CIR775-WB

Wall-Mounted 4G Industrial Wireless Router

- Support 1 x 10/100Mbps WAN port, 4 x 10/100Mbps LAN ports, 1 x RS232/485 serial port, 1 or 2 x 4G antenna interfaces, 2 x 2.4GHz antenna interfaces, 1 or 2 x SIM card slots, and 1 x USB port

- Support mutual backup between 4G cellular wireless networks and wired WAN connections, enabling connectivity for both wireless and wired terminal devices

- Support wireless modes such as AP, Client, and AP+Client; can function as a Wi-Fi hotspot, wireless client, or bridge, allowing wireless device access

- Support serial device networking with protocol conversion for UDP, TCP, Modbus, HTTPD, WebSocket, MQTT, and virtual serial ports

- Industrial-grade DC power input: DC9~36V, with reverse polarity protection

- High-strength metal enclosure with IP40 protection rating, fanless heat dissipation; ensures reliable operation in harsh industrial environments from -20°C to +70°C

Product Description

The CIR775-WB series is a wall-mounted 5-port 100Mbps 4G industrial wireless router specifically designed for industrial communication networks. It supports LAN, WAN, WLAN, and 4G LTE networks with intelligent switching and multi-network backup, enabling networking for serial, wireless, and wired terminal devices.

This series offers a variety of interfaces: 1 x 100Mbps WAN port, 4 x 100Mbps LAN ports, 1 x RS232/485 serial port, 1 or 2 x 4G antenna interfaces, 2 x 2.4GHz antenna interfaces, 1 x USB port, and 1 x DC9~36V power input. It is wall-mountable, meeting diverse industrial network application needs.

The CIR775-WB model supports dual 4G module hot backup, is fully network-compatible, and allows simultaneous dual-mode 2G/3G/4G connectivity with multiple carriers, ensuring uninterrupted communication links and reliable failover. It is ideal for scenarios requiring high network stability and speed.

The router supports web-based configuration with various network management features such as PPPoE dialing, DHCP server, 4G network settings, wireless settings, IP/MAC binding, static routing, firewall, VPN, serial-to-network, network diagnostics, SNMP, LLDP, and cloud services. The system includes user management with multiple permission levels, local/remote log management, scheduled reboot, configuration

backup and restore, firmware upgrades, and factory reset options. Physical buttons allow one-click reboot or factory reset.

The hardware features high-standard industrial-grade protection, carefully selected industrial-grade components, and a rugged high-strength metal enclosure. It is durable, low-power, and designed for wide temperature operation. With fanless heat dissipation and a temperature range of -20°C to +70°C, it passes rigorous safety and EMC tests to meet the demands of harsh industrial environments.

This product is widely applicable in industrial automation, integrated energy systems, smart cities, intelligent transportation, smart mining, smart factories, and more.

Features and Benefits

- Support 4G cellular wireless network, Wi-Fi wireless network, and wired WAN connections, with multi-network backup capability
- WAN port supports DHCP, static IP, PPPoE dial-up for external network access, or can function as a LAN port for internal network connections
- LAN port supports DHCP server for centralized dynamic IP address allocation and management
- Support 4G cellular networks, compatible with 2G/3G, dual SIM dual standby (CIR775-WB), and APN settings
- Support link detection, periodically checks 4G network link status and performs automatic link recovery
- Support AP, Client, or AP+Client modes, enabling wireless terminal access, wireless networking, or bridging
- Support IPv4/IPv6 Ping, Traceroute, Nslookup, and packet capture for network diagnostics and fault analysis
- The firewall supports SYN-flood protection, port forwarding, IP/MAC/domain filtering, custom iptables rules, DMZ isolation, UPnP, IP/MAC bandwidth control, and QoS to limit upload/download speeds
- Log management records multiple levels of kernel, application, and network logs, with options for local download, scheduled backup, and remote monitoring
- Support multiple serial-to-network conversion 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 RTU/ASCII communication
- Support PeanutHull intranet penetration, enabling remote login and device management via dynamic domain name
- Support Dynamic DNS, allowing remote login and management through designated domain names
- Support VPN client and server to build private networks; client supports PPTP, L2TP, IPSec, OpenVPN, GRE tunneling protocols; server supports PPTP, L2TP, and IPSec
- Support RTC hardware clock and automatic NTP time synchronization
- Support SNMP v1/v2c, allowing information query, modification, and troubleshooting via MIB for centralized management
- Support LLDP, obtaining information on LLDP neighbor devices for link status monitoring, aiding in topology management and fault localization

