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# FCC ID&IC ID WIFI2.4

## FCC&IC\_2.4G\_WIFI (Part15.247&RSS-247) Test Data

### 1. -6dB Bandwidth

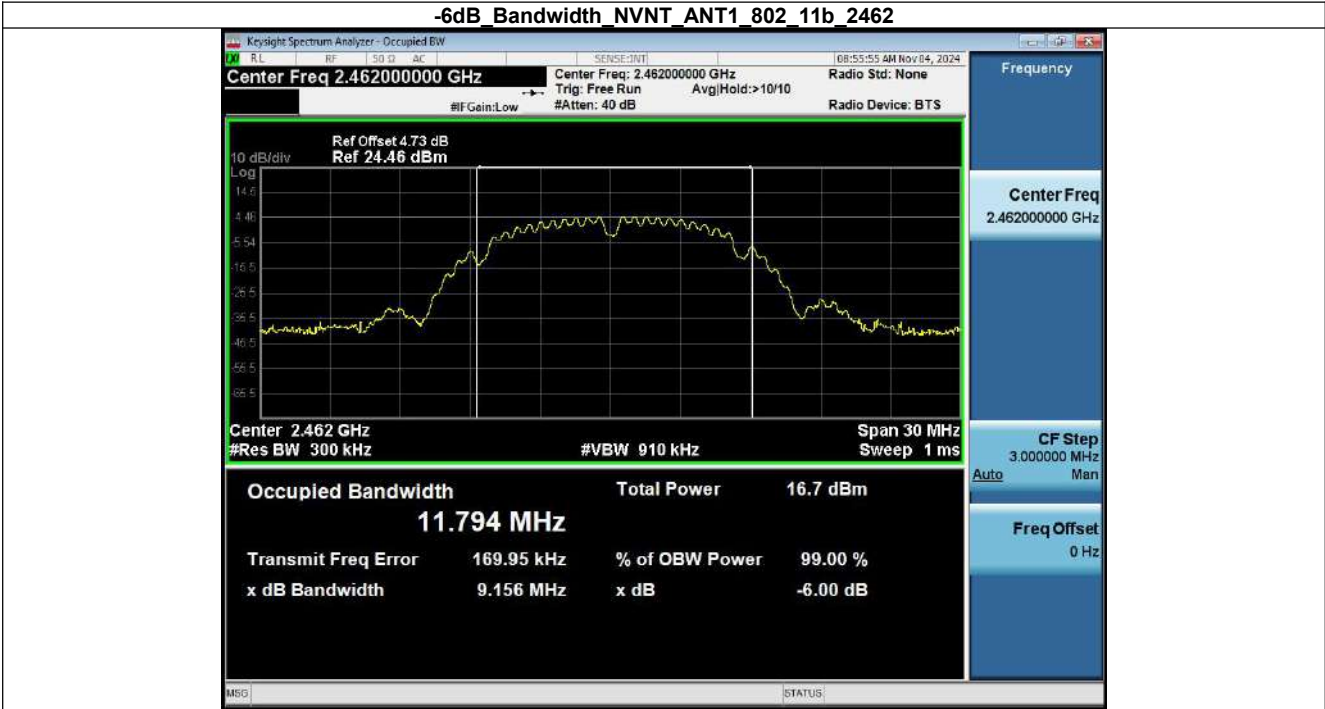
| Condition | Antenna | Modulation    | Frequency (MHz) | -6dB BW(MHz) | limit(kHz) | Result |
|-----------|---------|---------------|-----------------|--------------|------------|--------|
| NVNT      | ANT1    | 802.11b       | 2412.00         | 9.18         | 500        | Pass   |
| NVNT      | ANT1    | 802.11b       | 2437.00         | 9.20         | 500        | Pass   |
| NVNT      | ANT1    | 802.11b       | 2462.00         | 9.16         | 500        | Pass   |
| NVNT      | ANT1    | 802.11g       | 2412.00         | 16.50        | 500        | Pass   |
| NVNT      | ANT1    | 802.11g       | 2437.00         | 16.45        | 500        | Pass   |
| NVNT      | ANT1    | 802.11g       | 2462.00         | 16.33        | 500        | Pass   |
| NVNT      | ANT1    | 802.11n(HT20) | 2412.00         | 17.51        | 500        | Pass   |
| NVNT      | ANT1    | 802.11n(HT20) | 2437.00         | 17.44        | 500        | Pass   |
| NVNT      | ANT1    | 802.11n(HT20) | 2462.00         | 17.27        | 500        | Pass   |



**-6dB\_Bandwidth\_NVNT\_ANT1\_802\_11b\_2437**



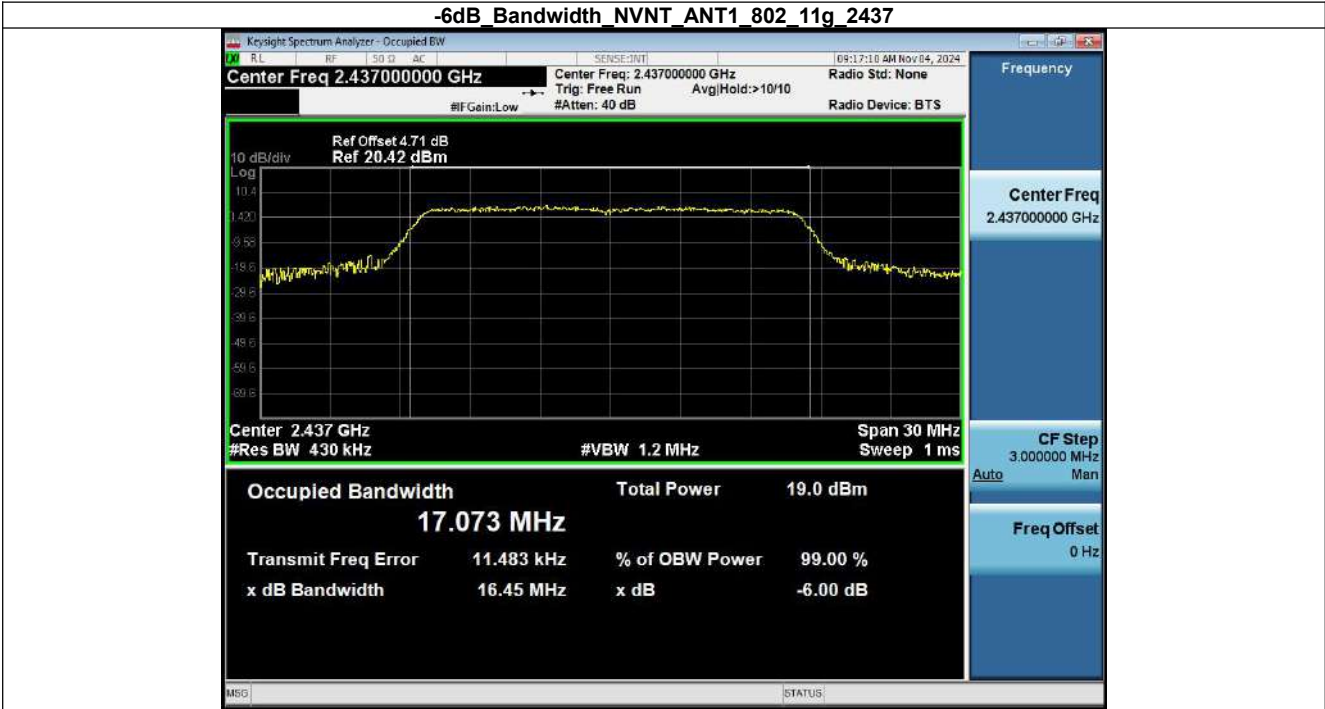
-6dB Bandwidth NVNT\_ANT1\_802\_11b\_2462



-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

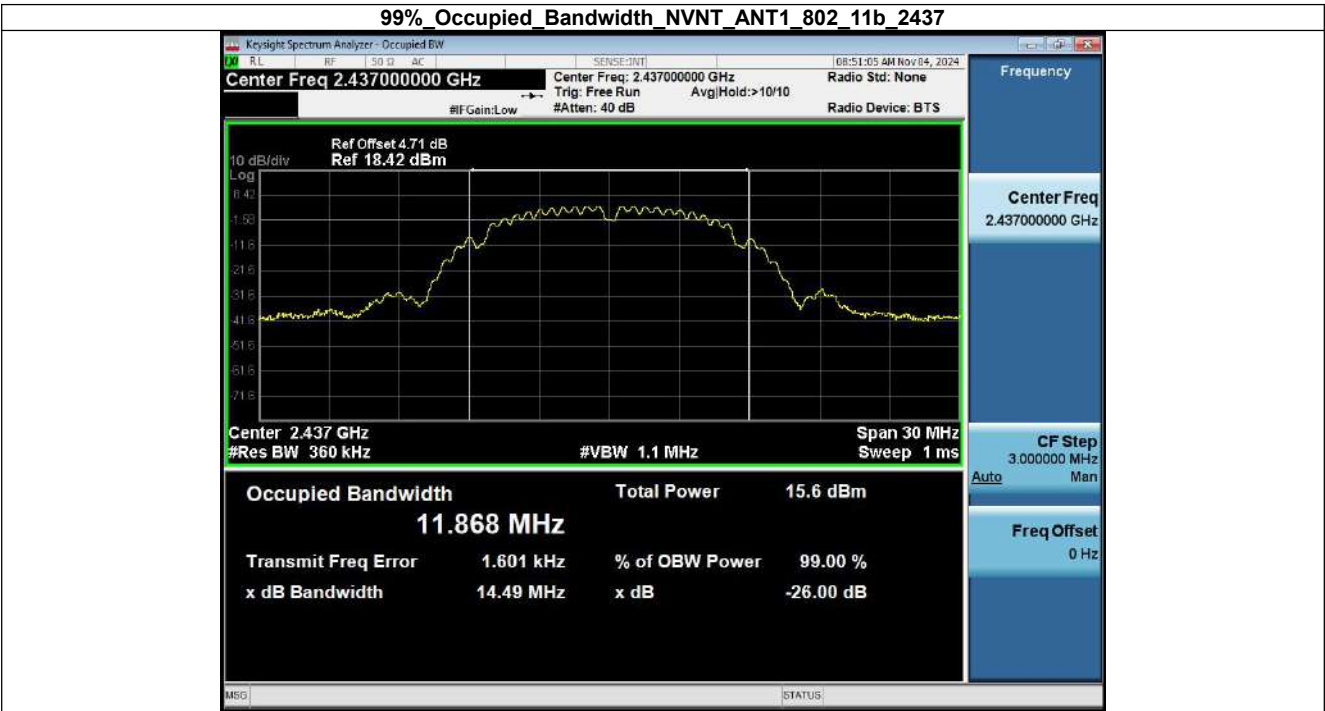
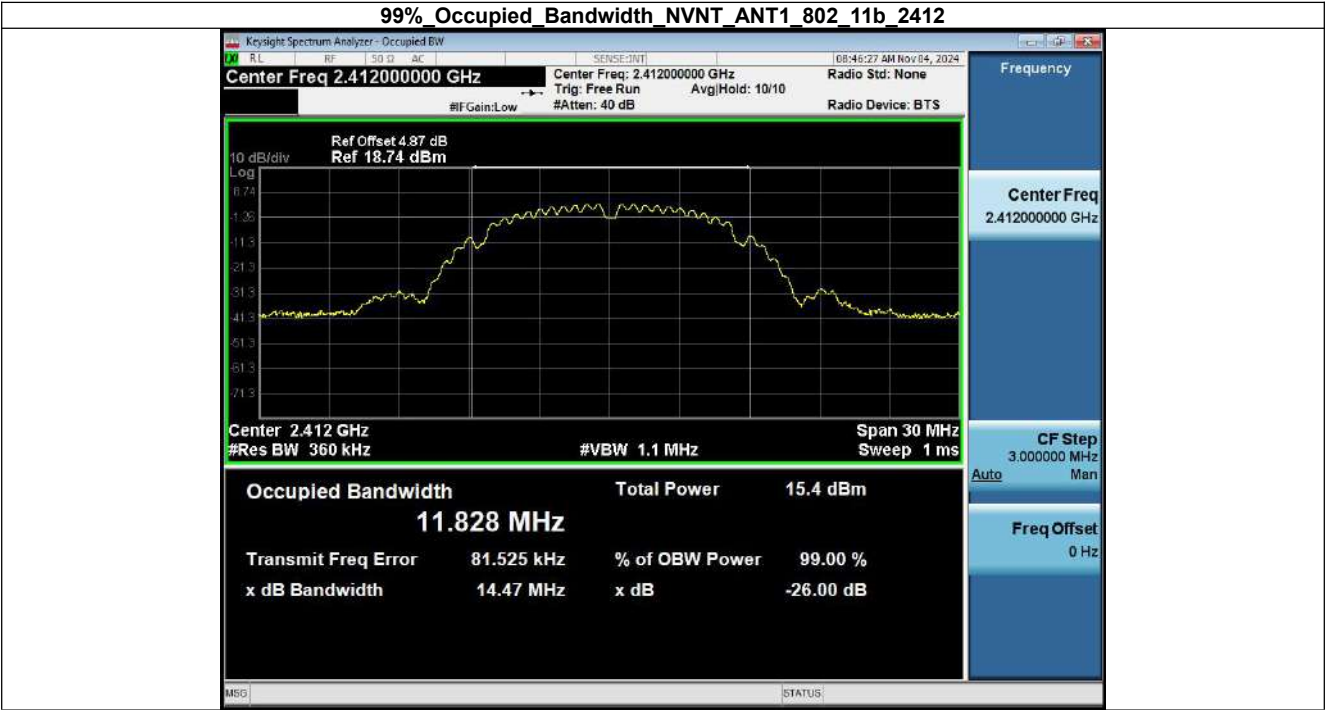


