

# OUTDOORROUTER

SKU: EZR30 Series

## OUTDOOR MIMO ROUTER Users Manual

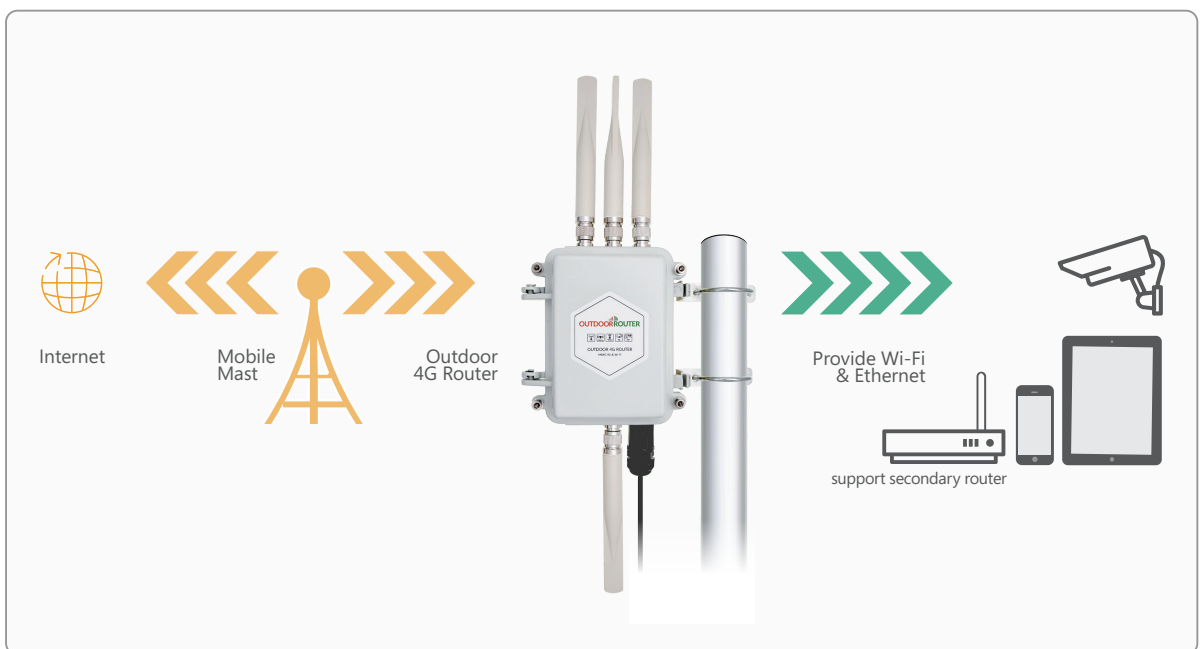


### 1. Introduction

Integrated 4G LTE mobile modem, EZR30 outdoor router connect your phone, tablet, computer, camera, etc. to the internet via the 3G and 4G mobile networks. Comes with dual 4G MIMO antennas, the router receive signals at a high sensitivity.

Complying with the IEEE 802.11b/g/n Wi-Fi standard, the outdoor router output strong Wi-Fi signals at max 27dBm power with transmission speeds of up to 300Mbps. You can control the Wi-Fi and LAN networks with OpenWrt enabled firmware, such as SSID, SSL, DNS, encryption, firewall, port forwarding, Wi-Fi relay, and so on.

IP67 hardened industrial-grade aluminum alloy case enclosure the outdoor router to withstand extreme weather conditions and rugged deployments. The built-in standard PoE module work on 48Volt PoE injector and support 300-feet LAN cable.



\*\*\* The manual is base on firmware version - OPLK1904v3 \*\*\*



## Warnings

PLEASE READ THE MANUAL AND FOLLOW THE STEPS CAREFULLY. THIS MANUAL WILL HELP YOU INSTALL THE DEVICE PROPERLY AND AVOID IMPROPER USAGE. IF YOU NEED MORE INFORMATION ON, PLEASE CONTACT US.

- Do not install with live electricity.
- Avoid your gas lines when grounding your wires.
- Tampering with your router will void your warranty.

