HUMAX

User Manual

HUMAX Multi-Function Router T3A, T3Av2

This user manual describes HUMAX T3A, T3Av2.

- HUMAX T3A AC1200 Multi-Function Router
- HUMAX T3Av2 AC1200 Multi-Function Router

Contents

Chapter 1. Introducing Your Router

Thank you for purchasing a HUMAX product. Please read this user's manual carefully to be able to safely install, use and maintain the product at maximum performance. Keep this user's manual next to your product for future reference. The information in this user's manual is subject to change without notice. The detailed description may slightly differ depending on each product, and the images are merely for illustrational purposes and thus may differ from the screens you actually see.

Throughout the whole manual, pay special attention to the following marks that indicate hazardous situations.

Warning

Indicates a hazardous situation which could result in serious injury.

Note

Indicates additional information to make the user aware of possible problems and information of any importance to help understand, use and maintain the installation.

Tips

Indicates information helpful to the user, like showing an easier way to do something.

1.1 Package Contents

The following items should be found in your package.

Model / Accessories	QUANTUM T3A	QUANTUM T3Av2
Power Adaptor	√	√
Ethernet Cable	√	√
Quick Start Guide	√	√

Note: Make sure that the package contains the above items. If any of the listed items are damaged or missing, please contact your distributor.

1.2 Overview of the Router

HUMAX T3A, T3Av2 AC 1200 Multi-Function Router provides revolutionary Gigabit 802.11ac wireless speed up to 1200Mbps. T3A and T3Av2 will fully meet the need of small office/home office (SOHO) networks and satisfy users who demand higher networking performance.

Note: The number of ports, data rate, wireless standard and others are dependent on each model.

1.3 Main Features

HUMAX T3A and T3Av2 support exceptional network security features and superior performance. For more detail, refer to the feature list below.

Category

- AC1200 Multi-Function Router

Wireless

- Complies with IEEE 802.11a/b/g/n/ac Wi-Fi Standard.
- Supports simultaneous 2.4GHz and 5GHz connections for 1200Mbps of total available bandwidth.

Internet

- Shares data and Internet access for users, supports Dynamic IP/Static IP/PPPoE/PPTP/L2TP Internet access.

Ports

- Provides one(1) 10/100/1000M RJ45 Internet port, four(4) 10/100/1000M RJ45 Ethernet ports, supporting Auto MDI/MDIX.
- Provides one(1) USB 2.0 port supporting file sharing and printer server.

Mode

- Supports host router, wireless bridge, AP, repeater and WISP modes are configurable on a web interface. (T3A)
- Supports Q-MODE slide switch that enables changing network mode automatically without any configuration. Q-MODE supports 7 operation modes such as router, wireless bridge, AP, repeater, WISP and roaming & mesh mode. (T3Av2)

Security

- Provides WPA/WPA2, WPA-PSK/WPA2-PSK authentication, TKIP/AES encryption security.
- Allows guest network access that provides secure Wi-Fi access for guests to share home or office network.
- Provides WEP encryption security and wireless LAN ACL (Access Control List).
- Supports IP/MAC filter and URL filter, Access Control list.
- Supports IPv6. (Internet Protocol Version 6)
- Parental Controls allow parents or administrators to establish restricted access policies for children or staff.
- Built-in NAT and DHCP server supporting static IP address distributing.

Fire Sharing

- Supports USB storage sharing, printer server, FTP server, Media server. Shares a printer locally and files & media with networked devices or remotely via FTP server.
- Supports UPnP, Dynamic DNS.

MIMO/MU-MIMO

- Supports MU-MIMO (WAVE2) for communication with several devices at the same time. (T3Av2)

User Interface

- Supports easy setup wizard on user interface and provides detailed instructions step by step in this user guide.

Performance

- Provides Roaming & Mesh feature for getting the optimal signal through the best path within network and best connection.
- Quality of Service (QoS) makes it easer for you to prioritize the devices connected to the router.
- Adopts Beamforming technology that enables highly efficient wireless connection.
- Provides automatic-connection and scheduled connection on certain time to the Internet.

1.4 Requirements for Operation

To operate your QUANTUM T3A and T3Av2, the following environment is required:

- Broadband Internet Access Service (xDSL, Cable, Ethernet)
- PC having an Ethernet port
- Microsoft Windows 7 or later, MAC OS 10.7 or later, Netware, UNIX or Linux
- Web browser such as Microsoft Internet Explorer, Google Chrome, Mozilla Firefox or Apple Safari. Since old versions may not be supported, we recommend you use the latest versions.

1.5 Product Overview

1.5.1 Top / Side View

T3A

T3Av2

LEDs On for checking working status

Your router has LEDs on the front panel to indicate the working status. You can refer to the table below to check your router works properly.

T3A			
LED		Operation	
⏻	Power	Blue On	Power is on.
		Off	Power is off.
	WPS	Blue On	Mesh network is configured.
		Slow Blinking	WPS is in configuration.
		Fast Blinking	WPS connection is failed.
		Off	WPS is off.
2.4G	2.4G	Blue On	WLAN is enabled on 2.4GHz band.
		Off	WLAN is disabled.
5G	5G	Blue On	WLAN is enabled on 5GHz band.
		Off	WLAN is disabled.
	Internet	Blue On	Internet is connected.
		Blue Blinking	Data is being transmitted through the Internet port.
		Off	Internet is not connected.
LAN 1 2 3 4		Blue On	Network device is connected to the LAN ports.
		Blue Blinking	Data is being transmitted through the LAN ports.
		Off	No device is connected to the LAN port.
	USB	Blue On	USB device is connected to the USB port.
		Off	USB device is disconnected.

T3Av2			
LED		Operation	
	USB	Blue On	USB device is connected to the USB port.
		Off	No USB device is connected to the USB port.
	Power	White On	Power is on.
		Off	Power is off.
	Internet	White On	Internet is connected.
		White Blinking	Firmware update is in progress.
		Off	Internet is not connected.
	Wireless (2.4G, 5G)	White On	Wireless network is working properly.
		White Slow Blinking	WPS is in configuration. It may take 2 minutes.
		White Fast Blinking	WPS configuration is failed.
		Green On	*Roaming & mesh network is configured through the Internet.
		Off	Wi-Fi is not available.
1 2 3 4	LAN	White On	Network device is connected to the LAN port.
		Off	No device is connected to the LAN port.
	USB	White On	USB device is connected to the USB port.
		Off	No USB device is connected to the USB port.
Internet, Wireless, LAN Blinking			Resetting the system is in progress.

Note:

- Green light is turned on when the roaming & mesh network is successfully configured over compatible HUMAX routers and extenders. (T3Av2 Only)
- The table describes the LED operation in router mode. It may differ from the operation in extender mode.

LEDs Off for Power Saving

You can save electrical energy by turning off the LEDs for the preset time. Go to **Management** > **System Management** and set the LED control mode.

Note: The power LED stays lit even though the LEDs are set to **Always Off**.

Button on the Top and Side Panel

- **WPS**: Press the WPS button to activate the Wi-Fi Protected Setup (WPS).

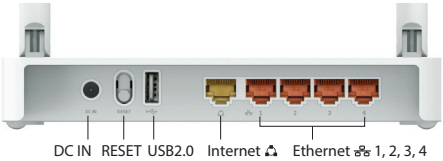
If your client devices such as wireless adaptors support WPS, you can quickly establish the connection between your router and the client devices and automatically configure wireless security for your wireless network.

- **Q-MODE**: Just flick the Q-MODE switch left or right to change network mode. (T3Av2)

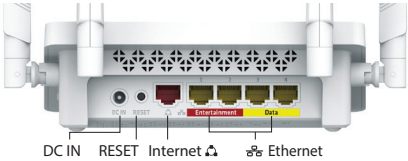
The slide switch enables automatically changing network mode between a host router and a range extender without any configuration.

ROUTER	EXTENDER
Router mode	AP mode
WISP mode	Repeater mode
	Wireless bridge mode
Roaming mode	
Mesh mode	

1.5.2 Rear View



[T3A]



[T3Av2]

Ports on the Real Panel

- **DC IN**: Connect the AC power adaptor from the power connector to the wall outlet.
- **RESET**: Keep pressing the reset button for 5 seconds to return to the factory settings.
- **USB2.0** : Connect a USB storage device to share files or a printer to share it over the network.
- **Internet** : Use an Ethernet cable to connect to the Internet.
- **T3A Ethernet 1, 2, 3, 4**: Use Ethernet cables (also called network cables) to connect network devices to the Gigabit Ethernet ports.
- **T3Av2 Ethernet**: Use Ethernet cables to connect entertainment or network devices.

  - Entertainment: Connect entertainment devices such as OTT, gaming console and IPTV. The Entertainment ports have the priority in transmitting multimedia data without transmission delay or interruption.

  - Data: Connect network devices for wired network connection.

Note:

- If you want to use the router to share files or printer, plug the USB storage device(s) to the USB port(s) or connect the printer to the router with a matching cable.
- The USB port is only for USB devices like flash drivers, hard drives and printers. Do not connect PCs, USB modems, CD drives, USB power bank or DVD drives.

Chapter 2. Connecting Your Router

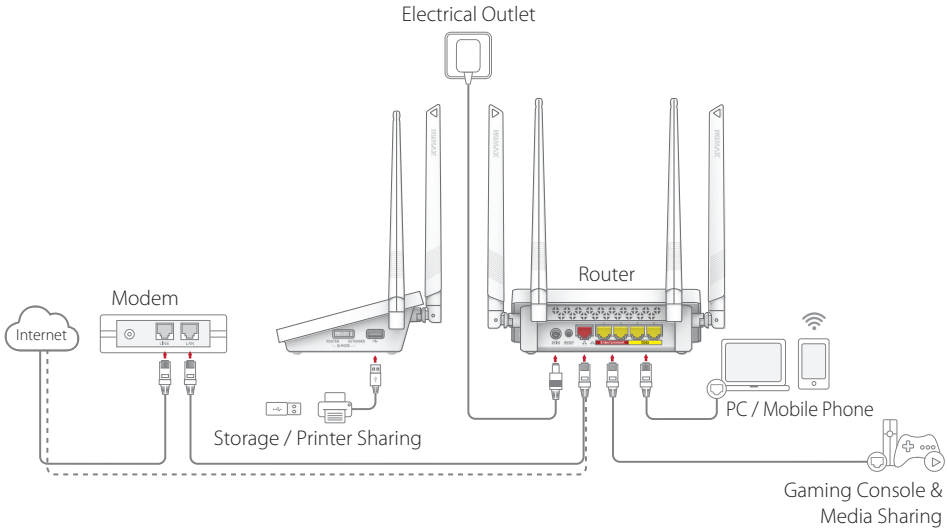
This chapter contains the following sections:

- How to connect your product to use it as a host router
- How to connect your product to use it as a Wi-Fi range extender
- Where to locate your router to obtain maximum performance
- How to mount your product on a wall

2.1 Connection for T3Av2

2.1.1 Connection as Router

When you use QUANTUM T3Av2 as a host router, follow the steps below. To use it as a range extender, go to "2.1.2 Connection as Extender".



1. Connecting the Internet

You can connect your product to the Internet over a direct WAN or through a modem.

Over a direct WAN

If you access the Internet by WAN broadband, plug the Ethernet cable to the Internet port of your router.

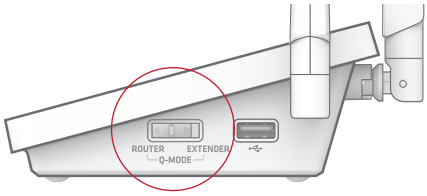
Through a modem

If you access Internet by the modem such as ADSL, VDSL, cable and FTTH, plug one end of the Ethernet cable to the Internet port of your router and the other end to the LAN port of your modem.

2. Checking the Mode

Your product has the Q-MODE switch.

Check that the switch is set to **ROUTER**.



3. Powering On

① Plug in the AC power adaptor from the power connector to an electrical outlet.

② If the power successfully turns on, a white light on the power LED is turned on.

Note:

- Use only the AC power adaptor provided in this product. Using other adaptors may damage the product.
- To restart the system, press the **RESET** button less than 5 seconds.

4. Connecting the Network Devices

Over wired Ethernet connection

① Turn off the Wi-Fi on your network devices such as PC, IPTV, OTT or gaming console.

② Connect the devices using Ethernet cables.

Note: We recommend you to connect entertainment devices such as OTT, gaming console and IPTV to the **Entertainment ports**. The ports have the priority in transmitting multimedia data without transmission delay or interruption.

Wirelessly

① Go to the Wi-Fi setting menu on your network devices.

② Select the network name (SSID) of your router from the Wi-Fi list and enter the password. If the network name is not shown, you need to enter it manually. The default network name (SSID) and password are printed on the label of your router.

Model: QUANTUM XXXX Code: XXXXXX	Router Login : http://dearmyrouter.net Extender Login : http://dearmyextender.net ID : admin Password : XXXX
S/N: XXXXXXXXXXXXXXXXX MAC: XX:XX:XX:XX:XX:XX	Router SSID : We Love You So Much Extender SSID : Connect To Router Password: humax_ XXXX

Using WPS button

If your network device supports WPS, you can connect it to the router by simply pressing the WPS button.

① Tap the WPS icon or press the WPS button on your network device.

② Press the WPS button on your router within 2 minutes.

Note:

- The WPS does not work when the wireless encryption protocol is set to WEP or Disable.
- Place your network device close to the router during WPS configuration.

Warning

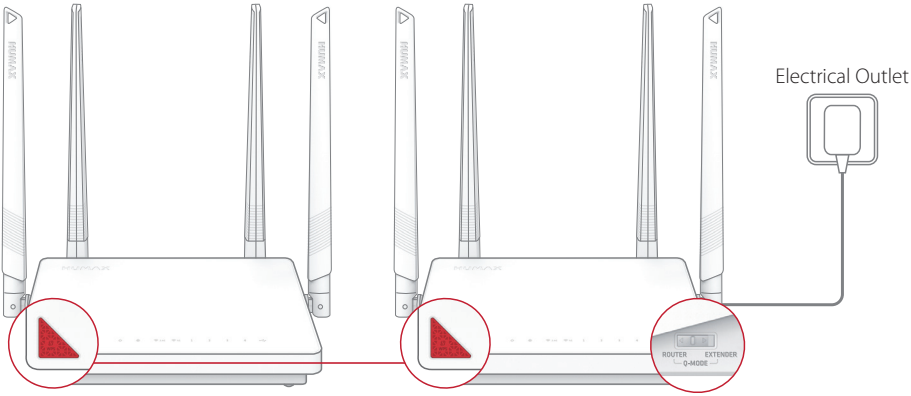
- Always turn off all devices before you connect or disconnect any cables including power cord.
- Hazardous electrical voltages can exist on your devices and can be present on any connected cables.

2.1.2 Connection as Extender

You can use the product as a range extender when connected to a host router.

1. Changing Mode

Slide the Q-MODE switch to **EXTENDER**. Then, the mode change is automatically complete.



2. Powering On

① Plug in the AC power adaptor from the power connector to an electrical outlet.

② If the power successfully turns on, a white light on the power LED is turned on.

Note: Use only the AC power adaptor provided in this product. Using other adaptors may damage the product. It may take 30 seconds to complete the mode change.

3. Connecting to Host Router

You can connect your extender to a host router by pressing WPS button, using an Ethernet cable or wirelessly.

Using WPS button

Press the WPS buttons on your host router and extender.
If your router is a HUMAX product, both network names (SSID) of router and extender are the same as if they configure a single network. You will experience seamless Wi-Fi roaming over the mesh network. Otherwise, if a host router is another other than a HUMAX router, you can use extended Wi-Fi network with stronger and wider signal. The network name will be Connect To Router.

Note:

- You can change the network name (SSID) on the web interface. Access dearmyextender.net and then go to **Wireless > Extender Setting**.
- The WPS does not work when the wireless encryption protocol is set to WEP or Disable.
- Place your extender close to the router during WPS configuration.

Warning:

- Always turn off all devices before you connect or disconnect any cables including power cord.
- Hazardous electrical voltages can exist on your devices and can be present on any connected cables.

Over wired Ethernet connection

Connect an Ethernet cable between the red Internet port of your extender to a LAN port of host router.
If your router is a HUMAX product, both network names (SSID) of router and extender are the same as if they configure a single network. You will experience seamless Wi-Fi roaming over the mesh network. Otherwise, if a host router is another other than a HUMAX router, you can use extended Wi-Fi network with stronger and wider signal. The network name will be Connect To Router.

Note: You can change the network name on the web interface. Access dearmyextender.net and then go to **Wireless** > **Extender Setting**.

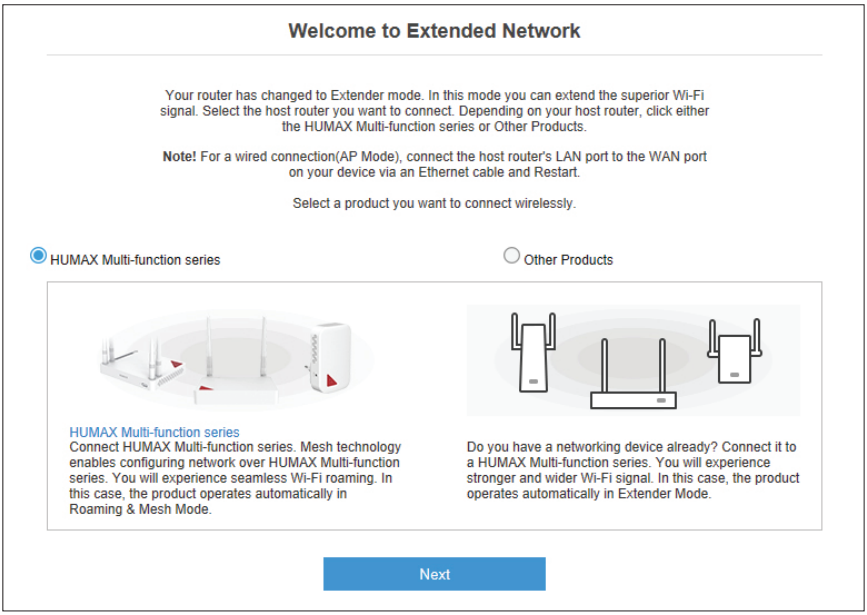
Wirelessly

① Connect a PC to your extender over an Ethernet cable.

② Open the web browser and enter **http://dearmyextender.net** to the address bar.

③ Select whether to configure the network with **HUMAX Multi-Function series** or **with Other Products**.

④ Click **Next** and follow the next steps with HUMAX Multi-Function series.



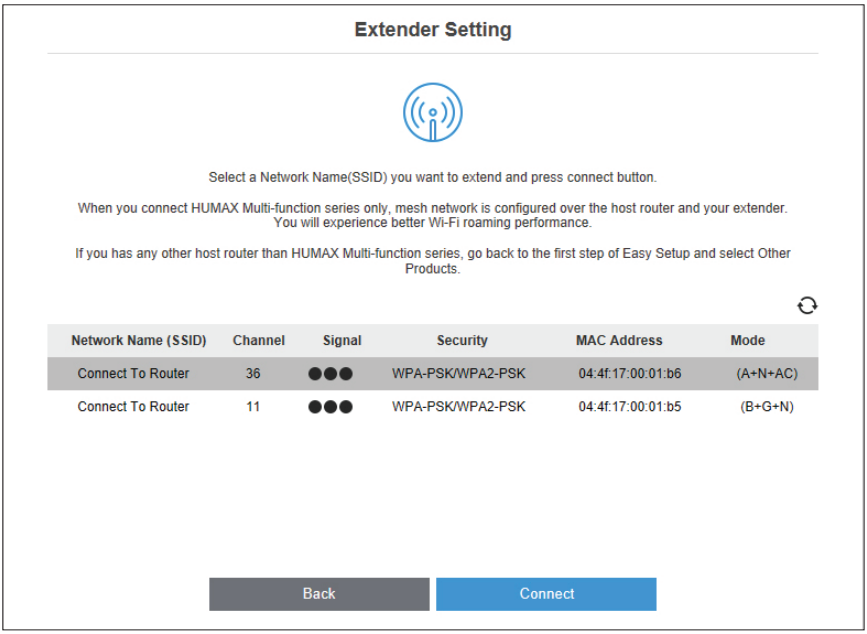
with HUMAX Multi-Function series

If you connect the extender to a HUMAX router, both network names are the same as if they configure a single network. You will experience seamless Wi-Fi roaming over the mesh network.

with Other Products

If you use a router other than HUMAX Multi-Function series, you can use extended Wi-Fi network with a new SSID and password. The network name of your extender will copy the router's name with the addition Ext2G or Ext5G at the end of the name (ex.Router_Ext5G). You will experience stronger and wider Wi-Fi signal.

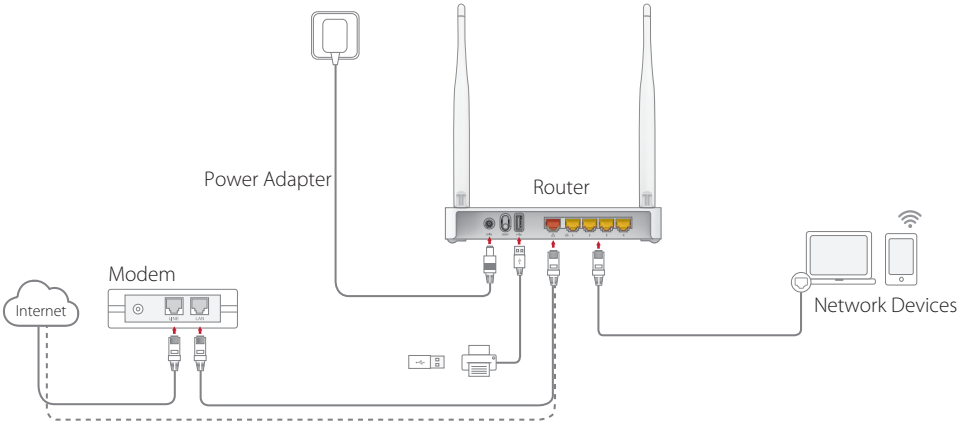
⑤ After successfully connecting the host router, your extender restarts the system.



2.2 Connection for T3A

2.2.1 Connection as Router

When you use QUANTUM T3A as a host router, follow the steps below. To use it as a range extender, go to "2.2.2 Connection as Extender".



1. Connecting the Internet

You can connect your router to the Internet over a direct WAN or through a modem.

Over a direct WAN

If you access the Internet by WAN broadband, plug the Ethernet cable to the Internet port of your router.

Through a modem

If you access Internet by the modem such as ADSL, VDSL, cable and FTTH, plug one end of the Ethernet cable to the Internet port of your router and the other end to the LAN port of your modem.

2. Powering On

① Plug in the power connector to an electrical outlet.

② If the power successfully turns on, a white light on the power LED is turned on.

Note:

- Use only the AC power adaptor provided in this product. Using other adaptors may damage the product.
- To restart the system, press the **RESET** button less than 5 seconds.

3. Connecting the Network Devices

Over wired Ethernet connection

① Turn off the Wi-Fi on your network devices such as PC, IPTV, OTT or gaming console.

② Connect the devices using Ethernet cables.

