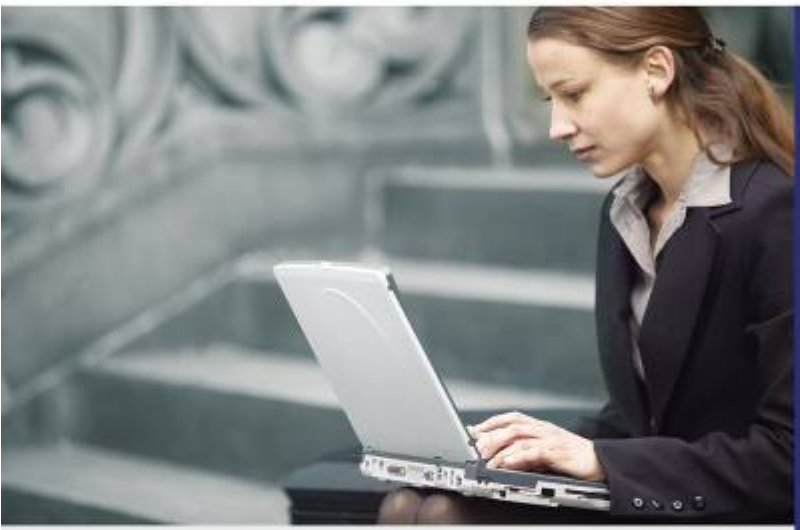
LEVITON

User's Manual

300Mbps Dual-Band 802.11n Wireless Gigabit Router

► 47611-WG4



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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 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 encourages to try to correct the interference by one or more of the following measures:

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

FCC and IC Statement:

To assure continued compliance, (example-use only shielded interface cables when connecting to computer or peripheral devices) any changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.

This device complies with Part 15 of the FCC Rules and Industry Canada licence-exempt RSS standard(s). Operation is subject to the Following two conditions:

(1) This device may not cause harmful interference

(2) This Device must accept any interference received, including interference that may cause undesired operation.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.

Canadian Department of Communications

The device meets the exemption from the routine evaluation limits in section 2.5 of RSS 102 and compliance with RSS-102 RF exposure, users can obtain Canadian information on RF exposure and compliance.

Le dispositif rencontre l'exemption des limites courantes d'évaluation dans la section 2.5 de RSS 102 et la conformité à l'exposition de RSS-102 rf, utilisateurs peut obtenir l'information canadienne sur l'exposition et la conformité de rf.

Federal Communication Commission (FCC) Radiation Exposure Statement

This equipment complies with FCC radiation exposure set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20 cm (8 inches) during normal operation.

The device in the 5150-5250 MHz band is for indoor use only.

R&TTE Compliance Statement

This equipment complies with all the requirements of DIRECTIVE 1999/5/CE OF THE EUROPEAN PARLIAMENT AND THE COUNCIL OF 9 March 1999 on radio equipment and telecommunication terminal Equipment and the mutual recognition of their conformity (R&TTE).

The R&TTE Directive repeals and replaces in the directive 98/13/EEC (Telecommunications Terminal Equipment and Satellite Earth Station Equipment) As of April 8, 2000.

Safety

This equipment is designed with the utmost care for the safety of those who install and use it. However, special attention must be paid to the dangers of electric shock and static electricity when working with electrical equipment. All guidelines of this and of the computer manufacture must therefore be allowed at all times to ensure the safe use of the equipment.

WEEE regulation

To avoid the potential effects on the environment and human health as a result of the presence of hazardous substances in electrical and electronic equipment, end users of electrical and electronic equipment should understand the meaning of the crossed-out wheeled bin symbol. Do not dispose of WEEE as unsorted municipal waste and have to collect such WEEE separately.

Revision

User Manual for LEVITON 300Mbps Dual Band 802.11n Wireless Gigabit Router

Model: 47611-WG4

Rev: 1.3 (March, 2014)

CONTENTS

Chapter 1. Product Introduction

1.1 Package Contents

Thank you for choosing LEVITON 47611-WG4. Before installing the router, please verify the contents inside the package box.

47611-WG4 Wireless Router

Quick Installation Guide

CD-ROM

(User Manual included)

Power Adapter

12V/1A DC output
100~240V AC input

Ethernet Cable

Ethernet Cable

Note

If there is any item missed or damaged, please contact the Leviton Tech Support immediately.

1.2 Product Description

2.4G & 5G Simultaneous Dual Band Wireless Connectivity

Since there are more and more wireless applications and electric devices using the radio frequency of 2.4GHz, the wireless channel of 2.4GHz has been already too crowded for clients to enjoy the high-speed wireless connection. In order to avoid the wireless interference between each other, LEVITON 47611-WG4 provides users the radio frequency of 5GHz for watching HD videos or playing online games additionally. At the same time, it enables other users still surf the Internet via the original radio frequency of 2.4 GHz. The 47611-WG4 is just like 2 totally independent Access Points in one device for you.

Multiple Network Technologies for Incredibly 600Mbps High-Speed Connection

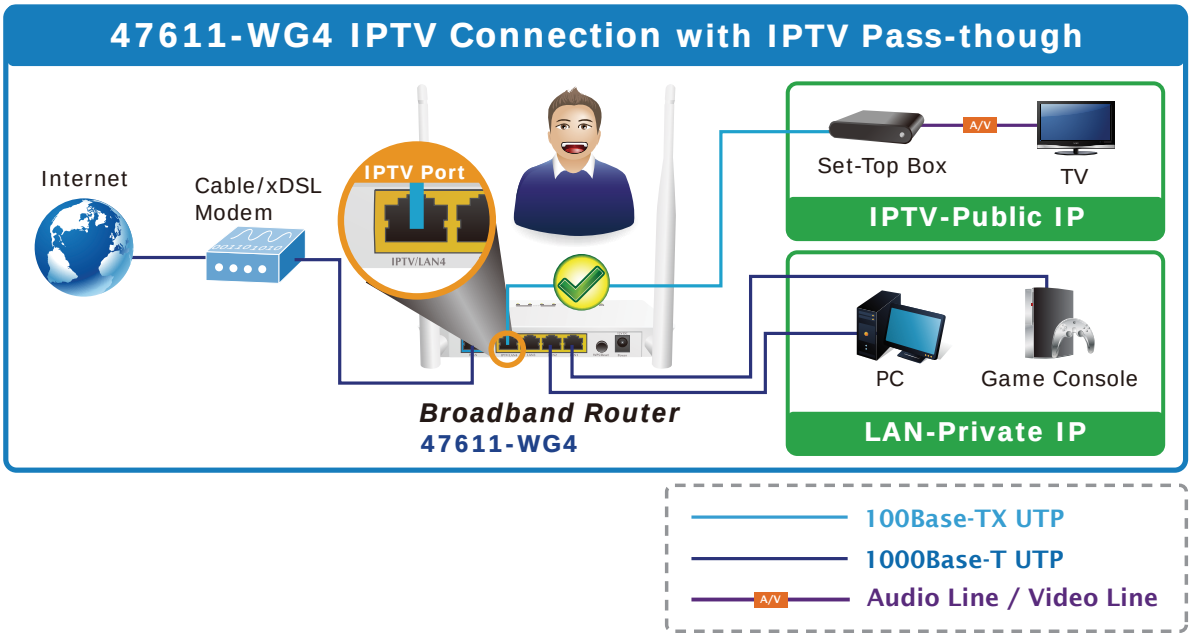
The 47611-WG4 supports IEEE 802.11a/b/g/n Dual Band standard with 2T2R antenna technology, therefore it can provide the wireless speed up to 300 + 300Mbps which is 12 times faster than that of traditional 11g Access Point. Moreover, the 47611-WG4 is equipped with all Gigabit Ethernet Ports. Compared with general wireless routers, the 47611-WG4 offers faster transmitting speed and more convenient method to enable or disable wireless signal.

Fully Support of Wireless Security Encryption

To secure the wireless communication, the 47611-WG4 supports up-to-date encryption technology, WPA / WPA2 and WPA-PSK / WPA2-PSK with TKIP/AES. The 47611-WG4 supports Wi-Fi Protected Setup (WPS) configuration with PBC/PIN methods to simplify the wireless security settings. By just clicking the WPS button, the secure connection between the wireless AP and wireless client will be built immediately.

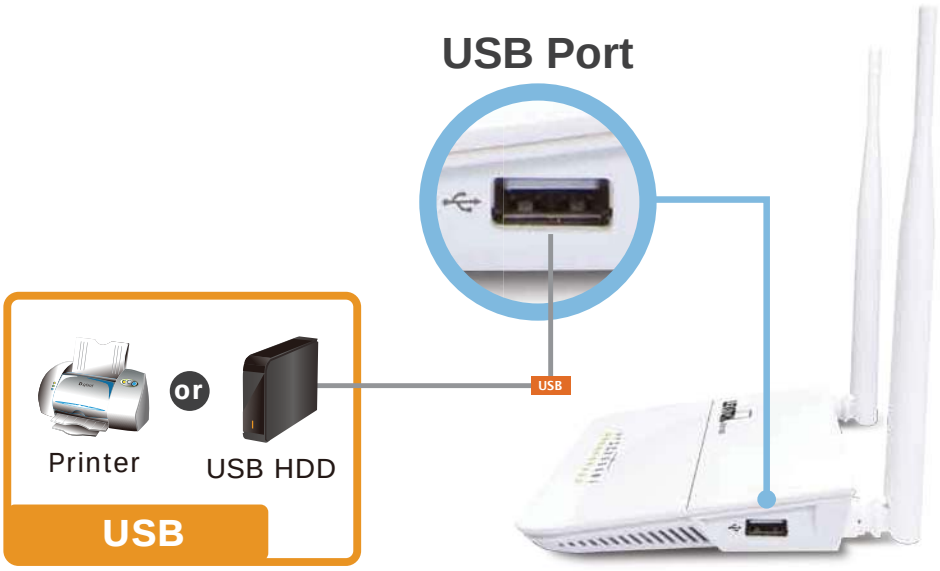
IPTV Pass-through for Video On Demand

The 47611-WG4 provides an IPTV-specific port which enables the IPTV Set-Top-Box (STB) connection directly by passing through the LAN port. The IPTV feature makes it possible for users to enjoy online videos on the TV set via Set-Top-Box (STB) through the 47611-WG4 while surfing Internet. The IPTV port can also function as a LAN port if IPTV service is not enabled.



More Flexible File Sharing over USB port

The 47611-WG4 is built-in with one USB 2.0 port which can be connected to a USB printer or storage device for file sharing. It can recognize the USB printer or storage automatically without user experience. Thus, all clients on the network can share printer or mass storage through the 47611-WG4 without complicated network configuration. Via the USB port, it also can output 5V DC power to charge any USB compliant devices.



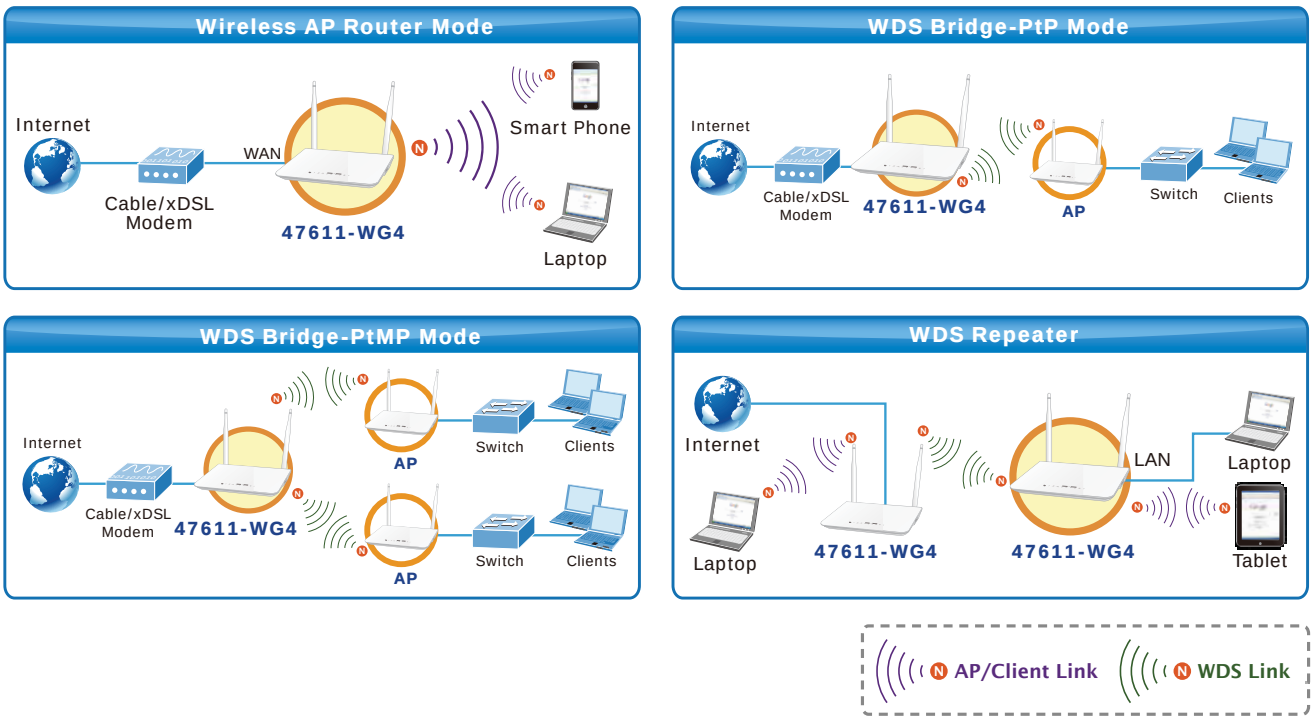
* Sharing Printer and Mass Storage

Powerful Firewall and Complete Access Control Functions

The 47611-WG4 supports NAT function allowing multiple users to access Internet via a single legal IP. It also provides Virtual Server for the specific LAN PC to act as an application server and offer certain service to the clients on the Internet. In addition, the powerful firewall protects your Intranet clients from unauthorized accesses and various kinds of DoS attacks from the Internet. In the aspect of firewall, the 47611-WG4 supplies IP-based and MAC-based access control to prevent possible hackers attack.

Easy Setup for Multiple Wireless Modes

The 47611-WG4 supports multiple wireless modes including AP, Wireless Bridge, and Repeater, for different network applications. Furthermore, with the built-in Quick Setup function, users can configure the 47611-WG4 easily and quickly through a couple of simple steps. It is so easy to apply the 47611-WG4 to the existing wired network. The 47611-WG4 definitely provides a total network solution for the home and the SOHO users.



Wireless Coverage Plus !

The 47611-WG4 is equipped with **5dBi High-Gain** antennas to provide strong signal and excellent performance even in the long range or bad environment. Besides essential wireless sharing for Wi-Fi clients, the 47611-WG4 provides **WDS (Wireless Distribution System)** bridge mode to facilitate wireless network deployments and range expanding. It provides more flexibility for users while establishing wireless network.

1.3 Product Features

- **IEEE Compliant Wireless LAN & Wired LAN**
  - Compliant with IEEE 802.11a/b/g/n dual-band (2.4G&5G) wireless technology capable up to 300+300Mbps data rate
  - Equipped with all Gigabit RJ-45 ports (10/100/1000Mbps) of 1 WAN and 4 LAN ports
  - Auto MDI/MDI-X supported
  - LAN4 supports IPTV Pass-through enables you enjoy online videos
- **Fixed-network Broadband Router**
  - Supported WAN connection types: Dynamic IP/ Static IP / PPPoE / PPTP / L2TP / PPPoE Dual Access
  - Supports Dynamic DNS and DHCP Server
- **Secure Network Connection**
  - Supports Wi-Fi Protected Setup (WPS)
  - Advanced security: 64/128-bit WEP, WPA/WPA2 and WPA-PSK/WPA2-PSK (TKIP/AES encryption)
  - Supports NAT firewall, IP / Port / URL-based access control and MAC address Filtering

- Support Dual-SSID to allow users to access different networks through a single AP

➢ **Advanced Networking function for Specific Application**

- Supports Bandwidth Control (QoS) based on different local IP addresses
- Supports NTP, Virtual Server, UPnP, and DMZ for various networking applications
- Equipped with one USB port for sharing printers and USB mass storages wirelessly

➢ **Easy Installation & Management**

- User Friendly Web-based UI with On-line Help
- Remote Management allows configuration from a remote site
- System status monitoring includes DHCP Client List and System Log

1.4 Product Specification

Product	**47611-WG4** 300Mbps Dual-Band 802.11n Wireless Gigabit Router	
Hardware Specification		
Interface	WAN Port:	1 x 10/100/1000Mbps Auto MDI/MDI-X RJ45 port
	LAN Port:	3 x 10/100/1000Mbps Auto MDI/MDI-X RJ45 ports (LAN1~3)
	IPTV Port:	1 x 10/100/1000Mbps Auto MDI/MDI-X RJ45 port (LAN4)
	USB Port :	USB 2.0, Type-A, 5V DC/0.5A Output
Antenna	Gain:	2 x 5dBi fixed antenna
	Orientation:	Omni-directional
Reset / WPS Button	Reset / WPS button at rear panel ■ Press for about 7 seconds to reset the device to factory default. ■ Press for 1 second to activate WPS function.	
LED Indicators	PWR/SYS, WLAN (2.4G & 5G) x 2 WAN (Link & 1000Mbps) x 1 LAN (Link & 1000Mbps) x 3 IPTV (Link & 1000Mbps) x 1 USB, WPS	
Material	Plastic	
Dimension (WxDxH)	171.61 x 111.16 x 25.47 mm (W x D x H)	
Weight	8.81oz	
Power Requirement	12V DC, 1A	
Wireless interface Specification		
Standard	Compliance with IEEE 802.11a/b/g/n	
Frequency Band	Simultaneous 2.4 GHz and 5 GHz 2.4GHz: 2.412~2.484GHz 5GHz: 5.180~5.825GHz	
Transmission Distance	Indoor up to 100m	
RF Power (Intentional Radiator)	**2.4GHz:** 11b: 17±1dBm 11g: 14.5±1.5dBm 11n: 12.5±1.5dBm	**5GHz:** 11a: 12±1.5dBm 11n: 12±1.5dBm
Wireless Management Features		
Wireless Modes	■ AP ■ WDS PtP ■ WDS PtMP	

Encryption Security	■ WEP (64/128-bit) ■ WPA-PSK (TKIP) / WPA2-PSK (AES) ■ WPA (TKIP) / WPA2 (AES)
Wireless Security	Provide Wireless LAN ACL (Access Control List) filtering
	Wireless MAC address filtering
	Support WPS (WIFI Protected Setup)
Wireless Advanced	Support Dual-SSID (2.4G & 5G)
	AP Isolation: Enable it to isolate each connected wireless client.
	Support 802.11e WMM (Wi-Fi Multimedia)
Max. Supported Clients	Wire: 15 Wireless: 10
Router Features	
Internet Connection Type	Shares data and Internet access for users, supporting following internet access: ■ Dynamic IP ■ Static IP ■ PPPoE ■ PPTP ■ L2TP ■ PPPoE Dual Access
Firewall	NAT firewall
	Built-in NAT server which supports Virtual Server, and DMZ
	Built-in firewall with IP address filtering, Port filtering, URL filtering, and MAC address filtering
Routing Protocol	Static Routing
LAN	Built-in DHCP server supporting static IP address distributing
	Support UPnP, Dynamic DNS
	Support Packets Statistics
	IP-based Bandwidth Control
	Session Number: Max. 8000
System Management	Web-based (HTTP) management interface
	Remote management (WAN Access Control)
	SNTP time synchronize
	System Log
OS Compatibility	Windows 7 Windows Vista Windows XP Mac OS X 10.4 and higher

Chapter 2. Hardware Installation

Please follow the instructions below to connect 47611-WG4 to the existing network devices and your computers.

