

January 12, 2006

Attn: Director of Certification

Dear Sir or Madam:

The following is the SAR calculation for the Digivance® CXD 800 MHz A and B Band 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  $mW/cm^2$  869 MHz/1500= 0.5793  $mW/cm^2$ 

The following equations determine the distance from the antenna that the power density is  $\leq 0.5793 \text{ mW/cm}^2$ .

+39.20 dBm Transmitter Power (Max) 20.80 dBi Antenna Gain (Max) 39.20 dBm + 20.80 dBi= +60 dBm EIRP +60 dBm EIRP = 1000 Watts EIRP 1000 Watts EIRP = 1000\*10<sup>3</sup> mWatts EIRP

 $0.5793 \text{ mW/cm}^2 = 1000*10^3 \text{ mW/(4*}\pi^*\text{r}^2)$ 

 $r = SQR(1000*10^3/4*\pi \ 0.5793)$ 

r= 370.63 cm or 3.70 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 Convers** 

Vice President of Engineering

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