

2.16 Maximum Public Exposure to RF (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:

Peak Power (Watts) = 0.00977 (from Table 10, herein)
Gain of Transmit Antenna ≤ 2.0 dB_i ≤ 1.58, numeric (from Table 3, herein)
d = Distance = 20 cm = 0.2 m

$$\begin{aligned} S &= (PG / 4\pi d^2) = \text{EIRP} / 4A = 0.00977 (1.58) / 4 * \pi * 0.2 * 0.2 = \\ &0.0154366 / 0.502 = 0.0307 \text{ w/m}^2 \\ &= (\text{W/m}^2) (1\text{m}^2/\text{W}) \times (0.1 \text{ mW/cm}^2) \\ &= 0.003 \text{ mW/cm}^2 \end{aligned}$$

Which is << less than 1 mW/cm²