

## R2000 UHF RFID Module(4-Port)



**Model: RRU2882M**

**Size: 67.5 x 51 x 7.9mm**

**Weight: 42g**

## GENERAL DESCRIPTION

RRU2882M 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;
- Designed with R2000 and support EPC C1G2 (ISO18000-6C) , ISO18000-6B protocol tag;
- 865~868MHz, 902~928MHz frequency band (frequency customization optional);
- FHSS or Fix Frequency transmission;
- RF output power is adjustable from 0~33dbm with 1db step;
- Effective reading distance more than 9 meters\* (with 6dBiL antenna and E41 tag);
- Support RSSI;
- Peak Inventory Speed > 700pcs/s (shall be accordance with the working environment, tags, antenna, etc. at site);
- Buffering memory 1000pcs @ 96bits EPC;
- Support 4 external antennae with 4 SMA sockets;
- Low power dissipation with single +3.7V ~ +5V DC power supply;
- Support 4 GPIO ports (with 2 inputs and 2 outputs);
- 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 <sub>OPR</sub>	-20 ~ +65	°C
Storage Temp.	T <sub>STR</sub>	-40 ~ +85	°C

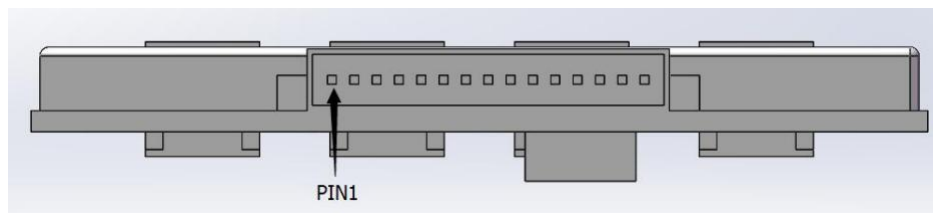
## ● Electrical and Mechanical Specification

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

ITEM	SYMBOL	MIN	TYP	MAX	UNIT
Power Supply	VCC	3.7	5	5.25	V
Current Dissipation	$I_c$			1500	mA
Frequency	$F_{REQ}$	860	865~868 902~928	960	MHz
RF Output Power	$P_{RF}$	0		33	dBm
RF Power Accuracy	$AP_{RF}$		+/-1		dB
RF Power Conformity	$FP_{RF}$		+/-0.2		dB
Receive Sensitivity	SR		-85		dBm

