

RF Exposure information

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

The HUB includes a limited modular approved transmitter FCC ID:VPYLBVD operating in 2412-2462 MHz.

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

Limit for power density is 1 mW/cm² for 2.4 GHz for general population/uncontrolled exposure.

Maximum conducted output power given in FCC ID: VPYLBVD module grant is 236 mW (23.8 dBm).

The gain of antenna used with the module in the control panel is (-1.6) dBi.

The maximum equivalent isotropically radiated power EIRP is

$$P_T = 23.8 \text{ dBm} - 1.6 \text{ dBi} = 22.2 \text{ dBm} = 166 \text{ mW}$$

The power density at 20 cm is calculated as follows:

$$166 \text{ mW} / 4\pi (20 \text{ cm})^2 = 0.033 \text{ mW/cm}^2 \ll 1 \text{ mW/cm}^2$$

General public cannot be exposed to dangerous RF level.