

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

General Description of EUT	
Product Name:	Allegro X8
Test Model:	Allegro X8
Sample ID:	202206-0362-06#
Environmental Conditions	
Temperature:	25°C
Relative Humidity:	55%
Test Voltage:	AC 120V/60HZ
Test Engineer:	Huang jian ping
Note: For a more detailed features description, please refer to the report TBR-C-202206-0362-12	

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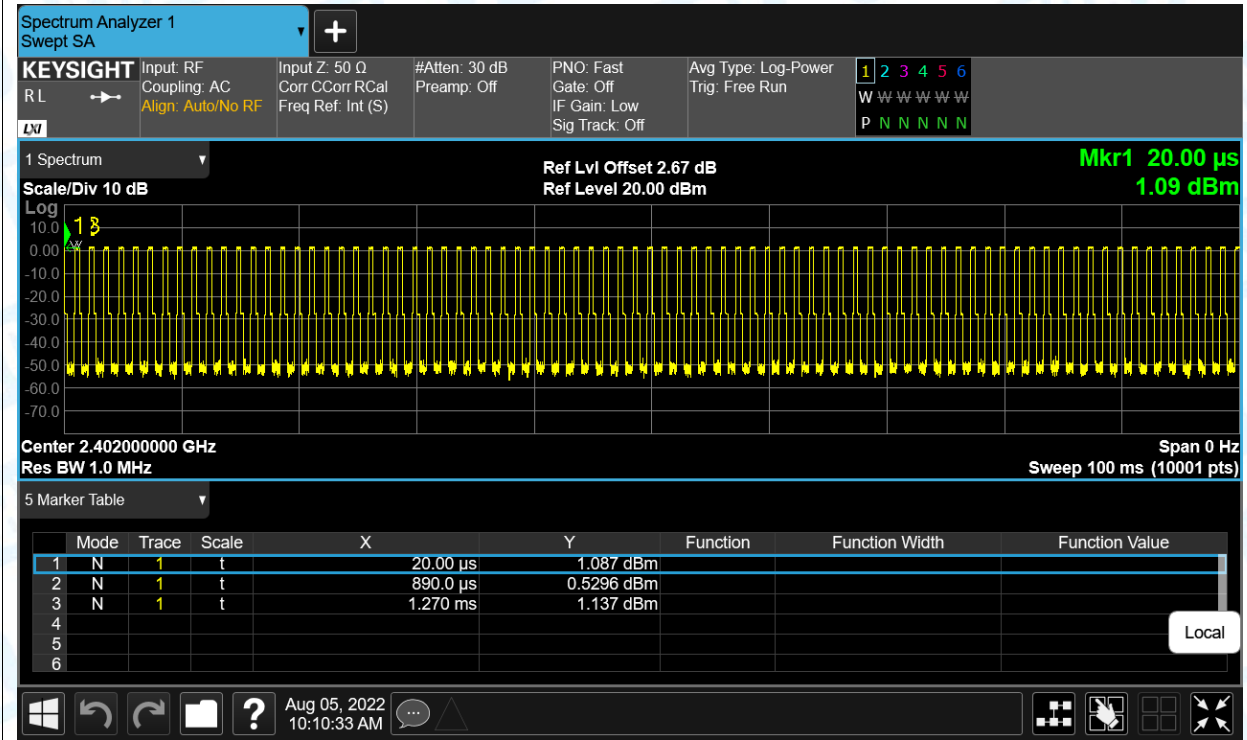
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1. Duty Cycle

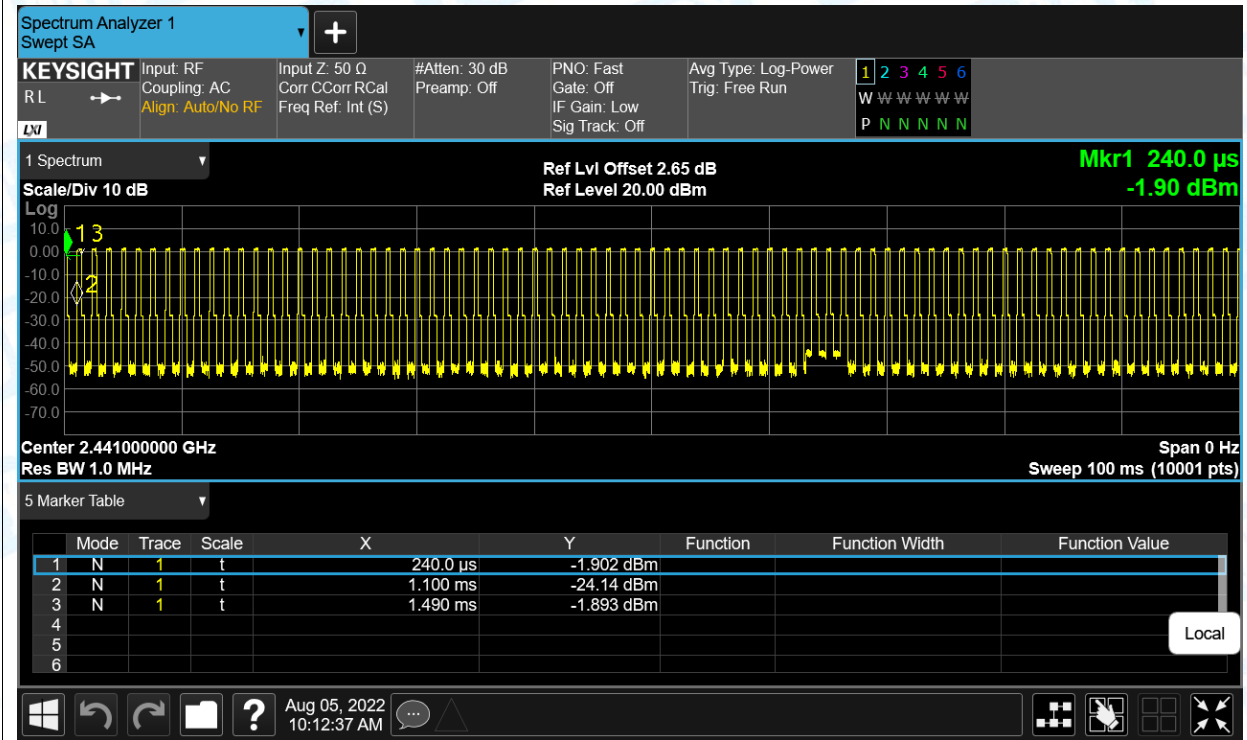
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH1	2402	Ant1	31.21	5.06	2.63
NVNT	1-DH1	2441	Ant1	31.24	5.05	2.56
NVNT	1-DH1	2480	Ant1	31.62	5	2.56
NVNT	2-DH1	2402	Ant1	32	4.95	2.56
NVNT	2-DH1	2441	Ant1	32.01	4.95	2.56
NVNT	2-DH1	2480	Ant1	31.2	5.06	2.63
NVNT	3-DH1	2402	Ant1	32.01	4.95	2.56
NVNT	3-DH1	2441	Ant1	31.82	4.97	2.63
NVNT	3-DH1	2480	Ant1	32	4.95	2.56

