InHand Networks



InHand 5G & 4G Routers

Secure, Reliable IoT Connectivity



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.

aws partner network Select Technology Partner

Technology Partner Schneider Electric

Technology Partner A ROCKWELL AUTOMATION PARTNER



Contents

Business Routers

FWA12 5G 02
CPE02 5G 04
ER815 5G 06
ER615 08
Selection Guide 10

Outdoor Routers

ODU12 5G 14
ODU302 16
Selection Guide 18

Battery-Powered Routers

CR602 5G 22
CR202-Lite 24
Selection Guide 26

Vehicle Routers

VR624 5G 30

Industrial Routers

IR925 5G 34
IR624 5G 36
IR602 REDCap 38
IR302 40
IR315 42
Selection Guide 44

Cloud Service

InCloud Manager 48
DeviceLive 50
Device Manager 52
InConnect 54



Business Routers

FWA12 / CPE02 / ER615 / ER815

Indoor connectivity for branches, stores, offices, and temporary business sites. The range spans high-capacity 5G CPE, Wi-Fi 7 access, multi-port enterprise routing, SD-WAN, and centralized cloud management.



FWA12

Indoor 5G Wi-Fi 7 Router

5G Release 16 performance

Supports 5G SA/NSA with theoretical peak rates up to 7.01 Gbps downlink and 2.5 Gbps uplink.

Wi-Fi 7 for dense indoor networks

BE5000 dual-band Wi-Fi supports up to 128 wireless clients for high-capacity business access.

One-click POS traffic priority

POS Ready prioritizes transaction traffic to help protect payment workflows when other applications compete for bandwidth.

Centralized cloud operations

InCloud Manager supports zero-touch provisioning, visual monitoring, remote maintenance, and AI-assisted device operations.

FWA12 combines 5G Release 16, Wi-Fi 7, multi-gigabit Ethernet, and cloud management in one indoor platform. It is designed for stores, offices, and service locations that need high throughput, broad client capacity, and centrally managed operations.

Hardware

Stateful Firewall Throughput	2 Gbps
Recommended Users	220 (128 Wi-Fi devices)
Ethernet	2 × 2.5 GbE RJ45, WAN/LAN switchable, dual-LAN
USB	1 × Type-C 2.0, HOST and SLAVE modes
SIM	2 x Nano SIM; 1 x eSIM optional
Reset	Reset button
Power Switch	1 × button
LED	System, Cellular, Signal, WAN, LAN, Wi-Fi
Antenna	6 × external + 2 × built-in antenna; 3 × built-in Wi-Fi antenna
Data Rate	5G SA/NSA: 7.01 Gbps DL / 2.5 Gbps UL; 4G CAT19: 1.6 Gbps DL / 200 Mbps UL
Wi-Fi Frequency	2.4 GHz, 5.8 GHz
Wi-Fi Max Bandwidth	5000 Mbps
Wi-Fi Protocol	802.11 be/ax/ac/b/g/n, Wi-Fi 7

Input	Circular interface, 12 V / 3 A
Power Consumption	≤ 24 W
Dimensions	236 × 172.5 × 58.5 mm (9.29 × 6.79 × 2.3 in)
Weight	2.2 lbs (1.0 kg)
Installation	Wall mount, Desktop mount
Operating Temperature	-10 °C ~ +50 °C (14 °F ~ +122 °F)
Storage Temperature	-40 °C ~ +85 °C (-40 °F ~ +185 °F)
Humidity	5–95 % RH (non-condensing)
Protection	IP20
Shock	IEC 60068-2-27
Vibration	IEC 60068-2-6
Free Fall	IEC 60068-2-32
Certification	FCC, IC, PTCRB, Verizon, T-Mobile, AT&T, CE*
Warranty	3 years

Software

Platform	InCloud Manager
Cloud Management	Zero-touch provisioning, centralized management, visualized monitoring
AI Assistant	Supported through InCloud Manager
WAN Access	5G/4G cellular, Ethernet
Link Backup	Packet-by-packet load balancing, link priority adjustment
Dialing	PPPoE, cellular auto-redial, dual-SIM switching, APN configuration
Link Monitoring	Real-time delay, jitter, packet loss, and throughput monitoring
IP & Network Services	IPv4/IPv6, VLAN, DHCP Server/Client, DNS, DDNS, fixed address, IP passthrough
VPN	IPsec VPN, L2TP VPN
Firewall	Access control, port mapping, port forwarding, MAC/IP/port/protocol filtering
Dashboard	Device info, interface status, traffic analysis
Logs	System logs, diagnostic logs, device events, email alerts
Cellular Monitoring	Cellular signal monitoring
Mode	802.11 be/ax/ac/b/g/n, Wi-Fi 7, AP mode
Policy	Policy routing, traffic shaping
POS Ready™	One-click POS traffic optimization; prioritizes bandwidth for mission-critical transactions
Watchdog	Software and hardware watchdog, self-healing
Management Access	Web UI, CLI remote access and control
Remote Maintenance	Remote maintenance of PCs, monitoring equipment, servers, etc.
Cloud Tools	Remote diagnostics and configuration



CPE02

Indoor 5G Wi-Fi 6 Router

Fast 5G access

Supports 5G SA/NSA with downlink rates up to 3.4Gbps for bandwidth-intensive indoor applications.

Wi-Fi 6 AX5400

Dual-band Wi-Fi 6 supports up to 128 wireless clients, multiple SSIDs, VLANs, and WPA2 security.

Cellular and wired failover

Link detection and WAN backup help maintain service when the preferred uplink becomes unavailable.

Simplified fleet management

InCloud Manager provides remote onboarding, configuration, upgrades, monitoring, and maintenance for distributed sites.

CPE02 converts 5G or 4G connectivity into high-capacity Wi-Fi 6 access for retail, office, and shared indoor environments. Regional Ethernet options and centralized cloud management support flexible deployment across business networks.

Hardware

CPU	IPQ5018
Firewall Throughput	1 Gbps
Recommended Users	200 (Wi-Fi: 128)
Cellular(CPE02-NANR)	5G NSA: 3.4 Gbps DL / 550 Mbps UL; 5G SA: 2.4 Gbps DL / 900 Mbps UL; 4G LTE: 1.6 Gbps DL / 200 Mbps UL
Cellular(CPE02-EUNR)	5G NSA: 2.6 Gbps DL / 650 Mbps UL; 5G SA: 2.0 Gbps DL / 1.0 Gbps UL; 4G LTE: 600 Mbps DL / 150 Mbps UL
Ethernet	2 × GbE (CPE02-EUNR) or 2.5G + 1G (CPE02-NANR), WAN/LAN and dual LAN support
SIM Card	1 × Nano 4FF, 1 × eSIM optional
Type-C	Debug only
Reset	Hardware factory reset
WPS	Client one-touch Wi-Fi connection
Standard	Wi-Fi 6, 802.11 a/b/g/n/ac/ax
Wi-Fi Max Rate(CPE02-NANR)	5400 Mbps
Wi-Fi Max Rate(CPE02-EUNR)	3000 Mbps
TX Power	2.4 GHz: 17 dBm; 5 GHz: 17 dBm
Antenna Gain	≤ 5 dBi
Input	12 V / 2 A
Power Consumption	≤ 15 W
LED	5G, Wi-Fi, Signal, Power
Dimensions (L × W × H)	105 × 105 × 217 mm (4.13 × 4.13 × 8.54 in)
Weight	800 g (1.76 lb)
Installation	Desktop, wall-mount
Protection	IP20
Operating Temperature	-10 °C ~ +40 °C (14 °F ~ 104 °F)
Storage Temperature	-40 °C ~ +85 °C (-40 °F ~ 185 °F)
Humidity	5 % ~ 95 % RH (non-condensing)
Certification	CE, FCC, IC, PTCRB, AT&T, Verizon, T-Mobile
EMC	EMC Level 2
Warrant	3 years

Software

Platform	InCloud Manager
Cloud Management	Unified device access, zero-touch remote deployment, bulk remote upgrades, configuration deployment, connector remote maintenance, two-factor authentication
Dashboard	Supported
WAN Access	5G/4G, wired
Intelligent Links	Real-time link detection
Network Functions	Dialing; IP Protocols; Network Protocols; Speed Test; VPN; Routing
Wi-Fi Features	Multiple SSID, SSID VLAN, SSID hidden
Encryption	WPA, WPA2, WPA3*
Upgrade	Scheduled upgrade
Logs	Runtime logs, diagnostic logs
Monitoring and Diagnostics	Events; Alerts; Diagnostics



ER815

5G Enterprise Router with 2.5GbE and Wi-Fi 6

High-speed 5G access

Supports 5G SA/NSA with theoretical downlink rates up to 3.4 Gbps, depending on operating mode and network.

2.5GbE uplink capacity

A 2.5GbE WAN option adds wired bandwidth headroom for high-speed broadband and multi-WAN deployments.

Wi-Fi 6 for business users

AX3000 dual-band Wi-Fi supports multiple SSIDs and an estimated 150 to 200 users across the network.

