

RG21S/RA21S

User Manual

05-2021 / v1.1

Edimax Technology Co., Ltd.

No. 278, Xinhu 1st Rd., Neihu Dist., Taipei City, Taiwan

Email: support@edimax.com.tw

Edimax Technology Europe B.V.

Fijenhof 2, 5652 AE Eindhoven, The Netherlands

Email: support@edimax.nl

Edimax Computer Company

530 Technology Drive Suite 100, Irvine, CA 92618, USA

Email: support@edimax.us

Contents

I. Product Information.....	1
I-1. Package Contents	1
I-2. LED Status	2
I-3. Back Panel.....	2
I-4. Safety Information	3
I-5. Reset to Factory Default Settings.....	3
II. Installation.....	4
II-1. Wi-Fi Router Mode	7
II-2. Access Point Mode.....	12
II-3. Wi-Fi Roaming.....	16
III. Browser Based Configuration Interface	17
III-1. Login	17
III-2. Save Settings.....	19
III-3. Main Menu	20
III-3-1. Status.....	21
III-3-3-1. Device	22
III-3-3-2. IPv4	23
III-3-3-3. IPv6	24
III-3-2. Setup Wizard	25
III-3-3. Internet.....	26
III-3-3-1. IPv4	26
III-3-3-1-1. Static IP	26
III-3-3-1-2. Dynamic IP	28
III-3-3-1-3. PPPoE.....	29
III-3-3-1-4. PPTP	31
III-3-3-1-5. L2TP	33
III-3-3-1-6. Russia L2TP (Dual-Access).....	35
III-3-3-1-7. DS-Lite.....	37
III-3-3-2. IPv6	38
III-3-3-2-1. Static IP	39
III-3-3-2-2. PPPoE.....	41
III-3-3-2-3. Auto-configuration	43
III-3-3-2-4. 6rd	45
III-3-3-2-5. Link-local.....	47
III-3-3-3. DDNS.....	48
III-3-3-4. VPN Server	49

III-3-4.	LAN	51
III-3-5.	2.4GHz Wireless & 5GHz Wireless	53
III-3-5-1.	Basic.....	54
III-3-5-2.	Security	55
III-3-5-2-1.	Disable	57
III-3-5-2-2.	WEP	58
III-3-5-2-3.	WPA Pre-Shared Key.....	59
III-3-5-2-4.	WPA Radius.....	60
III-3-5-3.	WPS	61
III-3-6.	Schedule	62
III-3-7.	Firewall	64
III-3-7-1.	Access	64
III-3-7-2.	DMZ	69
III-3-7-3.	DoS	70
III-3-8.	QoS	72
III-3-8-1.	QoS	72
III-3-9.	Advanced	75
III-3-9-1.	Static Routing.....	75
III-3-9-2.	Port Forwarding	77
III-3-9-3.	Virtual Server	78
III-3-9-4.	2.4GHz Wireless	79
III-3-9-5.	5GHz Wireless	81
III-3-9-6.	IGMP	83
III-3-9-7.	UPnP	84
III-3-9-8.	NAT	84
III-3-10.	Toolbox	85
III-3-10-1.	Time Zone	85
III-3-10-2.	Password.....	86
III-3-10-3.	Remote	87
III-3-10-4.	Backup/Restore	88
III-3-10-5.	Firmware.....	88
III-3-10-6.	Restart	89
III-3-10-7.	Log	89
III-3-10-8.	Active DHCP Client	90
III-3-10-9.	Statistics.....	91

IV. Appendix.....92

IV-1.	Configuring your IP address.....	92
IV-1-1.	How to check that your computer uses a dynamic IP address	93

IV-1-1-1.	Windows XP	93
IV-1-1-2.	Windows Vista	95
IV-1-1-3.	Windows 7	97
IV-1-1-4.	Windows 8	100
IV-1-1-5.	Mac OS.....	104
IV-1-2.	How to modify the IP address of your computer	106
IV-1-2-1.	Windows XP	106
IV-1-2-2.	Windows Vista	112
IV-1-2-3.	Windows 7	113
IV-1-2-4.	Windows 8	116
IV-1-2-5.	Mac	120
IV-1-3.	How to Find Your Network Security Key	123
IV-1-3-1.	Windows 7 & Vista.....	123
IV-1-3-2.	Mac	125
IV-1-4.	How to Find Your Router's IP Address	128
IV-1-4-1.	Windows XP, Vista & 7	128
IV-1-4-2.	Windows 8	130
IV-1-4-3.	Mac	132
IV-2.	Connecting to a Wi-Fi network	134

V. FAQs ***136***

VI. Glossary ***139***

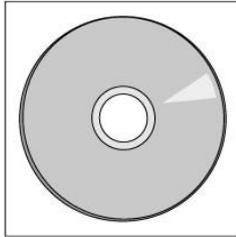
I. Product Information

I-1. Package Contents

Before you start using this product, please check if there is anything missing in the package, and contact your dealer to claim the missing item(s):



RG21S/RA21S



CD-ROM



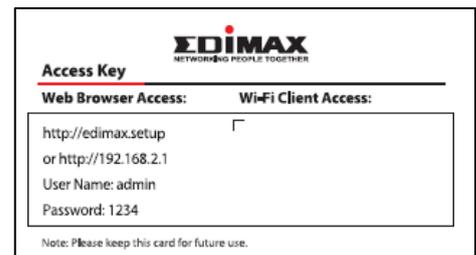
Ethernet Cable



Quick Installation Guide



Power Adapter

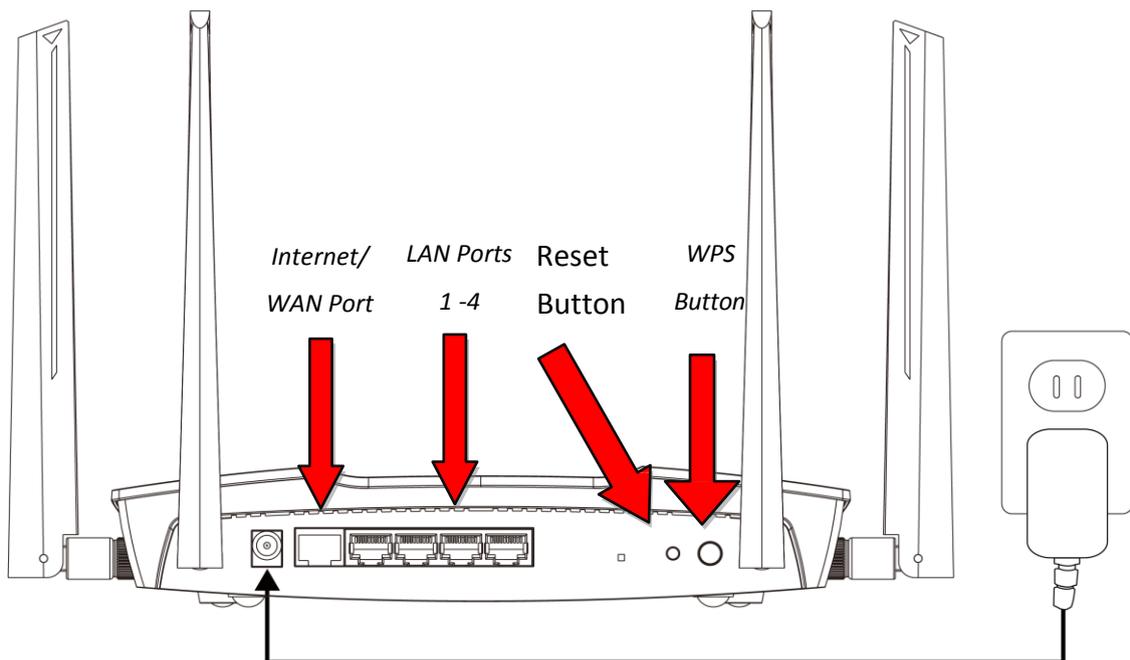


Access Key Card

I-2. LED Status

LED	Color	Status	Description
Power	Red	On	Internet is connected.
		Off	The device is off.
		Quick flashing	WPS is active
		Slow flashing	No Internet connection

I-3. Back Panel



I-4. Safety Information

In order to ensure the safe operation of the device and its users, please read and act in accordance with the following safety instructions.

1. The device is designed for indoor use only; do not place it outdoors.
2. Do not place the device in or near hot/humid places, such as a kitchen or bathroom.
3. Do not pull any connected cable with force; carefully disconnect it from the RG21S/RA21S.
4. Handle the device with care. Accidental damage will void the warranty of the device.
5. The device contains small parts which are a danger to small children under 3 years old. Please keep the device out of reach of children.
6. Do not place the device on paper, cloth, or other flammable materials. The device may become hot during use.
7. There are no user-serviceable parts inside the device. If you experience problems with the device, please contact your dealer of purchase and ask for help.
8. The device is an electrical device and as such, if it becomes wet for any reason, do not attempt to touch it without switching the power supply off. Contact an experienced electrical technician for further help.

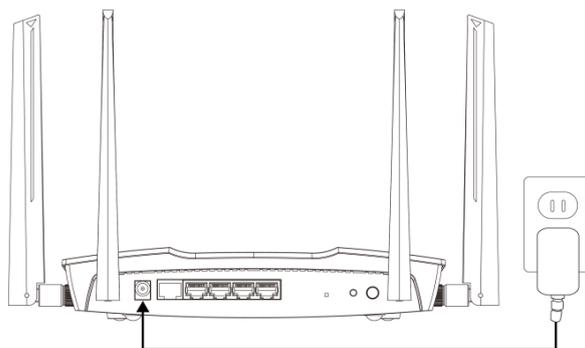
I-5. Reset to Factory Default Settings

If you experience problems with your RG21S/RA21S, you can reset the device back to its factory settings. This resets **all** settings back to default.

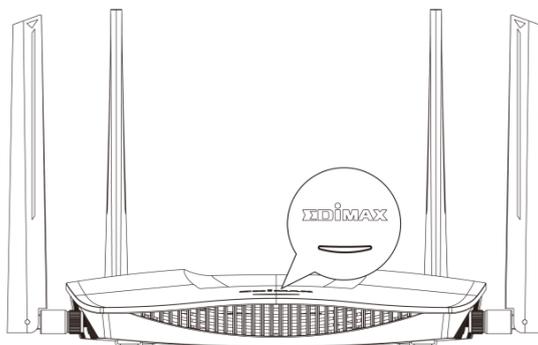
1. Press and hold the **Reset button** found on the rear base of the product for at least 10 seconds.
2. Release the button when the LED is flashing red.
3. Wait for the RG21S/RA21S to restart.

II. Installation

1. Plug the included power adapter into the device's 12V DC power port and the other end into an electrical socket.



2. Check that the power LED displays **on**.



3. Use a Wi-Fi device (e.g. computer, tablet, smartphone) to search for a Wi-Fi network with the SSID “edimax.setup” or “edimax.setup5G” and connect to it.



iOS 4 or Android 4 and above are required for setup on a smartphone or tablet.

4. Open a web browser and if you do not automatically arrive at the “Get Started” screen shown below, enter the URL ***http://edimax.setup*** and click “**Get Started**” to begin the setup process.



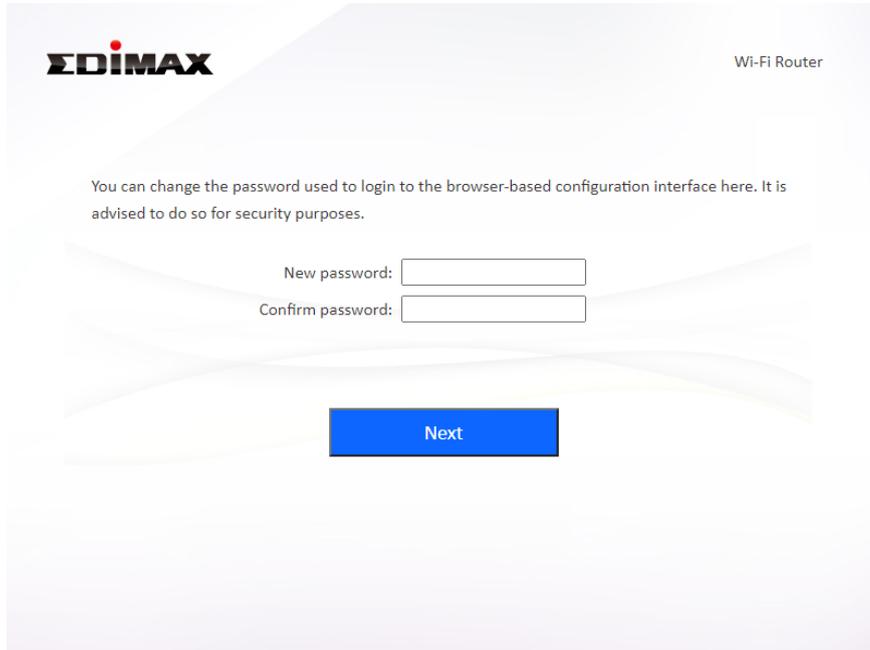
 ***If you cannot access <http://edimax.setup>, please make sure your computer is set to use a dynamic IP address.***

5. Choose if you want to use your RG21S/RA21S in its default Wi-Fi router mode or as an access point.

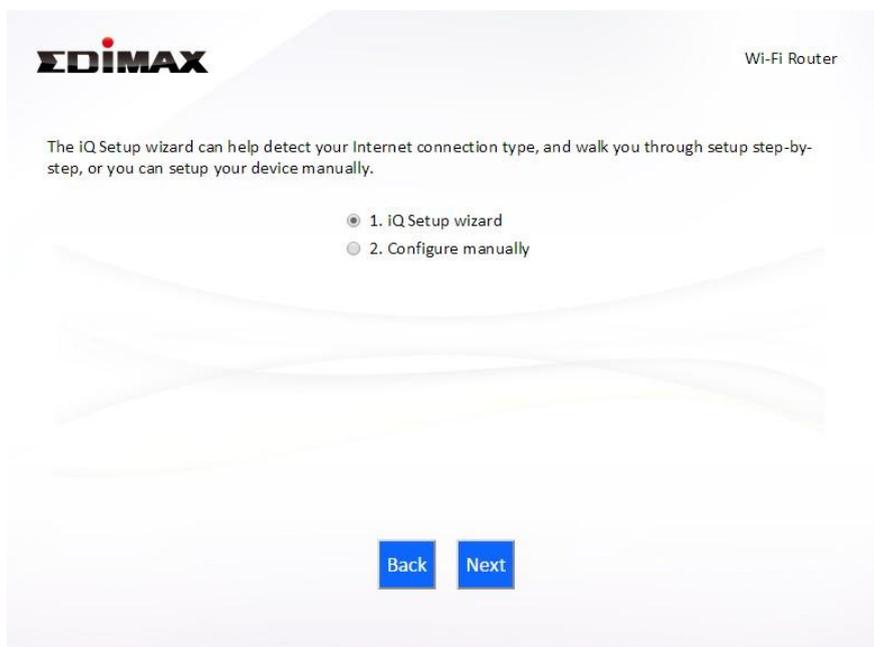


Wi-Fi Router Mode	<i>The device connects to your modem and provides 2.4GHz and/or 5GHz Internet (wireless and Ethernet) access for your network devices.</i>
Access Point Mode	<i>The device connects to an existing router via Ethernet cable and provides 2.4GHz and/or 5GHz Internet (wireless and Ethernet) access for your network devices.</i>

6. Change the router’s password and click the “Next” button.



7. Follow the on-screen instructions to complete setup. Refer to the following chapters if you need more help.

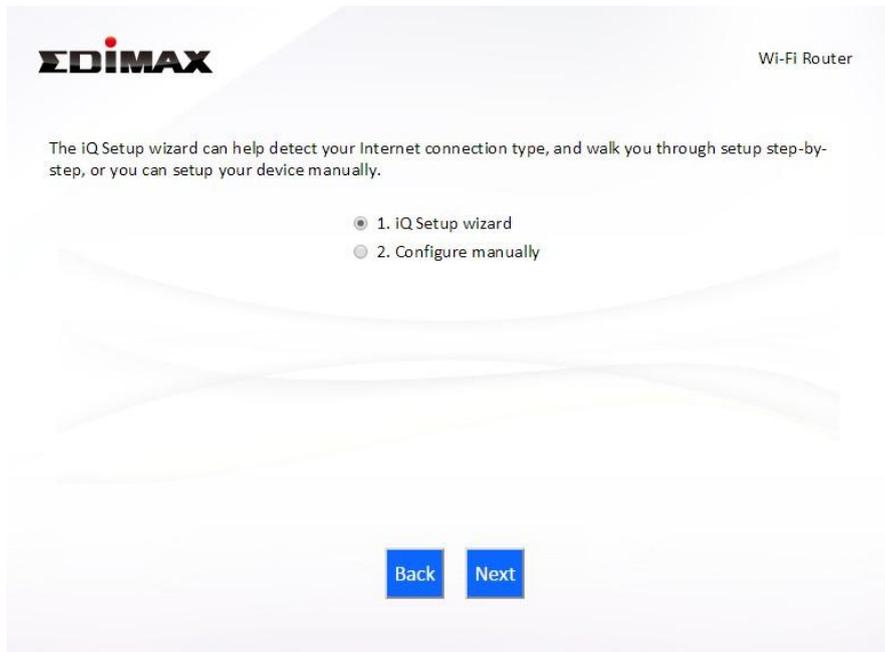


II-1.Wi-Fi Router Mode

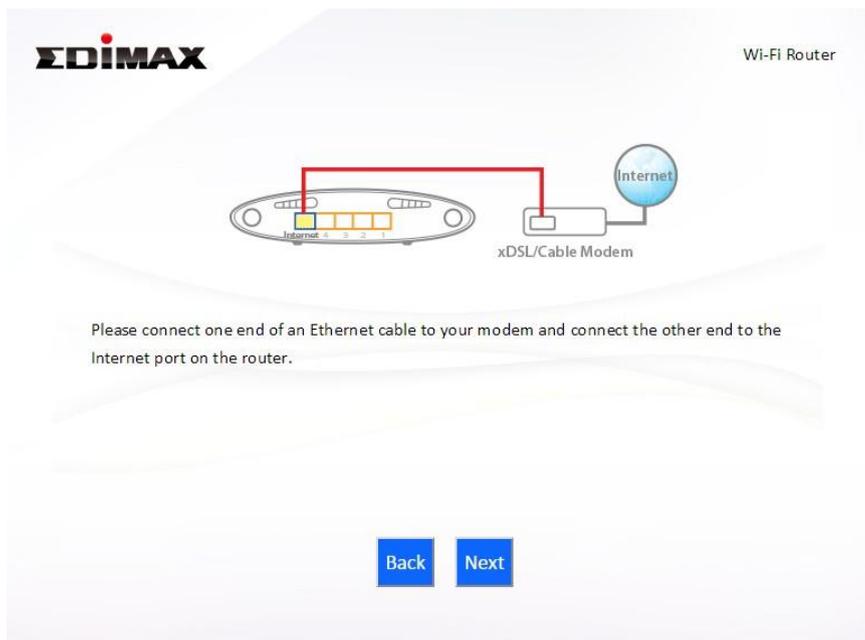
1. Select whether to use the iQ Setup wizard (recommended) to detect your Internet connection type, or enter the settings manually.



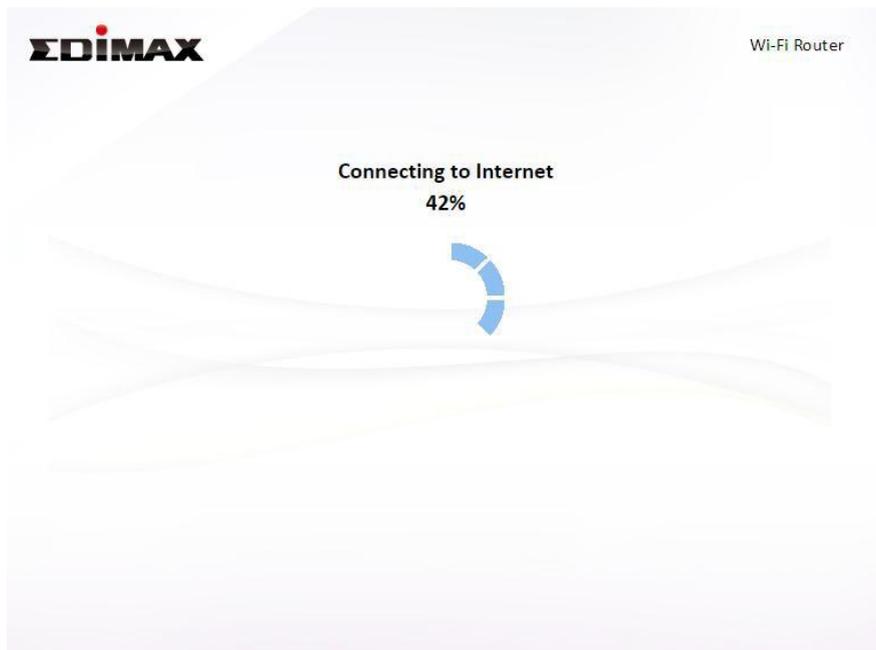
Manual configuration is only recommended for advanced users.



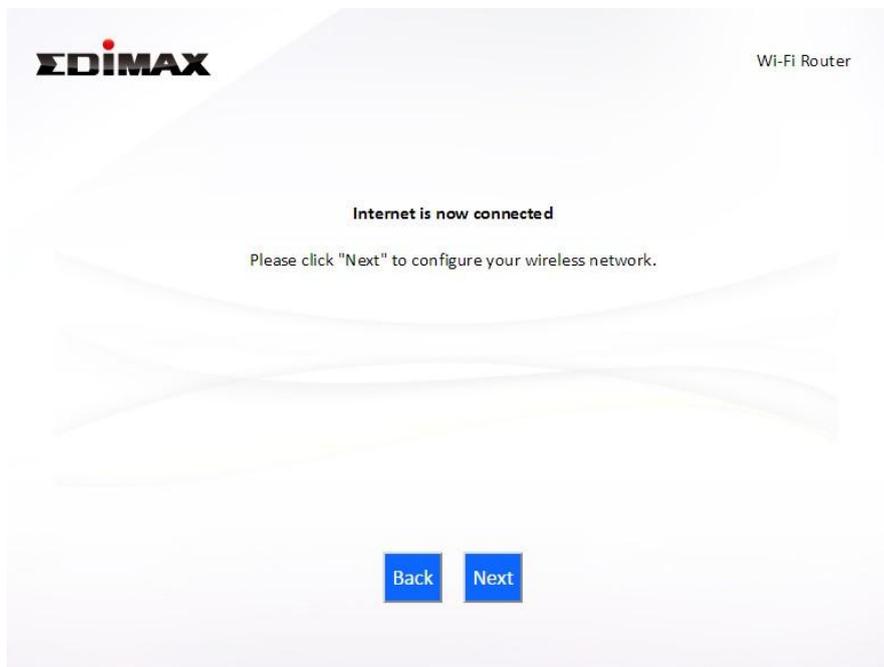
2. Connect the **blue** Internet port of your device to the LAN port of your modem using an Ethernet cable, and then click “Next”.



3. Please wait a moment while the device tests the connection.



4. Click "Next" to continue and configure the device's wireless network.



5. Enter a name and password for your 2.4GHz & 5GHz wireless networks, then click "Next" to continue.

EDIMAX Wi-Fi Router

Please set your Wi-Fi network name (SSID) and Wi-Fi password.

Wi-Fi network name (2.4GHz):

Wi-Fi password (WPA2-AES):
(at least 8 characters)

Wi-Fi network name (5GHz):

Wi-Fi password (WPA2-AES):
(at least 8 characters)

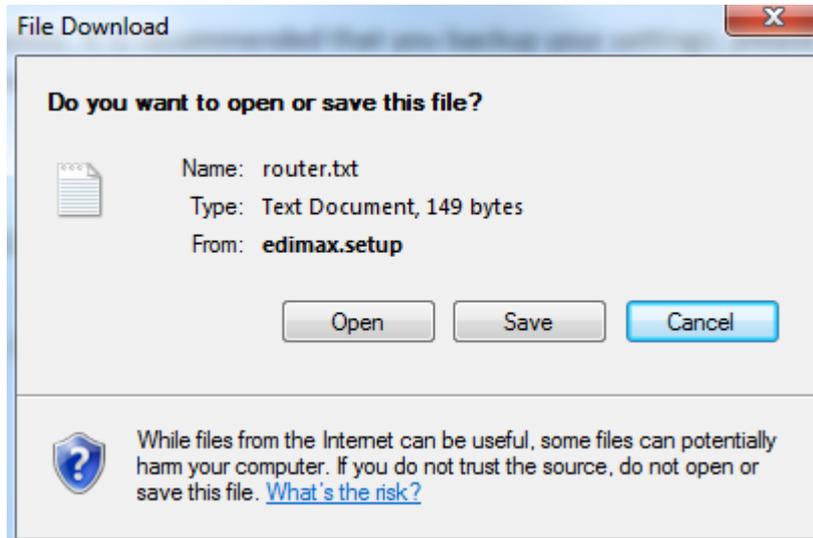
6. A summary of your configuration will be displayed, as shown below. Check that all of the details are correct and then click “Next” to proceed.

EDIMAX Wi-Fi Router

Configuration is complete. It is recommended that you backup your settings, please click "Backup this configuration" to do so. Then click "Next" when you are ready to continue.

Internet Type :	Dynamic IP
(2.4 GHz) Wi-Fi network name :	edimax_2.4G_00000C
Wi-Fi password :	edimax1234
(5 GHz) Wi-Fi network name :	edimax_5G_00000E
Wi-Fi password :	edimax1234

 ***If you wish to backup the device’s settings, click “Backup this configuration” to open a new window and save your current configuration to a .txt file.***



7. Please wait while the device applies your settings.



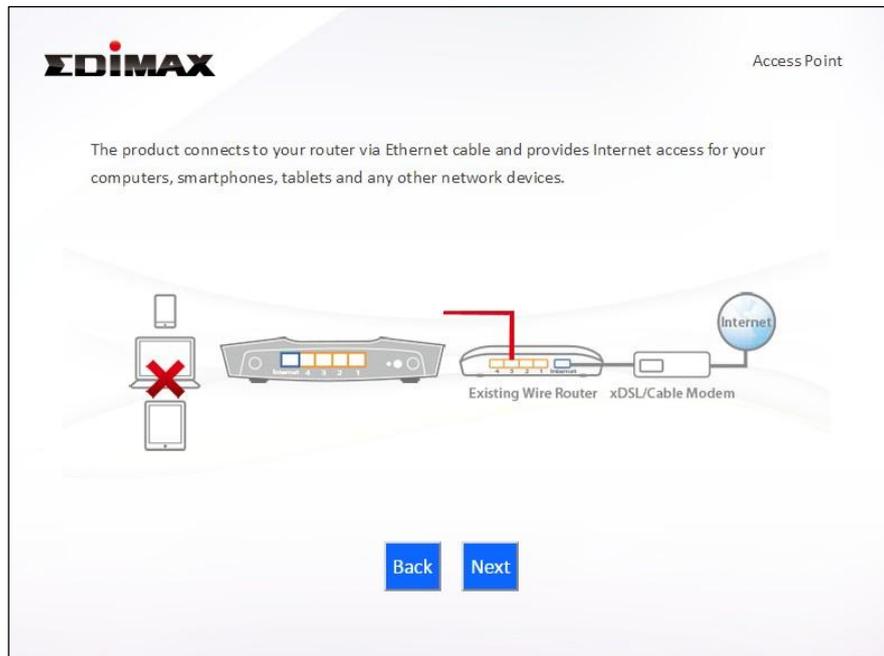
8. A final congratulations screen will indicate that setup is complete. You can now connect to the device's new SSID(s) which are shown on the screen then close the browser window.



9. The RG21S/RA21S is working and ready for use. Refer to [IV-2. Connecting to a Wi-Fi network](#) if you require more guidance.

II-2.Access Point Mode

1. Select “Access Point” from the top menu and click “Next”.



2. Connect the network port of your RG21S/RA21S to the LAN port of your existing router using an Ethernet cable, then click “Next”.



3. Select “Obtain an IP address automatically” or “Use the following IP address” for your RG21S/RA21S. If you are using a static IP, enter the IP address, subnet mask and default gateway. Click “Next” to proceed to the next step.

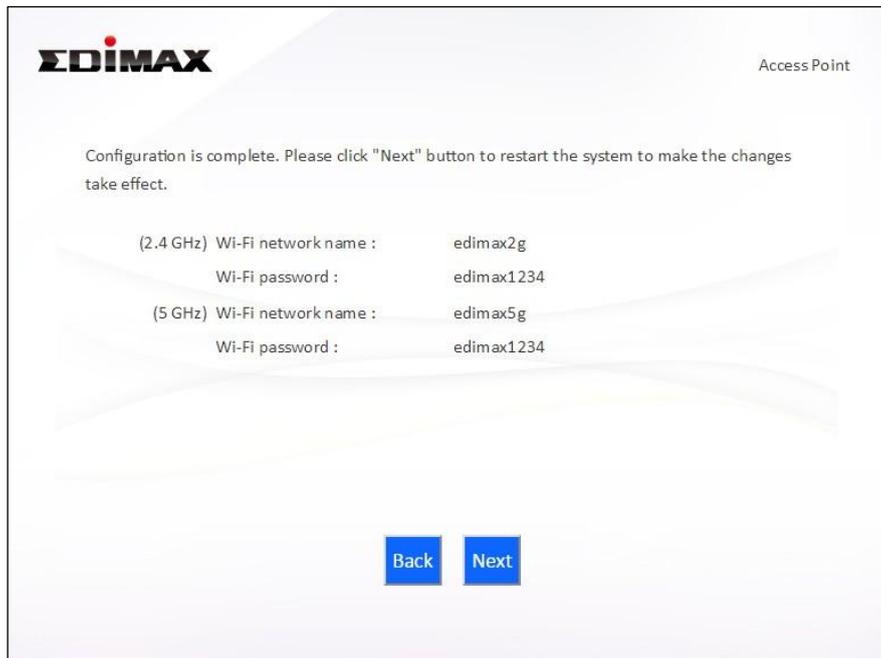
The screenshot shows the EDIMAX Access Point configuration interface. At the top left is the EDIMAX logo, and at the top right is the text "Access Point". The main heading is "Please set the IP address of the access point." Below this, there are two radio button options: "Obtain an IP address automatically" (which is selected) and "Use the following IP address". Under the second option, there are four rows of input fields: "IP address:" with values 192, 168, 2, 1; "Subnet Mask:" with values 255, 255, 255, 0; "Default gateway:" with values 0, 0, 0, 0; and "DNS:" with values 0, 0, 0, 0. At the bottom, there are two blue buttons labeled "Back" and "Next".

 ***“Obtain an IP address automatically” is the recommended setting for most users. For more guidance on static IP addresses, please refer to [IV-1. Configuring your IP address.](#)***

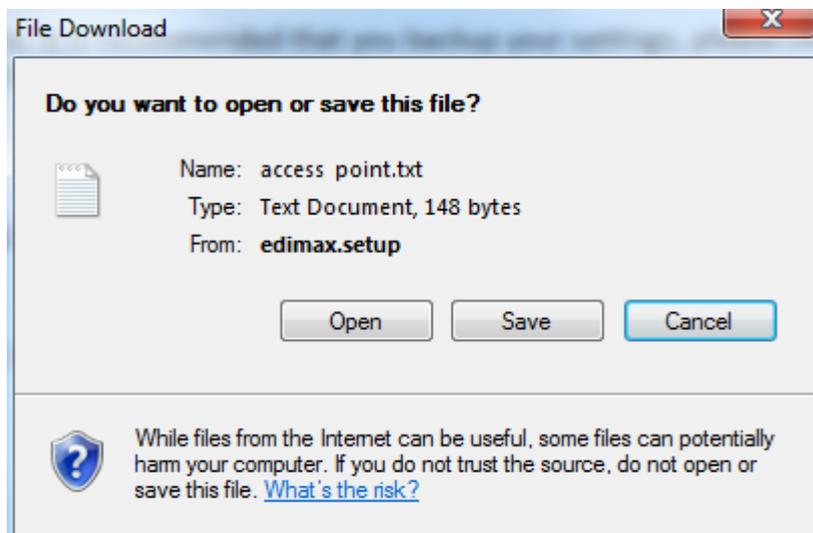
4. Enter a name and password for your 2.4GHz & 5GHz wireless networks, then click “Next” to continue.

The screenshot shows the EDIMAX Access Point configuration interface for Wi-Fi settings. At the top left is the EDIMAX logo, and at the top right is the text "Access Point". The main heading is "Please set your Wi-Fi network name (SSID) and Wi-Fi password." Below this, there are two sections. The first section is for the 2.4GHz network, with "Wi-Fi network name (2.4GHz):" set to "edimax2g" and "Wi-Fi password (WPA2-AES):" set to "edimax1234" (with a note "at least 8 characters" below it). The second section is for the 5GHz network, with "Wi-Fi network name (5GHz):" set to "edimax5g" and "Wi-Fi password (WPA2-AES):" set to "edimax1234" (with a note "at least 8 characters" below it). At the bottom, there are two blue buttons labeled "Back" and "Next".