Test Graphs

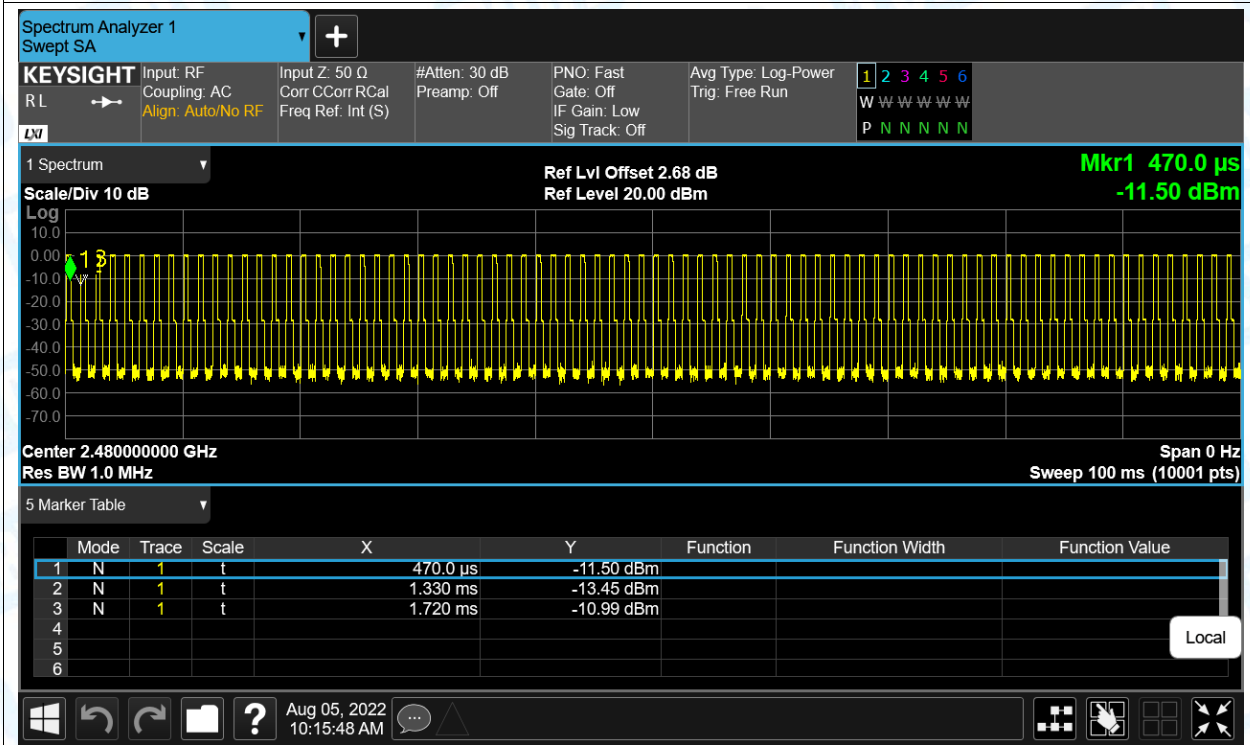
Duty Cycle NVNT 1-DH1 2402MHz Ant1



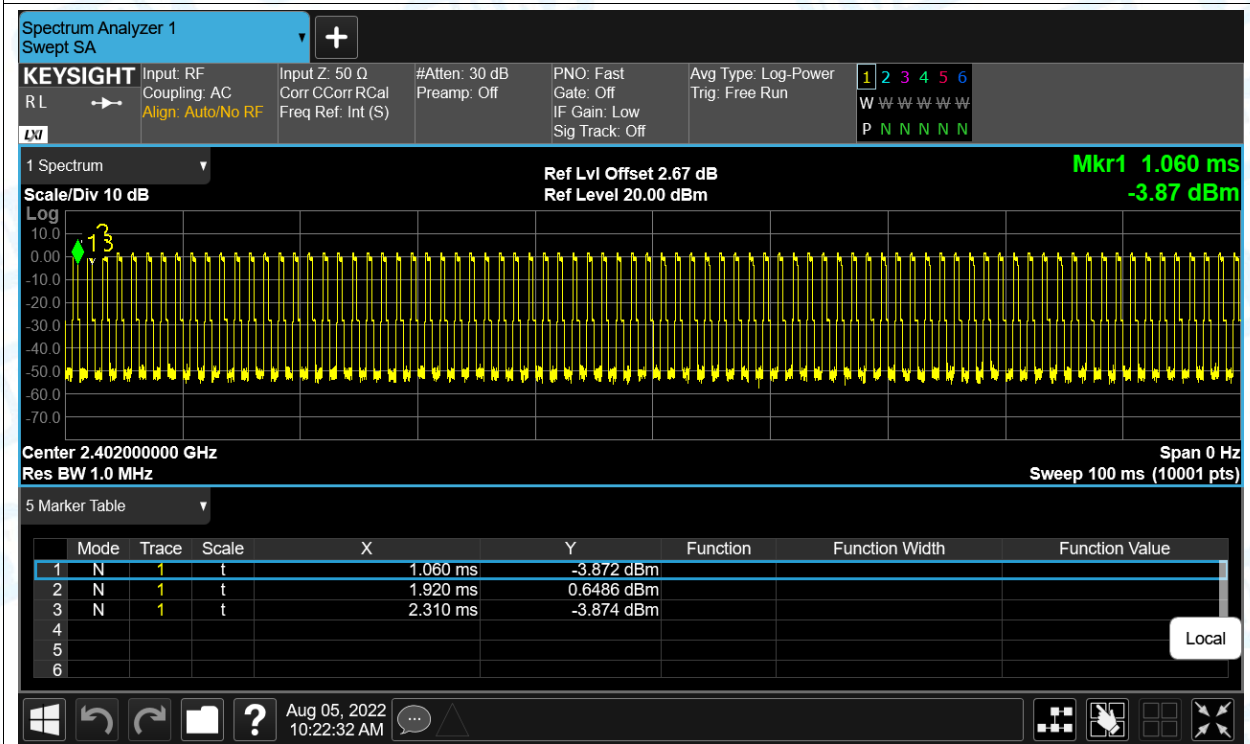
Duty Cycle NVNT 1-DH1 2441MHz Ant1



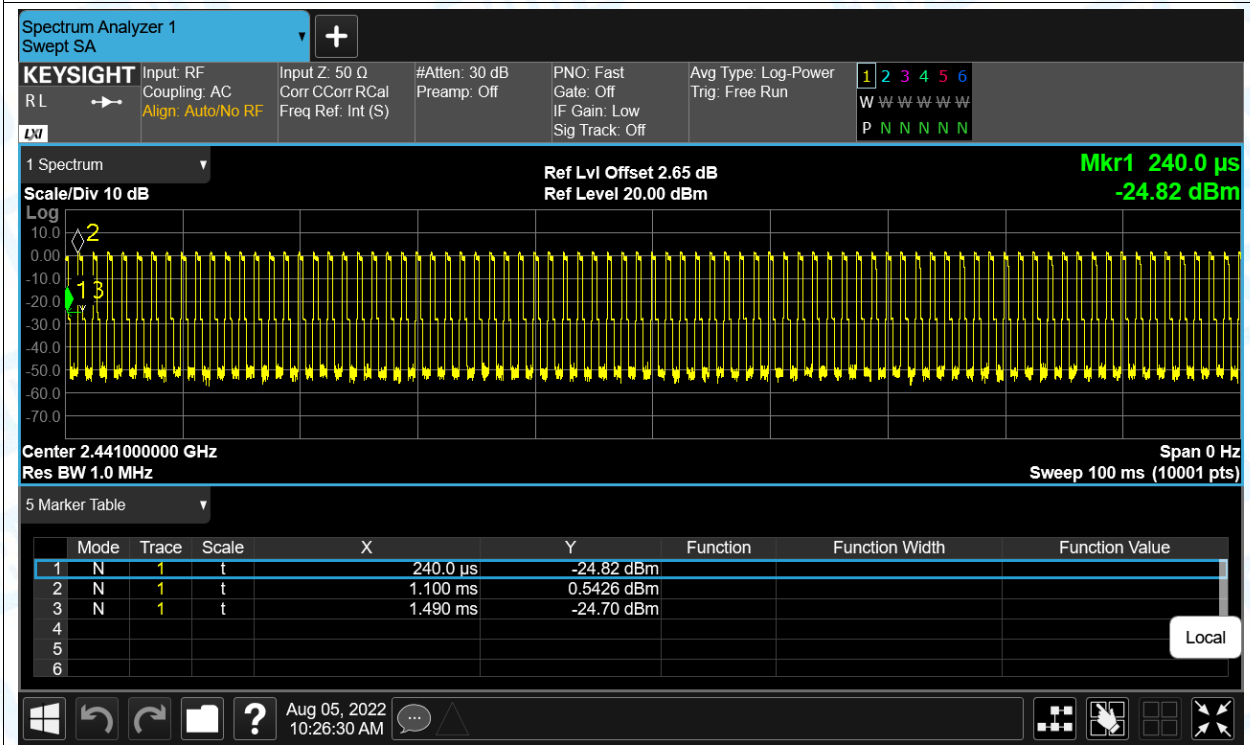
Duty Cycle NVNT 1-DH1 2480MHz Ant1



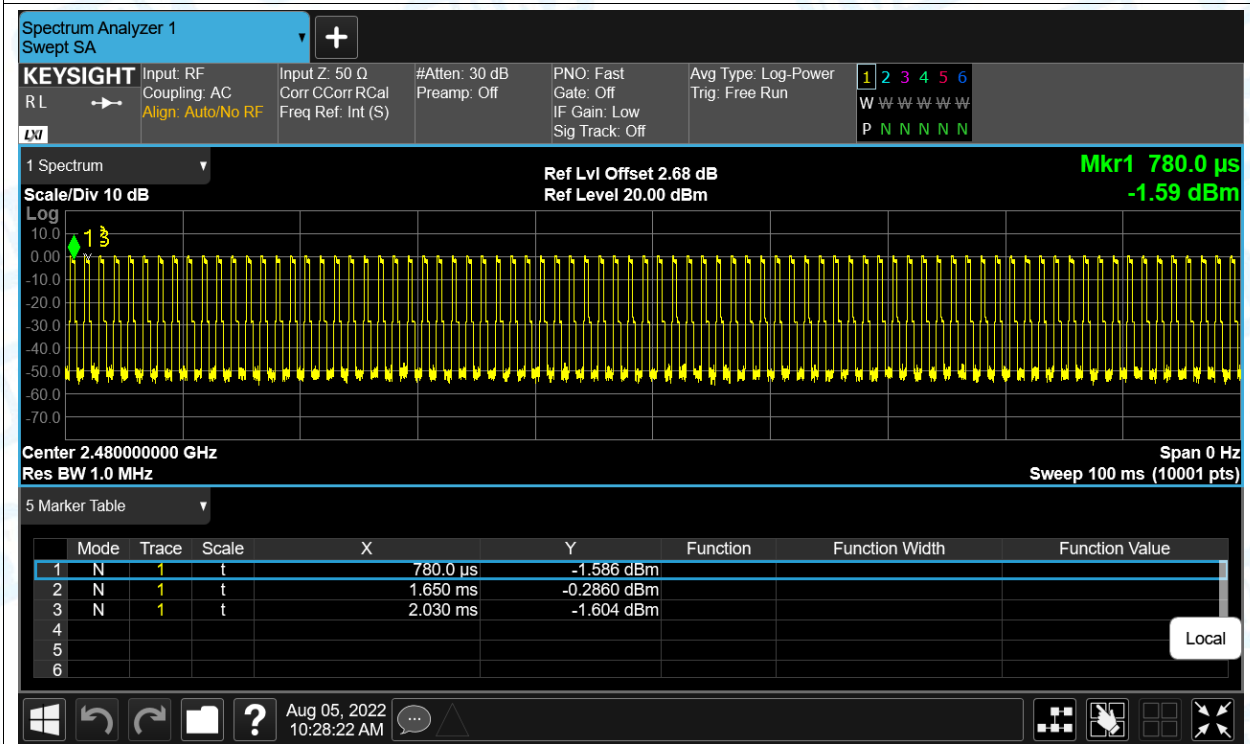
Duty Cycle NVNT 2-DH1 2402MHz Ant1



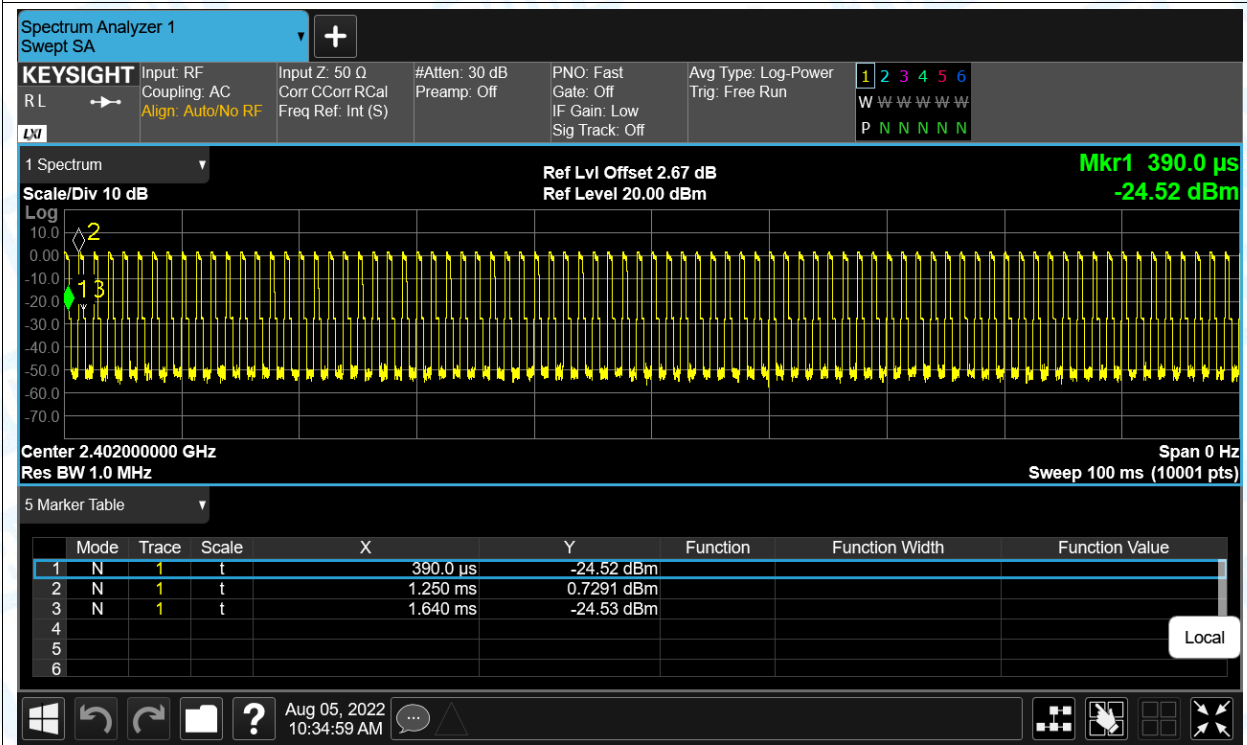
Duty Cycle NVNT 2-DH1 2441MHz Ant1



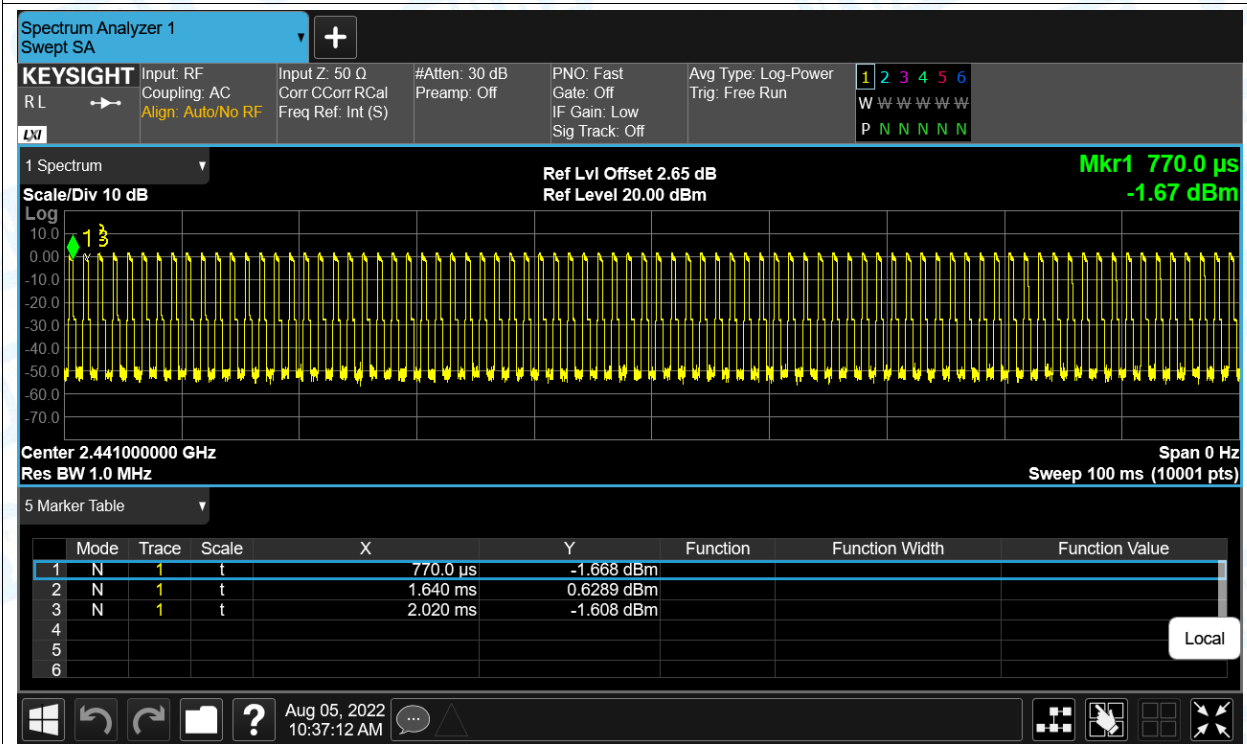
Duty Cycle NVNT 2-DH1 2480MHz Ant1

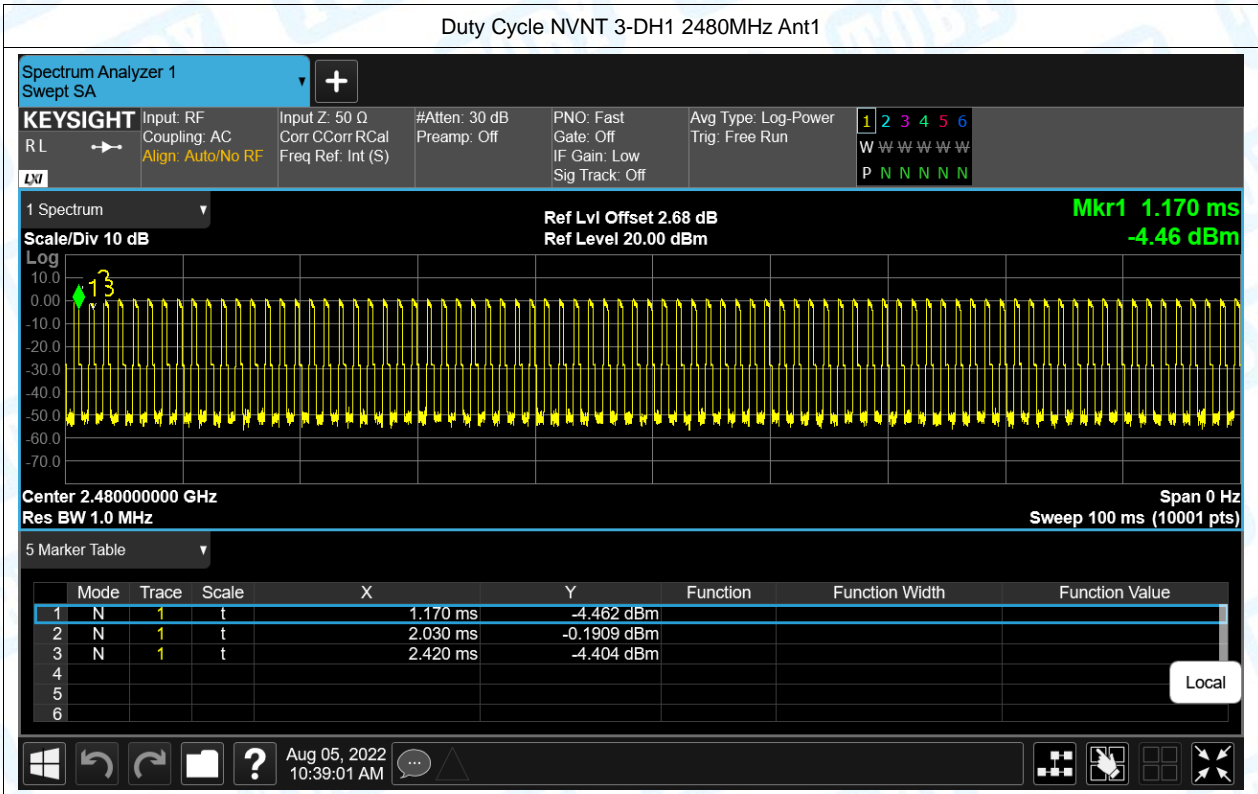


Duty Cycle NVNT 3-DH1 2402MHz Ant1



Duty Cycle NVNT 3-DH1 2441MHz Ant1



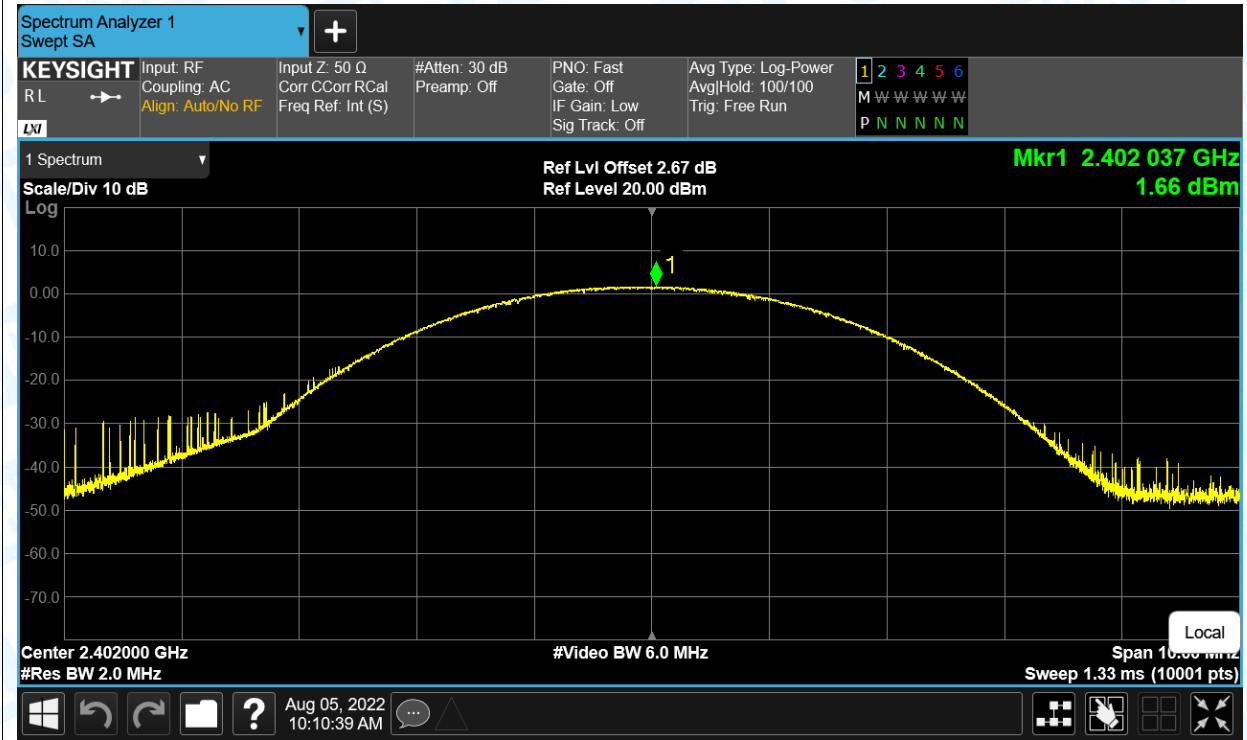


2. Maximum Conducted Output Power

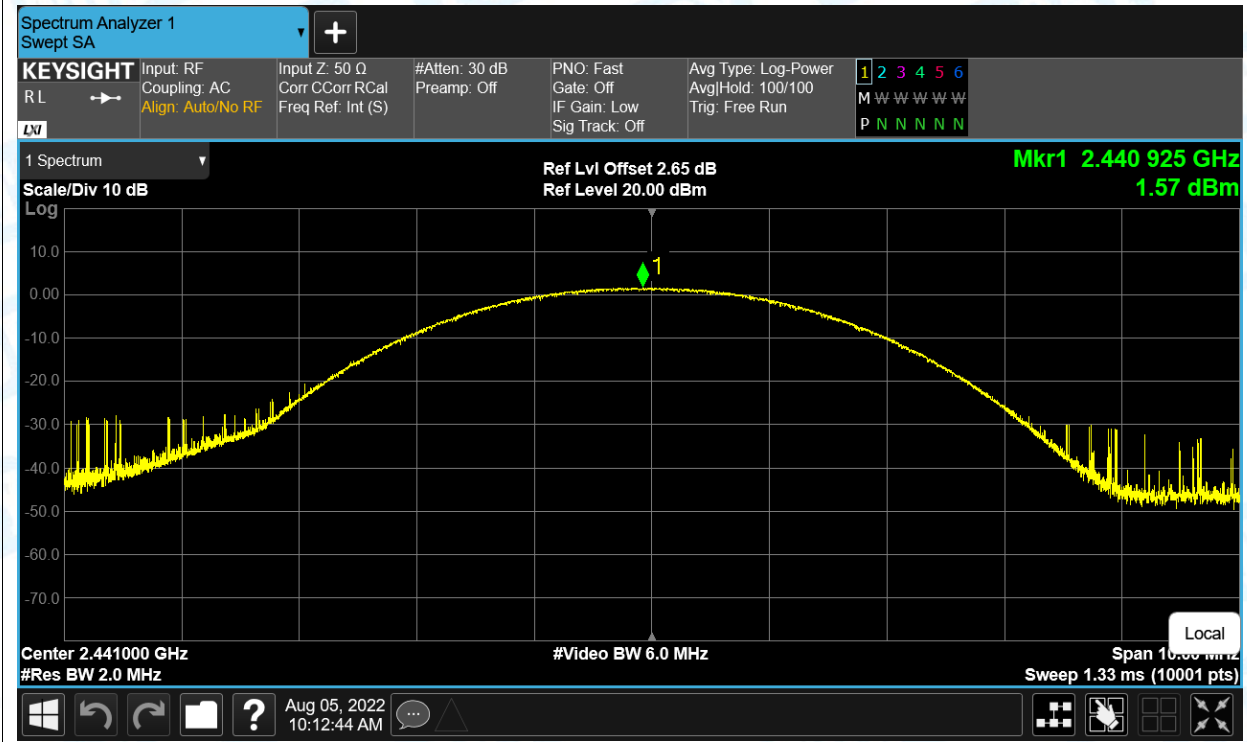
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	1.657	21	Pass
NVNT	1-DH1	2441	Ant1	1.569	21	Pass
NVNT	1-DH1	2480	Ant1	0.634	21	Pass
NVNT	2-DH1	2402	Ant1	1.727	21	Pass
NVNT	2-DH1	2441	Ant1	1.619	21	Pass
NVNT	2-DH1	2480	Ant1	0.684	21	Pass
NVNT	3-DH1	2402	Ant1	1.827	21	Pass
NVNT	3-DH1	2441	Ant1	1.679	21	Pass
NVNT	3-DH1	2480	Ant1	0.761	21	Pass

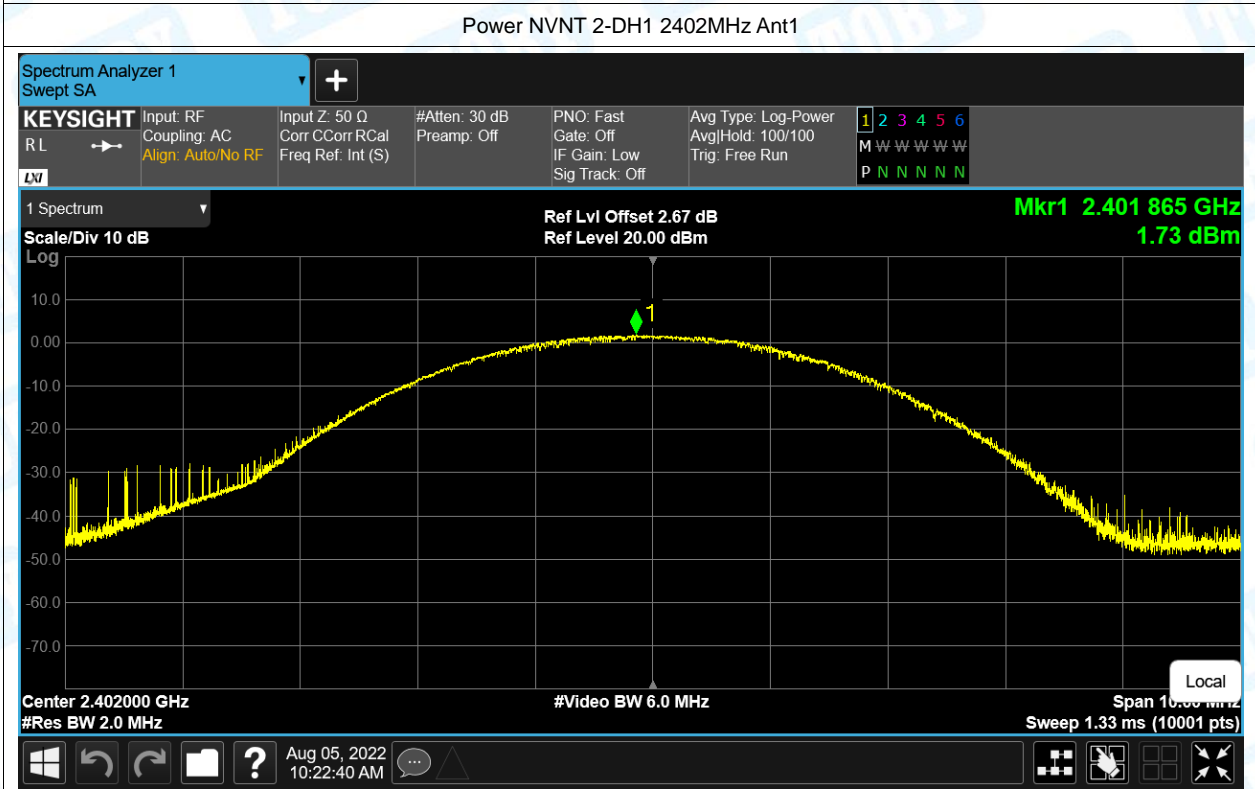
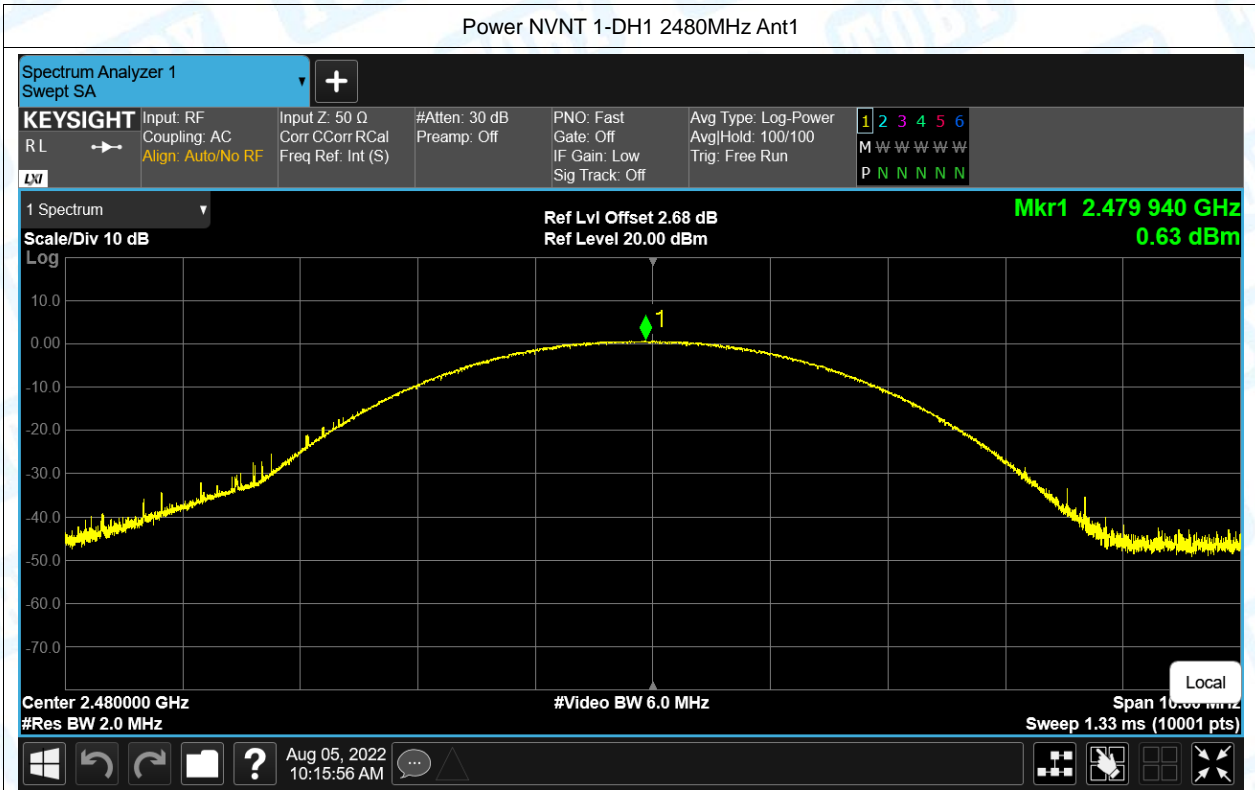
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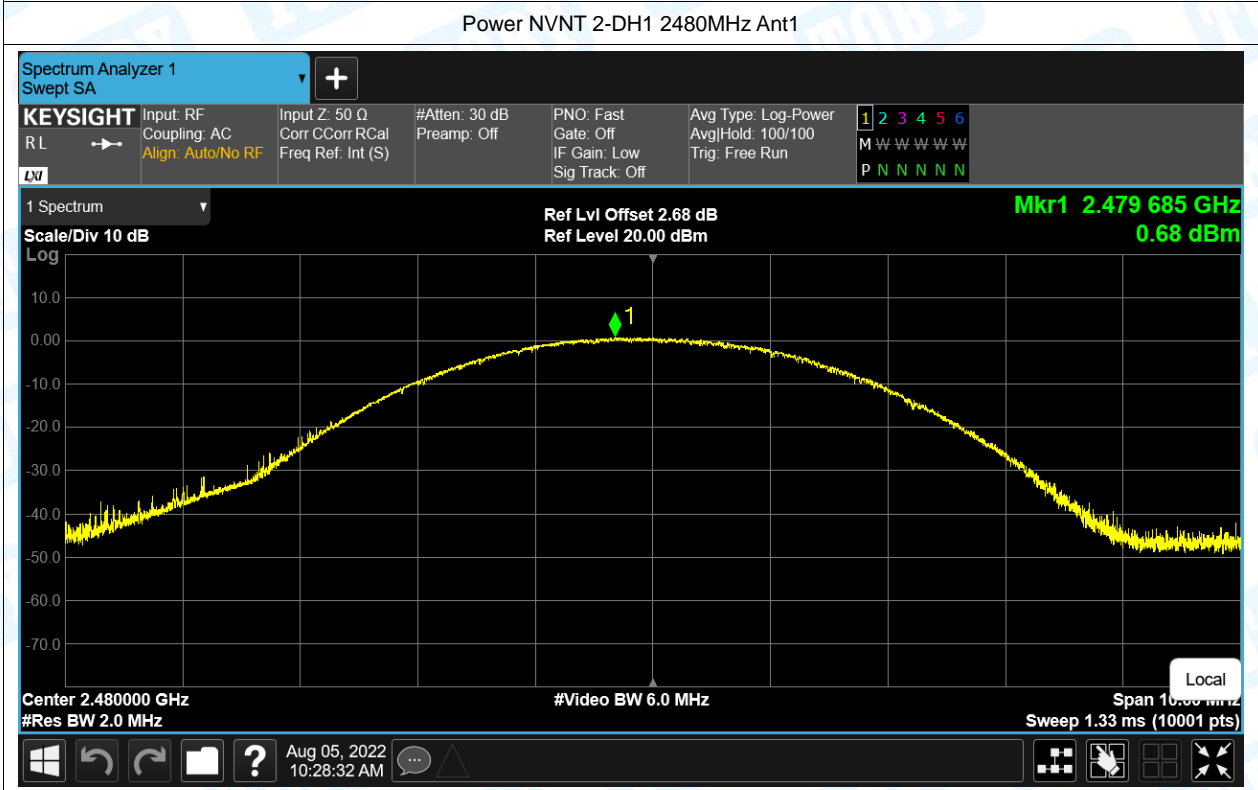
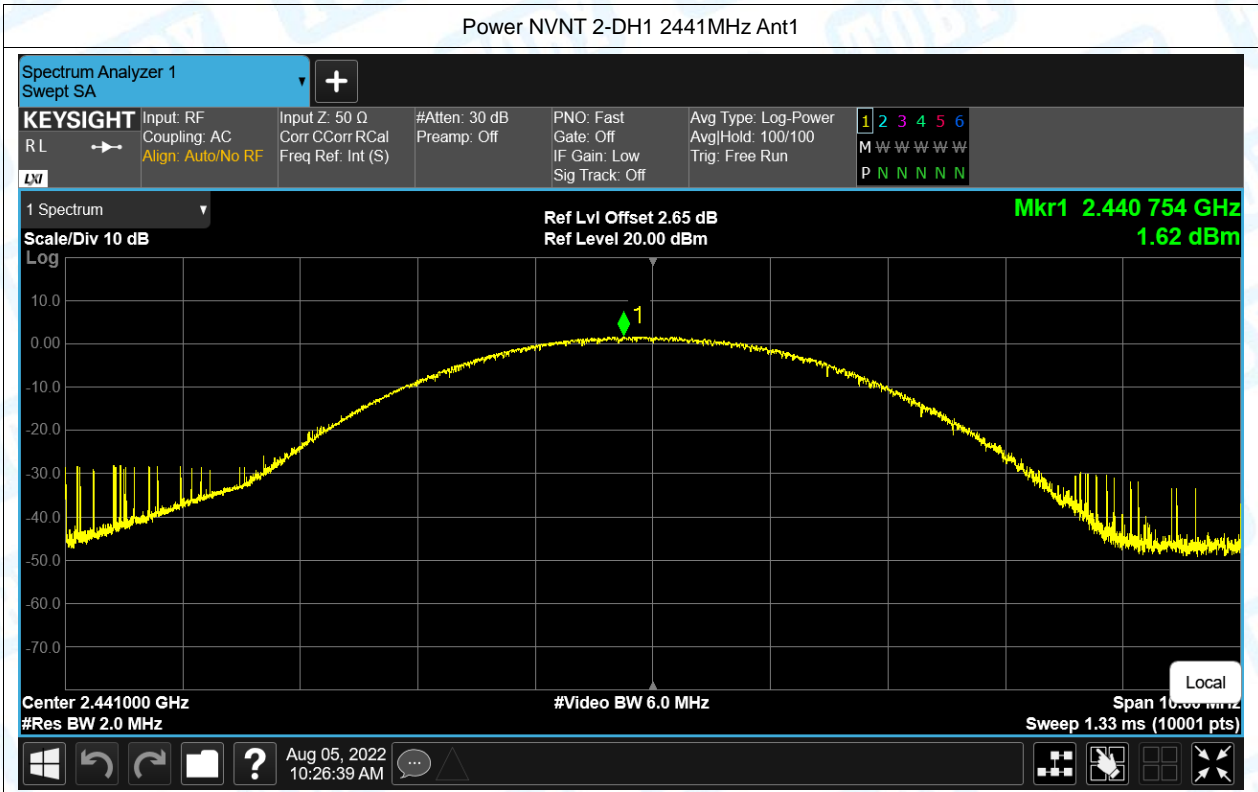
Power NVNT 1-DH1 2402MHz Ant1

