User Guide

Tenda

Wireless AC1200 Dual-band Router

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!

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Preface

Thank you choosing Tenda! Please read this user guide before you start! This user guide instructs you to install and configure the router.

This user guide uses the following formats to highlight special messages:

Note: This format is used to highlight information of importance or special interest. Ignoring this type of note may result in ineffective configurations, loss of data or damage to device.

Tip: This format is used to highlight a procedure that will save time or resources.

Knowledge Center: Description of fields on the device GUI.

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Telephone: (86 755) 2765 7180
Email: support@tenda.com.cn

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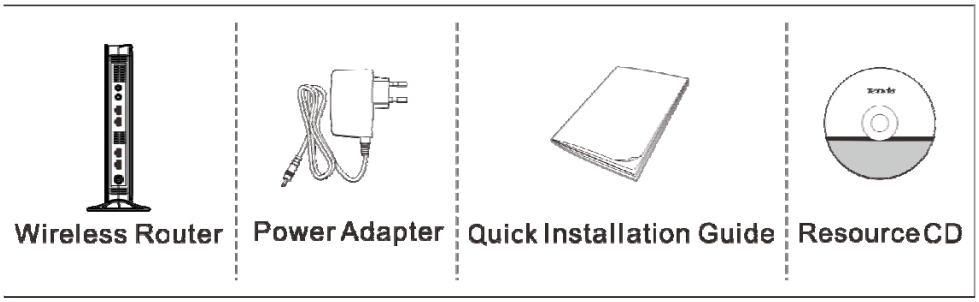
I Product Overview

1 Package Contents

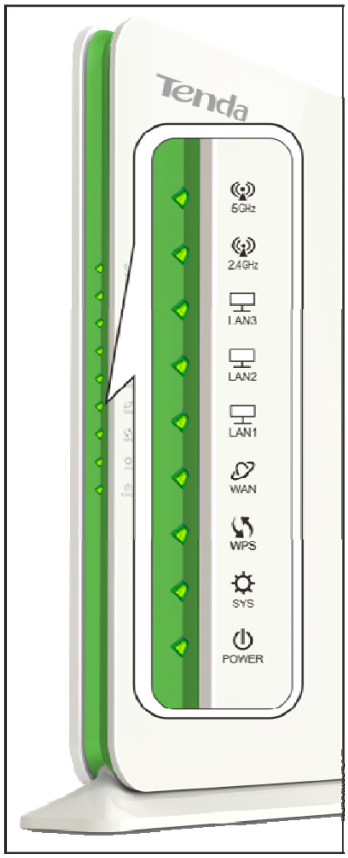
Unpack the package. Your box should contain the following items:



If any of the parts are incorrect, missing, or damaged, contact your Tenda dealer. Keep the carton, including the original packing materials, in case you need to return the product for repair.

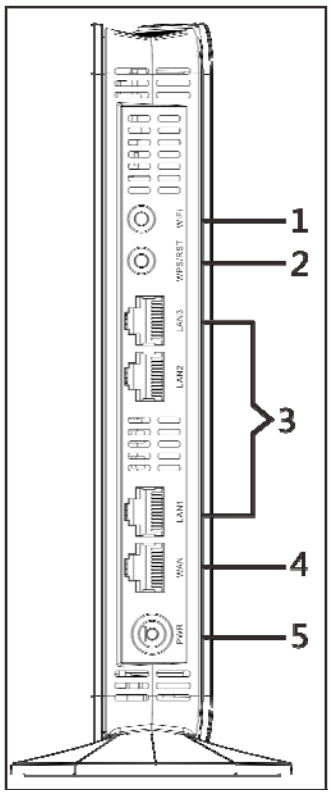
2 Getting to know your router

LEDs on Front Panel



LED	Status	Description
5GHz	Solid	5G wireless radio is on
	Blinking	Data being transferred over 5G wireless network
	Off	5G wireless radio is off
2.4GHz	Solid	2.4G wireless radio is on
	Blinking	Data being transferred over 2.4G wireless network
	Off	2.4G wireless radio is off
LAN (1/2/3)	Solid	LAN port connected correctly
	Blinking	LAN port is transferring data
	Off	No link is detected on this port.
WAN	Solid	WAN port connected correctly
	Blinking	WAN port is transferring data
	Off	No link is detected on this port.
WPS	Solid	WPS is enabled
	Blinking	Device is performing WPS authentication on a client device.
	Off	WPS function is disabled or WPS authentication negotiation is completed
SYS	Blinking	System is functioning correctly.
	Solid/Off	The unit is malfunctioning.
POWER	Solid	Indicates a proper connection to the power supply
	Off	Power is not supplied to the router. Please check the power connection between the power outlet and router.

Buttons & Interfaces on Back Panel



1→WiFi: Wireless radio ON/OFF button. Pressing the WiFi On/Off button turns the wireless radios on and off.

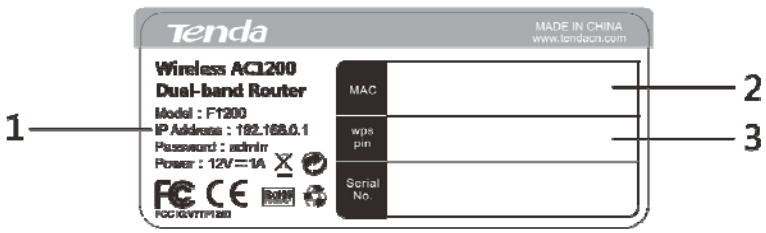
2→WPS/RST: Pressing it for over 7 seconds restores the device to factory default settings. For factory default parameters, see **Appendix 3 Factory Default Settings**. Pressing it for about 1 second enables WPS-PBC and the WPS LED blinks. You can use this button to quickly add a wireless device or computer to your wireless network.

3→LAN (1/2/3): The local (LAN) Ethernet ports are for cabling the device to local computers, switches, etc.

4→WAN: The Internet (WAN) Ethernet port is for cabling the router to a cable or DSL modem.

5→PWR: The power port for connecting the router to power outlet.

Label



1→Default Login IP address. This IP address is to be used to access the router's settings through a web browser. If you change it, you have to open a new connection to the new IP address and log in again.

2→MAC address.

3→WPS pin code.

3 Position Your Router

The operating distance or range of your wireless connection can vary significantly depending on the physical placement of your router. For best performance, place your router:

- Near the center of the area where your computers, smart phones and other devices operate, and preferably within line of sight to your wireless devices.
- In an elevated location such as a high shelf, keeping the number of walls and ceilings between the router and your other devices such as computers and smart phones to a minimum.
- Away from electrical devices that are potential sources of interference, such as ceiling fans, home security systems, microwaves or PCs.
- Away from any large metal surfaces, such as a solid metal door or aluminum studs.
- Away from other materials such as glass, insulated walls, fish tanks, mirrors, brick, and concrete that can also affect your wireless signal.

II Quick Internet Setup

1 Getting Prepared

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

Item	Description
Router	Comes in the package
Power Adapter	Please use the power adapter that comes in the package. Using a power adapter with a different voltage rating than the one included with the router will cause damage to the router.
PC	Should have installed IE8 or higher browser
Ethernet Cable	You will need it to connect your PC to the router
Internet service	This is provided by your ISP
Gather ISP Information	Your Internet service provider (ISP) should have provided you with all of the information needed to connect to the Internet. If you cannot locate this information, ask your ISP to provide it. ● If your ISP uses a PPPoE Internet connection, you will need ISP login name and password. ● If you use a DHCP Internet connection, no information is needed. ● If your ISP gives you a fixed or static IP address for Internet connection, you will need to gather the following information: 1) IP Address 2) Subnet Mask 3) Gateway 4) DNS Server 5) Alternate DNS Server (Optional)

Hardware Install

Note ----------

Before you start, make sure you can access the Internet by connecting the cable from the incoming Internet side to your PC.

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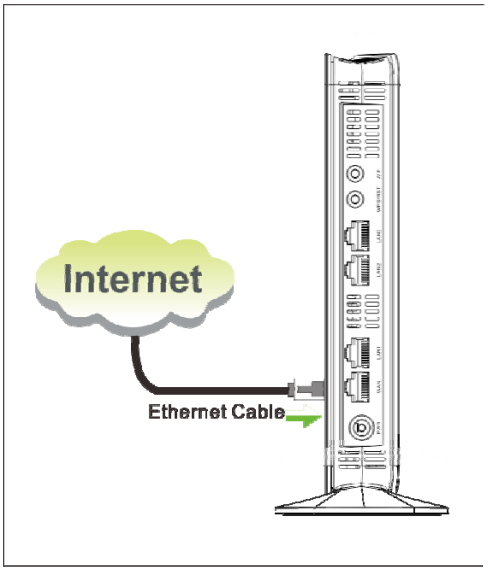
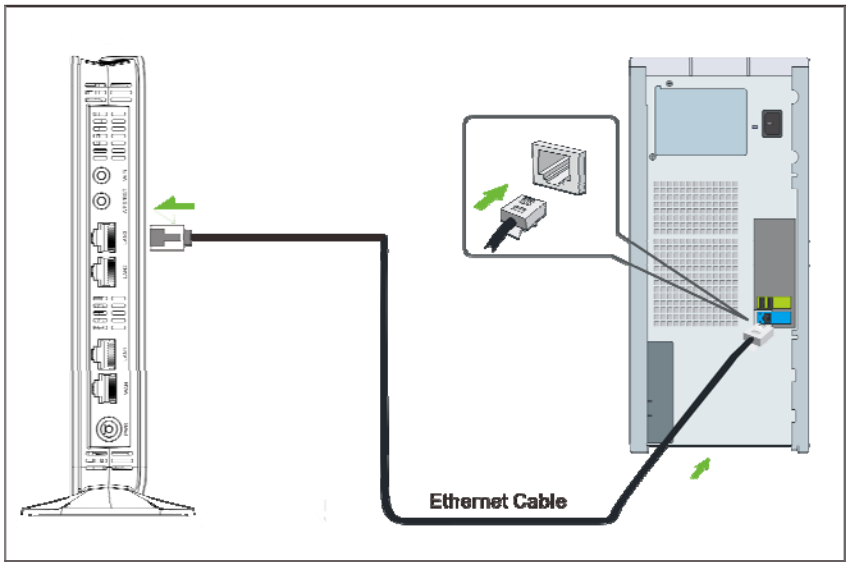
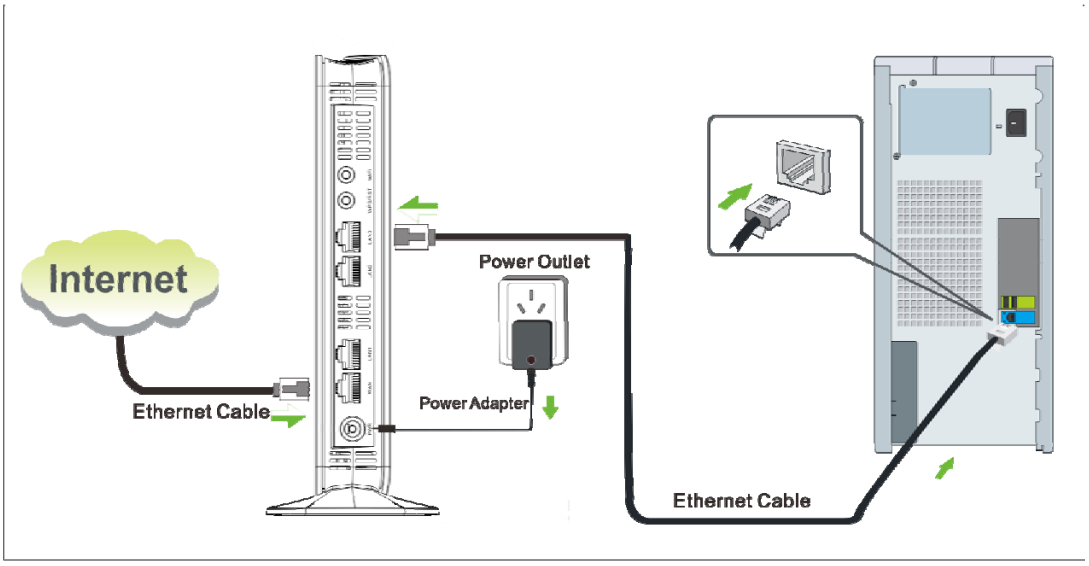
① Connect the Ethernet cable from the Internet side to WAN port of the router.



② Connect one of the LAN ports on the router to the RJ45 (NIC) port on your PC using an Ethernet cable.



③ Connect the router to a surge protected power strip using the included power adapter.



Note ----------

Using a power adapter with a different voltage rating than the one included with the device will cause damage to the device.

---

3. Internet Setup

1) Configure PC

If your computer is set to a static or fixed IP address (this is uncommon), change it to obtain an IP address automatically from the router. If you are unsure, see **Appendix 1 Configure PC TCP/IP Settings.**

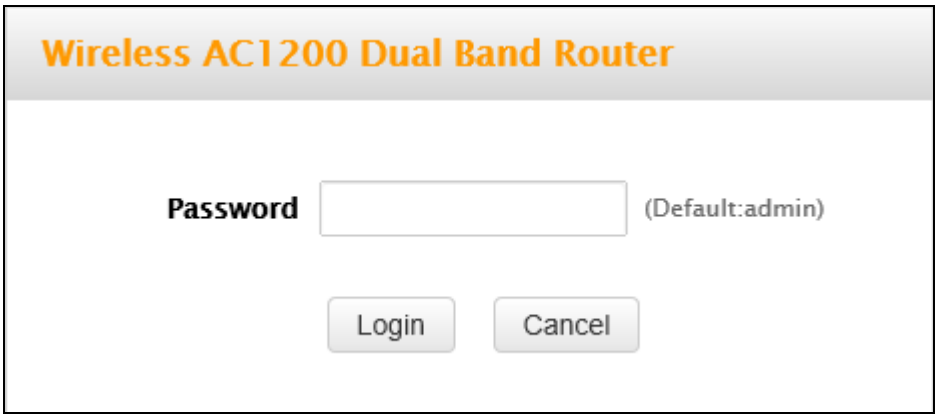
2) Configure Router

Step 1. Log in to Web manager.

① Launch a web browser, say, IE.

② In the address bar, input 192.168.0.1, and press "Enter".

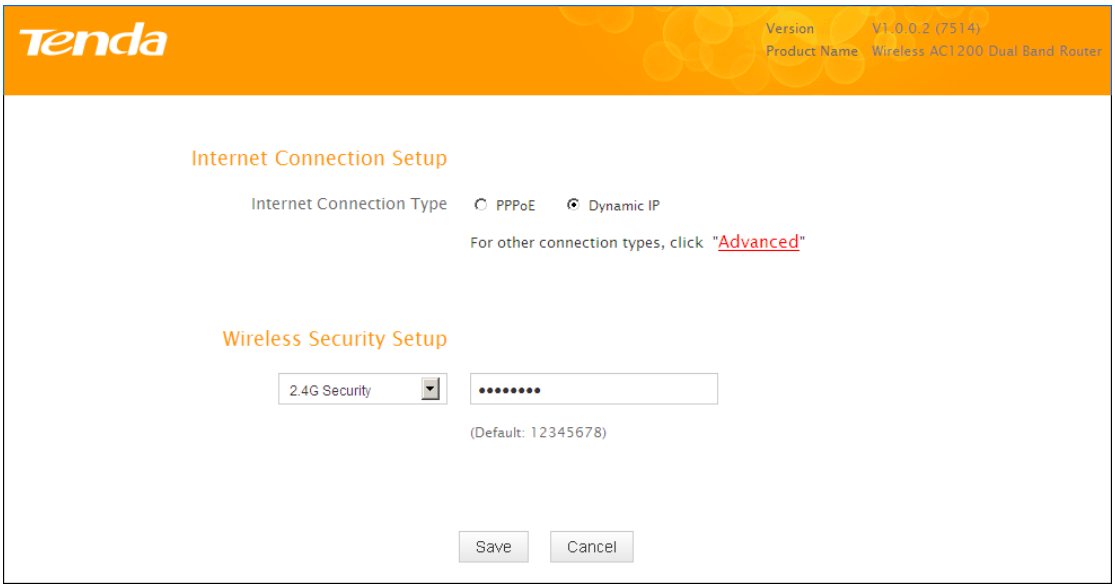
③ The login window appears, and enter the login password.



④ This router will automatically detect WAN connection status when you press the **Enter** key (This happens when you first time set up the router or when you restore the router to factory default settings).

⑤ The following screen appears when your Internet connection type is detected. Click **OK**.

⑥ And the Quick Setup screen appears after you clicked the **OK** button.



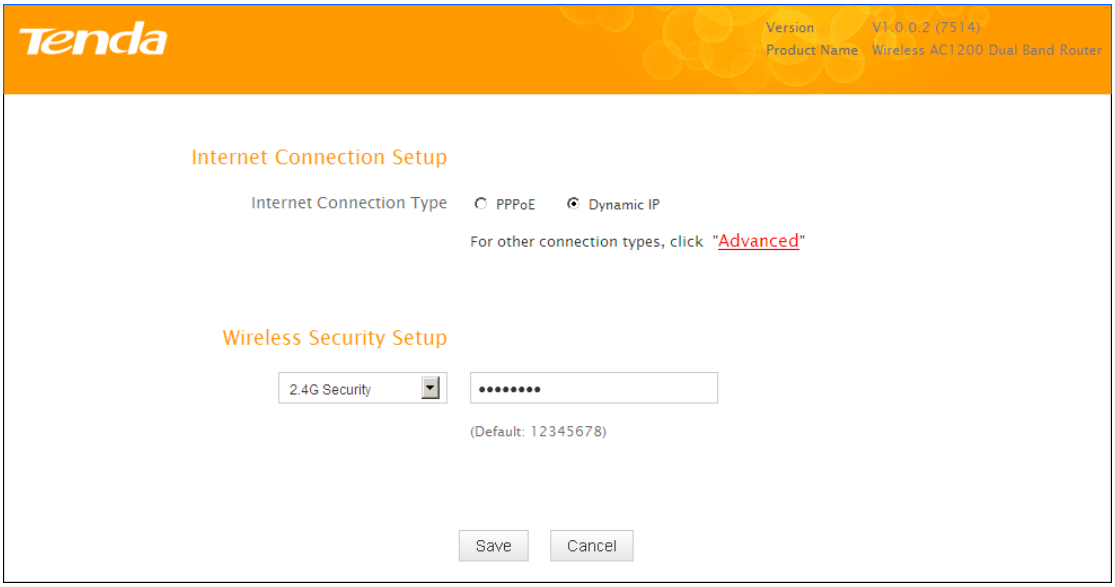
Tip----------

1. If you are not using the PPPoE or Dynamic IP (DHCP) Internet connection type, click “Advanced” for more connection types.
2. The default Internet connection type is DHCP (Dynamic IP).
3. The router has a preset wireless security key of 12345678 but it is deactivated by factory default. However if you click the **OK** button on that page, the wireless security key of 12345678 will be activated automatically.
4. Here we use the WPA-PSK/AES for explanation. If you want to use other security mode and/or cipher type, see **Security**.

Step 2. Internet Setup & Wireless Security Setup

A. Select Dynamic IP (DHCP) to obtain IP Address information automatically from your ISP. Select this option if your ISP does not give you any IP information or user name and password.

Dynamic IP (DHCP) & Wireless Security Setup



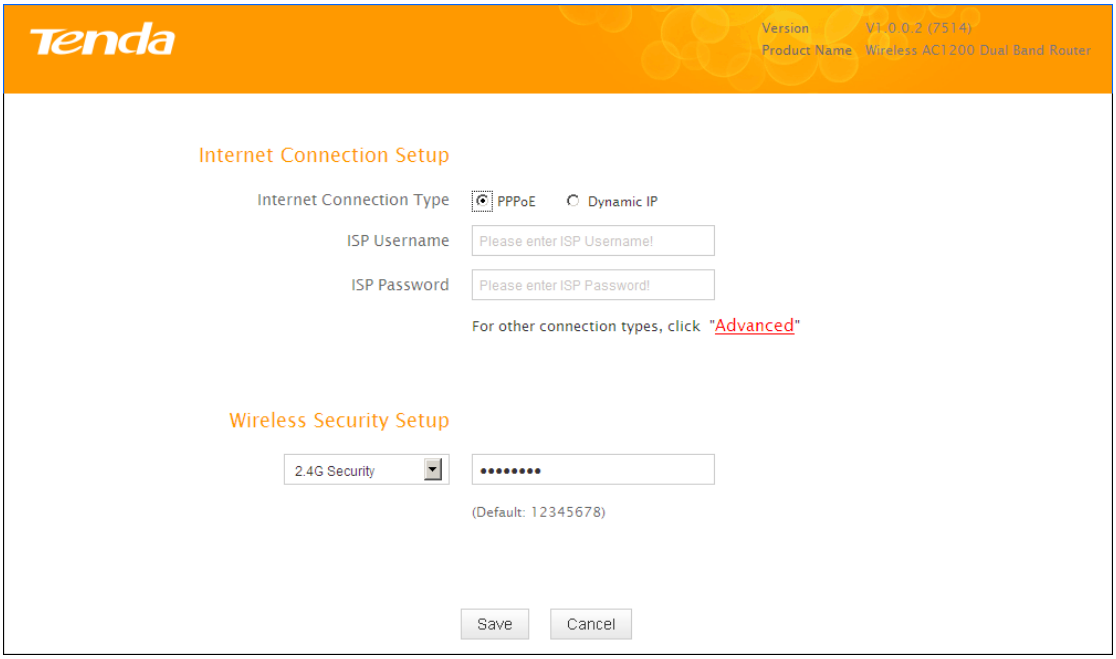
① Select Dynamic IP (DHCP).

② The default wireless band is 2.4G and default wireless security key is 12345678. For better security key, please change the default security key (Security key should be 8-63 characters).

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

B. Select PPPoE if your ISP uses a PPPoE connection and gives you a PPPoE user name and a PPPoE password.

PPPoE & Wireless Security Setup



① Select **PPPoE**.

② Enter the ISP login name and password.

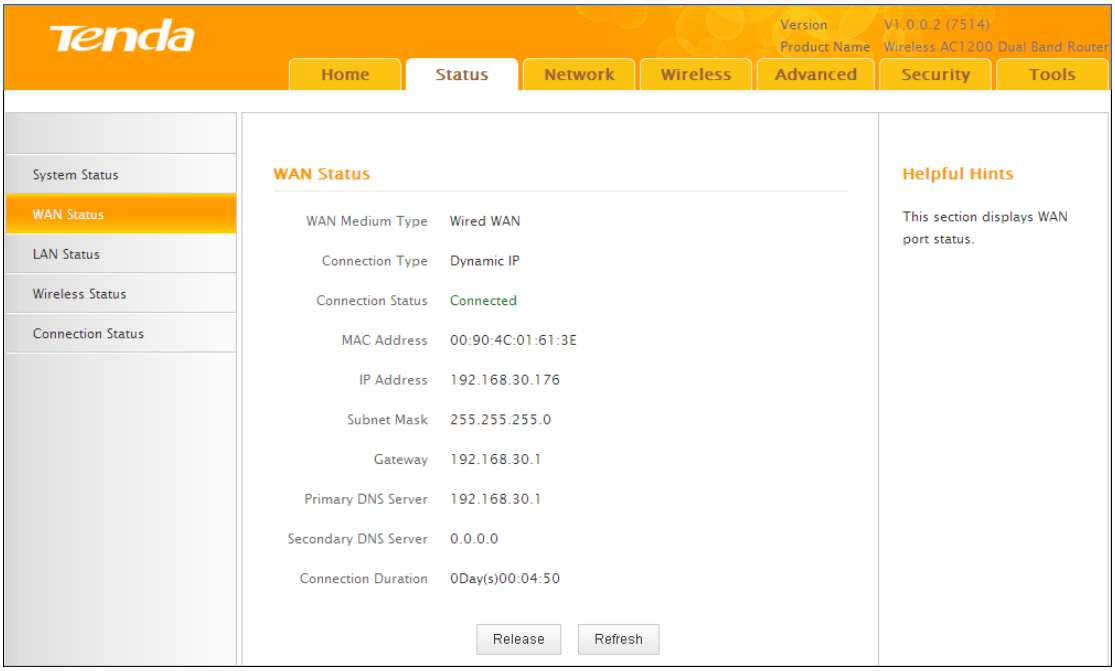
③ The default wireless band is 2.4G and default wireless security key is 12345678. For better security key, please change the default security key (Security key should be 8-63 characters).

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

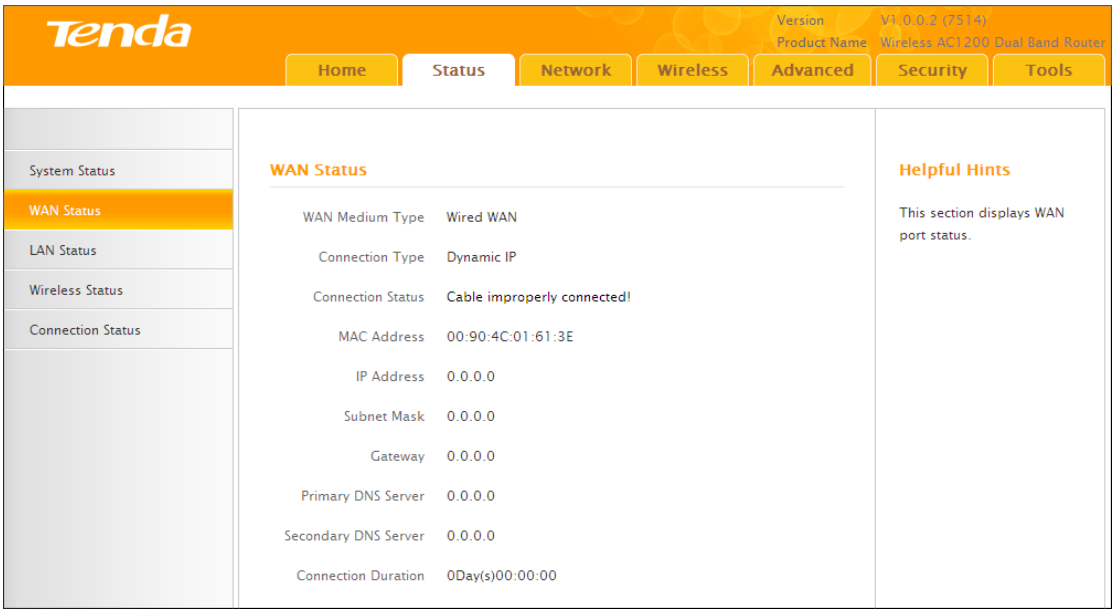
4 Verify Internet Connectivity

System will automatically enter the Status screen after you save the settings made on the Quick Setup screen.

