Installation and Configuration Quick Guide

ZR2720N

Industrial router

Package Contents

Before installing your ZR2720N Router, please verify the kit contents as following.

- 1 x ZR2720N Industrial Cellular VPN Router
- 1 x power adapter(12V DC/1A)
- 1 x *Quick Start Guide*
- 1 x Ethernet Cable
- 1 x SMA Cellular antenna (stubby/magnet optional)
- 1 x SMA Wi-Fi antenna (stubby/magnet optional)

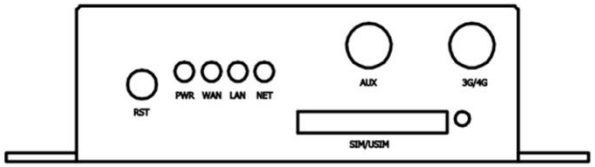
***If any of the above items is missing or damaged, please contact your sales representative.**

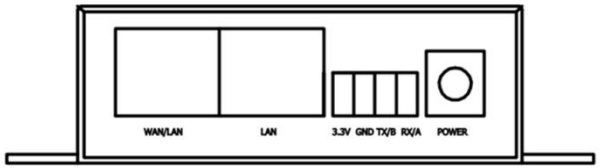
Environmental Requirements

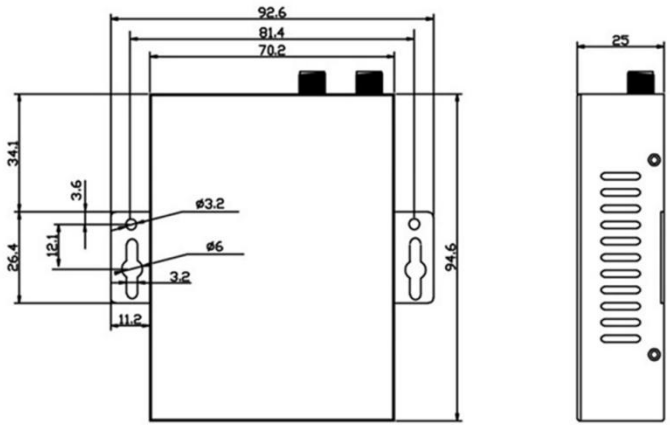
- Input voltage: 7.5V-32V(standard DC12V/1A)
- Operating temperature: -30 to +70 °C
- Storage temperature: -40 to 85°C
- Relative humidity: < 95% (no condensation)

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 (100 mSec blink time)	Link connection is working
		Off	Link connection is not working
LAN	Green	On, blinking (100 mSec blink time)	Link connection is working
		Off	Link connection is not working
NET	Green	On, solid	Network is joined successfully and worked in an optimum one
		On, blinking	Network is joined successfully but worked in a lower-level than standard
		Off	Network is not joined

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 your 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:

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.

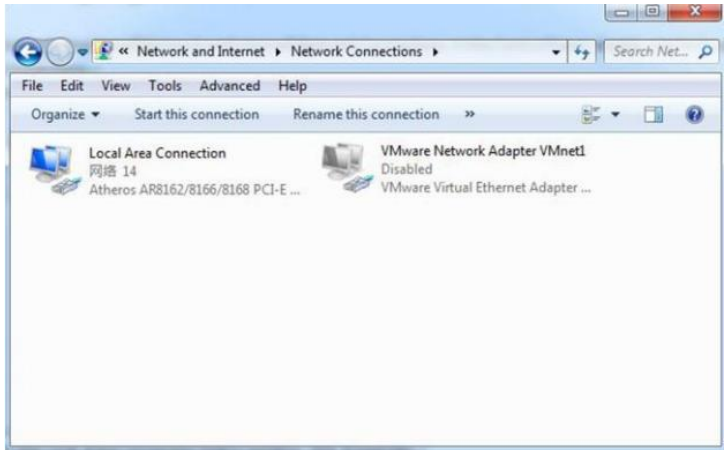
Connect the power adapter to the power input interface of the router.
Note: Voltage input is during 7.5V-32V DC.

