

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

General Description of EUT	
Product Name:	Smart Watch
Test Model:	LC304
Sample ID:	202208-0320-2-2#
Environmental Conditions	
Temperature:	25°C
Relative Humidity:	55%
Test Voltage:	DC 3.8V
Test Engineer:	Huang jian ping
Note: For a more detailed features description, please refer to the report TBR-C-202208-0320-14	

## Contents

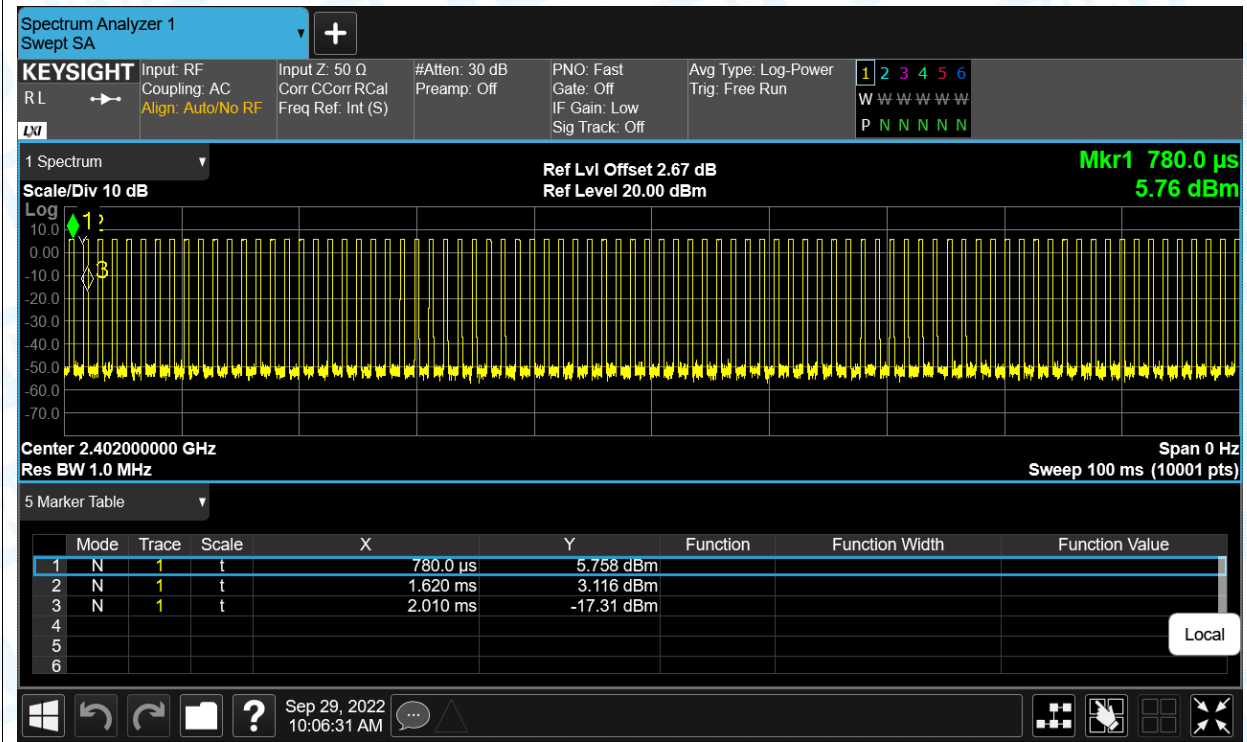
1. Duty Cycle .....	3
2. Maximum Conducted Output Power .....	9
3. -20dB Bandwidth .....	15
4. Occupied Channel Bandwidth .....	21
5. Band Edge .....	27
6. Band Edge(Hopping) .....	34
7. Conducted RF Spurious Emission .....	41
8. Restrict Band .....	51
9. Carrier Frequencies Separation .....	58
10. Number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

## 1. Duty Cycle

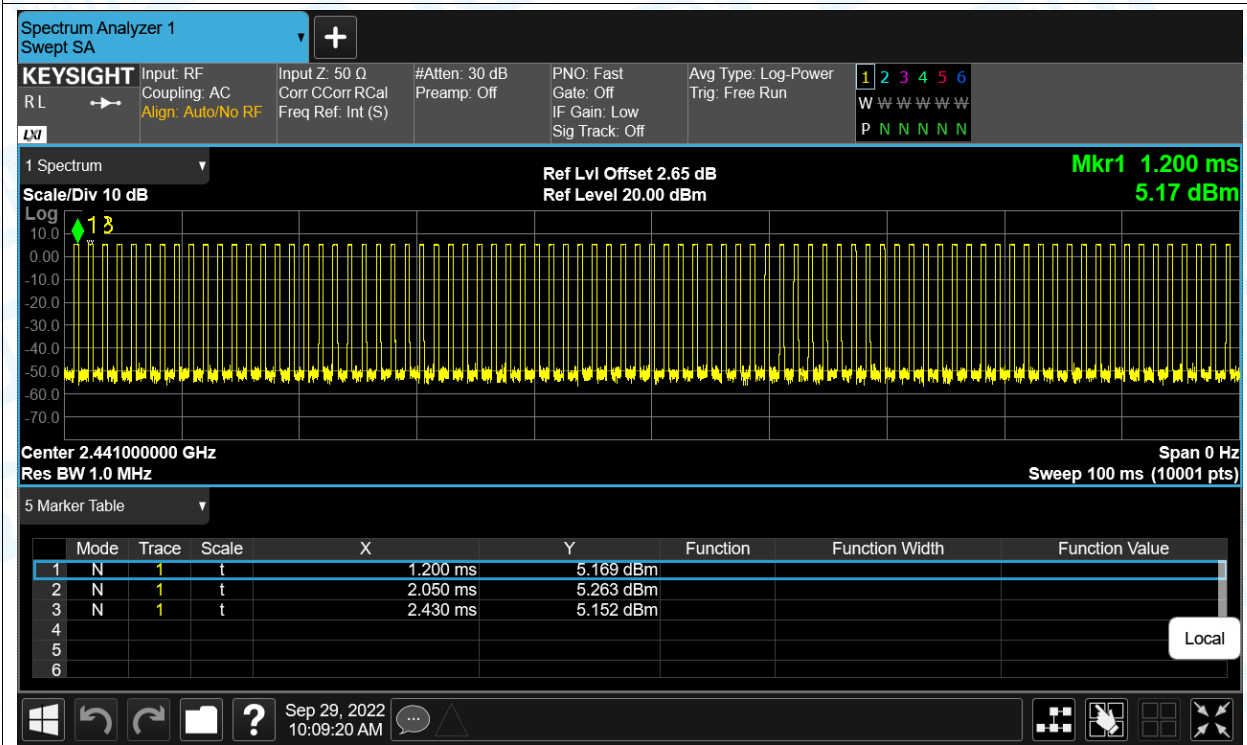
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH1	2402	Ant1	31.71	4.99	2.56
NVNT	1-DH1	2441	Ant1	30.89	5.1	2.63
NVNT	1-DH1	2480	Ant1	31.15	5.07	2.63
NVNT	2-DH1	2402	Ant1	31.71	4.99	2.56
NVNT	2-DH1	2441	Ant1	31.71	4.99	2.56
NVNT	2-DH1	2480	Ant1	30.89	5.1	2.63
NVNT	3-DH1	2402	Ant1	31.45	5.02	2.56
NVNT	3-DH1	2441	Ant1	31.71	4.99	2.56
NVNT	3-DH1	2480	Ant1	31.71	4.99	2.56

