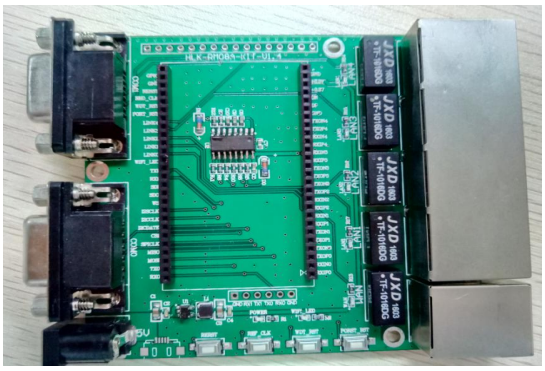
HLK-7688A USER MANUAL

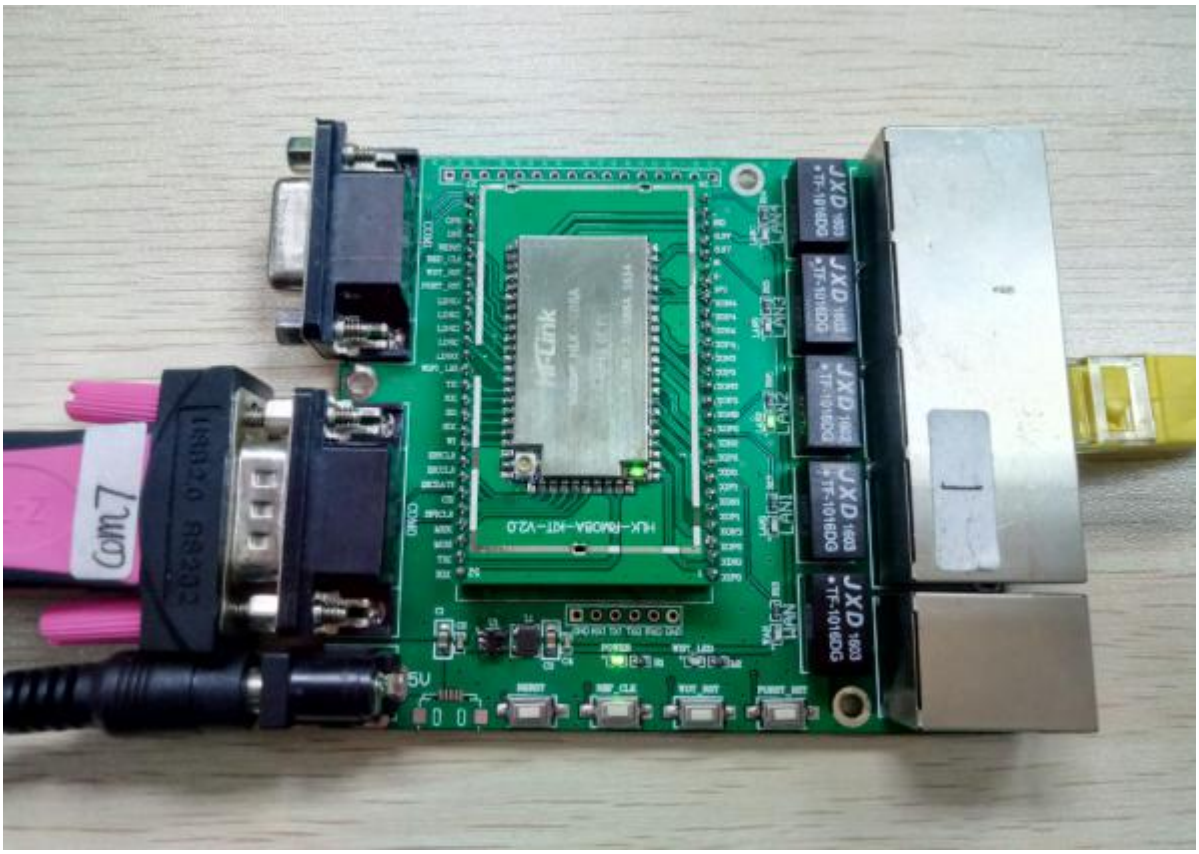
Serial to Ethernet

Shenzhen Hi-Link electronic technology co.,ltd

Note: To ensure the normal operation, please make sure you have purchased the HLK-7688A development Kit from us. The picture as following:

	HLK-7688A module
	HLK-7688A test board
	2.4G rod antenna
	5V 1000mA power supply
	Mesh line（optional）

Please contact as following picture:



Please note the direction that HLK-7688Ainto the test board！

1.Brief Introduction

HLK-7688A is a new low-cost embedded UART - ETH - WIFI module developed bu shenzhen Hi-Link electronic technology co.,ltd.

