

January 10, 2006

Attn: Director of Certification

Dear Sir or Madam:

The following is the SAR calculation for the Digivance® Long Range Coverage Solution (LRCS) 1900 MHz System using the system's maximum RF emission. The calculation is based on FCC 47CFR Part 2 and OET 65.

Per OET 65:

Maximum Permissible Exposure is Freq. (MHz)/1500 = MPE  $mW/cm^2$  1930  $MHz/1500 = 1.2867 \ mW/cm^2$ 

The following equations determine the distance from the antenna that the power density is  $\leq 1.2867 \text{ mW/cm}^2$ .

+42.33 dBm Transmitter Power (Max)

17.67 dBi Antenna Gain (Max)

42.33 dBm + 17.67 dBi= +60 dBm EIRP

+60 dBm EIRP = 1000 Watts EIRP

1000 Watts EIRP = 1000\*103 mWatts EIRP

1.2867 mW/cm<sup>2</sup> =  $1000*10^3$  mW/ $(4*\pi*r^2)$ 

 $r = SQR(1000*10^3/4*\pi 1.2867)$ 

r= 248.69 cm or 2.48 Meters

In addition, the following statement will be added to our installation/operation manual:

To comply with Maximum Permissible Exposure (MPE) requirements, the maximum composite output from the antenna cannot exceed 1000 Watts EIRP and the antenna must be permanently installed in a fixed location that provides at least 6 meters (20 feet) of separation from all persons.

Sincerely,

**Dave Conyers** 

Vice President of Engineering

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