Exposure limit according to §90(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:

$P = 450/1500 = 0.3\ mW/cm^2$

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

PT is the transmitted power, which is equal to the peak transmitter output power in 4GFSK modulation mode of 28.93 dBm plus maximum antenna gain -2 dBi, the maximum equivalent isotopically radiated power EIRP is:

$$P_T = 28.93\ dBm + (-2)\ dBi = 26.93\ dBm = 493.17\ mW.$$

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

$$493.17\ mW / 4\pi\ (20\ cm)^2 \approx 0.098\ mW/cm^2 < 0.3\ mW/cm^2$$

General public cannot be exposed to dangerous RF level.