

# YHY523U

## *User Manual*

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# YHY523U Manual

### **1. Overview**

The YHY523U RFID Reader is a PC-linked contactless smart card reader/writer module developed based on the 13.56 MHz Contactless (RFID) Technology. It supports Mifare® and ISO 14443A cards.

YHY523U use USB port to act as a virtual COM port. The proximity operating distance of YHY523U is up to 10 cm, depending on the type of contactless tag in use.

The YHY523U 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.

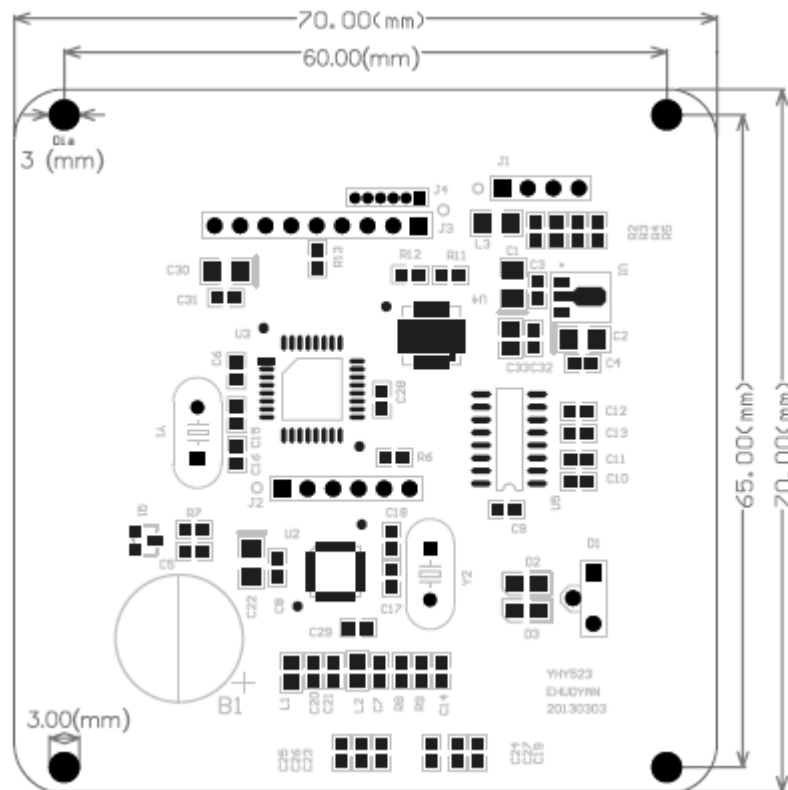
### **2. Special Features**

- Support ISO 14443A/Mifare\_One(S50&S70) card
- RF Frequency: 13.56 MHz.
- Typical time of command: <35ms
- Operating distance: up to 10 cm
- Communications Interface: USB
- Two LED indicators (software controlled)
- Buzzer alarm (software controlled)
- Mechanic characteristics:
  - Size: 70 ×70× 10 (mm)
  - Weight: 20g (Not include USB cable)

### **3. Technical Specifications**

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Dimensions	70 mm (L) x 70 mm (W) x 10 mm (H)
Weight	20 g (Not including USB cable)
Cable length	1.5m
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	ISO 14443A/Mifare_one S50,S70
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

