ER302 Manual

Ordering Information	
Model No.	ER302
Name	NFC Writer
Phone	86-010-59870151, 59754725
Email	info@ehuoyan.com
Web	http://www.ehuoyan.com/

1. Overview

The ER302 NFC Writer is a PC-linked contactless smart card reader/writer developed based on the 13.56 MHz Contactless (RFID) Technology. It supports MIFARE®1k, MIFARE®4k, MIFARE Ultralight®, NTAG203 and ISO 14443A compatible cards.

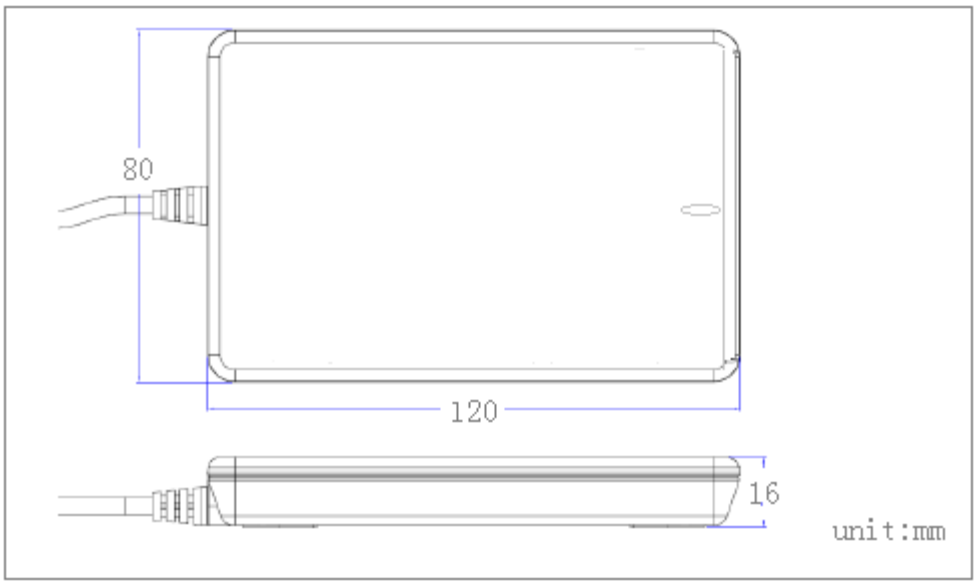
ER302 use USB port to act as a virtual COM port. The proximity operating distance of ER302 is up to 10 cm, depending on the type of contactless tag in use.

The ER302 is ideal for secure personal identity verification, 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®, NTAG203
- RF Frequency: 13.56 MHz.
- Typical time of command：<100ms
- Operating distance: up to 10 cm
- Communications Interface: USB
- Two LED indicators (software controlled)
- Buzzer alarm (software controlled)
- Mechanic characteristics:
  - Size: 120 ×80× 16 (mm)
  - Cable length: 1.5m
  - Weight: 100g (include USB cable)

3. Technical Specifications



Dimensions	120 mm (L) x 80 mm (W) x 16 mm (H)
Weight	100 g (including USB cable)
Cable length	1.5m
Color	white
Interface	USB (VCP)
Baud rate	115200 bps (default)
Operating Distance	Up to 10 cm (depends on the tag type)
Supply Voltage	5V DC (USB power)
Supply Current	42mA (operating); 22mA (close port); 60mA (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®, NTAG203
Operating System	Win NT, Win 2k, Win XP, Win Vista, Win 7, Win 8, Linux

