



UR35

# Industrial Cellular Router

## Quick Start Guide



## Welcome

Thank you for choosing Ursalink UR35 industrial cellular router.

This guide describes how to install the UR35 and how to log in the Web GUI to configure the device. Once you complete the installation, refer to the Ursalink UR35 User Guide for instructions on how to perform configurations on the device.

## Related Documents

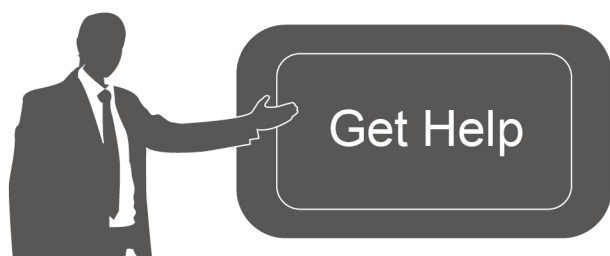
This Start Guide only explains the installation of Ursalink UR35 router. For more functionality and advanced settings, please refer to the relevant documents as below.

Document	Description
Ursalink UR35 Datasheet	Datasheet for the Ursalink UR35 industrial cellular router.
Ursalink UR32&UR35 User Guide	Users could refer to the guide for instruction on how to log in the web GUI, and how to configure all the settings.

The related documents are available on Ursalink website: <http://www.ursalink.com>.

## Declaration of Conformity

UR35 are in conformity with the essential requirements and other relevant provisions of the CE, FCC, and RoHS.

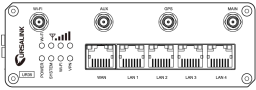


For assistance, please contact  
Ursalink technical support:  
Email: [support@ursalink.com](mailto:support@ursalink.com)  
Tel: 86-592-5023060  
Fax: 86-592-5023065

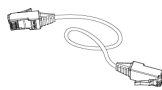
## 1. Packing List

Before you begin to install the UR35 router, please check the package contents to verify that you have received the items below.

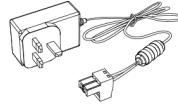
### 1.1 Package Contents



1 × UR35



1 × Ethernet Cable



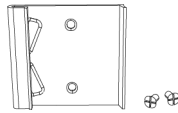
1 × Power Adapter



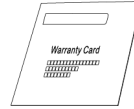
2 × Magnetic Mount  
Cellular Antennas



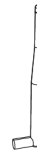
1 × 8-Pin Pluggable  
Terminal



1 × DIN Rail Kit



1 × Warranty Card



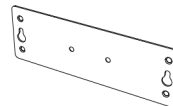
2 × Stubby Cellular  
Antennas (Optional)



1 × Stubby Wi-Fi  
Antenna (Optional)



1 × GPS Antenna  
(Optional)



1 × Wall Mounting  
Bracket (Optional)