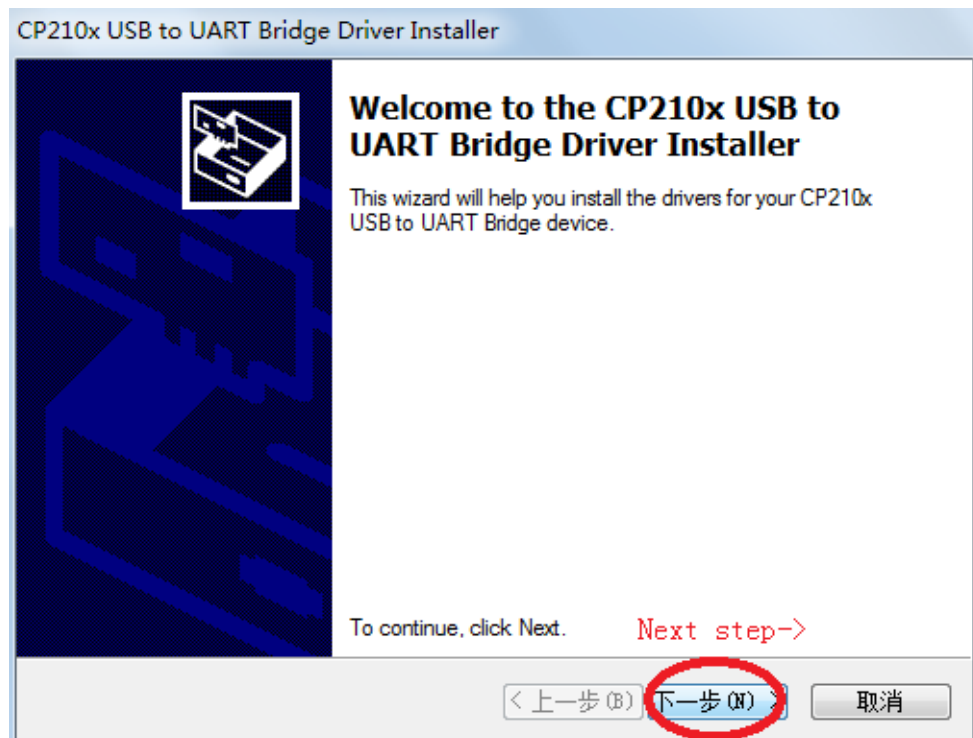
## 5. How to use

**Step1:** Open the folder “USB\_Driver\_Windows”, then you will find two installer programs shown as below.

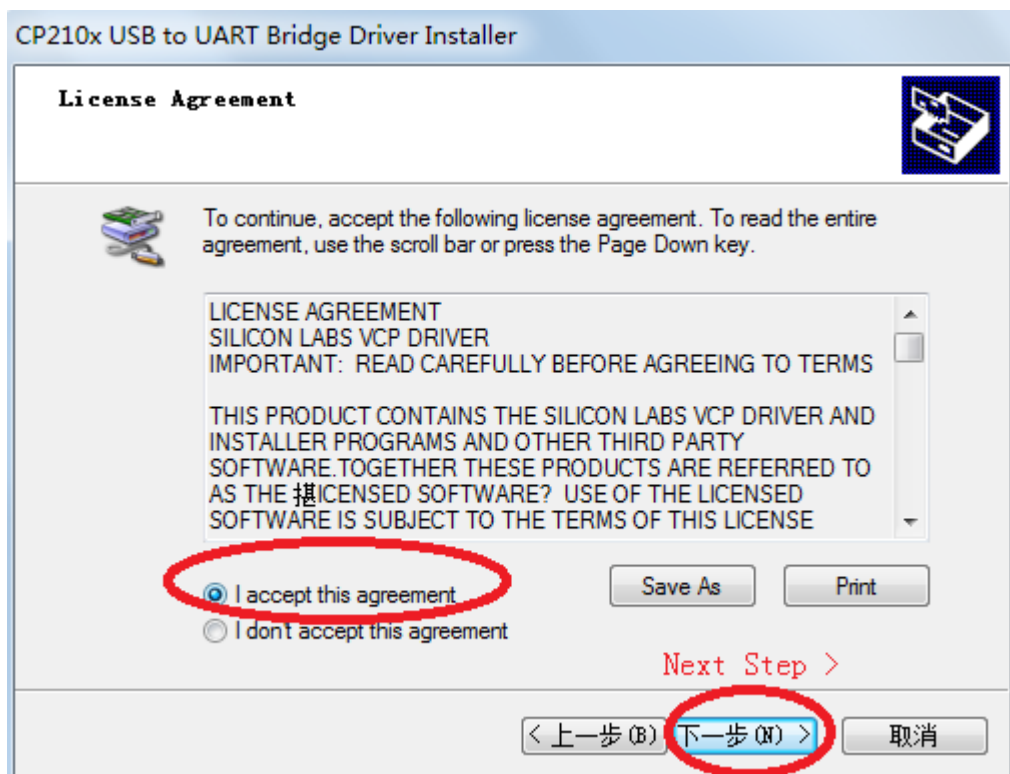
名称	修改日期	类型	大小
 SLAB_License_Agreement_VCP_Windo...	2013/3/6 16:13	Text file	9 KB
 CP210xVCPInstaller_x64	2013/3/6 16:13	应用程序	655 KB
 CP210xVCPInstaller_x86	2013/3/6 16:13	应用程序	533 KB
 dpinst	2013/3/6 16:13	XML 文档	12 KB
 ReleaseNotes	2013/3/6 16:13	Text file	10 KB
 slabvcp	2013/3/6 16:13	安全目录	11 KB
 slabvcp	2013/3/6 16:13	安装信息	5 KB
 x64	2013/3/6 16:13	文件夹	
 x86	2013/3/6 16:13	文件夹	

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).

