

Embrace 5G, Co-Create the Digital Era.

InRouter624 series

• 5G

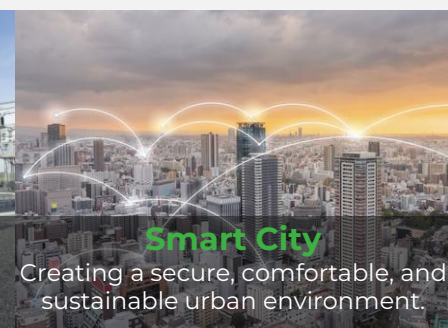
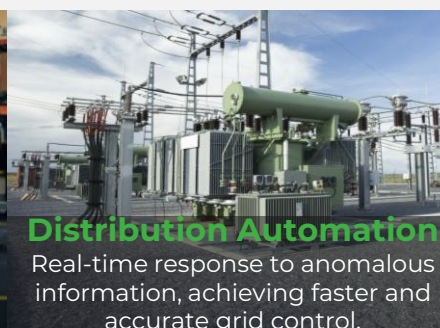
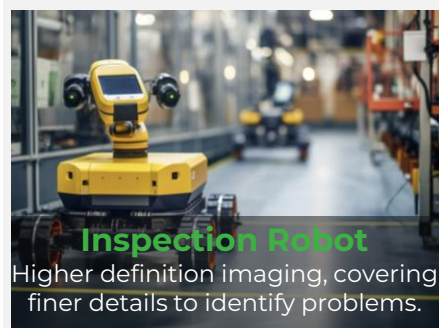
• Wi-Fi 5

• Security

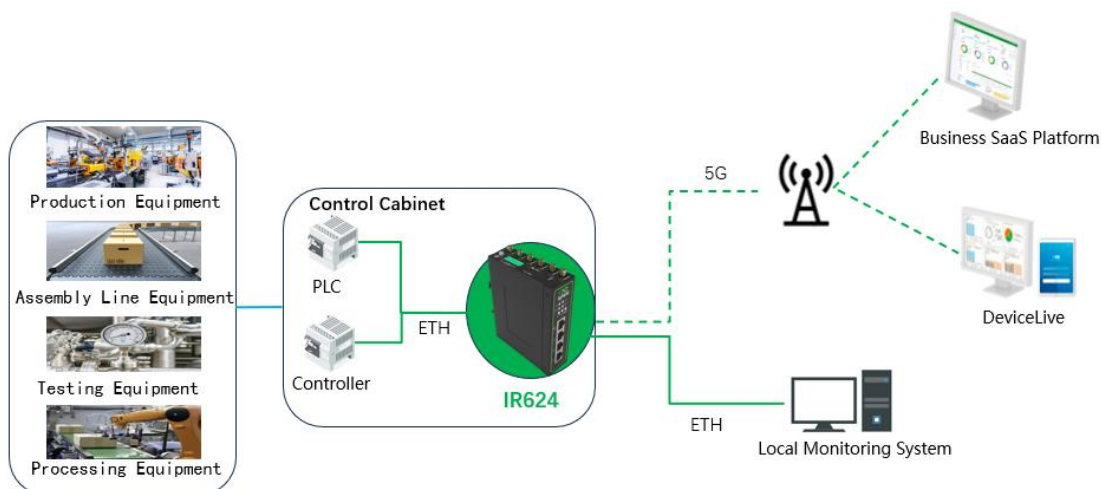
• Cloud-Managed



The InRouter624 (IR624) series by InHand Networks is designed to assist enterprises in digital transformation. Integrated with 5G/4G, Wi-Fi, VPN, and more, it offers efficient, secure, and intelligent connectivity solutions for various IoT industries. With a multi-level link detection mechanism, the IR624 ensures stable communication for unattended industrial sites. Paired with InHand Networks' DeviceLive IoT management platform, it aids users in achieving centralized cloud management and remote maintenance. This allows for easy monitoring of device status, reducing deployment costs, and enhancing management efficiency.



Solution



Features and Advantages

Ubiquitous network access: 5G

IR624 features 5G cellular high-speed network access with a downlink speed of up to 2Gbps, providing a comprehensive enhancement to the new network experience. The characteristics of high bandwidth and low latency contribute to building a more powerful and efficient next-generation network, allowing you to fully experience the remarkable charm of 5G.



