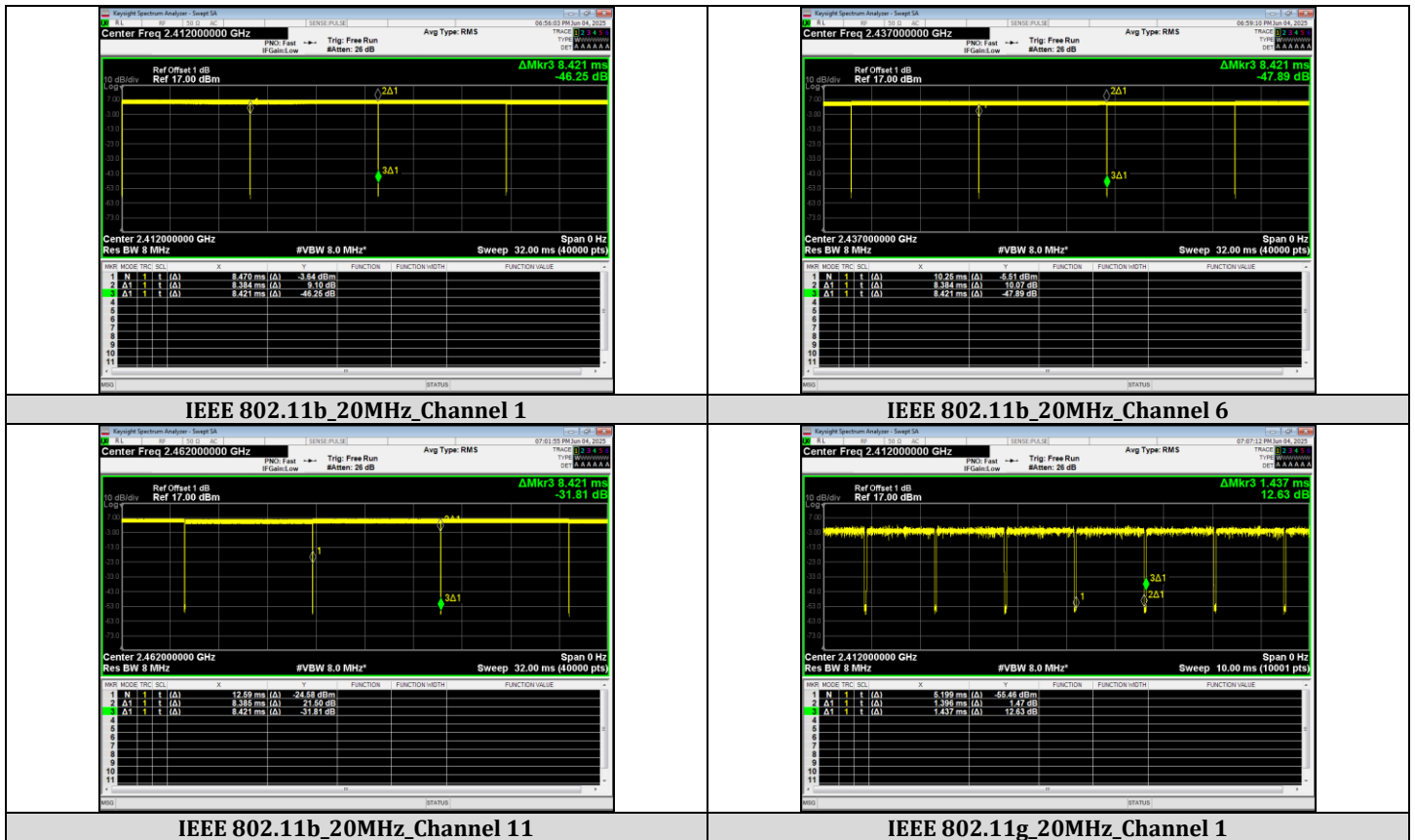
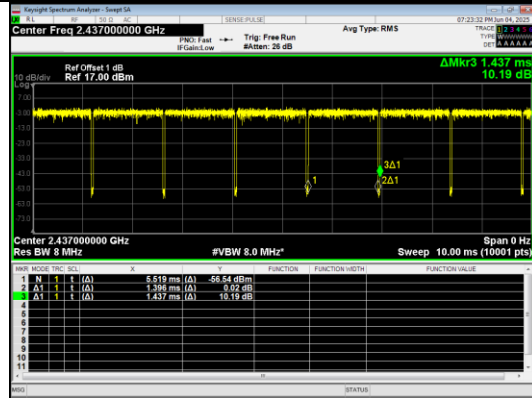


## Duty Cycle Test Result

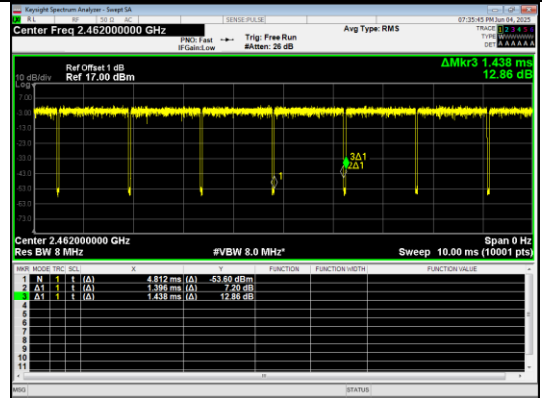
| Mode            | Data rates | Channel | Antenna | On Time (ms) | Period (ms) | Duty Cycle (%) | Duty Cycle (linear) | Duty Cycle Factor (dB) | 1/T    |
|-----------------|------------|---------|---------|--------------|-------------|----------------|---------------------|------------------------|--------|
| IEEE 802.11b    | 1          | 1       | 1       | 8.384        | 8.421       | 99.56          | 0.9956              | 0.0192                 | 0.1193 |
|                 |            | 6       |         | 8.384        | 8.421       | 99.56          | 0.9956              | 0.0192                 | 0.1193 |
|                 |            | 11      |         | 8.385        | 8.421       | 99.57          | 0.9957              | 0.0187                 | 0.1193 |
| IEEE 802.11g    |            | 1       |         | 1.396        | 1.437       | 97.15          | 0.9715              | 0.1256                 | 0.7163 |
|                 |            | 6       |         | 1.396        | 1.437       | 97.15          | 0.9715              | 0.1256                 | 0.7163 |
|                 |            | 11      |         | 1.396        | 1.438       | 97.08          | 0.9708              | 0.1287                 | 0.7163 |
| IEEE 802.11n_20 | MCS 0      | 1       |         | 1.304        | 1.346       | 96.88          | 0.9688              | 0.1377                 | 0.7669 |
|                 |            | 6       |         | 1.303        | 1.345       | 96.89          | 0.9689              | 0.1372                 | 0.7675 |
|                 |            | 11      |         | 1.304        | 1.346       | 96.88          | 0.9688              | 0.1377                 | 0.7669 |
| IEEE 802.11n_40 |            | 3       |         | 0.650        | 0.692       | 93.84          | 0.9384              | 0.2761                 | 1.5385 |
|                 |            | 6       |         | 0.650        | 0.693       | 93.84          | 0.9384              | 0.2761                 | 1.5385 |
|                 |            | 9       |         | 0.650        | 0.692       | 93.90          | 0.9390              | 0.2733                 | 1.5385 |

## Test Graphs

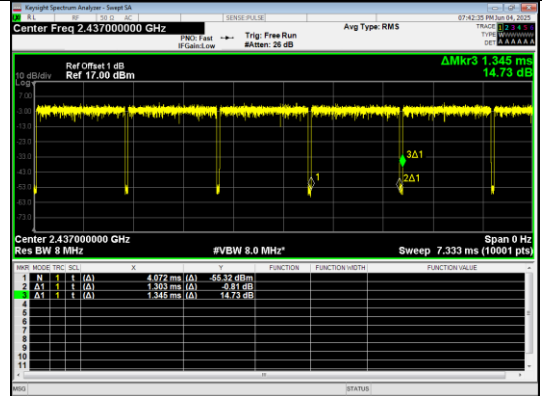
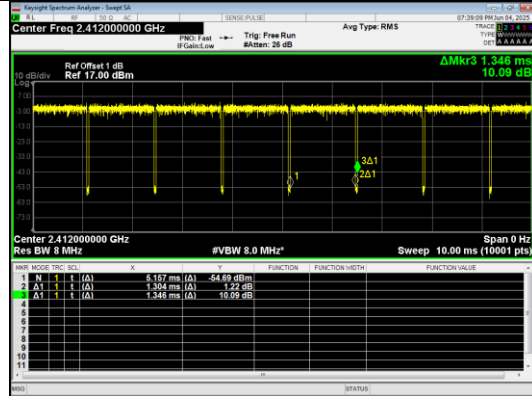




IEEE 802.11g\_20MHz\_Channel 6

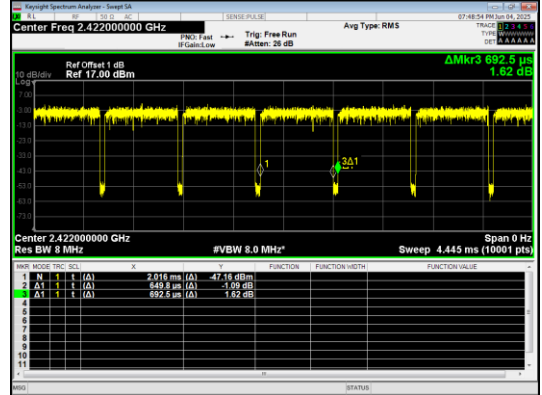
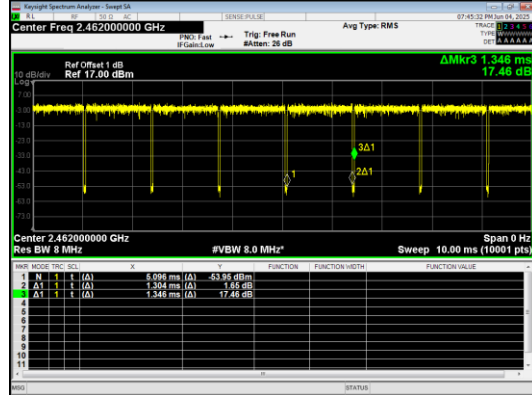


