

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

General Description of EUT	
<b>Product Name:</b>	Car Wireless FM Transmitter
<b>Test Model:</b>	2MNCA2212B0T2
<b>Sample ID:</b>	202312-0096-1-2#
Environmental Conditions	
<b>Temperature:</b>	25°C
<b>Relative Humidity:</b>	55%
<b>Test Voltage:</b>	DC 12V
<b>Test Engineer:</b>	Zhou zhen
Note: For a more detailed features description, please refer to the report TBR-C-202312-0096-1 The report only show the worst case data.	



## Contents

1. Duty Cycle.....	3
2. Maximum Conducted Output Power.....	9
3. -20dB Bandwidth.....	15
4. Occupied Channel Bandwidth.....	21
5. Band Edge.....	27
6. Band Edge(Hopping).....	34
7. Conducted RF Spurious Emission.....	41
8. Restrict Band.....	51
9. Carrier Frequencies Separation.....	58
10. Number of Hopping Channel.....	61
11. Dwell Time.....	64

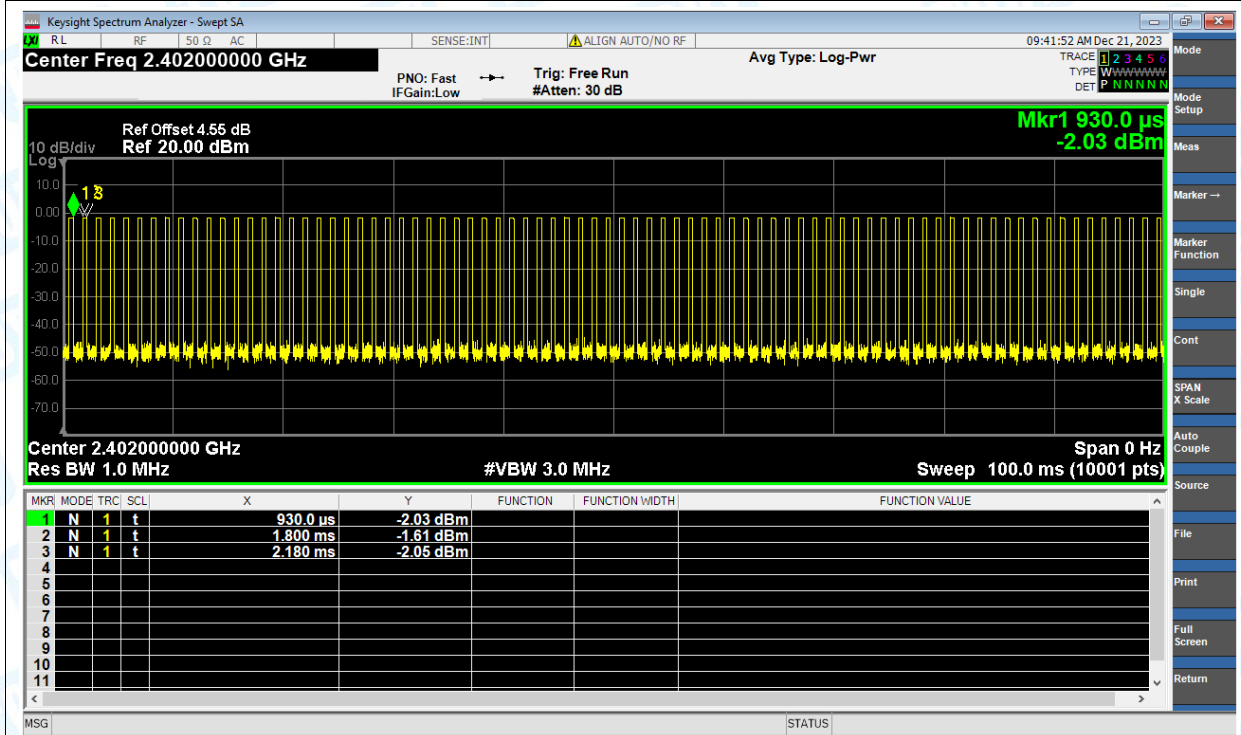


## 1. Duty Cycle

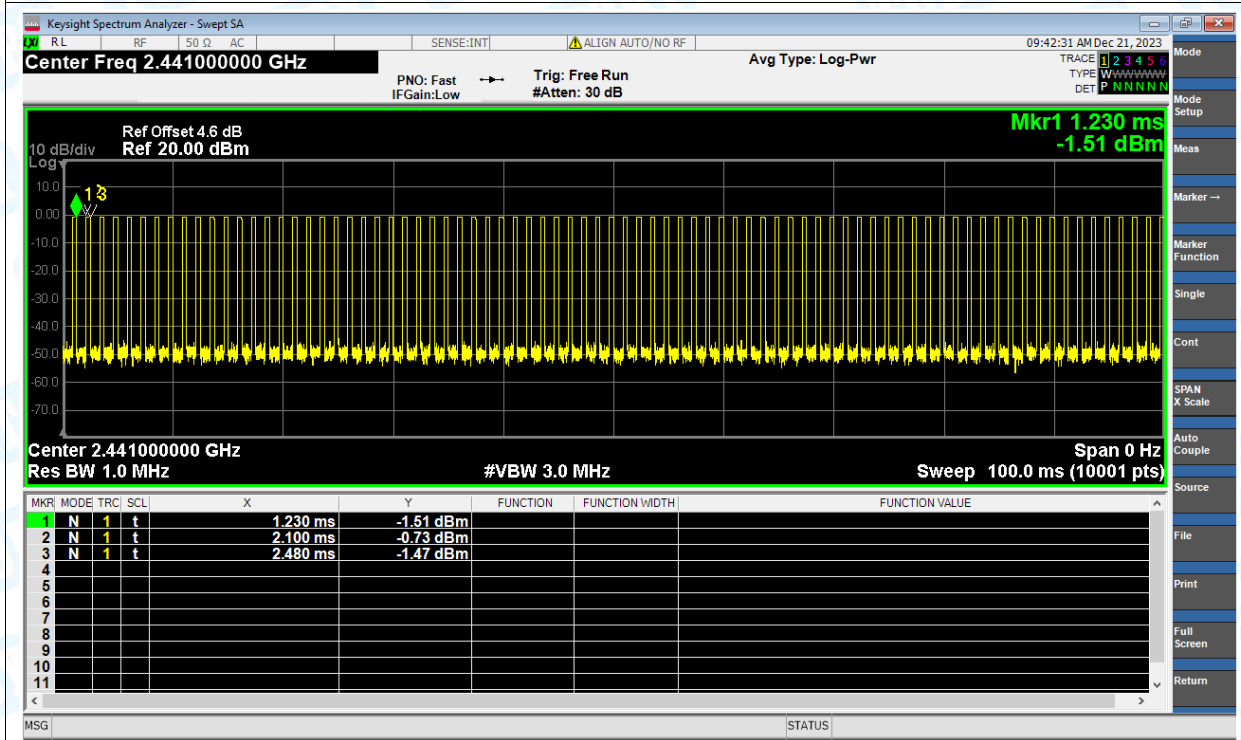
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH1	2402	Ant1	30.4	5.17	2.63
NVNT	1-DH1	2441	Ant1	30.4	5.17	2.63
NVNT	1-DH1	2480	Ant1	30.4	5.17	2.63
NVNT	2-DH1	2402	Ant1	31.2	5.06	2.56
NVNT	2-DH1	2441	Ant1	31.2	5.06	2.56
NVNT	2-DH1	2480	Ant1	30.4	5.17	2.63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

