

Exposure limit according to §15.247(i)

The device is classified as mobile.

Limit for power density for general population/uncontrolled exposure is $f/1500$ mW/cm² for 300 – 1500 MHz frequency range:

$$P = 902/1500 = 0.6 \text{ mW/cm}^2$$

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

P_T is the transmitted power, equal to the peak transmitter output power 35.23 dBm plus maximum antenna gain 2 dBi, the maximum equivalent isotropically radiated power EIRP is

$$P_T = 35.23 \text{ dBm} + 2 \text{ dBi} = 37.23 \text{ dBm} = 5284 \text{ mW}$$

According to the manufacture's declaration, the duty cycle is 0.01%, hence, the equivalent averaged EIRP is:

$$P_T = 5284 \text{ mW} \times 0.0001 = 0.528 \text{ mW}$$

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

$$0.528 \text{ mW} / 4\pi (20 \text{ cm})^2 \approx 0.0001 \text{ mW/cm}^2 < 0.6 \text{ mW/cm}^2$$

General public cannot be exposed to dangerous RF level.