

MAXIMUM PERMISSIBLE EXPOSURE FOR SUBPART C 2.4 GHz BAND**Calculations**

Power density at the specific separation:

$$\begin{aligned} S &= \text{EIRP} / (4R^2\pi) \\ S &= (0.61802) / (4 * 1^2 * \pi) \\ S &= 0.04918 \text{ mW/cm}^2 \text{ (at 1 cm)} \\ \text{Limit} &= 1 \text{ mW/cm}^2 \end{aligned}$$

where

S = Maximum power density (mW/cm²)
EIRP = Effective Isotropic Radiated Power (mW) – -2.09 dBm
R = distance to the center of the radiation of the antenna (1 cm = limit for MPE)

The maximum permissible exposure (MPE) for the general population is 1 mW/cm².

The power density at 1 cm does not exceed the 1.0 mW/cm² limit. Therefore, the exposure condition is compliant with FCC rules.

The EIRP was based on a worst case PEAK value of 93.14 dBuV/m at 3 meters for the EUT.

93.14 dBuV/m @ 3 meters = -2.09 dBm EIRP.