Test Graphs

Duty Cycle NVNT 1-DH1 2402MHz Ant1

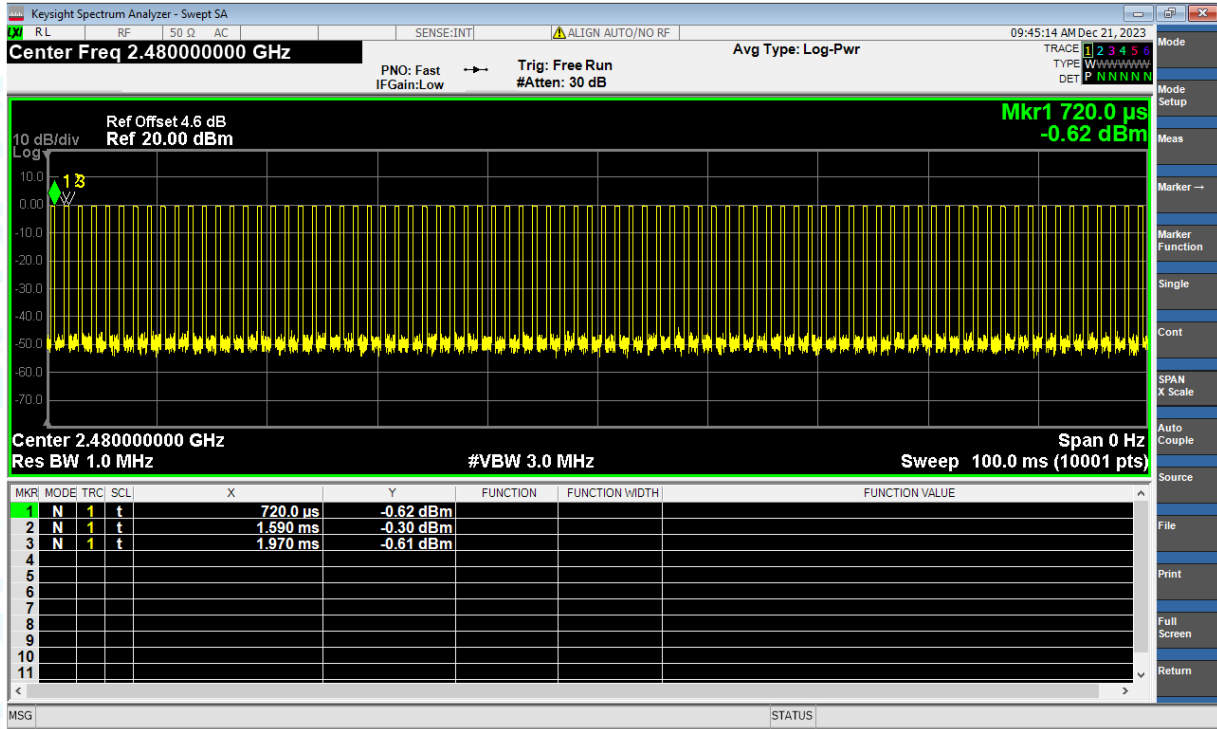


Duty Cycle NVNT 1-DH1 2441MHz Ant1

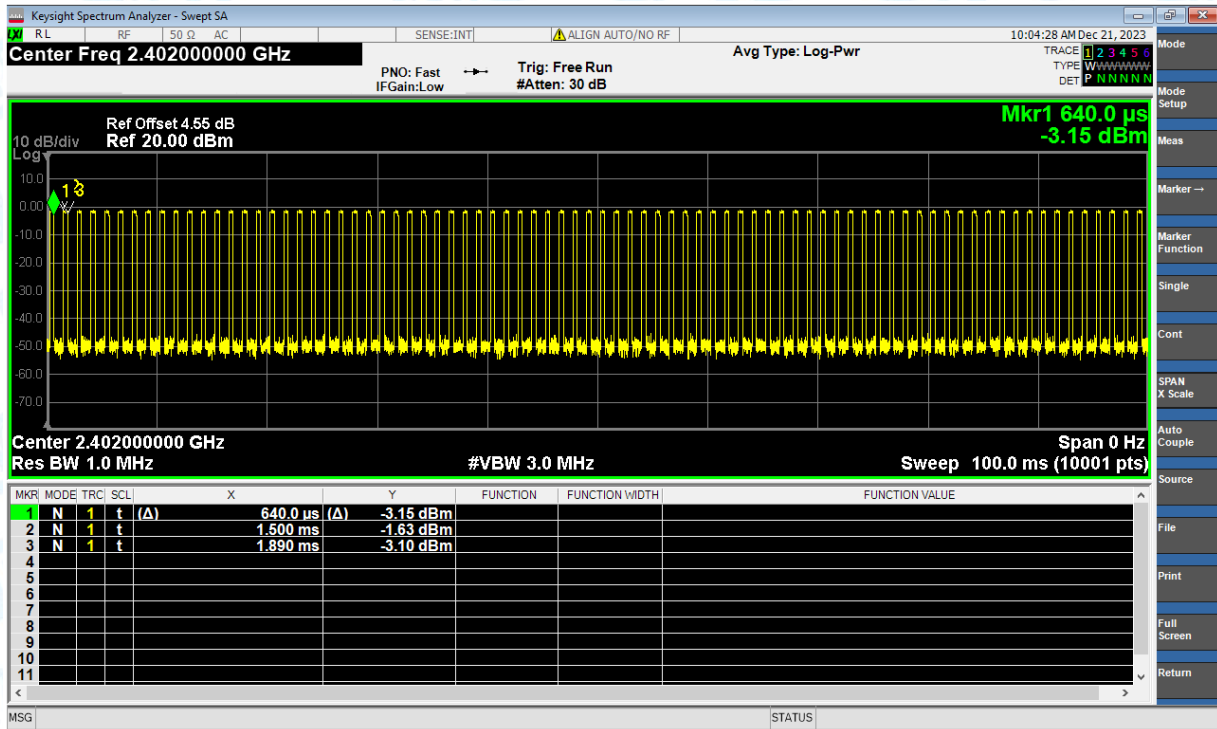




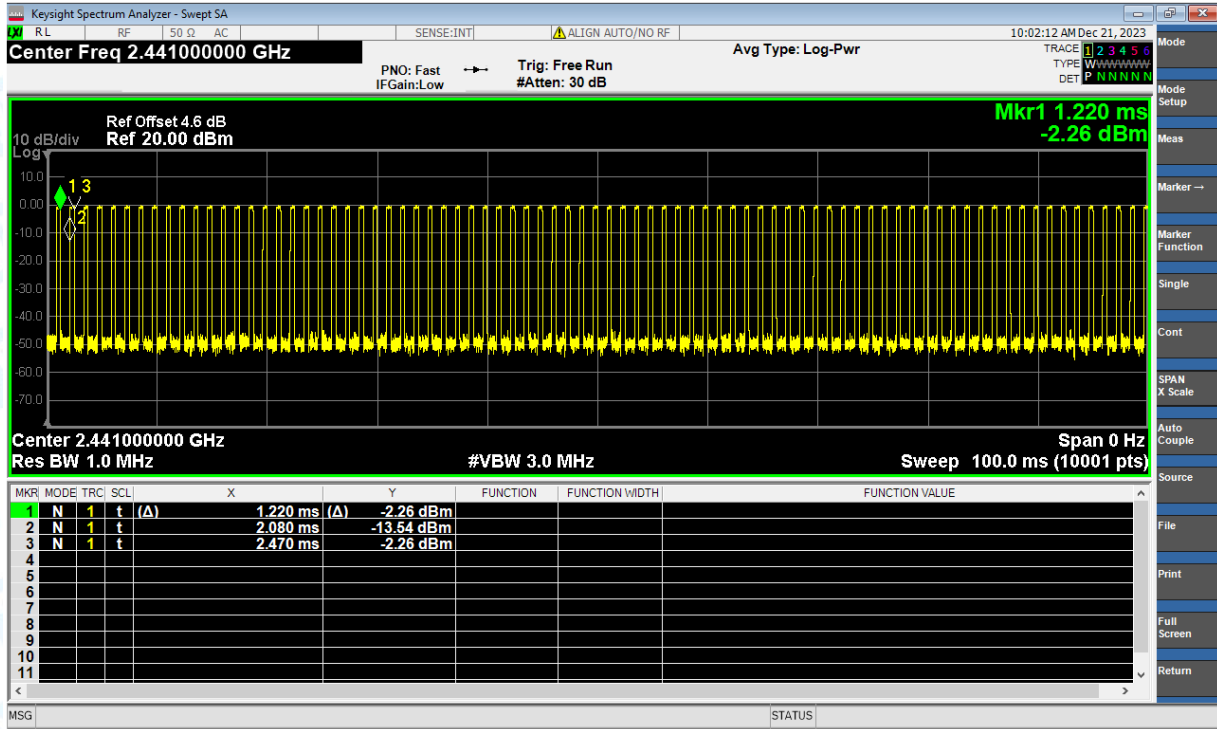
Duty Cycle NVNT 1-DH1 2480MHz Ant1



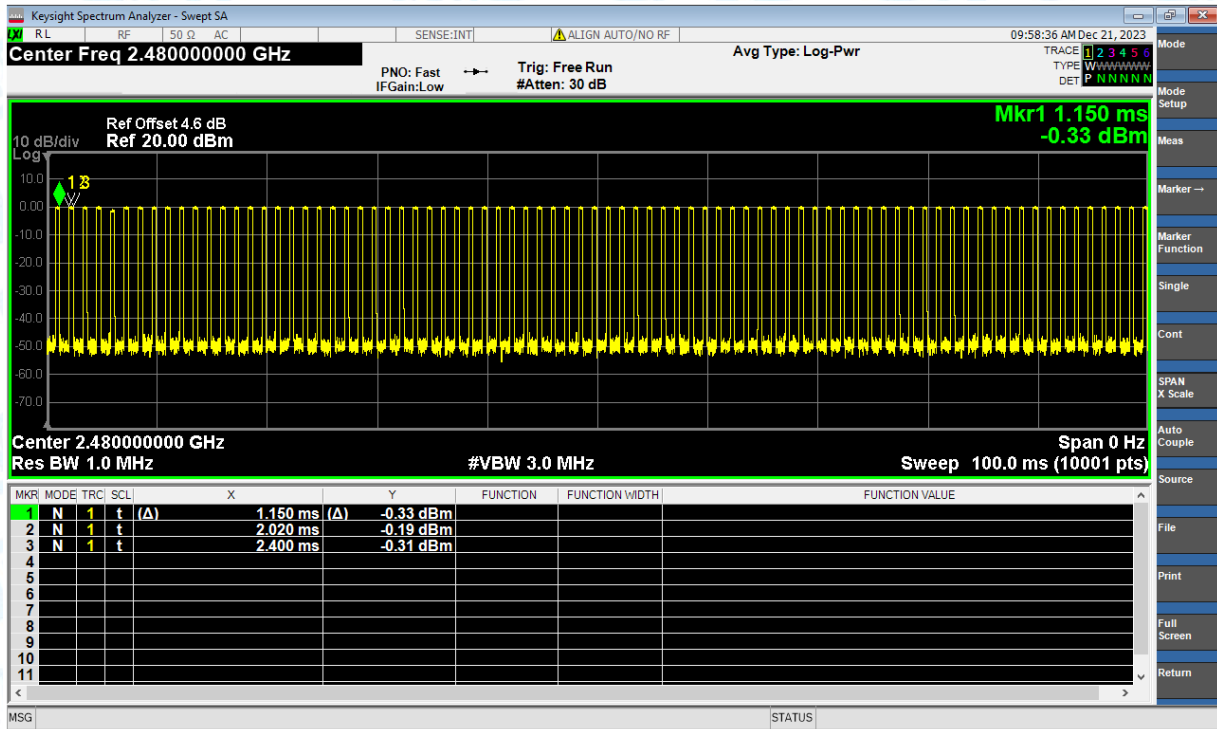
Duty Cycle NVNT 2-DH1 2402MHz Ant1



Duty Cycle NVNT 2-DH1 2441MHz Ant1

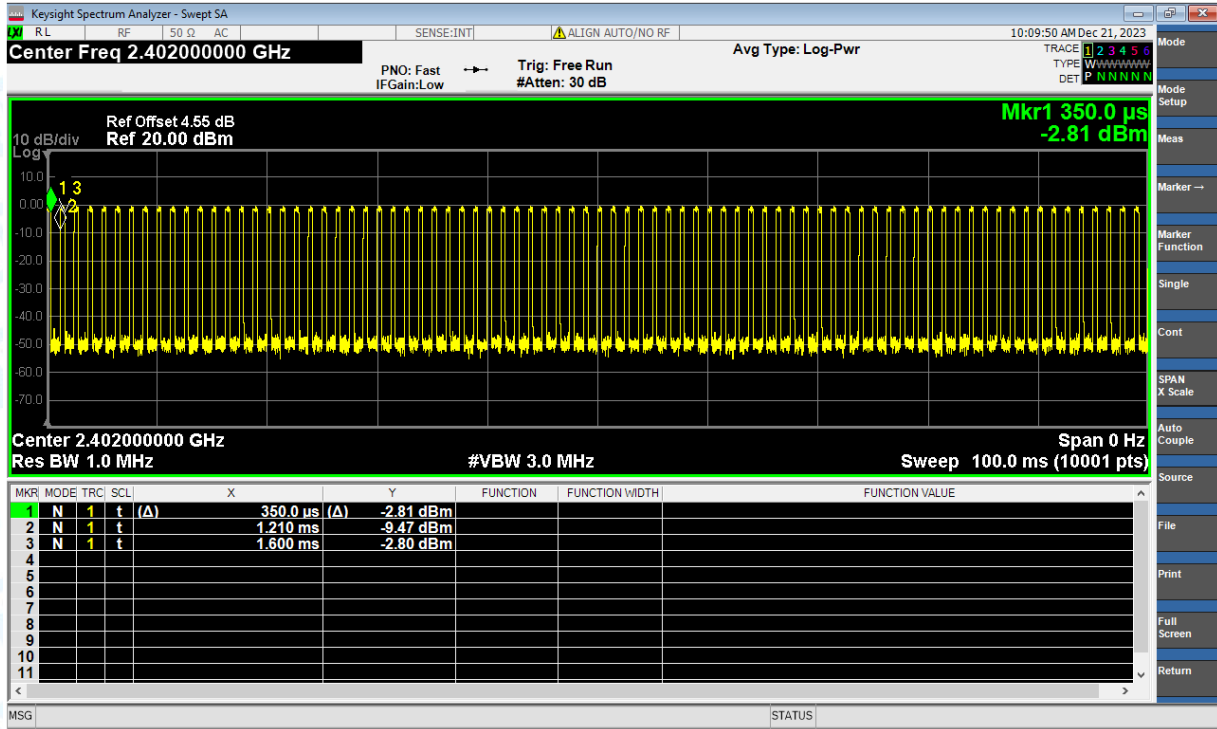


Duty Cycle NVNT 2-DH1 2480MHz Ant1

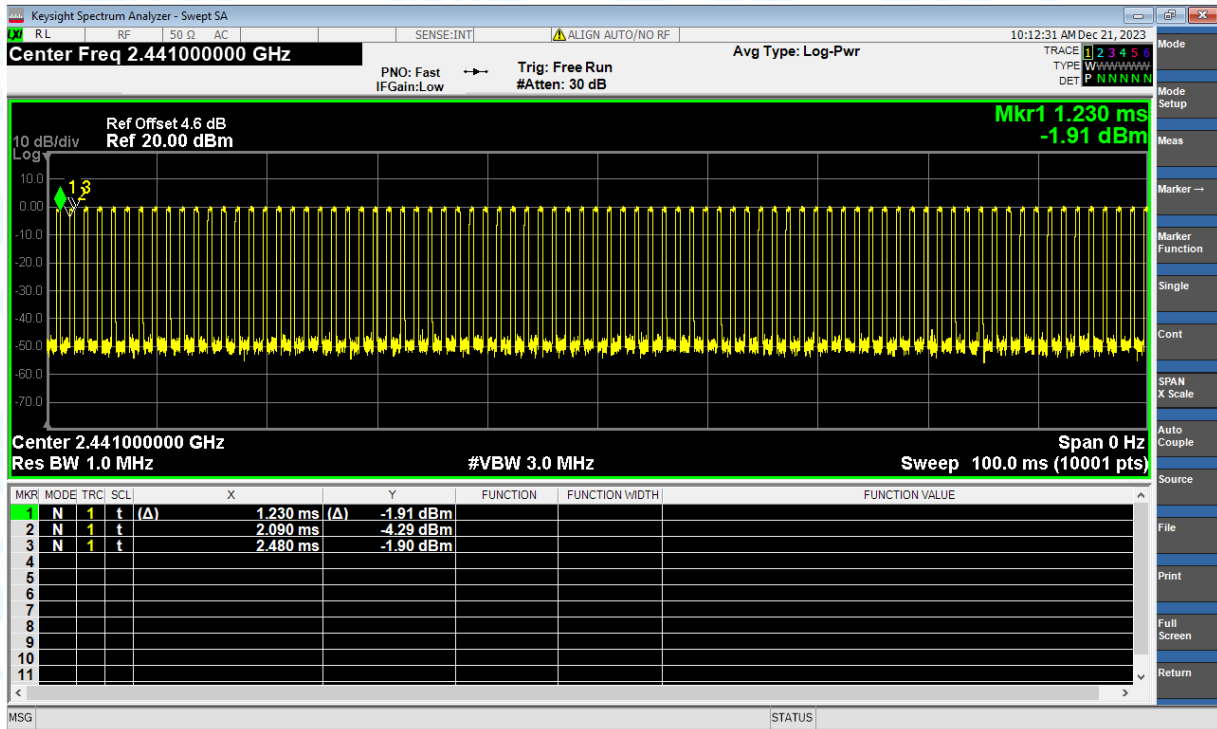


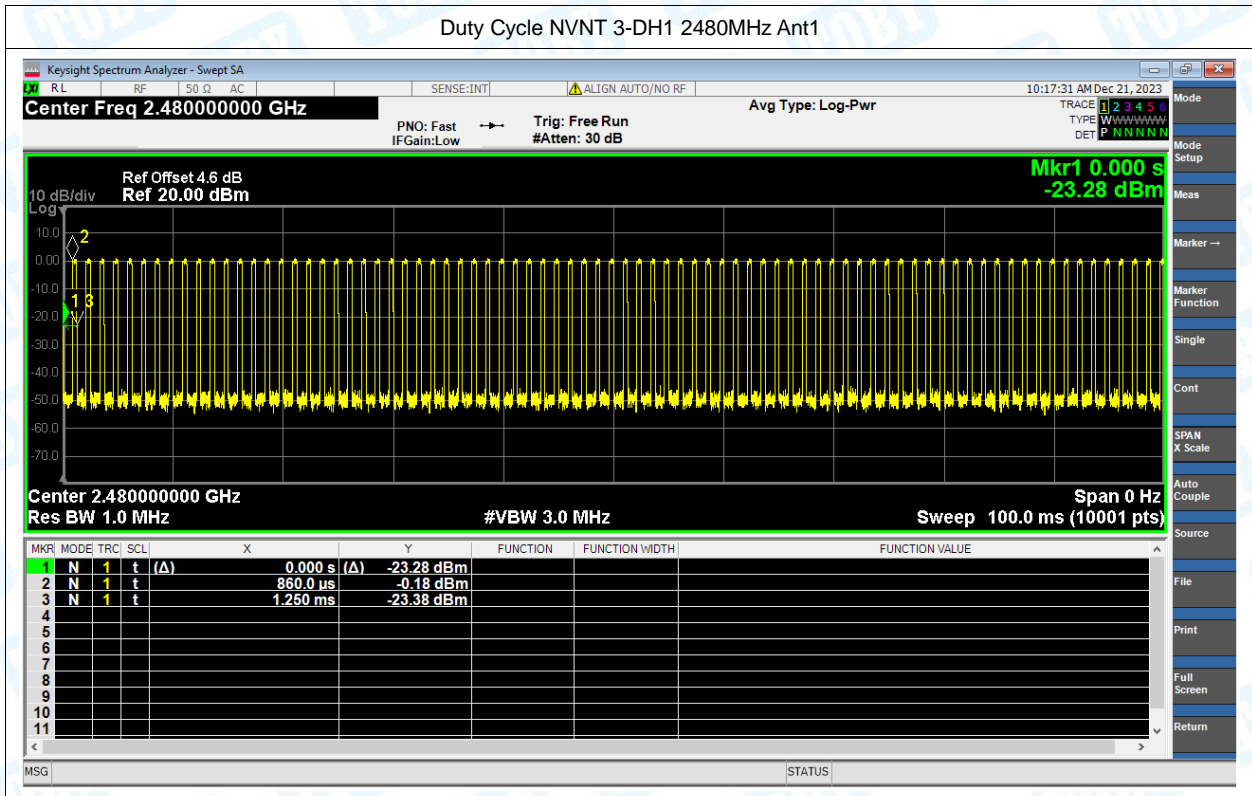


Duty Cycle NVNT 3-DH1 2402MHz Ant1



Duty Cycle NVNT 3-DH1 2441MHz Ant1





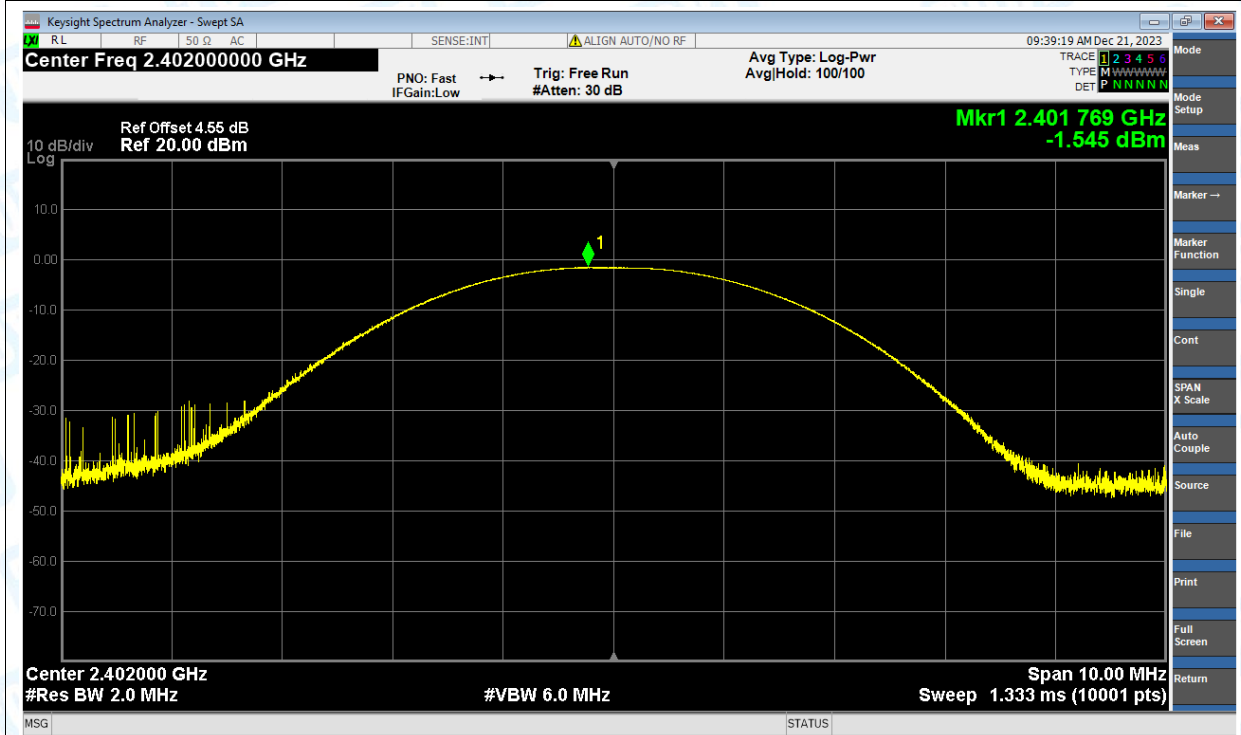


## 2. Maximum Conducted Output Power

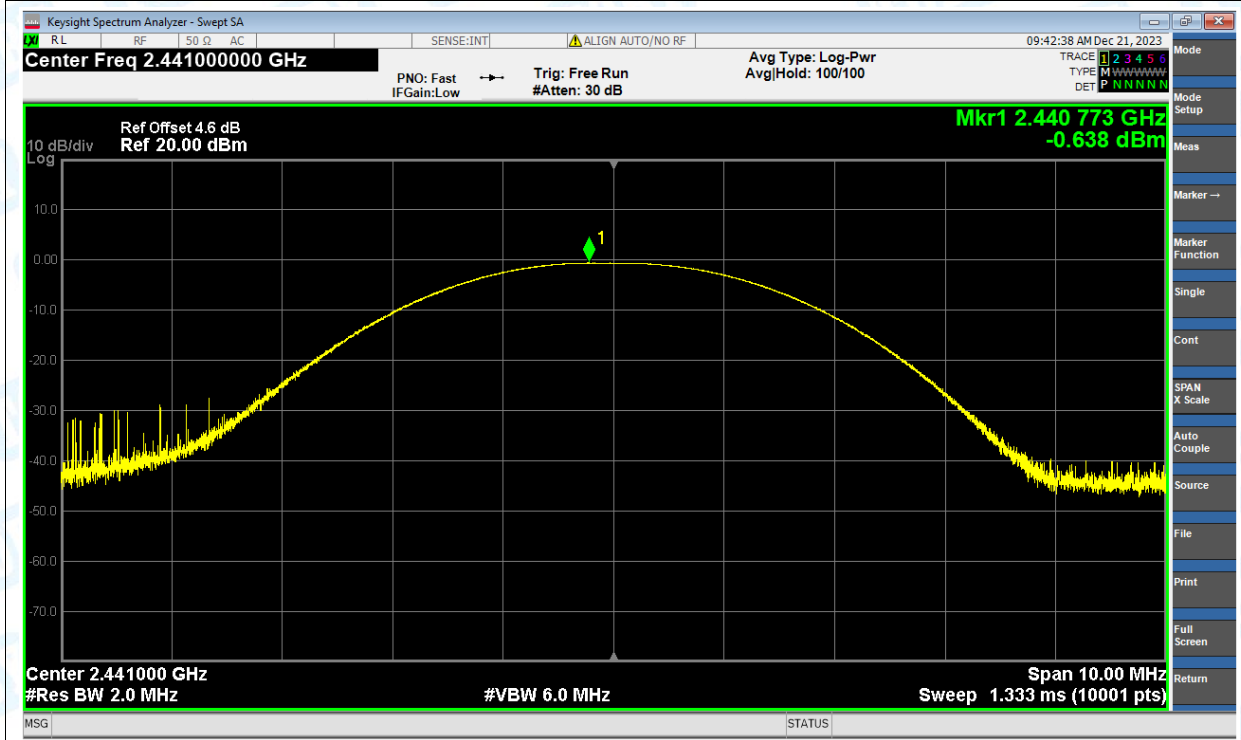
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	-1.545	21	Pass
NVNT	1-DH1	2441	Ant1	-0.638	21	Pass
NVNT	1-DH1	2480	Ant1	-0.162	21	Pass
NVNT	2-DH1	2402	Ant1	-0.63	21	Pass
NVNT	2-DH1	2441	Ant1	0.238	21	Pass
NVNT	2-DH1	2480	Ant1	0.76	21	Pass
NVNT	3-DH1	2402	Ant1	0.003	21	Pass
NVNT	3-DH1	2441	Ant1	0.853	21	Pass
NVNT	3-DH1	2480	Ant1	1.335	21	Pass