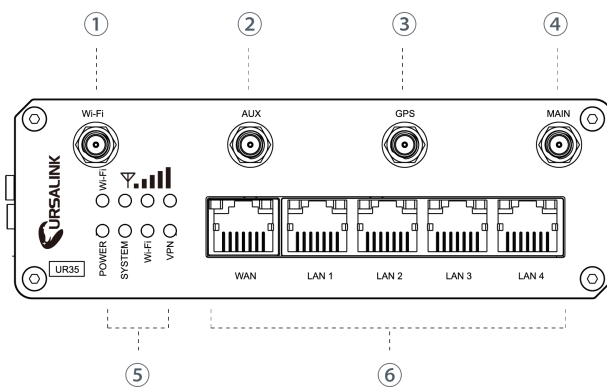


**If any of the above items is missing or damaged, please contact your Ursalink sales representative.**

## 2. Hardware Introduction

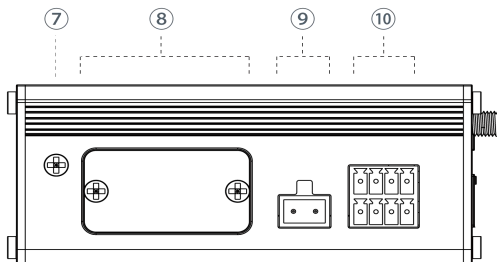
### 2.1 Overview

#### A. Front Panel



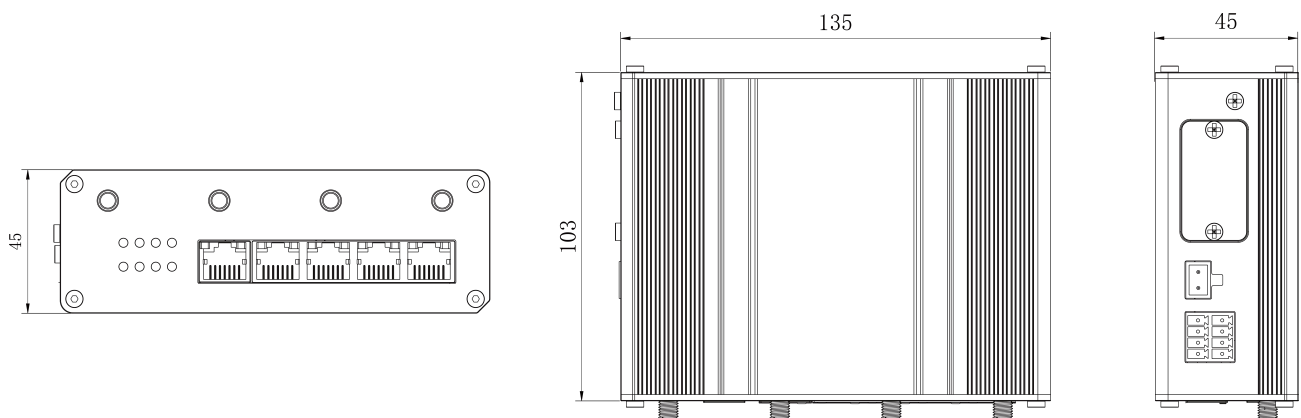
- ① Wi-Fi Antenna Connector
- ② AUX Antenna Cellular Connector
- ③ GPS Antenna Connector
- ④ MAIN Cellular Antenna Connector
- ⑤ LED Indicator Area
  - POWER: Power Indicator
  - SYSTEM: Status Indicator
  - Wi-Fi: Wi-Fi Indicator
  - VPN: VPN Indicator
  - SIM : SIM Status Indicator
  - 📶: Signal Strength Indicator
- ⑥ Ethernet Port & Indicator

#### B. Left Side Panel

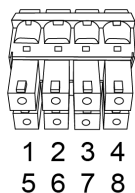


- ⑦ Grounding Stud
- ⑧ SIM and Reset Button Holder
- ⑨ Power Connector
- ⑩ Serial Port & I/O

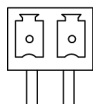
### 2.2 Dimensions (mm)



## 2.3 Pinouts



V+ V-



PIN	RS232	RS485	DI	DO	Description
1	---	---	IN	---	Digital Input
2	GND	---	GND	---	Ground
3	---	B	---	---	Data -
4	TXD	---	---	---	Transmit Data
5	---	---	---	COM	Common Ground
6	---	---	---	OUT	Digital Output
7	---	A	---	---	Data +
8	RXD	---	---	---	Receive Data

PIN	Description
9	Positive
10	Negative

## 2.4 LED Indicators

LED	Indication	Status	Description
POWER	Power Status	Off	The power is switched off
		On	The power is switched on
SYSTEM	System Status	Green Light	Static: Start-up Blinking slowly: the system is running properly
		Red Light	The system goes wrong
VPN	VPN Status	Off	VPN is disconnected
		Green Light	VPN is connected
Wi-Fi	Wi-Fi Status	Off	Wi-Fi is disabled
		Green Light	Static: Wi-Fi is enabled Blinking slowly: sending or receiving data via Wi-Fi
SIM	SIM Card Status	Off	SIM1 or SIM2 is registering or fails to register (or there are no SIM cards inserted)
		Green Light	Blinking slowly: SIM1 (as primary SIM) has been registered and is ready for dial-up
			Blinking rapidly: SIM1(as primary SIM) has been registered and is dialing up now
		Orange Light	Static: SIM1 (as primary SIM) has been registered and dialed up successfully
			Blinking slowly: SIM2 (as primary SIM) has been registered and is ready for dial-up Blinking rapidly: SIM2 (as primary SIM) has been registered and is dialing up now

			Static: SIM2 (as primary SIM) has been registered and dialed up successfully
Signal Strength	Signal 1/2/3	Off	No signal
		Green Light	Static/Off/Off: weak signals with 1-10 ASU (please check if the antenna is installed correctly, or move the antenna to a suitable location to get better signal)
			Static/Static/Off: normal signals with 11-20 ASU (average signal strength)
			Static/Static/Static: strong signals with 21-31 ASU (signal is good)

## 2.5 Reset Button

Function	Description	
	SYSTEM LED	Action
Reboot	Blinking	Press and hold the reset button for about 5-15 seconds.
	Static Green	Release the button and wait for system to reboot.
Reset	Blinking	Press and hold the reset button for more than 15 seconds.
	Static Green → Rapidly Blinking	Release the button and wait.
	Off → Blinking	The router is now reset to factory defaults.

## 2.6 Ethernet Port Indicator

Indicator	Status	Description
Link Indicator (Orange)	On	Connected
	Blinking	Transmitting data
	Off	Disconnected

### 3. Hardware Installation

#### Environmental Requirements

- Power Input: 9-48 VDC
- Power Consumption: Typical 3.9 W, Max 4.6 W
- Operating Temperature: -40°C to 70°C (-40°F -158°F)
- Relative Humidity: 0% to 95% (non-condensing) at 25°C/77°F

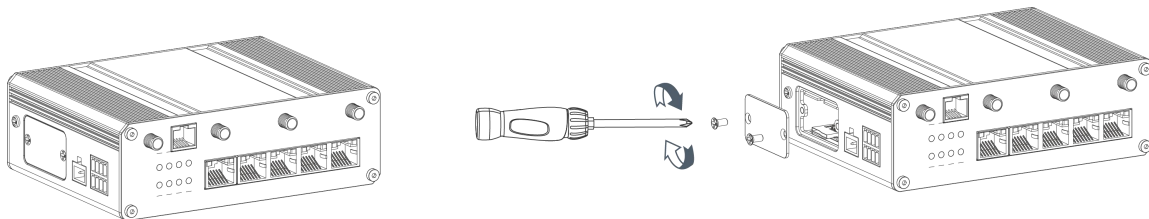
#### 3.1 SIM Card/Micro SD Card Installation



UR35 do not support hot-plug. Please cut off the power before insert or take off cards.

