

InRoute611-S Series

4G LTE, 3G, WI-FI, VPN Industrial Router



Overview

Integrating 3G, 4G LTE and advanced security, the InRouter611-S series is the next generation of InRouter611 cellular router. With embedded hardware watchdog, link detection, auto-recovery and auto-reboot, the InRouter611-S series provides reliable communications to unattended sites. Reliable VPN technology secures sensitive data, including standard IPSec/SSL/PPTP/L2TP and GRE. The IR611-S also utilizes remote management tools such as a CLI, a web interface and InHand *Device Manager* Cloud platform for batch configuration and monitoring.

By combining 3G and 4G cellular technology, simple installation and a suite of management tools, the InRouter611-S series is ideal for large-scale machine to machine 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 recover with GPRS or 3G without an LTE signal
- WI-FI Access Point or Client: 802.11b/g/n, WEP/WPA/WPA2 encryption
- 3G/4G and WI-FI backup internet access
- Quad-Band 2G, 3G and 4G LTE for global deployment

Rugged Industrial Design

- Metal housing, IP30
- EMC levels II and above

- 1.5 kv isolated serial 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
SCEP scalable VPN authentication
- **Network Security**
Stateful Packet Inspection (SPI), Secure Shell(SSH) and DoS mitigation
Intrusion protection, and IP to MAC Binding
ACL, DMZ, Port-forwarding and IP filtering
- **Management-Plane Security**
SSH, HTTPS and InHand *Device Manager* for secure remote management
Multi-level user authority
Administrative permission management

Reliable Cellular

- **Automatic Link Detection & Recovery**
PPP Layer Detection: monitor the cellular connection
Network Connection Detection: automatic redial and reboot
VPN Tunnel Detection: ruggedized and improved VPN tunnels

Remote Management

- Local Web-Browser Interface
- Command-line interface
- *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

IR611-S Software Specification

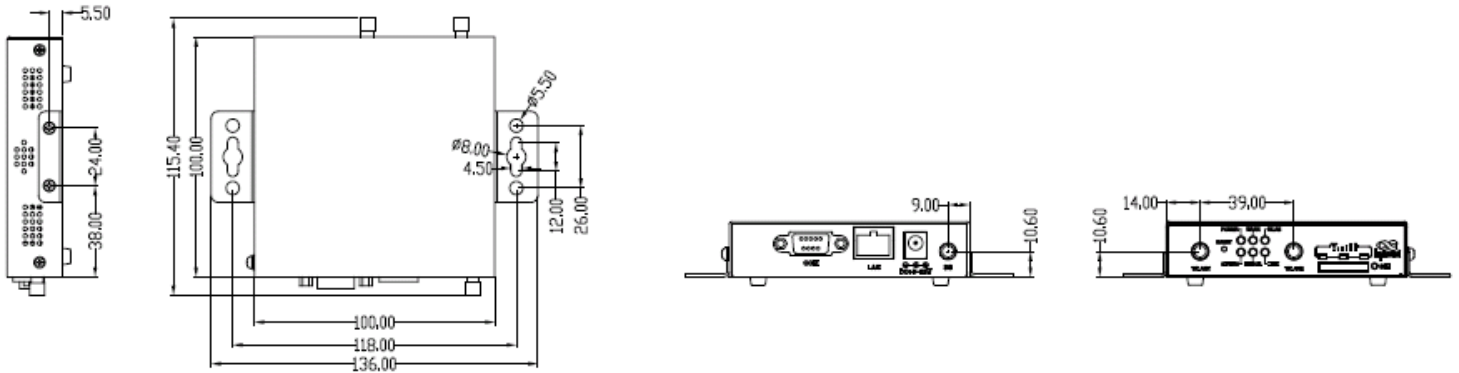
		IR611-S
Network	Network Access	Custom APN, VPDN, Static IP
	Authentication	CHAP/PAP
	Network	GSM/GPRS/EDGE UMTS/HSPA+/EVDO/TD-SCDMA TD-LTE FDD LTE
	LAN	ARP

