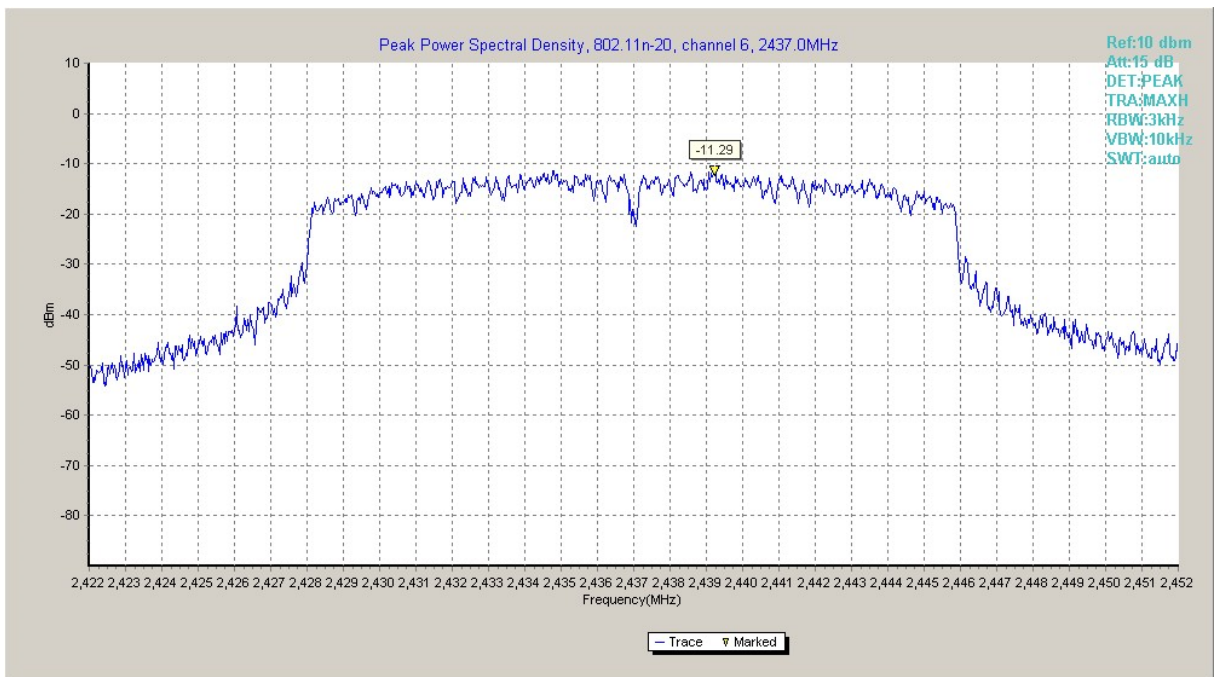
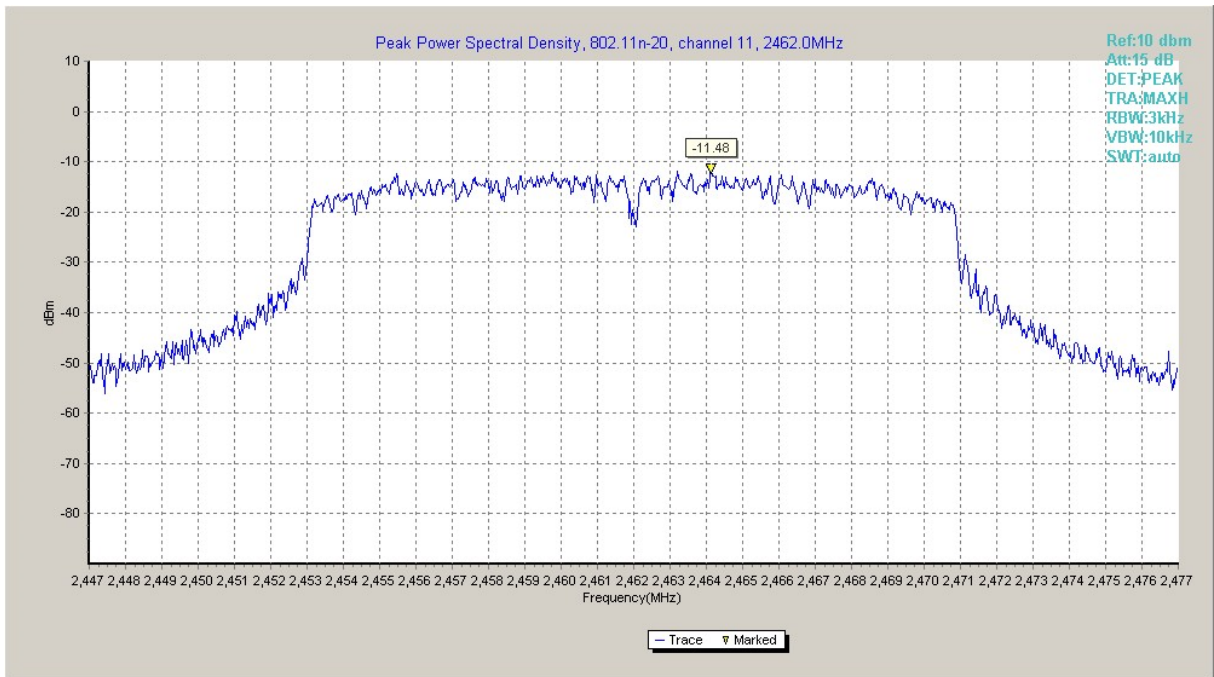


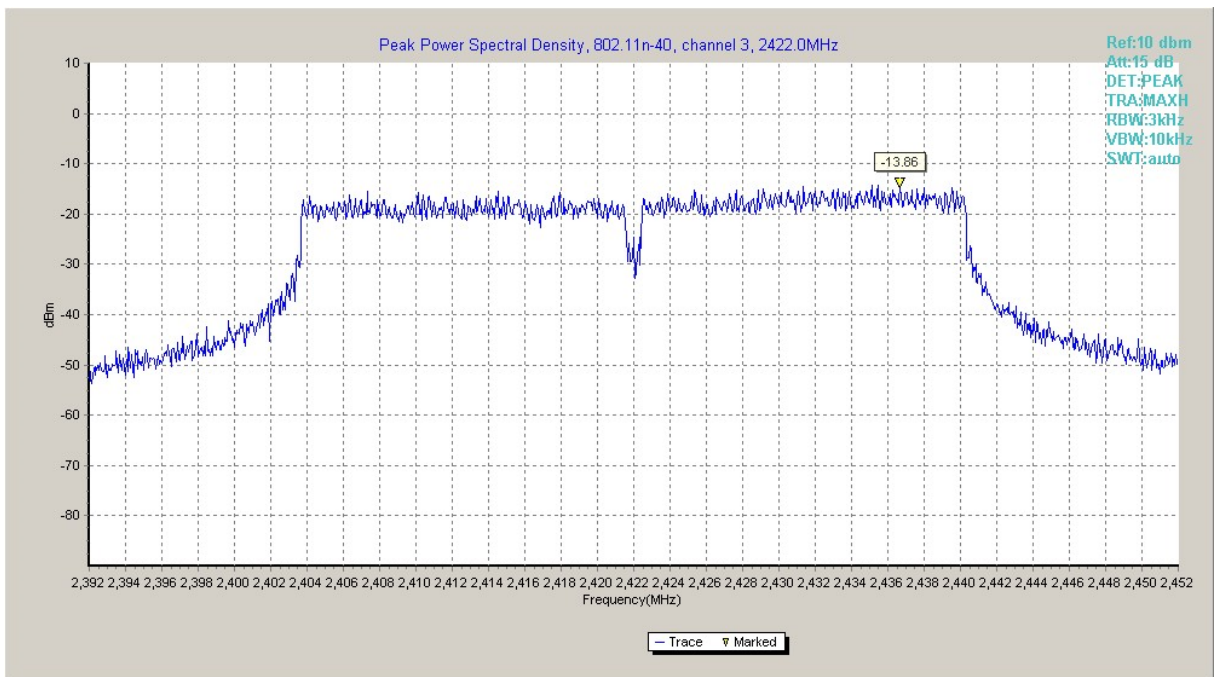
**Fig.A.3.7 Power Spectral Density (802.11n-HT20, Ch 1)**



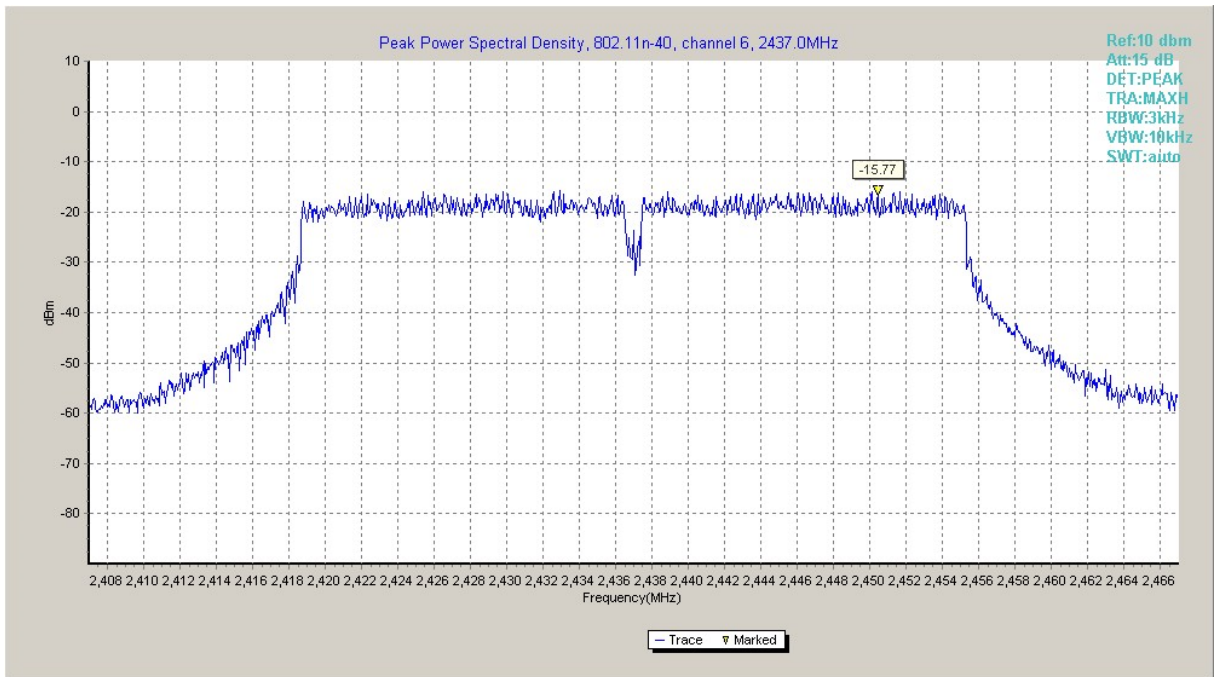
**Fig.A.3.8 Power Spectral Density (802.11n-HT20, Ch 6)**



