WR1201
1200M Wireless Router
User Guide

FCC STATEMENT

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: 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 or more 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 RF Radiation Exposure Statement:

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

2）this device must accept any interference received, including interference that may cause undesired operation.

"FCC RF Radiation Exposure Statement Caution: To maintain compliance with the FCC's RF exposure guidelines, place the product at least 20cm from nearby persons."

FCC ID : 2AHVHWR1201

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.

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

CE Mark Warning

CE0359

this is a Class B product in a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures. This device complies with EU 1999/5/EC.

NOTE:

1) The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment.

2) To avoid unnecessary radiation interference, it is recom

DECLARATION OF CONFORMITY

Hereby, [**Shenzhen MTC Co., LTD**], declares that this [**1200M Wireless Router**] is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

The declaration of conformity may be consult at

Import / manufacture Name:

Import / manufacture Address:

ADAPTER INFORMATION

MOSO SWITCHING ADAPTER

Model:MSP-C15001C12.0-18A-US

Input:100~240V 50/60Hz 0.6A Max.

Output:DC 12V-1.5A

Important Safety Instructions

1. Don’t disassemble the product, or make repairs yourself. If you need service, please contact us.
2. Do not operate this product near water.
3. Do not place or operate this product near a radiator or a heat register.
4. Do not expose this product to dampness, dust or corrosive liquids.
5. Do not connect this product or disconnect it from a socket during a lightning or a thunderstorm.
6. Do not block the ventilation slots of this product, for insufficient airflow may harm it.
7. When plugging this product into a socket, make sure that the electrical socket is not damaged, and that there is no gas leakage.
8. Place the connecting cables properly so that people won’t stumble or walk on it.
9. This product should be operated from the type of power indicated on the marking label. If you are not sure of the type of power available, consult the qualified technician.
10. Unplug this product from the mains and refer the product to qualified service personnel for the following conditions:

    If liquid has been spilled on the product

    If the product has been exposed to rain or water

11. The Operating temperature is 0℃~40℃(32℉~104℉). The Storage temperature is -40℃~70℃(-40℉~158℉).

CONTENTS

Chapter 1 Product Overview

1.1 Introduction

WR1201 1200M Wireless Router supports simultaneous 2.4GHz and 5GHz connections for 1200Mbps of total available bandwidth, supports for DHCP, PPPOE, static IP three modes to Internet. You can set up wireless password and Internet filler function. The router also support for USB function, you can save data in USB disk or read data from it.

- Complies with IEEE 802.11a/an/ac and 802.11b/g/n.
- Provide one USB3.0 port supporting file sharing and print server.
- Provide internally installed TF card function.
- Provide WPA/WPA2, WPA-PSK/WPA2-PSK authentication, TKIP/AES encryption security.
- Support access control.
- Support firmware upgrade.
- Support Client Filer, MAC Filer, URL Filer.
- Support remote web management
- Support DDNS, port forwarding, DMZ Host, UPNP.
- Use built-in antenna.

1.2 LED Indicator

The LED indicator displays information about the device's status.

LEDs	Names	Status	Indications
	System LED	Blinking	The router is booting or upgrading.
		Solid	The router has booted.
		Off	Power is off or the router is not booted.
2.4G	2.4G LED	Blinking	2.4G wireless is on and have data transferred.

		Off	2.4G wireless is disabled.
5.0G	5G LED	Blinking	The 5G wireless is on and have data transferred.
		Off	The 5G wireless is disabled.
	Internet LED	Solid	The Internet port is connected but inaccessible.
		Blinking	The Internet port is connected and accessible.
		Off	The Internet port isn't connected.
	Ethernet LED	Off	There is device(s) connected to the Ethernet (1/2/3/4) port(s).
		Blinking	No any device is connected to the Ethernet (1/2/3/4) port.
	WPS LED	Blinking	WPS button on the router is pressed, and the router is trying to connect a wireless device to its network via WPS.
		Solid	The connection via WPS is successful.
		Off	The connection via WPS fails.
	USB LED	Off	No device is connected to the USB port.
		Solid	The device is connected to the USB port.

1.3 Physical Interfaces

There are physical interfaces on this router

Item	Description
Supply hub	A Supply hub connected to power socket with power adapter (output 12V, 1.5A).
WAN Port	A port connected Internet with reticle.
LAN Port	Ports (1, 2, 3, 4) connected your computer.
WPS/RST Button	Press the button to connect another router through the WPS Press the button more than 10 seconds, the device will restore to its factory default.
USB Port	The USB port connects to a USB storage device or a USB printer.

Chapter 2 Connecting Mechanism

2.1 Preparation

Before you start the installation process, you need to prepare the following:

Item	Description
Router	Find it in your package.
Power adapter	Find it in your package.
PC	Should have a installed IE8 or higher browser.
Gather ISP Information	DHCP, PPPOE or Static IP Internet Connection Type: 1. Ethernet Cable from the incoming Internet side: This is provided by your ISP 2. ISP Information: Your Internet service provider (ISP) should have provided you with all of the information needed to connect to the Internet. If you cannot locate this information, ask your ISP to provide it If your ISP uses a PPPOE Internet connection, you will need ISP login name and password ● If you use a DHCP Internet connection, no information is needed ● If your ISP gives you a fixed or static IP address for Internet connection, you will need to gather the following information: 1) IP Address 2) Subnet Mask 3) Gateway 4) DNS Server 5) Alternate DNS Server (Optional)
	WISP Internet Access: 1. Remote AP's SSID, MAC address, security mode, cipher type and security key 2. Internet connection information provided by the remote AP 3. Ethernet Cable: This can be found in the product package. You will need it

	to connect your PC to this device

2.2 Hardware Connection

 **Note** ----------

Before connecting, please make sure that you can surf the internet in your computer to use the reticle provided by ISP.

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① Please connect reticle what you ever connected to the computer with the router's WAN port.

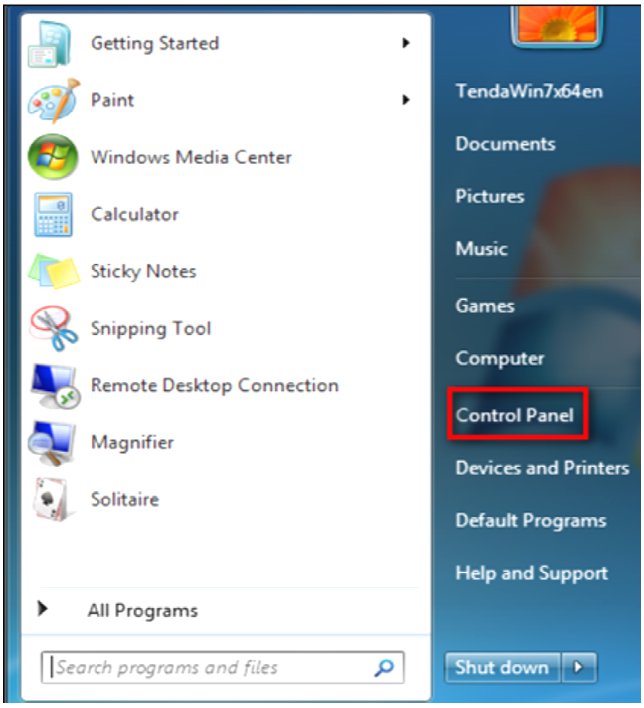
② Use another reticle to connect your computer Ethernet port with the router's any LAN port.

③ Connect the router's power adapter. And the hardware connection is finished.

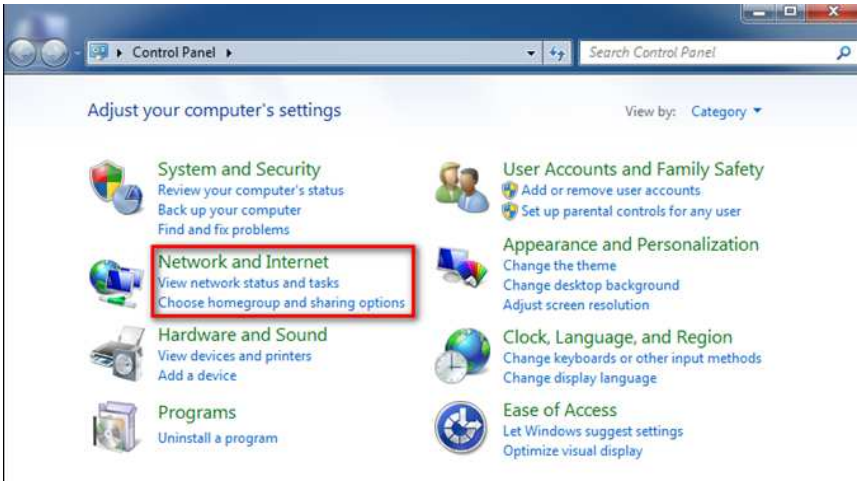
2.3 Configure PC TCP/IP Settings

Before you log in to the router, please make sure your computer set to "Obtain an IP address automatically" and "Obtain DNS server address automatically" from the device.

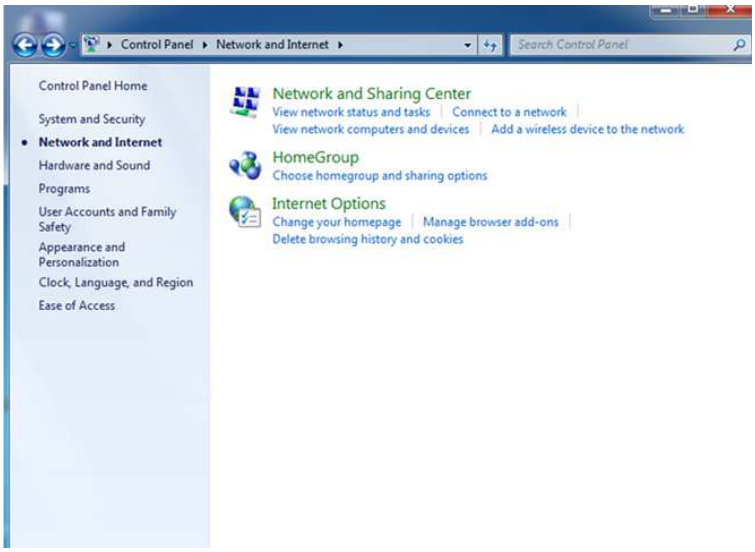
① Click **Start -> Control Panel**.



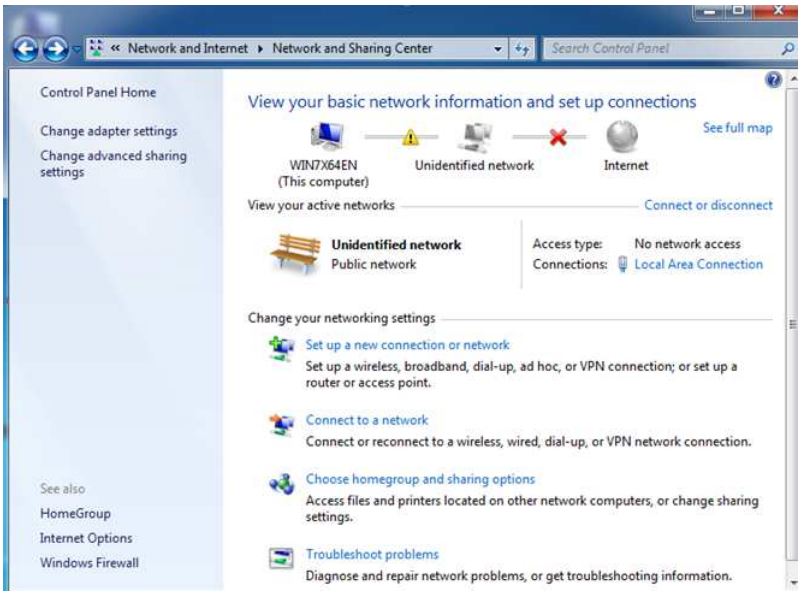
② Click **Network and Internet**.



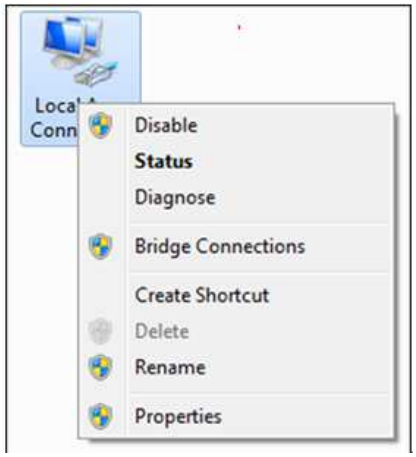
③ Click **Network and Sharing Center**.



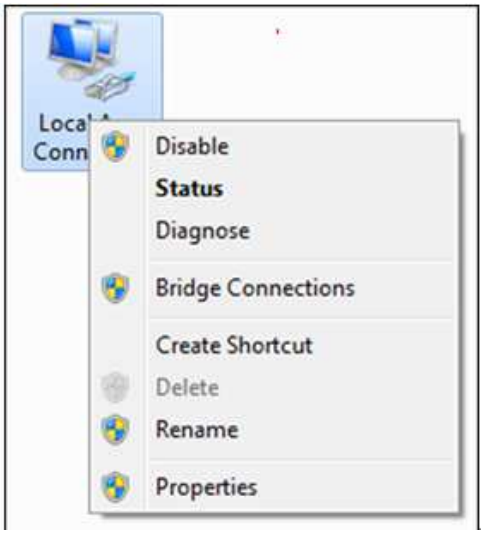
④ Click **Change adapter settings**.



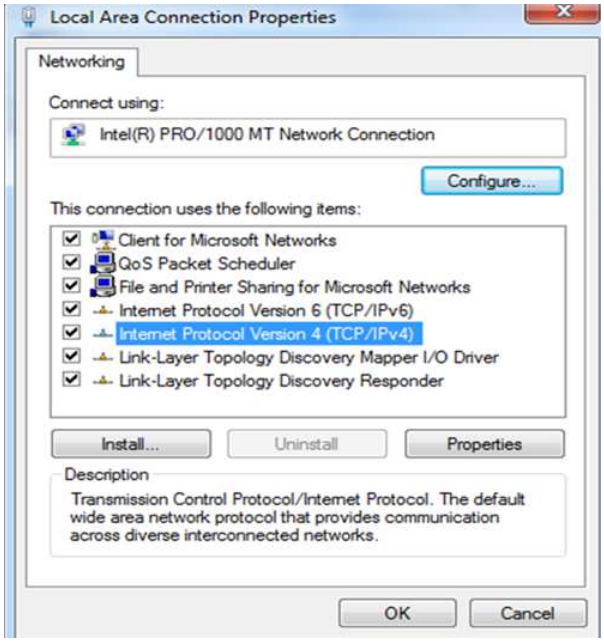
⑤ Click **Local Area Connection** and select **Properties**.



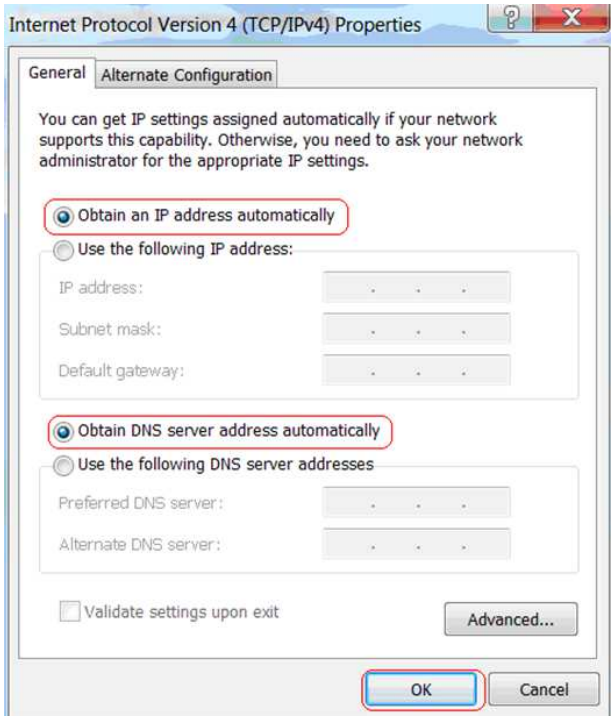
⑥ Select **Internet Protocol Version 4 (TCP/IPv4)** and click **Properties**.



⑦ Select **Obtain an IP address automatically** and click **OK**



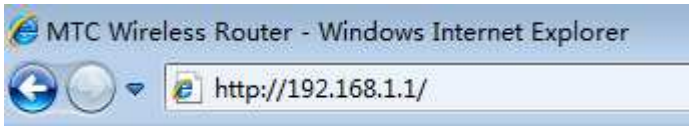
⑧ Click **OK** on the **Local Area Connection Properties** window to save your settings



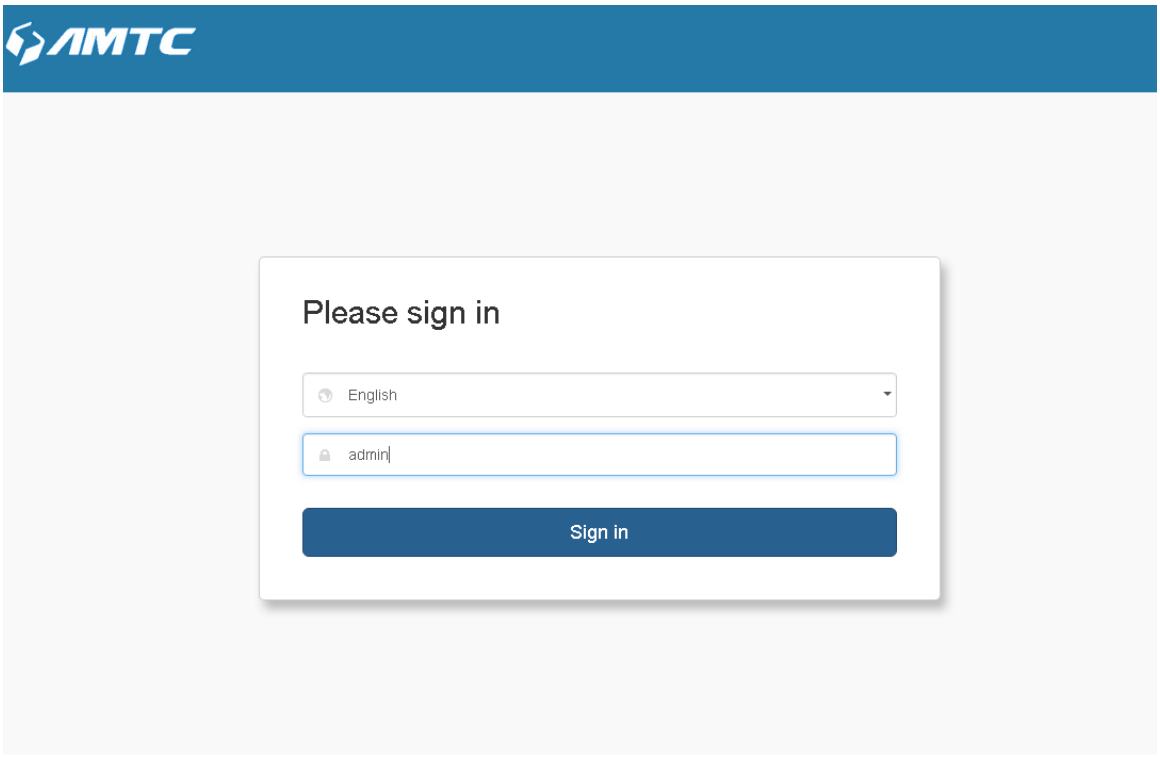
Chapter 3 Log in to the Router

3.1 Log in

To access the Router's Web-based Utility, launch a web browser such as Internet Explorer or Firefox and enter http://192.168.1.1 in your browser's address bar. Press "Enter".

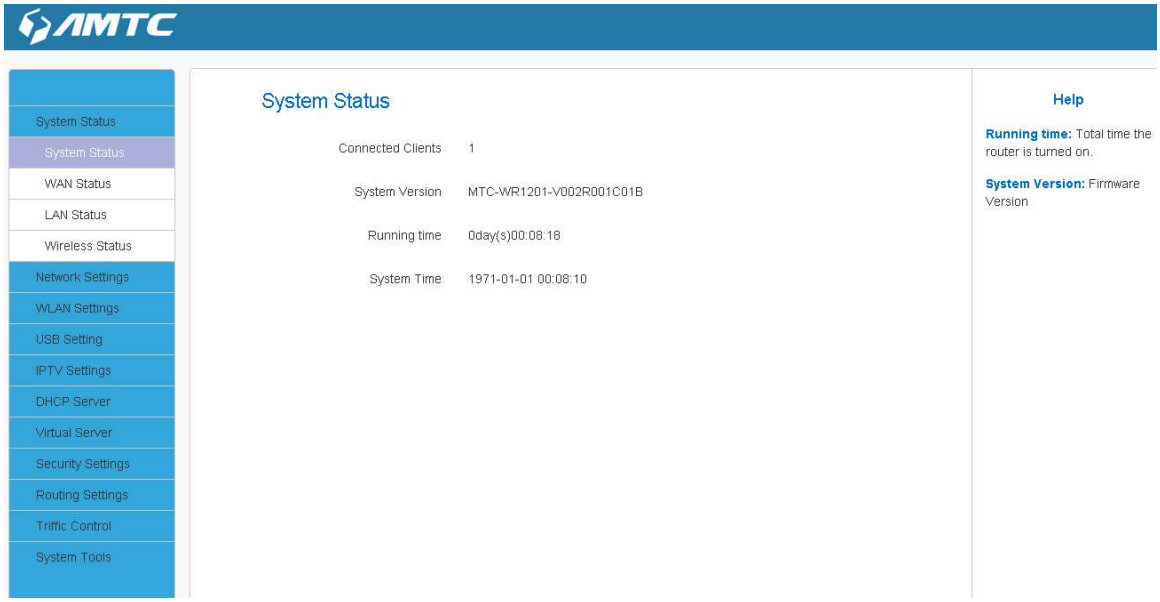


The system will automatically display the login page, please enter the correct the password (default password is admin). Click the "Sign in" button or press "Enter".



