USER MANUAL

3-in-1 Serial Converter

Tutorial link

Google Drive

If you have technical problems or cannot find the information that you need in the provided documents, please contact our support team. Our engineering team is committed to providing the required support necessary to ensure that you are successful with the operation of our AHRS sensors.

Contact

Technical Support Contact Info

Contents

1 Description

● Three functions, support USB-TTL USB-232 USB-485.

● USB specification 2.0 is compatible with Windows XP/7/8/10 32bits/ 64bits, Linux, Wince, Mac, Vista etc.,Baud rates: 300 bps to 1.5 Mbps.

● With a 500mA fuse protection circuit to prevent shorting and over current burning.

● The indicator lights indicate the working status of the device in red, yellow and green. COM port selects USB (yellow light) is always on, data reception RX (red light) flashes, data transmission TX (green light) flashes.
Small size, high stability, easy to carry.

● Small size, high stability, easy to carry.

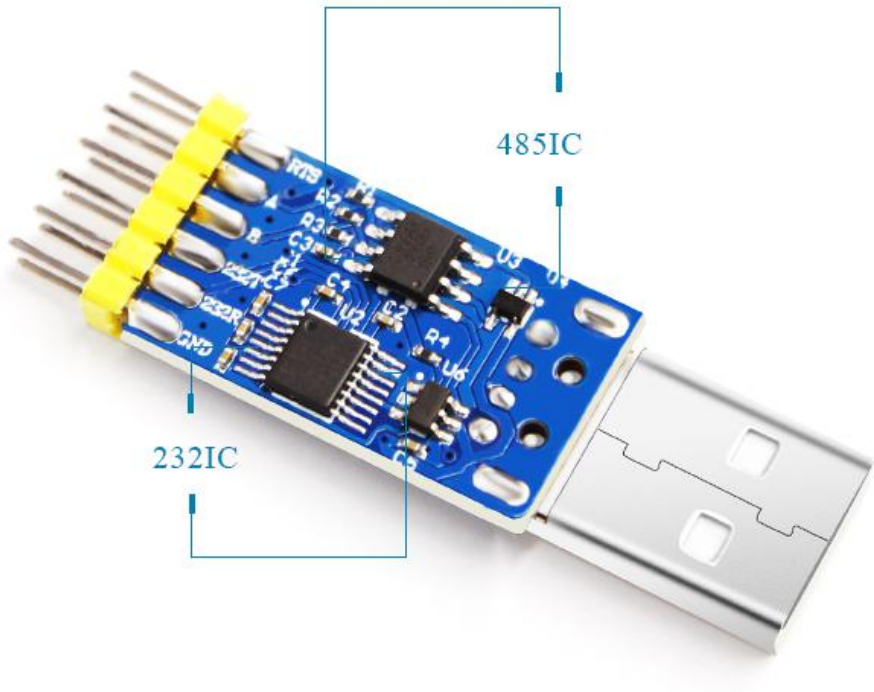
● Compatible with 3.3V/5V voltage input and output, can supply power to the MCU.

● Intelligent identification switch serial port mode, no need to manually switch, easy and convenient.

2 Pin Description

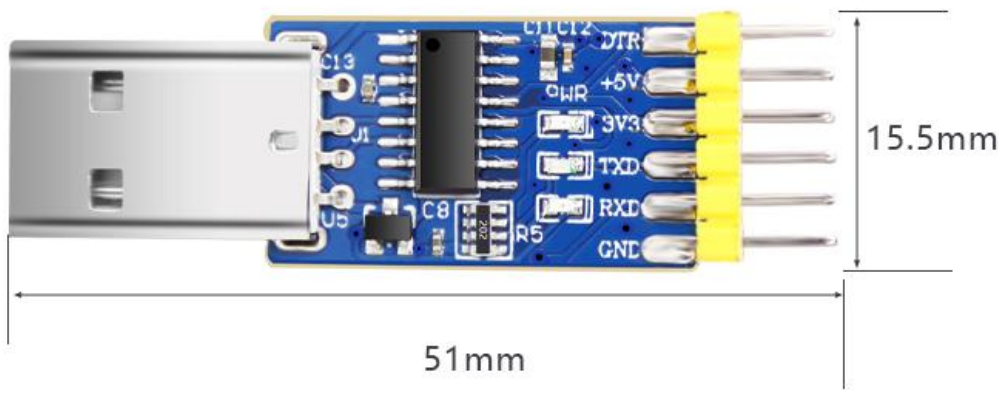
USB IC:CH340

232IC、485IC



Name	Function
+5V	Module power, 5V input, output
3V3	Module power, 3.3V output
RX	Serial data input, TTL level
TX	Serial data output, TTL level
232R	Serial data input, 232 level
232T	Serial data output, 232level
A	RS485 Signal line A
B	RS485 Signal line B
GND	GND
DTR	Data terminal preparation/control flow output
RTS	Request to send

