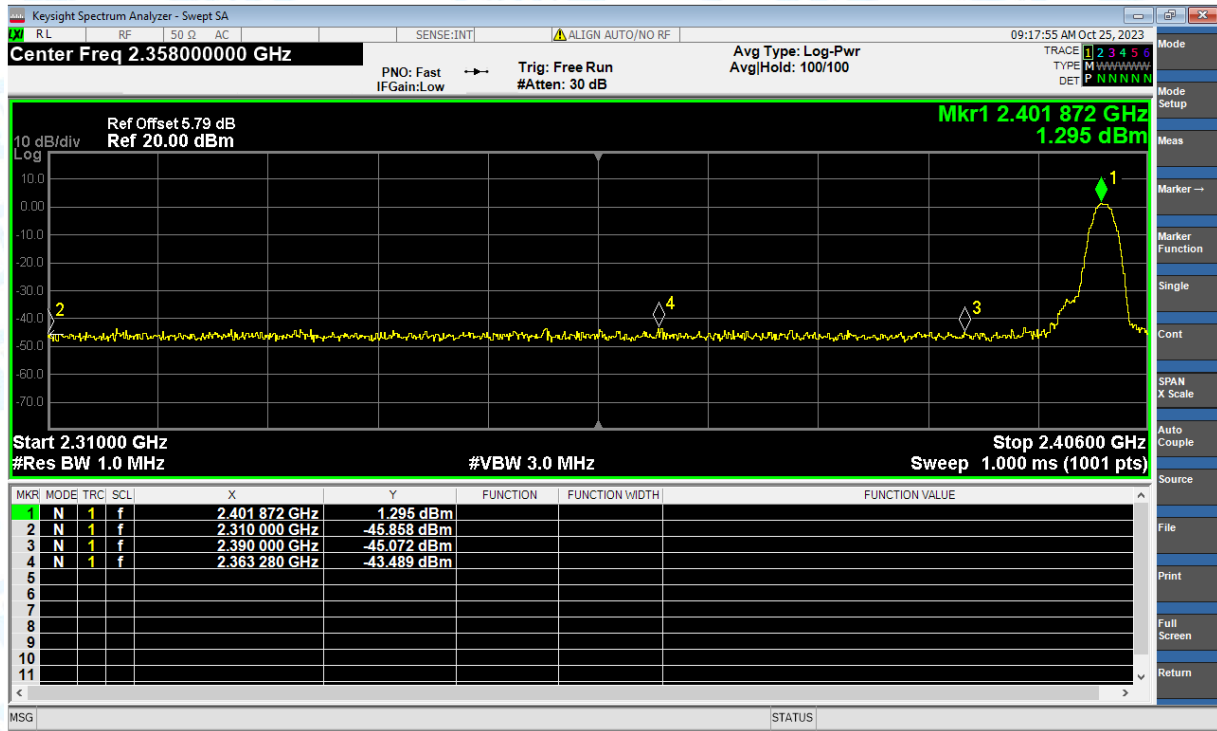
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Peak



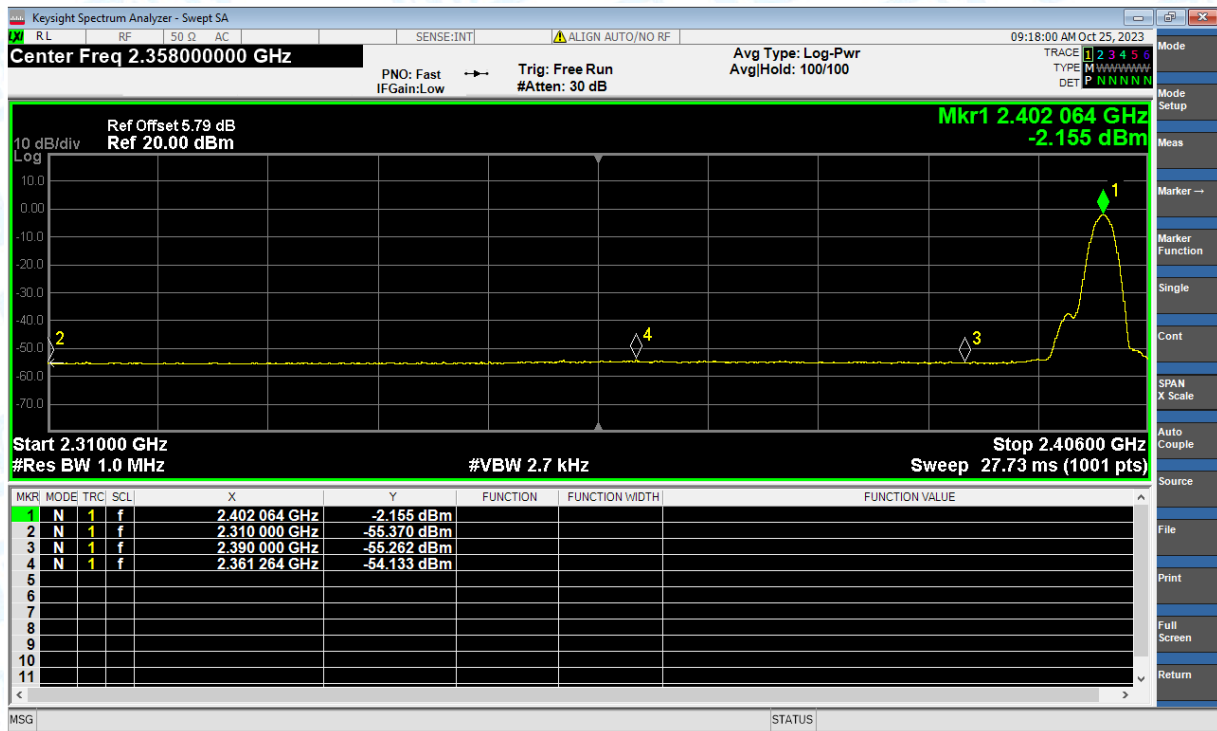
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Average



