



User Manual

PROLiNK[®] Xtend PRO

Whole Home Mesh Wi-Fi System

PRC2402M

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CE Declaration of Conformity

This equipment complies with the requirements relating to electromagnetic compatibility, EN 55022/A1 Class B.

 **IMPORTANT SAFETY INSTRUCTIONS**



Please read this entire manual before using this device, paying extra attention to these safety warnings and guidelines. Please keep this manual in a safe place for future reference.

- This device is intended for indoor use only.
- Do not expose this device to water or moisture of any kind. If moisture does get in or on the device, immediately unplug it from the power source, then allow it to fully dry before reapplying power.
- Do not touch the device or any connected cables with wet hands.
- Unplug the device from its power source if it will go unused for a long period of time.
- Clean using a soft, dry cloth only. Do not use chemical cleaners, solvents, or detergents. For stubborn deposits, moisten the cloth with warm water.
- This device has no user serviceable parts. Do not attempt to open, service, or modify this device.

Preface

Revision	Date	Descriptions
1.0	7/2/2020	Initial release
1.1	1/9/2020	Content Update

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Introduction

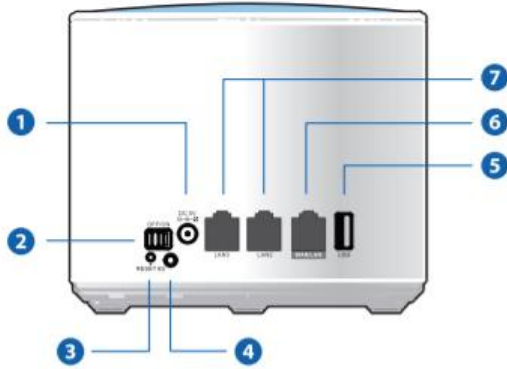
Xtend Pro is a Whole Home Mesh Networking System featuring a seamless wireless experience for users to enjoy high-speed live-streaming, faster downloads and minimal video-buffering. Using the newest mesh technology, the scalable mesh system can easily support strong and stable Wi-Fi connection in home sizes of up to 6,000ft with an aggregated wireless speed of up to 2100Mbps.

Features

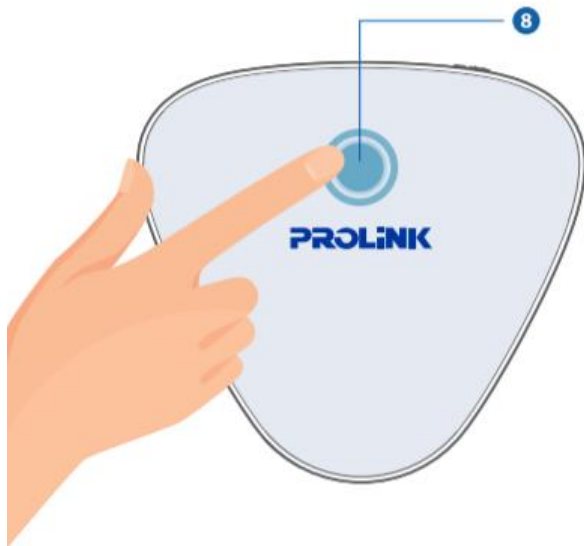
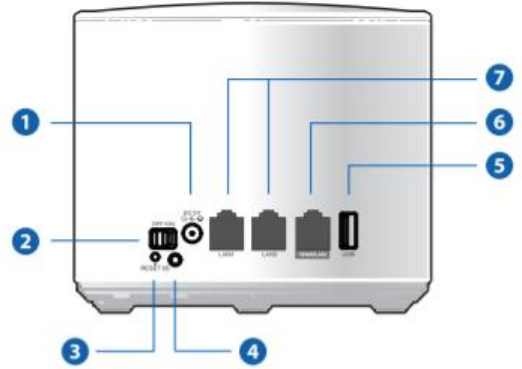
- **Easy Setup** - Xtend Pro units come pre-paired out of the box, just plug in and get started.
- **Seamless Roaming** - Enjoy seamless roaming without experiencing disconnection.
- **TouchLink™** - Tap and connect to Wi-Fi without having to create password for guests.
- **Extensive Coverage** - Provide full Wi-Fi coverage throughout the whole home/office.
- **Band Steering** - Prioritize dual-band capable clients to a less crowded Wi-Fi network.
- **MU-MIMO** - Create highly efficient Wi-Fi network that can handle a greater number of connected devices.
- **Security** - Safeguard your home network with a firewall and wireless encryption.
- **Extend Existing Coverage** - Connect Xtend Pro to the existing router to expand your wireless coverage.
- **Scalable Network** - Add extra Xtend Pro unit(s) up to total 8 nodes to provide more coverage.
- **Gigabit Ethernet Ports** - Three Ethernet ports support 10/100/1000Mbps speed

Hardware Overview

Mesh Router



Mesh Node



- 1 Power Port
- 2 On/Off Switch
- 3 Reset Button
- 4 Pair Button
- 5 USB Port
- 6 Gigabit WAN/LAN Port
- 7 Gigabit LAN Ports
- 8 TouchLink Sensor

Xtend Pro LED Indicator

LED Behaviour	Mesh Router	Mesh Node
Solid Purple	Starting-Up / Booting-Up	Starting-Up / Booting-Up
Solid Blue	The internet connection is up	The connection between the Mesh Node and the Mesh Router or another Mesh Node in the system is good
Blinking Blue	The Mesh Pairing or TouchLink process initiated and ongoing	The Mesh Pairing or TouchLink process initiated and ongoing
Solid Red	-	The connection between the Mesh Node and the Mesh Router or another Mesh Node is weak
Blinking Red	The Router has no internet connection	1) The Node is unable to connect to the Mesh Router or another Node 2) The Node has no internet connection

Getting Started

To setup PRC2402M you need to ensure the following item in the list is available.

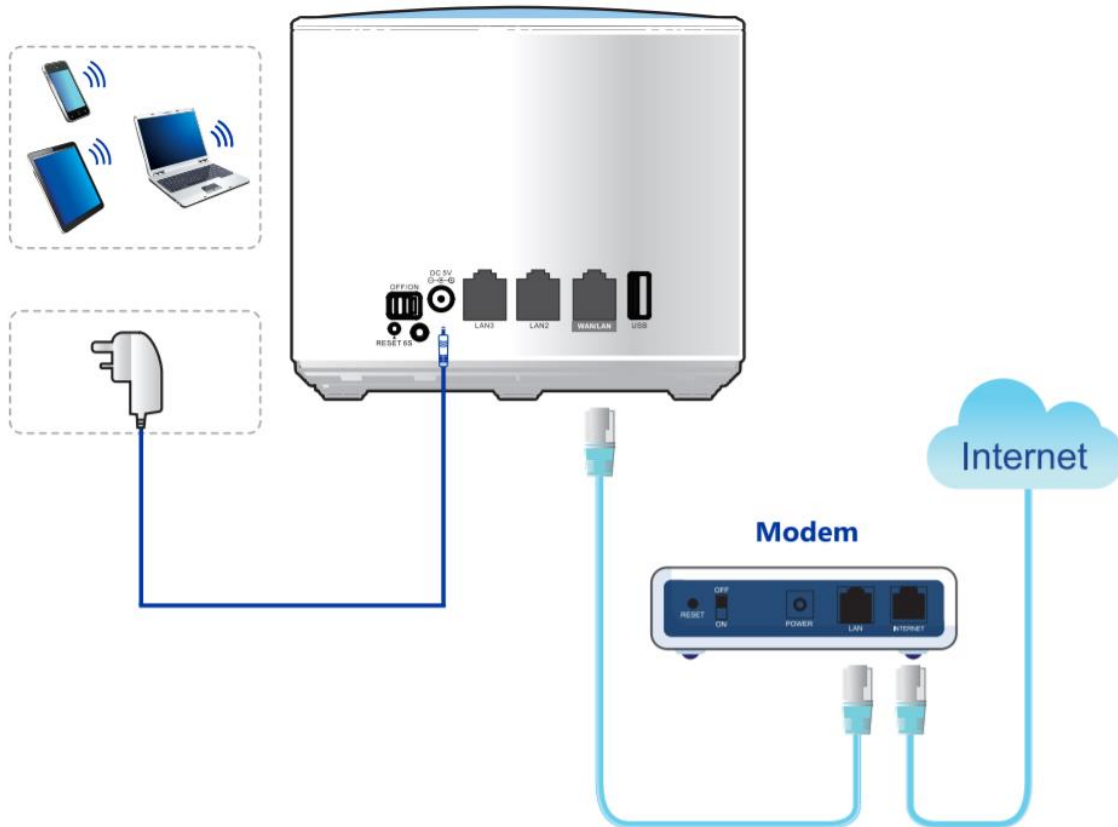
- Internet Access (DSL, Modem or existing Wireless Router).
- Ethernet Cable with RJ45 connector at both ends.
- Computer equips with Ethernet Network adapter (10Base-T or 100Base-TX or 1000Base-TX) with capability IEEE802.11a/b/g/n/ac.
- Web Browser such as (Microsoft Edge, Chrome, Firefox, or Safari)

Wi-Fi Mesh Placement Guide

- A solid Blue LED lighting indicates that the Mesh is performing at its optimal strength
- Avoid placement of Mesh Node units with high potential of signal obstruction (e.g. walls, doors, aquariums) or any of Bluetooth/Devices with high wireless transmission (e.g microwave) within a 30cm radius.
- Ensure that each mesh unit is spread out evenly
- For multi-storey homes, position mesh router units in open space or elevated positions such as shelves or table tops.

Physical Connectivity Setup - PRC2402M as Router or Access Point (AP) Mode

- Step 1. Identify the master **Mesh Router (Blue Unit)** to be connected to the existing Internet Service
- Step 2. Power off all existing Internet source from your equipment / modem / router provided by your ISP (Internet Service Provider)
- Step 3. Use the provided LAN cable to connect your Internet source equipment/modem's **LAN port** to the **Mesh Router's WAN port** (WAN/LAN port)
- Step 4. Power on the existing Internet source equipment/modem/router provided by the ISP
- Step 5. Connect a LAN cable from PC/laptop to the Mesh Router's LAN port
- Step 6. Finally, power on your Mesh router with the provided power adapter (DC 5V 3A)



Example diagram for AP mode physical setup:



- Step 1. Turn OFF Main Router/Existing Router
- Step 2. Connect Ethernet cable between Main/Existing Router LAN ports to PRC2402M WAN/LAN Port.
- Step 3. Connect Ethernet cable between Computer LAN ports to PRC2402M LAN port.
- Step 4. Turn ON power Main/Existing Router and PRC2402M Mesh Router. Please ensure the power LED indicator is light up once turn-on. When the PRC2402M is ready to set up, the LED indicator will Solid Blue

Setting up the PRC2402M as a Mesh Node

PRC2402M is a Mesh-Ready device. To set up your mesh system, you will need at least two units of PRC2402M. First unit is to be connected to main Internet source (known as Mesh Router) and the second PRC2402M as the Mesh Node unit.

You may add additional PRC2402M to your existing PRC2402M Mesh System as Mesh Node. This will help increase the coverage of your wireless coverage.



For Starter Kit (3-Unit or 2-Unit), all the node(s) has been pre-paired with the Mesh Router Unit from the box. Please follow [Option 1](#) or [Option 2](#) as described below to add a 1-Unit to existing mesh system.