**-6dB Bandwidth NVNT\_ANT1\_802\_11n(HT20)\_2462**



2. 99% Occupied Bandwidth

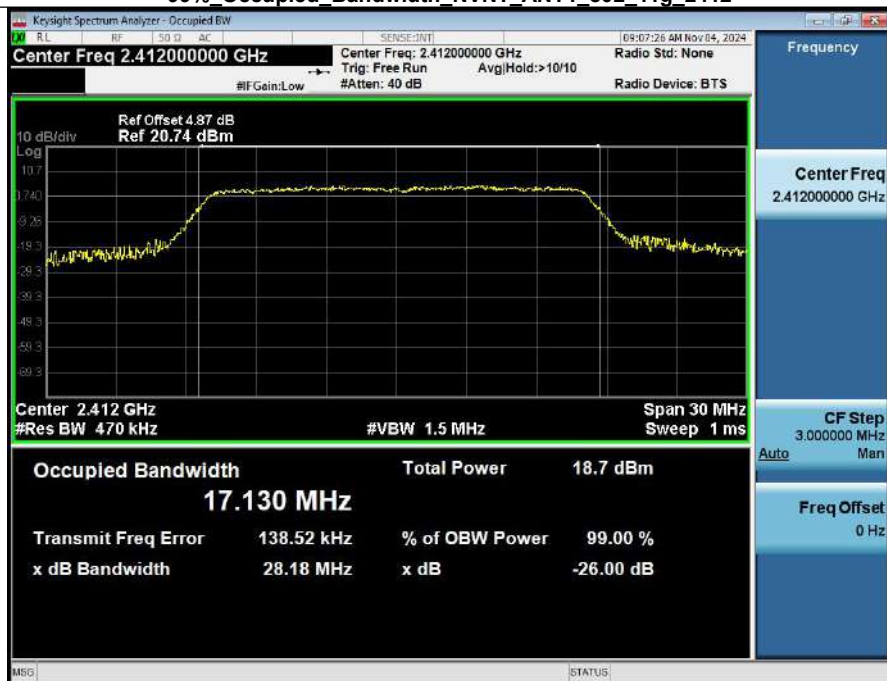
| Condition | Antenna | Modulation    | Frequency (MHz) | 99% BW(MHz) |
|-----------|---------|---------------|-----------------|-------------|
| NVNT      | ANT1    | 802.11b       | 2412.00         | 11.828      |
| NVNT      | ANT1    | 802.11b       | 2437.00         | 11.868      |
| NVNT      | ANT1    | 802.11b       | 2462.00         | 11.823      |
| NVNT      | ANT1    | 802.11g       | 2412.00         | 17.130      |
| NVNT      | ANT1    | 802.11g       | 2437.00         | 17.268      |
| NVNT      | ANT1    | 802.11g       | 2462.00         | 17.219      |
| NVNT      | ANT1    | 802.11n(HT20) | 2412.00         | 17.936      |
| NVNT      | ANT1    | 802.11n(HT20) | 2437.00         | 17.878      |
| NVNT      | ANT1    | 802.11n(HT20) | 2462.00         | 17.902      |



### 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

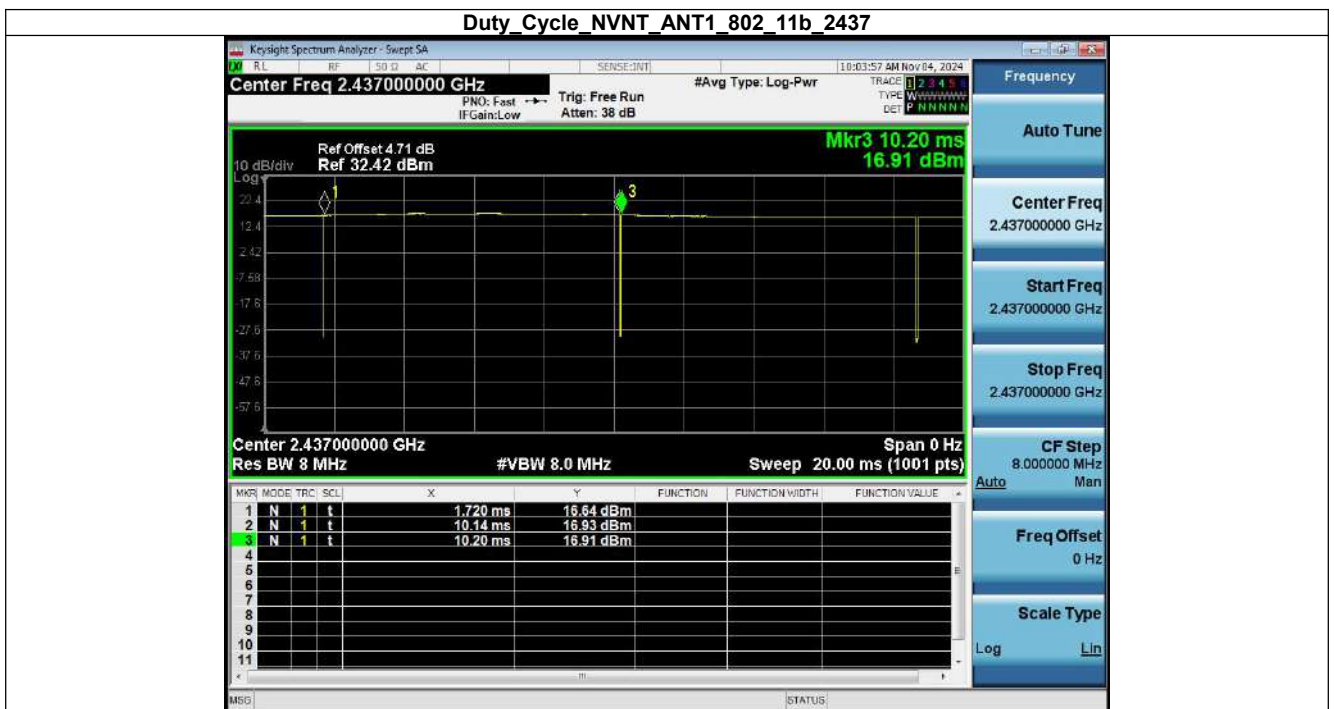
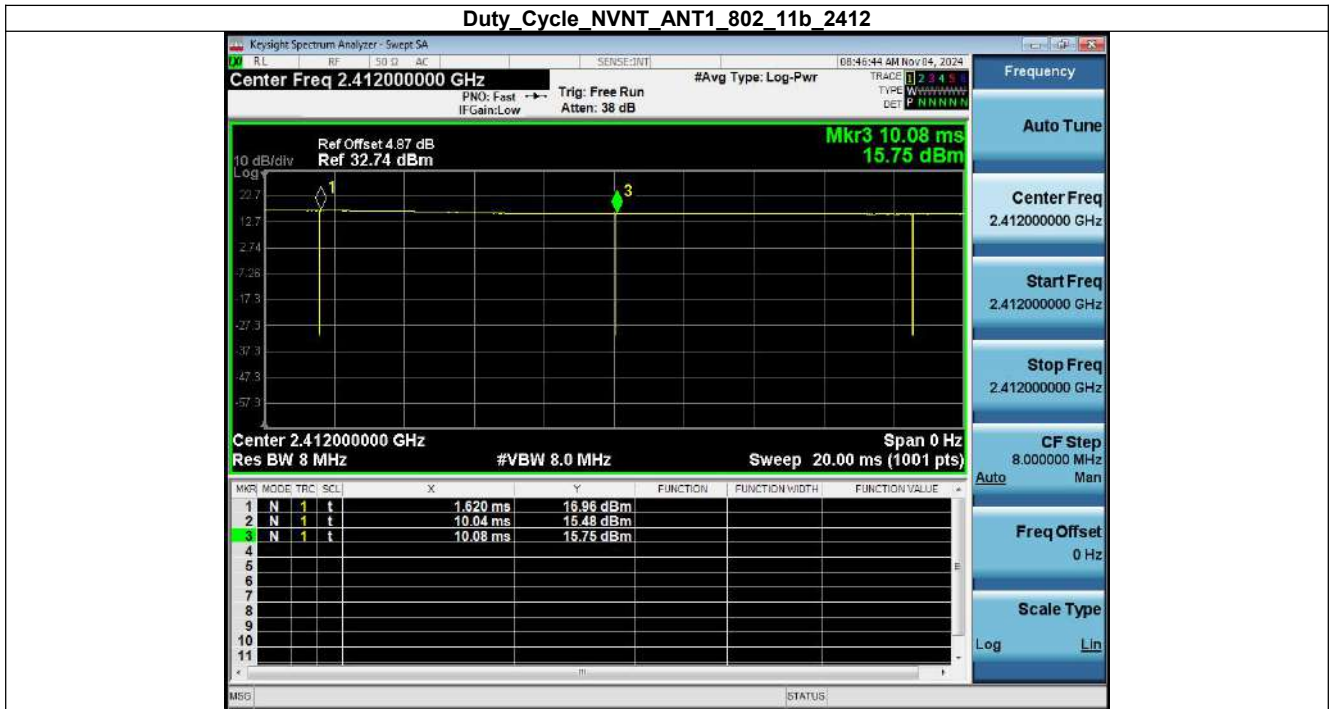


