InHand Networks

Embrace 5G, Co-Create the Digital Era



InRouter624 Series Industrial Router

- 5G
- Wi-Fi 5
- Security
- Cloud-Managed

1. Product Overview

InRouter624 is a high-performance industrial router series integrating 5G/4G, Wi-Fi, and VPN for secure, resilient, and cloud-managed IoT connectivity.

Positioning: Industrial 5G edge router for high-bandwidth, low-latency connectivity and centralized fleet operations.

Key features:

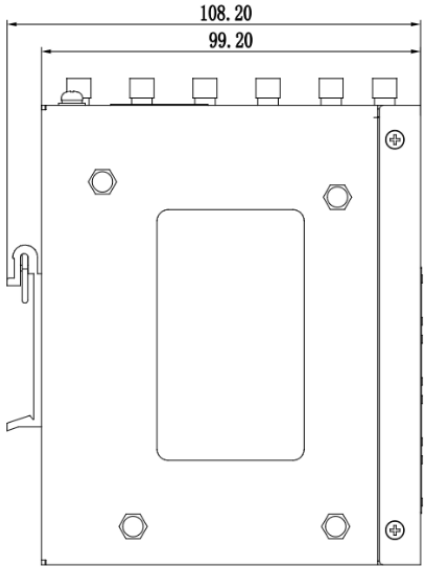
- **5G-ready connectivity:** Up to 3.4Gbps downlink with backward compatibility to 4G/3G
- **Always-on communication:** Link backup, dual-SIM failover, watchdog, and multi-level link detection
- **Enterprise security stack:** Multi-layer VPN, firewall, policy routing, and 802.1X access security
- **Cloud-native management:** DeviceLive enables remote monitoring, diagnostics, and maintenance
- **Industrial robustness:** Wide voltage, fanless metal design, and industrial compliance for unattended sites

Core Technical Specifications

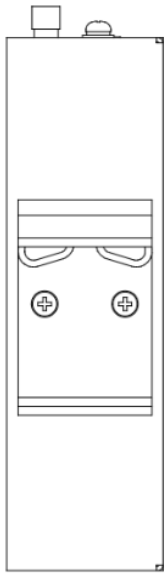
Technical Item	Specification
Cellular Network	5G NR SA/NSA or LTE fallback (model-dependent), with dual-SIM support
Wi-Fi (Optional)	Dual-band 2.4G/5G, IEEE 802.11 ac/a/b/g/n Wave2 MU-MIMO, up to 300/867 Mbps
Security Stack	Firewall, policy-based routing, 802.1X access control, IPsec VPN, L2TP VPN, OpenVPN, WireGuard VPN
Reliability	Interface backup, dual-SIM failover, heartbeat link detection, embedded watchdog

Technical Item	Specification
Cloud Management	DeviceLive platform for batch management and remote O&M
DTU and Data Interoperability	TCP/UDP transparent mode, Modbus RTU-to-TCP bridge
Ethernet Interfaces	4×10/100/1000 Mbps Ethernet, WAN/LAN/VLAN, 1.5kV isolation protection
Serial Interfaces	1×RS-232 + 1×RS-485
CPU / Memory / Flash	880MHz CPU, 256MB RAM, 128MB Flash
Power Input	DC 9~48V, with over-current and reverse-polarity protection
Operating Temperature	Normal: -35 °C ~ +70 °C (-31 °F ~ +158 °F) Extended:-40 °C ~ +75 °C (-40 °F ~ +167 °F)
Protection Rating	IP30

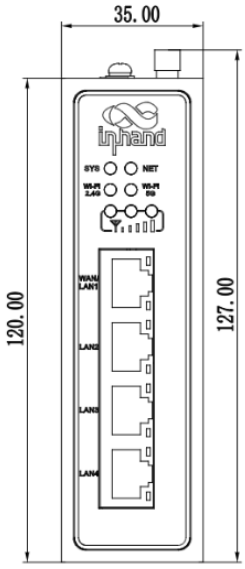
2. Product Dimensions



Front View



Side View



Interface Diagram

Note:

1. All dimensions are in millimeters (mm), with inches (in) in parentheses.
2. All dimensions are approximate and for reference only.
3. Dimensioned drawings are not intended for machining.
4. Dimensions are subject to part and manufacturing tolerances.
5. Specifications may change without prior notice.

3. Hardware Specifications

Category/Parameter	Specification
CPU and Storage	
CPU	880MHz
RAM	256MB
Flash	128MB

Category/Parameter	Specification
Connectivity and Interfaces	
Ethernet Ports	4 x 10/100/1000 Mbps Ethernet (WAN/LAN/VLAN), 1.5kV isolation
Power Interface	DC 9~48V with over-current and reverse-polarity protection
Serial Port	1 x RS-232 and 1 x RS-485 ESD protection: 15KV
Reset Button	Supported
SIM Slot	Dual Nano-SIM drawer slot (1.8V/3V), optional eSIM
Antenna Connectors	4 x SMA for 5G or 2 x SMA for 4G , 2 x RP-SMA for Wi-Fi
Wi-Fi	
Radio Frequency	2.4GHz / 5GHz
Max Transmission Bandwidth	Up to 300Mbps (2.4G) / 867Mbps (5G)
Transfer Protocol	IEEE 802.11 ac/a/b/g/n Wave2 MU-MIMO
Transmit Power	5G:17dBm 2.4G:17dBm
Transmission Distance	50 meters by line of sight(Actual transmission distance depends on environment of the site.)
Power Rate	
Standby Power	370-480mA@12V
Working Power	415-530mA@12V
Peak Power	530mA@12V

