

USR-TCP232-T24 products Getting Started Manual

version:ver1.0



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product summary

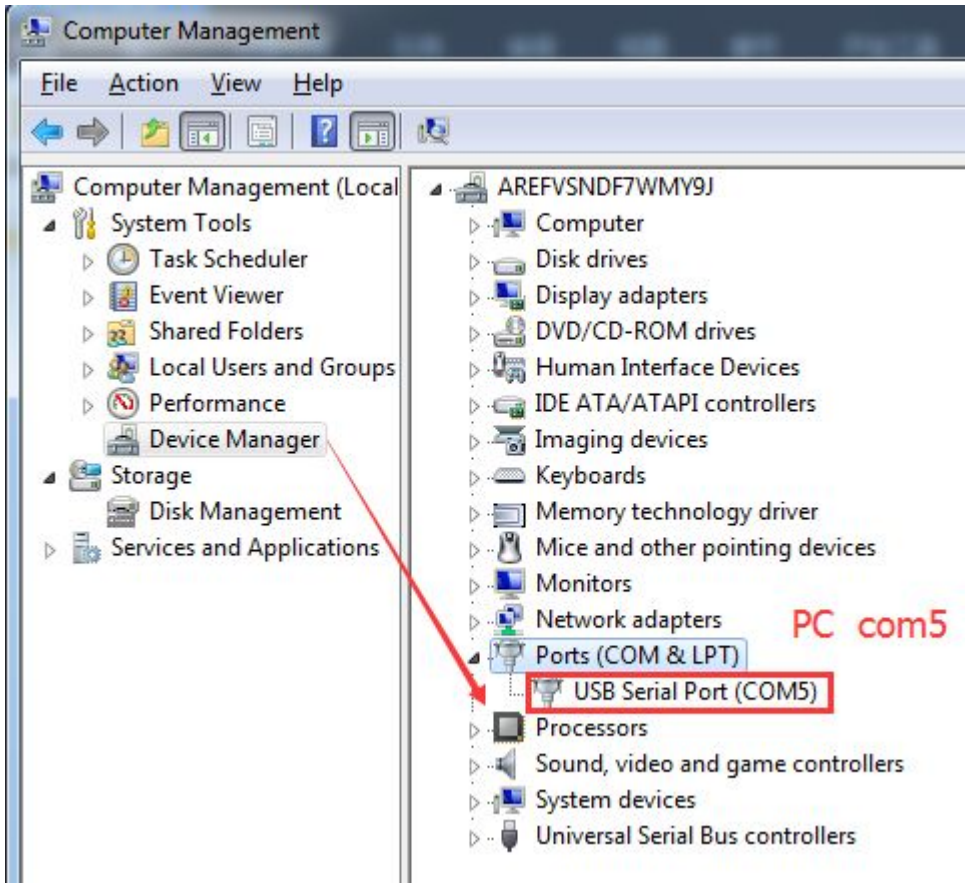
Model number	Power supply DC	Interface	Network port 10/100Mbps	Package Type (Module products)
USR-TCP232-S	3.3V	TTL	PHY chip network interface	Stamp Hole Package
USR-TCP232-T	5V/3.3V	TTL	Take 2kv magnetic isolation RJ45	Pin package (DIP package)
USR-TCP232-D	5V/3.3V	TTL	With 1.5KV PHY signal of electromagnetic separation	Pin package (DIP package)
USR-TCP232-2	5V power adapter/terminal	RS232	Take 2 kv magnetic isolation RJ45	
USR-TCP232-200	5V power adapter/terminal	RS232	Take 2 kv magnetic isolation RJ45	
USR-TCP232-24	5V power adapter/terminal	RS232/RS485	Take 2 kv magnetic isolation RJ45	
USR-TCP232-300	5V power adapter/terminal	RS232/RS485	Take 2 kv magnetic isolation RJ45	
USR-TCP232-442	5V power adapter/terminal	RS485/RS422	Take 2 kv magnetic isolation RJ45	



1. Initial test

To do this initial test, On the one hand, there is a preliminary understanding of the module, on the other hand, test module is working

Notice: PC should be disable other network cards, only leave one WIF network cards. Below PC COM port is COM5, when you test it, you should know your PC COM ports. How to check your PC COM port: “My computer -> properties -> device manager -> port”



1.1. Hardware connect

The basic function of the TCP232-300 serial server, data communication between the serial port and network. It is the serial data transmitted to the network, the forwarding of data from the network to the serial port.



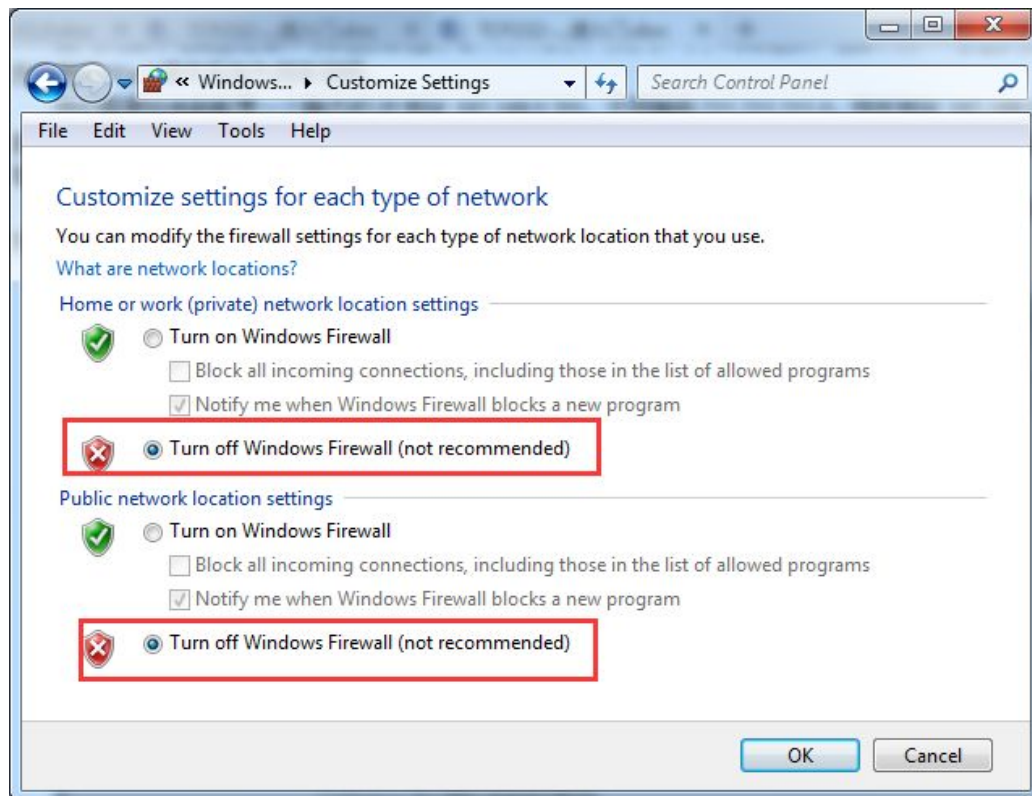
The module of serial port to connect to the serial port of computer, module RJ45 port connected to the computer

RJ45 port.

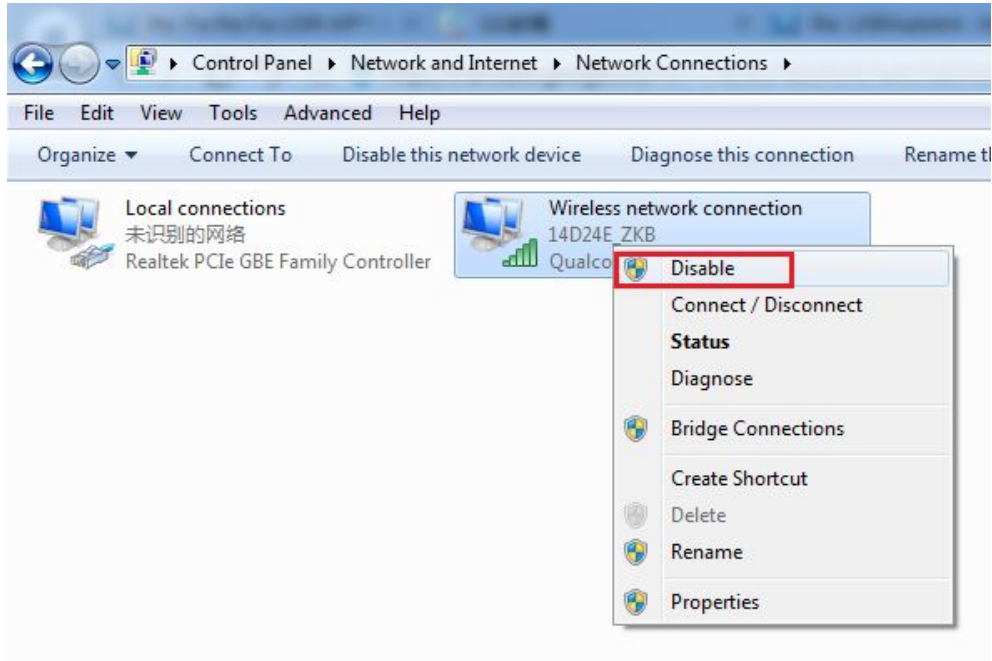
The hardware connection is completed, Ethernet port, the green light, yellow light flashing

