CIR785-W

Wall Mount 5G Industrial Wireless Router



- 1×100M WAN port, 4×100M LAN port, 1×RS232/485 port, 4×5G antennas, 2×2.4GHz antennas, 2×SIM card slots, 1×USB port
- Support backup via 5G/4G/3G cellular wireless network and WAN port wired network
- Support wireless modes such as AP, Client or AP+Client, can be used as Wi-Fi hotspot, wireless client or bridge, and can realize wireless terminal device access
- Support serial terminal device networking, can convert UDP, TCP, Modbus, HTTPD, WebSocket, MQTT and other protocols, and support virtual serial port
- Support DC9~36V power input, anti-reverse connection
- High strength aluminum alloy shell, IP40 protection
- Fanless design, case heat dissipation
- -20°C~+70°C operating temperature range

Product Description

CIR785-W is a 5-port 100M wall-mounted 5G industrial wireless router. It supports multiple networks such as LAN, WAN, WLAN, 5G NR, etc., intelligently switches multiple networks for backup, and can realize serial, wireless, and wired terminal equipment networking. This series of products provides 1x100M WAN port, 4x100M LAN ports, 1xRS232/485 serial port, 4x5G antenna interfaces, 2x2.4GHz antenna interfaces, and 1xUSB and other types of interfaces. It supports 1 DC9~36V power input and adopts wall-mounted installation.

The product supports WEB configuration of various network management functions, such as PPPoE dial-up, DHCP server, 5G network, wireless settings, IP/MAC binding, static routing, firewall, VPN, serial port to network, network diagnosis, SNMP, LLDP, cloud service, etc.; the system provides different permissions for user management, supports local/remote log management, supports scheduled restart, configuration backup and recovery, firmware upgrade, and restore to factory settings. Supports one-key restart or restore to factory settings. The hardware adopts high-standard industrial protection design, selects industrial-grade components, and adopts high-strength metal shell, which is sturdy and durable; low power consumption, wide temperature design, fanless shell heat dissipation, supports -20℃~+70℃ operating temperature, passes strict safety regulations and EMC tests, and meets the application requirements of harsh industrial environments.

Product Features

- Support 5G/4G/3G cellular wireless network and WAN port wired network, and backup
- Support MIMO multi-input and multi-output to improve data transmission rate, expand network capacity and wireless coverage, and reduce data packet loss
- WAN port supports DHCP protocol, static address, PPPoE dial-up and other methods to connect to the external network, or as a LAN port to connect to the intranet
- LAN port supports DHCP server to centrally manage and configure user IP addresses
- 5G network supports 5G NR NSA and SA dual-mode networking, compatible with 4G/3G, supports 5G/4G three-network universal, dual-card single standby, APN
- Support link check, periodically check the 5G network link status, and perform link recovery
- WLAN supports AP, Client or AP+Client modes, which can realize wireless terminal access, wireless network access or bridging
- Support IPv4/IPv6 Ping, IPv4/IPv6 Traceroute, Nslookup, packet capture, and can perform network diagnosis or fault analysis
- The firewall supports SYN-flood defense, port mapping, IP/MAC/DNS address filtering, iptables command custom rules, DMZ isolation zone, UPnP, IP/MAC speed limit, QoS upload/download rate limit and other functions
- Log information records various levels of kernel, application and network information, supports local download, timed saving, and remote monitoring
- The serial port supports 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, MQTT and other serial port conversion modes to realize serial port to Ethernet or Modbus RTU/ASCII protocol
- Support Peanut Shell intranet penetration, and can use Peanut Shell dynamic domain name to remotely log in and manage devices
- Support dynamic DNS function, and can remotely log in and manage devices through specified domain names
- Support VPN client and server to build a private network. The client supports PPTP, L2TP, IPSec, OpenVPN, GRE, SSTP and other tunnel protocols. The server supports PPTP, L2TP and IPSec.
- Support RTC hardware clock and NTP network automatic time synchronization
- Support SNMPv1/v2c. Information query, information modification and troubleshooting can be performed through MIB to achieve centralized management
- Support LLDP, obtain LLDP neighbor device information, monitor link status, and facilitate topology management and fault location
- Support cloud platform management to achieve remote management of equipment and monitoring of on-site network status

Technical Specifications

Software	
Management	Support traffic statistics, operation status, network status, local address and other status information Support static address, DHCP, PPPoE external network connection and WAN/LAN mode Support DHCP server, IP/MAC binding Support 5G/4G/3G network, dual-card management, APN, link detection Support static routing Support serial port conversion to network, dynamic DNS, SNMP, LLDP, cloud services Support PPTP/L2TP/GRE/TUN/TAP protocol VPN client Support PPTP/L2TP/IPSec protocol VPN server
Firewall	Support SYN-flood defense, IP dynamic camouflage, MSS clamping, inbound/outbound data control Support TCP/UDP port mapping for WAN/LAN ports Support IP/MAC/Domain name filtering, iptables, DMZ, UPnP, IP/MAC/QoS speed limiting
System Management	Support IPv4/IPv6 Ping, IPv4/IPv6 Traceroute, Nslookup, Capture Network Packet Support time zone, NTP client/server, management port, Crontab, remote/local logging Support user permissions 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

