

ISO14443A CONTACTLESS, ISO7816 IC CARD READER

# JMY6801D IC Card Reader

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## User's manual

(Revision 3.50)

**Jinmuyu Electronics Co. LTD**

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Please read this manual carefully before using. If any problem, please mail to: [Jinmuyu@vip.sina.com](mailto:Jinmuyu@vip.sina.com)



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# 1 Product introduction

JMY6801D is a RFID read/write module with UART, IIC, RS232C or USB port. JMY6801D has various functions and supports multi ISO/IEC standard of contactless card. The RF protocol is complex. The designer combined some frequent used command of RF card and then user could operate the cards with full function by sending simple command to the module. The modules build in SAM slot. It could operate contact smart card according to ISO7816.

The module has a length of 506 bytes command buffer could send APDU over 256 bytes to T=CL smart cards and SAM cards. The modules support FSDI=8 of ISO14443-4. The module and antenna is integrated. The impedance between RF circuit and antenna was tuned by impedance analyzer, and then the module has excellent performance and stability. There is ferrite plate between main PCB and antenna, so such design applies to some metallic-around systems.

## 2 Characteristics

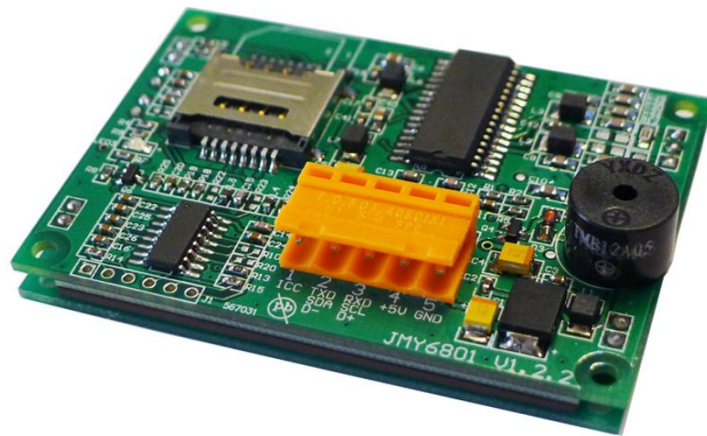
- PCD model: NXP RC500
- Working frequency: 13.56MHz
- Supported standard: ISO14443A, ISO7816
- Card supported: Mifare 1K/4K, FM11RF08, Ultra Light, DesFire, Mifare ProX, T=CL CPU cards(ISO14443-4 Type A) and ISO7816 SAM cards (both T=0 & T=1)
- Anti collision ability: Full function anti collision; be able to process multi-cards; be able to set operate single card only
- Auto detecting card: Supported, default OFF. The default state can be set.
- SAM slot: 2 slot
- SAM baud rate: 9600bps/38400bps/19200bps(default)/115200bps/57600bps.
- ISO7816 PPS set: Supported
- EEPROM: 512 Bytes
- Power supply: DC 5V ( $\pm 0.5V$ )
- Interface: IIC/UART/RS232C/USB HID (select when place order)
- Communication rate:
  - IIC: 400Kbps
  - UART/RS232C/USB: 19.2Kbps/115.2Kbps
  - USB: USB 2.0 HID
- Max. command length: JCP04 254 Bytes; JCP05 510 Bytes.
- Interface level: UART/IIC: 3.3V (TTL level; 5V tolerance)
- Power consumption: 150mA
- Operating distance: 80mm (depending on card and antenna design)
- Dimension: 70mm\*50mm\*16.5mm
- Weight: About 120g
- ISP: Supported
- Operating temperature: -25 to +85 °C
- Storage temperature: -40 to +125 °C



