



ER303 Manual

Ordering Information	
Model No.	ER303
Name	Blue Tooth NFC Reader
Phone	86-010-80128328
Email	info@ehuoyan.com
Web	http://www.ehuoyan.com/

1. Overview

The ER303 NFC Reader is a Blue Tooth contactless smart card reader, developed based on the 13.56 MHz Contactless (RFID) Technology. It supports MIFARE[®]1k, MIFARE[®]4k, MIFARE Ultralight[®], NTAG213 and ISO 14443A compatible cards.

ER303 use Blue Tooth to communicate with the host which has Blue Tooth BLE.

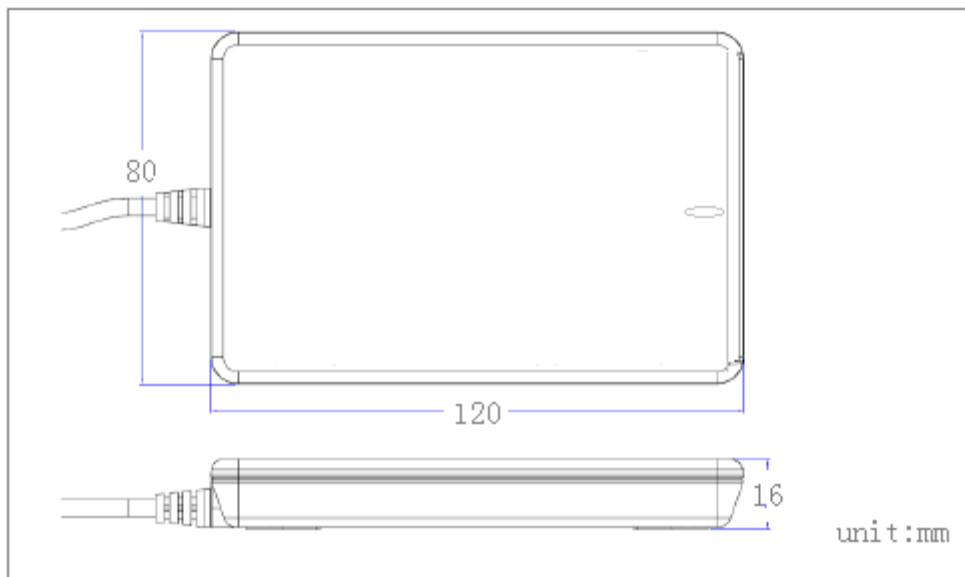
For example Smart Phone, PAD, and PC which has BLE component. The proximity operating distance of ER303 is up to 6 cm, depending on the type of contactless tag in use.

The ER303 is ideal for secure personal identity verification, NFC NDEF, access control, e-payment, e-ticketing for events and mass transit, toll road fare collection and network authentication.

2. Special Features

- Support card: MIFARE[®]1k, MIFARE[®]4k, MIFARE Ultralight[®], NTAG213
- RF Frequency: 13.56 MHz.
- Typical time of command: <200ms
- Operating distance: up to 6 cm
- Communications Interface: Blue Tooth BLE
- Two LED indicators
- Buzzer alarm
- Mechanic characteristics:
 - Size: 120 ×80× 16 (mm)
 - Cable length: 1.5m
 - Weight: 110g

3. Technical Specifications



Dimensions	120 mm (L) x 80 mm (W) x 16 mm (H)
Weight	110 g
Cable length	1.5m
Color	white
Interface	Blue Tooth BLE
Baud rate	9600 bps (default)
Operating Distance	Up to 6 cm (depends on the tag type)
Supply Voltage	5V DC (USB power)
Supply Current	100mA (operating); 150mA (maximum)
Operating Temperature	-10~50 °C
Storage Temperature	-20~70 °C
Operating Frequency	13.56 MHz
RF Speed	212 kbps
Smart Card Supported	MIFARE [®] 1k, MIFARE [®] 4k, MIFARE Ultralight [®] , NTAG213
Operating System	Android, iOS, Windows, Linux

