

# Appendix

## Test Data

### for BTEK240913006AE

|                   |           |               |           |
|-------------------|-----------|---------------|-----------|
| Start date        | 2024/9/19 | Finish date   | 2024/9/19 |
| Temperature       | 24.0℃     | Humidity      | 63%       |
| RF specifications | 2.4G_WIFI | Test Engineer | Zora      |



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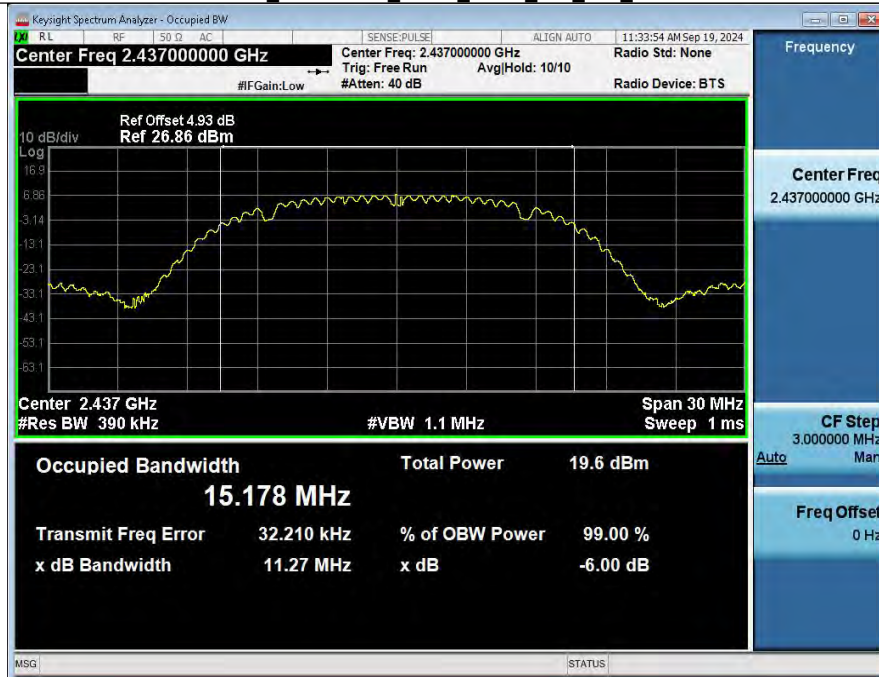
## 1. -6dB Bandwidth

| Condition | Antenna | Modulation    | Frequency (MHz) | -6dB BW(MHz) | limit(kHz) | Result |
|-----------|---------|---------------|-----------------|--------------|------------|--------|
| NVNT      | ANT1    | 802.11b       | 2412.00         | 11.22        | 500        | Pass   |
| NVNT      | ANT1    | 802.11b       | 2437.00         | 11.27        | 500        | Pass   |
| NVNT      | ANT1    | 802.11b       | 2462.00         | 12.23        | 500        | Pass   |
| NVNT      | ANT1    | 802.11g       | 2412.00         | 17.54        | 500        | Pass   |
| NVNT      | ANT1    | 802.11g       | 2437.00         | 17.51        | 500        | Pass   |
| NVNT      | ANT1    | 802.11g       | 2462.00         | 17.48        | 500        | Pass   |
| NVNT      | ANT1    | 802.11n(HT20) | 2412.00         | 10.00        | 500        | Pass   |
| NVNT      | ANT1    | 802.11n(HT20) | 2437.00         | 11.01        | 500        | Pass   |
| NVNT      | ANT1    | 802.11n(HT20) | 2462.00         | 11.02        | 500        | Pass   |
| NVNT      | ANT1    | 802.11n(HT40) | 2422.00         | 31.70        | 500        | Pass   |
| NVNT      | ANT1    | 802.11n(HT40) | 2437.00         | 32.18        | 500        | Pass   |
| NVNT      | ANT1    | 802.11n(HT40) | 2452.00         | 31.88        | 500        | Pass   |

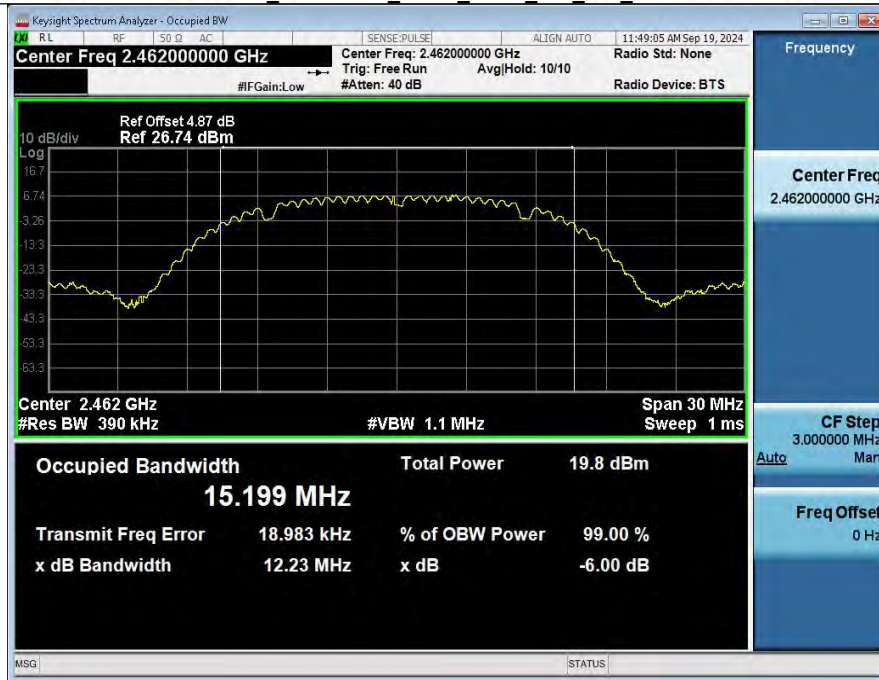
-6dB Bandwidth\_NVNT\_ANT1\_802\_11b\_2412



-6dB Bandwidth\_NVNT\_ANT1\_802\_11b\_2437



**-6dB Bandwidth NVNT\_ANT1\_802\_11b\_2462**



**-6dB Bandwidth NVNT\_ANT1\_802\_11g\_2412**



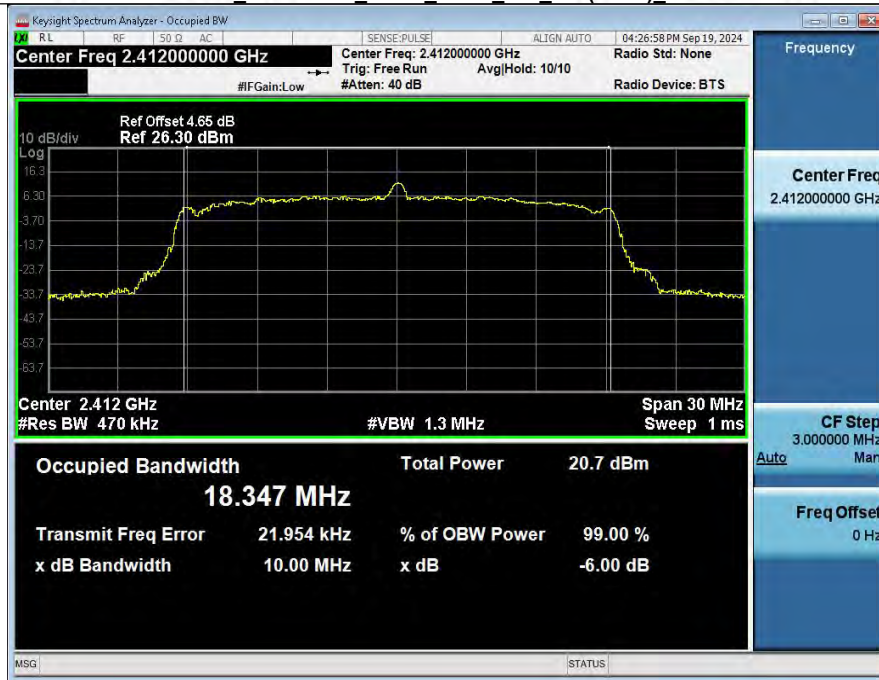
### -6dB Bandwidth\_NVNT\_ANT1\_802\_11g\_2437



