

## 4 FCC §15.407(f) & §2.1091 - RF Exposure Information

### 4.1 Applicable Standards

According to FCC §15.407(f) and §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

#### Limits for General Population/Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm <sup>2</sup> )	Averaging Time (minutes)
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

### 4.2 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

### 4.3 MPE Results

<u>Maximum peak output power at antenna input terminal (dBm):</u>	15.48
<u>Maximum peak output power at antenna input terminal (mW):</u>	35.31
<u>Prediction distance (cm):</u>	20
<u>Prediction frequency (MHz):</u>	5180
<u>Maximum Antenna Gain, typical (dBi):</u>	4..0
<u>Maximum Antenna Gain (numeric):</u>	2.51
<u>MPE for uncontrolled exposure at prediction frequency (mW/cm<sup>2</sup>):</u>	0.018
<u>MPE limit for uncontrolled exposure at prediction frequency (mW/cm<sup>2</sup>):</u>	1.0

The device is compliant with the requirement MPE limit for uncontrolled exposure at 20 cm distance.