4. Typical Applications

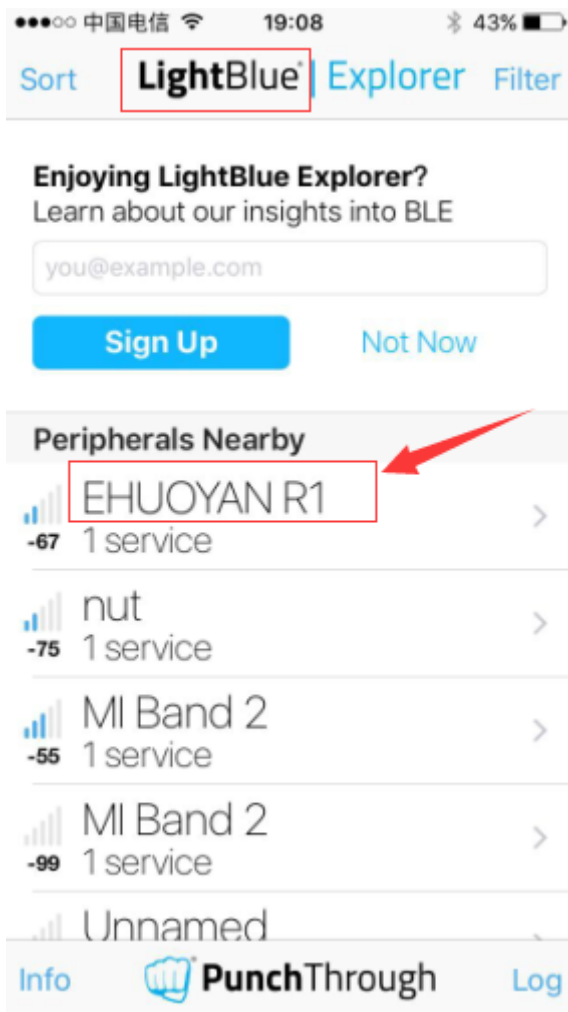
- ✓ E-Payment
- ✓ E-Healthcare
- ✓ E-Game

- ✓ E-Government
- ✓ E-Ticketing
- ✓ Access Control
- ✓ Network Login
- ✓ Transportation
- ✓ Loyalty Program
- ✓ NFC NDEF

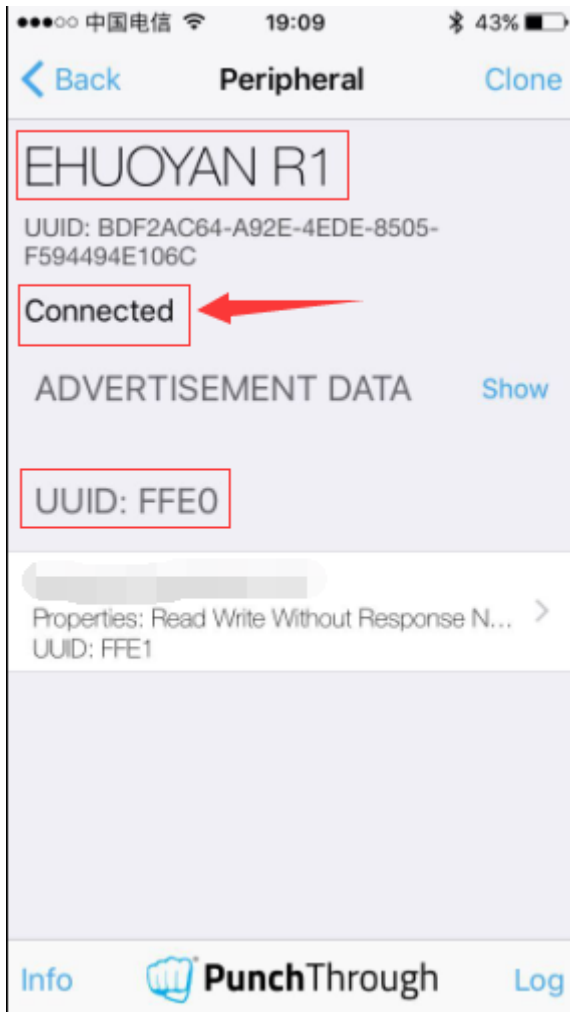
5. How to use

Step1: Connect the reader's USB to a USB power which can supply DC5V, after power on, the red led will flash and then the blue led will light on and you will hear a sound from the reader.