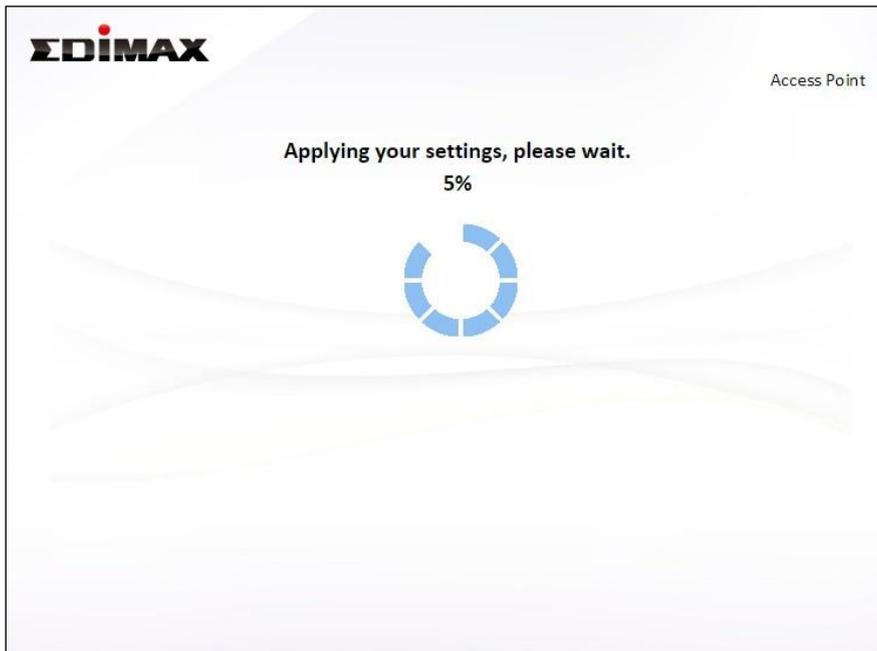
5. A summary of your configuration will be displayed, as shown below. Check that all of the details are correct and then click “Next” to proceed.



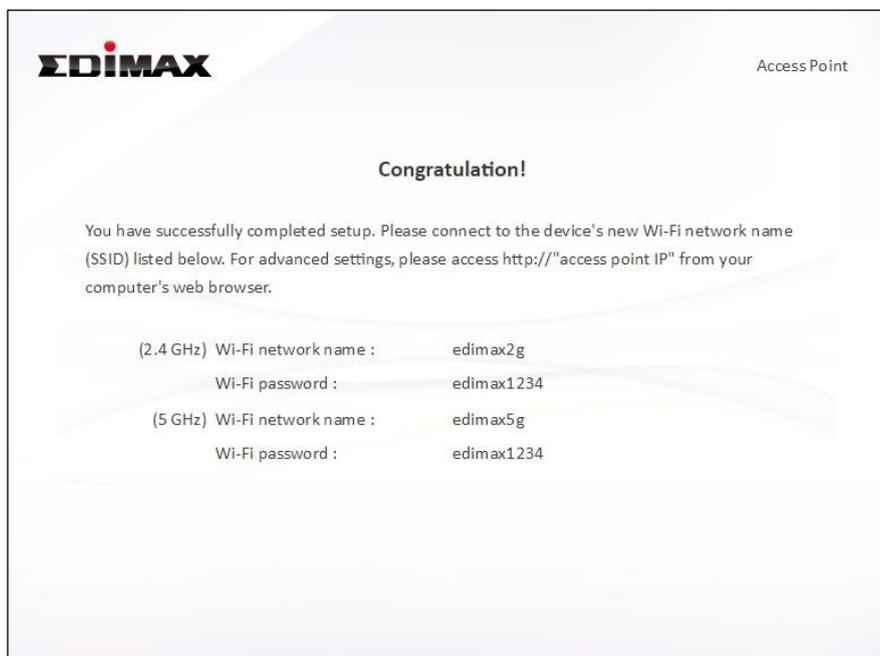
If you wish to backup the device's settings, click “Backup this configuration” to open a new window and save your current configuration to a .txt file.



6. Please wait a moment until the RG21S/RA21S is ready.



7. A final congratulations screen will indicate that setup is complete. You can now connect to the device's new SSID(s) which are shown on the screen then close the browser window.



8. The RG21S/RA21S is working and ready for use. Refer to [IV-2. Connecting to a Wi-Fi network](#) if you require more guidance.

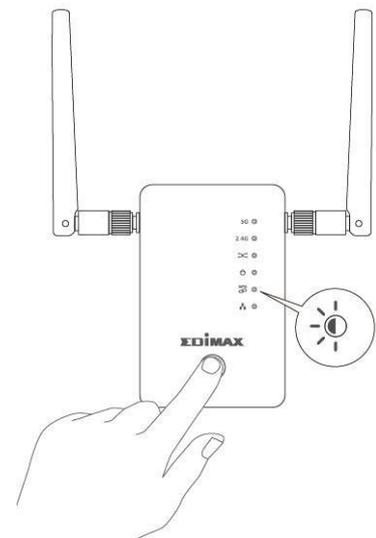
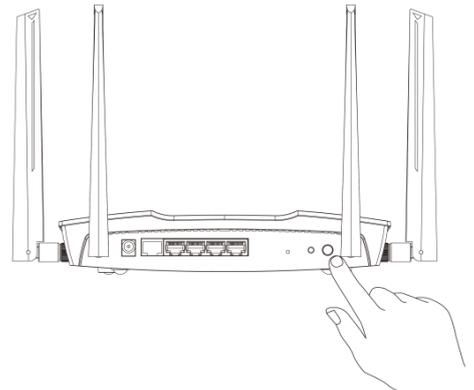
II-3.Wi-Fi Roaming

Your RG21S/RA21S supports Wi-Fi roaming. This means if you have other EDIMAX Wi-Fi products which support roaming (e.g. access point, extender) then your Wi-Fi devices (smartphones, tablets etc.) will **automatically** connect to the best available Wi-Fi signal as you move around or “roam” between them in your home.

To setup other EDIMAX Wi-Fi roaming range extender, refer to their included documentation for instructions.

To setup EDIMAX Wi-Fi roaming extenders with your router/AP, you can simply press the WPS button, as explained below. Ensure both products are within range of each other.

1. Press the WPS button on your router/AP for **3 seconds**.
2. **Within two minutes**, press and hold the WPS button for **3 seconds** on the new extender you would like to add. The extender’s **green** WPS LED should flash to indicate that WPS is in progress.
3. The devices will establish a connection. extender’s **green** WPS LED should display on for 30 seconds to indicate a successful connection. Your extender is now active with automatic roaming.



Refer to your EDIMAX roaming Wi-Fi extenders documentation for more information.

III. Browser Based Configuration Interface

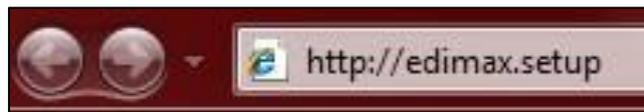
After you have setup the RG21S/RA21S as detailed in **II. Installation** or the included **Quick Installation Guide**, you can use the browser based configuration interface to configure advanced settings.



Please ensure that your computer is set to use a dynamic IP address. Refer to [IV-1. Configuring your IP address](#) for more information.

III-1. Login

1. To access the browser based configuration interface enter ***http://edimax.setup*** into the URL bar of a browser on a network device connected to the same Wi-Fi network as the RG21S/RA21S.



If you can not access *http://edimax.setup*, connect the device to a computer using an Ethernet cable and try again.

You will be prompted for a username and password. The default username is “admin” and password is your owned (You have created at Step 5 of installation)

- 2.

Authentication Required

http:// 192.168.2.1

Your connection to this site is not private.

User Name:

Password:

OK Cancel

3. You will arrive at the “Status” screen. Use the menu down the left side to navigate.



The screenshot shows the EDIMAX Wi-Fi Router web interface. The top header includes the EDIMAX logo with the tagline "NETWORKING PEOPLE TOGETHER", the text "Wi-Fi Router", and a language dropdown menu set to "English". A "Help" button is located in the top right corner. On the left side, there is a vertical navigation menu with the following items: Status (selected), Device, IPv4, IPv6, Setup Wizard, Internet, LAN, 2.4GHz WiFi, 5GHz WiFi, Schedule, Firewall, QoS, Advanced, and Toolbox. The main content area is titled "Status" and contains a "System" section with the following details:

System	
Model	RG 21S
Uptime	0 day 00:55:38
Current Time	2016/7/29 8:29:35
Hardware Version	Rev. A
Boot Code Version	1.0.0
Runtime Code Version	0.0.7

III-2. Save Settings

1. After you configure any settings, click the “Apply” button at the bottom of the screen to save your changes.



The device needs to restart in order to bring any changes into effect.

2. Wait a few moments for the device to save the changes and restart with the changes in effect.

Module is reloading Please wait seconds

III-3. Main Menu

The main menu displays different options depending on your device's operating mode.

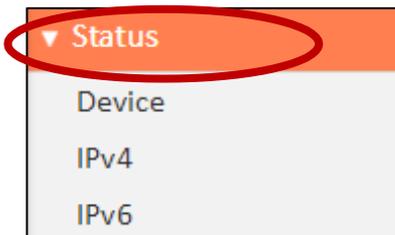
Wi-Fi Router

- ▶ Status
- ▶ Setup Wizard
- ▶ Internet
- ▶ LAN
- ▶ 2.4GHz WiFi
- ▶ 5GHz WiFi
- ▶ Schedule
- ▶ Firewall
- ▶ QoS
- ▶ Advanced
- ▶ Toolbox

Access Point

- ▶ Status
- ▶ Setup Wizard
- ▶ LAN
- ▶ 2.4GHz WiFi
- ▶ 5GHz WiFi
- ▶ Schedule
- ▶ Advanced
- ▶ Toolbox

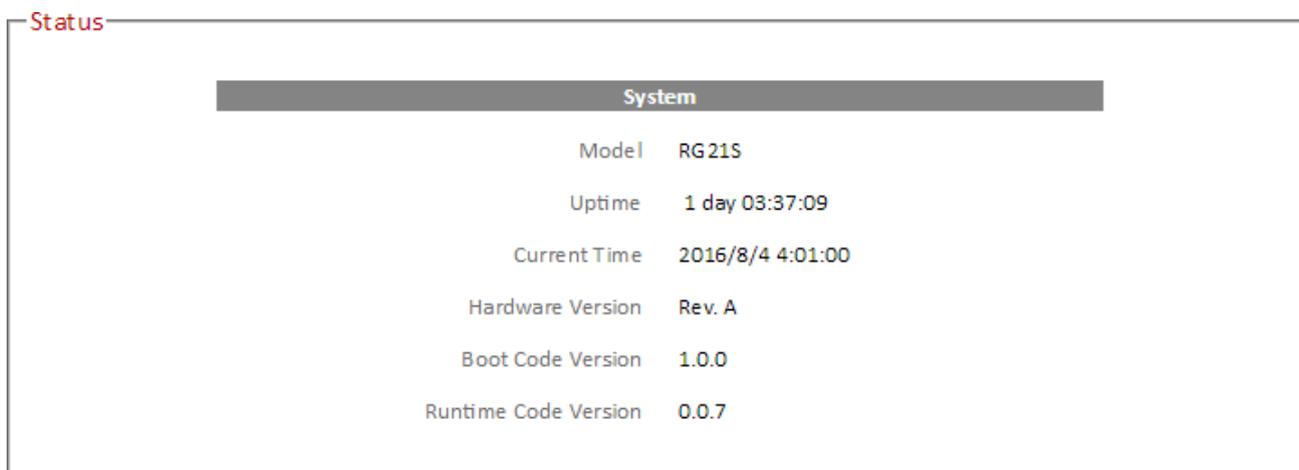
III-3-1. Status



The “Status” menu displays basic system information about the device, arranged into categories.



Screenshots displayed are examples. The information shown on your screen will vary depending on your configuration.



Model	Displays the model number.
Uptime	Displays the total time since the device was turned on.
Current Time	Displays the current device system time.
Hardware Version	Displays the hardware version for reference and support purposes.
Boot Code Version	Displays the firmware boot code version.
Runtime Code Version	Displays the firmware runtime code version.

III-3-3-1. Device

2.4GHz and 5GHz wireless and LAN status information is summarized in the device page.

2.4G Wireless Configuration	
Mode	AP
Channel	11
SSID_1	
ESSID	matt
Security	WPA Pre-shared Key
BSSID	00:AA:BB:CC:DD:10
5G Wireless Configuration	
Mode	AP
Channel	36
SSID_1	
ESSID	matt5g
Security	WPA Pre-shared Key
BSSID	00:AA:BB:CC:DD:11
LAN Configuration	
IP Address	192.168.2.1
Subnet Mask	255.255.255.0
DHCP Server	Enabled
MAC Address	00:AA:BB:CC:DD:10

Mode	Displays the mode.
Channel	Displays the channel number the specified wireless frequency is using for broadcast.
ESSID	Displays the ESSID (also known as SSID) or

	wireless network name.
Security	Displays the encryption type for the specified SSID.
BSSID	Displays the BSSID which is a unique identifier for the device in the network, usually the MAC address.

IP Address	Displays the LAN IP address of this device.
Subnet Mask	Displays the subnet mask of this device. The default value is 255.255.255.0
DHCP Server	DHCP server is enabled or disabled.
MAC Address	Displays the MAC Address of this device.

III-3-3-2. IPv4

Displays basic IPv4 related status information.

IPv4

IPv4 Connection Information	
Attain IP Protocol	PPPoE
IP Address	118.165.191.4
Subnet Mask	255.255.255.255
Default Gateway	168.95.98.254
MAC Address	00:AA:BB:CC:DD:20
Primary DNS	168.95.192.1,168.95.1.1

Attain IP Protocol	Displays the IP Protocol used for the WAN IPv4 connection.
IP Address	Displays the WAN IP address of this device.
Subnet Mask	Displays the subnet mask of this device.
Default Gateway	Displays the IP address of the IPv4 default gateway.
MAC Address	IPv4 MAC address of this device.
Primary DNS	Primary DNS servers used by this device.

III-3-3-3. IPv6

IPv6 standard is not yet widely available. Contact your ISP to check if your Internet supports IPv6.

IPv6

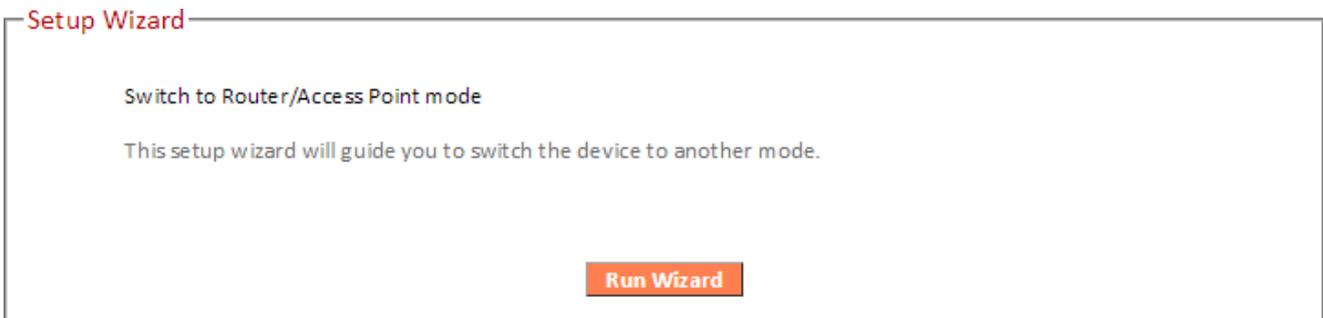
IPv6 Connection Information

IPv6 Connection Type	Link-local only
LAN IPv6 Link-Local Address	FE80::2AA:BBFF:FECC:DD10/64

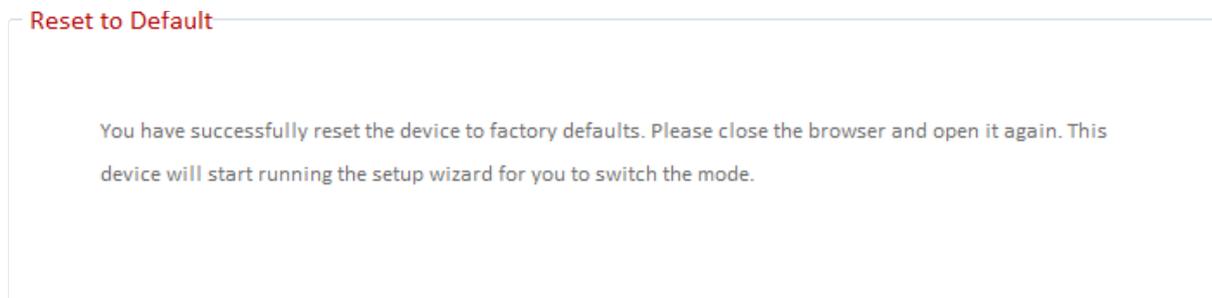
IPv6 Connection Type	Displays the WAN IPv6 connection type.
LAN IPv6 Link-Local Address	Displays the LAN IPv6 link-local IP address.

III-3-2. Setup Wizard

 You can run the setup wizard again to reconfigure the basic settings of the device or switch the device to a different operating mode. Click “Run Wizard” to begin.



1. Follow the on-screen instructions to back up your current settings and then reset the device back to its factory default settings.
2. After the device has reset you will see the screen below. Close your browser and open it again.

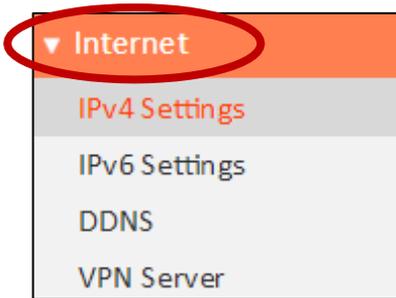


3. Follow the on-screen wizard to setup your device in a different mode. Refer to [II. Installation Step 3](#) onwards for help if needed.



If you don't see the "Get Started" screen, try reconnecting to the edimax.setup SSID and go to <http://edimax.setup> in a web browser.

III-3-3. Internet



The “Internet” menu provides access to WAN IPv4, WAN IPv6, DDNS and VPN server settings. Click on an item from the submenu to view and/or configure the settings.

III-3-3-1. IPv4

Select a Login Method (WAN connection type) and configure the settings. If you are unsure about your login method/connection type, contact your ISP.

IPv4 Connection Type

Login Method	<input type="text" value="PPP over Ethernet"/>
Username	<input type="text" value="74900117@wifi.hinet.net"/>
Password	<input type="password" value="••••••"/>
Service	<input type="text"/>
MTU	<input type="text" value="1454"/> (512<=MTU Value<=1492)
Connection Type	<input type="text" value="Keep Connection"/>
	<input type="button" value="Connect"/> <input type="button" value="Disconnect"/>
Idle Time	<input type="text" value="5"/> (1-1000 Minutes)

III-3-3-1-1. Static IP

Select “Static IP” if your ISP provides Internet access via a fixed IP address. Your ISP will provide you with such information as IP address, subnet mask, gateway address, and DNS address.

IPv4 Connection Type

Login Method

IP Address

Subnet Mask

Default Gateway

Primary DNS

Secondary DNS (optional)

Fixed IP Address	Input the IP address assigned by your ISP here.
Subnet Mask	Input the subnet mask assigned by your ISP here.
Default Gateway	Input the default gateway assigned by your ISP here. Some ISPs may call this “Default Route”.
Primary DNS	Enter the primary DNS address assigned by your ISP here.
Secondary DNS (optional)	Enter the secondary DNS address assigned by your ISP here.

III-3-3-1-2. Dynamic IP

Select “Dynamic IP”. If your Internet service provider assigns IP address automatically using DHCP (Dynamic Host Configuration Protocol).

IPv4 Connection Type

Login Method	<input type="text" value="Dynamic IP Address"/>
Hostname	<input type="text"/>
MAC Address	<input type="text" value="000000000000"/> <input type="button" value="Clone Mac"/>

Host Name	Enter the host name of your computer.
MAC Address	For some applications, you may need to designate a specific MAC address for the router. Please enter the MAC address here. If you are connecting the router to a computer, press “Clone Mac” to automatically enter your computer’s MAC address.

III-3-3-1-3. PPPoE

Select “PPPoE” if your ISP is providing you Internet access via PPPoE (Point-to-Point Protocol over Ethernet).

IPv4 Connection Type

Login Method	<input type="text" value="PPP over Ethernet"/>
Username	<input type="text" value="74900117@wifi.hinet.net"/>
Password	<input type="password" value="*****"/>
Service	<input type="text"/>
MTU	<input type="text" value="1454"/> (512<=MTU Value<=1492)
Connection Type	<input type="text" value="Keep Connection"/>
	<input type="button" value="Connect"/> <input type="button" value="Disconnect"/>
Idle Time	<input type="text" value="5"/> (1-1000 Minutes)

Username	Enter the user name assigned by your ISP here.
Password	Enter the password assigned by your ISP here.
MAC Address	For some applications, you may need to designate a specific MAC address for the router. Please enter the MAC address here. If you are connecting the router to a computer, press “Clone Mac” to automatically enter your computer’s MAC address.
Service Name	Give this Internet service a name (optional).
MTU	Enter the maximum transmission unit (MTU) value of your network connection. The default value is 1392.
Connection Type	Specify a connection type: <ul style="list-style-type: none"> 1. “Keep Connection”: Connected all the time. 2. “Automatic Connect/Disconnect”:

	<p>Connect when you initiate an Internet connection.</p> <p>3. "Manual Connect/Disconnect": Connect/disconnect manually using the "Connect" and "Disconnect" buttons.</p>
Idle Time	<p>Specify the amount of time the router waits before shutting down an idle connection. Only available when "Connect on Demand" (above) is selected.</p>

III-3-3-1-4. PPTP

Select “PPTP” if your ISP is providing you Internet access via PPTP (Point-to-Point Tunneling Protocol). Then select “Obtain an IP address automatically” or “Use the following IP address” depending on your ISP.

IPv4 Connection Type

Login Method: PPTP

Obtain an IP address automatically :

Hostname:

MAC Address: 000000000000 **Clone Mac**

Use the following IP address :

IP Address:

Subnet Mask:

Default Gateway:

Username:

Password:

PPTP Gateway:

Connection ID: 0 (optional)

MTU: 1400 (512<=MTU Value<=1492)

Connection Type: Keep Connection

Connect **Disconnect**

Idle Time: 10 (1-1000 Minutes)

Apply

Host Name	Enter the host name of your computer here if required.
MAC Address	For some applications, you may need to designate a specific MAC address for the router. Please enter the MAC address here. If you are connecting the router to a computer, press "Clone Mac" to automatically enter your computer's MAC address.
IP Address	Input the IP address assigned by your ISP here.
Subnet Mask	Input the subnet mask assigned by your ISP here.
Default Gateway Address	Input the default gateway assigned by your ISP here. Some ISPs may call this "Default Route".
Username	Input the user name assigned by your ISP here.
Password	Input the password assigned by your ISP here.
PPTP Gateway	Input the PPTP gateway assigned by your ISP here.
Connection ID	Specify a reference name/ID for the connection.
MTU	Enter the maximum transmission unit (MTU) value of your network connection. The default value is 1392.
Connection Type	Specify a connection type: <ol style="list-style-type: none"> 1. "Keep Connection": Connected all the time. 2. "Automatic Connect/Disconnect": Connect when you initiate an Internet connection. 3. "Manual Connect/Disconnect": Connect/disconnect manually using the "Connect" and "Disconnect" buttons.
Idle Time	Specify the amount of time the router waits before shutting down an idle connection. Only available when "Connect on Demand" (above) is selected.

III-3-3-1-5. L2TP

Select “L2TP” if your ISP is providing you Internet access via L2TP (Layer 2 Tunneling Protocol).

IPv4 Connection Type

Login Method:

Obtain an IP address automatically :

 Hostname:

 MAC Address:

Use the following IP address :

 IP Address:

 Subnet Mask:

 Default Gateway:

 Username:

 Password:

 L2TP Gateway:

 MTU: (512<=MTU Value<=1492)

 Connection Type:

 Idle Time: (1-1000 Minutes)

Host Name	Enter the host name of your computer here If required.
MAC Address	For some applications, you may need to designate a specific MAC address for the router. Please enter the MAC address here. If you are connecting the router to a computer, press “Clone Mac” to automatically enter your computer’s MAC address.
IP Address	Input the IP address assigned by your ISP here.
Subnet Mask	Input the subnet mask assigned by your ISP here.
Default Gateway	Input the default gateway assigned by your ISP

	here. Some ISPs may call this “Default Route”.
Username	Input the user name assigned by your ISP here.
Password	Input the password assigned by your ISP here.
L2TP Gateway	Input the L2TP gateway assigned by your ISP here.
MTU	Enter the maximum transmission unit (MTU) value of your network connection. The default value is 1392.
Connection Type	Specify a connection type: <ol style="list-style-type: none"> 1. “Keep Connection”: Connected all the time. 2. “Automatic Connect/Disconnect”: Connect when you initiate an Internet connection. 3. “Manual Connect/Disconnect”: Connect/disconnect manually using the “Connect” and “Disconnect” buttons.
Idle Time	Specify the amount of time the router waits before shutting down an idle connection. Only available when “Connect on Demand” (above) is selected.

III-3-3-1-6. Russia L2TP (Dual-Access)

Select “L2TP” if your ISP is providing you Internet access via L2TP (Layer 2 Tunneling Protocol).

IPv4 Connection Type

Login Method:

Multi WAN Bridge Port: LAN 1 LAN 2 LAN 3 LAN 4

Obtain an IP address automatically :

 Hostname:

 MAC Address:

Use the following IP address :

 IP Address:

 Subnet Mask:

 Default Gateway:

 Username:

 Password:

 L2TP Gateway:

 MTU: (512<=MTU Value<=1492)

 Connection Type:

 Idle Time: (1-1000 Minutes)

Multi WAN Bridge Port	Check which LAN port to bridge for multi-WAN.
Host Name	Enter the host name of your computer here If required.
MAC Address	For some applications, you may need to designate a specific MAC address for the router. Please enter the MAC address here. If you are connecting the router to a computer, press “Clone Mac” to

	automatically enter your computer's MAC address.
IP Address	Input the IP address assigned by your ISP here.
Subnet Mask	Input the subnet mask assigned by your ISP here.
Default Gateway	Input the default gateway assigned by your ISP here. Some ISPs may call this "Default Route".
Username	Input the user name assigned by your ISP here.
Password	Input the password assigned by your ISP here.
L2TP Gateway	Input the L2TP gateway assigned by your ISP here.
MTU	Enter the maximum transmission unit (MTU) value of your network connection. The default value is 1392.
Connection Type	Specify a connection type: 4. "Keep Connection": Connected all the time. 5. "Automatic Connect/Disconnect": Connect when you initiate an Internet connection. 6. "Manual Connect/Disconnect": Connect/disconnect manually using the "Connect" and "Disconnect" buttons.
Idle Time	Specify the amount of time the router waits before shutting down an idle connection. Only available when "Connect on Demand" (above) is selected.

III-3-3-1-7. DS-Lite

Dual-stack lite (DS-Lite) is a technology that enables Internet service providers to move to an IPv6 network while simultaneously handling IPv4 address depletion. The DS-Lite architecture uses IPv6-only links between the provider and the user while maintaining the IPv4 (or dual-stack) hosts in the user network.

IPv4 Connection Type

Login Method	DSLITE
DS-Lite Configuration	<input checked="" type="radio"/> DS-Lite DHCPv6 Option <input type="radio"/> Manual Configuration
AFTR IPv6 Address	
B4 IPv4 Address	192.0.0.2 (optional)
WAN IPv6 Address	---
IPv6 WAN Default Gateway	---

Apply

Refer to your ISP or network administrator for help configuring DS-Lite.

III-3-3-2. IPv6

Select a Login Method (WAN connection type) and configure the settings. If you are unsure about your login method/connection type, contact your ISP.



Check with your ISP for correct IPv6 configuration.

IPv6 Connection Type

IPv6 Connection	Static IPv6
Use Link-Local Address	<input checked="" type="checkbox"/>
IPv6 Address	FE80::2AA:BBFF:FECC:DD20/64
Subnet Prefix Length	64
Default Gateway	
Primary IPv6 DNS Address	
Secondary IPv6 DNS Address	
LAN IPv6 Address	
LAN IPv6 Link-Local Address	FE80::2AA:BBFF:FECC:DD10/64
IPv6 Auto Address Allocation	<input checked="" type="checkbox"/> Enable
Autoconfiguration Type	SLAAC + RDNSS
Router Advertisement Lifetime	1440 (minutes)

Apply

III-3-3-2-1. Static IP

Select “Static IP” if your ISP provides Internet access via a fixed IP address. Your ISP will provide you with such information as IP address, subnet mask, gateway address, and DNS address.



Check with your ISP for correct IPv6 configuration.

IPv6 Connection Type

IPv6 Connection	Static IPv6 ▼
Use Link-Local Address	<input checked="" type="checkbox"/>
IPv6 Address	FE80::2AA:BBFF:FECC:DD20/64
Subnet Prefix Length	64
Default Gateway	<input type="text"/>
Primary IPv6 DNS Address	<input type="text"/>
Secondary IPv6 DNS Address	<input type="text"/>
LAN IPv6 Address	<input type="text"/> /64
LAN IPv6 Link-Local Address	FE80::2AA:BBFF:FECC:DD10/64
IPv6 Auto Address Allocation	<input checked="" type="checkbox"/> Enable
Autoconfiguration Type	SLAAC + RDNSS ▼
Router Advertisement Lifetime	1440 (minutes)

Apply

Use Link-Local Address	Check the box to use a link-local address.
IPv6 Address	Input the IPv6 address assigned by your ISP here.
Subnet Prefix Length	Specify the prefix length for the subnet.
Default Gateway	Input the default gateway assigned by your ISP here. Some ISPs may call this “Default Route”.
Primary IPv6 DNS Address	Enter the primary DNS address assigned by your ISP here.
Secondary IPv6 DNS	Enter the secondary DNS address assigned by

Address	your ISP here.
LAN IPv6 Address	Enter the LAN IPv6 address.
LAN IPv6 Link-Local Address	If using link-local IPv6 address, it's displayed here.
IPv6 Auto Address Allocation	Enable or disable auto address allocation for IPv6. Select your auto-configuration type
Auto-configuration Type	Select your auto-configuration type. Stateless: DNS server information is received from DHCPv6 server but address is generated separately. Stateful: DNS server information and address are received from DHCPv6 server.
Router Advertisement Lifetime	Time in seconds this router should be used as the default router. 0 tells the host this router should not be used as the default.

III-3-3-2-2. PPPoE

Select “PPPoE” if your ISP is providing you Internet access via PPPoE (Point-to-Point Protocol over Ethernet).

IPv6 Connection Type

IPv6 Connection:

Username:

Password:

Service:

MTU: (512<=MTU Value<=1492)

Connection Type:

Idle Time: (1-1000 Minutes)

Automatical DNS Address: Enable Disable

Primary IPv6 DNS Address:

Secondary IPv6 DNS Address:

Enable DHCP-PD:

LAN IPv6 Address: /64

LAN IPv6 Link-Local Address: FE80::2AA:BBFF:FECC:DD10/64

IPv6 Auto Address Allocation: Enable

Autoconfiguration Type:

Router Advertisement Lifetime: (minutes)

Username	Enter the user name assigned by your ISP here.
Password	Enter the password assigned by your ISP here.
MAC Address	For some applications, you may need to designate a specific MAC address for the router. Please enter the MAC address here. If you are connecting the router to a computer, press “Clone Mac” to automatically enter

	your computer's MAC address.
Service Name	Give this Internet service a name (optional).
MTU	Enter the maximum transmission unit (MTU) value of your network connection. The default value is 1392.
Connection Type	Specify a connection type: 4. "Keep Connection": Connected all the time. 5. "Automatic Connect/Disconnect": Connect when you initiate an Internet connection. 6. "Manual Connect/Disconnect": Connect/disconnect manually using the "Connect" and "Disconnect" buttons.
Idle Time	Specify the amount of time the router waits before shutting down an idle connection. Only available when "Connect on Demand" (above) is selected.
Automatic DNS Address	Enable or disable automatic DNS address.
Primary IPv6 DNS Address	Enter the primary DNS address assigned by your ISP here.
Secondary IPv6 DNS Address	Enter the secondary DNS address assigned by your ISP here.
Enable DHCP-PD	Enable or disable DHCP prefix delegation for the DHCPv6 server.
LAN IPv6 Address	Enter the LAN IPv6 address.
LAN IPv6 Link-Local Address	If using link-local IPv6 address, it's displayed here.
IPv6 Auto Address Allocation	Enable or disable auto address allocation for IPv6. Select your auto-configuration type
Auto-configuration Type	Select your auto-configuration type. Stateless: DNS server information is received from DHCPv6 server but address is generated separately. Stateful: DNS server information and address are received from DHCPv6 server.
Router	Time in seconds this router should be used as

Advertisement Lifetime	the default router. 0 tells the host this router should not be used as the default.
-------------------------------	---

III-3-3-2-3. Auto-configuration

Auto-configuration allow various devices attached to an IPv6 network to connect to the Internet using Stateless Auto-configuration without requiring intermediate IP support in the form of a DHCP server.