1.2. Network connection

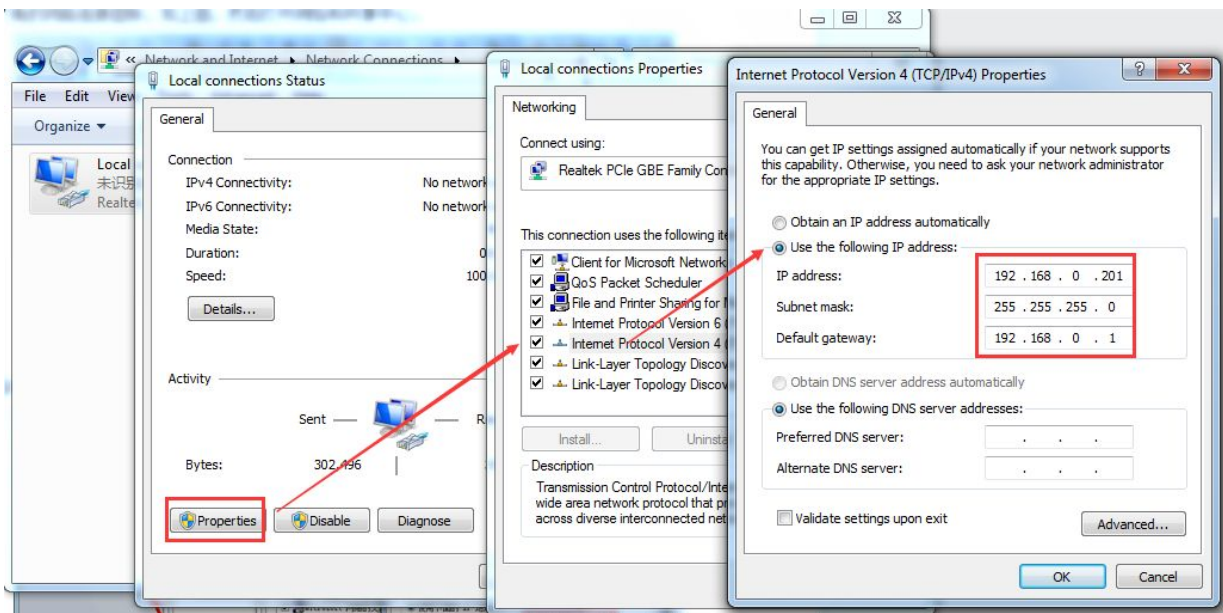
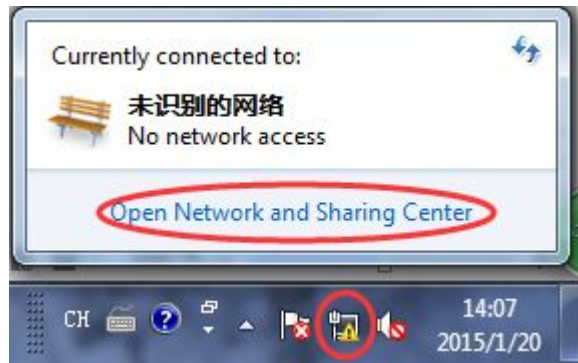
Close the firewall



Disable wireless network connection

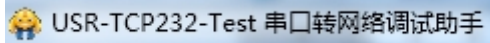


Setup the computer IP address:192.168.0.201

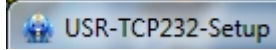


1.3. Related test software

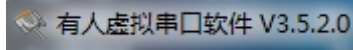
USR-TCP232-Test (<http://www.usr.cn/Download/27.html>)



USR-TCP232-Setup (<http://www.usr.cn/Download/28.html>)

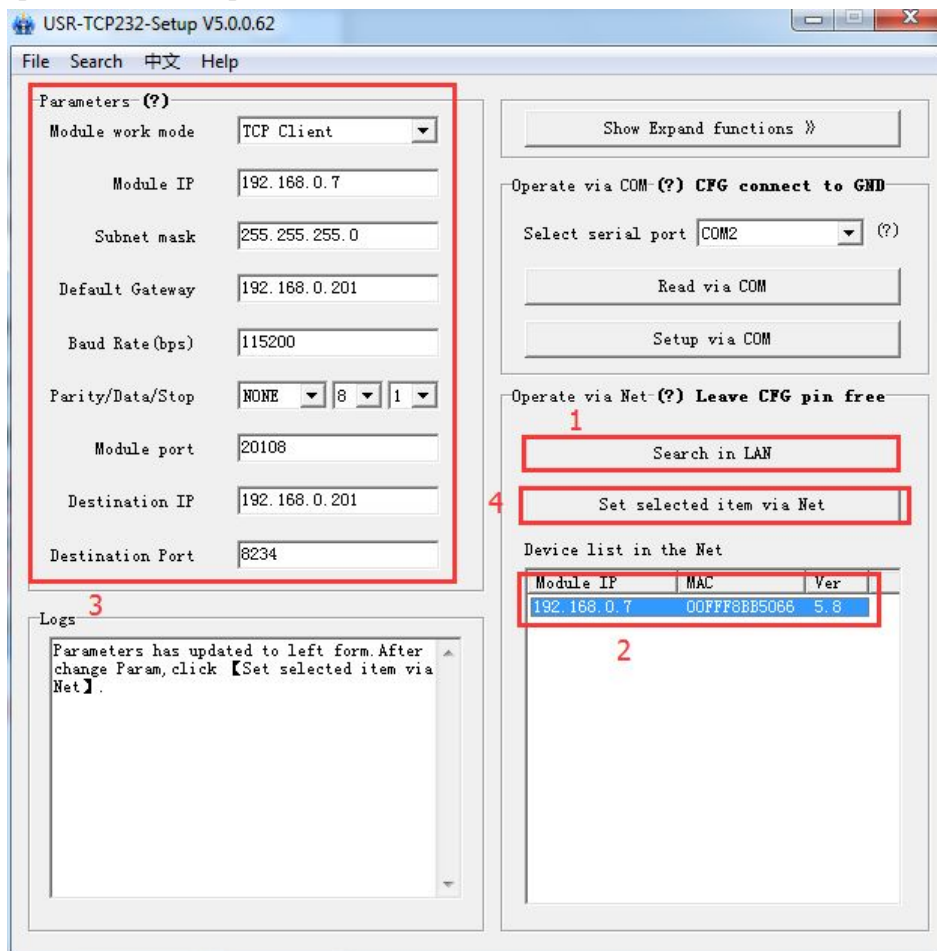


USR-VCOM (<http://www.usr.cn/Download/31.html>)



1.4. Data send/receive test

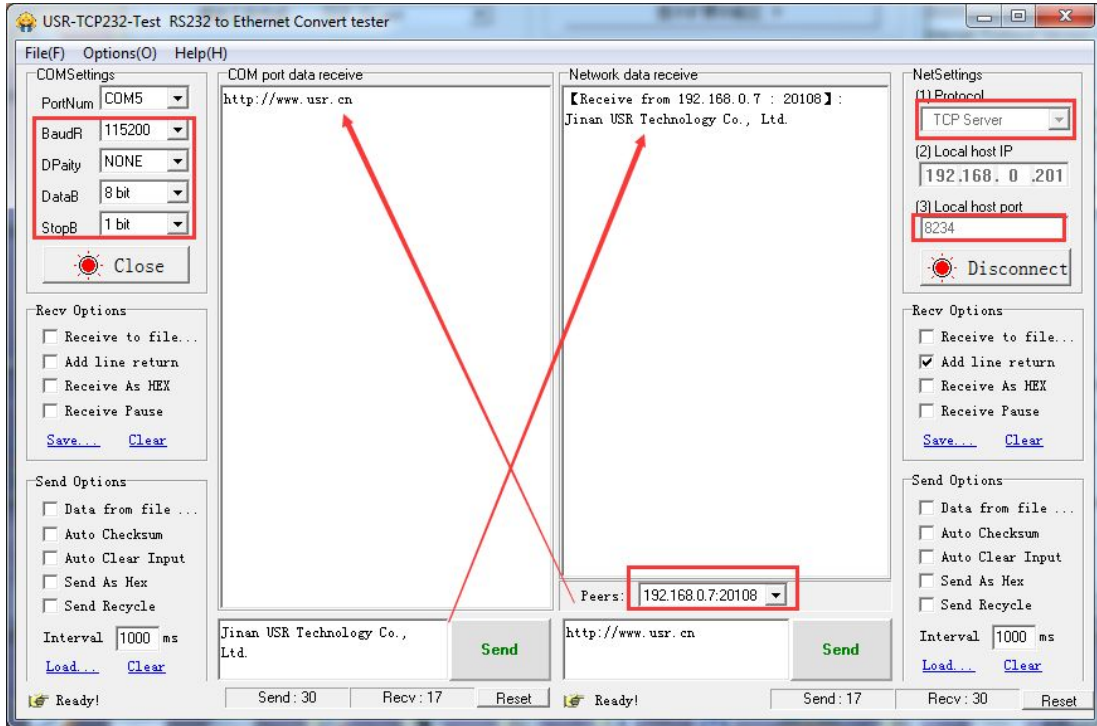
1.4.1: Set the step and the default parameters



