Z-Com NPort WS-120M User's Manual

V3.0

2007-4-11	First Release	author:Aaron
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Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
For product available in the USA market, only channel 1~11 can be operated. Selection of other channels is not possible.

This device and its antenna(s) must not be co-located or operation in conjunction with any other antenna or transmitter.

IMPORTANT NOTE:

This module is intended for OEM integrator. The OEM integrator is still responsible for the FCC compliance requirement of the end product, which integrates this module.
20cm minimum distance has to be able to be maintained between the antenna and the users for the host this module is integrated into. Under such configuration, the FCC radiation exposure limits set forth for an population/uncontrolled environment can be satisfied.
Any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this equipment.

USERS MANUAL OF THE END PRODUCT:

In the users manual of the end product, the end user has to be informed to keep at least 20cm separation with the antenna while this end product is installed and operated. The end user has to be informed that the FCC radio-frequency exposure guidelines for an uncontrolled environment can be satisfied. The end user has to also be informed that any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this equipment. If the size of the end product is smaller than 8x10cm, then additional FCC part 15.19 statement is required to be available in the users manual: This device complies with Part 15 of FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.

LABEL OF THE END PRODUCT:

The final end product must be labeled in a visible area with the following " Contains TX FCC ID: M4Y-WS120MV10 ". If the size of the end product is larger than 8x10cm, then the following FCC part 15.19 statement has to also be available on the label: This device complies with Part 15 of FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.

Content

Chapter 1 Introduction

Z-Com.s NPort WS-120M Series of wireless serial device servers give you an easy way to connect your RS-232 serial devices to a WLAN. The 1-port NPort WS-120M is ideal for environments where a LAN is not available, or where serial devices are moved frequently.

The following topics are covered in this chapter:

Overview

Z-Com's NPort WS-120M wireless device servers are the ideal choice for connecting your RS-232 serial devices. Such as PLCs, meters, and sensors to a Wireless LAN. Your communications software will be able to access the serial devices from anywhere over a local WLAN. Moreover, the WLAN environment offers an excellent solution for applications in which the serial devices are moved frequently from place to place.

NPort WS-120M wireless serial device servers support automatic IP configuration protocols (DHCP) and manual configuration via **HyperTerminal** or a handy web browser console. IP configuration methods ensure quick and effective installation.

An external antenna increases the range of the wireless connection. Users can position the adjustable antenna for maximum signal strength or even replace the antenna with their own for additional flexibility and scalability. This feature is particularly useful when a serial device is connected in a high interference area. As an added feature, a signal strength indicator is located on the front panel to make it easier to troubleshoot connection problems.

Such as password authentication, IP filter, WEP support for 64-bit and 128-bit encryption.

Package Checklist

NPort WS-120M is shipped with the following items:

Standard Accessories

- NPort WS-120M x 1
- Documentation & Software CD
- Power adaptor
- Warranty Booklet

Note:

Notify your sales representative if any of the above items is missing or damaged.

Product Features

- Connect serial device to Wireless LAN network
- 802.11g Wireless LAN, compatible with 802.11b
- WEP support for 64-bit and 128-bit encryption
- Password authentication and IP filter
- RS-232 ports, at up to 230.4 Kbps
- Easy-to-use Windows Utility for mass installation
- LEDs for link power, and wireless signal strength

Product Specifications

Product Description	
IEEE 802.11b/g Wireless RF Module	
Operating Voltage	
DC 3.3V ± 5%	
Chipset	
Single chip	Atheros AR6101VG ROCm Single-Chip MAC/BB/Radio
Memory	
Stacked multi-chip package	8M Flash 2M SDRAM
Interface	
Connector J1	JTAG、GPIO UART、Key Pad、LCD
Connector JP1	GPIO UART
Header J5	SD

Power Consumption		
11b	TX: ≦ 550 mA	RX: ≦ 450 mA
11g	TX: ≦ 550 mA	RX: ≦ 450 mA
UART		
Baud Rate	1,200~230,400bps	
Parity Check	None/Odd/Even/Mark/Space	
Data Length	7/8 Bit	
Stop Bit	1/2	
Watchdog	Hardware watchdog reset	
Flow Control	None/ Software / Hardware	
Protocols	ICMP, IP, TCP, UDP, DHCP Client, Telnet, HTTP Configuration with Telnet Protocol	
Radio		
Antenna connector	only one U. FL connector	
Output Power	IEEE802.11g 18.04dBm IEEE802.11b 17.51dBm	
Sensitivity	**IEEE 802.11g** Sensitivity @ Packet Error Rate: 10% ♦ 54 Mbps:≦-74dBm ♦ 48 Mbps:≦-75dBm ♦ 36 Mbps:≦-79dBm ♦ 24 Mbps:≦-83dBm ♦ 18 Mbps:≦-86dBm ♦ 12 Mbps:≦-88dBm ♦ 9 Mbps:≦-90dBm ♦ 6 Mbps:≦-91dBm	**IEEE 802.11b** Sensitivity @ Packet Error Rate: 8% ♦ 11Mbps:≦-87dBm ♦ 5.5Mbps:≦-92dBm ♦ 2Mbps:≦-93dBm ♦ 1Mbps:≦-95dBm

Modulation	**IEEE802.11g** (OFDM/DSSS) ♦ 48/54 Mbps (QAM64) ♦ 24/36 Mbps (QAM16) ♦ 12/18 Mbps (QPSK) ♦ 6/9 Mbps (BPSK)	**IEEE 802.11b** (DSSS) ♦ 5.5/11 Mbps (CCK) ♦ 2 Mbps (DQPSK) ♦ 1 Mbps (DBPSK)
Range Coverage (Typical range in open environment with 0 dBi Antenna)	**IEEE 802.11g** ♦ 54Mbps:≧ 60 meter ♦ 48Mbps:≧70 meter ♦ 36Mbps:≧80 meter ♦ 24/18Mbps:≧ 120 meter ♦ 12/9/6Mbps:≧120 meter ♦ 11Mbps:≧80 meter	**IEEE 802.11b** ♦ 11Mbps:≧80 meter ♦ 5.5Mbps:≧120 meter ♦ 2Mbps:≧200 meter ♦ 1Mbps:≧300 meter
Operating Frequency	**IEEE 802.11b/g ISM Band** ♦ USA(FCC): 2.412GHz ~ 2.462 GHz (CH1 ~ CH11) ♦ Europe(ETSI): 2.412 GHz ~ 2.472 GHz (CH1 ~ CH13)	
Software Specification		
Supported OS	eCOS	
Security	WEP 64-bit/128-bit data encryption WPA-PSK WPA2-PSK	
Physical Specification		
Dimension	36mm(L) * 42mm(W)	
Weight	15g	
Environment Specification		
	Temperature (Ambient)	Humidity (non-condensing)
Operating	-20 ~ 75 ℃	10 ~ 90%
Storage	-40 ~ 85 ℃	5 ~ 95%
Warranty		
12 months		
Green Policy		
RoHS Compliant		

Chapter 2 Getting Started

The following topics are covered in this chapter:

Connecting the Hardware

This section describes how to connect NPort WS-120M to serial devices for first time testing purposes. We cover Wiring Requirements, Connecting the Power, Connecting to the Network, Connecting to a Serial Device, and LED Indicators.

Wiring Requirements

Attention:

Safety First!
Be sure to disconnect the power cord before installing and/or wiring your device.
Wiring Caution!
Calculate the maximum possible current in each power wire and common wire. Observe all electrical codes dictating the maximum current allowable for each wire size.
If the current goes above the maximum ratings, the wiring could overheat, causing serious damage to your equipment.
Temperature Caution!
Be careful when handling the device. When plugged in, the device.s internal components generate heat, and consequently the casing may feel hot to the touch.

You should also pay attention to the following items:

- Use separate paths to route wiring for power and devices. If power wiring and device wiring paths must cross, make sure the wires are perpendicular at the intersection point.

Note:

Do not run signal or communication wiring and power wiring in the same wire conduit. To avoid interference, wires with different signal characteristics should be routed separately.

- Use the type of signal transmitted through a wire to determine which wires should be kept separate. The rule of thumb is that wiring that shares similar electrical characteristics can be bundled together.
- Keep input wiring and output wiring separate.
- Where necessary, it is advisable to label the wiring to all devices in the system.

Connecting the Power

Connect the 5-10 VDC power line with NPort WS-120.s power jack. When the power is properly supplied, the .Run. LED will show until the system is ready.

Connecting to a Serial Device

Connect the serial data cable between NPort WS-120M and the serial device. Serial data cables are optional accessories for NPort WS-120M.

Chapter 3 Configure Nport WS-120M

When setting up your NPort WS-120M for the first time, the first thing you should do is configure Nport WS-120M.

This chapter covers the following topics:

Installation Procedure for First-time Users

STEP 1: After removing NPort from the box, use a serial interface cable to connect directly to your computer.s serial port.

STEP 2: Attach the power adaptor to the NPort and then plug the adaptor into an electrical outlet.

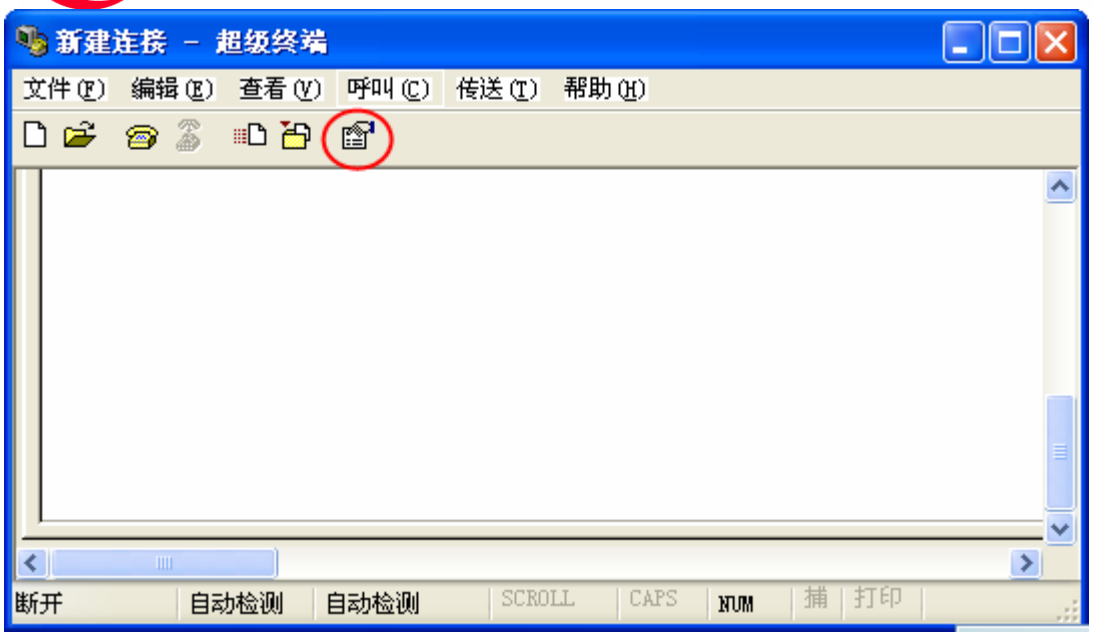
STEP 3: Use the **HyperTerminal** to configure the NPort WS-120M via the serial port.