Wirelessly

① Go to the Wi-Fi setting menu on your network devices.

② Select the network name (SSID) of your router from the Wi-Fi list and enter the password. If the network name is not shown, you need to enter it manually. The default network and password are printed on the label of your router.

Using WPS button

If your network device supports WPS, you can connect it to the router by simply pressing the WPS button.

① Tap the WPS icon or press the WPS button on your network device.

② Press the WPS button on your router.

Note:

- The WPS does not work when the wireless encryption protocol is set to WEP.
- Place your network device close to the router during WPS configuration.

Warning:

- Always turn off all devices before you connect or disconnect any cables including power cord.
- Hazardous electrical voltages can exist on your devices and can be present on any connected cables.

2.2.2 Connection as Extender

You can use the product as a range extender when connected to a host router.

1. Powering On

① Plug in the AC power adaptor from the power connector to an electrical outlet.

② If the power successfully turns on, a blue light on the power LED is turned on.

Note: Use only the AC power adaptor provided in this product. Using other adaptors may damage the product.

2. Changing the Mode

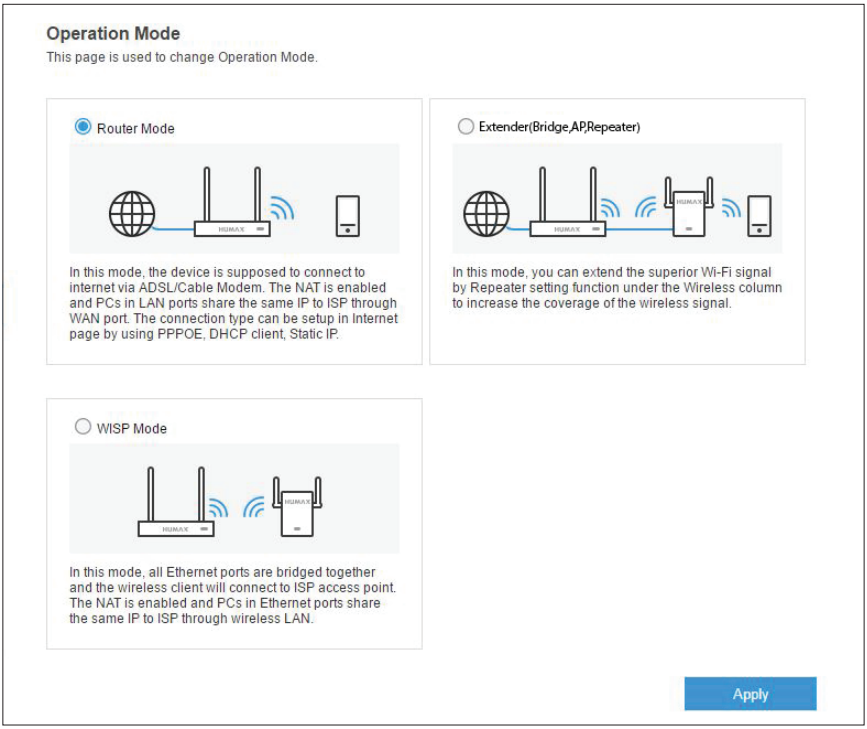
① Connect the router to a PC using an Ethernet cable.

② Open a web browser such as Microsoft Internet Explorer, Google Chrome, Mozilla Firefox or Apple Safari.

③ Enter **http://dearmyrouter.net** to the address bar and log in to with your ID and password. The default ID and password are printed on the label of your router.

④ Go to **Management** > **Operation Mode**.

⑤ Select **Extender Mode** and click **Apply**.



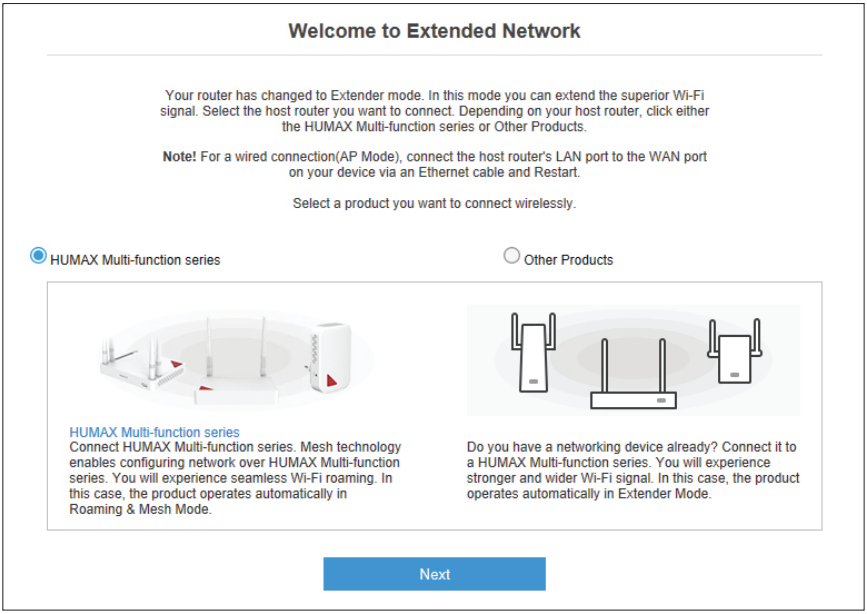
3. Connecting to Host Router

On Web Interface

① Once your router is changed to extender mode, the system restarts and you are redirected to **http://dearmyextender.net.**

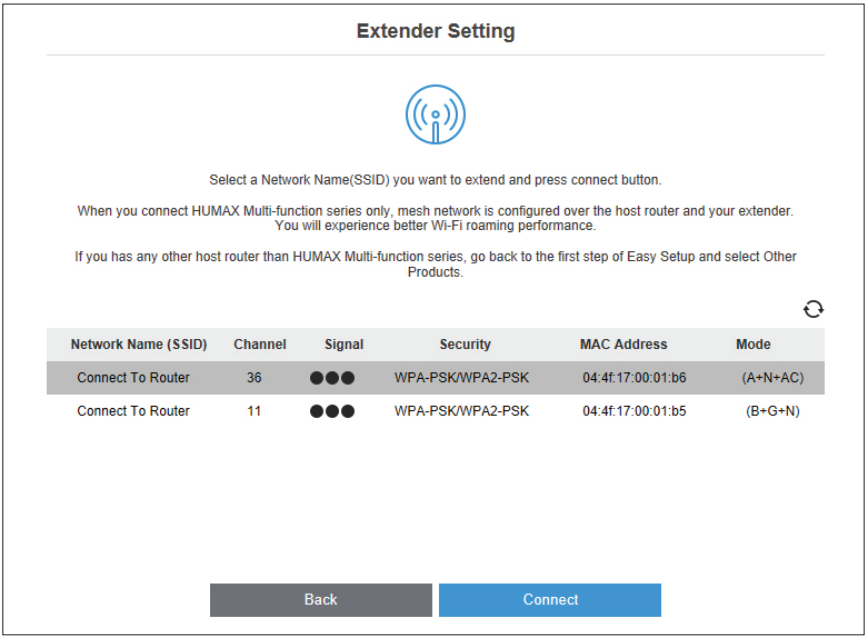
② Select whether to configure the network with **HUMAX Multi-function series** only or with **Other products**.

③ Click **Next** and follow the next steps.



④ Select a host router and click **Connect**.

The connection between HUMAX Multi-Function series does not require entering a password.



With HUMAX Multi-function series, you will experience seamless Wi-Fi roaming over the mesh network. With other products than HUMAX, you will experience stronger and wider Wi-Fi signal.

Pressing WPS button

You can connect your extender and the host router by WPS button.

① Place your extender near the host router and then within the next 2 minutes press the WPS button on your extender and the host router. When mesh network is successfully configured, the green light on the Wireless LED is turned on.

Note: If you use another router other than HUMAX Multi-function series, the white light on the Wireless LED is turned on.

② Check the network when the connection is complete.

2.3 Position

When you install your product, there are some tips to make Wi-Fi network more stable and strong at home.

- Locate your router near the center of the area where your PC and other devices operate. The center will be the best place for optimum connection.
- Place your router in the location where it can be connected to various devices as well as to a power source.
- Safely place the cables and power cord out of the way so they do not create a tripping hazard.
- Place your router in an elevated location, minimizing the number walls and ceilings between the router and your other devices.
- Keep away from the strong electromagnetic radiation and the device of electromagnetic sensitive.
- Perpendicularly position the antennas of your router if it has.

2.4 Wall Mount

You can mount your product on a wall using two screws.

① Make sure that the wall is flat, dry and sturdy, and the mounting location is free of obstructions on all sides.

② Penetrate the wall to make two screw holes.

③ Drive the screws into the holes, leaving their heads 3mm clear of the wall surface.

④ Hang the product safely on the screws.

Chapter 3. Logging into Your Router

With a Web-based utility, it is easy to configure and manage the router. The Web-based utility can be used on any Windows, Macintosh or UNIX OS with a Web browser, such as Microsoft Internet Explorer, Google Chrome, Mozilla Firefox or Apple Safari.

Follow the instructions below to log into your router.

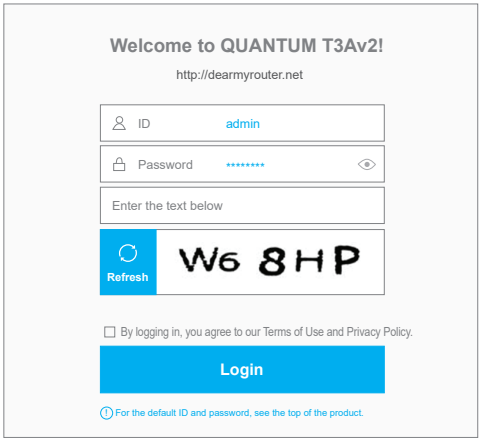
① Open the web browser.

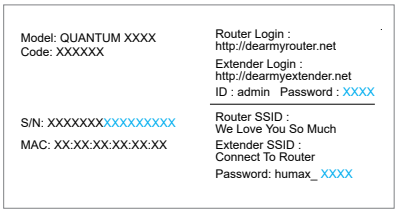
② Enter **http://dearmyrouter.net** to the address bar, and then press the Enter key.

③ Enter the ID, password and the captcha code. The default ID and password are printed label of your router. They are case-sensitive.

④ Check the check box and then click **Login**. Before login in to the router, carefully read the terms of use and privacy policy and then check the check box.

Note: We recommend you change the password to secure your network. Go to **Management > Change Password** to change your password.
The following images are merely for illustrational purposes and they may differ from the ones you actually see.
If you are using the router in Extender mode, you need to enter **http://dearmyextender.net** to configure the Wi-Fi range extender.





Chapter 4. Connecting to the Internet

4.1 Easy Setup Wizard

When you access the user interface for the first time, the easy setup will be shown.

For quick and easy setup, follow the instructions. The wizard will guide you to configure your network.

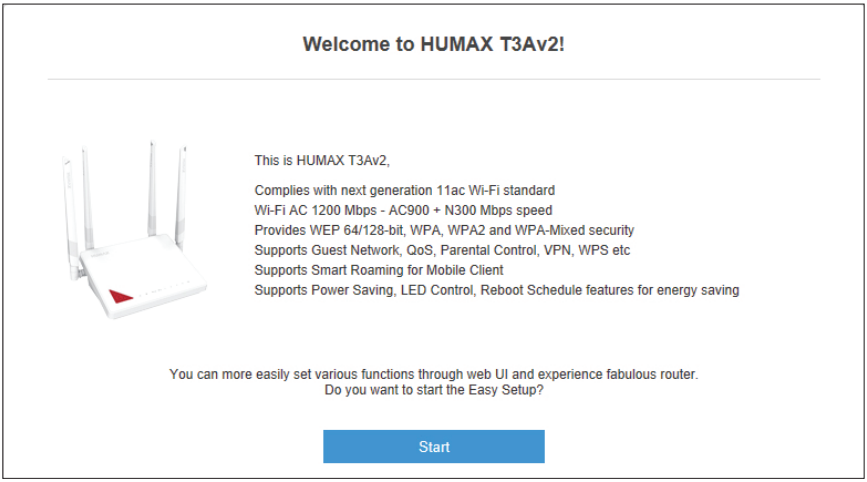
Note that the following images are merely for illustrational purposes and they may differ from the ones you actually see.

4.1.1 UI Configuration for Router

1. Starting

① Visit **http://dearmyrouter.net** and log in with the ID and password you have set for the router.

② Click **Start**. The system will check automatically if your router is connected to the Internet. If the automatic Internet connection is failed, go to "**2-2 Manual Connection**".



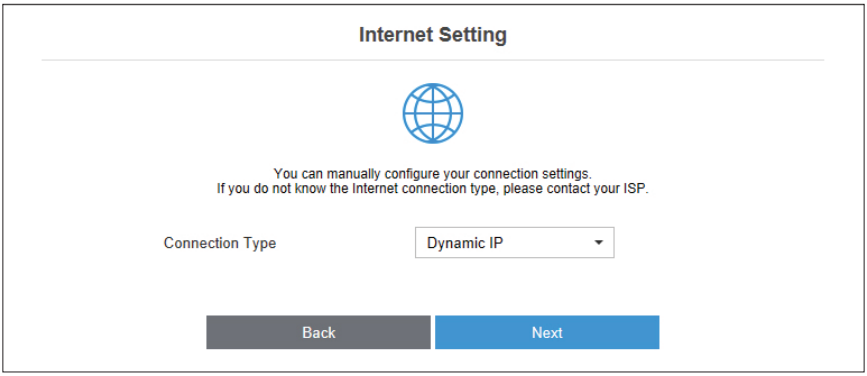
Note:

- If you want to skip the easy setup process, click **Skip Easy Setup**. This button is available always during the easy setup.
- We recommend you update the firmware to the latest version when available.

2. Connecting to the Internet

2-1 Automatic Connection

The router will detect your Internet connection type automatically. If the automatic Internet connection is successful, click **Next**. Then, the result of Internet connection will be displayed.

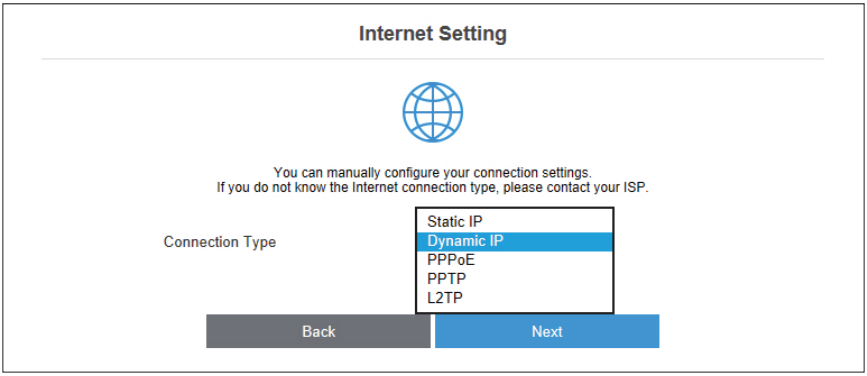


2-2 Manual Connection

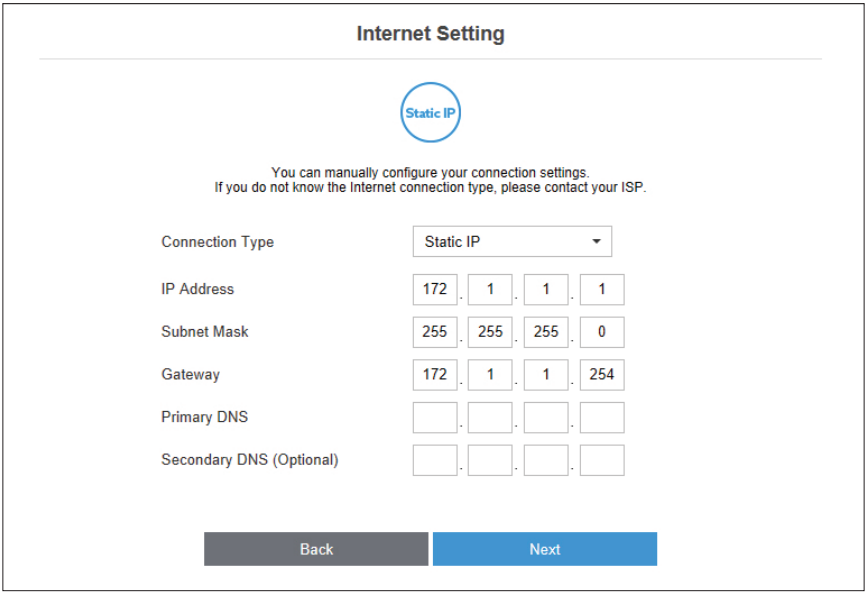
Select your Internet connection type from the drop-down list. In most cases, it will be Dynamic IP. But, the Internet connection is not working, you need to manually configure the settings.

If you are not sure about the Internet connection information, contact your ISP.

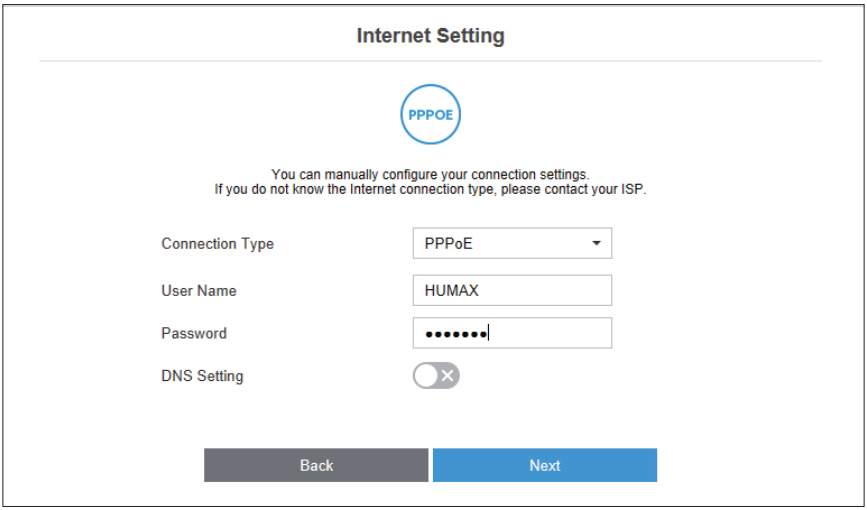
- If you use cable TV or fiber cable, select Dynamic IP. The Internet will be connected automatically.



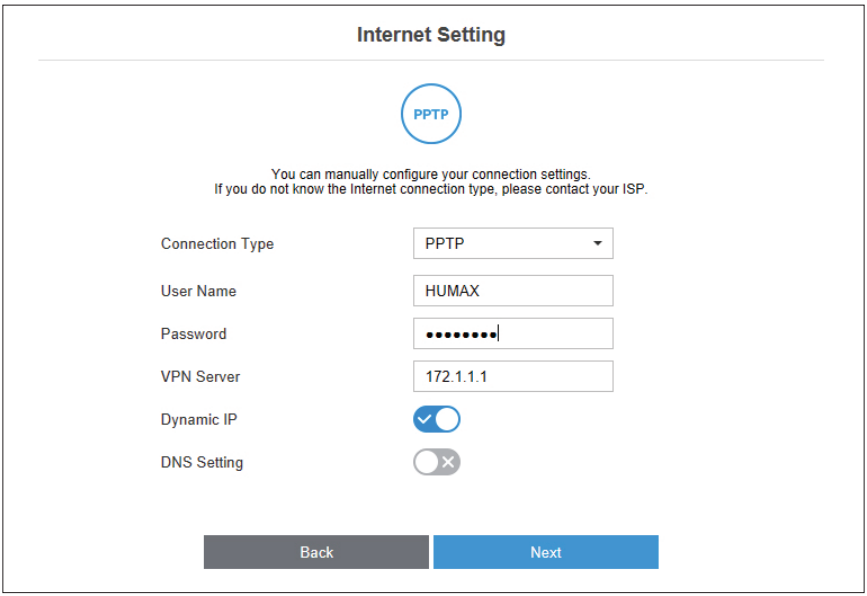
- If you are provided more information such as IP address, Subnet Mask and default gateway, select **Static IP**. In **Static IP** type, you need to enter manually the Internet information.



- If you use DSL line and you are only provided with an account name and a password by your ISP, select **PPPoE**. Enter the information provided from your ISP.

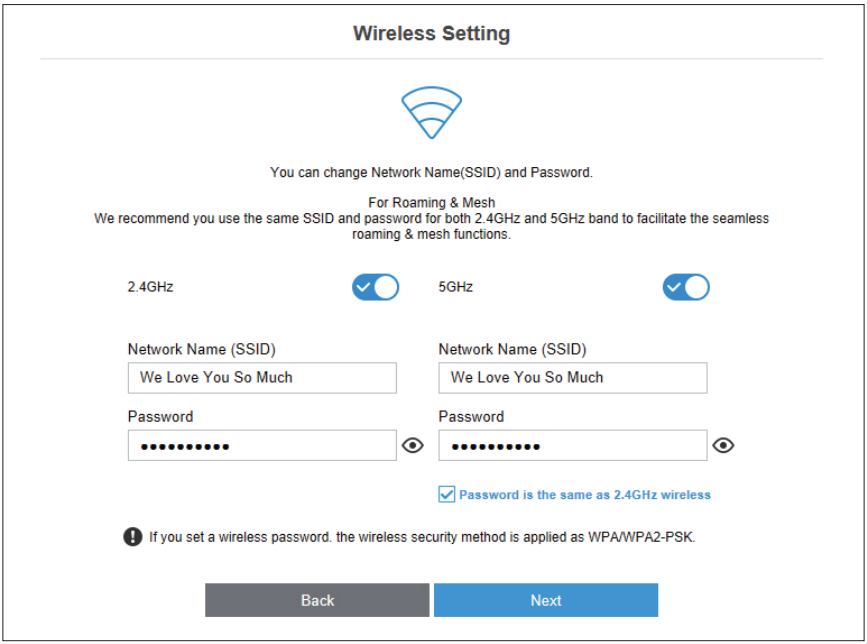


- If you are provided with the user name, password and VPN server by your ISP, select **PPTP** or **L2TP**. Enter the information provided from your ISP.



3. Configuring Wi-Fi

Configure the wireless network settings and click **NEXT**.

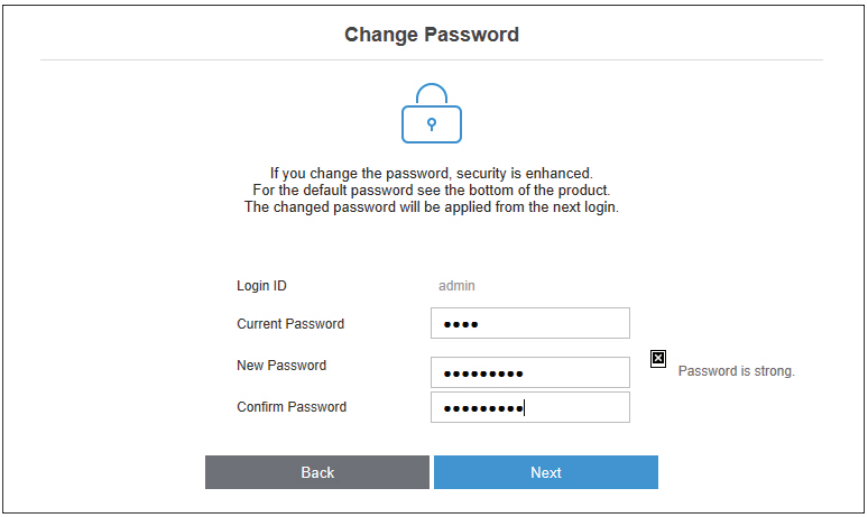


Warning: If either toggle button 2.4GHz or 5GHz is turned off, you cannot search the wireless network as well as connect to it.