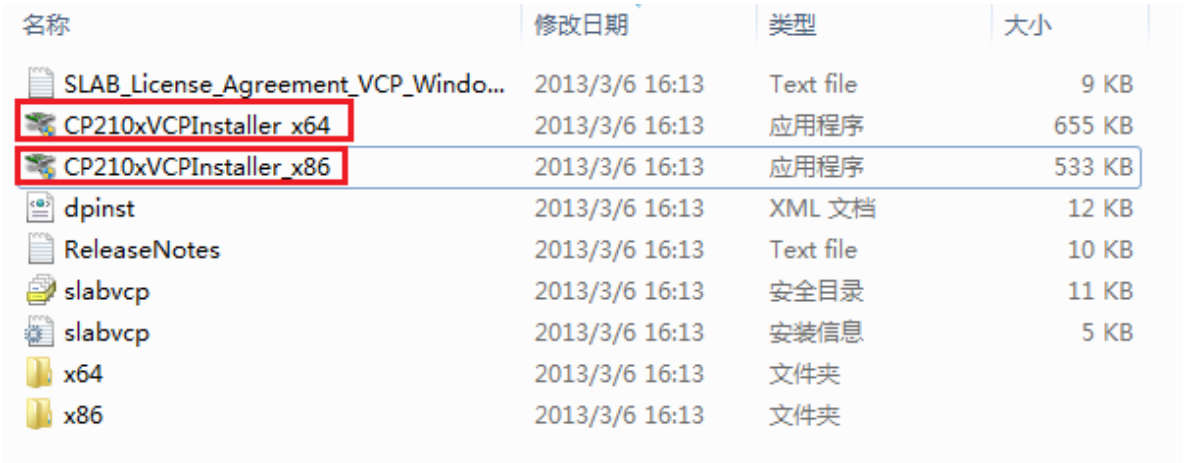
4. Typical Applications

- ✓ E-Payment
- ✓ E-Healthcare
- ✓ E-Game
- ✓ E-Government
- ✓ E-Ticketing
- ✓ Access Control

- ✓ Network Login
- ✓ Transportation
- ✓ Loyalty Program

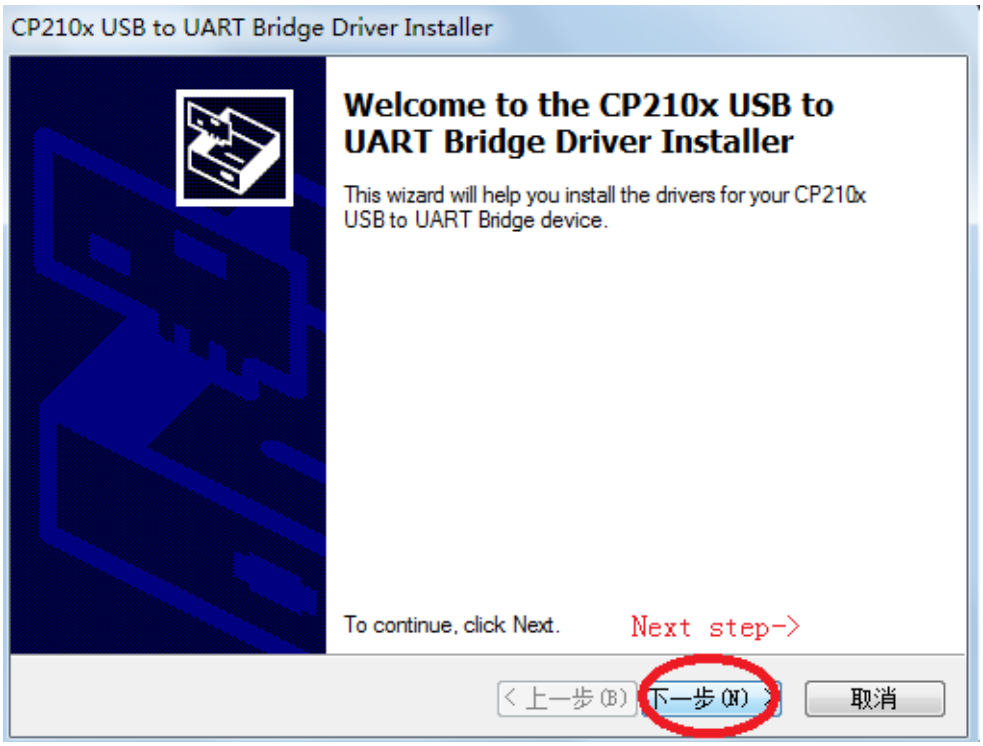
5. How to use

Step1: Open the folder "USB_Driver_Windows", then you will find two installer programs shown as below.