Secure branch interconnection

SD-WAN and a broad VPN set support controlled connectivity between branches, remote users, and central services.

ER815 is designed for business sites that need more WAN headroom and stronger encrypted-tunnel performance. It combines 5G, 2.5GbE, Wi-Fi 6, multi-WAN flexibility, SD-WAN, and centralized management.

Hardware

Throughput	1 Gbps
IPsec VPN Throughput	300 Mbps
Recommended Users	150–200
RAM	512 MB
Flash	8 GB
Cellular	5G SA: 2.4 Gbps DL / 900 Mbps UL; 5G NSA: 3.4 Gbps DL / 550 Mbps UL; 4G LTE: 1.6 Gbps DL / 200 Mbps UL
Ethernet	WAN: 1 × 2.5G or 1 × 2.5G + 1 × GbE; LAN: 4 × GbE or 3 × GbE; WAN/LAN switching, dual WAN
SIM	2 x Nano SIM; 1 x eSIM optional
Reset	Pinhole reset button
Antenna	4G: SMA × 2, Wi-Fi: RP-SMA × 2; 5G: SMA × 4, Wi-Fi: RP-SMA × 2
Standard	802.11 a/b/g/n/ac/ax
Wi-Fi Max Rate	3000 Mbps
Wi-Fi TX Power	2.4 GHz: 21 dBm; 5 GHz: 21 dBm
Antenna Gain	≤ 5 dBi
Input	12 V / 3 A
Peak Power	≤ 18 W
LED	Power, Network, 5G Wi-Fi, 2.4G Wi-Fi
Dimensions	210 × 140 × 35 mm (8.27 × 5.51 × 1.38 in)
Weight	1.25 kg (2.76 lb)
Installation	Bracket mount, wall mount
Protection	IP20
Operating Temperature	-10 °C ~ +50 °C (14 °F ~ +122 °F)
Storage Temperature	-40 °C ~ +85 °C (-40 °F ~ +185 °F)
Humidity	5–95 % RH (non-condensing)
Certification	CE, FCC, IC, PTCRB, AT&T, Verizon, T-Mobile
EMC	EMC level 2
Warrant	3 years

Software

Platform	InCloud Manager
Cloud Management	Unified device access, zero-touch remote deployment, bulk remote upgrades, configuration deployment, SD-WAN networking, Connector remote maintenance, two-factor authentication
Dashboard	Supported
WAN Access	5G/4G, wired, Wi-Fi
Intelligent Links	Real-time link detection
Network Functions	Dialing; IP Protocols; Protocols; VPN; SD-WAN; Routing
Wi-Fi Features	Multi-SSID, SSID VLAN, SSID hidden, guest mode, custom splash portal
Encryption	WPA, WPA2, WPA-PSK, WPA2-PSK
Firewall	3L inbound/outbound rules, port forwarding, SNAT, DNAT
Remote access control	Supported
Access Control	Supported
Traffic Shaping	QoS by link, IP, and protocol
Upgrades	Scheduled upgrades
Monitoring and Alerts	Logs; Events; Alarms
Tools	ICMP, packet capture, tracert



ER615

4G LTE Wi-Fi 6 Enterprise Router

Flexible 5G and wired access

Combines cellular and wired broadband with link backup and load balancing for resilient branch connectivity.

Wi-Fi 6 AX3000

Dual-band Wi-Fi 6 supports up to 128 wireless clients, multiple SSIDs, VLANs, and guest access.

Five Gigabit Ethernet ports

Five configurable Gigabit ports support dual-WAN designs and wired access for business terminals.

Cloud-managed SD-WAN

InCloud Manager supports SD-WAN branch connectivity, zero-touch deployment, monitoring, and remote maintenance.

ER615 combines 4G LTE, Wi-Fi 6, five Gigabit Ethernet ports, and SD-WAN in a compact router for flexible branch networking and centralized management.

Hardware

Throughput	1 Gbps
IPsec VPN Throughput	100 Mbps
Recommended Users	200 (Wi-Fi: 128)
RAM	512 MB
Flash	8 GB
Cellular	4G LTE: 150 Mbps DL / 50 Mbps UL
Ethernet	5 × 10/100/1000 Mbps, WAN/LAN switching, dual WAN
SIM	2 x Nano SIM; 1 x eSIM optional
Reset	Pinhole reset button
Antenna	4G: SMA × 2; Wi-Fi: RP-SMA × 2
Standard	802.11 a/b/g/n/ac/ax
Wi-Fi Max Rate	3000 Mbps
TX Power	2.4 GHz: 18 dBm; 5 GHz: 17 dBm
Antenna Gain	≤ 5 dBi

Input	12 V / 2 A
Peak Power	≤ 24 W
LED	Power, Network, Signal, Wi-Fi
Dimensions	198 × 137 × 25 mm (7.8 × 5.39 × 0.98 in)
Weight	848 g (1.87 lb)
Installation	Desktop, wall-mount
Protection	IP20
Operating Temperature	-10 °C ~ +50 °C (14 °F ~ +122 °F)
Storage Temperature	-40 °C ~ +85 °C (-40 °F ~ +185 °F)
Humidity	5–95 % RH (non-condensing)
Certification	CE
EMC	EMC level 2
Warrant	3 years

Software

Platform	InCloud Manager
Cloud Management	Centralized configuration, zero-touch deployment, remote upgrades, SD-WAN
Dashboard	Supported
WAN Access	5G/4G, wired, Wi-Fi
IP Protocols	IPv4, IPv6
Network Functions	Dialing; Protocols; VPN; SD-WAN; Routing
Wi-Fi Features	Multi-SSID, SSID VLAN, SSID hidden, guest mode
Encryption	WPA, WPA2, WPA-PSK, WPA2-PSK, WPA3
Firewall	3L inbound/outbound rules, port forwarding, SNAT, DNAT
Access Control	Black/white list, domain filtering
Traffic Shaping	Traffic shaping by link/IP/protocol
Upgrades	Scheduled upgrades
Monitoring and Alerts	Logs; Events; Alarms
Tools	ICMP, packet capture, traceroute

Selection Guide

	Model	FWA12	CPE02	ER815	ER615
Performance	Stateful firewall throughput	2 Gbps	1 Gbps	1 Gbps	1 Gbps
	Recommended users	220 total / 128 Wi-Fi	200 total / 128 Wi-Fi	150–200 total	200 total / 128 Wi-Fi
Interface	Cellular	5G SA/NSA: up to 7.01 Gbps DL; LTE Cat.19	5G SA/NSA: up to 3.4 Gbps DL; 4G LTE	5G SA/NSA: up to 3.4 Gbps DL; LTE	4G LTE: up to 150 Mbps DL / 50 Mbps UL
	Ethernet	2 × 2.5GbE, WAN/LAN switchable	2.5GbE + GbE	1 x 2.5GbE+4*GBE, WAN/LAN switchable	5 × GbE, WAN/LAN switchable
	Wi-Fi standard	Wi-Fi 7 (802.11be)	Wi-Fi 6 (802.11ax)	Wi-Fi 6 (802.11ax)	Wi-Fi 6 (802.11ax)
	Maximum Wi-Fi rate	5,000 Mbps	5,400 Mbps	3,000 Mbps	3,000 Mbps
	SIM	2 x Nano SIM + 1 x eSIM optional	1 x Nano SIM + 1 x eSIM optional	2 x Nano SIM + 1 x eSIM optional	2 x Nano SIM + 1 x eSIM optional
	Antenna configuration	6 × External + 2 × Built-in Cellular; 3 × built-in Wi-Fi	4 × Built-in Cellular + 3 × Built-in Wi-Fi	5G: 4 × SMA; Wi-Fi: 2 × RP-SMA	4G: 2 × SMA; Wi-Fi: 2 × RP-SMA
Power	Power input	12 V / 3 A	12 V / 2 A	12 V / 3 A	12 V / 2 A
	Maximum power consumption	≤ 24 W	≤ 15 W	≤ 18 W	≤ 24 W
Mechanical	Dimensions	236 × 172.5 × 58.5 mm	105 × 105 × 217 mm	210 × 140 × 35 mm	198 × 137 × 25 mm
	Weight	1kg	800 g	1.25 kg	848 g
	Mounting	Desktop / wall	Desktop / wall	Bracket / wall	Desktop / wall
Environment	Protection rating	IP20	IP20	IP20	IP20
	Operating temperature	-10 °C to +50 °C	-10 °C to +40 °C	-10 °C to +50 °C	-10 °C to +50 °C
	Storage temperature	-40 °C to +85 °C	-40 °C to +85 °C	-40 °C to +85 °C	-40 °C to +85 °C
	Operating humidity	5–95% RH, non-condensing	5–95% RH, non-condensing	5–95% RH, non-condensing	5–95% RH, non-condensing
Software	Cloud management	InCloud Manager	InCloud Manager	InCloud Manager	InCloud Manager
	Link / SD-WAN functions	Link monitoring; packet-by-packet load balancing; link priority	Real-time link detection	SD-WAN; real-time link detection	SD-WAN spoke; centralized configuration
	VPN / security	IPsec, L2TP; firewall and traffic controls	IPsec, L2TP; OpenVPN*; WPA3*	IPsec, L2TP, VXLAN, GRE; OpenVPN*; firewall	IPsec, L2TP; firewall and access controls
Certification	Certification	FCC, IC, PTCRB, Verizon, T-Mobile, AT&T	CE, FCC, IC, PTCRB, AT&T, Verizon, T-Mobile	CE, FCC, IC, PTCRB, AT&T, Verizon, T-Mobile	CE



ODU12 / ODU302

All-in-one outdoor routers that combine cellular access, integrated antennas, flexible mounting, and IP67-rated protection. Choose ODU12 for high-capacity 5G and Wi-Fi 7, or ODU302 for compact 4G deployments.



