



Advanced Card Systems Ltd.
Card & Reader Technologies

ACS Mobile Card Reader Utility [iOS and Android]



**ACS Mobile Card
Reader Utility**

User Manual V1.07



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1.0. Introduction

ACS mobile Card Reader Utility is an application that demonstrates Access Control usage for ACS Bluetooth® NFC Readers. To fully access the application's features, connect an ACS Bluetooth® NFC Reader and use with a smart card. Supported smart card reader is ACR1555U Secure Bluetooth® NFC Reader, supported smart cards types are ACOS3 and MiFare 1K.





2.0. For iOS and Android


1. Download ACS Mobile Card reader Utility app from App Store, or by clicking on the following link below:

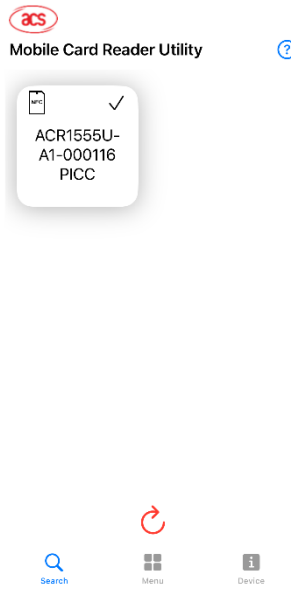
[IOS](#)



[Android](#)

2. Turn on the Bluetooth mode of your device to make it discoverable.
 1. For ACR1555U, Press and hold the Power Button for 3 seconds to turn on the device in Bluetooth discovery mode (default setting).



2. For ACR1555Us powered on in USB mode (Connected with USB port), Press and hold the mode button for 3 Seconds to enter Bluetooth discovery mode.
3. Check the Bluetooth mode LED (Blue Color); if it is blinking, then the Bluetooth is available for connection.
4. Open the **ACS Mobile Card reader Utility** app and tap the  button to search your ACR1555U device.



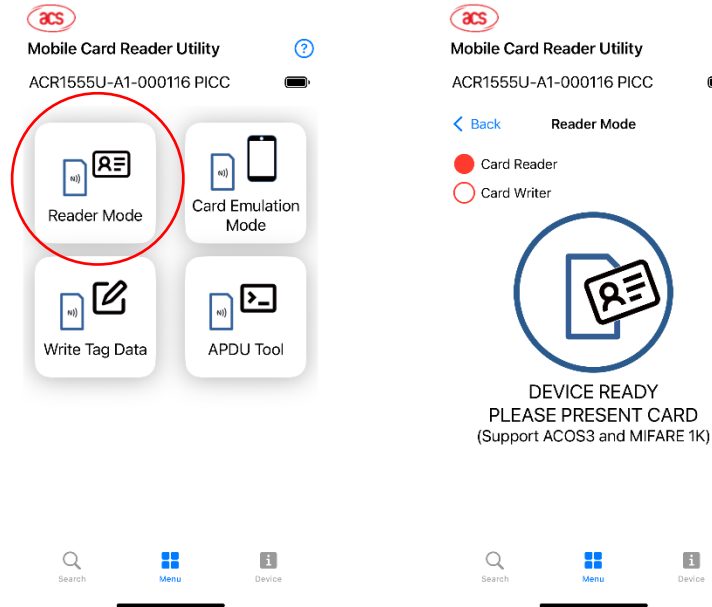
5. Once you see the ACR1555A-U1 box pop up on the screen. Then you can tap the box to connect the device you found. When you will see the Tick ✓ on the right corner, it means your device has been connected.
6. Now you can tap the  button for card reading operation or  for checking the device information including Device Name Firmware Version and Battery Level.



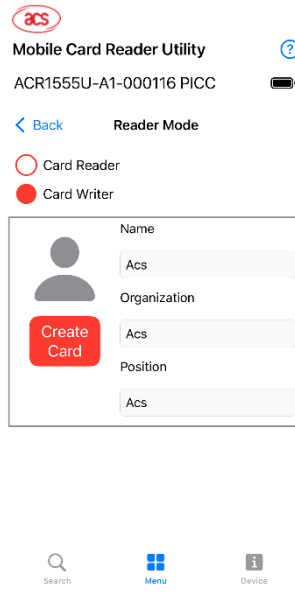
2.1. Reader Mode (Card Reader operation)

1. The card reader operation menu provides 3 function tabs: Reader Mode, NFC, and NDEF. The Reader Mode allows you to configure the device as a card reader, card writer, or HID card reader (Keyboard emulation).

I. **Card Reader:** Simply present your ACOS3 card or MiFare 1K Card to the card reader to read card information. Alternatively, you can proceed to the next step for Card Writer mode to create your own ID card.



