InRouter615-S Series

4G LTE, 3G, Wi-Fi, VPN Industrial Router

Overview

Integrating 3G, 4G LTE and advanced security, the InRouter615-S series is the next generation of InRouter695 cellular router. With embedded hardware watchdog, link detection, auto-recovery and auto-reboot, the InRouter615-S series provides reliable communications to unattended sites. Reliable VPN technology secures sensitive data. The InRouter615-S also utilizes remote management tools such as a CLI, a web interface and InHand *Device Manager* Cloud platform for batch configuration and monitoring.

InRouter615-S series is ideal for large-scale Internet of Things (IoT) applications including kiosks, vending machines, medical equipment and industrial control systems.

Features

Uninterrupted Network Access
- Optional 4G/LTE, 3G/HSPA+, 3G/EV-DO, with 100Mbps downlink, 50Mbps uplink.
- Automatically fallback to GPRS/CDMA when LTE is unavailable.
- Wi-Fi Access Point or Client: 802.11b/g/n with MIMO antennas, speed up to 300Mbps; WEP/WPA/WPA2 encryption
- 3G/4G and Wi-Fi backup for redundant communication

Rugged Industrial Design
- Metal housing, IP30

- EMC levels 3
- 1.5 KV isolated Ethernet port
- Wide temperature range: -20~70 °C
- Wide input voltage range: 9~26VDC

Data Security
- **Data Transmission Security**
    IPsec VPN, L2TP, PPTP, SSL VPN and certificates guarantee data security
- **Network Security**
    Stateful Packet Inspection (SPI), Secure Shell(SSH) and DoS mitigation
    Intrusion protection, and IP to MAC Binding
- **Management-Plane Security**
    Multi-level user authority
    Administrative permission management

Reliable Cellular
- **Automatic Link Detection**
    PPP Layer Detection: monitor the cellular connection
    Network Connection Detection: automatic redial and reboot
    VPN Tunnel Detection: ruggedized and improved VPN tunnels
- **Auto-recovery**
    Embedded hardware watchdog, able to automatically recover from various failure, ensure highest level of availability.

Remote Management
- Local Web-Brower Interface
- Command-line interface
- InHand *Device Manager* for batch management and configuration

Industrial Serial
- Transparent serial communication for point to multi-point serial over cellular.
- Modbus TCP to Modbus RTU protocol conversion

Specifications

InRouter615-S Software Specification

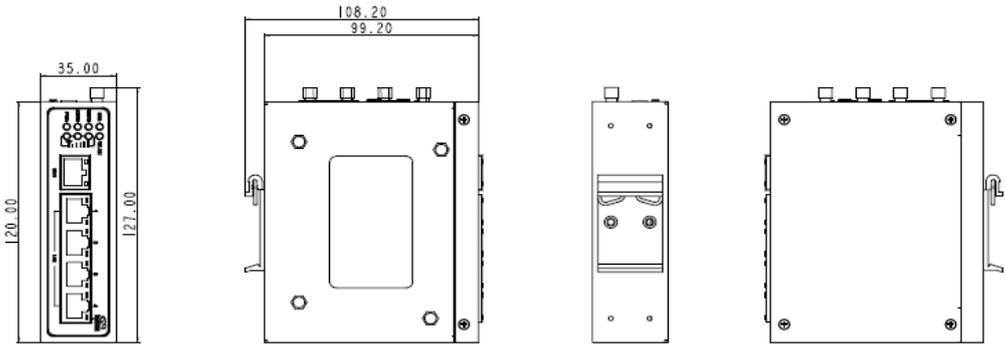|		InRouter615-S
Network	Network Access	Custom APN, VPDN
	Authentication	CHAP/PAP
	Network	GSM/GPRS/EDGE (GPRS/EDGE: Multislot Class 12) UMTS/HSPA+/EVDO/TD-SCDMA/ TD-LTE/FDD LTE (See the detailed band in ordering

