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 33.4 dBm plus maximum antenna gain 0 dBi, the maximum equivalent isotopically radiated power EIRP is:

$$P_T = 33.4\ dBm + 0\ dBi = 33.4\ dBm = 2187.76\ mW.$$

According to the manufacturer's declaration the duty cycle factor for 30min averaging time is 0.00011 hence, the equivalent averaged EIRP is:

$$P_T = 2187.76\ mW \times 0.00011 = 0.24\ mW.$$

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

$$0.24\ mW / 4\pi\ (20\ cm)^2 \approx 0.0477\ \mu W/cm^2 < 0.3\ mW/cm^2$$

General public cannot be exposed to dangerous RF level.