

Exposure limit according to part 1, §1.1310

Limit for power density for general population/uncontrolled exposure is 1 mW/cm².

$$\text{The power density } P \text{ (mW/cm}^2\text{)} = \frac{P_T}{4\pi r^2}, \text{ where}$$

P_T - the transmitted power, which is equal to the transmitter output power 21.2 dBm plus maximum antenna gain 11 dBi, the maximum output transmitter power is 32.2 dBm = 1659 mW.

$$1(\text{mW/cm}^2) = 1659 \text{ mW} / 4\pi r^2$$

The allowed distance "r", where RF exposure limits may not be exceeded, is 11.5 cm:

$$r = \sqrt{P_T / 4\pi} = \sqrt{1659 / 4 \times 3.14} \approx 11.5 \text{ (cm)}.$$

The public cannot be exposed to dangerous RF level.