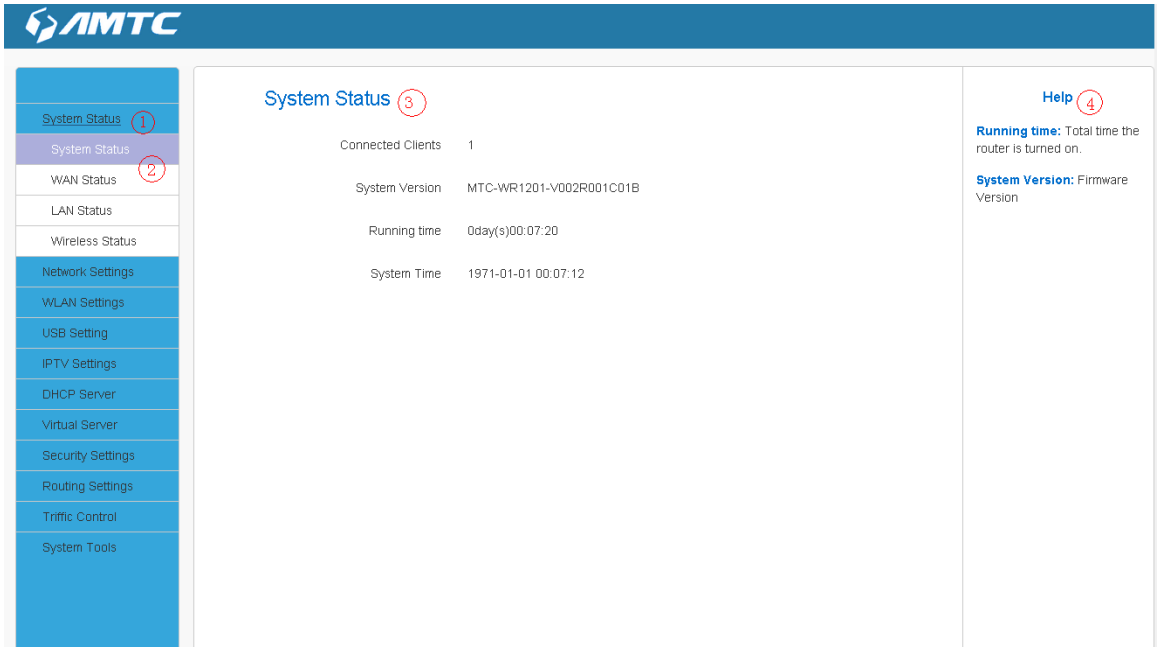
3.2 Web Page

After clicking the “Sign in” ,the system will display the router Web page. You can view and modify settings here

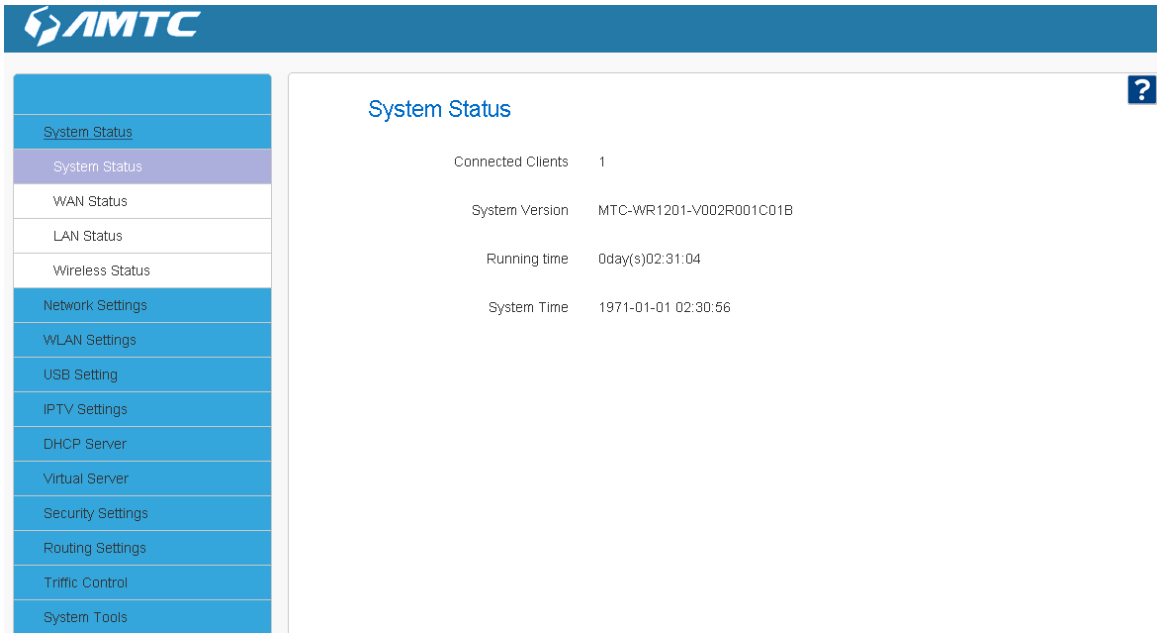


3.3 Web page Introduce to Layouts

The Web page consist of Primary & secondary navigation, configuration area and help information area.



NO	Name	Introductions
①	Primary navigation	The navigation bar organize function menu of Web page in the form of a navigation tree. The user can easily select function menu in the navigation bar. The results will display in the configuration area.
②	secondary navigation	
③	configuration area	The user can configure and view settings here.
④	help information area	Show help information of the current page.



Note

Change the resolution of the screen the help information may become "?" as above shown, if you want to refer the help information please click the symbol.

3.4Commonly used Web page elements Introductions

Common elements	Introductions
Release	To release the WAN IP address information.
Renew	To obtain the WAN IP address information again.
Save	To save the current configuration page.
Cancel	To cancel the current configuration page.
Add	To add settings to the list
Delete	To delete the corresponding rules.
Refresh	To refresh the current page display content.

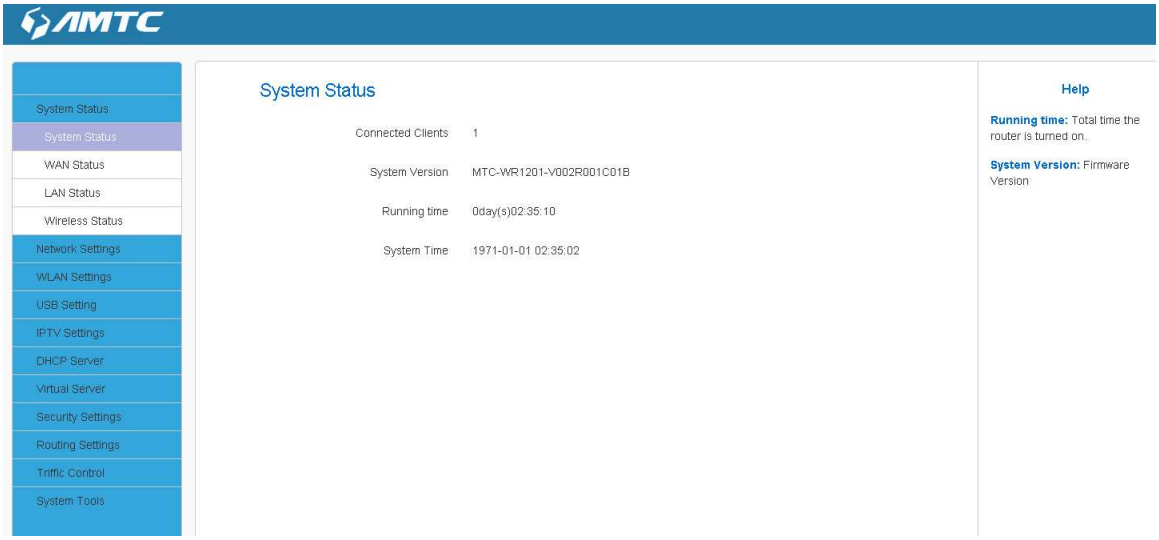
Chapter 4 Features & Configurations

4.1 System Status

Click “**System Status**”, enter the system status web page, in this page you can see the “**SystemStatus**”, “**WAN Status**” ,”**LAN Status**”, “**Wireless Status**”.

4.1.1 System Status

This page displays Connected Clients, System Version, Running Time, System Time.



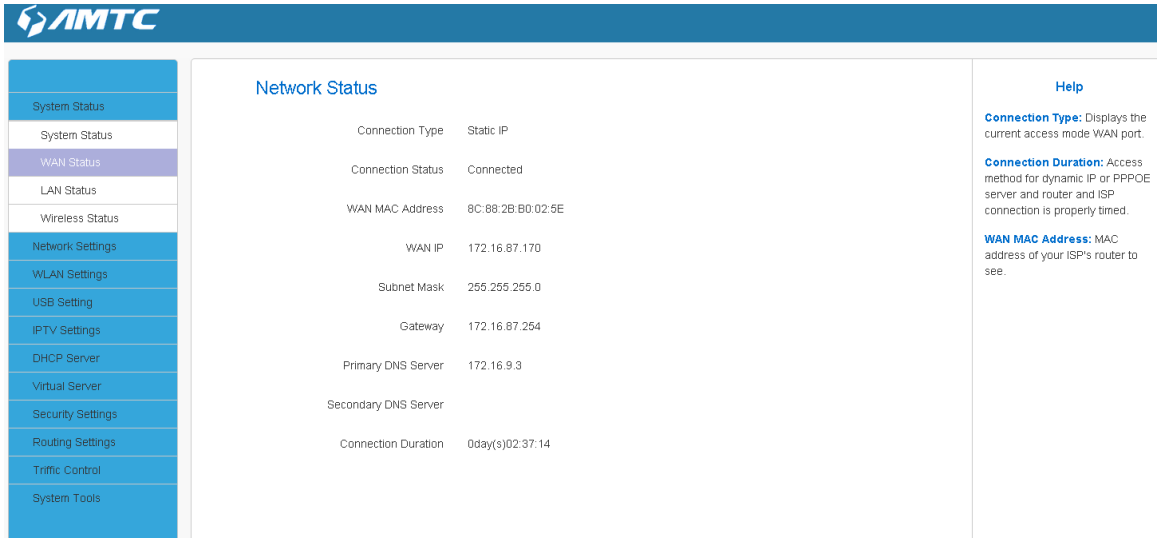
Parameters Specification:

- **Connection Clients:** displays the number of DHCP clients.
- **System Version:**Firmware Version.
- **Running Time:** Displays the time duration indicating how long the router has been up since startup. Up time is recounted and renewed upon poweroff.
- **System Time:** Current system time on this device. The device automatically synchronizes the system time with Internet time servers.

Tips ----------

- Running time is total time the router is turned on

4.1.2 WAN Status



Parameters Specification:

- **Connection Type:**It displays the current access modeof WAN port.
- **Connection Status:** The network connection status.
- **WAN MAC Address:** MAC address of your ISP's router to see.
- **WAN IP**: IP address obtained from ISP.
- **Subnet Mask:** Obtained from ISP.
- **Gateway:** Obtained from ISP.
- **Primary DNS Server:**Obtained from ISP.
- **Secondary DNS Server:** Obtained from ISP.
- **Connection Duration:** Access method for dynamic IP or PPPOE server and router and ISP connection is properly timed.

Tips ----------

WAN IP/Subnet Mask/Gateway/Primary DNS Server/Secondary DNS Server: This types of information appears only if the router successfully connects to Internet via a PPPoE or DHCP (dynamic IP) connection. However if you connect the router to Internet with static IP settings provided by your ISP, these fields will display the settings you entered whether the router successfully connects to the Internet or not.

If nothing appears in the secondary DNS server field, there is no available secondary DNS server

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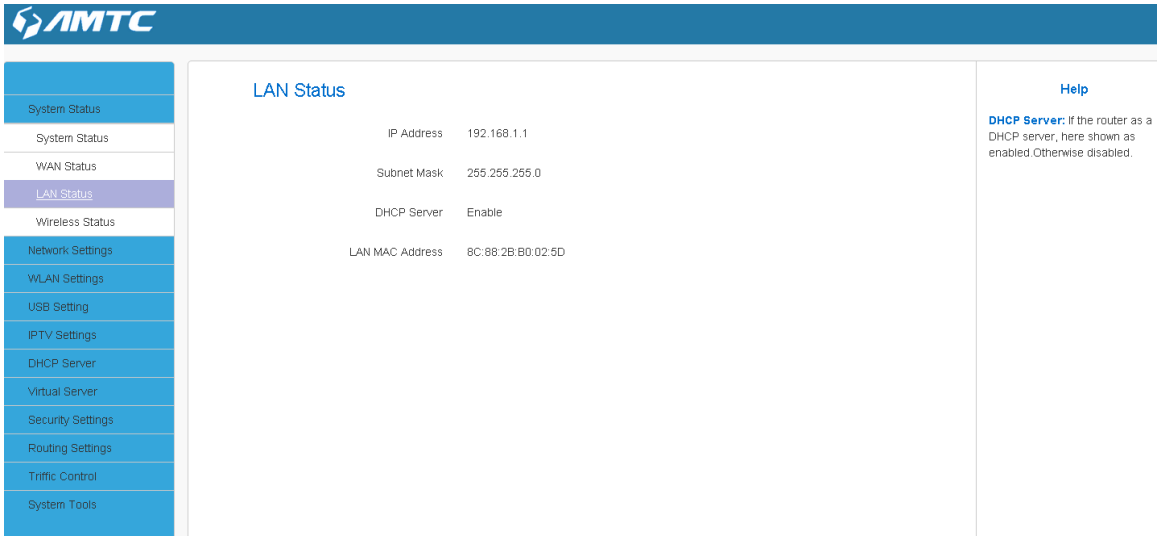
4.1.3 LAN Status



Parameters Specification:

- **IP Address:** The Router's LAN IP Address (not your PC's IP address).
- **Subnet Mask:** The Router's LAN subnet mask.
- **DHCP Server:** the status of DHCP server.
- **LAN MAC Address:** The router's physical address.

Tips ----------

- The default IP address is 192.168.1.1.
- The default Subnet mask value is 255.255.255.0
- If the router as a DHCP server, here shown as enabled.Otherwise disabled

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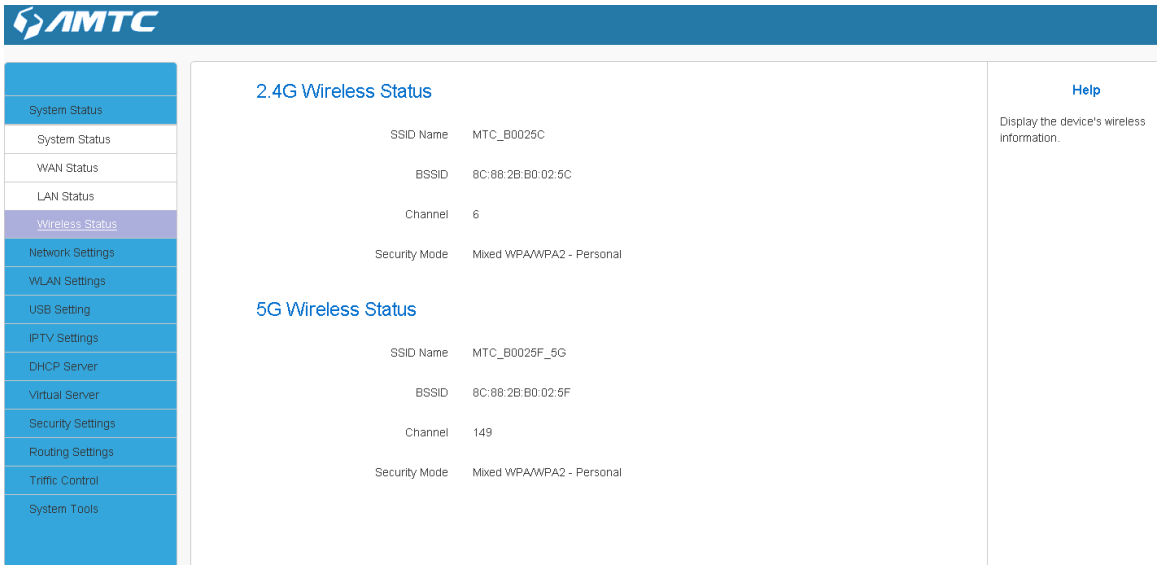
4.1.4 Wireless Status

This page shows the information of 2.4G Wireless and 5G Wireless.



Parameters Specification:

- **SSID Name：** The name ofWireless.
- **BSSID:** The MAC Address of Wireless.
- **Channel：** The Channel of Wireless.
- **Security Mode:** Encryption schemes.

Tips

- The default SSID of 2.4G is **MTC_XXXXXX,** and SSID of 5G is **MTC_XXXXXX_5G**, where XXXXXX is the last six characters in the device's MAC address. You can find it on the label attached on the bottom of the device.
- **Default** channel is **AutoSelect.**

Knowledge Expansion

- **AutoSelect:** Under the “AutoSelect” the wireless signal will choice the user number is the least channel to improve the efficiency of the signal, it works for most cases.
- If you choice other mode, the channel will not change all the time not matter the channel is good or bad.

4.2 Network Settings

T Click “**Network Settings**” enter the Network setup web page，in this page you can set “**LAN Settings**”, “**WAN Settings**”, “**MAC Address Clone**”.

4.2.1 LAN Setting

This page is to configure the basic parameters for LAN ports. This IP address is to be used to access the device’s settings through a web browser. Be sure to make a note of any changes you apply to this page

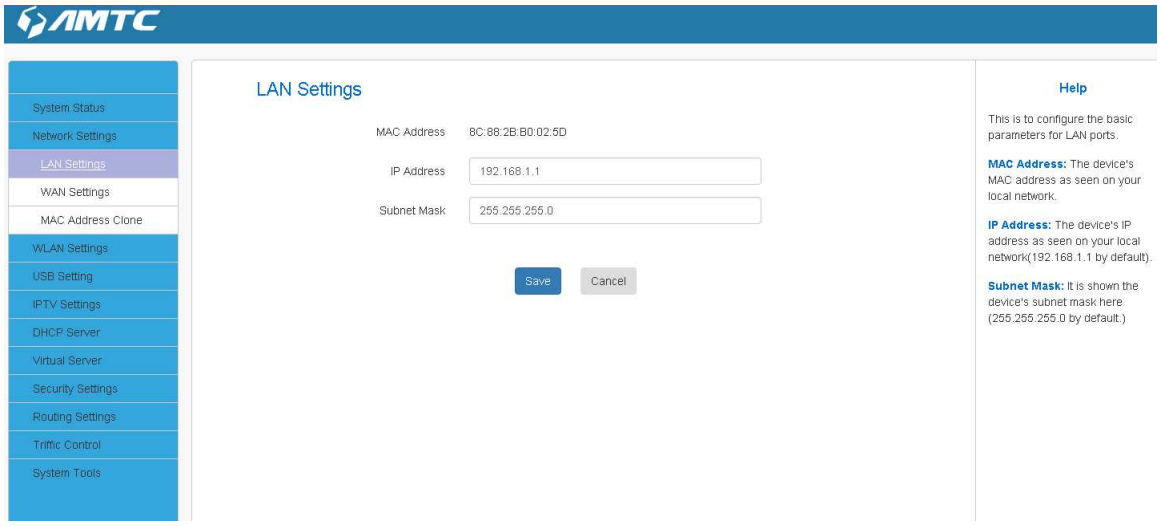
Set Steps：

① Click **“Network Settings”**.

② Select**“LAN Settings”.**

③ Enter **IP Address，Subnet Mask.**

④ Click **“Save”** and wait for the router reboot automatically.



Parameters Specification:

- **MAC Address：** It displays the Router’s LAN MAC address.
- **IP Address：** It displays the Router’s LAN IP address.
- **Subnet Mask:**it displays the Router’s LAN subnet mask.

Tips

1. Default IP address and subnet mask are respectively 192.168.1.1 and 255.255.255.0.

2. Be sure to make a note of any changes you apply to this page. If you change the LAN IP address of the router, you have to open a new connection to the new IP address and log in again. Also, you have to set the default gateway addresses of all LAN PCs to this new IP address.

3. The router's LAN IP address and WAN IP address cannot be on the same IP segment. If not, the router will not be able to access Internet.

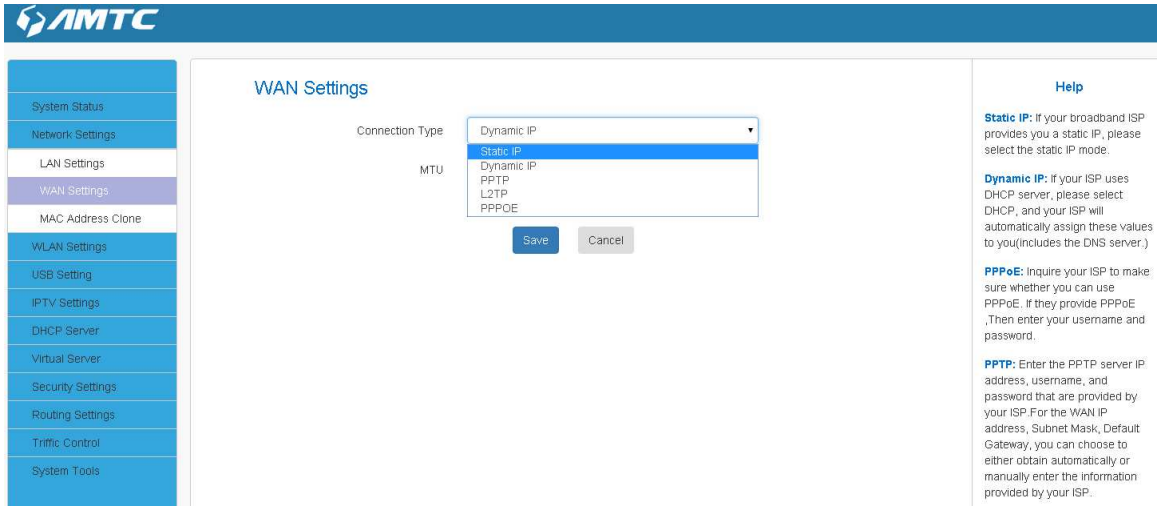
4.2.2 WAN Setting

Plug Internet cable to WR1201 WAN port.

Set Steps：

① Enter the web and Select**"Network Settings".**

② Click the**"WAN Settings"**.



Parameters Specification:

➢ **Connection Type:**It displays the routers mode.

1、Configuration the Internet access

Support Static IP mode、Dynamic IP(DHCP)、PPOE.

WAN Connection Type	Instruction
Static IP mode	If your ISP provides you with an Ethernet cable from the incoming Internet side IP information (IP address, subnet mask, gateway IP address, DNS server address), your ISP

	uses a static IP connection.
Dynamic IP	If your ISP provides you with an Ethernet cable from the incoming Internet side but no ISP login account or IP information, your ISP uses a DHCP connection.
PPOE	If your ISP provides you with an Ethernet cable from the incoming Internet side and ISP login account, your ISP uses a PPOE connection.

1.1> Static IP mode

Set Steps：

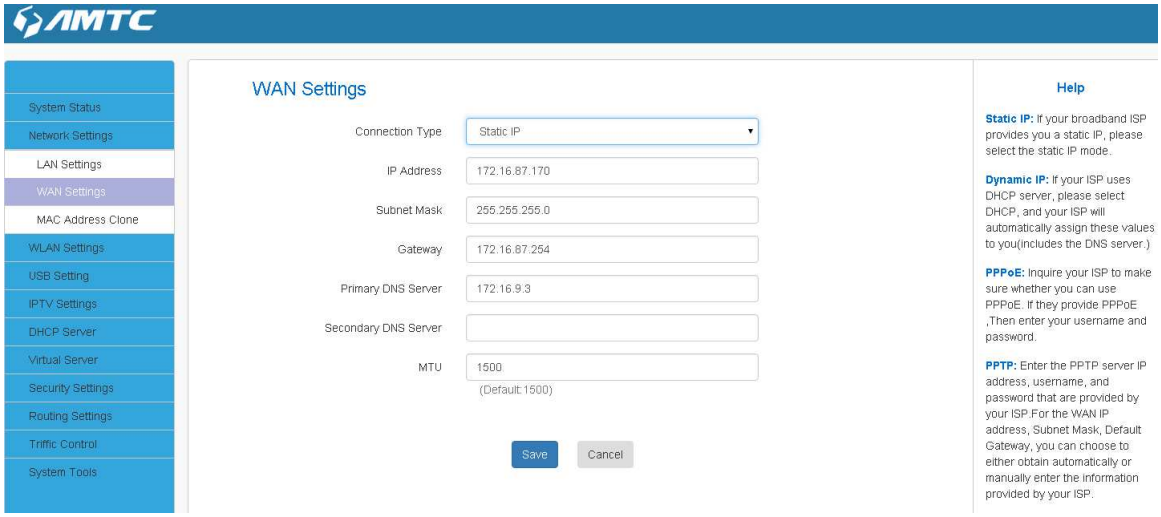
① Click**“Network Settings”**.

② Select **“WAN Settings”**.

③ Select Connection Type **“Static IP”**.

④ Enter IP, Subnet Mask, Gateway, MTU, DNS

⑤ Click**“Save”** to confirm.



Parameters Specification:

- **Connection Type:** Select Static IP.
- **IP Address/Subnet Mask/WAN subnet mask/Gateway/Primary DNS Server/Secondary DNS Server:** Enter the ISP information you gathered inGettingPrepared.
- Click **Save** to save your settings.

Tips ----------

- MTU better to choose the default values.

1.2>Dynamic IP mode.