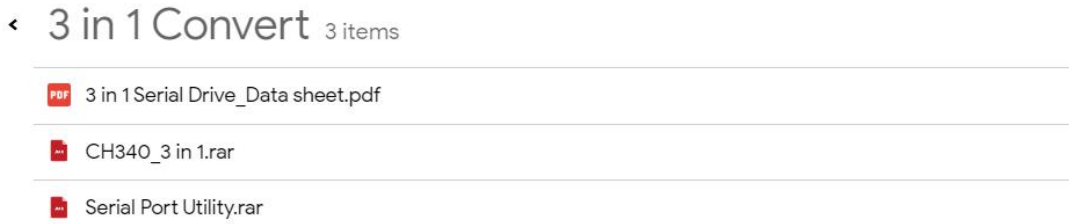
3 Sizes



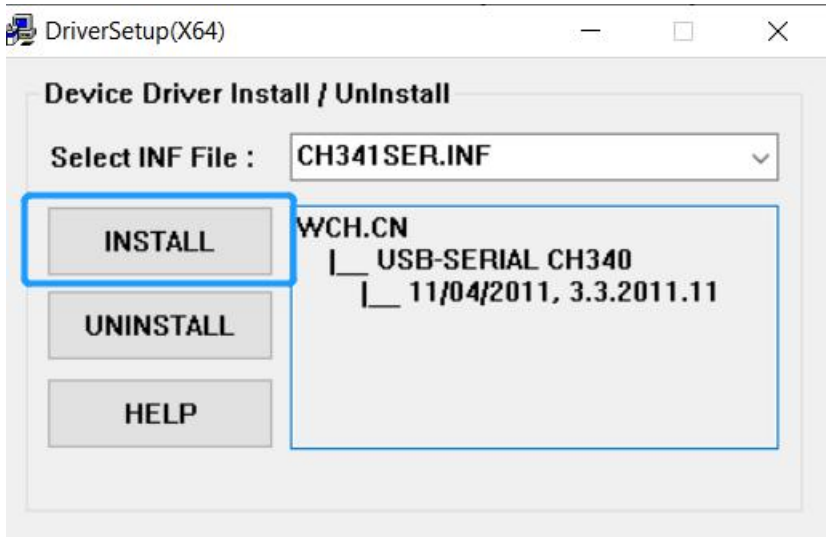
4 Using Method

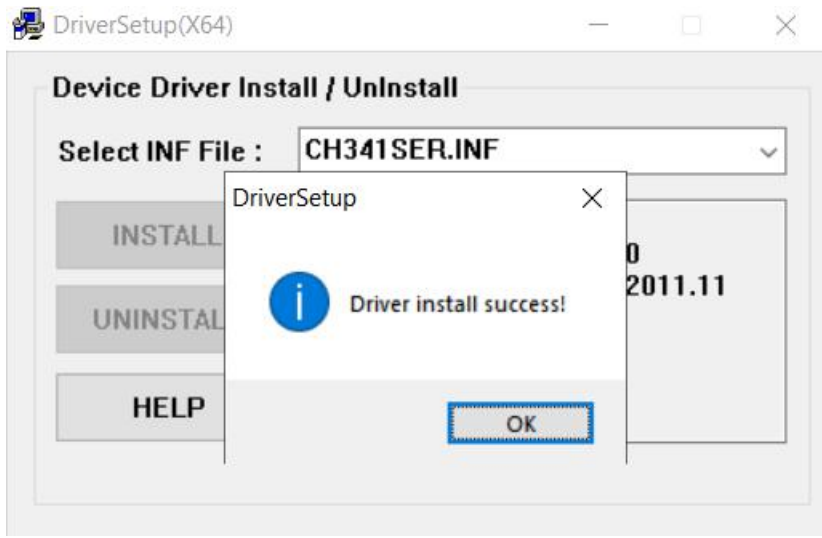
4.1 Install the Driver

