Type Acceptance Test Report

Broad Band PCS Transceiver

FCC ID: DNY0A5DATA1900

FCC Rule Part: 24E

ACS Report Number: 03-0096-24TA

Manufacturer: EMS Wireless
Model: DataNex

RF Exposure Information

General Information:

Applicant: EMS Wireless
ACS Project: 03-0096
FCC ID: DNY0A5DATA1900
Device Category: Broadband PCS Transceiver
Environment: General Population/Uncontrolled Exposure

Technical Information:

Antenna Type: Unknown
Antenna Gain: Up to 13 dBi
Transmitter Conducted Power: 23.8 dBm Max
Maximum System EIRP: 36.8 dBm Max
Operating Configuration: Fixed
Exposure Conditions: 20 cm or greater from the user or general population

MPE Calculation

Transmit Freq. (MHz)	Radio Power (dBm)	Power Density (mW/Cm2)	Radio Power (W)	Antenna Gain (dBi)	MPE Distance (cm)
1930	23.8	1.00	0.24	13	19.5160

The minimum separation distance is calculated as follows:

$$E(V/m) = \frac{\sqrt{30xPxG}}{d} \qquad \text{Power Density: } P_d = (mW/cm^2) = \frac{E^2}{3770}$$

MPE Distance

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

> In accordance with FCC regulations regarding human exposure to radiofrequency energy, this device shall be installed such that a minimum separation distance of 20cm is maintained between it and general population.
>
> The antennas used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

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