

# 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 <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. 5 MHz Bandwidth

Max Peak output Power at antenna input terminal (dBm)	23.42
Max Peak output Power at antenna input terminal (mW)	219.78599
Prediction distance (cm)	20.0000
Prediction frequency (MHz)	2500.00
Antenna Gain(typical) (dBi)	2.900
Antenna Gain(numeric)	1.94984
Power density at prediction frequency (mW/cm <sup>2</sup> )	0.08526
MPE limit for uncontrolled exposure at prediction frequency (mW/cm <sup>2</sup> )	1.00000

### 2-2. 10 MHz Bandwidth

Max Peak output Power at antenna input terminal (dBm)	22.90
Max Peak output Power at antenna input terminal (mW)	194.98446
Prediction distance (cm)	20.0000
Prediction frequency (MHz)	2500.0000
Antenna Gain(typical) (dBi)	2.900
Antenna Gain(numeric)	1.94984
Power density at prediction frequency (mW/cm <sup>2</sup> )	0.07564
MPE limit for uncontrolled exposure at prediction frequency (mW/cm <sup>2</sup> )	1.00000

### 3. RESULTS

The power density level at 20 cm is 0.08526mW/cm<sup>2</sup>, which is below the uncontrolled exposure limit of 1.0 mW/cm<sup>2</sup> at 2500.0 MHz for 5 MHz Bandwidth. The power density level at 20 cm is 0.07564 mW/cm<sup>2</sup>, which is below the uncontrolled exposure limit of 1.0 mW/cm<sup>2</sup> at 2500.0 MHz for 10 MHz Bandwidth