



Smart Card Reader Demo User Manual

V1.0

Revision History:

Data	Version	Description
Apr. 2012	V1.0	The first

Software Developer's Agreement

All Products of Feitian Technologies Co., Ltd. (Feitian) including, but not limited to, evaluation copies, diskettes, CD-ROMs, hardware and documentation, and all future orders, are subject to the terms of this Agreement. If you do not agree with the terms herein, please return the evaluation package to us, postage and insurance prepaid, within seven days of their receipt, and we will reimburse you the cost of the Product, less freight and reasonable handling charges.

1. Allowable Use – You may merge and link the Software with other programs for the sole purpose of protecting those programs in accordance with the usage described in the Developer's Guide. You may make archival copies of the Software.
2. Prohibited Use – The Software or hardware or any other part of the Product may not be copied, reengineered, disassembled, decompiled, revised, enhanced or otherwise modified, except as specifically allowed in item 1. You may not reverse engineer the Software or any part of the product or attempt to discover the Software's source code. You may not use the magnetic or optical media included with the Product for the purposes of transferring or storing data that was not either an original part of the Product, or a Feitian provided enhancement or upgrade to the Product.
3. Warranty – Feitian warrants that the hardware and Software storage media are substantially free from significant defects of workmanship or materials for a time period of twelve (12) months from the date of delivery of the Product to you.
4. Breach of Warranty – In the event of breach of this warranty, Feitian's sole obligation is to replace or repair, at the discretion of Feitian, any Product free of charge. Any replaced Product becomes the property of Feitian.
 - ✧ Warranty claims must be made in writing to Feitian during the warranty period and within fourteen (14) days after the observation of the defect. All warranty claims must be accompanied by evidence of the defect that is deemed satisfactory by Feitian. Any Products that you return to Feitian, or a Feitian authorized distributor, must be sent with freight and insurance prepaid.
 - ✧ EXCEPT AS STATED ABOVE, THERE IS NO OTHER WARRANTY OR REPRESENTATION OF THE PRODUCT, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.
5. Limitation of Feitian's Liability – Feitian's entire liability to you or any other party for any cause whatsoever, whether in contract or in tort, including negligence, shall not exceed the price you paid for the unit of the Product that caused the damages or are the subject of, or indirectly related to the cause of action. In no event shall Feitian be liable for any damages caused by your failure to meet your obligations, nor for any loss of data, profit or savings, or any other consequential and incidental damages, even if Feitian has been advised of the possibility of damages, or for any claim by you based on any third-party claim.
6. Termination – This Agreement shall terminate if you fail to comply with the terms herein. Items 2, 3, 4 and 5 shall survive any termination of this Agreement.

Contents

Chapter 1. Product Description	i
1.1 Overview	i
1.2 Feature	i
1.3 Specification.....	i
1.4 Overview.....	ii
Chapter 2. How to use Demo app.....	iv
2.1 Connect with iR301.....	iv
2.2 Send APDU Command	viii
2.3 Disconnect with Smart Card	x
2.4 iR301's device information.....	xi

Chapter 1. Product Description

1.1 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.

1.2 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)