Step 1. Download the driver and document at below link
Link to CH340 Driver



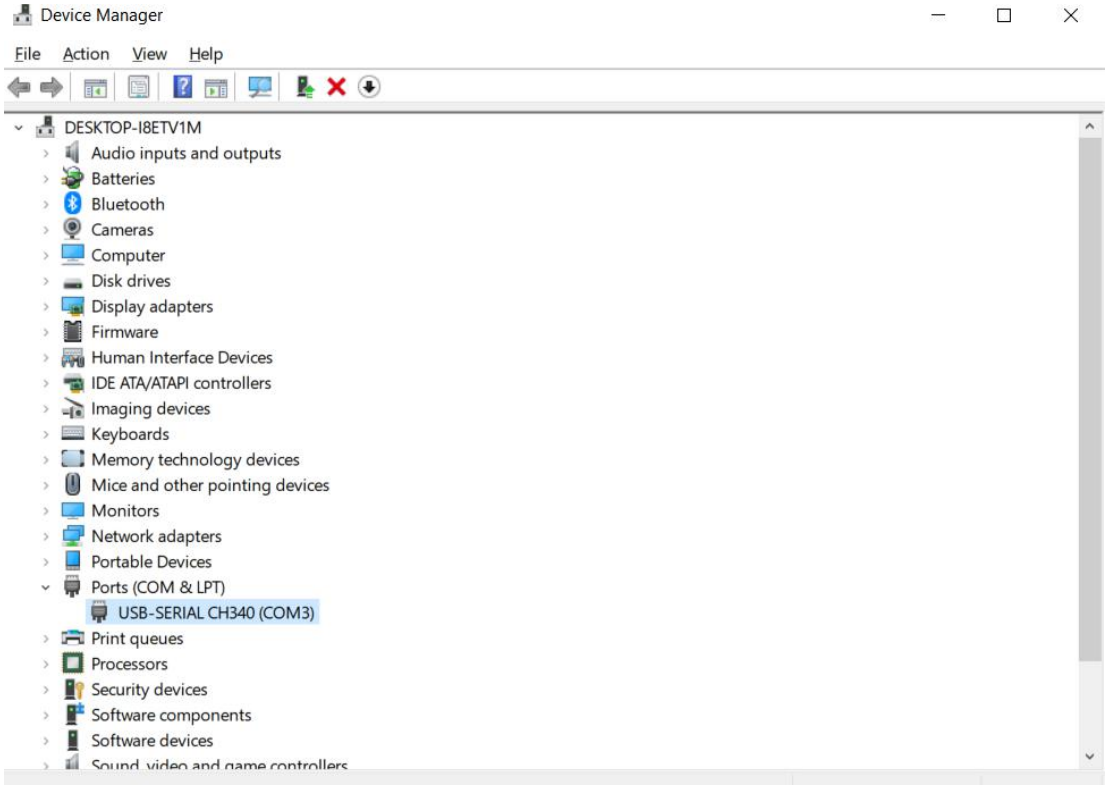
Step 2. Install the driver by following the steps.