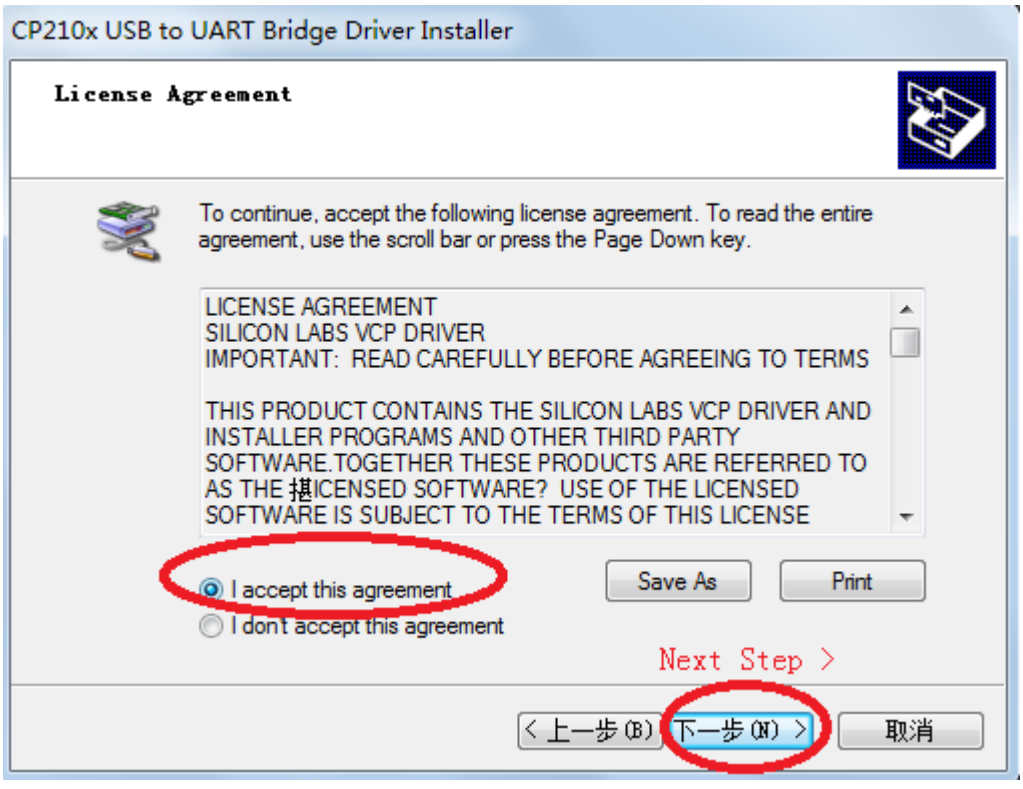


If the user's OS is windows 32 bits, then click "CP210xVCPInstaller_x86.exe" to install the driver, else if 64 bits, then click "CP210xVCPInstaller_x64.exe" to install the USB driver. (Note: if you have installed the driver before, then go to step2).

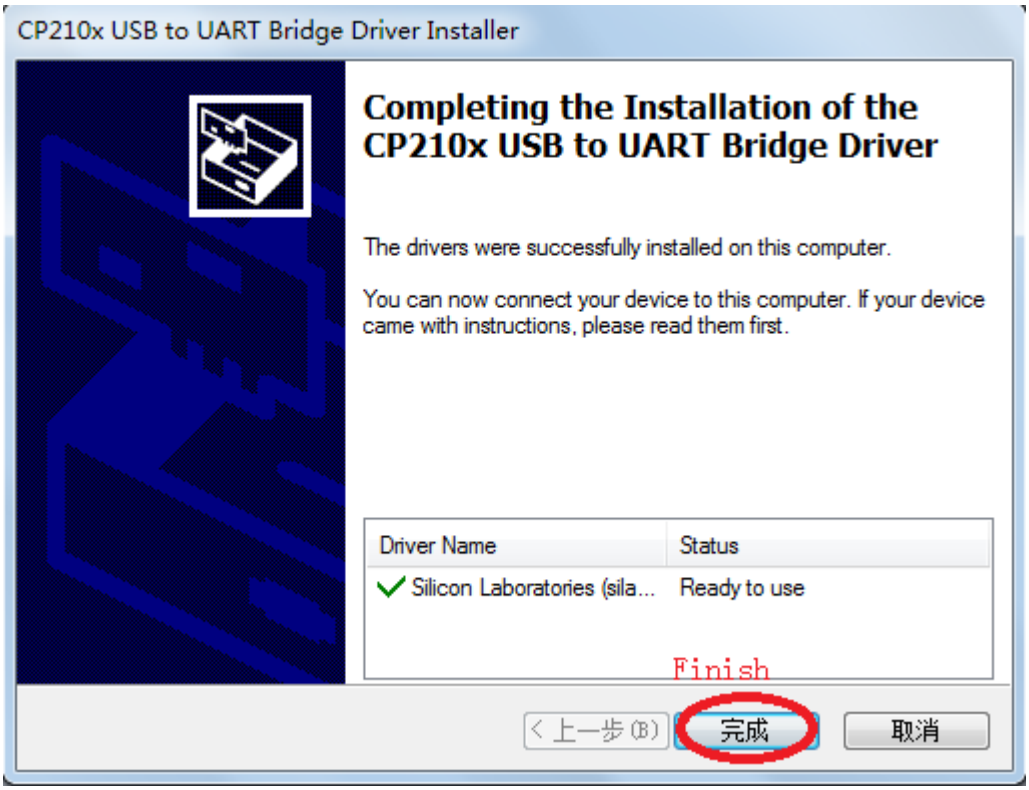
Step2: On the next picture, please click "next step".