## 2. Hardware overview

### 2.1 Package contents

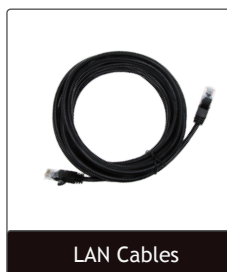
- 1 x Outdoor MIMO 4G router
- 1 x 30-feet Outdoor LAN cable
- 1 x Mounting set and tool
- 4 x Omni antenna
- 1 x 48Volt PoE injector
- 1 x Cable gland



Outdoor Router



Antennas



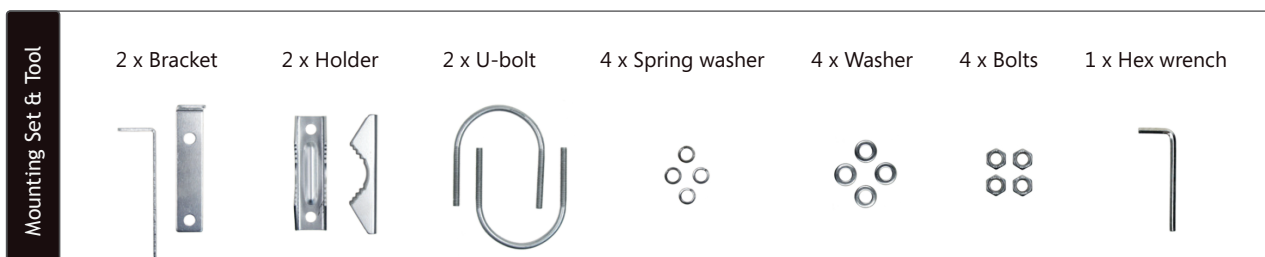
LAN Cables



PoE Injector



Cable Gland



### 2.2 Port, switch and indicator

2xN-female connectors to 2.4G Wi-Fi aeriels

2xN-female connectors to 4G mobile aeriels

4G MAIN



RJ45 socket to PoE injector via LAN cable

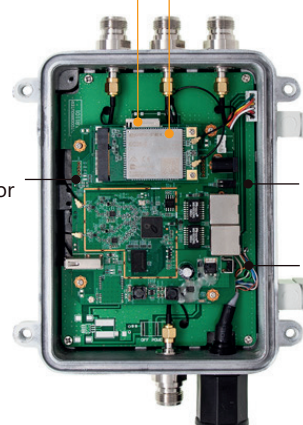
\* Support 48Volt PoE injector or PoE switch

Mobile modem (with IMEI number)  
Standard SIM card slot

Power indicator

System indicators

Reset button



## 2.3 Indicator description

Indicator	Status	Description
PoE power	Red Off	Connected to PoE power source No input PoE power
System	Green Off	System is turn on Router is power off
Signal	Green flash Off	Has data flow through 3G/4G or Wi-Fi No data flow

## 3. Installation

### 3.1 Choose the outdoor location

#### 3G/4G Signal reception

Using your mobile phone, walk around and look for a location that gets a good signal. The suggested signal strength is at least 3 bars (-90dBm).



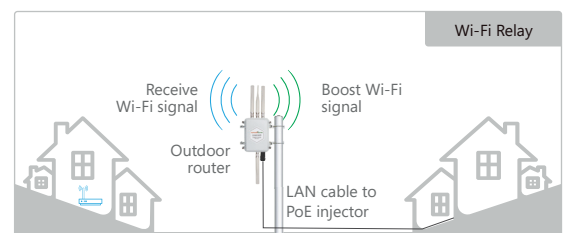
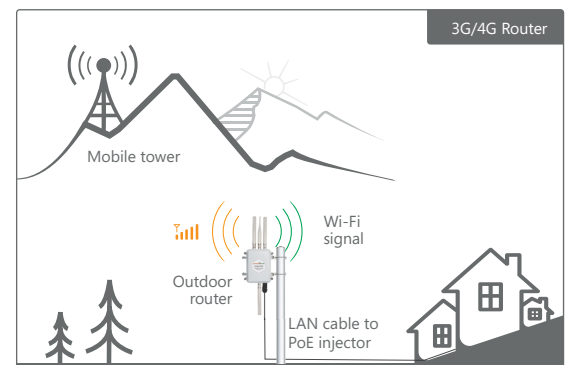
If you have a weak signal reception, please upgrade the mobile aerial with higher gain and directional MIMO panel aerial.