### -6dB Bandwidth\_NVNT\_ANT1\_802\_11g\_2462



### -6dB Bandwidth NVNT\_ANT1\_802\_11n(HT20)\_2412



### -6dB Bandwidth NVNT\_ANT1\_802\_11n(HT20)\_2437



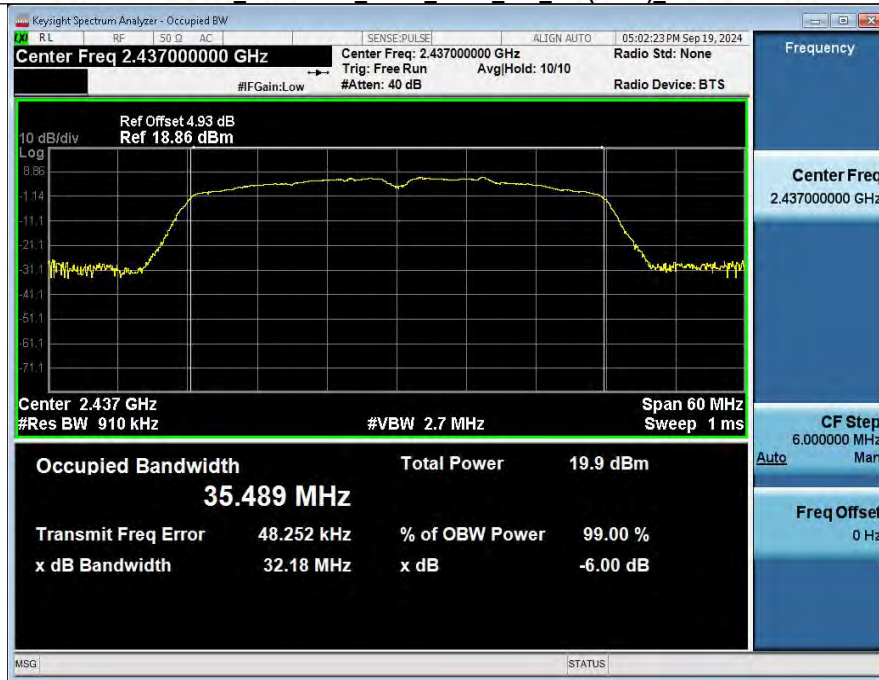
**-6dB\_Bandwidth\_NVNT\_ANT1\_802\_11n(HT20)\_2462**



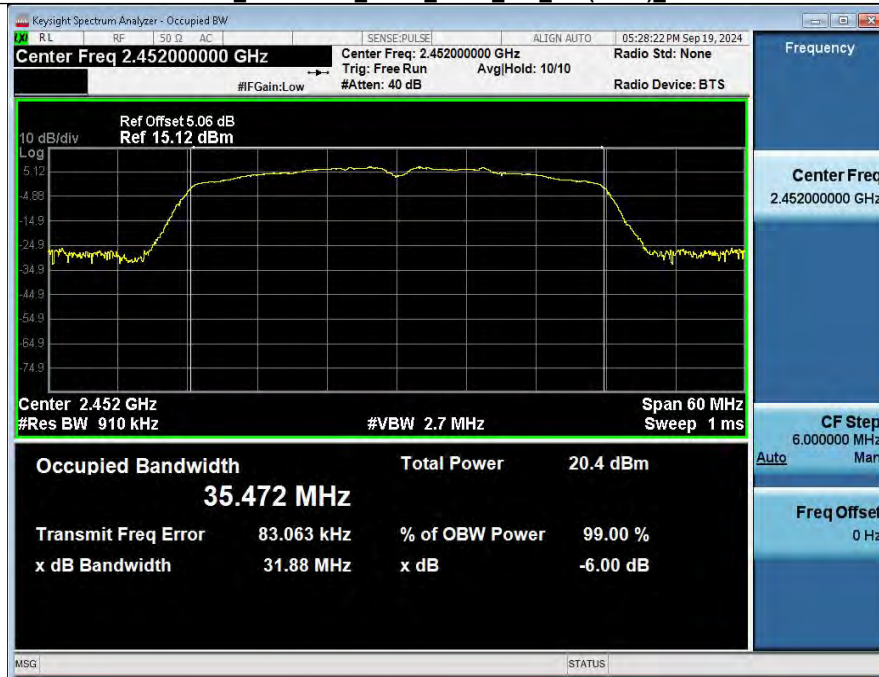
**-6dB\_Bandwidth\_NVNT\_ANT1\_802\_11n(HT40)\_2422**



**-6dB\_Bandwidth\_NVNT\_ANT1\_802\_11n(HT40)\_2437**



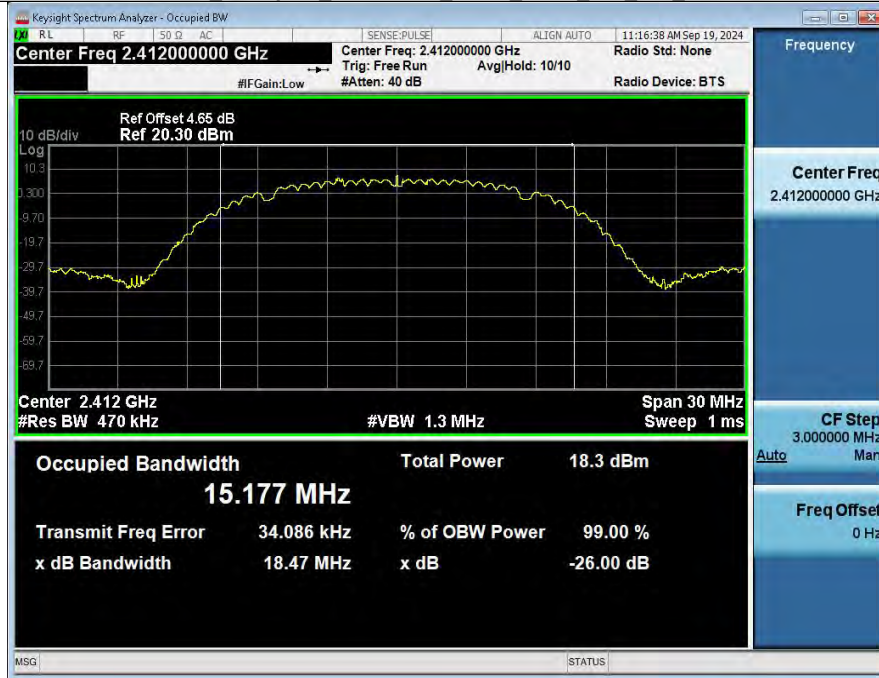
**-6dB\_Bandwidth\_NVNT\_ANT1\_802\_11n(HT40)\_2452**



## 2. 99% Occupied Bandwidth

| Condition | Antenna | Modulation    | Frequency (MHz) | 99% BW(MHz) |
|-----------|---------|---------------|-----------------|-------------|
| NVNT      | ANT1    | 802.11b       | 2412.00         | 15.177      |
| NVNT      | ANT1    | 802.11b       | 2437.00         | 15.193      |
| NVNT      | ANT1    | 802.11b       | 2462.00         | 15.196      |
| NVNT      | ANT1    | 802.11g       | 2412.00         | 17.460      |
| NVNT      | ANT1    | 802.11g       | 2437.00         | 17.486      |
| NVNT      | ANT1    | 802.11g       | 2462.00         | 17.500      |
| NVNT      | ANT1    | 802.11n(HT20) | 2412.00         | 18.334      |
| NVNT      | ANT1    | 802.11n(HT20) | 2437.00         | 18.348      |
| NVNT      | ANT1    | 802.11n(HT20) | 2462.00         | 18.353      |
| NVNT      | ANT1    | 802.11n(HT40) | 2422.00         | 35.471      |
| NVNT      | ANT1    | 802.11n(HT40) | 2437.00         | 35.479      |
| NVNT      | ANT1    | 802.11n(HT40) | 2452.00         | 35.474      |

