

LINOVISION

IOT-R32W



Datasheet



User Manual

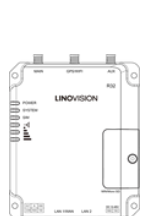
Quick Guide

Updated on March 17, 2025

Introduction

The IOT-R32W is an industrial cellular router that integrates a 4G LTE modem and 4G DTU. Equipped with an embedded cellular modem and dual SIM functionality, it supports 3G/4G cellular networks. The device features two Fast Ethernet ports, one RS232/RS485 interface, and Wi-Fi access capabilities. Designed with a compact and rugged structure, the IOT-R32W provides reliable failover connections and wireless communication in challenging environments. It is well-suited for various M2M/IoT applications, including retail markets, vending machines, ATMs, and gas stations.

Package Contents



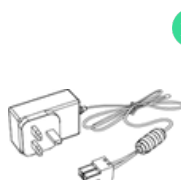
IOT-R32W

x1



Ethernet Cable

x1



Power Adapter

x1



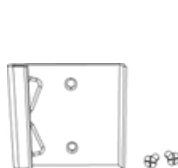
Magnetic Cellular Antennas

x3



6-Pin Pluggable Terminal

x1



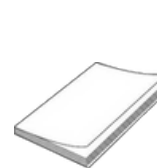
DIN Rail Kit

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Setscrews

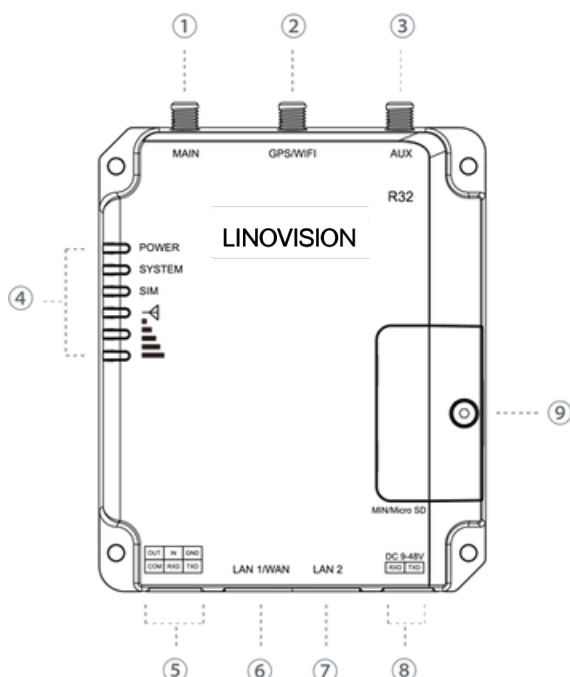
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User Manual

x1

Hardware Introduction



- ① MAIN: Cellular Antenna Connector
- ② GPS/WIFI: Antenna Connector
- ③ AUX: Cellular Antenna
- ④ LED Indicator Area
 - POWER: Power Indicator
 - SYSTEM: Status Indicator
 - SIM: Status Indicator
 - 📶: Signal Strength Indicator
- ⑤ Serial Port & I/O
- ⑥ Ethernet LAN1/WAN Port
- ⑦ Ethernet LAN2 Port
- ⑧ Power Connector
- ⑨ SIM and Reset Button Holder

Indication

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.
	Reset the Router	System Status	Instruction: Press and hold the reset button (under the SIM slot) for 5 seconds. The router will reset and restart.
SIM	SIM Card Status	Off	SIM1 or SIM2 is registering or fails to register (or there are no SIM cards inserted).
			Blinking slowly: SIM1 has been registered and is ready for dial-up.
		Green Light	Blinking rapidly: SIM1 has been registered and is dialing up now.
			Static: SIM1 has been registered and dialed up successfully.
			Blinking slowly: SIM2 has been registered and is ready for dial-up.
		Orange Light	Blinking rapidly: SIM2 has been registered and is dialing up now.
			Static: SIM2 has been registered and dialed up successfully.
Signal Strength	Signal 1/2/3	Off	No signal
			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)
		Green Light	Static/Static/Off: normal signals with 11-20 ASU (average signal strength)
			Static/Static/Static: strong signals with 21-31 ASU (signal is good)

Manual APN Configuration

Contact your mobile provider for specific APN details before proceeding. Common configurations for T-Mobile/Verizon/AT&T PersonalLines :

Configuration Steps

1. Access APN Settings:

Path: Network > Interface > Cellular > APN (web interface)