Test Graphs

Power NVNT 1-DH1 2402MHz Ant1

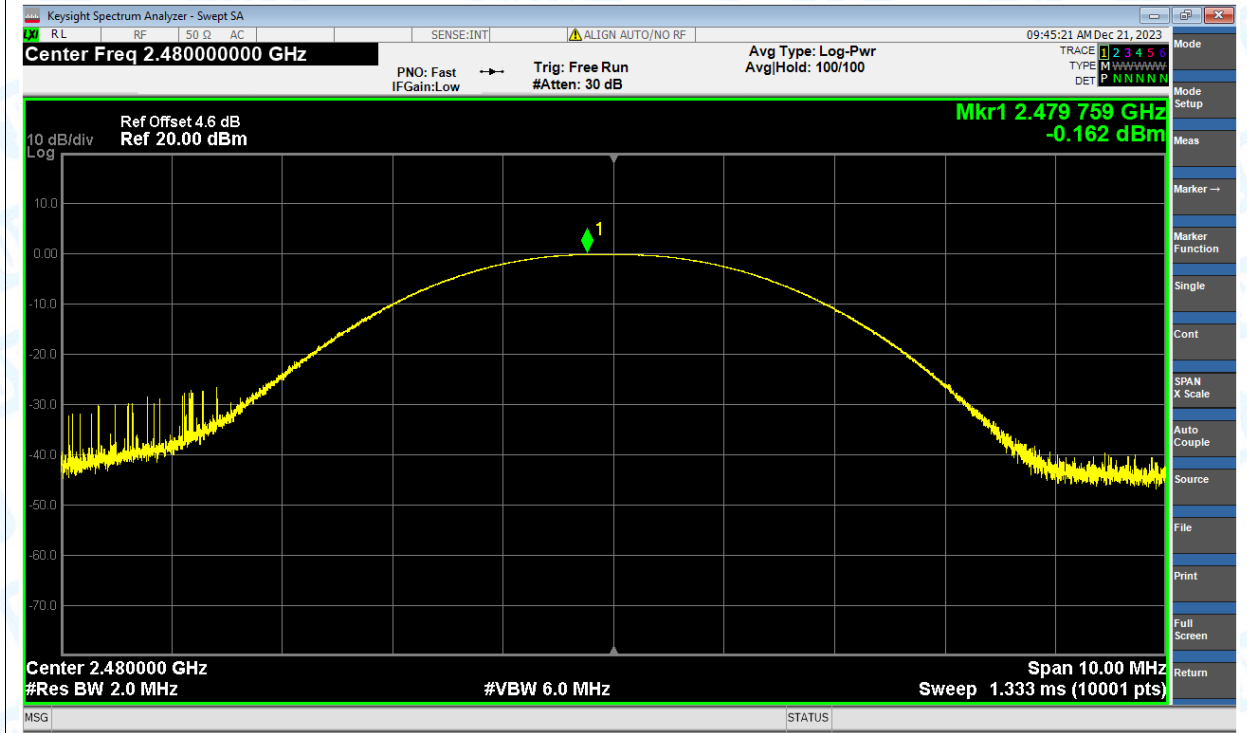


Power NVNT 1-DH1 2441MHz Ant1

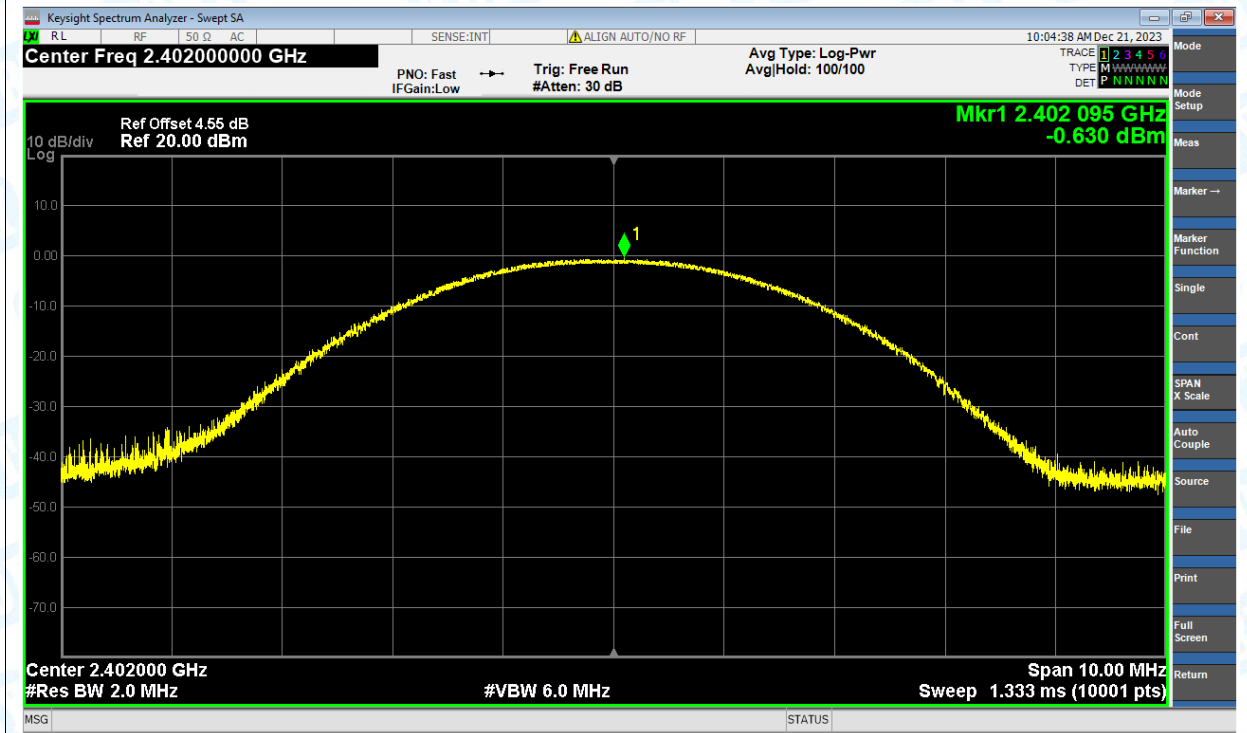




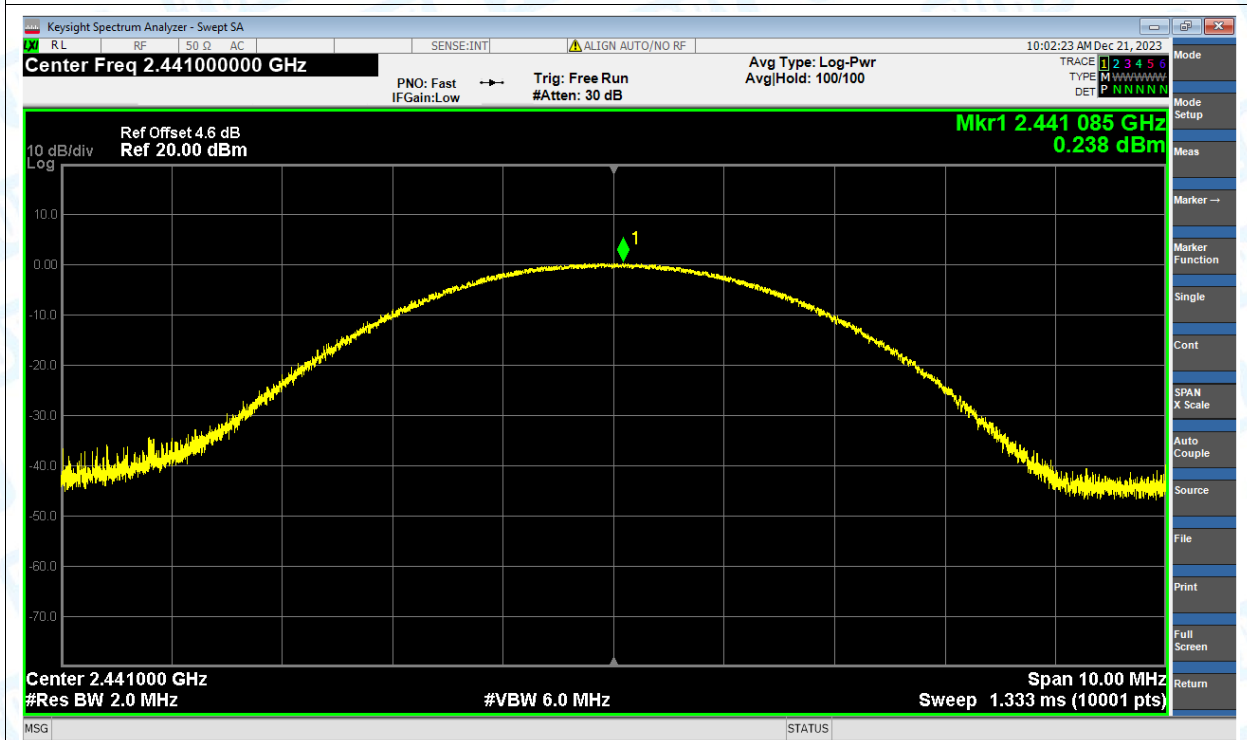
Power NVNT 1-DH1 2480MHz Ant1



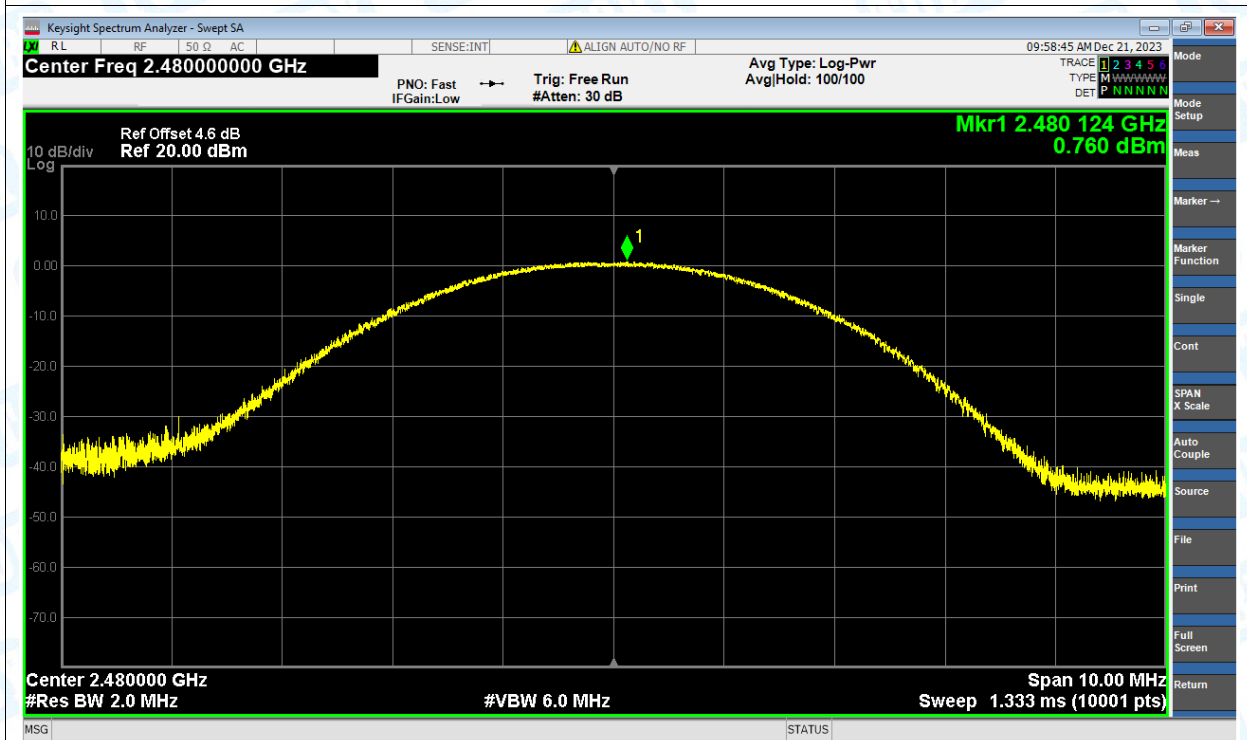
Power NVNT 2-DH1 2402MHz Ant1



Power NVNT 2-DH1 2441MHz Ant1

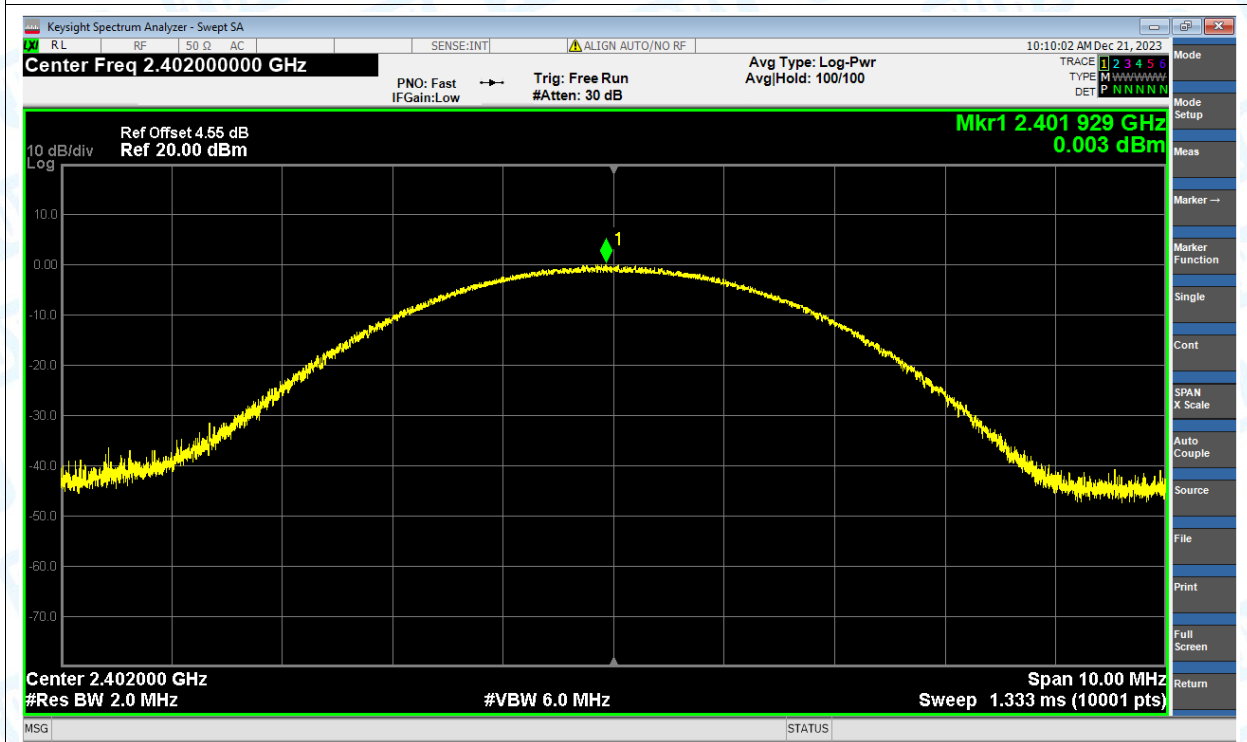


Power NVNT 2-DH1 2480MHz Ant1

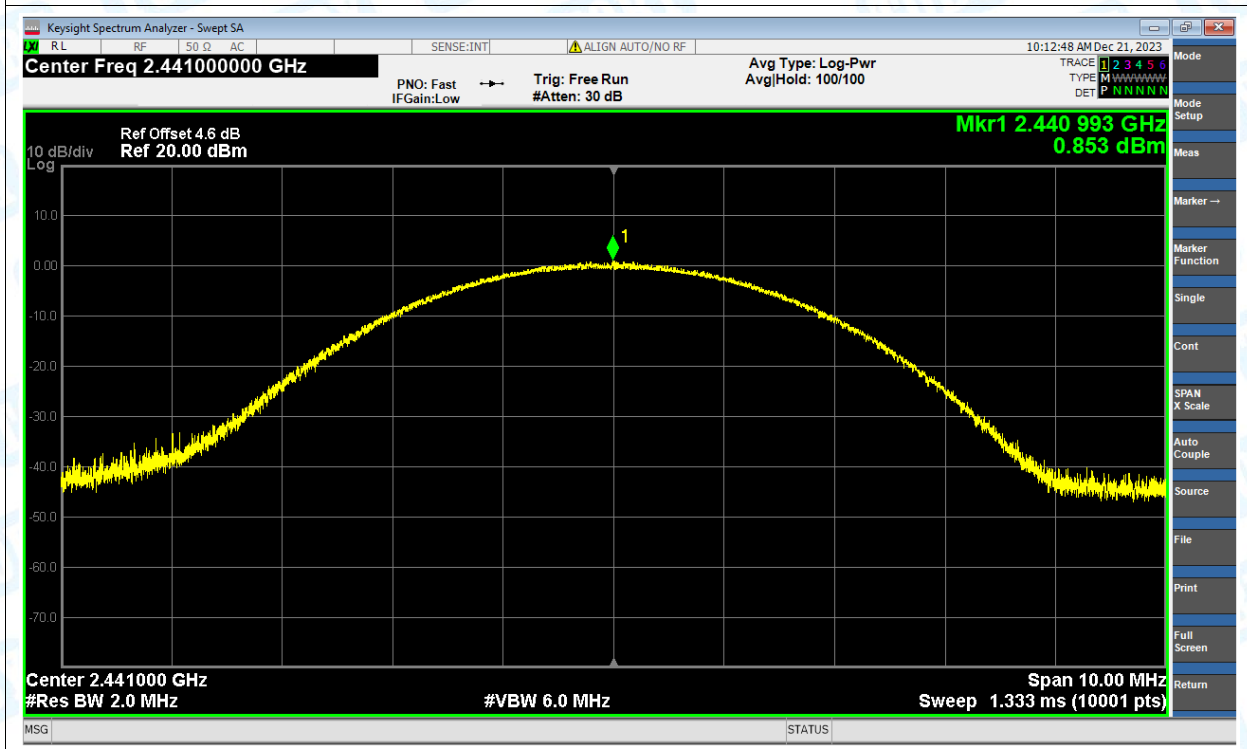




Power NVNT 3-DH1 2402MHz Ant1



Power NVNT 3-DH1 2441MHz Ant1





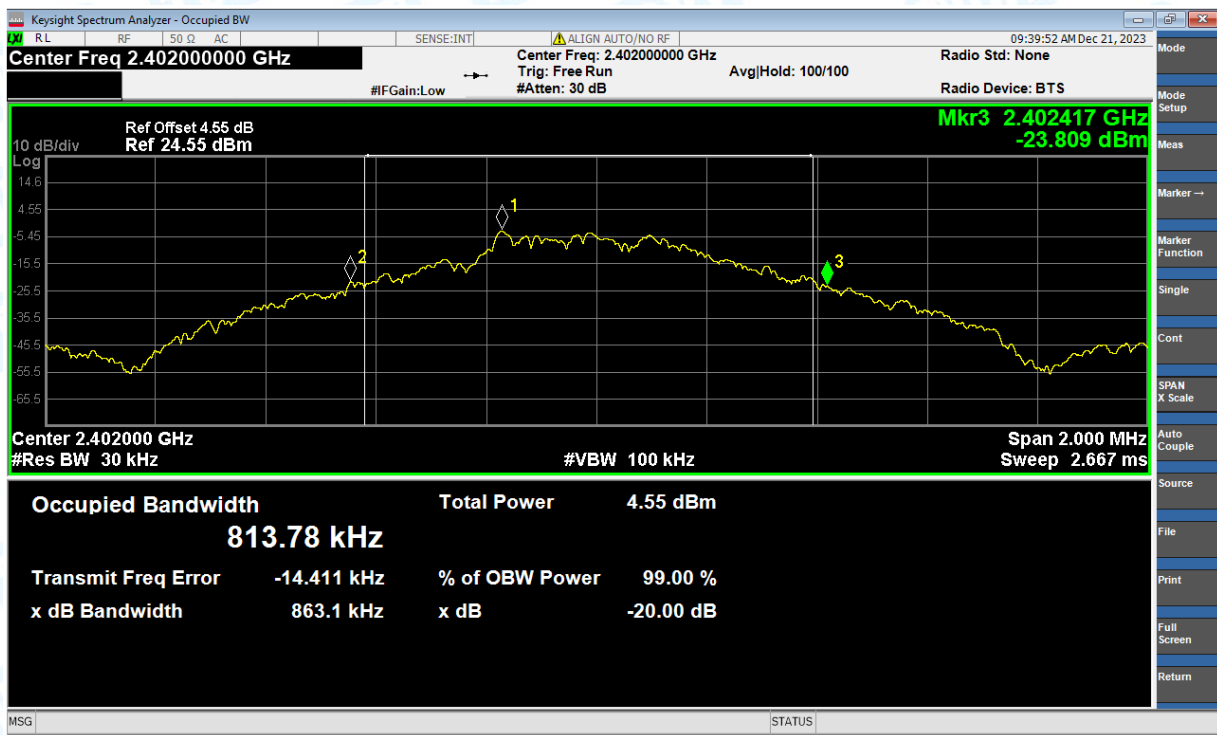


### 3. -20dB Bandwidth

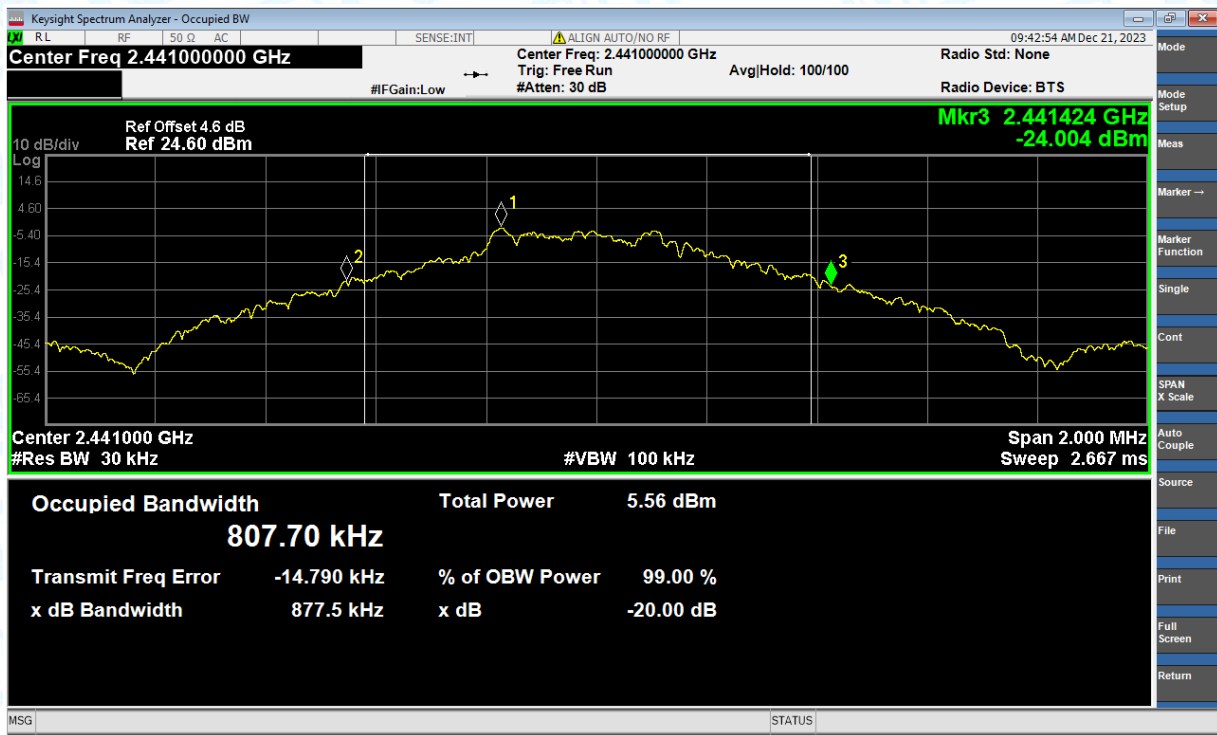