1.3 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	CE/FCC/RoHC

1.4 Overview

IR301 Smart Card Reader

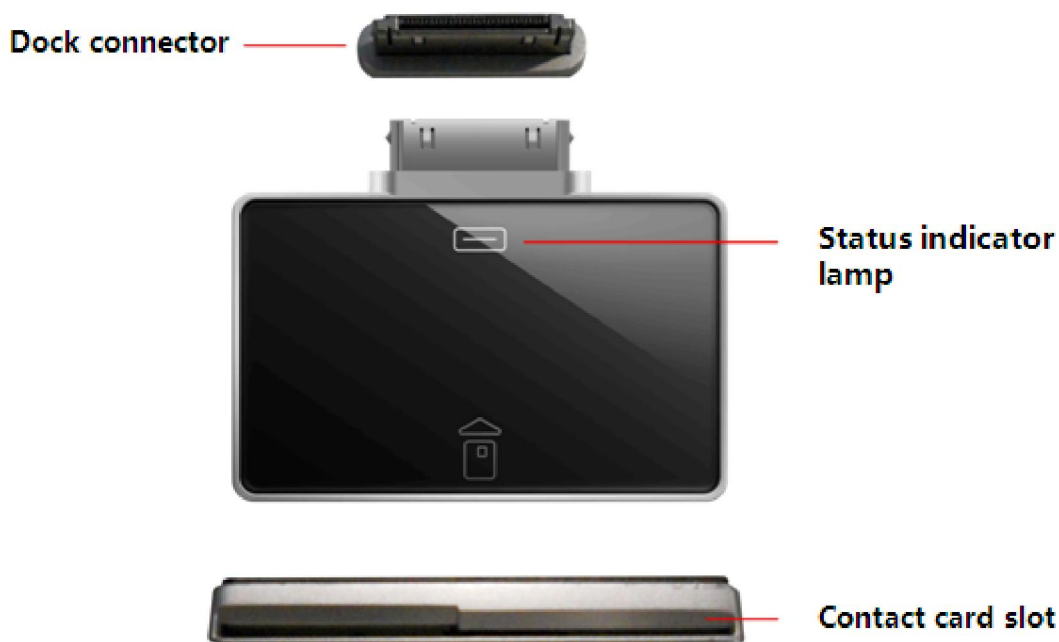


Figure 1 iR301 Smart Card Reader Overview

- ✧ Dock connector: Connect with Apple Dock
- ✧ 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.

Chapter 2. 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.

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:

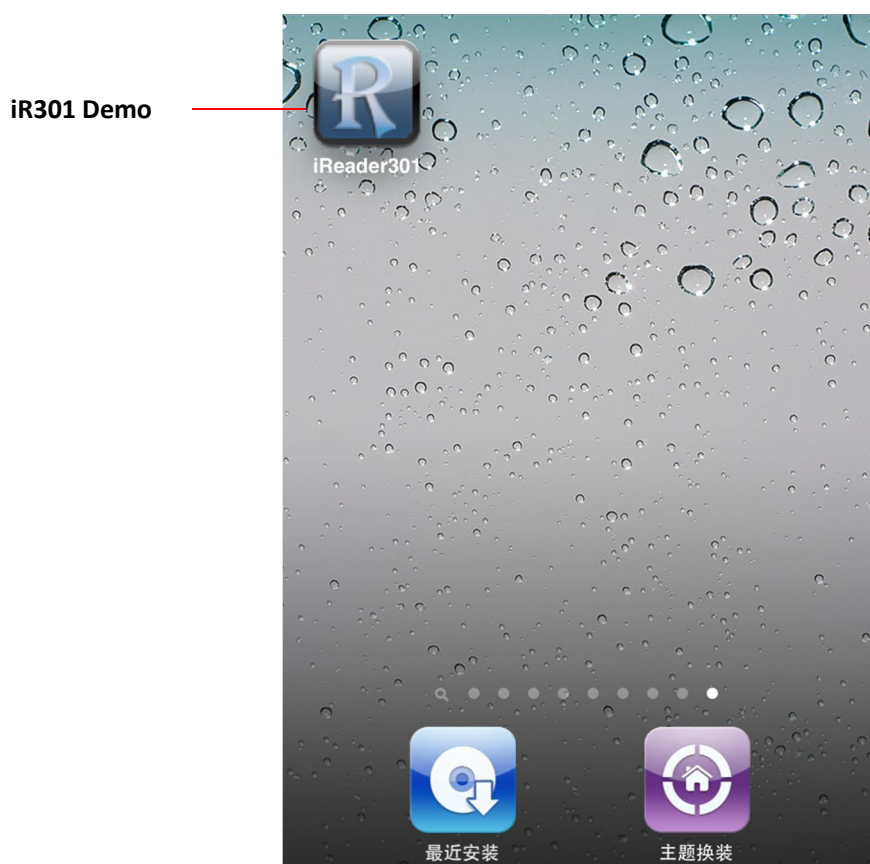



Figure 1 iReader301 app

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:

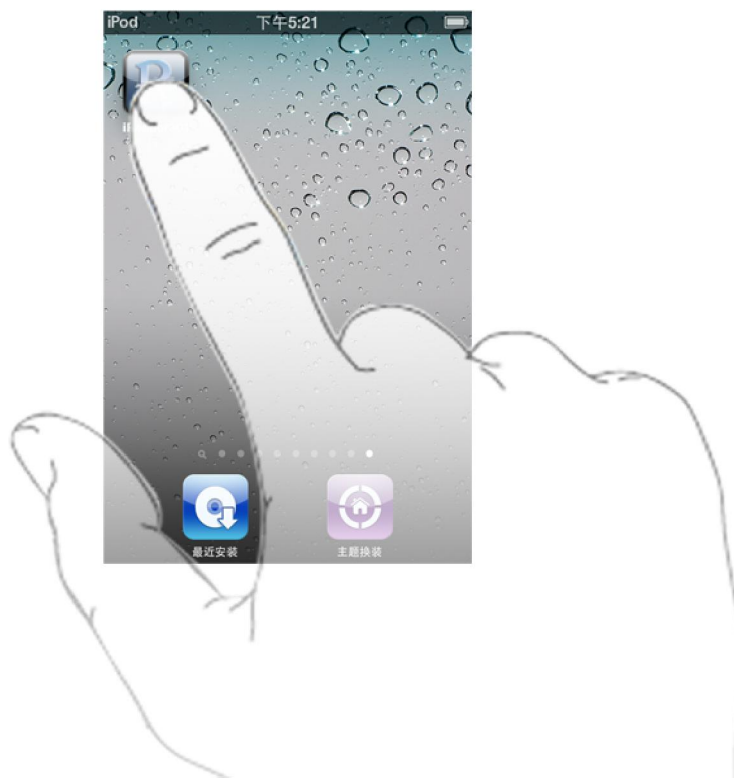


Figure 3 Press iR301 app

The iOS device screen 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).