IEEE 802.11g\_20MHz\_Channel 11



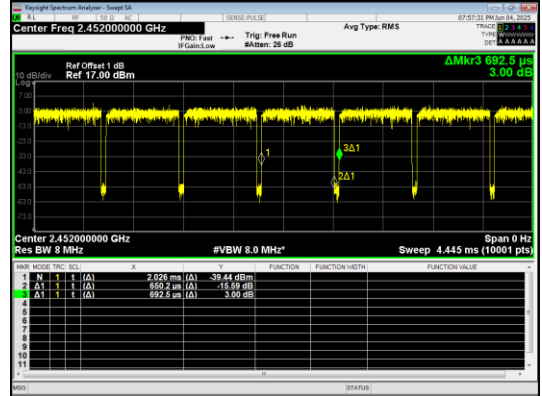
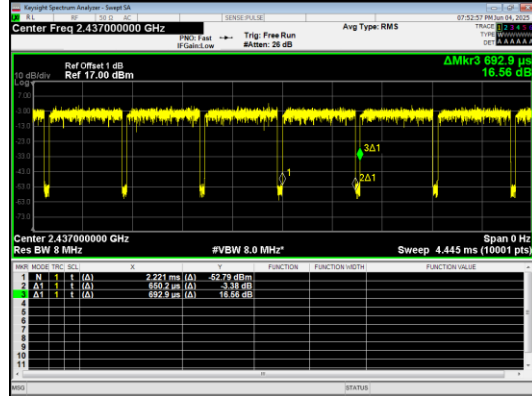
IEEE 802.11n\_20MHz\_Channel 1

IEEE 802.11n\_20MHz\_Channel 6



IEEE 802.11n\_20MHz\_Channel 11

IEEE 802.11n\_40MHz\_Channel 3



IEEE 802.11n\_40MHz\_Channel 6

IEEE 802.11n\_40MHz\_Channel 9

## Conducted Output Power

### Test Result

#### Conducted Output Power

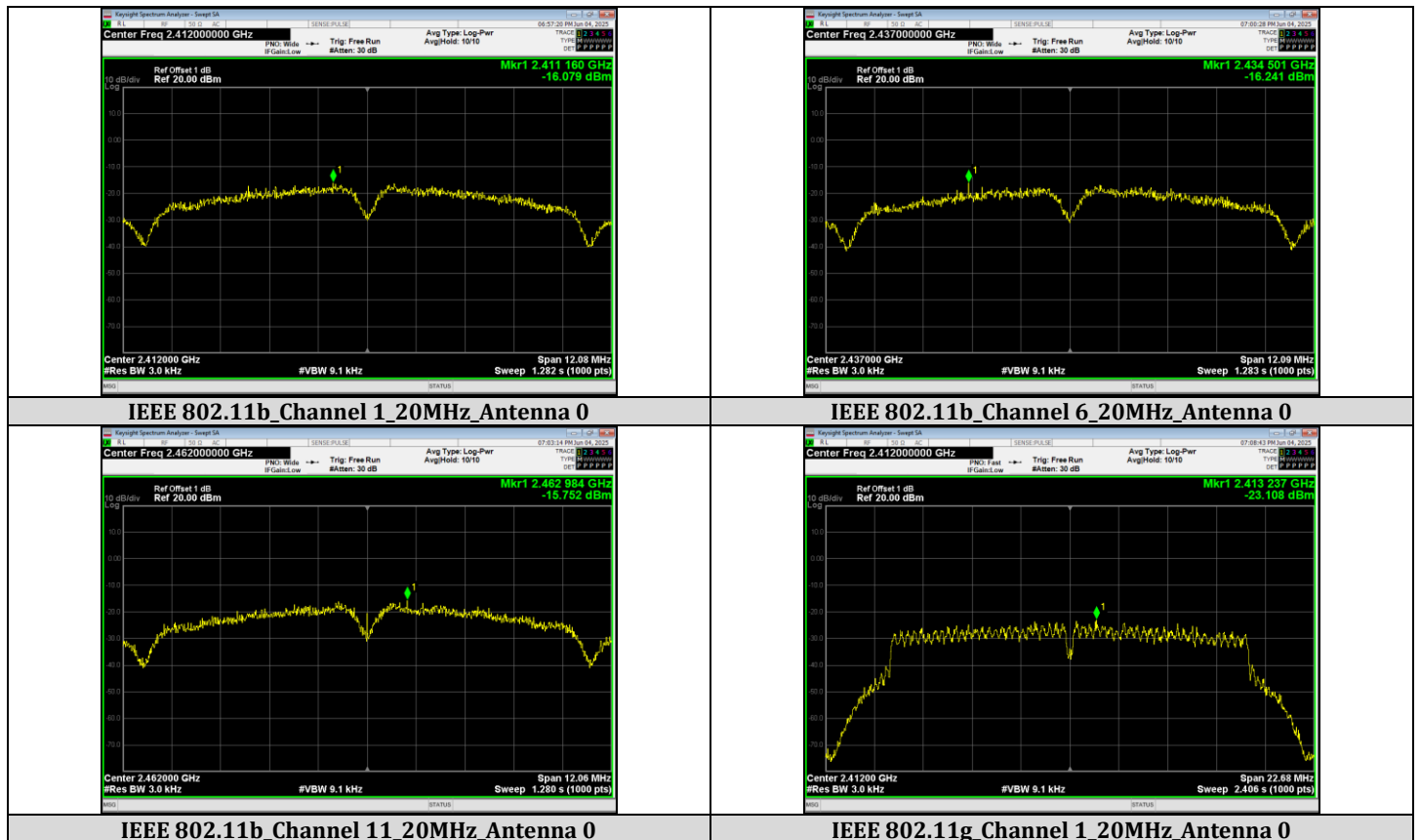
| Mode            | Channel | Ant. 0<br>(dBm) | Limit<br>(dBm) | Result |
|-----------------|---------|-----------------|----------------|--------|
| IEEE 802.11b    | 1       | 8.50            | ≤30            | PASS   |
|                 | 6       | 7.75            | ≤30            | PASS   |
|                 | 11      | 8.08            | ≤30            | PASS   |
| IEEE 802.11g    | 1       | 7.80            | ≤30            | PASS   |
|                 | 6       | 6.97            | ≤30            | PASS   |
|                 | 11      | 8.24            | ≤30            | PASS   |
| IEEE 802.11n_20 | 1       | 8.55            | ≤30            | PASS   |
|                 | 6       | 7.86            | ≤30            | PASS   |
|                 | 11      | 8.04            | ≤30            | PASS   |
| IEEE 802.11n_40 | 3       | 8.64            | ≤30            | PASS   |
|                 | 6       | 8.53            | ≤30            | PASS   |
|                 | 9       | 8.53            | ≤30            | PASS   |

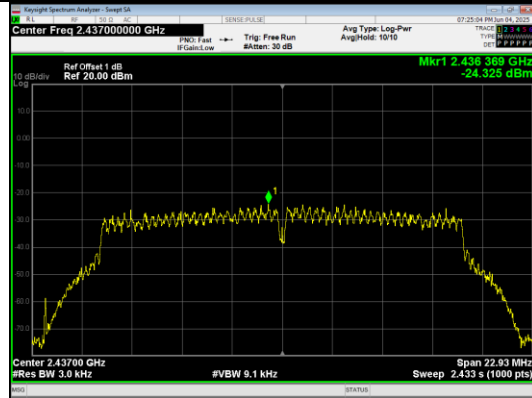
## Power Spectral Density

### Test Result

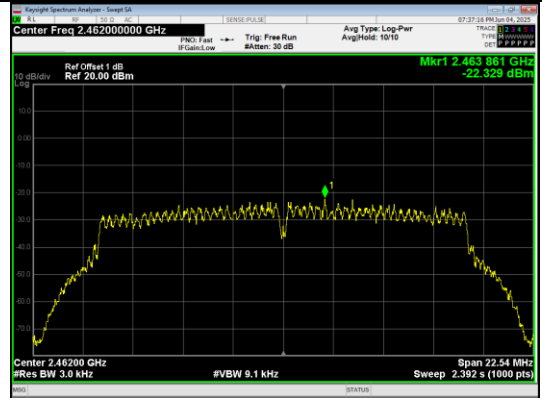
| Mode            | Channel | PSD<br>(dBm/3kHz)<br>Ant. 0 | Limit<br>(dBm/3kHz) | Result |
|-----------------|---------|-----------------------------|---------------------|--------|
| IEEE 802.11b    | 1       | -16.079                     | ≤8                  | PASS   |
|                 | 6       | -16.241                     |                     | PASS   |
|                 | 11      | -15.752                     |                     | PASS   |
| IEEE 802.11g    | 1       | -23.108                     |                     | PASS   |
|                 | 6       | -24.325                     |                     | PASS   |
|                 | 11      | -22.329                     |                     | PASS   |
| IEEE 802.11n_20 | 1       | -22.230                     |                     | PASS   |
|                 | 6       | -22.135                     |                     | PASS   |
|                 | 11      | -22.938                     |                     | PASS   |
| IEEE 802.11n_40 | 3       | -26.142                     |                     | PASS   |
|                 | 6       | -25.490                     |                     | PASS   |
|                 | 9       | -25.610                     |                     | PASS   |