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	0.86	0	Pass
NVNT	1-DH1	2441	Ant1	0.88	0	Pass
NVNT	1-DH1	2480	Ant1	0.88	0	Pass
NVNT	2-DH1	2402	Ant1	1.21	0	Pass
NVNT	2-DH1	2441	Ant1	1.26	0	Pass
NVNT	2-DH1	2480	Ant1	1.25	0	Pass
NVNT	3-DH1	2402	Ant1	1.26	0	Pass
NVNT	3-DH1	2441	Ant1	1.22	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

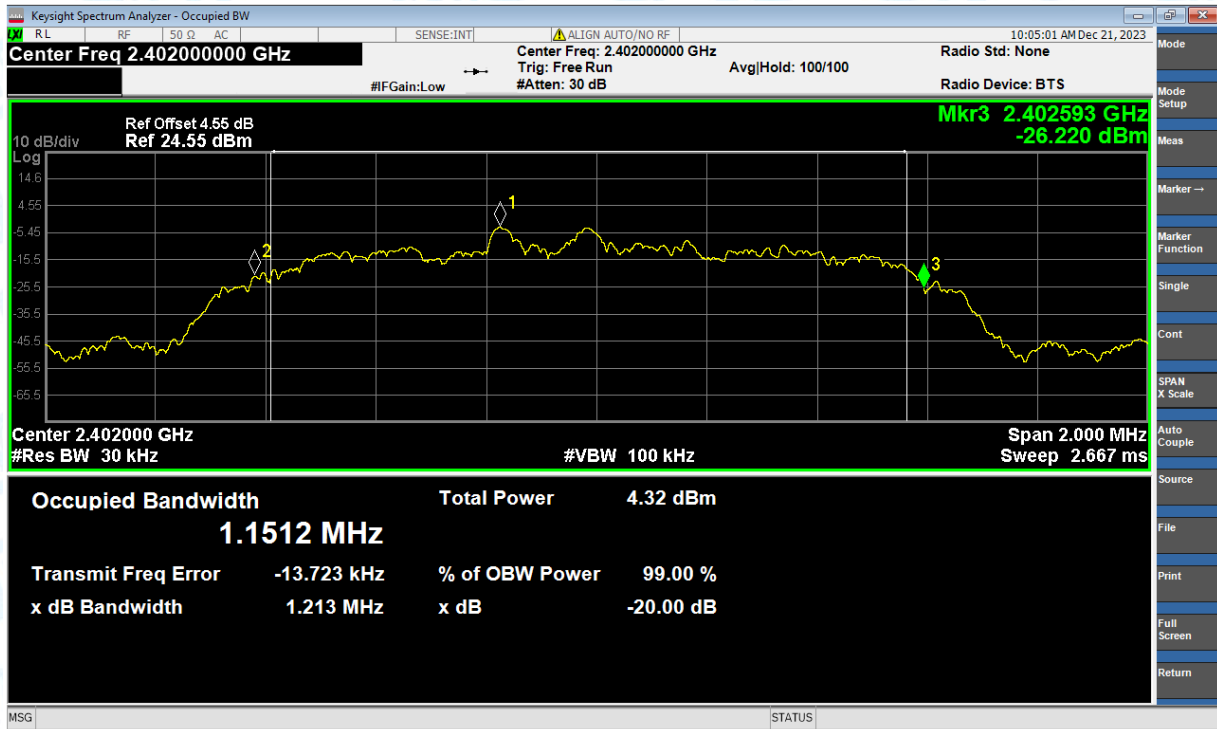




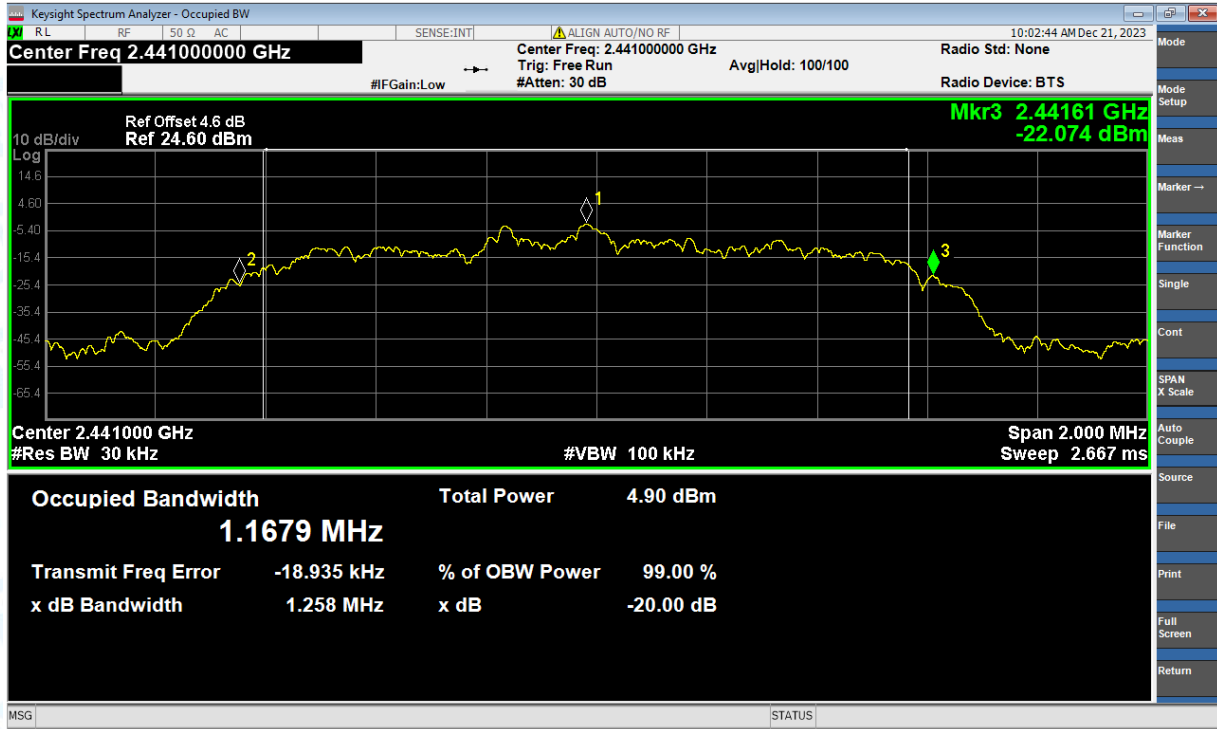
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



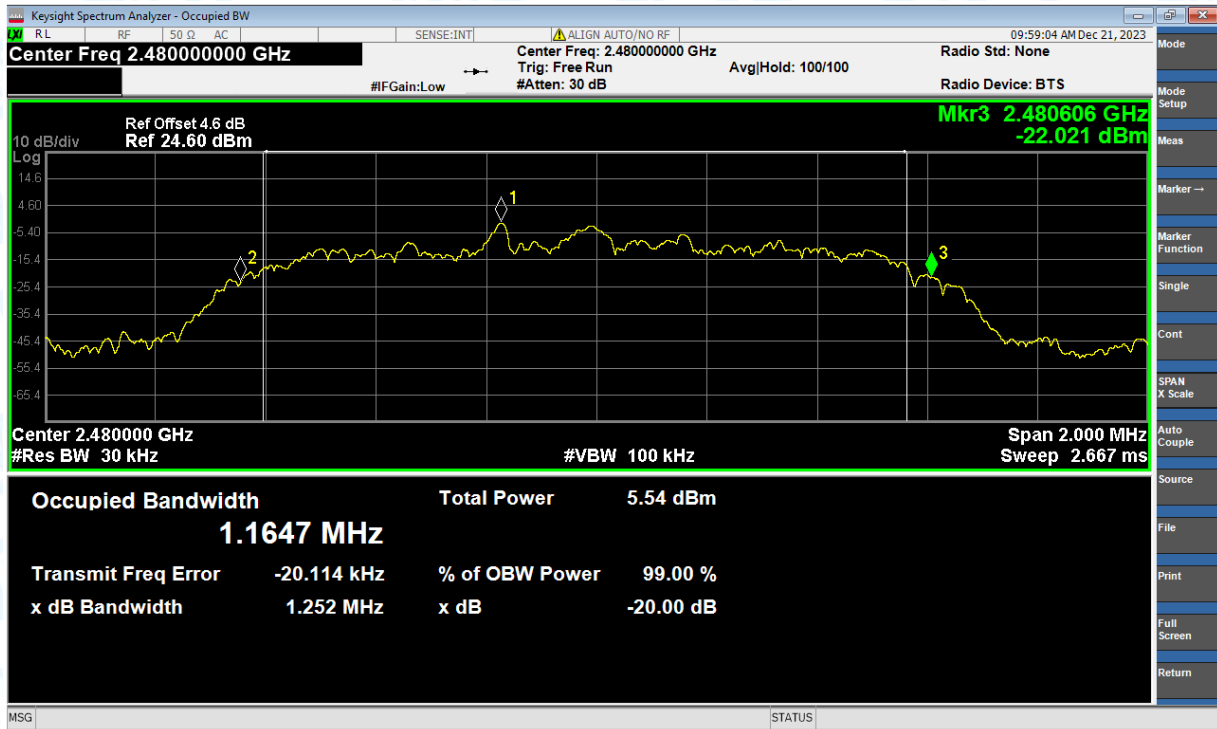
-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1