Option 1: Via Physical Pairing Button

Step 1. Place the new Mesh Node unit near the existing Mesh Router Unit

Step 2. Plug the Mesh Node unit with the provided power adapter and power on.

Step 3. Wait for the unit to fully boot up, indicated by LED Blinking Red

Step 4. Press and Hold the **Pair Button** for Two Seconds on Mesh Router Unit.

When the pairing is activated, the LED will be Blinking Blue

Step 5. Press and Hold the **Pair Button** for Two Seconds on the Mesh Node Unit. When the pairing is activated, the LED will be Blinking Blue

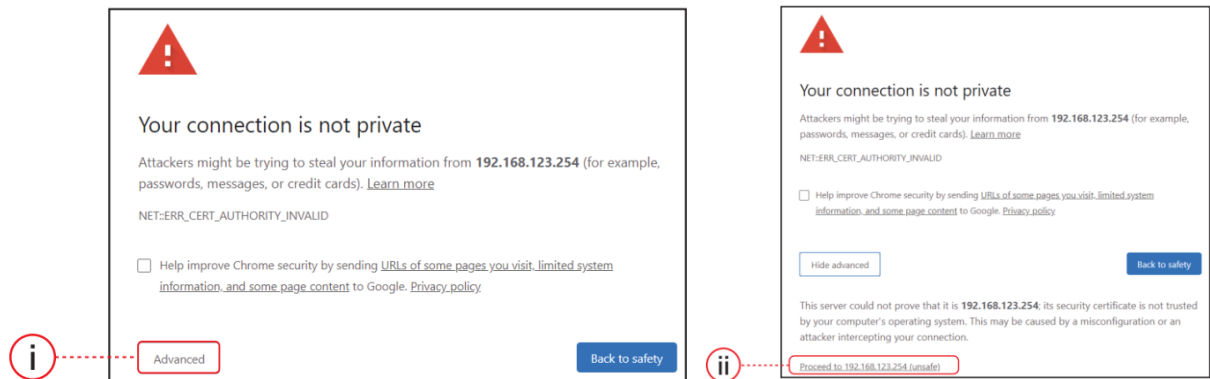
Step 6. Wait for the Pairing sequence to complete, once successful, both the Mesh Router LED and the Mesh Node LED will be solid blue

Option 2: Via Web Browser

Step 1. Connect your computer to the existing Mesh System, launch a web browser and access via any one of below options:

http	https
http://prc2402m.setup	https://prc2402m.setup
http://192.168.123.254	https://192.168.123.254
http://the_mesh_router_IP_Address	https://the_mesh_router_IP_Address

Note for https, when you are prompted with ‘Your Connection is not private’ page, click on **(i) Advanced**, followed by **(ii) Proceed to 192.168.123.254 (unsafe)**, as per below screenshot example:



Step 2. Login and navigate to **Wi-Fi > Mesh Network**

Step 3. Give a name for the new Mesh Node where it is intended to be placed and enter the 5GHz MAC Address respectively. The 5GHz Mac Address information can be found from the Product Label located beneath the Mesh Node unit. Enter the MAC Address Information in All Capital letters.

Add MAC Address	
Device Name	5G MAC Address
<input type="text" value="BedRoom2"/>	<input type="text" value="90:61:0C:AA:A8:88"/> <input data-bbox="1242 346 1291 378" type="button" value="+"/>
Example:11:22:33:44:55:66	

Step 4. Press the Plus Button **[+]**

Step 5. Wait until the Mesh Node's LED turns Solid Blue indicating that the pairing is successful.

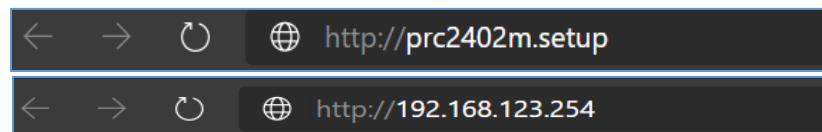
Step 6. Move the node unit to the desired location. For placement guide, refer to [Wi-Fi Mesh Placement Guide](#) covered in earlier section.

Accessing the GUI (Graphical User Interface)

PRC2402M equipped with Web-based and mXtend App Utility configuration specially design for Desktop and Mobile Phone. All the setting interface is simple and easy to configure. For Desktop, Web Utility is not restricted to Microsoft Edge only, but the user can enter through Mozilla Firefox, Chrome, Internet Explorer or Apple Safari. With the mXtend App for Mobile phone, it provides convenience and hassle-free management to your PROLiNK Whole Home Mesh System PRC2402M.

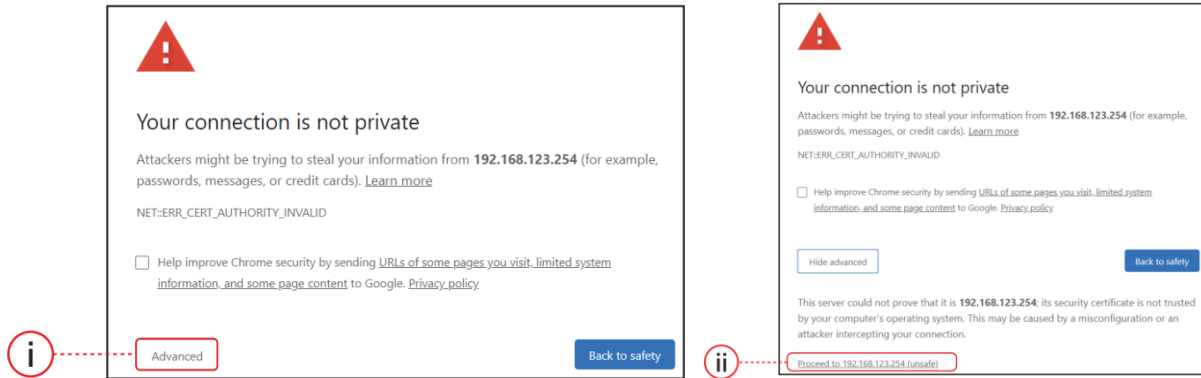
Web User Interface Configuration

1. Run any web browser that available in your computer. On the address bar enter the default URL for PRC2402M.

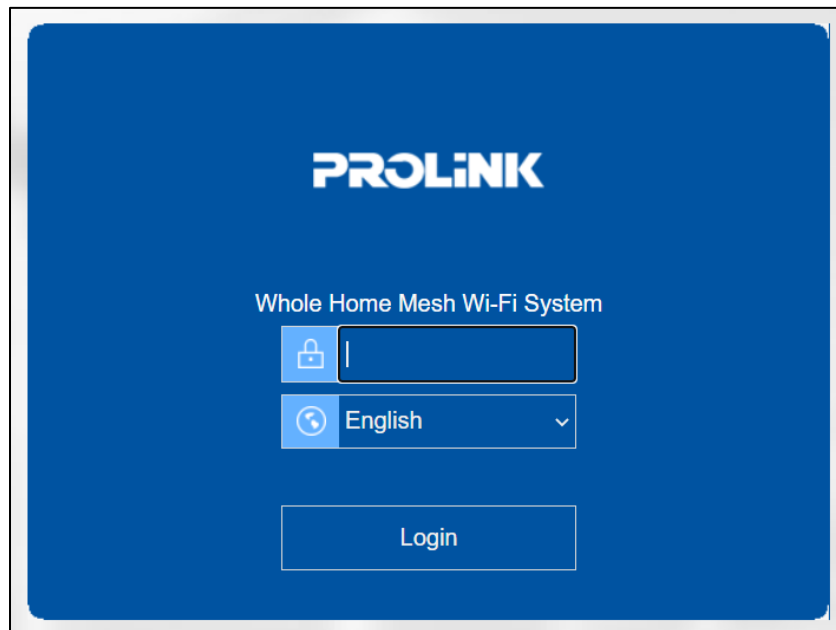


http	https
http://prc2402m.setup	https://prc2402m.setup
http://192.168.123.254	https://192.168.123.254
http://the mesh router IP Address	https://the mesh router IP Address

Note for https, when you are prompted with ‘**Your Connection is not private**’ page, click on **(i) Advanced**, followed by **(ii) Proceed to 192.168.123.254 (unsafe)**, as per below screenshot example:



2. Enter the Web GUI Password. Default password can be found at the product label. Do note that password is Case-Sensitive.



3. Upon login, set *Time Zone* and *New Login Password*. Click **Save** to proceed. Note that the New Login Password is the password that you will require for subsequent login to through Web GUI and App.

The screenshot shows the 'System Setup' interface. It features a blue header with the text 'System Setup'. Below the header, there are two input fields: 'Time Zone' with a dropdown arrow and 'New Login Password' with a toggle icon. Both fields are enclosed in red dashed boxes. A blue 'Save' button is centered below the fields. At the bottom, a 'Note' section provides password complexity requirements: 'The Password length must be at least 10 characters, at most 63 characters and must meet at least 3 out of the following 4 complexity rules: 1. at least 1 uppercase character (A-Z) 2. at least 1 lowercase character (a-z) 3. at least 1 digit (0-9) 4. at least 1 special character (! # \$ % & ' () * + - . / : < = > ? @ [] ^ _ ` } ~ / ") except ' , ' ; ' and space'.

For better security, it is highly recommended to set complex password.

4. **To set PRC2402M as Router**, select **Router Wizard** and complete the following steps:
 - a. Select Respective **WAN Connection Type** as determined by the ISP (Internet Service Provider), otherwise, leave it as DHCP (Dynamic IP)
 - b. Set the *new SSID* (Default: PROLiNK_Mesh_XXXX), and *new Wi-Fi password* (Default: refer to product label)
 - c. Click **Apply**

Wizard

Router Wizard AP Wizard

WAN Type: DHCP(Dynamic IP)

Mesh SSID: New_W1-F1_Name

Security Type: WPA2-PSK

Wi-Fi Password: New_W1-F1_Pass

Apply

Note:
The Password length must be at least 10 characters, at most 63 characters and must meet at least 3 out of the following 4 complexity rules

1. at least 1 uppercase character (A-Z)
2. at least 1 lowercase character (a-z)
3. at least 1 digit (0-9)
4. at least 1 special character (! # \$ % & ' () * + - . / : < = > ? @ [] ^ _ ` } ~ / ") except ', '' ; ' and space

5. To set PRC2402M as AP, select **AP Wizard** and complete the following steps:
 - a. Set the *new SSID* (Default: PROLINK_Mesh_XXXX), and *new Wi-Fi password* (Default: refer to product label)
 - b. Click **Apply**
 - c. NOTE: to re-access the PRC2402M GUI after the setting above, go to <http://prc2402m.setup> or <https://prc2402m.setup>.