### Test Graphs

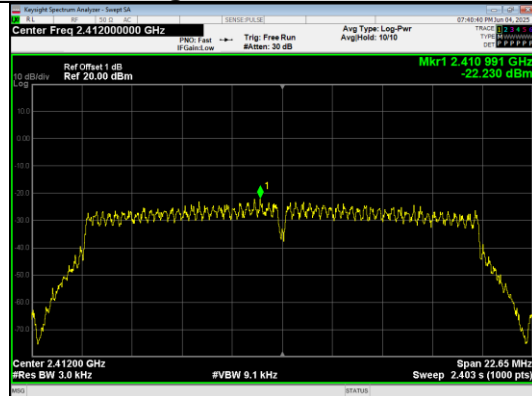




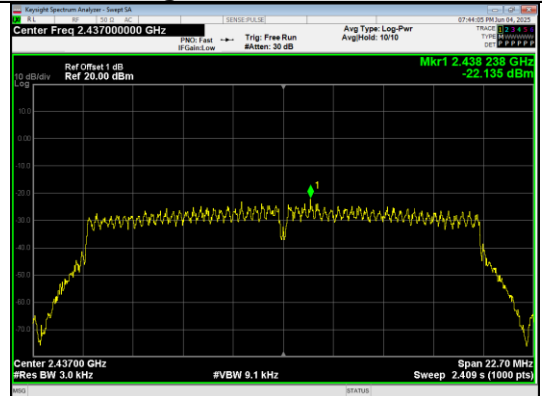
IEEE 802.11g\_Channel 6\_20MHz\_Antenna 0



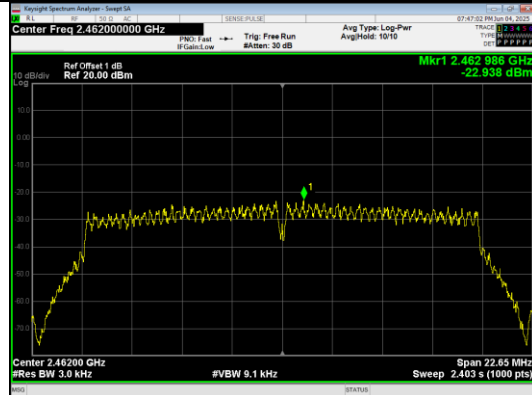
IEEE 802.11g\_Channel 11\_20MHz\_Antenna 0



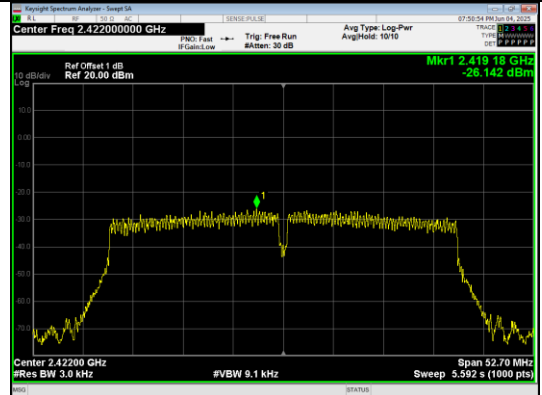
IEEE 802.11n\_Channel 1\_20MHz\_Antenna 0



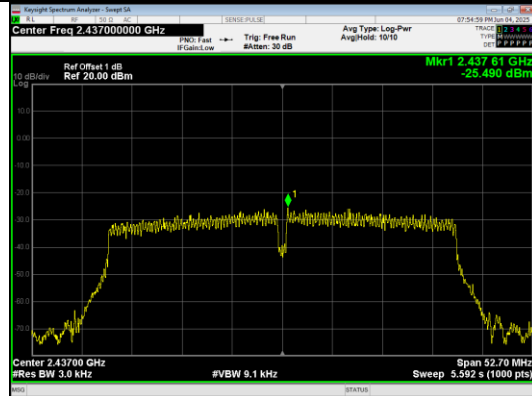
IEEE 802.11n\_Channel 6\_20MHz\_Antenna 0



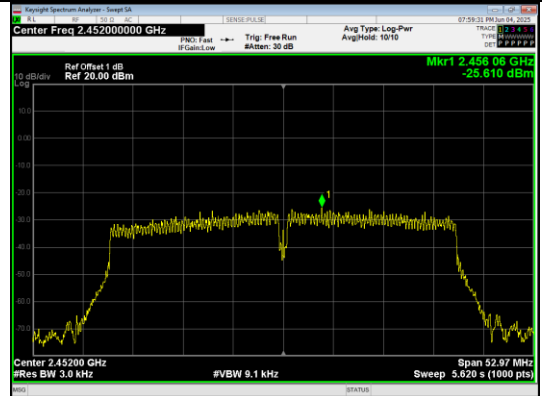
IEEE 802.11n\_Channel 11\_20MHz\_Antenna 0