This product is an embedded module based on the universal serial interface network standard, built-in TCP/IP protocol stack, enabling the user serial port, Ethernet, wireless network (wifi) interface between the conversions.

Through the HLK-7688A module, the traditional serial devices do not need to change any configuration; Data can be transmitted through the internet network. Provide a quick solution for the user's serial devices to transfer data via Ethernet.

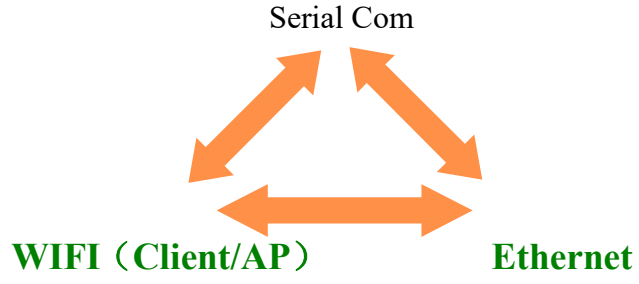
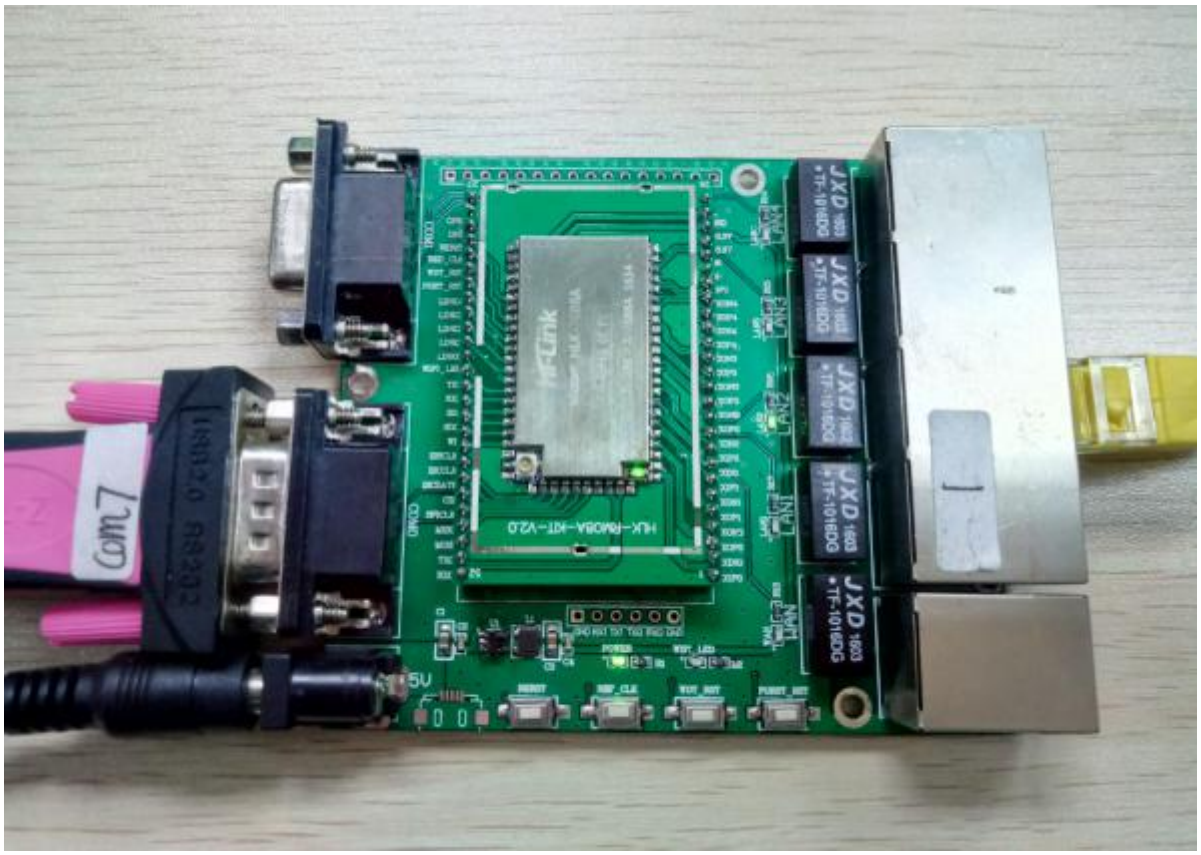