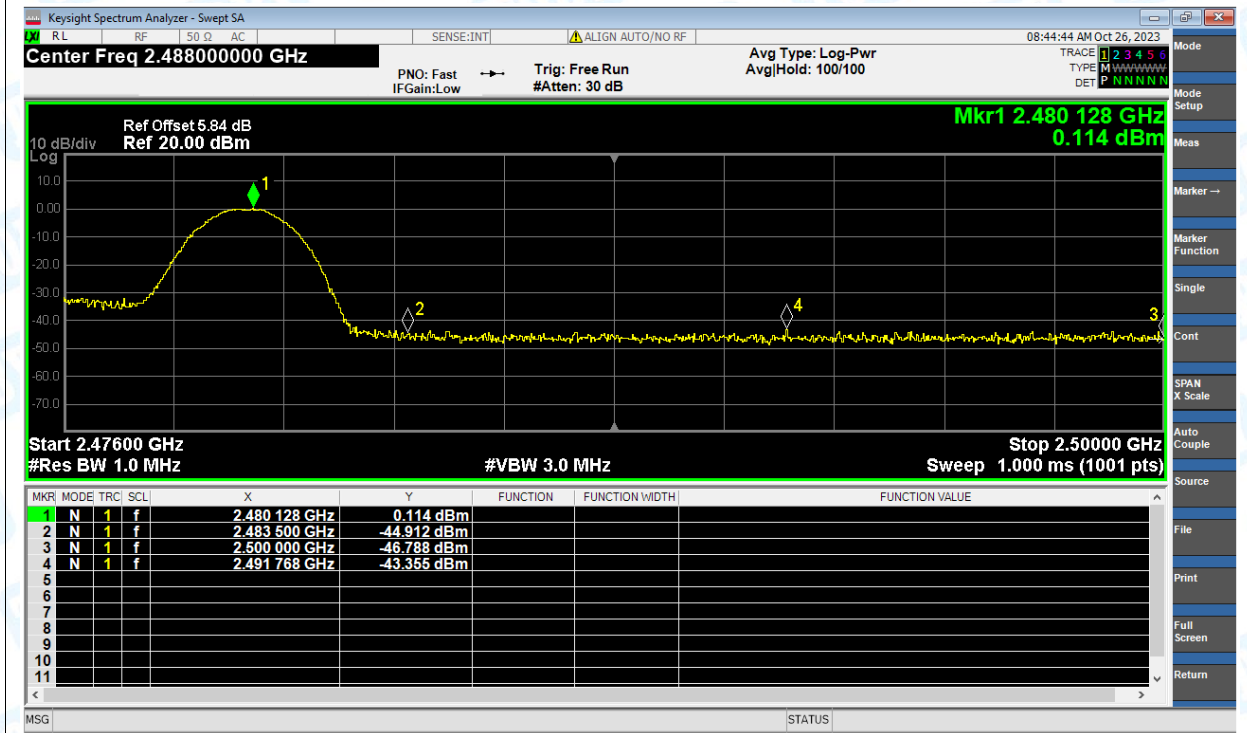
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Peak



