

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. CDMA BAND

Max Peak output Power at antenna input terminal (dBm)	23.480
Max Peak output Power at antenna input terminal (mW)	222.844
Prediction distance (cm)	30.000
Prediction frequency (MHz)	848.310
Antenna Gain(typical) (dBi)	1.920
Antenna Gain(numeric)	1.556
Power density at prediction frequency (mW/cm ²)	0.03066
MPE limit for uncontrolled exposure at prediction frequency (mW/cm ²)	0.566

2-2. PCS BAND

Max Peak output Power at antenna input terminal (dBm)	23.490
Max Peak output Power at antenna input terminal (mW)	223.35722
Prediction distance (cm)	30.000
Prediction frequency (MHz)	1851.25
Antenna Gain(typical) (dBi)	1.92
Antenna Gain(numeric)	1.55597
Power density at prediction frequency (mW/cm ²)	0.03073
MPE limit for uncontrolled exposure at prediction frequency (mW/cm ²)	1.00000

2-3. WLAN BAND

Max Peak output Power at antenna input terminal (dBm)	12.33
Max Peak output Power at antenna input terminal (mW)	17.10015
Prediction distance (cm)	30.000
Prediction frequency (MHz)	2412.0
Antenna Gain(typical) (dBi)	1.830
Antenna Gain(numeric)	1.52405
Power density at prediction frequency (mW/cm ²)	0.00518
MPE limit for uncontrolled exposure at prediction frequency (mW/cm ²)	1.00000

3. RESULTS

The power density level at 30 cm is 0.03066 mW/cm², which is below the uncontrolled exposure limit of 0.566 mW/cm² at 848.310 MHz for CDMA band. The power density level at 30 cm is 0.03073 mW/cm², which is below the uncontrolled exposure limit of 1.0 mW/cm² at 1851.25 MHz for PCS band.

The power density level at 30 cm is 0.00518 mW/cm², which is below the uncontrolled exposure limit of 1.0 mW/cm² at 2412 MHz for WLAN band

4. Multiple radio MPE Factor

WLAN and 850 MHz CDMA

$$(0.00518/1.0000) + (0.03066/0.566) = 0.01518 + 0.05416 = 0.06934$$

WLAN and 1900 MHz CDMA

$$(0.00518/1.0000) + (0.03073/1.0000) = 0.00518 + 0.03073 = 0.03591$$