YN-4561

6 in 1 USB/485/422/232/TTL

Convector Tool

User Manual

Chapter 1 Overview

1.1 Introduction

Your Neighbor's YN-4561 allows users make conversion and connection between USB/RS232/RS485/RS422/TTL without any jumper or switches.

YN-4561 gets power from a standard USB port. It also can give power to other devices for 5V@250mA and 3V@50mA.

Compliant with USB v2.0 standard, the YN-4561 support almost all types of OS, such as Windows/MAC/Linux/Android.

1.2 Features

- No jumper or switches, plug-and-play installation
- USB to RS-232/422/485/TTL converter
- TTL to RS232/422/485 converter
- RS232 to RS-422/485 converter
- 5V@250mA, 3V@50mA output
- LED indication for all channels
- Transmission speed up to 115.2Kbps
- Automatic RS-485 data flow control
- No external power supply necessary, only from the USB port.
- Drivers for Windows 2000/2003/XP/Vista/7 (32bit and 64bit) MAC/Linux/Android/ Wince

1.3 Specifications

Compatibility:	USB v2.0 standard
Connector	USB:USB-type B connector RS232：DB9 connector RS485/422：Screw terminal TTL：Screw terminal
Transmission speed:	600bps to 115.2Kbps
Parity bit:	odd, even, none
Data bit:	5, 6, 7, 8
Stop bit:	1, 1.5, 2
RS232：	3 wire TX,RX,GND
RS485：	2 wire D+，D-
RS422：	4 wire T+，T-，R+，R-
TTL：	3 wire RIN,TOUT,GND
Power output：	5V,3V,GND
Max. Distance:	RS-232: 50ft (15m) @ 19.2Kbps RS-422, RS-485: 4000ft (1200m) @ 57.6Kbp

TTL: 2ft (0.5m) @ 19.2Kbps

- Driver Support: Windows XP/Server 2003/Vista/7/8/8.1 MAC/Linux/Android/Wince
- Case: Light blue ABS
- Operating Temperature: 0° to 70° C
- Storage Temperature: -25° to 80° C
- Operating Humidity: 20% to 95% (non-condensing)
- Storage Humidity: 0% to 95% (non-condensing)

1.4 Package Checklist

- YN-4561 x1
- Driver & Manual CD x1
- Type A to Type B USB cable x1
- Dupont Line x5

Chapter 2 Installation & Setup

2.1 Important Notice

Warning! When YN-4561 work as “TTL to RS232/422/485 converter” or “RS232 to RS-422/485 converter”, 5V power is still required from the USB port. It could **NOT** work without power supply.

Warning! When powering other devices, make sure the connection is correct and check it before power on. Otherwise, damage may happen to target devices or YN-4561.

Real test data:
5V output

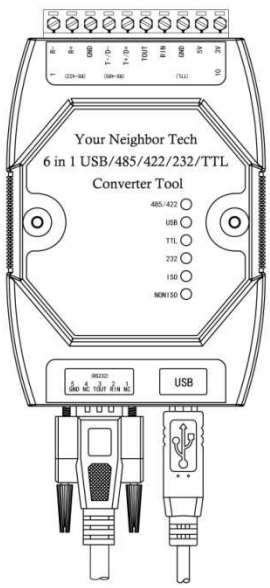
I(mA)	0	10	50	100	150	200	250	1000
V(V)	4.66	4.65	4.60	4.56	4.53	4.49	4.46	damage

3Voutput

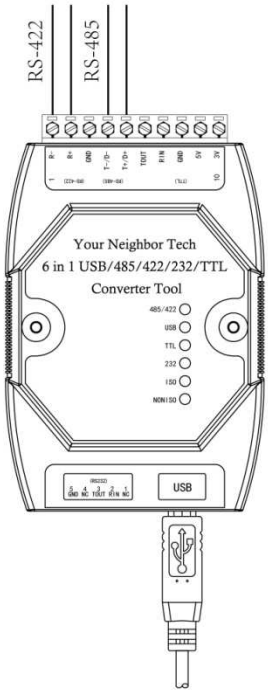
I(mA)	0	10	20	30	40	50	100	300
V(V)	3.05	2.88	2.85	2.83	2.82	2.81	2.75	damage

2.2 Hardware Connection

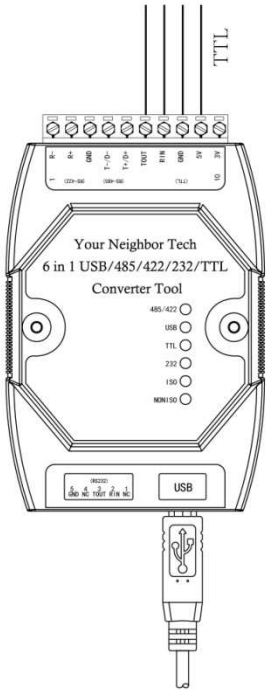
YN-4561 can working under the following six mode, make sure the useless pins or ports are not connected.