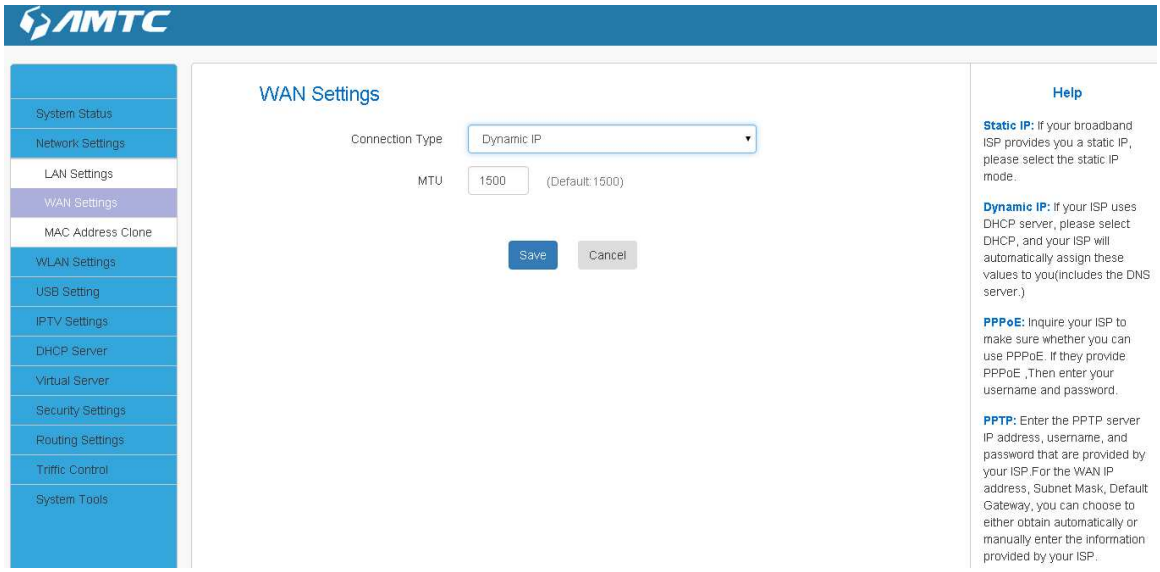
Set Steps：

① Click **“Network Settings”**.

② Select**“WAN Settings”.**

③ Select Connection Type **“Dynamic IP”**.

④ Click**“Save”** to confirm.



Tips ----------

- MTU better to choose the default values.

1.3>PPOE

Set Steps：

① Click **“Network Settings”**.

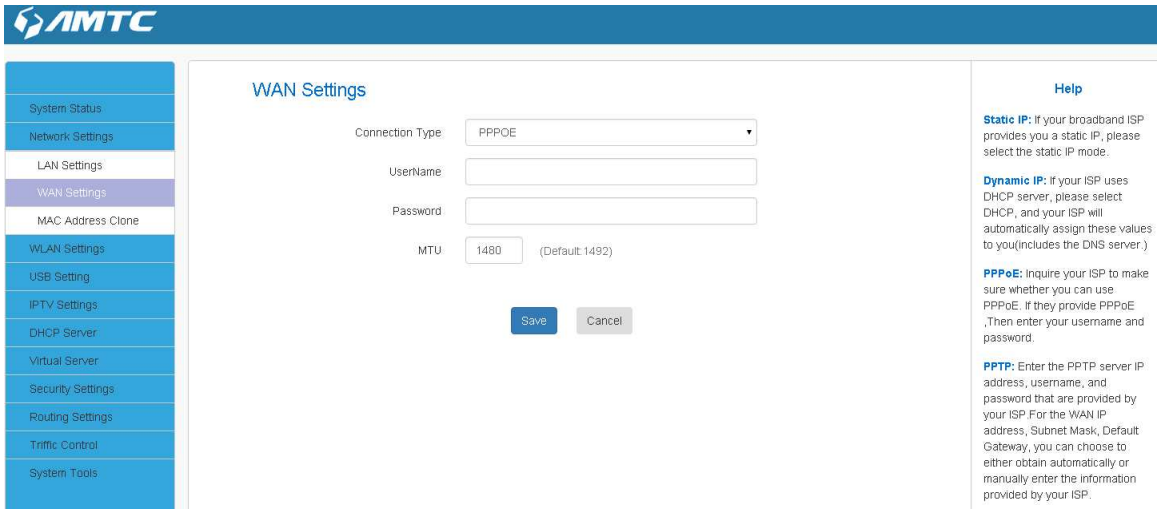
② Select **“WAN Settings”**.

③ Select Connection Type **“PPOE”**.

④ Enter the ISP login **UserName**，the ISP login **Password**.

⑤ Click**“Save”** to confirm.

⑥ Click “System Status”--->“WAN Status” to confirm



Knowledge Expansion

- **MTU:** Maximum Transmission Unit. It is the size of the largest data packet that can be sent over the network. The default value is 1500.

The common MTU sizes and applications are listed in the table below.

MTU	Application
1500	Typical for connections that do not use PPOE or VPN.
1492	Used in PPOE environments.
1472	Maximum size to use for pinging. (Larger packets are fragmented.)
1468	Used in some DHCP environments.
1436	Used in PPTP environments or with VPN.

Note

- A wrong/improper MTU value may cause Internet communication problems. For example, you may be unable to access certain websites, frames within websites, secure login pages, or FTP or POP servers.
- Do not modify it unless necessary, but if a specific website or web application software cannot open or be enabled, you can try to change the MTU value to 1500, 1400.

4.2.3 MAC Address Clone

Some ISPs (Internet Service Providers) require end-user's MAC address to access their network. This feature copies your current PC's MAC address to the router.

Set Steps：

① Click **“Network Settings**”.

② Click **“MAC Address Clone**”.

③ You can set this page from three methods：

1、To Restore to Factory Default MAC

1> Click “Restore to factory Default MAC”

2> Click **Save** to save your settings.

2、To clone the MAC address of the computer that you are now using to the router:

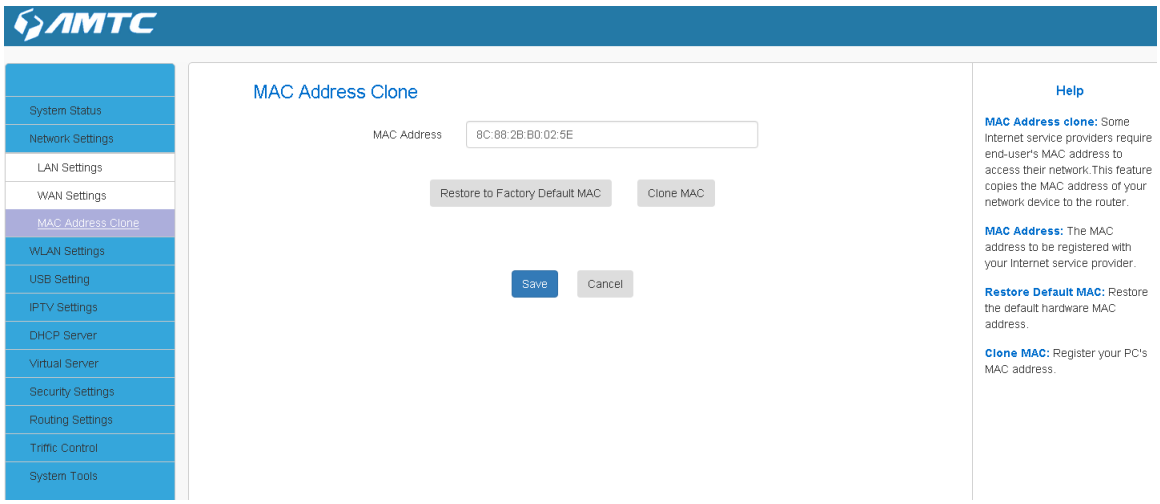
1> Click **Clone My PC’s MAC Address.**

2> Click **Save** to save your settings.

3、To manually enter the MAC address allowed by your ISP:

1> Enter the MAC address allowed by your ISP.

2> Click **Save** to save your settings.



Parameters Specification:

- **MAC Address:**The computer or broadband modem authorized by your ISP.

Knowledge Expansion

1. **Restore toFactory Default MAC:** Reset the router’s WAN MAC to factory default.

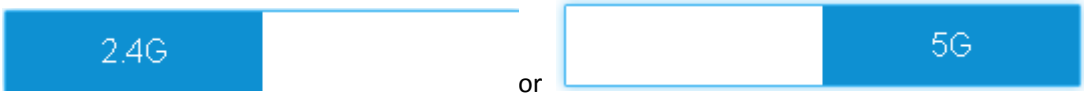
2. **Clone MAC:** Clicking this button copies the MAC address of the computer that you are now

using to the router. Also, you can manually enter the MAC address that you want to use. You have to use the computer whose MAC address is allowed by your ISP

4.3 WLAN Settings

Click "**WLAN Settings**" enter the configure page , here you can configure "**Base Settings**", "**Security Settings**","**Advanced Settings**", "**WPS Settings**", "**Access Control**", "**Connection Status**".

The Wireless includes two working frequency band: 2.4GHz and 5GHz. You coule change it by clicking button



Knowledge Center----------

2.4GHz and 5GHz is the router working frequency. They use different protocol: 2.4G use 802.11g and 5G use 802.11a. 2.4G band and household appliances are using the same frequency band. 5G band use few. So 5G has strong anti-jamming capability.

4.3.1 Basic Settings

Here you can configure the basic wireless settings of the router

Set Steps：

① Click"**WLAN Settings**".

② Select "**Basic Settings**".

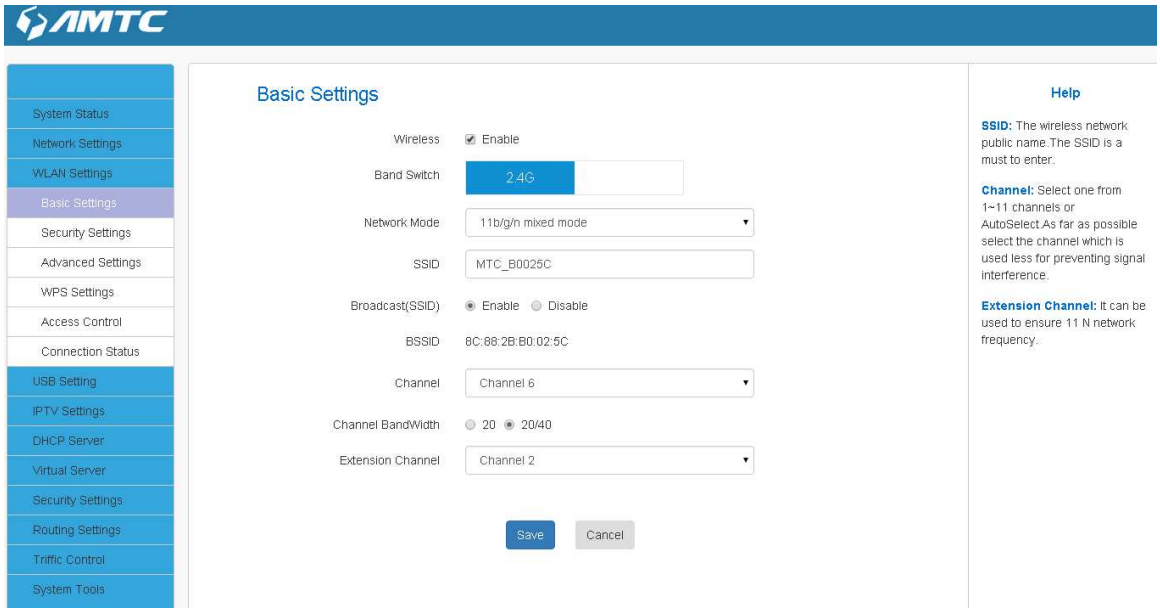
③ Wireless **Enable**.

④ Select Network Mode

⑤ Enter **SSID name** (Default name is **i3005_XXXXXX**).

⑥ Select"**Channel**".

⑦ Select "**Channel BandWidth**".



Parameters Specification:

- **Wireless:** wireless “Enable” or “Disable”.
- **SSID:** It is the unique nameof the wireless network and can be modified.
- **Broadcast (SSID):** Select “Enable” to enable the router’ SSID to be scanned by wireless devices. The default is enabled. If you disable it, the wireless devices must know the SSID for communication.
- **BSSID:**This is the MAC address of the device's wireless interface.
- **Channel:** The currently used channel by the router. Select an effective channel of the wireless network. The default is AutoSelect.
- **Channel Bandwidth:** Select an appropriate channel bandwidth to enhance the wireless performance. Select 20/40M when the network has 11b/g/n to promote its throughput

Note

- The wireless Enable.
- The SSID must be entered.

Tips

1. The default SSID of 2.4G is **MTC_XXXXXX,** and SSID of 5G is **MTC_XXXXXX_5G** , where XXXXXX is the last six characters in the device's MAC address. You can find it on the label

attached on the bottom of the device.

2. If you are not an advanced user, it is advisable to only change the SSID (name of the network) and channel and leave other items unchanged.

Knowledge Expansion

Network Mode (802.11 Mode): Select a correct mode according to your wireless clients.

- **11b:** This network mode delivers wireless speed up to 11Mbps and is only compatible with 11b wireless clients.
- **11g:** This network mode delivers wireless speed up to 54Mbps and is only compatible with 11g wireless clients.
- **11b/g mixed:** This network mode delivers wireless speed up to 54Mbps and is compatible with 11b/g wireless clients.
- **11b/g/n mixed:** This network mode delivers wireless speed up to 300Mbps and is compatible with 11b/g/n wireless clients

4.3.2 Security Settings

With the wireless security function, you can prevent others from connecting to your wireless network and using the network resources without your consent. Meanwhile, you can also block illegal users from intercepting or intruding your wireless network

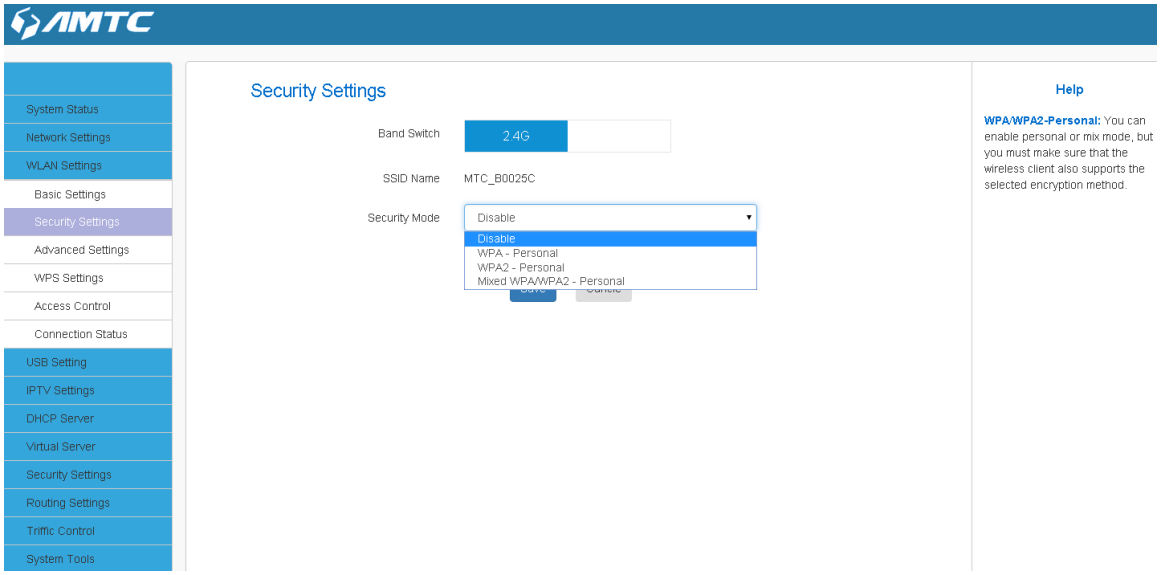
Set Steps：

① Click “**Network Settings**”.

② Select “**Security Settings**”**.**

③ Select“**Security Mode**”.

④ Click “**Apply**” to use you settings and click “**Save**” to save your settings.

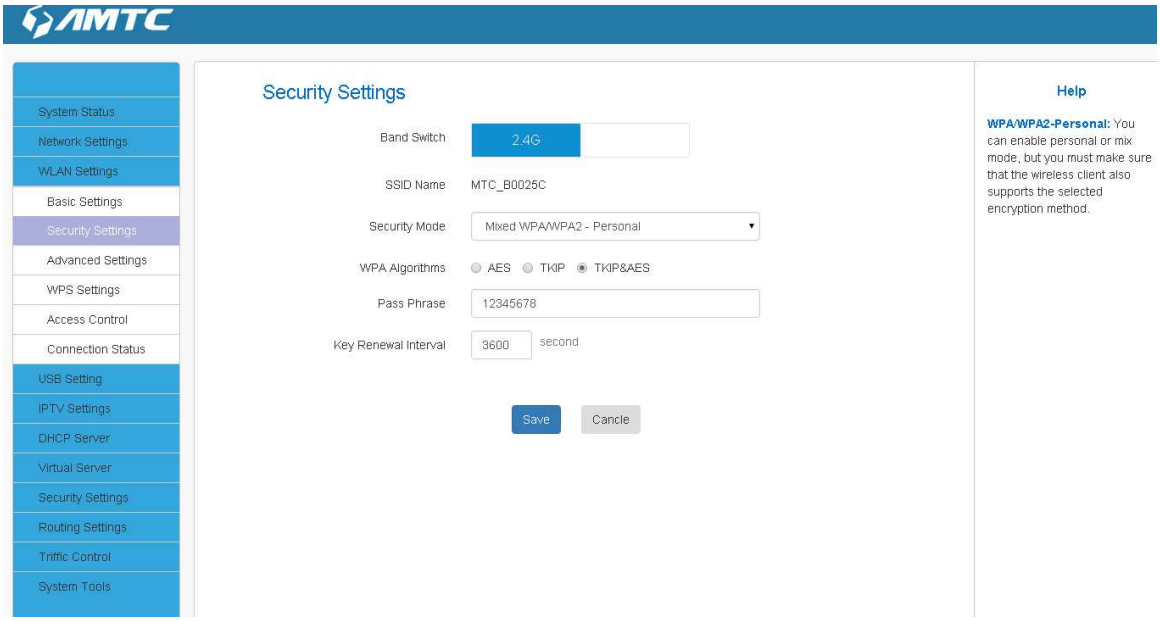


➢ **Security mode:**WPA – Personal、WPA2 – Personal、Mixed WPA/WPA2 – Personal.

Security mode	Instruction
Disable	Not open this function
WPA – Personal	Support AES and TKIP cipher types
WPA2 – Personal	Support AES, TKIP and TKIP+AES cipher types
Mixed WPA/WPA2 – Personal	Both WPA-Personal and WPA2-Personal secured wireless clients can join your wireless network.

Note

- **WPA/WPA2-Personal:** You can enable personal or mix mode, but you must make sure that the wireless client also supports the selected encryption method.



Parameters Specification:

- **WPA Algorithms:** Wi-Fi Protected Access Algorithms.
- **Pass Phrase:** The default is 12345678.

Knowledge Expansion

1. **WEP:** (Wired Equivalent Privacy)is the wireless transmission of data between two devices for encryption, to prevent illegal users wiretapping or invade the wireless network.

2. **AES:** (Advanced encryption standard) is an iterative, symmetric key group password.If selected, wireless speed can reach up to300Mbps.

3. **TKIP:** (Temporal Key Integrity Protocol)Responsible for handling the wireless encryption part of security issues, TKIP is in WEP password outermost layer of the existing “shell”If selected, wireless speed can reach up to 54Mbps.

4. **TKIP+AES:** If Selected, both AES and TKIP secured wireless clients can join your wireless network.

5. **Key Renewal Interval:** Enter a valid time period for the key to be changed.

Tips

- Recommended that you choice “WPA-Personal” + ”AES” mode , make sure the wireless efficiency and ensure the security of wireless network. Meanwhile, avoid some kind of

wireless network card does not support security mode, cause cannot connect the wireless network.

Backup Configuration Procedures:

① Configure security mode, cipher type and security key.

② Click **Save** to save your settings.

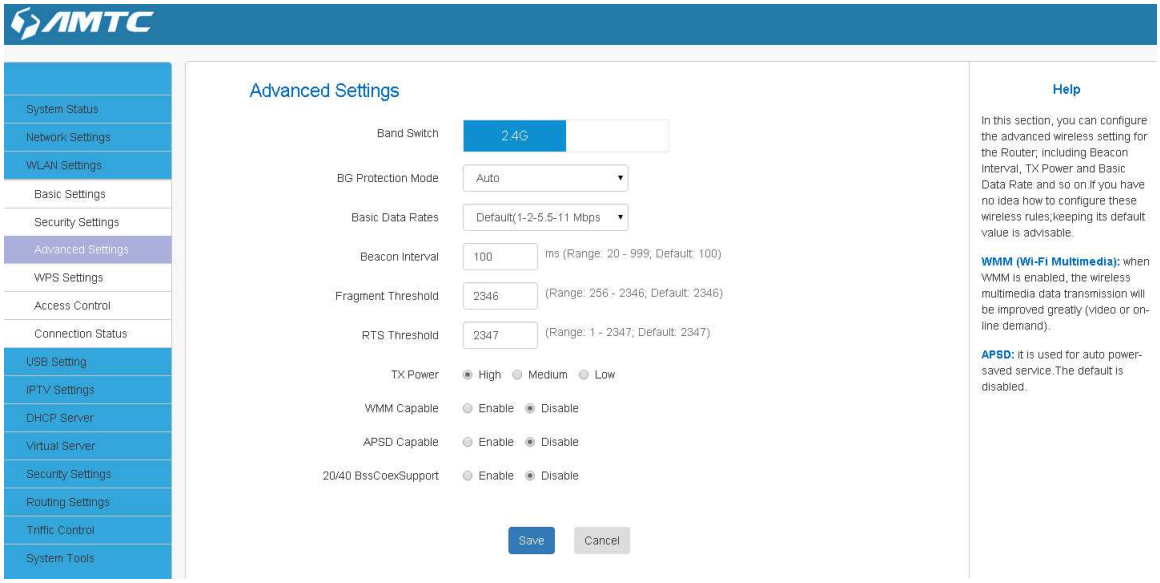
 **Knowledge Center----------**

1. **WEP:** WEP is intended to provide data confidentiality comparable to that of a traditional wired network.
2. **Open:** Wireless speed can reach up to 54Mbps if WEP - Open is selected.
3. **Shared:** Wireless speed can reach up to 54Mbps if WEP - Shared is selected.
4. **Mixed WEP**: Compatible with both Open and Shared. Clients can connect to your wireless network either using Open or Shared
5. **Default Key:** Select a key to be effective for the current WEP encryption. For example, if you select Key 2, wireless clients must join your wireless network using this Key 2.
6. **WPA-PSK:** WPA personal, support AES and TKIP cipher types.
7. **WPA2-PSK:** WPA2 personal, support AES, TKIP and TKIP+AES cipher types.
8. **Mixed WPA/WPA2-PSK:** If selected, both WPA-PSK and WPA2-PSK secured wireless clients can join your wireless network**.**
9. **AES:** If selected, wireless speed can reach up to300Mbps.
10. **TKIP:** If selected, wireless speed can reach up to 54Mbps.
11. **TKIP+AES:** If selected, both AES and TKIP secured wireless clients can join your wireless network.
12. **Key Renewal Interval:** Enter a valid time period for the key to be changed.

4.3.3 Advanced Settings

You can configure the advanced wireless setting for the Router; including Beacon Interval, TX

Power and Basic Data Rate and so on.



4.3.4 WPS Settings

Set Steps：

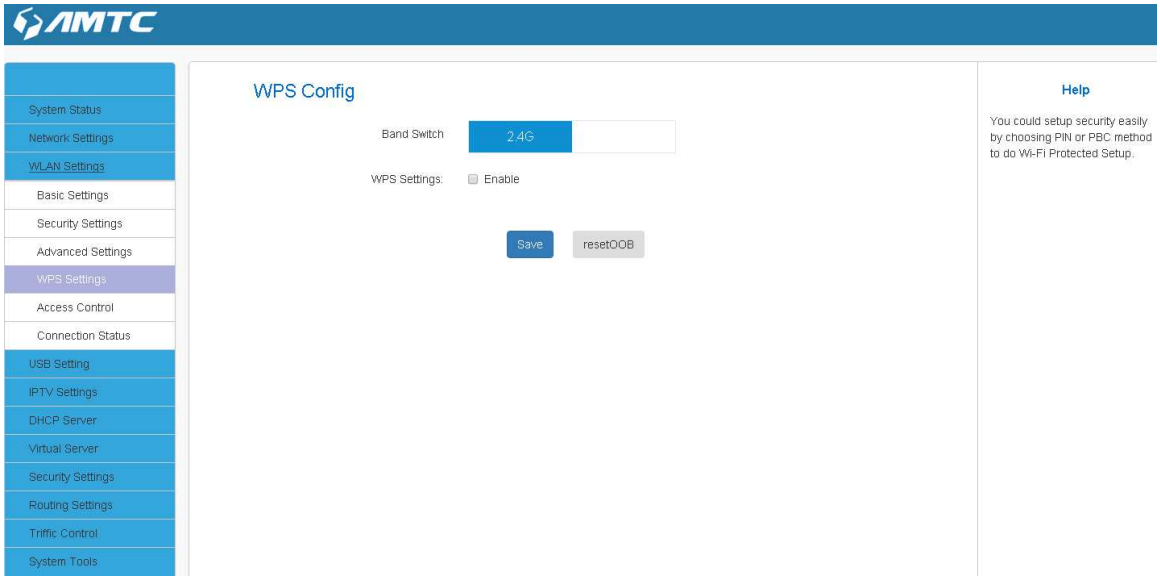
① Click “**WLAN Settings**”.