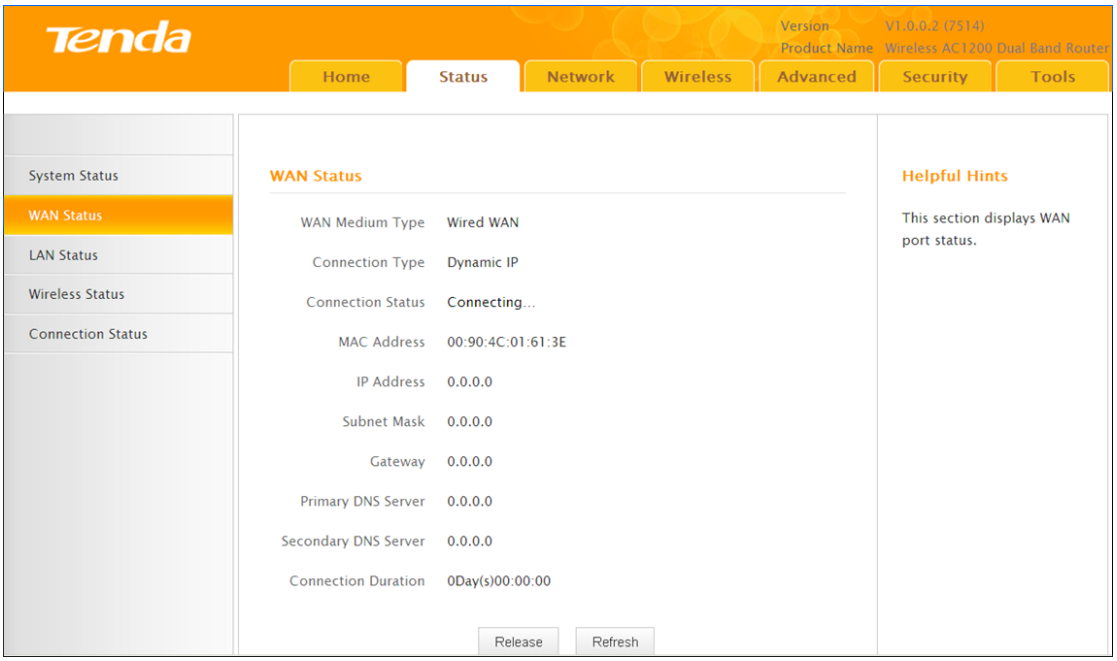
A. If the connection status displays "Connected" (as shown below), you are connected to the Internet.



B. If connection status displays "Cable improperly connected!", the connection between the router and Internet fails. Make sure the cable from the incoming Internet side is properly connected to the router's WAN port. If nothing is wrong, "Connecting" or "Connected" will be displayed.



If the connection status displays "Connecting…" and WAN IP address displays "0.0.0.0", wait until the page updates five times.



And if it still displays "Connecting…" try the following steps:

① Make sure physical connections are correctly established.

② Make sure you can access the Internet on your PC without using the router.

③ If your ISP uses a PPPoE Internet connection, make sure you entered the correct ISP login name and password.

④ If the problem is still unsolved, see **2.4 MAC Clone**.

5 Join Your Wireless Network

Having finished above settings, you can search for the device's default wireless network (SSID) from your wireless devices (notebook, iPad, iPhone, etc.) to connect to it wirelessly.

Tip----------

1. The router's SSID is Tenda_XXXXXX by default.
2. To join your wireless network, the PC you use must have installed a wireless network adapter. If not, install one.

Windows 7

① Click the icon on the notification area on the bottom right corner.

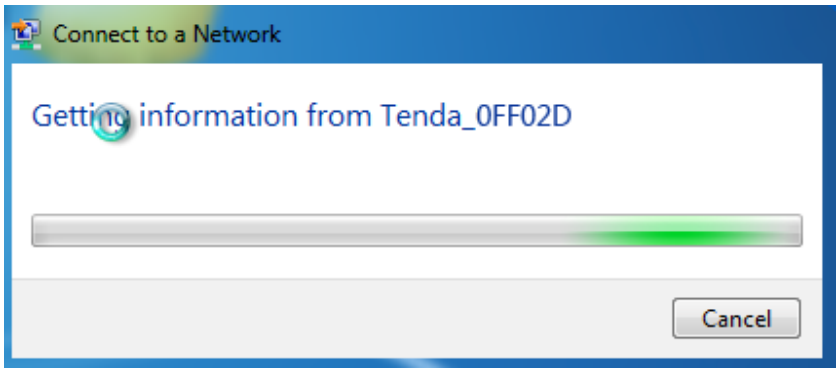
Tip----------

If you cannot find the icon, try disabling the wired network adapter or unplug the Ethernet cable from the wired network adapter of your PC and refresh your desktop. If the problem remains unsolved, see **Join Your Wireless Network - Windows 7**.

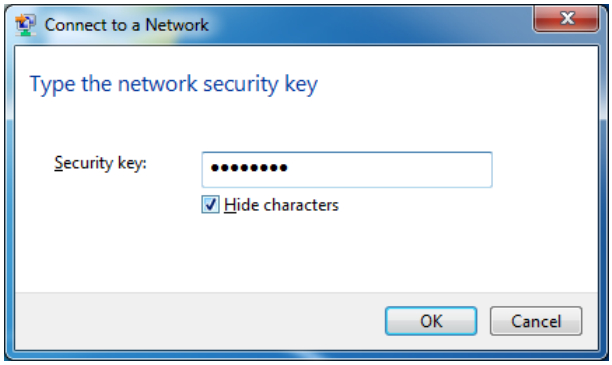
---

② Select the wireless network you wish to connect and click **Connect.**

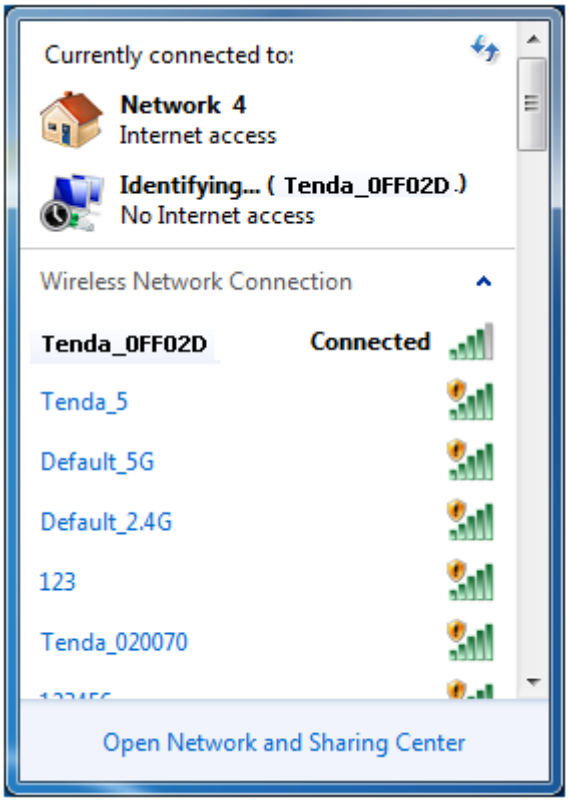
③ If you see the screen below, you are connecting to the wireless network.



④ Enter the security key and click **OK**.

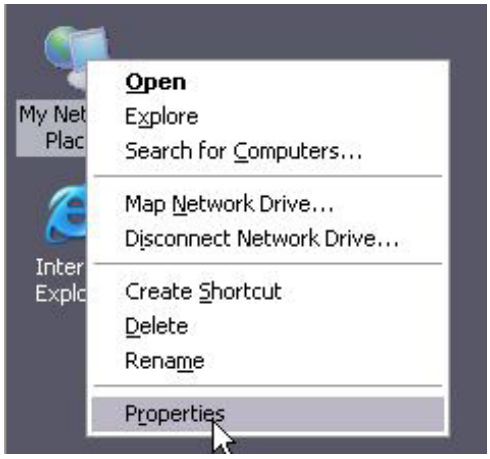


⑤ When you see **Connected** displayed next to the wireless network you selected, you have connected to the wireless network successfully.

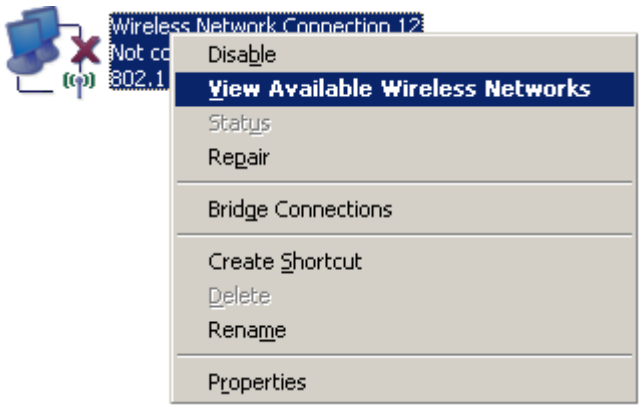


Windows XP

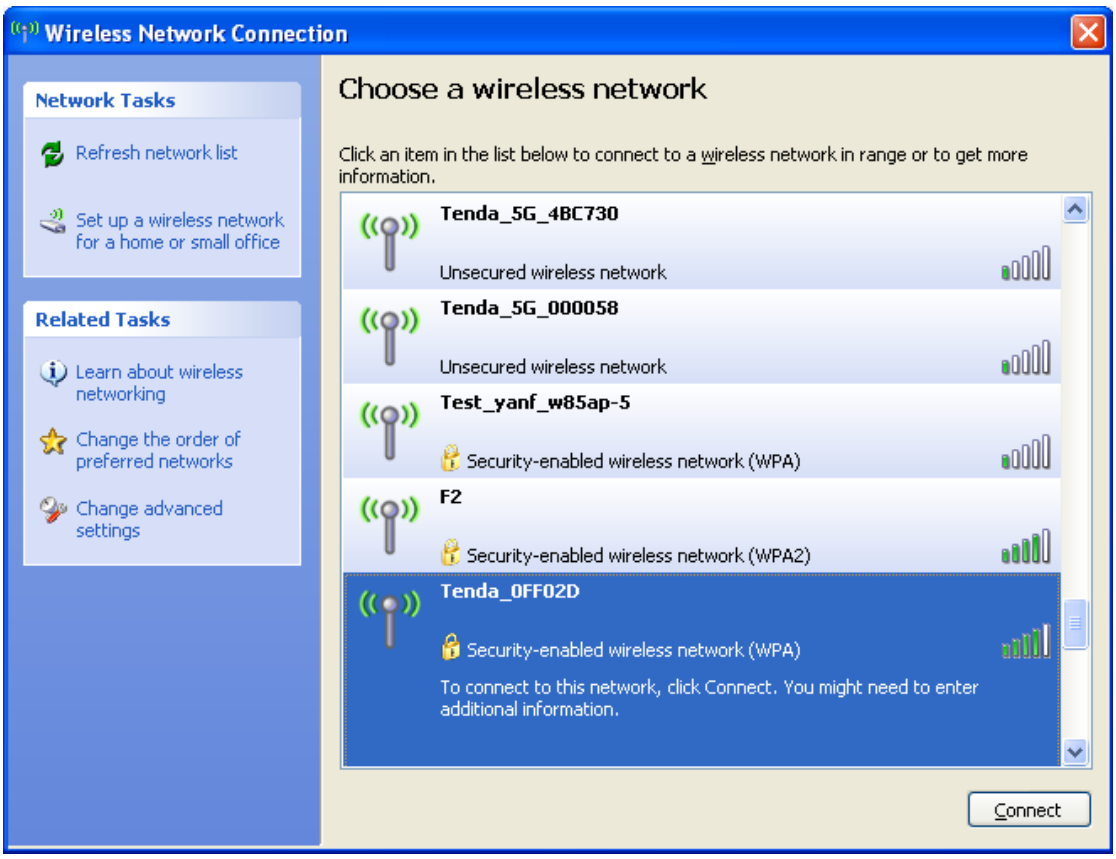
① Right click **My Network Places** from your PC's desktop and select **Properties.**



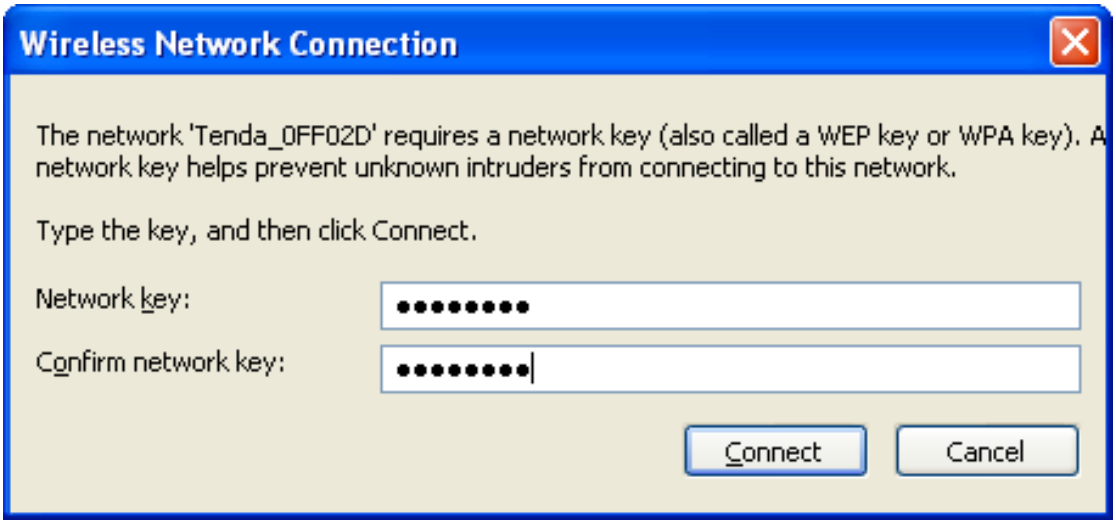
② Right click **Wireless Network Connection** and select **View Available Wireless Networks**.



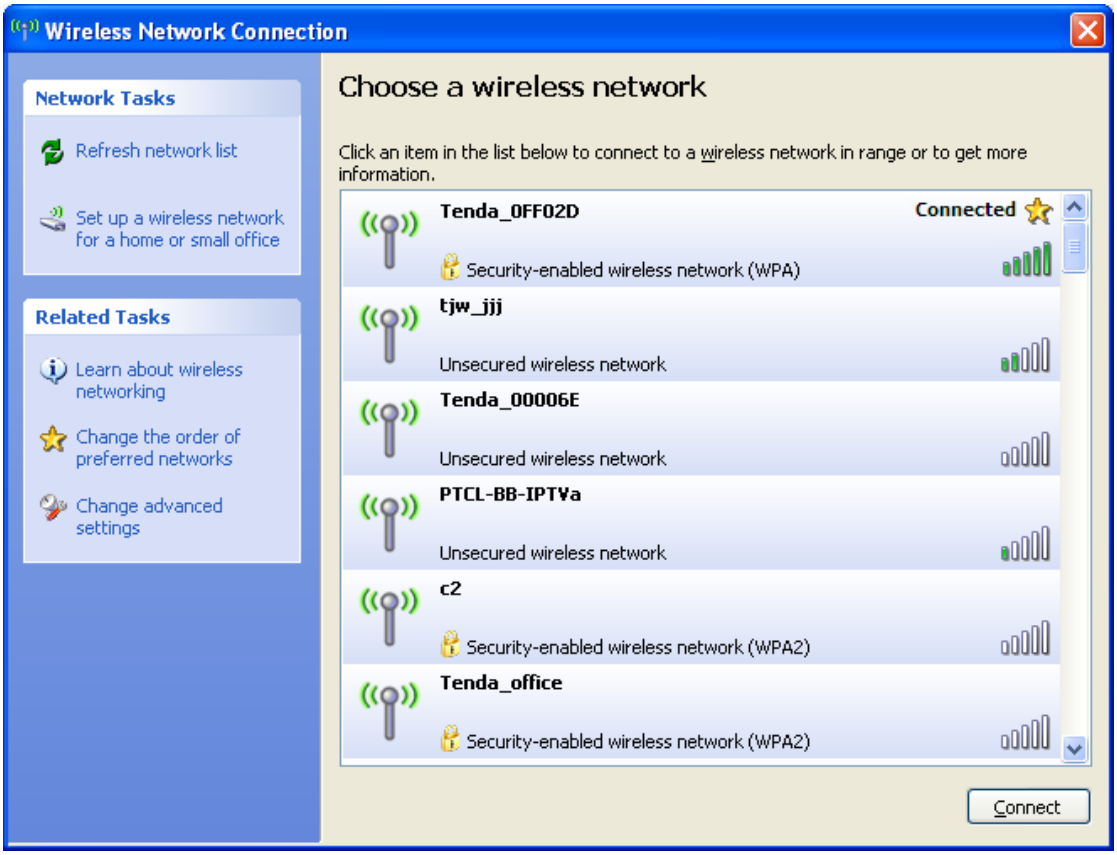
③ Double click the wireless network you wish to connect.


Wireless Network Connection
Network Tasks
Refresh network list
Set up a wireless network for a home or small office
Related Tasks
Learn about wireless networking
Change the order of preferred networks
Change advanced settings
Choose a wireless network
Click an item in the list below to connect to a wireless network in range or to get more information.
Tenda_5G_4BC730
Unsecured wireless network
Tenda_5G_000058
Unsecured wireless network
Test_yanf_w85ap-5
Security-enabled wireless network (WPA)
F2
Security-enabled wireless network (WPA2)
Tenda_0FF02D
Security-enabled wireless network (WPA)
To connect to this network, click Connect. You might need to enter additional information.
Connect

④ Enter the security key and click **Connect**.

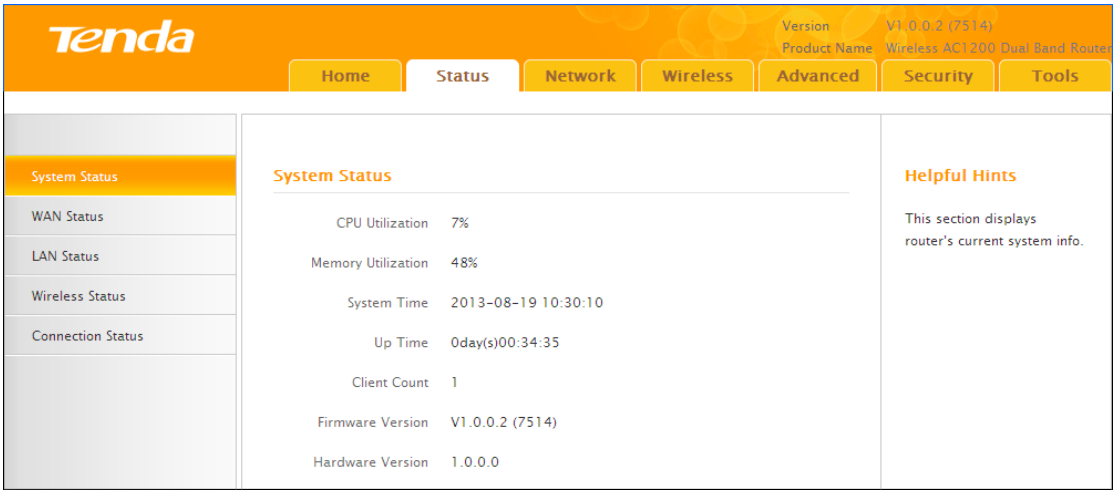


⑤ When you see **Connected** displayed next to the wireless network you selected, you have connected to the wireless network successfully.



III Features & Configurations

For more and advanced features, click **Advanced** on the home page.



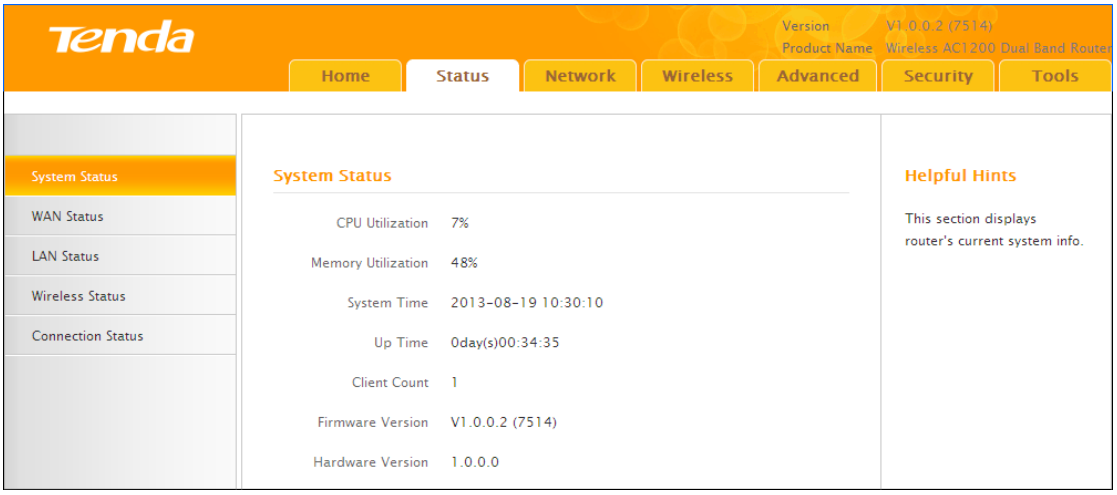
1 Status

1.1 System Status

Click **Advanced** on the home page and the **Status** screen appears. Here you can view the router's WAN status and system status as noted below:

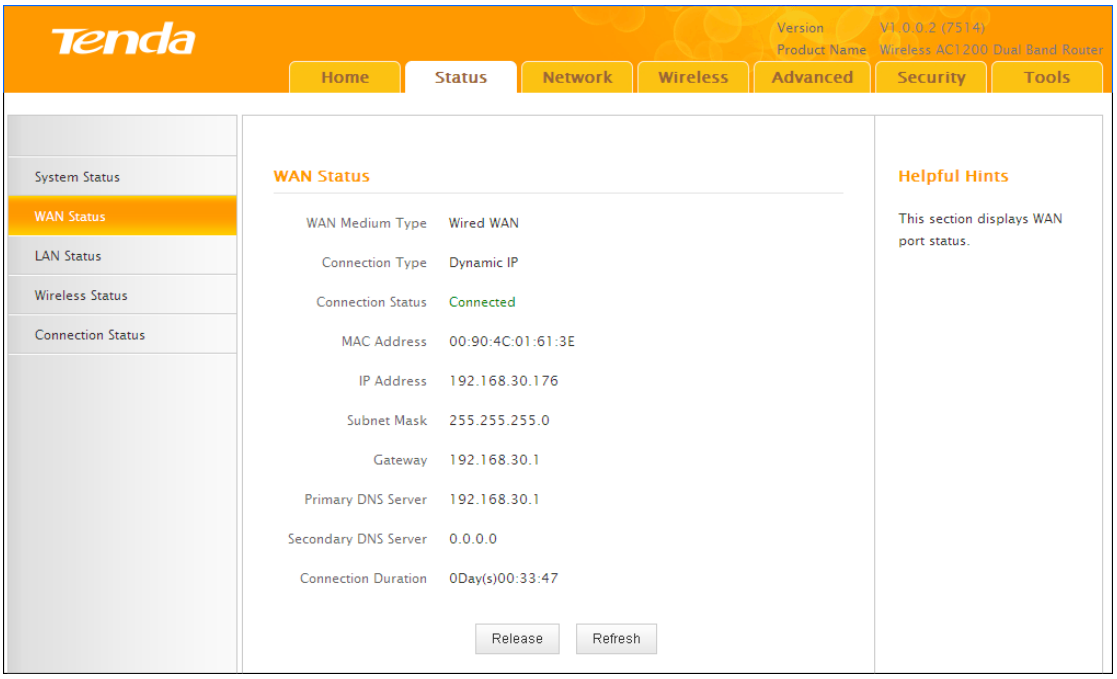
Tip----------

1. **Connection Status:** Displays the router's current WAN connection status: Disconnected, Connecting, or Connected. For explanation of the 3 connection statuses, see **4 Verify Internet Connectivity**.
2. IP Address/Subnet Mask/WAN subnet mask/Gateway/Primary DNS Server/Secondary DNS Server: This type of information appears only if the router successfully connects to Internet via a PPPoE or DHCP (dynamic IP) connection. However if you connect the router to Internet with static IP settings provided by your ISP, these fields will display the settings you entered whether the router successfully connects to the Internet or not.
3. If nothing appears in the secondary DNS server field, there is no available secondary DNS server.



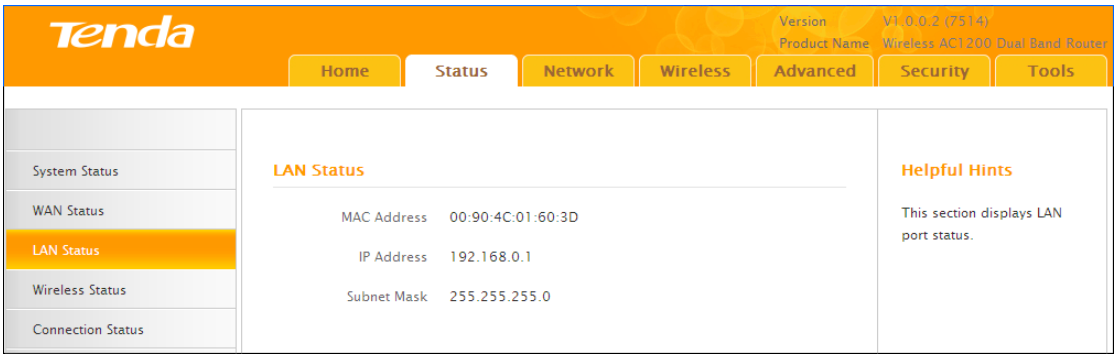
1.2 WAN Status

Click **Status -> WAN Status** to enter the WAN Status screen as seen below.



