

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

General Description of EUT	
Product Name:	Wearable Speaker
Test Model:	WS11
Sample ID:	202403-0350-1-2#
Environmental Conditions	
Temperature:	25°C
Relative Humidity:	55%
Test Voltage:	DC 3.7V
Test Engineer:	ZKN ZHOU
Note: For a more detailed features description, please refer to the report TBR-C-202403-0350-1 The report only show the worst case data.	

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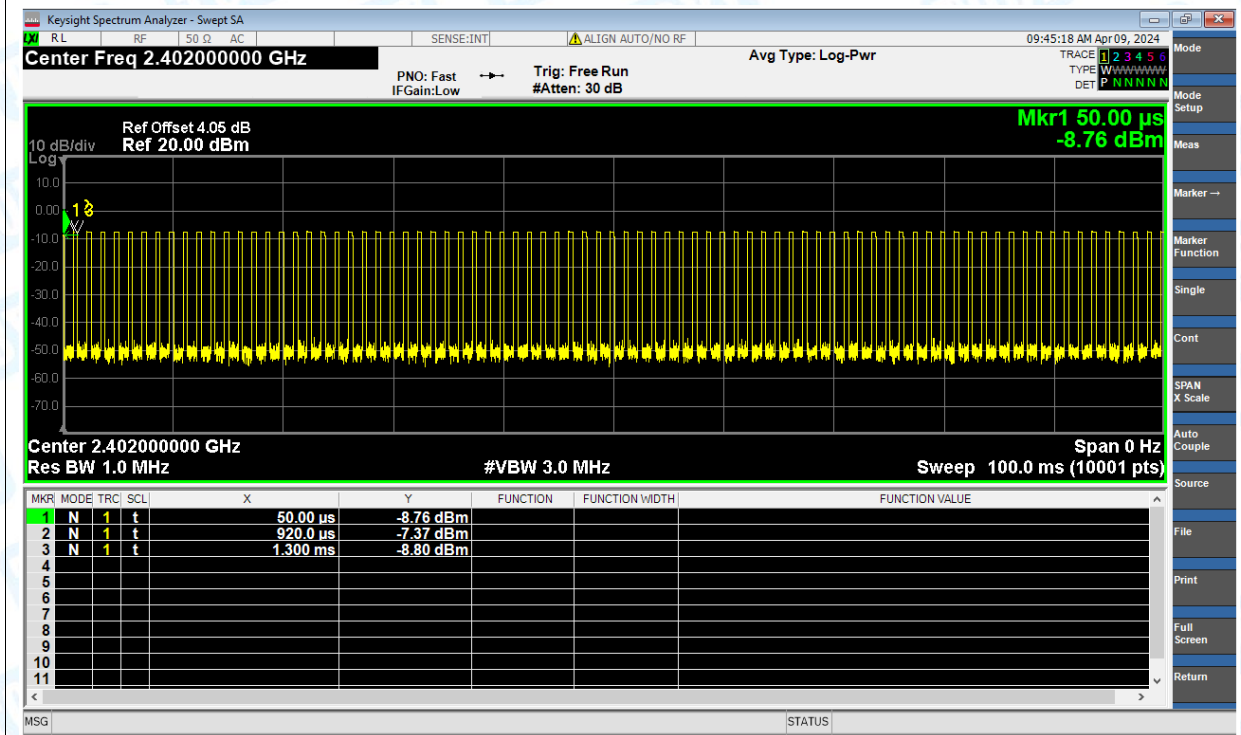
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1. Duty Cycle

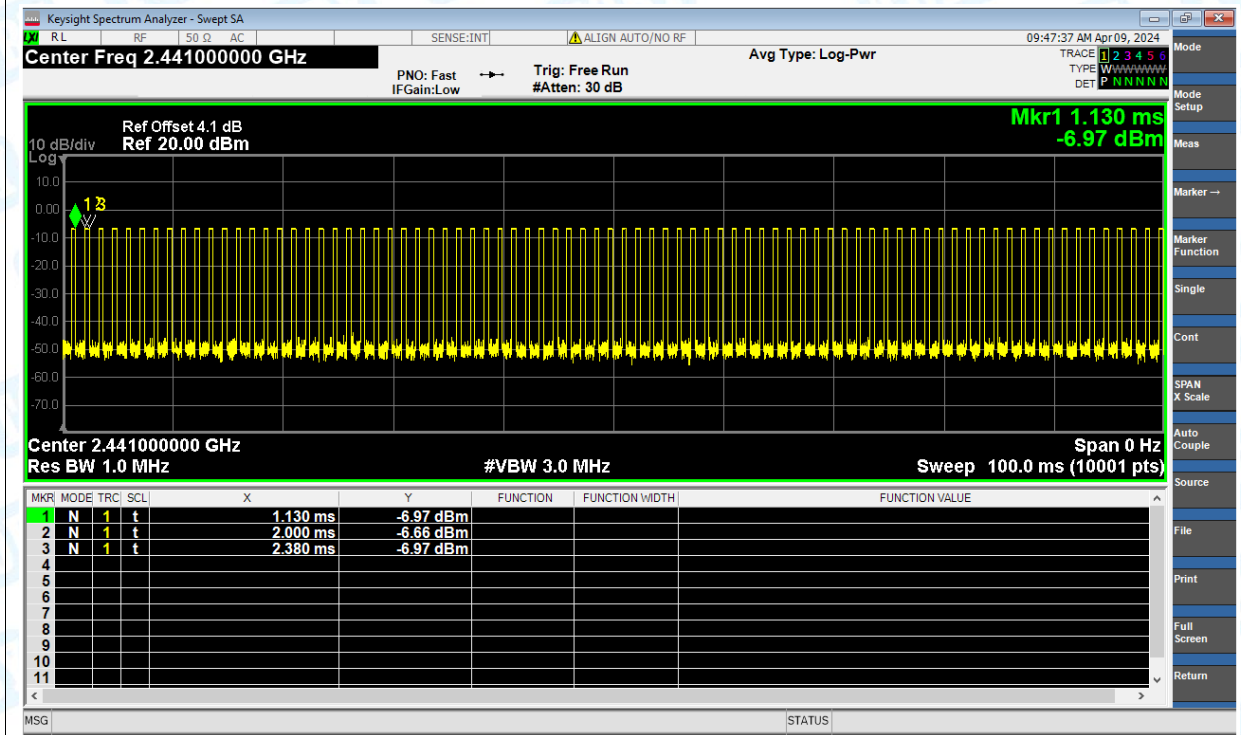
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH1	2402	Ant1	30.4	5.17	2.63
NVNT	1-DH1	2441	Ant1	30.4	5.17	2.63
NVNT	1-DH1	2480	Ant1	30.4	5.17	2.63
NVNT	2-DH1	2402	Ant1	31.2	5.06	2.56
NVNT	2-DH1	2441	Ant1	31.2	5.06	2.56
NVNT	2-DH1	2480	Ant1	31.2	5.06	2.56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