Test Graphs

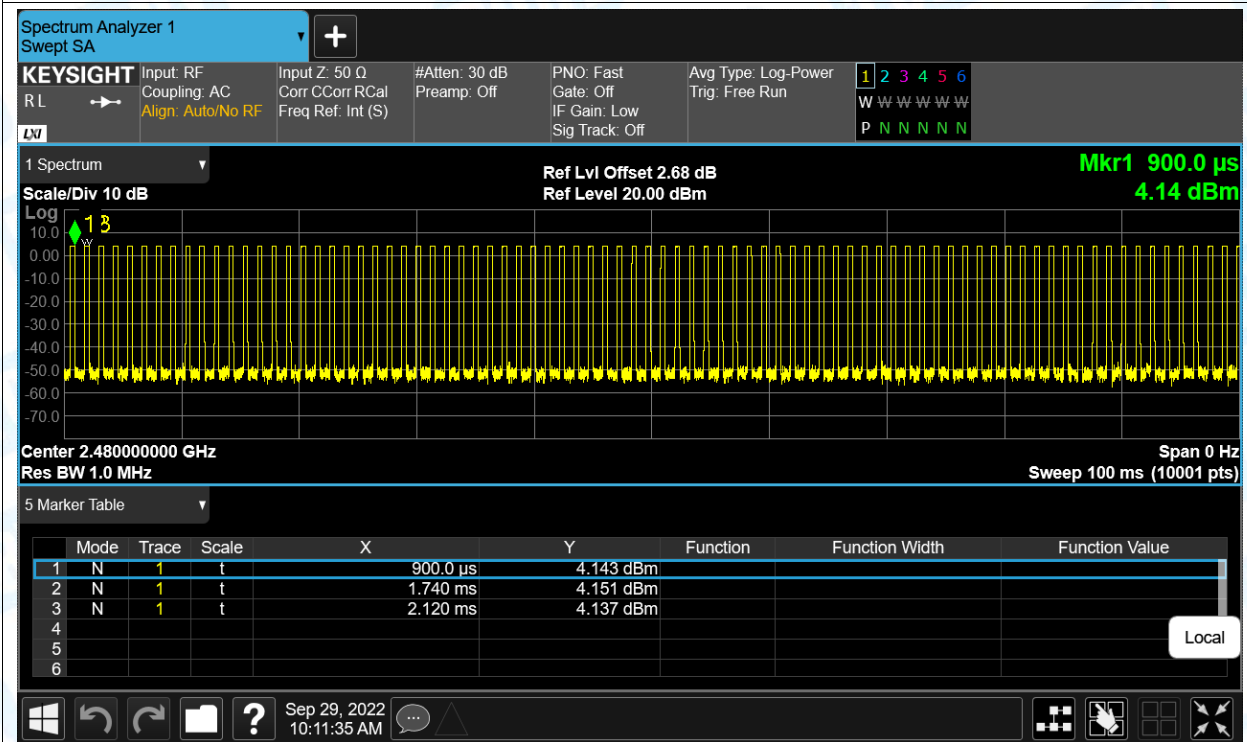
Duty Cycle NVNT 1-DH1 2402MHz Ant1



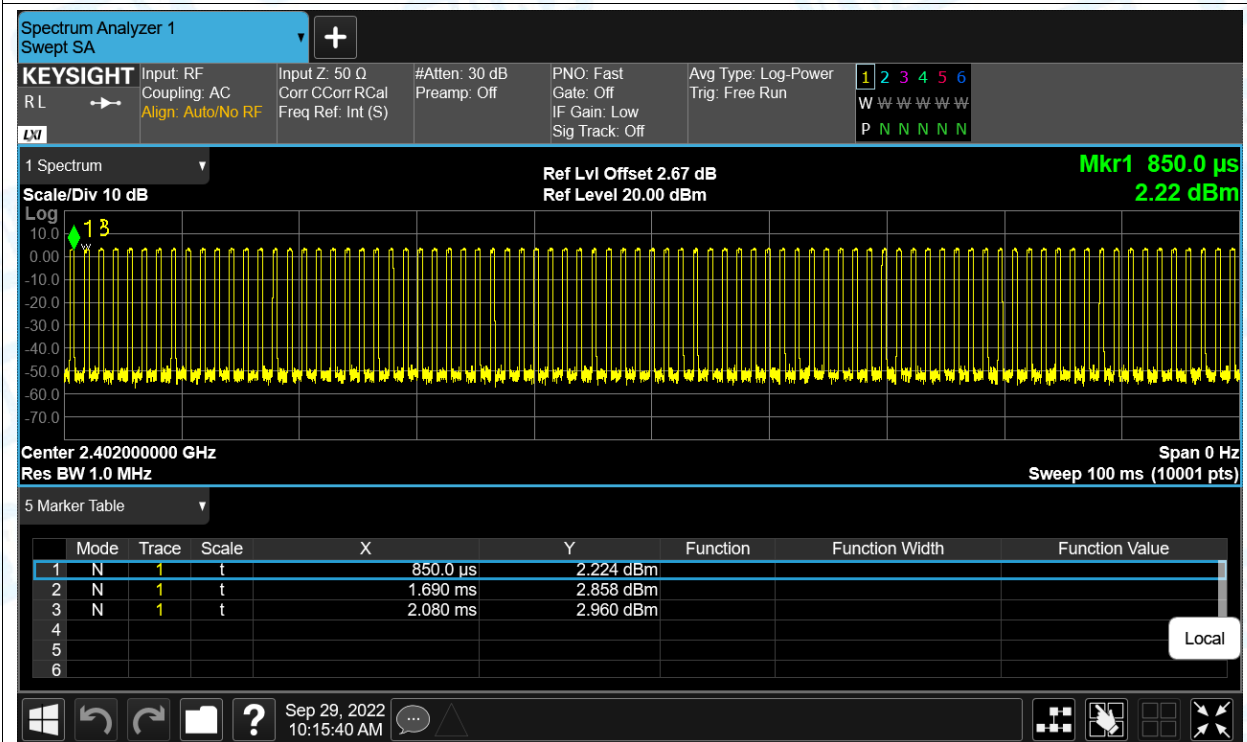
Duty Cycle NVNT 1-DH1 2441MHz Ant1



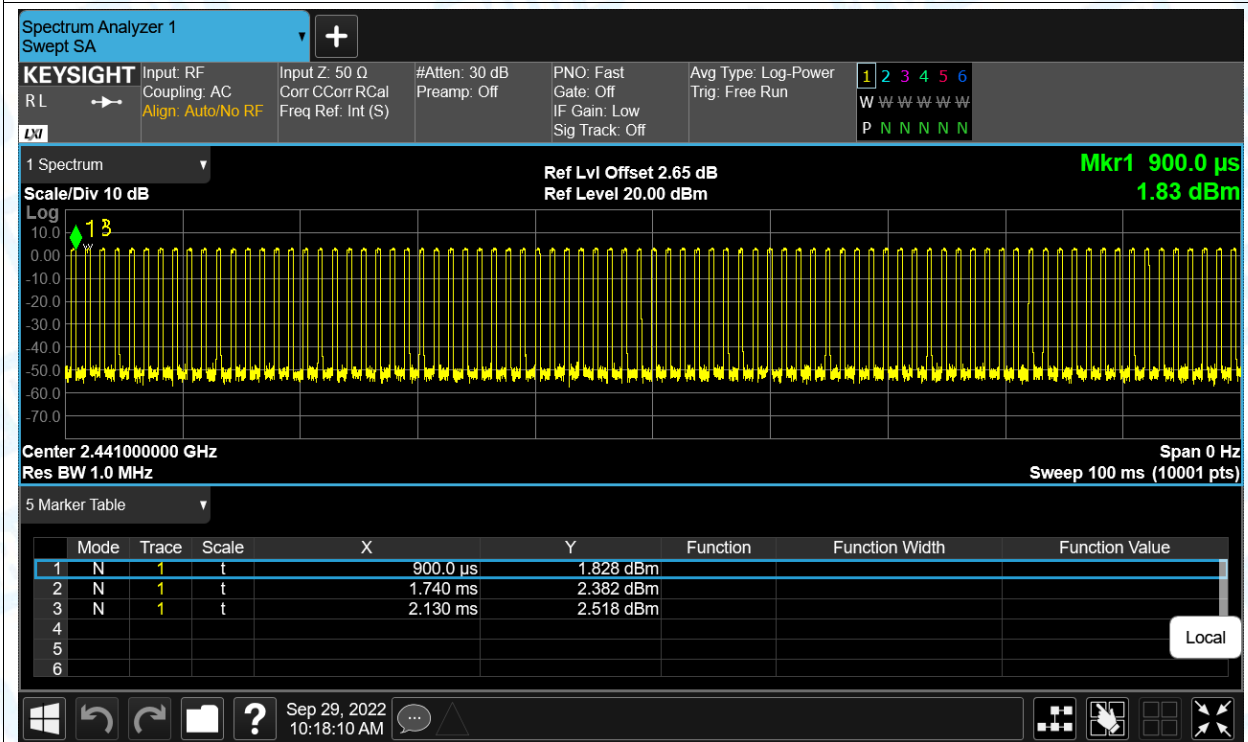
Duty Cycle NVNT 1-DH1 2480MHz Ant1



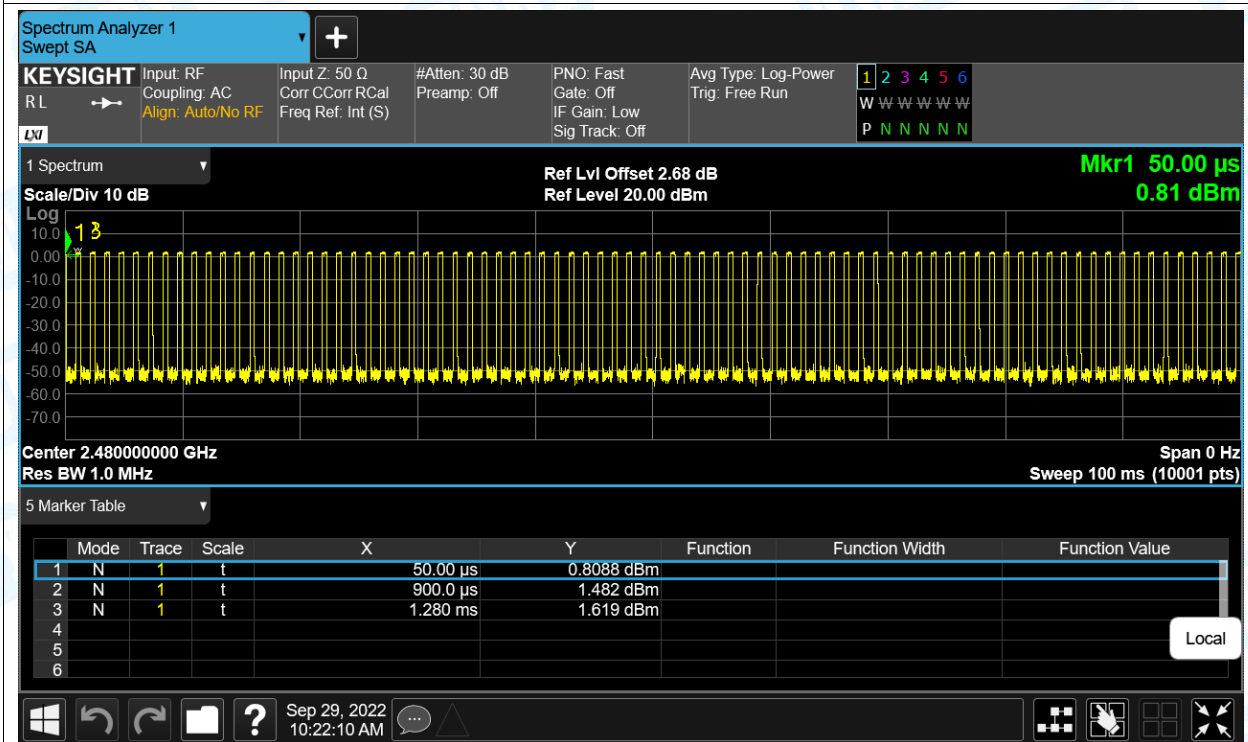
Duty Cycle NVNT 2-DH1 2402MHz Ant1



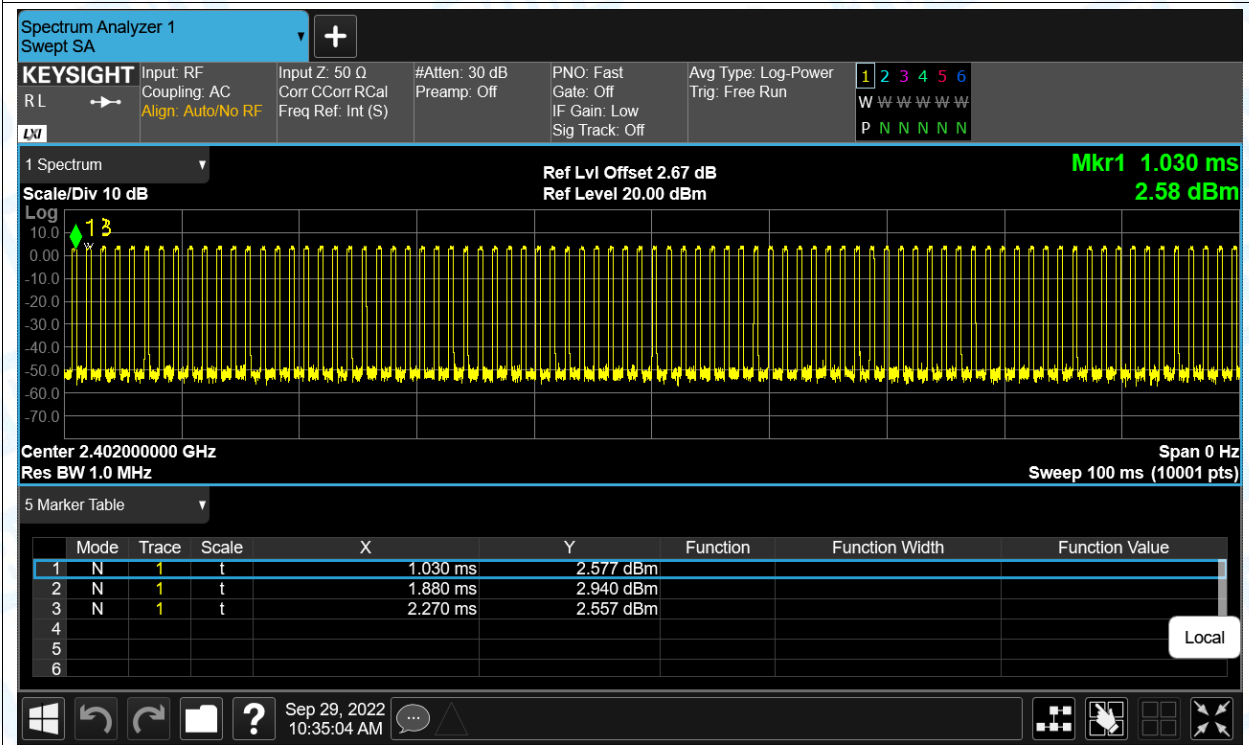
### Duty Cycle NVNT 2-DH1 2441MHz Ant1



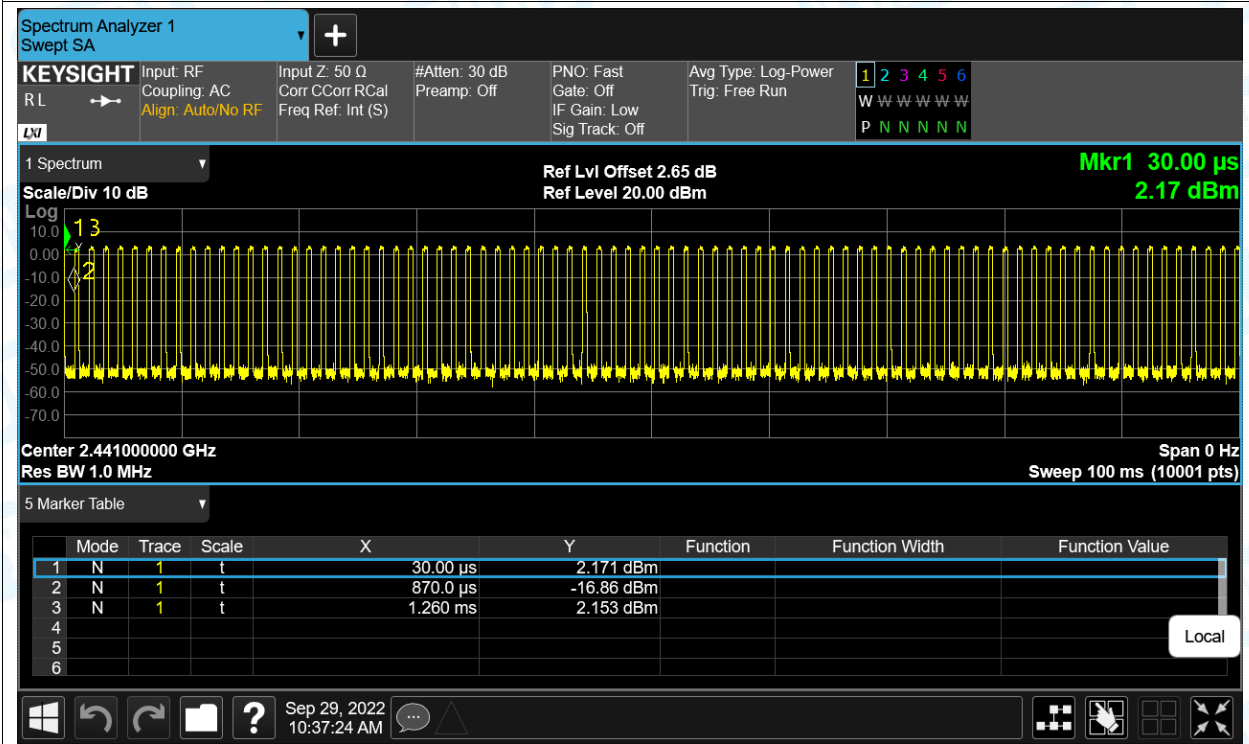
### Duty Cycle NVNT 2-DH1 2480MHz Ant1

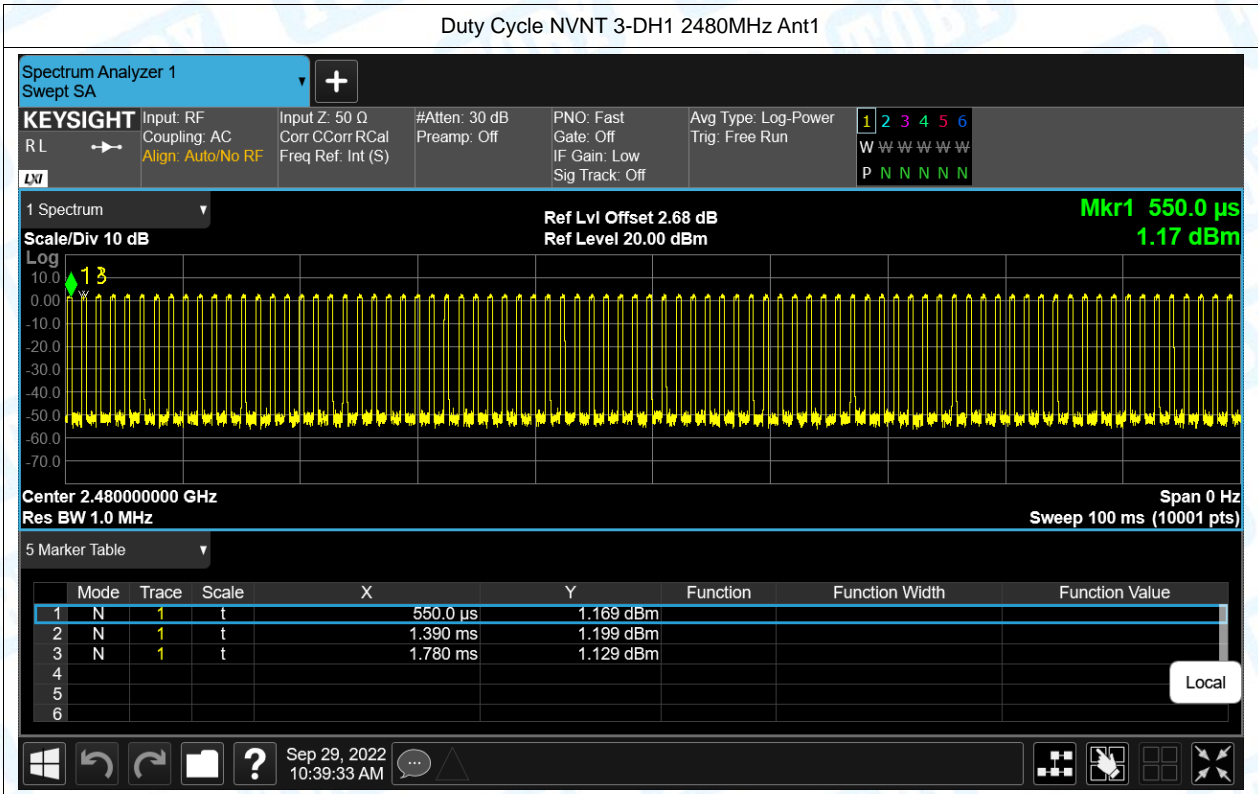


Duty Cycle NVNT 3-DH1 2402MHz Ant1



Duty Cycle NVNT 3-DH1 2441MHz Ant1





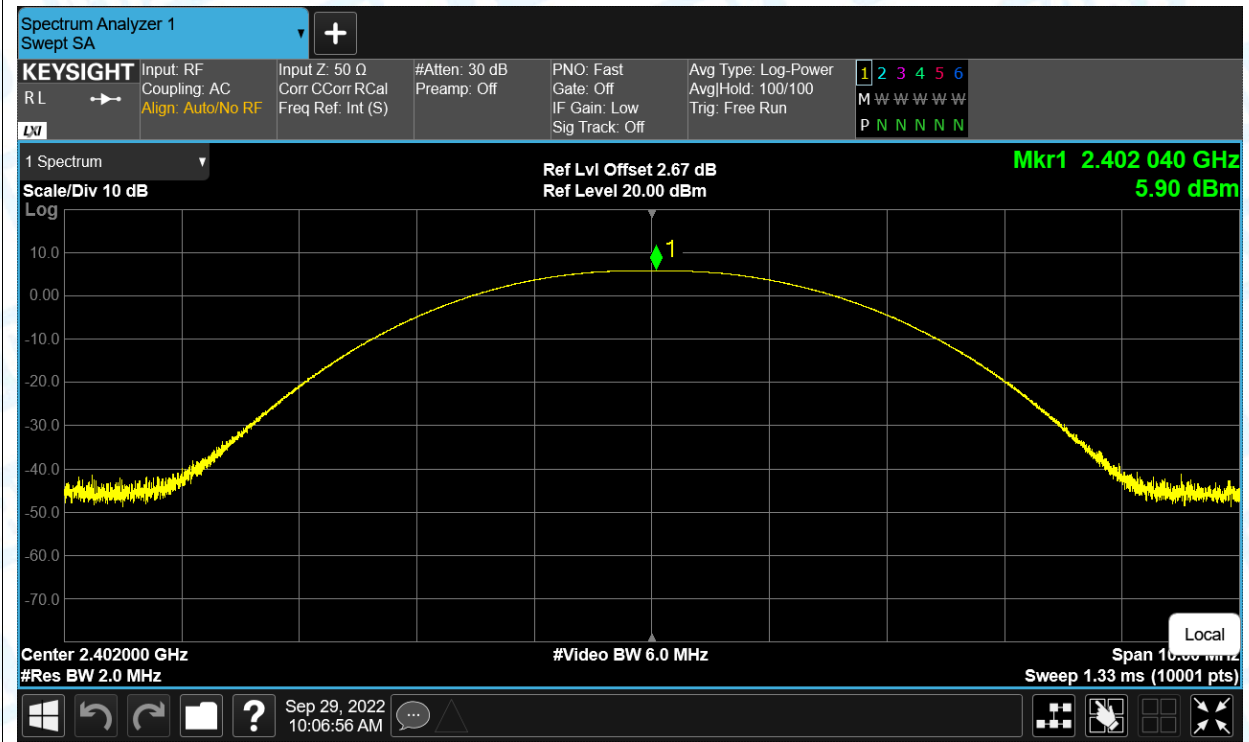


## 2. Maximum Conducted Output Power

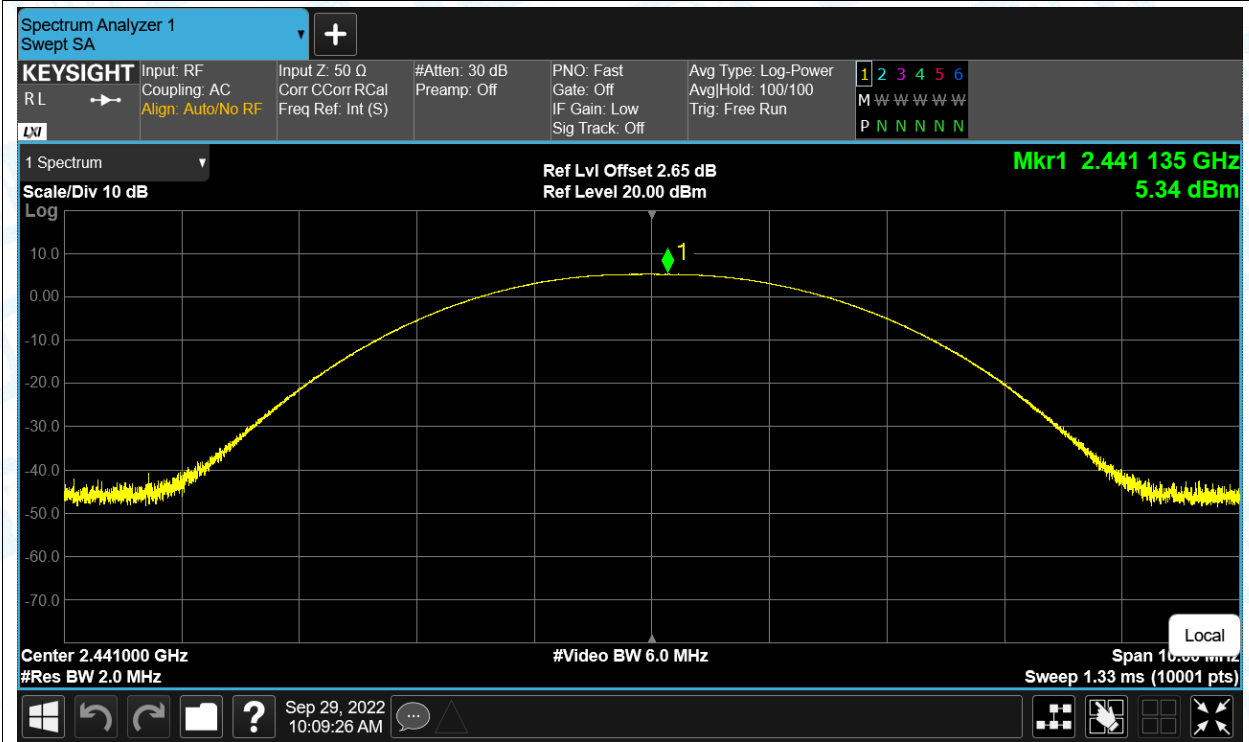
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	5.899	21	Pass
NVNT	1-DH1	2441	Ant1	5.335	21	Pass
NVNT	1-DH1	2480	Ant1	4.318	21	Pass
NVNT	2-DH1	2402	Ant1	4.148	21	Pass
NVNT	2-DH1	2441	Ant1	3.677	21	Pass
NVNT	2-DH1	2480	Ant1	2.625	21	Pass
NVNT	3-DH1	2402	Ant1	4.644	21	Pass
NVNT	3-DH1	2441	Ant1	4.111	21	Pass
NVNT	3-DH1	2480	Ant1	3.116	21	Pass