		InRouter615-S
		table)
	LAN	ARP, Ethernet
	WAN	Static IP, DHCP, PPPoE, PPP
	IP	Ping, Trace, DHCP Server, DHCP Relay, DHCP Client, DNS relay, DDNS and Telnet
	IP Routing	Static routing
WLAN (optional)	Standard	IEEE 802.11b/g/n
	Mode	AP, Client
	Speed	300Mbps
	Security	Support open system, shared keys, WPA/WPA2
		WEP/TKIP/AES encryption
	Transmission Distance	100 meters (depend on field environments)
Security	Network Security	DoS protection, Stateless Packet Inspection, Filtering Multicast/Ping package, Virtual IP Mapping, Access Control List (ACL), IP/MAC Binding, Port forwarding
	Data Security	IPsec VPN/L2TP/PPTP/GRE/OpenVPN/CA
	Management Security	Multi-level user authority
Reliability	Link Status Detection	Reconnects automatically when a link failure is detected
	Auto-Recovery	Hardware Watchdog
Intelligence	Integrated DTU Functions	Support Modbus protocol, virtual serial port, WP agreement, WN protocol, Trap+Poll, transparent transmission
Management & Maintenance	Traffic Management	Bandwidth control, IP-based QoS
	Configuration	Telnet, web, SSH
	Firmware Upgrade	Via web, and via InHand Device Manager
	Log	Local log, remote log, export log via serial port; Important log backup in flash memory
	On-Demand Dial Up	Trigger by data, text message or on demand
	Network Management	InHand Device Manager for batch configuration
	Multi-level user	Authentication for configuration and remote access
	Maintenance Tool	Ping, traceroute, speed test
	Status Check	System, modem, network connections, route

InRouter615-S Hardware Specification

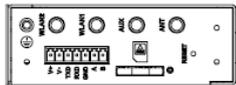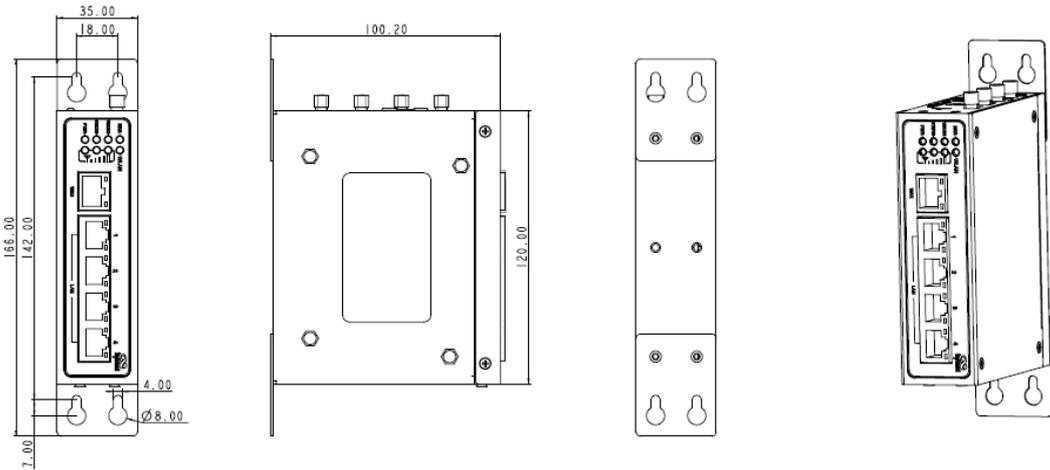|		InRouter615-S
Interface	Ethernet Port	1*10/100Mbps, WAN; 4*10/100Mbps, LAN; 1.5KV isolated protection Full Duplex or Half Duplex RJ-45 type connector
	Power Supply	DC9-26V Polarity Dependant, Reverse Polarity Protection
	Serial Port	1* serial port (RS-232/RS-485) 15KV ESD protection
	SIM Holder	Drawer Card Holder x1 Operating Voltage: 3.0V/1.8V
	Reset	Pinhole Reset Button
	Antenna Connector	3G/4G: SMA x 2, WLAN: RP-SMA x 2
Mechanical Features	Dimension (mm)	127x108.2x35
	Installation	Standard DIN-rail Wall/Hanger mounting optional *Please consult with sales if you want optional
	Housing	Metal
	Protection Level	IP30
	Cooling	No Fan
Power Consumption	Standby	120mA-200mA@12V
	Operating	150mA-320mA@12V
	Peak	320mA@12V
Wi-Fi Transmit Power	Transmit Power	802.11b:16dBm +/-2dBm(11Mbps) 802.11g:16dBm +/-2dBm(54Mbps) 802.11n@2.4GHz:16dBm +/-2dBm (HT20 MCS7) 802.11n@2.4GHz:16dBm +/-2dBm (HT40 MCS7)
Environment Temperature	Humidity	5~95% relative humidity (noncondensing)
	Storage Temp	-40~85°C
	Working Temp	-20~70°C
LED Indicators	POWER, STATUS, WARN, ERROR, Wi-Fi, SIM, three Levels of Cellular Signal Strength	
EMC	Electrostatic Discharge Immunity	EN61000-4-2, level 3
	Electrical Fast Transient/Burst Immunity	EN61000-4-4, level 3
	Surge	EN61000-4-5, level 3
	Shockwave Immunity	EN61000-4-12, level 3

