

# RF Test Data for 2.4G WiFi

## (Conducted Measurements)

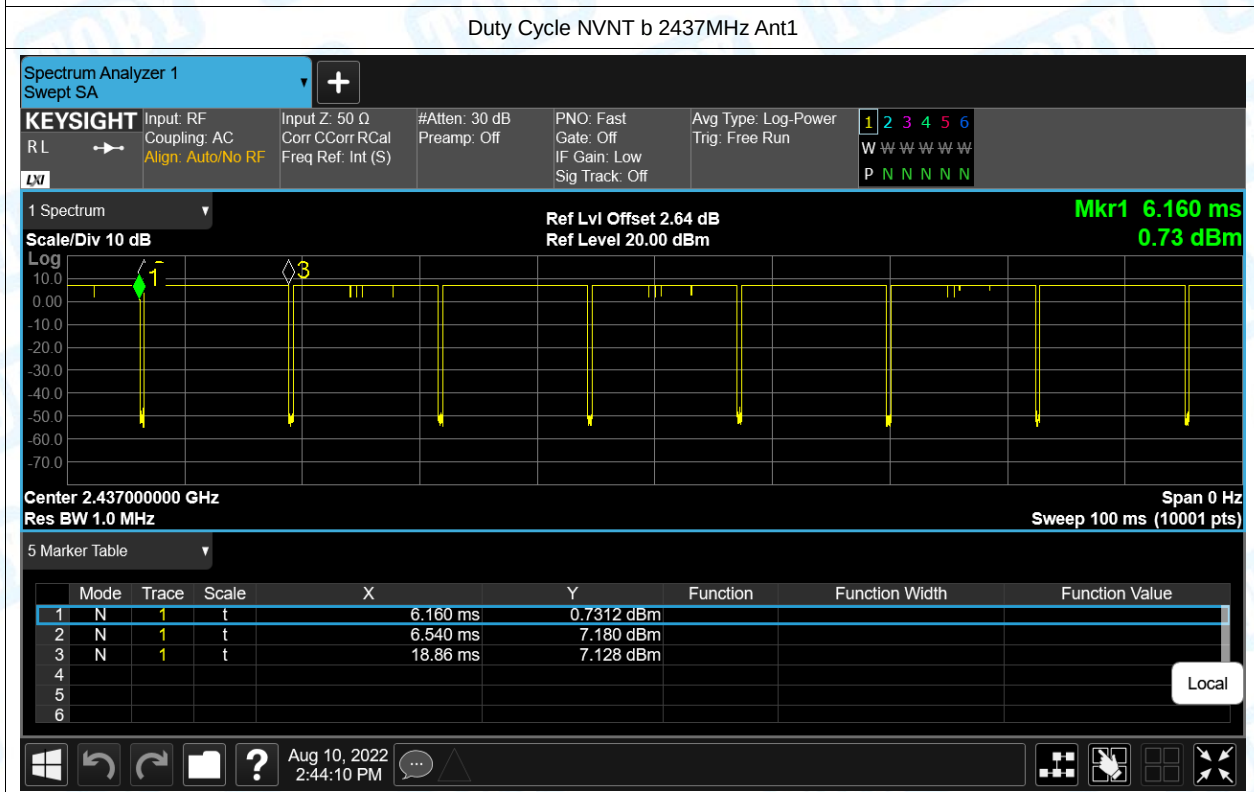
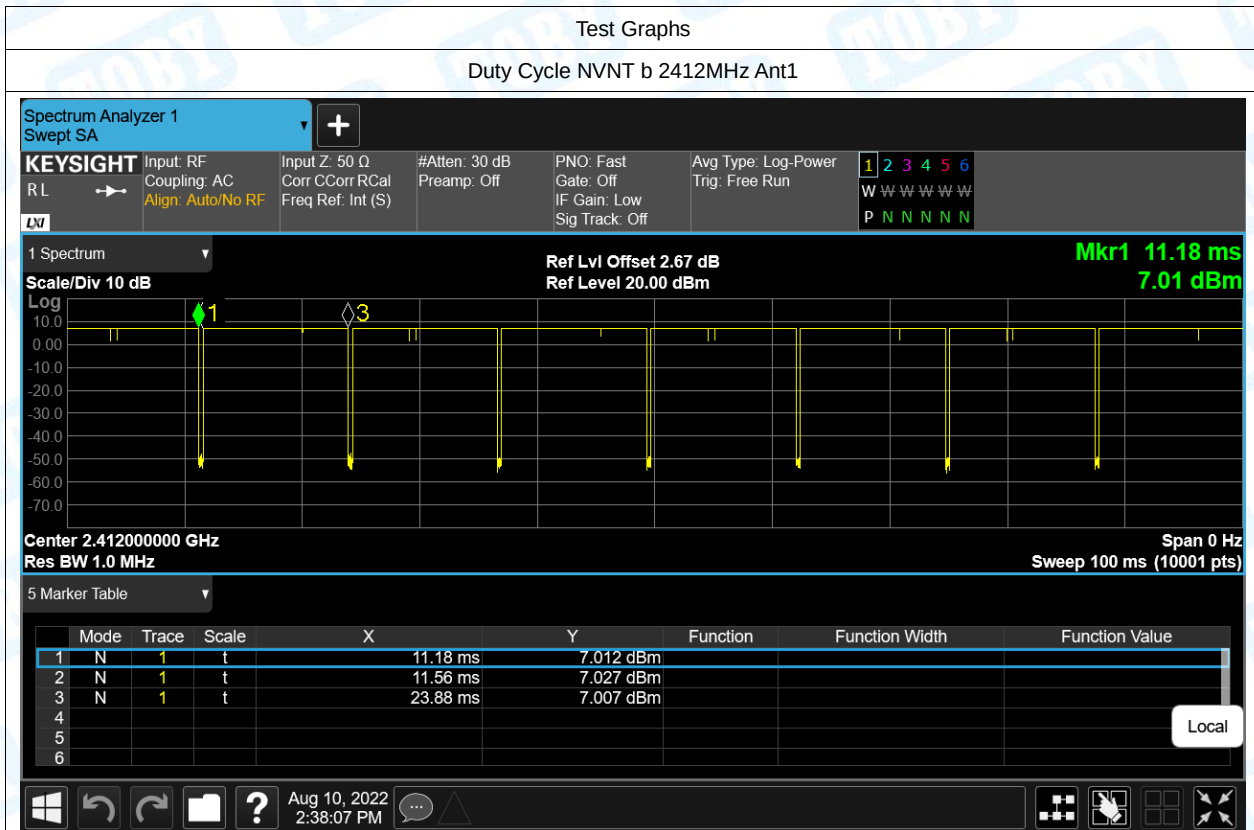
| General Description of EUT                                                                       |                 |
|--------------------------------------------------------------------------------------------------|-----------------|
| Product Name:                                                                                    | Alto X6         |
| Test Model:                                                                                      | Alto X6         |
| Sample ID:                                                                                       | 202206-0362-04# |
| Environmental Conditions                                                                         |                 |
| Temperature:                                                                                     | 25℃             |
| 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-202206-0362-22. |                 |

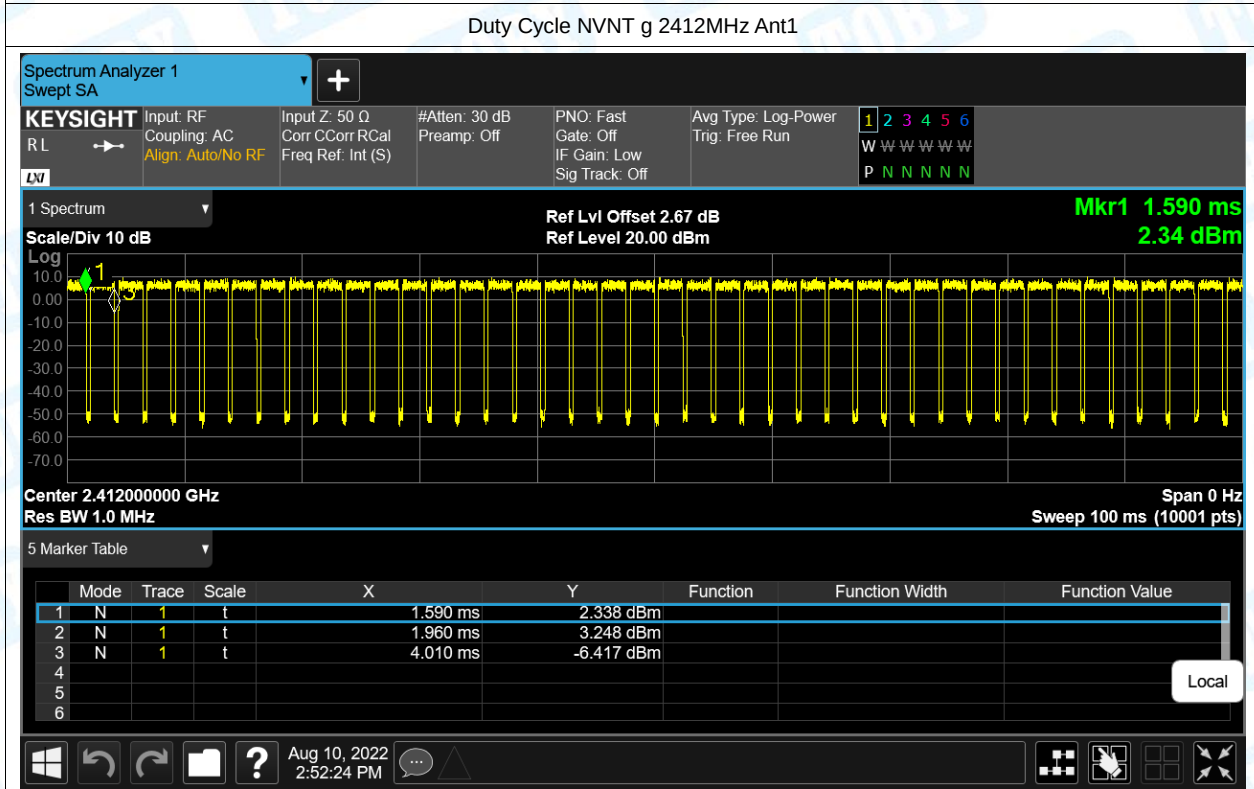
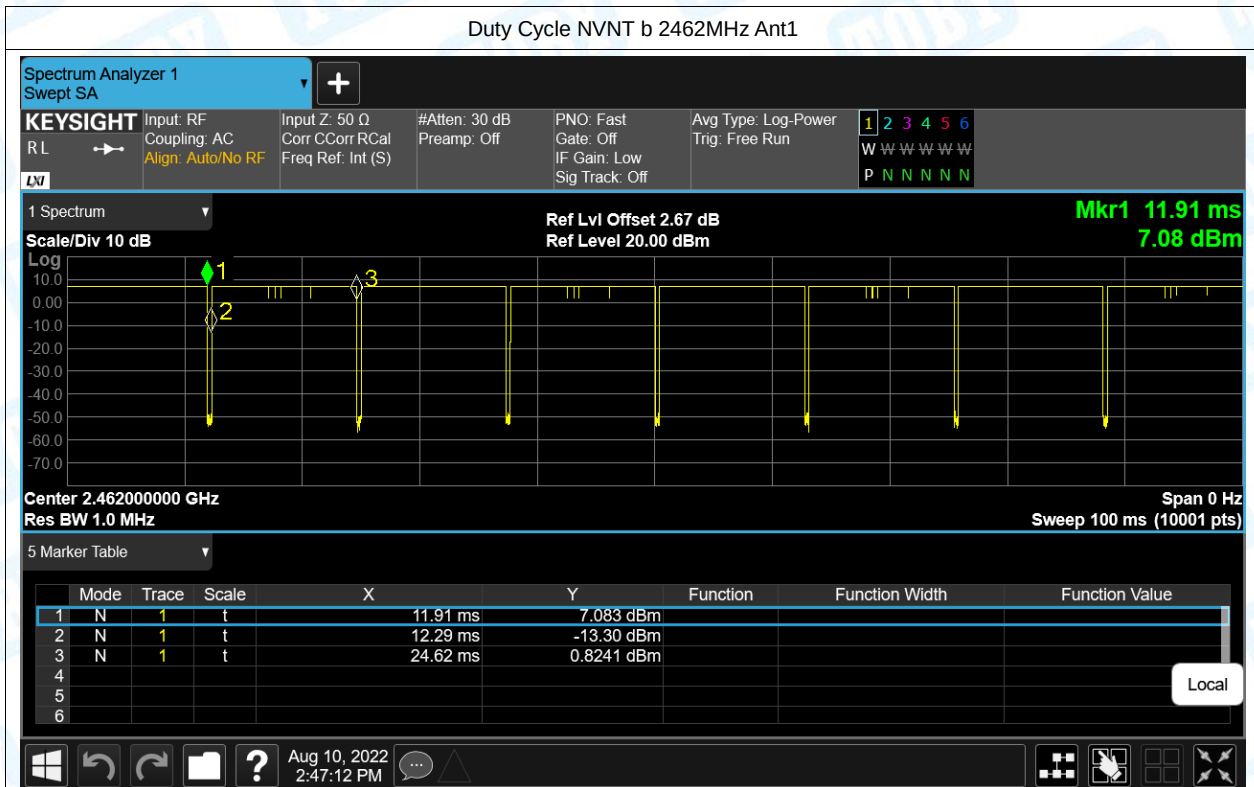
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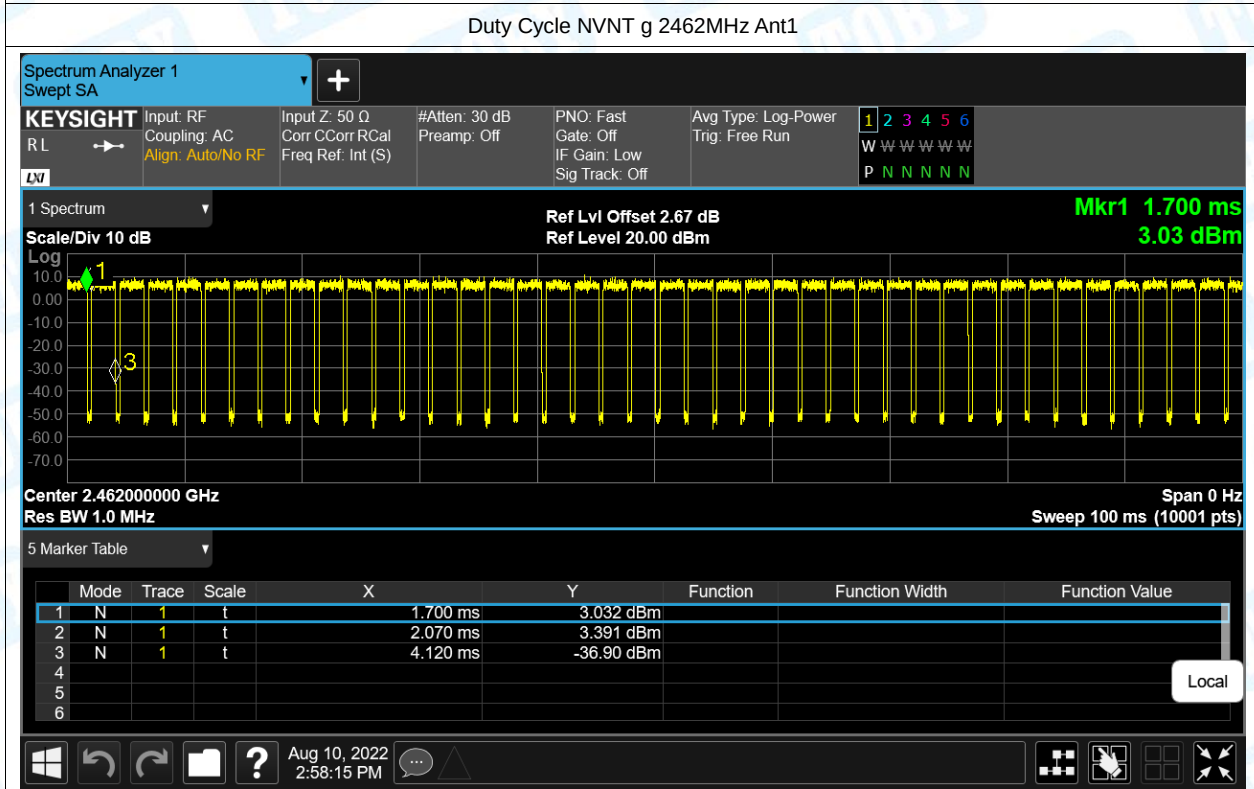
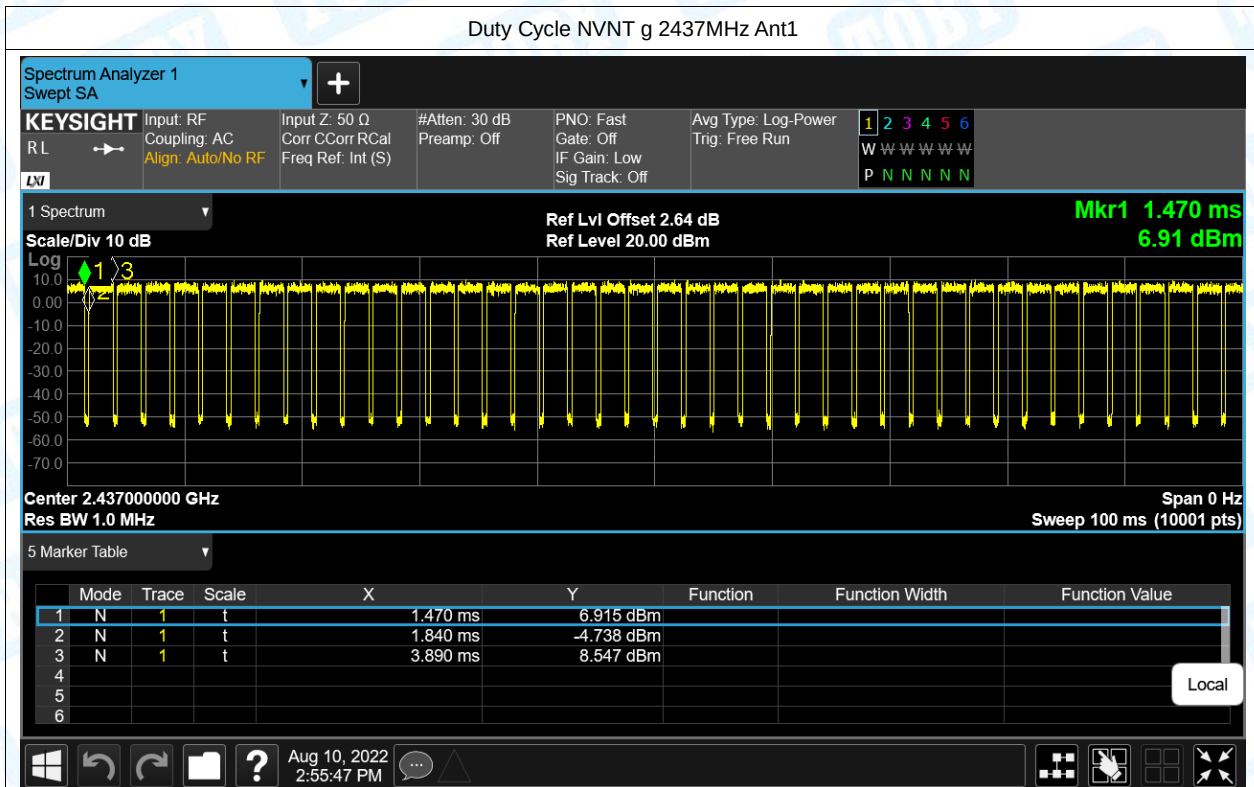
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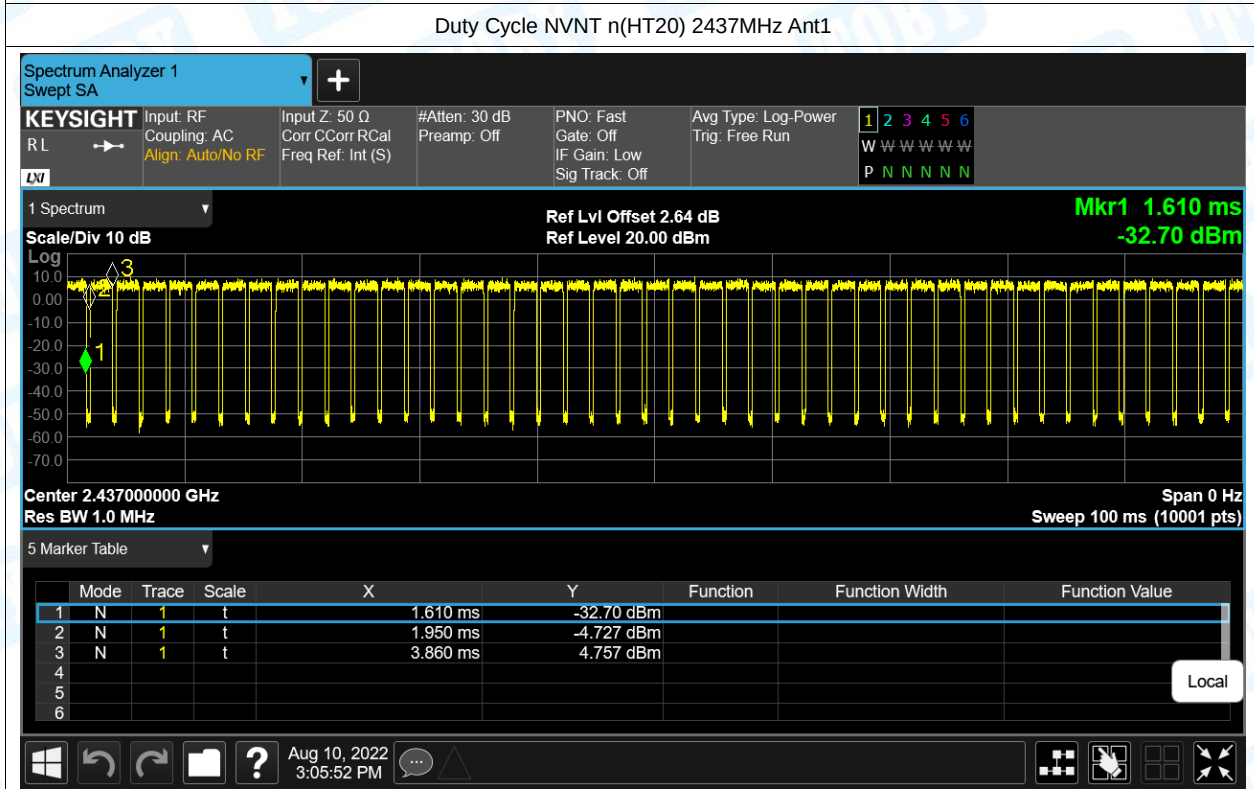
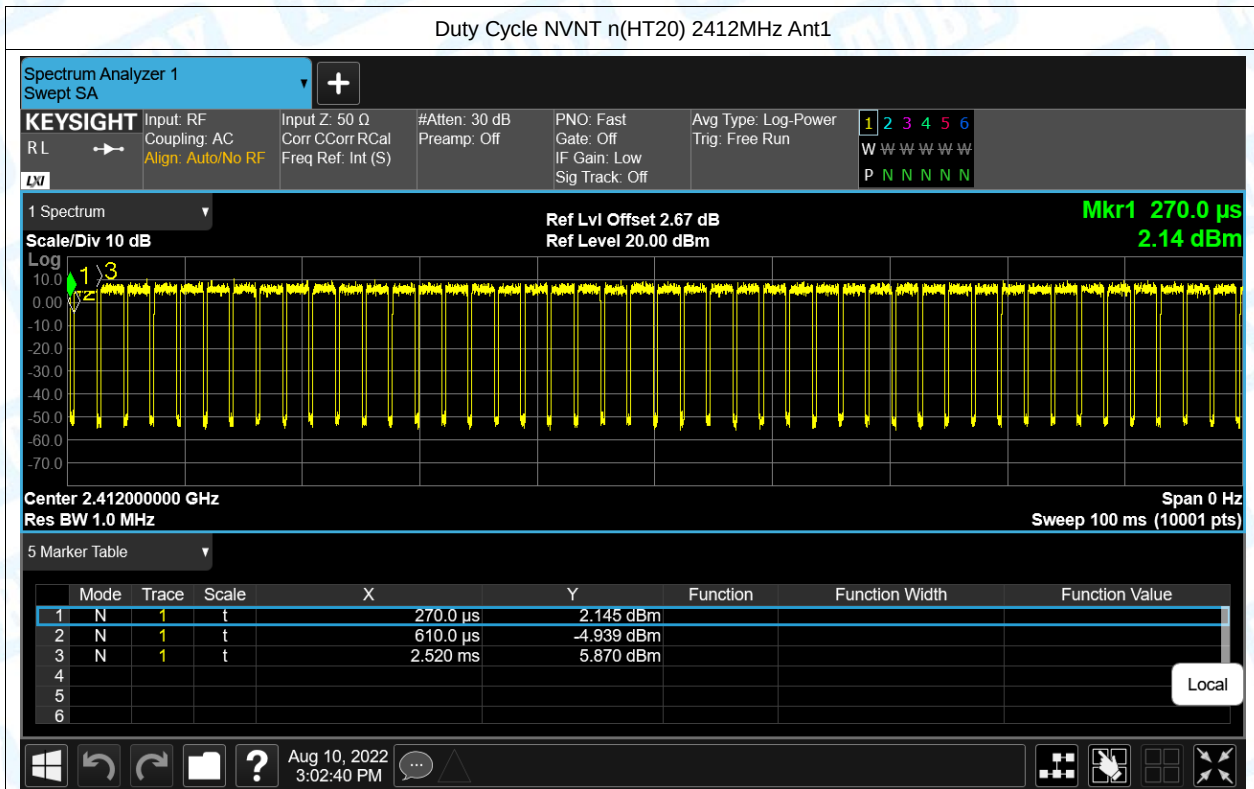
## 1.Duty Cycle

