

Charter WiFi 7 Router User Guide

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1 Hardware Setup

1.1 Getting To Know Your WiFi 7 Router

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

The WiFi Router 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 WAN 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 Router 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 Router's Box
- Hardware Features
- Positioning Your WiFi Router

1.2 Unpacking the WiFi Router's Box

Open the box and remove the WiFi Router, 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 Router
- 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 router, 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 Router front and back panels feature the status LED and buttons as shown in the following figures.

Figure 2. WiFi Router front view



Front panel LED status

Name	Activity	Description
LED behavior	Blue Blinking with 500ms period	Booting up
	Blue Blinking with 500ms period	Connecting to Internet
	Blue Blinking with 500ms period	Connected to Internet
	Blue Blinking with 500ms period	Connectivity issues(no Inter connection)
	Blue Blinking with 500ms period	Critical issues(hardware or otherwise)
	Blue Blinking with 500ms period	Updating firmware

1.3.2 Rear Panel

The Ethernet and buttons are shown in the following figure.



Figure 3. WiFi Router rear view

- **Factory Reset (Reset):** Press and hold the Reset button for over 5 seconds, the WiFi Router will reset to factory setting.
- **Ethernet (LAN 2x1G , 1x2.5G) Port:** Connect network cables into these ports to establish LAN connection.
- **Internet (WAN 10G) Port:** Connect a network cable into this port to establish WAN connection.
- **Power:** Use the bundled AC adapter to connect your WiFi Router to a power source.

1.4 Positioning Your WiFi Router.

The WiFi Router 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 Router. For example, the thickness and number of walls the wireless signal passes through can affect and limit the range. For best results, WiFi Router 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 Router 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.

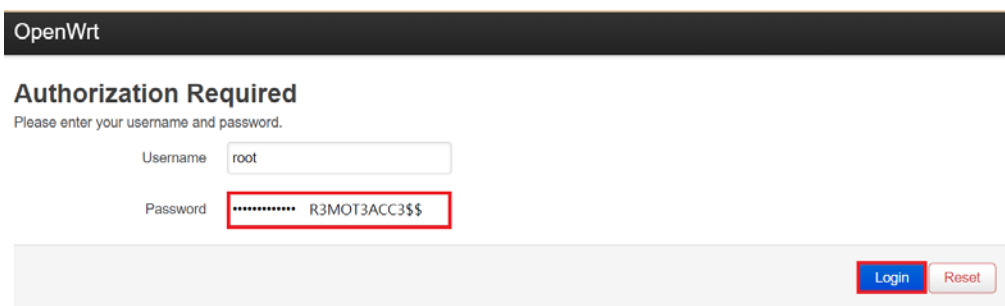
Away from any large metal surfaces, such as a solid metal door or aluminum studs. Large expanses of other materials such as glass, insulated walls, fish tanks, mirrors, brick and concrete can also affect your wireless signal.

2 Sign-In Your WiFi Router Web GUI.

The WiFi Router contains an intuitive graphical user interface (GUI) based on web, which lets administrator easily configure its features through a web browser.

2.1 Sign-In.

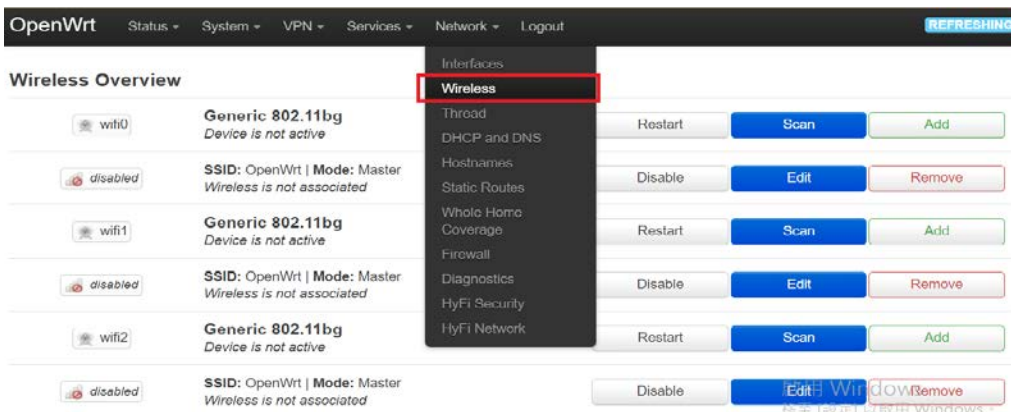
1. Open a web browser, then key in the WiFi Router's default IP address: <https://192.168.1.1>, and click **Enter** key in the keyboard;
2. On the sign in webpage, type in its Username and password: root (R3MOT3ACC3\$\$), then click **Login** button.



