# RF Test Data for 2.4G WiFi (Conducted Measurements)

| General Description of EUT | |
|---|---|
| **Product Name:** | Projector |
| **Test Model:** | M9 |
| **Sample ID:** | 202207-0331-5-2# |
| **Environmental Conditions** | |
| **Temperature:** | 25℃ |
| **Relative Humidity:** | 55% |
| **Test Voltage:** | AC 120V |
| **Test Engineer:** | Huang jian ping |
| Note: For a more detailed features description, please refer to the report TBR-C-202207-0331-82 | |

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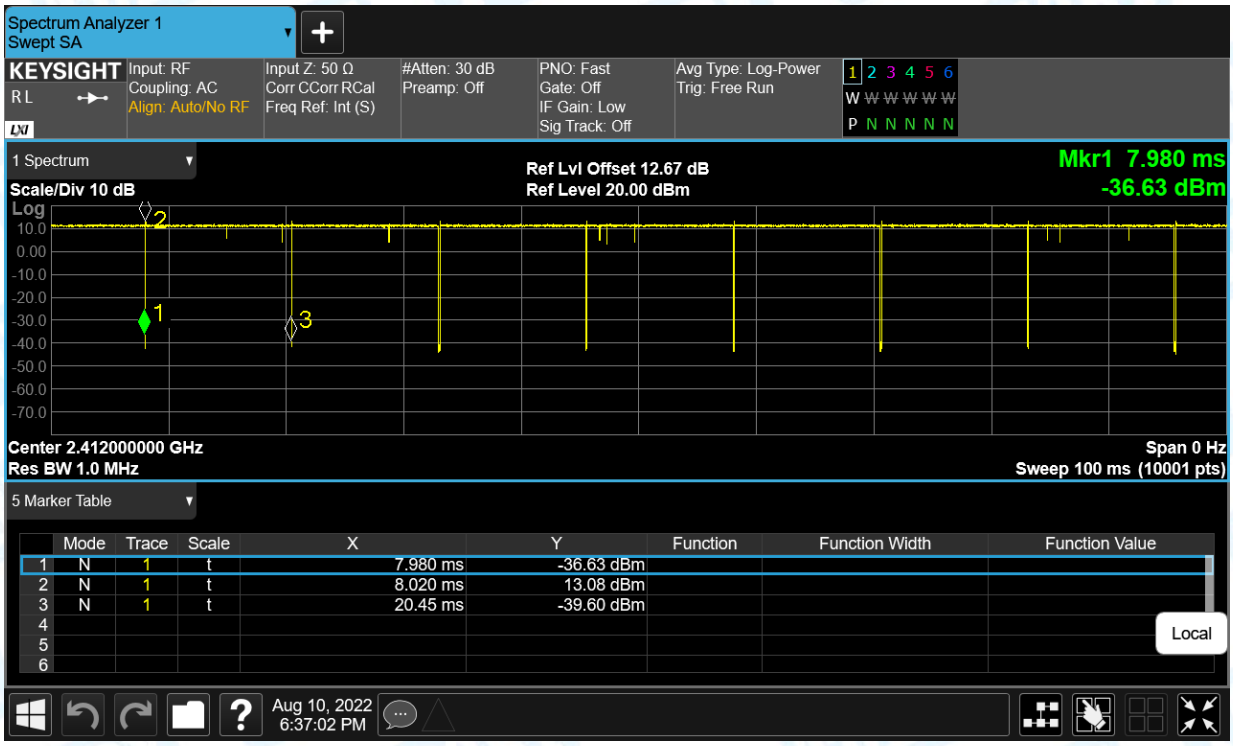
# 1. Duty Cycle

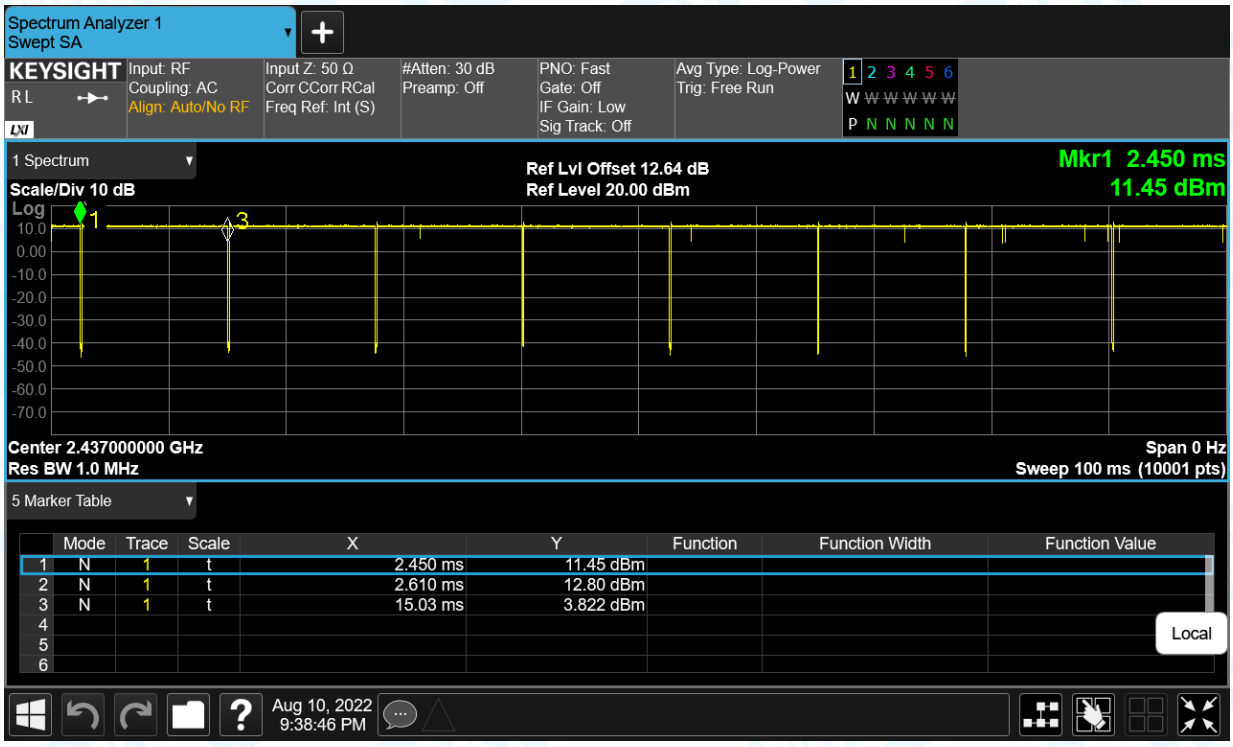
| Condition | Mode | Frequency (MHz) | Antenna | Duty Cycle (%) | Correction Factor (dB) | 1/T (kHz) |
|---|---|---|---|---|---|---|
| NVNT | b | 2412 | Ant1 | 99.42 | 0.03 | 0.08 |
| NVNT | b | 2437 | Ant1 | 99.17 | 0.04 | 0.08 |
| NVNT | b | 2462 | Ant1 | 99.32 | 0.03 | 0.08 |
| NVNT | g | 2412 | Ant1 | 94.04 | 0.27 | 0.48 |
| NVNT | g | 2437 | Ant1 | 96.03 | 0.18 | 0.48 |
| NVNT | g | 2462 | Ant1 | 95.66 | 0.19 | 100 |
| NVNT | n(HT20) | 2412 | Ant1 | 94.34 | 0.25 | 100 |
| NVNT | n(HT20) | 2437 | Ant1 | 95.85 | 0.18 | 0.52 |
| NVNT | n(HT20) | 2462 | Ant1 | 95.84 | 0.18 | 100 |
| NVNT | n(HT40) | 2422 | Ant1 | 91.88 | 0.37 | 1.04 |
| NVNT | n(HT40) | 2437 | Ant1 | 92.31 | 0.35 | 100 |
| NVNT | n(HT40) | 2452 | Ant1 | 92.64 | 0.33 | 1.05 |