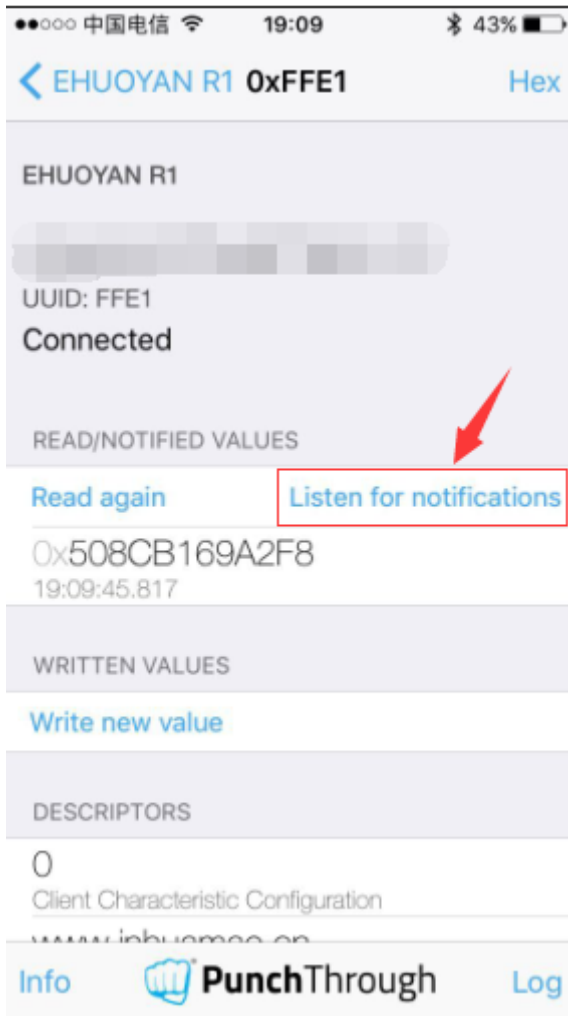
Step2: If you have iPhone then you can download iOS app "LightBlue" or else app for serial Blue Tooth BLE test. Open the blue tooth switch on your smart phone or PAD. Open the app and you will find some BLE Peripherals Nearby. Select "EHUOYAN R1" to match this reader.



If the match ok, then it will show “Connected”.



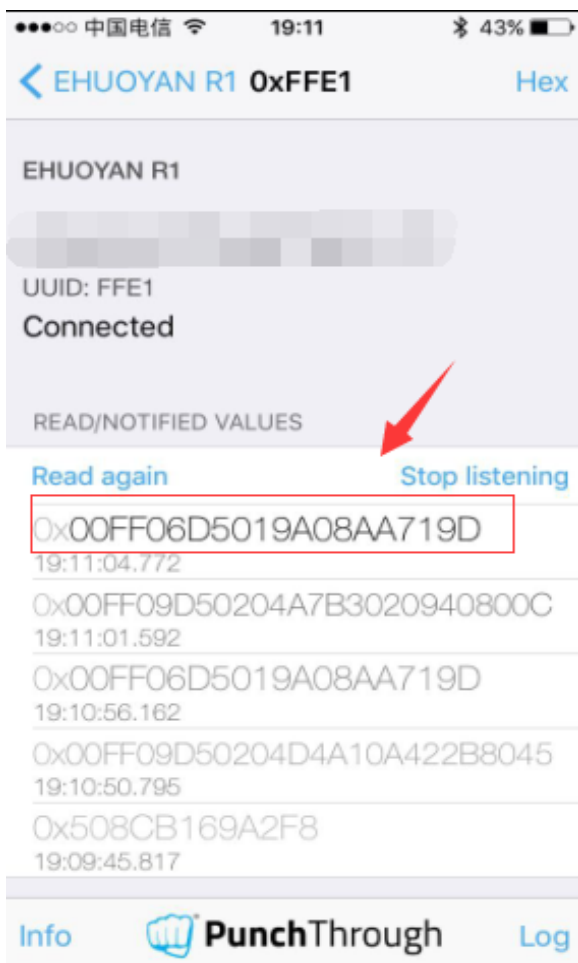
Step3: On the next picture, select “Listen for notifications”, then the smart phone will ready for receive the data from this NFC reader.



Step4: Put on one card or tag on the reader, you will hear a sound and the led will flash one time.



Then you can see the data transfer to the smart phone.



Note: For more detail about the received data please reference the manual for the programmer.

6. Troubleshooting

No.	fault	solution
1	No sound when power on	If the blue led is not light, plug the USB again or plug it into another USB power.
2	Blue led not light when power on	Same with above.
3	Beep all the time when power on	Reconnect the USB.
4	Can not read the card	The card maybe bad or is unknown card, or you maybe put the reader on the metal surface.
5	Can read card SN, but can not read or write the blocks	You have not the right authenticated keys.

Note: Remove the film which covers on the label shown as below on the first time using.



Contact Information:

EHUOYAN Technology Co., Ltd.

Tel: +86 -010-80128328

Email: info@ehuoyan.com

Web Site: www.ehuoyan.com