

Edge Router 805 Product Quick Guide

- ∧ Table of contents
- Overview
- 4 2. Panel Introduction
- **₄** 3.
 - 3.1 Insert SIM Card
 - 4 3.2 Attach Antennas
 - 3.3 Install the ER805
 - 3.3.1
 - 3.3.2 Wall-mounted Installation
 - **3.4**

3.5 Inspection after Installation

- 3.5.1 Check the Device Installation
- 3.5.2 Check the Power Supply

4. Access to the Internet

- 4.1 SIM Card Dial-up
 - 4.1.1
 - 4.1.2 Connect via PC

4.2

• 4.2.1 Connect via APP

• 4.2.2 Connect via PC

- 5.

- **5.1**
 - 5.1.1 Register/Login to the InCloud Manager
 - 5.1.2 Adding Devices to the Platform

- 6.1.1 Reset/Restore Remotely
- 6.1.2 Hardware Restore
- 4 6.2 Log and Diagnostic Data
- **7**.

Overview

This manual is for the installation and operation of the ER805 of InHand Networks. Before installation, please confirm the product model and accessories in the package and purchase a SIM card from the operator that supports the local network. Please refer to the actual product for specific operations.

1. Packing List

Part Name	Quantity	Description
ER805	1	Edge Router 805

Ethernet Cable	1	1.5 m Ethernet Cable
LTE Antenna	2	ER805 4G model
	N/A	ER805 5G model
5G Antenna	N/A	ER805 4G model
	4	ER805 5G model
Wi-Fi Antenna	2	Magnetic antenna, can change to stick antenna optionally
Power Adaptor	1	Power adaptor with power cable
Panel Mounting Lug	4	2 hangers and 2 wall mounting lugs
SIM Card Ejector	1	Used to remove the SIM tray

2. Panel Introduction





- Power IN: The ER805 supports a voltage range of 9~48V.
- SIM cards slot
- USB: USB Type-A with USB 2.0 protocol.
- WAN1: Ethernet port.
- WAN2/LAN1: Ethernet port that supports WAN/LAN switch.
- LAN2: Ethernet port.
- LAN3: Ethernet port.

- LAN4: Ethernet port.
- Reset: Pinhole reset button

3. Equipment Installation

Precautions for installation.

- Power Supply: Please use the power adapter included in the package. ER805 supports a voltage range of 9~48V. Please pay attention to the voltage level.
- Environmental Requirements: Working temperature: -20°C~70°C, Storage temperature: -40°C~85°C.
- Avoid direct sunlight and keep away from heat sources or strong electromagnetic interference. Confirm that the installation position is strong enough to support the weight of the equipment and its installation accessories.

3.1 Insert SIM Card

ER805 supports dual nano SIM cards. You can use the SIM card ejector tool included in the package to insert it into the small hole to release the SIM card tray. After installing the SIM card on the tray, insert the tray back into the slot.



Fig. 3-1 Install SIM cards

3.2 Attach Antennas

Attach the antennas to the SMA connectors.



Fig. 3-2 Attach the atennas

3.3 Install the ER805

3.3.1 Desktop Installation

- 1. Ensure the selected desktop area is free from obstructions to provide adequate space for the device.
- 2. Install the foot pad in the corresponding position of the housing under the device.
- 3. Verify the correct installation of the SIM card, antennas, and power cable.
- 4. Place the device steadily on the tabletop.



Fig. 3-3-1 Installation on desktop

3.3.2 Wall-mounted Installation

ii. Ear-Hanging:

1. Install the hanging ears included with the package at the cutouts on both sides of the device.

2. Install two screws on the wall where the equipment needs to be mounted, note that the distance between the two screws needs to be consistent with the hole distance between the hanging ears of the equipment.

3. Hang the device in the predetermined position and push down to confirm that the device is installed stably and will not fall.



Fig. 3-3-2-a Install with panel mounting lug

ii.Wall-mounting:

 Drill holes in the wall at predetermined installation positions and install two expansion screws, the distance between the two screws needs to be consistent with the mounting hole position on the bottom of the equipment.
 After mounting, push the device down to ensure that the device is installed firmly and does not fall.



Fig. 3-3-2-b Installation on wall

3.4 Power Cable Installation

Insert one end of the power adapter into the power outlet and the other end into the device's power interface.