4.2 Check Port Number

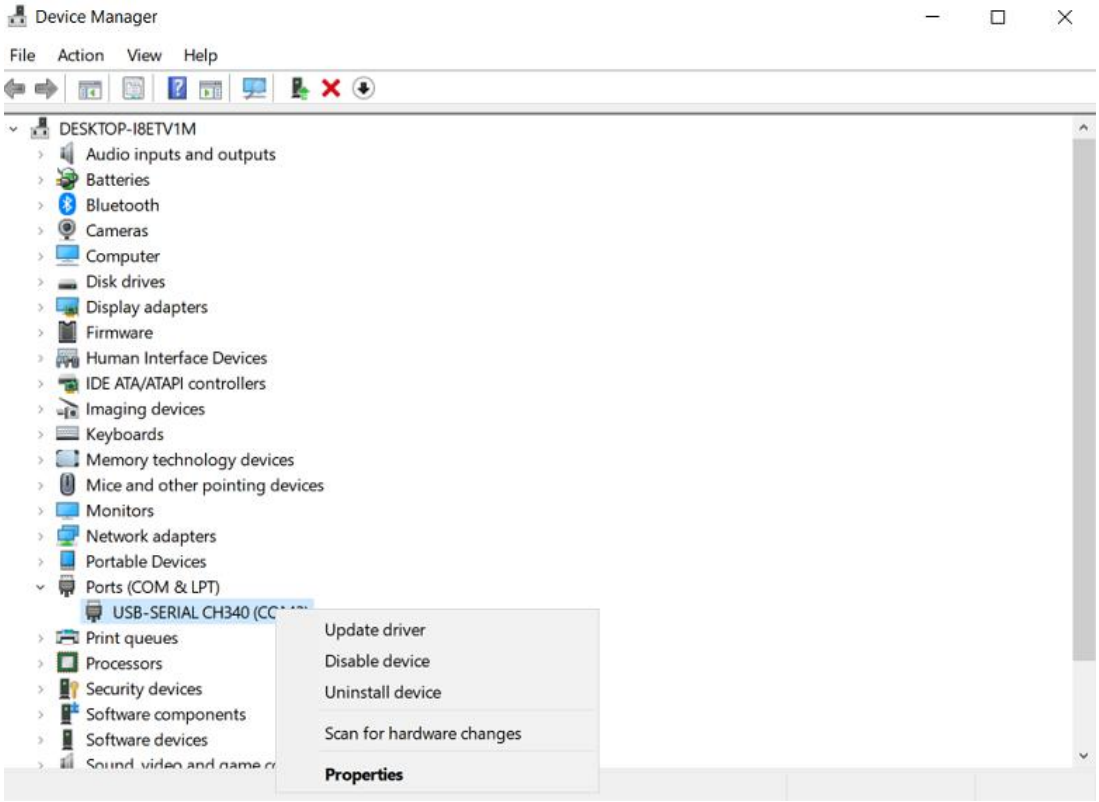
Right click my computer\management\Device manager\Port(COM&LPT).
You can see the generated port number, the port number is COM3.