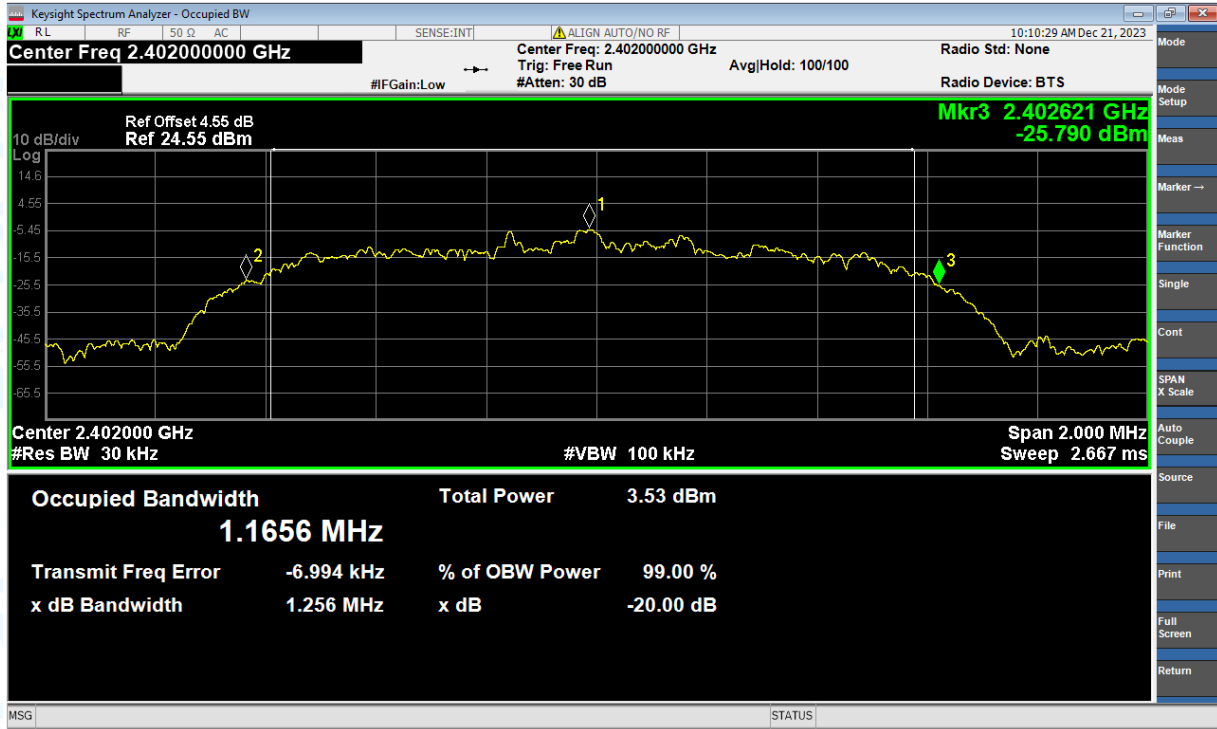


-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1

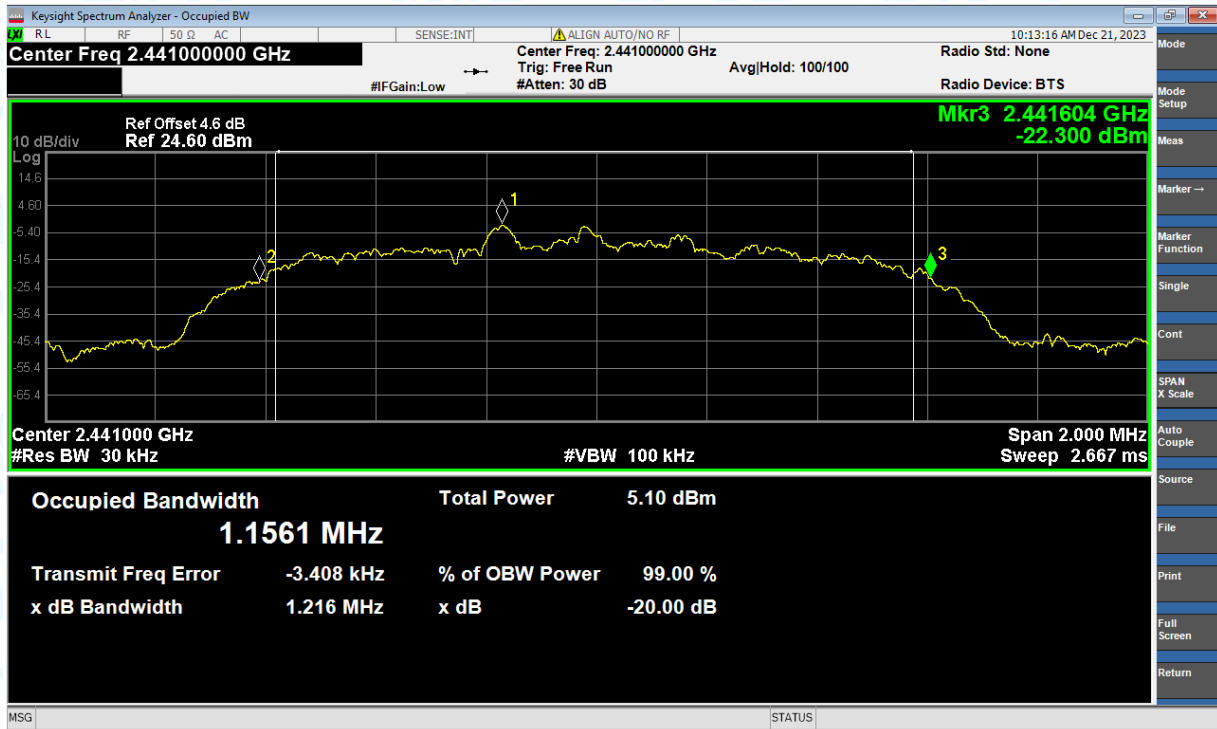


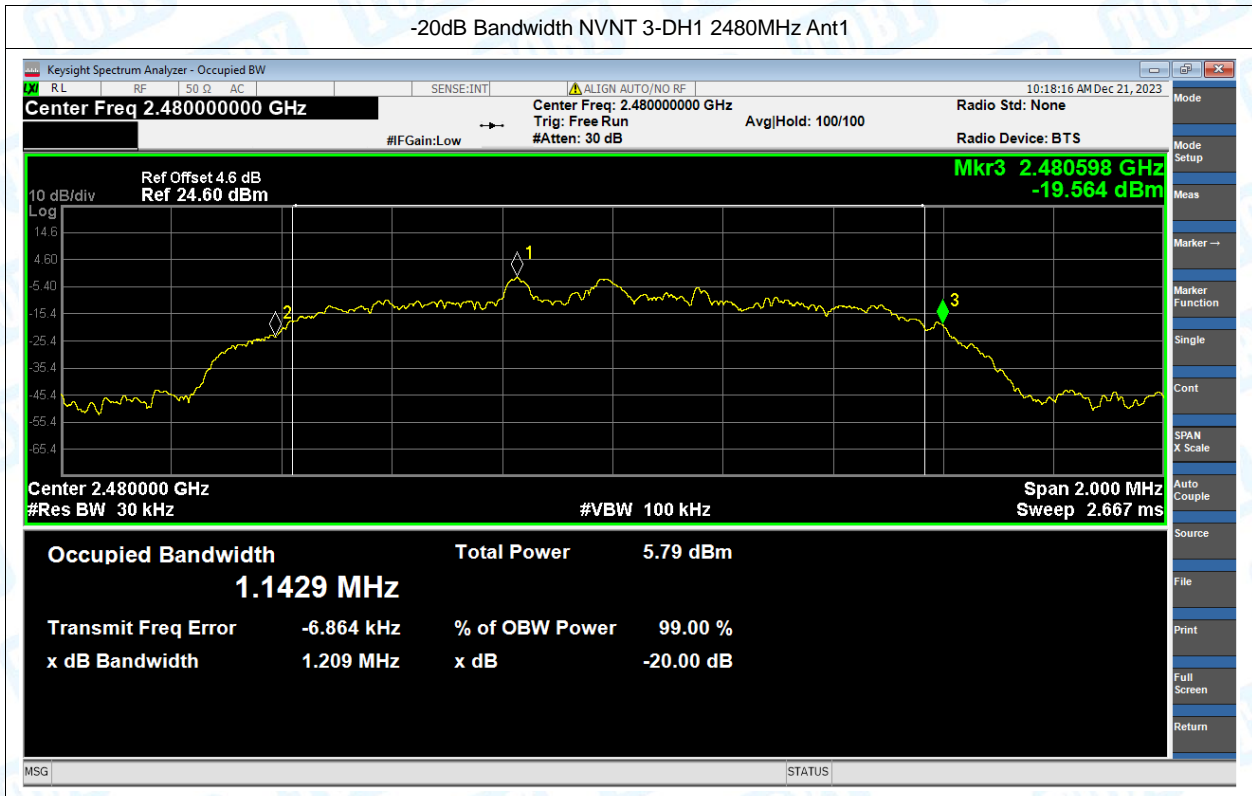


-20dB Bandwidth NVNT 3-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2441MHz Ant1





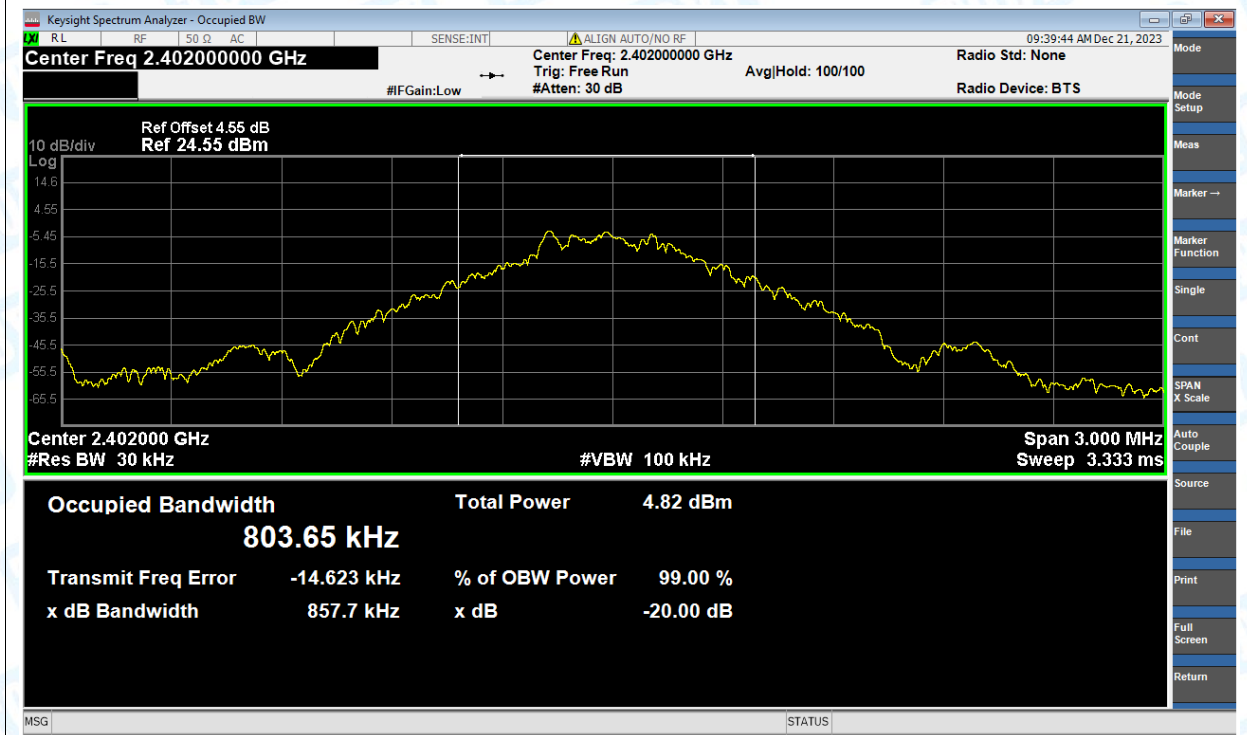


## 4. Occupied Channel Bandwidth

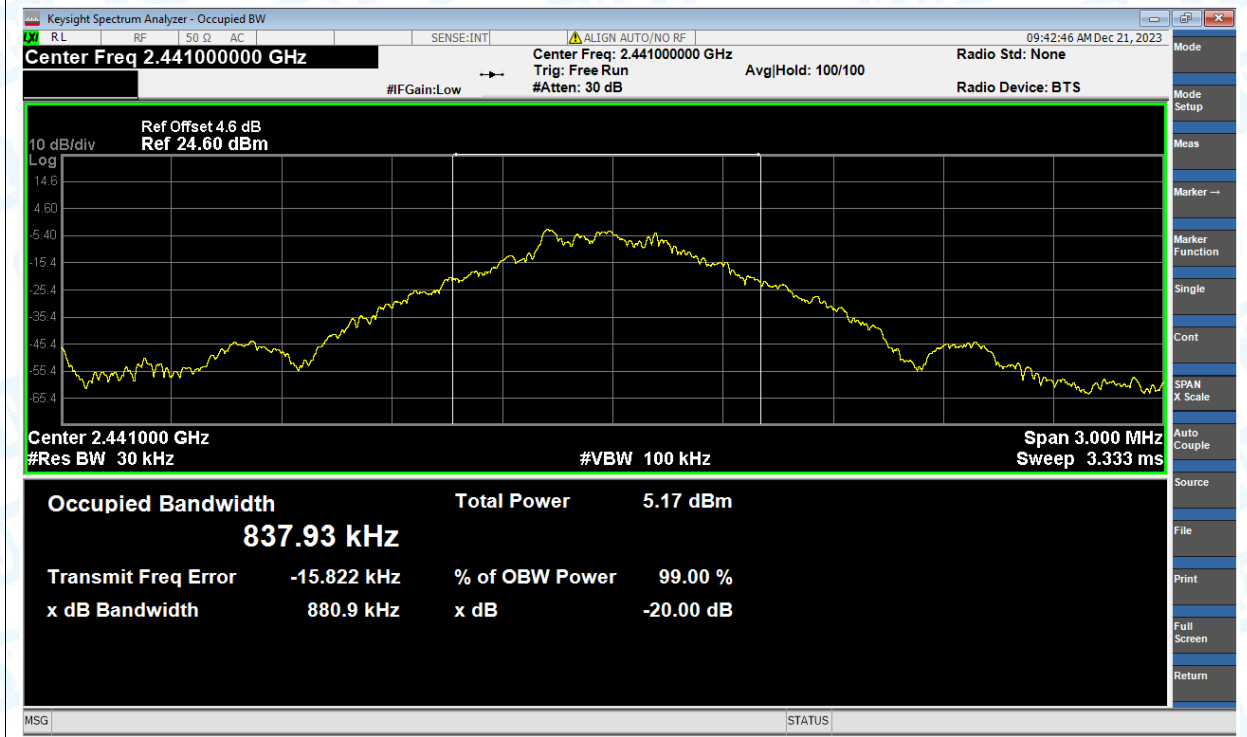
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH1	2402	Ant1	0.804
NVNT	1-DH1	2441	Ant1	0.838
NVNT	1-DH1	2480	Ant1	0.8
NVNT	2-DH1	2402	Ant1	1.175
NVNT	2-DH1	2441	Ant1	1.158
NVNT	2-DH1	2480	Ant1	1.166
NVNT	3-DH1	2402	Ant1	1.167
NVNT	3-DH1	2441	Ant1	1.158
NVNT	3-DH1	2480	Ant1	1.165

