

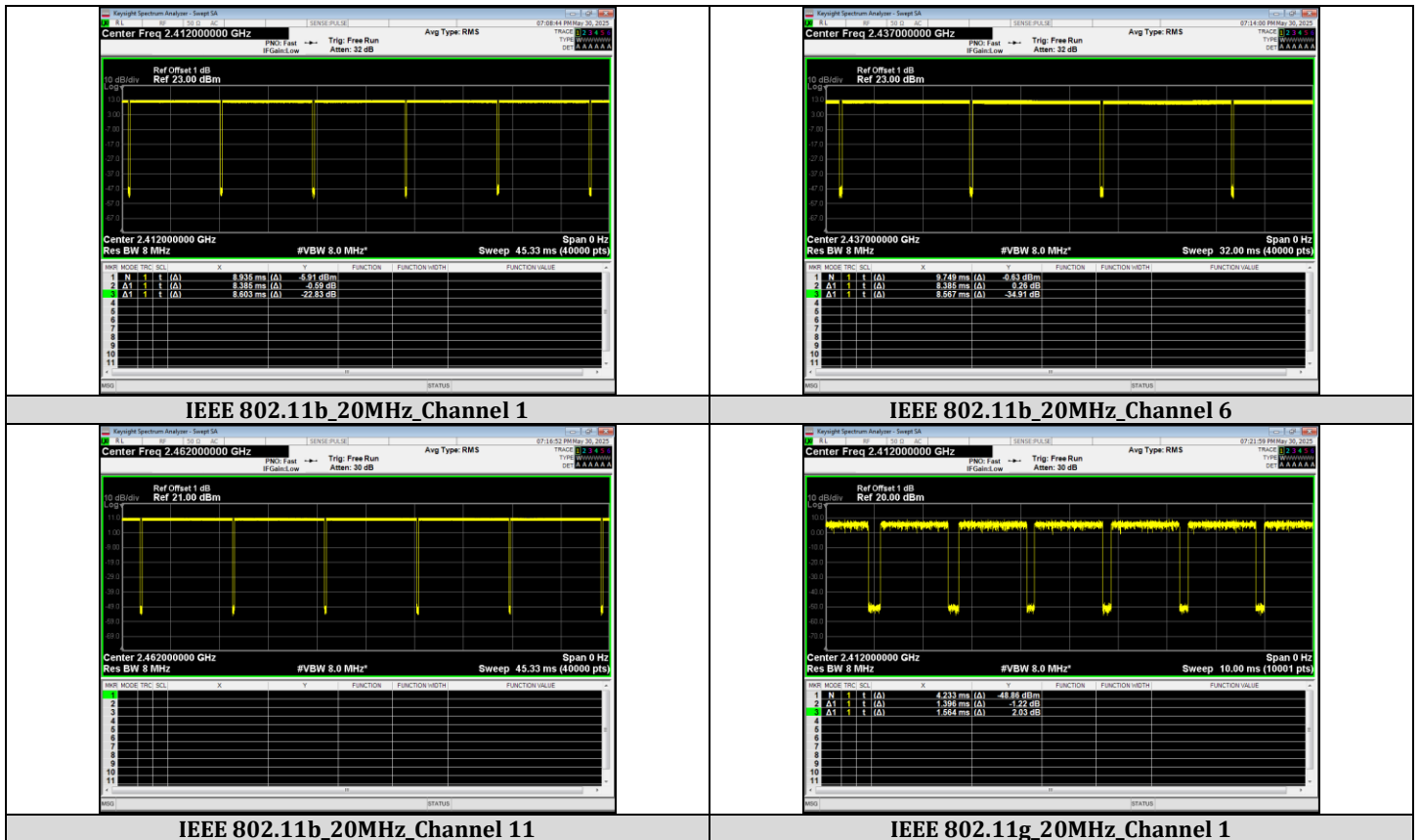


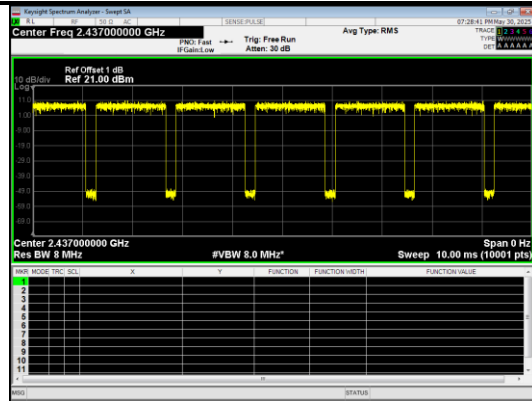
## Duty Cycle

### Test Result

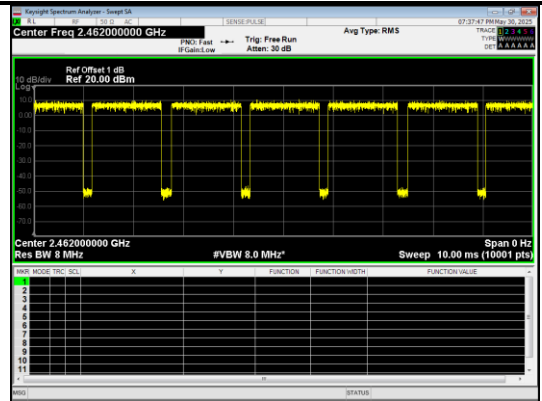
| Mode            | Data rates | Channel | Antenna | On Time (ms) | Period (ms) | Duty Cycle (%) | Duty Cycle (linear) | Duty Cycle Factor (dB) | 1/T    |
|-----------------|------------|---------|---------|--------------|-------------|----------------|---------------------|------------------------|--------|
| IEEE 802.11b    | 1          | 1       | 0       | 8.384        | 8.567       | 97.87          | 0.9787              | 0.0935                 | 0.1193 |
|                 |            | 6       |         | 8.385        | 8.567       | 97.87          | 0.9787              | 0.0935                 | 0.1193 |
|                 |            | 11      |         | 8.384        | 8.567       | 97.87          | 0.9787              | 0.0935                 | 0.1193 |
| IEEE 802.11g    | 1          | 1       |         | 1.396        | 1.573       | 88.75          | 0.8875              | 0.5183                 | 0.7163 |
|                 |            | 6       |         | 1.396        | 1.600       | 87.25          | 0.8725              | 0.5923                 | 0.7163 |
|                 |            | 11      |         | 1.396        | 1.564       | 89.26          | 0.8926              | 0.4934                 | 0.7163 |
| IEEE 802.11n_20 | MCS 0      | 1       |         | 1.178        | 1.427       | 82.55          | 0.8255              | 0.8328                 | 0.8489 |
|                 |            | 6       |         | 1.178        | 1.346       | 87.52          | 0.8752              | 0.5789                 | 0.8489 |
|                 |            | 11      |         | 1.177        | 1.346       | 87.47          | 0.8747              | 0.5814                 | 0.8496 |
| IEEE 802.11n_40 | MCS 0      | 3       |         | 0.589        | 0.829       | 71.01          | 0.7101              | 1.4868                 | 1.6978 |
|                 |            | 6       |         | 0.589        | 0.758       | 77.71          | 0.7771              | 1.0952                 | 1.6978 |
|                 |            | 9       |         | 0.588        | 0.757       | 77.70          | 0.7770              | 1.0958                 | 1.7007 |