IEEE 802.11n\_Channel 3\_40MHz\_Antenna 0



IEEE 802.11n\_Channel 6\_40MHz\_Antenna 0

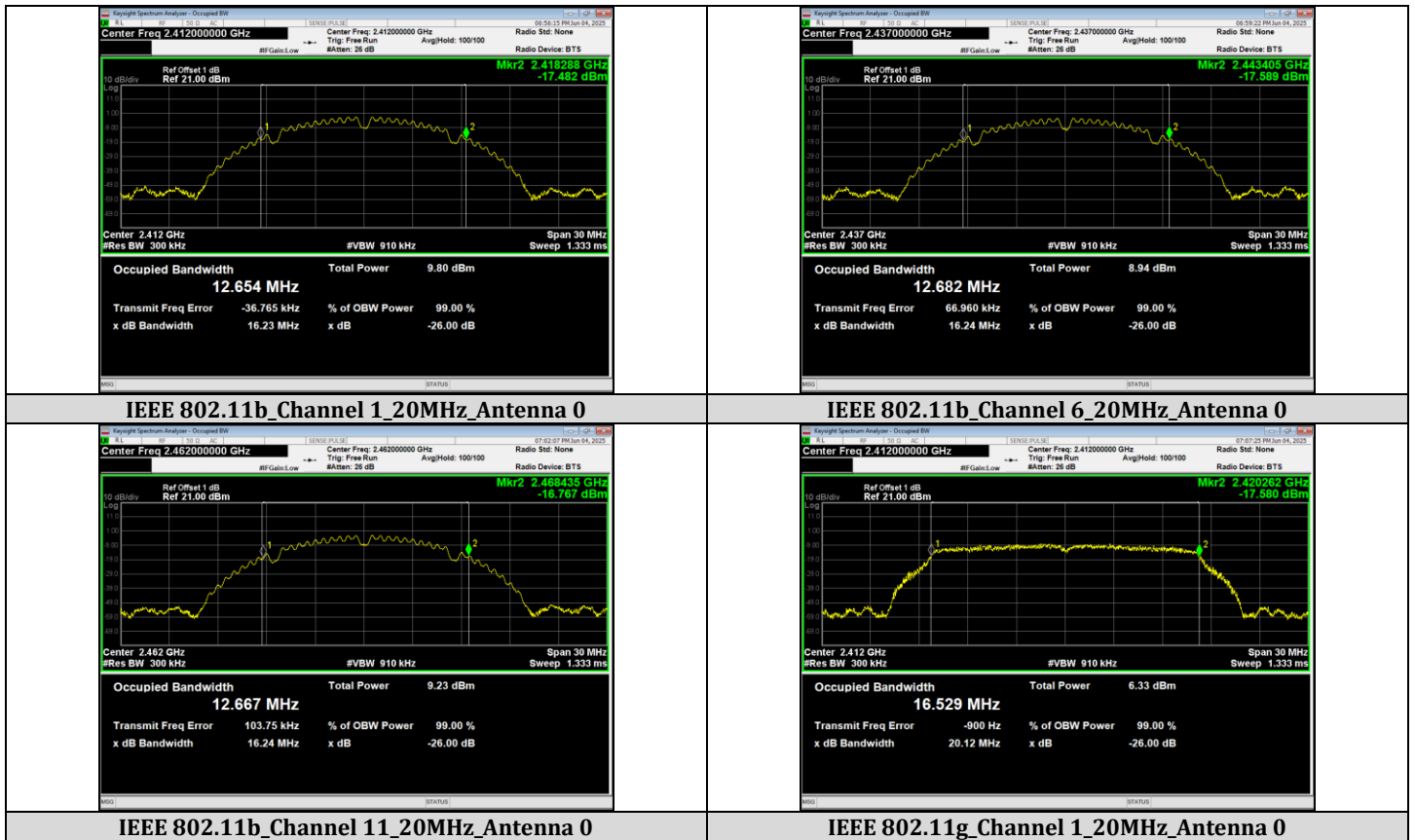


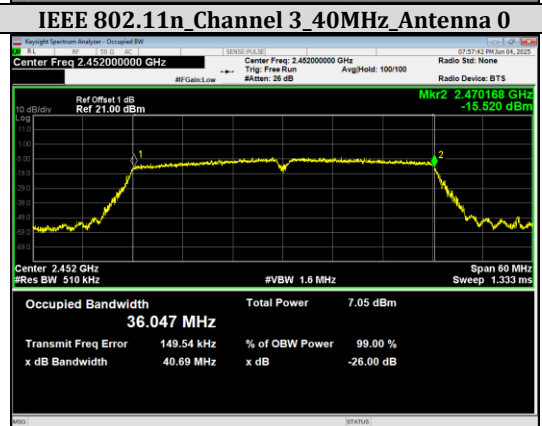
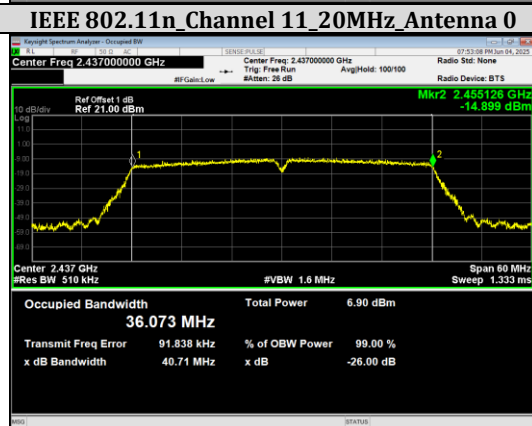
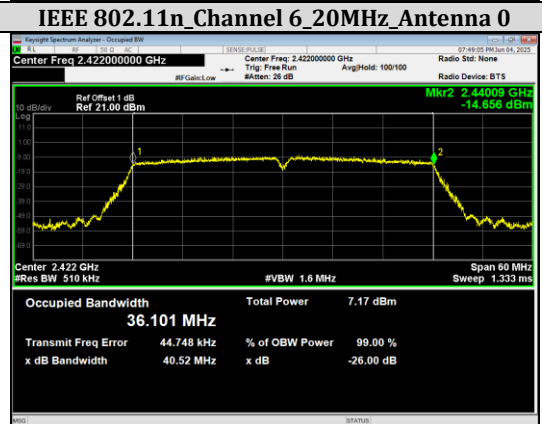
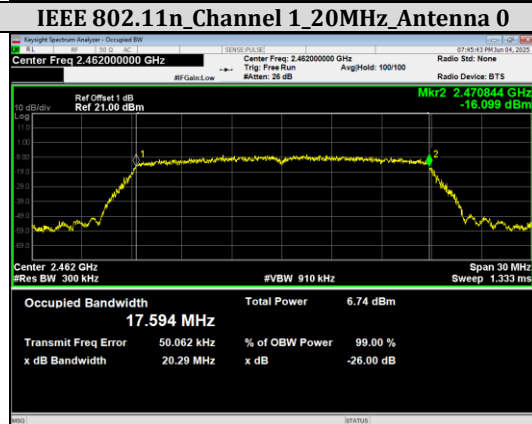
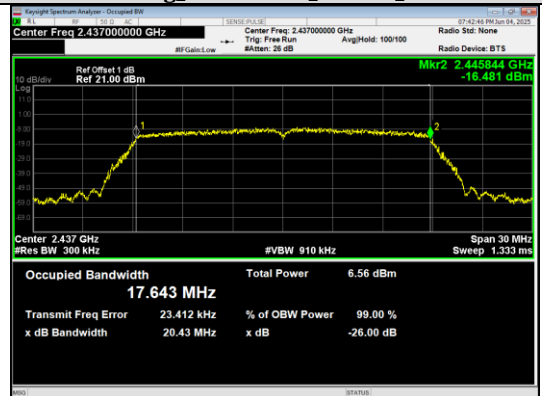
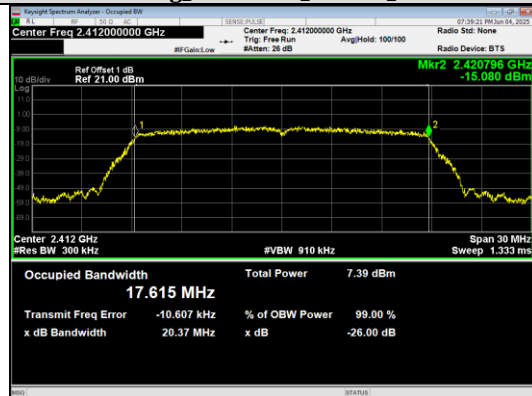
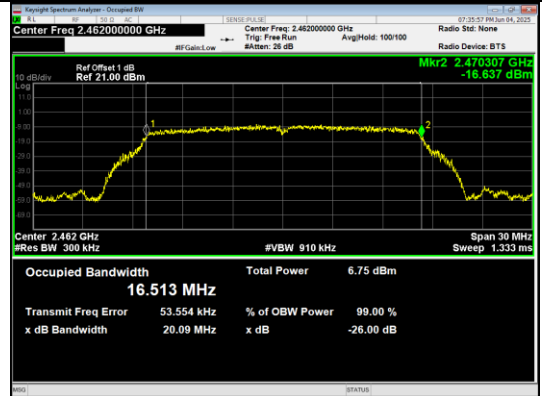
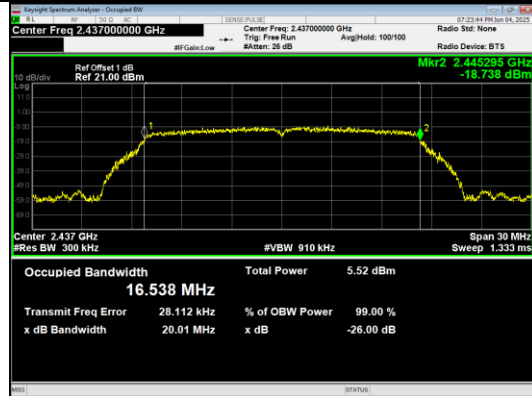
IEEE 802.11n\_Channel 9\_40MHz\_Antenna 0

## 99% Bandwidth Test Result

| Mode            | Channel | Ant. | Center Frequency (MHz) | 99% BW (MHz) |
|-----------------|---------|------|------------------------|--------------|
| IEEE 802.11b    | 1       | 0    | 2412                   | 12.654       |
|                 | 6       |      | 2437                   | 12.682       |
|                 | 11      |      | 2462                   | 12.667       |
| IEEE 802.11g    | 1       |      | 2412                   | 16.529       |
|                 | 6       |      | 2437                   | 16.538       |
|                 | 11      |      | 2462                   | 16.513       |
| IEEE 802.11n_20 | 1       |      | 2412                   | 17.615       |
|                 | 6       |      | 2437                   | 17.643       |
|                 | 11      |      | 2462                   | 17.594       |
| IEEE 802.11n_40 | 3       |      | 2422                   | 36.101       |
|                 | 6       |      | 2437                   | 36.073       |
|                 | 9       |      | 2452                   | 36.047       |

## Test Graphs





IEEE 802.11n Channel 6\_40MHz\_Antenna 0

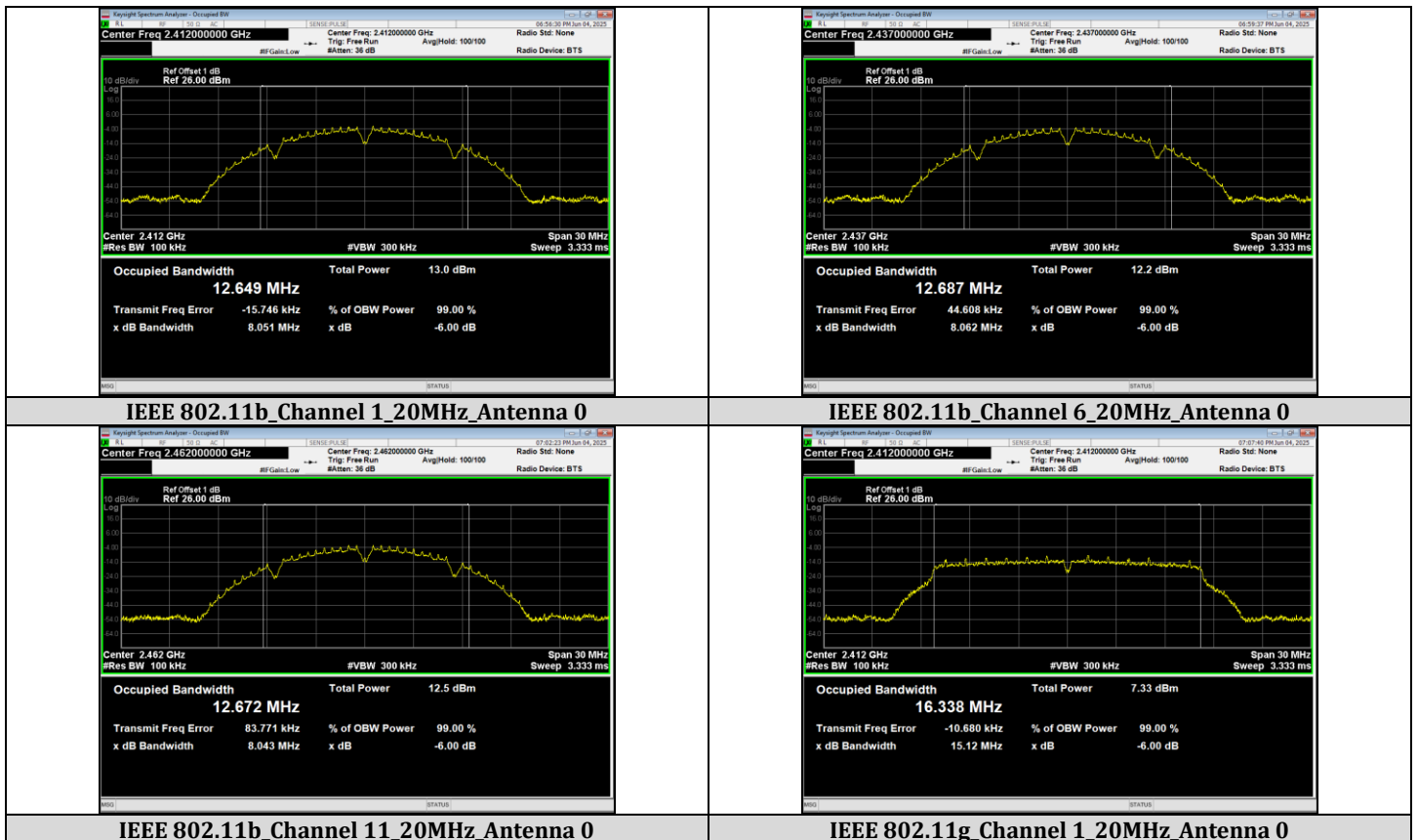
IEEE 802.11n Channel 9\_40MHz\_Antenna 0