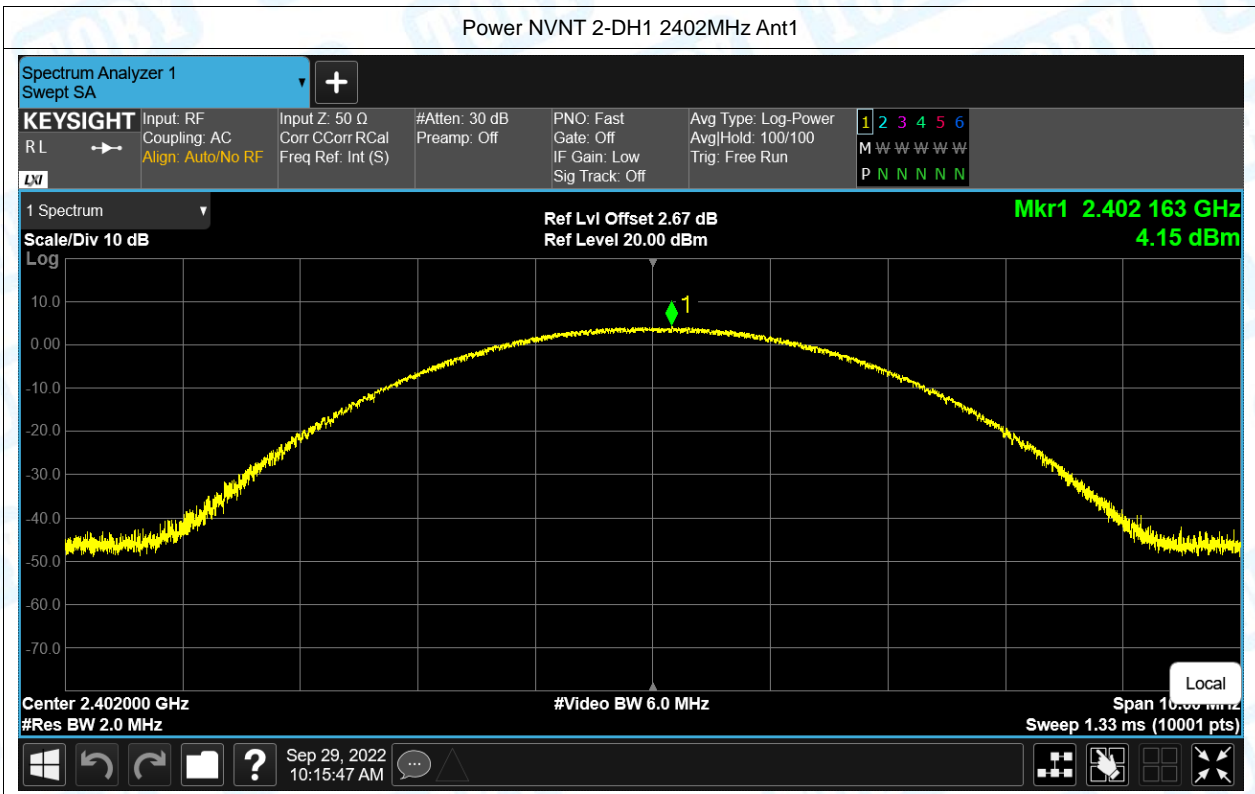
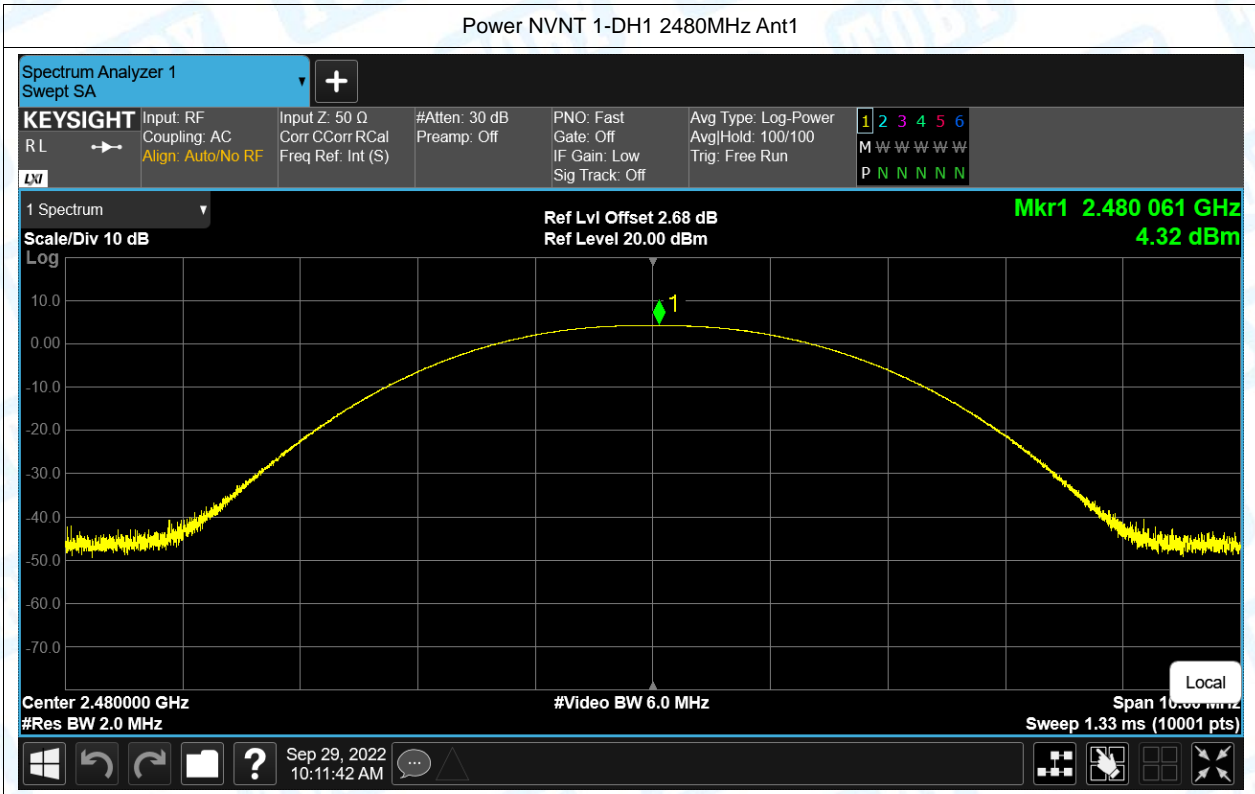
Test Graphs

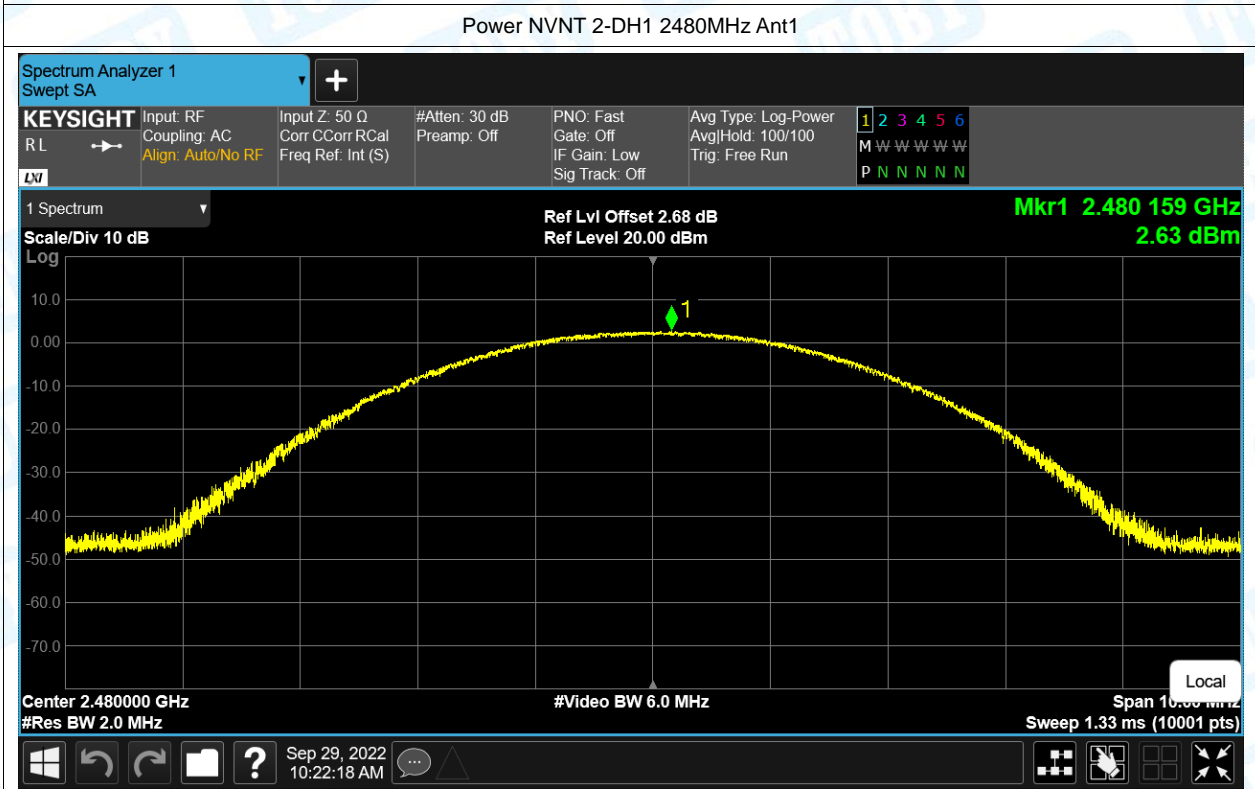
Power NVNT 1-DH1 2402MHz Ant1

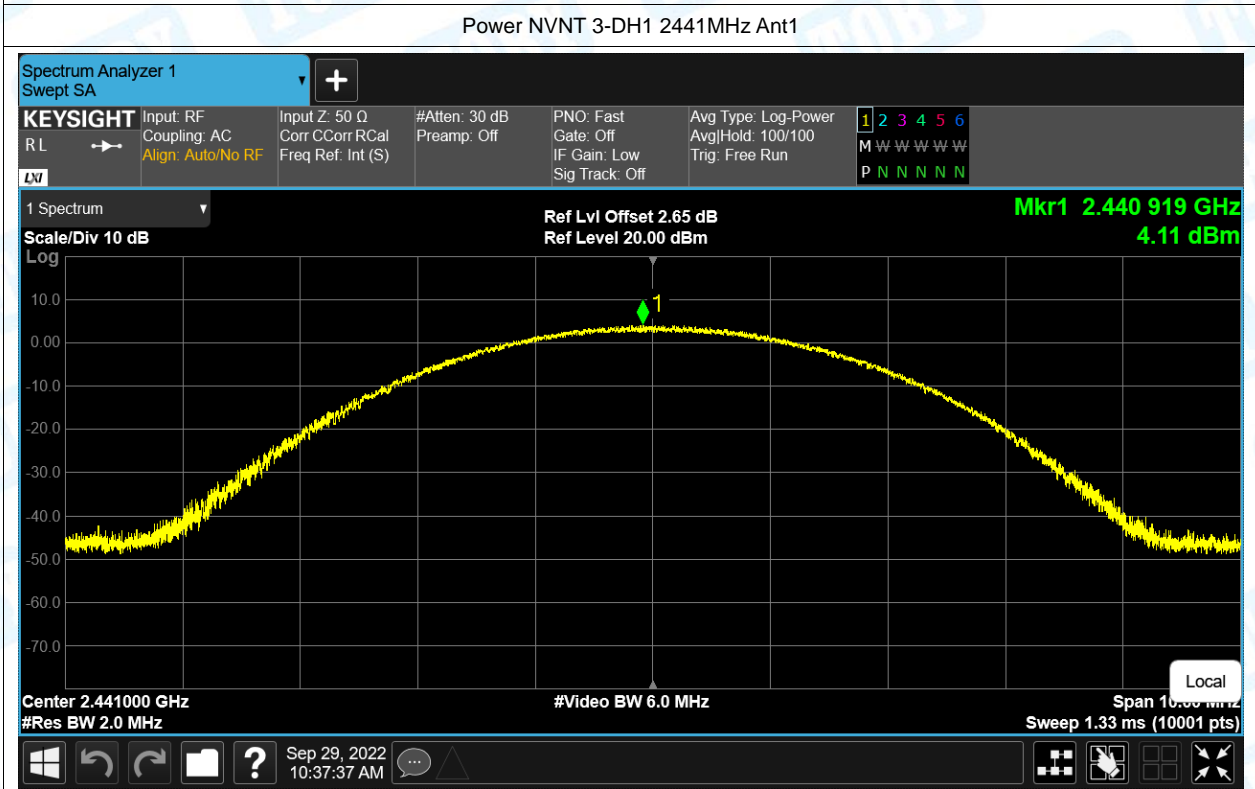


Power NVNT 1-DH1 2441MHz Ant1











### 3. -20dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	2/3 *20dB BW (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	0.95	0.633	Pass
NVNT	1-DH1	2441	Ant1	0.94	0.627	Pass
NVNT	1-DH1	2480	Ant1	0.94	0.627	Pass
NVNT	2-DH1	2402	Ant1	1.25	0.833	Pass
NVNT	2-DH1	2441	Ant1	1.22	0.813	Pass
NVNT	2-DH1	2480	Ant1	1.26	0.840	Pass
NVNT	3-DH1	2402	Ant1	1.21	0.807	Pass
NVNT	3-DH1	2441	Ant1	1.22	0.813	Pass
NVNT	3-DH1	2480	Ant1	1.21	0.813	Pass

