

Industrial Router Pro Series

LT-4GPOEW4

Quick Start Guide

Welcome

Thank you for choosing LTS Industrial LT-4GPOEW4 industrial cellular router.

This guide describes how to install the LT-4GPOEW4 and how to log in the Web GUI to configure the device. Once you complete the installation, refer to the LTS Industrial LT-4GPOEW4 User Guide for instructions on how to perform configurations on the device.

Related Documents

This Start Guide only explains the installation of LTS Industrial LT-4GPOEW4 router. For more functionality and advanced settings, please refer to the relevant documents as below.

Document	Description
LT-4GPOEW4 Datasheet	Datasheet for LT-4GPOEW4 industrial cellular router.
LT-4GPOEW4 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 LTS Industrial website: www.LTsecurityinc.com.au

Declaration of Conformity

LT-4GPOEW4 are in conformity with the essential requirements and other relevant provisions of the CE, FCC, and RoHS.



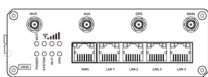
For assistance, please contact
LTS Industrial technical support:
Email: service@LTsecurityinc.com.au
Tel: 02 9135 8750

Revision History

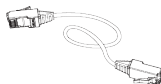
Date	Doc Version	Description
Apr. 26, 2019	V 1.0	Initial version
May 11, 2020	V 1.1	Web interfaces upgrade
Nov. 25, 2020	V 2.0	Layout Replace

1. Packing List

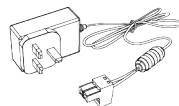
Before you begin to install the LT-4GPOEW4 router, please check the package contents to verify that you have received the items below.



1 ×LT-4GPOEW4



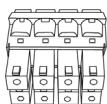
1 × Ethernet Cable



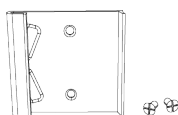
1 × Power Adapter



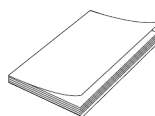
2 × Magnetic Cellular
Antennas



1 × 8-Pin Pluggable
Terminal



1 × DIN Rail Kit



1 × Quick Start Guide



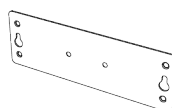
1 × Warranty Card



1 × Stubby Wi-Fi
Antenna
(Wi-Fi Version Only)



1 × GPS Antenna
(GPS Version Only)



1 × Wall Mounting
Bracket (Optional)



2 × Stubby Cellular
Antennas (Optional)

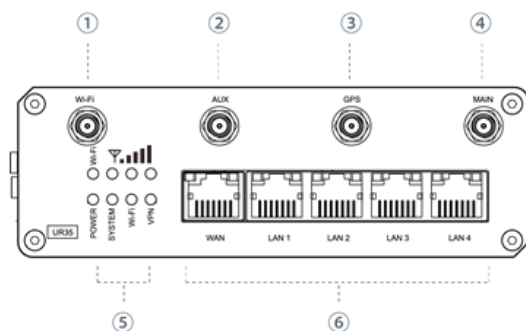


If any of the above items is missing or damaged, please contact your sales representative.