99%\_Occupied\_Bandwidth\_NVNT\_ANT1\_802\_11n(HT20)\_2462

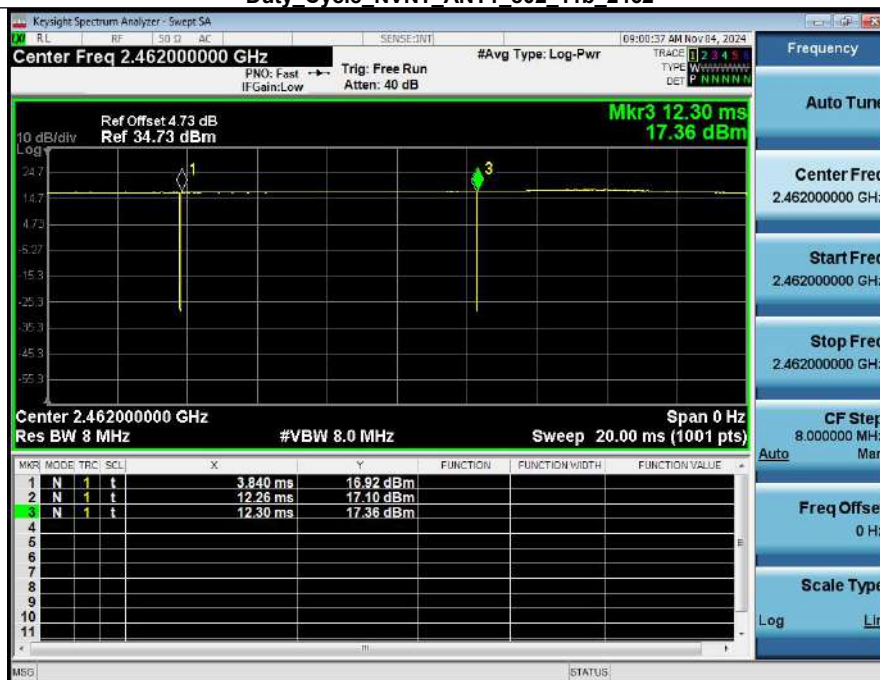


### 3. Duty Cycle

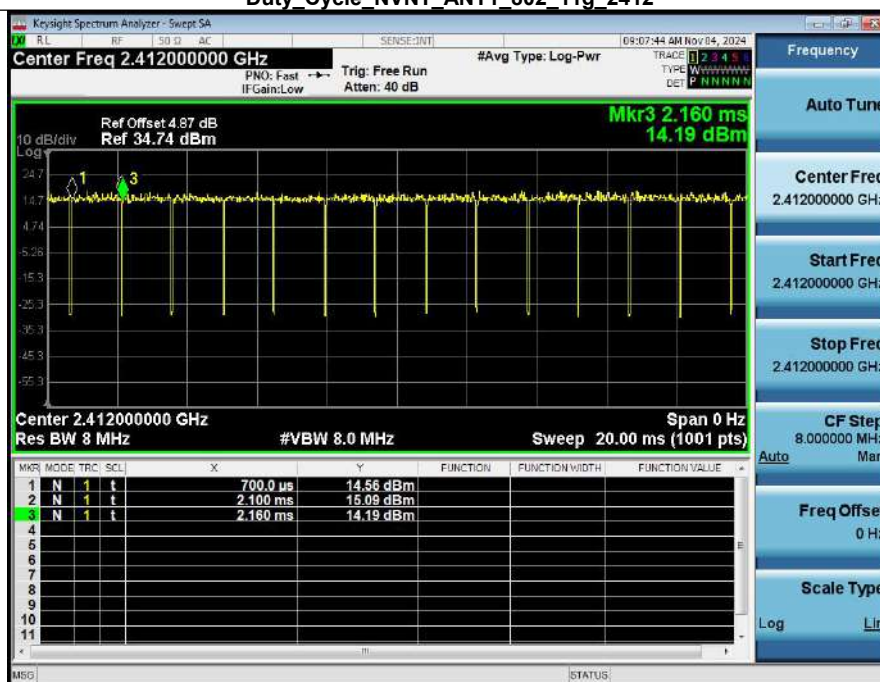
| Condition | Antenna | Modulation    | Frequency (MHz) | Duty cycle(%) | Duty factor(dB) |
|-----------|---------|---------------|-----------------|---------------|-----------------|
| NVNT      | ANT1    | 802.11b       | 2412.00         | 99.76         | 0.00            |
| NVNT      | ANT1    | 802.11b       | 2437.00         | 99.53         | 0.00            |
| NVNT      | ANT1    | 802.11b       | 2462.00         | 99.76         | 0.00            |
| NVNT      | ANT1    | 802.11g       | 2412.00         | 97.26         | 0.12            |
| NVNT      | ANT1    | 802.11g       | 2437.00         | 97.22         | 0.12            |
| NVNT      | ANT1    | 802.11g       | 2462.00         | 98.61         | 0.00            |
| NVNT      | ANT1    | 802.11n(HT20) | 2412.00         | 96.77         | 0.14            |
| NVNT      | ANT1    | 802.11n(HT20) | 2437.00         | 96.77         | 0.14            |
| NVNT      | ANT1    | 802.11n(HT20) | 2462.00         | 96.77         | 0.14            |



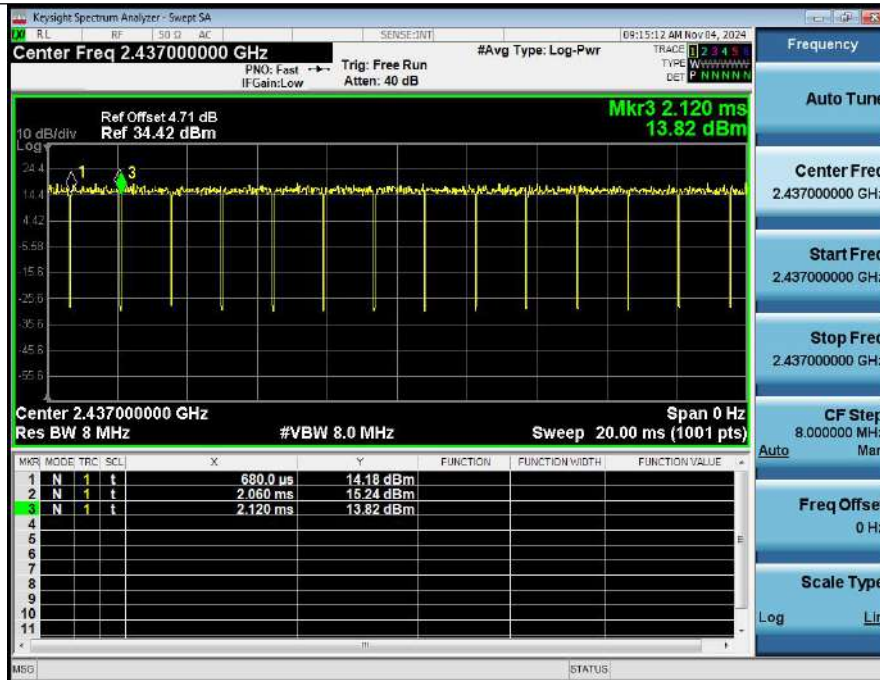
# Duty Cycle NVNT\_ANT1\_802\_11b\_2462



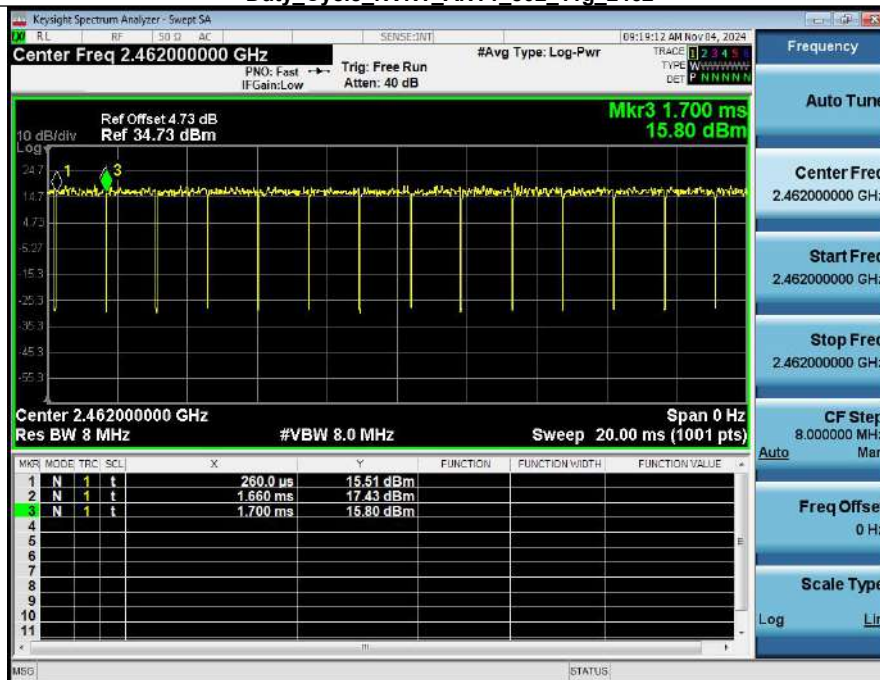
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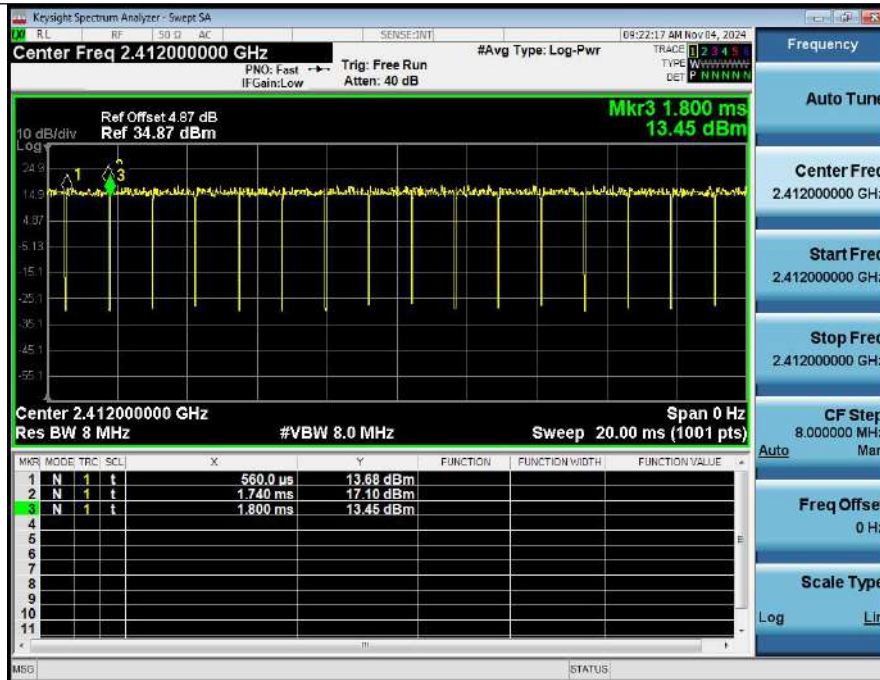
# Duty Cycle NVNT\_ANT1\_802\_11g\_2437