Test Graphs

-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1

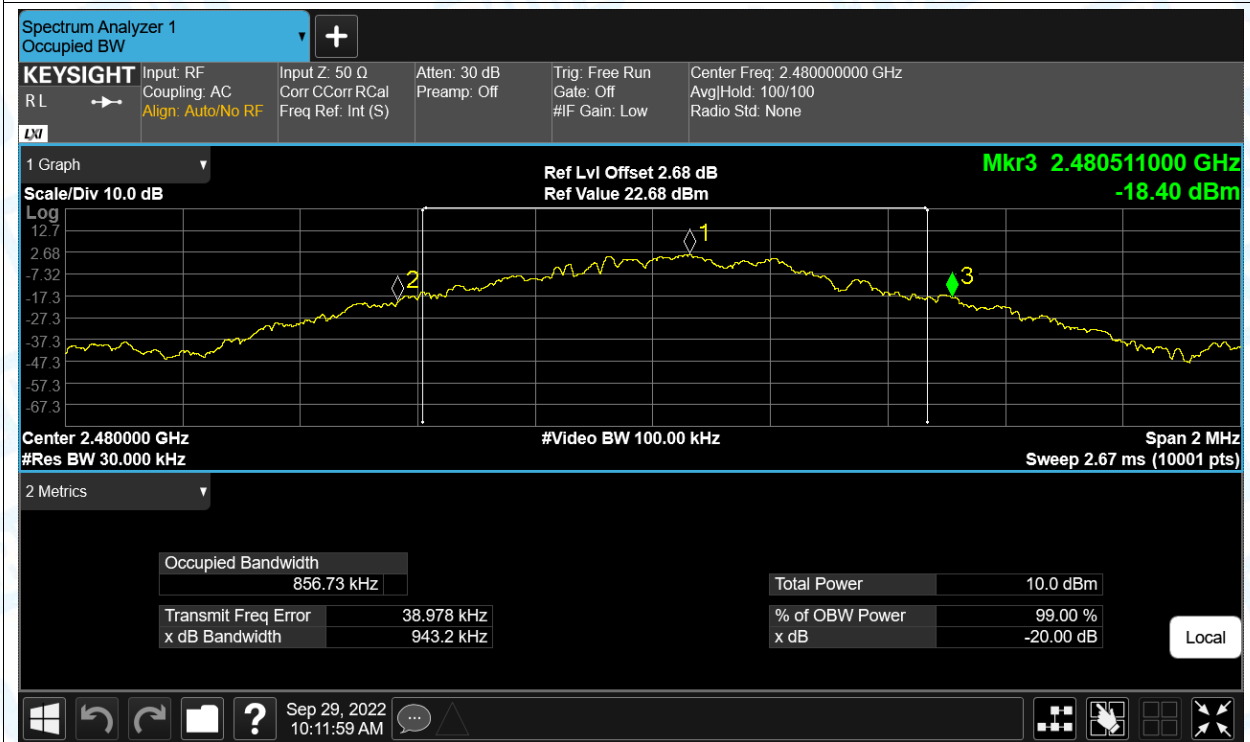


-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1

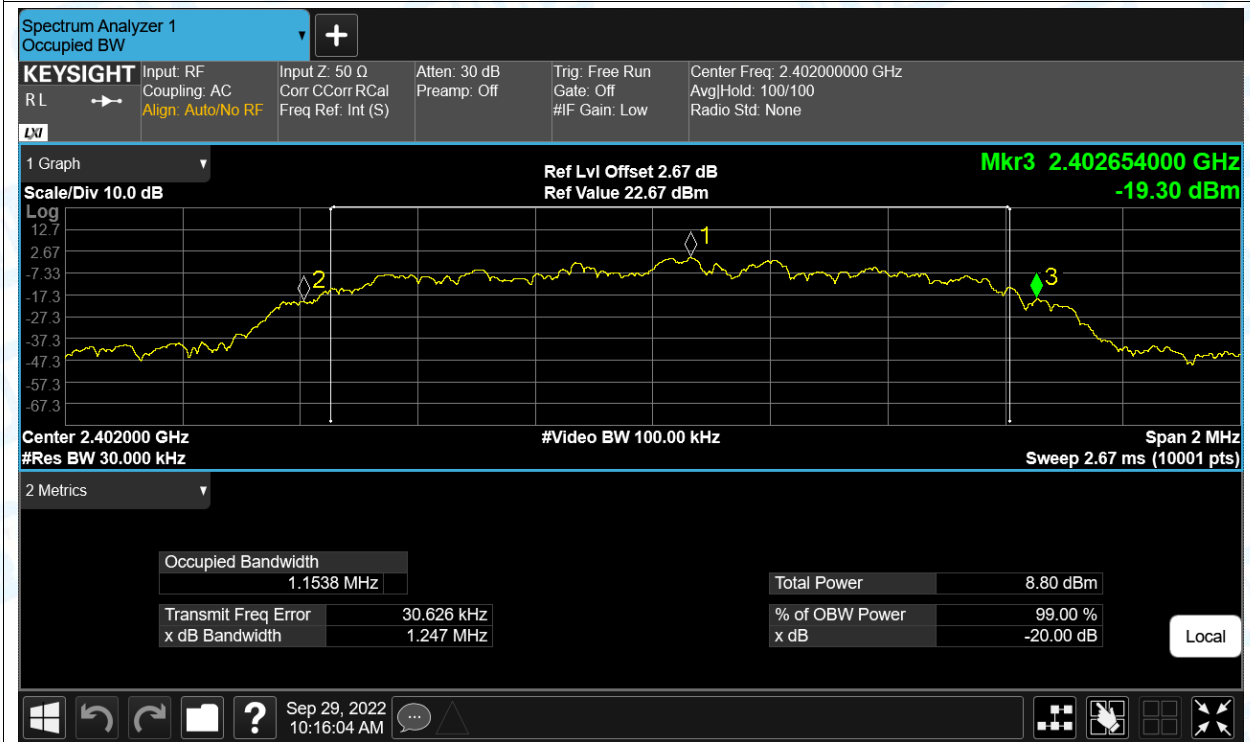




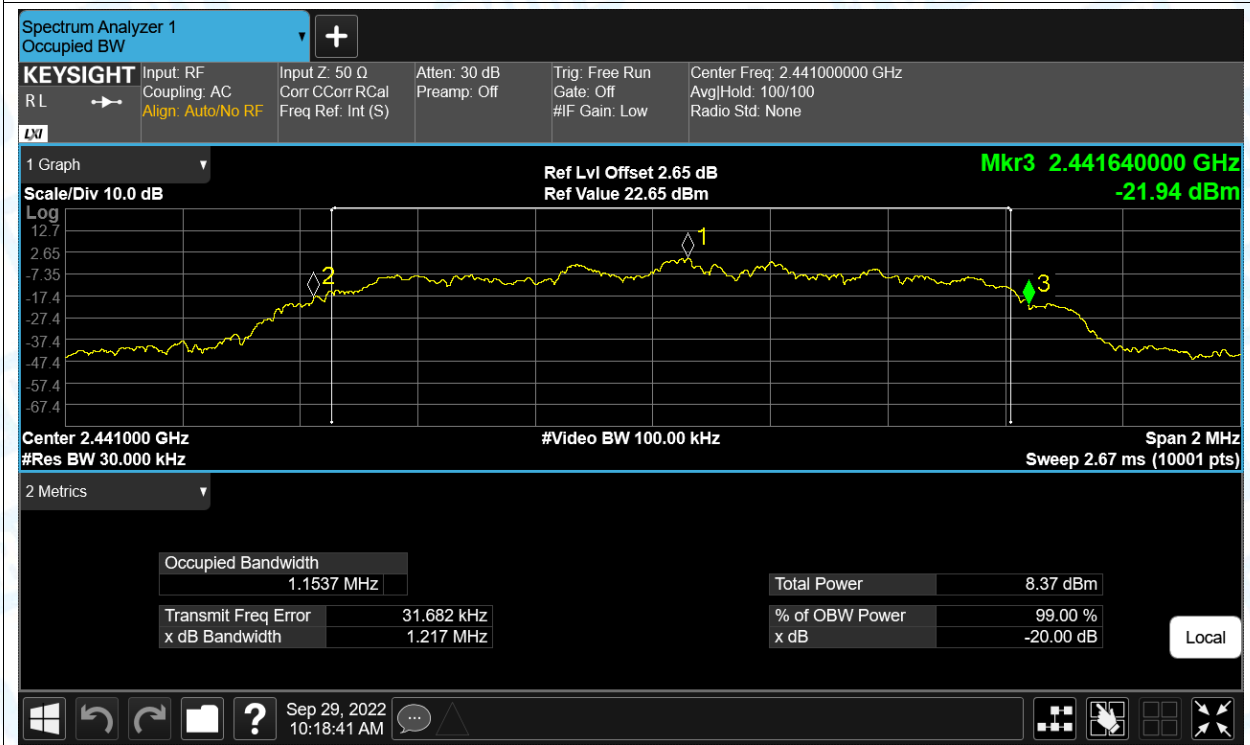
### -20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



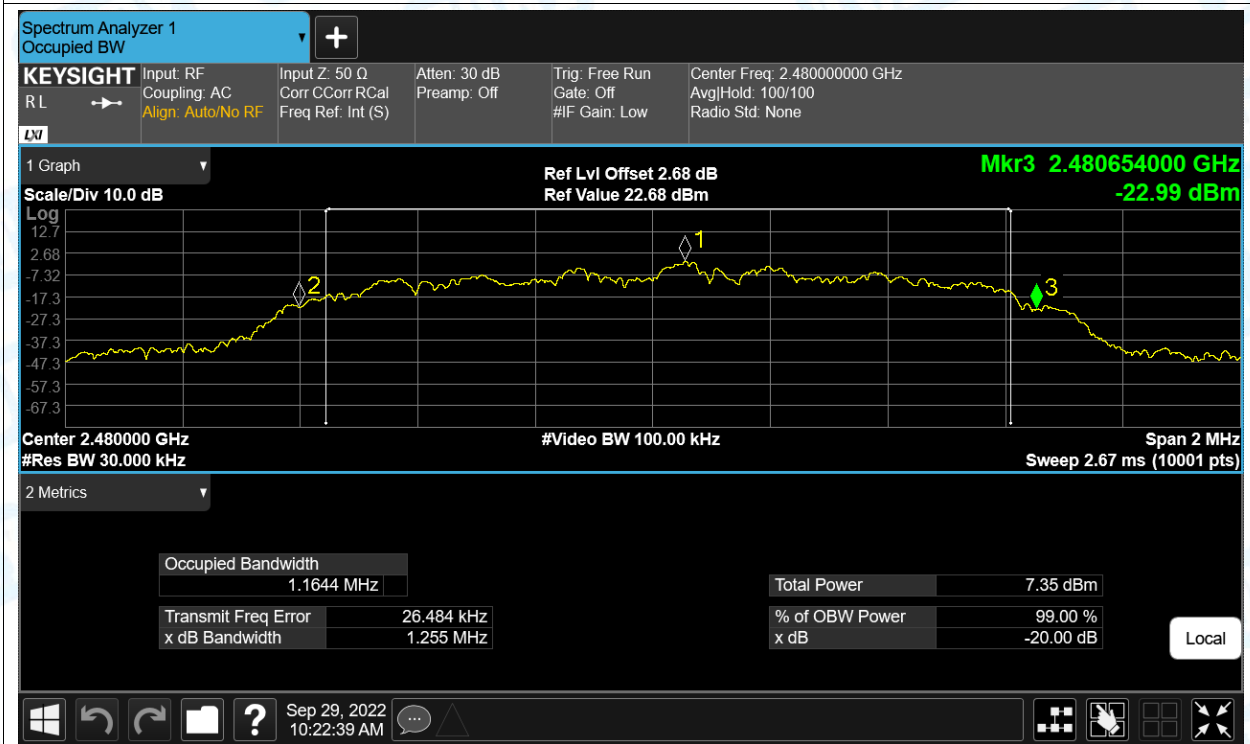
### -20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



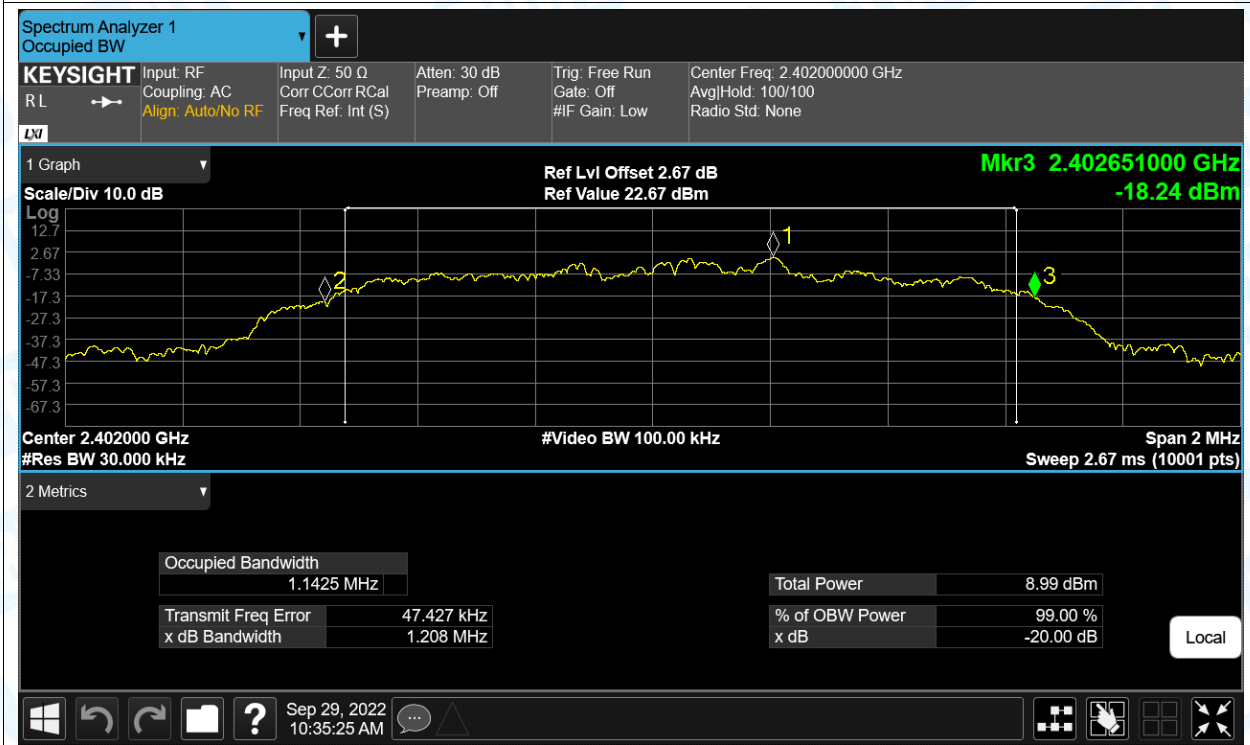
-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



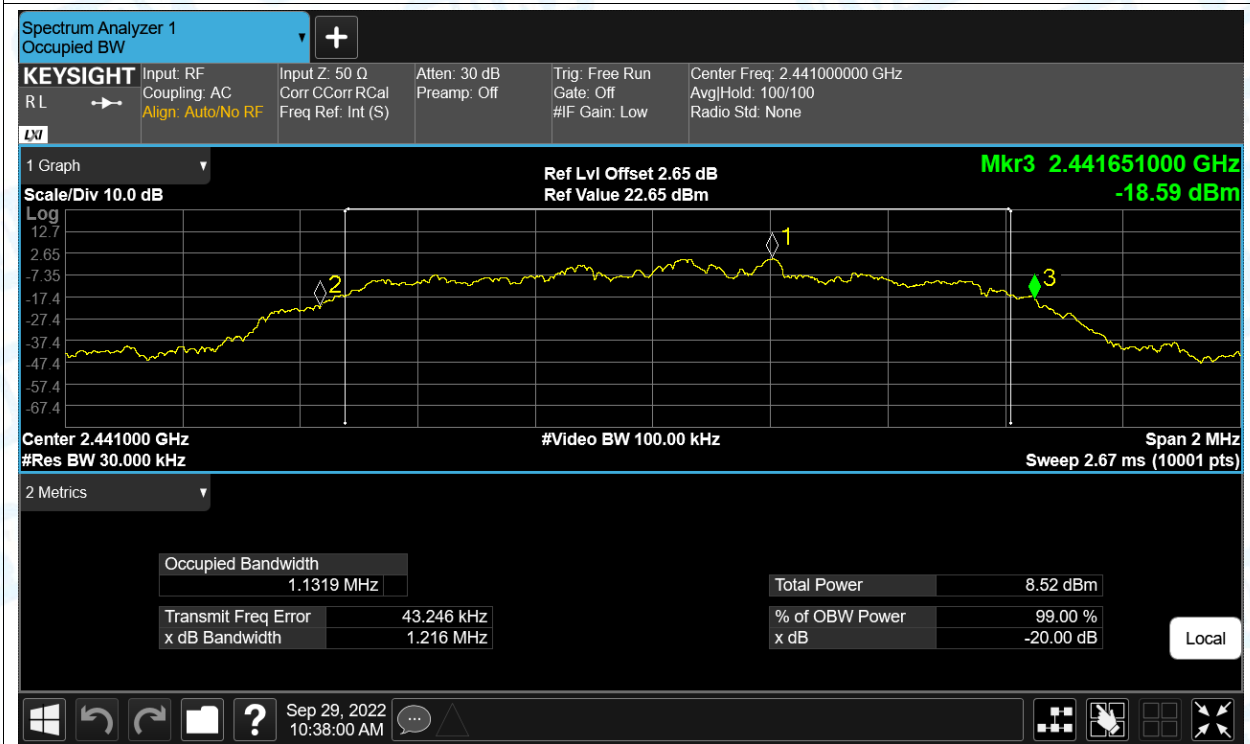
-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1