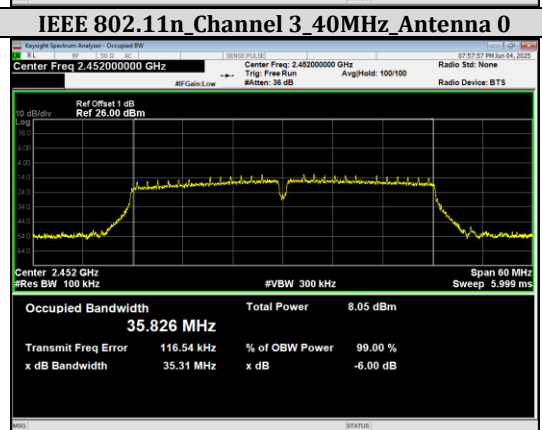
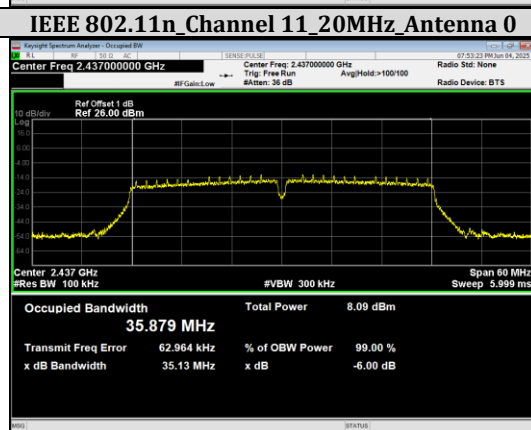
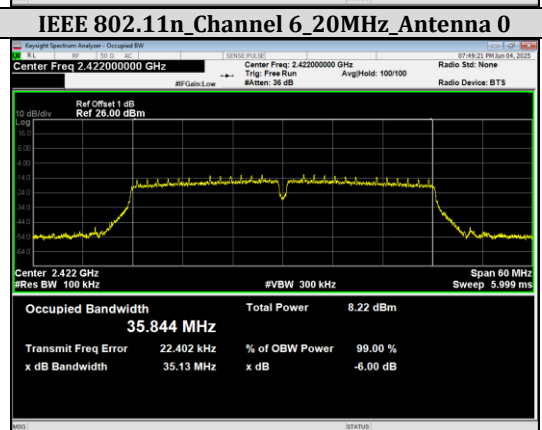
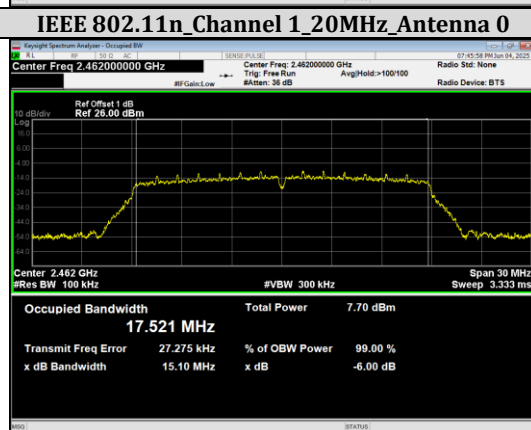
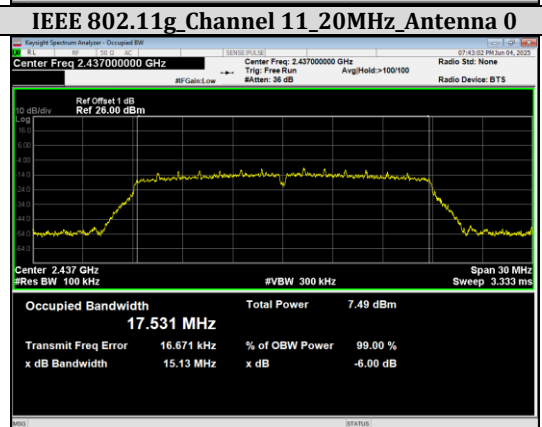
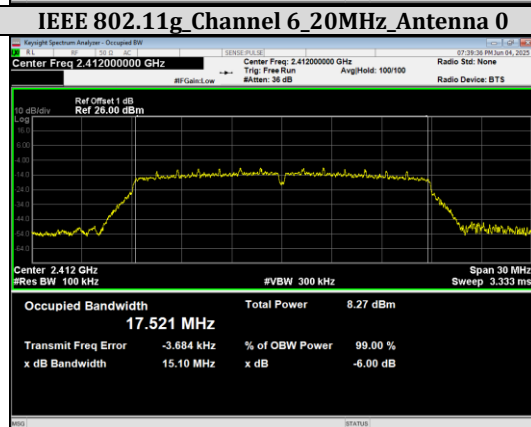
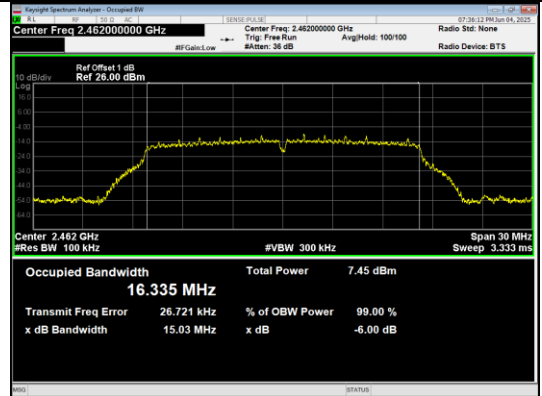
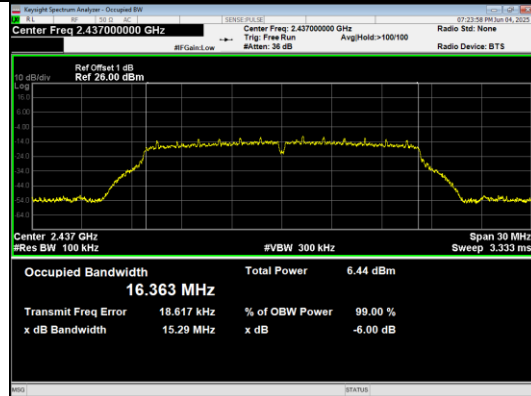
## 6dB Bandwidth

### Test Result

| Mode            | Channel | Ant. | Center Frequency (MHz) | 6 dB Bandwidth (MHz) | Limit (MHz) | Result |
|-----------------|---------|------|------------------------|----------------------|-------------|--------|
| IEEE 802.11b    | 1       | 0    | 2412                   | 8.051                | ≥0.5        | PASS   |
|                 | 6       |      | 2437                   | 8.062                |             | PASS   |
|                 | 11      |      | 2462                   | 8.043                |             | PASS   |
| IEEE 802.11g    | 1       |      | 2412                   | 15.12                |             | PASS   |
|                 | 6       |      | 2437                   | 15.29                |             | PASS   |
|                 | 11      |      | 2462                   | 15.03                |             | PASS   |
| IEEE 802.11n_20 | 1       |      | 2412                   | 15.10                |             | PASS   |
|                 | 6       |      | 2437                   | 15.13                |             | PASS   |
|                 | 11      |      | 2462                   | 15.10                |             | PASS   |
| IEEE 802.11n_40 | 3       |      | 2422                   | 35.13                |             | PASS   |
|                 | 6       |      | 2437                   | 35.13                |             | PASS   |
|                 | 9       |      | 2452                   | 35.31                |             | PASS   |

### Test Graphs





**IEEE 802.11n Channel 6\_40MHz\_Antenna 0**

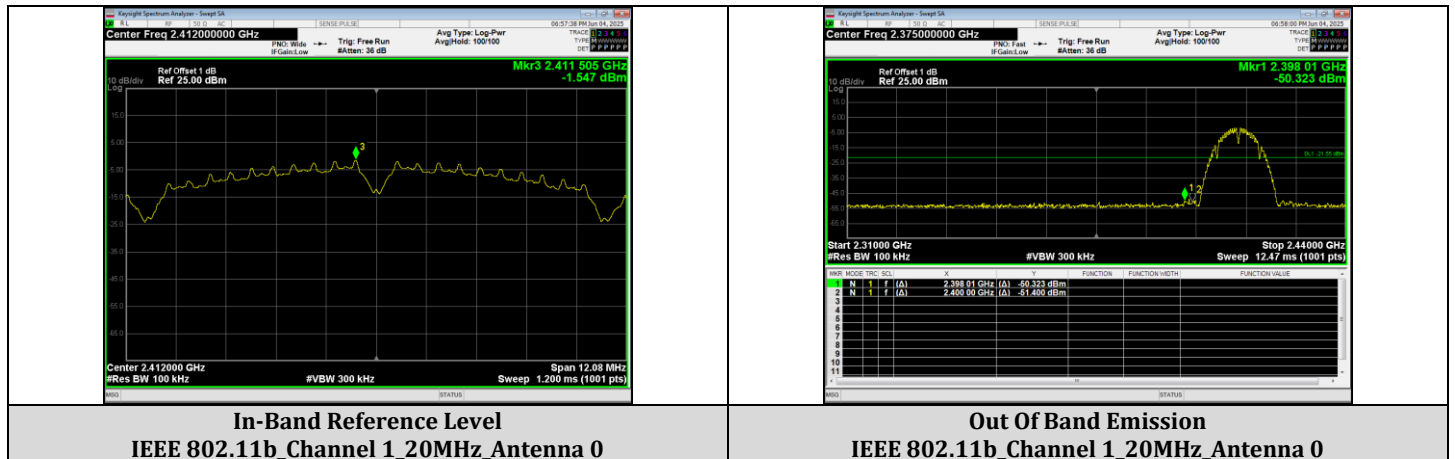
**IEEE 802.11n Channel 9\_40MHz\_Antenna 0**

