Charter WiFi 7 Extender

User Guide

- 2025/1/16

Table of Contents

1 Hardware Setup

1.1 Getting To Know Your WiFi 7 Extender

This product is designed for the In-Home and Business WiFi services for Spectrum customers. With a custom industrial design, this WiFi Extender can be placed in a central location to deliver superior WiFi network coverage.

The WiFi Extender provides:
1. High performance:
   - Wi-Fi 7 IPQ9570(CPU) Tri-band 4+4+4 (2.4GHz, 5GHz, 6GHz)
   - Tri-Band wireless up to AX11000 (QCN6214(2.4G)+ QCN6274(5G)+ QCN6274(6G) 2.4G * 4 + 5G * 4 + 6E *4).
   - One 2.5G , Two x 1 Gigabit LAN Port + One 10 Gigabit LAN Port.
2. High security: Firewall/VPN supported.
3. Ease of setting up: Friendly wizard, visual setup & maintenance (Basic Mode), complete functions (Advanced Mode).

The WiFi Extender is an ideal choice for residential and SMB (Small Business) users who can enjoy a variety of wireless applications and services.

This chapter contains the following contents:
- Unpacking the WiFi Extender's Box
- Hardware Features
- Positioning Your WiFi Extender

1.2 Unpacking the WiFi Extender's Box

Open the box and remove the WiFi Extender, power adapter, Quick Start Guide, WiFi Network Name and Password sticker, and Ethernet cable.

Figure 1. Check the box contents

The box contains the following items:

- WiFi Extender

- Power adapter

- Quick Start Guide

- WiFi Network Name and Password Sticker

- Ethernet cable

If any items are missing or damaged, please contact Charter Communications. Please keep the original packaging materials in case you need to return the product for repairing.

1.3 Hardware Features

Before you cable your Extender, take a moment to become familiar with the front and rear panels. Pay particular attention to the LEDs on the front panel.

1.3.1 Front Panel

The WiFi Extender front and back panels feature the status LED and buttons as shown in the following figures.

Figure 2. WiFi Extender front view

Front panel LED status
.

LED	Bring up	Device Status LED will illuminate in 2 seconds or less after the Device has started receiving power and then begins 'Device booting' state.	NA
		Device Booting:	
		• "Device Booting" state will begin 2 seconds or less when it	

		has started receiving power from mains.	
		• Device LED will begin "Device Connecting" once opensync's LED manager starts	
		• LED Color: Blue	
		• LED state: FLASHING	
	Device bootup LED Manager connecting to cloud	Device supports to perform Blue easing during first 2 min of bootup if not connected with cloud	
		Device supports to perform Blue easing during first 2 min of bootup for all other scenario except "connected with cloud"	
	Connected to Cloud	Device supports Blue solid if connected with cloud.	
	bootup LED Manager,2min not connected to Internet .	After first 2 min of bootup, device supports red easing if not connected with cloud and does not connect to Ineternet.	
	bootup LED Manager,2min connected to Internet .	After first 2 min of bootup, device supports white easing if not connected with cloud and can connect to Ineternet.	
	When download and upgrade firmware.	Device supports alternate blue and red easing during firmware upgrade	
		Firmware Update/ Download:	
		• Device LED will illuminate for the duration of a firmware update / download.	
		• Device LED will illuminate immediately upon beginning firmware update / download.	
		• Device will restore previous LED state once firmware update is complete.	
		• LED Color: Blue and Red	

		• LED State: Easing	
		• Duration: For entire duration of firmware download / update	
		Note: Each color will complete an easing cycle before beginning the next color. Blue and Red will never overlap.	
	When DUT thermal panic.	• Device LED will illuminate when device enters "Thermal Panic" mode while booting	
		• LED color: Red and White	
		• LED state: FLASHING between Red and White	
		• Duration: While device is in thermal panic state	
	Push factory reset button.	Factory Reset:	
		•Upon completing "Factory Reset Button Press" device will flash red for 2 cycles followed by blue easing until the device reboots.	
		• LED Color: Red then blue	
		• LED State: flash 2 times then easing	
		• Duration: For entire duration of firmware download / update	
		Device supports to perform 2 time Red flash followed by blue easing till reboot during factory reset scenario. Device supports to ignoring other LED state change if it is in factory reset state.	
	Quickly push Reboot button.	Device Reboot:	
		•Upon completing "Reboot Button Press" device will flash red for 1 cycles followed by blue easing until the device reboots.	