Serial Console (115200, n, 8, 1)

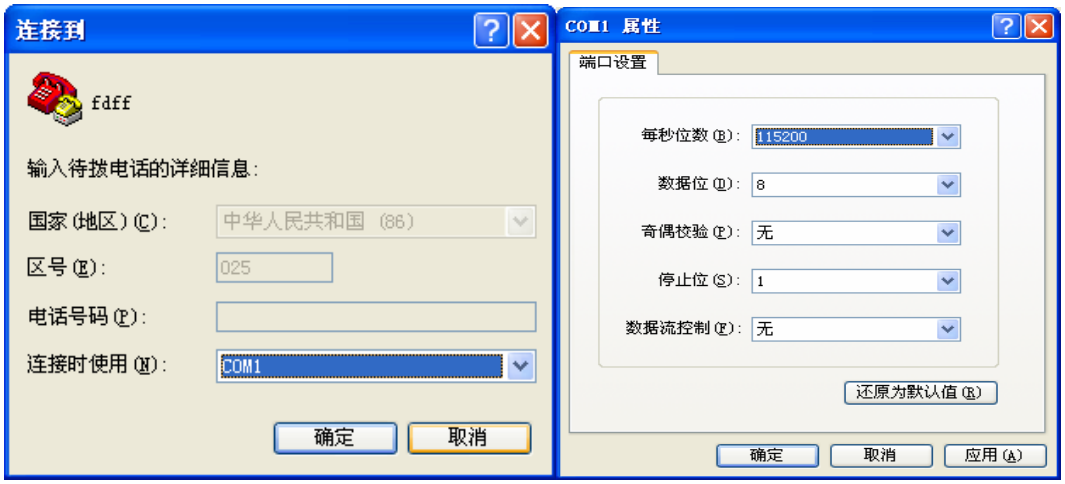
Before configuring the NPort WS-120M via the serial console, turn off the power and use a serial cable to connect the NPort WS-120M to your computer's serial port.

We suggest using Hyper Terminal to carry out the configuration procedure.

1. Connect NPort WS-120M.s serial port 1 directly to your computer's male RS-232 serial port.
2. From the Windows desktop, click on **Start ->Programs ->Accessories ->Communications->HyperTerminal.**
3. When the HyperTerminal window opens, first click on the Port Manager menu item and select **Open**, or click on the **Open** icon.

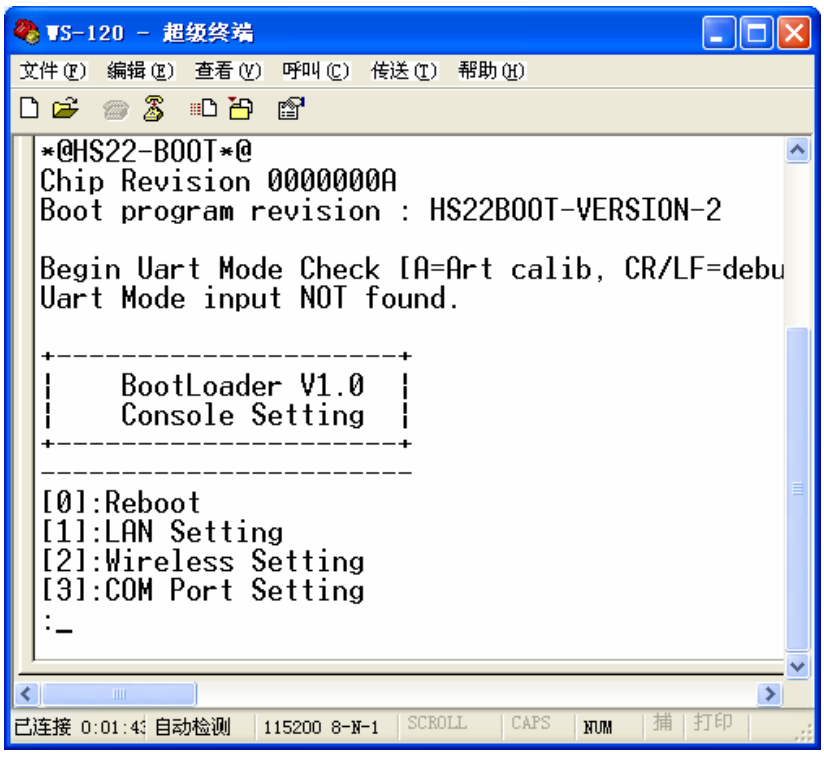


4. The **Property** window opens automatically. From the **Communication Parameter** page, select the appropriate COM port for the connection, **COM1** in this example, and **115200** for **Baud Rate, 8** for **Data Bits**, **None** for **Parity**, and **1** for **Stop Bits**.



5. From the **Property window's Terminal** page, select **ANSI** or **VT100** for Terminal Type, and click on **OK**.

6. Press **Reset** button on the Nport WS-120M for 10 second, **HyperTerminal** will display the message of Nport WS-120M, Shown in the following figure:



LAN Setting

When the **HyperTerminal** display the message of Nport WS-120M as above image . You can input **1** and then press **Enter** that will display the **LAN Setting** message as follows:

IP Mode

Input **6**,you can set the IP Mode, Shown in the following figure:

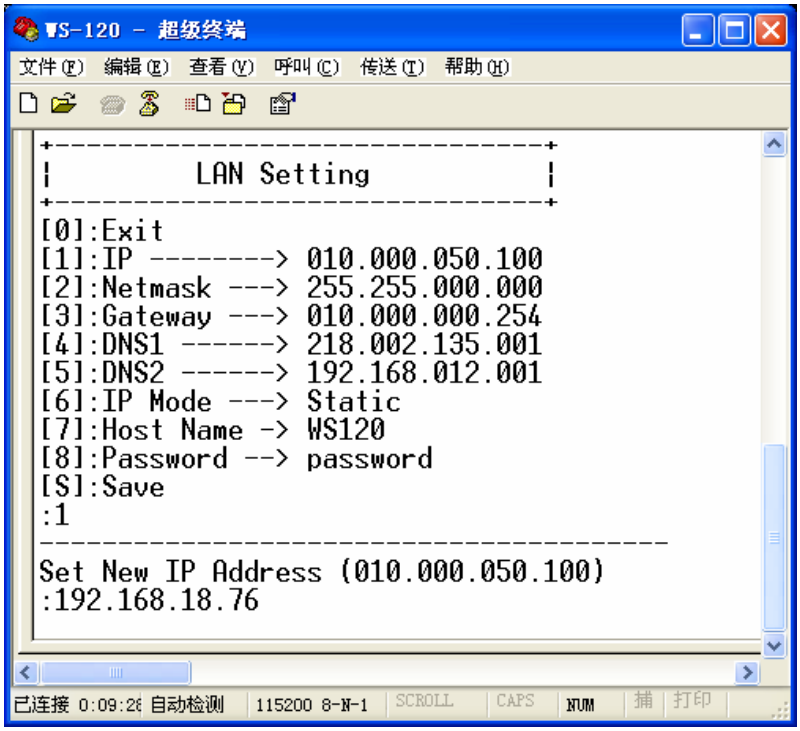
Method	Function Definition
Static	User defined IP address, Netmask , Gateway.
DHCP	DHCP Server assigned IP address, Netmask, Gateway, DNS,and Time Server.

Note:

If you select **Static** method, that you should set IP address, Netmask, Gateway manually.

IP Address

Input **1**, you can set the new IP address, Shown in the following figure:

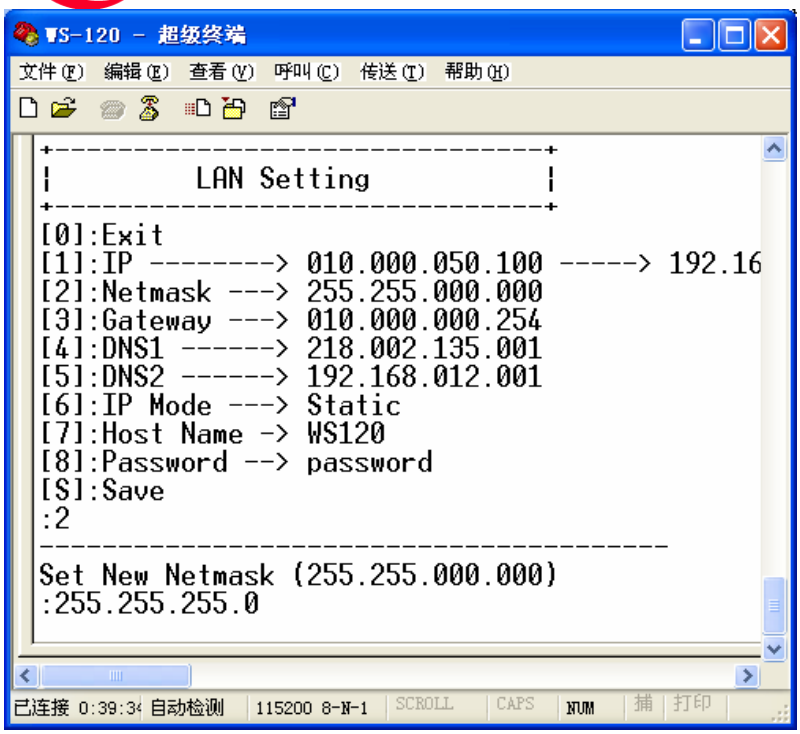


Setting	Factory Default	Necessity
E.g., 192.168.18.1 (IP addresses of the form x.x.x.0 and x.x.x.255 are invalid.	010.000.50.100	Required

An IP address is a number assigned to a network device (such as a computer) as a permanent address on the network. Computers use the IP address to identify and talk to each other over the network. Choose a proper IP address that is unique and valid in your network environment.

Netmask

Input **2**, you can set the new Netmask, Shown in the following figure:

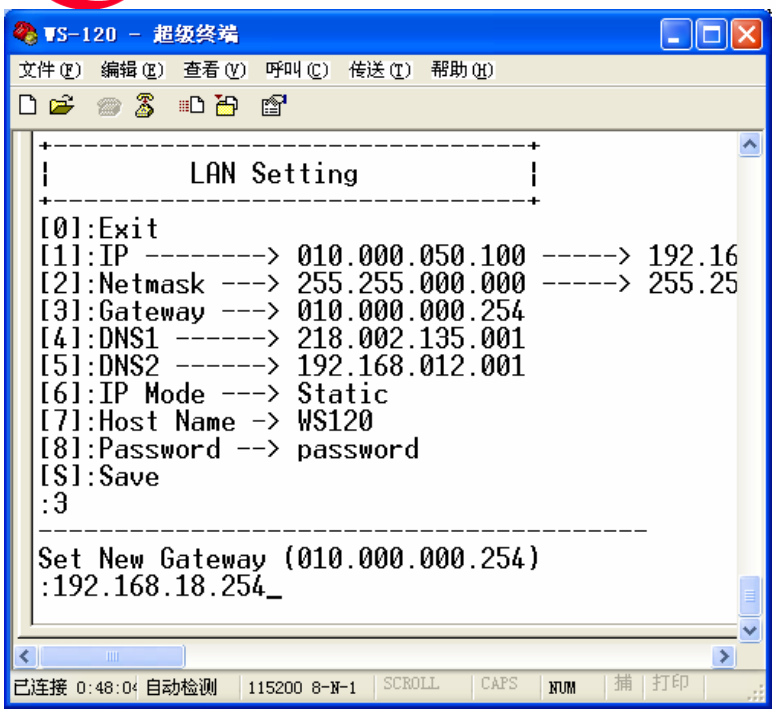


Setting	Factory Default	Necessity
E.g., 255.255.255.0	255.255.0.0	Required

A netmask is used to group network hosts into subnets. When a packet is sent out over the network, the NPort WS-120M will use the netmask to check whether the desired TCP/IP host specified in the packet is on the same subnet as the NPort. If the address is on the same subnet, a connection is established directly between the NPort WS-120M and the host. If the host is not on the same subnet, the packet is sent to the Gateway address.