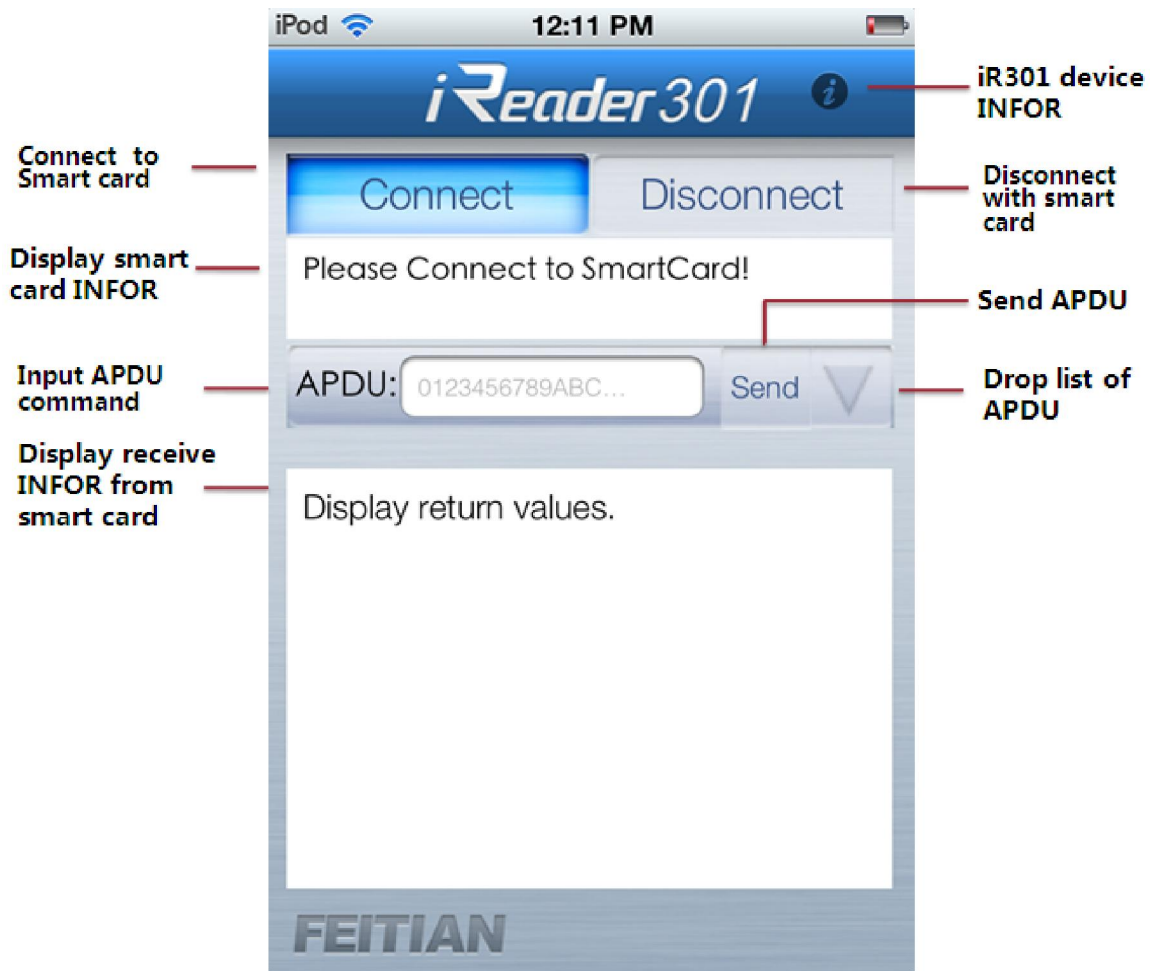


Figure 4 Demo main View

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 statue board. Please follow Figure 9:

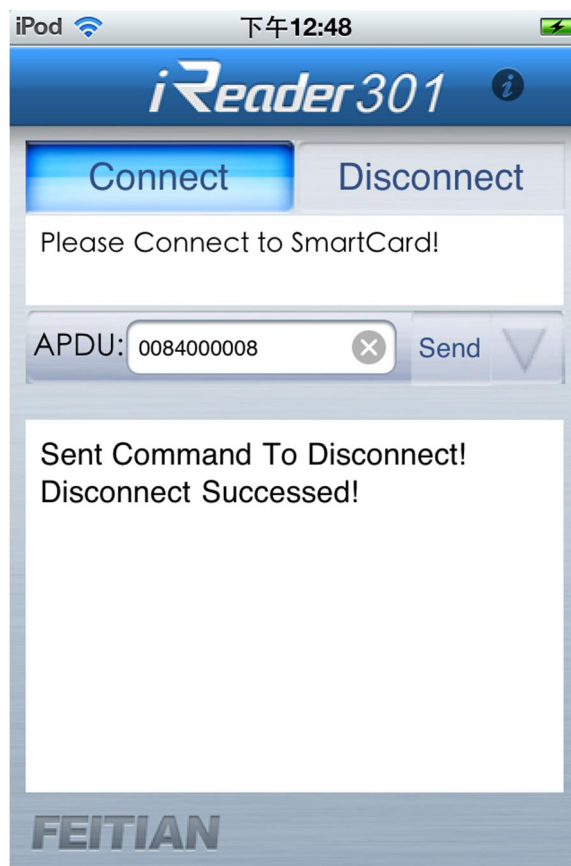


Figure 9 Disconnect with Smart Card

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