“Always-on” connectivity

IR624 is equipped with various features, including link backup, link detection, dual SIM switching, watchdog, etc., to ensure the reliability and stability of connections. This reduces the risk of network failures, saves network investment costs, and provides a worry-free new experience of network services!



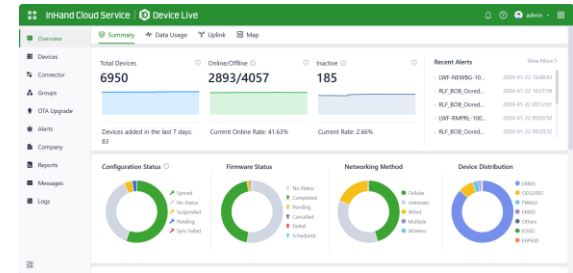
Secure Network Connection

IR624 integrates multiple layers of security policies, including VPN, firewall, and policy routing. It effectively safeguards sensitive data and critical business networks from attacks and threats, providing a secure and trustworthy network environment. While your business rapidly expands, we are dedicated to protecting your digital assets.

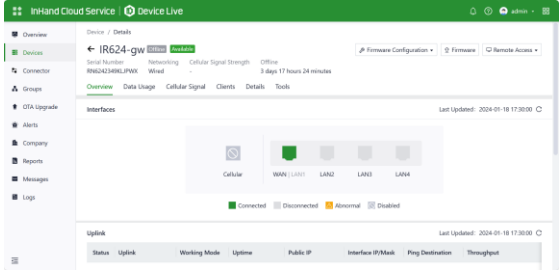


Cloud-Managed Networking Solution

The IR624 connects to the InHand Networks DeviceLive IoT device management platform to manage tens of thousands of distributed site devices in real time and grasp device status anytime and anywhere. Additionally, users can remotely connect to on-site devices through DeviceLive for diagnosis, debugging, and repair of distributed on-site devices. This reduces losses caused by equipment failures, making management easier, more efficient, and more economical!

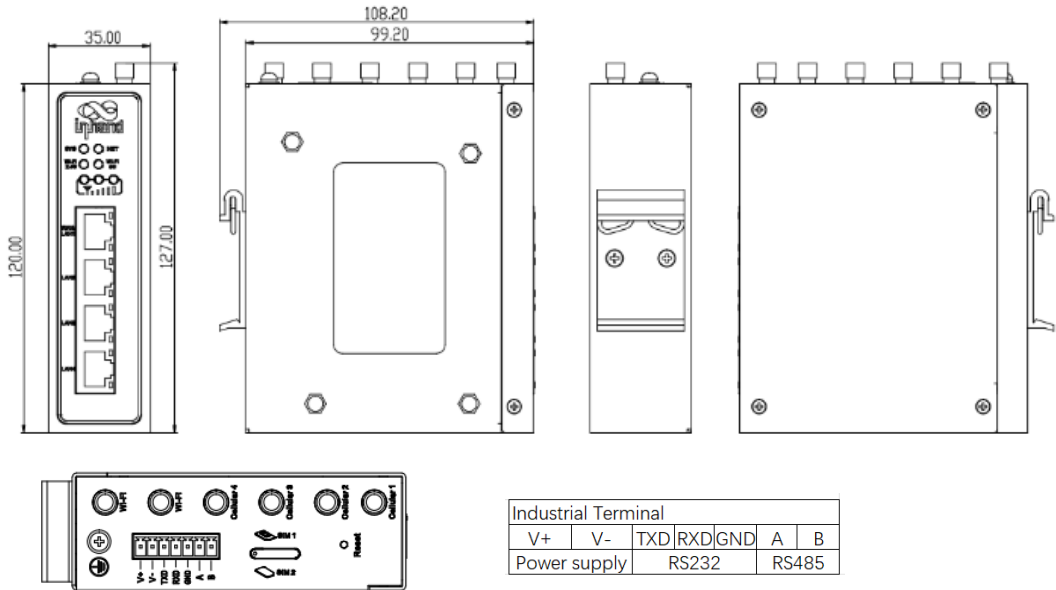


Control Panel



Device Details

Dimensions (mm)