Test Graphs

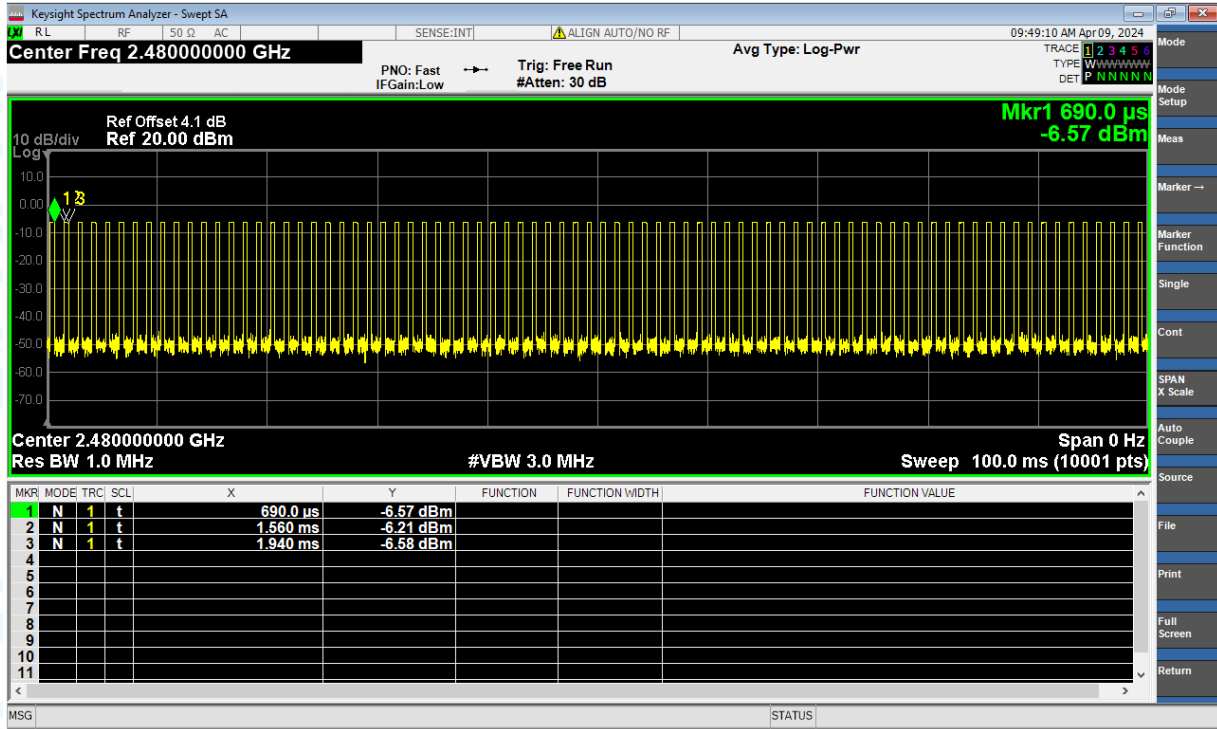
Duty Cycle NVNT 1-DH1 2402MHz Ant1



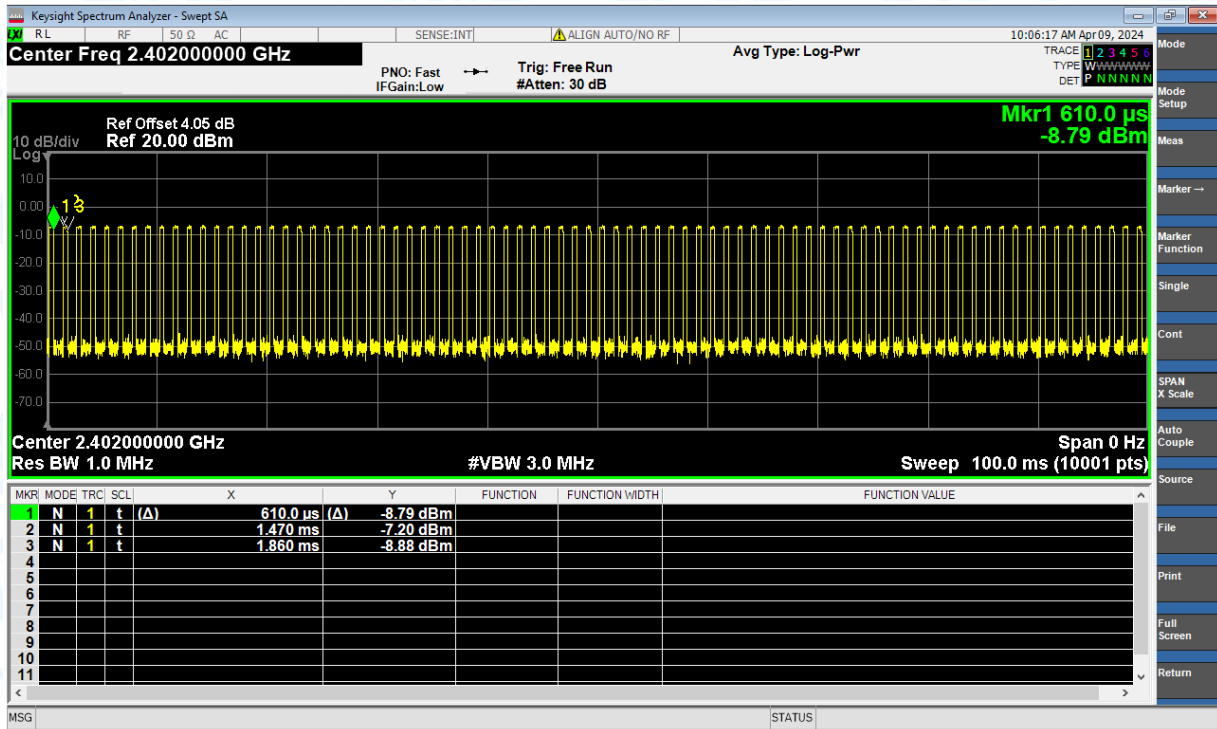
Duty Cycle NVNT 1-DH1 2441MHz Ant1



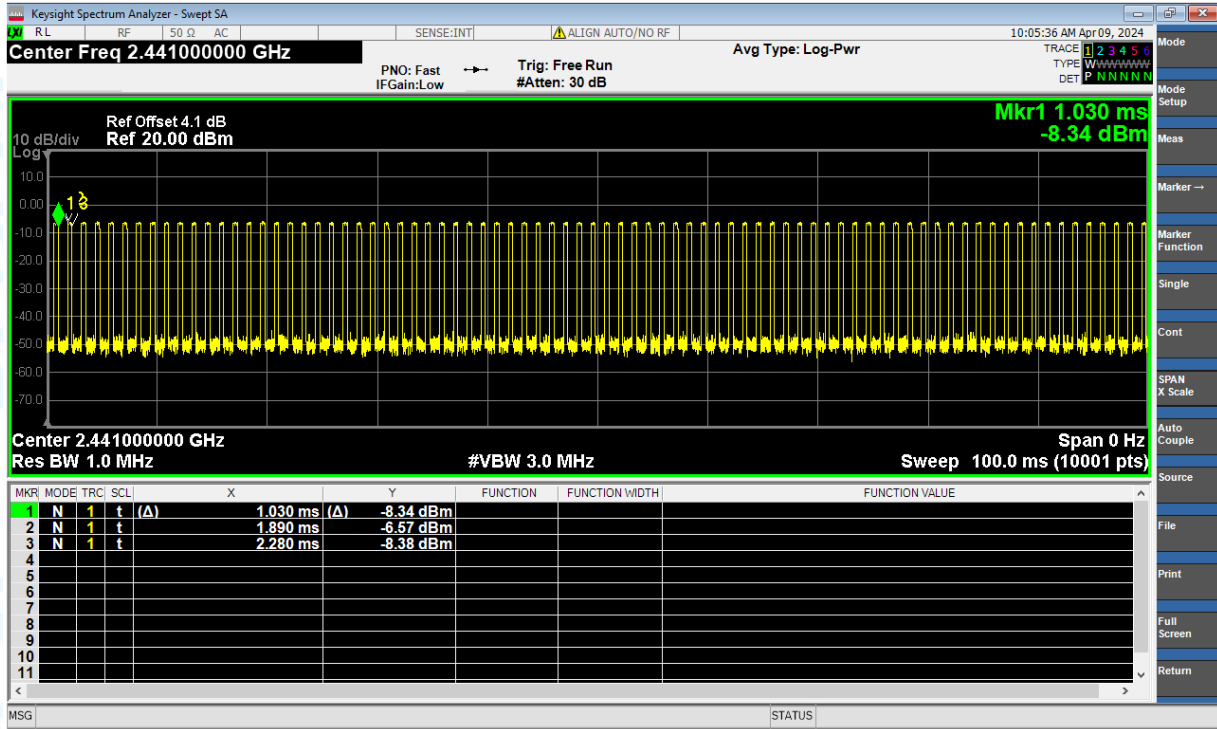
Duty Cycle NVNT 1-DH1 2480MHz Ant1



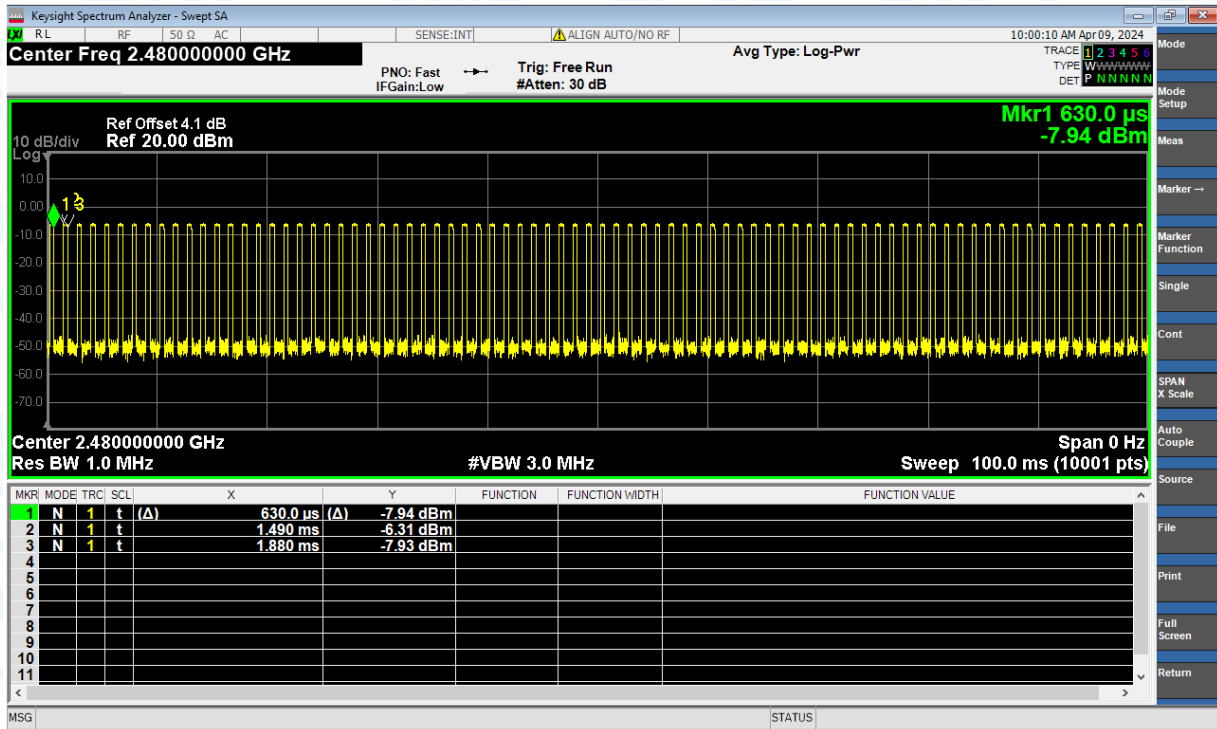
Duty Cycle NVNT 2-DH1 2402MHz Ant1



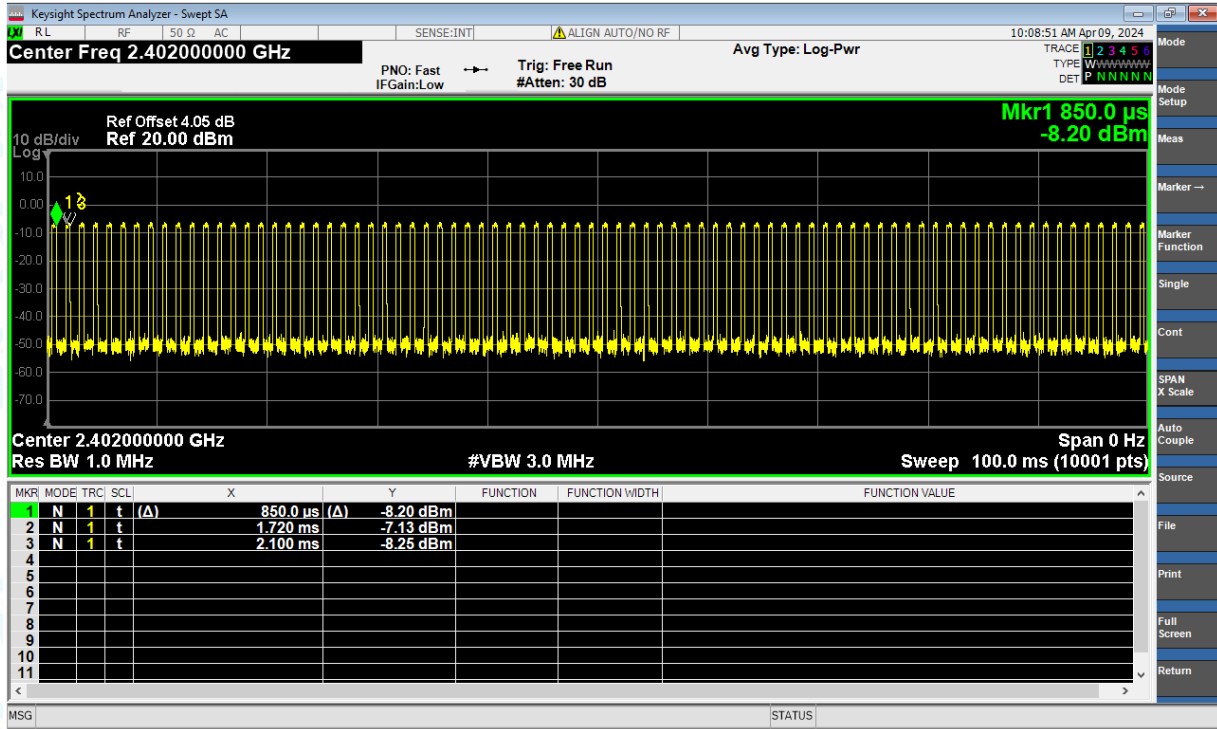
Duty Cycle NVNT 2-DH1 2441MHz Ant1



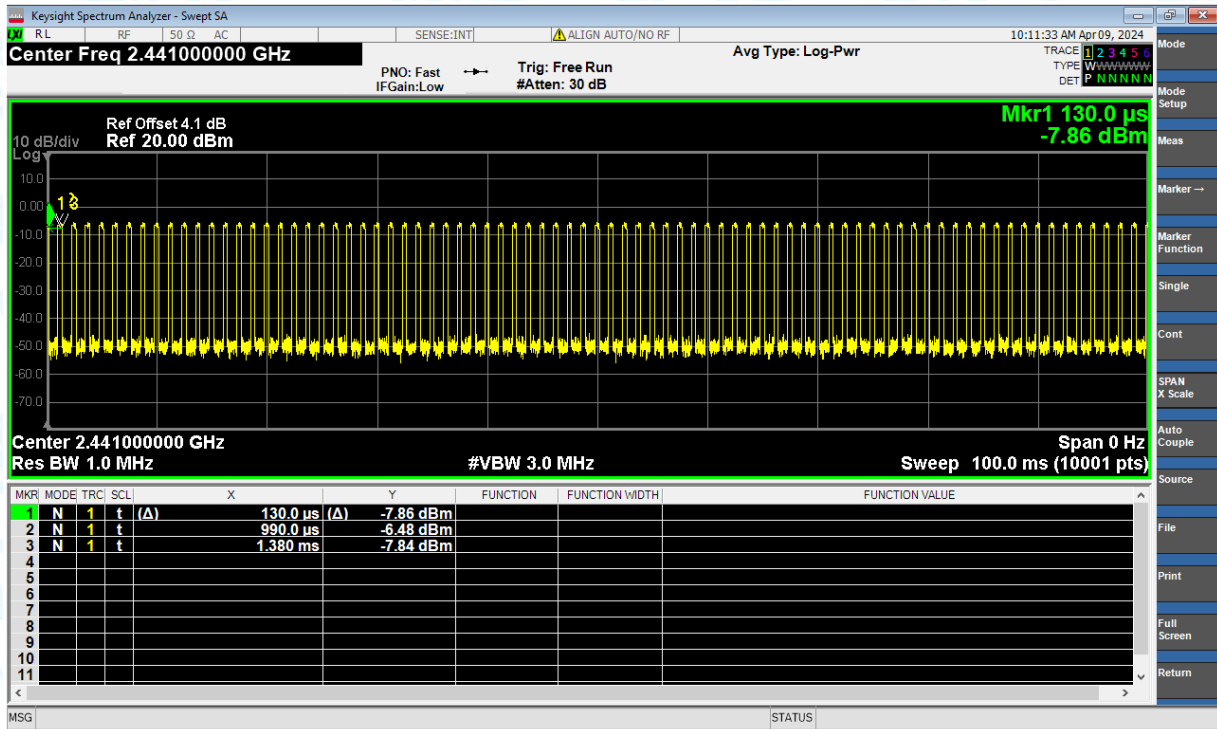
Duty Cycle NVNT 2-DH1 2480MHz Ant1

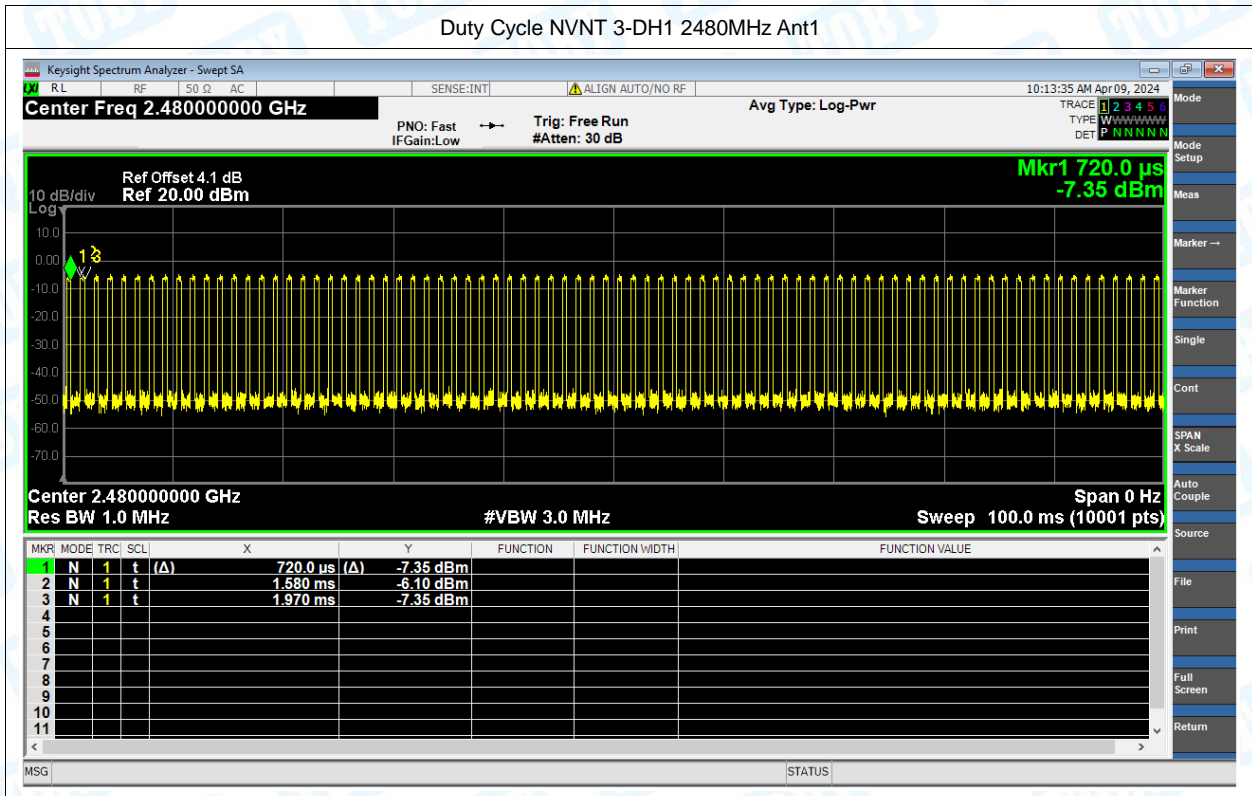


Duty Cycle NVNT 3-DH1 2402MHz Ant1



Duty Cycle NVNT 3-DH1 2441MHz Ant1



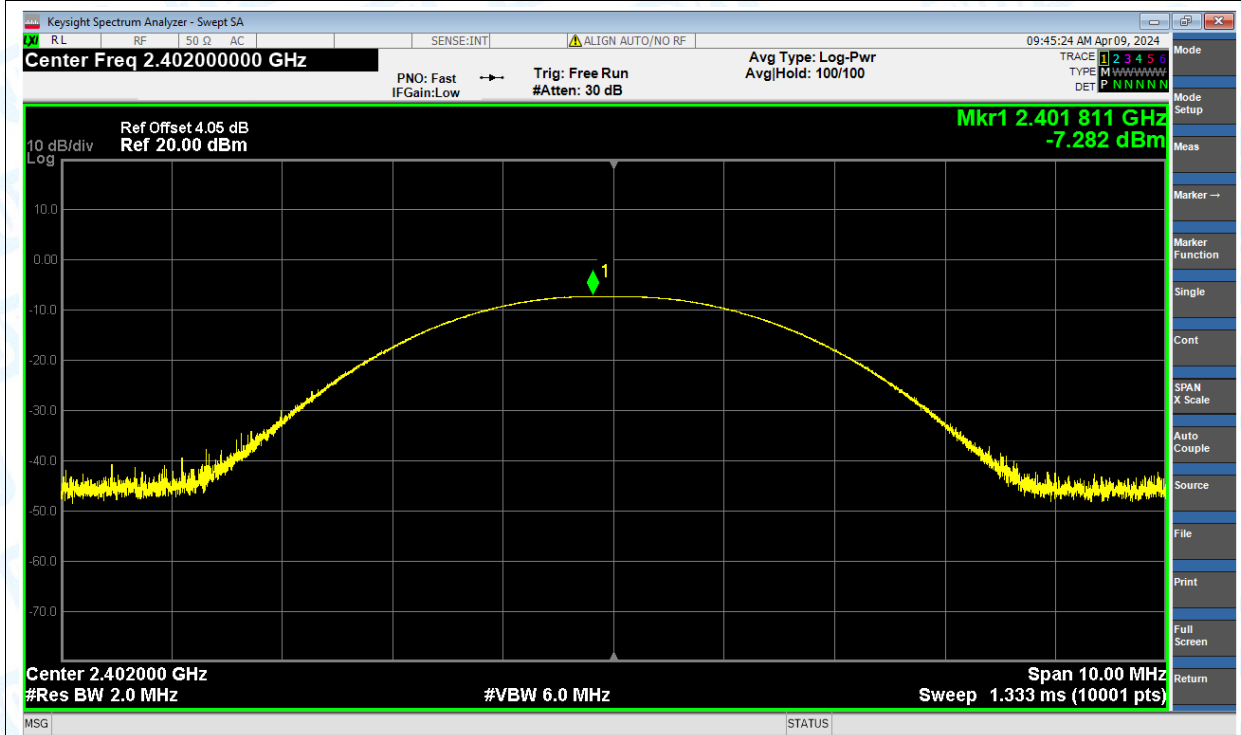


2. Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	-7.282	21	Pass
NVNT	1-DH1	2441	Ant1	-6.55	21	Pass
NVNT	1-DH1	2480	Ant1	-6.127	21	Pass
NVNT	2-DH1	2402	Ant1	-6.224	21	Pass
NVNT	2-DH1	2441	Ant1	-5.593	21	Pass
NVNT	2-DH1	2480	Ant1	-5.377	21	Pass
NVNT	3-DH1	2402	Ant1	-5.613	21	Pass
NVNT	3-DH1	2441	Ant1	-5.023	21	Pass
NVNT	3-DH1	2480	Ant1	-4.507	21	Pass

