

## 1.1. Test Result of RF Exposure Evaluation

- . Product: Prosafe Wireless-N VPN Firewall
- . Test Item: RF Exposure Evaluation Data
- . Test site: OATSI-SD
- . Test Mode: Normal Operation

### 1.1.1. Antenna Gain

Antenna L, R: Dipole Antenna, 3dBi(2.4GHz Band)  
5dBi(5GHz Band)  
Antenna M: Patch Antenna, 2dBi(2.4GHz Band)  
3dBi(5GHz Band).

### 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

(1) Modulation Standard: IEEE 802.11a (54Mbps), ANT-R

Test Date: Jul. 23, 2008      Temperature: 20      Humidity: 60%

| Channel | Channel Frequency (MHz) | Output Power to Antenna (dBm) | Power Density (S) (mW/cm <sup>2</sup> ) |
|---------|-------------------------|-------------------------------|---|
| 36      | 5180                    | 16.48                         | 0.028                                   |
| 44      | 5220                    | 16.33                         | 0.027                                   |
| 48      | 5240                    | 16.22                         | 0.026                                   |

(2) Modulation Standard: IEEE 802.11a (54Mbps), ANT-M

Test Date: Jul. 23, 2008      Temperature: 20      Humidity: 60%

| Channel | Channel Frequency (MHz) | Output Power to Antenna (dBm) | Power Density (S) (mW/cm <sup>2</sup> ) |
|---------|-------------------------|-------------------------------|---|
| 36      | 5180                    | 16.85                         | 0.019                                   |
| 44      | 5220                    | 16.83                         | 0.019                                   |
| 48      | 5240                    | 16.73                         | 0.019                                   |

(3) Modulation Standard: IEEE 802.11a (54Mbps), ANT-L

Test Date: Jul. 23, 2008      Temperature: 20      Humidity: 60%

| Channel | Channel Frequency (MHz) | Output Power to Antenna (dBm) | Power Density (S) (mW/cm <sup>2</sup> ) |
|---------|-------------------------|-------------------------------|---|
| 36      | 5180                    | 16.58                         | 0.029                                   |
| 44      | 5220                    | 16.56                         | 0.028                                   |
| 48      | 5240                    | 16.75                         | 0.030                                   |

(4) Modulation Standard: IEEE 802.11an, HT20 (130Mbps), ANT-L+ANT-R

Test Date: Jul. 23, 2008      Temperature: 20      Humidity: 60%

| Channel | Channel Frequency (MHz) | Output Power to Antenna (dBm) | Power Density (S) (mW/cm <sup>2</sup> ) |
|---------|-------------------------|-------------------------------|---|
| 36      | 5180                    | 15.95                         | 0.025                                   |
| 44      | 5220                    | 16.00                         | 0.025                                   |
| 48      | 5240                    | 15.63                         | 0.023                                   |

(5) Modulation Standard: IEEE 802.11an, HT20 (130Mbps), ANT-L+ANT-M+ANT-R

Test Date: Jul. 23, 2008      Temperature: 20      Humidity: 60%

| Channel | Channel Frequency (MHz) | Output Power to Antenna (dBm) | Power Density (S) (mW/cm <sup>2</sup> ) |
|---------|-------------------------|-------------------------------|---|
| 36      | 5180                    | 16.89                         | 0.031                                   |
| 44      | 5220                    | 16.74                         | 0.030                                   |
| 48      | 5240                    | 16.65                         | 0.029                                   |

(6) Modulation Standard: IEEE 802.11an, HT40 (270Mbps), ANT-L+ANT-R

Test Date: Jul. 23, 2008      Temperature: 20      Humidity: 60%

| Channel | Channel Frequency (MHz) | Output Power to Antenna (dBm) | Power Density (S) (mW/cm <sup>2</sup> ) |
|---------|-------------------------|-------------------------------|---|
| 38      | 5190                    | 15.53                         | 0.022                                   |
| 42      | 5210                    | 15.42                         | 0.022                                   |
| 46      | 5230                    | 15.04                         | 0.020                                   |

(7) Modulation Standard: IEEE 802.11an, HT40 (270Mbps), ANT-L+ANT-M+ANT-R

Test Date: Jul. 23, 2008      Temperature: 20      Humidity: 60%

| Channel | Channel Frequency (MHz) | Output Power to Antenna (dBm) | Power Density (S) (mW/cm <sup>2</sup> ) |
|---------|-------------------------|-------------------------------|---|
| 38      | 5190                    | 16.65                         | 0.029                                   |
| 42      | 5210                    | 16.61                         | 0.029                                   |
| 46      | 5230                    | 16.82                         | 0.030                                   |

The MPE is calculated as  $0.031 \text{ mW} / \text{cm}^2 < \text{limit } 1 \text{ mW} / \text{cm}^2$ . So, RF exposure limit warning or SAR test are not required.

For 5150-5250MHz, 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.