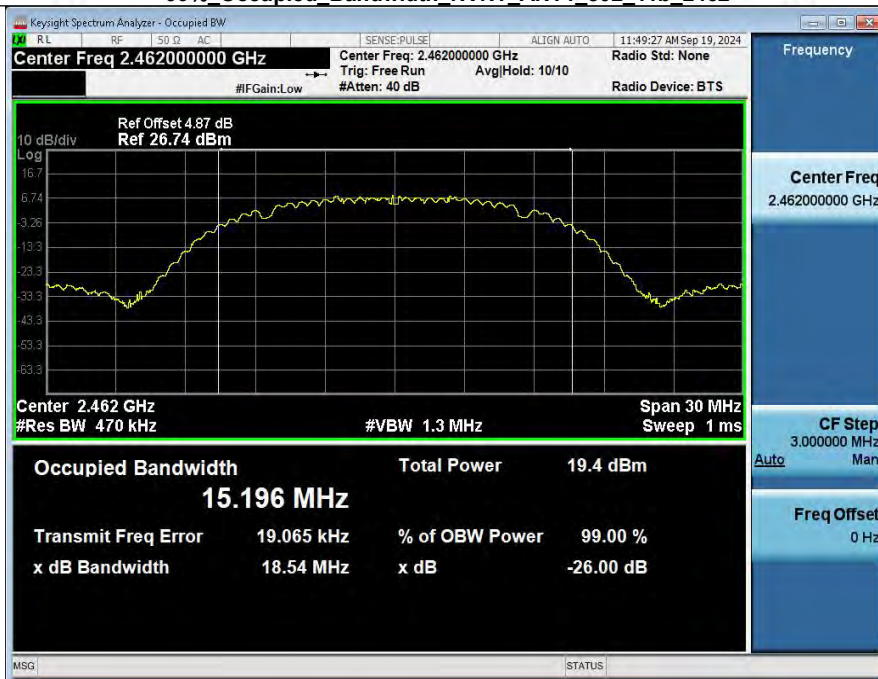
99% Occupied Bandwidth NVNT ANT1 802\_11b\_2412



99% Occupied Bandwidth NVNT ANT1 802\_11b\_2437



### 99% Occupied Bandwidth\_NVNT\_ANT1\_802\_11b\_2462



### 99% Occupied Bandwidth\_NVNT\_ANT1\_802\_11g\_2412



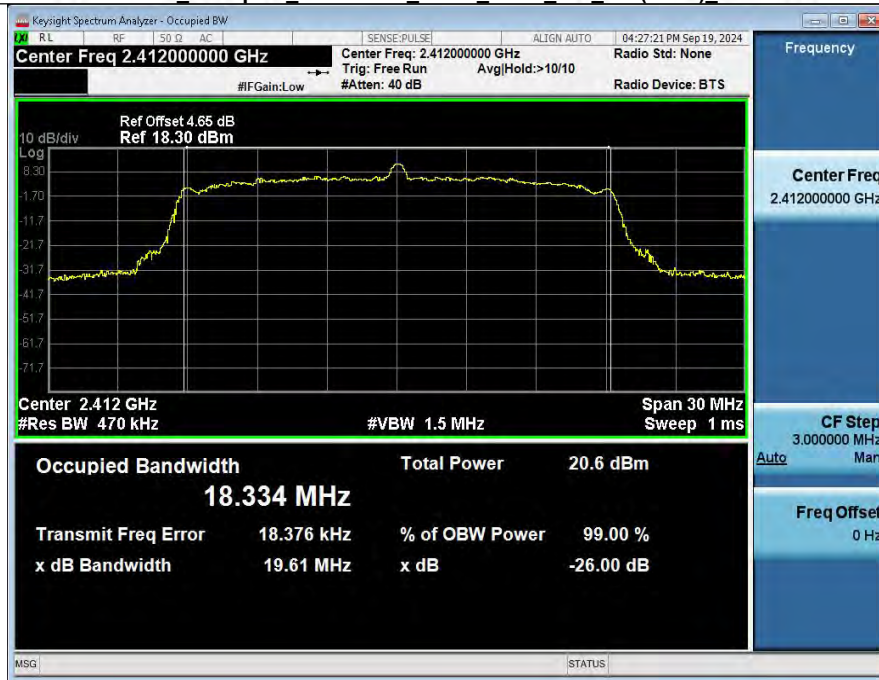
### 99% Occupied Bandwidth\_NVNT\_ANT1\_802\_11g\_2437



### 99%\_Occupied\_Bandwidth\_NVNT\_ANT1\_802\_11g\_2462



### 99% Occupied Bandwidth\_NVNT\_ANT1\_802\_11n(HT20)\_2412



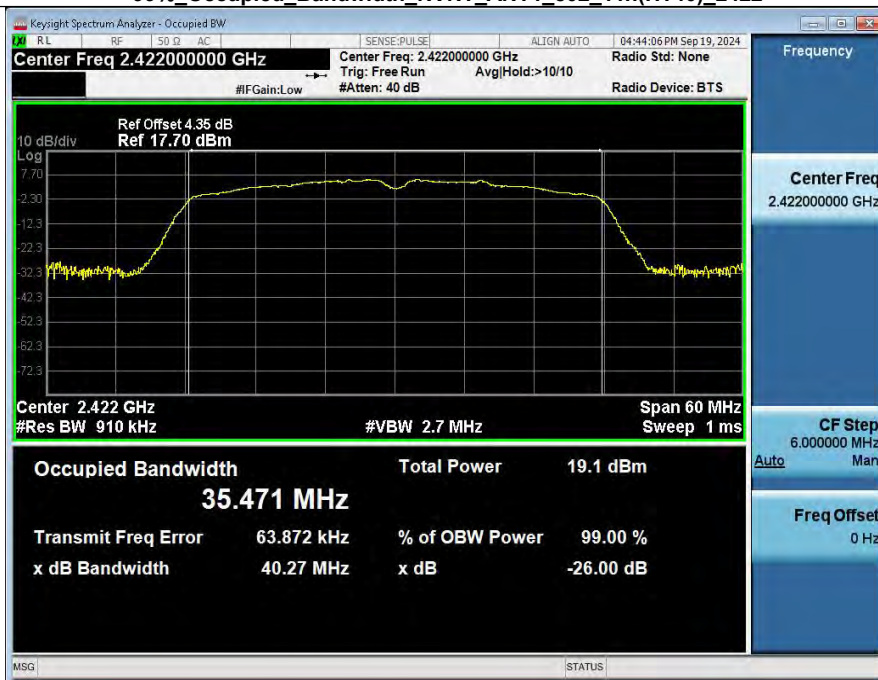
### 99% Occupied Bandwidth\_NVNT\_ANT1\_802\_11n(HT20)\_2437



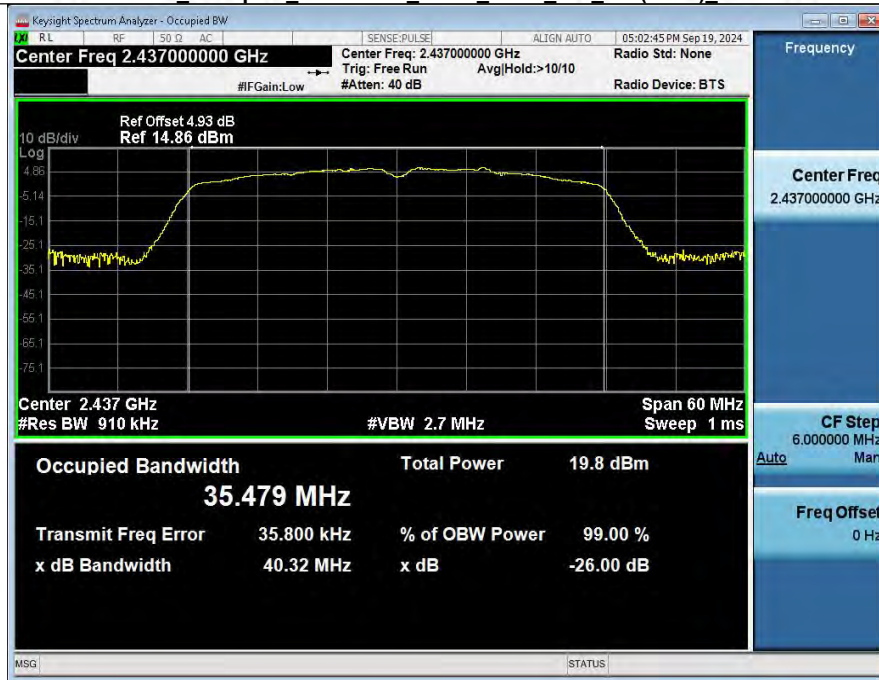
### 99% Occupied Bandwidth\_NVNT\_ANT1\_802\_11n(HT20)\_2462