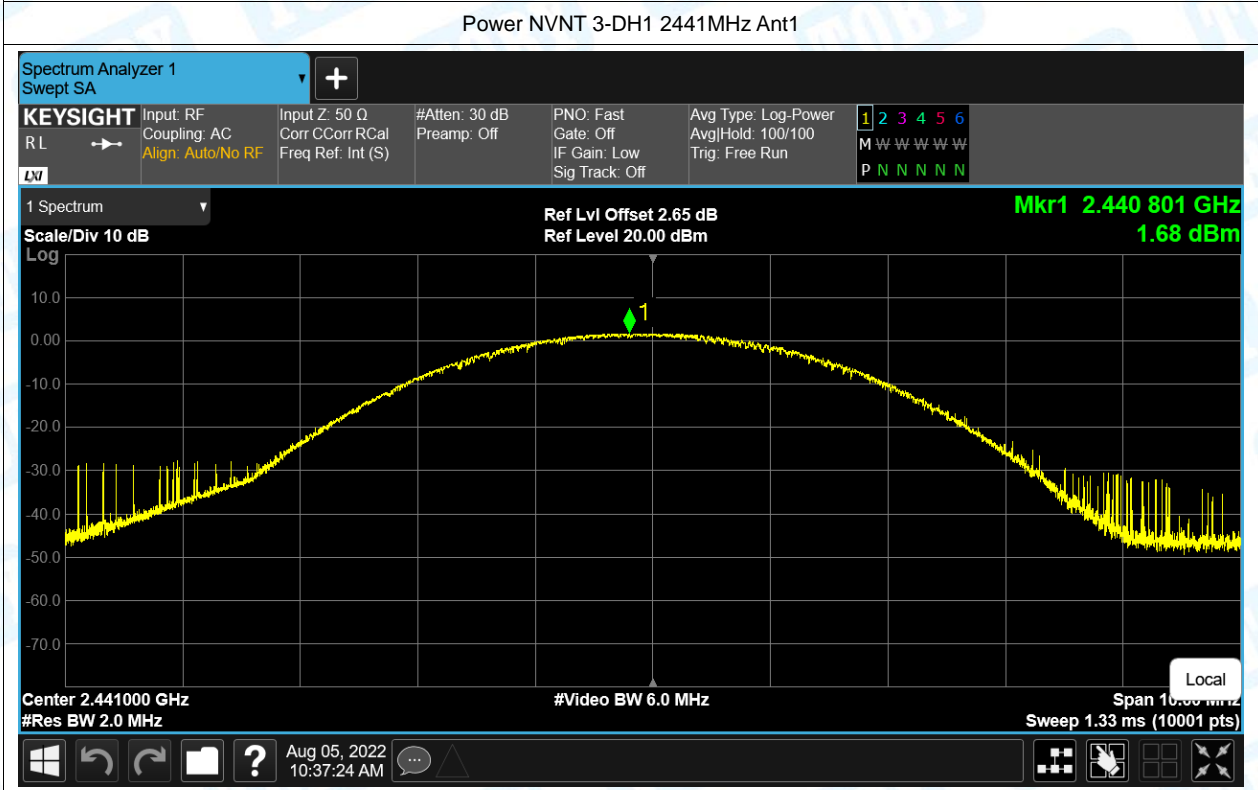


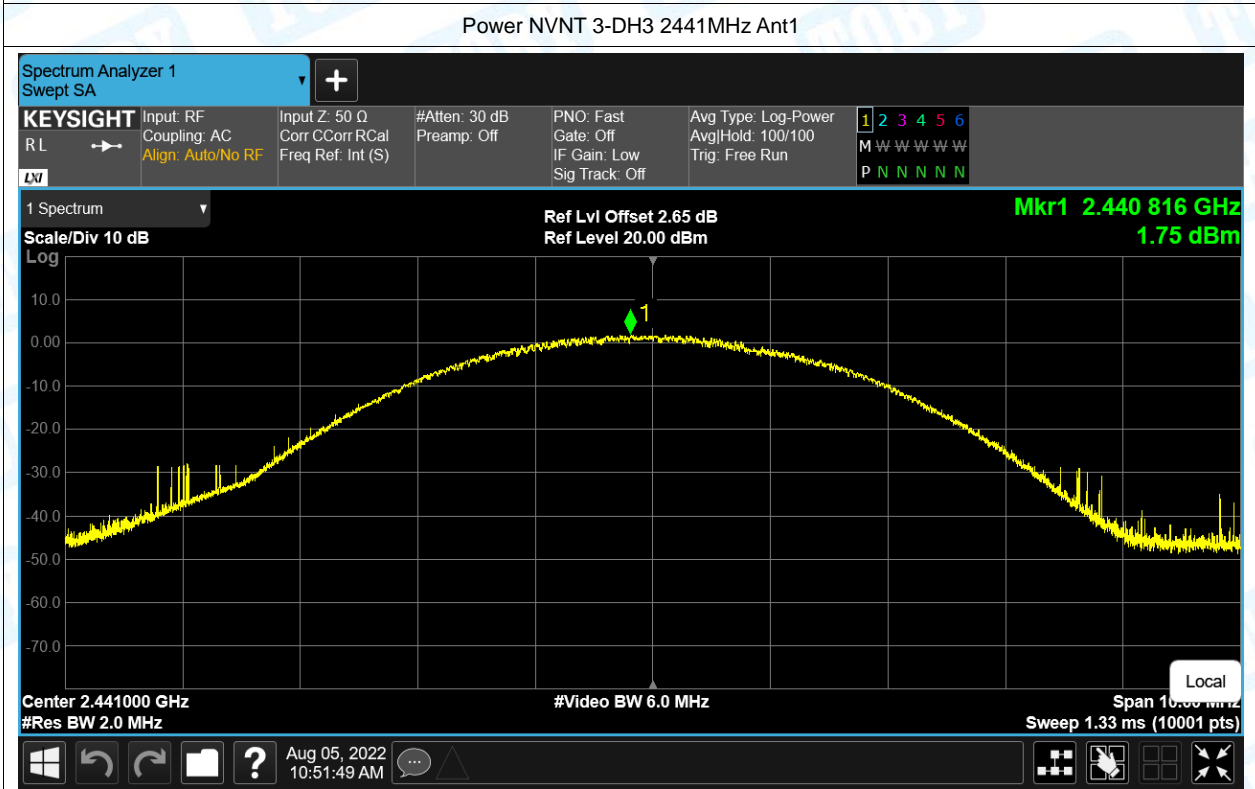
Power NVNT 1-DH1 2441MHz Ant1

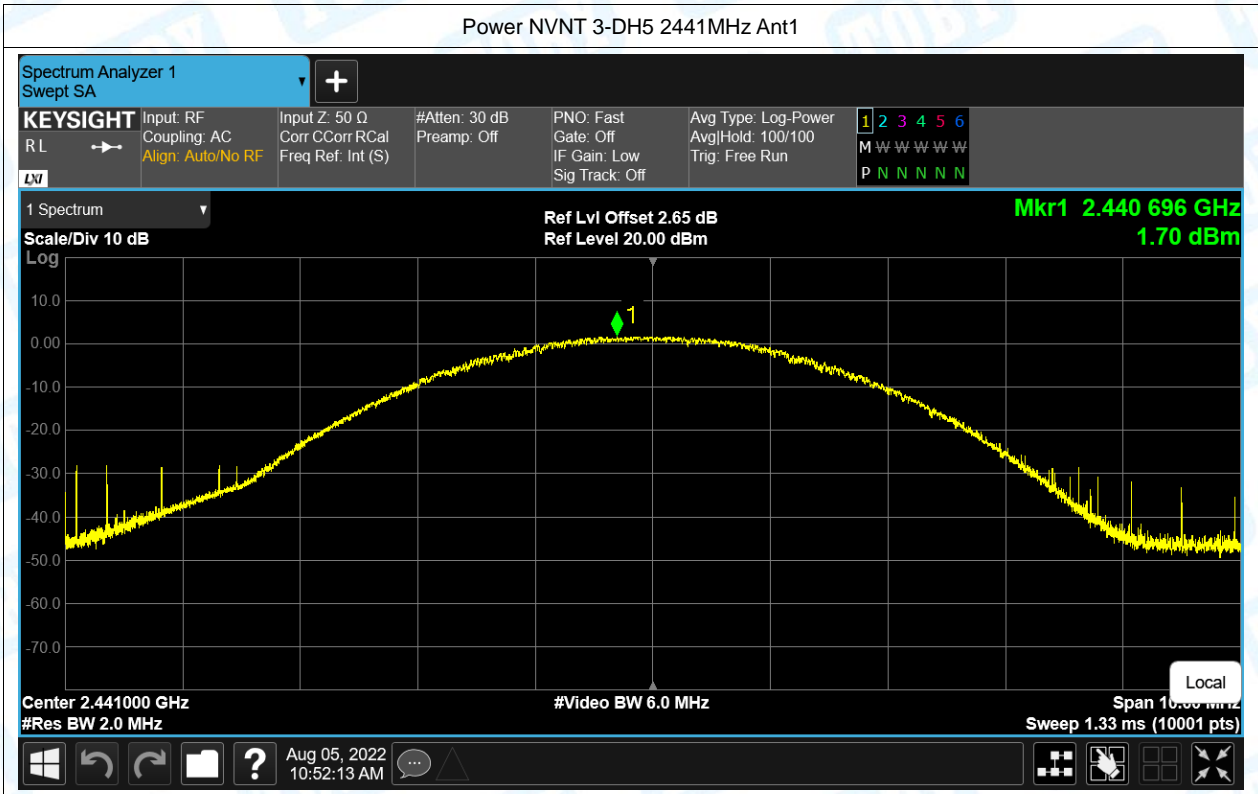












3. -20dB Bandwidth

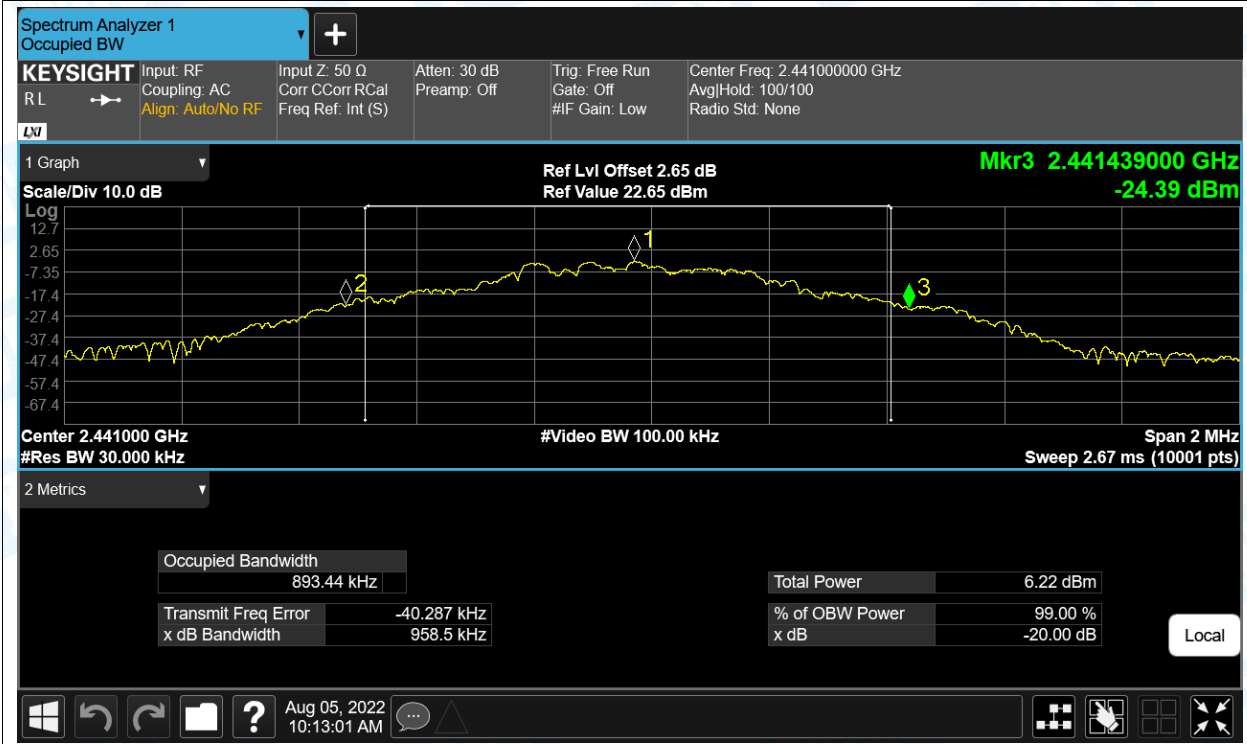
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	1.02	0	Pass
NVNT	1-DH1	2441	Ant1	0.96	0	Pass
NVNT	1-DH1	2480	Ant1	1.01	0	Pass
NVNT	2-DH1	2402	Ant1	1.26	0	Pass
NVNT	2-DH1	2441	Ant1	1.26	0	Pass
NVNT	2-DH1	2480	Ant1	1.29	0	Pass
NVNT	3-DH1	2402	Ant1	1.27	0	Pass
NVNT	3-DH1	2441	Ant1	1.27	0	Pass
NVNT	3-DH1	2480	Ant1	1.27	0	Pass

Test Graphs

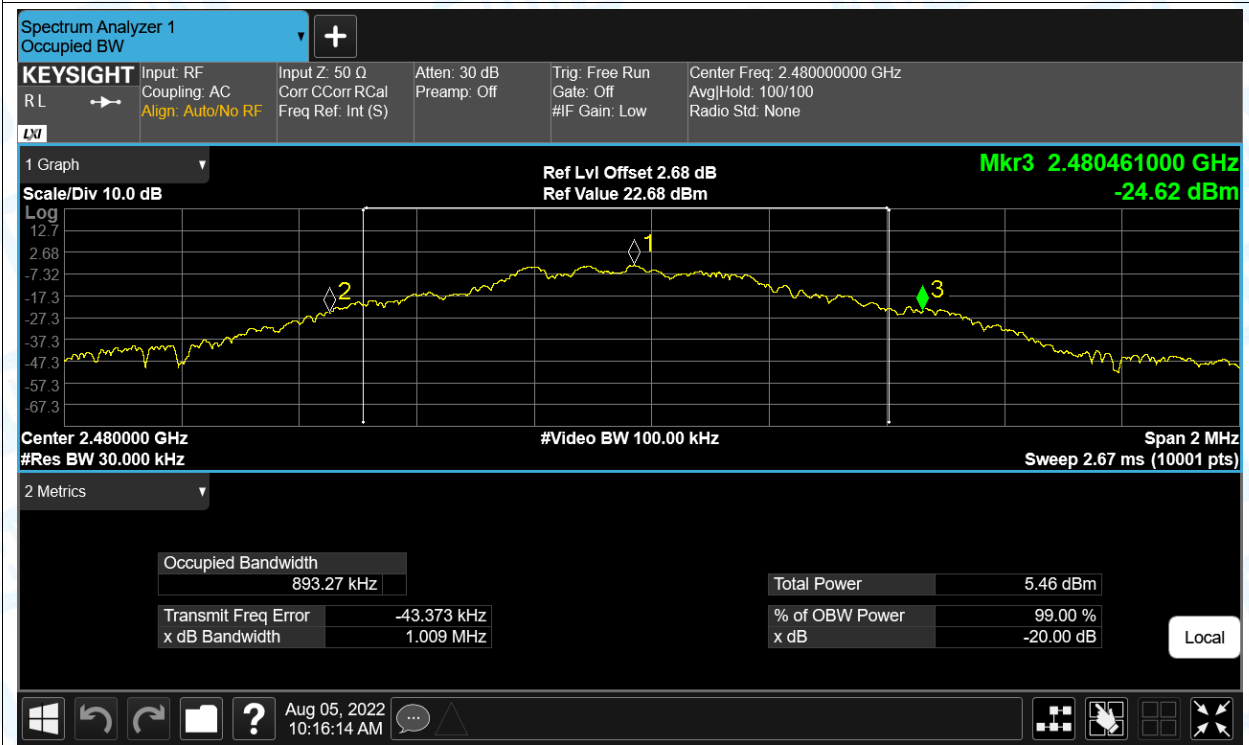
-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1



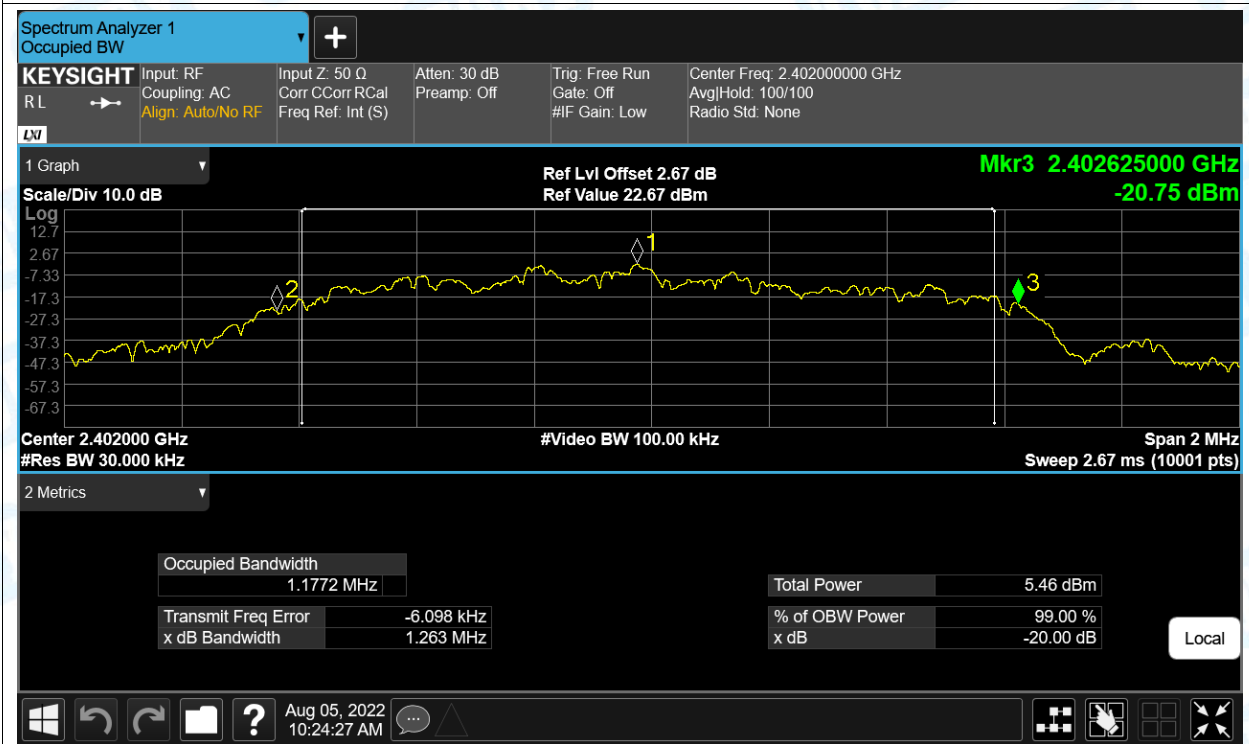
-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1