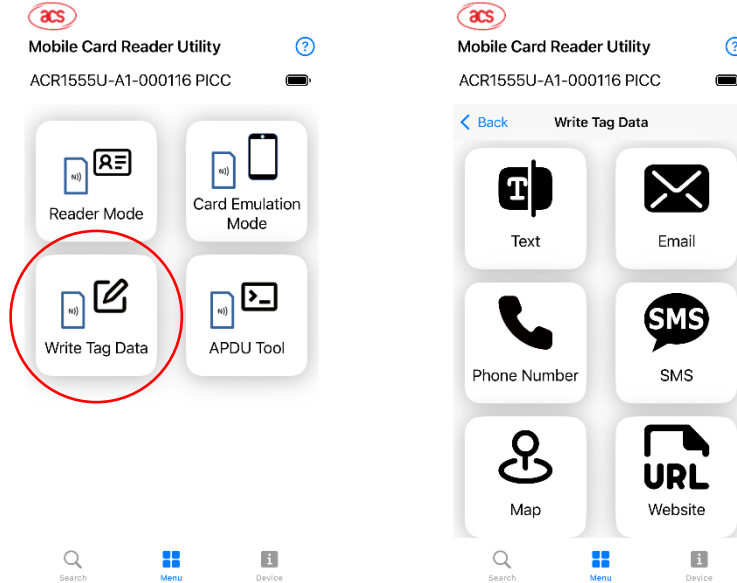
II. **Card Writer:** Please select the Card Writer and place an empty ACOS3 card on top of the ACR1555U card reader. You can fill in the desired card information below. Afterward, click the "Create Card" button to save the information. Once you see the successful message, it means the card has been created. Now, you can go back to the **Card Reader** setting to read the card you just created.



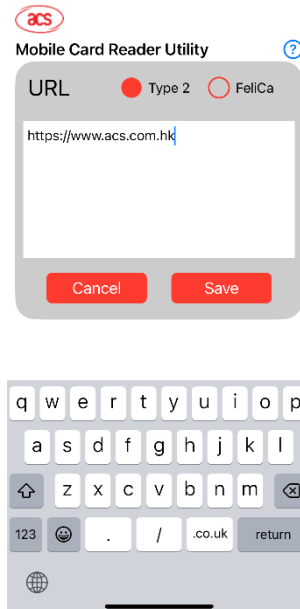
2.2. Write Tag Data (NDEF)

NDEF (NFC Data Exchange Format) menu provides 6 types of settings including **Text**, **URL**, **email**, **SMS**, **Phone number** and **Map**

1. Please select the NDEF record type you want to save for card emulation.



2. Once you've selected the record type, an input dialog box will appear. If "URL" is selected, you can input the website address. After entering the web link, choose the card type you wish to save: NTAG Type 2 or FeliCa. Finally, press the save button to store the data in the ACR1555U.



After saving the NDEF record, you can return to the Card Emulation menu to select the card type and activate card emulation



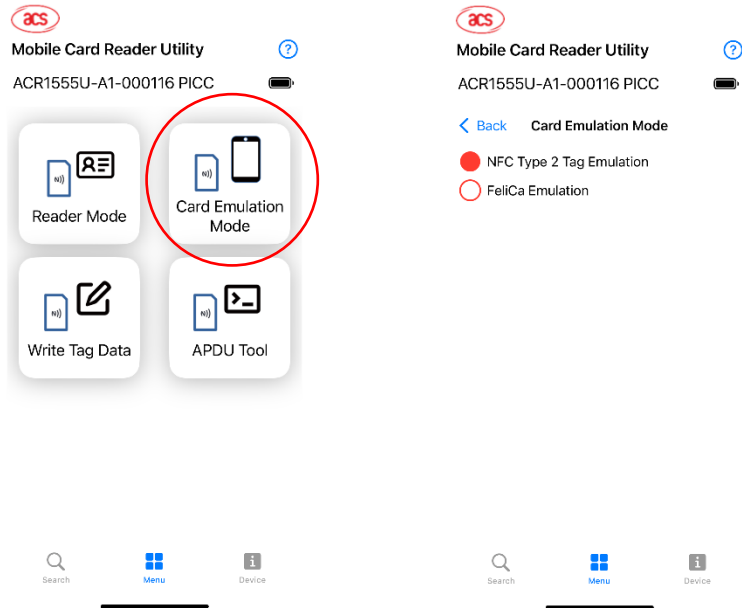
You can create your preferred record type for NDEF, please refer to the following example for your tag data preparation.