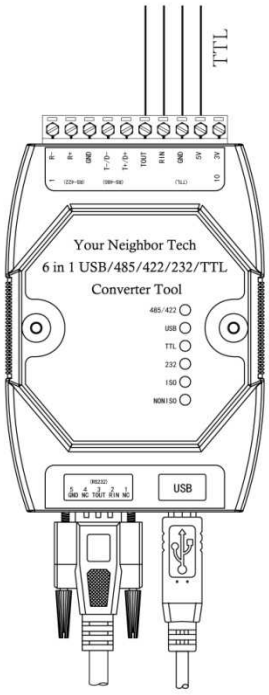
USB转RS-232



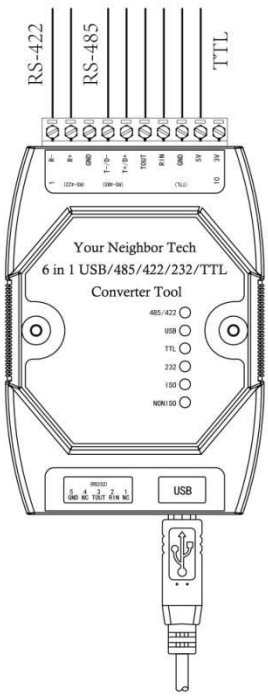
USB转RS-422/485



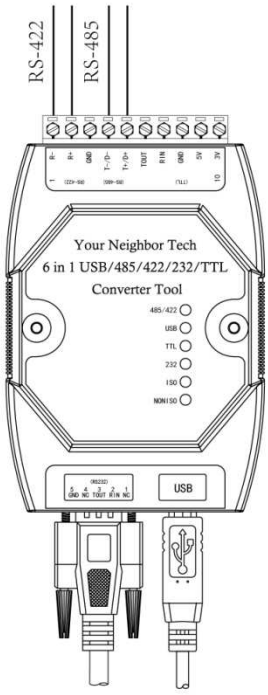
USB转TTL



TTL转RS-232



TTL转RS-422/485



RS-232转RS-422/485

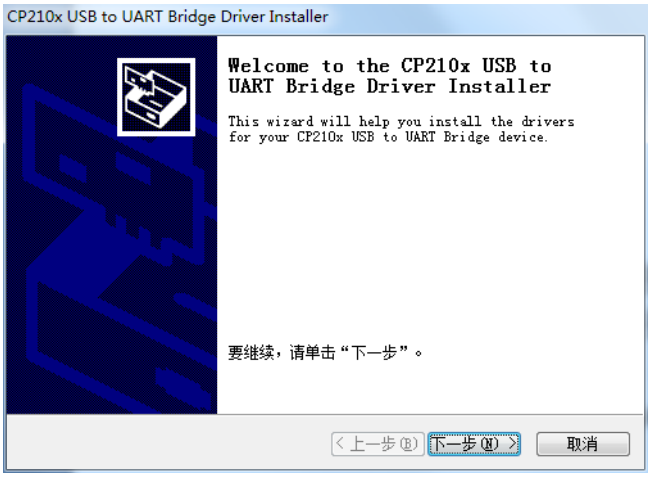
2.3 Driver Installation

In order to use a PC to control serial devices connected to the YN-4561. Following are the installation instructions to set up the YN-4561on Windows 7 64 bit system.

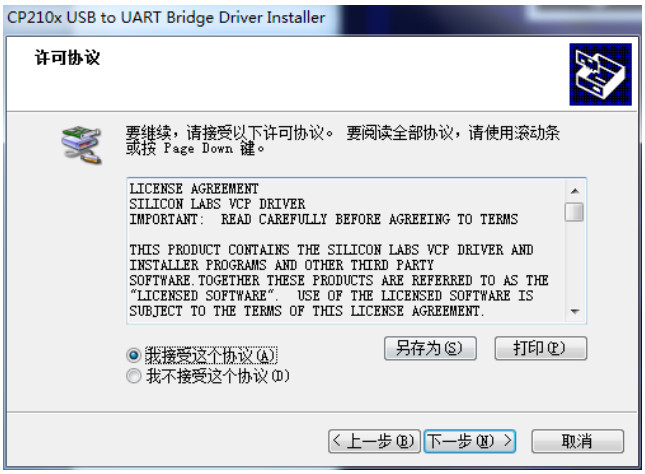
Note: The newest driver can be found at
http://www.silabs.com/products/mcu/Pages/USBtoUARTBridgeVCPDrivers.aspx

Step1:Insert driver CD into the CD-ROM drive on the host PC and unzip **CP210x_VCP_Windows.zip** file from the link of **driver\CP210x** folder. Double click " **CP210xVCPInstaller_x64.exe**".