IPv6 Connection Type

IPv6 Connection	Auto-configuration ▼
Automatic DNS Address	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
Primary IPv6 DNS Address	<input type="text"/>
Secondary IPv6 DNS Address	<input type="text"/>
Enable DHCP-PD	<input checked="" type="checkbox"/>
LAN IPv6 Address	<input type="text"/> /64
LAN IPv6 Link-Local Address	FE80::2AA:BBFF:FECC:DD10/64
IPv6 Auto Address Allocation	<input checked="" type="checkbox"/> Enable
Autoconfiguration Type	SLAAC + RDNSS ▼
Router Advertisement Lifetime	<input type="text" value="1440"/> (minutes)

Apply

Automatic DNS Address	Enable or disable automatic DNS address.
Primary IPv6 DNS Address	Enter the primary DNS address assigned by your ISP here.
Secondary IPv6 DNS Address	Enter the secondary DNS address assigned by your ISP here.
Enable DHCP-PD	Enable or disable DHCP prefix delegation for the DHCPv6 server.
LAN IPv6 Address	Enter the LAN IPv6 address.
LAN IPv6 Link-Local Address	If using link-local IPv6 address, it's displayed here.
IPv6 Auto Address Allocation	Enable or disable auto address allocation for IPv6. Select your auto-configuration type

Auto-configuration Type	Select your auto-configuration type. Stateless: DNS server information is received from DHCPv6 server but address is generated separately. Stateful: DNS server information and address are received from DHCPv6 server.
Router Advertisement Lifetime	Time in seconds this router should be used as the default router. 0 tells the host this router should not be used as the default.

III-3-3-2-4. 6rd

6rd facilitates rapid deployment of IPv6 across ISP's IPv4 infrastructures.

IPv6 Connection Type

IPv6 Connection: 6RD

6RD Configuration: 6RD DHCPv4 Option Manual Configuration

6RD IPv6 Prefix: [] /32

IPv4 Address: 118.165.191.4 Mask Length: 0

IPv6 Prefix Arrange: []

Tunnel Link-Local Address: FE80::76A5:BF04/64

6RD BR IPv4 Address: 0.0.0.0

Primary IPv6 DNS Address: []

Secondary IPv6 DNS Address: []

LAN IPv6 Address: [] /64

LAN IPv6 Link-Local Address: FE80::2AA:BBFF:FECC:DD10/64

IPv6 Auto Address Allocation: Enable

Autoconfiguration Type: SLAAC + RDNSS

Router Advertisement Lifetime: 1440 (minutes)

Apply

6rd Configuration	Select to configure 6rd with DHCPv4 server or manually. When manual is selected, enter the information in the fields below.
6rd IPv6 Prefix	Enter the IPv6 prefix.
IPv4 Address	Specify the IPv4 address and mask length.
IPv6 Prefix Arrange	Displays the prefix arrangement.
Tunnel Link-Local Address	Displays link-local tunnel address.
6rd BR IPv4 Address	Input the 6rd BR IPv4 address.
Primary IPv6 DNS Address	Enter the primary DNS address assigned by your ISP here.
Secondary IPv6 DNS	Enter the secondary DNS address assigned by

Address	your ISP here.
LAN IPv6 Address	Enter the LAN IPv6 address.
LAN IPv6 Link-Local Address	If using link-local IPv6 address, it's displayed here.
IPv6 Auto Address Allocation	Enable or disable auto address allocation for IPv6. Select your auto-configuration type
Auto-configuration Type	Select your auto-configuration type. Stateless: DNS server information is received from DHCPv6 server but address is generated separately. Stateful: DNS server information and address are received from DHCPv6 server.
Router Advertisement Lifetime	Time in seconds this router should be used as the default router. 0 tells the host this router should not be used as the default.

III-3-3-2-5. Link-local

A link-local address is a network address for communications only within the broadcast domain or network segment that the host is connected to.

IPv6 Connection Type

IPv6 Connection	Link-local only ▼
LAN IPv6 Link-Local Address	FE80::2AA:BBFF:FECC:DD10/64

Apply

LAN IPv6 Link-Local Address

If using link-local IPv6 address, it's displayed here.

III-3-3-3. DDNS

Dynamic DNS (DDNS) is a service which provides a hostname-to-IP service for dynamic IP users. The changing nature of dynamic IPs means that it can be difficult to access a service provided by a dynamic IP user; a DDNS service though can map such dynamic IP addresses to a fixed hostname, for easier access. The router supports several DDNS service providers, for more details and to register for a DDNS account please visit the DDNS providers website(s), examples of which are listed below.

DDNS

Enable / Disable Enable Disable

Provider DynDNS

Domain Name

Account / E-mail

Password / Key

Save Settings

Enable/Disable	Enable or disable DDNS
Provider	Select DDNS service provider.
Domain Name	Enter the domain name provided by the DDNS provider.
Account/Email	Please enter the DDNS registration account/email.
Password/Key	Enter the DDNS service password/key.

The following DDNS services are supported:

- DHS** <http://www.dhs.org>
- DynDNS** <http://www.dyndns.org>
- ZoneEdit** <http://www.zoneedit.com>

III-3-3-4. VPN Server

A VPN is a virtual private network which you can connect to remotely. VPNs are secure and encrypted. Your router has a built-in VPN server which you can configure and access on your network devices, including smartphones, tablets and computers.

OpenVPN Server

Enabled VPN Server :  **1**

Server Information :

EDIMAX DDNS	023se0004f.router.myedimax.com
VPN Subnet/Netmask	10.8.0.0/255.255.255.0
Protocol	UDP
Server Port	443

Client Configuration Files :

Send All Traffic Over VPN Server	Export	2	more...
Send "Only" Home-Network Traffic Over VPN Server	Export		more...

OpenVPN Client Setting

[Windows](#)

[Mac OS](#)

[iOS](#)

[Android](#)

4

OpenVPN Client Account Control

Status	Client Name	Password	
	<input type="text"/>	<input type="text"/>	3 Add
Disconnect	admin	--	Change

1. Enable VPN server.
2. Export your VPN server configuration file. You can open this file on your network device (smartphone, tablet, computer) using VPN software/app to automatically connect to your VPN on your device.

 **You can choose which kind of configuration file to export, depending on your requirement. "Send All Traffic Over VPN Server"**

will configure your network device to use the VPN for all Internet traffic. “Send Only Home Network Traffic over VPN Server” will configure your network device to access the Internet as usual but use the VPN to access your home (router) network. The 2nd option is ideal if you only wish to use the VPN for remote access to your home network. The 1st option will encrypt all Internet traffic through the VPN.

3. Setup a login account for your VPN. This is required to access your VPN on your network device.
4. Send the exported configuration file to your network device (e.g. via email, cloud or USB). Open the file using VPN software or apps which are widely available online, and enter your login details to connect to your VPN.



You can access further help to connect your network device to your VPN by selecting your operating system under “OpenVPN Client Settings”.

III-3-4. LAN



You can configure your Local Area Network (LAN) on this page. You can enable the router to dynamically allocate IP addresses to your LAN clients, and you can modify the IP address of the device. The device's default IP address is 192.168.2.1.



You can access the browser based configuration interface using the device's IP address instead of using the URL <http://edimax.setup>.

LAN IP	
IP Address	<input type="text" value="192.168.2.1"/>
Subnet Mask	<input type="text" value="255.255.255.0"/>
802.1d Spanning Tree	<input type="text" value="Disable"/>

IP Address	Specify the IP address here. This IP address will be assigned to the RG21S/RA21S and will replace the default IP address.
Subnet Mask	Specify a subnet mask. The default value is 255.255.255.0
802.1d Spanning Tree	Select "Enable" or "Disable" to enable/disable 802.1d Spanning Tree. This creates a tree of connected layer-2 bridges (typically Ethernet switches) within a mesh network, and disables those links that are not part of the tree, leaving a single active path between any two network nodes.

Your device's DHCP server automatically assigns IP addresses to computers on its network, between a defined range of numbers.

DHCP Server

DHCP Server

Lease Time

Start IP

End IP

DNS

Primary DNS Address

Secondary DNS Address

DHCP Server	Enable or disable the DHCP server.
Lease Time	Select a lease time for the DHCP leases here. The DHCP client will obtain a new IP address after the period expires.
Start IP	Enter the start IP address for the DHCP server's IP address leases.
End IP	Enter the end IP address for the DHCP server's IP address leases.
DNS	Select whether to get DNS addresses dynamically from ISP or manually enter DNS addresses.
Primary DNS Address	When Static IP is selected above, enter the primary DNS address here.
Secondary DNS Address	When Static IP is selected above, enter the secondary DNS address here.



The LAN IP page will be displayed as below when your device is set to access point mode. You can set the RG21S/RA21S to obtain an IP address automatically or you can specify an IP address.

LAN IP

Bridge Type

IP Address

IP Subnet Mask

Default Gateway

DNS

802.1d Spanning Tree

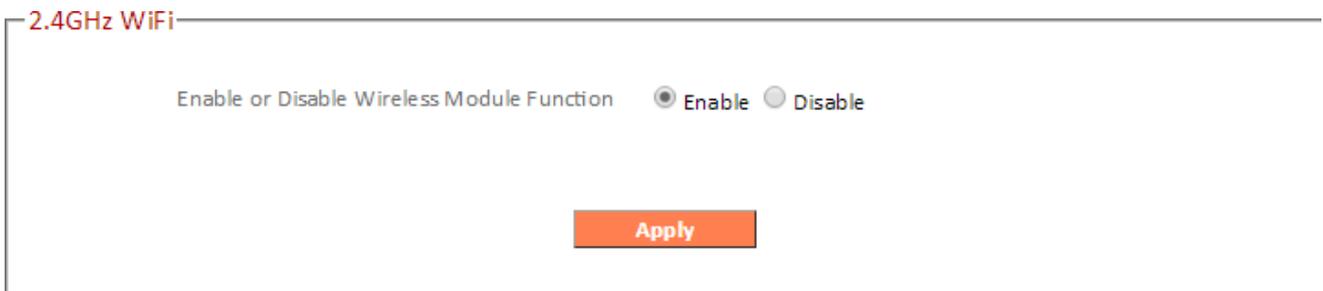
III-3-5. 2.4GHz Wireless & 5GHz Wireless



The “2.4GHz WiFi” & “5GHz WiFi” menu allows you to configure SSID and security settings for your Wi-Fi network along with a guest Wi-Fi network. WPS, access control and scheduling functions can also be managed from here. You can quickly enable/disable the 2.4GHz or 5GHz Wi-Fi from this screen.



In Access Point mode, the Guest SSID feature is not available.



III-3-5-1.Basic

The “Basic” screen displays settings for your 2.4GHz or 5GHz Wi-Fi networks.

Basic

Mode

Band

Guest Network Enabled Disabled

Guest IP Address

Guest Subnet Mask

Guest Lease time

Guest Start IP

Guest End IP

SSID

Guest SSID

Channel

Mode	Keep the default “AP” value for the device to act as a standard wireless access point.
Band	Displays the wireless standard used for the RG21S/RA21S’s “2.4GHz (B+G+N)” means that 802.11b, 802.11g, and 802.11n wireless clients can connect to the RG21S/RA21S.
Guest Network	You can setup an additional “Guest” Wi-Fi network so guest users can enjoy Wi-Fi connectivity without accessing your primary network. Enable or disable here.
Guest IP Address	Set the guest network IP address.
Guest Subnet Mask	Set the guest network subnet address.
Guest Lease Time	Set the lease time for the DHCP server for IP addresses on the guest network.
Guest Start IP	Set the start IP address for the DHCP server range for guest IP addresses.
Guest End IP	Set the end IP address for the DHCP server

	range for guest IP addresses.
SSID	This is the name of your Wi-Fi network for identification, also sometimes referred to as “SSID”. The SSID can consist of any combination of up to 32 alphanumeric characters.
Guest SSID	This is the name of your guest Wi-Fi network for identification, also sometimes referred to as “SSID”. The SSID can consist of any combination of up to 32 alphanumeric characters.
Channel Number	Select a wireless radio channel or use the default “Auto” setting from the drop-down menu.

III-3-5-2.Security

Configure the security settings for Wi-Fi and guest Wi-Fi networks. Select SSID and then setup the encryption type.

Security

SSID Selection:

Broadcast ESSID:

WMM:

Encryption:

WPA Type: WPA(TKIP) WPA2(AES) WPA2 Mixed

Pre-shared Key Type:

Pre-shared Key:

SSID Selection	Keep the default “AP” value for the device to act as a standard wireless access point.
Broadcast ESSID	Broadcast or hide SSID. When broadcast, the SSID will be visible to clients as an available Wi-Fi network. When not broadcast, the SSID

	will not be visible as an available Wi-Fi network to clients – clients must manually enter the SSID in order to connect. A hidden SSID is typically more secure than a visible SSID.
WMM	WMM (Wi-Fi Multimedia) technology can improve the performance of certain network applications, such as audio/video streaming, network telephony (VoIP) and others. When WMM is enabled, the device will prioritize different kinds of data and give higher priority to applications which require instant responses for better performance.
Encryption	Select an encryption type from the drop-down menu:  <i>“WPA Pre-shared Key” is the recommended and most secure encryption type.</i>  <i>In WISP mode, WPA RADIUS is unavailable for the wireless band that is used to connect to WISP’s AP.</i>

III-3-5-2-1. Disable

Encryption is disabled and no password/key is required to connect to the RG21S/RA21S.



Disabling wireless encryption is not recommended. When disabled, anybody within range can connect to your device's SSID.

Enable 802.1x Authentication	Check the box to enable the 802.1x authentication. A RADIUS server is required to perform 802.1x authentication: enter the RADIUS server's information in the relevant fields (below).
-------------------------------------	--

Enable 802.1x Authentication

RADIUS Server IP address

RADIUS Server Port

RADIUS Server Password

III-3-5-2-2. WEP

WEP (Wired Equivalent Privacy) is a basic encryption type. For a higher level of security consider using WPA encryption.

Authentication Type	Open System, Shared Key, Auto authentication types are available.
Key Length	Select 64-bit or 128-bit. 128-bit is more secure than 64-bit.
Key Type	Choose from "ASCII" (any alphanumerical character 0-9, a-z and A-Z) or "Hex" (any characters from 0-9, a-f and A-F).
Default Key	Select which encryption key (1 – 4 below) is the default key. For security purposes, you can set up to four keys (below) and change which is the default key.
Encryption Key 1 - 4	Enter your encryption key/password according to the format you selected above.
Enable 802.1x Authentication	Check the box to enable the 802.1x authentication. A RADIUS server is required to perform 802.1x authentication: enter the RADIUS server's information in the relevant fields.

III-3-5-2-3. WPA Pre-Shared Key

WPA pre-shared key is the recommended and most secure encryption type.

WPA Type	Select from WPA (TKIP), WPA2 (AES) or WPA2 Mixed. WPA2 (AES) is safer than WPA (TKIP), but not supported by all wireless clients. Please make sure your wireless client supports your selection. WPA2 (AES) is recommended followed by WPA2 Mixed if your client does not support WPA2 (AES).
Pre-shared Key Type	Choose from "Passphrase" (8-63 alphanumeric characters) or "Hex" (up to 64 characters from 0-9, a-f and A-F).
Pre-shared Key	Please enter a key according to the format you selected above. A complex, hard-to-guess key is recommended. Check the "Hide" box to hide your password from being displayed on-screen.

III-3-5-2-4. WPA Radius

WPA RADIUS is a combination of WPA encryption and RADIUS user authentication. If you have a RADIUS authentication server, you can authenticate the identity of every wireless client against a user database.

WPA Type	Select from WPA (TKIP), WPA2 (AES) or WPA2 Mixed. WPA2 (AES) is safer than WPA (TKIP), but not supported by all wireless clients. Please make sure your wireless client supports your selection. WPA2 (AES) is recommended followed by WPA2 Mixed if your client does not support WPA2 (AES).
RADIUS Server IP address	Input the IP address of the RADIUS authentication server here.
RADIUS Server Port	Input the port number of the RADIUS authentication server here. The default value is 1812.
RADIUS Server Password	Input the password of the RADIUS authentication server here.

III-3-5-3.WPS

Wi-Fi Protected Setup is a simple way to establish connections between WPS compatible devices. WPS can be activated on compatible devices by pushing a WPS button on the device or from within the device’s firmware/configuration interface. When WPS is activated in the correct manner and at the correct time for two compatible devices, they will automatically connect. PIN code WPS includes the use of a PIN code between the two devices for verification.

WPS

WPS Enable

PIN Function Enable

Wi-Fi Protected Setup Information :

WPS Current Status Configured [Release Configuration](#)

Self Pin Code 34259368

SSID matt

Authentication Mode WPA2 Pre-Shared Key

Passphrase Key 020586mu

WPS via Push Button [Start to Process](#)

WPS via PIN [Start to Process](#)

WPS	Check/uncheck this box to enable/disable WPS.
PIN Function	Check/uncheck this box to enable/disable PIN code WPS.
WPS Current Status	Displays “Configured” or “unConfigured” depending on whether WPS and SSID/security settings for the device have been configured or not, either manually or using the WPS button.
Self PIN Code	Displays the WPS PIN code of the device.
SSID	Displays the SSID of the device.
Authentication Mode	Displays the wireless security authentication mode of the device.
Passphrase Key	Displays the wireless security authentication key.
WPS via Push	Click “Start to Process” to activate WPS on the

Button	access point. WPS will be active for 2 minutes.
WPS via PIN	Enter the wireless client’s PIN code here and click “Start to Process” to activate PIN code WPS. Refer to your wireless client’s documentation if you are unsure of its PIN code.

III-3-6. Schedule

The schedule feature allows you to automate the wireless network for specified times. Check/uncheck the box “Enable Schedule” to enable/disable the wireless scheduling function.



The RG21S/RA21S must have time & date settings initially set to use scheduling.

Schedule

Enable Schedule

Current Schedule Table :

NO.	SSID	Day of Week	Time	Select
1	matt matt5g	Monday Tuesday Wednesday Thursday Friday	07:00-20:00	<input type="checkbox"/>

[Add](#)
[Edit](#)
[Delete Selected](#)
[Delete All](#)

Apply



Wireless scheduling can save energy and increase the security of your network.

1. Check **Enable** and use the **Select, Add, Edit** or **Delete** checkboxes to select and modify schedule(s).
2. When you click **Add**, specify day(s), start time and end time for the schedule using the drop-down menus and click **Apply**.

2.4GHz SSID		5GHz SSID	
<input checked="" type="checkbox"/>	matt	<input checked="" type="checkbox"/>	matt5g

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				

Start Time	End Time
07 : 00	20 : 00

3. Remember to **Apply** your changes and make sure **Enable** is checked.

Schedule

Enable Schedule

Current Schedule Table :

NO.	SSID	Day of Week	Time	Select
1	matt matt5g	Monday Tuesday Wednesday Thursday Friday	07:00-20:00	<input type="checkbox"/>

III-3-7. Firewall



The “Firewall” menu provides access to access control, DMZ and DoS functions to improve the security of your wireless network.

Firewall

The router provides stateful packet inspection (SPI) firewall protection. Only packets matching a known active connection will be allowed by the firewall; others will be rejected.

Enable or Disable Firewall Module Function Enable Disable

Apply

Enable or Disable Firewall Module Function	Enable or disable the Stateful Packet Inspection (SPI) firewall.
---	--

III-3-7-1. Access

Access Control is a security feature that can help to prevent unauthorized users from connecting to your wireless router.

This function allows you to define a list of network devices permitted or denied to connect to the RG21S/RA21S. Devices are each identified by their unique MAC address or IP address. Specific services can also be allowed/denied for IP addresses.

Check/uncheck the “Enable MAC Filtering” and/or “Enable IP Filtering” box to enable/disable MAC filtering and/or IP filtering.

Access

Enable MAC Filtering : Deny Allow

Client PC MAC Address

Comment

Add **Reset**

MAC Filtering table :

NO.	Client PC MAC Address	Comment	Select
1	80:1F:02:9C:8F:FF	filter_comment	<input type="checkbox"/>

Delete Selected **Delete All** **Reset**

Enable IP Filtering Table : Deny Allow

NO.	PC Description	PC IP Address	Client Service	Protocol	Port Range	Select
1	Home	192.168.2.115	WWW E-mail Sending	TCP	TCP Port : 80,3128,8000,8080,8081, 25	<input type="checkbox"/>

Add **Delete Selected** **Delete All** **Reset**

Apply

MAC Filtering:

Enable MAC Filtering	Check the box to enable MAC filtering and select whether to “Deny” or “Allow” access for specified MAC address.
Client PC MAC Address	Enter a MAC address of computer or network device manually without dashes or colons e.g. for MAC address ‘aa-bb-cc-dd-ee-ff’ enter ‘aabbccddeeff’.
Comment	Enter a comment for reference/identification consisting of up to 16 alphanumerical characters.
Add	Click “Add” to add the MAC address to the MAC address filtering table.

MAC address entries will be listed in the table. Select an entry using the “Select” checkbox.

Delete Selected / Delete All	Delete selected or all entries from the table.
-------------------------------------	--

IP Filtering:

Enable IP Filtering	Check the box to enable IP filtering and select whether to “Deny” or “Allow” access for specified IP address.
Add PC	Opens a new window to add a new IP to the list, to deny or allow access/services according to above.

This page allows users to define service limitation of client PC, including IP address and service type.

Client PC Description

Client PC IP Address -

Client Service :

Service Name	Detail Description	Select
WWW	HTTP, TCP Port 80, 3128, 8000, 8080, 8081	<input type="checkbox"/>
E-mail Sending	SMTP, TCP Port 25	<input type="checkbox"/>
News Forums	NNTP, TCP Port 119	<input type="checkbox"/>
E-mail Receiving	POP3, TCP Port 110	<input type="checkbox"/>
Secure HTTP	HTTPS, TCP Port 443	<input type="checkbox"/>
File Transfer	FTP, TCP Port 21	<input type="checkbox"/>
MSN Messenger	TCP Port 1863	<input type="checkbox"/>
Telnet Service	TCP Port 23	<input type="checkbox"/>
AIM	AOL Instant Messenger, TCP Port 5190	<input type="checkbox"/>
NetMeeting	H.323, TCP Port 389,522,1503,1720,1731	<input type="checkbox"/>
DNS	UDP Port 53	<input type="checkbox"/>
SNMP	UDP Port 161, 162	<input type="checkbox"/>
VPN-PPTP	TCP Port 1723	<input type="checkbox"/>
VPN-L2TP	UDP Port 1701	<input type="checkbox"/>
TCP	All TCP Port	<input type="checkbox"/>
UDP	All UDP Port	<input type="checkbox"/>

User Define Service :

Protocol

Port Range ~

Add **Reset** **Cancel**

Client PC Description	Enter a description for reference/identification of up to 16 alphanumeric characters.
Client PC IP address	Enter a starting IP address in the left field and the end IP address in the right field to define a

	range of IP addresses; or enter an IP address in the left field only to define a single IP address.
Service Name	Various services are listed here with a short description. Check/uncheck the box for each service you wish to select.
Protocol	Select protocol "TCP" or "UDP" or "Both" for a service not included in the "Client PC Service" list.
Port Range	Enter the port range for the service not included in the "Client PC Service" list. Enter a single port number e.g. 110, a range of port numbers e.g. 110-120, or multiple port numbers separated by a comma e.g. 110,115,120.
Add	Click "Add" to add selected services or a user defined service to the IP filtering table.

III-3-7-2.DMZ

A Demilitarized Zone (DMZ) is an isolated area in your local network where private IP addresses are mapped to specified Internet IP addresses, allowing unrestricted access to the private IP addresses but not to the wider local network.

You can define a virtual DMZ host here. This is useful for example, if a network client PC cannot run an application properly from behind an NAT firewall, since it opens the client up to unrestricted two-way access.

DMZ

Enable DMZ

Public IP Address: Client PC IP Address:

Dynamic IP Session1 ▼

Static IP

DMZ Table :

NO.	Public IP Address	Client PC IP Address	Select
No data available in table			

Enable DMZ	Check/uncheck the box to enable/disable the device's DMZ function.
Public	Select "Dynamic IP" or "Static IP" here. For "Dynamic IP" select an Internet connection session from dropdown menu. For "Static IP" enter the IP address that you want to map to a specific private IP address.
Client PC	Enter the private IP address that the internet IP address will be mapped to.
Add	Click "Add" to add the client to the "Current DMZ Table".

DMZ entries will be displayed in the table shown below:

Current DMZ Table :

NO	Computer Name	Public IP Address	Client PC IP Address	Select
----	---------------	-------------------	----------------------	--------

Delete Selected/ Delete All	Delete selected or all entries from the table.
--	--

III-3-7-3.DoS

Denial-of-Service (DoS) is a common form of malicious attack against a network. The router's firewall can protect against such attacks.

If you are not familiar with these functions, it is recommended you keep the default settings.

DoS

Ping of Death 5 Ping of Death Packet(S) Per Second Burst 5

Discard Ping From WAN

Port Scan

- NMAP FIN / URG / PSH
- Xmas tree
- Another Xmas tree
- Null scan
- SYN / RST
- SYN / FIN
- SYN (only unreachable ports)

Sync Flood 30 Packet(S) Per Second Burst 30

Ping of Death	Specify the frequency of ping of death packets which will trigger the router's DoS protection function.
Discard Ping from WAN	Check this box and the router will not answer ping requests from the Internet.
Port Scan	Intruders use "port scanners" to detect open Internet IP address ports. Check each type of port scan to prevent.
Sync Flood	Specify the frequency of sync flood packets which will trigger the DoS protection function.

III-3-8. QoS



Quality of Service (QoS) is a feature to manage Internet bandwidth efficiently. Some applications require more bandwidth than others to function properly, and QoS allows you to ensure that sufficient bandwidth is available. Minimum or maximum bandwidth can be guaranteed for a specified application.



QoS can improve the RG21S/RA21S's performance. QoS is recommended to optimize performance for online gaming.

III-3-8-1.QoS

Check/uncheck the box “Enable QoS” to enable/disable the QoS function. Click “Add” to open a new window and setup a QoS rule. The “Current QoS Table” displays all QoS rules.

The screenshot shows the QoS configuration page. At the top left, there is a red header with the text "QoS". Below it, there is a checkbox labeled "Enable QoS". To the right of the checkbox, there are two input fields: "Total Download Bandwidth" and "Total Upload Bandwidth", both with a value of "0" and the unit "kbits". Below these fields, there is a section titled "Current QoS Table :". This section contains a table with the following columns: "Priority", "Rule Name", "Upload Bandwidth", "Download Bandwidth", and "Select". The table is currently empty, with the text "No data available in table" displayed in the center. Below the table, there are six buttons: "Add", "Edit", "Delete Selected", "Delete All", "Move Up", and "Move Down". At the bottom center, there is a "Save Settings" button.

Total Download Bandwidth	Enter your total download bandwidth limit from your Internet service provider (ISP) in kbits.
Total Upload Bandwidth	Enter your total upload bandwidth limit from your Internet service provider (ISP) in kbits.
Add	Opens a new window to add a new QoS rule to the current QoS table.

Rule Name

Bandwidth Kbps

Local IP Address -

Local Port Range

Remote IP Address -

Remote Port Range

Traffic Type

Protocol

Rule Name	Enter a name for the QoS rule for reference/identification.
Bandwidth	<p>Set the bandwidth limits for the QoS rule:</p> <p><input type="text" value="Bandwidth :"/> <input type="text" value="Download"/> <input type="text"/> Kbps <input type="text" value="guarantee"/></p> <p>(1) (2) (3)</p> <p>1. Select “Download” or “Upload” for the QoS rule.</p> <p>2. Enter the bandwidth limit.</p> <p>3. Select whether the bandwidth is a “Guarantee” (minimum) or “Max” (maximum).</p>
Local IP Address	<p>Enter the IP address range to which the QoS rule will be applied.</p> <p>Enter a starting IP address in the left field and the end IP address in the right field to define a range of IP addresses; or enter an IP address in the left field only to define a single IP address.</p>
Local Port Range	<p>Enter the port range to activate the QoS rule.</p> <p>Enter a single port number e.g. 110 or a range of port numbers e.g. 110-120</p>

Remote IP Address	Enter the remote IP address range which will activate the QoS rule. Enter a starting IP address in the left field and the end IP address in the right field to define a range of IP addresses; or enter an IP address in the left field only to define a single IP address.
Remote Port Range	Enter the remote port range to activate the QoS rule. Enter a single port number e.g. 110 or a range of port numbers e.g. 110-120
Traffic Type	Select traffic type as an alternative to specifying a port range above.
Protocol	Select a "TCP" or "UDP" protocol type.
Save	Click 'add' button to add a new QoS rule (detailed instructions will be given below).

QoS rule entries will be listed in the "Current QoS Table" as shown below. Select a rule using the "Select" checkbox.



When using the "Edit" button only one rule can be selected each time.

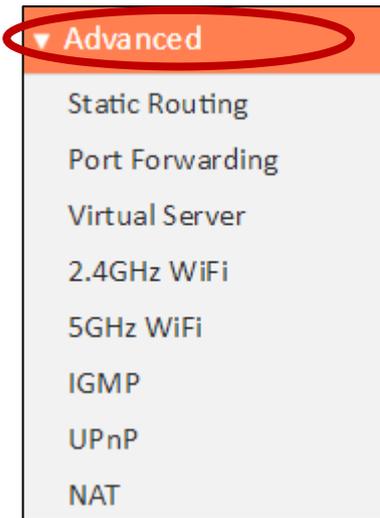


QoS rules will be processed in the order that they are listed i.e. the rule at the top of the list will be applied first, and then the second rule etc. The order can be adjusted using the "Move Up/Down" buttons.

Current QoS Table :				
Priority	Rule Name	Upload Bandwidth	Download Bandwidth	Select
Add Edit Delete Selected Delete All Move Up Move Down				

Edit	Edit a selected rule.
Delete Selected/ Delete All	Delete selected or all entries from the table.
Move Up/Down	Move selected rule up or down the list.

III-3-9. Advanced



Advanced features of the RG21S/RA21S can be configured from the “Advanced” menu.

III-3-9-1. Static Routing

Static routing is a method of configuring path selection of routers, characterized by the absence of communication between routers regarding the current topology of the network. The opposite of static routing is dynamic routing, sometimes also referred to as adaptive routing.

You can configure static routing and manually add routes to the routing table shown below.

Static Routing

Enable Static Routing

Destination LAN IP: Subnet Mask: Gateway: Metric: Interface:

Current Static Routing Table :

NO.	Destination LAN IP	Subnet Mask	Gateway	Metric	Interface	Select
1	8.8.8.8	255.255.255.255	192.168.2.1	2	LAN	<input type="checkbox"/>
2	8.8.4.4	255.255.255.255	192.168.2.1	2	LAN	<input type="checkbox"/>

Enable Static Routing	Check/uncheck the box to enable/disable static routing.
Destination LAN IP	Enter the destination network's IP address.
Subnet Mask	Enter the subnet mask of the destination network.
Default Gateway	Enter the default gateway of the destination network.
Metric	Enter the hop count (the distance between destination network and this broadband router) here.
Interface	Enter the interface which leads to destination network.
Add	Add the route to the current static routing table.

III-3-9-2. Port Forwarding

This function allows you to redirect a single port or consecutive ports of an Internet IP address to the same port of a local IP address. The port number(s) of the Internet IP address and local IP address must be the same.

If the port number of the Internet IP address and local IP address is different, please use the “Virtual Server” function instead.

Port Forwarding

Enable Port Forwarding

Local IP

Type
Both ▼

Port Range
 -

Comment

Add
Reset

Current Port Forwarding Table :

NO.	Local IP	Type	Port Range	Comment	Select
No data available in table					

Delete Selected
Delete All
Reset

Apply

Local IP	Enter the IP address of the computer on the local network.
Type	Select the type of connection, “TCP”, “UDP” or “Both”.
Port Range	Input the starting port number in the left field, and input the ending port number in the right field. If you only want to redirect a single port number, only enter a port number in the left field.
Comment	Enter a comment for reference or identification.

III-3-9-3. Virtual Server

This function allows you to set up an internet service on a local computer, without exposing the local computer to the internet. You can also build various sets of port redirection, to provide various internet services on different local computers via a single internet IP address.

Virtual Server

Enable Virtual Server

Local IP Local Port Type Public Port Comment

 Both ▼

Add **Reset**

Current Virtual Server Table :

NO.	Local IP	Local Port	Type	Public Port	Comment	Select
No data available in table						

Delete Selected **Delete All** **Reset**

Apply

Local IP	Specify the IP address of the computer on your local network.
Local Port	Specify the private port you wish to use on the computer in your local network.
Type	Select the type of Internet Protocol.
Public Port	Specify a public port to access the computer on your local network.
Comment	Enter a comment for reference or identification.
Delete Selected/ Delete All	Delete selected or all entries from the table.

III-3-9-4. 2.4GHz Wireless

These settings are for experienced users only. Please do not change any of the values on this page unless you are already familiar with these functions.

