

JMY6022 IC Card Read/Write Module

User's Manual

(Revision B V1.02)

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1 Product introduction

JMY6022 is a contactless IC card embedded reading and writing module designed based on the NXP scheme. It fully supports the MIFARE series and ISO14443A and ISO14443B T=CL non-contact CPU cards. The RF communication protocol supports the EMV2010 and PBOC 3.0 certification requirements. The RF field strength is basically meeting the requirements of EMV2010 and PBOC 3.0.

The card reader has built-in SAM card slot, supports any SAM card that conforms to the ISO7816 (T=0 & T=1) standard, and supports the reset and operation of any rate of SAM card.

The 32-bit ARM microcontroller ensures that the reader has good performance and reliability.

2 Key Characteristics

- Integrated antenna design with stable performance and excellent consistency
- Onboard 2 SAM card slots
- UART/I²C/RS232C/USB HID communication interfaces
- 32-bit high-speed MCU
- RF circuit performance and communication protocols comply with EMV or PBOC certifications, fully meeting payment system requirements
- 4Mbits external memory (optional, not pre-soldered by default)
- External low-power RSA/ECC cryptographic chip (optional, not pre-soldered by default)

3 Technical parameters

- PCD type: NXP RC663
- Working frequency: 13.56MHz
- Supported standard: ISO14443A,ISO14443B,ISO15693,ISO18000-3MODE3,ISO18092
- 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
- Buzzer: Yes
- Power supply: DC 5V (±10%)
- Interface: UART\RS232\USB HID\USB PCSC on order
- Interface level: IIC/UART 3.3V
- Communication speed: IIC Max. 200Kbps
UART 19200bps / 9600bps / 38400bps / 57600bps / 115200bps
- Power consumption: 150mA
- Operating distance: 100mm (M1 typical distance, depending on card quality)
- Dimension: 100mm*70mm*12mm



- Weight: About 30g
- ISP: Supported
- RoHS: Compliant
- Operating temperature: -25 to +85°C
- Storage temperature: -40 to +125°C

