

UR35

Industrial Cellular Router Quick Start Guide



Ursalink Technology Co., Ltd.

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 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: <u>http://www.ursalink.com</u>.

Declaration of Conformity

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



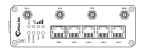


For assistance, please contact Ursalink technical support: Email: support@ursalink.com Tel: 86-592-5023060 Fax: 86-592-5023065



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 × UR35

1 × Ethernet Cable



1 × Power Adapter

2 × Magnetic Mount Cellular Antennas



1 × 8-Pin Pluggable Terminal



1 × DIN Rail Kit

 $1 \times Warranty Card$

2 × Stubby Cellular Antennas (Optional)



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

1 × GPS Antenna (GPS Version Only)



1 × Wall Mounting Bracket (Optional)

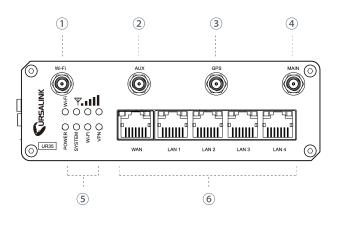
If any of the above items is missing or damaged, please contact your Ursalink sales representative.



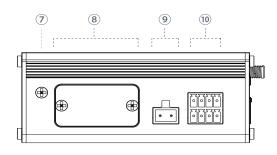
2. Hardware Introduction

2.1 Overview

A. Front Panel



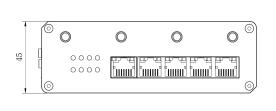
B. Left Side Panel

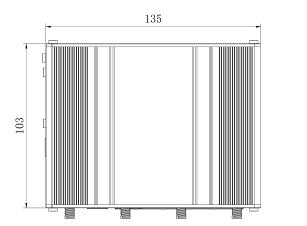


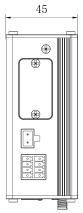
- ① Wi-Fi Antenna Connector
- ② AUX Antenna Cellular Connector
- ③ GPS Antenna Connector
- (4) MAIN Cellular Antenna Connector
- ⑤ LED Indicator Area
 POWER: Power Indicator
 SYSTEM: Status Indicator
 Wi-Fi: Wi-Fi Indicator
 VPN: VPN Indicator
 SIM : SIM Status Indicator
 ▼: Signal Strength Indicator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

- Grounding Stud
- 8 SIM and Reset Button Holder
- 9 Power Connector
- ① Serial Port & I/O

2.2 Dimensions (mm)









2.3 Pinouts

1	2	3	4
F	R	R	R
	ŀ) (()	ð
5	6	 7	8

V+ V-

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

PIN	Description
9	Positive
10	Negative

2.4 LED Indicators

LED	Indication	Status	Description
	Dowor Status	Off	The power is switched off
POWER	Power Status	On	The power is switched on
		Green Light	Static: Start-up
SYSTEM	System Status		Blinking slowly: the system is running properly
		Red Light	The system goes wrong
		Off	VPN is disconnected
VPN	VPN Status	Green Light	VPN is connected
		Off	Wi-Fi is disabled
Wi-Fi	Wi-Fi Status	Crean Linkt	Static: Wi-Fi is enabled
		Green Light	Blinking slowly: sending or receiving data via Wi-Fi
		Off	SIM1 or SIM2 is registering or fails to register (or there are
		Off	no SIM cards inserted)
			Blinking slowly: SIM1 (as primary SIM) has been registered
	Wi-Fi Status		and is ready for dial-up
		Crean Light	Blinking rapidly: SIM1(as primary SIM) has been registered
CINA	CINA Cand Status	Green Light	and is dialing up now
SIIVI	SIM SIM Card Status		Static: SIM1 (as primary SIM) has been registered and
			dialed up successfully
			Blinking slowly: SIM2 (as primary SIM) has been registered
		Orange	and is ready for dial-up
		Light	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
Signal Strength Signal 1/2/3 Green Lig		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)

2.5 Reset Button

Function	Description	
	SYSTEM LED	Action
Blinking		Press and hold the reset button for more than 5 seconds.
Reset	Static Green $ ightarrow$	Release the button and wait.
	Rapidly Blinking	
	$Off \rightarrow Blinking$	The router is now reset to factory defaults.

