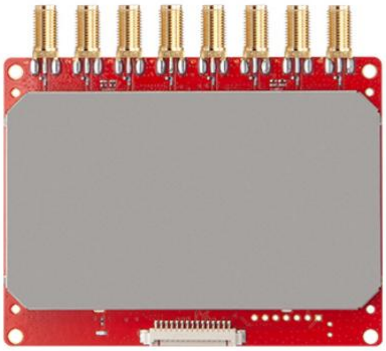
R2000 UHF RFID Module(8-Port)



Model: RRU2889M

Size: 67.5 x 51 x 7.9 mm

Weight: 75g

GENERAL DESCRIPTION

RRU2889M 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;
- 840~960MHz frequency band (frequency customization optional);
- Based on Impinj R2000 high performance RF engine, excellent multi-tag anti-collision operation, fully support EPC CLASS1 G2 \ ISO18000-6B protocol tags;
- FHSS or Fix Frequency transmission, support RSSI;
- Peak Inventory Speed > 700pcs/s;
- RF output power is adjustable from 0~33dbm with 1db step;
- Effective reading distance more than 9 meters* (with 6dBiL antenna and E41 tag);
- Buffering memory 1000pcs @ 96bits EPC;
- Support 8 external antennae with 8 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**

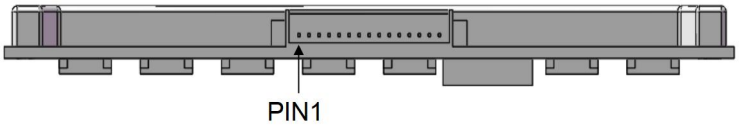
ITEM	SYMBOL	VALUE	UNIT
Power Supply	VCC	5.5	V
Operating Temp.	T_{OPR}	-20 ~ +65	℃
Storage Temp.	T_{STR}	-40 ~ +85	℃

- **Electrical and Mechanical Specification**

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	860~868 902~928	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