Fig. 3-4 Install the power cable

3.5 Inspection after Installation

3.5.1 Check the Device Installation

- Desktop Installation: Ensure that the device won't fall due to cable dragging.
- Wall-mounting Installation: Make sure it is securely mounted.

3.5.2 Check the Power Supply

Confirm that the power cord is in good contact and meets safety requirements. Ensure that the device can work properly after powering on.

4. Access to the Internet

ER805 supports two ways of accessing the Internet: cellular and wired.

4.1 SIM Card Dial-up

4.1.1 Connect via APP

1. Insert the SIM card while the device is powered off, connect the antennas to the device, and log in to the InCloud APP.

2. Navigate to the "Device" section below to access the [Device] page, then click the menu button in the upper right corner and select [Add Device]. Then scan the QR Code on the ER805 to add a device.



Fig. 4-1-1 Scan to a device

3. Once the QR code is successfully scanned, proceed to configure the device's name, serial number, and description information.

4. If the device fails to connect to the network after adding it, you can click "Configure local device" to set up the device for cloud connectivity. The ER805 is configured with default HTTP access and Wi-Fi AP functionality.

4.1.2 Connect via PC

1. Power off the device, insert the SIM card into the card slot, connect the antenna to the device, and establish a wired connection between the ER805 and your PC using an Ethernet cable.

2. Open a web browser and type the device's default address, 192.168.2.1, into the browser's address bar. After entering the default username and password (adm/123456), you will access the device's web management interface. If your browser displays a security warning, navigate to hidden or advanced options and select "Proceed to website."

Travel around the digital world Enjoy 5G life	Login
	Copyright © 2023 InHand Networks All rights reserved



3. Go to the "Internet" section in the left navigation bar. Click the "Edit" button next to the "Cellular" option to configure the dial-up parameters. The device comes with the dial-up function enabled by default. If it doesn't establish a connection within a few minutes, re-enable the dial-up option.

uphand ER805	InCloud Manager	Internet					adm 🔻	滋
Dashboard	Uplink Table							
Status	+ Add							
€ Internet	Priority	Name	Status	Interface Type	Туре	Actions		
Local Network	‡≣	WAN1	Enable	WAN	DHCP	🖉 Edit		
♥Wi-Fi	‡≣	Cellular	Enable	Cellular: SIM1,SIM2	Dialup	🖉 Edit 🕸 Policy		
VPN	Note: Modifying the configuration of the internet interface or adjusting the priority may cause the device network to be interrupted!							
Security	Security							

Fig. 4-1-2-b Uplink table

inphand ER805	InCloud Manager	Internet							adm 🔻 🛪
Dashboard	Uplink Table								
Status	+ Add		Edit Cellular		х				
ø Internet	Priority	Name					Туре	Actions	
Local Network	‡≣	WAN1	Status:				DHCP	🖉 Edit	
 Wi-Fi VPN 	‡≣	Cellular	NAT: Work Mode:	Dual Mode V			Dialup	🖉 Edit 🕲 Policy	
Security	Note: Modifying the conf	iguration of the internet	Primary Card :	SIM1 V		upted!			
Services	Uplink Setting ①		* MTU:	Auto ∨					
O System	Link Detection:		Mask: SIM1 SIM2	255.255.255.255					
	Detection Address 1:								
	Detection Address 2:		Dialing Parameters:	Auto V					
	Enabled	Last Time D	Service Type :	Auto 🗸					
		5 min L	PIN Code:						
		5 min Ji	IMS:	Auto 🗸					
		5 min L		Cancel	Save				
		5 min S	ignal Strength is greate	er than Fair					
ē	Link Backup								

Fig. 4-1-2-c Set the APN parameters

4. To verify the dial-up status, go to the "Interface Status" section located in the "Dashboard." The device has successfully connected to the Internet when the "Cellular" icon turns green. You can click on the "Cellular" icon to access information like signal strength, IP address, and data usage.