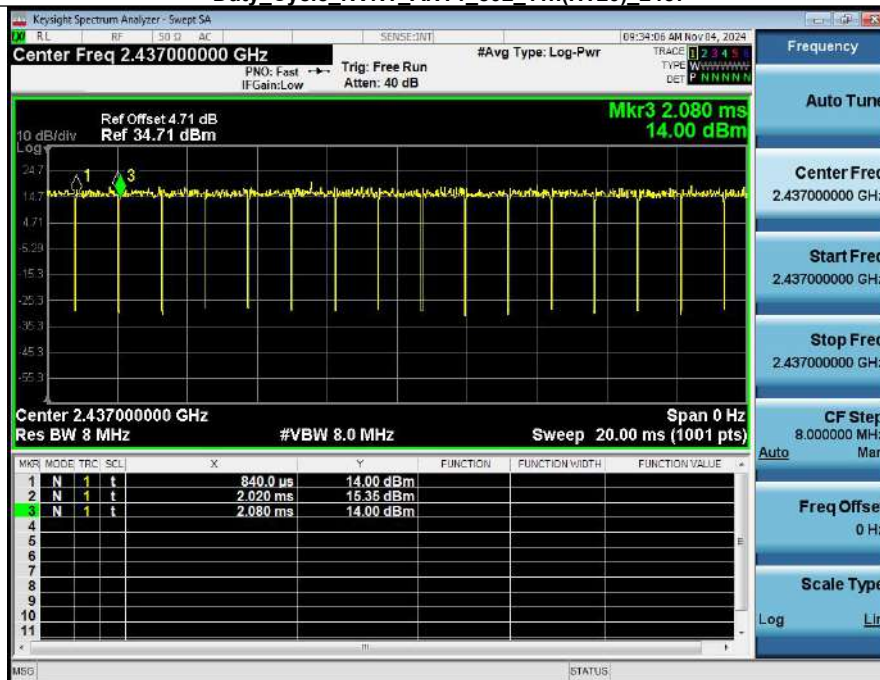
Duty\_Cycle\_NVNT\_ANT1\_802\_11g\_2462



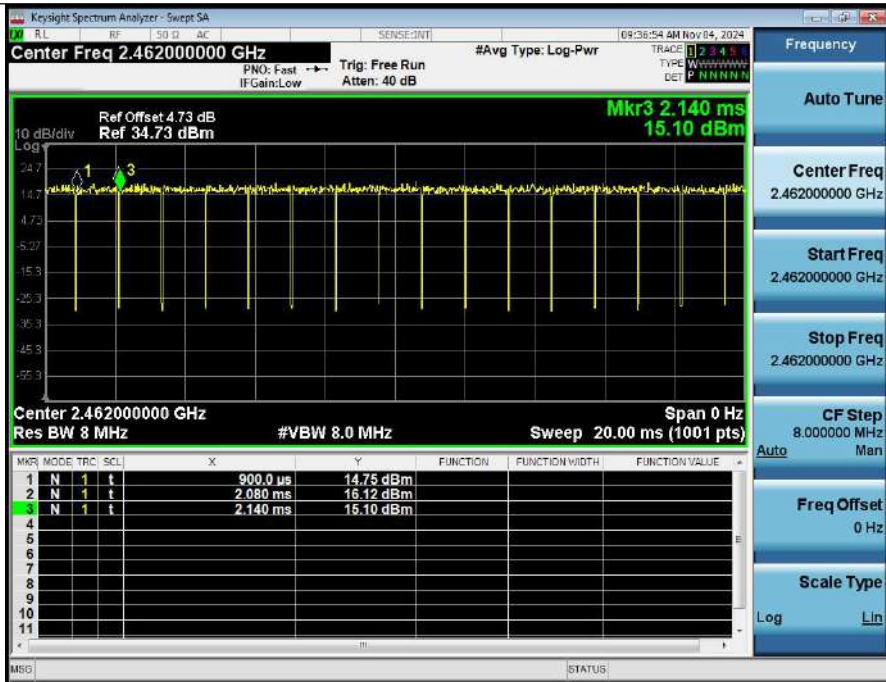
Duty\_Cycle\_NVNT\_ANT1\_802\_11n(HT20)\_2412



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



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



#### 4. MAX. Output Power

| Condition | Antenna | Modulation    | Frequency (MHz) | Detector | Conducted Power(dBm) | Conducted Power limit(dBm) | Antenna Gain (dBi) | EIRP (dBm) | EIRP limit (dBm) | Result |
|-----------|---------|---------------|-----------------|----------|----------------------|----------------------------|--------------------|------------|------------------|--------|
| NVNT      | ANT1    | 802.11b       | 2412.00         | Peak     | 15.02                | 30                         | 3.8                | 18.82      | 36               | Pass   |
| NVNT      | ANT1    | 802.11b       | 2437.00         | Peak     | 15.18                | 30                         | 3.8                | 18.98      | 36               | Pass   |
| NVNT      | ANT1    | 802.11b       | 2462.00         | Peak     | 15.80                | 30                         | 3.8                | 19.60      | 36               | Pass   |
| NVNT      | ANT1    | 802.11g       | 2412.00         | Peak     | 19.36                | 30                         | 3.8                | 23.16      | 36               | Pass   |
| NVNT      | ANT1    | 802.11g       | 2437.00         | Peak     | 19.68                | 30                         | 3.8                | 23.48      | 36               | Pass   |
| NVNT      | ANT1    | 802.11g       | 2462.00         | Peak     | 20.37                | 30                         | 3.8                | 24.17      | 36               | Pass   |
| NVNT      | ANT1    | 802.11n(HT20) | 2412.00         | Peak     | 19.97                | 30                         | 3.8                | 23.77      | 36               | Pass   |
| NVNT      | ANT1    | 802.11n(HT20) | 2437.00         | Peak     | 20.16                | 30                         | 3.8                | 23.96      | 36               | Pass   |
| NVNT      | ANT1    | 802.11n(HT20) | 2462.00         | Peak     | 20.93                | 30                         | 3.8                | 24.73      | 36               | Pass   |

5. Power Spectral Density

| Condition | Antenna | Modulation    | Frequency (MHz) | PSD(dBm/30kHz) | RB factor(dB) | PSD(dBm/3kHz) | limit(dBm/3kHz) | Result |
|-----------|---------|---------------|-----------------|----------------|---------------|---------------|-----------------|--------|
| NVNT      | ANT1    | 802.11b       | 2412.00         | 0.58           | -10.00        | -9.42         | 8               | Pass   |
| NVNT      | ANT1    | 802.11b       | 2437.00         | 2.18           | -10.00        | -7.82         | 8               | Pass   |
| NVNT      | ANT1    | 802.11b       | 2462.00         | 0.59           | -10.00        | -9.41         | 8               | Pass   |
| NVNT      | ANT1    | 802.11g       | 2412.00         | -4.00          | -10.00        | -14.00        | 8               | Pass   |
| NVNT      | ANT1    | 802.11g       | 2437.00         | -3.92          | -10.00        | -13.92        | 8               | Pass   |
| NVNT      | ANT1    | 802.11g       | 2462.00         | -3.20          | -10.00        | -13.20        | 8               | Pass   |
| NVNT      | ANT1    | 802.11n(HT20) | 2412.00         | -4.02          | -10.00        | -14.02        | 8               | Pass   |
| NVNT      | ANT1    | 802.11n(HT20) | 2437.00         | -4.12          | -10.00        | -14.12        | 8               | Pass   |
| NVNT      | ANT1    | 802.11n(HT20) | 2462.00         | -2.59          | -10.00        | -12.59        | 8               | Pass   |



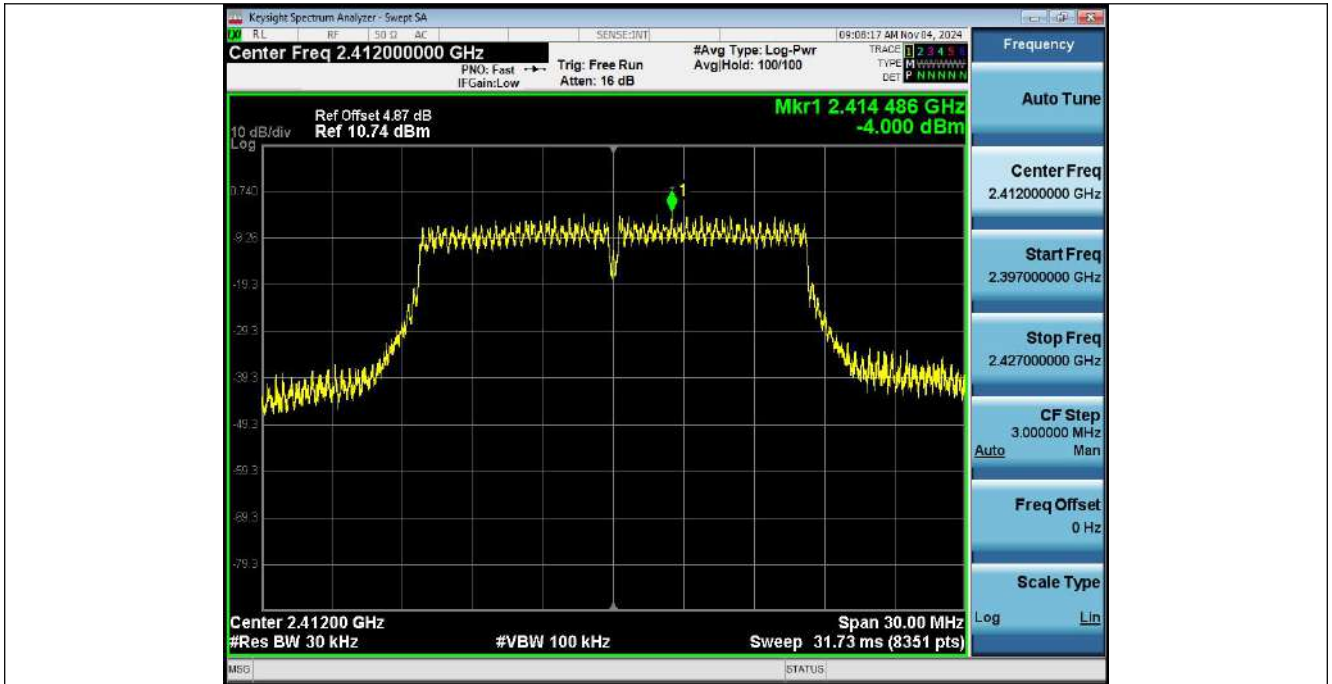
Power\_Spectral\_Density\_NVNT\_ANT1\_802\_11b\_2437



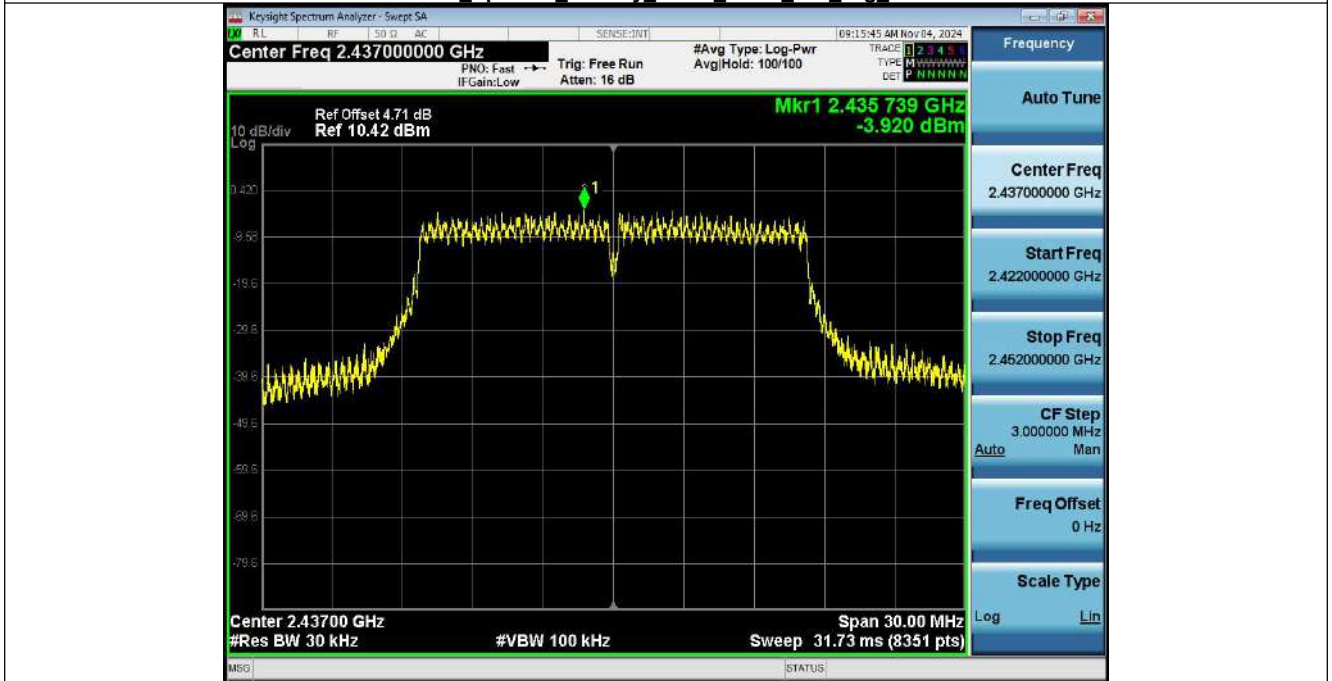
Power\_Spectral\_Density\_NVNT\_ANT1\_802\_11b\_2462