ODU12

Outdoor 5G Wi-Fi 7 Router

5G Release 16

Theoretical peak rates reach 7.01 Gbps downlink and 2.5 Gbps uplink.

Outdoor Wi-Fi 7

BE5000 dual-band Wi-Fi supports up to 128 wireless clients.

Integrated antennas

Built-in cellular and Wi-Fi antennas reduce external components and feeder cabling.

IP67 PoE design

PoE and wall, pole, or roof mounting simplify outdoor installation.

ODU12 integrates 5G, Wi-Fi 7, 2.5GbE, PoE, and built-in antennas in a compact IP65-rated enclosure. It is intended for outdoor locations that need strong access capacity without a separate router, antenna array, and weatherproof cabinet.

Hardware

Processor	Quad-core Cortex-A55, 2.2 GHz
Memory / Storage	2 GB DDR4 / 4 GB eMMC
5G Platform	MTK 830, 3GPP Release 16
SIM / eSIM	2 x Nano SIM; 1 x eSIM optional
Ethernet	2 × 2.5GbE RJ45; WAN supports PoE input
USB	1 × Type-C
Wi-Fi	Wi-Fi 7 BE5000, dual-band
Cellular Antennas	8 × built-in omnidirectional antennas
Wi-Fi / GPS Antennas	3 × built-in Wi-Fi; 1 × built-in GPS
Power	IEEE 802.3at PoE; 802.3af compatible
Power Consumption	≤18 W
Cooling	Fanless passive cooling
Enclosure	Die-cast aluminum heat sink with UV-stabilized shell

Protection	IP67
Operating Temperature	-30°C ~ +70°C（-22°F ~ +15°F）
Storage Temperature	-40°C ~ +85°C（-40°F ~ +185°F）
Humidity	5–95%, non-condensing
Dimensions / Weight	235 × 167.93 × 81.93 mm / approx. 1.5 kg
Mounting	Wall, pole, or roof
Certification	FCC, IC, PTCRB, CE*, AT&T, Verizon, T-Mobile
Environmental	RoHS, REACH
Salt Mist	48 hours; IEC 60068-2-52
Shock / Vibration / Free Fall	IEC 60068-2-27 / -6 / -32
Warrant	3 years

Software

Platform	InCloud Manager
AI Assistant	Supported through InCloud Manager
Cellular	5G SA/NSA Release 16; LTE Cat.19
Peak Cellular Rates	5G: 7.01 Gbps DL / 2.5 Gbps UL; LTE: 1.6 Gbps DL / 200 Mbps UL
SIM / eSIM	Dual-SIM hot backup; eSIM provisioning reserved
Ethernet	2.5GbE WAN and LAN; dual-LAN mode supported
Wi-Fi / Security	802.11be; WPA2/WPA3 Personal and Enterprise
Link Backup	Active/standby or load balancing; ICMP/TCP/DNS probes
Link Monitoring	Status, latency, packet loss, and anomaly alerts
Routing / NAT	Policy and forced routing; SNAT/DNAT with NAPT
Traffic Management	Queue-based shaping and critical-traffic priority
VPN	IPsec and L2TP
LAN Services	VLAN, bridge, DHCP pools, DNS proxy, IP-MAC binding
Portal	Local portal with username/password, SMS, or WeChat authentication
Management	Web interface, app configuration, multi-user permissions
Logs / Alerts	System logs and configurable alert rules
Maintenance / Location	Scheduled reboot and coarse cell-tower positioning



ODU302

4G Industrial Outdoor Router

Integrated antennas

Built-in 4G and Wi-Fi antennas reduce accessories, cabling, and enclosure needs.

PoE or DC power

IEEE 802.3af PoE and 9–36 VDC support flexible installation.

Connection recovery

Dual-SIM failover, wired backup, auto-redial, and watchdog support link recovery.

Remote outdoor operations

IP65 protection and Device Manager support distributed monitoring and maintenance.

ODU302 combines 4G LTE, integrated antennas, PoE, dual-SIM resilience, and IP65 protection in a single outdoor device. Wall, pole, and top mounting make it practical for surveillance, charging, signage, and other distributed sites.

Hardware

Processor	580 MHz
Memory / Storage	128 MB DDR2 / 32 MB SPI NOR Flash
Cellular	LTE Cat.4: 150 Mbps DL / 50 Mbps UL
Recommended Users	32
Ethernet	2 × Fast Ethernet; WAN/LAN switching; LAN2 supports PoE
SIM	Dual Nano-SIM with failover
Digital I/O	2 × configurable DI/DO
Antennas	2 × built-in 4G; 1 × built-in Wi-Fi
Wi-Fi	802.11 b/g/n, 2.4 GHz, up to 150 Mbps
Indicators / Reset	System, Wi-Fi, cellular, Ethernet / pin-hole reset
Power Input	9–36 VDC or IEEE 802.3af PoE

Power Protection	Over-current and reverse-polarity protection
Power Consumption	90–110 mA standby; 280–300 mA operating; 340–360 mA peak at 12 V
Enclosure / Protection	Plastic / IP65
Operating Temperature	-40°C ~ +70°C（-40 °F ~ +158 °F）
Storage Temperature	-40°C ~ +85°C（-40 °F ~ +185 °F）
Humidity	5–95%, non-condensing
Dimensions / Weight	164 × 50 × 129.7 mm / approx. 500 g
Mounting	Wall, pole, or top
Shock / Vibration / Free Fall	IEC 60068-2-27 / -6 / -32
Certification	FCC, IC, PTCRB, Verizon, AT&T, T-Mobile, CE
EMC Immunity	EN 61000-4-2/-3/-4/-5/-6/-8/-12, Level 2
Warrant	3 years

Software

Remote Management	Status, configuration, firmware upgrade, and reboot
Cellular Access	2G/3G/4G modes; APN and VPDN
Dual-SIM	Primary/backup switching
WAN / LAN	Static IP, DHCP, PPPoE, ARP, Ethernet
Wi-Fi / Security	802.11 b/g/n; open/shared key, WPA/WPA2
Link Backup	Cellular and wired WAN backup; ICMP/TCP/DNS detection
Reliability	VRRP, heartbeat monitoring, auto-reconnect, watchdog
Firewall / NAT	ACL and NAPT
VPN	IPsec, L2TP, PPTP, GRE, OpenVPN, WireGuard, ZeroTier
Traffic Management	Interface bandwidth limits and QoS policies
LAN Services	DHCP server/relay, DNS proxy, DDNS
Routing / Bridge	Static/default routes and IP passthrough
Management Access	Web, Telnet, SSH, console, SMS status query
Logs	Local/remote/serial logs; key logs persist through power loss
Maintenance	Dial-on-demand and data/SMS activation
SNMP	v1/v2c/v3 with Trap alarms