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

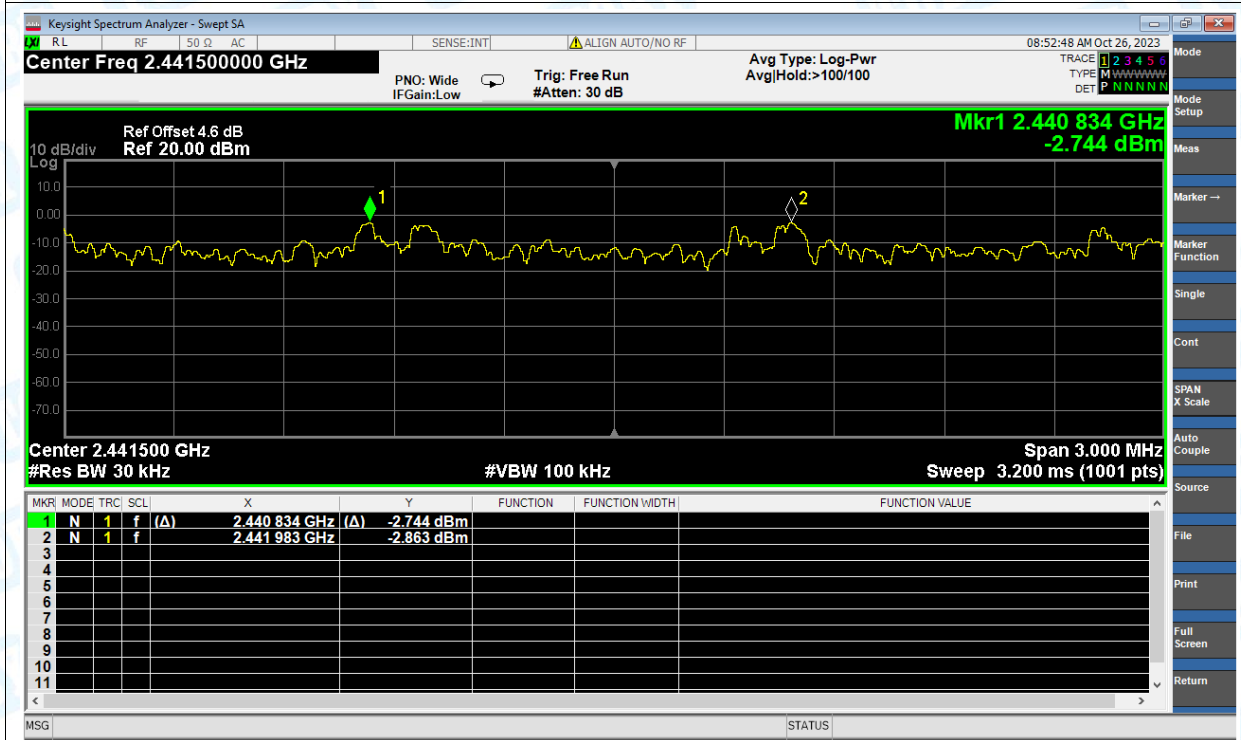
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH1	Ant1	2440.978	2441.827	0.849	0.573	Pass
NVNT	2-DH1	Ant1	2440.834	2441.983	1.149	0.833	Pass

