

## 10. RF EXPOSURE STATEMENT

### 1. LIMITS

According to §1.1310 and §2.1091 RF exposure is calculated.

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#### (B) Limits for General Population/Uncontrolled Exposures

Frequency range (MHz)	Electric field Strength (V/m)	Magnetic field Strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
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. 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 Limit**

Max Peak output Power at antenna input terminal	29.920	dBm
Max Peak output Power at antenna input terminal	981.748	W
Prediction distance	20.000	cm
Prediction frequency	731.0000	MHz
Antenna Gain(typical)	2.000	dBi
Antenna Gain(numeric)	1.585	-
Power density at prediction frequency( S)	0.310	mW/cm <sup>2</sup>
MPE limit for uncontrolled exposure at prediction frequency	0.487	mW/cm <sup>2</sup>

**3. RESULTS**

The power density level at 20 cm is 0.31 mW/cm<sup>2</sup>, which is below the uncontrolled exposure limit of 0.487 mW/cm<sup>2</sup> at Down Link

Warning: In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, it must also have a minimum distance of 20 cm from the body during normal operation.