		• LED Color: Red then blue	
		---	---
		• LED State: flash 1 times then easing	
		• Duration: For entire duration of firmware download / update	
		Device supports performing a red flashing once in the device reboot scenario, followed by a blue easing until the device is rebooted. If the device is in a rebooted state, it supports ignoring other LED status changes.	
	Boot up and upgrade firmware .	Firmware Update/ Download during boot:	
		• Device LED will illuminate for first 2 minutes if firmware update is initiated during bootup.	
		• After expiry of 2 minutes, device will enter typical "firmware update/ download" state if still updating.	
		• LED Color: Blue	
		• LED State: Easing	
		• Duration: For 2 minutes after boot up	
	Warehouse Mode.	When the device enters Warehouse Mode, it will purple solid and ignore any LED status changes except for reboot, reset, and FAN error.	
	Fan Error.	When the device fan error, it will red flash.	

1.3.2 Rear Panel

The Ethernet and buttons are shown in the following figure.

Figure 3. WiFi Extender rear view

- **Factory Reset (Reset)**: Press and hold the Reset button for over 5 seconds, the WiFi Extender will reset to factory setting.
- **Ethernet (LAN 2x1G , 1x2.5G , 1x10G) Port**: Connect network cables into these ports to establish LAN connection.
- **Power**: Use the bundled AC adapter to connect your WiFi Extender to a power source.

1.4 Positioning Your WiFi Extender.

The WiFi Extender lets you access your network from virtually anywhere within the operating range of your wireless network. However, the wireless communicating distance varies significantly due to placement of the WiFi Extender. For example, the thickness and number of walls the wireless signal passes through can affect and limit the range. For best results, WiFi Extender is likely to be placed as follow:
- Near the center of the area where your computers and other devices operate, and preferably within line of sight to your wireless devices.
- Accessible to an AC power outlet and near Ethernet cables for wired computers.
- In an elevated location such as a shelf, keeping the number of walls and ceilings between the WiFi Extender and your other devices to a minimum.
- Away from electrical devices that are potential sources of interference. Equipment that might cause interference includes ceiling fans, home security systems, microwaves, computers, the base of a cordless phone, or a 2.4 GHz cordless phone.

Away from any large metal surfaces, such as a solid metal door or aluminum studs. Large expanses of other materials such as glass, insulated walls, fish tanks, mirrors, brick and concrete can also affect your wireless signal.
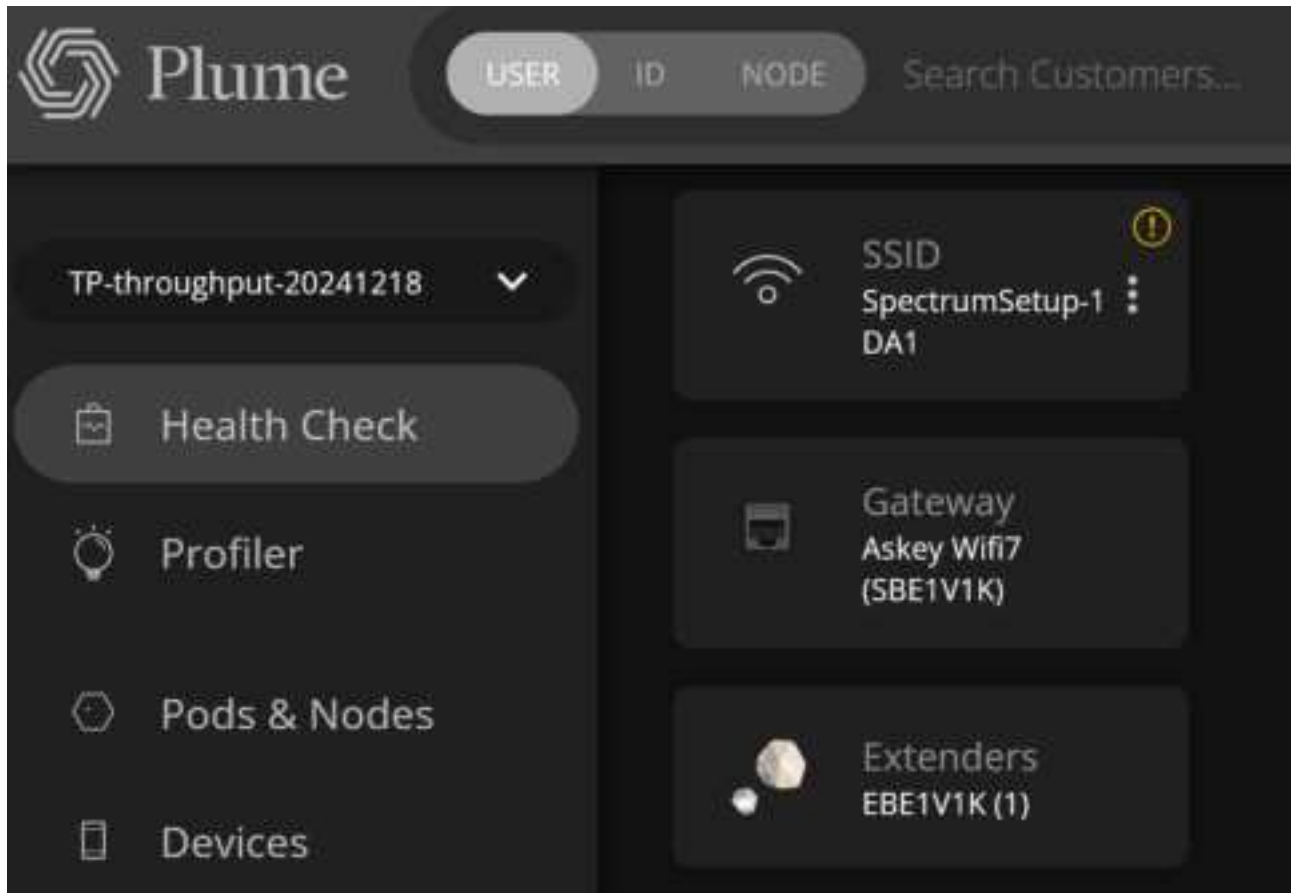
2 Sign-In Your WiFi Extender Cloud .

