

## 1.1. Test Result of RF Exposure Evaluation

- . Product: 802.11N Wireless Broadband Router
- . Test Item: RF Exposure Evaluation Data
- . Test site: OATSI-SD
- . Test Mode: Normal Operation

### 1.1.1. Antenna Gain

Antenna 1: External Antenna, 5 dBi  
Antenna 2: Internal Antenna, 1.8 dBi

### 1.1.2. EUT Operation condition

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

### 1.1.3. Output Power into Antenna & RF Exposure Evaluation Distance

Test Date: Nov. 19, 2008

Temperature: 25°C

Humidity: 70%

| Modulation Standard    | Channel | Frequency (MHz) | Output Power to Antenna (dBm) |           | Power Density (S) (mW/Cm2) |           |
|------------------------|---------|-----------------|-------------------------------|-----------|----------------------------|-----------|
|                        |         |                 | Antenna 1                     | Antenna 2 | Antenna 1                  | Antenna 2 |
| 802.11b (11Mbps)       | 01      | 2412            | 24.08                         | 24.08     | 0.161                      | 0.077     |
|                        | 06      | 2437            | 24.29                         | 24.29     | 0.169                      | 0.081     |
|                        | 11      | 2462            | 24.15                         | 24.15     | 0.164                      | 0.078     |
| 802.11g (54Mbps)       | 01      | 2412            | 22.63                         | 22.63     | 0.115                      | 0.055     |
|                        | 06      | 2437            | 22.79                         | 22.79     | 0.120                      | 0.057     |
|                        | 11      | 2462            | 22.61                         | 22.61     | 0.115                      | 0.055     |
| 802.11n HT20 (130Mbps) | 01      | 2412            | 26.61                         | 26.61     | 0.288                      | 0.138     |
|                        | 06      | 2437            | 26.70                         | 26.70     | 0.294                      | 0.141     |
|                        | 11      | 2462            | 26.21                         | 26.21     | 0.263                      | 0.126     |
| 802.11n HT40 (270Mbps) | 03      | 2422            | 26.00                         | 26.00     | 0.250                      | 0.120     |
|                        | 06      | 2437            | 25.82                         | 25.82     | 0.240                      | 0.115     |
|                        | 09      | 2452            | 24.99                         | 24.99     | 0.198                      | 0.095     |

The MPE is calculated as  $0.294\text{mW} / \text{cm}^2 < \text{limit } 1\text{ mW} / \text{cm}^2$ . So, RF exposure limit warning or SAR test are not required.

For 2412-2462 MHz, the EUT will only be used with a separation of 20cm or greater between the antenna and nearby persons and can therefore be considered a mobile transmitter per 47CFR2.1091 (b).

The RF Exposure Information page from the manual is included here for reference.