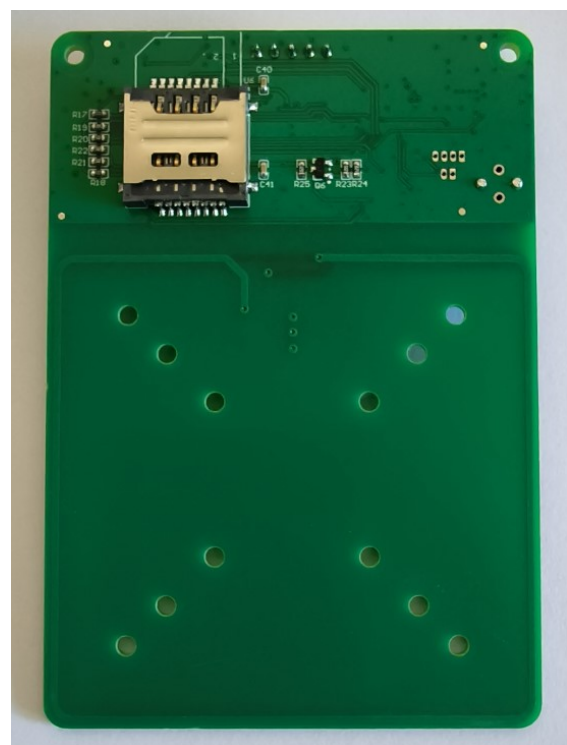
4 Physical parameter and pin outs

4.1 Photo

Front

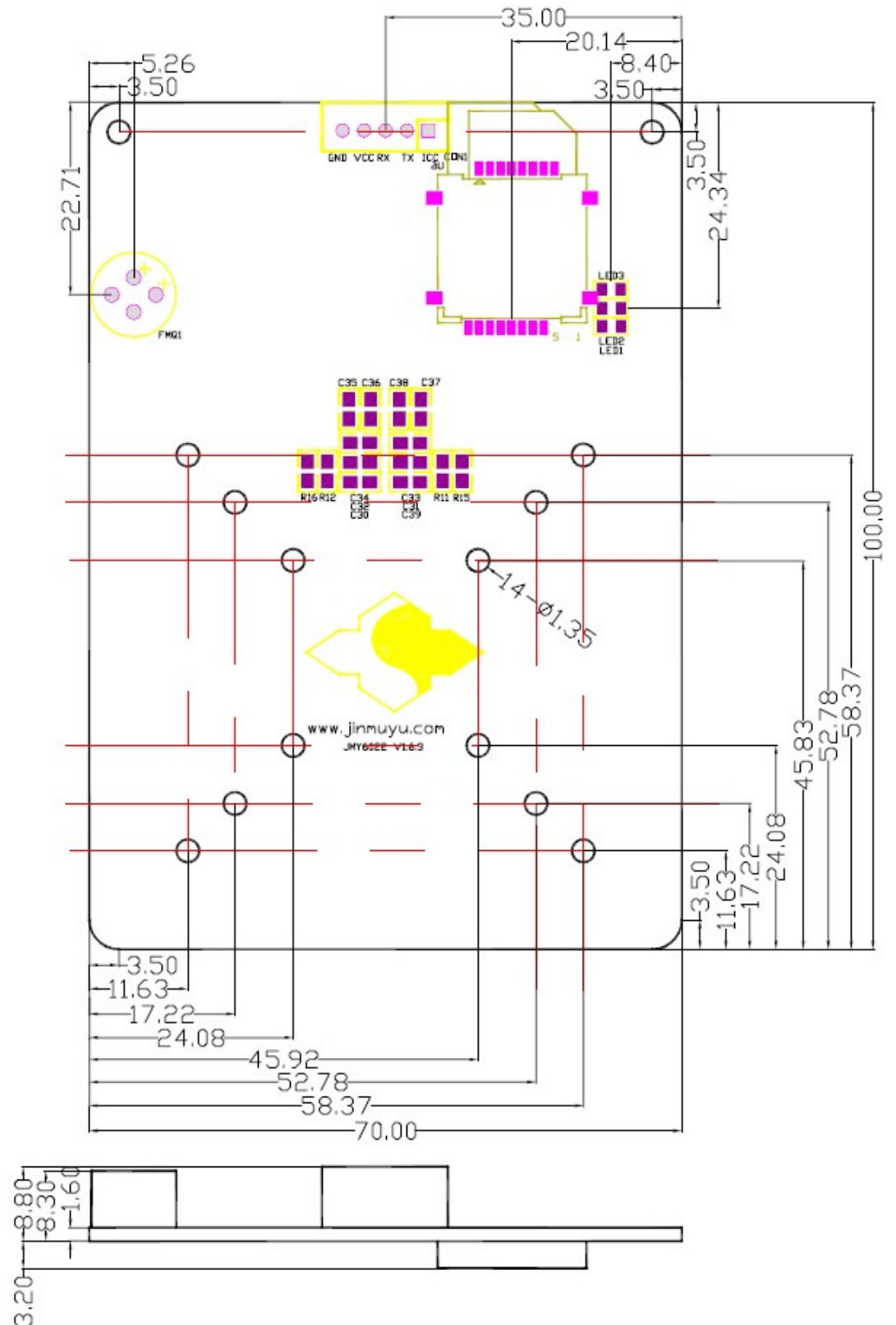


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4.2 Dimension





4.3 Pin configurations and pin outs

PIN	Function	Type	Description
1	ICC	Output	Card in/out indicator, 0: Card IN; 1: Card OUT
2	TX	Input /Output	RS232C TXD / UART TXD / USB D-/IIC SDA
3	RX	Input	RS232C RXD / UART RXD / USB D+/IIC SCL
4	VCC	Power	VCC(5V)
5	GND	Power	GND

4.4 Module function configuration table

	JMY6022
PCD	RC663
MIFARE 1K	●
MIFARE 4K	●
MIFARE Mini	●
MIFARE Ultra Light	●
MIFARE Ultra Light EV1	●
MIFARE Ultra Light C	●
MIFARE DES fire	●
MIFARE DES fire EV1	●
MIFARE Plus	●
T=CL TYPE A	●
SR176	●
SRI512	●
SRI1K	●
SRI2K	●
SRI4K	●
SR1X4K	●
T=CL TYPE B	●
I.CODE SLI	●
I.CODE SLI-S	●
I.CODE ILT-M	●
TI Tag-it series	●
ST LRI series	●
Felica	●
ISO18000-3MODE3	●



NFC Reader	●
SAM slot	2
ISO7816 (T=0 & T=1)	●
External storage 4Mbits	Optional
Encryption chip	Optional
On-chip storage	2K bytes
UART Interface	JMY6022T
IIC Interface	JMY6022I
RS232C Interface	JMY6022S
USB HID Interface	JMY6022UH

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 history

Version	Date	Details
B V1.00	October 16, 2024	Create a file
B V1.01	January 7, 2025	Add IIC interface description
B V1.02	February 18, 2025	Added IIC and UART level description