NAME	NDEF RECORD TYPE	FORMAT	EXAMPLE
Website	website	http://, https://	https://www.acs.com.hk/
Email	email	mailto:	mailto:info@acs.com.hk
SMS	SMS	sms:	Sms:+852-2796-7873
Phone	phone	tel:	Tel:+852-2796-7873
Maps	website	http://, https://	http://maps.apple.com/?ll=22.31892627745056,114.21033710229688



2.3. Card Emulation Mode

1. The **NFC** menu provides 2 cards type selection for Emulation
 - I. NFC Type 2 Tag or Felica Emulation

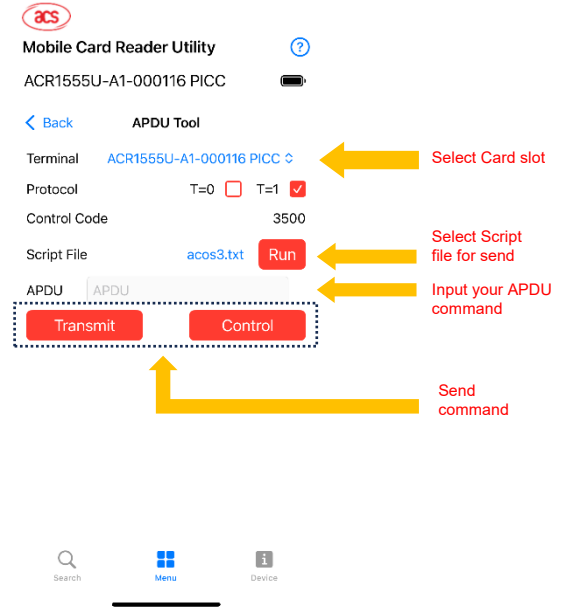
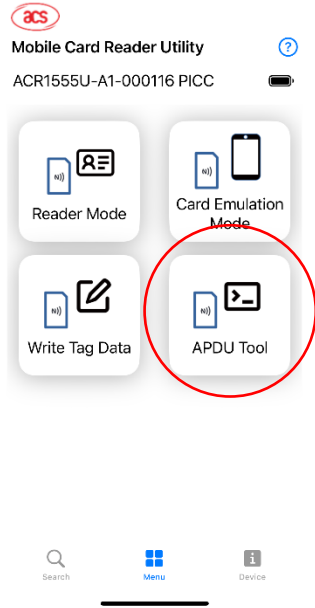


Please note that you need to select the Card Emulation type to activate the emulation.



2.4. APDU (APDU Tools)

APDU tools is designed for advanced user to access the Bluetooth Card reader with APDU command. Please read the ACR1555U reference manual for the command detail. (please contact ACS sales for assist)



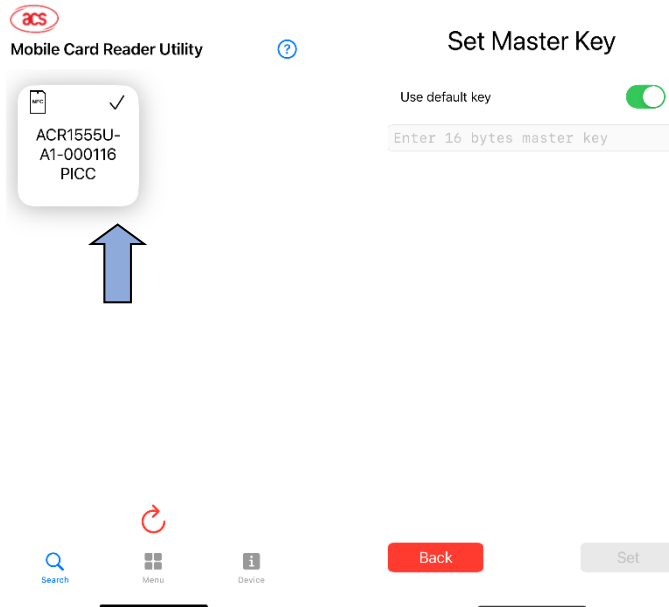


2.5. Setup Master Key

Important Notice: Before enabling the Authentication mode, please review the ACR1555U Reference Manual in detail. Follow the steps to activate the Authorization mode, which is designed for users with heightened security needs when operating the ACR1555U NFC reader.

This guide will assist you in enabling the default Master Key or entering your custom Master Key via mobile apps.

Launch the application and begin searching for nearby ACR1555U devices. Press and hold the device icon for 2 seconds to open the Set Master Key page.



To enable the default master key, toggle the switch or enter your custom 16-byte master key. Once the key is validated, the "Save" button will become active. After clicking "Save," your device will implement the key for data encryption.