Selection Guide

	Model	ODU12	ODU302
Hardware platform	Processor	Quad-core Cortex-A55 @ 2.2 GHz	580 MHz
	Memory / storage	2 GB DDR4 / 4 GB eMMC	128 MB DDR2 SDRAM / 32 MB SPI NOR Flash
Interface	Cellular	5G SA/NSA: up to 7.01 Gbps DL; LTE Cat.19	4G LTE Cat.4: up to 150 Mbps DL / 50 Mbps UL
	Ethernet	2 × 2.5GbE	2 × Fast Ethernet; LAN2 supports PoE input
	Wi-Fi	Wi-Fi 7 BE5000; up to 128 clients	2.4 GHz Wi-Fi 4; up to 150 Mbps
	SIM	2 x Nano SIM; 1 x eSIM optional	Dual Nano-SIM
	Digital I/O	-	2 × configurable DI / DO
	Integrated antennas	8 × cellular + 3 × Wi-Fi + GPS（GPS is only available for ODU12-NANR）	2 × cellular + 1 × Wi-Fi
Power	Power input	IEEE 802.3at PoE; 802.3af compatible	IEEE 802.3af PoE or 9–36 V DC
	Power consumption	≤ 18 W	90–110 mA standby; 280–300 mA operating @ 12 V
Mechanical	Dimensions	235 × 167.93 × 81.93 mm	164 × 50 × 129.7 mm
	Weight	Approx. 1.5 kg	Approx. 500 g
	Mounting	Wall / pole / roof	Wall / pole / top
	Protection rating	IP67	IP65
Environment	Operating temperature	-30 °C to +70 °C	-40 °C to +70 °C
	Operating humidity	5–95% RH, non-condensing	5–95% RH, non-condensing
Reliability	Mechanical test standards	IEC 60068-2-6 / -2-27 / -2-32	IEC 60068-2-6 / -2-27 / -2-32
	EMC / environmental	48-hour salt mist test; IEC 60068-2-52	EN 61000-4-2 / -3 / -4 / -5 / -6 / -12; Level 2 where specified
Software	Cloud management	InCloud Manager	Device Manager
	Link continuity	Active/standby or load balancing; ICMP/TCP/DNS probing	Dual-SIM failover; wired/cellular primary-backup; heartbeat and watchdog
	VPN	IPsec, L2TP	IPsec, L2TP, PPTP, GRE, OpenVPN, WireGuard, ZeroTier
	Security / O&M	Firewall, policy routing, traffic shaping, logs and diagnostics	ACL, firewall, QoS, SNMP, remote configuration, logs and diagnostics
Certification	Certification status	FCC, IC, PTCRB, CE*, AT&T, Verizon, T-Mobile	FCC, IC, PTCRB, AT&T, Verizon, T-Mobile, CE

Battery-Powered Routers



CR202-Lite / CR602

Battery-powered cellular routers for mobile teams, temporary locations, travel, and backup connectivity. The range covers compact 4G access and higher-capacity 5G with Wi-Fi 7 and extended battery runtime.



CR602

Battery-Powered 5G Wi-Fi 7 Router

5G Release 16

Theoretical peak rates reach 7.01 Gbps downlink and 2.5 Gbps uplink.

Wi-Fi 7 BE3000

Dual-band Wi-Fi supports 32 wireless clients and up to 128 total devices.

Extended battery runtime

The 10,000 mAh battery supports up to 12 hours in 5G mode.

Triple-SIM resilience

Dual Nano-SIM and eSIM support prioritized backup and centralized management.

CR602 combines 5G, Wi-Fi 7, two 2.5GbE ports, triple-SIM resilience, and battery power for temporary business sites, events, emergency response, and backup access.

Hardware

Processor	Quad-core Cortex-A55, 2.2 GHz
Memory / Storage	1 GB DDR4 / 4 GB eMMC
5G Module	RG620T
SIM / eSIM	2 x Nano SIM; 1 x eSIM optional
Ethernet	2 × 2.5GbE RJ45, adaptive WAN/LAN
USB	1 × USB-C for charging
Wi-Fi	Wi-Fi 7 BE3000, dual-band
Antennas	8 × cellular (2 external, 6 built-in); 3 × built-in Wi-Fi
Battery	Built-in 10,000 mAh lithium battery
Power Supply	USB-C or battery
Power Consumption	≤20 W
Buttons / Indicators	Power, reset / power, network, Wi-Fi, battery
Cooling	Passive
Enclosure / Protection	Engineering plastic / IP30
Operating Temperature	-10°C ~ +40°C（14°F ~ +104°F）
Storage Temperature	-20°C ~ +60°C（-4°F ~ +140°F）
Humidity	5–95%, non-condensing
Dimensions / Weight	167 × 102 × 36.5 mm / approx. 550 g
Battery Protection	Overcharge, over-discharge, over-current, short-circuit, temperature
Safety Certification	UN38.3
Certification	FCC, IC, PTCRB, RoHS, REACH Verizon, AT&T, T-Mobile, FirstNet, CE*
Warranty	3 years (Battery: 1 year)

Software

Access Capacity	32 wireless clients; up to 96 wired devices via switches
AI Assistant	Supported through InCloud Manager
Cellular	5G SA/NSA Release 16; LTE Cat.19
Peak Cellular Rates	5G: 7.01 Gbps DL / 2.5 Gbps UL
Wi-Fi	802.11be, dual-band, 3×3 MIMO
Interfaces	2 × 2.5GbE WAN/LAN; USB-C 2.0
LAN Services	VLAN, bridge, DHCP pools, DNS proxy/filtering, IP-MAC binding
Routing / NAT	Static routes, DDNS, SNAT/DNAT, NAPT
Link Backup	Primary/backup and load balancing; ICMP detection
Link Monitoring	Status, latency, packet loss, and jitter
Traffic Management	Forced routing and queue-based shaping
VPN	IPsec and L2TP
Device Monitoring	Device, traffic, signal, and battery status
Management	Web interface and app-based cellular configuration
Logs / Alerts	System logs and configurable alert rules
Maintenance	Scheduled reboot and firmware upgrade
Location	Coarse cell-tower positioning



CR202-Lite

Battery-Powered 4G Cellular Router

Flexible 4G connectivity

A compact 235 g design with foldable antennas fits easily into mobile and temporary deployment workflows.

Optional removable battery

The optional 3000 mAh battery supports up to eight hours of operation and can be replaced when needed.

Wi-Fi and wired access

2.4 GHz Wi-Fi and two Fast Ethernet ports connect up to 32 users across wireless and wired devices.

Cloud-based device management

Device Manager supports remote monitoring, configuration, firmware updates, and event alerts for distributed units.

CR202-Lite combines 4G, Wi-Fi, wired Ethernet, and optional battery power in a compact form factor. It is designed for mobile staff, pop-up operations, temporary sites, and backup access.

Hardware

Data Throughput	100 Mbps
Recommended Users	32
Cellular	4G LTE Cat.4/Cat.6; Cat.6: 300 Mbps DL / 50 Mbps UL
Ethernet	2 × 10/100 Mbps, WAN/LAN switchable, dual-LAN
SIM	1 × Nano-SIM, 1 × eSIM optional
Reset	Reset button
ON/OFF	ON/OFF button
Antenna	2 × external 4G cellular antennas, 2 × internal Wi-Fi antennas
LED	System, Cellular, Wi-Fi, Battery
Frequency	Single-band 2.4 GHz
Max Bandwidth	300 Mbps
Protocol	802.11 b/g/n
Mode	AP / STA

Input	TYPE-C, 5 V / 2 A
Battery	3,000 mAh optional, lasts up to 8 hours
Installation	Desktop, wall mounting
Dimensions	122 × 75 × 26.4 mm (4.80 × 2.95 × 1.04 in)
Weight	235 g (0.52 lb)
Housing	Plastic
Cooling	Fanless
Operating Temperature	-10 °C ~ +50 °C (14 °F ~ +122 °F)
Storage Temperature	-20 °C ~ +60 °C (-4 °F ~ +140 °F)
Protection	IP30
Certification	FCC, IC, PTCRB, Verizon, AT&T, FirstNet*, T-MOBILE, CE, UN38.3
Warranty	3 years (Battery: 1 year)

Software

Network Access	APN authentication
Authentication	CHAP/PAP
Network Functions	Network Standard; LAN Protocol; WAN Protocol; IP Application; Routing; NAT
Firewall	SPI, DoS protection
Access Control	ACL, URL filtering
Link Backup	Hot backup, cold backup, load balancing
Dual-SIM Failover	Supports dual-SIM failover (North American model only)
Reliability	Link Detection; Watchdog
Configuration	Telnet, Web, SSH
Upgrade	Web upgrade, Device Manager upgrade
Operations and Management	SMS Functions; Dial-on-demand; Traffic Management; Alarm; Maintenance Tools; Status Query; Device Manager

Selection Guide

	Model	CR602	CR202-Lite
Performance	Access capacity	Up to 32 Wi-Fi devices; up to 96 wired devices via switch expansion	Up to 32 users
Interface	Cellular	5G Release 16; up to 7.01 Gbps DL	4G LTE Cat.4/Cat.6; up to 300 Mbps DL
	Ethernet	2 × 2.5GbE	2 × Fast Ethernet
	Wi-Fi	Wi-Fi 7 BE3000; dual-band 3 × 3 MIMO	2.4 GHz Wi-Fi 4; up to 300 Mbps
	SIM	2 x Nano SIM + 1 x eSIM optional	Nano-SIM + optional eSIM
	USB-C	USB-C charging and firmware upgrade	USB-C power input
	Antenna configuration	2 × external + 6 × built-in cellular; 3 × built-in Wi-Fi	2 × external cellular + 2 × internal Wi-Fi
Power	Battery	10,000 mAh	Optional 3,000 mAh
	Maximum stated runtime	Up to 15 hours in 5G mode	Up to 8 hours
	Power input	USB-C or battery power	USB-C, 5 V / 2 A
Mechanical	Dimensions	167 × 102 × 36.5 mm	122 × 75 × 26.4 mm
	Weight	Approx. 550 g with battery	235 g
Environment	Protection rating	IP30	IP30
	Operating temperature	-10 °C to +40 °C	-10 °C to +50 °C
	Operating humidity	5–95% RH, non-condensing	5–95% RH, non-condensing
Software	Cloud management	InCloud Manager	Device Manager
	Link continuity	Primary/backup or load balancing; link status, latency, packet-loss and jitter monitoring	Hot/cold backup and load balancing; dual-SIM failover on North American model
	Security	Firewall, IPsec, L2TP, policy routing, traffic shaping	SPI firewall, DoS protection, ACL, URL filtering
Certification	Certification	FCC, IC, PTCRB, RoHS, REACH, Verizon, AT&T, T-Mobile, FirstNet, CE* UN38.3	FCC, IC, PTCRB, Verizon, AT&T, FirstNet*, T-Mobile, CE, UN38.3



Vehicle Routers

VR624

Rugged in-vehicle connectivity for public transport, service fleets, and mobile operations. VR624 combines 5G, Wi-Fi 6, M12 Gigabit Ethernet, GNSS positioning, and centralized fleet management.