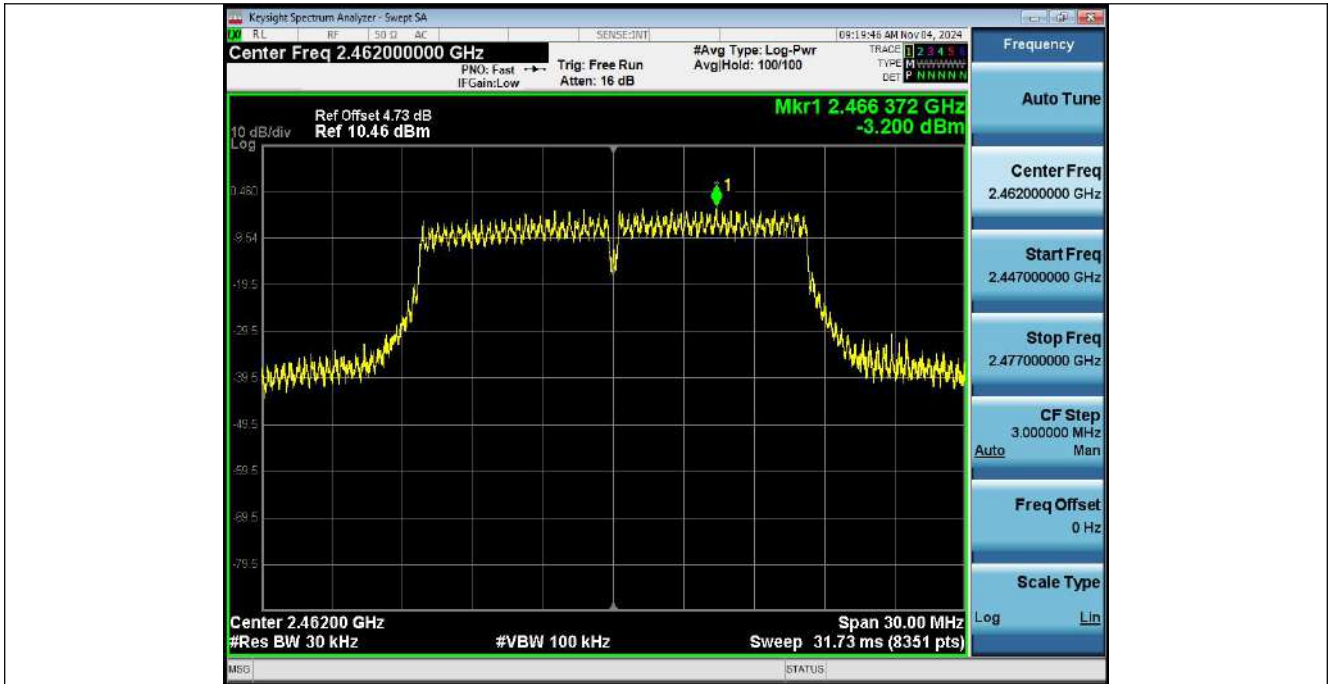
Power\_Spectral\_Density\_NVNT\_ANT1\_802\_11g\_2412



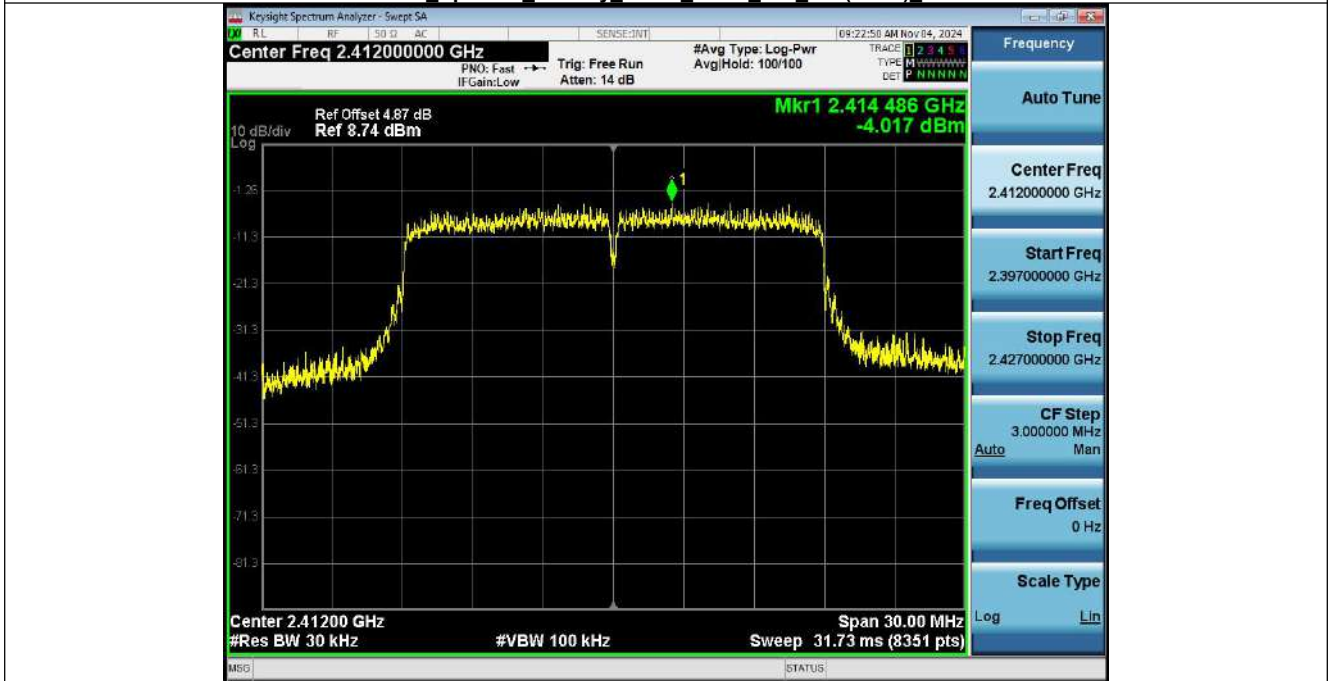
Power\_Spectral\_Density\_NVNT\_ANT1\_802\_11g\_2437



Power\_Spectral\_Density\_NVNT\_ANT1\_802\_11g\_2462



Power\_Spectral\_Density\_NVNT\_ANT1\_802\_11n(HT20)\_2412



Power\_Spectral\_Density\_NVNT\_ANT1\_802\_11n(HT20)\_2437



### Power Spectral Density NVNT ANT1 802\_11n(HT20)\_2462



6. Bandedge

| Condition | Antenna | Modulation    | TX_Frequency (MHz) | Max. Mark_frequency(MHz) | Spurious level(dBm) | limit(dBm) | Result |
|-----------|---------|---------------|--------------------|--------------------------|---------------------|------------|--------|
| NVNT      | ANT1    | 802.11b       | 2412.00            | 2399.936                 | -47.536             | -16.251    | Pass   |
| NVNT      | ANT1    | 802.11b       | 2462.00            | 2485.456                 | -53.086             | -15.388    | Pass   |
| NVNT      | ANT1    | 802.11g       | 2412.00            | 2398.816                 | -31.392             | -19.979    | Pass   |
| NVNT      | ANT1    | 802.11g       | 2462.00            | 2483.920                 | -37.200             | -18.305    | Pass   |
| NVNT      | ANT1    | 802.11n(HT20) | 2412.00            | 2399.600                 | -31.170             | -19.432    | Pass   |
| NVNT      | ANT1    | 802.11n(HT20) | 2462.00            | 2483.680                 | -33.806             | -18.022    | Pass   |

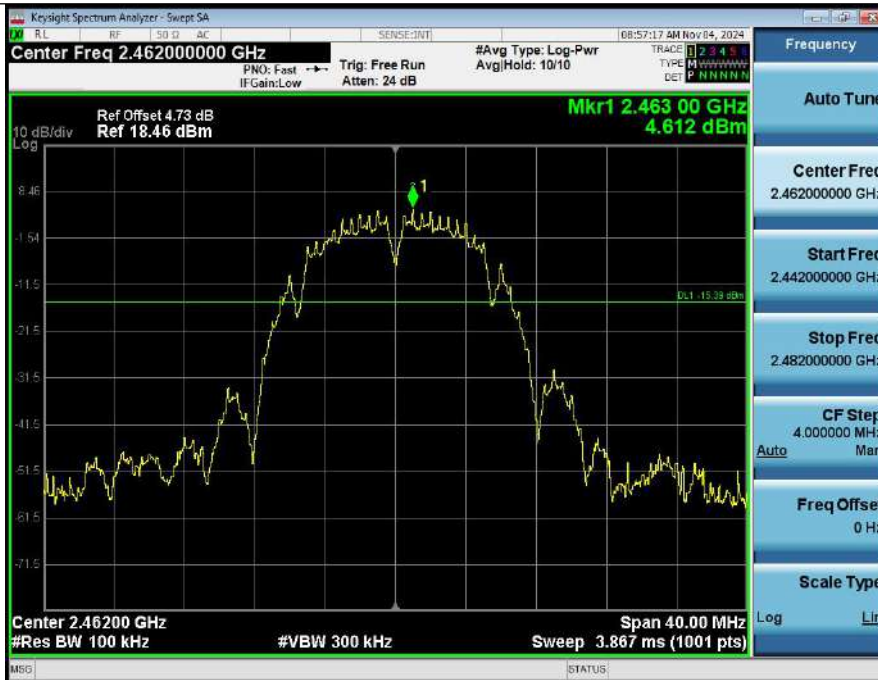
1 Reference Level NVNT\_ANT1\_802\_11b\_2412



2 Bandedge\_NVNT\_ANT1\_802\_11b\_2412



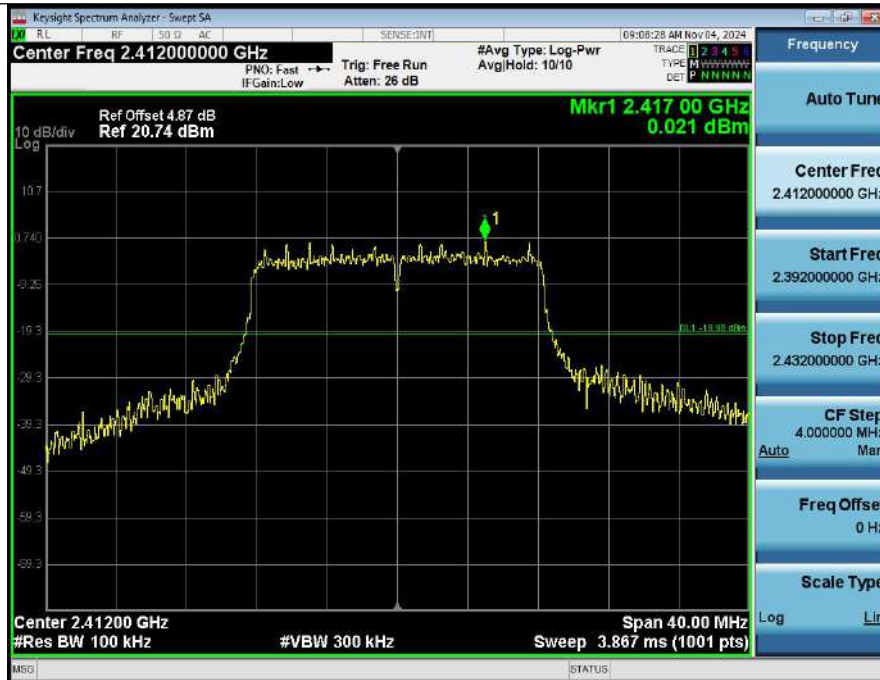
1 Reference Level NVNT\_ANT1\_802\_11b\_2462



