

## Ex10 Fixed Reader (16-Port)



**Model: RRU7199Lites**

**RRU5199Lites**

**RRU3199Lites**

**Size: 308mm×217mm×37.6mm**

**Weight: 1680g**

## GENERAL DESCRIPTION

RRU7199Lites/RRU5199Lites/RRU3199Lites is a high-performance UHF RFID Reader. It is designed upon fully self-intellectual property. Based on proprietary efficient digital signal processing algorithm, it supports fast tag read/write operation with high identification rate. It can be widely applied in many RFID application systems such as logistics, access control, and industrial production process control system.

## FEATURES

- Self-intellectual property;
- Designed with IMPINJ E710/E510/E310 and support ISO18000-6C(EPC C1G2) protocol tag, featuring excellent multi-tag anti-collision functionality;
- 865~868MHz/902~928MHz frequency band(frequency customization optional);
- FHSS or Fix Frequency transmission;
- RF output power up to 33dbm(adjustable);
- SMA sockets for 16 external antennae ;
- Effective distance up to 12m\*(with external 8dbi antenna and tag E41);
- Maximum inventory speed\* up to 1000pcs/s (using E710) or 600pcs/s (using E510) or 350pcs/s (using E310);
- Support RSSI;
- Tag buffer size up to 1000PCS@96bits EPC;
- Low power dissipation with single +9 DC power supply, POE (Power over Ethernet) is optional;
- Support RS232, USB(Slave), RJ45 (TCP/IP), provide Wi-Fi and other interface for choice;
- High reliability design, meet the requirements of harsh working environment;
- Support on-the-site firmware upgrading.

\*Effective reading distance and tag interrogation speed are directly related to the antenna, tags, and the working environment.

## CHARACTERISTICS

### ● Absolute Maximum Ratings

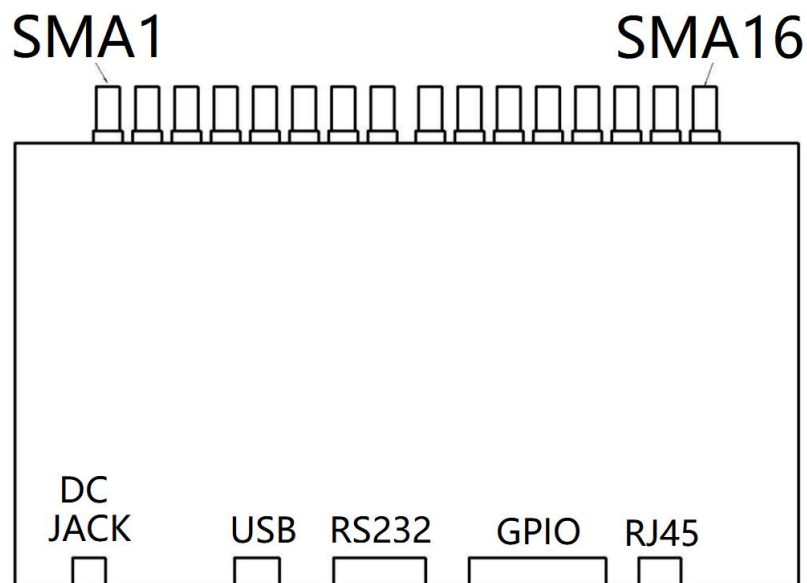
| ITEM           | SYMBOL           | VALUE     | UNIT |
|----------------|------------------|-----------|------|
| Power Supply   | VCC              | 26        | V    |
| Operating Temp | T <sub>OPR</sub> | -20 ~ +65 | °C   |
| Storage Temp   | T <sub>STR</sub> | -40 ~ +85 | °C   |