Gateway

Input **3**,you can set the new Gateway, Shown in the following figure:



Setting	Factory Default	Necessity
E.g., 192.168.18.254	010.000.000.254	Optional

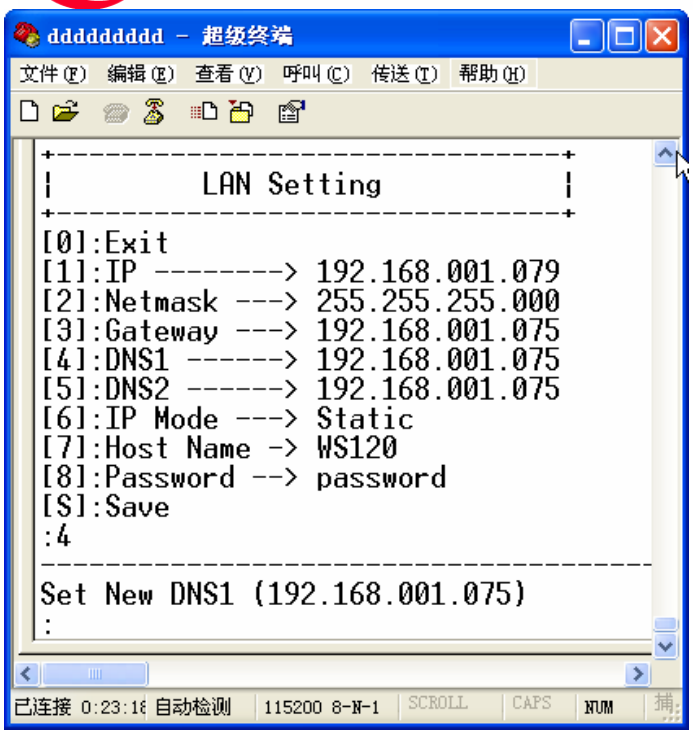
A gateway is a network gateway that acts as an entrance to another network. Usually, the computers that control traffic within the network or at the local Internet service provider are gateway nodes.

NPort WS-120M needs to know the IP address of your network's default gateway computer in order to communicate with the hosts outside the local network environment.

For correct gateway IP address information, consult your network administrator.

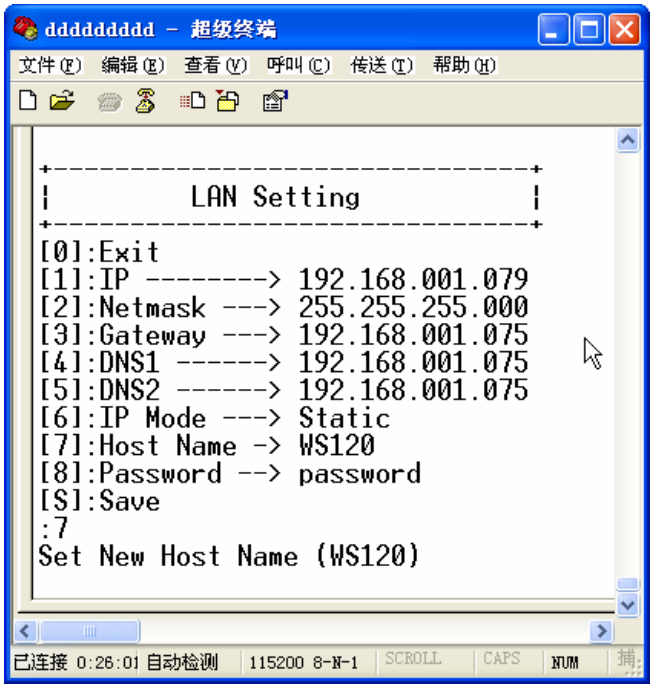
DNS

Input **4**,you can set the new DNS, and input 5 you can set the Secondary DNS, Shown in the following figure:



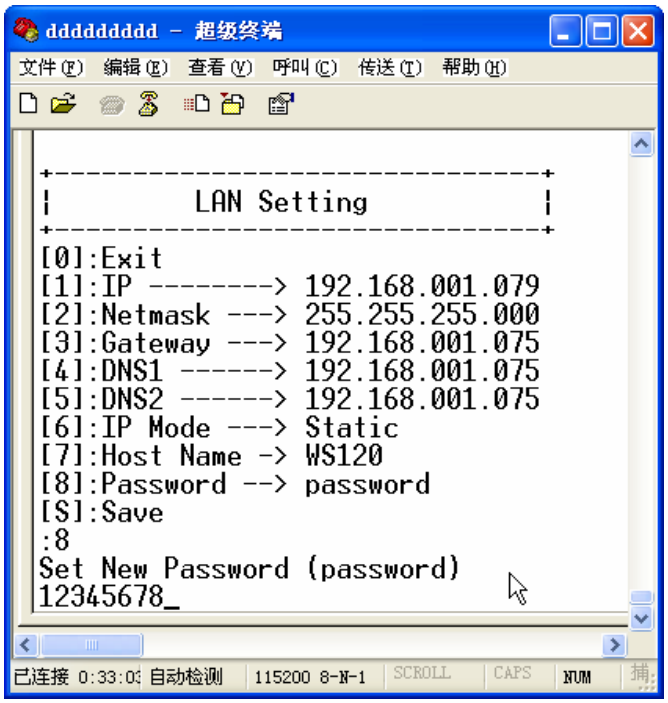
Host Name

Input **7**,you can set the new Host Name, Shown in the following figure:



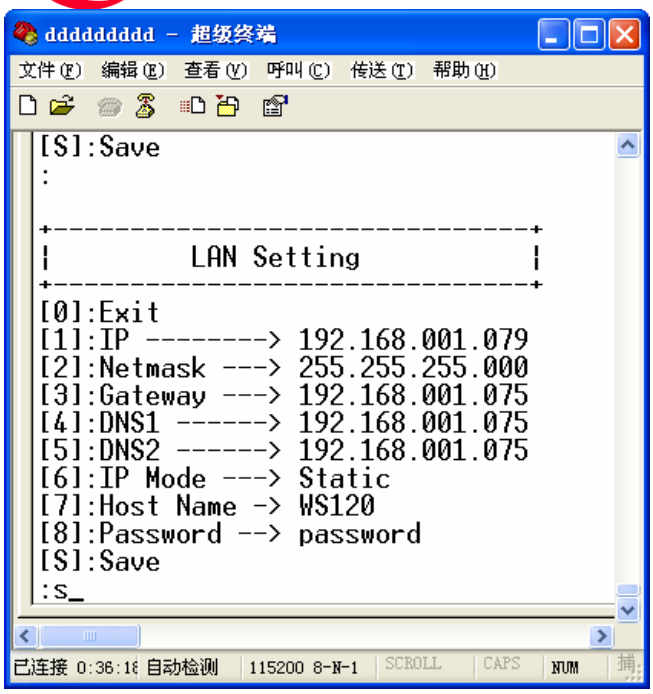
Password

Input **8**,you can set the new Password, Shown in the following figure:



Save

When you changed all the setting you want to change, you should input **S** to save all the settings, Shown in the following figure:

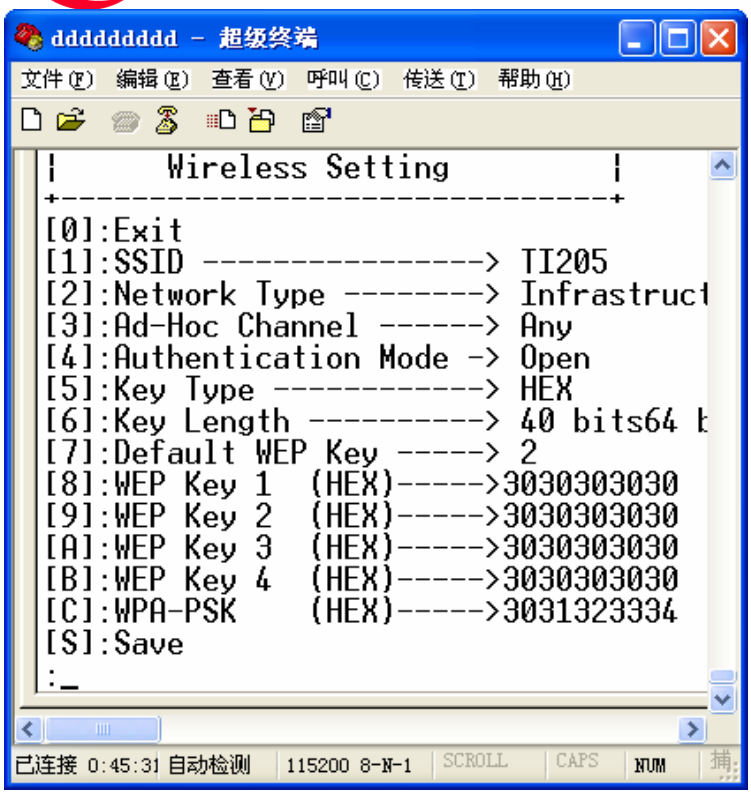


Exit

You can input "0" to leave **LAN Setting** page.

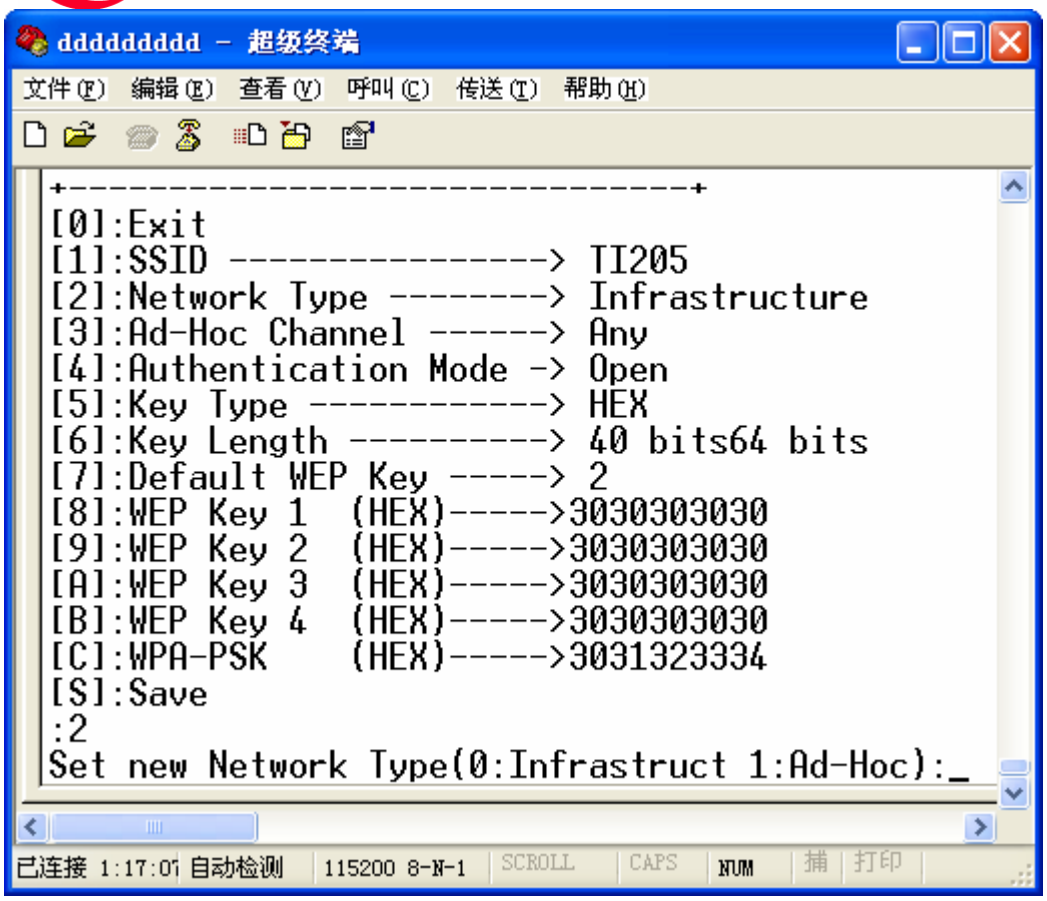
Wireless Setting

When you turn into the WS-120M through **HyperTerminal** You can input **2** and then press **Enter** that will display the **Wireless Setting** message as follows:



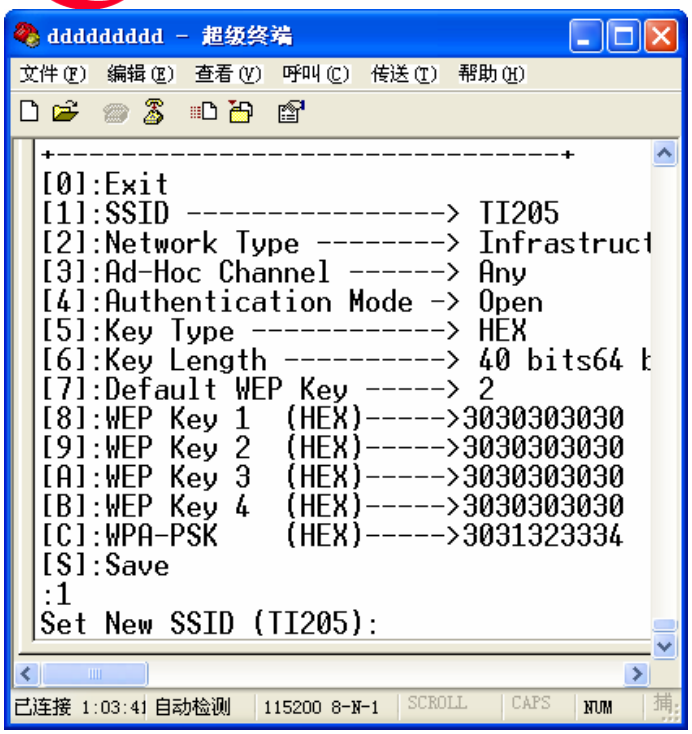
Network Type

Input **2**,you can set the Network Type of the Wireless,0 for Infrastructure mode,1 for Ad-hoc mode, Shown in the following figure:



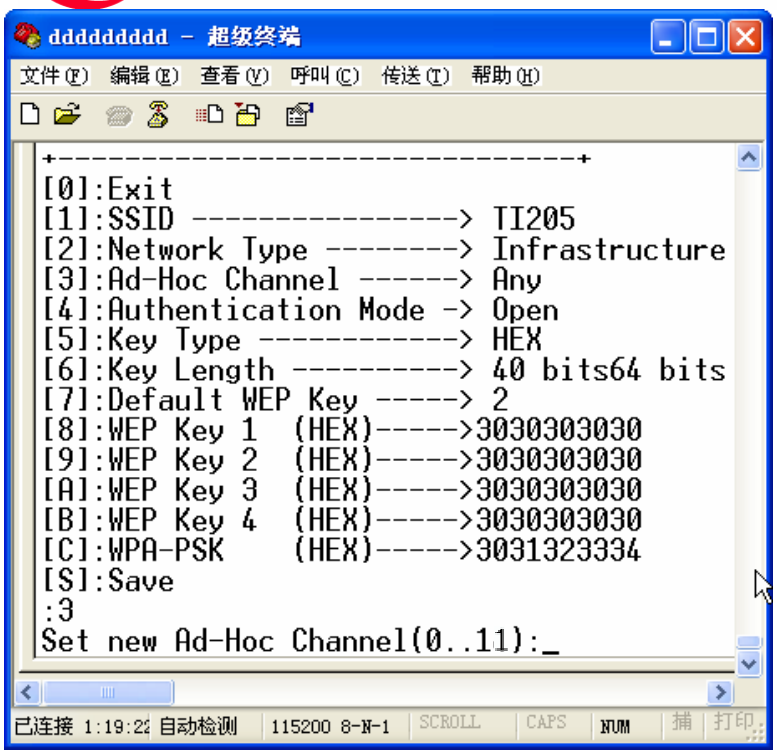
SSID

Input **1**, you can set the SSID of the AP or Ad-hoc that you want to connect, Shown in the following figure:



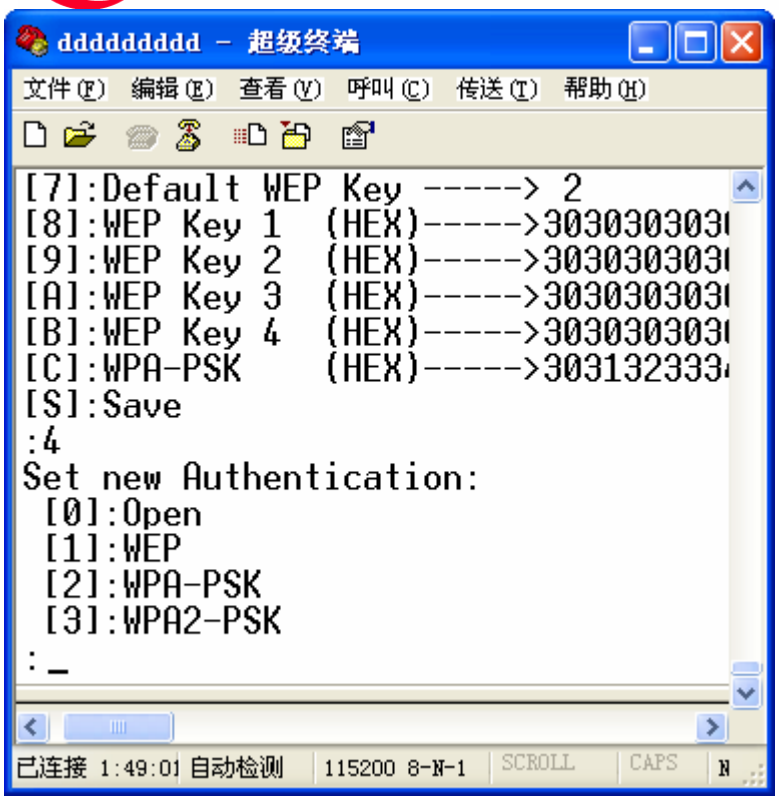
Ah-Hoc Channel

Input **3**, you can set the Ad-hoc Channel from of the AP or Ad-hoc that you want to connect, Shown in the following figure:



Authentication Mode

Input **4**,you can set the **Authentication Mode**:[0]Open,[1]WEP,[2]WPA-PSK,[3]WPA2-PSK, Shown in the following figure:

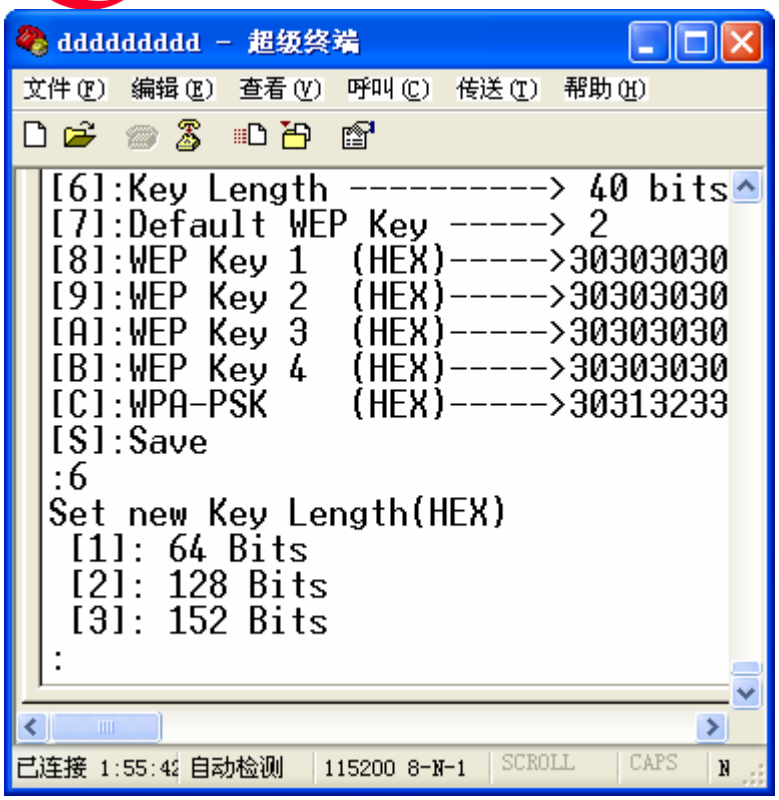


Key Type

Input **5**, you can set the key type of WEP or PSK encryption,0 for ASC type,1 for HEX type, Shown in the following figure:

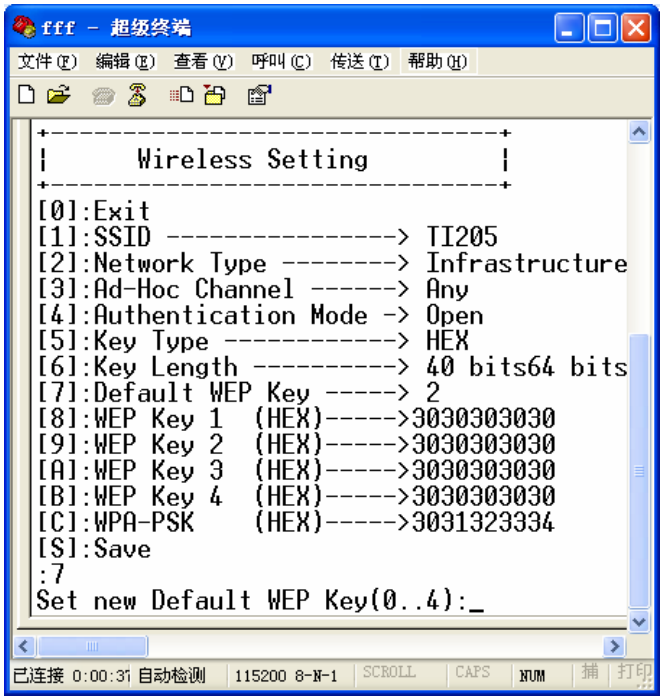
Key Length

Input **6**,you can set the Key Length of WEP encryption:[1]64 Bits,[2]128 Bits,[3]152 Bits, Shown in the following figure:



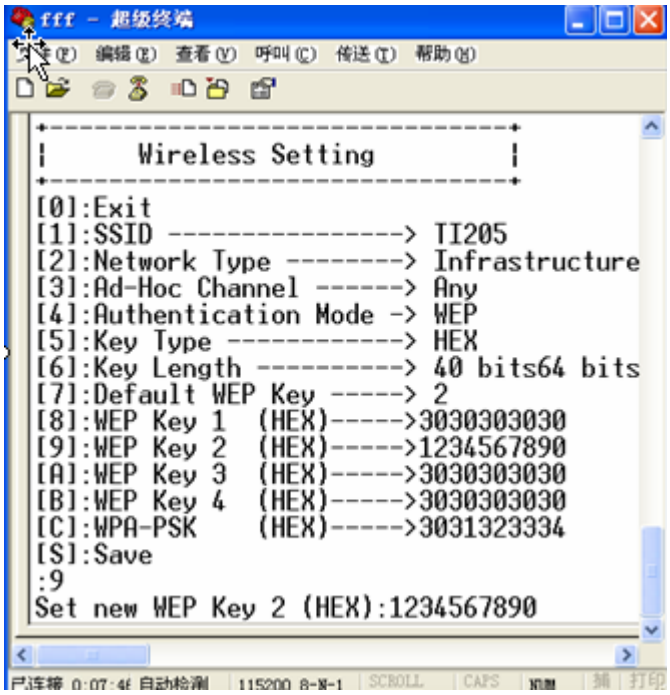
Default WEP Key

Input **7**, you can select the **Default WEP Key** the Key, Shown in the following figure:



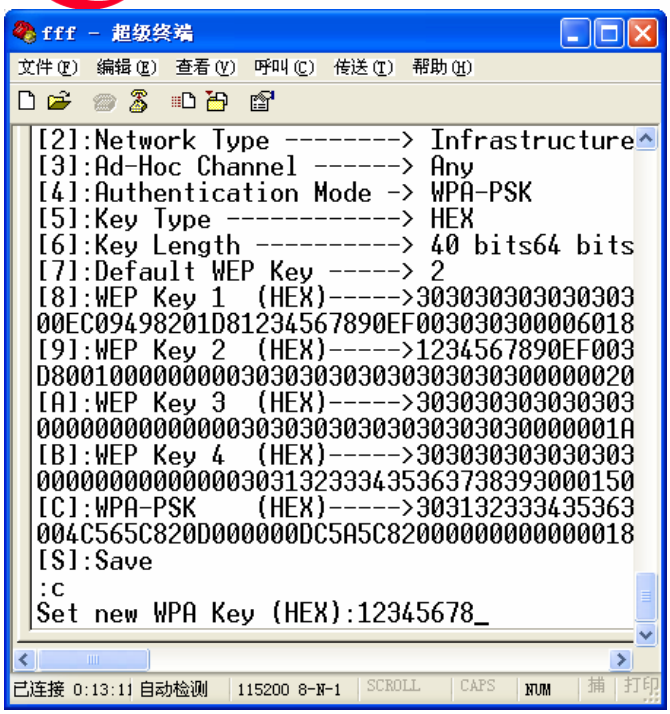
WEP Key

From 8~B you can set the WEP KEY, such as when you select the **Authentication Mode** as **WEP** and set the **Default WEP Key** as **2**,that you should input **9** to set the **WEP Key 2**. Shown in the following figure:



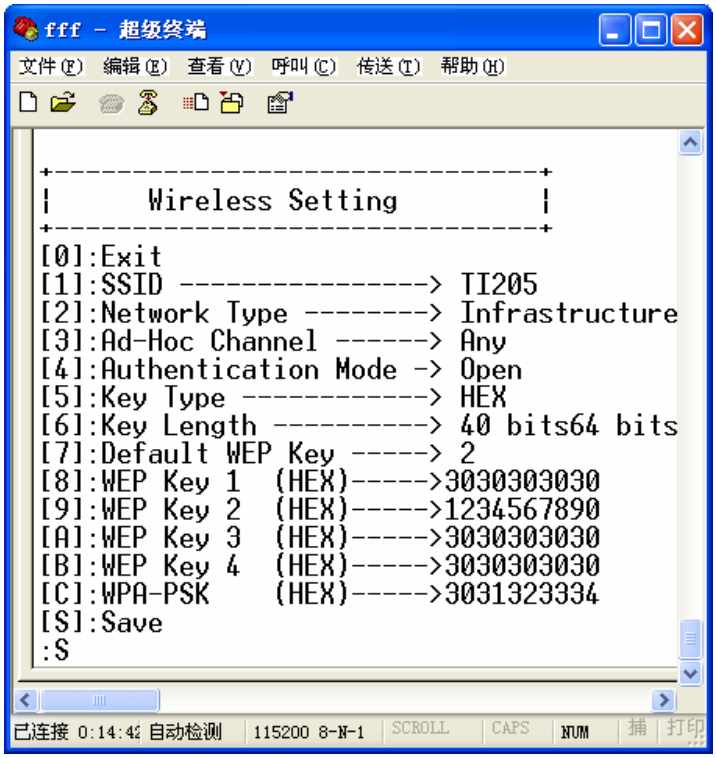
WPA-PSK

Input **C** you can set the Key of **WPA-PSK**, such as when you select the **Authentication Mode** as **WPA-PSK** or **WPA2-PSK**,that you should input **C** to set the key of **WPA\WPA2-PSK**. Shown in the following figure:



Save

When you changed all the setting you want to change, you should input **S** to save all the settings. Shown in the following figure:

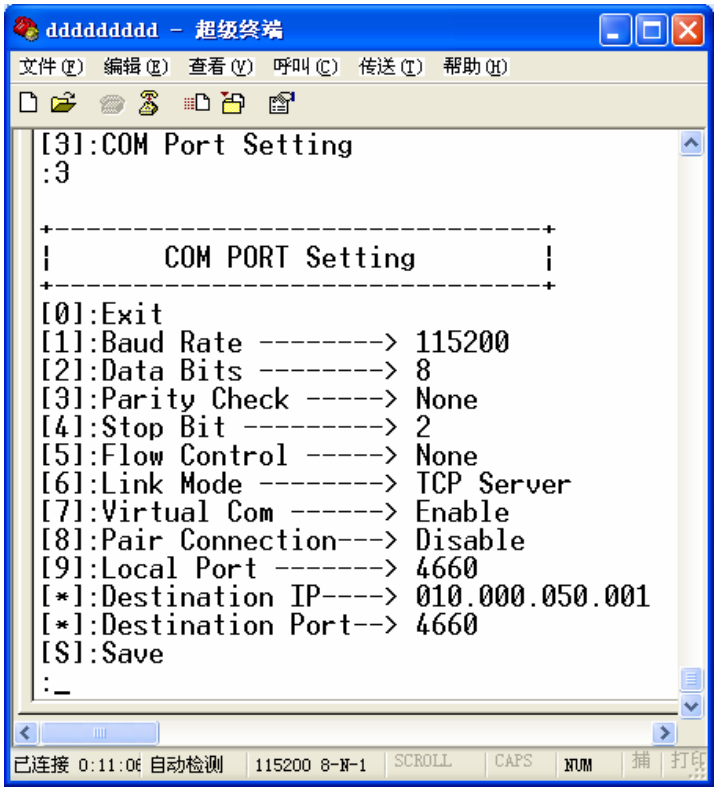


Exit

You can input **0** to leave **Wireless Setting** page.

COM PORT Setting

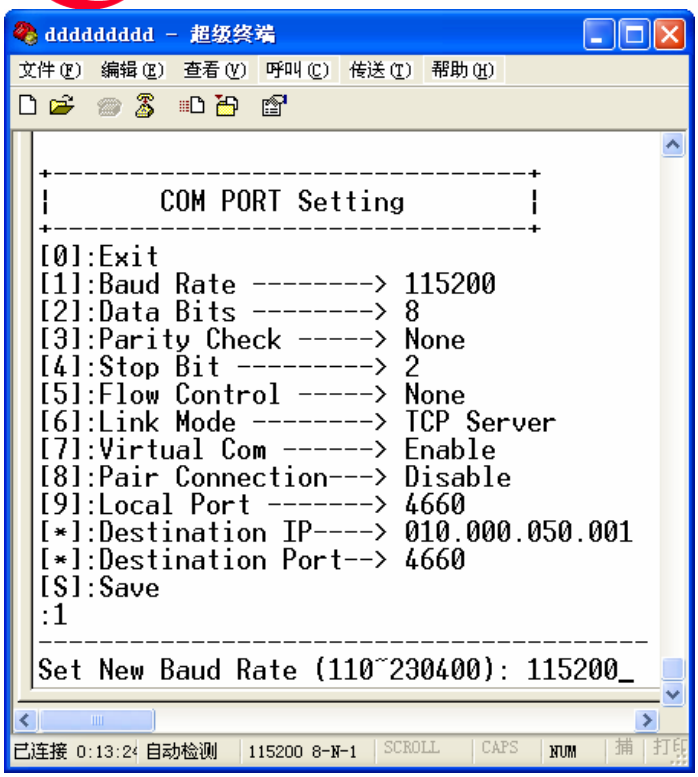
When you turn into the WS-120M through **HyperTerminal** You can input **3** and then press **Enter** that will display the **COM Port Setting** message as follows:



In COM PORT Setting you can set the **Baud Rate, Data Bits,Parity Check** and so on.

Baud Rate

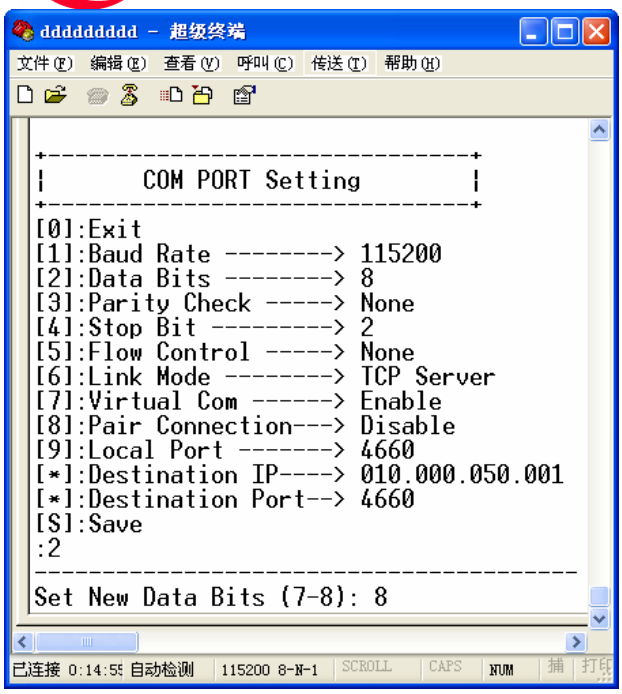
Input **1**, you can set the **Baud Rate ,** Shown in the following figure:



Here you can set the Baud Rate as 110,150,300,600,1200,2400,4800,9600,19200,38400,57600,115200,230400 and so on.

Data Bits

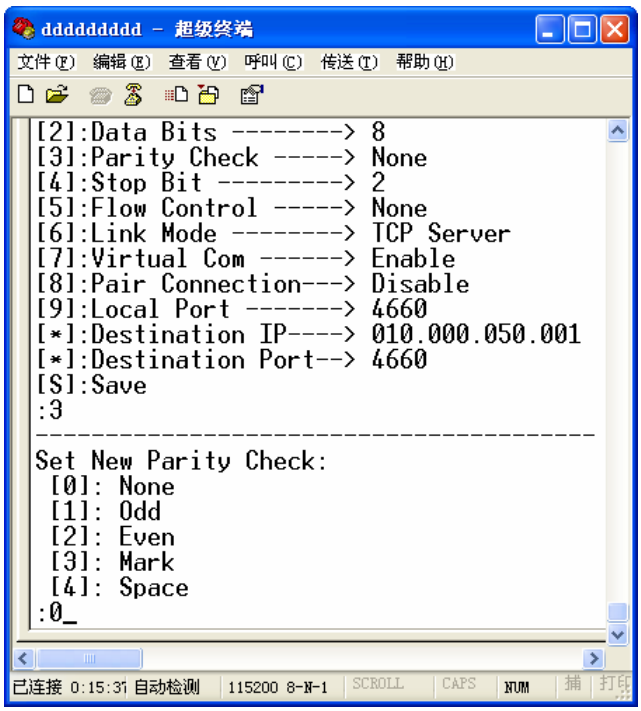
Input **3**, you can set the **Baud Rate ,** Shown in the following figure:



Here you can set the New Data Bits as **7** or **8**.

Parity Check

Input **4**, you can set the **Parity Check ,** Shown in the following figure:

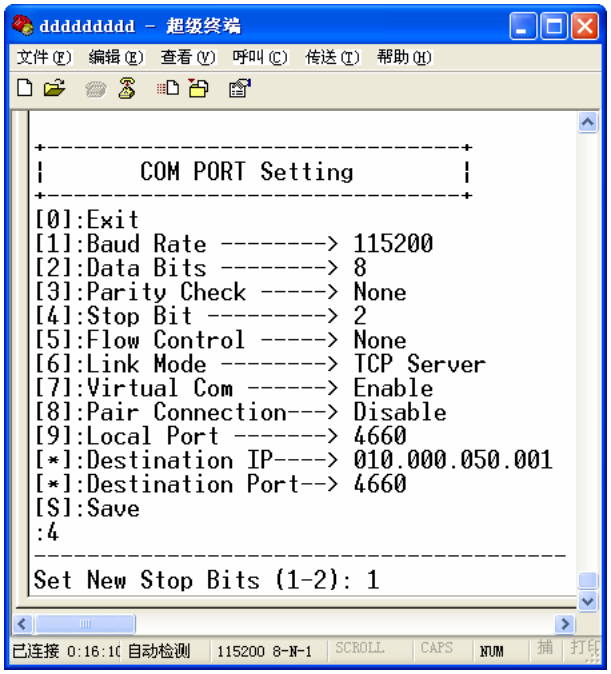


Here you can set the New Parity Check, input **0** for **None**,**1** for **Odd**,**2** for **Even**,**3** for **Mark** and **4** for

Space.