2. Enter APN Parameters:

- T-Mobile: fast.t-mobile.com
- AT&T: nxtgenphone
- Verizon: vzwinternet

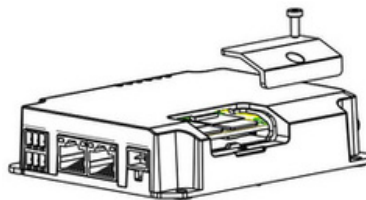
Installation

1 SIM Card/Micro SD Card Installation

A. Unscrew the cover of the SIM card then screw it up.



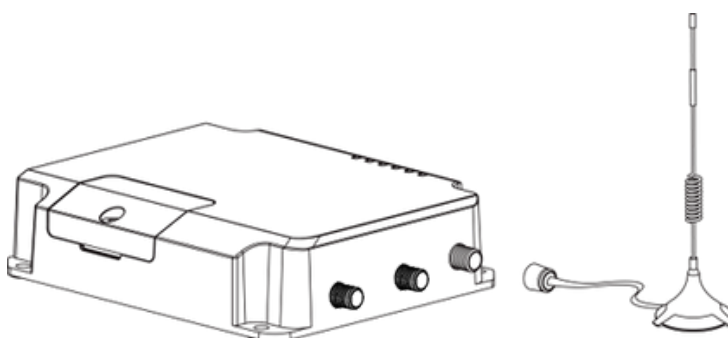
B. Put SIM card/Micro SD into the slot and take it off.



2 Antenna Installation

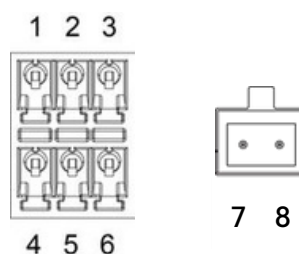
Rotate the antenna into the antenna connector accordingly.

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



3 Serial Port Installation

Connect the Serial port as needed. Connection details are as follows.



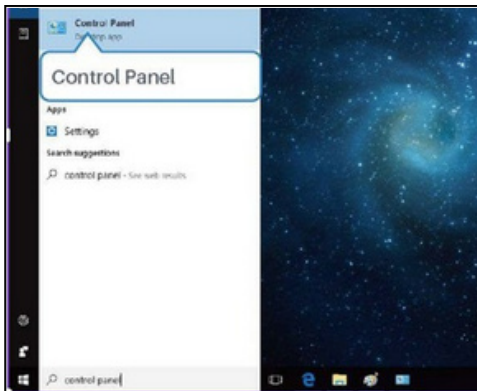
PIN	RS232	RS485	DI	DO	Description
1	/	/	/	OUT	Digital Output
2	/	/	IN	/	Digital Input
3	GND	/	/	/	Ground Common
4	/	/	COM	COM	Ground Receive
5	RXD	B	/	/	Ground Receive
6	TXD	A	/	/	Data Transmit
7	/	/	/	/	Data Positive
8	/	/	/	/	Negative

Log in the Web GUI of Router

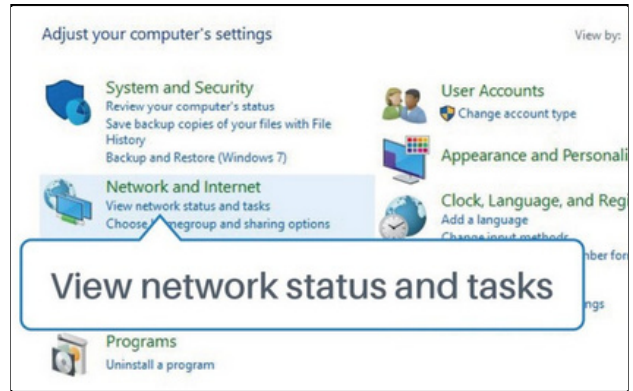
1 Connection

Wired Connection

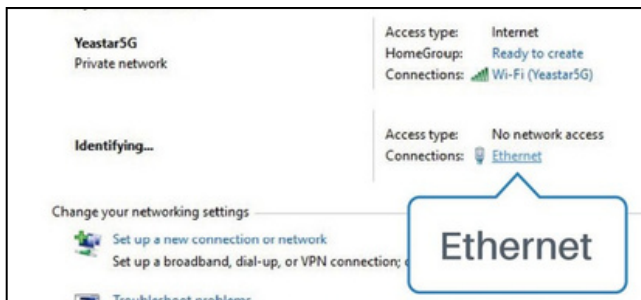
Connect your PC to the LAN port of the IOT-R32W. Your PC will automatically get an IP address, or you can set a static IP manually. These steps apply to Windows 10 for reference. Note: By default, remote access is disabled, so connecting to the WAN port prevents access to the router's Web GUI. Enable remote access in the Web GUI to resolve this.