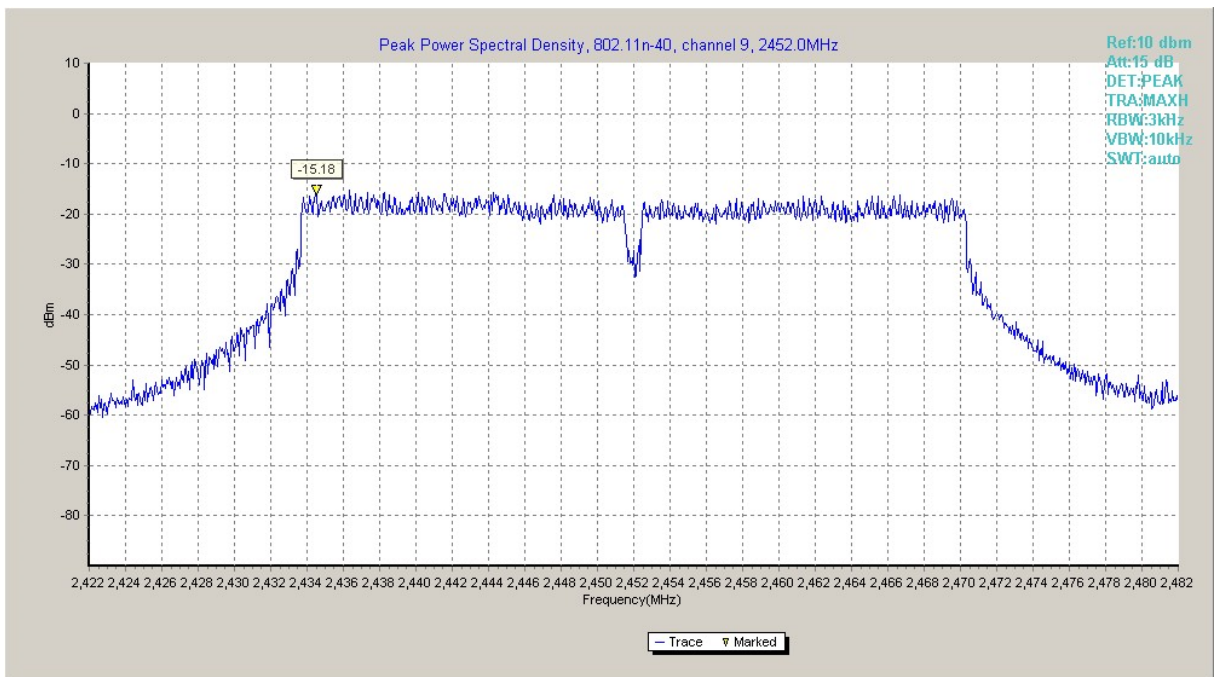
**Fig.A.3.9 Power Spectral Density (802.11n-HT20, Ch 11)**



**Fig.A.3.10 Power Spectral Density (802.11n-HT40, Ch 3)**



**Fig.A.3.11 Power Spectral Density (802.11n-HT40, Ch 6)**



**Fig.A.3.12 Power Spectral Density (802.11n-HT40, Ch 9)**

#### **A.4. DTS 6-dB Signal Bandwidth**

**Method of Measurement: See ANSI C63.10-2013 section 11.8.1.**

- a) Set RBW = 100 kHz.
- b) Set the video bandwidth (VBW) = 300 kHz.
- c) Detector = Peak.
- d) Trace mode = max hold.
- e) Sweep = auto couple.
- f) Allow the trace to stabilize.
- g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

**Measurement Limit:**

| Standard                   | Limit (kHz) |
|----------------------------|-------------|
| FCC 47 CFR Part 15.247 (a) | ≥ 500       |

**EUT ID: EUT2**

**Measurement Result:**

##### **802.11b/g mode**

| Mode    | Channel | Occupied 6dB Bandwidth ( kHz) |          | conclusion |
|---------|---------|-------------------------------|----------|------------|
| 802.11b | 1       | Fig.A.4.1                     | 8300.00  | <b>P</b>   |
|         | 6       | Fig.A.4.2                     | 7650.00  | <b>P</b>   |
|         | 11      | Fig.A.4.3                     | 7650.00  | <b>P</b>   |
| 802.11g | 1       | Fig.A.4.4                     | 16450.00 | <b>P</b>   |
|         | 6       | Fig.A.4.5                     | 16450.00 | <b>P</b>   |
|         | 11      | Fig.A.4.6                     | 16450.00 | <b>P</b>   |

##### **802.11n-HT20 mode**

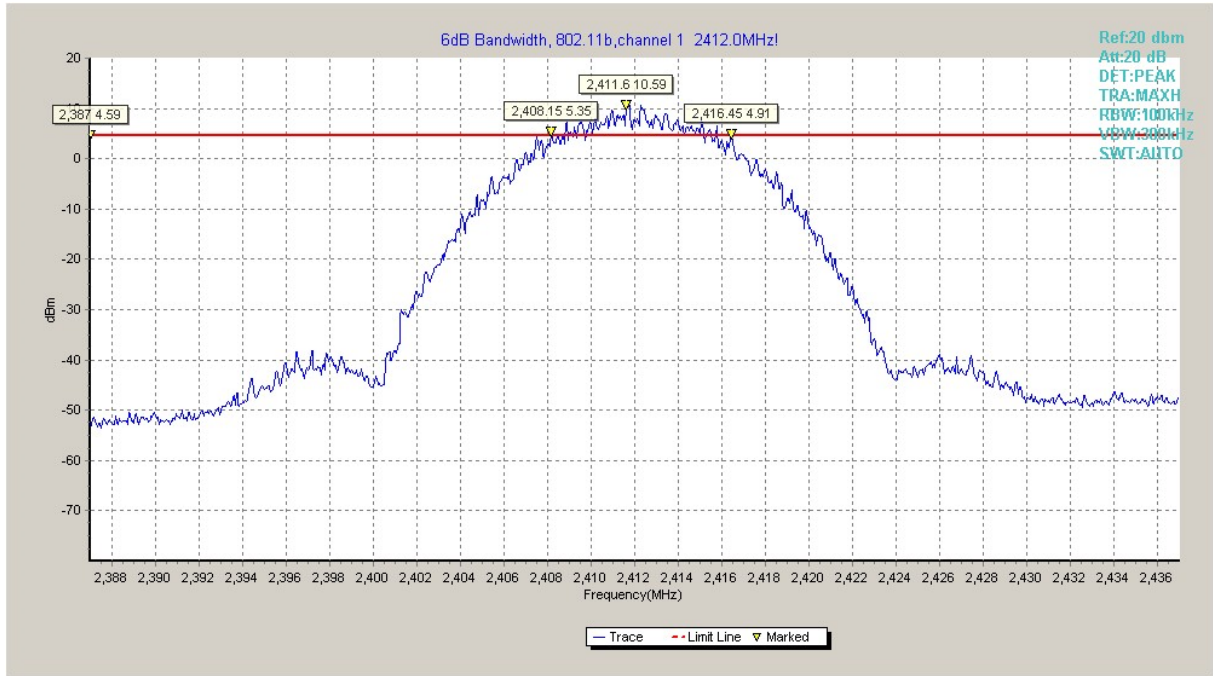
| Mode              | Channel | Occupied 6dB Bandwidth ( kHz) |          | conclusion |
|-------------------|---------|-------------------------------|----------|------------|
| 802.11n<br>(HT20) | 1       | Fig.A.4.7                     | 15150.00 | <b>P</b>   |
|                   | 6       | Fig.A.4.8                     | 15100.00 | <b>P</b>   |
|                   | 11      | Fig.A.4.9                     | 15150.00 | <b>P</b>   |