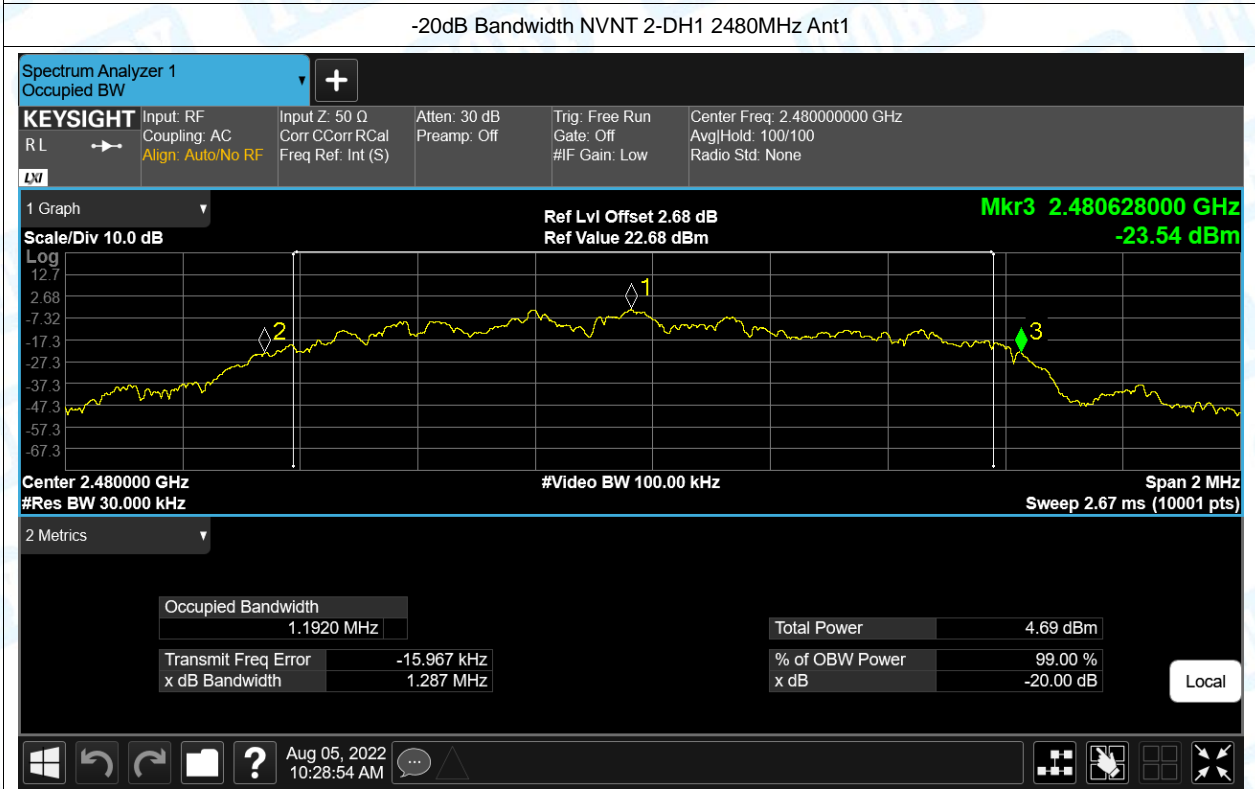
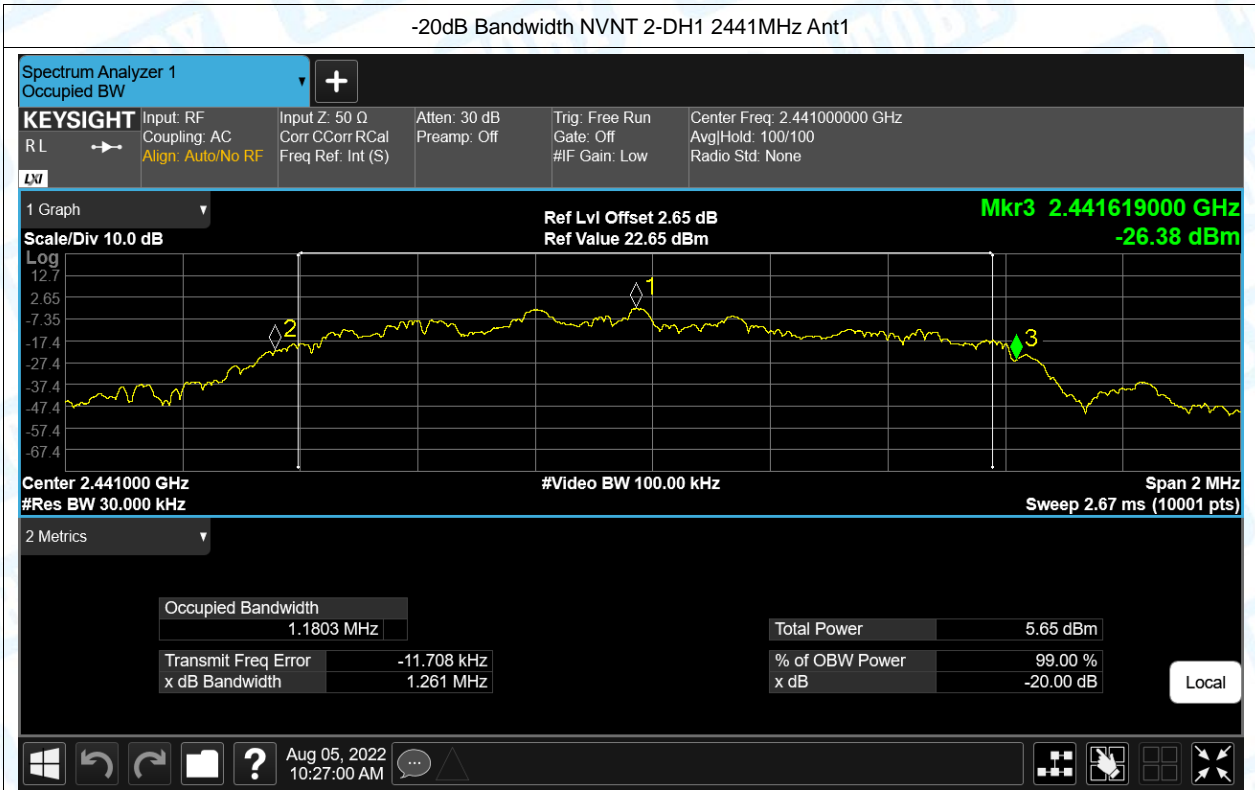


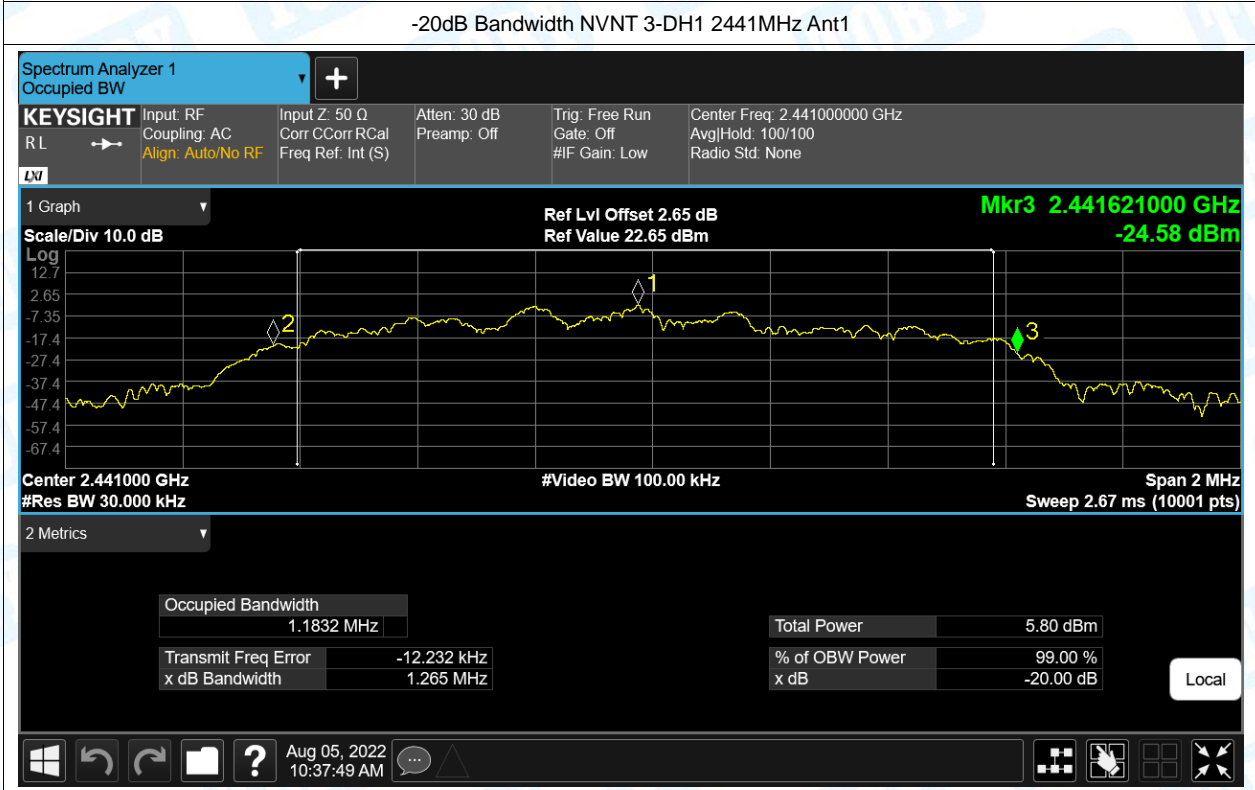
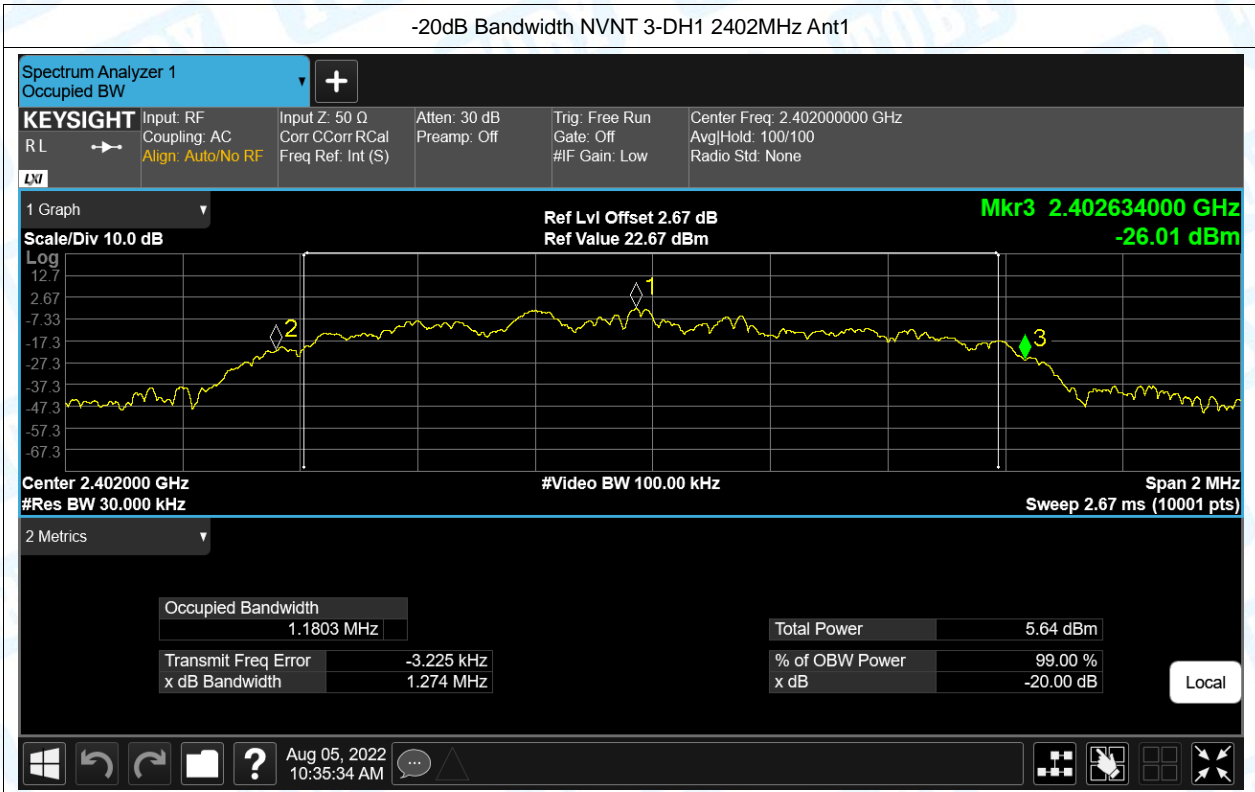
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1

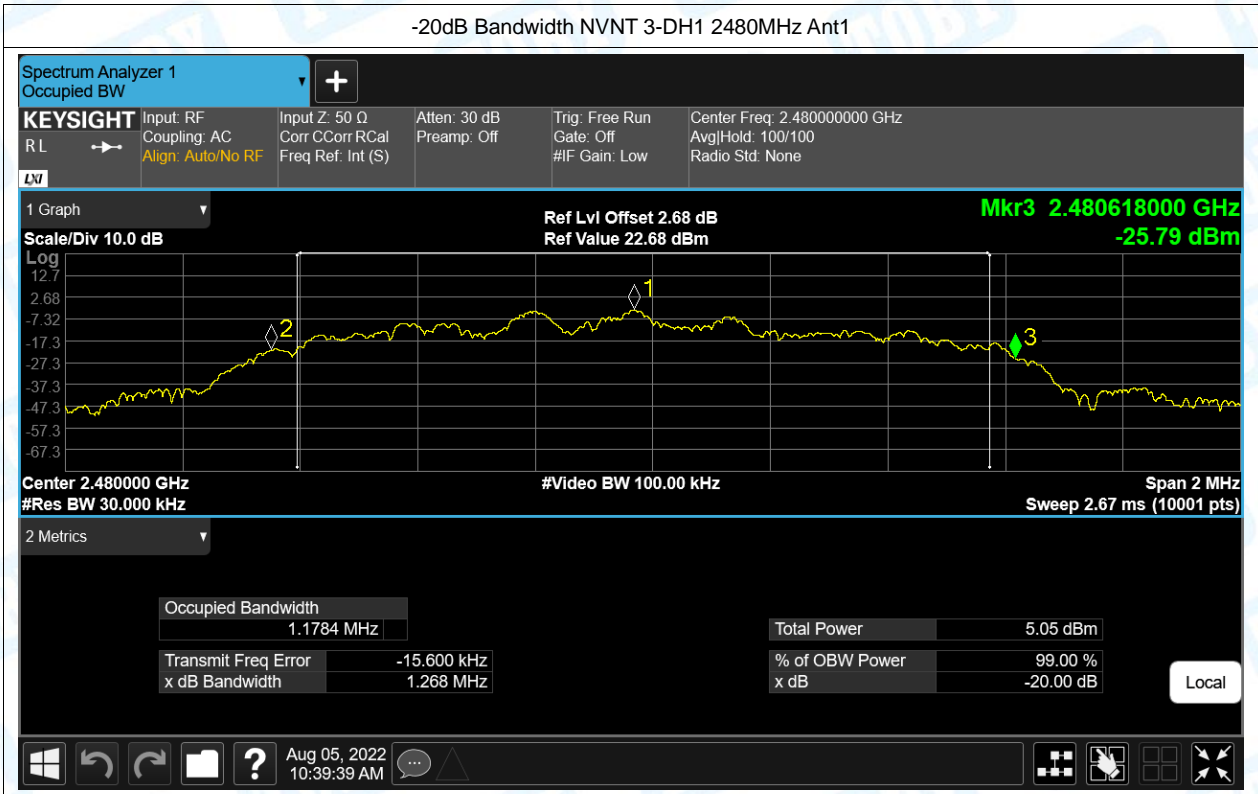


-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1









4. Occupied Channel Bandwidth

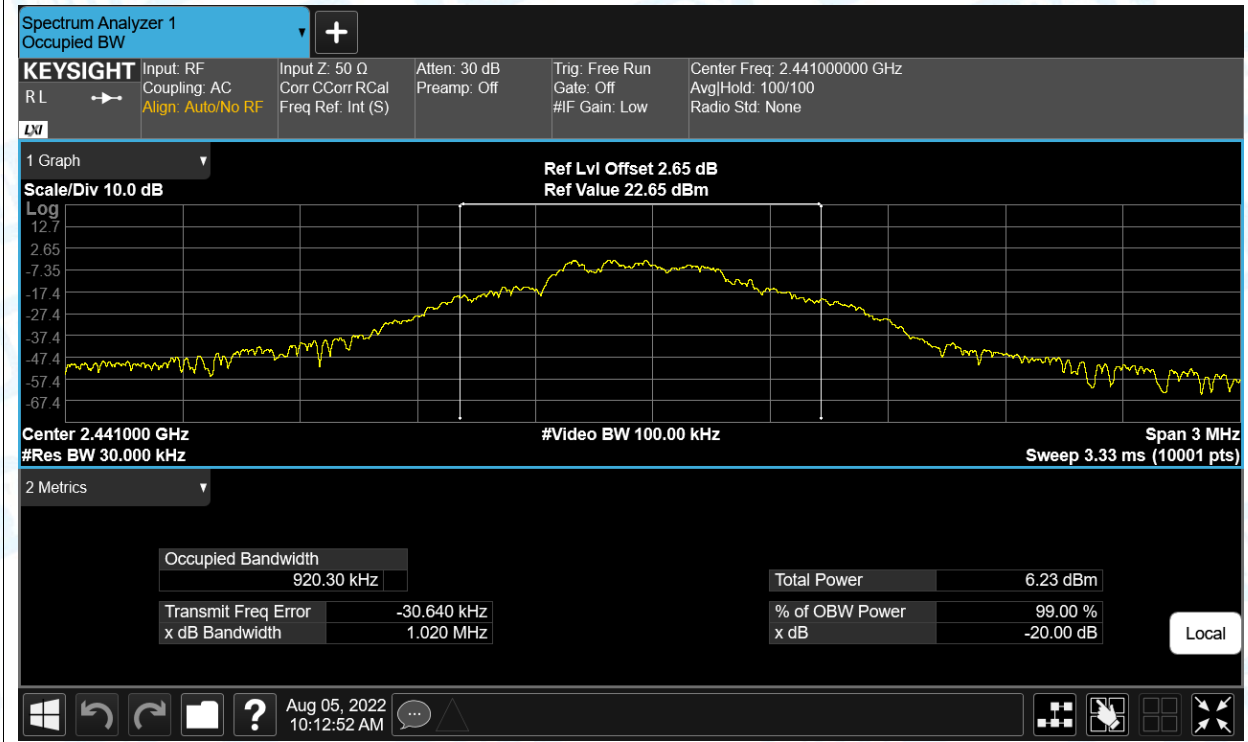
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH1	2402	Ant1	0.916
NVNT	1-DH1	2441	Ant1	0.92
NVNT	1-DH1	2480	Ant1	0.913
NVNT	2-DH1	2402	Ant1	1.18
NVNT	2-DH1	2441	Ant1	1.191
NVNT	2-DH1	2480	Ant1	1.179
NVNT	3-DH1	2402	Ant1	1.188
NVNT	3-DH1	2441	Ant1	1.182
NVNT	3-DH1	2480	Ant1	1.18