2. Hardware Introduction

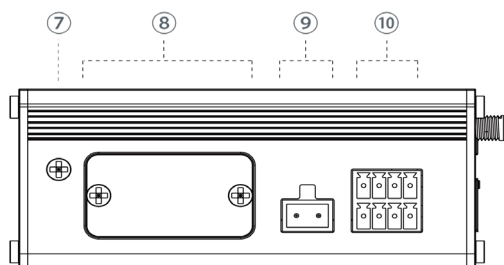
2.1 Overview

A. Front Panel



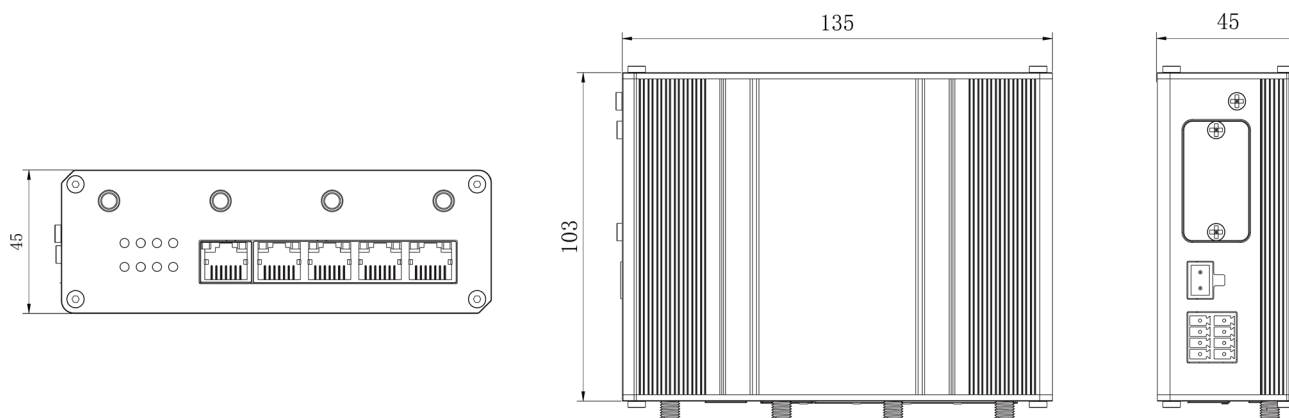
- ① Wi-Fi Antenna Connector
- ② AUX Antenna Cellular Connector
- ③ GPS Antenna Connector
- ④ MAIN Cellular Antenna Connector
- ⑤ LED Indicator Area
 - POWER: Power Indicator
 - SYSTEM: Status Indicator
 - Wi-Fi: Wi-Fi Indicator
 - VPN: VPN Indicator
 - SIM : SIM Status Indicator
 - 📶: Signal Strength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

B. Left Side Panel

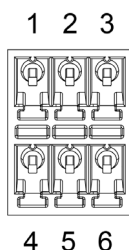


- ⑦ Grounding Stud
- ⑧ SIM and Reset Button Holder
- ⑨ Power Connector
- ⑩ Serial Port & I/O

2.2 Dimensions (mm)



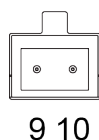
2.3 Connectors



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

N

Note: For -RS485 model, RXD--->A, TXD--->B.



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
			Static: SIM1 (as primary SIM) has been registered and dialed up successfully
		Orange Light	Blinking slowly: SIM2 (as primary SIM) has been registered and is ready for dial-up

Signal Strength	Signal 1/2/3		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
		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

Reset button is under the SIM slots.

Function	Description	
	SYSTEM LED	Action
Reset	Blinking	Press and hold the reset button for more than 5 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

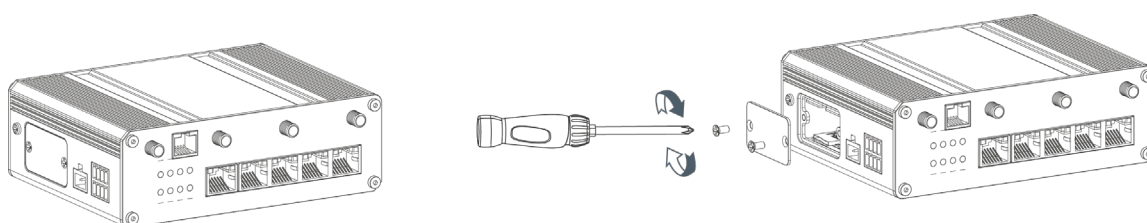
- Power Input: 9-48 VDC (48 VDC is needed for PoE output)
- Power Consumption: Typical 3.9W (Max 4.6 W)
- Operating Temperature: -40°C to 70°C (-40°F -158°F)
- Relative Humidity: 0% to 95% (non-condensing) at 25°C/77°F

