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## RF Exposure Statement

### 1. LIMITS

According to §1.1310 and §2.1091 RF exposure is calculated.

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(B) Limits for General Population/Uncontrolled Exposures

| Frequency range<br>(MHz) | Electric field<br>Strength (V/m) | Magnetic field<br>Strength (A/m) | Power density<br>(mW/cm <sup>2</sup> ) | Averaging time<br>(minutes) |
|--------------------------|----------------------------------|----------------------------------|----------------------------------------|-----------------------------|
| 0.3 - 1.34.....          | 614                              | 1.63                             | * (100)                                | 30                          |
| 1.34 - 30.....           | 824/f                            | 2.19/f                           | * (180/ f <sup>2</sup> )               | 30                          |
| 30 - 300.....            | 27.5                             | 0.073                            | 0.2                                    | 30                          |
| 300 - 1500.....          | .....                            | .....                            | f/1500                                 | 30                          |
| 1500 - 100.000.....      | .....                            | .....                            | 1.0                                    | 30                          |

F = frequency in MHz

\* = Plane-wave equivalent power density

### 2. MAXIMUM PERMISSIBLE EXPOSURE Prediction

Prediction of MPE limit at a given distance

$$S = PG/4\pi R^2$$

S = Power density

P = power input to antenna

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna

### 3. RESULTS

#### 3-1. BT BAND

|                                                                                   |            |
|-----------------------------------------------------------------------------------|------------|
| Max Average output Power at antenna input terminal (dBm)                          | 3.027      |
| Max Average output Power at antenna input terminal (mW)                           | 2.008      |
| Prediction distance (cm)                                                          | 20.00000   |
| Prediction frequency (MHz)                                                        | 2441.00000 |
| Antenna Gain(Peak) (dBi)                                                          | 2.10000    |
| Antenna Gain(numeric)                                                             | 1.62181    |
| Power density at prediction frequency (mW/cm <sup>2</sup> )                       | 0.000648   |
| MPE limit for uncontrolled exposure at prediction frequency (mW/cm <sup>2</sup> ) | 1.00000    |

#### 3-2. DTS(802.11b) BAND

|                                                                                   |            |
|-----------------------------------------------------------------------------------|------------|
| Max Average output Power at antenna input terminal (dBm)                          | 23.030     |
| Max Average output Power at antenna input terminal (mW)                           | 200.909    |
| Prediction distance (cm)                                                          | 20.00000   |
| Prediction frequency (MHz)                                                        | 2412.00000 |
| Antenna Gain(Peak) (dBi)                                                          | 2.10000    |
| Antenna Gain(numeric)                                                             | 1.62181    |
| Power density at prediction frequency (mW/cm <sup>2</sup> )                       | 0.064823   |
| MPE limit for uncontrolled exposure at prediction frequency (mW/cm <sup>2</sup> ) | 1.00000    |

### 3-3. DTS(802.11g) BAND

|                                                                                   |            |
|-----------------------------------------------------------------------------------|------------|
| Max Average output Power at antenna input terminal (dBm)                          | 22.970     |
| Max Average output Power at antenna input terminal (mW)                           | 198.153    |
| Prediction distance (cm)                                                          | 20.00000   |
| Prediction frequency (MHz)                                                        | 2437.00000 |
| Antenna Gain(Peak) (dBi)                                                          | 2.10000    |
| Antenna Gain(numeric)                                                             | 1.62181    |
| Power density at prediction frequency (mW/cm <sup>2</sup> )                       | 0.063934   |
| MPE limit for uncontrolled exposure at prediction frequency (mW/cm <sup>2</sup> ) | 1.00000    |

### 3-3. DTS(802.11n) BAND

|                                                                                   |            |
|-----------------------------------------------------------------------------------|------------|
| Max Average output Power at antenna input terminal (dBm)                          | 22.550     |
| Max Average output Power at antenna input terminal (mW)                           | 179.887    |
| Prediction distance (cm)                                                          | 20.00000   |
| Prediction frequency (MHz)                                                        | 2437.00000 |
| Antenna Gain(Peak) (dBi)                                                          | 2.10000    |
| Antenna Gain(numeric)                                                             | 1.62181    |
| Power density at prediction frequency (mW/cm <sup>2</sup> )                       | 0.058040   |
| MPE limit for uncontrolled exposure at prediction frequency (mW/cm <sup>2</sup> ) | 1.00000    |

### 3-4. UNII 1 (802.11a) BAND

|                                                                                   |            |
|-----------------------------------------------------------------------------------|------------|
| Max Average output Power at antenna input terminal (dBm)                          | 13.060     |
| Max Average output Power at antenna input terminal (mW)                           | 20.230     |
| Prediction distance (cm)                                                          | 20.00000   |
| Prediction frequency (MHz)                                                        | 5240.00000 |
| Antenna Gain(Peak) (dBi)                                                          | 3.90000    |
| Antenna Gain(numeric)                                                             | 2.45471    |
| Power density at prediction frequency (mW/cm <sup>2</sup> )                       | 0.009879   |
| MPE limit for uncontrolled exposure at prediction frequency (mW/cm <sup>2</sup> ) | 1.00000    |

### 3-5. UNII 1 (802.11n) BAND

|                                                                                   |            |
|-----------------------------------------------------------------------------------|------------|
| Max Average output Power at antenna input terminal (dBm)                          | 12.790     |
| Max Average output Power at antenna input terminal (mW)                           | 19.011     |
| Prediction distance (cm)                                                          | 20.00000   |
| Prediction frequency (MHz)                                                        | 5240.00000 |
| Antenna Gain(Peak) (dBi)                                                          | 3.90000    |
| Antenna Gain(numeric)                                                             | 2.45471    |
| Power density at prediction frequency (mW/cm <sup>2</sup> )                       | 0.009284   |
| MPE limit for uncontrolled exposure at prediction frequency (mW/cm <sup>2</sup> ) | 1.00000    |

### 3-6. UNII 3 (802.11a) BAND

|                                                                                   |            |
|-----------------------------------------------------------------------------------|------------|
| Max Average output Power at antenna input terminal (dBm)                          | 16.730     |
| Max Average output Power at antenna input terminal (mW)                           | 47.098     |
| Prediction distance (cm)                                                          | 20.00000   |
| Prediction frequency (MHz)                                                        | 5745.00000 |
| Antenna Gain(Peak) (dBi)                                                          | 3.90000    |
| Antenna Gain(numeric)                                                             | 2.45471    |
| Power density at prediction frequency (mW/cm <sup>2</sup> )                       | 0.023000   |
| MPE limit for uncontrolled exposure at prediction frequency (mW/cm <sup>2</sup> ) | 1.00000    |

### 3-7. UNII 3 (802.11n) BAND

|                                                                                   |            |
|-----------------------------------------------------------------------------------|------------|
| Max Average output Power at antenna input terminal (dBm)                          | 16.800     |
| Max Average output Power at antenna input terminal (mW)                           | 47.863     |
| Prediction distance (cm)                                                          | 20.00000   |
| Prediction frequency (MHz)                                                        | 5745.00000 |
| Antenna Gain(Peak) (dBi)                                                          | 3.90000    |
| Antenna Gain(numeric)                                                             | 2.45471    |
| Power density at prediction frequency (mW/cm <sup>2</sup> )                       | 0.023374   |
| MPE limit for uncontrolled exposure at prediction frequency (mW/cm <sup>2</sup> ) | 1.00000    |