InHand Networks

Industrial Router IR315 Product Quick Guide

Overview

This manual is a guide for the installation and operation of IR315 routers from InHand Networks. Please confirm the product model and packaging accessories (power terminal, antenna), and purchase SIM cards from local network operators.

All statements, information and recommendations in this manual do not constitute any expressed or implied warranty.

1. Packing List

Each IR315 product includes common accessories, please check carefully when you receive our products. If there is any missing or damage, please contact InHand sales staff.

InHand can provide customers with optional accessories according to a different field. Please refer to the list of optional accessories for detailed information.

Accessories	Unit	Remarks
IR315	1	Router
DIN-rail	2	DIN 35mm Rail
4G antenna	1	North American models have 2 antennas
Wi-Fi antenna	2	Wi-Fi antenna
Ethernet cable	1	Ethernet cable
Power adaptor	1	12V DC Power Adapter
Certificate and product warrant card	1	IR315 has 3 years of warranty period

2. Panel Introduction
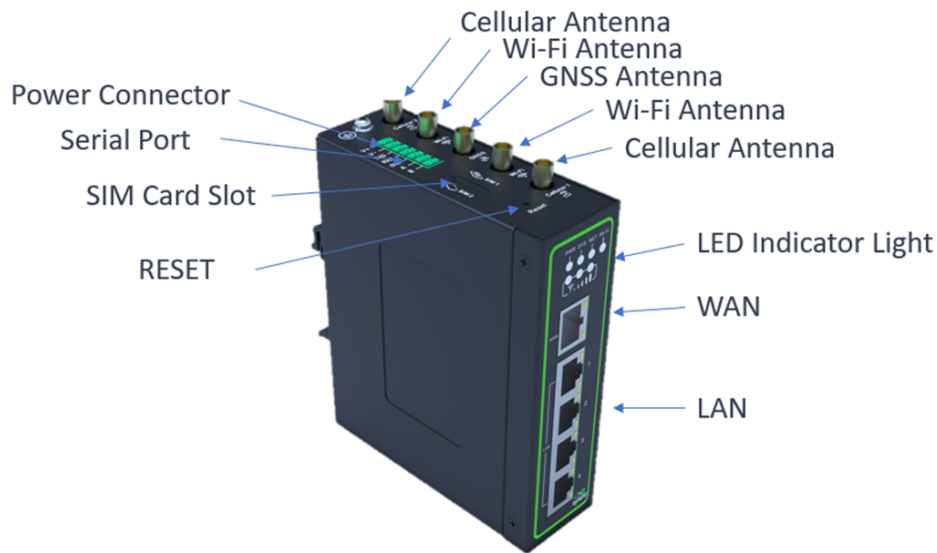
3. Installation

Precautions for installation:

- Power supply: 12V DC, please pay attention to the power voltage level.
- Environment: Working temperature: -20℃～70℃, storage temperature: -40℃～85℃, relative humidity: 5%~95% (no frosting), equipment surface may be high temperature, please consider the surrounding environment before installation. The device should be installed in the restricted area.
- Avoid direct sunlight, away from heat sources or strong electromagnetic interference
- Check for cables and connectors required for installation.

3.1 SIM Card Installation

IR315 supports dual nano SIM cards. Stick Stab the hole on the left of the SIM card slot to eject it. Then insert a SIM card.

3.2 Antenna Installation

Rotate the metal interface clockwise until the movable part cannot be rotated, do not hold the black glue stick to twist the antenna.

4. Access the Internet

IR315 supports three ways of accessing to Internet: wired, cellular and Wi-Fi.

When IR315 does not access the Internet via cellular, please disable Cellular in "Network > Cellular", otherwise the device will restart after trying to dial up and fail several times.
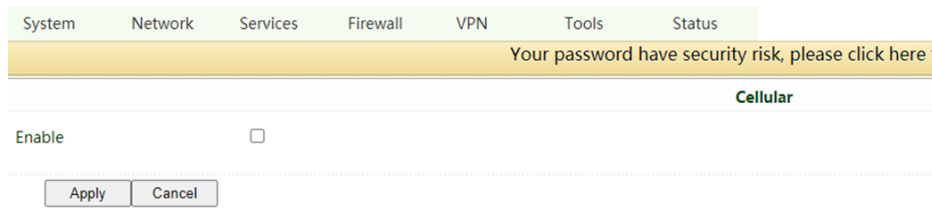
4.1 Wired Access

Step 1: Connect power and Ethernet cable to IR315, connect WAN/LAN1 port to public network, and one of LAN to PC.