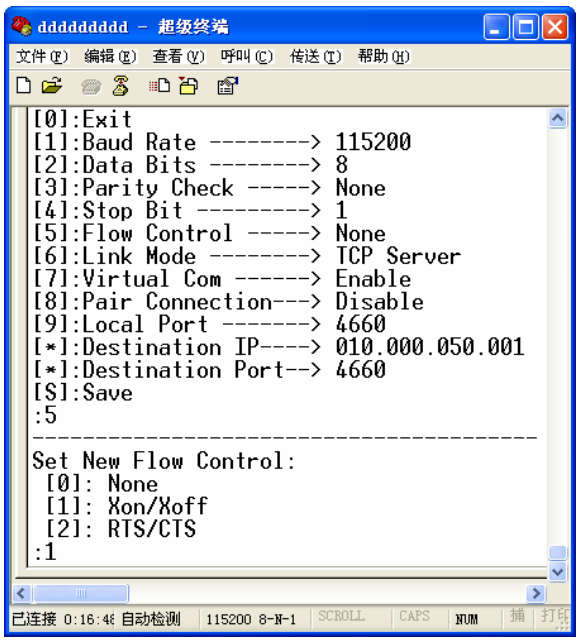
Stop Bit

Input **5**, you can set the **Stop Bit ,** Shown in the following figure:



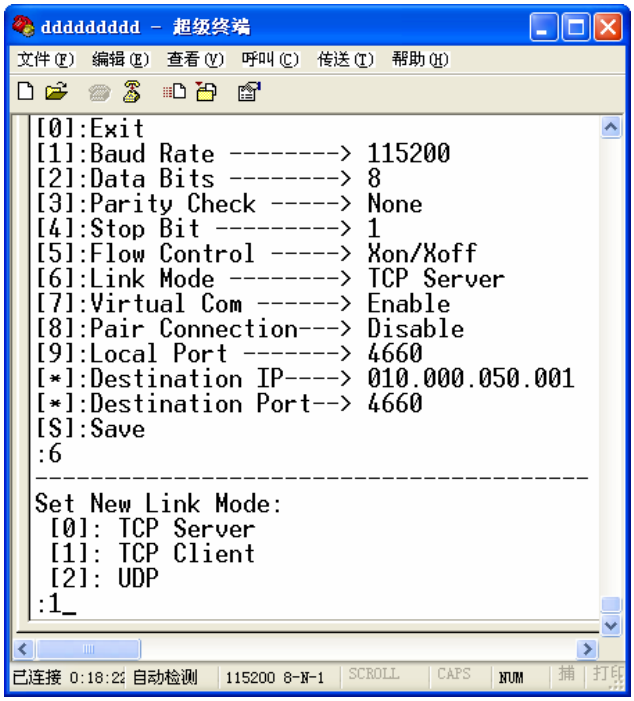
Here you can set the New Stop Bits as **1** or **2**.

Flow Contro1



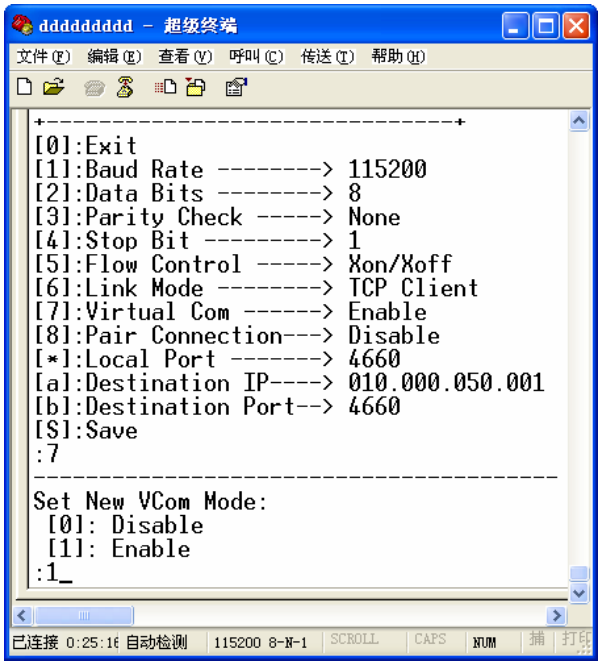
Here you can set the New Flow Control, input **0** for **None**, **1** for **Xon/Xoff**, **2** for **RTS/CTS**.

Link Mode



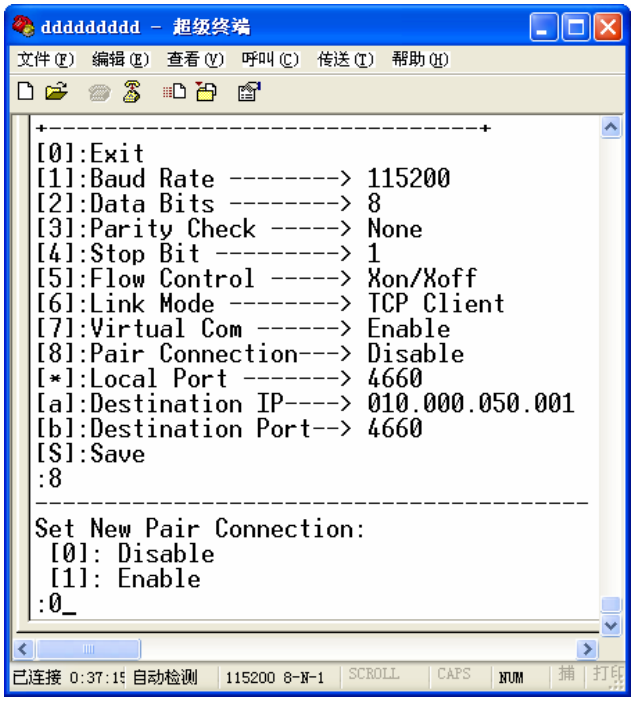
Here you can choose the New Link Mode , input **0** for **TCP Server** , **1** for **TCP Client** , **2** for **UDP**.

Virtual Com



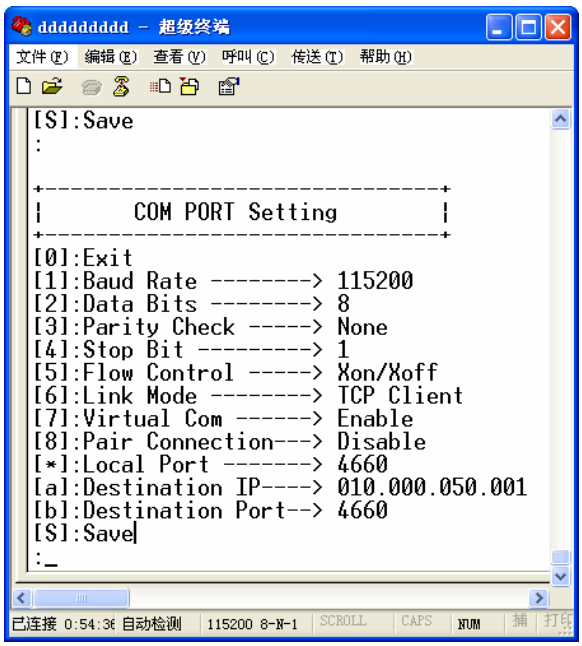
Here you can Disable or Enable the Virtual Com , input **0** for **Disable** , **1** for **Enable**.

Pair Connection



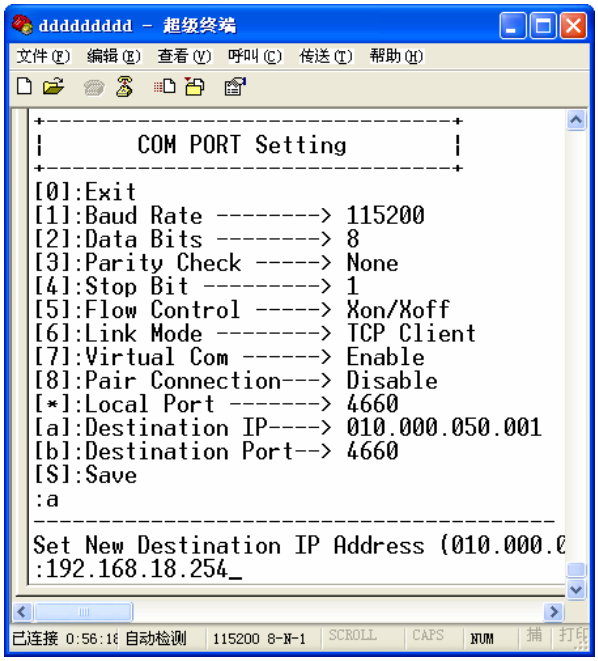
Here you can Disable or Enable the Pair Connection , input **0** for **Disable** , **1** for **Enable**.

Local Port



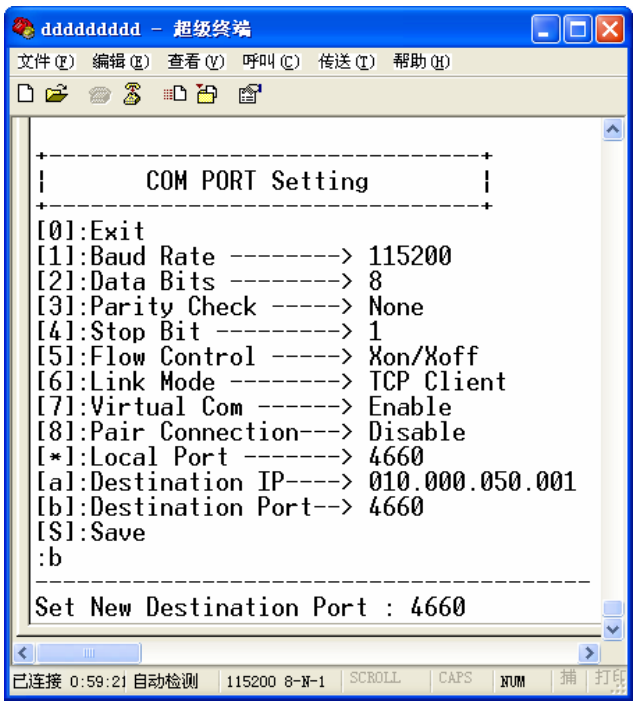
Input * you can set the Local Port.

Destination IP



Here you can set the new Destination IP Address.

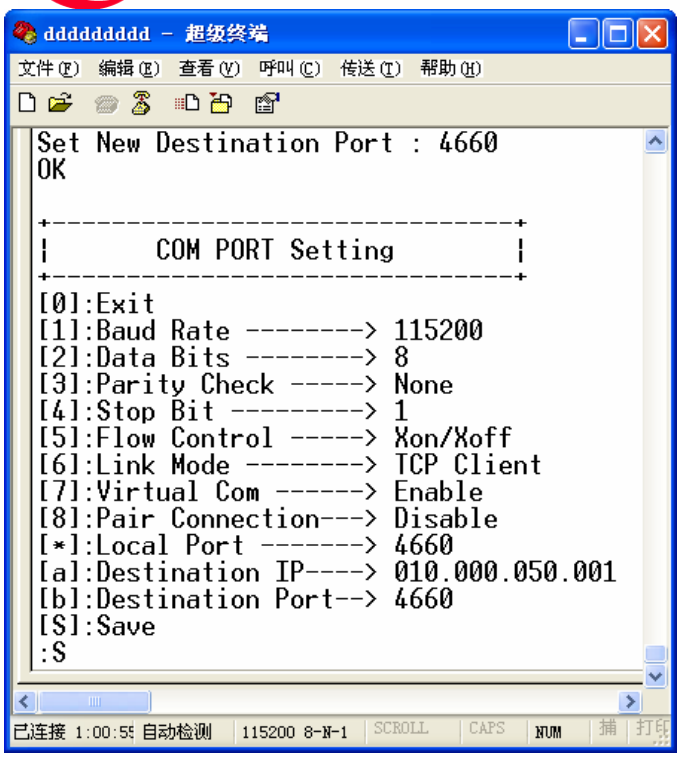
Destination Port



Here you can set the New Destination Port.