### 99% Occupied Bandwidth\_NVNT\_ANT1\_802\_11n(HT40)\_2422



99% Occupied Bandwidth\_NVNT\_ANT1\_802\_11n(HT40)\_2437



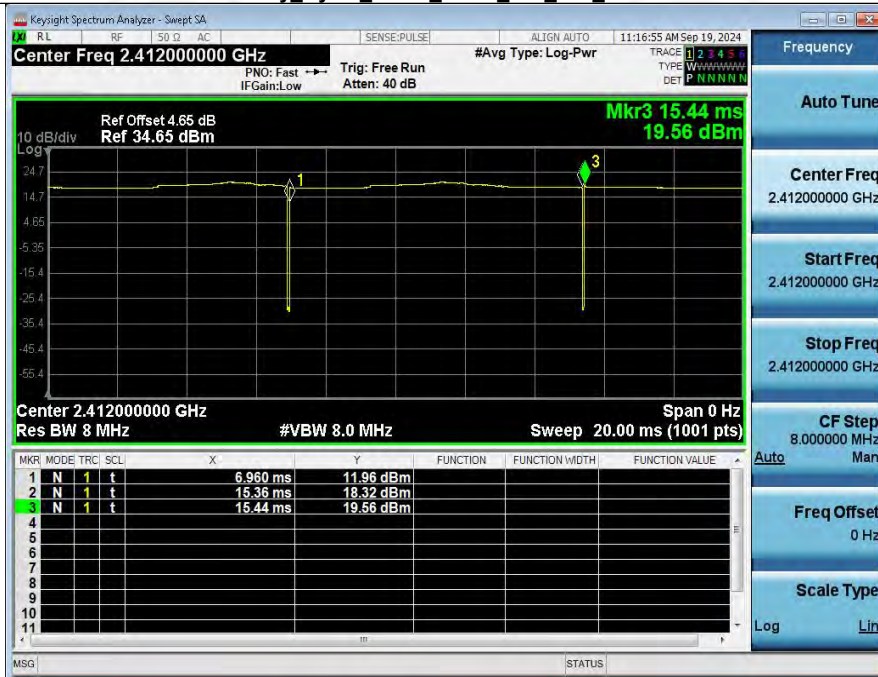
99% Occupied Bandwidth\_NVNT\_ANT1\_802\_11n(HT40)\_2452



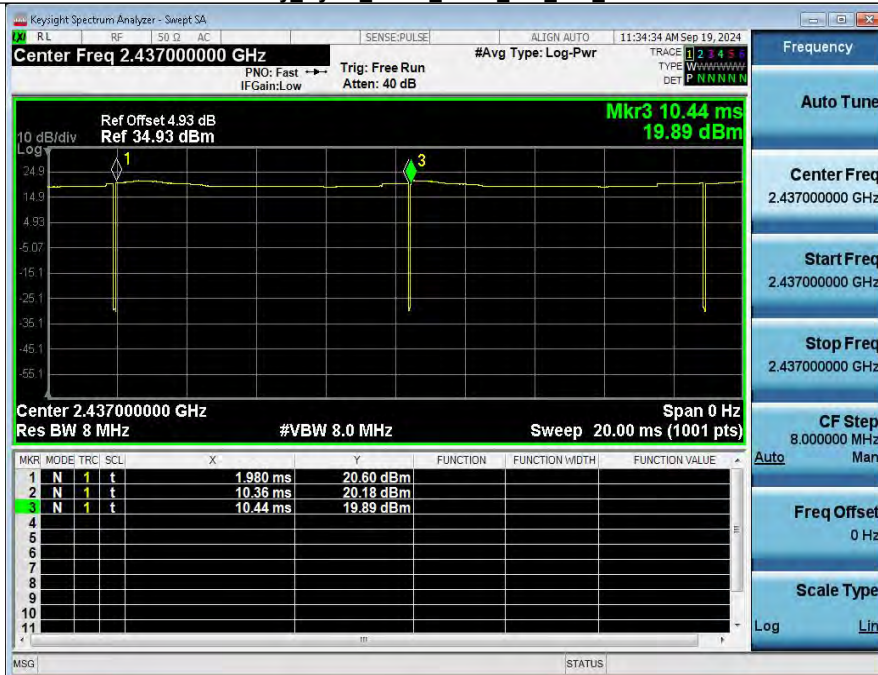
### 3. Duty Cycle

| Condition | Antenna | Modulation    | Frequency (MHz) | Duty cycle(%) | Duty factor(dB) |
|-----------|---------|---------------|-----------------|---------------|-----------------|
| NVNT      | ANT1    | 802.11b       | 2412.00         | 99.29         | 0.00            |
| NVNT      | ANT1    | 802.11b       | 2437.00         | 99.29         | 0.00            |
| NVNT      | ANT1    | 802.11b       | 2462.00         | 99.29         | 0.00            |
| NVNT      | ANT1    | 802.11g       | 2412.00         | 100           | 0.00            |
| NVNT      | ANT1    | 802.11g       | 2437.00         | 100           | 0.00            |
| NVNT      | ANT1    | 802.11g       | 2462.00         | 100           | 0.00            |
| NVNT      | ANT1    | 802.11n(HT20) | 2412.00         | 100           | 0.00            |
| NVNT      | ANT1    | 802.11n(HT20) | 2437.00         | 100           | 0.00            |
| NVNT      | ANT1    | 802.11n(HT20) | 2462.00         | 100           | 0.00            |
| NVNT      | ANT1    | 802.11n(HT40) | 2422.00         | 100           | 0.00            |
| NVNT      | ANT1    | 802.11n(HT40) | 2437.00         | 100           | 0.00            |
| NVNT      | ANT1    | 802.11n(HT40) | 2452.00         | 100           | 0.00            |