2.1 Hardware Description

- **Dimension**: 171.61 x 111.16 x 25.47mm (W x D x H)
- **Diagram :**

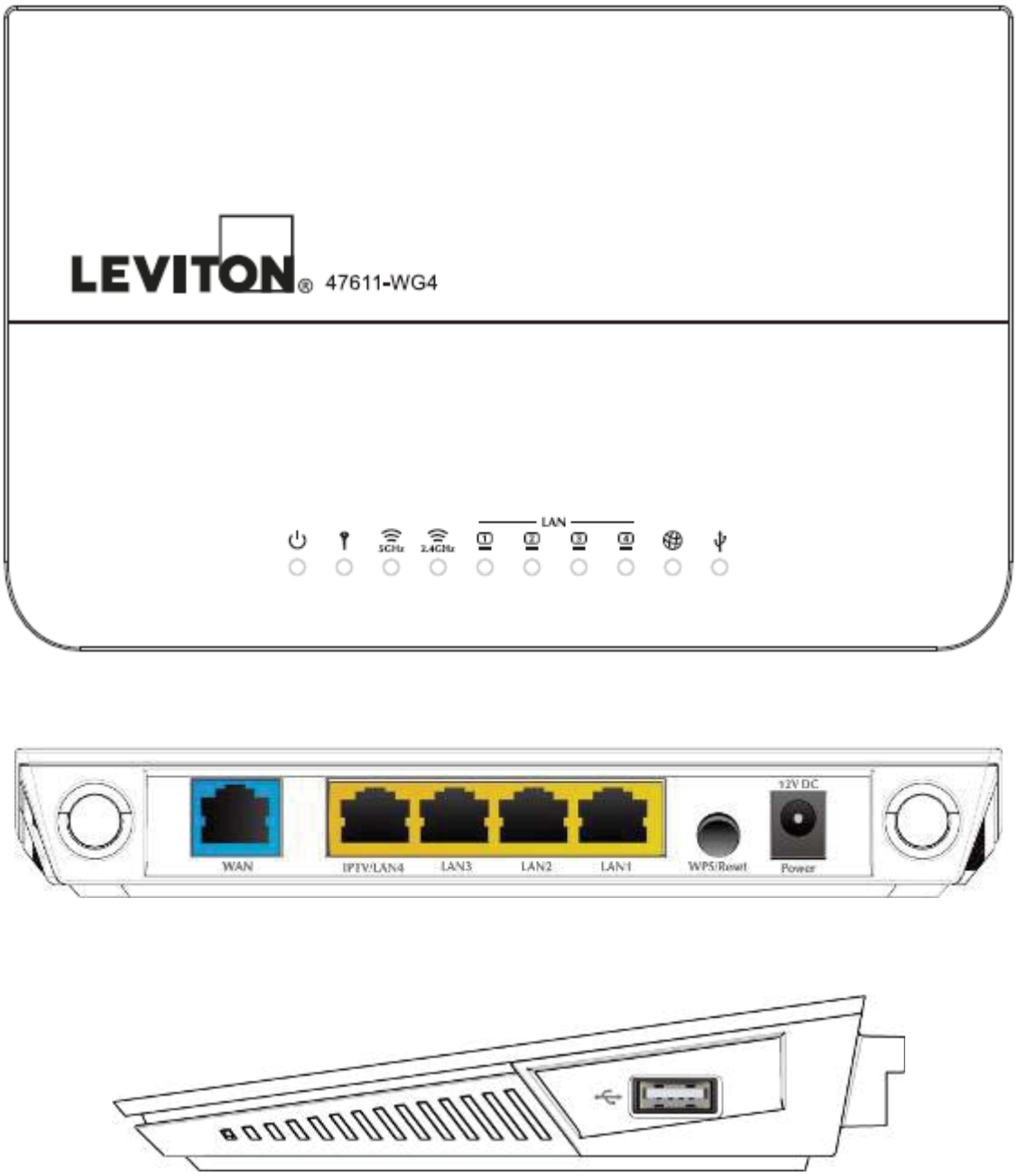


Figure 2-1

2.1.1 The Front Panel

The front panel provides a simple interface monitoring the router. Figure 2-2 shows the front panel of 47611-WG4.

Front Panel

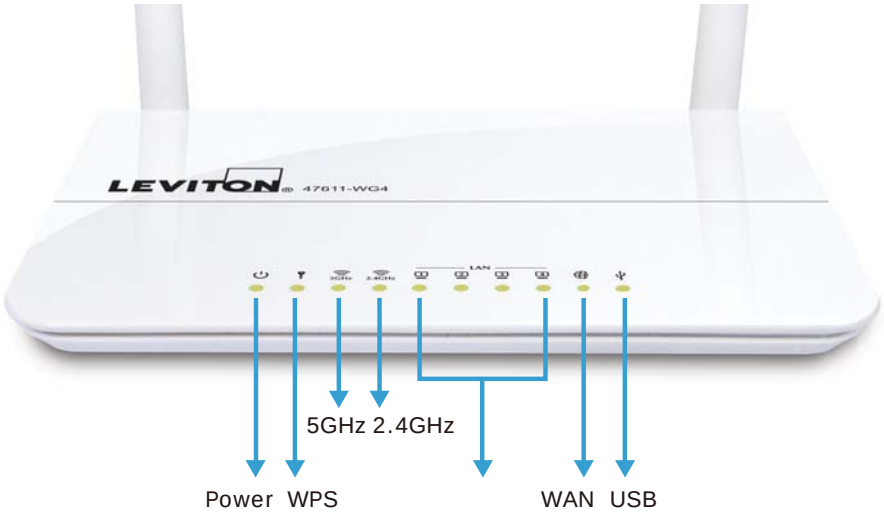


Figure 2-2 47611-WG4 Front Panel

2.1.2 LED Indications

The LEDs on the front panel indicate instant status of port links, wireless data activity, system power; and help monitor and troubleshoot when needed. Figure 2-2 and Table 2-1 show the LED indications of the Wireless Router.

LED Definition

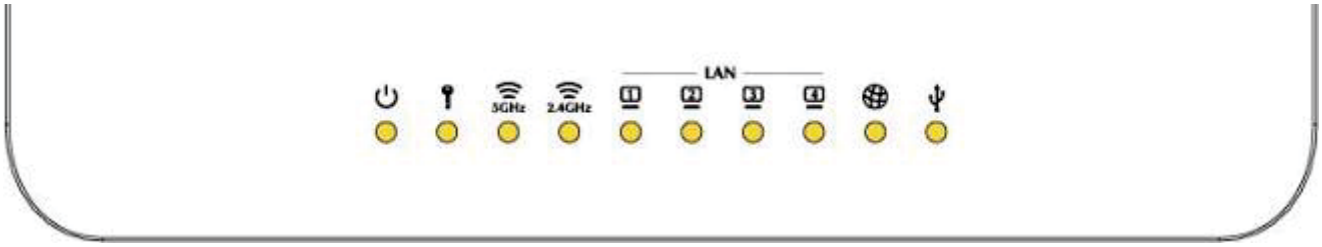


Figure 2-3 47611-WG4 Front Panel

LED (Left to Right)	STATE	FUNCTION
PWR	On	Device power on
	Flash	The system is working properly
	Off	Device power off

	WPS	Flash	The system is performing WPS authentication on a client device.
5GHz	5G	On Flash	The 5G WiFi is activated Device is transmitting data wirelessly over 5GHz
2.4GHz	2.4G	On Flash	The 2.4G WiFi is activated Device is transmitting data wirelessly over 2.4GHz
	LAN 1~4	On Flash Off	Link is established Packets are transmitting or receiving LAN port is not connected
	WAN	On Flash Off	Link is established Packets are transmitting or receiving WAN port is not connected
	USB	On Off	The USB port is correctly connected The USB port is not connected

Table 2-1 The LEDs indication

2.1.3 The Rear Panel

The rear panel provides the physical connectors connected to the power adapter and any other network devices. Figure 2-3 shows the rear panel of 47611-WG4.

Rear Panel

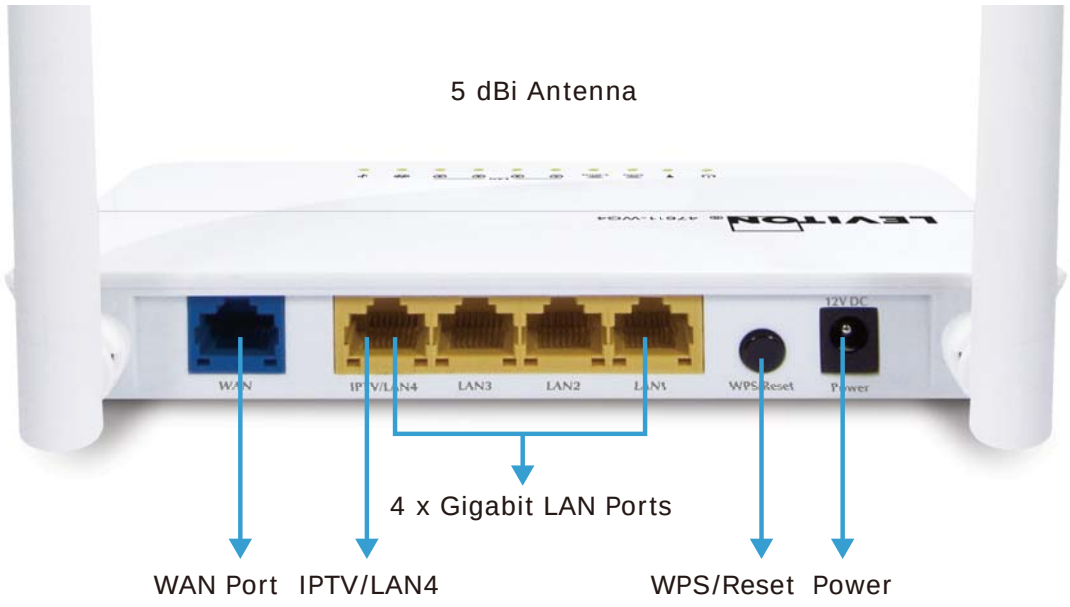


Figure 2-4 Rear Panel of 47611-WG4

Interface	Description
Antenna x 2	Fixed Dual-Band 5dBi Omni Dipole Antennas
WPS/Reset	■ Press the Reset button gently for **1 second** and then release it. The system starts to WPS connection. ■ Press the Reset button gently for **7 seconds** and then release it. The system restores to the factory default settings.
WAN	Connect to the Cable/xDSL Modem, or the Ethernet
LAN1-4	Connect to the user's PC or network devices
Power	Connect to the power adapter provided in the package

Table 2-2 The Interface indication

2.1.4 The Right Side Panel

47611-WG4 built-in with one USB 2.0 port can be connected to a **USB printer** or **storage for file sharing**. The USB port also output 5V DC power can charge any USB compliant devices.

Right Side Panel

* Sharing Printer and Mass Storage

Figure 2-5 USB port of 47611-WG4

Chapter 3. Connecting to the Router

3.1 System Requirements

- Broadband Internet Access Service (Cable/xDSL/Ethernet connection)
- One Cable/xDSL Modem that has an RJ-45 connector (not necessary if the Router is connected directly to the Ethernet.)
- PCs with a working Ethernet Adapter and an Ethernet cable with RJ-45 connectors
- PC of subscribers running Windows 98/ME, NT4.0, 2000/XP, Windows Vista / Win 7, MAC OS 9 or later, Linux, UNIX or other platform compatible with **TCP/IP** protocols
- Above PC installed with WEB Browser

1. The Router in the following instructions means LEVITON 47611-WG4.
2. It is recommended to use Internet Explore 7.0 or above to access the Router.

3.2 Installing the Router

Before installing the Router, make sure your PC is connected to the Internet through the broadband service successfully at this moment. If there is any problem, please contact your local ISP. After that, please install the Router according to the following steps. Don't forget to pull out the power plug and keep your hands dry.

Step 1. Power off your PC, Cable/xDSL Modem, and the Router.

Step 2. Locate an optimum location for the Router. The best place is usually at the center of your wireless network.

Step 3. Adjust the direction of the antenna. Normally, upright is a good direction.

Step 4. Connect the power adapter to the power socket on the Router, and the other end into an electrical outlet. Then power on the Router.

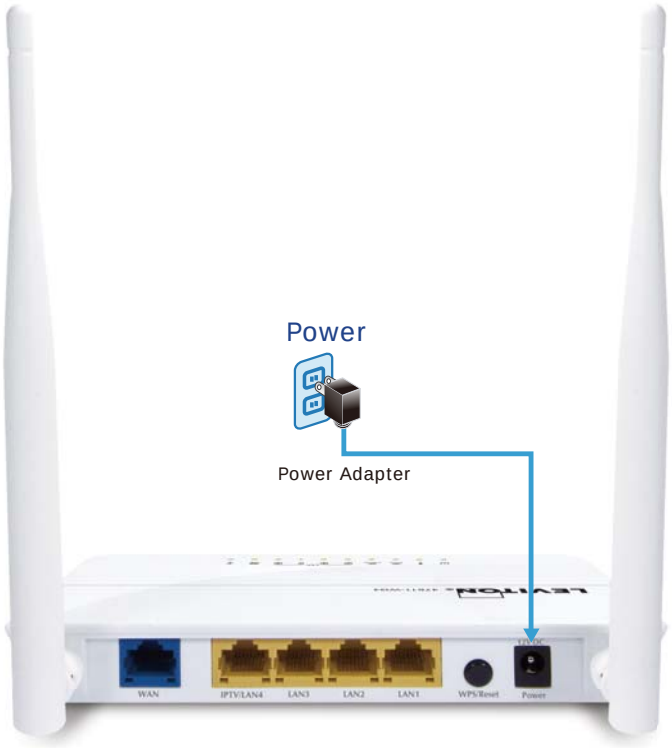


Figure 3-1 Hardware Installation-1

Step 5. Follow the figure below to connect the network devices. It depends on your network environment to connect the WAN port to a Cable/xDSL modem, or the Ethernet directly in your place.

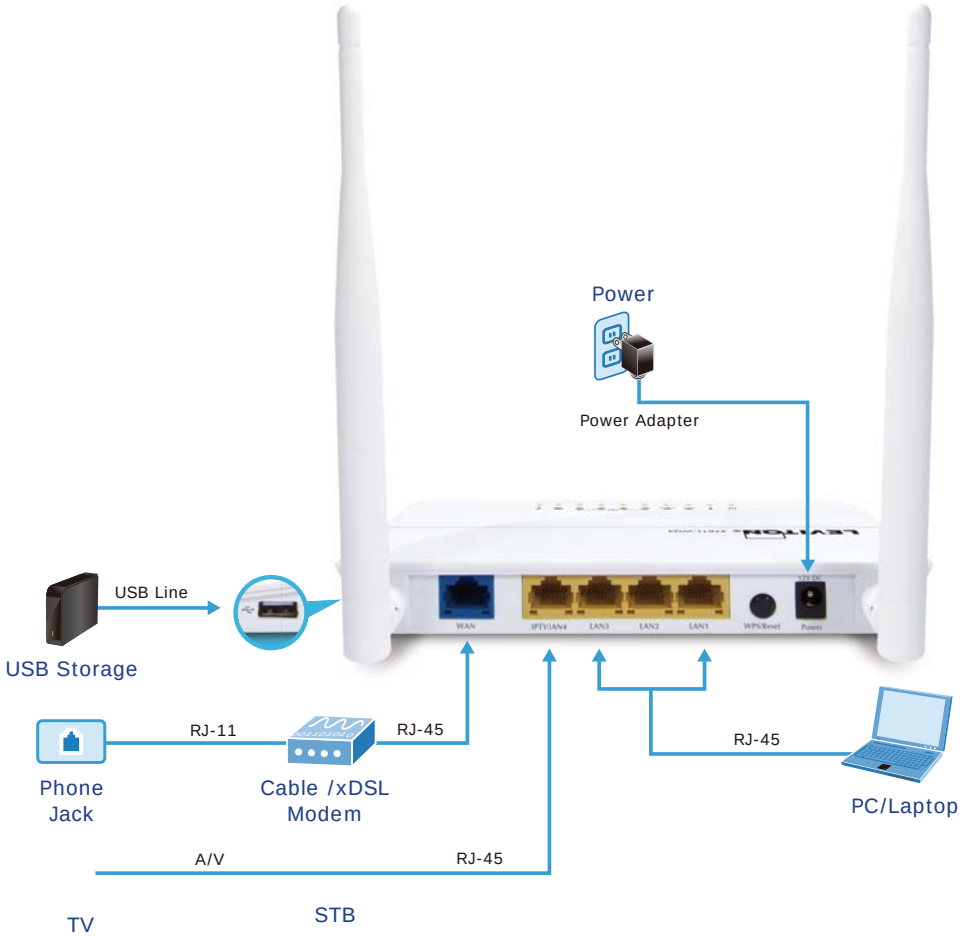


Figure 3-2 Hardware Installation-2

Chapter 4. Quick Installation Guide

This chapter will show you how to configure the basic functions of your Wireless Router using **Quick Setup** within minutes.

