## Exposure limit according to §15.247(i)

The device is classified as a mobile one.

The FCC limit for power density for general population/uncontrolled exposure is f/1500 $mW/cm^2$ for 300 – 1500 MHz frequency range:

$$P = 902.3/1500 = 0.601\ mW/cm^2$$

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

$P_T$ is the transmitted power, which is equal to the peak transmitter output power 26.95 dBm (in 2FSK modulation) plus maximum antenna gain 3.5 dBi, the maximum equivalent isotropically radiated power EIRP is

$$P_T = 26.95\ dBm + 3.5\ dBi = 30.45\ dBm = 1109\ mW.$$

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

$$\text{Compliance with FCC limit: } 1109\ mW / 4\pi\ (20\ cm)^2 = 0.22\ mW/cm^2 < 0.601\ mW/cm^2$$

General public cannot be exposed to dangerous RF level.