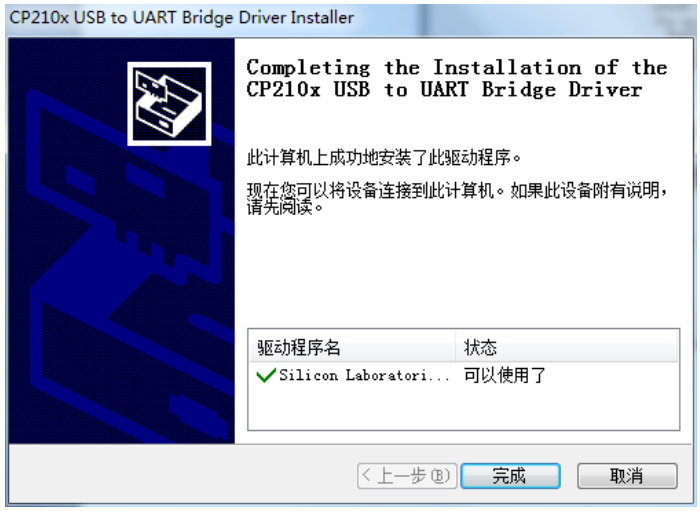
Step 2：Click “Next” to continue the installation.



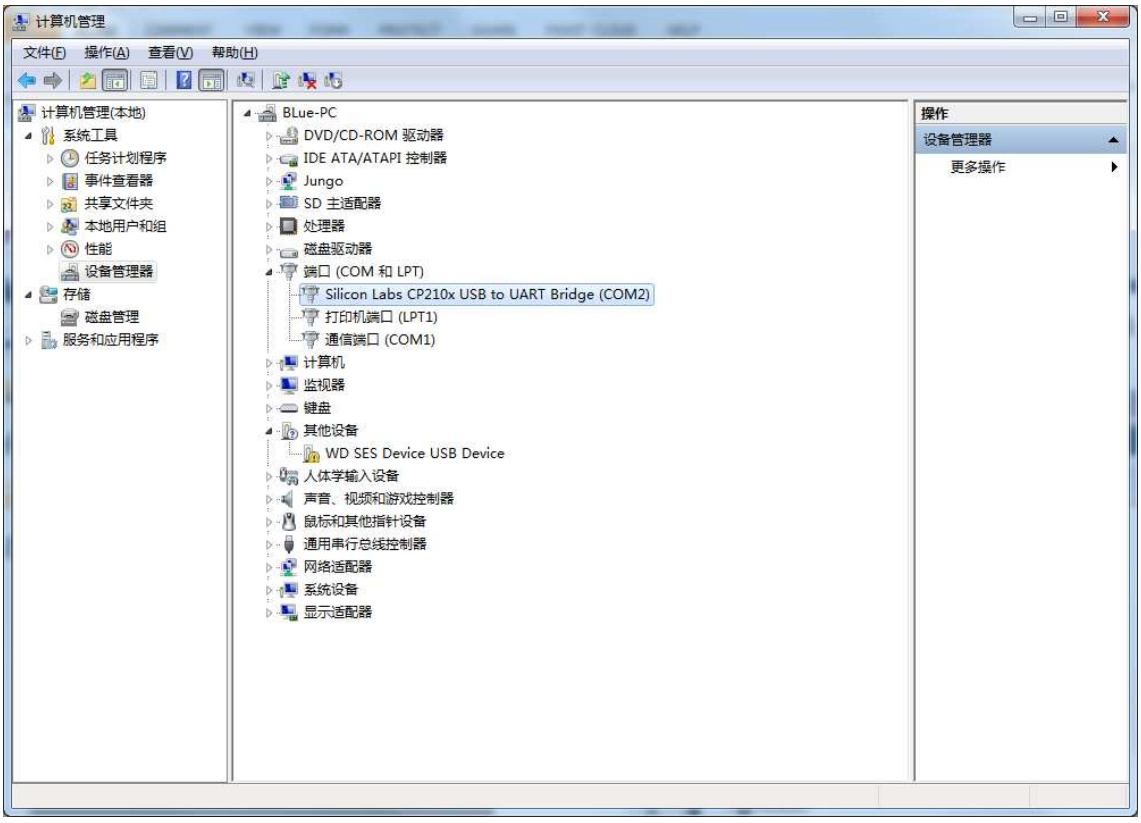
Step3：Click “Next” to continue the installation.



Step4：Click “OK” to finish the installation.



Step5：Plug the YN-4561 to USB port. The green LED will on and the driver will be installed automatically.



Step6：In the Hardware Device Manager in the system, you will see device “Silicon Labs CP210x USB to UART Bridge (COM##)” in Ports category. Then YN-4561 is working normally.

Revision History：

Date	Version	Revision
2014-6-13	1.0	Initial release.