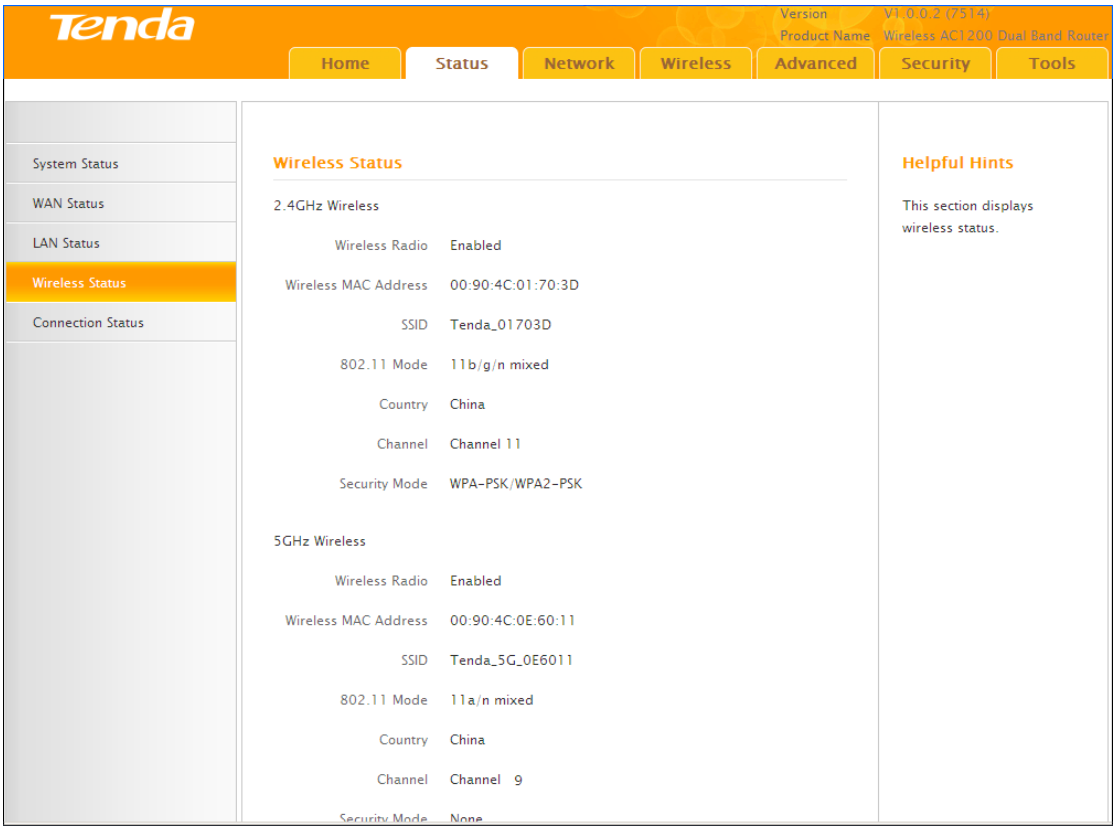
1.3 LAN Status

Click **Status -> LAN Status** to enter the LAN Status screen as seen below.



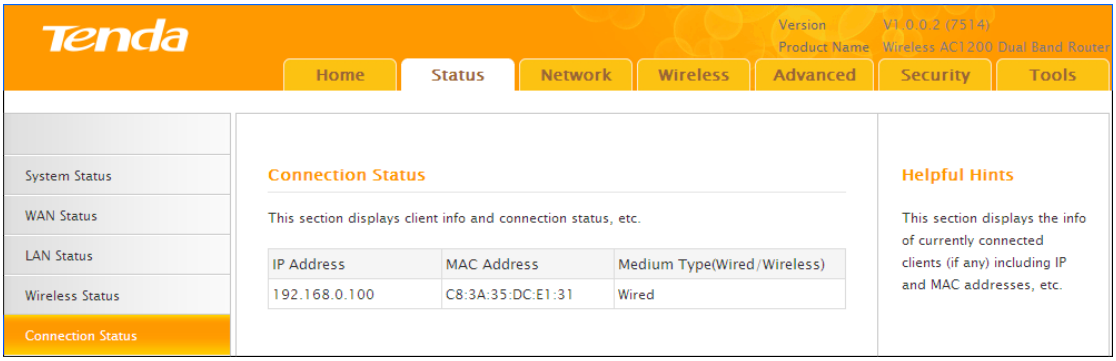
1.4 Wireless Status

Click **Status -> Wireless Status** to enter the Wireless Status screen as seen below.



1.5 Connection Status

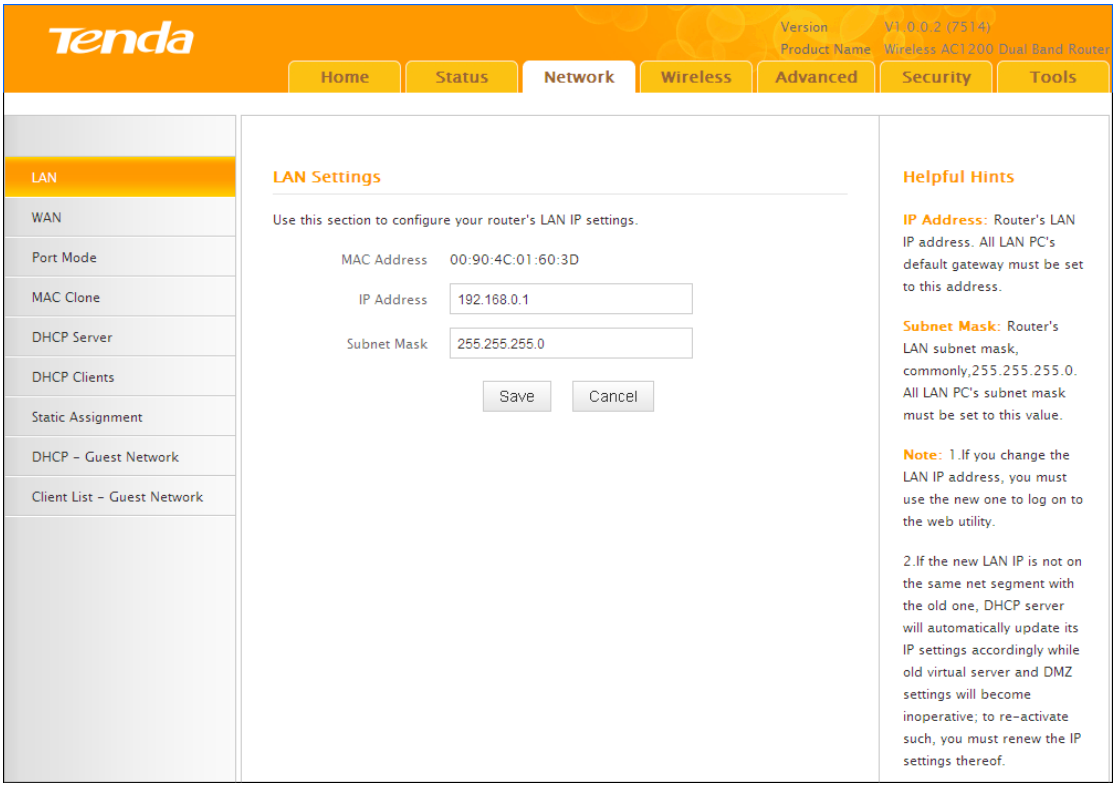
Click **Status -> Connection Status** to enter the Connection Status screen.



2 Network

2.1. LAN Settings

Click **Network -> LAN** to enter the LAN configuration screen. Here you can configure the LAN IP address. This IP address is to be used to access the router's settings through a web browser.



Configuration Procedures：

① Change the IP address to the one you wish to use, for example,

192.168.10.1.

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

Tip ----------

1. Default IP address and subnet mask are respectively 192.168.0.1 and 255.255.255.0.
2. This router does not support VLSM.
3. Be sure to make a note of any changes you apply to this page. If you change the LAN IP address of the router, you have to open a new connection to the new IP address and log in again.

2.2. WAN Settings

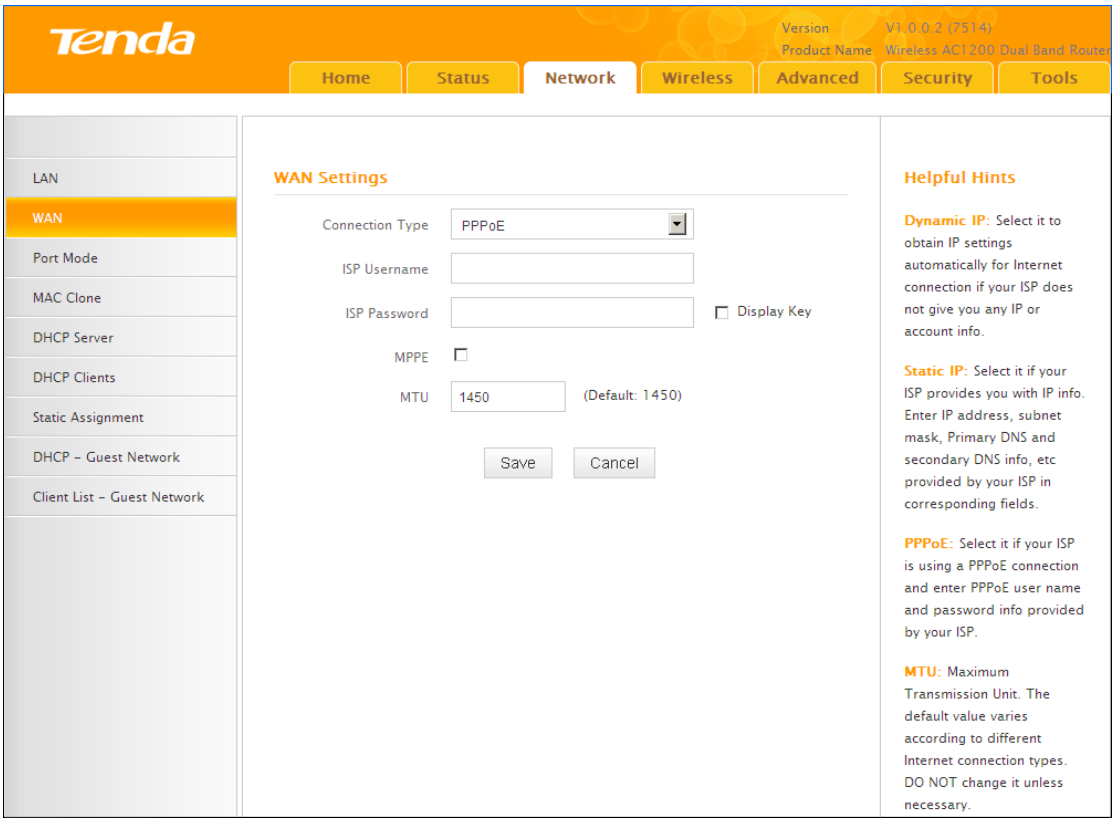
Click **Network -> WAN** to configure your Internet connection settings. Select your Internet connection type:

A. Select **PPPoE** if your ISP provides you with a PPPoE user name and a PPPoE password.

B. Select **Static IP** if your ISP provides you with fixed or static IP address settings (special deployment by ISP; this is rare).

C. Select **DHCP** (Dynamic IP) if you can access the Internet simply by directly connecting your computer to an Internet-enabled ADSL/Cable modem without configuring any settings.

PPPoE



Configuration Procedures:

① **Internet connection Type:** Select **PPPoE**.

② **ISP Username:** Enter the ISP login name.

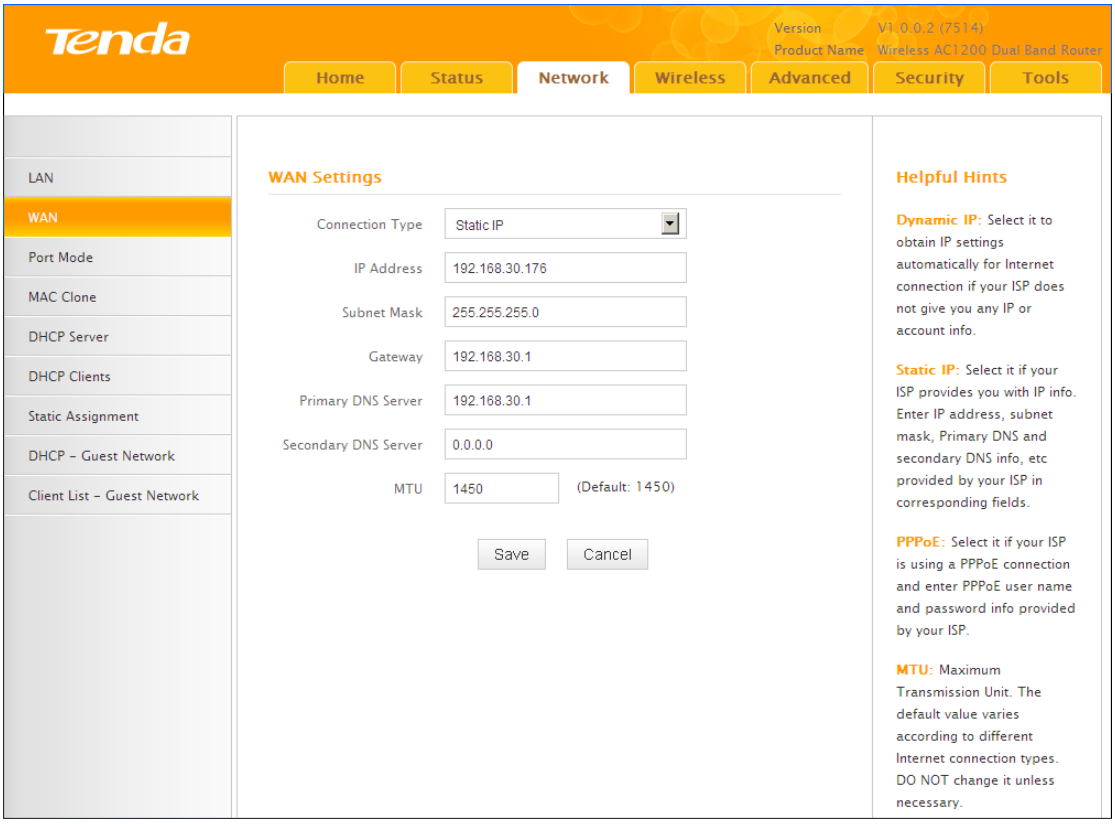
③ **ISP Password:** Enter the ISP login password.

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

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

1. MTU: The MTU (maximum transmission unit) is the largest data packet a network device transmits. The normal MTU value for most Ethernet networks is 1500 bytes, or 1492 bytes for PPPoE connections. For some ISPs, you might need to change the MTU. This is rarely required, and should not be done unless you are sure it is necessary for your ISP connection. For more information, see **WAN MTU Setup**.

Static IP



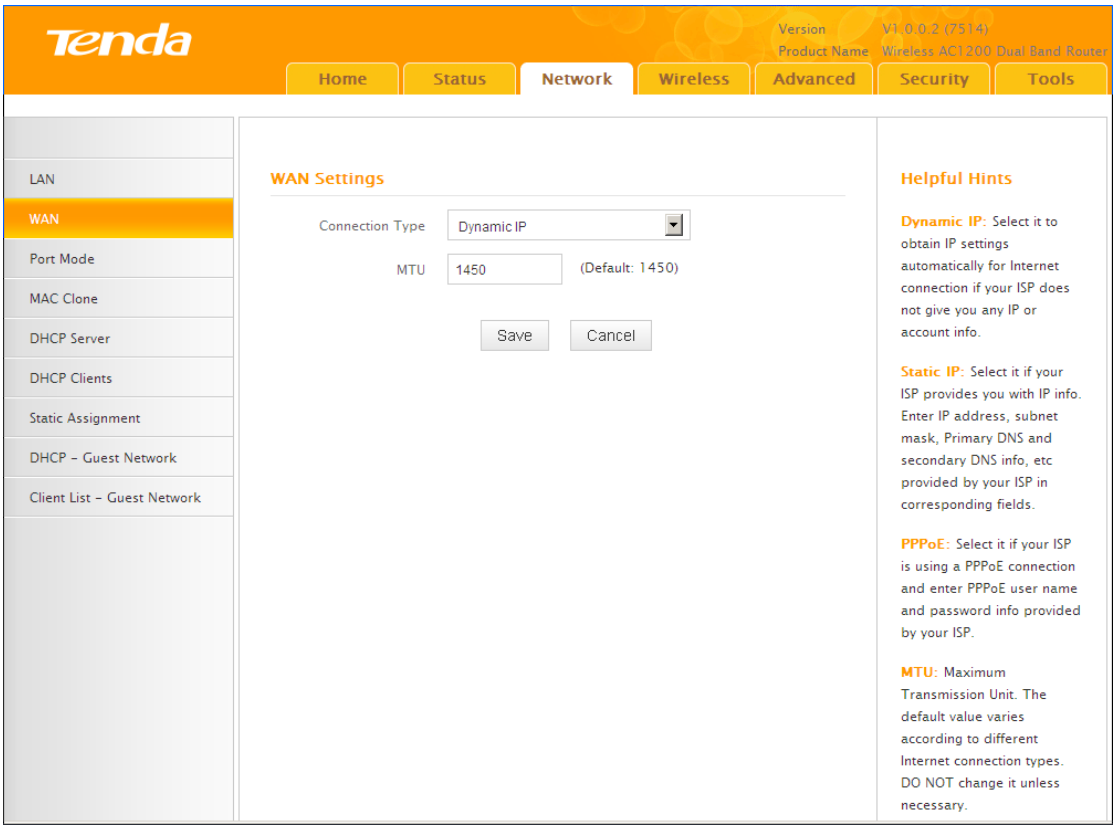
Configuration Procedures:

① **Internet connection Type:** Select **Static IP**.

② **IP Address/Subnet Mask/WAN subnet mask/Gateway/Primary DNS Server/Secondary DNS Server:** Enter those info which should be provided by your ISP. If you cannot locate this info, contact and consult your ISP.

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

Dynamic IP (DHCP)



Configuration Procedures:

① **Internet connection Type:** Select **Dynamic IP** (DHCP).

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

WAN MTU Setup

The MTU (maximum transmission unit) is the largest data packet a network device transmits. The normal MTU value for most Ethernet networks is 1500 bytes, or 1492 bytes for PPPoE connections. For some ISPs, you might need to change the MTU. This is rarely required, and should not be done unless you are sure it is necessary for your ISP connection. When one network device communicates across the Internet with another, the data packets travel through many devices along the way. If a device in the data path has a smaller MTU value than the other devices, the data packets have to be "fragmented" to accommodate the device with the smallest MTU value.

The best MTU value for Tenda routers is often just the factory default value. In some situations, changing the MTU value fixes one problem but causes another. Leave the MTU unchanged unless one of these situations occurs:

A. You have problems connecting to your ISP or other Internet service, and the technical support of either your ISP or Tenda suggests changing the MTU value. Below web-based applications might require an MTU change:

- A secure website that does not open, or displays only part of a web page
- Yahoo email
- MSN portal

B. You use VPN and encounter serious performance problems.

C. You used a program to optimize MTU for performance reasons, and now you have connectivity or performance problems.

If you suspect an MTU problem, try changing the MTU to 1400. If this does not help, gradually reduce the MTU from the maximum value of 1500 until the problem disappears.

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

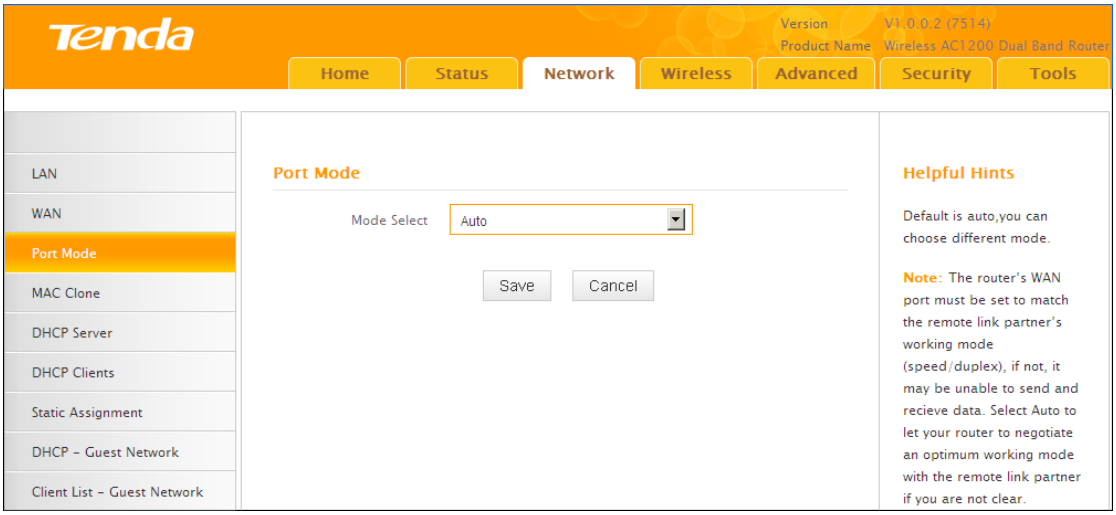
MTU	Application
1500	Typical for connections that do not use PPPoE or VPN.
1492	Used in PPPoE environments.
1472	Maximum size to use for pinging. (Larger packets are fragmented.)
1468	Used in some DHCP environments.
1436	Used in PPTP environments or with VPN.

Note ----------

A wrong/improper MTU value may cause Internet communication problems. For example, you may be unable to access certain websites, frames within websites, secure login pages, or FTP or POP servers.

2.3 Port Mode

Click **Network -> Port Mode** to enter the WAN port mode screen. Here you can configure the router's WAN speed and duplex mode.

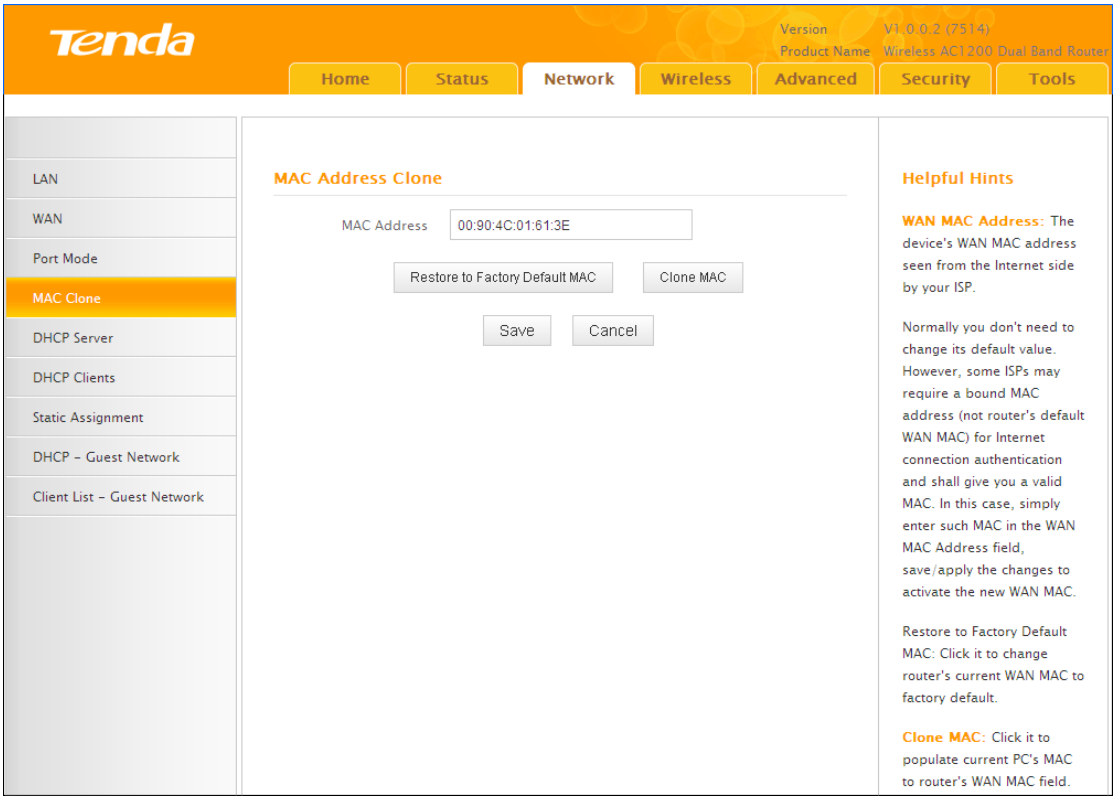


Tip----------

1. The best port mode is often just the factory default of "Auto".
2. In some situations, you might need to change the port mode. For example, if the cable connected to your router's WAN port is too long, you may need to use 10M full-duplex or 10M half-duplex for better performance.

2.4 MAC Clone

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



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

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

2. **Clone MAC:** Clicking this button copies the MAC address of the computer that you are now using to the router. Also, you can manually enter the MAC address that you want to use. You have to use the computer whose MAC address is allowed by your ISP.

To restore default MAC address:

① Click **Restore Default MAC.**

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

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

① Click **Clone MAC.**

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

To manually enter the MAC address allowed by your ISP:

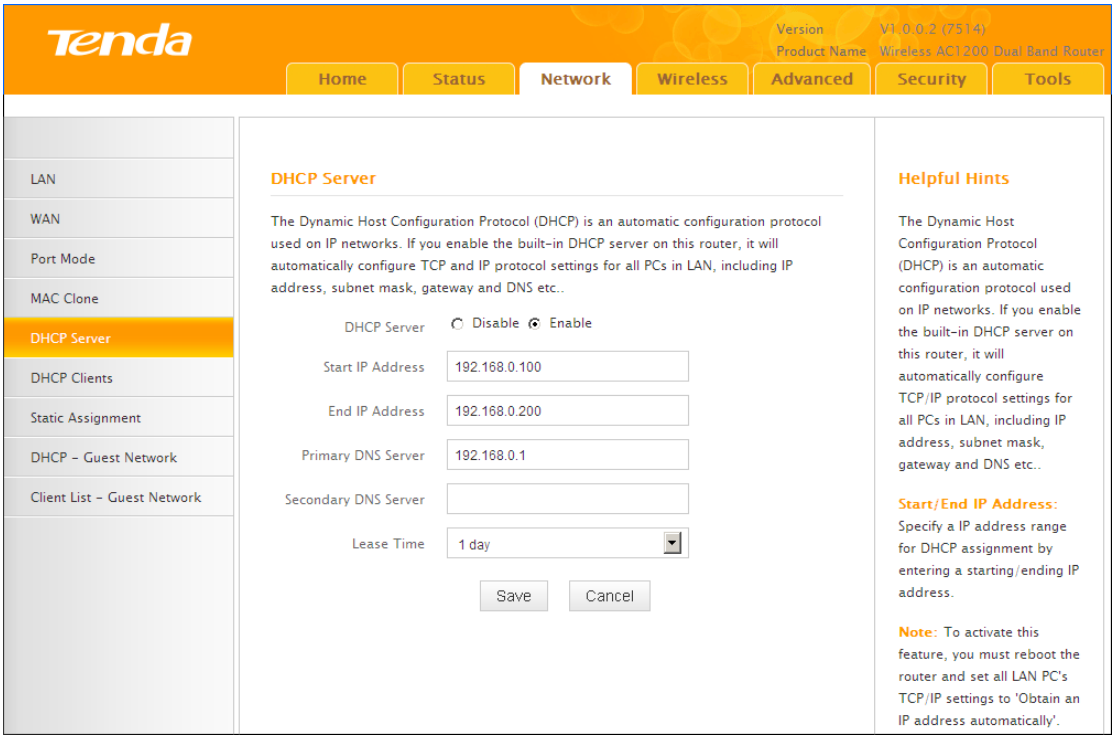
① Enter the MAC address allowed by your ISP.