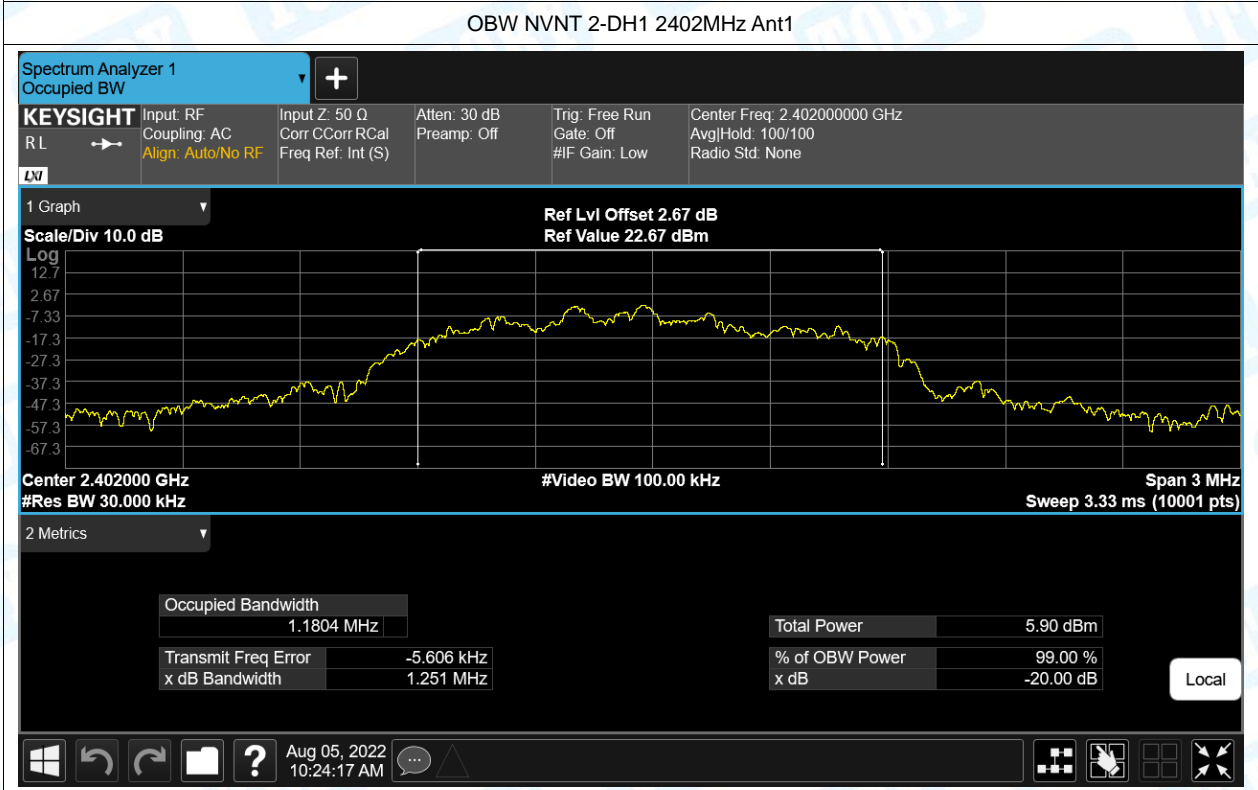
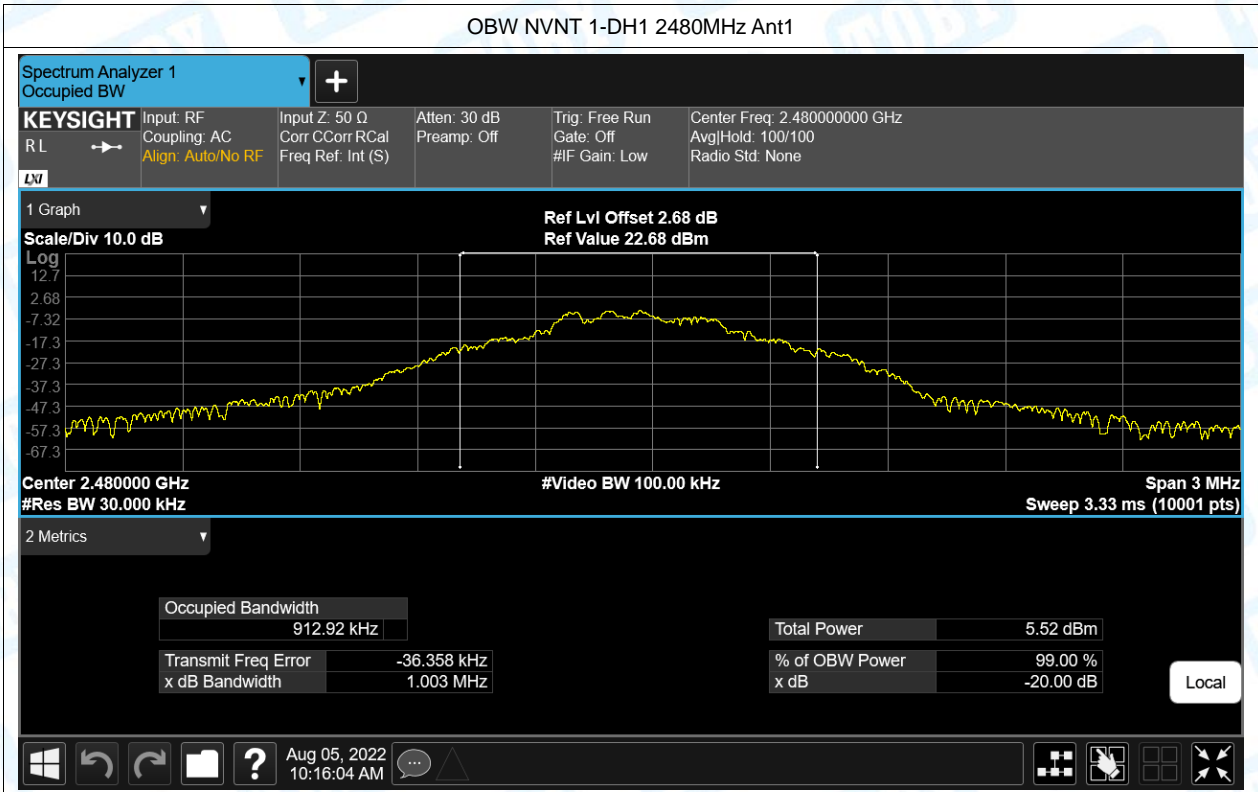
Test Graphs

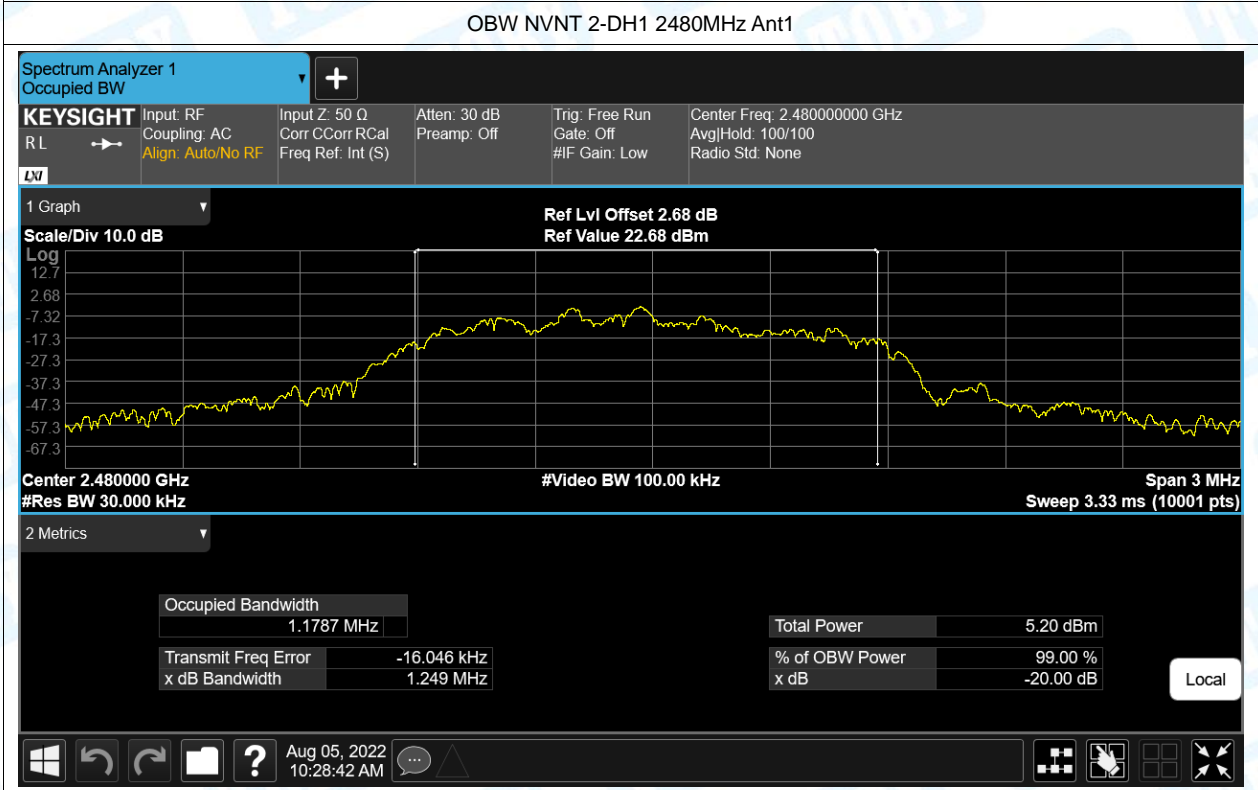
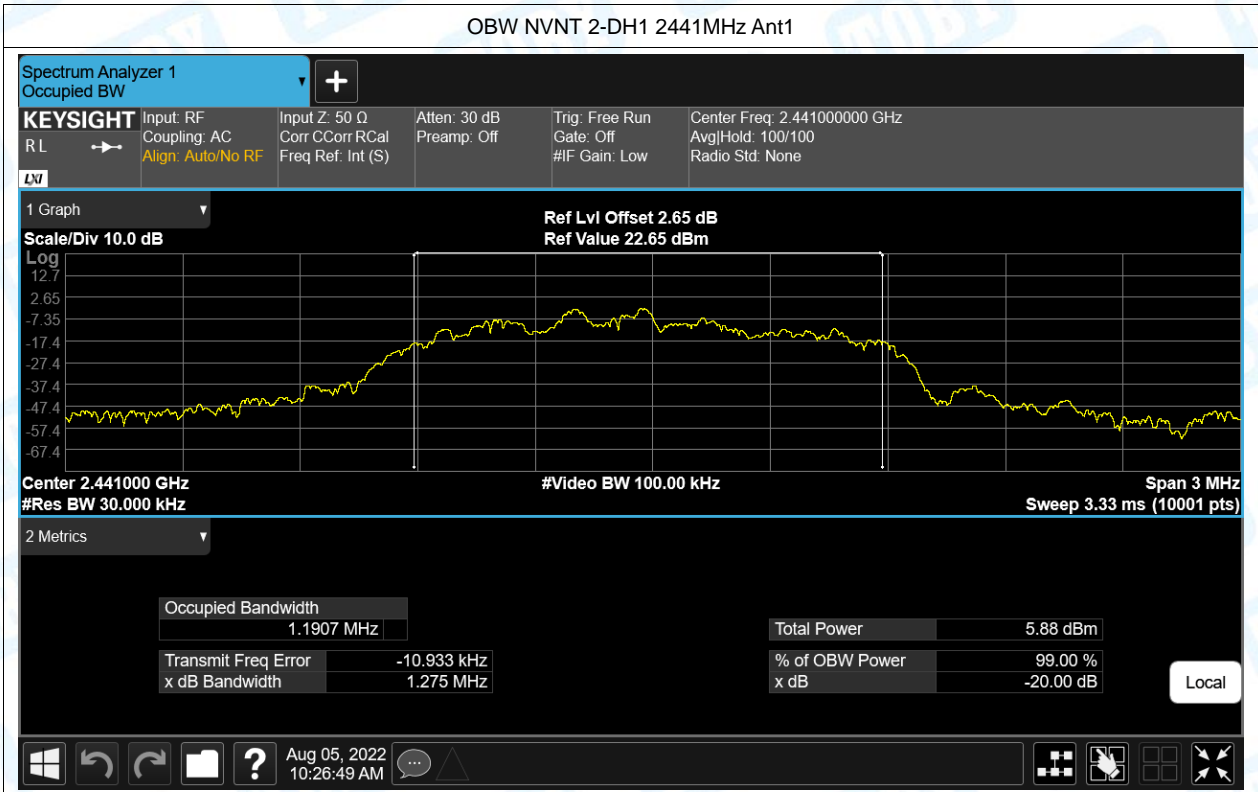
OBW NVNT 1-DH1 2402MHz Ant1

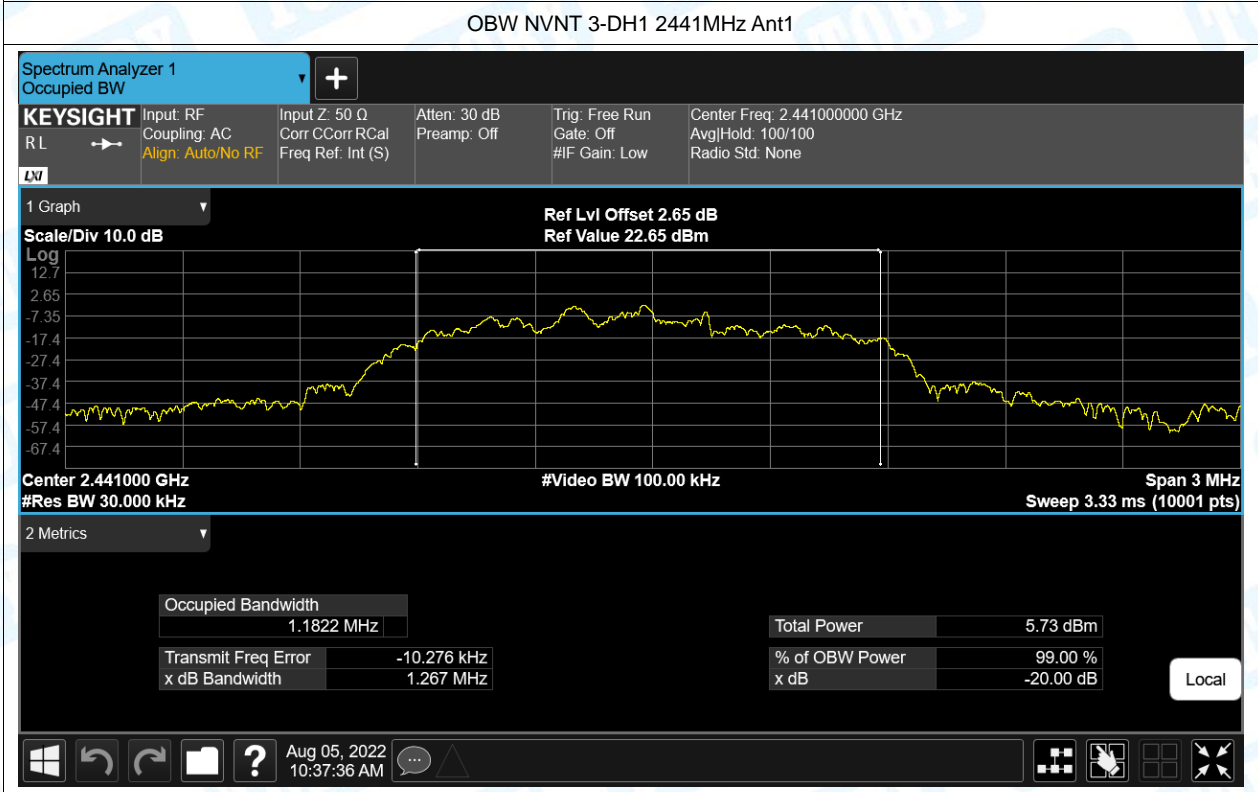


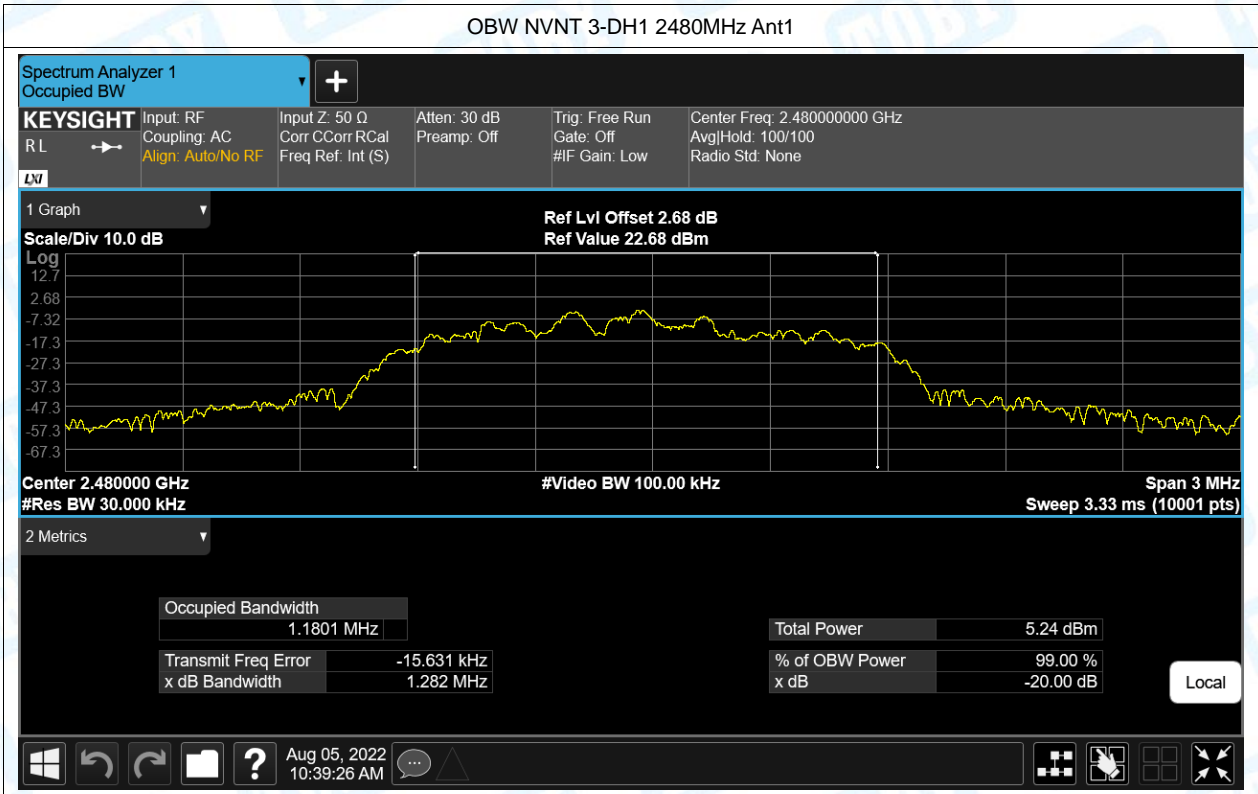
OBW NVNT 1-DH1 2441MHz Ant1









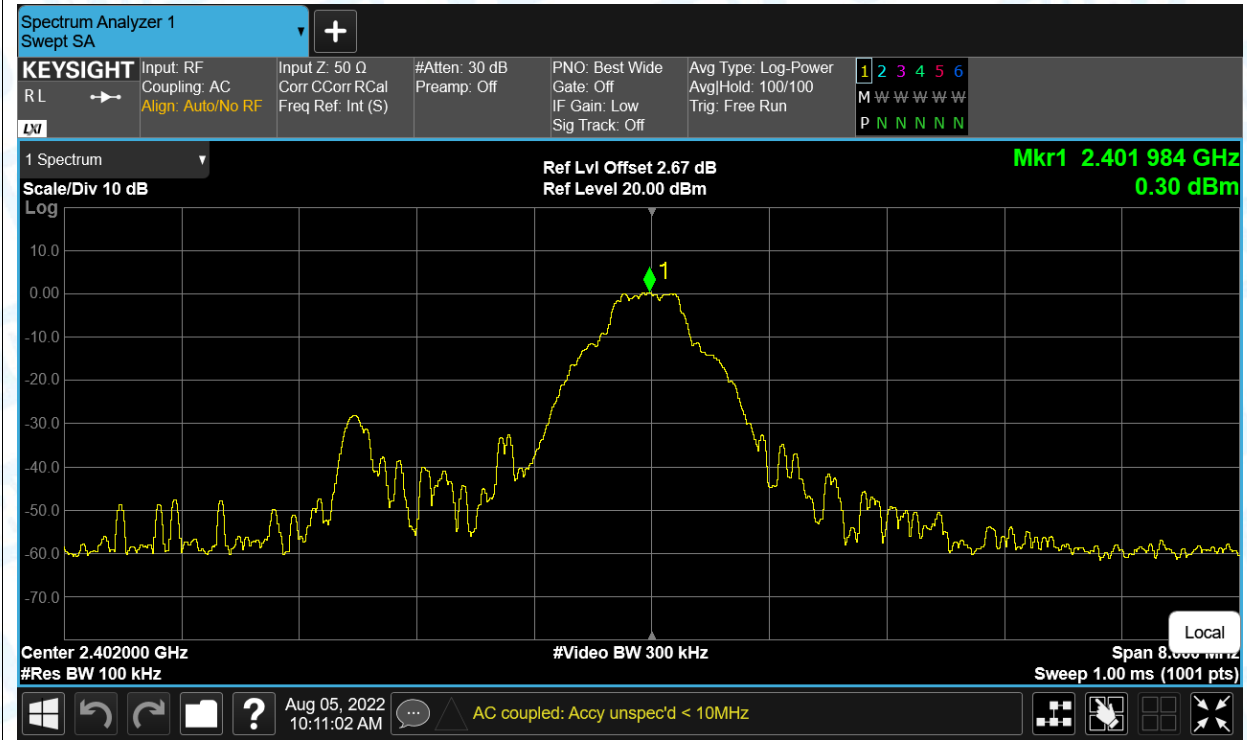


5. Band Edge

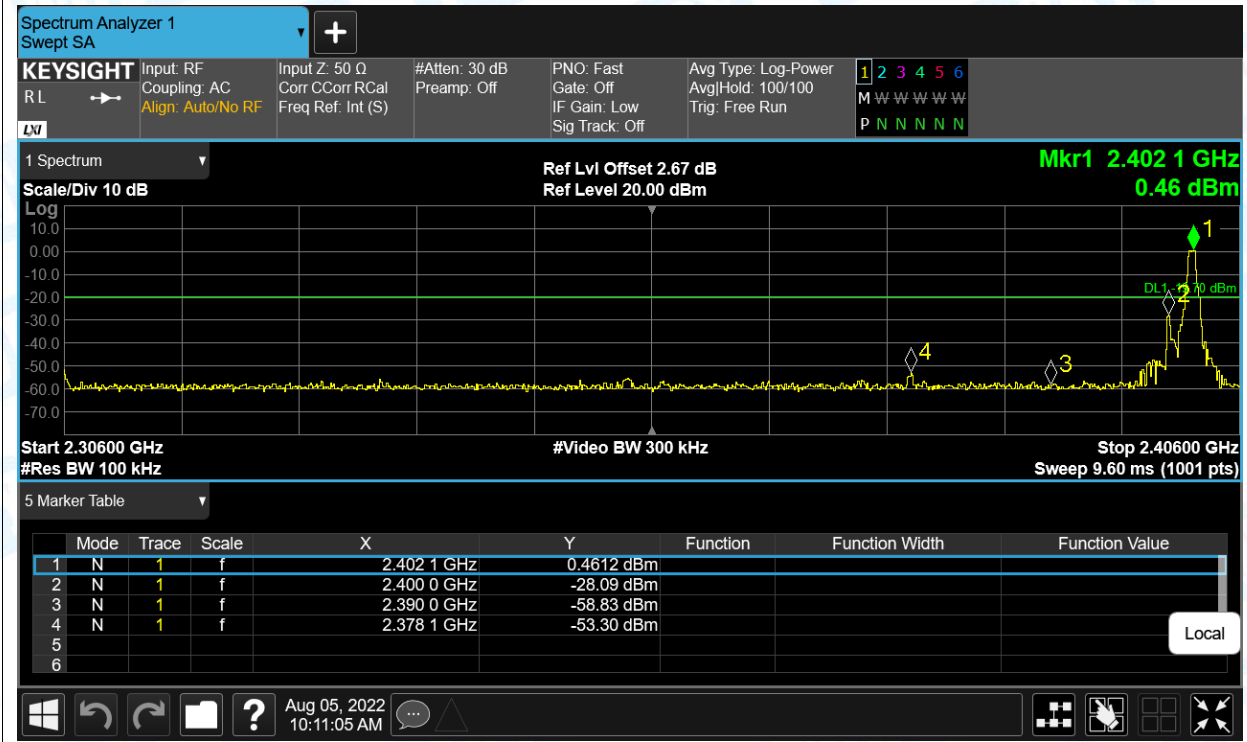
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-53.6	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-55.39	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-54.06	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-55.1	-20	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	-54.45	-20	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	-56.25	-20	Pass