### Test Graphs

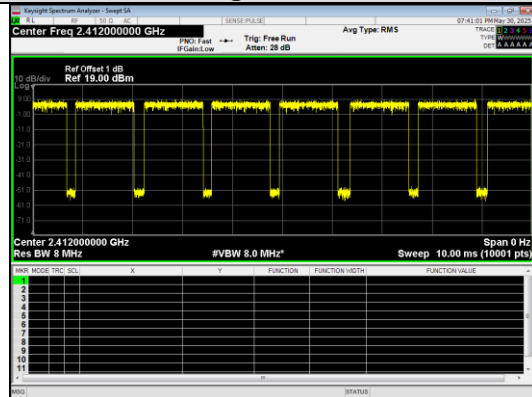




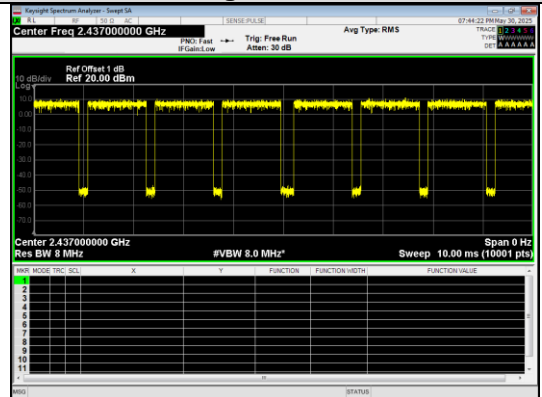
IEEE 802.11g 20MHz Channel 6



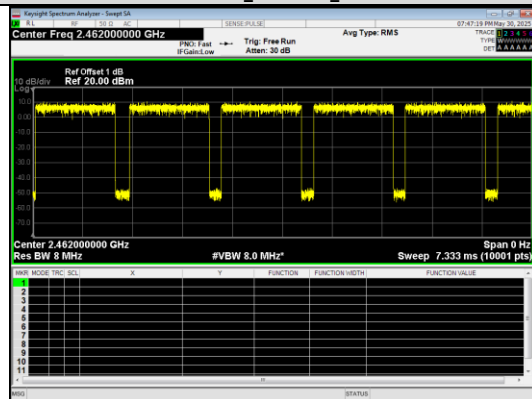
IEEE 802.11g 20MHz Channel 11



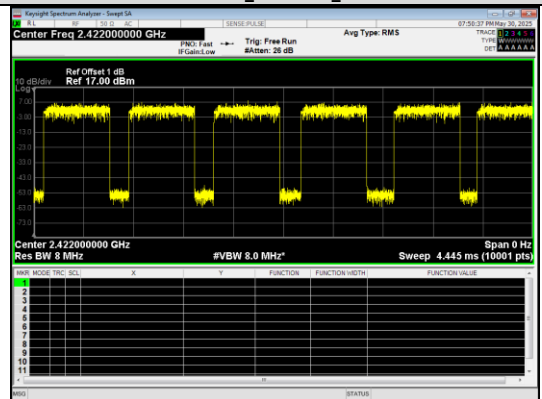
IEEE 802.11n 20MHz Channel 1



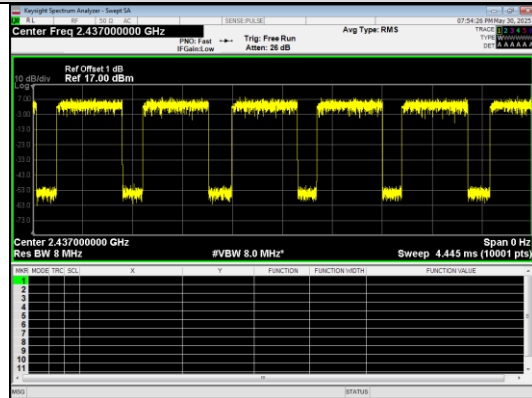
IEEE 802.11n 20MHz Channel 6



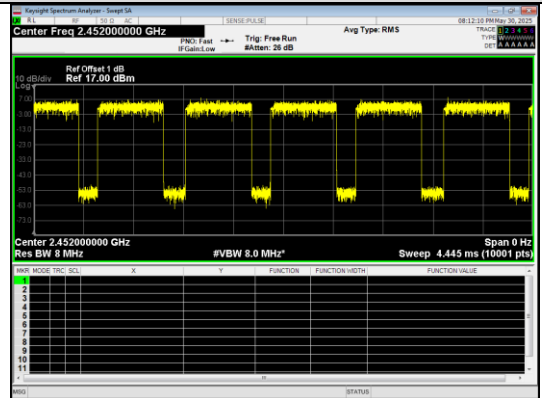
IEEE 802.11n 20MHz Channel 11



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

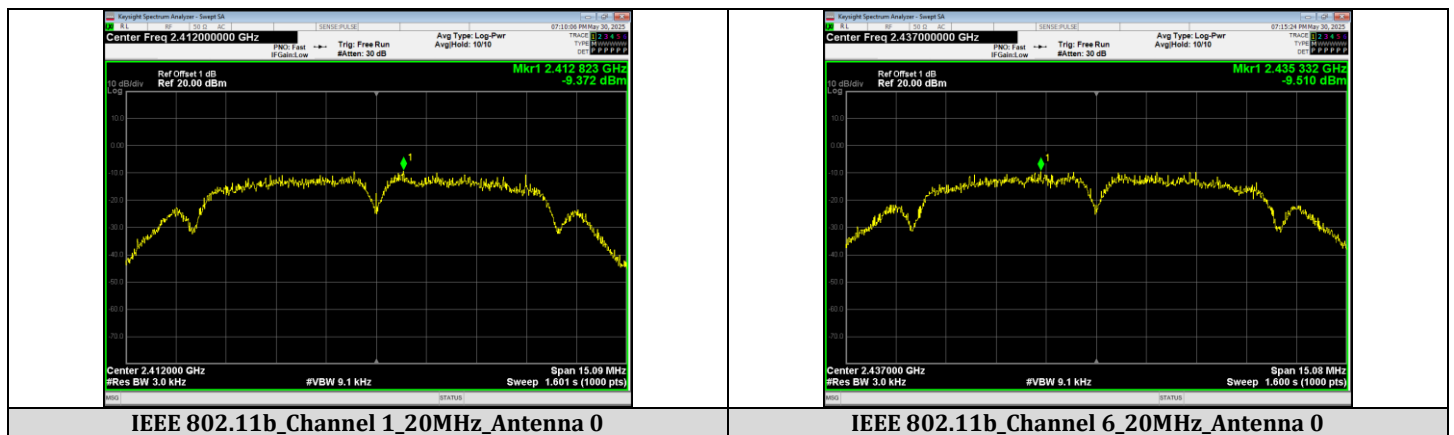
| Mode            | Channel | Ant. 0<br>(dBm) | Limit<br>(dBm) | Result |
|-----------------|---------|-----------------|----------------|--------|
| IEEE 802.11b    | 1       | 15.54           | ≤30            | PASS   |
|                 | 6       | 15.93           | ≤30            | PASS   |
|                 | 11      | 13.74           | ≤30            | PASS   |
| IEEE 802.11g    | 1       | 15.76           | ≤30            | PASS   |
|                 | 6       | 17.32           | ≤30            | PASS   |
|                 | 11      | 16.67           | ≤30            | PASS   |
| IEEE 802.11n_20 | 1       | 15.91           | ≤30            | PASS   |
|                 | 6       | 17.27           | ≤30            | PASS   |
|                 | 11      | 16.64           | ≤30            | PASS   |
| IEEE 802.11n_40 | 3       | 15.53           | ≤30            | PASS   |
|                 | 6       | 17.13           | ≤30            | PASS   |
|                 | 9       | 15.96           | ≤30            | PASS   |

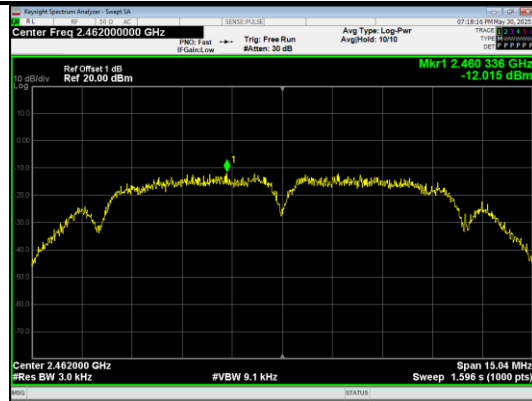
## Power Spectral Density

### Test Result

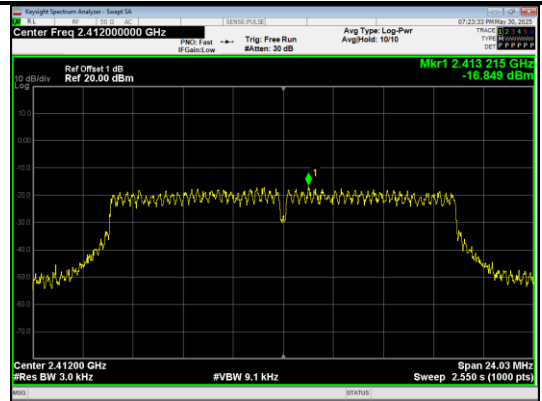
| Mode            | Channel | PSD<br>(dBm/3kHz)<br>Ant. 0 | Limit<br>(dBm/3kHz) | Result |
|-----------------|---------|-----------------------------|---------------------|--------|
| IEEE 802.11b    | 1       | -9.372                      | ≤8                  | PASS   |
|                 | 6       | -9.510                      |                     | PASS   |
|                 | 11      | -12.015                     |                     | PASS   |
| IEEE 802.11g    | 1       | -16.849                     |                     | PASS   |
|                 | 6       | -15.004                     |                     | PASS   |
|                 | 11      | -15.502                     |                     | PASS   |
| IEEE 802.11n_20 | 1       | -16.901                     |                     | PASS   |
|                 | 6       | -14.581                     |                     | PASS   |
|                 | 11      | -16.142                     |                     | PASS   |
| IEEE 802.11n_40 | 3       | -18.339                     |                     | PASS   |
|                 | 6       | -19.080                     |                     | PASS   |
|                 | 9       | -19.566                     |                     | PASS   |

### Test Graphs

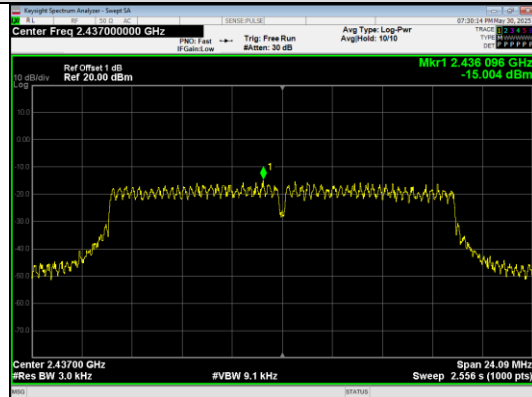




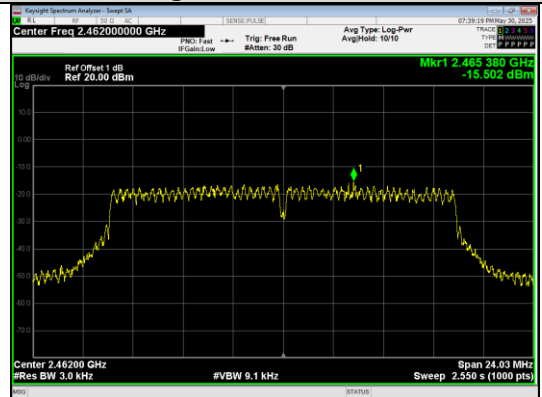
IEEE 802.11b\_Channel 11\_20MHz\_Antenna 0