1.4.2: Use the USR - TCP232 - TEST software TEST to send and receive data

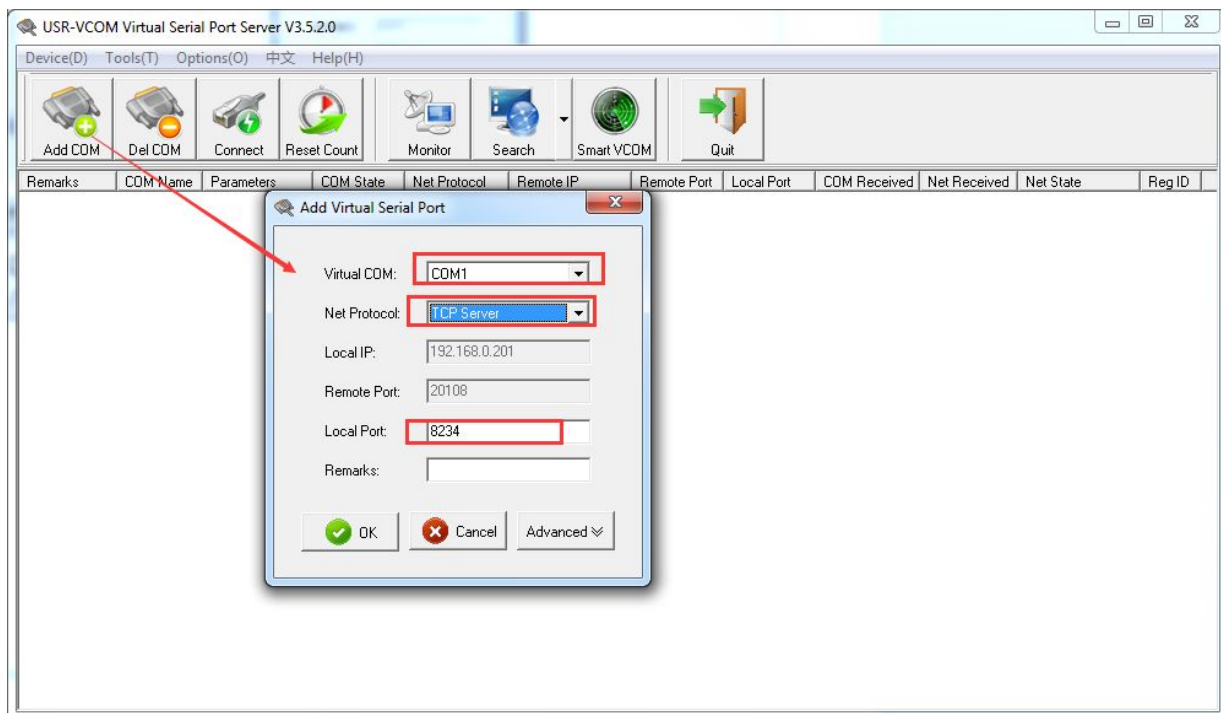


Open USR-TCP232-Test. exe software, select COM 5, baud rate 115200, select open serial ports
Net setting, set as TCP server, local port:8234.



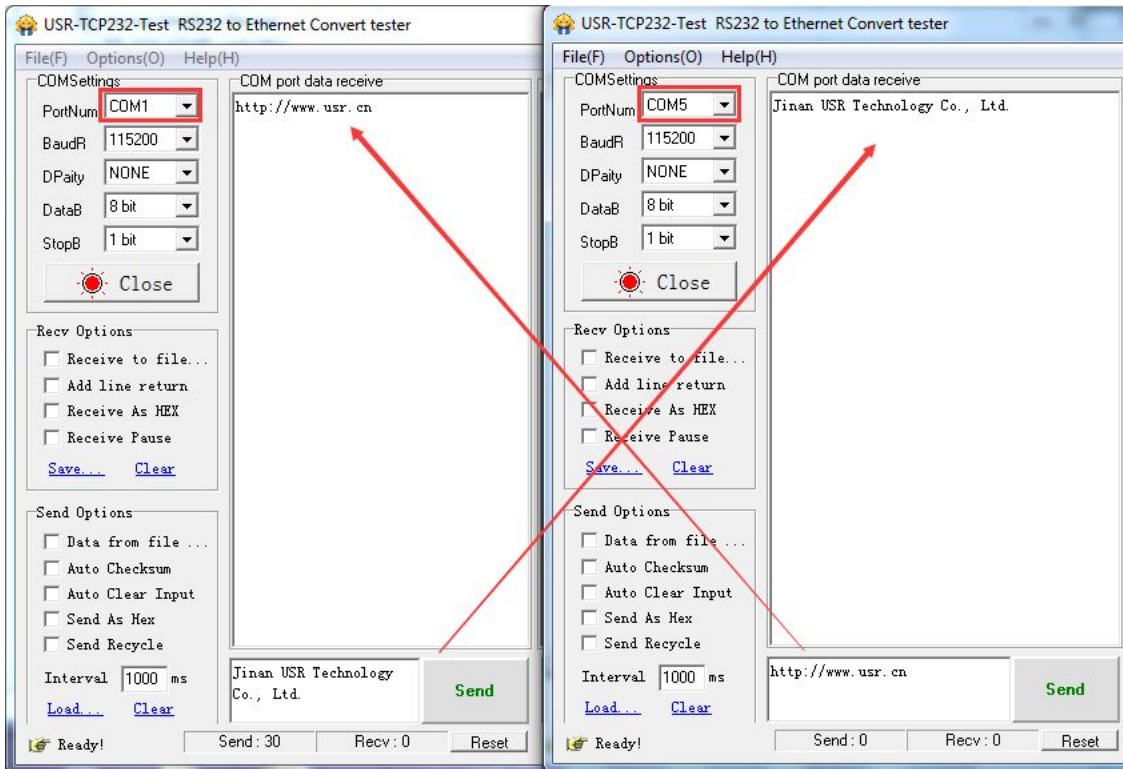
1.4.3: The software virtual serial port communication test

Add COM com1, TCP server Local port 8234.



Virtual serial port com1 and PC serial port communication between com5 test:

Network to serial port data flow direction: PC Virtual serial > module RJ45 port->module serial port->PC serial port



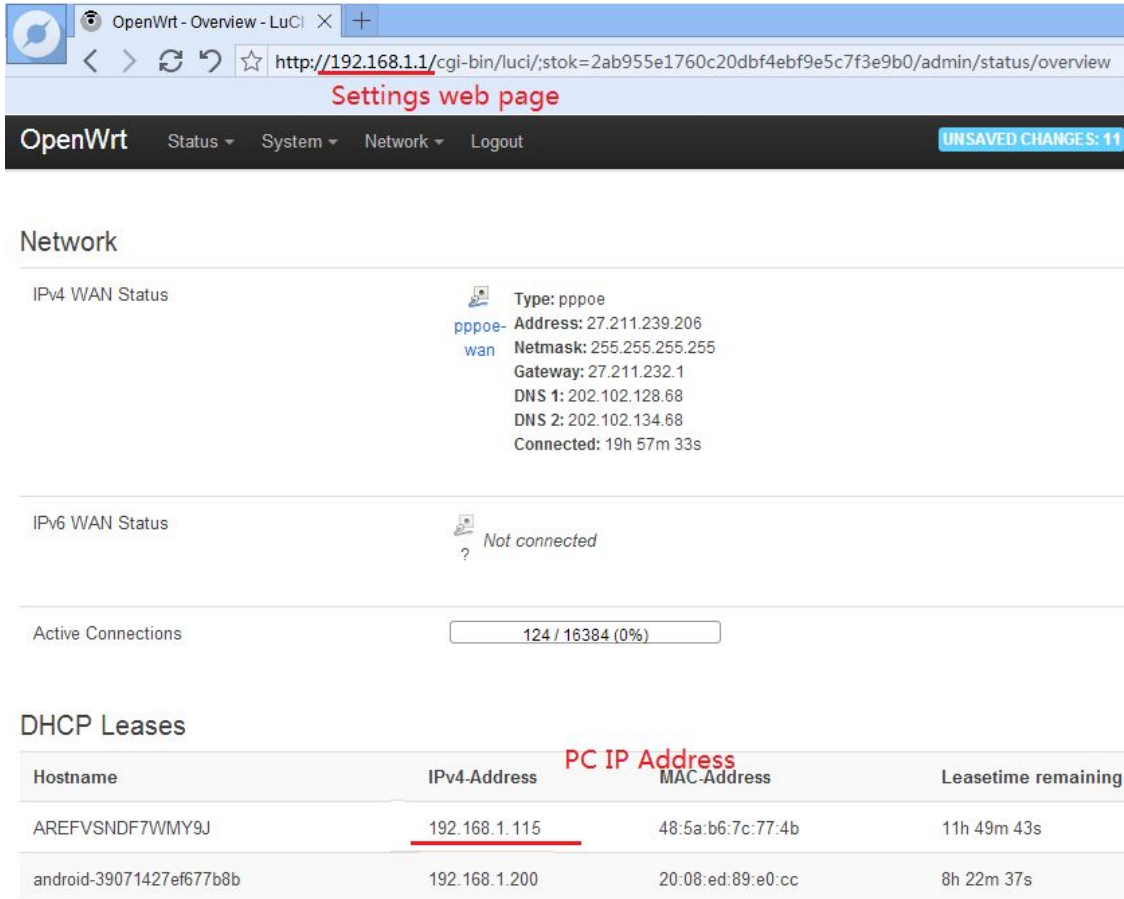
2. Method of use

2.1. serial device server connected to the router communication mode.

2.1.1:

The router IP is 192.168.1.1.LAN segments is 192.168.1. X.But the module is the default IP 192.168.0.7.So you need to change the IP module.

2.1.2: router IP: 192.168.1.1.. PC IP:192.168.1.115.



The screenshot shows the OpenWrt LuCI Settings web page. The browser address bar displays `http://192.168.1.1/cgi-bin/luci/stok=2ab955e1760c20dbf4ebf9e5c7f3e9b0/admin/status/overview`. The page title is "Settings web page". The navigation menu includes "OpenWrt", "Status", "System", "Network", and "Logout". A notification in the top right corner indicates "UNSAVED CHANGES: 11".