2.6 Ethernet Port Indicator

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



3. Hardware Installation

Environmental Requirements

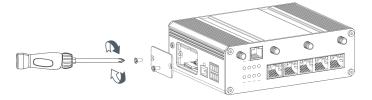
- Power Input: 9-48 VDC (48 VDC is needed for PoE output)
- Power Consumption: Typical 3.9 W, Max 4.6 W
- Operating Temperature: -40°C to 70°C (-40°F -158°F)
- Relative Humidity: 0% to 95% (non-condensing) at 25°C/77°F

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.

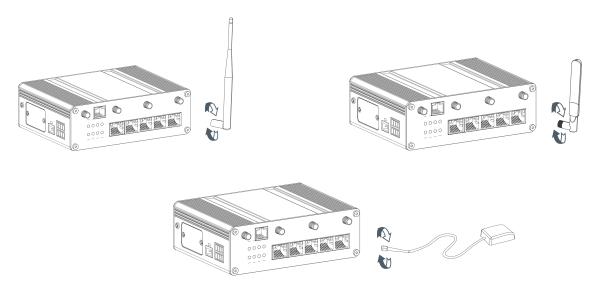




3.2 Antenna Installation

Rotate the antenna into the antenna connector accordingly.

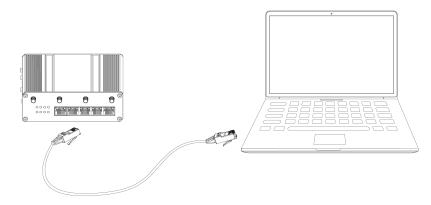
The external antenna should be installed vertically always on a site with a good signal.





3.3 Connect the Router to a Computer

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



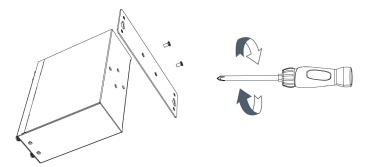
3.4 Mount the Router

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 \times 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.



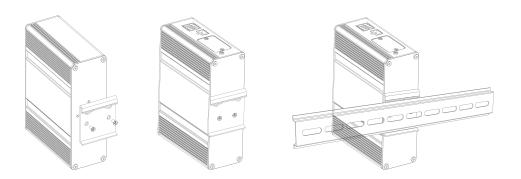
3.4.2 DIN Rail Mounting (Measured in mm)

Use 2 pcs of M3 \times 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.



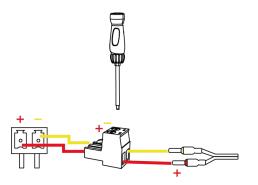
Recommended torque for mounting is 1.0 N·m, and the maximum allowed is 1.2 N·m.





3.5 Power Supply Installation

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



Connecting the Power Cable

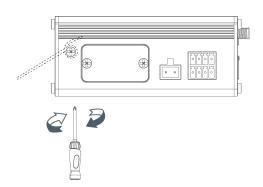
Color	Polarity
Red	+
Yellow	-

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

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.

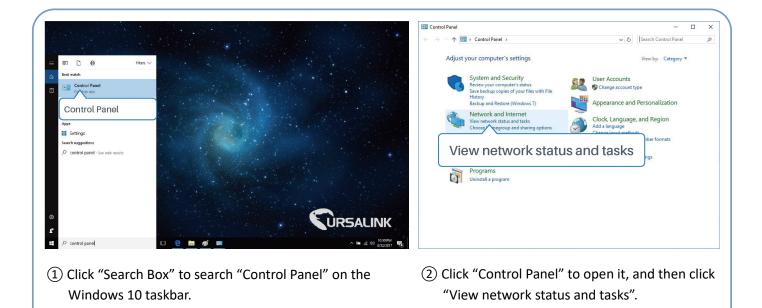


Getting Started

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.)