Chart 1. F-structure

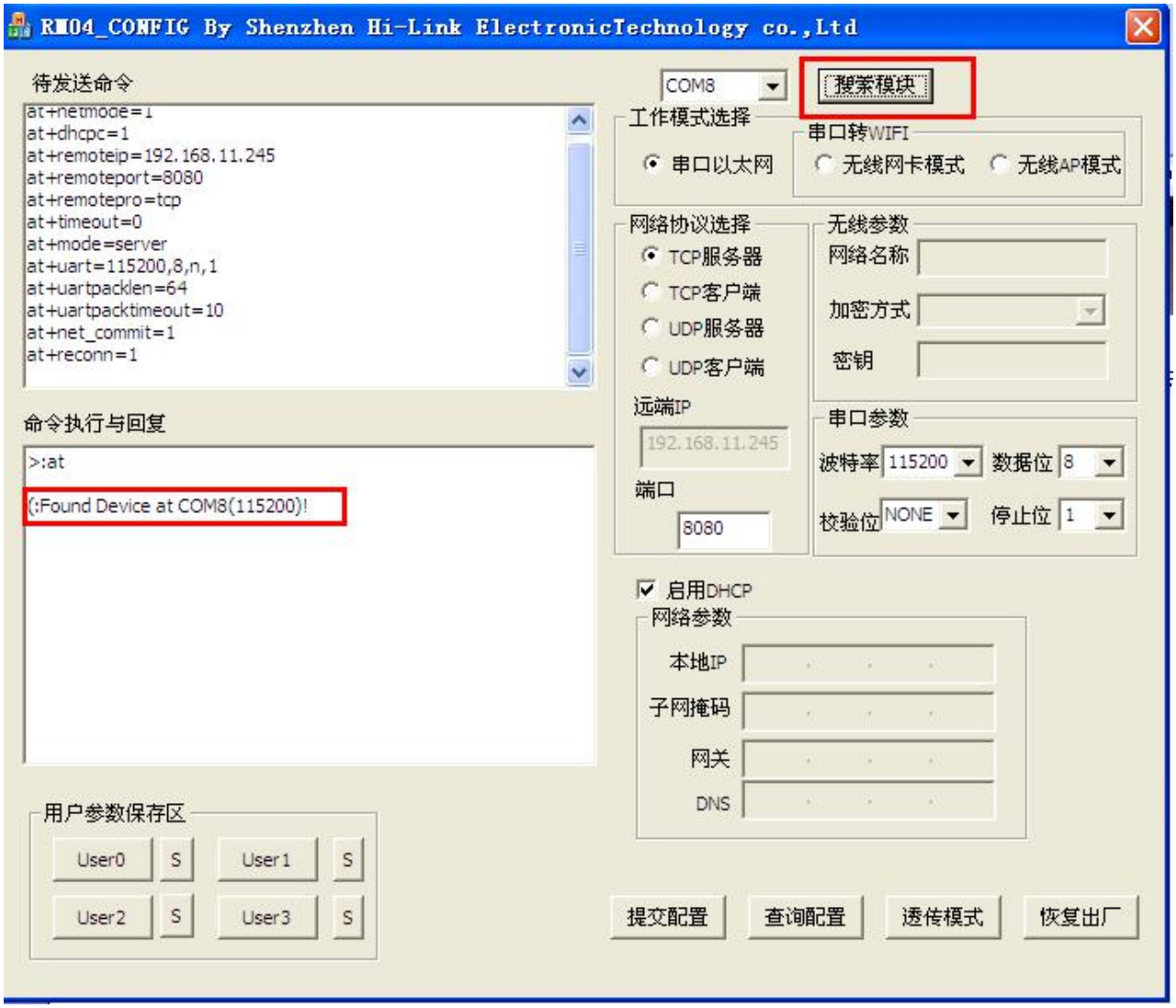
2.Serial to Ethernet configuration method：

Method one: Configuration through serial port.