Dimensions : 127 * 108.2 * 35mm

Product Specifications

InRouter624 Hardware Specifications

Hardware Platform

| | |
|-------|--------|
| CPU | 880MHz |
| RAM | 256MB |
| Flash | 128MB |

Interface

| | |
|-------------------|---|
| Cellular | 5G, downlink speed of up to 2Gbps, Sub6(450MHz to 6GHz), compatible with 4G/3G |
| Ethernet Port | 4*10/100/1000Mbps, Ethernet, WAN/LAN/VLAN 1.5KV network isolation transformer protection |
| Power Supply | DC9-48V, over-current protection, anti-reverse connection, 2 PIN industrial terminal |
| Serial Port | 1 x RS232 and 1 x RS485 ESD protection: 15KV |
| Reset | Reset button |
| SIM Card | 1 x Drawer-type slot, support dual-NANO SIM, 1.8 V/3 V 1 x Eembedded SIM (Optional) |
| Antenna Interface | 4 x SMA for 5G or 2 x SMA for 4G, 2 x RP-SMA for Wi-Fi |
| Ground Terminal | Supports |
| Indicator | 1 x System, 1 x Cellular, 1 x 2.4G Wi-Fi, 1 x 5G Wi-Fi, 3 x Signal |

Hardware components

| | |
|-----|---------|
| RTC | Support |
|-----|---------|

Wi-Fi

| | |
|------------------------|--|
| Dual Radio | 2.4G / 5GHz Wi-Fi |
| Transmission Bandwidth | 5G: 867 Mbps 2.4G: 300 Mbps |
| Protocol | 802.11 ac/a/b/g/n Wave2 MU-MIMO |
| Maximum Transmit Power | 5G: 17dBm 2.4G: 17dBm |
| Transmission Distance | 50 meters by line of sight (Actual transmission distance depends on environment of the site.) |

Mechanical Features

| | | | |
|--------------|----------------|-------------------|---------|
| Dimensions | 127x108.2x35mm | Weight | 544g |
| Installation | Din-rail | Protection Rating | IP30 |
| Housing | Metal | Cooling | Fanless |

Power rate

| | |
|---------------|---------------|
| Standby Power | 370-480mA@12V |
| Working Power | 415-530mA@12V |
| Peak Power | 530mA@12V |

Ambient Environment

| | | | |
|---------------------|-----------------------|-----------------------|----------|
| Storage Temperature | -40 ~ 85℃ | Operating Temperature | -20~ 70℃ |
| Ambient Humidity | 5~95% (no condensing) | | |

EMC

| | |
|---|--|
| Static | EN61000-4-2, level 3 |
| Radiation Electric Field | EN61000-4-3, level 3 |
| Pulsed Electric Field | EN61000-4-4, level 3 |
| Surge | EN61000-4-5, level 3 |
| Conducted Disturbance Immunity | EN61000-4-6, level 3 |
| Shock Wave Resistance | EN61000-4-12, level 3 |
| Power Frequency Magnetic Field Resistance | EN61000-4-8, horizontal / vertical 400A/m (>level 2) |

Physical Specs

| | | | |
|------------|---------------|----------------------|--------------|
| Shockproof | IEC60068-2-27 | Vibration Resistance | IEC60068-2-6 |
| Free Fall | IEC60068-2-32 | | |

Certificate

CE, E-MARK, ECE R118, FCC, IC, PTCRB, AT&T, T-Mobile, Verizon(NSA)*

InRouter624 Software Specifications

Network Connection

| | |
|-----------------------|--|
| Network Access | APN, VPDN |
| Access Authentication | CHAP/PAP |
| Network Type | WCDMA, TDD LTE/FDD LTE, 5G NR(SA/NSA) (Please refer to the Ordering Guide for frequencies) |
| LAN Protocol | ARP, Ethernet |
| WAN Protocol | Static IP, DHCP, PPPoE |

Network Protocol

| | |
|------------------------|--|
| Protocol & Application | TCP, UDP, IPv4, IPv6, ICMP, NTP, DNS, HTTP, HTTPS, SSL/TLS, ARP, VRRP, PPP, PPPoE, SSH, DHCP Server, DHCP Relay, DHCP Client, DDNS, Telnet, IP Passthrough |
| Routing | Static routing |