##### **802.11n-HT40 mode**

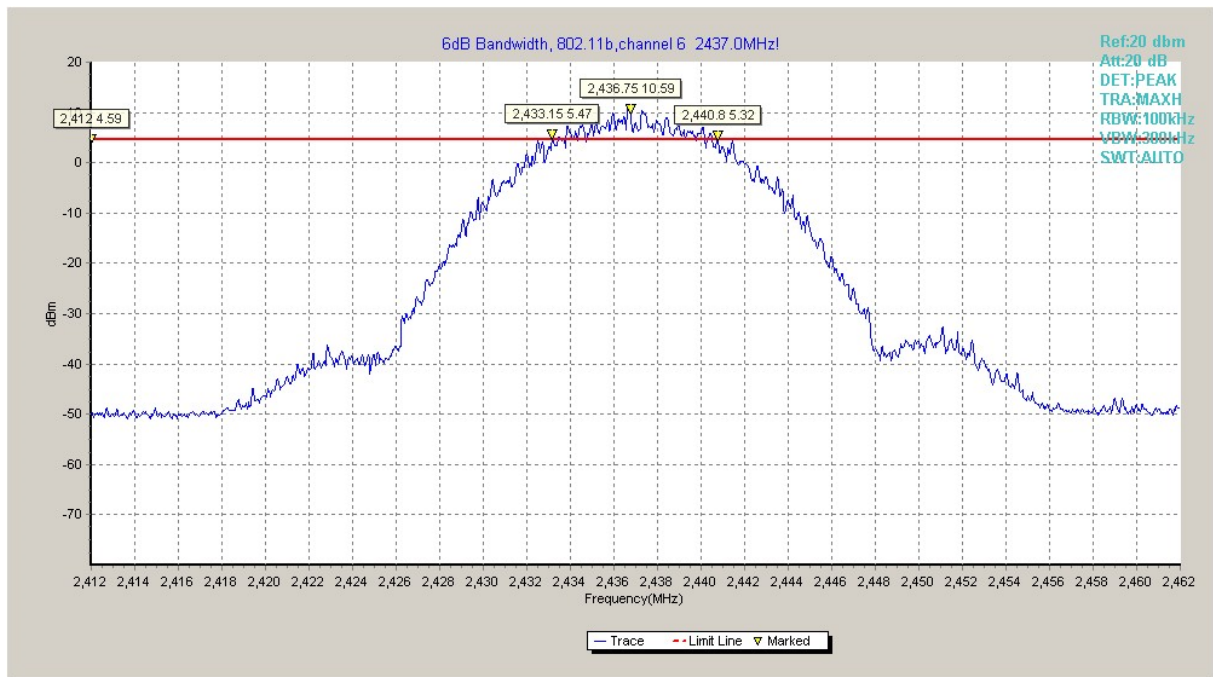
| Mode              | Channel | Occupied 6dB Bandwidth ( kHz) |          | conclusion |
|-------------------|---------|-------------------------------|----------|------------|
| 802.11n<br>(HT40) | 3       | Fig.A.4.10                    | 36400.00 | <b>P</b>   |
|                   | 6       | Fig.A.4.11                    | 36400.00 | <b>P</b>   |
|                   | 9       | Fig.A.4.12                    | 36320.00 | <b>P</b>   |

**Conclusion: Pass**

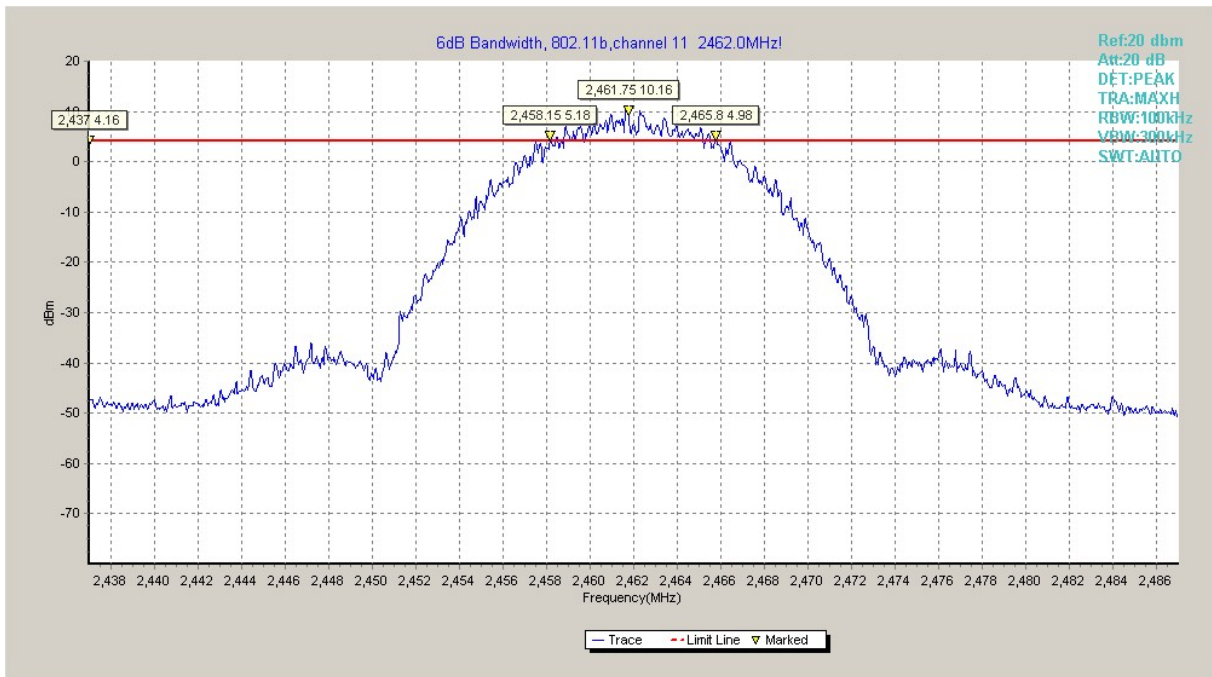
**Test graphs as below:**



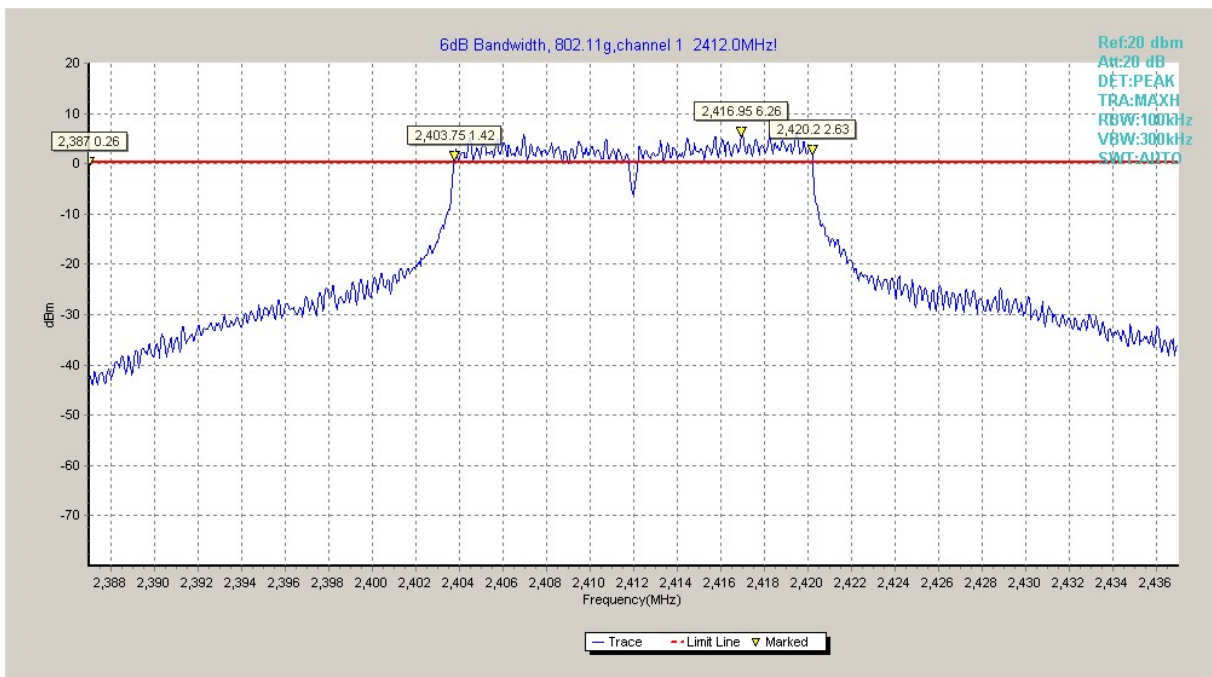
**Fig.A.4.1 Occupied 6dB Bandwidth(802.11b,Ch 1)**



**Fig.A.4.2 Occupied 6dB Bandwidth (802.11b, Ch 6)**



**Fig.A.4.3 Occupied 6dB Bandwidth (802.11b, Ch 11)**



**Fig.A.4.4 Occupied 6dB Bandwidth (802.11g, Ch 1)**

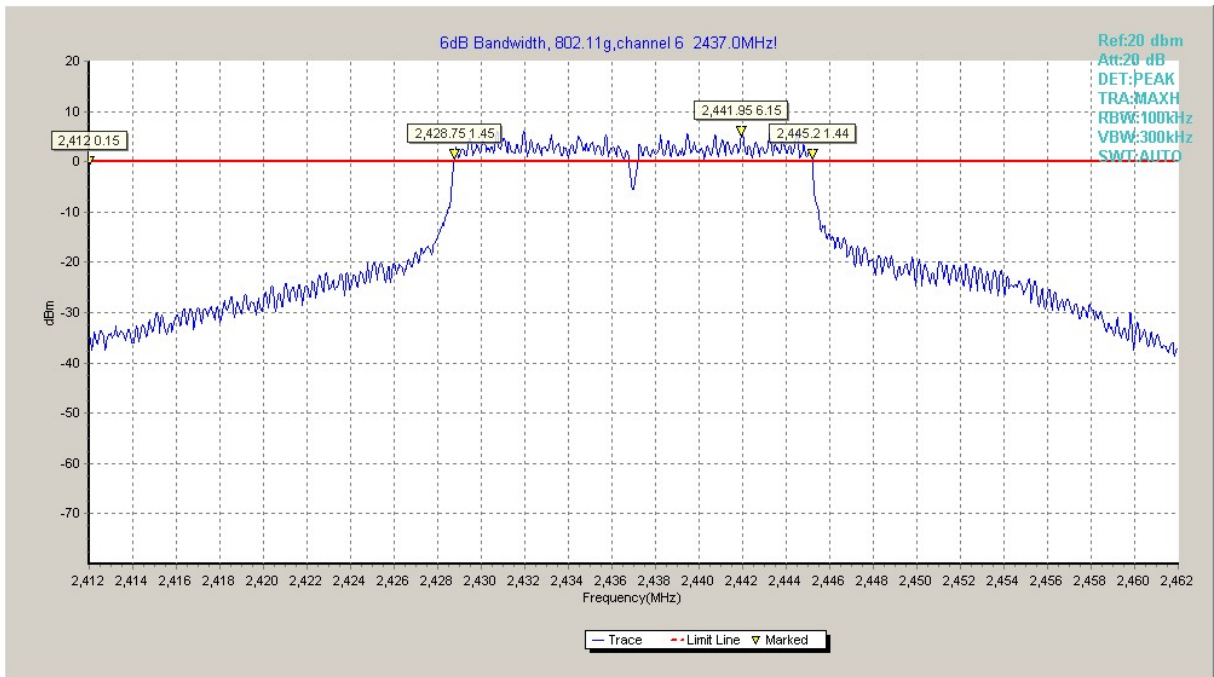


Fig.A.4.5 Occupied 6dB Bandwidth (802.11g, Ch 6)