A computer with wired Ethernet connection to the Wireless Router is required for the first-time configuration.

4.1 Manual Network Setup - TCP/IP Configuration

The default IP address of the 47611-WG4 is **192.168.0.1**. And the default Subnet Mask is 255.255.255.0. These values can be changed as you desire. In this guide, we use all the default values for description.

Connect the local PC to the LAN ports of the Router. And then you can configure the IP address for your PC in the following two ways.

- **Obtain an IP address automatically**
- **Configure the IP address manually**

In the following sections, we'll introduce how to install and configure the TCP/IP correctly in **Windows XP**. And the procedures in other operating systems are similar. First, make sure your Ethernet Adapter is working, and refer to the Ethernet adapter's manual if needed.

4.1.1 Obtain an IP Address Automatically

Summary:

1. Set up the TCP/IP Protocol in "**Obtain an IP address automatically**" mode on your PC.
2. Then the 47611-WG4 built-in DHCP server will assign IP address to the PC automatically.

1. Install TCP/IP component

1) On the Windows taskbar, click the **Start** button, point to **Settings**, and then click **Control Panel**.
2) Click the **Network and Internet Connections** icon, and then click on the **Network Connections** tab in the appearing window.
3) Right click the icon shown below, select Properties on the prompt window.

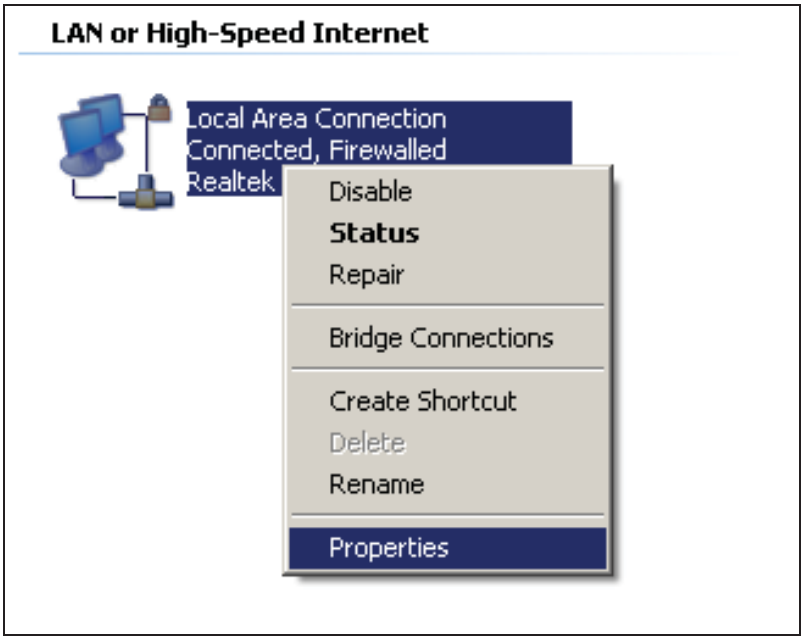


Figure 4-1

4) In the prompt window shown below, double click on the **Internet Protocol (TCP/IP)**.

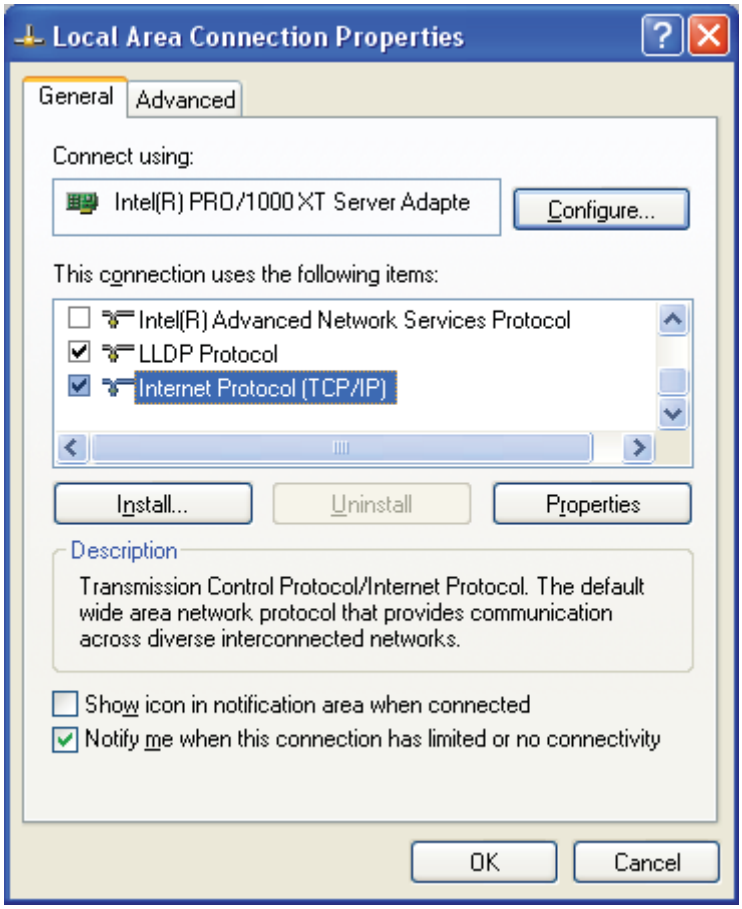


Figure 4-2

5) The following **TCP/IP Properties** window will display and the **IP Address** tab is open on this window by default.

2. Setting IP address automatically

Select **Obtain an IP address automatically**, Choose **Obtain DNS server automatically**, as shown in the Figure below:

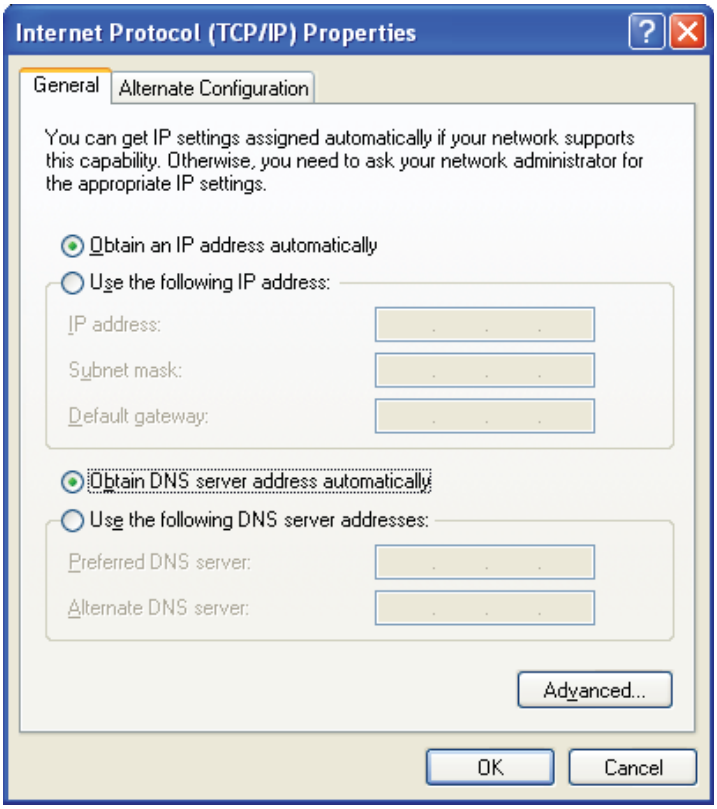


Figure 4-3

Now click **OK** to save your settings.

4.1.2 Configure the IP Address Manually

Summary:

- Set up the TCP/IP Protocol for your PC.
- Configure the network parameters. The IP address is ***192.168.0.xxx*** ("xxx" is any number from 2 to 254), Subnet Mask is ***255.255.255.0***, and Gateway is ***192.168.0.1*** (The Router's default IP address)

1 Select **Use the following IP address** radio button.

2 If the Router's LAN IP address is 192.168.0.1, enter IP address 192.168.0.x (x is from 2 to 254), and **Subnet mask** 255.255.255.0.

3 Enter the Router's LAN IP address (the default IP is 192.168.0.1) into the **Default gateway** field.

4 Select **Use the following DNS server addresses** radio button. In the **Preferred DNS Server** field, you can enter the DNS server IP address which has been provided by your ISP

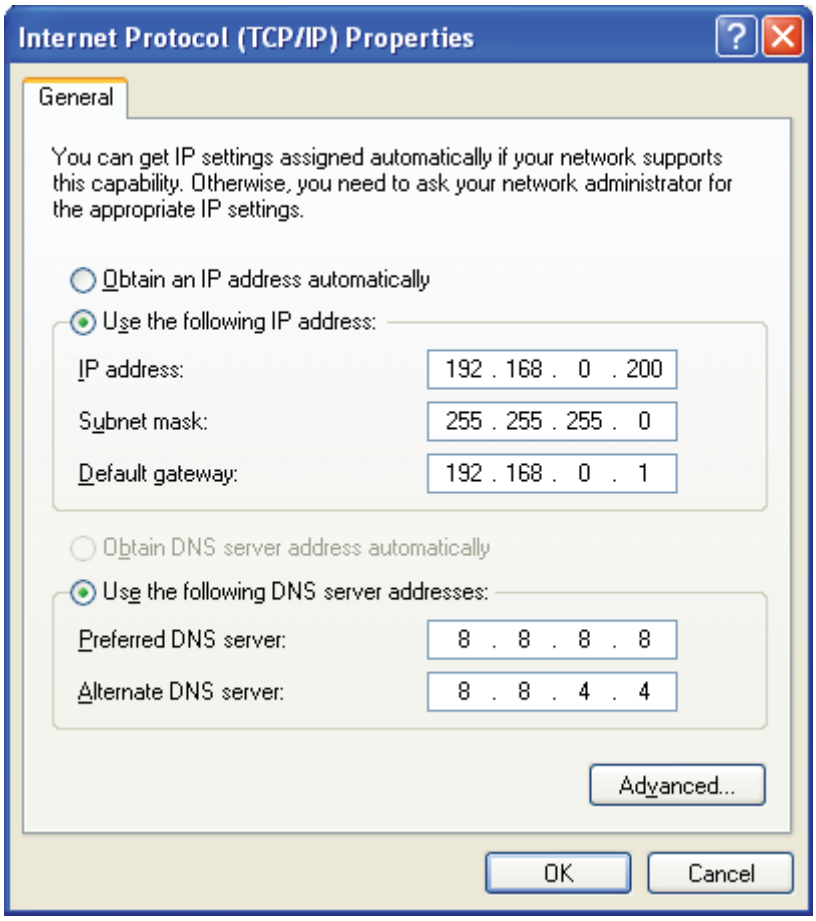


Figure 4-4

Now click **OK** to save your settings.

Now, you can run the Ping command in the **command prompt** to verify the network connection between your PC and the Router. The following example is in **Windows XP** OS. Please follow the steps below:

1. Click on **Start > Run**.

Figure 4-5

2. In the run box type "**cmd**" and click OK. (Windows Vista users type "**cmd**" in the Start .Search box.)At the prompt.

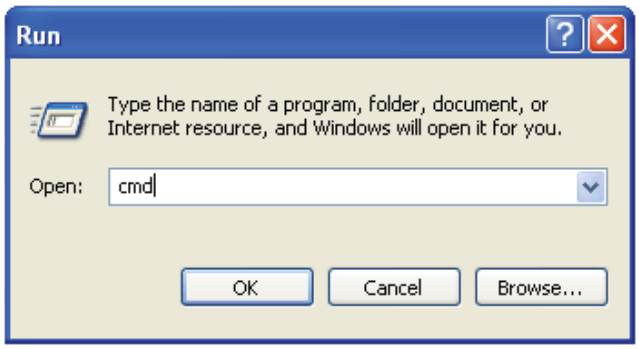


Figure 4-6

Open a command prompt, and type ***ping 192.168.0.1***, and then press **Enter**.

- If the result displayed is similar to Figure 4-7, it means the connection between your PC and the Router has been established well.

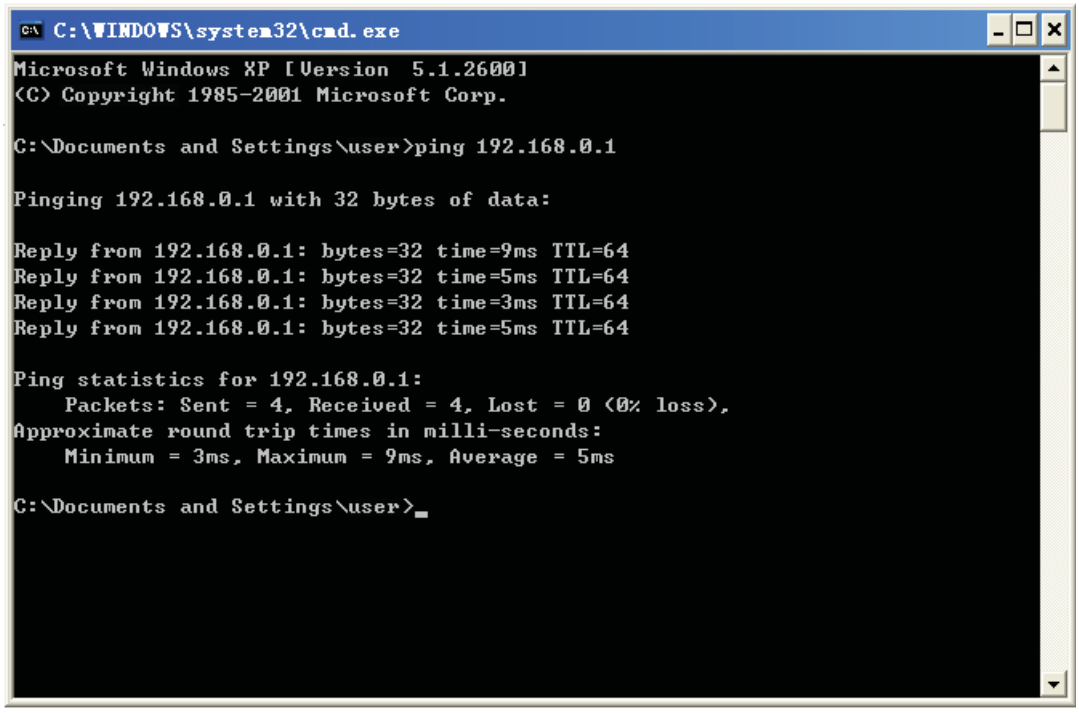


Figure 4-7 Success result of Ping command

- If the result displayed is similar to Figure 4-8, it means the connection between your PC and the Router has failed.

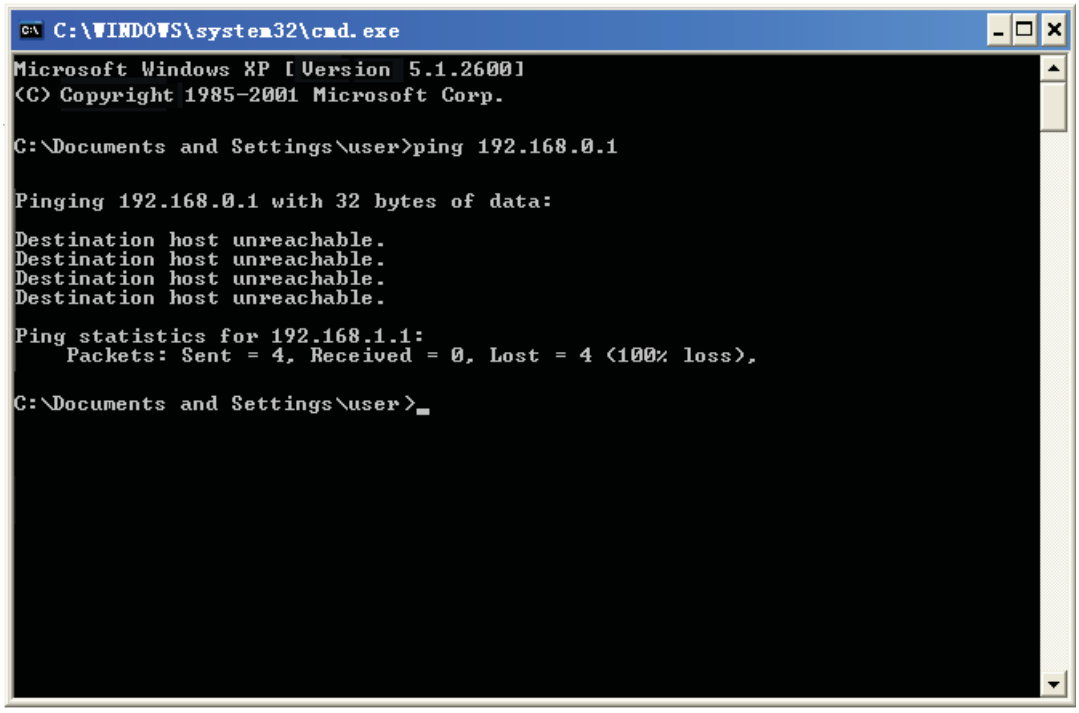


Figure 4-8 Failure result of Ping command

If the address is 0.0.0.0, check your adapter installation, security settings, and the settings on your router. Some firewall software programs may block a DHCP request on newly installed adapters.

