User Guide

Wi-Fi 7 Tri-Band Mesh Router

Model: WRB8326A,WRB8326B,WRB8326C,WRB8326D

Version: v0.6

Date: 2024-09-10

Revision History

Rev	Date	Author	Description
V0.1	2024/4/28	Tony Yu	Create initial user guide
V0.3	2024/8/16	Tony Yu	Updated FAQ
V0.4	2024/9/2	Tony Yu	Updated mesh setup and settings with detailed web UI screenshots.
V0.5	2024/9/9	Tony Yu	Updated and optimized the content
V0.6	2024/9/10	Tony Yu / Jerome Tsai	Updated and optimized the content

Table of Contents

Chapter I   Introduction

　　This guide provides information about how to set up and configure the WRB8326 Wi-Fi 7 Mesh Router.

Chapter II   Overview of WRB8326 Mesh Router

1. Wireless and Wired Access

   ➢ Wireless Access: WRB8326 can provide 2.4G/5G/6GHz wireless access based on Wi-Fi 7 (802.11be). Each radio of WRB8326 supports two spatial streams.

   ➢ Wired Access: WRB8326 provides two Ethernet ports (5G Ethernet * 1, 2.5G Ethernet * 1).

      ■ On root router, the 5G Ethernet port (WAN) is used for Internet connectivity, the 2.5G Ethernet port (LAN) is used for connecting Ethernet devices as a LAN port.

      ■ On satellite, both ports can be used for connecting Ethernet devices as LAN ports (5GbE/2.5GbE ports).

2. EasyMesh
   ➢ Using WRB8326, you can set up a mesh network using 2+ units. One unit works in root router mode, other units work in satellite mode.

　　The WRB8326 supports power supply by using 12V/2.5A DC external power adapter.

Chapter III   Interface Definition

WRB8326 Interface Definition

No.	Feature	Description
1	LED Indicator	- **Solid blue**: indicates power on & system is initializing.
		- **Solid red**: indicates the router is provisioned but Internet is not accessible.
		- **Solid green**: indicates the router is provisioned and Internet is accessible.
		- **Blinking blue**: indicates the router is under provisioning.
		- **Blinking green**: indicates the router is not provisioned.
		- **Blinking red & green**: indicates factory reset is triggered.
2	Power Input	12V/2.5A DC
3	5GbE Port	10/100/1000/5000Mbps RJ-45 Ethernet Port as a WAN port
4	2.5GbE Port	10/100/1000/2500Mbps RJ-45 Ethernet Port as a LAN port
5	WPS / Reset Button	- **WPS:** When system is up, click this button (**hold < 5s** and release) to add satellite. LED will blink **blue**.
		- **Factory default reset:** When system is up, press this button and **hold > 15 seconds** to reset the router to factory default settings. LED will blink **red & green**.

Chapter IV   Mesh Setup

WRB8326 provides local web UI for configuration & management, and also supports WPS button for adding satellites.

4.1.   Config Root Router

STEP 1. Prepare the First Router

Prepare the first WRB8326, which will be the root router.

STEP 2. Connect to 5GbE Port

Connect Ethernet cable to 5GbE port on the WRB8326, and another end connected to ISP (Internet Service Provider) modem or upstream router for Internet access.

STEP 3. Power On and Check LED

Plug one end of the power adapter into DC jack of WRB8326 and connect another end into the power socket. Wait for the LED to be a **blinking green**.

> **NOTE:**
>
> - Before powering on the WRB8326 router, ensure that the Ethernet cable is properly connected as mentioned in STEP 2 and 3.
>
> - If the LED is not blinking green, press and hold the "WPS / Reset" button for 15+ seconds to reset the device to factory default settings.

STEP 4. Connect Your Computer to Mesh Router

Option 1: **Connect Wi-Fi** to configure the Wi-Fi setting for WRB8326.

➢ **Default SSID**: select **wrb8326_mr_fh_ssid_xxxx** (where "**xxxx**" represents the last 4 characters of S/N or MAC address printed on the product label at the bottom)

➢ **Default password**: **12345678**

Option 2: **Connect to 2.5GbE Port:** Connect the Ethernet cable to 2.5GbE port on the WRB8326, and another end to a computer for configuration purpose.

STEP 5. Open Web Brower: Configure your computer to use dynamic IP. Once the computer gets an IP address, then open a web browser.

Notes:

➢ You can refer to Q5 in Chapter-VI FAQ to learn how to check if your computer has obtained an IP address.

