



### 3.8 RF Exposure Compliance

#### 3.8.1 GSM Band

##### MPE Requirement:

$$S=f/1500 \text{ mW/cm}^2$$

f= operating frequency in MHz

$$S=824/1500=0.55 \text{ mW/cm}^2$$

##### Exposure Calculation:

$$S(\text{mW/cm}^2) = \text{ERP}(\text{mW}) / 4\pi D^2, \text{ where}$$

ERP is the maximum measured RF output power with Antenna Gain

Antenna Gain = 2.0dBi (per client request ADBM800/1900 MAXRAD antenna was used as a reference antenna)

The maximum ERP power is 32.3dBm + 2.0dBi = 34.3dBm = 2690mW

D = distance of 20cm

$$S = 2690 / 4\pi(20)^2 = 0.535 \text{ mW/cm}^2$$

#### 3.8.2 PCS Band

##### MPE Requirement:

$$S=1.0\text{mW/cm}^2$$

##### Exposure Calculation:

$$S(\text{mW/cm}^2) = \text{EIRP}(\text{mW}) / 4\pi D^2, \text{ where}$$

EIRP is the maximum measured RF output power with Antenna Gain

Antenna Gain = 2.0dBi (per client request ADBM800/1900 MAXRAD antenna was used as a reference antenna)

The maximum EIRP power is 28.4dBm + 2.0dBi = 30.4dBm = 1100mW

D = distance of 20cm

$$S = 1100 / 4\pi(20)^2 = 0.219 \text{ mW/cm}^2$$