August 31, 2006

Attn: Director of Certification

Since the Digivance® 1900 MHz Indoor Coverage Solution is a low power device that is not hand-held, its antenna would rarely be within 20 cm of an individual, it operates above 1.5 GHz, and the ERP is less than 3 watts, we are in compliance with SAR requirements of 2.1091.

The maximum TX output power from the EUT antenna port is 26.57 dBm.
The maximum gain antenna available for use with the EUT has a gain of 5.85 dBd.
From the following equations:

Peak Output of EUT at antenna Connector (dBm) + Gain of Antenna (dBd) = Peak TX Power (dBm) ERP
$10*\text{Log}_{10}$(Peak TX Power * $E^3$ Watts) = Peak TX Power (dBm) ERP

26.57 dBm + 5.85 dBd = 32.42 dBm ERP
32.42 dBm EIRP = 1.74 Watts ERP
To convert to EIRP use the relation: EIRP = ERP ***X*** 1.64. (2.85 EIRP = 1.74 ERP)

Per OET 65:
Maximum Permissible Exposure is 1.0 mW/cm$^2$ over 30 minutes. (1500 MHz - 100,000 MHz)

The following equations determine the distance from the antenna that the power density is ≤ 1.0 mW/cm$^2$.

1.74 Watts ERP = $1.74*10^3$ mWatts ERP

1.0 mW/cm$^2$ = $1.74*10^3$ mW/$(4*\pi*r^2)$

r= SQR($1.74*10^3/4*\pi$ 1.0)
r= 11.76 cm or 0.1176 Meters

In addition, the following statement is in our installation manual:
To comply with Maximum Permissible Exposure (MPE) requirements, antennas must be installed to provide at least 20 centimeters of separation from all persons per FCC 47CFR, Part 2.1091 and IC RSS-102, Section 2.5.2.

Sincerely,

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