➢ IE is not supported, please use Chrome, Edge, Firefox, or Safari instead.

a) Open web browser (for example, Edge) on your computer.
   - Enter "**192.168.50.1**".
   - Then, click the "**Advanced**" button when there is below alert.
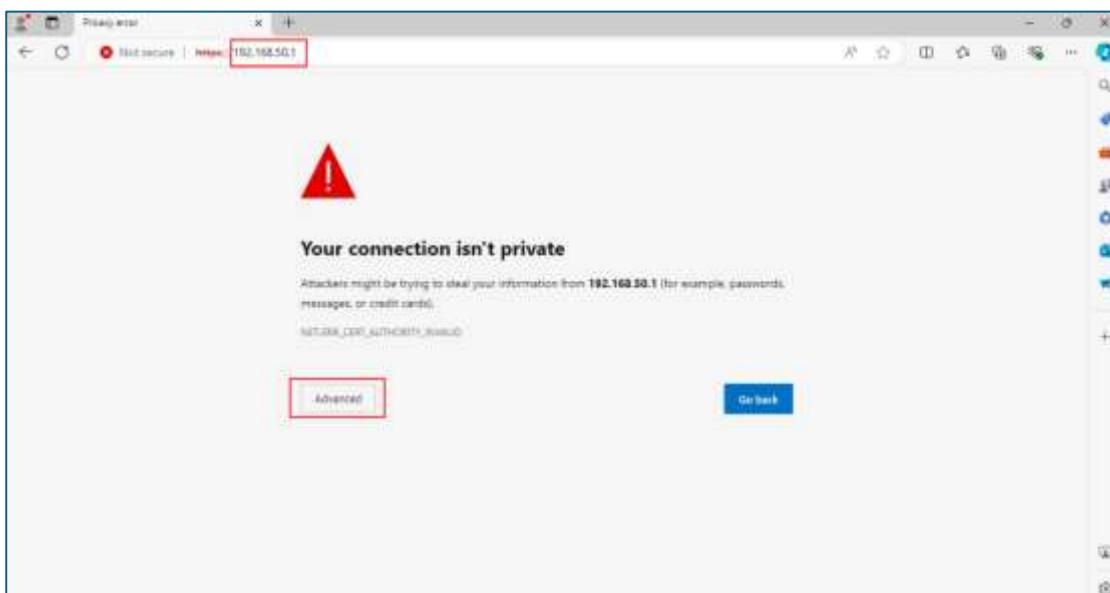

Figure IV-1-1 Open web browser

b) Click "**Continue to 192.168.50.1 (unsafe)**" to proceed.
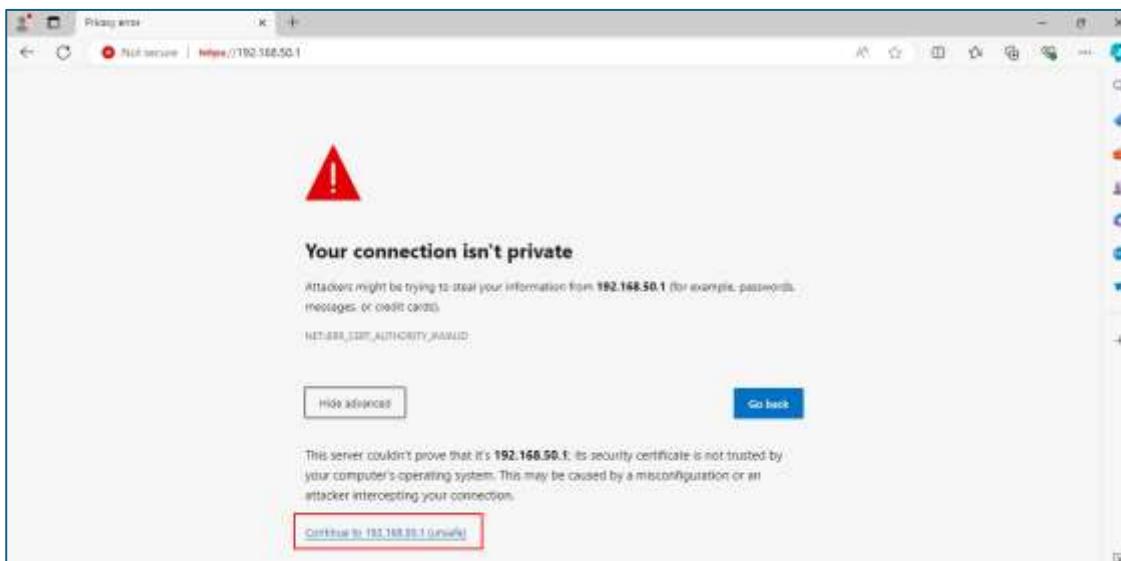
Figure IV-1-2 Proceed accessing the web UI

STEP 6. Login: You will be prompted to enter a username and password for login.