2.4GHz WiFi

Fragment Threshold	<input type="text" value="2346"/>	(256-2346)
RTS Threshold	<input type="text" value="2347"/>	(1-2347)
Beacon Interval	<input type="text" value="100"/>	(20-1000 ms)
DTIM Period	<input type="text" value="1"/>	(1-255)
Data Rate	<input type="text" value="Auto"/>	
N Data Rate	<input type="text" value="Auto"/>	
Channel Bandwidth	<input checked="" type="radio"/> Auto 20/40 MHz <input type="radio"/> 20 MHz	
Preamble Type	<input type="radio"/> Long Preamble <input checked="" type="radio"/> Short Preamble	
CTS Protection	<input checked="" type="radio"/> Enable <input type="radio"/> Disable	
Tx Power	<input type="text" value="100%"/>	

Fragment Threshold	Set the Fragment threshold of the wireless radio. The default value is 2346.
RTS Threshold	Set the RTS threshold of the wireless radio. The default value is 2347.
Beacon Interval	Set the beacon interval of the wireless radio. The default value is 100.
DTIM Period	Set the DTIM period of wireless radio. The default value is 3.
Data Rate	Set the wireless data transfer rate. The default is set to Auto.
N Data Rate	Set the data rate of 802.11n. The default is set to Auto.
Channel Bandwidth	Select wireless channel width (bandwidth used by wireless signals from the device) – the recommended value is Auto 20/40MHz.

Preamble Type	Set the wireless radio preamble type. The default value is "Short Preamble".
CTS Protection	Enabling this setting will reduce the chance of radio signal collisions between 802.11b and 802.11g wireless access points. It's recommended to set this option to "Auto".
Tx Power	Set the power output of the wireless radio. You may not require 100% output power. Setting a lower power output can enhance security since potentially malicious/unknown users in distant areas will not be able to access your signal.

III-3-9-5. 5GHz Wireless

These settings are for experienced users only. Please do not change any of the values on this page unless you are already familiar with these functions.

5GHz WiFi

Fragment Threshold	<input type="text" value="2346"/>	(256-2346)
RTS Threshold	<input type="text" value="2347"/>	(1-2347)
Beacon Interval	<input type="text" value="100"/>	(20-1000 ms)
DTIM Period	<input type="text" value="1"/>	(1-255)
Data Rate	<input style="border: none; background-color: #f0f0f0; width: 100%;" type="text" value="Auto"/>	
N Data Rate	<input style="border: none; background-color: #f0f0f0; width: 100%;" type="text" value="Auto"/>	
Channel Bandwidth	<input style="border: none; background-color: #f0f0f0; width: 100%;" type="text" value="Auto 20/40/80 MHz"/>	
Preamble Type	<input type="radio"/> Long Preamble <input checked="" type="radio"/> Short Preamble	
Tx Power	<input style="border: none; background-color: #f0f0f0; width: 100%;" type="text" value="100%"/>	

Fragment Threshold	Set the Fragment threshold of the wireless radio. The default value is 2346.
RTS Threshold	Set the RTS threshold of the wireless radio. The default value is 2347.
Beacon Interval	Set the beacon interval of the wireless radio. The default value is 100.
DTIM Period	Set the DTIM period of wireless radio. The default value is 3.
Data Rate	Set the wireless data transfer rate. The default is set to Auto.
N Data Rate	Set the data rate of 802.11n. The default is set to Auto.
Channel Bandwidth	Select wireless channel width (bandwidth used by wireless signals from the device) – the recommended value is 20/40/80MHz.
Preamble Type	Set the wireless radio preamble type. The default value is “Short Preamble”.

Tx Power	Set the power output of the wireless radio. You may not require 100% output power. Setting a lower power output can enhance security since potentially malicious/unknown users in distant areas will not be able to access your signal.
-----------------	---

III-3-9-6. IGMP

IGMP is a communications protocol used to establish multicast group memberships. It allows for a more efficient use of resources and better performance for applications such as IPTV video streaming.

IGMP

IGMP Proxy Enable Disable

Apply

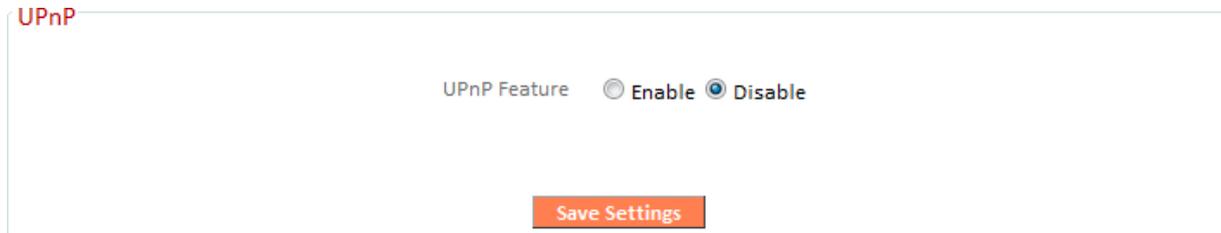
IGMP Proxy	IGMP proxy enables intelligent multicast forwarding based on IGMP snooping information. Select enable or disable.
-------------------	---



It is recommended to set "IGMP Proxy" to "Enable".

III-3-9-7. UPnP

Universal plug-and-play (UPnP) is a set of networking protocols which enables network devices to communicate and automatically establish working configurations with each other. Select “Enable” or “Disable”.



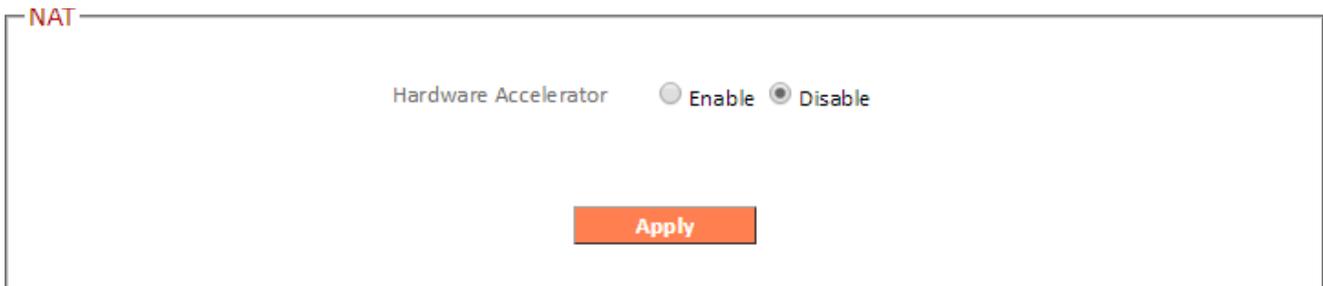
UPnP

UPnP Feature Enable Disable

Save Settings

III-3-9-8. NAT

Enable or disable NAT (Network Address Translation) hardware acceleration for better network performance on fast connections.

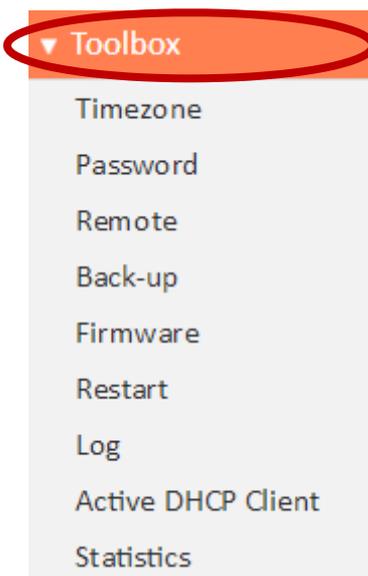


NAT

Hardware Accelerator Enable Disable

Apply

III-3-10. Toolbox



Various administrative functions can be accessed from the “Administration” menu.

III-3-10-1. Time Zone

Setup time zone for your RG21S/RA21S.

Timezone

Set Time Zone: (GMT-06:00)Central Time (US & Canada) ▼

Time Server Address: europe.pool.ntp.org

Daylight Saving: Enable

January ▼ 1 ▼ To January ▼ 1 ▼

Apply

Set Time Zone	Select the time zone of your country or region.
Time Server Address	The travel router supports NTP (Network Time Protocol) for automatic time and date setup. Input the host name of the IP server manually.
Daylight Saving	If your country/region uses daylight saving time, please check the “Enable” box, and select the start and end date.

III-3-10-2. Password

You can change the password used to login to the browser-based configuration interface here. It is advised to do so for security purposes.



Please make a note of the new password. In the event that you forget the password and are unable to login to the browser based configuration interface, see I-5. Reset to factory default settings for how to reset the device.

Password

Current Password

New Password

Confirmed Password

Current Password	Enter your current password.
New Password	Enter your new password.
Confirmed Password	Confirm your new password.

III-3-10-3. Remote

Check “Enable” to enable the remote access feature and then enter the appropriate values.

Remote Access

Host IP Address

Port

Enabled

[Save Settings](#)

Host IP Address	Specify the IP address which is allowed remote access.
Port	Specify a port number (0–65535) used for remote access.

III-3-10-4. Backup/Restore

Back-up

Backup Settings	<input type="button" value="Save"/>	
Restore Settings	<input type="button" value="Choose File"/> No file chosen	<input type="button" value="Upload"/>
Restore to Factory Default	<input type="button" value="Reset"/>	

Backup Settings	Click "Save" to save the current settings on your computer as config.bin file.
Restore Settings	Click "Browse" to find a previously saved config.bin file and then click "Upload" to replace your current settings.
Restore to Factory Default	Click "Reset" to restore settings to the factory default. A pop-up window will appear and ask you to confirm and enter your log in details. Enter your username and password and click "Ok". See below for more information.

III-3-10-5. Firmware

The firmware page allows you to upgrade the system firmware to a more recent version. You can download the latest firmware from the Edimax website and upgrade manually using the **Choose File** button. After the upgrade, the system will restart.



Do not switch off or disconnect the device during a firmware upgrade, as this could damage the device. It is recommended that you use a wired Ethernet connection for a firmware upgrade and that you backup your existing firmware before upgrading.

Firmware

Choose File No file chosen

Apply

III-3-10-6. Restart

In the event that the router malfunctions or is not responding, then it is recommended that you restart the device.

Restart

In the event that the system stops responding correctly or stops functioning, you can perform a system restart. Your settings will not be changed. To restart, click on the APPLY button below. You will be asked to confirm your decision. The restart will be complete when the Internet LED light stops blinking.

Apply

III-3-10-7. Log

You can view the system log here.

Log

```
2016/08/04 16:06:20 [SYSTEM]: [S3]: [admin]: WLAN[5G], Best channel selection sti
2016/08/04 16:06:07 [SYSTEM]: [S3]: [admin]: WLAN[2.4G], Skip Best channel selec
2016/08/04 15:36:42 [SYSTEM]: [S3]: [admin]: DHCP Server, Sending ACK of 192.168
2016/08/04 15:36:42 [SYSTEM]: [S3]: [admin]: DHCP Server, Sending OFFER of 192.168
2016/08/04 15:36:20 [SYSTEM]: [S3]: [admin]: WLAN[5G], Best channel selection sti
2016/08/04 15:36:07 [SYSTEM]: [S3]: [admin]: WLAN[2.4G], Skip Best channel selec
2016/08/04 15:06:20 [SYSTEM]: [S3]: [admin]: WLAN[5G], Best channel selection sti
2016/08/04 15:06:07 [SYSTEM]: [S3]: [admin]: WLAN[2.4G], Skip Best channel selec
2016/08/04 14:40:41 [SYSTEM]: [S3]: [admin]: UPnP, Start
```

Save

Clear

Refresh

Save	Click “Save” to save the log on your computer as .txt file.
Clear	Click “Clear” to clear/erase the existing log.
Refresh	Click “Refresh” to refresh the log and update any activity.

III-3-10-8. Active DHCP Client

Information about active DHCP clients is shown in the table, which displays the DHCP server assigned IP address, MAC address and time expired for each computer or device on the local network.

Your device’s DHCP server can be configured to assign static (fixed) IP addresses to specified network devices, identified by their unique MAC address.

Current Static DHCP Table

Enable Static DHCP IP

IP Address MAC Address **Add**

NO.	IP Address	MAC Address	Select
No data available in table			

Delete Selected **Delete All**

Apply

Enable Static DHCP IP	Enable/disable static DHCP leases. This must be enabled in order to assign any network device a static IP address.
IP Address	Assign a fixed IP address for the specified network device here.
MAC Address	Enter the specified network device’s MAC address here.
Add	Add the information to the “Static DHCP Leases Table”.
Clear	Clear the MAC address and IP address fields.
Delete Selected / Delete All	Delete selected or all entries from the table.

Active DHCP Client

IP Address	Hostname	MAC Address	Expiration Time
192.168.2.100	Chromecast	A4:77:33:1E:0C:47	Forever
192.168.2.101		74:DA:38:8F:F5:02	Forever
192.168.2.103	android-f2a31148b00	F8:A9:D0:0B:7D:A8	Forever
192.168.2.104	android-3f038872981	BC:EE:7B:4B:FA:3A	Forever
192.168.2.105	YotaPhone-fbe147d3d	28:C6:71:02:AB:85	Forever
192.168.2.106		E4:CE:8F:2F:06:B8	89 days 13:39:52

Refresh

III-3-10-9. Statistics

Displays sent and received packet network statistics.

Statistics

2.4GHz Wireless	Sent Packets	36553
	Received Packets	27058
5GHz Wireless	Sent Packets	2924
	Received Packets	756
Ethernet LAN	Sent Packets	3225
	Received Packets	0
Ethernet WAN	Sent Packets	25951
	Received Packets	34267

Refresh

IV. Appendix

IV-1. Configuring your IP address

For first time access to the URL ***http://edimax.setup*** please ensure your computer is set to use a dynamic IP address. This means your computer can obtain an IP address automatically from a DHCP server. You can check if your computer is set to use a dynamic IP address by following [IV-1-1. How to check that your computer uses a dynamic IP address.](#)

Static IP users can also temporarily modify your computer's IP address to be in the same IP address subnet e.g. **192.168.2.x (x = 3 – 254)** as the RG21S/RA21S in order to access ***http://edimax.setup***.



The RG21S/RA21S's default IP address is 192.168.2.1.

The procedure for modifying your IP address varies across different operating systems; please follow the guide appropriate for your operating system in [IV-1-2. How to modify the IP address of your computer.](#)



Static IP users please make a note of your static IP before you change it.

You can assign a new IP address to the device which is within the subnet of your network during setup or using the browser based configuration interface (refer to [III-3-4. LAN](#)). Then you can access the URL ***http://edimax.setup*** in future without modifying your IP address.



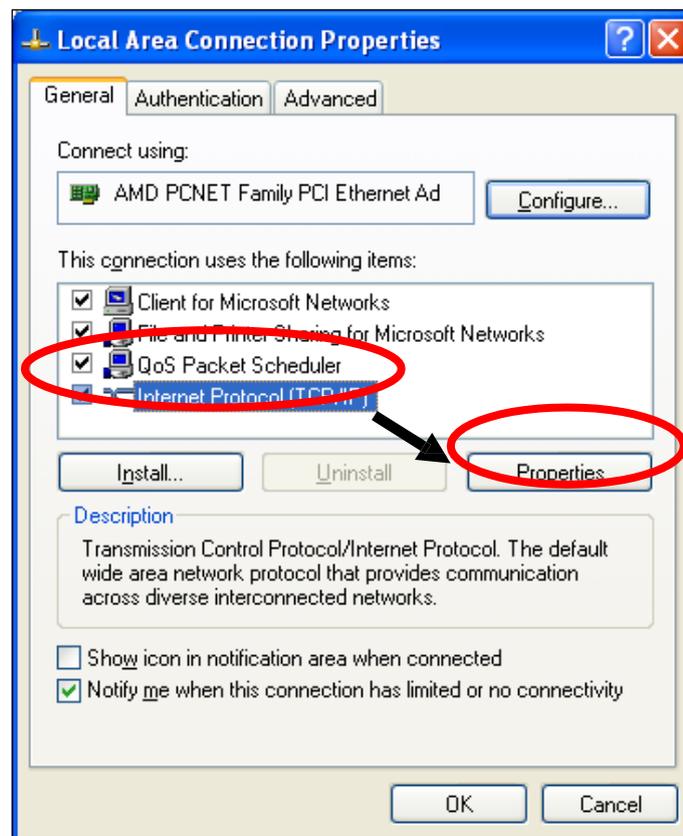
Please remember to change your IP address back to its original value after the device is properly configured.

IV-1-1. How to check that your computer uses a dynamic IP address

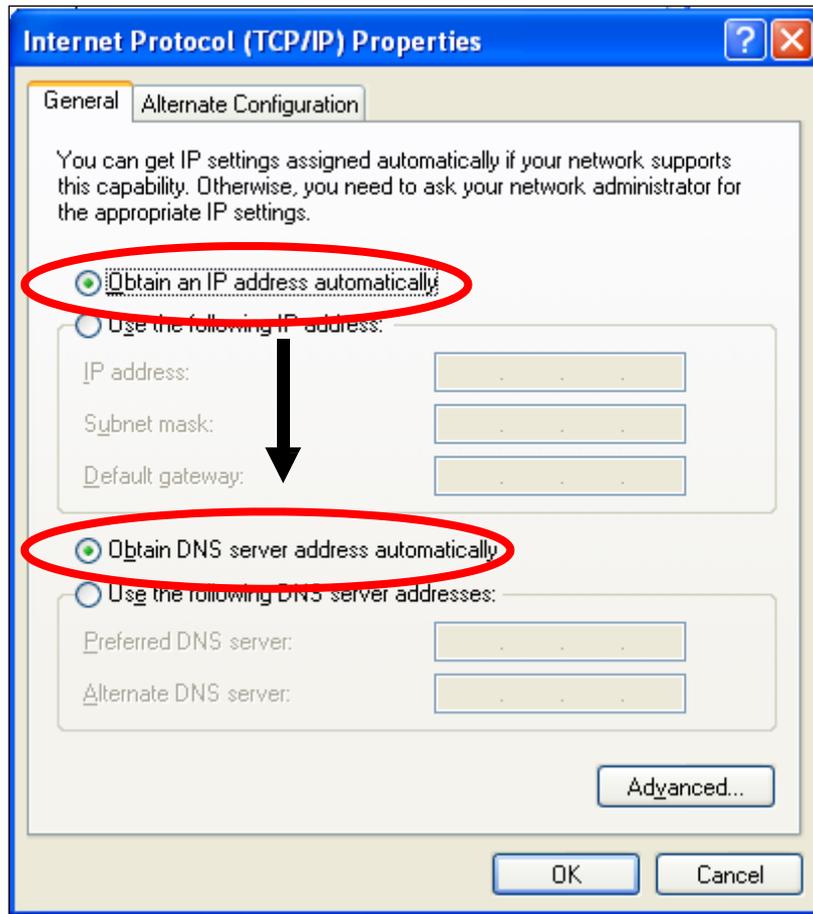
Please follow the instructions appropriate for your operating system.

IV-1-1-1. Windows XP

1. Click the “Start” button (it should be located in the lower-left corner of your computer), then click “Control Panel”. Double-click the “Network and Internet Connections” icon, click “Network Connections”, and then double-click “Local Area Connection”. The “Local Area Connection Status” window will then appear, click “Properties”.

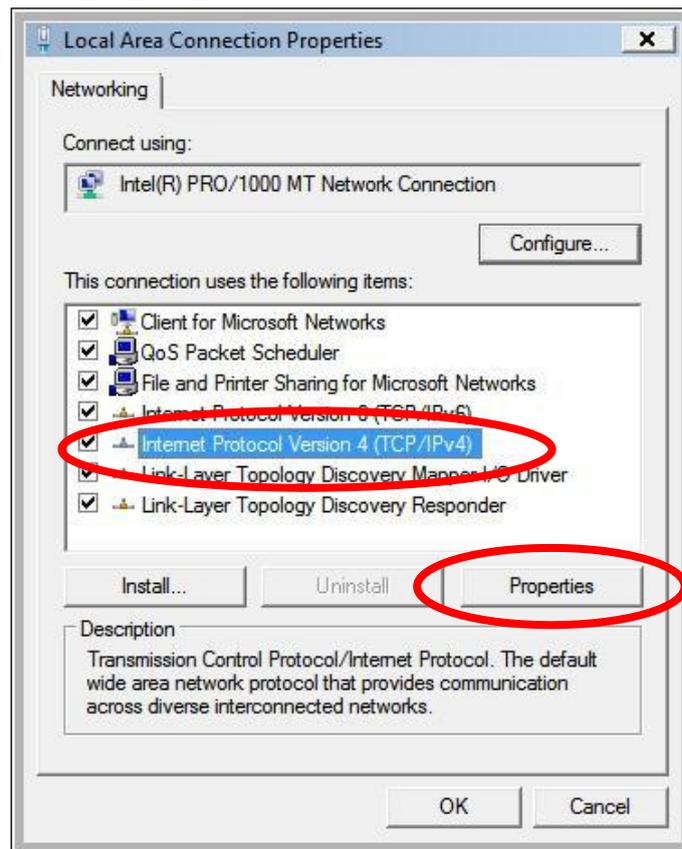


2. “Obtain an IP address automatically” and “Obtain DNS server address automatically” should be selected.

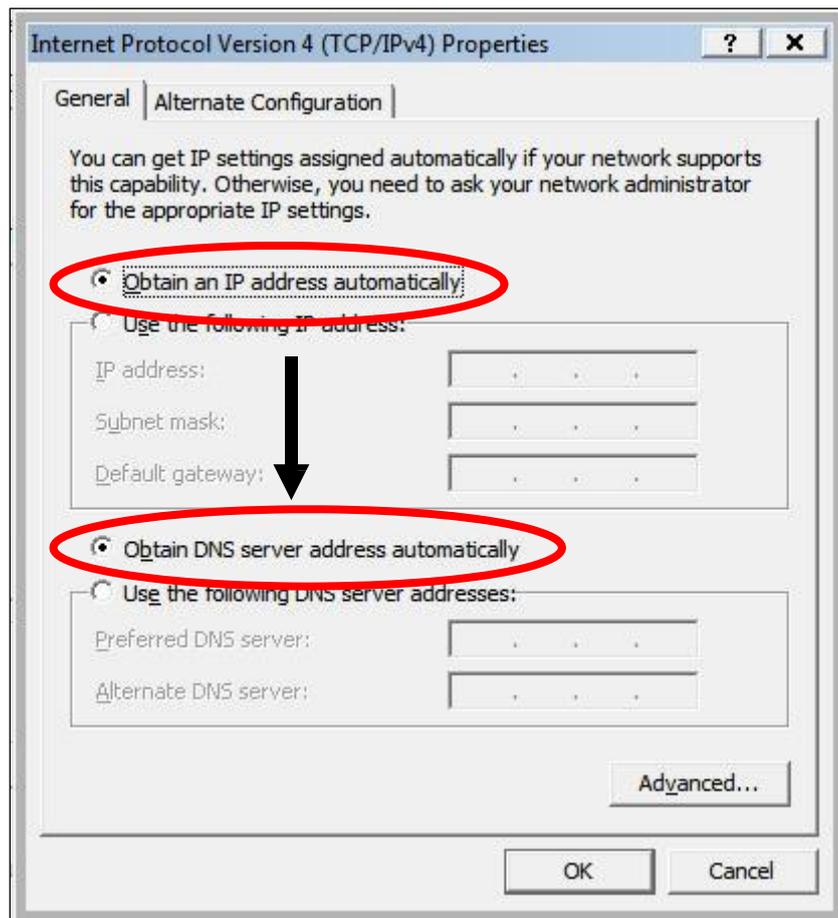


IV-1-1-2. Windows Vista

1. Click the “Start” button (it should be located in the lower-left corner of your computer), then click “Control Panel”. Click “View Network Status and Tasks”, then click “Manage Network Connections”. Right-click “Local Area Network”, then select “Properties”. The “Local Area Connection Properties” window will then appear, select “Internet Protocol Version 4 (TCP / IPv4)”, and then click “Properties”.

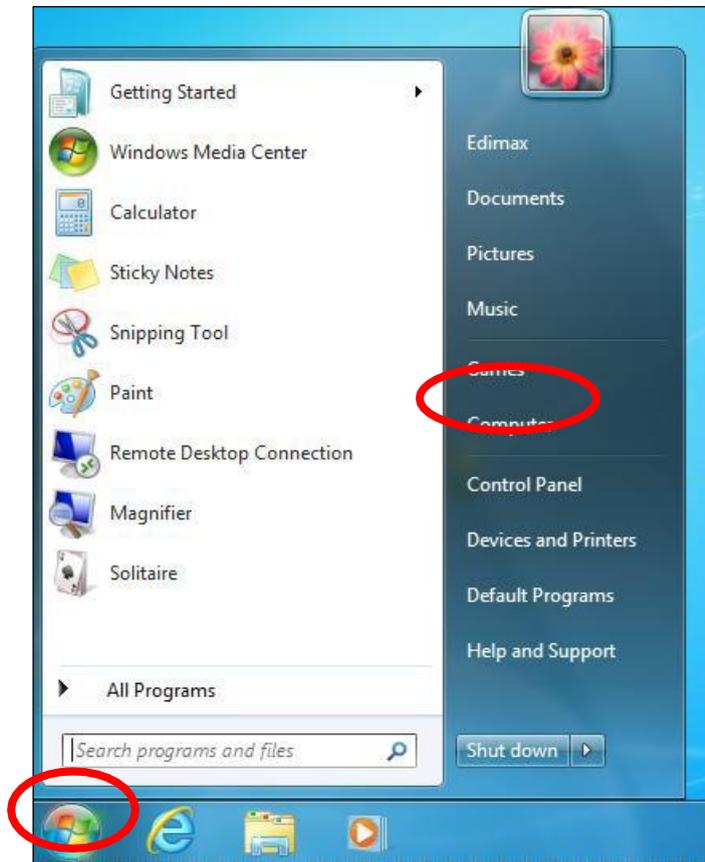


2. Select “Obtain an IP address automatically” and “Obtain DNS server address automatically” should be selected.



IV-1-1-3. Windows 7

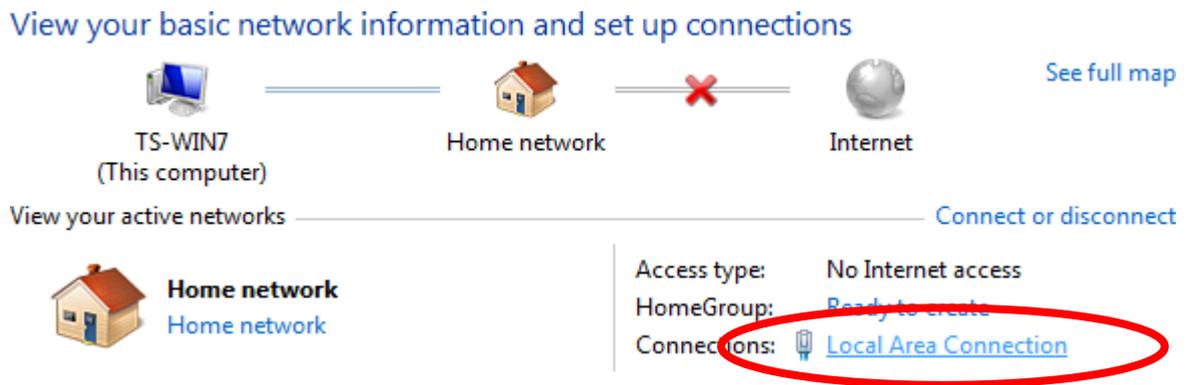
1. Click the “Start” button (it should be located in the lower-left corner of your computer), then click “Control Panel”.



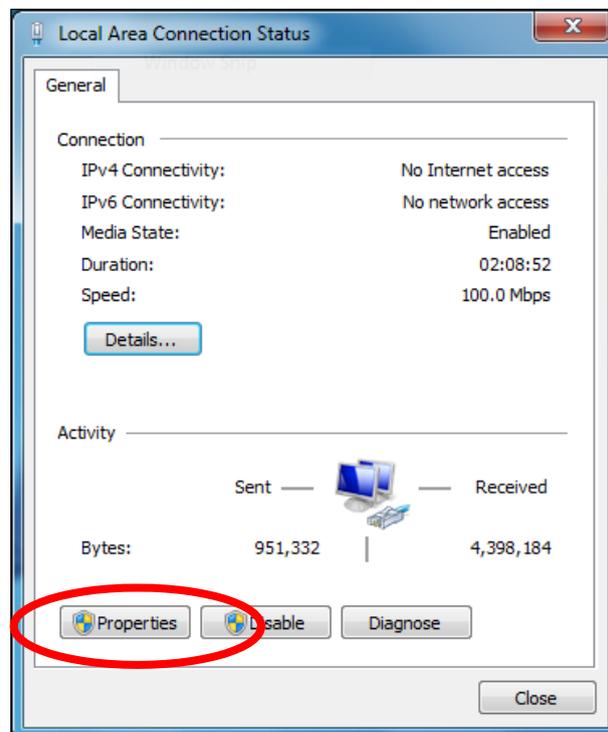
2. Under “Network and Internet” click “View network status and tasks”.



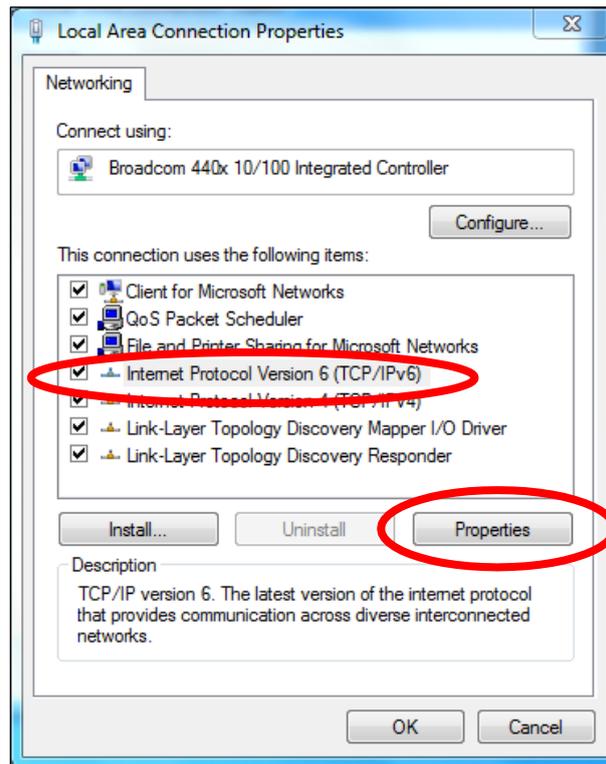
3. Click "Local Area Connection".



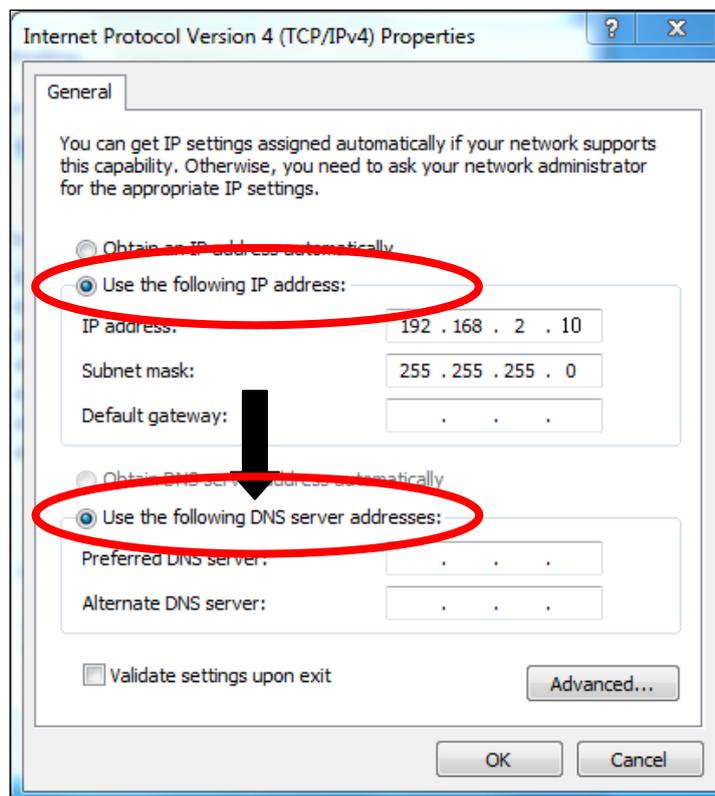
4. Click "Properties".