5. Power Supply

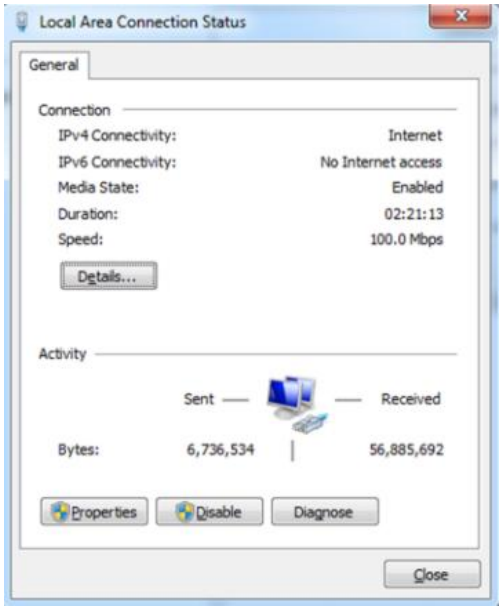
PC Configuration

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.

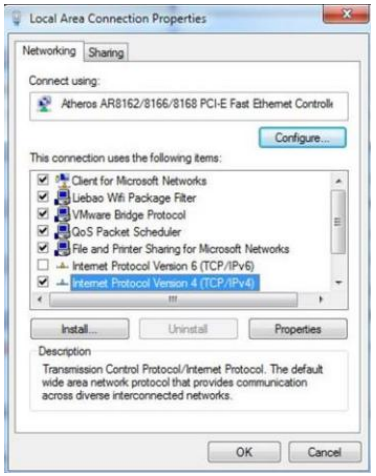
1. Click **Start > Control panel**, click **Network and Internet**, click **Network and Sharing Center**, click **Change Adapter Settings**, and then double-click **Local Area Connection (Ethernet)**.



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

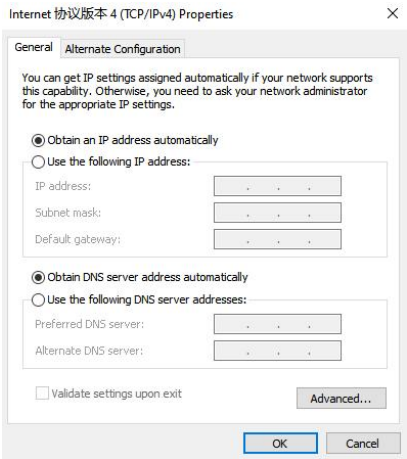


3. Choose **Internet Protocol Version 4 (TCP/IPv4)** and click **Properties**.



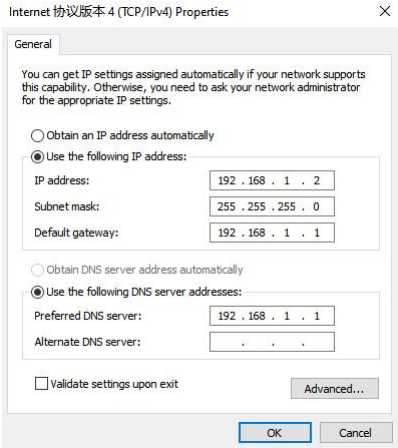
4. Two ways for configuring the IP address of PC.

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.

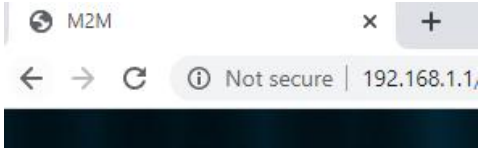
Router Configuration

1. Log in the Router

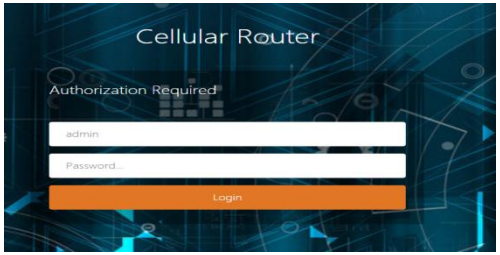
To log in to the management page and view the configuration status of your router, please follow the steps below.