VR624

Rugged 5G Vehicle Router

5G and Wi-Fi 6

High-speed links support onboard video, telemetry, and passenger applications.

Four M12 ports

Vibration-resistant Gigabit connectors secure cameras, computers, and onboard systems.

Integrated GNSS

Five satellite constellations support fleet positioning and route-aware applications.

Protected fleet operations

TPM 2.0, VPN, firewall, and DeviceLive support secure remote maintenance.

VR624 brings 5G, Wi-Fi 6, rugged M12 Ethernet, GNSS positioning, and cloud management to vehicles. Its protected power input and fanless metal enclosure suit public transport, emergency, service, and logistics fleets.

Hardware

Processor	1.3 GHz industrial-grade CPU
Memory / Storage	512 MB DDR3 / 128 MB Flash
Cellular	5G NR SA/NSA; theoretical downlink up to 3.4 Gbps
SIM / eSIM	Dual Nano-SIM drawer; optional eSIM
Ethernet	4 × M12 X-code Gigabit ports
Digital Input	2 × input for ignition or low-battery detection
Wi-Fi	Wi-Fi 6 AX3000, dual-band
Wi-Fi Security	WPA3-Enterprise, WPA2-Enterprise, WEP/TKIP/AES
GNSS	GPS, BDS, Galileo, GLONASS, QZSS
Positioning	<1.5 m CEP50; 10 Hz update rate
Antenna Interfaces	4 × 5G SMA; 2 × 4G SMA; 2 × Wi-Fi RP-SMA; 1 × GNSS SMA
Indicators	System, cellular, signal, 2.4 GHz Wi-Fi, 5 GHz Wi-Fi
Security / RTC	TPM 2.0 / real-time clock

Power Input	9–48 VDC; over-current and reverse-polarity protection
Power Consumption	5.3 W standby; 8.5 W typical; 17.8 W maximum
Enclosure / Cooling	Metal / fanless passive cooling
Protection	IP30
Operating Temperature	-30°C ~ +70°C (-22 °F~ +158 °F)
Storage Temperature	-40°C ~ +85°C (-40 °F~ +185 °F)
Humidity	5–95%, non-condensing
Dimensions / Weight	177 × 144.4 × 42 mm / 810 g
Ground Terminal	Supported
Rail Standard EMC	EN50155, EN50121
Fire Prevention	EN45545
Certification	CE, E-Mark, ITxPT*, FCC*, IC*, PTCRB*, Verizon*, AT&T*, T-Mobile*

Software

Network Access	APN, VPDN; CHAP/PAP authentication
LAN / WAN	Ethernet, routing, DHCP, DNS, DDNS
Firewall	SPI, rules, forwarding, SNAT/DNAT, MAC/domain filtering
Access Control	802.1X and MAC/IP/port/protocol policies
VPN / Security	VPN support, TPM 2.0, policy routing, QoS
Link Management	WAN/cellular failover, standby/load balancing, ICMP detection
Dual-SIM Recovery	Policy-based switching, heartbeat, auto-redial, watchdog
Wi-Fi Modes	AP/client modes, WPA/WPA2/WPA3, portal authentication
DTU	TCP/UDP transparent transmission; Modbus RTU-to-TCP conversion
Fleet Management	Batch configuration, monitoring, OTA updates, alerts, location
Diagnostics	Logs, alarms, Ping, traceroute, packet capture, iPerf
System Management	Web/CLI access, configuration backup, firmware upgrades
Positioning Service	GNSS forwarding, tracking, geofencing, route history

Industrial Routers



IR302 / IR315 / IR602 / IR624

Industrial routers for distributed equipment, unattended sites, and harsh environments. The portfolio ranges from compact 4G models to 5G RedCap and full 5G platforms, with industrial interfaces, link resilience, secure tunneling, and remote management.



IR925

5G Industrial Router with 2.5GbE

5G and Wi-Fi 6

Supports 5G downlink rates up to 3.4 Gbps and dual-band AX3000 Wi-Fi 6.

Multi-Gigabit Connectivity

One 2.5GbE port, four Gigabit ports, serial interfaces, DIO, and relay connect field equipment.

Resilient Connectivity

Dual-SIM failover, link detection, automatic reconnection, and an embedded watchdog support unattended sites.

Secure cloud management

TPM, VPN, firewall, and DeviceLive support secure connectivity, centralized monitoring, and remote maintenance.

IR925 combines 5G, Wi-Fi 6, multi-gigabit Ethernet, and industrial I/O for demanding field applications, with resilient link management and DeviceLive support for remote operations.

Hardware

Processor	1 GHz
Memory	512 MB
Storage	8 GB eMMC
Cellular	5G NR, downlink up to 3.4 Gbps, Sub-6 GHz (450 MHz-6 GHz); backward-compatible with 4G/3G
SIM	2 x Nano SIM; 1 x eSIM optional
Ethernet	1 × 2.5GbE + 4 × 1GbE RJ45; WAN/LAN/VLAN configurable; 1.5 kV isolation
Serial Ports	1 × RS232 and 1 × RS485; 15 kV ESD protection
Digital I/O and Relay	4 × DIO (DI/DO configurable); 1 × relay, 2 A @ 30 V DC
Wi-Fi	Dual-band 2.4 GHz and 5.8 GHz Wi-Fi 6; up to 3000 Mbps; AP/Client modes
Antenna Connectors	4 × 5G or 2 × 4G; 2 × Wi-Fi; 1 × GNSS
Indicators	System, cellular, 2.4 GHz Wi-Fi, 5 GHz Wi-Fi, and signal
Hardware Security	TPM supported; RTC supported
Power Input	9-48 V DC; overcurrent and reverse-polarity protection
Enclosure and Cooling	Metal enclosure; fanless cooling
Protection Rating	IP30
Operating Temperature	-40 °C ~ +70 °C（-40°F ~ +158°F）
Storage Temperature	-40 °C ~ +85 °C（-40°F ~ +185°F）
Humidity	5%-95% RH, non-condensing
Dimensions	141.2 × 118.5 × 53 mm
Weight	1002 g
Mounting	DIN rail or wall mount
Physical Tests	IEC 60068-2-27 shock; IEC 60068-2-6 vibration; IEC 60068-2-32 free fall
EMC Immunity	EN 61000-4 series, mainly Level 3

Software

Network Access	APN, VPDN; CHAP/PAP authentication
WAN Protocols	Static IP, DHCP, PPPoE
Routing	Static routing, OSPF, BGP
Network Services	IPv4/IPv6, TCP/UDP, NTP, DNS, DHCP Server/Relay/Client, DDNS, IP passthrough
Firewall	MAC/IP/port/protocol filtering, NAT, port mapping, access control, policy-based routing, 802.1X
VPN and Certificates	IPsec, L2TP, OpenVPN, WireGuard; CA certificate support
Link Backup	Interface backup and dual-SIM failover
Link Detection	Heartbeat-based detection with automatic reconnection
Watchdog	Embedded watchdog with automatic fault recovery
Wi-Fi Features	AP/Client modes, captive portal, multi-SSID, WPA/WPA2/WPA3
GNSS	IP forwarding, serial forwarding, and time synchronization
DTU and Modbus	TCP/UDP transparent transmission; Modbus RTU-to-TCP conversion
Monitoring	Dashboard, link-quality monitoring, traffic statistics, and cellular signal metrics
Logs and Alarms	System and diagnostic logs, device events, and email alarms
Management	Web/CLI access, SNMP v1/v2c/v3, configuration import/export, and network diagnostics
Cloud Management	DeviceLive centralized management, monitoring, remote maintenance, and remote connectivity



IR624

Multi-Port 5G Industrial Router

Full 5G connectivity

5G SA/NSA model options support theoretical downlink rates up to 3.4 Gbps with LTE fallback.

Rich industrial interfaces

Four isolated Gigabit Ethernet ports, RS-232, and RS-485 connect cameras, controllers, and other field equipment.

Resilient unattended operation

Dual-SIM failover, link detection, interface backup, an embedded watchdog, and wide-voltage input support remote sites.