2\_Bandedge\_NVNT\_ANT1\_802\_11b\_2462



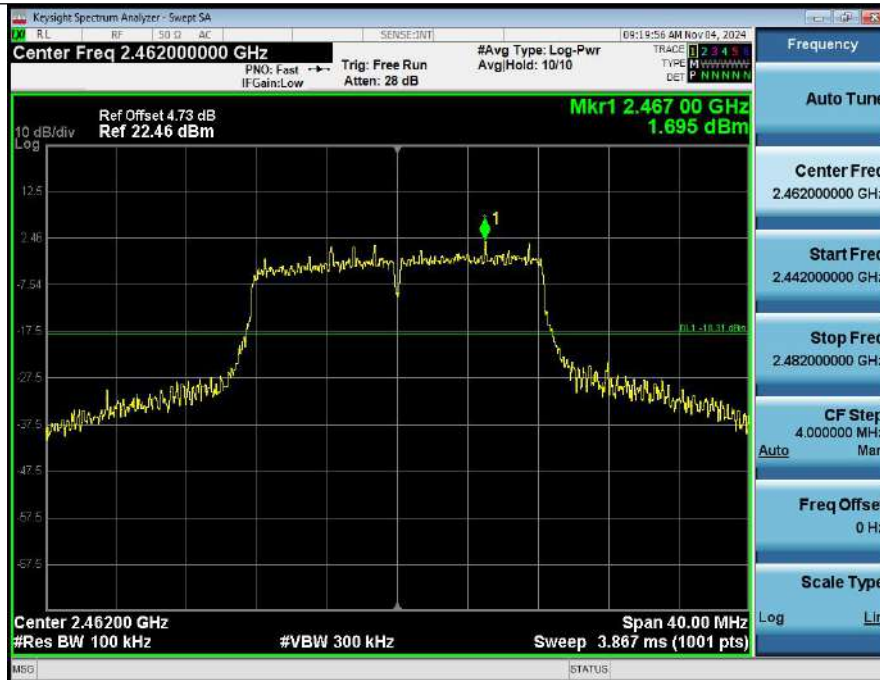
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2\_Bandedge\_NVNT\_ANT1\_802\_11g\_2412



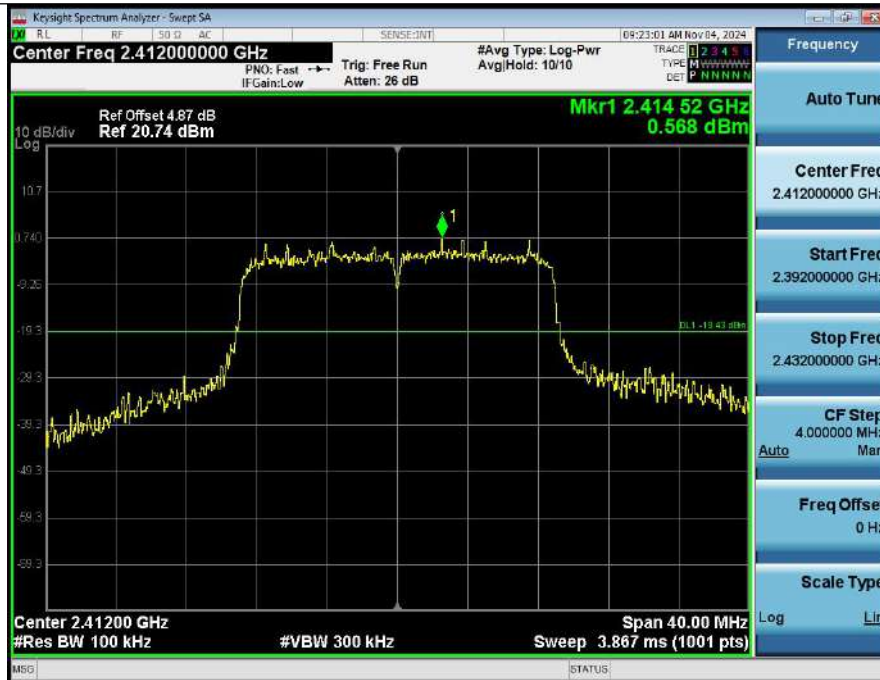
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2\_Bandedge\_NVNT\_ANT1\_802\_11g\_2462



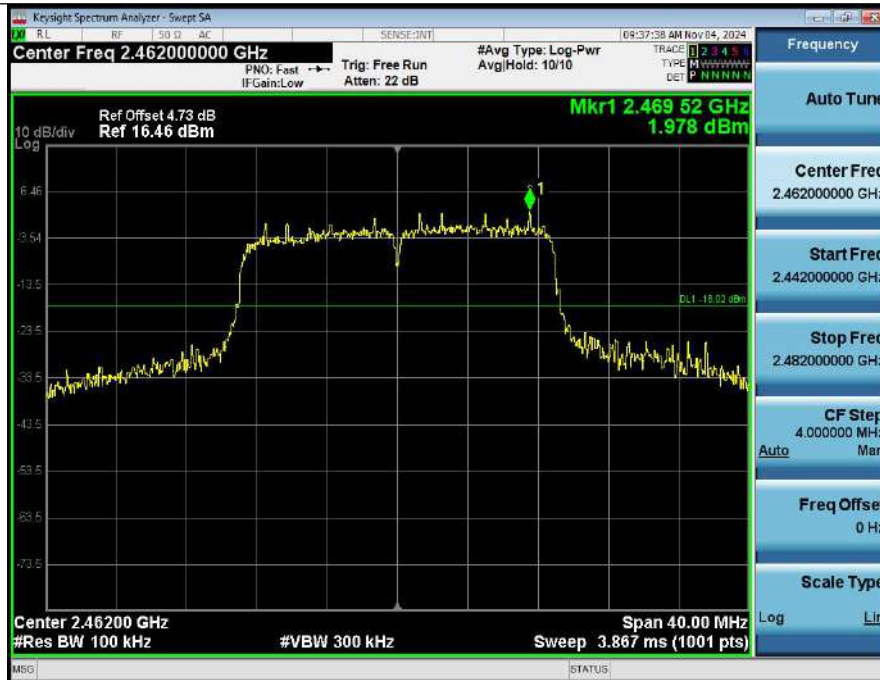
1\_Reference\_Level\_NVNT\_ANT1\_802\_11n(HT20)\_2412



2\_Bandedge\_NVNT\_ANT1\_802\_11n(HT20)\_2412



1\_Reference\_Level\_NVNT\_ANT1\_802\_11n(HT20)\_2462



## 2\_Bandedge\_NVNT\_ANT1\_802\_11n(HT20)\_2462



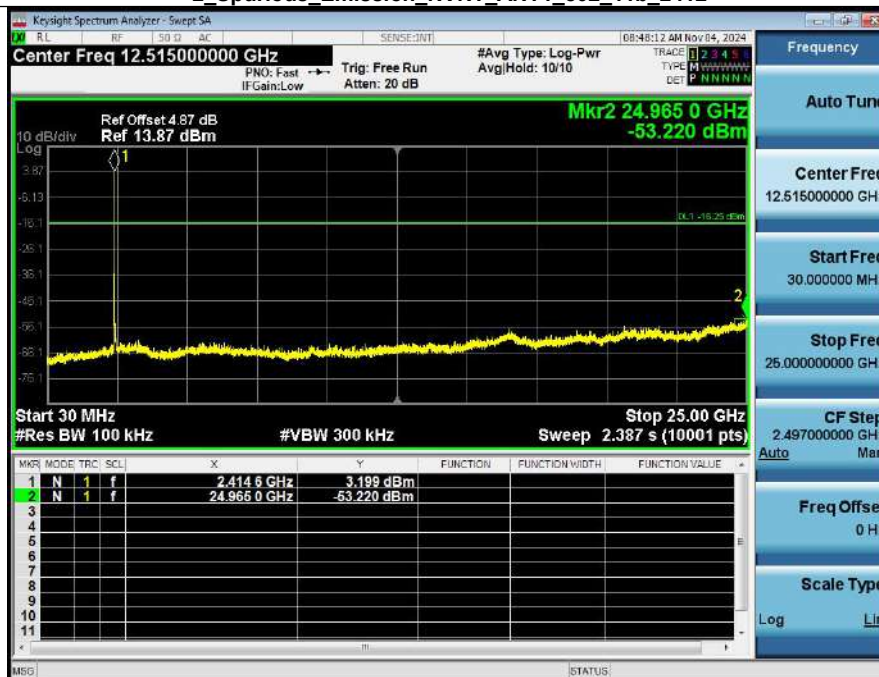
# 7. Spurious Emission

| Condition | Antenna | Modulation    | TX_Frequency (MHz) | Max. Mark_frequency(MHz) | Spurious level(dBm) | limit(dBm) | Result |
|-----------|---------|---------------|--------------------|--------------------------|---------------------|------------|--------|
| NVNT      | ANT1    | 802.11b       | 2412.00            | 24965.042                | -53.220             | -16.251    | Pass   |
| NVNT      | ANT1    | 802.11b       | 2437.00            | 24987.515                | -47.084             | -16.464    | Pass   |
| NVNT      | ANT1    | 802.11b       | 2462.00            | 24930.084                | -53.286             | -15.388    | Pass   |
| NVNT      | ANT1    | 802.11g       | 2412.00            | 24905.114                | -50.691             | -19.979    | Pass   |
| NVNT      | ANT1    | 802.11g       | 2437.00            | 24440.672                | -50.816             | -19.889    | Pass   |
| NVNT      | ANT1    | 802.11g       | 2462.00            | 25000.000                | -49.120             | -18.305    | Pass   |
| NVNT      | ANT1    | 802.11n(HT20) | 2412.00            | 829.040                  | -36.204             | -19.432    | Pass   |
| NVNT      | ANT1    | 802.11n(HT20) | 2437.00            | 24955.054                | -50.785             | -19.436    | Pass   |
| NVNT      | ANT1    | 802.11n(HT20) | 2462.00            | 24940.072                | -54.120             | -18.022    | Pass   |

1\_Reference\_Level\_NVNT\_ANT1\_802\_11b\_2412



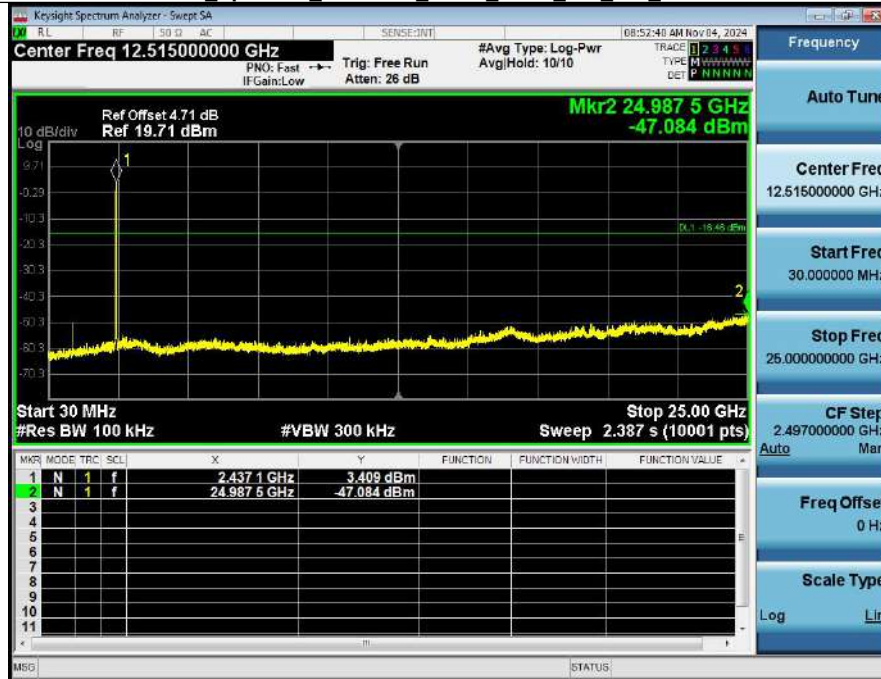
2\_Spurious\_Emission\_NVNT\_ANT1\_802\_11b\_2412