Test Graphs

CFS NVNT 1-DH1 2441MHz Ant1



CFS NVNT 2-DH1 2441MHz Ant1

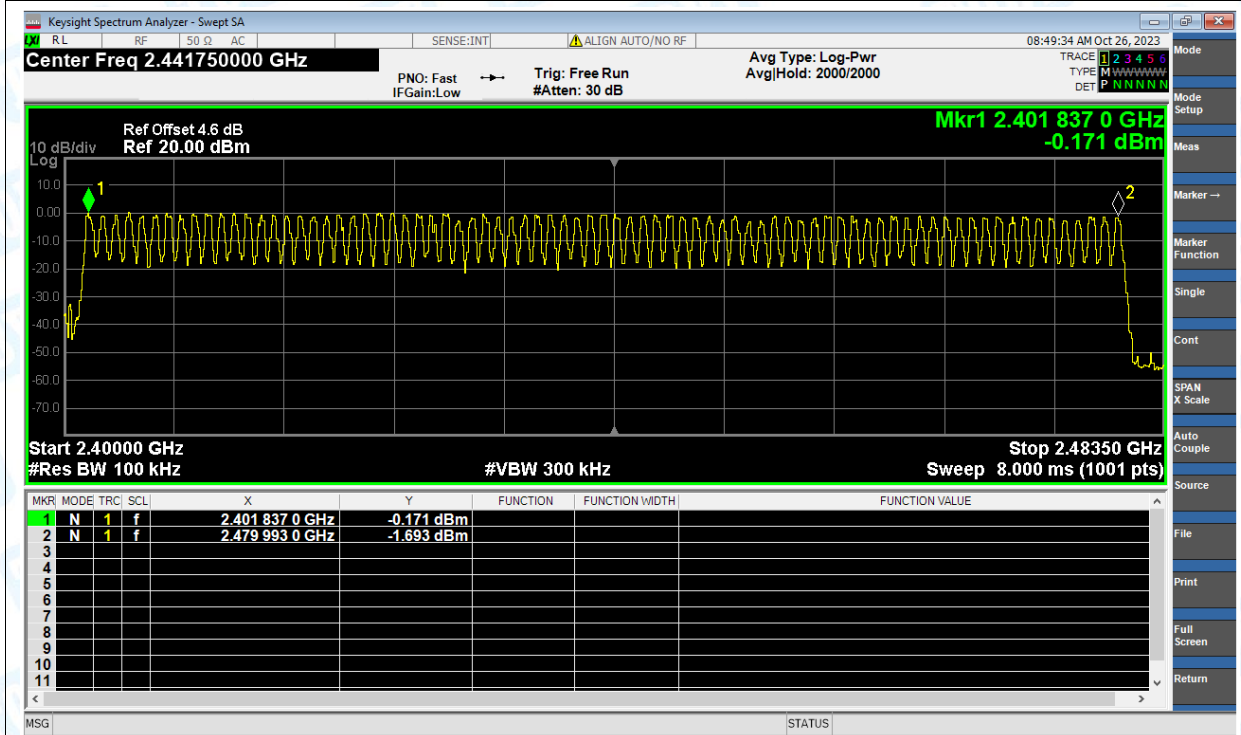


## 10. Number of Hopping Channel

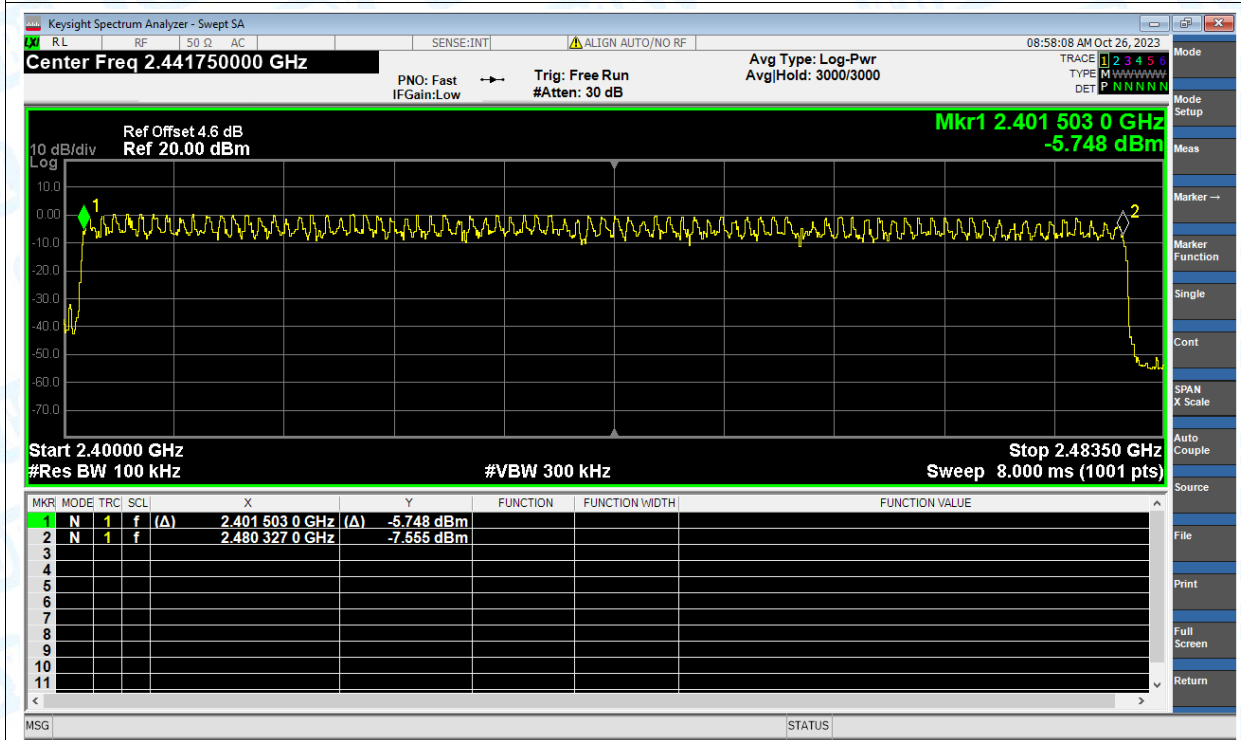
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH1	Ant1	79	15	Pass
NVNT	2-DH1	Ant1	79	15	Pass