Test Graphs

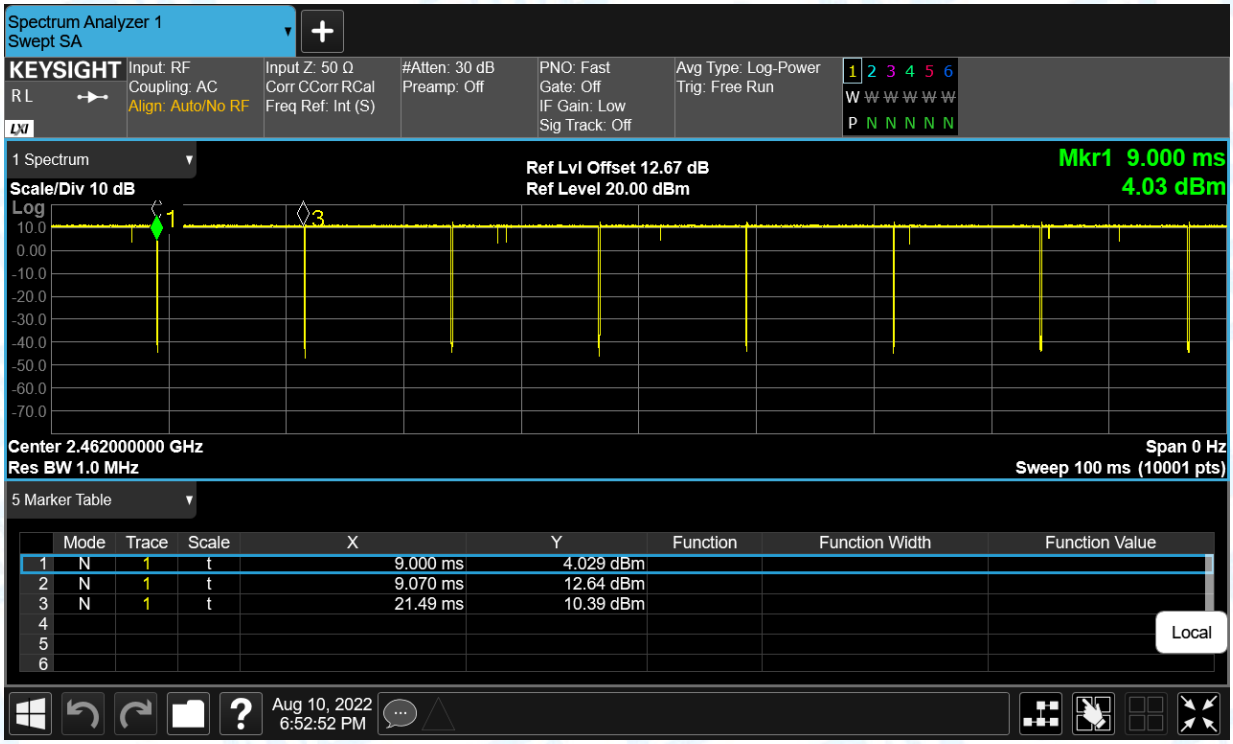
Duty Cycle NVNT b 2412MHz Ant1



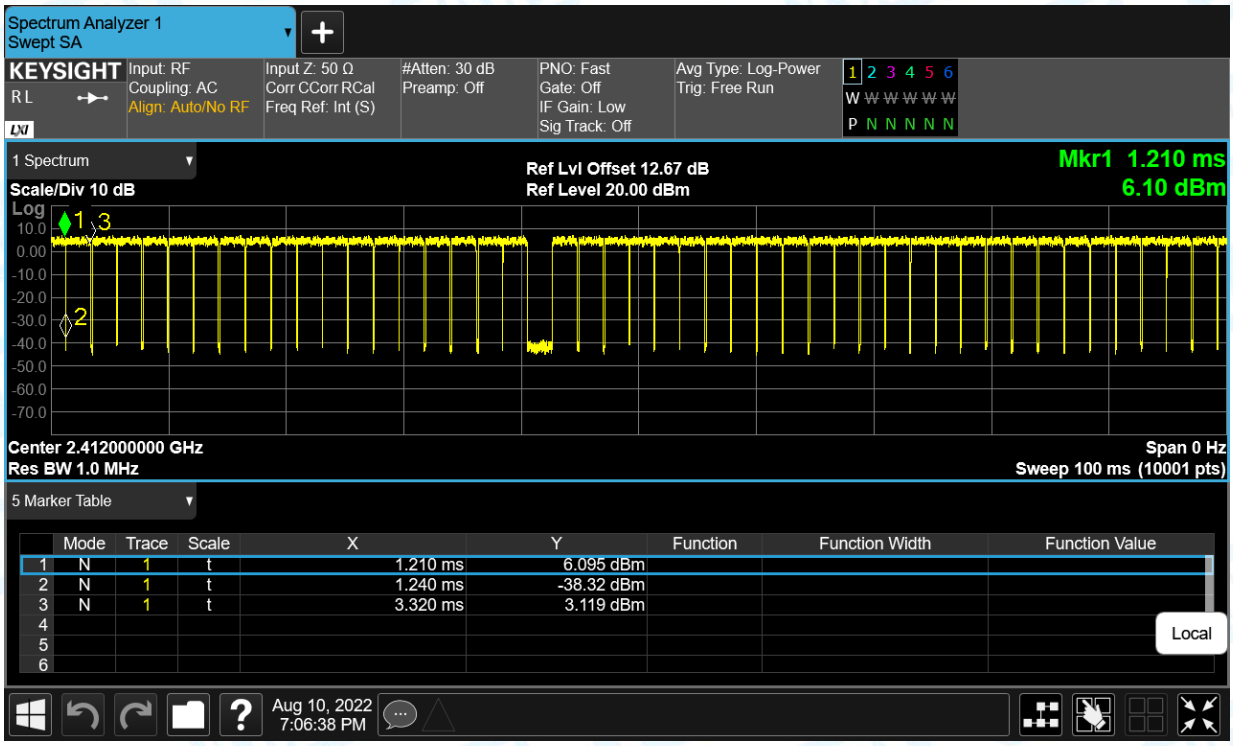

Duty Cycle NVNT b 2437MHz Ant1



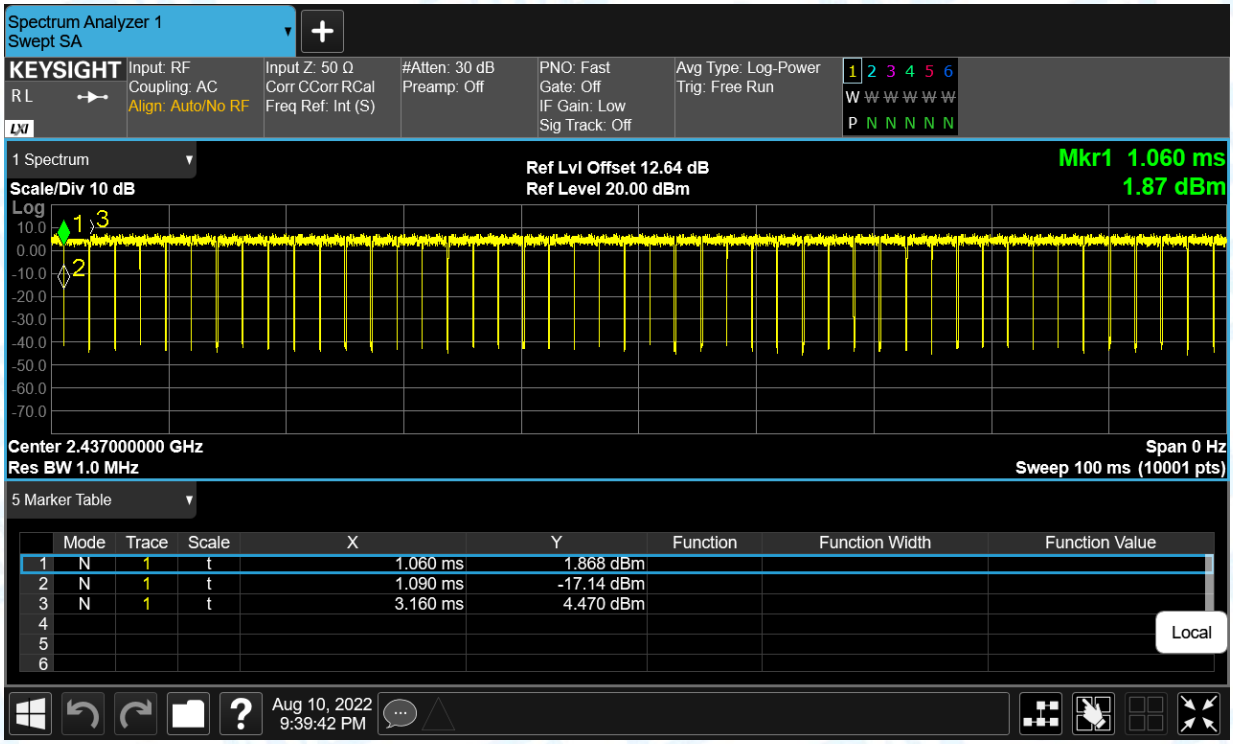
Duty Cycle NVNT b 2462MHz Ant1



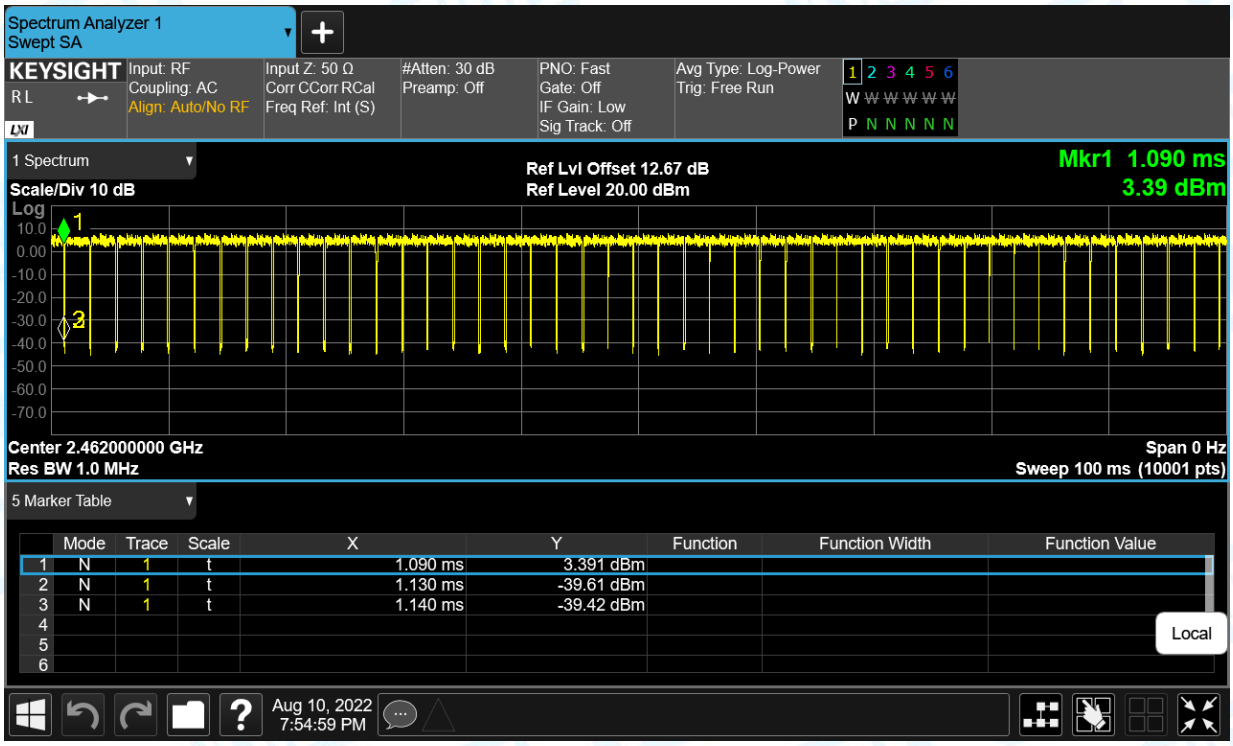

Duty Cycle NVNT g 2412MHz Ant1



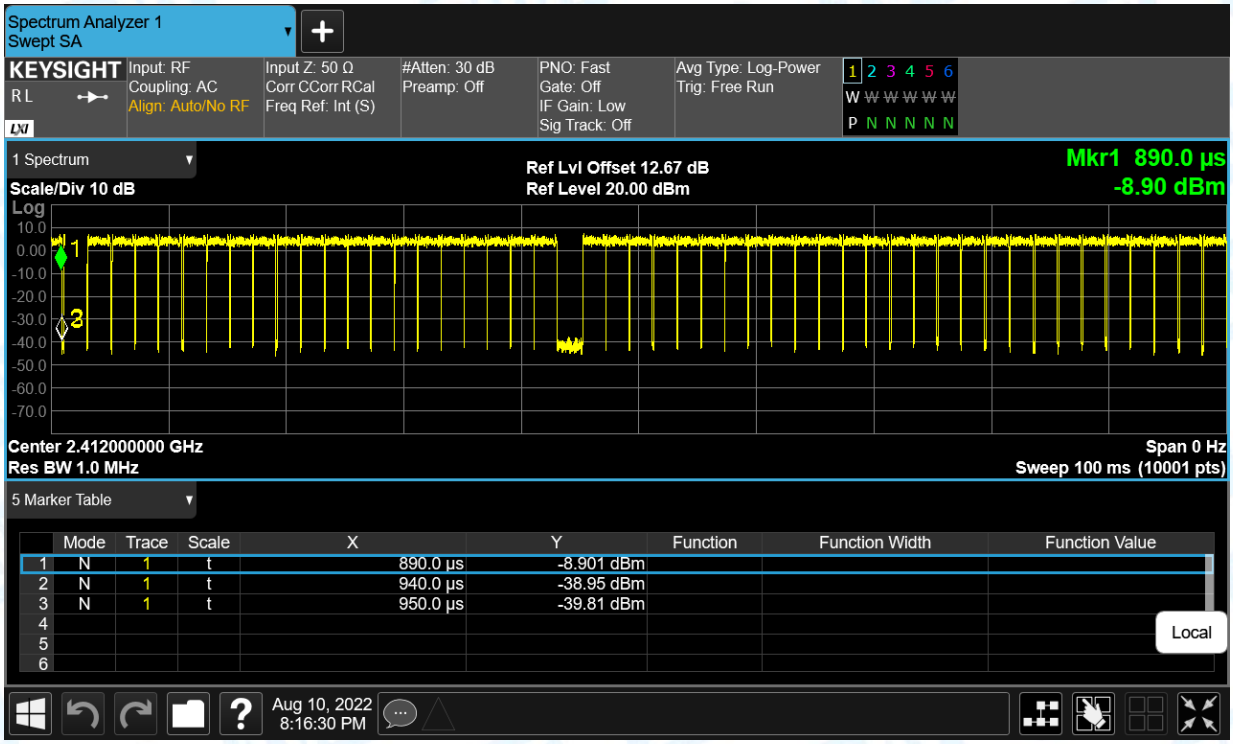
Duty Cycle NVNT g 2437MHz Ant1



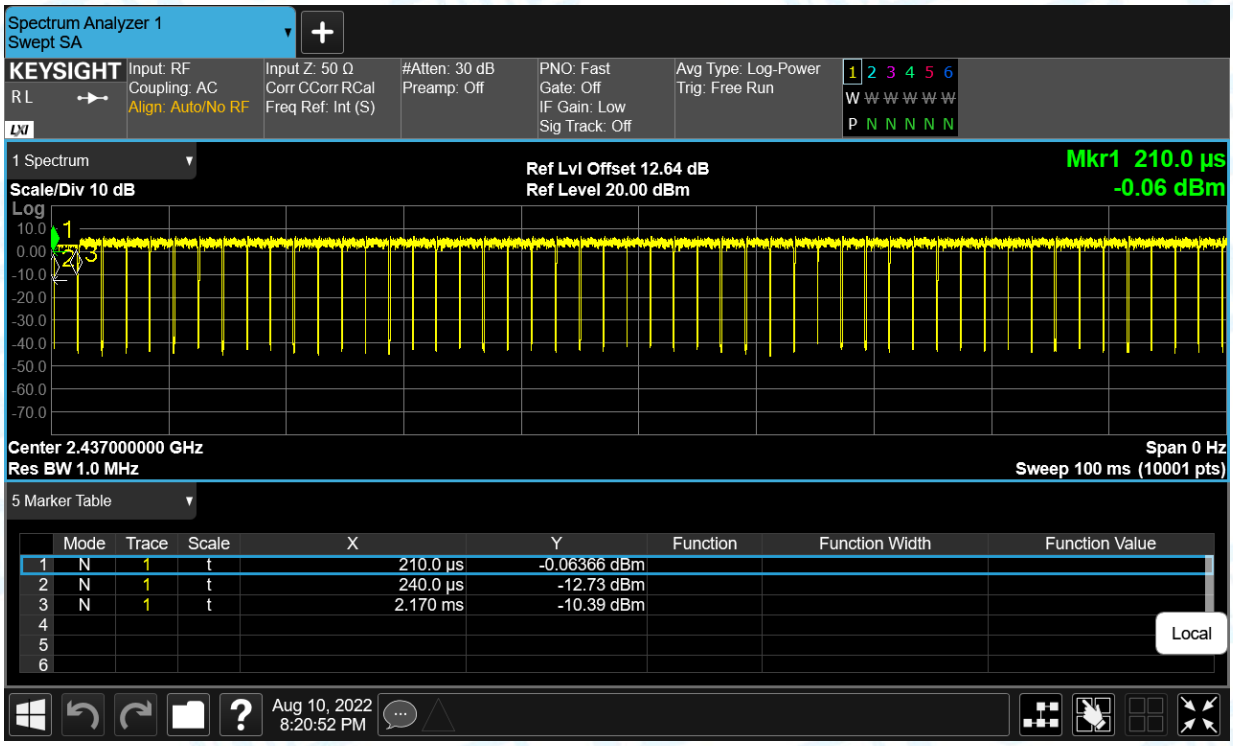

Duty Cycle NVNT g 2462MHz Ant1



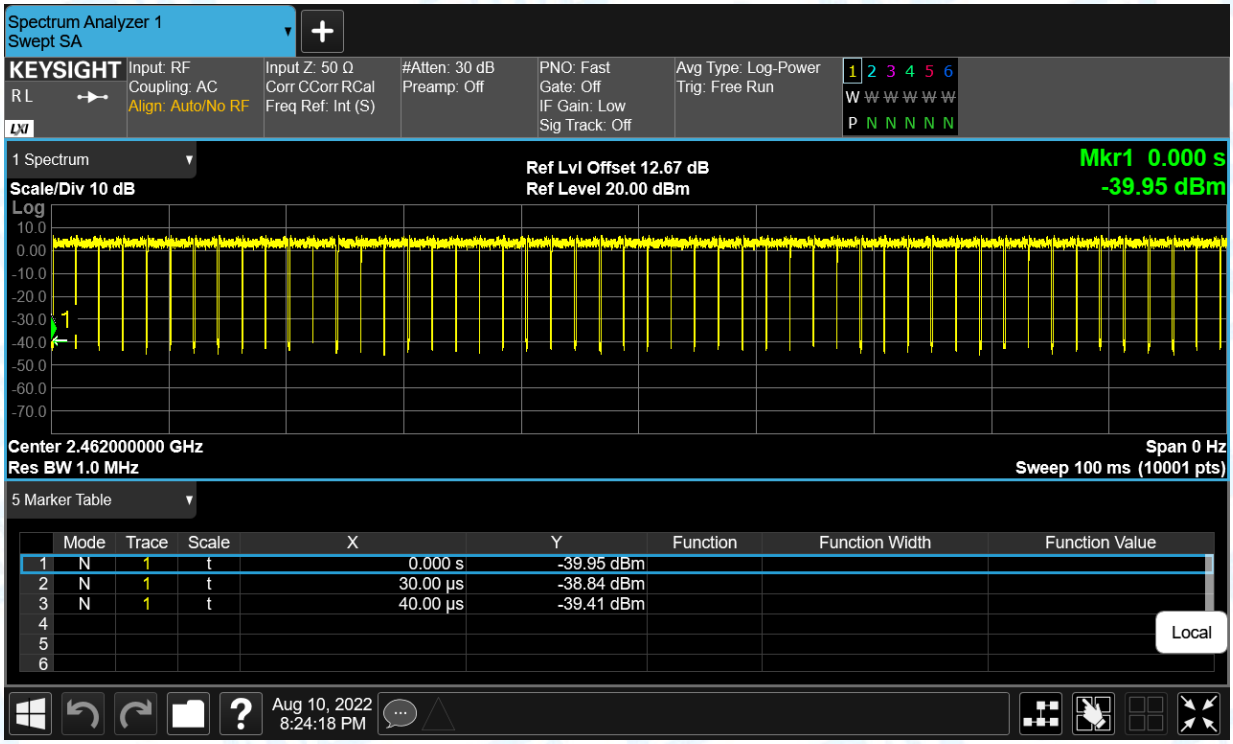
Duty Cycle NVNT n(HT20) 2412MHz Ant1



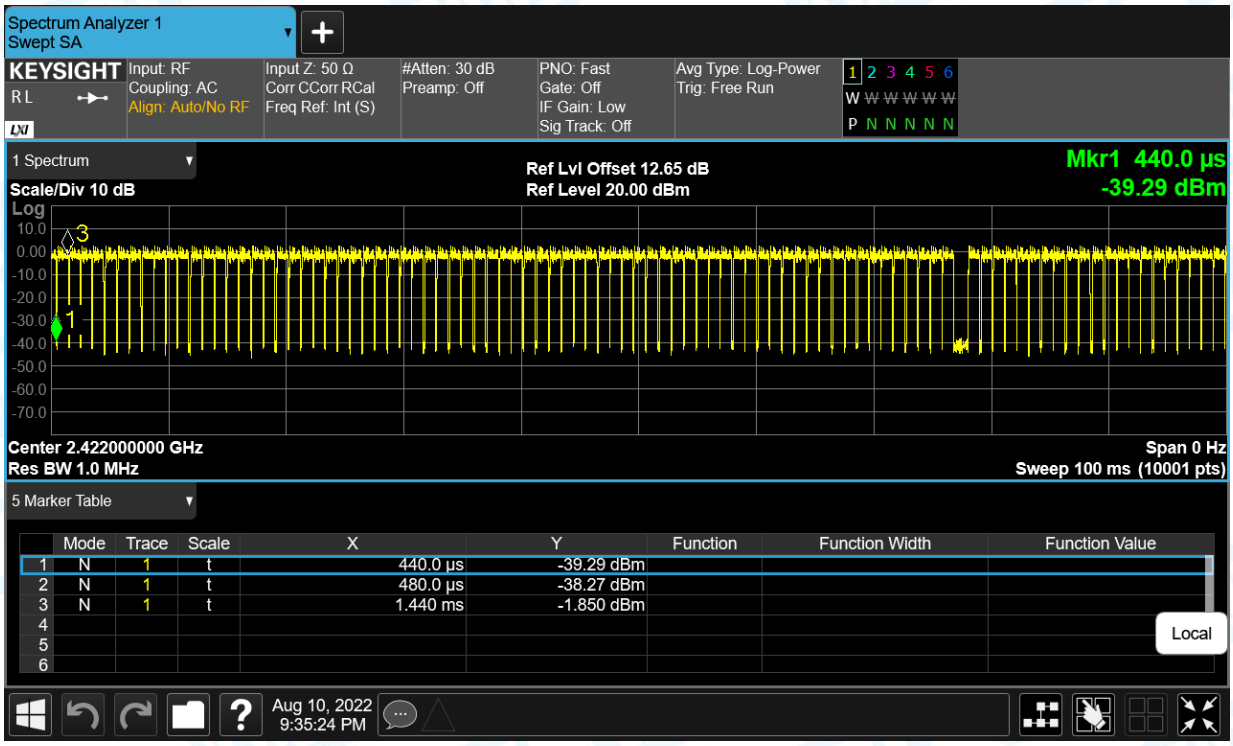

Duty Cycle NVNT n(HT20) 2437MHz Ant1



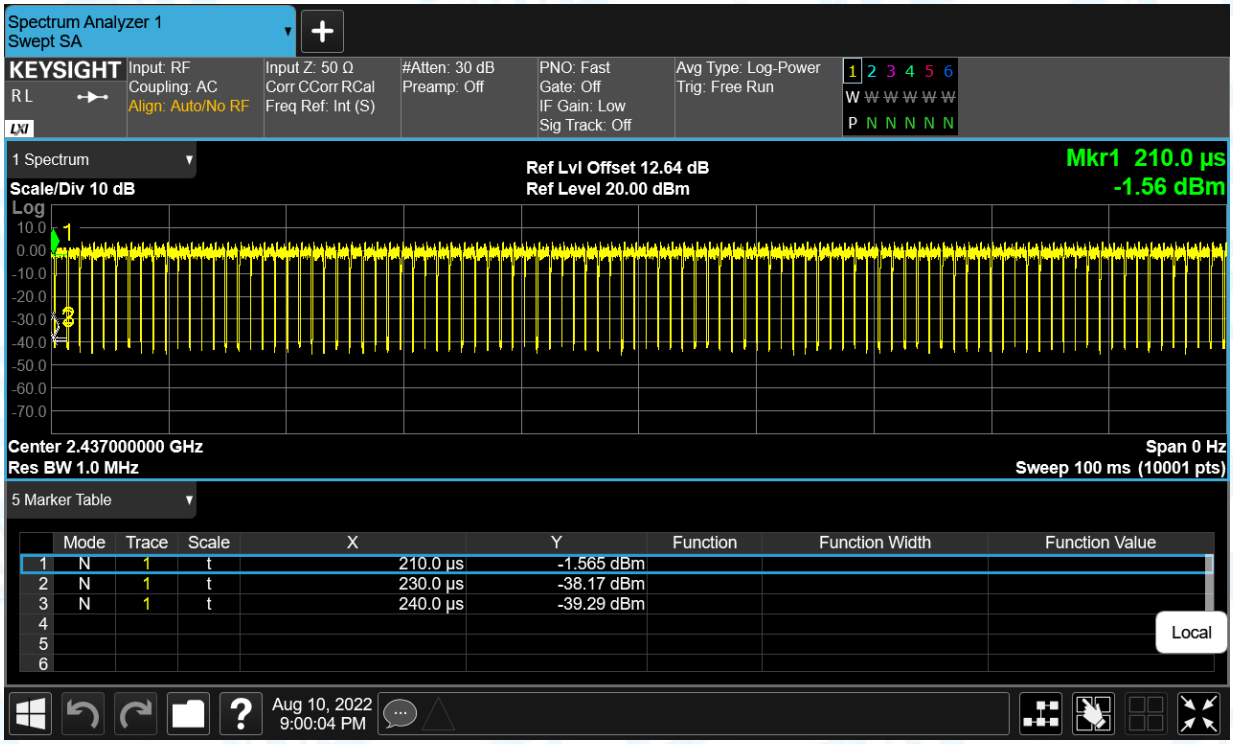
Duty Cycle NVNT n(HT20) 2462MHz Ant1



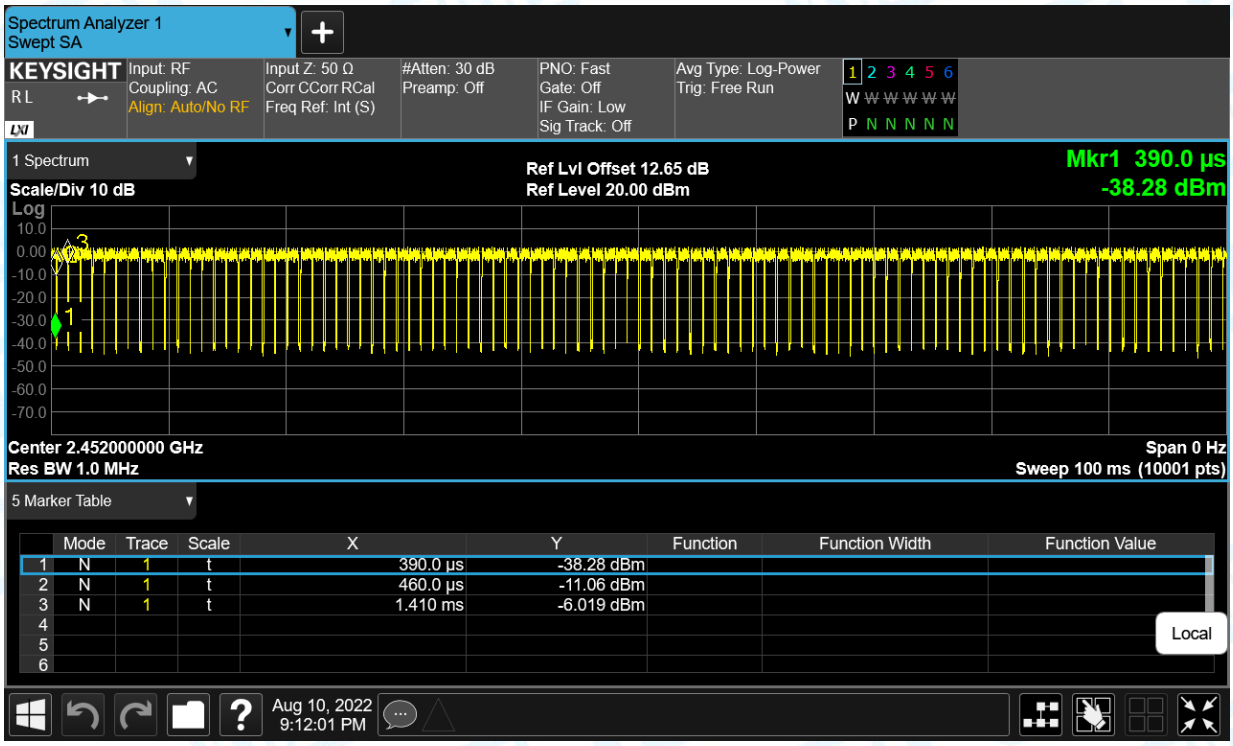

Duty Cycle NVNT n(HT40) 2422MHz Ant1



Duty Cycle NVNT n(HT40) 2437MHz Ant1




Duty Cycle NVNT n(HT40) 2452MHz Ant1



# 2. Maximum Conducted Output Power

| Condition | Mode | Frequency (MHz) | Antenna | Conducted Power (dBm) | Limit (dBm) | Verdict |
|---|---|---|---|---|---|---|
| NVNT | b | 2412 | Ant1 | 18.533 | 30 | Pass |
| NVNT | b | 2437 | Ant1 | 18.437 | 30 | Pass |
| NVNT | b | 2462 | Ant1 | 18.037 | 30 | Pass |
| NVNT | g | 2412 | Ant1 | 17.249 | 30 | Pass |
| NVNT | g | 2437 | Ant1 | 17.109 | 30 | Pass |
| NVNT | g | 2462 | Ant1 | 18.275 | 30 | Pass |
| NVNT | n(HT20) | 2412 | Ant1 | 17.159 | 30 | Pass |
| NVNT | n(HT20) | 2437 | Ant1 | 16.985 | 30 | Pass |
| NVNT | n(HT20) | 2462 | Ant1 | 16.636 | 30 | Pass |
| NVNT | n(HT40) | 2422 | Ant1 | 17.062 | 30 | Pass |
| NVNT | n(HT40) | 2437 | Ant1 | 17.613 | 30 | Pass |
| NVNT | n(HT40) | 2452 | Ant1 | 17.145 | 30 | Pass |