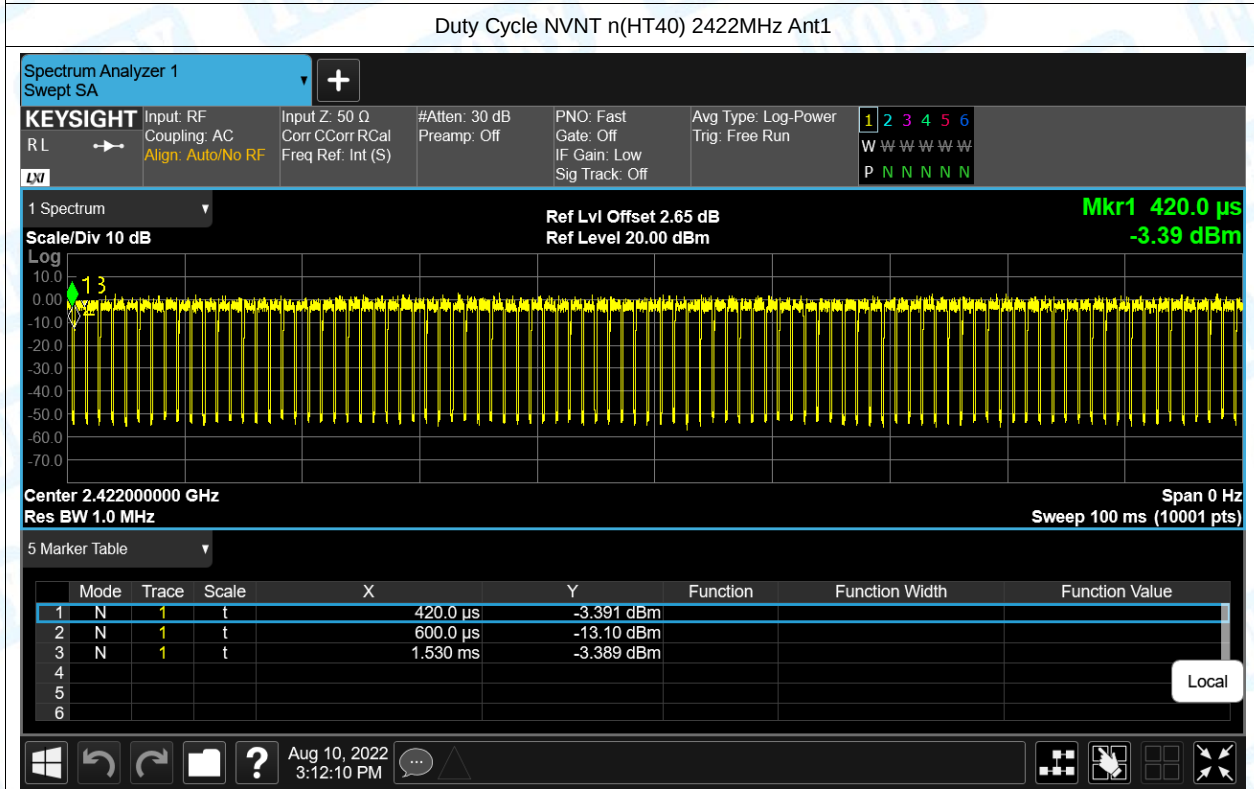
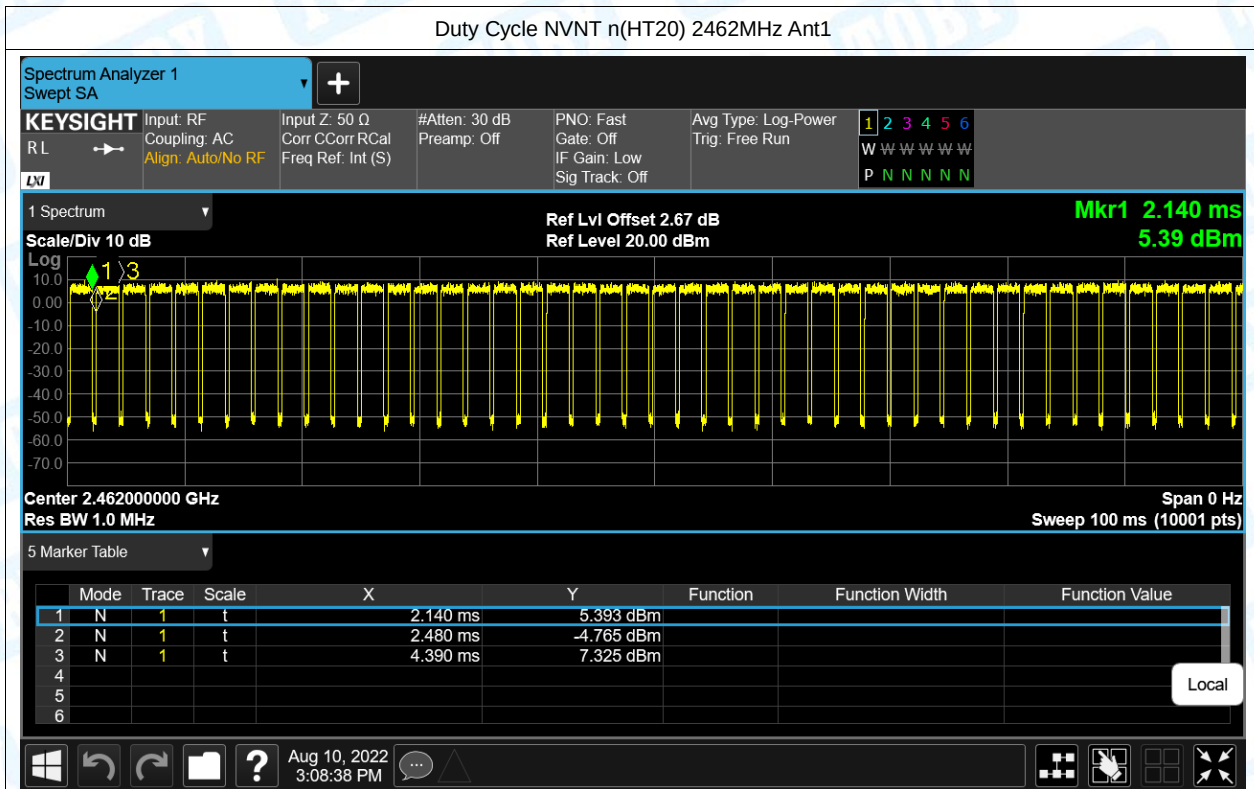
| Condition | Mode    | Frequency (MHz) | Antenna | Duty Cycle (%) | Correction Factor (dB) | 1/T (kHz) |
|-----------|---------|-----------------|---------|----------------|------------------------|-----------|
| NVNT      | b       | 2412            | Ant1    | 97.01          | 0.13                   | 0.08      |
| NVNT      | b       | 2437            | Ant1    | 97.01          | 0.13                   | 0.08      |
| NVNT      | b       | 2462            | Ant1    | 97.01          | 0.13                   | 0.08      |
| NVNT      | g       | 2412            | Ant1    | 84.71          | 0.72                   | 0.49      |
| NVNT      | g       | 2437            | Ant1    | 84.71          | 0.72                   | 0.49      |
| NVNT      | g       | 2462            | Ant1    | 84.71          | 0.72                   | 0.49      |
| NVNT      | n(HT20) | 2412            | Ant1    | 84.89          | 0.71                   | 0.52      |
| NVNT      | n(HT20) | 2437            | Ant1    | 84.89          | 0.71                   | 0.52      |
| NVNT      | n(HT20) | 2462            | Ant1    | 84.89          | 0.71                   | 0.52      |
| NVNT      | n(HT40) | 2422            | Ant1    | 83.78          | 0.77                   | 1.08      |
| NVNT      | n(HT40) | 2437            | Ant1    | 84.68          | 0.72                   | 1.06      |
| NVNT      | n(HT40) | 2452            | Ant1    | 84.68          | 0.72                   | 1.06      |

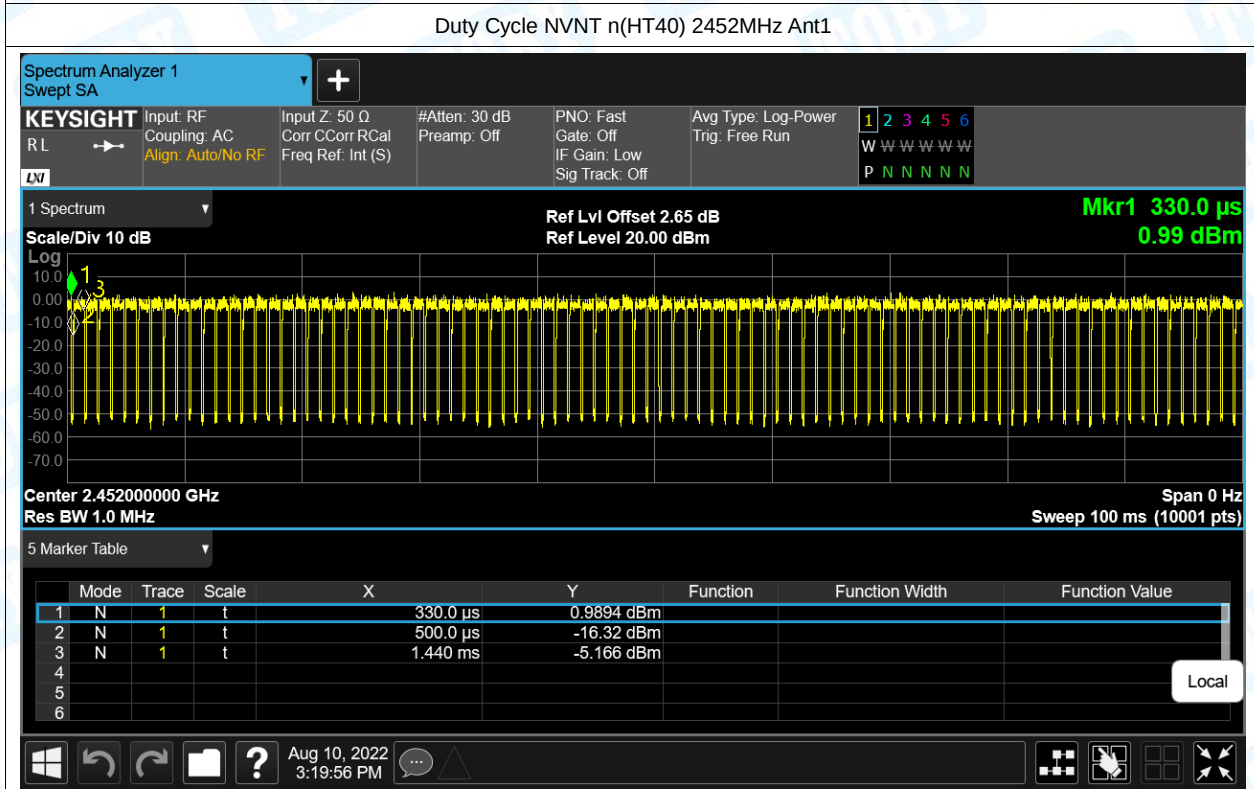
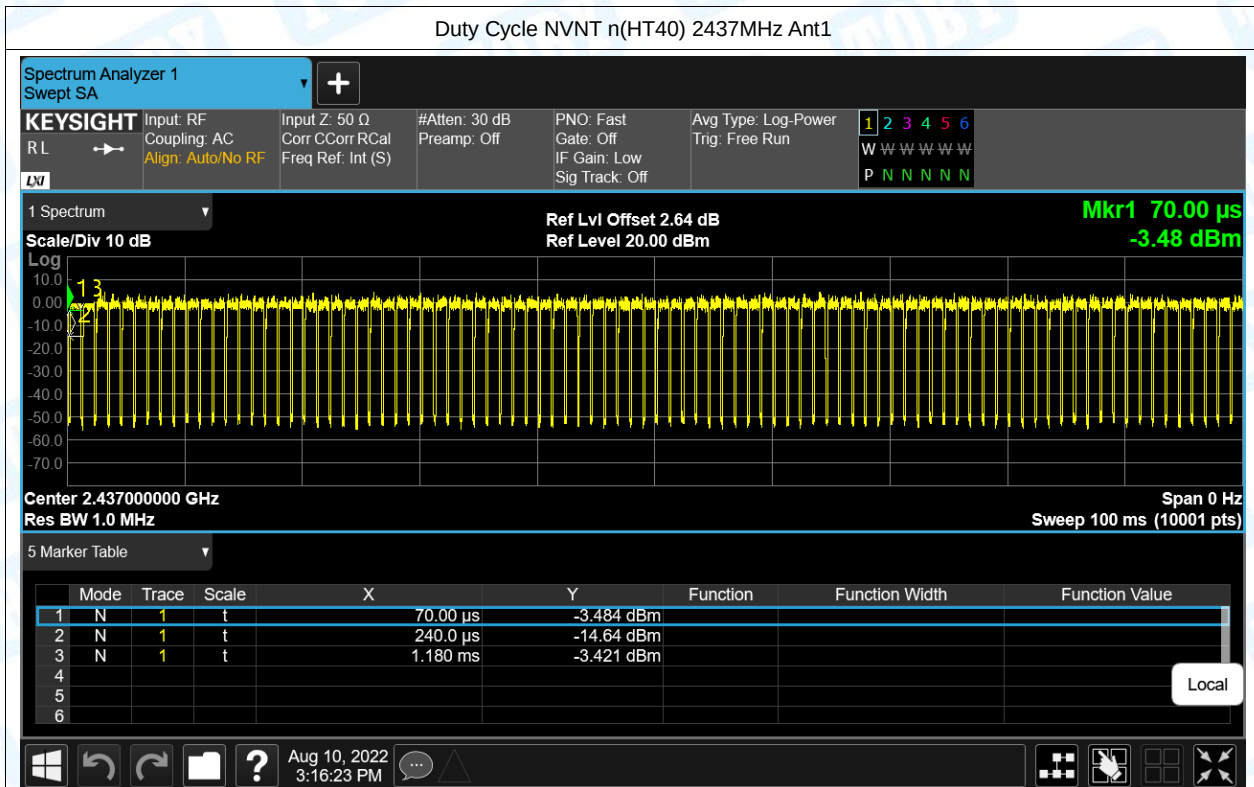












