

Exposure limit according to §15.247(i)

The transceiver is classified as mobile.

Limit for power density for general population/uncontrolled exposure is 1 mW/cm² for 1500 -100000 MHz frequency range.

The power density P (mW/cm²) = $P_T / 4\pi r^2$, where

P_T is the transmitted power, which is equal to the peak transmitter output power plus maximum antenna gain. The maximum equivalent isotropically radiated power EIRP is

$$P_T = 12.2 \text{ dBm} + 2 \text{ dBi} = 14.2 \text{ dBm} = 26.3 \text{ mW}, \text{ where}$$

12.2 dBm is the EUT maximum output power with the tune up tolerance,
2 dBi – antenna gain.

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

$$26.3 \text{ mW} / 4\pi (20 \text{ cm})^2 = 0.0052 \text{ mW/cm}^2 \ll 1 \text{ mW/cm}^2$$

General public cannot be exposed to dangerous RF level.