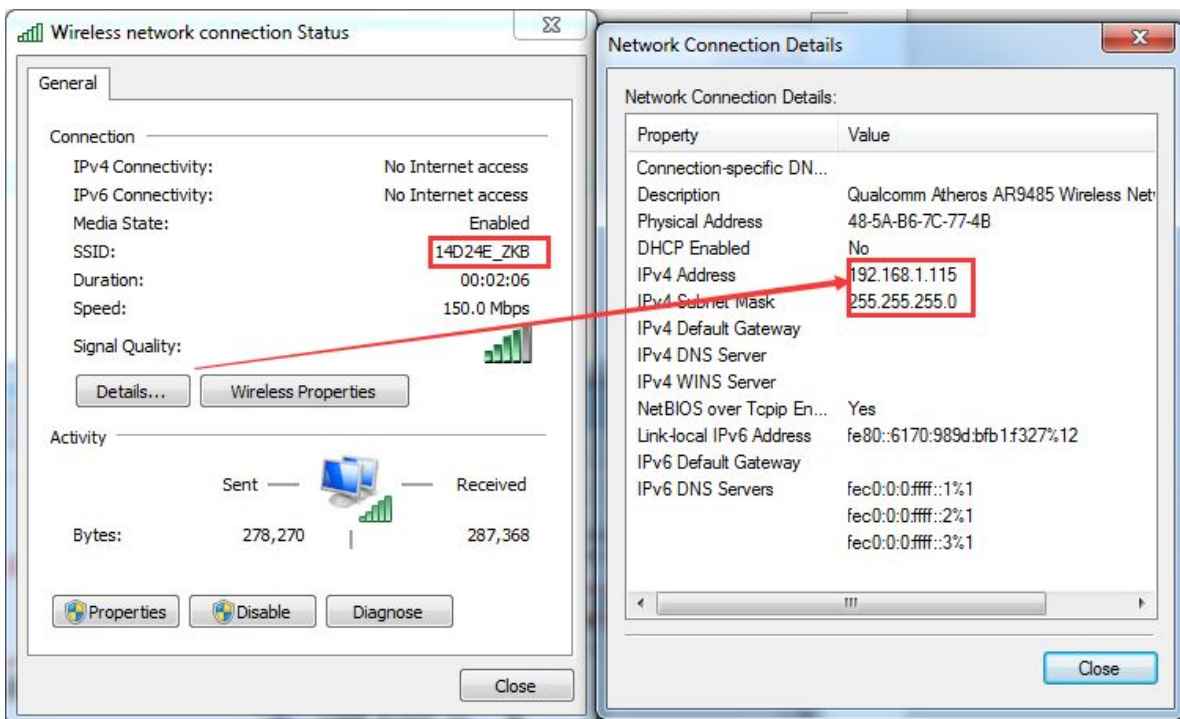
The "Network" section displays the following information:

- IPv4 WAN Status:** Type: pppoe, Address: 27.211.239.206, Netmask: 255.255.255.255, Gateway: 27.211.232.1, DNS 1: 202.102.128.68, DNS 2: 202.102.134.68, Connected: 19h 57m 33s.
- IPv6 WAN Status:** Not connected.
- Active Connections:** 124 / 16384 (0%).

The "DHCP Leases" section contains the following table:

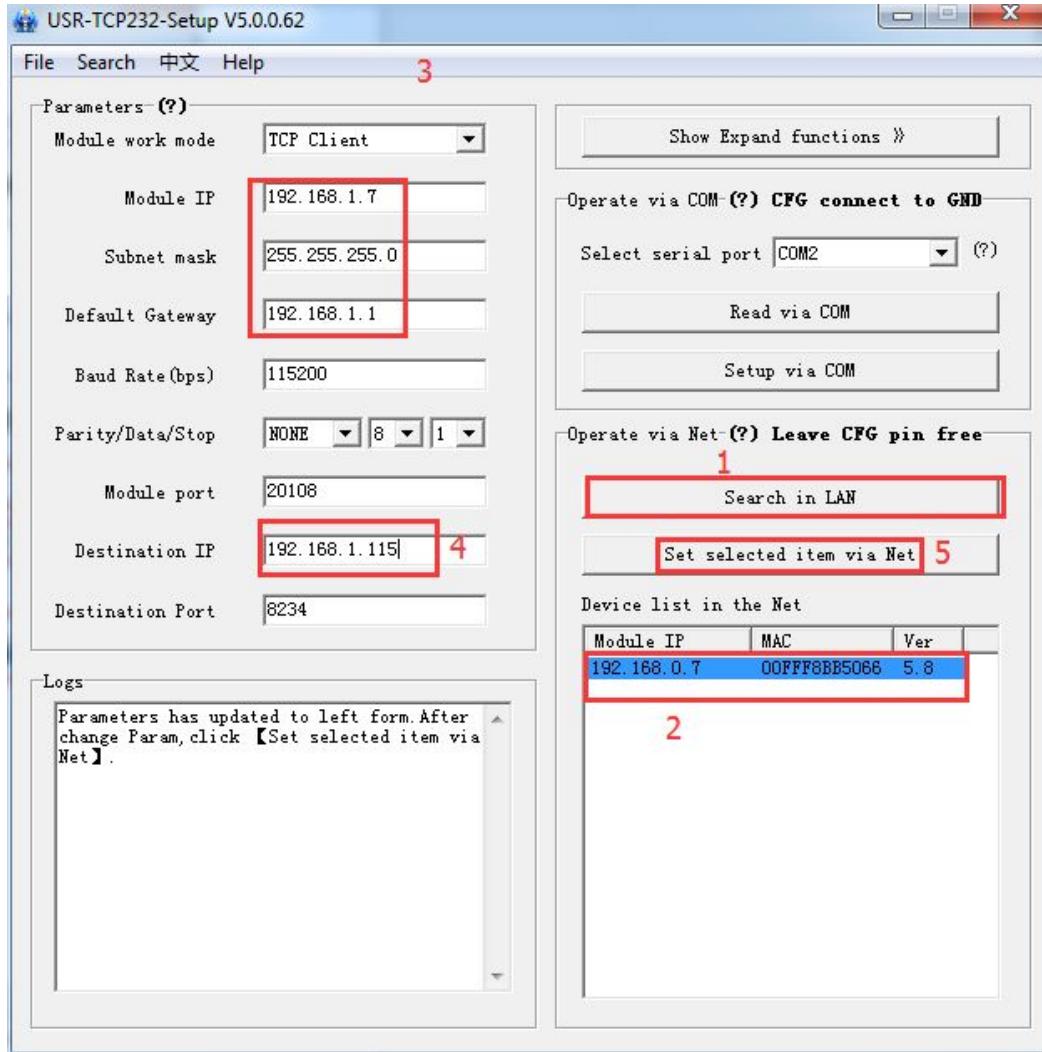
Hostname	IPv4-Address	MAC-Address	Leasetime remaining
AREFVSND7WWMY9J	192.168.1.115	48:5a:b6:7c:77:4b	11h 49m 43s
android-39071427ef677b8b	192.168.1.200	20:08:ed:89:e0:cc	8h 22m 37s

PC IP address:

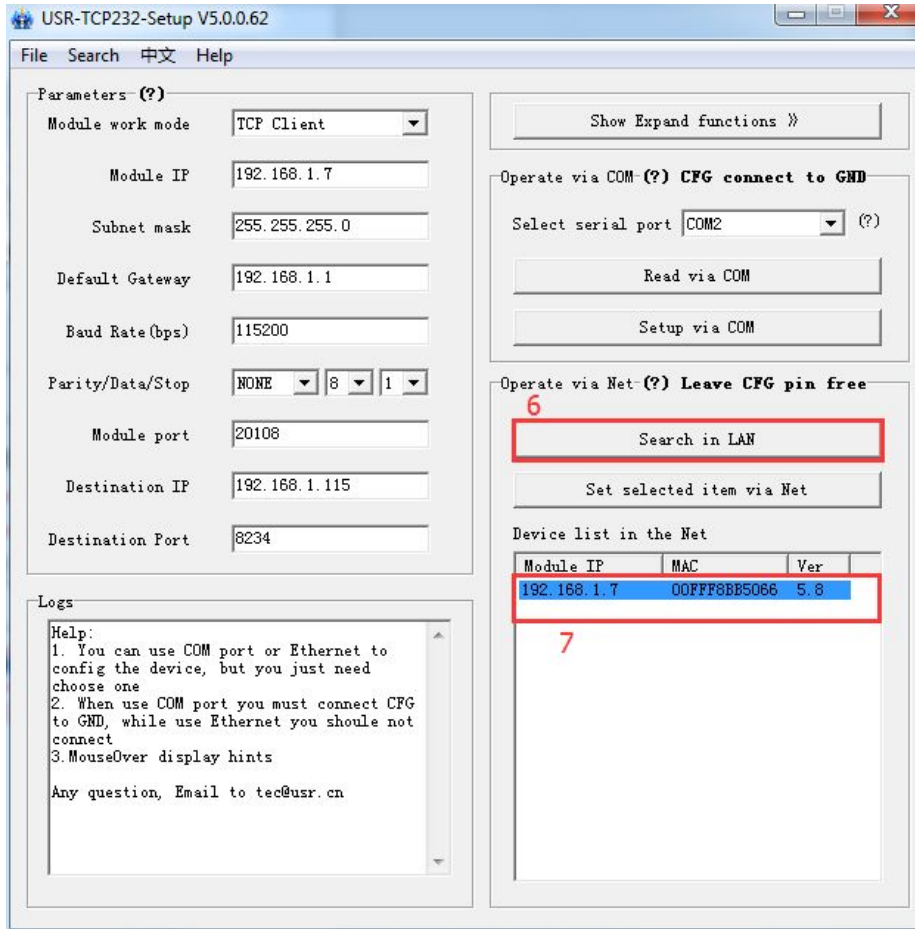


The screenshot shows two Windows network status windows. The "Wireless network connection Status" window shows the SSID as "14D24E_ZKB" and the IPv4 address as "192.168.1.115". The "Network Connection Details" window shows the IPv4 Address as "192.168.1.115" and the IPv4 Subnet Mask as "255.255.255.0". A red arrow points from the IP address in the "Wireless network connection Status" window to the "Network Connection Details" window.