A. Unscrew the cover of the SIM card/Micro SD then insert the card then take it off.

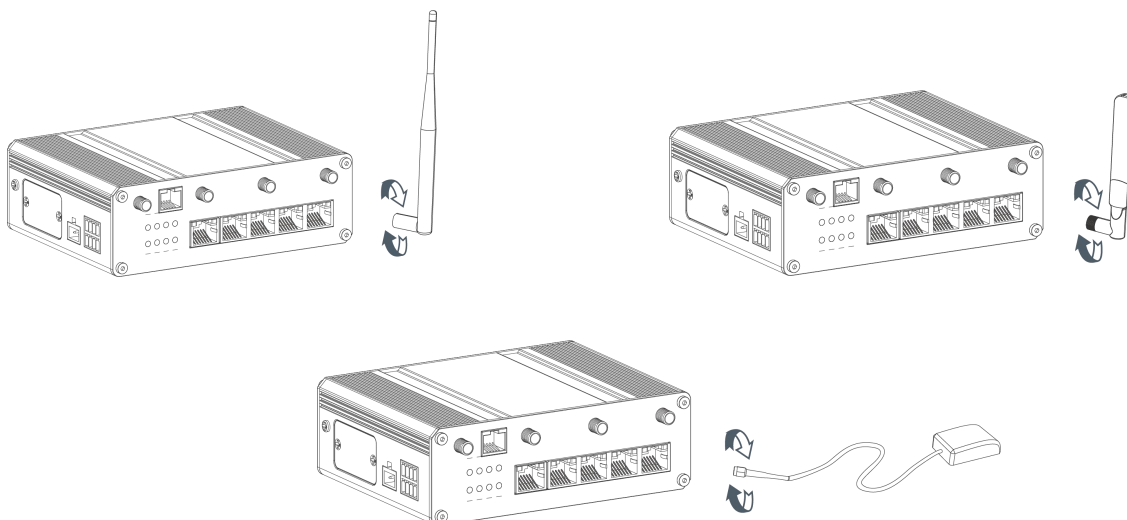
B. Put SIM card/Micro SD card into the slot and screw it up.



#### 3.2 Antenna Installation

Rotate the antenna into the antenna connector accordingly.

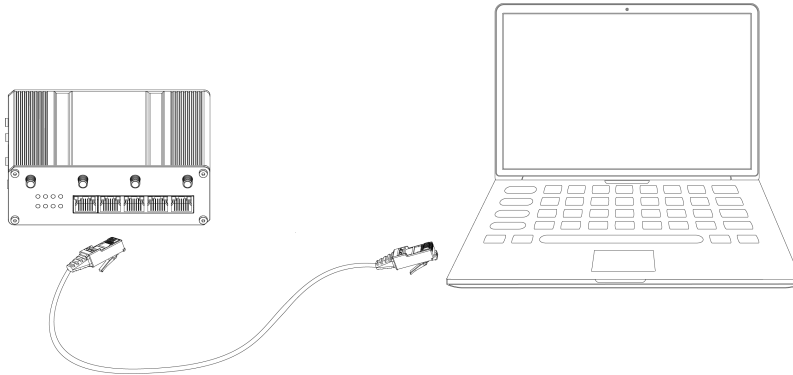
The external antenna should be installed vertically always on a site with a good signal.



### 3.3 Connect the Router to a Computer



Please connect PC to any port among LAN1-LAN4 of UR35 router directly.



### 3.4 Mount the Router

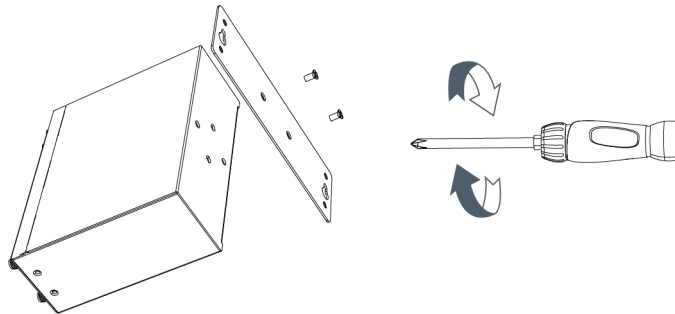
The router can be placed on a desktop or mounted to a wall or a DIN rail.

#### 3.4.1 Wall Mounting (Measured in mm)

Use 2 pcs of M3 × 6 flat head Phillips screws to fix the wall mounting kit to the router, and then use 2 pcs of M3 drywall screws to mount the router associated with the wall mounting kit on the wall.



Recommended torque for mounting is 1.0 N·m, and the maximum allowed is 1.2 N·m.