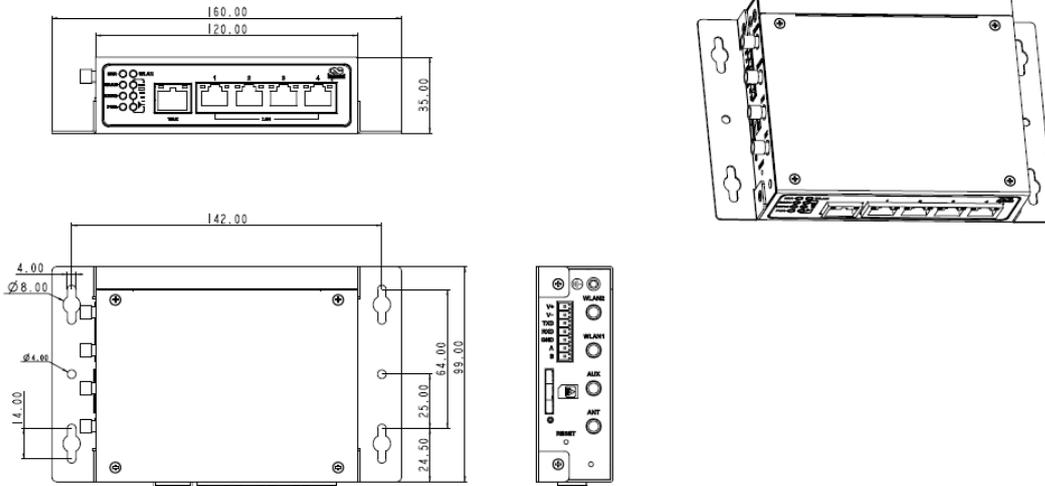|	InRouter615-S
Certification	CE(EMC&LVD&RF&Temperature), FCC
Warranty	3 years