# 3. -6dB Bandwidth

| Condition | Mode | Frequency (MHz) | Antenna | -6 dB Bandwidth (MHz) | Limit -6 dB Bandwidth (MHz) | Verdict |
|---|---|---|---|---|---|---|
| NVNT | b | 2412 | Ant1 | 10.09 | 0.5 | Pass |
| NVNT | b | 2437 | Ant1 | 10.06 | 0.5 | Pass |
| NVNT | b | 2462 | Ant1 | 10 | 0.5 | Pass |
| NVNT | g | 2412 | Ant1 | 16.32 | 0.5 | Pass |
| NVNT | g | 2437 | Ant1 | 16.33 | 0.5 | Pass |
| NVNT | g | 2462 | Ant1 | 16.34 | 0.5 | Pass |
| NVNT | n(HT20) | 2412 | Ant1 | 17 | 0.5 | Pass |
| NVNT | n(HT20) | 2437 | Ant1 | 17.26 | 0.5 | Pass |
| NVNT | n(HT20) | 2462 | Ant1 | 17.53 | 0.5 | Pass |
| NVNT | n(HT40) | 2422 | Ant1 | 36.05 | 0.5 | Pass |
| NVNT | n(HT40) | 2437 | Ant1 | 36.04 | 0.5 | Pass |
| NVNT | n(HT40) | 2452 | Ant1 | 35.41 | 0.5 | Pass |