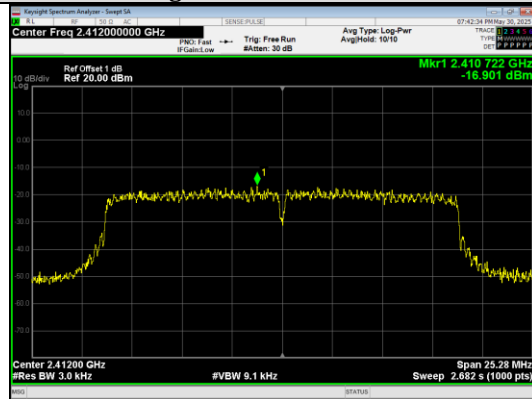
IEEE 802.11g\_Channel 1\_20MHz\_Antenna 0



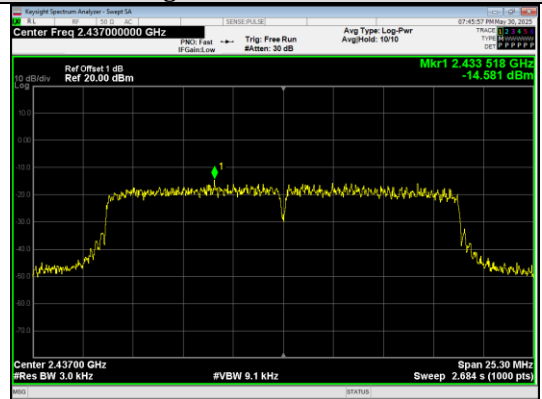
IEEE 802.11g\_Channel 6\_20MHz\_Antenna 0



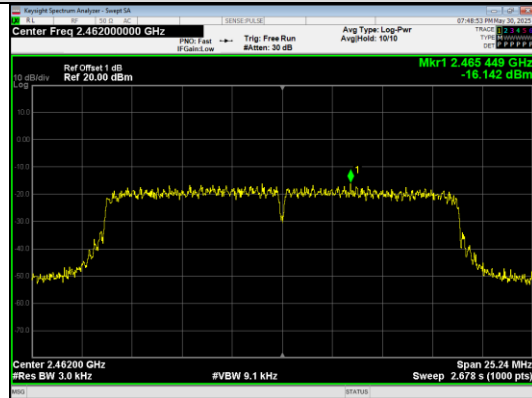
IEEE 802.11g\_Channel 11\_20MHz\_Antenna 0



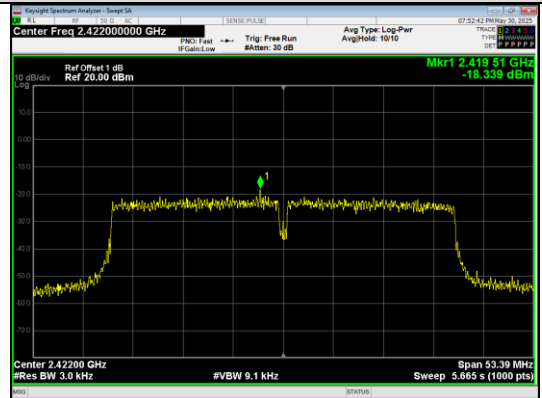
IEEE 802.11n\_Channel 1\_20MHz\_Antenna 0



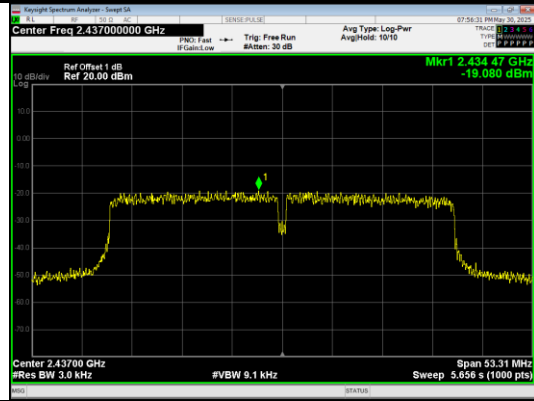
IEEE 802.11n\_Channel 6\_20MHz\_Antenna 0



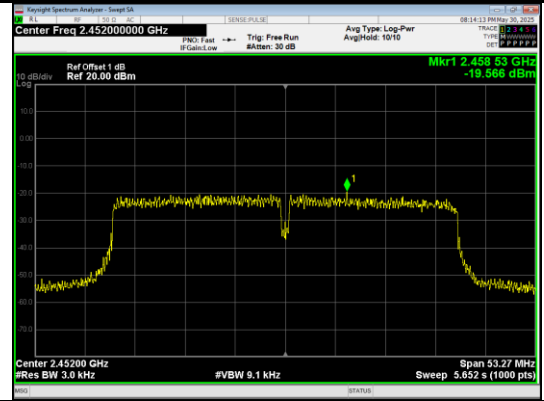
IEEE 802.11n\_Channel 11\_20MHz\_Antenna 0



IEEE 802.11n\_Channel 3\_40MHz\_Antenna 0



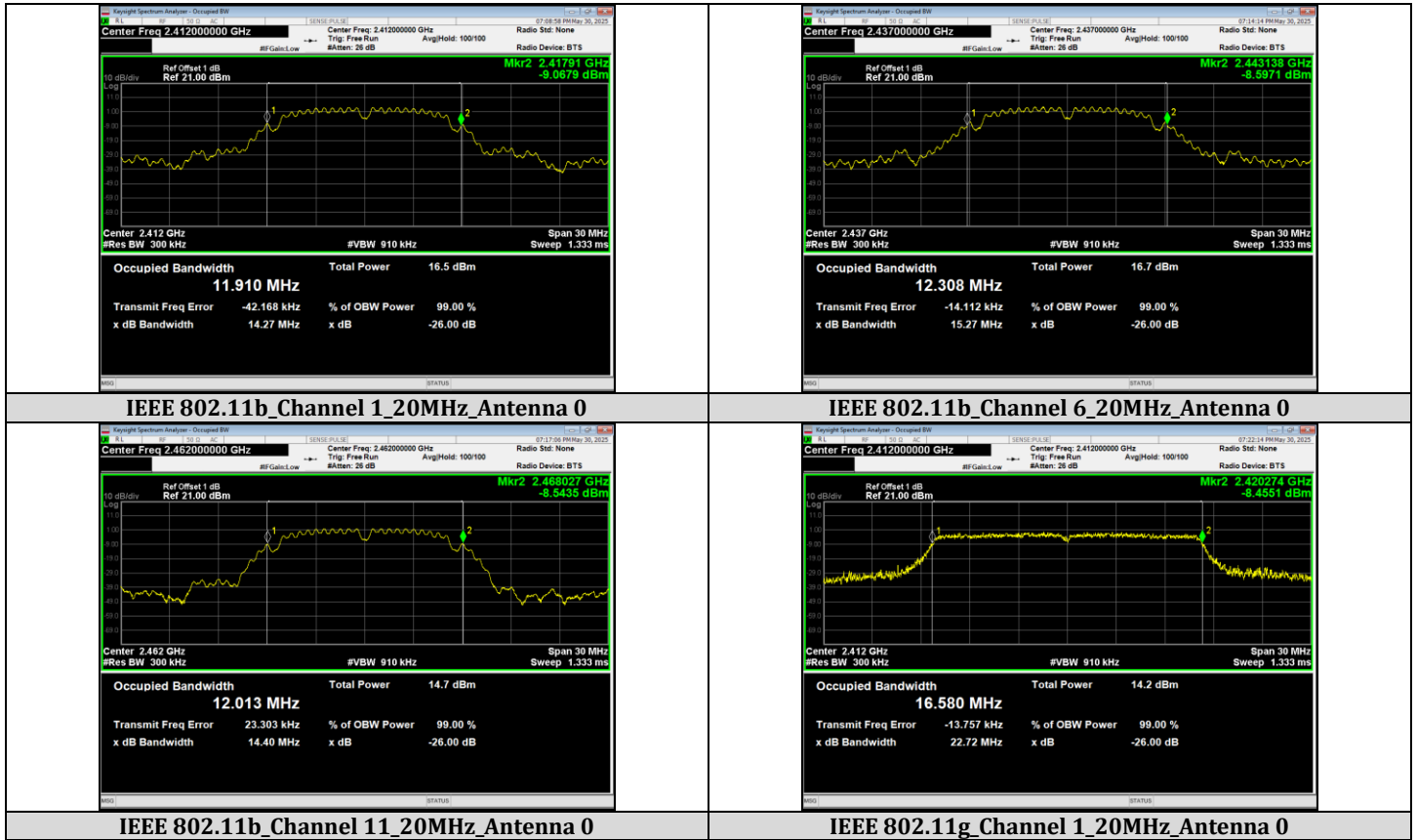
IEEE 802.11n\_Channel 6\_40MHz\_Antenna 0

