

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

Limit for power density for general population/uncontrolled exposure is 0.21 mW/cm<sup>2</sup>.

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

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

In our case  $P_T$  is  $-15.23$  dBm = 0.03 mW.

$$0.21(\text{mW/cm}^2) = 0.03 \text{ mW} / 4\pi r^2$$

The minimum safe distance “r”, where RF exposure does not exceed FCC permissible limit, is 0.1 cm.

$$r = \sqrt{P_T / (P \times 4\pi)} = \sqrt{0.03 / (0.21 \times 4 \times 3.14)} = 0.1 \text{ (cm)}.$$

Hence, no safety hazard exists for human being.