3.1 SIM Card/Micro SD Card Installation

 **LT-4GPOEW4 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.

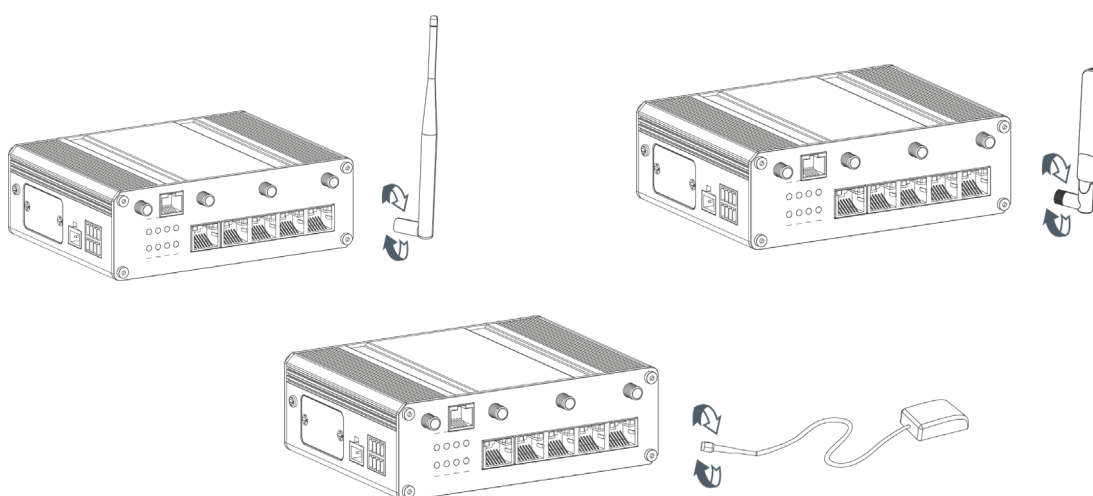
B. Put SIM card/Micro SD card into the slot and screw it up.



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.



3.4 Router Installation

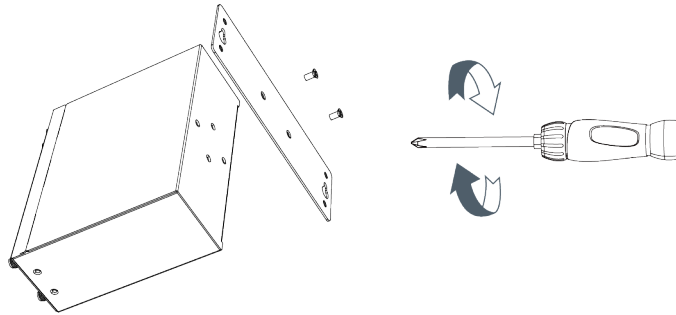
The router can be placed on a desktop or mounted to a wall or a DIN rail.

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.

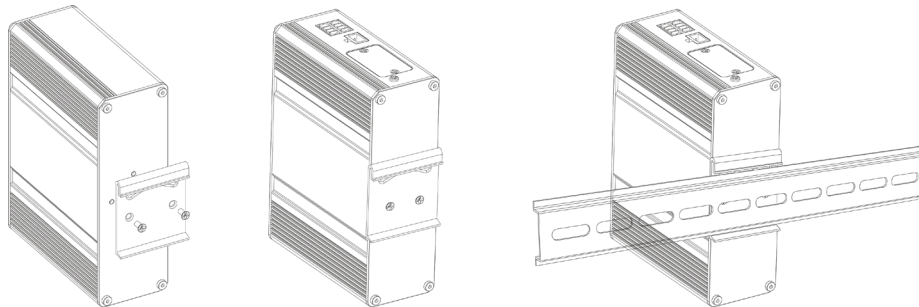


3.4.2 DIN Rail Mounting (Measured in mm)

Use 2 pcs of M3 × 6 flat head Phillips screws to fix the mount clip to the router, and then hang the device to the DIN rail. The width of DIN rail is 3.5 cm.



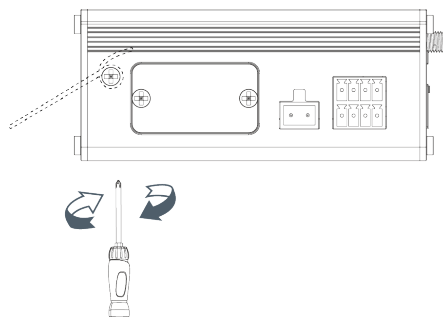
Recommended torque for mounting is 1.0 N·m, and the maximum allowed is 1.2 N·m.



