

# RF Exposure Statement

## 1. LIMITS

According to §1.1310 and §2.1091 RF exposure is calculated.

### (B) Limits for General Population/Uncontrolled Exposures

Frequency range (MHz)	Electric field Strength (V/m)	Magnetic field Strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
0.3 - 1.34.....	614	1.63	*(100)	30
1.34 - 30.....	824/f	2.19/f	*(180/ f <sup>2</sup> )	30
30 - 300.....	27.5	0.073	0.2	30
300 - 1500.....	.....	.....	f/1500	30
1500 - 100.000.....	.....	.....	1.0	30

F = frequency in MHz

\* = Plane-wave equivalent power density

## 2. MAXIMUM PERMISSIBLE EXPOSURE Prediction

Prediction of MPE limit at a given distance

Equation from page 18 of OET Bulletin 65, Edition 97-01

$$S = PG/4\pi R^2$$

S = Power density

P = power input to antenna

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna

## 2-1. CELLUAR BAND

Max Peak output Power at antenna input terminal (dBm)	24.640
Max Peak output Power at antenna input terminal (mW)	291.072
Prediction distance (cm)	20.000
Prediction frequency (MHz)	836.520
Antenna Gain(typical) (dBi)	-2.000
Antenna Gain(numeric)	0.631
Power density at prediction frequency (mW/cm <sup>2</sup> )	0.037
MPE limit for uncontrolled exposure at prediction frequency (mW/cm <sup>2</sup> )	0.558

## 2-1. PCS BAND

Max Peak output Power at antenna input terminal (dBm)	24.37000
Max Peak output Power at antenna input terminal (mW)	273.52687
Prediction distance (cm)	20.00000
Prediction frequency (MHz)	1851.25000
Antenna Gain(typical) (dBi)	-3.00000
Antenna Gain(numeric)	0.50119
Power density at prediction frequency (mW/cm <sup>2</sup> )	0.02727
MPE limit for uncontrolled exposure at prediction frequency (mW/cm <sup>2</sup> )	1.00000

## 3. RESULTS

The power density level at 20 cm is 0.038 mW/cm<sup>2</sup>, which is below the uncontrolled exposure limit of 0.558 mW/cm<sup>2</sup> at 836.52 MHz for Cellular band. The power density level at 20 cm is 0.03046 mW/cm<sup>2</sup>, which is below the uncontrolled exposure limit of 1.0 mW/cm<sup>2</sup> at 1851.25 MHz for PCS band.