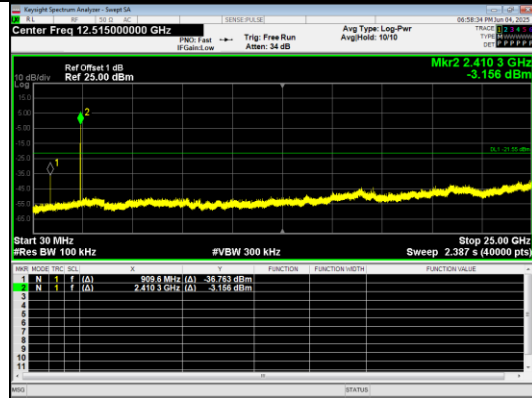
## Conducted Out Of Band Emission

### Test Result

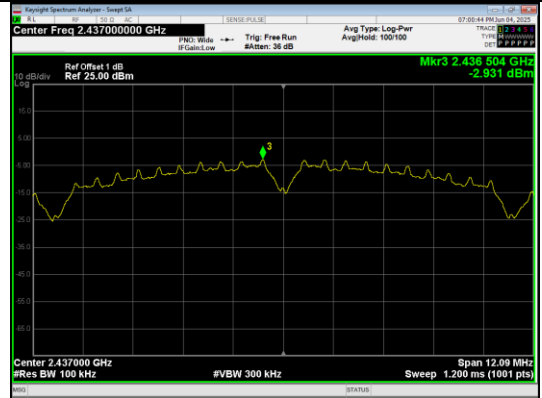
| Mode               | Channel | Ant. | OOB<br>Emission<br>Frequency<br>(MHz) | OOB<br>Emission<br>Level<br>(dBm) | Limit<br>(dBm) | Over Limit<br>(dB) | Result |
|--------------------|---------|------|---------------------------------------|-----------------------------------|----------------|--------------------|--------|
| IEEE 802.11b       | 1       | 0    | 909.60                                | -36.763                           | -21.55         | -15.213            | PASS   |
|                    |         |      | 2398.01                               | -50.323                           | -21.55         | -28.773            | PASS   |
|                    | 6       |      | 2400.00                               | -51.400                           | -21.55         | -29.850            | PASS   |
|                    |         |      | 24957.5                               | -40.154                           | -22.93         | -17.224            | PASS   |
|                    | 11      |      | 2483.50                               | -52.549                           | -22.2          | -30.349            | PASS   |
|                    |         |      | 24335.8                               | -39.938                           | -22.2          | -17.738            | PASS   |
| IEEE 802.11g       | 1       |      | 2385.53                               | -51.005                           | -29.33         | -21.675            | PASS   |
|                    |         |      | 2400.00                               | -51.415                           | -29.33         | -22.085            | PASS   |
|                    | 6       |      | 24952.6                               | -40.149                           | -29.33         | -10.819            | PASS   |
|                    |         |      | 24865.2                               | -40.099                           | -30.2          | -9.899             | PASS   |
|                    | 11      |      | 2483.50                               | -53.205                           | -28.84         | -24.365            | PASS   |
|                    |         |      | 24981.3                               | -40.564                           | -28.84         | -11.724            | PASS   |
| IEEE<br>802.11n_20 | 1       |      | 1885.90                               | -39.626                           | -28.14         | -11.486            | PASS   |
|                    |         |      | 2394.11                               | -51.061                           | -28.14         | -22.921            | PASS   |
|                    | 6       |      | 2400.00                               | -51.189                           | -28.14         | -23.049            | PASS   |
|                    |         |      | 24922.0                               | -40.116                           | -29.01         | -11.106            | PASS   |
|                    | 11      |      | 2483.50                               | -53.659                           | -28.77         | -24.889            | PASS   |
|                    |         |      | 24402.6                               | -40.418                           | -28.77         | -11.648            | PASS   |
| IEEE<br>802.11n_40 | 3       |      | 2319.75                               | -50.520                           | -31.5          | -19.020            | PASS   |
|                    |         |      | 2400.00                               | -53.547                           | -31.5          | -22.047            | PASS   |
|                    | 6       |      | 24855.8                               | -39.570                           | -31.5          | -8.070             | PASS   |
|                    |         |      | 3509.03                               | -31.870                           | -31.75         | -0.120             | PASS   |
|                    | 9       |      | 2483.50                               | -53.475                           | -31.42         | -22.055            | PASS   |
|                    |         |      | 24860.2                               | -38.394                           | -31.42         | -6.974             | PASS   |

### Test Graphs

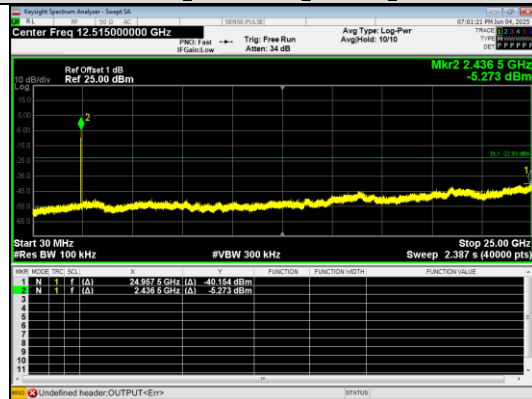




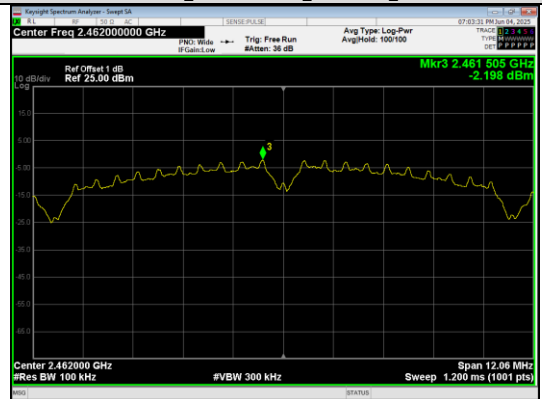
30.0 MHz - 25000.0 MHz  
IEEE 802.11b\_Channel 1\_20MHz\_Antenna 0



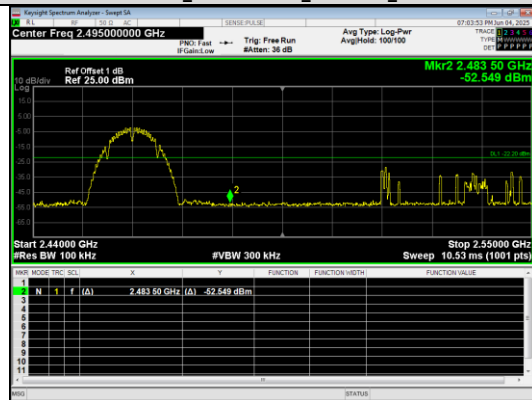
In-Band Reference Level  
IEEE 802.11b\_Channel 6\_20MHz\_Antenna 0



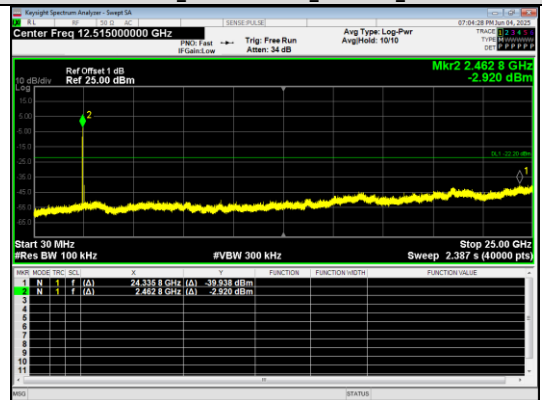
30.0 MHz - 25000.0 MHz  
IEEE 802.11b\_Channel 6\_20MHz\_Antenna 0



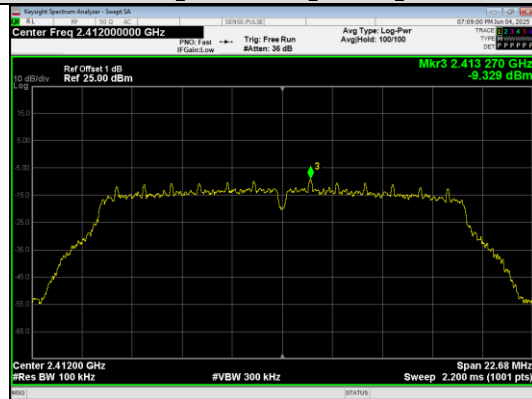
In-Band Reference Level  
IEEE 802.11b\_Channel 11\_20MHz\_Antenna 0