3.5 Protective Grounding Installation

A. Remove the grounding nut.

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



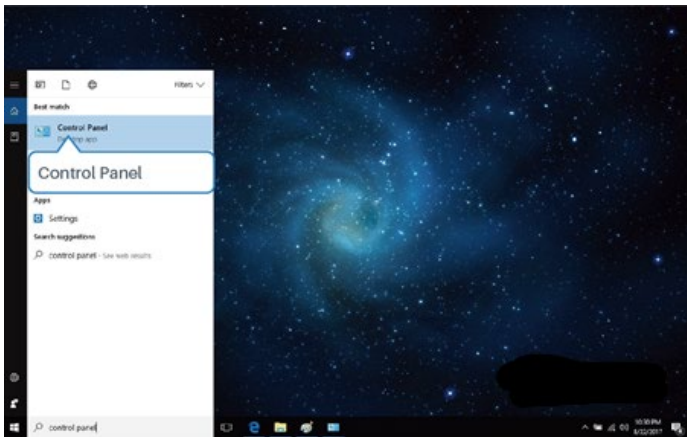
The router must be grounded when deployed. According to operating environment, the ground wire should be connected with grounding stud of router.

4. Log in the Web GUI of Router

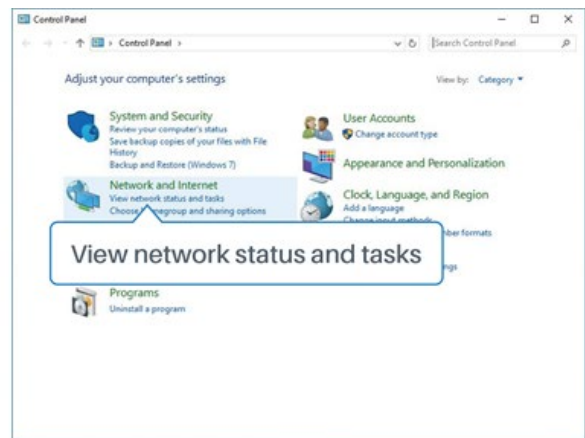
4.1 PC Configuration

Please connect PC to any port among LAN1-LAN4 of LT-4GPOEW4 router. 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.

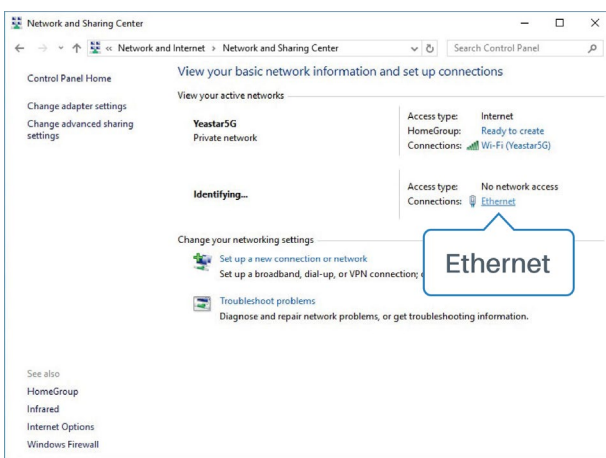
(Note: As remote access is disabled by default, you can't access to the router's Web GUI if you connect PC to WAN port of the router. But it will function properly if you enable it on Web GUI.)



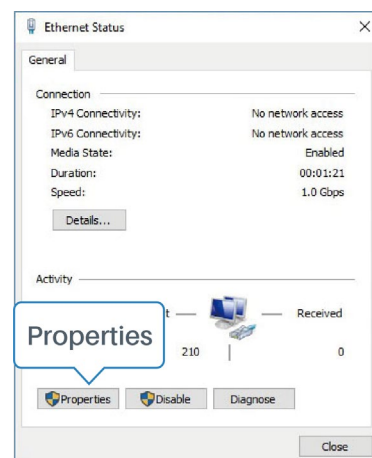
① Click “Search Box” to search “Control Panel” on the Windows 10 taskbar.