② Select “**WPS Settings**”.

 **Knowledge Expansion**

WPS provides you with two main functions:

- if your wireless network unencrypted，WPS can quickly encryption your wireless network.
- If your wireless network encrypted, WPS can make you quickly connect your encrypted wireless network.



Parameters Specification:

The WPS provides below methods:

- **PBC:**Using routers and physical or logical button on a wireless device to connect WPS.

You have below methods to connect WPS:

1、Using the router WPS button on the rear panel for the PBC connection

① Click "**Enable**"

② Click "**Save**"

③ Hold the router on the rear panel of the WPS button for 3 seconds, then let go

④ The router's WPS led flashes two minutes, During this time, In the wireless client devices use the WPS/PBC connect to your wireless signal

Knowledge Expansion----------

resetOOB:

- The router wireless SSID, safe mode resumed to not configured mode. Make the WPS reset the SSID, Encryption and password, after the completion of the reset, the router's SSID is factory default, safe mode is unencrypted.

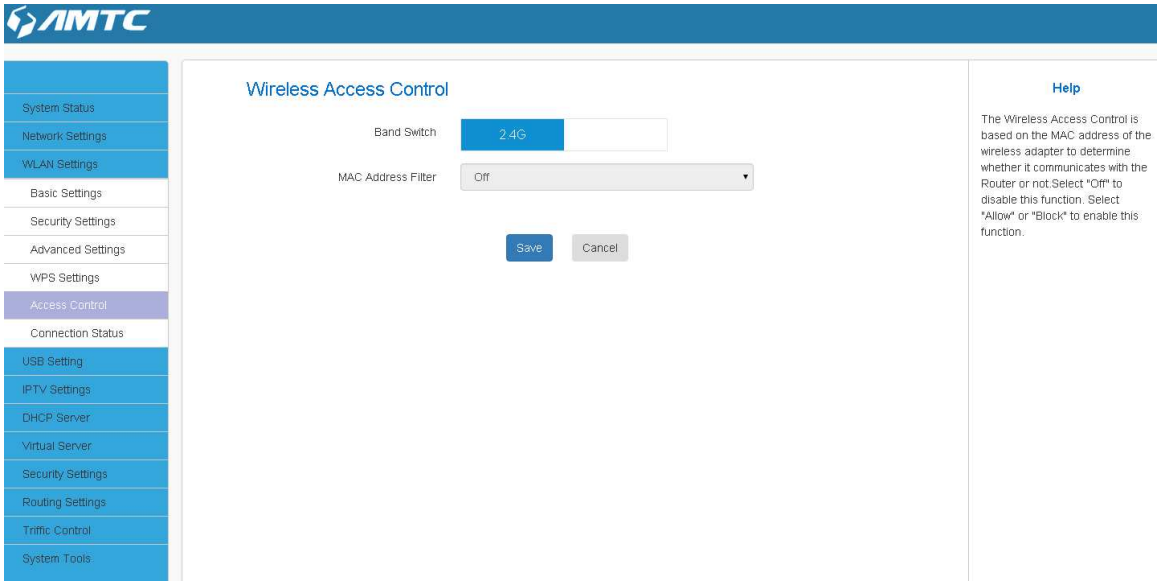
4.3.5 Access Control

Wireless access control is actually based on the MAC address to permit or forbid specified clients to access the wireless network

Set Steps：

① Click “**WLAN Settings**”.

② Select “**Access Control**”.



Parameters Specification:

➢ The Wireless Access Control is based on the MAC address of the wireless adapter to determine whether it communicates with the Router or not;

1. Select“**Off**” to allow all wireless clients to join your wireless network.
2. Select “**Allow**”**allow ONLY** the specified wireless clients to join your wireless network.
3. Select “**Block**” **disallow ONLY** the specified wireless clients to join your wireless network.

Wireless Access Control Application Example:

To only allow your own notebook at the MAC address of 00:12:35:EC:DF:25 to join your wireless network

Set Steps：

① Select **Allow**.

② Enter the MAC address of the wireless device you want to restrict. Here in this example, enter 00:12:35:EC:DF:25.

③ Click **Add** to add the MAC address to the MAC address list.

④ Click **Save** to save your settings.

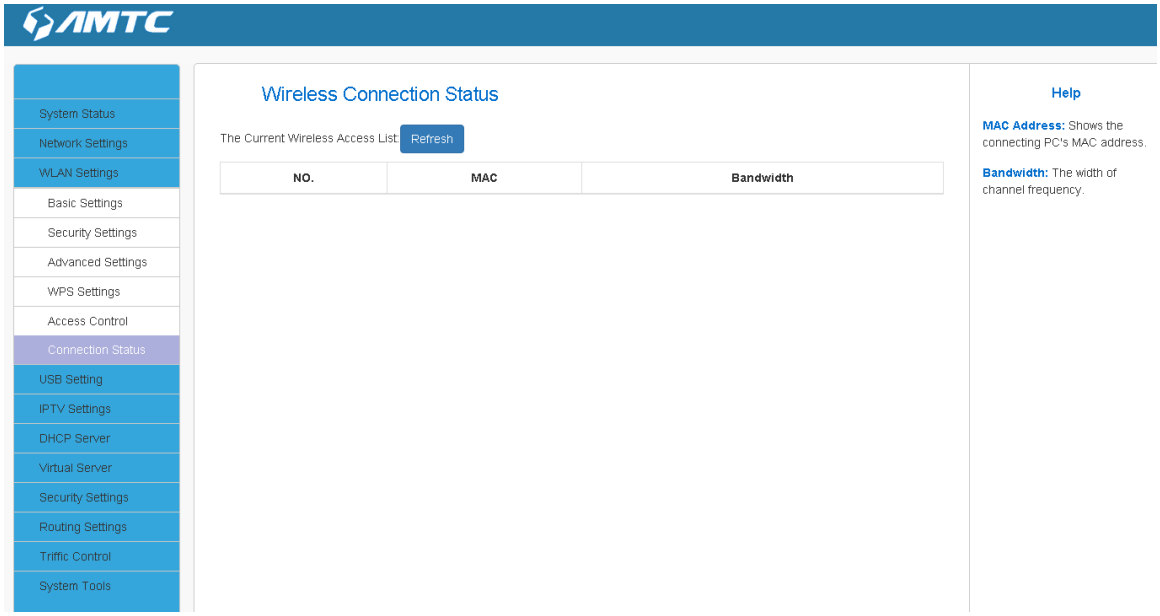
Tips

- Up to 10 wireless MAC addresses can be configured
- If you don't want to configure the complex wireless security settings and want to disallow others to join your wireless network, you can configure a wireless access control rule to allow only your own wireless device

4.3.6 Connection Status

This page shows the current wireless access list

Click "**Refresh**" to update.



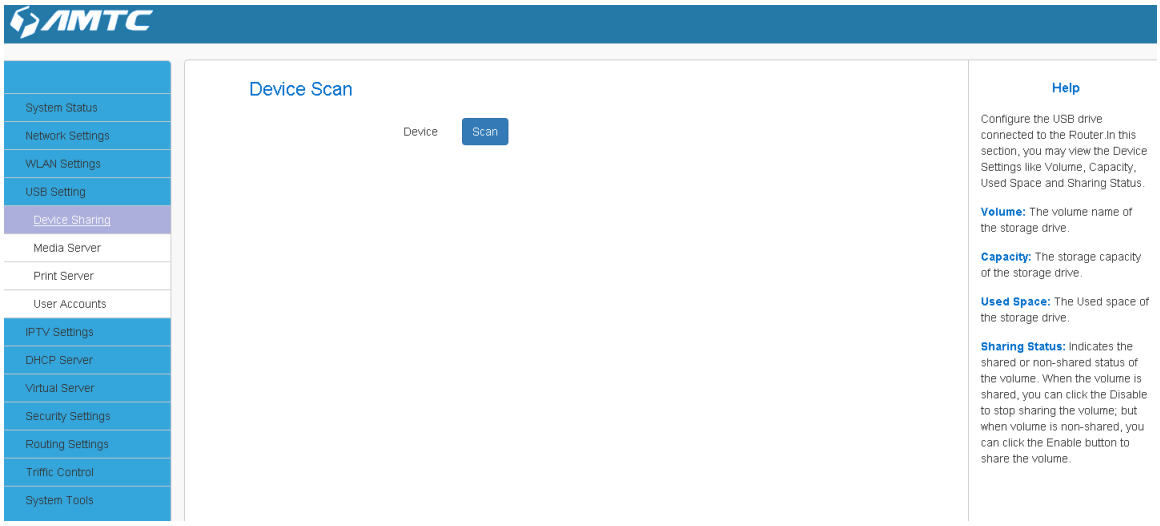
Tips

- The bandwidth here refers to the channel bandwidth instead of wireless connection rate.
- You can know whether there are unauthorized accesses to your wireless network by viewing the wireless client list.

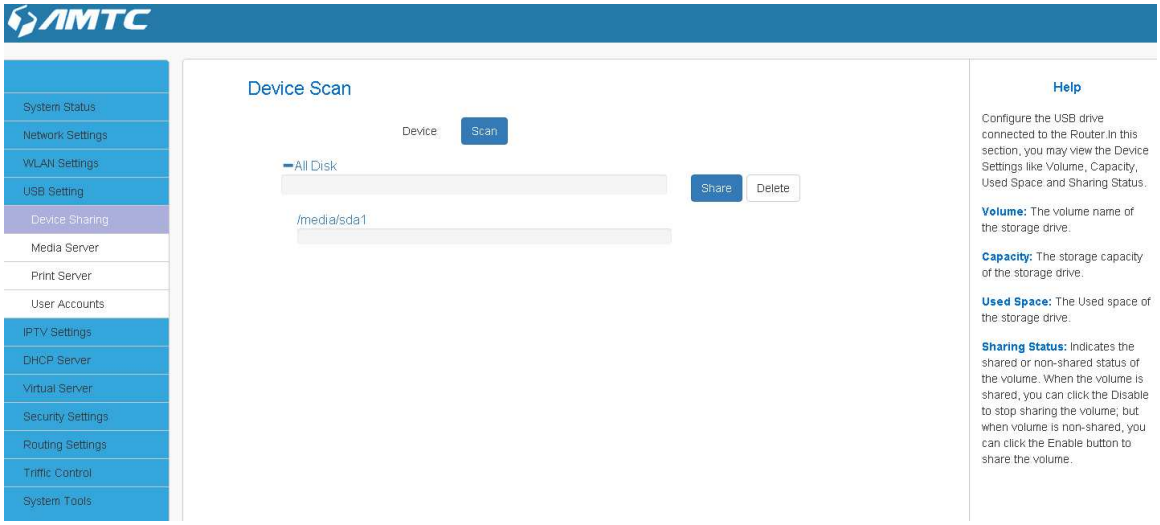
4.4 USB Setting

4.4.1 Device Sharing

You could configure the USB drive connected to the Router.



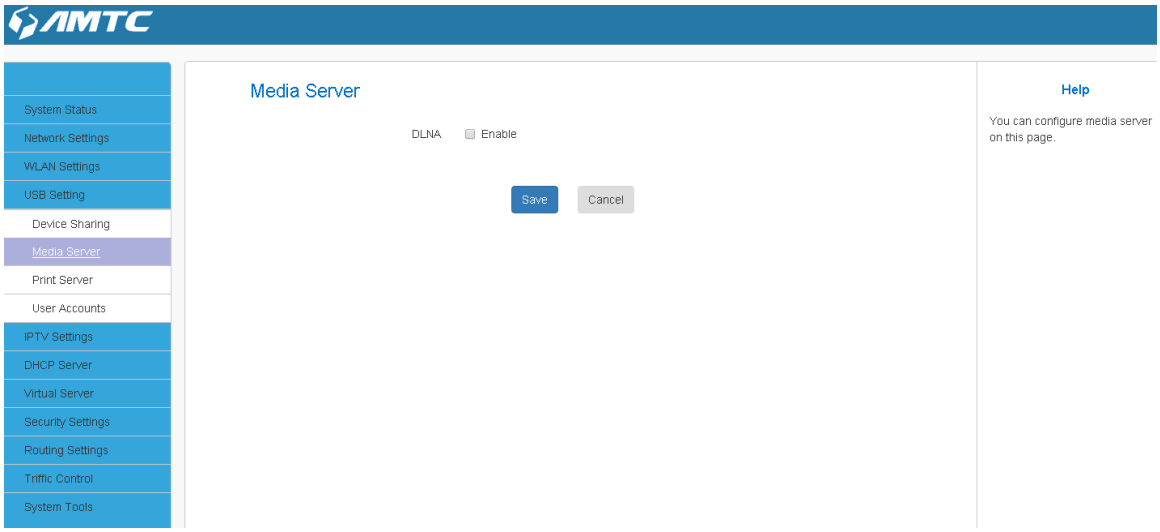
Click “**Scan**” button , wait a minute , you could see the USB drive connected to the Router.



You can click the “**Share**” or “**Delete**” to enable or disable sharing the volume.

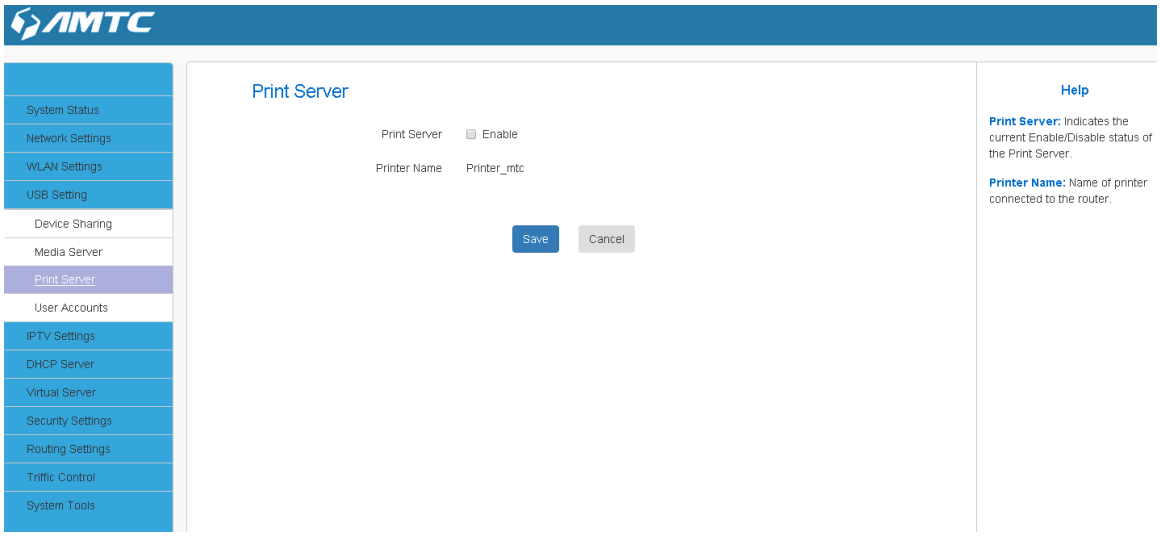
4.4.2 Media Server

You can configure media server on this page. You could enable this server to share the media information in USB driver. And other user in this local area network could see these information your shared.



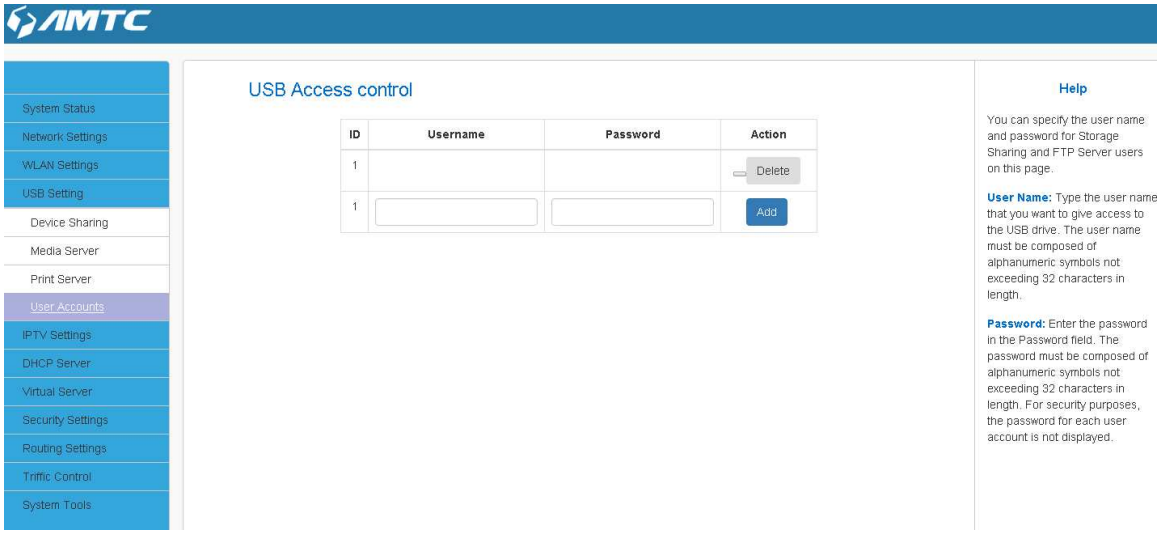
4.4.3 Print Server

You could connect a network printer to the router and **Enable** the **Print Server.** The other user in this local area network could use the printer.



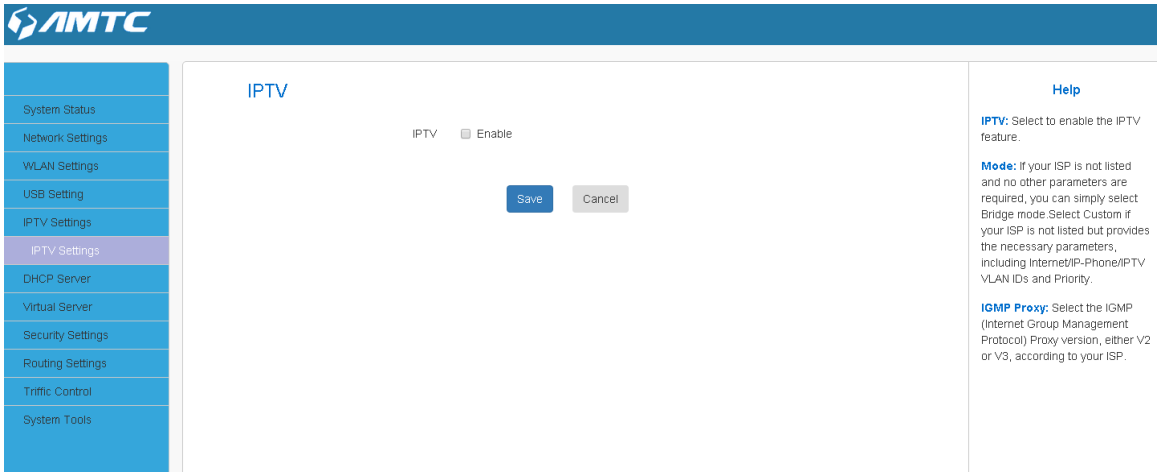
4.4.4 User Accounts

You could add user in your USB Server. And other user could use this user name and password to login in the USB Server



4.5 IPTV Settings

If you enable this function, you could connect a set-top box to the router to use.



4.6 DHCP Server

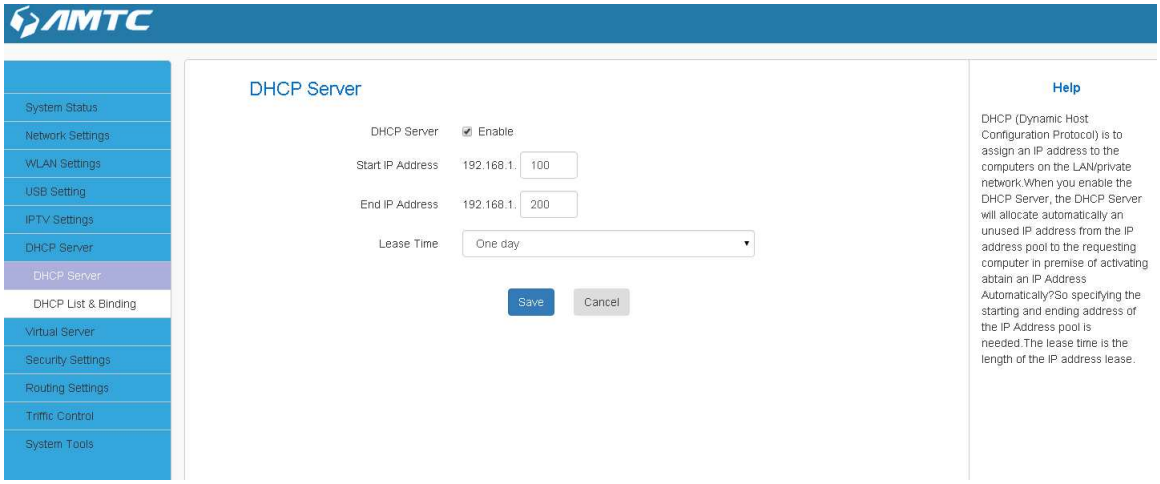
Click “**DHCP Server**” enter the Virtual Server configure page ,here you can set “**DHCP Server**”, “**DHCP List & Binding**”.

4.6.1 DHCP Server

Set Steps：

① Click “**DHCP Server**”.

② Select “**DHCP Server**”.



Parameters Specification:

- **DHCP Server:**Select whether enable or disable the DHCP server feature.
- **Start IP Address and End IP Address:** You can specify the starting and ending address of the IP address pool here. These addresses should be part of the same IP address subnet as the router’s LAN IP address.
- Enter the Lease Time

Knowledge Expansion

- **DHCP** (Dynamic Host Configuration Protocol) assigns an IP address to each device on the LAN/private network.
- When you enable the DHCP Server, the DHCP Server will automatically allocate an unused IP address from the IP address pool specified in this screen to the requesting device as long as the device is set to “Obtain an IP Address Automatically”.
- If you disable this feature, you have to manually configure the TCP/IP settings for all PCs on your LAN to access Internet.
- **Lease Time:** is the length of the IP address lease before it is refreshed.

Tips

By default, the router functions as a DHCP server. Do not disable the DHCP server feature unless you want to manually configure the TCP/IP settings for all PCs on your LAN.

1. Lease time will be renewed automatically upon expiry. No additional configurations are needed.
2. If you are not an advanced user, the default DHCP server settings are recommended.