1. The 1/2/3/4 LEDs of LAN ports which you link to on the Router and LEDs on your PC's adapter should be lit.
2. If the Router's IP address is 192.168.0.1, your PC's IP address must be within the range of 192.168.0.2 ~ 192.168.0.254.

4.2 Starting Setup in the Web UI

It is easy to configure and manage the 47611-WG4 with the web browser.

Step 1. To access the configuration utility, open a web-browser and enter the default IP address http://192.168.0.1 in the web address field of the browser.

Figure 4-9 Login the Router

After a moment, a login window will appear. Enter **admin** for the User Name and Password, both in lower case letters. Then click the **OK** button or press the **Enter** key.

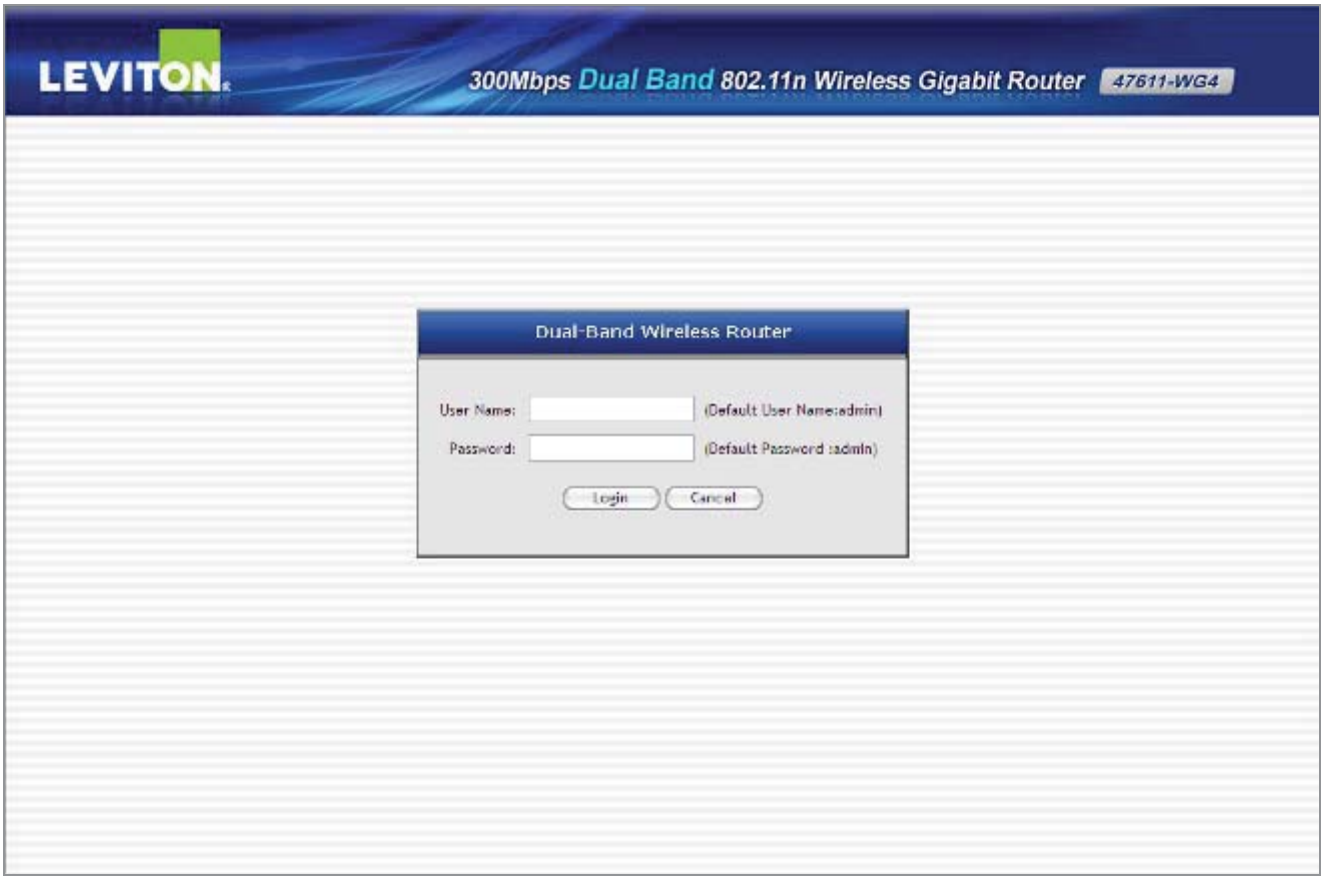


Figure 4-10 Login Window

Default IP Address: **192.168.0.1**

Default User name: **admin**

Default Password: **admin**

Note

If the above screen does not pop up, it may mean that your web-browser has been set to a proxy. Go to Tools menu>Internet Options>Connections>LAN Settings, in the screen that appears, cancel the Using Proxy checkbox, and click OK to finish it.

After entering the username and password, the **Easy Quick Setup** page screen appears as Figure 4-11.

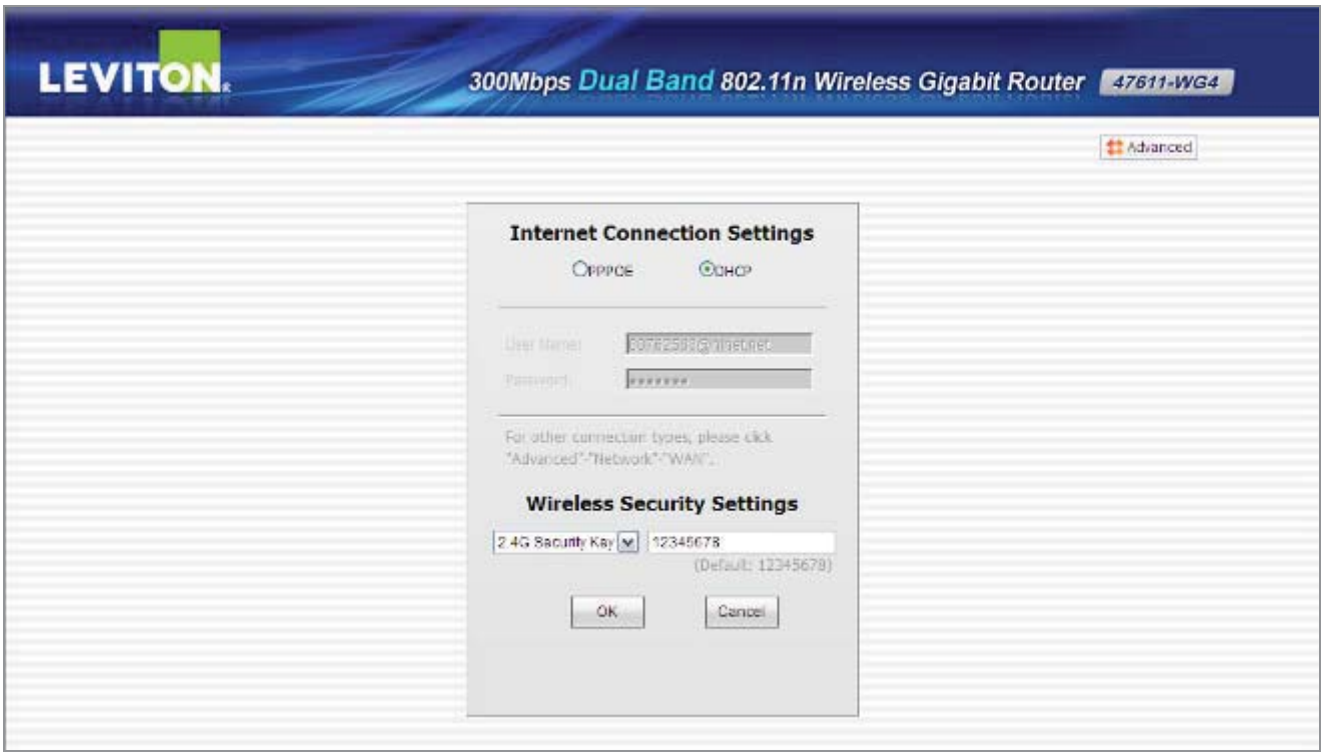


Figure 4-11 47611-WG4 Web UI Screenshot

Step 2. Choose the correct Internet Access method. Please refer to the instructions in the next chapter for configuring the other Broadband types.

Figure 4-12 Choose Internet Access Method

Step 3. Please enter the **User Name**, **Password** and **SSID security key and etc**. Then click **OK** button to make the configuration take effect immediately.

Figure 4-13

Step 4. For more detail network setting and functions configuration, you can click the **Advanced** button to configure your Router.


LEVITON
300Mbps Dual Band 802.11n Wireless Gigabit Router
47611-WG4
Advanced
Internet Connection Settings
PPPOE
DHCP
For other connection types, please click "Advanced"-"Network"-"WAN".
Wireless Security Settings
2.4G Security Key
12345678
(Default: 12345678)
OK
Cancel

Figure 4-14

Chapter 5. Configuring the Router

This chapter delivers a detailed presentation of router's functionalities and features under 8 main menus below, allowing you to manage the router with ease.

Figure 5-1

During operation, if you are not clear about a certain feature, you can simply click the "Help" button to read all related helpful info.

5.1 Device Info

In this page, you can view information about the current running status of 47611-WG4, including WAN interface, LAN interface, Wireless interface settings and status, and firmware version information.

■ WAN

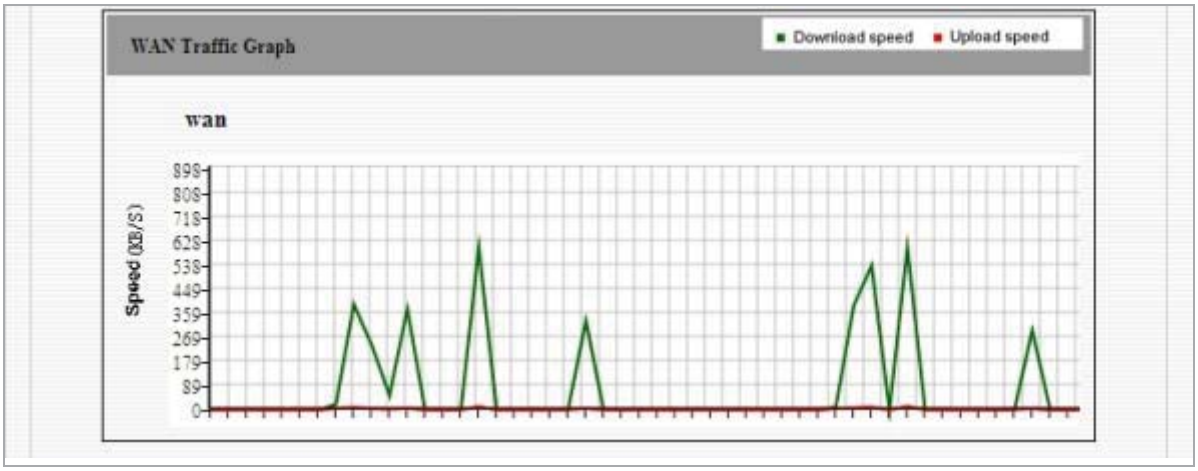


Figure 5-1-1

This section allows you to view the router's WAN info listed below:

Object	Description
• **WAN Status:**	Displays WAN connection status: Disconnected, Connecting or Connected.
• **Disconnected:**	Indicates that the Ethernet cable from your ISP side is / is not correctly connected to the WAN port on the router or the router is not logically connected to your ISP.
• **Connecting:**	Indicates that the WAN port is correctly connected and is requesting an IP address from your ISP. Connected: Indicates that the router has been connected to your ISP.
• **Internet Connection Type:**	Displays current Internet connection type.
• **WAN IP:**	Displays WAN IP address.
• **Subnet Mask:**	Displays WAN subnet mask.
• **Gateway:**	Displays WAN gateway address.
• **DNS Server:**	Displays WAN DNS address.
• **WAN MAC Address:**	Displays router's WAN MAC address.
• **WAN Traffic:**	Displays bandwidth currently used by router in KB/s.
• **Connection Duration:**	Displays time duration indicating how long the router has been connected to ISP.
• **WAN Traffic Graph:**	Displays a graphic presentation of the traffic flow.

■ LAN

This section allows you to view the router's LAN info listed below:

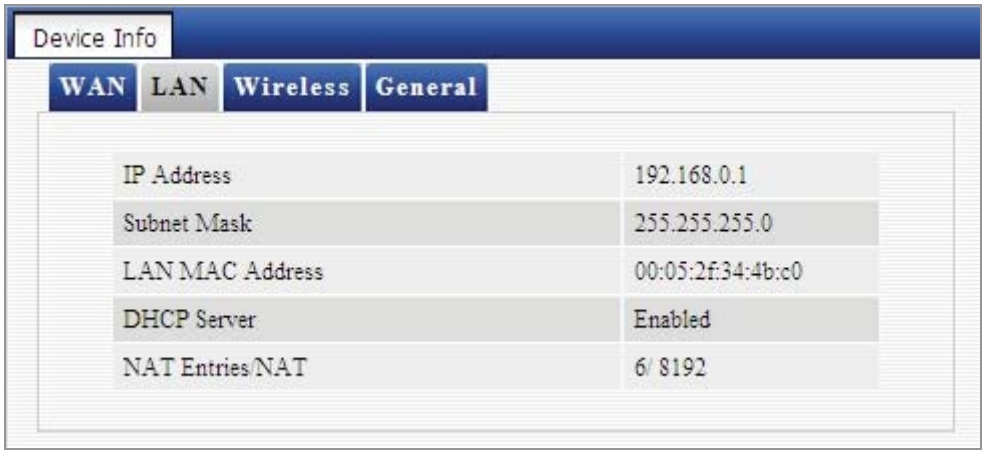


Figure 5-1-2 LAN Information

The page includes the following fields:

Object	Description
• **IP Address:**	Displays LAN IP address.
• **Subnet Mask:**	Displays LAN subnet mask.
• **LAN MAC Address:**	Displays router's LAN MAC address.
• **DHCP Server:**	Displays whether DHCP server is enabled or not.
• **NAT Entries/NAT:**	Displays number of used NAT entries and MAX NAT entries.

■ Wireless

This section allows you to view the wireless info listed below:

Figure 5-1-3 Wireless information

The page includes the following fields:

Object	Description
• **Wireless Radio:**	Displays whether wireless is enabled or not.
• **Wireless MAC address:**	Displays MAC address of the router's wireless interface
• **SSID:**	Displays current SSID.
• **802.11 Mode:**	Displays currently active network mode.
• **Country:**	Displays current country.
• **Channel:**	Displays current channel.
• **Security Mode:**	Displays current security Mode.

■ System Info

This section displays CPU/memory usage, uptime, system time, number of connected client(s) and system version info.

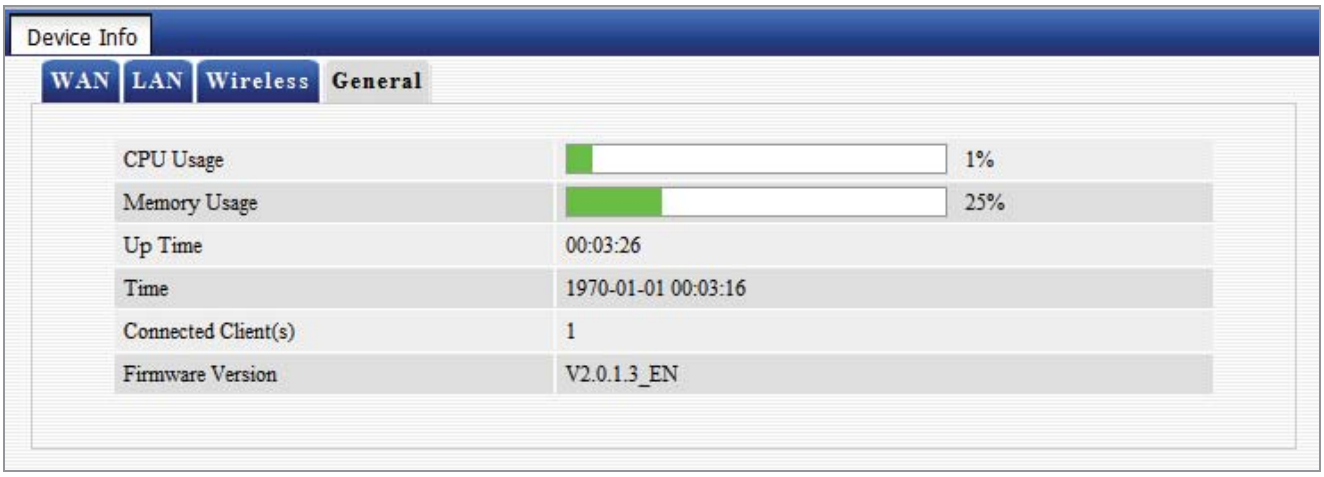


Figure 5-1-4 General System information

The page includes the following fields:

Object	Description
• **CPU Usage:**	Displays current CPU usage status
• **Memory Usage:**	Displays current memory usage status.
• **Up Time:**	Displays uptime.
• **Time:**	Displays device's time synchronized with Internet or manually set by user.
• **Connected Client(s):**	Displays the number of connected computers.
• **Firmware Version:**	Displays router's firmware version.

5.2 Network

"**Network**" includes the following four submenus. Clicking any of them enters corresponding interface for configuration. Below explains, in details, each such feature.