Dimensions

DIN-Rail Mounting

Wall Mounting-a

Wall Mounting-b
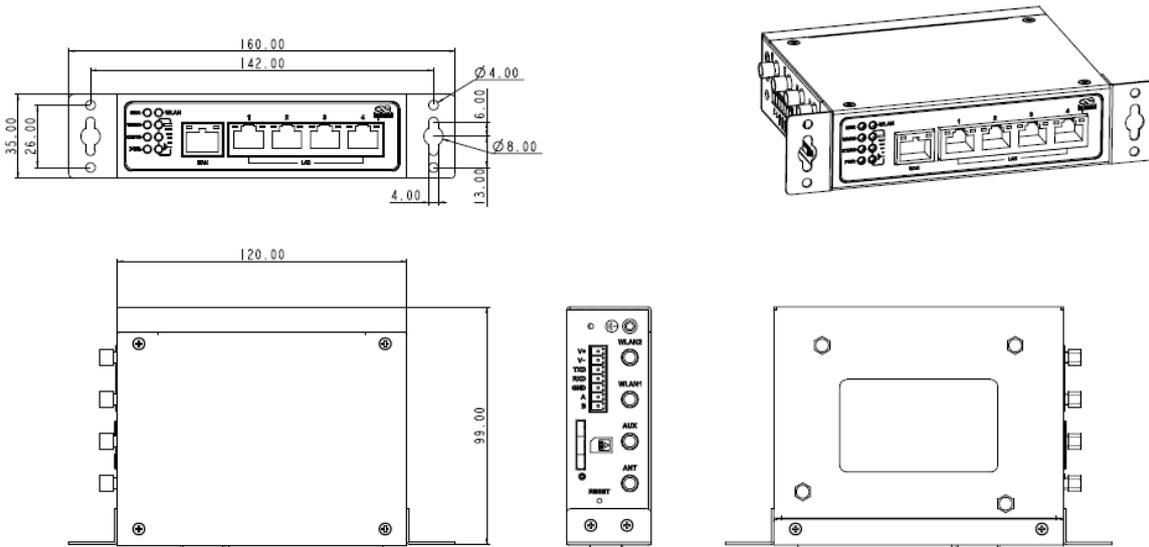
Hanger Mounting

Ordering Information

	InRouter615-S		
Part Number	InRouter615-S-<N>-<WLAN>		
N (Network)	U: UMTS(HSPA+); V: EVDO; L: LTE-FDD; L3: LTE-FDD/UMTS/GPRS; L5: LTE-FDD/LTE-TDD/TD-SCDMA/UMTS/GPRS; L7: LTE-FDD/LTE-TDD/TD-SCDMA/UMTS/ EVDO/CDMA-1x/GPRS;		
	Network/Hardware Version	Band	3G/4G

	U/30108 (Global)	UMTS(HSPA+)　Band1/2/5/8 (850/900/1900/2100MHz) EDGE/GPRS/GSM　850/900/1800/1900MHz	3G
	U/30207 (For China, Asia and Europe)	UMTS(HSPA)　Band1/8(900/2100MHz) EDGE/GPRS/GSM　850/900/1800/1900MHz	
	V/40214 (For China Telecom only)	EVDO　800MHz CDMA 1x　800MHz	
	V/40115 (For Verizon Wireless in USA)	EVDO and CDMA 1x	
	L5/60218 (For China)	LTE-FDD　Band 1/3/8 LTE-TDD　Band 38/39/40/41 TD-SCDMA Band 34/39 UMTS(DC-HSPA+) 1/5/8/9 EDGE/GPRS/GSM　900/1800MHz	4G
	L7/60522 (For China)	LTE-FDD　Band 1/3 LTE-TDD　Band 38/39/40/41 TD-SCDMA　Band 34/39 UMTS(DC-HSPA+) Band 1 EVDO　800MHz CDMA-1x　800MHz EDGE/GPRS/GSM　850/900/1800/1900MHz	
	L3/60123 (For Europe)	LTE-FDD　Band 1/3/7/8/20 UMTS(HSPA+) Band 1/3/8 EDGE/GPRS/GSM　900/1800MHz	
	L3/60124 (For AT&T in USA and North/South America)	LTE-FDD　Band 2/4/5/17 UMTS(HSPA+) Band 2/4/5 EDGE/GPRS/GSM　850/900/1800/1900MHz	
	L/60625 (For Verizon Wireless in USA)	LTE-FDD　Band 4/13	
	L3/60220 (For Europe)	LTE-FDD　Band 1/2/3/4/5/7/8/20 UMTS(DC-HSPA+) Band1/2/5/8 EDGE/GPRS/GSM　850/900/1800/1900MHz	
	EN00		No cellular module
WLAN(Wi-Fi)	<NA>: no Wi-Fi WLAN: Wi-Fi AP&Client		
Example	InRouter615-S-L5-WLAN: 5 ETH ports, support IPsec/PPTP/L2TP/OPEN VPN, LTE-FDD/LTE-TDD/TD-SCDMA/UMTS/GPRS, Wi-Fi AP&Client, RS-232 or RS-485		

InHand Networks

InHand Networks provides reliable, secured and intelligent M2M solution for electric power, industrial automation, commercial and medical devices. Recognized by world class customers and partners. Proven by a large install base. Expanding with intensive investments in research and development. Enduring for long-term support.

InHand Networks has become leader in industrial grade network technology by providing industrial cellular routers, industrial Ethernet switches, wireless sensor network devices and cloud based M2M platforms.

Connecting devices, enabling services.

InHand Networks

3900 Jermantown Rd., Suite 150
Fairfax, VA 22030
USA
T: +1-703-348-2988
F:+1-703-348-2988
info@inhandnetworks.com
www.inhandnetworks.com