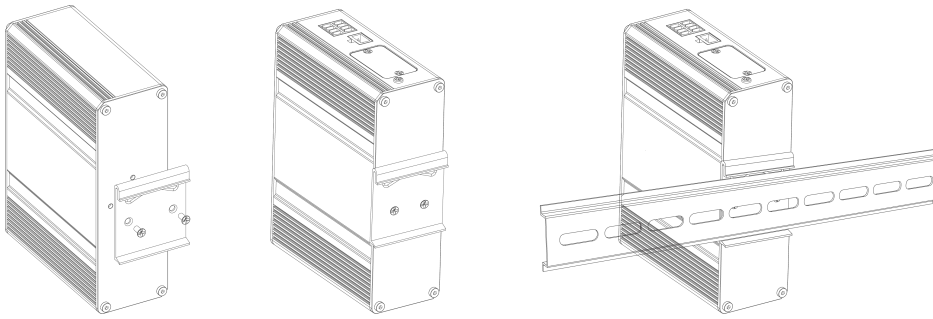
#### 3.4.2 DIN Rail Mounting (Measured in mm)

Use 2 pcs of M3 × 6 flat head Phillips screws to fix the DIN rail to the router, and then hang the DIN rail on the mounting bracket. It is necessary to choose a standard bracket.



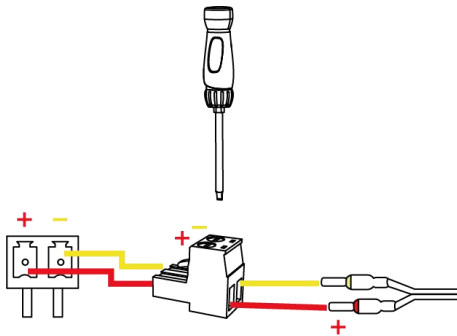
Recommended torque for mounting is 1.0 N·m, and the maximum allowed is 1.2 N·m.





### 3.5 Power Supply Installation

- Take out the terminal from the router and unscrew the bolt on terminal.
- Screw down the bolt after inserting power cable into the terminal.



Connecting the Power Cable

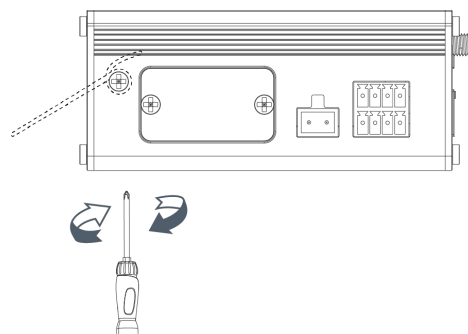
Color	Polarity
Red	+
Yellow	-



If you insert wires into the reverse holes, the router will not start and you must switch the wires into the correct holes.

### 3.6 Protective Grounding Installation

- Remove the grounding nut.
- Connect the grounding ring of the cabinet's grounding wire onto the grounding stud and screw up the grounding nut.



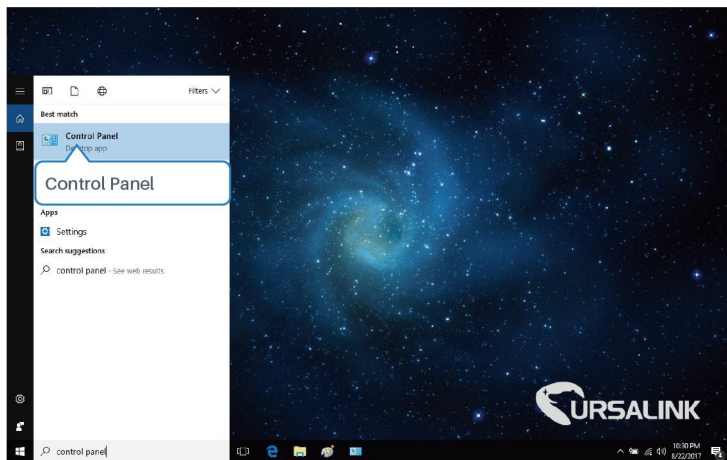
The router must be grounded when deployed. According to operating environment, the ground wire should be connected with grounding stud of router.

## Getting Started

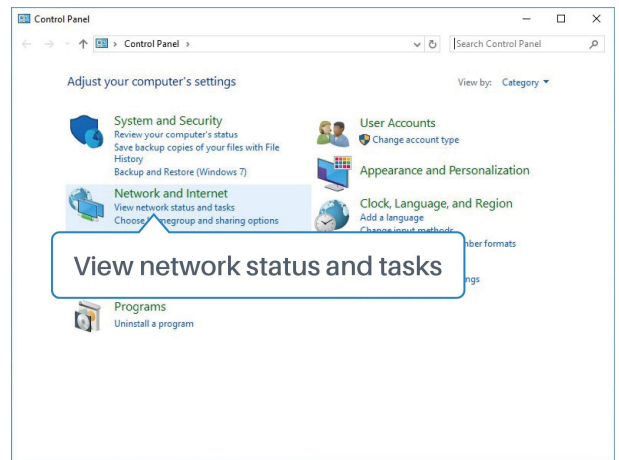
### 4. PC Configuration for Web GUI Accessing to Router

Please connect PC to any port among LAN1-LAN4 of UR35 router directly. PC can obtain an IP address, or you can configure a static IP address manually. The following steps are based on Windows 10 operating system for your reference.