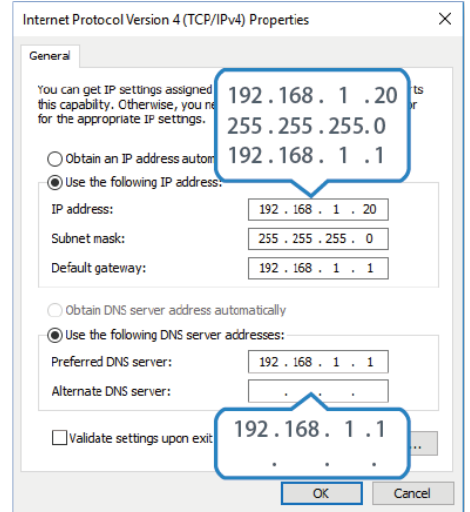
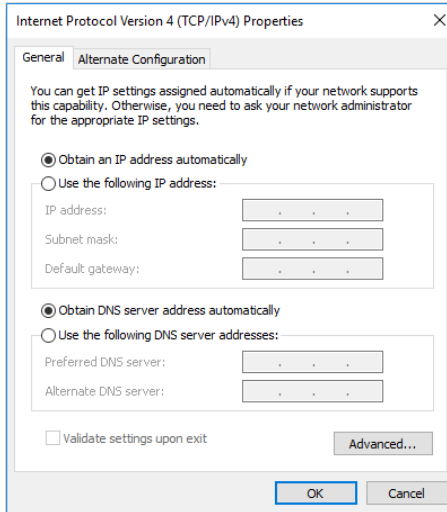
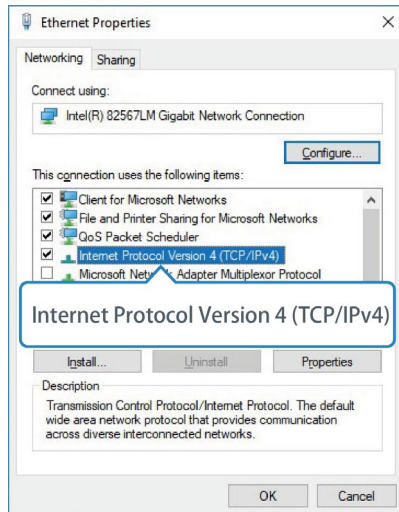
② Click “Control Panel” to open it, and then click “View network status and tasks”.



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.)

4.2 Log in the Router

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**

A. Start a Web browser on your PC (Chrome is recommended), type in the IP address, and press Enter on your keyboard.

B. Enter the username and password, click "Login".

English



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

C. 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

VPN

Routing

Host List

GPS

Help

Model

Serial Number

Firmware Version

Hardware Version

Local Time

Uptime

CPU Load

RAM (Available/Capacity)

Flash (Available/Capacity)

WAN

LAN

Current SIM

Model

Serial Number

Firmware Version

Hardware Version

Local Time

Uptime

CPU Load

RAM (Available/Capacity)

Flash (Available/Capacity)

Current SIM

Model

Serial Number

Firmware Version

Hardware Version

Local Time

Uptime

CPU Load

RAM (Available/Capacity)

Flash (Available/Capacity)

Current SIM

5. Network Configuration

This chapter explains how to connect LT-4GPOEW4 to network via WAN connection or cellular.

5.1 Ethernet WAN Configuration

A. Go to “Network > Interface > WAN” to configure WAN parameters. Take static IP configuration as an example. DHCP client and PPPoE type are optional according to your requirements.

Status

Network

Interface

DHCP

Firewall

QoS

VPN

IP Passthrough

Routing

VRRP

DDNS

System

Industrial

Link Failover

Cellular

Port

WAN

Bridge

WAN Settings

WAN_1

Enable

Port

Connection Type

IPv4 Address

Netmask

IPv4 Gateway

IPv6 Address

Prefix-length

IPv6 Gateway

MTU

Primary DNS

Secondary DNS

Enable NAT

☒

WAN

Static IP

192.168.22.231

255.255.255.0

192.168.22.1

fe80::26e1:24ff:fe00:3ee0

64

1500

8.8.8.8

☒

Click “Save & Apply” button to make the changes take effect.

