

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

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

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 Limit (CDMA & EVDO)

| | | |
|---|----------|--------------------|
| Max Peak output Power at antenna input terminal | 44.10 | dBm |
| Max Peak output Power at antenna input terminal | 25703.96 | mW |
| Prediction distance | 500.00 | cm |
| Prediction frequency | 1993.75 | MHz |
| Antenna Gain(typical) | 17.00 | dBi |
| Antenna Gain(numeric) | 50.12 | - |
| Power density at prediction frequency(S) | 0.410 | mW/cm ² |
| MPE limit for uncontrolled exposure at prediction frequency | 1.000 | mW/cm ² |

2-2 Limit (WCDMA)

| | | |
|---|----------|--------------------|
| Max Peak output Power at antenna input terminal | 44.04 | dBm |
| Max Peak output Power at antenna input terminal | 25351.29 | mW |
| Prediction distance | 500.00 | cm |
| Prediction frequency | 1932.40 | MHz |
| Antenna Gain(typical) | 17.00 | dBi |
| Antenna Gain(numeric) | 50.12 | - |
| Power density at prediction frequency(S) | 0.404 | mW/cm ² |
| MPE limit for uncontrolled exposure at prediction frequency | 1.000 | mW/cm ² |

2-3 Limit (GSM &EDGE)

| | | |
|---|----------|--------------------|
| Max Peak output Power at antenna input terminal | 44.07 | dBm |
| Max Peak output Power at antenna input terminal | 25527.01 | mW |
| Prediction distance | 500.00 | cm |
| Prediction frequency | 1962.40 | MHz |
| Antenna Gain(typical) | 17.00 | dBi |
| Antenna Gain(numeric) | 50.12 | - |
| Power density at prediction frequency(S) | 0.407 | mW/cm ² |
| MPE limit for uncontrolled exposure at prediction frequency | 1.000 | mW/cm ² |

2-4 Limit (LTE 5MHz)

| | | |
|---|----------|--------------------|
| Max Peak output Power at antenna input terminal | 44.17 | dBm |
| Max Peak output Power at antenna input terminal | 26121.61 | mW |
| Prediction distance | 500.00 | cm |
| Prediction frequency | 1962.50 | MHz |
| Antenna Gain(typical) | 17.00 | dBi |
| Antenna Gain(numeric) | 50.12 | - |
| Power density at prediction frequency(S) | 0.417 | mW/cm ² |
| MPE limit for uncontrolled exposure at prediction frequency | 1.000 | mW/cm ² |

3. RESULTS

The power density level at 500 cm is 0.410 mW/cm², which is below the uncontrolled exposure limit of 1.0 mW/cm² at CDMA& EVDO

The power density level at 500 cm is 0.404 mW/cm², which is below the uncontrolled exposure limit of 1.0 mW/cm² at WCDMA

The power density level at 500 cm is 0.407 mW/cm², which is below the uncontrolled exposure limit of 1.0 mW/cm² at GSM & EDGE

The power density level at 500 cm is 0.417 mW/cm², which is below the uncontrolled exposure limit of 1.0 mW/cm² at LTE

Note: "RF exposure will be addressed at time of installation and the use of higher gain antennas may require larger separation distances."