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

2.5. DHCP

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

Click **Network -> DHCP Server** to enter the **DHCP Server** screen. Here you can change the DHCP IP address pool and lease time.



Configuration Procedures:

① **DHCP Server:** Select whether to enable or disable the DHCP server feature.

② **Start IP/End IP:** You can specify the starting and ending address of the IP address pool here. These addresses should be part of the same IP address subnet as the router's LAN IP address.

③ **Lease Time:** The lease time is a time length that the IP address is assigned to each device before it is refreshed.

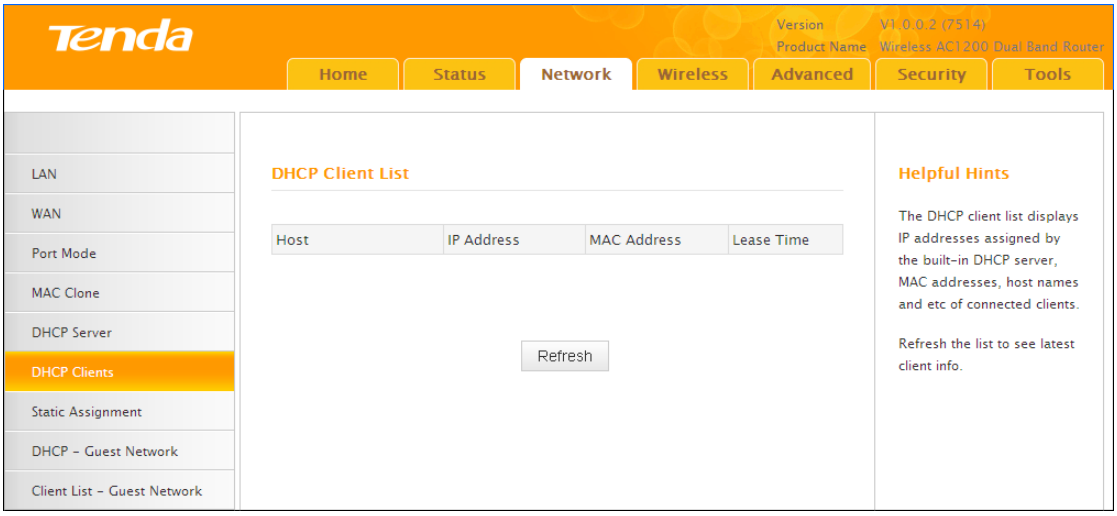
④ Click **Save** to save your settings.

Tip----------

1. By default, the router enables DHCP server. Do not disable the DHCP server feature unless you want to manually configure the TCP/IP settings for all PCs on your LAN.
2. Lease time will be renewed automatically upon expiry. No additional configurations are needed.
3. If you are not an advanced user, the default DHCP server settings are recommended.

2.6 DHCP Client List

Click **Network -> DHCP Clients** to enter the **DHCP Clients** screen. Here you can view the host name, IP address, MAC address, and lease time information.



Tip ----------

You can know whether there are unauthorized accesses by viewing the client list.

2.7 Static Assignment

Click **Network -> Static Assignment**. Here you can specify a reserved IP address for a PC in the LAN. That PC will always receive the same IP address each time

when it accesses the DHCP server. Reserved IP addresses could be assigned to servers that require permanent IP settings.

Static Assignment Application Example:

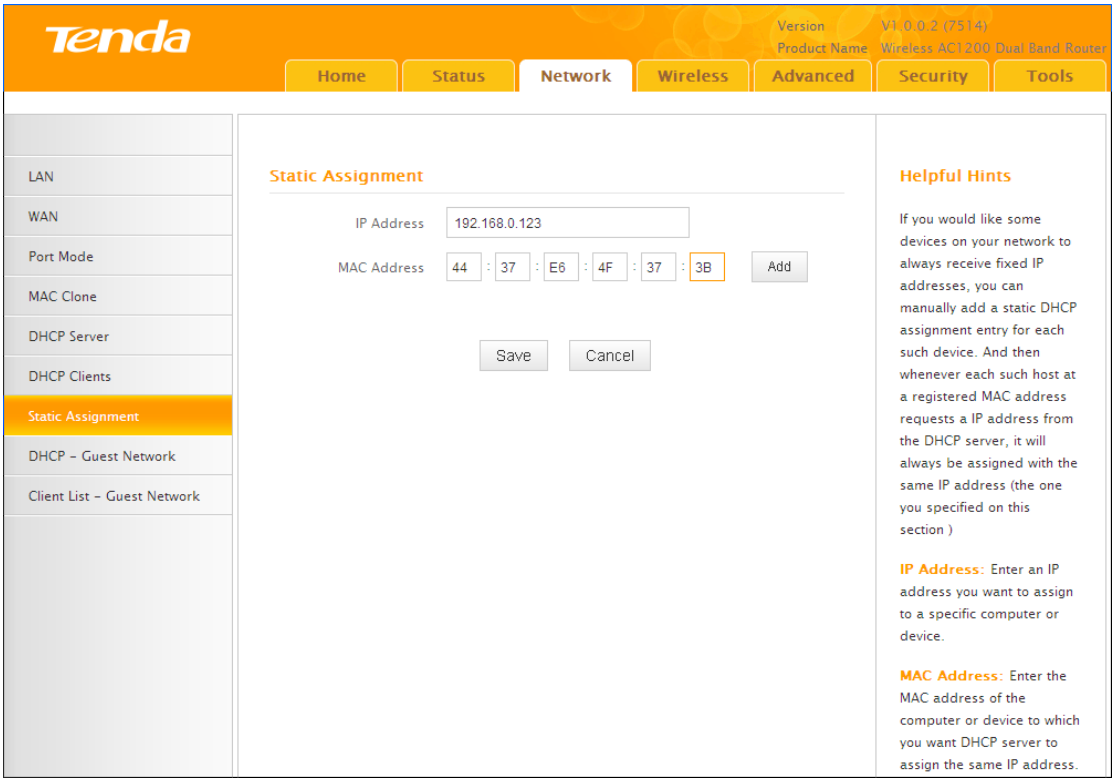
To make a PC at the MAC address of 44:37:E6:4F:37:3B always receive the same IP address of 192.168.0.123.

Configuration Procedures:

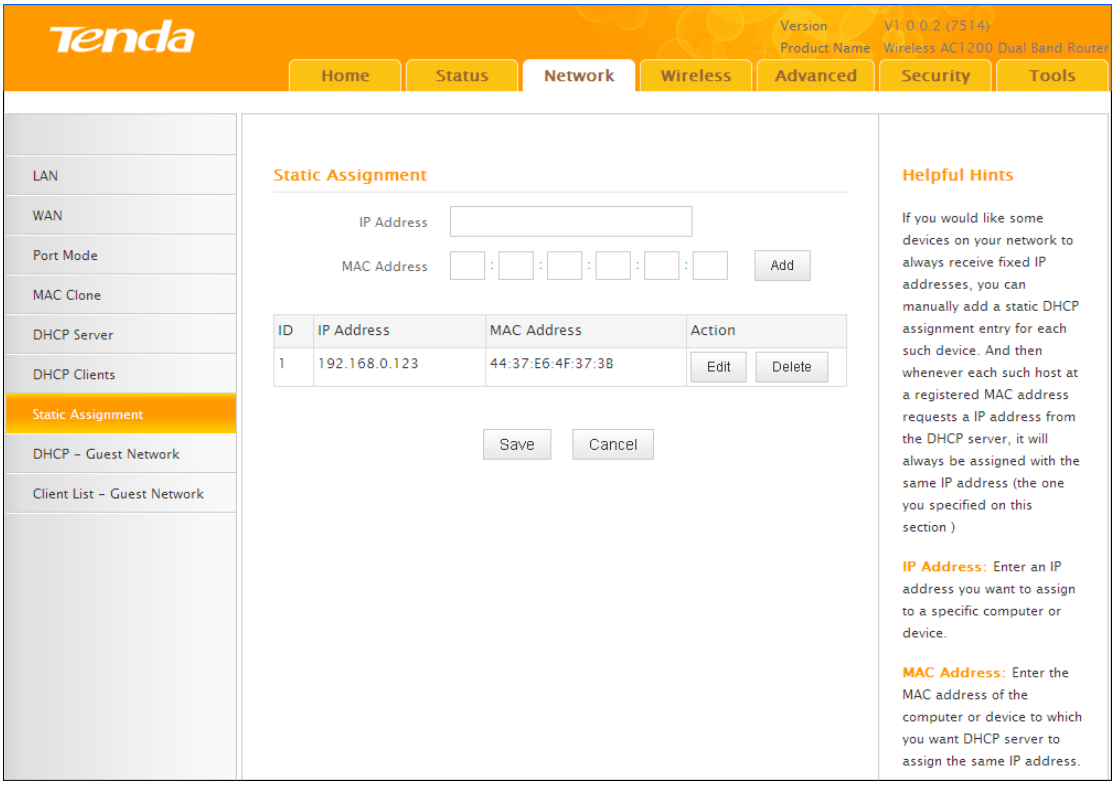
① Enter the IP address: 192.168.0.123.

② Enter the MAC address of 44:37:E6:4F:37:3B.

③ Click **Add**.



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



Tip ----------

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

2.8 DHCP Server - Guest Network

Click **Network -> DHCP - Guest Network** to enter the guest network DHCP server screen. If you enable the built-in DHCP server for Guest Network on this device, it will automatically configure TCP/IP protocol settings for all DHCP-Client-enabled PCs on the Guest Network, including IP address, subnet mask, gateway and DNS etc.

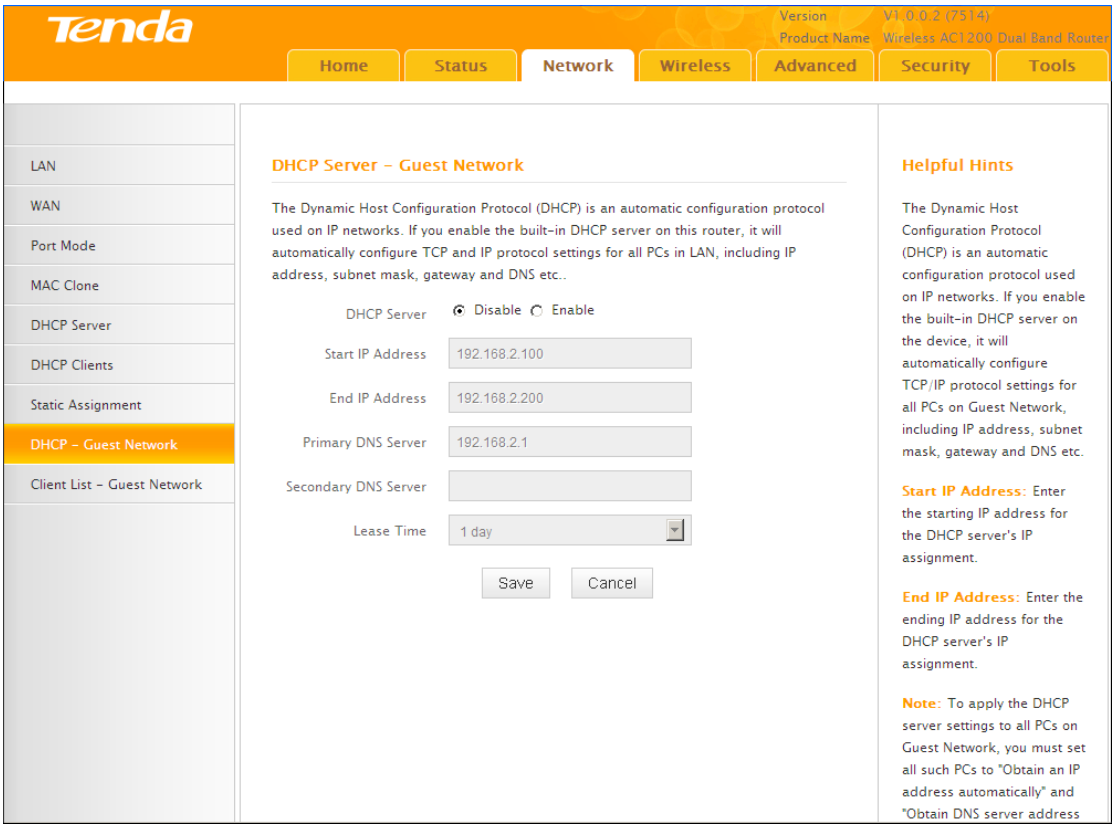
Configuration Procedures:

① Click **Enable**.

② **Start IP Address:** Specify the start of the range for the pool of IP addresses in the same subnet as the device.

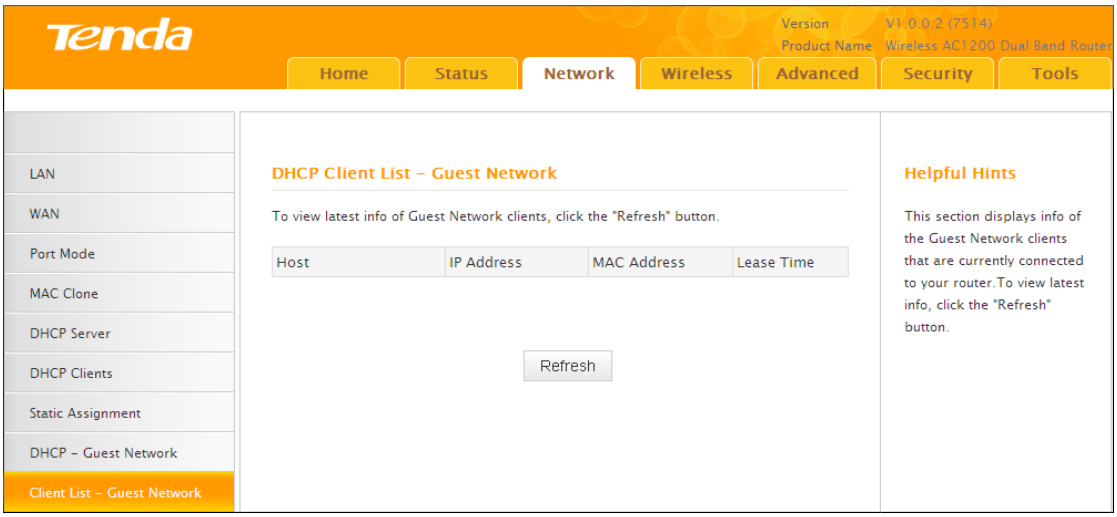
End IP Address: Specify the end of the range for the pool of IP addresses in a different subnet as the device.

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



Click **Network -> Client List - Guest Network** to enter the guest network DHCP client list screen. This section displays a guest network DHCP dynamic client list, which includes host name, IP address, MAC address and lease time info.

Refresh: Click to update the page.



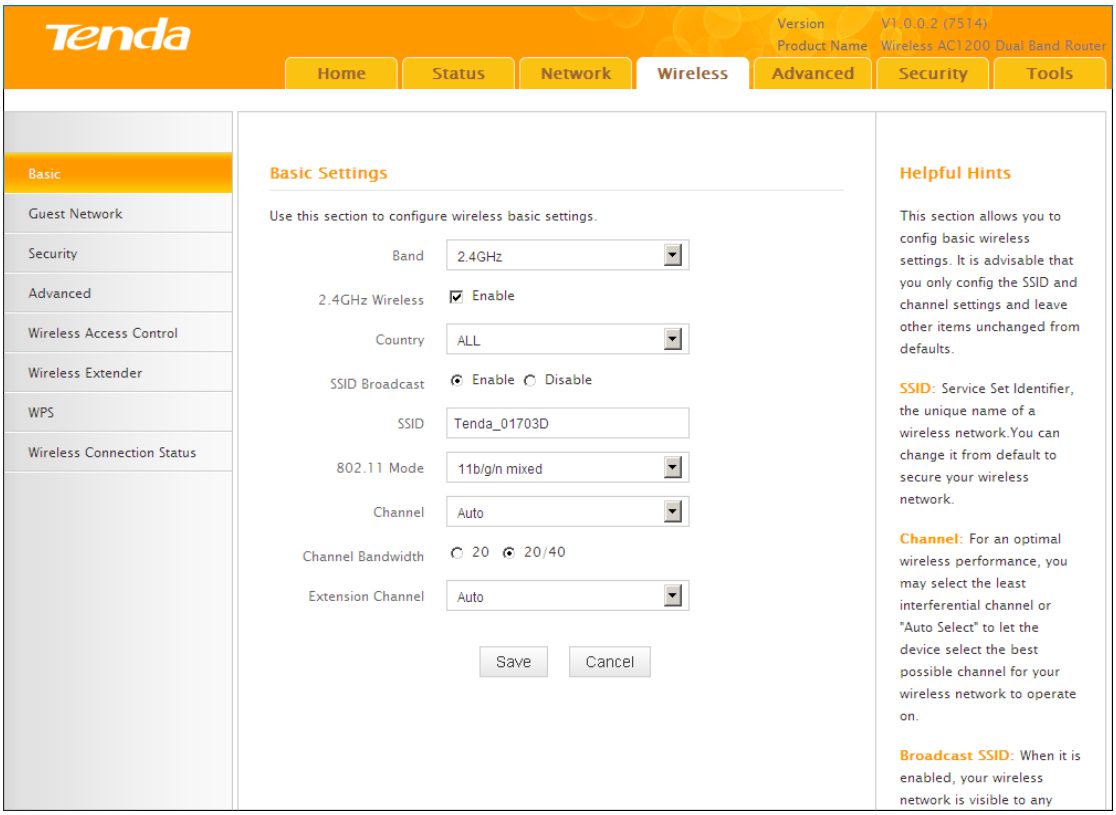
3 Wireless Settings

3.1 Wireless-Basic

Here you can configure the basic wireless settings of the router.

Tip ----------

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



Configuration Procedures:

① **Band:** Select 2.4GHz or 5GHz.

② **Primary SSID:** This is the public name of your wireless network.

③ **Channel:** Select a channel or select Auto to let system automatically select one for your wireless network to operate on if you are unsure. The best selection is a channel that is the least used by neighboring networks.

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

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

1. **802.11 Mode (Network Mode):** Select a correct mode according to your

wireless clients.

- **11b:** This network mode delivers wireless speed up to 11Mbps and is only compatible with 11b wireless clients.
- **11g:** This network mode delivers wireless speed up to 54Mbps and is only compatible with 11g wireless clients.
- **11b/g mixed:** This network mode delivers wireless speed up to 54Mbps and is compatible with 11b/g wireless clients.
- **11b/g/n mixed:** This network mode delivers wireless speed up to 300Mbps and is compatible with 11b/g/n wireless clients.
- **11ac**：This network mode delivers wireless speed up to 867Mbps.

2. SSID Broadcast: This option allows you to have your network names (SSIDs) publicly broadcast or if you choose to disable it, the SSIDs will be hidden.

3. **Channel Bandwidth:** Select a proper channel bandwidth to enhance wireless performance. This option is available only in 802.11b/g/n. Wireless speed in the channel bandwidth of 20/40 is 2 times in 20.

4. Extension Channel: This is used to ensure N speeds for 802.11n devices on the network. This option is available only in 11b/g/n mixed mode with channel bandwidth of 20/40.

3.2 Guest Network

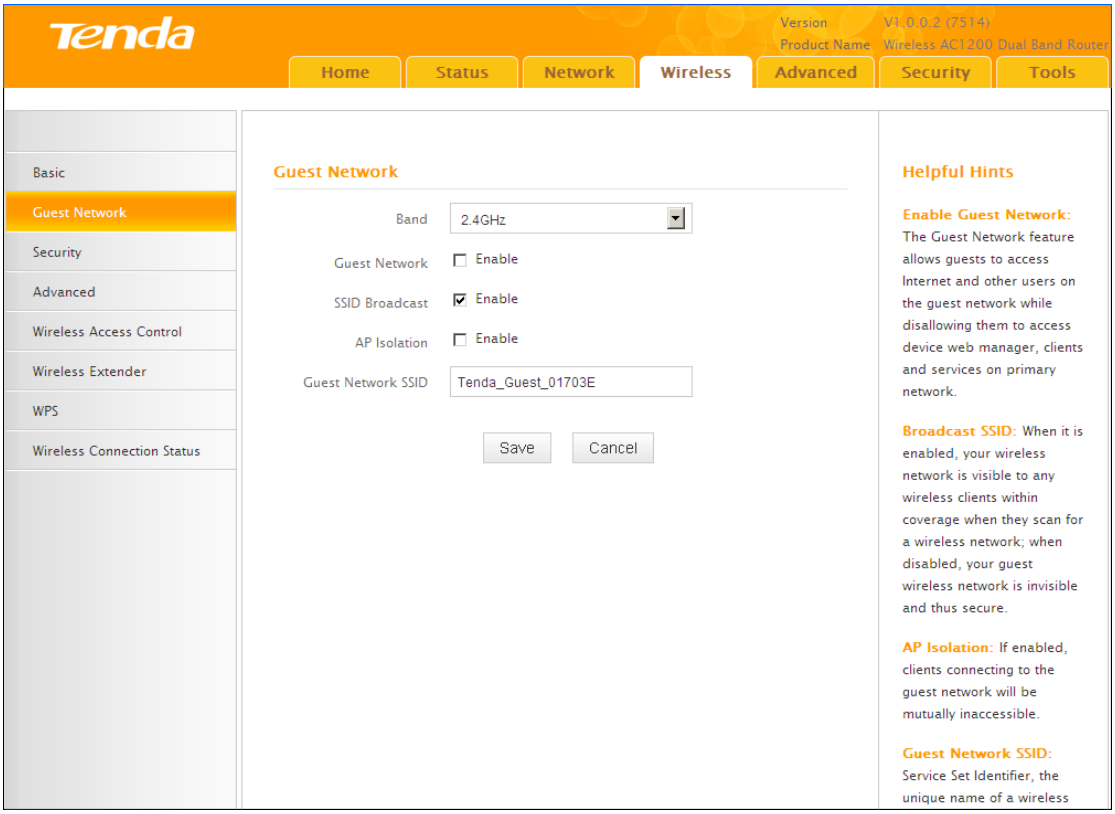
Click **Wireless -> Guest Network** to enter the Guest Network screen. The Guest Network feature allows guests to access the Internet and other users on the guest network while disallowing them to access Device web manager, users on master network and clients behind the LAN ports. Thus the wireless master network is secured.

Configuration Procedures:

① **Band:** Select 2.4GHz or 5GHz.

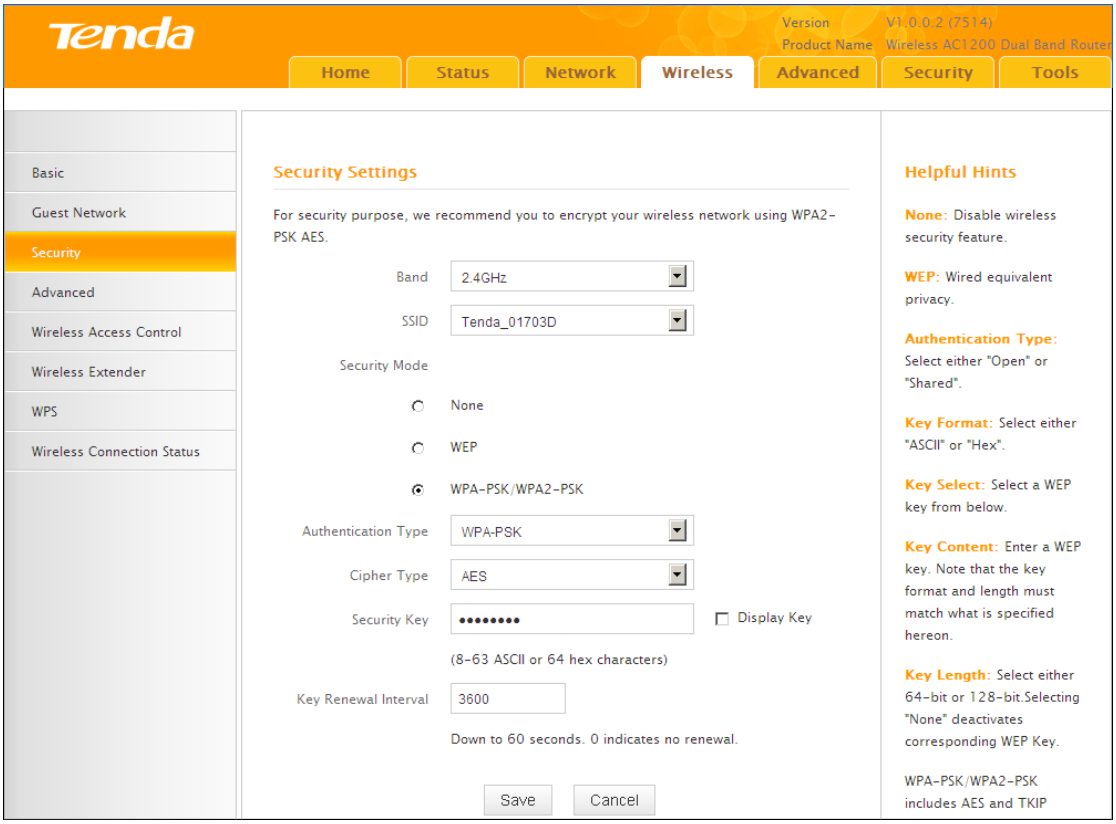
② **Guest Network:** Select whether to enable or disable the Guest Network feature. It is disabled by default.

