

# R.F Exposure/Safety Calculation for EnCOVER VE CELL-PCS System

The E.U.T. is desk, wall, ceiling or floor mounted. The typical distance between the E.U.T. and the general population is >10 cm for desk mounted operation (distance between E.U.T. and any person's arm while seated at desk) and >20 cm for wall, ceiling or floor mounted operation.

Calculation of Maximum Permissible Exposure (MPE)  
Based on Section 1.1307(b)(1) Requirements

(a) FCC limit at 1960 MHz is:  $1 \frac{mW}{cm^2}$

FCC limit at 881.5 MHz is:  $f / 1500 = 0.587 \frac{mW}{cm^2}$

Using table 1 of Section 1.1310 limit for general population/uncontrolled exposures, the above level is an average over 30 minutes.

(b) The power density produced by the E.U.T. is

$$S = \frac{P_t G_t}{4\pi R^2}$$

$P_t$ - Transmitted Peak Power (worst case)

$G_T$ - Antenna Gain ,dBi

R- Distance from Transmitter

(c) Peak power density at worst case continuous transmission:

Modulation	Pt (mW)	Antenna type	G <sub>T</sub> (dBi)	R (cm)	S <sub>AV</sub> (mW/cm <sup>2</sup> )	Spec (mW/cm <sup>2</sup> )
GSM	14.7	Integral	0	10	0.012	1.0
W-CDMA	32.8	Integral	0	10	0.026	1.0
CDMA	40.6	Integral	0	10	0.032	0.59
GSM	14.7	External	10	10	0.12	1.0
W-CDMA	32.8	External	10	10	0.26	1.0
CDMA	40.6	External	10	10	0.32	0.59