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^2)	Averaging time (minutes)
0.3 - 1.34.....	614	1.63	*(100)	30
1.34 - 30.....	824/f	2.19/f	*(180/ f^2)	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. GSM 850

Max Peak output Power at antenna input terminal (dBm)	33.45
Max Peak output Power at antenna input terminal (mW)	2213.095
Prediction distance (cm)	20.000
Prediction frequency (MHz)	824.200
Antenna Gain(typical) (dBi)	-7.00
Antenna Gain(numeric)	0.200
Power density at prediction frequency (mW/cm²)	0.08785
MPE limit for uncontrolled exposure at prediction frequency (mW/cm²)	0.549

2-2.GSM 1900

Max Peak output Power at antenna input terminal (dBm)	30.81
Max Peak output Power at antenna input terminal (mW)	1205.03
Prediction distance (cm)	20.00
Prediction frequency (MHz)	1880.00
Antenna Gain(typical) (dBi)	-7.00
Antenna Gain(numeric)	0.19953
Power density at prediction frequency (mW/cm²)	0.04783
MPE limit for uncontrolled exposure at prediction frequency (mW/cm²)	1.00000

3. RESULTS

The power density level at 20 cm is0.08785 mW/cm², which is below the uncontrolled exposure limit of 0.549 mW/cm² at 824.20 MHz for GSM 850 band. The power density level at 20 cm is 0.04783 mW/cm², which is below the uncontrolled exposure limit of 1.0 mW/cm² at 1880.00 MHz for GSM1900 band.