#### Distance to PoE injector

A 30-feet LAN cable is included. You can use max 200-meter LAN cable on the default PoE injector to send DC power to the outdoor router, if need to use the LAN Ethernet, make sure LAN cable is less than 100-meter.

#### Wi-Fi AP mode

In the Wi-Fi AP mode, outdoor router could receive the Wi-Fi signal from from another router. Make sure in the location of outdoor router could receive at least 2 bars of the Wi-Fi signals.



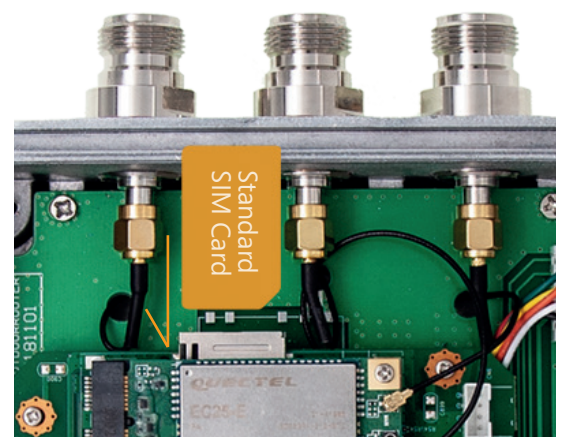
### 3.2 Insert the micro SIM card

Use the hex wrench to lose 4pcs of hexagon bolts and open the metallic case.

Insert Standard USIM card (25x15mm) into the SIM card slot. Make sure SIM card pins are facing down and notch is inside.



A full set of SIM card adapter is included in the package.



## 3. Installation

### 3.3 Install the aerials

The outdoor MIMO router uses 4pcs whip aerials. Install "4G" mobile aerials on the left & right N-female base connectors, and install the "2.4G" Wi-Fi aerial on the middle and bottom base connectors.

Twist the connector on aerial in clockwise direction to fix them on the router.

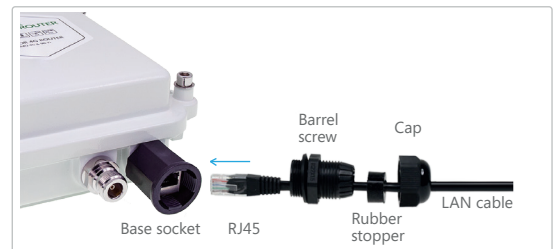


### 3.4 Connect LAN cable to router

- Take apart the cable gland, and through the LAN cable.
- Plug the RJ45 connector into RJ45 port in the base socket.
- Screw on the barrel screw on the base socket.
- Insert rubber stopper into barrel screw, and screw down the cap.



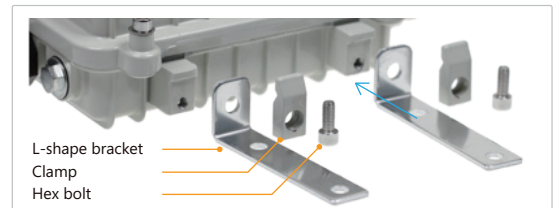
Take off the cap then unscrew the barrel screw before disconnect the LAN cable with the router.



### 3.5 Mounting set installation

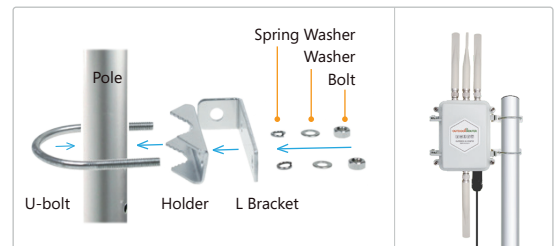
#### 3.5.1 L-shape bracket

- Use the hex wrench to take off the clamp from the router.
- Install the L-shape brackets between the router and clamps.
- Use the hex wrench to tighten the hex bolts.



