Name: ID card serial port reader module

Model: YS-RFID2

Specification: 5x2.9x0.5cm

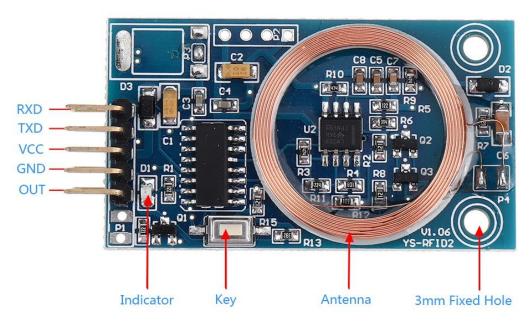Supply voltage: DC 5V

Working current: 26ma

Interface: 1 TTL serial port, 1 output port

Current after sensing the card: 20ma

Output terminal voltage: about 4.3V (when 5V power supply)

Working temperature: -20℃ to 70℃

Working principle: After the module senses the ID card, it actively decodes and outputs the 10-digit card number. For example, the IO port of the registered card also outputs high level.

RXD:Receive Data
TXD:Transmit Data
VCC:Input Voltage Positive
GND:Input Voltage Negative
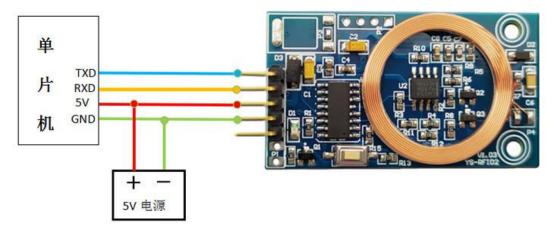OUT: Output High Level Signal when ID Card is approaching.

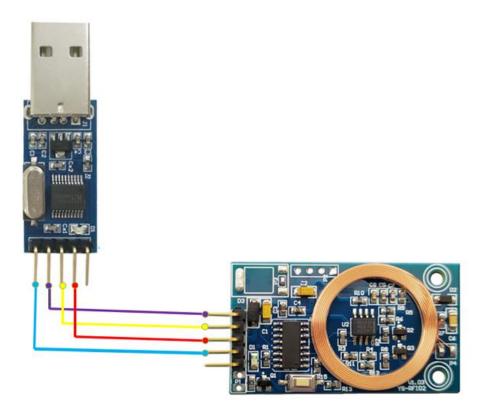
KEY: Clear all card when keeps press before power-on.

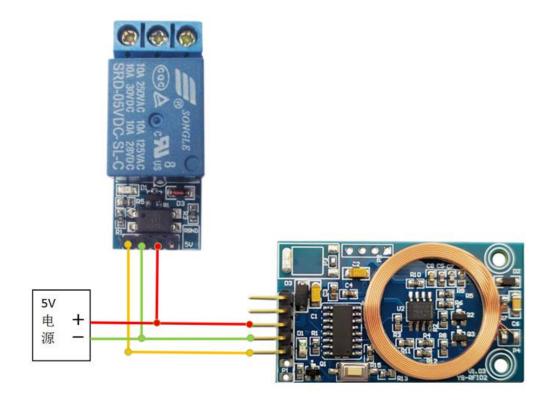1. Product function description

1. Support reading ID card, ID access card, VIP keychain ID card card number, 125K support chip TK4100.

2. Support 1 TTL serial port to output decoded data.

3. Support 1 output port, which can directly control the switch of the relay module.

4. Support 4 optional baud rates, 4800, 9600, 57600, 115200bps.

5. Support operations such as reading, deleting, and registering cards.

6. A total of 0-34 card numbers can be stored, and a total of 35 ID cards.

Serial communication protocol description

1. ID card decoding method:

The ID card will be decoded and output immediately after it is approached, and the serial port will output the card number once. The character format is: "card number: xxxxxxxxx@" (the card number is the 10-digit card number on the actual ID card)

2. Serial port operation delete and register card method

(1)Delete all cards, the serial port receiving character format is: "Delete card: all@" —— reply "Delete all completed"

(2) To delete a card, the serial port receiving character format is: "Delete card: card 00@" One reply "Card 0 delete complete"

(3) When registering a certain card, the serial port receiving character format is: "Registration Card: Card 00@" ——Respond to "Start Registering Card", the indicator light keeps flashing and waiting for the card to approach, after the registration is completed —— Reply "Registration Complete" (If card 1 has a card, it will be overwritten)

(4) Query all cards, the serial port receiving character format is: "Query card: all

——The format for replying to all card numbers is:

Card number 0: XXXXXXXXX@

Card number 2: xxxxxxxxx@

3. Setting method of serial port baud rate:

(1) The serial port receiving format is: "Set the baud rate: xxxx@"

Baud rate: 4800, 9600, 57600, 115200 If you want to set the baud rate to 9600, send: "Set the baud rate: 96000"

Note: The registration can only be registered according to the order. If the serial number has been registered, it can be re-registered. If the serial number has not been registered, the registration will be arranged according to the order, and the registration cannot be skipped. The same is true for deleting. If there are 10 cards, if you delete the first card, there are 9 cards left, and the original card 2 becomes card 1.

Examples of using operating procedures

Use with computer:

1. Connect the USB to TTL to the ID card reader module and plug it into the computer

2. Open "RFID2 Module Setting Software", select the corresponding COM port and open the serial port

3. At this time, you can add registration cards and delete cards according to your needs.

Use with MCU:

1. First write the program of the serial communication protocol of the MCU corresponding to the ID card reader module. For example, the single-chip microcomputer can send the register card, delete the card light command to the ID card reader module, and can receive the serial port to determine the current card number and other operations. (Can be combined with serial port assistant for debugging)

2. Connect the single-chip microcomputer and the ID card reader module, and then you can execute the serial port sending and receiving commands according to the situation of the single-chip microcomputer.

If the microcontroller records the ID card number first, the next time the ID card is sensed again, the microcontroller will determine whether it is the currently recorded card number, and if so, perform the relevant operations. (Such as the realization of single-chip microcomputer to open the door and turn on the lights, etc.)