Test Graphs

OBW NVNT 1-DH1 2402MHz Ant1

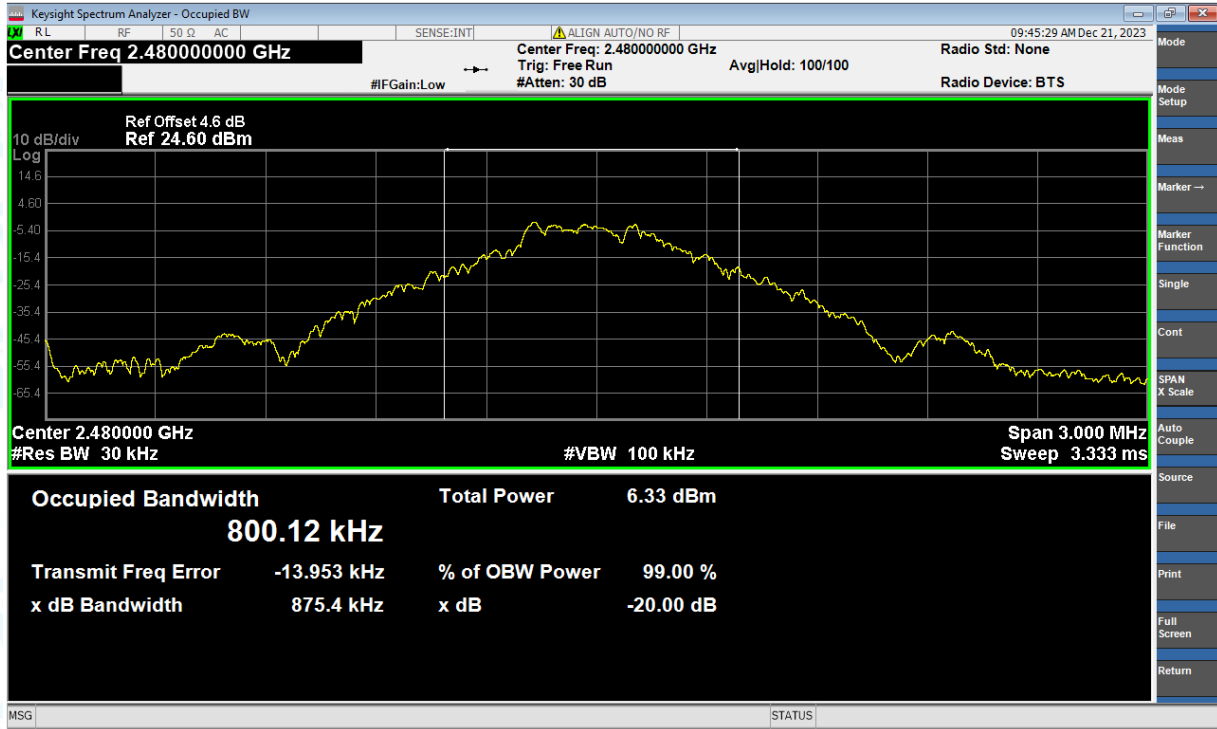


OBW NVNT 1-DH1 2441MHz Ant1

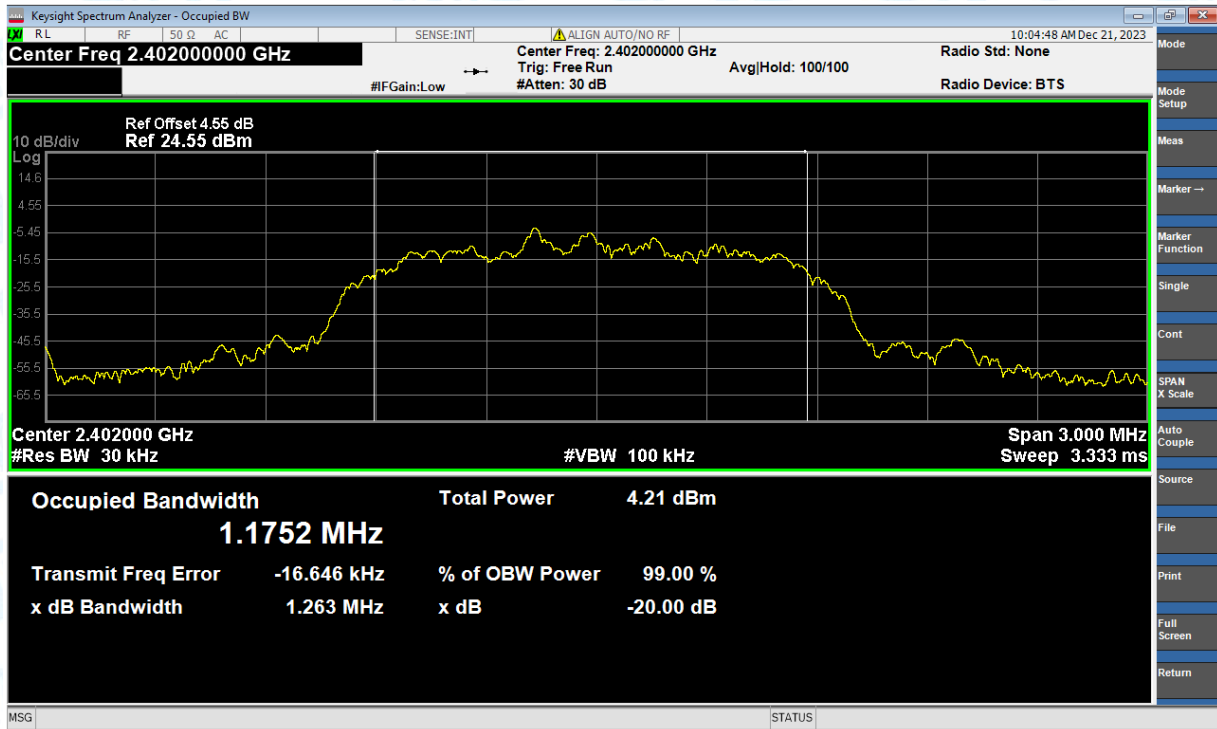




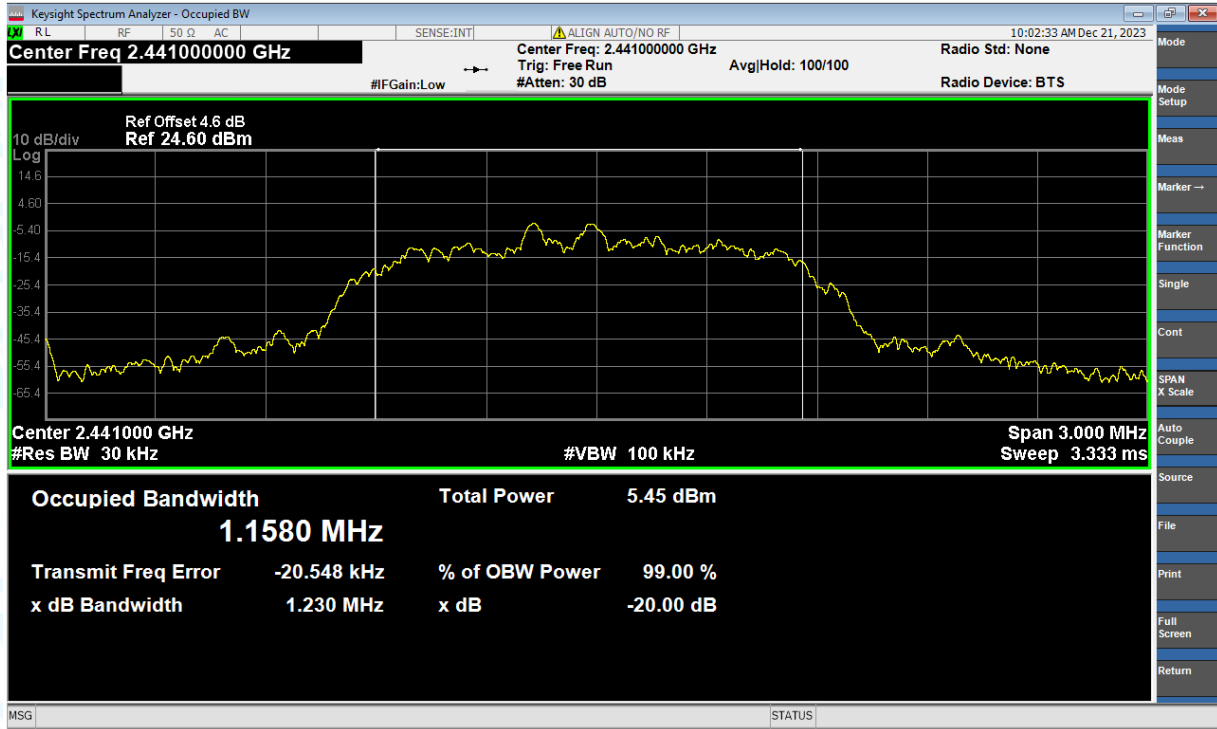
OBW NVNT 1-DH1 2480MHz Ant1



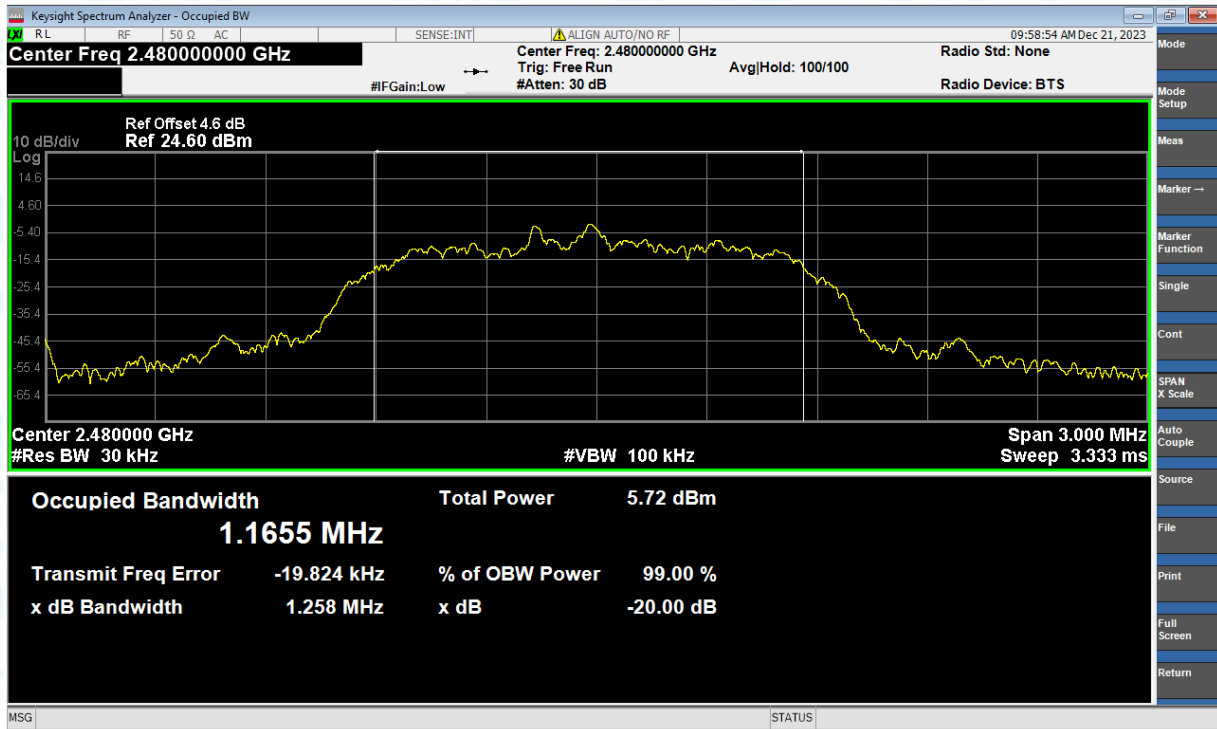
OBW NVNT 2-DH1 2402MHz Ant1



OBW NVNT 2-DH1 2441MHz Ant1

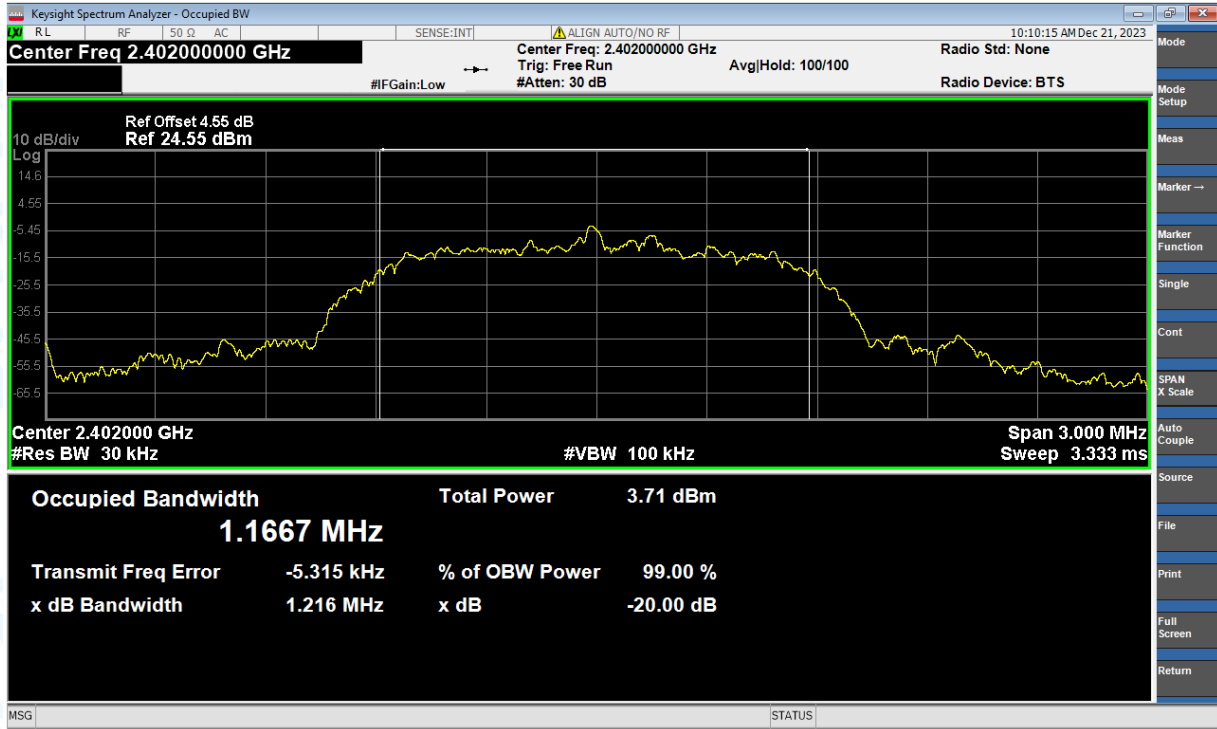


OBW NVNT 2-DH1 2480MHz Ant1

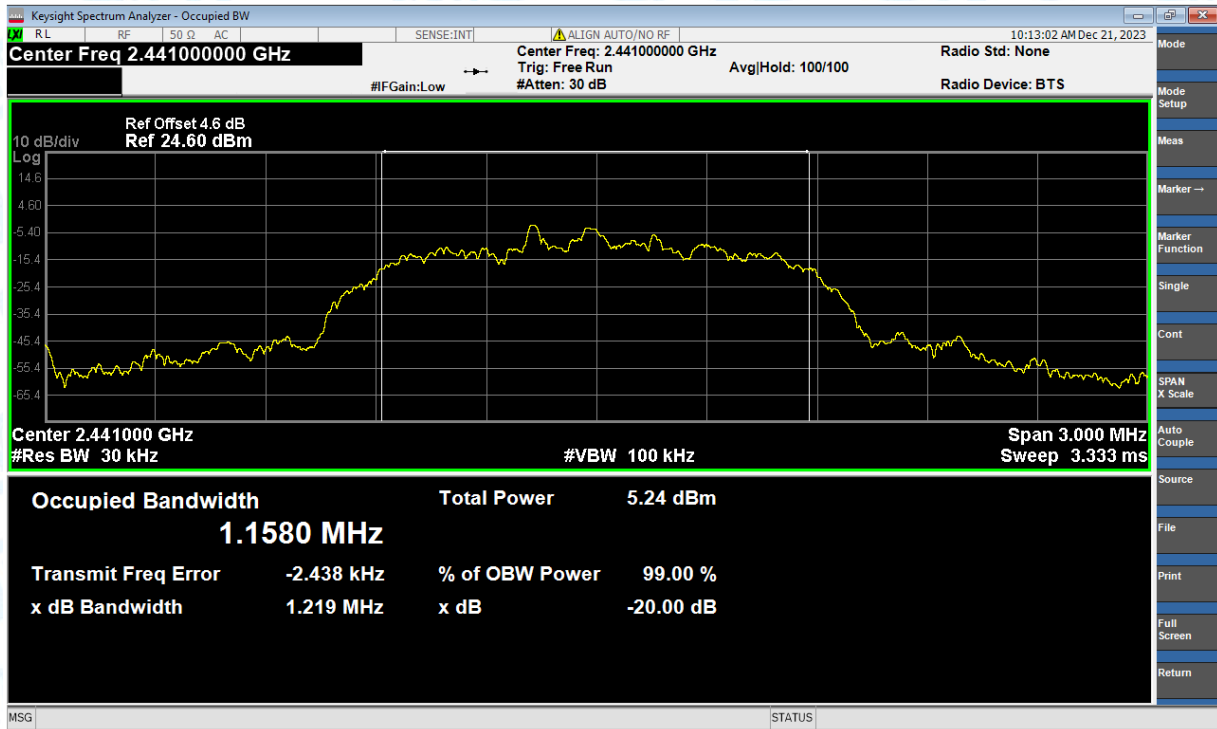


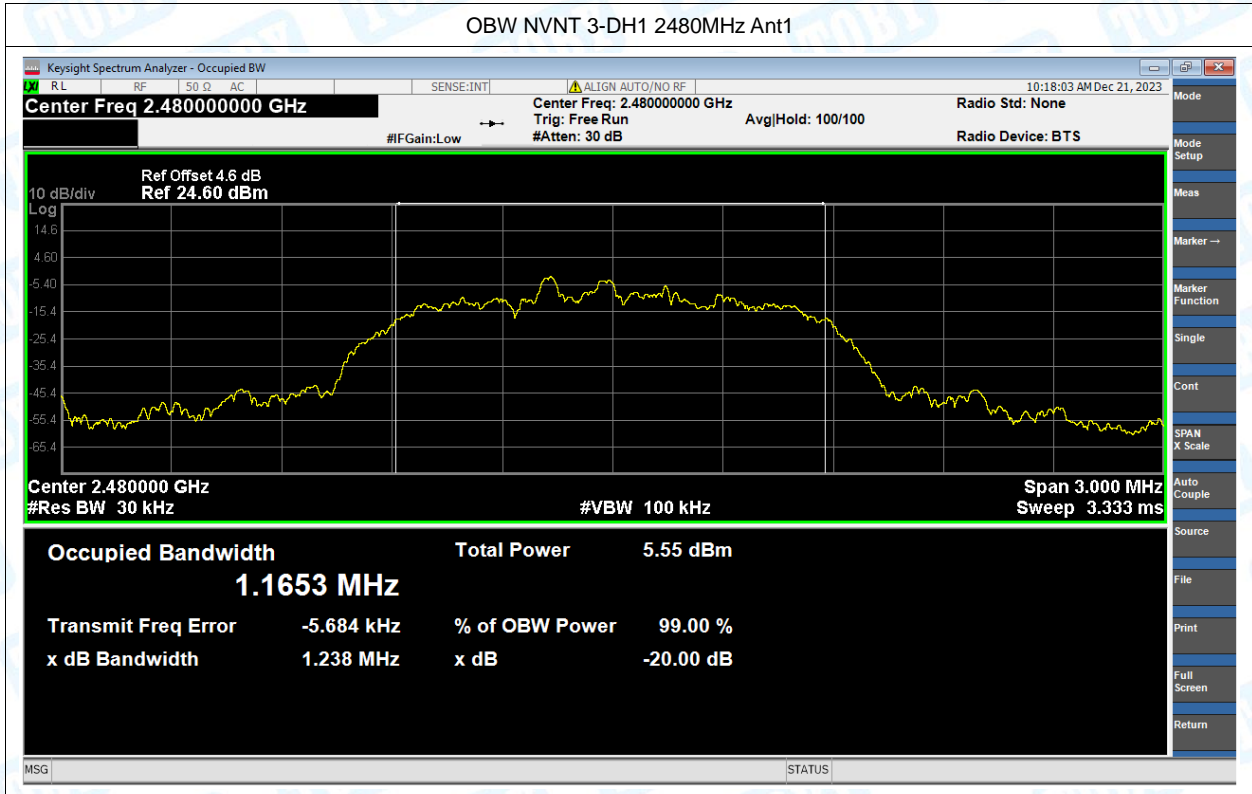


OBW NVNT 3-DH1 2402MHz Ant1



OBW NVNT 3-DH1 2441MHz Ant1





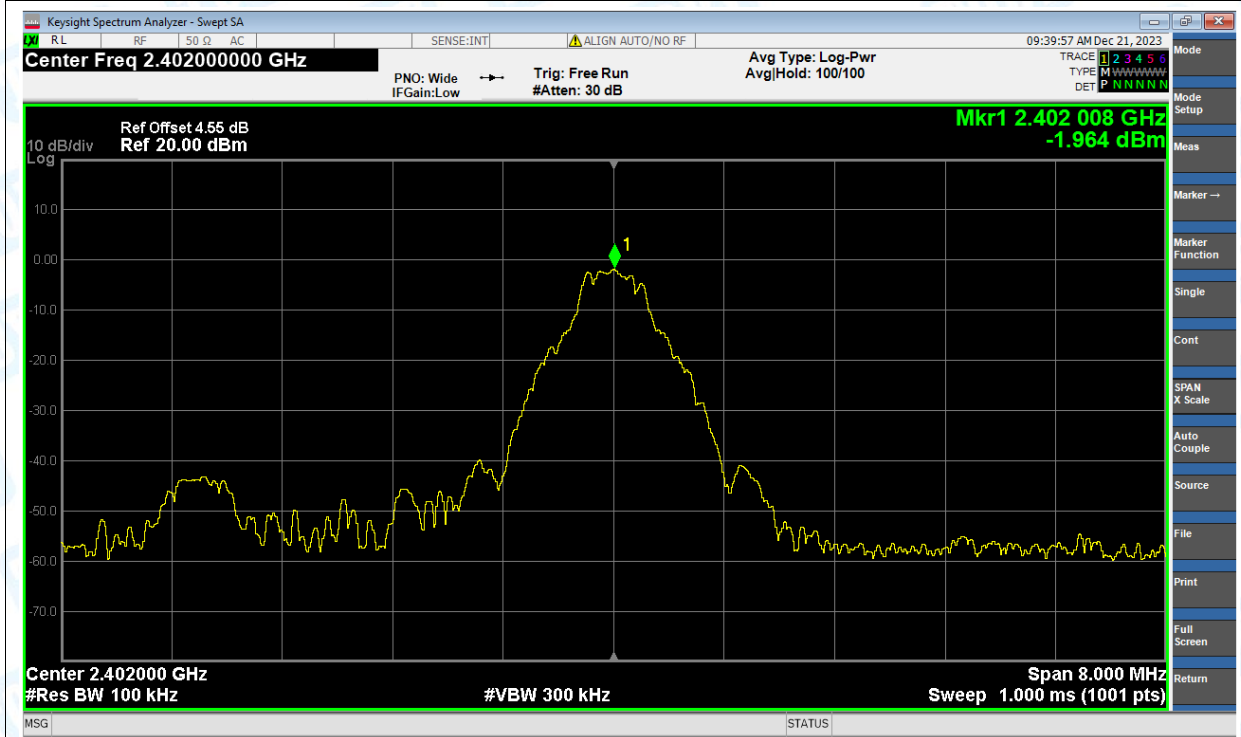


## 5. Band Edge

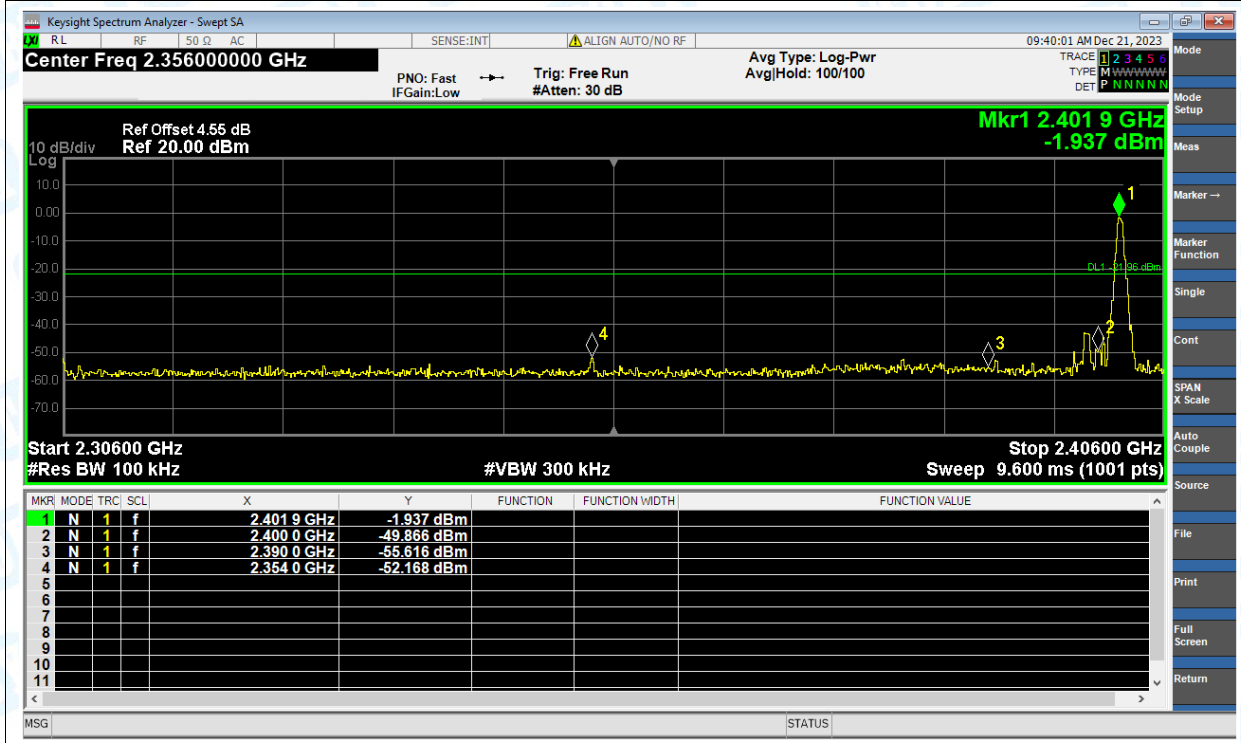
