

Installation and Configuration Quick Guide

QX520

Industrial Dual Sim Modem Cellular Router

(5 Eth + 2 SIM + 1 RS232/485)

Package Contents

Before installing your QX520 Router, please verify the kit contents as following.

1 x QX520 Industrial Cellular Router
1 x power adapter(12V DC/1A)
1 x Quick Start Guide

1 x Ethernet Cable
2 x SMA Cellular antenna (magnet/stubby optional)
1 x SMA Wi-Fi antenna (magnet/stubby optional)

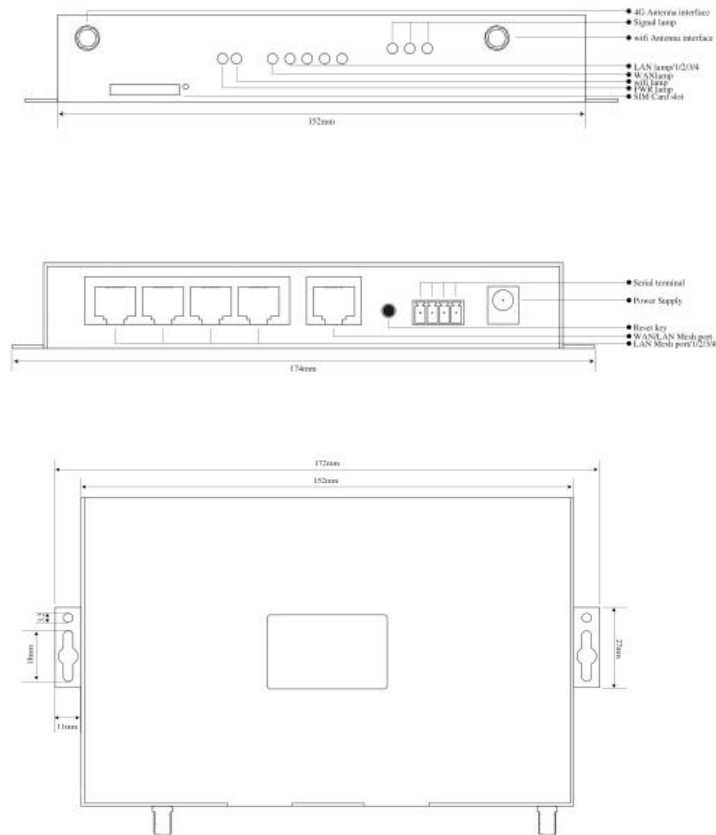
***If any of the above items is missing or damaged, please contact your sales representative.**

Environmental Requirements

Input voltage: 7.5V-32V(standard DC12V/1A)
Operating temperature: -30 to +70 °C
Storage temperature: -40 to 85°C
Relative humidity: < 95% (no condensation)

Hardware Introduction

1. Overview



2. LED Indicators

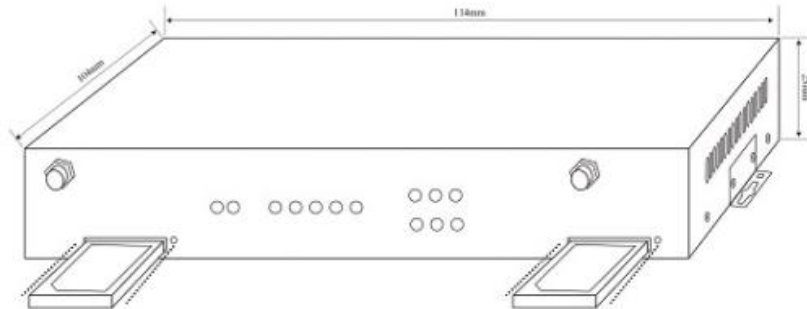
Name	Color	Status	Description
PWR	Green	On	Router is powered on
		Off	Router is powered off
WAN	Green	On, blinking	Link connection is working
		Off	Link connection is not working
LAN	Green	On, blinking	Link connection is working
		Off	Link connection is not working
WiFi	Green	On, solid	Network is joined successfully and worked in an optimum one
		Off	Network is not joined
SIM	Green	3 light	Strong Signal
		2 light	Normal Signal
		1 light	Weak Signal
		0 light	No Signal

3. Reset Button

After powered up the router, press and hold the RST button for 10 seconds, and release the button to return the router to factory defaults.