Figure 5-2-1

5.2.1 LAN Settings

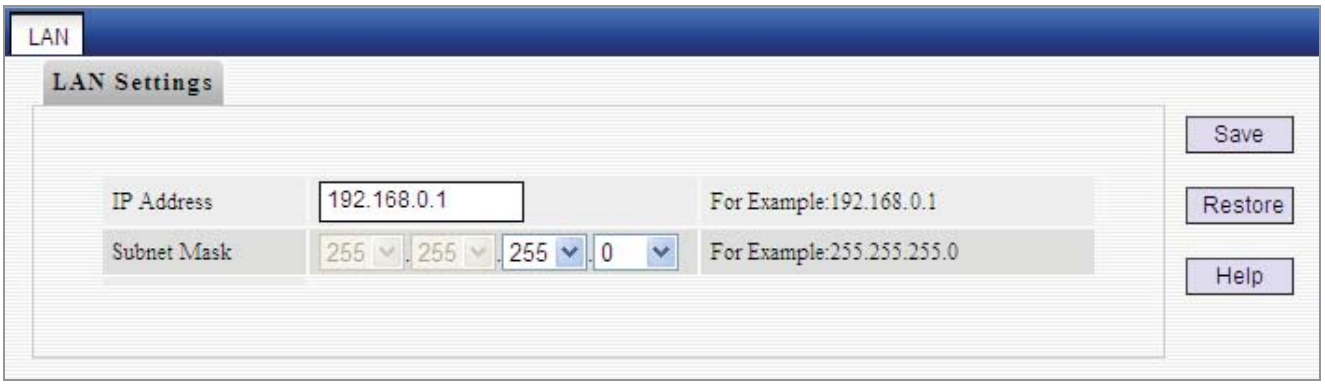


Figure 5-2-2 LAN settings web page screenshot

The page includes the following fields:

Object	Description
• **IP Address:**	Router's LAN IP. The default is **192.168.0.1**. You can change it according to your need.
• **Subnet Mask:**	Router's LAN subnet mask.

Note

If you change the device's LAN IP address, you must enter the new one in your browser to get back to the web-based configuration utility. And LAN PCs' gateway must be set to this new IP for successful Internet connection.

5.2.2 WAN Settings

The screen below displays WAN connection status and interface info.

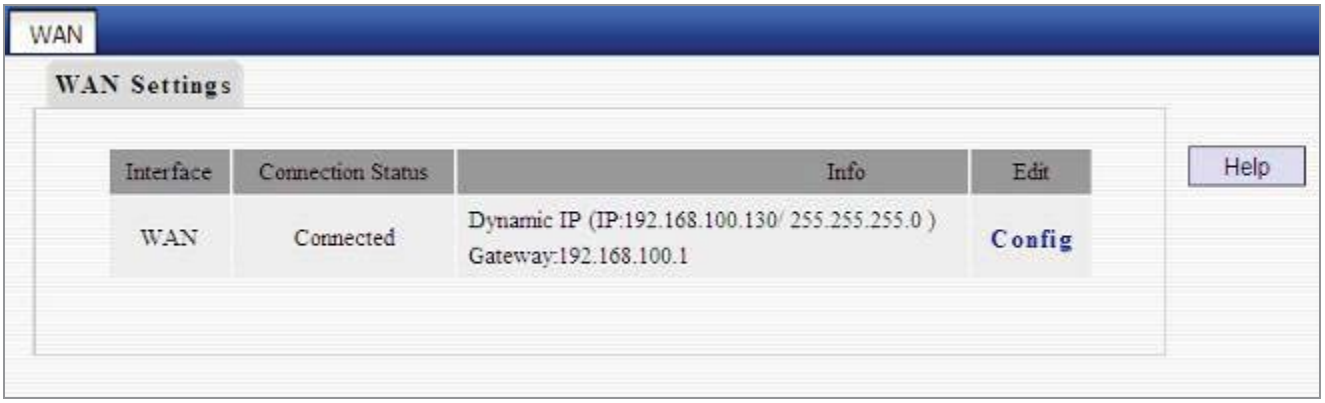


Figure 5-2-3

Click the "**Config**" button to enter WAN configuration interface. The router supports six Internet connection types, include:

- **Dynamic IP**
- **Static IP**
- **L2TP**
- **PPTP**
- **PPPoE**
- **PPPoE dual access**

Note

WAN IP, whether obtained automatically or specified manually, should NOT be on the same IP net segment as the LAN IP, otherwise, the router will not work properly. In case of emergency, press the hardware "Reset" button.

■ Dynamic IP (DHCP)

Select this option to let router obtain IP settings automatically from your ISP, if your ISP does not give you any IP information or account information. You don't need to configure any settings for this connection.

Figure 5-2-4

The page includes the following fields:

Object	Description
• **Internet connection Type:**	Displays a list of available Internet connection types
• **MTU:**	Maximum Transmission Unit. The default value is1500.

DO NOT change the factory default MTU value unless necessary as an improper MTU value may degrade your network performance or even lead to network malfunction.

■ Static IP

If your ISP offers you static IP Internet connection type, select “Static IP" from corresponding drop-down menu and then enter IP address, subnet mask, Primary DNS and secondary DNS information provided by your ISP in corresponding fields.

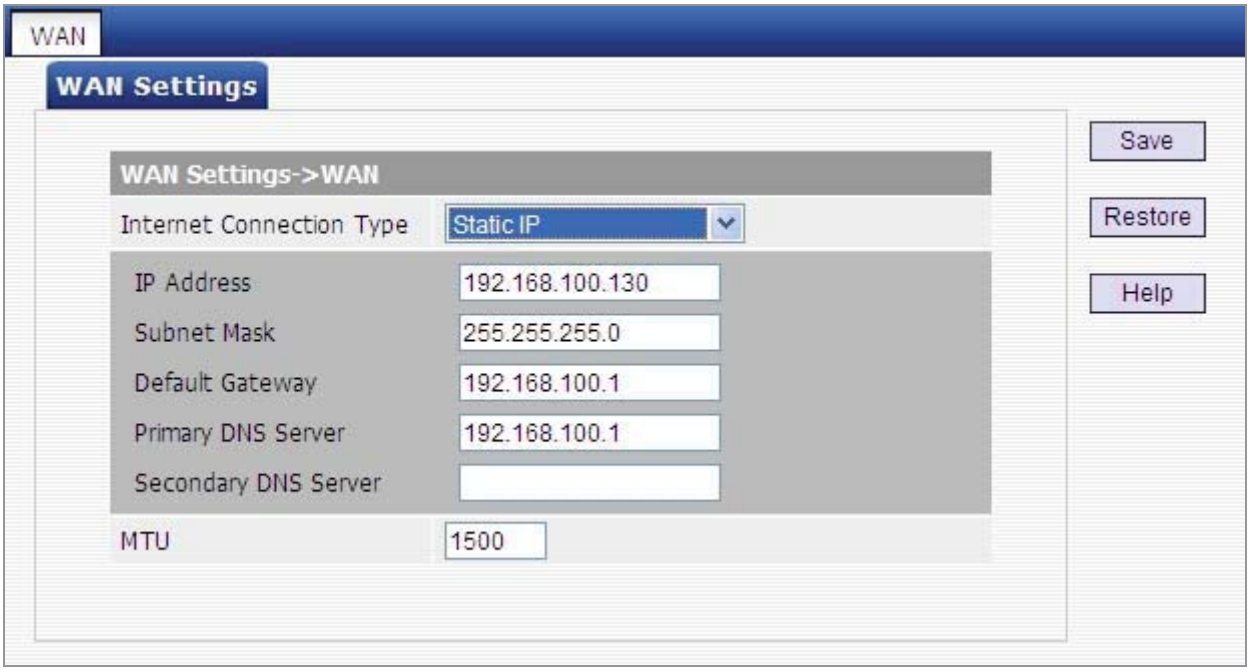


Figure 5-2-5

The page includes the following fields:

Object	Description
• **Internet connection Type:**	Displays a list of available Internet connection types.
• **IP Address:**	Enter the WAN IP address provided by your ISP. Inquire your ISP if you are not clear.

• **Subnet Mask:**	Enter WAN Subnet Mask provided by your ISP.
• **Default Gateway:**	Enter the WAN Gateway address provided by your ISP.
• **Primary DNS Server:**	Enter the necessary DNS address provided by your ISP.
• **Secondary DNS Server:**	Enter the other DNS address if your ISP provides you with 2 such addresses, and it is optional.
• **MTU:**	Maximum Transmission Unit. The default value is1500.

Note

DO NOT change the factory default MTU value unless necessary as an improper MTU value may degrade your network performance or even lead to network malfunction.

■ PPPoE

Select PPPoE, if your ISP is using a PPPoE connection and provide you with PPPoE user name and password info.

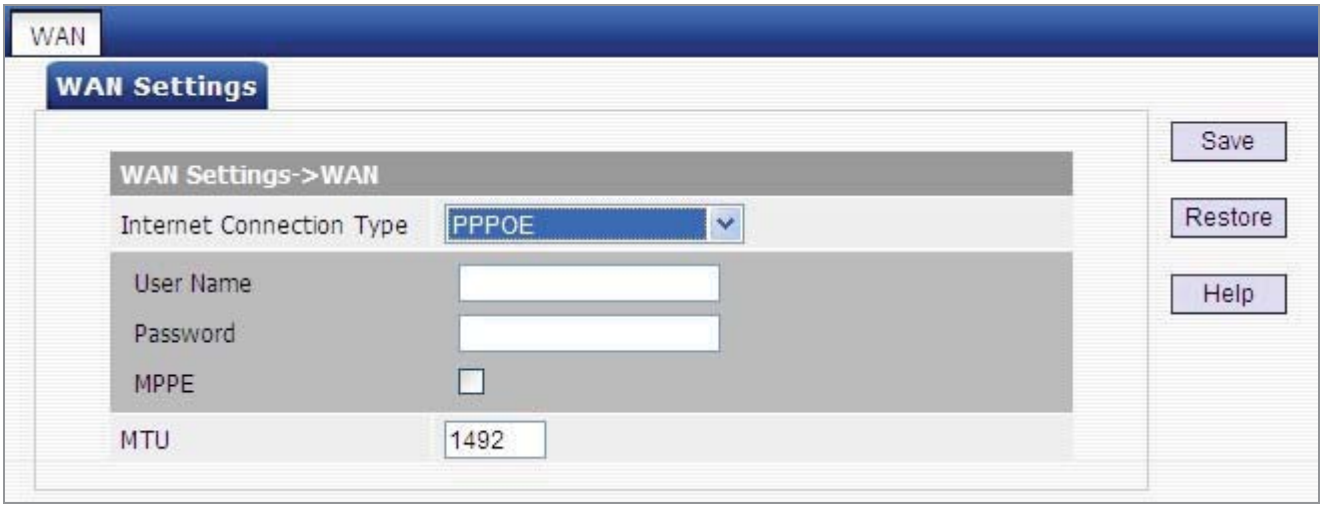


Figure 5-2-6

The page includes the following fields:

Object	Description
• **Internet connection Type:**	Displays a list of available Internet connection types.
• **User Name:**	Enter the User Name provided by your ISP.
• **Password:**	Enter the password provided by your ISP.
• **MTU:**	Maximum Transmission Unit. The default value is 1492.

Note

DO NOT change the factory default MTU value unless necessary as an improper MTU value may degrade your network performance or even lead to network malfunction.

■ PPTP

The PPTP protocol allows you to connect your router to a VPN server.

For example: A corporate branch and headquarter can use this connection type to implement mutual and secure access to each other's resources.

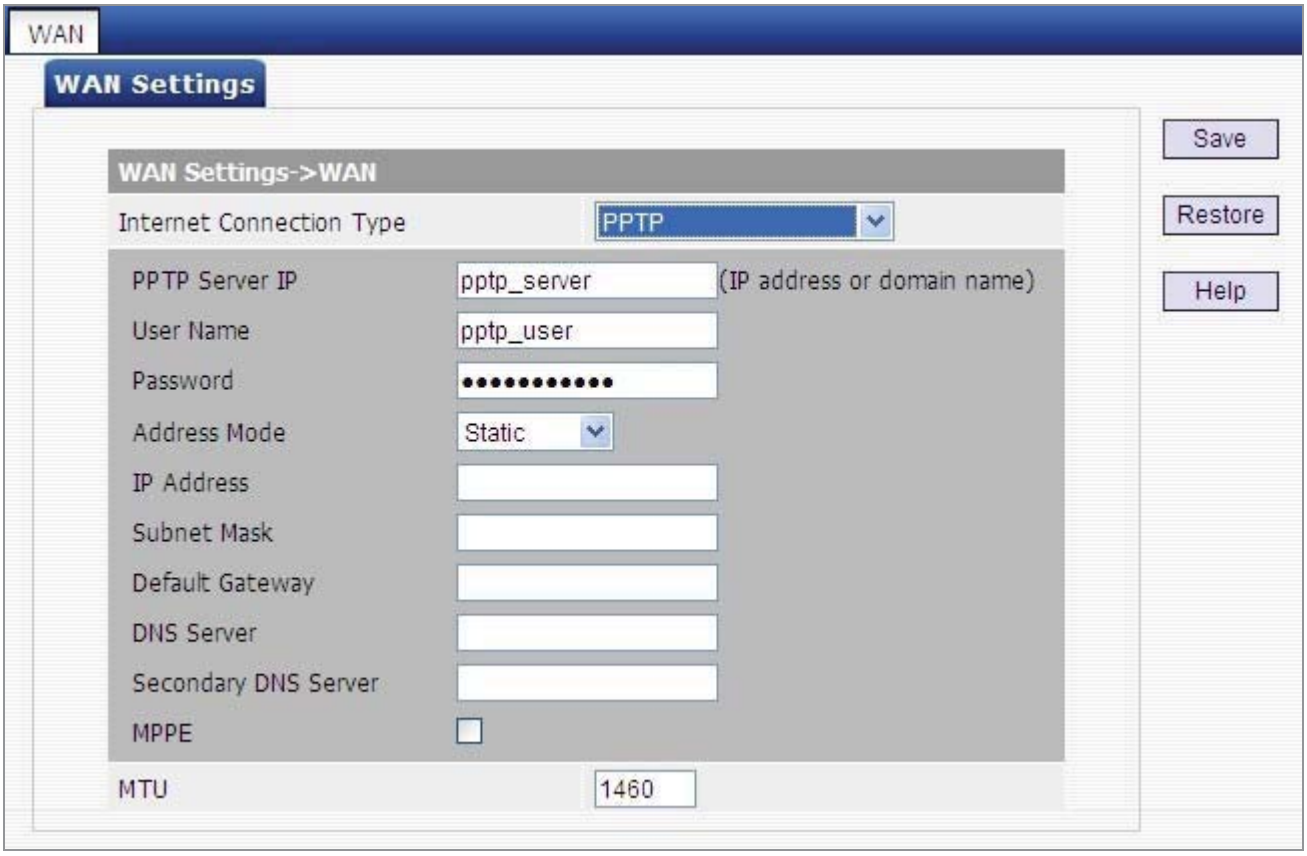


Figure 5-2-7

The page includes the following fields:

Object	Description
• **Internet connection Type:**	Displays a list of available Internet connection types.
• **PPTP Server IP:**	Enter the IP address of a PPTP server.
• **Username/Password:**	Enter Username/Password defined by the PPTP server.
• **Address mode:**	Select "Dynamic" if you don't get any IP info from the PPTP server side, otherwise select "Static".
• **IP Address:**	Enter the IP address provided by your ISP. Inquire your local ISP if

	you are not clear.
• **Subnet mask:**	Enter the subnet mask provided by your ISP.
• **Default Gateway:**	Enter the gateway provided by your ISP. Inquire your local ISP if you are not clear.
• **DNS Server:**	Enter the necessary DNS address provided by your ISP.
• **Secondary DNS Server:**	Enter the other DNS address if your ISP provides you with 2 such addresses, and it is optional
• **MTU:**	Maximum Transmission Unit. The default value is 1460

■ L2TP

The L2TP protocol allows you to connect your router to a L2TP server.

For example: A corporate branch and headquarter can use this connection type to implement mutual and secure access to each other's resources.

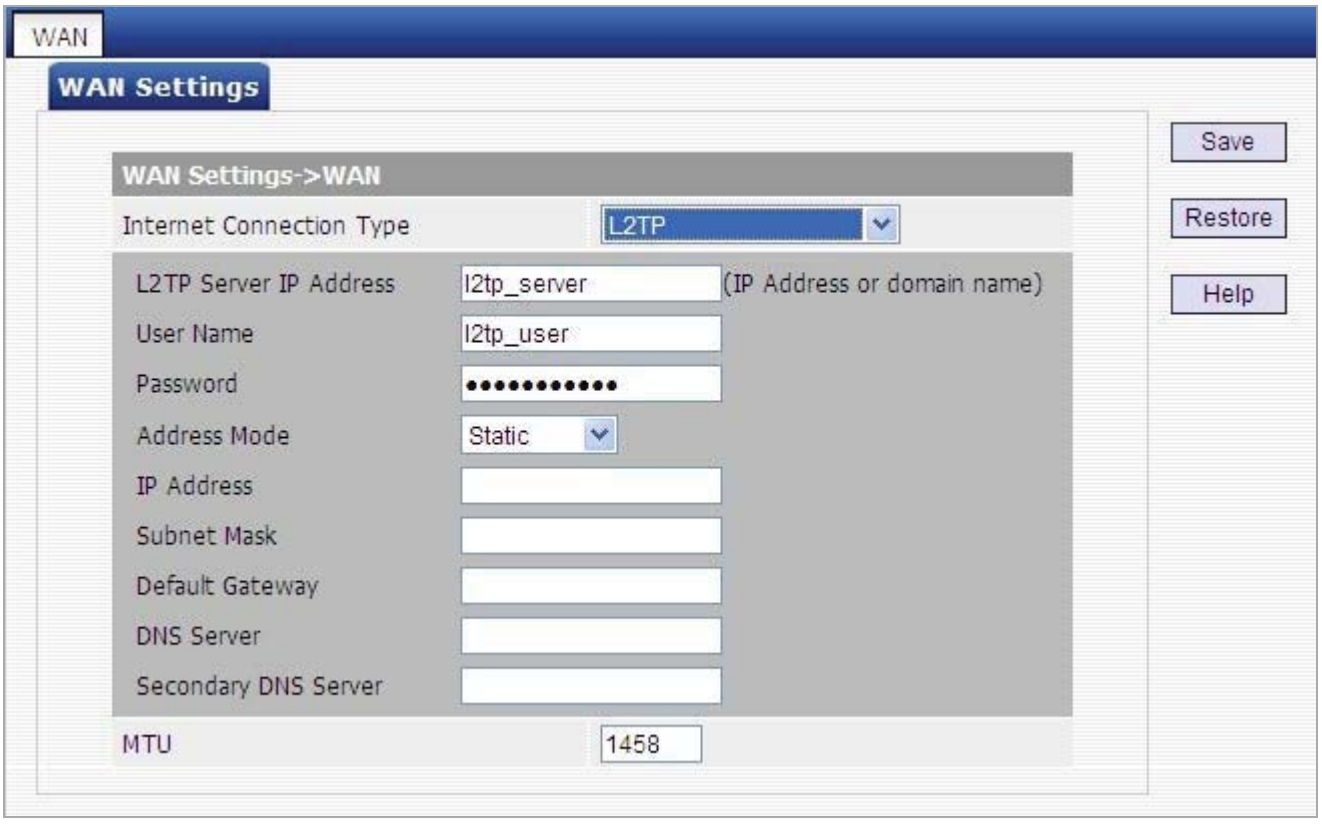


Figure 5-2-8

The page includes the following fields:

Object	Description
• **Internet connection Type:**	Displays a list of available Internet connection types.