## 2.Maximum Conducted Output Power

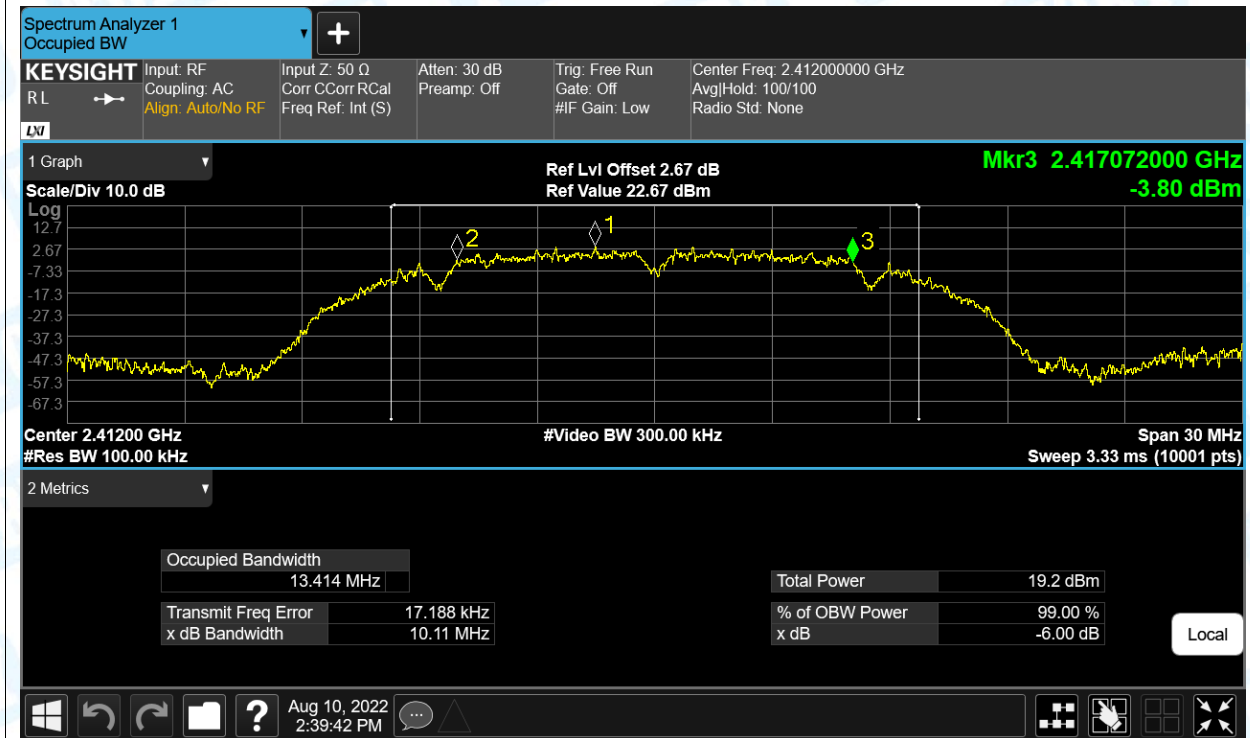
| Condition | Mode    | Frequency<br>(MHz) | Antenna | Conducted Power<br>(dBm) | Limit<br>(dBm) | Verdict |
|-----------|---------|--------------------|---------|--------------------------|----------------|---------|
| NVNT      | b       | 2412               | Ant1    | 17.119                   | 30             | Pass    |
| NVNT      | b       | 2437               | Ant1    | 17.224                   | 30             | Pass    |
| NVNT      | b       | 2462               | Ant1    | 17.575                   | 30             | Pass    |
| NVNT      | g       | 2412               | Ant1    | 16.02                    | 30             | Pass    |
| NVNT      | g       | 2437               | Ant1    | 16.339                   | 30             | Pass    |
| NVNT      | g       | 2462               | Ant1    | 16.456                   | 30             | Pass    |
| NVNT      | n(HT20) | 2412               | Ant1    | 17.438                   | 30             | Pass    |
| NVNT      | n(HT20) | 2437               | Ant1    | 17.569                   | 30             | Pass    |
| NVNT      | n(HT20) | 2462               | Ant1    | 18.028                   | 30             | Pass    |
| NVNT      | n(HT40) | 2422               | Ant1    | 14.451                   | 30             | Pass    |
| NVNT      | n(HT40) | 2437               | Ant1    | 14.367                   | 30             | Pass    |
| NVNT      | n(HT40) | 2452               | Ant1    | 14.77                    | 30             | Pass    |

### 3.-6dB Bandwidth

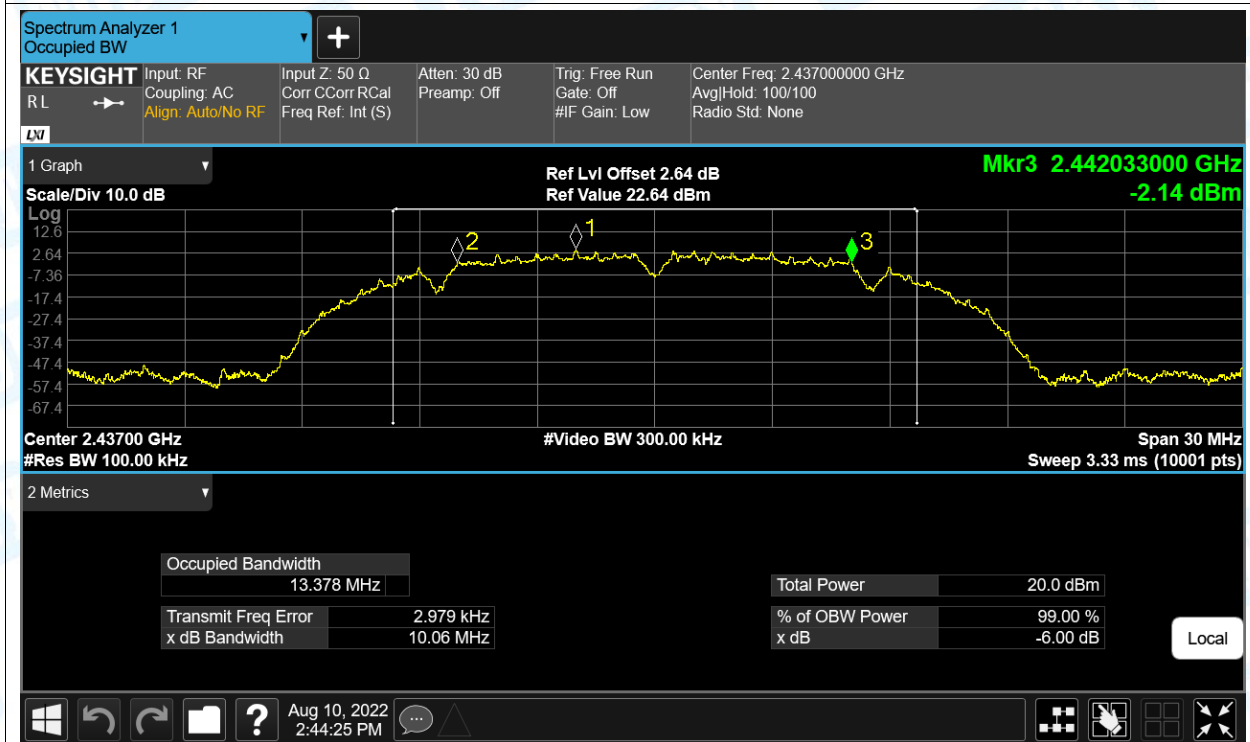
| Condition | Mode    | Frequency (MHz) | Antenna | -6 dB Bandwidth (MHz) | Limit -6 dB Bandwidth (MHz) | Verdict |
|-----------|---------|-----------------|---------|-----------------------|-----------------------------|---------|
| NVNT      | b       | 2412            | Ant1    | 10.11                 | 0.5                         | Pass    |
| NVNT      | b       | 2437            | Ant1    | 10.06                 | 0.5                         | Pass    |
| NVNT      | b       | 2462            | Ant1    | 10.11                 | 0.5                         | Pass    |
| NVNT      | g       | 2412            | Ant1    | 12.29                 | 0.5                         | Pass    |
| NVNT      | g       | 2437            | Ant1    | 12.63                 | 0.5                         | Pass    |
| NVNT      | g       | 2462            | Ant1    | 13.75                 | 0.5                         | Pass    |
| NVNT      | n(HT20) | 2412            | Ant1    | 12.53                 | 0.5                         | Pass    |
| NVNT      | n(HT20) | 2437            | Ant1    | 15.13                 | 0.5                         | Pass    |
| NVNT      | n(HT20) | 2462            | Ant1    | 13.82                 | 0.5                         | Pass    |
| NVNT      | n(HT40) | 2422            | Ant1    | 32.61                 | 0.5                         | Pass    |
| NVNT      | n(HT40) | 2437            | Ant1    | 33.79                 | 0.5                         | Pass    |
| NVNT      | n(HT40) | 2452            | Ant1    | 35.05                 | 0.5                         | Pass    |

## Test Graphs

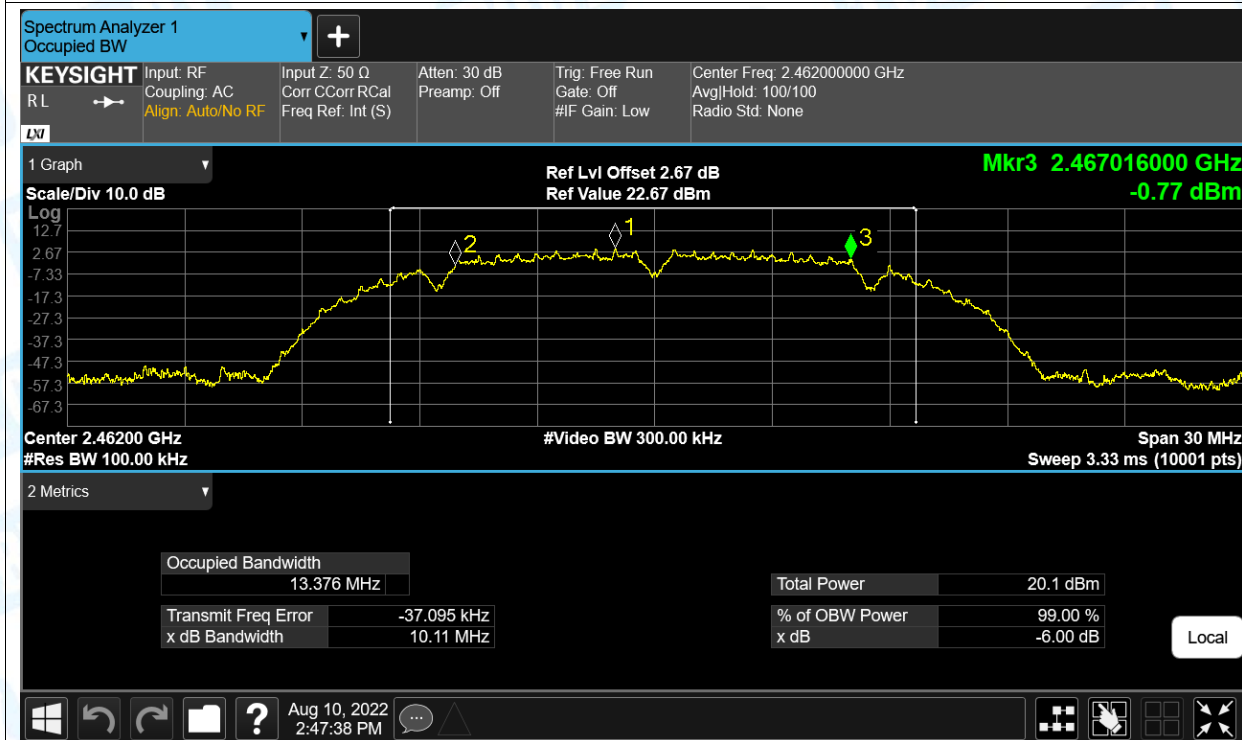
-6dB Bandwidth NVNT b 2412MHz Ant1



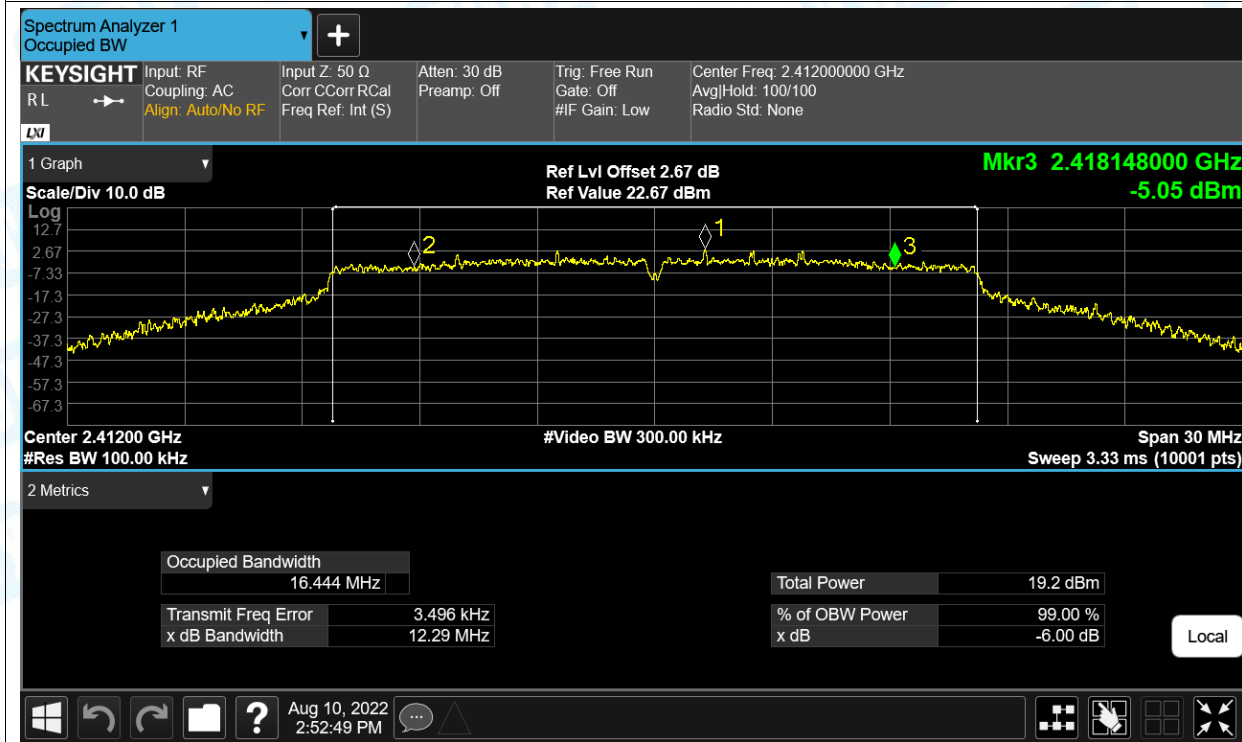
-6dB Bandwidth NVNT b 2437MHz Ant1

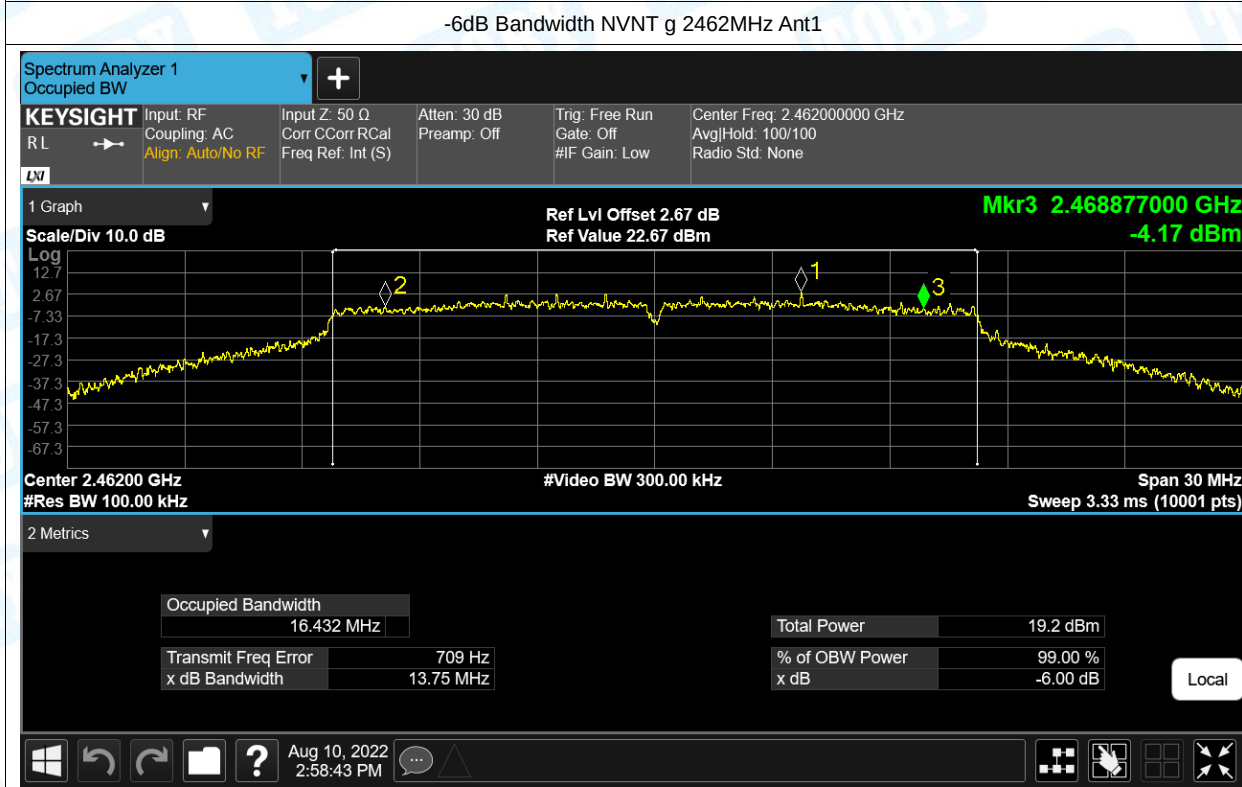
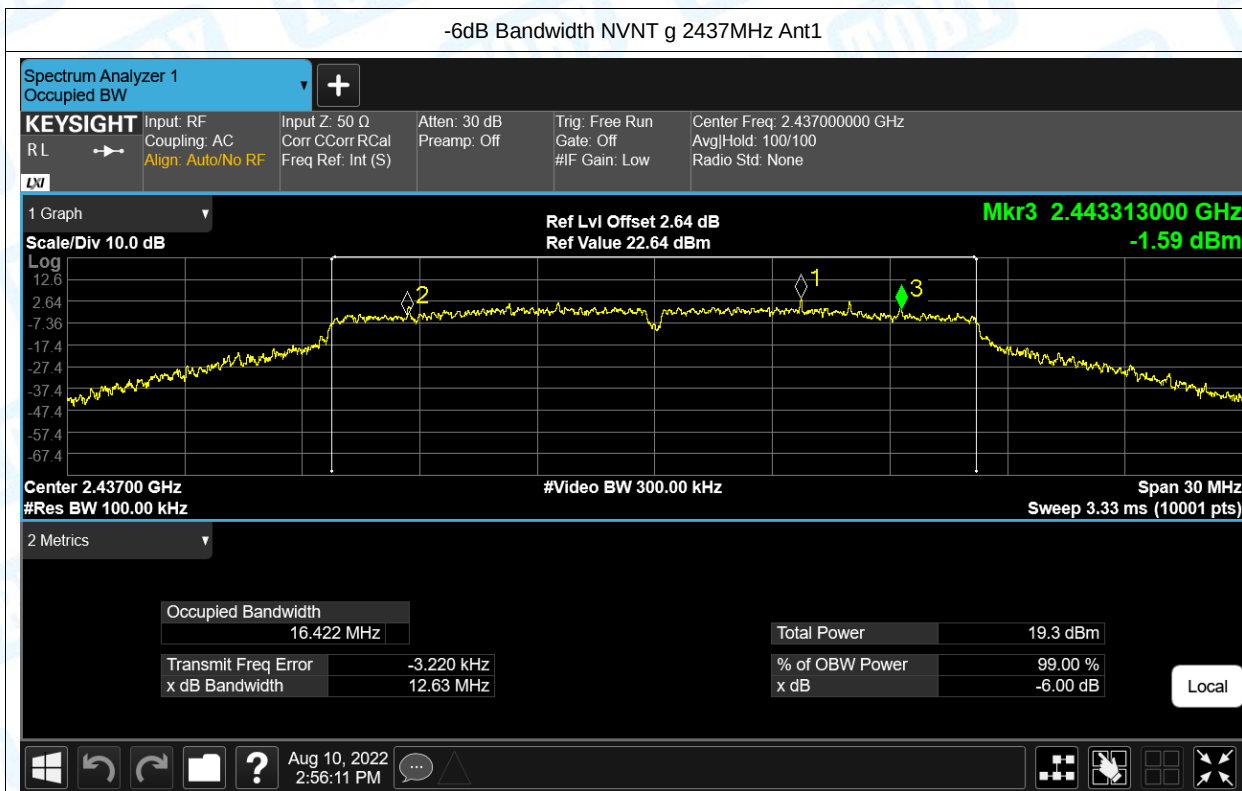