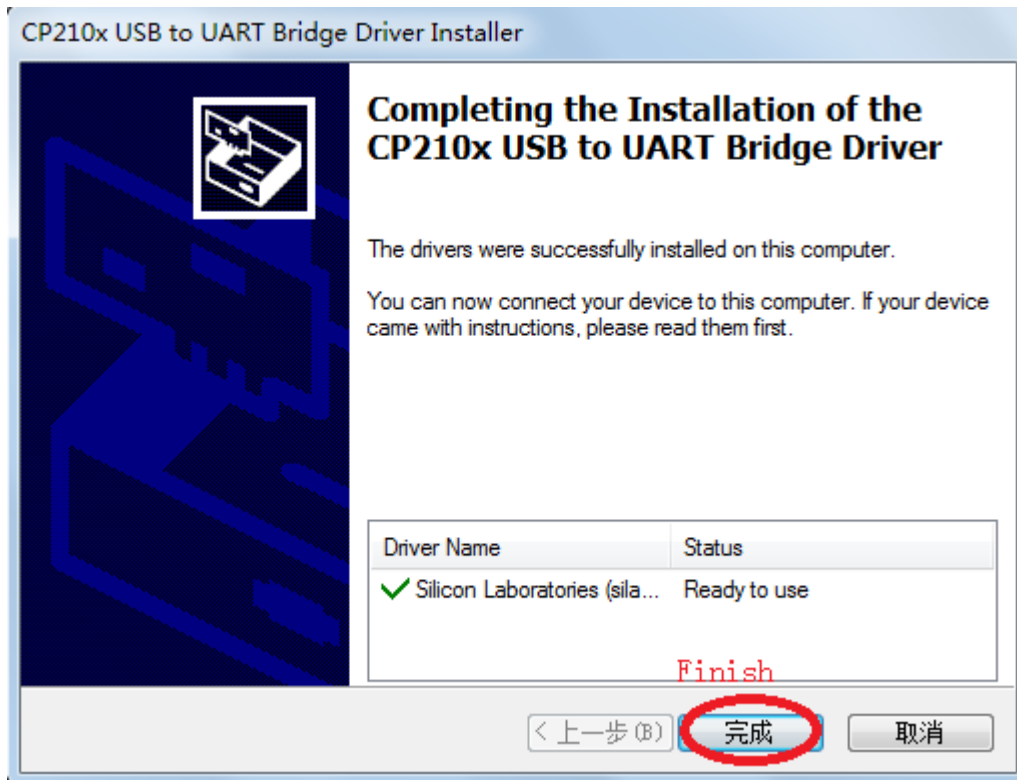
**Step2:** On the next picture, please click “next step”.



**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 YHY523U 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 YHY523U.