1. Firstly, please ensure that the module is in default mode. The method of restoring the factory setting: power-on the module, wait 35 seconds. Then press one of the buttons on the test board and hold on more than 6 seconds.
2. Power-on the module again, wait 35 seconds until the light on the module blinking, and then connect the DB9 serial port with the computer's serial port in a straight line. Or connect the test board directly with s USB to serial cable as the following picture:



3. Press the "Exit transparent transmission /Preset" button, open the configuration software, select the serial number, click on the search button, If there appears message >:at (:Found Device at COM8(115200)! In the respose area, it means the module is found.



4 Parameter configuration

Operating Mode: Serial to Ethernet

Network Protocol: TCP server

Remote IP: Remote IP is not working as a sever

Port: The monitoring port of the starting TCP server

Serial Parameter: Change the parameters according to your requirement.

Attention please:

DHCP: When the DHCP started, Module need to obtain an IP from the router, so you should log in the router and find the IP of the module first in order to communicate. At this time, cable and PC Direct Connect is no way to communicate.

If you do not start DHCP, you need to know the IP address specification of your router and fill in IP address yourself.

For example: Our IP specification is 192.168.11.xxx.； 255.255.255.0； 192.168.11.1

Please set the IP parameters according to your own router. This time, the module can connect to the router through the network cable, can also connected with the computer, If it directly connected with the computer, the computer's IP should manually configured to 192.168.xxx; 255.255.255.0

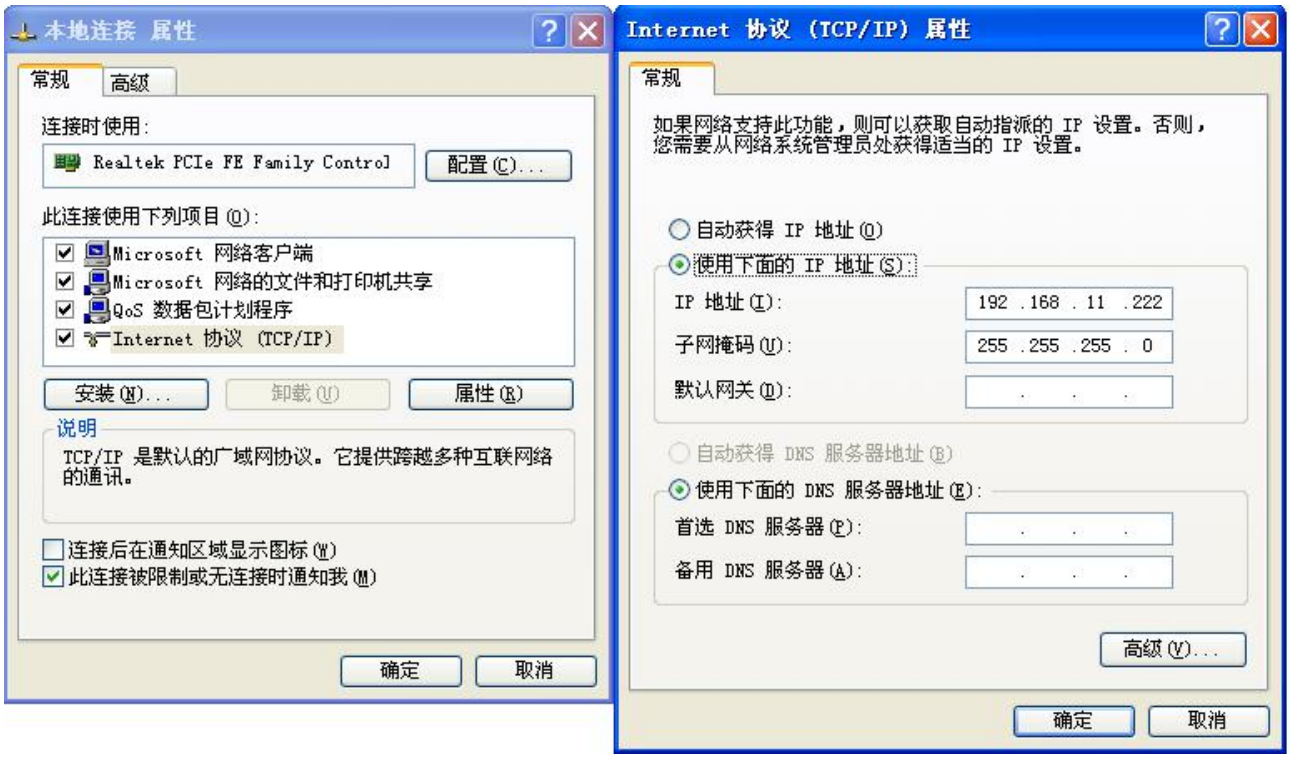
Configured as the following picture:

We demonstrates here is not enabled DHCP, static IP configured.

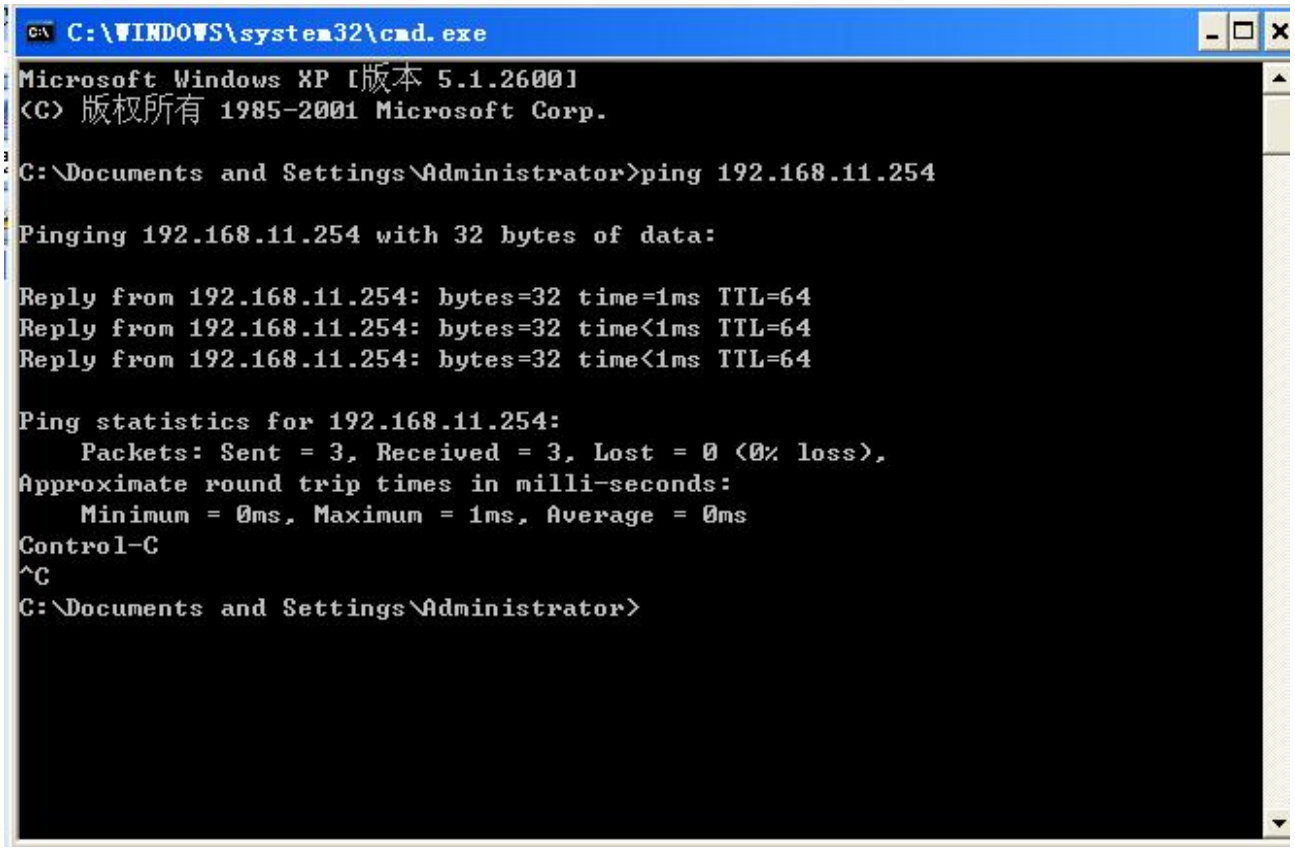
After committing the configuration, the WIFI of the module will turn off and the LAN port will be shut down.