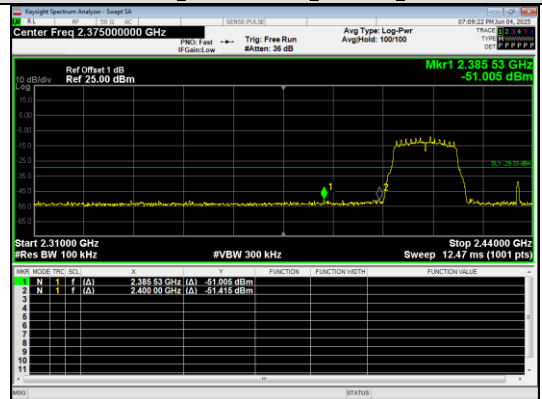
Out Of Band Emission  
IEEE 802.11b\_Channel 11\_20MHz\_Antenna 0



30.0 MHz - 25000.0 MHz  
IEEE 802.11b\_Channel 11\_20MHz\_Antenna 0

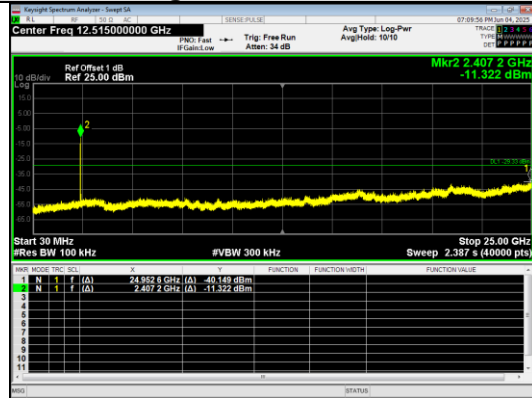


In-Band Reference Level

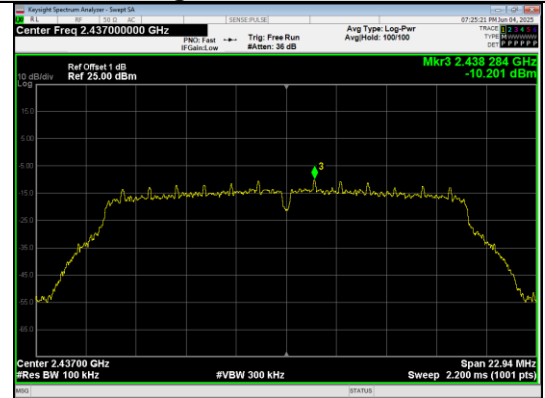


Out Of Band Emission

### IEEE 802.11g\_Channel 1\_20MHz\_Antenna 0

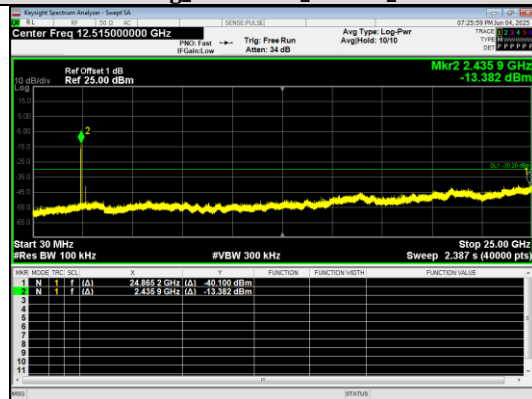


### IEEE 802.11g\_Channel 1\_20MHz\_Antenna 0



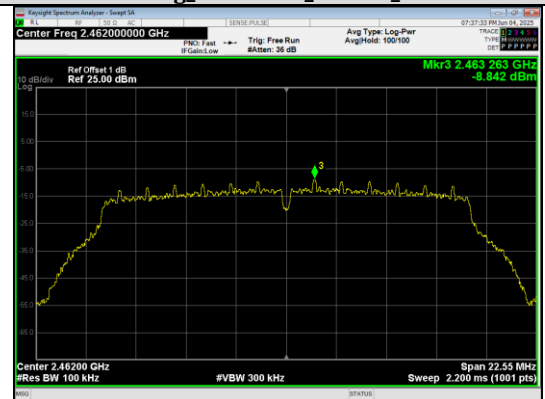
### 30.0 MHz - 25000.0 MHz

### IEEE 802.11g\_Channel 1\_20MHz\_Antenna 0



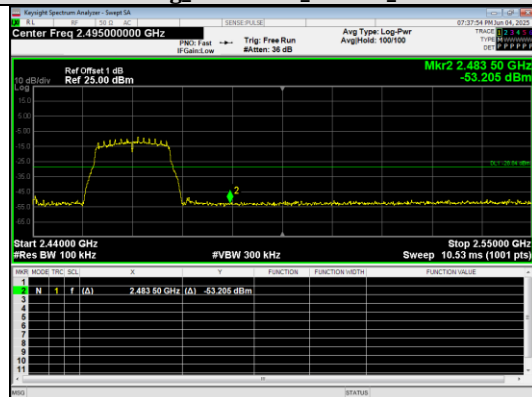
### In-Band Reference Level

### IEEE 802.11g\_Channel 6\_20MHz\_Antenna 0



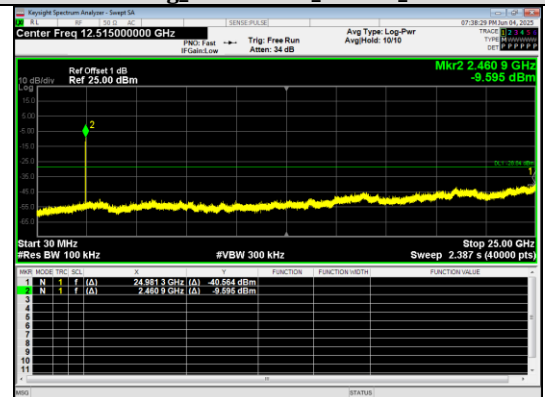
### 30.0 MHz - 25000.0 MHz

### IEEE 802.11g\_Channel 6\_20MHz\_Antenna 0



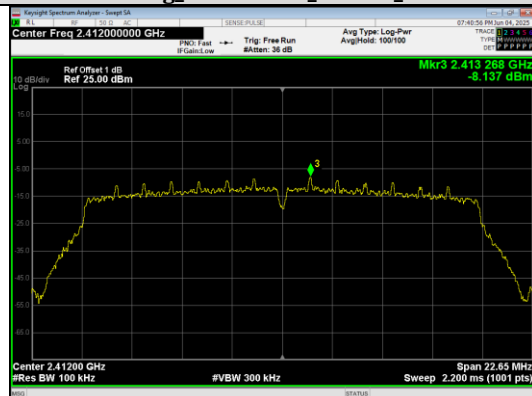
### In-Band Reference Level

### IEEE 802.11g\_Channel 11\_20MHz\_Antenna 0



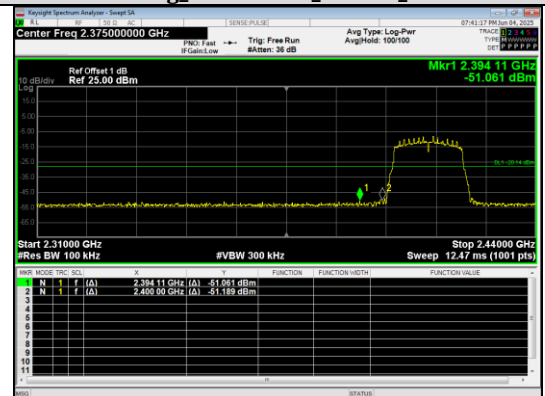
### Out Of Band Emission

### IEEE 802.11g\_Channel 11\_20MHz\_Antenna 0

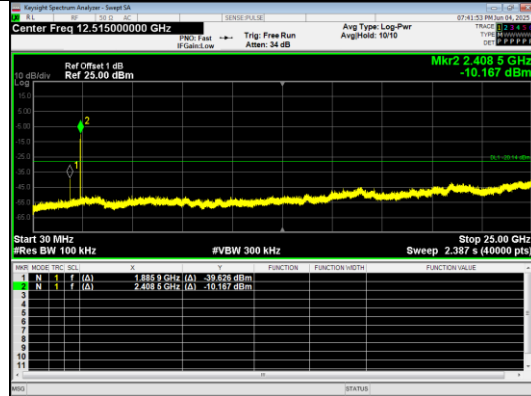


### 30.0 MHz - 25000.0 MHz

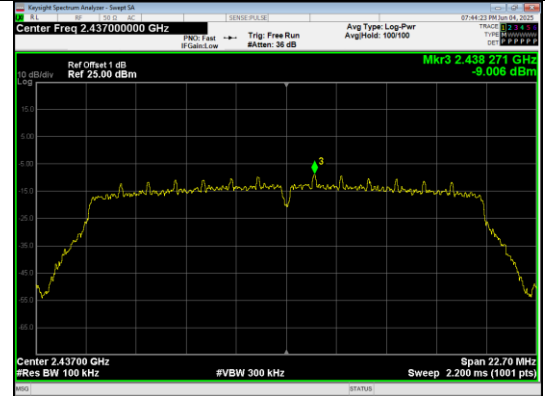
### IEEE 802.11g\_Channel 11\_20MHz\_Antenna 0



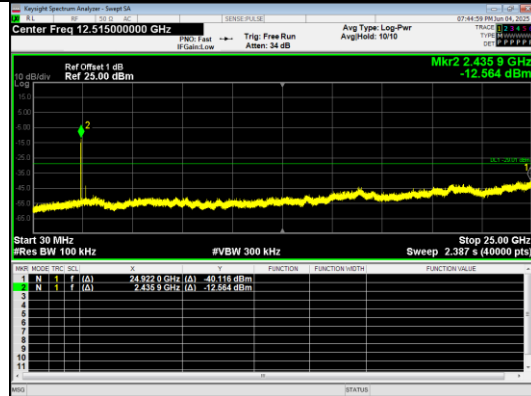
### In-Band Reference Level IEEE 802.11n\_Channel 1\_20MHz\_Antenna 0