Test Graphs

Hopping No. NVNT 1-DH1 2441MHz Ant1



Hopping No. NVNT 2-DH1 2441MHz Ant1

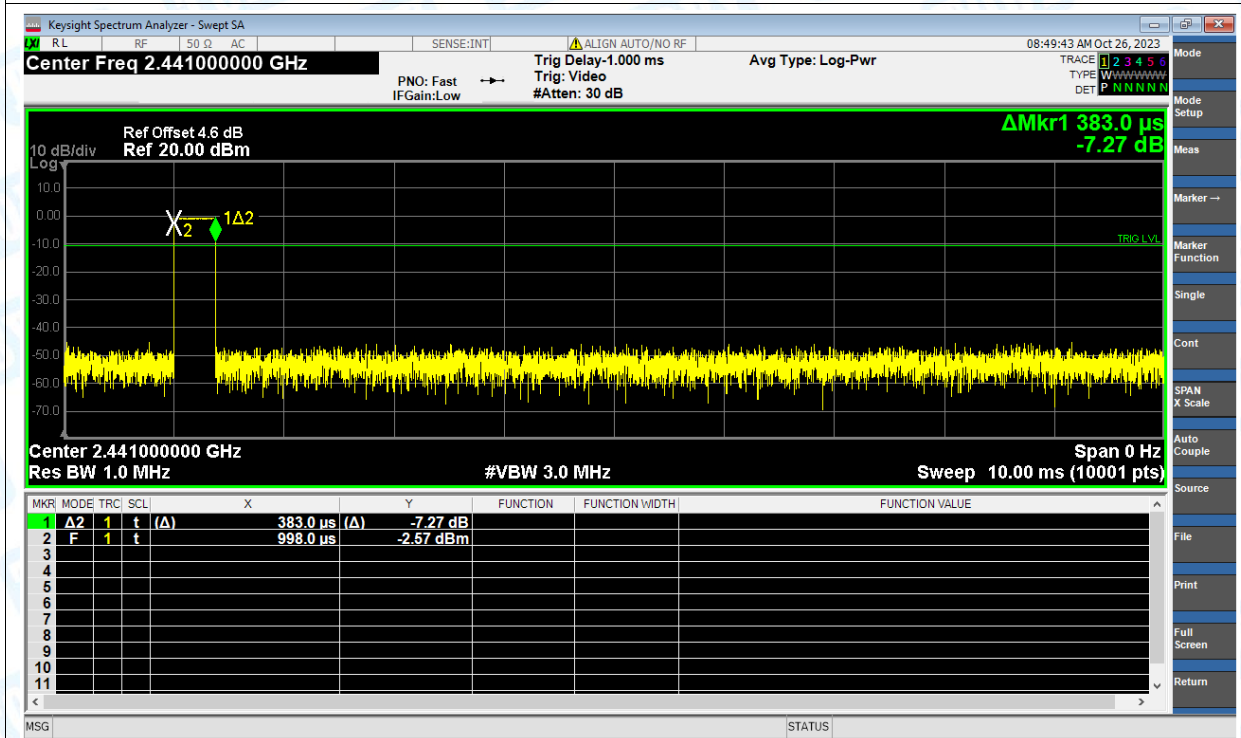


## 11. Dwell Time

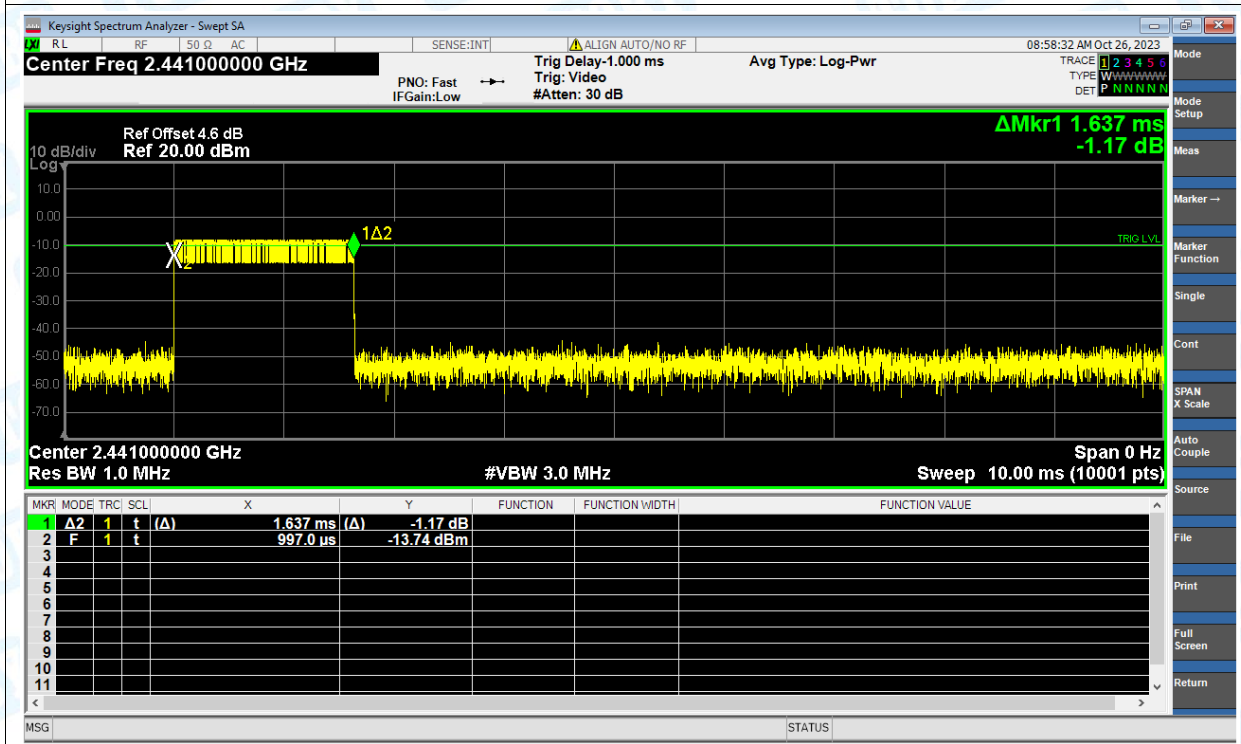
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	Ant1	0.383	122.56	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.637	261.92	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.887	307.947	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.392	125.44	31600	400	Pass
NVNT	2-DH3	2441	Ant1	1.643	262.88	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.891	308.373	31600	400	Pass