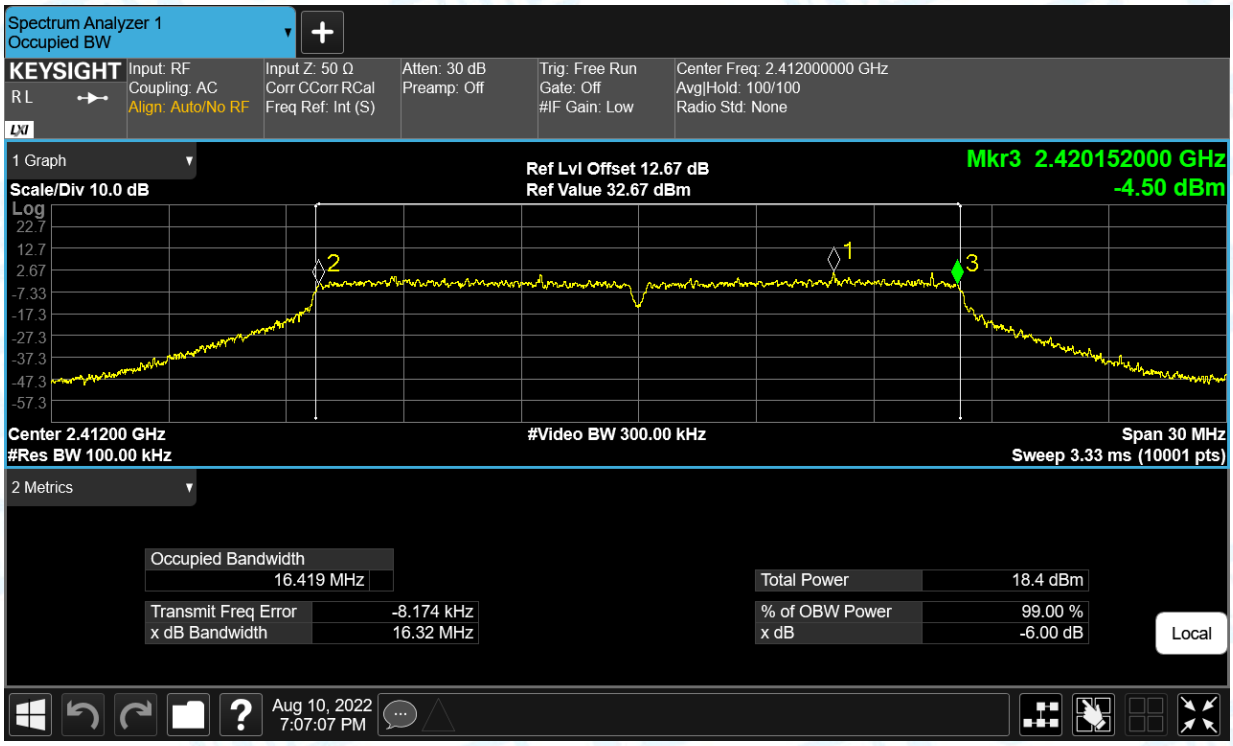
Test Graphs

-6dB Bandwidth NVNT b 2412MHz Ant1

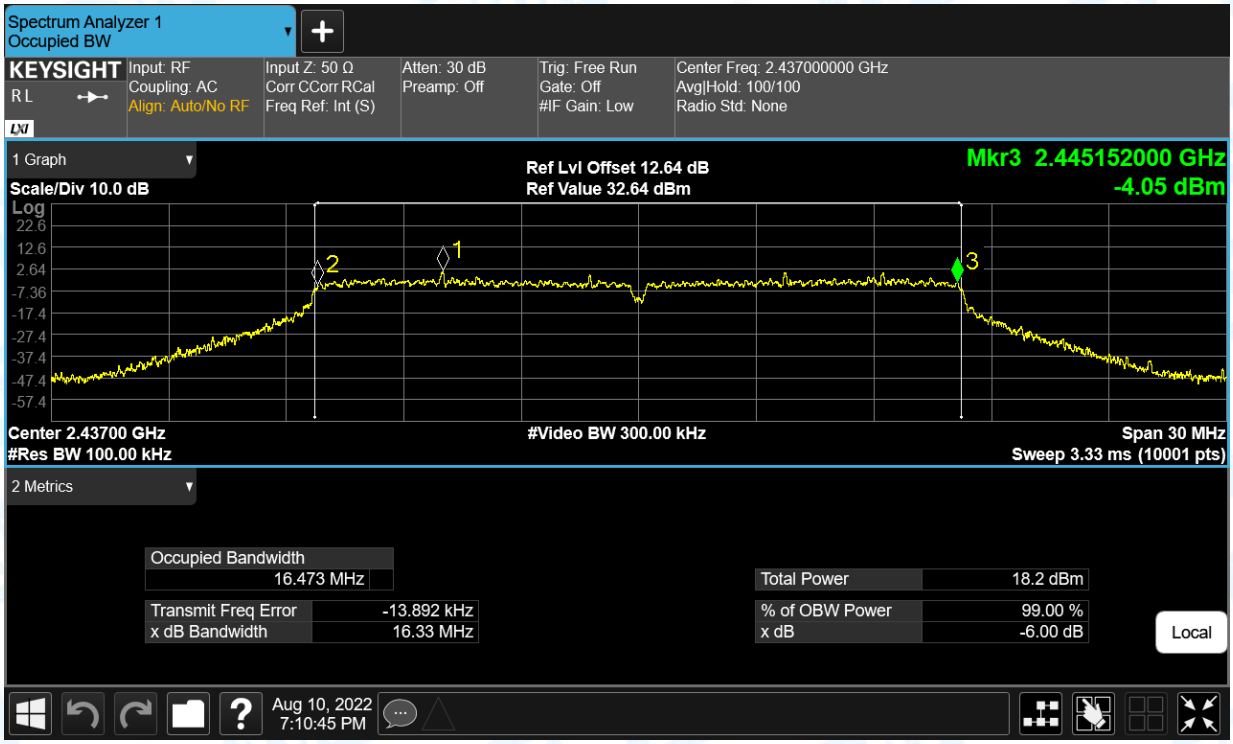
-6dB Bandwidth NVNT b 2437MHz Ant1

-6dB Bandwidth NVNT b 2462MHz Ant1

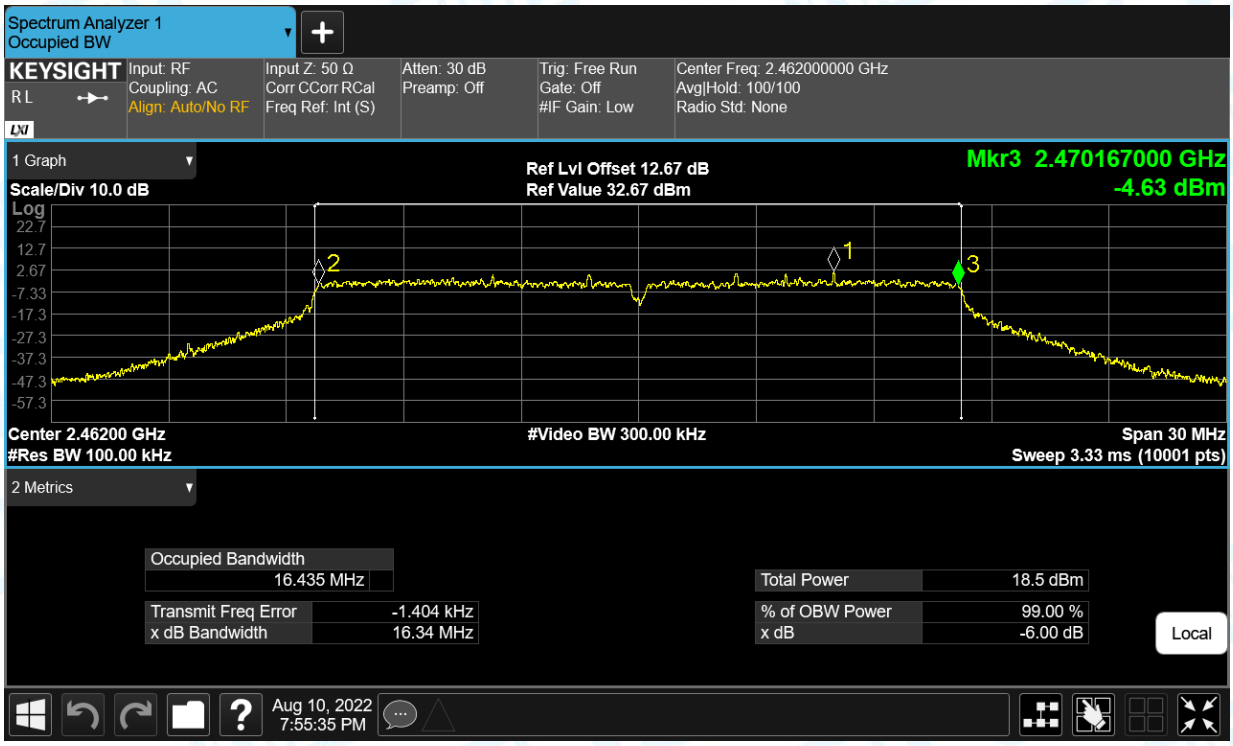
-6dB Bandwidth NVNT g 2412MHz Ant1



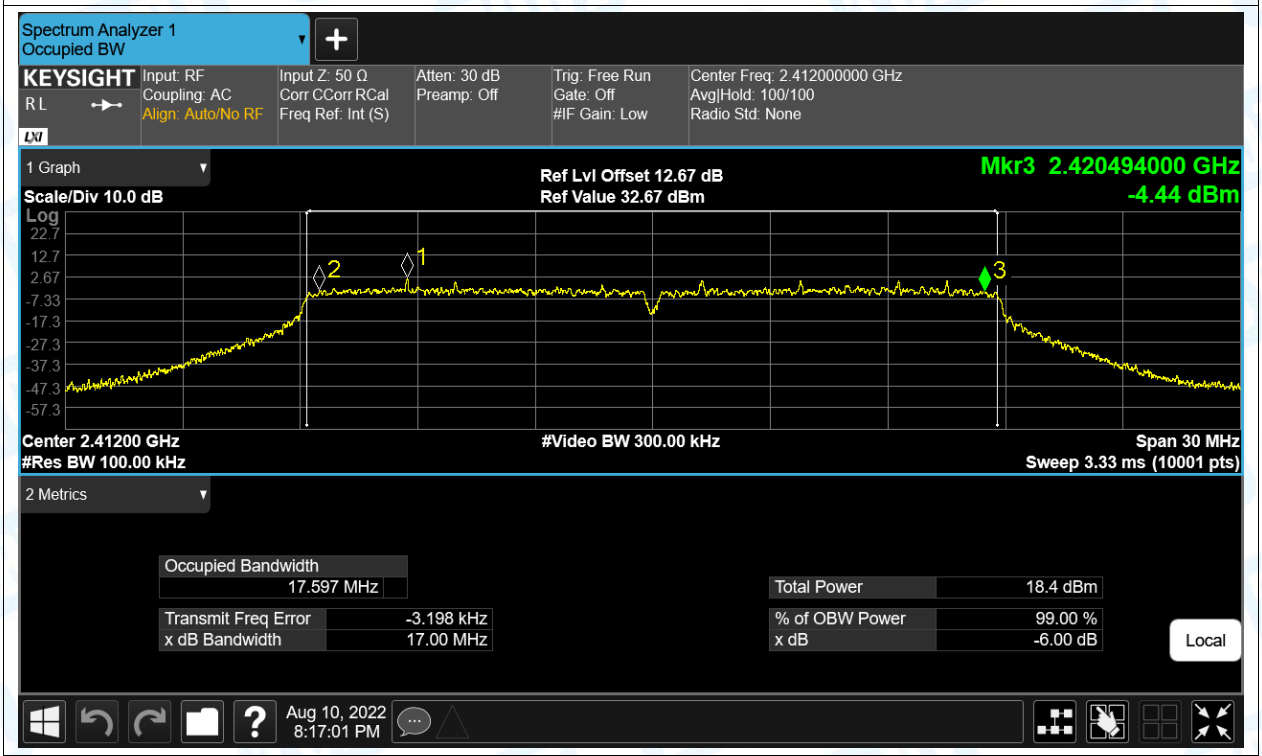
-6dB Bandwidth NVNT g 2437MHz Ant1



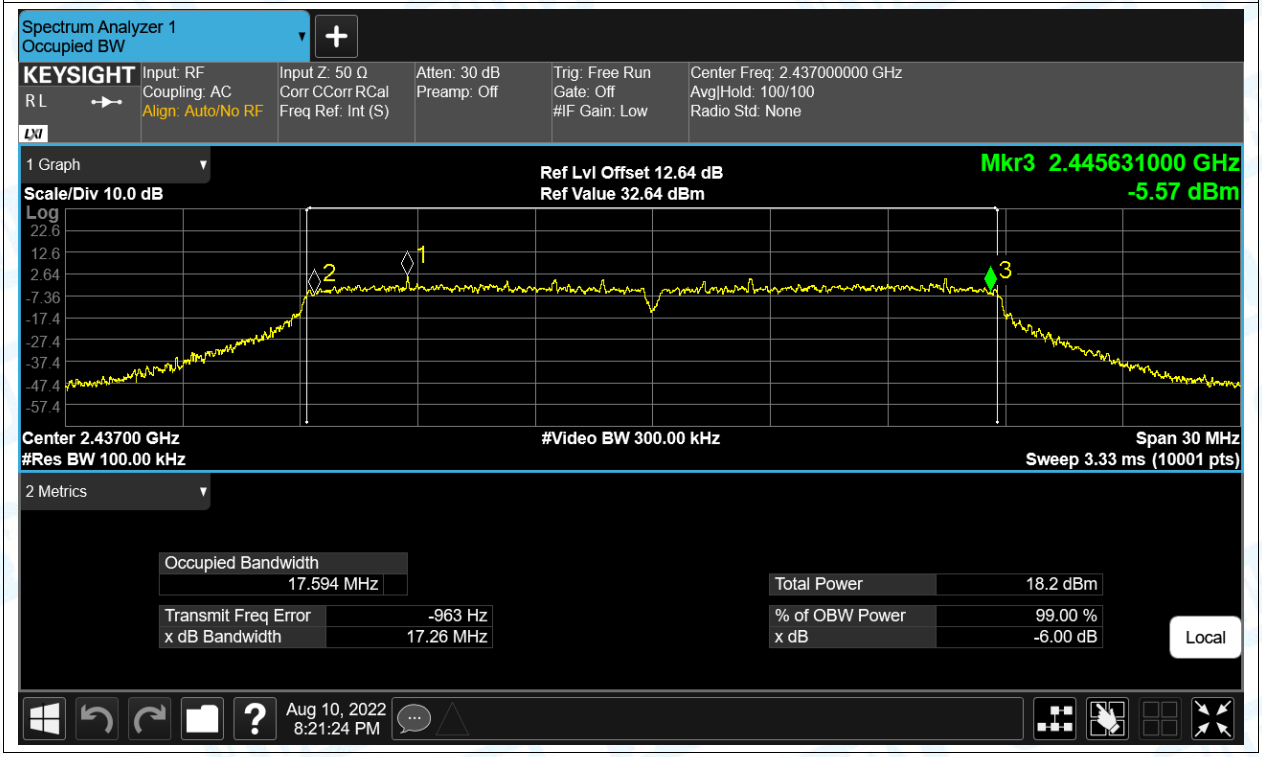

-6dB Bandwidth NVNT g 2462MHz Ant1



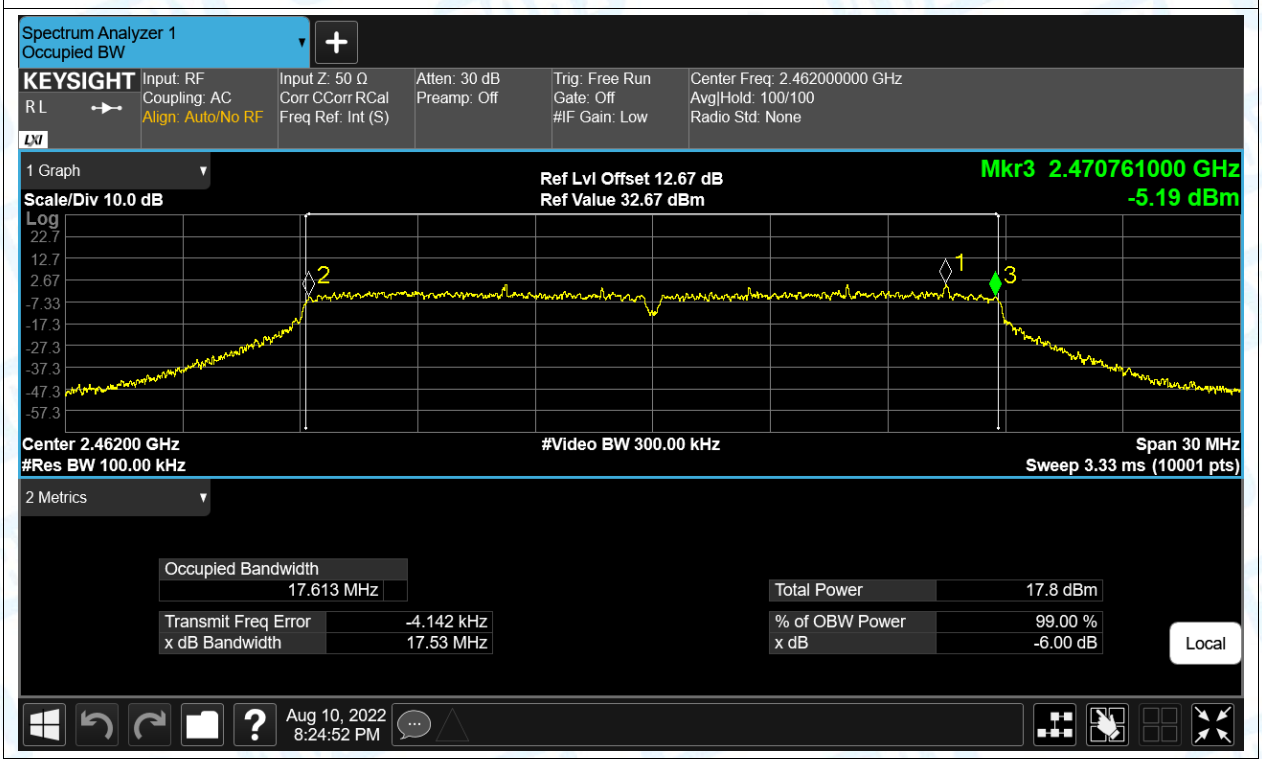
-6dB Bandwidth NVNT n(HT20) 2412MHz Ant1



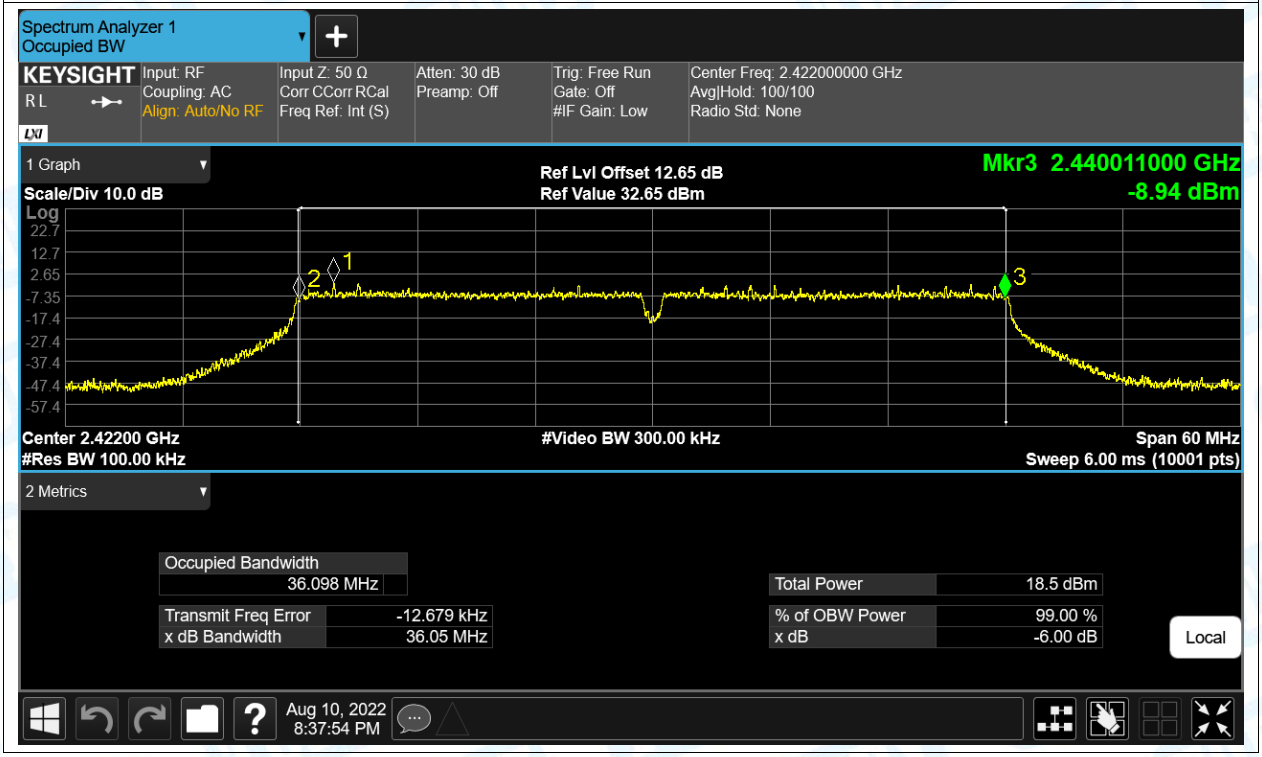

-6dB Bandwidth NVNT n(HT20) 2437MHz Ant1



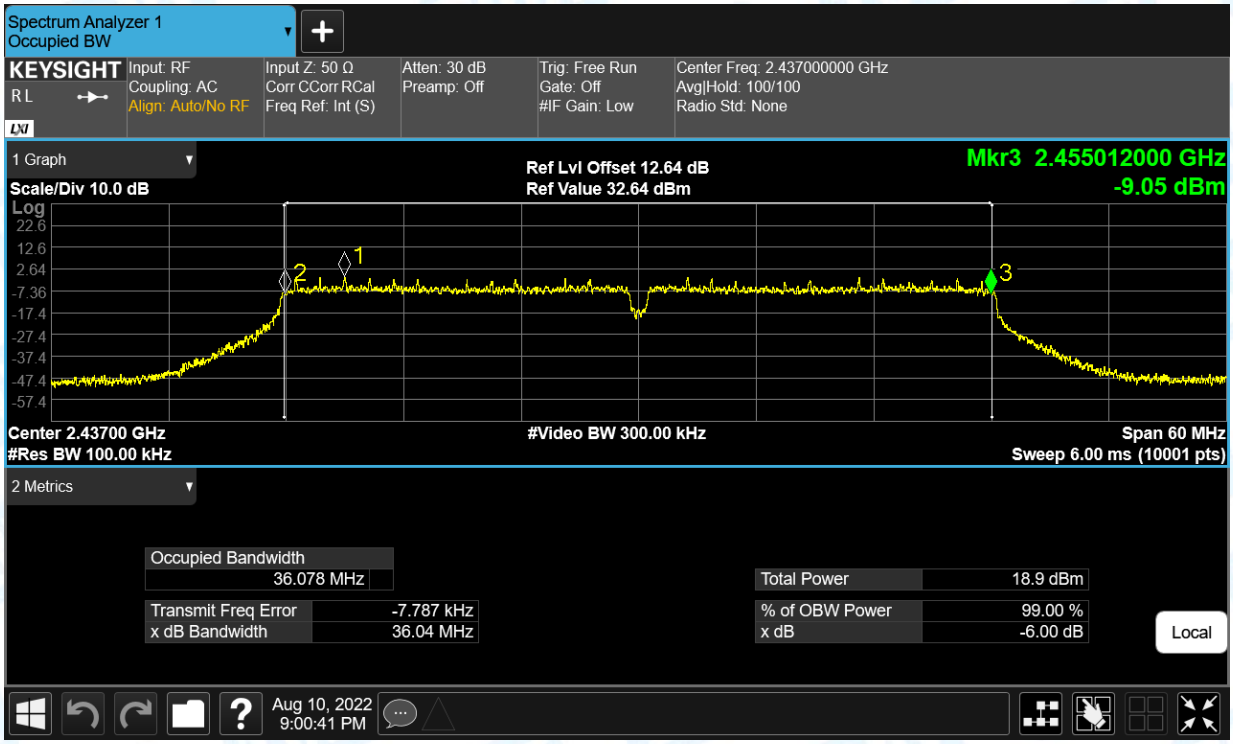
-6dB Bandwidth NVNT n(HT20) 2462MHz Ant1



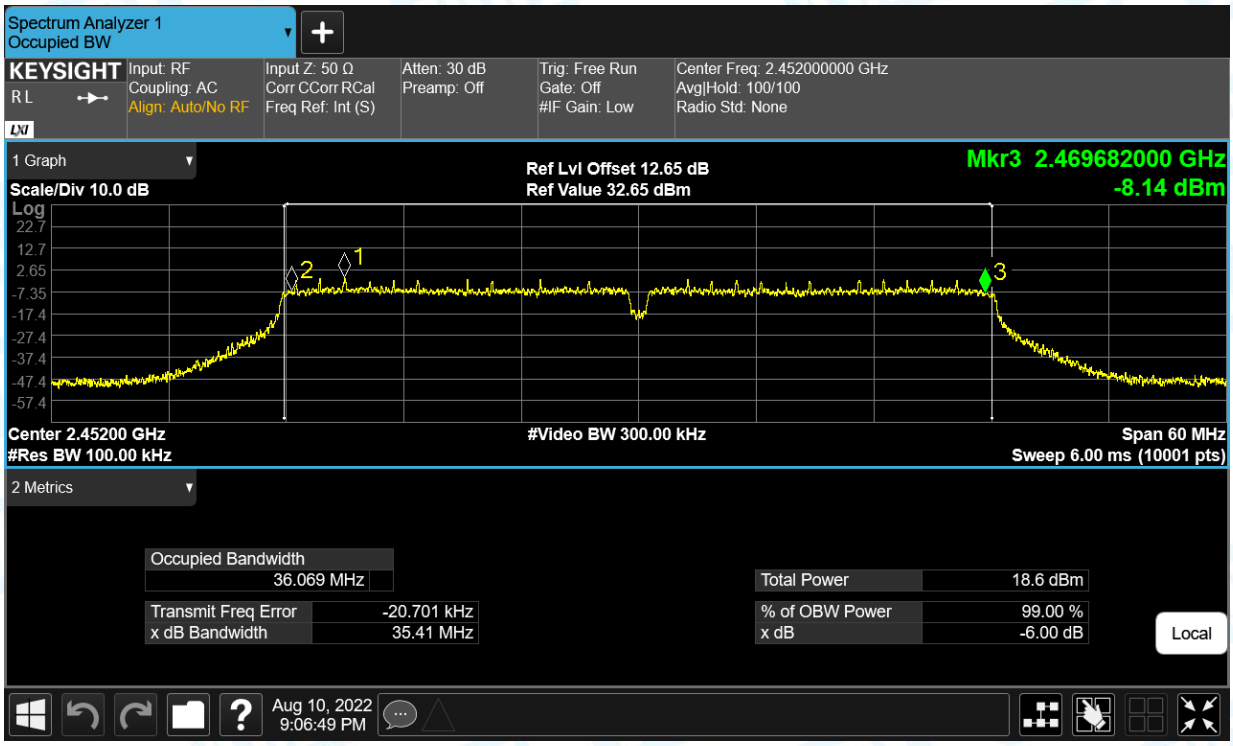

-6dB Bandwidth NVNT n(HT40) 2422MHz Ant1



-6dB Bandwidth NVNT n(HT40) 2437MHz Ant1




-6dB Bandwidth NVNT n(HT40) 2452MHz Ant1

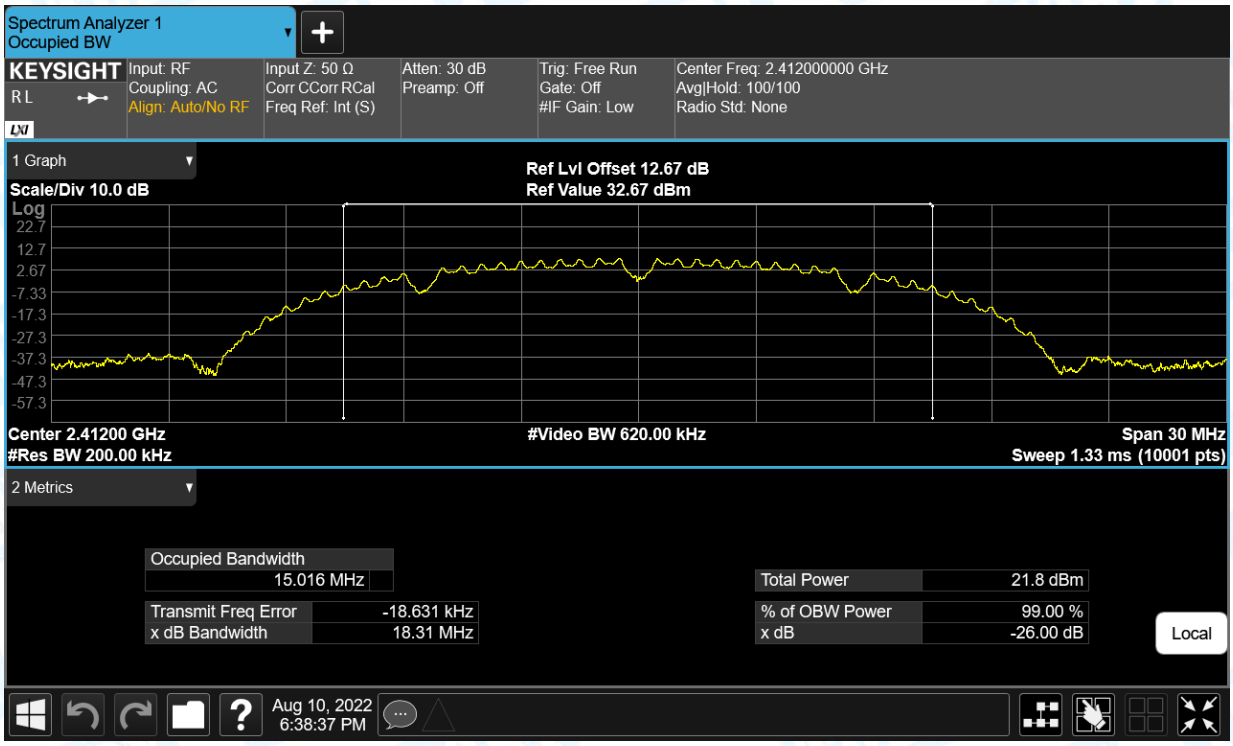


# 4. Occupied Channel Bandwidth

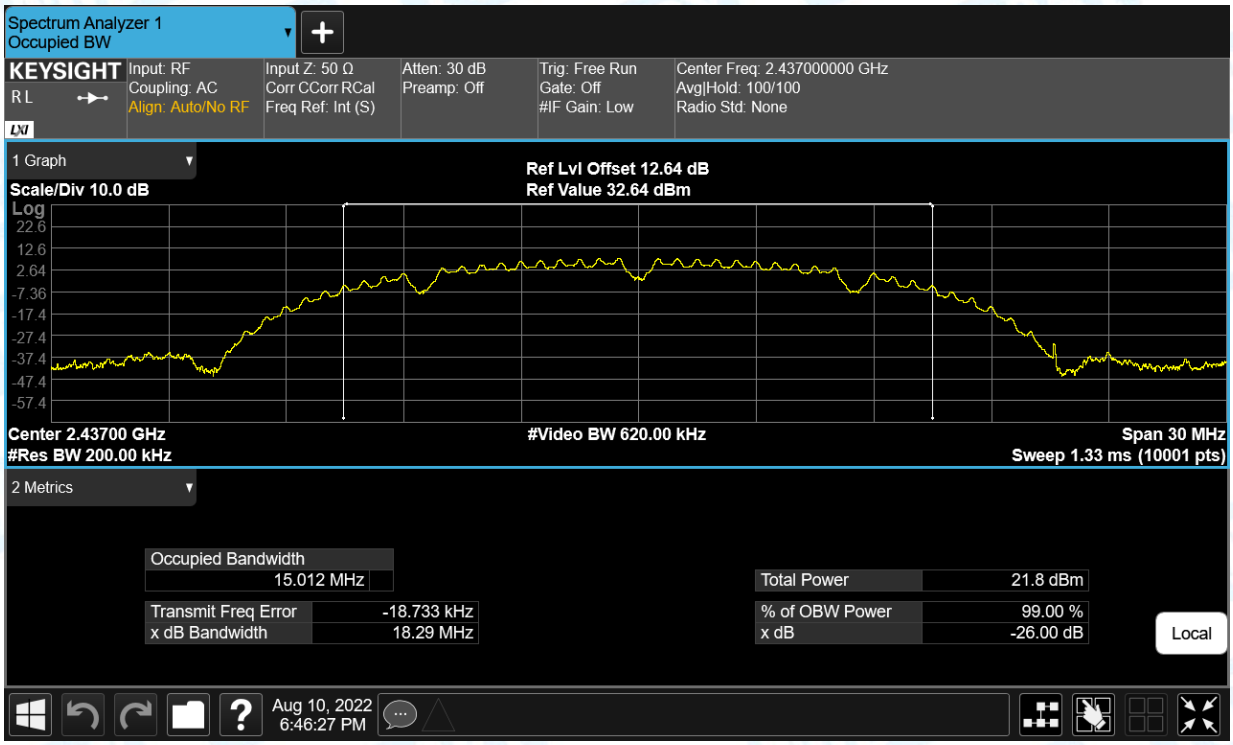
| Condition | Mode | Frequency (MHz) | Antenna | 99% OBW (MHz) |
|---|---|---|---|---|
| NVNT | b | 2412 | Ant1 | 15.016 |
| NVNT | b | 2437 | Ant1 | 15.012 |
| NVNT | b | 2462 | Ant1 | 15.023 |
| NVNT | g | 2412 | Ant1 | 16.546 |
| NVNT | g | 2437 | Ant1 | 16.583 |
| NVNT | g | 2462 | Ant1 | 16.559 |
| NVNT | n(HT20) | 2412 | Ant1 | 17.667 |
| NVNT | n(HT20) | 2437 | Ant1 | 17.643 |
| NVNT | n(HT20) | 2462 | Ant1 | 17.637 |
| NVNT | n(HT40) | 2422 | Ant1 | 36.239 |
| NVNT | n(HT40) | 2437 | Ant1 | 36.25 |
| NVNT | n(HT40) | 2452 | Ant1 | 36.199 |