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---**

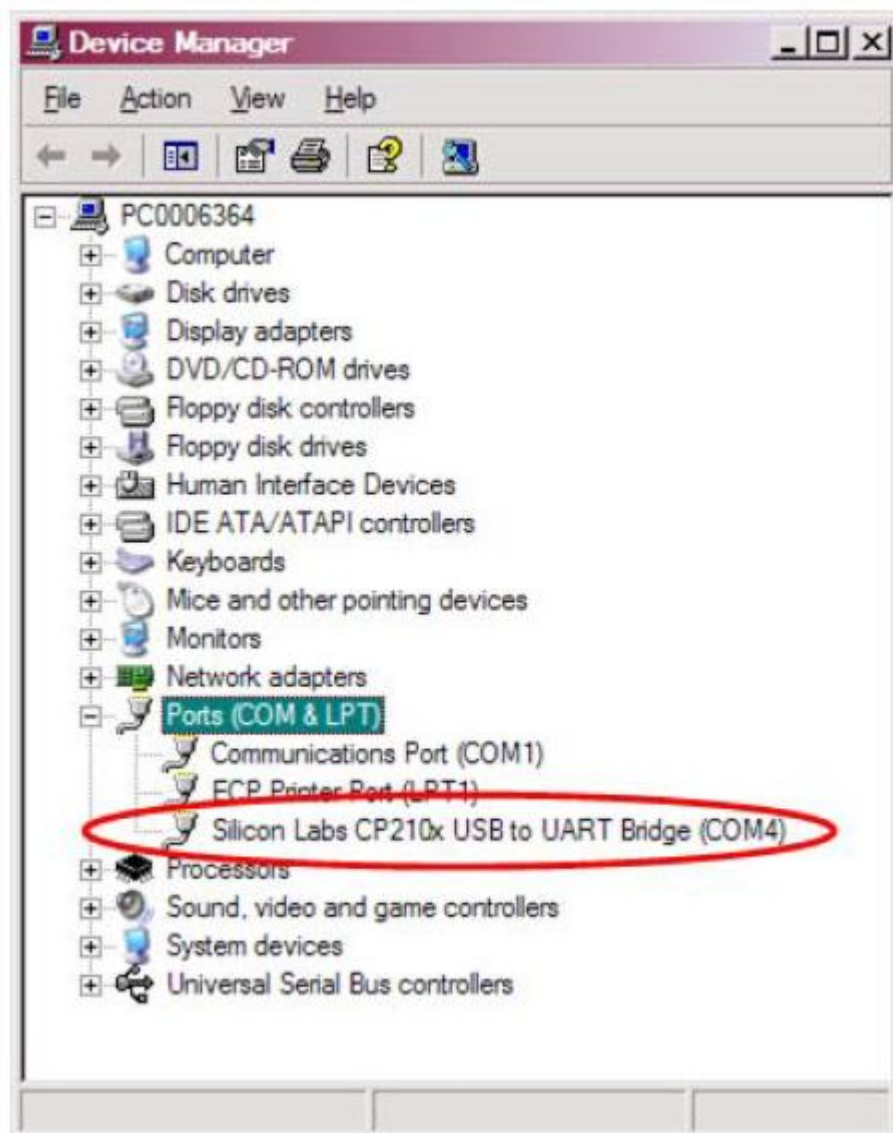
The path is:

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)



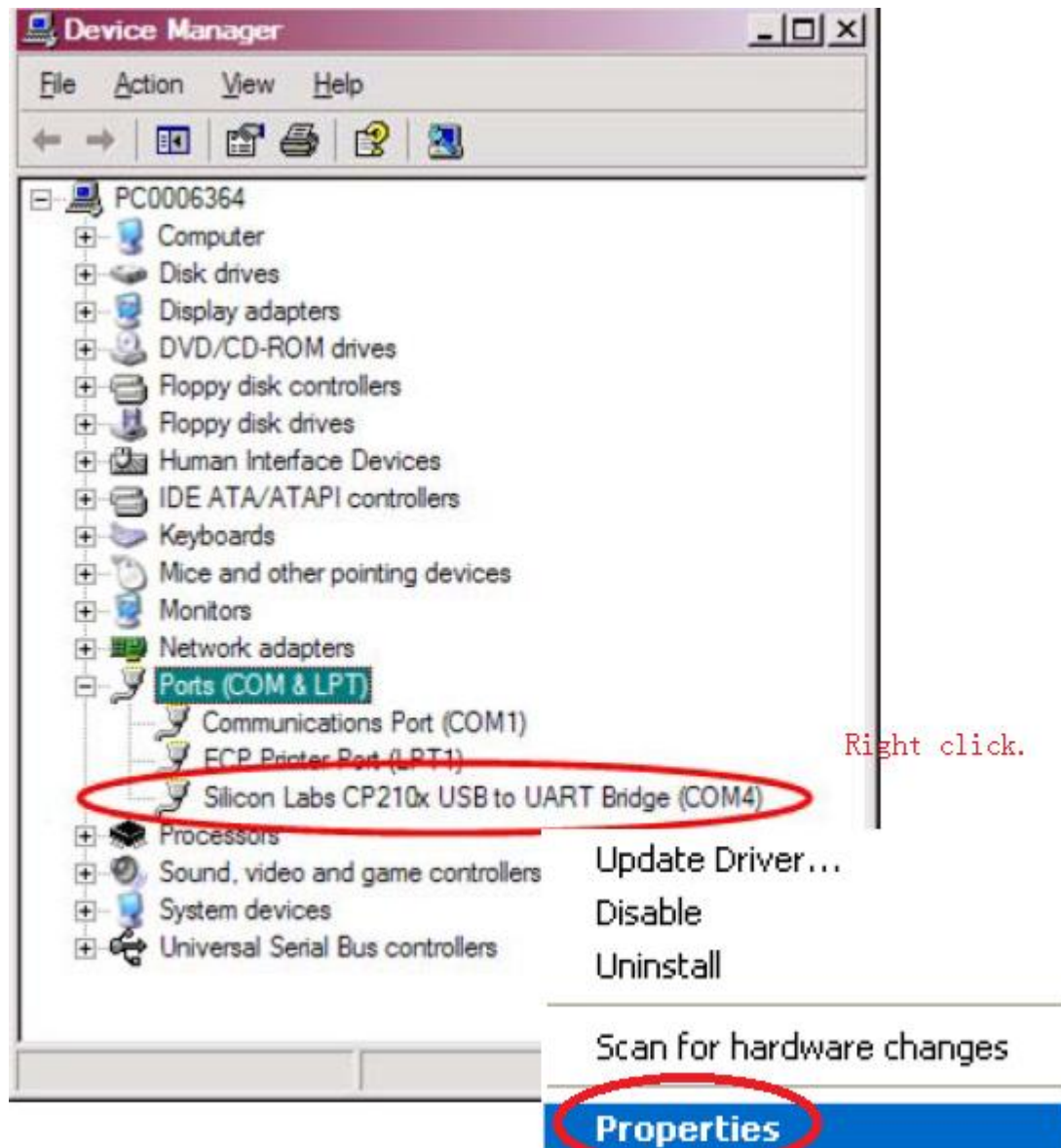
Note: If the COMX exceed COM10, please change it between 1 to 9, for example, it shows COM12, then you can change it into COM3.

