

iR301-U Smart Card Reader

Demo User Manual



V1.0

Feitian Technologies Co., Ltd.

Website: www.FTsafe.com

Revision History:

Data	Version	Description
Aug. 2012	V1.0	The first

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Chapter 1 Product Description

Overview

FEITIAN iReader 301 is engineered to incorporate smartcard applications and popular mobile devices by Apple. Developers use it as a focal point to generate and deploy card based products and services which perform specialized operations in new and innovative ways. FEITIAN iReader 301 is a terminal unit that functions seamlessly with Apple iPhone, iPod Touch and iPad systems. Features such as built in support and strict adherence to global standards in addition to the sleek appearance and user/developer friendly interface make iReader 301 an ideal choice to add vital functionality to standard mobile products.

Mobile devices perform more & more sensitive functions all the time, end users demand a solution to address the increased need for protection. iReader 301 provides relief in situations where security concerns are most salient and answers the call for a flexible solution in personal identity authentication, e-commerce, e-payment, information security and access control.

Feature

- Support multiple contact smart card, support T0,T1 card which conform ISO7816 protocol
- Offer a standard size contact card deck, support CLASSB,CLASSC,CLASSBC card which conform ISO7816 protocol
- Provide API to modify parameters (ATR Baud Rate, WWT...)
- Provide secondary development library
- Support iOS device through apple dock port
- Support auto-PPS
- Open Interface (Provide iOS SDK Library for 3rd party integration)

Specification

Type	Content	
	parameter	Parameter value

Working Voltage	5V
Working Current	< 60mA
Communication Rate	10753~344086bps
Supported Card Type	T0,T1,CLASSB,CLASSC,CLASSBC
Communication Rate with iOS	9600~57600bps
Working Temperature	0°C to 50°C (32 to 122°F)
Storage Temperature	- 20°C to 70°C (-4 to 158°F)
Operating Humidity	0 to 90%RH non-condensing
Storage Humidity	0 to 90%RH non-condensing
Port	Apple Dock
Dimension	58*42*8mm (2.28×1.65×0.31 inches)
Casing	Kirksite + Acrylic
Card Deck	8 contact points (ISO7816 standard) 10000 plugging and unplugging times
Supported OS	iOS3.1.3+
Certification	RoHC

Product overview

iR301 smart card reader:

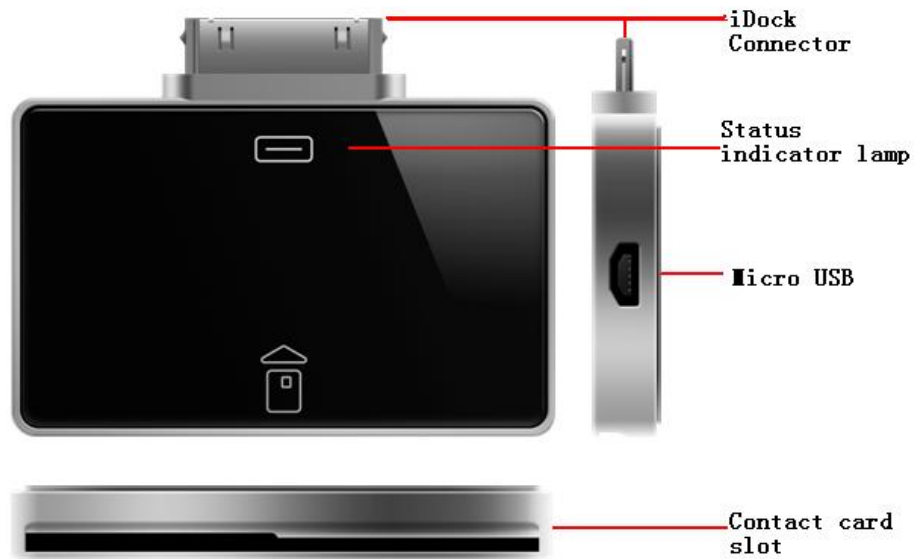


Figure 1 iR301 Smart Card Reader Overview

- **Dock connector:** Connect with iOS dock port
- **Status indicator lamp:** The lamp used display iR301's status when connect with iR301 and communication with cards. The lamp has two colors (white/blue). The white lamp means correct connect iR301 and the blue lamp means insert smart card
- **Contact card slot:** According with ISO/IEC7816 protocol's smart card slot, insert smart card and through apps to operation.
- **Micro USB port:** Use for PC through Micro USB cable

Chapter 2 Install driver on Windows XP

The driver download link is below:

<http://www.microsoft.com/downloads/en/details.aspx?FamilyID=63ab51ea-99c9-45c0-980a-c556746fcf05&displaylang=en&displaylang=en>

Vista and Windows 7 should have this package (WUDF) already installed. If you experience any issues, please check and reinstall this Feature Pack as necessary.