Hardware Installation

1. Insert or Remove SIM Card



Insert or remove the SIM card as shown in the following steps.

✓ Insert SIM card

- 1) Make sure router is powered off.
- 2) To open the SIM card slot, use a card removal pin plug in the card hole.
- 3) To insert SIM card, press the card with finger until you hear a click and then push back the sim card slot

✓ Remove SIM card

- 1) Make sure router is powered off.
- 2) To open the SIM card slot, use a card removal pin plug in the card hole.
- 3) To remove SIM card, press the card with finger until it pops out and then take out the card.
- 4) To push back the sim card slot.

Note:

3

- 1) Use the specific card when the device is working in extreme temperature (temperature exceeding 40 °C), because the regular card for long-time working in harsh environment will be disconnected frequently.
- 2) Do not forget to push back the card to avoid being lost.
- 3) Do not touch the metal of the card surface in case information in the card will lose or be destroyed.
- 4) Do not bend or scratch the card.
- 5) Keep the card away from electricity and magnetism.
- 6) Make sure router is powered off before inserting or removing the card.

2. Attach External Antenna (SMA Type)

Attach external SMA antenna to the router's antenna connector and twist tightly. Make sure the antenna is within the correct frequency range provided by the ISP and with 50 Ohm impedance.

3. Mount the Router

The router can be placed on a desktop or mounted to a wall. Use 2 pieces of drywall screws to mount the router with the wall mounting kit on the wall.

4. Connect the Router to a Computer

Connect an Ethernet cable to the LAN port of the router, and connect the

other end of the cable to your computer.

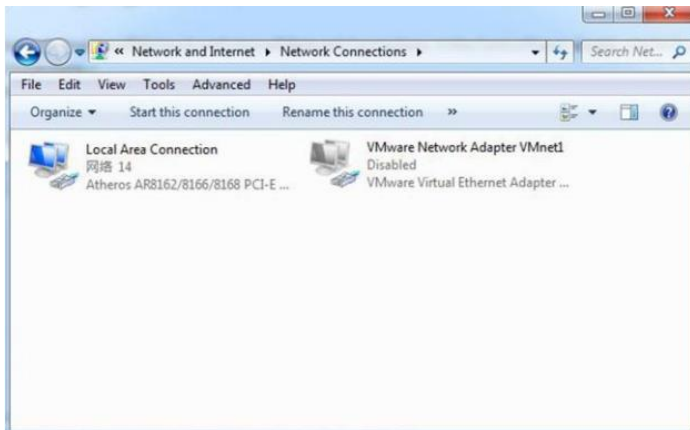
5. Power Supply

PC Configuration

There are two methods to get IP address for the PC. One is to obtain an IP address automatically from “**Local Area Connection**”, and another is to configure a static IP address manually within the same subnet of the router. Please refer to the steps below.

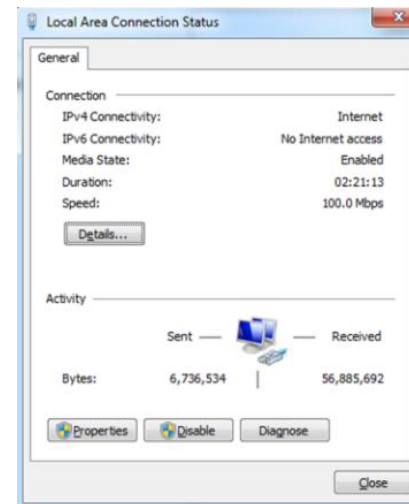
Here take **Windows 10** as example, and the configuration for windows system is similar.

1. Click **Start > Control panel**, click **Network and Internet**, click **Network and Sharing Center**, click **Change Adapter Settings**, and then double-click **Local Area Connection (Ethernet)**.