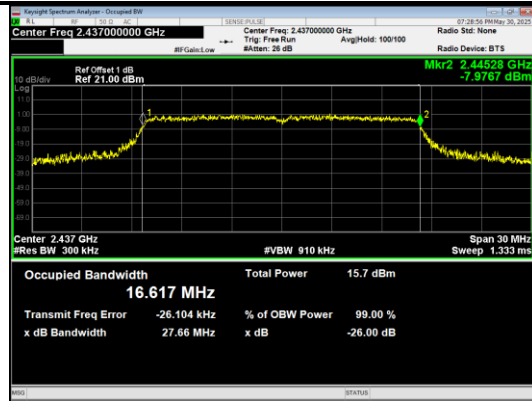


IEEE 802.11n\_Channel 9\_40MHz\_Antenna 0

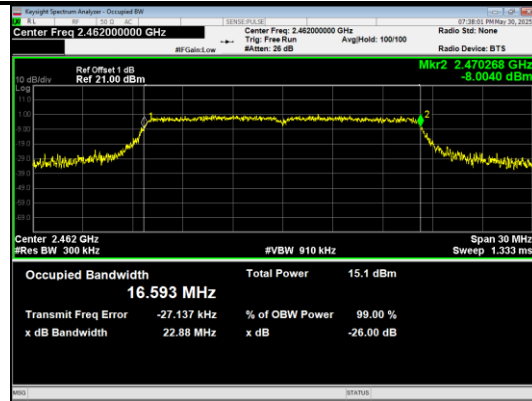
**99% Bandwidth****Test Result**

| Mode            | Channel | Ant. | Center Frequency (MHz) | 99% BW (MHz) |
|-----------------|---------|------|------------------------|--------------|
| IEEE 802.11b    | 1       | 0    | 2412                   | 11.910       |
|                 | 6       |      | 2437                   | 12.308       |
|                 | 11      |      | 2462                   | 12.013       |
| IEEE 802.11g    | 1       |      | 2412                   | 16.580       |
|                 | 6       |      | 2437                   | 16.617       |
|                 | 11      |      | 2462                   | 16.593       |
| IEEE 802.11n_20 | 1       |      | 2412                   | 17.603       |
|                 | 6       |      | 2437                   | 17.598       |
|                 | 11      |      | 2462                   | 17.589       |
| IEEE 802.11n_40 | 3       |      | 2422                   | 36.114       |
|                 | 6       |      | 2437                   | 36.209       |
|                 | 9       |      | 2452                   | 36.091       |

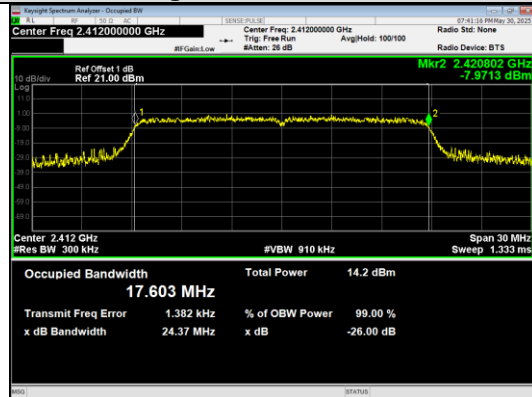
**Test Graphs**



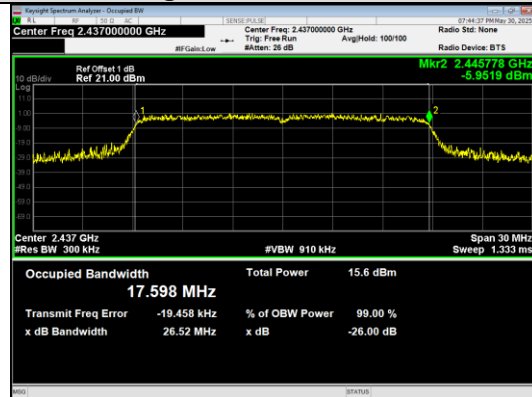
IEEE 802.11g\_Channel 6\_20MHz\_Antenna 0



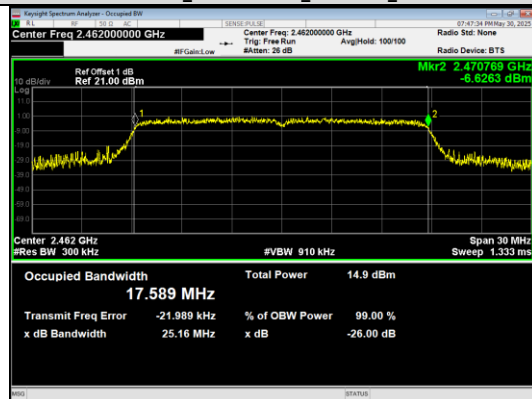
IEEE 802.11g\_Channel 11\_20MHz\_Antenna 0



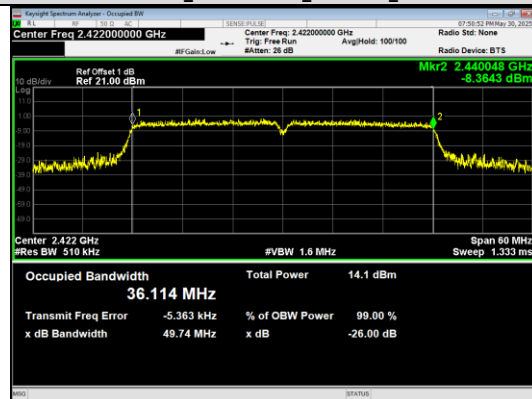
IEEE 802.11n\_Channel 1\_20MHz\_Antenna 0



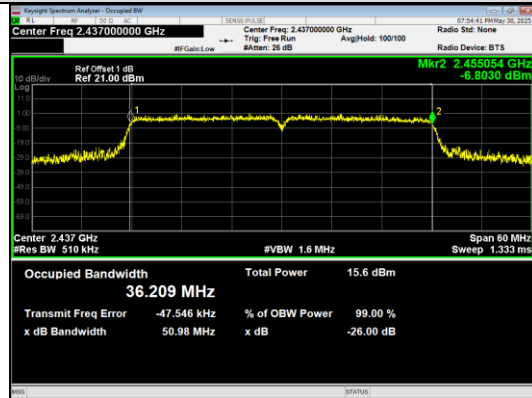
IEEE 802.11n\_Channel 6\_20MHz\_Antenna 0



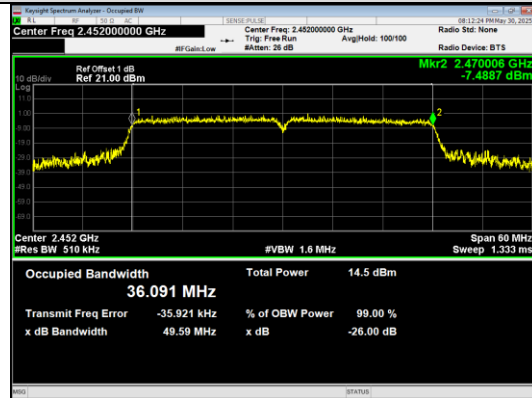
IEEE 802.11n\_Channel 11\_20MHz\_Antenna 0



IEEE 802.11n\_Channel 3\_40MHz\_Antenna 0



IEEE 802.11n\_Channel 6\_40MHz\_Antenna 0



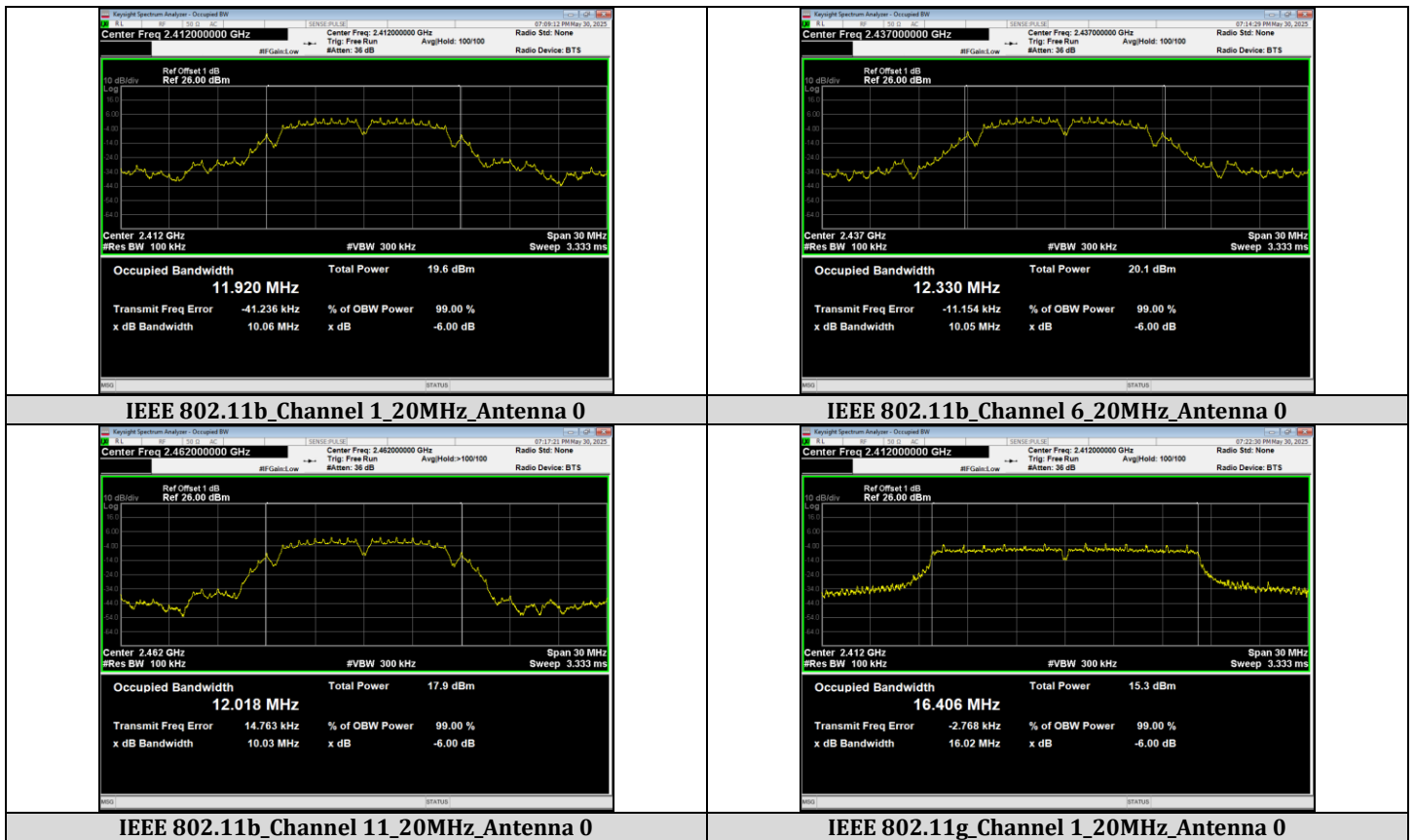
IEEE 802.11n\_Channel 9\_40MHz\_Antenna 0

