

RF Exposure information

The logger transmitter operates according to FCC part 15 subpart C section 15.231. The standard does not contain RF Exposure limits.

The logger contains a single modular approved transmitter FCC ID:RI7HE910GL.

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

Maximum conducted output power given in FCC ID:RI7HE910GL module grant is 1995 mW (33 dBm) in 824.2-848.8 band. Limit for power density is $f/1500 = 0.56 \text{ mW/cm}^2$ for 824-849 MHz for general population/uncontrolled exposure.

According to RF exposure report in the original filing FCC ID:RI7HE910GL in the FCC database the duty cycle is 25%, the average power shall be $1995 \text{ mW} \times 0.25 = 498.75 \text{ mW}$ (27 dBm).

The max gain of antenna used with the module in logger is 2 dBi.

The maximum equivalent isotropically radiated power EIRP is

$$P_T = 27 \text{ dBm} + 2 \text{ dBi} = 29 \text{ dBm} = 794.3 \text{ mW}$$

The power density at 20 cm is calculated as follows:

$$794.3 \text{ mW} / 4\pi (20 \text{ cm})^2 = 0.16 \text{ mW/cm}^2 < 0.56 \text{ mW/cm}^2$$

General public cannot be exposed to dangerous RF level.