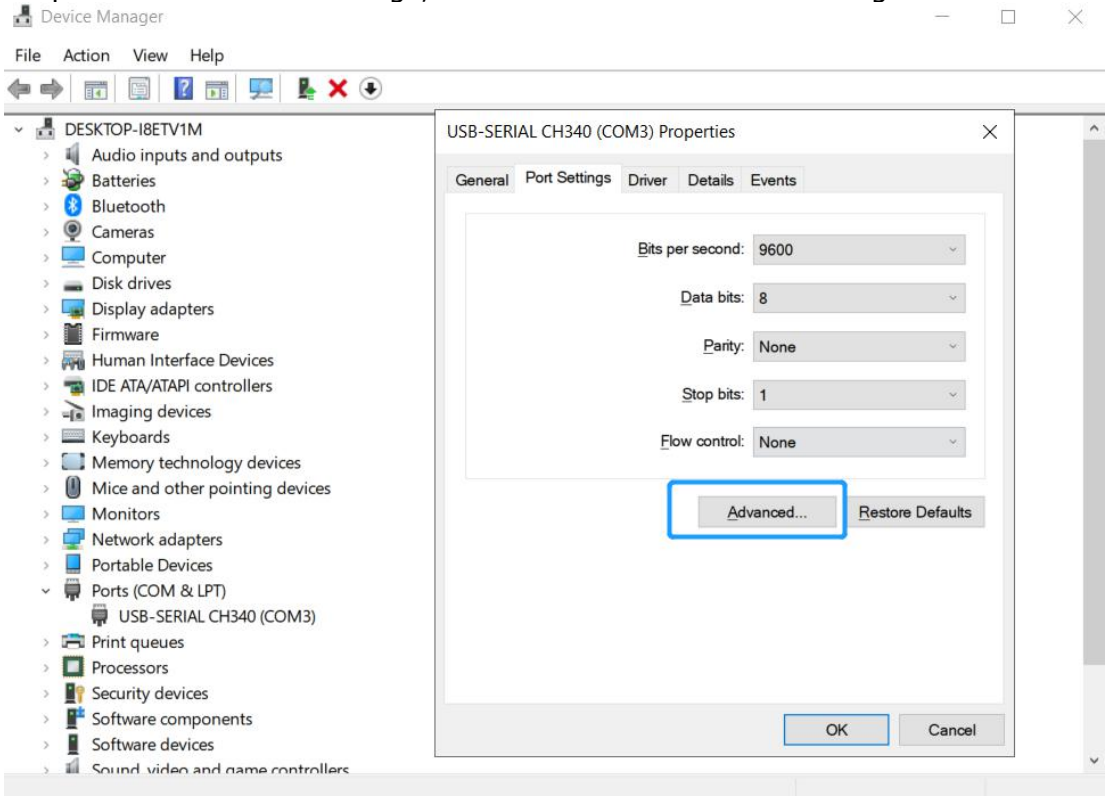
Change port number

Sometimes we will insert multiple USB serial ports into the computer. Sometimes we want the serial port number to be assigned in the way we expected, so we need to manually adjust the serial port number. For example, change the serial port 16 above to a serial port. The steps are as follows:

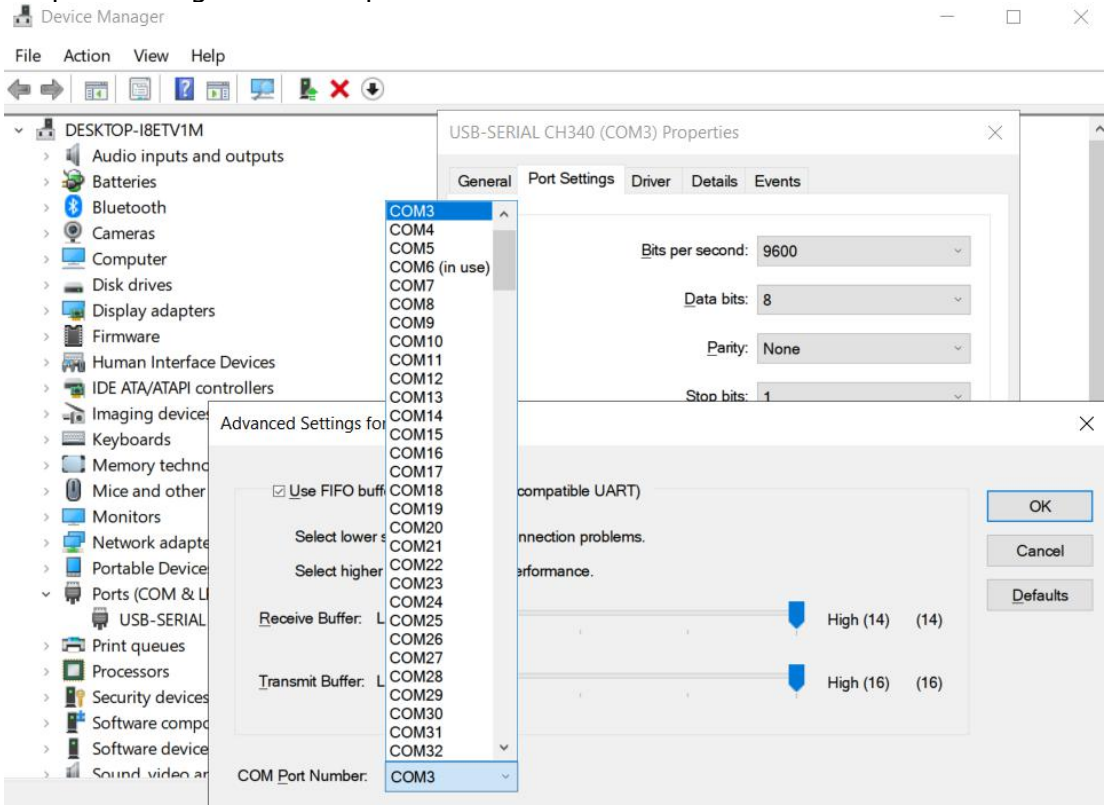
Step 1: Open the device manager, right click on the USB-SERIAL CH340 and select "Properties".