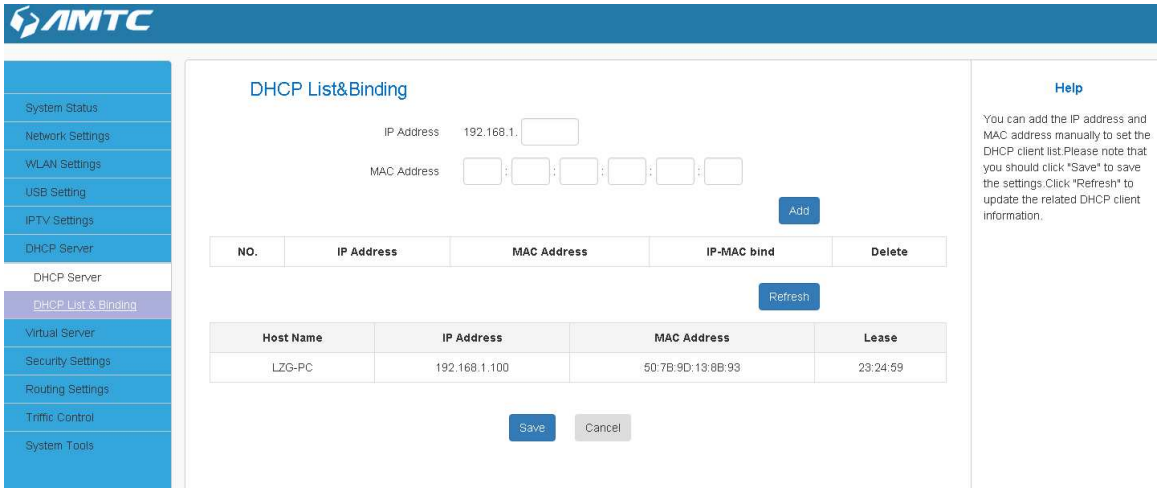
In order to use the function of the router's DHCP server, LAN in the computer's TCP/IP protocol must be set to “automatically obtain IP”.

4.6.2 DHCP List & Binding

Set Steps：

① Click “**DHCP Server**”**.**

② Select “**DHCP List& Binding**”**.**



Parameters Specification:

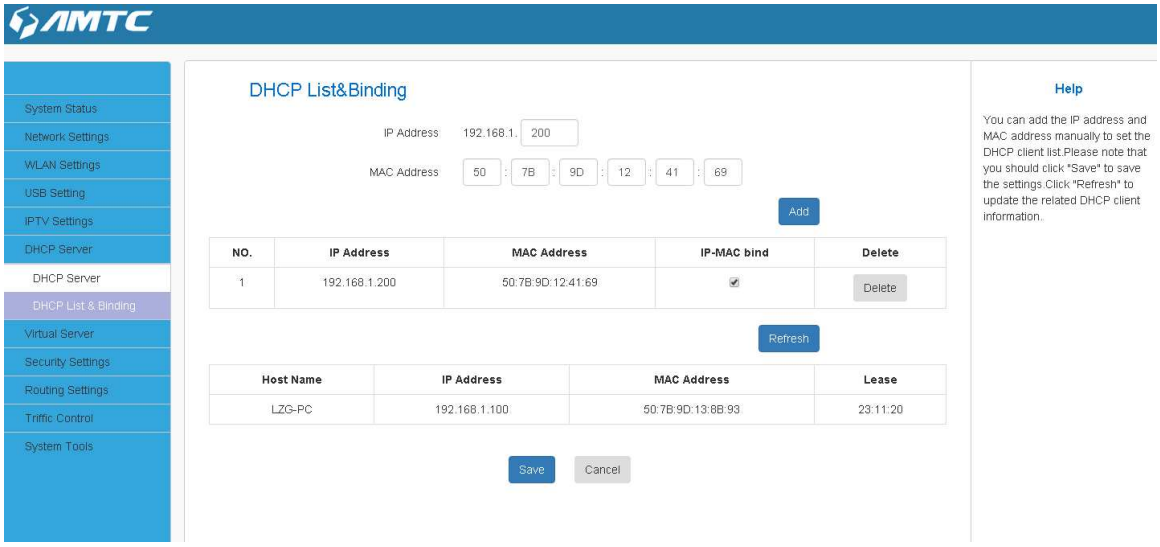
- Enter the IP Address and MAC Address
- Click “**Add**” add to the DHCP list
- Click “**Refresh**” to update the related DHCP client information.

Tips

- You can know whether there are unauthorized accesses by viewing the client list.
- Also, you can specify a reserved IP address for a PC in the LAN. That PC will always receive the same IP address each time when it accesses the DHCP server. Reserved IP addresses could be assigned to servers that require permanent IP settings.

Static Assignment Application Example:

To have a PC at the MAC address of 44:37:E6:4F:37:3B always receive the same IP address of 192.168.1.200



Parameters Specification:

- Enter the last number of the IP address you want to reserve, for example, 200.
- Enter the MAC address of 50:7B:9D:12:41:69
- Click “**Add**”.
- Click “**Save**” to save your settings.

Tips

1. If the IP address you have reserved for your PC is currently used by another client, then you will not be able to obtain a new IP address from the device's DHCP server, instead, you must manually specify a different IP address for your PC to access Internet.
2. For PCs that has already obtained IP addresses, you may need to perform the Repair action to activate the configured static IP addresses

4.7 Virtual Server

Click “**Virtual Server**” enter the Virtual Server configure page ,here you can set “**Port Range**”, “**DMZ Settings**”, “**uPnP Settings**”.

4.7.1 Port Range

You want to share resources on your PC with your friends who are not in your LAN. But, by default, the router's firewall blocks inbound traffic from the Internet to your computers except replies to your outbound traffic. You can use the Port Forwarding feature to create exceptions to this rule so that your friends can access these files from external networks.

When accessing your PC from Internet, type "protocol://xxx.xxx.xxx.xxx:port number" into your browser's address or location field. The protocol and port are the ones used by the service and "xxx.xxx.xxx.xxx" is the WAN IP address of your router. For example, a FTP server uses the ftp protocol and 21 (standard port number).

Set Steps:

① Click "**Virtual Server**".

② Select "**Port Range**".

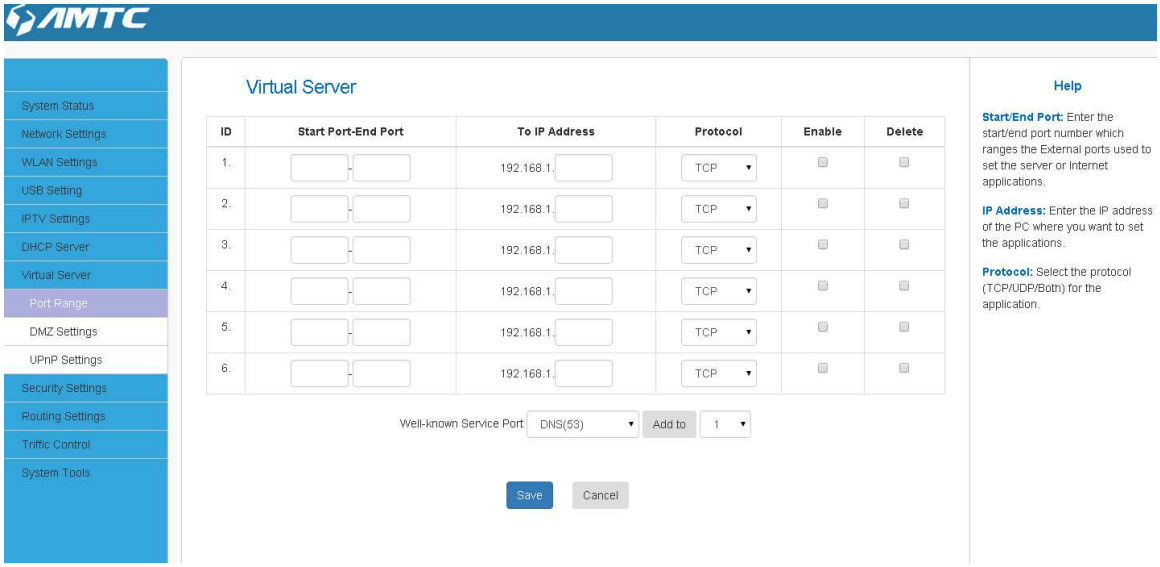
Application Example:

As shown in the figure above, your PC at 192.168.2.10 connects to the router and runs a FTP server on port number 21. Your friends want to access this FTP server on your PC from external network.

Tips

To successfully implement the port forwarding feature, note below:

1. Make sure your WAN IP address (Internet IP address) is a public IP address. Private IP addresses are not routed on the Internet.
2. Make sure you enter correct service port numbers.
3. To ensure that your server computer always has the same IP address, assign a static IP address to your PC.
4. Operating System built-in firewall and some anti-virus programs may block other PCs from accessing resources on your PC. So it is advisable to disable them before using this feature.



Parameters Specification:

- Start/End Port: Enter the start/end port number which ranges the External ports used to set the server or Internet applications. Here in this example, enter 21.
- IP Address: Enter the IP address of the PC where you want to set the applications.Here in this example, enter 192.168.1.100.
- Protocol: Specify the protocol required for the service utilizing the port(s). Select the protocol (TCP/UDP/Both) for the application.
- "**Enable**" to apply this function, "Delete" cancel this host configure.
- Click **'Save'**to save your settings.

If your WAN IP address is 192.168.1.100 when accessing your FTP server from external network, your friends only need to enter ftp://192.168.1.100:21 in their browsers.

4.7.2 DMZ Settings

Set Steps：

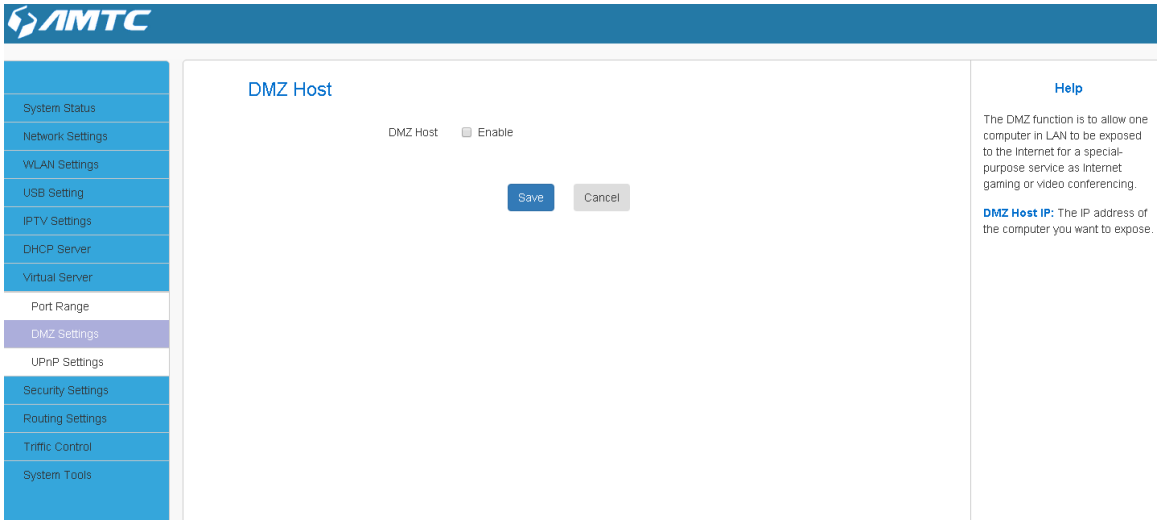
① Click "**Virtual Server**".

② Select "**DMZ Settings**".

③ Select "Enable"

④ Add DMZ Host IP which is the LAN IP

⑤ Click"**Save**" to confirm.



Tips ----------

- The DMZ Settings screen allows one local computer to be exposed to the Internet for use of a special-purpose service such as Internet gaming or videoconferencing.
- DMZ hosting forwards all the ports at the same time to one PC.

Note ----------

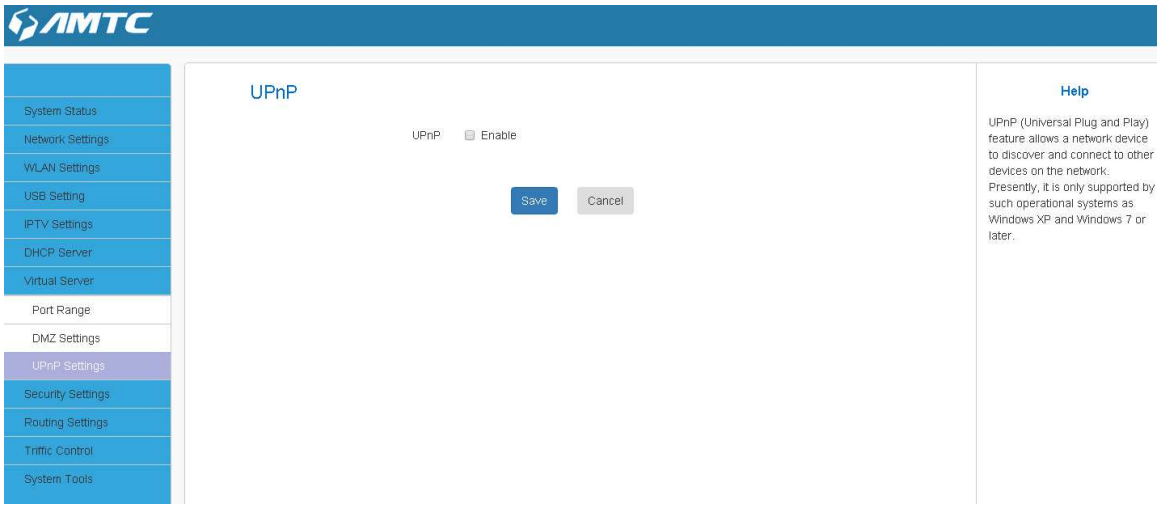
1. DMZ host poses a security risk. A computer configured as the DMZ host loses much of the protection of the firewall and becomes vulnerable to attacks from external networks.
2. Hackers may use the DMZ host computer to attack other computers on your network

---

4.7.3 uPnP Settings

The Universal Plug and Play (UPnP) feature allows network devices, such as computers from Internet, to access resources on local host or devices as needed. UPnP-enabled devices can be discovered automatically by the UPnP service application on the LAN. If you use applications such as multiplayer gaming, peer-to-peer connections, real-time communications such as instant messaging, or remote assistance (a feature in Windows XP), you may need to enable Universal Plug and Play (UPnP) for better experience.

Click **Virtual Server -> uPnP Settings** to enter the UPnP page. The UPnP feature is enabled by default.

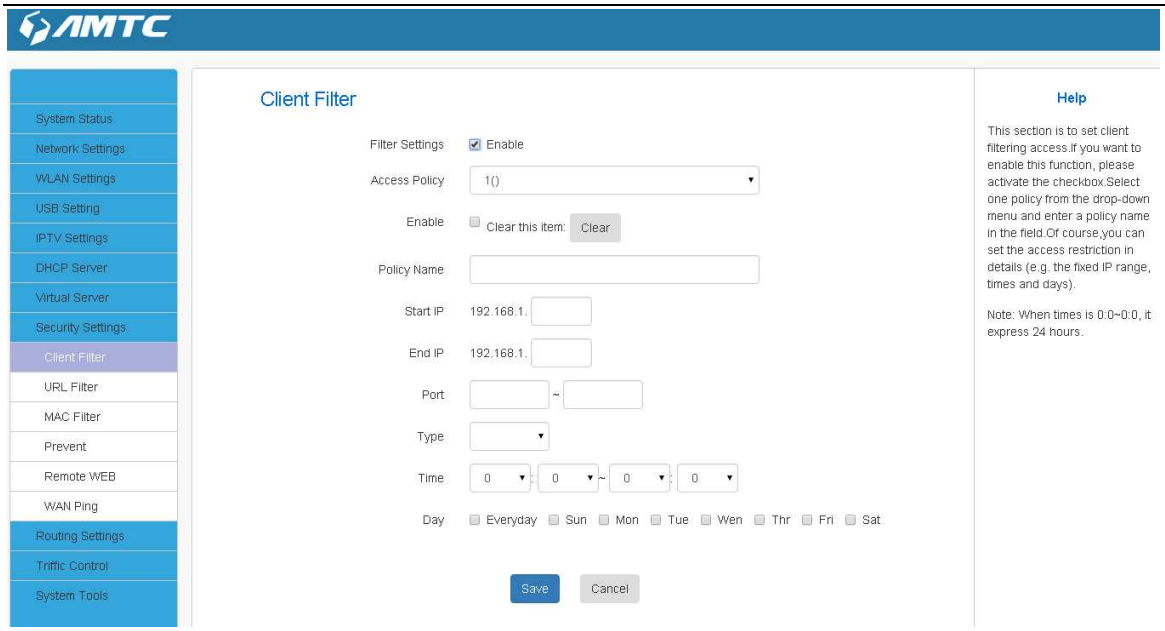


4.8 Security Settings

Click “**Security Settings**” enter the Security configure page ,here you can set “**Client Filler**”,“**URL Filter**”, “**MAC Filler**”, “**Prevent**”, “**Remote WEB**”, “**WAN Ping**”.

4.4.1 Client Filter

This section allows you to set the times specific clients can or cannot access the Internet via the devices’ assigned IP addresses and service port. Click **Security Settings ->Client Filter** to enter the configuration page.


System Status
Network Settings
WLAN Settings
USB Setting
IPTV Settings
DHCP Server
Virtual Server
Security Settings
Client Filter
URL Filter
MAC Filter
Prevent
Remote WEB
WAN Ping
Routing Settings
Triffic Control
System Tools
Client Filter
Filter Settings
Enable
Access Policy
1()
Enable
Clear this item:
Clear
Policy Name
Start IP
192.168.1.
End IP
192.168.1.
Port
Type
Time
Day
Everyday
Sun
Mon
Tue
Wen
Thr
Fri
Sat
Save
Cancel
Help
This section is to set client filtering access.If you want to enable this function, please activate the checkbox.Select one policy from the drop-down menu and enter a policy name in the field.Of course,you can set the access restriction in details (e.g. the fixed IP range, times and days).
Note: When times is 0:0~0:0, it express 24 hours.

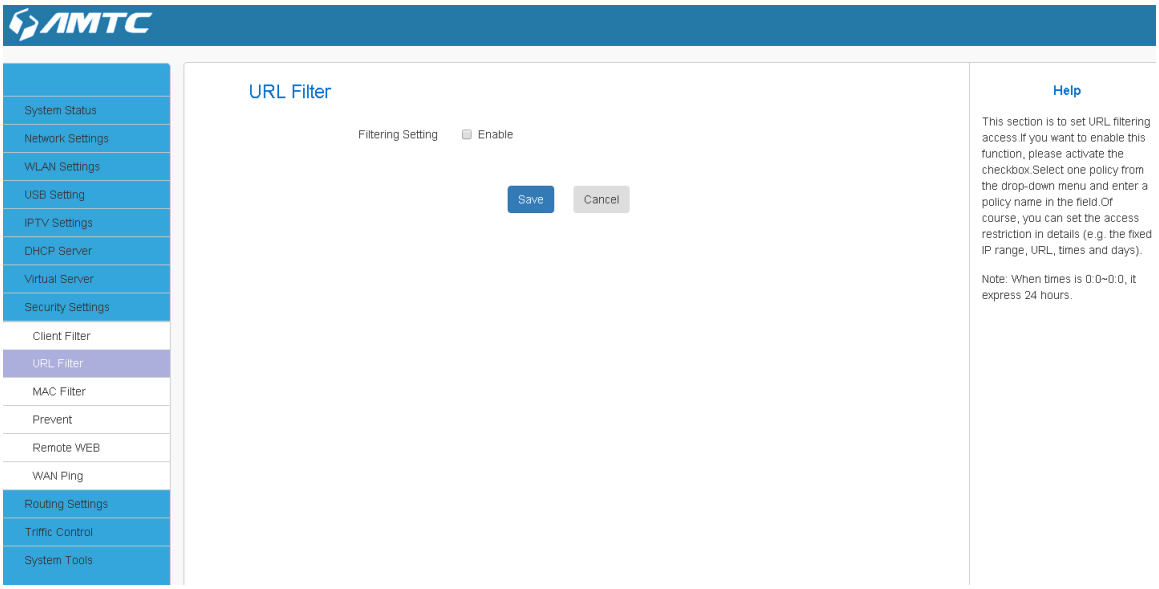
4.4.2 URL Filter

This section is to set URL filtering access. If you want to enable this function, please activate the checkbox. Select one policy from the drop-down menu and enter a policy name in the field. Of course, you can set the access restriction in details (e.g. the fixed IP range, URL, times and days). Note: When time is 0:0~0:0, it express 24 hours.

Set Steps：

① Click“**Security Settings**”.

② Select “**URL Filter**”.



URL Filter Application Example:

To prevent your home PC (192.168.1.100) from accessing “YouTube” from 8:00 to 18:00 during working days: Monday- Friday.

Set Steps：

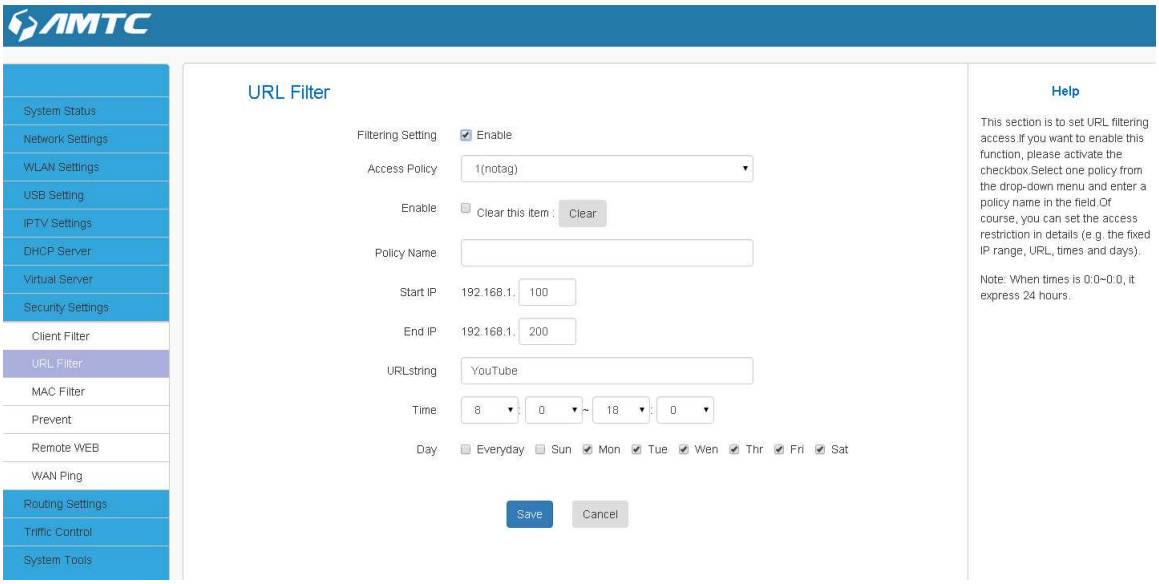
① Enter a Policy Name

② Enter the Start IP and End IP here for example:192.168.1.100

③ Enter part of or the entire domain name of the web site you wish to restrict. Separate different domain names or domain name key words with a comma, for example, "YouTube, Hollywood.com"

④ Select time and day

⑤ Click “**Save**” to save your settings.



Tips ----------

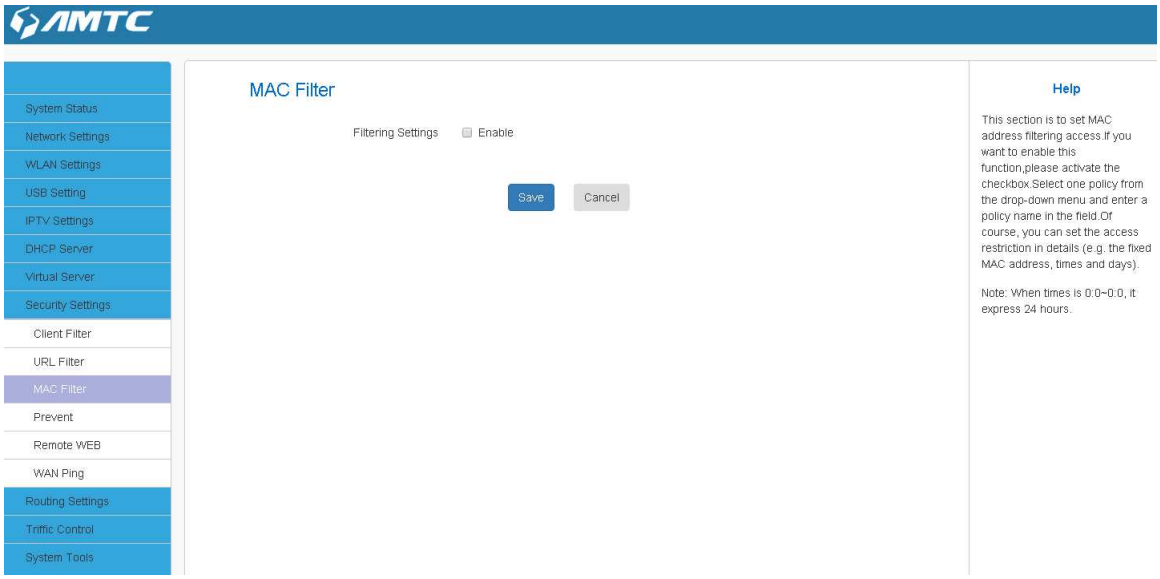
1. Different URL strings must be separated with a comma. To match all websites, use * (asterisk)

2.Up to 10 filter rules can be configured.