4. Changing Password

Enter a new password to change the default password.

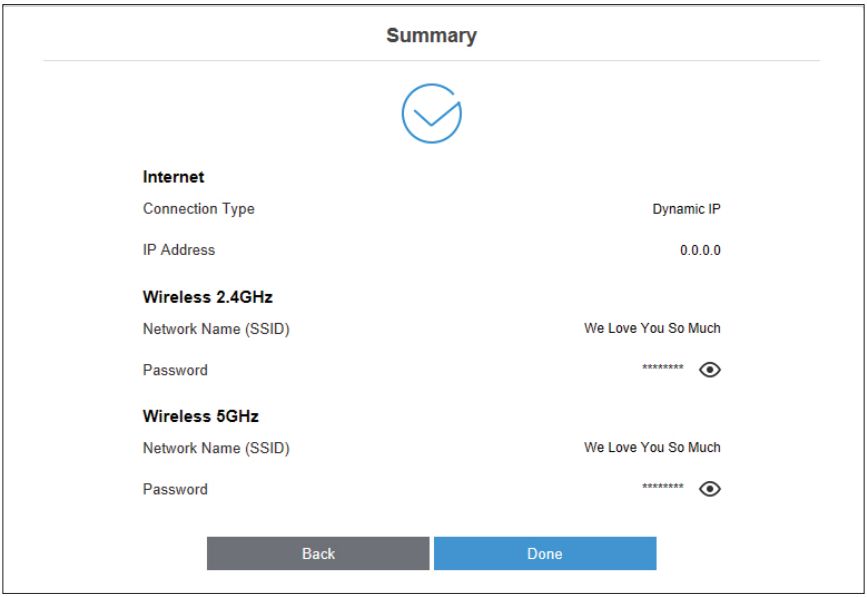
You can enter only letters, numbers and special characters !@^*()-_=+|[]{}:.? and they are case-sensitive.



Note: Changing the default password will help your network environment more secure. If not needed, click **Next**.

5. Checking Result

Confirm the information on your network, and click **Done**.



6. Completing

Now, your computer and network devices can connect to the Internet wirelessly.

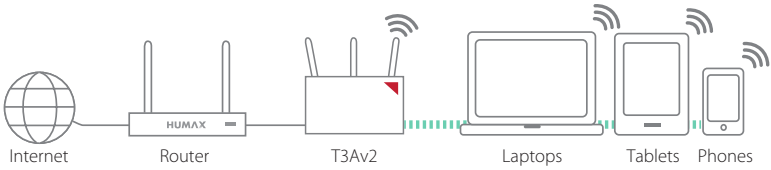
The system will restart once the easy setup completes. It may take a few minutes.

Tips: You can connect your computer to the router's Ethernet port using an Ethernet cable to join the local area network You can also find and select the wireless network name on your network device to join the Wi-Fi network.

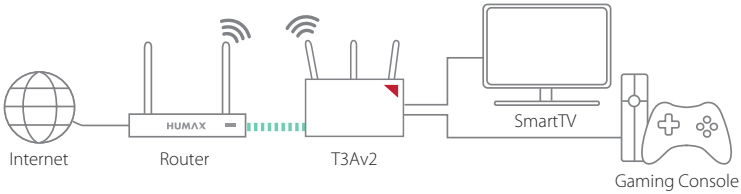
4.1.2 UI Configuration for Extender

Your product operates as an extender, and configures the roaming & mesh network with a HUMAX router.

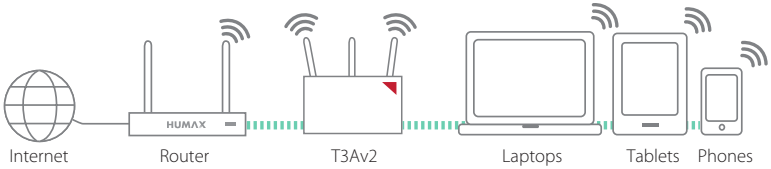
- **AP Mode:** Your product works automatically in AP mode if you connect it to a router over a wired Ethernet cable and use a client device wirelessly.



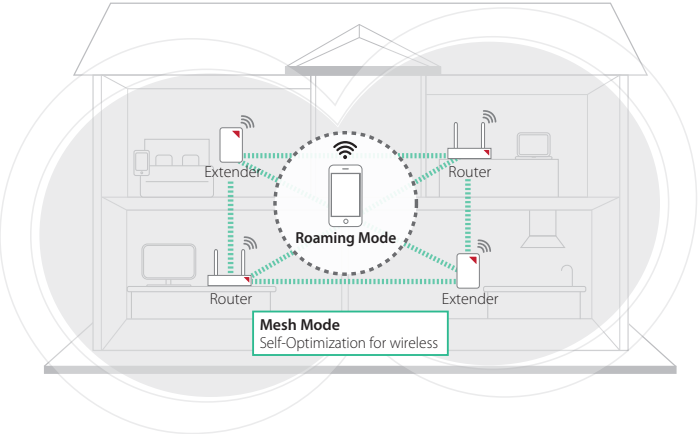
- **Wireless Bridge Mode:** Your product works automatically in wireless bridge mode if you connect it to a router wirelessly and use a client device over a wired Ethernet cable.



- **Repeater Mode:** Your product works automatically in repeater mode if you connect it wirelessly to a router other than a HUMAX router and use a client device wirelessly.



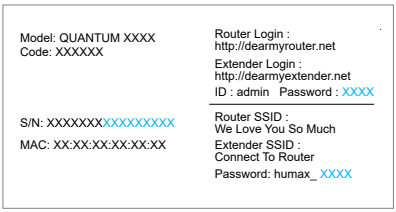
- **Roaming&Mesh Mode:** If Your product works together with a HUMAX Multi-Funciton series, the roaming & mesh network is configured over the products.



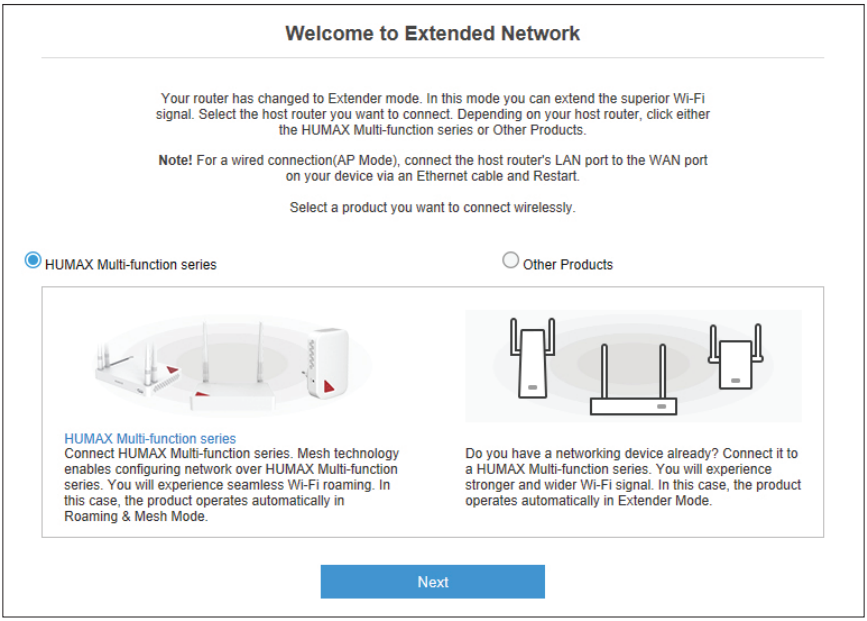
1. Starting

① Make sure your product is set to Extender mode.
If your product is T3Av2, just slide the Q-MODE switch to **EXTENDER** before powering on. If T3A, visit http://dearmyrouter.net and go to **Management > Operation Mode**. Then, select **Extender Mode** and click **Apply**. Restart the system to take effect.

② Visit http://dearmyextender.net and log in with the ID and password printed on the label of your router.



③ If you configure the network with HUMAX products only, click **HUMAX Multi-Funciton series** and go to **2-1 Configuring with HUMAX Multi-Funciton series**. If you use a third party product other than HUMAX, click **Other Products** and go to **2-2 Configuring with Other Products**.

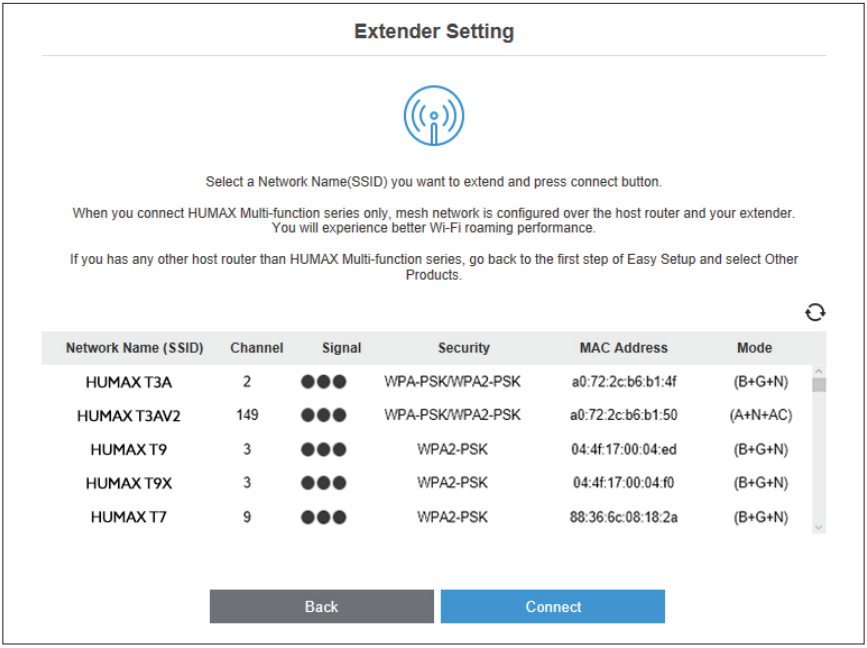


2-1. Configuring with HUMAX Multi-Funciton series

① Select a network and then click **Connect**.

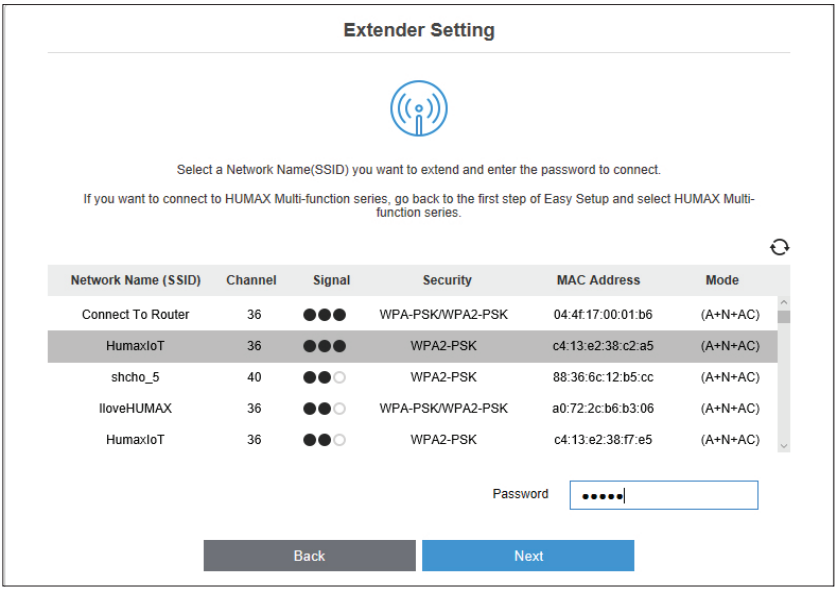
② If the popup message appears, click **OK** to have the same network name (SSID) and password as host router. The system will restart and it may take a few minutes. Then, they are connected each other automatically, and configure the mesh network. You will experience seamless Wi-Fi roaming over the mesh network.

Note: If you select a HUMAX multi-function router you are not required to enter the password.

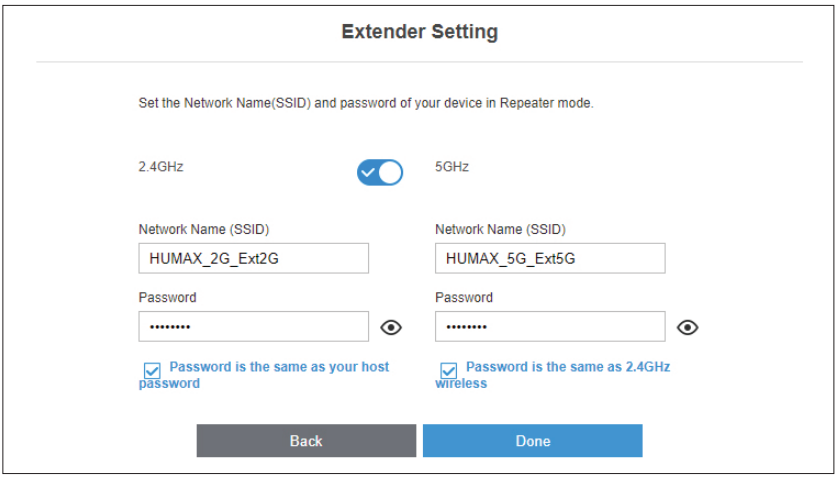


2-2. Configuring with Other Products

① If you have a network device other than HUMAX multi-function router, select it from the list and then enter the password.



② Set the network name (SSID) and password and then click **Done**. The system will restart and it may take a few minutes. You will experience stronger and wider Wi-Fi signal.



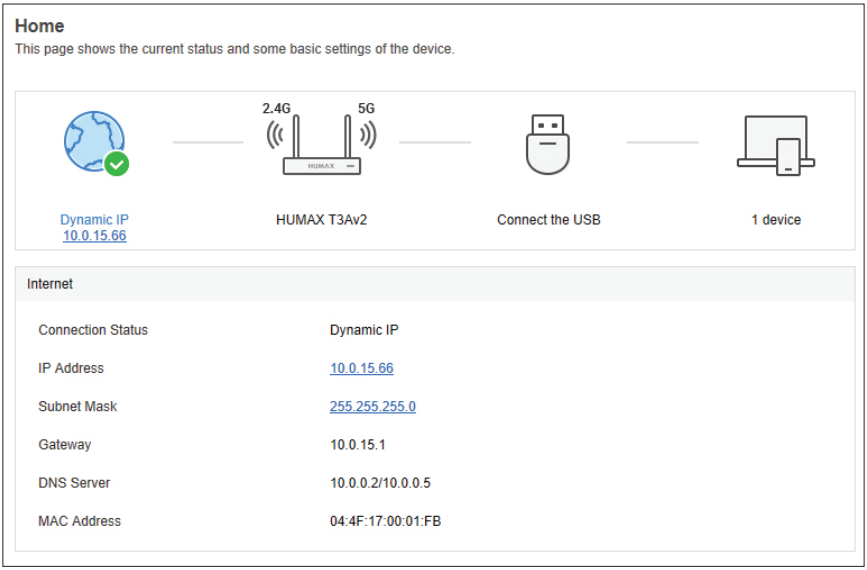
Chapter 5. Knowing Connection Status

5.1 Home Menu

You can see the information on the Internet and the connected devices in the home menu.

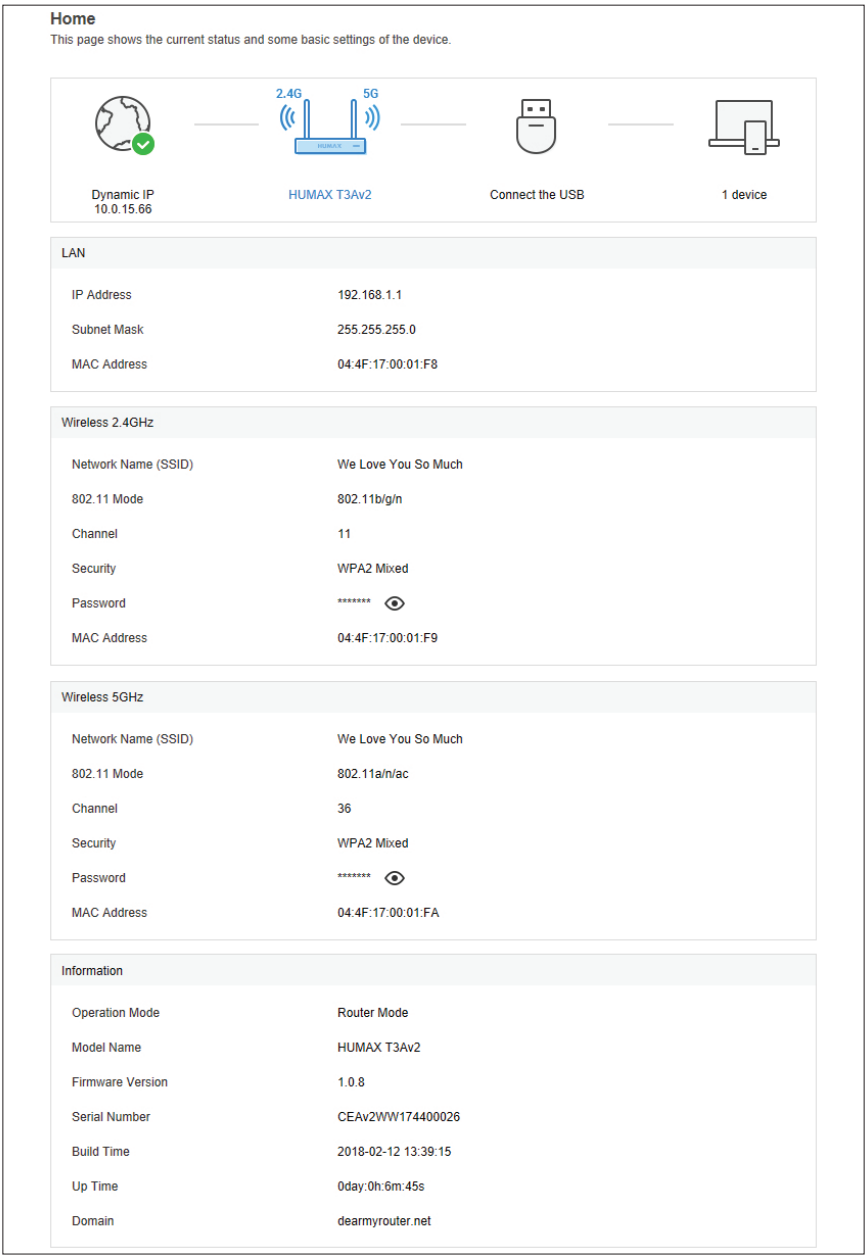
1. Internet Connection

Click the globe image to see the Internet connection status.



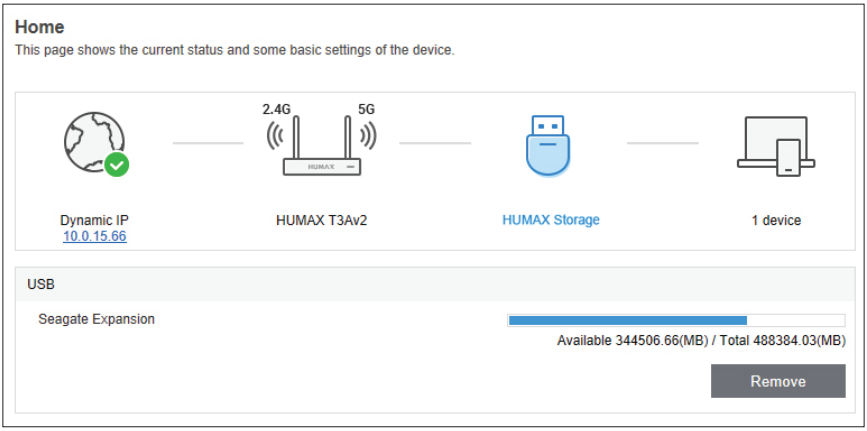
2. Router Connection

Click the router image to see the information on your router. In router mode, you can check the wired and wireless network connection status and firmware information. In extender mode, you can see the information on its host network.



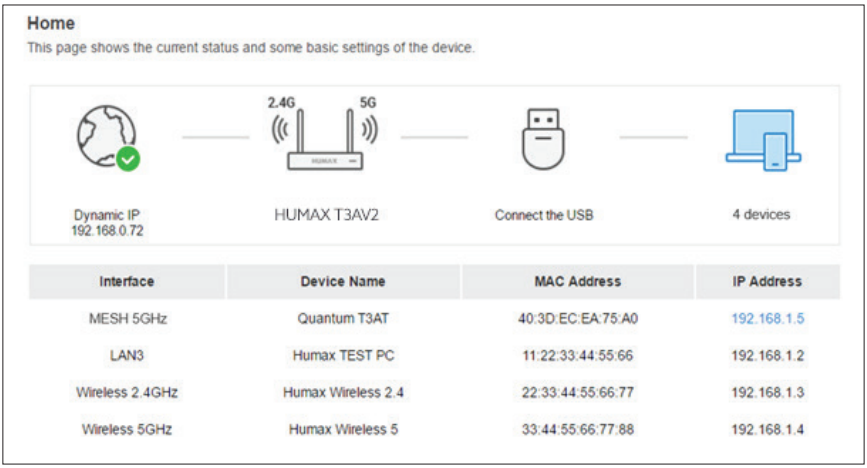
3. USB Information

Click the USB image to see the information on the connected USB device. You can check the USB capacity and safely remove it from the router.



4. Connected Devices

Click the network device image to see the information on the connected devices. You can check the number of connected devices, their MAC addresses and IP addresses. To have access to the web UI of the extender, click its IP address.



Interface	Device Name	MAC Address	IP Address
MESH 5GHz	Quantum T3AT	40:3D:EC:EA:75:A0	192.168.1.5
LAN3	Humax TEST PC	11:22:33:44:55:66	192.168.1.2
Wireless 2.4GHz	Humax Wireless 2.4	22:33:44:55:66:77	192.168.1.3
Wireless 5GHz	Humax Wireless 5	33:44:55:66:77:88	192.168.1.4

5.2 Map on Web UI

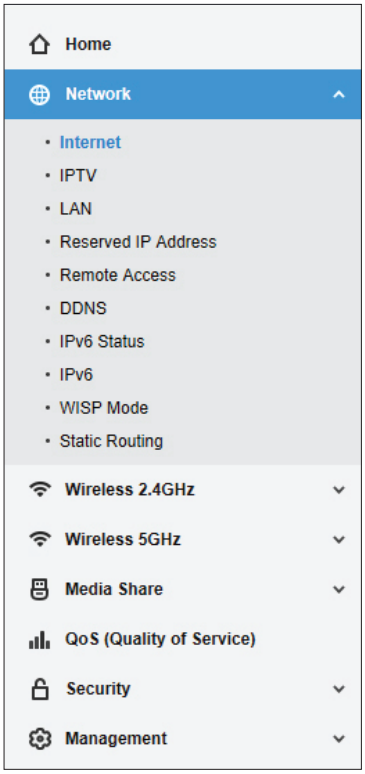
Header

The header is always displayed at the top of the web page. You can see the product name, port information and set the simple settings.