Step3: On the next picture, select "I accept this agreement", next click "next step".



Step4: On the next picture, click “Finish”, then the USB driver install fully.



Step5: Connect the ER302 to the USB port of PC, shown as below.

After power on the RED led will flash one time, then the buzzer will beep one time, at last the blue led will light on, it means that the reader is ready now. You can

send the commands from the host to the ER302.

After connect the USB, you can see the Virtual Com Port (VCP) on the “Device Manager”.

How to find out which communications port the operating system has assigned to the USB driver?

Windows XP---

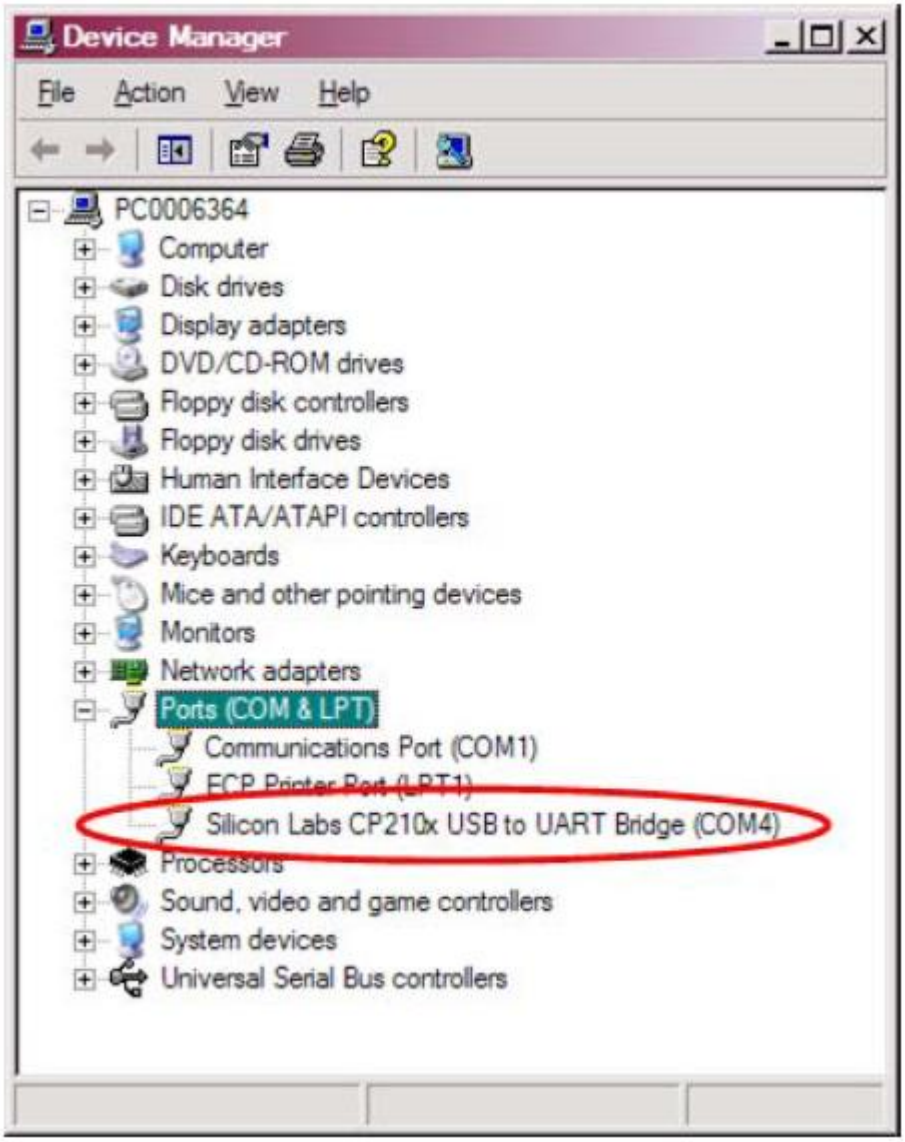
The path is:

Start=>Control Panel=>System(you might need to set your Control Panel to ‘Classic View’)=>Hardware=>Device Manager=>Ports(COM & LPT)

Vista and Windows 7---

The path is:

Start=>Control Panel=>Device Manager(you might need to set your Control Panel to ‘Classic View’)=>Ports(COM & LPT)

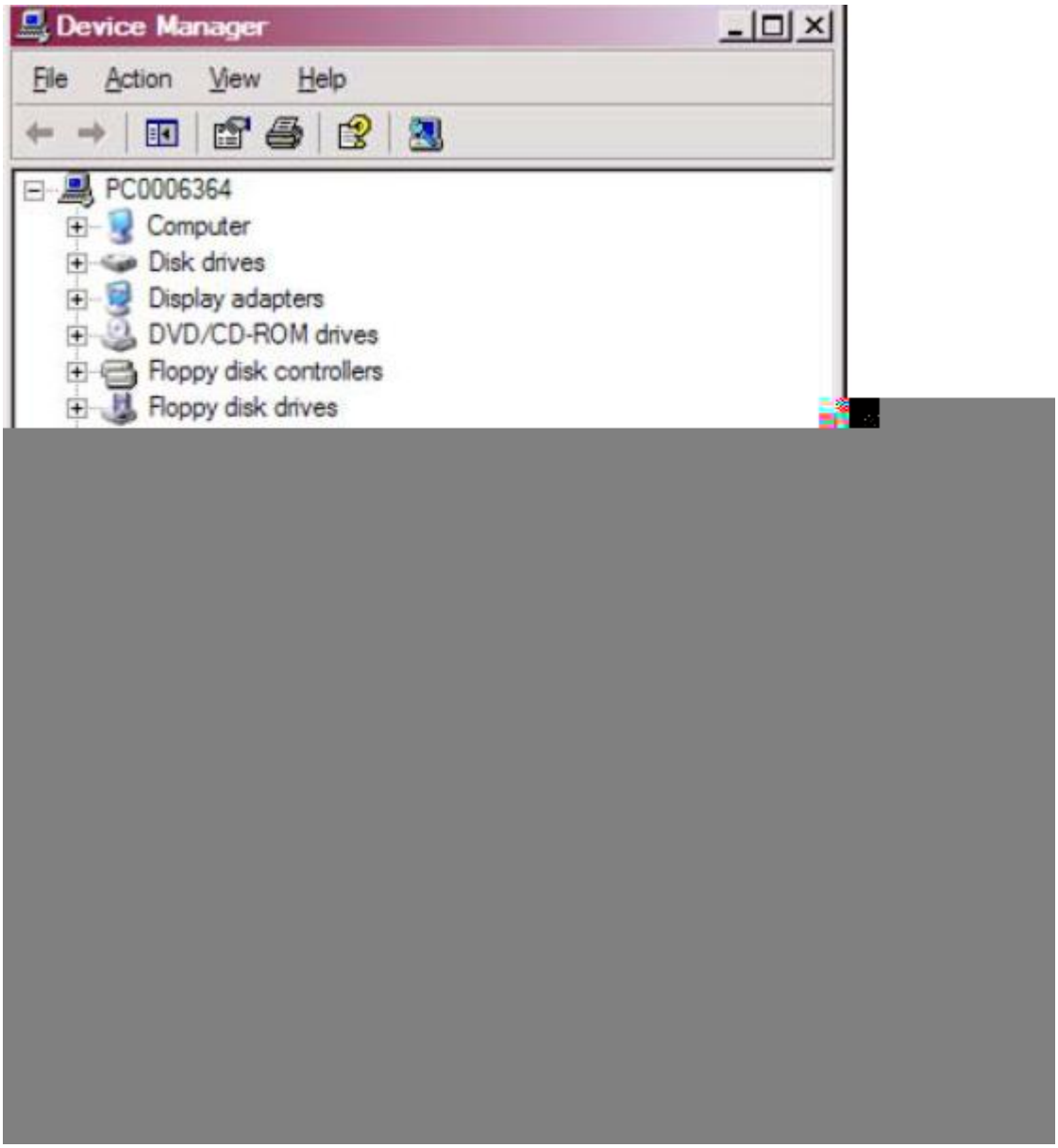


Note: If the COMX exceed COM10, please change it between 1 to 9, for example, it shows COM12, then you can change it into COM3.