Security

| | |
|------------------|--|
| Network Security | Support access control, NAT, port mapping and firewall filtering based on MAC/IP/port/protocol Support Policy-Based Routing Support 802.1X |
| Data Security | IPsec VPN, L2TP VPN |

Reliability

| | |
|-------------------|---|
| Backup | Interface backup |
| Dual SIM Failover | Supports dual SIM failover |
| Link Detection | Sends heartbeat packets to detect, auto redials when disconnected |
| Embedded Watchdog | Device runs self-detection, auto recovers from malfunctions |

Wi-Fi

| | |
|--------------|--|
| Working Mode | AP, Client |
| Security | Open system, shared key, WPA/WPA2 certification WEP/TKIP/AES encryption |
| Wi-Fi Portal | Support |

Intelligence

| | |
|---------------|---|
| DTU Functions | TCP / UDP transparent transmission mode Supports conversion of Modbus RTU to Modbus TCP bridge |
|---------------|---|

Monitoring & Alerting

| | |
|-----------------|--|
| Dash Board | Device information, interface status, and refined traffic statistics |
| Link Monitoring | Link delay, jitter, packet loss, and throughput |
| Log & Alarm | System logs, diagnostic logs, device events |

QoS

| | |
|-----------------|---------|
| Traffic Shaping | Support |
|-----------------|---------|

Remote maintenance

| | |
|----------------------|--|
| Remote Access | Support Web/CLI remote access |
| Cloud Management | DeviceLive supports batch management, equipment monitoring, remote maintenance |
| Network Diagnostics | Support Ping, Traceroute and network packet capture tools |
| Configuration Backup | Support configuration import and export |

Ordering Guide

| Model code: IR624-<WMNN>-<WLAN/NA>-S | | | |
|--|--|-------------------------------|--------------------|
| Model | <WMNN>: Cellular Type & Module | <WLAN/NA>: Wi-Fi | S: Serial |
| IR624-NRQ3-<WLAN/NA>-S | (For Global, 5G) 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 5G NR SA: 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 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 LTE LAA: B46 WCDMA: B1/2/4/5/8/19 | WLAN: Wi-Fi <NA>: no Wi-Fi | S: 1*RS232+1*RS485 |
| IR624-NRF4-<WLAN/NA>-S | (For 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: Wi-Fi <NA>: no Wi-Fi | S: 1*RS232+1*RS485 |
| IR624-FQ58-<WLAN/NA>-S | (For Europe & APAC, 4G LTE CAT4) LTE-FDD: B1/3/5/7/8/20/28 LTE-TDD: B34/38/39/40/41 WCDMA: B1/5/8 GSM: B3/8 | WLAN: Wi-Fi <NA>: no Wi-Fi | S: 1*RS232+1*RS485 |
| IR624-EN00-<WLAN/NA>-S | NA | WLAN: Wi-Fi <NA>: no Wi-Fi | S: 1*RS232+1*RS485 |
| IR624-NRF2-<WLAN/NA>-S | (For 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: Wi-Fi <NA>: no Wi-Fi | S: 1*RS232+1*RS485 |
| IR624-LQ20-<WLAN/NA>-S | (For China, 4G LTE CAT4) FDD: B1/3/5/8 TDD: B34/38/39/40/41 WCDMA: B1/5/8 GSM/EDGE: B3/8 | WLAN: Wi-Fi <NA>: no Wi-Fi | S: 1*RS232+1*RS485 |
| Example: IR624-NRF4-WLAN-S: Four Gigabit Ethernet ports IR624 series cellular router with Wi-Fi, supports IPSec VPN and L2TP VPN, supports RS232 and RS485. Note: the product comes standard with suction cup antenna and Din-rail accessories. | | | |

About Us

InHand Networks is a leading IoT solutions provider founded in 2001, dedicated to driving digital transformation across industries and empowering customers to unlock their full potential and achieve accelerated growth.

We specialize in delivering industrial-grade connectivity solutions for diverse sectors, such as enterprise networks, industrial and building IoT, digital energy, smart commerce, and mobility. Our comprehensive product portfolio and services cater to various applications worldwide, including smart manufacturing, smart grid, intelligent transportation, smart retail, etc. With a global footprint spanning over 60 countries, we serve customers in China, the United States, France, Germany, the United Kingdom, Italy, and beyond.



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