To Install (Windows XP - Vista / 7 are similar procedure)

1. Download the Feature Pack, run the installer. The drivers will now be installed.
2. Insert your iR301-U, and the Windows Hardware Detection Wizards prompts to "Search for the best driver" select "Donot Search, I will manually choose a driver".
3. Select "Smart Card Readers"
4. Select "Microsoft USB CCID Smartcard Reader"
5. The driver will now be installed. Possibly you may have to reboot.

Chapter 3. How to use Demo app

FEITIAN iReader301 app links the iR301 hardware device to the mobile operating system. The app provides a functional demonstration of the full functionality available to iR301 users.

The download link is below:

<http://itunes.apple.com/cn/app/irockey301/id525954151?mt=8>

Notice:

1. For increased flexibility FEITIAN provides the added benefit of a user API for secondary development and unique personalization of smart card operations protocol.
2. FEITIAN provides source code for the iR301 app

2.1 Connect with iR301

Initially please download iR301 app or copy iR301 app to iPad/iPod Touch/iPhone. Please follow figure 2:

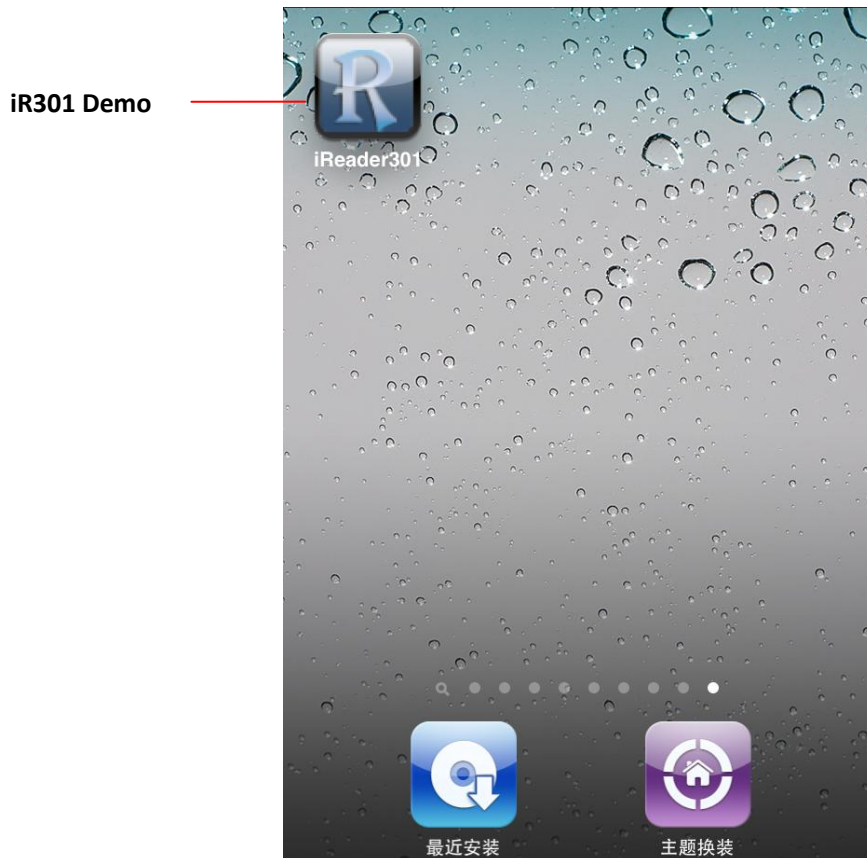



Figure 1 iReader301 app

Connect iR301 smart card reader to iPad/iPod touch/iPhone. iR301's status lamp will illuminate when properly

connected. Please follow figure 3:



Figure 2 Connect with iOS device

Press the  icon on the iOS device screen to open iR301 app. Please follow figure 4:

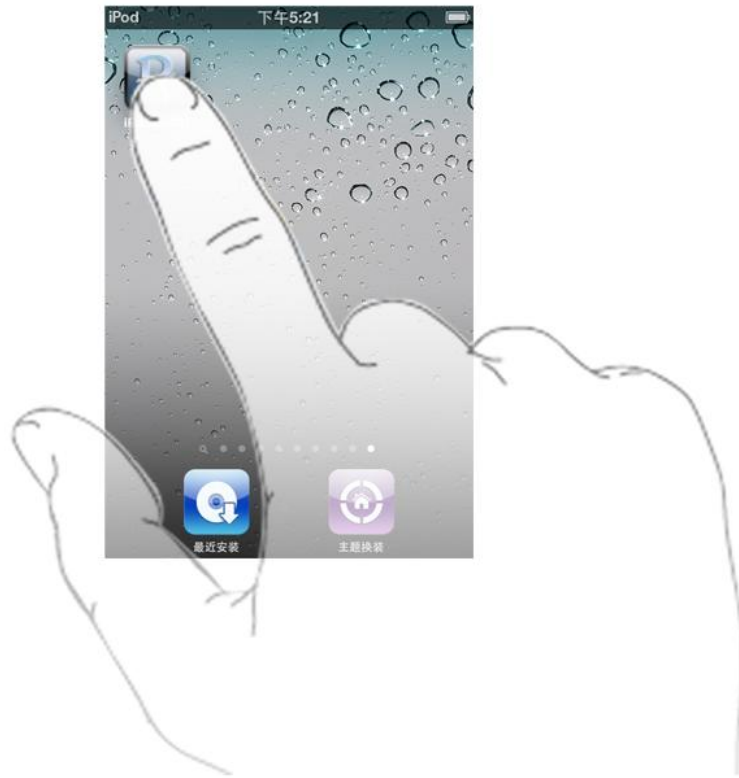


Figure 3 Press iR301 app

The iOS devicescreen will be displayed in the main view window, please follow figure 5:

If you do not connect properly with iR301, the iOS device screen will warn you to connect with iR301 (be sure to check for a loose connection, disconnect and try again).

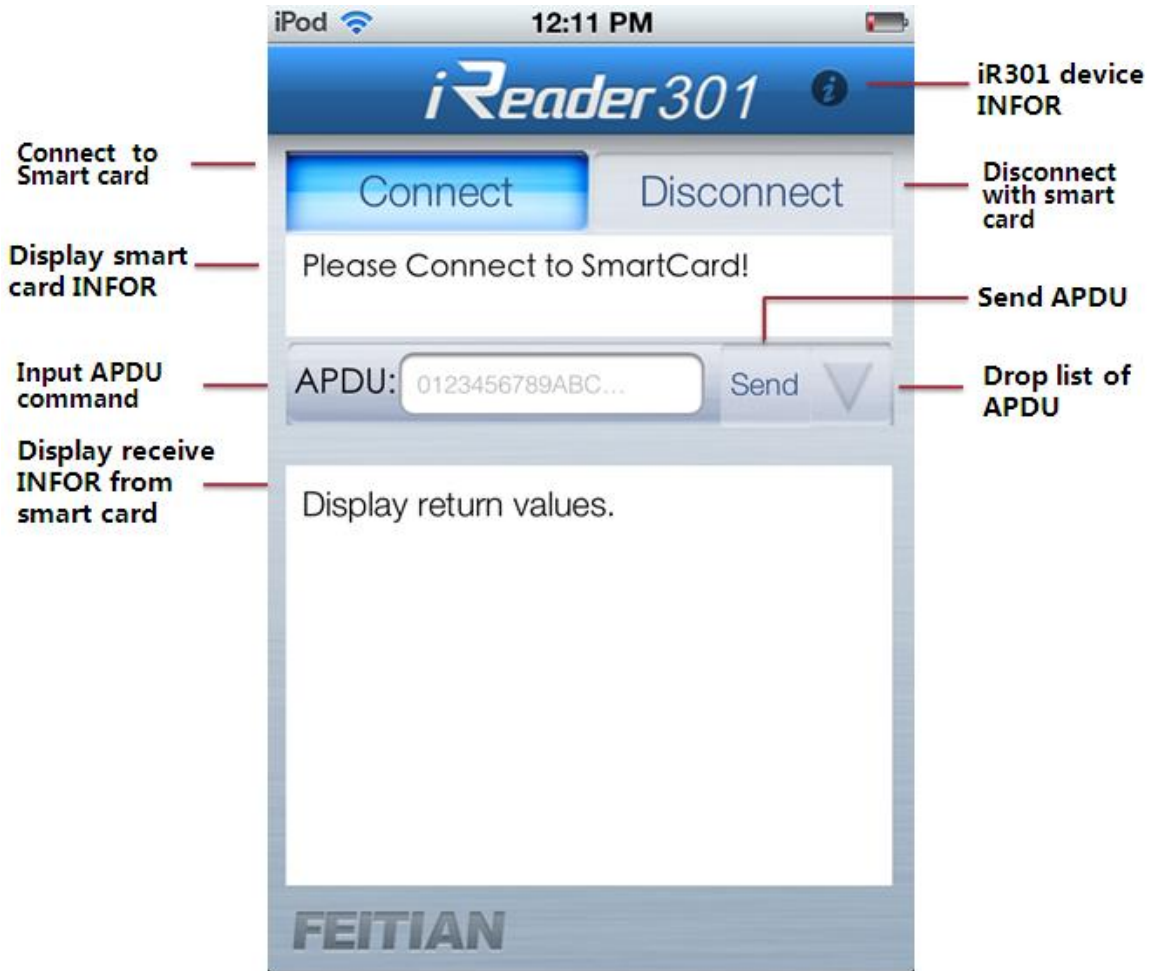


Figure 4 Demo main View

Figure 5 is the main view window, when a card has been successfully inserted to the reader's card slot the status lamp will change color to blue.