Wizard

Router WizardAP Wizard

WAN Type:

Mesh SSID:

Security Type:

Wi-Fi Password:

Apply

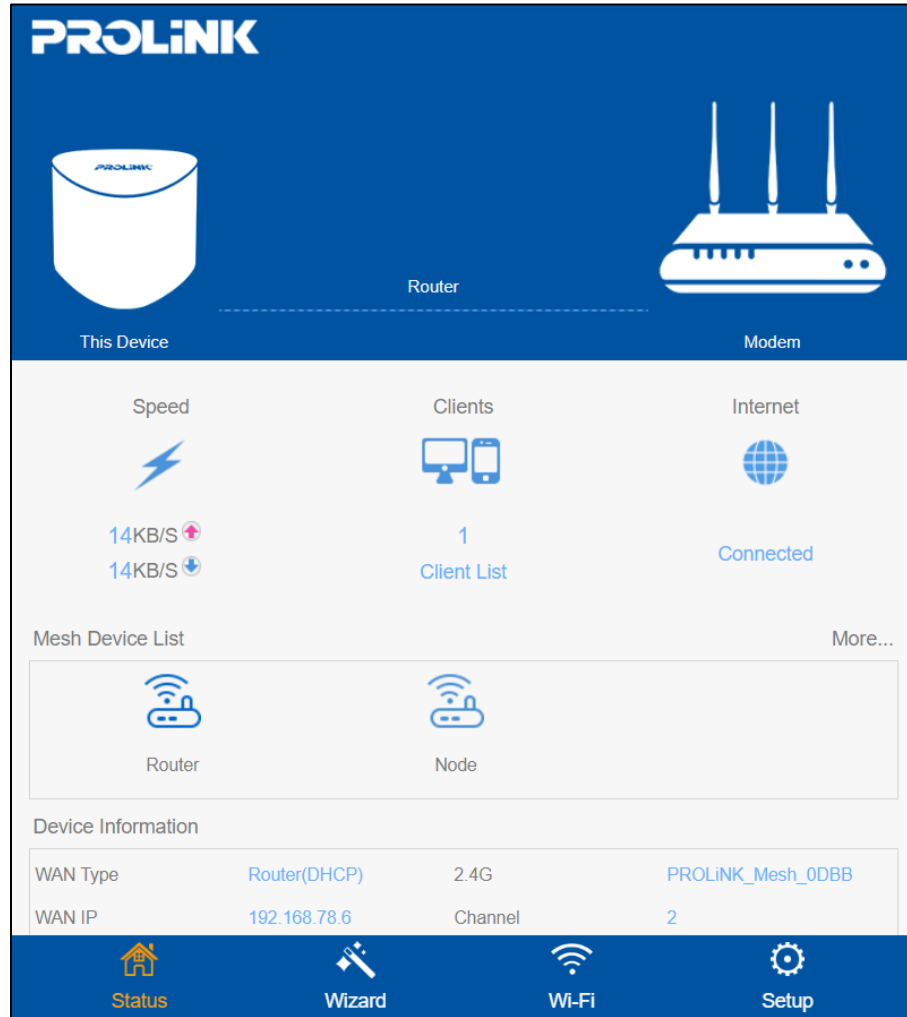
Note:

In Bridge mode, firewall, qos, time control, DDNS, Network Tools, Security Management, lan&wan setting, and other functions will be turned off.

The Password length must be at least 10 characters, at most 63 characters and must meet at least 3 out of the following 4 complexity rules:

1. at least 1 uppercase character (A-Z)
2. at least 1 lowercase character (a-z)
3. at least 1 digit (0-9)
4. at least 1 special character (! # \$ % & ' () * + - . / : < = > ? @ [] ^ _ ` | } ~ / ") except ' , ' ; ' and space

- After (4) or (5) above, try to go back to the PRC2402M GUI through <http://prc2402m.setup> or <https://prc2402m.setup> using the new password created earlier. Once login, the GUI will show the current Home Page.



Home Page

Allows you to access the Status of the Device, Setup Wizard, Wi-Fi Configuration, and System Setup of PRC2402M. This includes the basic and advanced wireless network properties, view the connected clients and to view the status and the list of Mesh Node in the current Mesh System.

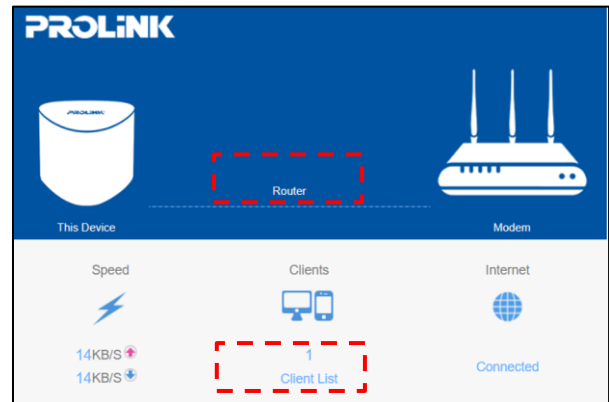
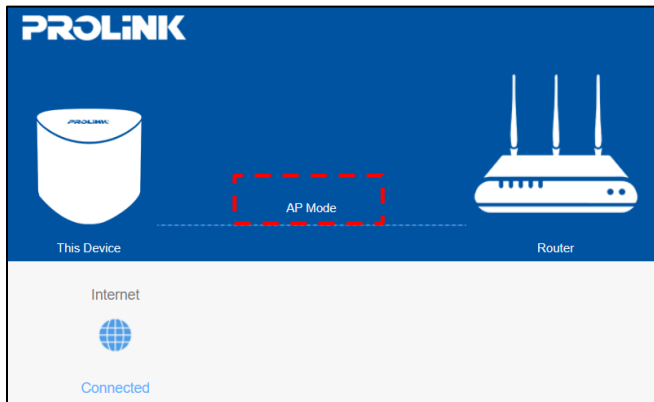
- Status
- Wizard
- Wi-Fi
- Setup

Status

The Status is the default page or the Home Page. The Status Tab consists of the current PRC2402M connection information, Mesh Device List and Device Information:

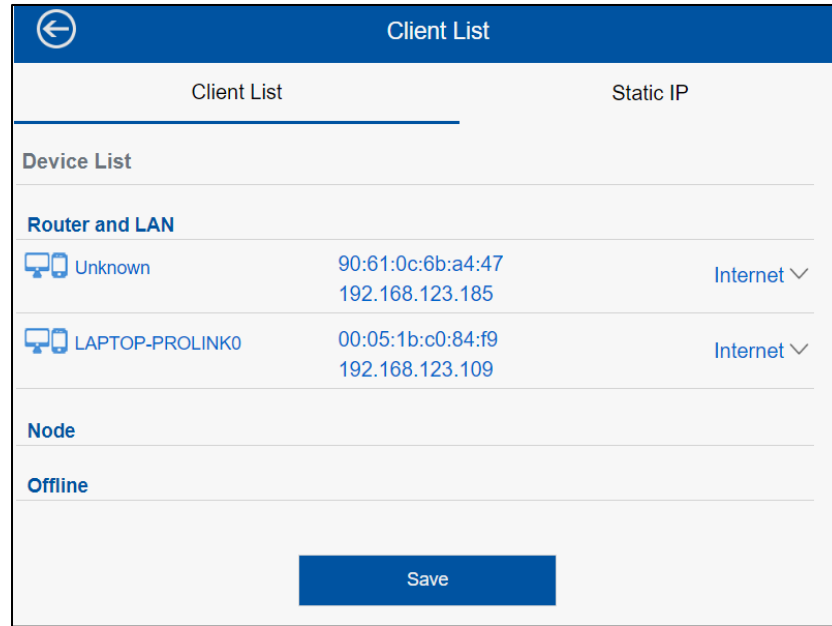
Current Mode and the Internet Connectivity

The information shows the current operation mode, which depends on which mode is selected and configured, the connectivity of the Internet, number of connected Clients.



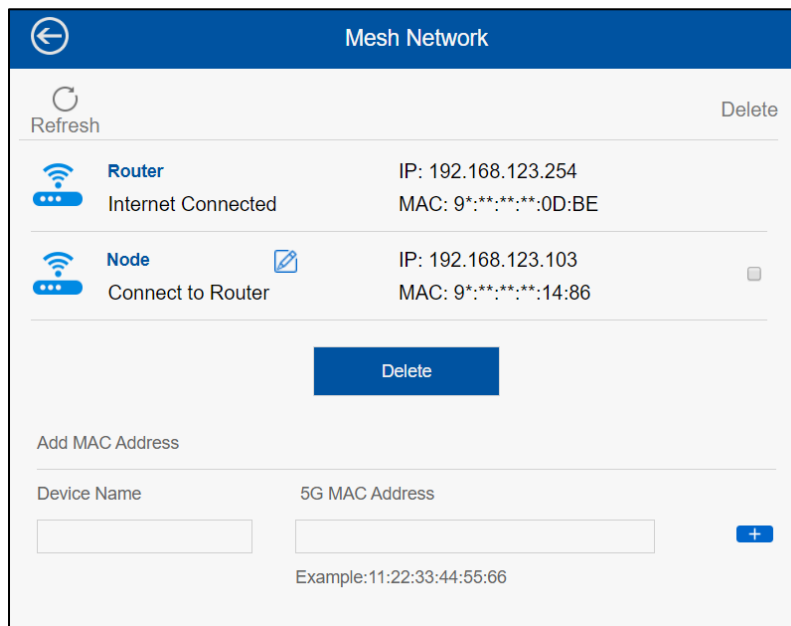
Client List Information

The Client List will show the information of connected devices to the Mesh Network.



Mesh Network Status

On this option, user can manage by adding or delete the current Mesh Node and get the information regarding the current status if the Mesh System/Network.



Device Information

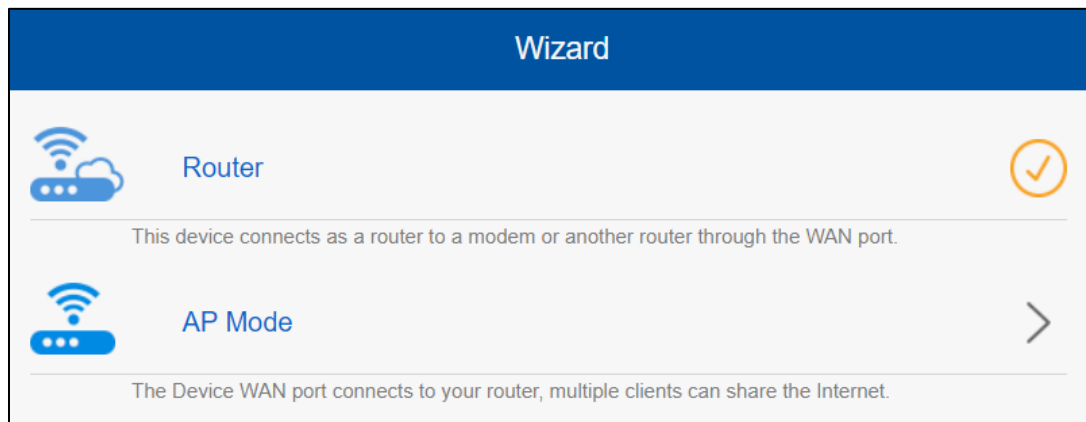
The device information will show the current configuration set for the Mesh router. This include the WAN connection, Wireless SSID and Channel and Device up time and Device Firmware Version.

Device Information			
WAN Type	Router(DHCP)	2.4G	PROLiNK_Mesh_0DBB
WAN IP	192.168.78.6	Channel	2
WAN MAC	90:61:0C:6C:0D:BC	5G	PROLiNK_Mesh_0DBB
Device IP	192.168.123.254	Channel	48
DNS1	192.168.78.9	UpTime	0 Day, 0 h, 20 m
DNS2	0.0.0.0	Version	V1.0.12

Wizard

Wizard is the setup wizard for the PRC2402M. User can select which Operation Mode is preferred. There are two operation mode that are available for user to configure,

- a. Router mode where it will create a local network and
- b. AP mode will create the extended network or your current router.



