

FCC § 1.1307(b)(1) & § 2.1091-RF EXPOSURE

## 1. Applicable Standard

According to § 11310 and § 2.1091 (Mobile Devices)RF exposure is calculated.

Frequency Range(Mhz)	Electric Field Strength(V/m)	Magnetic Field Strength(A/m)	Power Density (mW/cm <sup>2</sup> )	Averaging Time (minute)
Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f <sup>2</sup> )	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. MPE Prediction

Predication of MPE limit at given distance, equation form OET Bulletin 65, Edition97-01

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

Where: 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

## 700MHz Band:

Maximum peak output power at antenna input terminal (dBm): 30.54

Maximum peak output power at antenna input terminal(mW): 1130

Prediction distance(cm): 20

Prediction frequency(MHz): 722

Antenna Gain, typical(dBi): 1.5

Maximum Antenna Gain(Numeric): 1.4

Power density at predication frequency and distance (mW/cm<sup>2</sup>): 0.31

MPE limit for uncontrolled exposure at predication frequency (mW/ cm<sup>2</sup>): 0.47

## 850MHz Band

Maximum peak output power at antenna input terminal (dBm): 29.33

Maximum peak output power at antenna input terminal(mW): 860

Prediction distance(cm): 20

Prediction frequency(MHz): 859

Antenna Gain, typical(dBi): 1.5

Maximum Antenna Gain(Numeric): 1.4

Power density at predication frequency and distance (mW/cm<sup>2</sup>): 0.24

MPE limit for uncontrolled exposure at predication frequency (mW/ cm<sup>2</sup>): 0.57

1900MHz

Maximum peak output power at antenna input terminal (dBm): 31.80

Maximum peak output power at antenna input terminal(mW): 1510

Prediction distance(cm): 20

Prediction frequency(MHz): 1922.5

Antenna Gain, typical(dBi): 1.5

Maximum Antenna Gain(Numeric): 1.4

Power density at predication frequency and distance (mW/cm<sup>2</sup> ): 0.42

MPE limit for uncontrolled exposure at predication frequency (mW/ cm<sup>2</sup> ): 1

3. Test Results

The device is compliant with the requirement MPE limit for uncontrolled exposure.