• **L2TP Server IP Address:**	Enter the IP address of a L2TP server.
• **Username/Password:**	Enter Username/Password defined by the L2TP server.
• **Address mode:**	Select “Dynamic” if you don’t get any IP info from the L2TP server side, otherwise select “Static”.
• **IP Address:**	Enter the IP address provided by your ISP. Inquire your local ISP if you are not clear.
• **Subnet mask:**	Enter the subnet mask provided by your ISP.
• **Default Gateway:**	Enter the gateway provided by your ISP. Inquire your local ISP if you are not clear.
• **DNS Server:**	Enter the necessary DNS address provided by your ISP.
• **Secondary DNS Server:**	Enter the other DNS address if your ISP provides you with 2 such addresses, and it is optional
• **MTU:**	Maximum Transmission Unit. The default value is 1458

■ PPPOE Dual Access

Figure 5-2-9

The page includes the following fields:

Object	Description
• **Internet connection Type:**	Displays a list of available Internet connection types.

• **Username:**	Enter the PPPOE account provided by your ISP.
• **Password:**	Enter the PPPOE password provided by your ISP.
• **Address mode:**	Select “Dynamic” if you don’t get any IP info from the L2TP server side, otherwise select “Static”.
• **IP Address:**	Enter the IP address provided by your ISP. Inquire your local ISP if you are not clear.
• **Subnet mask:**	Enter the subnet mask provided by your ISP.
• **Default Gateway:**	Enter the gateway provided by your ISP. Inquire your local ISP if you are not clear.
• **MTU:**	Maximum Transmission Unit. The default value is 1492

5.2.3 DHCP Settings

"DHCP" includes 3 submenus: **DHCP Server**, **Client List** and **Static Assignment**. Clicking any of them enters corresponding interface for configuration. Below explains, in details, each such feature.

The **Dynamic Host Configuration Protocol (DHCP)** is an automatic configuration protocol used on IP networks. If you enable the built-in DHCP server on the device, it will automatically configure the TCP/IP settings for all your LAN computers (including IP address, subnet mask, gateway and DNS etc), eliminating the need for manual intervention. Just be sure to set such PCs to DHCP clients by selecting "**Obtain an IP Address Automatically**" on each such PC. When you turn these PCs on, they will automatically load the proper TCP/IP settings provided by the device DHCP server.

■ DHCP Server

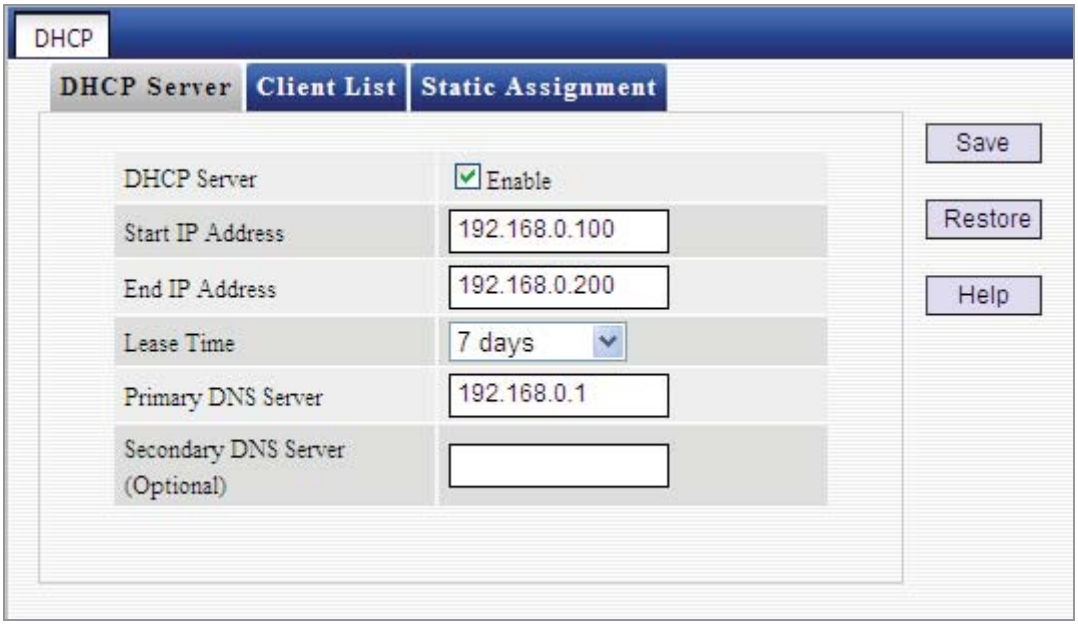


Figure 5-2-10

The page includes the following fields:

Object	Description
• **DHCP Server-Enable:**	Check or uncheck the box to enable or disable the device's DHCP server feature.
• **Start IP Address:**	Enter the starting IP address for the DHCP server's IP assignment.
• **End IP Address:**	Enter the ending IP address for the DHCP server's IP assignment.
• **Lease Time:**	The length of time for the IP address lease. Configuring a proper lease time improves the efficiency for the DHCP server to reclaim disused IP addresses.
• **Primary DNS Server:**	Enter a DNS server address assigned to DHCP clients.

• **Secondary DNS Server**	Enter the other DNS address assigned to DHCP clients (optional).

To benefit from the DHCP server feature, you must set all LAN PCs to DHCP clients by selecting the “Obtain an IP Address Automatically” radio buttons thereon.

■ DHCP Client List

This section displays a DHCP dynamic client list, which includes host name, IP address, MAC address and lease time info.

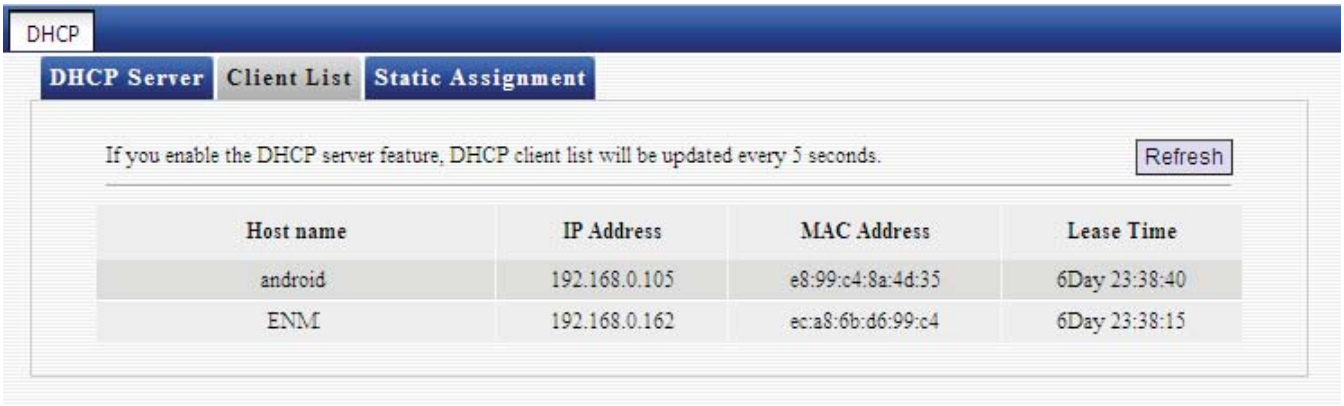


Figure 5-2-11

The page includes the following fields:

Object	Description
• **IP Address:**	Displays IP address(es) that client(s) obtained from the DHCP server.
• **MAC Address:**	Displays MAC address of a given host.
• **Host name:**	Displays name of a given host (DHCP client)
• **Lease Time:**	Remaining time for a corresponding IP address lease.

■ Static Assignment

If you would like some devices on your network to always have fixed IP addresses, you can use this feature and manually add a static DHCP assignment entry for each such device.

For example: To have a PC at the MAC address of 00:aa:bb:11:22:33 always receive the same IP address of 192.168.0.200, simply enter the IP and MAC addresses in corresponding fields and click "**Add**" and then the "**Save**" button as shown below.

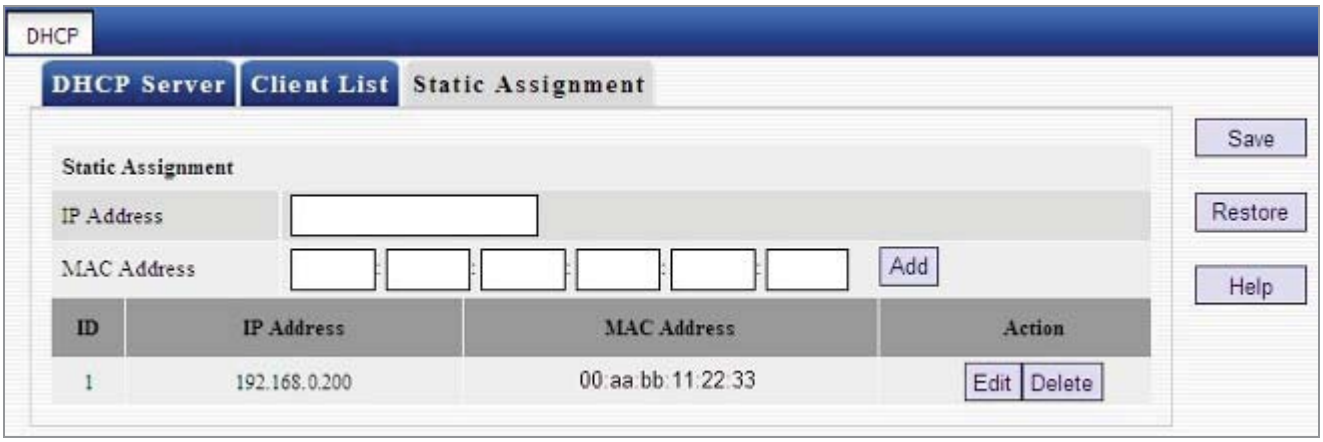


Figure 5-2-12

The page includes the following fields:

Object	Description
• **IP Address:**	Enter the IP address for static DHCP assignment.
• **MAC Address:**	Enter the MAC address of a computer to always receive the same IP address (the IP you just entered above).
• **Add:**	Click to add the current IP-MAC static assignment entry to the list
• **Edit:**	Click to change a given static assignment entry.
• **Delete:**	Click to remove an existing entry

5.2.4 WAN Port

"WAN Port" includes 2 submenus: **MAC Clone**, and **Speed/Duplex**. Clicking either tab enters corresponding interface for configuration. Below explains, in details, each such feature.

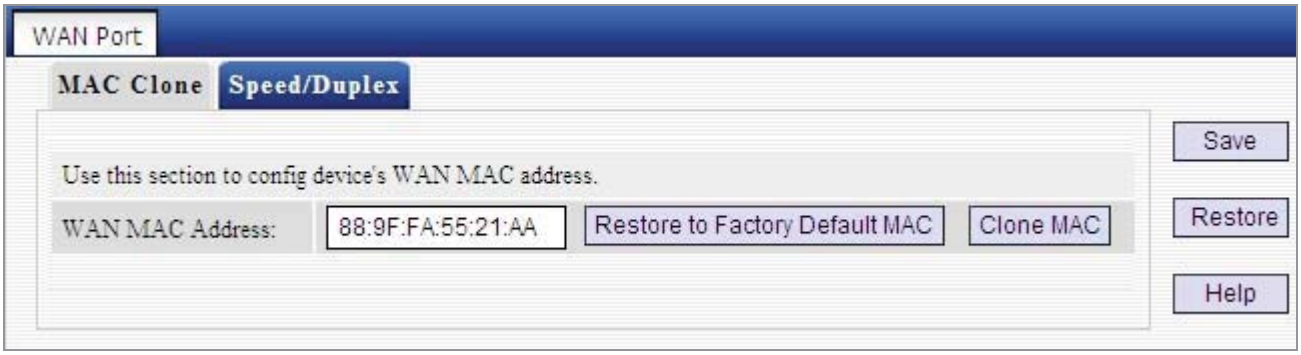


Figure 5-2-13

■ MAC Clone

This section allows you to set router's WAN MAC address. You can either manually enter a MAC or copy your PC's MAC to the router.

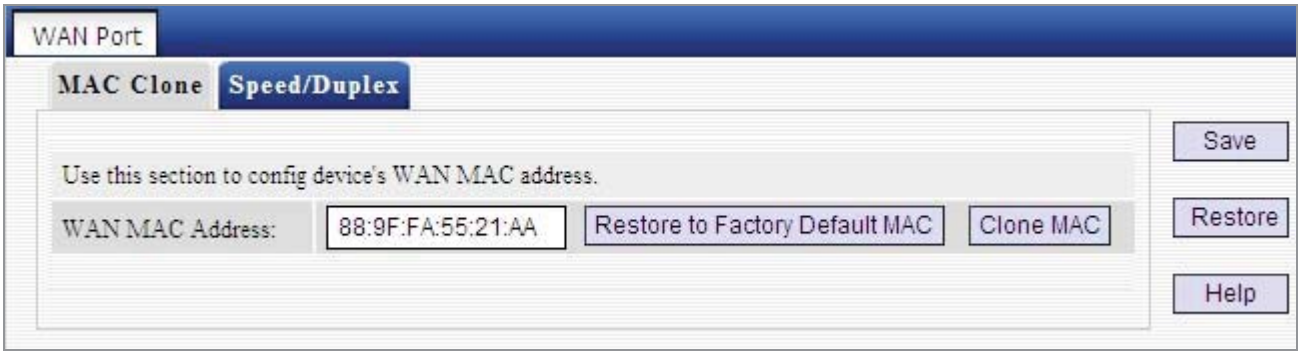


Figure 5-2-14

The page includes the following fields:

Object	Description
• **WAN MAC Address:**	Displays router's current WAN MAC address, you can manually change it.
• **Restore to Factory Default MAC:**	Click it to restore router's WAN MAC to factory default value.
• **Clone MAC:**	Click to copy your PC's MAC to router's WAN MAC Address field.

Note

Normally you don't need to change the default WAN MAC value. However, some ISP may bind client PC's MAC address for Internet connection authentication. In this case, simply enter such MAC in the WAN MAC Address field or click the "Clone MAC" button. Note that the WAN MAC address in running status interface will be updated accordingly.

Note

Do remember to reboot the router to activate the new WAN MAC. DO NOT use the "Clone MAC" feature if your ISP does not bind your PC's MAC.

■ Speed/Duplex

This section allows you to config the router's WAN port speed/duplex settings.

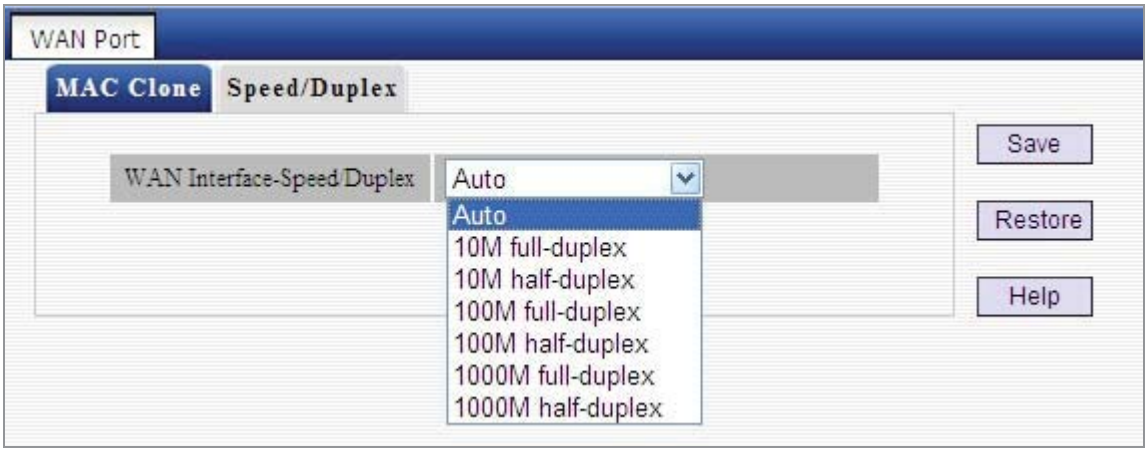


Figure 5-2-14

You can select a WAN port speed/duplex mode that best suit your network environment from the drop-down list, which includes auto, 10M half-duplex, 10M full-duplex, 100M half-duplex, 100M full-duplex, 1000M half-duplex and 1000M full-duplex.

Note

The WAN port speed/duplex mode must match that of its link partner to achieve successful communication; otherwise, the WAN port may not function properly. So, if you are not sure about the link partner's speed/duplex mode, please select "Auto"

5.3 Security Settings

"Security Settings" includes the following 5 submenus. Clicking any of them enters corresponding interface for configuration. Below explains, in details, each such feature.

5.3.1 Group Settings

"Group Settings" includes 2 submenus: **Group Settings**, **User Group** and **Time Group**. Clicking either tab enters corresponding interface for configuration. Below explains, in details, each such feature.

■ User Group

To create a user group, you need to specify a group name/description and an IP address/range. The user group feature works together with other related features.