Category/Parameter	Specification
Mechanical Specifications	
Product Dimensions	127 × 108.2 × 35 mm (5 × 4.26 × 1.38 in)
Product Weight	544 g (1.2 lb)
Mounting Method	DIN-rail mounting
Protection Rating	IP30
Housing and Cooling	Fanless metal housing
Environment and Compliance	
Storage Temperature	-40 °C ~ 85 °C (-40 °F ~ 185 °F)
Operating Temperature	Normal: -35 °C ~ +70 °C (-31 °F ~ +158 °F) Extended:-40 °C ~ +75 °C (-40 °F ~ +167 °F)
Ambient Humidity	5~95% RH, non-condensing
Physical Characteristics	IEC60068-2-27 Shockproof; IEC60068-2-6 Vibration Resistance; IEC60068-2-32 Free Fall
EMC Standard	EN61000-4-2, level 3, Static EN61000-4-3, level 3, Radiation Electric Field EN61000-4-4, level 3, Pulsed Electric Field EN61000-4-5, level 3, Surge EN61000-4-6, level 3, Conducted Disturbance Immunity EN61000-4-8, Power Frequency Field Resistance, horizontal / vertical 400A/m (>level 2) EN61000-4-12, level 3, Shock Wave Resistance
Certifications	CE, E-MARK, ECE R118, FCC, IC, PTCRB, AT&T, T-Mobile, Verizon(NSA)

4. Software Specifications

Category/Parameter	Specification
Network Features	
Network Access	APN/VPDN
Access Authentication	CHAP/PAP
Network Type	WCDMA/TDD LTE/FDD LTE/5G NR (SA/NSA)
LAN protocol	ARP, Ethernet
WAN protocol	Static IP, DHCP, PPPoE
IP Applications	TCP/UDP/IPv4/IPv6/ICMP/NTP/DNS/HTTP/HTTPS/SSL/TLS/VRRP/PPP/PPPoE/SSH, DHCP server/relay/client, DDNS, Telnet, IP passthrough
IP Routing	Static routing, BGP
NAT Functions	NAT, port mapping
Security	
Network Security	Access control, firewall filtering (MAC/IP/port/protocol), policy-based routing, 802.1X
Data Security	IPsec VPN, L2TP VPN, OpenVPN, WireGuard VPN
CA Certificates	Not specified
Reliability	
Link Detection	Heartbeat link detection with auto-redial
Embedded Watchdog	Supported
Backup	Interface backup

Category/Parameter	Specification
Dual-SIM Switching	Dual-SIM failover
WLAN	
Operating Mode	AP/Client modes
Security Features	WPA/WPA2, WEP/TKIP/AES, Wi-Fi Portal support
Intelligence	
DTU Function	TCP/UDP transparent mode
Bridge	Modbus RTU-to-TCP bridge
Network Management	
QoS Management	QoS traffic shaping
Configuration Methods	Web/CLI remote access, config import/export
Log & Alarm	System logs, diagnostic logs, device events
Network Management Function	DeviceLive batch management and equipment monitoring
Maintenance Tools	Support Ping, Traceroute and network packet capture tools
Monitoring	Dashboard-Device information, interface status, and refined traffic statistics link monitoring- Link delay, jitter, packet loss, and throughput

5. Ordering Information

Model Rule

Model code: IR624-<WMNN>-<WLAN/NA>-S

<WMNN>: Cellular Type & Module
<WLAN/NA>: Wi-Fi option
`S` : 1×RS-232 + 1×RS-485

Model List

Model Pattern	Region	<WMNN> / Bands	<WLAN/NA>	Serial
IR624-NRQ3-<WLAN/NA>-S	Global	5G NR NSA n1/2/3/5/7/8/12/13/14/18/20/25/26/28/29/30/38/40/41/48/66/70/71/75/76/77/78/79; SA same set; LTE FDD B1/2/3/4/5/7/8/12/13/14/17/18/19/20/25/26/28/29/30/32/66/71; LTE TDD B34/38/39/40/41/42/43/48; LAA B46; WCDMA B1/2/4/5/8/19	WLAN or NA	S
IR624-NRF4-<WLAN/NA>-S	Europe & APAC (5G)	5G NR n1/3/5/7/8/20/28/38/40/41/71/77/78/66; LTE FDD B1/3/5/7/8/20/28/71/66; LTE TDD B38/40/41; WCDMA B1/3/5/8	WLAN or NA	S
IR624-FQ58-<WLAN/NA>-S	Europe & APAC (4G Cat.4)	LTE-FDD B1/3/5/7/8/20/28; LTE-TDD B34/38/39/40/41; WCDMA B1/5/8; GSM B3/8	WLAN or NA	S
IR624-EN00-<WLAN/NA>-S	Global (No Cellular)	No cellular module	WLAN or NA	S
IR624-NRF2-<WLAN/NA>-S	China (5G)	5G NR n1/3*/5/8/28/41/78/79; LTE FDD B1/3/5/7*/8; LTE TDD B34/38/39/40/41; WCDMA B1/5/8	WLAN or NA	S
IR624-LQ20-<WLAN/NA>-S	China (4G Cat.4)	FDD B1/3/5/8; TDD B34/38/39/40/41; WCDMA B1/5/8; GSM/EDGE B3/8	WLAN or NA	S

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