

**FCC Part 15.247  
Transmitter Certification**

**Frequency Hopping Spread Spectrum Transmitter**

**Test Report**

**FCC ID: P2SNTGSRFE01**

**FCC Rule Part: 15.247**

**ACS Report Number: 05-0356-15C**

**Manufacturer: Neptune Technology Group, Inc.  
Model: R900E**

**RF Exposure**

**General Information:**

Applicant: Neptune Technology Group, Inc.  
 ACS Project: 05-0356  
 FCC ID: P2SNTGSRFE01  
 Device Category: Fixed  
 Environment: General Population/Uncontrolled Exposure

**Technical Information:**

Antenna Type: Monopole  
 Antenna Gain: -5dBi  
 Transmitter Conducted Power: 17.93dBm  
 Maximum System EIRP: 12.93dBm  
 Operating Configuration: Fixed mounted  
 Exposure Conditions: Greater than 20 centimeters  
 Antenna Separation: Greater than 20 centimeters

**MPE Calculation**

The Power Density (mW/cm<sup>2</sup>) is calculated as follows:

$$S = \frac{PG}{4\pi R^2}$$

Where:

S = power density (in appropriate units, e.g. mW/cm<sup>2</sup>)

P = power input to the antenna (in appropriate units, e.g., mW)

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 (appropriate units, e.g., cm)

| MPE Calculator for Mobile Equipment<br>Limits for General Population/Uncontrolled Exposure* |                   |                              |                  |                    |                       |               |                         |
|---|-------------------|------------------------------|------------------|--------------------|-----------------------|---------------|-------------------------|
| Transmit Frequency (MHz)  | Radio Power (dBm) | Power Density Limit (mW/Cm2) | Radio Power (mW) | Antenna Gain (dBi) | Antenna Gain (mW eq.) | Distance (cm) | Power Density (mW/cm^2) |
| 919.1   | 17.93             | 0.61                         | 62.09            | -5                 | 0.316                 | 20            | 0.004                   |

**Installation Guidelines**

The installation manual contains the following text advising how to install the equipment to maintain compliance with the FCC RF exposure requirements:

**"RF Exposure (Intentional Radiators Only)"**

In accordance with FCC requirements of human exposure to radiofrequency fields, the radiating element shall be installed such that a minimum separation distance of 20cm is maintained from the general population."

**Conclusion**

This device complies with the MPE requirements by providing adequate separation between the device, any radiating structure and the general population.