YN-4561I

Isolated 6 in 1

USB/485/422/232/TTL

Converter Tool

User Manual

Chapter 1 Overview

1.1 Introduction

Your Neighbor's YN4561I allows users make an isolated conversion and connection between USB, RS-232, RS-485/RS422 and TTL without any jumper and switches.

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
- LED indication for all channels
- Automatic RS-485 data flow control
- No external power supply necessary
- Drivers for Windows 2000/2003/XP/Vista/7 (32bit and 64bit) MAC/Linux/Android

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：	4 wire RIN, TOUT, VIO, GND
Max. Distance:	RS-232: 50ft (15m) @ 19.2Kbps RS-422, RS-485: 4000ft (1200m) @ 57.6Kbp TTL: 2ft (0.5m) @ 19.2Kbps
Port Protection	600W TVS on RS232, RS485, RS422 signal Line
Driver Support:	Windows XP/Server 2003/Vista/7/8/8.1， MAC，Linux，Android，Wince。

- Case: Light blue ABS
- Operating Temperature: 0° to 60° C(32 ~ 140° F)
- Storage Temperature: -25° to 80° C(-13 ~176° F)
- Operating Humidity: 20% to 95% (non-condensing)
- Storage Humidity: 0% to 95% (non-condensing)

1.4 Package Checklist

- YN-4561I x1
- Driver & Manual CD x1
- Type A to Type B USB cable x1
- Dupont Line x5
- DB9 to Screw terminal board x1

Chapter 2 Installation & Setup

2.1 Driver Installation

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

Note: The newest driver for YN4561I can be found at: http://www.silabs.com/products/mcu/Pages/USBtoUARTBridgeVCPDrivers.aspx

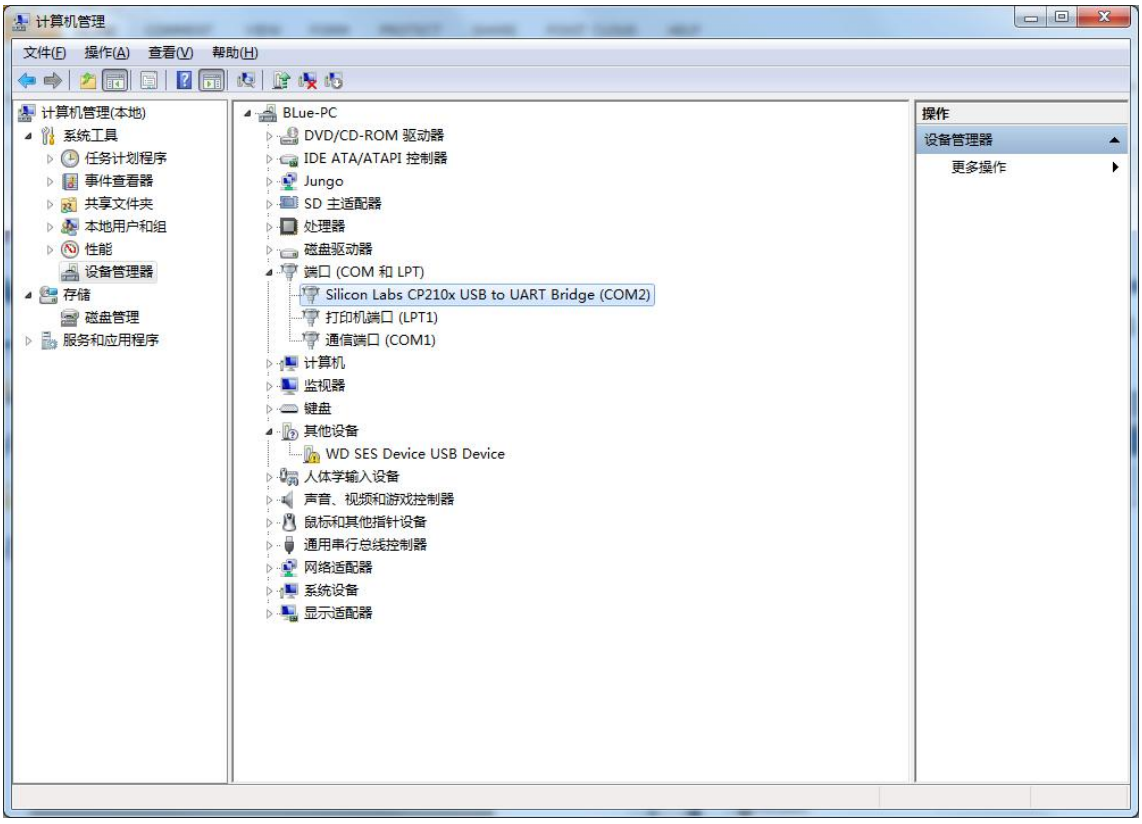
Step1:Insert driver CD into the CD-ROM drive on the host PC and unzip **CP210x_VCP_Windows.zip** file from the link of **driver\CP210x** folder. Double click " **CP210xVCPInstaller_x64.exe**".
Note: For 32bit system user, double click "**CP210xVCPInstaller_x86.exe**".

