

RF Exposure Compliance Requirement
ID ISC.LRMU2000 / ID ISC.LRU2000

The maximum permissible exposure (MPE) for **general population** is defined as $0.6\text{mW}/\text{cm}^2$ ($f/1500$, FCC OET Bulletin 65, Supplement B). The distance from the transmitting antenna where the exposure level reaches the maximum permitted level is calculated using equation (1):

$$S = \frac{EIRP}{4 \cdot \pi \cdot R^2} \quad (1)$$

where: S = Power density $0.6\text{mW}/\text{cm}^2$
 $EIRP$ = Power output of an isotropic antenna 4W
 R = Distance to the centre of the radiation of the antenna

Solving equation (1) the minimum distance at which a person must keep away in a uncontrolled exposure is

$$R = 23\text{cm}$$

The maximum permissible exposure (MPE) for **controlled exposure** is defined as $3\text{mW}/\text{cm}^2$ ($f/300$, FCC OET Bulletin 65, Supplement B). Solving equation (1) where $S = 3\text{mW}/\text{cm}^2$ the minimum distance at which a person must keep away in a uncontrolled exposure is

$$R = 10,3\text{cm}$$