Specifications

Software	
Network management functions	Support traffic statistics, operating status, network status, and local address information
	Support static IP, DHCP, and PPPoE for external network access; supports WAN/LAN switching
	Support DHCP server and IP/MAC binding
	Support 4G network, dual SIM card management (CIR775-WB), APN configuration, and link checking
	Support wireless AP mode, Client mode, and AP+Client hybrid mode
	Support static routing
	Support serial-to-network conversion, PeanutHull intranet penetration, Dynamic DNS, SNMP, LLDP, and cloud services
	VPN client support for PPTP/L2TP/GRE/TUN/TAP protocols
	VPN server support for PPTP, L2TP, and IPSec protocols
Firewall	Support SYN-flood protection, IP masquerading, MSS clamping, and inbound/outbound traffic control
	Support TCP/UDP port forwarding on WAN/LAN ports
	Support IP/MAC/domain filtering, iptables custom rules, DMZ, UPnP, and IP/MAC/QoS bandwidth limiting
System Management	Support IPv4/IPv6 Ping, Traceroute, Nslookup, and packet capture
	Support time zone settings, NTP client/server, scheduled tasks, remote/local logging
	Support user permission management and SSH access
	Support online reboot, scheduled reboot, configuration backup/restore, firmware upgrade, and factory reset

4G Cellular Network	
Network Format	LTE-FDD, LTE-TDD, WCDMA, TD-SCDMA, CDMA, GSM
Working Frequency	LTE FDD: B1/B3/B5/B8 LTE TDD: B38/B39/B40/B41 WCDMA: B1/B8 TD-SCDMA: B34/B39

	CDMA: BC0 GSM: 900/1800MHz
Theoretical Transfer Rate	FDD-LTE: DL 150Mbps/UL 50Mbps TDD-LTE: DL 130Mbps/UL 35Mbps WCDMA: DL 42Mbps/UL 5.76Mbps TD-SCDMA: DLMax4.2Mbps/ UL 2.2Mbps CDMA2000: DL 3.1Mbps/ UL 1.8Mbps CDMA: DL 384Kbps/ UL 128Kbps GSM: DL 384Kbps/ UL 128Kbps
TX Power	LTE FDD: 23dBm±2dB LTE TDD: 23dBm±2dB WCDMA: 24dBm＋1/-3dB TD-SCDMA: 24dBm＋1/-3dB CDMA: 24dBm＋2/-1dB DCS1800(8-PSK): 26dBm±3dB GSM900(8-PSK): 27dBm±3dB DCS1800: 30dBm±2dB GSM900: 33dBm±2dB
RX Sensitivity	LTE FDD (10M): -99dBm(B1)/ -98dBm(B3)/ -98dBm(B5)/ -99dBm(B8) LTE TDD (10M): -99dBm(B38)/ -98dBm(B39)/ -99dBm(B40) / -98dBm(B41) WCDMA: -110dBm(B1/B8) TD–SCDMA: -110dBm(B34/B39) CDMA: -108dBm(BC0) DCS1800: -109dBm EGSM900: -109dBm