		IR611-S
	WAN	PPP
	IP	Ping, Trace, DHCP Server, DHCP Relay, DHCP Client, DNS relay, DDNS, 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	100m (line of sight)	
Security	Network Security	DoS protection, Stateless Packet Inspection, Filtering Multicast/Ping package, Access Control List (ACL), IP/MAC Binding, Port forwarding
	Data Security	IPSec/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, INOS command-line
	Firmware Upgrade	Via web, InHand Device Manager
	Log	Local log, remote log, export log via serial port
	On-Demand Dial Up	Trigger by data on port, 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

IR611-S Hardware Specification

		IR611-S
Interface	Ethernet Port	1*10/100Mbps, LAN/WAN,1.5KV isolated serial port
	Power Supply	DC9-26V
	Serial Port	1*RS-232/485(DB9),15KV ESD protection
	SIM Holder	Drawer Card Holder x1
	Reset	Pinhole Reset Button
	Antenna Connector	3G/4G:SMA x 1, WLAN: RP-SMA x 2 Note: VH09 including SMA x2
Mechanical Features	Dimension (mm)	100x100x23
	Installation	Panel mounting
	Housing	Metal
	Protection Level	IP30
	Cooling	Fanless
Power Consumption	Standby	80mA-120mA@12V
	Operating	200mA-220mA@12V
	Peak	240mA@12.0V
Environment Temperature	Humidity	5~95% relative humidity (noncondensing)
	Storage Temp	-40~85°C
	Working Temp	-20~70°C
LED Indicators	POWER, STATUS, WARN, ERROR, MODEM, SIM, three Levels of Cellular Signal Strength	
EMC	Electrostatic Discharge Immunity	EN61000-4-2,level 2
	Radio Frequency Immunity	EN61000-4-3,level 2
	Electrical Fast Transient/Burst Immunity	EN61000-4-4,level 2
	Surge	EN61000-4-5,level 2
	Immunity to Conducted Disturbances	EN61000-4-6,level 2
	Shockwave Immunity	EN61000-4-12,level 2
	Power Frequency Magnetic Field Immunity	EN61000-4-8, horizontal/vertical400A/m (>level 2)
Physical	Shock Test	IEC60068-2-27
	Free Fall	IEC60068-2-32
	Vibration	IEC60068-2-6
Certification	CE(EMC, LVD, RF, Temperature), FCC, CCC	
Warranty	3 years	

Dimensions (mm)



Ordering Information

InRouter611-S		
Part Number	IR611-S-<N>-<WLAN>-<S>	
N(Network)	PS08: UMTS(HSPA+) Band1/2/5/8 (Global) EDGE/GPRS/GSM 850/900/1800/1900 VH09: EVDO800MHz (For China only) CDMA 1x 800MHz	3G
	TL00: LTE-FDD Band 1/3/5 (For China) LTE-TDD Band 38/39/40/41 TD-SCDMA Band 34/39 UMTS(DC-HSPA+) Band 1/5 EDGE/GPRS/GSM 850/900/1800/1900MHz FS08: LTE-FDD Band1/3/7/8/20(For Euro) UMTS(DC-HSPA+) Band1/3/8 EDGE/GPRS/GSM 900/1800MHz FS18: LTE-FDD Band2/4/5/17(For AT&T, T-Mobile) UMTS(DC-HSPA+) Band2/4/5 EDGE/GPRS/GSM 850/900/1800/1900MHz FS28: LTE-FDD Band2/4/13(For Verizon Wireless)	4G
	EN00: No Cellular	
WLAN(Wi-Fi)	<NA>: no Wi-Fi WLAN: Wi-Fi AP&Client	
S(Serial Type)	<NA>:RS232; 485: RS485	
Example	IR611-S-PS09-WLAN: support IPSec/PPTP/L2TP/OPEN VPN, HSPA+, Wi-Fi AP&Client, RS232	

InHand Networks

InHand Networks provides reliable, secure 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 and 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 service.



InHand Networks

7926 Jones Branch Dr. Suite 110
McLean, Virginia 22102
USA
T: +1-703-348-2988
F: +1-703-348-2988
info@inhandnetworks.com
www.inhandnetworks.com