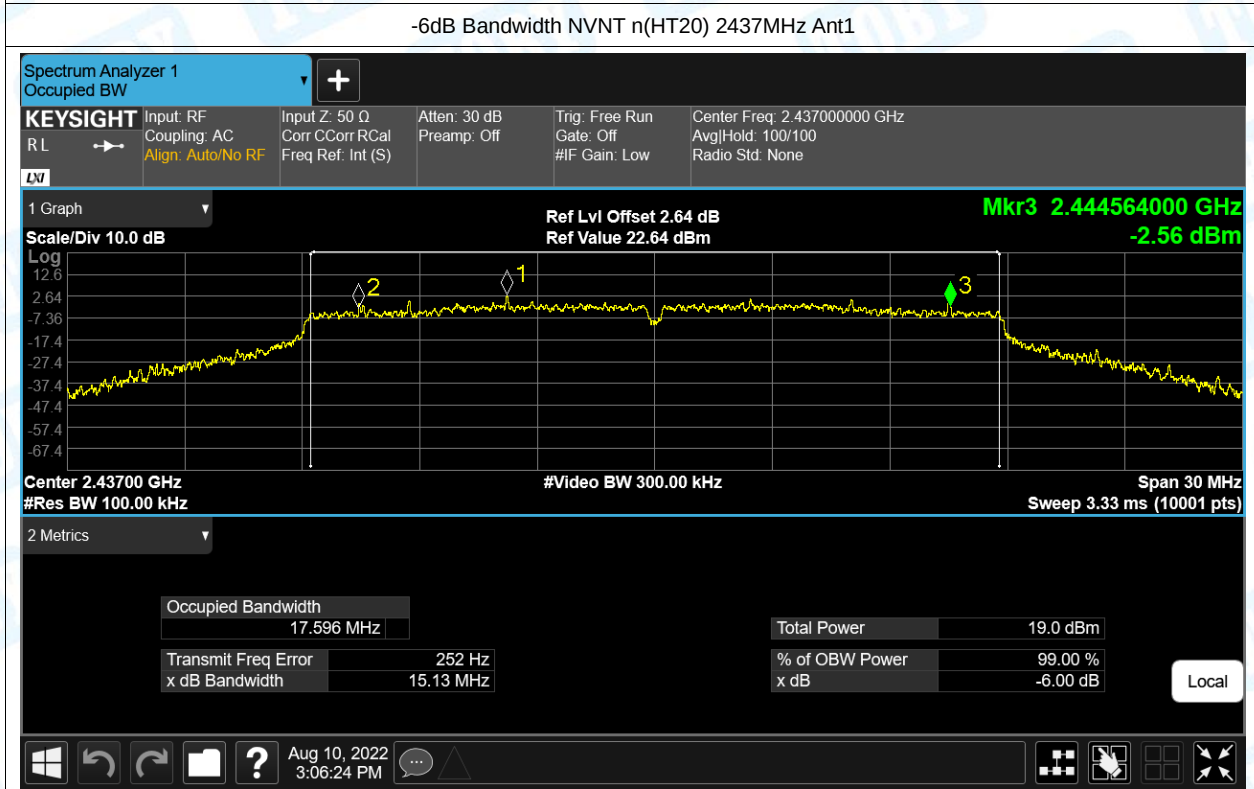
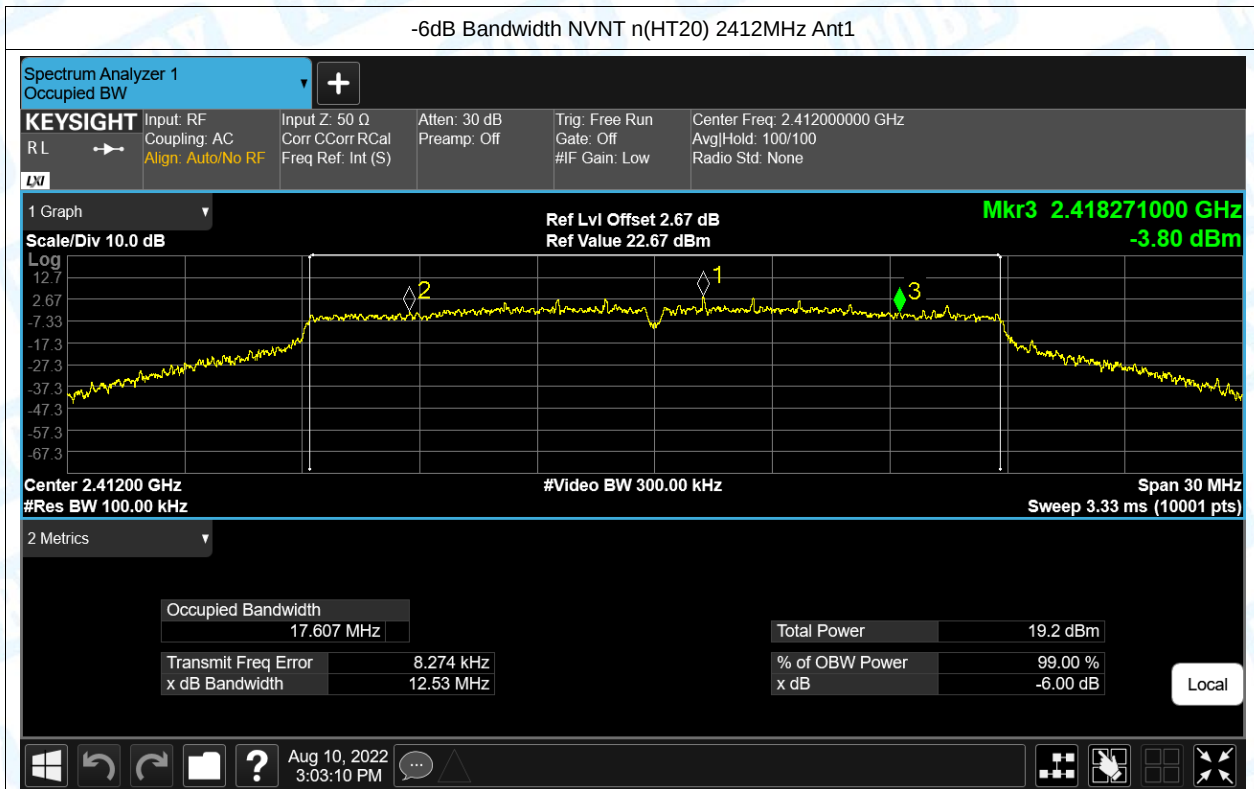
-6dB Bandwidth NVNT b 2462MHz Ant1



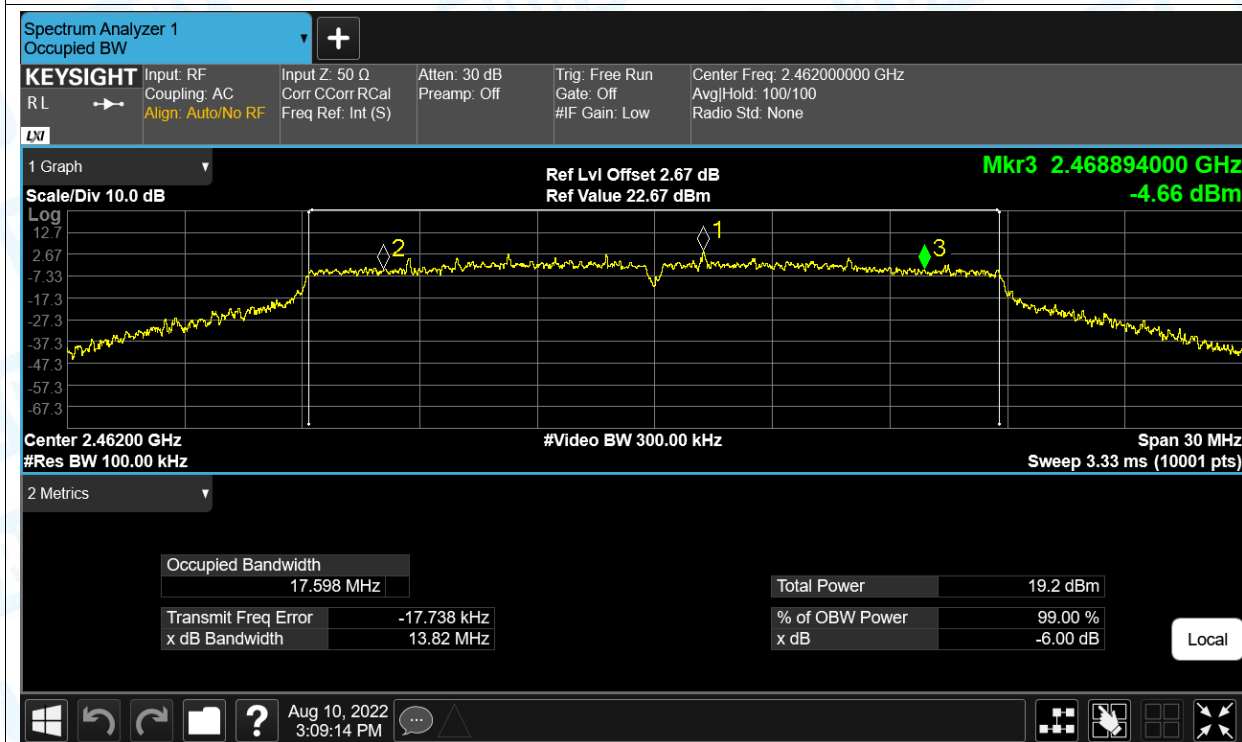
-6dB Bandwidth NVNT g 2412MHz Ant1



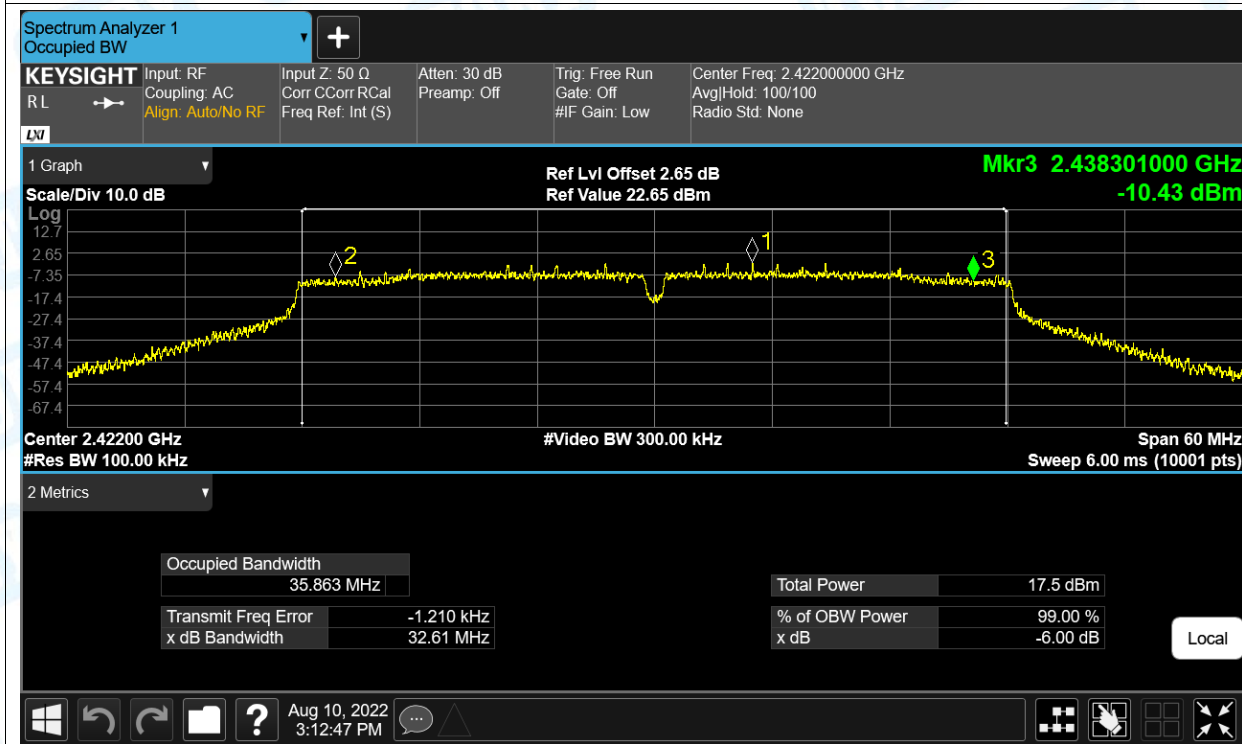




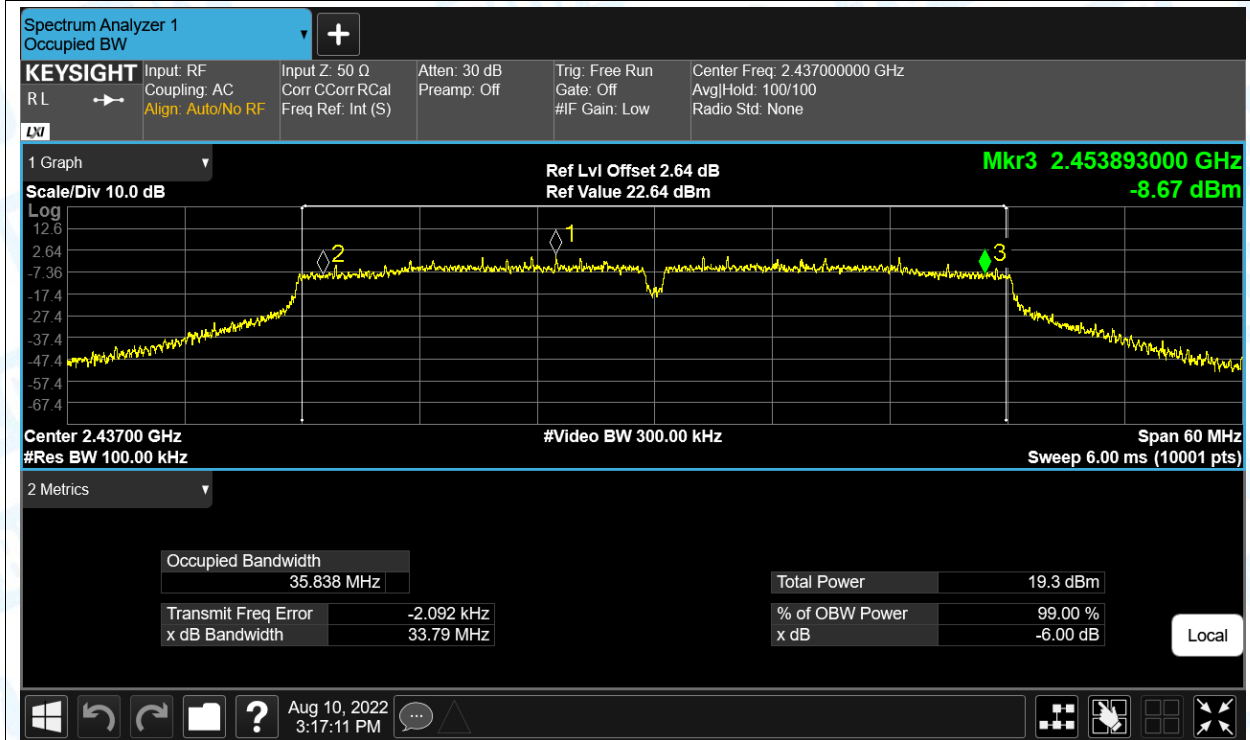
-6dB Bandwidth NVNT n(HT20) 2462MHz Ant1