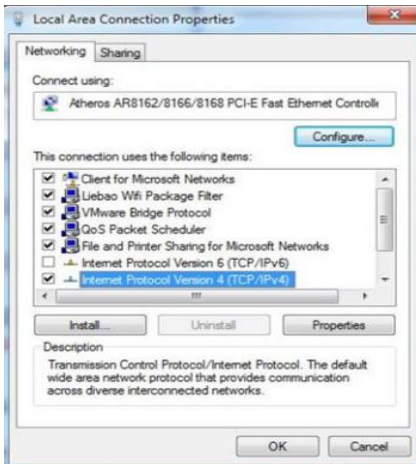


Connect the power adapter to the power input interface of the router.
Note: Voltage input is during 7.5V-32V DC..

2. Click **Properties** in the window of **Local Area Connection (Ethernet)** Status.

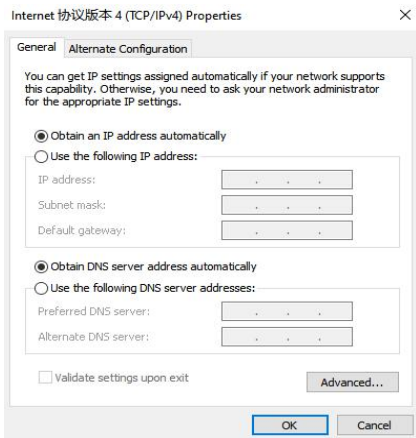


3. Choose **Internet Protocol Version 4 (TCP/IPv4)** and click **Properties**.



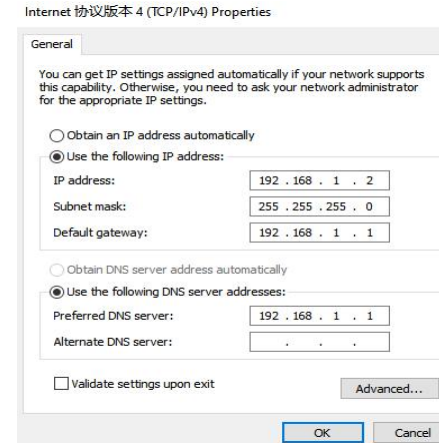
4. Two ways for configuring the IP address of PC.

1) Obtain an **IP address automatically**:



2.) Use the following IP address

Configured a static IP address manually within the same subnet of the router, router default IP address is 192.168.1.1, so static IP address set as 192.168.1.xxx (XXX can be any number between 2~254).



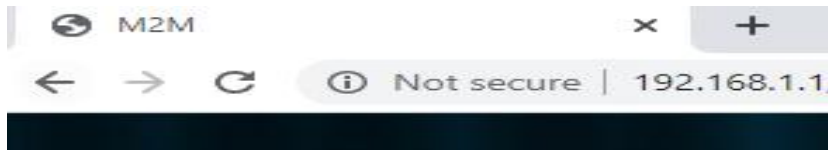
5. Click **OK** to finish the configuration.

Router Configuration

1. Log in the Router

To log in to the management page and view the configuration status of your router, please follow the steps below.

- 1) On your PC, open a web browser such as Internet Explorer, Google or Firefox etc.
- 2) From your web browser, type the IP address of the router into the address bar and press enter. The default IP address of the router is **192.168.1.1**, though the actual address may vary.



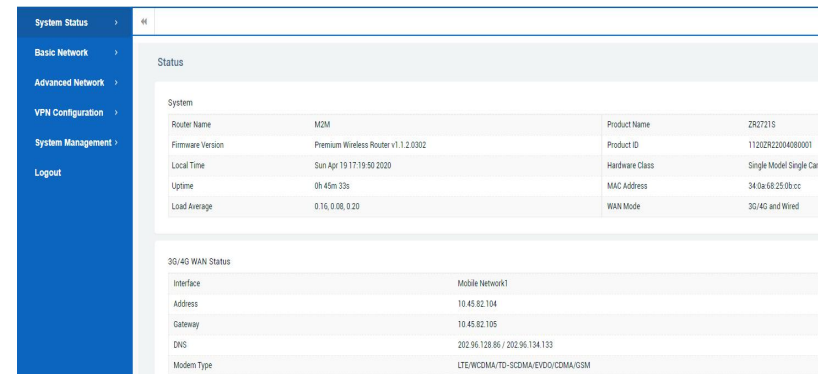
- 3) In the login page, enter the username and password, then click **Login**. The default username and password are **"admin"**.