Interface	CIR775-W	CIR775-WB
10/100M WAN Port	1 x 10/100Base-T(X) auto-sensing RJ45 WAN port (LAN mode supported), full/half-duplex, auto MDI/MDI-X	
10/100M LAN Port	4 x 10/100Base-T(X) auto-sensing RJ45 LAN ports, full/half-duplex, auto MDI/MDI-X	
Serial Port	Serial port type: 1 x RS232/485 Connection method: 5-bit 5.08mm spacing terminal block Baud rate: 300bps-230400bps Data bit: 5bit, 6bit, 7bit, 8bit Stop bit: 1bit, 2bit Parity bit: None, Odd, Even	
Wi-Fi Antenna Connector	2 x 2.4GHz SMA-K Wi-Fi antenna connector (802.11b/g/n supported)	
4G Antenna Connector	1 x 4G cellular antenna connector, using SMA-K	2 x 4G cellular antenna connector, using SMA-K

SIM Card Slot	1 x standard SIM slot (1.8V / 3V)	2 x standard SIM slots, dual SIM dual standby
USB	1 x USB 2.0 Type-A, supports external storage	
Button	One-click reboot or factory reset	
Status LED	Power indicator, operation indicator, Wi-Fi indicator, serial port indicator, 4G indicator, signal strength indicator, copper port speed and connection/activity indicator	

Power Supply

Power Input	DC 9~36V, reverse polarity protection
Power Consumption	CIR775-W: ＜2.2W@DC12V CIR775-WB: ＜2.7W@DC12V
Connection	2-pin, 5.08mm pitch terminal block or Φ2.5mm DC round connector

Physical Characteristics

Dimensions	207×112×34.2 mm (including mounting ears)
Installations	Wall-mounted
IP Code	IP40

Working Environment

Operating Temp	-20℃~+70℃
Storage Temp	-40℃~+85℃
Relative Humidity	5%~95% (non-condensing)

Industry Standard

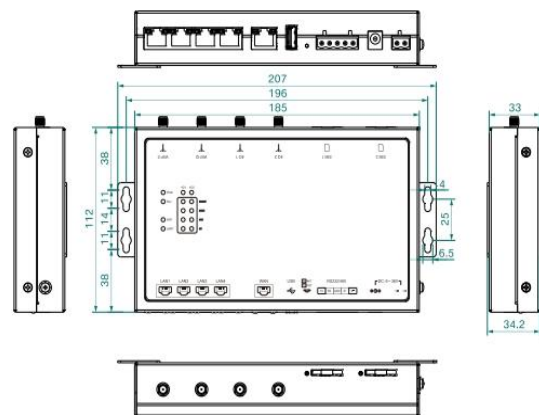| EMC	IEC 61000-4-2 (ESD): Contact discharge ±6kV, Air discharge ±15kV
	IEC 61000-4-5 (Surge): Power supply: Common mode ±4kV, Differential mode ±2kV;
	RS485: Common mode ±4kV, Differential mode ±2kV;
	Ethernet port: Common mode ±6kV, Differential mode ±2kV

Dimensions

Unit: mm
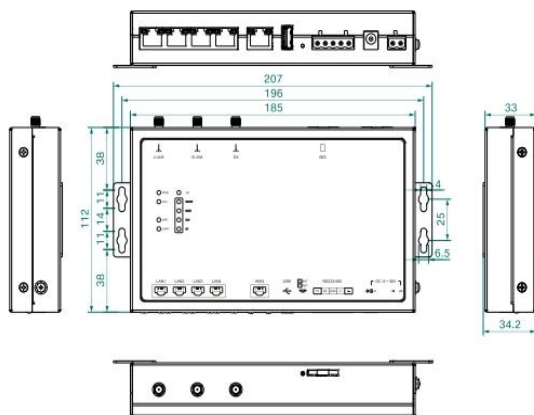
CIR775-W   CIR775-WB

Ordering Information

Standard Model	10/100M WAN Port	10/100M LAN Port	RS232/485	4G antenna	2.4GHz antenna	Input Voltage
CIR775-W	1	4	1	1	2	DC9~36V
CIR775-WB	1	4	1	2	2	

Contact Us

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