5 TCP to Serial data transfer

Submit your parameters, the module will restart, you can also re-power to the module, when the module start, connect the computer network port and the port 1 of HLK-7688A with the network cable. Please close other network card. Configured fixed IP to the computerthat connect to the HLK-7688A module as shown in the following picture:



Check if the ping 192.168.11.254 can work :start---- run---- cmd

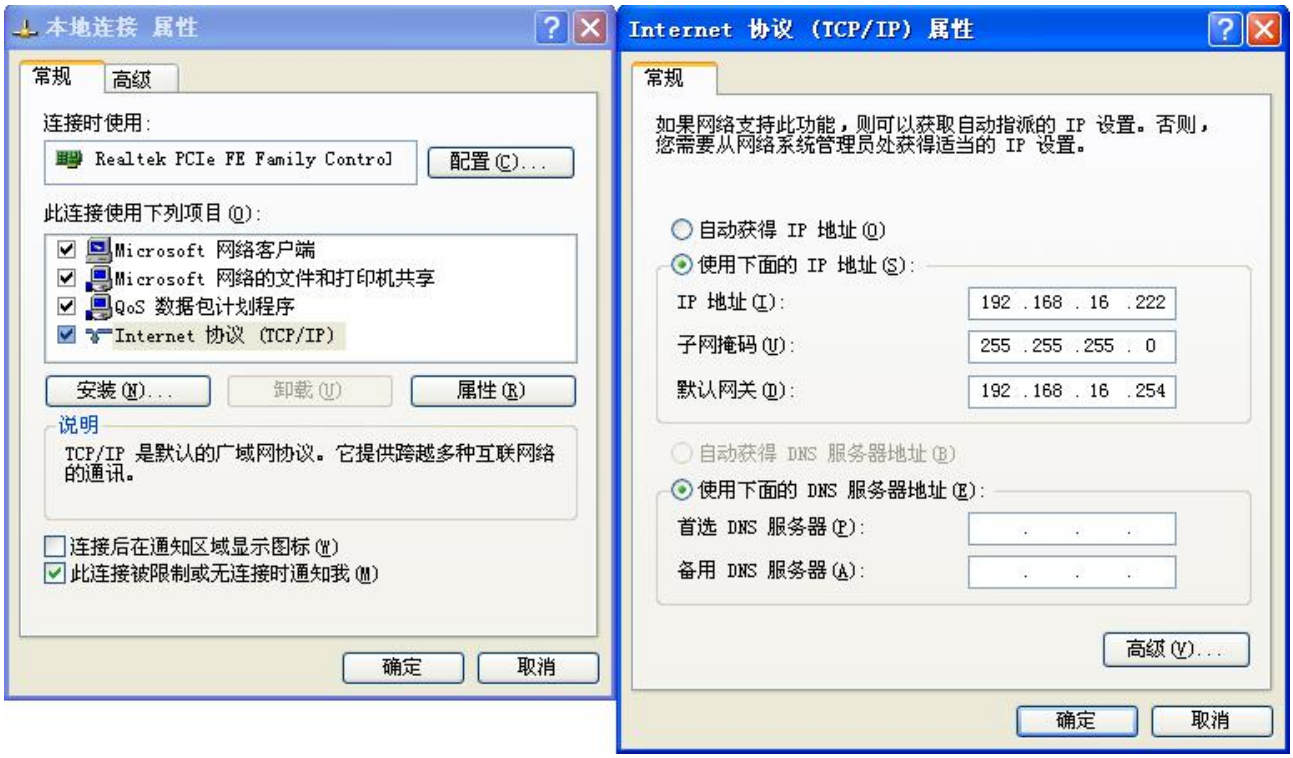


Open the serial debugging tools and network debugging tools, do sent data test:

Now, the serial and Ethernet can send data to each other.