5. Select “Internet Protocol Version 4 (TCP/IPv4)” and then click “Properties”.

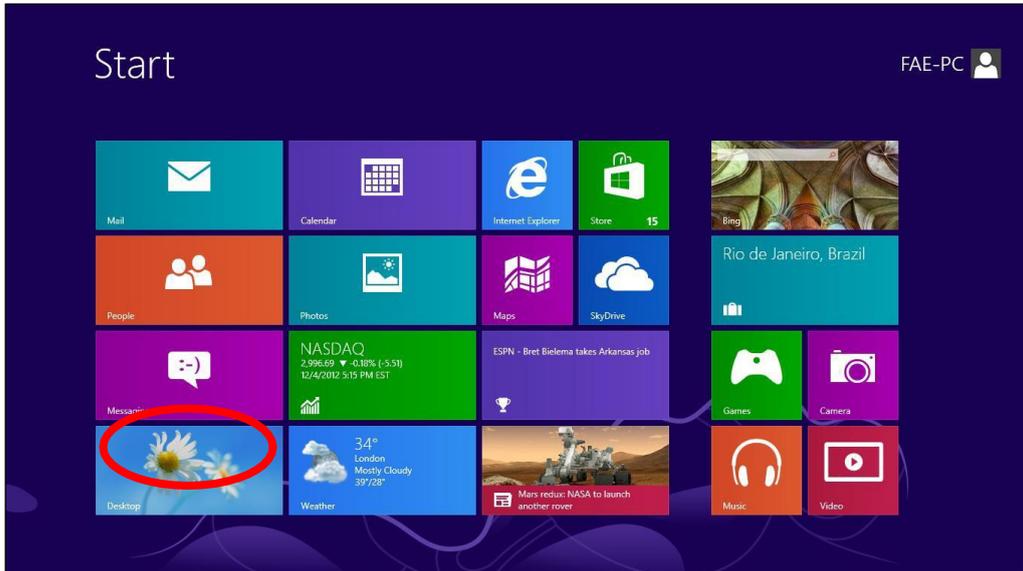


6. Select “Obtain an IP address automatically” and “Obtain DNS server address automatically” should be selected.

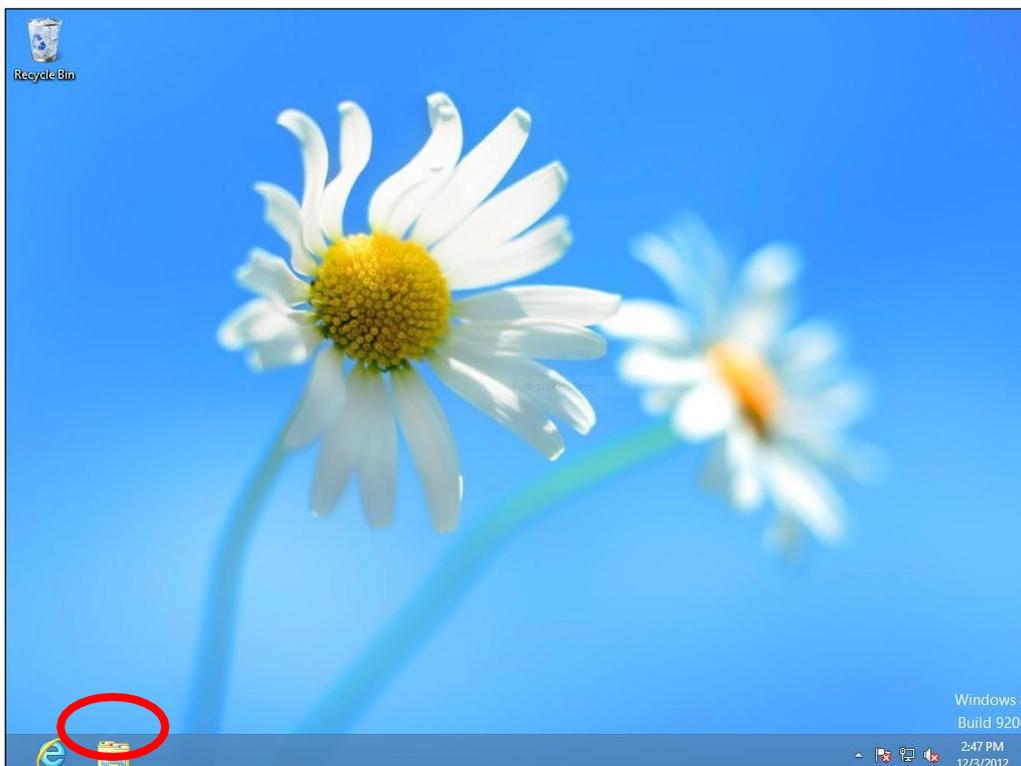


IV-1-1-4. Windows 8

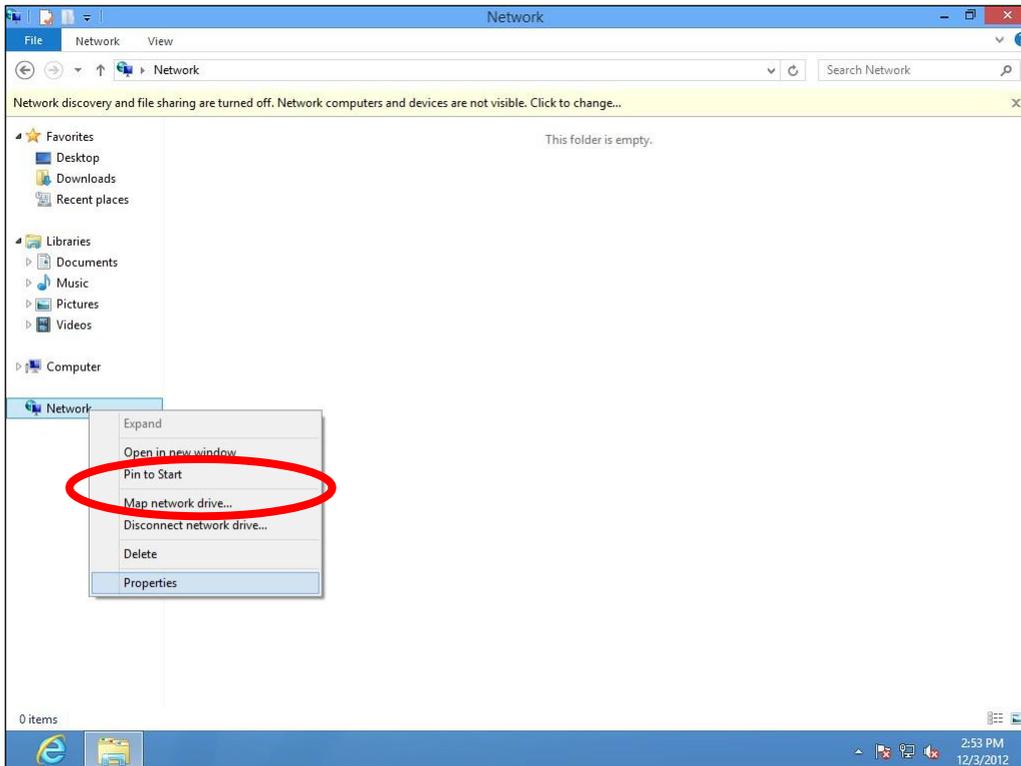
1. From the Windows 8 Start screen, you need to switch to desktop mode. Move your cursor to the bottom left of the screen and click.



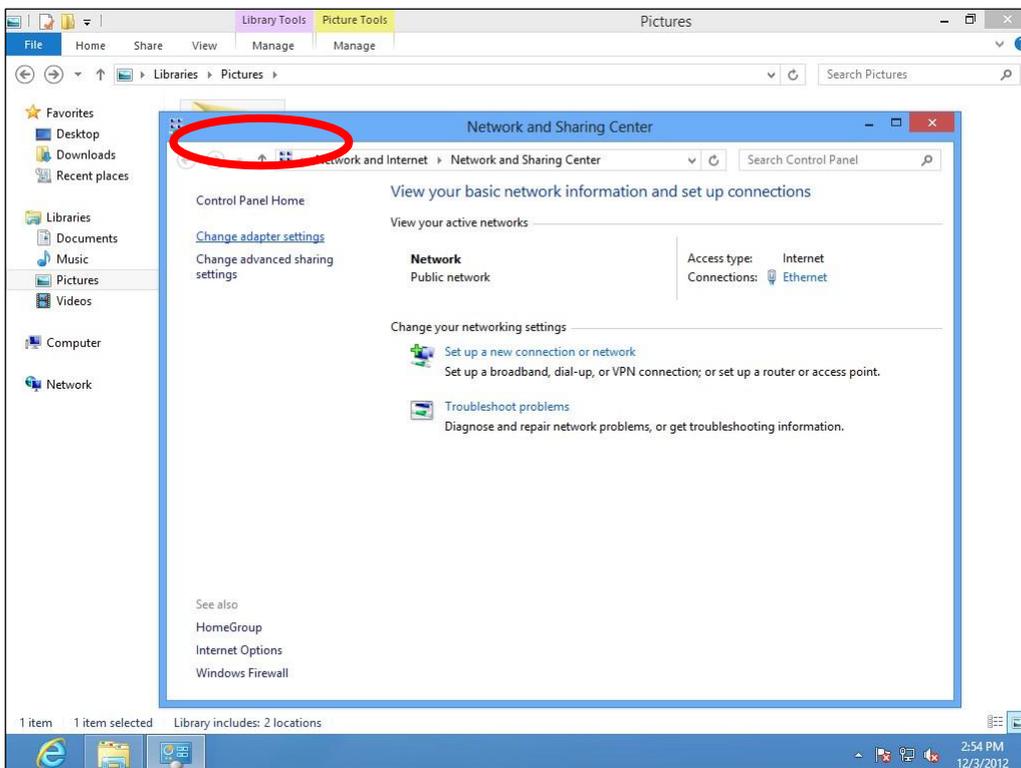
2. In desktop mode, click the File Explorer icon in the bottom left of the screen, as shown below.



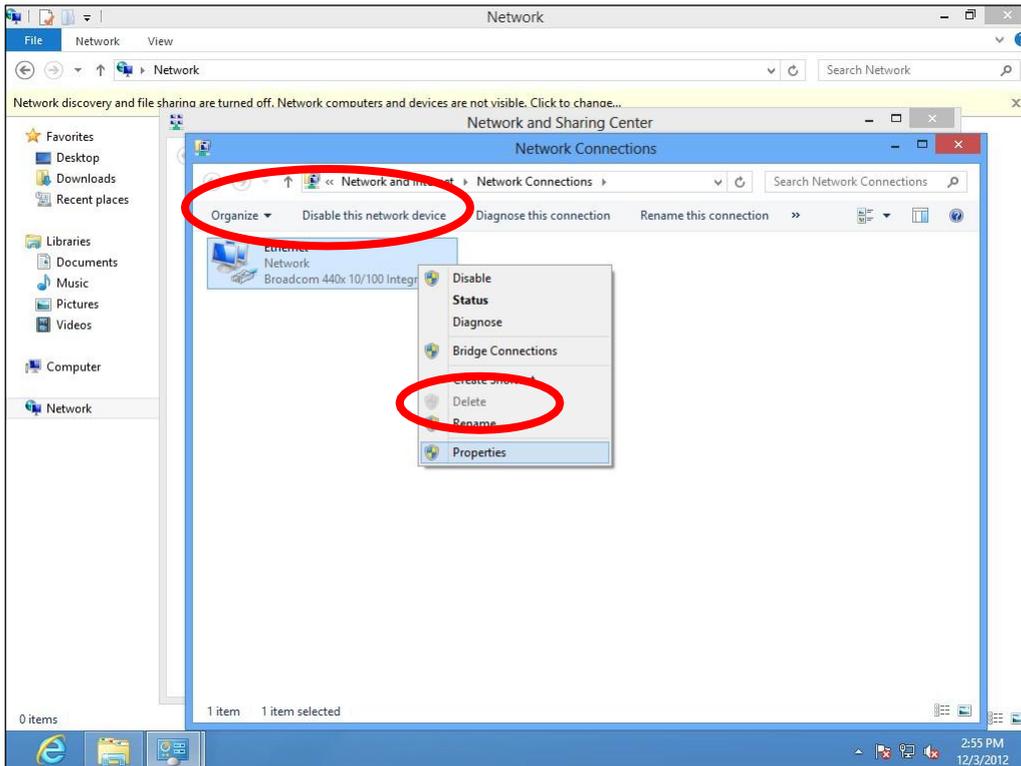
3. Right click “Network” and then select “Properties”.



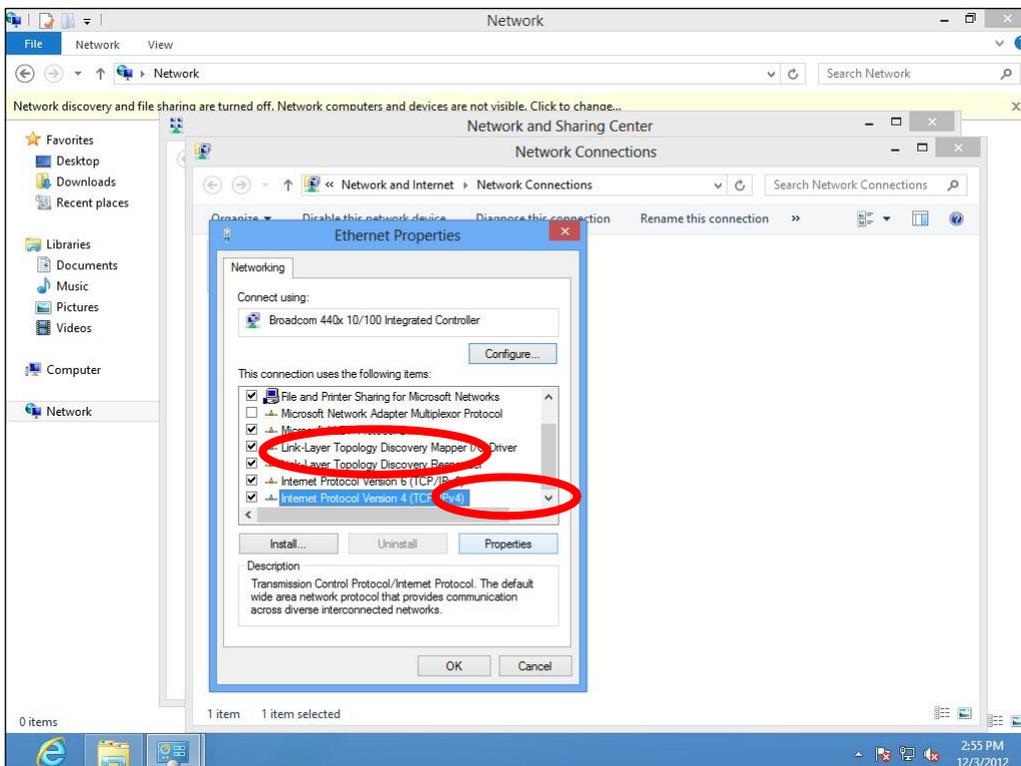
4. In the window that opens, select “Change adapter settings” from the left side.



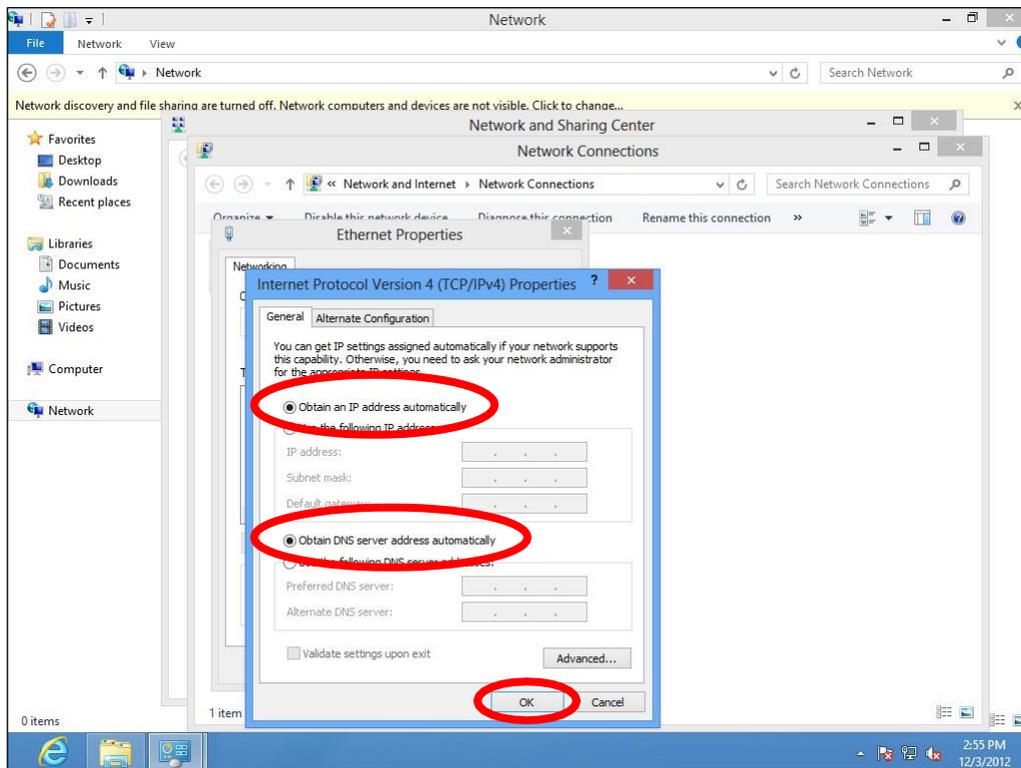
5. Choose your connection and right click, then select “Properties”.



6. Select “Internet Protocol Version 4 (TCP/IPv4)” and then click “Properties”.



7. Select “Obtain an IP address automatically” and “Obtain DNS server address automatically” should be selected.



IV-1-1-5. Mac OS

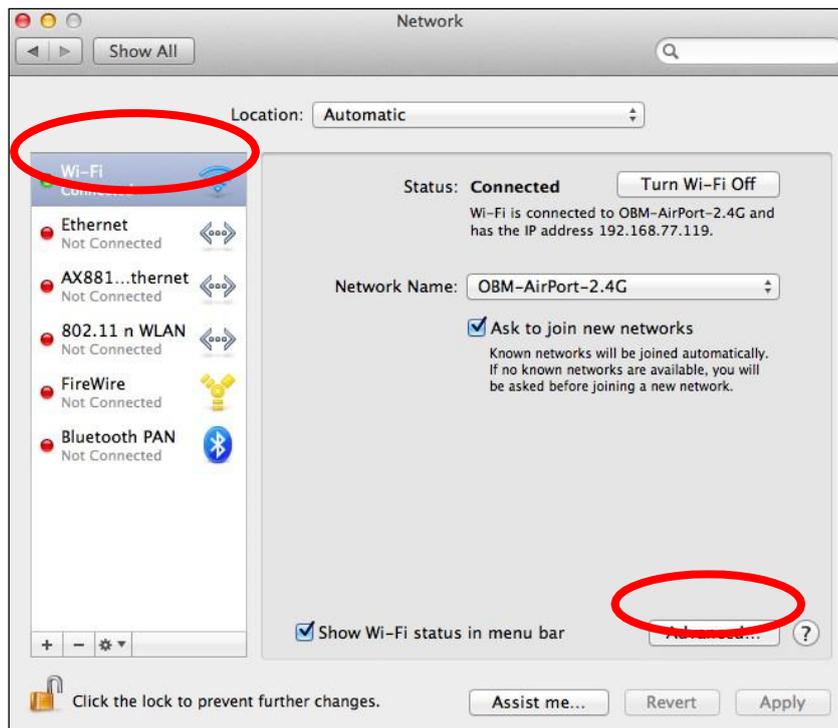
1. Have your Macintosh computer operate as usual, and click on “System Preferences”.



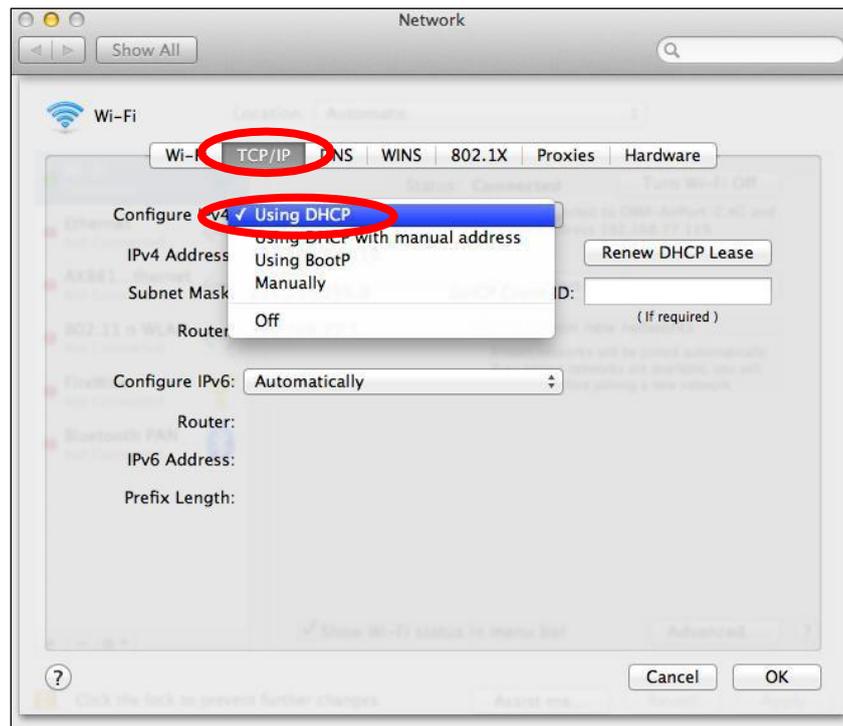
2. In System Preferences, click on “Network”.



3. Click on “Wi-Fi” in the left panel and then click “Advanced” in the lower right corner.



4. Select "TCP/IP" from the top menu and "Using DHCP" in the drop down menu labeled "Configure IPv4" should be selected.



IV-1-2. How to modify the IP address of your computer

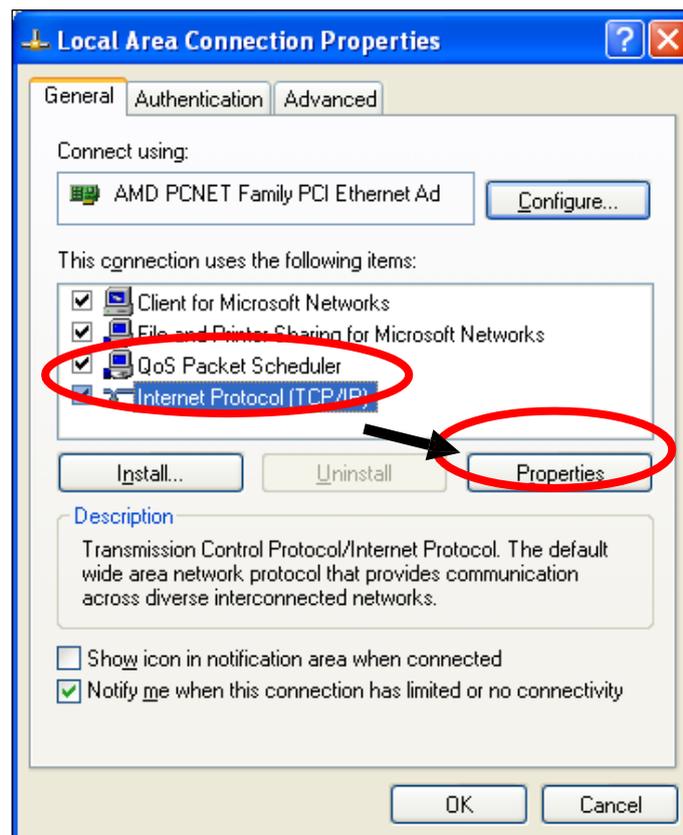
Please follow the instructions appropriate for your operating system. In the following examples we use the IP address **192.168.2.10** though you can use any IP address in the range **192.168.2.x (x = 3 – 254)** in order to access iQ Setup/browser based configuration interface.



Please make a note of your static IP before you change it.

IV-1-2-1. Windows XP

1. Click the “Start” button (it should be located in the lower-left corner of your computer), then click “Control Panel”. Double-click the “Network and Internet Connections” icon, click “Network Connections”, and then double-click “Local Area Connection”. The “Local Area Connection Status” window will then appear, click “Properties”.



2. Select “Use the following IP address” and “Use the following DNS server addresses”, then input the following values:



Your existing static IP address will be displayed in the “IP address” field before you replace it. Please make a note of this IP address, subnet mask, default gateway and DNS server addresses.

IP address: 192.168.2.10

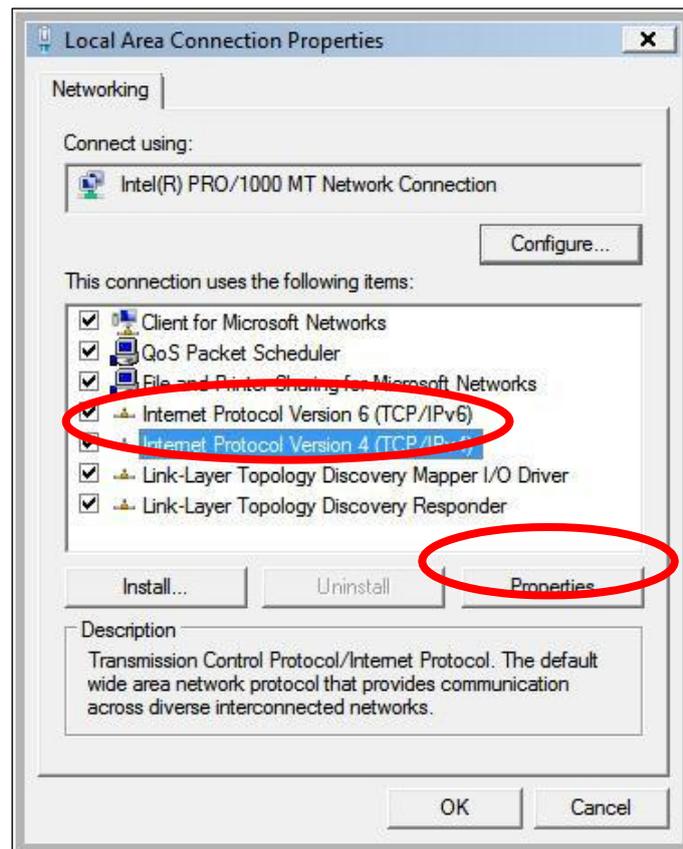
Subnet Mask: 255.255.255.0

Preferred DNS Server: 192.168.2.1

Click 'OK' when finished.

IV-1-2-2. Windows Vista

1. Click the “Start” button (it should be located in the lower-left corner of your computer), then click “Control Panel”. Click “View Network Status and Tasks”, then click “Manage Network Connections”. Right-click “Local Area Network”, then select “Properties”. The “Local Area Connection Properties” window will then appear, select “Internet Protocol Version 4 (TCP / IPv4)”, and then click “Properties”.



2. Select “Use the following IP address” and “Use the following DNS server addresses”, then input the following values:

 ***Your existing static IP address will be displayed in the “IP address” field before you replace it. Please make a note of this IP address, subnet mask, default gateway and DNS server addresses.***

IP address: 192.168.2.10

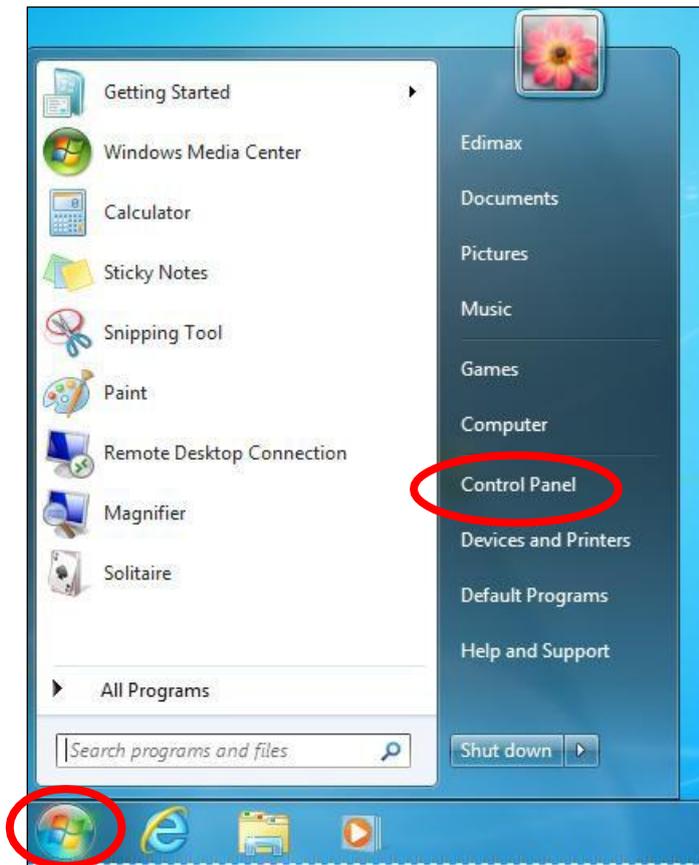
Subnet Mask: 255.255.255.0

Preferred DNS Server: 192.168.2.1

Click ‘OK’ when finished.

IV-1-2-3. Windows 7

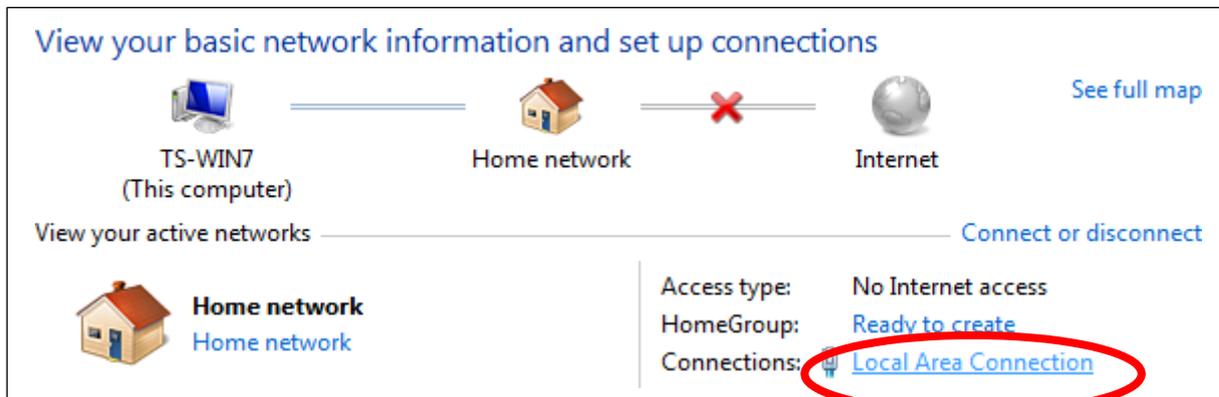
1. Click the “Start” button (it should be located in the lower-left corner of your computer), then click “Control Panel”.



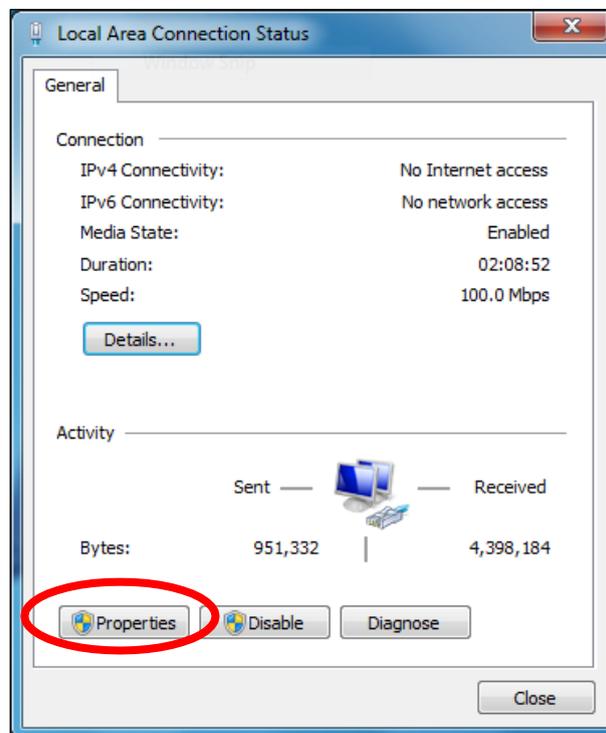
2. Under “Network and Internet” click “View network status and tasks”.



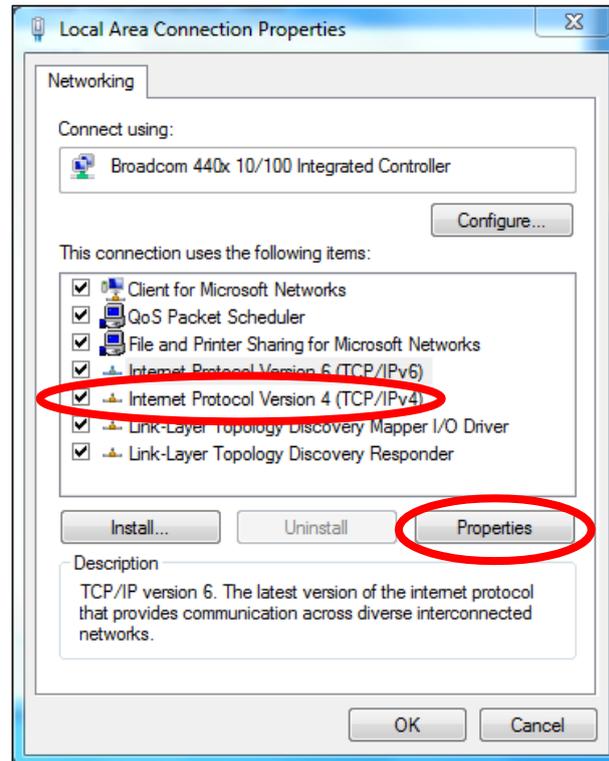
3. Click "Local Area Connection".