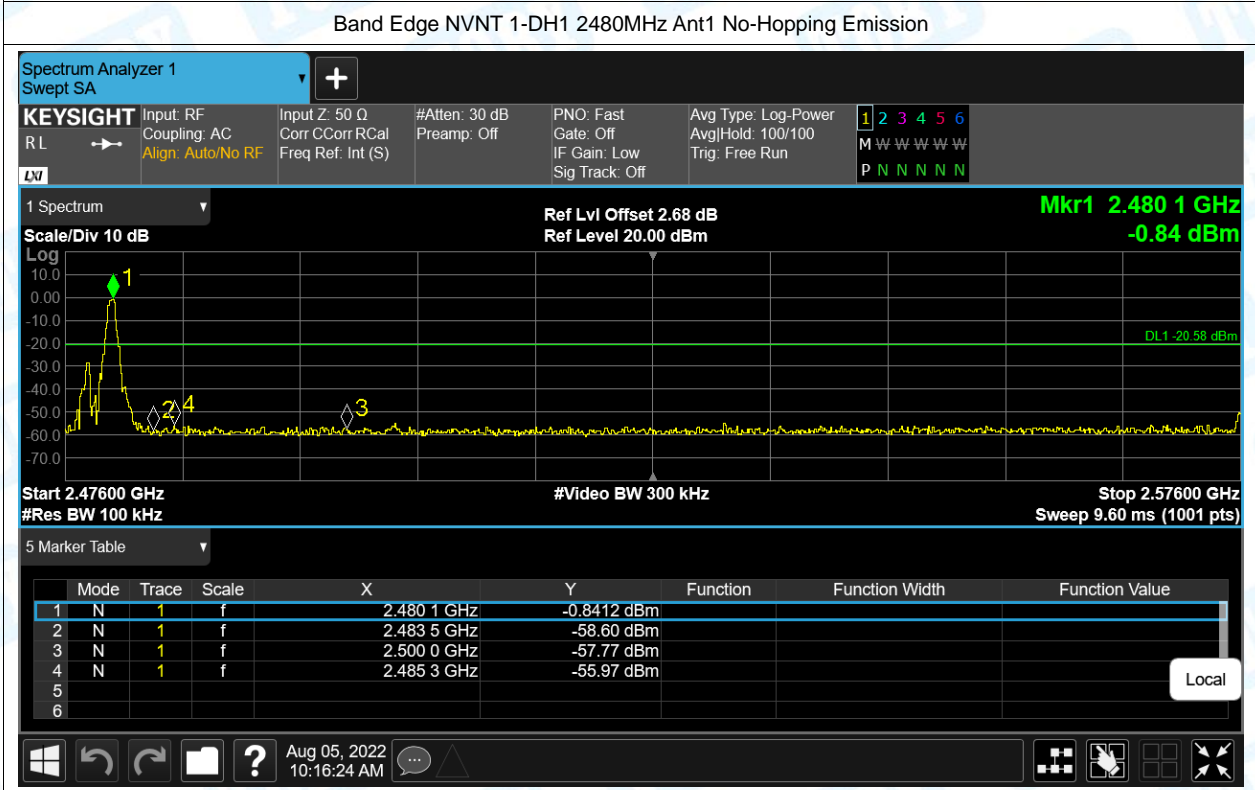
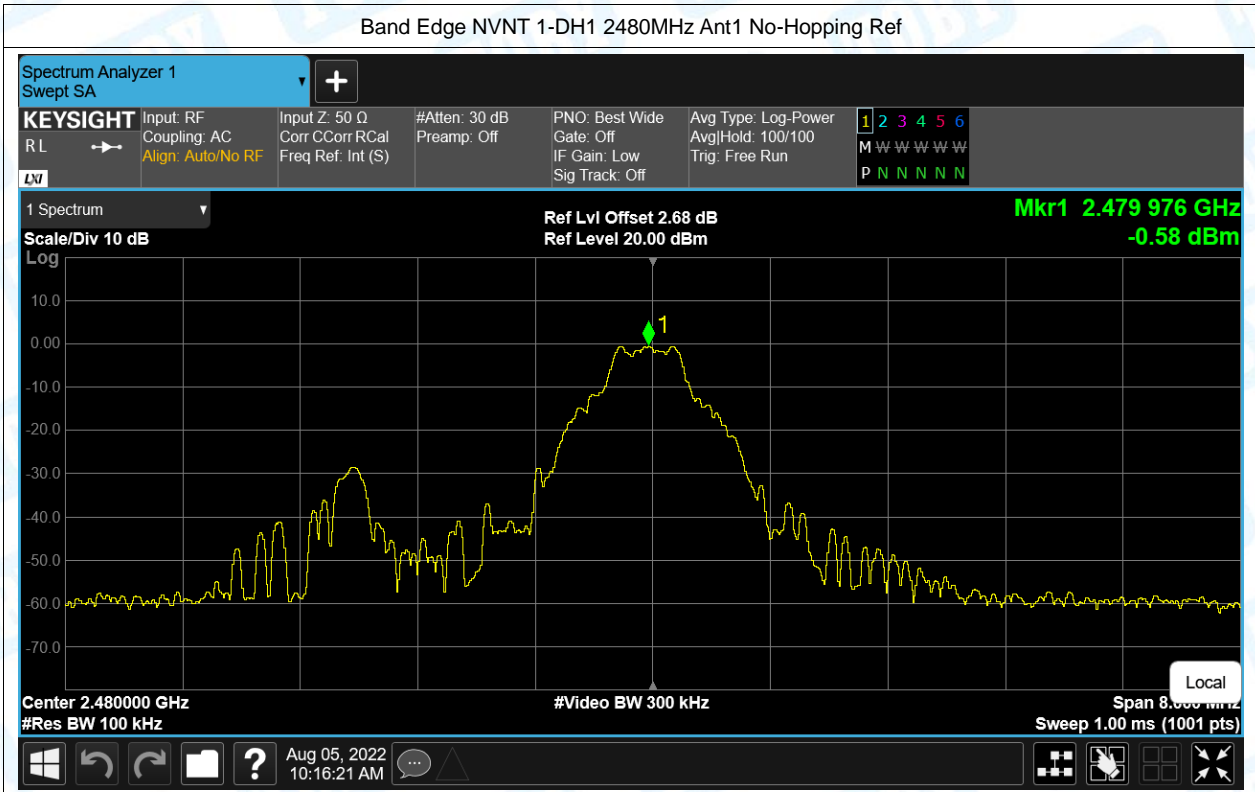
Test Graphs

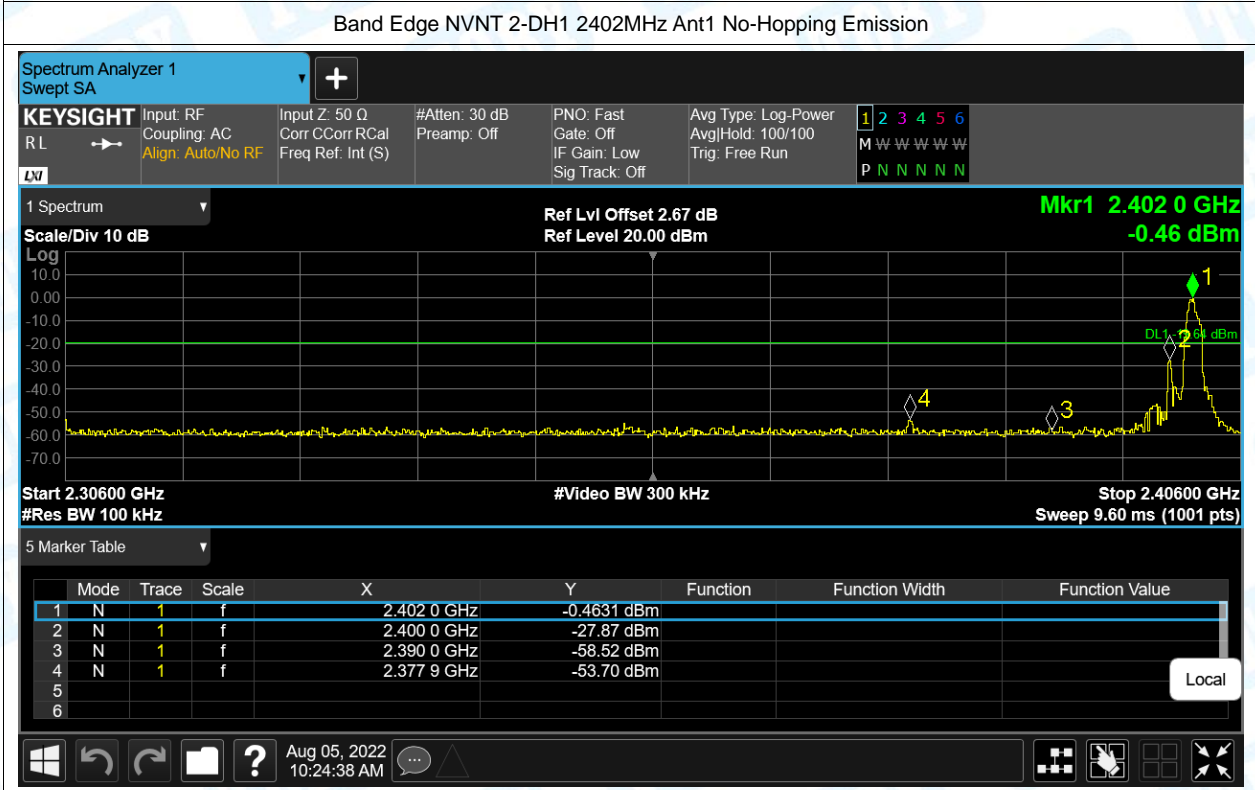
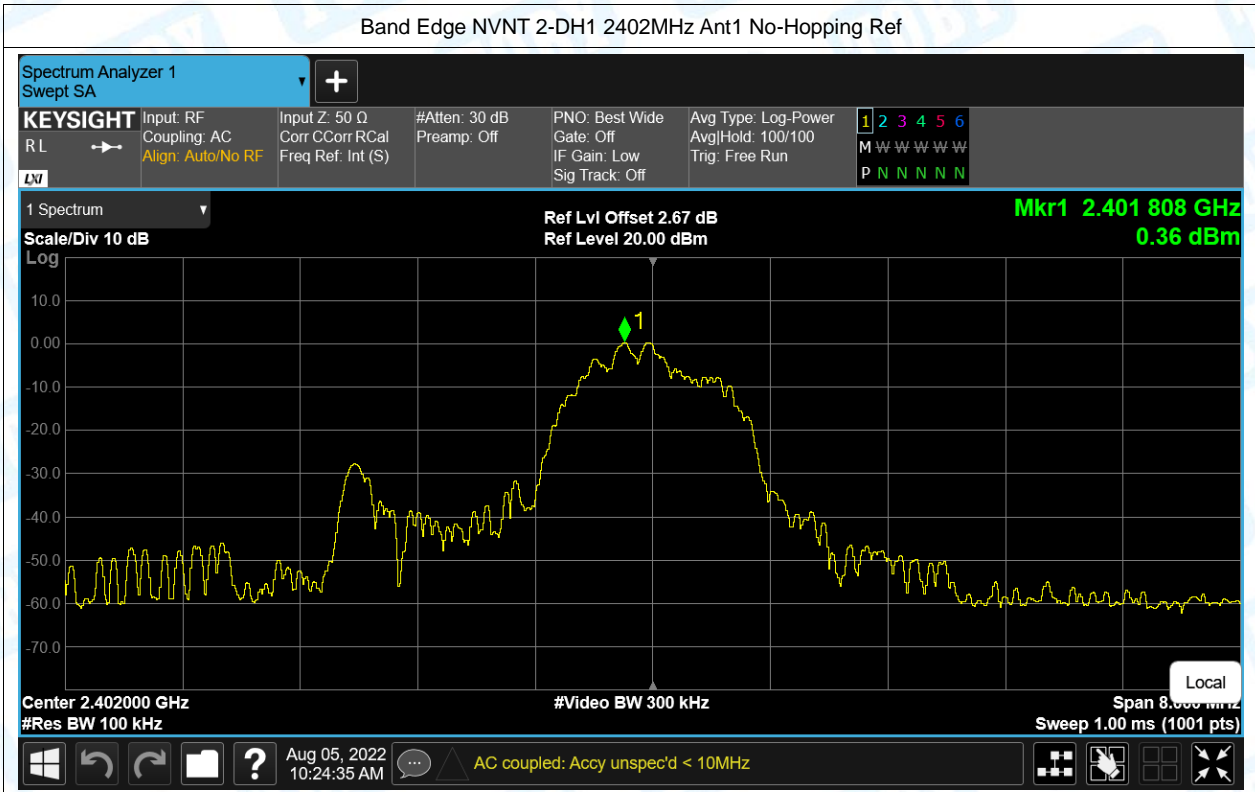
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Ref

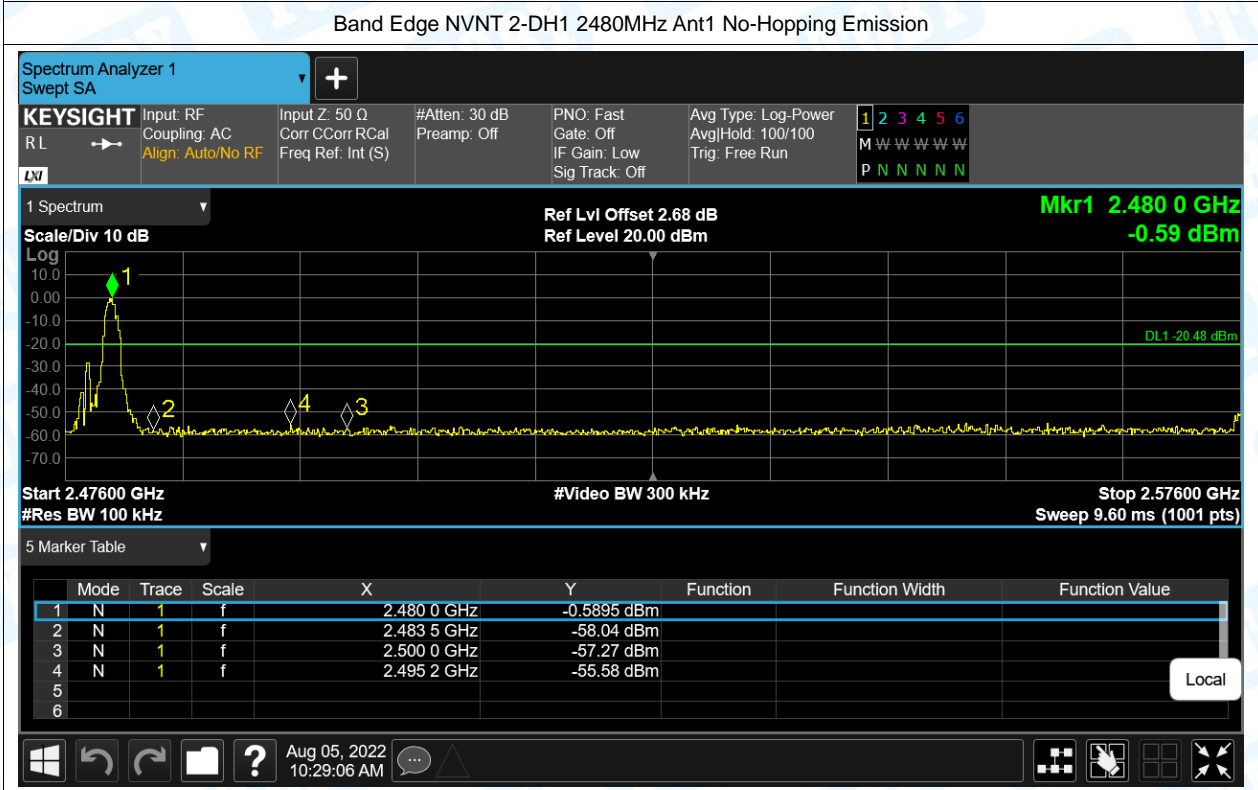
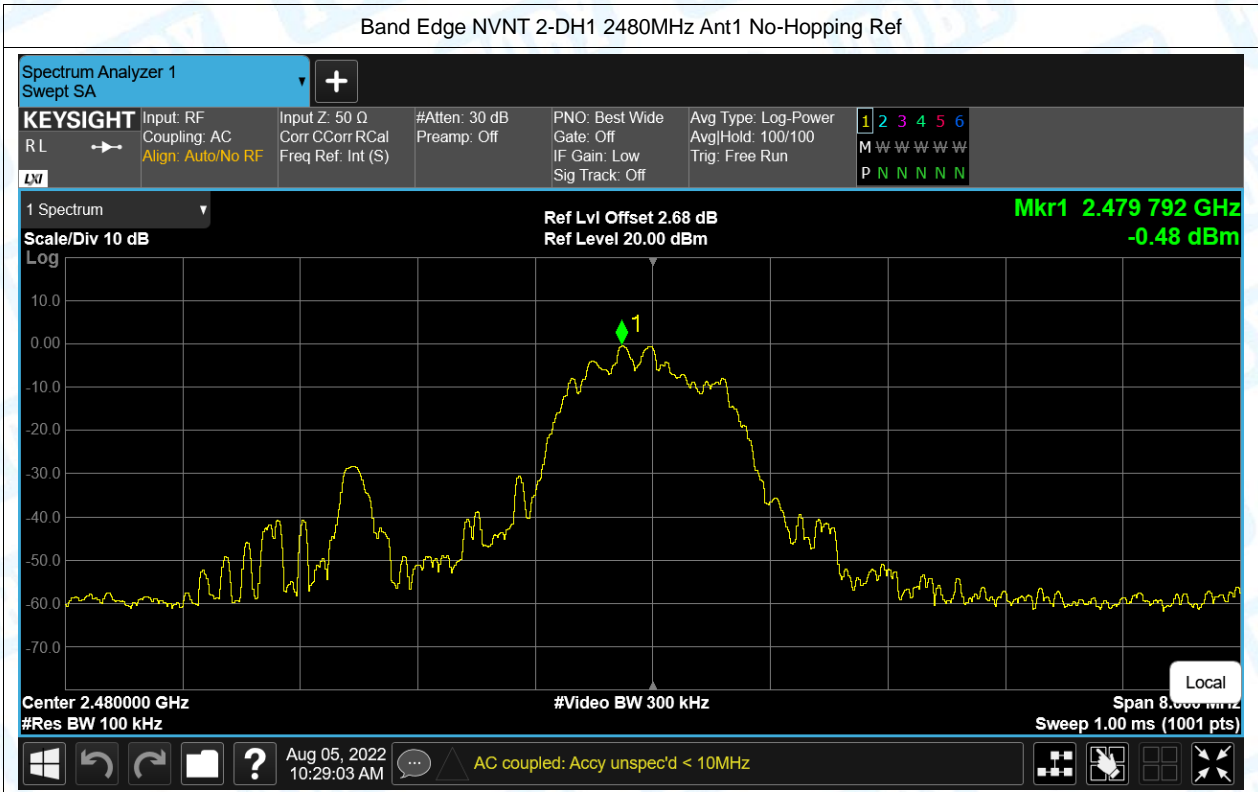