#### 3.5.2 Install on a pole

- Clasp the pole with U-bolts and holders.
- Attach the L-shape brackets (installed on the router) on the holders.
- Put spring washers, washers, and bolts on U-bolts then tighten the bolts with a spanner (not included).

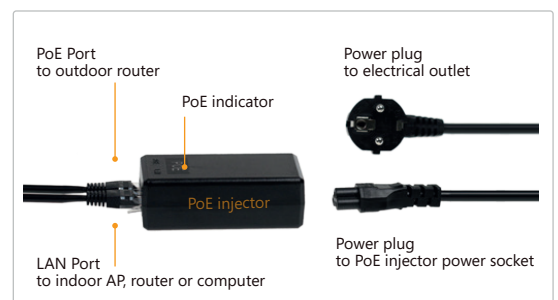


### 3.6 PoE injector

Use the power cord to connect PoE injector to the electrical outlet. The green indicator on PoE injector will turn on.

There are two RJ45 ports on the PoE injector.

- Connect PoE port to the outdoor router via LAN cable.
- Connect LAN port to computer or router also via LAN cable.



## 4. Configuration

### 4.1 Connect to outdoor router

#### 4.1.1 Wi-Fi / Ethernet connection

After connected to the electrical outlet, a Wi-Fi hotspot named **"Outdoor Wi-Fi"** will be created within 20 seconds. The default SSID is without encryption.

Connect to this hotspot on a computer, laptop or smartphone. You can also connect the router to your indoor Wi-Fi router or computer via LAN cable.

#### 4.1.2 TCP/IP setting

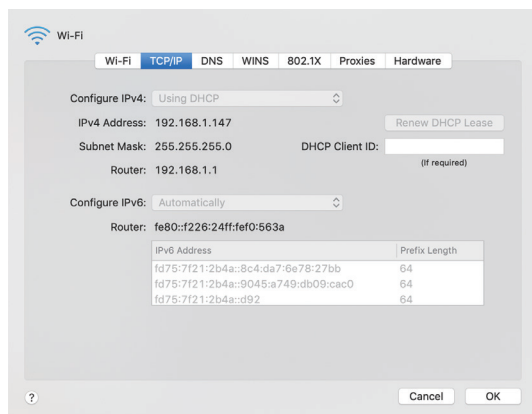
If DHCP function is activated on your device, it will setup automatically. Otherwise, you need to configure IP manually as below.

Configure TCP/IP on your connected devices, make sure IP address is within 192.168.30.100~250. The subnet mask should be 255.255.255.0. The router address should be **192.168.30.1**.

**On iPhone:** Goes to Settings / Wi-Fi / Advanced

**On Android phone:** Goes to Settings / WLAN / Advanced

**On Mac:** Goes to System preferences / Network / Wi-Fi / Advanced / TCP/IP



#### On Windows:

Goes to Start / Control panel / Network and internet / Change adapter setting (on left window panel) /

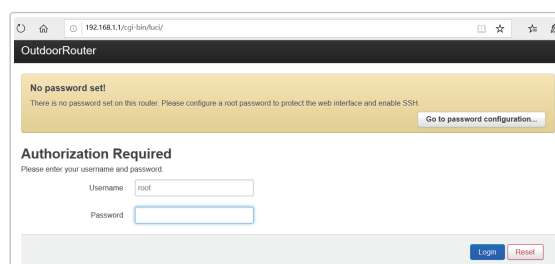
Local area connection / Properties (right click) / TCP/IPv4 (Internet protocol version 4) / Properties / General

Choose "Obtain an IP address automatically" and "Obtain DNS server address automatically"

Click "OK" to exit setting. Click "OK" again in the "Local area connection properties" to apply the new configuration.

### 4.2 Login your outdoor router

The default IP address of the outdoor router is **192.168.30.1** with subnet 255.255.255.0. Make sure your smartphone or computer is connected to the router via Wi-Fi or LAN cable. Open a web browser and type **http://192.168.30.1** in the URL address bar. Use default password **root** to login.



If unable to access router admin with 192.168.30.1, please clear the cache on your browser or use the below complete URL path.