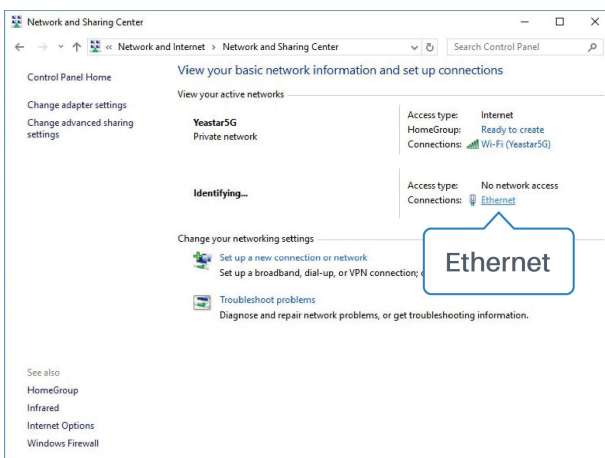
(Note: As remote access is disabled by default, you can't access to the router's Web GUI if you connect PC to WAN port of the router. But it will function properly if you enable it on the Web GUI.)



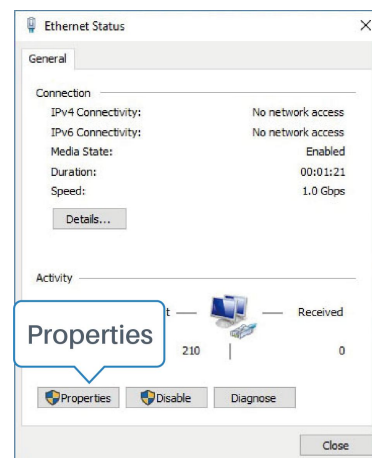
- ① Click "Search Box" to search "Control Panel" on the Windows 10 taskbar.



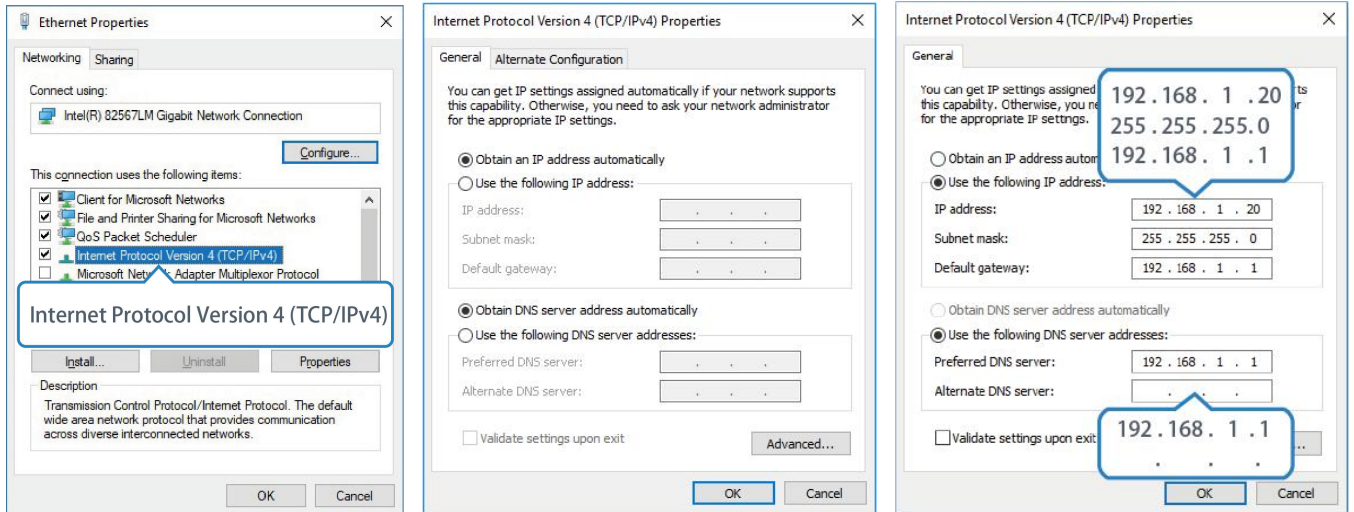
- ② Click "Control Panel" to open it, and then click "View network status and tasks".



- ③ Click "Ethernet" (May have different names).



- ④ Click "Properties".



- ⑤ Double Click “Internet Protocol Version 4 (TCP/IPv4)” to configure IP address and DNS server.

- ⑥ Method 1: click “Obtain an IP address automatically”;

Method 2: click “Use the following IP address” to assign a static IP manually within the same subnet of the router.

(Note: Remember to click “OK” to finish configuration.)