## ● Electrical and Mechanical Specification

Under TA=25°C,VCC=+9V unless specified

| ITEM                | SYMBOL           | MIN | TYP   | MAX                        | UNIT |
|---------------------|------------------|-----|---|----------------------------|------|
| Power Supply        | VCC              | 9   | 9   | 24                         | V    |
| Current Dissipation | I <sub>C</sub>   | 330 | 90 (standby)  | 1000(30dBm)<br>1300(33dBm) | mA   |
| Frequency           | F <sub>REQ</sub> | -   | 865~868(ETSI)<br>902~928(FCC)                         | -                          | MHz  |
| RF Output Power     | P <sub>RF</sub>  | 5   |   | 33                         | dBm  |
| Receive Sensitivity | SR               |     | -74(using E310)<br>-81(using E510)<br>-87(using E710) |                            | dBm  |

## INTERFACE



### 1. Power (DC JACK)

| NO.     | Symbol | Comment      |
|---------|--------|--------------|
| Central | PWR    | Power Supply |
| Outer   | GND    | Ground       |

### 2. USB (Slave)

### 3. UART (RS232 DB9 Female)

| No. | Symbol | Comment              |
|-----|--------|----------------------|
| 1   | NC     | Reserved             |
| 2   | TXD    | Data output in RS232 |
| 3   | RXD    | Data input in RS232  |
| 4   | NC     | Reserved             |
| 5   | GND    | Ground               |
| 6   | NC     | Reserved             |
| 7   | NC     | Reserved             |
| 8   | NC     | Reserved             |
| 9   | NC     | Reserved             |

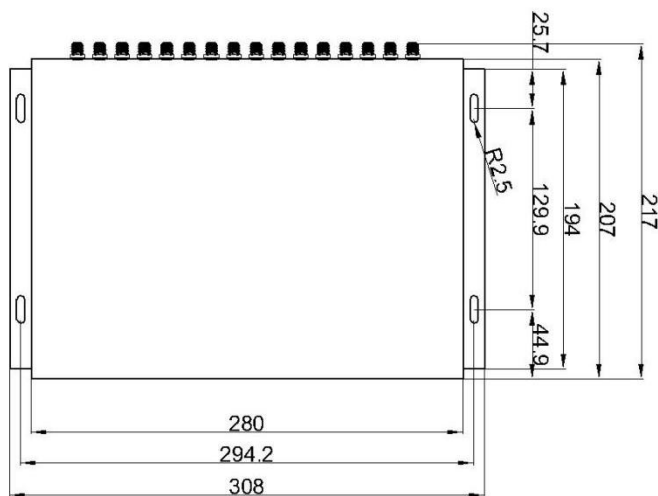
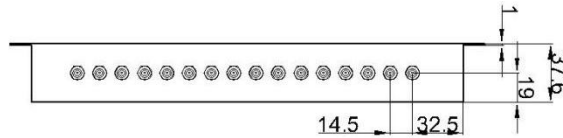
### 4. GPIO (DB15 Female)

| No. | Symbol  | Comment                               |
|-----|---------|---------------------------------------|
| 1   | NC      | Reserved                              |
| 2   | NC      | Reserved                              |
| 3   | Input2— | General OPTO-coupler isolated input - |
| 4   | Input1— | General OPTO-coupler isolated input - |
| 5   | Output1 | General OPTO-coupler isolated Output1 |
| 6   | Output1 | General OPTO-coupler isolated Output1 |
| 7   | Output2 | General OPTO-coupler isolated Output2 |
| 8   | Output2 | General OPTO-coupler isolated Output2 |
| 9   | Input2+ | General OPTO-coupler isolated input+  |
| 10  | Input1+ | General OPTO-coupler isolated input+  |
| 11  | NC      | Reserved                              |
| 12  | GND     | Ground                                |
| 13  | NC      | Reserved                              |
| 14  | NC      | Reserved                              |
| 15  | NC      | Reserved                              |

### 5. TCPIP network (RJ45)

### 6. SMA antenna port (ANT1~ANT16)

**MECHANICAL DATA (UNIT:mm)**



**ACCESSORY**



RS232 cable \* 1pcs



USB Cable \* 1pcs



Power Adapter \* 1pcs



Power Cord \* 1 pcs

*Remark:*

1. Specifications are subject to change, please pay attention to our latest version.
2. Shenzhen RoyalRay Science and Technology Co., Ltd. reserves the right to the final interpretation of the above terms.