Figure 5-3-1

For example: If you want to add a user group for a R&D department within an IP of 192.168.0.200-192.168.0.250, first click the "Add" button and then follow steps below:

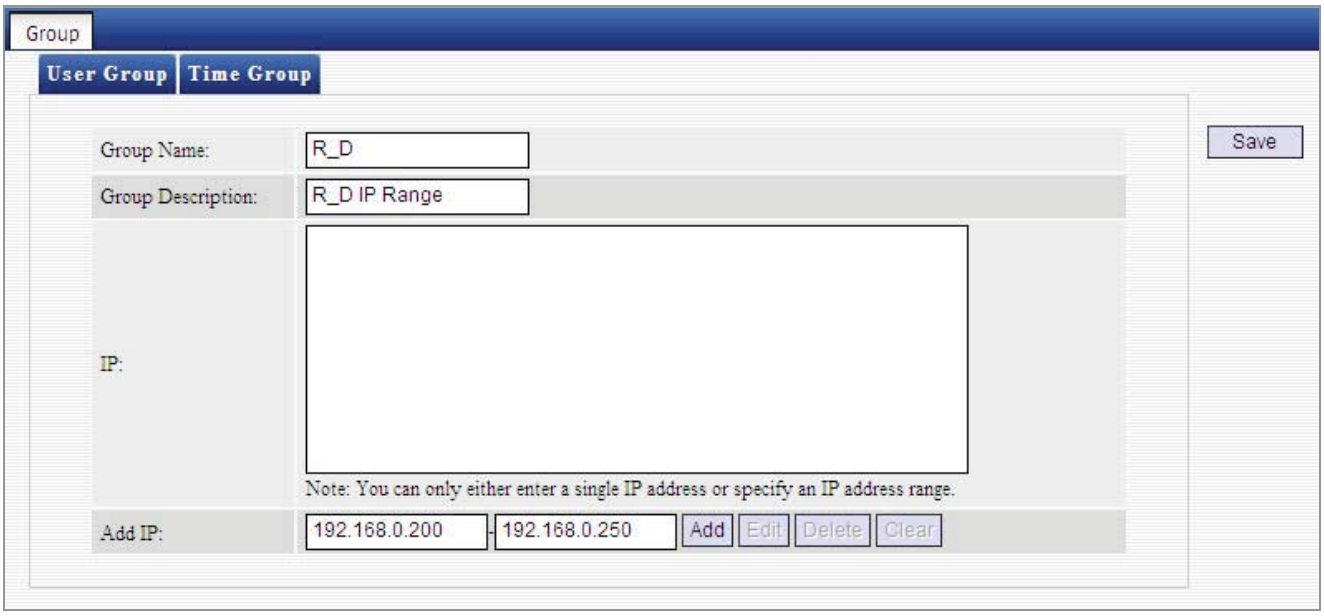


Figure 5-3-2

1. Enter R_D in group name field.
2. Enter R_D IP Range in group description field.
3. Enter “192.168.0.200” and “192.168.0.250” in IP fields.
4. Click “**Add** “and then the “**Save** “button; you will find

Such entry in User Group list below:

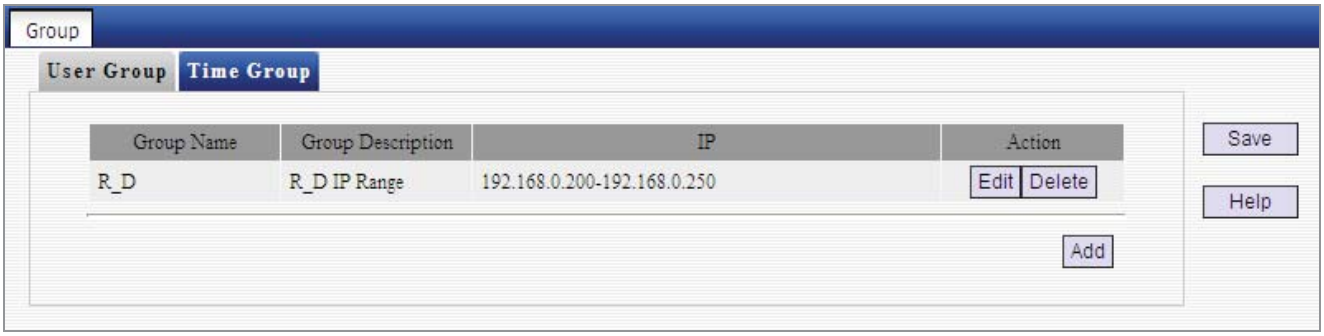


Figure 5-3-3

■ Time Group

To create a time group, you need to specify a group name/description and a time / time range.

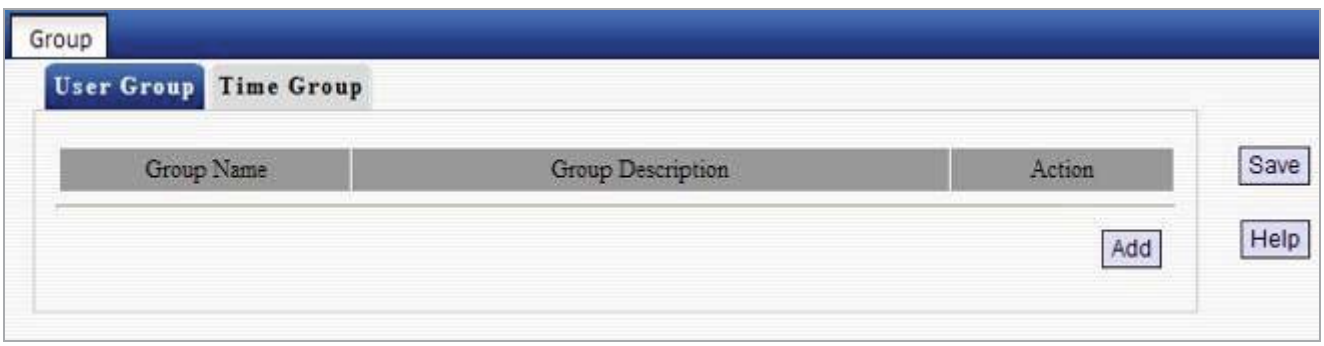


Figure 5-3-4

For example: If you want to set a period of time from **8：00 to 18：00** on working days from **Monday to Friday** to a time group, first click the "**Add**" button and then follow steps below:

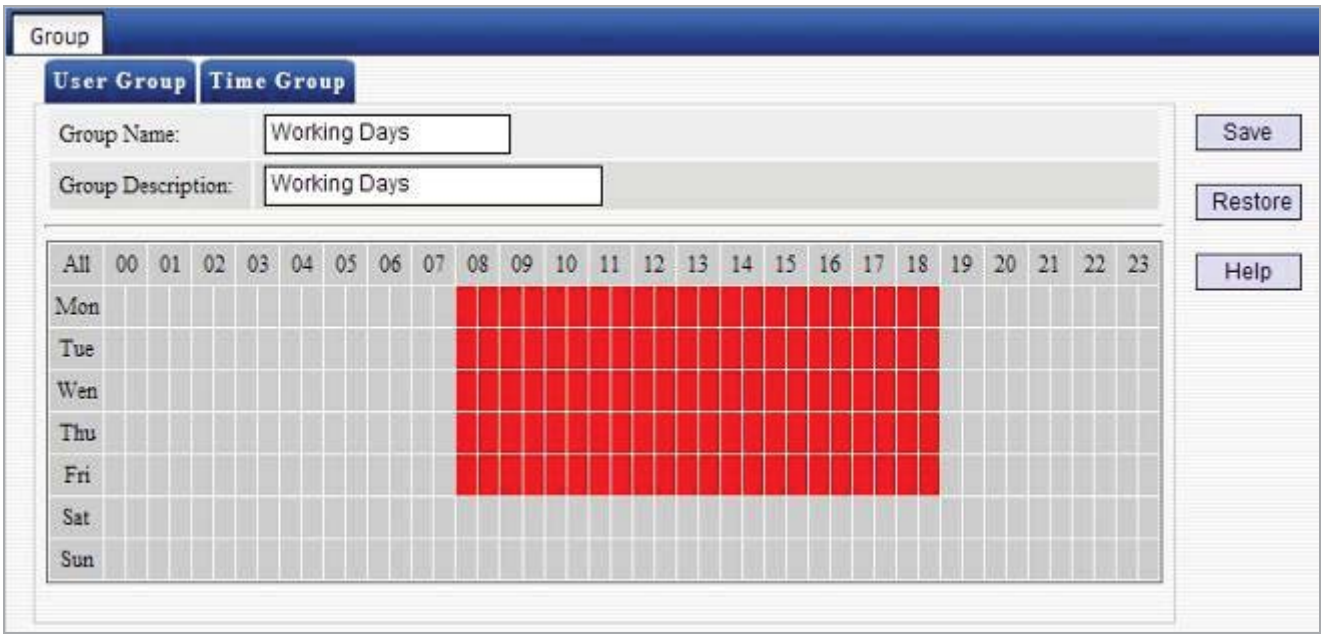


Figure 5-3-5

1. Enter "Working days" in group name field.
2. Enter "working days" in group description field.
3. Select the time and days.
4. Click "**Save**" and you will find such entry in Time Group list below:

Figure 5-3-6

5.3.2 Port Filter

To better manage PCs in LAN, you can allow or disallow such PCs to access certain ports on Internet using the **Port Filter** functionality.

Figure 5-3-7

Click "**Add**" to enter page below:

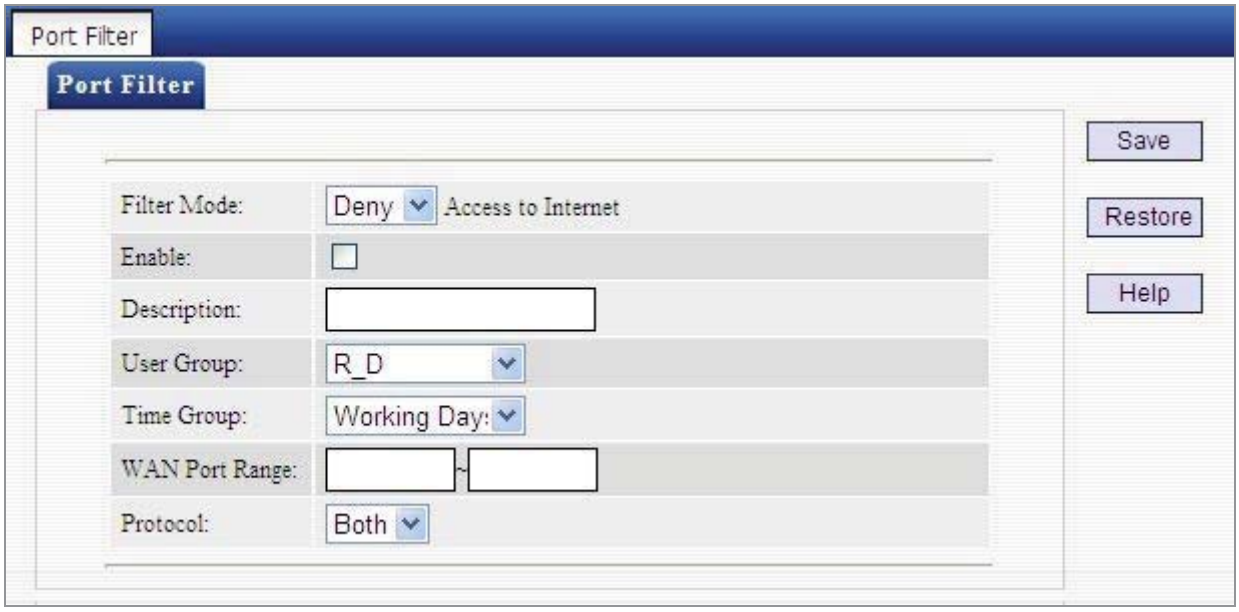


Figure 5-3-8

The page includes the following fields:

Object	Description
• **Filter Mode:**	Select Deny or Allow according to your own needs.
• **Deny Access to Internet:**	Disallow specified packets to pass through the router; other packets are processed according to default rule.
• **Allow Access to Internet:**	Allow specified packets to pass through the router; other packets are processed according to default rule.
• **Enable:**	Check to enable current filter entry.
• **Description:**	Enter a meaningful name to yourself for a new filter rule

• **User Group:**	Select an added user group from the drop-down list.
• **Time Group:**	Select an added time group from the drop-down list.
• **WAN Port Range:**	Enter port IDs. You can specify a range of ports or a single port. Allowed port ID ranges from 1 to 65535.
• **Protocol:**	Select a protocol or protocols for the traffic ("Both" includes TCP and UDP).

For Example: If you want to disallow PCs within IP addresses ranging from 192.168.0.200 to 192.168.0.250("R&D" user group) to access web sites from 8:00 to 18:00 on working days – from Monday to Friday ("Working days" time group), do as follows:

1. Select "**Deny**" from the filter mode drop-down list.
2. Check the "**Enable**" box.
3. Enter "**Forbid websites**" in description field.
4. Select "R&D" from the user group drop-down list.
5. Select "**Working days**" from time group drop-down list.
6. Enter "80" in both boxes of "**WAN Port Range**".
7. Select "**Both**" from "Protocol" drop-down list.

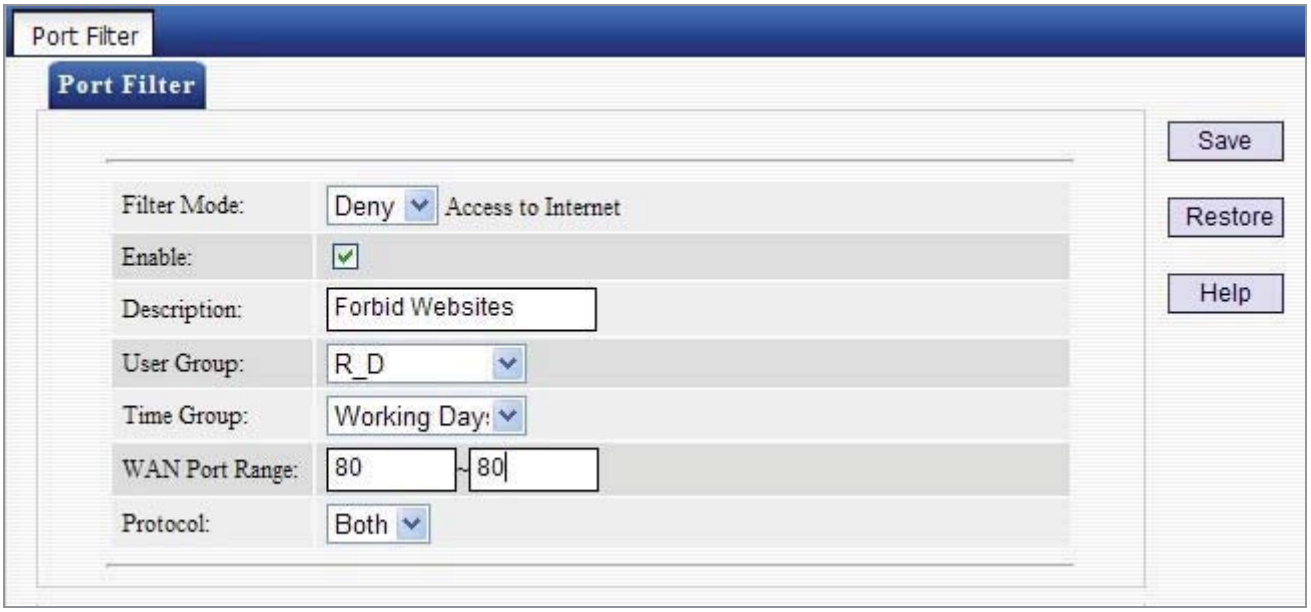


Figure 5-3-9

8. Click "**Save**" and you will find such entry in the List below.

Figure 5-3-10

9. Select "**Allow**" from the "**Default**" drop-down list and check "**Enable**" Port Filter feature.

Figure 5-3-11

5.3.3 URL Filter

To better control LAN PCs, you can use the URL filter functionality to allow or disallow such PC to access certain websites within a specified time range.

Figure 5-3-12

Click "**Add**" to display page below:

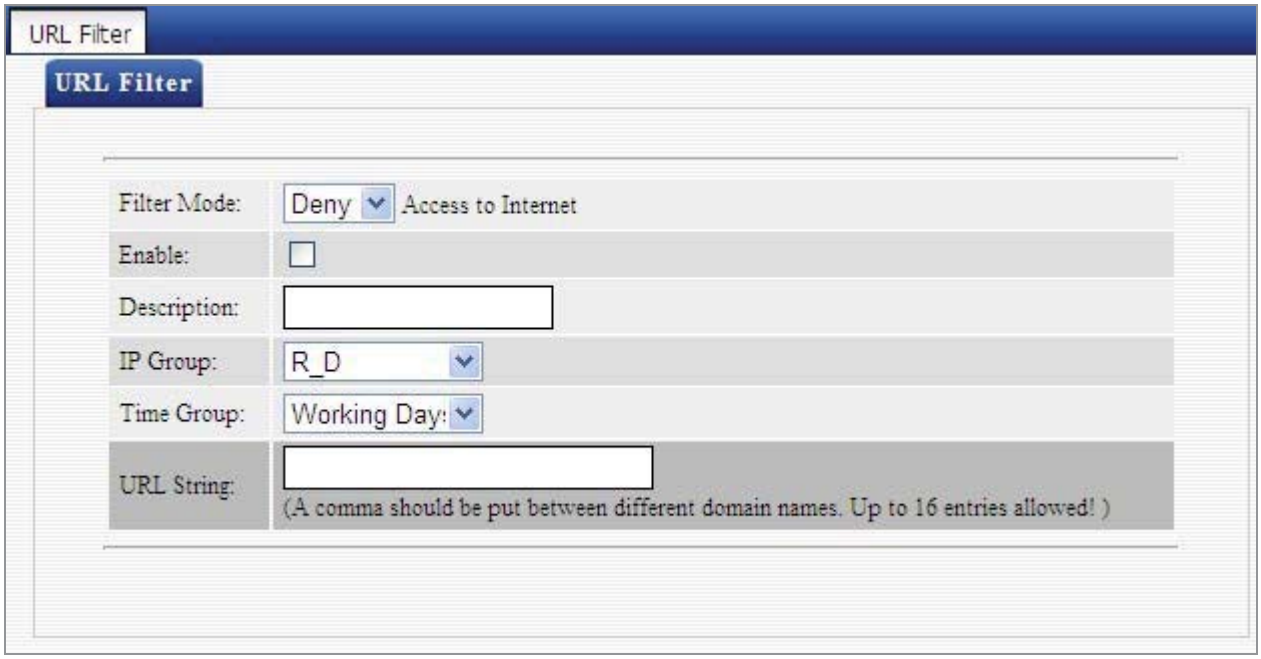


Figure 5-3-13

The page includes the following fields:

Object	Description
• **Filter Mode:**	Select Deny or Allow according to your own needs.
• **Deny Access to**	Disallow specified packets to pass through the router; other packets are

Internet:	processed according to default rule.
• **Allow Access to Internet:**	Allow specified packets to pass through the router; other packets are processed according to default rule.
• **User Group:**	Select an added user group from drop-down list.
• **Time Group:**	Select an added time group from drop-down list.
• **Description:**	Enter a meaningful name to yourself for a new filter rule.
• **URL character string:**	Enter domain name string to be filtered.

