

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

The IDR 900 MHz transceiver is classified as mobile.

Limit for power density for general population/uncontrolled exposure is $f/1500 \text{ mW/cm}^2$ for 300 – 1500 MHz frequency range:

$$P = 927/1500 = 0.618 \text{ mW/cm}^2$$

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

P_T is the maximum equivalent isotropically radiated power (EIRP), which is equal to:

transmitter maximum output power 23.33 dBm plus maximum antenna gain 10 dBi and the maximum equivalent isotropically radiated power is 33.33 dBm = 2152.8 mW.

The power density at 20 cm (minimum safe distance, required for mobile devices), calculated as follows:

$$2152.8 \text{ mW} / 4\pi (20 \text{ cm})^2 = 0.43 \text{ mW/cm}^2 < 0.618 \text{ mW/cm}^2$$

was found below the limit.

Hence, no safety hazard exists for human being.