Test Graphs

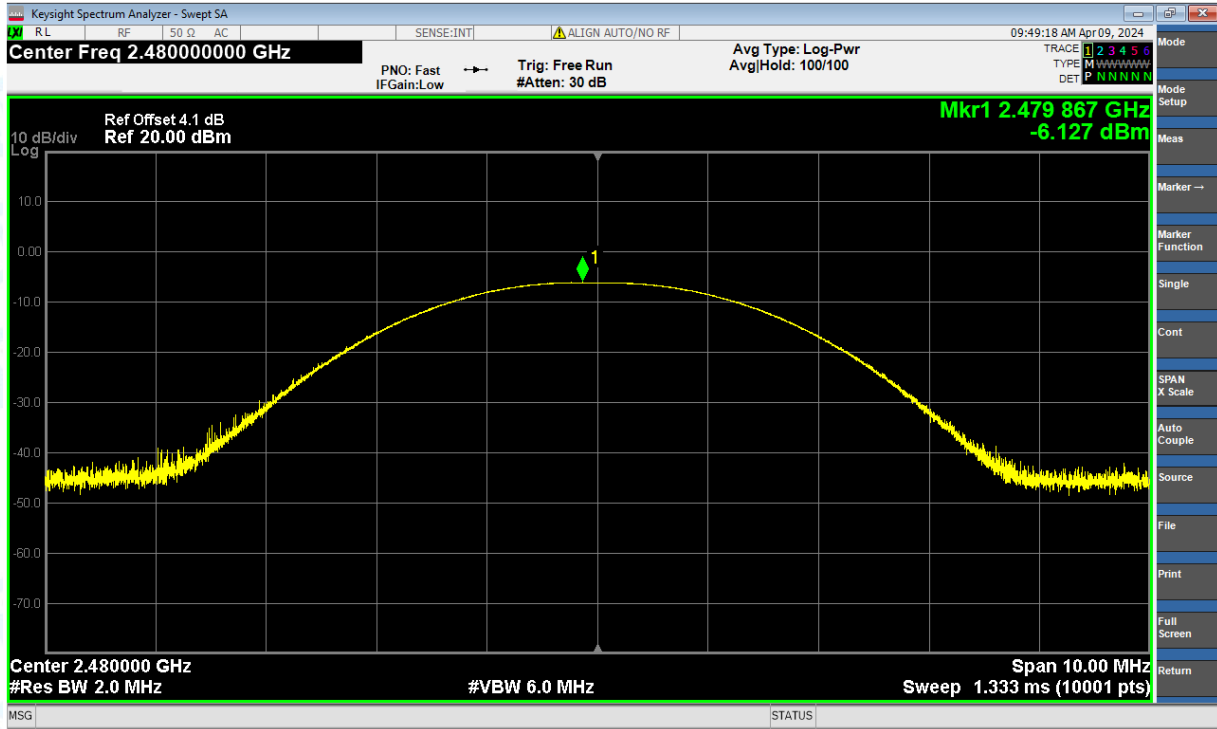
Power NVNT 1-DH1 2402MHz Ant1



Power NVNT 1-DH1 2441MHz Ant1



Power NVNT 1-DH1 2480MHz Ant1



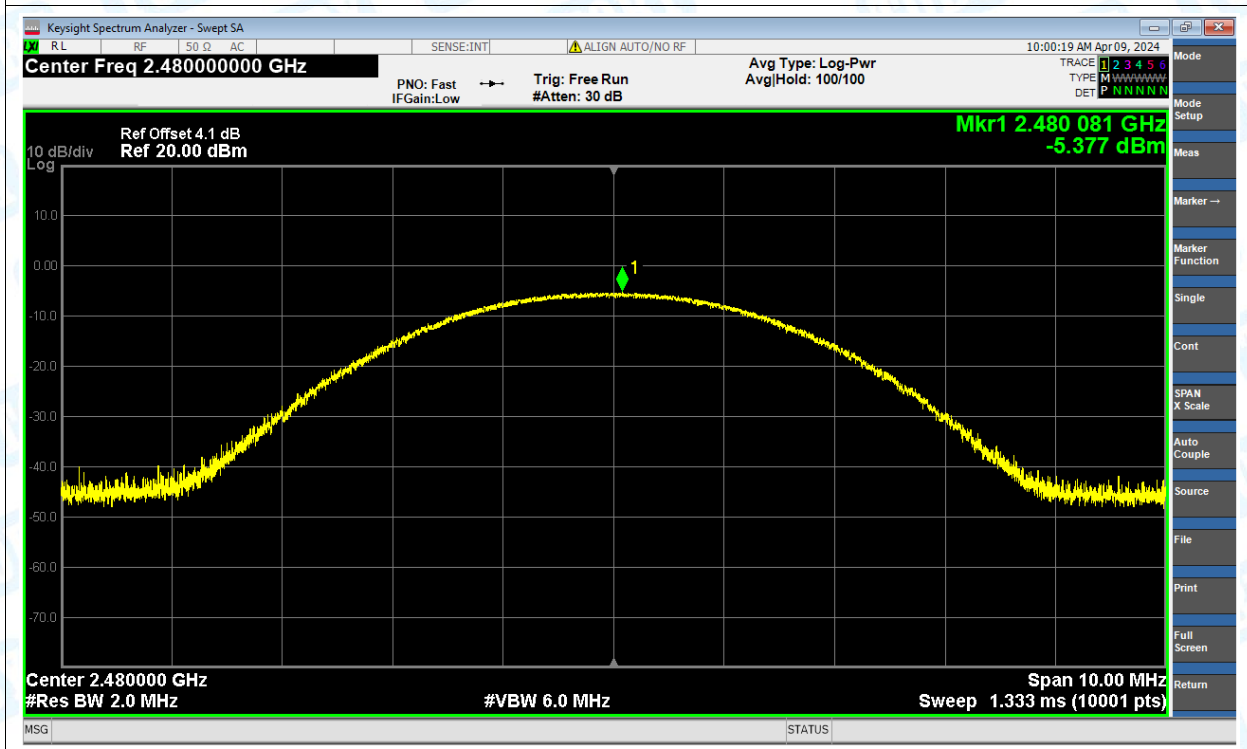
Power NVNT 2-DH1 2402MHz Ant1



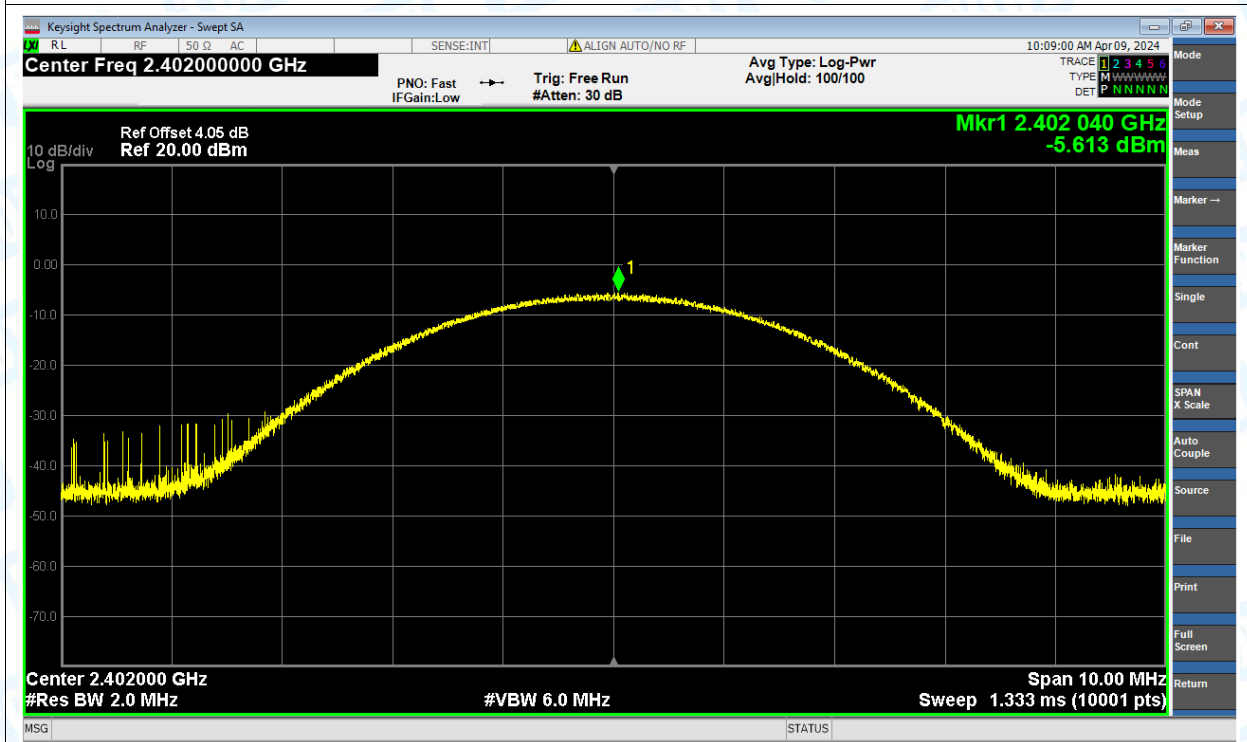
Power NVNT 2-DH1 2441MHz Ant1



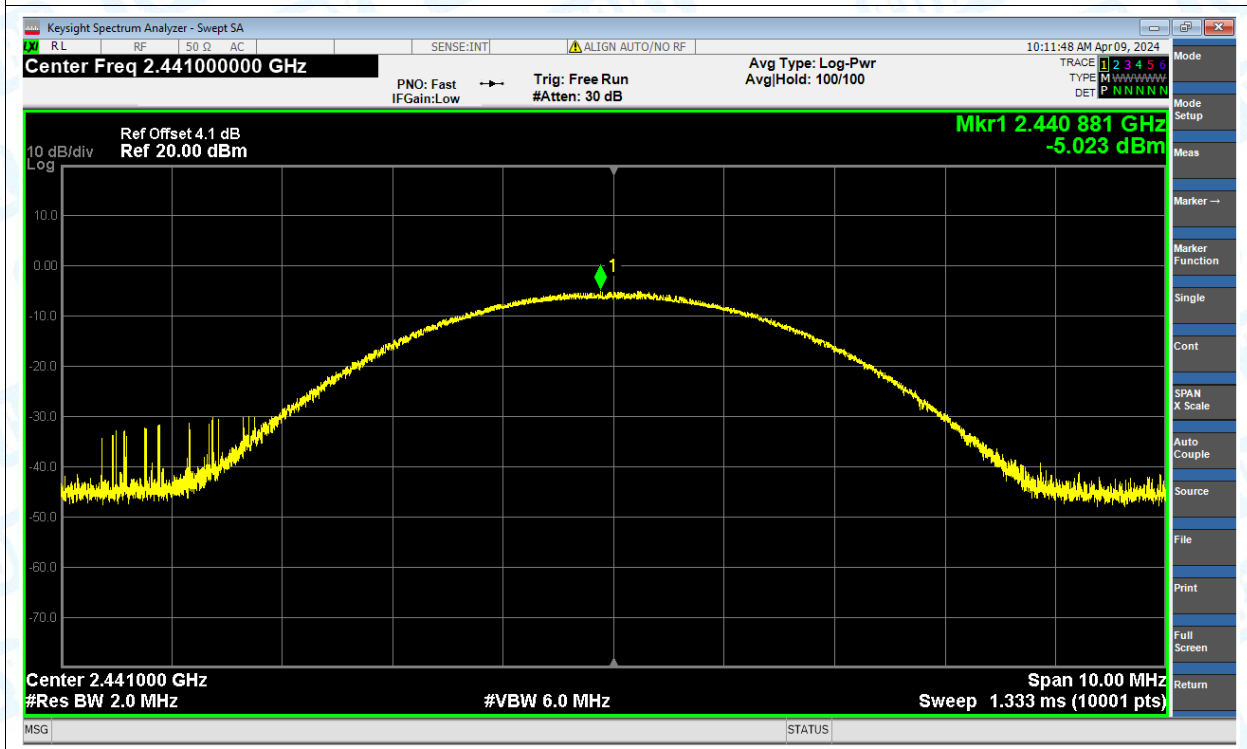
Power NVNT 2-DH1 2480MHz Ant1



Power NVNT 3-DH1 2402MHz Ant1



Power NVNT 3-DH1 2441MHz Ant1



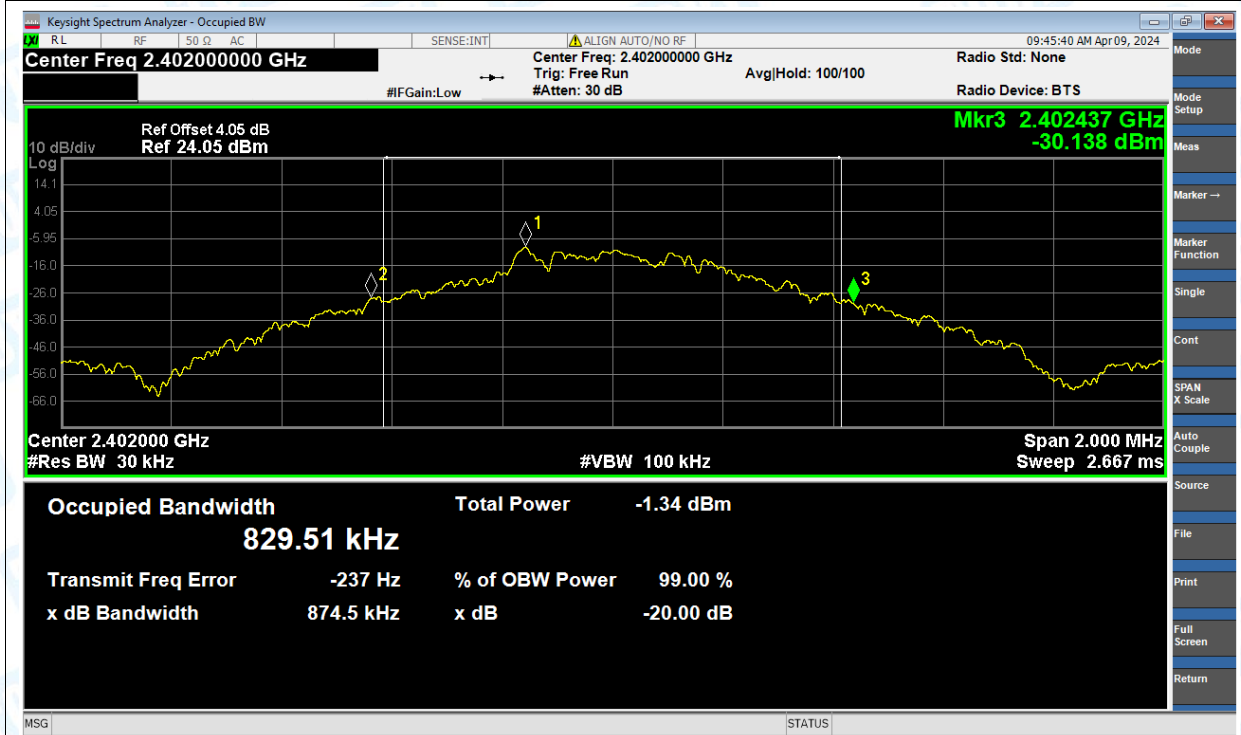


3. -20dB Bandwidth

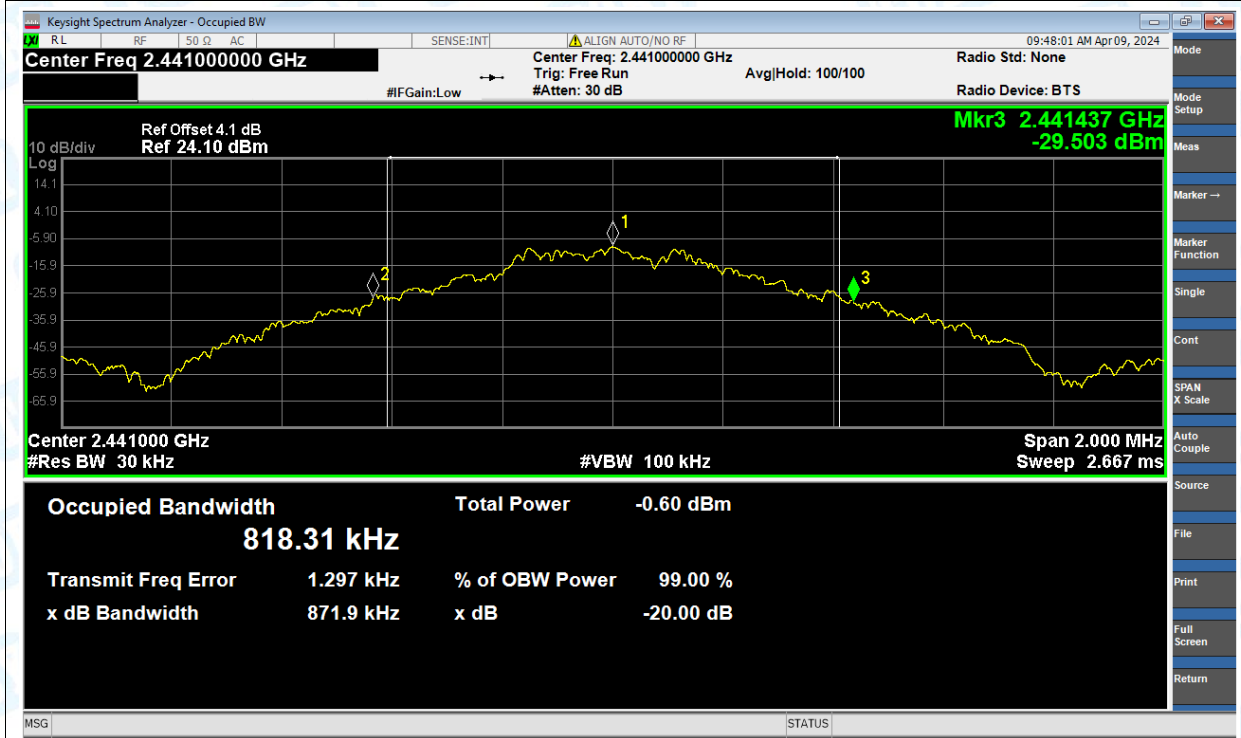
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	0.87	0	Pass
NVNT	1-DH1	2441	Ant1	0.87	0	Pass
NVNT	1-DH1	2480	Ant1	0.86	0	Pass
NVNT	2-DH1	2402	Ant1	1.25	0	Pass
NVNT	2-DH1	2441	Ant1	1.24	0	Pass
NVNT	2-DH1	2480	Ant1	1.25	0	Pass
NVNT	3-DH1	2402	Ant1	1.22	0	Pass
NVNT	3-DH1	2441	Ant1	1.2	0	Pass
NVNT	3-DH1	2480	Ant1	1.23	0	Pass

Test Graphs

-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1



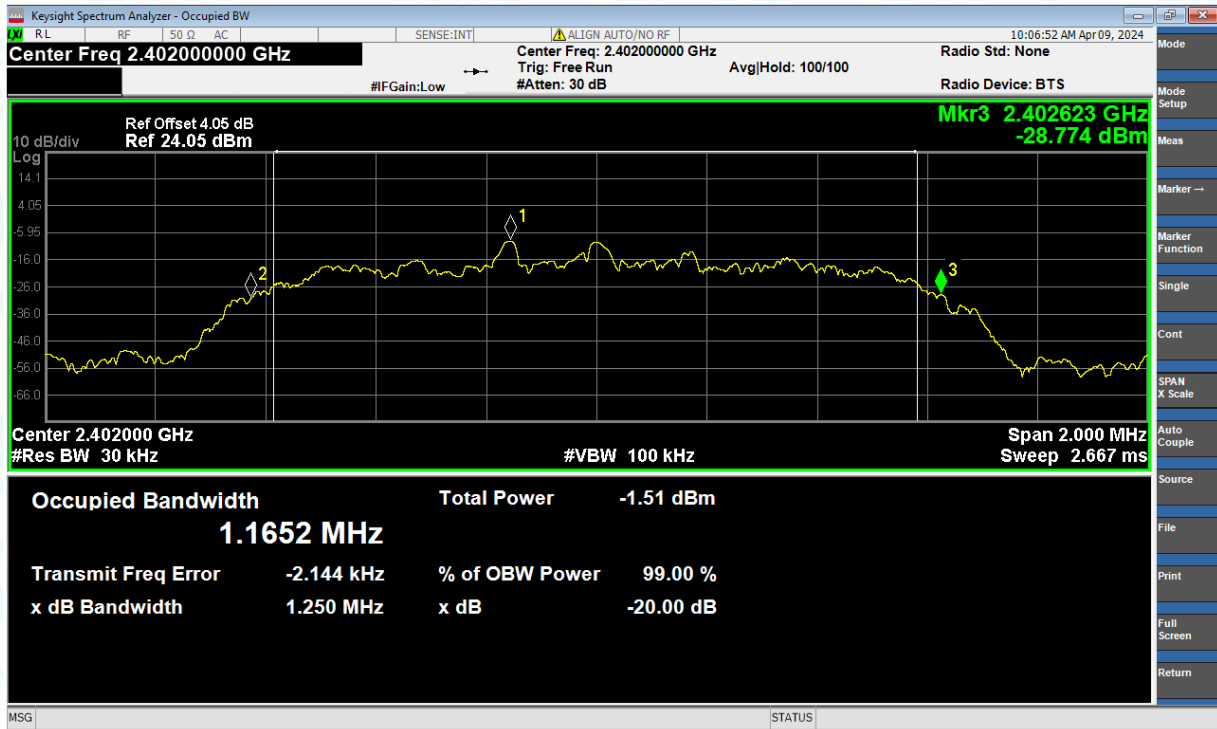
-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1