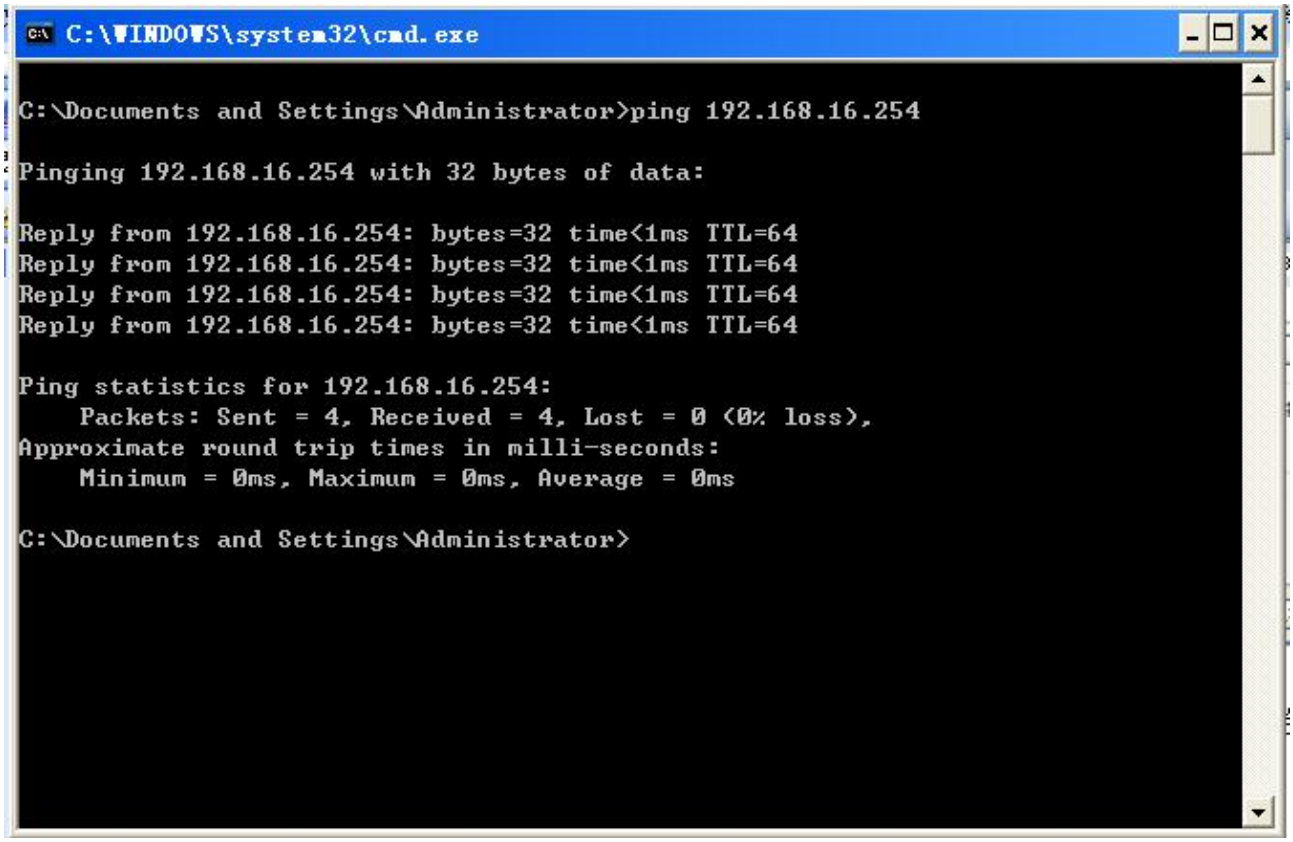
Method two：configuration through network port

1. First restore the factory setting. Then start the module, connect the network port 2 of HLK-7688A test board, another one connect the computer's with network cable. And then set the computer's IP as follows:



Check if ping 192.168.16.254 is work: start----run----cmd

Note:not 192.168.11.254



2. Input 192.168.16.254/ser2net.asp in the browser, it will pop-up a dialog box, enter the user name and password. Both of the user name and password are admin.

As static IP and DHCP, please reference to the method.

After configuration, click on the button “apply” to wait for the module restarting.

Waiting the module to restart, unplug the network cable of the HLK-RM0K port 2, and plugged into the Ethernet port 1. Next steps please reference to fifth step in the method one.