

RF Exposure information

The XSENSE RTL is classified as mobile.

The XSENSE RTL includes BLE transmitter operating according to FCC part 15 subpart C section 15.247 (DTS) and approved LTE module. The variants of LTE modules approved under FCC ID: RI7ME310G1WW or FCC ID: XMR201512M95 or FCC ID: XMR201910BG95M3 or FCC ID XMR202111EG915ULA or FCC ID: XMR202311EG915NLA.

The RF technologies: BLE and LTE 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.

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) = $P_T / 4\pi r^2$

BLE transmitter

P_T is the transmitted power, which is equal to the peak transmitter output power 0.21 dBm plus maximum antenna gain 2.3 dBi, the maximum equivalent isotopically radiated power EIRP is

$$P_T = 0.21 \text{ dBm} + 2.3 \text{ dBi} = 2.51 \text{ dBm} = 1.78 \text{ mW}.$$

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

$$5.52 \text{ mW} / 4\pi (20 \text{ cm})^2 = 0.00035 \text{ mW/cm}^2 \ll 1 \text{ mW/cm}^2$$

General public cannot be exposed to dangerous RF level.