

## Ex10 Fixed Reader (4-Port)



**Model: RRU7181Lite**

**RRU5181Lite**

**RRU3181Lite**

**Size: 189×105.5 ×26.5 mm**

**Weight: 1180g**

## GENERAL DESCRIPTION

RRU7181Lite/RRU5181Lite/RRU3181Lite 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. RRU7181Lite/IP can be widely applied in many RFID application systems such as logistics, access control, anti-counterfeit 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 4 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 350 pcs/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 WiFi 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

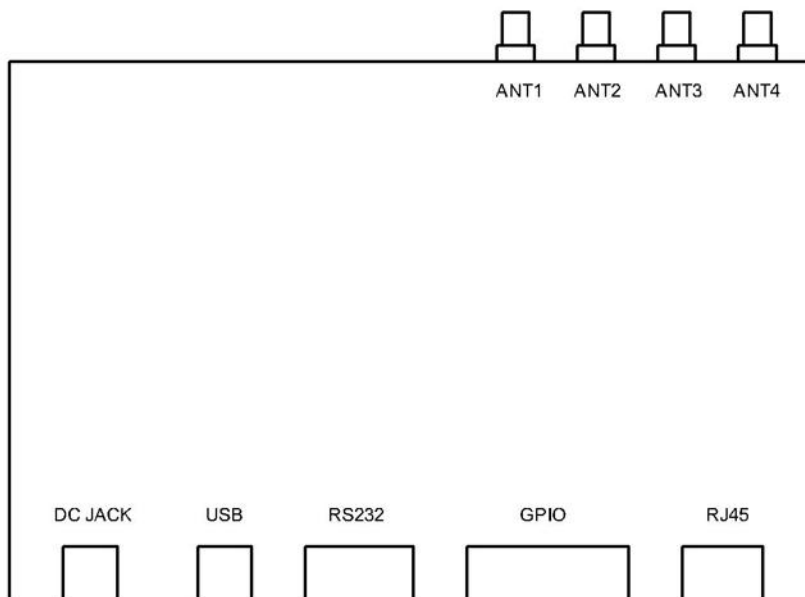
ITEM	SYMBOL	VALUE	UNIT
Power Supply	VCC	26	V
Operating Temp	T <sub>OPR</sub>	-20 ~ +65	°C
Storage Temp	T <sub>STR</sub>	-40 ~ +85	°C

## ● Electrical and Mechanical Specification

Under  $T_A=25^{\circ}\text{C}$ ,  $V_{CC}=+9\text{V}$  unless specified

ITEM	SYMBOL	MIN	TYP	MAX	UNIT
Power Supply	VCC	9	9	24	V
Current Dissipation	$I_c$	270	20 (standby)	900(30dBm) 1200(33dBm)	mA
Frequency	$F_{REQ}$	-	865~868(ETSI) 902~928(FCC)	-	MHz
RF Output Power	$P_{RF}$	5		33	dBm
Receive Sensitivity	SR		-74(using E310) -81(using E510) -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

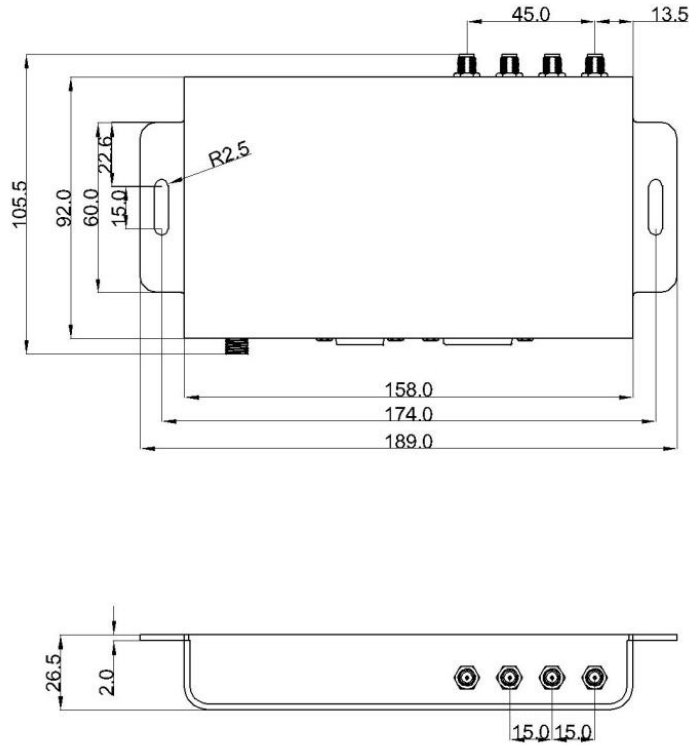
### 4. GPIO (DB15 Female)

No.	Symbol	Comment
1	Output1	General Output1 (internally used as the buzzer driver with low level effective)
2	Output2	General Output2
3	NC	Reserved
4	NC	Reserved
5	NC	Reserved
6	NC	Reserved
7	NC	Reserved
8	NC	Reserved
9	Input	General input with internal pull-up to 5V through a 10k resistor
10	NC	Reserved
11	NC	Reserved
12	GND	Ground
13	NC	Reserved
14	NC	Reserved
15	NC	Reserved

### 5. TCPIP network (RJ45)

### 6. SMA antenna port (ANT1~ANT4)

## MECHANICAL DATA (UNIT:mm)



## ACCESSORIES



RS232 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.