B. Connect WAN port to another router or modem.

C. Log in LT-4GPOEW4 web GUI via WAN port IP address and go to “Status > Network” to check if status is “up”.

Status	Overview	Cellular	Network	WLAN	VPN	Routing	Host List	GPS
Network								
System								
WAN-IPv4								
Port	Status	Type	IP	Netmask	Gateway	DNS	Connection Duration	
WAN	up	Static	192.168.22.231	255.255.255.0	192.168.22.1	8.8.8.8	18h 54s	

D. Go to “Network > Interface > Link Failover” to rise the WAN priority to 1.

Priority	Enable Rule	Link in use	Interface	Connection Type	IP	Operation
1	<input checked="" type="checkbox"/>	●	WAN	Static IP	192.168.22.231	Edit Up Down
2	<input checked="" type="checkbox"/>	●	Cellular-SIM1	DHCP	-	Edit Up Down
3	<input type="checkbox"/>	●	Cellular-SIM2	-	-	Edit Up Down

E. 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 LT-4GPOEW4 router.

5.2 Cellular Connection Configuration

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, like APN and network type.
- Click “Save” and “Apply” for configuration to take effect.

	SIM1	SIM2
APN	<input type="text"/>	<input type="text"/>
Username	<input type="text"/>	<input type="text"/>
Password	<input type="text"/>	<input type="text"/>
PIN Code	<input type="text"/>	<input type="text"/>
Access Number	<input type="text"/>	<input type="text"/>
Authentication Type	<input type="text" value="Auto"/>	<input type="text" value="Auto"/>
Network Type	<input type="text" value="Auto"/>	<input type="text" value="Auto"/>
PPP Preferred	<input type="checkbox"/>	<input type="checkbox"/>
SMS Center	<input type="text" value="+8613800592500"/>	<input type="text" value="+8613800592500"/>
Enable NAT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Roaming	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Data Limit	<input type="text" value="0"/> MB	<input type="text" value="0"/> MB
Billing Day	Day <input type="text" value="1"/> of The Month	Day <input type="text" value="1"/> of The Month

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.

- Go to “Network > Interface > Link Failover” to enable SIM1 and rise link priority of SIM1.

Status	Link Failover	Cellular	Port	WAN	Bridge	Switch	Loopback
Network	Link Priority						
Interface	Priority	Enable Rule	Link in use	Interface	Connection Type	IP	Operation
DHCP	1	<input checked="" type="checkbox"/>		Cellular-SIM1	-	-	
Firewall	2	<input checked="" type="checkbox"/>		Cellular-SIM2	DHCP	-	
QoS	3	<input checked="" type="checkbox"/>		WAN	Static IP	192.168.22.225	
VPN							

D. Click to configure ICMP ping detection information.

Ping Detection

Enable

☒

Primary Server (IPv4)

8.8.8.8

Secondary Server (IPv4)

114.114.114.114

Interval

300

s

Retry Interval

5

s

Timeout

3

s

Max Ping Retries

3

OK

Cancel

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

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.

Overview	Cellular	Network	VPN	Routing	Host List	GPS
Modem			Network			
Status	Ready		Status	Connected		
Model			IP Address	10.2.25.74		
Current SIM	SIM1		Netmask	255.255.255.240		
Signal Level	29asu (-55dBm)		Gateway	10.2.25.73		
Register Status	Registered (Home network)		DNS	211.136.17.107		
IMEI	861585042050250		Connection Duration	0 days, 00:00:34		
IMSI	460045927703654		Data Usage Monthly			
ICCID	89860439101880723654		SIM-1	RX: 0.0 MiB TX: 0.0 MiB ALL: 0.0 MiB		
ISP	CHINA MOBILE		SIM-2	RX: 0.0 MiB TX: 0.0 MiB ALL: 0.0 MiB		
Network Type	FDD LTE					
PLMN ID	46000					
LAC	592f					
Cell ID	271f848					

F. 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 LT-4GPOEW4 router.

[END]