- 4) After logging in, the home page of the QX520 Router's web interface is

6

displayed, for example.

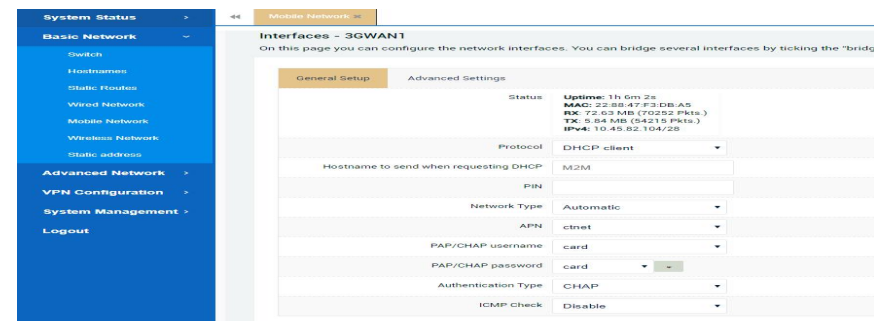


2. Configure the Cellular Connection

There are two methods to dial up for cellular connection of this router.

- 1) DHCP dial-up (Default)

Click **Basic Network > Mobile Network**, choose **"DHCP client"** as the Protocol, don't change other default settings, click **SAVE & APPLY** button.

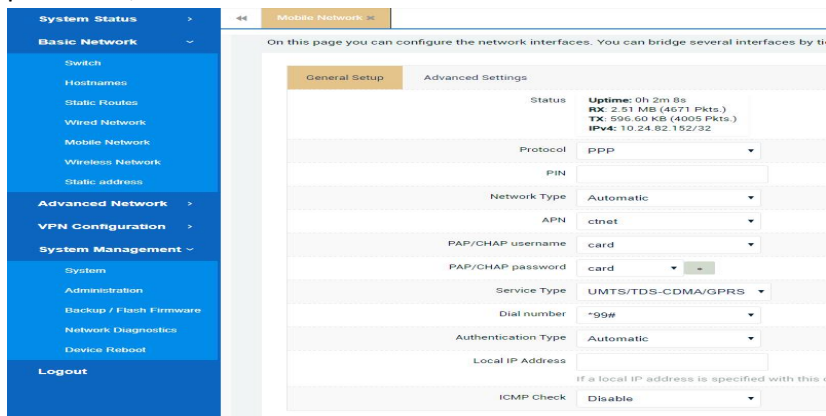


Website: www.keennew.com
Email: sales@keennew.com
Whatsapp: +86 13249165907

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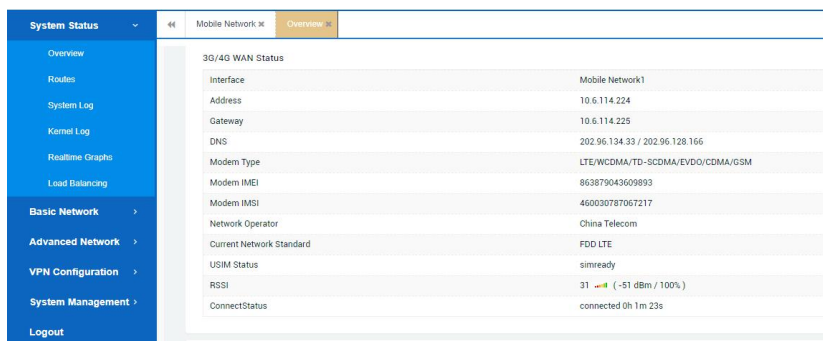
2) PPP dial-up

When you don't want to dial up with DHCP, this router also provide PPP dial-up option. Click **Basic Network > Mobile Network**, choose "PPP" as the Protocol, click **SWITCH PROTOCOL** button, no need to change the default parameter, click **SAVE & APPLY** button.



