Ex10 UHF RFID Module(1-Port)

Model: RRU73119M
RRU53119M
RRU33119M
Size: 31mmx19mmx3.5mm
Weight: 4g

GENERAL DESCRIPTION

RRU73119M/RRU53119M/RRU33119M is high performance UHF RFID Module. 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 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 30dbm(adjustable);
- IPEX socket for external antenna;
- Effective distance up to 10m*(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);
- Tag buffer size up to 1000PCS@96bits EPC;
- Low power dissipation with single +3.6~5.5VDC power supply;
- Support RSSI;
- High stability with air cooling and no extra heat sinking;
- Capable of continuous operation for 24 hours×365 days;
- 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**

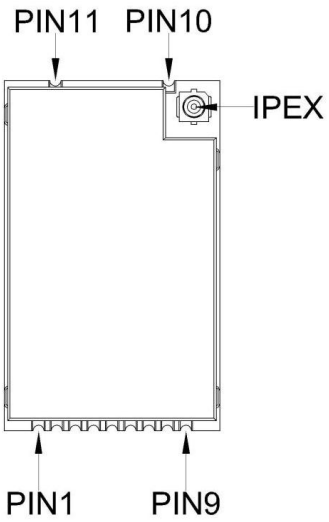
ITEM	SYMBOL	VALUE	UNIT
Power Supply	VCC	6.0	V
Operating Temp	T_{OPR}	-20 ~ +65	℃
Storage Temp	T_{STR}	-40 ~ +85	℃

- **Electrical and Mechanical Specification**

  Under T_A=25℃,VCC=+5.0V unless specified

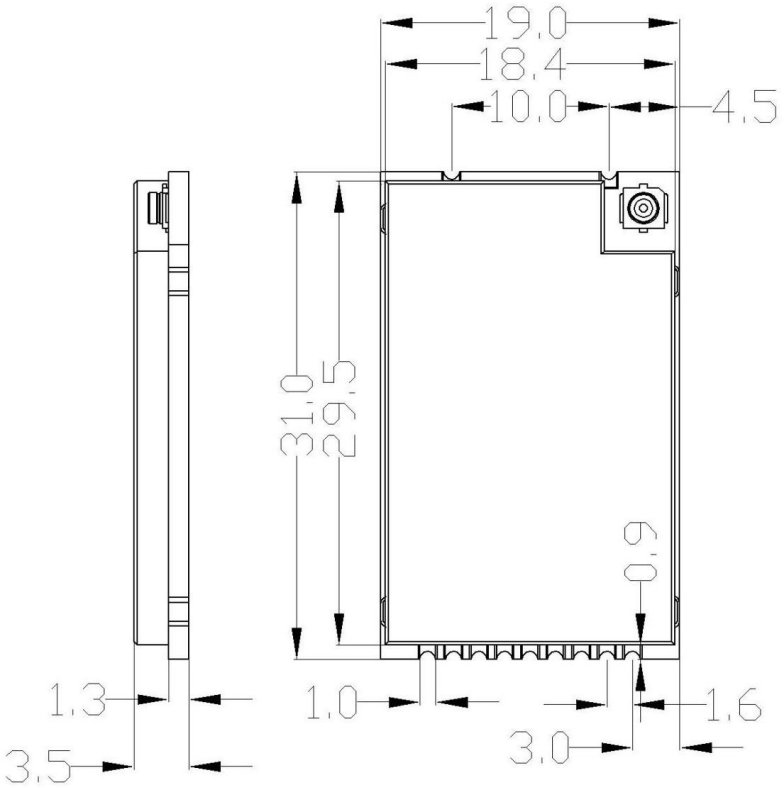
ITEM	SYMBOL	MIN	TYP	MAX	UNIT
Power Supply	VCC	3.6	5	5.5	V
Current Dissipation	I_C	360	67(standby)	950(30dBm)	mA
Frequency	F_{REQ}	-	865~868(ETSI) 902~928(FCC)	-	MHz
RF Output Power	P_{RF}	5		30	dBm
Receive Sensitivity	SR		-74(using E310) -81(using E510) -87(using E710)		dBm

INTERFACE



No.	Symbol	Comment
1	VCC	Power Supply
2	VCC	Power Supply
3	GND	Ground
4	GND	Ground
5	EN	Enable. High level effective with internal 10kOhm resistor pulled up to VCC
6	BUZZER	Buzzer output (3.3V TTL level, outputs high when activated)
7	RXD	Serial data input
8	GPI1	General Input (3.3V TTL level)
9	TXD	Serial data output
10	GND	Ground
11	GND	Ground
12	IPEX	IPEX antenna port

MECHANICAL DATA (UNIT: mm)



Application Information

1. When designing fixed reader, please take care of heat sinking and remember to make sure the heat sinker of the module is closely and stably attached to the reader's bottom plate;
2. Please refer to User's Manual for detailed protocol description.

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.

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