Press , if smart card connects successfully then the text ATR INFOR will appear on the operation message board. Please follow figure 6:



Figure 5 Connect with Smart card

2.2 Send APDU Command


Press the text field to use the software keyboard and input the APDU command (0084000008). Press

return

to cancel keyboard, Please follow figure 7:



Figure 6 Input APDU Command

Input the correct APDU command and press the  button to process information to the smart card. The received data will be displayed in the status board (Send APDU command and return data from smart card), please follow figure 8:

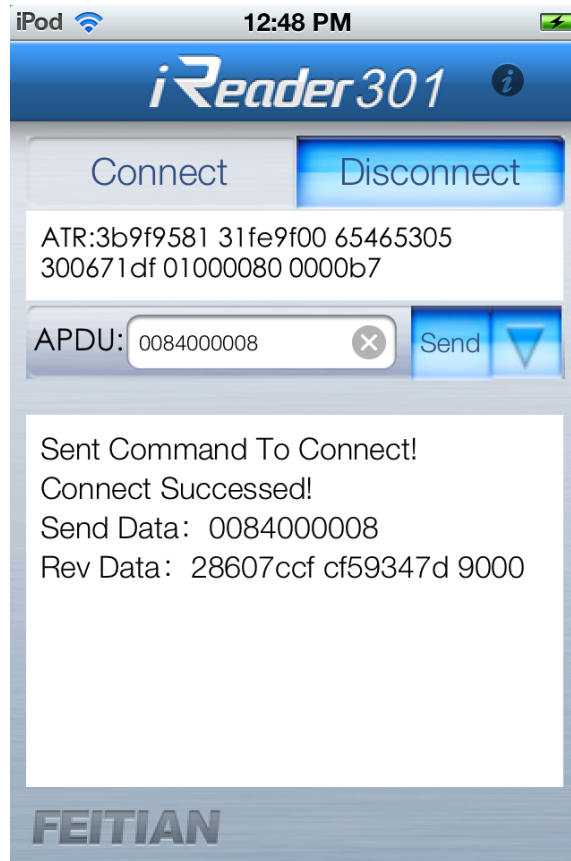




Figure 7 Send APDU Command

If you do not want to input the APDU command, iR301 app provides a drop list. Press  to select APDU command.

2.3 Disconnect with Smart Card

Press  to disconnect with Smart Card, the operation information will be displayed in the status board. Please follow Figure 9:

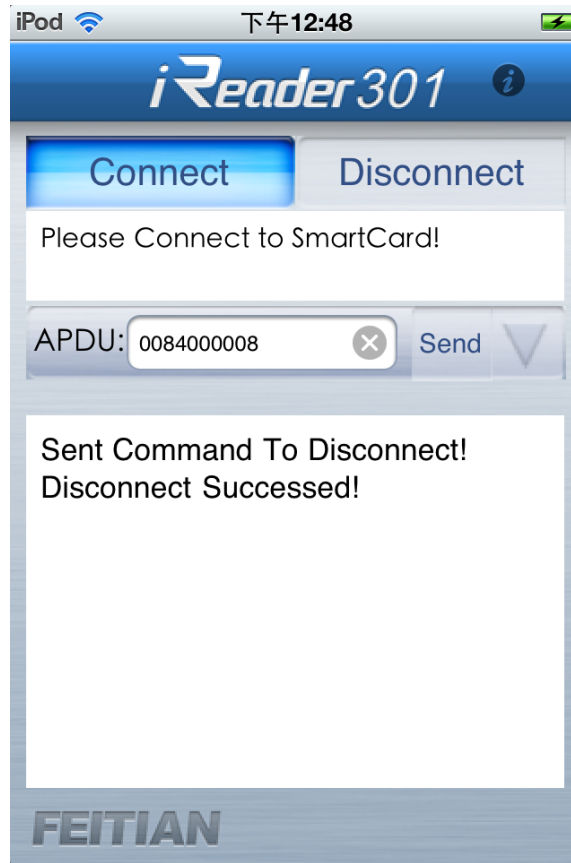


Figure 9 Disconnect with Smart Card

2.4 iR301's device information


Press  The iOS device screen will display iR301 information, including manufacturer, software/hardware/firmware version. Press "OK" to return. Follow figure 10:



Figure 10 iR301 devices INFOR