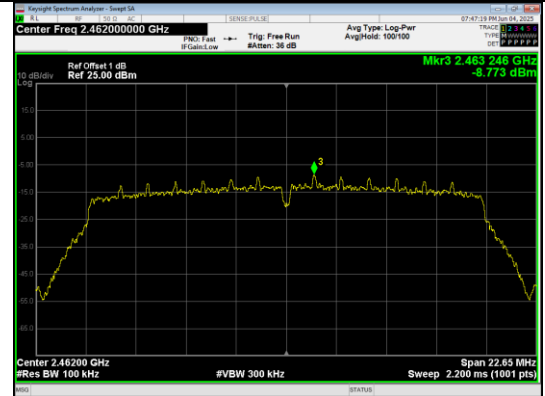
### Out Of Band Emission IEEE 802.11n\_Channel 1\_20MHz\_Antenna 0



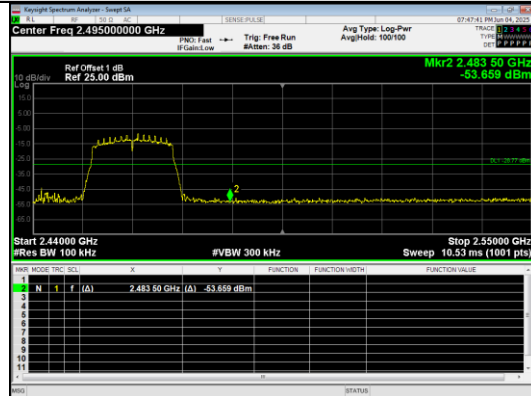
### 30.0 MHz - 25000.0 MHz IEEE 802.11n\_Channel 1\_20MHz\_Antenna 0



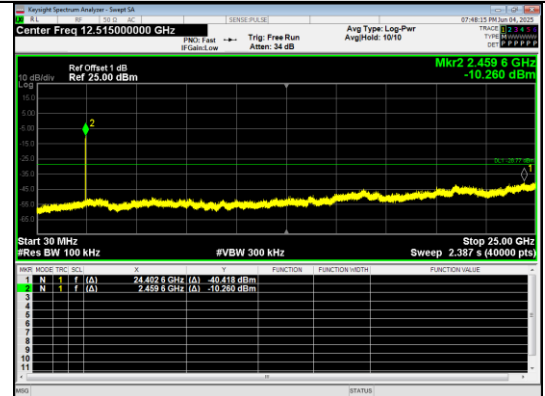
### In-Band Reference Level IEEE 802.11n\_Channel 6\_20MHz\_Antenna 0



### 30.0 MHz - 25000.0 MHz IEEE 802.11n\_Channel 6\_20MHz\_Antenna 0

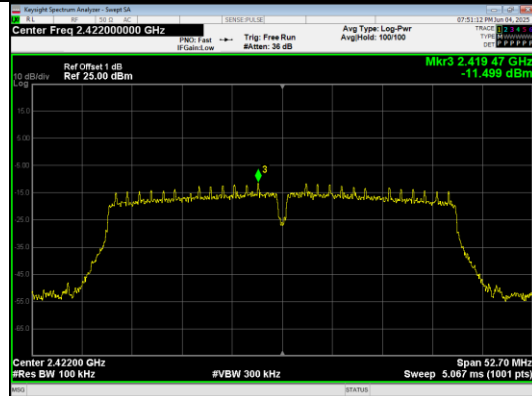


### In-Band Reference Level IEEE 802.11n\_Channel 11\_20MHz\_Antenna 0



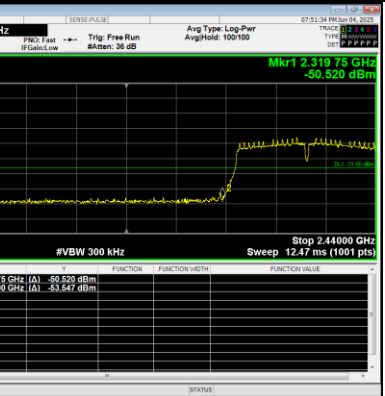
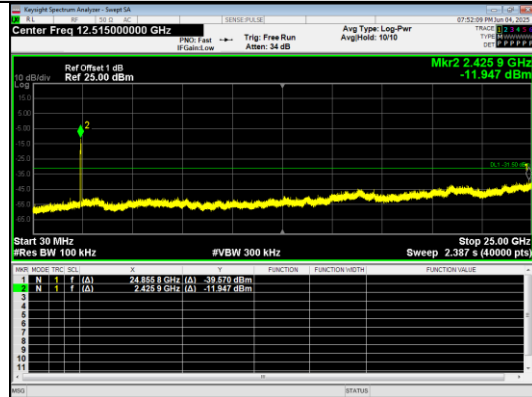
### Out Of Band Emission IEEE 802.11n\_Channel 11\_20MHz\_Antenna 0

### 30.0 MHz - 25000.0 MHz IEEE 802.11n\_Channel 11\_20MHz\_Antenna 0



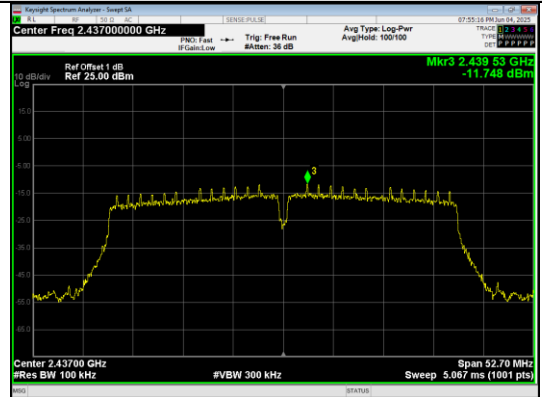
### In-Band Reference Level

#### IEEE 802.11n\_Channel 3\_40MHz\_Antenna 0



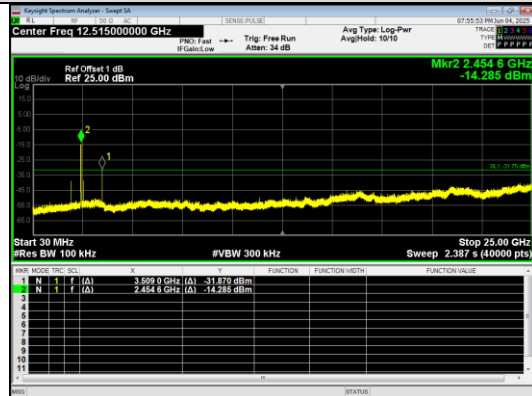
### Out Of Band Emission

#### IEEE 802.11n\_Channel 3\_40MHz\_Antenna 0



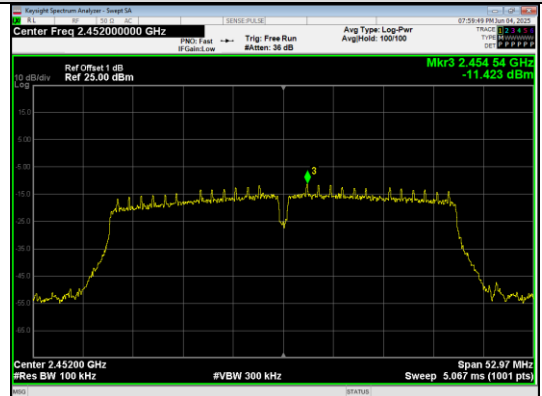
### 30.0 MHz - 25000.0 MHz

#### IEEE 802.11n\_Channel 3\_40MHz\_Antenna 0



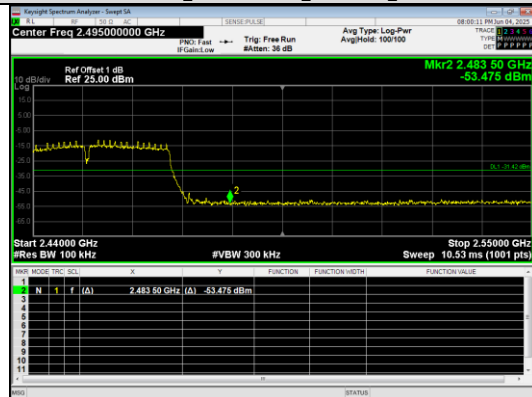
### In-Band Reference Level

#### IEEE 802.11n\_Channel 6\_40MHz\_Antenna 0



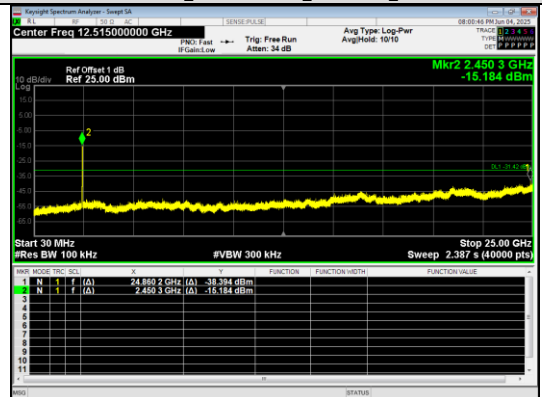
### 30.0 MHz - 25000.0 MHz

#### IEEE 802.11n\_Channel 6\_40MHz\_Antenna 0



### In-Band Reference Level

#### IEEE 802.11n\_Channel 9\_40MHz\_Antenna 0



### Out Of Band Emission

### 30.0 MHz - 25000.0 MHz



|                                        |                                        |
|----------------------------------------|----------------------------------------|
| IEEE 802.11n_Channel 9_40MHz_Antenna 0 | IEEE 802.11n_Channel 9_40MHz_Antenna 0 |
|----------------------------------------|----------------------------------------|

\*\*\*\*\* End of Report \*\*\*\*\*