- **Brand / Product Name** to identify the product
- **Port Information** to display connection to the ports.
- **Simple Settings** to identify the product
- **Support** to have direct access to the support web site of HUMAX QUANTUM.

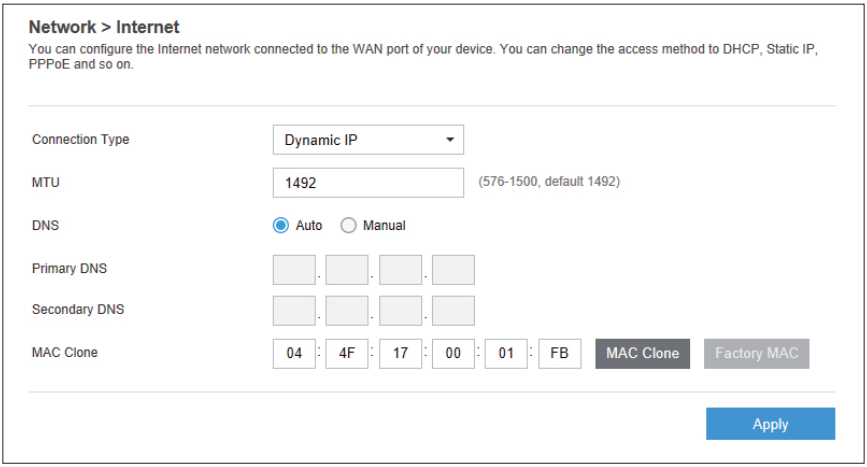
Menu Navigation

The navigation is always displayed at the left side of the web page. You can see the menu tree at a glance. If you select a menu, it sub menus will be listed.



Content Area

This area contains the menu path, page description, setting options and action buttons. You can set the configuration in this area.



Footer

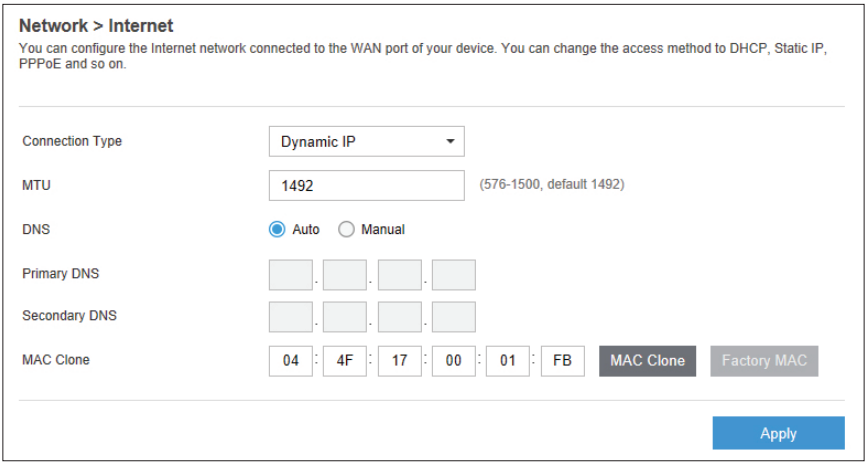
The footer is always displayed at the bottom of the web page. You can see the current firmware version and have direct access to the web site HUMAX provides.

Chapter 6. Setting Network Environment

6.1 Internet Connection

Network > Internet

When you connect your product to the Internet, you can set up the Internet connection according to your Internet service provider.



① **Select a connection type**: Dynamic IP, Static IP, PPPoE, PPTP, L2TP. If the Internet is already connected, the system automatically sets the connection type.

- If you use cable TV or fiber cable, select **Dynamic IP**. Your ISP dynamically assigns an IP address when your router establishes a connection.
- If you use a DSL cable, select **PPPoE**. You need a username and password provided by your ISP to gain access to the Internet.
- If you are provided more information such as IP address, Subnet Mask and Default Gateway, select **Static IP**.
- If you are provided the user name, password and VPN server by your ISP, select **PPTP**.
- **L2TP** (Layer Two Tunneling Protocol) uses a virtual private network to connect to your ISP. You need a username and password provided by your ISP to gain access to the Internet.

② Click **Apply** to save your changes.

Tips: If you are not sure what Internet connection type you should choose, contact your ISP.

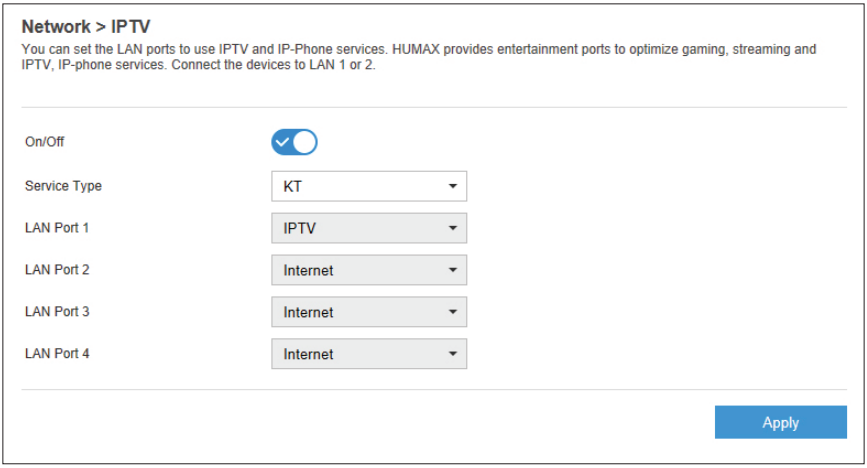
6.2 LAN Port Allocation

Network > IPTV

You can set up the LAN port to use IPTV and IP-phone service that are available only through the Internet.

T3Av2 has entertainment ports for gaming and streaming IPTV and IP phone service. Connect the IPTV or IP phone to the entertainment port and set the LAN port option.

If you use T3A, connect the devices to any ports and then set the LAN port option.



- **On/Off**: Toggle to enable IPTV feature or not. If you turn it off, all the options below will disappear.
- **Service Type**: Select an appropriate connection mode for your ISP.

  If there is no your ISP in the list, select **User Define**. In **User Define**, you can set the IPTV, IP-phone and Internet service for each LAN port. For each service, you can set the VLAN ID and VLAN priority.

  For **Singapore-ExStream, Malaysia-Unifi, Malaysia-Maxis, SKB/LGU+** or **KT**, connect the device to the preset LAN port. The VLAN ID and the VLAN priority are automatically preset and thus you do not need to enter each value.

  Note:

  - If you set the service type to **User Define**, you need to set the service for each port and its VLAN ID and VLAN Priority. But, the other values of service type, the VLAN ID is set to 1 to 4094 and the VLAN Priority is set to 1 to 7. You cannot change the preset values.
  - In **Bridge**, **Singapore-ExStream** or **Malaysia Maxis**, all setting values are automatically set and thus you do not need to set the values.

- **LAN Port 1, 2, 3, 4**: LAN port options are activated if available. Connect your network devices such as IPTV, IP-Phone and set-top box to the designated ports and set the options.

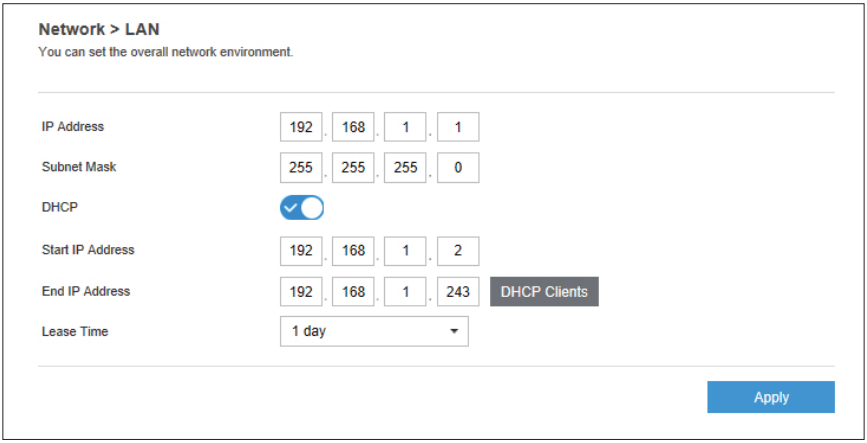
  Note: If your product is T3Av2, connect a client device to an entertainment port to give the priority. If T3A, go to the QoS setting page to set the priority for each port.

Click **Apply** to save your changes. The system will restart. It may take several minutes.

6.3 LAN Settings

Network > LAN

Your router is preset with a default LAN IP 192.168.1.1. If the IP address conflicts with another device on your local network or your network requires a specific IP subnet, you can change it. In addition, DHCP server setting is also available.



- **IP Address**: Enter the IP address of your router. You can access to the web-based management page via the IP address. The default value is 192.168.1.1.
- **Subnet Mask**: Leave the subnet mask as the default settings.
- **DHCP Server**: Toggle to enable the DHCP server on your LAN or not.
- **Start IP Address**: Enter the starting IP address to be assigned
- **End IP Address**: Enter the ending IP address.
- **Lease Time**: Select the lease time. After the time is up, your router is automatically assigned to a new IP address.

Click **Apply** to save your changes.

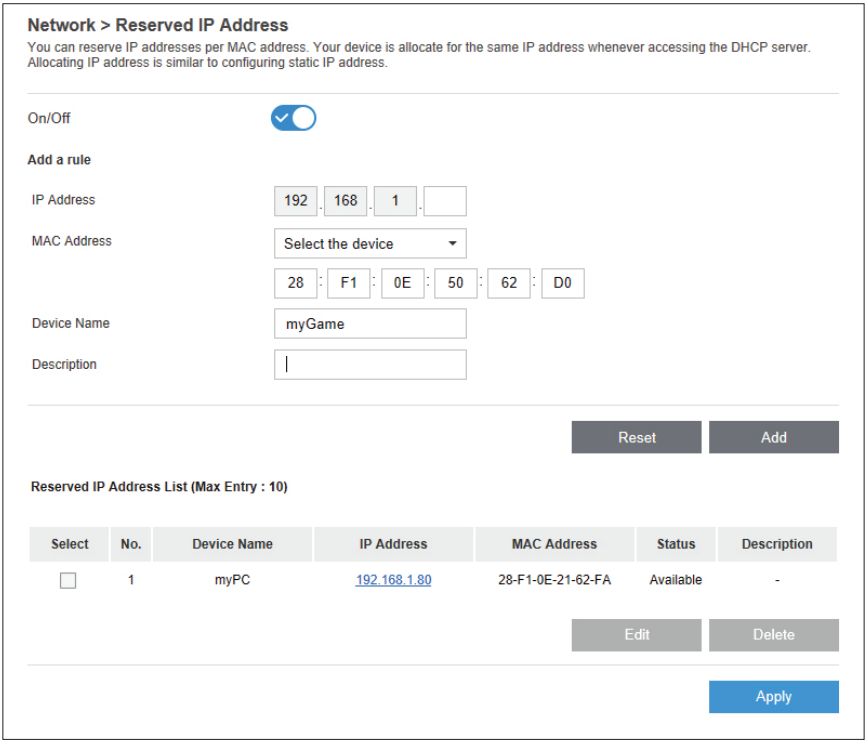
Note:

- If the LAN IP address is changed, you need to access the web page with a new address.
- If DHCP server is turned off, all the network devices will be disconnected from the network. We recommend the DHCP server is always turned on.
- We recommend the range between start and end IP addresses is over 32.

6.4 IP Address Allocation

Network > Reserved IP Address

You can allocate IP addresses to MAC address. Your device is allocated for the same IP address whenever accessing the DHCP server. Allocating IP address is similar to configuring static IP address.



- **On/Off**: Toggle to use IP address allocation feature or not.
- **Add a rule**
  - **IP address**: Enter an IP address to assign it.
  - **MAC address**: Select a device from the list of connected devices.
    You can enter the MAC address if there is no device name in the list.

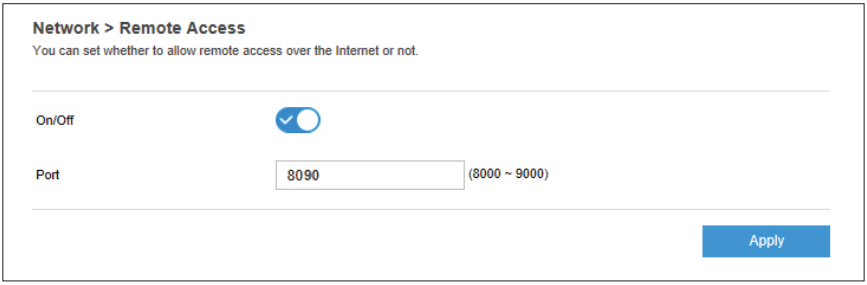
  Click **Reset** to delete the addresses.

  Click **Add** to add a new rule. You can add up to ten devices.
- **Reserved IP Address List**: You can see the list of reserved IP addresses.
  To delete the reserved IP address from the list, check the check box and then click **Delete**.

6.5 Remote Access Setting

Network > Remote Access

The remote access feature lets you control your router over the Internet to view or configure its settings. You need to know the router's Internet IP address in order to use this feature.



By default settings, you cannot access your router remotely from the Internet.

Allow remote access

① Set the options:

- **On/Off**: Select **Enable** to allow remote access to your router.
- **Port**: Enter the port number to access the router remotely. This number will be needed when you enter the WAN IP address.

② Click **Apply** to save your changes.

Note: We recommend you keep the port as the default value. If you use an unknown port, the IP address may conflict with another device and thus you may not be accessible over the Internet.

Access your router remotely from the Internet

① Open the web browser on a PC remotely away from your router.

② Enter http://WAN IP address:port number to access your router. You can see the WAN IP address at the **Home** menu. Since the WAN IP address is usually a dynamic IP, we recommend you use domain name. To log in to your router with a domain name, turn on the DDNS in **Network > DDNS**.

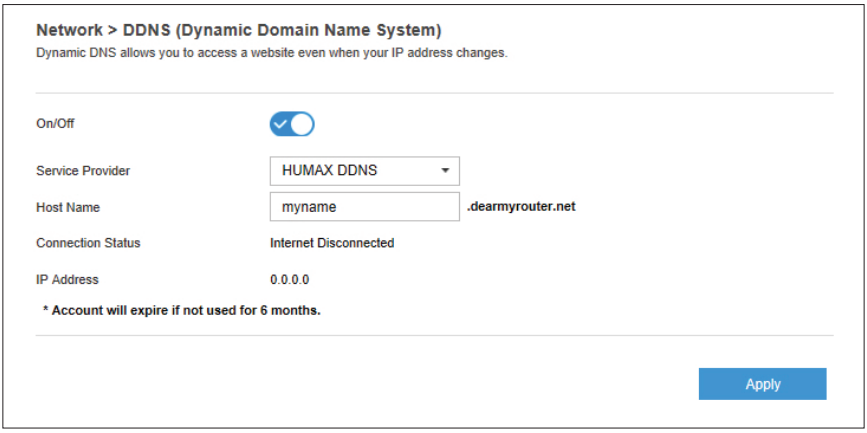
Your router will be accessible from the Internet via surfing to the WAN IP address on a specific port of the router from anywhere over the Internet.

6.6 DDNS Setting

Network > DDNS (Dynamic Domain Name System)

You can set a domain name utilizing Dynamic Domain Name Server service for your router to have access to your router and local network. Your Internet Service Providers (ISPs) assign a dynamic IP addresses to identify each Internet account because variable IP address is assigned dynamically. You can use the IP address to access your router remotely. However, the IP address dynamically changes and you cannot know it whenever it changes. In this case, you can access the router using the domain name if the DDNS is registered.

when you use free HUMAX DDNS



To set up DDNS and register free HUMAX account,

① Open a web browser on a PC or Wi-Fi device that is connected to the network.

② Enter http://dearmyrouter.net. A login page will display.

③ Log in with the ID and password. The default ID and password are printed on the bottom of your product. The ID and password are case-sensitive.

④ Go to **Network > DDNS (Dynamic Domain Name System)**.

⑤ Toggle on to use a dynamic DNS service.

⑥ Select **HUMAX DDNS** from the **Service Provider** list.

⑦ In the **Host Name** field, type the name you want to use for your URL.

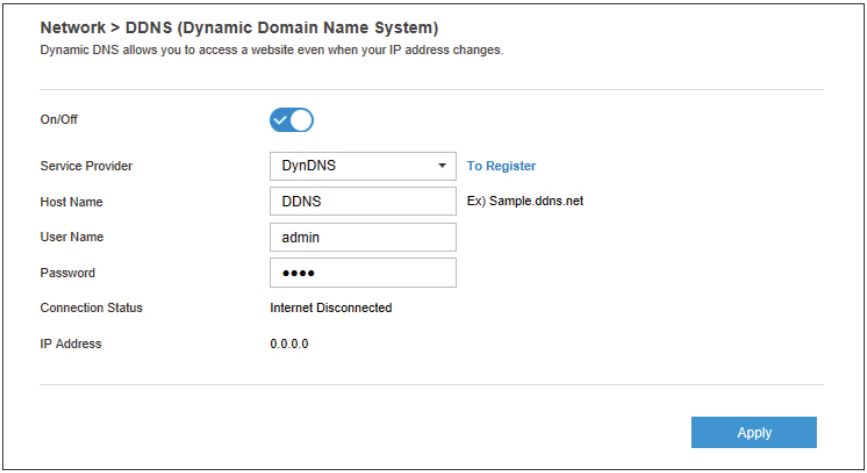
The host name is sometimes called the domain name. Your free URL includes the host name that you specify and ends with dearmyrouter.net. For example, specify MyName.dearmyrouter.net. When you remotely access your router, enter ***http://myname.dearmyrouter.net:8090***. You can change the port number 8090 in **Network > Remote Access**, but we recommend you use the default value.

⑧ To check if the DDNS service is available through the router, click **Connection Status** . A message will display the DDNS status.

Note:

- To use DDNS service, toggle on the remote access in **Network > Remote Access**.
- The host name can be only letters, numbers and special characters and they are case-sensitive.
- Unless you use the host name for 6 months, it will be expired.

when you use other DDNS



If you already have a DDNS account with other DDNS service account like a www.no-ip.com or www.DynDNS.org you can set up the router to use your account.

If you do not have any account, click **To Register** to create a new account first.

① Open a web browser on a PC or Wi-Fi device that is connected to the network.

② Enter http://dearmyrouter.net. A login window will display.

③ Log in with the ID and password. The default ID and password are printed on the bottom of your product. The ID and password are case-sensitive.

④ Go to **Network > DDNS (Dynamic Domain Name System)**.

⑤ Toggle on to use a dynamic DNS service.

⑥ Select one from the **Service Provider** list.

- https://www.noip.com/
- https://dyn.com/dns/
- http://www.duckdns.org/

⑦ In the **Host Name** field, type the host name (sometimes called the domain name) for your account.

⑧ For noip.com or dyn.com account, in the User Name field, enter the user name for your account.

⑨ In the **Password (Up to 32 characters)** field, type the password for your DDNS account.

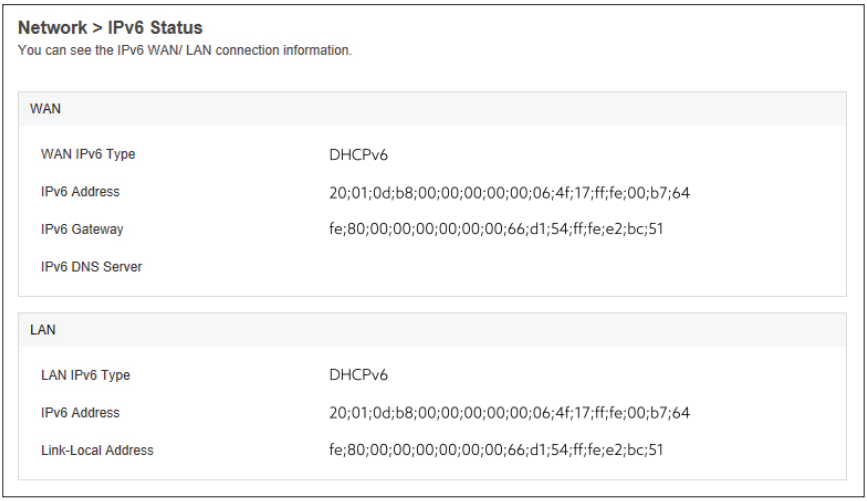
⑩ Click **Apply** to save your changes.

⑪ To check if the DDNS service is available through the router, click **Connection Status**. A message will display the DDNS status. For more information, visit the DNS site you use.

6.7 IPv6 Status

Network > IPv6 Status

If you are using an IPv6 connection on your network, you can check the connection information such as IP type, IP address, gateway and DNS server.



Network > IPv6 Status

You can see the IPv6 WAN/ LAN connection information.

WAN

WAN IPv6 Type	DHCPv6
IPv6 Address	20;01;0d;b8;00;00;00;00;00;06;4f;17;ff;fe;00;b7;64
IPv6 Gateway	fe;80;00;00;00;00;00;00;66;d1;54;ff;fe;e2;bc;51
IPv6 DNS Server	

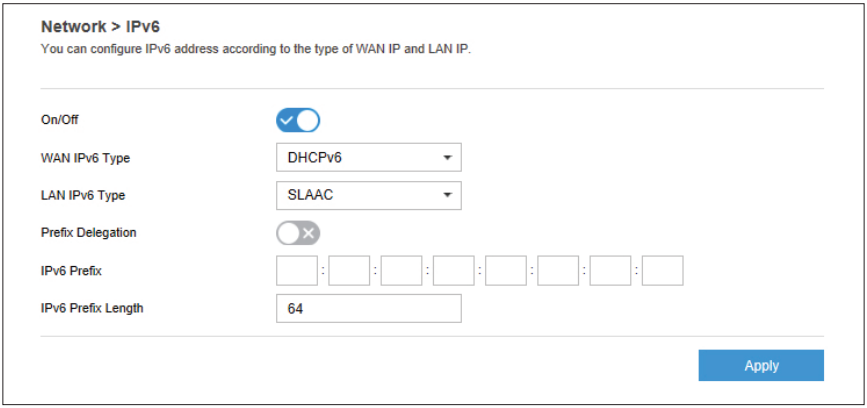
LAN

LAN IPv6 Type	DHCPv6
IPv6 Address	20;01;0d;b8;00;00;00;00;00;06;4f;17;ff;fe;00;b7;64
Link-Local Address	fe;80;00;00;00;00;00;00;66;d1;54;ff;fe;e2;bc;51

6.8 IPv6 Setting

Network > IPv6

You can use IPv6 to facilitate route aggregation over the Internet, and thus limit the expansion of routing tables.