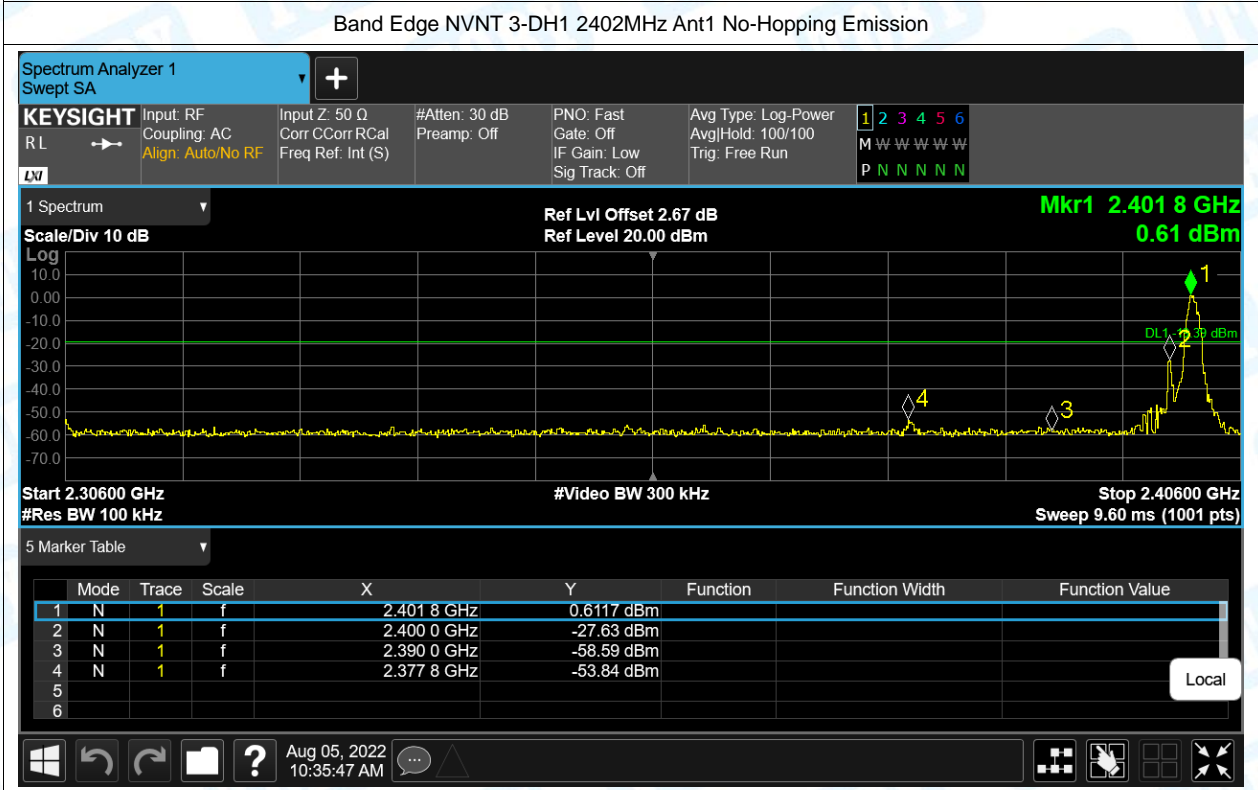
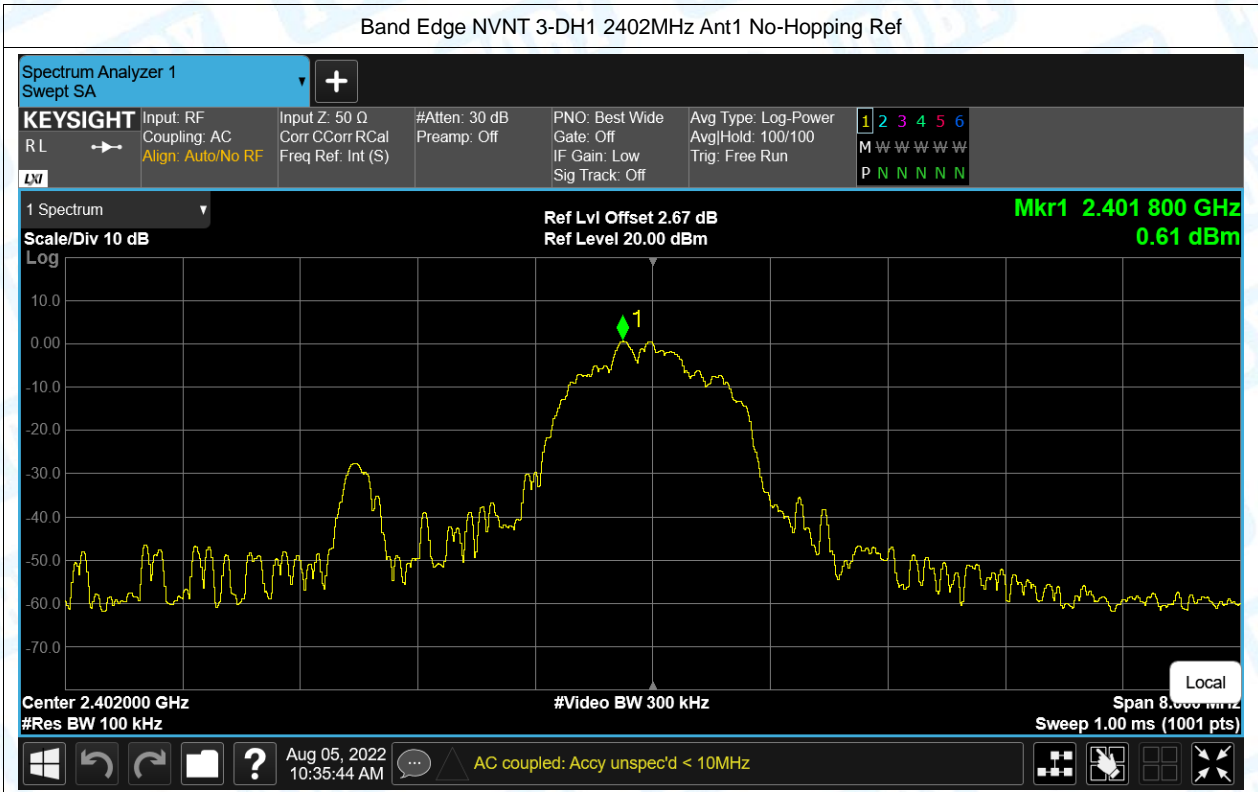
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission

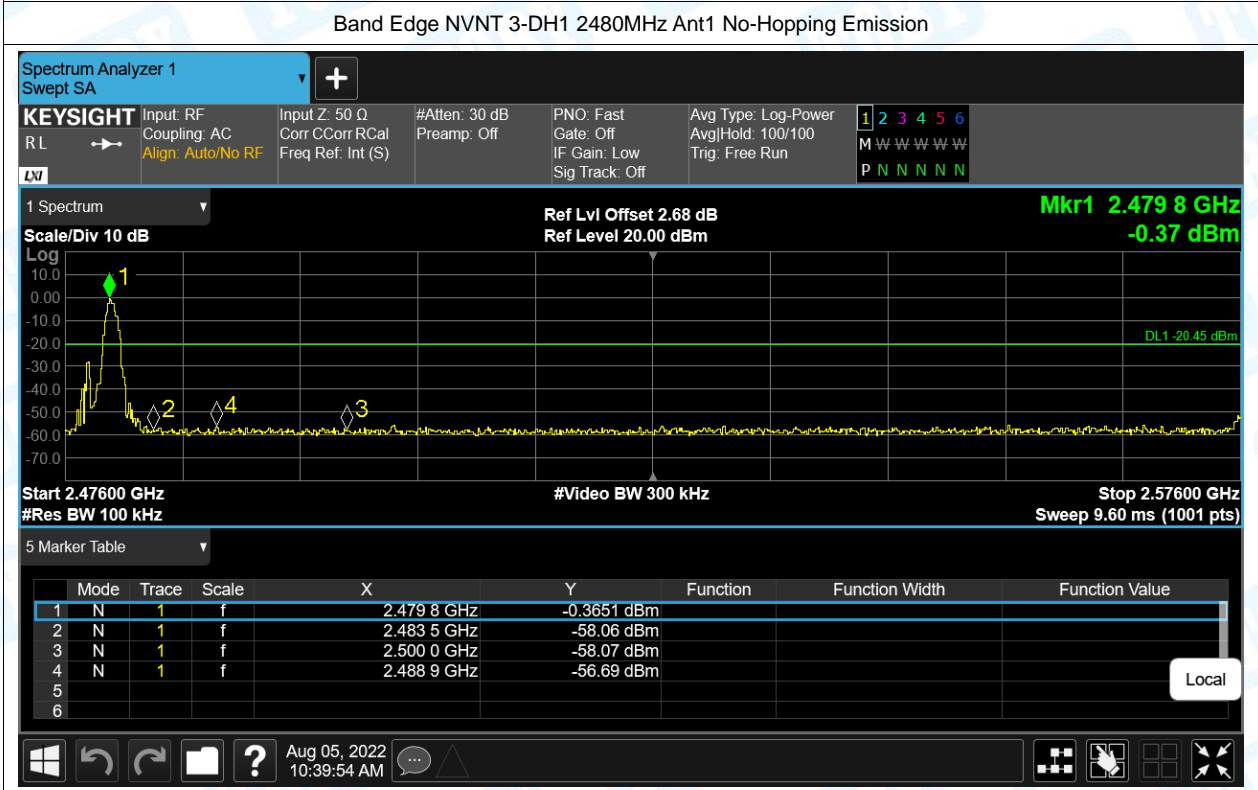
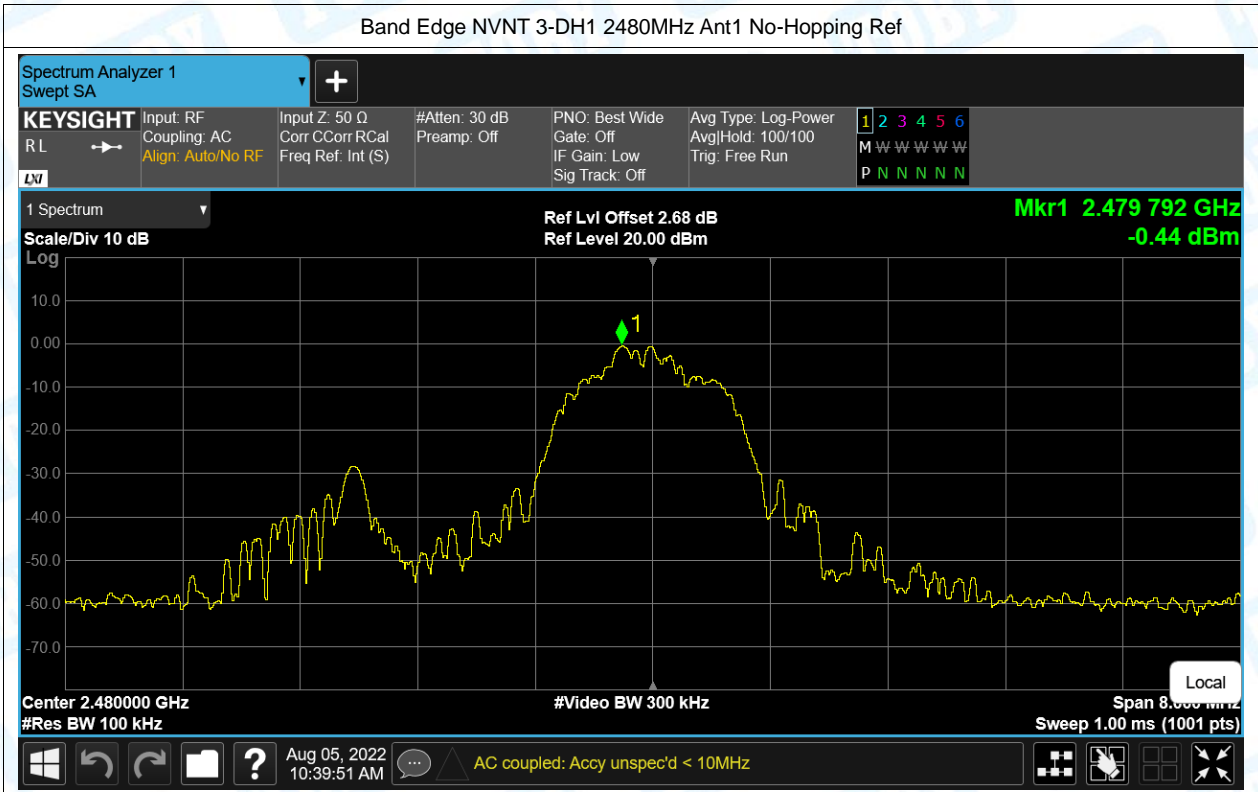












6. Band Edge(Hopping)

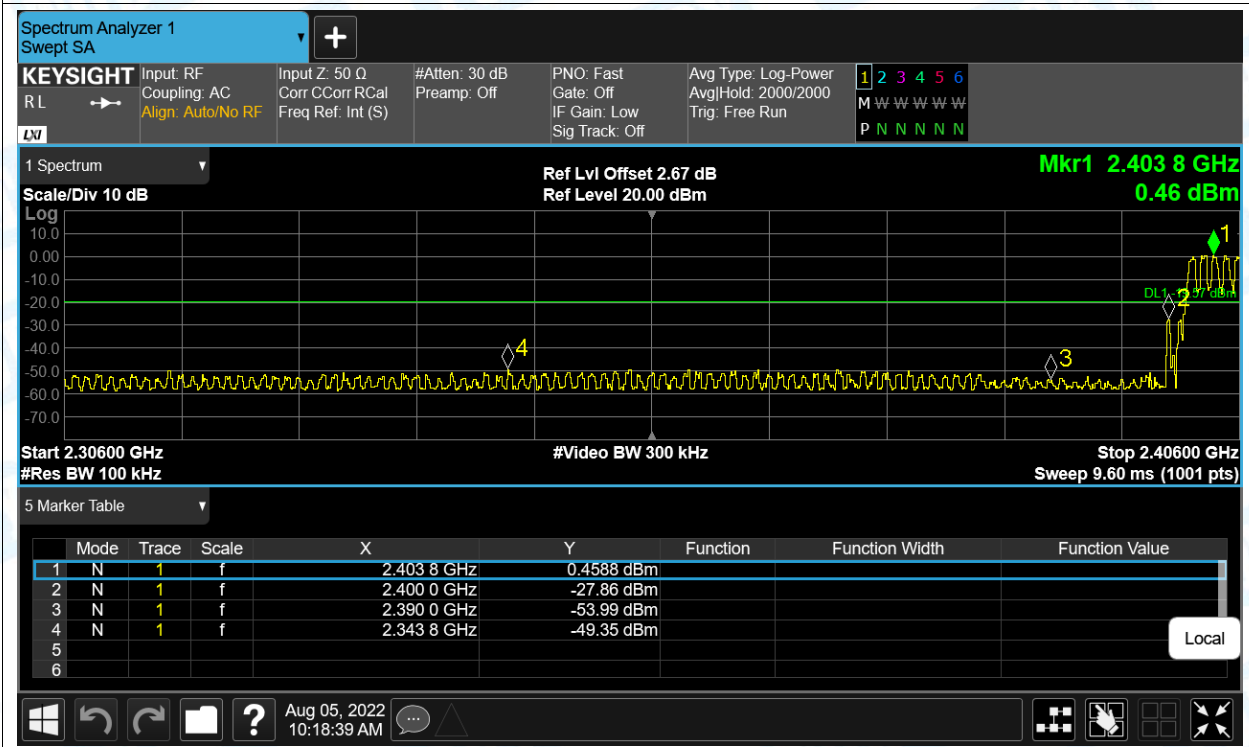
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-49.78	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-45.7	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-49.14	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-44.61	-20	Pass
NVNT	3-DH1	2402	Ant1	Hopping	-50.11	-20	Pass
NVNT	3-DH1	2480	Ant1	Hopping	-46.86	-20	Pass

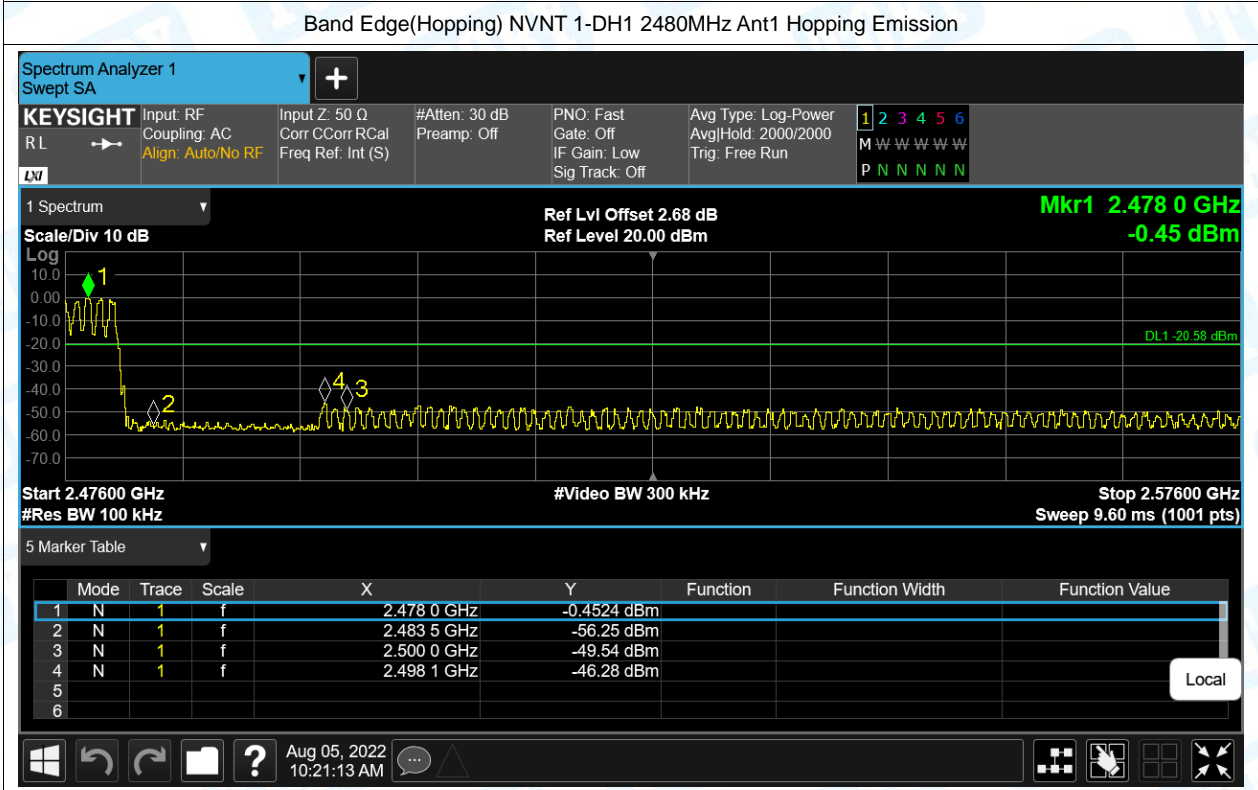
Test Graphs

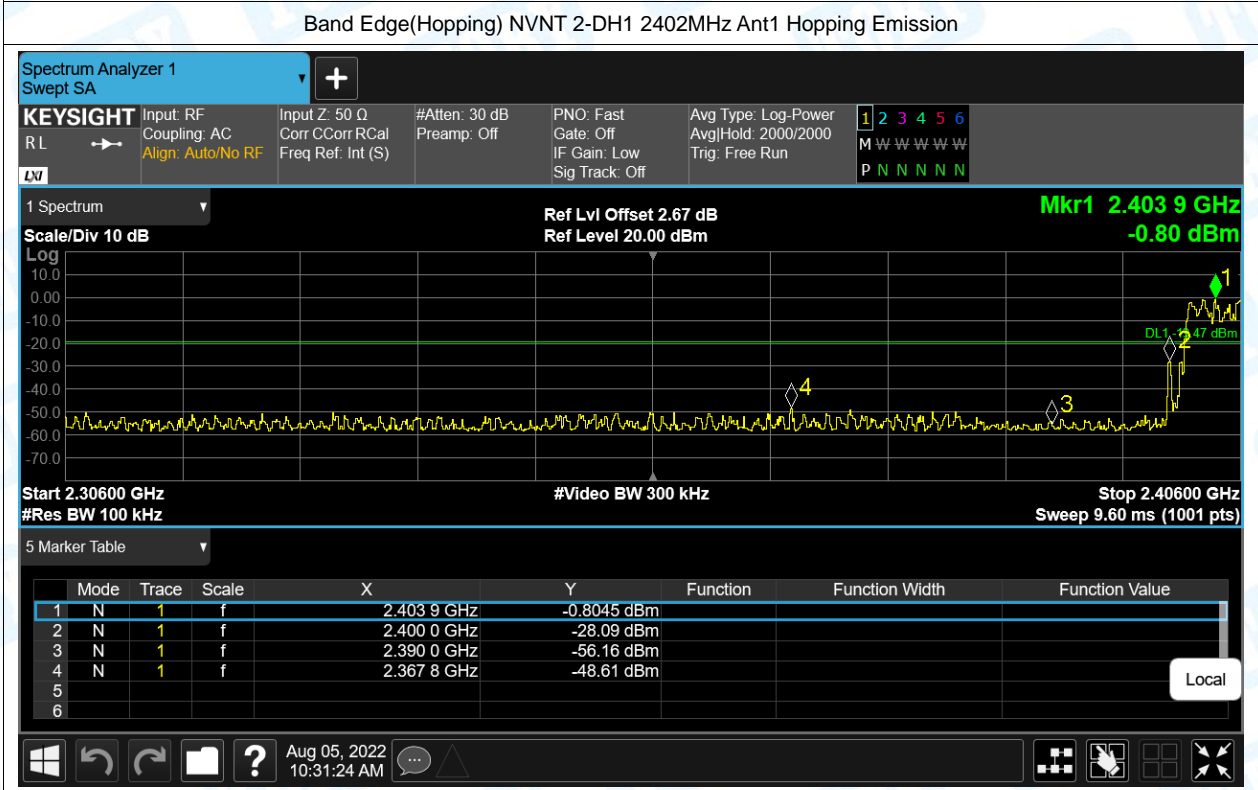
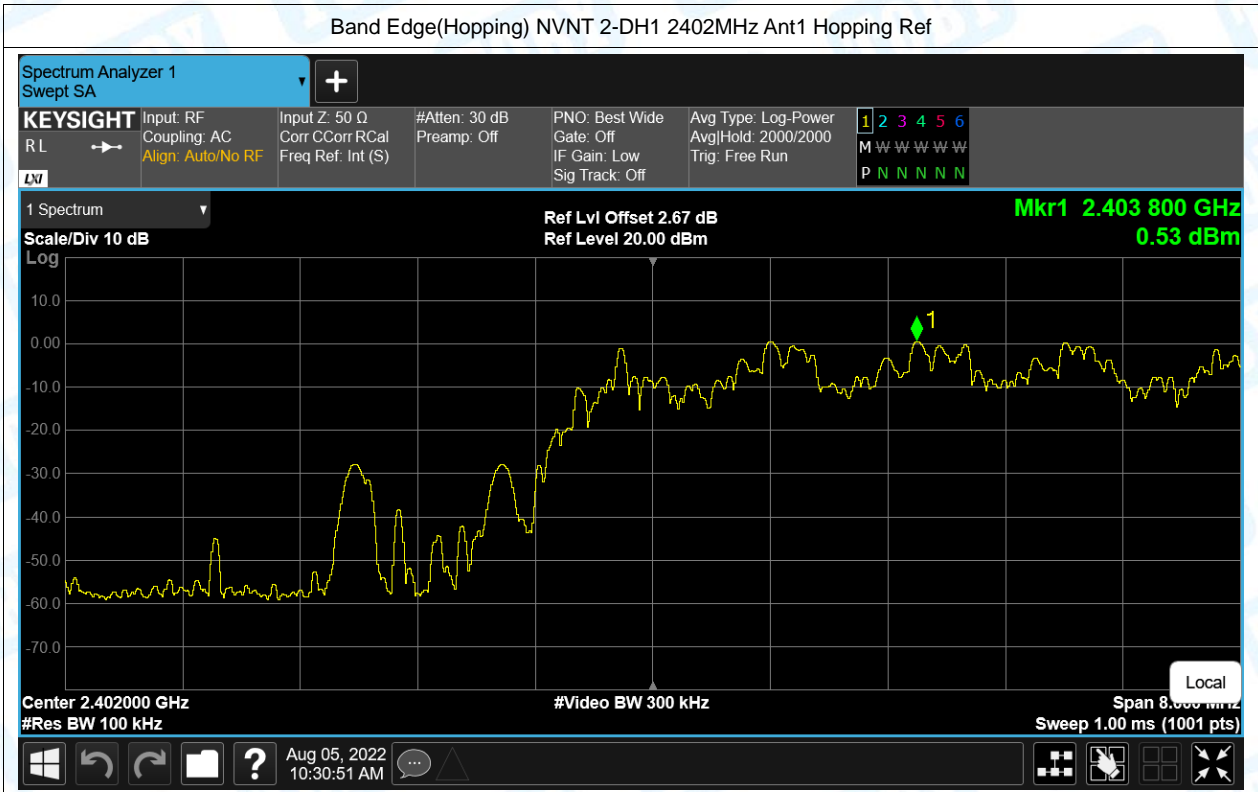
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Ref