4. Click "Properties".



5. Select “Internet Protocol Version 4 (TCP/IPv4) and then click “Properties”.



6. Select “Use the following IP address” and “Use the following DNS server addresses”, then input the following values:

 ***Your existing static IP address will be displayed in the “IP address” field before you replace it. Please make a note of this IP address, subnet mask, default gateway and DNS server addresses.***

IP address: 192.168.2.10

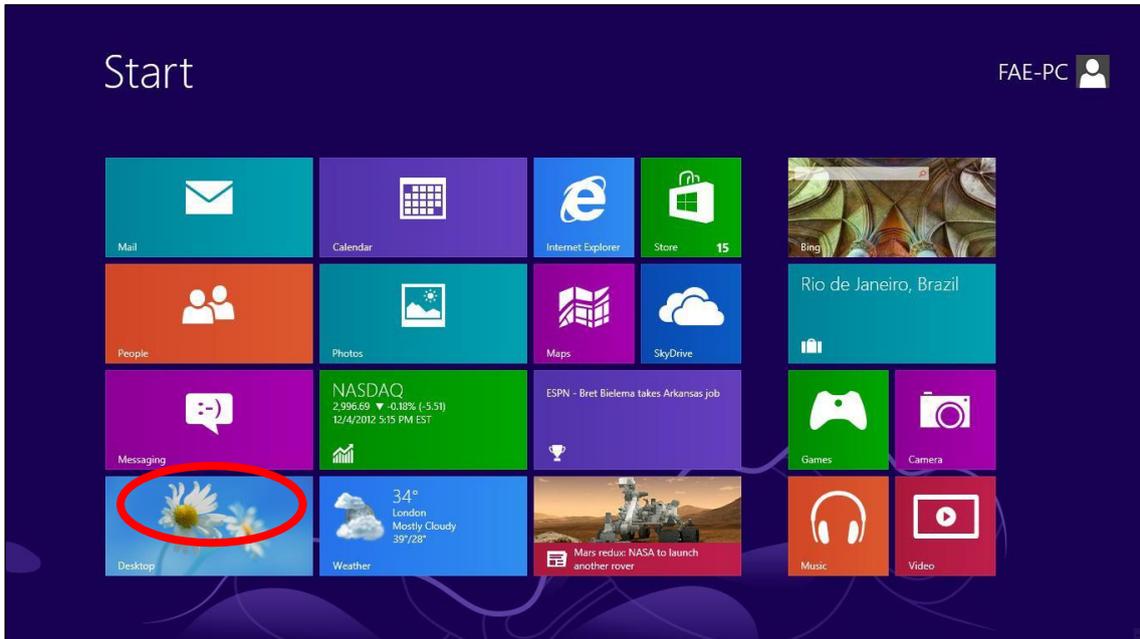
Subnet Mask: 255.255.255.0

Preferred DNS Server: 192.168.2.1

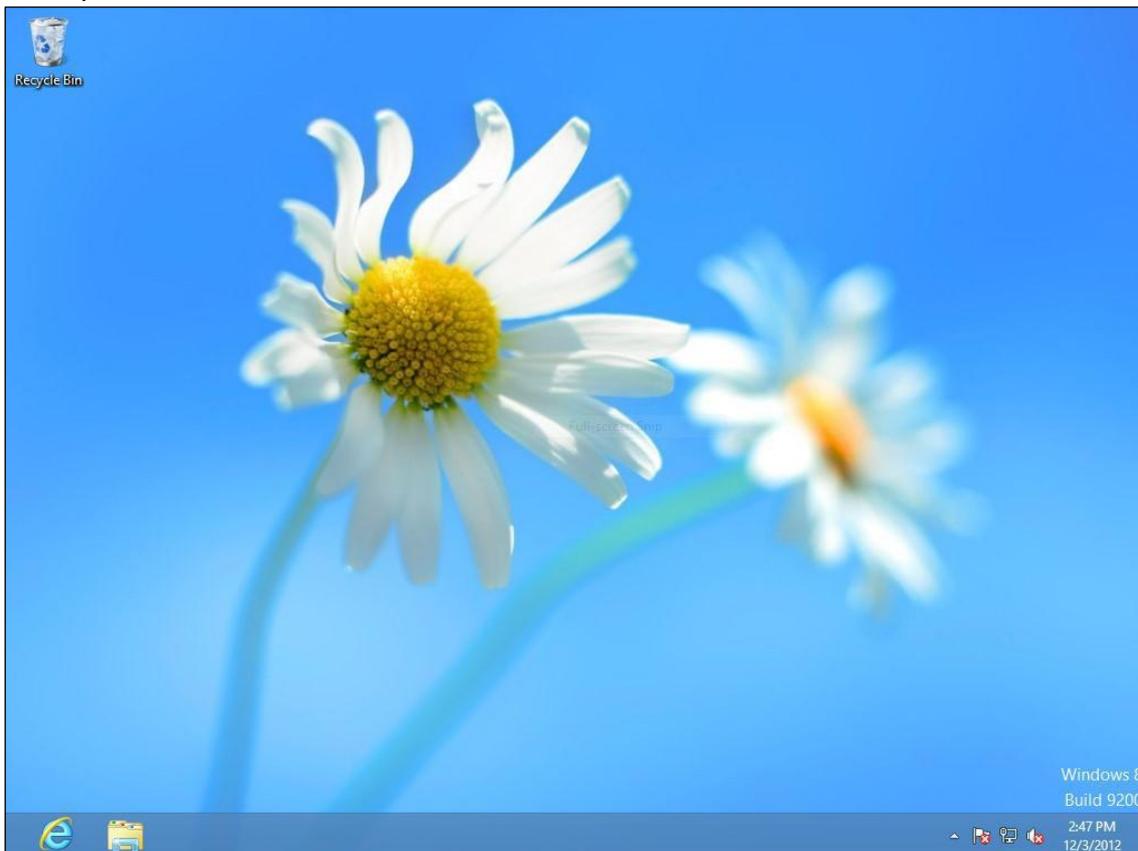
Click ‘OK’ when finished.

IV-1-2-4. Windows 8

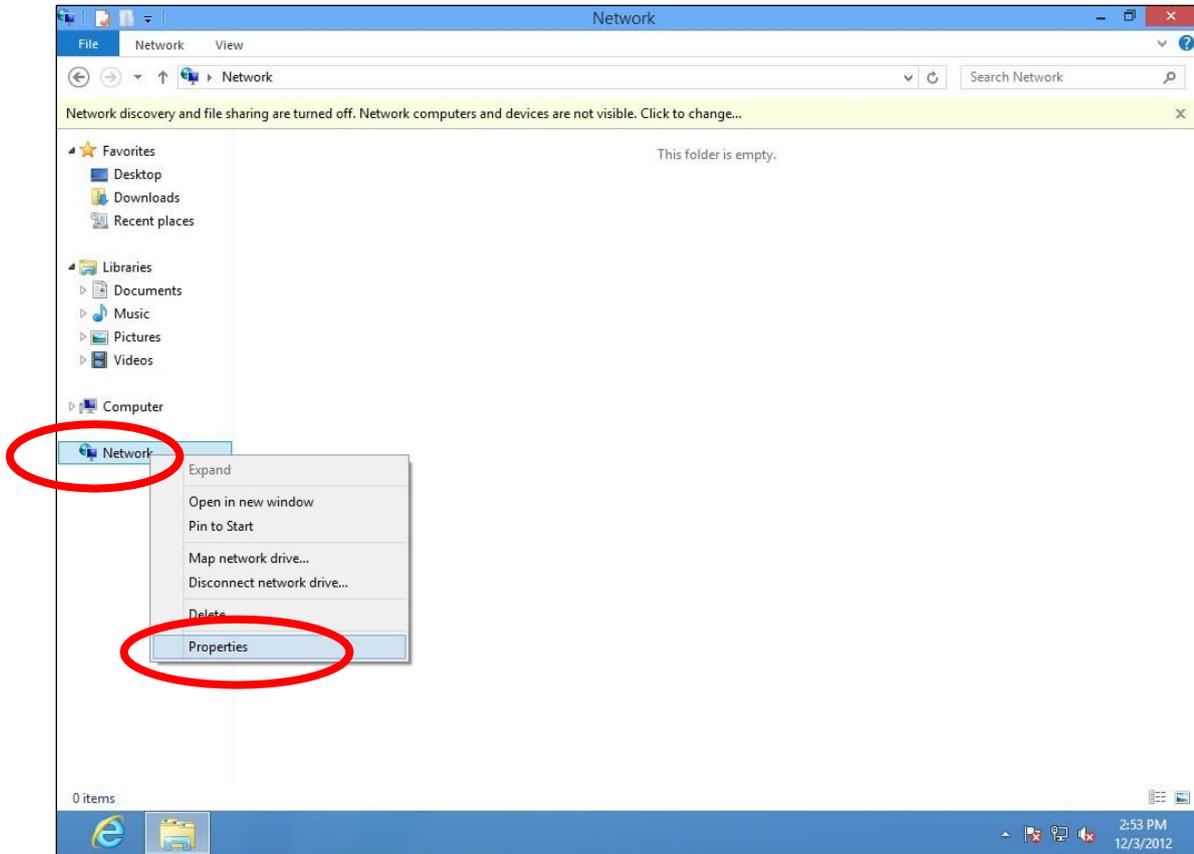
1. From the Windows 8 Start screen, you need to switch to desktop mode. Move your cursor to the bottom left of the screen and click.



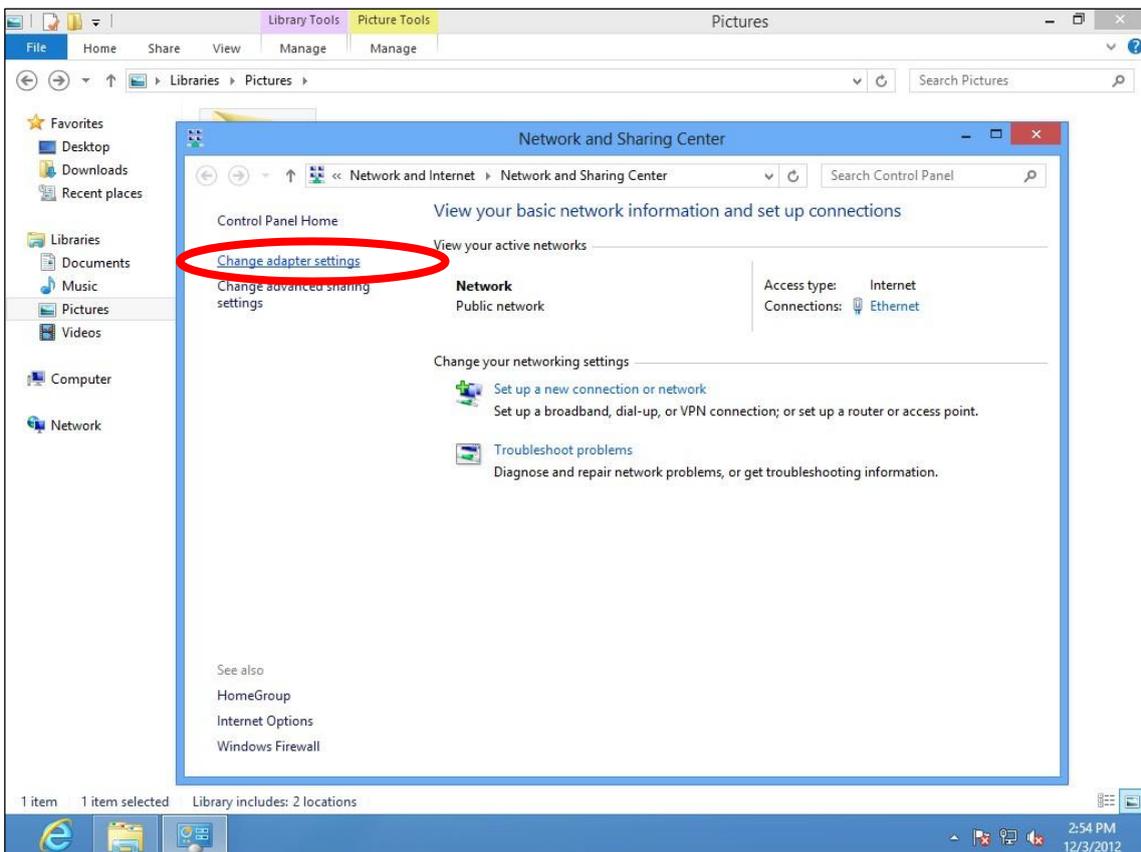
2. In desktop mode, click the File Explorer icon in the bottom left of the screen, as shown below.



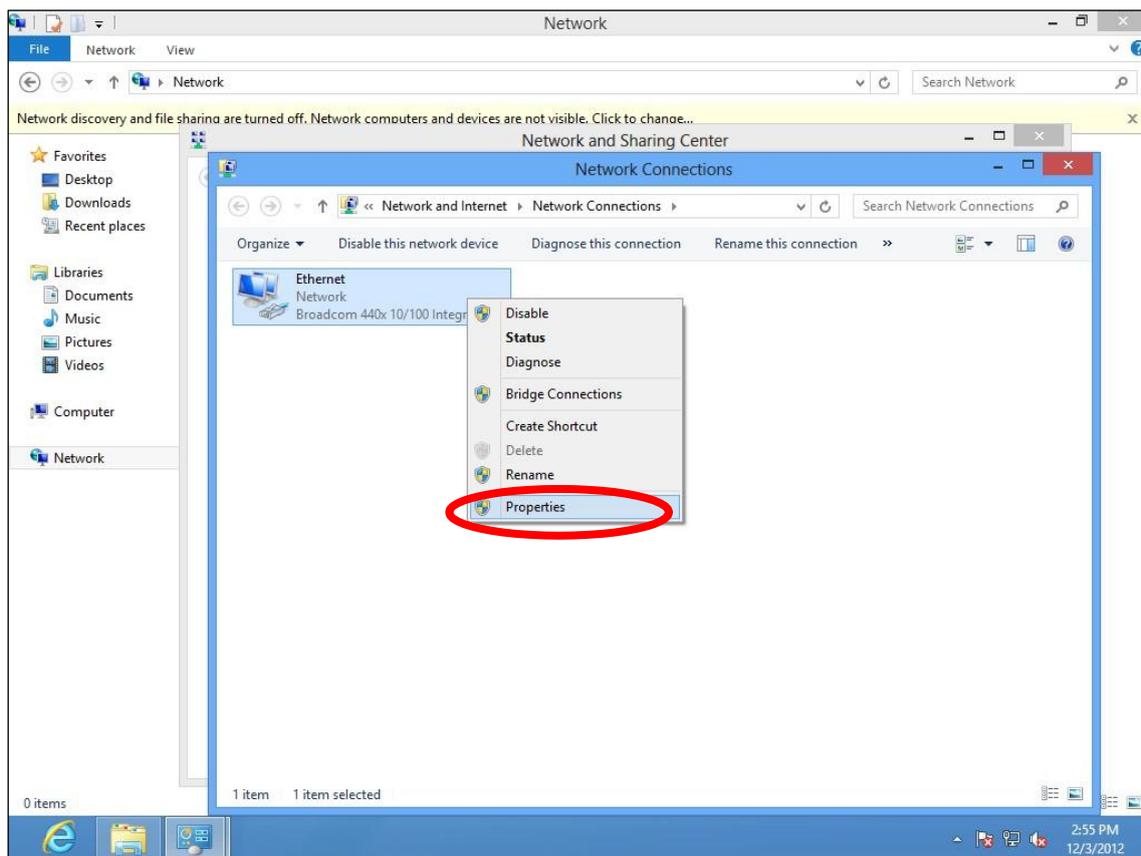
3. Right click “Network” and then select “Properties”.



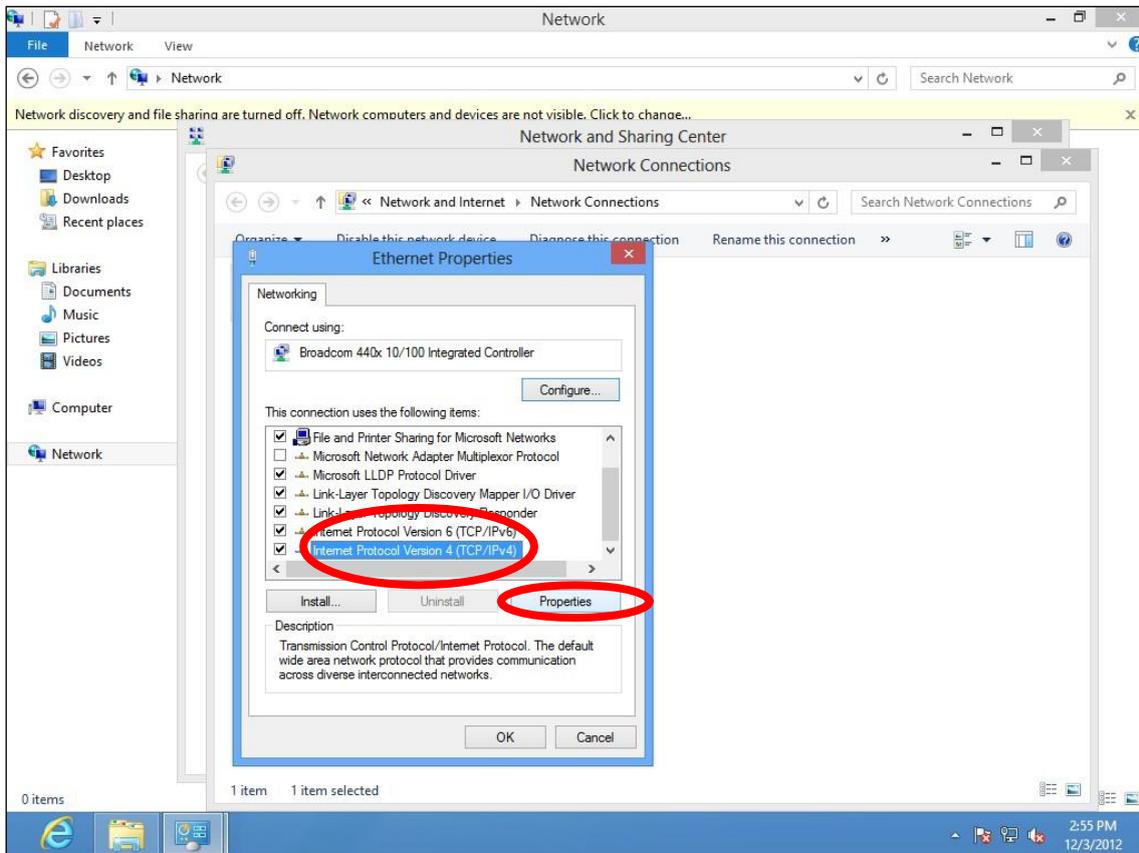
4. In the window that opens, select “Change adapter settings” from the left side.



5. Choose your connection and right click, then select “Properties”.



6. Select “Internet Protocol Version 4 (TCP/IPv4)” and then click “Properties”.



7. Select “Use the following IP address” and “Use the following DNS server addresses”, then input the following values:



Your existing static IP address will be displayed in the “IP address” field before you replace it. Please make a note of this IP address, subnet mask, default gateway and DNS server addresses.

IP address: 192.168.2.10

Subnet Mask: 255.255.255.0

Preferred DNS Server: 192.168.2.1

Click ‘OK’ when finished.

IV-1-2-5. Mac

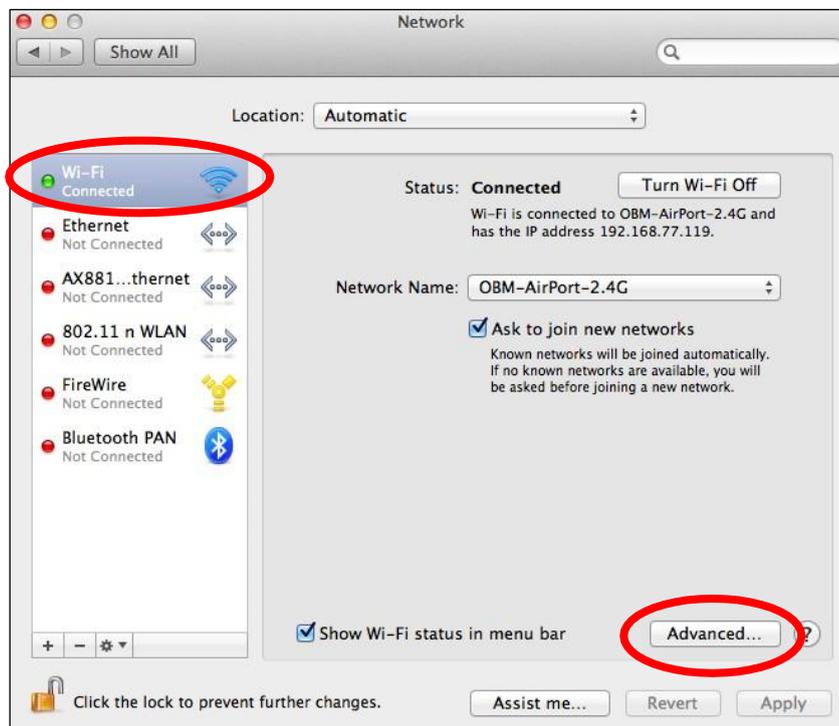
1. Have your Macintosh computer operate as usual, and click on “System Preferences”



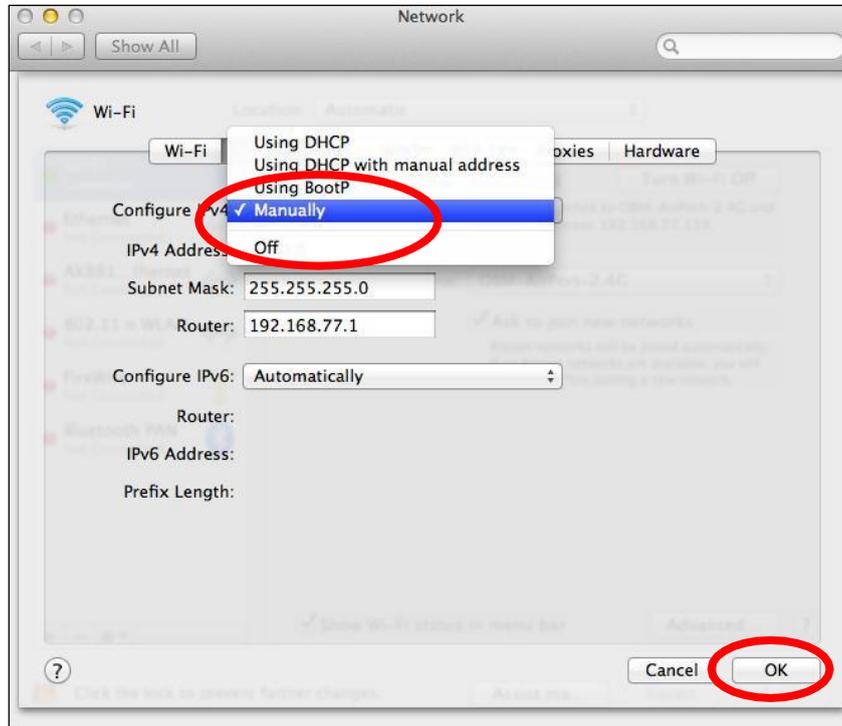
2. In System Preferences, click on “Network”.



3. Click on “Wi-Fi” in the left panel and then click “Advanced” in the lower right corner.

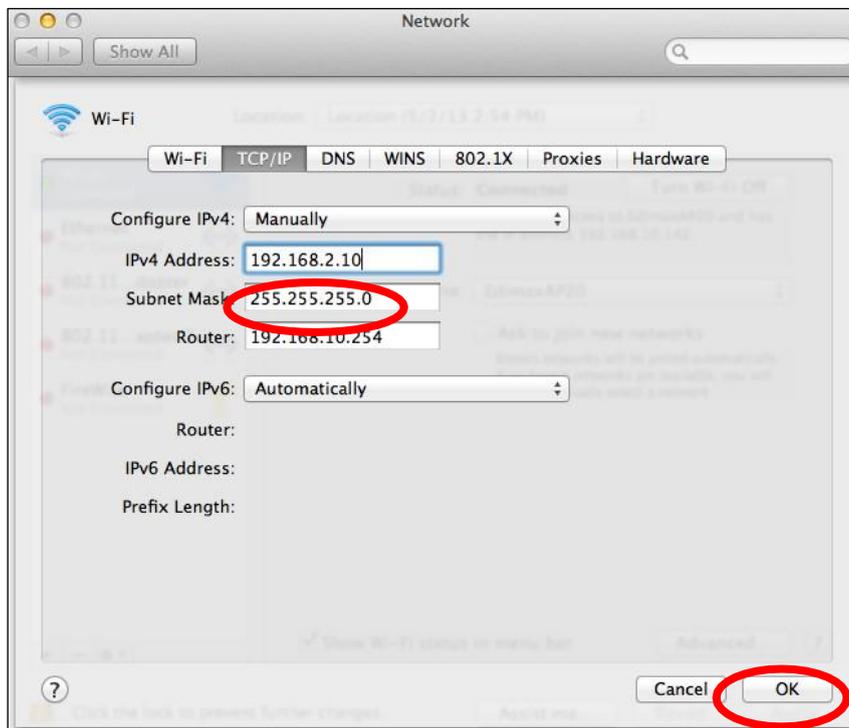


4. Select “TCP/IP” from the top menu and select “Manually” from the drop down menu labeled “Configure IPv4”, then click “OK”.

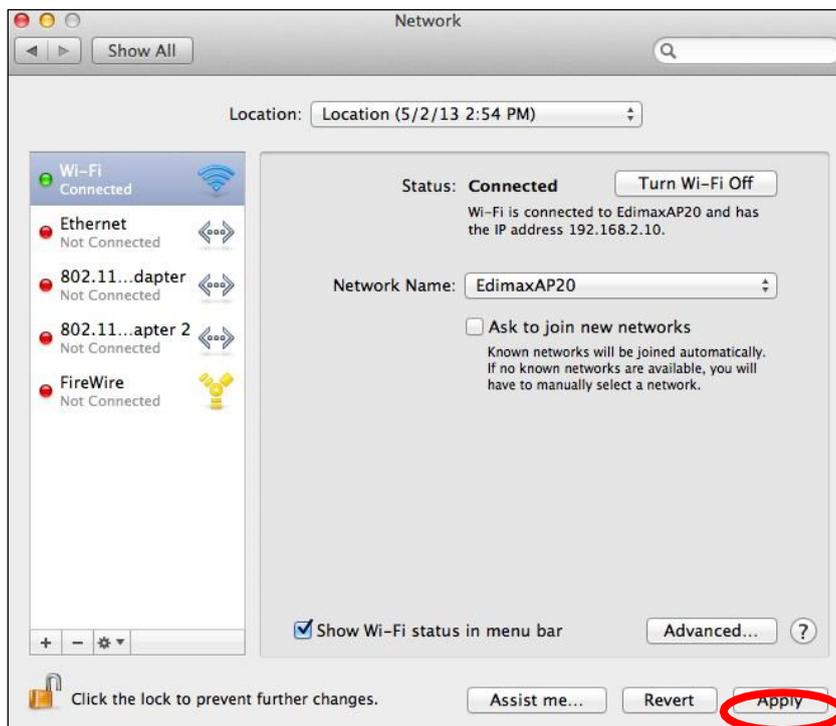


 **Your existing static IP address will be displayed in the “IP address” field before you replace it. Please make a note of this IP address, subnet mask, default gateway and DNS server addresses.**

5. In the “IPv4 Address” and “Subnet Mask” field enter IP address 192.168.2.10 and subnet mask 255.255.255.0. Click on “OK”.



6. Click “Apply” to save the changes.



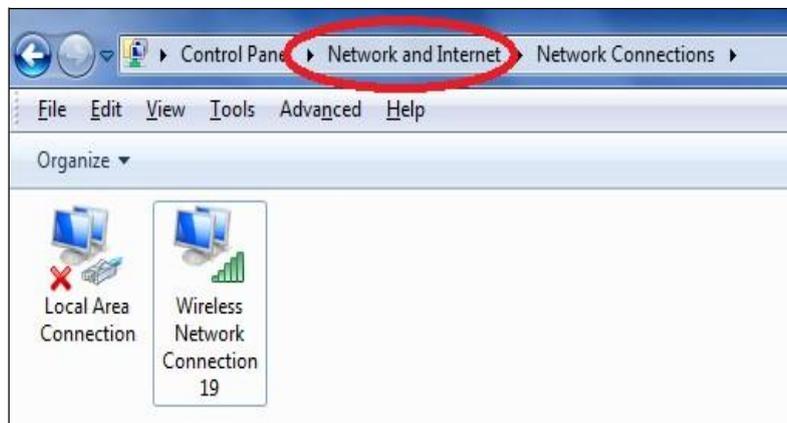
IV-1-3. How to Find Your Network Security Key

To find your network security key, please follow the instructions appropriate for your operating system.

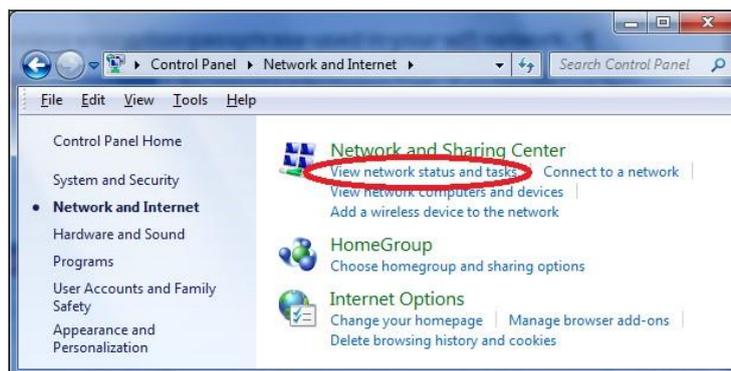
 ***If you are using Windows XP or earlier, please contact your ISP or router manufacturer to find your network security key.***

IV-1-3-1. Windows 7 & Vista

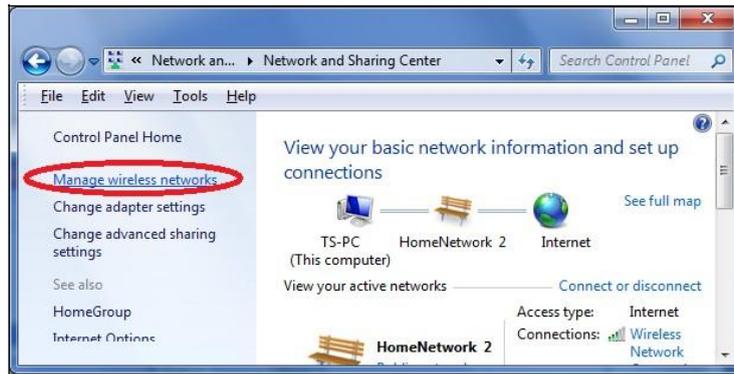
1. Open “Control Panel” and click on “Network and Internet” in the top menu.



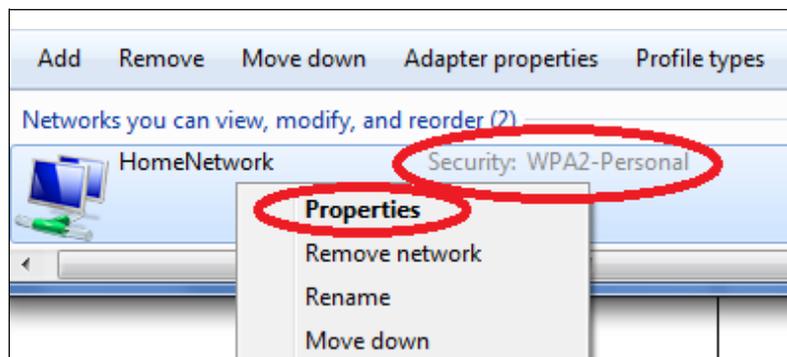
2. Click on “View network status and tasks” which is under the heading “Network and Sharing Center”.



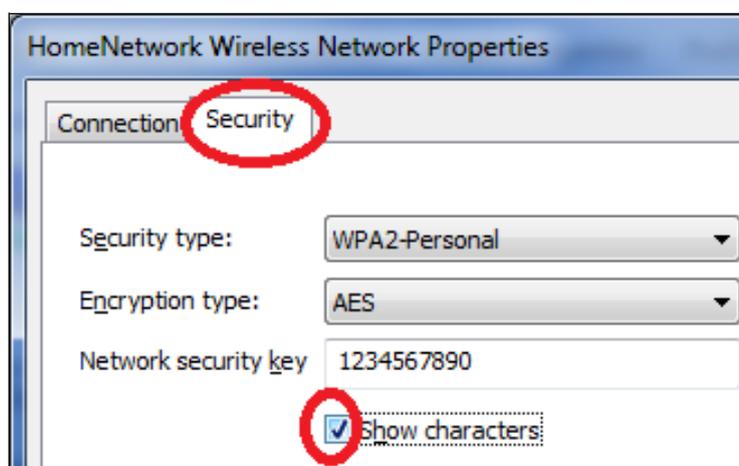
3. Click on “Manage wireless networks” in the left menu.



4. You should see the profile of your Wi-Fi network in the list. Right click on your Wi-Fi network and then click on “Properties”.