- **Username**: admin
- **Password**: 12345678

Figure IV-2 Web UI Login

STEP 7. Configure Wi-Fi: After logging in, the web UI will be redirected to the **Wi-Fi Settings** page. You can change the default Wi-Fi SSID and password.
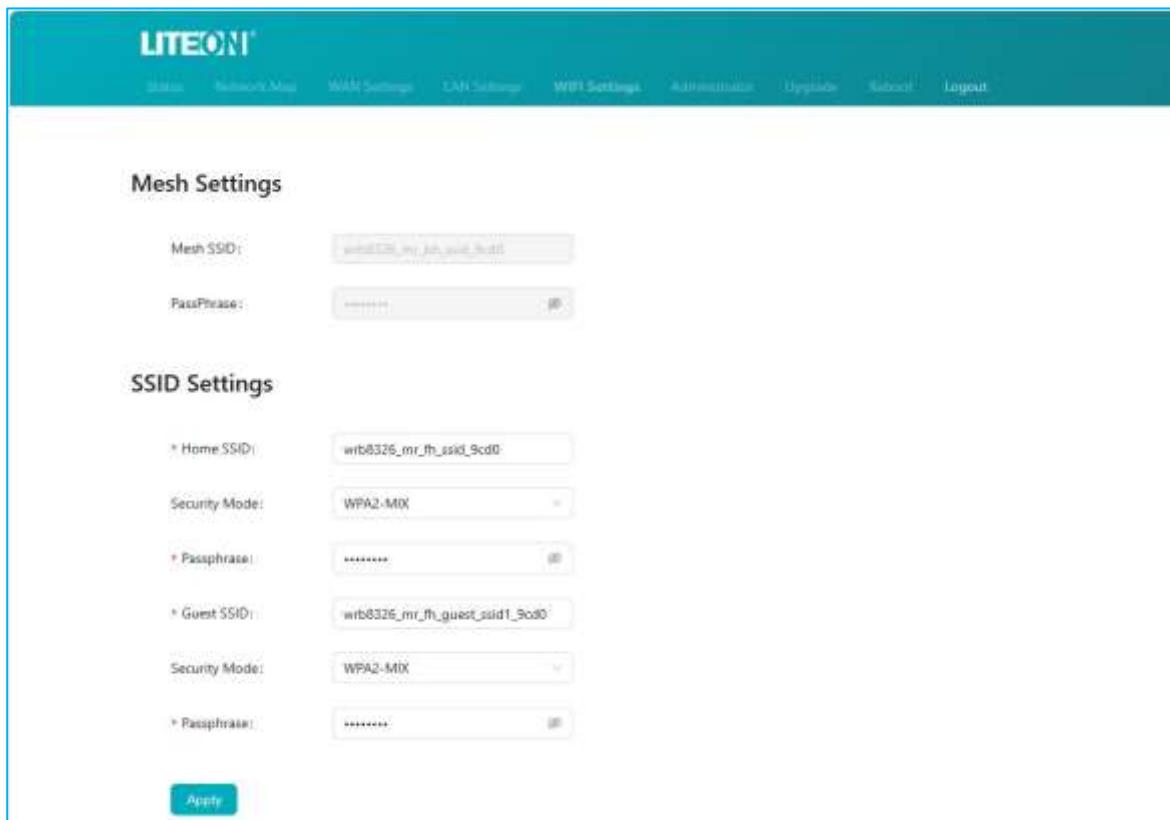
Figure IV-3-1 Wi-Fi Settings page with default SSID and Passphrase