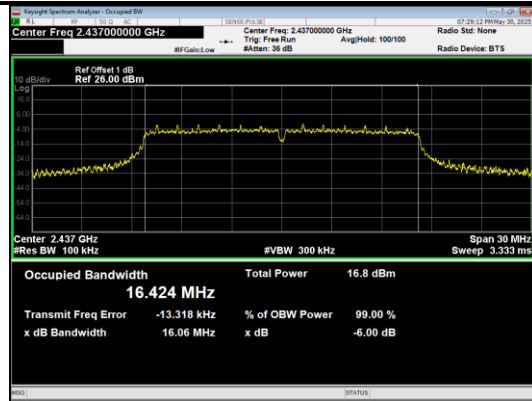
## 6dB Bandwidth

### Test Result

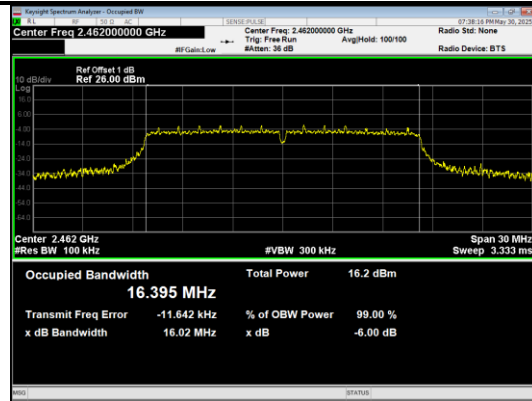
| Mode            | Channel | Ant. | Center Frequency (MHz) | 6 dB Bandwidth (MHz) | Limit (MHz) | Result |
|-----------------|---------|------|------------------------|----------------------|-------------|--------|
| IEEE 802.11b    | 1       | 0    | 2412                   | 10.06                | ≥0.5        | PASS   |
|                 | 6       |      | 2437                   | 10.05                |             | PASS   |
|                 | 11      |      | 2462                   | 10.03                |             | PASS   |
| IEEE 802.11g    | 1       |      | 2412                   | 16.02                |             | PASS   |
|                 | 6       |      | 2437                   | 16.06                |             | PASS   |
|                 | 11      |      | 2462                   | 16.02                |             | PASS   |
| IEEE 802.11n_20 | 1       |      | 2412                   | 16.85                |             | PASS   |
|                 | 6       |      | 2437                   | 16.87                |             | PASS   |
|                 | 11      |      | 2462                   | 16.83                |             | PASS   |
| IEEE 802.11n_40 | 3       |      | 2422                   | 35.59                |             | PASS   |
|                 | 6       |      | 2437                   | 35.54                |             | PASS   |
|                 | 9       |      | 2452                   | 35.51                |             | PASS   |

### Test Graphs

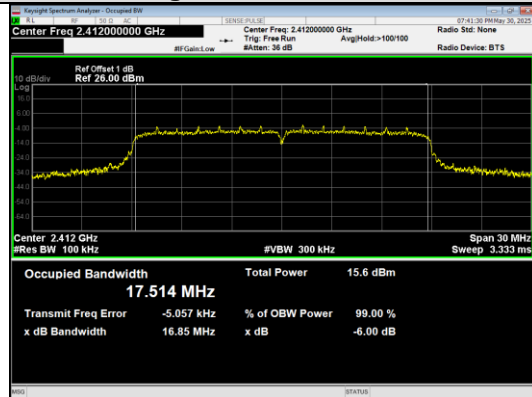




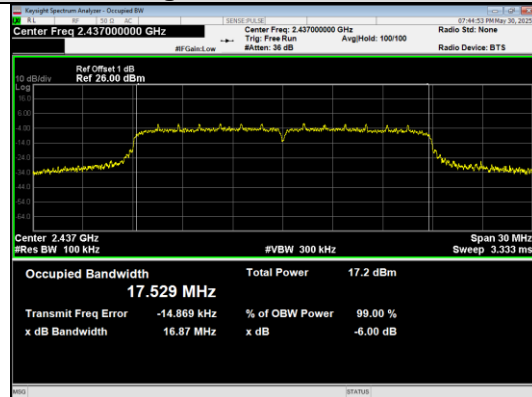
IEEE 802.11g\_Channel 6\_20MHz\_Antenna 0



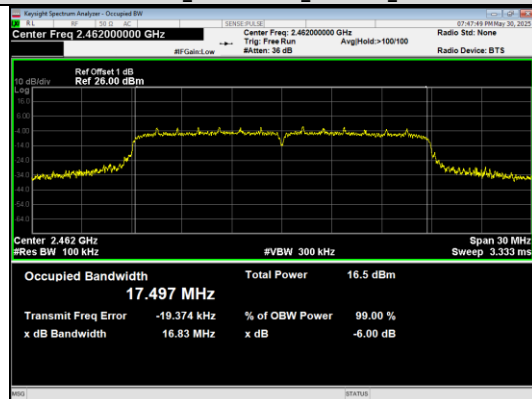
IEEE 802.11g\_Channel 11\_20MHz\_Antenna 0



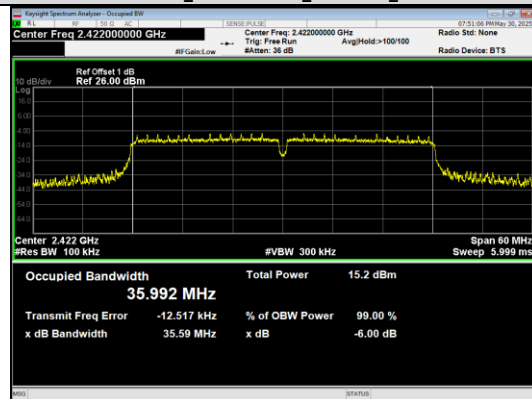
IEEE 802.11n\_Channel 1\_20MHz\_Antenna 0



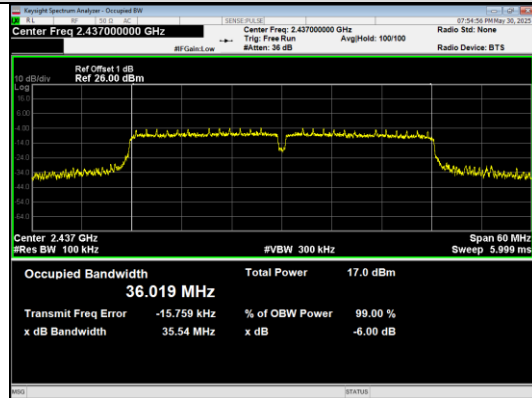
IEEE 802.11n\_Channel 6\_20MHz\_Antenna 0



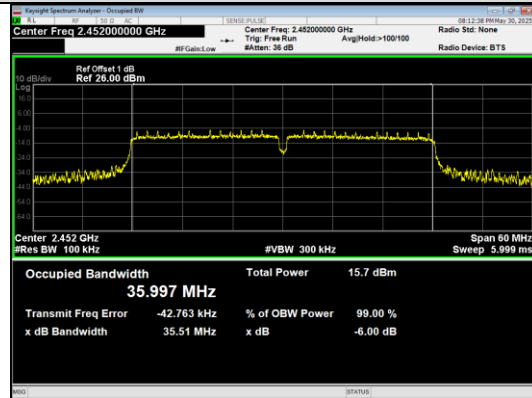
IEEE 802.11n\_Channel 11\_20MHz\_Antenna 0



IEEE 802.11n\_Channel 3\_40MHz\_Antenna 0



IEEE 802.11n\_Channel 6\_40MHz\_Antenna 0



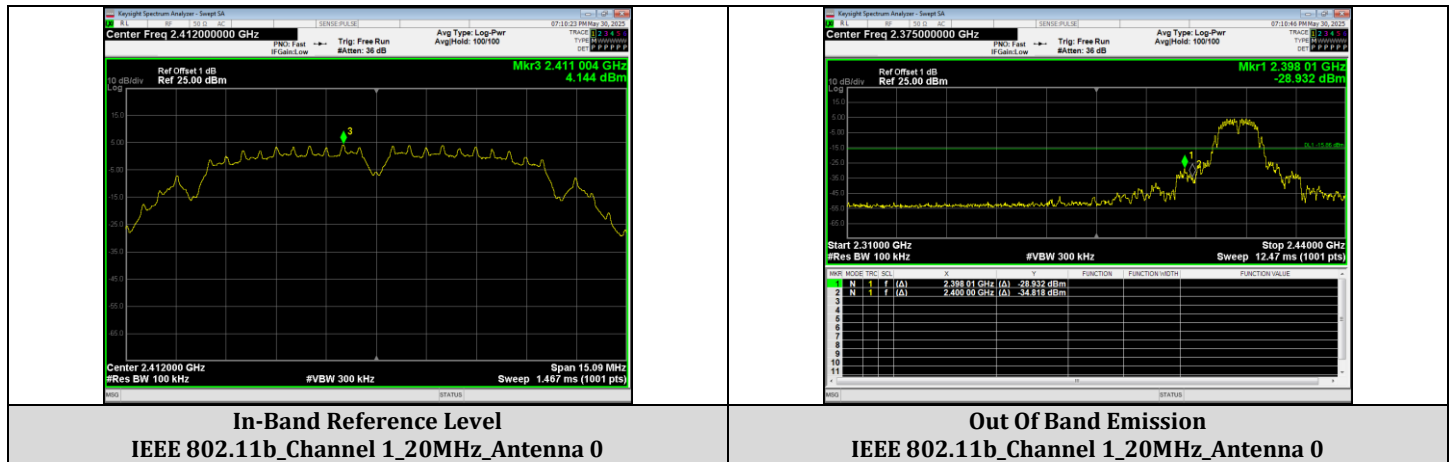
IEEE 802.11n\_Channel 9\_40MHz\_Antenna 0