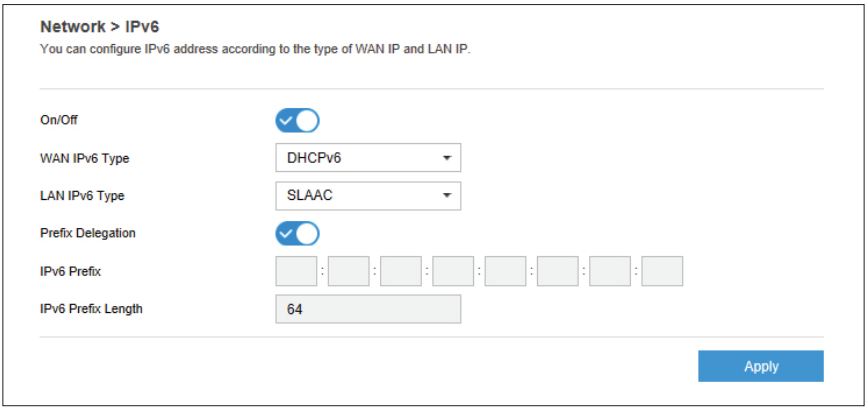
There are many cases to configure IPv6 address. You can automatically obtain WAN IP address and LAN IP address, or manually set the addresses.

- **On/Off**: Toggle to use IPv6 address or not. The default value is Off.

Select the type of WAN IPv6. We recommend you set it to **DHCPv6** to automatically obtain the WAN IP address from your ISP. The wireless VPN firewall obtains an interface address, configuration information such as DNS server information and other parameters from a DHCPv6 server.

Note: If you are not sure about the connection type, contact your ISP.

Case 1: when you prefer automatic connection



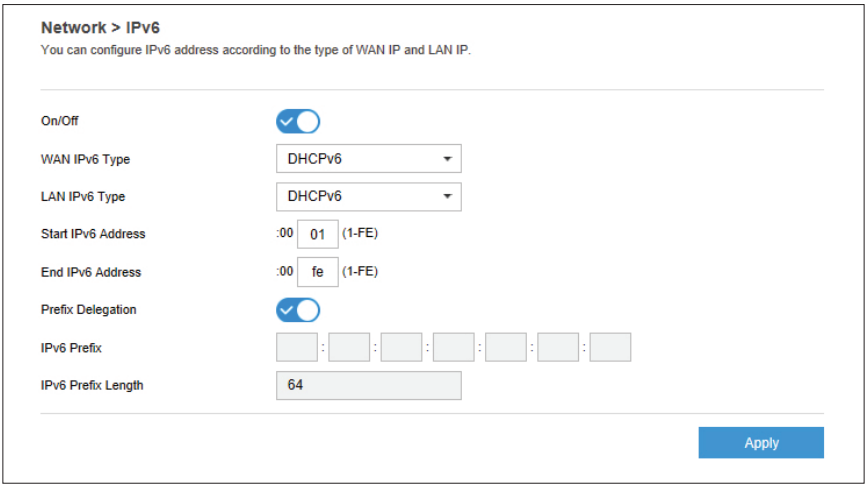
① Set the WAN IPv6 Type to **DHCPv6** and LAN IPv6 Type to **SLAAC** (Stateless Address Auto Configuration). This is the easiest way to configure IPv6 addresses.

② Toggle to enable the Prefix Delegation or not.

If it is turned on, the IPv6 Prefix and IPv6 Prefix Length are automatically set. You do not need to enter any other information. If off, enter the IPv6 Prefix and IPv6 Prefix Length.

③ Click **Apply** to save your changes. You can see the connection result on the IPv6 Status page.

Case 2:



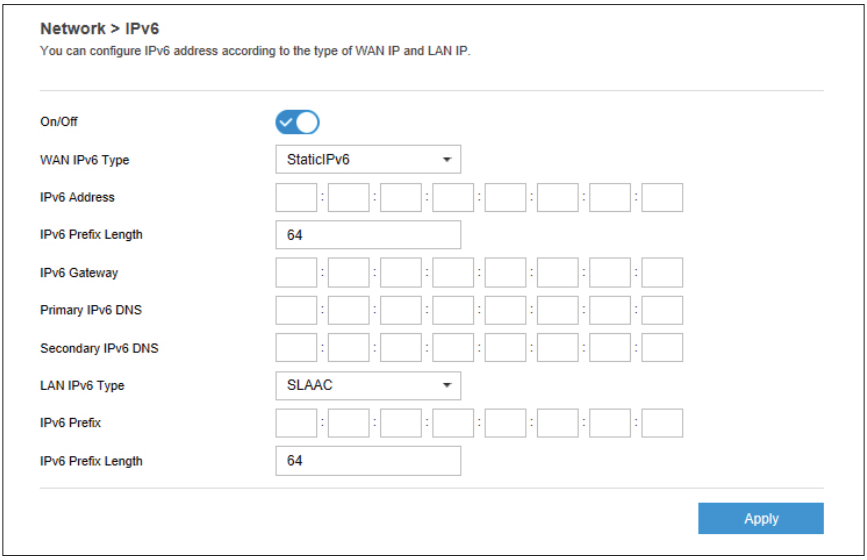
① Set both WAN IPv6 Type and LAN IPv6 Type to **DHCPv6**.

② Enter the start and end IPv6 addresses.

③ Toggle to enable the Prefix Delegation or not. If it is turned on, the IPv6 Prefix and IPv6 Prefix Length are automatically set. You do not need to enter any other information. If off, you can enter the IPv6 Prefix and IPv6 Prefix Length.

④ Click **Apply** to save your changes. You can see the connection result on the IPv6 Status page.

Case 3: when you get the IPv6 addresses from your ISP



① Set the WAN IPv6 Type to **Static IPv6**.

② Enter the IPv6 address, the IPv6 prefix length, the IPv6 gateway and the primary and secondary IPv6 DNS.

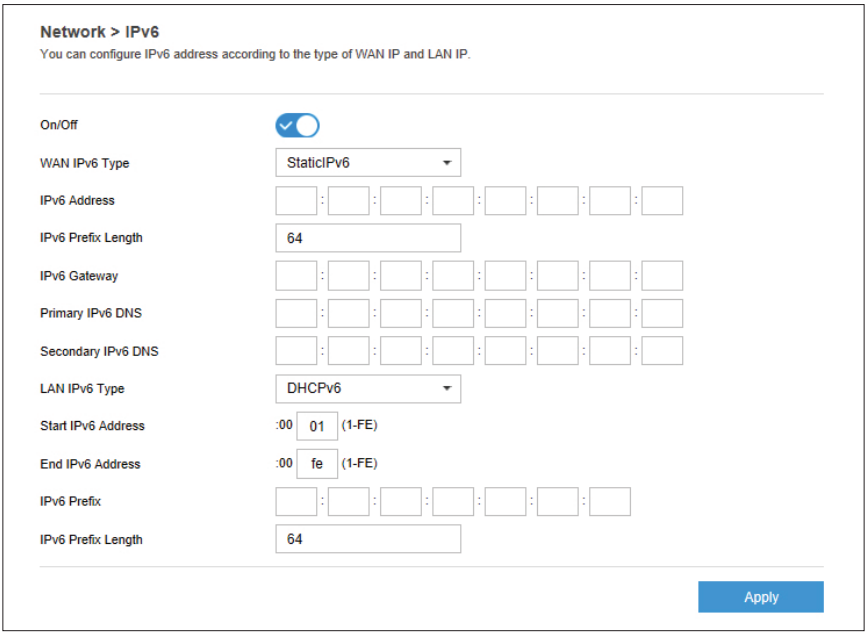
③ Set the LAN IPv6 Type to **SLAAC**.

④ Set the Prefix Delegation to on or off. If it is set to on, the IPv6 Prefix and IPv6 Prefix Length are automatically set. You do not need to enter any other information. If off, enter the IPv6 Prefix and IPv6 Prefix Length.

⑤ Click **Apply** to save your changes. You can see the connection result on the IPv6 Status page.

Note: We recommend you select this case when your ISP provides you with a set IPv6 addresses that do not change.

Case 4:



① Set the WAN IPv6 Type to **Static IPv6**.

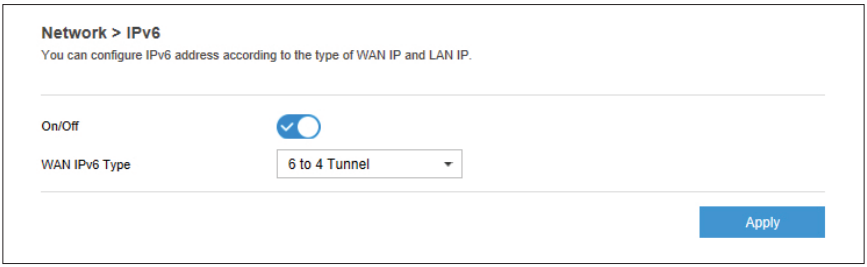
② Enter the IPv6 address, the IPv6 prefix length, the IPv6 gateway and the primary and secondary IPv6 DNS.

③ Set the LAN IPv6 Type to **DHCPv6**.

④ Enter the start and end IPv6 addresses.

⑤ Click **Apply** to save your changes. You can see the connection result on the IPv6 Status page.

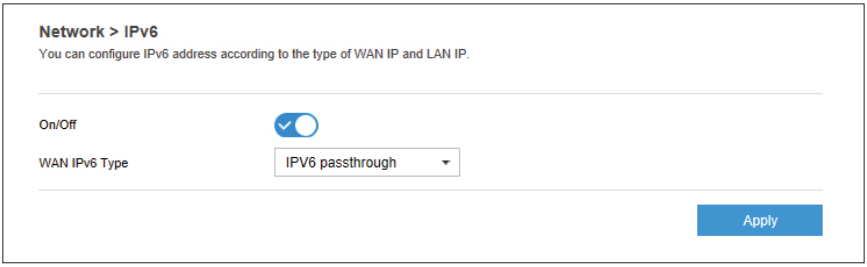
Case 5: when you have an Internet connection with an IPv4 address



IPv6 packets will be transmitted automatically over the IPv4 Internet without configuring explicit tunnels.

Click **Apply** to save your changes. You can see the connection result on the IPv6 Status page.

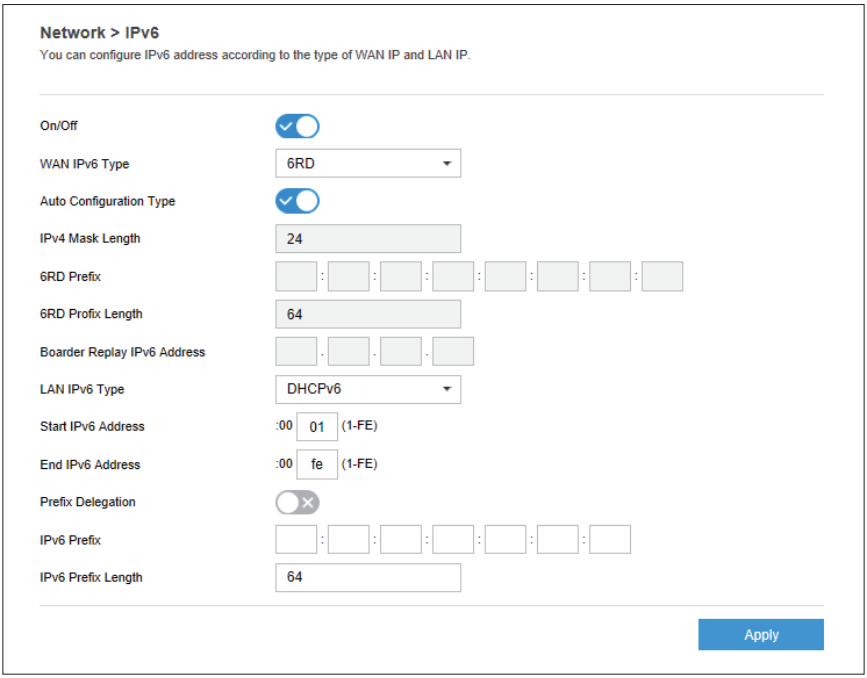
Case 6:



Set the WAN IPv6 Type to Pass-Through for address translation. Your router will receive the IPv6 packet and set to the ISP network.

Click **Apply** to save your changes. You can see the connection result on the IPv6 Status page.

Case 7: when you ISP uses 6RD tunneling



① Set the WAN IPv6 Type to **6RD**.

② Set whether to use the auto configuration type or not. If it is set to on, all the sub items are automatically set and thus the fields are deactivated.

③ If you do not want to use the auto configuration type, set the option to off and enter the required information.

④ Click **Apply** to save your changes. You can see the connection result on the IPv6 Status page.

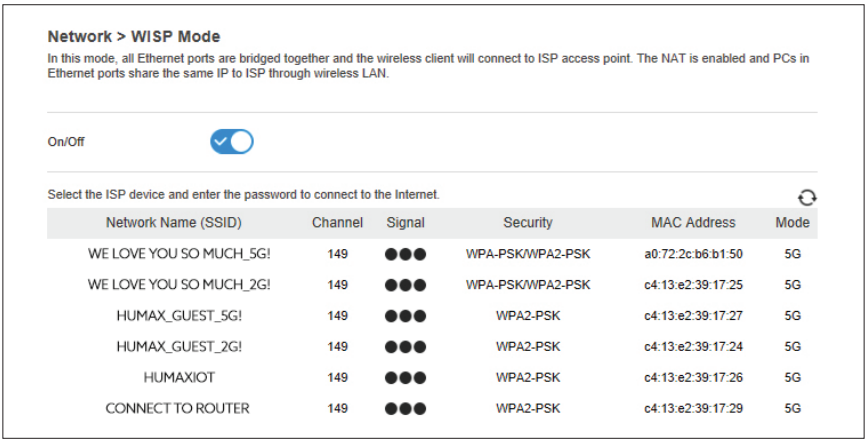
Note:

- You need to ask your ISP for detailed connection information.
- 6RD options is T3Av2 Only.

6.9 WISP mode setting

Network > WISP Mode

When you use wireless WAN mode where your wireless access point device acts like a router internally but uses the wireless signal from another router as its WAN interface. In this mode, you can provide guests with Internet service without revealing the password of the existing network for hosts.



① Toggle to use WISP mode or not. The default value is Off.

② Select a host network from the AP list and enter the password. You can get the password from your ISP.

③ Click **Connect** to connect to the device.

④ The system will restart. It may take several minutes.

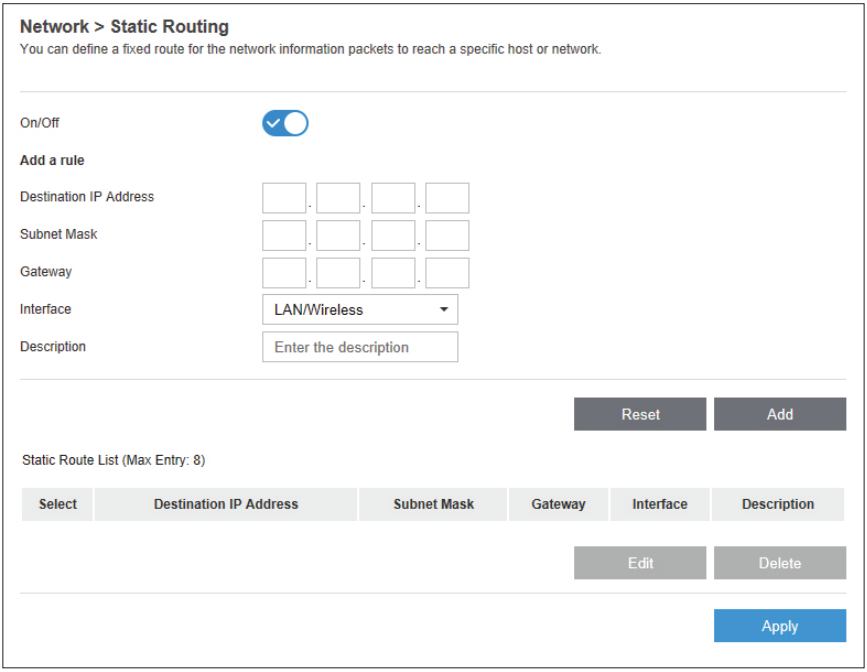
Note:

- WISP mode operates in router mode. Set the mode to Router mode. If your product is T3A, set the mode to WISP mode.
- You cannot use WISP mode if a cable is plugged into the WAN port. Check that the Internet cable is unplugged from the router.

6.10 Manually setting network route

Network > Static Routing

You can manually set the network routing path of packets for data to travel from one network to another with optimal speed and minimal delay.



- **On/Off**: Toggle to use static routing or not. The default value is Off.
- **Add a rule**
  - **Destination IP Address**: Enter a destination IP address.
  - **Subnet Mask**: Enter a subnet mask.
  - **Gateway**: Enter a gateway address.
  - **Interface**: Select the interface either LAN/Wireless or Internet.
  - **Description**: Take a note to remember the rule if you need.

  Click **Reset** to clear the input boxes.

  Click **Add** to add a new rule. You can add up to eight rules.
- **Static Router List**: You can see the list of fixed network routes. To delete the fixed route from the list, check the box and then click **Delete**.

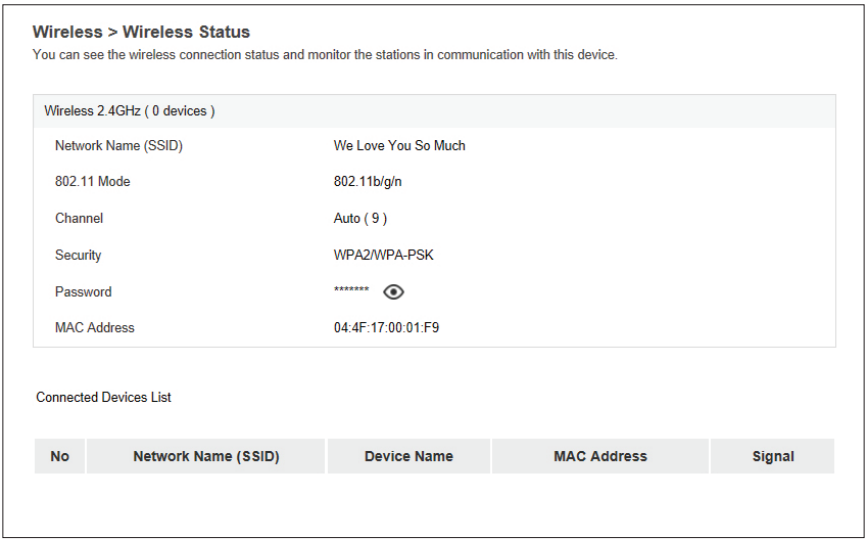
Chapter 7. Setting Wireless Network

Your router T3A and T3Av2 use concurrent dual band which supports both 2.4GHz and 5GHz wireless network at the same time. The configuration on both network is identical to each other. Therefore, how to configure the 2.4GHz wireless network will be described in this user manual and the description for the 5GHz wireless network will be omitted.

7.1 Wi-Fi Connection Status

Wireless > Wireless Status

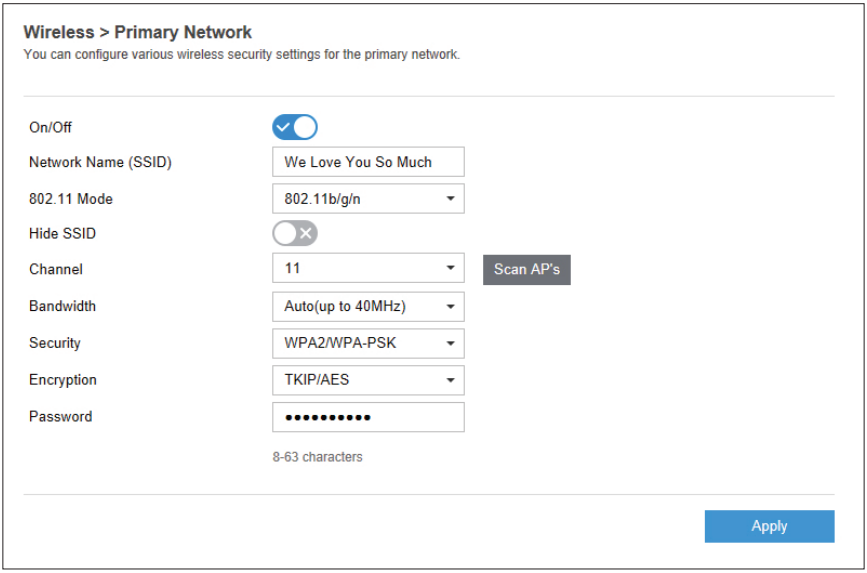
You can see the wireless connection status and monitor the station in communication with your router. In addition, you can check the primary and guest network information and client devices' information connected to each bandwidth.



7.2 Main Network Setting

Wireless > Primary Network

You can configure the primary network and its security settings according to your needs.



- **On/Off**: Toggle to use wireless feature or not. If you turn it off, all the options below will disappear and you cannot use Wi-Fi. To connect to Wi-Fi, always turn the primary network to on.
- **Network Name (SSID)**: Enter a network name of your router if you want to change it.

  Note:

  - We recommend you use your own unique name. The network name will be shown on a client device to identify your network from other wireless networks that are in range of your device.
  - After changing the SSID, you need to restart the system and then connect to the Wi-Fi with a new SSID.
- **802.11 Mode**: Select 802.11 mode according to your wireless client devices to allow 802.11 supported devices on your wireless network.

  Note: For optimal performance, we recommend you do not change the default value.

- **Hide SSID**: Toggle to show your network name or not. You can prevent other users from detecting your network when they scan for available wireless network.

  Note:

  - We recommend you turn it off. If turned on, you cannot use WPS connection. The WPS feature lets you join a secure Wi-Fi mesh network without additional configuration.
  - If the SSID is hidden, some devices may not detect the Wi-Fi network of your router.
- **Channel**: Select an operating channel for the wireless network. The default value is **Auto** that enables selecting an optimal channel for the current network environment. Click **Scan AP's** to see the wireless network adjacent to your router. You can avoid a busy channel with reference to the AP list.
- **Bandwidth**: Select a channel width for the wireless network. The default value is **Auto** that enables setting an optimal bandwidth for the current network environment.

  Note: This option depends on 802.11 mode, and the option value may differ form each model.
- **Security**: Select a security option for your router. Your product provides **WPA-PSK, WPA2-PSK, WPA/WPA2-PSK, WEP-Open System WEP-Shared Key** authentication and Security disable.