Router Wizard

The PRC2402M connect as router to a modem or another router through the WAN port.

- User can configure the **WAN connection type** as determined by ISP (Internet Service Provider), otherwise, leave it as DHCP.
- User can change **Mesh SSID**
- User can change **Security Type** for the Wi-Fi Password. *It is recommended to set the Security type as WPA2-PSK and a more complex Wi-Fi password.*

Wizard

Router WizardAP Wizard

WAN Type:

Mesh SSID:

Security Type:

Wi-Fi Password:

Note:

The Password length must be at least 10 characters, at most 63 characters and must meet at least 3 out of the following 4 complexity rules

1. at least 1 uppercase character (A-Z)
2. at least 1 lowercase character (a-z)
3. at least 1 digit (0-9)
4. at least 1 special character (! # \$ % & ' () * + - . / : < = > ? @ [] ^ _ ` } ~ / ") except ' , ' ; ' and space

AP Wizard

The PRC2402M connect to your routers via WAN ports and extend the coverage of your current network via LAN cable between main router and PRC2402M. Do note that Main router LAN is to be connected to PRC2402M's WAN port.

- In AP mode, there will be no Router feature (e.g. Port Forwarding) enabled on the PRC2402M.
- User only can change **Mesh Wi-Fi SSID** and **Security Type** for the Wi-Fi. *It is recommended to set the Security type as WPA2-PSK and a more complex Wi-Fi password.*

Wizard

Router WizardAP Wizard

WAN Type:

Mesh SSID:

Security Type:

Wi-Fi Password:

Note:

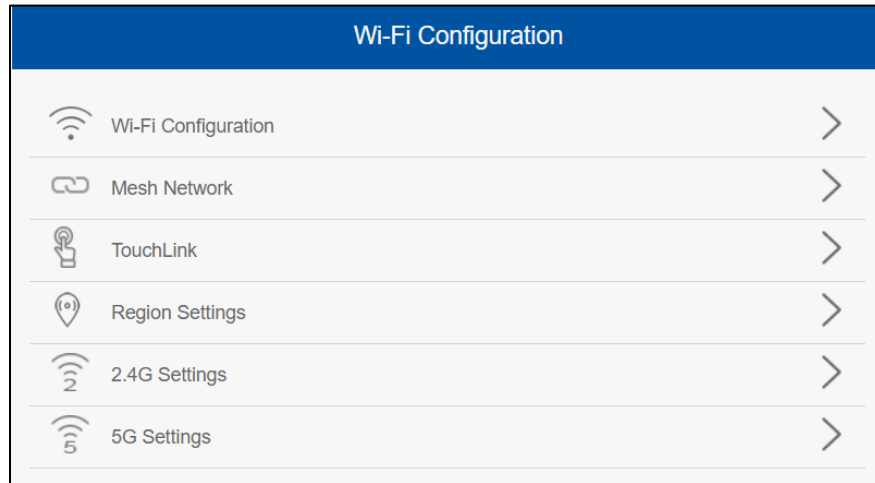
In Bridge mode, firewall, qos, time control, DDNS, Network Tools, Security Management, lan&wan setting, and other functions will be turned off.

The Password length must be at least 10 characters, at most 63 characters and must meet at least 3 out of the following 4 complexity rules:

1. at least 1 uppercase character (A-Z)
2. at least 1 lowercase character (a-z)
3. at least 1 digit (0-9)
4. at least 1 special character (! # \$ % & ' () * + - . / : < = > ? @ [] ^ _ ` } ~ / ") except ' , ' ; ' and space

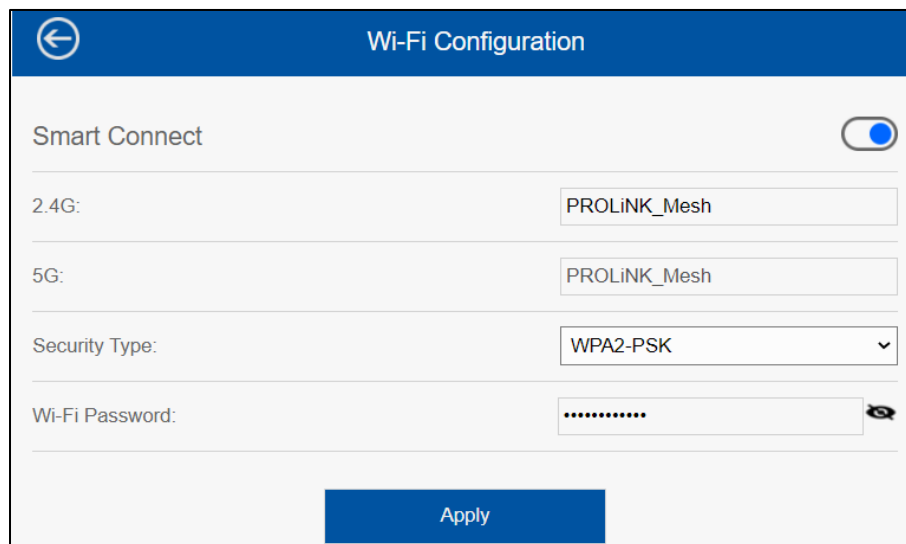
Wi-Fi

Wi-Fi tab is the tab for Wi-Fi Configuration. User can make a change to the Wi-Fi Configuration, Mesh Network, TouchLink, Region Settings, 2.4G and 5G Wireless Settings.



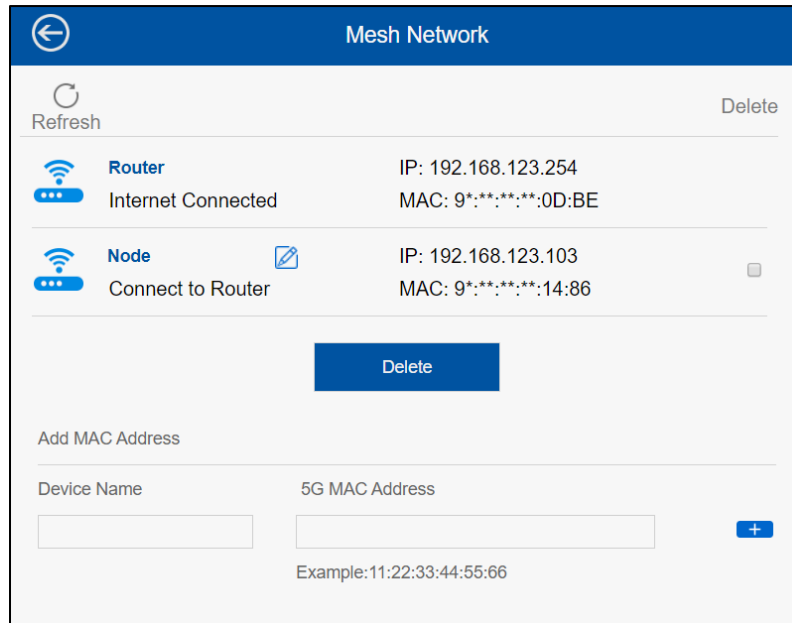
Wi-Fi Configuration

On this settings user can enable / disable the Smart connect. By enabling the Smart Connect feature, user can easily balance network demands on the wireless bands, giving you the highest possible speed. Note that it is NOT recommended to disable this feature.



Mesh Network

On this option, user can manage by adding or delete the current Mesh Node and get the information regarding the current status if the Mesh System/Network.



TouchLink™

TouchLink is patented with Touchlink technology, home owners or user only just need to tap and connect to Wi-Fi without having to create additional passwords for guest-users.

Note:

- Touchlink is only operating at 2.4GHz Wi-Fi
- Although SSID with _Touch may show up as 'No Security', users will not be able to get connected to it successfully unless there is an action of 'tapping' on the PRC2402M touch sensor.
- From firmware version 1.0.17 onwards, users connected through TouchLink will be isolated from users connected through main Wi-Fi SSID.

TouchLink

TouchLink

Timer (Second)

SSID PROLiNK_Mesh_0DBB_Touch

Device List	Status	Delete
-------------	--------	--------

Apply

Region Settings

On this option, user can change the Country/Region for the device.

Region Settings

Country/Region:

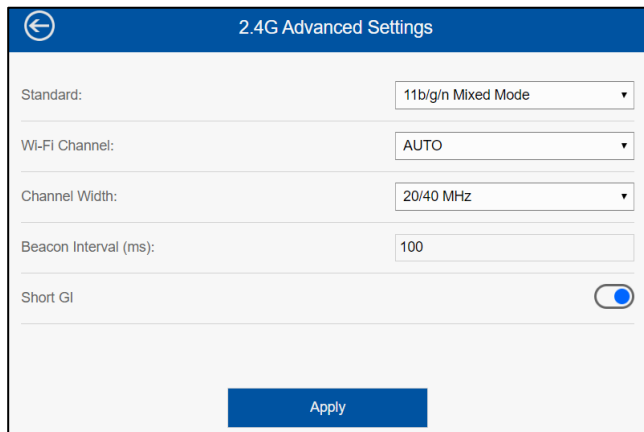
Save

2.4GHz and 5GHz Wireless Settings

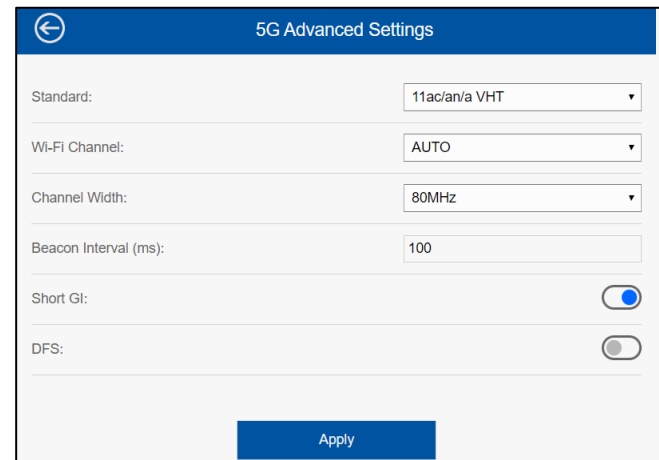
On this option, user can configure the wireless advance settings for 2.4GHz Wireless connection and 5GHz Wireless connection.