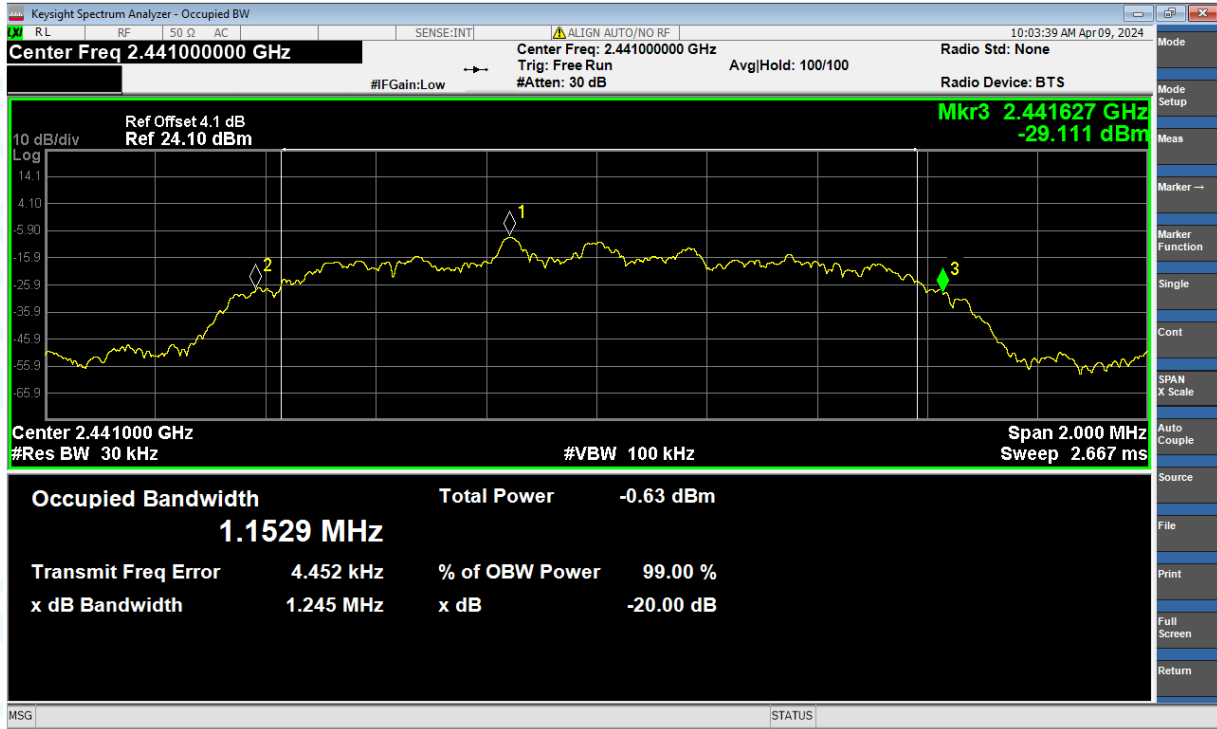
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



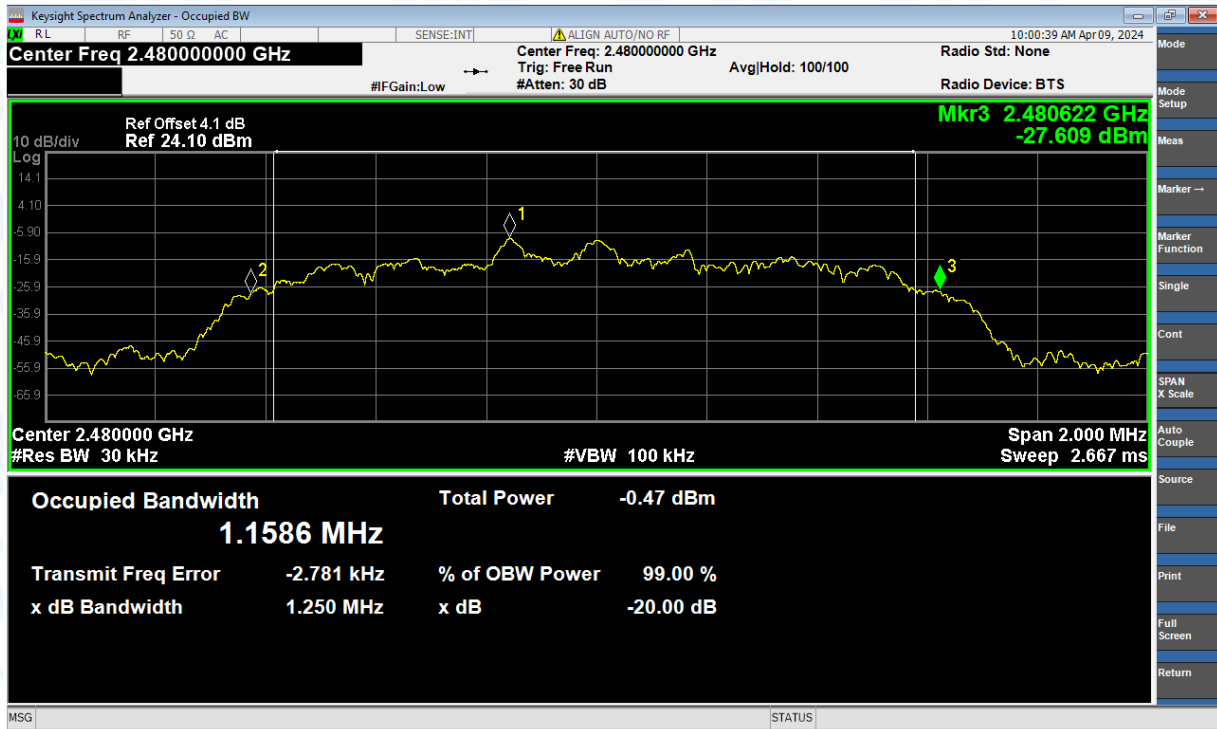
-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



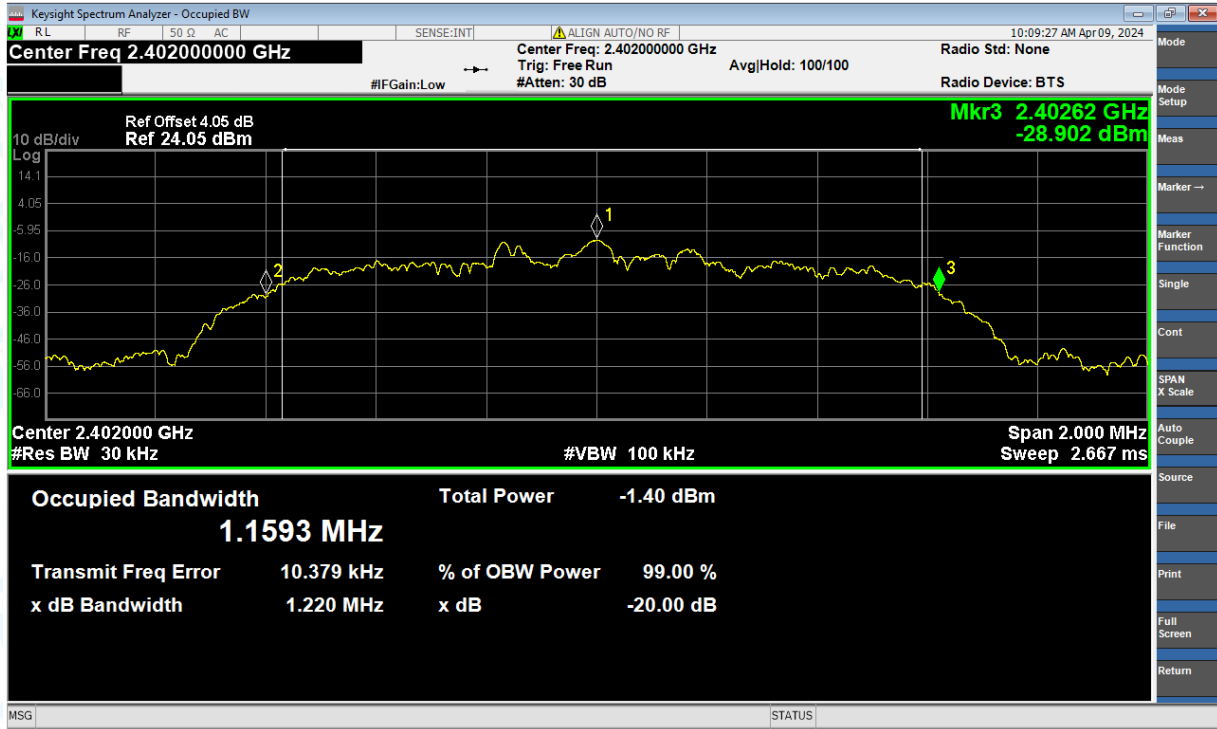
-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



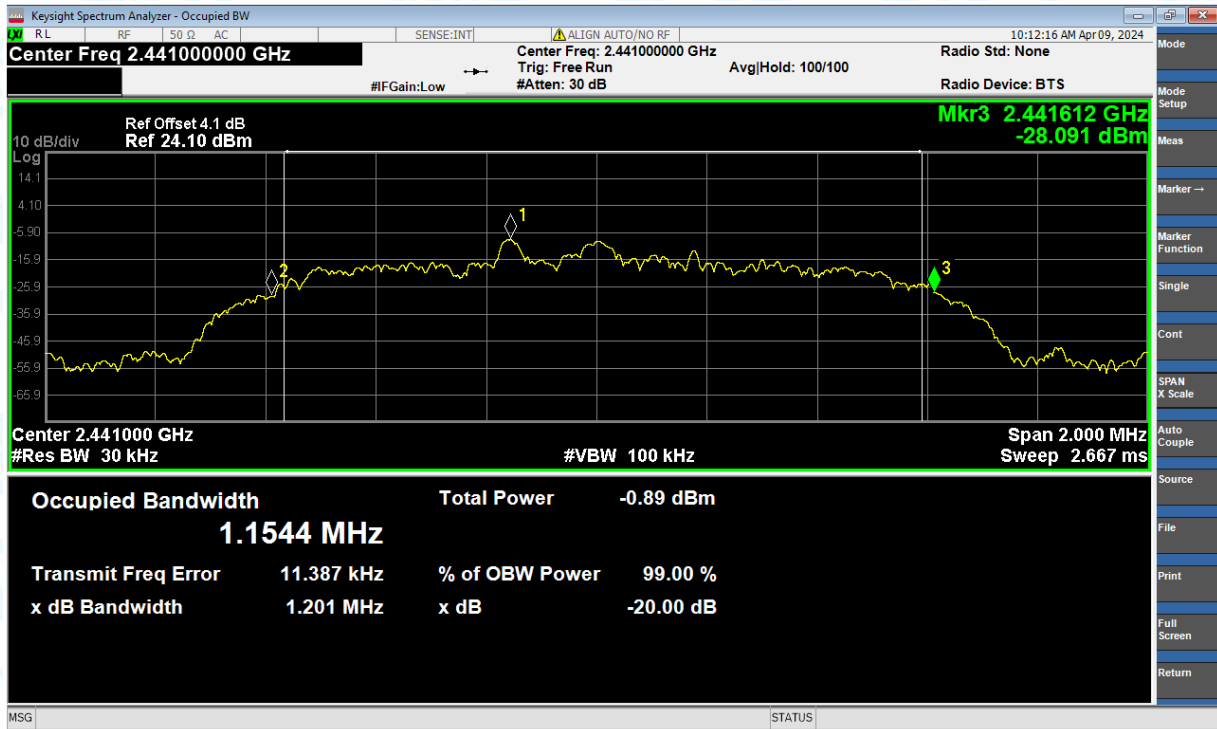
-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1

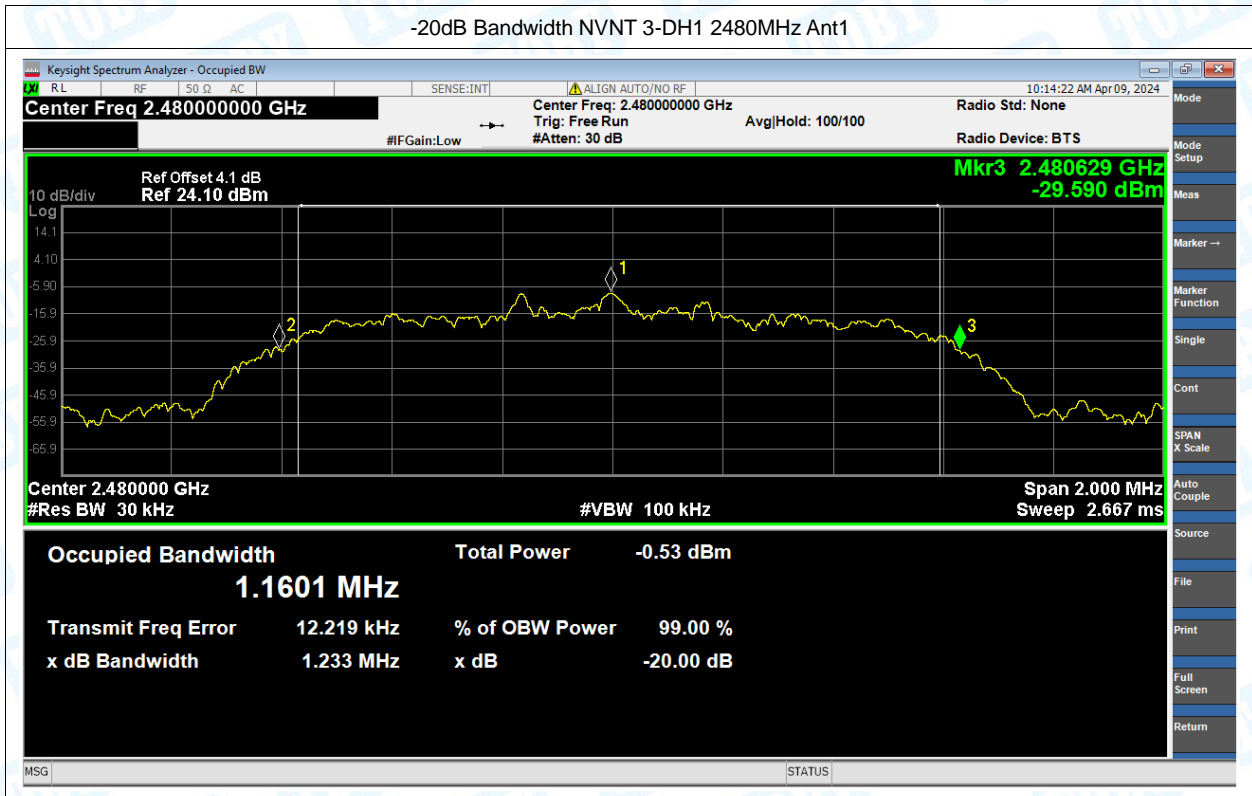


-20dB Bandwidth NVNT 3-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2441MHz Ant1



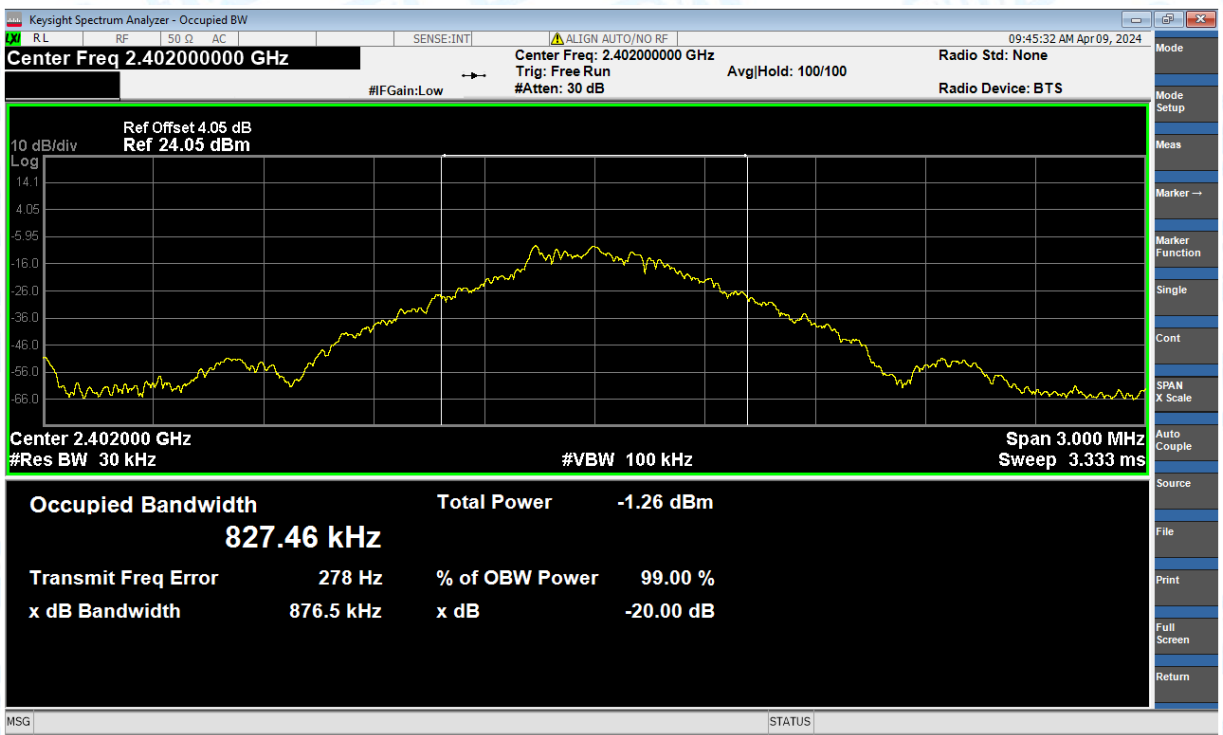


4. Occupied Channel Bandwidth

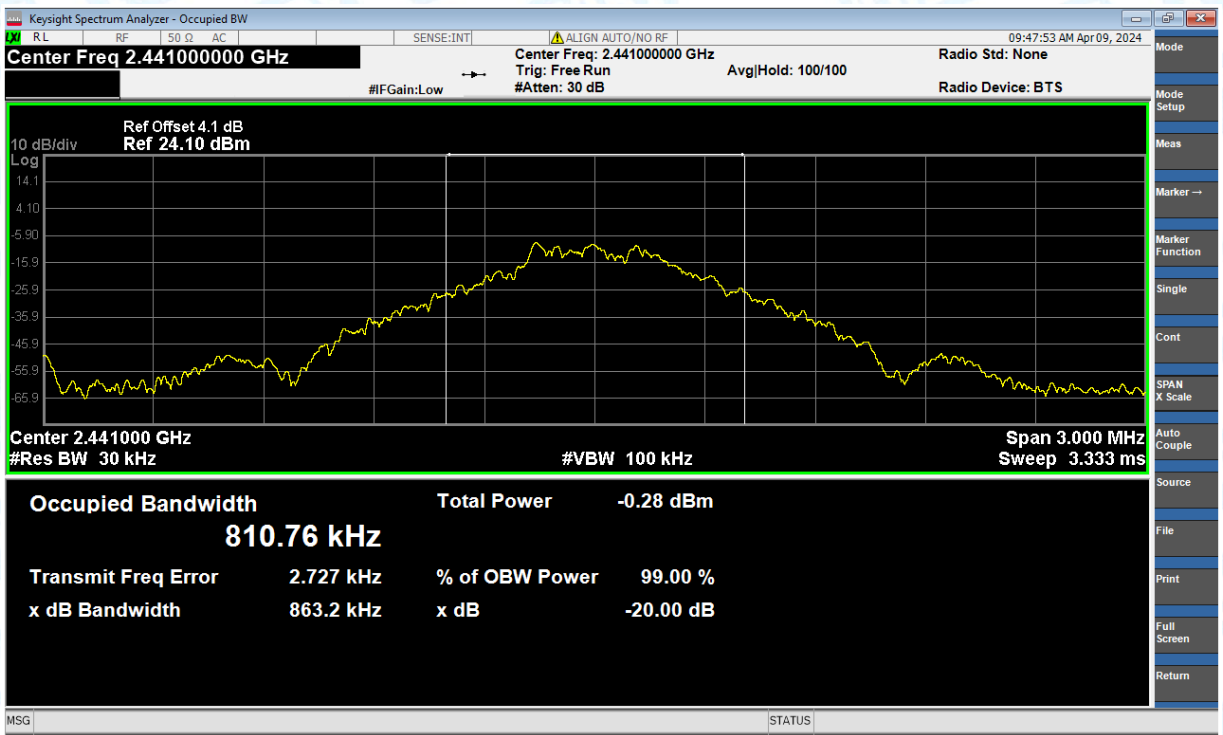
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH1	2402	Ant1	0.827
NVNT	1-DH1	2441	Ant1	0.811
NVNT	1-DH1	2480	Ant1	0.81
NVNT	2-DH1	2402	Ant1	1.168
NVNT	2-DH1	2441	Ant1	1.165
NVNT	2-DH1	2480	Ant1	1.165
NVNT	3-DH1	2402	Ant1	1.156
NVNT	3-DH1	2441	Ant1	1.137
NVNT	3-DH1	2480	Ant1	1.15