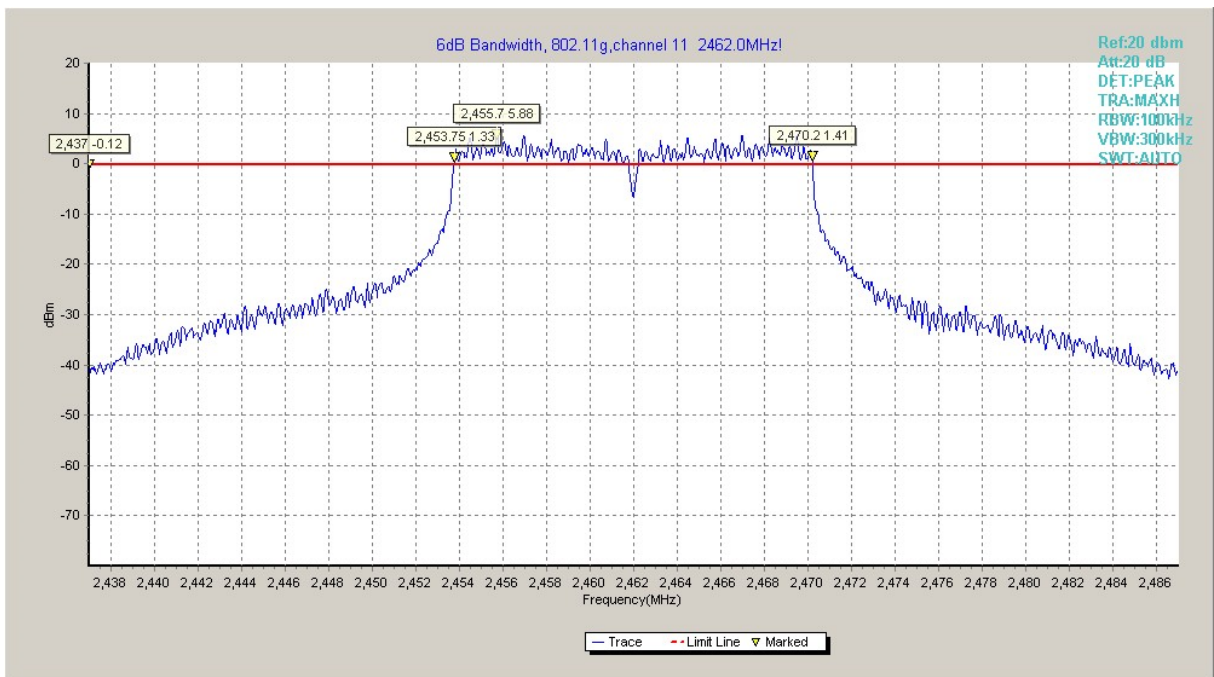
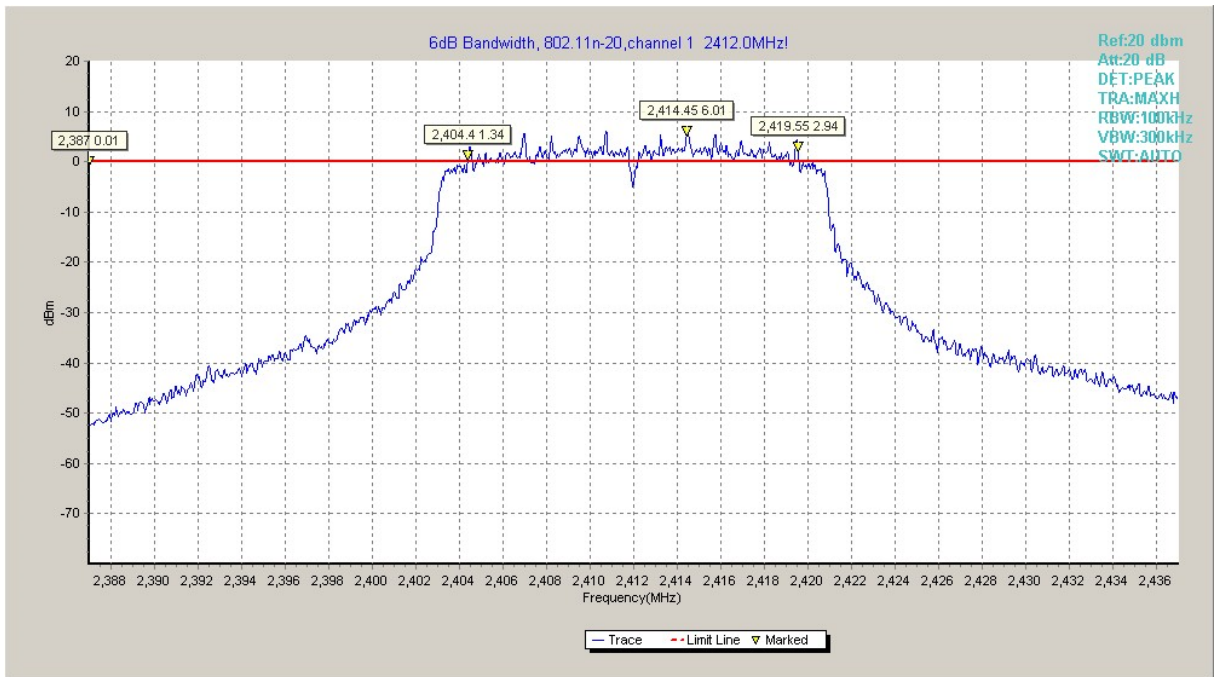
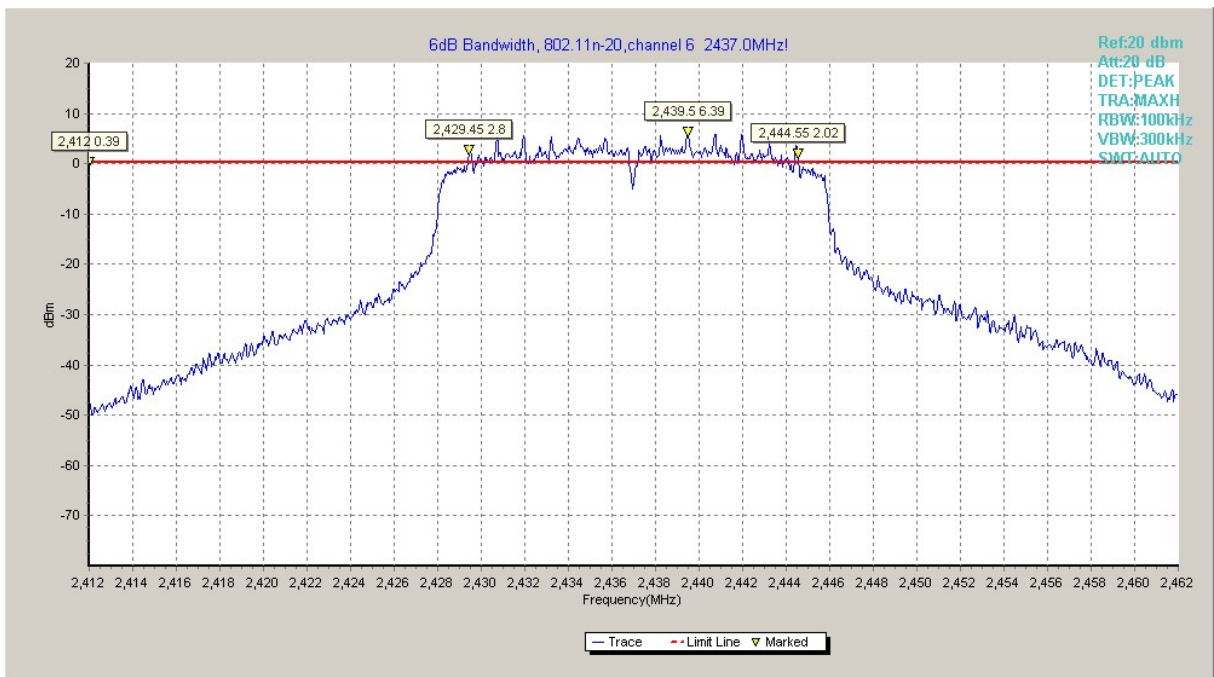


Fig.A.4.6 Occupied 6dB Bandwidth (802.11g, Ch 11)



