Environmental evaluation and exposure limit according to FCC CFR 47part 1, §1.1307, §1.1310

The transceiver is classified as mobile, the calculation was done for power density at 20 cm distance.

Power density limit for general population/uncontrolled exposure in 30 – 300 MHz frequency range is 0.2 mW/cm^2 .

The power density $P \ (\text{mW/cm}^2) \ = \ P_T / 4\pi \ r^2$, where

P_T is the maximum equivalent isotropically radiated power (EIRP), which is equal to:

transmitter maximum output power 18 dBm plus maximum antenna gain 2 dBi and the maximum equivalent isotropically radiated power is 20 dBm = 100 mW.

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

$$P = 100 \text{ mW} / 4\pi \ (20 \text{ cm})^2 = 0.02 \text{ mW/cm}^2 < 0.2 \text{ mW/cm}^2$$

General public cannot be exposed to dangerous RF level.