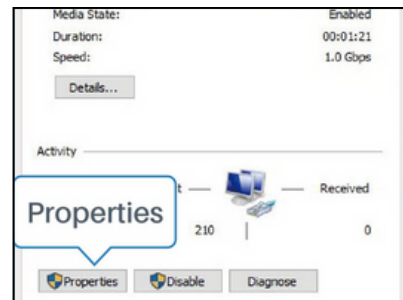
①Search “Control Panel” on the taskbar and click.



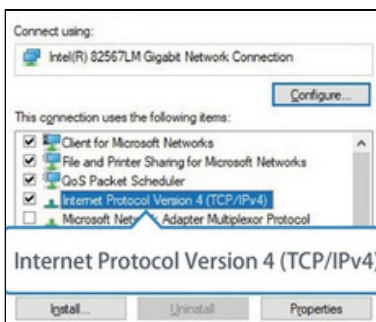
②Click “View network status and tasks”.



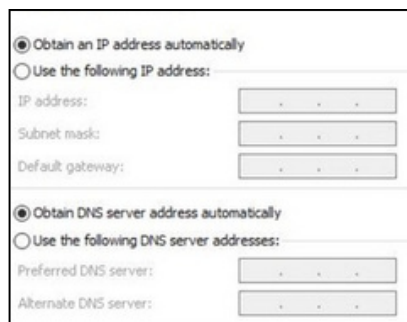
③Click “Ethernet” (May have different names).



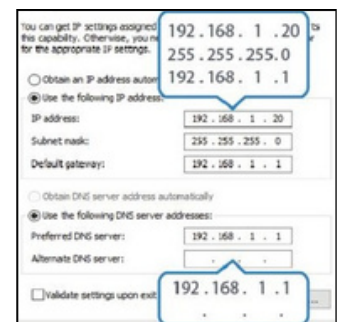
④Click “Properties”.



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



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



Method 2: Click “Use the following IP address” and fill in the information above.

*Remember to click “OK” to finish configuration.

Wireless Connection

After powering on the IOT-R32W, a Wi-Fi network will be broadcast with the following default credentials:

SSID: SSID_***** (e.g., SSID_F726D0)

Password: iotpassword

Note: Change the default password immediately after initial setup to enhance security.

2 Log in the Router

If this is the first time you configure the router, please use the default settings below:

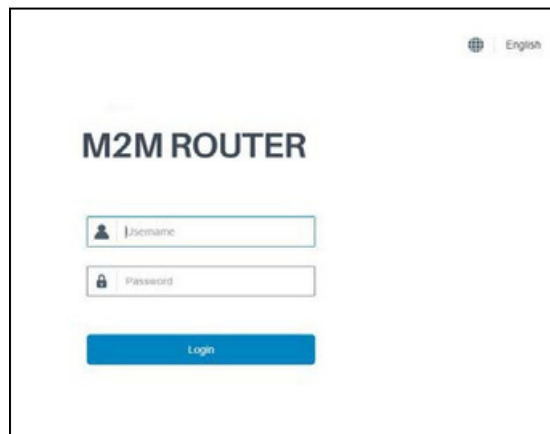
IP Address: 192.168.1.1


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”.



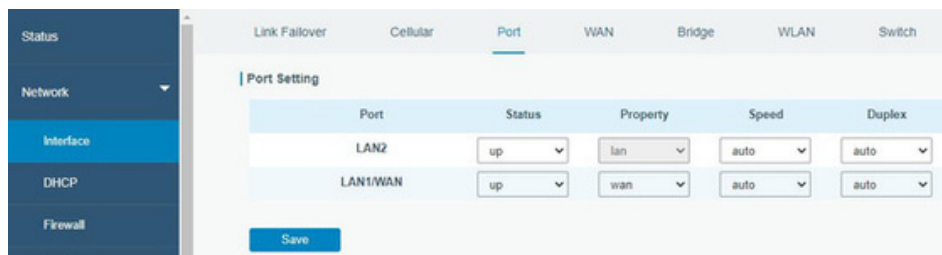
 If you enter the username or password incorrectly more than 5 times, the login page will be locked for 10 minutes.

Network Configuration

This chapter explains how to connect IOT-R32W to network via WAN connection or cellular.