The WiFi Extender contains an Internet cloud which lets administrator easily configure its features

through the Internet.

2.1 Sign-In

1. cloud show model name EBE1V1K.

2. SBE1V1K is the router .

3. In Pods & Nodes check status .

4.In Topology check link status .
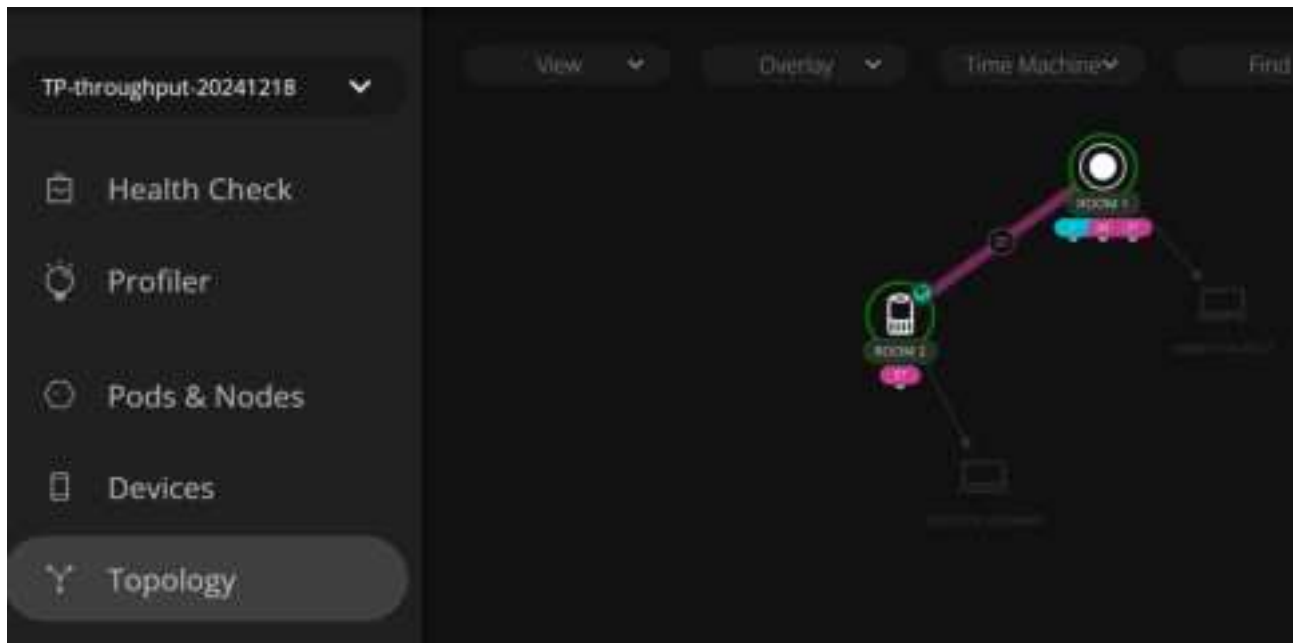
3 Regulatory Compliance Notices

Class B Equipment

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:

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

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

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.

For product available in the USA/Canada market, only channel 1~11 can be operated. Selection of other channels is not possible.

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. This device is restricted for indoor use.

IMPORTANT NOTE:

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 46cm between the radiator & your body.

- Power cord shall be connected to a socket-outlet with earthing connection.

- This product is intended to be supplied by a UL Listed Power Adapter or DC power source marked `L.P.S' or `Limited Power Source', rated 12Vdc, 3.5 A and Tma 40°C (min.). If you require further assistance, please contact your Askey Computer Corp representative.

-)