- RoHS: Compliant

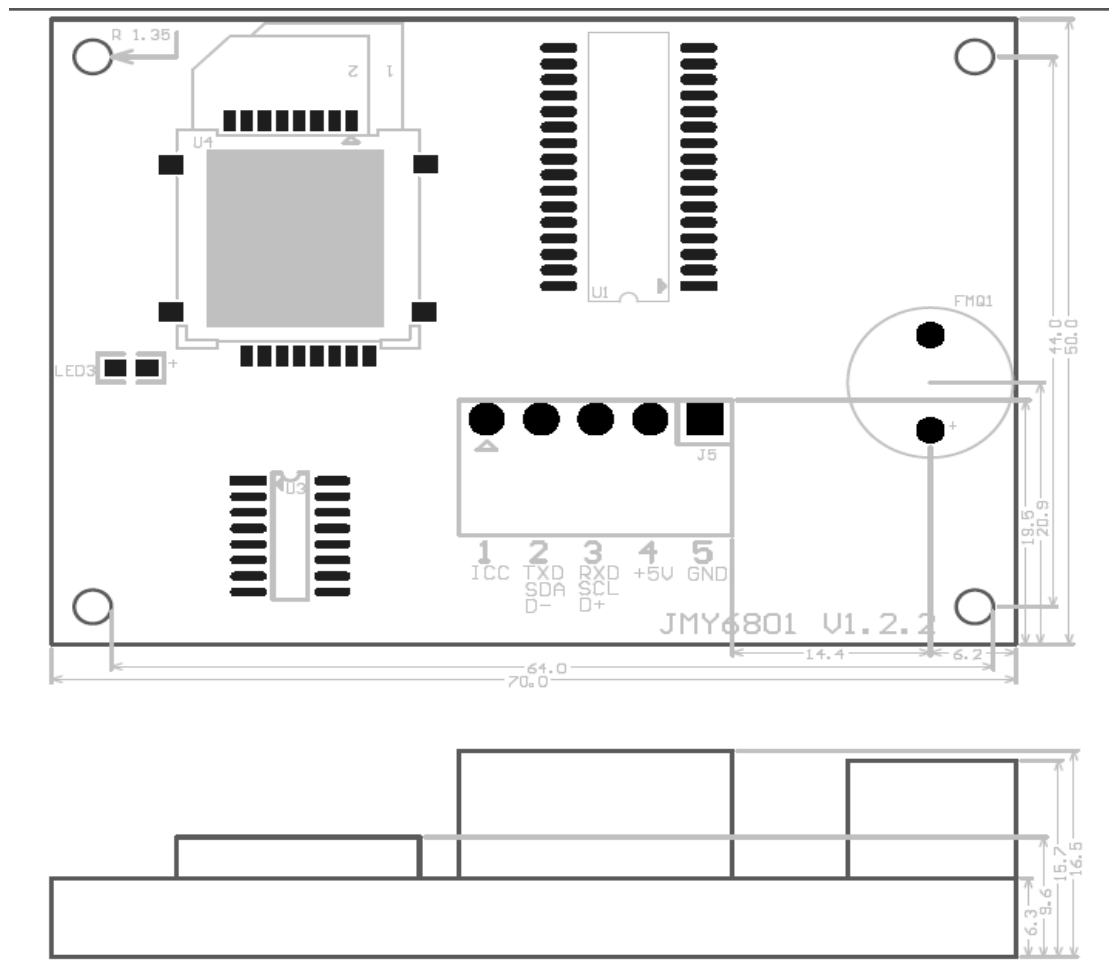
## 3 Physical parameter and pin outs

### 3.1 Photo





### 3.2 Dimension



### 3.3 Pin configurations and Pin outs

Pin number	Function	Type	Description
1	ICC	Output	Card in/out indication 0: Card IN; 1: Card OUT
2	TXD/SDA	Input/output	RS232C TXD / UART TXD / IIC SDA/ USB D+
3	RXD/SCL	Input	RS232C RXD / UART RXD / IIC SCL/ USB D-
4	VCC	Power	VCC
5	GND	Power	GND

### 3.4 Model available

- JMY6801DI IIC interface
- JMY6801DT UART interface, TTL level
- JMY6801DS RS232C (UART interface, RS232 level)
- JMY6801DU USB to UART Bridge



## 3.5 Model rule

### 3.5.1 Model format

1	2	3	4
JMY	6801	X	X

1: company code; 2: product series code; 3: card operating type; 4: communication port type

### 3.5.2 Card operating type

M: PCD is RC500, support Mifare Class

A: PCD is RC500, support ISO14443A and Mifare Class

C: PCD is RC531, support ISO14443A, ISO14443B and Mifare Class

G: PCD is RC400, support ISO15693

H: PCD is RC632, support ISO15693, ISO14443A, ISO14443B and Mifare Class

D: PCD is RC500, support ISO14443A and Mifare Class with 511 bytes communication buffer

E: PCD is RC531, support ISO14443AB and Mifare Class with 511 bytes communication buffer

F: PCD is RC632, support ISO15693, ISO14443A, ISO14443B and Mifare Class with 511 bytes communication buffer

### 3.5.3 Communication port

I: IIC

T: UART

S: RS232C

U: USB