Change Home SSID and its Passphrase and Guest SSID and its Passphrase, then click "**Apply**".
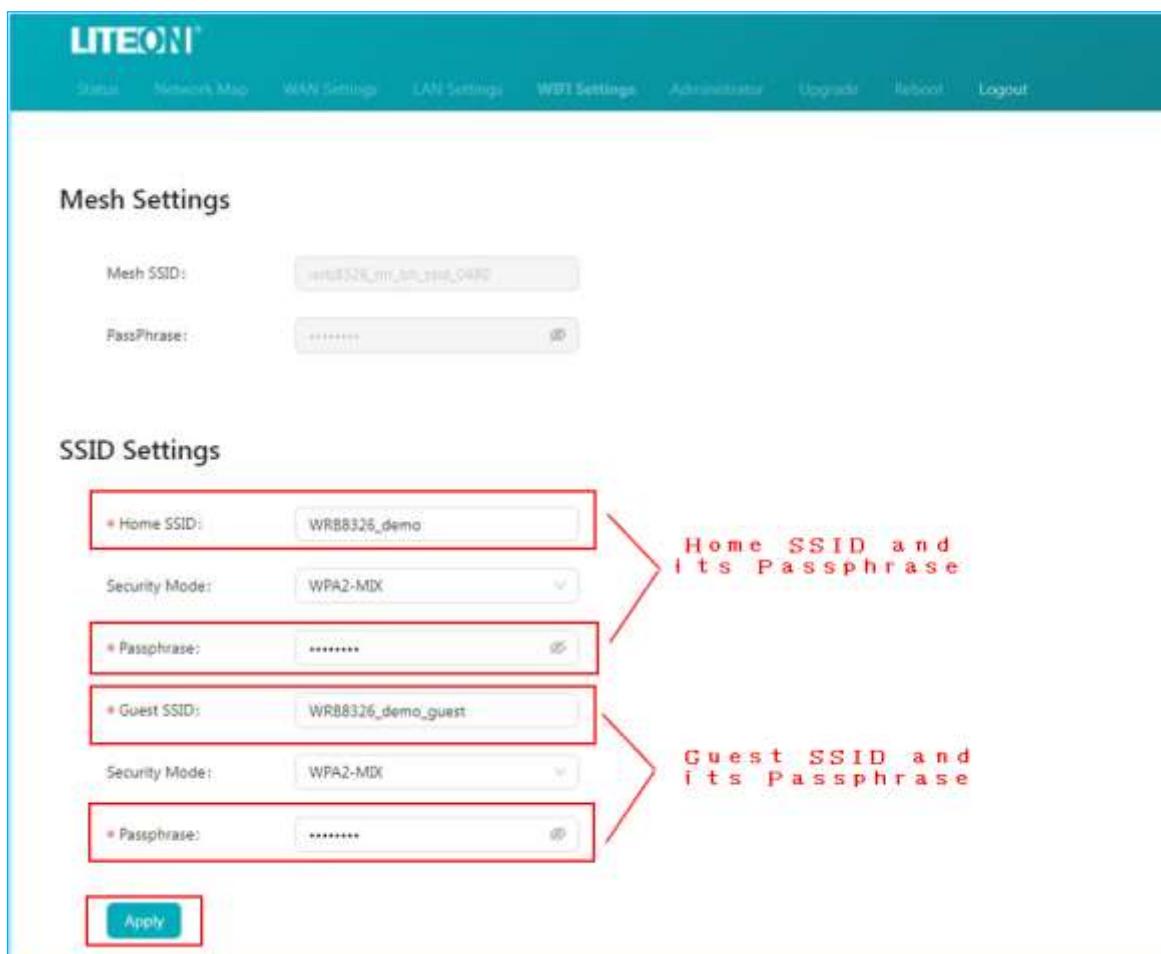
Figure IV-3-2 Change SSID and Passphrase

It will take about **one minute** for the changes to take effect.
- ➢ During provisioning, the LED indicator will **blink blue**.
- ➢ After provisioning is complete, the LED indicator will become **solid green** or **solid red** finally, depending on the Internet connectivity.

> **Notes**:
> - ■ **Solid green** indicates that the Internet is accessible, while solid **red** indicates that the Internet is not accessible.
> - ■ As checking Internet connectivity may take some time depending on the network status, you may see one of the following two LED indications:
>   - ● **Blink blue**, then become **solid green**.
>   - ● **Blink blue**, then turn **solid red**, and finally become **solid green**.
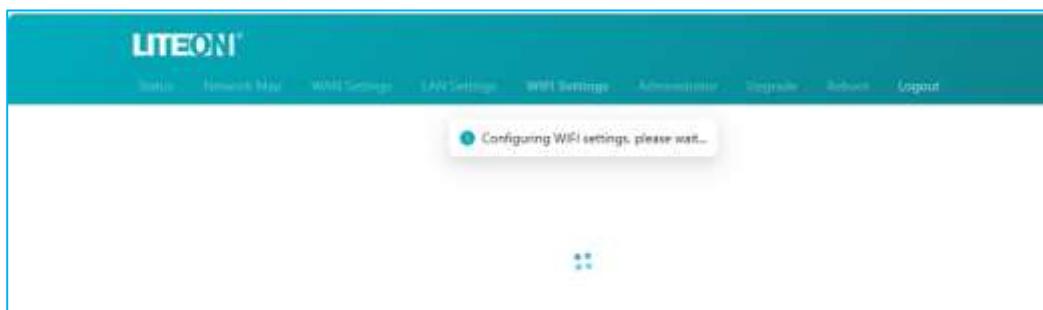
Figure IV-3-3 Waiting setting complete

