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. GSM850 BAND

Max Peak output Power at antenna input terminal (dBm)	31.610
Max Peak output Power at antenna input terminal (mW)	1448.772
Prediction distance (cm)	20.000
Prediction frequency (MHz)	824.200
Antenna Gain(typical) (dBi)	0.180
Antenna Gain(numeric)	1.042
Power density at prediction frequency (mW/cm²)	0.30042
MPE limit for uncontrolled exposure at prediction frequency (mW/cm²)	0.549

2-2.GSM1900 BAND

Max Peak output Power at antenna input terminal (dBm)	28.07000
Max Peak output Power at antenna input terminal (mW)	641.20958
Prediction distance (cm)	20.000
Prediction frequency (MHz)	1850.200
Antenna Gain(typical) (dBi)	0.180
Antenna Gain(numeric)	1.04232
Power density at prediction frequency (mW/cm²)	0.13296
MPE limit for uncontrolled exposure at prediction frequency (mW/cm²)	1.00000

3. RESULTS

The power density level at 20 cm is 0.30042 mW/cm², which is below the uncontrolled exposure limit of 0.549 mW/cm² at 824.200 MHz for GSM850 band. The power density level at 20 cm is 0.13296mW/cm², which is below the uncontrolled exposure limit of 1.0 mW/cm² at 1850.20 MHz for GSM1900 band.