

WIZ610WI Quick Installation Guide

(Version 1.0)



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WIZnet's Online Technical Support

If you have any questions about our products, please visit our website and post your questions on the [Q&A Board](#). We will reply your questions as soon as possible

The screenshot shows the WIZnet website homepage. At the top, there is a navigation bar with links for HOME, LOGIN, JOIN, CONTACT US, and language options (ENGLISH, CHINESE, JAPANESE, KOREAN), along with an On-line Mail button. A main navigation menu on the left includes PRODUCTS, TECHNOLOGY, TECHNICAL Q&A (highlighted with a 'CLICK' button), LIBRARY, DISTRIBUTOR, PARTNERSHIP, BLOG, and ABOUT US. The central banner features a WIZnet W5300 chip with the text 'Stable 70Mbps Guaranteed (in DMA!) W5300'. To the right, a 'WIZnet website Renewal Open with web 2.0 concepts!' announcement lists several updates: Easy-to-check new or amended info. thru 'What's updated' board; Support RSS in each board; Enhance Search function; Open Blog & Community menu; Build Technical forum as well as Q&A; Easy-to-find local distributors; WIZnet own innovation spirit visualized; Chinese version Grand Open!; and Japanese version Coming Soon!. Below the banner, there are sections for 'RoHS Semiconductor Production Line Control System', 'NEW PRODUCT W5300' (listing features like Over 50 Mbps, 16/8 bit data bus width, 8 independent sockets, and support for SWTCP/IP), and 'WHAT'S UPDATED' (listing updates like PPPoE in W53, WIZnet xDSR Firmware V2.9, W5300 Driver Document, W5300 Driver V1.0.1, and W5300 Reference Schematic). At the bottom, there are links for 'COMPANY OVERVIEW', 'DISTRIBUTOR', and various partner announcements including WIZwiki.net, ewiznet.com, WIZnet Ethernet 2007 Winners Announcement, IIC Taiwan Booth # 2L06, and WIZwiki.tistory.com.



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1. Hardware Setting

Step 1.Connecting Ethernet Cable

Connect WIZ610Wi evaluation board to PC by using the UTP Cable.

You can use any types of UTP cable (direct or crossover cable).

Step 2.Connecting Serial Cable

Connect WIZ610Wi evaluation board to your PC by using the DB9 female serial cable.

Step 3.Connecting Wireless LAN Antenna

Connect the wireless LAN antenna to the U.FL antenna connector of WIZ610wi.

The antenna should have pigtail.

2. Software Setting

2-1. The Configurations WEB Page

Step 1.Setting up the IP address of the PC

The default IP address and Subnet Mask of WIZ610Wi are 192.168.1.254 and 255.255.255.0 Please configure the IP address of your PC as 192.168.1.XXX and Subnet Mask as 255.255.255.0.

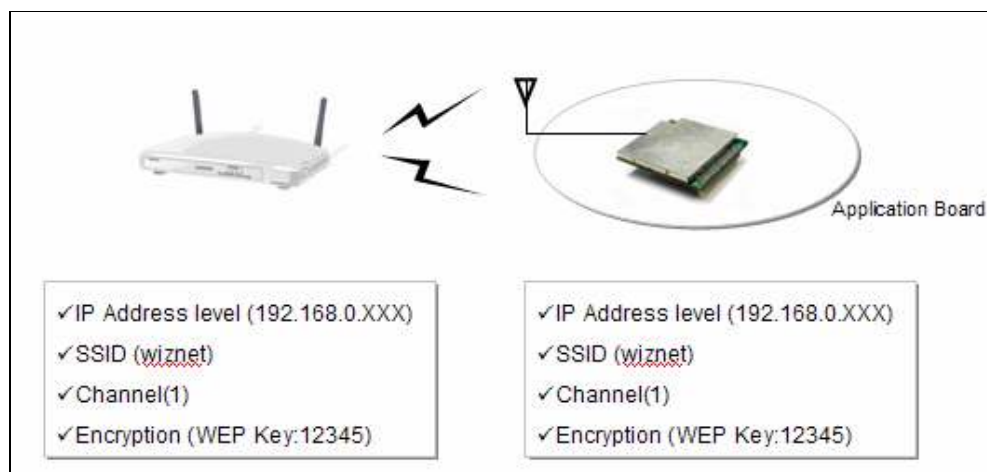
Step 2.Connecting Configuration Page

Open the web browser on your PC and input the IP address as “192.168.1.254” to connect to the configuration page. Please enter the ID and Password

