

## MPE CALCULATION

**For Applied Wireless ID – RFID Reader; Model : LR-911;  
FCCID : OGSR26H3LR911 ; IC: 6449A-R261-13LR**

**RF Exposure Requirements:** 47 CFR §1.1307(b)

**RF Radiation Exposure Limits:** 47 CFR §1.1310

**RF Radiation Exposure Guidelines:** FCC OST/OET Bulletin Number 65

**EUT Frequency Band:** 902.8 – 927.2 MHz

**EUT Maximum Measured Conducted Power:** 29.33 dBm (0.857 watt)

**EUT Antenna Gain with cable loss subtracted:** 5 dBi (3.16 numeric)

**Limits for General Population/Uncontrolled Exposure:**  $f/1500$ ; f (frequency) in MHz

**Power Density Limit:**  $902 / 1500 = 0.601 \text{ mW/cm}^2$  or  $6.01 \text{ W/m}^2$

**Equation:**  $S = PG / 4\pi R^2$  or  $R = \sqrt{PG / 4\pi S}$

Where, S = Power Density

P = Power Input to Antenna

G = Antenna Gain

R = distance to the center of radiated antenna

$$R = \sqrt{(0.857\text{W} * 3.16 / 4 * 3.14 * (6.01 \text{ W/m}^2))} = \sqrt{(2.71 / 75.5239)} = 0.189 \text{ meter}$$

The distance between the human and the RF antenna should not be less than 0.189 meter or 18.9 centimeter.