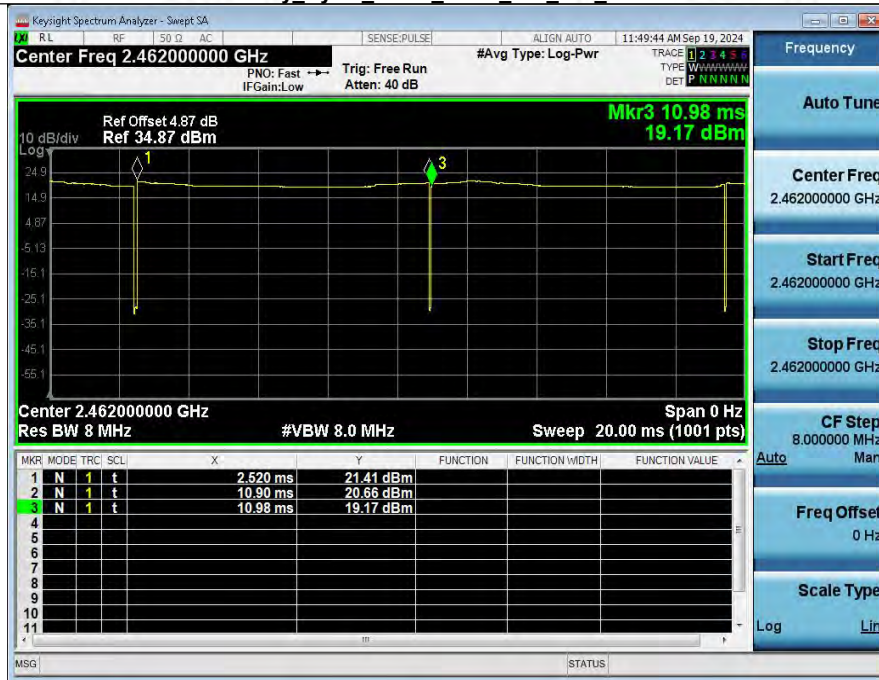
Duty Cycle NVNT\_ANT1\_802\_11b\_2412



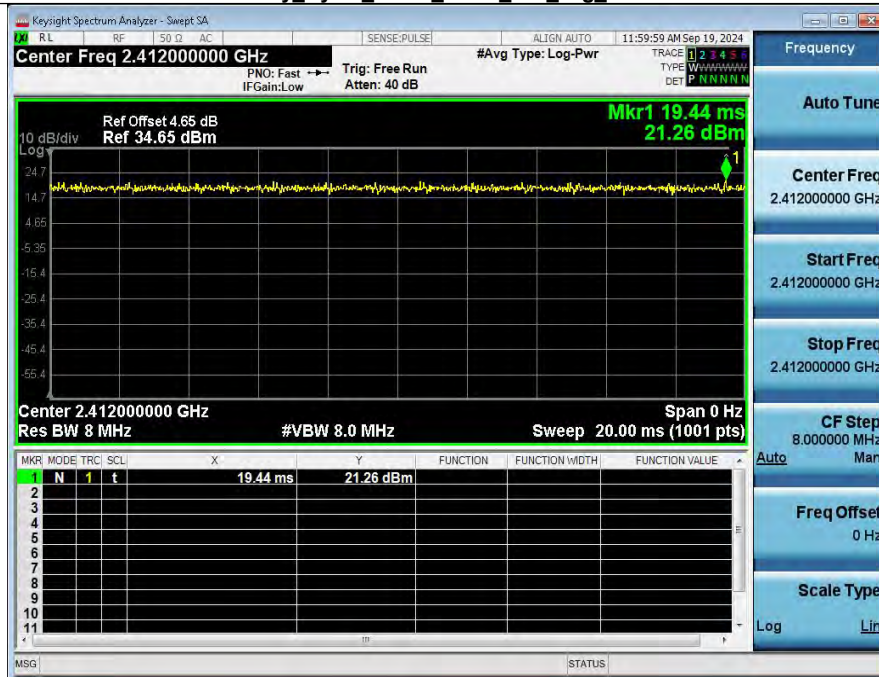
Duty Cycle NVNT\_ANT1\_802\_11b\_2437



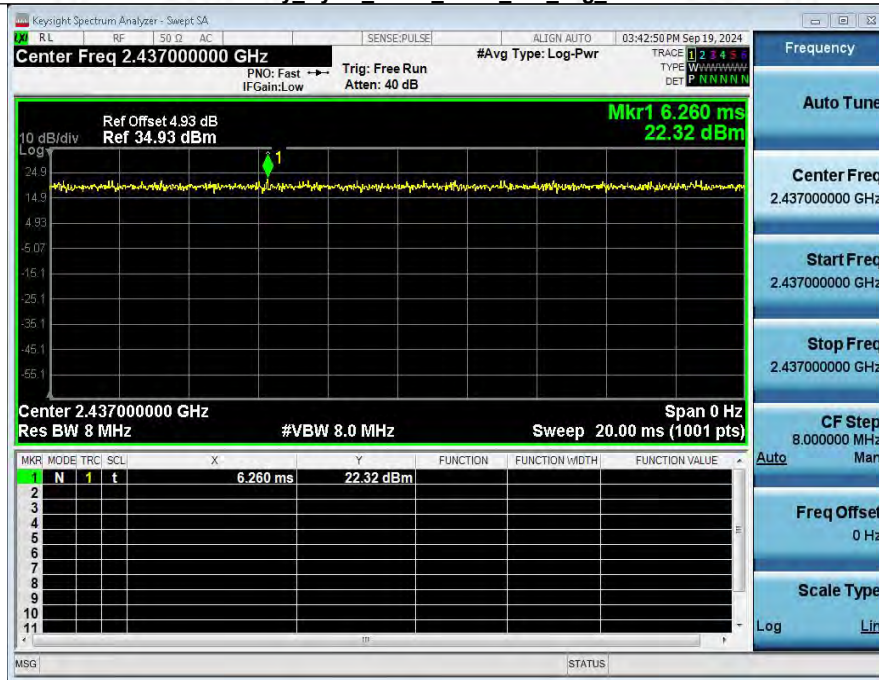
### Duty Cycle NVNT\_ANT1\_802\_11b\_2462



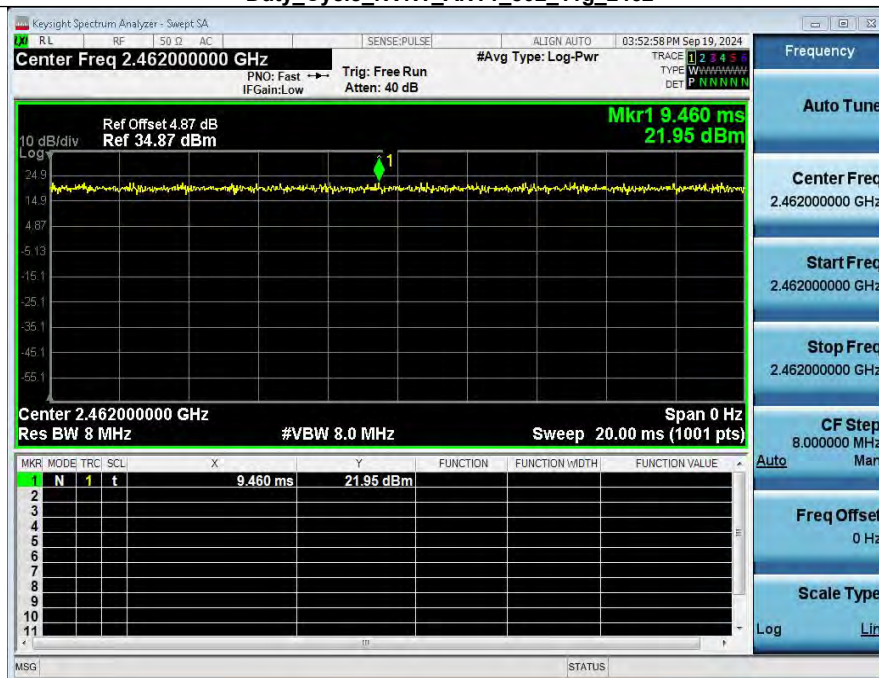
### Duty Cycle NVNT\_ANT1\_802\_11g\_2412



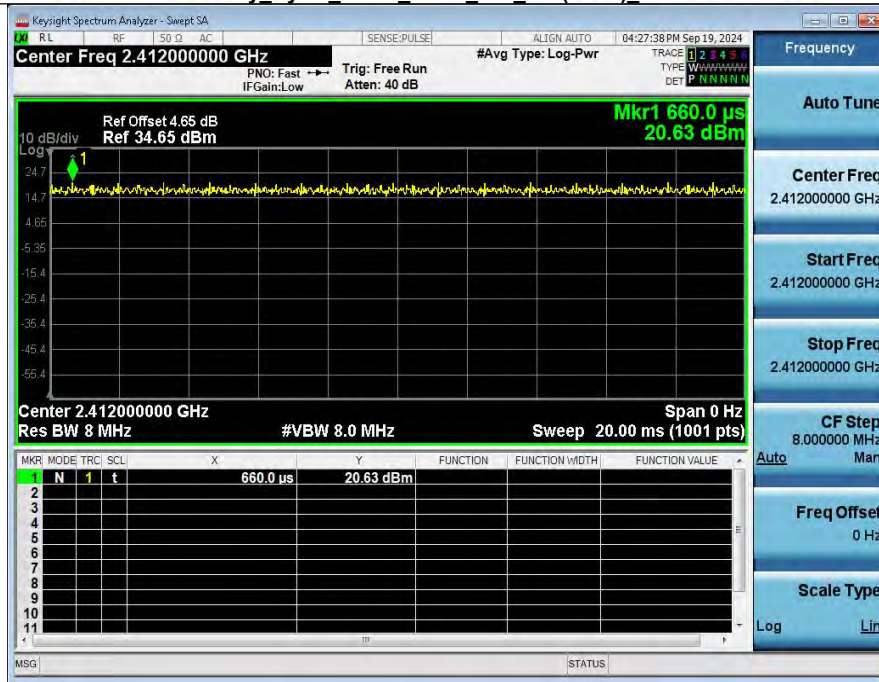
### Duty\_Cycle\_NVNT\_ANT1\_802\_11g\_2437