(Default ID: [admin/](#) Password: [admin](#))

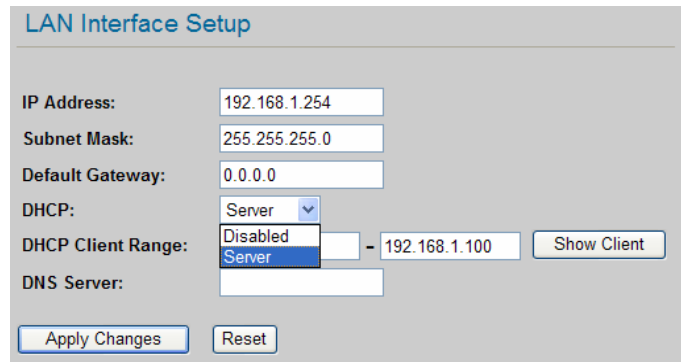
2-2. Network Setting

To establish a Wi-Fi communication, the devices in the same network must have same values in the parameters of IP address level, SSID, Channel, Encryption. For the detail, refer to below figure. If you setup WIZ610wi as Static IP, you have to know IP address level of Access Point.



Step 1. Wired Network Setting

Please set your IP address, Subnet Mask and Gateway of your WIZ610Wi. The default IP address is “192.168.1.254”.



The screenshot shows the 'LAN Interface Setup' web interface. It contains several input fields: 'IP Address' (192.168.1.254), 'Subnet Mask' (255.255.255.0), and 'Default Gateway' (0.0.0.0). The 'DHCP' mode is set to 'Server'. The 'DHCP Client Range' is set to 'Disabled' with a range of 192.168.1.100 and a 'Show Client' button. There is also a 'DNS Server' field. At the bottom, there are 'Apply Changes' and 'Reset' buttons.

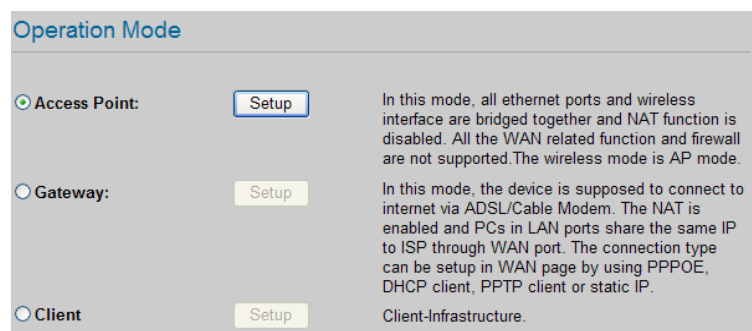
Step 2. DHCP Settings

Select if you use DHCP function or not, and configure the ‘DHCP Client Range’. When WIZ610Wi is set as DHCP server, it operates as below according to the operation mode.

- Access Point Mode : If there is another DHCP server operating at the upper level in the network, it assigns IP address to the client, but does not to WIZ610Wi. If there is not any other DHCP server, WIZ610Wi assigns IP address.
- Gateway Mode : In this mode, WIZ610Wi is a bridge for Ethernet to the MII interface. Regardless of DHCP server operating at the upper level, WIZ610Wi assigns IP address to the client.
- Client Mode : If WIZ610Wi is set as Client mode, it does not operate as DHCP Client. The application board directly acquires IP address from DHCP server.

2-3. Wireless Setting

Step 1. Please configure the operation mode of WIZ610Wi. You can select one of modes (Access Point, Gateway, and Client)

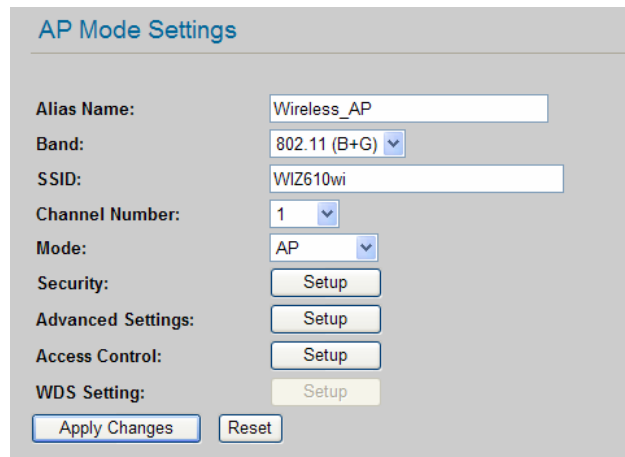


The screenshot shows the 'Operation Mode' selection screen. It has three radio buttons: 'Access Point' (selected), 'Gateway', and 'Client'. Each radio button has a 'Setup' button next to it. To the right of each mode is a brief description of its functionality.