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-50.21	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-50.74	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-49.35	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-51.58	-20	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	-51.42	-20	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	-50.2	-20	Pass

Test Graphs

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



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

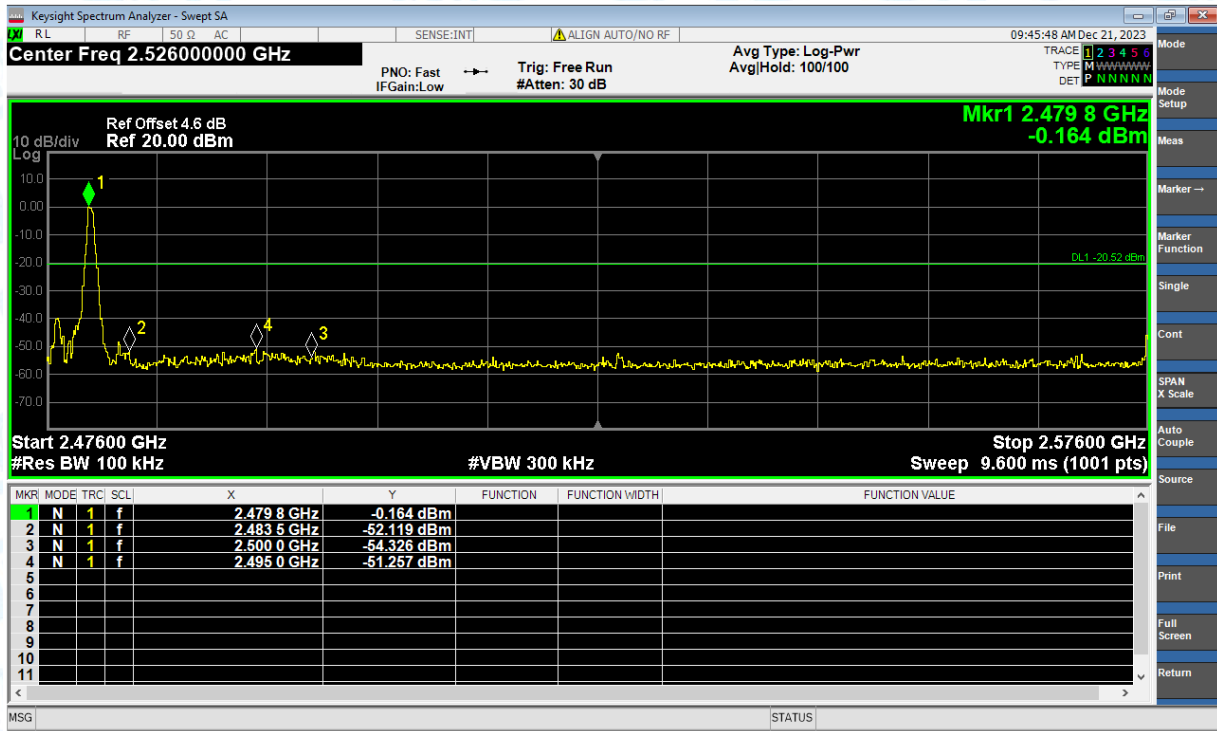




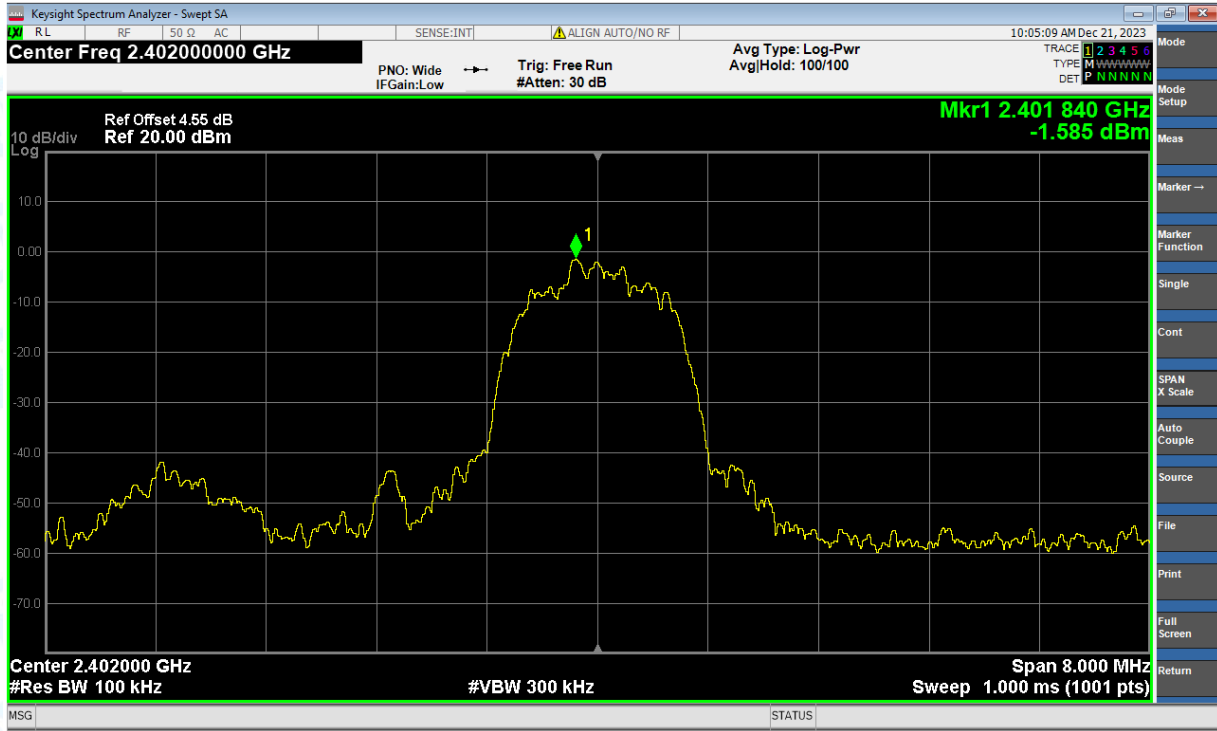
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Ref



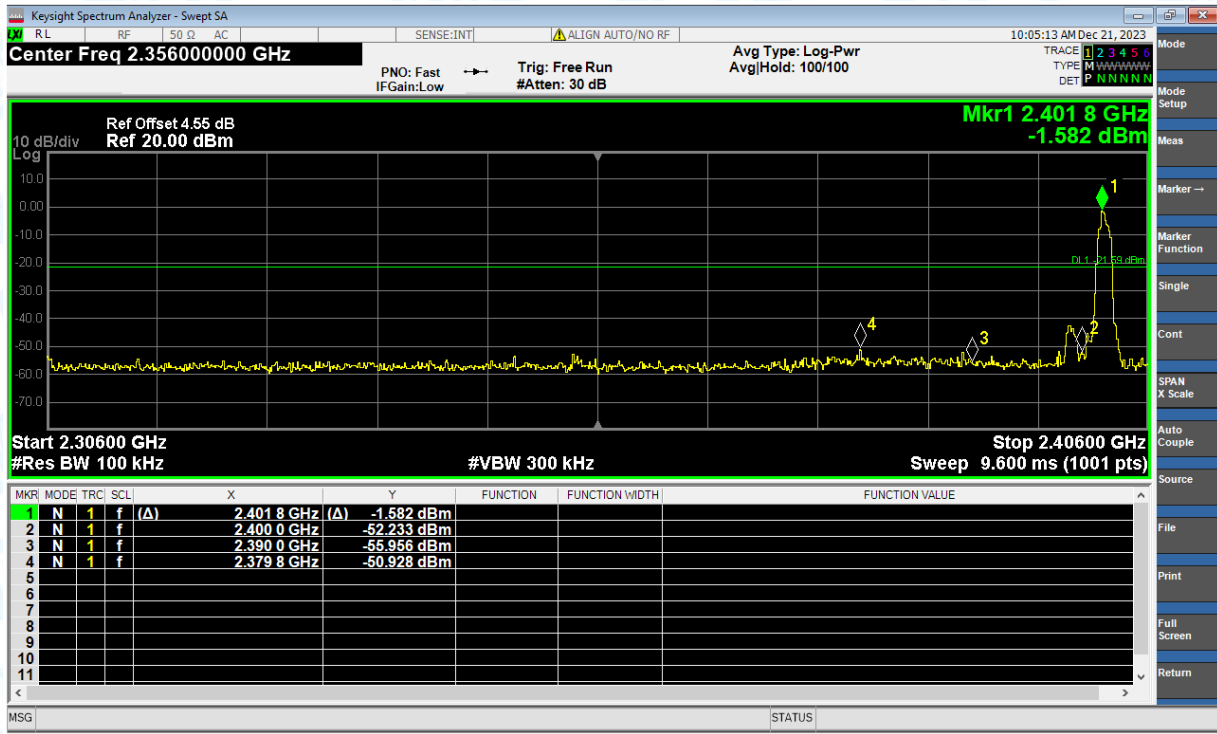
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Emission