After Wi-Fi settings complete, the web UI will be redirected to **Status** page.
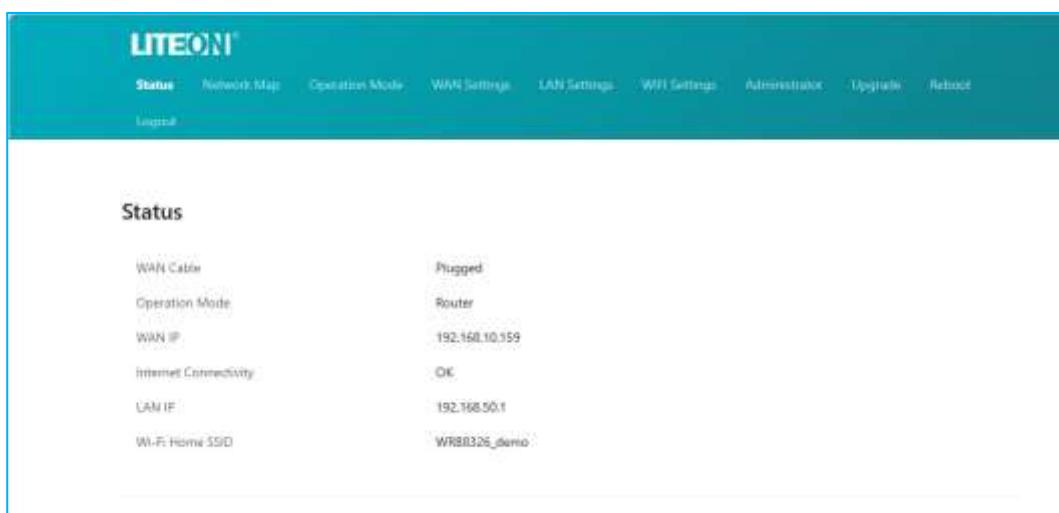
Figure IV-3-4 Redirected to Status page after settings complete

4.2. Add Satellite

STEP 1. Prepare the Second Router: Prepare the second WRB8326, which will be added as satellite.

STEP 2. No Ethernet Connection: Make sure no Ethernet cable is connected to the new router.

STEP 3. Power On and Check the LED: Plug one end of the power adapter into the power socket and connect the other end to the DC jack on the WRB8326. Wait for the LED indicator to **blink green**. It will take about **1.5 minutes** for the router to finish booting up.

> **NOTE:** If the LED is not blinking green, press and hold the "WPS / Reset" button for 15+ seconds to reset the device to factory default settings.

STEP 4. Add the Router: Click the "**WPS / Reset**" button on both the root router and the new satellite. The LED indicator will **blink blue** during provisioning.

STEP 5. Check the LED: After the new router is successfully added to the network as a satellite, the LED indicator on the new router will become **solid green** or **solid red** finally, depending on the Internet connectivity. It will take about **3 minutes** to complete provisioning.

Notes:
➢ **Solid green** indicates that the Internet is accessible, while solid **red** indicates that the Internet is not accessible.
➢ As checking Internet connectivity may take some time depending on the network status, you may see one of the following two LED indications:
  ■ **Blink blue**, then become **solid green**.
  ■ **Blink blue**, then turn **solid red**, and finally become **solid green**.

STEP 6. (Optional) Add More Router: You can follow the same instructions from step 1 to step 5 to add another satellite router.

STEP 7. (Optional) Relocate Satellites: After adding all the satellites, if you power them off, move them to different locations, and then power them on again, you may see one of the following two LED indications:

- **Blink blue**, then become **solid green**.
- **Blink blue**, then turn **solid red**, and finally become **solid green**.
Note: It will take about 3 minutes for the satellites to boot up and connect back to the mesh network.

4.3. Show Network Map
On **Network Map** page of the Root Router, you can check the mesh topology and the information of clients connected to each mesh router.

Figure IV-3 Network Map

Chapter V   Advanced Configurations

5.1.   WAN Settings

By default, root router uses **DHCP** to obtain IP address dynamically from your ISP modem or upstream router. If static IP or PPPoE is used, please change the connection type and enter required parameters on **WAN Settings** page.