inphand ER805	InCloud Manager Internet		adm 👻 🕱
B Dashboard	Device Information		
Status	Name: ER805 🖉	Model: ER805-LQ20-WLAN Serial: Firmware Version: V2.0.15-beta.2	
€ Internet	MAC:	Uptime: 2 weeks 1 day 51 mi Internet Access: WAN1 Uplink IP: 10.5.29.100	
Local Network	Local Gateway IP: 10.5.22.1	System Time: 2023-10-23 14:39:45 UTC +08:00 License Status: InCloud Manager Branch Pr	
♥Wi-Fi			
VPN	Interface Status		
Security			
Services			
System		LAN4 LAN3 LAN2 LAN1 WAN2 WAN1 Cellular	
		Connected Disconnected 🔀 Abnormal 🔝 Disabled	
	Traffic Statistics		
	WAN1	3.84 GB	
Ē	Wi-Fi Connections	Clients Traffic Top5	

Fig. 4-1-2-d Check the cellular interface

4.2 Wired Network

4.2.1 Connect via APP

1. Insert the SIM card while the device is powered off, connect the antennas to the device, and log in to the InCloud APP.

2. Navigate to the "Device" section below to access the [Device] page, then click the menu button in the upper right corner and select [Add Device]. Then scan the QR Code on the ER805 to add the device.



Fig. 4-2-1 Scan the QR Code to add a device

3. Once the QR code is successfully scanned, proceed to configure the device's name, serial number, and description information.

4.If the device fails to connect to the network after adding it, you can click "Configure local device" to set up the device for cloud connectivity. The ER805 is configured with default HTTP access and Wi-Fi AP functionality.5. Scan the QR code on the unit's nameplate, and the app will establish a Wi-Fi connection with the ER805 automatically.

6. Once the connection is established, the app will log in to the device, and you will be directed to the network configuration interface. Confirm the information and click 'Submit.'

4.2.2 Connect via PC

After powering on the device, connect your PC to the device's LAN port using an Ethernet cable, and perform the following steps on your PC.

The device's LAN port has DHCP Server functionality enabled by default. Once the PC has automatically obtained an IP address, please ensure that your PC and ER805 are in the same address range.

If your PC fails to obtain an IP address automatically, please configure it with a static IP address and the following parameters:

- IP Address: 192.168.2.x (Choose an available address within the range of 192.168.2.2 to 192.168.2.254).
- Subnet Mask: 255.255.255.0.Default Gateway: 192.168.2.1.
- DNS Servers: 8.8.8.8 (or your ISP's DNS server address)

1. Enter the default device address 192.168.2.1, in the browser's address bar. After entering the username and password (adm/123456), access the device's web management interface. If the page shows a security warning, click on the "Hide" or "Advanced" button and select "Proceed" to continue.

Travel around the digital world Enjoy 5G life	R User Name
222	Login
BOS	Copyright © 2023 InHand Networks All rights reserved

Fig. 4-2-2-a Login to the web page

2.Check the network in the "Dashboard > Interface Status". The device connects to the Internet successfully if the "Cellular" or "WAN" icon turns green. Click the corresponding icon to view interface information such as signal strength, IP address and traffic consumption.

3. If this device cannot connect to a network, click "Internet > Uplink Table > Edit " to set up network parameters. The device enables the dial-up function and WAN by default, please wait for a few minutes to go online, and re-enable the dial-up if it is not dialled.

inphand ER805	InCloud Manager	Internet					adm 🔻	ネ
Dashboard	Uplink Table							
Status	+ Add							
€ Internet	Priority	Name	Status	Interface Type	Туре	Actions		
Local Network	‡≣	WAN1	Enable	WAN	DHCP	🖉 Edit		
♥ Wi-Fi	t≣	Cellular	Enable	Cellular: SIM1,SIM2	Dialup	🖉 Edit 🕸 Policy		
YPN	Note: Modifying the confi	nuration of the internet i	nterface or adjusting the pr	ionity may cause the device network to be interrupted!				
Security		generation of the internet i	and a substant of the pr	and may cause the active network to be interrupted.				

Fig. 4-2-2-b Edit the WAN interface

- **DHCP:** The DHCP service is enabled on the WAN port by default which means this device cannot connect to the Internet immediately if the upstream device connected to the WAN port does not have the DHCP server enabled.
- **Static IP:** Users can assign a static IP address obtained from the ISP or upstream network device manually.
- **PPPoE:** Users can set the PPPoE service on the WAN port and then this device can dial up to the Internet through the broadband service.