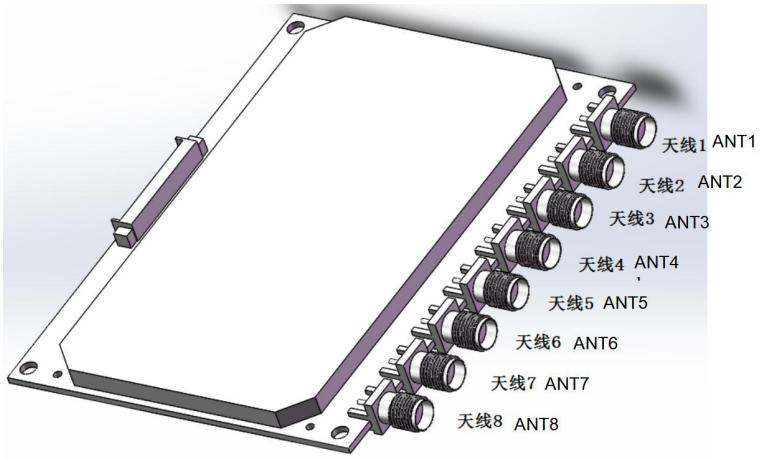
INTERFACE

1. Module PIN Description

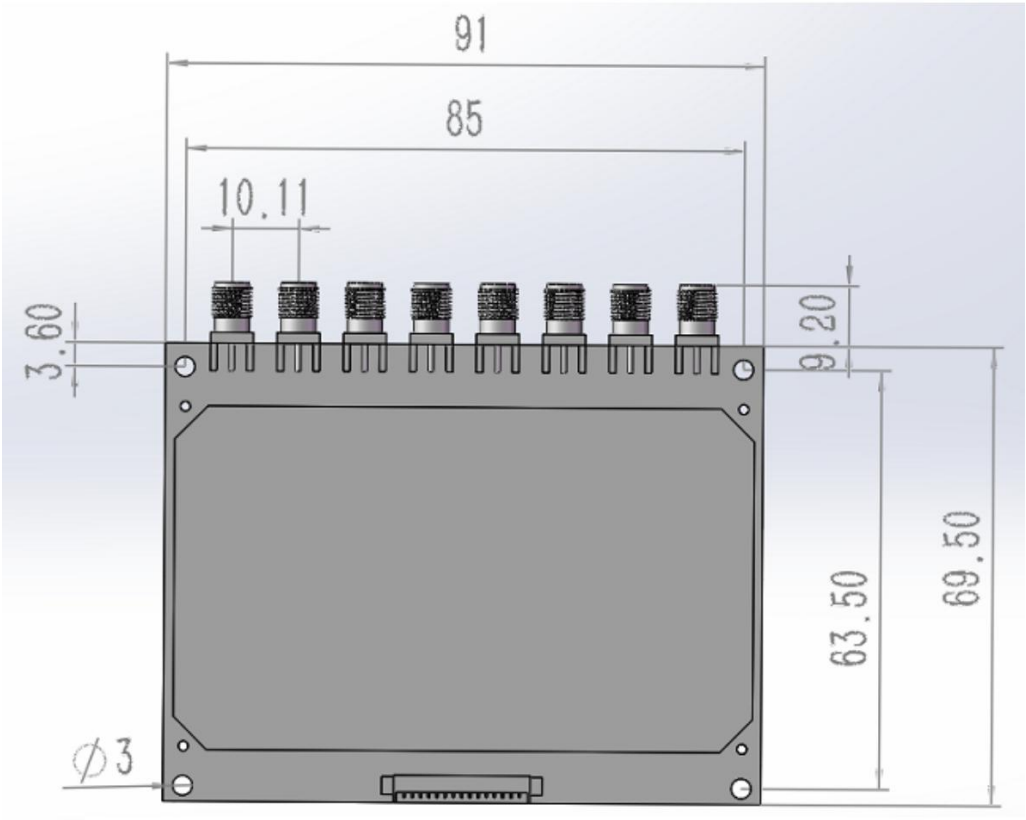


No.	Symbol	Comment
1	GND	Ground
2	GND	
3	VCC	Power Supply +3.7~5VDC
4	VCC	
5	GPO1	General Output (3.3VTTL level)
6	GPO2	
7	GPI1	General Input (3.3VTTL level)
8	BUZZER	Buzzer Output with Max. 50mA driving current (High Level Effective)
9	RXD	Serial Data Input
10	TXD	Serial Data Output
11	USB-DM	Reserved 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

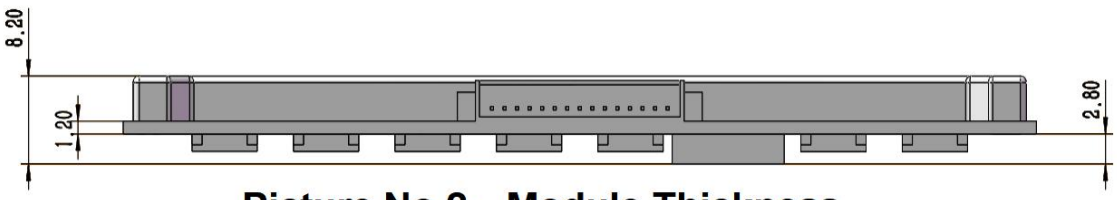
2. Antenna Interface



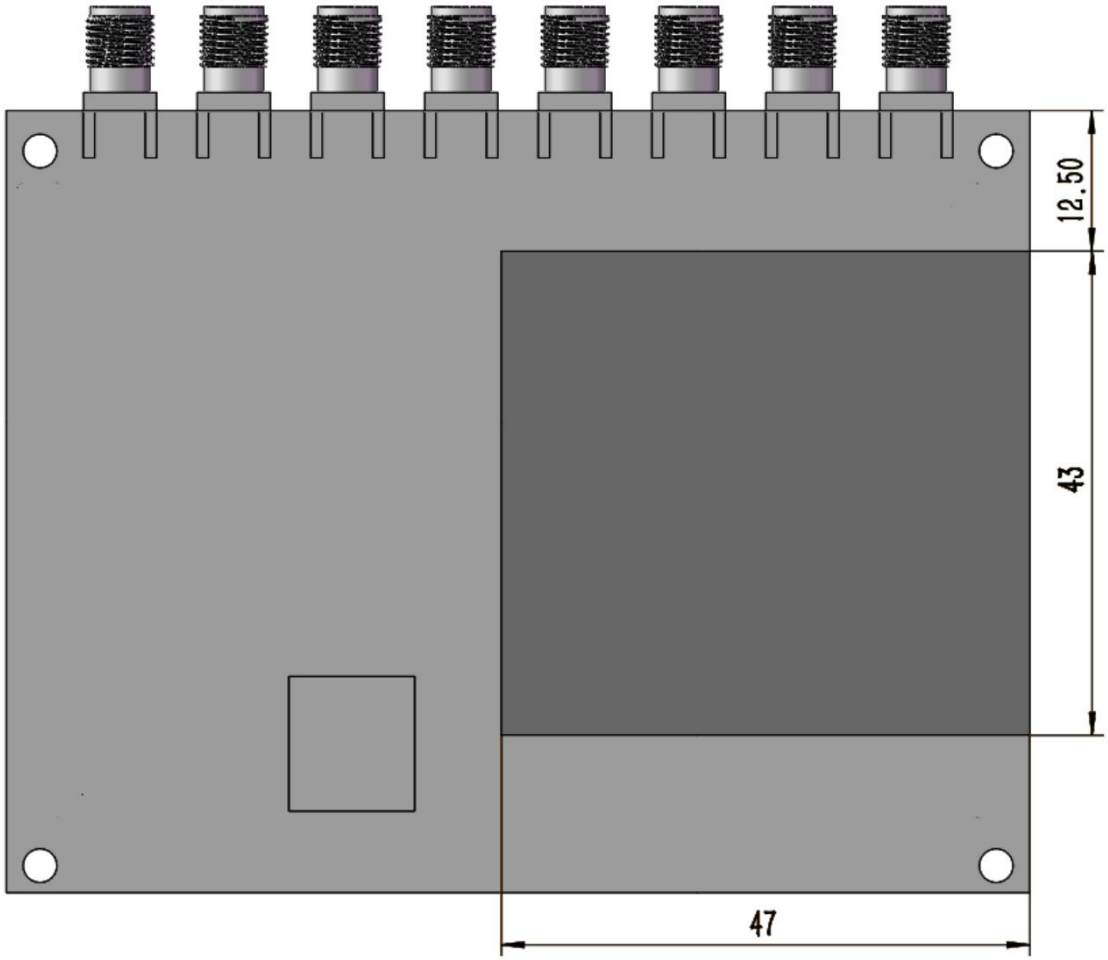
MECHANICAL DATA(UNIT mm)：



Picture No.1：Module Dimension & Hole Position



Picture No.2：Module Thickness



Picture No.3： Heat Sinker Location

Application Information

1. When designing fixed reader with RRU2889M, 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 RRU2889M 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.

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