Figure V-1 WAN Settings – default DHCP

If Static IP is used, choose "**Static IP**" from IPv4 Connection Type, then enter IPv4 Address / Subnet Mask / Gateway / DNS and click "Apply" on WAN Settings page.
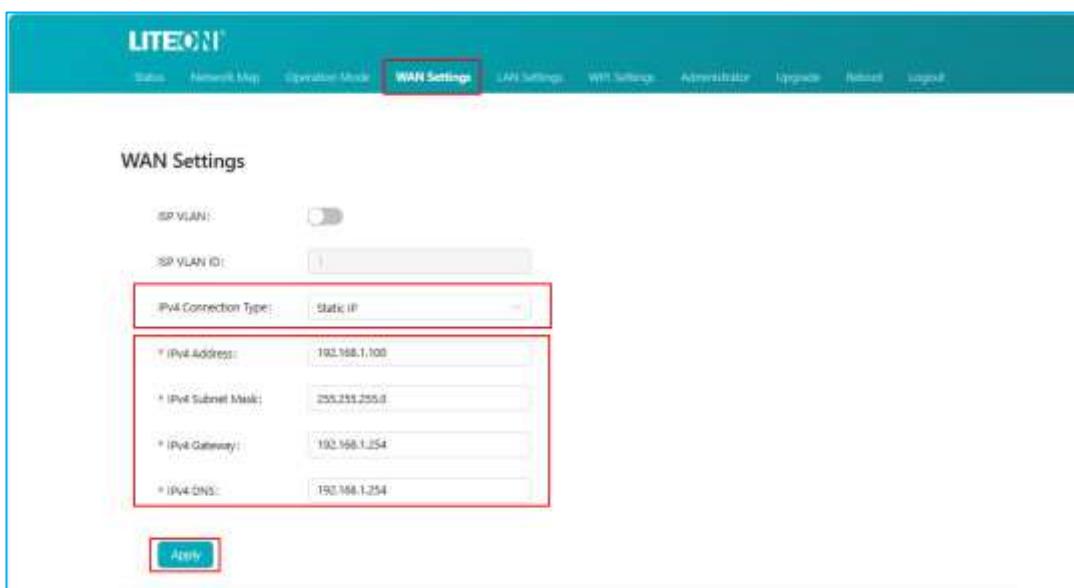

Figure V-2 WAN Settings – Static IP

If PPPoE is used, choose "**PPPoE**" from IPv4 Connection Type, then enter the Username / Password and click "Apply" on WAN Settings page.
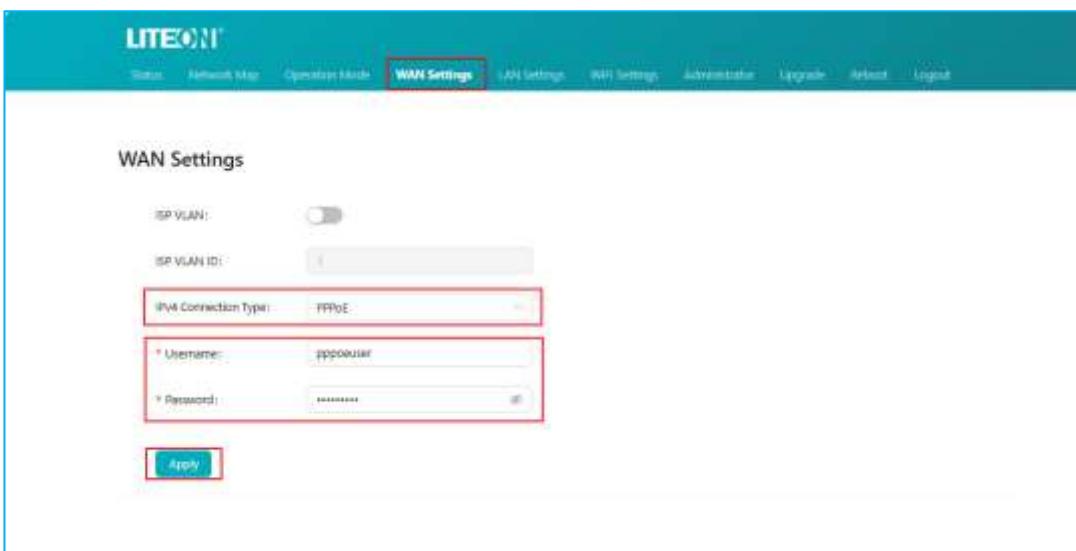
Figure V-3 WAN Settings – PPPoE

Chapter VI   FAQ

Q1. Why can't the satellite be added to the mesh network?
Make sure no Ethernet cable is connected to the satellite. If there are any Ethernet cables connected, unplug them. Then, unplug the power adapter from the router and plug it back after 3~5 seconds. Wait for the LED to blink green and add the satellite again.

Q2. Why is the LED on the router solid red?
- If the LEDs on both the root router and the satellite are solid red, follow these steps:
  a) Check if the Ethernet cable between the 5G Ethernet Port (WAN) and ISP modem or upstream router is properly connected.
  b) Verify the WAN settings from local web UI of the root router to ensure they are correct.
- If only the LED on the satellite is solid red, consider moving the satellite closer to the root router or nearby satellite.

Q3. Why does the satellite fail to restore factory default?
Please check if any PC or other devices are connected to the satellite's Ethernet ports before restoring the satellite to factory default. If such connections exist, the satellite will function as root router after factory reset.