Edit WAN		×	Edit WAN			Х
Name:	WAN		Name:	WAN		
Status:			Status:			
NAT:	✓			_		
IPv4 Type:	Static IP V		NAT :	\checkmark		
* IPv4 Address:			IPv4 Type:	PPPoE	`	′
* Mask:			* User Name:			
* IPv4 Gateway Addres			* Password :		Ø	5
* Main DNS:			Local IP Address:			
* MTU:	1500		Remote IP Address:			
	Cancel	Save			Cancel	Save

Fig. 4-2-2-c Configure the Uplink interface

4. Verify network connectivity Via the Ping tool on the System/ Tools page.

← Tools		
Ping		
* Target :	8.8.8.8	
Interface:	Any 🗸 🗸	
Source:		
* Packet Size:	64	Bytes
* Packet numbers :	4	
Start	ear	
PING 8.8.8.8 (8.8.8 72 bytes from 8.8.1 72 bytes from 8.8.1 72 bytes from 8.8.1 72 bytes from 8.8.1 72 bytes from 8.8.1	8): 64 data bytes 8.8: seq=0 ttl=49 time= 8.8: seq=1 ttl=49 time= 8.8: seq=2 ttl=49 time= 8.8: seq=3 ttl=49 time=	=74.656 ms =74.300 ms =73.964 ms =74.152 ms
8.8.8.8 ping sta 4 packets transmit round-trip min/av	tistics ted, 4 packets received g/max = 73.964/74.268	l, 0% packet loss 3/74.656 ms

Fig. 4-2-2-d Check the network connectivity

5. Remote Manage Platform

5.1 InCloud Manager

5.1.1 Register/Login to the InCloud Manager

1. Open your web browser and visit InCloud at the following address: https://star.inhandcloud.com/. This will take you to the InCloud registration and login page. (We recommend using Chrome.)

Accelerate Digital Transformation with		
Innovative IoT Technologies		
0	Welcome to InHan	d Cloud Service
	Email Login Phone Login	
	Email	
	This is a required field.	
	Password	ø
	This is a required field. Remember me	Forgot Password?
	Sign	In
	Don't have an accou	int? Create now

Fig. 5-1-1-a InCloud Manager Login Page

2. After registering, log in to the cloud platform using your registered email. Navigate to the "Security Settings" page where you can change your password and link your mobile phone number. Once your phone number is linked, you can use it for future logins to the cloud platform.

📫 InHand Clou	ıd Service 🥂 InCl	oud Manager						🗐 🗘 🕜 🦲 Demo 🗸
Overview	🖳 Summary 🔸 Data U	Jsage 😵 Uplink	🕺 Map					1970
Devices	Total Devices	. o	nline/Offline 🕕	© Ina	ctive ①	6	Recent Alerts	InHand Networks Switch
Networks	8	2	2/6	0				A My profile
🛔 Groups			•		No Dete			Security settings
Clients					NO Data			# Preferences
👜 Alerts	Devices added in the last	7 days: 0 0	Current Online Rate: 25.00%	Cu	irrent Rate: 0			E Log out
Licenses								
Reports	Configuration Status ()		Firmware Status		Networking Method		Device Distr	ibution
Messages								
Logs		Synced Sync Failed		 No Status Completed 		 Wired Cellular 		• ER605 • ER805
		🎤 No Status						• EAP600
	Offline Times TOP 10 To	oday 🗸					Last L	Jpdated: 2023-10-20 15:00:00
	Device	Offline Times	Connection History HQ	-ER805				
	HQ-ER805	2	Online Rate: 100%					
	EAP600	1						Online Offline
Ē								

Fig. 5-1-1-b Bind a Mobile Phone Number

5.1.2 Adding Devices to the Platform

Log in to the InCloud Manager platform, then go to "Device" and click "Add" in the navigation menu. Fill in the device's serial number and MAC address to add it.