3. If you have not set up the system time for this device, click **System Tools -> Time Settings** to set up correct time and date for the rules to be effective

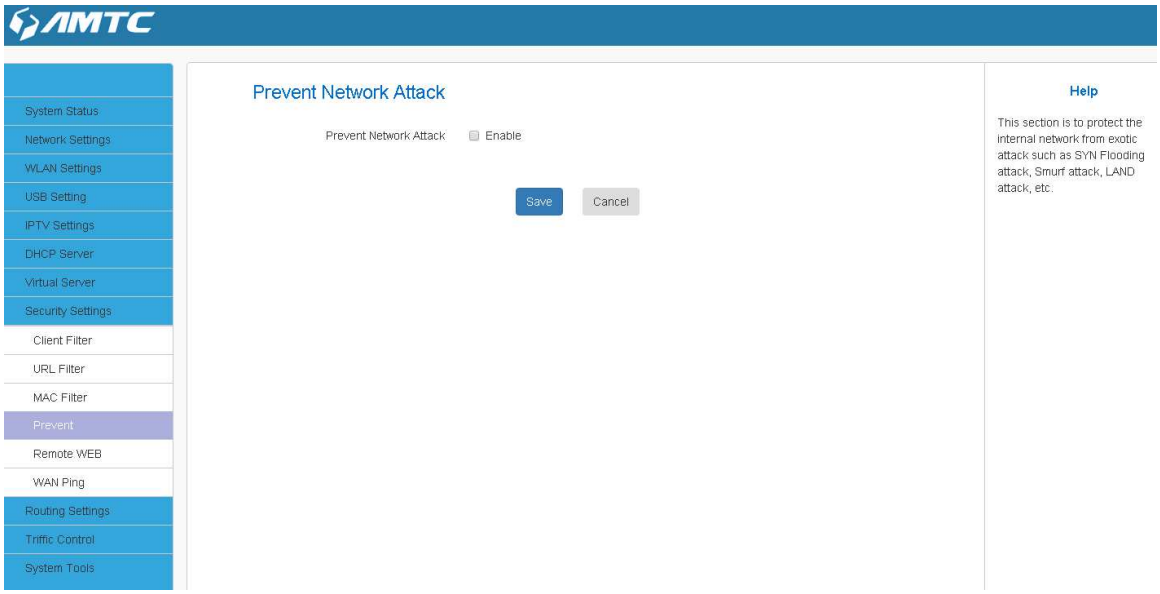
---

4.4.3 MAC Filter



4.4.4 Prevent

This section is to protect the internal network from exotic attack such as SYN Flooding attack, Smurf attack, LAND attack, etc



4.4.5 Remote WEB

This section is to allow the network administrator to manage the router remotely. If you want to access the router remotely, please select “**Enable**”.

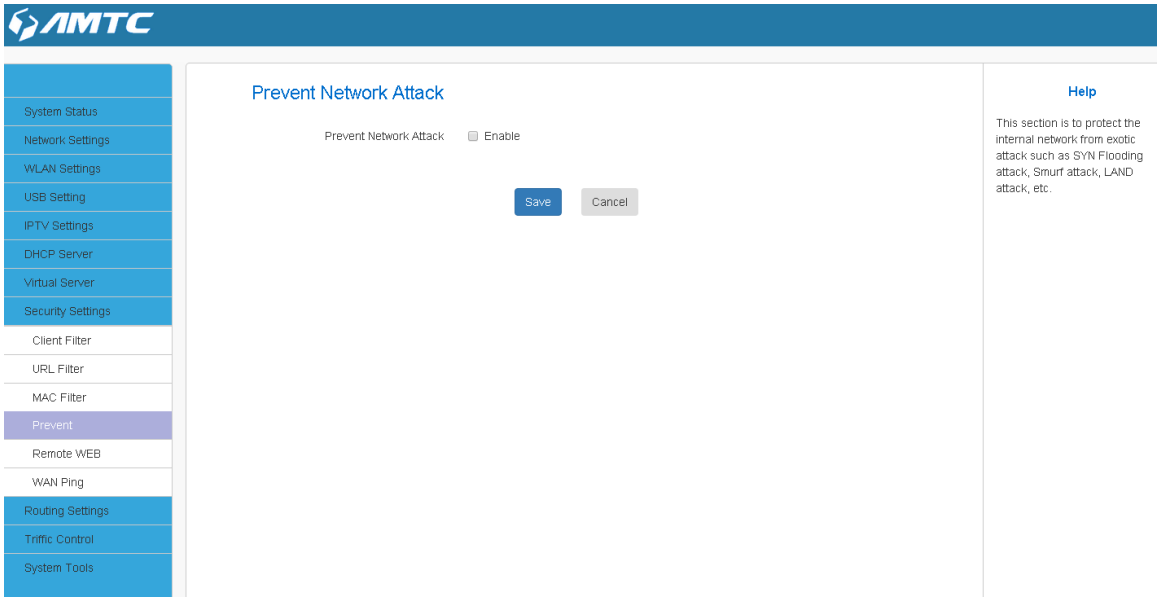
Set Steps：

① Click“**Security Settings**”.

② Select “**Remote WEB**”.

③ Enter the Port

④ Click “**Save**” to confirm.



Parameters Specification:

➢ **Port:** The management port to be open to outside access.

Tips ----------

1. For better security, configure a port number (between1025-65535) as remote web management interface, do not use the number of any common service port (1-1024).

2. Make sure your WAN IP address (Internet IP address) is a public IP address. Private IP addresses are not routed on the Internet.

3. It is unsafe to make your router remotely accessible to all PCs on external network. For better security, we suggest that only enter the IP address of the PC for remote management

---

Remote Web Management Application Example:

To access your router (WAN IP address: 172.16.87.160) at your home from the PC (210.16.87.154) at your office via the port number 6060.

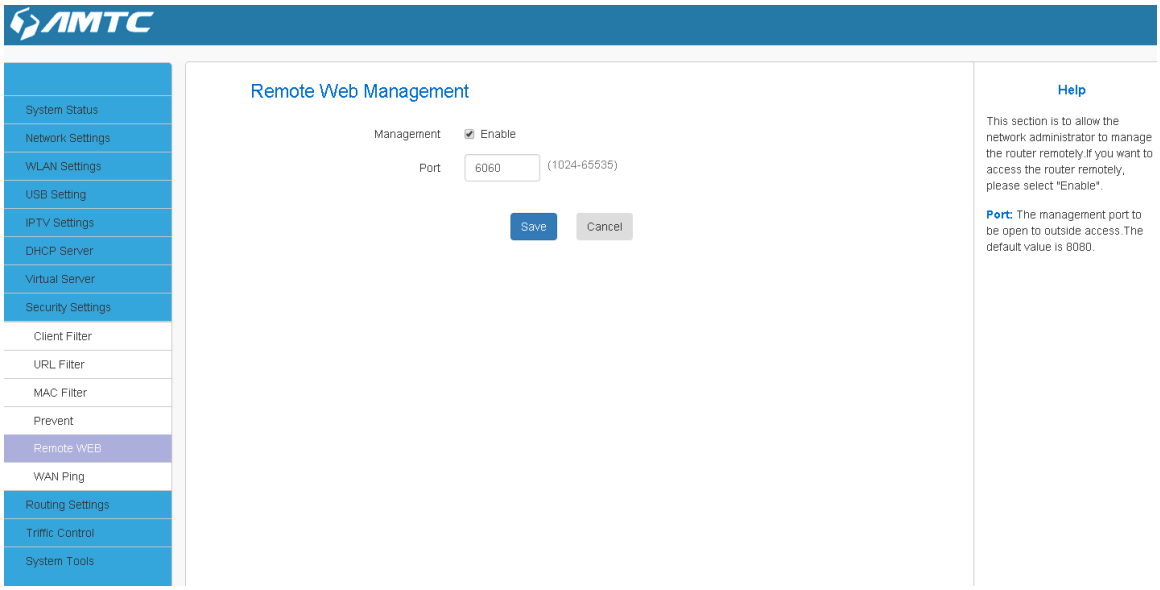
Set Steps：

① Management "**Enable**".

② Enter the Port: 6060.

③ Click "**Save**" to save your settings.

In the PC 210.16.87.154 Type "http:// 172.16.87.160:6060" into your browser's address or location field and you can access the router at your home remotely.

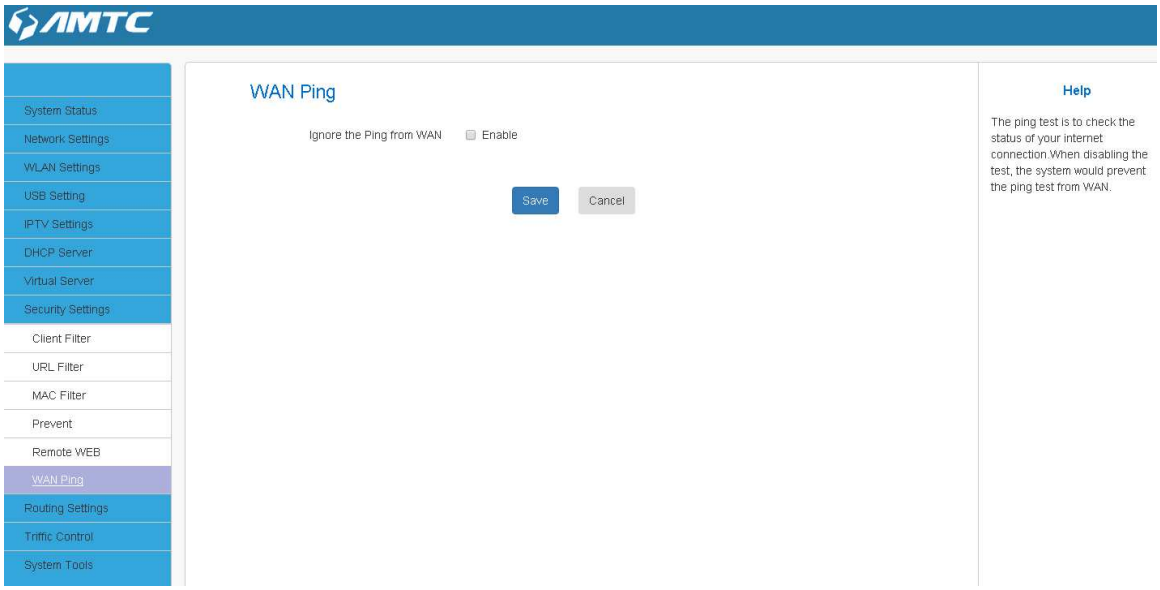


Knowledge Expansion

1. Port: This is the management port to be open to outside access. The default setting is 8080. This can be changed

4.4.6 WAN Ping

The ping test is to check the status of your internet connection. When disabling the test, the system would prevent the ping test from WAN.



Set Steps:

① **Select the “Expert Setting”**

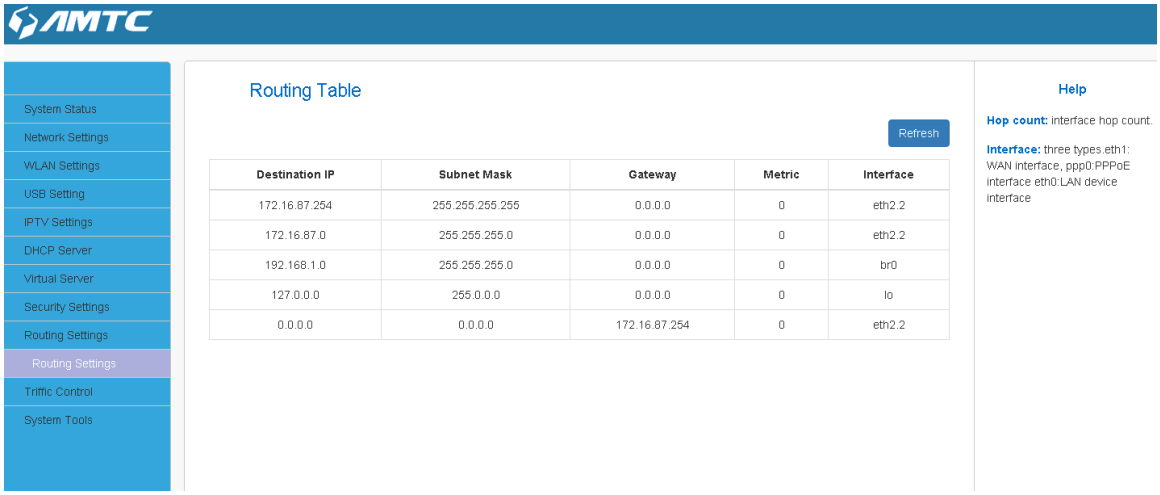
② **Select the “WAN Ping”**

③ **Select the “Enable”**

4.9 Routing Settings

In this page you can view the routing table information.

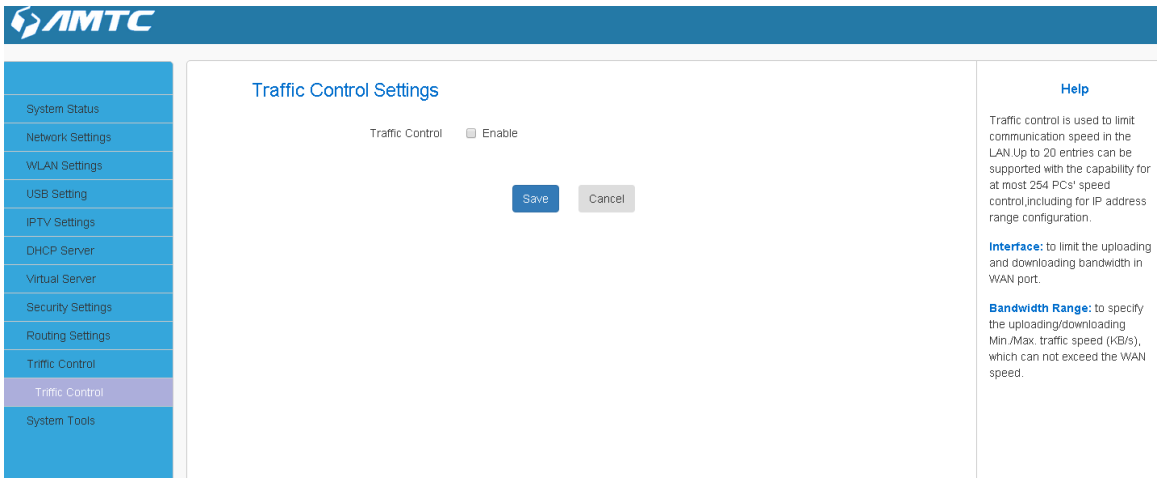
Click “**Refresh**” to update



- **Destination IP:** The IP address of the final destination. “0.0.0.0” indicates any network segment.
- **Subnet Mask:** The subnet mask for the specified destination.
- **Gateway:** This isthe next router on the same LAN segment as the router to reach.
- **Interface:** The interface between your router and the final destination.

4.10 Triffic Control

Traffic control is used to limit communication speed in the LAN.Up to 20 entries can be supported with the capability for at most 254 PCs' speed control,including for IP address range configuration.



Tips ----------

1. 1M=128KByte/s.

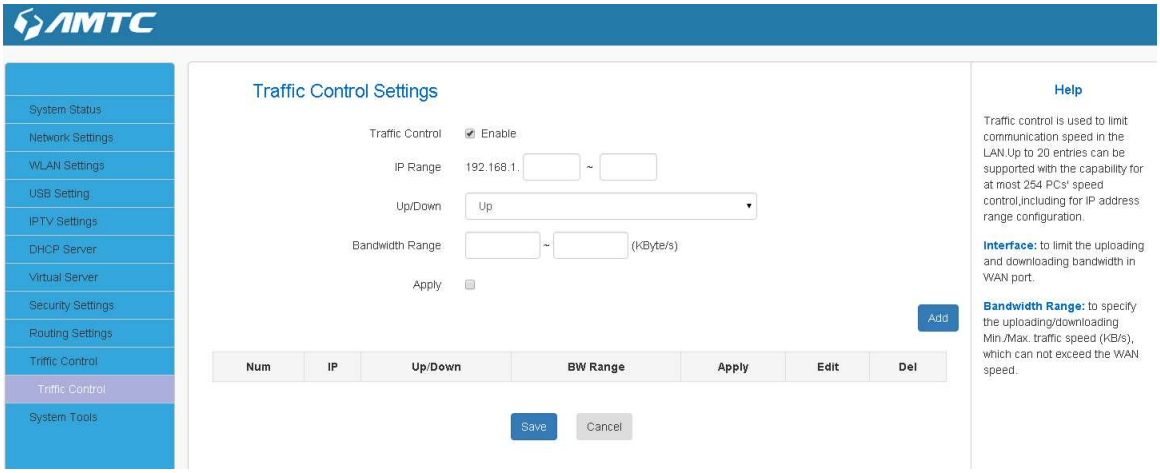
2. The volume of uplink traffic/downlink traffic should not be larger than that allowed on your router's WAN (Internet) port. You can ask your ISP to provide the volume of Internet traffic.

3. The bandwidth for ADSL/DSL line usually refers to the download bandwidth

---

Bandwidth Control Application Example:

You share a 4M-broadband service with your neighbor (at 192.168.1.102). He always downloads a large volume of data from Internet, which sharply frustrates your Internet surfing experience; you can use this feature to set limits for the volume of Internet traffic he can get. For example, you can split the 4M into two, so your neighbor can only use up to 2M Internet traffic and you can enjoy 2M.



Set Steps：

① **EnableTraffic Control**: Check the **Enable** box to enable the Traffic Control feature.

② **IP Range:** Enter the last number of the IP address. Here in this example, enter 101 in both boxes.

③ **Up:** Set a limit to regulate upload bandwidth of PCs on the LAN. Here in this example, enter 32 in first boxes, and 256 in second box.

④ **Down:** Set a limit to regulate download bandwidth of PCs on the LAN.

⑤ **Apply:** Check to enable the current rule.

⑥ **Add:** Click to add current rule to the rule list.

⑦ Click **Save** to save your settings.

4.11 System Tools

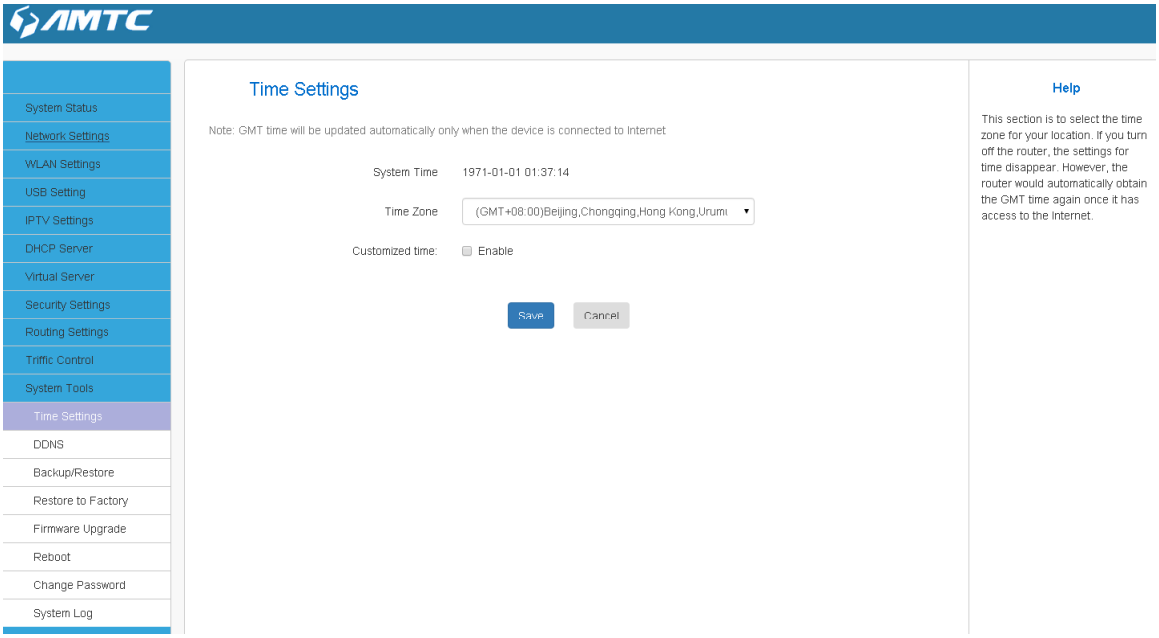
Click "**SystemTools**" enter the configure page ,here you can set "**TimeSettings**", "**DDNS**","**Backup/Restore**", "**Restore to Factory**", "**firmware Upgrade**", "**Reboot**", "**Change Password**", "**System Log**".

4.11.1 Time Settings

Click **System Tools -> Time Settings** to enter the time page.

Tips

Configured time and date info will be lost if the device gets disconnected from power supply. However, it will be updated automatically when the device reconnects to Internet. To activate time-based features (e.g. firewall), the time and date info shall be set correctly first, either manually or automatically



Set Steps：

① Click “**System Tools**”.

② Select “**Time Settings**”.

③ The time will synchronize with the internet automatically in the default situation

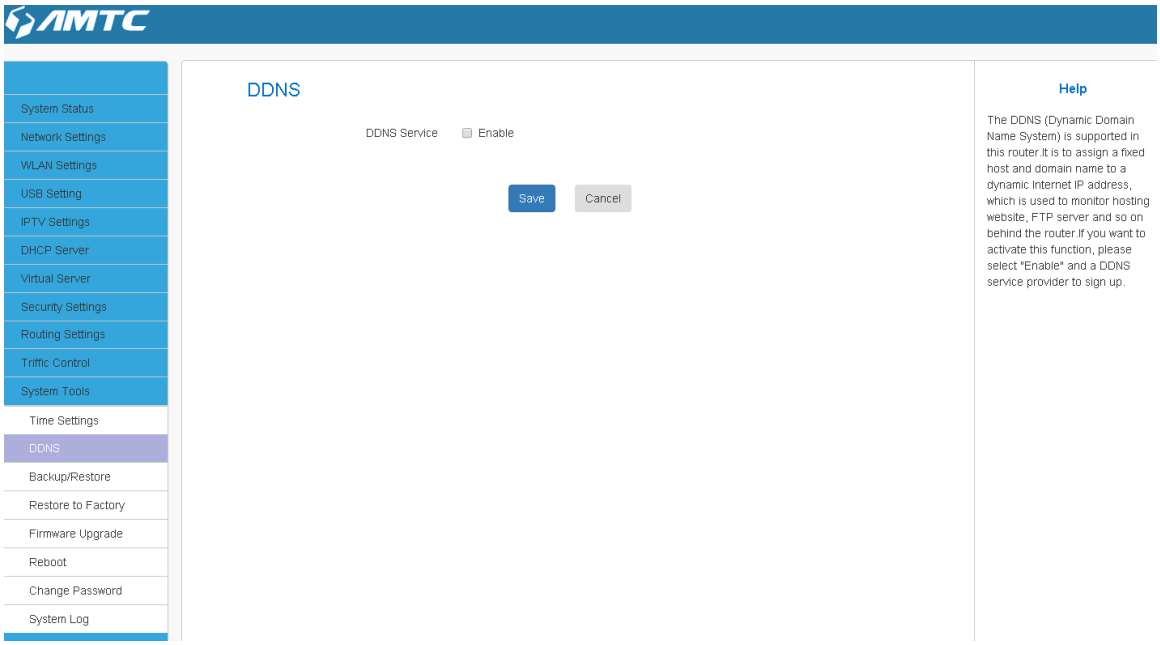
④ Select Time Zone

⑤ If you can enter the time and date manually or click “**Sync with your PC**”, synchronize automatically.

