

JMY6202 IC Card Read/Write Module

User's Manual

(Revision 5.00)

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1 Product introduction

JMY6202 is a series of RFID read/write module with UART, USB HID and IIC communication port. It has various functions and supports multi ISO/IEC standard of contactless card. The RF protocol is complex, but 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 module and antenna is split. The impedance between RF circuit and antenna was tuned by impedance analyzer, and then the module has excellent performance and stability.

It connects outside antenna by 50ohm coaxial cable. The surface mount and very small module size are fit to portable devices.

2 Key Characteristics

- Module split antenna, connected by 50ohm coaxial cable, flexible antenna size and layout
- EMV2010 certification ability
- Surface mount and very small module size to fit portable devices
- Low power consumption, could be set RF output level
- Good Performance in EMC

3 Technical parameters

- PCD type: NXP CL RC663
- Working frequency: 13.56MHz
- Supported standard: ISO14443A, ISO14443B, ISO15693
- Card supported: see: module function configuration table
- Anti collision ability: Full function anti collision; be able to set multi-cards or single card
- Auto detecting card: Supported, default OFF, could be set
- Power supply: DC 5V ($\pm 10\%$)
- Interface: USB HID, IIC & UART (selected by SPS pin, recommend to use IIC)
- Communication speed:

IIC	400Kbps
UART	19200bps / 9600bps / 38400bps / 57600bps / 115200bps
USB	USB 2.0 HID
- Max. command length:

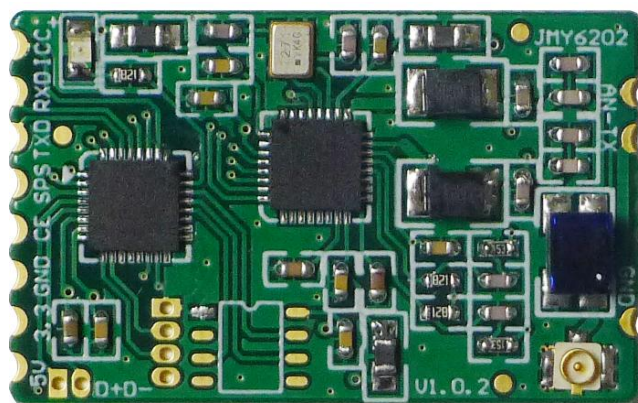
JCP04	253 bytes
JCP05	510 bytes
- Interface level: UART/IIC: 3.3V (TTL level; 5V tolerance)
- Power consumption: Max. 150mA
Idle model 100uA
- Operating distance: 100mm (M1 typical distance, depending on card quality)
- Dimension: 20mm*35mm*4.1mm (without Antenna)
- Package: SMD



- Weight: About 10g (without Antenna)
- ISP: Supported
- Operating temperature: -25 to +85 °C
- Storage temperature: -40 to +125 °C
- RoHS: Supported