Q4. After successfully setting up the root router and satellite, why does the satellite automatically connect to the root router when the root router is restored to factory default?
Currently, the backhaul SSID and password use fixed values. When the root router is restored to factory default settings, the backhaul SSID and password remain unchanged. As a result, satellite that were previously connected to the root router will automatically reconnect without needing to be set up again. If you want to reset the entire mesh network, you need to reset both the root route and satellite routers to factory default.

Q5. How to check if my computer has obtained IP address from the root router using Ethernet connection?

STEP 1. Windows icon > Settings
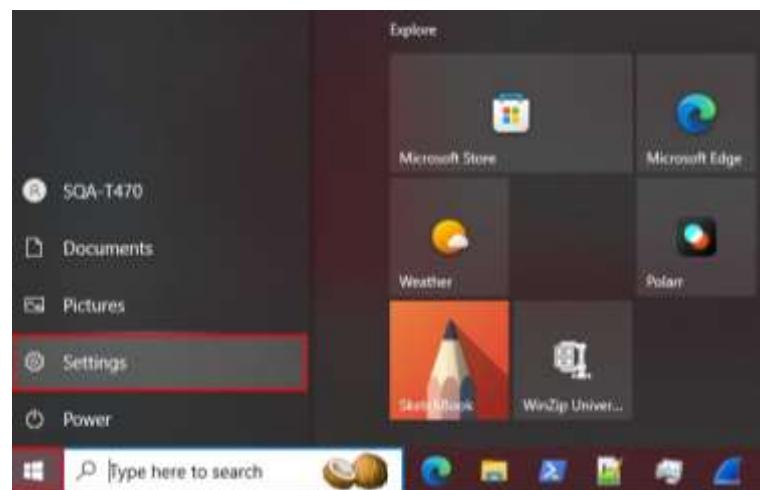
Figure VII-1-1 Open Windows Settings

STEP 2. Click "**Network & Internet**" on Windows Settings

Figure VII-1-2 Windows Settings

STEP 3. Click "**Ethernet**" on the Settings page
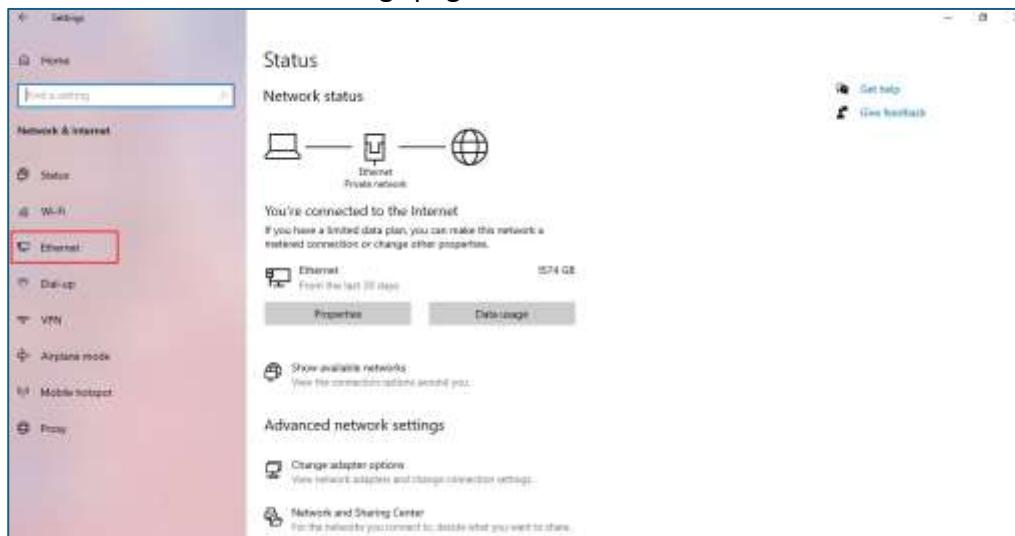
Figure VII-1-3 Open Ethernet Settings

