CIR885-W

5-Port Gigabit Dual-Band Wi-Fi 6 Wall-Mounted 5G Industrial Router



- 1 x 1G WAN/LAN combo port, 4 x 1G LAN ports, 1 x RS232/485 port, 4 x 5G antenna ports, 2 x 2.4GHz/5GHz antenna ports, 2 x SIM card slots;
- Support backup between 5G/4G/3G cellular wireless networks and WAN wired networks
- Support AP and Client wireless modes, acting as a Wi-Fi hotspot or wireless client, facilitating wireless terminal device access
- Support Wi-Fi6 dual-band WLAN wireless local area network, featuring OFDMA+MU-MIMO technology
- Support serial terminal device connectivity, capable of converting protocols such as UDP, TCP, Modbus, HTTPD, WebSocket, MQTT, and offers virtual serial port support
- Feature industrial-grade DC power supply input of DC 9~36V, with reverse polarity protection
- High-strength metal enclosure, IP40 protection, and fanless heat dissipation
- -40°C to +70°C operating temperature range

Product Description

The CIR885-W is a 5-port Gigabit dual-band Wi-Fi 6 wall-mount industrial router specifically designed for industrial communication network applications. It supports simultaneous operation across multiple networks including LAN, WAN, WLAN, and 5G NR, with intelligent switching for multi-network backup. This enables connectivity for serial, wireless, and wired terminal devices. This product features diverse interfaces including: 1 x Gigabit WAN/LAN combo port, 4 x Gigabit LAN ports 1xRS232/RS485 port, 4 x 5G antenna interfaces, 2 x 2.4GHz/5GHz antenna interfaces It supports DC 9~36V power input and utilizes wall-mount installation, meeting diverse on-site networking requirements.

The CIR885-W supports web-based configuration for multiple network management functions, including PPPoE dialing, DHCP server, 5G network, wireless settings, IP/MAC binding, static routing, link backup, firewall, VPN, serial-to-network conversion, network diagnostics, SNMP, LLDP, and remote device management. The system provides multi-level user management, supports local/remote log management, and enables scheduled reboots, configuration backup/restore, firmware upgrades, and factory reset. One-button reboot or factory reset is supported via physical buttons. The hardware employs high-standard industrial protection design with premium industrial-grade components and a rugged metal enclosure. It operates reliably in temperatures ranging from -40°C to +70°C, having passed rigorous functional, temperature, safety, and EMC testing to meet demanding industrial environments. The product is widely applicable in industrial automation, integrated energy systems, smart cities, intelligent transportation, smart mining, and smart factories.

Product Features

- Support OFDMA+MU-MIMO technology, enabling multi-channel concurrency in both frequency and physical space to enhance multi-user high-density access;
- Support Wi-Fi 6 dual-band WLAN, with a theoretical maximum speed of 574Mbps on 2.4GHz and 2402Mbps on 5GHz;
- Support 5G/4G/3G cellular networks, Wi-Fi wireless networks, and wired WAN connections, enabling multi-network redundancy;
- Support MIMO (Multiple-Input Multiple-Output) to enhance data transmission rates, expand network capacity and wireless coverage, and reduce packet loss;
- WAN port supports DHCP, static addresses, PPPoE dial-up, or LAN port configuration for internal network connectivity;
- LAN port supports DHCP server for centralized dynamic management and configuration of user IP addresses;
- Support link inspection, periodically checking 5G network link status and performing link recovery;
- WLAN support AP mode and Client mode, enabling wireless terminal access or connection to wireless networks;
- Client mode supports wireless network access via WDS connection, universal connection, and wireless

NAT;

- Support enhanced roaming in Client mode for seamless, rapid roaming, ensuring real-time data transmission and improving wireless network reliability;
- Support IPv4/IPv6 Ping, IPv4/IPv6 Traceroute, Nslookup, and packet capture for network diagnostics or fault analysis;
- Firewall features include SYN flood defense, port mapping, IP/MAC/domain address filtering, custom iptables rules, NAT translation, DMZ isolation, UPnP, IP/MAC rate limiting, and QoS-based upload/download speed throttling;
- Logs record kernel, application, and network information at multiple severity levels, supporting local download, scheduled saving, and remote monitoring;
- Serial port supports multiple network modes including UDP, TCP Client/Server, UDP Multicast, Modbus RTU Master/Slave, Modbus ASCII Master/Slave, Realcom MCP/CCP/MW, Pair Connection Master/Slave, Httpd Client, WebSocket Client, and MQTT, enabling serial-to-Ethernet or Modbus protocol conversion;
- Support Peanut Shell internal network penetration, enabling remote device login and management via Peanut Shell dynamic domain names;
- Support dynamic DNS functionality, allowing remote device login and management through specified domain names;
- Support VPN client and server for private network construction. Clients support PPTP, L2TP, GRE, GRETAP, OpenVPN, and other tunnel protocols; servers support PPTP, L2TP, IPSec, and other protocols;
- Support NTP client and server functionality for clock synchronization or providing a clock source;
- Support SNMPv1/v2c for information querying, modification, and troubleshooting via MIB, enabling centralized management;
- Support LLDP to obtain LLDP neighbor device information, monitor link status, and facilitate topology management and fault localization;
- Support MixConnect and MixCloud platform management for remote device administration and real-time network status monitoring.

