



Prediction of Maximum Permissible Exposure

Equation from page 18 of OET Bulletin 65, Edition 97-01

$$S = \frac{PG}{4 \pi R^2}$$

where: S = power density

P = power input to the antenna

G = directional power gain of the antenna relative to an isotropic radiator

R = distance to the center of radiation of the antenna

Max. output power at antenna terminal(dBm):	<u>27.10</u>
Max. output power at antenna terminal(mW):	<u>512.861</u>
Antenna gain for prediction(dBi):	<u>9</u>
Maximum antenna gain(numeric):	<u>7.9432823</u>
Duty Cycle(%):	<u>50</u>
Prediction distance(cm):	<u>20</u>
Prediction frequency(MHz):	<u>2500</u>
Limit for uncontrolled exposure(mw/cm ²):	<u>1.000</u>

$$S(\text{mw/cm}^2) = : \quad \mathbf{0.405}$$

NOTE: 50% duty cycle is based on Time Division Duplex (TDD) which is the normal operating mode of the device. In this mode the transmitter is active 50% of the time and the Receiver is active 50% of the time. The power used in the above calculations was measured with the transmitter in a continuous transmit mode. The measurement was made with an average detector.