Test Graphs

OBW NVNT b 2412MHz Ant1

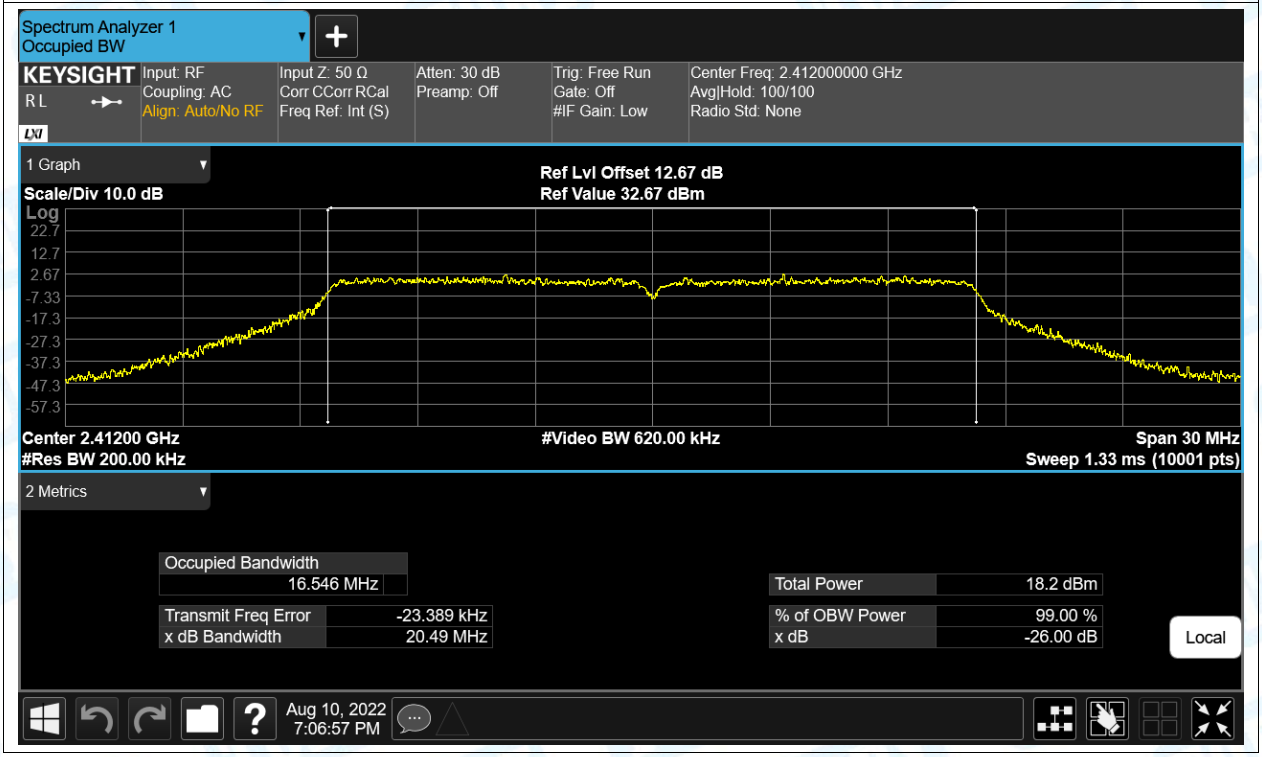



OBW NVNT b 2437MHz Ant1

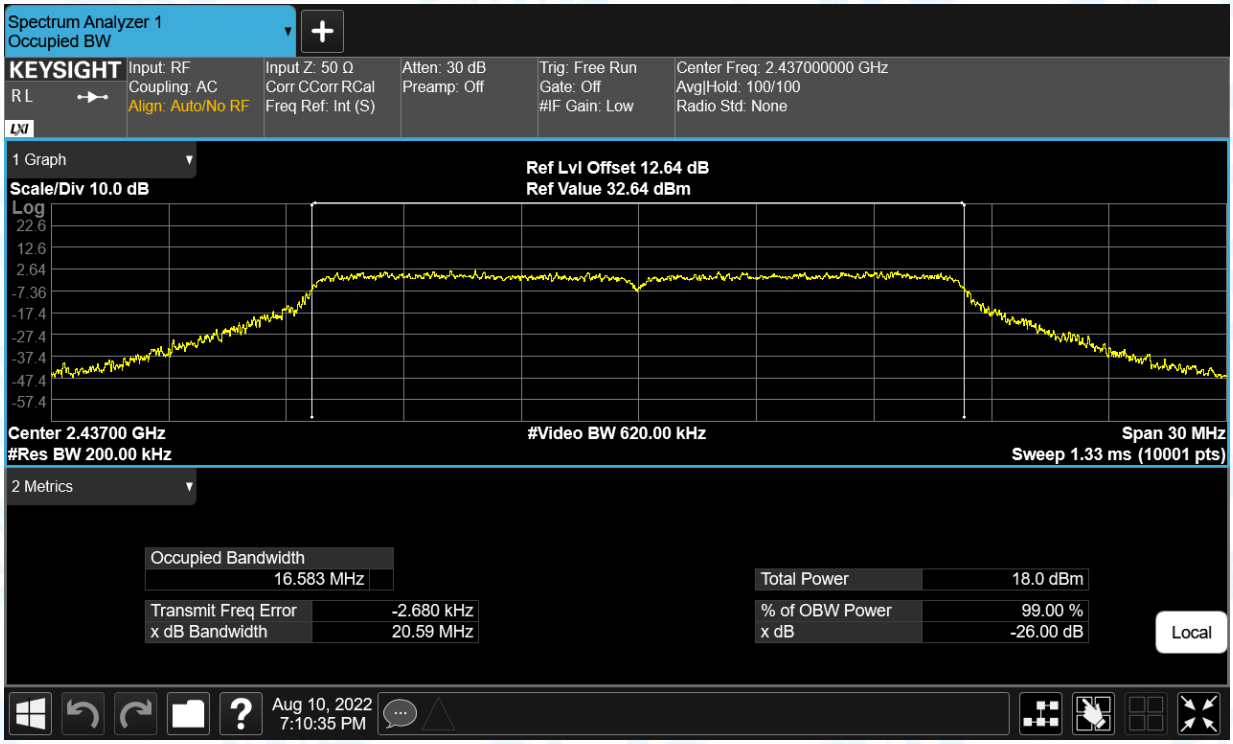


OBW NVNT b 2462MHz Ant1

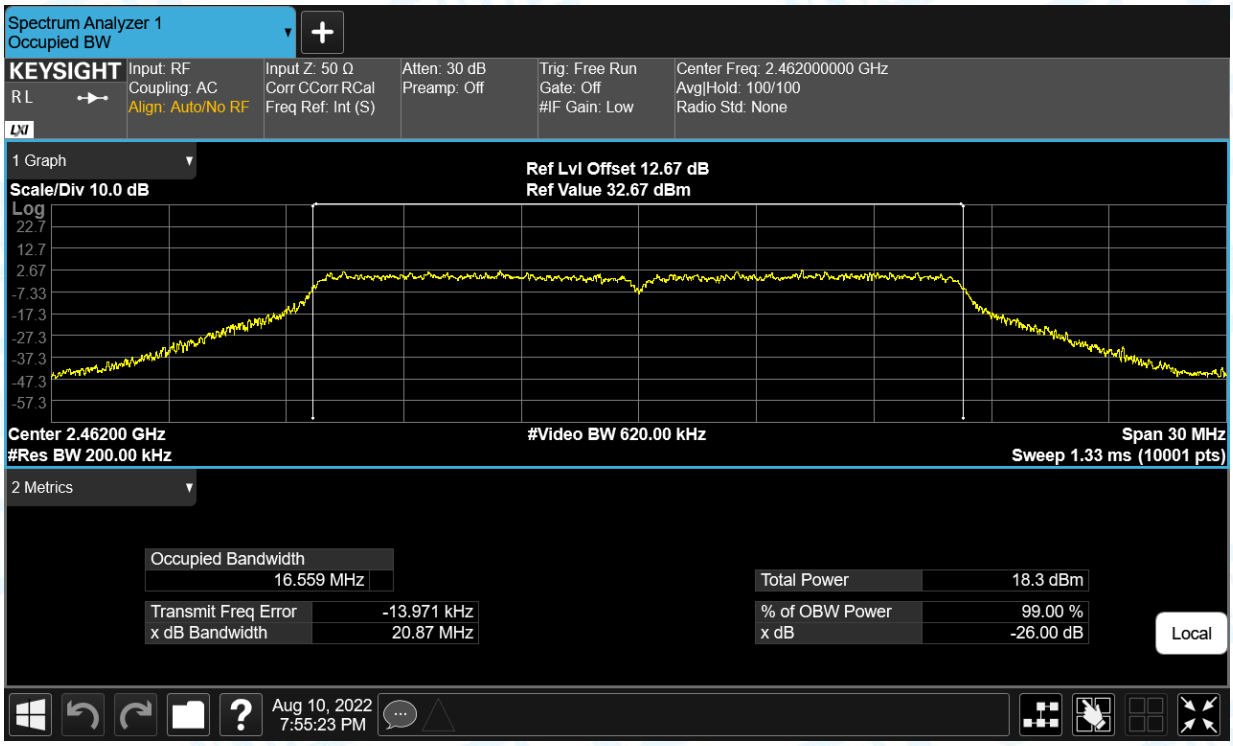
OBW NVNT g 2412MHz Ant1



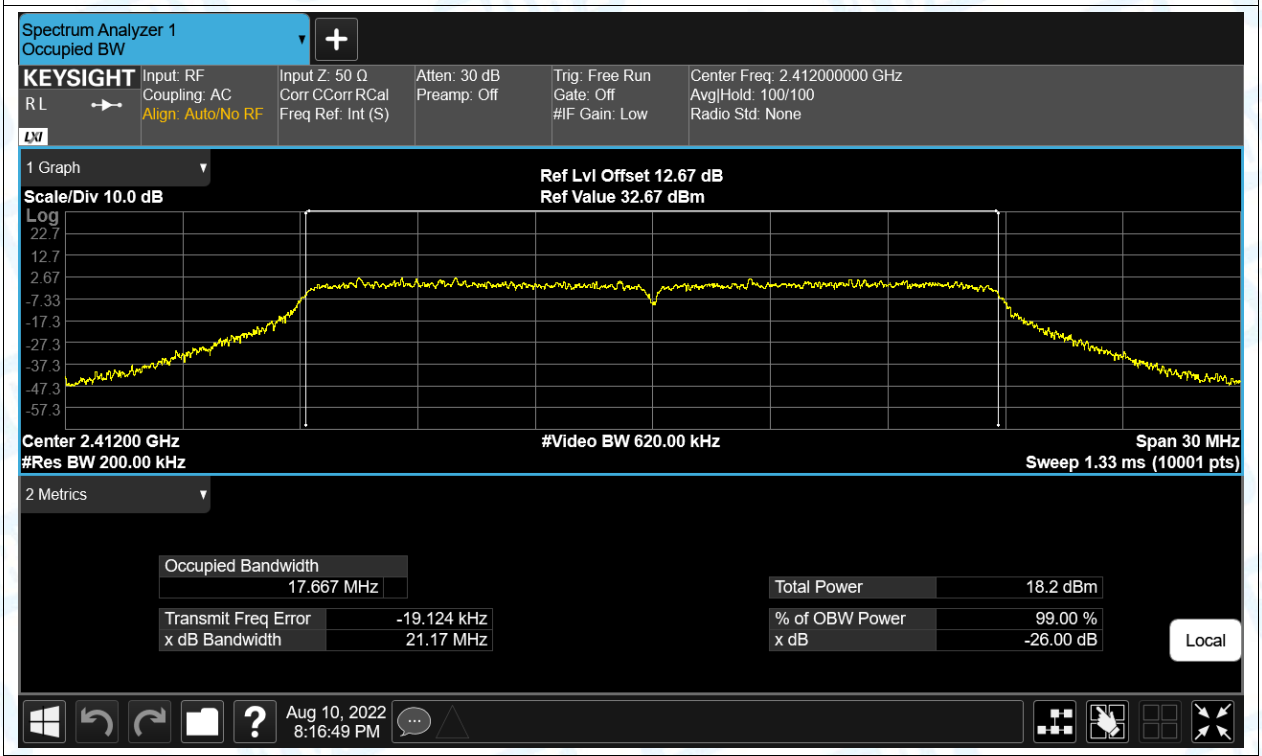
OBW NVNT g 2437MHz Ant1



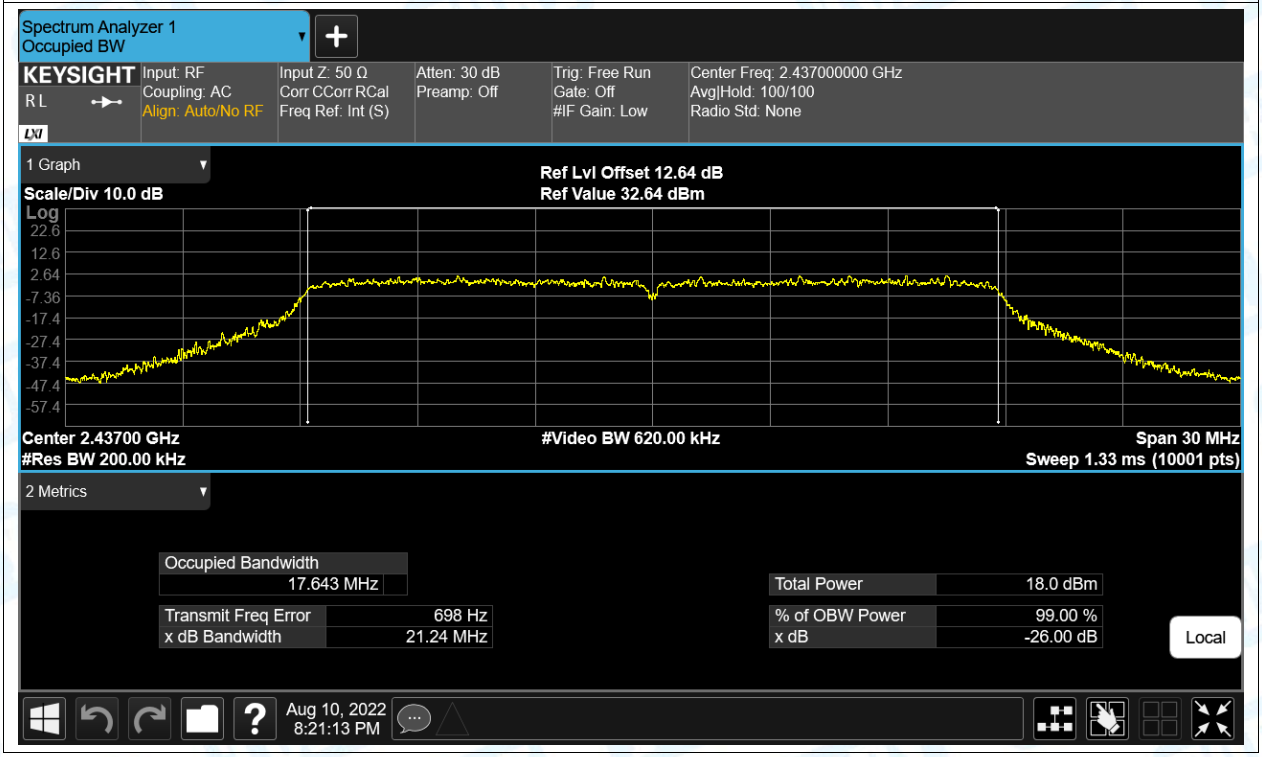

OBW NVNT g 2462MHz Ant1



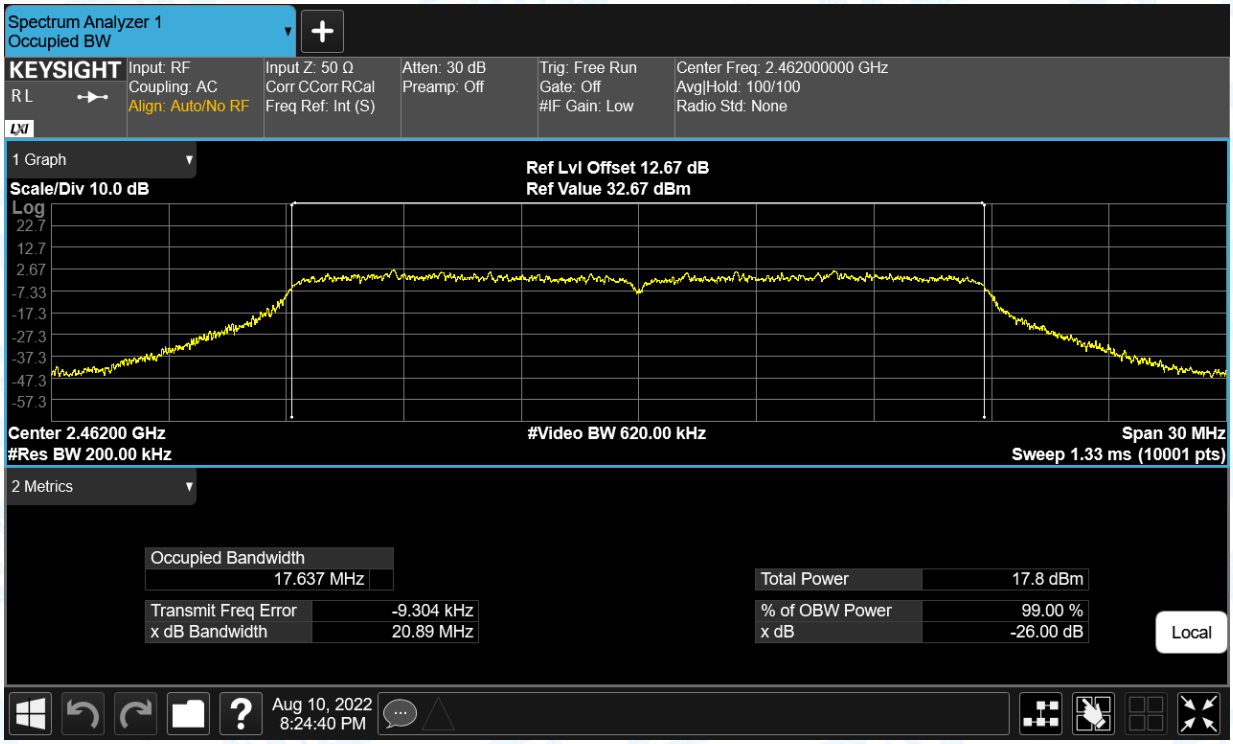
OBW NVNT n(HT20) 2412MHz Ant1



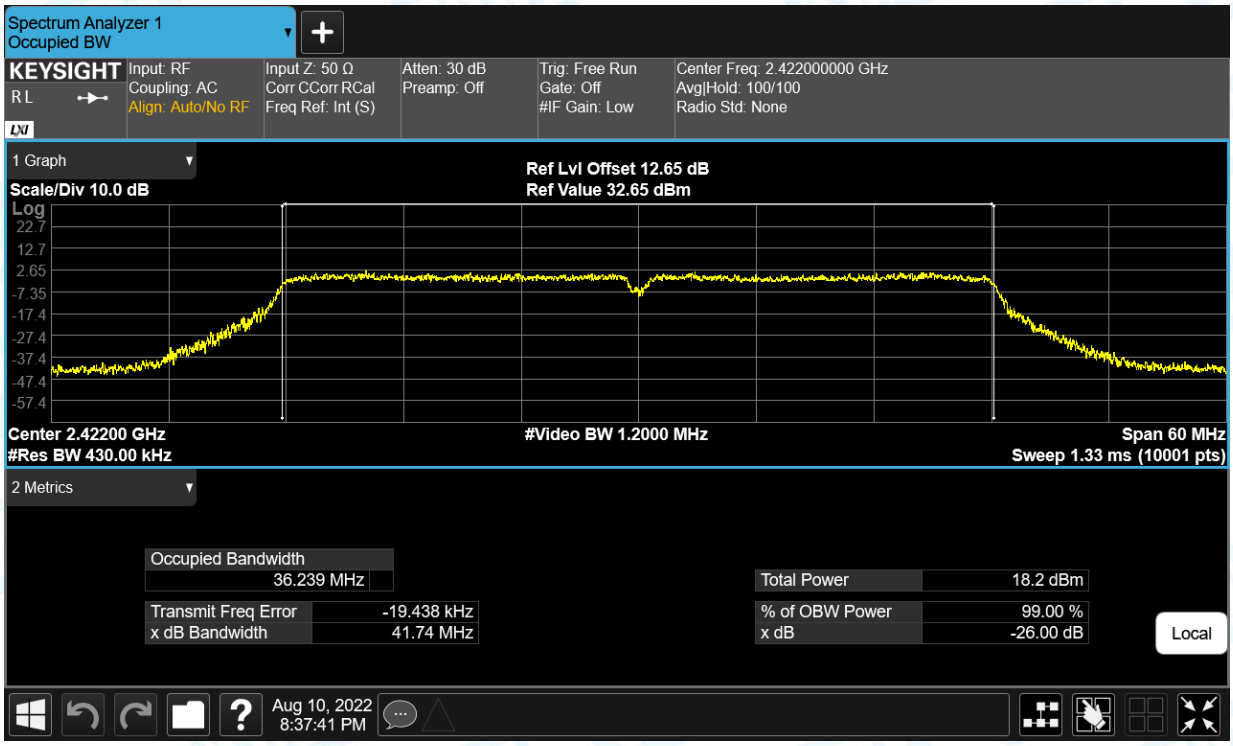

OBW NVNT n(HT20) 2437MHz Ant1



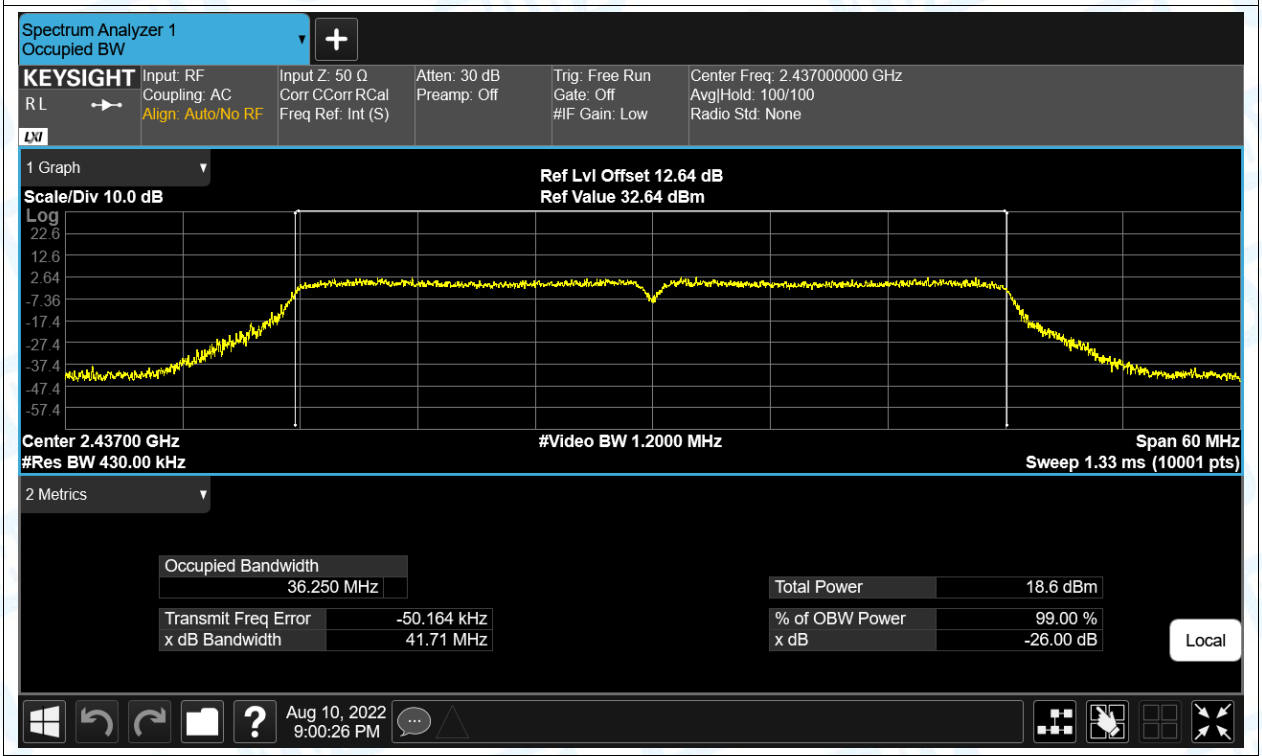
OBW NVNT n(HT20) 2462MHz Ant1



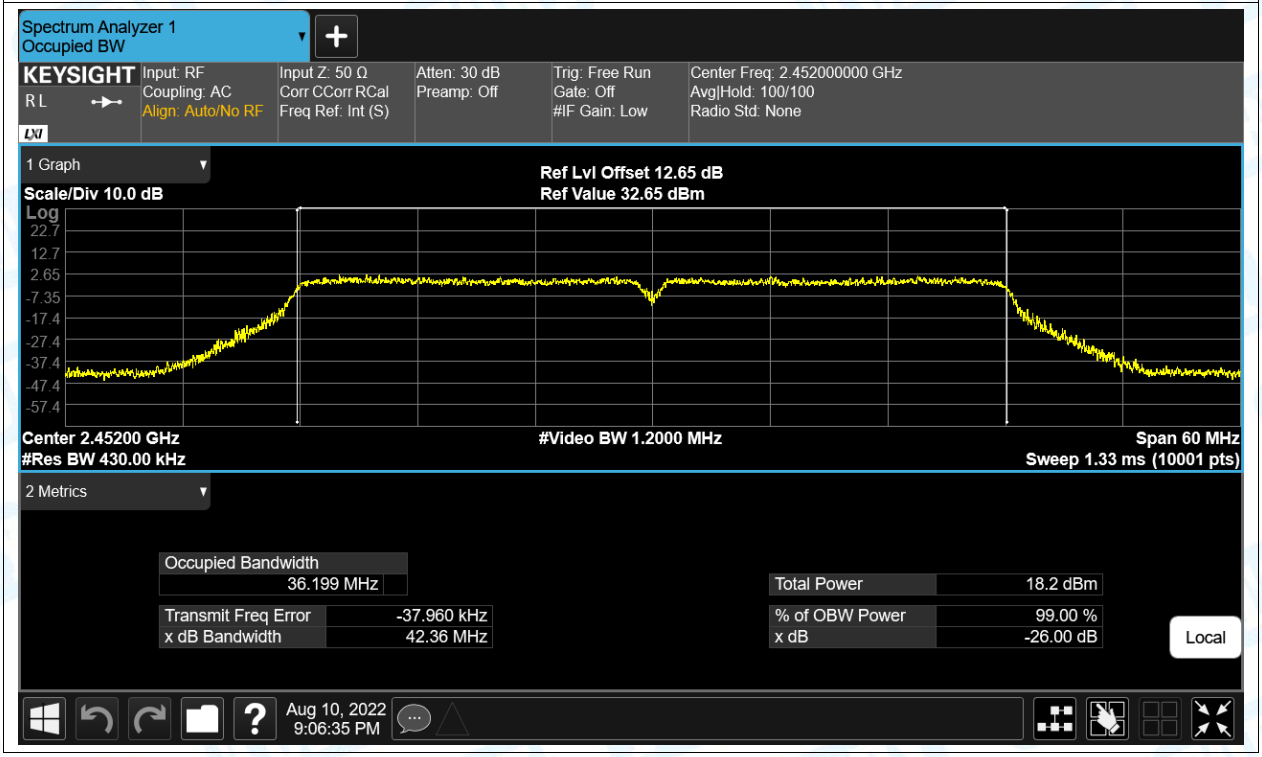

OBW NVNT n(HT40) 2422MHz Ant1



OBW NVNT n(HT40) 2437MHz Ant1




OBW NVNT n(HT40) 2452MHz Ant1

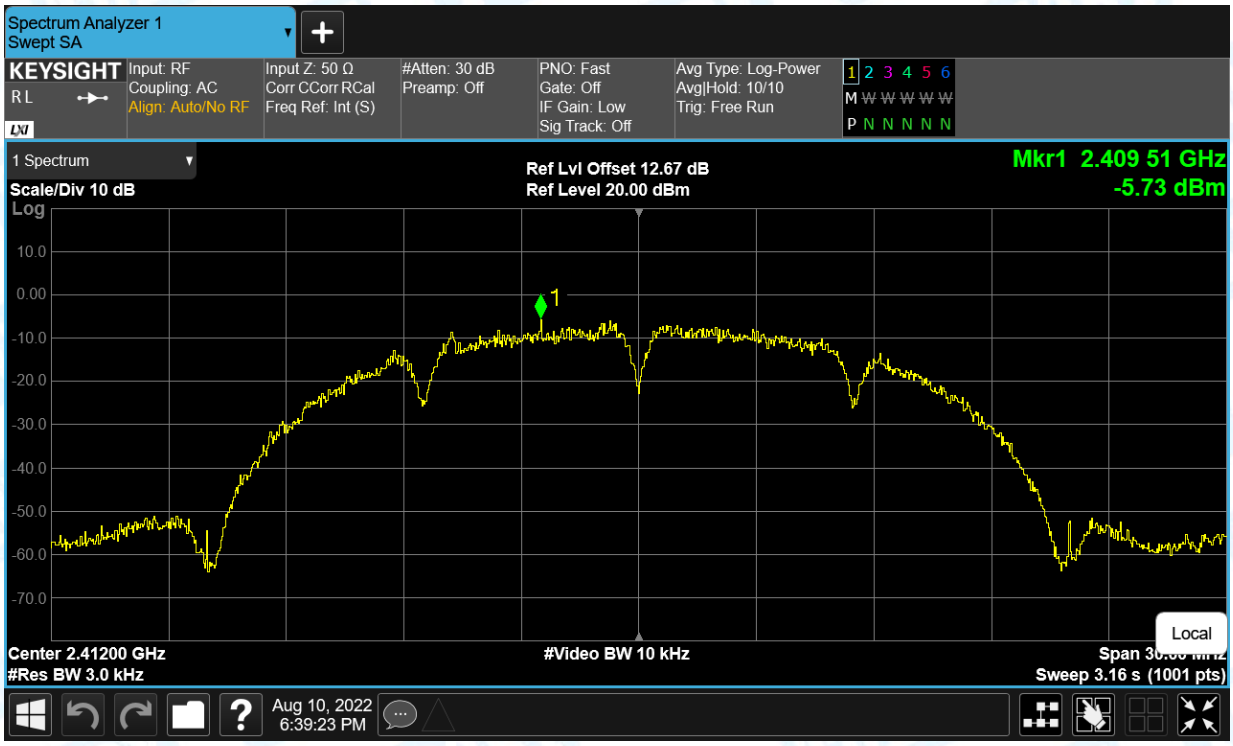


