

MIR682R Industrial Router

DIN-Rail 5G Industrial Router with 2*Ethernet Ports



- 1×100M WAN port, 1×100M LAN port, 1×RS232/485 port, 4×5G antenna interfaces, 1×dual nano SIM card slot
- Support backup via 5G/4G/3G cellular wireless network and WAN port wired network
- Support serial terminal device networking, can convert UDP, TCP, Modbus, HTTPD, WebSocket, MQTT and other protocols, support for virtual serial port
- Support port mapping, DMZ, IP/MAC rate limiting/filtering, DDNS, VPN, SNMP, LLDP and other firewall and service functions
- Support DC 9~60V power input, support anti-reverse connection
- High strength aluminum alloy shell, IP40 protection grade
- Fanless design, case heat dissipation
- Work in -40℃ ~ + 75℃ harsh industrial environments



Product Description

MIR682R is a 2-port 100M DIN-rail 5G industrial router for industrial communication network applications. It integrates serial port device networking and supports WAN wired or 5G cellular wireless networks. This product provides 1x100M WAN port, 1x100M LAN port, 1xRS232/485 serial port, 4x5G antenna interfaces and DC9~60V power input. It adopts the standard DIN rail installation method to meet various network sites.

The product supports WEB configuration of various network management functions, such as WAN mode, PPPoE dial-up, DHCP server, 5G network standard, APN, IP/MAC binding, static routing, link detection, network diagnosis,

serial port to network, firewall, VPN, SNMP, LLDP, cloud services, NTP, etc. The system provides user management with different permissions, supports local/remote log management, supports scheduled restart, configuration backup and recovery, firmware upgrade, and factory reset. It supports one-click restart or factory settings restoration, and the indicator signal pin can be externally reference and supports one-click restart or factory reset. The hardware adopts high-standard industrial protection design, with industrial-grade components and high-strength aluminum alloy casing, which is sturdy and durable; it is featured with low power consumption, -40°C~+75°C wide temperature design, fanless casing heat dissipation. The router has passed strict safety regulations and EMC testing, meeting the application requirements of harsh industrial environments. The router can be widely used in industrial automation, integrated energy, smart cities, smart transportation, smart mines, smart factories and other fields.



Features and Benefits

- Support 5G/4G/3G cellular wireless network and WAN port wired network, and backup
- Support MIMO (multiple input and multiple output) to increase data transmission rate, expand network capacity and wireless coverage and reduce data packet loss
- The WAN port supports DHCP protocol, static address, PPPoE dial-up etc., to connect to the external network, or can be used as a LAN port to connect the intranet
- The LAN port supports DHCP server to centrally dynamically manage and configure user IP addresses
- 5G network supports 5G NR NSA and SA dual module, and is compatible with 4G/3G
- Support static routing, routing rules can be added manually to implement routing and forwarding
- Support link detection, periodically check the link status and perform recovery
- Support IPv4/IPv6 Ping, IPv4/IPv6 Traceroute, Nslookup, packet capture for 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
- Support NTP client and server functions, can perform clock synchronization or provide clock source
- Log information including multiple levels of kernel, application and network; support local download, scheduled save 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
- Support dynamic DNS, and can realize remote logging and management by specifying the domain name
- Support private network between VPN client and server; the client supports PPTP, L2TP, IPSec,

OpenVPN, GRE protocols; the server supports PPTP, L2TP and IPSec protocols

- Support SNMPv1/v2c, can conduct information query, modification and troubleshooting via MIB
- Support LLDP, obtain LLDP neighbor device information and monitor link status to facilitate topology management and fault location
- Support remote management and monitoring via Maiwe cloud platform



Specification

Software Functions

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

5G Cellular Network

Network Format	5G NR SA/NSA, LTE-FDD, LTE-TDD, WCDMA
Working Frequency	<p>5G NR SA: n1/n28/n41/n77/n78/n79</p> <p>5G NR NSA: n41/n78/n79</p> <p>LTE-FDD: B1/B2/B3/B5/B7/B8/B20/B28</p> <p>LTE-TDD: B34/B38/B39/B40/B41</p> <p>WCDMA: B1/B2/B5/B8</p>
MIMO	<p>DL 4 × 4: n1/n41/n77/n78/n79</p> <p>UL 2 × 2: n41/n77/n78/n79</p> <p>DL 2 × 2: n28/LTE</p>