⑥ Click **Save** to save you settings.

➢ **Synchronize with your PC:**Specify a time interval for periodic update of time and date information from your host.

4.11.2 DDNS

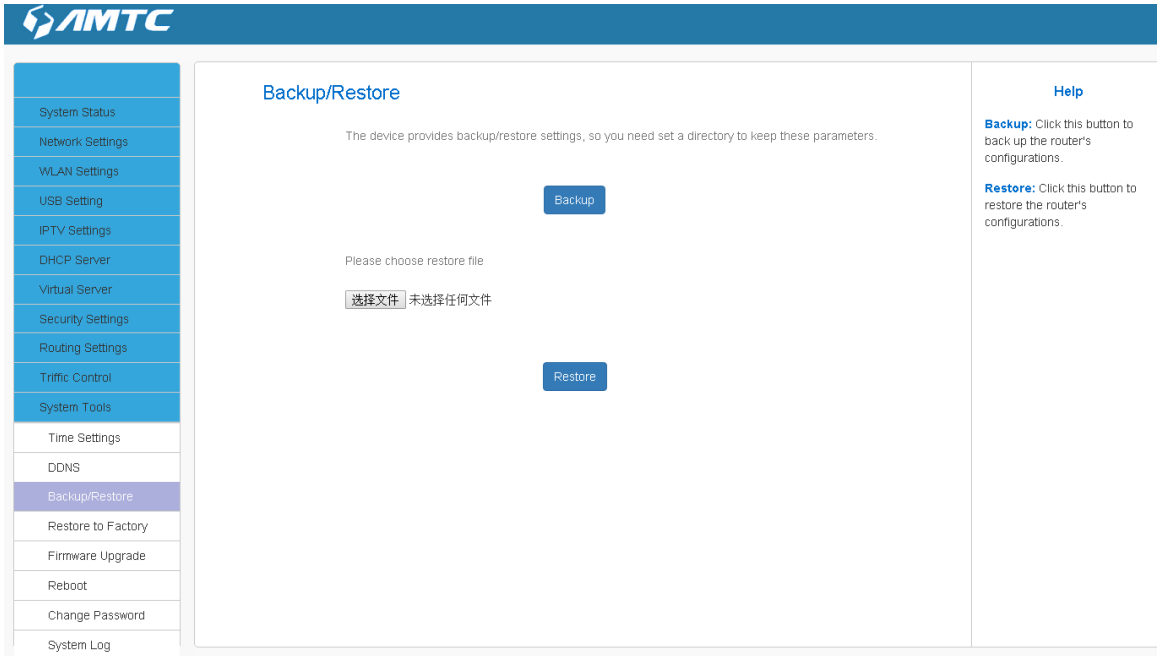


4.11.3 Backup & Restore

Set Steps：

① Click “**System Tools**”.

② Select **“Restore to Factory”**.



Parameters Specification:

➢ This “**Restore**” button is to reset all configurations to the default values. It means the Range

Extender will lose all the settings you have set. So please note down the related settings if necessary.

- **Default Password:** admin
- **Subnet Mask:**255.255.255.0
- **Default IP:**192.168.1.1

Note

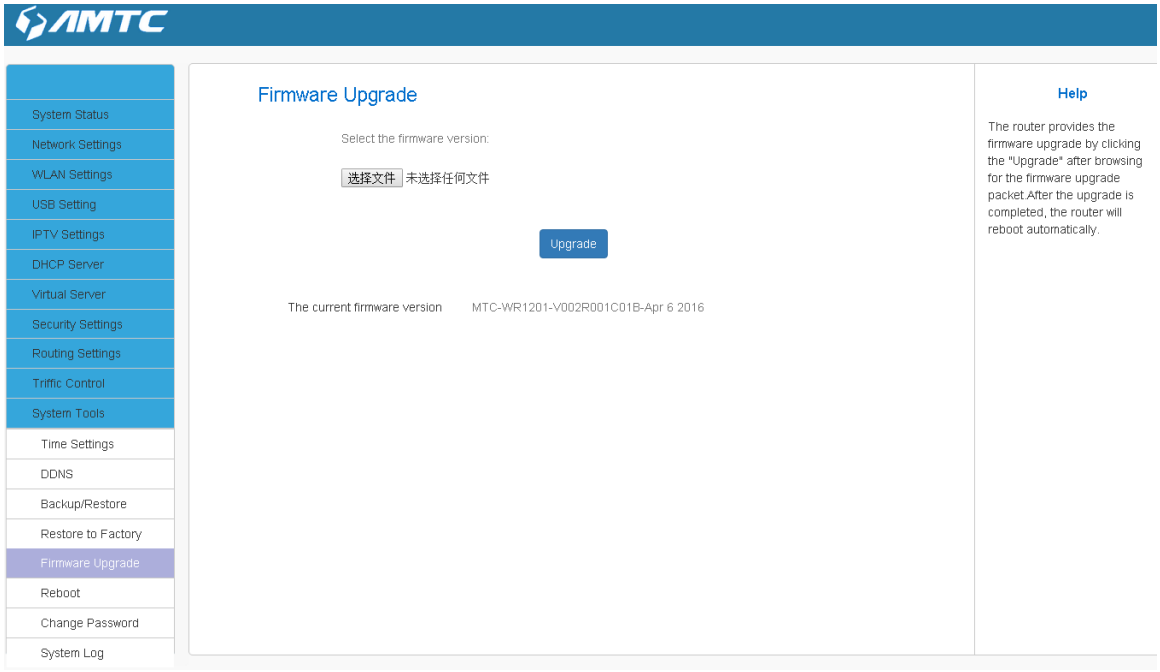
- If you enable this option, all current settings will be deleted and be restored to factory default values. You will have to reconfigure Internet connection settings and wireless settings.
- Do not restore factory default settings unless the following happens:

1> You need to join a different network or unfortunately forget the login password.

2>You cannot access Internet and your ISP or our technical support asks you to reset the router.

4.11.4 Firmware Update

The router provides the firmware upgrade by clicking the “Upgrade”after browsing for the firmware upgrade packet. After the upgrade is completed, the router will reboot automatically.



Set Steps：

① Click “**System Tools**”

② Select “**FirmwareUpgrade**”

③ Click “**Browse**”, select the upgrade file

④ Click “**Upgrade**”, and wait for it to complete.

Note

1. Before you upgrade the firmware, make sure you are having a correct firmware. A wrong firmware may damage the device.

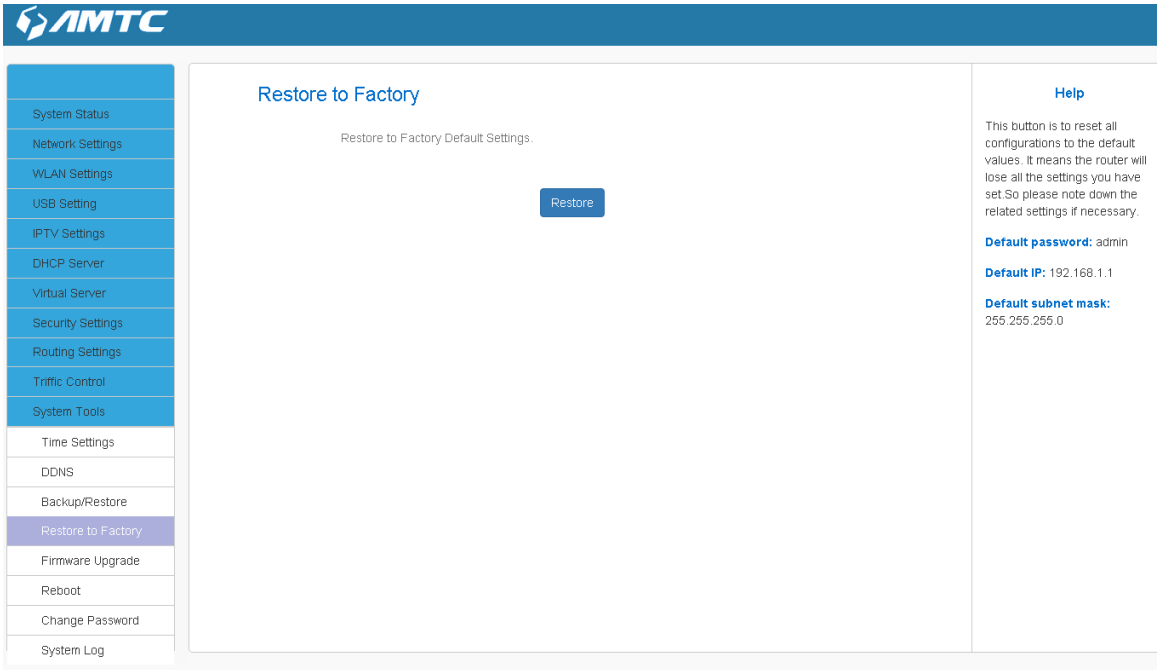
2. It is advisable that you upgrade the device's firmware over a wired connection. DO NOT interrupt the power to the router when the upgrade is in process otherwise the router may be permanently damaged.

4.11.5 Restore to Factory

Set Steps：

① Click “**System Tools**”.

② Select **“Restore to Factory”**.



Parameters Specification:

➢ This “**Restore**” button is to reset all configurations to the default values. It means the Range

Extender will lose all the settings you have set. So please note down the related settings if necessary.

- **Default Password:** admin
- **Subnet Mask:**255.255.255.0
- **Default IP:**192.168.1.1

Note

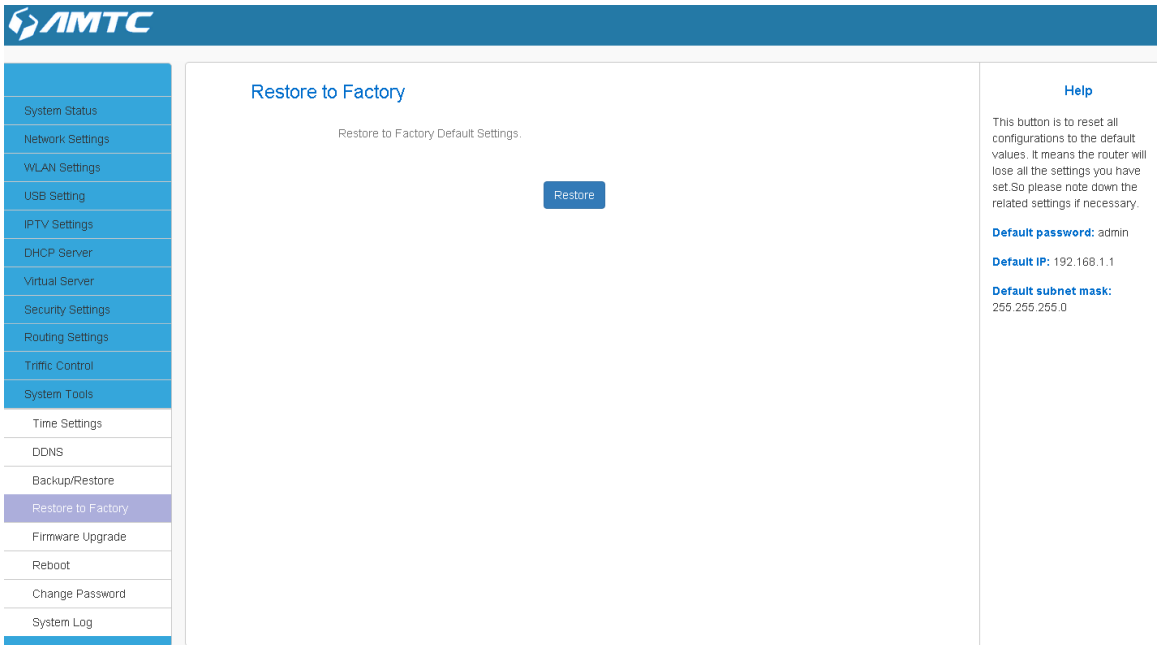
- If you enable this option, all current settings will be deleted and be restored to factory default values. You will have to reconfigure Internet connection settings and wireless settings.
- Do not restore factory default settings unless the following happens:

1>You need to join a different network or unfortunately forget the login password.

2>You cannot access Internet and your ISP or our technical support asks you to reset the router.

4.11.6 Reboot

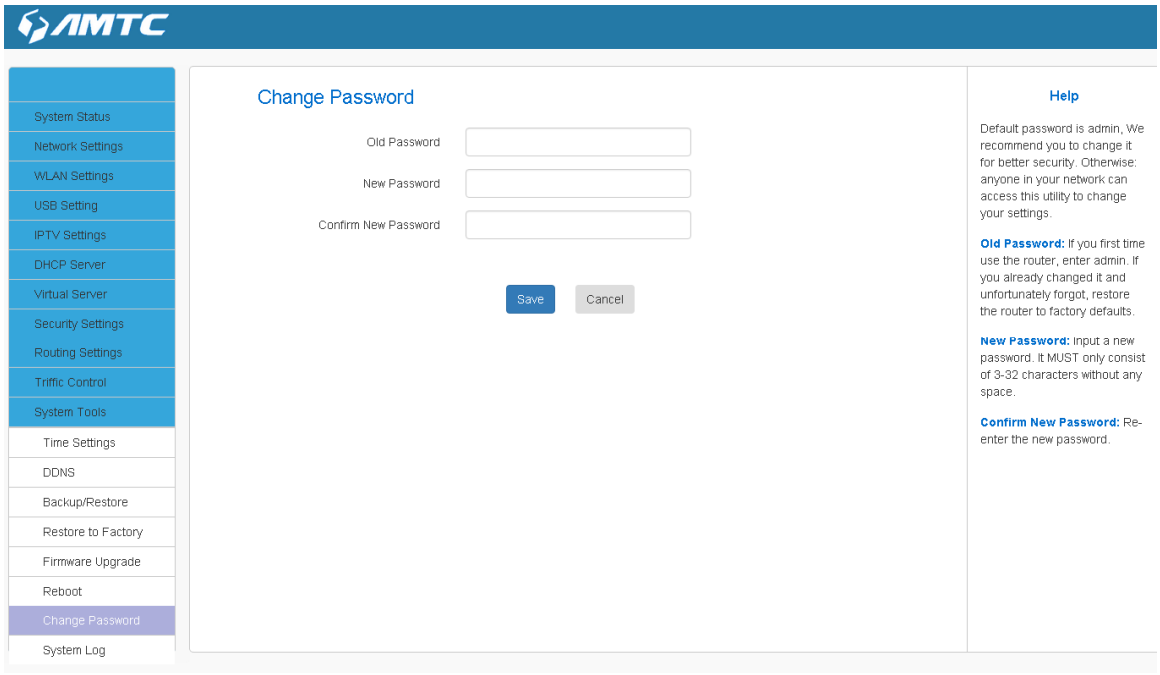
When a certain feature does not take effect or the device fails to function correctly, try rebooting the device.



- Rebooting the Wifi Router is to make the settings configured go into effect or to set the Range Extender again if setting failure happens.

4.11.7 Change Password

You can change the password by this function



Set Steps：

① Click “**System Tools**”

② Select “**Change Password**”

③ Enter “**Old Password**”“**New Password**”and“**Confirm New Password**”

④ Click “**Save**” to save you settings.

Tips ----------

- The default login password is admin.
- The valid password must be between 3~12 characters and only include letters, numbers and underscore

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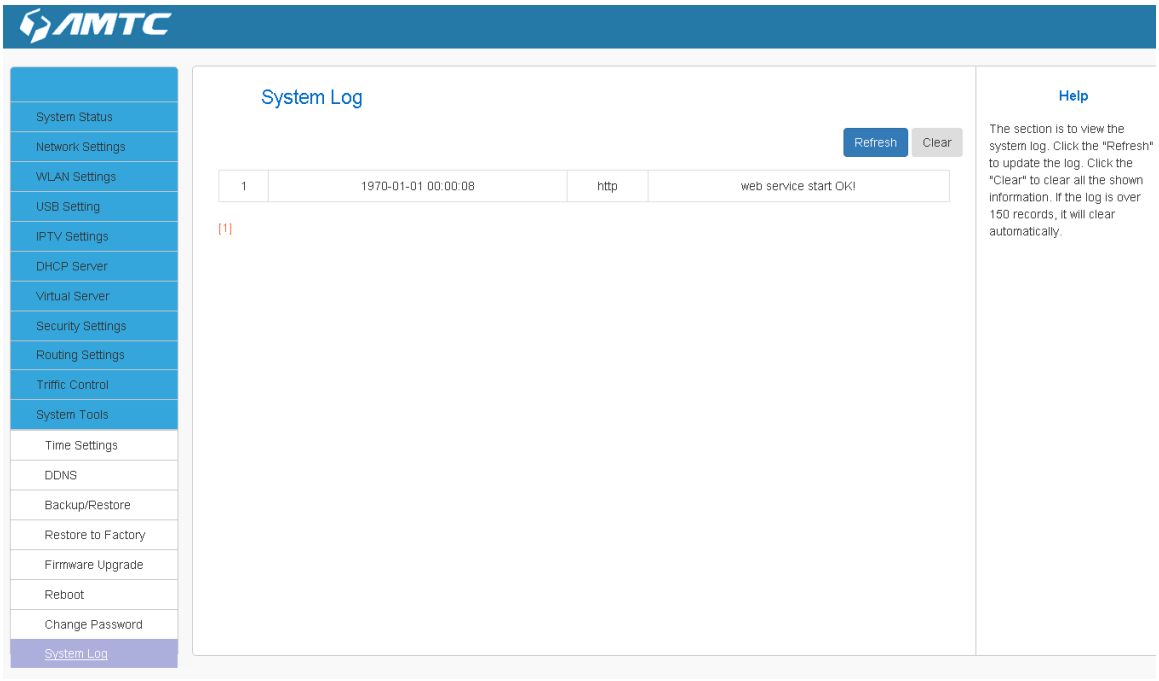
4.11.8 System Logs

The section is to view the system log. Click the “**Refresh**” to update the log.

Click the “**Clear**” to clear the screen.



Set Steps：

① Click “**System Tools**”

② Select “**System Log**”

③ Click “**Refresh**” can update the information

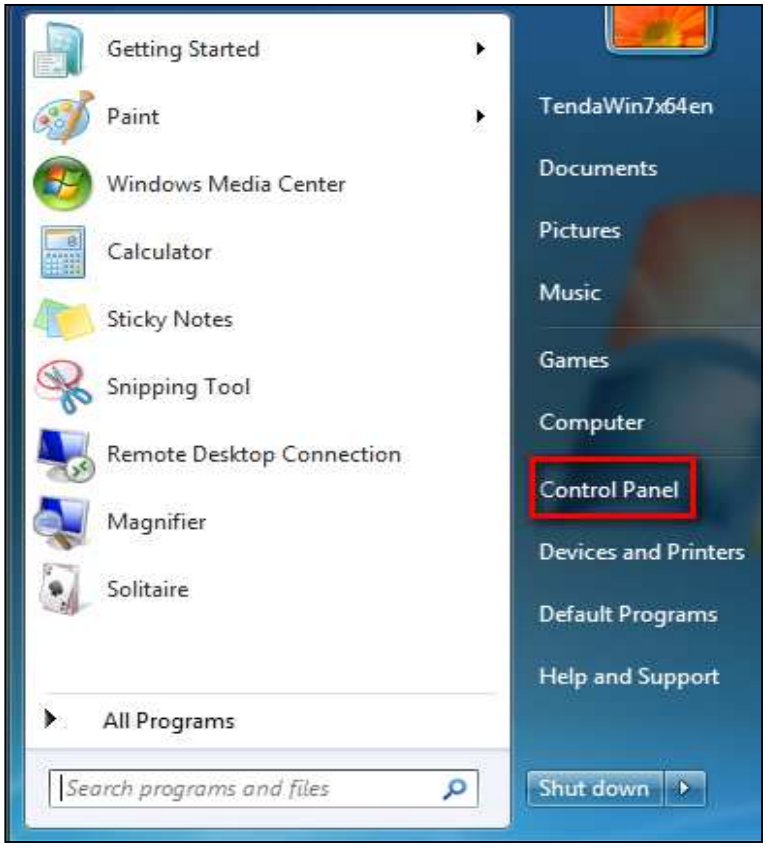
④ Click “**Clear**” to clear the screen

Appendix

1 Configure PC TCP/IP Settings

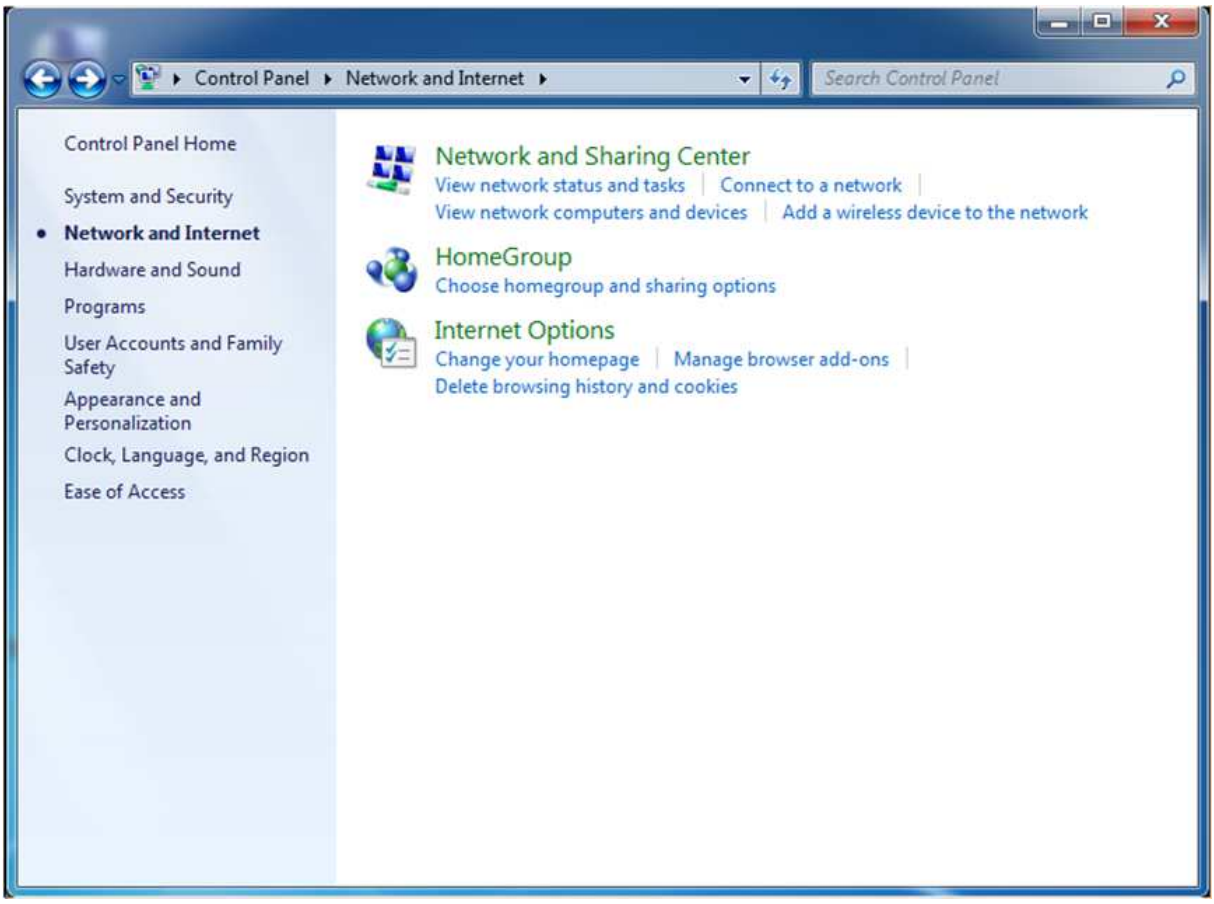
Windows 7

①Click **Start -> Control Panel**.