### **HOW TO CHANGE COM PORT NUMBER?**

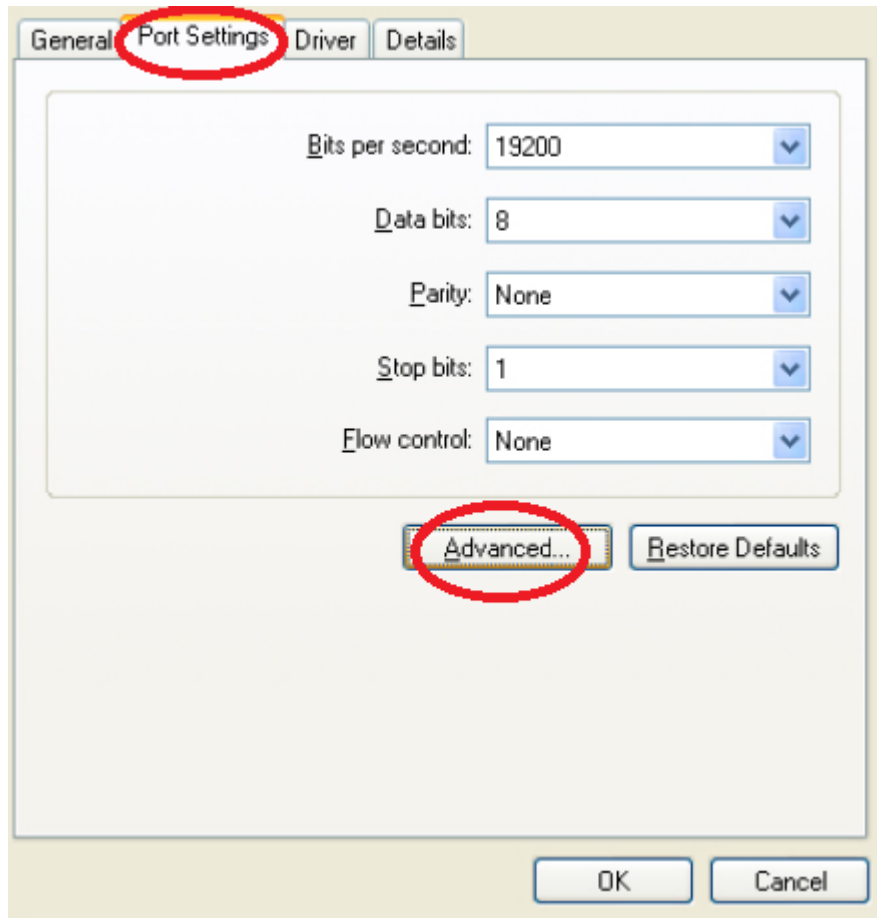
If you need to change the port number assigned to your USB driver, proceed to next step to change the USB driver port number in the Device Manager.

