

MIFARE & ISO14443A & ISO14443B & ISO15693 & ISO7816 DESKTOP IC CARD READER

MR7805

Desktop IC Card Reader

User's Manual

(Revision 1.00)

Beijing 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



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1 Overview

MR7805 provides two modes, one is a desktop card reader, and the other is a modular circuit. The reader is a card reader based on NXP chip design, which fully supports MIFARE series, ISO14443A and ISO14443B T=CL contactless CPU cards and ISO15693 standard tags.

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

The RF antenna and the module adopt an integrated design, and the impedance analyzer is used to adjust the RF circuit and the antenna to match the impedance, which can achieve very good read and write performance and very good stability.

The company has introduced advanced equipment to strictly monitor the quality of the products to ensure that the reader has good quality and stability.



2 Main Characteristics

- Full function PC software
- High-speed MCU and advanced software optimization make the card reading speed very fast
- RF circuits and communication protocols can be certified by EMV



3 Technical parameters

- PCD: NXP RC663
- Working frequency: 13.56MHz
- RF protocol: ISO14443A, ISO14443B, ISO15693, ISO7816,
P2P active initiator mode of ISO/IEC 18092
- Operating distance: 70mm (MIFARE One, typical)
- SAM: 1slot, support ISO7816 (T=0 & T=1), support 9600,19200,38400,
55800, 57600, 115200bps, 230400bps
- Display: 2LEDs (1 red, 1 green.)
- Buzzer: Build in
- Interface: USB (build in CP2102 USB to RS232 bridge)
- Communication speed: UART 19200bps / 9600bps / 38400bps / 57600bps / 115200bps
- Power supply: DC5V $\pm$ 10%
- Power consumption: 0.9W
- Dimension: 110mm * 70.12mm * 13.92mm
- Weight: About 100g
- Operating temperature: -25 to +85 $^{\circ}$ C
- Storage temperature: -40 to +125 $^{\circ}$ C
- PC software: TransWin, download from <http://www.jinmuyu.com>
- SDK: Base on Windows, free
- Sample code: VC, VB, C++ Builder, DELPHI, Power Builder
- ISP: Support



4 Cards supported

4.1 ISO14443 TYPE-A

- MIFARE One S50
- MIFARE One S70
- MIFARE One Min
- MIFARE Ultra Light
- MIFARE DES fire
- MIFARE Plus
- ISO14443-4 (T=CL) TYPE A Dual interface CPU card

4.2 ISO14443 TYPE-B

- AT88RF020
- SR176
- SRI512
- SRI1K
- SRI2K
- SRI4K
- SRIX4K
- ISO14443-4 (T=CL) TYPE B Dual interface CPU card

4.3 ISO15693

- I.CODE SLI
- Tag-it HF-I
- Other labels that comply with ISO15693 standards

4.4 ISO7816

- ISO7816 compliant CPU (SAM) card, support PPSS operation
- Support T=0 and T=1
- Support reset and communication of cards at any rate (9600, 19200, 38400, 55800, 57600, 115200bps, 230400 bps)



5 USB Driver installation

The USB interface card reader has built-in Silicon Lab. CP2102 USB to UART converter.

There are 2 steps:

- 1.Run the driver installation program that we can offer online or load from Silicon Lab website.
2. Insert USB plug of the reader to the PC. The driver installation will process automatically.

6 About PC Software and API

MR7805 Mode 1: The desktop card reader is equipped with PC-side software, called TransWin, which is a software based on the card reader's API, which can perform most operations on the card and is a good tool for verifying card information. Please go to the website of Jinmuyu Company (<http://www.jinmuyu.com>) to download the software operation manual and API manual.

MR7805 mode 2: The circuit communication interfaces of the module are various, but the data link layer protocol follows the JCP04 and JCP05 communication protocols, please refer to "JMY600 Series Card Reader Module General Technical Manual.PDF"; We also provide a PC-side test software, It is called: TransPort, which can help developers improve work efficiency; we also provide sample code for module operation, which is based on KEIL's C51 format or ASM51 format project; the above resources can be obtained from our company website (<http://www.jinmuyu.com>) to download, contact our sales staff or send E-mail to: jinmuyu@vip.sina.com.