**Fig.A.4.7 Occupied 6dB Bandwidth (802.11n-20MHz, Ch 1)**



**Fig.A.4.8 Occupied 6dB Bandwidth (802.11n-HT20, Ch 6)**



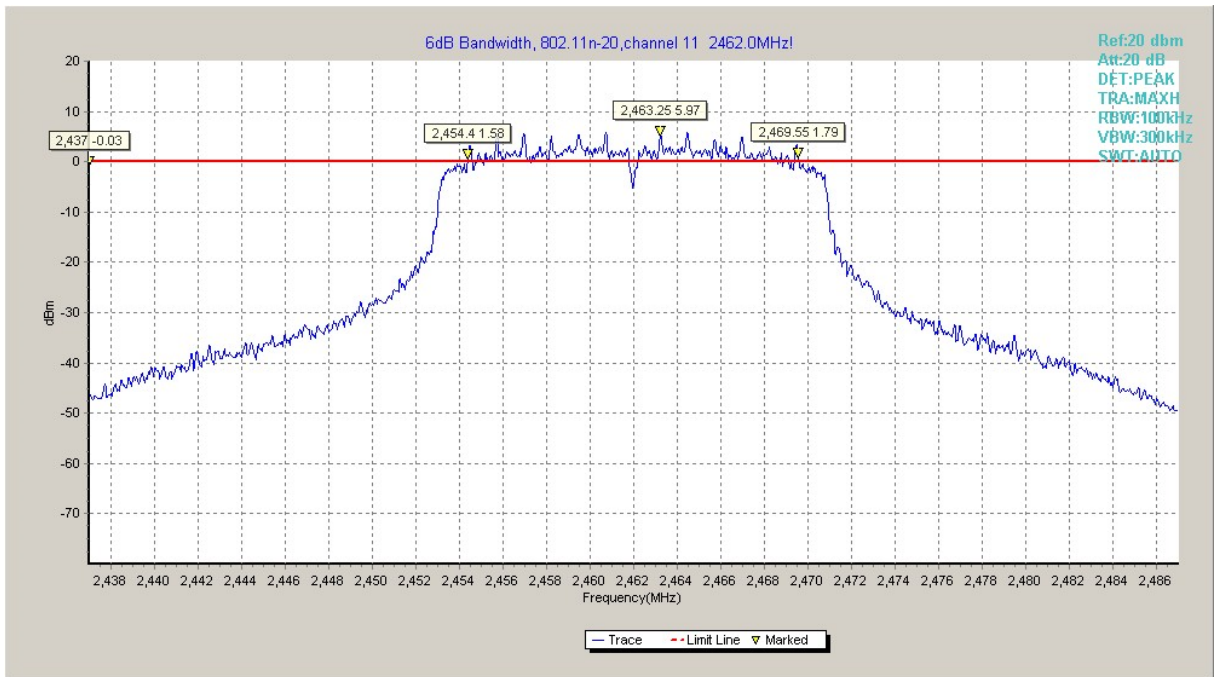


Fig.A.4.9 Occupied 6dB Bandwidth (802.11n-HT20, Ch 11)

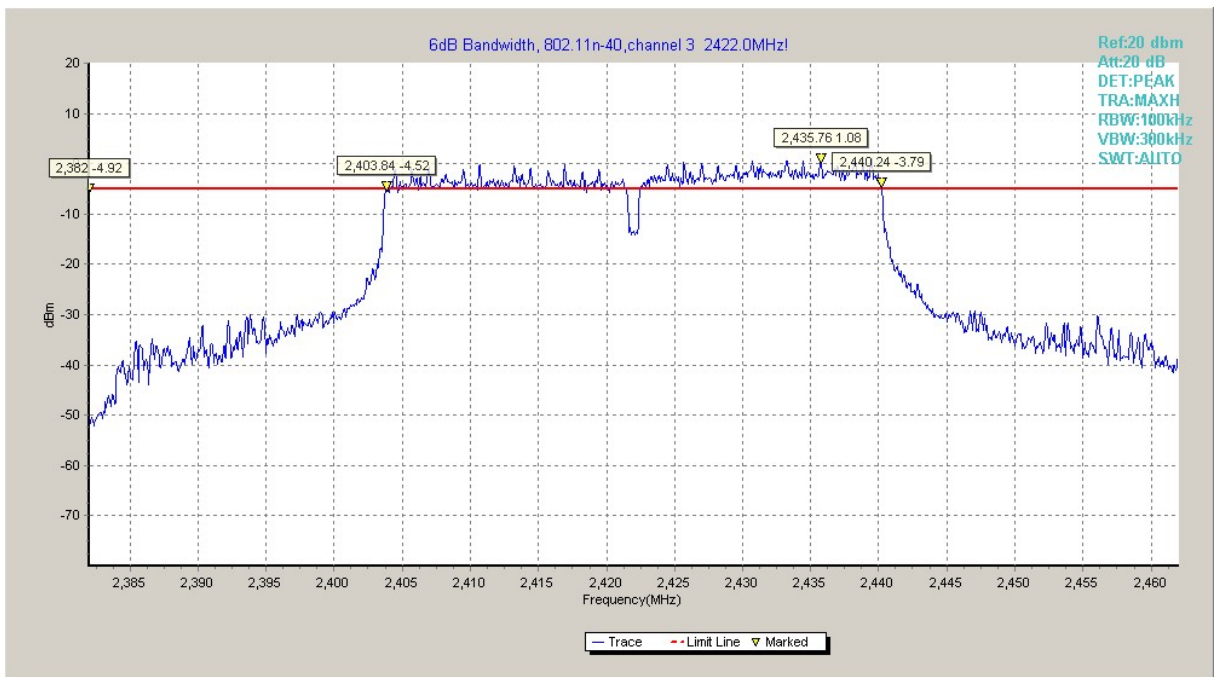
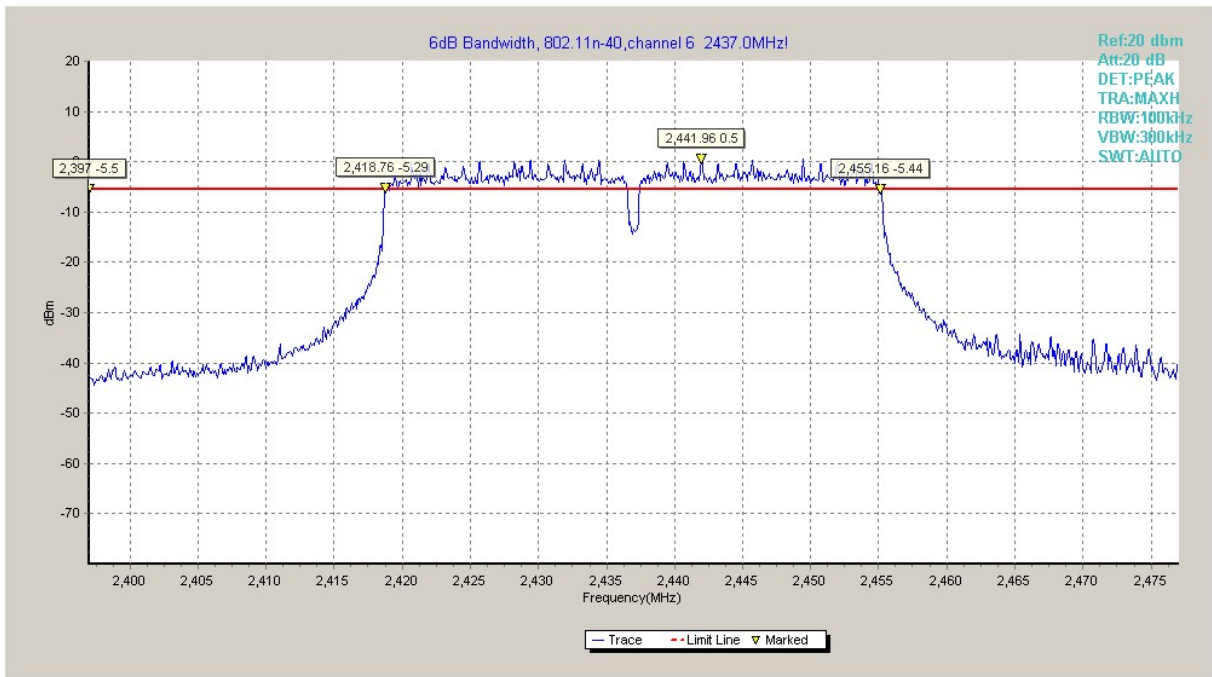
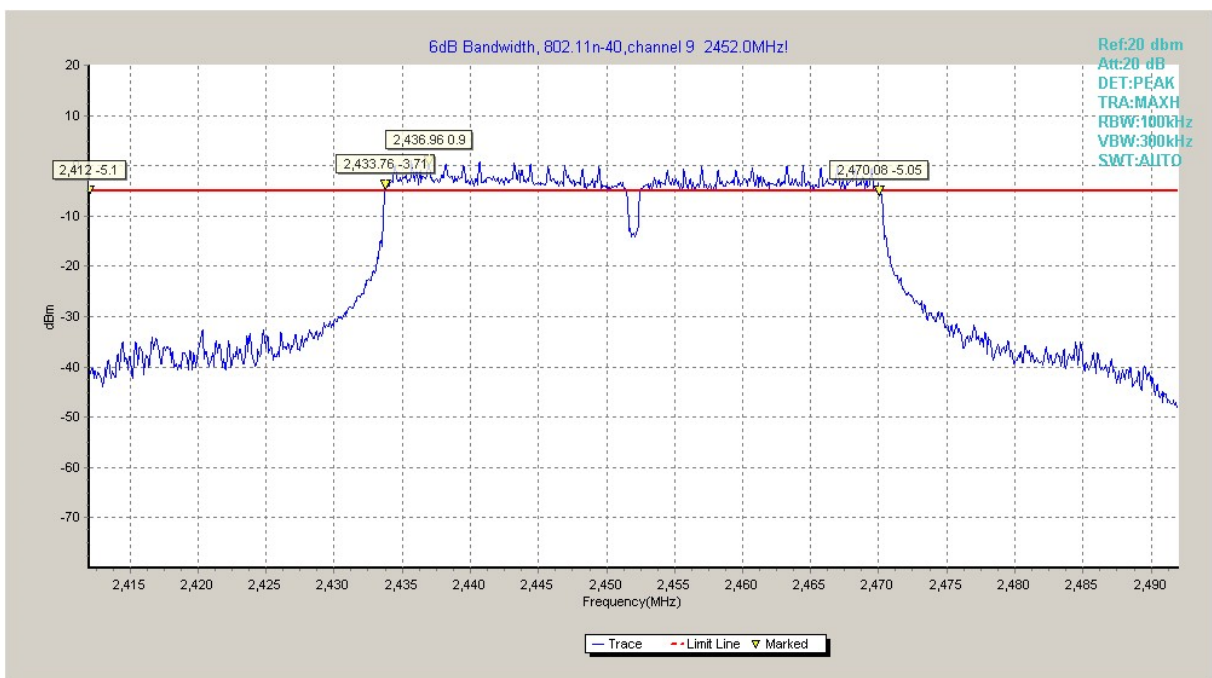


Fig.A.4.10 Occupied 6dB Bandwidth (802.11n-40MHz, Ch 3)



**Fig.A.4.11 Occupied 6dB Bandwidth (802.11n-HT40, Ch 6)**



**Fig.A.4.12 Occupied 6dB Bandwidth (802.11n-HT40, Ch 9)**

## **A.5. Band Edges Compliance**

**Method of Measurement: See ANSI C63.10-2013-clause 6.10.4**

Connect the spectrum analyzer to the EUT using an appropriate RF cable connected to the EUT output. Configure the spectrum analyzer settings as described below.