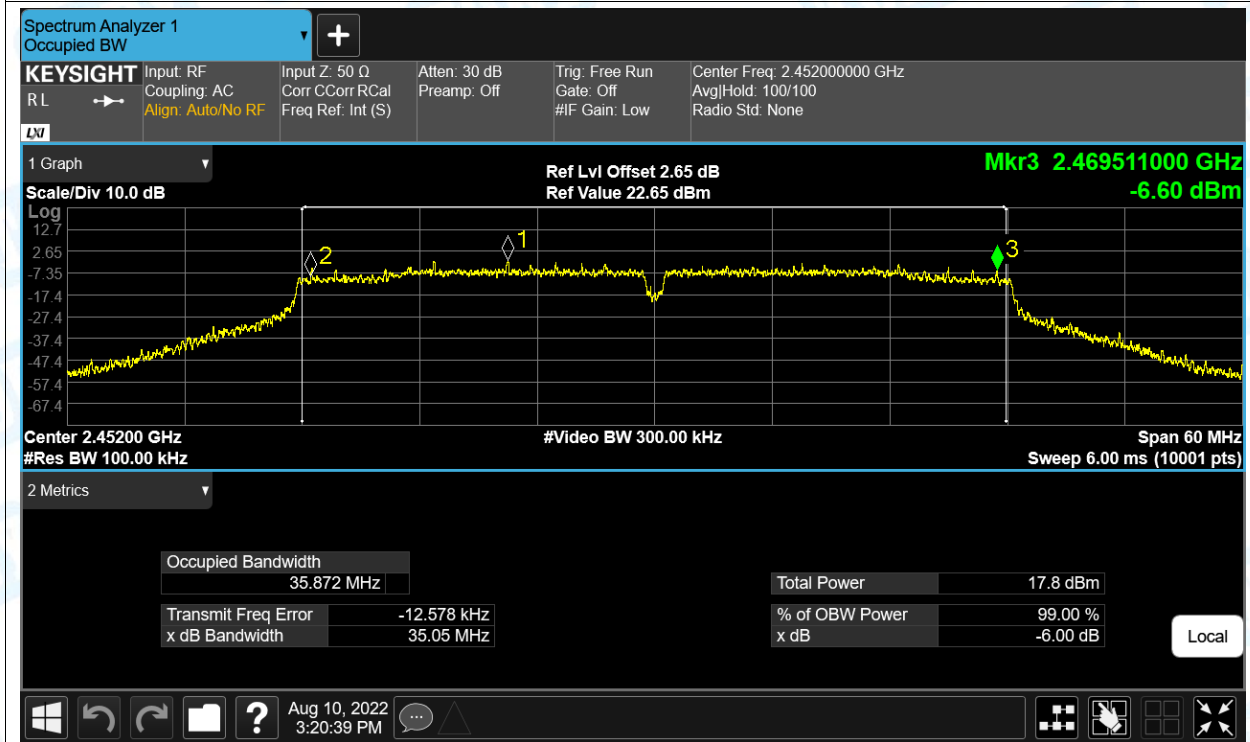
-6dB Bandwidth NVNT n(HT40) 2422MHz Ant1



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



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

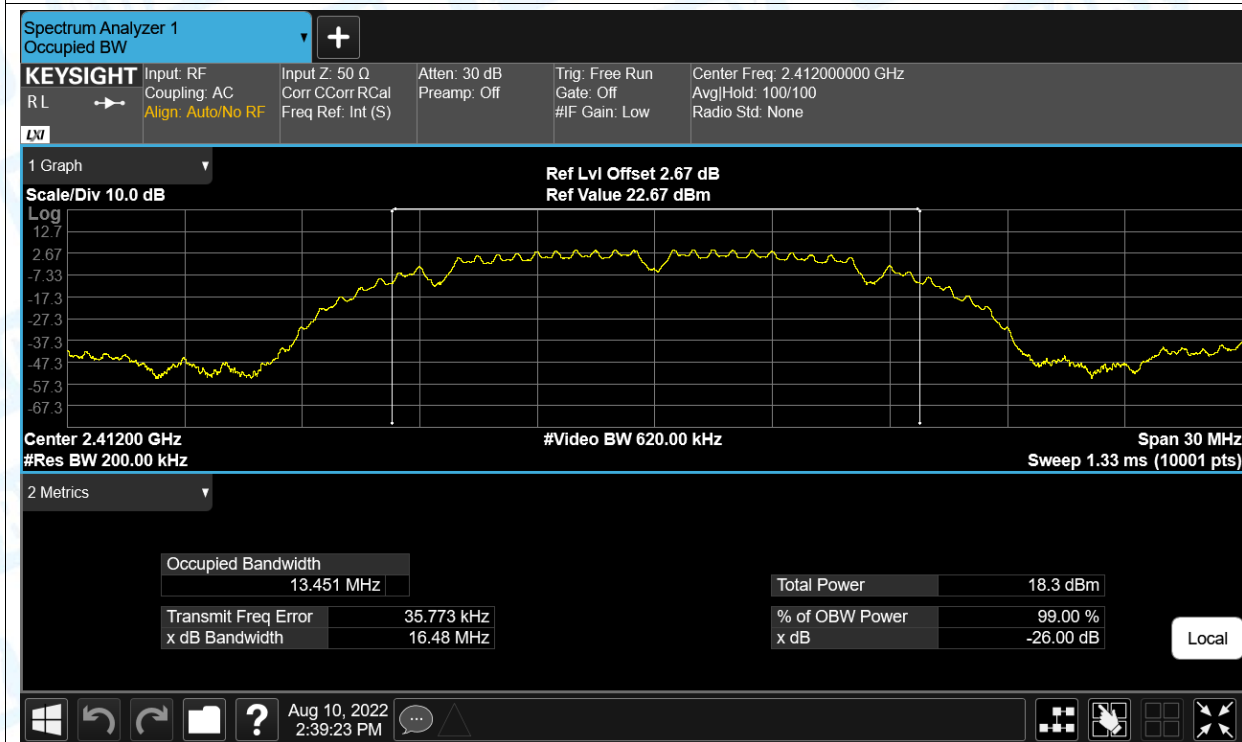


## 4.Occupied Channel Bandwidth

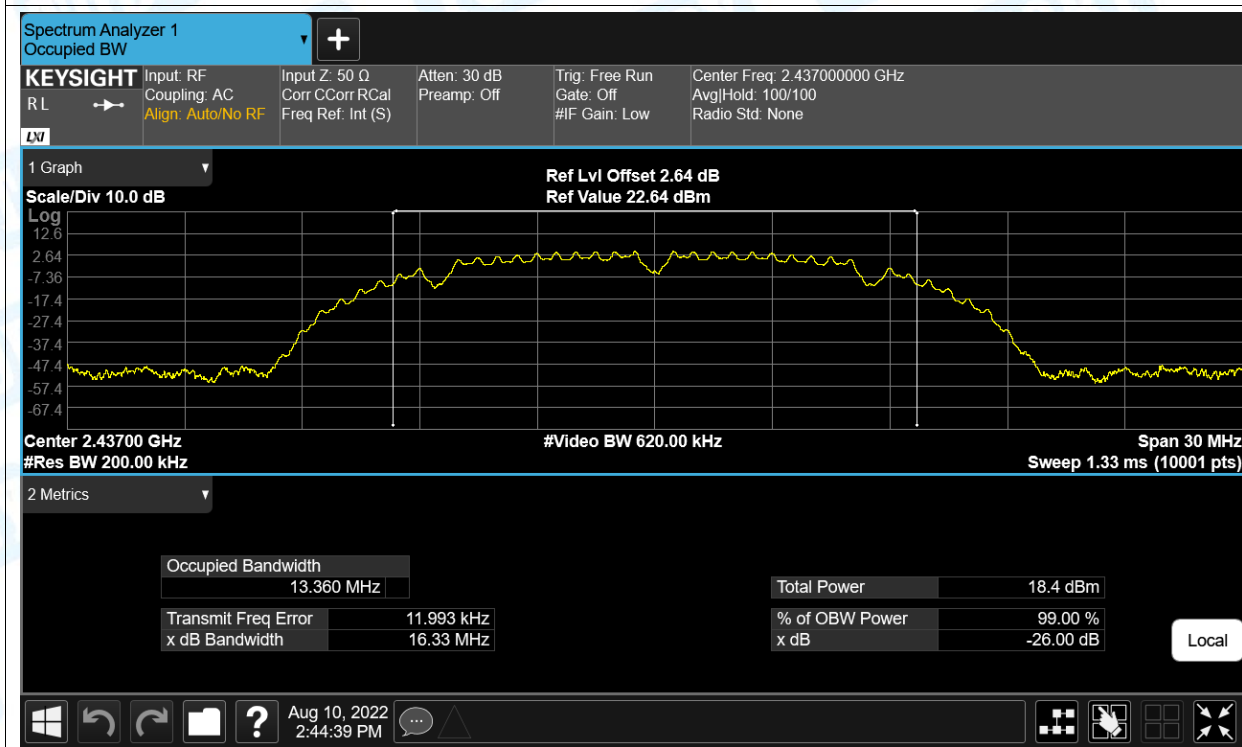
| Condition | Mode    | Frequency (MHz) | Antenna | 99% OBW (MHz) |
|-----------|---------|-----------------|---------|---------------|
| NVNT      | b       | 2412            | Ant1    | 13.451        |
| NVNT      | b       | 2437            | Ant1    | 13.36         |
| NVNT      | b       | 2462            | Ant1    | 13.366        |
| NVNT      | g       | 2412            | Ant1    | 16.54         |
| NVNT      | g       | 2437            | Ant1    | 16.529        |
| NVNT      | g       | 2462            | Ant1    | 16.494        |
| NVNT      | n(HT20) | 2412            | Ant1    | 17.664        |
| NVNT      | n(HT20) | 2437            | Ant1    | 17.642        |
| NVNT      | n(HT20) | 2462            | Ant1    | 17.634        |
| NVNT      | n(HT40) | 2422            | Ant1    | 35.984        |
| NVNT      | n(HT40) | 2437            | Ant1    | 35.963        |
| NVNT      | n(HT40) | 2452            | Ant1    | 35.952        |

