MPE Calculation

$W := 5.0$ power in Watts $D := 1$ Duty Factor in decimal % (1=100%)

$E := 15$ exposure time in minutes $U := 30$ (use 6 for controlled and 30 for uncontrolled)

$$Wexp := W \cdot D \cdot \left(\frac{E}{U} \right) \qquad PC := \frac{E}{U}$$

$PC = 0.5$ percent on time

$Wexp = 2.5$ Watts

$Po := 2500$ mWatts $dBd := 0$ antenna gain $f := 300$ Frequency in MHz

$G := dBd + 2.15$ gain in dBi

$Gn := 10^{\frac{G}{10}}$ gain numeric $S := \frac{f}{1500}$ S is f/1500 for uncontrolled exposure.

$Gn = 1.641$ $S = 0.2$

$$R := \sqrt{\frac{(Po \cdot Gn)}{(4 \cdot \pi \cdot S)}} \qquad Rinches := \frac{R}{2.54}$$

$R = 40.397$ distance in centimeters required for compliance

$Rinches = 15.904$