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”.



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.

4) After logging in, the home page of the ZR2720N

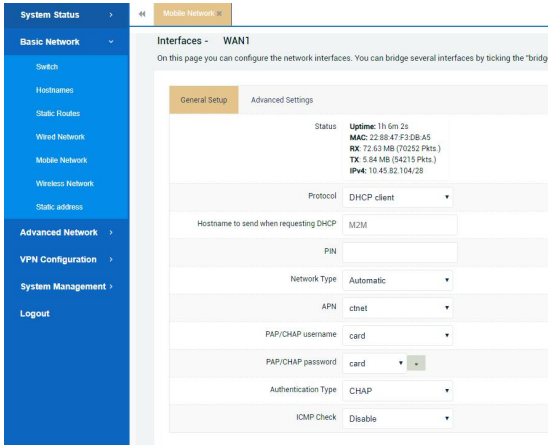
5) Router’s web interface is displayed, for example.

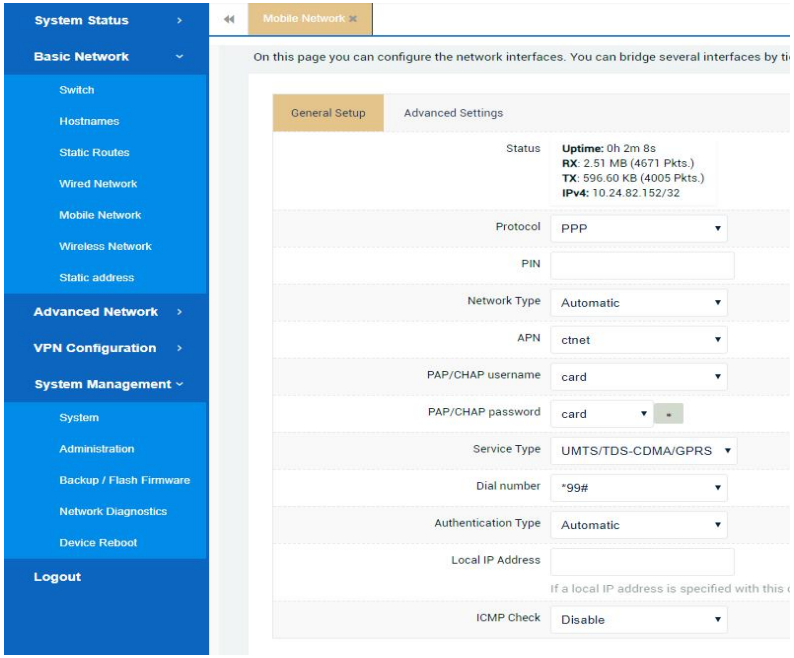
2. Configure the Cellular Connection

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.





3) Check the cellular connection status

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

Note:

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

2) 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 configuration then get cellular connection.

3) 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.

4) This router support Wi-Fi client mode for connection, detail please refer to user manual.

3.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.

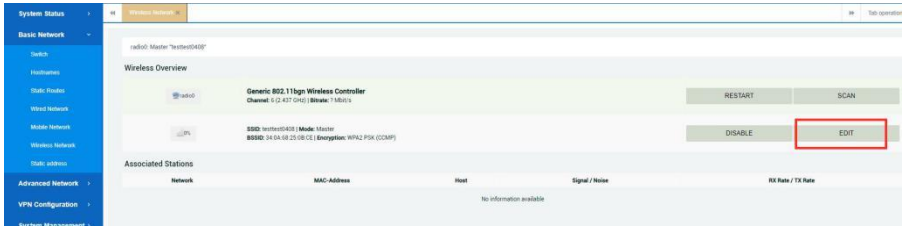
1) Ethernet cable connection (Wired)

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"