## Test Graphs

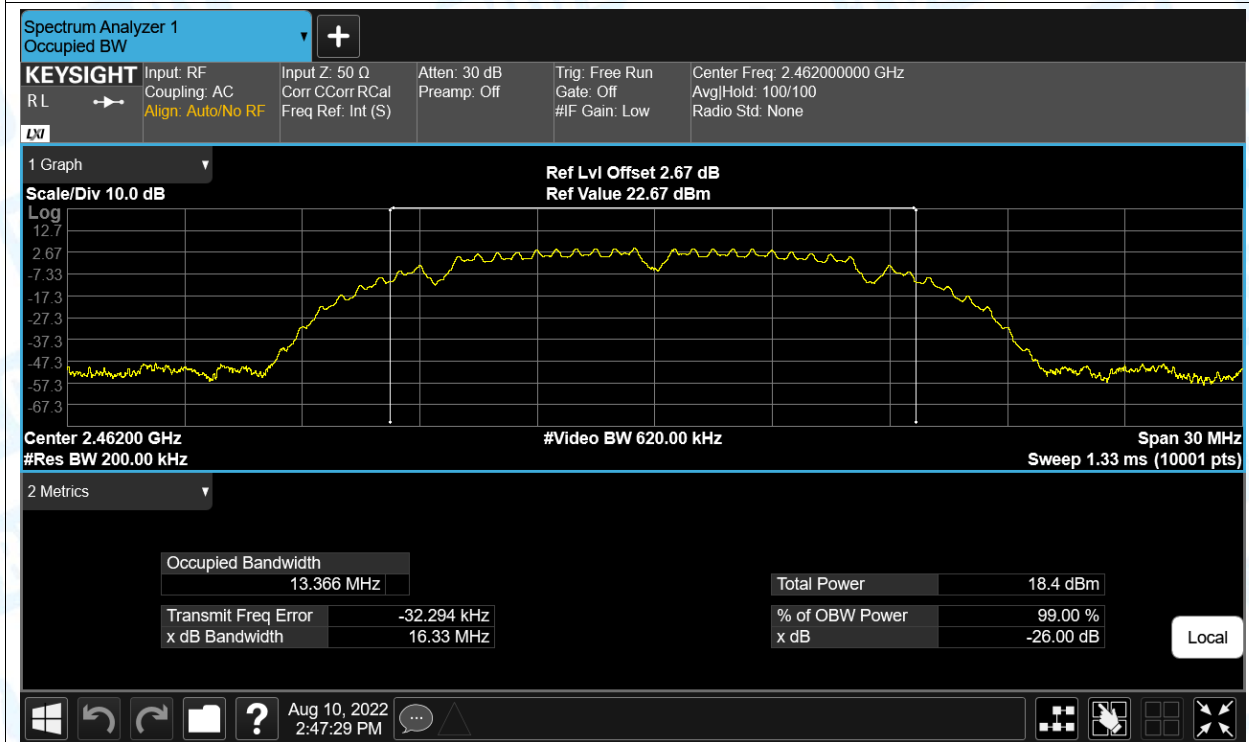
## OBW NVNT b 2412MHz Ant1



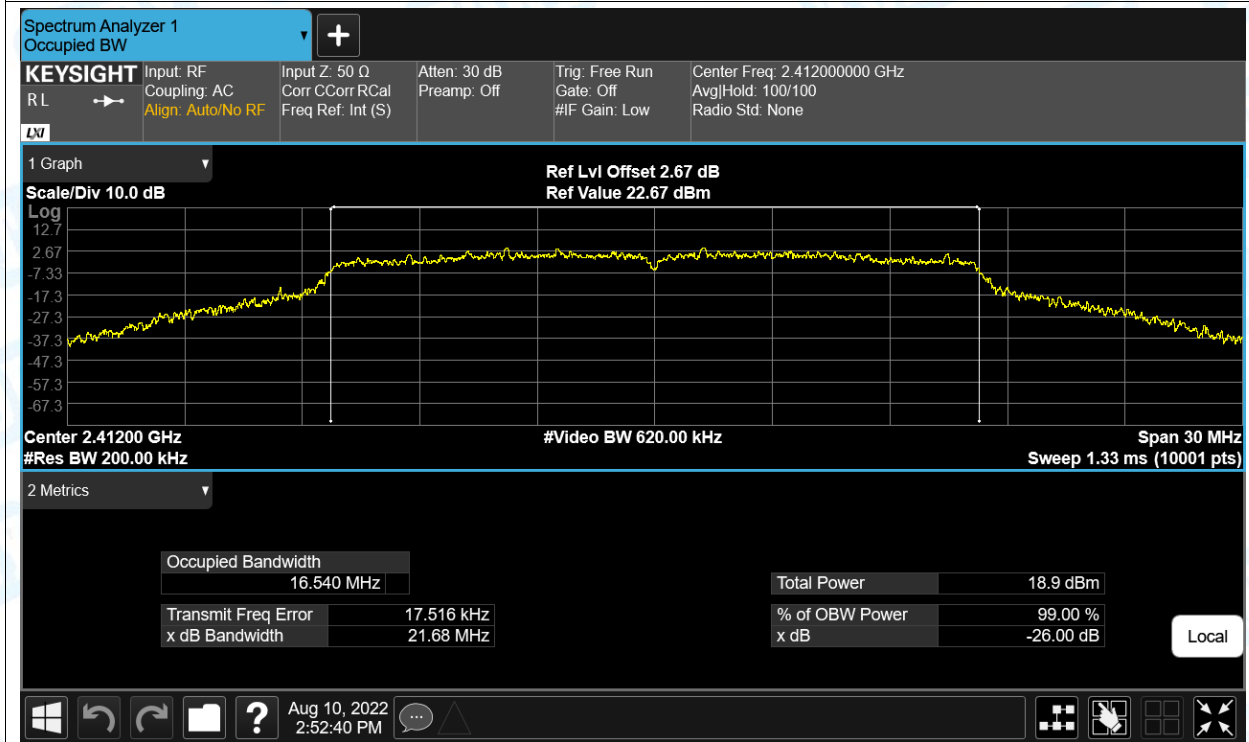
## OBW NVNT b 2437MHz Ant1

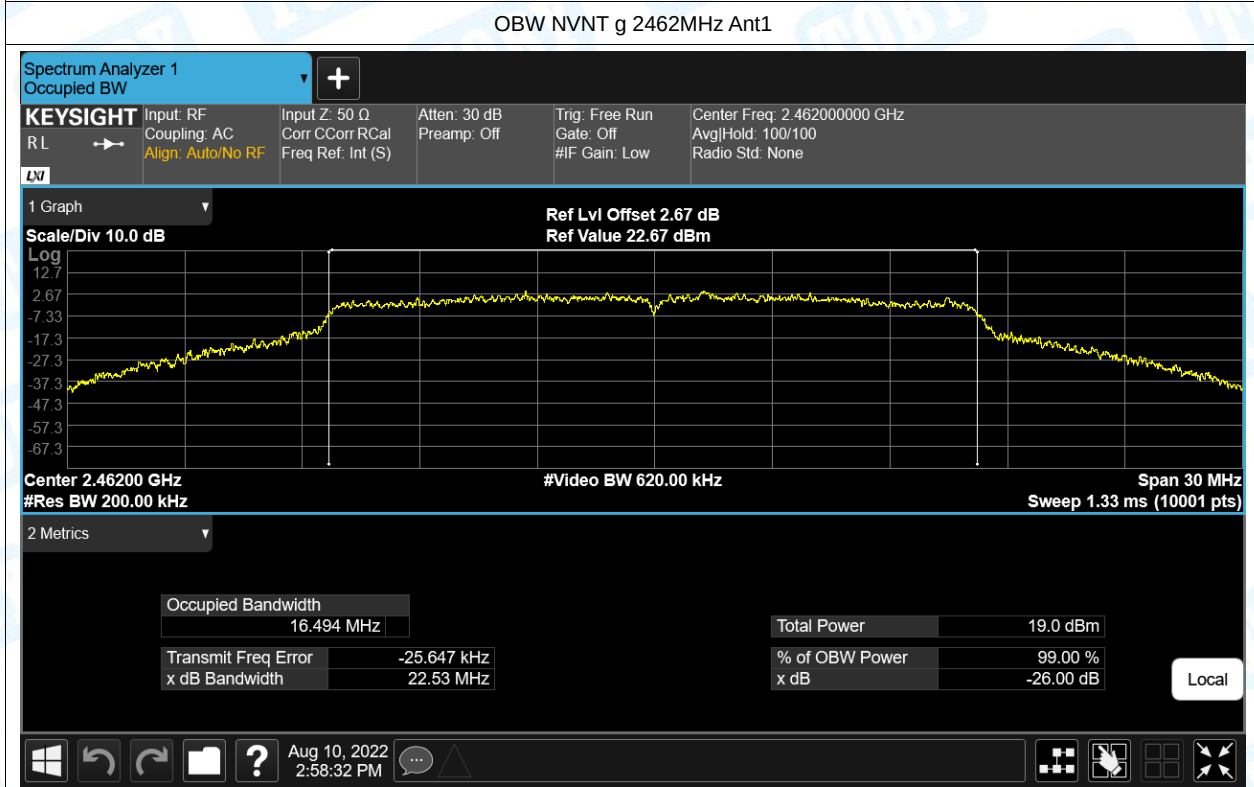


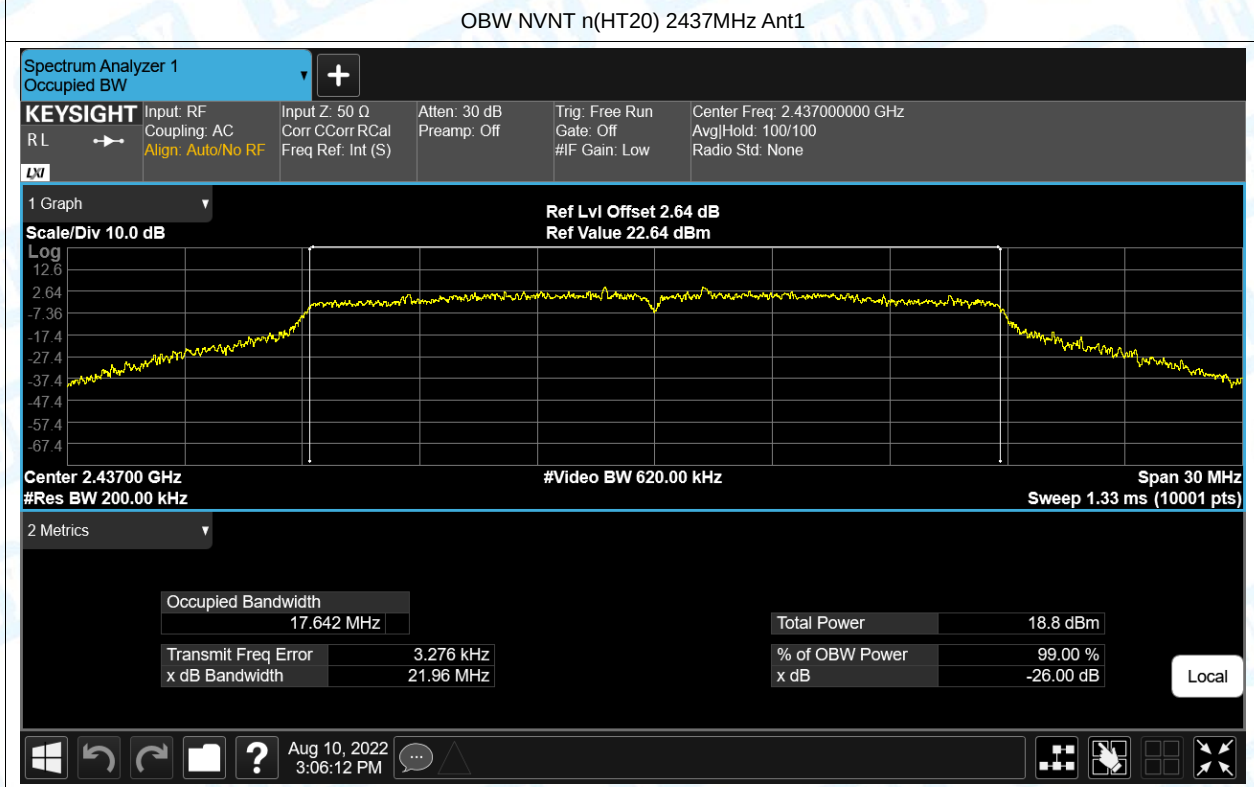
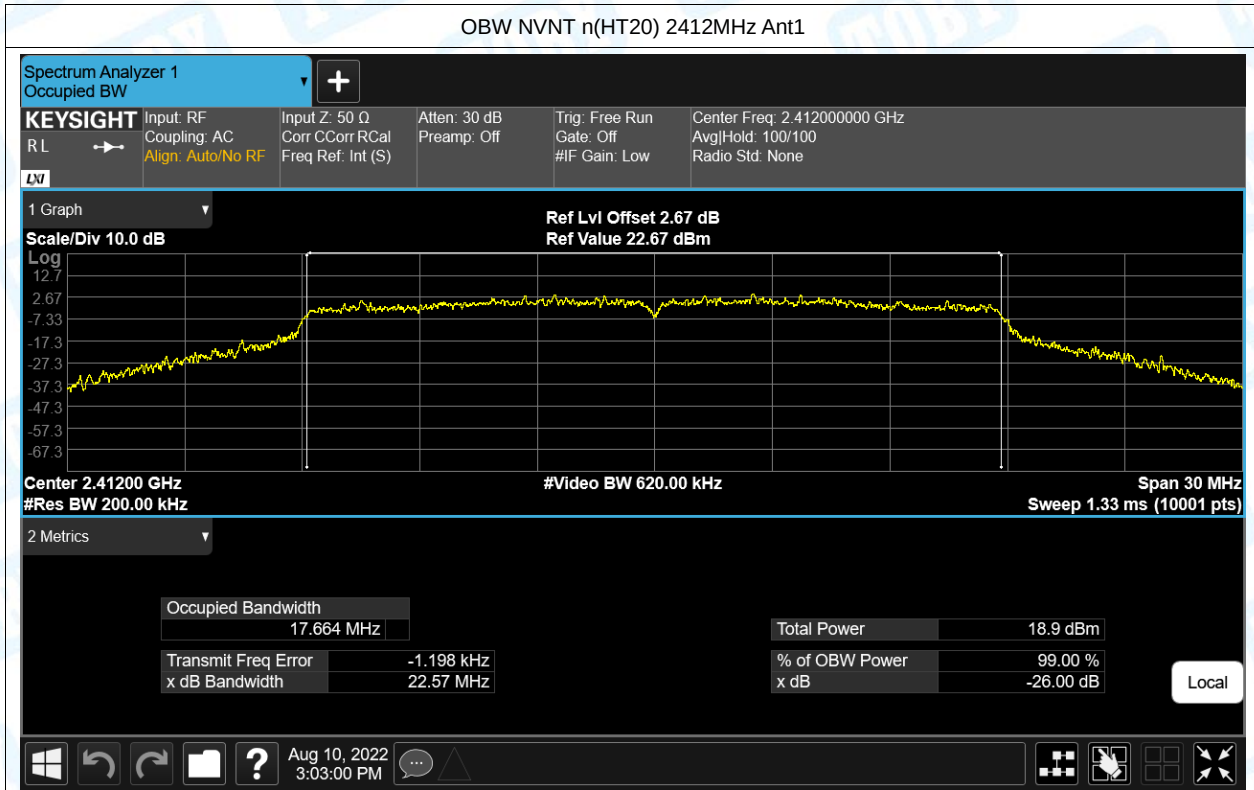
OBW NVNT b 2462MHz Ant1



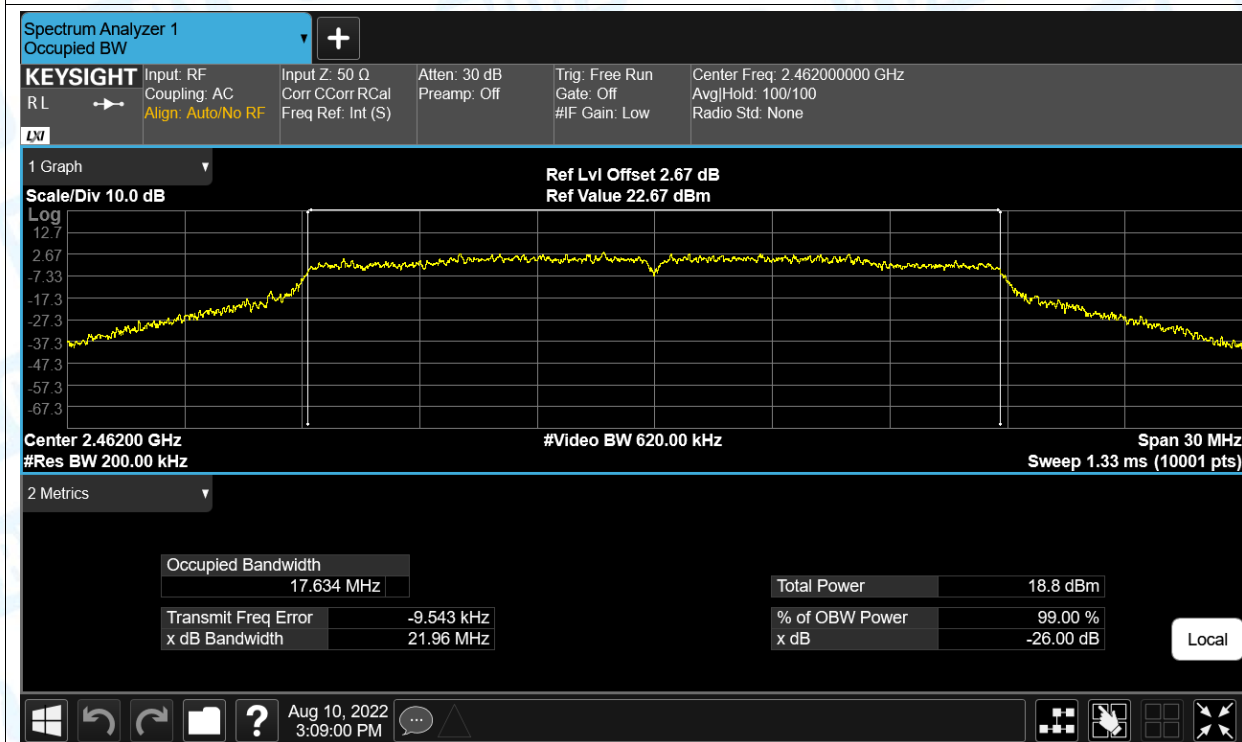
OBW NVNT g 2412MHz Ant1



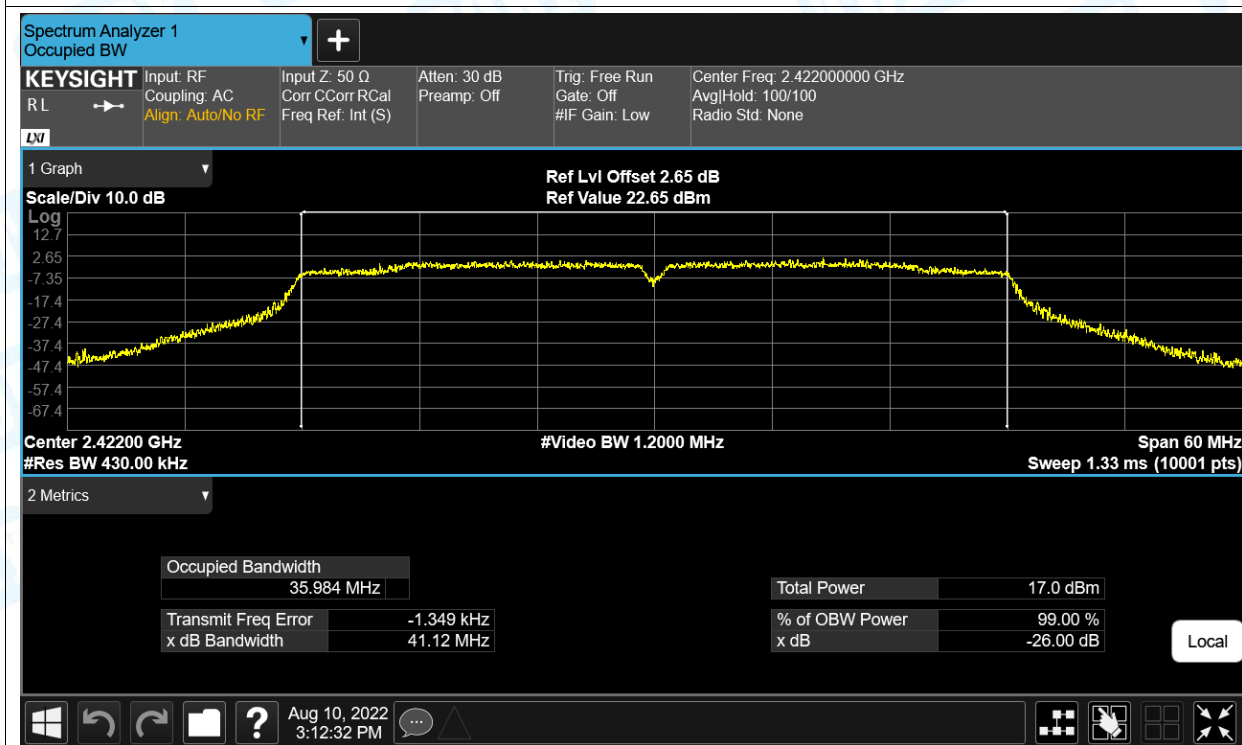


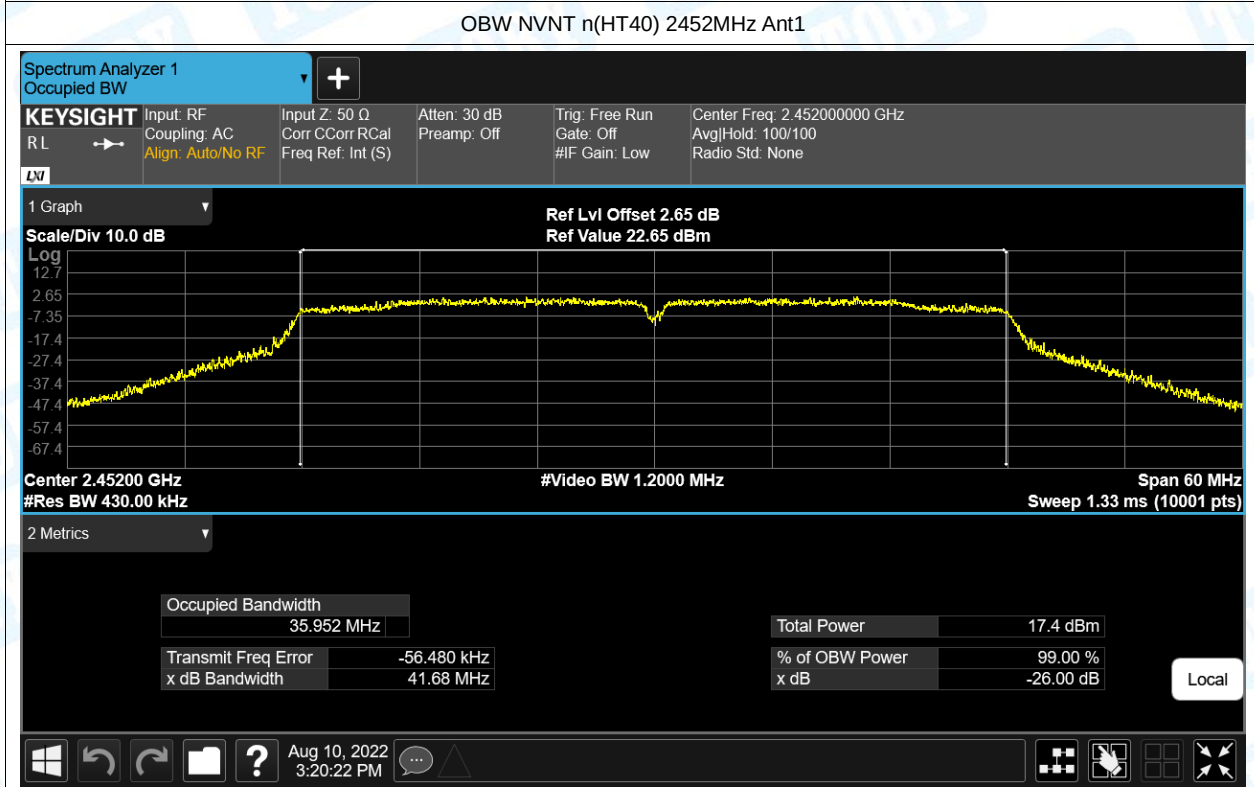
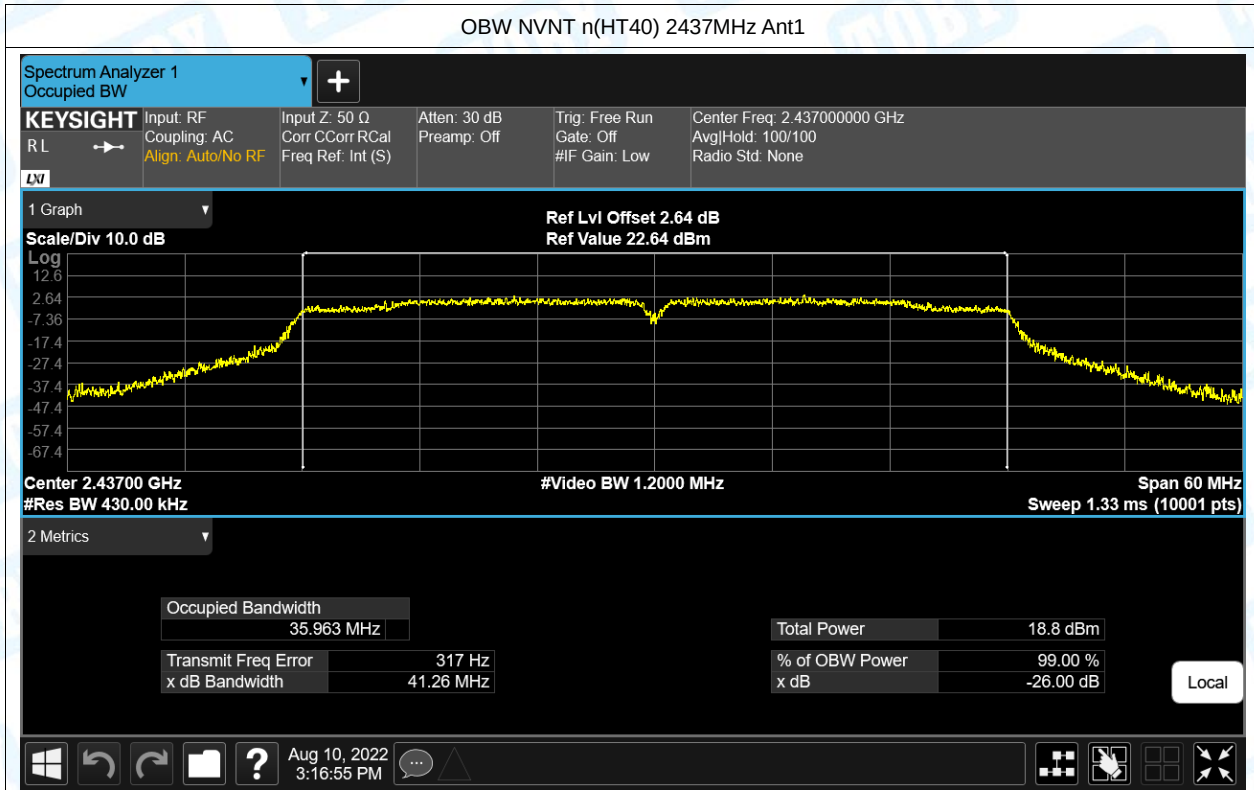