Mode	Description
Access Point	In this mode, all ethernet ports and wireless interface are bridged together and NAT function is disabled. All the WAN related function and firewall are not supported. The wireless mode is AP mode.
Gateway	In this mode, the device is supposed to connect to internet via ADSL/Cable Modem. The NAT is enabled and PCs in LAN ports share the same IP to ISP through WAN port. The connection type can be setup in WAN page by using PPPoE, DHCP client, PPTP client or static IP.
Client	Client-Infrastructure.

Step 2. Please setup the following parameters: SSID / Channel Number/ Data Rate / Security /

Access Control / Advanced
/ WDS Setting



AP Mode Settings

Alias Name:

Band: ▼

SSID:

Channel Number: ▼

Mode: ▼

Security:

Advanced Settings:

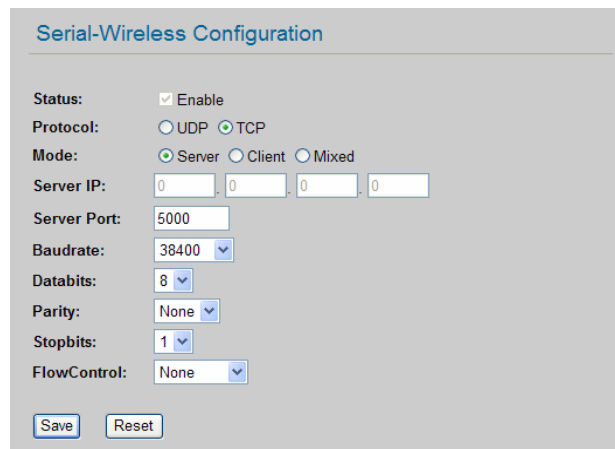
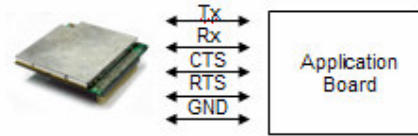
Access Control:

WDS Setting:

- **SSID:** SSID should be configured for the wireless communication. The default SSID is “WIZ610Wi”. You can rename your SSID to a name of your choice
- **Channel:** A different channel should be selected when your device experienced interferences from other wireless network. The default channel is set as “1”.
- **Security :** The default security setting is set as “Open System or Shared Key/NONE Encryption”.
- **Access Control :** The default Access Control is “Disable”.
- **WDS :** The default WDS is set as “AP” mode

2-4. Serial-Wireless Configuration

Step 1. Serial Parameter Setting



The screenshot shows the "Serial-Wireless Configuration" web interface. The configuration options are as follows:

- Status: Enable
- Protocol: UDP TCP
- Mode: Server Client Mixed
- Server IP: 0 . 0 . 0 . 0
- Server Port: 5000
- Baudrate: 38400
- Databits: 8
- Parity: None
- Stopbits: 1
- FlowControl: None

Buttons for "Save" and "Reset" are located at the bottom of the configuration panel.

Enable the status of “Serial to Wireless LAN” configuration

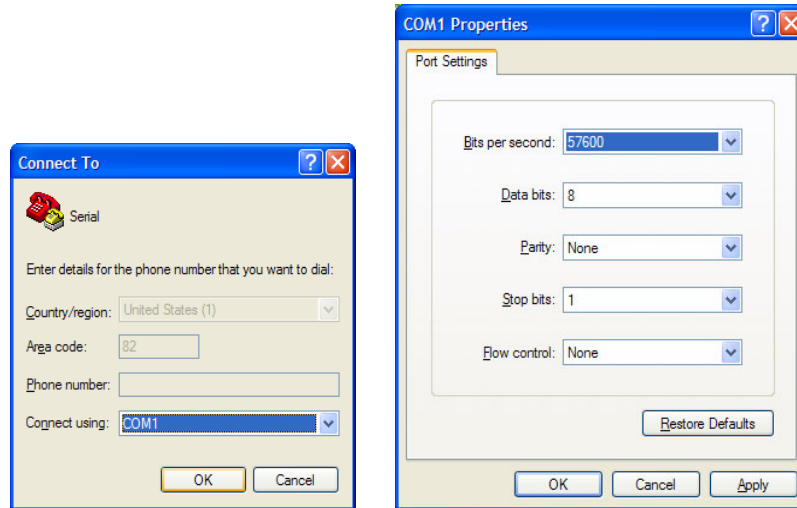
Input the serial parameters to communicate with the serial device.