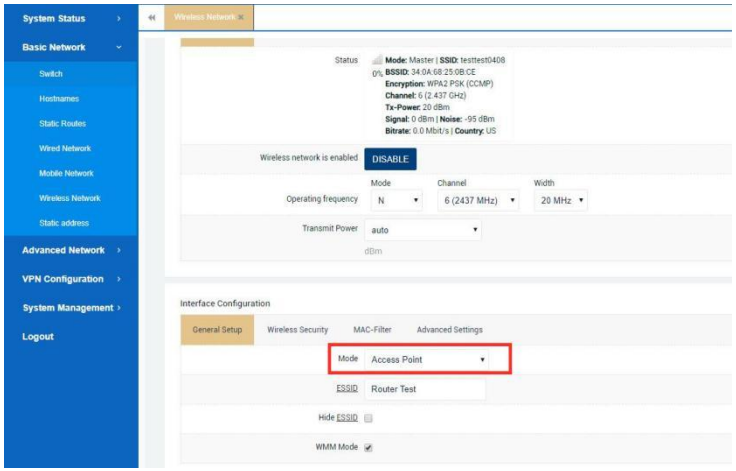
2) Wireless Access Point

To log in to the router management page, please refer to Page 6 "Router Configuration"

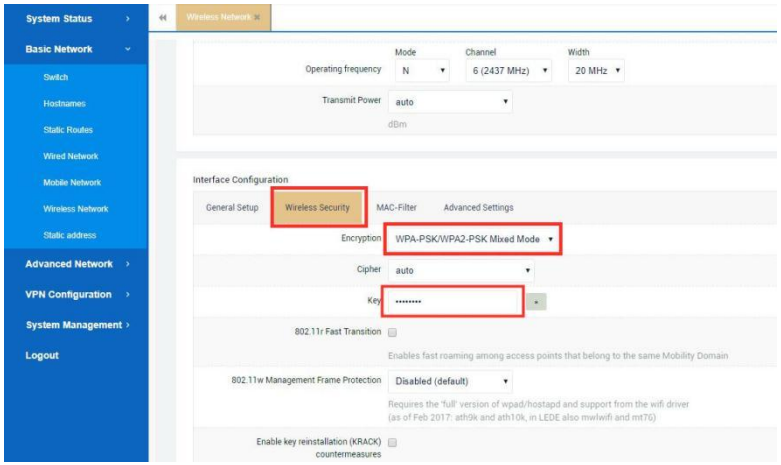
Click **Basic Network > Wireless Network> Wireless Overview**, click **EDIT** button



> **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.

FCC Warnning:

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 againstharmful interference in a residential installation. This equipment generates, uses and can radiateradio frequency energy and, if not installed and used in accordance with the instructions, maycause harmful interference to radio communications. However, there is no guarantee thatinterference will not occur in a particular installation. If this equipment does cause harmfulinterference to radio or television reception, which can be determined by turning the equipmentoff and on, the user is encouraged to try to correct the interference by one or more of thefollowing 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.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your 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 equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.

ISED Statement

- English: This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) This device may not cause interference, a nd (2) This device must accept any interference, including interference that may cause undesired operation of the device.

The digital apparatus complies with Canadian CAN ICES-3 (B)/NMB-3(B).

- French: Le présentappareilestconforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitationestautorisée aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareildoit accepter tout brouillageradi oélectriquesubi, mêmesi le brouillageest susceptible d'encompromettre le fonctionnement.

l'appareil numérique du ciem conforme canadien peut - 3 (b) / nmb - 3 (b).

This device meets the exemption from the routine evaluation limits in section 2.5 of RSS 102 and compliance with RSS 102 RF exposure, users can obtain Canadian information on RF exposure and compliance.

cet appareil est conforme à l'exemption des limites d'évaluation courante dans la section 2.5 du cnr - 102 et conformité avec rss 102 de l'exposition aux rf, les utilisateurs peuvent obtenir des données canadiennes sur l'exposition aux champs rf et la conformité.

This equipment complies with Canada radiation exposure limits set forth for an uncontrolled environment.

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

Cet équipement est conforme Canada limites d'exposition aux radiations dans un environnement non contrôlé.

Cet équipement doit être installé et utilisé avec une distance minimale de 20 cm entre le radiateur et votre corps.