

# 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 fall back 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

- 1.5KVisolated Ethernet port
- Wide temperature range: -20~70 °C
- Wide input voltage range: 9~26VDC

**Data Security**

- **Data Transmission Security**  
IPsec VPN, L2TP, PPTP, SSL VPNand 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, keep alive  
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 table)

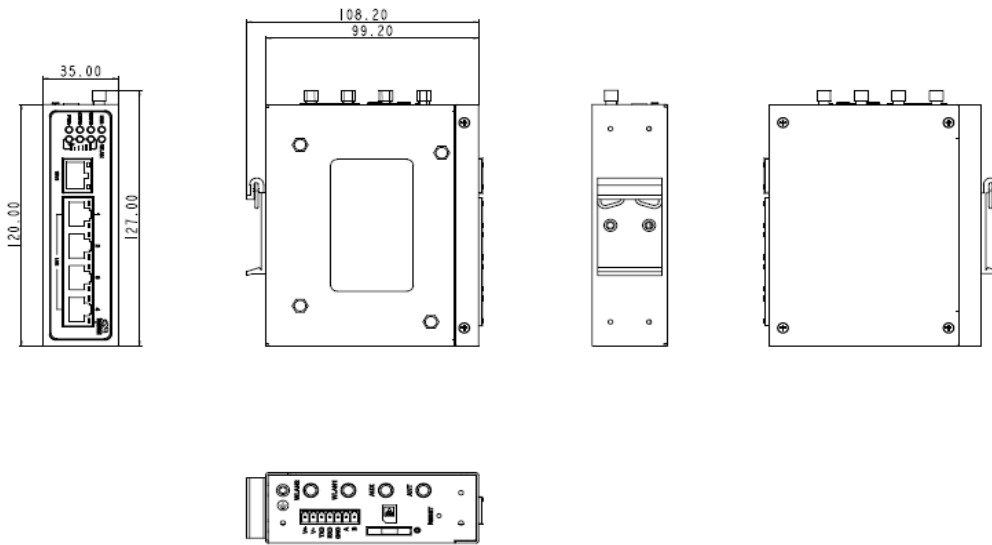
		InRouter615-S	
	LAN	ARP, Ethernet	
	WAN	Static IP, DHCP, PPPoE, PPP	
	IP	Ping, Trace, DHCP Server, DHCP Relay, DHCP Client, DNS relay, DDNS and Telnet	
	IP Routing	Static routing	
	NAT	Network Address Translation	
WLAN (optional)	Standard	IEEE 802.11b/g/n	
	Mode	AP, Client	
	Speed	300Mbps	
	Security		Support open system, shared keys, WPA/WPA2
			WEP/TKIP/AES encryption
Transmission Distance	100meters (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(TCP Server), WP agreement, WN protocol, Trap+Poll, TCP/UDP transparent transmission	
Management & Maintenance	Traffic Management	Bandwidth control, IP-based QoS	
	Configuration	Telnet, web, SSH	
	Firmware Upgrade	Via web, andvia 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**

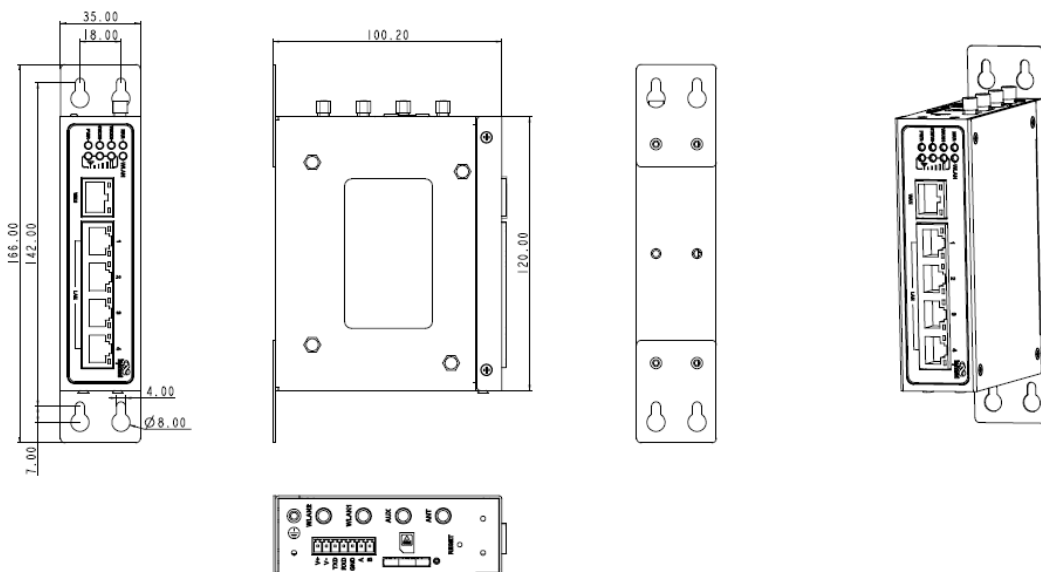
		InRouter615-S
Interface	Ethernet Port	1*10/100Mbps, WAN; 4*10/100Mbps, LAN; 1.5KV isolated protection Full Duplex or Half Duplex RJ-45 type connector
	Power Supply	DC9-26V Polarity Dependant, Reverse Polarity Protection
	Serial Port	1* serial port (RS-232/RS-485) 15KV ESD protection
	SIM Holder	Drawer 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, level3
	RFI Radio Frequency Immunity	EN61000-4-3,level 3
	Electrical Fast Transient/Burst Immunity	EN61000-4-4, level3

