

2.19 Maximum Public Exposure to RF Radiation (MPE) CFR 15.247 (i)

The maximum exposure level to the public from the RF power of the EUT shall not exceed a power density, S , of 1 mW/cm² at a distance, d , of 20 cm from the EUT.

Therefore, for :

$$\text{EIRP (Watts)} = 0.4$$

$$\text{Distance, } r = 20 \text{ cm}$$

$$S = (PG / 4\pi r^2) = \text{EIRP} / 4A$$

Where: A = the area of a circle with radius, $r = 20\text{cm}$.

Therefore,

$$S = 0.4 / 4 \times 3.1416 \times (20)^2 = 0.4 / 1600\pi = 79 \text{ } \mu\text{W/cm}^2$$