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

Step3：Click “Next” to continue the installation.

Step4：Click “OK” to finish the installation.

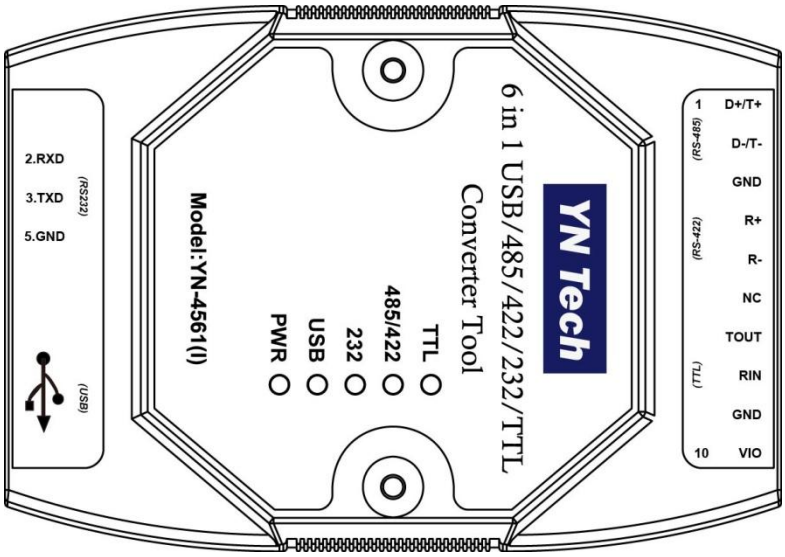
Step5：Plug YN-4561I into a USB port. The green PWR LED will on and the driver will be installed automatically.



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-4561I is working normally.

2.2 Hardware Connection

Following picture shows the ports on YN-4561I front panel:



1.RS232

DB9 male, 2.RXD, 3.TXD, 5.GND.

2.RS485/422

RS485: D+, D-

RS422:T+, T-, R+, R-

3.TTL

VIO: Power input(3.3V or 5V)

GND: Signal/Power Ground

RIN: TTL RX(Input)

TOUT: TTL TX(Output)

Warning: The voltage on VIO pin mast be the same as the board you connected to. If not, the board maybe damaged or the communication can't established.

4.USB

USB B port.

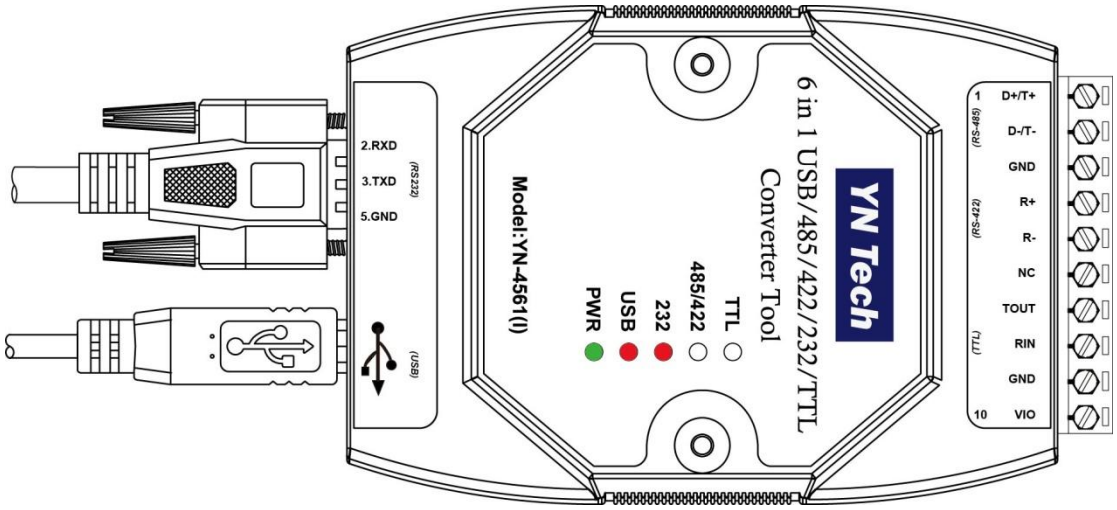
5.NC

Not internal connected.