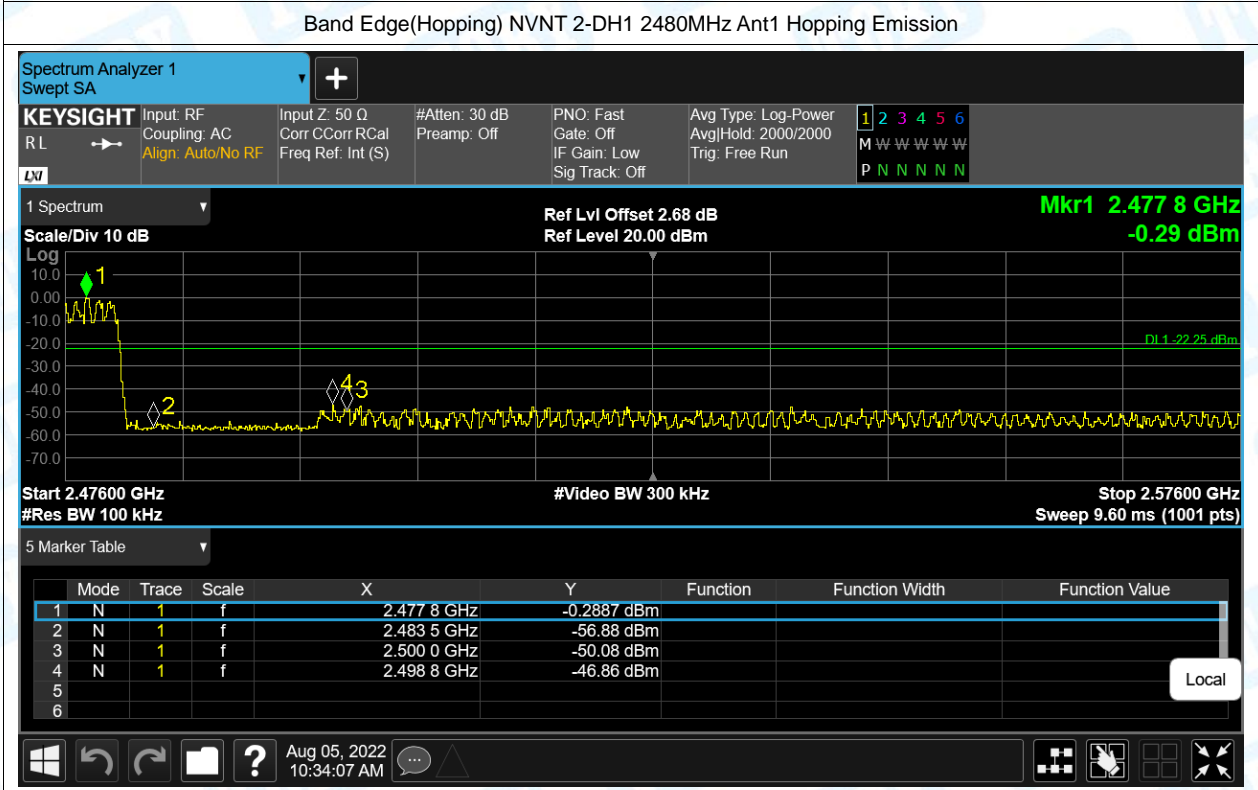
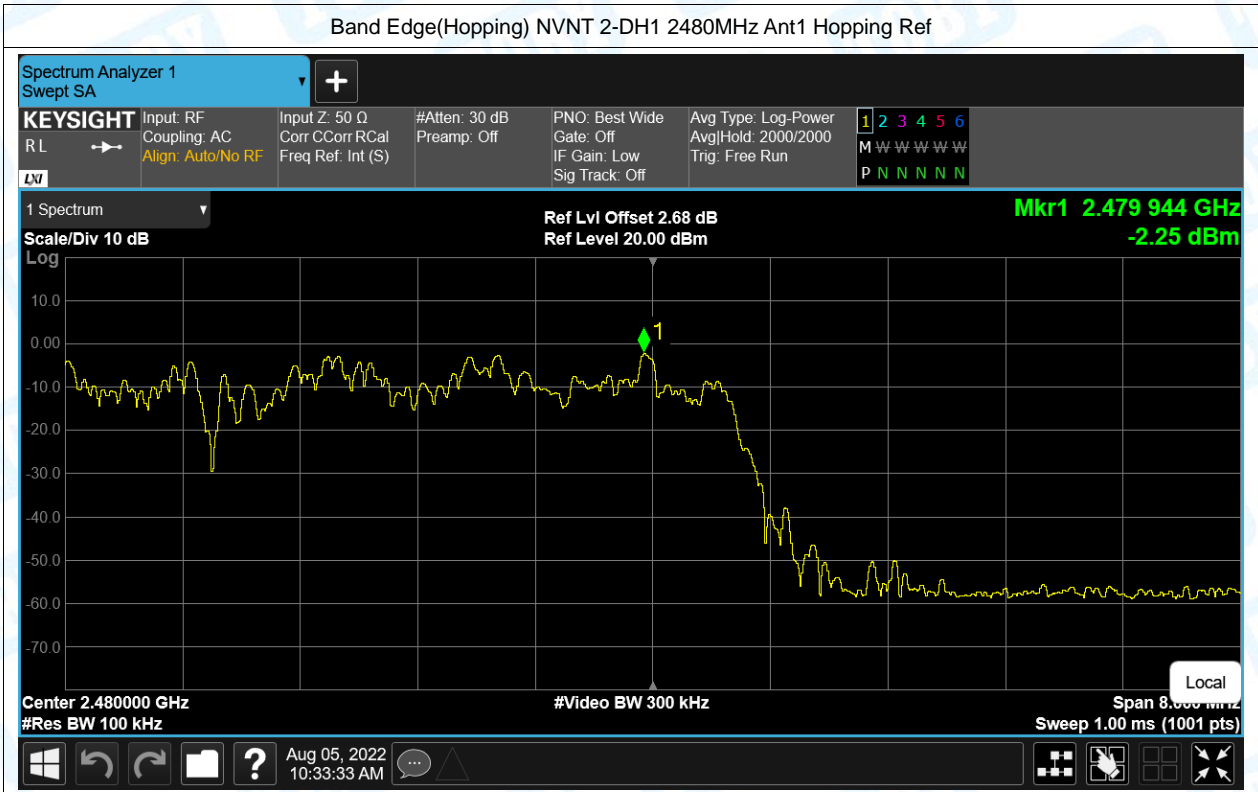


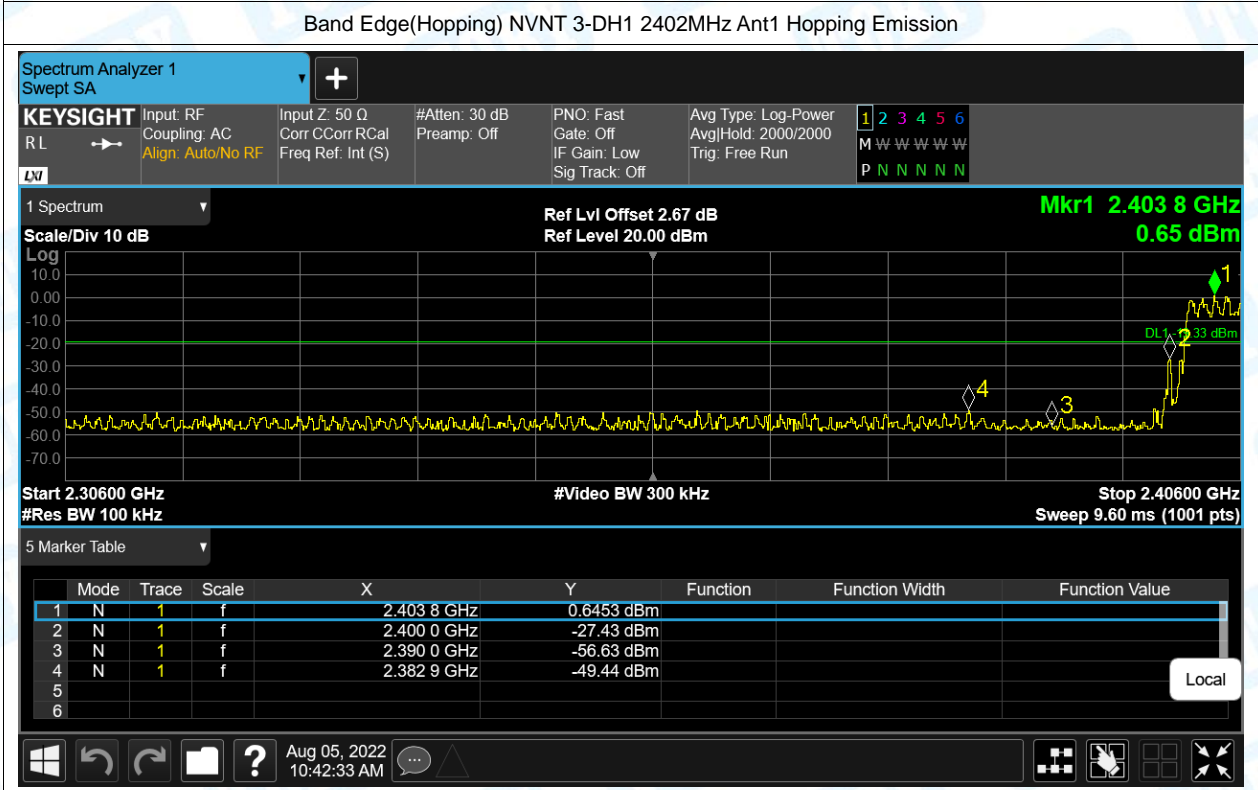
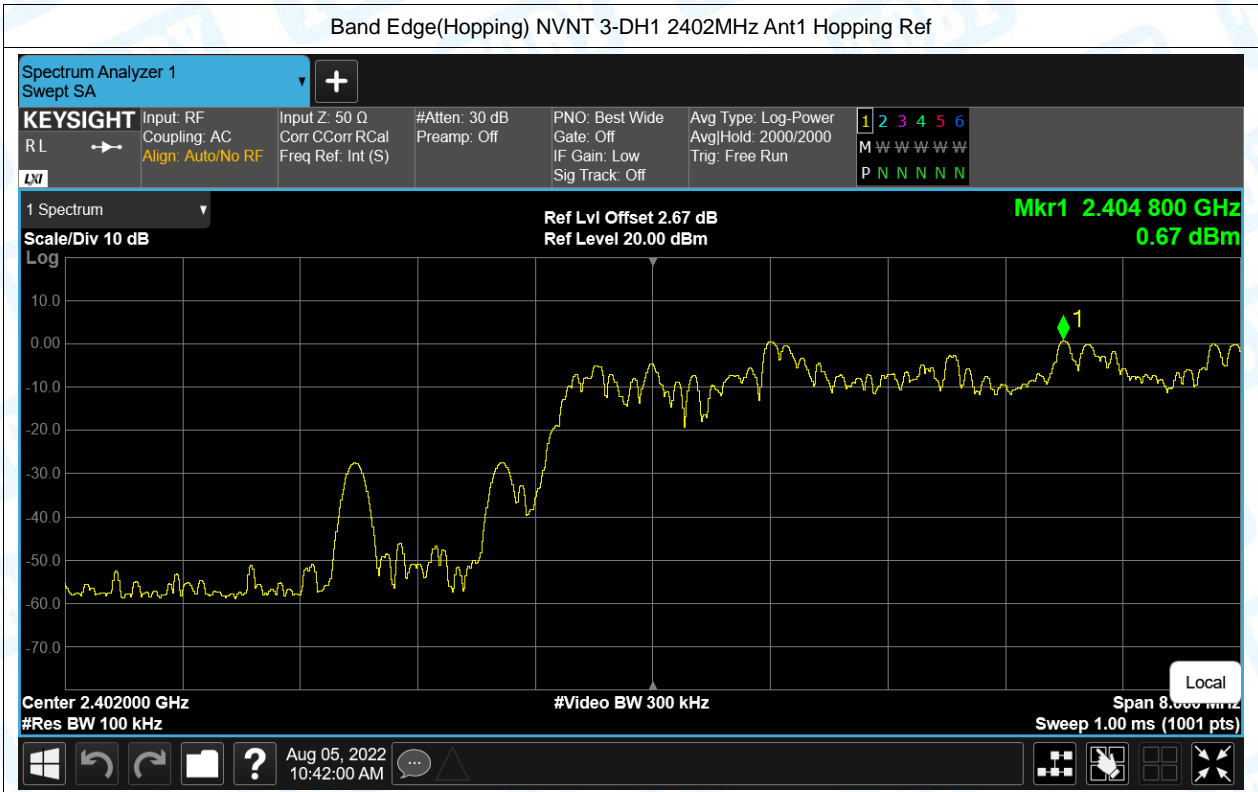
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Emission

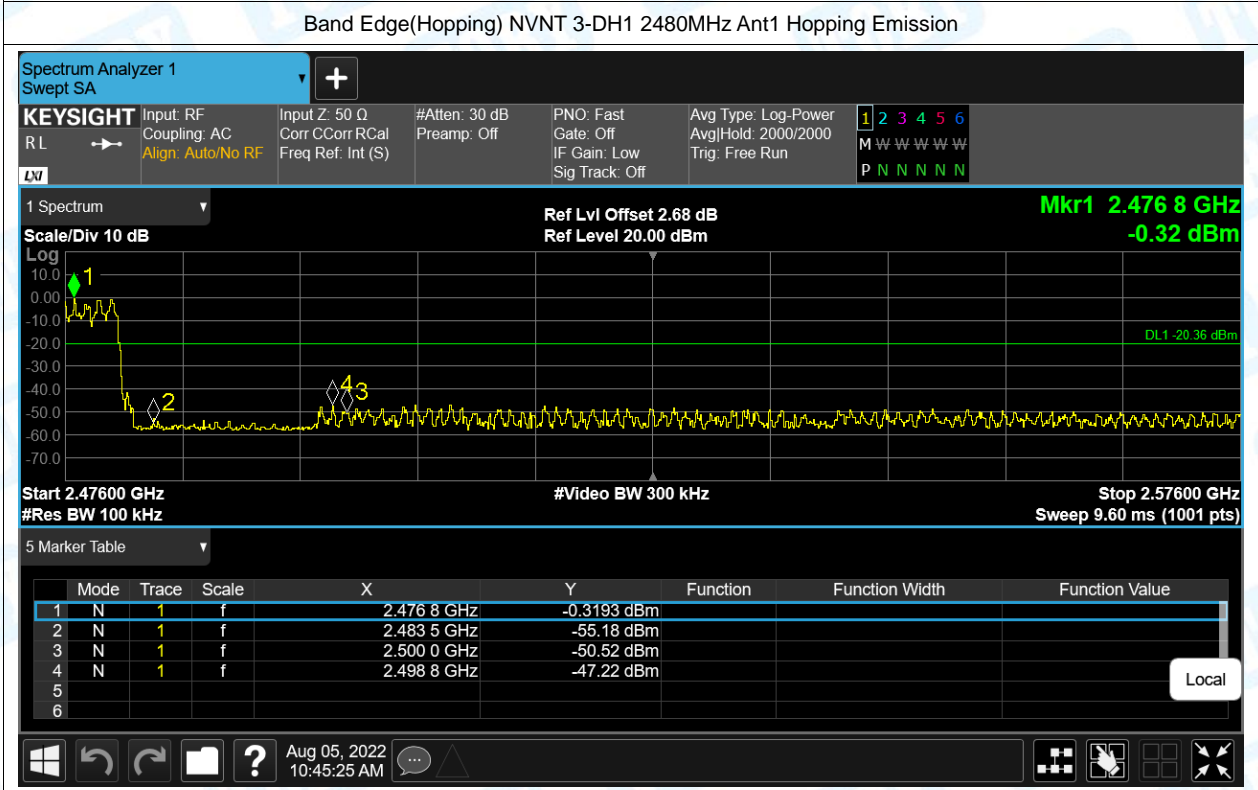










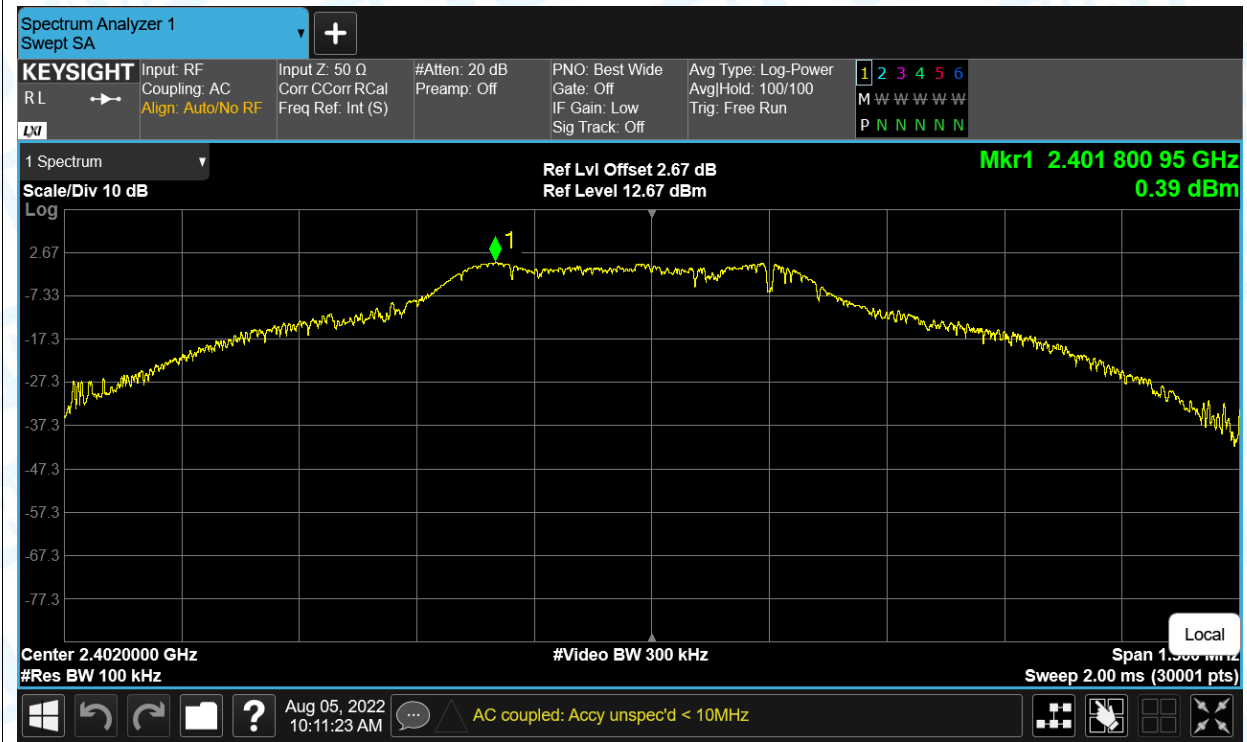


7. Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	-40.15	-20	Pass
NVNT	1-DH1	2441	Ant1	-38.49	-20	Pass
NVNT	1-DH1	2480	Ant1	-42.9	-20	Pass
NVNT	2-DH1	2402	Ant1	-37.7	-20	Pass
NVNT	2-DH1	2441	Ant1	-37.73	-20	Pass
NVNT	2-DH1	2480	Ant1	-44	-20	Pass
NVNT	3-DH1	2402	Ant1	-37.24	-20	Pass
NVNT	3-DH1	2441	Ant1	-39.48	-20	Pass
NVNT	3-DH1	2480	Ant1	-38.97	-20	Pass

Test Graphs

Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Ref



Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Emission