The Settings that can be configured is:

- Wireless Standard – support all wireless standard 802.11 a/b/g/n/ac
- Wi-Fi Channel – can change the Wi-Fi channel, by default is set to AUTO
- Wi-Fi Channel Width – by default 2.4GHz is set to 20/40MHz and 5GHz is set to 80MHz
- Beacon Interval (ms) – The beacon interval is simply the frequency of the beacon – how often the beacon is broadcast by the router. By default, is set of 100 milliseconds.
- Short GI – User can enable or disable, by default its enable
- DFS – Dynamic Frequency Selection, by default its disable



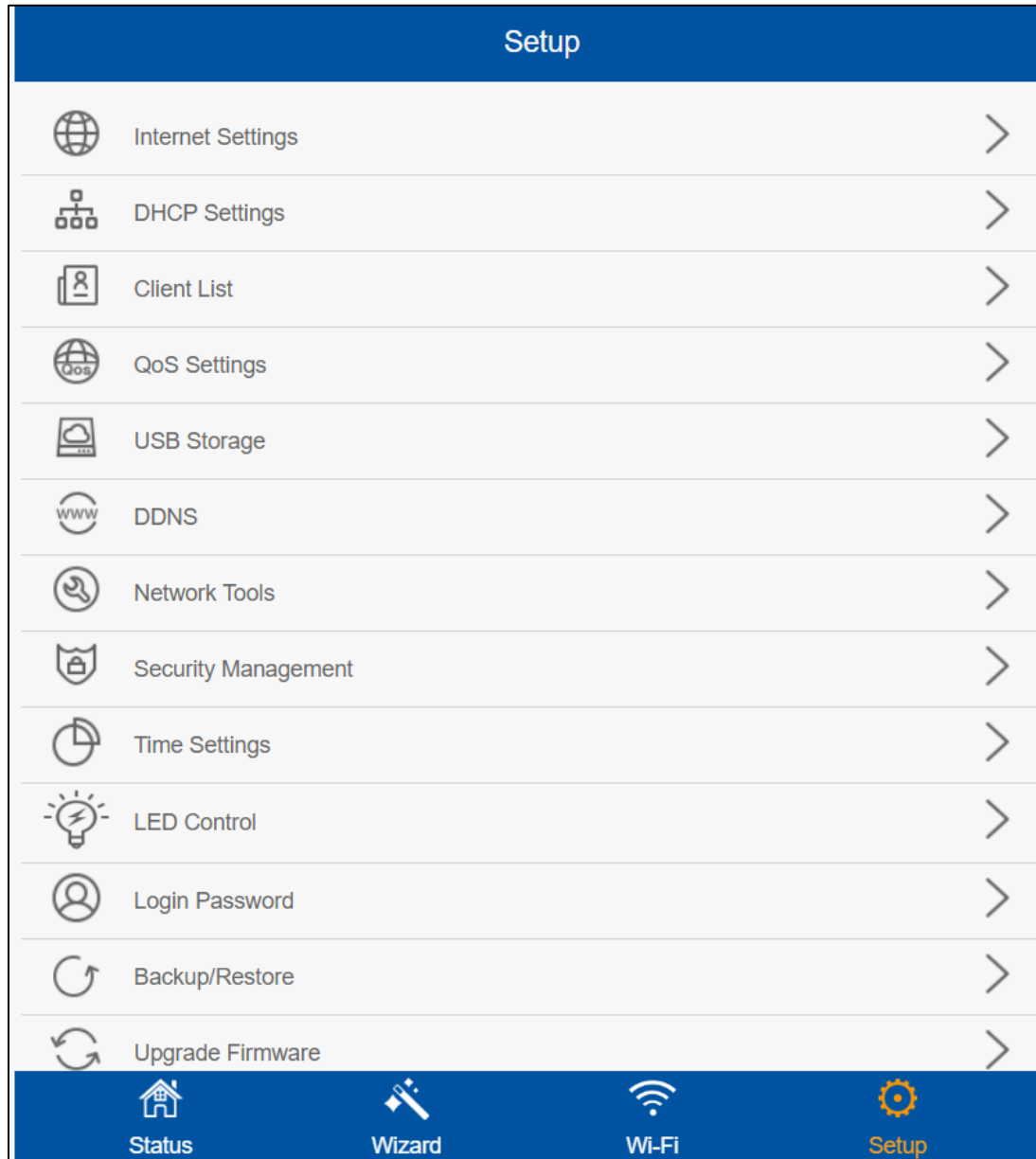
The screenshot shows the '2.4G Advanced Settings' interface. It features a blue header with a back arrow and the title '2.4G Advanced Settings'. Below the header, there are five rows of settings, each with a label on the left and a control on the right: 'Standard' with a dropdown menu showing '11b/g/n Mixed Mode'; 'Wi-Fi Channel' with a dropdown menu showing 'AUTO'; 'Channel Width' with a dropdown menu showing '20/40 MHz'; 'Beacon Interval (ms)' with a text input field containing '100'; and 'Short GI' with a toggle switch that is currently turned on. At the bottom of the interface is a blue 'Apply' button.



The screenshot shows the '5G Advanced Settings' interface. It features a blue header with a back arrow and the title '5G Advanced Settings'. Below the header, there are five rows of settings, each with a label on the left and a control on the right: 'Standard' with a dropdown menu showing '11ac/an/a VHT'; 'Wi-Fi Channel' with a dropdown menu showing 'AUTO'; 'Channel Width' with a dropdown menu showing '80MHz'; 'Beacon Interval (ms)' with a text input field containing '100'; and 'DFS' with a toggle switch that is currently turned off. At the bottom of the interface is a blue 'Apply' button.

Setup

Setup tab is the PRC2402M basic and advance setup that available for user to configure. This option also available in the mXtend App for user to configure through mobile phone. Note that all firewall related features (e.g. port forwarding, DDNS, etc).



Internet Setting

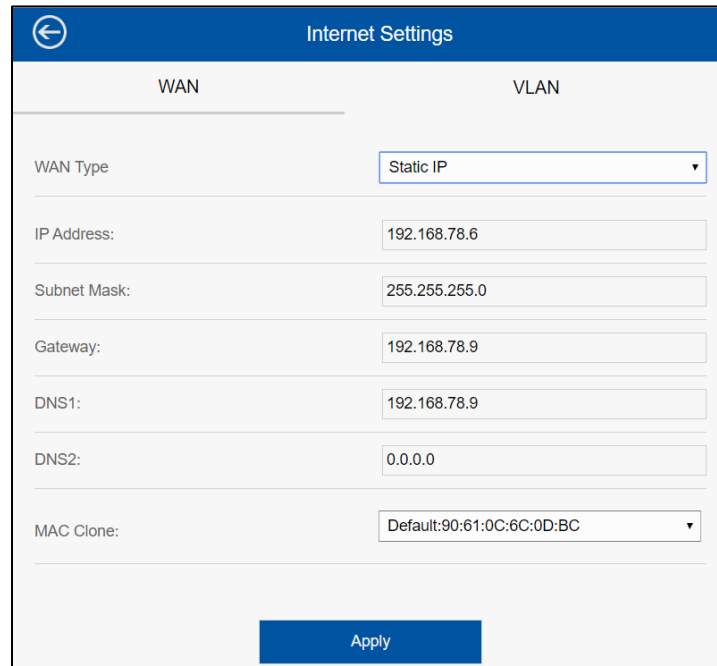
Internet Setting is the option for user to configure the WAN setting and VLAN settings. WAN settings support: DHCP (Dynamic IP), Fixed IP, and PPPoE. This is the advanced setting for advanced user to configure, by default the WAN type is set to DHCP and Obtain DNS automatically.

Note: No need to set connection settings if the Internet network is on DHCP.

DHCP (Dynamic IP) - No need to set connection settings if the network supports DHCP. Usually all the configuration is automatically configured when connected to the host network.

Internet Settings	
WAN	VLAN
WAN Type	DHCP(Dynamic IP)
DNS	Obtain DNS automatically
DNS1:	192.168.78.9
DNS2:	0.0.0.0
MAC Clone:	Default:90:61:0C:6C:0D:BC
Apply	

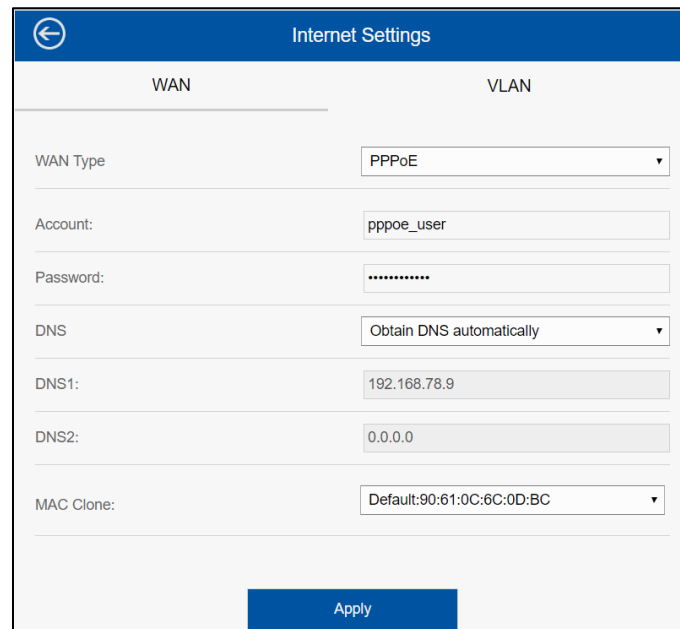
Fixed IP - Manually set WAN IP address, gateway, DNS server etc. for the network connection.



The screenshot shows the 'Internet Settings' interface with the 'WAN' tab selected. The 'WAN Type' is set to 'Static IP'. The IP Address is 192.168.78.6, Subnet Mask is 255.255.255.0, Gateway is 192.168.78.9, DNS1 is 192.168.78.9, DNS2 is 0.0.0.0, and MAC Clone is set to 'Default:90:61:0C:6C:0D:BC'. An 'Apply' button is at the bottom.

Field	Value
WAN Type	Static IP
IP Address:	192.168.78.6
Subnet Mask:	255.255.255.0
Gateway:	192.168.78.9
DNS1:	192.168.78.9
DNS2:	0.0.0.0
MAC Clone:	Default:90:61:0C:6C:0D:BC

PPPoE- User name and password is provided by ISP and must be a valid account in order for internet access to be successful.



The screenshot shows the 'Internet Settings' interface with the 'WAN' tab selected. The 'WAN Type' is set to 'PPPoE'. The Account is 'pppoe_user', Password is masked with dots, DNS is set to 'Obtain DNS automatically', DNS1 is 192.168.78.9, DNS2 is 0.0.0.0, and MAC Clone is set to 'Default:90:61:0C:6C:0D:BC'. An 'Apply' button is at the bottom.

Field	Value
WAN Type	PPPoE
Account:	pppoe_user
Password:
DNS	Obtain DNS automatically
DNS1:	192.168.78.9
DNS2:	0.0.0.0
MAC Clone:	Default:90:61:0C:6C:0D:BC

VLAN - is used to provide the segmentation services. In this scenario, VLAN is typically required if the ISP specifies the need to set VLAN ID and VLAN Priority ID for the subscribed services (Internet / IPTV / VOIP). It is not recommended to change any settings here unless user has the detail information on what needs to be set for the specific ISP.

The screenshot shows the 'Internet Settings' page with two tabs: 'WAN' and 'VLAN'. The 'VLAN' tab is active. The 'Service Provider' dropdown is set to 'ON(Manual)'. Below it are input fields for 'Internet VID:' (0), 'Management VID:' (0), 'IPTV VID(LAN3):' (0), and 'VOIP VID(LAN2):' (0). Each VID field has a corresponding 'PRIO:' field, all set to 0. A blue 'Apply' button is at the bottom.

Note: Some ISPs may have combination of both DHCP or PPPoE + VLAN in order for the Internet / Internet & IPTV / Internet & VOIP / Internet & IPTV & VOIP to work. If this is the case,

Step1. Set the WAN connection settings (DHCP or PPPoE),

Step2. Set the VLAN settings at this page.

VLAN settings information can be acquired from the respective ISP you are subscribed to.