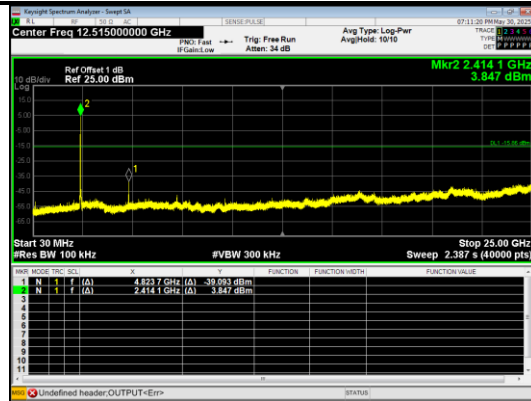
## Conducted Out Of Band Emission

### Test Result

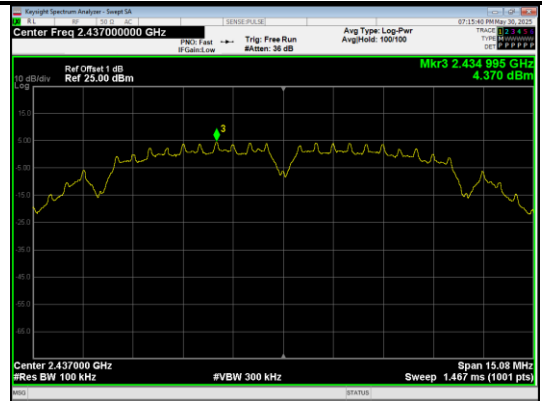
| Mode               | Channel | Ant. | OOB<br>Emission<br>Frequency<br>(MHz) | OOB<br>Emission<br>Level<br>(dBm) | Limit<br>(dBm) | Over Limit<br>(dB) | Result |
|--------------------|---------|------|---------------------------------------|-----------------------------------|----------------|--------------------|--------|
| IEEE 802.11b       | 1       | 0    | 2398.01                               | -28.932                           | -15.86         | -13.072            | PASS   |
|                    |         |      | 2400.00                               | -34.818                           | -15.86         | -18.958            | PASS   |
|                    | 6       |      | 4823.70                               | -39.093                           | -15.86         | -23.233            | PASS   |
|                    | 11      |      | 4874.30                               | -36.312                           | -15.63         | -20.682            | PASS   |
|                    |         |      | 2483.50                               | -49.176                           | -18.04         | -31.136            | PASS   |
|                    | 4924.24 |      | -38.957                               | -18.04                            | -20.917        | PASS               |        |
| IEEE 802.11g       | 1       |      | 2398.14                               | -32.929                           | -22.0          | -10.929            | PASS   |
|                    |         |      | 2400.00                               | -33.728                           | -22.0          | -11.728            | PASS   |
|                    | 6       |      | 24959.4                               | -39.829                           | -22.0          | -17.829            | PASS   |
|                    | 11      |      | 24320.2                               | -39.472                           | -20.77         | -18.702            | PASS   |
|                    |         |      | 2483.50                               | -45.940                           | -20.96         | -24.980            | PASS   |
|                    | 2647.55 |      | -36.478                               | -20.96                            | -15.518        | PASS               |        |
| IEEE<br>802.11n_20 | 1       |      | 2400.00                               | -32.550                           | -21.81         | -10.740            | PASS   |
|                    |         |      | 24342.6                               | -40.361                           | -21.81         | -18.551            | PASS   |
|                    | 6       |      | 2640.68                               | -35.323                           | -20.35         | -14.973            | PASS   |
|                    | 11      |      | 2483.50                               | -43.313                           | -21.07         | -22.243            | PASS   |
|                    |         |      | 2627.57                               | -30.640                           | -21.07         | -9.570             | PASS   |
|                    | 2400.00 |      | -33.059                               | -25.42                            | -7.639         | PASS               |        |
| IEEE<br>802.11n_40 | 3       |      | 3499.04                               | -36.014                           | -25.42         | -10.594            | PASS   |
|                    |         |      | 2643.18                               | -29.536                           | -23.75         | -5.786             | PASS   |
|                    | 6       |      | 2483.50                               | -40.421                           | -24.94         | -15.481            | PASS   |
|                    |         |      | 24927.0                               | -40.248                           | -24.94         | -15.308            | PASS   |

### Test Graphs

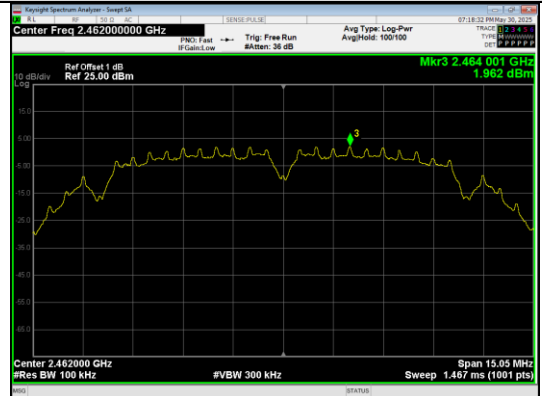
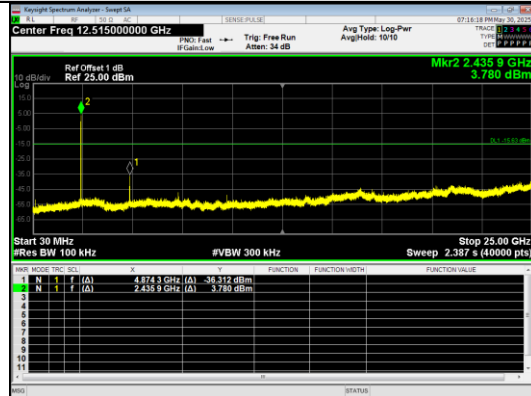




30.0 MHz - 25000.0 MHz  
IEEE 802.11b\_Channel 1\_20MHz\_Antenna 0

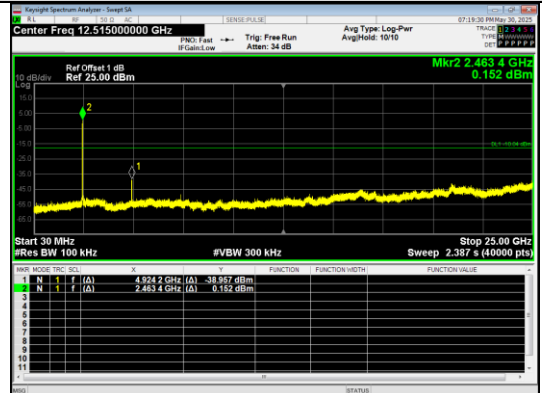
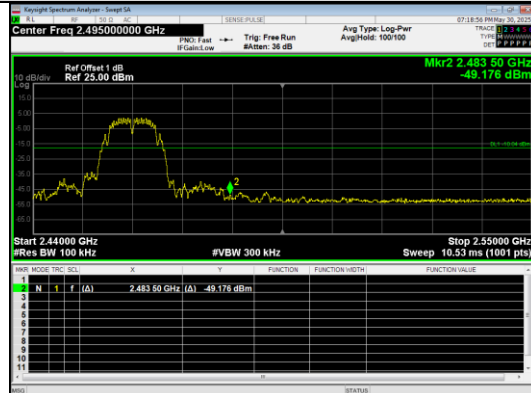


In-Band Reference Level  
IEEE 802.11b\_Channel 6\_20MHz\_Antenna 0



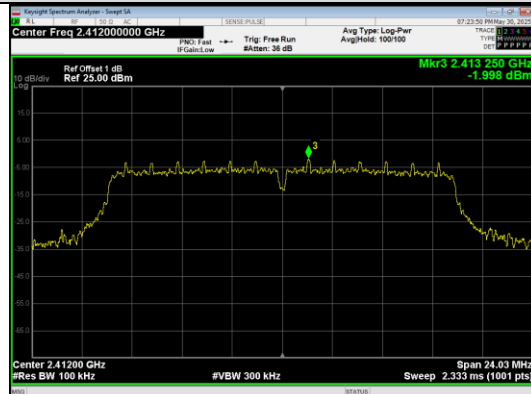
30.0 MHz - 25000.0 MHz  
IEEE 802.11b\_Channel 6\_20MHz\_Antenna 0