# 1 Reference Level NVNT\_ANT1\_802\_11b\_2437



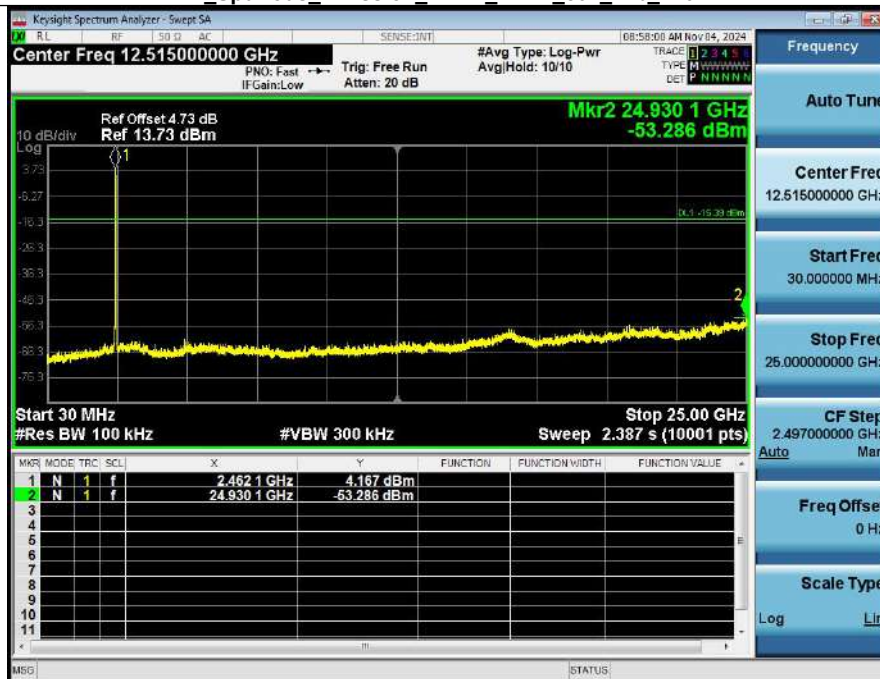
# 2 Spurious Emission NVNT\_ANT1\_802\_11b\_2437



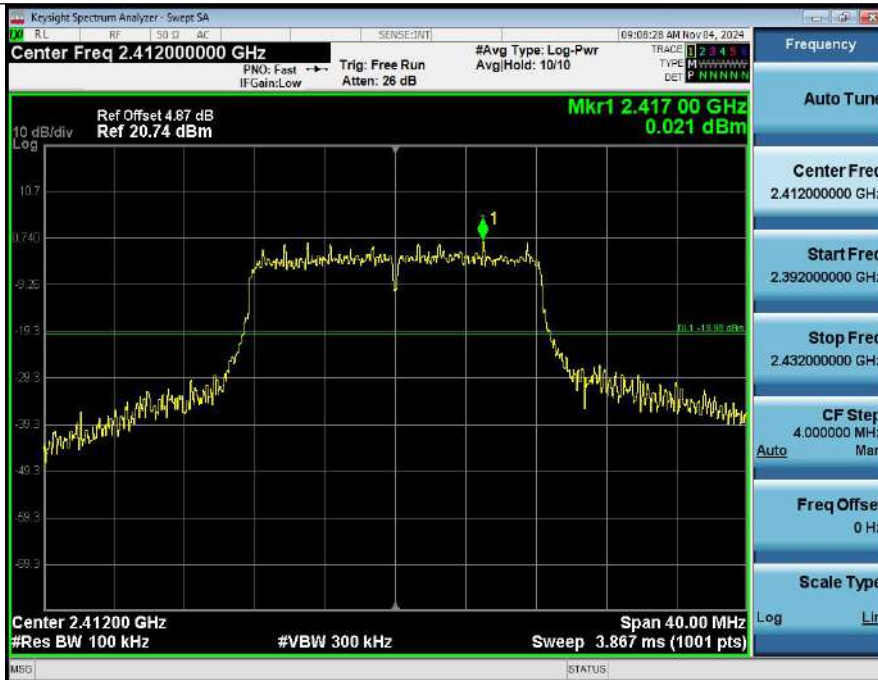
# 1 Reference Level NVNT\_ANT1\_802\_11b\_2462



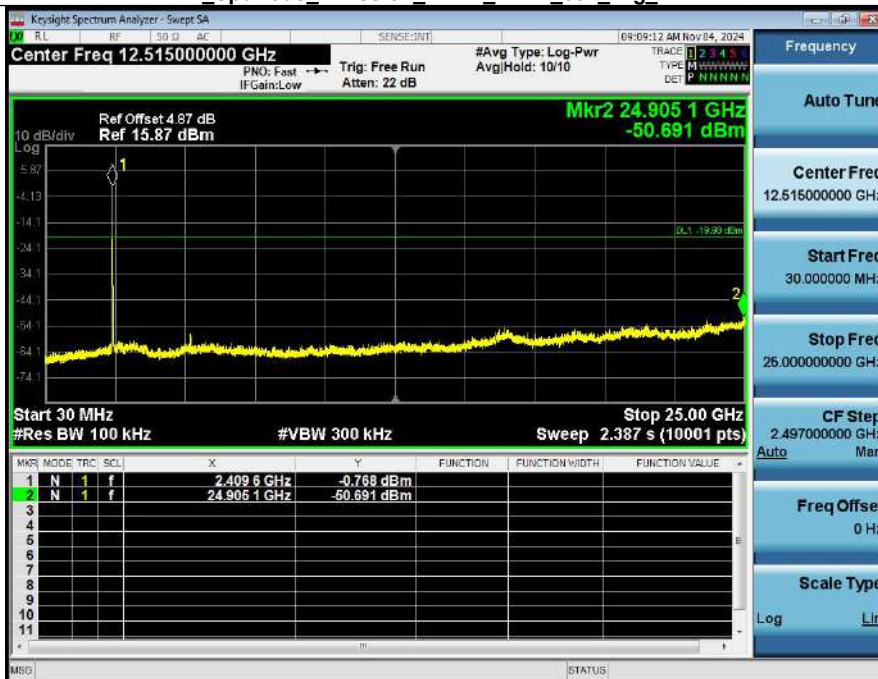
## 2\_Spurious\_Emission\_NVNT\_ANT1\_802\_11b\_2462



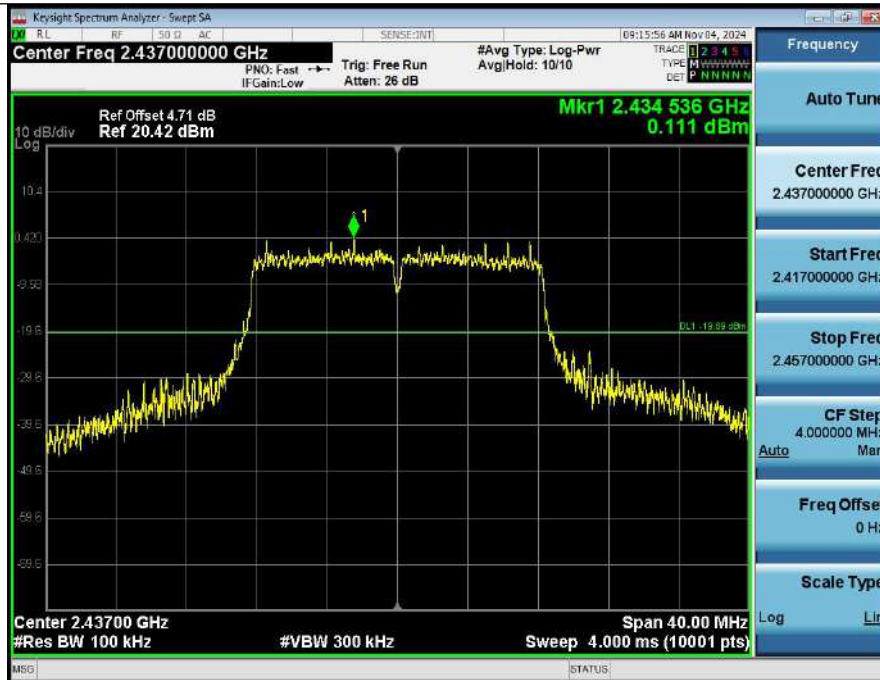
## 1\_Reference\_Level\_NVNT\_ANT1\_802\_11g\_2412



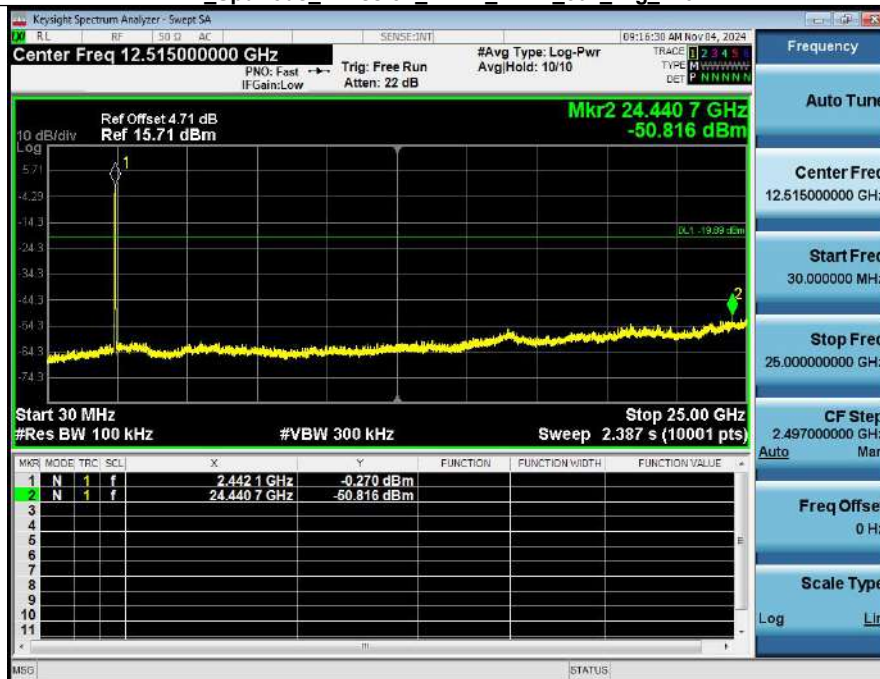
## 2\_Spurious\_Emission\_NVNT\_ANT1\_802\_11g\_2412



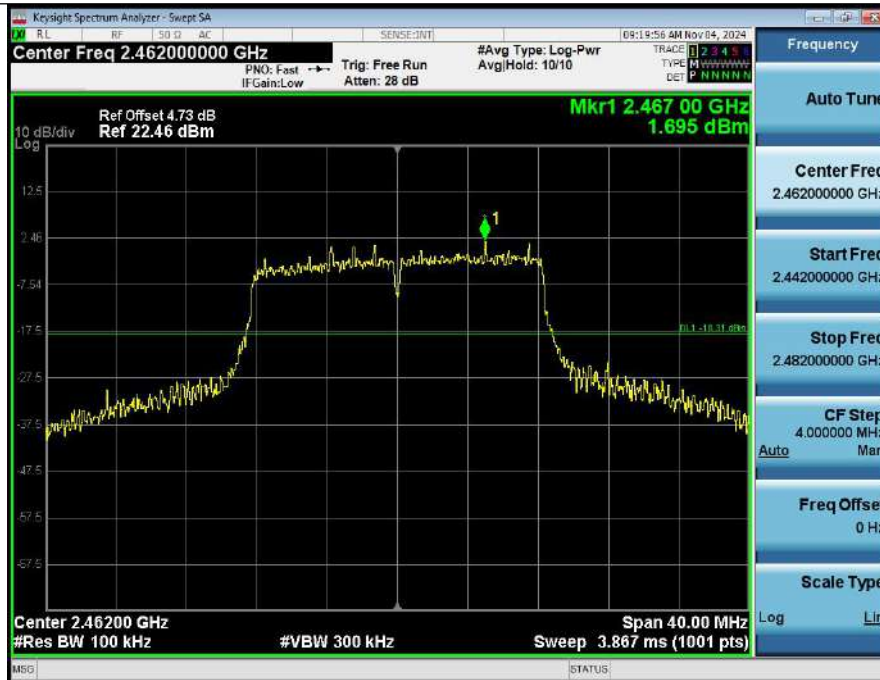
## 1\_Reference\_Level\_NVNT\_ANT1\_802\_11g\_2437



