

Exposure limit according to §15.247(i) and RSS-102

The device is classified as mobile.

Limit for power density for general population/uncontrolled exposure is $f/1500 \text{ mW/cm}^2$ for 300 – 1500 MHz frequency range:

$$P = 902/1500 = 0.6 \text{ mW/cm}^2$$

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

P_T is the transmitted power, which is equal to the peak transmitter output power in DTS mode 19.24 dBm plus maximum antenna gain 0.5 dBi, the maximum equivalent isotropically radiated power EIRP is

$$P_T = 19.24 \text{ dBm} + 0.5 \text{ dBi} = 19.74 \text{ dBm} = 94.2 \text{ mW}.$$

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

$$94.2 \text{ mW} / 4\pi (20 \text{ cm})^2 = 0.018 \text{ mW/cm}^2 \ll 0.6 \text{ mW/cm}^2$$

General public cannot be exposed to dangerous RF level.