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



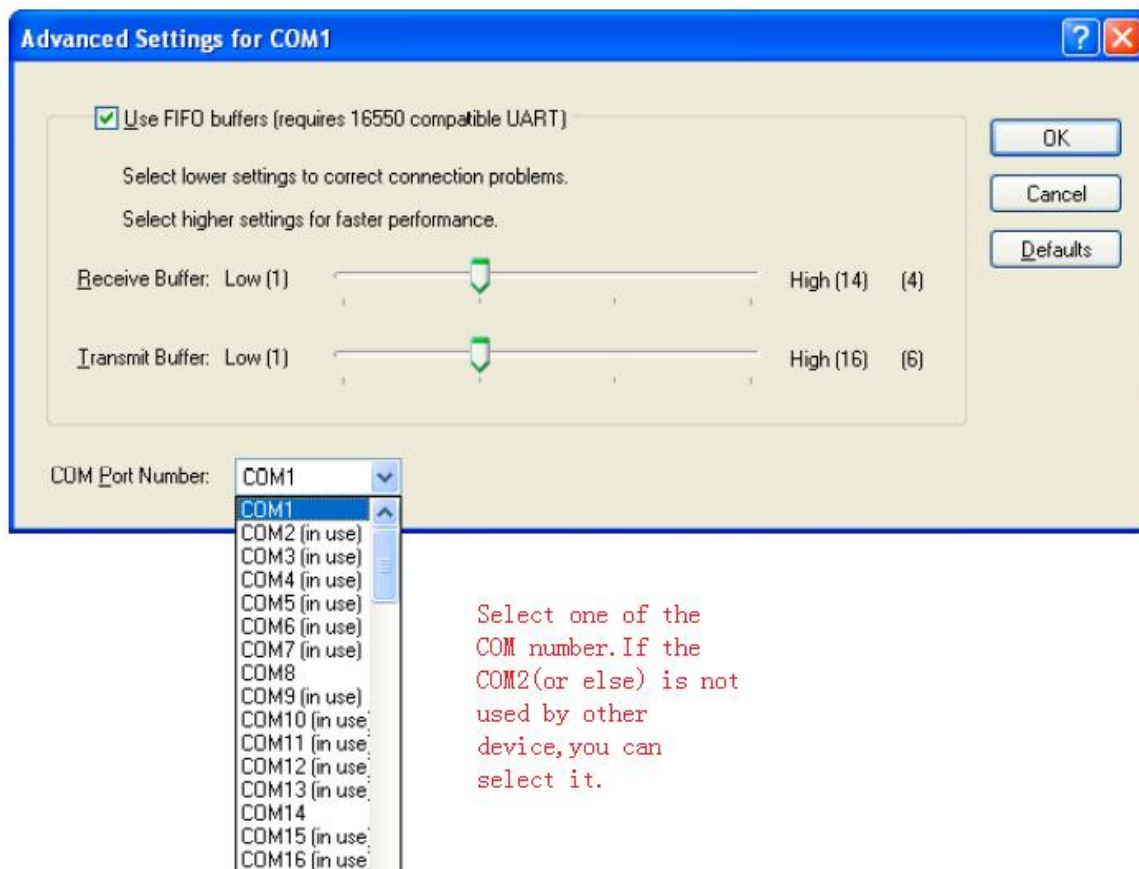


2) Open the "Port settings" tab and select "Advanced".



- 3) In the “Advanced Settings” window, activate the drop-down for “COM Port Number” you will be presented with a list of ports. Click on an unused port to change the COM port for your USB driver. Click “OK” to close the “Advanced Settings”, then the “Properties Windows”. Close the “Device Manager” windows then **RECONNECT** the USB and re-open the “Device Manager”, your USB driver should now be assigned to the new port.

Note: Even if the COM port shown “in used”, but in fact there is no such a device connecting to your PC, then you can select it.



**Step6:** Now, you can run the program to send commands to the YHY523U. You can run the eReader.exe or else App(base on the dll files) to communicate with the YHY523U. The YHY523U will not do anything unless you send command to it. There is only one program can be run and connect to the YHY523U at the same time.

## 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.

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5	Can read card SN, but can not read or write the blocks	You have not the right authenticated keys.
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