

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

The calculation was done for required safe distance.

Limit for power density for general population/uncontrolled exposure is 1 mW/cm<sup>2</sup> for 1500 -100000 MHz frequency range:

The power density **P (mW/cm<sup>2</sup>) = P<sub>T</sub> / 4π r<sup>2</sup>**, where

P<sub>T</sub> is the maximum equivalent isotropically radiated power (EIRP).

The peak output power of 21.8 dBm with 14 dBi antenna gain corresponds to the equivalent isotropically radiated power (EIRP) of

$$21.8 \text{ dBm} + 14 \text{ dBi} = 35.8 \text{ dBm}, \text{ which is equal to } 3802 \text{ mW}.$$

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

$$r = \sqrt{P_T / (P \times 4\pi)} = \sqrt{3802 / 12.56} = 17 \text{ cm} \ll 2 \text{ m} .$$