

R2000 UHF RFID Module(1-Port)



Model: RRU9881M

Size: 42 x 42 x 7.5mm

Weight: 24g

GENERAL DESCRIPTION

RRU9881M is an excellent performance UHF Indy2000 RFID Reader 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, attendance system, anti-counterfeit and industrial production process control system.

FEATURES

- Self-intellectual property;
- Support EPC C1G2 (ISO18000-6C) , ISO18000-6Bprotocol tag;
- 865~868MHz, 902~928MHz frequency band (frequency customization optional);
- FHSS or Fix Frequency transmission;
- RF output power is adjustable from 0~30dbm with 1db step;
- Effective reading distance more than 9 meters* (with 6dBiL antenna and E41 tag);
- Support RSSI;
- Peak Inventory Speed > 500pcs/s;
- Buffering memory 1000pcs @ 96bits EPC;
- 1 IPX antenna port with antenna failure detection;
- Low power dissipation with single +3.7V ~ +5V DC power supply;
- Support 2 GPIOs (1 input and 1 output);
- Support RS232 (3.3V TTL level TTL level);
- High stability with natural cooling;
- Support firmware on-the-site upgrading;
- Provide SDK and demo software to facilitate further development.

* Effective distance depends on antenna, tag and environment.

CHARACTERISTICS

● Absolute Maximum Rating

ITEM	SYMBOL	VALUE	UNIT
Power Supply	VCC	5.5	V
Operating Temp.	T _{OPR}	-20 ~ +65	°C
Storage Temp.	T _{STR}	-40 ~ +85	°C

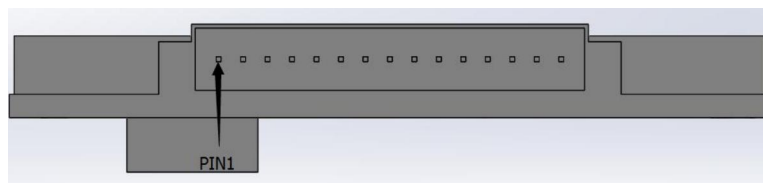
● Electrical and Mechanical Specification

Under $T_A=25^{\circ}\text{C}$, $V_{CC}=+5\text{V}$ unless specified

ITEM	SYMBOL	MIN	TYP	MAX	UNIT
Power Supply	VCC	3.7	5	5.25	V
Current Dissipation	I_C			1200	mA
Frequency	F_{REQ}	860	865~868 902~928	960	MHz
RF Output Power	P_{RF}	0		30	dBm
RF Power Accuracy	AP_{RF}		+/-1		dB
RF Power Conformity	FP_{RF}		+/-0.2		dB
Receive Sensitivity	SR		-85		dBm