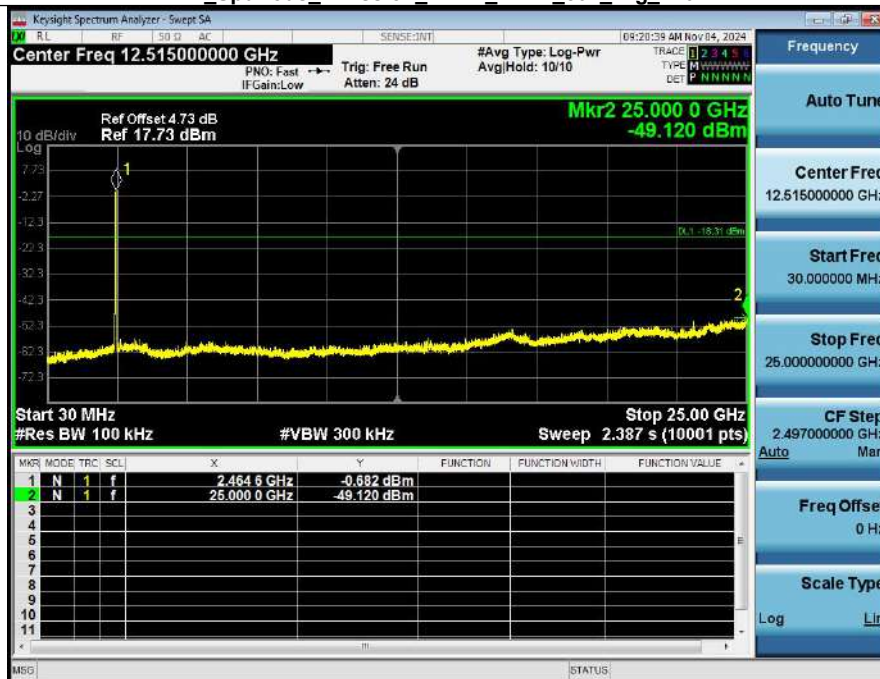
2\_Spurious\_Emission\_NVNT\_ANT1\_802\_11g\_2437



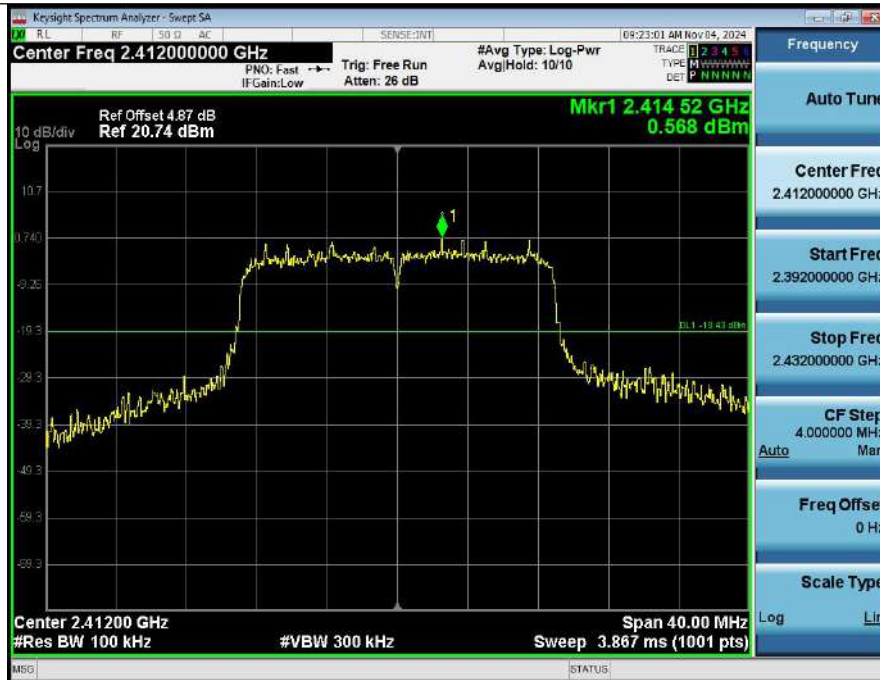
1\_Reference\_Level\_NVNT\_ANT1\_802\_11g\_2462



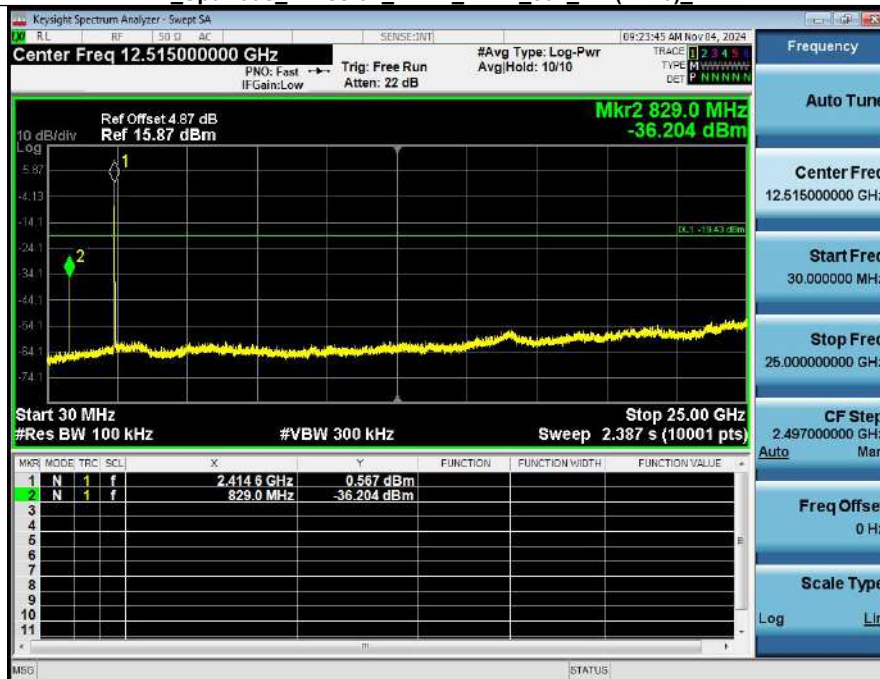
2\_Spurious\_Emission\_NVNT\_ANT1\_802\_11g\_2462



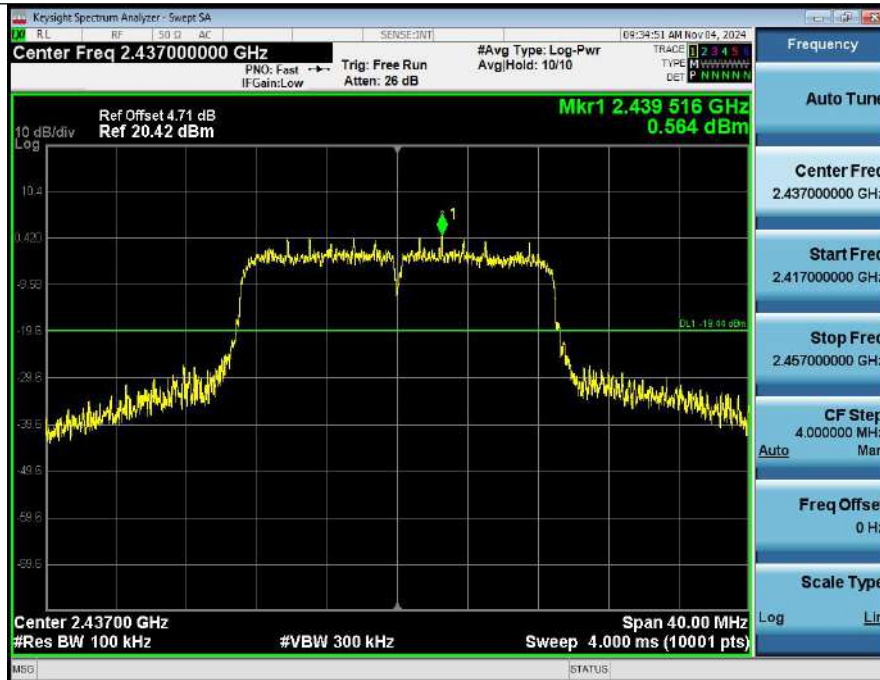
1\_Reference\_Level\_NVNT\_ANT1\_802\_11n(HT20)\_2412



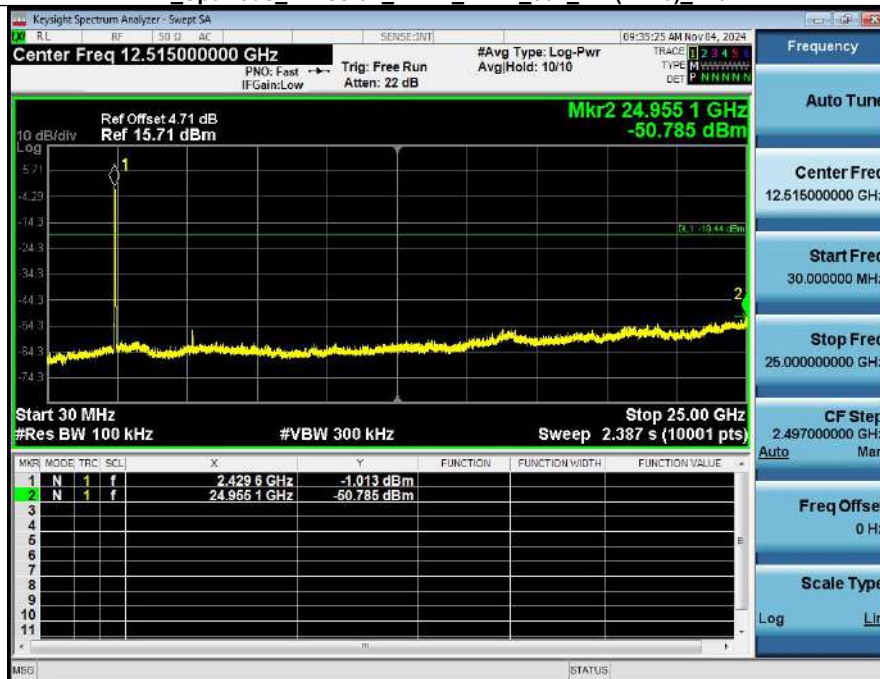
2 Spurious Emission\_NVNT\_ANT1\_802\_11n(HT20)\_2412



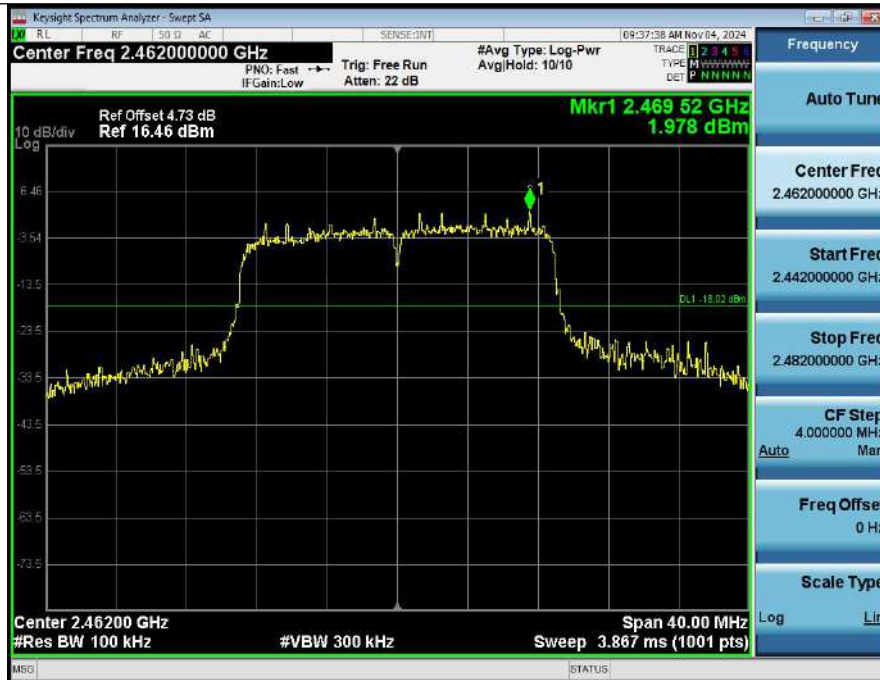
1 Reference\_Level\_NVNT\_ANT1\_802\_11n(HT20)\_2437



## 2 Spurious Emission\_NVNT\_ANT1\_802\_11n(HT20)\_2437



## 1 Reference\_Level\_NVNT\_ANT1\_802\_11n(HT20)\_2462



## 2 Spurious\_Emission\_NVNT\_ANT1\_802\_11n(HT20)\_2462

