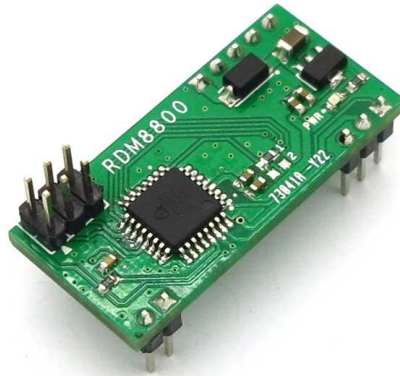


# RDM8800 NFC/RFID Module

## Overview



RDM8800 card reader is a module based on PN532 chip customized for 13.56MHz NFC RFID card, compatible with RDM6300 interface, which can read data directly from the serial interface.

Unlike ordinary RFID modules, RDM8800 integrates LGT8FF8A chip, compatible with Arduino library, thus we can modify the firmware to suit our own needs. Itead Studio also released the source codes of RDM8800 firmware, and users can make secondary development based on it.

## Specifications

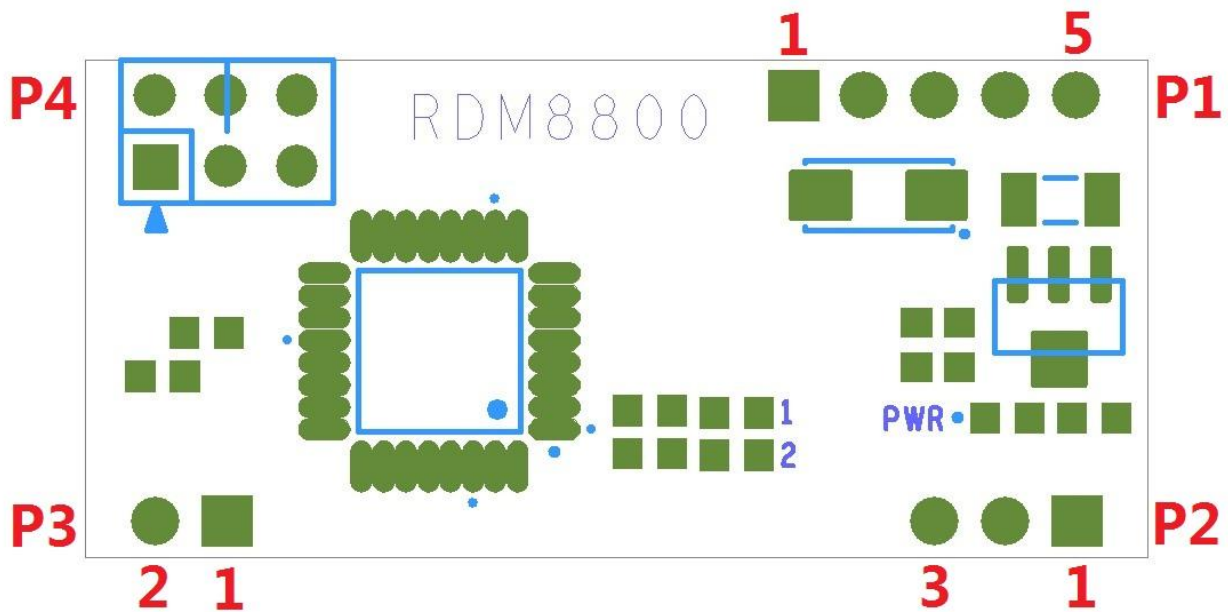
|               |   |
|---------------|---|
| PCB size      | 38.1mm X 117.78mm X 1.6mm   |
| Input voltage | 5V  |
| Interface     | UART  |
| Compatibility | With ISO 14443 Type A protocol<br>With ISO 14443 Type B <sup>[1]</sup> protocol |
| Baud rate     | 9600  |

[1]: Version 1.0 firmware does not support ISO 14443 Type B at present, which requires users to make secondary development.

## Electrical characteristics

| Parameter                     | Min.                 | Typical | Max. | Unit |
|-------------------------------|----------------------|---------|------|------|
| Supply voltage                | 4.8                  | 5       | 5.5  | VDC  |
| Consumption current (average) | -                    | 80      | -    | mA   |
| Logic input voltage           | V <sub>ss</sub> -0.3 | 3.3     | 5    | VDC  |

## Hardware



## pinmap

| Pin |      | Pin name | Description |
|-----|------|----------|-------------|
| P1  | Pin1 | +5V(DC)  | Power input |
|     | Pin2 | GND      | Ground      |
|     | Pin3 | NC       | Unoccupied  |



|    |      |         |                         |
|----|------|---------|-------------------------|
|    | Pin4 | RX(TTL) | UART input              |
|    | Pin5 | TX(TTL) | UART output             |
| P2 | Pin1 | LED     | Interrupt pin           |
|    | Pin2 | +5V(DC) | Power output            |
|    | Pin3 | GND     | Ground                  |
| P3 | Pin1 | ANT1    | Antenna interface       |
|    | Pin2 | ANT2    |                         |
| P4 | Pin1 | SWD     | SWD debugging interface |
|    | Pin2 | 3.3V    | Power output            |
|    | Pin3 | SWC     | SWD debugging interface |
|    | Pin4 | NC      | Unoccupied              |
|    | Pin5 | RST     | Reset                   |
|    | Pin6 | GND     | Ground                  |

## Data formats

According to V1.0 firmware, there is one type of data output:

Directly output a card N.O.

The serial port will output a 10-digit decimal ACSII code card N.O. directly, which will be followed by a break line "0x0D 0x0A".

For example: the card number is 46553491, the output data will be "0046553491", (HEX: "0x30 0x30 0x34 0x36 0x35 0x35 0x33 0x34 0x39 0x31 0x0D 0x0A" ).

## Interrupt pin

### 1. LED

According to V1.0 firmware, once an ID N.O. is read, LED pin will output a 10ms high-level pulse.

## Revision record

| Version | Description     | Written by | Date                          |
|---------|-----------------|------------|-------------------------------|
| v1.0    | Initial edition | Stan Lee   | 10 <sup>th</sup> , Dec., 2013 |