Test Graphs

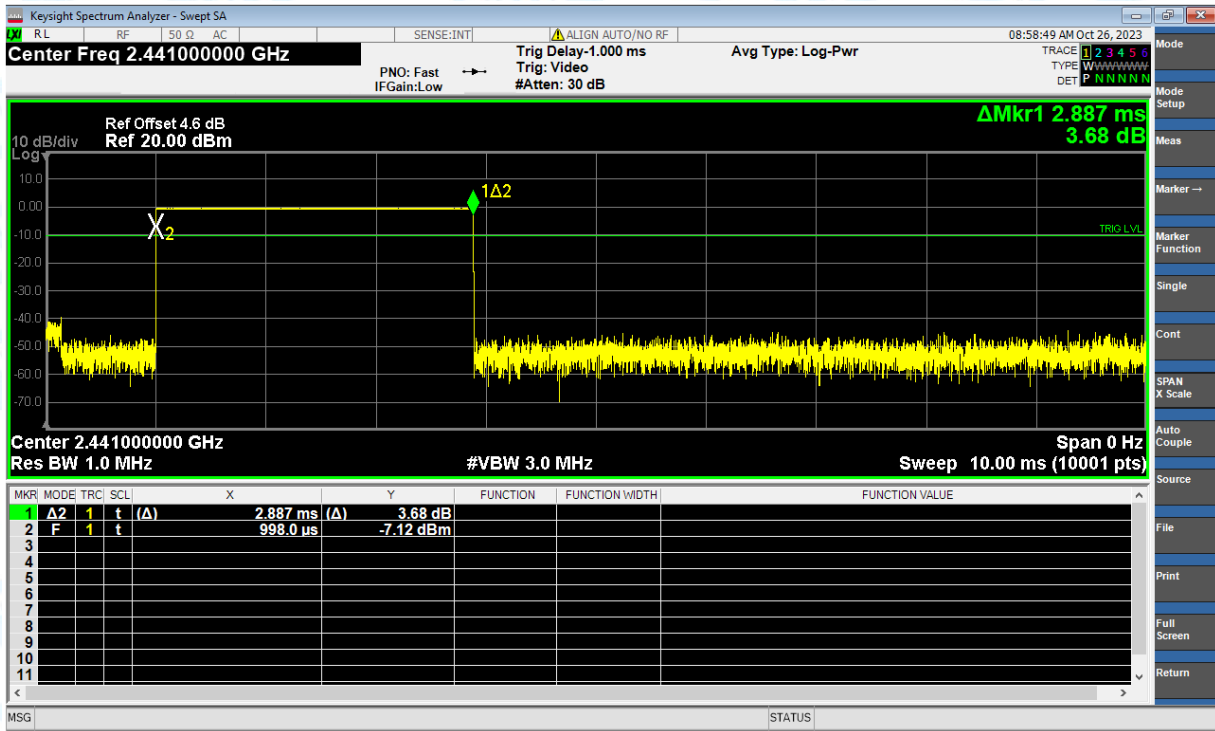
Dwell NVNT 1-DH1 2441MHz Ant1



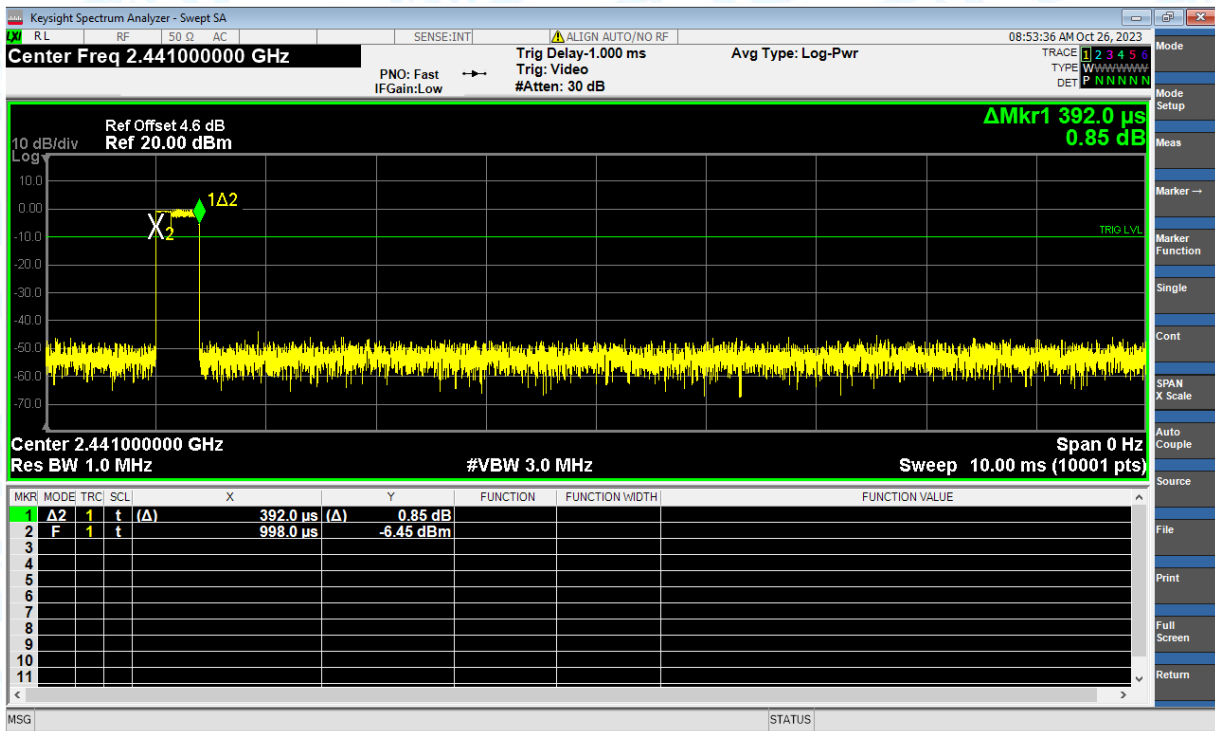