3) Check the cellular connection status

Click **System Status > 3G/4G WAN Status** to view the status of the cellular connection, the details status information will be displayed.



Note:

A) This router support IoT and VPDN card of multiple carriers.

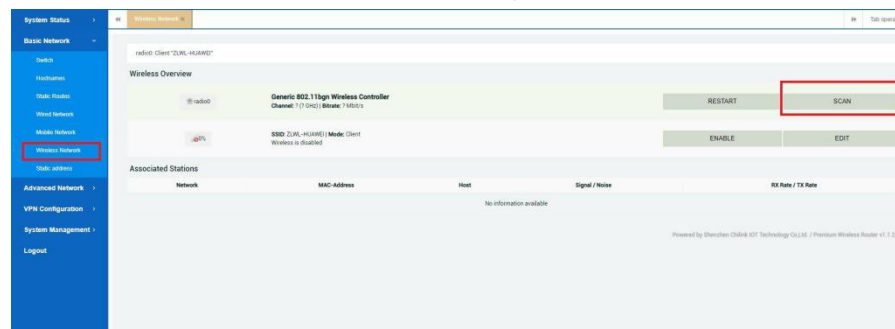
B) Generally, this router will identify APN information automatically. When dail-up fail with some IoT card and VPDN card, please contact your carrier and fill in the AP data such as username, password to configure then get cellular connection.

C) This router support wired connection, the configuration is similar with cellular network. Click **Basic Network > Wired Network > WAN**, choose "DHCP client" (Optional PPPoE, Static address) as the Protocol, click **SAVE & APPLY** button.

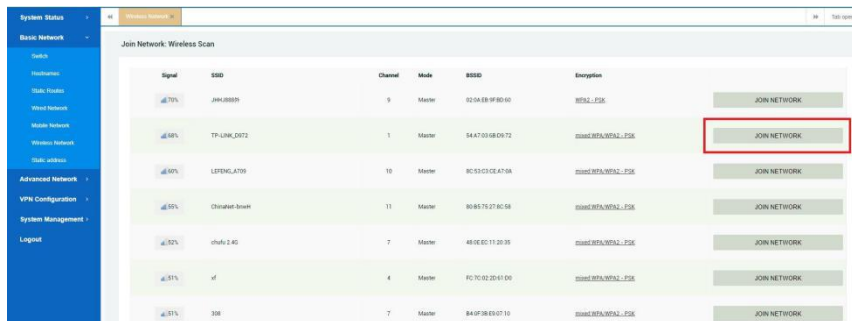
3.Configure the WiFi Connection (WiFi Client Mode)

Besides Wired Ethernet and Cellular connection, this router also support WiFi connect to internet (WiFi Client Mode)

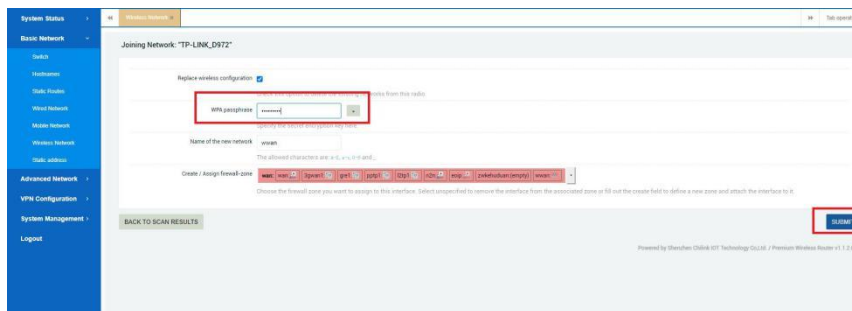
> Click **Basic Network > Wireless Network**, click **SCAN** button



