![InHand Networks logo]

# InHand Networks



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

# Edge Router800 series

Embracing the Next-generation - 5G

Faced with the ever-increasing digitalization of enterprises, whether it is a commercial organization or a manufacturing enterprise, the demand for connecting more branches and terminals has increased significantly, and efficient and convenient network management solutions are required. InHand launched the ER800 series of edge routers based on cloud management, combined with StarCloud cloud services, to provide global customers with high-speed, safe, simple, and convenient network solutions.

Edge Router 800 is a new generation of cloud-based SD-WAN edge router products that provide convenient secure network access services for enterprise business networks. With extensive 5G/4G cellular network and wired broadband network access, it can provide convenient and high-speed network access services. Moreover, ER805 uses SD-WAN technology to provide a high-quality and stable network. It has integrated security strategies, ensures the security of the rapidly expanding business network. In addition, to adapt to new network trends, ER800 combines with StarCloud cloud services to achieve centralized cloud management, which enable convenient and secure dynamic management of devices and networks. Moreover, by implementing cloud deployment, cloud management, cloud security, cloud insight, and cloud intelligence online, ER805 can achieve efficient network management and keep everything under control.

Ideal for a wide range of application scenarios:

- Branch network
  - Retail convenience store
  - Fast food chain
  - Coffee chain
  - Clothing chain
  - Mobile retail outlets...
- Enterprise branches
  - SMB branches
  - Mobile offices outlets
  - SOHO offices
- Smart City
- Smart medical care
- IoT industry

## Application
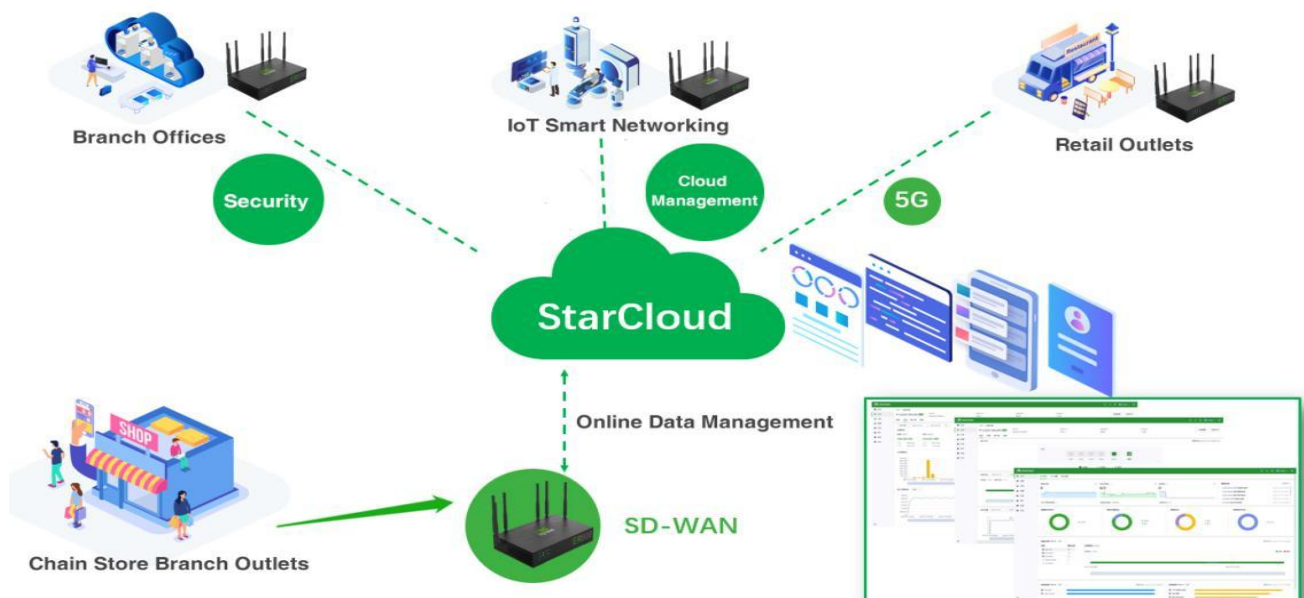
# Features and Advantages

+ Centralized cloud management
+ 5G high-speed cellular network access
+ High-speed gigabit WAN/LAN/VLAN networking
+ Maximum 1200Mbps, 2.4G and 5G WiFi dual-band concurrent, AP/STA mode switching
+ Support Zero Touch deployment
+ Support SD-WAN
+ Comprehensive security protection
+ Refined and visualized network management
+ Multiple alarms and diagnostic tools
+ Intelligent management

## Centralized Cloud Management

The ER805 edge router, as a network access device, can realize cloud management based entirely on StarCloud. Through centralized cloud management, ER805 can deepen the convenience, standardization, and scale of network management. It supports cross-regional unified access management for millions of sites, realizing the immediacy of management.

## Omnipresent and Continuous Internet Access Capability: 5G

With 5G cellular network based on cloud management, network connection speed and stability has been newly improved. Features including high bandwidth and low latency make services no longer restricted.

