

RF Exposure information

The reader transmitter operates according to FCC part 15 subpart C section 15.249. The standard does not contain RF Exposure limits.

The reader includes a single modular approved transmitter FCC ID:TK4WLE600VX.

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

Maximum conducted output power given in FCC ID:TK4WLE600VX module grant is 0.264 mW (24.2 dBm) in 2412-2462 MHz band. Limit for power density for general population/uncontrolled exposure is 1 mW/cm² for 1500 -100000 MHz frequency range.

The gain of L-Com HG2403RD-RSF antenna used with the module in the reader is 2 dBi.

The maximum equivalent isotropically radiated power EIRP is

$$P_T = 24.2 \text{ dBm} + 2 \text{ dBi} = 26.2 \text{ dBm} = 416.9 \text{ mW}$$

The power density at 20 cm is calculated as follows:

$$416.9 \text{ mW} / 4\pi (20 \text{ cm})^2 = 0.08 \text{ mW/cm}^2 < 1 \text{ mW/cm}^2$$

General public cannot be exposed to dangerous RF level.