



High Stability & Security, Cloud Management Based SD-WAN router

# Edge Router800 series

Embracing the next-generation – 5G

Edge Router 800 is a new-generation 5G router launched by InHand Networks. This purpose-built product provides high-speed and secure network access for IoT industries. It provides omnipresent and continuous Internet access in 4G, 5G, wireless and multiple network. The using of SD-WAN technology enables uninterrupted data communication link experience for industry applications.

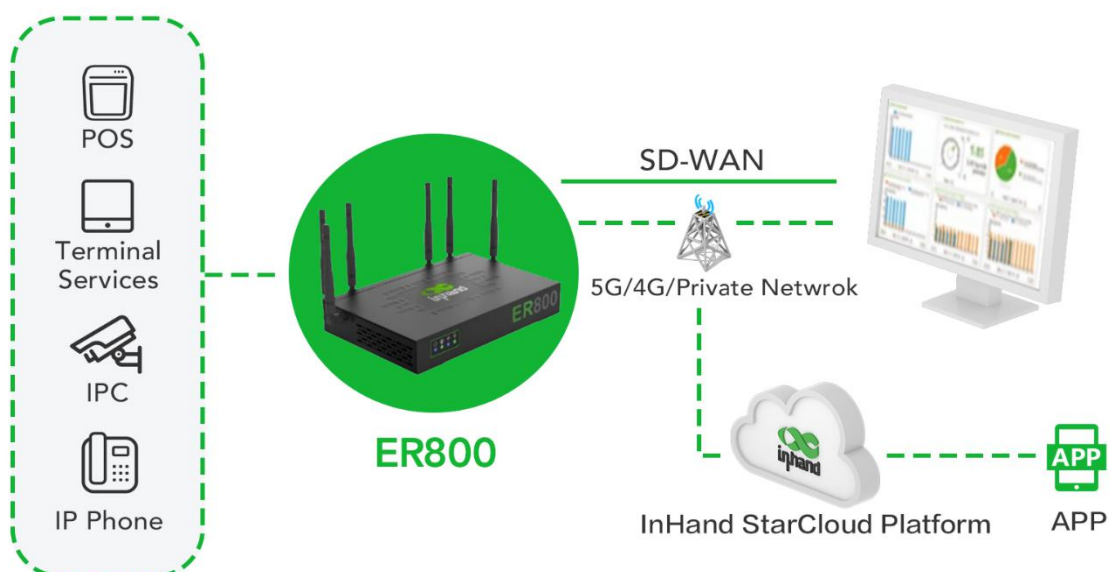
In the age of connected IoT, ER800 provides secure, stable and high-speed network for enterprises to realize the transformation of informatization and digitalization.

The ER800 edge router can be fully centralized managed by InHand.

Ideal for a wide range of application scenarios:

- Branch network
  - Retail convenience store
  - Fast food chain
  - Coffee chain
  - Clothing store
  - Mobile retail outlets
- Enterprise branches
- SMB offices
- Retail outlets
- Mobile offices
- Self-service terminal network
- Smart City