## 5. Access to Web GUI of Router for Cellular Connection

This chapter explains how to log in UR35 router's Web GUI, and connect the router to cellular network. Ursalink router provides Web-based configuration interface for management. If this is the first time you configure the router, please use the default settings below:

IP Address: **192.168.1.1**

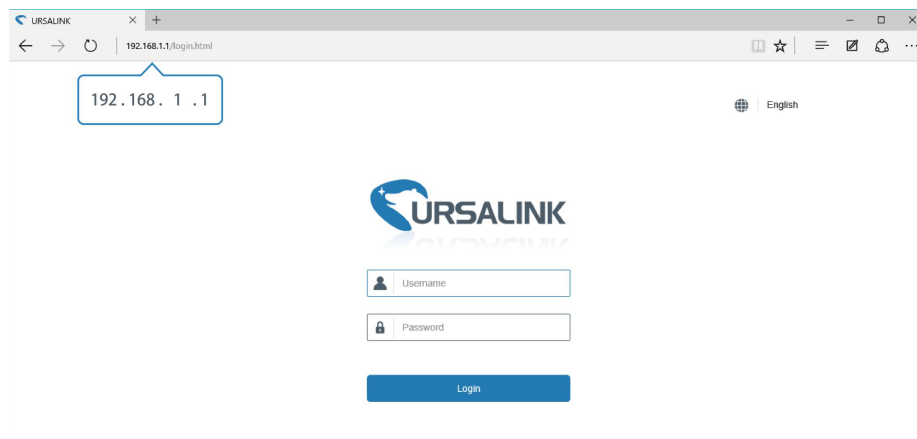
Username: **admin**

Password: **password**

### 5.1 To Log in the Router

**!** Make sure your PC is connected to the same network as the router as per [Section 4](#).

- Start a Web browser on your PC (Chrome and IE are recommended), type in the IP address, and press Enter on your keyboard.
- Enter the username and password, click "Login".



**!** If you enter the username or password incorrectly more than 5 times, the login page will be locked for 10 minutes.

- When you log in with the default username and password, you will be asked to modify the password. It's suggested that you change the password for the sake of security. Click "Cancel" button if you want to modify it later.

Change Password

Old Password

New Password

Confirm New Password

Save

Cancel

D. After you log in the Web GUI, you can view system information and perform configuration on the router.



For your device security, please change the default password!	
Status	Overview Cellular Network WLAN VPN Routing Host List GPS
Network	System Information
System	Model UR35
Industrial	Partnumber L00E-W22-S1111-GPS-P
Maintenance	Serial Number 621992583655
	MAC 24:E1:24:F0:32:8A
	Firmware Version 35.1.0.13
	Hardware Version V1.0
	Local Time 2019-07-18 15:02:16 Thursday
	Uptime 00:01:54
	CPU Load 17%
	RAM (Capacity/Available) 128MB/68MB(53.13%)
	Flash (Capacity/Available) 128MB/91MB(71.09%)

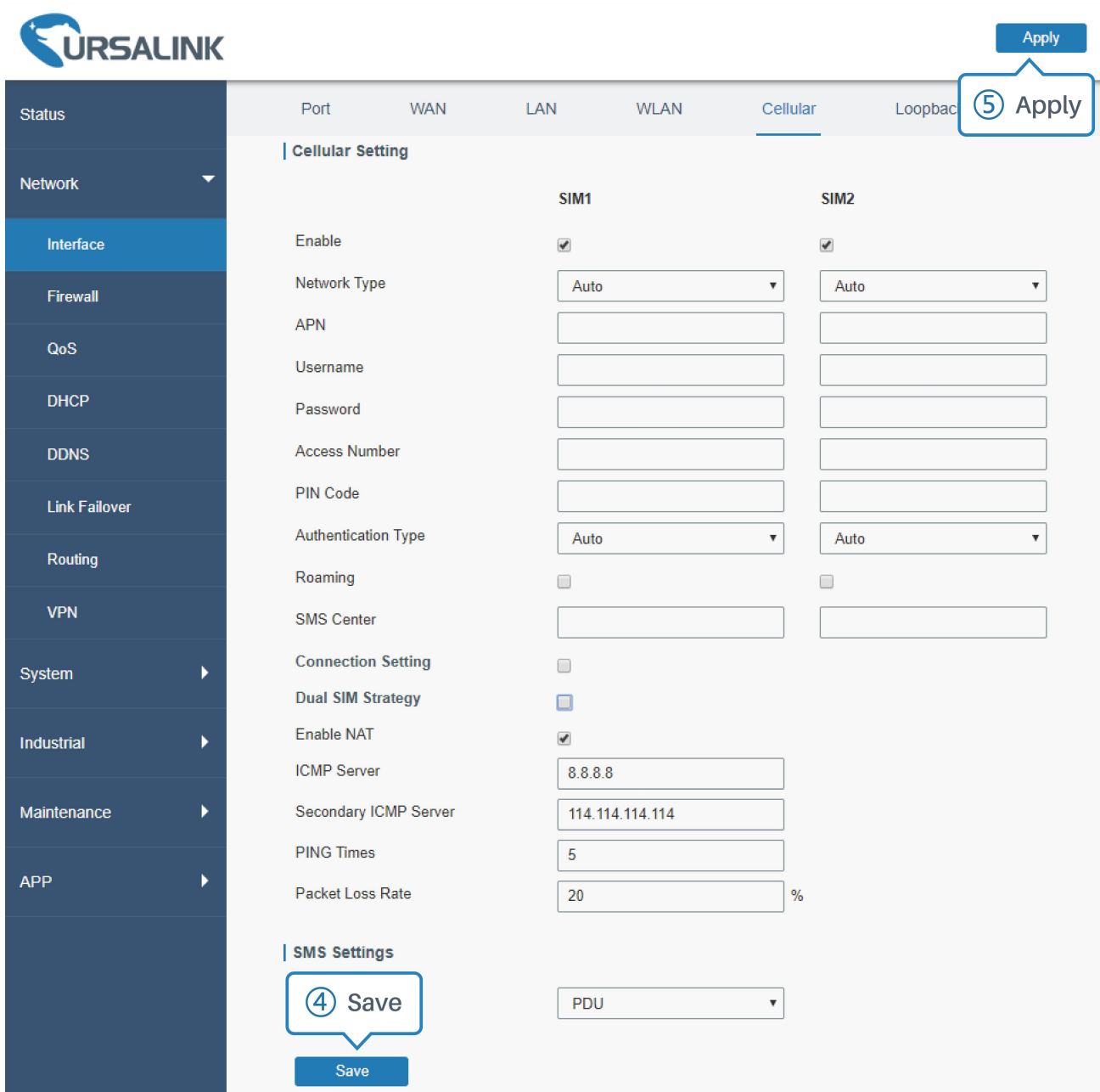
## 5.2 Configure the Cellular Connection