Dwell NVNT 1-DH3 2441MHz Ant1



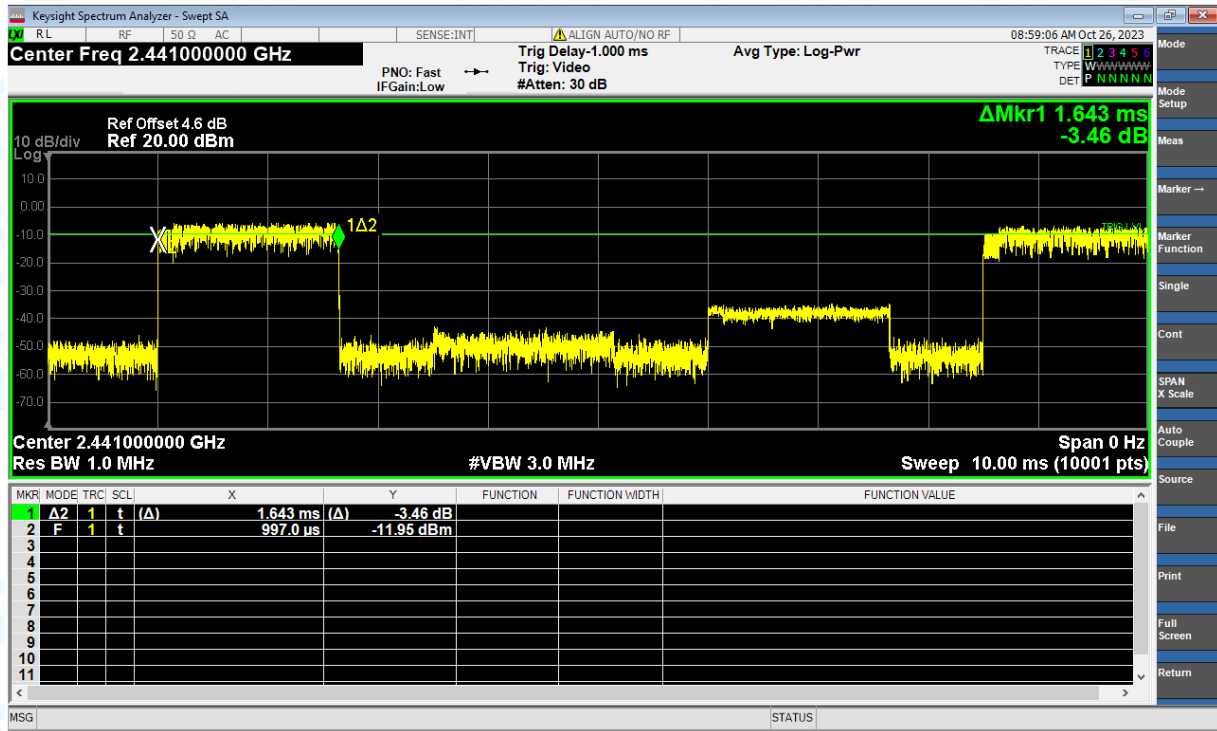
Dwell NVNT 1-DH5 2441MHz Ant1



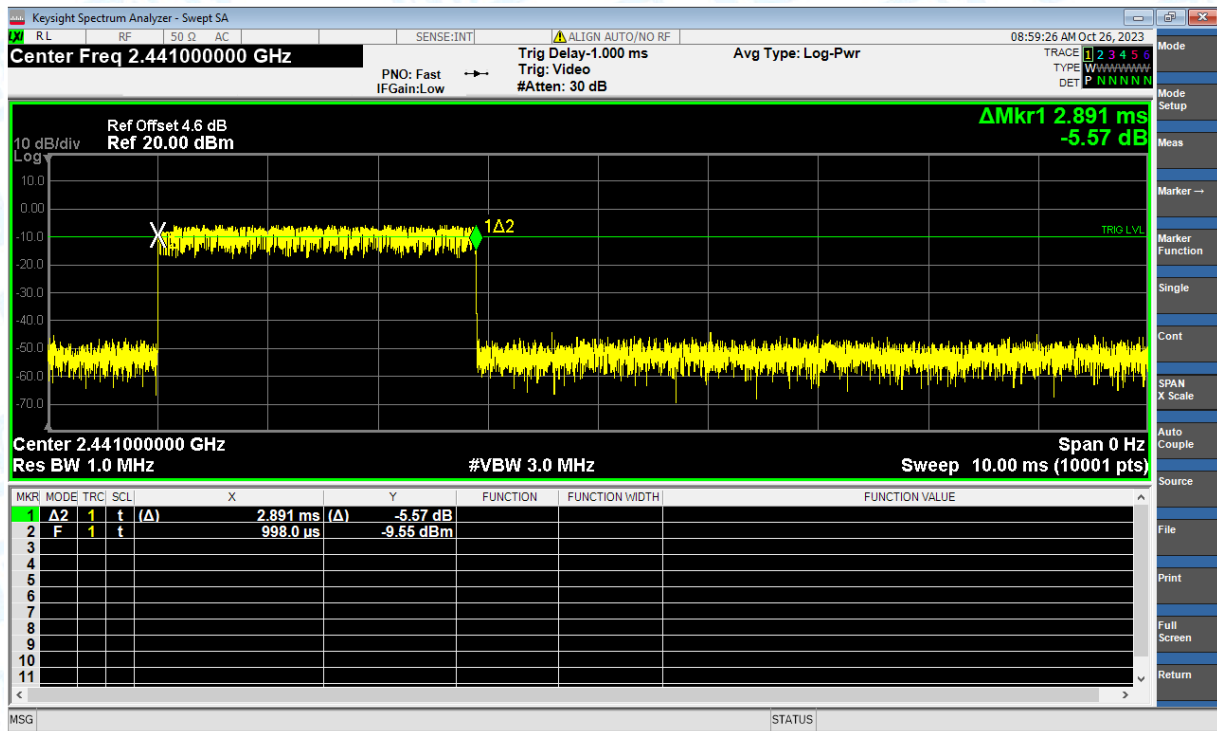
Dwell NVNT 2-DH1 2441MHz Ant1



Dwell NVNT 2-DH3 2441MHz Ant1



Dwell NVNT 2-DH5 2441MHz Ant1



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