- a) Set Span = 100MHz
- b) Sweep Time: coupled
- c) Set the RBW= 100 kHz
- c) Set the VBW= 300 kHz
- d) Detector: Peak
- e) Trace: Max hold

**Measurement Limit:**

| Standard                   | Limit (dBc) |
|----------------------------|-------------|
| FCC 47 CFR Part 15.247 (d) | > 20        |

**EUT ID: EUT2**

**Measurement Result:**

**802.11b/g mode**

| Mode    | Channel | Test Results | Conclusion |
|---------|---------|--------------|------------|
| 802.11b | 1       | Fig.A.5.1    | <b>P</b>   |
|         | 11      | Fig.A.5.2    | <b>P</b>   |
| 802.11g | 1       | Fig.A.5.3    | <b>P</b>   |
|         | 11      | Fig.A.5.4    | <b>P</b>   |

**802.11n-HT20 mode**

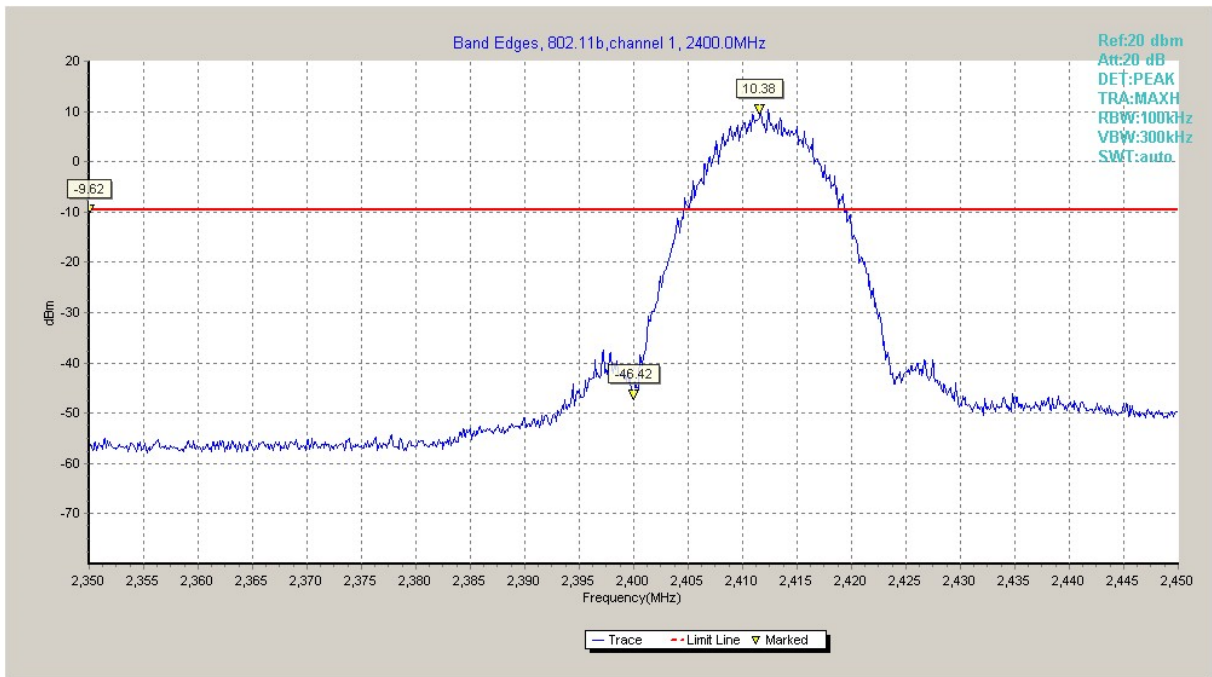
| Mode              | Channel | Test Results | Conclusion |
|-------------------|---------|--------------|------------|
| 802.11n<br>(HT20) | 1       | Fig.A.5.5    | <b>P</b>   |
|                   | 11      | Fig.A.5.6    | <b>P</b>   |

**802.11n-HT40 mode**

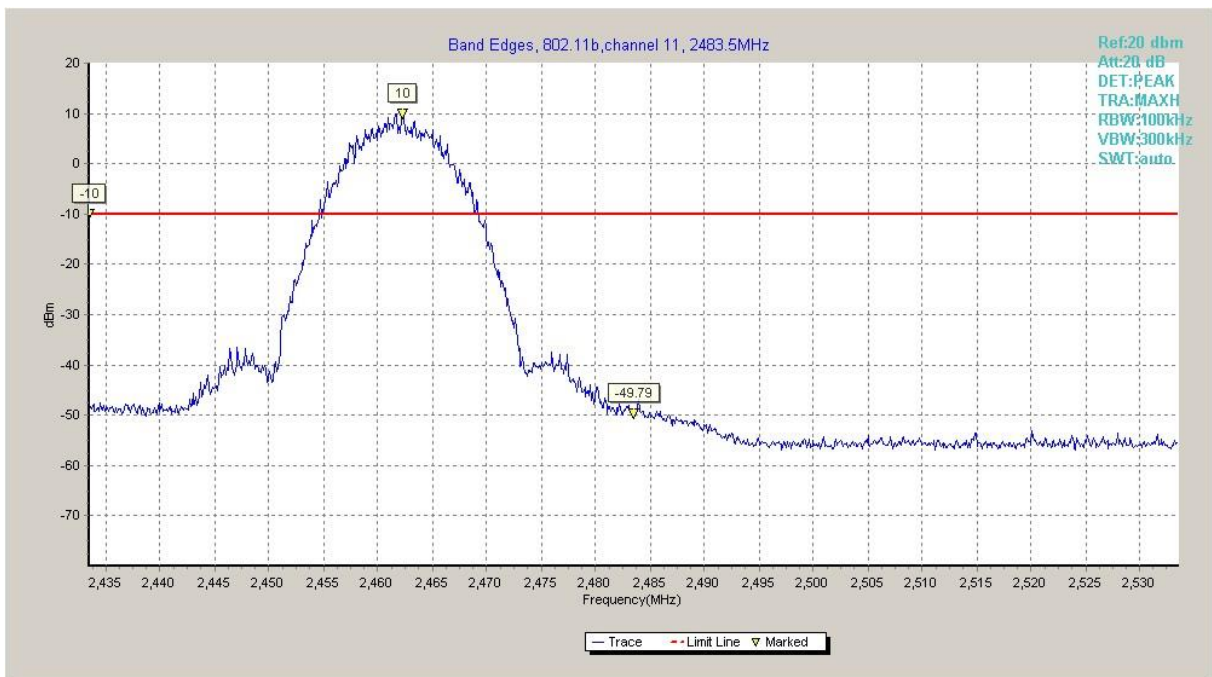
| Mode              | Channel | Test Results | Conclusion |
|-------------------|---------|--------------|------------|
| 802.11n<br>(HT40) | 3       | Fig.A.5.7    | <b>P</b>   |
|                   | 9       | Fig.A.5.8    | <b>P</b>   |

**Conclusion: Pass**

**Test graphs as below:**



**Fig.A.5.1 Band Edges (802.11b, Ch 1)**



**Fig.A.5.2 Band Edges (802.11b, Ch 11)**

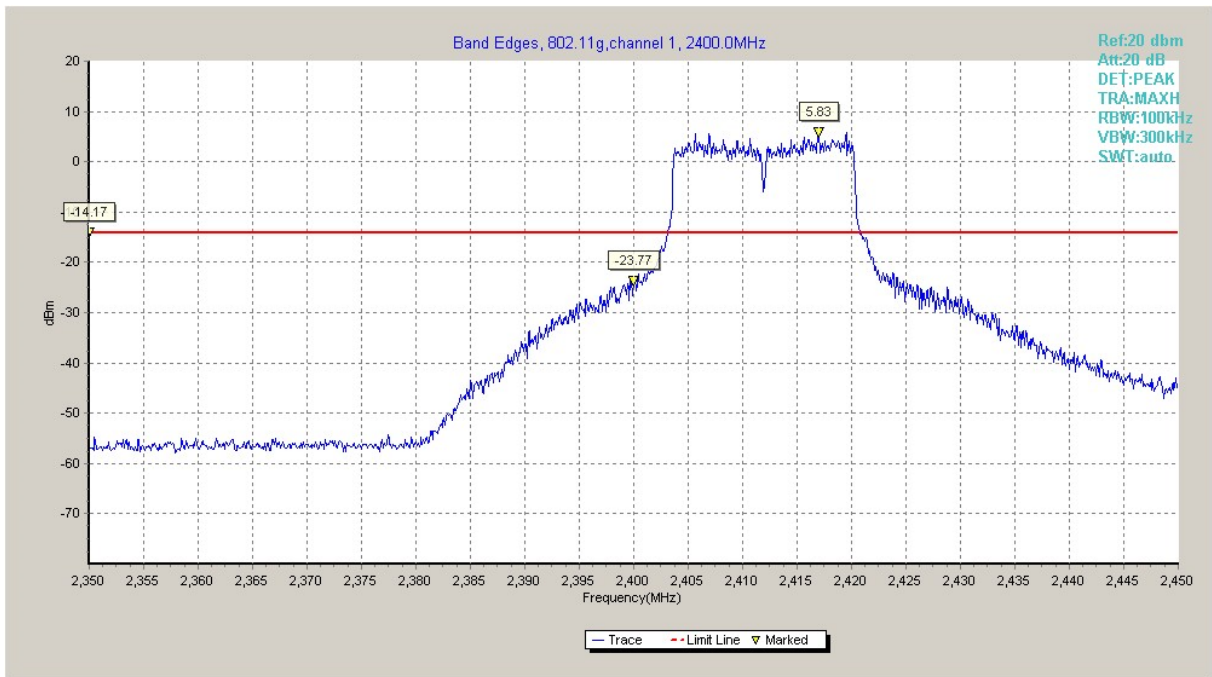


Fig.A.5.3 Band Edges (802.11g, Ch 1)