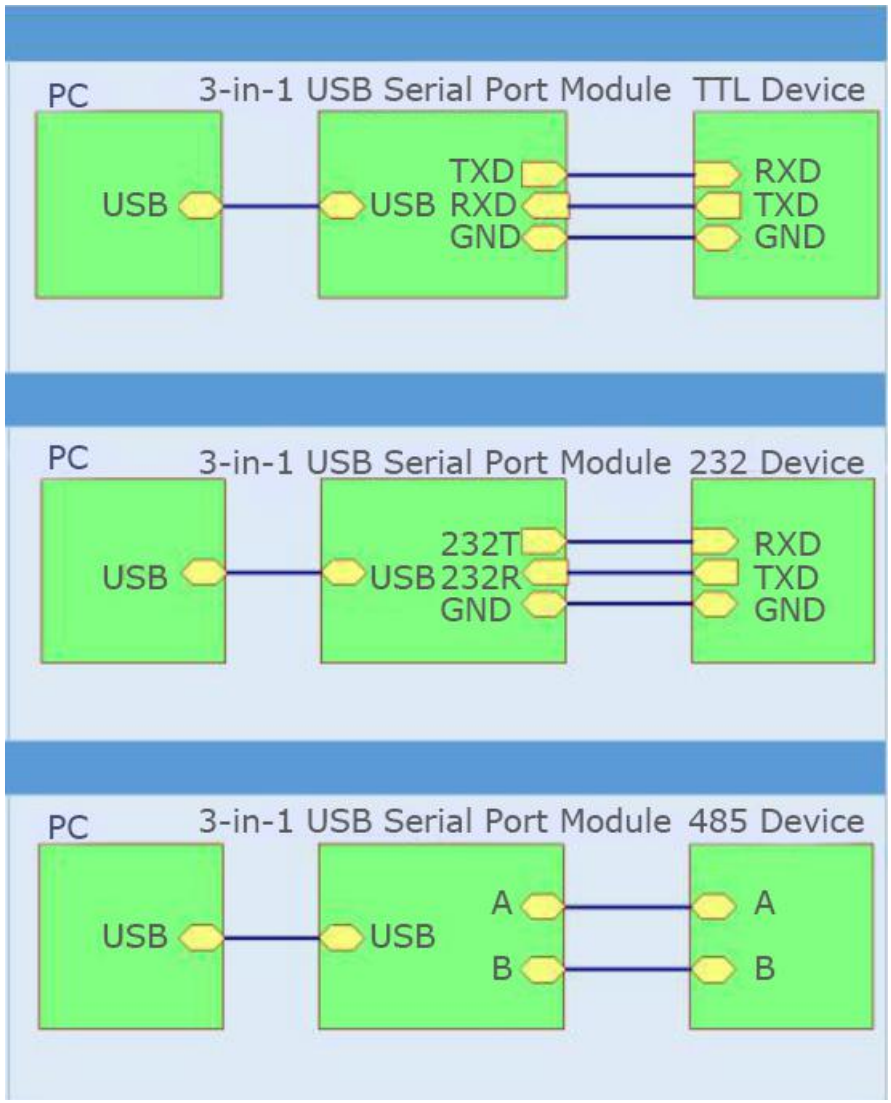
Step 2: Click on Port Settings, then click on "Advanced Settings".



Step 3: Change the COM port and click OK.



5 Connect Description



6 Function Test

Product functionality can be verified by USB to TTL self-loop test and USB to 232 self-loop test. Methods as below:

6.1 USB to TTL Self-closed Loop

Step 1
Connect the TXD and RXD of the module with a DuPont cable

Step 2
Follow the instructions in the function selection to dial the corresponding DIP switch

Step 3
Then insert the module into the computer

Step 4
Use the serial debugging assistant to send data to see if there is corresponding data returned.
If the data can be received, it proves that the module is functioning normally.

6.2 USB-232 Self-closed Loop

Step 1
Connect the 232T and 232R of the module with a DuPont cable

Step 2
Follow the instructions in the function selection to dial the corresponding DIP switch

Step 3
Then insert the module into the computer

Step 4
Use the serial debugging assistant to send data to see if there is corresponding data returned.
If the data can be received, it proves that the module is functioning normally.

6.3 USB-485 Testing

This mode test needs to cooperate with other 485 devices, such as using two 6-in-1 modules

Step 1
Take two 6-in-1 serial port modules, and set the DIP switch to USB to 485 mode

Step 2
Connect A and B of the two modules with Dupont wires, A connects to A and B connects to B

Step 3
Insert the module into the computer, open two serial debugging assistants

Step 4
Select the serial port numbers corresponding to the two 6-in-1 serial port modules respectively. Use one of them to see if the other serial port can receive the corresponding data

If the data can be received, it proves that the module is functioning normally.