[192.168.30.1/cgi-bin/luci](http://192.168.30.1/cgi-bin/luci)

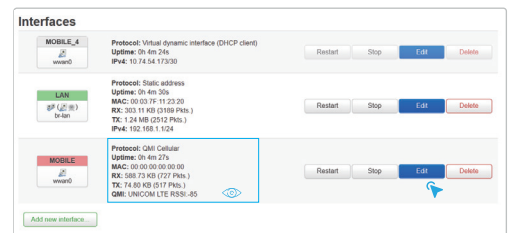
\* The URL prefix is http:// instead of https://.

## 4. Configuration

### 4.3 Network interfaces

After login in the router, click [Network / Interfaces](#) to view or manage both physical and virtual network interfaces.

The necessary information of each interface is listed under the column of *Status*, including MAC address, Rx (Download), Tx (Upload), and IP addresses. You can [Connect / Stop](#) the interface connection by clicking the button on the row of each interface.



#### 4.3.1 LAN

The physical interface for PoE and LAN Ethernet. Assign to *eth1* by default.

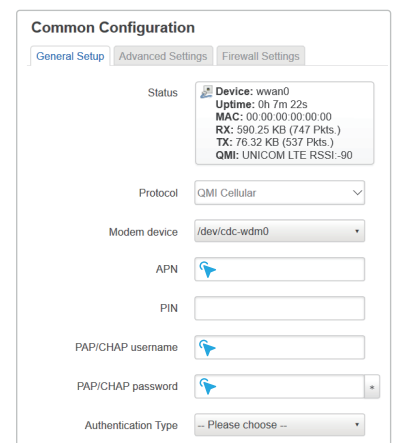
#### 4.3.2 MOBILE

This is the physical interface of the mobile modem. The *QMI* row includes *mobile operator*, *mobile network*, and *signal strength* (dBm). This row will show *UNKNOWN* if there is no SIM card or SIM card installed incorrectly.

The 4G router automatically connects mobile network when started up, you can [Stop/Connect](#) the 4G modem manually. After successfully connected to the 4G network, RX and TX rows will show the real-time data stream, and the virtual interface *MOBILE\_4* will be activated.

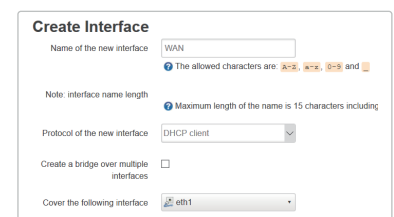


If unable to establish mobile connect, click [Edit](#) on the row of *MOBILE* to modify the APN setting. The APN settings usually including APN address, Username, and the Password. You can contact the mobile carrier to get APN parameters.



#### 4.3.3 WAN

When providing internet from another router, firstly [Add new interfaces](#), select *DHCP client*, and choose *eth1* interface. Then connect LAN port on the PoE injector to another internet router. The WAN interface will obtain IP address, and display both RX TX data stream.



#### 4.3.4 WWAN

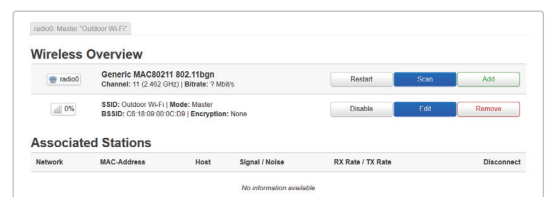
This is a virtual interface for Wi-Fi relay function. It allows you to connect the outdoor router to an existing Wi-Fi network. Please refer to section 4.4.2 to set up the Wi-Fi relay.

### 4.4 Wi-Fi settings

Click [Network / Wifi](#) to view or manage Wi-Fi network.

#### 4.4.1 Wi-Fi settings

Click [Edit](#) to modify for the the Wi-Fi frequency and Transmit power. Under the tab of [Interface Configuration / General Setup](#), you can change the Wi-Fi SSID, and under the tab of [Wireless Security](#), you can change the Wi-Fi encryption method and the Wi-Fi password.



#### 4.4.2 Wi-Fi relay

Click [Scan](#) on the Wireless Overview section, the router will start to scan for nearby Wi-Fi networks (2.4G only). Enter password of the source Wi-Fi SSID, and click [Save & Apply](#) on the right bottom corner to enable the Wi-Fi relay.

