

Environmental evaluation and exposure limit according to FCC CFR 47part 1, §1.1307, §1.1310

The base station is classified as a fixed device. The calculation was done for required safe distance.

Limit for power density for general population/uncontrolled exposure is 1 mW/cm² for 1500 -100000 MHz frequency range:

The power density P (mW/cm²) = $P_T / 4\pi r^2$, where

P_T is the maximum equivalent isotropically radiated power (EIRP).

The peak output power of 36.88 dBm with 2 dBi antenna gain corresponds to the equivalent isotropically radiated power (EIRP) of

$$36.88 \text{ dBm} + 2 \text{ dBi} = 38.88 \text{ dBm}, \text{ which is equal to } 7727 \text{ mW}.$$

The minimum safe distance "r", where RF exposure does not exceed FCC permissible limit, is

$$r = \sqrt{P_T / (P \times 4\pi)} = \sqrt{7727 / 12.56} = 25 \text{ cm}.$$

General public cannot be exposed to dangerous RF level.