

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

The calculation was done to confirm required safe distance for fixed device.

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 18.46 dBm with 18 dBi antenna gain and 3 dB beamforming factor corresponds to the equivalent isotropically radiated power (EIRP) of

18.46 dBm + 18 dBi + 3 dB = 39.46 dBm, which is equal to 8830.8 mW.

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

$$r = \sqrt{P_T / (4\pi \cdot 12.56)} = \sqrt{8830.8 / 12.56} = 26.5 \text{ cm.}$$

General public cannot be exposed to dangerous RF level.