

Exposure limit according to §15.247(i) and §1.1307

The device is classified as mobile.

Limit for power density for general population/uncontrolled exposure is 1 mW/cm^2 (for 1500 –100,000 MHz frequency range).

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

P_T is the transmitted power, which is equal to the peak transmitter output power 19.93 dBm plus maximum antenna gain 3 dBi, the maximum equivalent isotropically radiated power EIRP is

$$P_{T1} = 19.93 \text{ dBm} + 3 \text{ dBi} = 22.93 \text{ dBm} = 196.3 \text{ mW}.$$

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

$$196.3 \text{ mW} / 4\pi (20 \text{ cm})^2 = 0.04 \text{ mW/cm}^2 < 1 \text{ mW/cm}^2$$

General public cannot be exposed to dangerous RF level.