Test Graphs

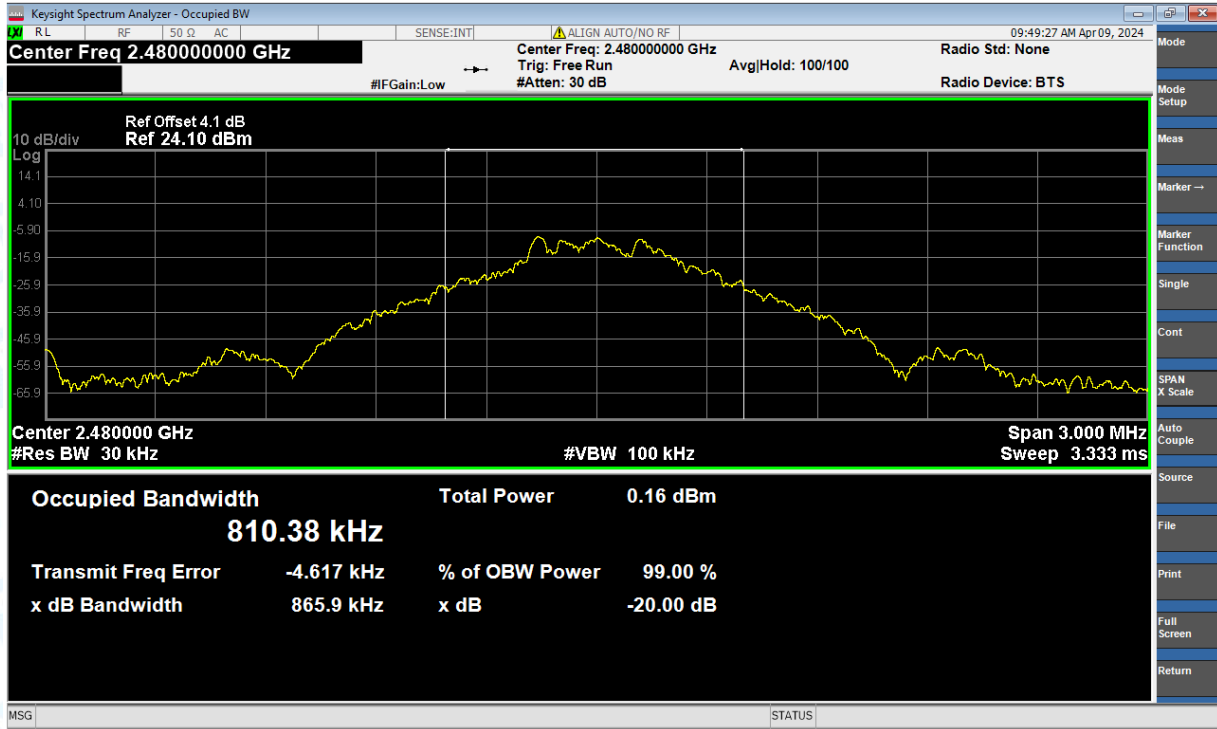
OBW NVNT 1-DH1 2402MHz Ant1



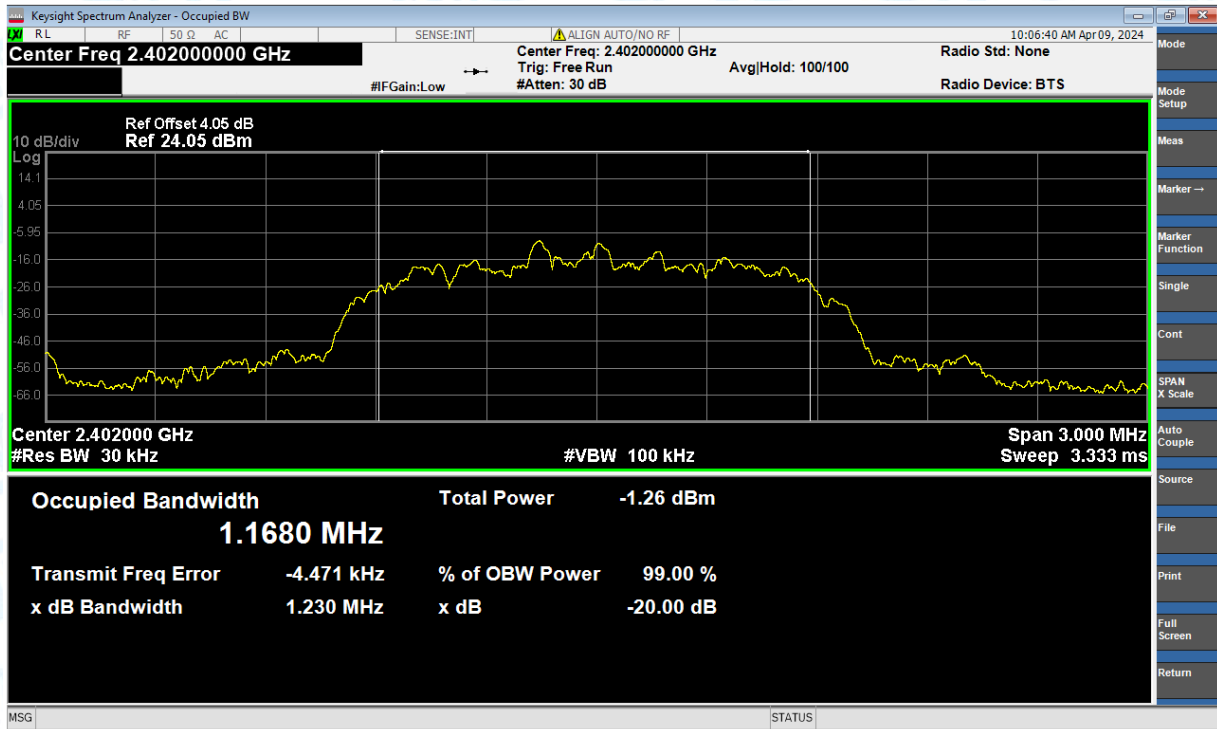
OBW NVNT 1-DH1 2441MHz Ant1



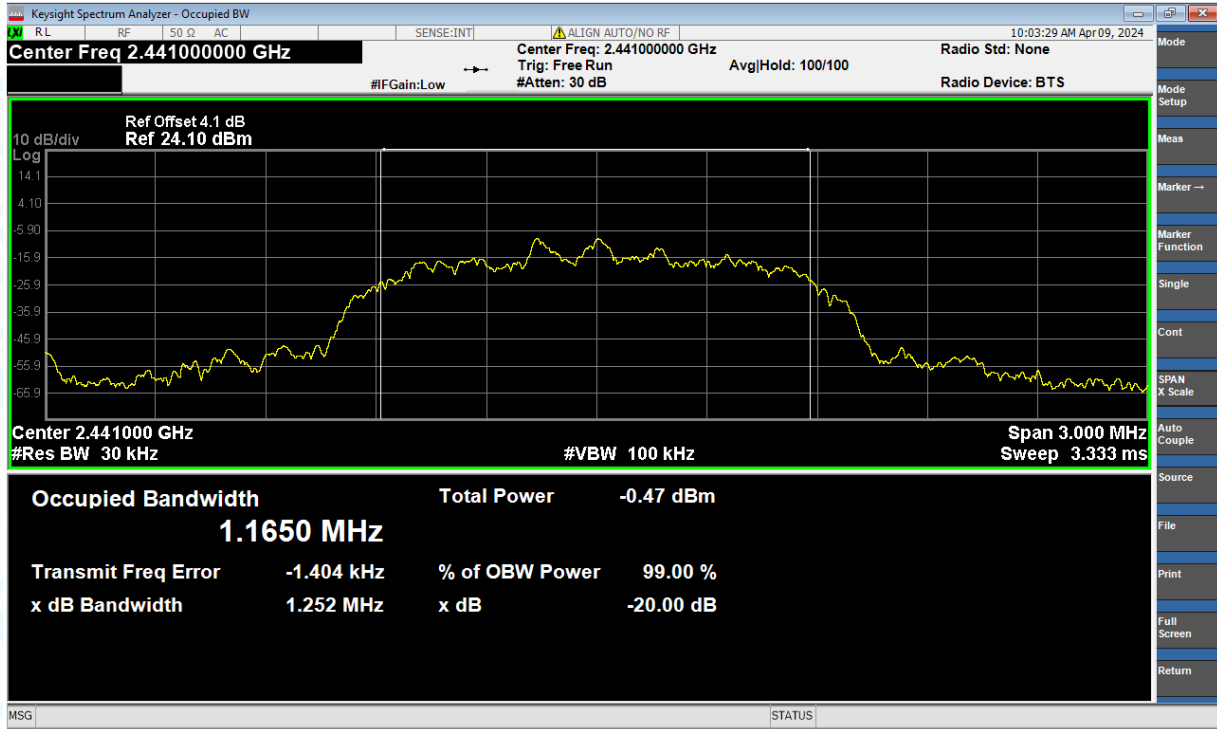
OBW NVNT 1-DH1 2480MHz Ant1



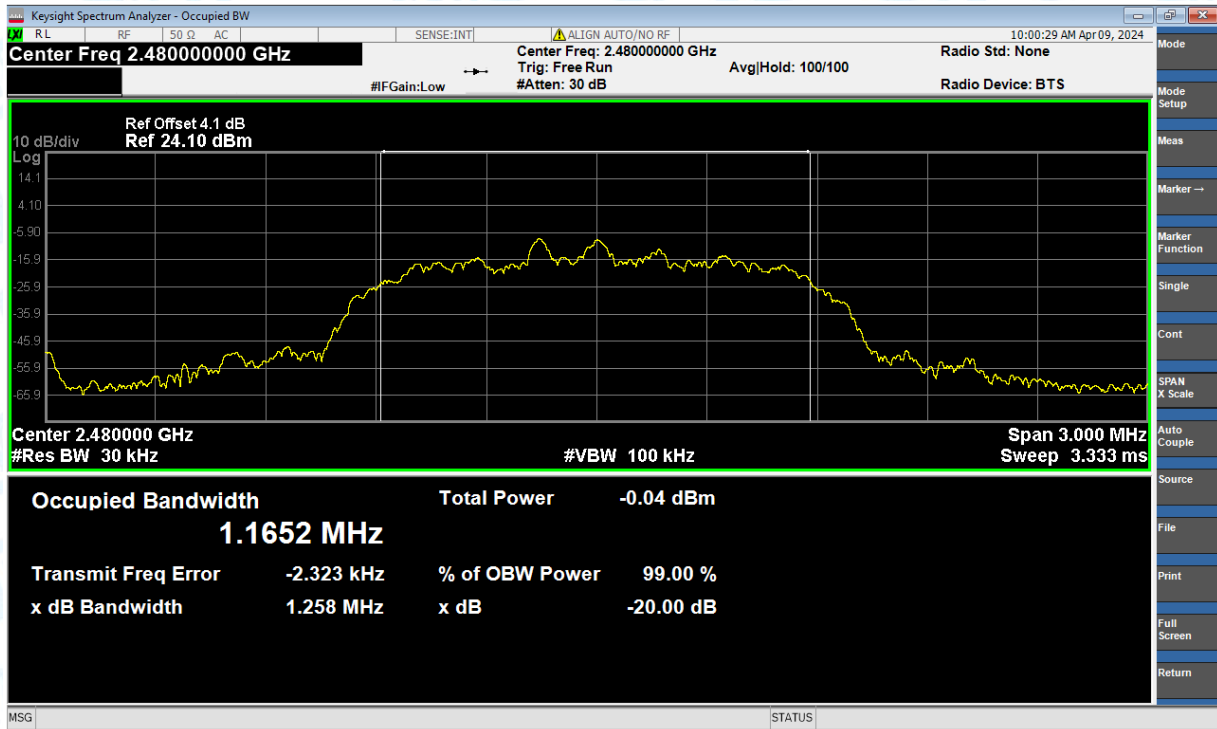
OBW NVNT 2-DH1 2402MHz Ant1



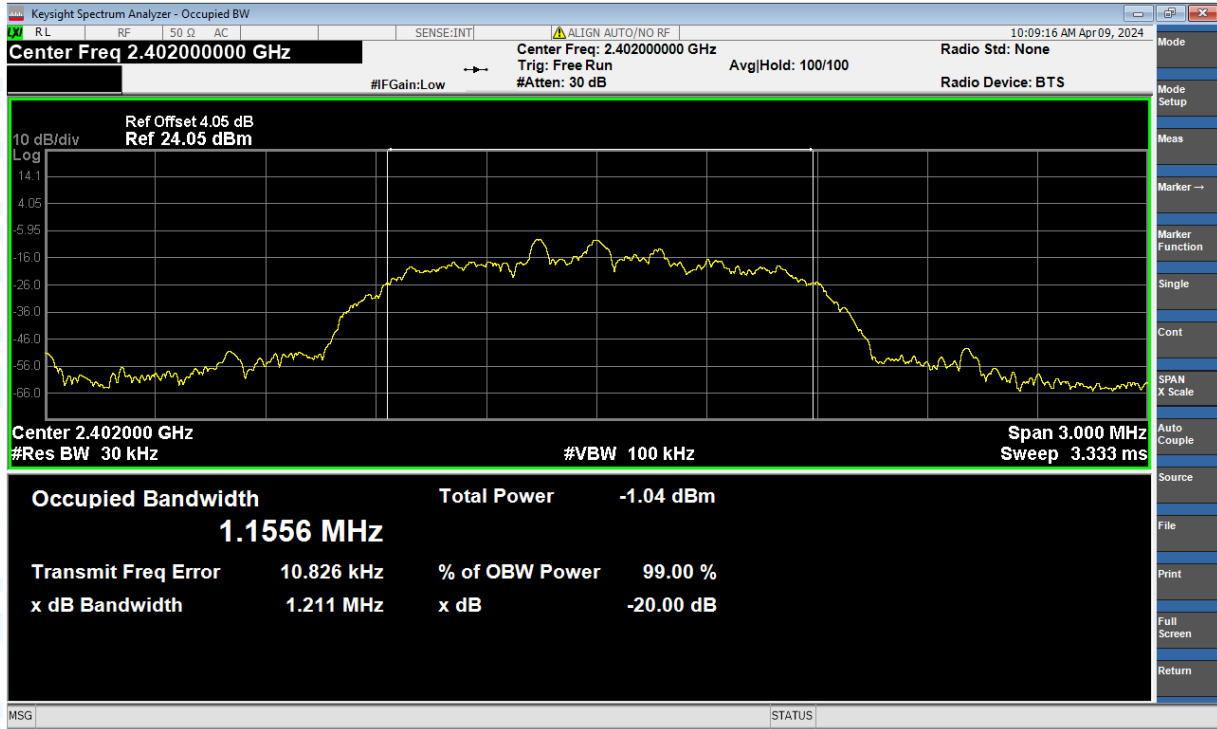
OBW NVNT 2-DH1 2441MHz Ant1



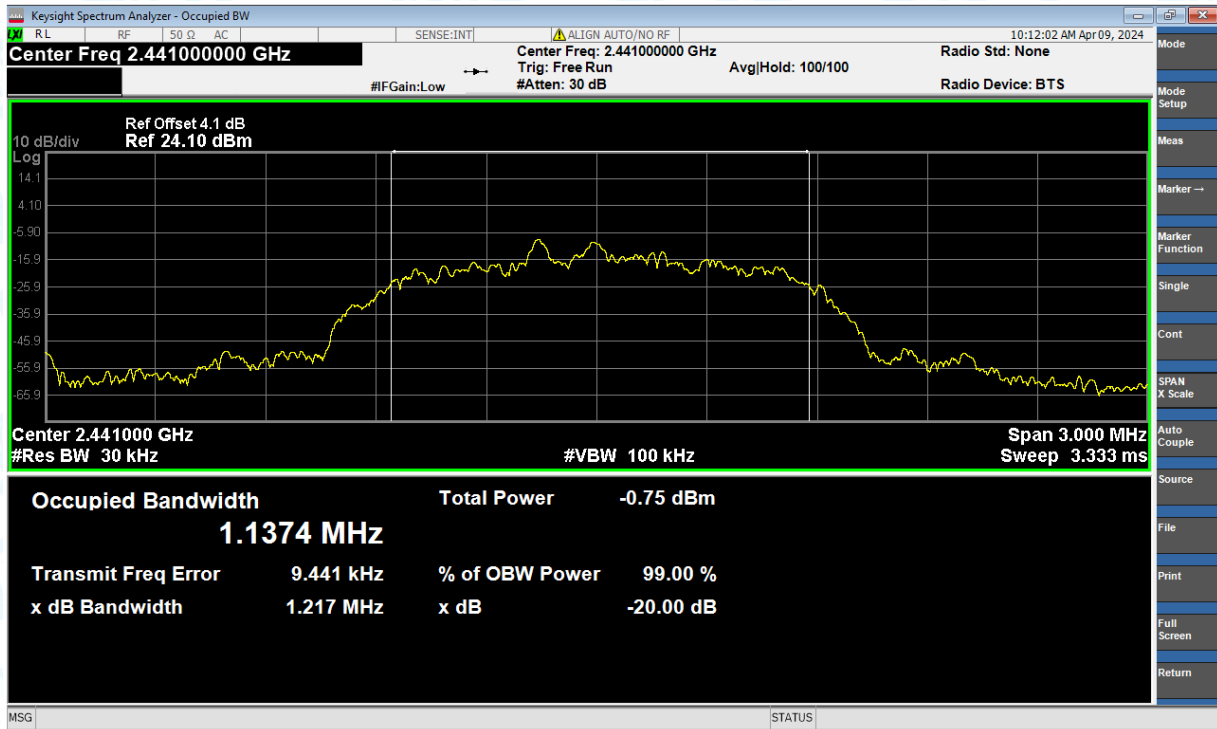
OBW NVNT 2-DH1 2480MHz Ant1

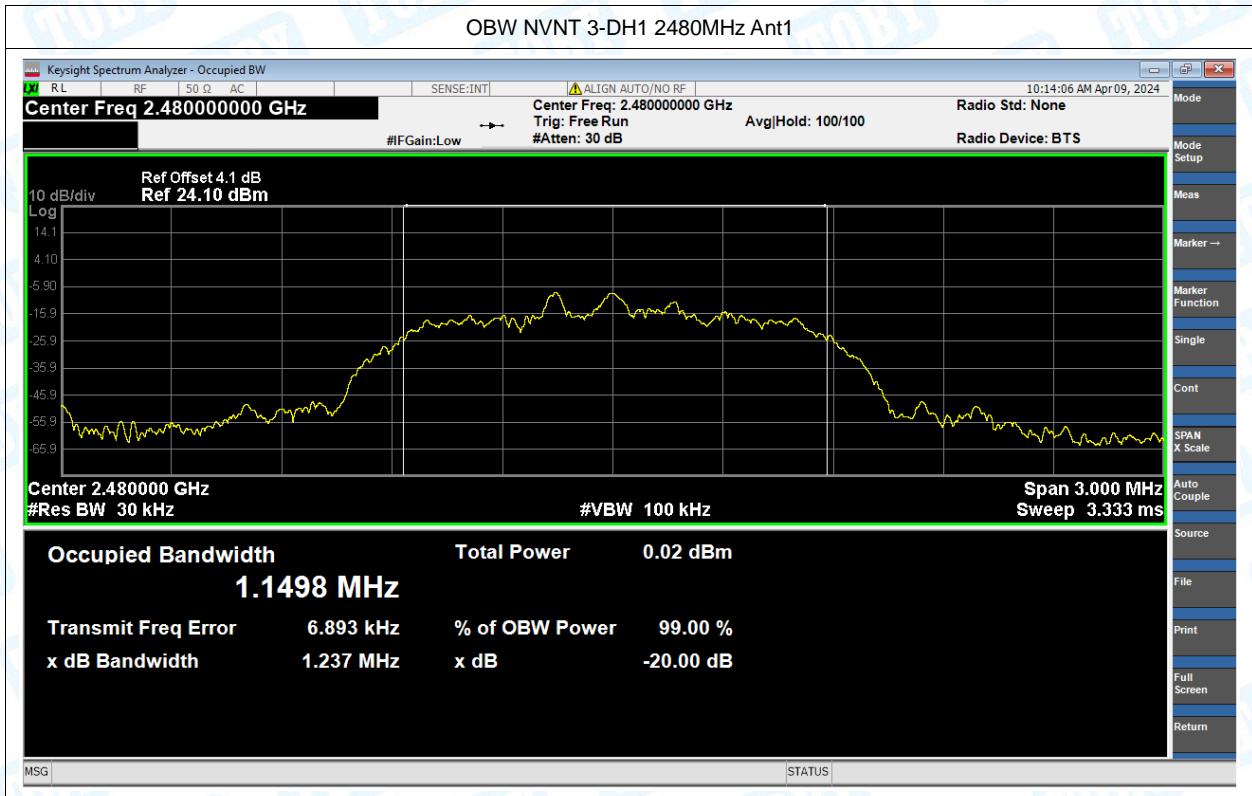


OBW NVNT 3-DH1 2402MHz Ant1



OBW NVNT 3-DH1 2441MHz Ant1