Step 2: Configure the PC to be in the same network segment as the IP address of the router.

1. Enable the PC to obtain an IP address from DHCP automatically (recommended).
2. Configure a fixed IP address in the same network segment as the router for the PC. The IP address should be one of the addresses in 192.168.2.2~192.168.2.254, the Subnet mask should be 255.255.255.0, and the Default gateway should be 192.168.2.1. The DNS server should be 8.8.8.8 or the address of the ISP's DNS server.
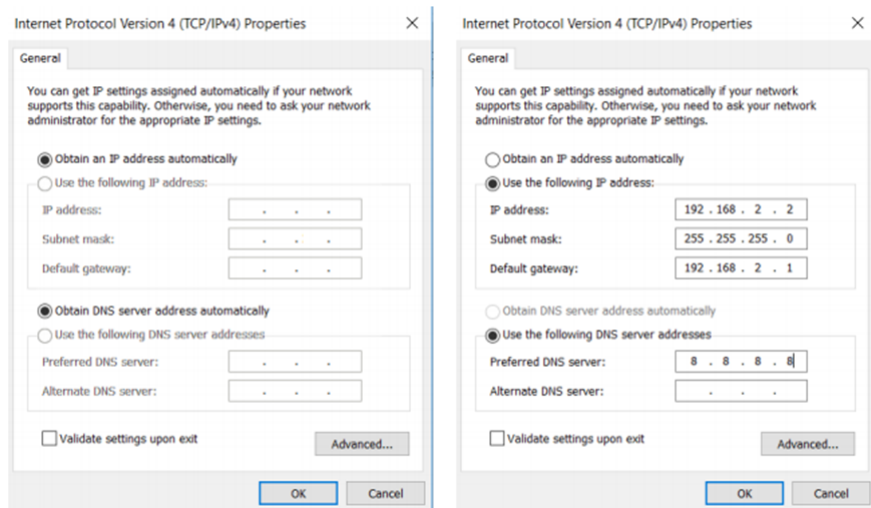
Step 3: Access the default IP address 192.168.2.1 in a browser, enter username and password (adm/123456 by default) in the pop-up window and then access to router's WEB management page. If the browser alarms the connection is not private, show advanced, and proceed to access the address.
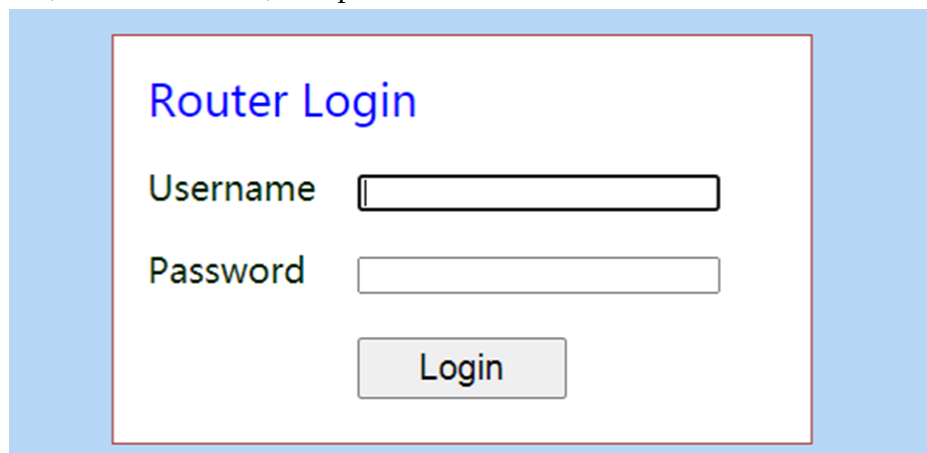
Step 4: Create a WAN port in "Network >> WAN" in the left menu. Configure an IP address for the WAN port and let the router connect to the Internet.