## 4. Configuration

### 4.5 System settings

Click [System](#) on the top bar to access the system settings.

#### 4.5.1 System properties

Set up the device name (hostname), time zone and time sync server.

#### 4.5.2 Administration

Under the tab of [System / Administration](#), you can change the router administration password, and set up the SSL access.

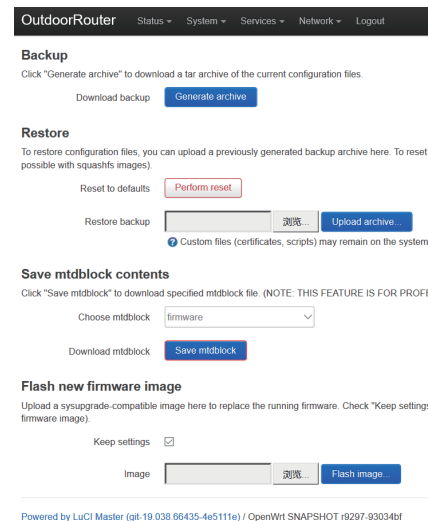
#### 4.5.3 Backup / flash firmware

Under the tab of [System / Backup flash firmware](#), you can backup or restore the router settings. You can also flash a new firmware in the section of [Flash new firmware image](#).

#### 4.5.4 Reboot

Under the section of [System / Reboot](#), you can perform a soft reboot on the outdoor router.

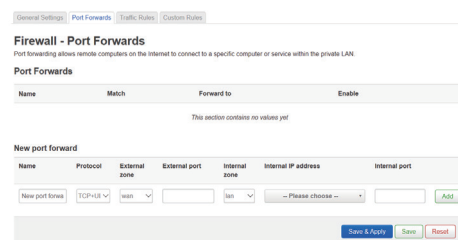
If need to hardly reboot the router, please disconnect and reconnect the power supply.



### 4.6 Firewall settings

Surf to [Network / Firewall](#) to configure the firewall settings.

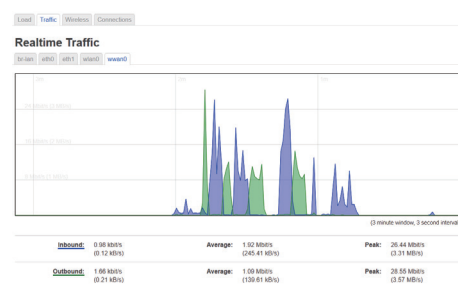
You can set up SYN-flood protection, port forwarding, and traffic rules in the firewall settings.



### 4.7 Status

Click [Status](#) on the top menu to monitor the outdoor router status.

Including firewall status, routes status, system log, kernel log, processes, realtime graphs status, and so on.



### 4.8 Reset factory settings

When the router is turned on, click and hold "Reset" button for 5 seconds, then release the button to restore the factory settings.

## 5. Troubleshooting

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### 5.1 Can't find Wi-Fi hotspot

#### **Check the PoE injector**

Make sure PoE injector is connected to the electrical outlet, the green indicator on PoE injector will turn on after connected to the electrical outlet. The PoE power indicator on the outdoor router will turn on Red after have PoE power input to the router. If PoE power indicator is off, check and ensure RJ45 connector on LAN cable connected to "PoE" port on the PoE injector.

### 5.2 Forgotten password

#### **Reset router login password**

Default login password is "root". If you changed login password and forgotten it, please use one of below methods to reset the outdoor router to factory settings. Open the outdoor router case, click and hold the "Reset" button for 5 seconds then release the reset button.

### 5.3 No internet connection

#### **In 3G/4G router mode**

Login router web interface, under Network / Interface, click "Connect" in the row of PPP0.

- i. Check if the cellular signal reception is good. Refer to chapter 3.1.
- ii. Check if the inserted SIM card has money.

#### **In Wi-Fi relay mode**

Check the interface connection status of the "Interface / WWAN" under "Network / Interface".

Make sure the IP address of Wi-Fi hotspot is not involved in the IP address pool of the outdoor router.

The default IP pool of router is 192.168.1.101~250.

## 6. Contacts

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If you have any question or suggestion about the outdoor router, please contact us.

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