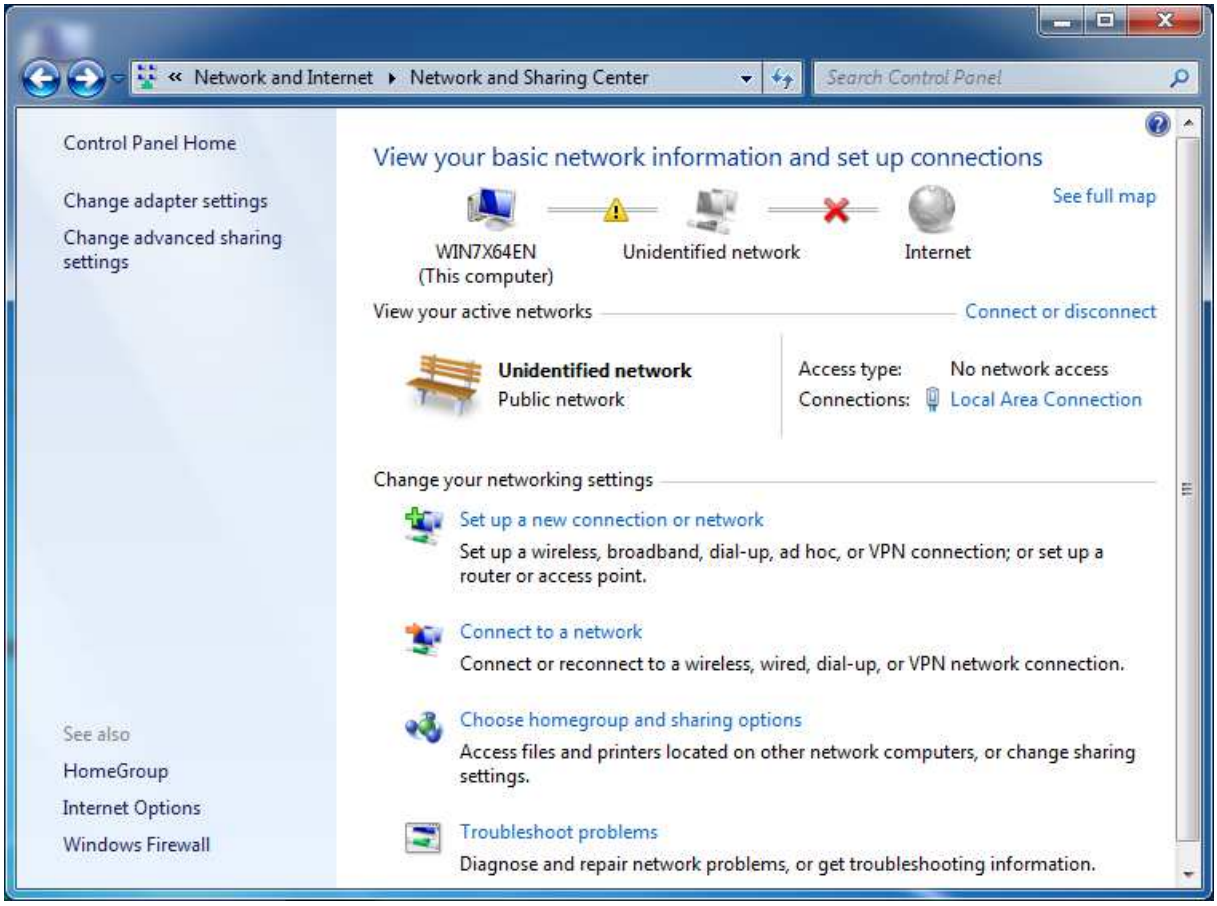


②Click **Network and Internet**.

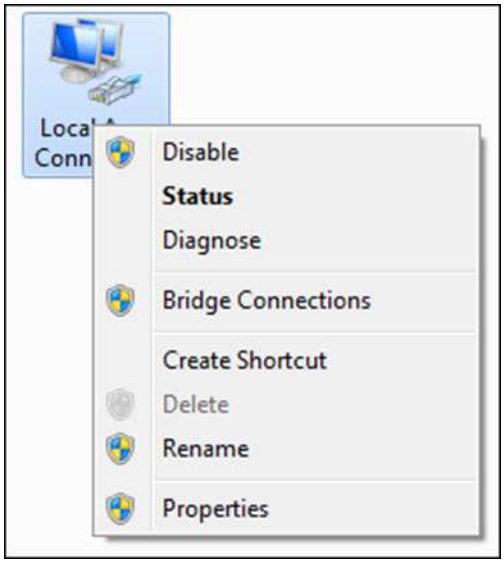
③Click **Network and Sharing Center**.



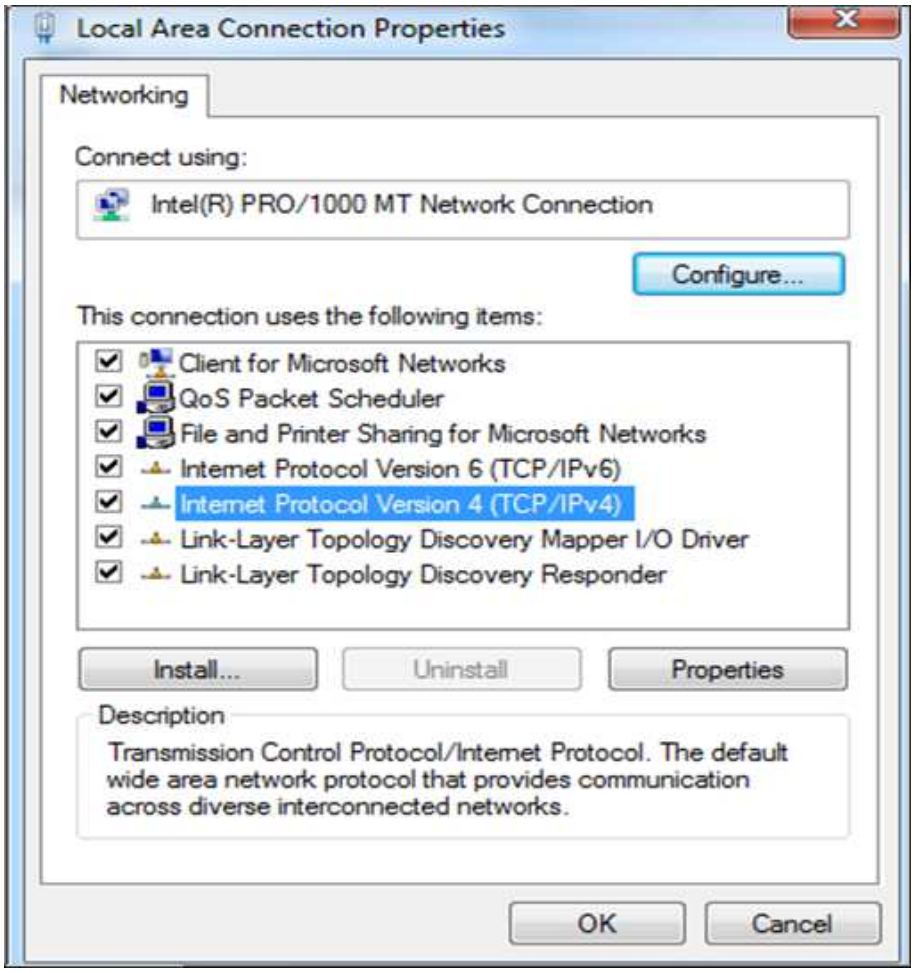
④Click **Change adapter settings**.



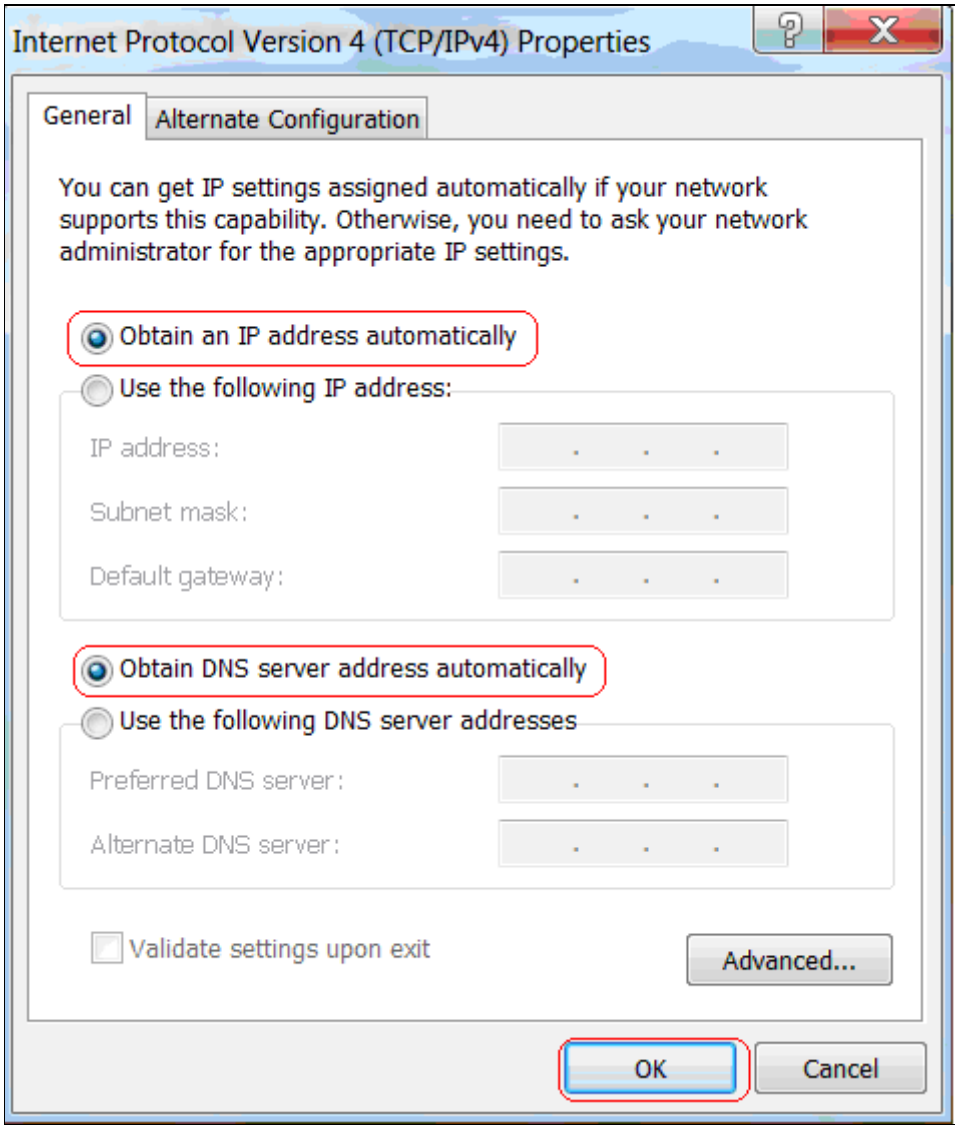
⑤Click **Local Area Connection** and select **Properties**.



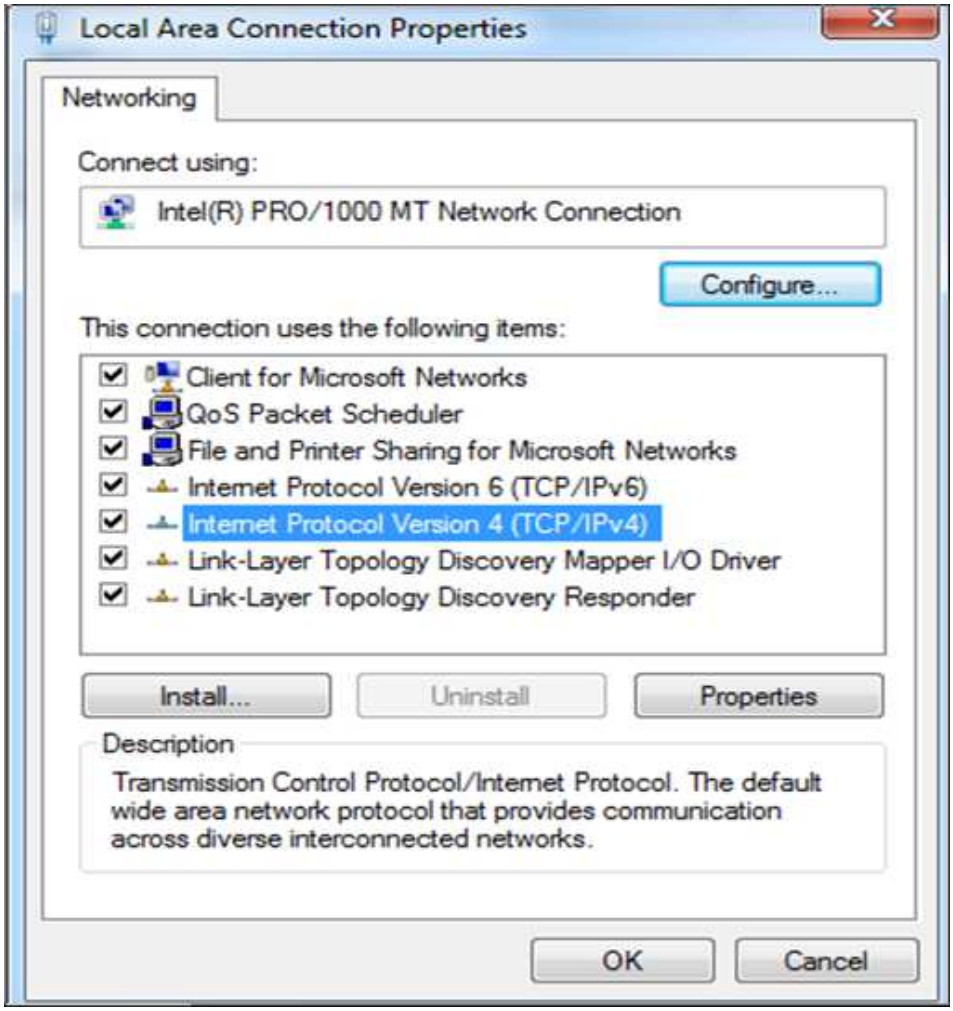
⑥ Select **Internet Protocol Version 4 (TCP/IPv4)** and click **Properties**.



⑦Select **Obtain an IP address automatically** and click **OK**.



⑧Click **OK** on the **Local Area Connection Properties** window to save your settings.

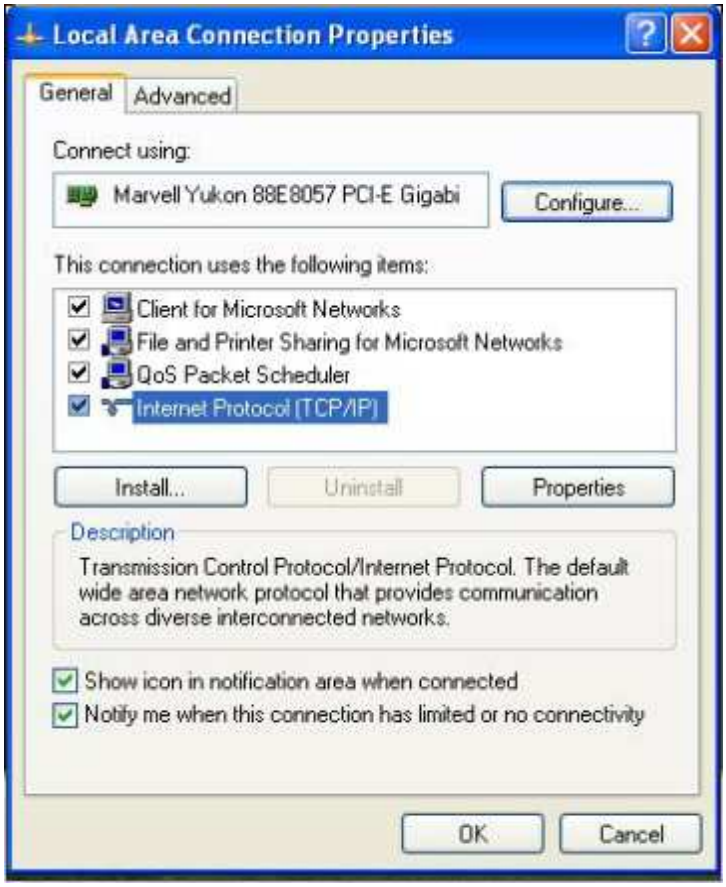


Windows XP

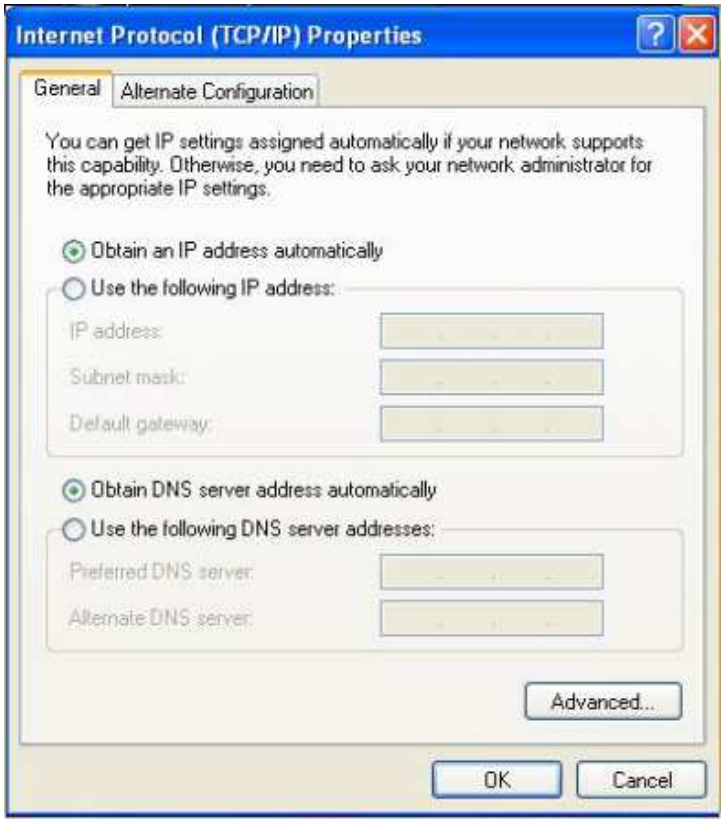
① Right-click **My Network Places** and select **Properties**.

② Right click **Local Area Connection** and select **Properties**.

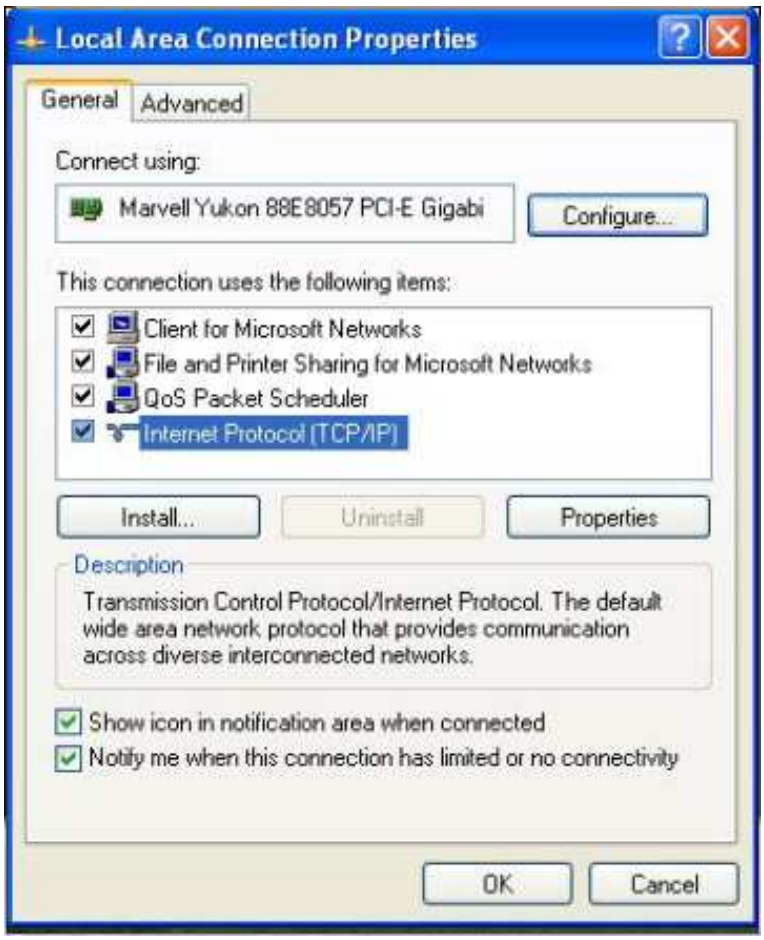
③ Select **Internet Protocol Version 4 (TCP/IPv4)** and click **Properties**.



④ Select **Obtain an IP address automatically** and click **OK**.


Internet Protocol (TCP/IP) Properties
General
Alternate Configuration
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address:
Subnet mask:
Default gateway:
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Advanced...
OK
Cancel

⑤ Click **OK** on the **Local Area Connection Properties** window to save your settings.



2 FAQs

This section provides solutions to problems that may occur during installation and operation of the device. Read the following if you are running into problems.

1. Q: I cannot access the device's management interface. What should I do?

- Make sure the System LED on the device's front panel is on.
- Make sure all cables are correctly connected and the corresponding LAN LED on the device is on.
- Verify that your PC's TCP/IP settings are configured correctly. If you select the "Use the following IP address" option, set your PC's IP address to any IP address between 192.168.1.2~192.168.1.254. Or you can select the "Obtain an IP address automatically" option.
- Delete your browser cache and cookies or use a new browser. Make sure you enter 192.168.1.1 in the address bar.
- Press the WPS/RST button for about 10 seconds to restore your device to factory default settings. Then log to your device again.

2. Q: I changed the login password and unfortunately forget it. What should I do?

Press the WPS/RST button for over 10 seconds to restore your device to factory default settings.

3. Q: My computer shows an IP address conflict error after having connected to the device. What should I do?

- Make sure there are no other DHCP servers on your LAN or other DHCP servers are disabled.
- Make sure the device's LAN IP is not used by other devices on your LAN. The device's default LAN IP address is 192.168.1.1.
- Make sure the statically assigned IP addresses to the PCs on LAN are not used by others PCs.

4. Q: I have problems connecting to Internet/Secure websites do not open or

displays only part of a web page. What should I do?

This problem mainly happens to users who use the PPPOE or Dynamic IP Internet connection type. You need to change the MTU size. Try changing the MTU to 1450 or 1400. If this does not help, gradually reduce the MTU from the maximum value until the problem disappears.

3 Factory Default Settings

The table below lists the factory default settings of your device.

Item		Default Settings
Router Login	Login IP Address	192.168.1.1
	Login User Name	admin
	Login Password	admin
Network Settings	Internet Connection Type	Mode Auto-switch Enabled
	MTU	1492 (PPPOE) 1500 (DHCP/ Static IP)
	WAN Speed	Auto
	DNS	Disable
LAN Settings （LAN）	IP Address	192.168.1.1
	Subnet Mask	255.255.255.0
	DHCP Server	Enabled
	IP Pool	192.168.1.100~192.168.1.200
	Time Zone	(GMT+08:00)Beijing, Chongqing, Hong Kong, Urumqi
2.4G Wireless	Wireless	Enabled
	SSID	MTC_XXXXXX (where XXXXXX is the last six characters in the device's MAC address)
	802.11 Mode	11b/g/n mixed Mode

	SSID Broadcast	Enabled
	Channel	2437MHz(Channel 6)
	Channel Bandwidth	20/40
	Extension Channel	2417MHz(Channel 2)
	Wireless Security	Disabled
	Wireless Access Control	Disabled
5.0G Wireless	Country	America
	Wireless	Enabled
	SSID	MTC_XXXXXX (where XXXXXX is the last six characters in the device's MAC address)
	802.11 Mode	11a/an/ac mode
	SSID Broadcast	Enabled
	Channel	5745MHz(Channel 149)
	Channel Bandwidth	40
	WMM Capable	Enable
	APSD Capable	Disabled
	Wireless Security	Disabled
	Wireless Access Control	Disabled
Others	Remote Web Management	Disabled
	Bandwidth Control	Disabled
	DMZ Host	Disabled
	UPnP	Enable
	Internet Access Management	Disabled