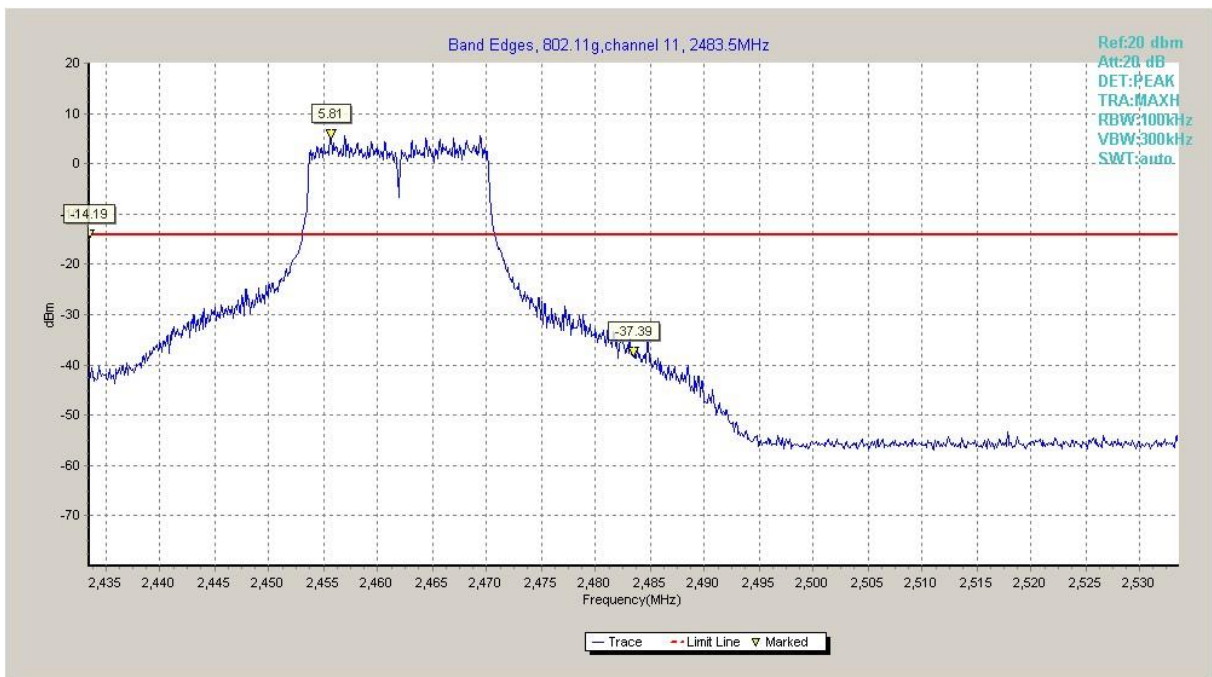
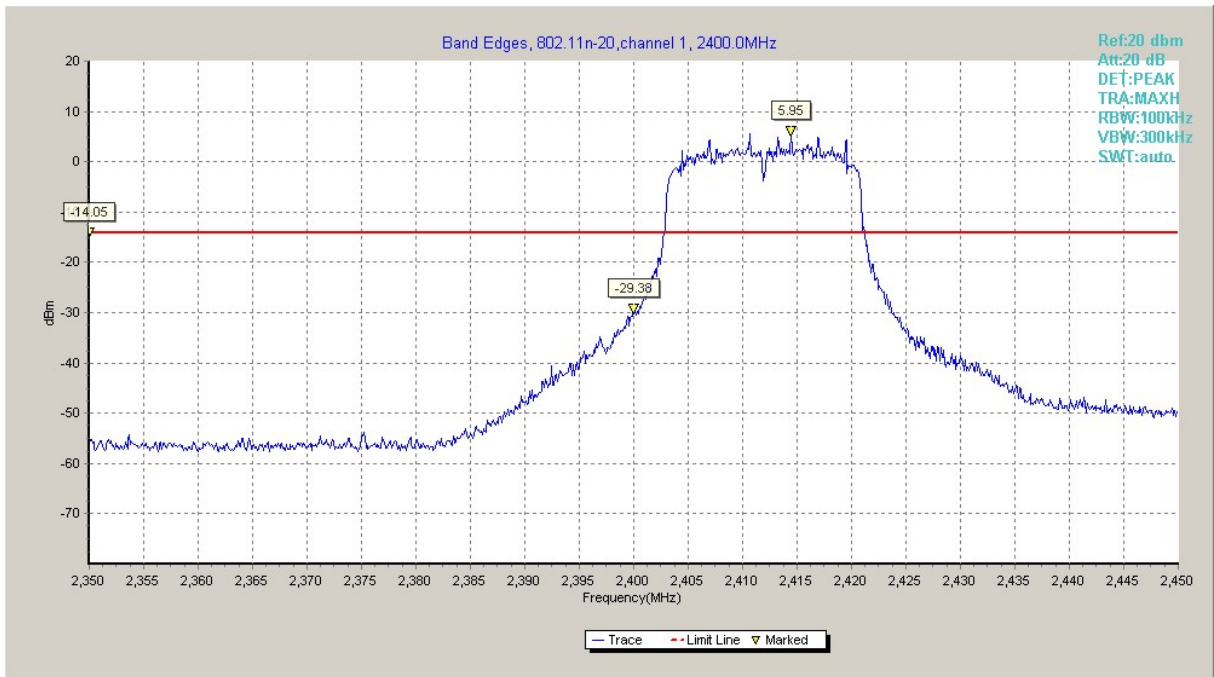


Fig.A.5.4 Band Edges (802.11g, Ch 11)



**Fig.A.5.5 Band Edges (802.11n-HT20, Ch 1)**



**Fig.A.5.6 Band Edges (802.11n-HT20, Ch 11)**

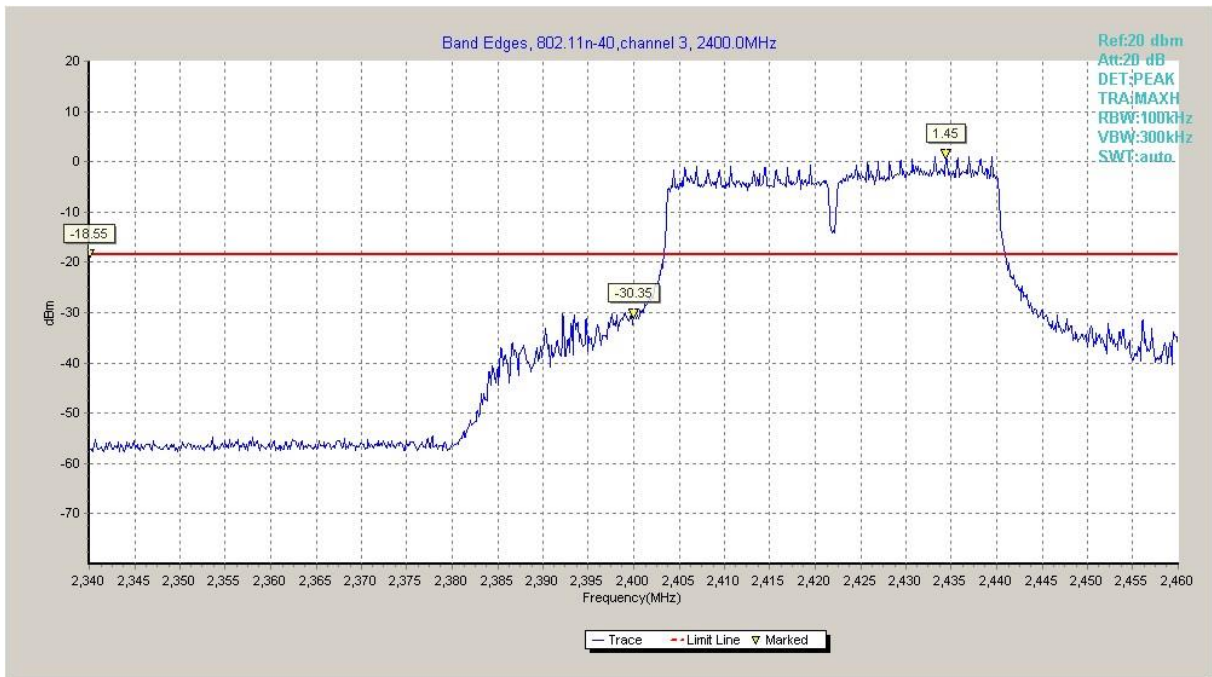


Fig.A.5.7 Band Edges (802.11n-HT40, Ch 3)

