

RF Exposure information

The LIBERTY600 is classified as mobile.

The LIBERTY600 includes BLE transmitter operating according to FCC part 15 subpart C section 15.247 (DTS) and approved WiFi module approved under FCC ID: 2AC7Z-ESPC3MINI1.

The RF technologies: WiFi and BLE is not transmitting simultaneously.

The FCC power density limit for general population/uncontrolled exposure is 1 mW/cm² for 2.4 GHz for BLE transmitter.

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

BLE transmitter

P_T is the transmitted power, which is equal to the peak transmitter output power 2.36 dBm plus maximum antenna gain 1.95 dBi, the maximum equivalent isotropically radiated power EIRP is

$$P_T = 2.36 \text{ dBm} + 2.5 \text{ dBi} = 4.31 \text{ dBm} = 2.69 \text{ mW}.$$

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

$$2.69 \text{ mW} / 4\pi (20 \text{ cm})^2 = 0.00535 \text{ mW/cm}^2 \ll 1 \text{ mW/cm}^2$$

General public cannot be exposed to dangerous RF level.