Technical Specifications

Software	
Network Management	Support traffic statistics, operational status, network status, local address, and other status information Support static addresses, DHCP, PPPoE external connections, and WAN/LAN mode Support DHCP server, IP/MAC binding Support 5G networks, dual SIM management, APN, link checking, link backup Support wireless AP mode, Client mode, enhanced client roaming Support static routing and IPv6 services Support serial-to-network conversion, Peanut Shell internal network penetration, dynamic DNS, SNMP, LLDP, and remote device management Support PPTP/L2TP/GRE/GRETAP/TUN/TAP protocol VPN clients Support PPTP/L2TP/IPSec protocol VPN servers
Firewall	Support SYN flood defense, IP dynamic spoofing, MSS throttling, inbound/outbound data control Support WAN/LAN port TCP/UDP port mapping Support IP/MAC/domain name filtering, iptables, NAT, DMZ, UPnP, IP/MAC/QoS rate limiting
System Management	Support IPv4/IPv6 Ping, IPv4/IPv6 Traceroute, Nslookup, network packet capture Support time zone, NTP client/server, management port, scheduled tasks, remote/local logs Support user permission management, SSH access Support online reboot, scheduled reboot, configuration backup/restore, firmware flashing, factory reset
5G Cellular Network	
Network Format	5G NR SA/NSA, LTE-FDD, LTE-TDD, WCDMA
Working Frequency	5G NR SA: n1/3/5/8/28A/41/77/78/79 5G NR NSA: n41/78/79 LTE-FDD: B1/3/5/8

	LTE-TDD: B34/38/39/40/41 WCDMA: B1/5/8
MIMO	DL 4 × 4: n1/28A/41/77/78/79 UL 2 × 2: n41/77/78/79 DL 2 × 2: n3/5/8, LTE
Theoretical Transfer Rate	5G SA Sub-6: DL 2Gbps / UL 1Gbps 5G NSA Sub-6: DL 2.2Gbps / UL 575Mbps LTE: DL 600Mbps / UL 150Mbps UMTS (DC-HSDPA/HSUPA): DL 42.2Mbps / UL 11Mbps WCDMA: DL/UL 384 kbps
TX Power	5G NR n1/3/5/8/41: 23dBm±2dB 5G NR n28A: 23dBm+2/-2.5dB 5G NR n77/78/79: 23dBm+2/-3dB 5G NR n41/77/78/79 HPUE: 26dBm+2/-3dB LTE: 23dBm±2dB WCDMA: 23dBm±2dB
Wi-Fi 6	
Wireless Standards	IEEE 802.11b/g/n/ax (2.4GHz), IEEE 802.11a/n/ac/ax (5GHz)
Working Frequency	2.412GHz–2.484GHz (2.4GHz ISM Band) 5.15GHz~5.85GHz (5GHz ISM Band)
Modulation	DBPSK, DQPSK, CCK, OFDM, 16-QAM, 64-QAM, 256-QAM, 1024-QAM
Channel Bandwidth	20MHz/40MHz/80MHz/160MHz
TX Power	2.4GHz: • +19dBm@HE40 -43dB Dynamic EVM • +26dBm@HT20/40 MCS7 -30dB Dynamic EVM • +28dBm@HT20/MCS0 5GHz: • +18dBm@HE80/MCS11 -43dB Dynamic EVM