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



3.3 Security

Click **Wireless -> Security** to enter the **Security** screen. Here you can define a security key to secure your wireless network against unauthorized accesses.



To secure your wireless network

① Select a band, for example, 2.4GHz.

② Select the wireless network (SSID) you wish to encrypt.

③ Select a security mode, cipher type configure a security key.

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

Tip----------

For better security, compatibility and wireless speed, we recommend the WPA-PSK and AES.

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

1. WEP: Wireless speed can reach up to 54Mbps if WEP - Open is selected.

2. **Key Select:** Select a key to be effective for the current WEP encryption. For example, if you select Key 1, wireless clients must join your wireless network using this Key 1.

4. WPA-PSK： WPA personal, support AES and TKIP+AES cipher types.

5. WPA2-PSK： WPA2 personal, support AES and TKIP+AES cipher types.

6. WPA/WPA2-PSK mixed: If selected, both WPA-PSK and WPA2-PSK secured wireless clients can join your wireless network**.**

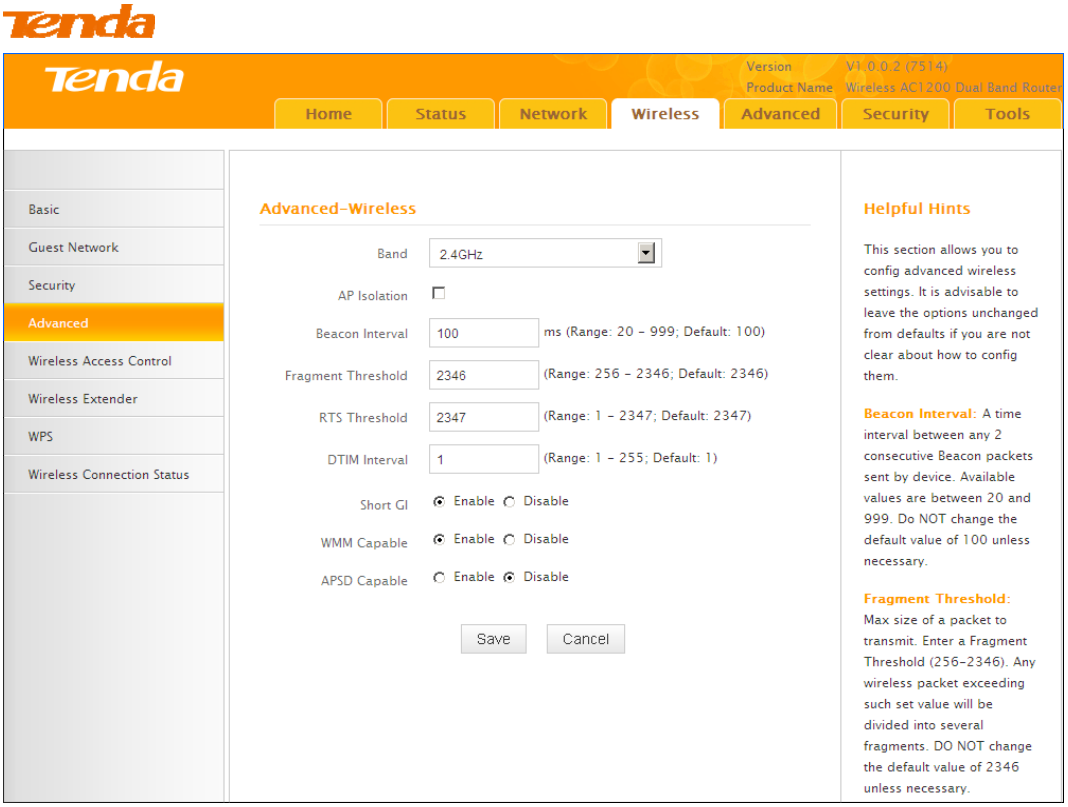
7. AES: If selected, wireless speed can reach up to300Mbps.

8. TKIP: If selected, wireless speed can reach up to 54Mbps.

9. TKIP+AES: If selected, both AES and TKIP secured wireless clients can join your wireless network.

3.4 Advanced

Click **Wireless -> Advanced** to configure the advanced wireless settings. This section allows you to configure advanced settings, including AP Isolation, Beacon interval, Fragment threshold, RTS threshold and DTIM interval, etc., for your wireless networks. Normally, the default settings will work. If not, change them according to the suggestions given by your ISP or Tenda technical staff.



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

1 **AP Isolation:** Isolates clients connecting to the primary SSID.

2 **Beacon Interval:** A time interval between any 2 consecutive Beacon packets sent by an Access Point to synchronize a wireless network. Do NOT change the default value of 100 unless necessary.

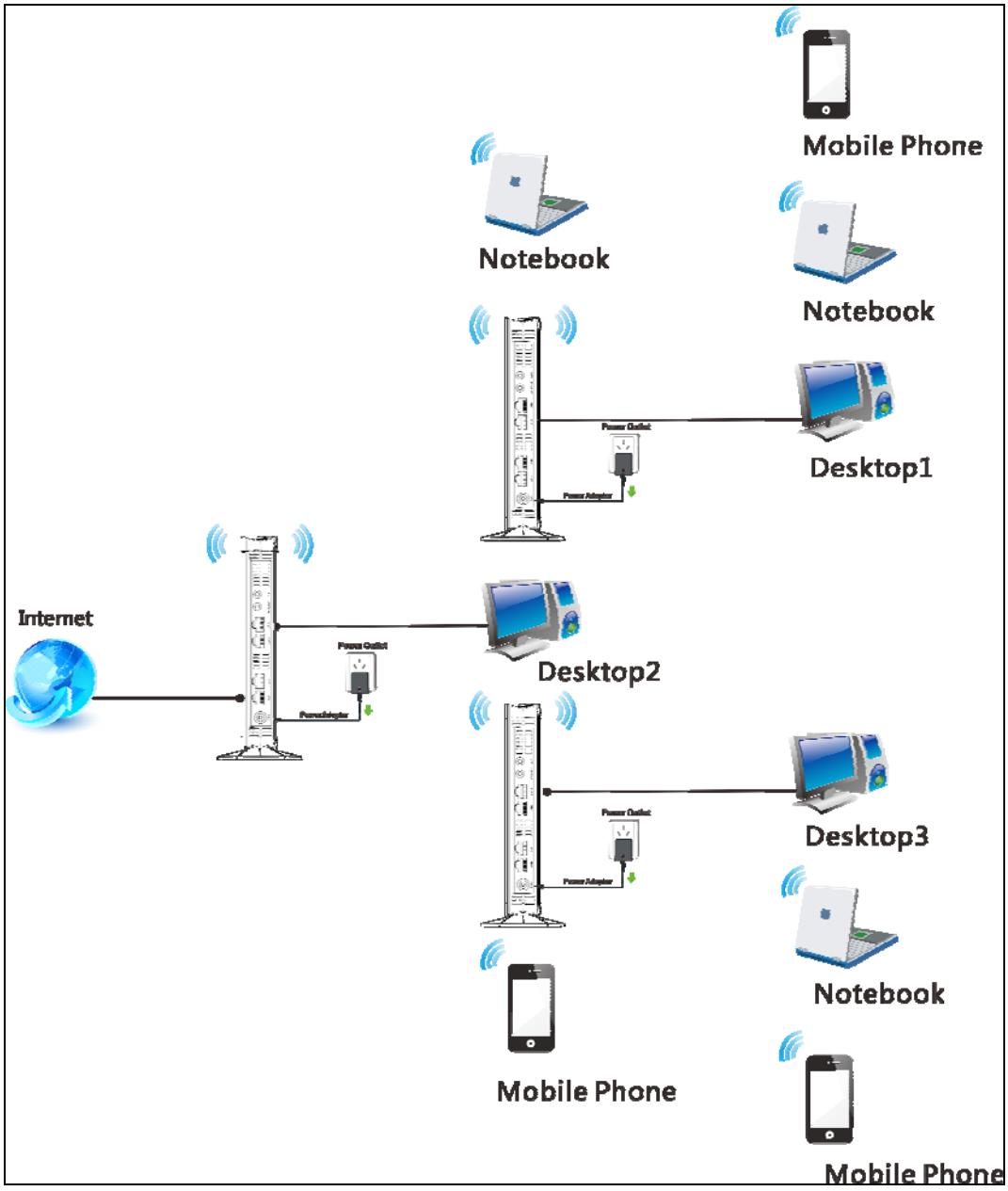
3 **Fragment Threshold:** Specify a Fragment Threshold value. Any wireless packet exceeding the preset value will be divided into several fragments before transmission. DO NOT change the default value of 2346 unless necessary.

4 **RTS Threshold:** If a packet exceeds such set value, RTS/CTS scheme will be used to reduce collisions. Set it to a smaller value provided that there are distant clients and interference. For normal SOHO, it is recommended to keep the default value unchanged; otherwise, device performance may be degraded.

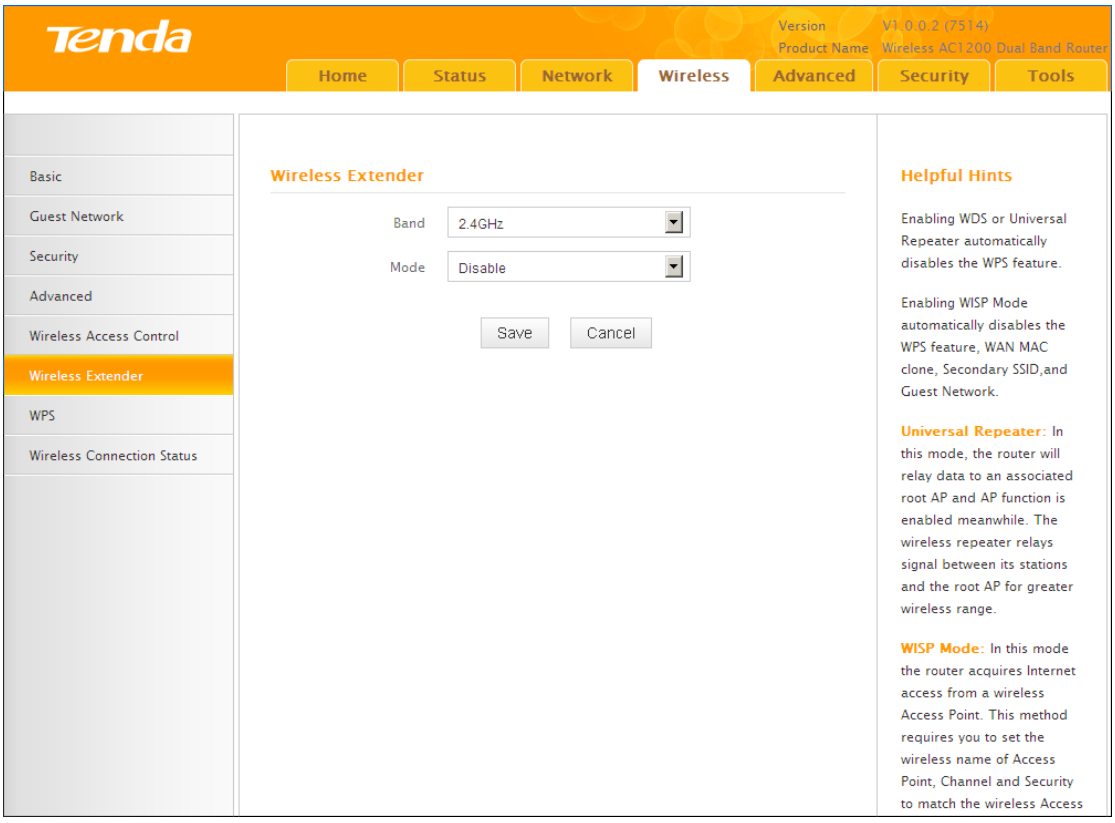
5 **DTIM Interval:** A DTIM (Delivery Traffic Indication Message) Interval is a countdown informing clients of the next window for listening to broadcast and multicast messages. When the packets arrive in the router's buffer, the router will send DTIM (delivery traffic indication message) and DTIM interval to alert clients of the receiving packets.

3.6 Wireless Extender

Use this wireless extender feature to extend your existing wireless network.



Click **Wireless -> Wireless Extender** to enter the following screen.



This device provides three modes to extend your wireless network:

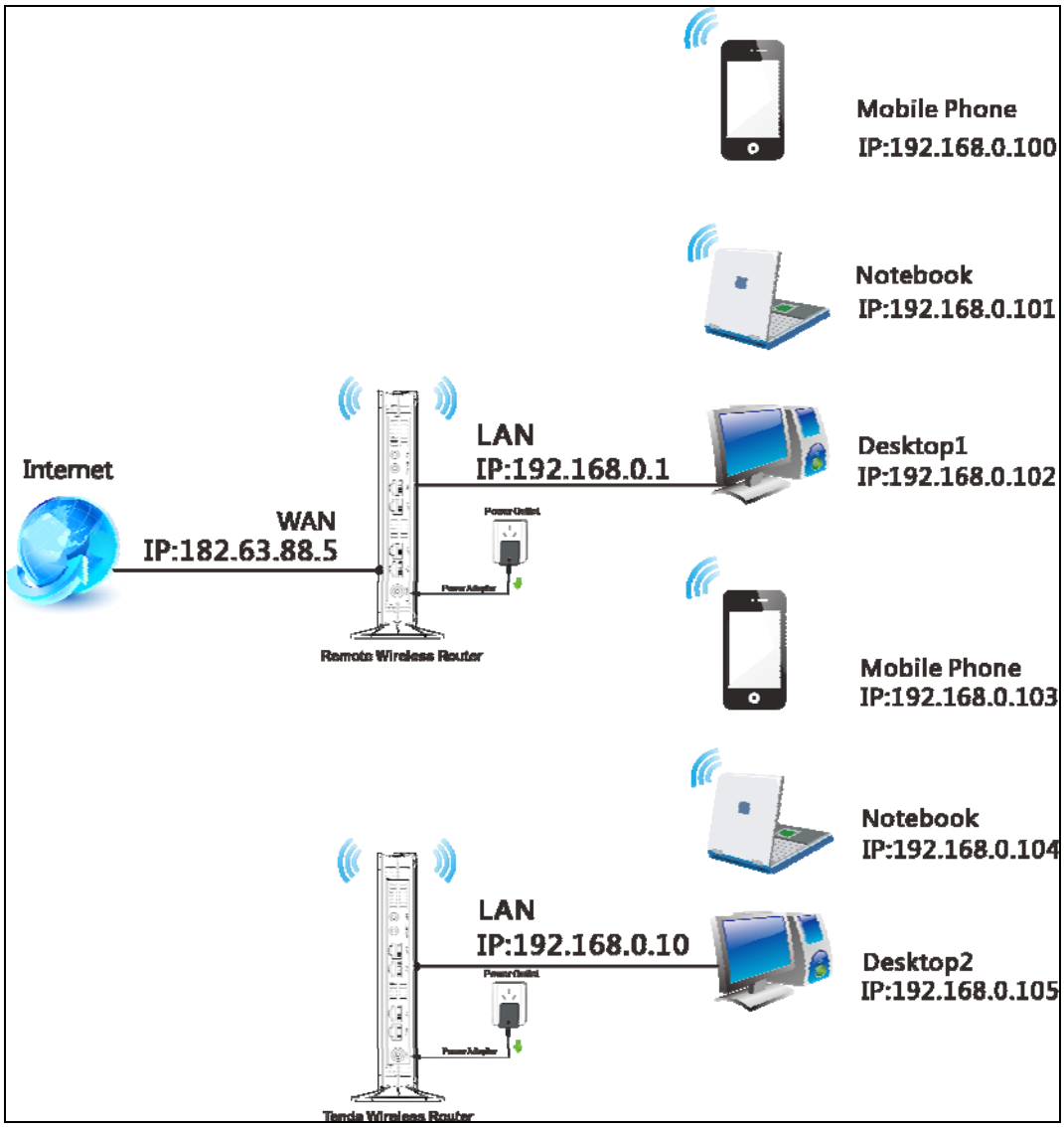
- To extend your wireless network using the universal repeater feature, see **Universal Repeater**.
- To extend your wireless network using the WISP client router (wireless WAN) feature, see **WISP Mode**.
- To establish Wireless Distribution System and extend your wireless network, see **WDS**.

Tip----------

If "**Disable**" is selected, the wireless extender feature will be deactivated.

Universal Repeater Mode

Universal Repeater: Use this universal repeater mode to extend your existing wireless network. The application scenario is shown in the figure below:



In this mode, you only need to configure the following settings on the Tenda wireless router:

- Configure LAN IP: Specify an IP address that is in the same subnet as yet different from the remote wireless router for this Tenda wireless router.
- Universal Repeater: Configure this router to bridge the remote wireless router for extended network coverage.

Tip ----------

Before you start, **make sure you have the following information:**

1. Remote router's SSID, security mode, cipher type and security key.
2. Remote router's LAN IP address.
3. No Ethernet cable is connected to this Tenda wireless router's WAN port.

Universal Repeater Application Example:

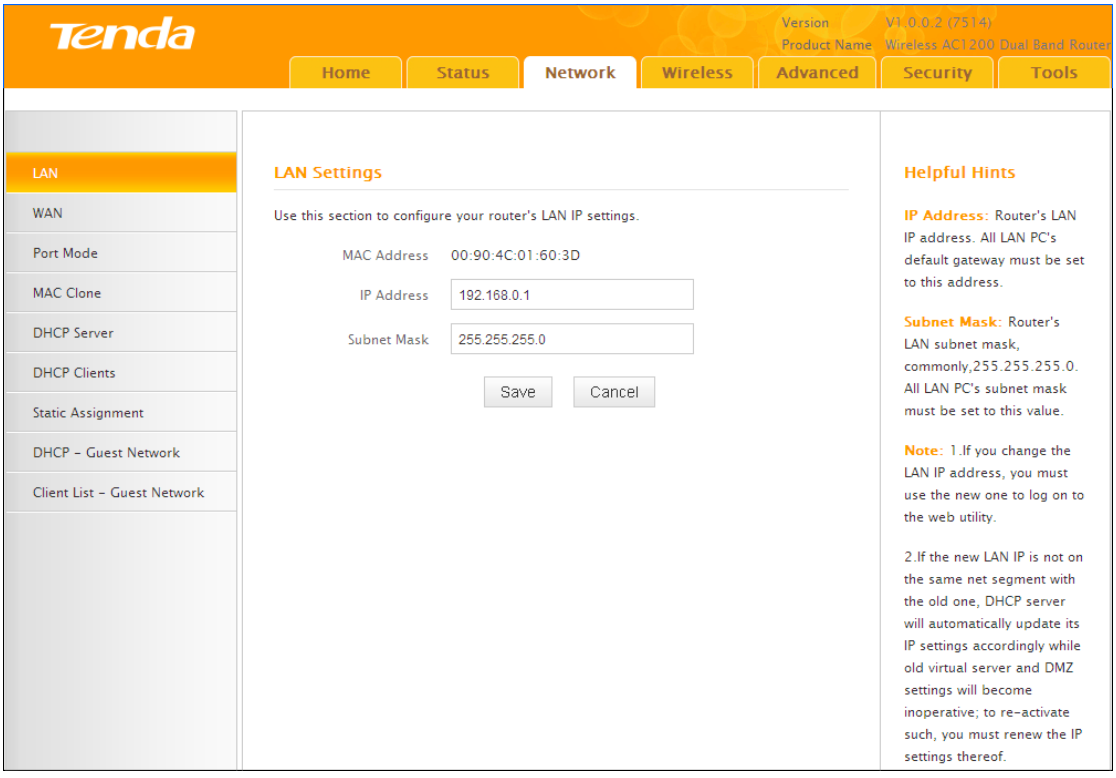
Assuming the remote wireless router has the following information:

SSID：Tenda_0FF02D

Security Mode: WPA-PSK
Cipher Type: AES
Security Key: 12345678
LAN IP Address: 192.168.0.1

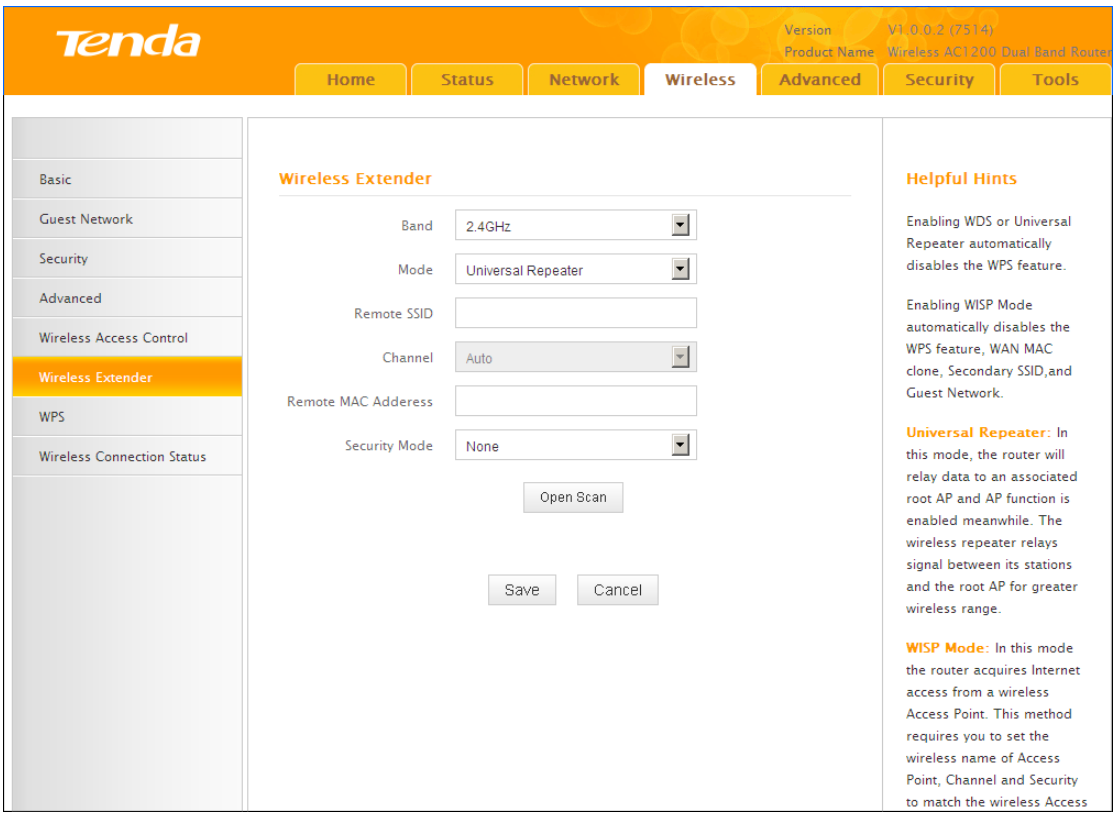
Configuration Procedures:

① Click **Network -> LAN** to configure an IP address that is in the same subnet as yet different from the remote wireless router for this Tenda wireless router.

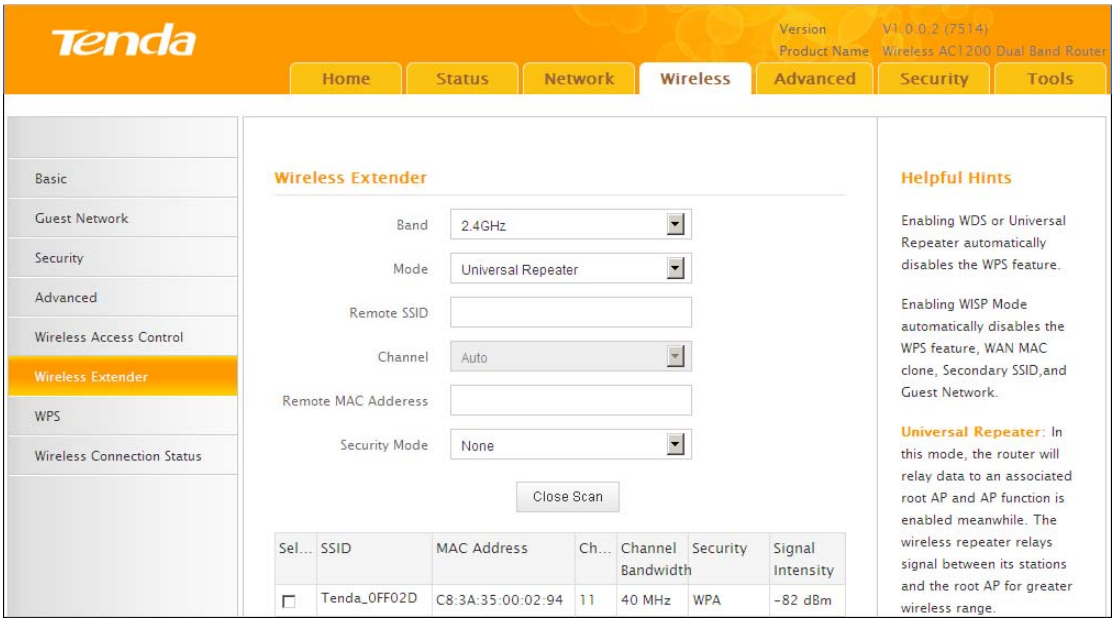


② Click **OK** in the appearing screen.