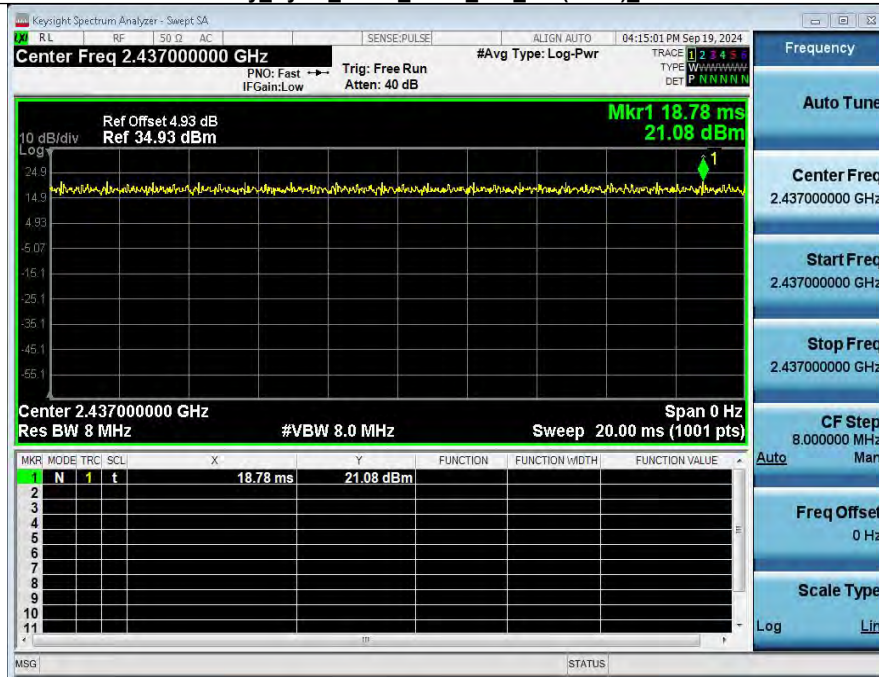
### Duty\_Cycle\_NVNT\_ANT1\_802\_11g\_2462



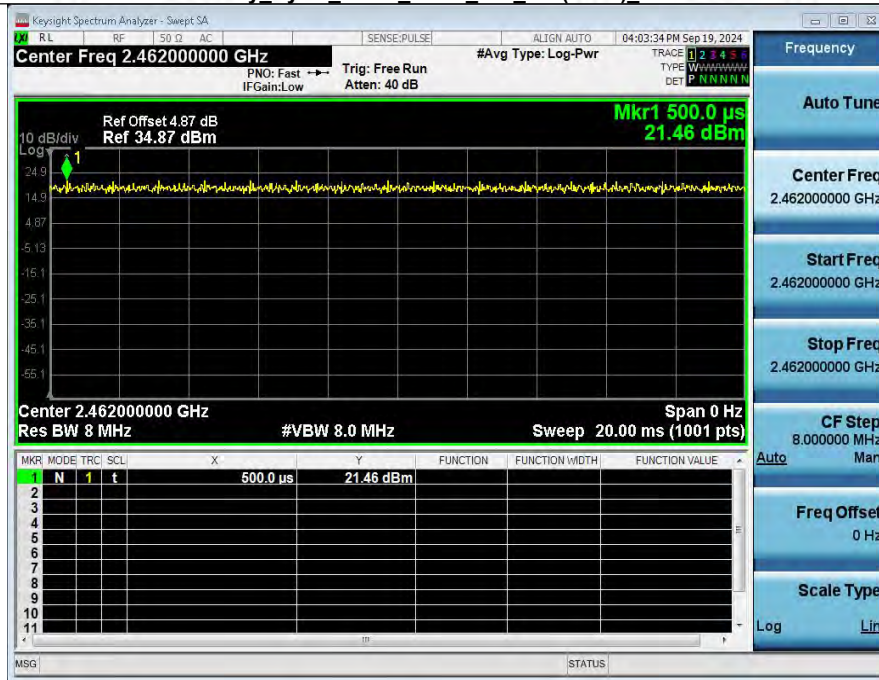
### Duty\_Cycle\_NVNT\_ANT1\_802\_11n(HT20)\_2412



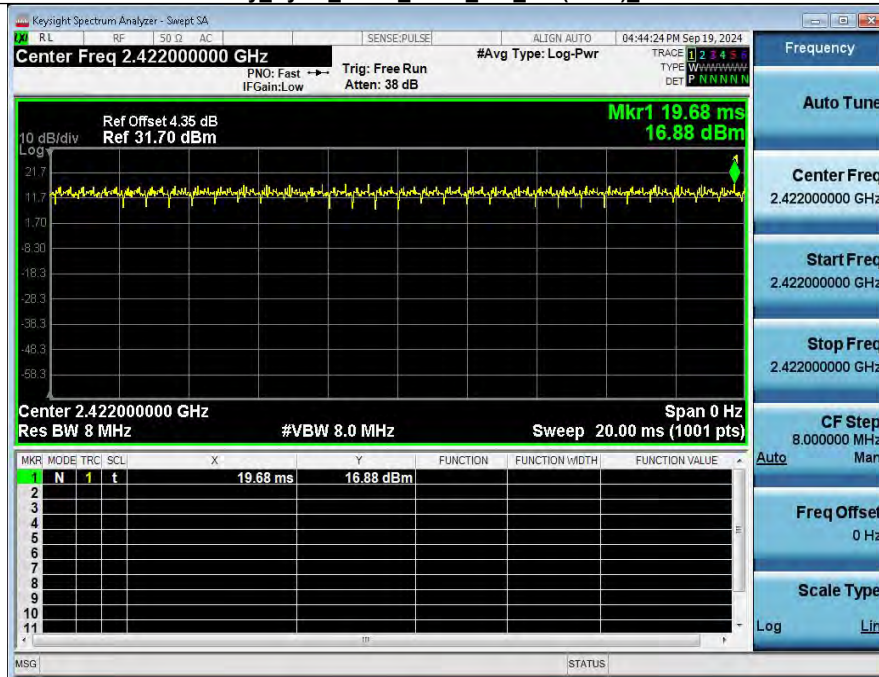
### Duty\_Cycle\_NVNT\_ANT1\_802\_11n(HT20)\_2437



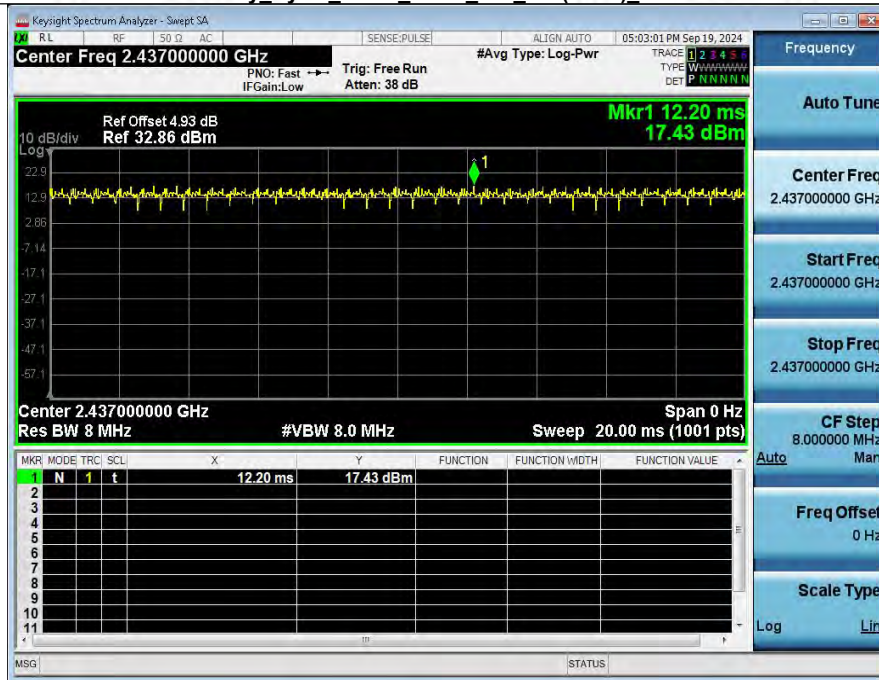
### Duty\_Cycle\_NVNT\_ANT1\_802\_11n(HT20)\_2462