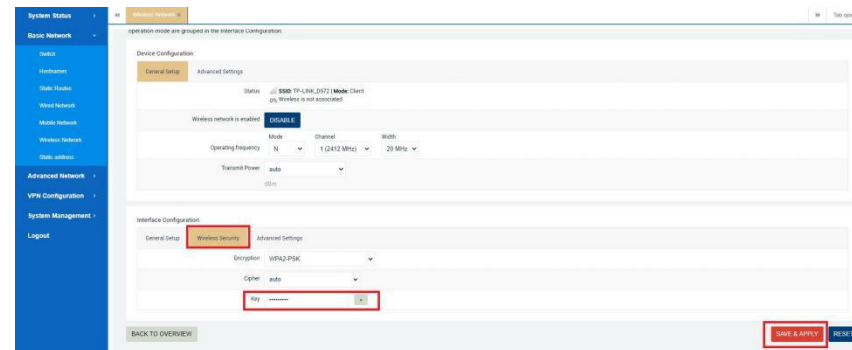
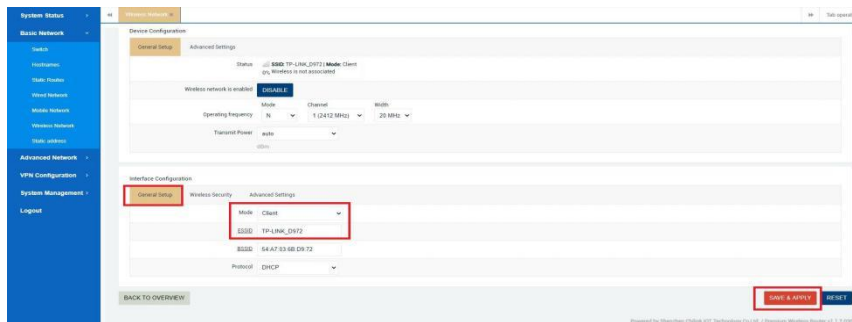
> Select the WiFi network you want to join, click **JOIN NETWORK** button



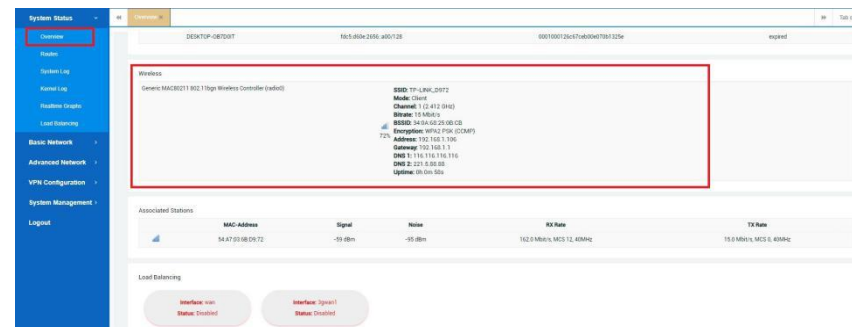
> Full in password in **WPA passphrase**, click **SUBMIT** button



> **Interface Configuration > Mode Select "Client"**, double check **ESSID** and **Wireless Security (Key)** is correct, click **SAVE & APPLY** button.



> Check WiFi connection status, click **System Status > Overview > Wireless** to view the status of the WiFi connection, the details status information will be displayed.



4. Connect PC and Terminal to Router

There are two methods to connect PC and terminal to router. One is connect with Ethernet cable, and another is connect through Wireless Access Point. Please refer to the steps below.