# 5. Maximum Power Spectral Density Level

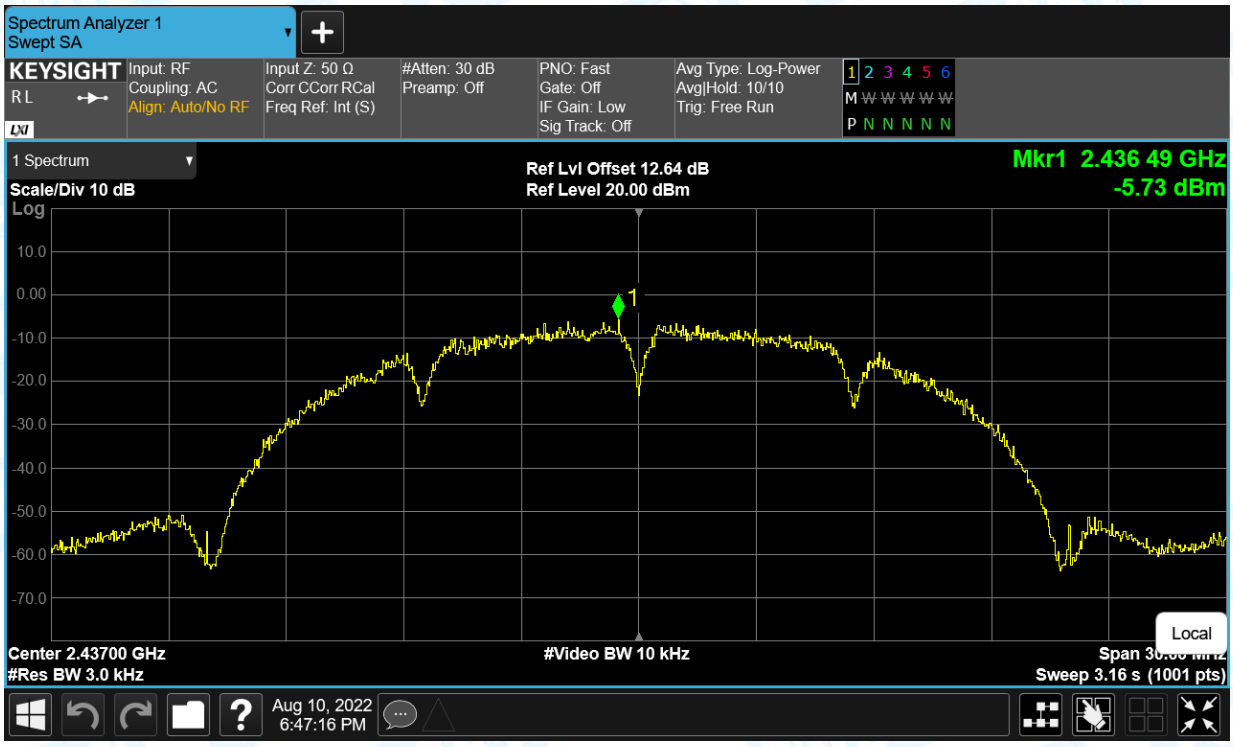
| Condition | Mode | Frequency (MHz) | Antenna | Max PSD (dBm/3KHz) | Limit (dBm/3KHz) | Verdict |
|---|---|---|---|---|---|---|
| NVNT | b | 2412 | Ant1 | -5.732 | 8 | Pass |
| NVNT | b | 2437 | Ant1 | -5.729 | 8 | Pass |
| NVNT | b | 2462 | Ant1 | -4.992 | 8 | Pass |
| NVNT | g | 2412 | Ant1 | -11.668 | 8 | Pass |
| NVNT | g | 2437 | Ant1 | -12.77 | 8 | Pass |
| NVNT | g | 2462 | Ant1 | -10.853 | 8 | Pass |
| NVNT | n(HT20) | 2412 | Ant1 | -12.208 | 8 | Pass |
| NVNT | n(HT20) | 2437 | Ant1 | -12.959 | 8 | Pass |
| NVNT | n(HT20) | 2462 | Ant1 | -12.26 | 8 | Pass |
| NVNT | n(HT40) | 2422 | Ant1 | -16.297 | 8 | Pass |
| NVNT | n(HT40) | 2437 | Ant1 | -15.588 | 8 | Pass |
| NVNT | n(HT40) | 2452 | Ant1 | -15.751 | 8 | Pass |