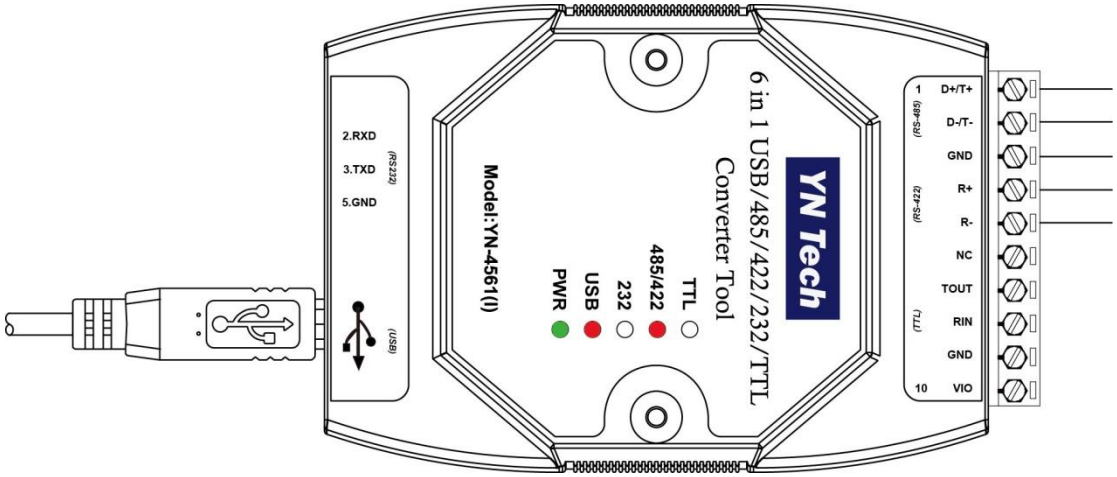
After the USB port is connected, Green PWR LED will on. In case any channel has data input, the corresponding channel LED will flash. For example, if we use YN4561I as USB-RS232 converter. when we send data from PC to RS232 port, the USB LED will flash. On the contrary, if device send data from RS232 port to PC, the RS232 LED will flash.