· · 个 💆 « Network	and Internet > Network and Sharing Center	✓ ひ Search Control Panel の		
Control Panel Home	View your basic network information	and set up connections	General	
Change adapter settings	View your active networks	Access type: Internet	Connection IPv4 Connectivity:	No network access
Change advanced sharing settings	Yeastar5G Private network	HomeGroup: Ready to create Connections: Wi-Fi (Yeastar5G)	IPv6 Connectivity: Media State:	No network access Enabled
		Access type: No network access	Duration:	00:01:21 1.0 Gbos
	ldentifying	Connections: Q Ethernet	Speed:	1.0 Gops
	Change your networking settings			
	Set up a new connection or network Set up a broadband, dial-up, or VPN con	nnection; Ethernet	Activity	
	Troubleshoot problems Diagnose and repair network problems,	or get troubleshooting information.	[]t	Received
			Properties 210	0
ee also HomeGroup				
nfrared			Properties Disable	Diagnose
nternet Options Windows Firewall				Close
Click "Eth	ernet" (May have d	lifferent names)	(4) Click "Proper	ties"

Ursalink UR35 Quick Start Guide



Ethernet Properties X	Internet Protocol Version 4 (TCP/IPv4) Properties X	Internet Protocol Version 4 (TCP/IPv4) Properties
Networking Sharing	General Alternate Configuration	General
Connect using:	You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.	You can get IP settings assigned this capability. Otherwise, you ne for the appropriate IP settings. 255.255.255.0
<u>C</u> onfigure	Obtain an IP address automatically	○ Obtain an IP address autor 192.168.1.1
This connection uses the following items:	O Use the following IP address:	Use the following IP address:
Glient for Microsoft Networks	IP address:	IP address: 192.168.1.20
✓ Pile and Piliter Sharing for Microsoft Networks ✓ PQoS Packet Scheduler	Subnet mask:	Subnet mask: 255 . 255 . 255 . 0
Internet Protocol Version 4 (TCP/IPv4) Microsoft Netv * Adapter Multiplexor Protocol	Default gateway:	Default gateway: 192 . 168 . 1 . 1
Internet Protocol Version 4 (TCP/IPv4)	Obtain DNS server address automatically	Obtain DNS server address automatically
	O Use the following DNS server addresses:	• Use the following DNS server addresses:
Install Uninstall Properties	Preferred DNS server:	Preferred DNS server: 192 . 168 . 1 . 1
Description	Alternate DNS server:	Alternate DNS server:
Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.	Validate settings upon exit Advanced	Validate settings upon exit 192.168.1.1
OK Cancel	OK Cancel	OK Can

- 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.)

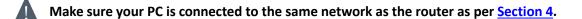


5. Access to Web GUI of Router for Network Connection

This chapter explains how to log in UR35 router's Web GUI, and connect the router to 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**

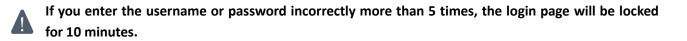
5.1 To Log in the Router



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

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

♥ URSALINK × +			-		×
\leftarrow \rightarrow O 192.168.1.1/login.html		□ ☆ =	- Ø	٥	
192.168.1.1		English			
	Username				
	Password				
	Login				



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.

Status					security, please ch		5.4 C			
		Overview	Cellular	Network	WLAN	VPN	Routing	Host List	GPS	Help
vetwork	•	System Information			Sy	stem Status				Show the model name of router.
		Model	UR35-	L01CE-W-G	Lo	ical Time	2020-05-1	1 17:54:47 Monday		Serial Number
System	•	Serial Number	62199	3233982	Uţ	otime	17:58:31			Show the serial number of router.
ndustrial	*	Firmware Version	35.2.0	5	CF	PU Load	13%			Firmware Version Show the current firmware
		Hardware Version	V1.1		R	AM (Available/Capacity) 24MB/128	MB(18.75%)		version of router.
Naintenance	•				Fl	ash (Available/Capacit	y) 83MB/128	MB(64.84%)		Hardware Version Show the current hardware version of router.
\PP		Cellular			W	AN 🛛 🗢 Link in use				Local Time
		Status	No SI	1 Card	St	atus	Online			Show the current local time of system.
		Current SIM	SIM1		IP		192.168.2	2.231		Uptime
		IP	0.0.0		M	AC	24:e1:24:f	0:3e:e2		Show the information on hor long the router has been
		Connection Duration	0 days	, 00:00:00	Co	onnection Duration	0 days, 17	:57:24		running.
		Data Usage Monthly	0.0 Mil	3						CPU Load Show the current CPU utilization of the router.
		WLAN			LA	N				RAM (Available/Capacity
		Status	Disable		IP		192.168.1	4		Show the RAM available and the capacity RAM memory.