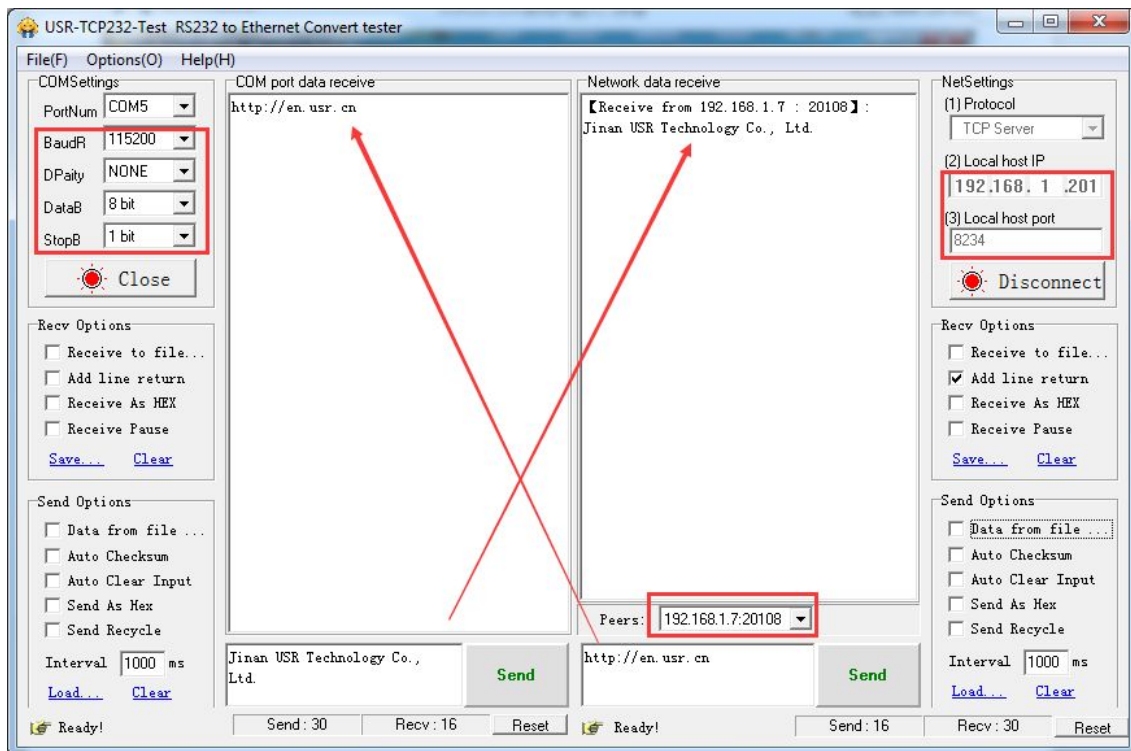
2.1.3: Modify the module IP address



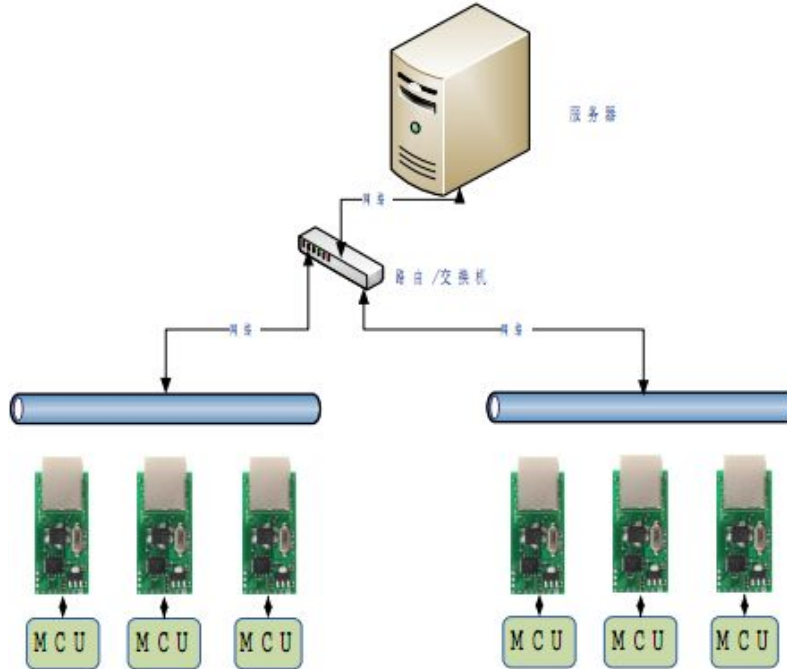
2.1.4: Search in LAN ,Modify the success