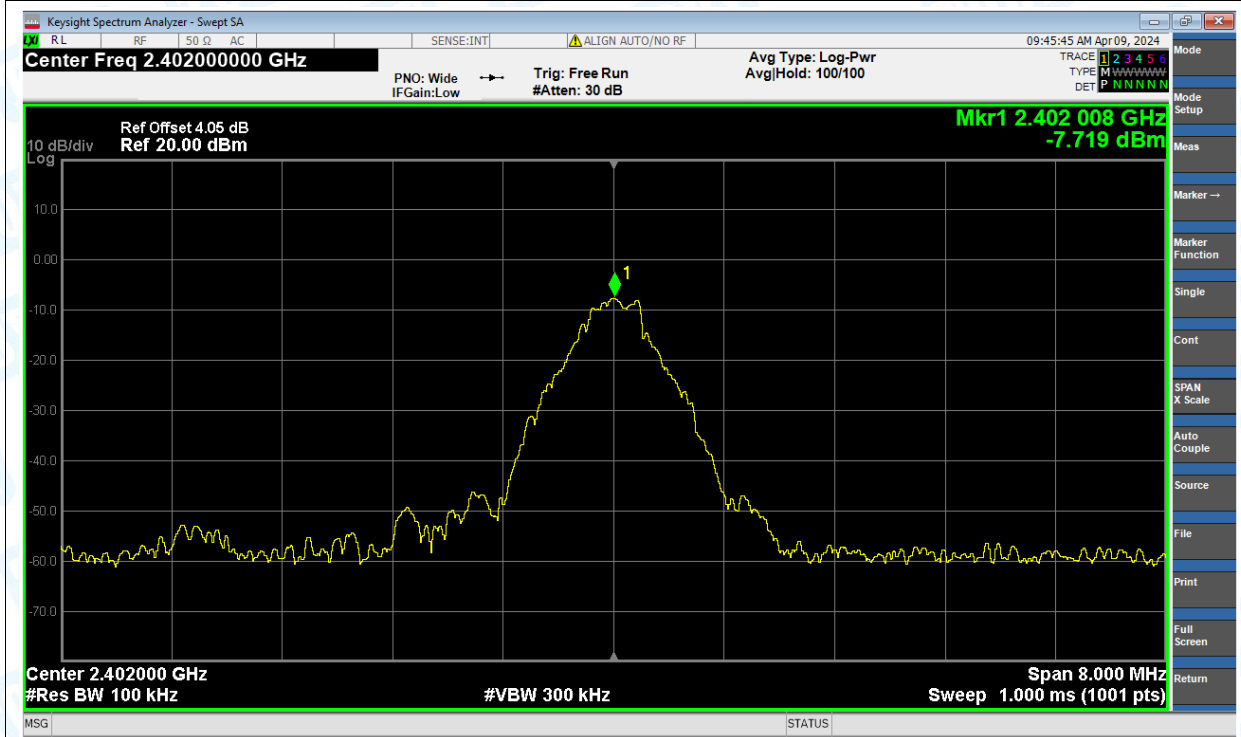


5. Band Edge

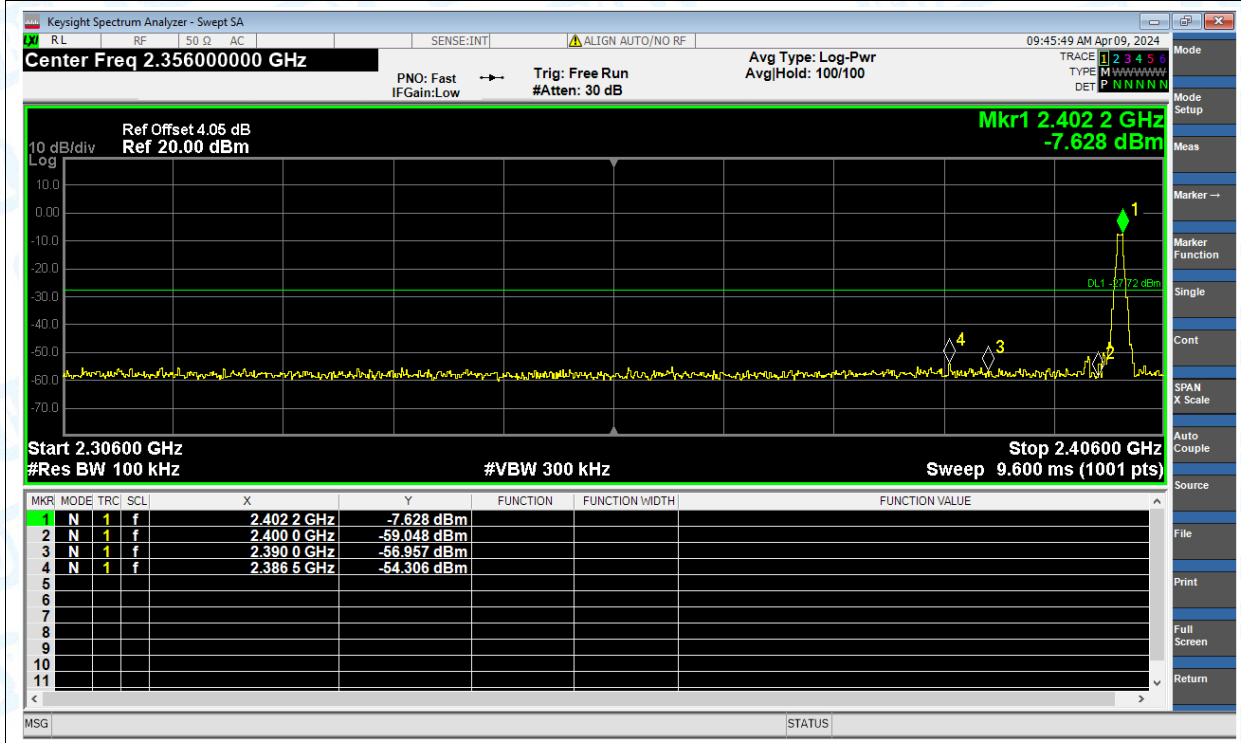
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-46.59	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-48.31	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-47.23	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-47.86	-20	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	-46.69	-20	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	-46.87	-20	Pass

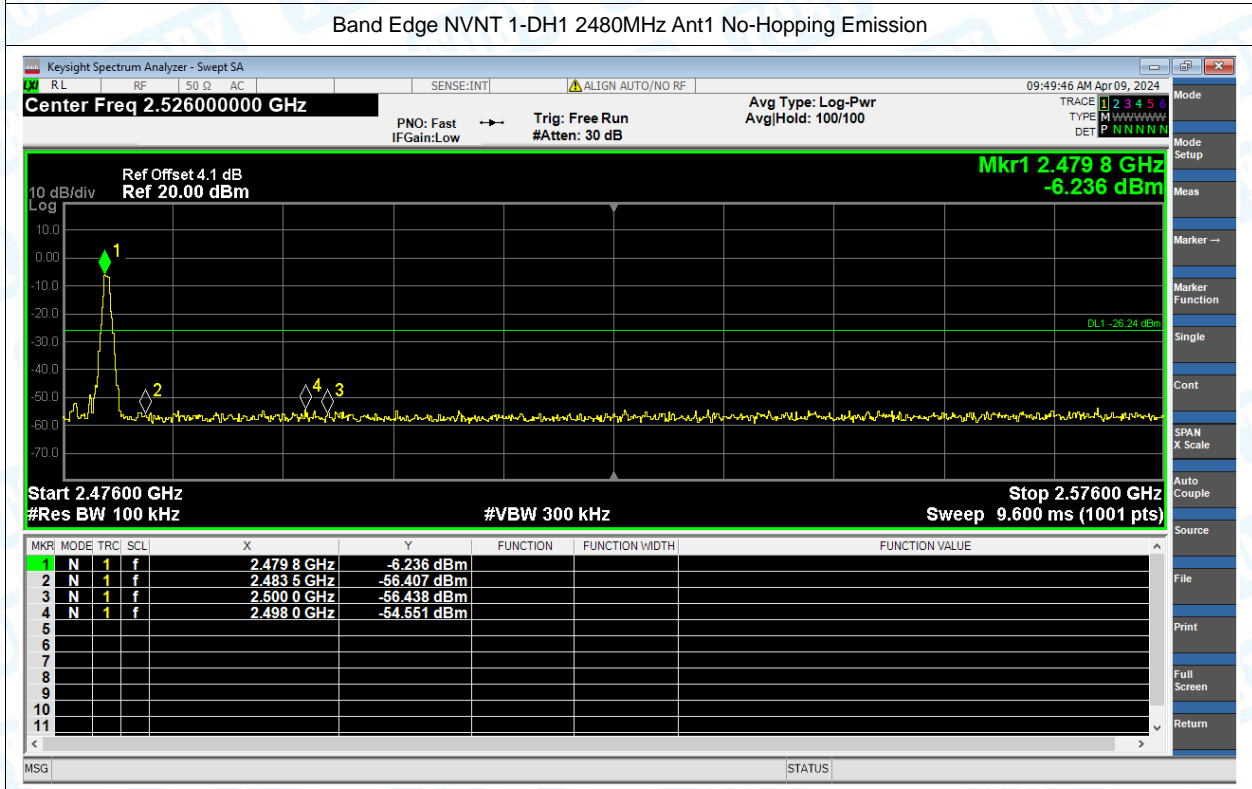
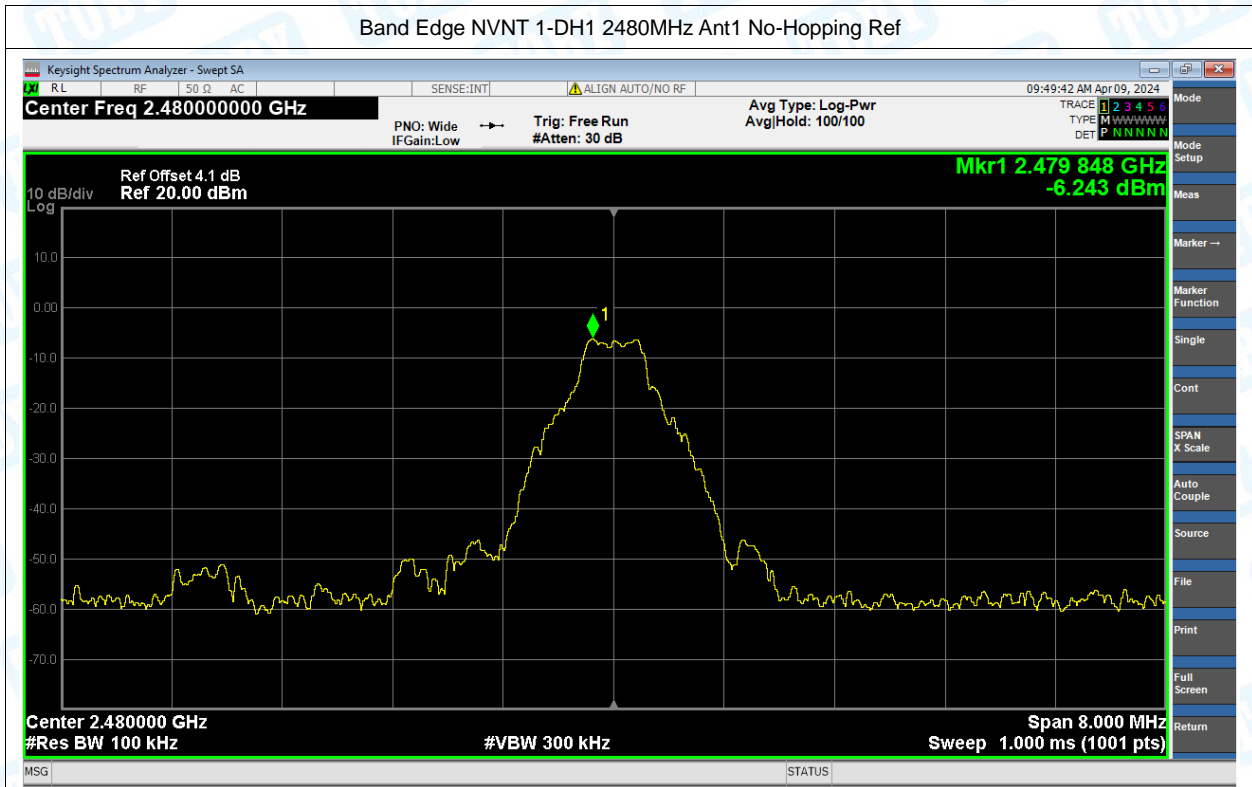
Test Graphs