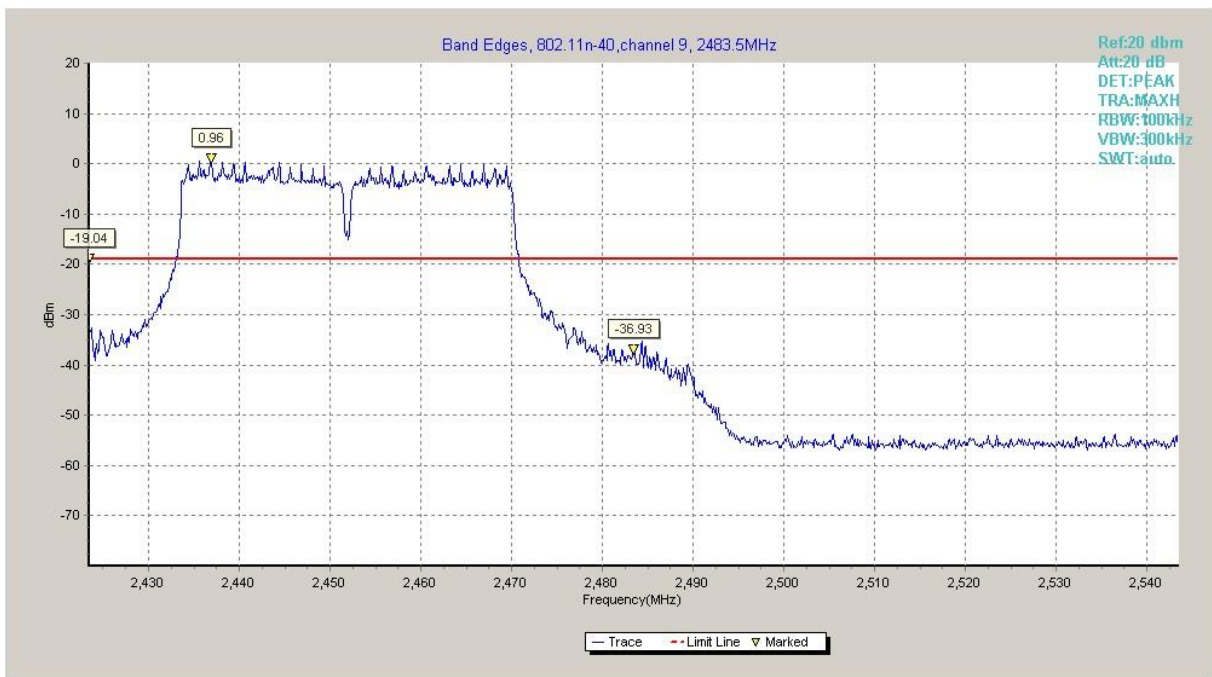


Fig.A.5.8 Band Edges (802.11n-HT40, Ch 9)

## **A.6. Transmitter Spurious Emission**

### **A.6.1 Transmitter Spurious Emission – Conducted**

**Method of Measurement: See ANSI C63.10-2013-clause 11.11**

Establish a reference level by using the following procedure:

- a) Set instrument center frequency to DTS channel center frequency
- b) Set the span to  $\geq 1.5$  times the DTS bandwidth
- c) Set the RBW= 100 kHz
- d) Set the VBW= 300 kHz
- e) Detector = Peak
- f) Sweep time = auto couple
- g) Trace mode = max hold
- h) Allow trace to fully stabilize
- i) Use the peak marker function to determine the maximum PSD level

Note that the channel found to contain the maximum PSD level can be used to establish the reference level.

Establish an emission level by using the following procedure:

- a) Set the center frequency and span to encompass frequency range to be measured.
- b) Set the RBW = 100 kHz.
- c) Set the VBW = 300 kHz.
- d) Detector = peak.
- e) Sweep time = auto couple.
- f) Trace mode = max hold.
- g) Allow trace to fully stabilize.
- h) Use the peak marker function to determine the maximum amplitude level.

Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band (excluding restricted frequency bands) is attenuated by at least the minimum requirements specified in 11.11. Report the three highest emissions relative to the limit.

#### **Measurement Limit:**

| <b>Standard</b>            | <b>Limit</b>                                      |
|----------------------------|---|
| FCC 47 CFR Part 15.247 (d) | 20dB below peak output power in 100 kHz bandwidth |

**EUT ID: EUT2**

**Measurement Results:**



**802.11b mode**

| <b>MODE</b> | <b>Channel</b> | <b>Frequency Range</b> | <b>Test Results</b> | <b>Conclusion</b> |
|-------------|----------------|------------------------|---------------------|-------------------|
| 802.11b     | 1              | 2.412 GHz              | Fig.A.6.1.1         | <b>P</b>          |
|             |                | 30 MHz ~ 1 GHz         | Fig.A.6.1.2         | <b>P</b>          |
|             |                | 1 GHz ~ 2.5 GHz        | Fig.A.6.1.3         | <b>P</b>          |
|             |                | 2.5 GHz ~ 7.5 GHz      | Fig.A.6.1.4         | <b>P</b>          |
|             |                | 7.5 GHz ~ 10 GHz       | Fig.A.6.1.5         | <b>P</b>          |
|             |                | 10 GHz ~ 15 GHz        | Fig.A.6.1.6         | <b>P</b>          |
|             |                | 15 GHz ~ 20 GHz        | Fig.A.6.1.7         | <b>P</b>          |
|             |                | 20 GHz ~ 26 GHz        | Fig.A.6.1.8         | <b>P</b>          |
|             | 6              | 2.437 GHz              | Fig.A.6.1.9         | <b>P</b>          |
|             |                | 30 MHz ~ 1 GHz         | Fig.A.6.1.10        | <b>P</b>          |
|             |                | 1 GHz ~ 2.5 GHz        | Fig.A.6.1.11        | <b>P</b>          |
|             |                | 2.5 GHz ~ 7.5 GHz      | Fig.A.6.1.12        | <b>P</b>          |
|             |                | 7.5 GHz ~ 10 GHz       | Fig.A.6.1.13        | <b>P</b>          |
|             |                | 10 GHz ~ 15 GHz        | Fig.A.6.1.14        | <b>P</b>          |
|             |                | 15 GHz ~ 20 GHz        | Fig.A.6.1.15        | <b>P</b>          |
|             |                | 20 GHz ~ 26 GHz        | Fig.A.6.1.16        | <b>P</b>          |
|             | 11             | 2.462 GHz              | Fig.A.6.1.17        | <b>P</b>          |
|             |                | 30 MHz ~ 1 GHz         | Fig.A.6.1.18        | <b>P</b>          |
|             |                | 1 GHz ~ 2.5 GHz        | Fig.A.6.1.19        | <b>P</b>          |
|             |                | 2.5 GHz ~ 7.5 GHz      | Fig.A.6.1.20        | <b>P</b>          |
|             |                | 7.5 GHz ~ 10 GHz       | Fig.A.6.1.21        | <b>P</b>          |
|             |                | 10 GHz ~ 15 GHz        | Fig.A.6.1.22        | <b>P</b>          |
|             |                | 15 GHz ~ 20 GHz        | Fig.A.6.1.23        | <b>P</b>          |
|             |                | 20 GHz ~ 26 GHz        | Fig.A.6.1.24        | <b>P</b>          |

**802.11g mode**

| <b>MODE</b> | <b>Channel</b> | <b>Frequency Range</b> | <b>Test Results</b> | <b>Conclusion</b> |
|-------------|----------------|------------------------|---------------------|-------------------|
| 802.11g     | 1              | 2.412 GHz              | Fig.A.6.1.25        | <b>P</b>          |
|             |                | 30 MHz ~ 1 GHz         | Fig.A.6.1.26        | <b>P</b>          |
|             |                | 1 GHz ~ 2.5 GHz        | Fig.A.6.1.27        | <b>P</b>          |
|             |                | 2.5 GHz ~ 7.5 GHz      | Fig.A.6.1.28        | <b>P</b>          |
|             |                | 7.5 GHz ~ 10 GHz       | Fig.A.6.1.29        | <b>P</b>          |
|             |                | 10 GHz ~ 15 GHz        | Fig.A.6.1.30        | <b>P</b>          |
|             |                | 15 GHz ~ 20 GHz        | Fig.A.6.1.31        | <b>P</b>          |
|             |                | 20 GHz ~ 26 GHz        | Fig.A.6.1.32        | <b>P</b>          |
|             | 6              | 2.437 GHz              | Fig.A.6.1.33        | <b>P</b>          |
|             |                | 30 MHz ~ 1 GHz         | Fig.A.6.1.34        | <b>P</b>          |
|             |                | 1 GHz ~ 2.5 GHz        | Fig.A.6.1.35        | <b>P</b>          |
|             |                | 2.5 GHz ~ 7.5 GHz      | Fig.A.6.1.36        | <b>P</b>          |
|             |                | 7.5 GHz ~ 10 GHz       | Fig.A.6.1.37        | <b>P</b>          |
|             |                | 10 GHz ~ 15 GHz        | Fig.A.6.1.38        | <b>P</b>          |
|             |                | 15 GHz ~ 20 GHz        | Fig.A.6.1.39        | <b>P</b>          |
|             |                | 20 GHz ~ 26 GHz        | Fig.A.6.1.40        | <b>P</b>          |
|             | 11             | 2.462 GHz              | Fig.A.6.1.41        | <b>P</b>          |
|             |                | 30 MHz ~ 1 GHz         | Fig.A.6.1.42        | <b>P</b>          |
|             |                | 1 GHz ~ 2.5 GHz        | Fig.A.6.1.43        | <b>P</b>          |
|             |                | 2.5 GHz ~ 7.5 GHz      | Fig.A.6.1.44        | <b>P</b>          |
|             |                | 7.5 GHz ~ 10 GHz       | Fig.A.6.1.45        | <b>P</b>          |
|             |                | 10 GHz ~ 15 GHz        | Fig.A.6.1.46        | <b>P</b>          |
|             |                | 15 GHz ~ 20 GHz        | Fig.A.6.1.47        | <b>P</b>          |
|             |                | 20 GHz ~ 26 GHz        | Fig.A.6.1.48        | <b>P</b>          |