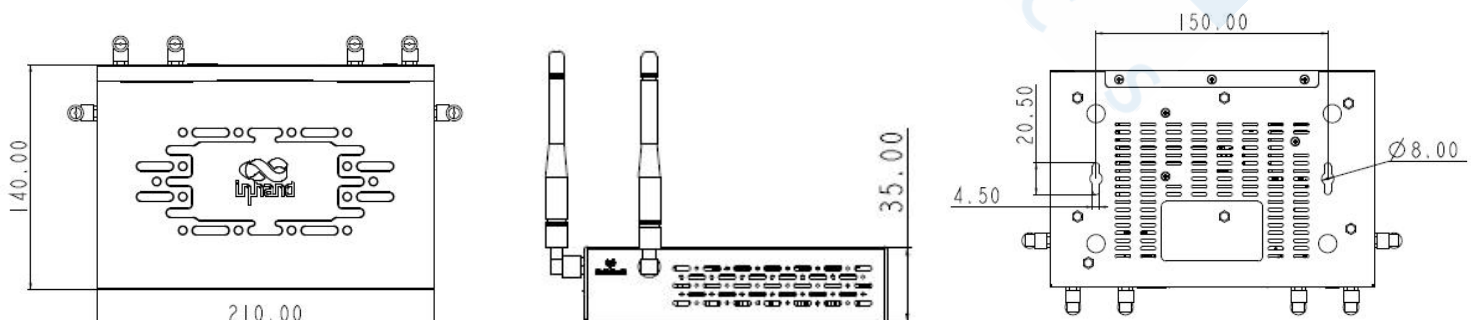
## Application



## Features and Advantages

- + 5G high-speed cellular network access
  - + High-speed LAN networking
  - + 5\*Gigabit ports, VLAN
  - + Gigabit Wi-Fi 1200M, 2.4G and 5G
  - + Redundant design, multiple link backups, ensure uninterrupted equipment network communication
  - + Supported SD-WAN
  - + Multiple dynamic routing protocols
  - + Fully centralized cloud management with InHand StarCloud Platform
  - + High security
- **Omnipresent and continuous Internet access capability: 5G**  
Multiple WAN links: fast Ethernet, 4G/5G. Wherever the device is, it can be connected easily, 5G network access, 2Gbps downlink, realizing high-speed and low-latency network access
  - **High-speed LAN networking**  
5\*Gigabit ports, VLAN supported and realizing High-speed LAN networking. 802.11.ac/a/b/g/n, 2.4G/5G/Wi-Fi, AP/Client, easily build a secure network.
  - **Centralized cloud management**  
Fully support cloud management, it combines with InHand StarCloud service to realize centralized management, could manage network easily and safely. You can manage and supervise the network situation of branches, analyze abnormal situation. It provides a more simple and automatic management method and simplify network devices management and maintenance, thus raising efficiency and reduce management cost.
  - **SDWAN highly-reliable and uninterrupted network connection**  
Support SDN-WAN including Openflow, Telemetry, Segment Routing, Netconf, Zero configuration, etc. With the InHand StarCloud platform, it can provide excellent SDN-WAN management; each router can realize software define WAN. It ensures the network link stability, raises the network bandwidth usage so that casualty rate could be reduced greatly. Also it provides omnipresent and continuous network for important data.
  - **Refined network flow management**  
Flow model becomes more and more complicated as enterprises develop, the demand of network service needs to be integrated and diversified, it requires refined recognition and control of common applications, such as IM applications, streaming media applications, financing applications, game applications, P2P applications, to filter and limit the data usage of those identified applications.
  - **Integrated security**  
Secure Virtual Private Network VPN: Support IPsec VPN, L2TP, OPEN VPN, CA certificate to ensure the safe transmission of data.  
Network security protection: support SPI packet state detection firewall, ACL access control, anti-DoS attack, intrusion protection, attack defense, realizes firewall functions such as IP-MAC binding to protect the network from external attacks.  
Internet behavior management, providing multiple network management strategies.
  - **High reliability design**  
Load balancing: multi-WAN access, bandwidth overlay, seamless switching and other functions to ensure high-quality data services.  
Redundant backup: dual cellular network backup, mutual backup of multiple links, VRRP backup, providing transfer protection for faulty lines.  
Link detection: multiple detection link mechanisms to realize automatic re-dial when disconnected and maintain a stable connection.  
Auto-recovery: Embedded software and hardware watchdog, device self-diagnosis, auto-recovery from operation faults.
  - **Building an intent-based network**  
It can guarantee network link stability effectively, raise the network bandwidth usage and reduce failure rate greatly.

## Dimensions (mm)



# Specifications

ER805 Hardware	
Hardware platform	
CPU	ARM Cortex A7 CPU
RAM	512MB DDR3
FLASH	8GB EMMC
Interface description	
Cellular	5G, downlink 2Gbps, Sub6 (450MHz to 6GHz) 4G
Ethernet port	5*10/100/1000Mbps, Ethernet, WAN /LAN WAN/LAN VLAN POE, 802.3at Output: 30W(Optional model)
USB	1*USB 3.0
SIM	Dual SIM, Nano SIM
RESET	Reset button
Antenna interface	5G cellular*4, 4G cellular*2, Wi-Fi*2
Wi-Fi	
Frequency	Dual frequency 2.4 / 5GHz Wi-Fi
Transfer Protocol	802.11ac/a/b/g/n Wave2 MU-MIMO
Maximum output power	2.4g:17dBm 5g:17dBm
Operating mode	AP /Client mode
Power Supply	
Pin	Power supply
Input voltage	Input: 9-48VDC
Power Consumption	12W
Ambient Temperature and Humidity	
Working Temperature	-25°C ~ + 70°C
Storage Temperature	-40°C ~ + 85°C
Humidity	95%RH @ 60°C
Protection Rating	IP30
Installation	
Desk	Desk-top
Wall	Wall mounting
Certificate	
Electromagnetic Compatibility	II
Mechanical Features	
Dimensions (mm)	210mm*140mm*35mm
Features	Wall mounting, metal shell, fan-less cooling
Certificate	
CE, FCC, IC, PTCRB, AT&T, Verizon	

