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/cm^2 for 300 – 1500 MHz frequency range:

P = 450/1500 = 0.3 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 in 4GFSK modulation mode of 31.34 dBm plus maximum antenna gain 1 dBi, the maximum equivalent isotropically radiated power EIRP is

P_T = 31.34 dBm +1 dBi = 32.34 dBm = 1713.957 mW.

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

P_T = 1713.957 mW x 0.00011 = 0.18853 mW.

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

0.18853 mW / 4π (20 cm) ^{2} ≈ 0.037 μW/cm^2 < 0.3 mW/cm^2

General public cannot be exposed to dangerous RF level.