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 / 4π r^2**

P_T is the transmitted power, which is equal to the peak transmitter output power in 4GFSK modulation mode of 33.08 dBm plus maximum antenna gain (-1.5) dBi, the maximum equivalent isotropically radiated power EIRP is:

P_T = 33.08 dBm + (-1.5) dBi = 31.58 dBm = 1438.8 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 = 1438.8 mW x 0.00011= 0.1583 mW.

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

0.1583 mW / 4π (20 cm)^2 ≈ 0.03 μW/cm^2 < 0.3 mW/cm^2

General public cannot be exposed to dangerous RF level.