- Protocol: Select UDP or TCP
- Mode : Select a mode (Server, Client, Mixed)
- Server IP/Port : At the Client or Mixed mode, you should set the server IP address. WIZ610Wi will try to connect to this server IP address.
- Configure Baud rate, Databits, Parity, Stopbits, Flow Control.

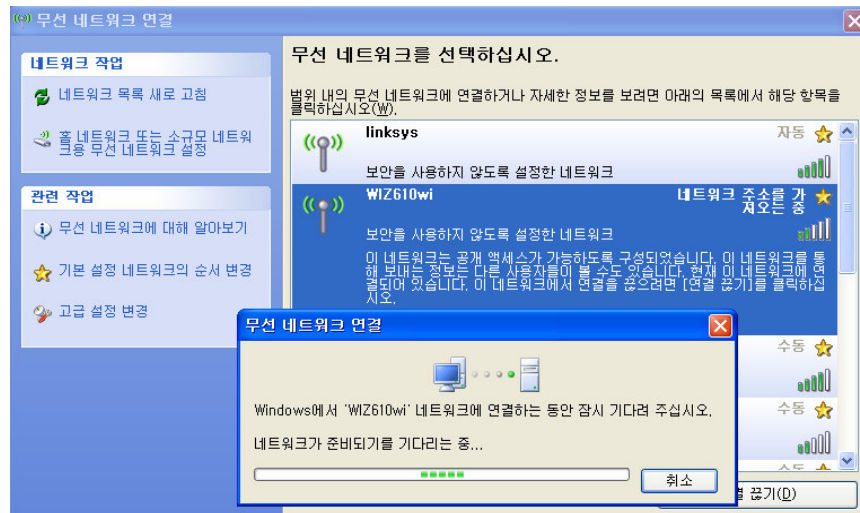
2-5. Testing

Step 1. Serial to Wireless Gateway Test

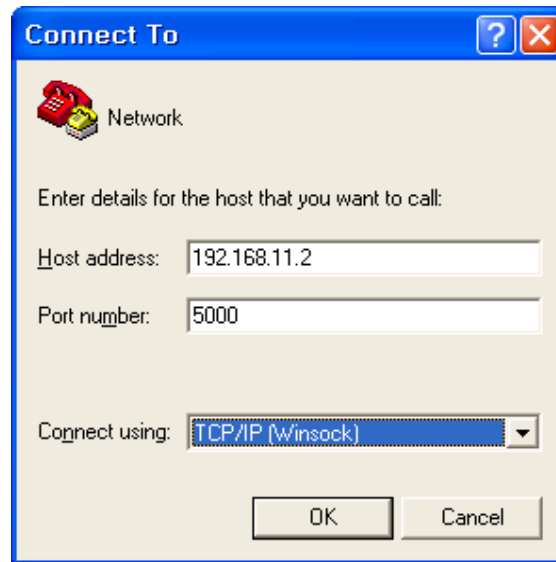
- Open a terminal program of your choice on your PC (ex: Hyper Terminal). Please set the same baud rate as the WIZ610Wi.



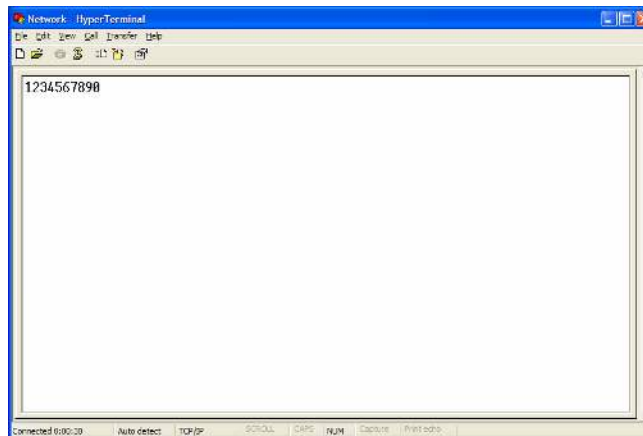
➤ Connect to “WIZ610Wi” in the Wireless Network Setting of your PC