Specification

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 384 kbps/ UL 384 kbps
Maximum Transmit Power	5G NR n1/41: 23dBm±2dB 5G NR n28: 23dBm+2/-2.5dB 5G NR n77/78/79: 23dBm+2/-3dB 5G NR n41/n78/n79 HPUE: 26dBm+2/-3dB LTE: 23dBm±2dB (LTE-TDD B41 HPUE: 26dBm±2dB) WCDMA: 23dBm±2dB
RX Sensitivity	5G NR FDD (5MHz): -106.5dBm(n1)/ -101dBm(n28) 5G NR TDD (100MHz): -92.5dBm(n41)/ -92.5dBm(n77)/ -93dBm(n78)/ -92.5dBm(n79) LTE-FDD (10MHz): -101.5dBm(B1)/ -100dBm(B2)/ -100.5dBm(B3)/ -100.6dBm(B5)/ -97.5dBm(B7)/ -101dBm(B8)/ -101.5dBm(B20)/ -101dBm(B28) LTE-TDD (10MHz): -99.5dBm(B34)/ -99.3dBm(B38) / -100.3dBm(B39) / -98.5dBm(B40) / -99.3dBm(B40) WCDMA: -112.8dBm(B1)/-112.5dBm(B2)/ -113dBm(B5)/ -113.2dBm(B8)
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	1×10/100Base-T(X) auto-sensing RJ45 copper port, support full/half duplex, auto MDI/ MDI-X connection, 1.5kV electromagnetic isolation
Serial Port	Serial port type: 1-way RS232/485 Connection: 7-bit 3.81mm pitch terminal block, serial port accounts for 5 bits Baud rate: 300bps-230400bps Data bit: 5bit, 6bit, 7bit, 8bit Stop bit: 1bit, 2bit Check digit: None, Odd, Even
Antenna Interface	4* SMA-K (external thread internal hole) antenna interfaces for connecting 5G cellular antennas
SIM Card Slot	1* dual nano SIM card slot, dual card single standby, support 5G/4G3G
Status LED	Power indicator, run indicator, network indicator, serial Indicator, 5G indicator, signal strength indicator, copper port rate and connection/activity indicator
Power Supply	
Input Voltage	DC9~60V
Power Consumption	< 6.5W@DC24V(full load)
Connection	3.81mm pitch 7-pin terminal block



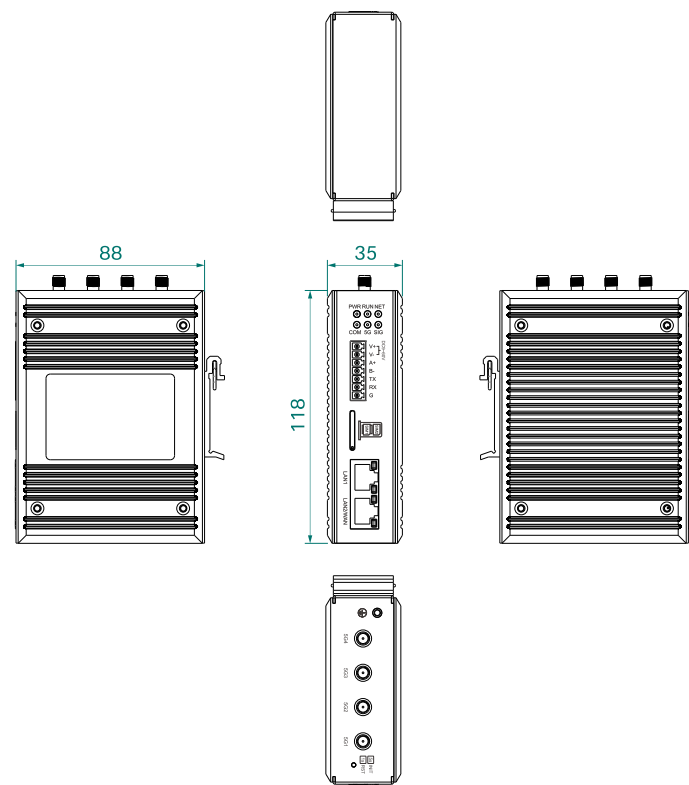
Specification

Anti-reverse Protection	Support
Physical Characteristics	
Dimensions	118×35×88 mm (DIN rail mounting clips excluded)
Installations	Standardized 35mm DIN rail
IP Code	IP40
Weight	0.4kg (antennas excluded)
Working Environment	
Operating Temp	-40℃~+75℃
Storage Temp	-40℃~+85℃
Relative Humidity	5%~95% (non-condensing)
Industry Standard	
EMC	IEC 61000-4-2(ESD): Level 4 IEC 61000-4-5(Surge): Level 4 IEC 61000-4-4(EFT): Level 4
Certification	CE, FCC, RoHS



Dimensions

Unit: mm





Ordering Information

Standard Model	100M WAN Port	100M LAN Port	RS232/485	5G Antenna Interface	Input Voltage
MIR682R	1	1	1	4	DC9~60V



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