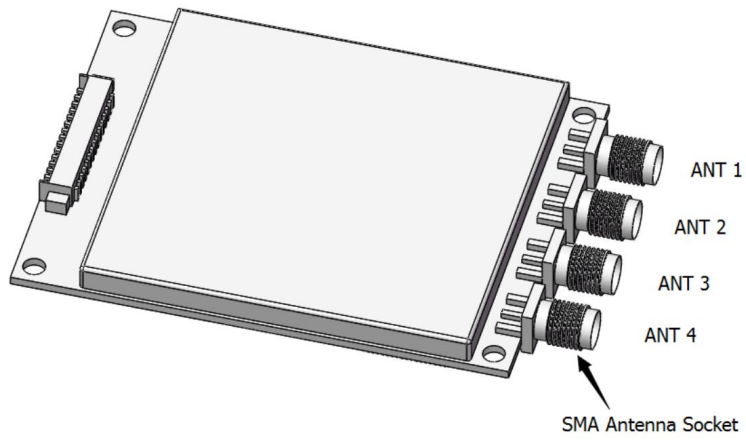
## INTERFACE

### 1. Module PIN Description

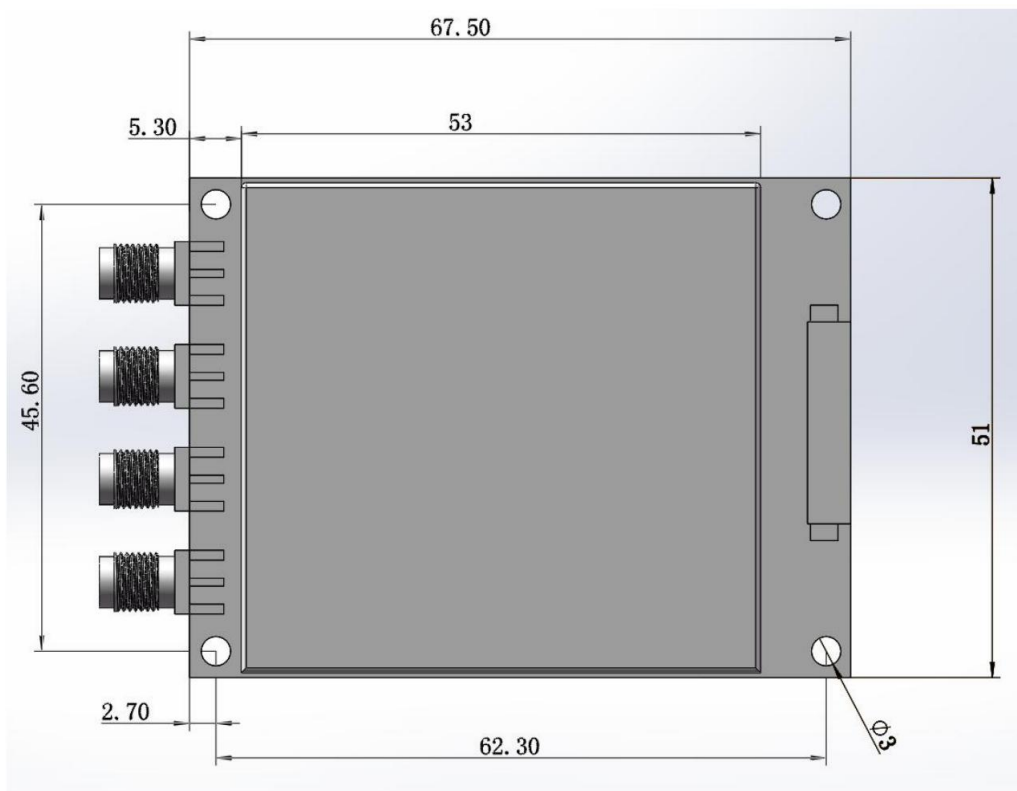


No.	Symbol	Comment
1	GND	Ground
2	GND	
3	VCC	Power Supply +3.7~5VDC
4	VCC	
5	GPO1	General Output (3.3VTTL level)
6	GPO2	
7	GPI1	General Input (3.3VTTL level)
8	BUZZER	Buzzer Output with Max. 50mA driving current (High Level Effective)
9	RXD	Serial Data Input
10	TXD	Serial Data Output
11	USB-DM	Reserved for test only
12	USB-DP	
13	GPI2	General Input (3.3VTTL level)
14	EN	Enable (High Level effective with internal 10K pull-up resistor to VCC)
15	RS485_CTRL	RS-485 control

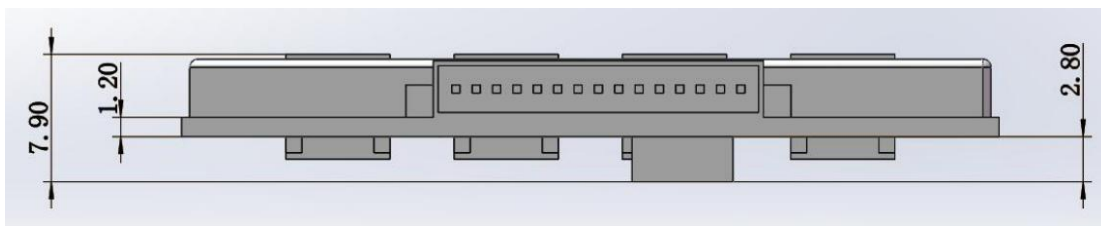
**2. Antenna Interface**



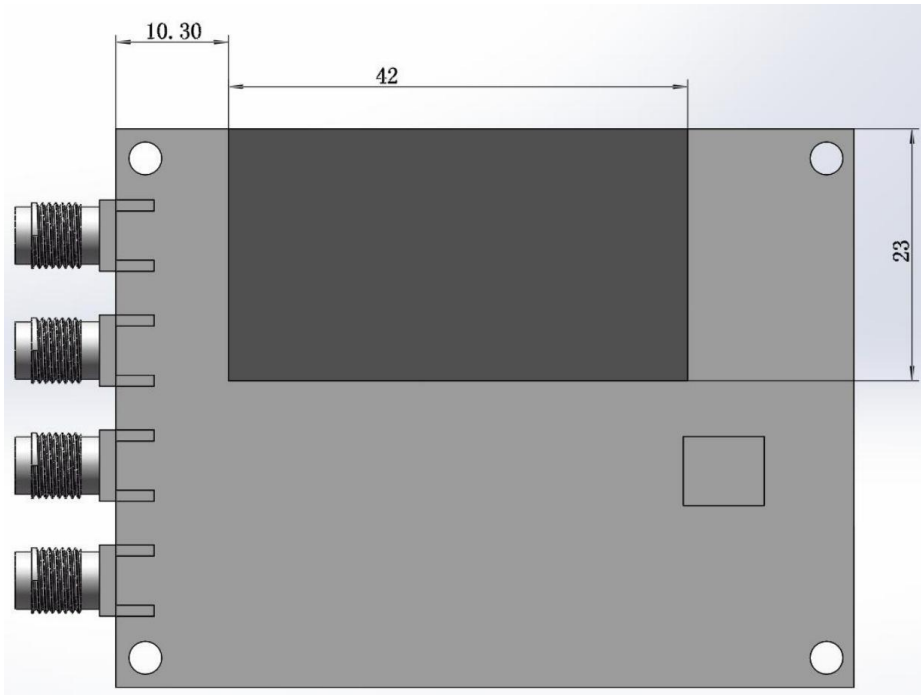
**MECHANICAL DATA(UNIT mm):**



**Picture No.1: Module Dimension & Hole Position**



**Picture No.2: Module Thickness**



Picture No.3: Heat Sink Location

## Application Information

1. When designing fixed reader with RRU2882M, 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 RRU2882M 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.