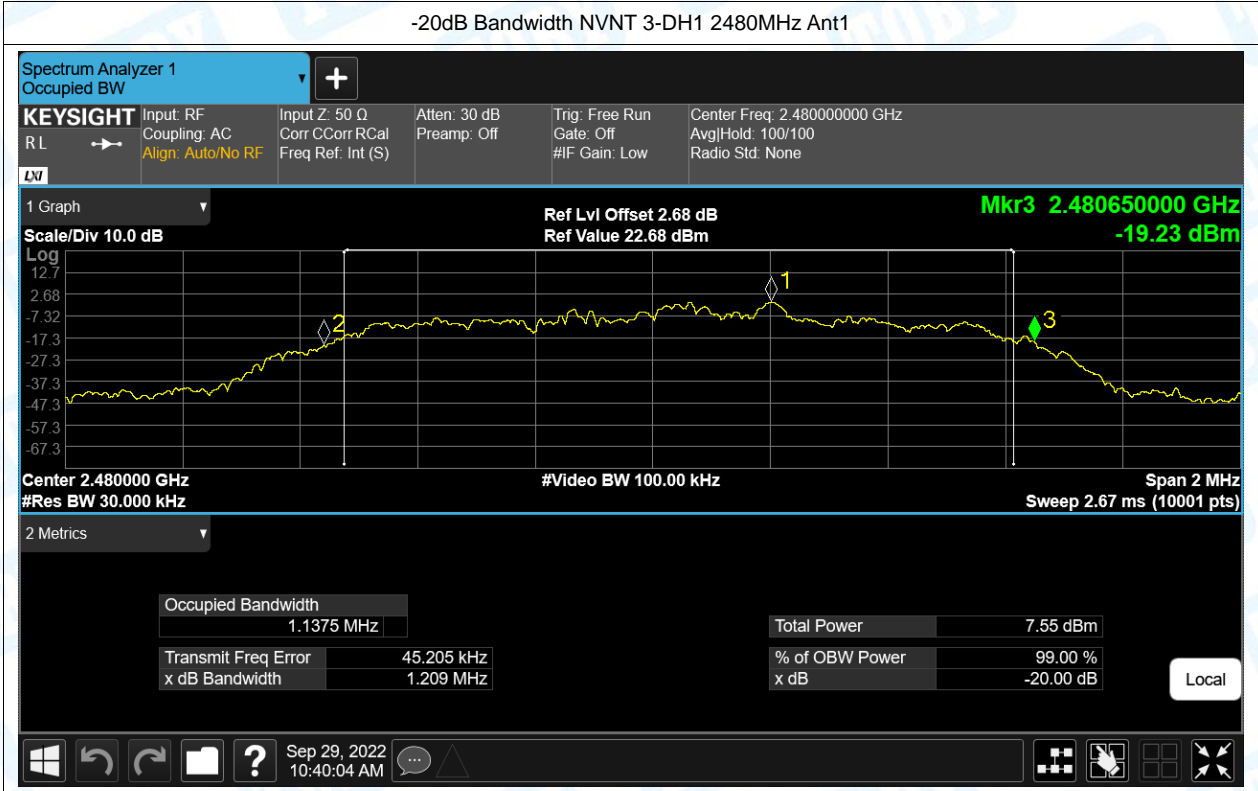


-20dB Bandwidth NVNT 3-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2441MHz Ant1





#### 4. Occupied Channel Bandwidth

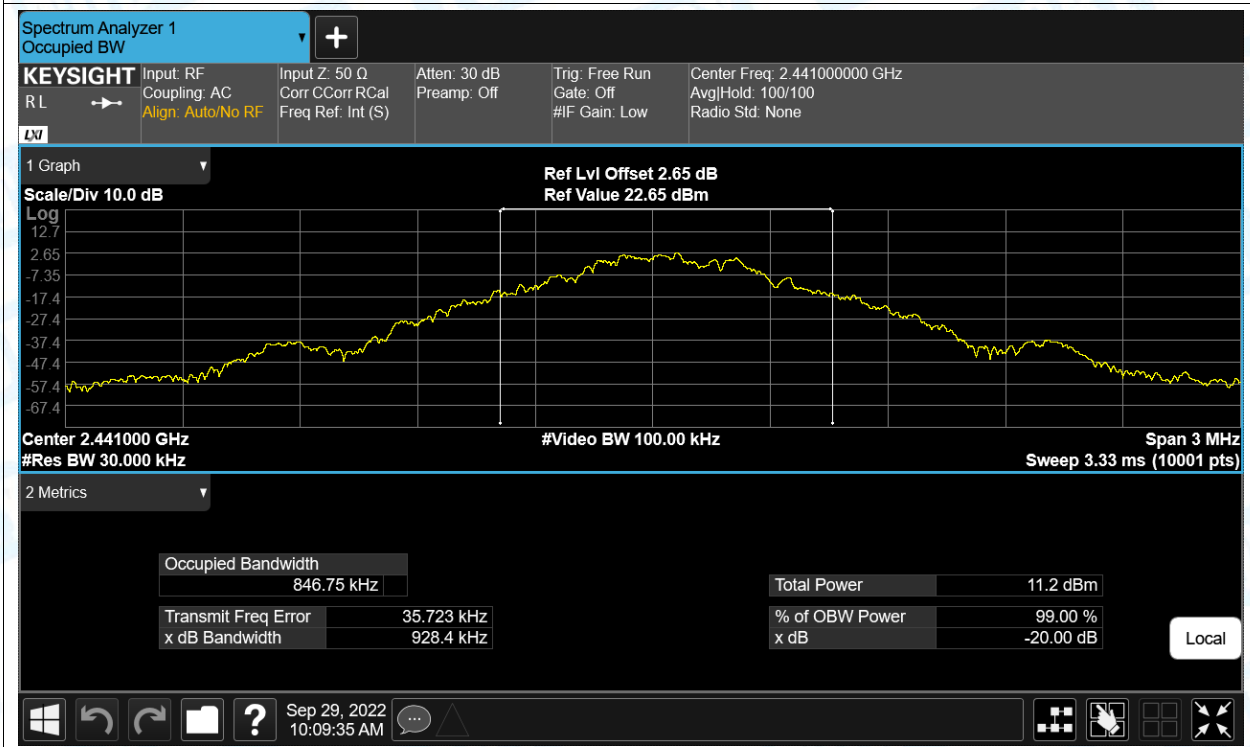
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH1	2402	Ant1	0.842
NVNT	1-DH1	2441	Ant1	0.847
NVNT	1-DH1	2480	Ant1	0.849
NVNT	2-DH1	2402	Ant1	1.171
NVNT	2-DH1	2441	Ant1	1.159
NVNT	2-DH1	2480	Ant1	1.166
NVNT	3-DH1	2402	Ant1	1.149
NVNT	3-DH1	2441	Ant1	1.132
NVNT	3-DH1	2480	Ant1	1.15

Test Graphs

OBW NVNT 1-DH1 2402MHz Ant1



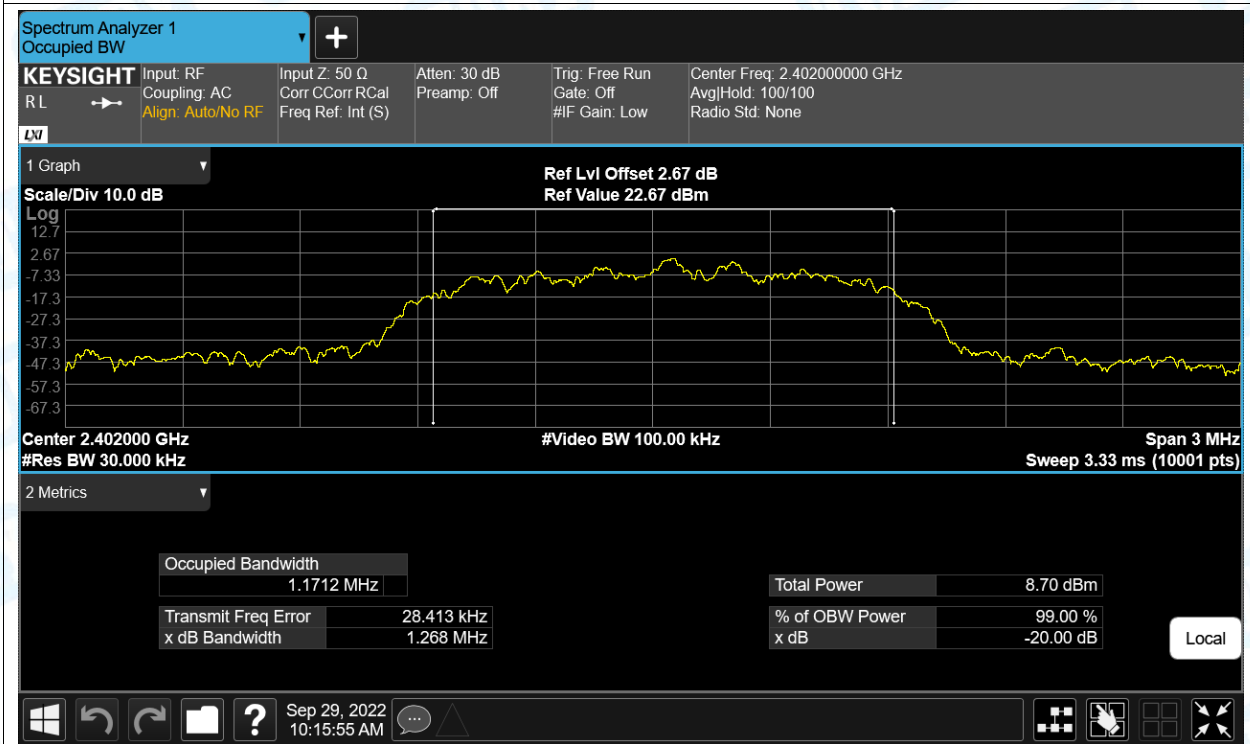
OBW NVNT 1-DH1 2441MHz Ant1

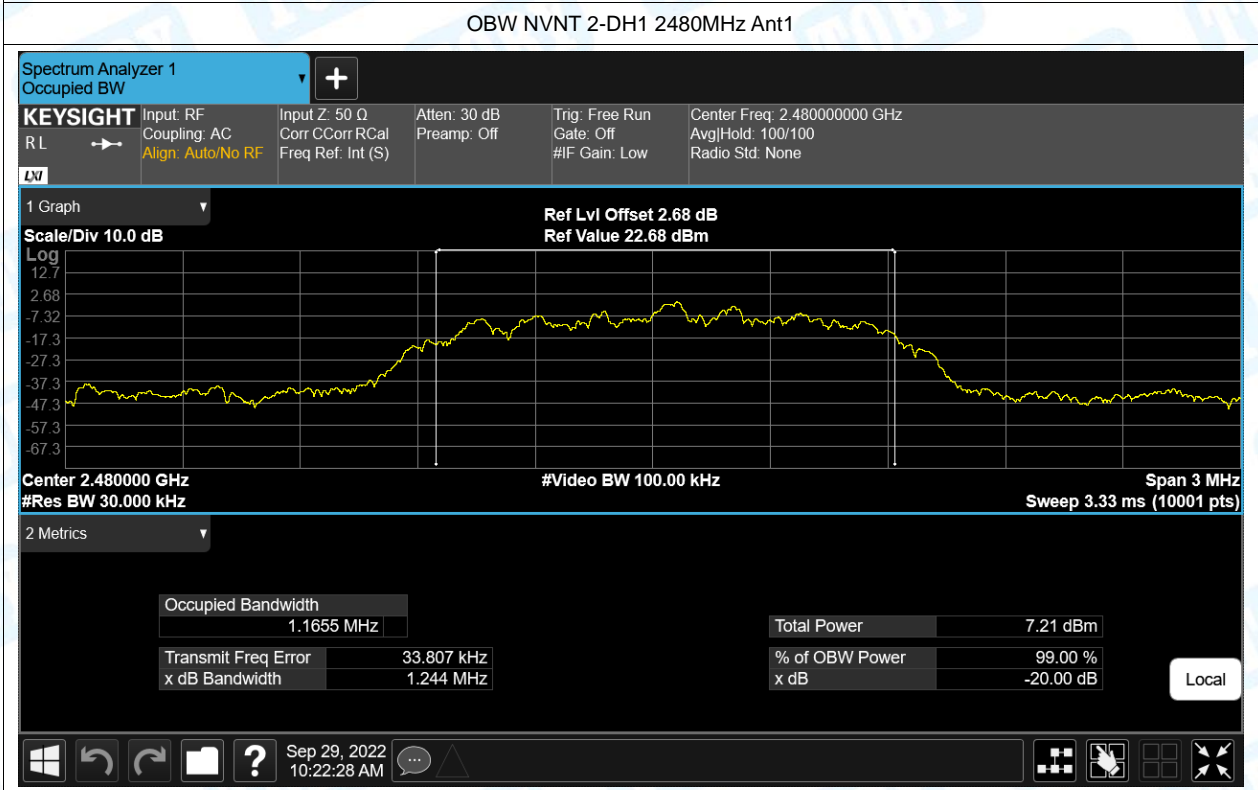
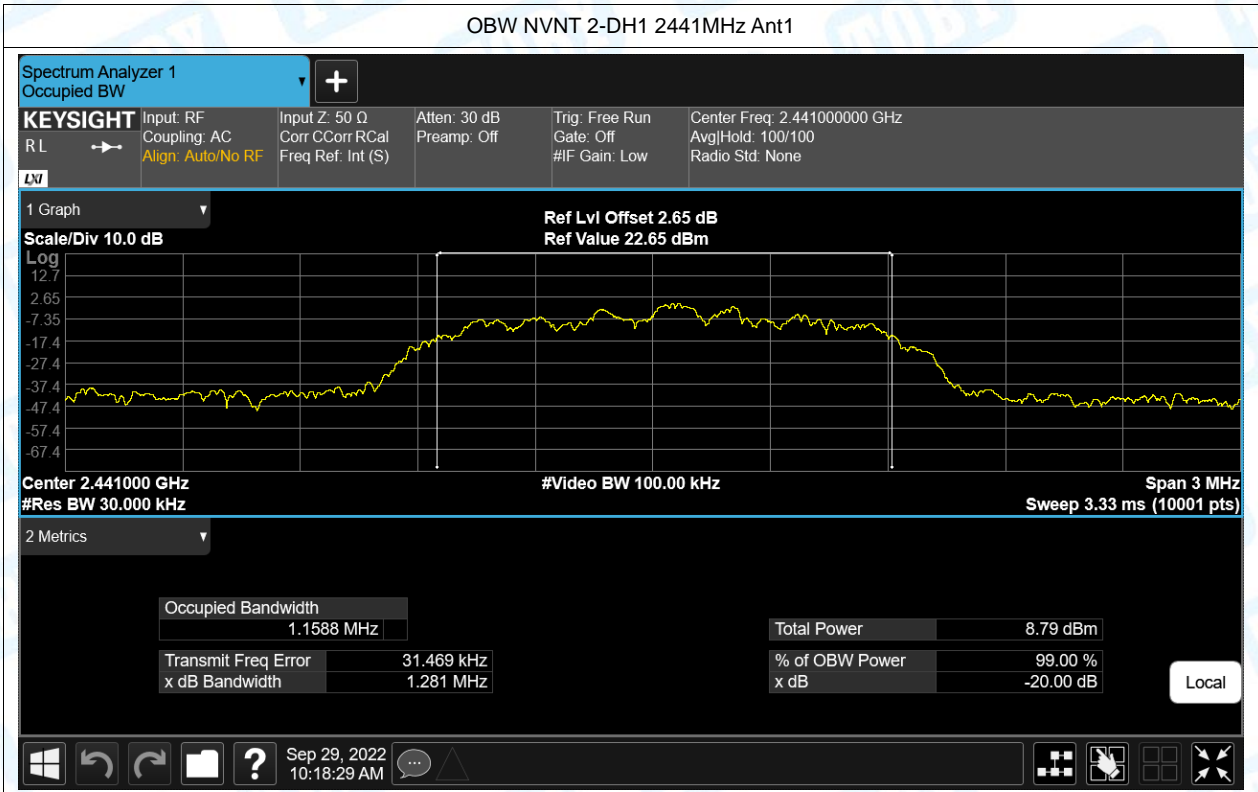