For Example: If you want to disallow PCs within IP addresses ranging from 192.168.0.200 to 192.168.0.250("R_D" user group) to access only web sites containing "yahoo" from 8:00 to 18:00 on working days – from Monday to Friday ("Working days" time group), without restricting other PCs, do as follows:

1. Select "**Deny**" from the filter mode drop-down list.
2. Check the "**Enable**" box.
3. Enter "Disallow yahoo" in description field.
4. Select "R_D" from the user group drop-down list.
5. Select "**Working days**" from time group drop-down list.
6. Enter "yahoo" in URL String field.

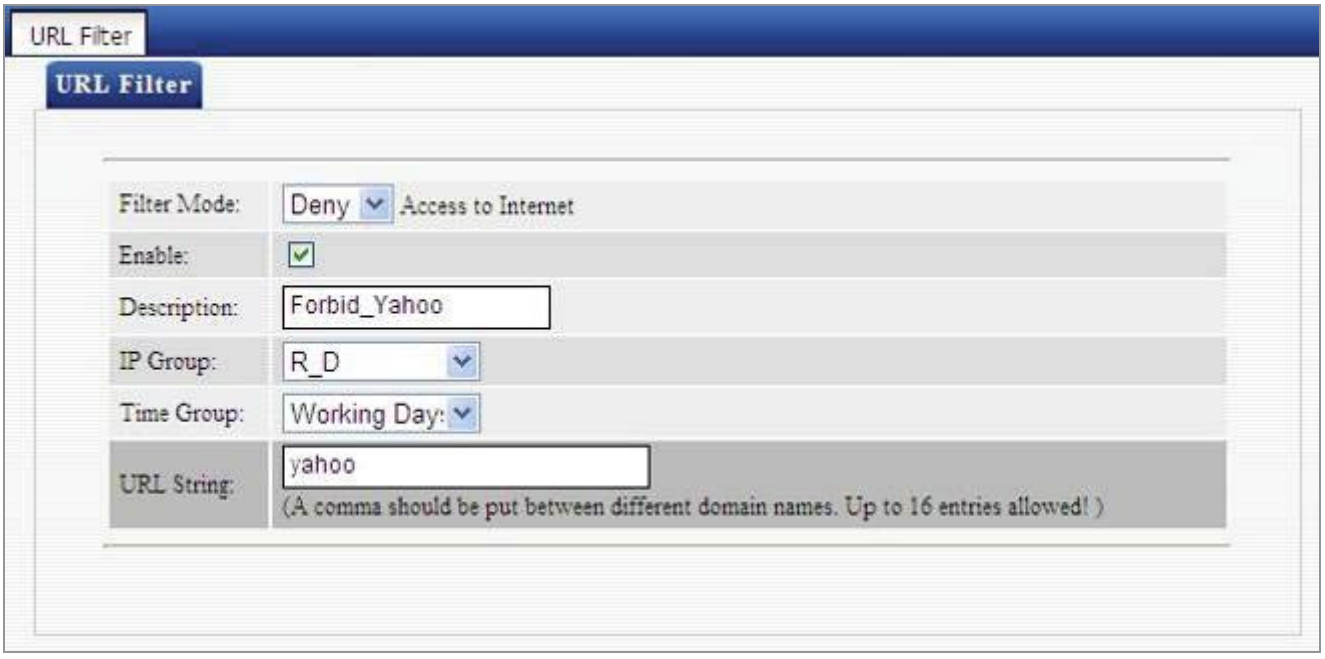


Figure 5-3-14

7. Click “**Save**” to display page below:

Figure 5-3-15

8. Select “**Allow**” from the “**Default**” drop-down list and check the “**Enable**” URL Filter feature.

Figure 5-3-16

5.3.4 MAC Address Filter

To better manage PCs in LAN, you can use the MAC Address Filter function to allow/disallow such PCs to access to Internet.

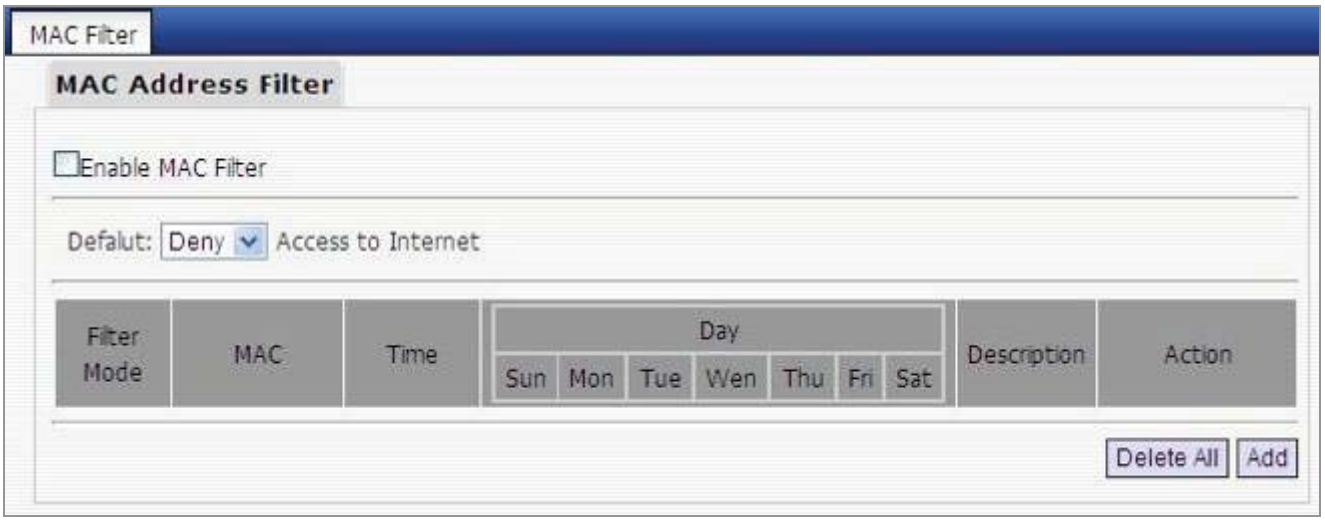


Figure 5-3-17

Click **"Add**" to display page below:

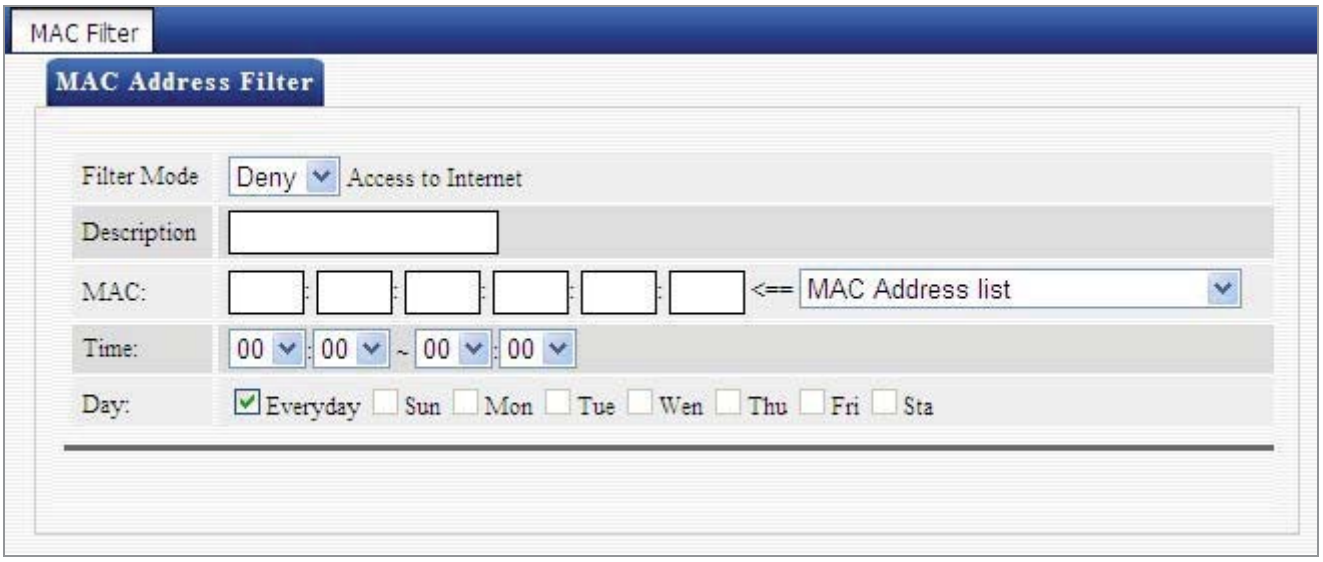


Figure 5-3-18

The page includes the following fields:

Object	Description
• **Filter Mode:**	Select Deny or Allow according to your own needs.
• **Deny Access to Internet:**	Disallow specified packets to pass through the router; other packets are processed according to default rule.
• **Allow Access to Internet:**	Allow specified packets to pass through the router; other packets are processed according to default rule.
• **Description:**	Briefly describe a new filter rule

• **MAC:**	Enter the computer's MAC address that you want to filter out in the MAC address field or select one from the MAC address list.
• **Time:**	Select a time range for the new MAC address filter rule to take effect. The default is **00:00-00:00**, which means 24 hours.
• **Day:**	Select a day or several days for the new MAC address filter rule to take effect.

For Example: To only prevent a PC at the MAC address of 00:aa:bb:77:88:00 from accessing Internet from 8:00 to 18：00 everyday, without restricting other PCs, configure same settings on the screenshot below on your device:

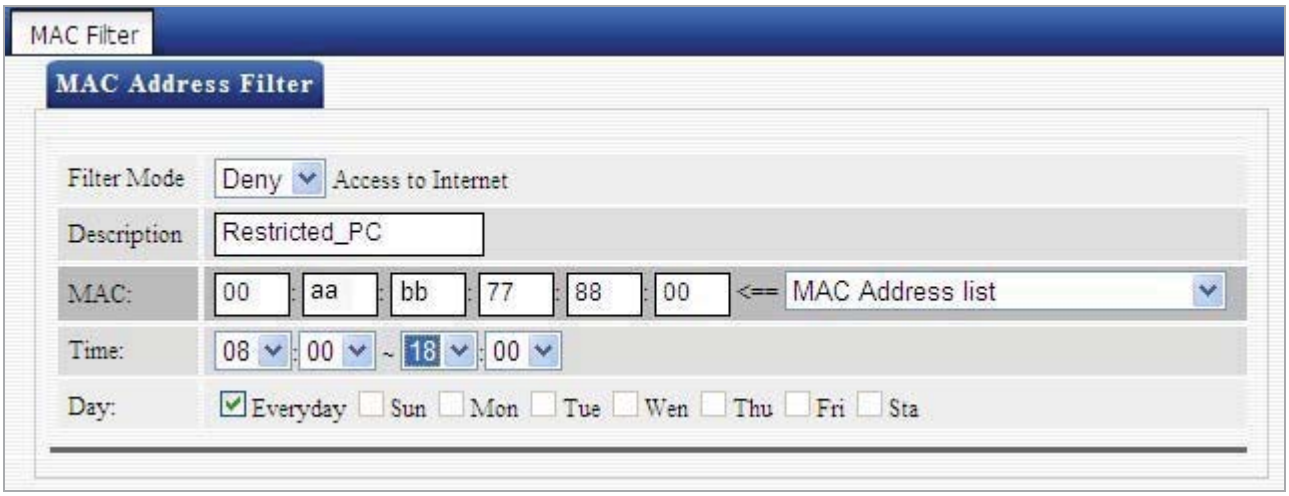


Figure 5-3-19

Click "**Save**" to display the following page. Select "**Allow**" from the "**Default**" drop-down list and check the "**Enable MAC Filter**" feature as below.

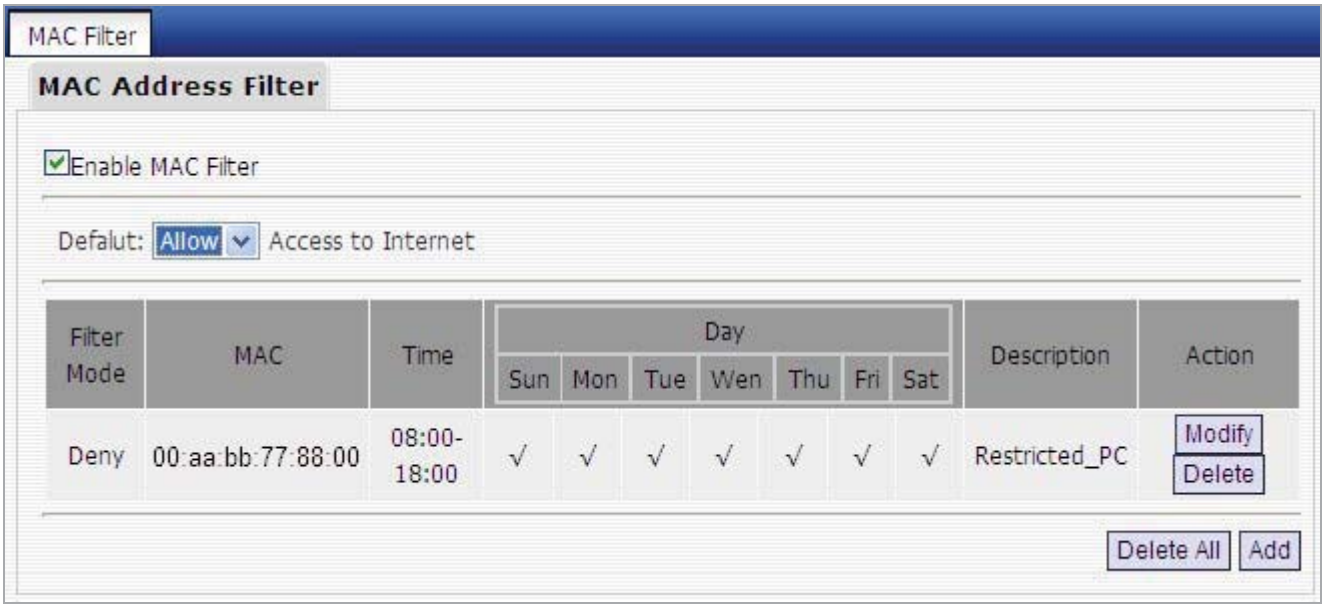


Figure 5-3-20

5.3.5 WAN Access Control

The WAN Access Control feature allows users to configure your router from Internet via a web browser.

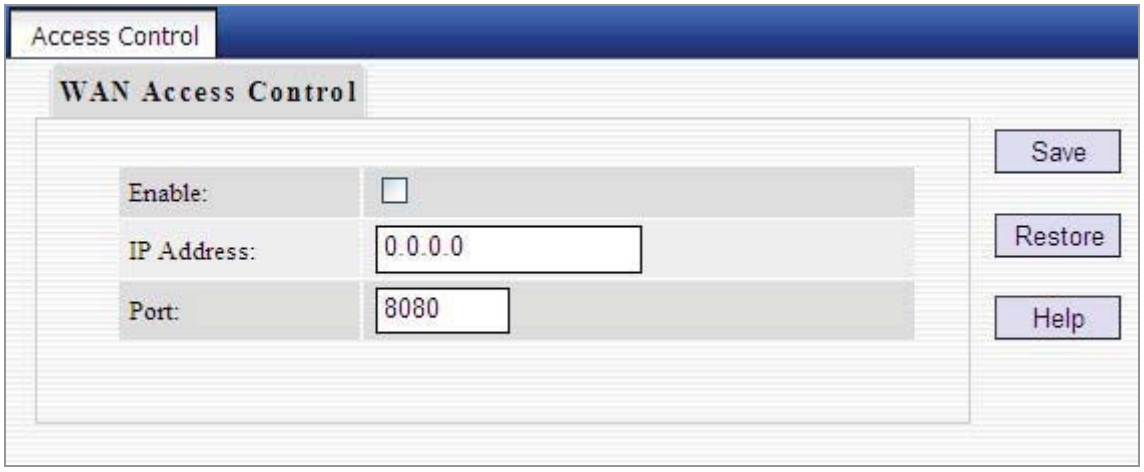


Figure 5-3-21

The page includes the following fields:

Object	Description
• **Enable:**	Check or uncheck to enable or disable the WAN Access Control feature.
• **Port:**	Enter a port ID for remote web-based management. The default is **8080**.
• **IP Address:**	Enter the IP address of a PC on Internet authorized to access and manage your router's web-based utility remotely.

Note

If you enter **0.0.0.0** in the IP address box, then all PCs on Internet can access your router's Web-based utility to view or change your settings remotely once you enable the feature.

For example: If you want to allow only a PC at the IP address of 60.250.65.207 to access your router's Web-based utility from Internet via port: 8080, you need to configure same settings as shown on the interface below on your router. And what this IP user needs to do is to simply launch a browser and enter http:// 210.61.134.96:8080 (provided that your router's WAN IP address is 210.61.134.96).