Secure cloud-managed networking

DeviceLive, VPN, firewall, policy routing, and 802.1X support protected connectivity and centralized maintenance.

IR624 is a full 5G industrial router for sites with higher bandwidth and interface requirements. Four Gigabit ports, serial connectivity, optional dual-band Wi-Fi, secure tunneling, and DeviceLive support video, automation, and remote operations.

Hardware

CPU	880 MHz
RAM	256 MB
Flash	128 MB
Ethernet Ports	4 x 10/100/1000 Mbps Ethernet (WAN/LAN/VLAN), 1.5 kV isolation
Power Interface	DC 9 to 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	2 x Nano SIM; 1 x eSIM optional
Antenna Connectors	4 x SMA for 5G or 2 x SMA for 4G, 2 x RP-SMA for Wi-Fi
Wi-Fi Frequency	2.4 GHz / 5 GHz
Wi-Fi Max Bandwidth	Up to 300 Mbps (2.4G) / 867 Mbps (5G)
Wi-Fi Transfer Protocol	IEEE 802.11 ac/a/b/g/n Wave2 MU-MIMO
Wi-Fi Transmit Power	5G:17 dBm; 2.4G:17 dBm
Wi-Fi Transmission Distance	50 meters by line of sight(Actual transmission distance depends on environment of the site.)
Standby Power	370-480mA@12V
Working Power	415-530mA@12V
Peak Power	530mA@12V
Product Dimensions	127 × 108.2 × 35 mm (5 × 4.26 × 1.38 in)
Product Weight	544 g (1.2 lb)
Mounting Method	DIN rail or wall
Protection Rating	IP30
Housing and Cooling	Fanless metal housing
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 to 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 Distubance 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)

Software

Network Access	APN/VPDN
Access Authentication	CHAP/PAP
Network Functions	Network Type; LAN protocol; WAN protocol; IP Applications; IP Routing; NAT Functions
Network Security	Access control, firewall filtering (MAC/IP/port/protocol), policy-based routing, 802.1X
Data Security	IPsec VPN, L2TP VPN, OpenVPN, WireGuard VPN
Certificate Management	CA Certificates
Link Detection	Heartbeat link detection with auto-redial
Embedded Watchdog	Supported
Link Backup and Failover	Backup; Dual-SIM Switching
Operating Mode	AP/Client modes
Security Features	WPA/WPA2, WEP/TKIP/AES, Wi-Fi Portal support
DTU Function	TCP/UDP transparent mode
Bridge	Modbus RTU-to-TCP bridge
QoS Management	QoS traffic shaping
Configuration Methods	Web/CLI remote access, config import/export
Operations and Monitoring	Log & Alarm; Network Management Function; Maintenance Tools; Monitoring



IR602

5G RedCap Industrial Router

5G RedCap for industrial IoT

The global model supports theoretical peak rates up to 223 Mbps downlink and 123 Mbps uplink on 5G SA.

Fast local connectivity

Wi-Fi 6 AX3000, one 2.5GbE port, and one Gigabit port provide high-speed access for local terminals.

Industrial resilience

Dual Nano-SIM, link scheduling, watchdog functions, GPIO, a metal enclosure, and wide-temperature operation support unattended sites.

Centralized industrial operations

DeviceLive supports batch configuration, remote upgrades, diagnostics, alerts, and remote maintenance.

IR602 brings 5G RedCap, Wi-Fi 6, 2.5GbE, and industrial I/O to distributed industrial sites. It targets mid-bandwidth applications that need 5G SA evolution, compact hardware, secure remote connectivity, and fleet-level operations.

Hardware

Processor	Dual-core Cortex-A53, 1.3 GHz
Memory / Storage	512 MB DDR3 / 128 MB SPI NAND Flash
Cellular	5G NR SA; 4G LTE FDD/TDD
Peak Cellular Rate	Global model: up to 223 Mbps DL / 123 Mbps UL, theoretical
SIM / eSIM	2 x Nano SIM; 1 x eSIM optional
Ethernet	1 × 2.5GbE WAN/LAN; 1 × GbE LAN; 1.5 kV isolation
Industrial I/O	2 × GPIO; DI: 0–30 V; DO: open-drain output
Wi-Fi	Wi-Fi 6 AX3000, dual-band
Wi-Fi Security	WPA3-Enterprise, WPA2-Enterprise, WEP/TKIP/AES
Wi-Fi Transmit Power	20 dBm at 2.4 GHz and 5 GHz
Antenna Connectors	4 × SMA: 2 cellular + 2 Wi-Fi
Indicators / Reset	System, network, signal, dual-band Wi-Fi / pinhole reset
Power Input / Consumption	12 VDC / 2 A; ≤15 W
Enclosure / Cooling	Metal / fanless passive cooling
Protection	IP30
Operating Temperature	-40°C~ +70°C（-40 °F~ +158 °F）extended: ~ +75°C（~ +167 °F）
Storage Temperature	-40°C~ +85°C（-40 °F~ +185 °F）
Humidity	5–95%, non-condensing
Dimensions / Weight	98.3 × 92 × 24 mm / approx. 390 g
Mounting	DIN rail or wall
Shock / Vibration / Free Fall	IEC 60068-2-27 / -6 / -32
EMC Immunity	EN 61000-4-2/-3/-4/-8, Level 3
Certifications & Compliance	CE, FCC, PTCRB, IC, RoHS, REACH, Verizon, AT&T, T-Mobile

Software

Cellular Access	5G NR SA, 4G LTE; APN, VPDN, dual APN
Dual-SIM	Dual Nano-SIM with automatic hot backup on dial failure
WAN / LAN	DHCP, static IP, PPPoE; 1 × GbE LAN
Wi-Fi	802.11 ax/ac/a/b/g/n; WPA/WPA2/WPA3-PSK
Multi-WAN	Ethernet WAN, cellular, and Wi-Fi STA
Link Backup	Priority-based backup, heartbeat detection, automatic reconnection
Reliability	Built-in watchdog with automatic fault recovery
Routing / NAT	Static routing, BGP, OSPF, SNAT/DNAT, policy routing
VPN	IPsec IKEv1/IKEv2 and OpenVPN client/server
Traffic Management	Interface bandwidth control and QoS queue management
LAN Services	DHCP server/client, DNS proxy/filtering, DDNS
Bridge Mode	WAN or cellular IP passthrough
Monitoring	Device status, signal, data usage, and link quality
Diagnostics	Ping, traceroute, packet capture, and iPerf
Management	Web UI and SSH CLI
Logs / Access Control	System, diagnostic, and event logs; role-based permissions



IR302

Compact Industrial Cellular Router

Flexible 4G access

Dual-SIM LTE configurations connect distributed industrial and commercial equipment.

Industrial interfaces

Two Fast Ethernet ports and RS-232/RS-485 connect common field devices.

Link resilience

Dual-SIM switching, link detection, auto-redial, and watchdog support unattended sites.

Secure remote access

VPN, firewall, Device Manager, and InConnect support remote maintenance.

IR302 is a compact industrial router for equipment connectivity, data backhaul, and remote maintenance. It combines cellular access, wired Ethernet, serial communication, VPN, link resilience, and cloud management in a fanless metal enclosure.

Hardware

Processor	580 MHz industrial-grade processor
Memory / Storage	128 MB DDR / 32 MB SPI Flash
4G Module	Model-dependent industrial LTE module; see Ordering Information
Ethernet	1 × 10/100 Mbps WAN/LAN; 1 × 10/100 Mbps LAN
Serial Port	1 × RS-232/RS-485 combo; DTU transparent transmission
SIM	1 x Nano SIM
Antennas	2 × cellular SMA; 1 × Wi-Fi SMA
Power Input	9–36 VDC terminal; optional 12 V adapter
Power Consumption	Typical 2–5 W; peak <10 W
Indicators / Reset	Power, status, cellular, signal, Wi-Fi / factory reset
Enclosure / Protection	Metal, IP30
Mounting	DIN rail or wall
Dimensions / Weight	Approx. 100 × 30 × 100 mm / 250 g

Operating Temperature	Normal: -35°C~ +70°C（-31 °F~ +158 °F） extended: -40°C~ +75°C（-40 °F~ +167 °F）
Storage Temperature	-40°C~ +85°C（-40 °F~ +185 °F）
Humidity	5–95% RH, non-condensing
Power Protection	Reverse-polarity protection
Surge / ESD	Surge: 2 kV common, 1 kV differential; ESD: 4/8 kV
Certifications	CE, CB, UKCA, E-MARK, FCC, IC, PTCRB, AT&T, Verizon, T-Mobile, RCM, CCC, EAC&FAC, UL, ANATEL, MIC&JATE,IEC62443, NOM, IFETEL, UL/cUL, CB (IEC 62368-1)
EMC	IEC 61000-4-2/-3/-4/-5/-6/-8
Warranty	3 years

Software

Wi-Fi	1×1 AP; up to 72 Mbps; client isolation and MAC filtering
WAN / LAN	PPPoE, DHCP Client, static IP; 10/100 Mbps
DHCP / DNS	DHCP server/relay; DNS forwarding and custom DNS
Routing / NAT	Static routing, NAT, DDNS, NTP
VPN	IPsec, OpenVPN, GRE, L2TP, PPTP, WireGuard, ZeroTier
Firewall / Access Control	ACLs, MAC-IP binding, filtering, attack protection
Link Backup	4G, wired WAN, and Wi-Fi STA switching; VRRP and load balancing
Dual-SIM Management	Signal, packet-loss, dial-attempt, and connection-time policies
Serial / Ethernet DTU	TCP/UDP/MQTT transparent transmission; Modbus RTU-to-TCP conversion
Cloud Management	Device Manager and InConnect
SNMP	v1/v2c/v3, MIB-II/private MIBs, Trap alarms
Monitoring / Diagnostics	Status, traffic, logs, alarms, Ping, traceroute, packet capture
Management Access	WebUI, CLI, SSH, HTTP API
Traffic Management	IP-based rate limiting, statistics, and traffic alarms
Maintenance	Scheduled reboot, scheduled cellular redial, firmware upgrades
Industrial Functions	Smart ATM, Smart-EMS, and State Grid encryption support



IR315

Economical Multi-Port Industrial Router

Five-port industrial networking

Five Fast Ethernet ports support configurable WAN, LAN, and VLAN designs for multiple field devices.