Save

When you changed all the setting you want to change, you should input **S** to save all the settings. Shown in the following figure:



Exit

You can input **0** to leave **COM PORT Setting** page.

Chapter 4 Web Console Configuration

The Web Console is the most user-friendly method available to configure NPort WS-120M.

This chapter introduces the Web Console function groups and function definitions.

The following topics are covered in this chapter:

Note:

You may use either a cross-over or straight-through Ethernet cable to connect NPort WS-120M to a PC, Hub, or Switch. NPort WS-120M.s Ethernet port will auto-detect which type of cable is being used, and then adjust the signals accordingly.

Configuring Your Browser

Before opening your browser, you need to enable cookies.

Attention:

To use the Web Console, you will need to **enable your browser for cookies**. Your browser's cookie options should be located on your browser's Internet Properties window. Since different browsers , and different versions of the same browser are configured differently, refer to your browser's help section for details.

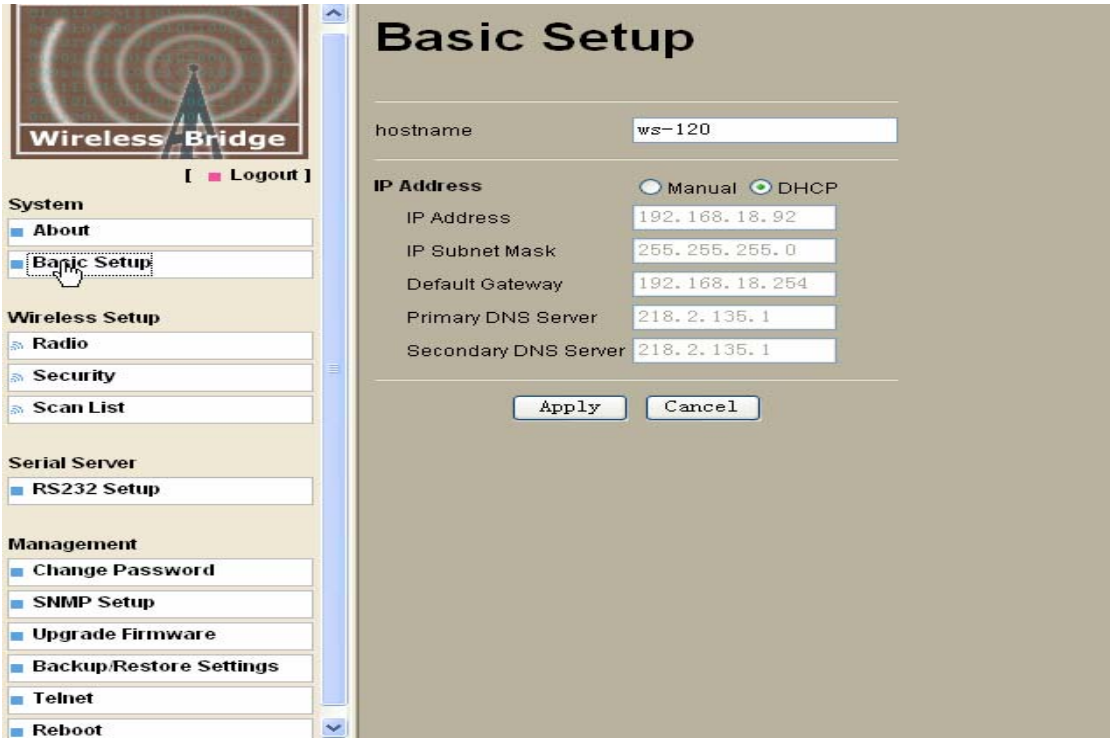
1. Type 192.168.*.* (the IP address which get from **DHCP** or you set through **HyperTerminal**) in your browser's **Address** box, and then press **Enter**.

2. Input the password if prompted. The password will be transmitted with MD5 encryption over the Ethernet. Note that you will not be prompted to enter the password if the NPort WS-120M is not currently password protected.

3. The NPort WS-120M homepage will open. On this page, you can see a brief description of the Web Console's four function groups.

System

Basic Setup



NPort WS-120M WLAN supported IP configurations are Manual and dynamic (DHCP).

Choose from two possible .**IP configuration modes. Manual** and **DHCP**.

IP configuration

Method	Function Definition
Static	User defined IP address, Netmask, Gateway.
DHCP	DHCP Server assigned IP address, Netmask, Gateway, DNS,and Time Server.

IP address

Setting	Factory Default	Necessity
E.g., 192.168.1.1 (IP addresses of the form x.x.x.0 and x.x.x.255 are invalid.	192.168.1.1	Required

An IP address is a number assigned to a network device (such as a computer) as a permanent address on the network. Computers use the IP address to identify and talk to each other over the network. Choose a proper IP address that is unique and valid in your network environment.

Netmask

Setting	Factory Default	Necessity
E.g., 255.255.255.0	255.255.255.0	Required

A netmask is used to group network hosts into subnets. When a packet is sent out over the network, the NPort WS-120M will use the netmask to check whether the desired TCP/IP host specified in the packet is on the same subnet as the NPort. If the address is on the same subnet, a connection is established directly between the NPort WS-120M and the host. If the host is not on the same subnet, the packet is sent to the Gateway address.

Gateway

Setting	Factory Default	Necessity
E.g., 192.168.1.1	None	Optional

A gateway is a network gateway that acts as an entrance to another network. Usually, the computers that control traffic within the network or at the local Internet service provider are gateway nodes.
NPort WS-120M needs to know the IP address of your network's default gateway computer in order to communicate with the hosts outside the local network environment.
For correct gateway IP address information, consult your network administrator.

Wireless Setup

Radio Settings

In "Radio Setting" page, You may choose from two different WLAN modes—Infrastructure Mode and Ad-hoc Mode—which are described in the following.

SSID

Enter the name of the wireless network (SSID) that the WS-120M is connected to.

Infrastructure Mode

In the following example, the NPort WS-120M communicates with the host computer via the AP. The host computer connects to the AP via an Ethernet connection, allowing serial data to be transmitted back and forth between the serial devices and host computer.

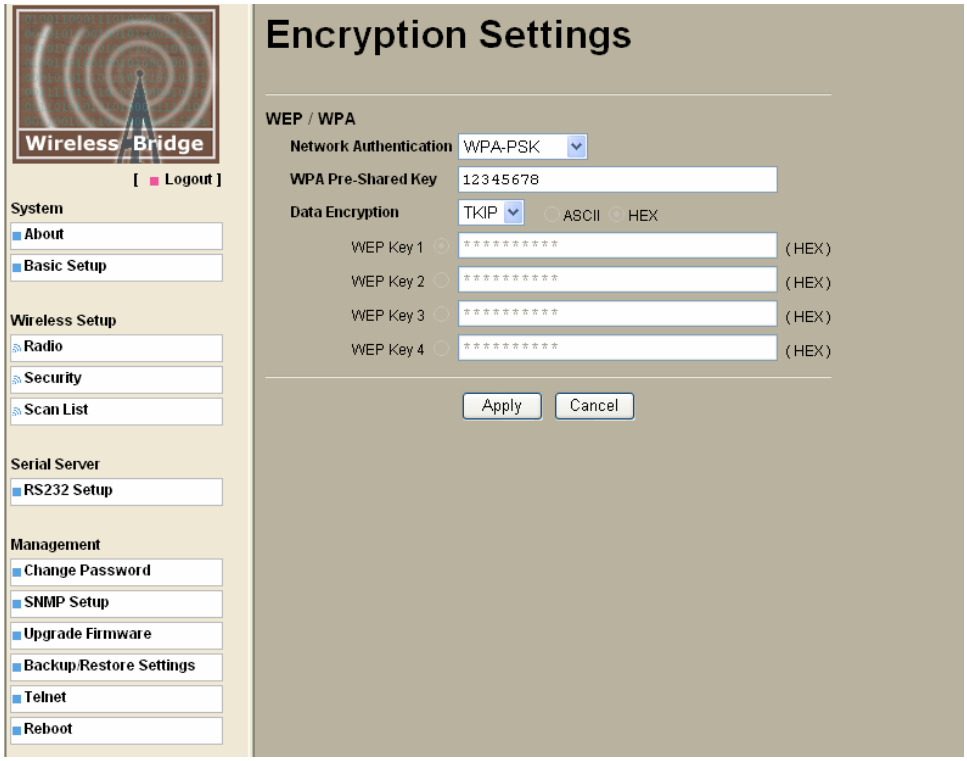
Ad-hoc Mode

In the following example, two NPort WS-120M devices establish an Ad-hoc peer-to-peer relationship, which means that they communicate with each other directly, without going through an AP (Access Point)..

Channel

Select a radio channel for the wireless network from the pull-down menu. In infrastructure mode, the AP will specify the channel automatically. In Ad-hoc mode, the user must use the pull-down menu to specify the channel.

Security



The wireless network interface supports data encryption (WEP, 64 or 128 bits) and WPA-PSK/WPA2-PSK encryption.

Network Authentication

Select an authentication scheme of **Open** System ,**WPA-PSK** or **WPA2-PSK** from the pull-down menu.

WPA Pre-Shared Key

When WPA-PSK or WPA2-PSK is **enabled**. You should fill the **WPA Pre-Shared Key** in the textbox.

WEP Key Index

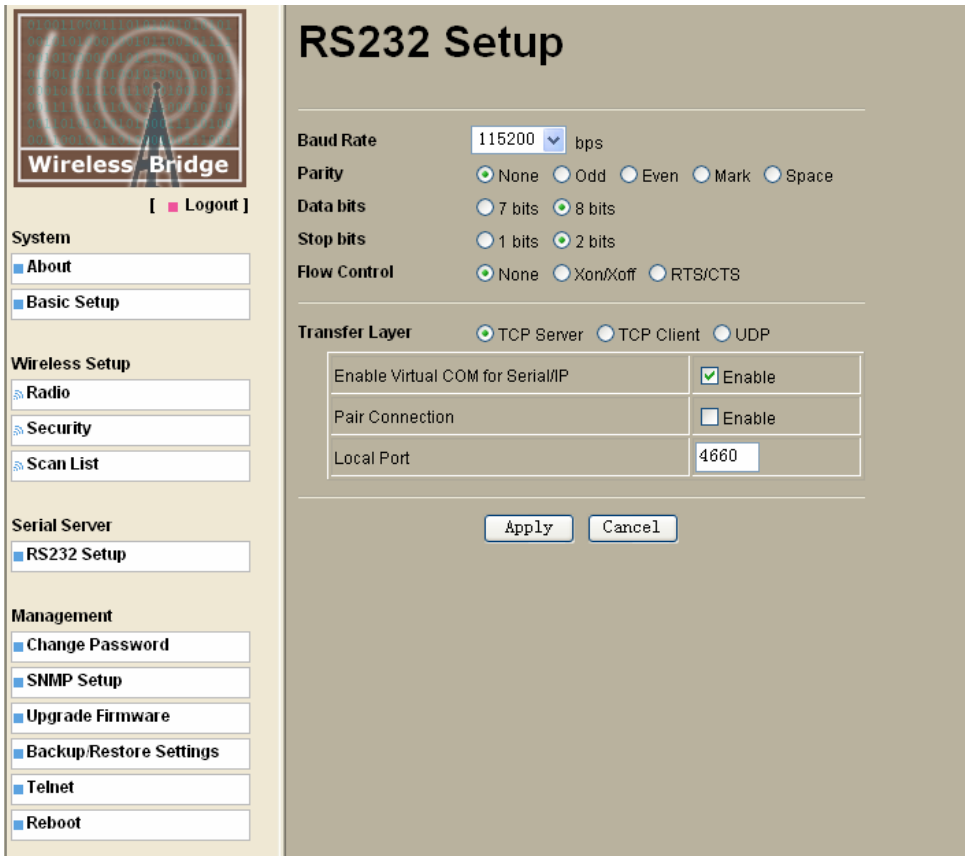
Selects the **Primary WEP Key** for your wireless network.