		InRouter615-S
	Surge	EN61000-4-5, level3
	Immunity to Conducted Disturbances	EN61000-4-6,level 3
	Shockwave Immunity	EN61000-4-12, level3
Certification	CE(EMC&LVD&RF&Temperature),FCC	
Warranty	3 years	

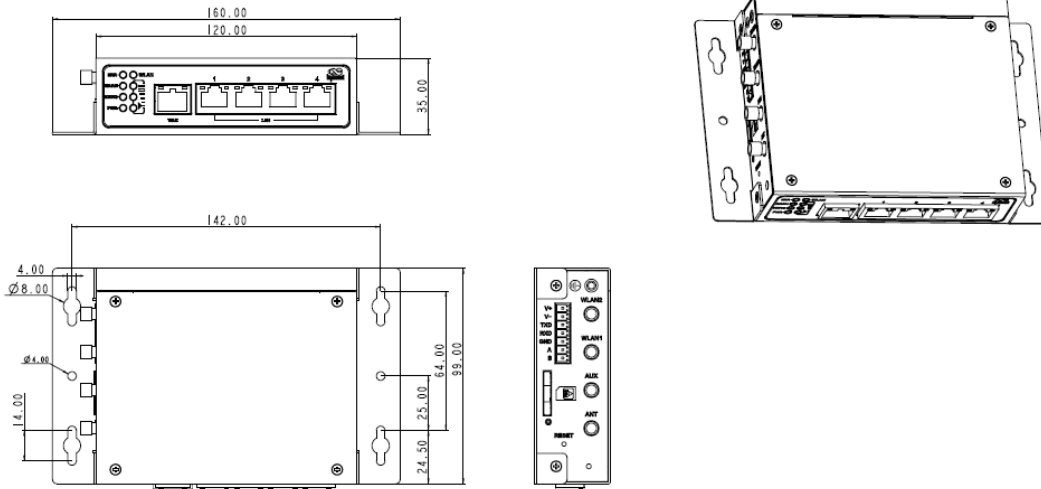
## Dimensions



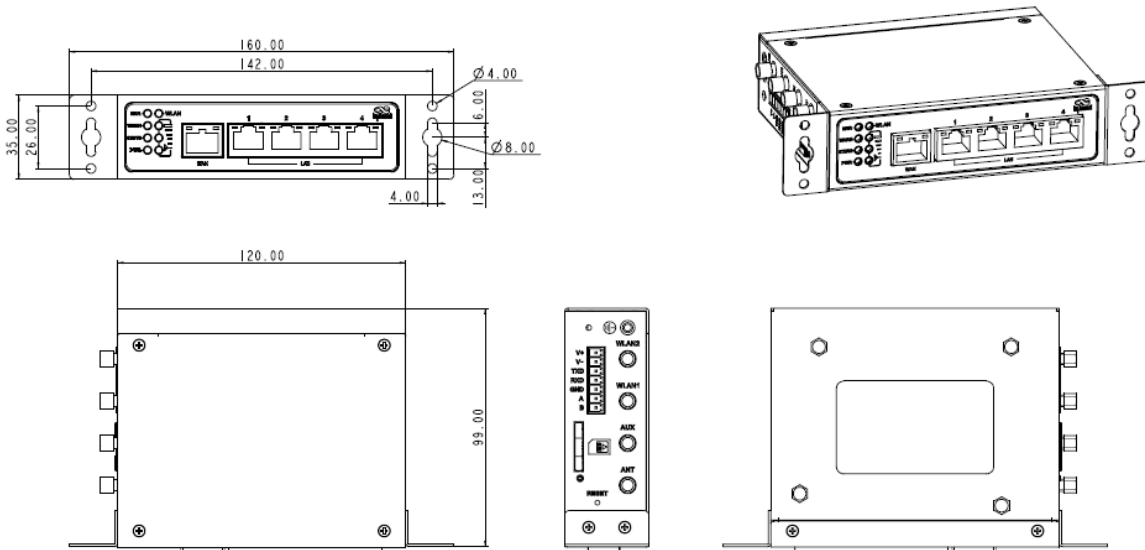
### DIN-Rail Mounting



### 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/SouthAmerica)	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.



### InHand Networks

3900 Jermantown Rd., Suite 150  
Fairfax, VA 22030  
USA  
T: +1-703-348-2988  
F: +1-703-348-2988  
[info@inhandnetworks.com](mailto:info@inhandnetworks.com)  
[www.inhandnetworks.com](http://www.inhandnetworks.com)