- Global operators 5G network access, downstream rate 2Gbps, support SA and NS networking
- Gigabit Ethernet, WAN/LAN/VLAN/Dual WAN
- Maximum bandwidth 1200Mbps, support 802.11 ac/a/b/g/n, 2.4G and 5G dual-band concurrent
- Implement IPv4 and IPv6 dual protocol stacks to build the next-generation Internet network

## SD-WAN Highly-reliable and Uninterrupted Network Connection

ER805 integrates hardware, software and cloud services to realize SD-WAN, therefore ensures uninterrupted high-quality network services. Link redundancy, load balancing, bandwidth management, link failover and other functions effectively ensure the stability of the business network and reduce the risk of network failures, thus reduce network investment costs, and increase productivity.

## Zero-Touch Deployment

The integrated cloud design makes deployment easier and more convenient, and deployment can be completed with simple operations.

- Plug and play cloud router
- APP scan code configuration
- Quick access to cloud services
- StarCloud cloud configuration

## Comprehensive Security Protection

ER805 provides multi-dimensional security strategy to protect sensitive data and critical businesses from attacks and threats, provides you with a worry-free network, and protects your digital assets while the business is developing rapidly.

- Access control and content filtering
- Multiple VPNs, digital certificates
- Authority management, identity authentication
- Prevent DOS attacks and intrusion prevention

## Multiple Alarms and Diagnostic Tools

With comprehensive network monitoring, technical staff can quickly troubleshoot network failures, ensure the stability of the network environment, reduce losses caused by network failures, and provide necessary network insurance for core business development

- Alarm policy setting
- Real-time alarm notification
- Network Diagnostic Tool
- Remote device control

## High Network visibility, insight into everything

Due to the visualization and refinement of the network, people can gain insights into business problems from data, quickly troubleshoot problems, formulate network management strategies, and ensure the development of key services.

- Multi-dimensional data dashboard
- Supports analysis of various data including traffic, applications, equipment, networks, users.
- Practical statistical report
- Overview of business distribution

## Intelligent Network Management

Intelligent management can help IT team simplify operations and improve decision-making. ER805 enables multi-dimensional data analysis, intelligent alarms, automatic link failover, custom upgrade rules, batch settings and other intelligent management ways, making network management easier and more accurate.

# Dimensions (mm)
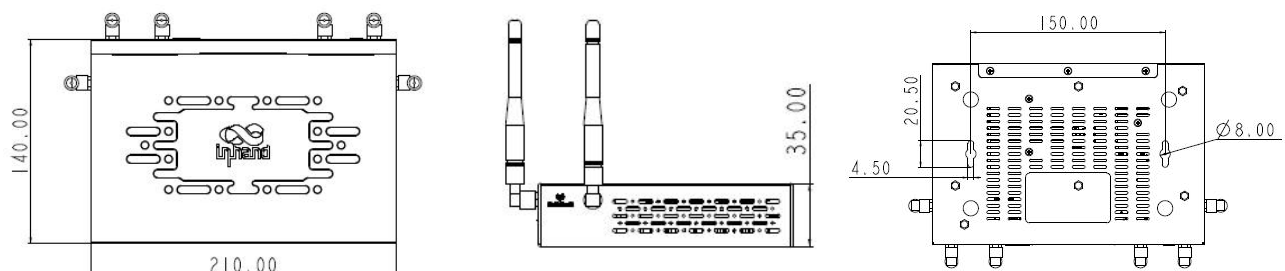
# Specifications

| ER805 Hardware | |
|---|---|
| Hardware platform | |
| Firewall throughput | 600Mbps |
| VPN throughput | 200Mbps |
| Recommended users | 50 |
| Interface description | |
| Cellular | 5G, downlink 2Gbps,Sub6 (450MHz to 6GHz)<br>4G |
| Ethernet port | 5*10/100/1000Mbps, Ethernet,<br>Dual WAN/LAN<br>VLAN |
| USB | 1*USB 3.0 |
| SIM | Dual SIM, Nano SIM |
| RESET | Reset button |
| Antenna interface | 5G cellular*4,<br>Or 4G cellular*2, Wi-Fi*2 |
| Wi-Fi | |
| Frequency | Dual frequency 2.4 / 5GHz Wi-Fi |
| Transmission bandwidth | Maximum1200Mbps |
| 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 at 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 | |

| Cloud Management Based ER805 Function | |
|---|---|
| Completely based on cloud management | |
| StarCloud | Subscribe to StarCloud cloud service to realize 100% cloud-based management |
| Functions | |
| Dial-up service | Static IP, DHCP, PPPoE, link detection, automatic redial, SIM switch |
| Network Access | Multiple network access, 5G/4G cellular network access, ETH network access |
| IP Protocol | IPv6, Ipv4 |
| IP Application | Ping、Traceroute、DHCP server/client、DNS relay、Dynamic domain name DDNS、Telnet、SSH、HTTP、HTTPS、TFTP、FTP、SFTP |
| 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 certificated) |
| Safe access | LDAP, RADIUS, TACACS+、802.11 WPA2 Enterprise、802.1Q VLAN/QoS、802.1X certificated |
| 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 SIM dial link, seamless switching |
| | Cellular link failover |
| Link detection | Multiple detection link mechanisms to realize automatic re-dial when disconnected and maintain link connection |
| Fault self-recovery | Embedded Watchdog, auto-recovers from operation faults |

# Ordering Guide

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

**InHand Networks**

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