

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

# MR780 Series Desktop IC Card Reader

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## User's Manual

(Revision 4.01)

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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 Overview

MR780 series desktop contactless IC card reader is based on NXP series RF chip with high performance MCU. The reader fully supports the IC card according to ISO14443 and ISO15693 standard, especially completely supports ISO14443-4 contactless CPU card.

The reader builds in 3 SAM slots, and fully supports SAM according to ISO7816..



## 2 Main Characteristics

- **Full function PC software**
- **Support many kind of card/tag**
- **RF interface and protocol process with EMV2010 LEVEL 1 certification ability**

## 3 Technical parameters

- PCD: MF RC500; MF RC531; CL RC632; SL RC400
- Working frequency: 13.56MHz
- RF protocol: ISO14443A, ISO14443B, ISO15693
- Operating distance: 100mm (MIFARE One, typical)
- SAM slots: 3 slots, support ISO7816 (T=0 & T=1, support PPS, Max. 115200bps)
- Display: 1 tricolor LED
- Buzzer: Build in
- Interface: RS232C or USB (build in CP2102 USB to RS232 bridge)
- Baud rate: 9600~115200bps
- Power supply: DC5V  $\pm$  10%
- Power consumption: 0.9W
- Dimension: 123mm \* 88mm \* 25mm
- Weight: About 100g
- Operating temperature: -25 ~ +85°C
- Storage temperature: -40 ~ +125°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
- RoHS: Compliant



## 4 Cards supported

	MR7801UA	MR7801UC	MR7801UG	MR7801UH
PCD	MF RC500	MF RC531	SL RC400	CL RC632
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	●	●		●
SRIX4K	●	●		●
T=CL TYPE B	●	●		●
I.CODE 1			●	●
I.CODE SLI			●	●
I.CODE SLI-S			●	●
TI Tag-it series			●	●
ST LRI series			●	●



## 5 Model of the reader

### 5.1 Model format

This is the model format of Master Reader series contactless card reader/writer:

1	2	3	4	5	6
MR	XXX	X	X	X	-XXX

1: Product code; 2: Device class; 3: Communication port; 4: Supported card type;  
5: Color of enclosure; 6: ODM code;

### 5.2 Model description

#### 5.2.1 Product code

The code of Master Reader series contactless card reader is: MR

#### 5.2.2 Device class

600: Desktop readers with 8 digits LED displayer, support 1 SAM slot.  
701: Desktop readers, support 2 SAM slots.  
730: Desktop readers, Ethernet interface, support 1 SAM slot.  
731: Desktop readers, Ethernet interface, support 2 SAM slots. MR730 Enhanced with more advance.  
762x: Desktop read only programmable reader. Keyboard simulator. Support ISO14443A/B, ISO15693.  
763x: Desktop read only programmable reader. Keyboard simulator. Support ISO14443A, ISO14443B.  
780: Desktop reader, MR701 enhanced model. Support 3 SAM slots.  
7801: Desktop reader, MR780 in new style case. Support 4 SAM slots.  
790: Desktop reader with compatible PC/SC interface. Support 3 SAM slots.  
7901: Desktop reader with compatible PC/SC interface. MR790 in new style case. Support 4 SAM slots.  
791: Desktop reader with standard PC/SC interface. Support 3 SAM slots.  
7911: Desktop reader with standard PC/SC interface. MR791 in new style case. Support 4 SAM slots.  
800: Desktop reader with 128\*64 dots LCD displayer. Compatible PC/SC interface, support 2 SAM slots.  
801: Desktop reader with 128\*64 dots LCD displayer. Standard PC/SC interface, support 2 SAM slots.  
810: Desktop reader with compatible PC/SC interface. Support 2 SAM slots. Based on ARM7 processor.  
811: Desktop reader with standard PC/SC interface. Support 2 SAM slots. Based on ARM7 processor.



### 5.2.3 Communication port

S: RS232C interface, power supply from USB  
R: RS485 interface, power supply by wire connection  
U: USB interface  
E: Ethernet interface, power supply by AC adaptor

### 5.2.4 Supported card type

A: ISO14443A, MIFARE classic and ISO7816  
C: ISO14443A, ISO14443B, MIFARE classic and ISO7816  
G: ISO15693 and ISO7816  
H: ISO14443A, ISO14443B, ISO15693, MIFARE classic and ISO7816

### 5.2.5 Color of enclosure

W: white (if blank, default white)  
B: black

### 5.2.6 ODM code

This part is for ODM customer only. It is 3 digital codes like 001, 002...

## 5.3 Model available

The models below are available for supply:

- MR780SA            MR780UA
- MR780SC            MR780UC
- MR780SG            MR780UG
- MR780SH            MR780UH

## 6 USB Driver installation

The driver of USB reader installation is simple. There are 2 steps:

1. Run the driver installation program on the CD-ROM:  
E:\USB Driver\CP210x Driver\Windows\_XP\_S2K3\_Vista\_7\CP210xVCPIInstaller.exe
2. Insert USB plug of the reader to the PC. The driver installation will process automatically.



## 7 About PC Software and API

The PC software for MR780 is TransWin. This is software based on API of the reader. The software supports most function of IC cards. Please download the operation manual and API manual from our website: <http://www.jinmuyu.com>, or contact us with [jinmuyu@vip.sina.com](mailto:jinmuyu@vip.sina.com).