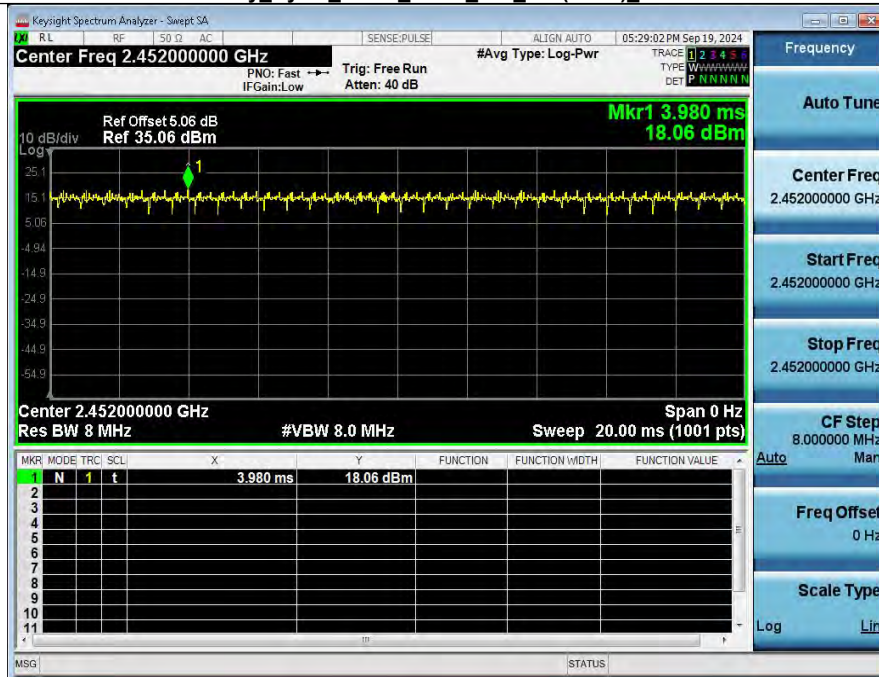
### Duty\_Cycle\_NVNT\_ANT1\_802\_11n(HT40)\_2422



### Duty\_Cycle\_NVNT\_ANT1\_802\_11n(HT40)\_2437



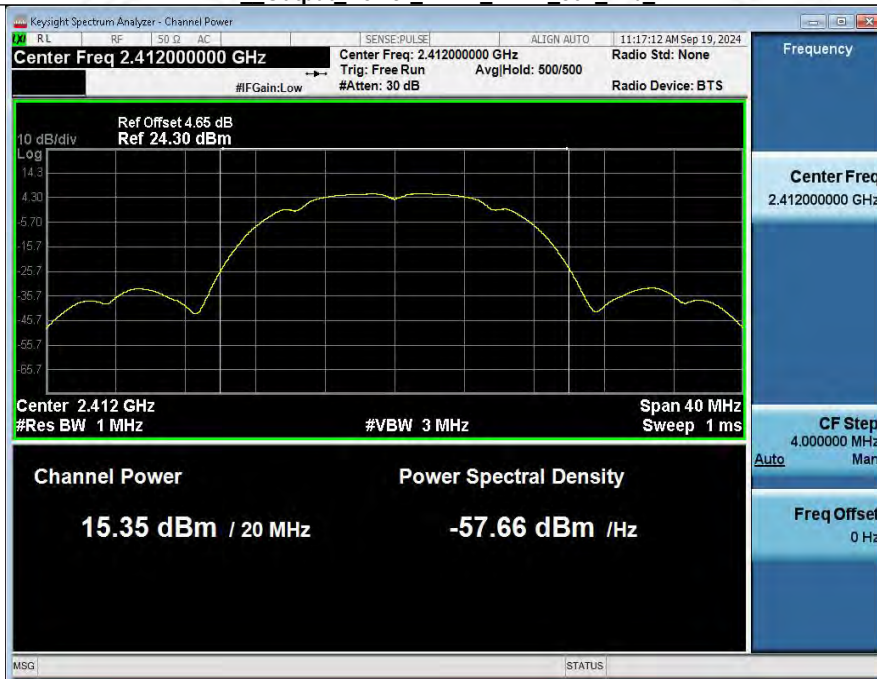
### Duty\_Cycle\_NVNT\_ANT1\_802\_11n(HT40)\_2452



#### 4. MAX. Output Power

| Condition | Antenna | Modulation    | Frequency (MHz) | Detector | Conducted Power(dBm) | Duty factor(dB) | Total Power(dBm) | limit(dBm) | Result |
|-----------|---------|---------------|-----------------|----------|----------------------|-----------------|------------------|------------|--------|
| NVNT      | ANT1    | 802.11b       | 2412.00         | RMS      | 15.35                | 0.00            | 15.35            | 30         | Pass   |
| NVNT      | ANT1    | 802.11b       | 2437.00         | RMS      | 16.18                | 0.00            | 16.18            | 30         | Pass   |
| NVNT      | ANT1    | 802.11b       | 2462.00         | RMS      | 16.38                | 0.00            | 16.38            | 30         | Pass   |
| NVNT      | ANT1    | 802.11g       | 2412.00         | RMS      | 13.68                | 0.00            | 13.68            | 30         | Pass   |
| NVNT      | ANT1    | 802.11g       | 2437.00         | RMS      | 14.68                | 0.00            | 14.68            | 30         | Pass   |
| NVNT      | ANT1    | 802.11g       | 2462.00         | RMS      | 15.21                | 0.00            | 15.21            | 30         | Pass   |
| NVNT      | ANT1    | 802.11n(HT20) | 2412.00         | RMS      | 12.80                | 0.00            | 12.80            | 30         | Pass   |
| NVNT      | ANT1    | 802.11n(HT20) | 2437.00         | RMS      | 13.46                | 0.00            | 13.46            | 30         | Pass   |
| NVNT      | ANT1    | 802.11n(HT20) | 2462.00         | RMS      | 14.02                | 0.00            | 14.02            | 30         | Pass   |
| NVNT      | ANT1    | 802.11n(HT40) | 2422.00         | RMS      | 11.26                | 0.00            | 11.26            | 30         | Pass   |
| NVNT      | ANT1    | 802.11n(HT40) | 2437.00         | RMS      | 12.03                | 0.00            | 12.03            | 30         | Pass   |
| NVNT      | ANT1    | 802.11n(HT40) | 2452.00         | RMS      | 12.59                | 0.00            | 12.59            | 30         | Pass   |

MAX\_Output Power\_NVNT\_ANT1\_802\_11b\_2412



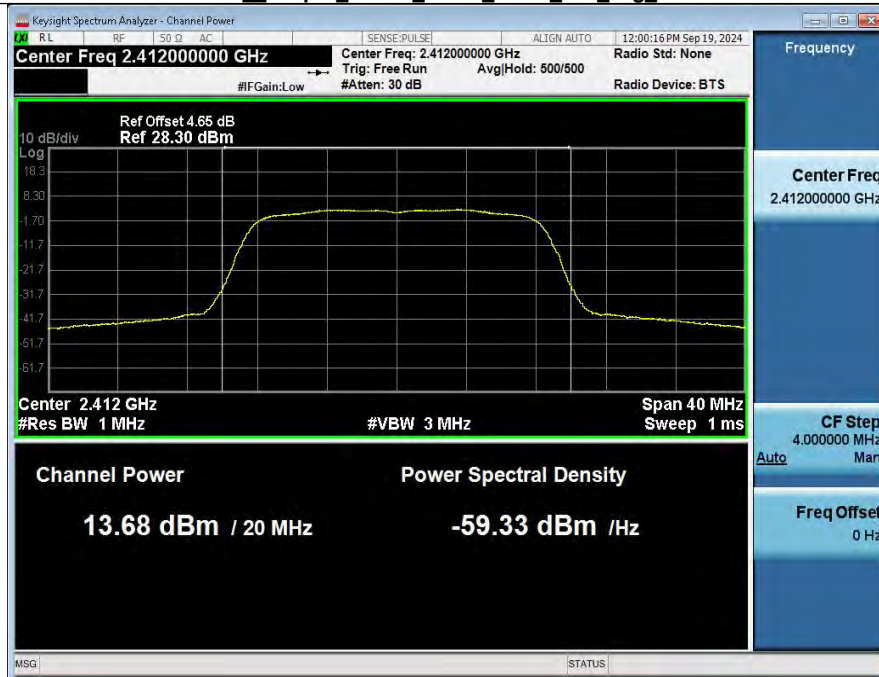
MAX\_Output Power\_NVNT\_ANT1\_802\_11b\_2437