Test Graphs

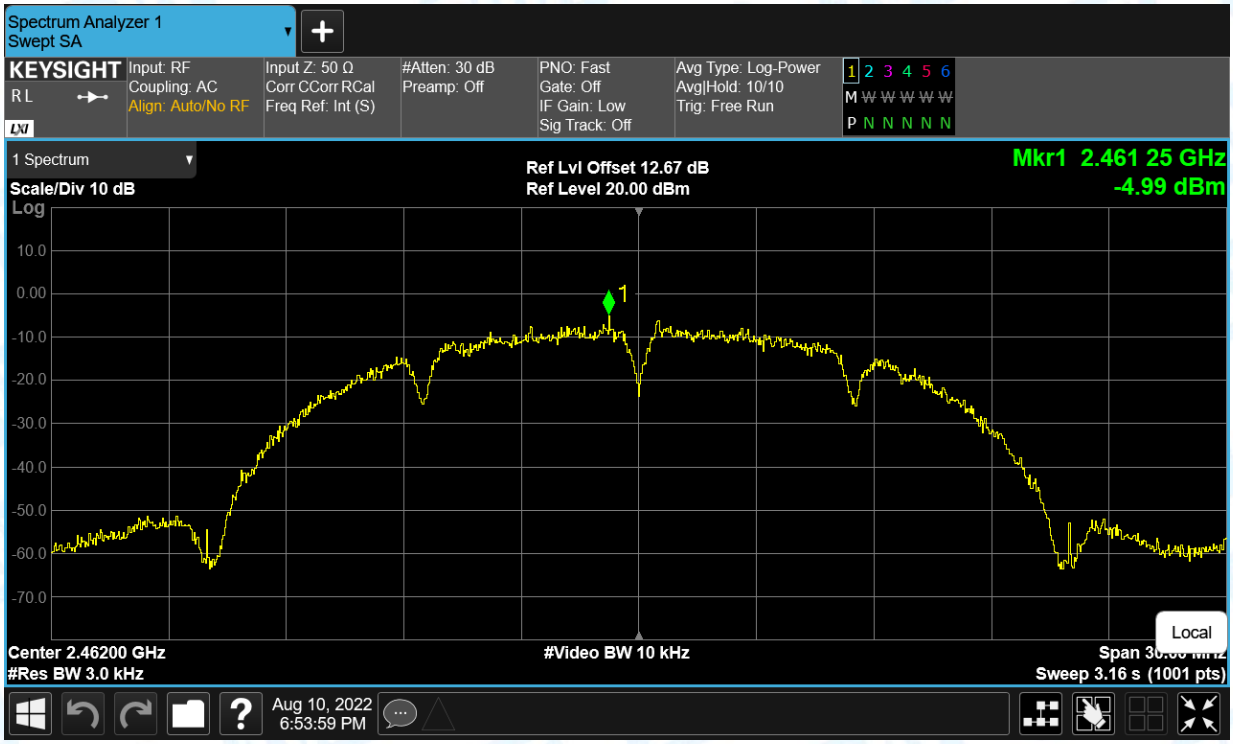
PSD NVNT b 2412MHz Ant1



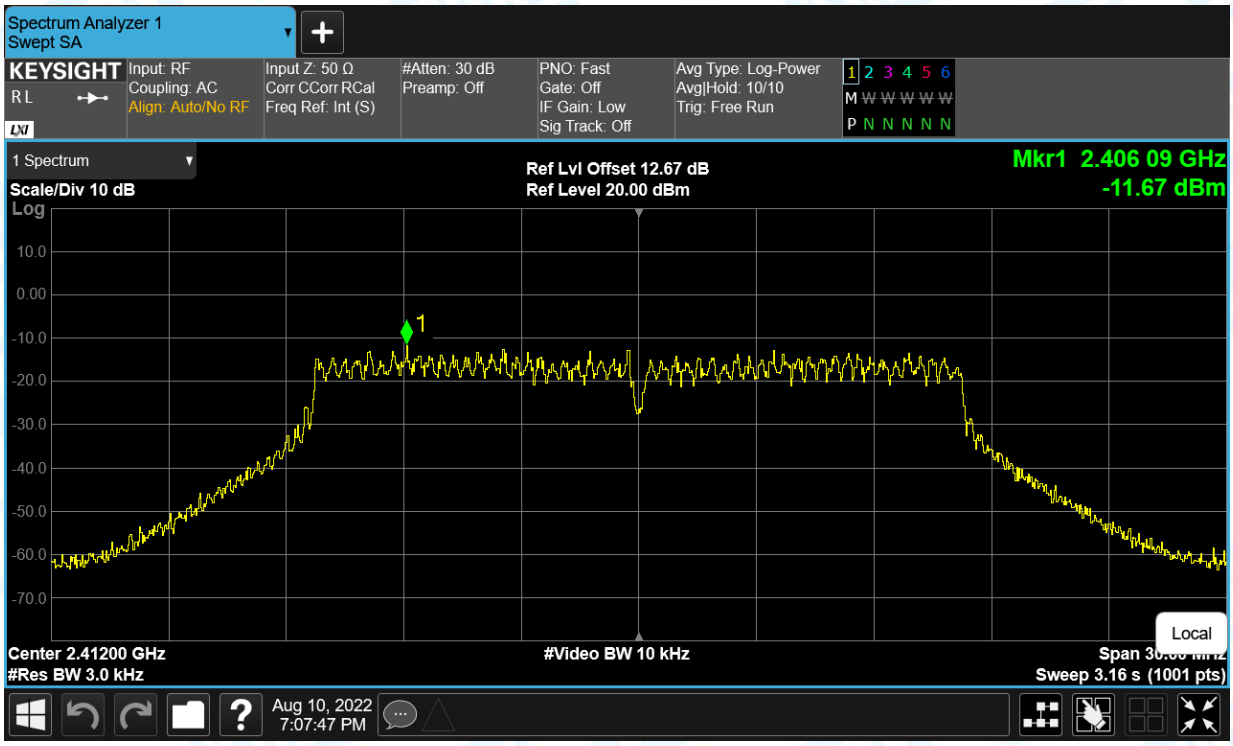

PSD NVNT b 2437MHz Ant1



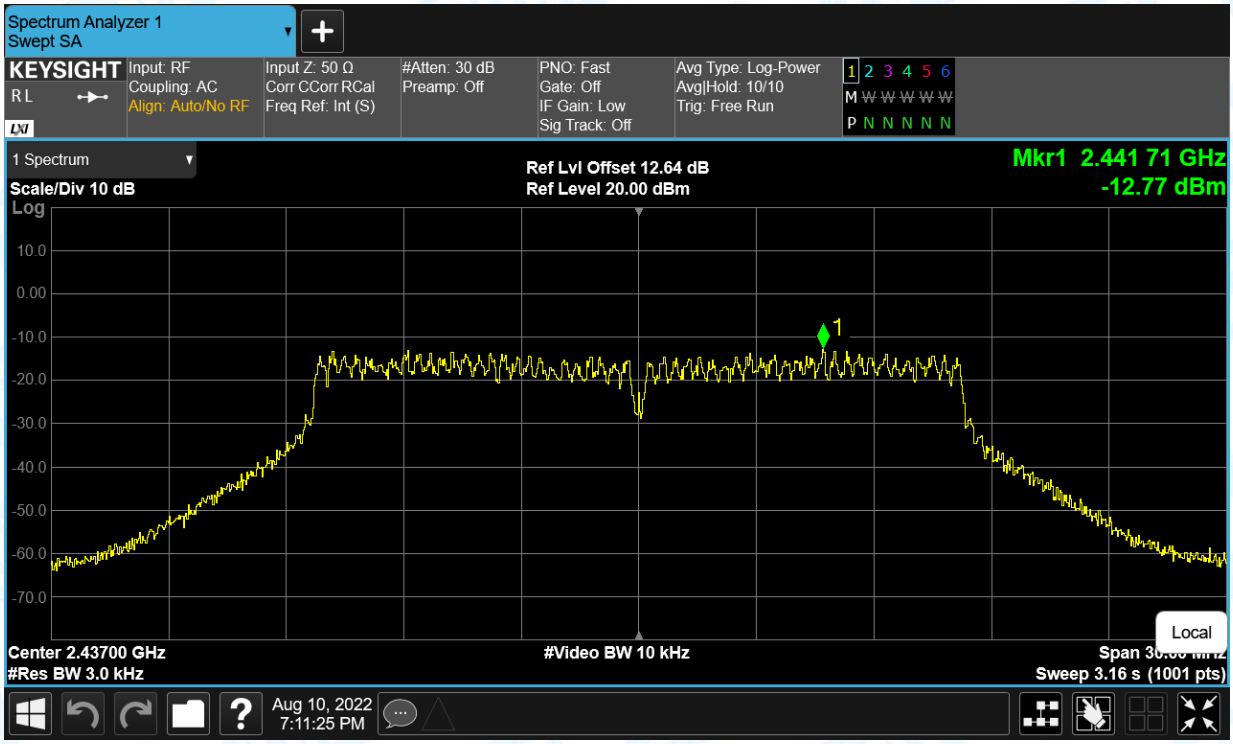
PSD NVNT b 2462MHz Ant1



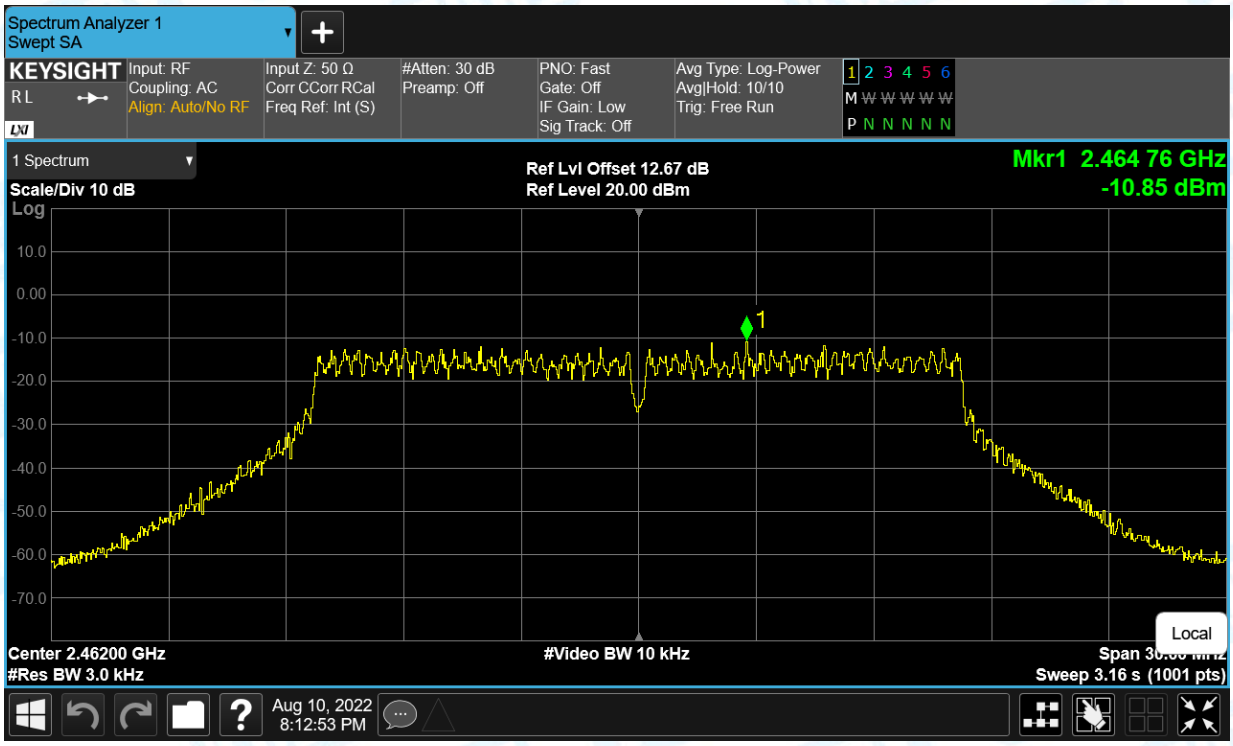

PSD NVNT g 2412MHz Ant1



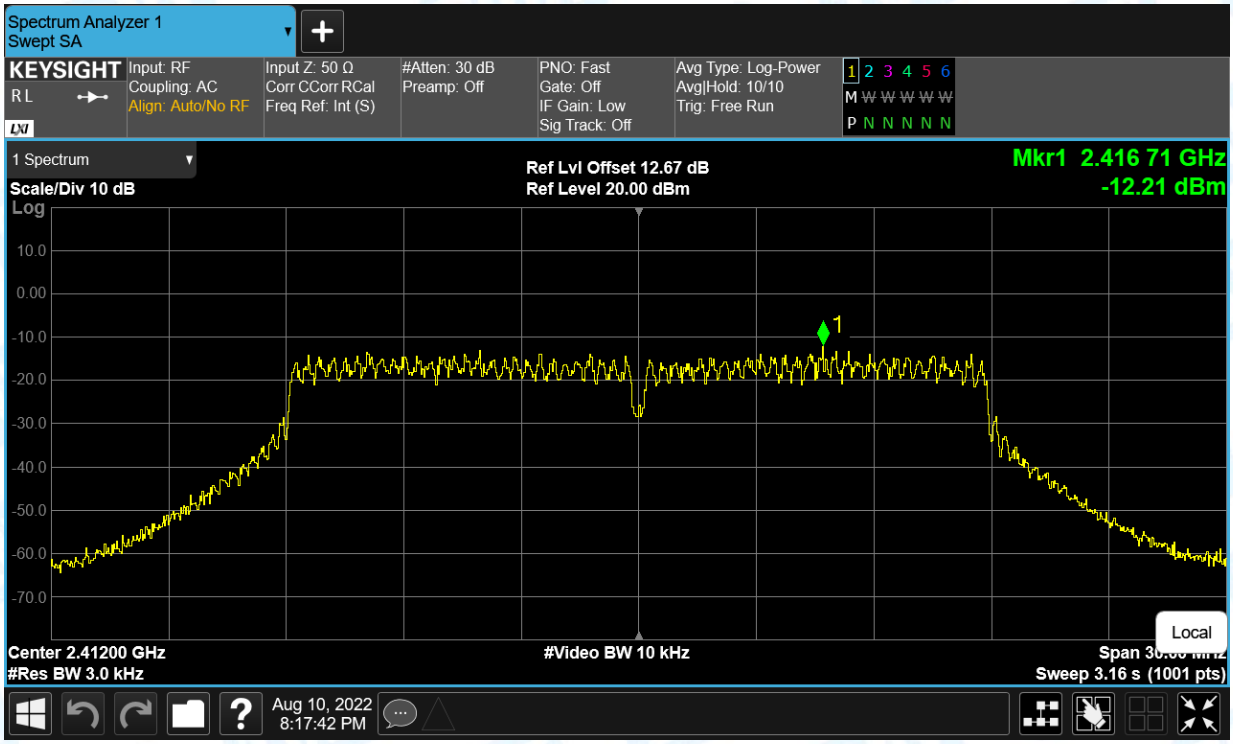
PSD NVNT g 2437MHz Ant1



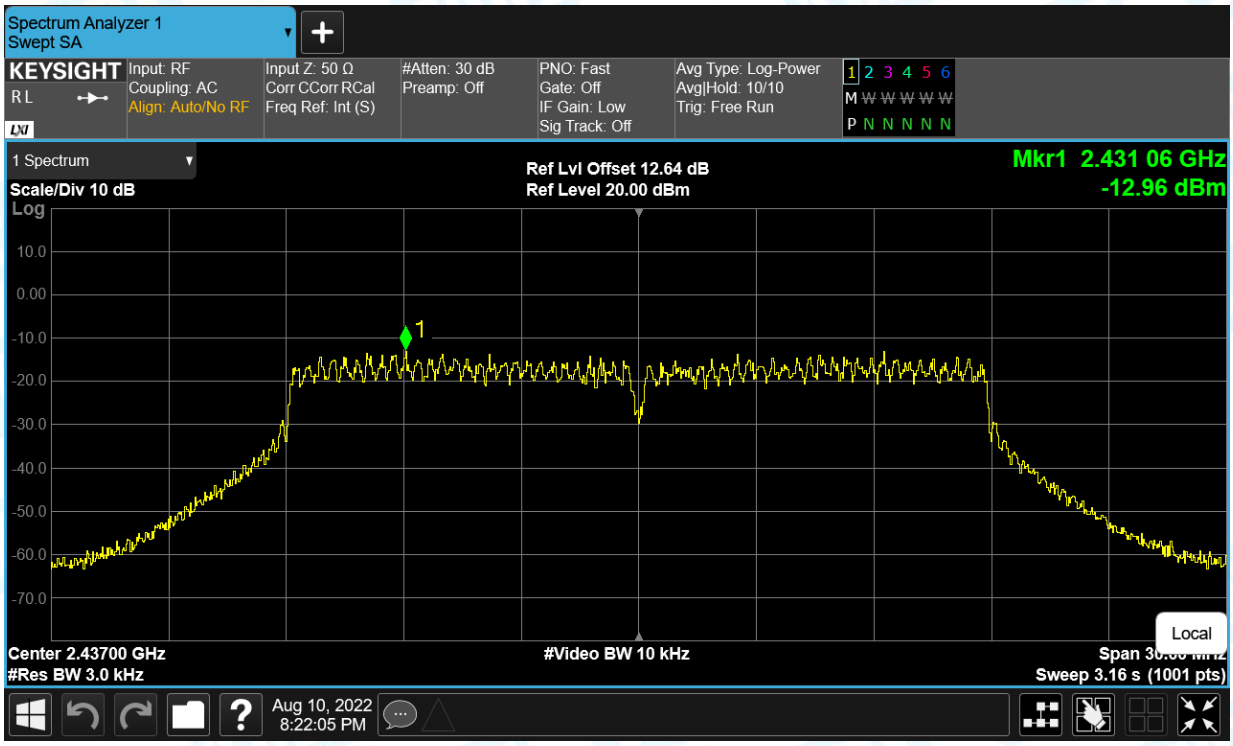

PSD NVNT g 2462MHz Ant1



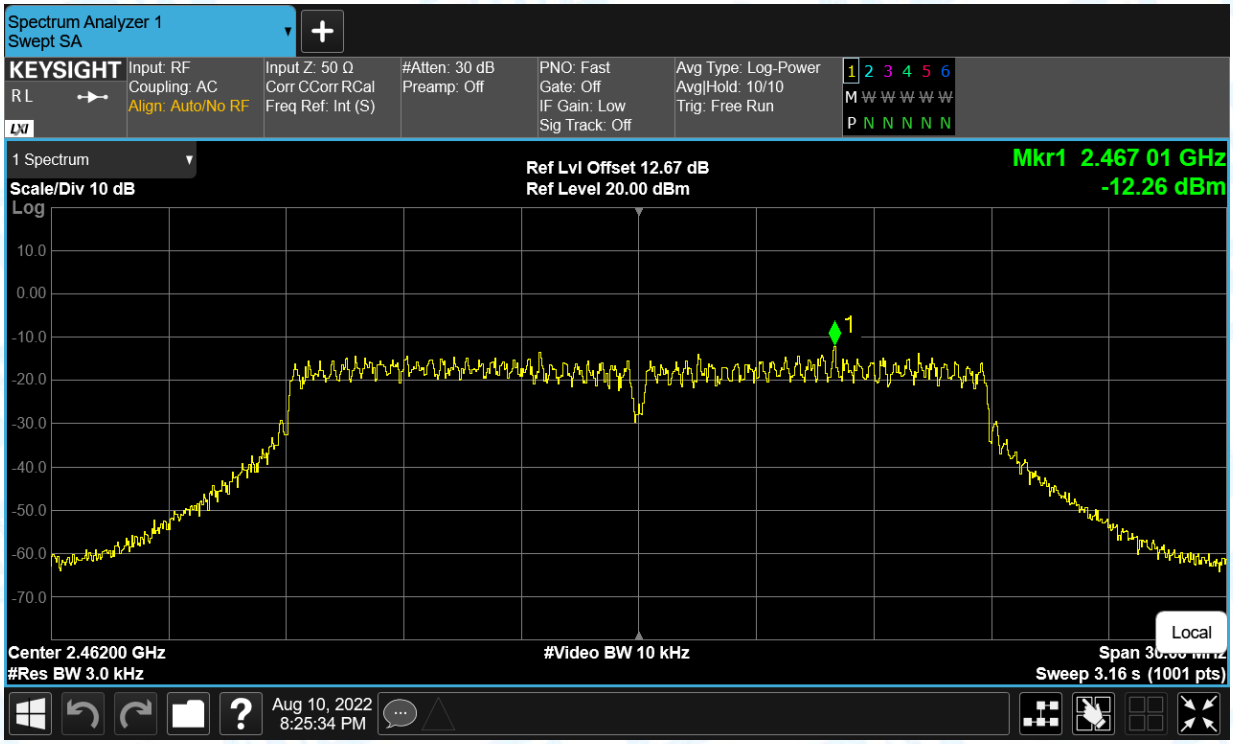
PSD NVNT n(HT20) 2412MHz Ant1



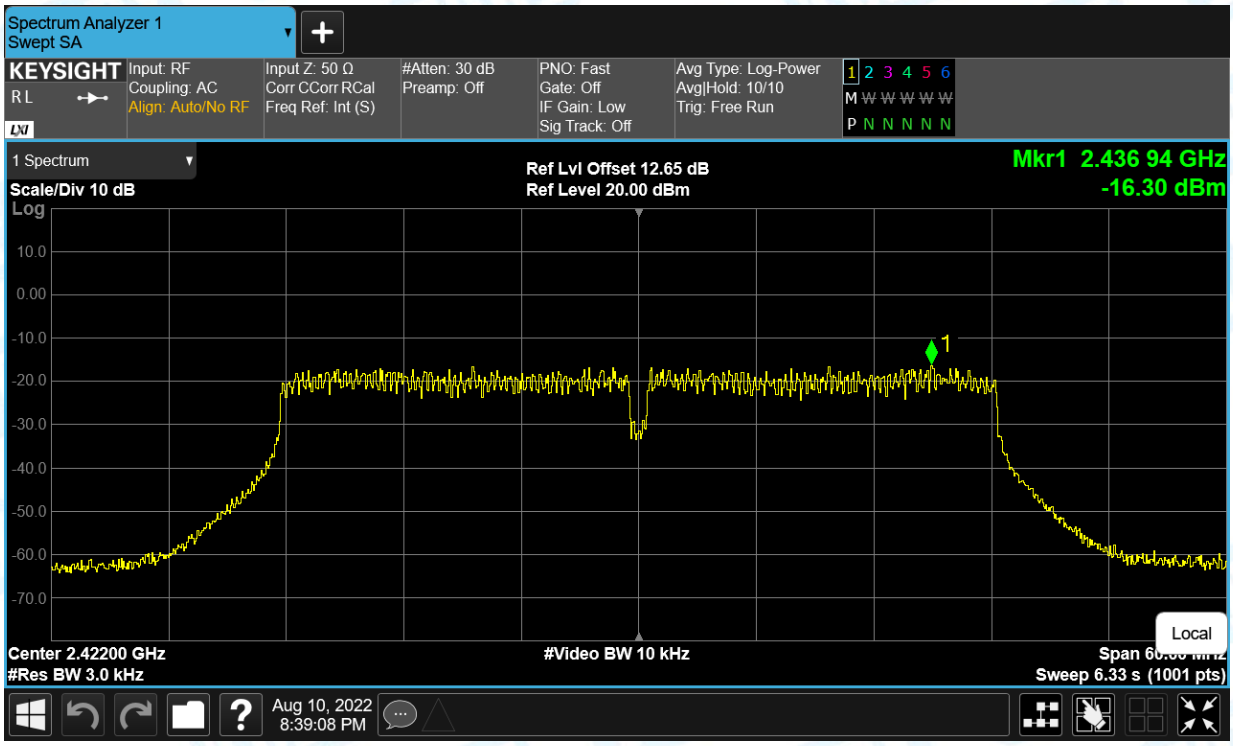

PSD NVNT n(HT20) 2437MHz Ant1



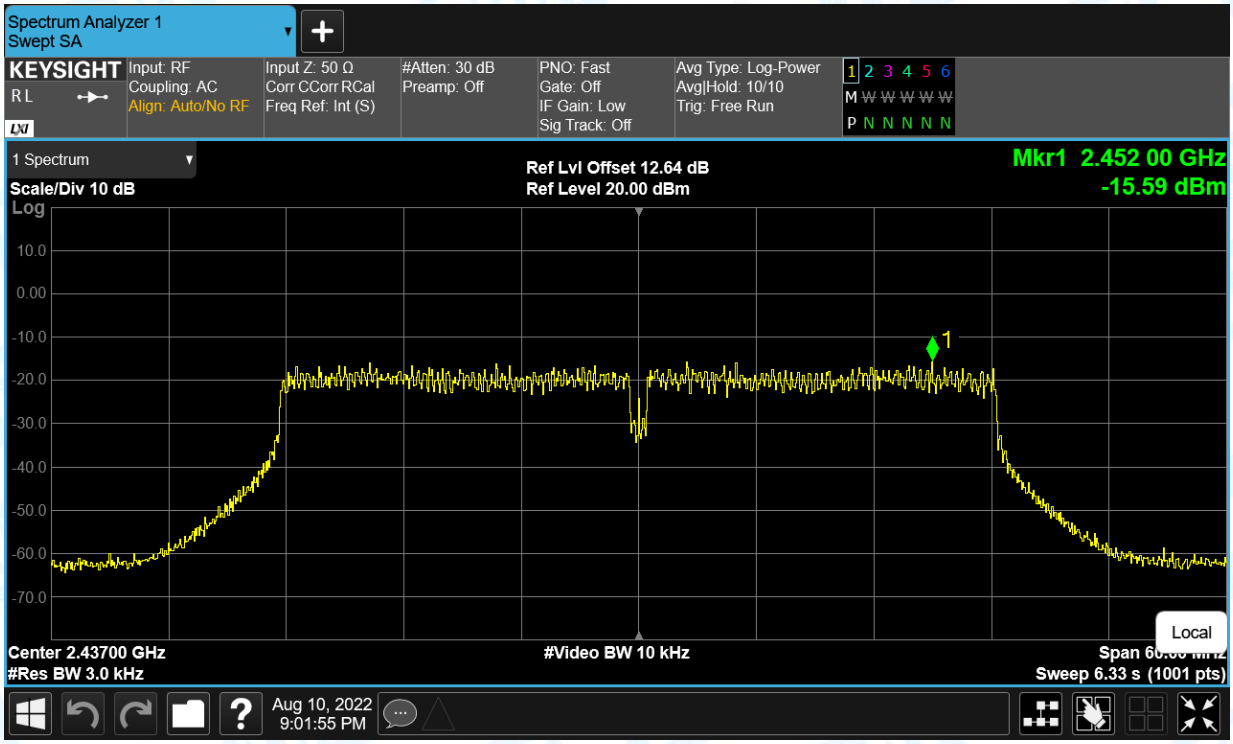
PSD NVNT n(HT20) 2462MHz Ant1



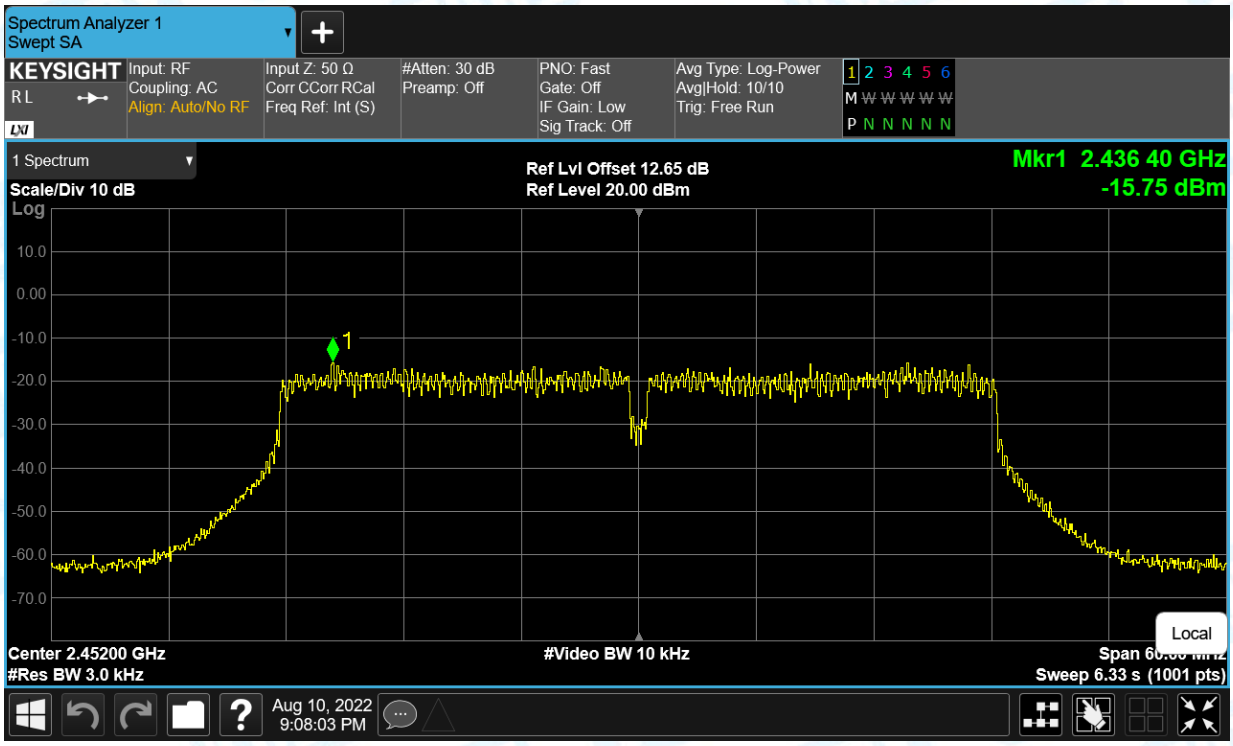

PSD NVNT n(HT40) 2422MHz Ant1



PSD NVNT n(HT40) 2437MHz Ant1