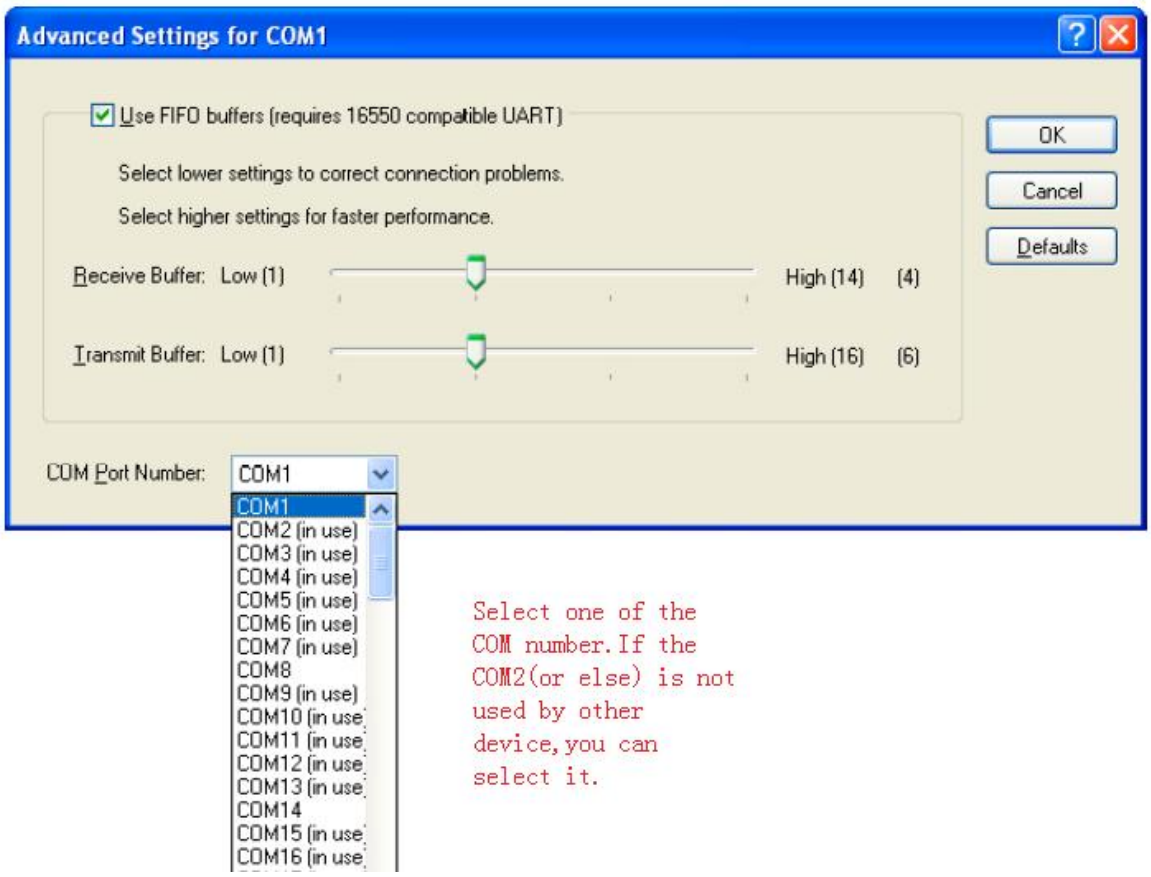
HOW TO CHANGE COM PORT NUMBER?

If you need to change the port number assigned to your USB driver, proceed to next step to change the USB driver port number in the Device Manager.

1) Right click on the selected COM port and select “Properties”.



2) Open the “Port settings” tab and select “Advenced”.



Step6: Now, you can run the program to send commands to the ER302. You can run the eReader.exe or else App(base on the dll files) to communicate with the ER302. The ER302 will not do anything unless you send command to it. There is only one program can be run and connect to the ER302 at the same time.

Note: For the eReader program please reference the eReader manual.

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 port.
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	Click “Device->Connect”, If connect ok, then the card maybe bad or is not a mifare 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.

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