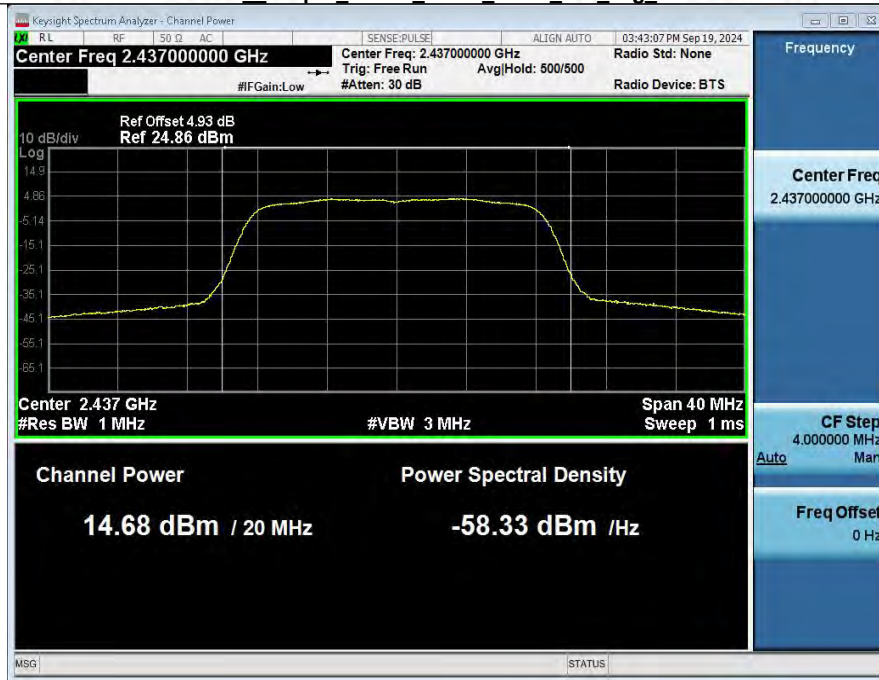
### MAX\_Output\_Power\_NVNT\_ANT1\_802\_11b\_2462



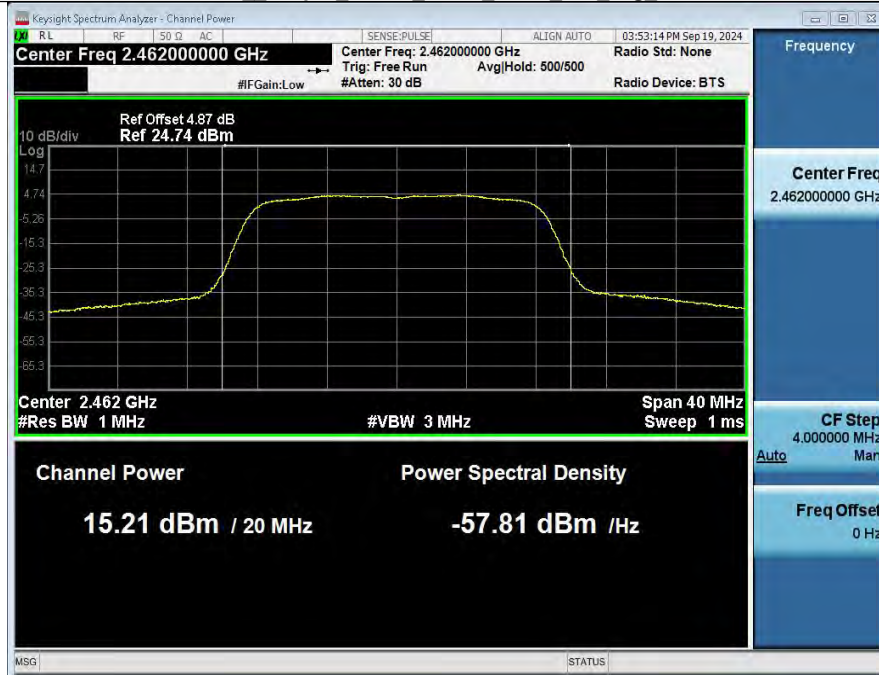
### MAX\_Output\_Power\_NVNT\_ANT1\_802\_11g\_2412



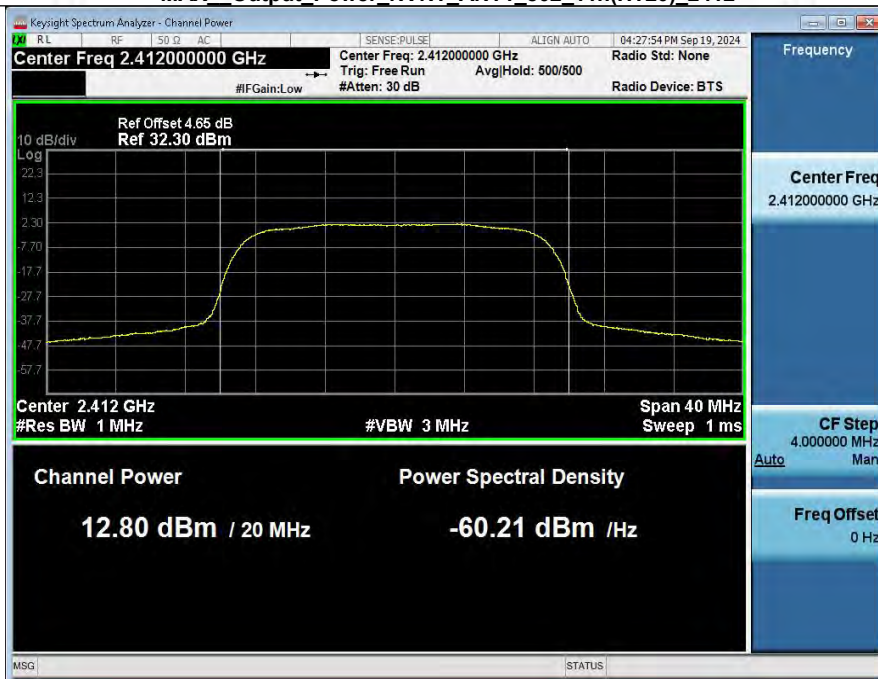
### MAX\_Output\_Power\_NVNT\_ANT1\_802\_11g\_2437



### MAX\_Output\_Power\_NVNT\_ANT1\_802\_11g\_2462



### MAX Output Power\_NVNT\_ANT1\_802\_11n(HT20)\_2412



### MAX Output Power\_NVNT\_ANT1\_802\_11n(HT20)\_2437



### MAX Output Power\_NVNT\_ANT1\_802\_11n(HT20)\_2462



### MAX Output Power\_NVNT\_ANT1\_802\_11n(HT40)\_2422



### MAX\_Output\_Power\_NVNT\_ANT1\_802\_11n(HT40)\_2437



### MAX\_Output\_Power\_NVNT\_ANT1\_802\_11n(HT40)\_2452



## 5. Power Spectral Density

| Condition | Antenna | Modulation    | Frequency (MHz) | PSD(dBm/3kHz) | limit(dBm/3kHz) | Result |
|-----------|---------|---------------|-----------------|---------------|-----------------|--------|
| NVNT      | ANT1    | 802.11b       | 2412.00         | -13.53        | 8               | Pass   |
| NVNT      | ANT1    | 802.11b       | 2437.00         | -13.01        | 8               | Pass   |
| NVNT      | ANT1    | 802.11b       | 2462.00         | -13.24        | 8               | Pass   |
| NVNT      | ANT1    | 802.11g       | 2412.00         | -17.65        | 8               | Pass   |
| NVNT      | ANT1    | 802.11g       | 2437.00         | -17.10        | 8               | Pass   |
| NVNT      | ANT1    | 802.11g       | 2462.00         | -17.42        | 8               | Pass   |
| NVNT      | ANT1    | 802.11n(HT20) | 2412.00         | -20.35        | 8               | Pass   |
| NVNT      | ANT1    | 802.11n(HT20) | 2437.00         | -15.95        | 8               | Pass   |
| NVNT      | ANT1    | 802.11n(HT20) | 2462.00         | -15.91        | 8               | Pass   |
| NVNT      | ANT1    | 802.11n(HT40) | 2422.00         | -23.22        | 8               | Pass   |
| NVNT      | ANT1    | 802.11n(HT40) | 2437.00         | -22.83        | 8               | Pass   |
| NVNT      | ANT1    | 802.11n(HT40) | 2452.00         | -22.12        | 8               | Pass   |



### Power Spectral Density NVNT\_ANT1\_802\_11b\_2412



### Power Spectral Density NVNT\_ANT1\_802\_11b\_2437