Serial or digital I/O options

Model options provide RS-232 plus RS-485 or four digital I/O channels for equipment integration.

High-availability functions

Dual-SIM policies, link detection, VRRP, load balancing, and watchdog functions support resilient site connectivity.

Broad protocol and cloud support

Multiple VPN protocols, SNMP, Device Manager, and InConnect support secure networking and remote operations.

IR315 expands industrial connectivity with five Ethernet ports and optional serial or I/O configurations. It is suited to equipment-dense sites that need flexible local networking, cellular resilience, secure tunnels, and centralized management.

Hardware

CPU	580 MHz
Memory / Storage	128 MB DDR2 / 64 MB SPI Flash
Ethernet	5 × Fast Ethernet; WAN/LAN/VLAN; 1.5 kV isolation
Power Input	9–36 VDC terminal; over-current and reverse-polarity protection
Optional Interfaces	4 × configurable DI/DO or 1 × RS-232 + 1 × RS-485
SIM	1 x Nano SIM
Antenna Connectors	2 × cellular SMA; 2 × Wi-Fi RP-SMA
GNSS	Optional on selected models; see Ordering Information
Wi-Fi	802.11 b/g/n, 2.4 GHz, up to 300 Mbps
Wi-Fi Modes	AP, client, and WDS
Wi-Fi Range	Approx. 50 m line of sight; environment dependent
Indicators / Reset / Ground	Power, system, network, Wi-Fi, signal / pinhole reset / grounding

Power Consumption	120–200 mA standby; 150–320 mA operating at 12 V
Dimensions / Weight	127 × 108.2 × 35 mm / 454 g
Mounting	DIN rail or wall
Enclosure / Cooling	Metal / fanless
Protection	IP30
Operating Temperature	Normal: -35°C~ +70°C（-31 °F~ +158 °F） extended: -40°C~ +75°C（-40 °F~ +167 °F）
Storage Temperature	-40°C~ +85°C（-40 °F~ +185 °F）
Humidity	5–95%, non-condensing
Shock / Vibration / Drop	IEC 60068-2-27 / -6 / -32
EMC Immunity	EN 61000-4-2/-3/-4/-5/-6/-8/-12
Certifications	CE, E-MARK, FCC, IC, PTCRB, AT&T, Verizon, T-Mobile, RCM, IMDA, MIC/JATE, SRRC, UL, C1D2, IEC 62443-4-2, EN 18031

Software

Cellular Access	Model-dependent 2G/3G/4G/5G standards; IPv4/IPv4v6
SIM Management	Dialing, dual-SIM switching, operator settings, signal reporting
WAN / VLAN	Static IP, DHCP, PPPoE; access/trunk VLAN
Ethernet	Port roles, isolation, ARP, and IP passthrough
Wi-Fi	802.11 b/g/n; WEP, WPA/WPA2-PSK
Link Backup	Cellular/WAN backup, hot/cold standby, and load balancing
High Availability	VRRP with virtual MAC and priority election
Routing / NAT	Static routing, OSPF, DDNS, NAT, port and virtual-IP mapping
VPN	IPsec, DMVPN, PPTP, L2TP, GRE, OpenVPN, WireGuard, ZeroTier
Firewall / Access Control	SPI, DoS protection, ACL, filtering, DMZ, IP-MAC binding, 802.1X
SNMP	v1/v2c/v3 with Trap alarms
Management	Device Manager, InConnect, Web, API, SSH/Telnet, console
Logs / Alarms	Local and remote logs; traffic, system, status, and SMS alarms
DTU / Serial	TCP/UDP transmission, Modbus bridge, serial traffic statistics
Industrial Functions	State Grid encryption, I/O control, SMART-EMS
LAN / Maintenance	DHCP, DNS, NTP, portal, QoS, scheduled tasks, packet capture

Selection Guide

	Model	IR925	IR624	IR602	IR302	IR315
Hardware platform	CPU	1 GHz	880 MHz	Dual-core Cortex-A53 @ 1.3 GHz	580 MHz	580 MHz
	RAM	512 MB	256 MB	512 MB DDR3	128 MB	128 MB DDR2
	Flash / storage	8 GB eMMC	128 MB	128 MB SPI NAND Flash	32 MB SPI Flash	64 MB SPI
Interface	Ethernet	1 × 2.5GbE + 4 × GbE	4 × GbE	1 × 2.5GbE + 1 × GbE	2 × Fast Ethernet	5 × Fast Ethernet
	Serial / I/O	1 × RS232 + 1 × RS485; 4 × DIO + 1 × relay	1 × RS-232 + 1 × RS-485	2 × GPIO	1 × RS-232/RS-485 combo	1 × RS-232 + 1 × RS-485 or 4 × I/O
	Cellular	5G SA/NSA + 4G/3G fallback	5G SA/NSA or LTE model options	5G RedCap SA + LTE	4G LTE model options	4G LTE model options
	Wi-Fi	Wi-Fi 6 AX3000	Wi-Fi 5 AC1200	Wi-Fi 6 AX3000	Wi-Fi 4	Wi-Fi 4
	SIM	2 x Nano SIM; 1 x eSIM optional	2 x Nano SIM; 1 x eSIM optional	2 x Nano SIM; 1 x eSIM optional	1 x Nano SIM	1 x Nano SIM
Power	Power input	9-48 V DC	9–48 V DC	9-48V DC	9–36 V DC	9–36 V DC
Mechanical	Dimensions	141.2 × 118.5 × 53 mm	127 × 108.2 × 35 mm	98.3 × 92 × 24 mm	Approx. 100 × 30 × 100 mm	127 × 108.2 × 35 mm
	Weight	Approx.1002 g	Approx.544 g	Approx. 390 g	Approx. 250 g	Approx.454 g
	Mounting	DIN rail / wall mount	DIN rail / wall mount	DIN rail / wall mount	DIN rail / wall mount	DIN rail / wall mount
	Housing	Metal, fanless	Metal, fanless	Metal, fanless	Metal, fanless	Metal, fanless
	Protection rating	IP30	IP30	IP30	IP30	IP30
Environment	Operating temperature	Standard -40 °C to +70 °C; extended +75°C	Standard -35 °C to +70 °C; extended -40 °C to +75 °C	Standard -40 °C to +70 °C; extended +75 °C	Standard -35 °C to +70 °C; extended -40 °C to +75 °C	Standard -35 °C to +70 °C; extended -40 °C to +75 °C
	Humidity	5%-95% RH, non-condensing	5–95% RH, non-condensing	5–95%, non-condensing	5–95% RH, non-condensing	5–95%, non-condensing
Reliability	Physical tests	IEC 60068-2-27 / -2-6 / -2-32	IEC 60068-2-27 / -2-6 / -2-32	IEC 60068-2-27 / -2-6 / -2-32	IEC 60068-2-27 / -2-6 / -2-32	IEC 60068-2-27 / -2-6 / -2-32
	EMC	EN 61000-4 series, mainly Level 3	EN 61000-4 series, mainly Level 3	EN 61000-4 series, mainly Level 3	IEN 61000-4 series, mainly Level 2	EN 61000-4 series, mainly Level 2
Software	Cloud management	DeviceLive	DeviceLive	DeviceLive	Device Manager / InConnect	Device Manager / InConnect
	VPN	IPsec, L2TP, OpenVPN, WireGuard	IPsec, L2TP, OpenVPN, WireGuard	IPsec, L2TP, GRE, OpenVPN, WireGuard, ZeroTier	IPsec, GRE, L2TP, PPTP, OpenVPN, WireGuard, ZeroTier	IPsec, PPTP, L2TP, GRE, DMVPN, OpenVPN, WireGuard, ZeroTier
Certification	Certification	CE*, FCC*, PTCRB*, IC*, RoHS, REACH, Verizon*, AT&T*, T-Mobile*	CE, E-Mark, ECE R118, FCC, IC, PTCRB, AT&T, T-Mobile, Verizon (NSA)	CE*, FCC*, PTCRB*, IC*, RoHS, REACH, Verizon*, AT&T*, T-Mobile*	CE, CB, UKCA, E-MARK, FCC, IC, PTCRB, AT&T, Verizon, T-Mobile, RCM, CCC, EAC&FAC, UL, ANATEL, MIC&JATE,IEC62443, NOM, IFETEL, UL/cUL, CB (IEC 62368-1)	CE, E-Mark, FCC, IC, PTCRB, AT&T, Verizon, T-Mobile, RCM, IMDA, MIC/JATE, SRRC, UL, C1D2, IEC 62443-4-2, EN 18031

Cloud Services



InCloud Manager / DeviceLive / Device Manager / InConnect

Cloud services for network operations, industrial device management, remote maintenance, and secure access. Each service has a distinct role and is presented separately to avoid a misleading feature-by-feature comparison.