The image shows the OpenWrt login page. At the top, there's a dark header with 'OpenWrt' in white. Below it, the title 'Authorization Required' is followed by the instruction 'Please enter your username and password.' There are two input fields: 'Username' with 'root' entered, and 'Password' with 'R3MOT3ACC3\$\$' entered (the first few characters are masked with dots). A red rectangle highlights the password field. At the bottom right, there are two buttons: 'Login' (blue) and 'Reset' (grey).

3. Configure wireless.

3.1 Click Network menu then click Wireless.



The image shows the OpenWrt web interface. The top navigation bar includes 'OpenWrt', 'Status', 'System', 'VPN', 'Services', 'Network', and 'Logout'. The 'Network' menu is expanded, showing a list of options: 'Interfaces', 'Wireless' (highlighted with a red rectangle), 'Thread', 'DHCP and DNS', 'Hostnames', 'Static Routes', 'Whole Home Coverage', 'Firewall', 'Diagnostics', 'HyFi Security', and 'HyFi Network'. The main content area is titled 'Wireless Overview' and displays a table of wireless interfaces. The table has columns for interface name, status, and configuration details. The first three interfaces are 'wifi0', 'wifi1', and 'wifi2', all showing 'Generic 802.11bg' and 'Device is not active'. The last three interfaces are 'disabled', showing 'SSID: OpenWrt | Mode: Master' and 'Wireless is not associated'. To the right of the table, there are buttons for 'Restart', 'Scan', 'Add', 'Disable', 'Edit', and 'Remove' for each interface.

3.2 Device Configuration change wireless Mode , Channel , Width.

Device Configuration

[General Setup](#) [Advanced Settings](#)

Status

Mode: Master | SSID: OpenWrt
--- dBm Wireless is not associated

Wireless network is enabled

Disable

Operating frequency

Mode	Band	Channel	Width
11axg	2.4 GHz	6	40 MHz

Maximum transmit power

driver default

 - Current power: unknown

Specifies the maximum transmit power the wireless radio may use. Depending on regulatory requirements and wireless usage, the actual transmit power may be reduced by the driver.

3.3. Interface Configuration change ESSID.

Interface Configuration

[General Setup](#) [Wireless Security](#) [MAC-Filter](#) [Advanced Settings](#)

Mode

Access Point

ESSID

OpenWrt

Network

lan:      

Choose the network(s) you want to attach to this wireless interface or fill out the *custom* field to define a new network.

3.4 Wireless Security change Encryption , Cipher and Key .

[General Setup](#) [Wireless Security](#) [MAC-Filter](#) [Advanced Settings](#)

Encryption

WPA2-PSK (strong security)

Cipher

Force CCMP (AES)

Key

.....

3.5 Wireless Overview click Save&Apply button.

Wireless Overview

wifi0	Generic 802.11bg Device is not active	Restart	Scan	Add
disabled	SSID: OpenWrt Mode: Master Wireless is not associated	Disable	Edit	Remove
wifi1	Generic 802.11bg Device is not active	Restart	Scan	Add
disabled	SSID: OpenWrt Mode: Master Wireless is not associated	Disable	Edit	Remove
wifi2	Generic 802.11bg Device is not active	Restart	Scan	Add
disabled	SSID: OpenWrt Mode: Master Wireless is not associated	Disable	Edit	Remove

Associated Stations

Network	MAC-Address	Host	Signal / Noise	RX Rate / TX Rate
No information available				