ER805 Software	
Functional Features	
Dial-up service	Static IP, DHCP, PPPoE, link detection, automatic redial, SIM
Network Access	Multiple network access, 5G/4G cellular network access, ETH network access
Network Protocol	IPv6, IPv4
Network Function	
WAN/LAN	WAN/LAN
VLAN	VLAN
Port disabled	Supported
Wi-Fi	5G/2.4G Wi-Fi, AP, STA mode
Routing	Support multiple dynamic routing and static routing
Qos	Support Protocol-based data control
Network diagnosis	Support Ping, Traceroute, network packet capture tool
Network Security	
VPN	IPsec/L2TP/ GRE/OpenVPN/CA, PEM, PKCS12, SCEP ( CA certified )
Safe access	LDAP, RADIUS, TACACS+, 802.11 WPA2 Enterprise, 802.1Q VLAN/QoS, 802.1X certified
Intrusion detection	Supported
Content filtering	Supported
Behavior management	Supported
Hostile attack protection	Filter multicast/ Ping probe packet, anti-DoS attack
Firewall	MAC, IP, port, Application protocol NAT, PAT, DMZ, port mapping, virtual server, Access Control List (ACL)
Reliability	
SD-WAN	SD-WAN, ensures the stability and reliability of WAN link
Back-up and auto-recovery	Interface backup, WAN/WIFI Cellular backup Dual dial link, seamless switching Load balancing VRRP
Watch dog	Embedded Watchdog, auto-recovers from operation faults
Network management	
Configuration	Local/remote HTTP, HTTPS, Telnet, SSH
Upgrade	Local/remote WEB, NM
Network diagnosis	Ping, Traceroute, Sniffer
Network function	Dial-on-demand, data activation, SMS activation, scheduled online and offline, configuration backup
Cloud Platform	
Cloud Management Platform	InHand StarCloud

# Ordering Guide

Model	<WMNN>: Cellular Type & Module	Regions <W/NA>: WLAN
ER805-<WMNN>-<WLAN>	NRQ0 Global (except North America) 5G NR NSA: n38*/n41/n71/n77/n78/n79 5G NR SA: n1/n2/n3/n5/n7/n8/n12/n20/n25/n28*/n38/n40/n41/n48/n66/n71/n77/n78/n79 LTE-FDD: B1/B2/B3/B4/B5/B7/B8/B12/B13/B14/B17/B18/B19/B20/B25/B26/B28/B29/B30/B32/B66/B71 LTE-TDD: B34/B38/B39/B40/B41/B42/B43/B48 WCDMA: B1/B2/B3/B4/B5/B8/B19	WLAN: Wi-Fi <NA>: No Wi-Fi
ER805-<WMNN>-<WLAN>	NRQ3 North America 5G NR NSA:n2/n5/n7/n12/n25/n41/n48/n66/n71/n77/n78 5G NRSA: n1/n2/n3/n5/n7/n8/n12/n20/n25/n28/n38/n40/n41/n66/n71/n77/n78/n79 LTE-FDD: B1/B2/B3/B4/B5/B7/B8/B9/B12/B13/B14/B17/B18/B19/B20/B25/B26/B28/B29/B30/B32/B66/B71 LTE-TDD: B34/B38/39/B40/B41/B42/B43/B48 LAA: B46 WCDMA: B1/B2/B3/B4/B5/B6/B8/B19	WLAN: Wi-Fi <NA>: No Wi-Fi
ER805-<WMNN>-<WLAN>	LQ20 China, LTE CAT4 LTE-FDD: B1/B3/B5/B8 LTE-TDD: B34/B38/B39/B40/B41 TD-SCDMA: B34/B39 WCDMA: B1/B8 CDMA/EVDO: BC0 GSM: B3/B8	WLAN: Wi-Fi <NA>: No Wi-Fi
ER805-<WMNN>-<WLAN>	FQ58 Australia & South America, LTE CAT4 LTE-FDD: B1/B3/B7/B8/B20/B28A LTE-TDD: B38/B40/B41 WCDMA: B1/B8 GSM: B3/B8	WLAN: Wi-Fi <NA>: No Wi-Fi
ER805-<WMNN>-<WLAN>	FQ39 North America, T-Mobile, Verizon, AT&T, LTE CAT6 LTE-FDD: B2/B4/B5/B7/B12/B13/B25/B26/B29/B30/B66 WCDMA: B2/B4/B5	WLAN: Wi-Fi <NA>: No Wi-Fi
ER805-<WMNN>-<WLAN>	FQ78 Australia & South America, LTE CAT4 LTE-FDD: B1/B2/B3/B4/B5/B7/B8/B28 LTE-TDD: B40 WCDMA: B1/B2/B5/B8 GSM: B2/B3/B5/B8	WLAN: Wi-Fi <NA>: No Wi-Fi
ER805-<WMNN>-<WLAN>	EN00 No module	WLAN: Wi-Fi <NA>: No Wi-Fi

## About Us

InHand Networks is a global leader of Industrial IoT, with a record of tremendous success following groundbreaking innovation since our inception in 2001.

InHand serves world-class partners and customers with industrial M2M routers, gateways, industrial Ethernet switches, rugged computers and IoT management platforms. We provide IoT solutions for various vertical markets including Smart Grid, Industrial Automation, Remote Machine Monitoring, Smart Vending, Smart City, Retail and more. Proudly bearing the marks of both Rockwell Automation Encompass Product Partner in Asia-Pacific and Schneider Electric CAPP Technology Partner, InHand Networks defines industrial innovation and reliability.



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