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

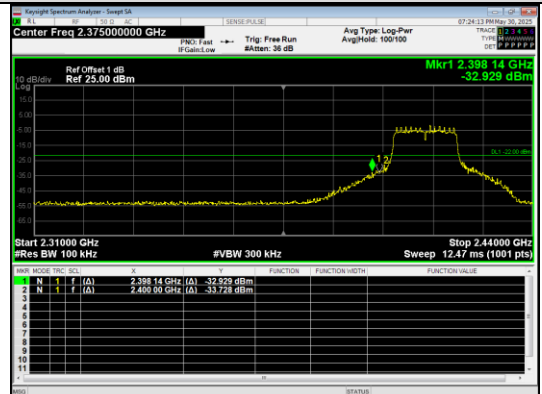


Out Of Band Emission  
IEEE 802.11b\_Channel 11\_20MHz\_Antenna 0

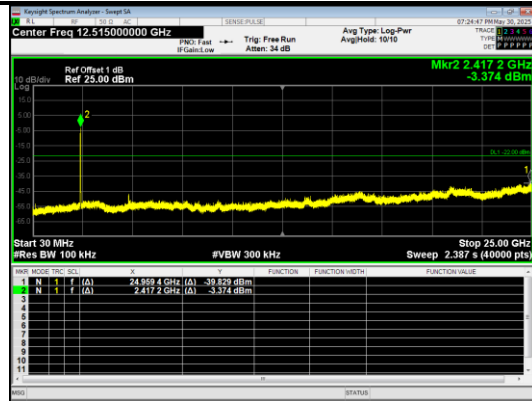
30.0 MHz - 25000.0 MHz  
IEEE 802.11b\_Channel 11\_20MHz\_Antenna 0



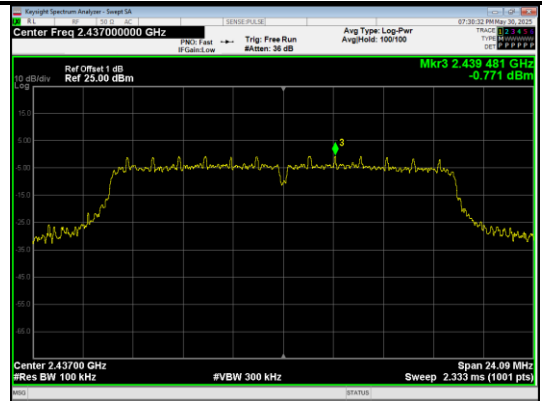
In-Band Reference Level  
IEEE 802.11g\_Channel 1\_20MHz\_Antenna 0



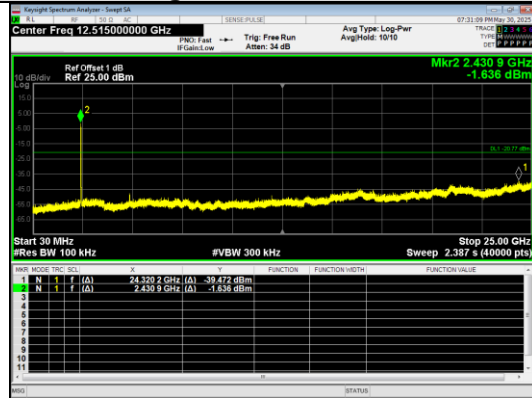
Out Of Band Emission  
IEEE 802.11g\_Channel 1\_20MHz\_Antenna 0



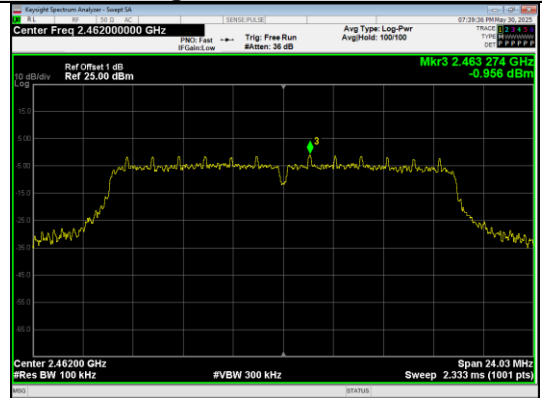
30.0 MHz - 25000.0 MHz  
IEEE 802.11g\_Channel 1\_20MHz\_Antenna 0



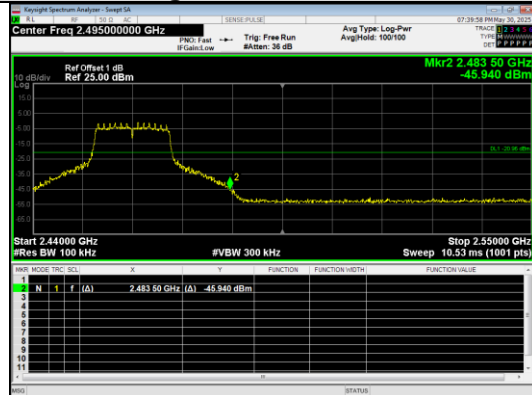
In-Band Reference Level  
IEEE 802.11g\_Channel 6\_20MHz\_Antenna 0



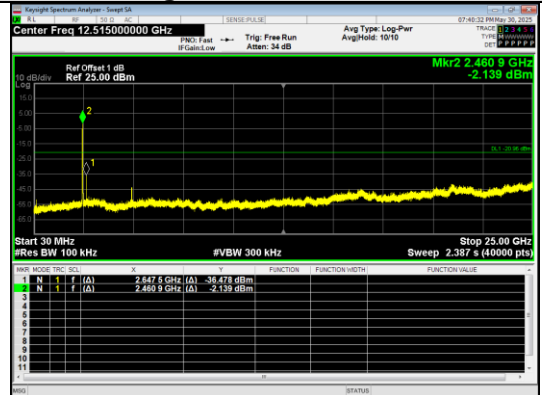
30.0 MHz - 25000.0 MHz  
IEEE 802.11g\_Channel 6\_20MHz\_Antenna 0



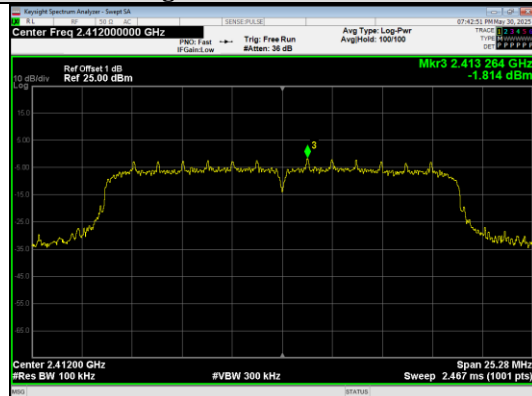
In-Band Reference Level  
IEEE 802.11g\_Channel 11\_20MHz\_Antenna 0



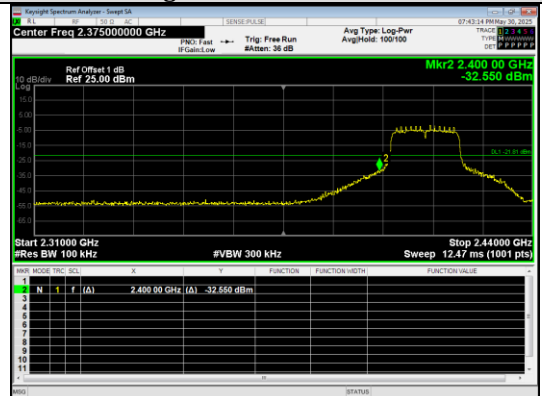
Out Of Band Emission  
IEEE 802.11g\_Channel 11\_20MHz\_Antenna 0



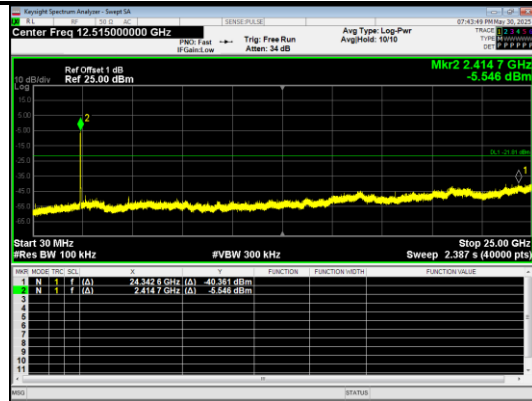
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IEEE 802.11g\_Channel 11\_20MHz\_Antenna 0



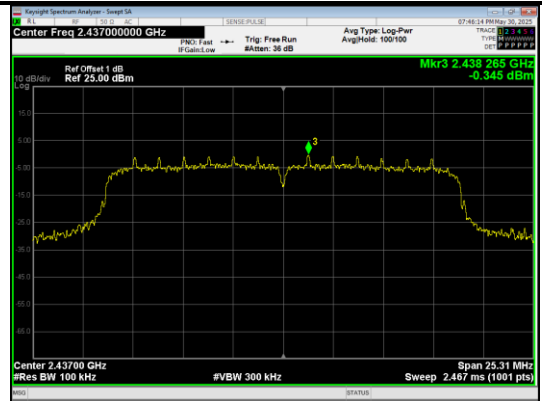
In-Band Reference Level  
IEEE 802.11n\_Channel 1\_20MHz\_Antenna 0



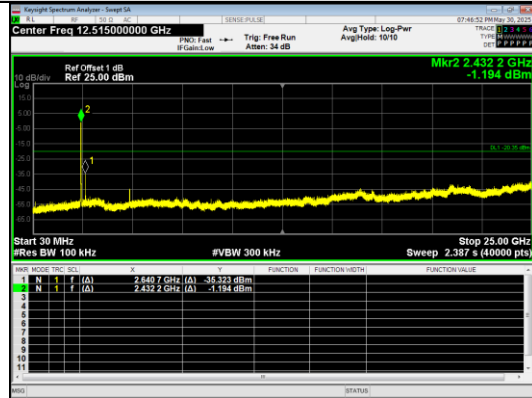
Out Of Band Emission  
IEEE 802.11n\_Channel 1\_20MHz\_Antenna 0