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

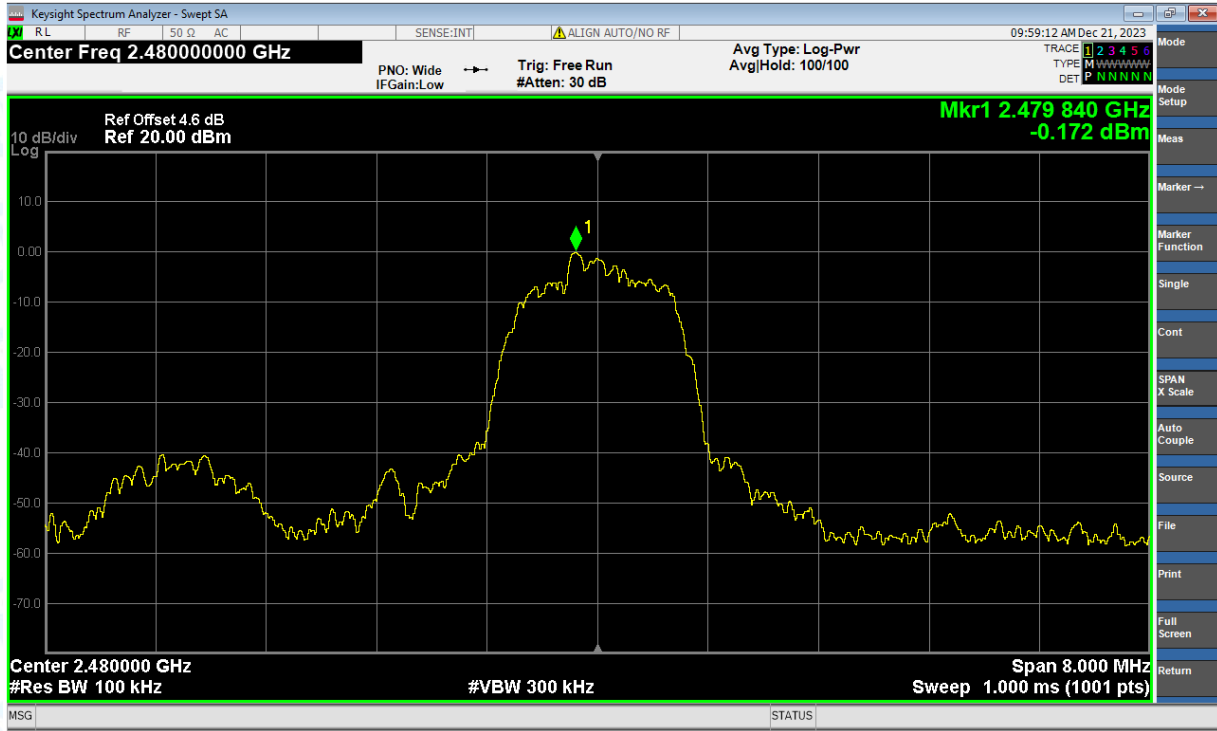


Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Emission

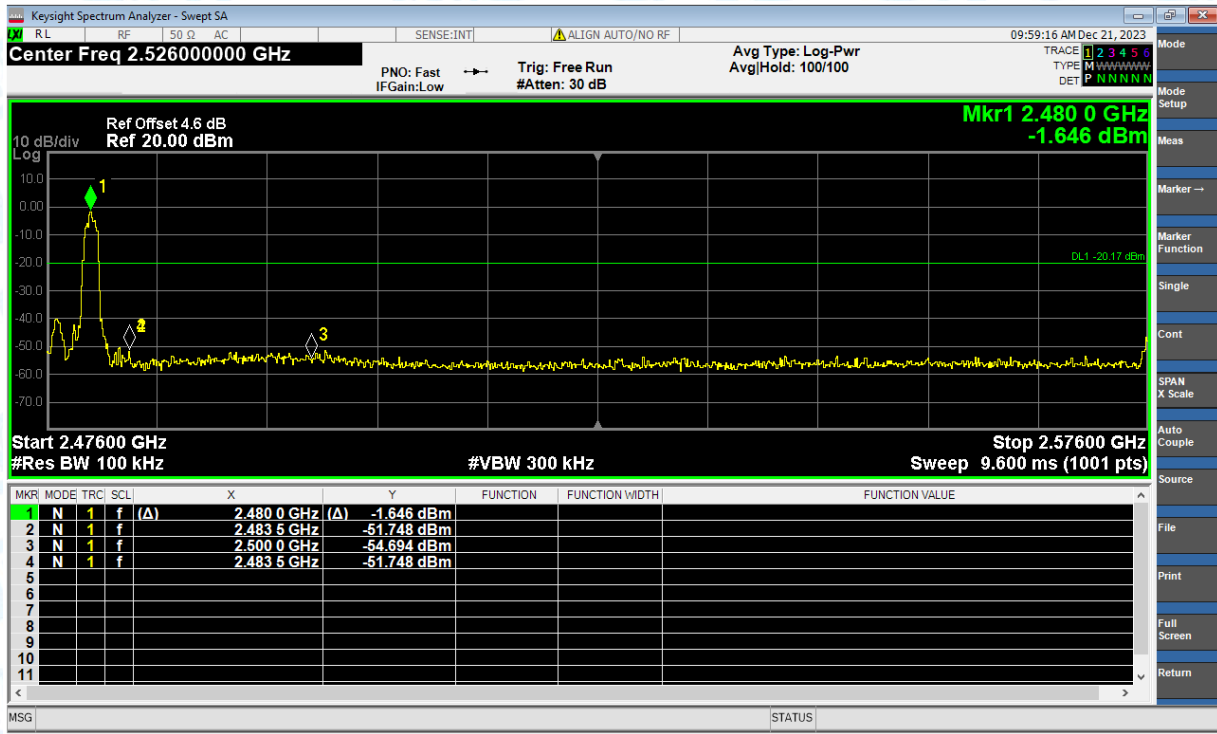


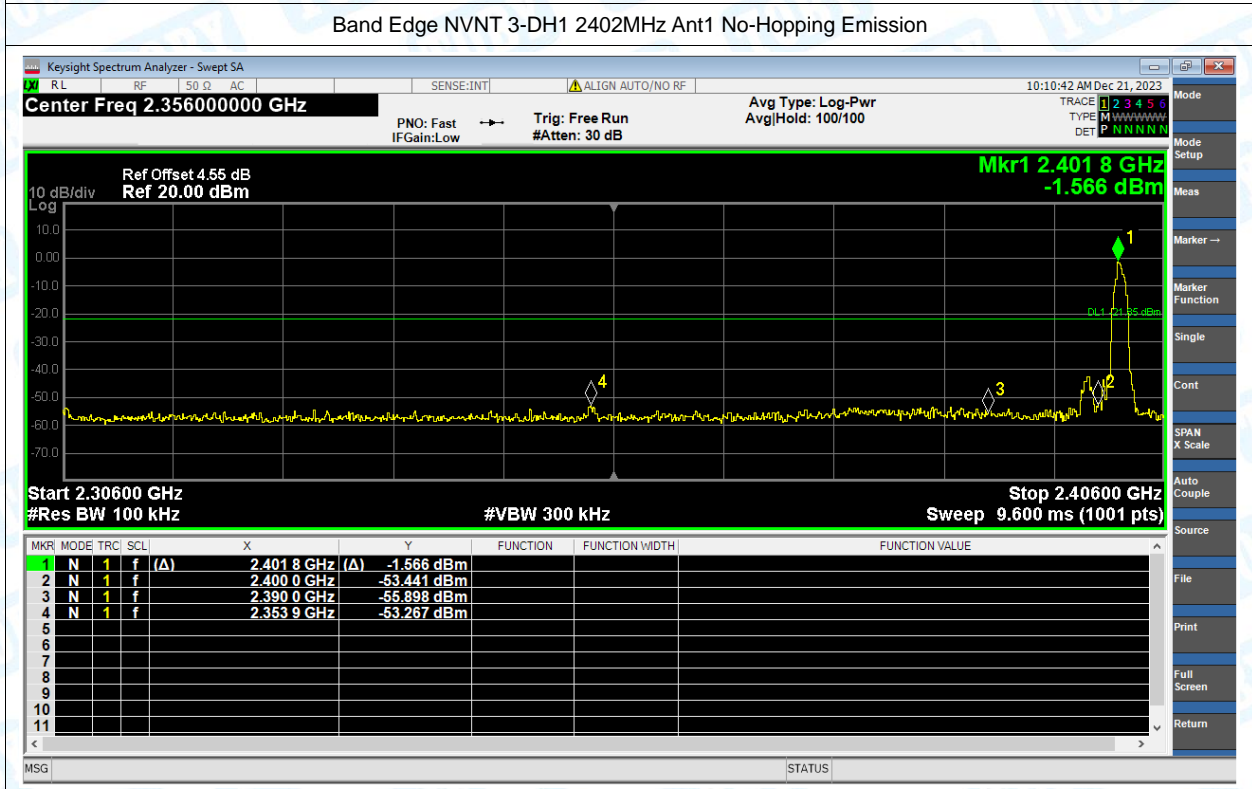


Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Ref



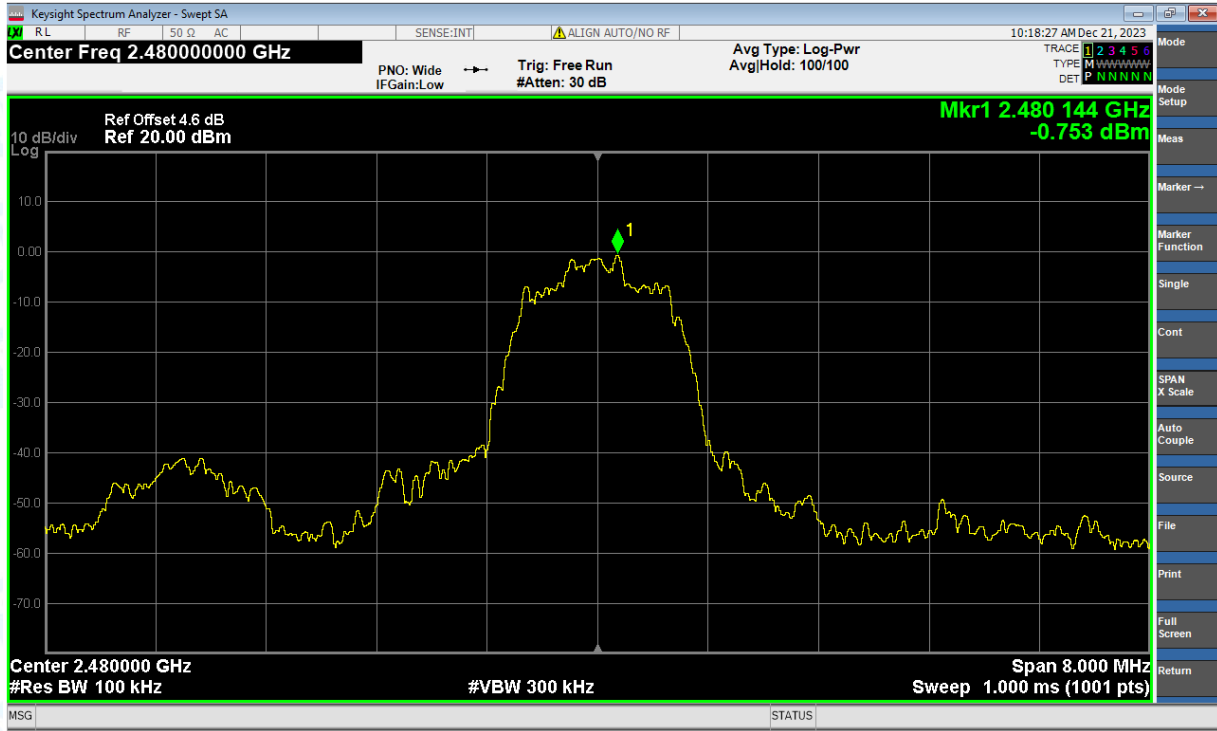
Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Emission



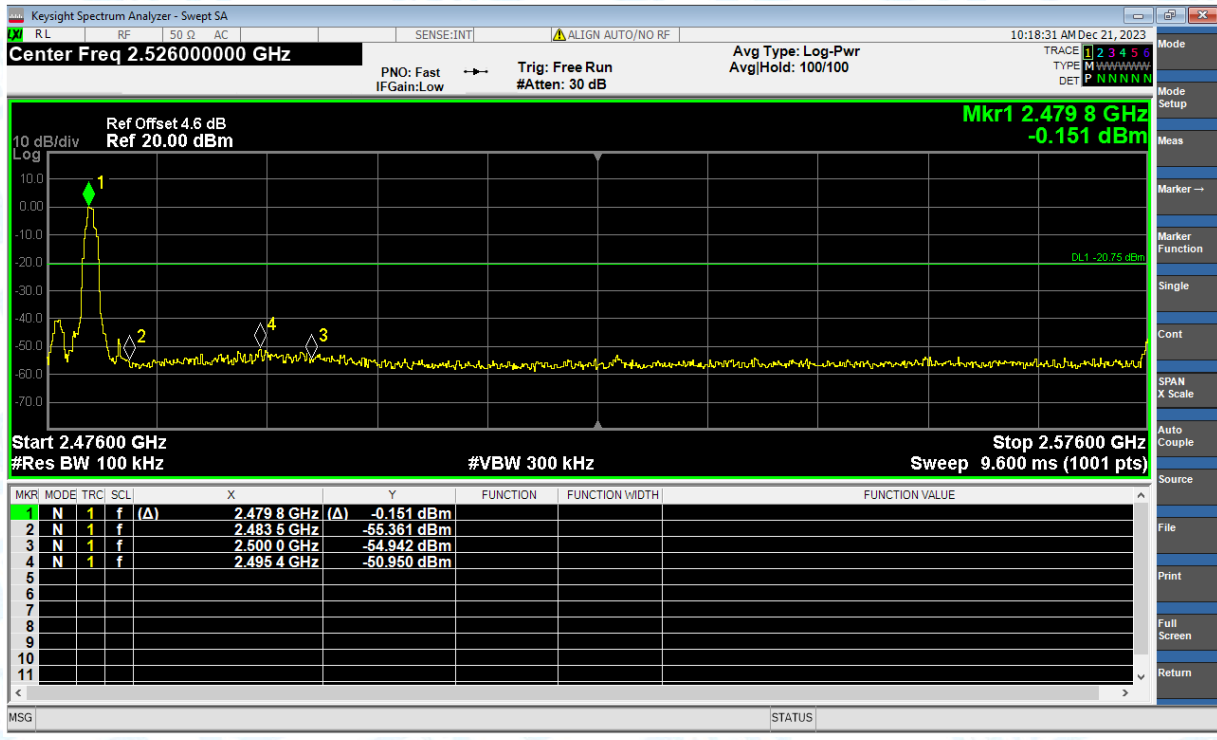




Band Edge NVNT 3-DH1 2480MHz Ant1 No-Hopping Ref



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	-47.01	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-46.12	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-47.76	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-46.12	-20	Pass
NVNT	3-DH1	2402	Ant1	Hopping	-47.06	-20	Pass
NVNT	3-DH1	2480	Ant1	Hopping	-46.28	-20	Pass

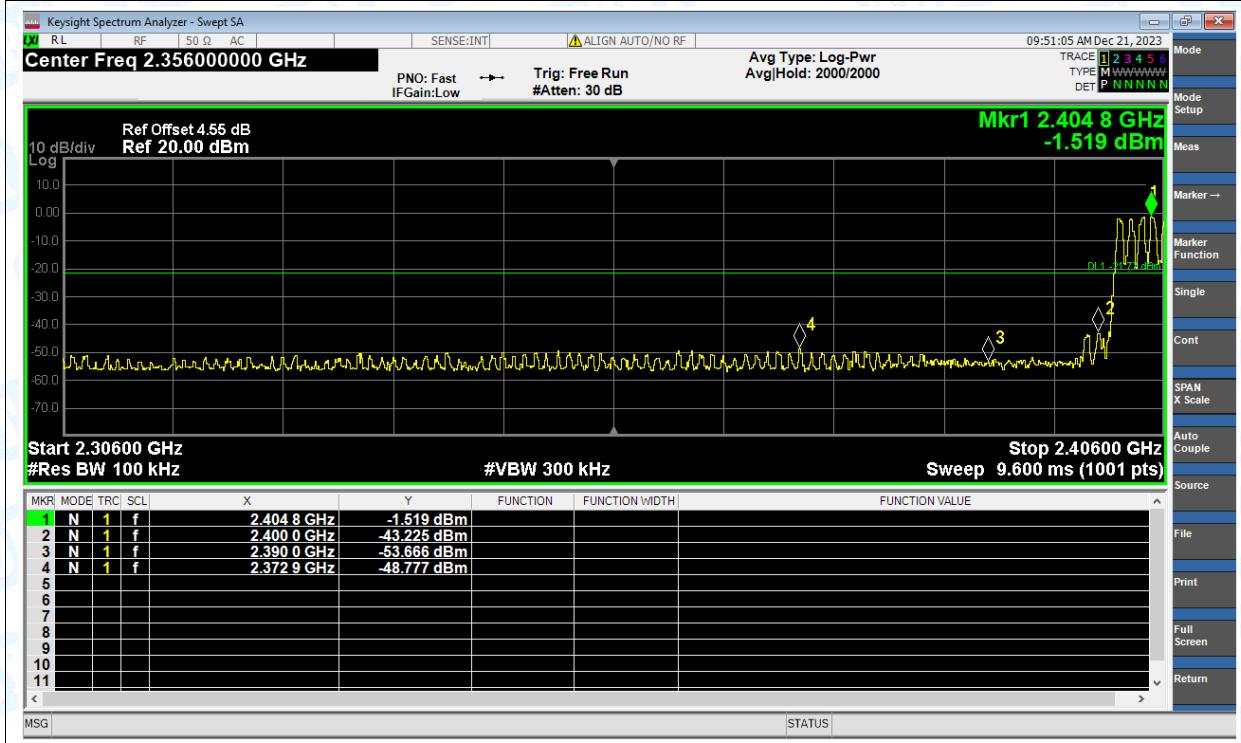


Test Graphs

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



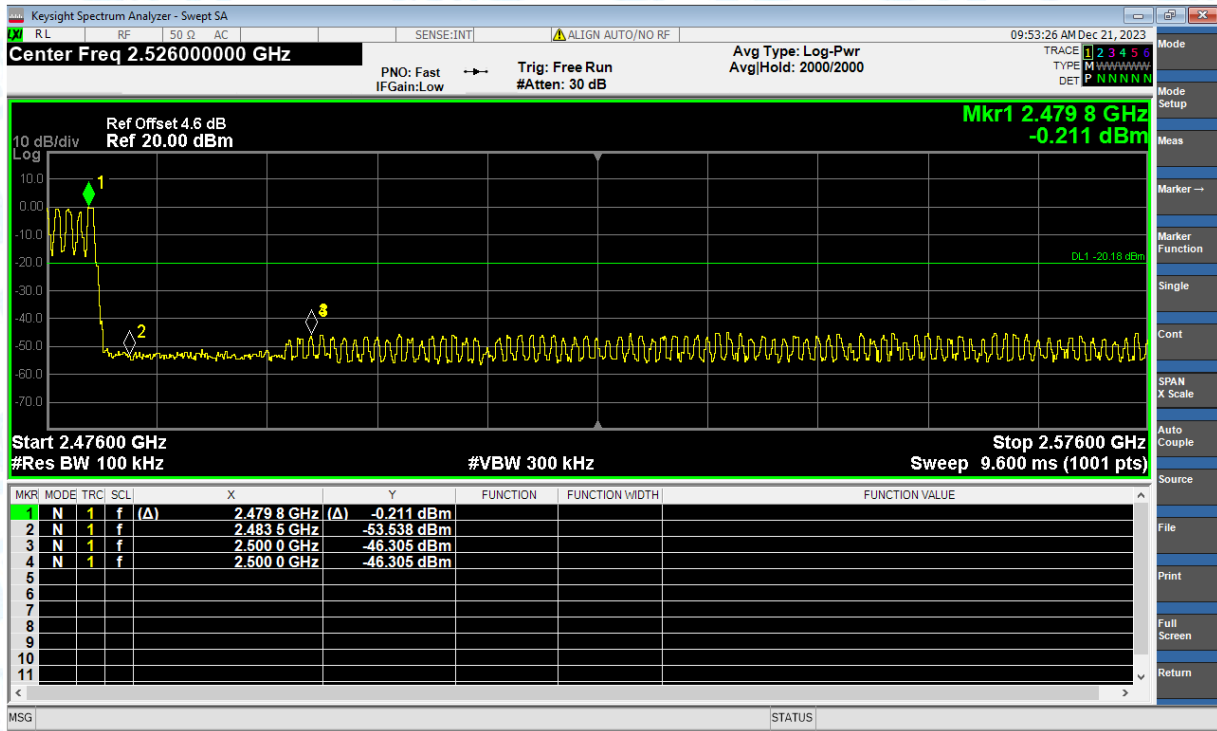
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Emission



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