DHCP Settings

By default, the DHCP settings is set to 'Default'. To change the default IP Address and its DHCP Poll ranges, proceed to do so by setting from Default to Custom, followed by setting the respective fields. Note: Please make sure that there is no IP conflict.

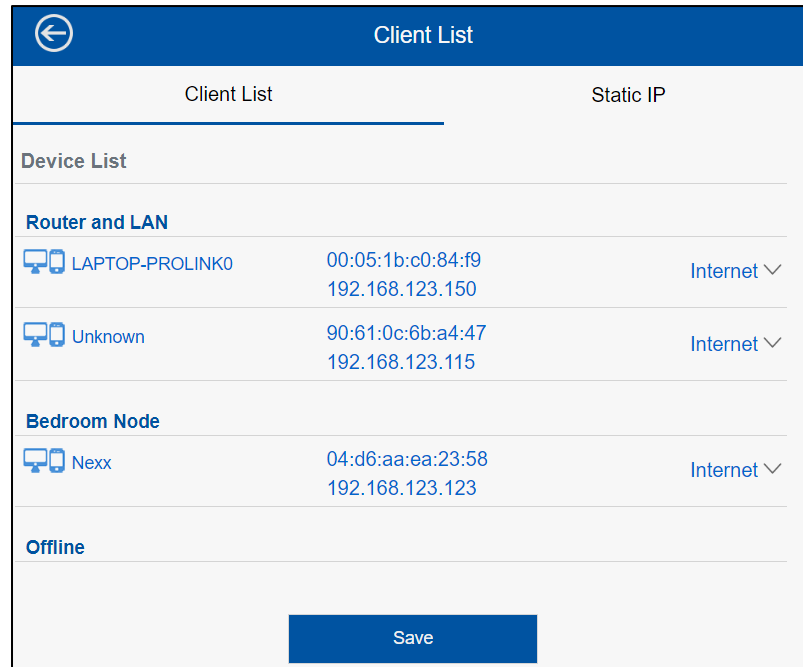
Static IP (DHCP IP Reservation) – is used to reserve a specific IP address based on client’s MAC address, so the host will always obtain the bound IP address when booting up. It currently support up to 10 entries.

Notes:

- Ensure no IP Address conflict prior setting.
- DO NOT set duplicated MAC address or IP address

Client List

It will show the information of connected devices in the Mesh Network. The page load may take slightly longer (approx. ~12 seconds) as it is polling information from the network.



The screenshot shows a web interface titled "Client List". At the top, there is a blue header with a back arrow icon and the text "Client List". Below the header, there are two tabs: "Client List" (which is selected) and "Static IP". The main content area is divided into sections: "Device List", "Router and LAN", "Bedroom Node", and "Offline". Under "Router and LAN", there are two entries: "LAPTOP-PROLINK0" and "Unknown". Under "Bedroom Node", there is one entry: "Nexx". Each entry shows a device icon, the device name, its MAC address, its IP address, and a dropdown menu labeled "Internet". At the bottom of the interface, there is a blue "Save" button.

Device List	Static IP
Router and LAN	
LAPTOP-PROLINK0	00:05:1b:c0:84:f9 192.168.123.150
Unknown	90:61:0c:6b:a4:47 192.168.123.115
Bedroom Node	
Nexx	04:d6:aa:ea:23:58 192.168.123.123
Offline	

User also can further set **Internet blocking** on respective of the device connected, or limit the internet access through **QoS Settings**. Note that this is not available when the PRC2402M is set to AP mode.

←
Client List

Client List
Static IP

Device List

Router and LAN

LAPTOP-PROLINK0

00:05:1b:c0:84:f9

192.168.123.150

Internet ^

QoS : Unlimited ▾

[QoS Settings](#)

Internet:

Block Time:

Mon	00 ▾	:	00 ▾	~	00 ▾	:	00 ▾
Tue	00 ▾	:	00 ▾	~	00 ▾	:	00 ▾
Wed	00 ▾	:	00 ▾	~	00 ▾	:	00 ▾
Thu	00 ▾	:	00 ▾	~	00 ▾	:	00 ▾
Fri	00 ▾	:	00 ▾	~	00 ▾	:	00 ▾
Sat	00 ▾	:	00 ▾	~	00 ▾	:	00 ▾
Sun	00 ▾	:	00 ▾	~	00 ▾	:	00 ▾

Unknown

90:61:0c:6b:a4:47

192.168.123.115

Internet ^

QoS : Unlimited ▾

[QoS Settings](#)

Internet:

QoS Settings

QoS is a short form of Quality of Service. In this setting, you could enable and configure QoS base your need for each connected client. By enabling QoS, user can set specific Upload and Download speed for the specific client.

←
QoS Settings

QoS:

Download Bandwidth: KB/s AUTO

Upload Bandwidth: KB/s AUTO

QoS Priority: ▼

Group Name	Priority	Download (KB/s)	Upload (KB/s)	Enable
1	High ▼	50000	10000	<input checked="" type="checkbox"/>
2	High ▼	20000	5000	<input checked="" type="checkbox"/>
3	Middle ▼	10000	5000	<input checked="" type="checkbox"/>
4	Middle ▼	0	0	<input type="checkbox"/>
5	Middle ▼	0	0	<input type="checkbox"/>
6	Middle ▼	0	0	<input type="checkbox"/>
7	Middle ▼	0	0	<input type="checkbox"/>
8	Middle ▼	0	0	<input type="checkbox"/>
9	Middle ▼	0	0	<input type="checkbox"/>
10	Middle ▼	0	0	<input type="checkbox"/>

Save
View Existing Clients

Help

QoS (Quality of Service) is designed to ensure the efficient operation of the network when come across network overload or congestion
Bandwidth: Select the Maximum upload and download bandwidth provided by your internet service provider. **1Mbps=128KB/s**

←
Client List

Client List Static IP

Device List

Router and LAN

LAPTOP-PROLINK0	00:05:1b:c0:84:f9 192.168.123.150	Internet ^
-----------------	--------------------------------------	------------

QoS: ▼ QoS Settings

USB Storage

This option allows you to configure the USB storage devices to share with different users within the same network. By plugging in an USB drive, this feature is automatically enabled. Supported File format and capacity is FAT32 / NTFS with up to 2TB size. Accessing the USB can only be done through Window Explorer / MAC Finder / FTP.

←
USB Storage

User: share

Password:

Apply

Available Network folder

	Device	IP Address	Network Folder
	Router	192.168.123.254	No USB Device

Enable Access Method Port

SAMBA

Windows:
Open Explorer address bar-->Input [\\192.168.123.254](http://192.168.123.254) -

MAC OS:
Finder>Go>Connect to the server>Input smb://192.168.123.254

FTP 21

ftp://share.share@192.168.123.254

Note: Only FAT32 and NTFS file formats are supported!

DDNS

Dynamic DNS is a service, which provides a valid, unchanging, internet domain name (a URL) to go with the (possibly ever changing) IP address. Please note, the device may obtain an IP address dynamically, so the IP address may be changed after reboot. The PRC2402M supports no-ip.com and changeip.com. User can configure and the DDNS status will display either the connection is connected or disconnected. By default, the DDNS is “Off”.

The screenshot shows a web interface for configuring DDNS. At the top, there is a blue header with a back arrow icon on the left and the title "DDNS" in the center. Below the header, the configuration fields are as follows:

- DDNS:** A dropdown menu currently set to "ON".
- Dynamic DNS Provider:** A dropdown menu currently set to "no-ip.com".
- Domain Name:** An empty text input field.
- Account:** An empty text input field.
- Password:** An empty text input field with a "show/hide" eye icon to its right.
- DDNS Status:** The status is displayed as "Disconnected".

At the bottom center of the form, there is a blue "Save" button.

Network Tools

On the Network Tools option user can configure:

- NAT (Virtual Server) – which function is *Port Forwarding*, by default *Disabled*
- DMZ (Demilitarized Zone), by default *Disabled*
- UPnP (Universal Plug and Play), by default *Enabled* (from FW ver. 1.0.17 onwards)

The screenshot shows the 'Network Tools' configuration page with the 'NAT' tab selected. At the top, there are three tabs: 'NAT', 'DMZ', and 'UPNP'. Below the tabs, the 'Virtual Server' section has radio buttons for 'Enable' and 'Disable', with 'Disable' selected. Underneath, there is a section titled 'Add/Delete Virtual Server in system:' with a table for configuration. The table has four columns: 'IP Address', 'Public Port', 'Private Port', and 'Protocol'. The 'Protocol' column has a dropdown menu set to 'ALL' and a blue '+' button to the right. Below the table, there is a 'Common Service Port' label and a dropdown menu set to '--Select One--'.

The screenshot shows the 'Network Tools' configuration page with the 'DMZ' tab selected. At the top, there are three tabs: 'NAT', 'DMZ', and 'UPNP'. Below the tabs, the 'DMZ' section has radio buttons for 'Enable' and 'Disable', with 'Disable' selected. Underneath, there is a 'DMZ Host IP Address:' label and an empty text input field. At the bottom center, there is a blue 'Apply' button.

The screenshot shows the 'Network Tools' configuration page with the 'UPNP' tab selected. At the top, there are three tabs: 'NAT', 'DMZ', and 'UPNP'. Below the tabs, the 'UPNP' section has radio buttons for 'Enable' and 'Disable', with 'Enable' selected. At the bottom center, there is a blue 'Save' button.

Security Management

Security Management feature continuously monitors your Internet traffic, protecting your network and connected devices from malicious Internet attacks. The PRC2402M offers high-grade firewall features like Syn Flood Attack and SPI (Stateful Packet Inspection).

The screenshot shows the 'Security Management' configuration page. At the top, there is a blue header with a back arrow icon and the text 'Security Management'. Below the header, the page is titled 'System Firewall Setup'. There are five rows of settings, each with a label and two radio buttons for 'Enable' and 'Disable'. The 'Disable' option is selected for all settings. At the bottom, there is a blue 'Apply' button.

Setting	Enable	Disable
Remote management (via WAN):	<input type="radio"/>	<input checked="" type="radio"/>
Block Ping from WAN:	<input checked="" type="radio"/>	<input type="radio"/>
Port Scan:	<input type="radio"/>	<input checked="" type="radio"/>
Syn Flood:	<input type="radio"/>	<input checked="" type="radio"/>
SPI Firewall:	<input checked="" type="radio"/>	<input type="radio"/>

Time Settings

Router's time is used for Schedule function, as well as firmware update check purpose. It is recommended to set the Time Zone based on your current actual time zone (e.g. UTC+8, UTC+7).

The screenshot shows the 'Time Settings' configuration page. At the top, there is a blue header with a back arrow icon and the text 'Time Settings'. Below the header, the page displays the following settings:

- Current Time : 2020/02/11 16:32:28
- SYNC Time:
- Time Zone: (UTC+08:00) Beijing, Chongqing, ▾
- Daylight Saving:
- Status: Synchronized

At the bottom, there is a blue 'Apply' button.