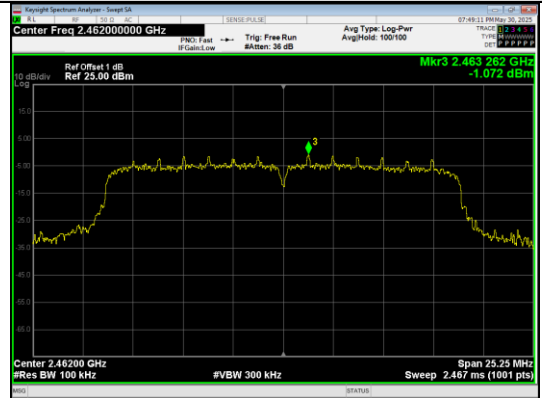
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IEEE 802.11n\_Channel 1\_20MHz\_Antenna 0



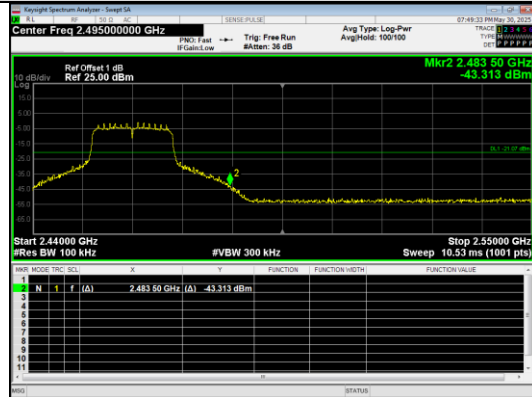
In-Band Reference Level  
IEEE 802.11n\_Channel 6\_20MHz\_Antenna 0



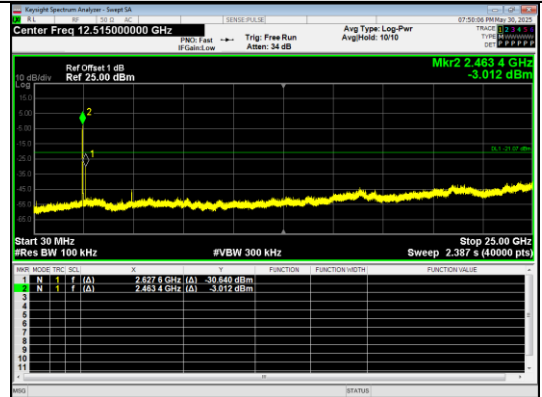
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IEEE 802.11n\_Channel 6\_20MHz\_Antenna 0



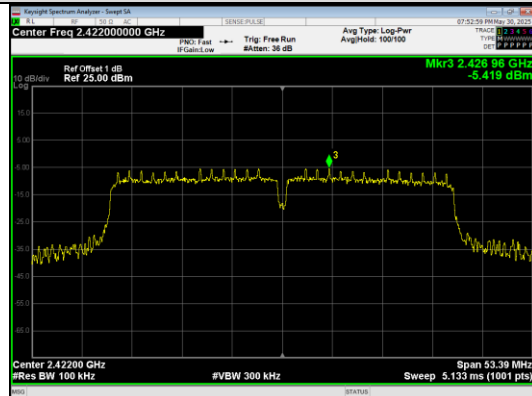
In-Band Reference Level  
IEEE 802.11n\_Channel 11\_20MHz\_Antenna 0



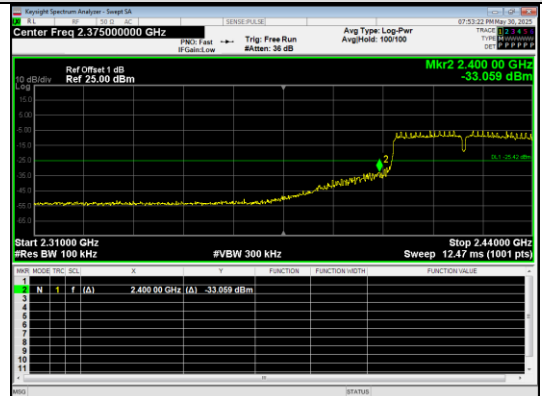
Out Of Band Emission  
IEEE 802.11n\_Channel 11\_20MHz\_Antenna 0



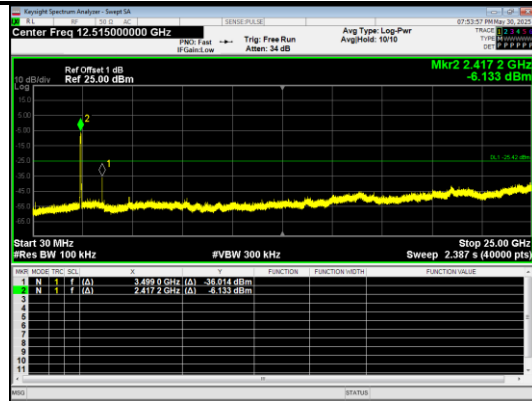
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IEEE 802.11n\_Channel 11\_20MHz\_Antenna 0



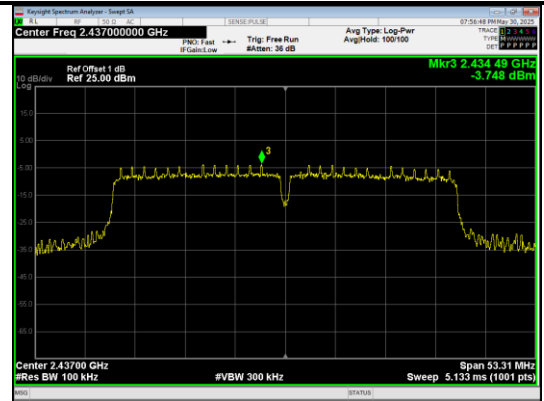
In-Band Reference Level  
IEEE 802.11n\_Channel 3\_40MHz\_Antenna 0



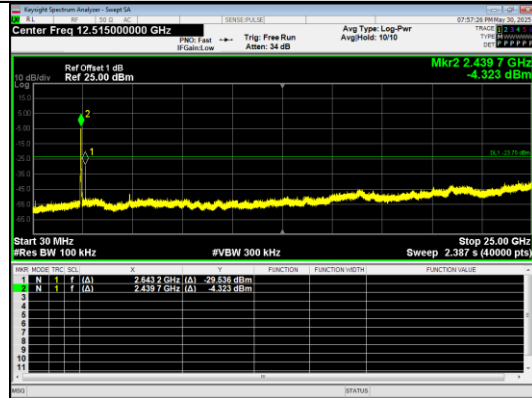
Out Of Band Emission  
IEEE 802.11n\_Channel 3\_40MHz\_Antenna 0



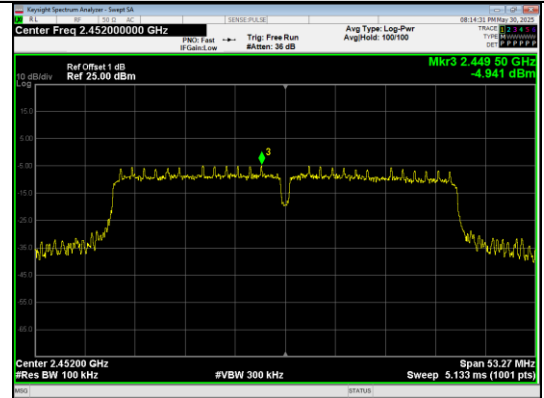
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IEEE 802.11n\_Channel 3\_40MHz\_Antenna 0



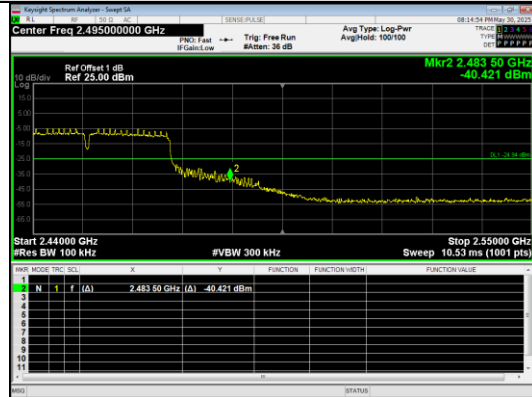
In-Band Reference Level  
IEEE 802.11n\_Channel 6\_40MHz\_Antenna 0



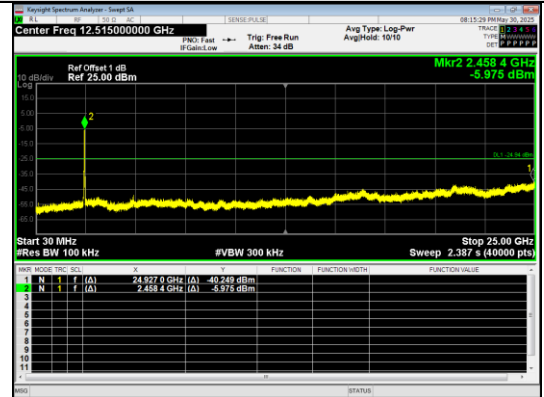
30.0 MHz - 25000.0 MHz  
IEEE 802.11n\_Channel 6\_40MHz\_Antenna 0



In-Band Reference Level  
IEEE 802.11n\_Channel 9\_40MHz\_Antenna 0



Out Of Band Emission  
IEEE 802.11n\_Channel 9\_40MHz\_Antenna 0



30.0 MHz - 25000.0 MHz  
IEEE 802.11n\_Channel 9\_40MHz\_Antenna 0

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