Take inserting SIM card into SIM1 slot as an example; please refer to the following detailed operations.

- Click "Network" → "Interface" → "Cellular" → "Cellular Setting" to configure the cellular info.
- Enable SIM1.
- Choose relevant network type. "Auto", "4G First", "4G Only", "3G First", "3G Only", "2G First" and "2G Only" are optional.
- Click "Save" and "Apply" for configuration to take effect.



Status	Port	WAN	LAN	WLAN	Cellular																														
Network	Cellular Setting																																		
Interface	<div> <div>① Interface</div> <div>② Cellular</div> <div>③ "Auto" or others</div> </div>																																		
Firewall	<table border="1"> <thead> <tr> <th></th> <th>SIM1</th> <th>SIM2</th> </tr> </thead> <tbody> <tr> <td>Enable</td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Network Type</td> <td>Auto</td> <td>Auto</td> </tr> <tr> <td>APN</td> <td></td> <td></td> </tr> <tr> <td>Username</td> <td></td> <td></td> </tr> <tr> <td>Password</td> <td></td> <td></td> </tr> <tr> <td>Access Number</td> <td></td> <td></td> </tr> <tr> <td>PIN Code</td> <td></td> <td></td> </tr> <tr> <td>Authentication Type</td> <td>Auto</td> <td>Auto</td> </tr> <tr> <td>Roaming</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </tbody> </table>						SIM1	SIM2	Enable	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Network Type	Auto	Auto	APN			Username			Password			Access Number			PIN Code			Authentication Type	Auto	Auto	Roaming	<input type="checkbox"/>	<input type="checkbox"/>
	SIM1	SIM2																																	
Enable	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																																	
Network Type	Auto	Auto																																	
APN																																			
Username																																			
Password																																			
Access Number																																			
PIN Code																																			
Authentication Type	Auto	Auto																																	
Roaming	<input type="checkbox"/>	<input type="checkbox"/>																																	
QoS																																			
DHCP																																			
DDNS																																			
Link Failover																																			
Routing																																			



URSALINK

Status Network Interface Firewall QoS DHCP DDNS Link Failover Routing VPN System Industrial Maintenance APP

Port WAN LAN WLAN Cellular Loopback

Cellular Setting

SIM1 SIM2

Enable ☒ ☒

Network Type Auto Auto

APN

Username

Password

Access Number

PIN Code

Authentication Type Auto Auto

Roaming ☐ ☐

SMS Center

Connection Setting ☐

Dual SIM Strategy ☐

Enable NAT ☒

ICMP Server 8.8.8.8

Secondary ICMP Server 114.114.114.114

PING Times 5

Packet Loss Rate 20 %

SMS Settings

4 Save

Save

PDU

5 Apply

If you select “Auto”, the router will obtain ISP information from SIM card to set APN, Username, and Password automatically. This option will only be taken effect when the SIM card is issued from a well-known ISP.

If you select “4G First” or “4G Only”, you can click “Save” to finish the configuration directly.