1) Ethernet cable connection (Wired)

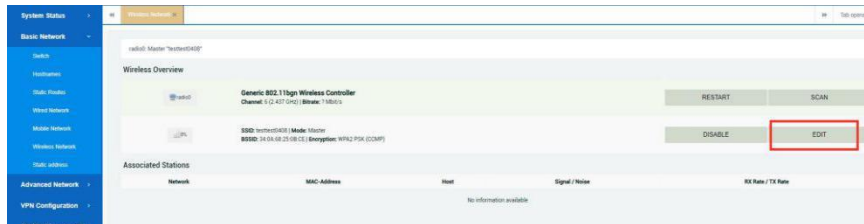
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 Email: sales@keennew.com
 Whatsapp: +86 13249165907

Connect an Ethernet cable to the LAN port of the router, and connect the other end of the cable to your computer or terminal. Obtain an IP address automatically from “**Local Area Connection**”, or to configure a static IP address manually, detail please refer to page 4 “**PC Configuration**”

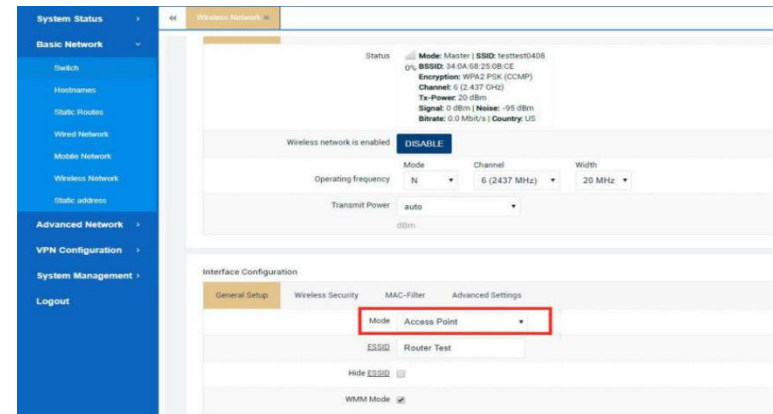
2) Wireless Access Point

To log in to the router management page, please refer to Page 6 “**Router Configuration**”

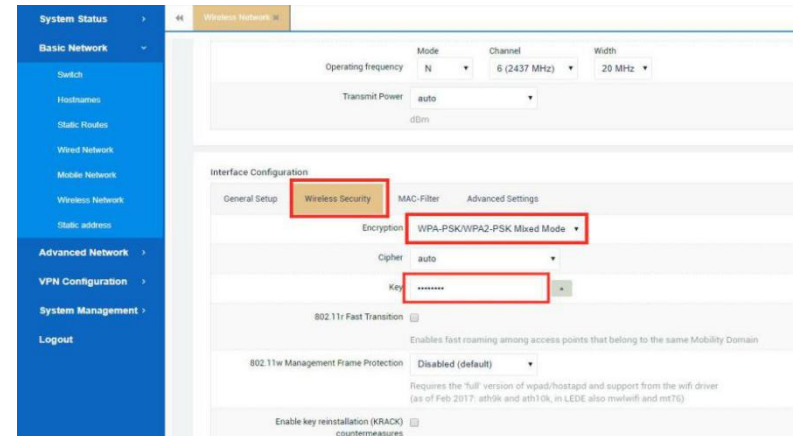
Click **Basic Network > Wireless Network > Wireless Overview**, click **EDIT** button



> General Setup, Choose “**Access Point**” as Mode, fill in **ESSID**, click **SAVE & APPLY** button.



> Wireless Security, recommend choose “**WPA-PSK/WPA2-PSK Mixed Mode**” as Encryption, set password in key, click **SAVE & APPLY** button.



When finished, use your computer or terminal scan available Wireless Access Point, choose your ESSID and key in password, then enjoy the high speed, stability, flexibility network.

CONTACT US:

Email: sales@keennew.com

WhatsApp: +8613249165907

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With the powerful R&D team, efficient manufacturing plant, professional engineer and QA function, our rugged products offer mobile, high speed, reliable, flexible, 24*7 hours connectivity for multiple fields such as Oil Field, Smart Grid, Smart City, Transportation, Industry Automation, Telco Infrastructure, Retail, Video Surveillance, etc. Our products had been passed strict quality control according to CCC, CE, ISO 9001 regulations and implemented in many well-known companies such China Mobile, China Telecom, China Unicom, KingLong Bus, UnionPay, Hive Box, etc.