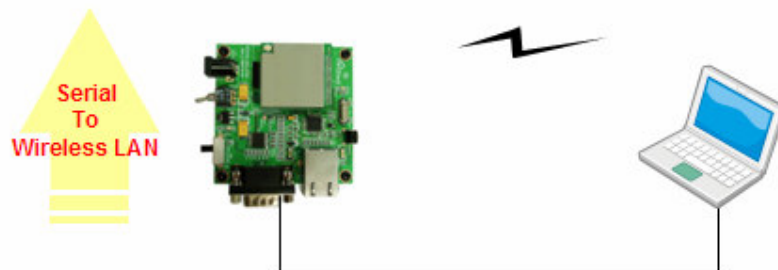
➤ Open another Terminal program and input IP address and Port Number of WIZ610Wi.



➤ Input any characters in the Hyper Terminal for Serial. (In the example below, “01234567890” is input). The same characters are outputted in the Hyper Terminal for Network. A Serial to Wireless LAN test was performed.



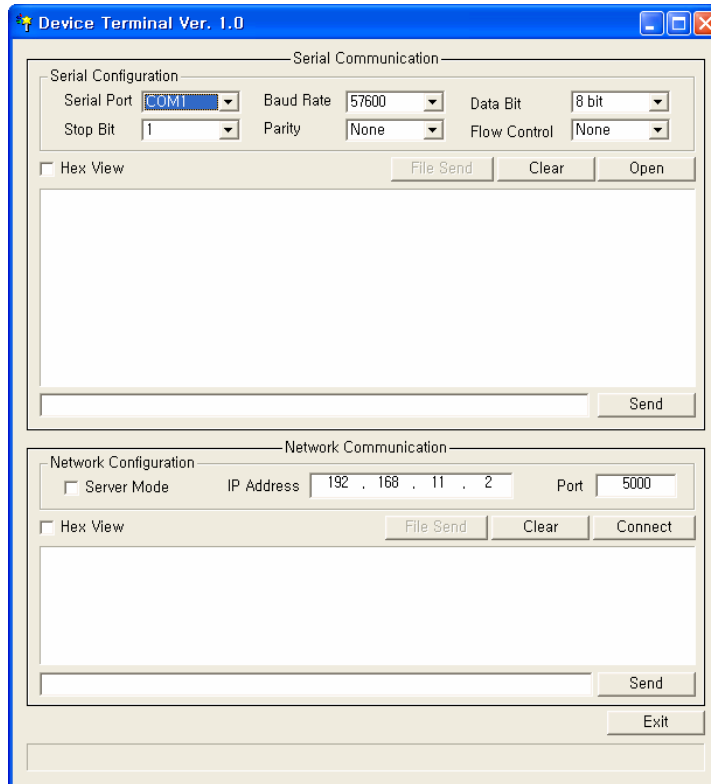
Received Data by Network Terminal Program



A serial to Ethernet test can also be performed by using the hyper terminal.

In the same way, input any character in the screen of terminal program for network, and check if same character is displayed in the screen for serial (Ethernet to Serial)

※ The above test can also be performed in a program called, “Device Terminal program”, which is easy and simple to use.



Device Terminal Program

Device Terminal is a program which integrates both serial and network communications into one user interface so that you can test your WIZnet gateway module easily.

As shown in above Figure, the upper part of the program allows you to configure your serial setting of WIZ610Wi. By clicking the “Open” button, serial communication is enabled.

The lower part of the program allows you to configure the network settings. You can test both TCP Client and TCP Server modes at the same time. If the Server Mode is enabled, Device Terminal will operate as server mode, and the WIZ610Wi module will work as client mode. The PC where the Device Terminal is operating will work as a server, the IP address of the PC should be set as Server IP of the module. If Server mode is not checked, Device Terminal will operate as client mode, and the module as server. For the IP address and port, please input your IP address and port number of WIZ610Wi and click the “Connect” button to start a network communication.



When serial and network terminals are connected, input any character in the Data Input window and click “Send” button. You can check the data is transferred into the another window.