

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

### 11.1 Applicable Standard

According to §1.1310 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)
<b>Limits for General Population/Uncontrolled Exposure</b>				
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

### 11.2 MPE Prediction

Predication of MPE limit at a given distance, equation from OET Bulletin 65, Edition 97-01

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

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

800 MHz Band:

Maximum peak output power at antenna input terminal (dBm):	<u>15.00</u>
Maximum peak output power at antenna input terminal (mW):	<u>31.622</u>
Prediction distance (cm):	<u>20</u>
Prediction frequency (MHz):	<u>851</u>
Antenna Gain, typical (dBi):	<u>8.0</u>
Maximum Antenna Gain (numeric):	<u>6.31</u>
Power density at predication frequency and distance (mW/cm <sup>2</sup> ):	<u>0.0397</u>
MPE limit for uncontrolled exposure at predication frequency (mW/cm <sup>2</sup> ):	<u>0.56</u>

900 MHz Band:

Maximum peak output power at antenna input terminal (dBm):	<u>15.00</u>
Maximum peak output power at antenna input terminal (mW):	<u>31.622</u>
Prediction distance (cm):	<u>20</u>
Prediction frequency (MHz):	<u>937.5</u>
Antenna Gain, typical (dBi):	<u>8.0</u>
Maximum Antenna Gain (numeric):	<u>6.31</u>
Power density at predication frequency and distance (mW/cm <sup>2</sup> ):	<u>0.0397</u>
MPE limit for uncontrolled exposure at predication frequency (mW/cm <sup>2</sup> ):	<u>0.625</u>

### 11.3 Test Results

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