OBW NVNT 1-DH1 2480MHz Ant1

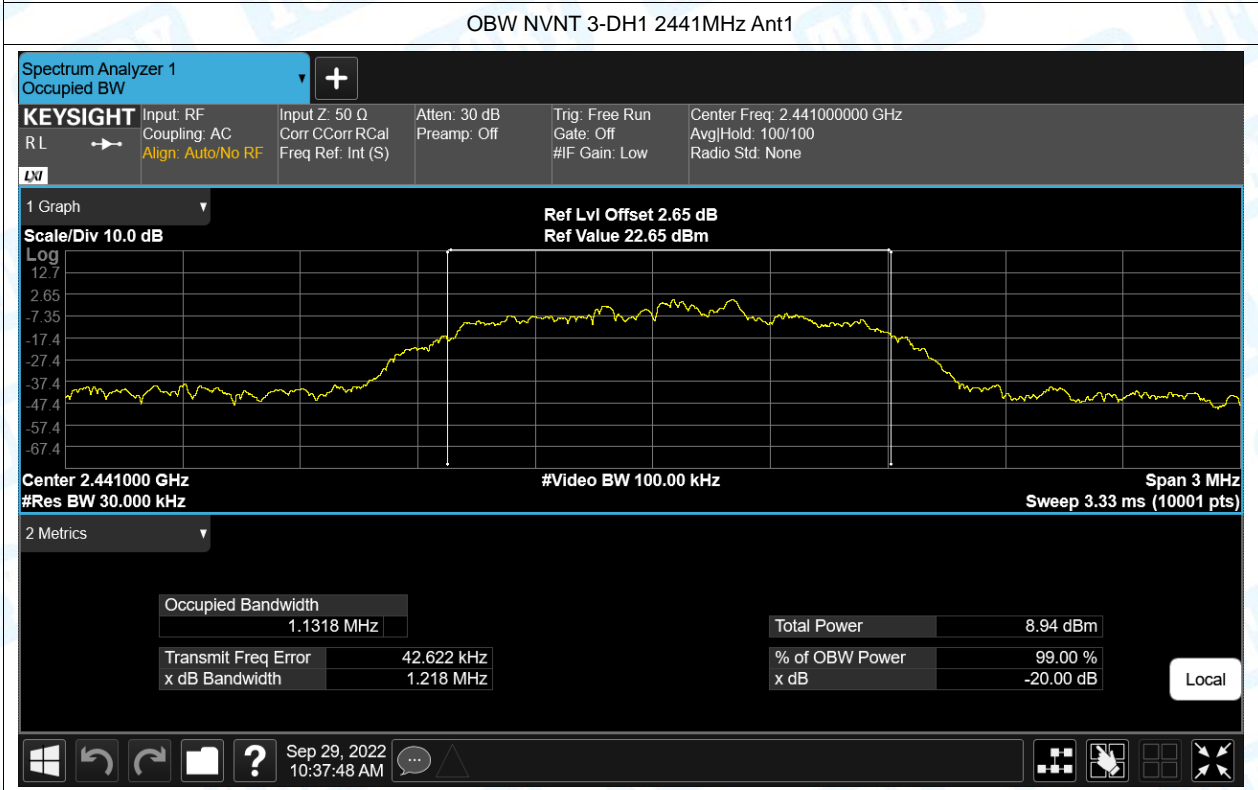
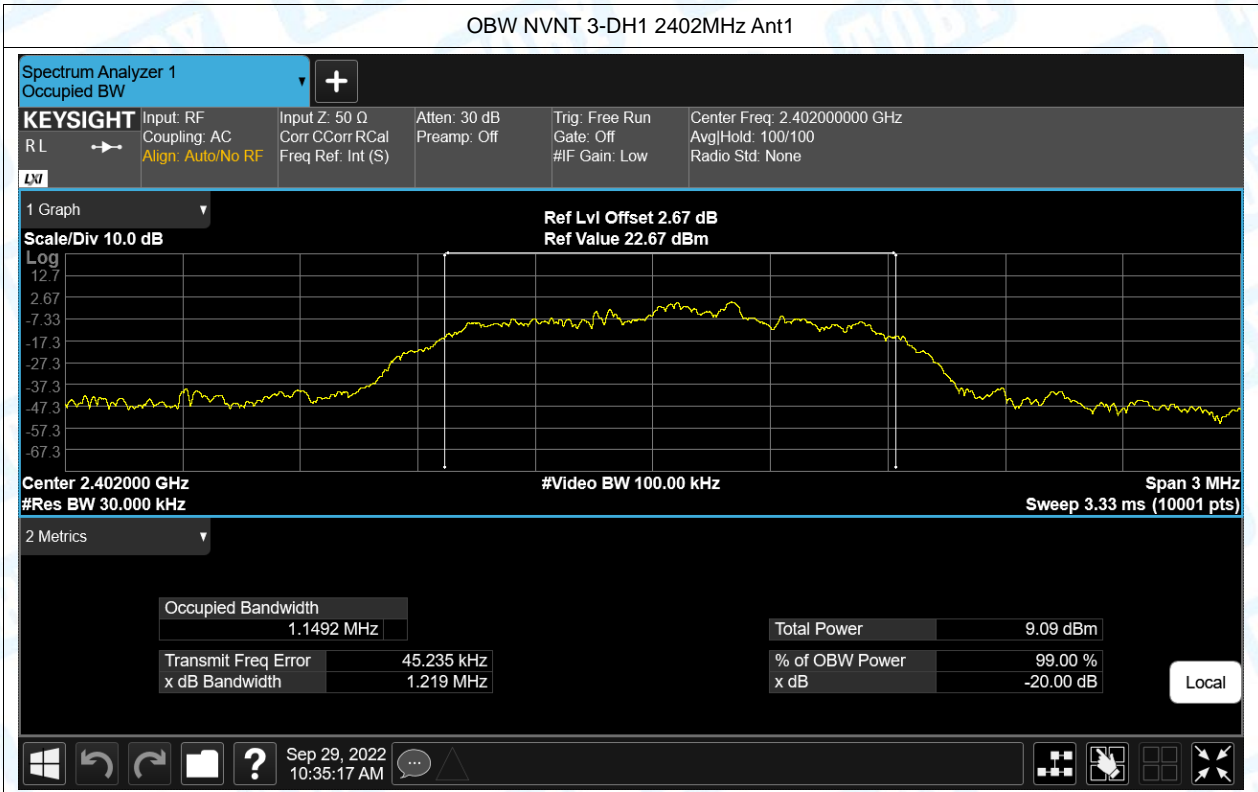


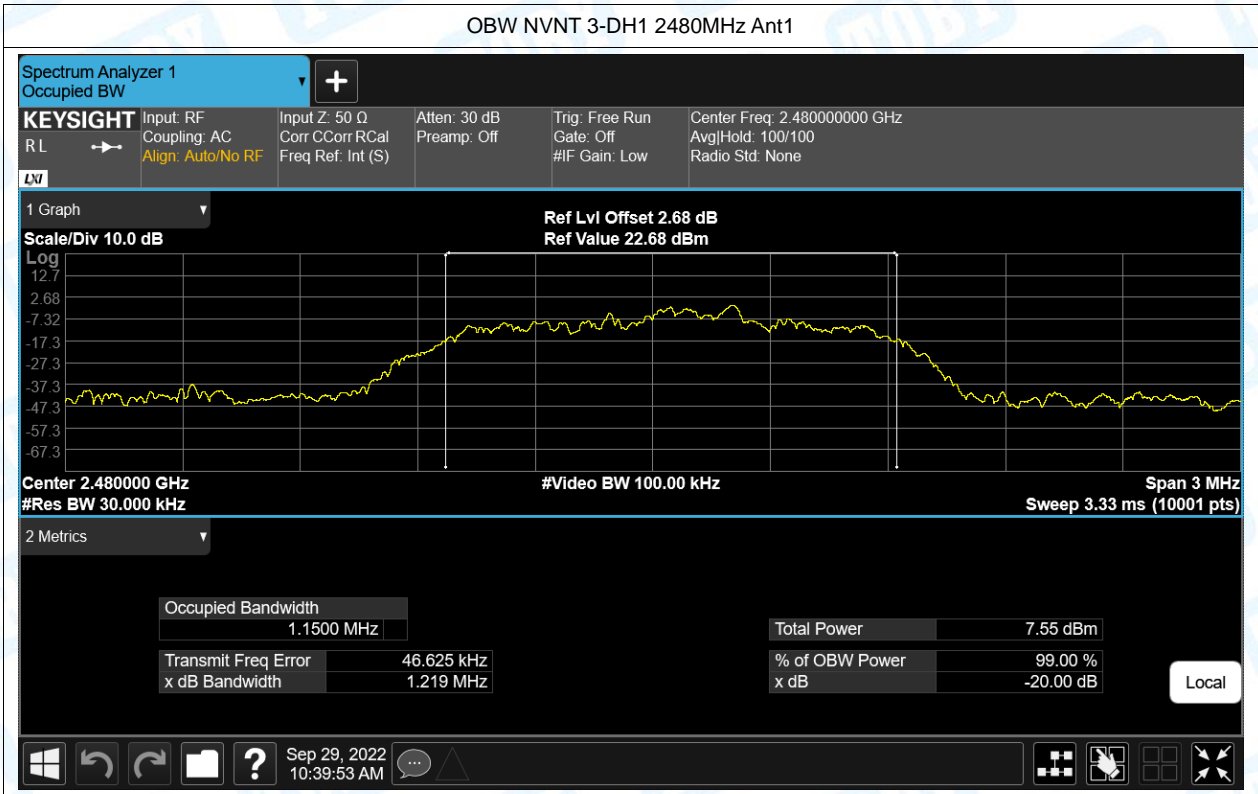
OBW NVNT 2-DH1 2402MHz Ant1









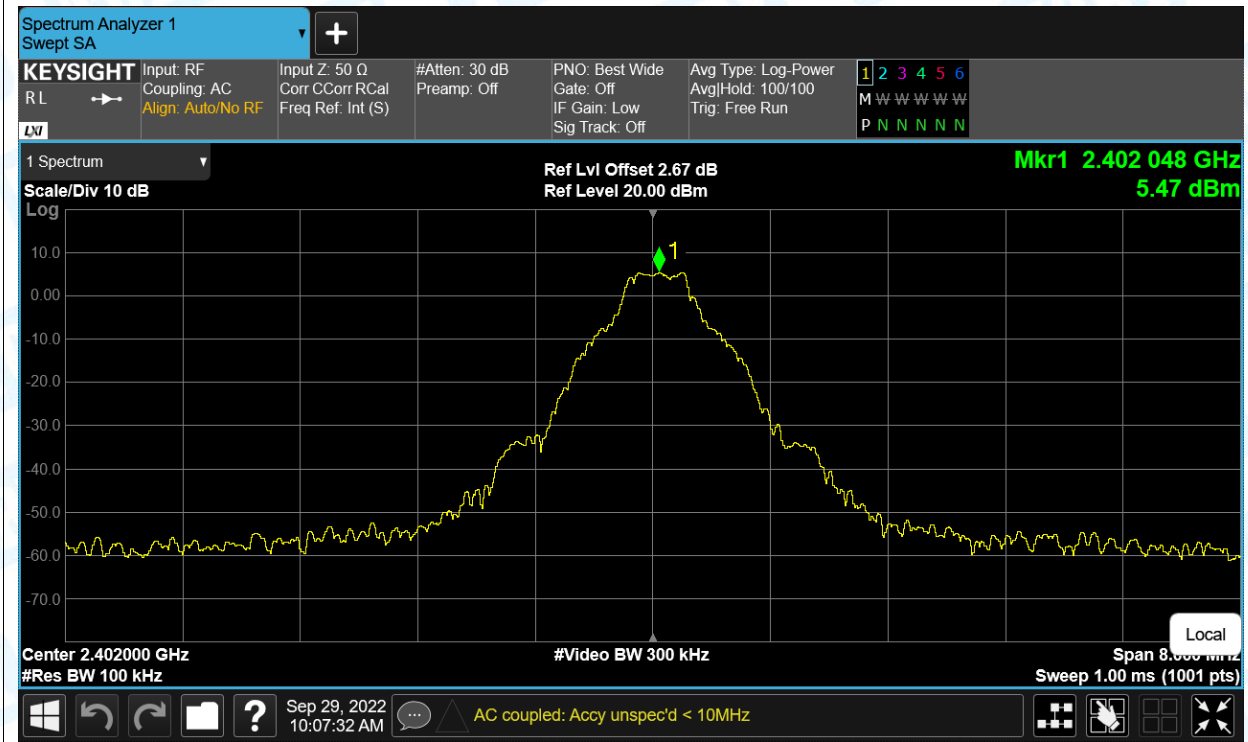


## 5. Band Edge

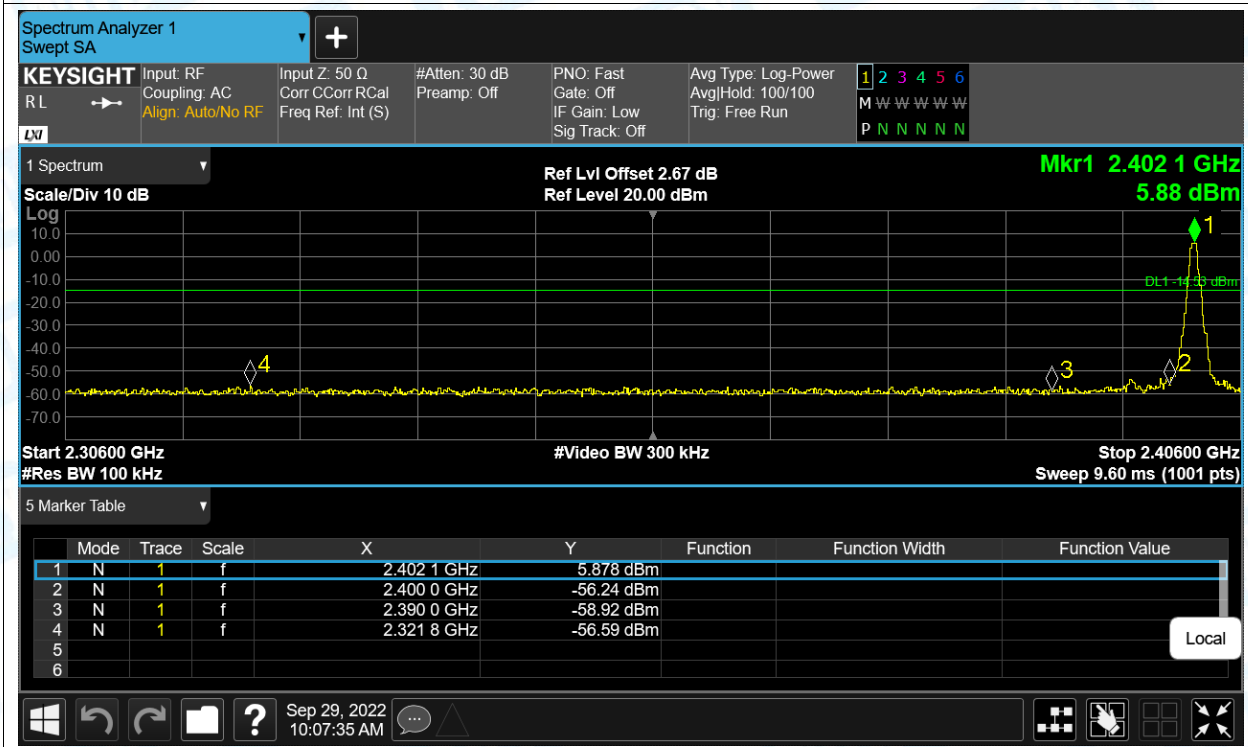
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-62.06	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-58.28	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-59.01	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-56.41	-20	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	-58.79	-20	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	-58.23	-20	Pass