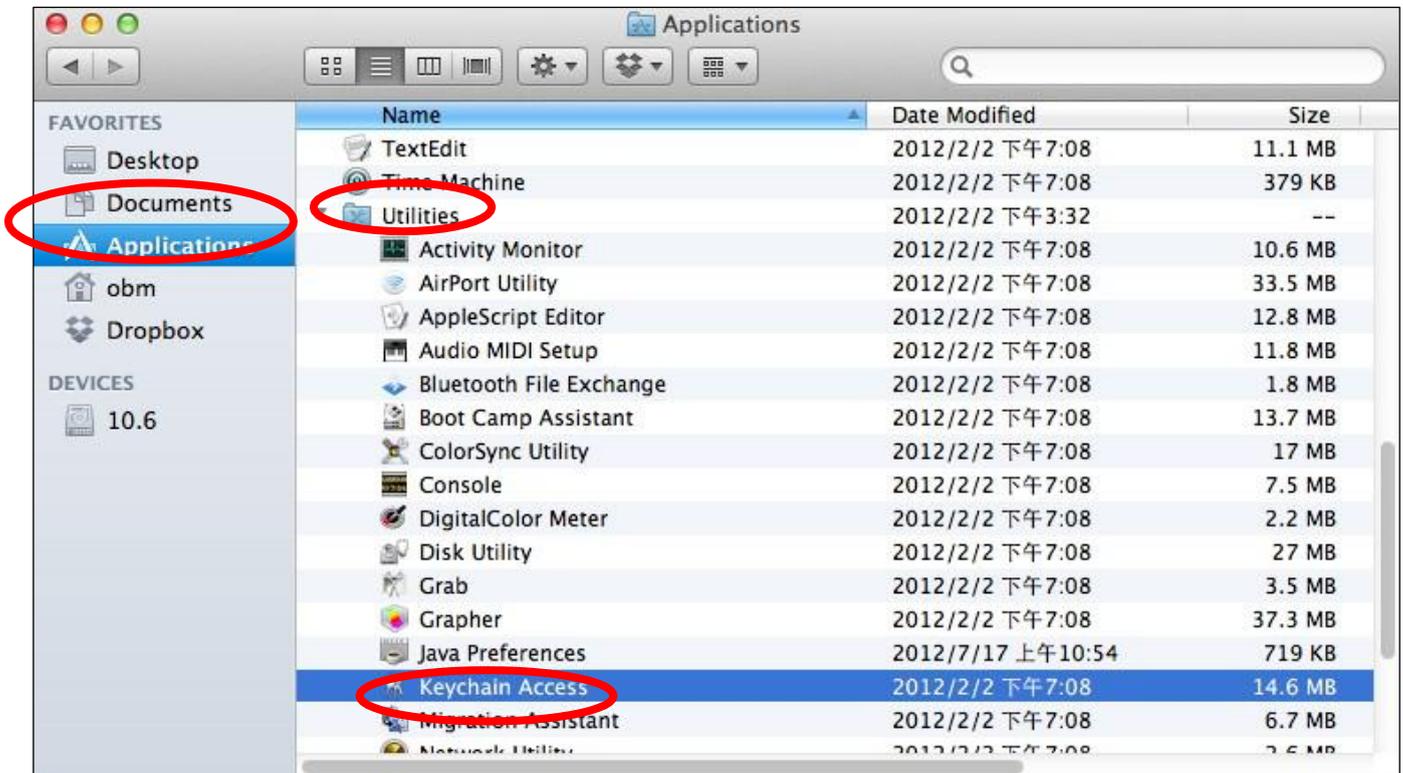


5. Click on the “Security” tab, and then check the box labeled “Show characters”. This will show your network security key. Click the “Cancel” button to close the window.

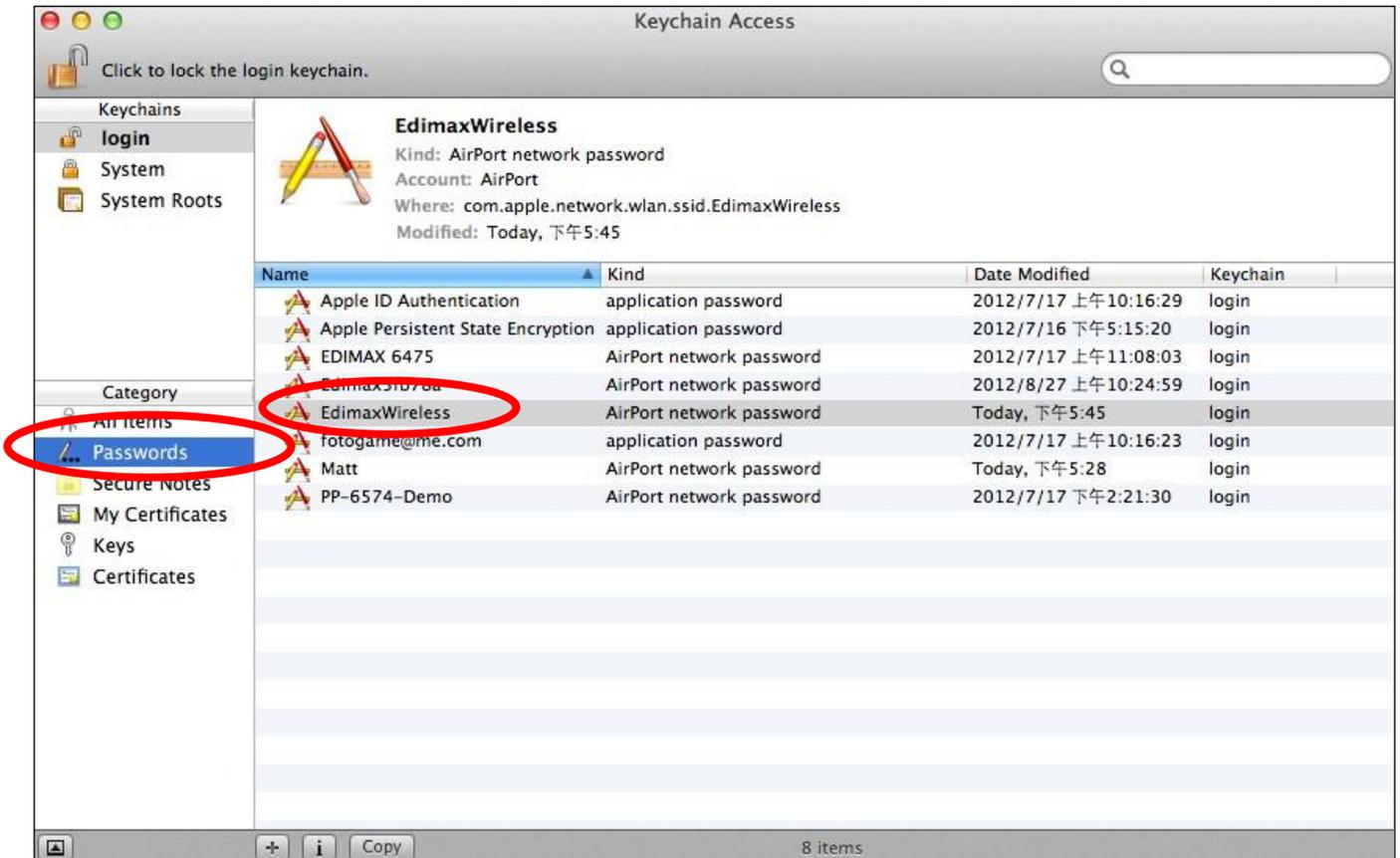


IV-1-3-2. Mac

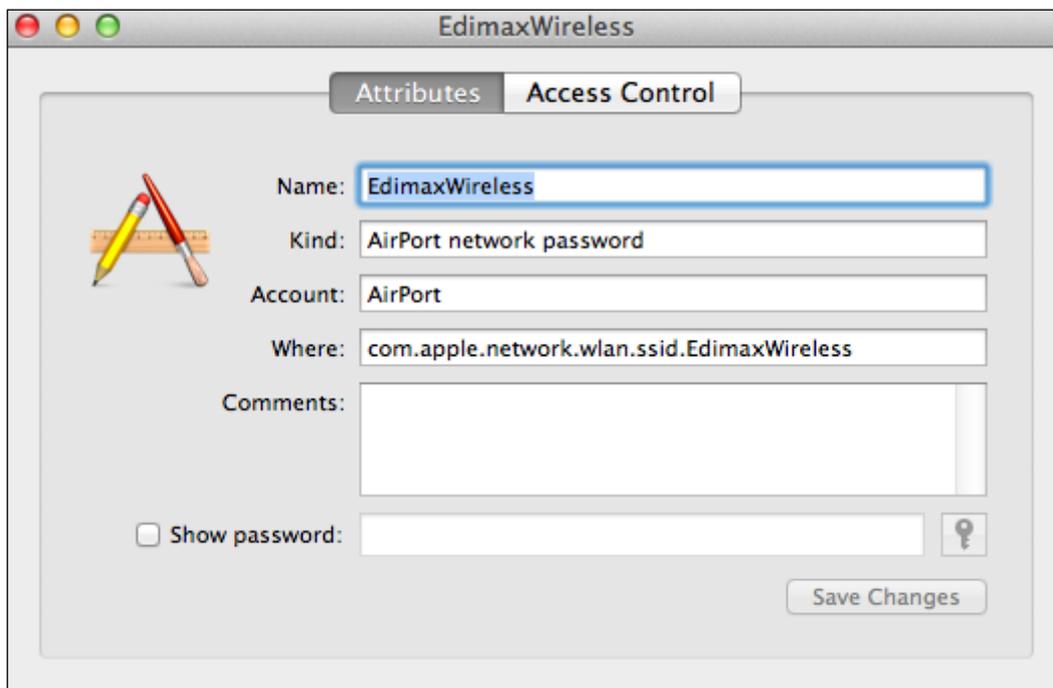
1. Open a new Finder window, and select “Applications” from the menu on the left side. Open the folder labeled “Utilities” and then open the application “Keychain Access”.



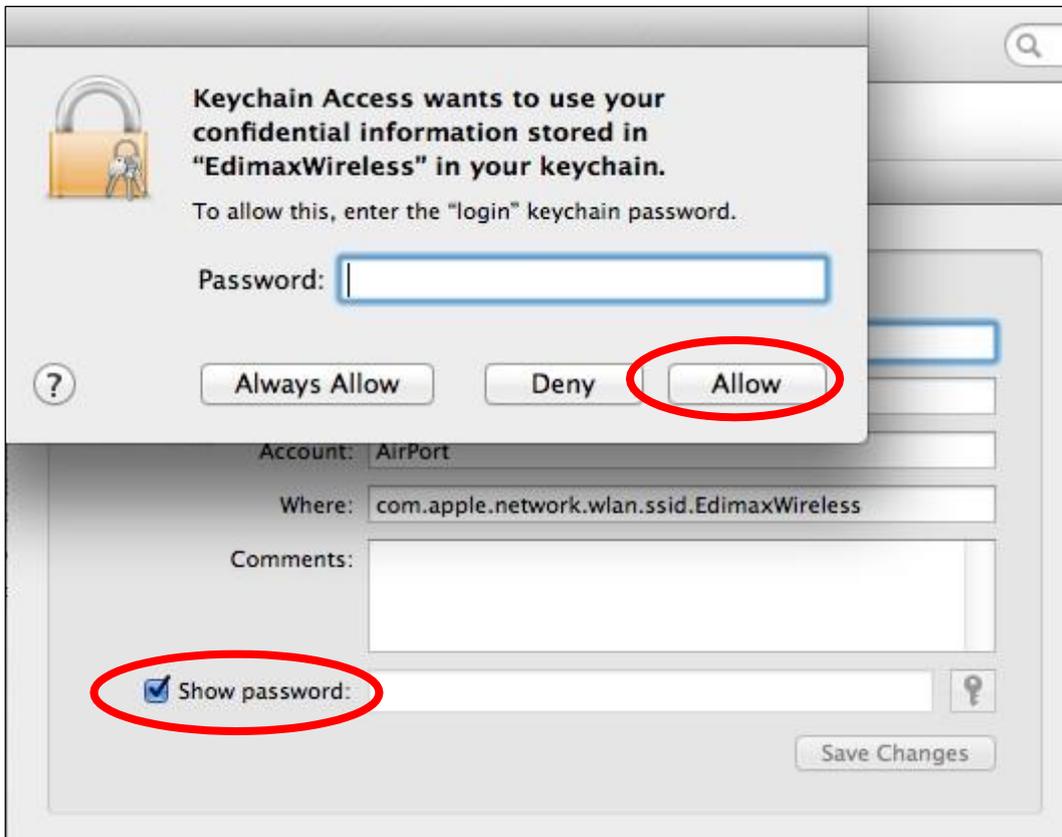
2. Select “Passwords” from the sub-menu labeled “Category” on the left side, as shown below. Then search the list in the main panel for the SSID of your network. In this example, the SSID is “EdimaxWireless” – though your SSID will be unique to your network.



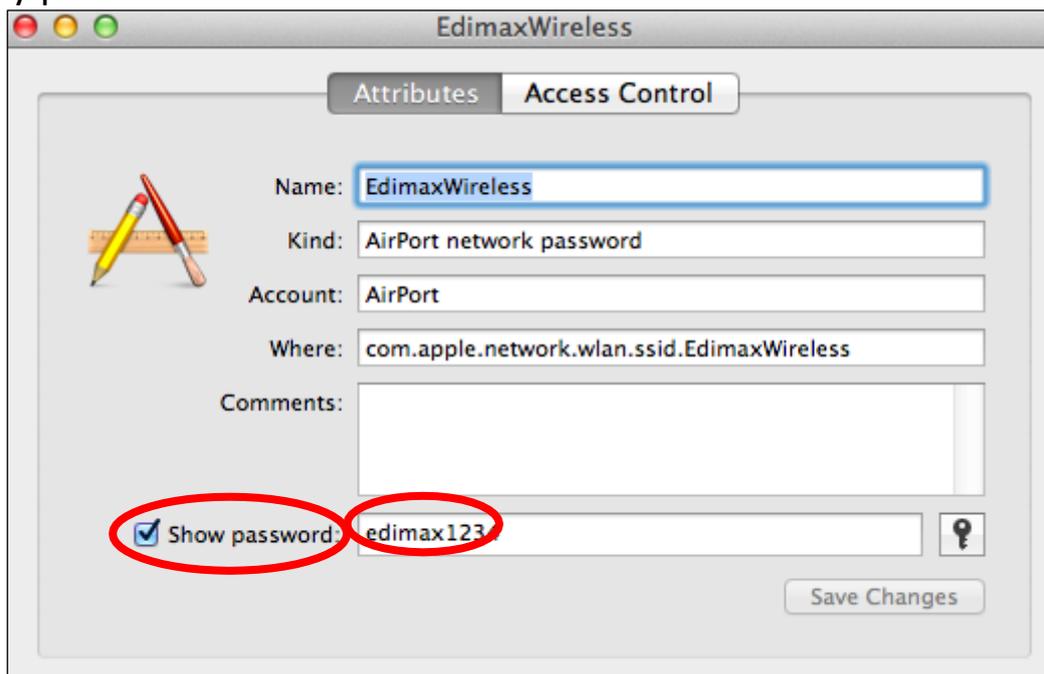
3. Double click the SSID of your network and you will see the following window.



4. Check the box labeled “Show password” and you will be asked to enter your administrative password, which you use to log into your Mac. Enter your password and click “Allow”.



Your network security password will now be displayed in the field next to the box labeled “Show password”. In the example below, the network security password is “edimax1234”. Please make a note of your network security password.

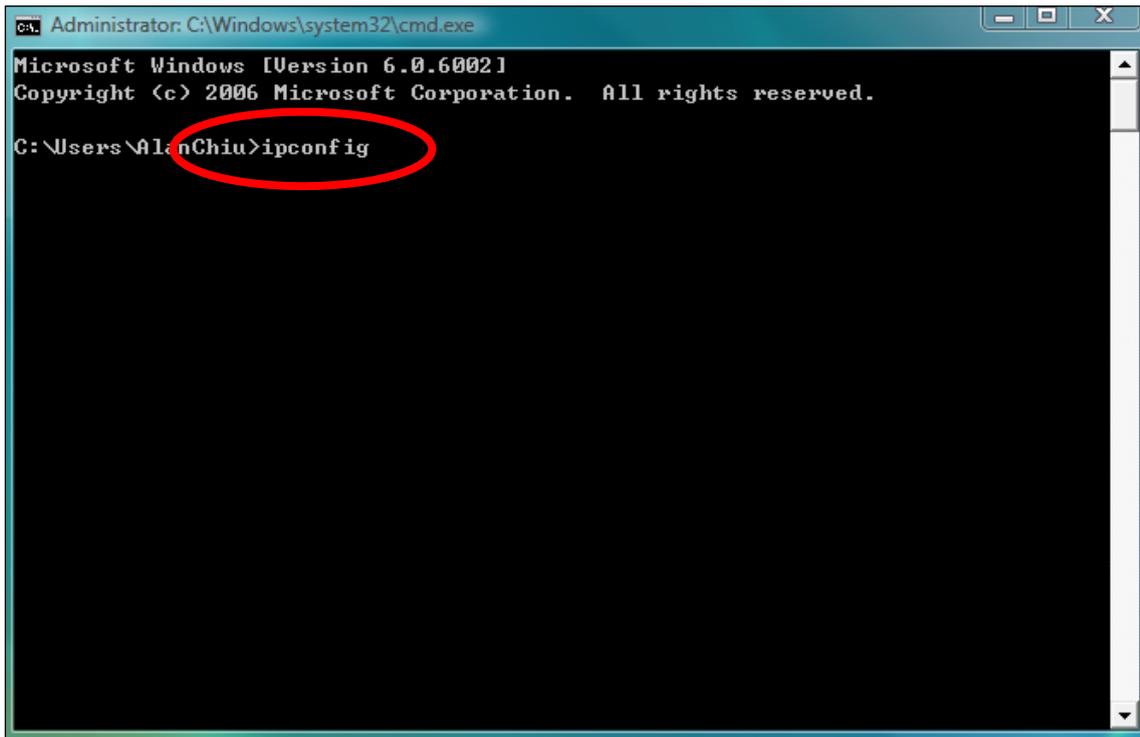


IV-1-4. How to Find Your Router's IP Address

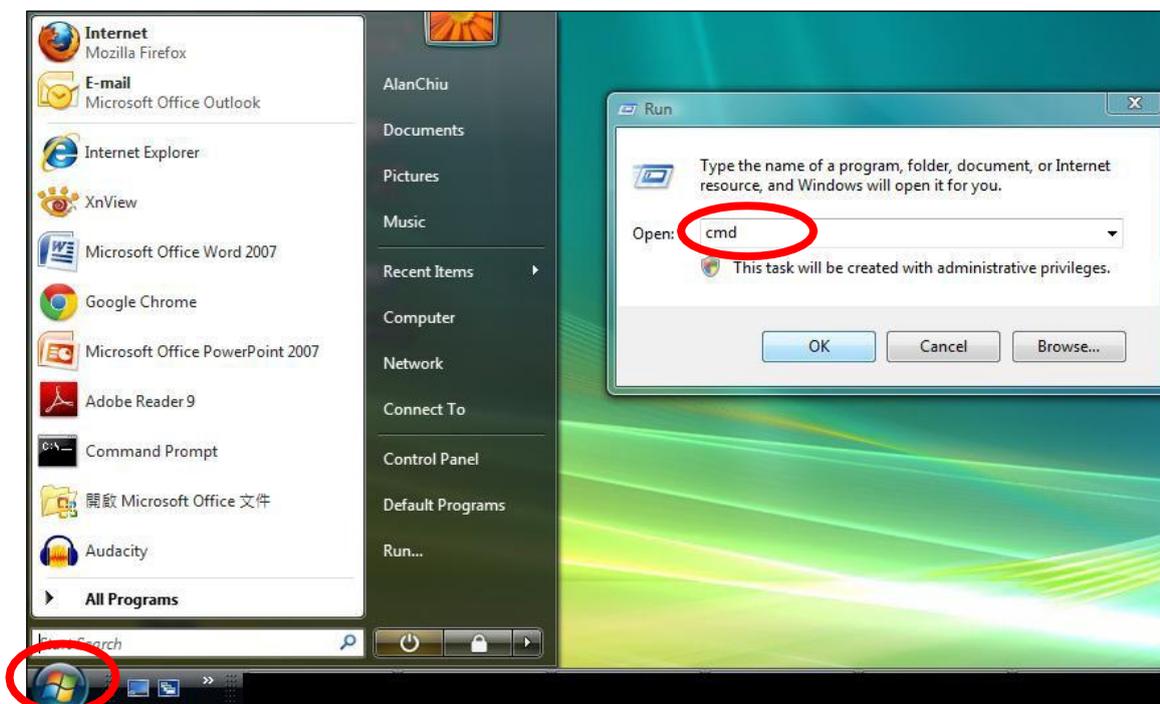
To find your router's IP address, please follow the instructions appropriate for your operating system.

IV-1-4-1. Windows XP, Vista & 7

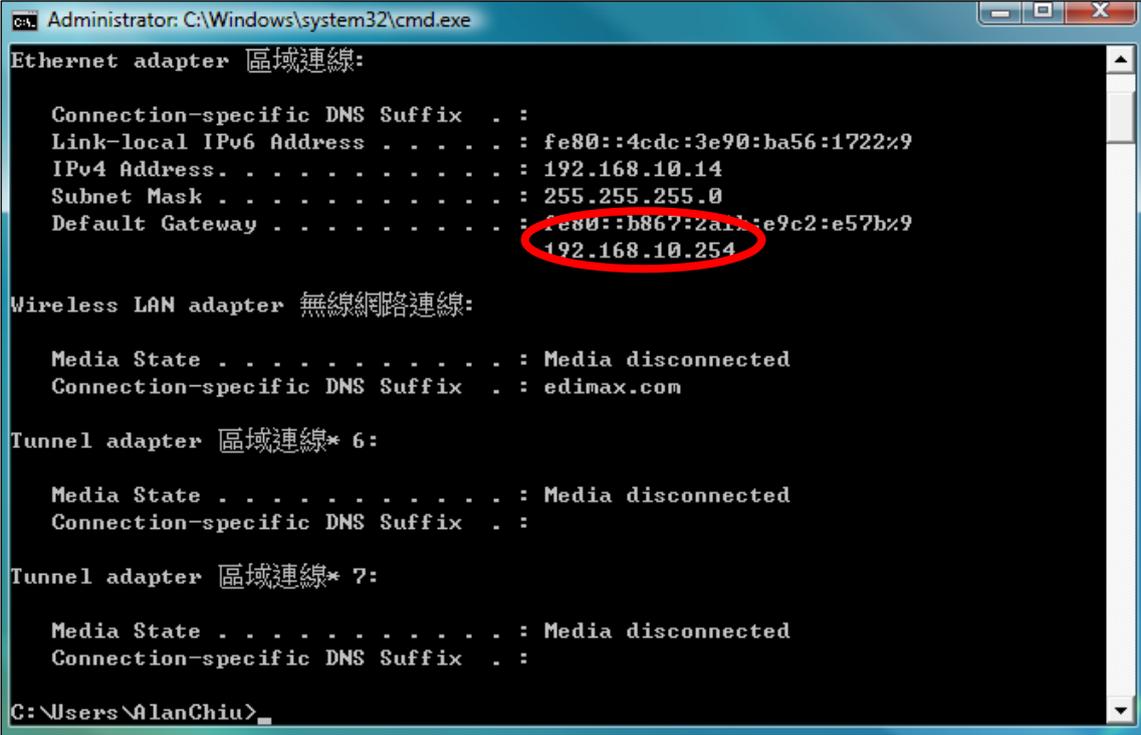
1. Go to "Start", select "Run" and type "cmd", then press Enter or click "OK".



2. A new window will open, type "ipconfig" and press Enter.



3. Your router's IP address will be displayed next to "Default Gateway".



```
Administrator: C:\Windows\system32\cmd.exe
Ethernet adapter 區域連線:

    Connection-specific DNS Suffix  . : 
    Link-local IPv6 Address . . . . . : fe80::4cdc:3e90:ba56:1722%9
    IPv4 Address. . . . . : 192.168.10.14
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : fe80::b867:2a11:e9c2:e57b%9
                               192.168.10.254

Wireless LAN adapter 無線網路連線:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . : edimax.com

Tunnel adapter 區域連線* 6:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . : 

Tunnel adapter 區域連線* 7:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . : 

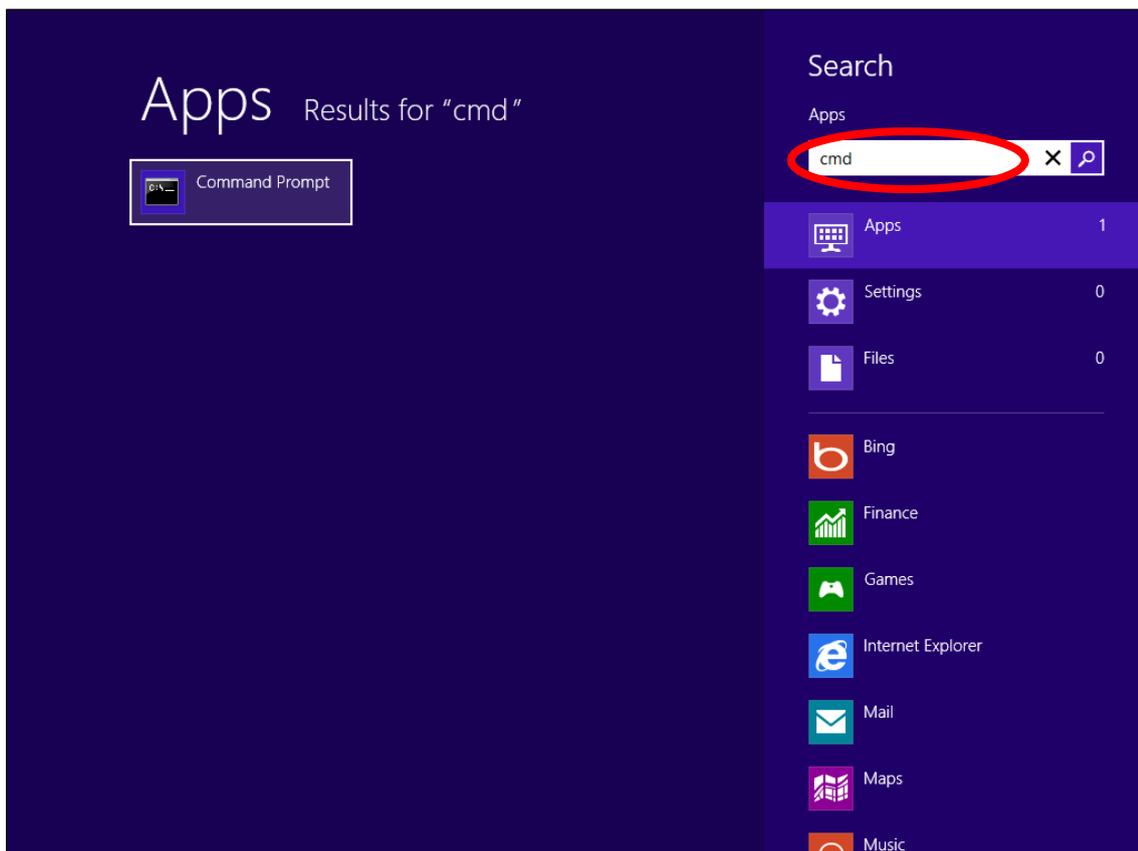
C:\Users\AlanChiu>
```

IV-1-4-2. Windows 8

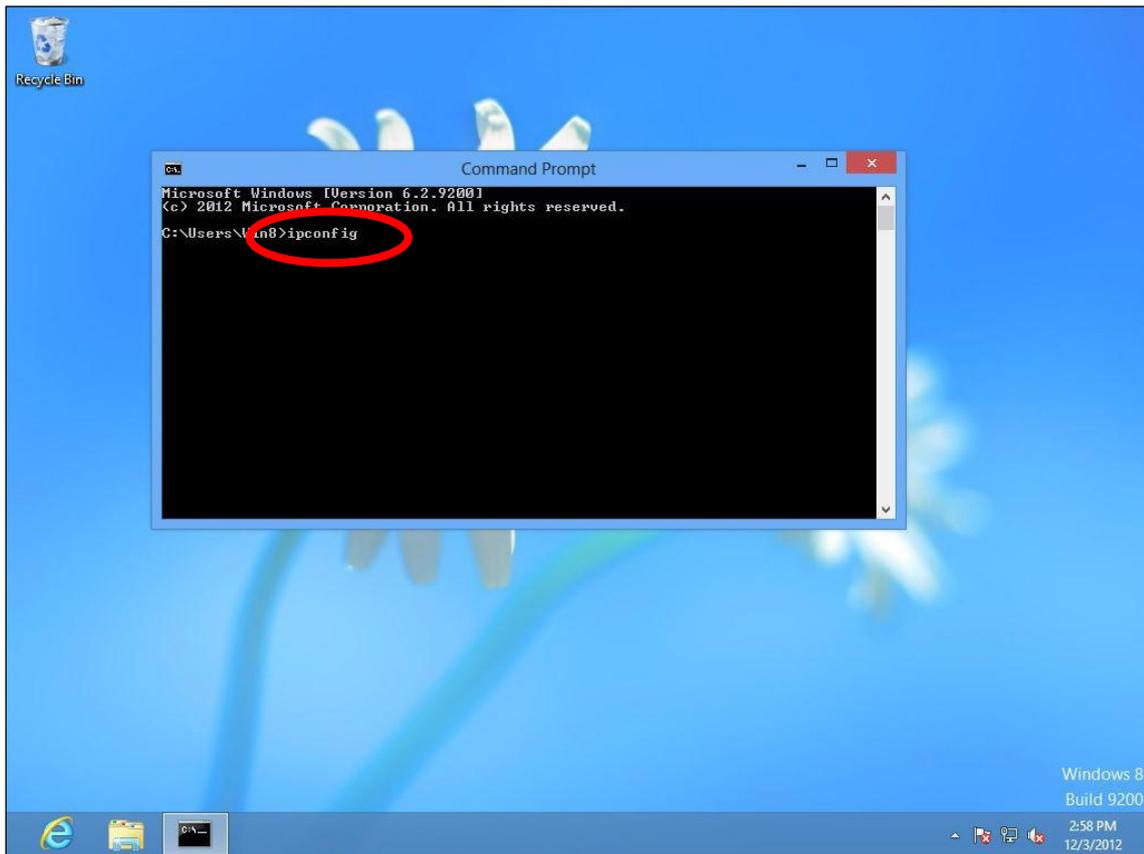
1. From the Windows 8 Start screen, move your cursor to the top right corner of the screen to display the Charms bar.



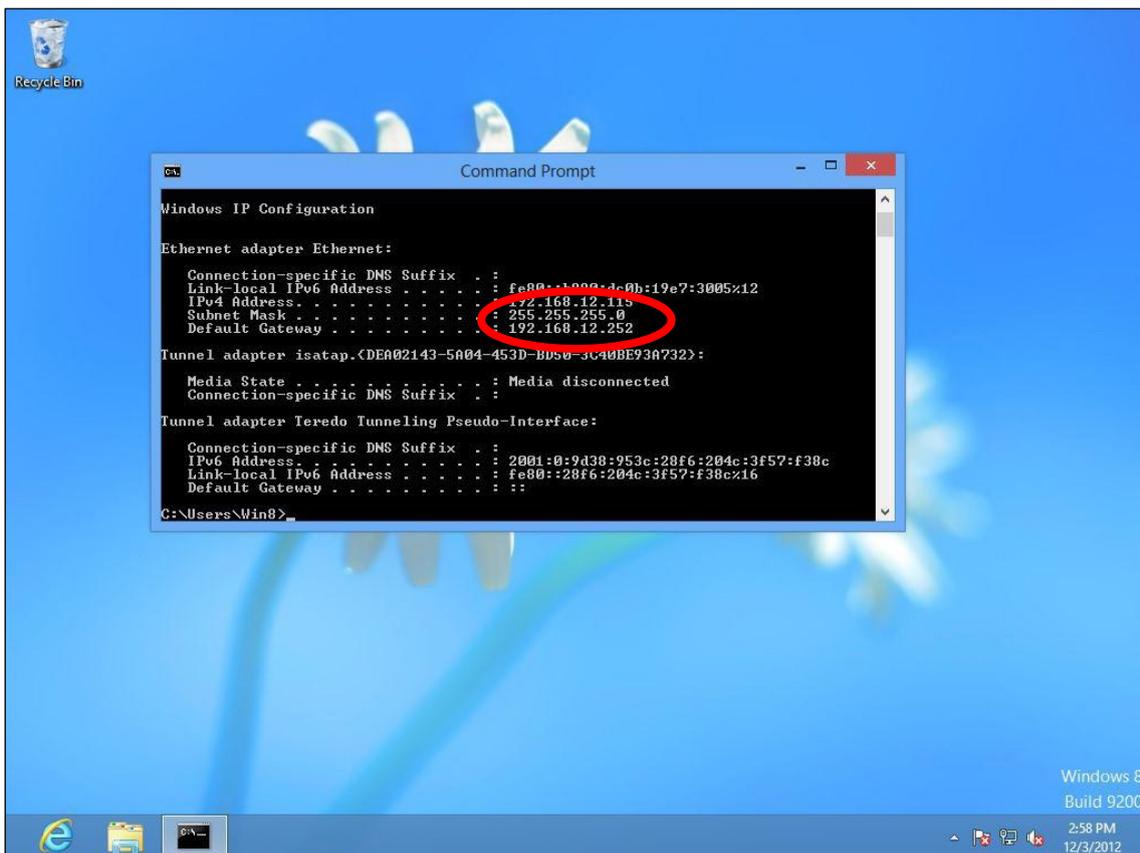
2. Click "Search" and enter "cmd" into the search bar. Click the "Command Prompt" app which be displayed on the left side.