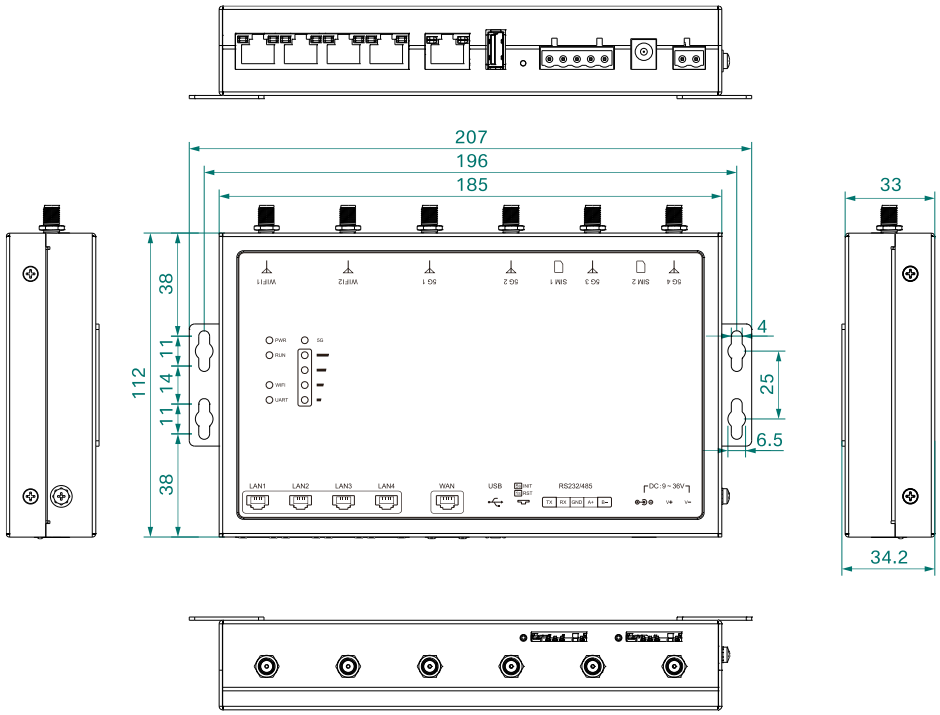
MIMO	DL 4 × 4: n1/28A/41/77/78/79 UL 2 × 2: n41/77/78/79 DL 2 × 2: n3/5/8, LTE
Maximum Transmission Rate	5G SA Sub-6: DL 2Gbps / UL 1Gbps 5G NSA Sub-6: DL 2.2Gbps / UL 575Mbps LTE: DL 600Mbps / UL 150Mbps UMTS (DC-HSDPA/HSUPA): DL 42.2Mbps / UL 11Mbps WCDMA: DL/UL 384 kbps
TX Power	5G NR n1/3/5/8/41: 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 RF Parameters	
Wireless Standard	IEEE 802.11b/g/n
Working Frequency	2.4 GHz (2.4 GHz ~ 2.4835 GHz)
Theoretical Transfer Rate	802.11b: 11Mbps 802.11g: 54Mbps 802.11n (HT20): 150Mbps
TX Power	802.11b: 19dBm±1.5dBm @ EVM -20dBm 802.11g: 16dBm±1.5dBm@ EVM -30dBm 802.11n: 16dBm±1.5dBm@ EVM -30dBm
RX Sensitivity	802.11b 11Mbps: -88dBm@ 10% PER 802.11g 54Mbps: -72dBm@ 10% PER 802.11n(HT20) 150Mbps: -68dBm@ 8% PER
Interface	
WAN Port	1×10/100Base-T(X) auto-sensing RJ45 copper port, support LAN mode, full/half duplex, auto MDI/MDI-X connection, 1.5kV electromagnetic isolation
LAN Port	4×10/100Base-T(X) auto-sensing RJ45 copper ports, support full/half duplex, auto MDI/ MDI-X connection, 1.5kV electromagnetic isolation

Serial Port	Serial port type: 1-way RS232/485 Connection: 5-bit 5.08mm pitch terminal block Baud rate: 300bps-230400bps Data bit: 5bit, 6bit, 7bit, 8bit Stop bit: 1bit, 2bit Check digit: None, Odd, Even
Wi-Fi Antenna Interface	2×2.4GHz Wi-Fi antenna connectors, SMA-K (male threaded, female socket)
5G Antenna Interface	4×5G cellular antenna connectors, SMA-K (External Thread, Internal Socket)
SIM Card Slot	2×standard SIM card slots(1.8V/3V), dual card single standby, support 5G/4G/3G
USB	1×Type-A USB2.0 port, expandable storage
Button	One-touch restart or factory reset
Status LED	Power indicator, operation indicator, serial port indicator, Wi-Fi indicator, 5G indicator, signal strength indicator, Ethernet port indicator
Power Supply	
Input Voltage	DC9~36V, reverse polarity protection
Power Consumption	＜4W@DC12V(average)
Connection	2-position 5.08mm pitch terminal block or Φ2.5mm DC round head
Physical Characteristics	
Dimensions	207×112×34.2 mm (including mounting brackets)
Installations	Wall mount
IP Code	IP40
Working Environment	
Operating Temp	-20°C ~+70°C
Storage Temp	-40°C ~+85°C

Relative Humidity	5%~95% (non-condensing)
Industry Standard	
EMC	IEC 61000-4-2 (ESD): Contact discharge ±8kV, air discharge ±15kV IEC 61000-4-5 (Surge): Power supply: Common mode ±1kV, differential mode ±2kV; Serial port: Common mode ±4kV, Differential mode ±2kV; Network port: Common mode ±6kV, Differential mode ±2kV IEC 61000-4-4 (EFT): Power supply: ±4kV, Network port/Serial port: ±2kV

Dimensions

Unit: mm



Ordering Information

Standard Model	100M WAN Port	100M LAN Port	RS232/485	5G Antenna	2.4GHz Antenna	Input Voltage
CIR785-W	1	4	1	4	2	DC9~36V

Contact Us

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