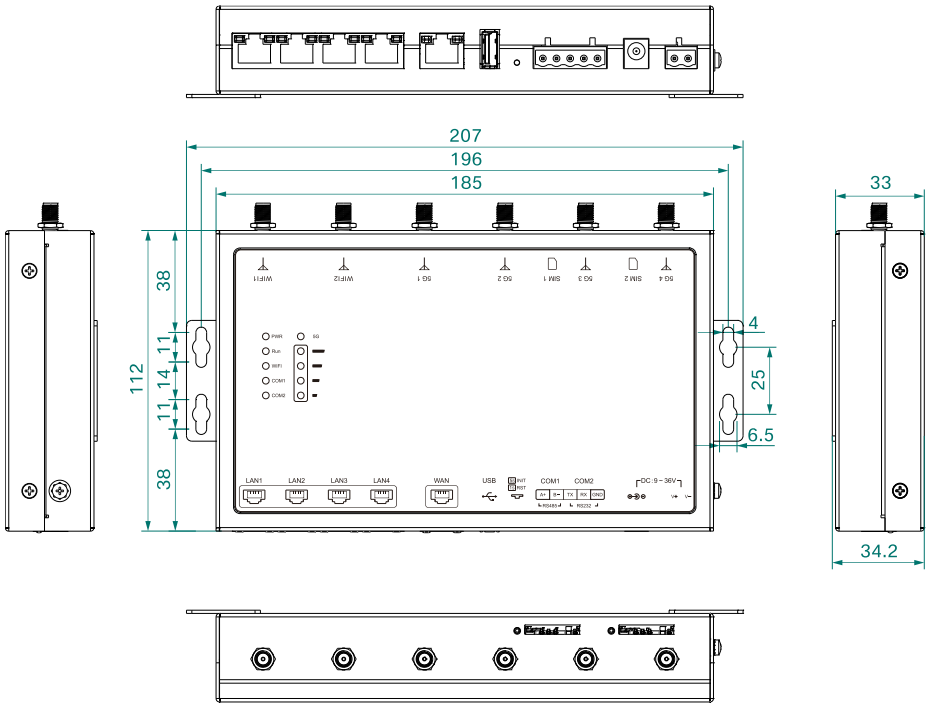
	• +23dBm@VHT80/MCS9 -35dB Dynamic EVM • +24dBm@HT20/40 MCS7 -30dB Dynamic EVM • +26dBm@HT20/MCS0
RX Sensitivity	2.4GHz: • -68.5dBm (HT40/MCS7/2SS) • -63.0dBm (HE40/MCS11/2SS) 5GHz: • -64.5dBm (VHT80/MCS9/2SS) • -59.0dBm (VHT80/MCS11/2SS) • -58.0dBm (HE80/MCS11/2SS)
Theoretical Transfer Rate	The 2.4GHz band with 2T2R achieves a maximum transmission rate of 574Mbps. The 5GHz band with 2T2R achieves a maximum transmission rate of 2402Mbps at 160MHz bandwidth. Total wireless rate: 2976Mbps
Interface	
1G WAN Port	1x10/100/1000Base-T(X) RJ45 WAN/LAN combo port, supporting full/half-duplex and auto MDI/MDI-X
1G LAN Port	4x10/100/1000Base-T(X) auto-sensing RJ45 LAN ports, support full/half-duplex, auto MDI/MDI-X
Serial Port	Serial Port Type: 1 x RS232/485 Connection Method: 5-pin terminal block with 5.08mm pitch Baud Rate: 300bps–230400bps Data Bits: 5bit, 6bit, 7bit, 8bit Stop Bits: 1bit, 2bit Parity Bit: None, Odd, Even Number of Nodes: RS485 supports up to 128 nodes Terminating Resistor: RS485 includes built-in 120Ω terminating

	resistor, switchable via internal jumper cap
Wi-Fi Antenna connector	2 x 2.4GHz/5GHz Wi-Fi antenna connectors, SMA-K (male threaded, female socket)
5G Antenna Connector	4 x 5G cellular antenna ports, SMA-K (male threaded, female socket)
SIM Card Slot	2 x standard SIM card slots (1.8V / 3V), dual SIM single standby
USB	1 x Type-A USB 2.0 port, reserved
Button	One-button restart or factory reset
Status LED	Power indicator, Operation indicator, Wi-Fi indicator, Serial port indicator, 5G indicator, Signal strength indicator, Ethernet port indicator
Power Supply	
Input Voltage	DC 9~36V with reverse polarity protection
Power Consumption	Average <13W@DC24V, Peak <16W@DC24V
Connection	2-pin terminal block (5.08mm pitch) or Φ2.5mm DC barrel connector
Physical Characteristics	
Dimensions	207 x 112 x 34.2 mm (Including mounting brackets, excluding connector)
Installations	Wall mount
IP Code	Metal housing, IP40 protection rating
Weight	About 0.95kg (excluding antenna)
Working Environment	
Operating Temp	-40°C~+70°C
Storage Temp	-40°C~+85°C
Relative Humidity	5%~95% (non-condensing)
Industry Standard	
EMC	IEC 61000-4-2 (ESD): Level 3 (Contact discharge ±6kV, Air

	discharge ±8kV) IEC 61000-4-5 (Surge): Level 3 (Power supply: differential mode ±1kV; RS485: differential mode ±2kV; Network port: common mode ±4kV, differential mode ±2kV) IEC 61000-4-4 (EFT): Level 3 (Power supply: ±2kV; Communication port: ±1kV)

Dimensions

Unit: mm



Ordering Information

Standard Model	1G WAN Port	1G LAN Port	RS485	RS232	5G Antenna	2.4GHz/ 5GHz Antenna	Input Voltage
CIR885-W	1	4	1	1	4	2	DC9~36V

Contact Us

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