3. A new window will open, type “ipconfig” and press Enter.

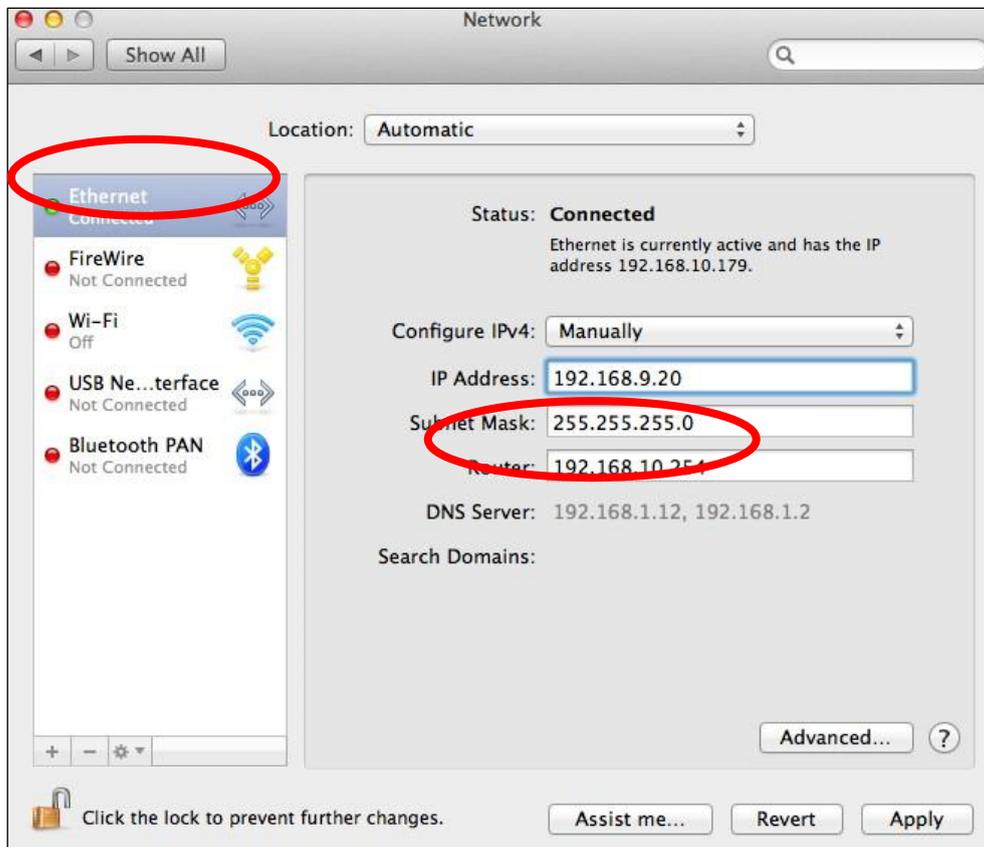


4. Your router’s IP address will be displayed next to “Default Gateway”.

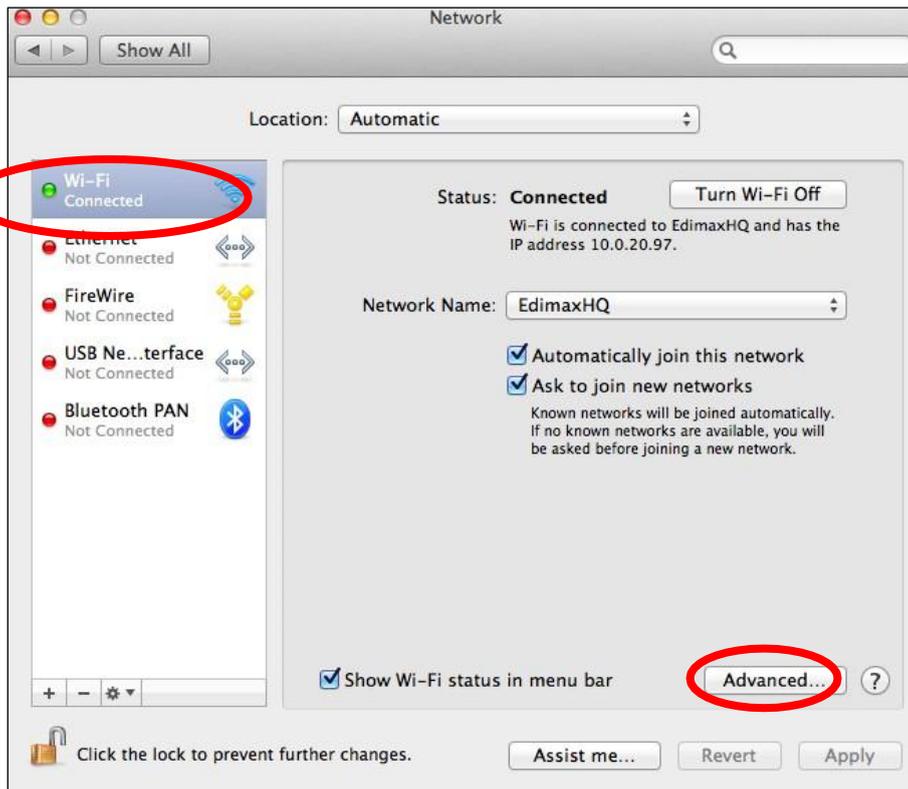


IV-1-4-3. Mac

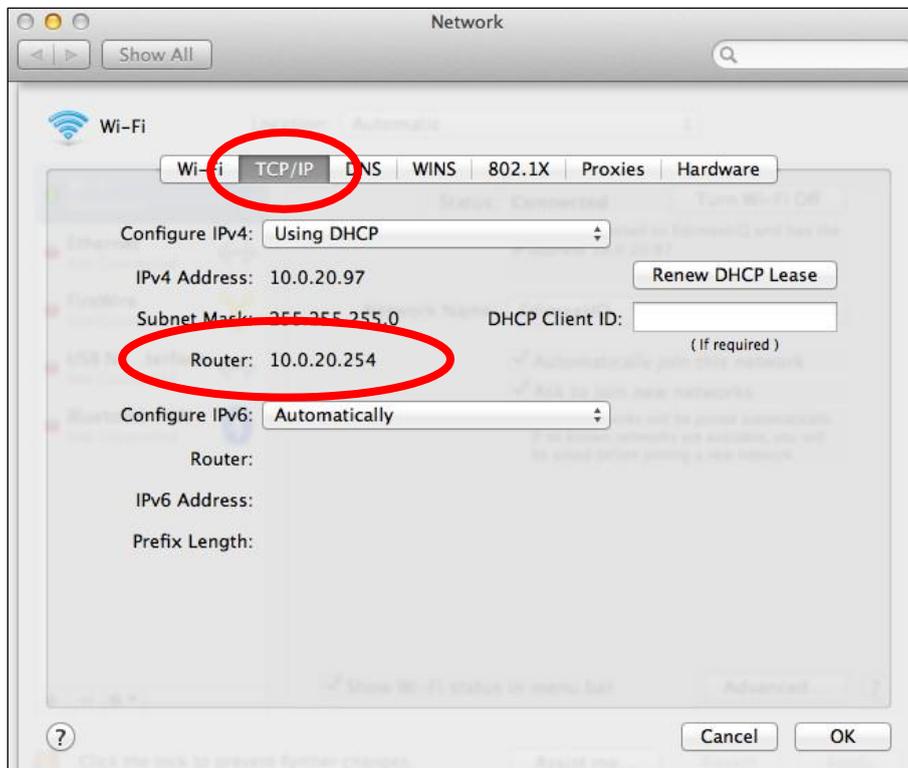
1. Launch “System Preferences” and click on “Network”.
2. If you are using an Ethernet cable to connect to your network, your router’s IP address will be displayed next to “Router”.



3. If you are using Wi-Fi, click “Wi-Fi” in the left panel, and then “Advanced” in the bottom right corner.



4. Click the “TCP/IP” tab and your router’s IP address will be displayed next to “Router”.

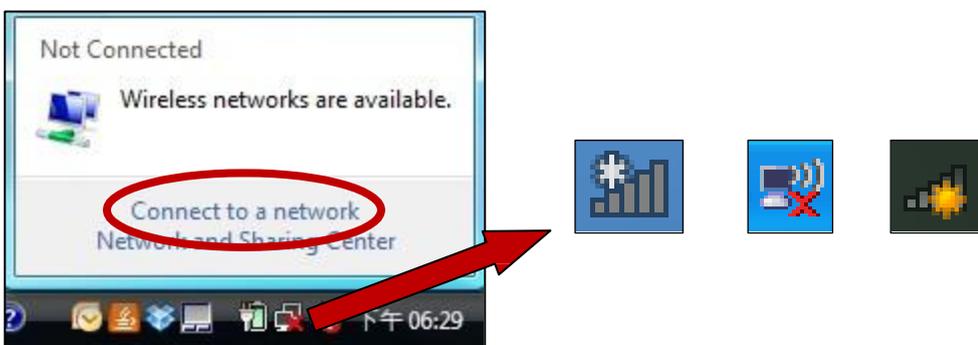


IV-2. Connecting to a Wi-Fi network

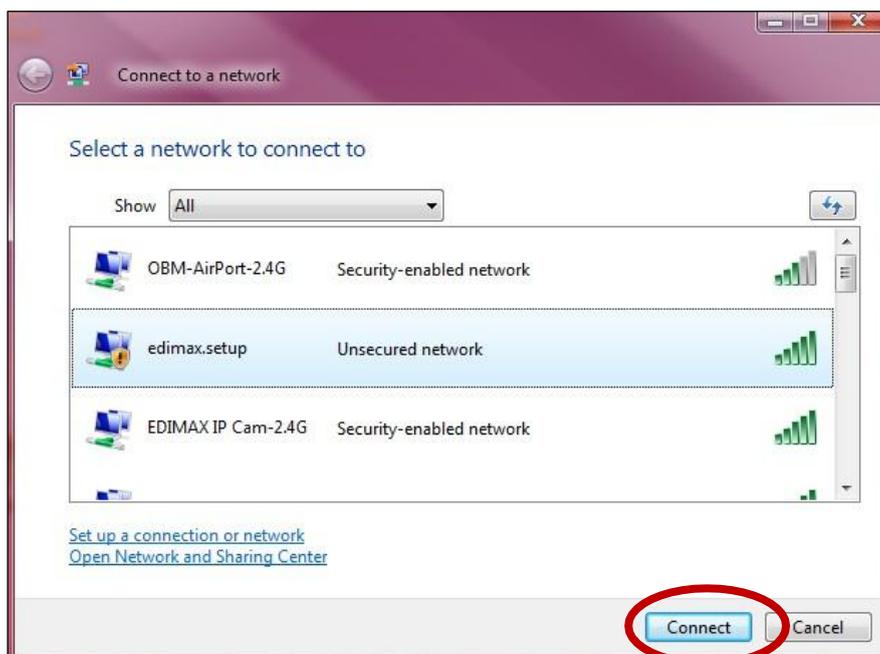
For help connecting to your device's **Edimax.Setup** SSID for initial setup, or to connect to your device's new Wi-Fi network (SSID) after setup is complete, follow the guide below:

 ***Below is an example of how to connect using Windows Vista – the process may vary slightly for other versions of Windows.***

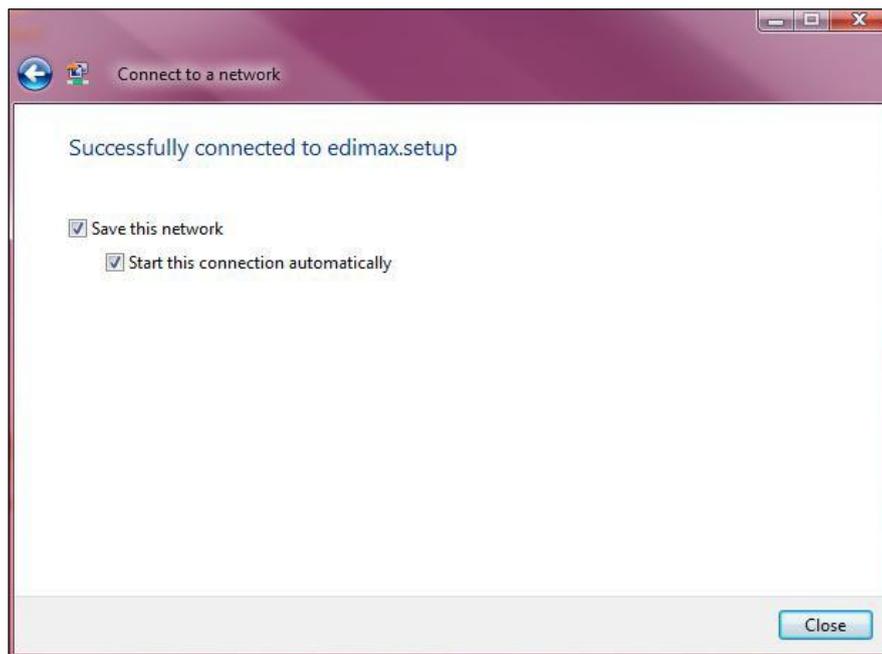
1. Click the network icon (,  or ) in the system tray and select “Connect to a network”.



2. Search for the SSID of your RG21S/RA21S and then click “Connect”. If you set a password for your network, you will then be prompted to enter it.



3. After correctly entering your password, you will be successfully connected to the RG21S/RA21S's wireless network.



V. FAQs

1. How do I setup a VPN server?(router mode only)

- a. A VPN server can be used for remote access to your network as well as for additional security & privacy. Login to <http://edimax.setup> and go to Internet VPN Server to setup the server. A VPN client such as OpenVPN is required on your network device to access the VPN remotely.



2. I can't access the Internet.

- a. Ensure that all cables are connected properly. Try a different Ethernet cable.
- b. Check if you can access the web based configuration interface. If not, please ensure your computer is set to use a dynamic IP address.
- c. Login to the web based configuration interface and go to **Internet > IPv4 Settings** and check that the login method/connection type is correct. If you are unsure which internet connection type you have, please contact your Internet Service Provider (ISP).
- d. Connect your computer directly to your modem and check if you can access the internet. If you can't, please contact your Internet service provider for assistance.

3. I can't open the web based configuration interface.

- a. Please ensure your computer is set to use a dynamic IP address.

4. How do I reset my device to factory default settings?

- a. To reset the device back to its factory default settings, press and hold the Reset button for over 10 seconds, until the Internet LED begins to flash. Please wait a few minutes for the product to restart. When the device restarts, all settings will be reset. Default settings are displayed on the product label on the back of the device.

Router Login	Enter this URL in a web browser to run iQ Setup or configure advanced settings. You must be connected to the device by Wi-Fi or Ethernet cable.
Username/Password	This is the default username and password to access the browser based configuration interface when you go to the “Router Login” URL (above).
Wi-Fi Network Name	This is the default Wi-Fi network name for the device. Search for this name (SSID) and connect to it in order to access the “Router Login” URL (above).
MAC	A MAC address is unique to every device and is used for identification within a network. Your device’s unique MAC addresses are displayed here.
PIN CODE	This is your device’s PIN code for Wi-Fi Protected Setup (WPS) for each wireless frequency.

5. I forgot my password.

- a. Reset the router to its factory default settings and use the default username admin and default password 1234. Default settings are displayed on the product label on the back of the device, as shown above.

6. Do the blue WAN port and yellow LAN ports work the same when the device is in different modes?

No, the WAN and LAN ports have slightly different functions depending on the operating mode of the device.

- a. In **Wi-Fi router** mode, the **WAN port** is for a direct connection to your xDSL modem. The **LAN ports** are for wired network clients.
- b. In **access point** mode, the **WAN port** is not functional. Connect your existing router to the device's **LAN port**, and the other **LAN ports** can connect wired network clients.

VI. Glossary

Default Gateway (Wireless bridge): Every non-access point IP device needs to configure a default gateway's IP address. When the device sends out an IP packet, if the destination is not on the same network, the device has to send the packet to its default gateway, which will then send it out towards the destination.

DHCP: Dynamic Host Configuration Protocol. This protocol automatically gives every computer on your home network an IP address.

DNS Server IP Address: DNS stands for Domain Name System, which allows Internet servers to have a domain name (such as `www.Broadbandaccesspoint.com`) and one or more IP addresses (such as `74.125.128.104`). A DNS server keeps a database of Internet servers and their respective domain names and IP addresses, so that when a domain name is requested (as in typing "`Broadbandaccesspoint.com`" into your Internet browser), the user is sent to the proper IP address. The DNS server IP address used by the computers on your home network is the location of the DNS server your ISP has assigned to you.

DSL Modem: DSL stands for Digital Subscriber Line. A DSL modem uses your existing phone lines to transmit data at high speeds.

Ethernet: A standard for computer networks. Ethernet networks are connected by special cables and hubs, and move data around at up to 10/100 million bits per second (Mbps).

IP Address and Network (Subnet) Mask: IP stands for Internet Protocol. An IP address consists of a series of four numbers separated by periods, that identifies a single, unique Internet computer host in an IP network. Example: `192.168.2.1`. It consists of 2 portions: the IP network address, and the host identifier.

The IP address is a 32-bit binary pattern, which can be represented as four cascaded decimal numbers separated by ".": `aaa.aaa.aaa.aaa`, where each "aaa" can be anything from 000 to 255, or as four cascaded binary numbers separated by ".": `bbbbbbbb.bbbbbbbb.bbbbbbbb.bbbbbbbb`, where each "b" can either be 0 or 1.

A network mask is also a 32-bit binary pattern, and consists of consecutive leading 1's followed by consecutive trailing 0's, such as 11111111.11111111.11111111.00000000. Therefore sometimes a network mask can also be described simply as "x" number of leading 1's. When both are represented side by side in their binary forms, all bits in the IP address that correspond to 1's in the network mask become part of the IP network address, and the remaining bits correspond to the host ID.

For example, if the IP address for a device is, in its binary form, 11011001.10110000.10010000.00000111, and if its network mask is, 11111111.11111111.11110000.00000000 It means the device's network address is 11011001.10110000.10010000.00000000, and its host ID is, 00000000.00000000.00000000.00000111. This is a convenient and efficient method for access points to route IP packets to their destination.

ISP Gateway Address: (see ISP for definition). The ISP Gateway Address is an IP address for the Internet access point located at the ISP's office.

ISP: Internet Service Provider. An ISP is a business that provides connectivity to the Internet for individuals and other businesses or organizations.

LAN: Local Area Network. A LAN is a group of computers and devices connected together in a relatively small area (such as a house or an office). Your home network is considered a LAN.

MAC Address: MAC stands for Media Access Control. A MAC address is the hardware address of a device connected to a network. The MAC address is a unique identifier for a device with an Ethernet interface. It is comprised of two parts: 3 bytes of data that corresponds to the Manufacturer ID (unique for each manufacturer), plus 3 bytes that are often used as the product's serial number.

NAT: Network Address Translation. This process allows all of the computers on your home network to use one IP address. Using the broadband access point's NAT capability, you can access the Internet from any computer on your home network without having to purchase more IP addresses from your ISP.

Port: Network Clients (LAN PC) uses port numbers to distinguish one network application/protocol over another. Below is a list of common applications and protocol/port numbers:

Application	Protocol	Port Number
Telnet	TCP	23
FTP	TCP	21
SMTP	TCP	25
POP3	TCP	110
H.323	TCP	1720
SNMP	UCP	161
SNMP Trap	UDP	162
HTTP	TCP	80
PPTP	TCP	1723
PC Anywhere	TCP	5631
PC Anywhere	UDP	5632

Access point: A access point is an intelligent network device that forwards packets between different networks based on network layer address information such as IP addresses.

Subnet Mask: A subnet mask, which may be a part of the TCP/IP information provided by your ISP, is a set of four numbers (e.g. 255.255.255.0) configured like an IP address. It is used to create IP address numbers used only within a particular network (as opposed to valid IP address numbers recognized by the Internet, which must be assigned by InterNIC).

TCP/IP, UDP: Transmission Control Protocol/Internet Protocol (TCP/IP) and User Datagram Protocol (UDP). TCP/IP is the standard protocol for data transmission over the Internet. Both TCP and UDP are transport layer protocol. TCP performs proper error detection and error recovery, and thus is reliable. UDP on the other hand is not reliable. They both run on top of the IP (Internet Protocol), a network layer protocol.

WAN: Wide Area Network. A network that connects computers located in geographically separate areas (e.g. different buildings, cities, countries). The Internet is a wide area network.

Web-based management Graphical User Interface (GUI): Many devices support a graphical user interface that is based on the web browser. This means the user can use the familiar Netscape or Microsoft Internet Explorer to Control/configure or monitor the device being managed.

COPYRIGHT

Copyright © Edimax Technology Co., Ltd. all rights reserved. No part of this publication may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language or computer language, in any form or by any means, electronic, mechanical, magnetic, optical, chemical, manual or otherwise, without the prior written permission from Edimax Technology Co., Ltd.

Edimax Technology Co., Ltd. makes no representations or warranties, either expressed or implied, with respect to the contents hereof and specifically disclaims any warranties, merchantability, or fitness for any particular purpose. Any software described in this manual is sold or licensed as is. Should the programs prove defective following their purchase, the buyer (and not this company, its distributor, or its dealer) assumes the entire cost of all necessary servicing, repair, and any incidental or consequential damages resulting from any defect in the software. Edimax Technology Co., Ltd. reserves the right to revise this publication and to make changes from time to time in the contents hereof without the obligation to notify any person of such revision or changes.

The product you have purchased and the setup screen may appear slightly different from those shown in this QIG. The software and specifications are subject to change without notice. Please visit our website www.edimax.com for updates. All brand and product names mentioned in this manual are trademarks and/or registered trademarks of their respective holders.

	AT	BE	BG	HR	CY	CZ	DK	
	EE	FI	FR	DE	EL	HU	IE	
	IT	LV	LT	LU	MT	NL	PL	
	PT	RO	SK	SI	ES	SE	UK	UK(NI)

The device is restricted to indoor use only when operating in the 5150 to 5350 MHz frequency range.

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 encouraged 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 Caution

This device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Any changes or modifications not expressly approved by the party responsible for compliance could void the authority to operate equipment.

Federal Communications 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 2.5cm (1 inch) during normal operation.

The equipment version marketed in US is restricted to usage of the channels 1-11 only. This equipment is restricted to **indoor** use when operated in the 5.15 to 5.25 GHz frequency range.

RED Compliance Statement

Compliance with 2014/53/EU Radio Equipment Directive (RED)

In accordance with Article 10.8(a) and 10.8(b) of the RED, the following table provides information on the frequency bands used and the maximum RF transmit power of the product for sale in the EU:

Frequency range (MHz)	Max. transmit power (dBm)
2400-2472	19.13 dBm
5150-5250	22.98 dBm

A simplified DoC shall be provided as follows: Article 10(9)

Hereby, Edimax Technology Co., Ltd. declares that the radio equipment type **AC2600 Home WiFi Roaming Router** is in compliance with Directive 2014/53/EU

The full text of the EU declaration of conformity is available at the following internet address: <http://www.edimax.com/edimax/global/>

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.

EU Countries Intended for Use

The ETSI version of this device is intended for home and office use in Austria, Belgium, Bulgaria, Cyprus, Czech, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Turkey, and United Kingdom. The ETSI version of this device is also authorized for use in EFTA member states: Iceland, Liechtenstein, Norway, and Switzerland.

EU Countries Not Intended for Use

None

EU Declaration of Conformity

- English:** This equipment is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU, 2014/35/EU.
- Français:** Cet équipement est conforme aux exigences essentielles et autres dispositions de la directive 2014/53/EU, 2014/35/EU.
- Čeština:** Toto zařízení je v souladu se základními požadavky a ostatními příslušnými ustanoveními směrnic 2014/53/EU, 2014/35/EU.
- Polski:** Urządzenie jest zgodne z ogólnymi wymaganiami oraz szczególnymi warunkami określonymi Dyrektywą UE 2014/53/EU, 2014/35/EU.
- Română:** Acest echipament este în conformitate cu cerințele esențiale și alte prevederi relevante ale Directivei 2014/53/UE, 2014/35/UE.
- Русский:** Это оборудование соответствует основным требованиям и положениям Директивы 2014/53/EU, 2014/35/EU.
- Magyar:** Ez a berendezés megfelel az alapvető követelményeknek és más vonatkozó irányelveknek (2014/53/EU, 2014/35/EU).
- Türkçe:** Bu cihaz 2014/53/EU, 2014/35/EU direktifleri zorunlu istekler ve diğer hükümlerle ile uyumludur.
- Українська:** Обладнання відповідає вимогам і умовам директиви 2014/53/EU, 2014/35/EU.
- Slovenčina:** Toto zariadenie spĺňa základné požiadavky a ďalšie príslušné ustanovenia smerníc 2014/53/EU, 2014/35/EU.
- Deutsch:** Dieses Gerät erfüllt die Voraussetzungen gemäß den Richtlinien 2014/53/EU, 2014/35/EU.
- Español:** El presente equipo cumple los requisitos esenciales de la Directiva 2014/53/EU, 2014/35/EU.
- Italiano:** Questo apparecchio è conforme ai requisiti essenziali e alle altre disposizioni applicabili della Direttiva 2014/53/EU, 2014/35/UE.
- Nederlands:** Dit apparaat voldoet aan de essentiële eisen en andere van toepassing zijnde bepalingen van richtlijn 2014/53/EU, 2014/35/EU.
- Português:** Este equipamento cumpre os requisitos essenciais da Directiva 2014/53/EU, 2014/35/EU.
- Norsk:** Dette utstyret er i samsvar med de viktigste kravene og andre relevante regler i Direktiv 2014/53/EU, 2014/35/EU.
- Svenska:** Denna utrustning är i överensstämmelse med de väsentliga kraven och övriga relevanta bestämmelser i direktiv 2014/53/EU, 2014/35/EU.
- Dansk:** Dette udstyr er i overensstemmelse med de væsentligste krav og andre relevante forordninger i direktiv 2014/53/EU, 2014/35/EU.
- suomen kieli:** Tämä laite täyttää direktiivien 2014/53/EU, 2014/35/EU. oleelliset vaatimukset ja muut asiaankuuluvat määräykset.

FOR USE IN

AT	BE	BG	CZ	DK	DE				
EE	IE	EL	ES	FR	HR	IT	CY	LV	LT
LU	HU	MT	NL	PL	PT	RO	SI	SK	FI
SE	UK	UK(PN)	TR	IS	LI	NO	CH	RU	UA



WEEE Directive & Product Disposal



At the end of its serviceable life, this product should not be treated as household or general waste. It should be handed over to the applicable collection point for the recycling of electrical and electronic equipment, or returned to the supplier for disposal.

Declaration of Conformity

We, Edimax Technology Co., Ltd., declare under our sole responsibility, that the equipment described below complies with the requirements of the European Radio Equipment directives.

Equipment: AC2600 Home WiFi Roaming Router
Model No.: RG21S

The following European standards for essential requirements have been followed:

Directives 2014/53/EU

Spectrum : EN 300 328 V2.1.1 (2016-11)
EN 301 893 V2.1.1 (2017-05)
EMC : EN 301 489-1 V2.2.0 (2017-03)
EN 301 489-17 V3.2.0 (2017-03)
EMF : EN 62311:2008
Safety (LVD) : IEC 62368-1:2014 (2nd Edition) and/or EN 62368-1:2014+A11:2017

Edimax Technology Europe B.V.
Fijenhof 2,
5652 AE Eindhoven,
The Netherlands

Printed Name: David Huang
Title: Director
Edimax Technology Europe B.V.

a company of:
Edimax Technology Co., Ltd.
No. 278, Xinhua 1st Rd.,
Neihu Dist., Taipei City,
Taiwan



Date of Signature: Nov., 2020

Signature: _____

Printed Name: Albert Chang

Title: Director

Edimax Technology Co., Ltd.

Notice According to GNU General Public License Version 2

This product includes software that is subject to the GNU General Public License version 2. The program is free software and distributed without any warranty of the author. We offer, valid for at least three years, to give you, for a charge no more than the costs of physically performing source distribution, a complete machine-readable copy of the corresponding source code.

Das Produkt beinhaltet Software, die den Bedingungen der GNU/GPL-Version 2 unterliegt. Das Programm ist eine sog. „Free Software“, der Autor stellt das Programm ohne irgendeine Gewährleistungen zur Verfügung. Wir bieten Ihnen für einen Zeitraum von drei Jahren an, eine vollständige maschinenlesbare Kopie des Quelltextes der Programme zur Verfügung zu stellen – zu nicht höheren Kosten als denen, die durch den physikalischen Kopiervorgang anfallen.

GNU GENERAL PUBLIC LICENSE Version 2, June 1991

Copyright (C) 1989, 1991 Free Software Foundation, Inc. 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA
Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public License is intended to guarantee your freedom to share and change free software--to make sure the software is free for all its users. This General Public License applies to most of the Free Software Foundation's software and to any other program whose authors commit to using it. (Some other Free Software Foundation software is covered by the GNU Lesser General Public License instead.) You can apply it to your programs, too.

When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs; and that you know you can do these things.

To protect your rights, we need to make restrictions that forbid anyone to deny you these rights or to ask you to surrender the rights. These restrictions translate to certain responsibilities for you if you distribute copies of the software, or if you modify it.

For example, if you distribute copies of such a program, whether gratis or for a fee, you must give the recipients all the rights that you have. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights.

We protect your rights with two steps: (1) copyright the software, and (2) offer you this license which gives you legal permission to copy, distribute and/or modify the software.

Also, for each author's protection and ours, we want to make certain that everyone understands that there is no warranty for this free software. If the software is modified by someone else and passed on, we want its recipients to know that what they have is not the original, so that any problems introduced by others will not reflect on the original authors' reputations.

Finally, any free program is threatened constantly by software patents. We wish to avoid the danger that redistributors of a free program will individually obtain patent licenses, in effect making the program proprietary. To prevent this, we have made it clear that any patent must be licensed for everyone's free use or not licensed at all.

The precise terms and conditions for copying, distribution and modification follow.

TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License applies to any program or other work which contains a notice placed by the copyright holder saying it may be distributed under the terms of this General Public License. The "Program", below, refers to any such program or work, and a "work based on the Program" means either the Program or any derivative work under copyright law: that is to say, a work containing the Program or a portion of it, either verbatim or with modifications and/or translated into another language. (Hereinafter, translation is included without limitation in the term "modification".) Each licensee is addressed as "you".

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running the Program is not restricted, and the output from the Program is covered only if its contents constitute a work based on the Program (independent of having been made by running the Program). Whether that is true depends on what the Program does.

1. You may copy and distribute verbatim copies of the Program's source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep

intact all the notices that refer to this License and to the absence of any warranty; and give any other recipients of the Program a copy of this License along with the Program.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Program or any portion of it, thus forming a work based on the Program, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

- a) You must cause the modified files to carry prominent notices stating that you changed the files and the date of any change.
- b) You must cause any work that you distribute or publish, that in whole or in part contains or is derived from the Program or any part thereof, to be licensed as a whole at no charge to all third parties under the terms of this License.
- c) If the modified program normally reads commands interactively when run, you must cause it, when started running for such interactive use in the most ordinary way, to print or display an announcement including an appropriate copyright notice and a notice that there is no warranty (or else, saying that you provide a warranty) and that users may redistribute the program under these conditions, and telling the user how to view a copy of this License. (Exception: if the Program itself is interactive but does not normally print such an announcement, your work based on the Program is not required to print an announcement.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Program, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Program, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Program.

In addition, mere aggregation of another work not based on the Program with the Program (or with a work based on the Program) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may copy and distribute the Program (or a work based on it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you also do one of the following:

- a) Accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,
- b) Accompany it with a written offer, valid for at least three years, to give any third party, for a charge no more than your cost of physically performing source distribution, a complete machine-readable copy of the corresponding source code, to be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,
- c) Accompany it with the information you received as to the offer to distribute corresponding source code. (This alternative is allowed only for noncommercial distribution and only if you received the program in object code or executable form with such an offer, in accord with Subsection b above.)

The source code for a work means the preferred form of the work for making modifications to it. For an executable work, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the executable. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

If distribution of executable or object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place counts as distribution of the source code, even though third parties are not compelled to copy the source along with the object code.

4. You may not copy, modify, sublicense, or distribute the Program except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense or distribute the Program is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

5. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Program or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Program (or any work based on the Program), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Program or works based on it.

6. Each time you redistribute the Program (or any work based on the Program), the recipient automatically receives a license from the original licensor to copy, distribute or modify the Program subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties to this License.

7. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Program at all. For example, if a patent license would not permit royalty-free redistribution of the Program by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Program.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system, which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

8. If the distribution and/or use of the Program is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Program under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.

9. The Free Software Foundation may publish revised and/or new versions of the General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Program specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Program does not specify a version number of this License, you may choose any version ever published by the Free Software Foundation.

10. If you wish to incorporate parts of the Program into other free programs whose distribution conditions are different, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

11. BECAUSE THE PROGRAM IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

12. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.