There are three methods to obtain an IP address: Dynamic DHCP (recommend). Static IP (Click Apply & Save after configure manually) and ADLS Dialup (Click Apply & Save after configure manually).

Obtain IP address by Dynamic Address (DHCP)

Obtain IP address by Static IP

Obtain IP address by ADSL Dialup

Step 5: Check the connectivity in "Tools > PING".

4.2 SIM Card Dial-up

Step 1: Insert the SIM card when the device is powered off. Connect the 4G antenna to the router, and connect the PC to the router. Then power on.

Note：
When inserting or plugging out the SIM card, please unplug the power cable to prevent data loss or damage to the router.

Step 2: Open a browser and access to router's WEB management page. (refer to 4.1)

Step 3: Click "Network >> Cellular", and set your profile. The device enables the cellular by default, it will connect to the Internet within a few minutes. If the device cannot connect to the Internet, please disable and restart dialup. (If you use a private network SIM card, you also need to configure the APN parameter)

Step 4: Check the dial-up status in the 'Status' section. If it displays 'Connected' and shows an IP address along with other dial-up parameters, it means the router has successfully connected to the Internet via the SIM card.

4.3 Wi-Fi to Internet

Step 1: Connect the Wi-Fi antenna, and connect the PC to the device. Access to router's WEB management page. (refer to 4.1)

Step 2: Set Wi-Fi mode: AP or STA.

AP mode (default mode): IR315 acts as an access point to radiate wireless signals, and other terminal devices can connect this device to access the Internet. It is necessary to ensure that IR315 itself has been connected to the Internet through wired or cellular. AP mode supports setting SSID name and encryption authentication mode, and terminal devices will need to input a password when connecting.

STA mode: IR315 connects to other AP Wi-Fi devices to access the Internet.

a. Select WLAN Type to STA in "Network>>Switch WLAN Mode" and save. Then reboot the router.
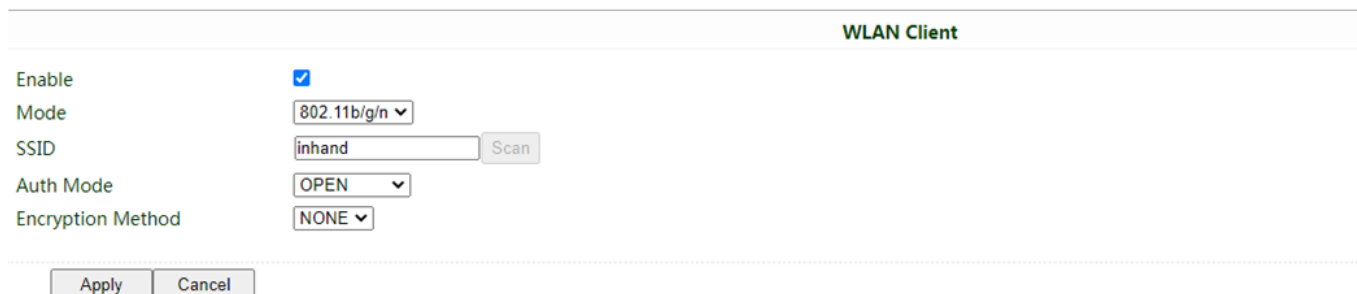

b. Click "Scan" to scan available APs in "Network>>WLAN Client", and click Connect to choose one of the APs.

c. Configure Wi-Fi parameters and save. Then check the connection status in "Status".
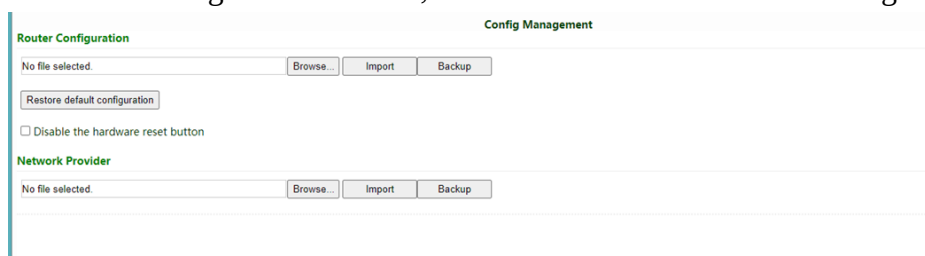
d. Configure WAN mode in "Network>>WAN(STA)", and set WAN parameters for Wi-Fi.