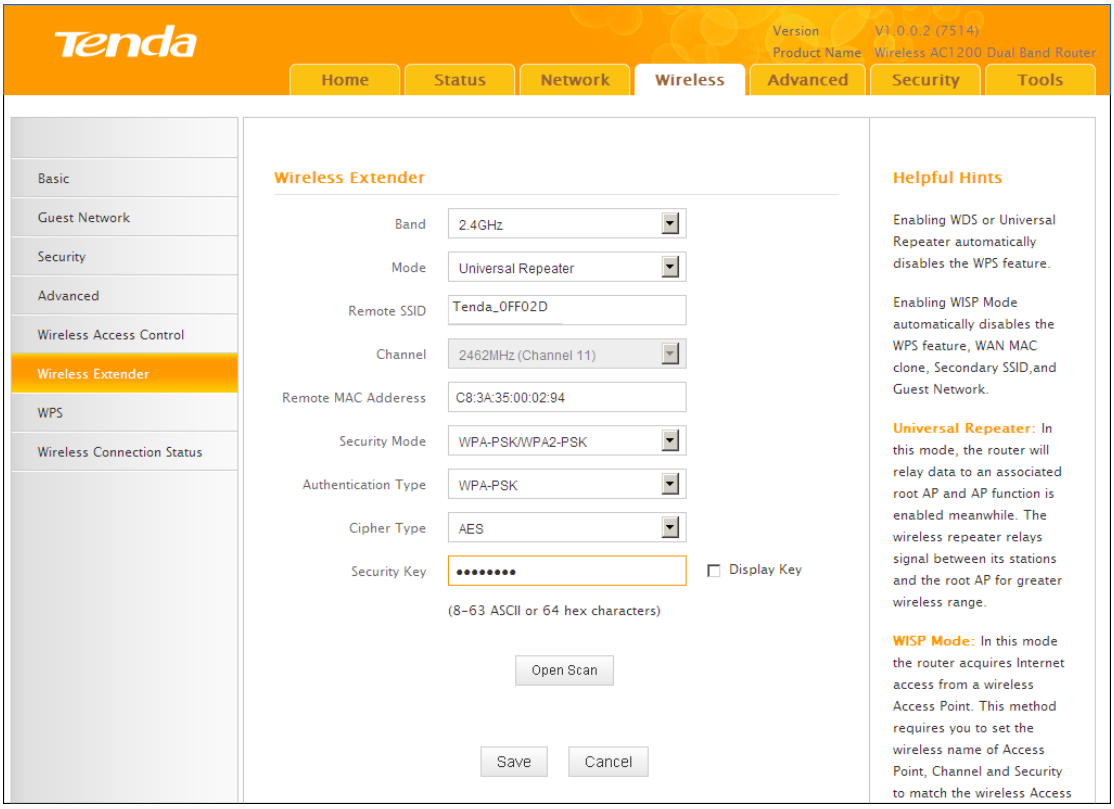
③ Select **Universal Repeater** and click **Open Scan**.



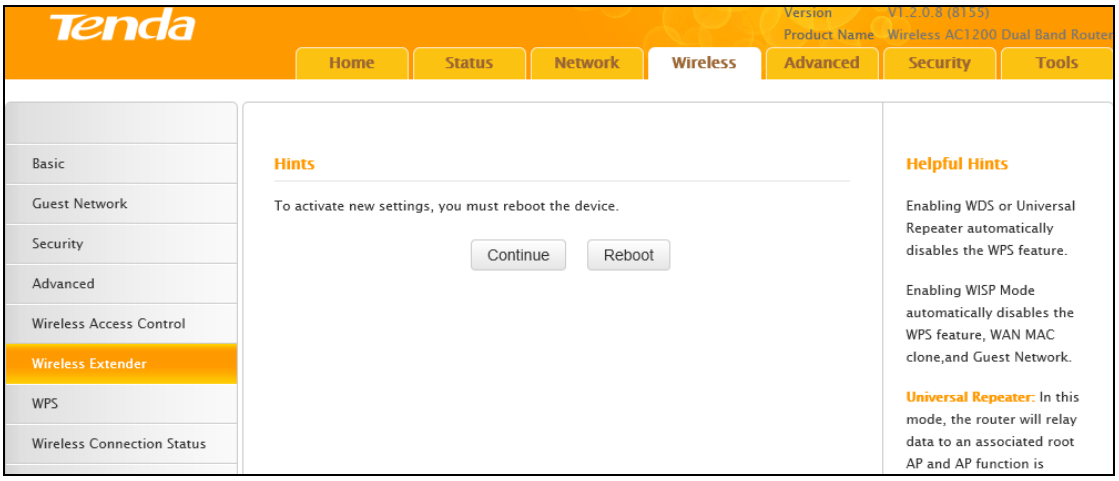
④ Select the remote router's wireless network (SSID) and click **Close Scan**.



⑤ The SSID, channel, MAC address, security mode and cipher type of the remote router will be added automatically on this page. You only need to enter the security key and click **Save**.



⑥ Click **Reboot** to take configurations into effect.



Note ----------

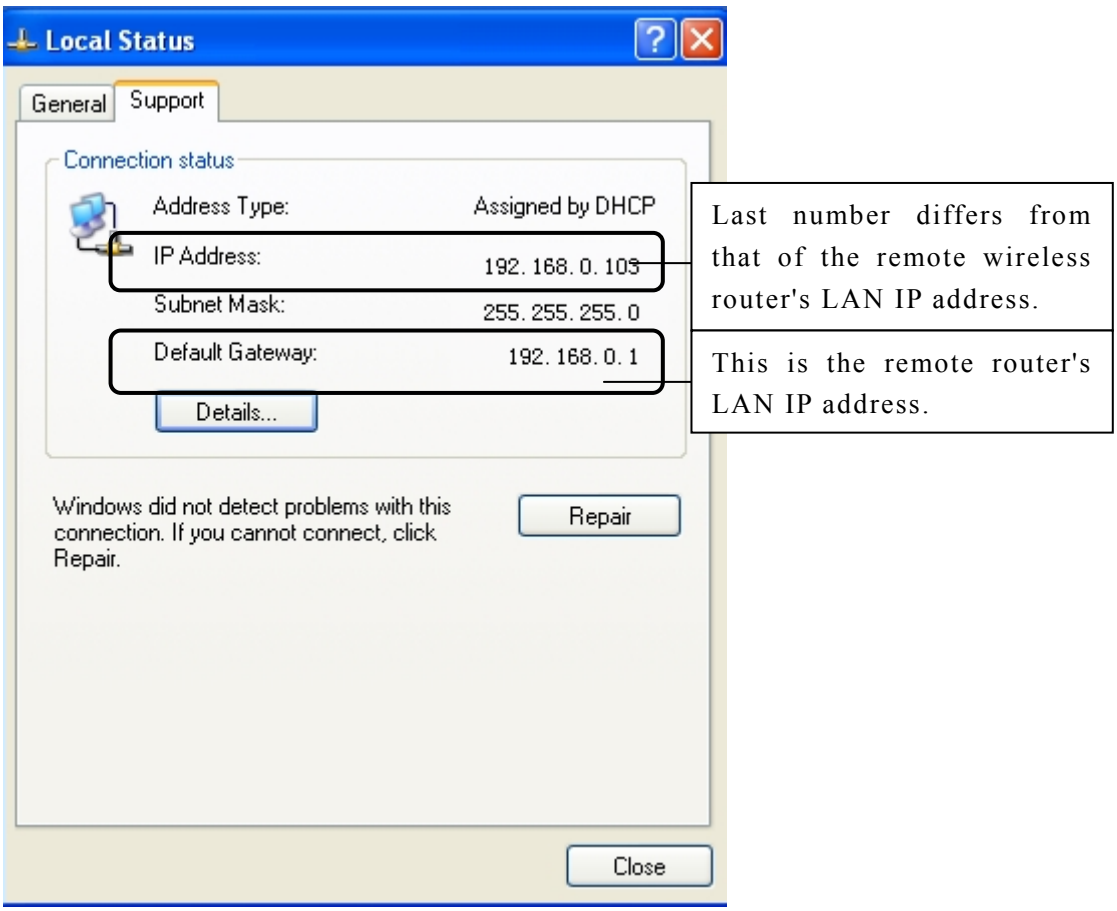
When the Universal Repeater is configured successfully, wireless clients can connect to this Tenda wireless router's SSID for Internet access.

Verify Bridge Connectivity:

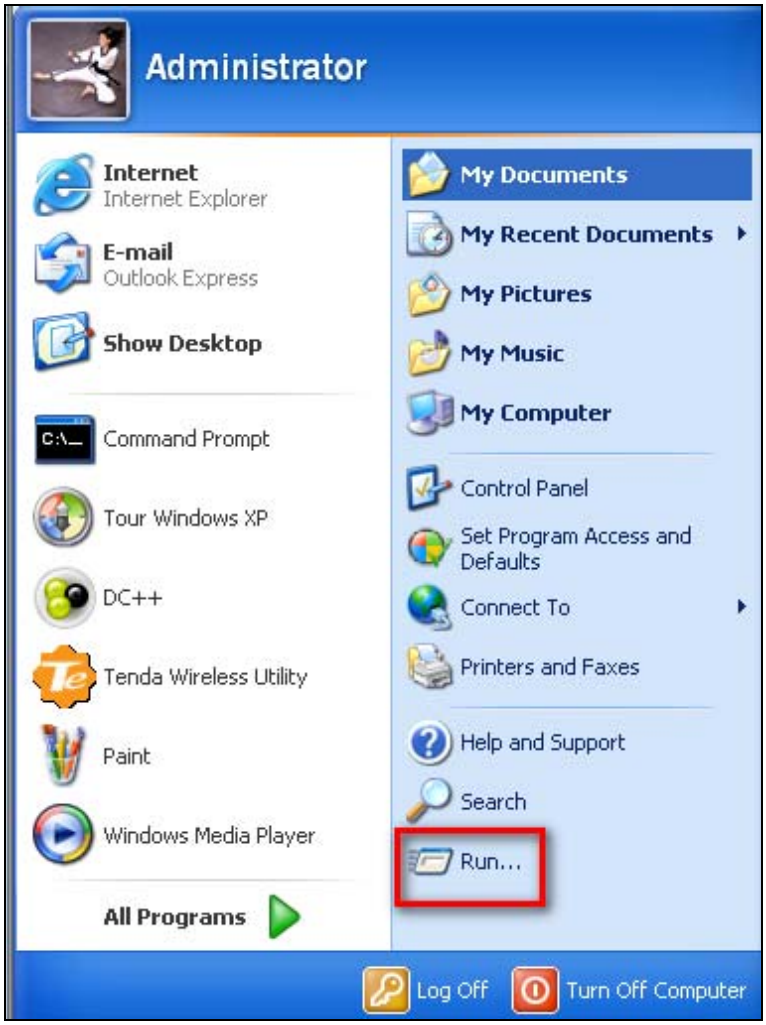
① Connect your PC to this Tenda wireless router via a wired or wireless connection and set it to "Obtain an IP address automatically". If you are not

clear, see **Appendix 1 Configure PC TCP/IP Settings**.

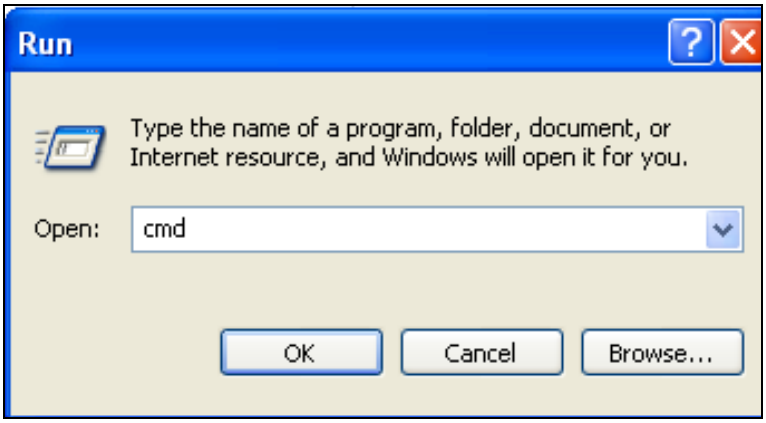
② Wait until your PC successfully obtains an IP address.



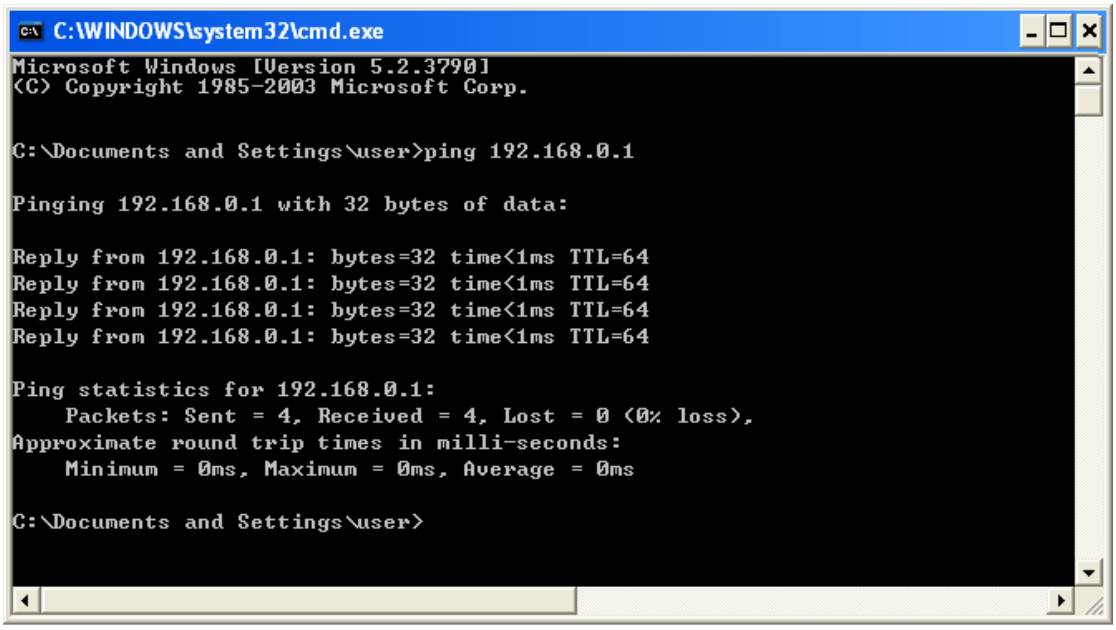
③ Click **Start -> Run.**



④ Enter **cmd** and click **OK.**

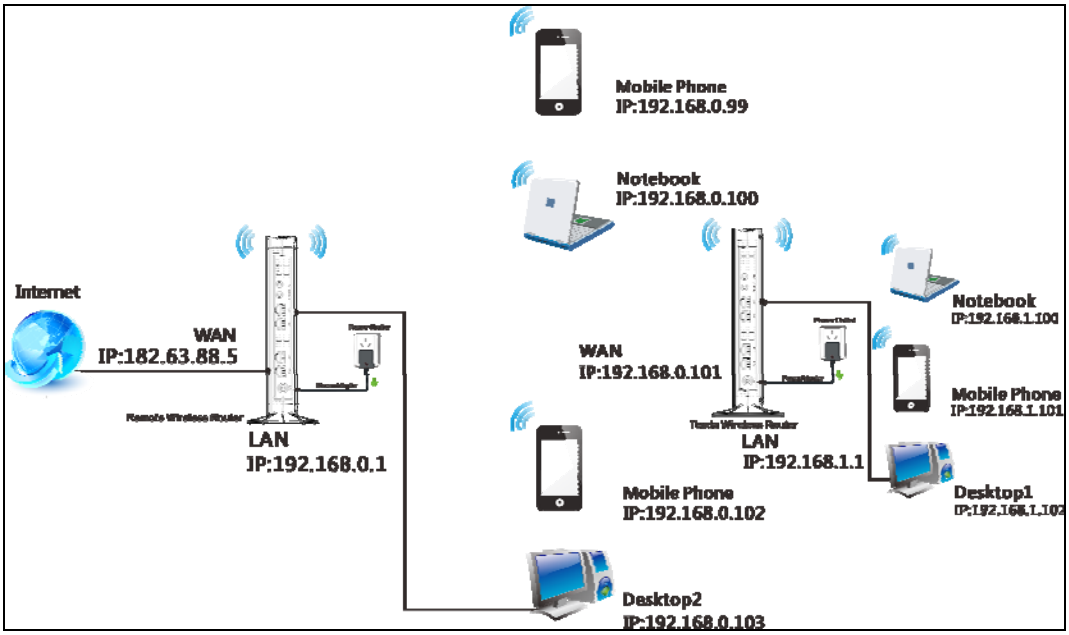


⑤ Enter "ping default gateway IP address". Here in this example, enter "ping 192.168.0.1" and press Enter. If you see a similar screen, the bridge is established successfully.



WISP Client Router Mode

WISP Mode: This is the WISP (Wireless Internet Service Provider) Client Router Mode. In this mode the router acquires Internet access from your WISP AP or a wireless Access Point on an existing network. Below shows the typical topology:



In this mode, you only need to configure the following settings on this Tenda wireless router:

- WISP Mode Setup: This mode establishes a wireless connection between the wireless LAN interface of the remote wireless router and the wireless WAN interface of your Tenda wireless router.

- Internet Setup: Configure this Tenda router to access the Internet.

Tip----------

Before you start, make sure you have the following information:

1. Configure IP address of the two linking routers into two different network segments.

1. Remote router's SSID, security mode, cipher type and security key.

2. Internet connection information provided by the remote wireless router.

3. No Ethernet cable is connected to the Tenda wireless router's WAN port.

WISP mode (Wireless WAN feature) Application Example:

Assuming the remote wireless router provides the following information:

SSID: Tenda_home

Security Mode: WPA-PSK

Cipher Type: AES

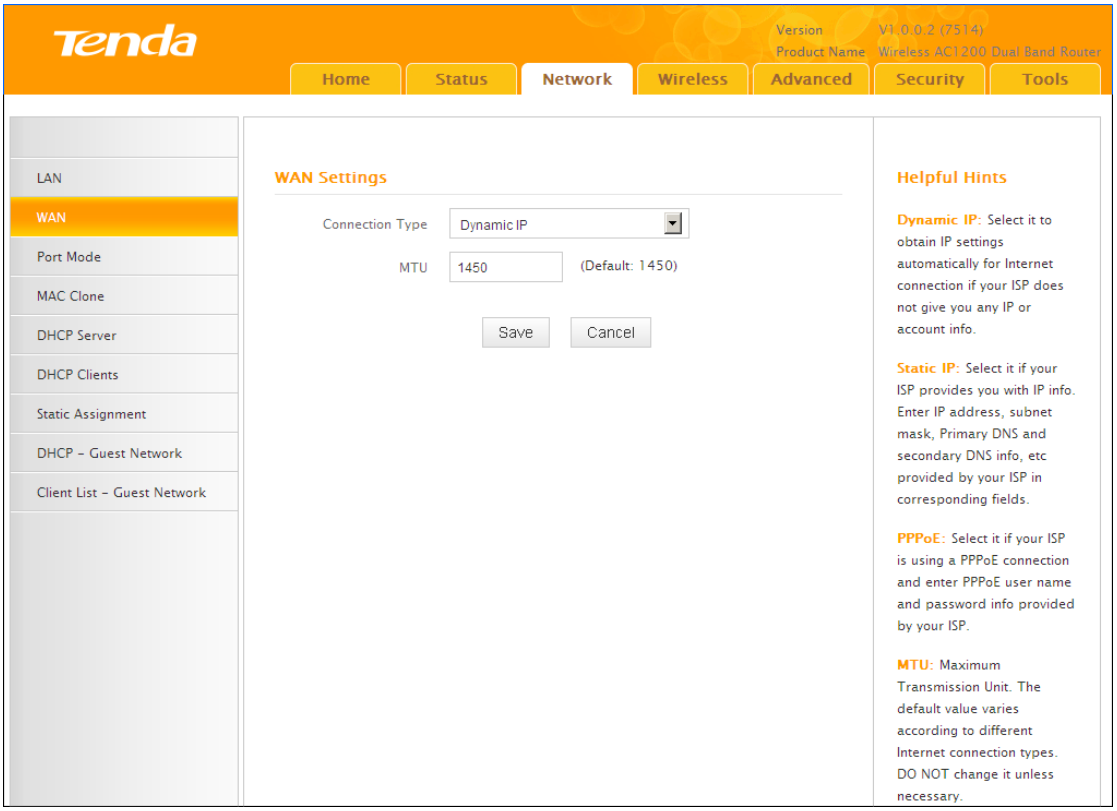
Security Key: 12345678

LAN IP address: 192.168.0.1

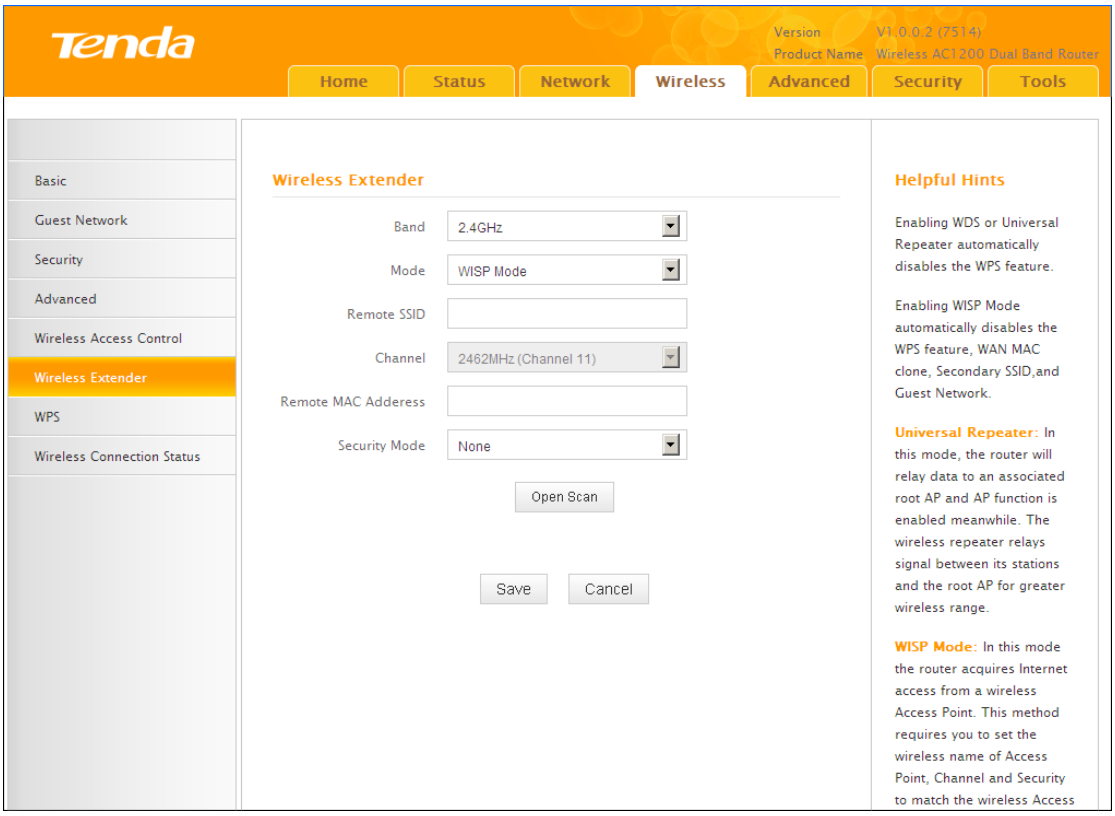
Internet Connection Type (for client): DHCP (dynamic IP)

Configuration Procedures:

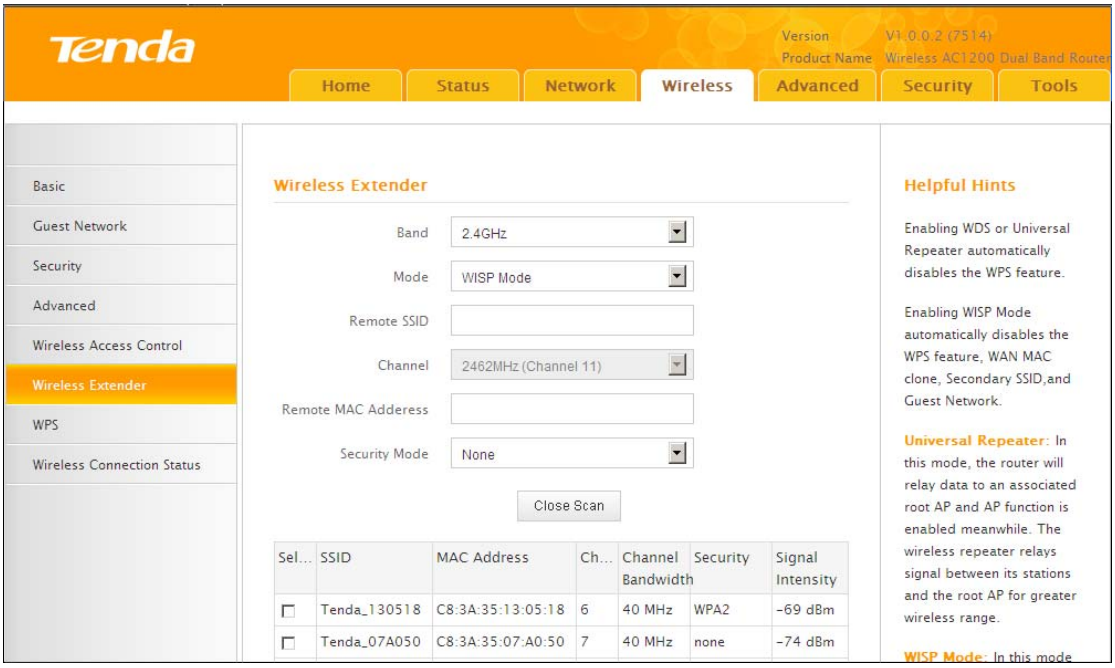
① Click **Network -> WAN** to configure the Internet connection.