Save & Apply **Save** **Reset**

4. Configure WAN

4.1 Network select Interfaces WAN click Edit .

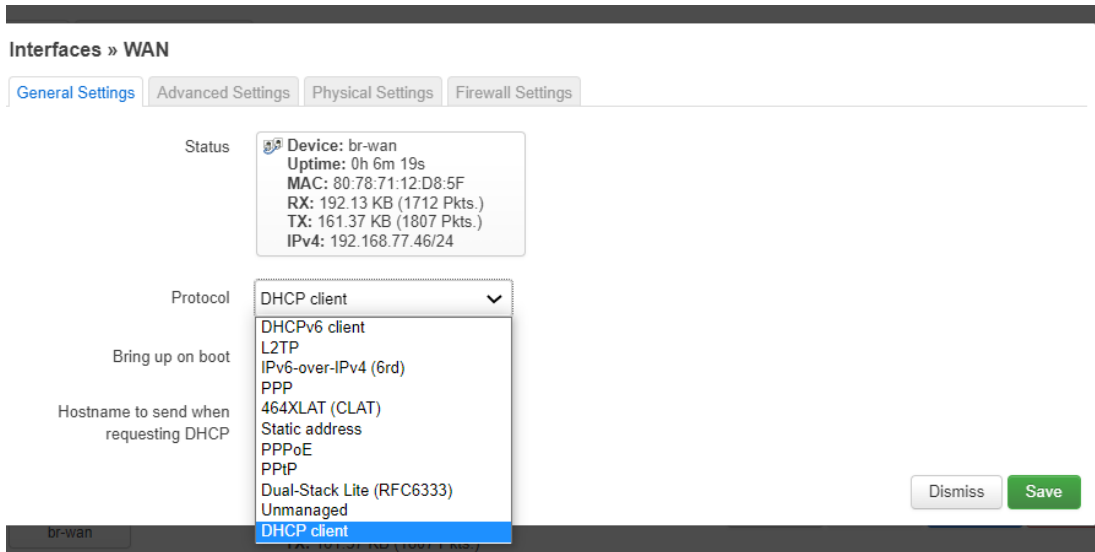
OpenWrt Status System VPN Services Network Logout REFRESHING

Interfaces Global network options

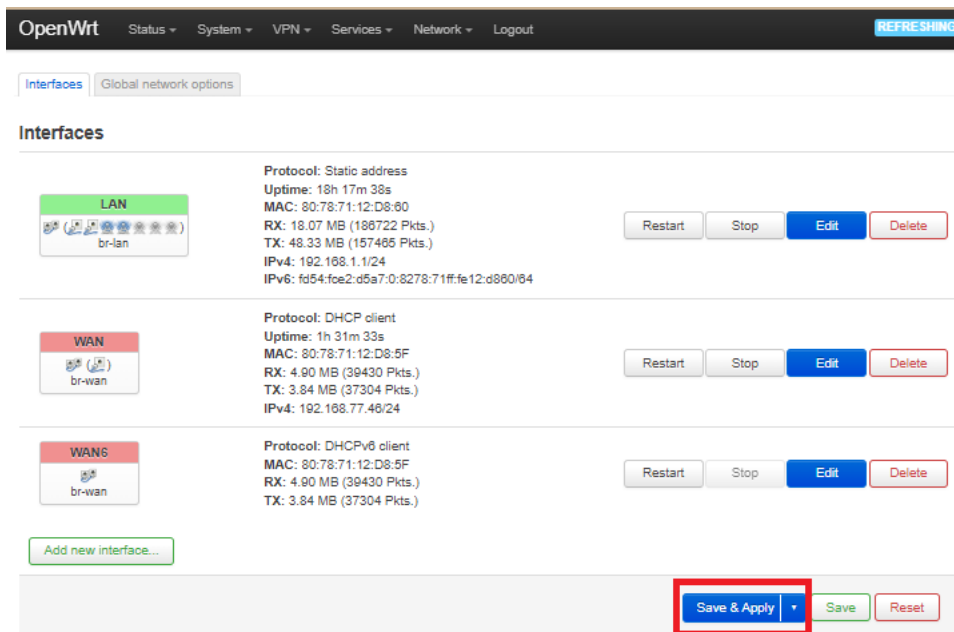
Interfaces

LAN br-lan	Protocol: Static address Uptime: 16h 50m 9s MAC: 80:78:71:12:D8:60 RX: 14.83 MB (161608 Pkts.) TX: 22.95 MB (136659 Pkts.) IPv4: 192.168.1.1/24 IPv6: fd54:fce2:d5a7:0:8278:71ff:fe12:d860/64	Restart Stop Edit Delete
WAN br-wan	Protocol: DHCP client Uptime: 0h 4m 4s MAC: 80:78:71:12:D8:5F RX: 129.30 KB (1122 Pkts.) TX: 101.08 KB (1133 Pkts.) IPv4: 192.168.77.46/24	Restart Stop Edit Delete
WAN6 br-wan	Protocol: DHCPv6 client MAC: 80:78:71:12:D8:5F RX: 129.30 KB (1122 Pkts.) TX: 101.08 KB (1133 Pkts.)	Restart Stop Edit Delete

4.2 Protocol select WAN type.



4.3 Interfaces click Save&Apply button.



5. 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 A and Tma 40°C (min.). If you require further assistance, please contact your Askey Computer Corp representative.
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