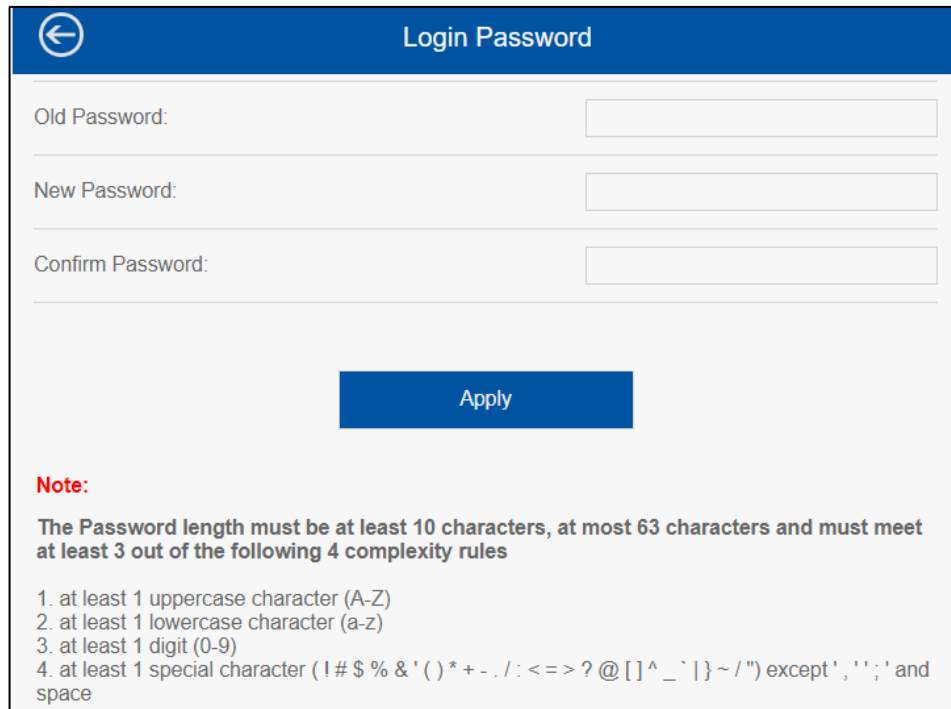
LED Control

LED Control is the option for user to Turn-Off or Turn-On the LED indicator on the Mesh Router or on the Mesh Node.



Login Password

Login Password allows user to edit the Administrative password of the Web and App User Interface login page



Backup/Restore Settings

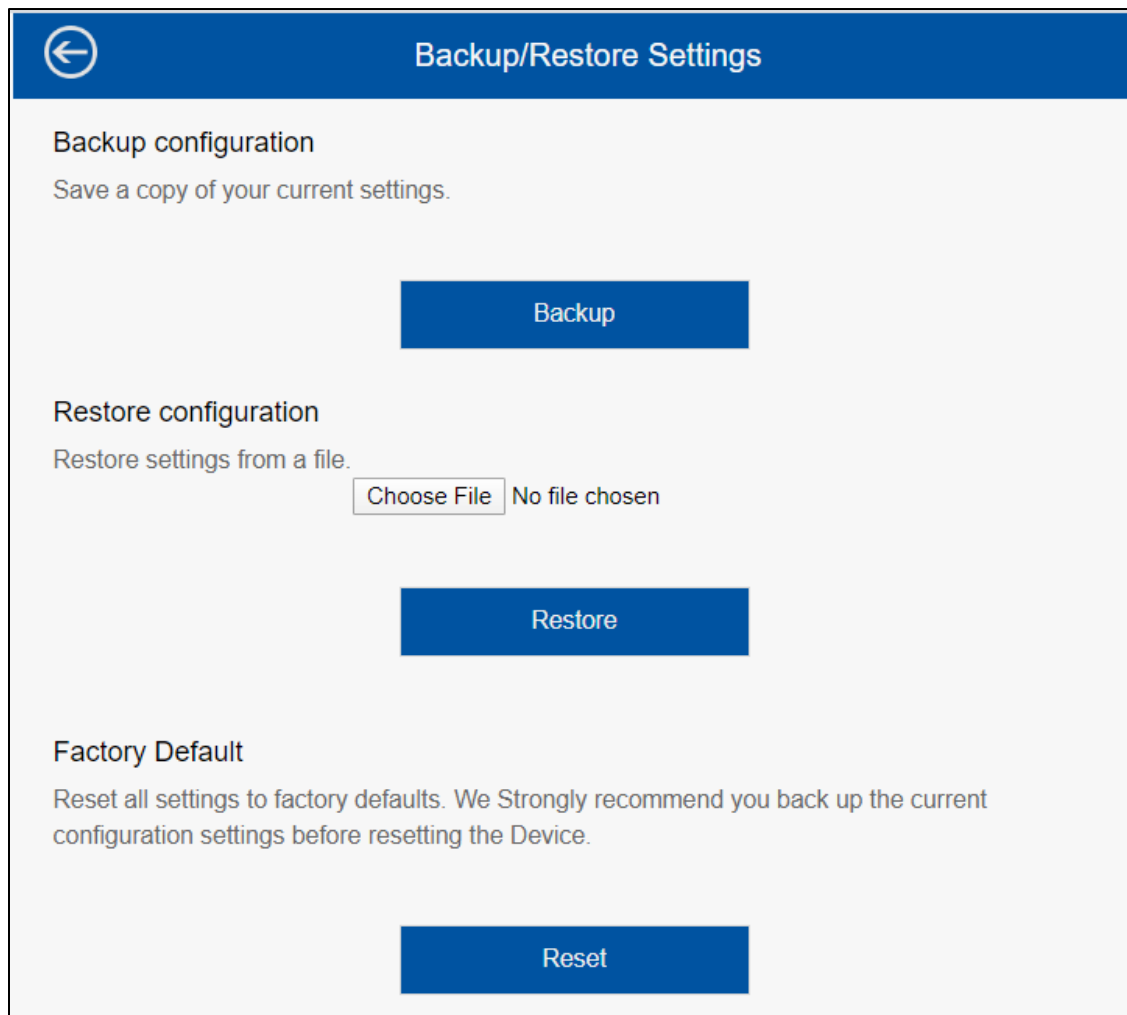
In this option user can Backup and Restore the PRC2402M router setting and also user can Reset to Factory Default setting.

Backup Configuration - Export current settings information into a file.

Restore Configuration - Import a backed-up setting from local directory to replace existing PRC2402M setting.

Factory Default - will restore all the current configuration settings back to factory default.

Note that all settings will be wiped off.



Firmware Upgrade

Upgrade the Firmware to a newer version may improve the performance of the device or fix the bugs of the previous release. In this page, you can do the upgrade to latest version. All New Firmware will be made available in <https://prolink2u.com>, alternatively, you may click **Check** button to check for any new releases available to update.

A. For Local Firmware Upgrade

Step 1. Download firmware to local directory / folder (e.g. C:\Users\PROLiNK\Downloads) from official PROLiNK website or obtained through official PROLiNK Technical Support

Step 2. Click **Upgrade** > **Choose File** > *select the firmware file downloaded in Step 1. above* > **Apply**

Step 3. **Wait for the upgrade progress to show 100%** before clicking another unit's upgrade.

Step 4. Repeat Step 1 ~ 3 above for other node(s), before proceeding to the router unit.

B. For Online Firmware Upgrade

Step 1. Click **Upgrade** > **Check** > **Download** > 'wait for the download status to show complete' > **Apply / Update**

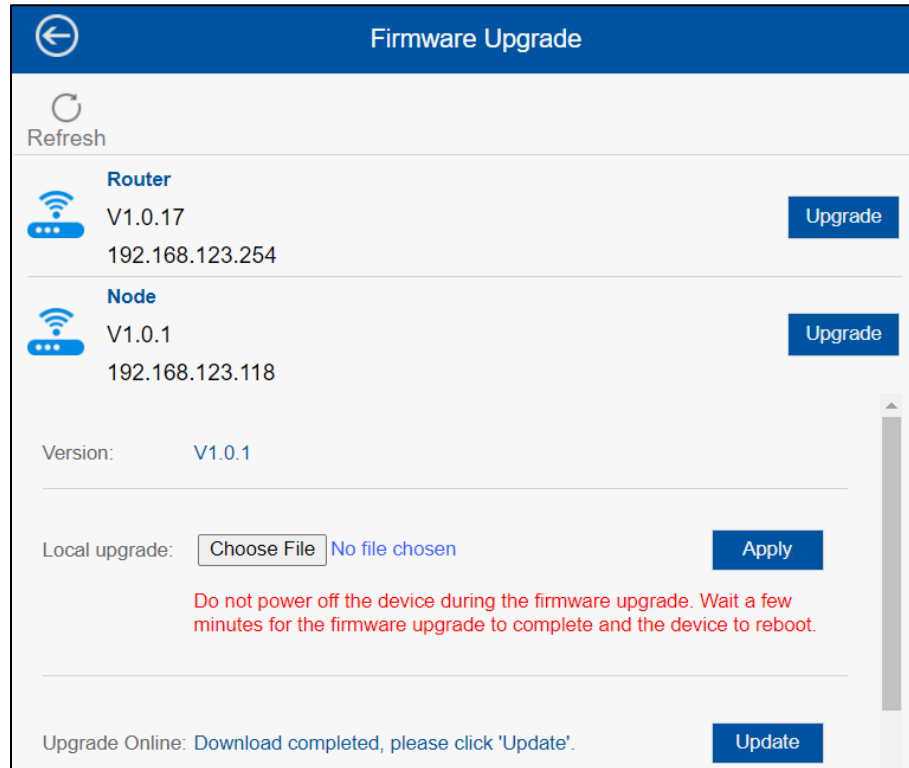
Step 2. **Wait for the upgrade progress to show 100%** before clicking another unit's upgrade.

Step 3. Repeat Step 1 and 2 for other node(s), before proceeding to the router unit.

C. Firmware Upgrade NOTES:

- Do the upgrade for each of the node(s) unit in the system first, before doing the upgrade for the router unit.
- Do upgrade one unit after the other if you have more than one unit in the network.
- Do not do any other action on the unit or Power off the unit or unplug the unit during upgrade process.

WARNING: All product warranty will automatically void due to any attempts to upgrade or change firmware through unofficial means.



Device Status

The device status will show the current information of the Mesh router and its WAN information. This include the System Info, Internet Status, LAN Status and 2.4GHz and 5GHz Wireless Status.

Device Status	
System info	
Version	V1.0.12
UpTime	0 Day 2 h 15 m
Internet Status	
Current Mode	Router(DHCP)
Internet	Connected
WAN IP	192.168.78.4
Gateway	192.168.78.9
WAN MAC	90:61:0C:6C:0D:BC
LAN Status	
IP Address	192.168.123.254
Subnet Mask	255.255.255.0
MAC Address	90:61:0C:6C:0D:BB
2.4G Wireless Status	
2.4G	PROLiNK_Mesh_0DBB
Wi-Fi Channel	11
Security Type	WPAPSKWPA2PSK
BSSID	90:61:0C:6C:0D:BD
5G Wireless Status	
5G	PROLiNK_Mesh_0DBB
Wi-Fi Channel	36
Security Type	WPAPSKWPA2PSK
BSSID	90:61:0C:6C:0D:BE



Device Reboot

This is the option for user to manually reboot the router, or to set scheduled reboot. For scheduled reboot, it is based on the Time Zone set.

