Pd-TX-1000 RF Exposure:

Calculation Method of RF Power Density:

The power density S, in mW/ cm^2 is:

$$S = (P*G)/(4*\Pi*r^2)$$

Where:

S = allowable power density in mW/cm^2
P = power to the antenna in mW
G = numeric gain of the antenna relative to an isotropic radiator
r = 20 cM (minimum limit for a 'mobile' product)

Per 47 CFR 1.1310, The limit for Maximum Permissible Exposure (MPE) limits for Occupational/General Population in the frequency band 1.50 – 100 GHz are:
Occupational - 5 mW/cm^2
General Population - 1 mW/cm^2

Antennas intended for use with this device have an approximate gain of 2.1 dBi.
The maximum transmitter power is 1000 milliWattS.

Conversion of antenna gain from dB to numeric:

$$G = 10^{(2.1/10)} = 1.62$$

Substitute P, G, and r into Eq. 2 to solve for the Power Density:

$$S = (P*G)/(4*\Pi*r^2)$$
$$.322 = (1000*1.62)/(4*3.14*400)$$

$$S = .322 \text{ mW/cm}^2$$

Therefore, the Maximum Permissable Exposure (MPE) limits as specified in FCC 47 CFR 1.1310 are not exceeded when the device is used as described in the Operator Guide.