2.1.5: Use the USR - TCP232 - TEST software TEST to send and receive data

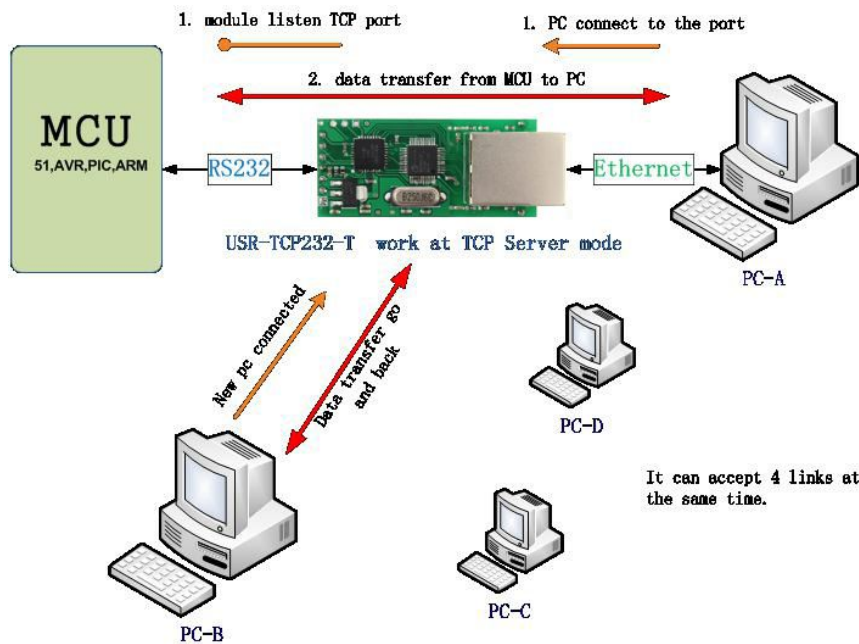


2.2. USR-TCP232-T24 Series modules connect to the server setup method

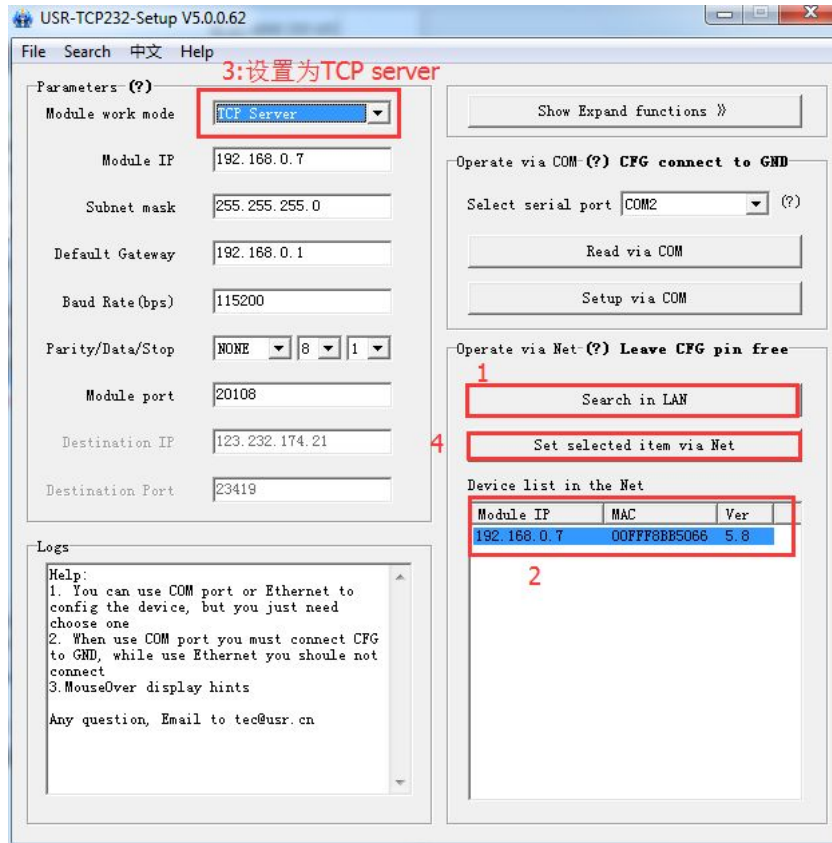


Web link: <http://www.usr.so/Faq/67.html>

2.3. TCP server mode setting

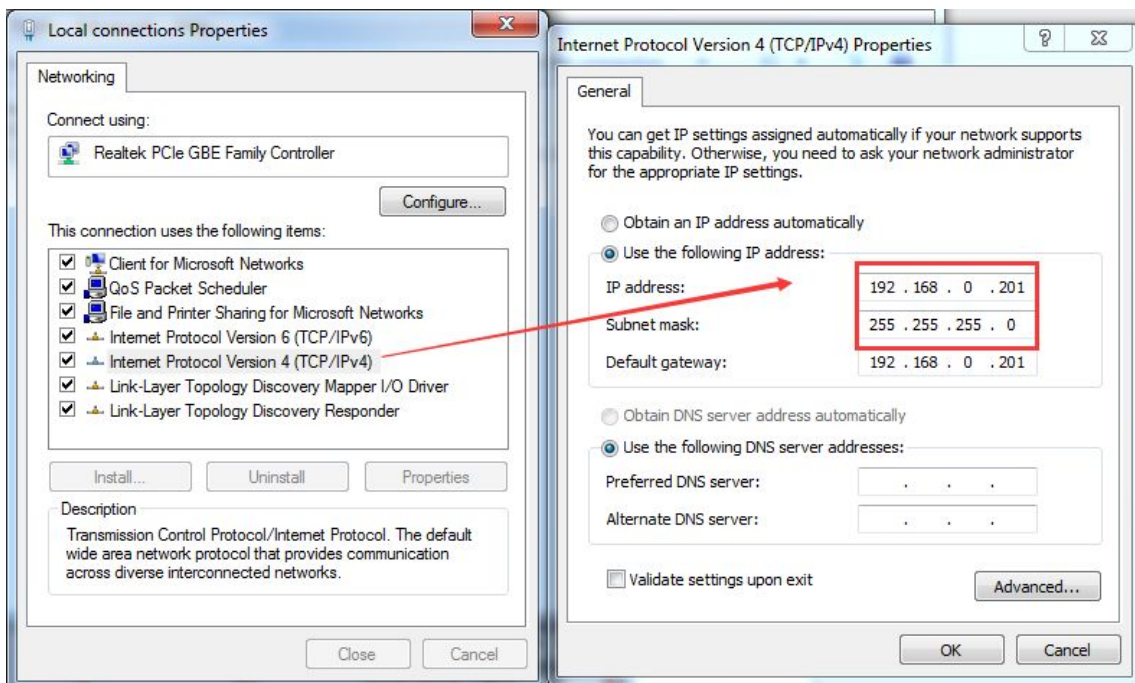


2.4.1: software Settings

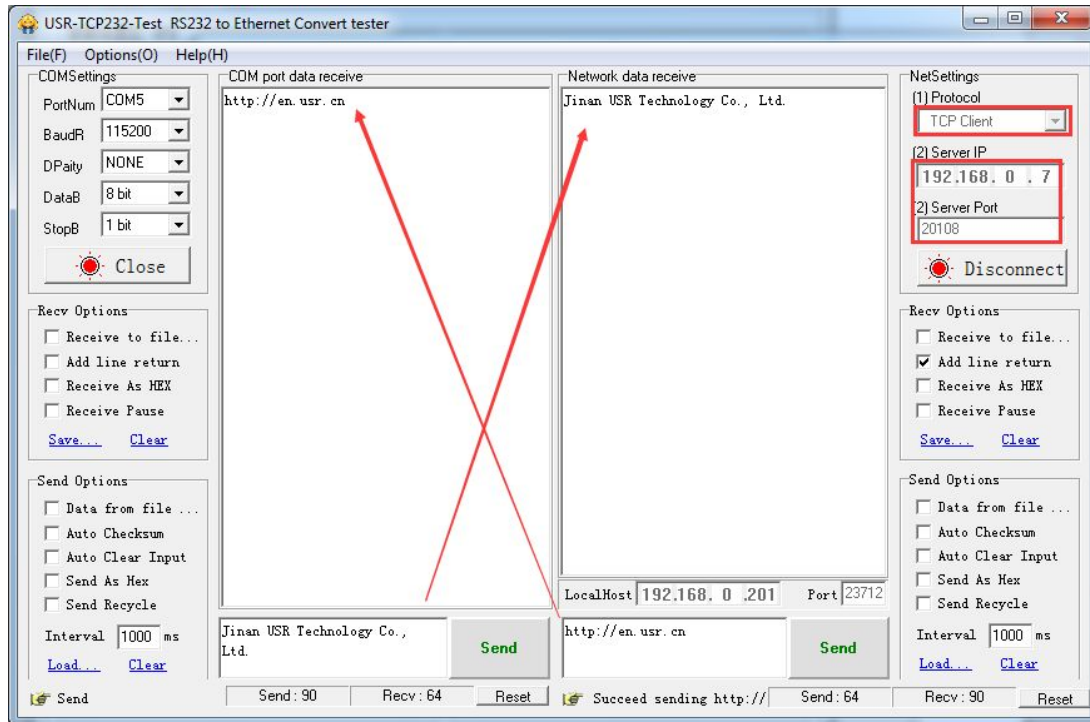


2. 4. 2: Serial to Ethernet Server front-end ports connected to computers

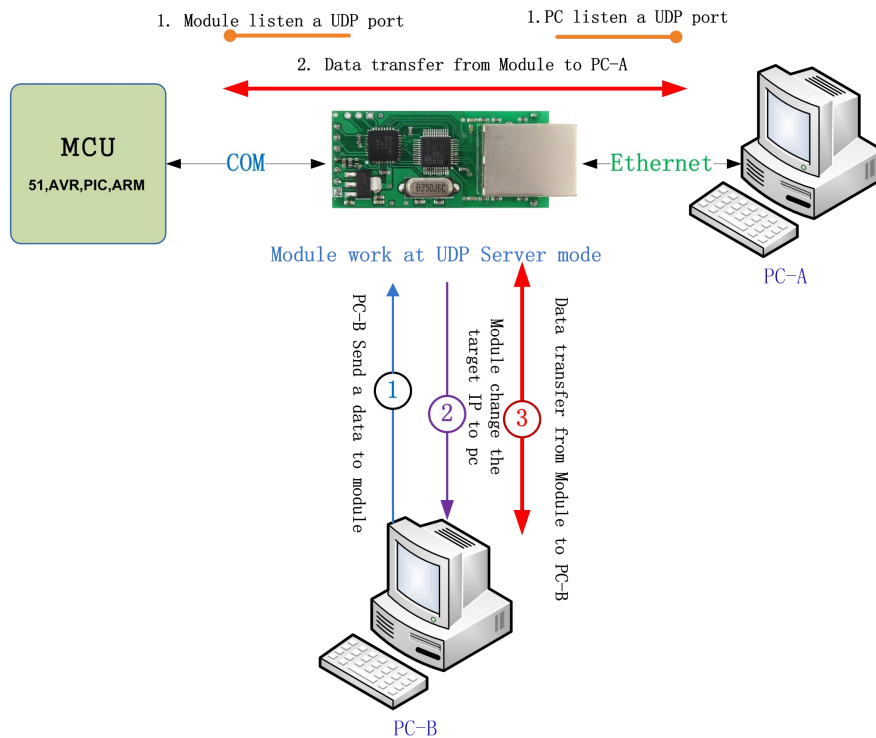
Computer set a static IP address:192.168.0.201



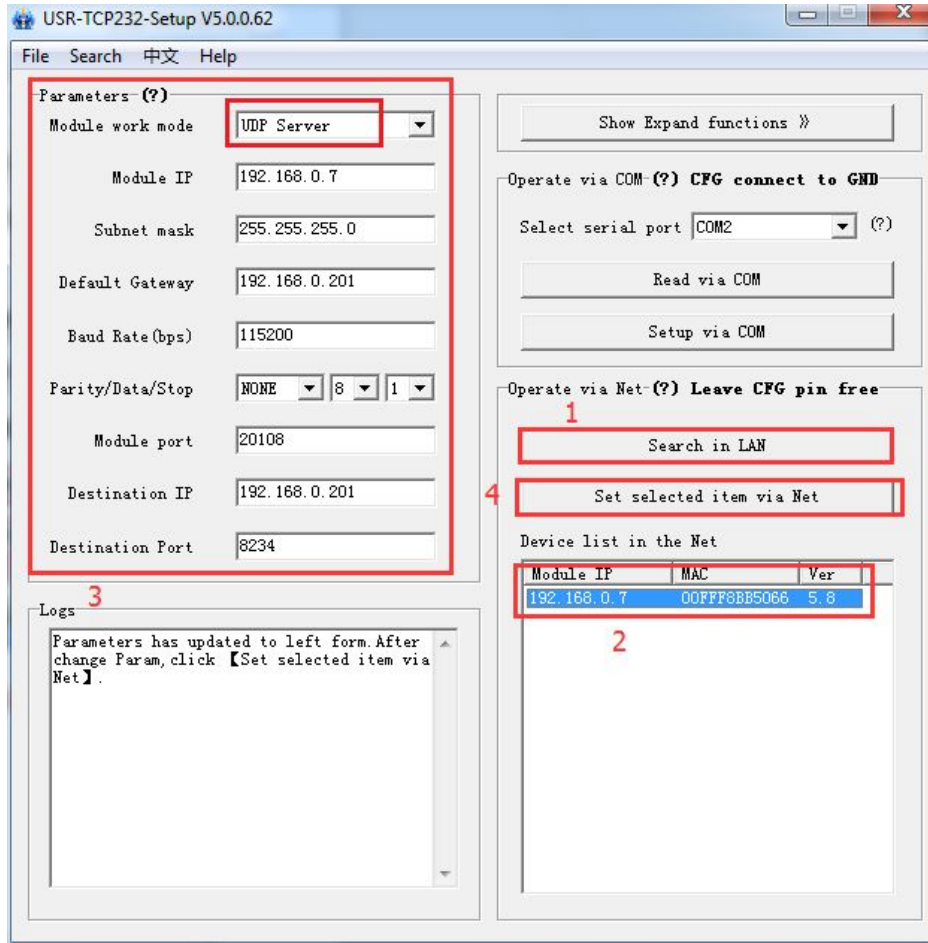
2. 4. 3: Use the USR - TCP232 - TEST software TEST to send and receive data