The screenshot shows a web interface for configuring device reboot settings. At the top, there is a blue header with a back arrow icon and the title "Device Reboot". Below the header, a text instruction reads: "Click the 'Reboot' button to restart this device. After the reboot has been completed, you need to reconnect to this device." A prominent blue "Reboot" button is centered on the page. Below this, the "Reboot Schedule:" section features a toggle switch that is currently turned on. Underneath, the "Reboot Time:" section includes two dropdown menus for selecting the hour and minute, both set to "00". Below the time selection, there are seven radio buttons for selecting the day of the week: "All", "Sun", "Mon", "Tue", "Wed", "Thu", "Fri", and "Sat". At the bottom of the form, a blue "Save" button is displayed.

App User Interface Configuration

1. Search for mXtend App through your mobile phone (Android – Google Play, IOS – App Store), alternatively scan the QR Code below to download the mXtend App.




2. Once the app is installed, connect your phone to PRC2402M Wi-Fi Network and launch **mXtend App**.
3. Select New System Setup and follow the step to do the initial setup, if the Mesh Router is already setup, select Existing Network.



4. Enter the Login Password (default: refer to product label). Note that this password here refers to GUI/Admin password.

☰ LOGIN

PROLiNK_Mesh_0DBB

Password 

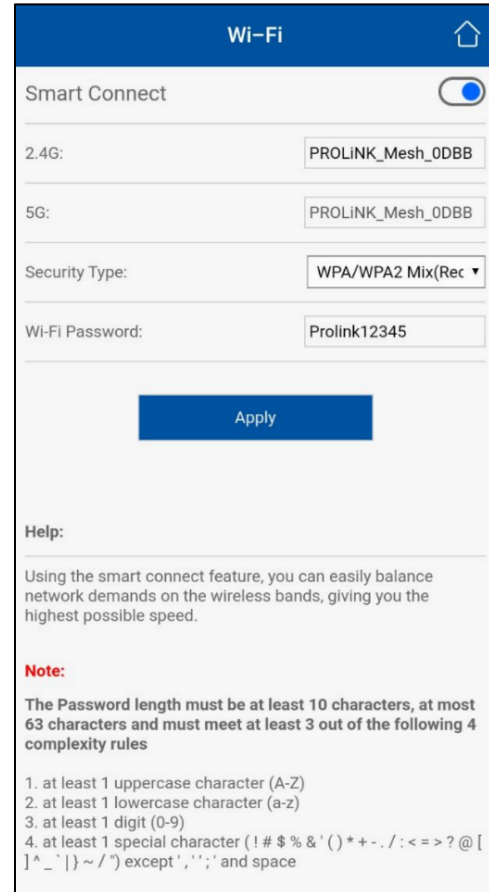
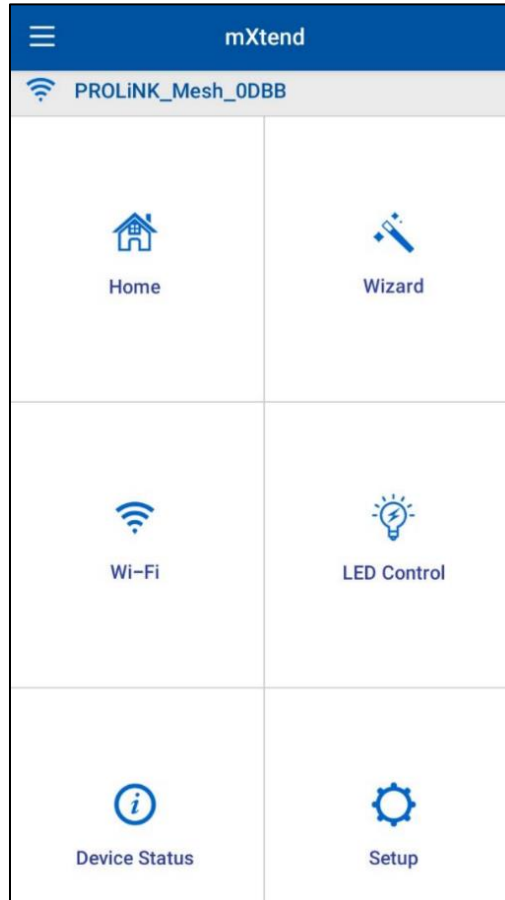
Input your Router Admin Password

Remember Password

LOGIN

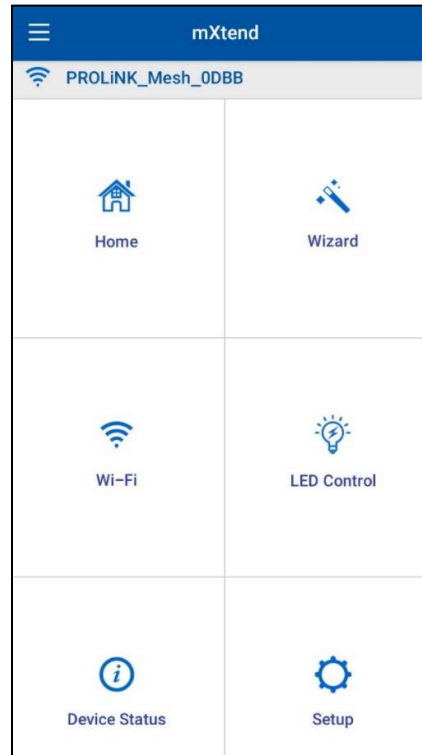
Wi-Fi Configuration

1. Select Wi-Fi Icon > Select Wi-Fi Configuration

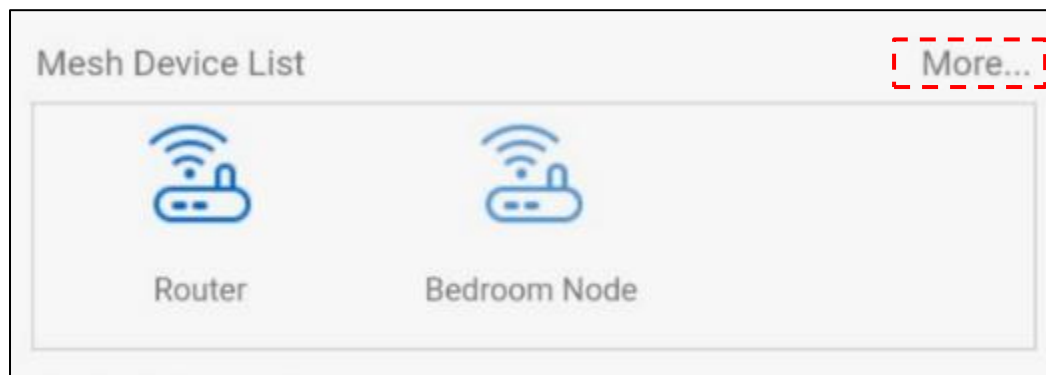


Adding New Mesh Node Using mXtend App

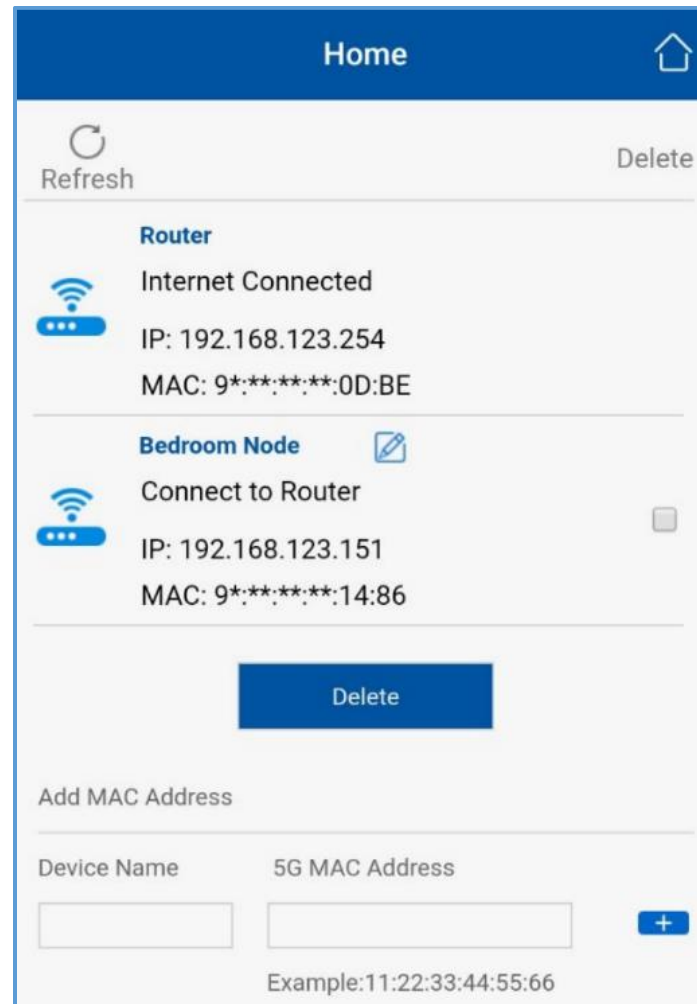
1. Power On the new PRC2402M to set as Node near the Router unit. On the mXtend App, login and click **Home** icon.



2. Under Mesh Device List > Click **More..**



3. Enter the device name and add the 5G MAC address of the PRC2402M. the 5G MAC Address can be found on bottom of the device. MAC Address format to be keyed in has to be in **90:61:0C:XX:XX:XX**



4. Click **[+]** to add
5. Wait for the node unit status to change to solid blue.

Technical Specification

Specification	
Hardware	
Interface	1x 10/100/1000Mbps WAN/LAN port 2x 10/100/1000Mbps LAN port 1x Reset to factory default button 1x Pairing button 1x Touch sensor 1x Power On/Off Switch 1x USB Host port
LED	1x Dynamic lighting status indicator
Power Supply	DC 5V 3A
Rated Voltage / Frequency	Input: 100 – 240 VAC, 50/60Hz
Dimension	125mm x 134mm x 116mm (L x W x H)
Wireless	
Wireless Output Power	2.4GHz: up to 20dBm 5GHz: up to 23dBm
Wireless Channels / Frequency	2.4GHz: Channel 1 ~ 13 (2412 ~ 2472 MHz) 5GHz: 36, 40, 44, 48, 149, 153, 157, 161, 165 (5180 ~ 5240 and 5745 ~ 5825 MHz)
Wireless Channel Bandwidth	2.4GHz: 20/40MHz 5GHz: 20/40/80MHz
Wireless Standard	IEEE 802.11b/g/n/a/ac IEEE 802.11k IEEE 802.11r
Wireless Frequency Band	2.4GHz Wireless-N 5GHz Wireless-AC
Wireless Link Rate	Up to 300Mbps at 2.4GHz Wireless-N

	Up to 1733Mbps at 5GHz Wireless-AC
Wireless Antenna	4x 5GHz Omni Directional Antenna (Internal) 2x 2.4GHz Omni Directional Antenna (Internal)
Wireless Security	WPA/WPA2, WPA-PSK/WPA2-PSK encryption
Software	
WAN Connection Type	Dynamic IP, Static IP, PPPoE
DHCP Setting	Server, Client
Functions	DDNS, Port Forwarding, DMZ, NTP
App support	Android 5.0 and above, IOS 9.0 and above
Environmental	
Operating Temperature	0°C ~ 40°C
Storage Temperature	-10°C ~ 70°C
Relative Humidity (Operational)	10% ~ 90%, non-condensing
Relative Humidity (Storage)	10% ~ 90%, non-condensing

Note: Technical Specifications may change without prior notice