1 Ethernet WAN Configuration

A. Go to “Network > Interface > Port” to change LAN1 to WAN port.



B. 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.

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

C. Connect WAN port to another router or modem.

D. Log in IOT-R32W web GUI via WAN port IP address and go to “Status > Network” to check if status is “up”.

Port	Status	Type	IP	Netmask	Gateway	DNS	Connection Duration
LAN1/WAN	up	Static	192.168.22.225	255.255.255.0	192.168.22.1	8.8.8.8	00h 22m 29s

E. 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	192.168.22.225	✎ ↑ ↓
2	<input checked="" type="checkbox"/>	●	Cellular-SIM1	DHCP	-	✎ ↑ ↓
3	<input checked="" type="checkbox"/>	●	Cellular-SIM2	-	-	✎ ↑ ↓

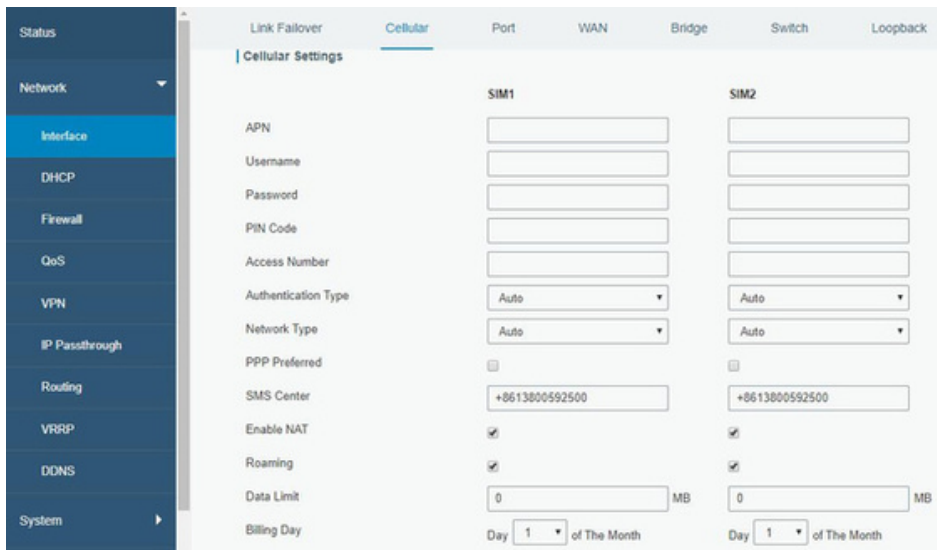
F. Open your preferred browser on PC, then type any available web address into address bar and see if it is able to visit Internet via IOT-R32W router.

2 Cellular Connection Configuration

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

A. Click “Network > Interface > Cellular > Cellular Setting” to configure the cellular info, like APN and network type.

B. Click “Save” and “Apply” for configuration to take effect.



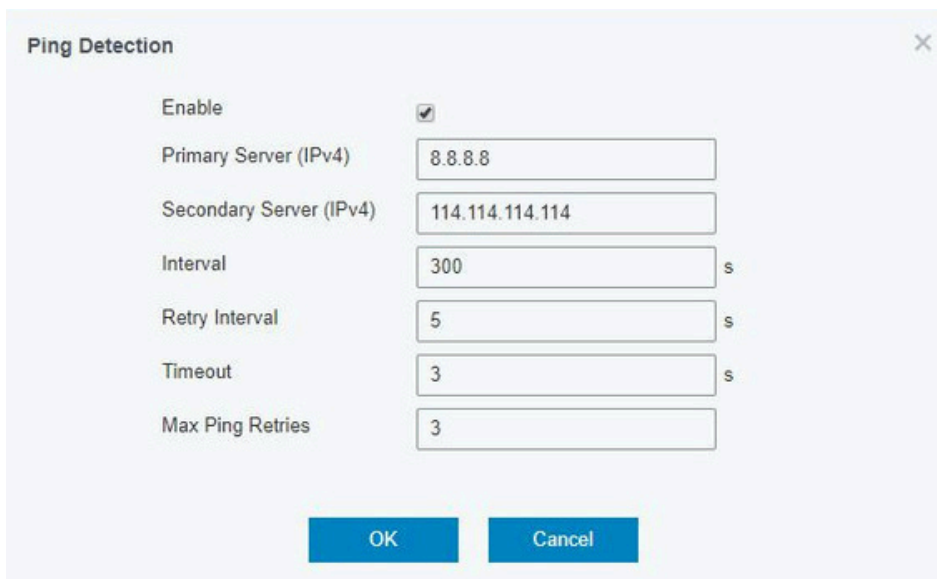
If you select “Auto”, the router will obtain ISP information from SIM card to set APN, Username, and Password automatically. This option will only be taken effect when the SIM card is issued from a well-known ISP.

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



Priority	Enable Rule	Link in use	Interface	Connection Type	IP	Operation
1	<input checked="" type="checkbox"/>		Cellular-SIM1	-	-	
2	<input checked="" type="checkbox"/>		Cellular-SIM2	DHCP	-	
3	<input checked="" type="checkbox"/>		WAN	Static IP	192.168.22.225	

D. Click  to configure ICMP ping detection information.



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.

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 IOT-R32W router.