PSD NVNT n(HT40) 2452MHz Ant1

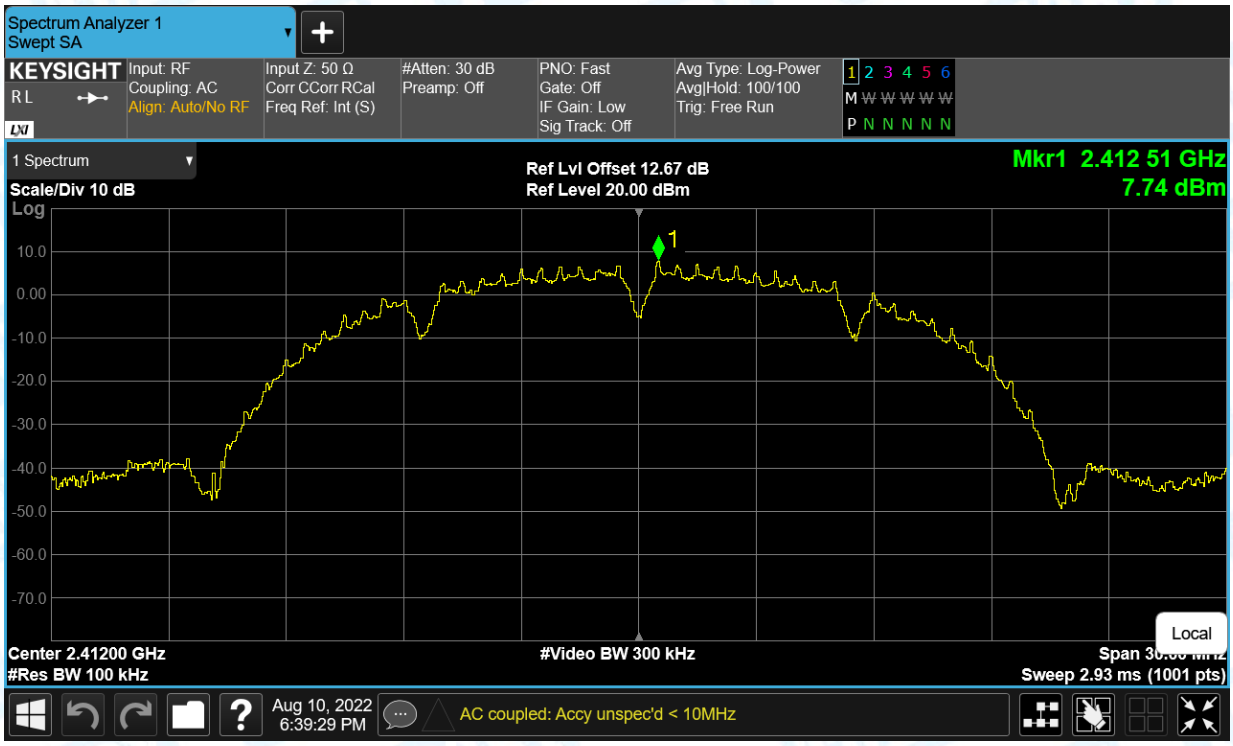


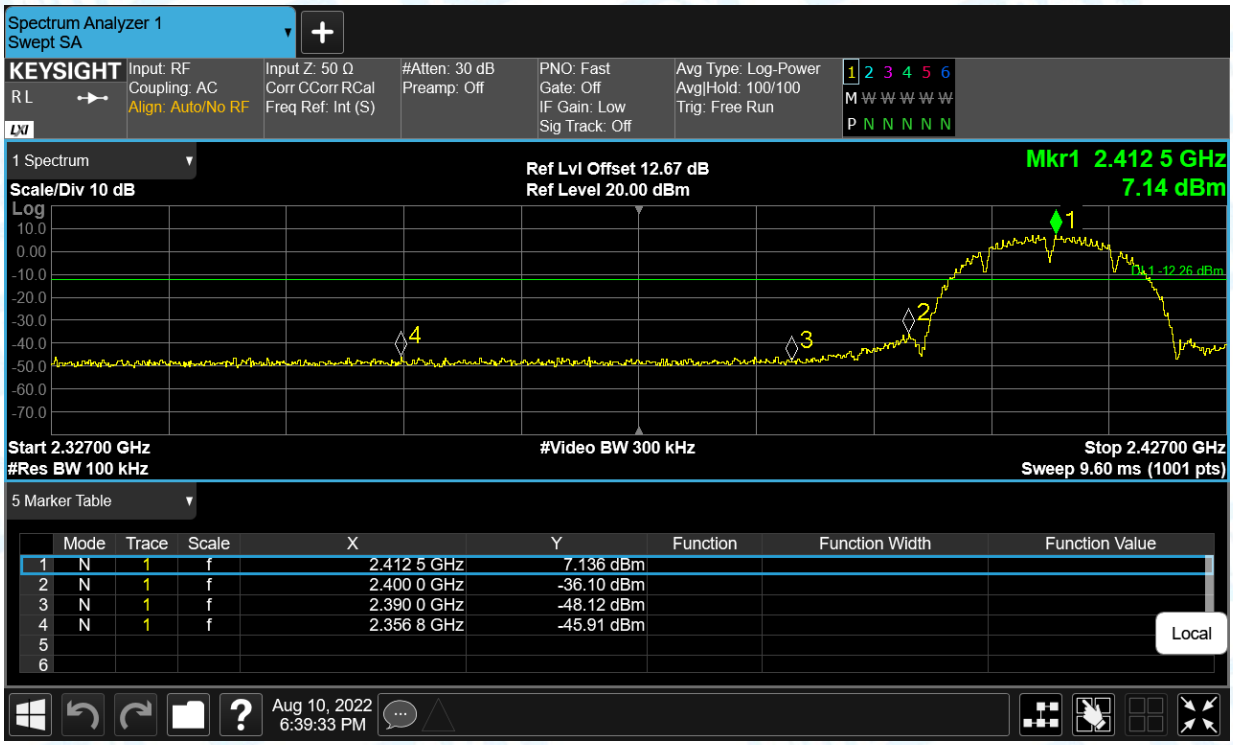
# 6. Band Edge

| Condition | Mode | Frequency (MHz) | Antenna | Max Value (dBc) | Limit (dBc) | Verdict |
|---|---|---|---|---|---|---|
| NVNT | b | 2412 | Ant1 | -53.65 | -20 | Pass |
| NVNT | b | 2462 | Ant1 | -52.59 | -20 | Pass |
| NVNT | g | 2412 | Ant1 | -45.6 | -20 | Pass |
| NVNT | g | 2462 | Ant1 | -47.08 | -20 | Pass |
| NVNT | n(HT20) | 2412 | Ant1 | -46.21 | -20 | Pass |
| NVNT | n(HT20) | 2462 | Ant1 | -46.7 | -20 | Pass |
| NVNT | n(HT40) | 2422 | Ant1 | -44.71 | -20 | Pass |
| NVNT | n(HT40) | 2452 | Ant1 | -43.03 | -20 | Pass |

Test Graphs

Band Edge NVNT b 2412MHz Ant1 Ref




Band Edge NVNT b 2412MHz Ant1 Emission