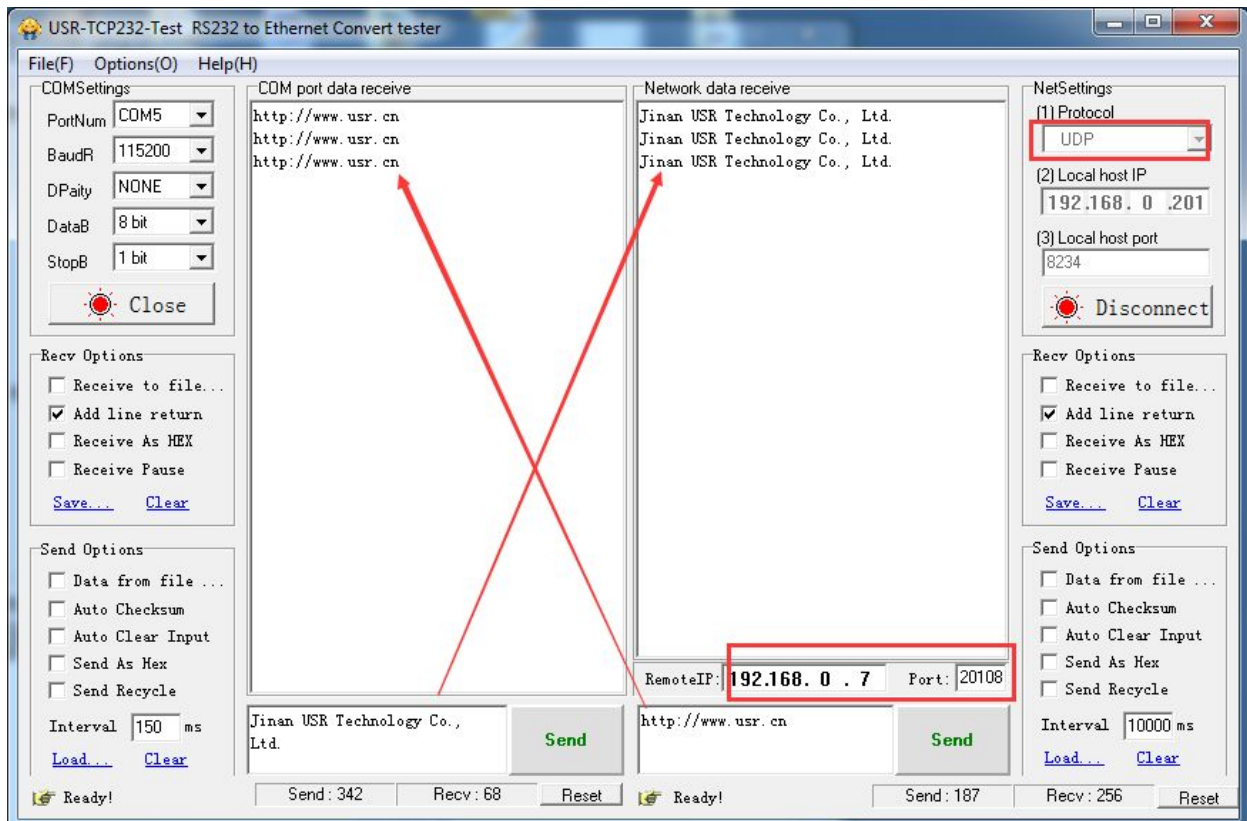
2.4. UDP server mode



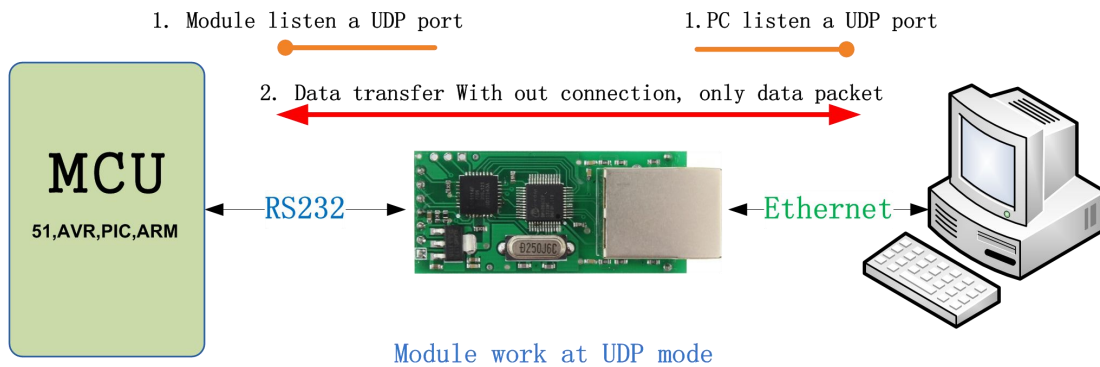
2.4.1: setup parameters



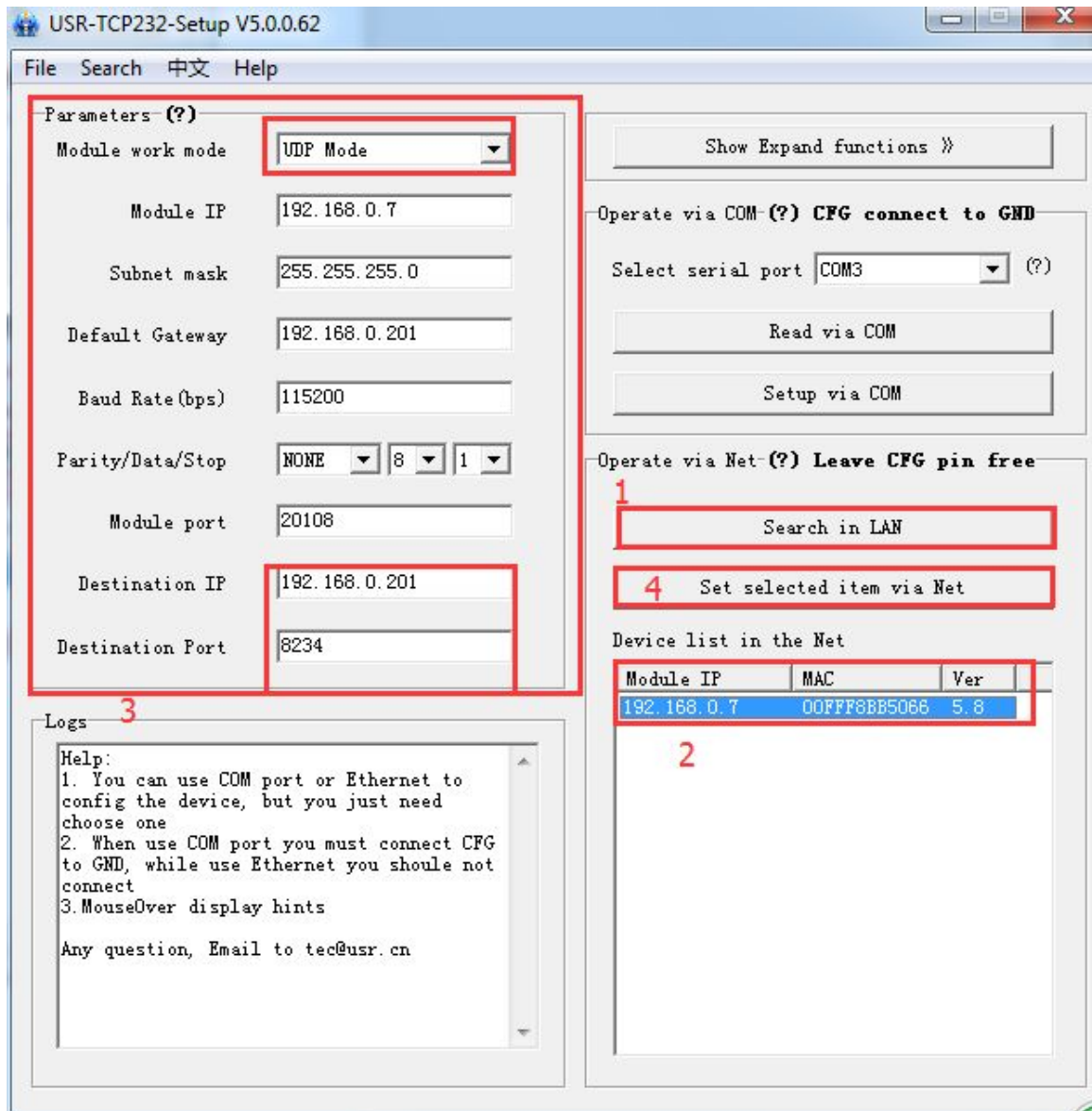
2.4.2: Use the USR - TCP232 - TEST software TEST to send and receive data