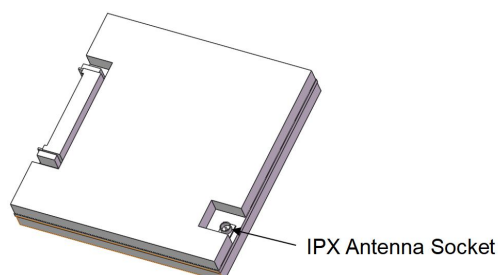
Interface

1. Module PIN Description

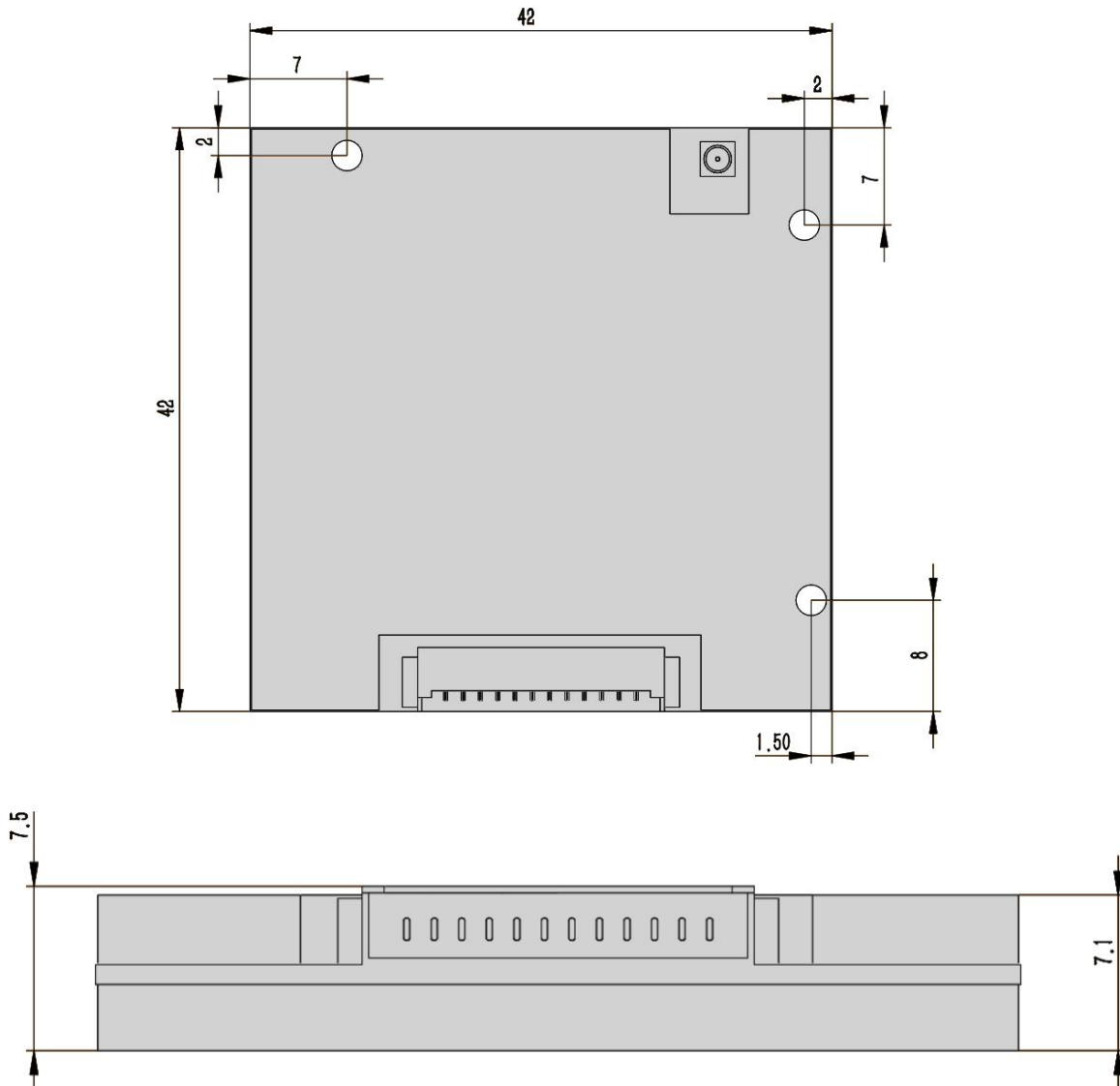


No.	Symbol	Comment
1	GPI1	General input (3.3V TTL level)
2	EN	Enable. High level effective.
3	LED1	LED Indicator. High level effective.
4	TXD	Serial data output
5	RXD	Serial data input
6	GPO1	General output (3.3V TTL level)
7	GND	Ground
8	GND	
9	USB-DP	USB Data +
10	USB-DM	USB Data -
11	VIN	Power supply (+3.7~5V)
12	VIN	

2. Antenna Interface



MECHANICAL DATA (UNIT:mm)



Application Information

1. When designing fixed reader with RRU9881M, 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 RRU9881M user's manual for detailed protocol description.

Remark:

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