JMY6801 IC Card Read/Write Module

User's Manual

(Revision 4.52)

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Contents

1 Product introduction

JMY6801 is a series of RFID read/write module with RS232C communication port. JMY6801 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 integrated and ferrite plate under the antenna, good performance for metallic-around environments to supply more convenience to design structure of the system. The impedance between RF circuit and antenna was tuned by impedance analyzer, and then the module has excellent performance and stability.

2 Key Characteristics

- **Ferrite plate under the antenna, good performance for metal-around environments**
- **EMV2010 certification ability in RF protocol part**
- **2 SAM slots, full fill payment system usage**
- **USB HID interface, convenience to use on PC**

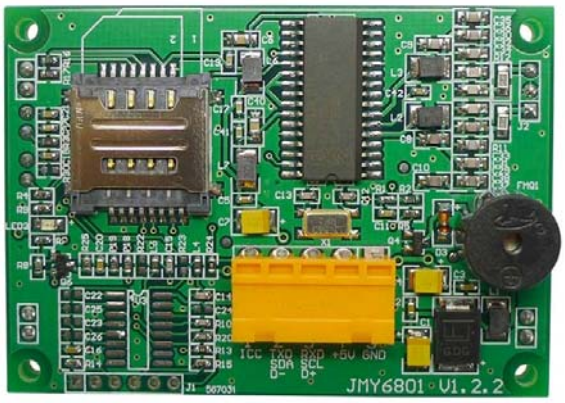
3 Technical parameters

- PCD type: NXP MF RC500 / MF RC531 / CL RC400 / SL RC632
- Working frequency: 13.56MHz
- Supported standard: ISO14443A, ISO14443B, ISO15693, ISO7816
- 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
- SAM slots: 2, T=0 & T=1 9600, 19200, 38400, 55800, 57600, 115200bps
- Data FLASH: 512 Bytes
- Power supply: DC 5V (±10%)
- Interface: USB HID, RS232C, UART or IIC by order
- Communication speed: IIC Max. 200Kbps
  UART 19200bps / 9600bps / 38400bps / 57600bps / 115200bps
  USB 2.0 HID class
- Interface level: UART/IIC 3.3V (5V tolerance)
- Max. command length: JCP04 253 bytes
  JCP05 510 bytes
- Power consumption: Max. 150mA
- Operating distance: 70mm (M1 typical distance, depending on card quality)
- Dimension: 70mm * 50mm * 16.5mm

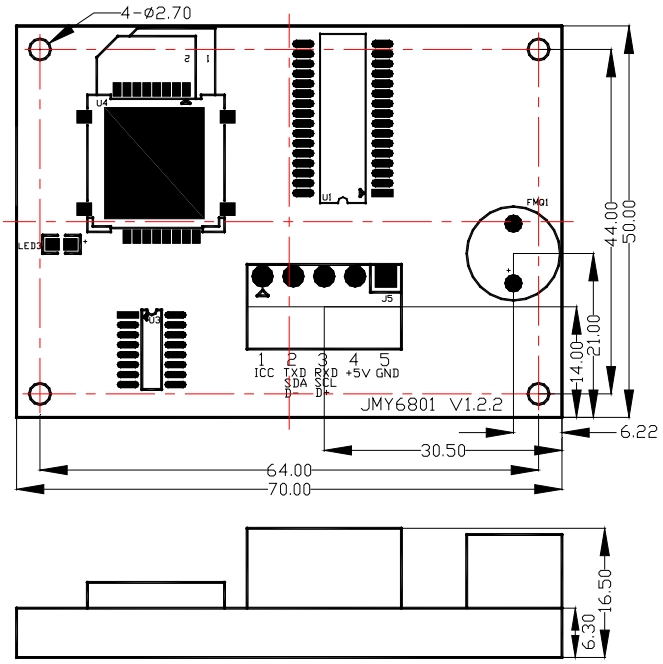
- Weight: About 120g
- ISP: Supported
- RoHS: Compliant
- CE certification: in plan (Jan. 17, 2015, soon)
- Operating temperature: -25 to +85°C
- Storage temperature: -40 to +125°C

4 Physical parameter and pin outs

4.1 Photo



4.2 Dimension



4.3 Pin configurations and pin outs

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

4.4 Module function configuration table

	JMY6801A	JMY6801C	JMY6801G	JMY6801H
PCD	MF RC500	MF RC531	SL RC400	CL RC632
JCP04 protocol	●	●	●	●
JCP05 protocol	●	●	●	●
MIFARE 1K	●	●		●
MIFARE 4K	●	●		●
MIFARE Ultra Light	●	●		●
MIFARE Ultra Light C	●	●		●
MIFARE Mini	●	●		●
MIFARE DES fire	●	●		●
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			●	●
SAM slots	2			
ISO7816 (T=0 & T=1)	●	●	●	●

On Chip Data FLASH	512 bytes			
IIC interface	JMY6801AI	JMY6801CI	JMY6801GI	JMY6801HI
UART interface	JMY6801AT	JMY6801CT	JMY6801GT	JMY6801HT
RS232C interface	JMY6801AS	JMY6801CS	JMY6801GS	JMY6801HS
USB interface	JMY6801AU	JMY6801CU	JMY6801GU	JMY6801HU

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.