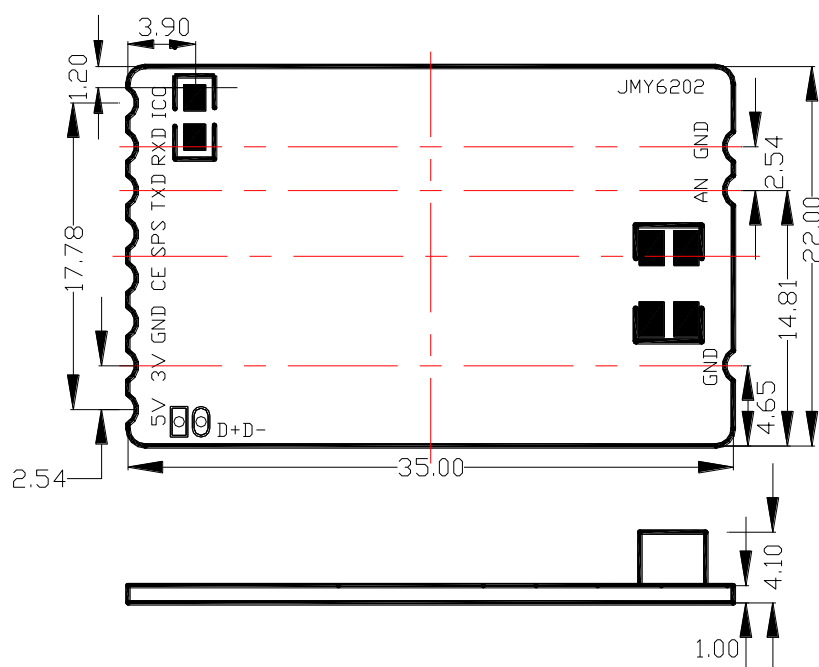
4 Physical parameter and pin outs

4.1 Photo



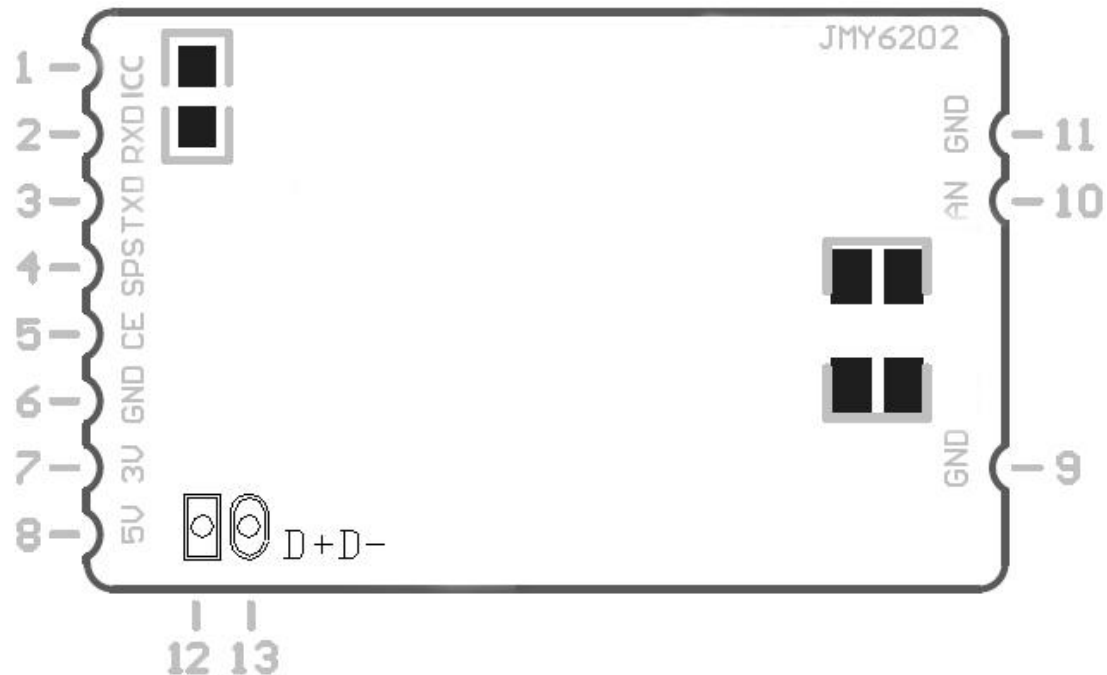
4.2 Dimension

Size in mm





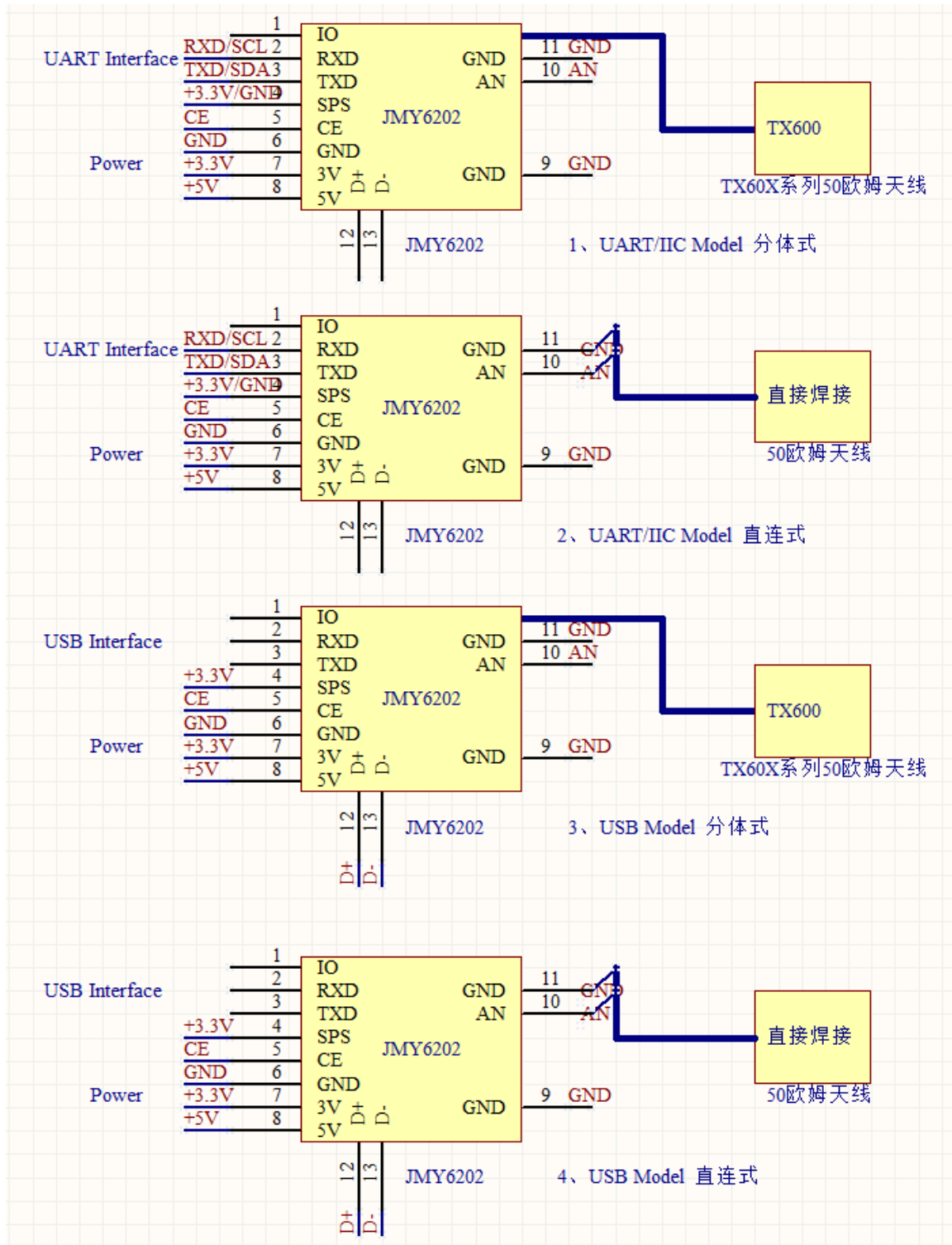
4.3 Pin configurations and pin outs



Pin number	Function	Type	Description
1	ICC	Output	Card in/out indicator, 0: Card IN; 1: Card OUT
2	RXD/SCL	Input	UART RXD / IIC SCL
3	TXD/SDA	Input/output	UART TXD / IIC SDA
4	SPS	Input	Serial port selector, 1: UART; 0: IIC
5	CE	Input	Module enable, 1: disable; 0: enable
6	GND	GND	GND
7	NC	NC	NC
8	+5V	Power	Power
9	GND	GND	For fixing use, connect to GND
10	AN	RF Output	50ohm antenna connection pin
11	GND	GND	50ohm antenna connection pin
12	D+	Input/output	USB D+
13	D-	Input/output	USB D-



4.4 Connection





4.5 Antennas

Normally, as the size of TX600 series antenna may not meet the actual demands, the antenna needs to be customized, especially in some compact systems. The following information for customization is needed: 1. Dimension of the antenna PCB; 2. the position and direction of the antenna outlet and the connector; 3. the description of the antenna periphery. Jinmuyu will design the most proper antenna according to the user's exact requirements.

We provide many models of antenna. Please visit our website to get more information. There are some recommended models in the table:

Antenna model	Size of antenna	Card operating distance
TX600	70mm * 70mm	100mm
TX601	50mm * 50mm	70mm
TX602	30mm * 30mm	50mm
TX604	50mm * 70mm	80mm
TX605	100mm * 150mm	100mm



4.6 Module function configuration table

	JMY6202H
PCD	RC663
JCP04 protocol	●
JCP05 protocol	●
MIFARE 1K	●
MIFARE 4K	●
MIFARE Ultra Light	●
MIFARE Ultra Light C	●
MIFARE Mini	●
MIFARE DESfire	●
MIFARE Plus	●
T=CL TYPE A	●
SR176	●
SRI512	●
SRI1K	●
SRI2K	●
SRI4K	●
SRIX4K	●
T=CL TYPE B	●
I.CODE 1	●
I.CODE SLI	●
I.CODE SLI-S	●
TI Tag-it series	●
ST LRI series	●
NFC Active Initiator	
NFC Active Target	-
NFC Passive Initiator	●
NFC Passive Target	-
NFC Card	-
On Chip Data Flash	512 bytes
IIC Interface	JMY6202HI
UART Interface	JMY6202HT
USB Interface	JMY6202HU



5 Operate the module

The physical interfaces of module are various. But the data link layer protocols are in accordance with JCP04 & JCP05. Please reference “JMY600 series general communication protocol manual.pdf”. For convenience to test the module, we supply PC software: TransPort to users. We have interface program source code to help users also. They are KELL projects in C51 or ASM51 format.

Please log on to our website: <http://www.jinmuyu.com> to download or mail to jinmuyu@vip.sina.com to obtain the resources.



6 Document update record

Version	Date	Content
V5.00	June 14, 2018	The first version