WEP Key 1/2/3/4

For each of the four WEP Keys, enter the appropriate **WEP Key**. The WEP Keys are used to help prevent data from being stolen as it is transmitted over public networks. The WEP Key setting(s) for the NPort WS-120M must be the same as the WEP Key settings for the AP.

Serial Server

RS232 Setup



Baud Rate

In the drop-down box you can select the Baud Rate of RS232

Parity

You can select the Parity from the radio button ”None, Odd, Even, Mark or Space”

Data bits

You can select the Data bits from the radio button ”7 bits or 8 bits”

Stop bits

You can select the Stop bits from the radio button ”1 bits or 2 bits”

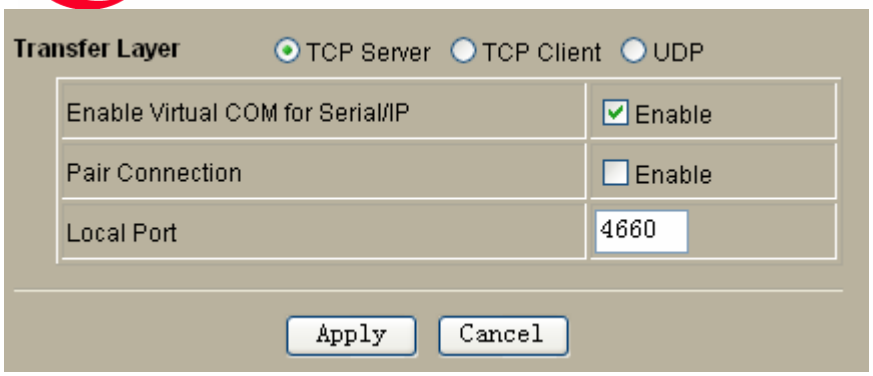
Flow Control

You can select the Flow Control from the radio button “None, Xon/Xoff or RTS/CTS”

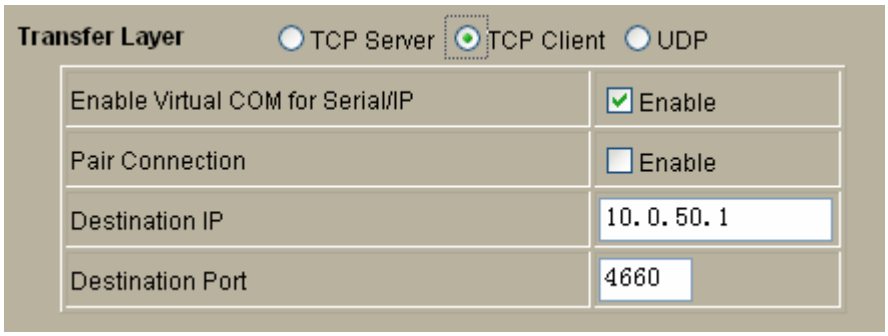
Transfer Layer

You can select the Transfer Layer from the radio button “TCP Server, TCP Client, UDP”

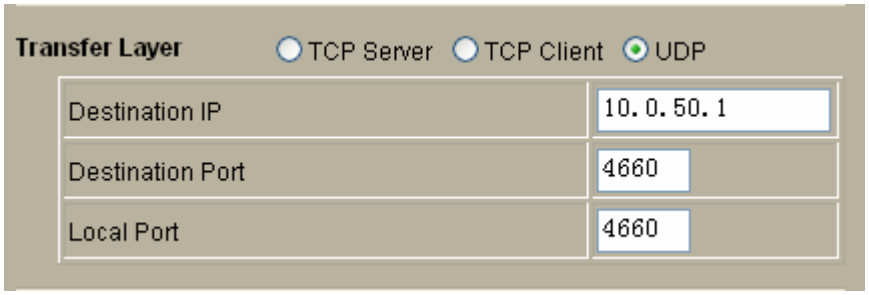
1.When you select the TCP Server, you should configure some setting of TCP Server as follows image:



2. When you select the TCP Client, you should configure some setting of TCP Client as follows image:

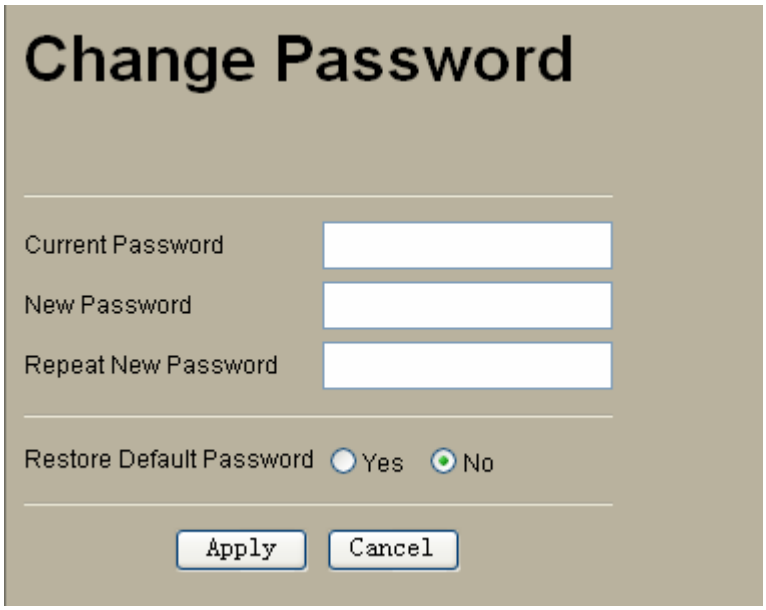


3. When you select the UDP, you should configure some setting of UDP as follows image:



Management

Change Password



You can have your desired password by changing password..

1. Take the following steps to change password.
2. Enter your currently-used password in the current field.
3. Enter your new password in the New Password field.
4. Re-enter the new password to confirm it in the Repeat New Password field.
5. Finally, click “Apply” to save the change.

(Also, if you desire to restore to the factory-set password, please click “Yes”.

The default setting is disabled.)

SNMP Setup

In SNMP Setup you can enable and disable SNMP.

Read Community Name

When you Enable the SNMP, you should set the **Read Community Name** same as **SNMP tool** Setting.

Write Community Name

When you Enable the SNMP, you should set the **Write Community Name** same as **SNMP tool** Setting.

IP Address to Receive Traps

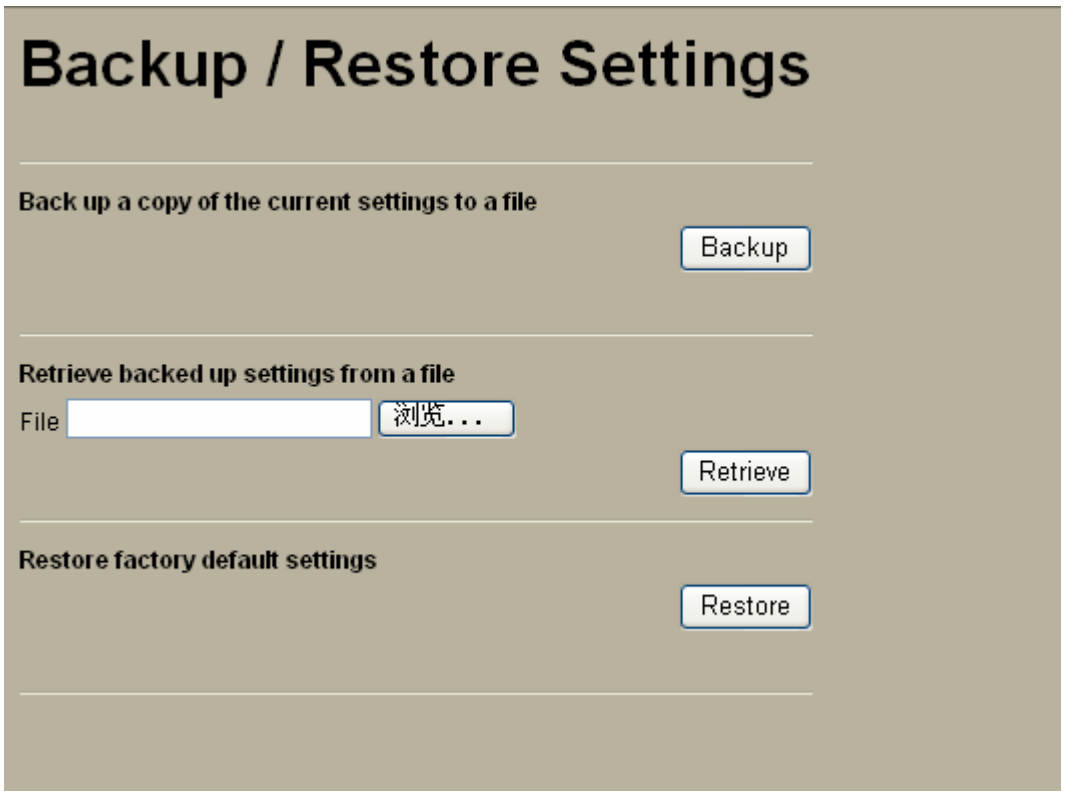
You can set a IP address, When SNMP tool change some setting, you can read some message from the address.

Upgrade Firmware

1. Open **Upgrade Firmware**;
2. Click **Browse** to select your wanted file for upgrade.
3. Click **Upload** to enable the file to be loaded to your WS-120M.
4. Reboot your WS-120M and check whether the firmware has been upgraded in the Basic Information.

Backup / Restore Settings

NPort WS-120M provides backup and restore for file management.



Backup:

You have access to back up the currently settings by enabling NPort WS-120M‘s Backup function.

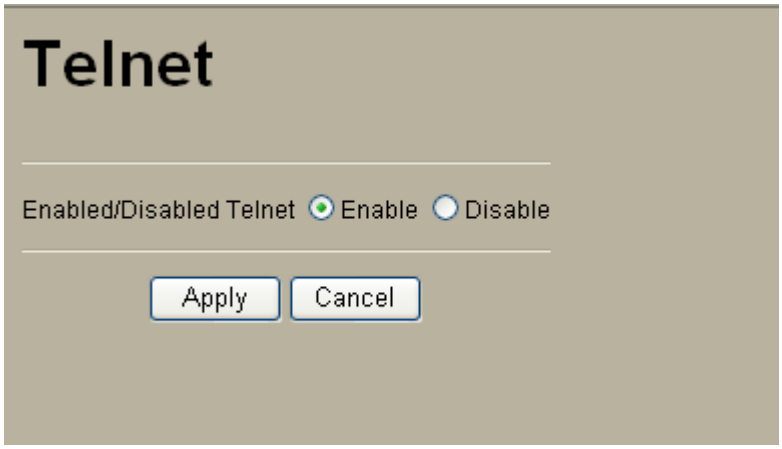
Retrieve:

Retrieve button allows you to retrieve your backup files.

Restore:

This button can be used to clear ALL data and restore ALL settings to the factory default values.

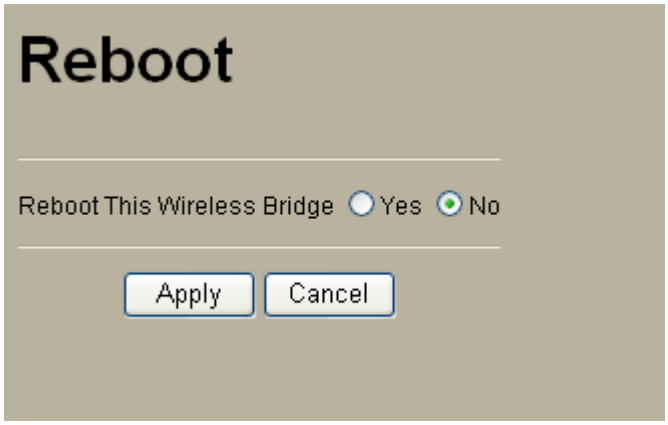
Telnet



In this page you can enable or disable the function of Telnet.

Reboot AP

In some cases, if you want to reboot NPort WS-120M, click Yes and then apply. WS-120M will reboot.



If you have any further questions, please contact your local authorized reseller for support.

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