InCloud Manager

Cloud-Managed Networking Platform

Centralized network management

Manage routers, access points, and switches with shared visibility, remote configuration, upgrades, and alerts.

AI-assisted device operations

Natural-language requests can retrieve information, analyze issues, prepare actions, and guide approved operational steps.

Controlled execution

Permissions, user confirmation for write operations, and activity logs keep operational changes visible and accountable.

Branch connectivity and remote access

SD-WAN, remote maintenance, and mobile access support distributed stores, offices, and service locations.

InCloud Manager brings deployment, monitoring, maintenance, and branch networking into one cloud platform. Its AI-assisted workflow works within user permissions, requests confirmation before write operations, and records activity for review.

Service / Software Specifications

Platform Scope	Cloud management for supported routers, access points, and switches
AI Network Assistant	Uses natural-language requests for selected monitoring, diagnosis, and device operations
Device Monitoring	Tracks online status, traffic, connected clients, and online history
Fault Diagnosis	Reviews device status, signal trends, and logs to support troubleshooting
Signal Analysis	Evaluates current and historical cellular signal quality and identifies weak-signal devices
Remote Diagnostics	Supports Ping, traceroute, packet capture, and speed testing
Configuration Management	Supports configuration reading, copying, backup, restore, and confirmed changes
Firmware Management	Supports compatibility checks, staged upgrades, progress tracking, and rollback
Alert Management	Displays, acknowledges, and manages device and network alerts
Remote Access	Opens supported device Web interfaces and command-line sessions
Batch Operations	Supports batch inspection, configuration, firmware, and license management
Access Control and Audit	Applies user permissions and confirmation before write operations, with activity logging



DeviceLive

Industrial IoT Device Management Platform

Unified device management

Onboard, group, configure, upgrade, and monitor supported InHand industrial devices from a central platform.

Monitoring and diagnostics

Dashboards, alert policies, signal and network-quality data, logs, and diagnostic tools support remote troubleshooting.

Edge application management

Deploy and maintain supported edge applications without building a separate over-the-air update service.

Remote terminal maintenance

Connector creates on-demand access to downstream PLCs, HMIs, cameras, and computers for authorized maintenance.

DeviceLive supports the operational lifecycle of industrial routers, gateways, and edge computers. It combines device management, monitoring, diagnostics, edge application management, and controlled remote access to downstream equipment.

Service / Software Specifications

Device Onboarding	Supports cloud-based device onboarding and remote deployment
Device Groups	Organizes devices by site, customer, or business need
Configuration Management	Supports remote and batch configuration delivery
Firmware Management	Supports scheduled and batch firmware upgrades
Device Monitoring	Tracks connection status, network type, and device health
Network Monitoring	Tracks interface status, links, traffic, and cellular signal
Network Quality	Monitors latency, jitter, packet loss, and throughput
Remote Diagnostics	Provides diagnostic logs, Ping, traceroute, packet capture, and event analysis
Alerts	Supports configurable alerts with SMS, email, and app notifications
Geolocation	Supports GPS, base-station, or manual positioning with map views
DSA Management	Supports remote DSA configuration, upgrades, and status monitoring
Remote Terminal	Provides authorized remote access to supported downstream devices (Advanced Edition)
Edge App Management	Manages supported containers and edge applications (Advanced Edition)
Security and Mobile App	Supports role-based access, MFA, QR-code onboarding, and mobile monitoring



Device Manager

Cloud Device Management Platform

Device lifecycle management

Manage device information, firmware, configuration, logs, and supported edge applications from one portal.

Remote configuration and upgrades

Distribute configuration tasks, schedule firmware upgrades, reboot devices, and open supported remote web interfaces.

Fleet monitoring and alerts

Dashboards, GIS views, traffic analysis, signal data, task tracking, and event alerts provide operational visibility.

Permissions and integration

User roles, access controls, system logs, MQTT-based connectivity, and integration services support controlled operations.

Device Manager is a cloud platform for managing InHand industrial routers and gateways across distributed sites. It focuses on device inventory, remote configuration, firmware, monitoring, alerts, role-based access, and operational records.

Service / Software Specifications

Device Inventory	Manages serial number, model, firmware, configuration state, signal, and cellular identifiers
Configuration Management	Supports batch configuration, task delivery, and remote reboot
Firmware Management	Supports batch firmware upgrades and upgrade-task tracking
Remote Web Access	Opens supported router Web interfaces for remote configuration
Edge App Management	Installs and updates supported edge applications and configurations
Device Monitoring	Analyzes traffic, online status, and cellular signal quality
Logs	Provides device-log viewing and system-log tracking
Event Alerts	Reports device, traffic, SIM, link, and port-status events
Location Management	Displays and manages device locations on GIS maps
Task Tracking	Tracks device-management task status and progress
Users and Permissions	Manages accounts, roles, and device access permissions
Integration	Supports integration with third-party services



InConnect

Secure Remote Access and Site Connectivity Service

Remote access to field devices

Authorized users can reach downstream PLCs, HMIs, industrial PCs, cameras, servers, and controllers without traveling onsite.

Multiple connectivity modes

User-to-device, peer-to-peer, and star-network options support maintenance, remote work, and site interconnection.

Identity and access controls

User accounts, access duration, network groups, and device permissions limit who can reach each resource.

Scalable site connectivity

Centralized account and site management supports large distributed deployments with controlled client access.

InConnect provides secure remote access and connectivity for distributed industrial and enterprise sites. It gives authorized users controlled paths to routers, gateways, and downstream equipment for maintenance, program deployment, and data access.

Service / Software Specifications

Router and Gateway Management	Manages device identity, network status, traffic, and signal history
Terminal Device Management	Manages and provides remote access to supported PLCs, HMIs, and other downstream devices
Configuration Management	Supports batch configuration and task delivery
Firmware Management	Supports batch firmware upgrades and task tracking
Remote Web Access	Opens supported router Web interfaces for remote configuration
Operations Visibility	Provides connection, carrier-traffic, task, location, and remote-traffic views
Client Access	Supports Windows, Linux, Android, and iOS clients with login and access controls
Peer-to-Peer Networking	Connects authorized users to remote devices through virtual-IP or real-IP access
Star Networking	Provides authorized remote access to designated enterprise resources
Network Permissions	Controls access by user, network group, site, and account role
Connection Types	Supports user-to-device, site-to-site, device-to-device, and multi-site communication
Deployment	Establishes secure connections without requiring public IP addresses or dedicated VPN firewalls
Access Capacity	Supports up to 4,000 router access points per account and 254 terminal devices per on-site router node
Connection Security	Uses access policies and encrypted transmission to protect remote connections

5 Major R&D Centers

Rapid Response to Market Demands



Beijing



Chengdu

Jiaxing





Toronto
Canada

Virginia
USA



2 Major Manufacturing Centers

Supply Chain: Ensured Production Capacity and Quality



2 Manufacturing Centers
Jiaxing (China)
Toronto (Canada)

15 high-efficiency production lines

11w+ monthly capacity

4 Major Warehousing and Technical Support Centers

Multi-location Warehousing and Technical Support

Toronto
Canada

Virginia
USA

Dusseldorf
Germany

Jiaxing
China



Used worldwide. Proven worldwide.



Canada
Management of Hydropower Station



Germany
Smart EV Charging Kiosks



China
Predictive Maintenance of Air Compressors



US
Predictive Maintenance of Generators



Switzerland
Predictive Maintenance of Textile Machines



Thailand
Flood Early Warning



Australia
Wireless Water Metering

InHand Networks

3650 Concorde Pkwy, Suite 200

Chantilly, VA 20151

USA

T: +1 (703) 348-2988

E: info@inhand.com

www.inhand.com



/ inhandnetworks

File no.: IPC Version09-18 2026 © 2026 InHand Networks Inc. All rights reserved.
InHand Networks Inc. reserves the right to update or modify this document at any time without prior notice.