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 27.96 dBm plus maximum antenna gain -1 dBi, the maximum equivalent isotropically radiated power EIRP is

P_T = 27.96 dBm + (-1) dBi = 26.96 dBm = 496.59 mW.

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

496.59 mW / 4π (20 cm)^2 ≈ 0.098 mW/cm^2 < 0.3 mW/cm^2

General public cannot be exposed to dangerous RF level.