5.2 Configure the Cellular Connection

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.

Status	Link Failover	Cellular	Port	WAN	Bridge	Switch	Loopback
	Cellular Settings	-					
Network 👻			SIM1			SIM2	
Interface	APN						
DHCP	Username						
	Password						
Firewall	PIN Code						
QoS	Access Number						
VPN	Authentication Type		Auto		Y	Auto	¥
IP Passthrough	Network Type		Auto		T	Auto	¥
	PPP Preferred						
Routing	SMS Center		+86138005	92500		+8613800592500	
VRRP	Enable NAT						
DDNS	Roaming						
	Data Limit		0		MB	0	MB
System 🕨	Billing Day		Day 1	▼ of The Month		Day 1 • of T	he 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.

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



Status	Link Failover	C	Cellular	Port	WAN Br	idge Switch	Loopback
Network 👻	Link Priority						
Interface	Priority	Enable Rule	Link in use	Interface	Connection Typ	e IP	Operation
DHCP	1	۲	٠	Cellular-SIM1	-		
Firewall	2	•	•	Cellular-SIM2	DHCP	2	
QoS VPN	3		•	WAN	Static IP	192.168.22.225	

D. Click $\boxed{\simes}$ to configure ICMP ping detection information.

Enable			
Primary Server (IPv4)	8.8.8.8		
Secondary Server (IPv4)	114.114.114		
Interval	300	s	
Retry Interval	5	s	
Timeout	3	S	
Max Ping Retries	3		

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			N	letwork		
Status	Ready		5	Status	Connec	cted
Model	EC25		I	P Address	10.2.25	.74
Current SIM	SIM1		١	letmask	255.25	5.255.240
Signal Level	29asu	(-55dBm)	(Gateway	10.2.25	.73
Register Status	Regist	ered (Home network)	C	DNS	211.136	5.17.107
IMEI	86158	5042050250	(Connection Duration	0 days,	00:00:34
IMSI	46004	5927703654	In	ata Usage Monthly		
ICCID	89860	439101880723654				
ISP	CHINA	MOBILE	ç	SIM-1	RX: 0.0 MiB	MiB TX: 0.0 MiB ALL: 0.0
Network Type	FDD L	TE	ş	SIM-2	RX: 0.0	MiB TX: 0.0 MiB ALL: 0.0
PLMN ID	46000				MiB	
LAC	592f					
Cell ID	271f84	18				



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 UR35 router.

5.3 Ethernet WAN Connection

A. Go to "Network > Interface > WAN" to configure WAN parameters.

Take static IP configuration as an example. DHCP client and PPPoE type are optional accoriding to your requirements.

Status	L	ink Failover	Cellular	Port	WAN	Bridge
Network	w	AN Settings				
Interface		- WAN_1				
DHCP		Enable		Ø]
Firewall		Port		WAN		
QoS		Connection Type		Static IP	T	
VPN		IPv4 Address Netmask		192.168.22.231		
IP Passthrough		IPv4 Gateway		192.168.22.1		
Routing		IPv6 Address		fe80::26e1:24ff;fef	0:3ee0	
VRRP		Prefix-length		64		
DDNS		IPv6 Gateway				
DUNO		MTU		1500		
System 🕨	-	Primary DNS		8.8.8		
		Secondary DNS				
Industrial 🕨 🕨	•	Enable NAT				

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

C. Go to "Network > Interface > Link Failover" to rise the WAN priority to 1.

Status	Link Failover		Cellular	Port	WAN	Bridge	WLAN	Switch	Loopba
Network 🔻	Link Priority								
Interface	Priority	Enable Rule	Link in use	Interface	Connection	n Type	IP	Operation	
DHCP	1	۲		WAN	Static I	Ρ	192.168.22.231		ł
Firewall	2		٠	Cellular-SIM1	DHCF	,	-		↓
QoS	3		٠	Cellular-SIM2	-				↓
VPN									



D. Go to "Status > Network" to check if status is "up".

Network WAN-IPv4 Port Status Type IP Netmask Gateway DNS	
Port Status Type IP Netmask Gateway DNS	
	Connection Duration
System WAN up Static 192.168.22.231 255.255.255.0 192.168.22.1 8.8.8.	8 18h 54s

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 UR35 router.

[END]