



## 7.5 MAXIMUM PERMISSIBLE EXPOSURE

### 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



Max Peak output Power at antenna input terminal	2.60000	dBm
Max Peak output Power at antenna input terminal	1.81970	mW
Prediction distance	20.00000	cm
Prediction frequency	2480.00000	MHz
Antenna Gain(typical)	-2.31000	dBi
Antenna Gain(numeric)	0.58749	-
Power density at prediction frequency (S)	0.00021	mW/cm <sup>2</sup>
MPE limit for uncontrolled exposure at prediction frequency	1.00000	mW/cm <sup>2</sup>

### 3. RESULTS

The power density level at 20 cm is 0.00021 mW/cm<sup>2</sup>, which is below the uncontrolled exposure limit of 1.0 mW/cm<sup>2</sup> at 2480 MHz