OBW NVNT n(HT20) 2462MHz Ant1



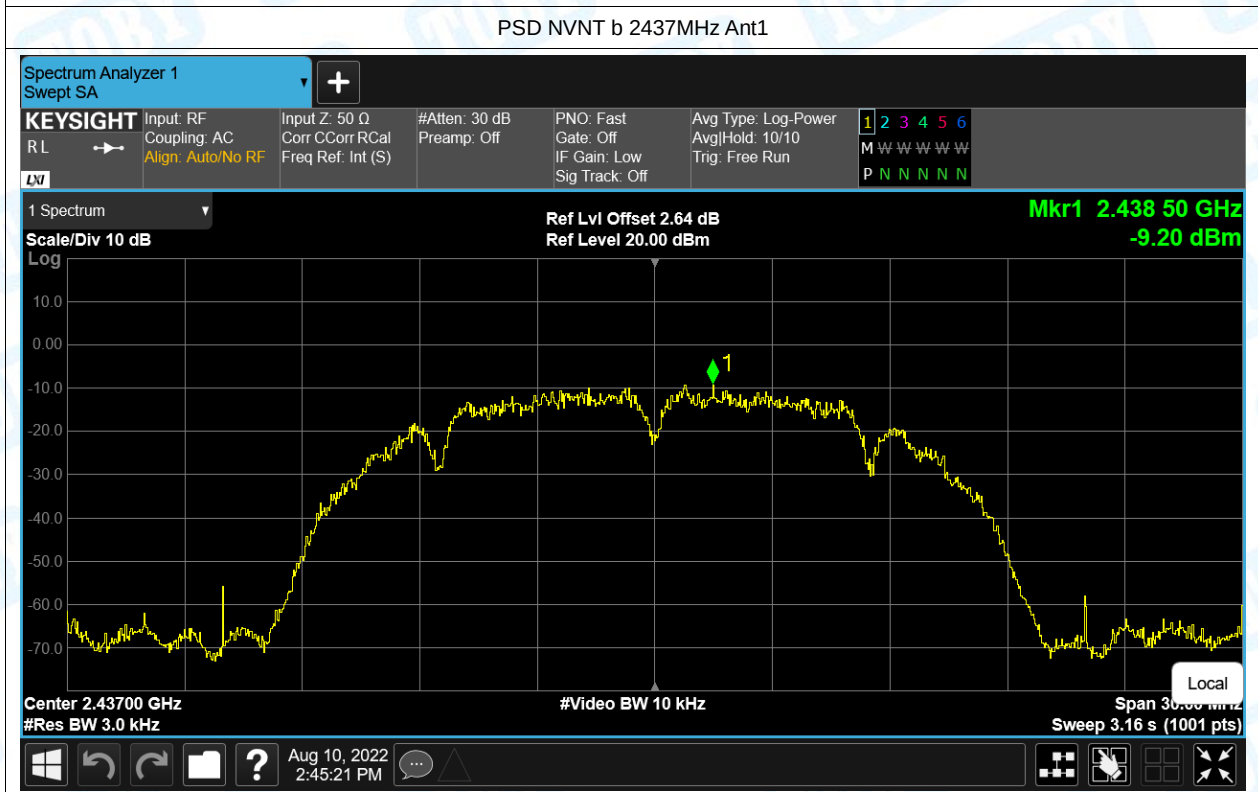
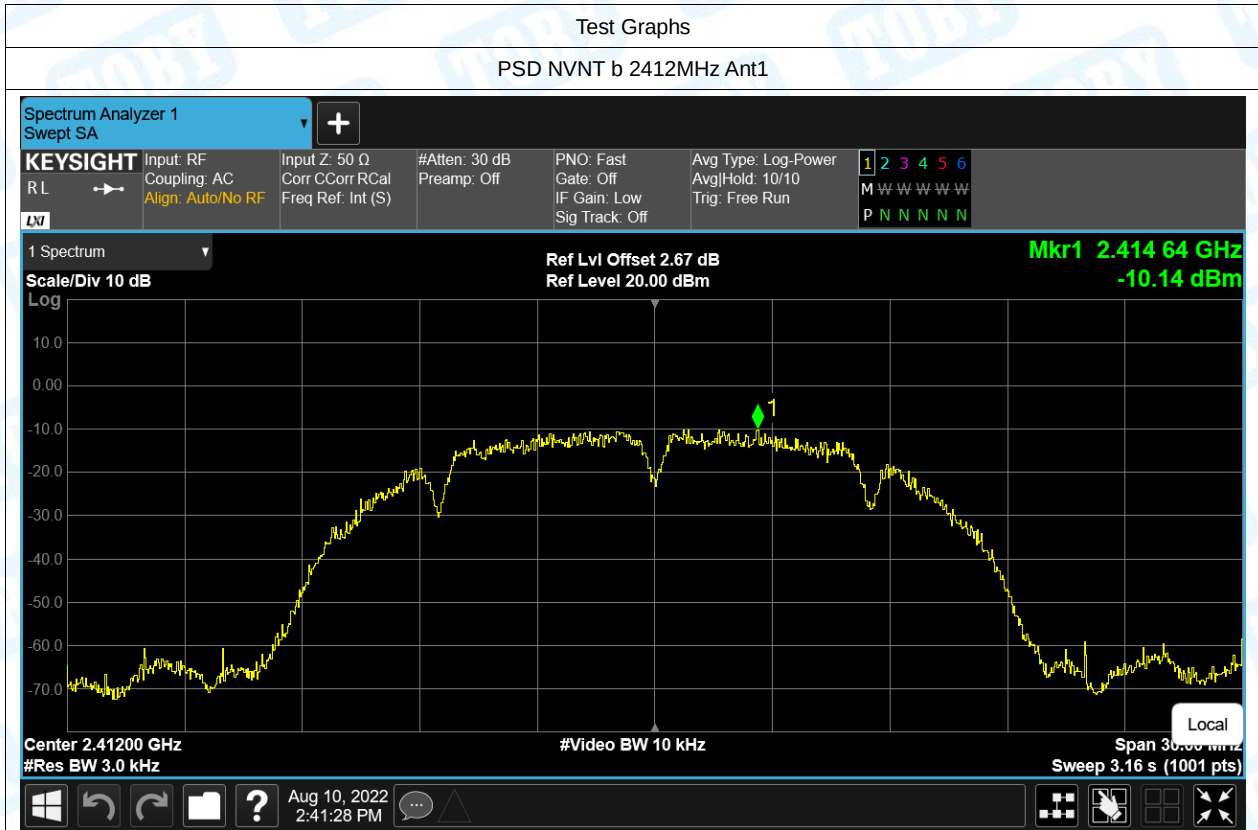
OBW NVNT n(HT40) 2422MHz Ant1

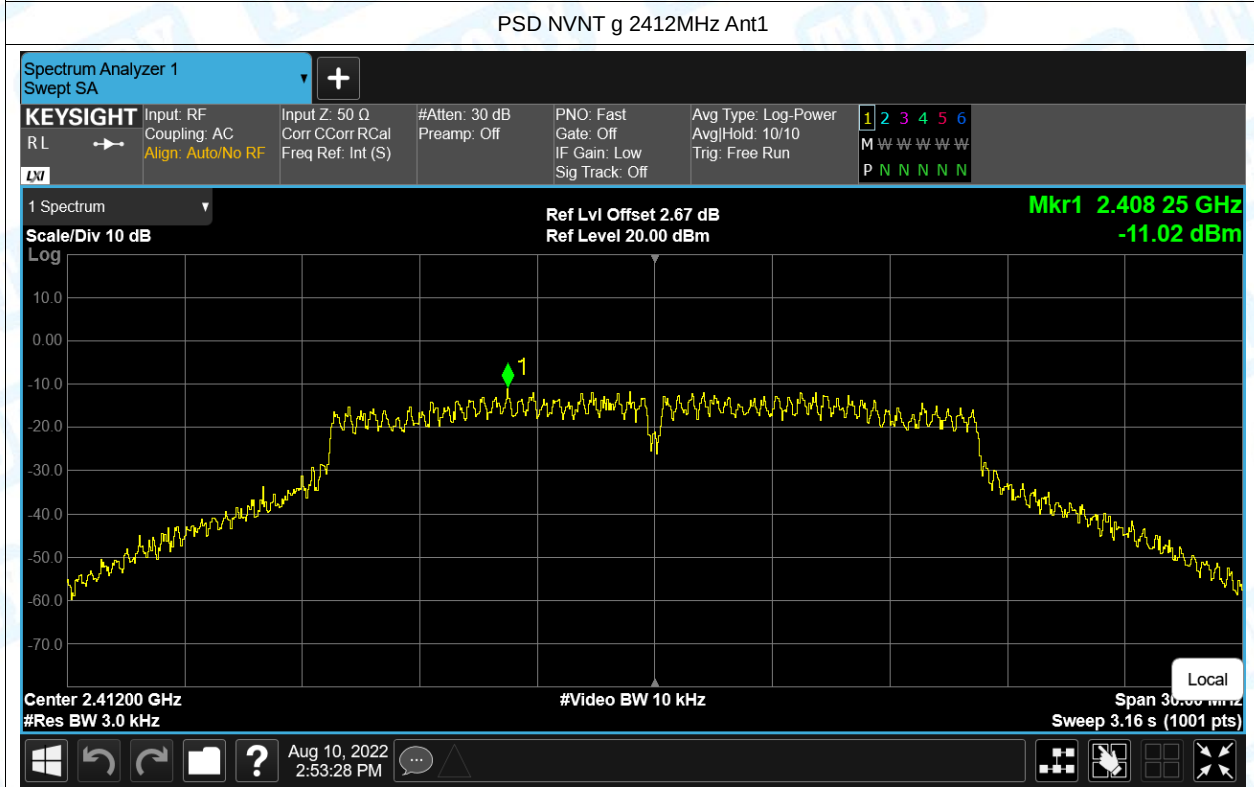
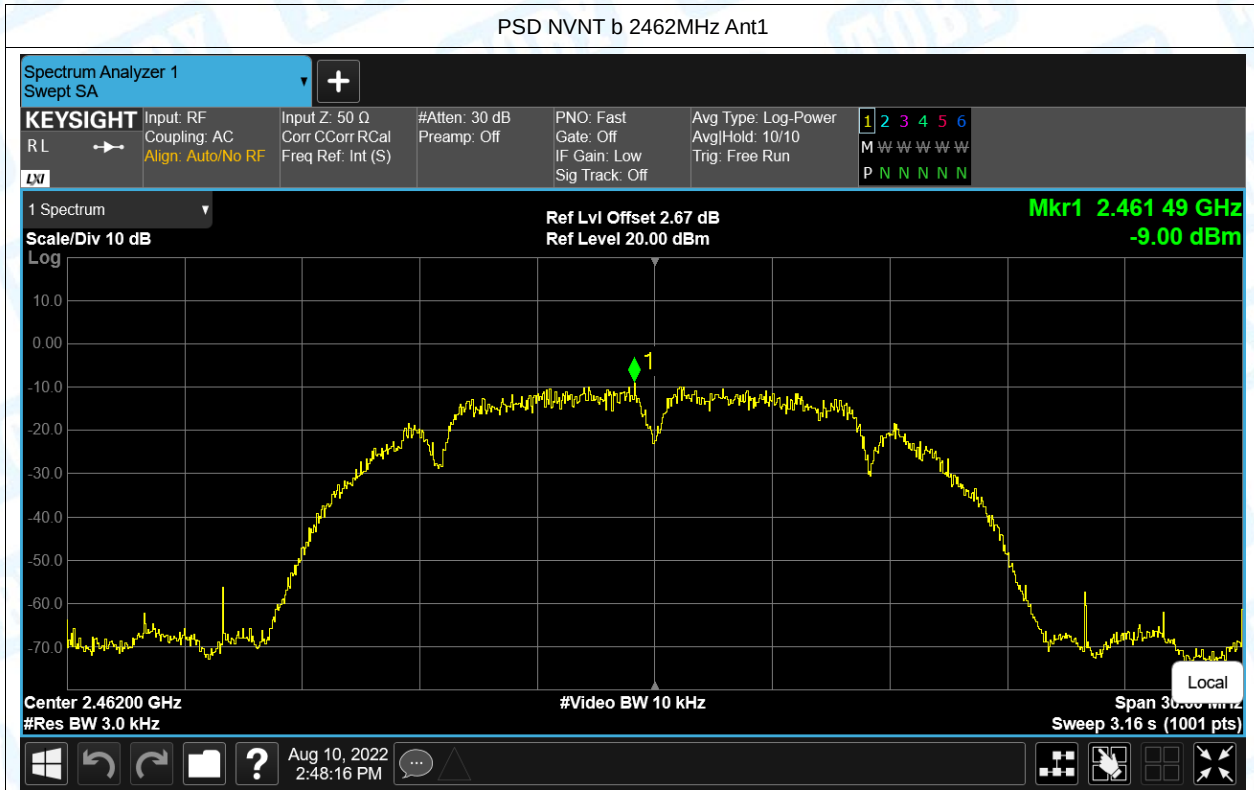


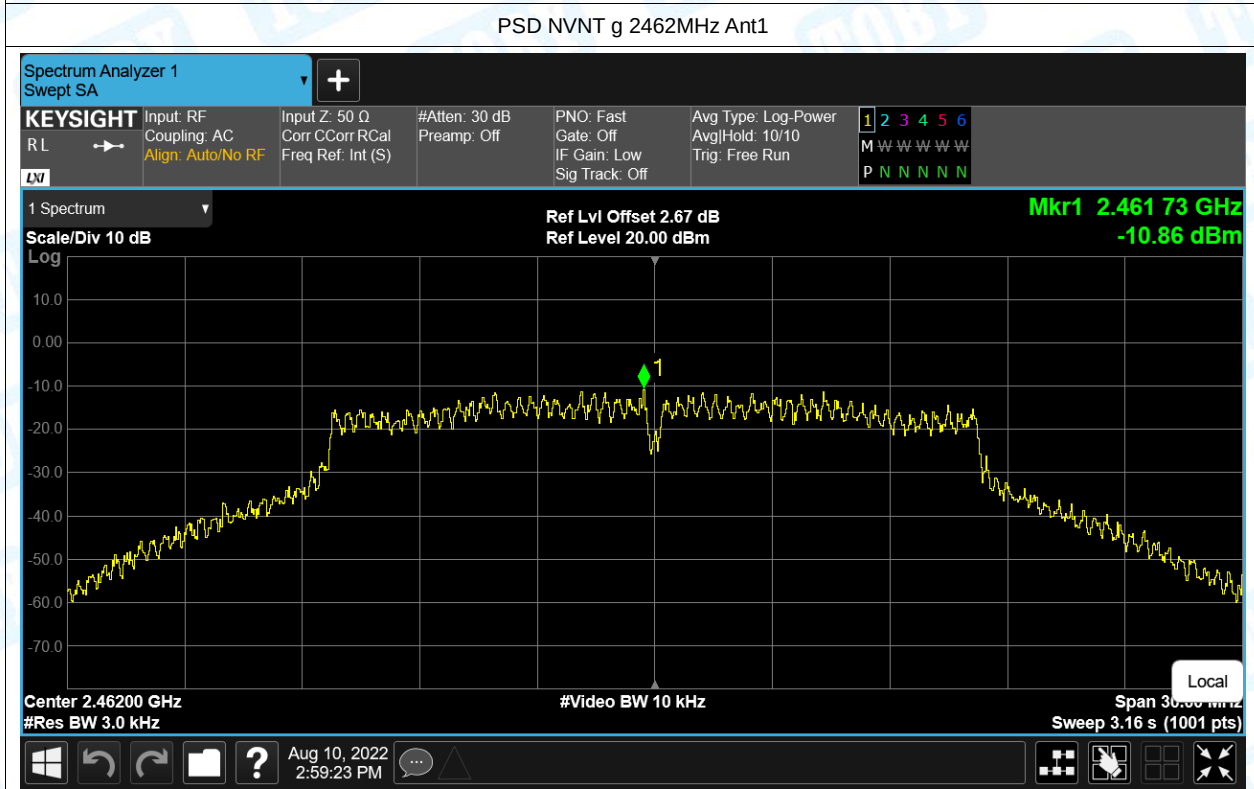
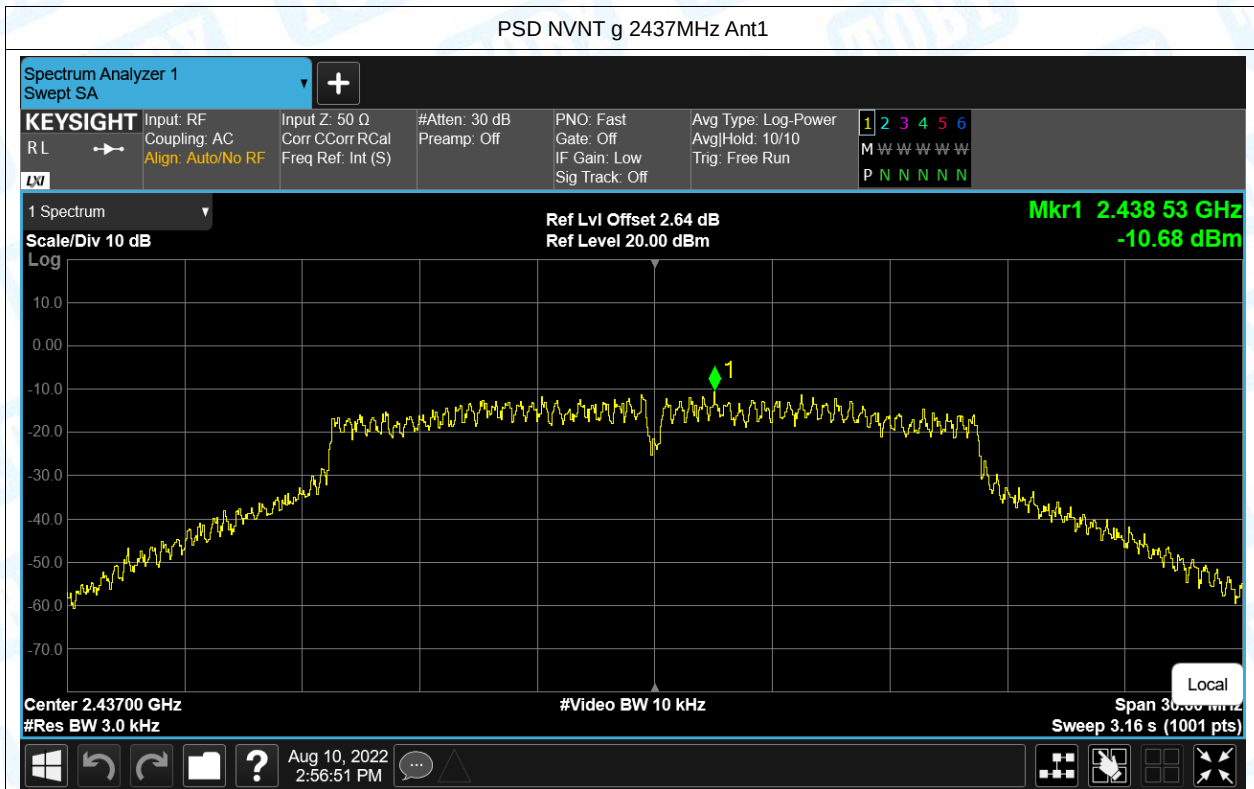