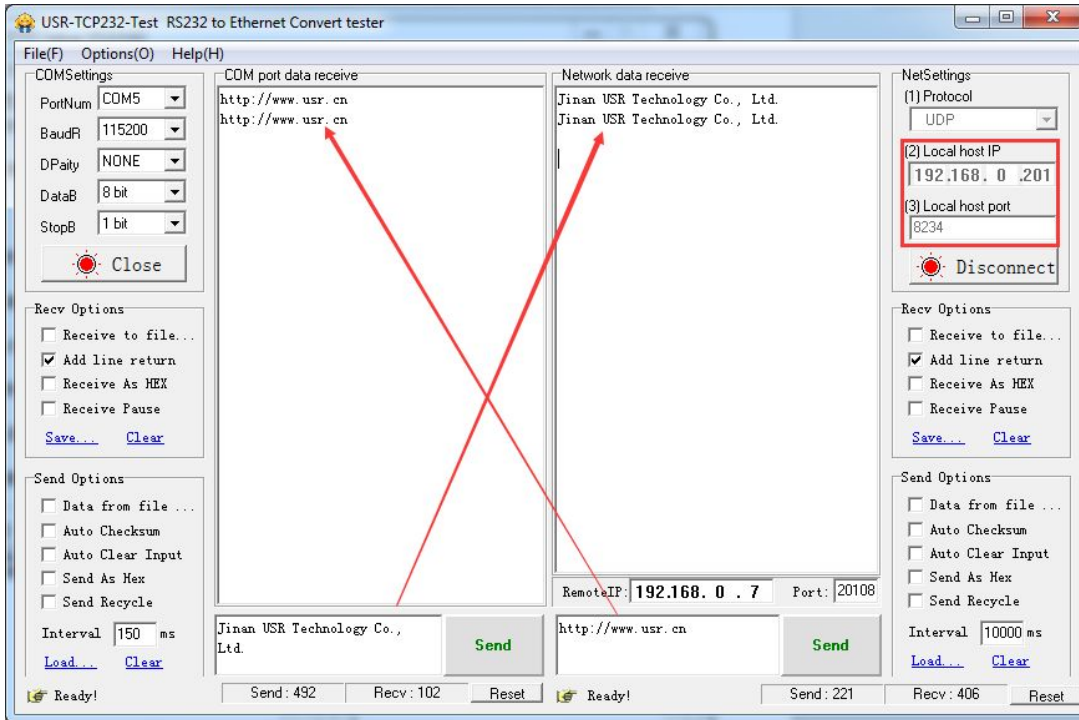
2.5. UDP Mode



2.5.1: setup parameters



2.5.2: Use the USR - TCP232 - TEST software TEST to send and receive data

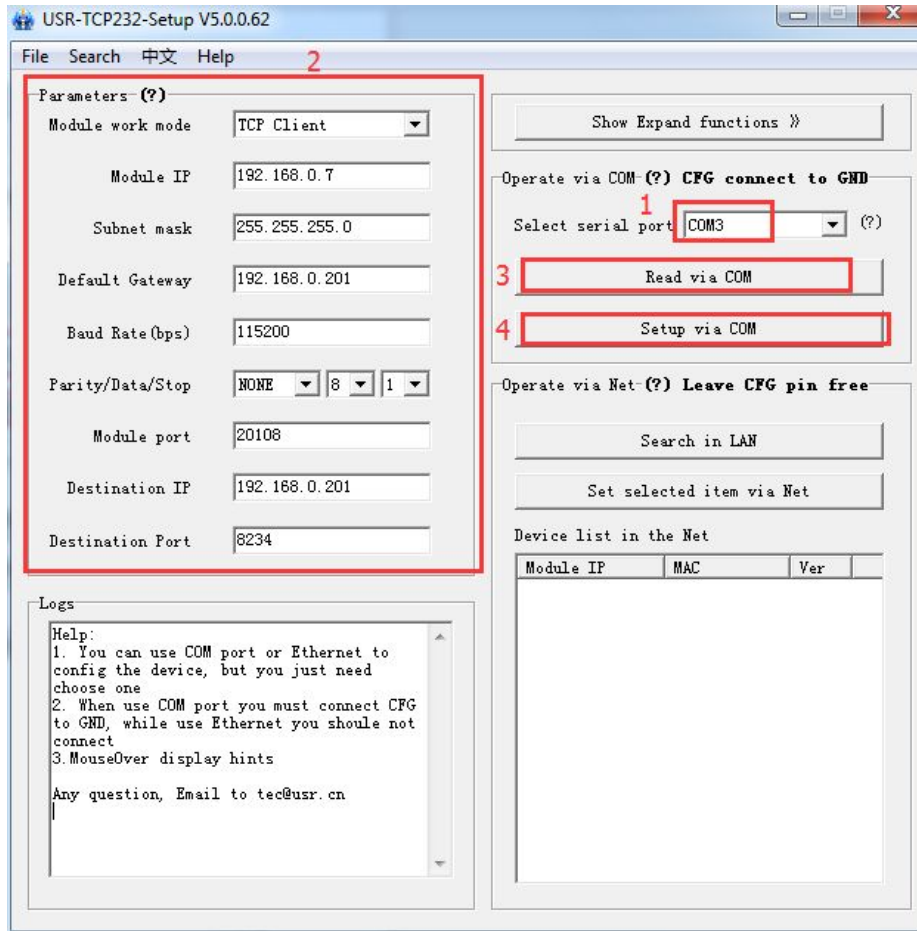


3. Common applications

3.1. serial port setup

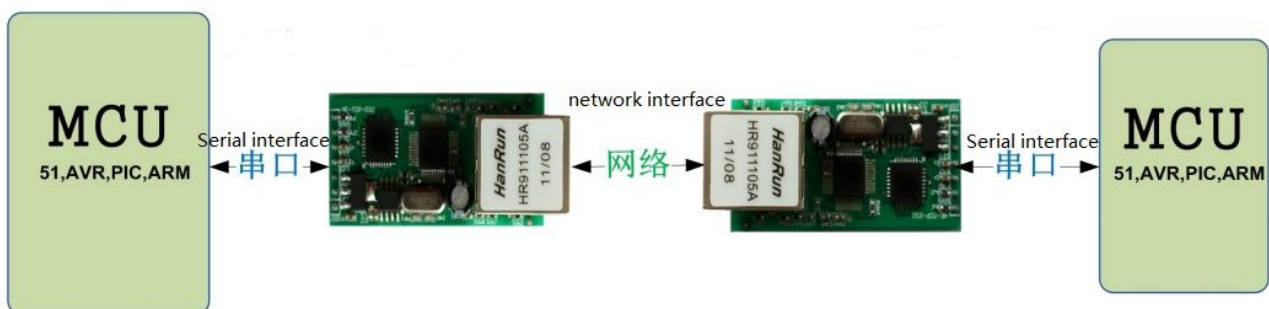
Module is connected with the computer serial port,GND pin and CFG pin connection

Using the software Settings:



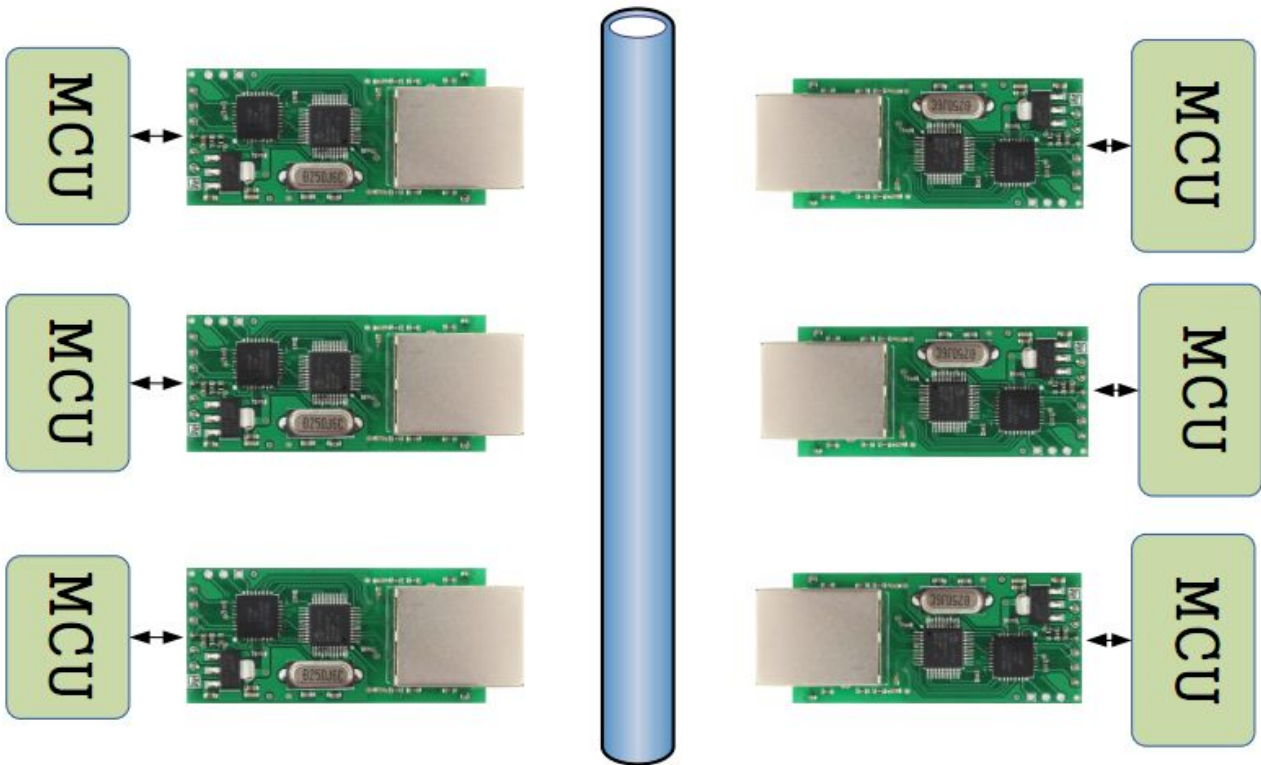
Setup successfully, disconnect with CFG GND pin nipple

3.2. Two TCP232 modules transparent transmission concrete steps



Web link: <http://www.usr.so/Faq/45.html>

3.3. Many to many serial communication



Web link: <http://www.usr.so/Faq/66.html>