  Note:

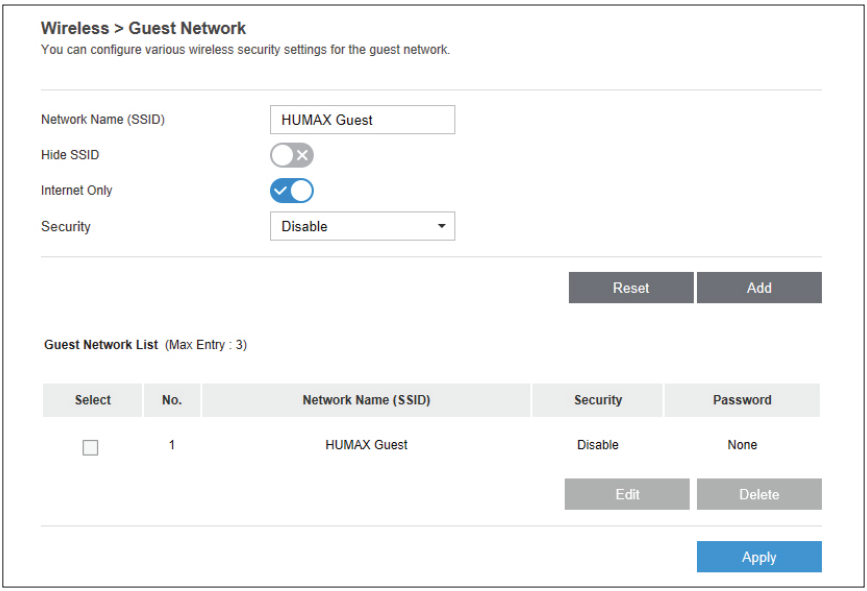
  - We recommend you use the default value **WPA2-PSK** or **WPA2/WPA-PSK**. In **WPA-PSK, WEP-Open System, WEP-Shared Key** or **Disable**, the WPS feature is unavailable.
  - If this option is disabled, your router is always accessible and thus causes the security vulnerability.
- **Encryption**: Select the encryption mode when using any of the WPA authentication schemes. **TKIP** provides high level security and **AES** provides the strongest encryption. **TKIP/AES** provides strong encryption with improved backward compatibility. The default value **TKIP/AES** is recommended.
- **Key Type**: Select the key type between **ASCII** and **Hex**. This option is available only when the security type is set to WEP authentication.
- **Password**: Enter the password of your router. You can enter only letters, numbers and special characters !@^*()-_=+|[]{}:.? and they are case-sensitive. The default password is printed on the bottom of your product. The number of characters depends on the security type.
  This will be required when you connect a mobile device wirelessly to your home network. You can change it proper for the security type if you want.

Click **Apply** to save your changes.

7.3 Guest Network Setting

Wireless > Guest Network

You can configure the guest network to allow wireless network access for guests without disclosing your main network.



- **Network Name (SSID)**: Enter another network name of your router to broadcast to your guests.
- **Hide SSID**: Turn it off to show the guest network name. If turned on, your guests have to manually enter the network name for wireless network access.
- **Internet Only**: Turn it on to allow Internet access only. Guests cannot communicate with each other over internal network.
- **Security**: Select a security option for your router. Your product provides **WPA-PSK, WPA2-PSK, WPA/WPA2-PSK, WEP-Open System WEP-Shared Key** authentication and Security disable.

  Note:
  - We recommend you use the default value **WPA2-PSK** or **WPA2/WPA-PSK**. In **WPA-PSK, WEP-Open System, WEP-Shared Key** or **Disable**, the WPS feature is unavailable.
  - If this option is disabled, your router is always accessible and thus causes the security vulnerability.

Click **Reset** to reset the values to the factory default settings.

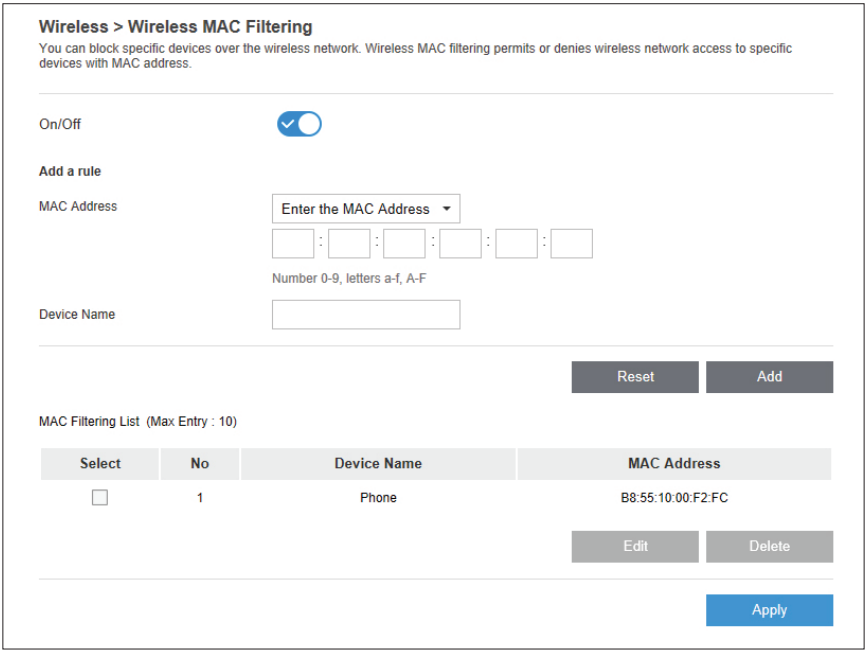
Click **Add** to add your guest network. You can add up to 3 guest networks for each bandwidth.

- **Guest Network List**: You can see the guest network list. To edit a guest network, check the check box and click **Edit**. Then, enter the values to change and click **Done**. To delete a guest network, check the check box and then click **Delete**.

7.4 Wireless MAC Filtering Setting

Wireless > Wireless MAC Filtering

You can configure a wireless MAC filtering rule to prevent PCs from sending outgoing TCP/UDP traffic to the WAN via their MAC address. It can be useful to prevent unauthorized wireless devices from connecting to your network.



- **On/Off**: Toggle to use MAC filtering feature or not.
- **Add a rule**
  - **MAC Address**: Select a device to bring an available MAC address. Then, the device does not allow wireless access with the MAC address. You can enter the MAC address if there is no device name in the list.
  - **Device Name**: Enter the device name.

    Click **Reset** to delete the MAC address.

    Click **Add** to add a new MAC address for filtering.
- **Wireless MAC Filtering List**: You can see the list of devices that are restricted to have access to your network.

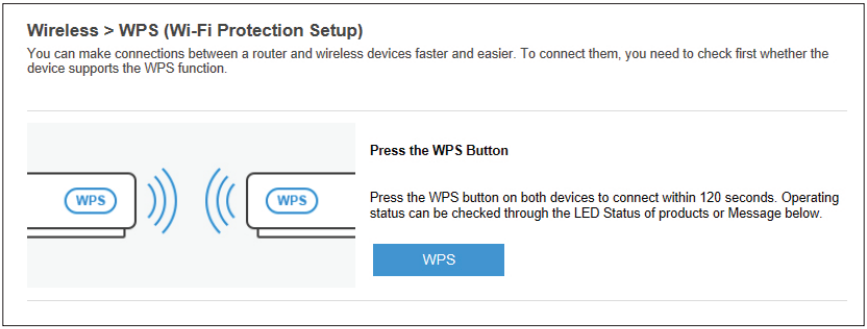
  To edit the address or device name, check the check box and click **Edit**. Then, enter the values to change and click **Done**.

  To delete the devices from the list, check the check box and then click **Delete**.

7.5 WPS Connection

Wireless > WPS

You can connect your router to a network device conveniently with Wi-Fi Protected Setup (WPS) function. WPS is a procedure for establishing secure wireless LAN connection.



1. Check if your network device supports WPS feature. If not, WPS connection is unavailable.
2. Place the network device next to your router.
3. Press the WPS buttons on both devices within 2 minutes.
4. When the WPS connection is successful, the message "WPS Success" will display. But, if failed, the LEDs will fast blink on the WPS of T3A and the wireless 2.4GHz and 5GHz of T3Av2.

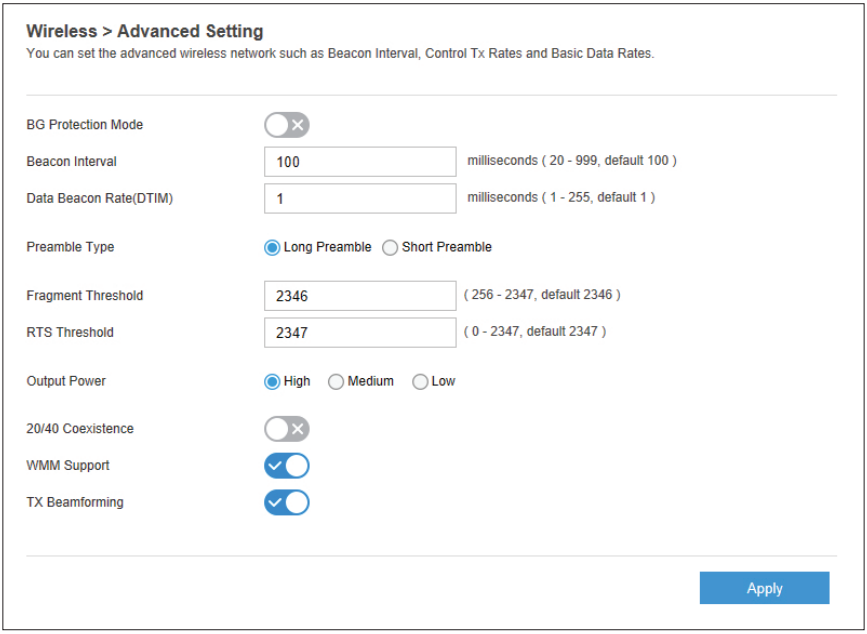
Just press the WPS button. HUMAX Multi-Function routers and extenders configure mesh network by simple button pressing. Mesh nodes talk to one another. You can always get the optimal signal through the best path within network.

Note: If the security type is set to WEP, the WPS connection is unavailable. Go to **Wireless > Primary Network** and check first the security type is set to **WPA2-PSK** or **WPA2/WPA-PSK**.

7.6 Advanced Setting

Wireless > Advanced Setting

You can set the advanced wireless network such as Beacon Interval, Control Tx Rates and Basic Data Rates. If you are not familiar with network settings, we recommend not to change the settings in this page. Most users have no need to change these settings.



- **BG Protection Mode**: Toggle to enable the protection mechanisms or not. You can see this option only at 2.4 GHz band.
- **Beacon Interval**: Enter the beacon interval in milliseconds for the AP. The default is 100, which is fine for nearly all applications.
- **Data Beacon Rate (DTIM)**: Enter the data beacon rate to set the wakeup interval for clients in power-save mode. When a client is running in power save mode, lower values provide higher performance but result in decreased client battery life while higher values provide lower performance but result in increased client battery life. The default value is 1.
- **Preamble Type**: Select a preamble type to boost the performance of your wireless network. In **Long Preamble** your router allows for better error checking while in **Short Preamble** your router allows for much faster error checking. If your wireless devices stop their connection after changing to **Short Preamble**, change the setting back. This means your wireless network devices do not support short preamble type.
- **Fragment Threshold**: Enter the fragmentation threshold. Packets exceeding this threshold are fragmented into packets no larger than the threshold before packet transmission.
- **RTS Threshold**: Enter the RTS threshold. Packets exceeding this threshold cause the AP to perform an RTS/CTS exchange to reserve the wireless medium before packet transmission.
- **Output Power**: Set the radio signal strength. Medium is 25% lower and low is 50% lower than high level. The default value is **High**. The medium and low options affect wireless signal attenuation.
- **20/40 Coexistence**: Toggle to use dual bandwidth for both 20MHz and 40MHz or not. If you turn it off, your router will use only 40MHz. You can see this option at 2.4GHz band.
- **WMM Support**: Toggle to give the priority to Wi-Fi multimedia data or not. The multimedia data packets have a higher priority than normal traffic.
- **TX Beamforming**: Select **Enable** to allow the AP to effectively concentrate its signal at the client device.

Click **Apply** to save your changes.

Chapter 8. Sharing Media or Printer

You can share a USB storage device and a USB printer connected to your router with client devices. In addition, you can have access to your server while you are away from your home.

By default, the router acts as a media server when a USB storage device is connected to the USB port. You can enjoy various content like music, movies and photos on a DLNA/UPnP-compliant media players.

Note: This feature is available only on the router that has a USB port.

8.1 USB Connection Setting

Media Share > USB

You can see the information on a USB storage device connected to your router and safely remove it from the router.

① Insert your USB storage device into the USB port of your router.

② Click Refresh. Then, the USB connection status will be updated.
To detach the USB storage device from the router, click Remove to safely remove it.

Note: Ejecting a USB storage device before safely removing it may cause data loss.

Your router works with USB compliant devices. The router supports the file system for read and write access as follows:

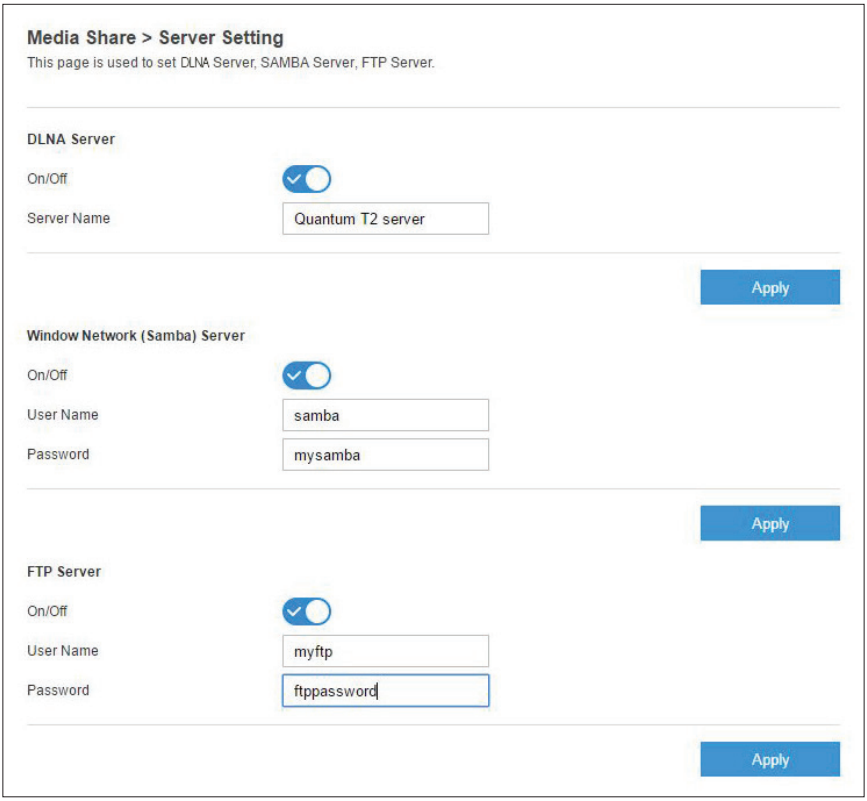
	T3A	T3Av2
FAT32	√	√
NTFS	√	√
exFAT	√	√

8.2 Network Server Setting

Media Share > Server Setting

You can set up how to share and access a USB storage device from all clients through DLNA, Samba or FTP server. DLAN and Samba server is accessible over the local area network.

By default, the media server works automatically when a new storage is added. The router will scan for media files whenever new files are added to the media server. It may take several minutes until the router detects the media files from the server.



DLNA Server

You can access the connected USB storage device on DLNA compliant devices such as Blu-ray disc players, televisions, computers, smartphones, tablets and more. Note that a DLNA compliant device should be connected to the router.

① Set the options below on your web interface.

- **On/Off**: Toggle to allow access to the DLNA server or not.
- **Server Name**: Enter the server name to find it on your DLNA devices.

② Connect your DLNA device to your router over wired or wirelessly.
③ Open a file sharing application on the DLNA device.
④ Enter the server name. The shared folders will be listed.
⑤ Enjoy multimedia contents from the USB storage device right on your DLNA device.

Window Network (Samba) Server

You can access the connected USB storage device through window network server. The application protocol differs depending on the operating system.

① Set the options below on your web interface.
- **On/Off**: Toggle to allow access to the window network server direct on your PC or not.
- **User Name**: Set the user name. You need it when logging in to your server.
- **Password**: Set the password. You need it when logging in to your server.

② Connect your PC to your router over wired or wirelessly.
③ Go to the windows explorer and then enter the server address \\192.168.1.1. If you use a tablet PC, use a third party app for network file sharing.
④ Log in to the server with the user name and password.
⑤ Enjoy multimedia contents from the USB storage device right on your PC.

FTP Server

You can access the connected USB storage device outside the local area network.

① Set the options below on your web interface.
- **On/Off**: Toggle to allow remote access from an FTP client to the FTP server or not.
- **User Name**: Set the user name. You need it when logging in to your server.
- **Password**: Set the password. You need it when logging in to your server.

② Open a web browser on your PC.
③ Enter the server address ftp://<WAN IP address of your router>.
④ If you set up a domain name for your router, enter the server address ftp://<domain name of your router>. Refer to the DDNS setting page to learn how to set up a domain name for your router.

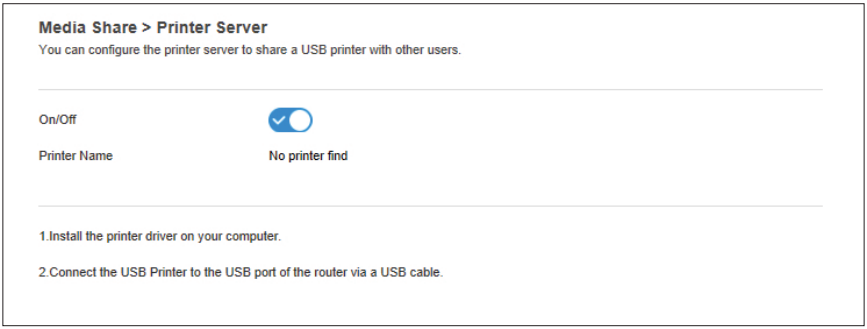
⑤ Log in to the server with the user name and password.
⑥ Enjoy multimedia contents from the USB storage device even though you are away from your home.

Note: We recommend you have remote access to the server with a domain name.

8.3 USB Printer Setting

Media Share > Printer Server

You can share a USB printer with all clients connected to your router. Note that the USB printer is connected to the USB port of your router.



① Connect a printer to the USB port of your router using a USB cable.

② Set the printer server to **Enable** to allow access from the client devices.

③ Install the printer driver on each computer that needs printer service.

④ To install the printer driver on your PC, go to **Start** > **Control Pad** > **Device & Printers**. Then you get the Printers page.

⑤ Click **add a printer** and then follow the printer setup wizard.

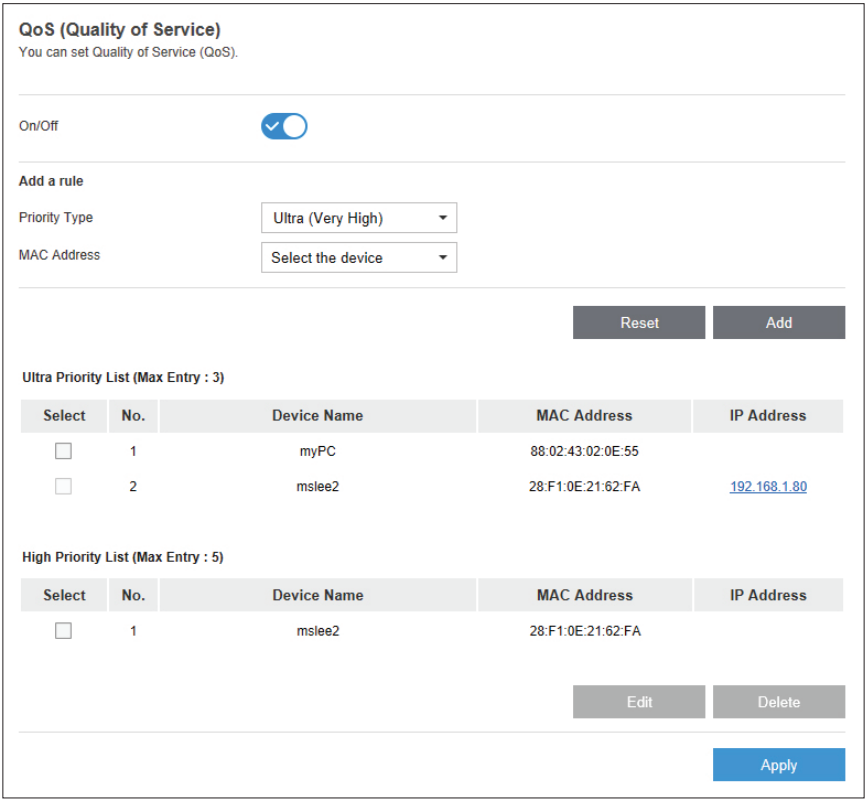
Note:

- How to add a USB printer may differ depending on the operating system of your PC.
- The USB port is only for USB devices like flash drives, hard drives and printers. Do not connect PCs, USB modems, CD drives, USB power bank or DVD drives.

Chapter 9. Providing Priority

You can set a client device to have the priority in transmitting multimedia data without transmission delay or interruption.

QoS (Quality of Service)



When you use multiple devices, the prioritized device will be guaranteed first for the bandwidth. You can enjoy entertainment services without transmission delay or interruption.

① Connect an entertainment device such as OTT, gaming console and IPTV to the Entertainment port (LAN 1 or 2) of your router. Then, the device has the highest priority automatically. (T3Av2 only)

Note: Although the devices are connected to the Entertainment ports, you may see the device name LAN 1, LAN 2 in the ultra priority list.

② Set the options below:

- **On/Off**: Toggle to prioritize a client device or not. If you turn it off, all options below will disappear.

Traffic Prioritization

- Add a rule
  + **Priority Type**: Set the priority level to Ultra or High. You can add up to 3 devices for the ultra priority and 5 devices for the high priority.
  + **MAC Address**: Select a device from the list of connected devices. You can enter the MAC address if there is no device name in the list.

If a device is connected to the entertainment port of your router, the priority type is automatically set to Ultra and its information will be displayed in the ultra priority list.

Click **Reset** to clear the input boxes.

Click **Add** to register a device. You can add up to three devices for the ultra priority and five devices for the high priority.

- Ultra / High Priority List

  The prioritized devices will be listed.

  To release the priority, select a device from the list and then click **Delete**.

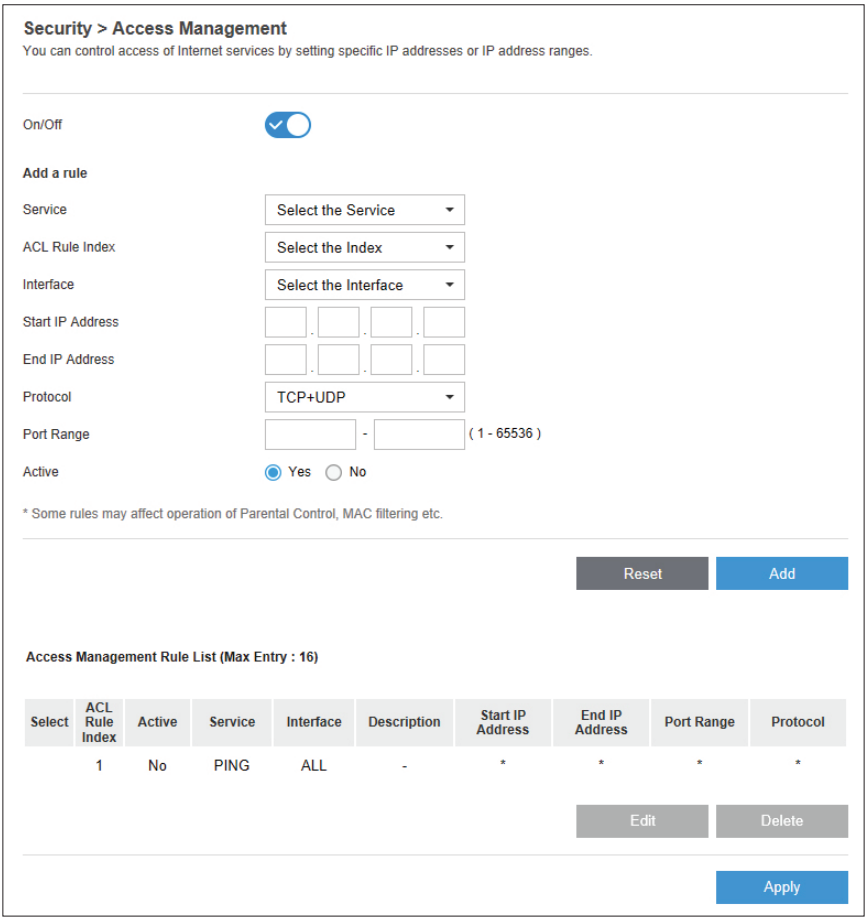
Chapter 10. Securing Up Network

You can secure a home wireless network by setting the security options. You can block inappropriate, explicit and malicious websites, and control access to specified websites during specified time.