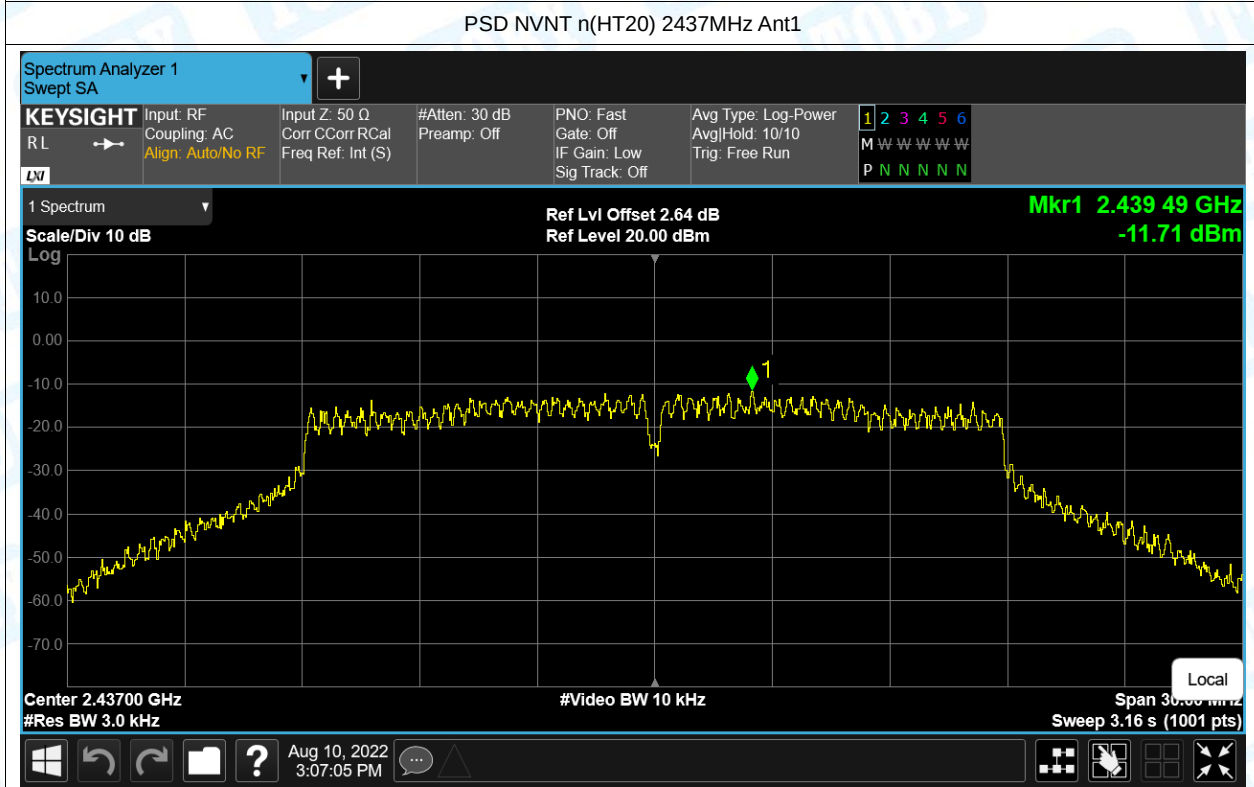
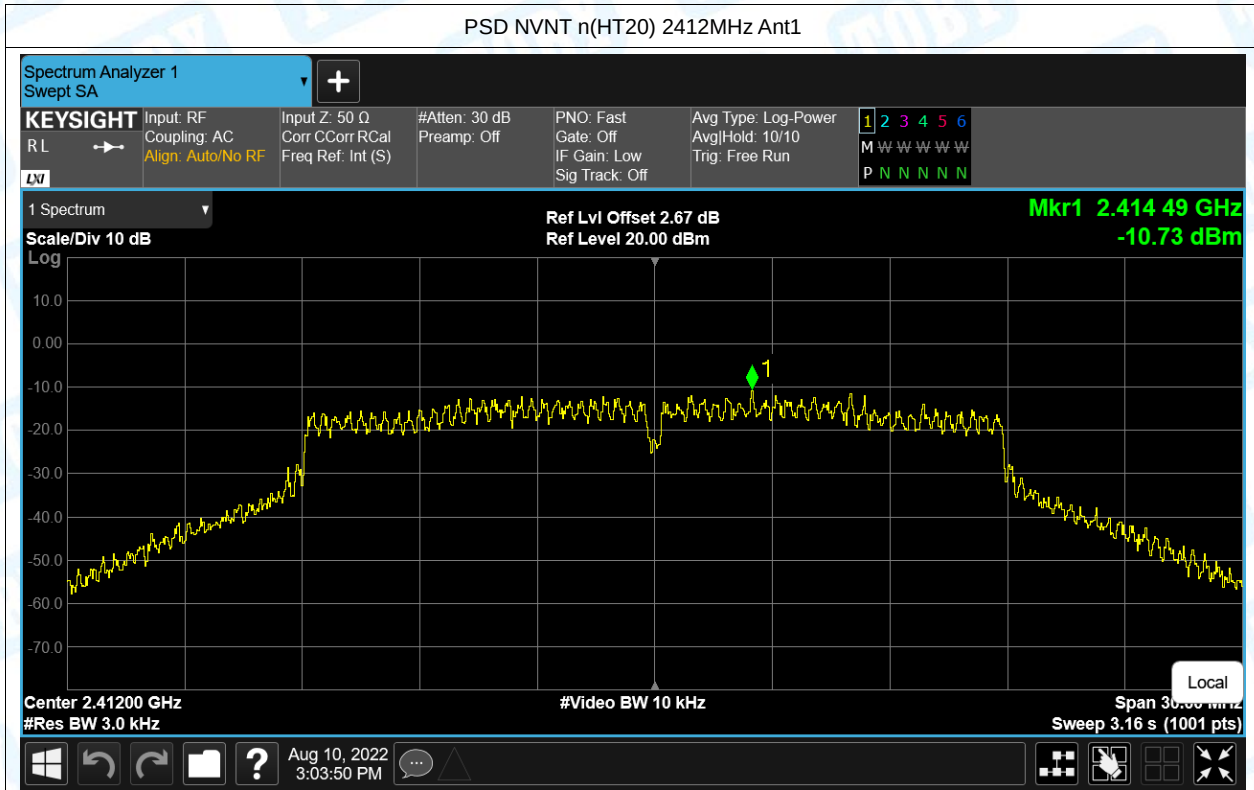
## 5.Maximum Power Spectral Density Level

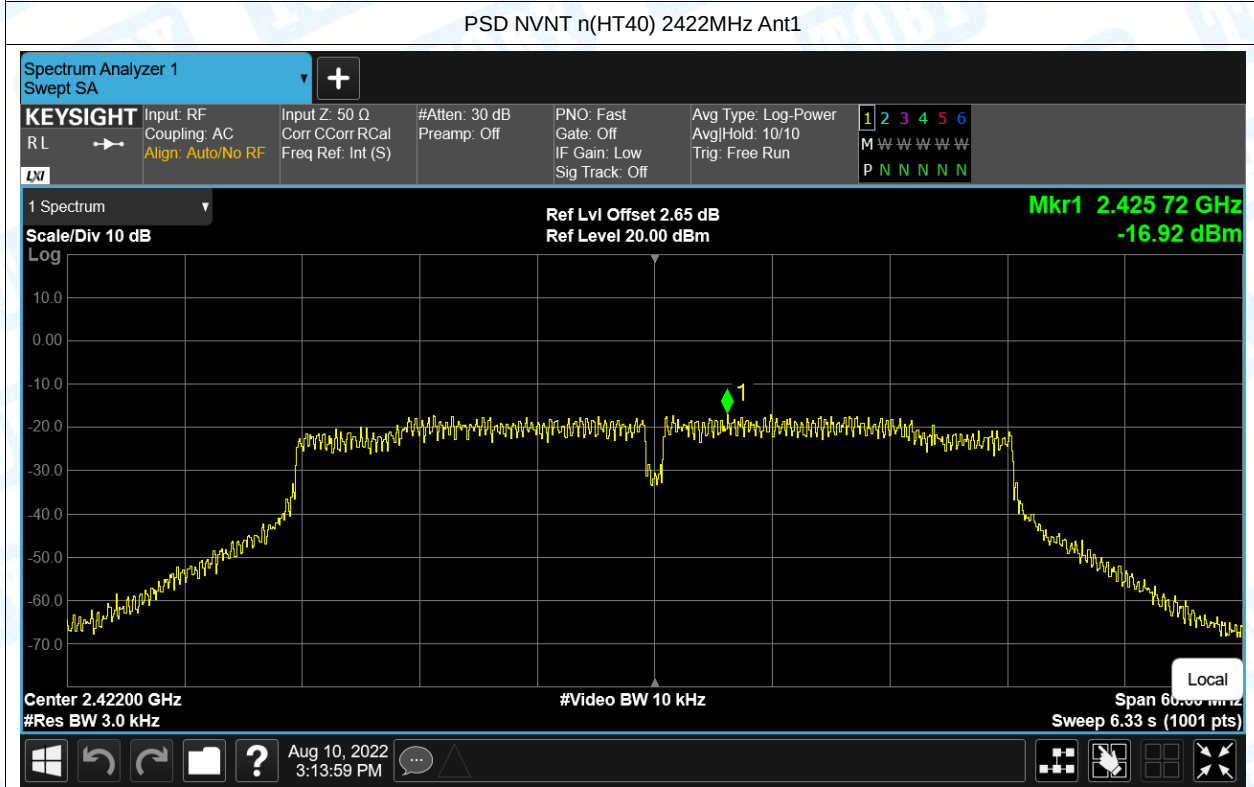
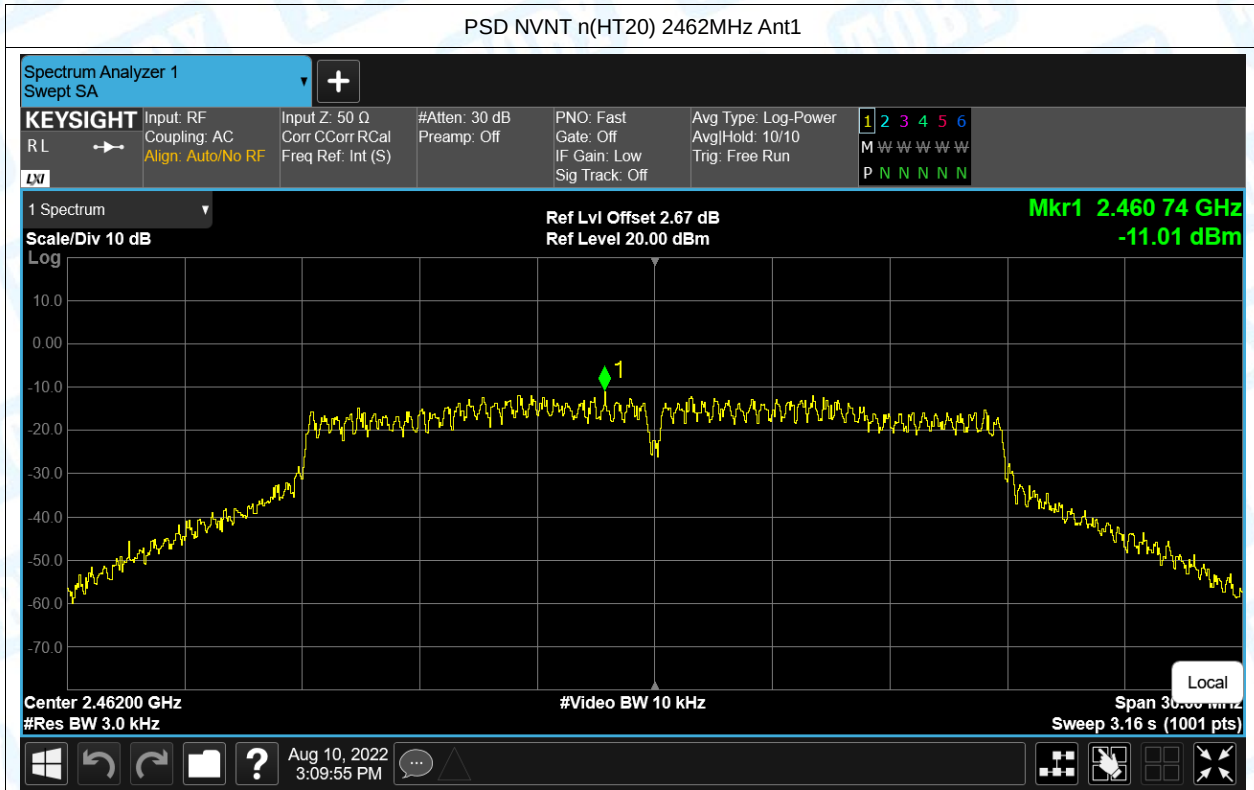
| Condition | Mode    | Frequency (MHz) | Antenna | Max PSD (dBm) | Limit (dBm) | Verdict |
|-----------|---------|-----------------|---------|---------------|-------------|---------|
| NVNT      | b       | 2412            | Ant1    | -10.136       | 8           | Pass    |
| NVNT      | b       | 2437            | Ant1    | -9.201        | 8           | Pass    |
| NVNT      | b       | 2462            | Ant1    | -8.998        | 8           | Pass    |
| NVNT      | g       | 2412            | Ant1    | -11.019       | 8           | Pass    |
| NVNT      | g       | 2437            | Ant1    | -10.681       | 8           | Pass    |
| NVNT      | g       | 2462            | Ant1    | -10.86        | 8           | Pass    |
| NVNT      | n(HT20) | 2412            | Ant1    | -10.735       | 8           | Pass    |
| NVNT      | n(HT20) | 2437            | Ant1    | -11.706       | 8           | Pass    |
| NVNT      | n(HT20) | 2462            | Ant1    | -11.009       | 8           | Pass    |
| NVNT      | n(HT40) | 2422            | Ant1    | -16.924       | 8           | Pass    |
| NVNT      | n(HT40) | 2437            | Ant1    | -14.548       | 8           | Pass    |
| NVNT      | n(HT40) | 2452            | Ant1    | -16.229       | 8           | Pass    |

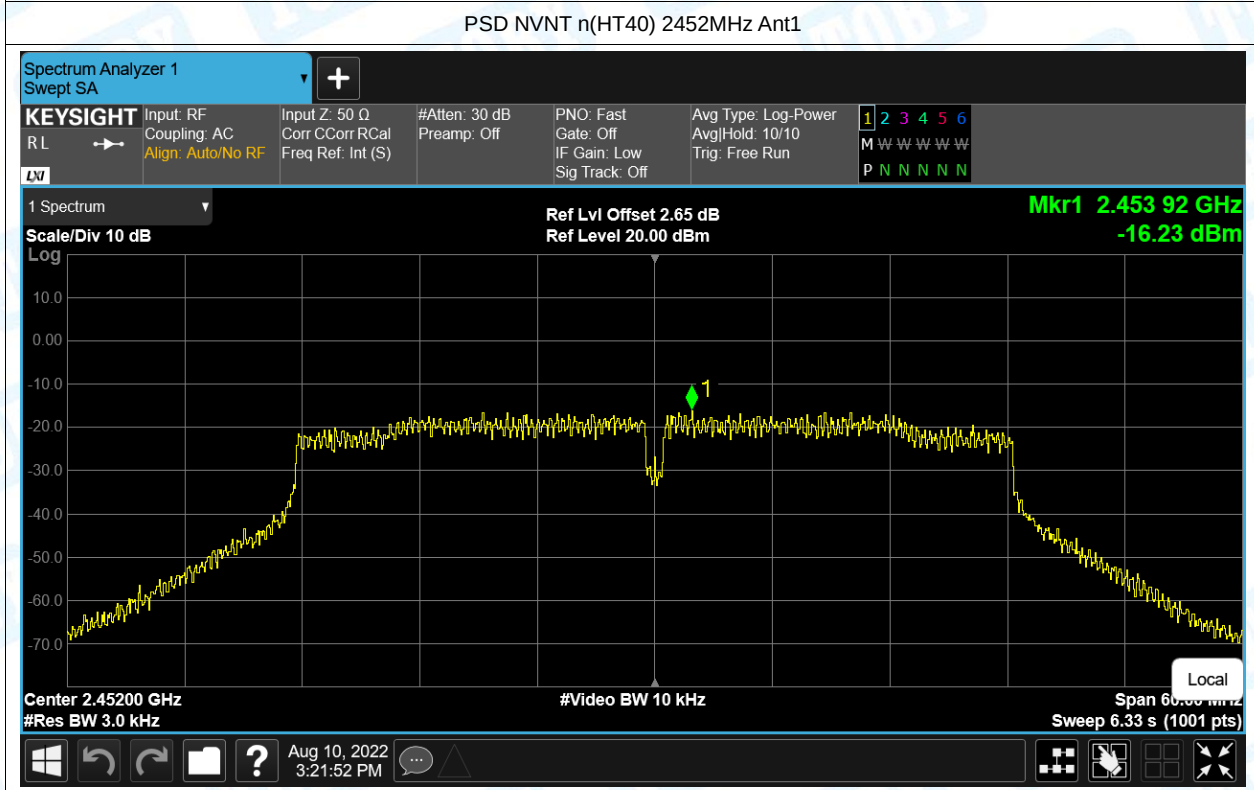
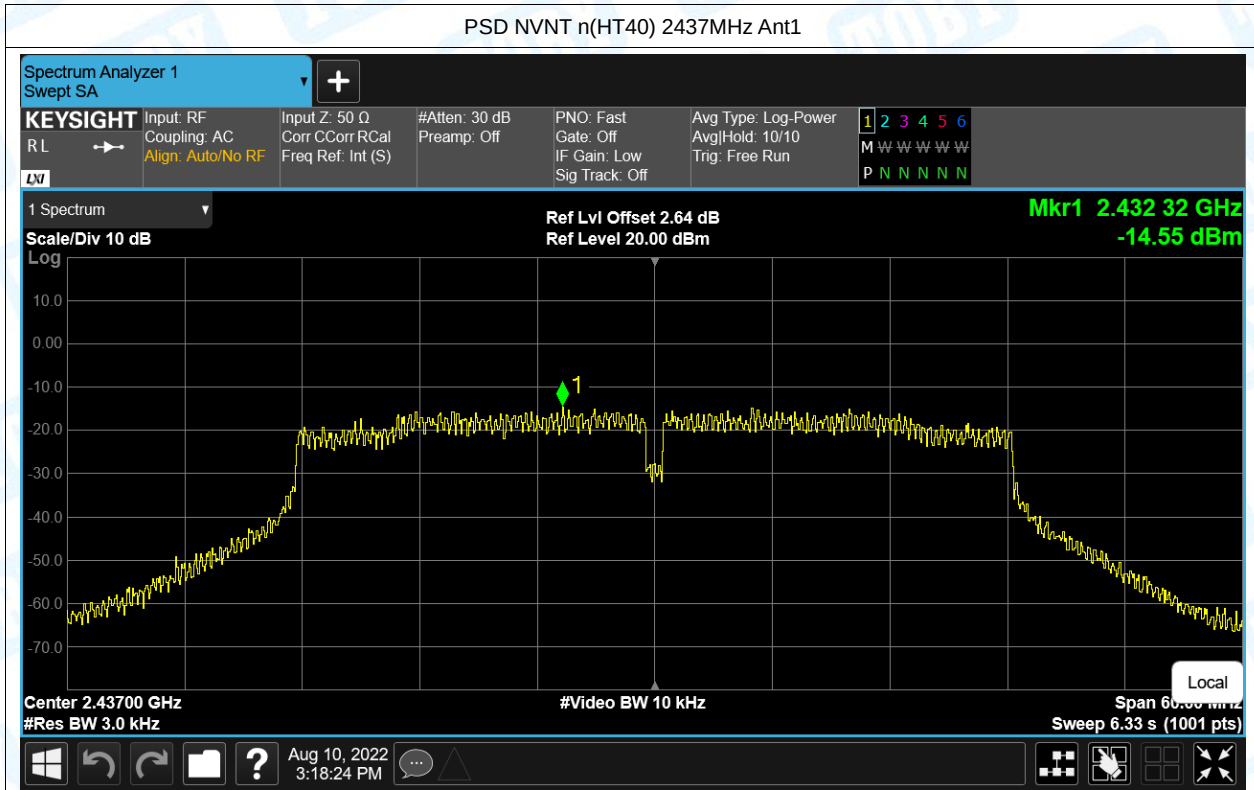












6.Band Edge

| Condition | Mode    | Frequency (MHz) | Antenna | Max Value (dBc) | Limit (dBc) | Verdict |
|-----------|---------|-----------------|---------|-----------------|-------------|---------|
| NVNT      | b       | 2412            | Ant1    | -58.85          | -20         | Pass    |
| NVNT      | b       | 2462            | Ant1    | -59.52          | -20         | Pass    |
| NVNT      | g       | 2412            | Ant1    | -56.72          | -20         | Pass    |
| NVNT      | g       | 2462            | Ant1    | -56.33          | -20         | Pass    |
| NVNT      | n(HT20) | 2412            | Ant1    | -56.44          | -20         | Pass    |
| NVNT      | n(HT20) | 2462            | Ant1    | -56.93          | -20         | Pass    |
| NVNT      | n(HT40) | 2422            | Ant1    | -46.28          | -20         | Pass    |
| NVNT      | n(HT40) | 2452            | Ant1    | -50.46          | -20         | Pass    |



