

Ex10 Series Multipurpose UHF RFID Reader



Part No 型号	Description 型号描述	Size 尺寸
FU0054	E710 Chipset - FCC Frequency Band	335mm×335mm×25mm
FU0055	E710 Chipset - ETSI Frequency Band	335mm×335mm×25mm
FU0056	E510 Chipset - FCC Frequency Band	335mm×335mm×25mm
FU0057	E510 Chipset - ETSI Frequency Band	335mm×335mm×25mm
FU0058	E310 Chipset - FCC Frequency Band	335mm×335mm×25mm
FU0059	E310 Chipset - ETSI Frequency Band	335mm×335mm×25mm

GENERAL DESCRIPTION

FU0054/FU0055/FU0056/FU0057/FU0058/FU0059 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 27dbm(adjustable);
- 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;
- Built-in antenna, typical reading effective distance <50cm*
- Low power dissipation with Type-C USB 3.0 power supply (POE optional);
- Support Type-C USB3.0 interface (Bluetooth 5.1 optional);
- Provide DLL and Demonstration Software Source code to facilitate further development.

** Effective distance depends on antenna, tag and working environment.*

Application

- Logistics and warehouse management: When goods enter the warehouse, the reader installed at the warehouse entrance can quickly read the goods label information, record the model, quantity, batch and other data of the goods, and automatically update it to the inventory management system.
- Access control system: In enterprises, schools, residential areas and other places, people or vehicles carry access control cards with UHF tags. When approaching the access control reader, the reader reads the tag information to determine whether they have permission to enter.
- Retail stores: It simplifies the checkout process and improves inventory management. Some high-end retailers are also using RFID to provide a more personalized shopping experience, such as providing product recommendations based on the items in the customer's shopping basket.
- Libraries: RFID readers can also be used to manage book borrowing and returns. Customers can quickly borrow multiple books at a time, and the system can update the library's inventory and

borrowing records in real time.

- Future trends: The integration of RFID readers with mobile payment technology and artificial intelligence is an emerging trend. For example, the system can use AI algorithms to analyze customer purchasing patterns and provide targeted promotions. In addition, the development of more compact and energy-efficient RFID tags and readers will further expand the application scope of this technology.

CHARACTERISTICS

● **Absolute Maximum Ratings**

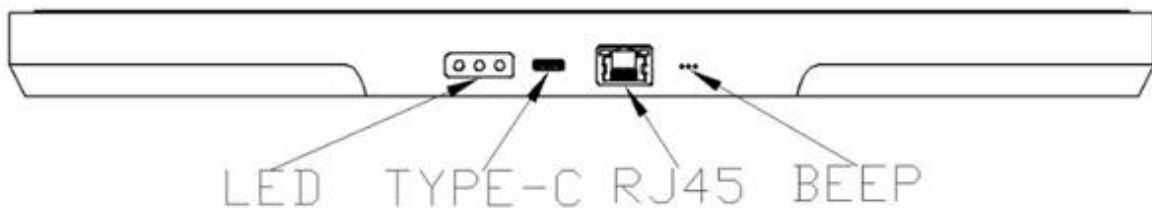
ITEM	SYMBOL	VALUE	UNIT
Power Supply	VCC	6	V
Operating Temp	T _{OPR}	-20 ~ +60	°C
Storage Temp	T _{STR}	-20 ~ +70	°C

● **Electrical and Mechanical Specification**

Under TA=25°C,VCC=+5V unless specified

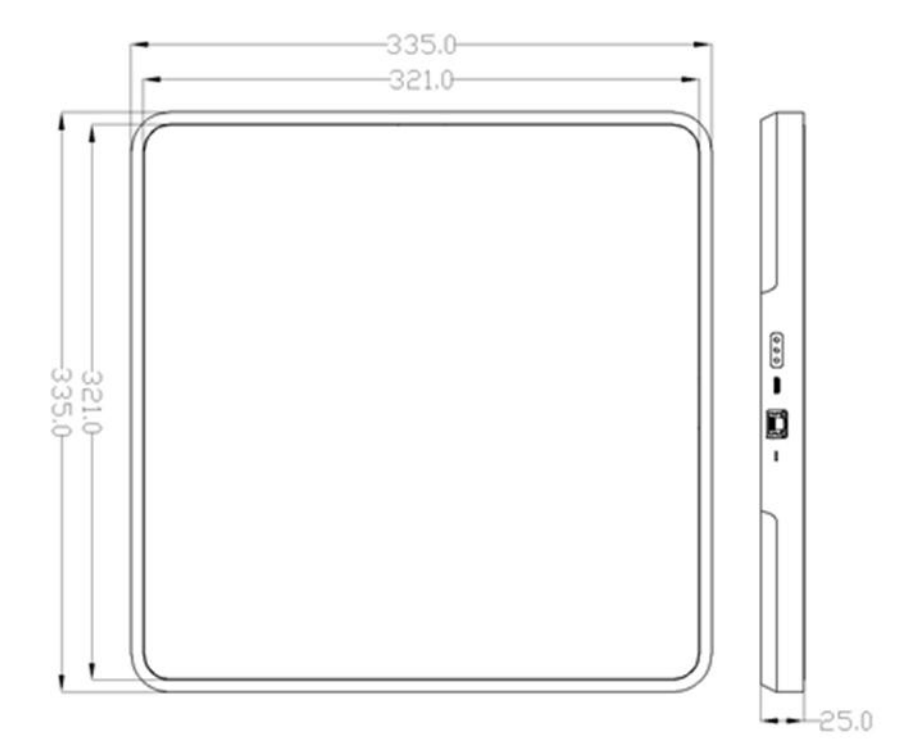
ITEM	SYMBOL	MIN	TYP	MAX	UNIT
Power Supply	VCC		5		V
Current Dissipation	I _C	700 (5dBm)	90 (standby)	1100(27dBm)	mA
Frequency	F _{REQ}	-	865~868(ETSI) 902~928(FCC)	-	MHz
RF Output Power	P _{RF}	5		27	dBm
Receive Sensitivity	SR		-74(using E310) -81(using E510) -87(using E710)		dBm

INTERFACE



NAME (from left to right)	ITEM	DESCRIPTION	REMARK
BLUETOOTH	Bluetooth LED	Bluetooth detected indication	BLUE
WORK	Operation LED	Tag detected indication	GREEN
POWER	Power LED	Power on indication	RED
USB INTERFACE	USB	Type-C USB3.0	
BUZZER	BUZZER	Power on indication Tag detected indication	

MECHANICAL DATA (UNIT: mm)



ACCESSORY**Type-C USB3.0 Cable *1pcs****Remark:**

1. Specifications are subject to change, please pay attention to our latest version.
2. Xiamen Innov information Science & tech. Co. Ltd. reserves the right to the final interpretation of the above terms.