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

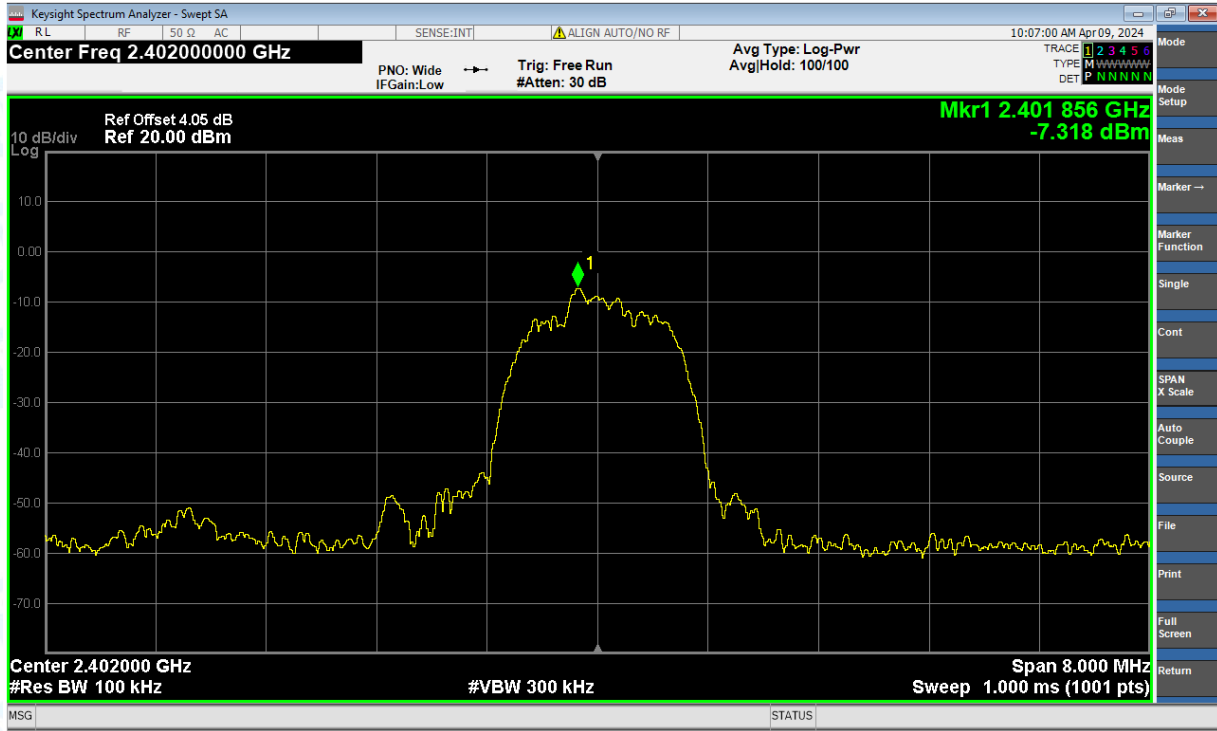


Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission

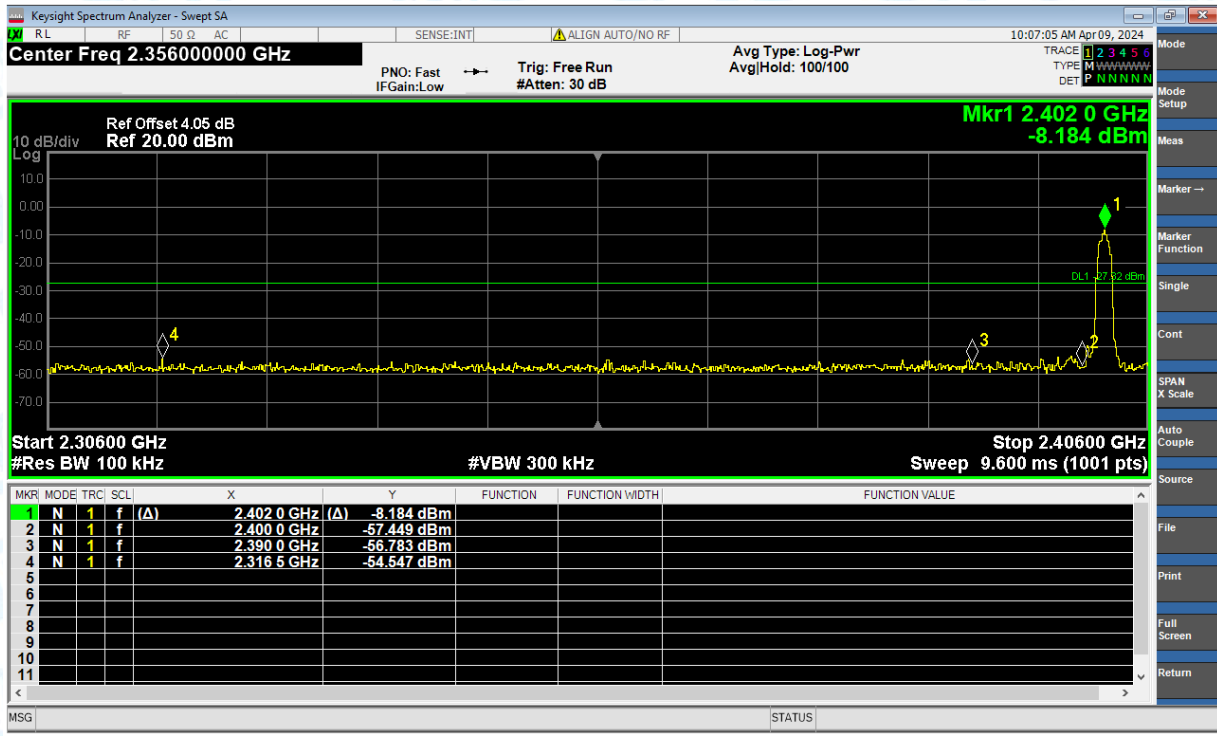




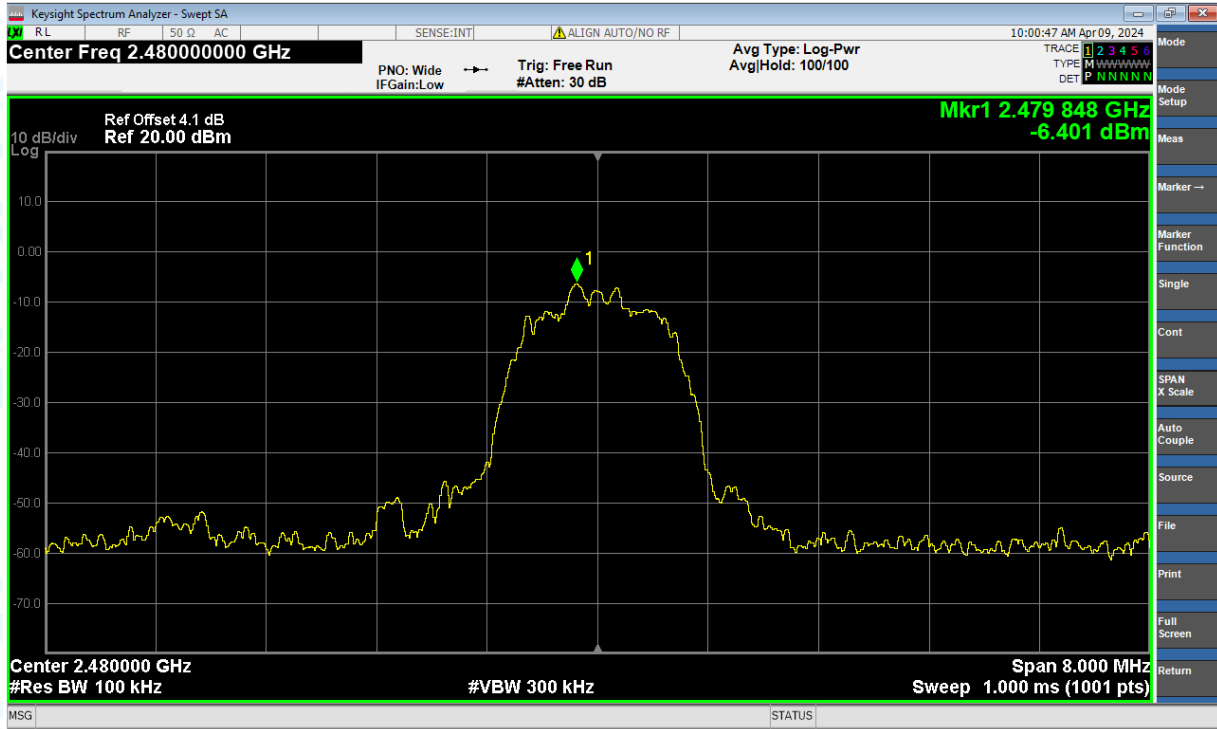
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Ref



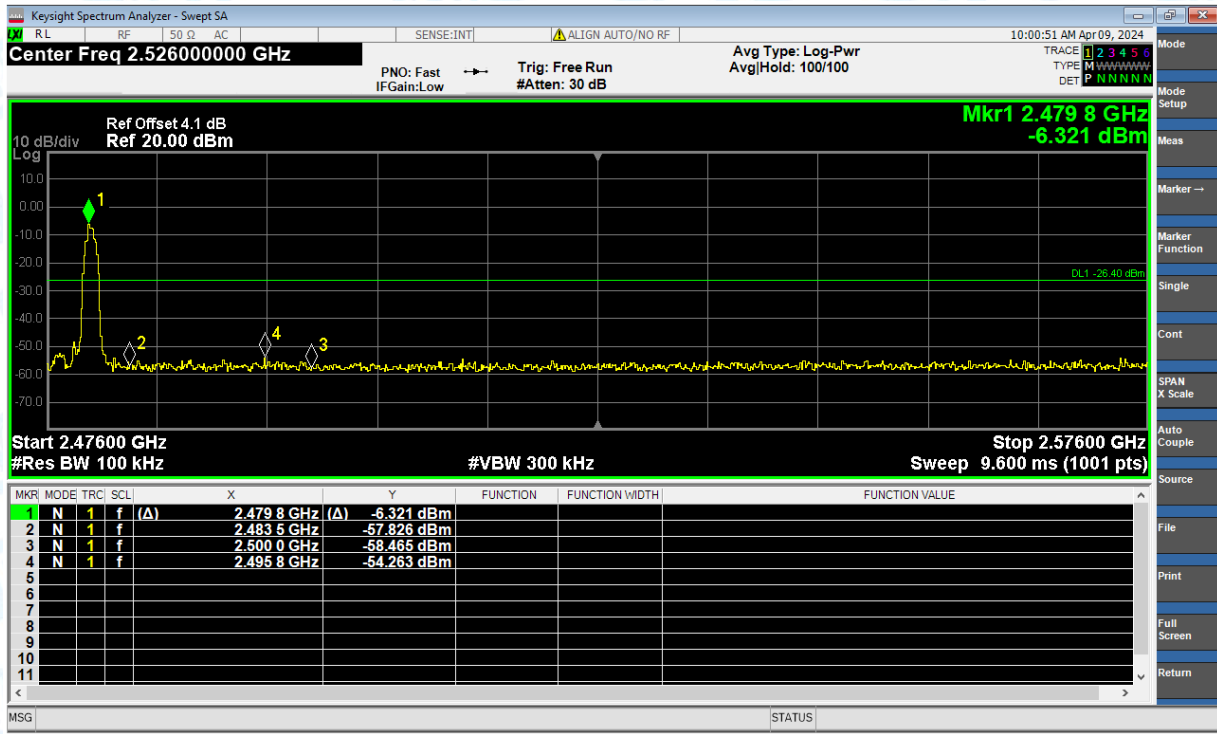
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Emission



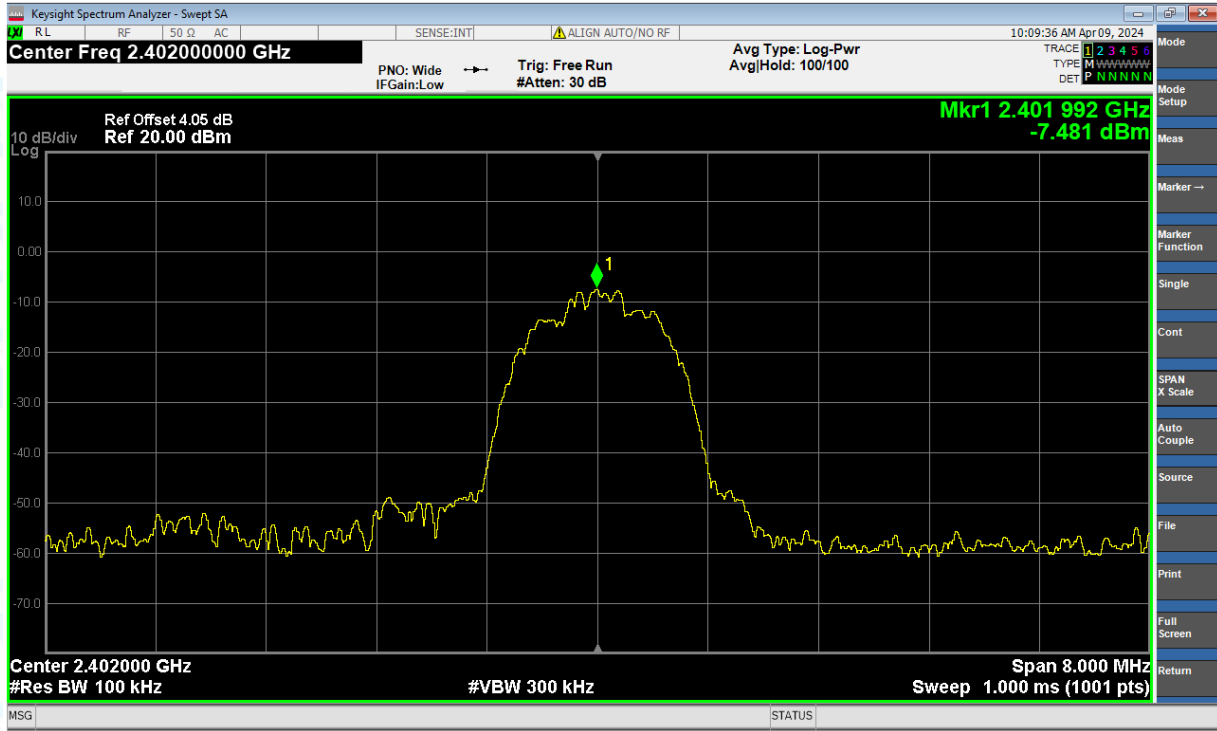
Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Ref



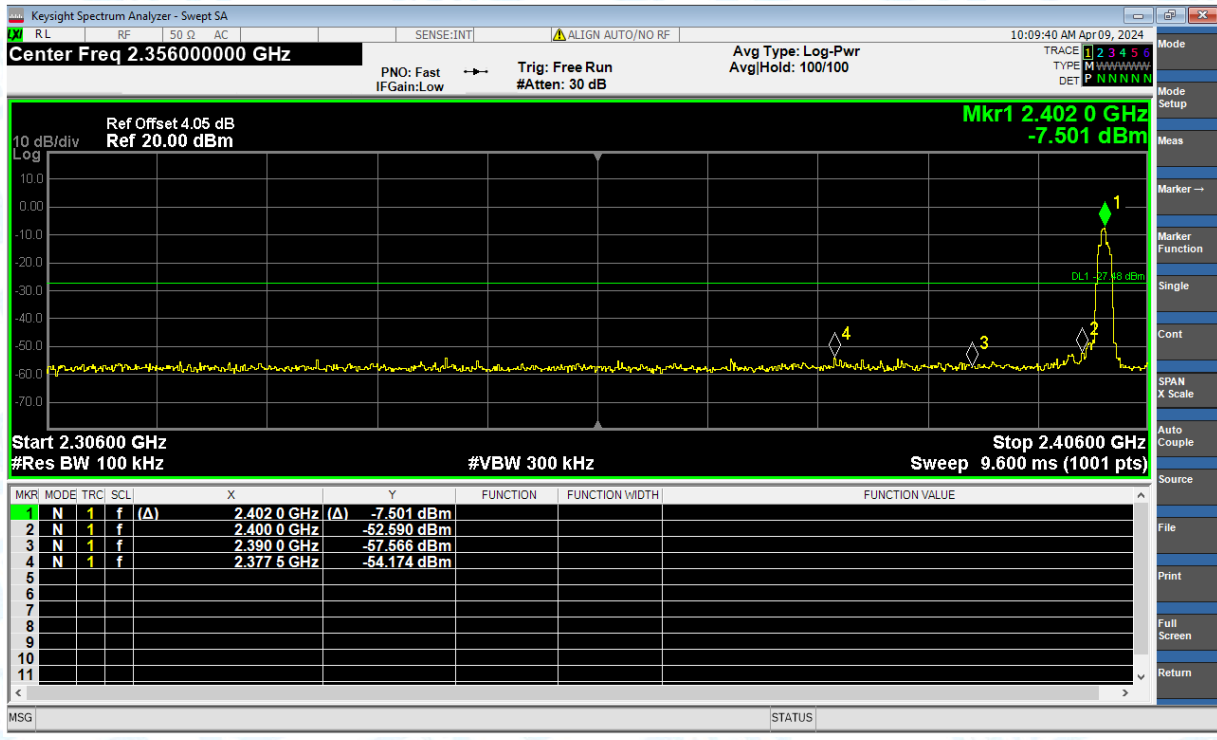
Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Emission