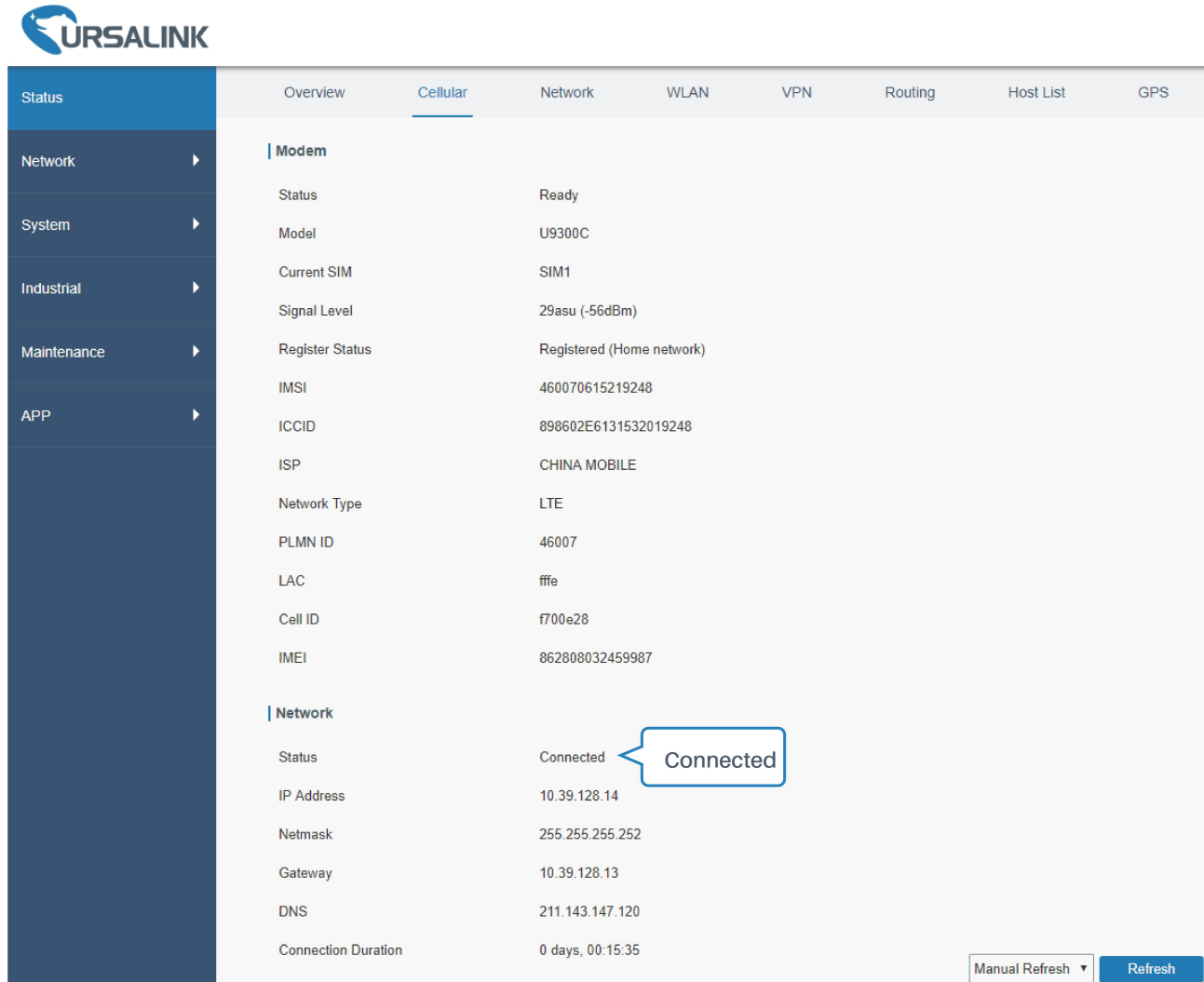
If you select “3G First”, “3G Only”, “2G First” or “2G Only”, you should manually configure APN, Username, Password, and Access Number.

UR35 routers have two cellular interfaces, named SIM1 & SIM2. Only one cellular interface is active at one time. If both cellular interfaces are enabled, SIM1 interface takes precedence by default.

## 5.3 Check the Cellular Connection Status

### 5.3.1 Check the Cellular Connection Status by Web GUI of Router

Click “Status” → “Cellular” to view the status of the cellular connection. If it shows “Connected”, it means SIM1 has dialed up successfully.



Menu	Overview	Cellular	Network	WLAN	VPN	Routing	Host List	GPS
Status								
Network								
System								
Industrial								
Maintenance								
APP								
	<b>Modem</b>							
	Status	Ready						
	Model	U9300C						
	Current SIM	SIM1						
	Signal Level	29asu (-56dBm)						
	Register Status	Registered (Home network)						
	IMSI	460070615219248						
	ICCID	898602E6131532019248						
	ISP	CHINA MOBILE						
	Network Type	LTE						
	PLMN ID	46007						
	LAC	ffff						
	Cell ID	f700e28						
	IMEI	862808032459987						
	<b>Network</b>							
	Status	Connected						
	IP Address	10.39.128.14						
	Netmask	255.255.255.252						
	Gateway	10.39.128.13						
	DNS	211.143.147.120						
	Connection Duration	0 days, 00:15:35						
		Manual Refresh Refresh						

### 5.3.2 Check the Cellular Connection Status by Hardware

On the other hand, you can check the status of SIM indicator. If it keeps on green light statically, it means SIM1 has dialed up successfully.

## 5.4 Check out if Network Works Properly by Browser on PC

Open your preferred browser on PC, then type any available web address into address bar and see if it is able to visit Internet via UR35 router.

[END]