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

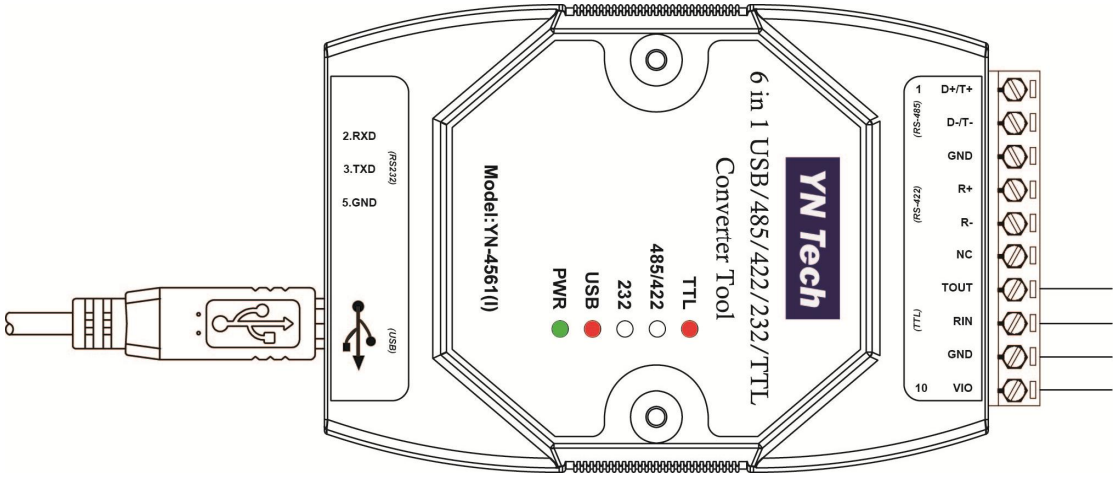
1.USB to 3 wire RS232



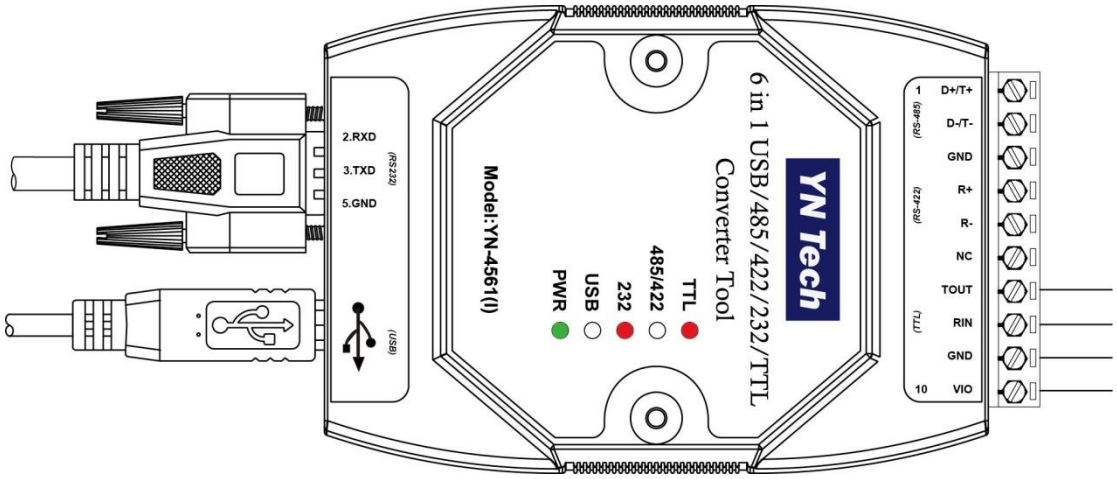
2.USB to 2 wire RS485 or 4 wire RS422



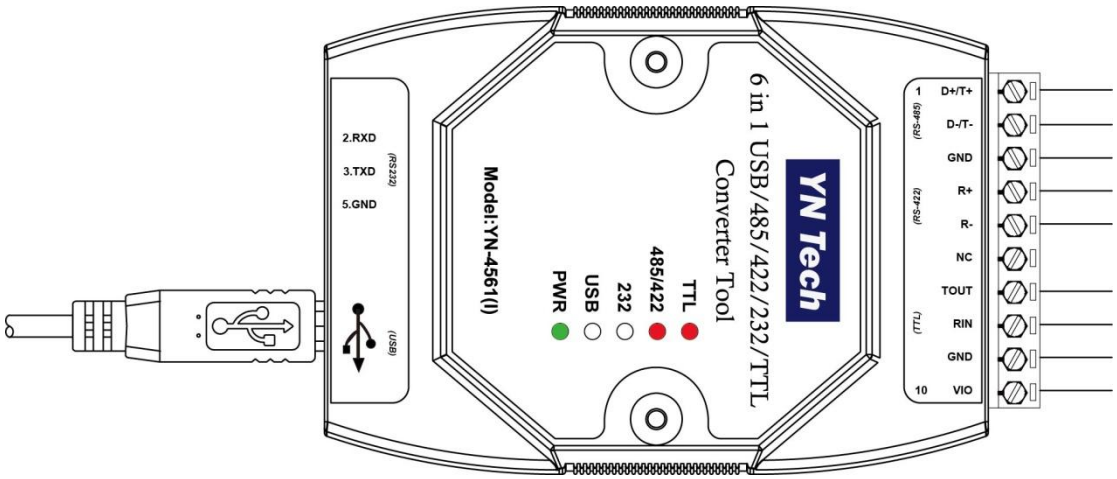
3.USB to TTL



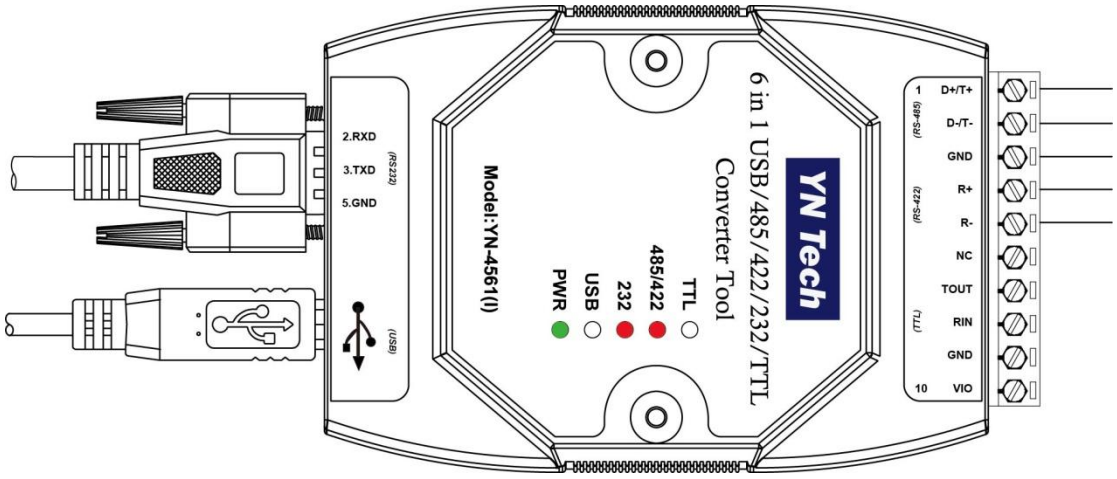
4. TTL to RS232, USB supply power only.



5. TTL to 2 wire RS485 or 4 wire RS422, USB supply power only.



6. RS232 to 2 wire RS485 or 4 wire RS422, USB supply power only.



Revision History：

Date	Version	Revision
2014-11-8	1.0	Initial release form Chinese version
2014-12-22	1.1	Fix some words error.