10.1 Access Rule Setting

Security > IP/Port Filtering

You can configure the access rule to prevent local PCs from getting access to the Internet through your router. Use of such filters can be helpful in securing or restricting your local network.



On/Off: Toggle to use the access management feature.

- Add a rule
  - **Service**: Select a service from **ALL, WEB, FTP, Telnet, TFTP, SNMP, Ping** and **Manual** to manage the access.
  - **Description**: Take a note to remember the rule if you need.
  - **ACL Rule Index**: Select a number to define an entry ranking. The rule will be applied in the order specified in this index.
  - **Interface**: Select an interface from ALL, WAN, LAN to manage the access.
  - **Start/End IP Address**: Enter the start and end IP addresses to block access to the port. If both addresses are blank, any client is allowed to use the service, and either is filled with IP address, only the IP address is not accessible.
  - **Protocol**: Select a protocol from TCP, UDP or TCP+UDP. UDP controls endpoint filtering for packets of the UDP protocol, TCP controls endpoint filtering for packets of the TCP protocol.
  - **Port Range**: Enter the port range to restrict access. If you want to set a single port, enter the port number only in the first box.
  - **Active**: Select the status to run the rules or not.

  Click **Reset** to clear the input boxes.

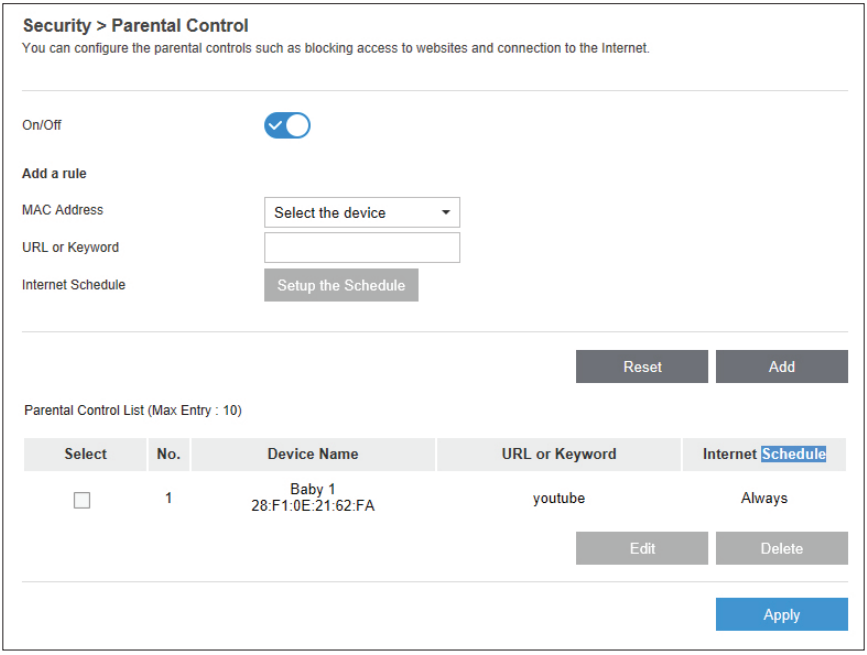
  Click **Add** to register access rules more. You can add up to 16 rules.

  Note: The added rules may cause abnormal operation on parental control, MAC filtering and other filtering rules.

10.2 Parental Control

Security > Parental Control

You can configure the parental controls to block access to the websites by URL including specific keywords and to restrict Internet access during specified time.



- **On/Off**: Toggle to use the parental control feature or not.
- **Add a rule**
  - **MAC Address**: Select a device from the list of connected devices. You can enter the MAC address if there is no device name in the list.
  - **URL or Keyword Filter**: Enter the URL or keywords to block access to the websites whose URL includes such keyword.

    Note: We recommend you enter a specific keyword. (e.g. facebook, youtube, etc.) The words ***https*** and ***www*** are not regarded as a keyword.
- **Internet Schedule**: Click **Set up the Schedule** to block on a schedule or block all the time. The sites are only blocked during the scheduled time with certain URL or keywords.

  Click **Reset** to clear the input boxes.

  Click **Add** to register filtering rules more. You can add up to ten rules.

  A user is not accessible through the specified device, with the keyword and during the time.
- **Parental Control List**

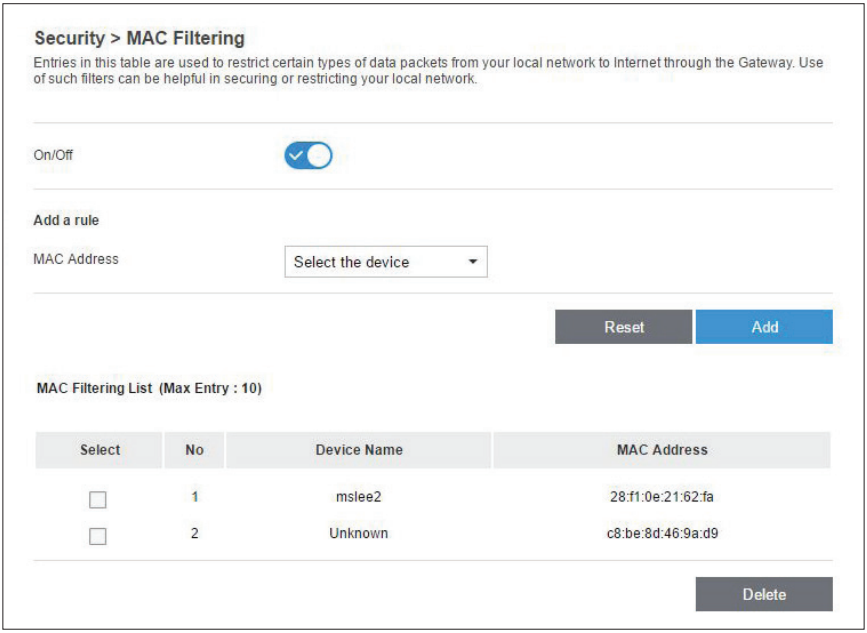
  The filtering rules will be listed.

  To release the filtering rule, select the rules from the list and then click **Delete**.

10.3 MAC Filtering Rule Setting

Security > MAC Filtering

You can configure the MAC filtering rule to prevent the connected devices from sending outgoing TCP/UDP traffic to the Internet via their MAC addresses.



- **On/Off**: Toggle to set a MAC filtering rule.
- **Add a Rule**
  - **MAC Address**: Select a device from the list of connected devices. You can enter the MAC address if there is no device name in the list.

  Click **Reset** to clear the input boxes.

  Click **Add** to add the device's MAC address to the MAC filtering list. You can add up to ten rules.
- **MAC Filtering List**

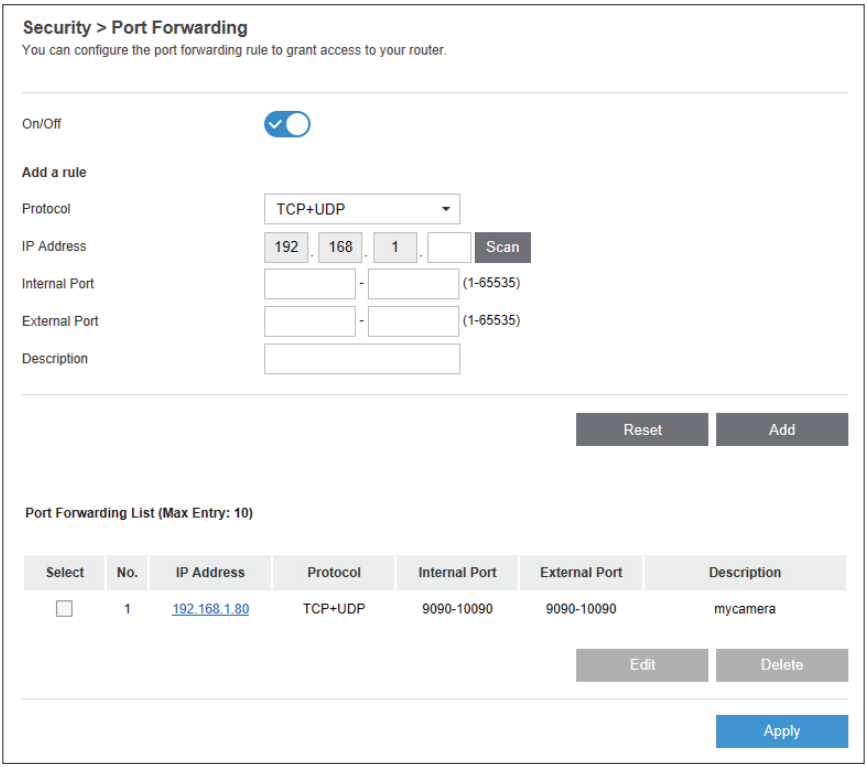
  The devices that are restricted to have access to your network will be listed.

  Click **Delete** to remove the MAC address from the filtering list.

10.4 Port Forwarding Rule Setting

Security > Port Forwarding

You can run a publicly accessible server on the LAN to grant controlled access to the PCs over your network to other clients. Specify the mapping of TCP/UDP ports to a LAN to make a local server available over the Internet. This will be used to open multiple ports in your router and redirect data through those ports to a single PC on your network. You need networking knowledge to set up these features.



- On/Off: Toggle to open specific ports or not.
- Add a rule

  To specify a mapping, enter the range of port numbers that should be forwarded locally, and the IP address to which traffic to those ports should be sent.

  - Protocol: Select a port protocol from TCP, UDP or TCP+UDP. If you are not sure, select TCP+UDP.

- **IP Address**: Click Scan to bring an available IP address. You can enter it directly.

  Note: Since dynamically assigned IP addresses vary, we recommend you allocate a static IP address. Go to Network > Reserved IP Address to set it up.
- **Internal Port**: Enter the port range from 1 to 65535.
- **External Port**: Enter the port range from 1 to 65535. For Internal and external ports, refer to your network devices.
- **Description**: Take note to remember the rule.

Click **Reset** to clear the input boxes.

Click **Add** to add the port forwarding rules to the list. You can add up to ten devices.

- Port Forwarding List

  The defined rules will be listed.

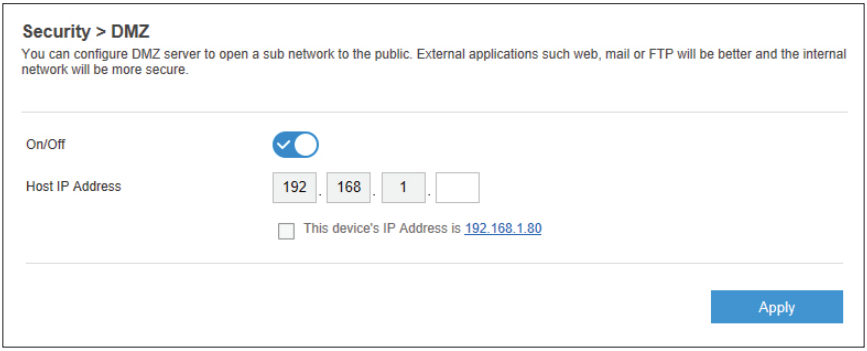
  Click **Delete** to remove the forwarding rule from the list.

Note: If your home network includes a server, you can allow certain types of incoming traffic to reach the server. For example, you might want to make a local web server, FTP server or game server accessible and available on the Internet. The router can forward incoming traffic with specific protocols to devices on your local network. You can specify the server for applications and you can also specify a default DMZ to which the router forwards all other incoming protocols.

10.5 DMZ Setting

Security > DMZ

You can configure the DMZ to make applications free from port restrictions.



When a PC is set to be a DMZ host in the local network, it is totally exposed to the Internet, which can realize the unlimited bidirectional communication between internal hosts and external hosts. The DMZ host becomes a virtual server with all ports opened. When you are not clear about which ports to open in some special applications, such as IP camera and database software, you can set the PC to be a DMZ host. But, in this case, all ports open and it may cause security vulnerable.

- **On/Off**: Toggle to configure a DMZ host or not.
- **Host IP Address**: Enter the IP address.

Click **Apply** to save your changes.

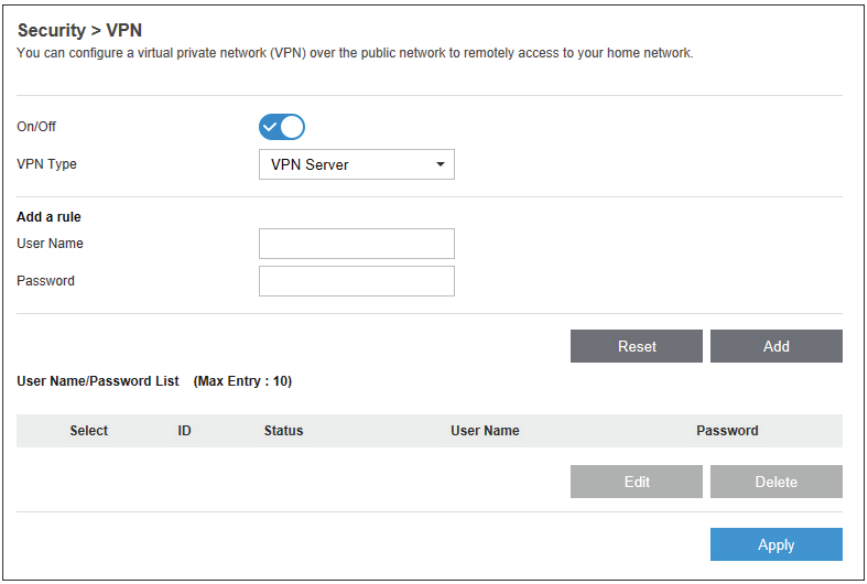
Note: If DMZ is enabled, the DMZ host is totally exposed to the Internet, which may cause potential safety hazards. We recommend you turn it off while not in use.

10.6 VPN Setting

Security > VPN

You can configure a virtual private network (VPN) across the public network. VPN provides a secure tunnel between your home network and a remote computer. You can securely access your home network through the tunnel from anywhere.

When you use your router as a VPN server:



- **On/Off**: Toggle to use a VPN connection or not.
- **VPN Type**: Select VPN Server to use your router as a VPN server. VPN clients can connect directly to your router with their own user name and password.

Click **Apply** to save the settings.

- **Add a rule**
  - **User Name**: Enter a user name to allow access to your home network.
  - **Password**: Enter a password. This will be required when a client logs in to your home network.

Click **Reset** to clear the input values.

Click **Add** to add an allowable user to the list. You can add up to ten users.

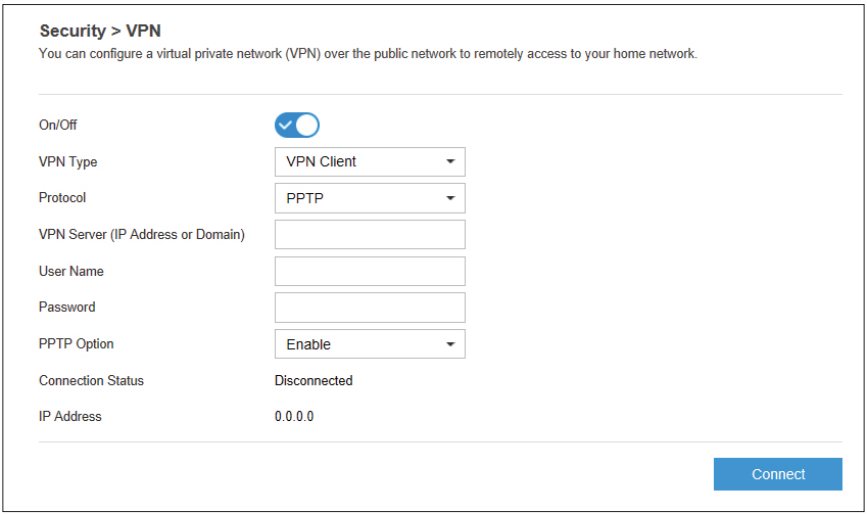
- User Name/Password List

  The allowable users will be listed.

  Select a client and then click **Delete** not to allow access any more.

Note: This type of VPN access is called a client-to-gateway tunnel. You can access VPN server (Router) through a VPN tunnel remotely. When the router is enabled, a VPN server and you must install and run VPN client software on each Windows computer, Mac computer, iOS device or Android device that you plan to use for VPN connections to your router. VPN uses DDNS or a WAN IP address to connect with your router. To use a DDNS service, register an account with a host name (sometimes called a domain name). Please refer to DDNS explanation.

When you use your router as a VPN client:



- **On/Off**: Toggle to use a VPN connection or not.
- **VPN Type**: Select **VPN Client** to use your router as a VPN client. VPN clients can access their local network with their own user name and password.
- **Protocol**: Select the Internet connection type.
- **VPN Server**: Enter the IP address or domain name on your local network.
- **User Name/Password**: Enter the user name and password given by your VPN provider.
- **PPTP Security**: Select **Enable** to secure up your VPN server.

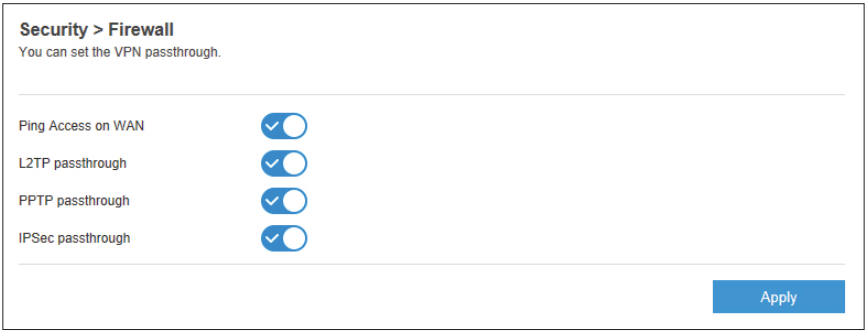
  Note: If the protocol is set to **L2TP**, you do not need to set the PPTP Security option.
- **Connection Status**: You can see whether a client is connected or not.
- **IP Address**: You can see the IP address assigned by a VPN server.

Click **Connect** to connect to a VPN server. The connection status and IP address show whether the connection is successful.

10.7 Firewall Setting

Security > Firewall

Firewall can protect cyber-attacks and validate the traffic that is passing through the router based on the protocol.



- **Ping Access on WAN**: Toggle to block WAN Internet Control Message Protocol (ICMP) ping or not.
- **L2TP passthrough**: Toggle to block L2TP passthrough or not.
- **PPTP passthrough**: Toggle to block PPTP passthrough or not.
- **IPSec passthrough**: Toggle to block IPSec passthrough or not.

Click **Apply** to save your changes.

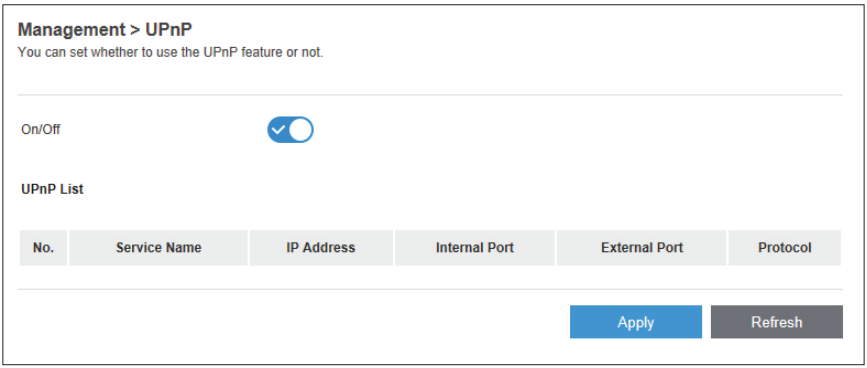
Chapter 11. Managing Your Router

You can set the various options to manage and maintain your router according to your needs.

11.1 UPnP Setting

Management > UPnP

Universal Plug and Play (UPnP) helps devices, such as Internet appliances, mobile devices and PCs, access the network and connect to other devices as needed. You can enable UPnP to allow a device to discover automatically the services from other registered UPnP devices on the network.



- **On/Off**: Toggle to allow free communication between a host router and client devices or not.
- **UPnP List**

  The UPnP list displays the information on each UPnP device that is accessing the router, including what type of port is open and whether that port is still active for each IP address.

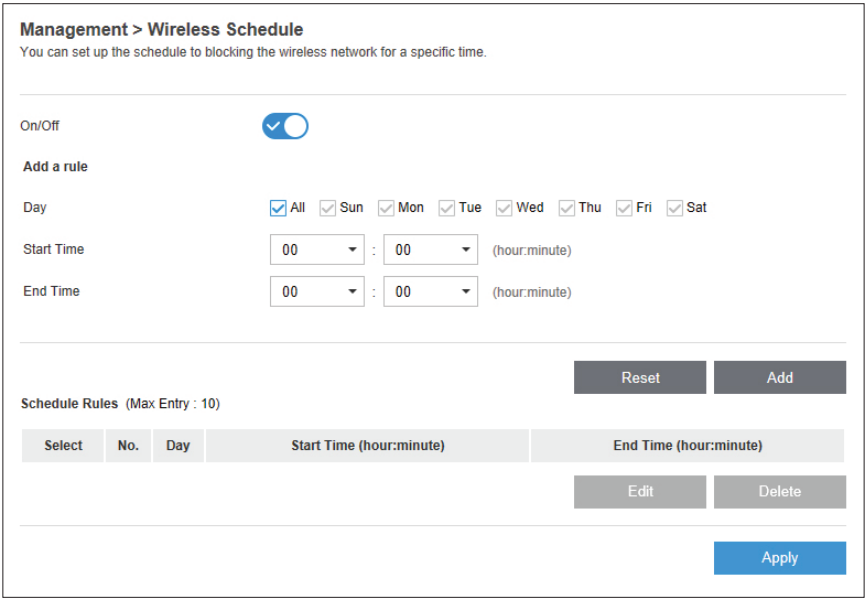
  Click **Refresh** to update the information in the UPnP list.

  Note: If you want to use applications such as multiplayer gaming, peer-to-peer connections, real-time communications like an instant messaging or remote assistance (a feature in Windows OS), enable UPnP. Feel the Improved Network Connections with UPnP.