📫 InHand C	:loud Service 💋 InClou	ıd Manager						8 6 8 0	🕘 Demo 🔹
S Overview	Devices								
Devices	All 8 • Online 2 • Offline	e 6 Device Nar	me: Search	Serial Number:	earch		Reset		☞ More Filters
Networks	Org / Group	🖹 🛛 🔗 Cont	figuration 👻 🗿 Firmv	+ Add	E Move L Import L Export → C 🕸				
👗 Groups	✓ 由 InHand Networks □ AP	Stat	us Device Name	Organization	Produc	t ¢	Firmware Version 🔶	Cellular Module Version	Cellular Signal
Clients	ER605_demo		Add Device				V2.0.15	RM502QAEAAR11A04M4G	
👜 Alerts	D ER805_demo	•	* Device Name :	Enter			V2.0.6	Unknown	Ball
E Licenses	▶ 由 Europe ▶ 由 USA		Serial Number: Enter Where is the serial number?			V2.0.7-beta.1	Unknown		
Reports				r: Enter Where is the serial number? n: InHand Networks ∨ n: Enter		~	V2.0.2-alpha.7	Unknown	
Messages		•	* Organization :				V2.0.15-beta.2	RM500QGLABR11A05M4G	
E Logs			Description :				V2.0.2-beta.1	Unknown	
		•					V2.0.15-beta.2	EC20CEFHLGR06A07M1G	
					Cancel Sav	/e	V2.0.6-alpha.3	EC25EUXGAR08A14M1G	
						_			

Fig. 5-1-2 Add a Device

6. Quick User Guide

6.1 Restore to Default Settings

6.1.1 Reset/Restore Remotely

Log in to the InCloud Manager platform, navigate to "Device," and select "Command" from the menu. Click the "Restore to Factory" button, confirm the action, and the device will reboot and revert to its default settings.

•	ដ InHand Cloud Service 🧭 InCloud Manager 🖉 🔒 🗒 🗘 📀 Demo -										
	Overview	∃ Devices									
	Devices	All 8 • Online 2 • Offline	6 Devi	ce Name: Sea	rch	Serial Numl	ber:	Search	Reset		₩ More Filters
•	Networks	Org / Group	= (Configuration	Firmware	Remote Acc	cess	Commands -	+ Add	E Move ▲ Import ▲	Export 🗸 C 🕸
4	Groups			Status [Device Name	Organiz	zatior	Reboot	Firmware Version	Cellular Module Version	Cellular Signal
5	Clients	D ER605_demo		• •	TC_ER805	InHand	Netw	Restore to factory	V2.0.15	RM502QAEAAR11A04M4G	-
Ó	Alerts	ER805_demo		• 5	TC_ER605	InHand	Netwo	orks ER605	V2.0.6	Unknown	Dail
	Licenses	▶ 由 Europe ▶ 由 USA		•/	anch-ER605	InHand	Netwo	orks ER605	V2.0.7-beta.1	Unknown	-
h	Reports			• •	AP600_CYY	InHand	Netwo	erks EAP600	V2.0.2-alpha.7	Unknown	-
2	Messages			• •	Branch-ER805	InHand	Netwo	erks ER805	V2.0.15-beta.2		-
E	Logs			• •	AP600	InHand	Netwo	erks EAP600	V2.0.2-beta.1	Unknown	-
				•	IQ-ER805	InHand	Netwo	orks ER805	V2.0.15-beta.2	E construction and	-
				• •	R605	InHand	Netwo	orks ER605	V2.0.6-alpha.3	1.0000000000000000	-
			1 rec	ord selected Clea	ar					1-8 of 8 records	< 1 >

Fig. 6-1-1 Set the Device to Default Settings

6.1.2 Hardware Restore

Step 1: After powering on the device, immediately press and hold the Reset button.

Step 2: After holding it for a while, the power indicator light will start flashing. Approximately half a minute later, the power indicator light will stay on steadily.

Step 3: Release the Reset button, and the power indicator light will flash again. Then, press and hold the Reset button once more.

Step 4: The power indicator light will flash slowly. Release the Reset button, and the factory reset will be successful. The device will restart normally.

6.2 Log and Diagnostic Data

Login to InCloud Manager, navigate to "Device," select "Device Details," and click on the "Tools" menu in the navigation bar. Then, click the corresponding button to initiate the download of logs and diagnostic data.





7. LED Indicators

Indicators	Status and Description						
System	Off Power Off Blink in blue System booting in progress. Steady in blue The system is running smoothly. Blink in red System malfunction detected. Blink in green System upgrading in progress.						
Network	Blink in red Network disconnected. Blink in green Cellular network connecting. Steady in green Cellular network connected. Blink in blue Wired network connecting. Steady in blue Wired network connected.						
Wi-Fi 2.4G	Off 2.4G Wi-Fi disabled. Steady in blue Starting up. Blink in blue On working						
Wi-Fi 5G	Off 5 G Wi-Fi disabled. Steady in green Starting up. Blink in green On working.						