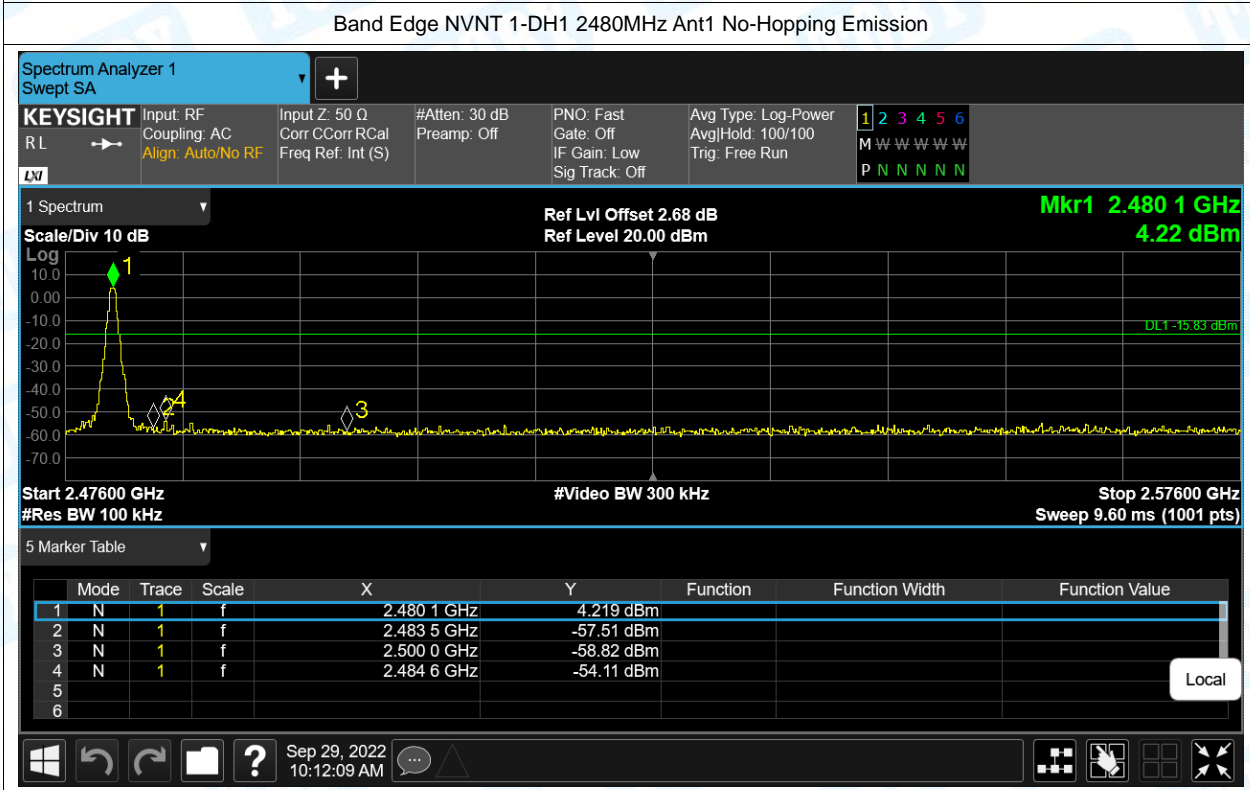
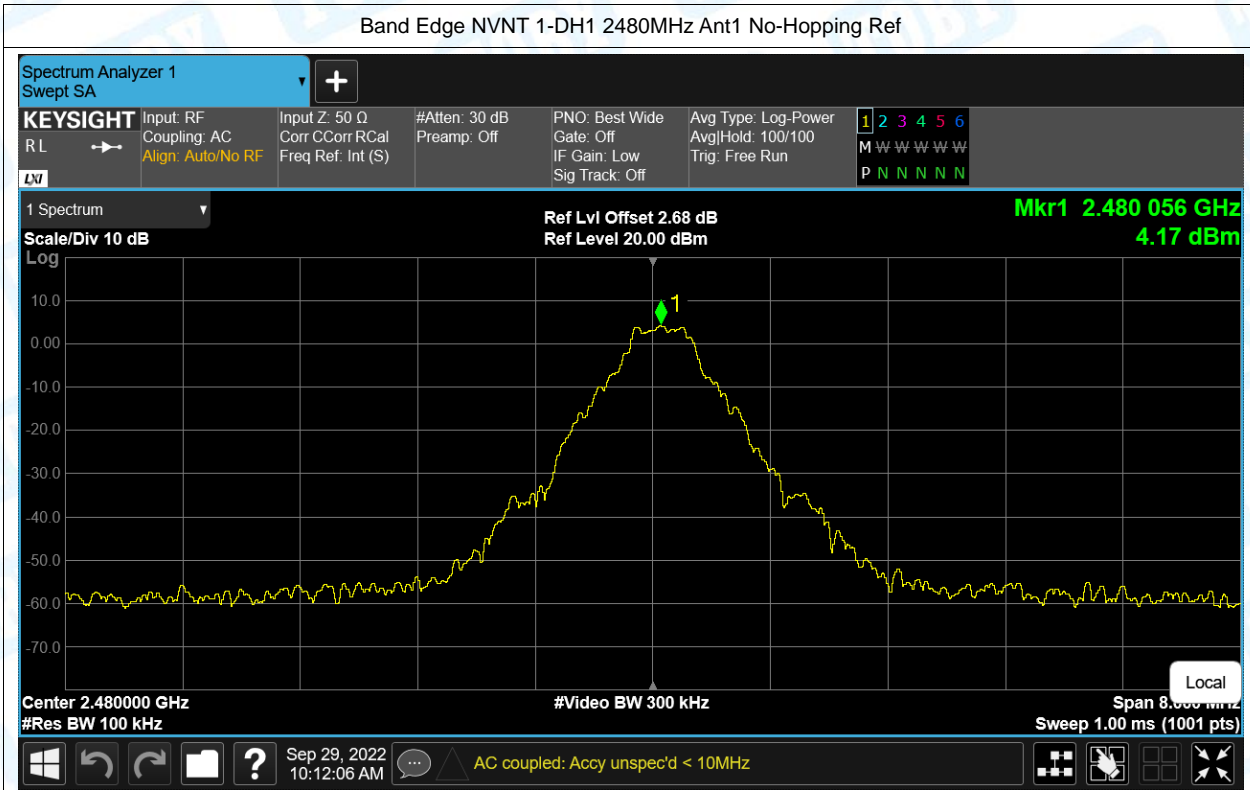
### Test Graphs

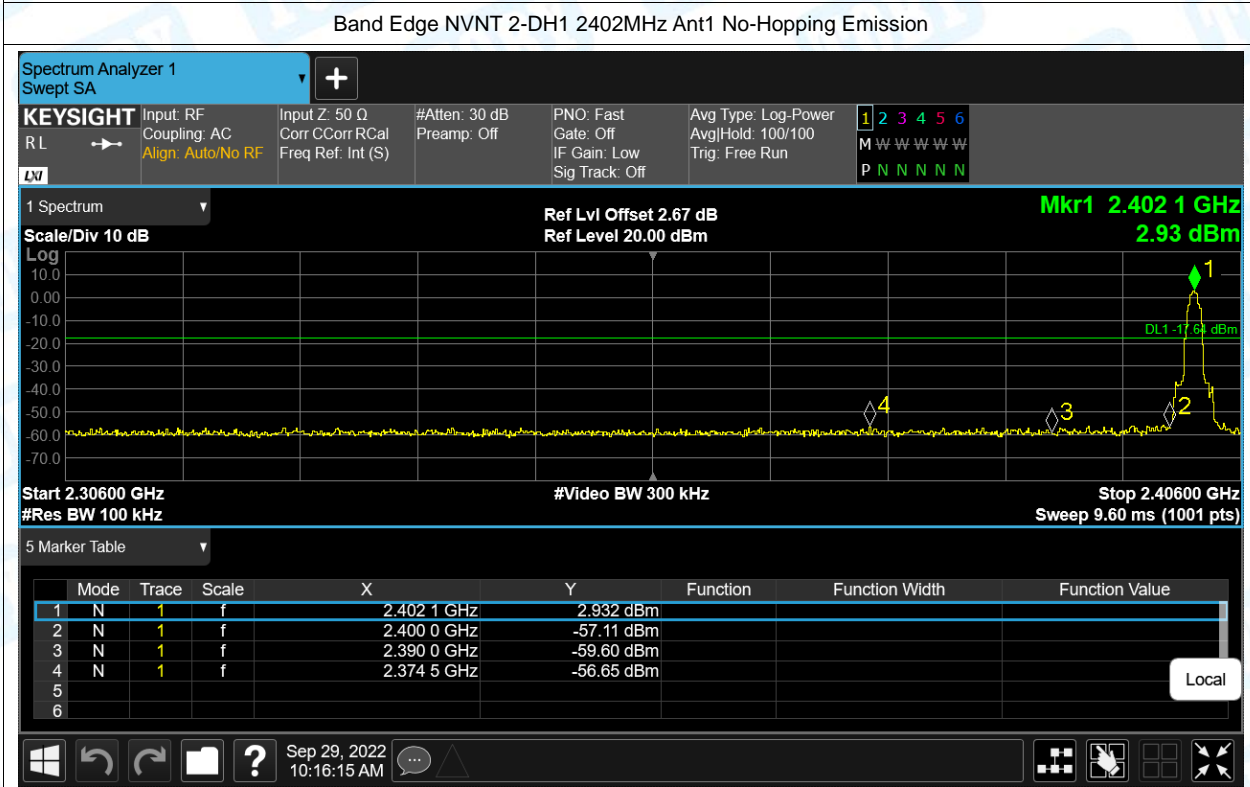
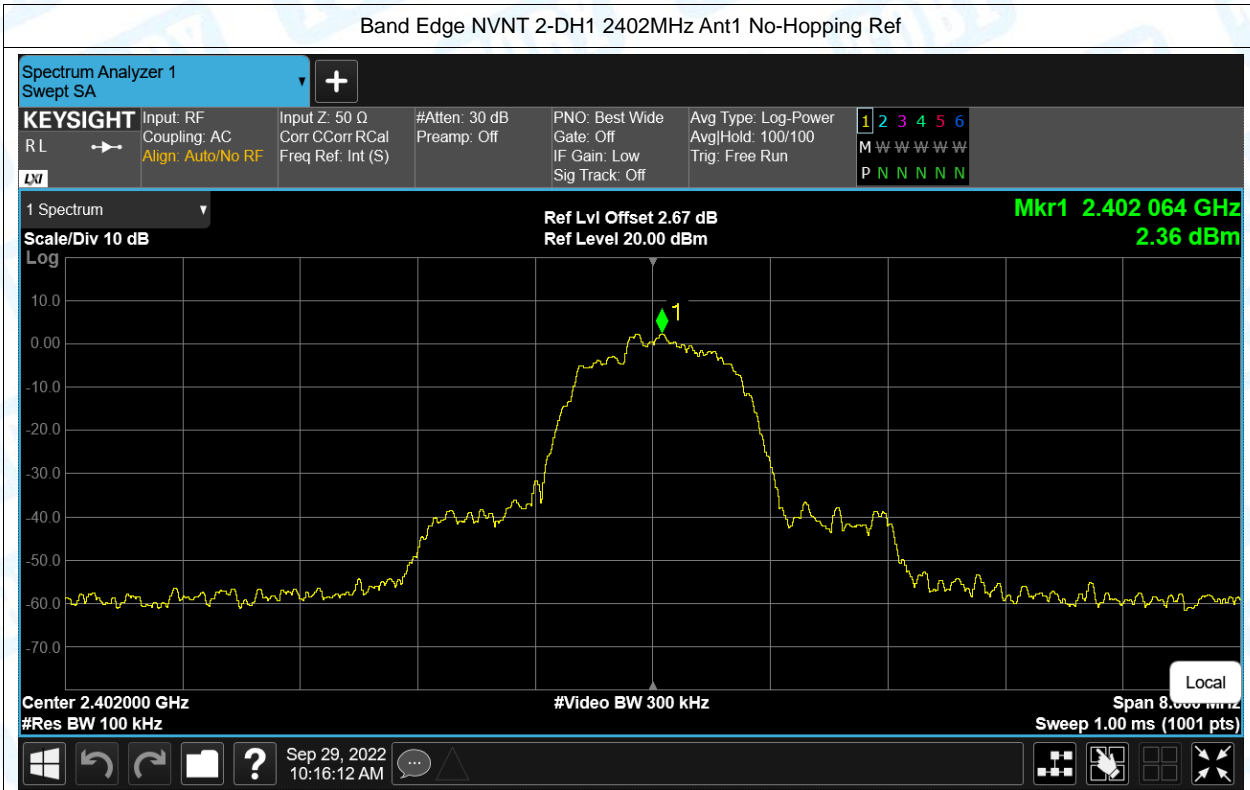
#### Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Ref

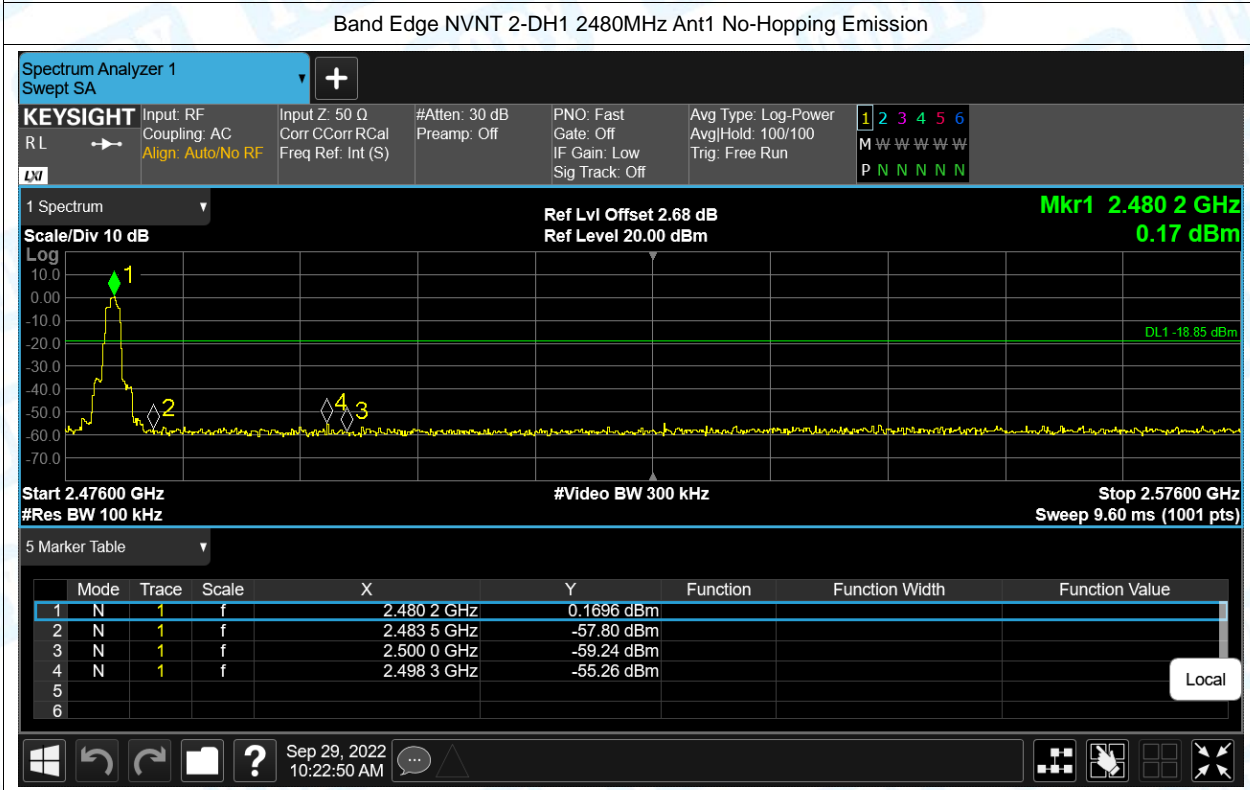
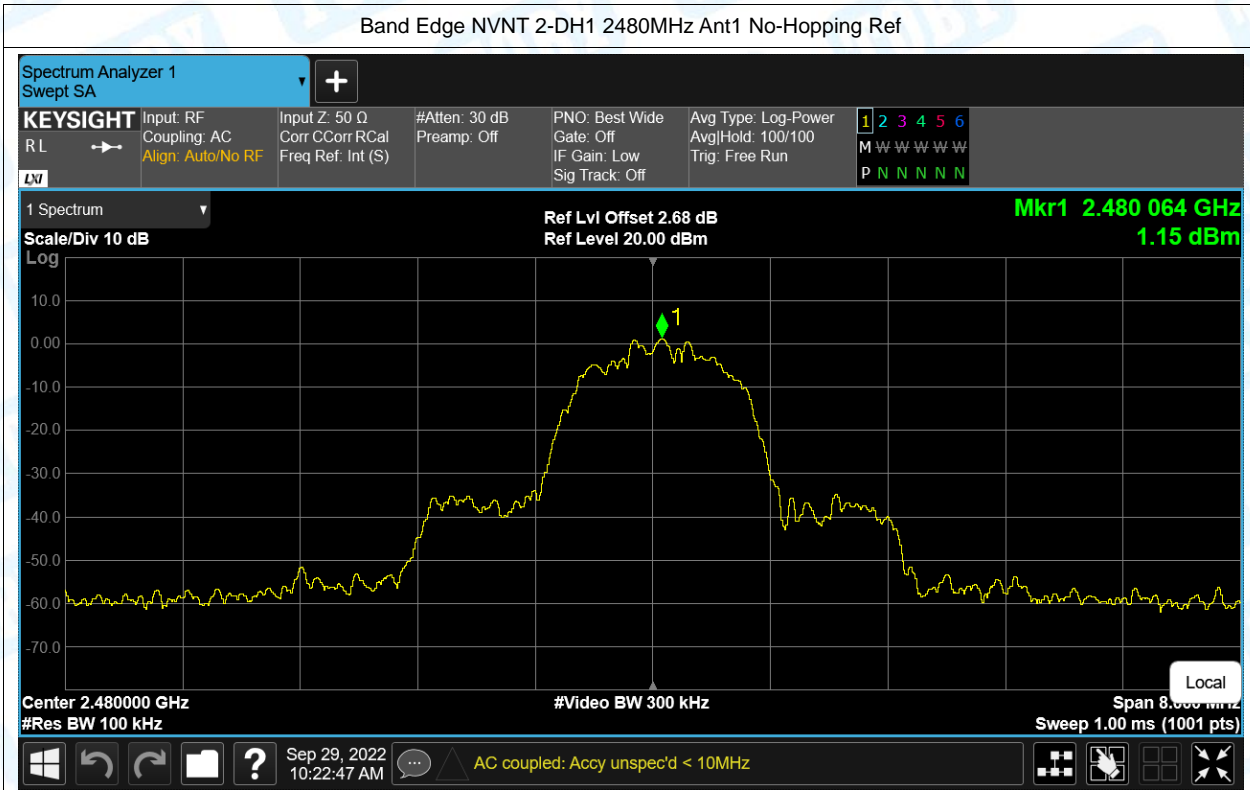