11.2 Wi-Fi Schedule Setting

Management > Wireless Schedule

You can set the time to turn the wireless network on or off automatically.



- **On/Off**: Toggle to set the time or not. During the time, you cannot access the wireless network. If turned off, the wireless network will be always accessible.
- **Add a rule**: Set the day and time to turn off the wireless network.

Click **Reset** to clear the options.

Click **Add** to add a schedule. You can add up to ten schedules.

- **Wireless Schedule List**

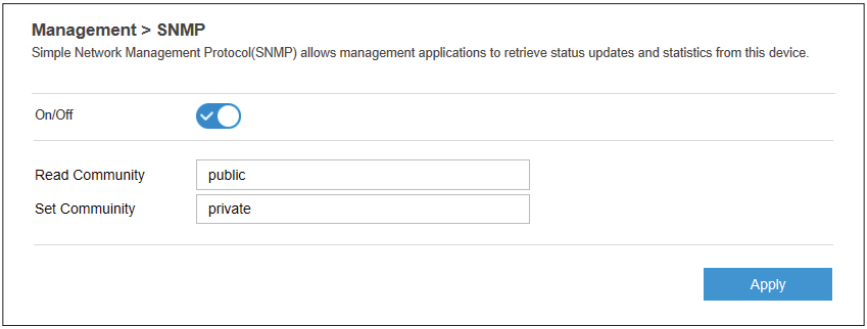
  The schedules will be listed.

  To cancel the schedule, select a schedule from the list and then click **Delete**.

11.3 Simple Network Management Protocol

Management > SNMP

Simple Network Management Protocol (SNMP) is a standard way of managing network and monitoring network devices. You can monitor your router and connected network devices and thus detect faults with alerts and notifications.



- **On/Off**: Toggle to use SNMP or not. The default value is Off. If set to On, the built-in SNMP allows the router to operate as the operational role in receiving, processing and sending SNMP message.
- **Read Community**: Enter a public community message to protect the router from unauthorized access.
- **Set Community**: Enter a community message to protect the router from unauthorized changes.

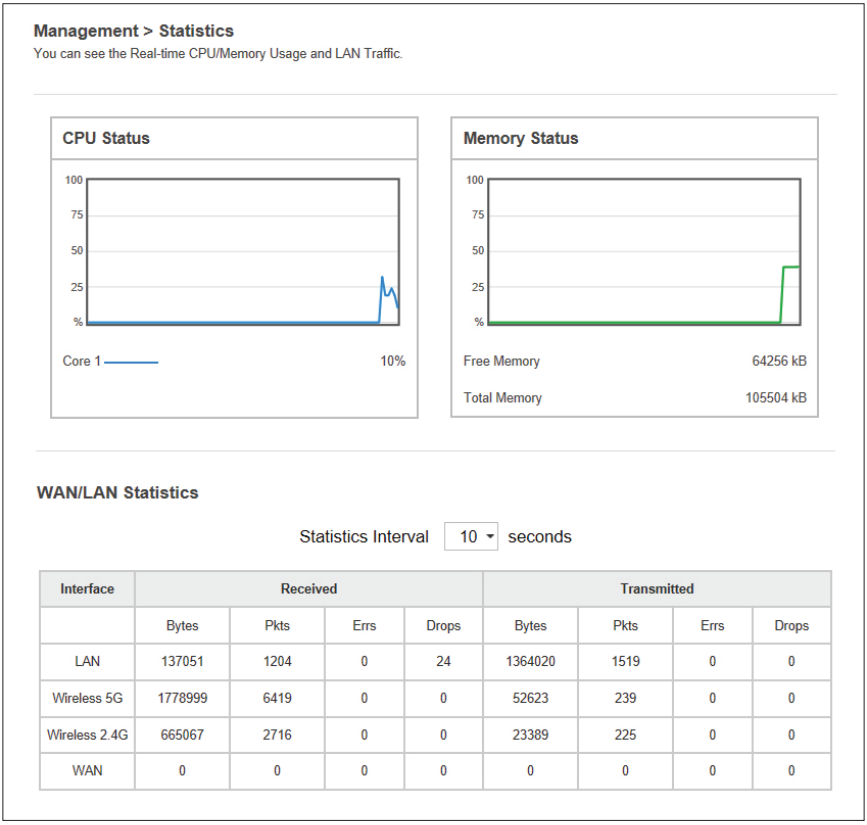
Click **Apply** to save your changes.

Note: We recommend you change the default community values to secure your router.

11.4 Statistics

Management > Statistics

You can see the CPU and memory usage and LAN traffic in real time.



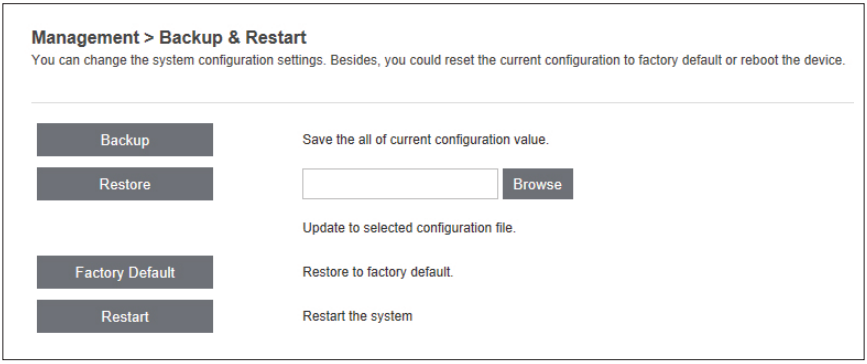
Interface	Received				Transmitted			
	Bytes	Pkts	Errs	Drops	Bytes	Pkts	Errs	Drops
LAN	137051	1204	0	24	1364020	1519	0	0
Wireless 5G	1778999	6419	0	0	52623	239	0	0
Wireless 2.4G	665067	2716	0	0	23389	225	0	0
WAN	0	0	0	0	0	0	0	0

- **CPU status**: You can see the information on current CPU usage.
- **Memory Status**: You can see the router's memory usage.
- **WAN/LAN statistics**: You can see the current WAN and LAN statistics every seconds. You can change the time interval.

11.5 System Backup

Management > Backup & Restart

You can change the system configuration settings.



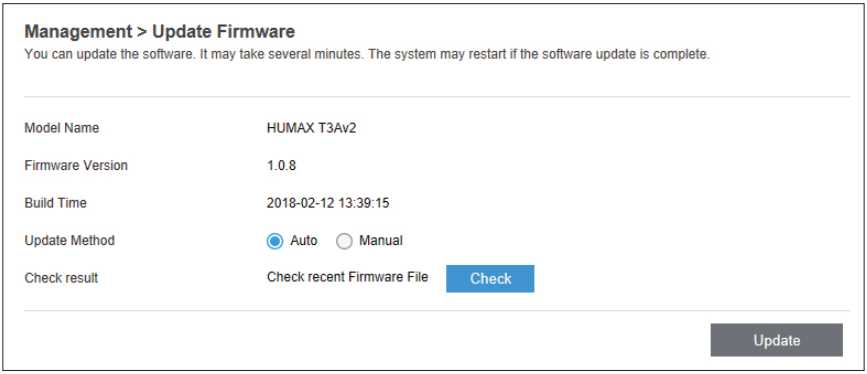
- Click **Backup** to save the current configuration. The backup file name is **Config.dat**.
- To update the configuration, click **Browse** to find a configuration file and then **Restore** to install it. Then, the system will restart and it may take a few minutes.
- Click **Factory Default** to restore to the factory default settings. Then, the system will restart and it may take a few minutes.

  Warning: Once you do a factory reset, you will lose all your current settings.
- Click **Restart** to restart the system. After restarting the system, all the changes will take effect.

11.6 Firmware Update

Management > Update Firmware

You can update the firmware to the latest version.



Automatic Update

① Click **Check** to make sure the current firmware is up to date.

② If there is the latest version updatable, click **Update** to install the new firmware.

③ When the firmware update is complete, the system will restart automatically. It may take a few minutes.

Manual Update

① Click **Browse** to find a new firmware.

② Select a file and click **Update** to update the firmware to the latest version.

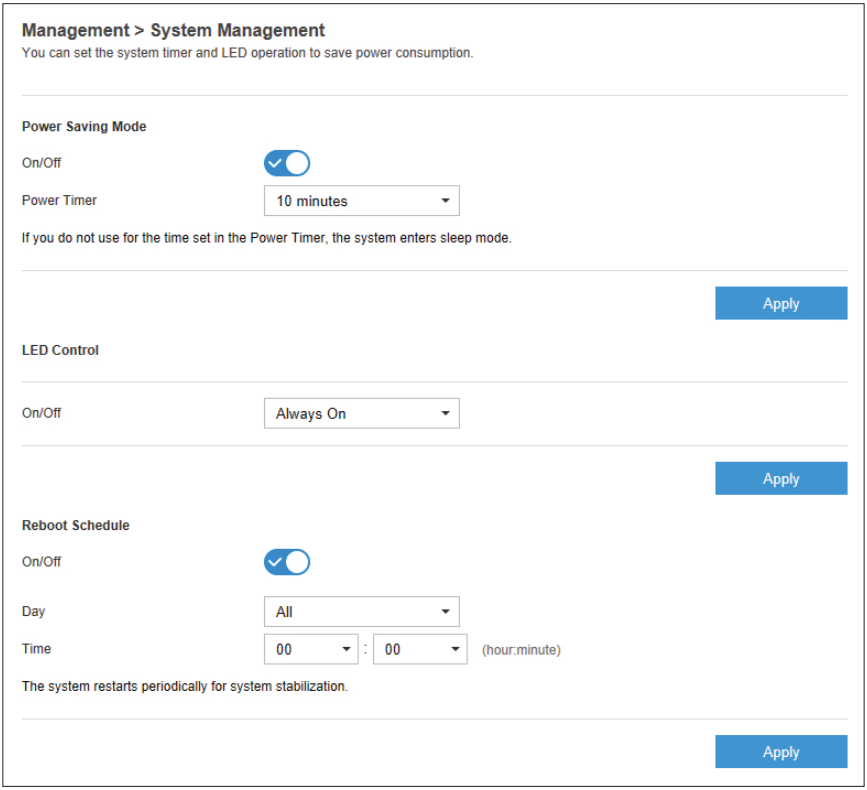
③ When the firmware update is complete, the system will restart automatically.

Note: You can download the firmware file from the web site or inquire of the customer service center.

11.7 System on/off Time Setting

Management > System Management

You can set the system to administer and manage your router and home network.



Power Saving Mode

The system will enter the networked standby mode if there is no traffic via a wired or wireless network connection during a specific time.

- **On/Off**: Toggle to turn on the power saving mode or not. We recommend you turn it on to save power consumption.
- **Power Timer**: Select the time. The system will enter the sleep mode if there is no traffic during the time.

Click **Apply** to save your changes.

LED Control

You can turn on or off the LEDs on the router to save power consumption.

- **On/Off**: Select whether to turn the LEDs always on or specific time off.
- **Start Time**: Select the start time to turn off the LEDs.
- **Duration**: Select the time to keep the LEDs off.

Click **Apply** to save your changes.

Note: The power LED will always stay on regardless of the settings above.
To check the LED status on your router, set the option to **Always On**.

Reboot Schedule

You can set the schedule to periodically restart the system for system stabilization.

- **On/Off**: Toggle to use system restart feature or not.
- **Day/Time**: Select a day and time to restart the system periodically.

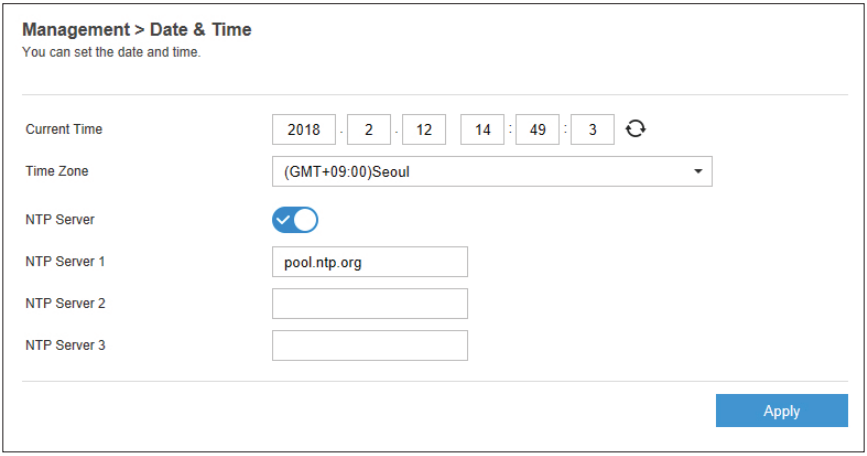
Click **Apply** to save your changes.

Note: Restarting the system may affect operation. We recommend you schedule to run during off-pick hours.

11.8 System Time Setting

Management > Date & Time

You can set the system time. The system time set to your router will be used for time-based features such as parental controls, wireless schedule, power saving and so on.



- **Current Time**: You cannot change the time. Click the refresh button to get the current date and time.
- **Time Zone**: Select your country to set a local time zone. If the timezone is not correct, the time-based features may not operate properly.

Network Time Protocol (NTP) is a networking protocol for clock synchronization between computer systems over packet-switched, variable-latency data networks.

To achieve accurate time of your system, set the NTP server.

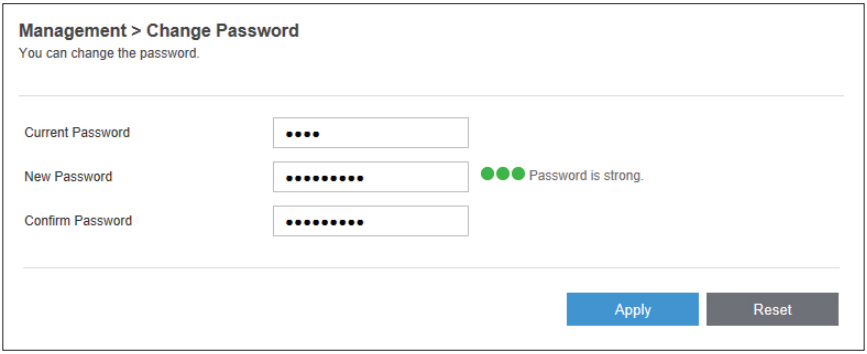
- **NTP Server On/Off**: Toggle to synchronize the time between your router and the network devices or not.
- **NTP Server 1**: Enter the NTP server address.
- **NTP Server 2, 3**: Enter the address of a backup NTP server.

Click **Apply** to save your changes.

11.9 Password Change

Management > Change Password

You can change the password. The password is required when you change the settings on your router.



- **Current Password**: Enter the current password. The default password is printed at the bottom of your product.
- **New Password**: Enter a new password. You can enter only letters, numbers and special characters !@^*()-_=+|[]{}:.? and they are case-sensitive.
- **Confirm Password**: Enter the new password again.

Click **Apply** to save your changes.

Note: We recommend you set the combination of letters, numbers and special characters for the password.

Chapter 12. Troubleshooting

You can find information to diagnose and solve problems you might have with your product. Before contacting the customer service center, make sure to read the tips below carefully. If the problem persists after you complete the following procedure, please contact the customer service for further instructions.

The product does not work

- Check the power LED lights on.
- Check the power adaptor is plugged into a suitable power outlet.
- Connect the power adaptor to another power outlet.
- Restart the system and wait until the power LED lights on.

Cannot access the web interface

- Check the Ethernet cable is correctly connected between the product and PC.
- If the PC is connected to the Wi-Fi, check with the SSID the connected router is correct.
- Check the web access address http://dearmyrouter.net is correct. If the product is in Extender mode, the web access address is http://dearmyextender.net.
- Try to access with IP address 192.168.1.1.
- Power off the router by detaching the power adaptor and then restart the system within a few seconds.

Cannot access the Internet but the router

- Check the router is obtaining an IP address from the Internet Service Provider (ISP). If your router cannot obtain an IP address, you may need to contact your ISP.

Cannot log in to the router

- Check the IP address of your PC is on the same subnet as the router.
- Check your login information is correct. The default ID and password are printed on the bottom of your product. The ID and password are case-sensitive.

Cannot search for SSID on the network devices

- Check the wireless network is turned on in **Wireless 5GHz/2.4GHz** > **Primary Network**.
- Check the wireless schedule is set to off in **Management** > **Wireless Schedule**.

Cannot connect to Wi-Fi

- Check the LED status. During normal operation, the Wi-Fi LED on the router stays lighting on.
- Check your wireless network is broadcast on your wireless devices or PC. If not, check the Hide SSID is set to off in **Wireless 5GHz/2.4GHz > Primary Network**.

Cannot remember the login ID and password

- Reset the router to the factory settings. Press the reset button for 5 seconds. Then, log in to the router with a default ID and password. The ID and password are printed on the bottom of your product.

Cannot remember the Wi-Fi password

- Reset the router to the factory settings. Press the reset button for 5 seconds. Then, log in to the router with a default ID and password. The ID and password are printed on the bottom of your product.

Chapter 13. Supplemental Information

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Warranty

The warranty does not cover parts which may become defective due to misuse of the information contained in this manual.

'WEEE' Instructions

This product should not be disposed with other household waste at the end of its working life. Please separate this from other types of waste and recycle it responsibly to promote the sustainable reuse of material resources. This will prevent possible harm to the environment or human health from uncontrolled waste disposal.

Domestic users:

Please contact either the retailer where you purchased this product or their local government office for details of where and how they can take this item for environmentally safe recycling.

Business users:

Contact your supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial waste for disposal.

FCC Customer Information

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 operations.

KC

본 제품은 국내 (대한민국)에서 사용하도록 만들어진 제품이므로 외국에서 사용하실 수 없습니다. (This unit, which is designed for Korea only, cannot be used in foreign countries.)

본 제품의 외관 디자인, 제품규격 등은 제품의 질을 더 높이기 위해 소비자에게 알리지 않고 변경될 수 있습니다.

본 제품은 정규 서비스 기사 이외에는 내부를 열어 볼 수 없도록 고안되었으며 사용자가 뚜껑을 열거나 수리를 시도하는 것은 위험하오니 서비스 기사에게 의뢰하시기 바랍니다.

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B급기기 (가정용 방송통신기기): 이 기기는 가정용 (B급)으로 전자파적합등록을 한 기기로서 주로 가정에서 사용하는 것을 목적으로 하며, 모든 지역에서 사용할 수 있습니다.

Appliance Classes

⧈	Double insulated Class II equipment (IEC 60417-5172). Do not require an earth connection.
⌂	For indoor use only (IEC 60417-5957).
⎓	Direct current (IEC 60417-5031).
⏻	Stand by (IEC 60417-5009)

Safety and Regulatory Information

This HUMAX router's user guide contains important safety and license information.

Safety instructions

Please read these instructions before using your product. We do not want you to get hurt or your product to get damaged.

- Do not use your product near water and keep your product dry. If you need to clean it, do not use a wet towel. Wipe the product with a clean and dry cloth. Never use cleaning fluid or similar chemicals.
- Do not spray cleaners directly on the product or use forced air to remove dust.
- Do not place your product near any heat sources, such as hot appliances like heaters and radiators, other electronics like computers and stereos, or inside your fireplace. Your product is cool, and you should help it to that way.
- Do not place the product on a soft surface, such as a carpeted floor, which may block the airflow. It is important that the product is placed on an unobstructed, solid surface.
- Do not cover the product, or block the airflow to the product with any other objects. Keep the product away from excessive heat and humidity and keep the product free from vibration and dust.
- The product is for indoor use only. Do not try to use it outside.
- Do not try to open, modify or repair your product. This could cause electric shock or injury to you. Any customer modification voids your authority to operate the equipment and will void your product warranty.
- Protect your product's power cord by allowing it to loosely rest between the product and the power outlet. Do not stretch it or compress it between objects.
- Handle your product with care. Do not drop or shake your product.
- This product was qualified under test conditions that included the use of the supplied cables between systems components. To ensure regulatory and safety compliance, use only the provided power and interface cables and install them properly.
- Postpone installation until there is no risk of thunderstorm or lightning activity in the area.
- Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in safe operating condition.

Choking hazards

The product packaging may include plastic bags and tie-wraps. Please dispose of these properly and keep them out of reach of children, as they could present a choking hazard. Keep the product, its cords, and its accessories out of the reach of small children.

HUMAX T Series

Simplified EU Declaration of Conformity

The simplified EU declaration of conformity referred to in Article 10(9) shall be provided as follows:

Hereby, HUMAX declares that the radio equipment type [HUMAX T3A, HUMAX T3Av2] is in compliance with Directive 2014/53/EU and relevant directives.

The full text of the EU declaration of conformity is available at the following internet address:

- **United Kingdom** : http://uk.humaxdigital.com/ec
- **Germany** : http://de.humaxdigital.com/ec

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

Wireless Equipment Use Information

1. In France

Authorization for outdoor usage is limited to Channels 1~7 (2.400 ~ 2.454 GHz).

2. In Italy

For outdoor usage a general authorization is required from the national spectrum authorities.

3. In Latvia

For outdoor usage an authorization is required from the Electronic Communications Office.

4. 5GHz Radio Local Area Networks (RLANs) Band only indoor use.
5. This equipment may be operated in all European Union member countries and Turkey.

Radio Frequency Information	
Frequency mode (band)	Wi-Fi b/g/n (20/40MHz)
RF output power (EIRP)	Maximum power level is not exceeding 23dBm (for TPC) / 20dBm (for without TPC)
Frequency range (MHz)	2.4GHz

Radio Frequency Information	
Frequency mode (band)	Wi-Fi a, n(20/40MHz), ac(20/40/80MHz)
RF output power (EIRP)	Maximum power level is not exceeding 20dBm
Frequency range (MHz)	5150MHz to 5350MHz

And

Frequency mode (band)	Wi-Fi a, n(20/40MHz), ac(20/40/80MHz)
RF output power (EIRP)	Maximum power level is not exceeding 14dBm
Frequency range (MHz)	5725MHz to 5875MHz

Product Specification

	T3A	T3Av2
Wi-Fi	Simultaneous dual band 300Mbps at 2.4GHz, 900Mbps at 5GHz	Simultaneous dual band 300Mbps at 2.4GHz, 900Mbps at 5GHz
Processor	660MHz single-core	1GHz single-core
Antenna	External 2.4GHz 2T2R / 5G 2T2R	External 2.4GHz 2T2R / 5G 2T2R
Memory	8MB flash and 128MB RAM	16MB flash and 128MB RAM
Ethernet ports	Five (5) 10/100/1000 (1 WAN and 4 LAN) Gigabit Ethernet ports	Five (5) 10/100/1000 (1 WAN and 4 LAN) Gigabit Ethernet ports
USB ports	One (1) USB 2.0 port	One (1) USB 2.0 port
Power	Input: 100-240~50/60hz 0.5A max. Output: 12V = 1A	Input: 100-240~50/60hz 0.5A max. Output: 12V = 1A
Size (WxDxH)	180 x 147 x 26 mm	260 x 230 x 60 mm
Weight	362g	285g
Operating Temperature	0 ~ 40 °C	0 ~ 40 °C
Operating Humidity		