5. Quick-Use Guidance

5.1 Restore to Factory Setting

5.1.1 Web Setting

Login to the WEB management page, and click on the "System>> Config Management" menu in the navigation tree. Click the "Restore default configuration" button, router will restore to default settings after reboot.

5.1.2 Hardware Restore

To restore to default settings via the reset button, please perform the following steps:

1. Press the RESET button immediately after powering on the device.
2. The system indicator will blink after a few seconds, and after blinking for about half a minute, it will be steady.
3. Release the RESET button, the System indicator will blink, and press the RESET button again.

4. When the System indicator blinks slowly, release the RESET button. The device has been restored to default settings and will start up normally later.

5.2 Import/Export Configuration

Click "System > Config Management", click "Browse" in Router Configuration, select a configuration file, and click Import to import the configuration file to the router.
Click Backup running-config to export configuration.

5.3 Log and Diagnose Record

Click "Status >> log" and check the system log-in router. Click the Download Log File button to download the log from the router, and click Download System Diagnosing Data to download the diagnose record from the router.

5.4 Connect to InHand Platform

Make sure that the router is already connected to the Internet. Click "Service>>Device Manager" to set the router to connect to DM. iot.inhand.com.cn is the server for China, and iot.inhandnetworks.com is the server for global. Fill in your DM account in Registered Account then click "Apply" to save the configuration.
If you don't have a DM account, please click "Sign up/Sign in" After selecting the server, then you will be directed to the InHand Device Manager website, please follow the instructions to register an account.
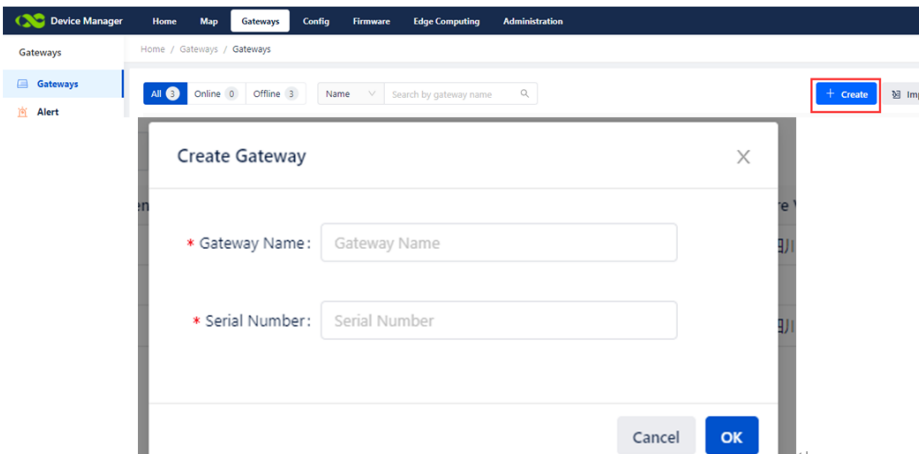

Login to your account in Device Manager, and add your device in "Gateways", name your device and fill in the serial number from the device, then you can manage your router in DM.
You can find the serial number in "Status>>System", or you can find it at the back of the device.

6. Description of Indicators

IR315 LED	Status
PWR	Red off --- Power off Steady in red --- Power on
SYS	Green off --- System error Blink in Green --- System Upgrading Steady in Green --- System working
Wi-Fi	Green off --- Wi-Fi disable Blink in Green --- Wi-Fi connecting Steady in Green --- Wi-Fi working
NET	Green off --- Network disconnected Blink in Green --- Network connecting Steady in Green --- Network connected
Signal	Three green lights steady on --- Dial-up successful, signal strength ≥ 20. Two green lights steady on --- Dial-up successful, 19 ≥ signal strength ≥ 10. One green light steady on --- Dial-up successful, signal strength ≤ 9.