

# **Ex10 UHF RFID Workstation Reader**



Model: RRU7181DK4230IE

RRU5181DK4230IE

RRU3181DK4230IE

Size: 420mm×300mm×24mm



#### GENERAL DESCRIPTION

RRU7181DK4230IE/RRU5181DK4230IE/RRU3181DK4230IE 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. RRU733U-NF/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);
- 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;
- Built-in antenna, typical reading effective distance >2m\*
- Low power dissipation with single +9 DC power supply;
- Support RS232, USB(2.0) and other interface for choice;
- High reliability design, meet the requirements of harsh working environment;
- Support on-the-site firmware upgrading.

#### CHARACTERISTICS

### Absolute Maximum Ratings

ITEM	SYMBOL	VALUE	UNIT
Power Supply	VCC	6	V
Operating Temp	$T_{OPR}$	-20 ~ +60	${}^{\circ}\!$
Storage Temp	$T_{STR}$	-20 ~ +70	$^{\circ}$ C

<sup>\*</sup> Effective distance depends on antenna, tag and working environment.



# Electrical and Mechanical Specification

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

ITEM	SYMBOL	MIN	TYP	MAX	UNIT
Power Supply	VCC	9	-	24	V
Current Dissipation	Ic	270 (5dBm)	-	900(30dBm) 1200(33dBm)	mA
Frequency	$F_REQ$	-	865~868(ETSI) 902~928(FCC)	-	MHz
RF Output Power	$P_RF$	5		27	dBm
Receive Sensitivity	SR		-74(using E310) -81(using E510) -87(using E710)		dBm

### **INTERFACE**



# 1. Power (DC JACK)

# 2. 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		

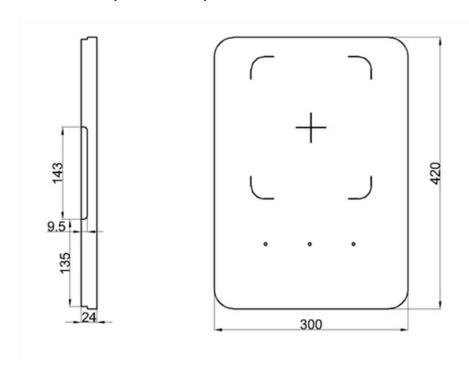
# 3. USB (2.0)



### 4. LED

No.	Symbol	Comment
1	POWER	Power LED
2	RUN	Work LED

# **MECHANICAL DATA (UNIT: mm)**



### **ACCESSORY**



Power Adapter\*1

**Power Cord\*1** 

#### 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.