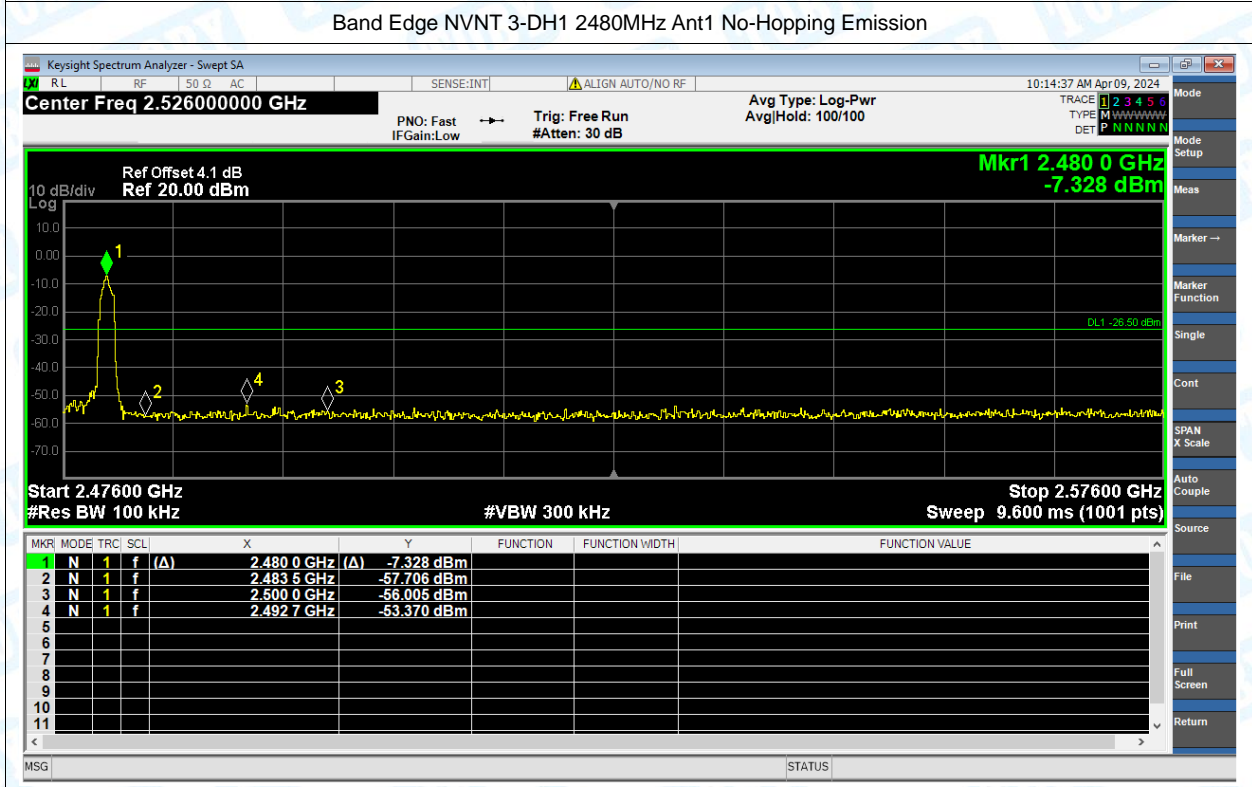
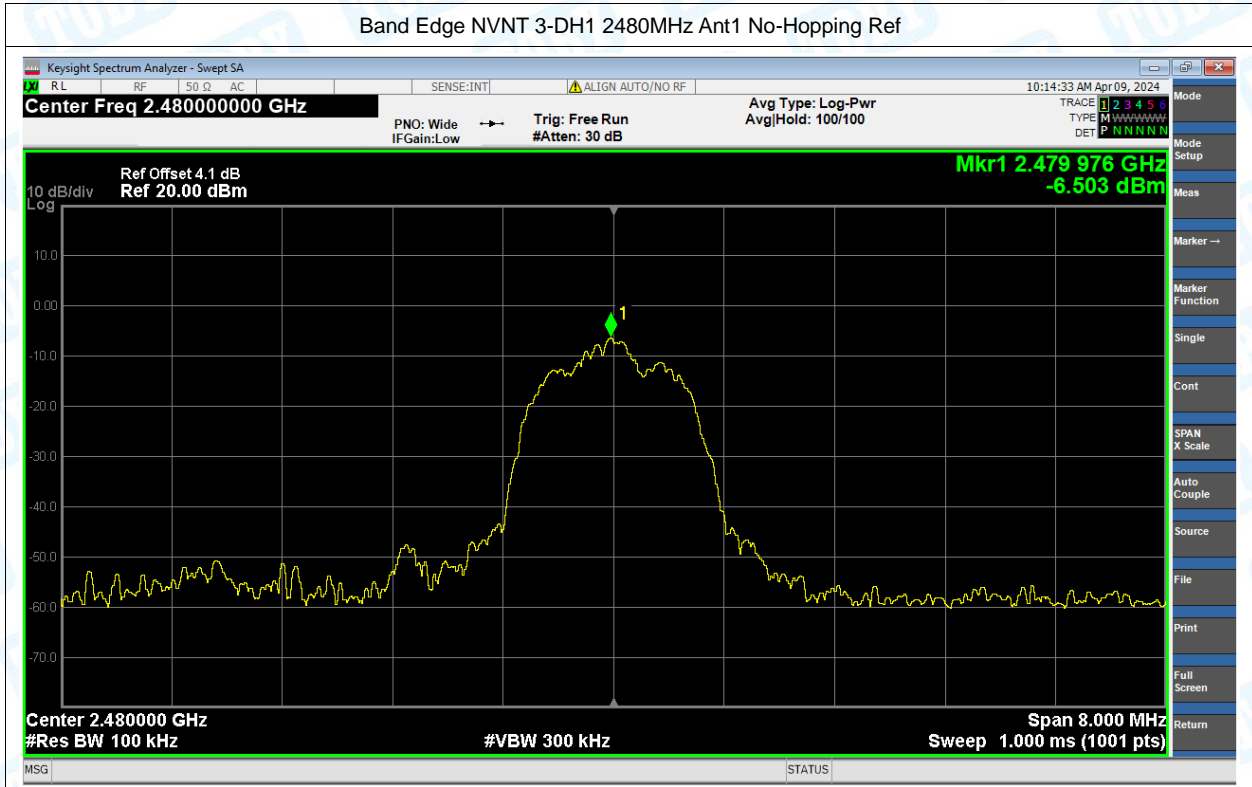


Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Ref



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



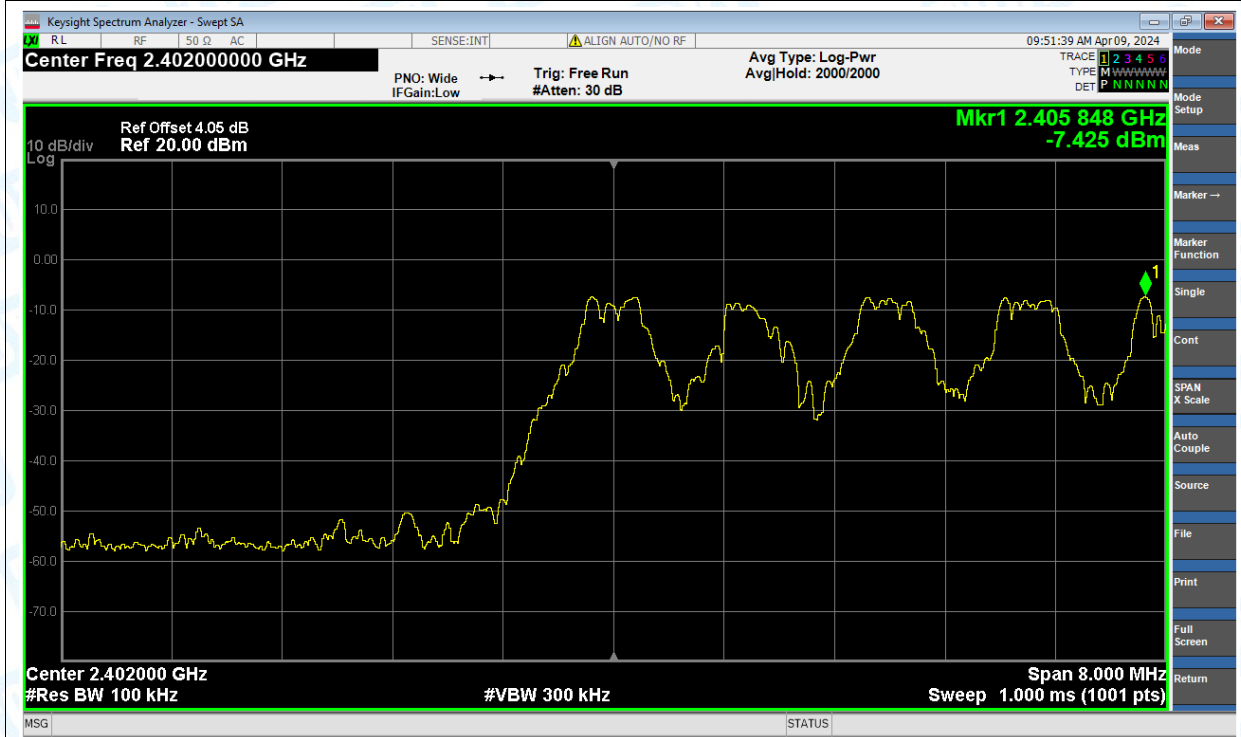


6. Band Edge(Hopping)

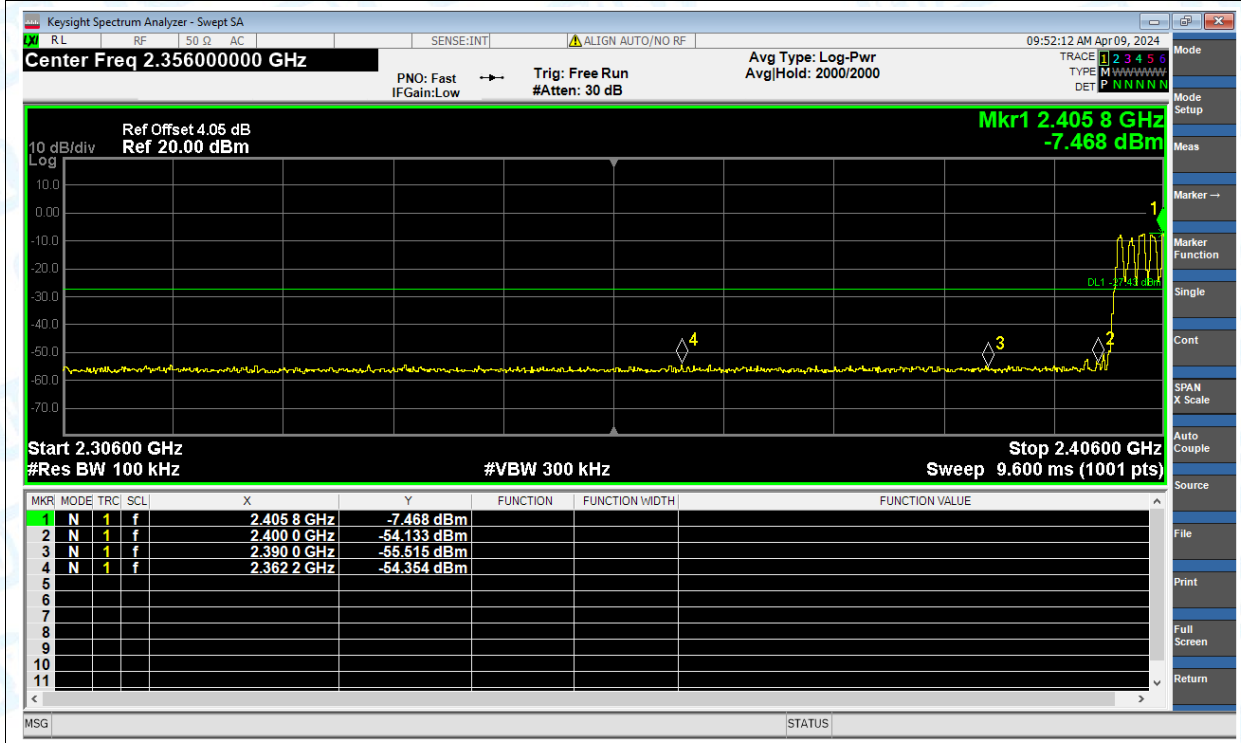
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-46.93	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-47.59	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-46.31	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-46.5	-20	Pass
NVNT	3-DH1	2402	Ant1	Hopping	-46	-20	Pass
NVNT	3-DH1	2480	Ant1	Hopping	-47.91	-20	Pass

Test Graphs

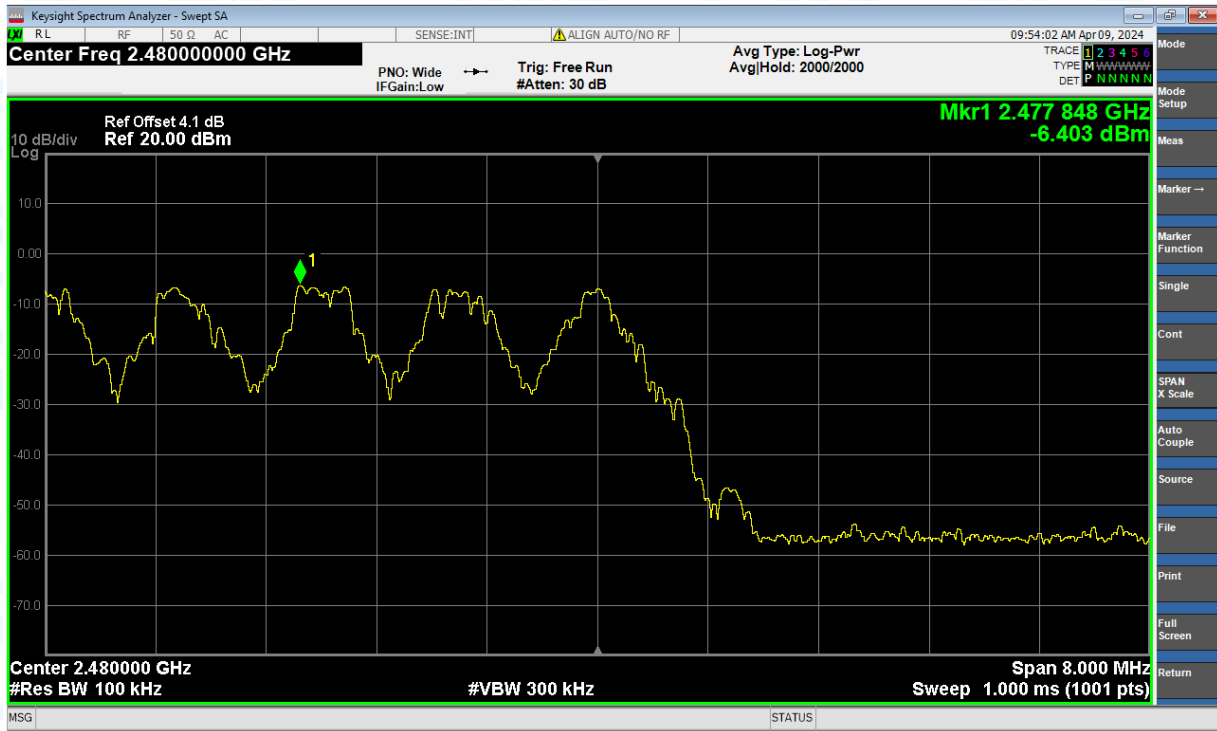
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Ref



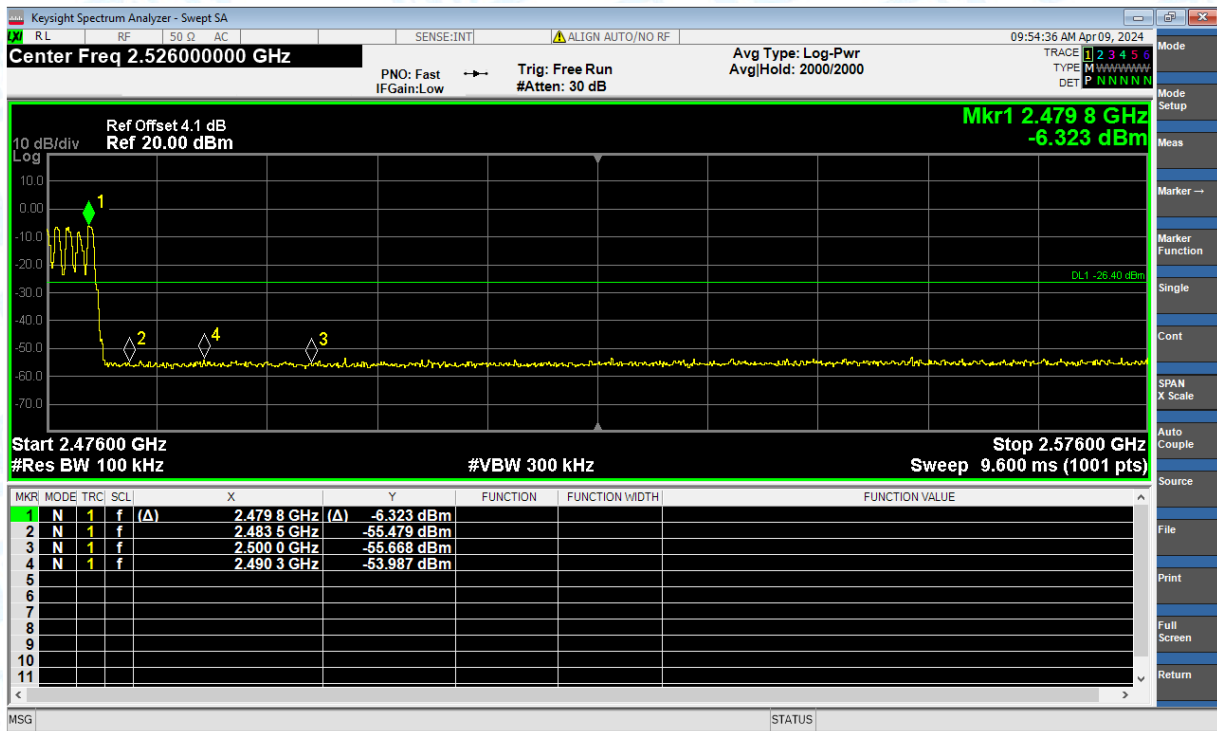
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Emission



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