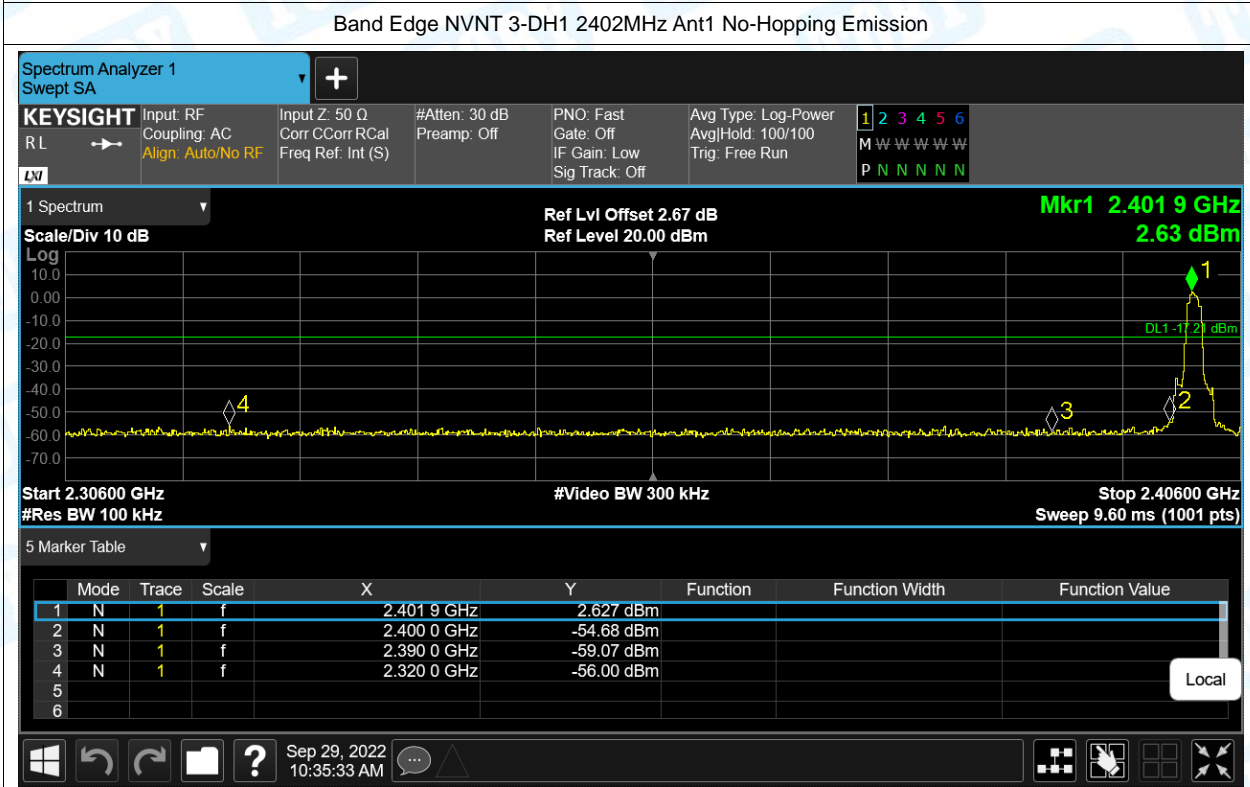
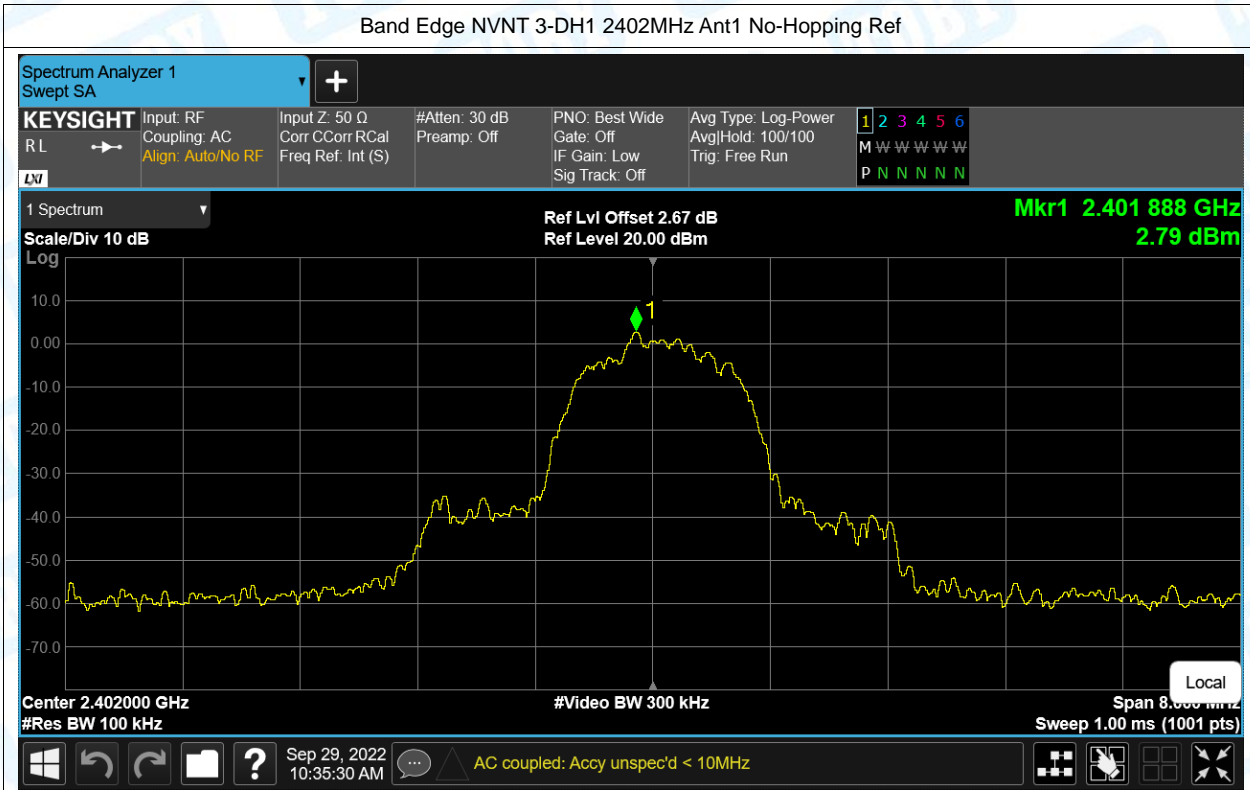
#### Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission



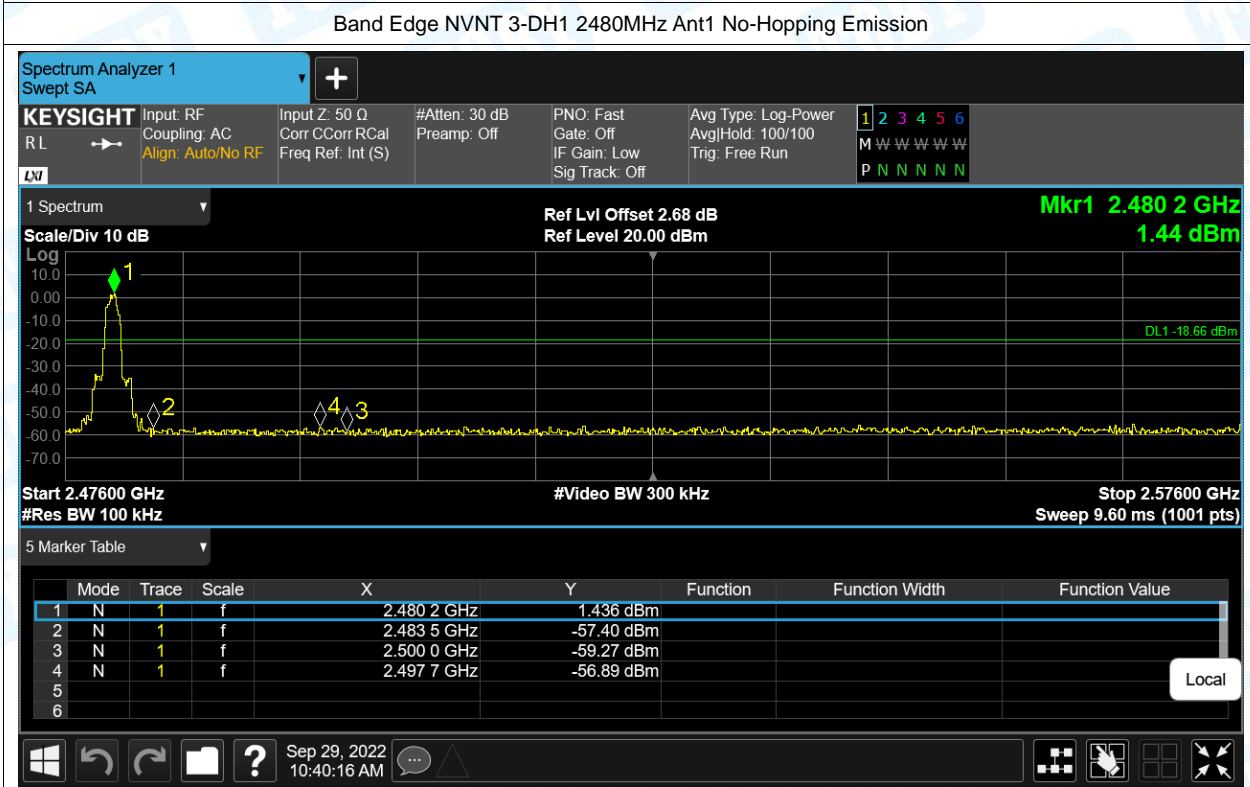
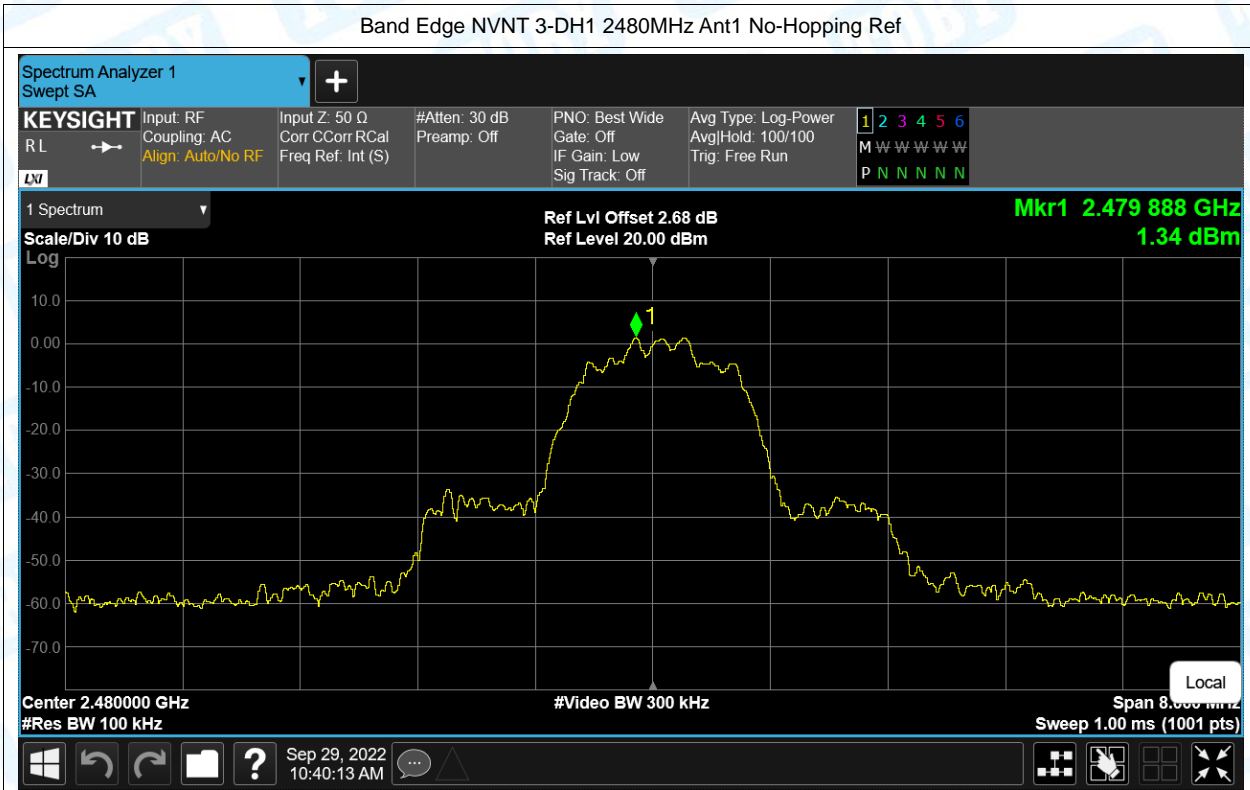










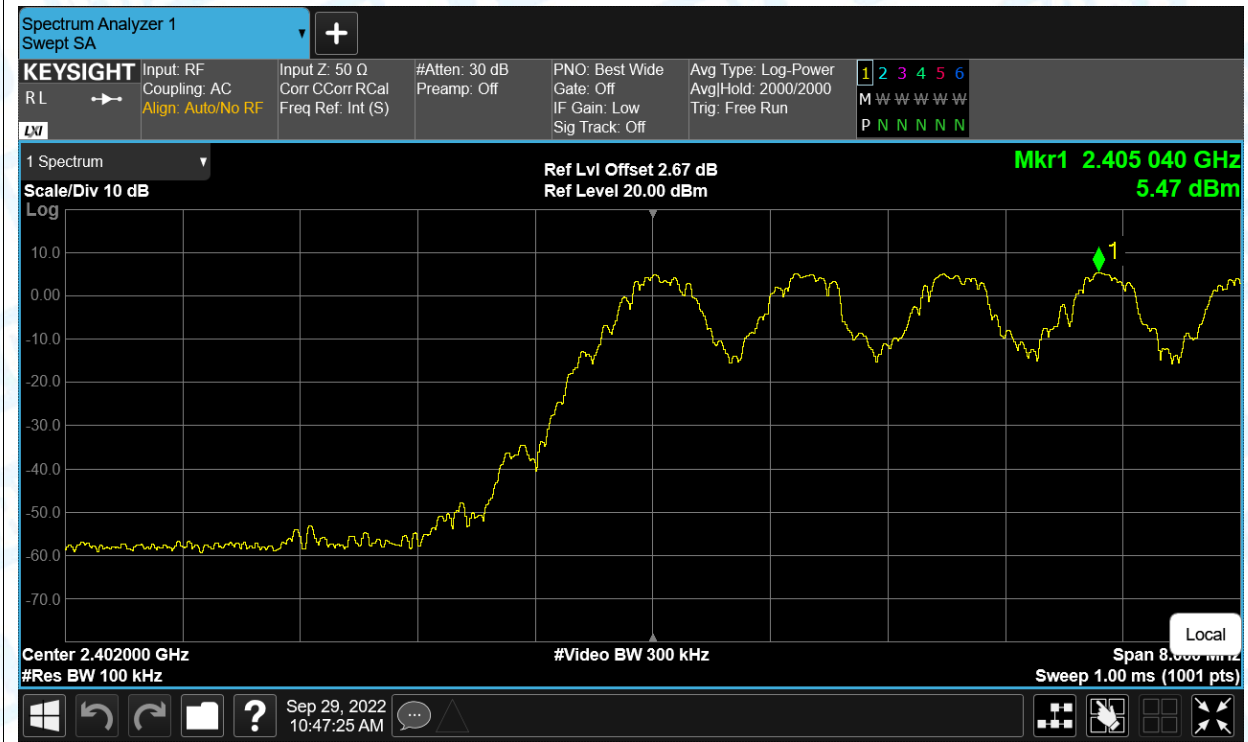


## 6. Band Edge(Hopping)

Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-60.98	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-59.24	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-57.66	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-56.98	-20	Pass
NVNT	3-DH1	2402	Ant1	Hopping	-58.12	-20	Pass
NVNT	3-DH1	2480	Ant1	Hopping	-57.25	-20	Pass

### Test Graphs

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



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