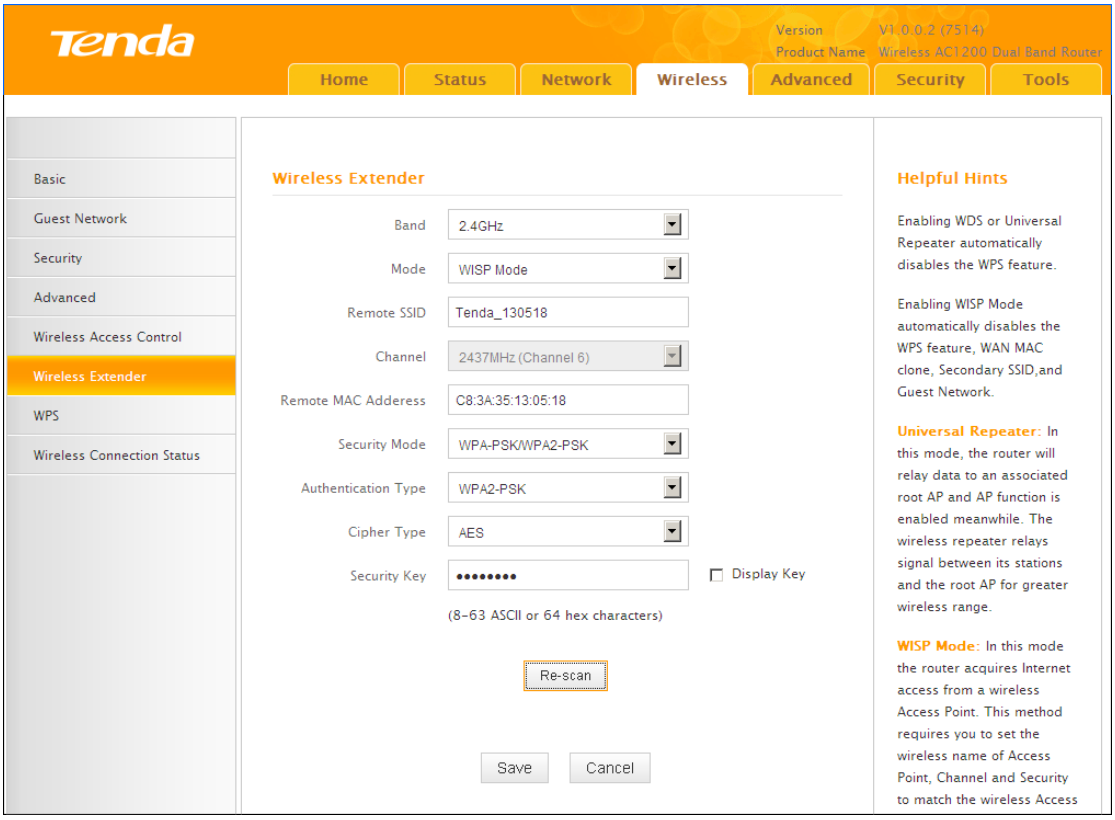
② Click **Wireless -> Wireless Extender**, select **WISP Mode** and click **Open Scan**.



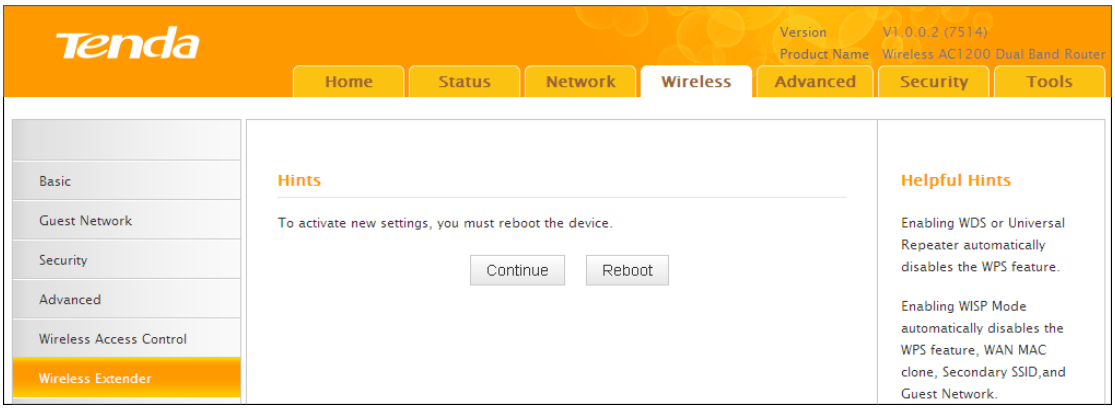
③ Select the remote router's wireless network (SSID) and click **Close Scan**.



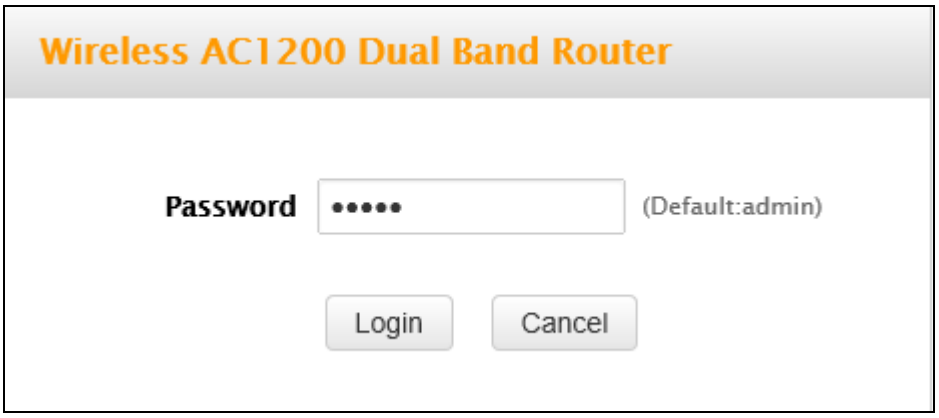
④ The SSID, channel, MAC address, security mode and cipher type of the remote AP will be added automatically on this page. You only need to enter the security key and click **Save**.



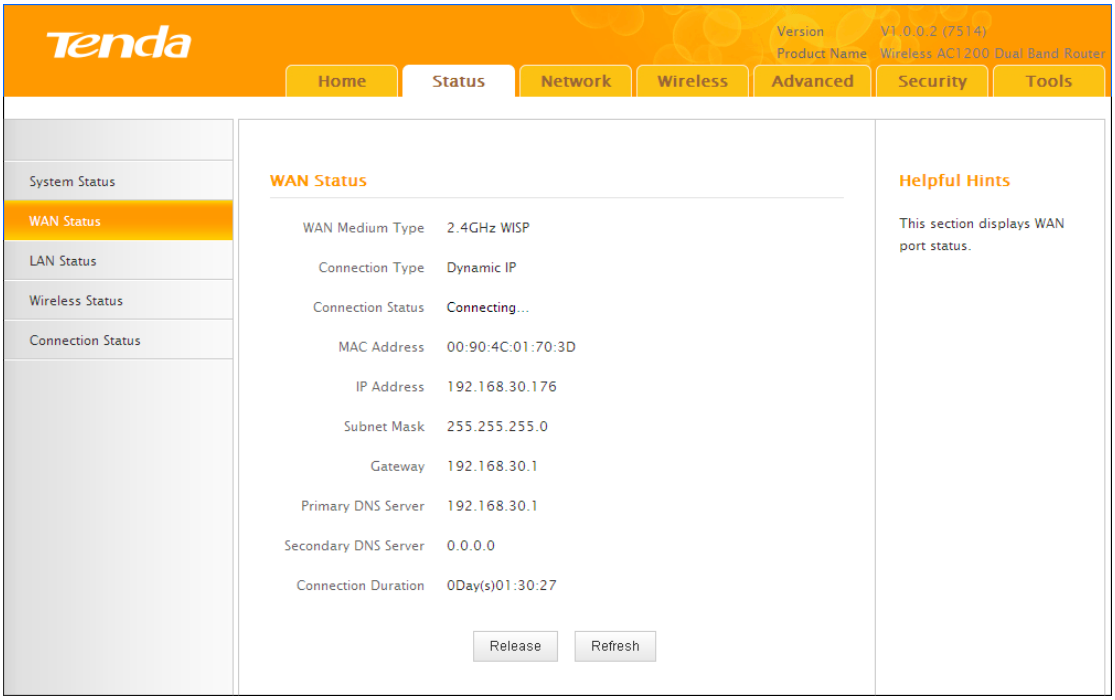
⑤ Click **Reboot** on the appearing screen to reboot the router.



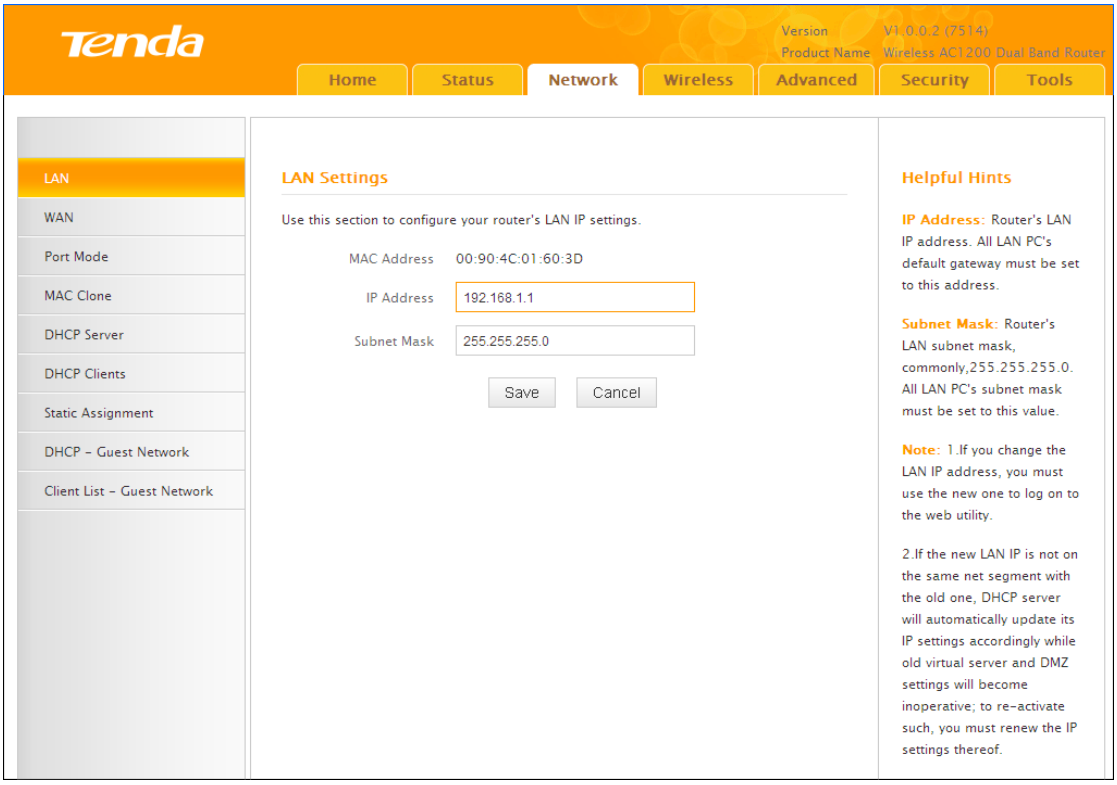
⑥ System automatically enters the login window after reboot. Reaccess to the device.



⑦ Click **Status -> WAN Status** to check the WAN status.

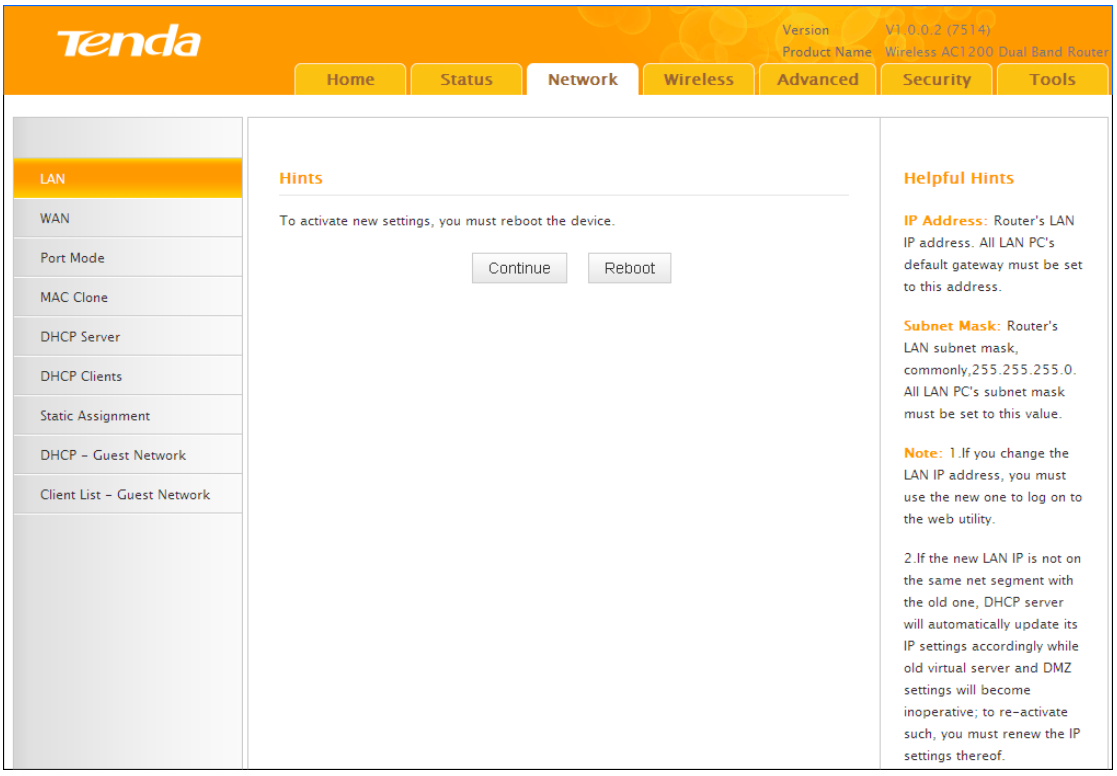


① If the WAN Connection Status keeps displaying "Connecting....", change the LAN IP address of this router to a different subnet from the remote router's LAN IP address.

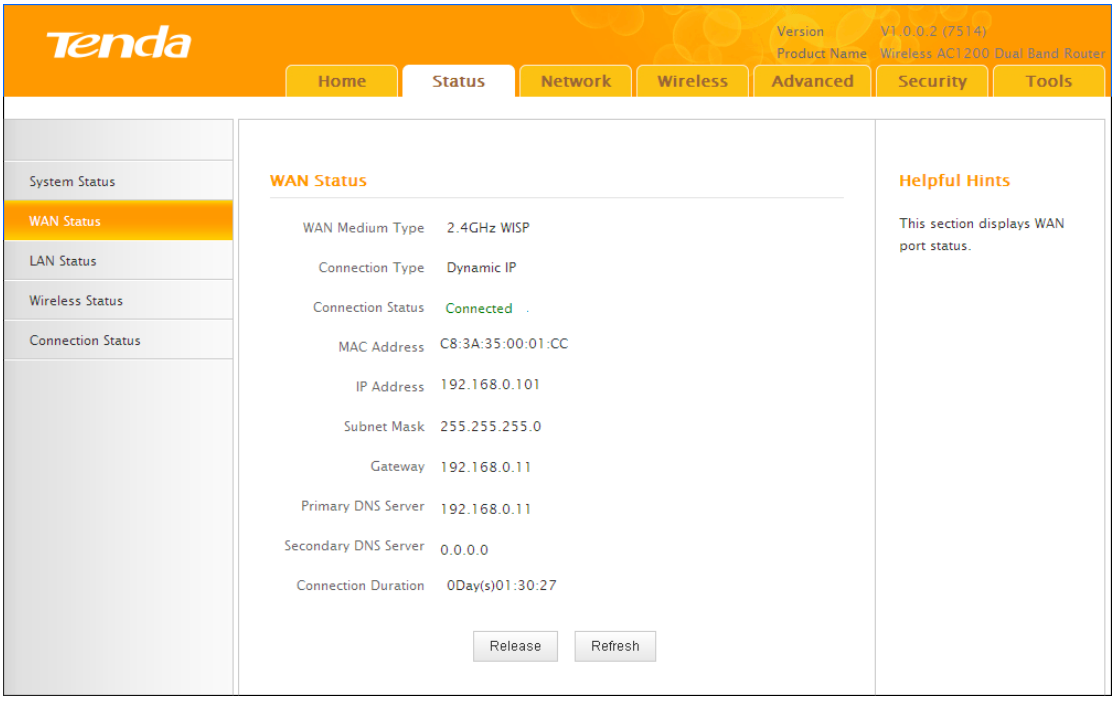


② Click **OK** on the appearing screen to reboot the router.

③ Click **Reboot** on the appearing screen to reboot the router.



System automatically enters the Status screen after reboot. Check the WAN Connection Status, if it displays "Connected", you have successfully connected to Internet.



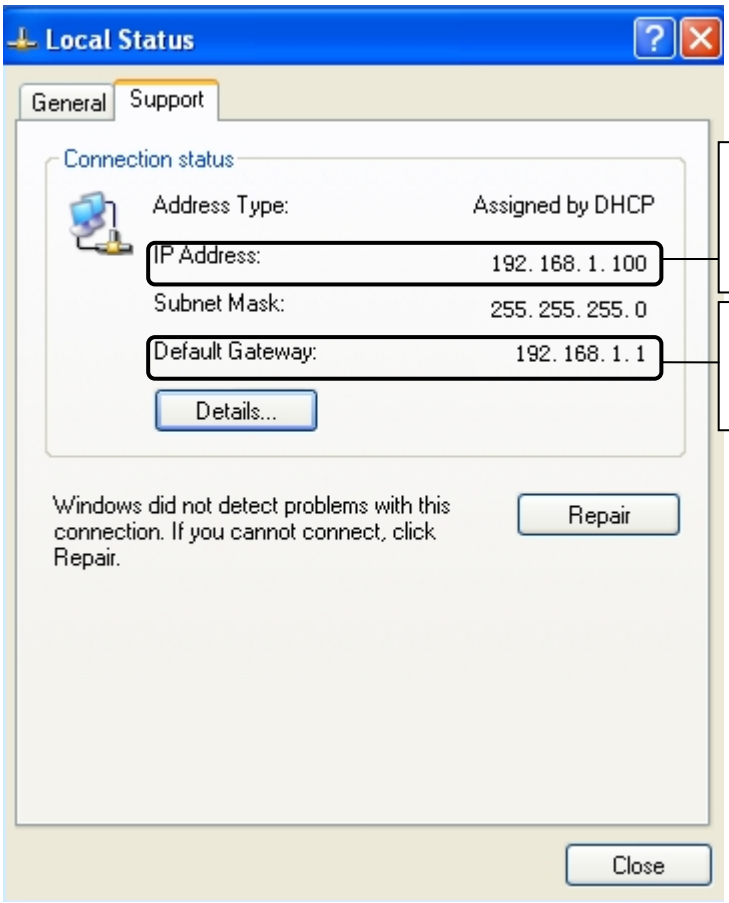
Note ----------

When the WISP (client router) mode is configured successfully, wireless clients can connect to this Tenda wireless router's SSID for Internet access.

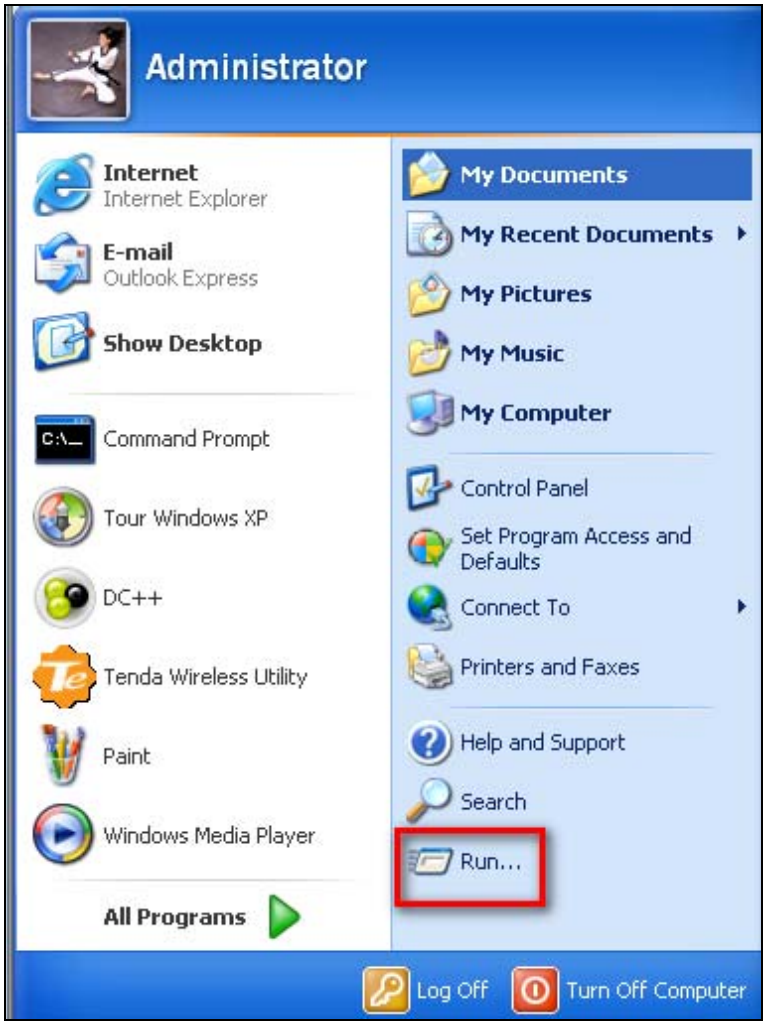
Verify Bridge Connectivity:

① Connect your PC to this Tenda wireless router via a wired or wireless connection and set it to "Obtain an IP address automatically". If you are not clear, see **Appendix 1 Configure PC TCP/IP Settings**.

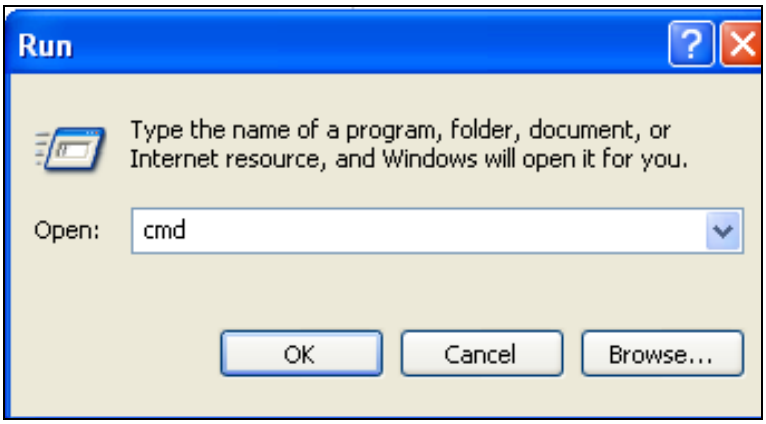
② Wait until your PC successfully obtains an IP address.



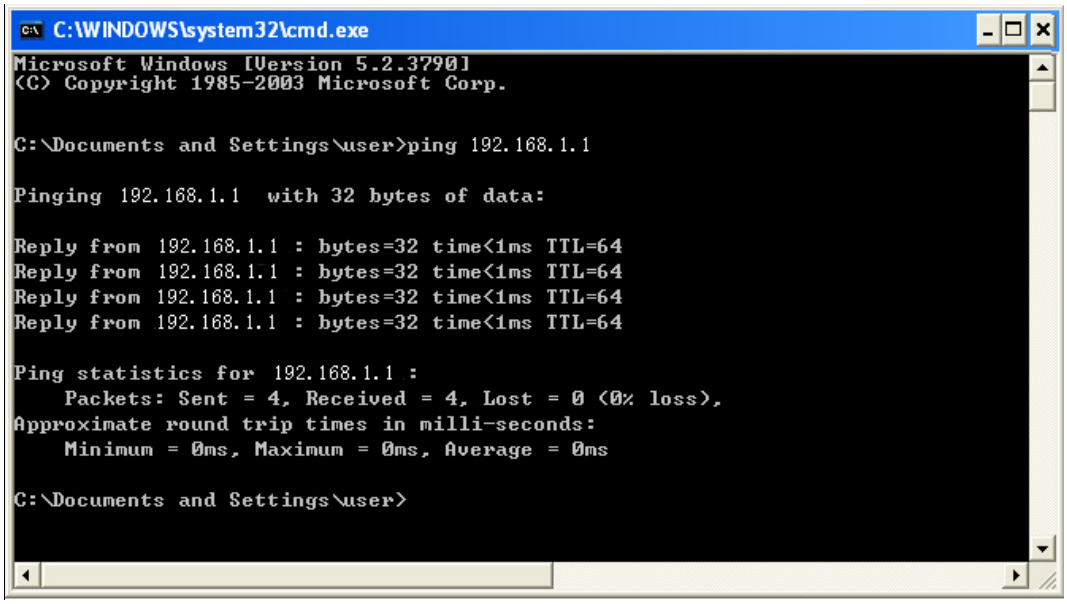
③ Click **Start ->Run**



④ Enter **cmd** and click **OK.**



⑤ Enter "ping Tenda router's gateway IP address". Here in this example, enter "ping 192.168.1.1" and press **Enter**. If you see a similar screen (highlighted area), the bridge is established successfully.