STEP 4. Click the Ethernet Network icon

Figure VII-1-4 Click the Ethernet icon

STEP 5. Scroll down to check the IP settings and properties

- IP assignment should be **Automatic (DHCP)**

- **IPv4 address** will be displayed in the properties once IP address is obtained from the router.
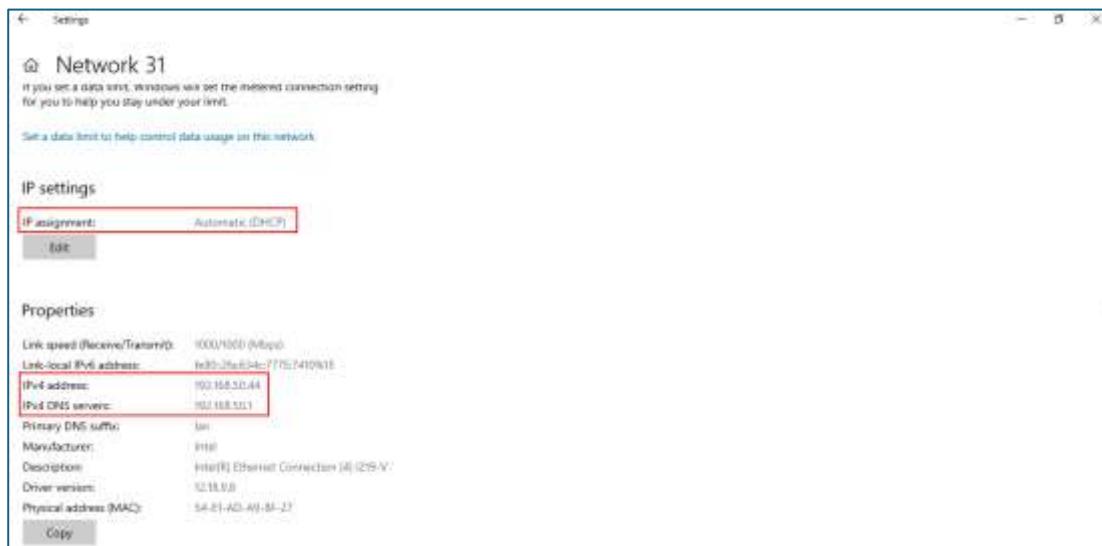
Figure VII-1-5 Check IP settings and Properties.

[End of File]

| Product Series Model: WRB8326					
Model	SKU	5GE	2.5GE	USB2.0	IoT (2.4G)
WRB8326A	SKU1	V	V	V	V
WRB8326B	SKU2	V	V	-	V
WRB8326C	SKU3	V	-	-	V
WRB8326D	SKU4	-	V	-	V

FCC Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

ι Reorient or relocate the receiving antenna.

ι Increase the separation between the equipment and receiver.

ι Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

ι Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This device is restricted to indoor use.

This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter.

FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 21cm between the radiator & your body.

FCC regulations restrict the operation of this device to indoor use only.

The operation of this device is prohibited on oil platforms, cars, trains, boats, and aircraft, except that operation of this device is permitted in large aircraft while flying above 10,000 feet in the 5.925-6.425 GHz band.

Operation of transmitters in the 5.925-7.125 GHz band is prohibited for control of or communications with unmanned aircraft systems.

Note, Supplier's Declaration of Conformity §2.1077(a)(3)

Name: Josh Winkler

Address: 3001 Summit Avenue Ste.400 75074 Plano TEXAS

Telephone number :   +1-480-422-4548

IC Interference Statement

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

1. L'appareil ne doit pas produire de brouillage;
2. L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

The device for operation in the band 5150-5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems.

Les dispositifs fonctionnant dans la bande 5150-5250 MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux.

The transmitter module may not be co-located with any other transmitter or antenna.
Le module émetteur peut ne pas être coïmplanté avec un autre émetteur ou antenne.

IC Radiation Exposure Statement:

This equipment complies with IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 21 **cm** between the radiator & your body.

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 21cm de distance entre la source de rayonnement et votre corps.

Devices shall not be used for control of or communications with unmanned aircraft systems.
Les dispositifs ne doivent pas être utilisés pour commander des systèmes d'aéronef sans pilote ni pour communiquer avec de tels systèmes.

Operation shall be limited to indoor use only.

leur utilisation doit être limitée à l'intérieur seulement.

Operation on oil platforms, automobiles, trains, maritime vessels and aircraft shall be prohibited except for on large aircraft flying above 3,048 m (10,000 ft).

leur utilisation à bord de plateformes de forage pétrolier, d'automobiles, de trains, de navires maritimes et d'aéronefs doit être interdite, sauf à bord d'un gros aéronef volant à plus de 3 048 m (10 000 pi) d'altitude.

CE Radiation Exposure Statement:

This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

The device is restricted to indoor use only when operating in the 5150-5350 MHz and 5945-6425 MHz frequency ranges in the following countries:

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

The following table provides information on the frequency bands used and the maximum RF transmit power of the product for sale in the EU and UK:

Frequency range (MHz)	Maximum output power (dBm)
2400-2483.5	19.98
5150-5350	22.98
5470-5725	29.90
5945-6425	22.96
Bluetooth; 2.4GHz	9.96
Zigbee; 2.4GHz	9.95

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