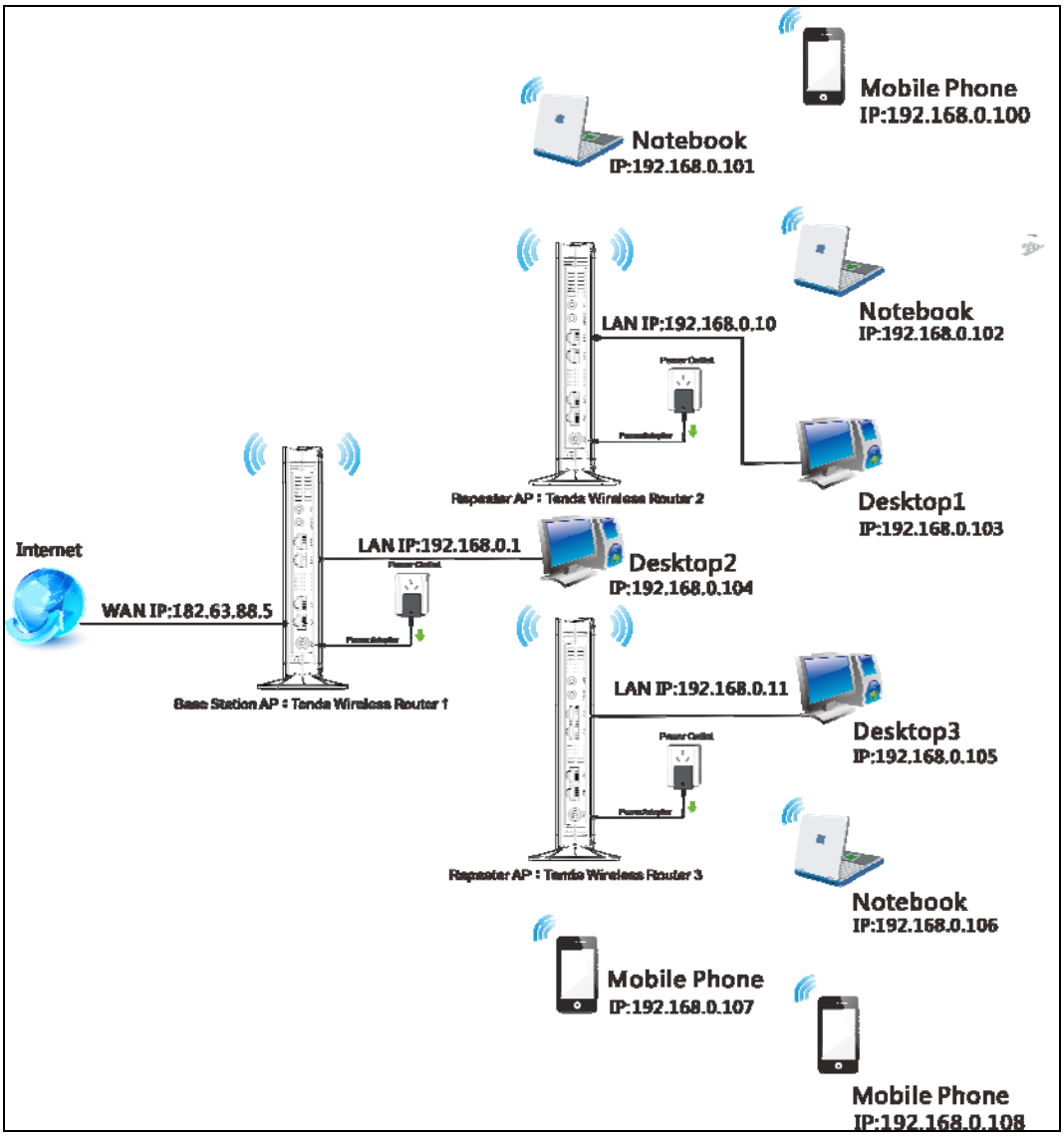


WDS Mode

WDS (Wireless Distribution System) includes Wireless Bridge and Wireless AP. The differences are described as below:

Operating in Wireless AP mode, clients can access the Internet by connecting to the router via an Ethernet cable or wirelessly. Operating in Wireless Bridge mode, clients can access the Internet by connecting to the router via an Ethernet cable or wirelessly joining the router's secondary SSID (wireless network) or guest network.

WDS: Wireless distribution system (WDS) is a system enabling the wireless interconnection of access points in an IEEE 802.11 network. It allows a wireless network to be expanded using multiple access points without the traditional requirement for a wired backbone to link them. The Tenda wireless router can function as a base station AP to create a wireless network or as a repeater AP to repeat and extend the base station AP's wireless network to a farther and wider range. The following figure shows an application scenario.



In this mode, you must set up both the base station A and the repeater AP.

Tip----------

Before you start, **verify the following:**

1. Tenda wireless router 1 that functions as a base station AP has successfully connected to Internet.

2. No Ethernet cables are connected to the WAN ports of the repeater APs: Tenda wireless routers 2 and 3.

WDS Application Example (as shown in the application scenario above):

Step 1: Configure Base Station AP (Tenda Wireless Router 1)

① **Mode:** Select **WDS Mode**.

② **WDS Mode:** Select **Wireless AP**.

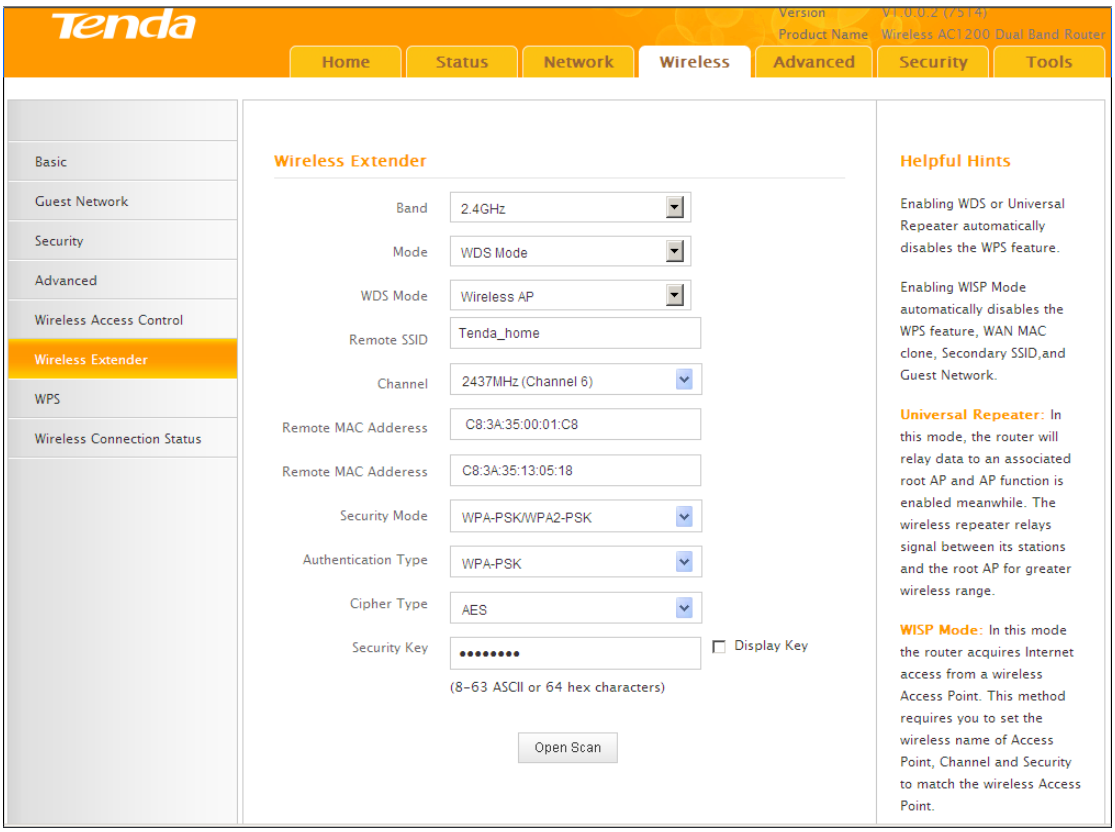
③ **SSID:** Customize a SSID, for example, Tenda_home.

④ **Channel:** Specify a channel for the base station AP to operate on, for example, 2437MHz (Channel 6).

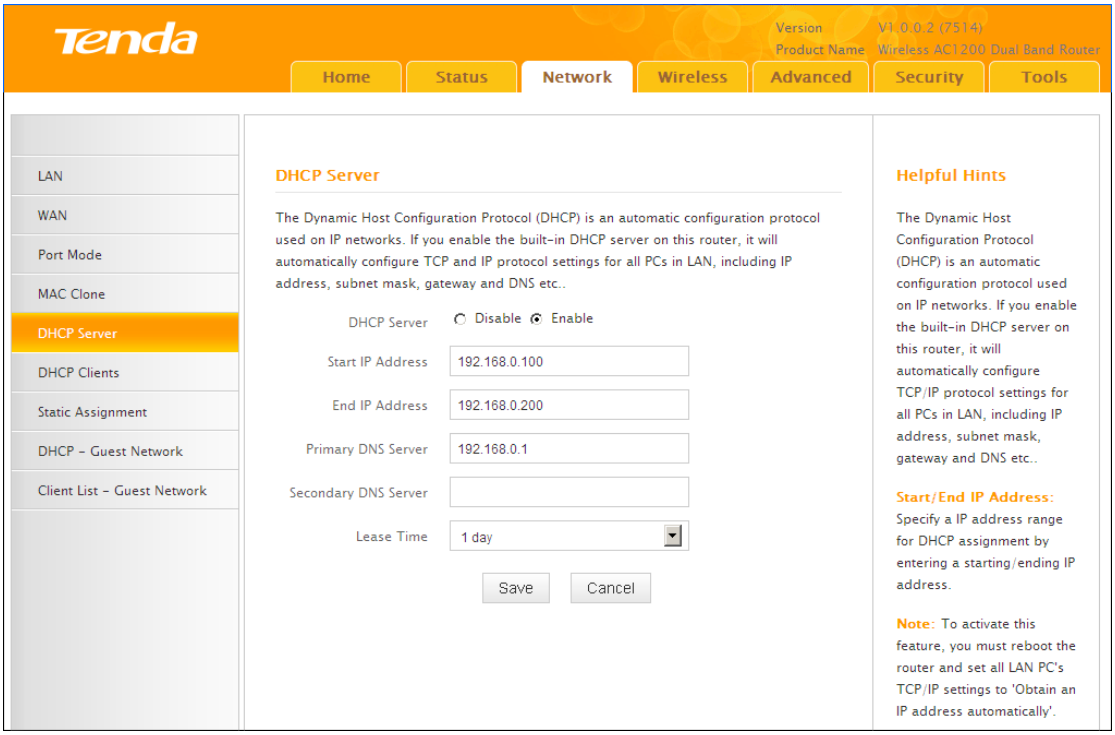
⑤ **Remote MAC Address:** Manually enter the MAC addresses of the two remote repeater APs (You can click **Open Scan** to view the MAC addresses).

⑥ **Security Mode:** Specify security mode/authentication type, cipher type and security key for the base station AP.

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

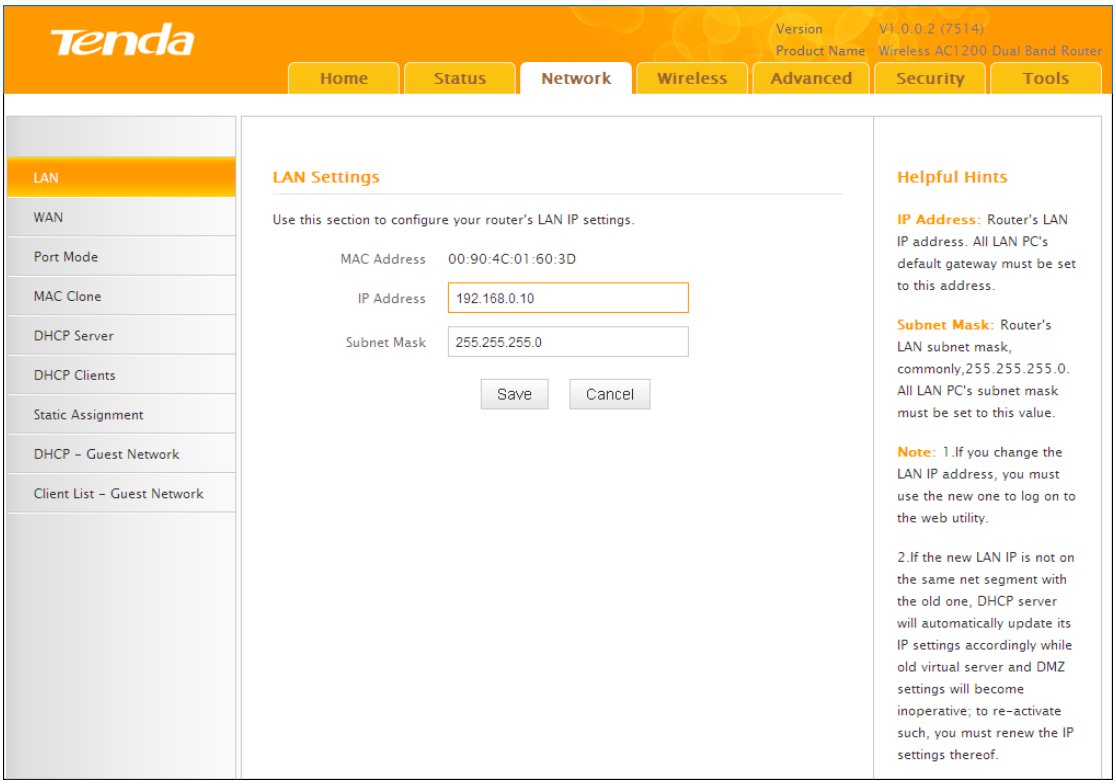


⑧ Click **Network -> DHCP Server** on the base AP's configuration interface to enable the DHCP server.



Step 2: Configure Repeater AP (Tenda Wireless Router 2)

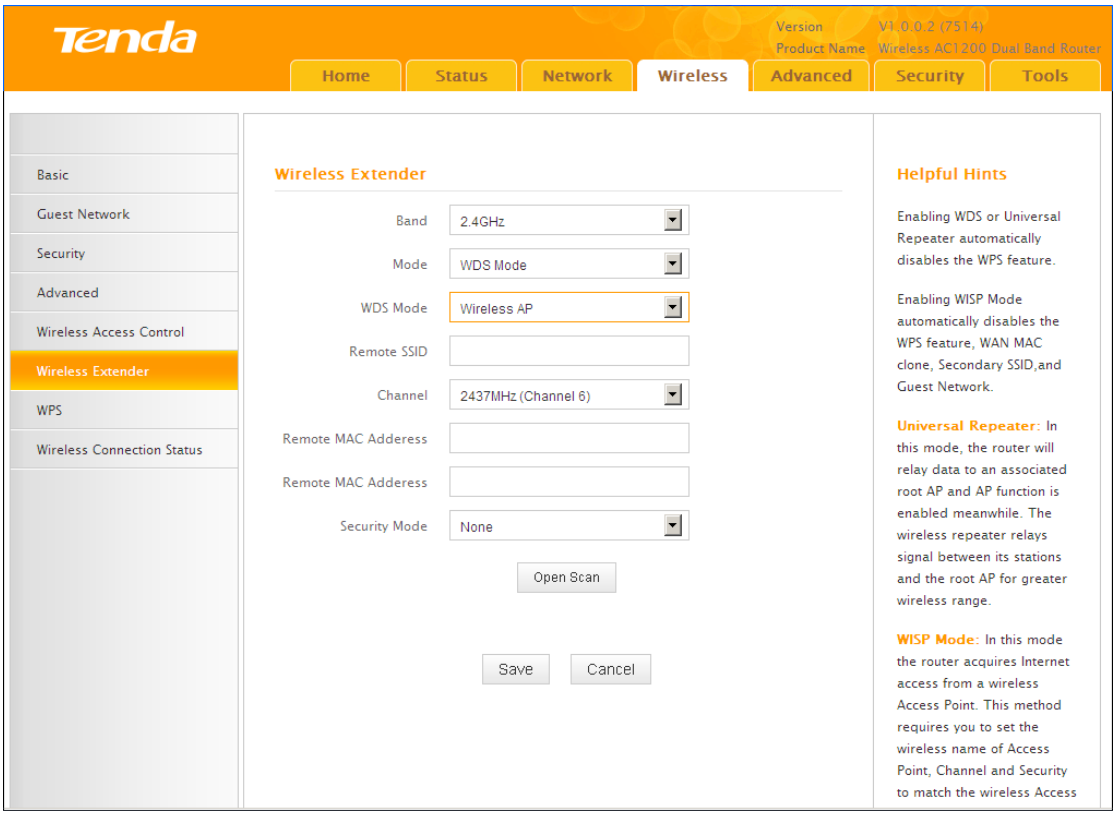
① Click **Network -> LAN** to specify a LAN IP address that is in the same subnet as yet different from the base station AP.



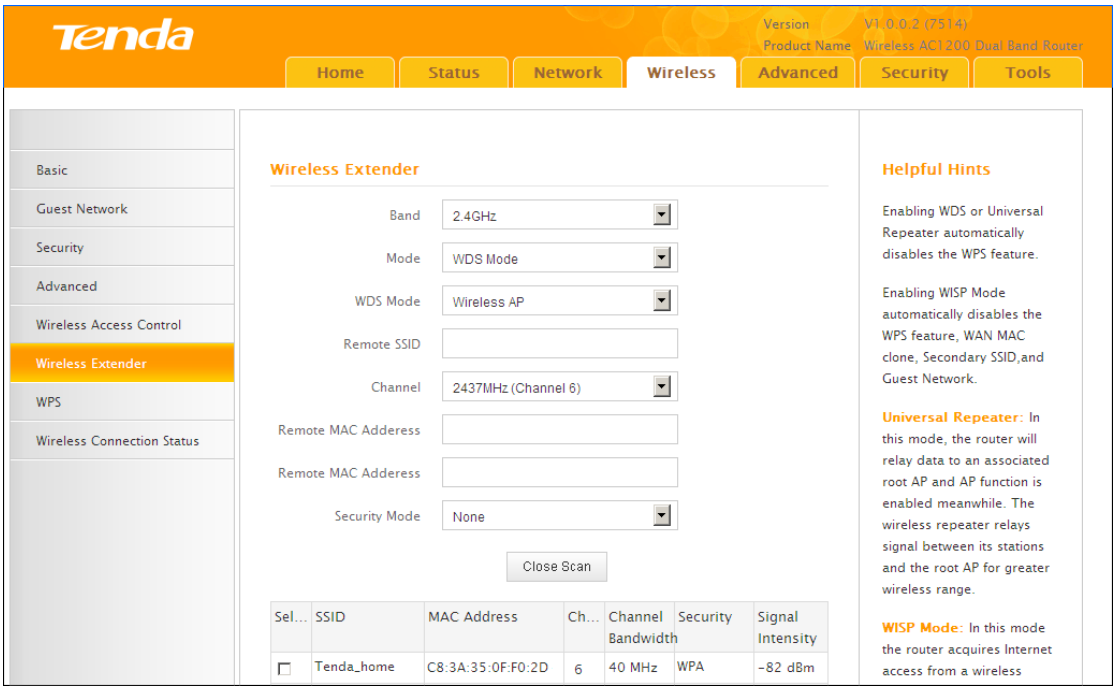
Click **OK** in the appearing screen.

② Click **Wireless -> Wireless Extender**, select **WDS Mode** from the **Mode**

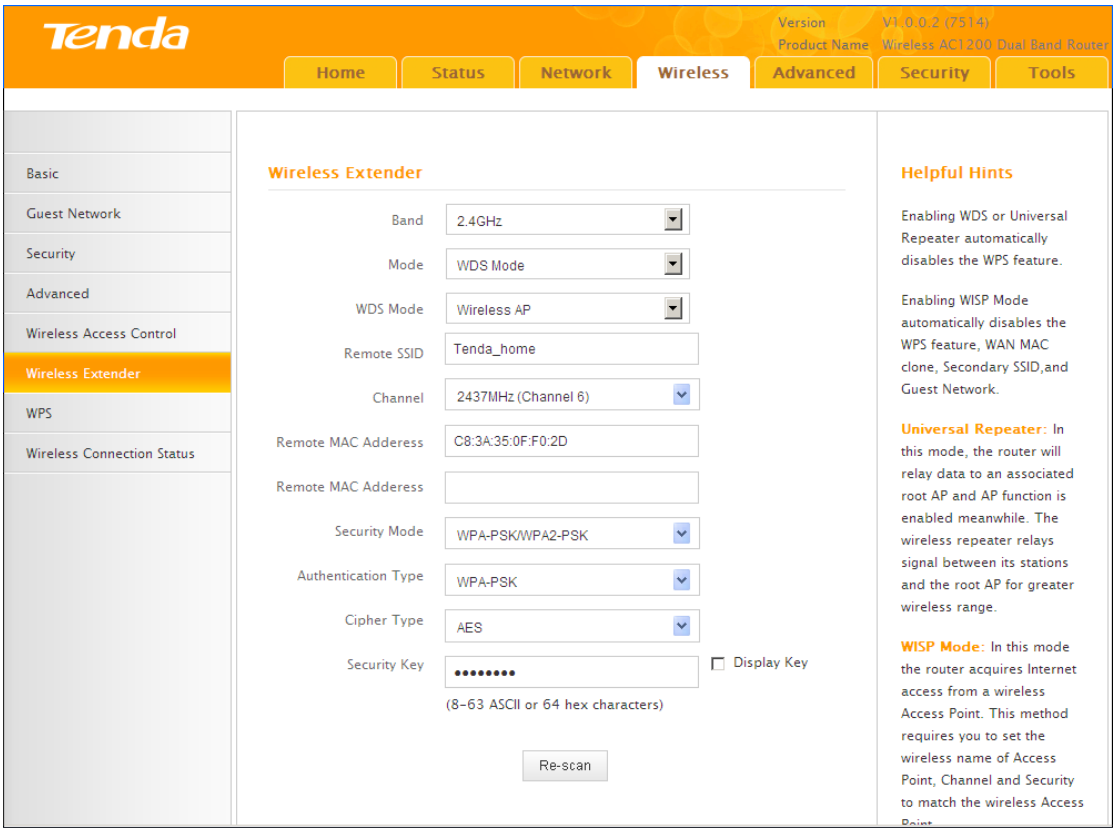
drop-down list, select **Wireless AP** from the **WDS Mode** drop-down list and then click **Open Scan.**



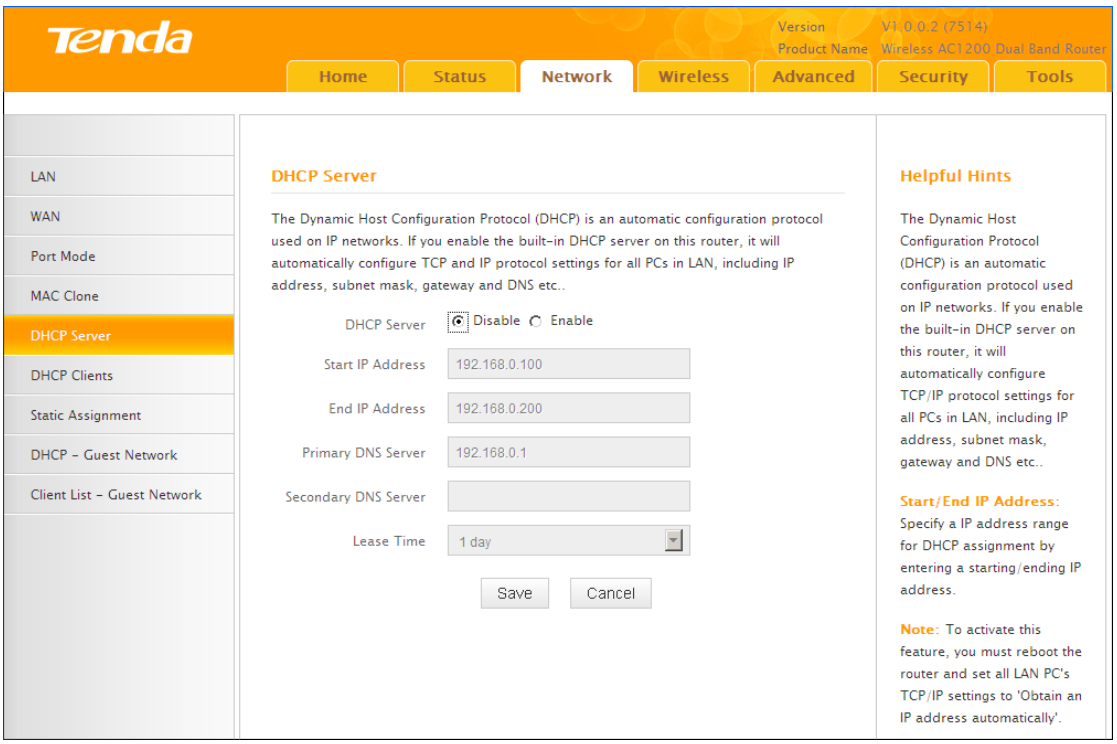
③ Search for and select the base station AP's SSID and then click **Close Scan**.

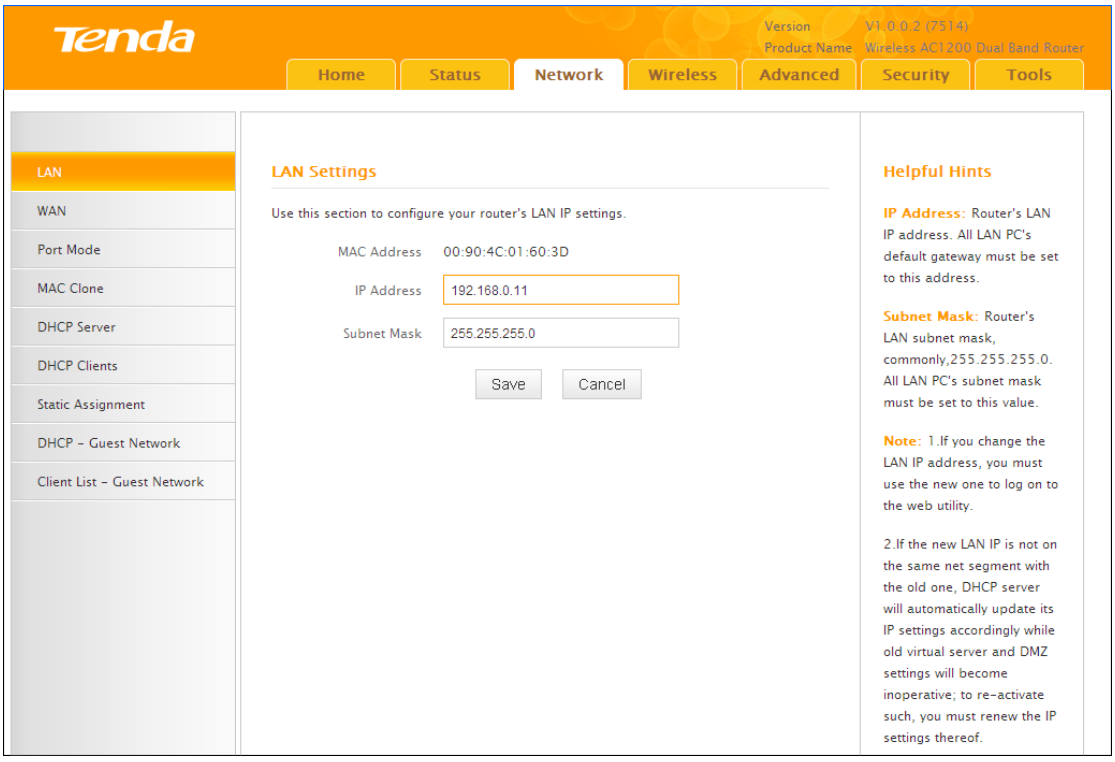


④ The SSID, channel, MAC address, security settings except security key of the base station AP will be automatically added to the corresponding fields. You only need to enter the security key of the base station AP and click **Save**.



⑤ Click **Network -> DHCP Server**, disable the DHCP server there and then click **Save**.



Step 3: Configure Repeater AP (Tenda Wireless Router 3)

① Click **Network -> LAN** to specify a LAN IP address that is in the same subnet as yet different from the base AP and the other remote AP.