

# MIR655R-W

## 5-Port 100M DIN-rail Industrial 4G Wireless Router



- 1×10/100Base WAN/ LAN combo port, 4×10/100Base LAN ports, 1×RS485 port, 1/2× 4G antenna interface, 2×2.4GHz antenna interface, 1\* dual Nano SIM card slot
- Link backup, mutual backup of wired WAN and 4G cellular networks
- Support AP, Client and AP+Client wireless modes, works as Wi-Fi hotspot, wireless client or Ethernet bridge
- Support UDP, TCP, Modbus, HTTPD, WebSocket, MQTT protocols, support virtual com port
- DC 9~36V input, reverse polarity protection
- High strength aluminum alloy shell, IP40 protection
- Fanless design, case heat dissipation
- Work in -40°C ~ + 75°C harsh industrial environment



### Product Description

MIR655R-W is a 5-port 10/100Base fast Ethernet DIN-rail Mounted industrial 4G wireless router developed for industrial network applications, supporting LAN, WAN, WLAN, 4G LTE and other multi-network online, intelligent switching of multi-network backups, and networking of serial, wireless, and wired terminal devices. The industrial router provides 1×10/100Base-T(X) WAN/LAN combo port, 4×10/100Base-T(X) LAN port, 1×RS485 serial port, 1~2 4G antenna interface and 2×2.4GHz antenna interfaces. The DIN-rail mountable router, with 1 DC 9~36V power input, can meet the needs of a variety of network scenarios.

The industrial 4G router supports WEB management of a variety of functions, such as PPPoE dialing, DHCP server, 4G network, wireless settings, IP/MAC binding, static routing, firewalls, VPN, serial to Ethernet, network diagnostics, SNMP, LLDP, cloud services, etc.; Its system provides user permission management, supports local/remote log management, scheduled reboot, configuration backup and recovery, firmware upgrade, factory reset.

The router adopts high-standard industrial protection design, selects industrial-grade components, and uses high-strength aluminum alloy casing to make it solid and durable. It features low power consumption, -40 °C ~ +70 °C wide temperature durability, fanless metal case cooling. It has passed strict safety regulations and EMC tests to meet the requirements of severe industrial environment applications, so that it can be widely used in industries such as industrial automation, comprehensive energy, smart cities, intelligent transportation, smart mines, smart factories, and more.



## Features and Benefits

- Support 4G cellular wireless network, 2.4G Wi-Fi wireless network and WAN port wired network, support multi-network backup
- WAN port supports DHCP, static IP addresses, PPPoE dial-up, and works as LAN port
- LAN port supports DHCP server, user IP addresses can be dynamically managed and configured in a centralized way
- Support 4G LTE, backward compatible with 2G/3G services, support dual card single standby, APN
- Support link detection and recovery
- WLAN supports wireless AP mode, Client mode, AP+Client mode
- Support IPv4/IPv6 Ping, IPv4/IPv6 Traceroute, Nslookup, packet capture
- Support defense against SYN-flood, port mapping, IP/MAC/DNS filter, iptables command custom rules, DMZ(Demilitarized Zone), UPnP, IP/MAC traffic throttling, QoS traffic throttling
- Logs contain information about the kernel messages, applications and network, support download, autosave, remote monitor
- Serial port supports UDP, UDP Multicast, Modbus RTU Master/Slave, Modbus ASCII Master/Slave, RealCOM\_MCP/CCP/MW, Pair Connection Master/Slave, Httpd Client, WebSocket Client, MQTT to enable conversion from serial to Ethernet or Modbus RTU/ASCII
- Support peanut shell intranet penetration and dynamic domain name resolution DDNS
- Support dynamic DNS, user can login and manage device remotely by specifying the domain name
- Support VPN client and server to build a private network. The client supports tunnel protocols such as PPTP, L2TP, IPsec, OpenVPN, GRE, and SSTP. The server supports protocols such as PPTP, L2TP, and IPsec
- Support SNMPv1/v2c, use MIB browser to view, modify, and troubleshoot
- Support LLDP, obtain the LLDP neighbor information, monitor link status, maintain topology and locate fault
- Support Maiwe cloud platform management to realize remote management of equipment and monitoring of on-site network status



## Specification

### Software

## ☒ Specification

Management Function	Support traffic statistics, running status, traffic statistics view Support static IP address, DHCP, PPPoE, WAN/LAN mode Support DHCP server, IP/MAC binding 4G LTE, dual card management, APN, link detection Support wireless AP mode, Client mode, AP+Client mode Support static routing Support serial to Ethernet conversion, peanut shell intranet penetration, dynamic DNS, SNMP, LLDP, cloud service Support PPTP/L2TP/GRE/TUN/TAP protocol VPN client Support PPTP/L2TP/IPSec protocol VPN server
Firewall	Support defense against SYN Flood attack, IP dynamic camouflage, MSS clamping, Inbound/outbound data control Support WAN/LAN port TCP/UDP port mapping Support IP/MAC/DNS filtering, iptables, DMZ, UPnP, IP/MAC/QoS speed limit
System Management	IPv4/IPv6 Ping, IPv4/IPv6 Traceroute, Nslookup, packet capture Timezone, NTP client/server, port management, Crontab, remote/local logging User permission management, SSH access Online restart, scheduled restart, configuration backup/restore, firmware flashing, factory reset
4G Cellular Network	

## Specification

4G Cellular Network	MIR655R-W	MIR655R-W-AU	MIR655R-W-AFX	MIR655R-W-EUX
Network Format	LTE-FDD, LTE-TDD, WCDMA, GSM/ EDGE			
Region	China/India	Latin America/Australia/New Zealand	North America	Europe
Working Frequency				
LTE-FDD	B1/3/5/8	B1/2/3/4/5/7/8/28/66	B2/4/5/12/13/14/66/71	B1/3/7/8/20/28A
LTE-TDD	B34/38/39/40/41	B40	—	B38/40/41
WCDMA	B1/5/8	B1/2/4/5/8	B2/4/5	B1/8
GSM/EDGE	B3/8	B2/3/5/8	—	B3/8
Theoretical transfer rate				
LTE-FDD (Mbps)	DL 150/ UL 50	DL 150/ UL 50	DL 150/ UL 50	DL 150/ UL 50
LTE-TDD (Mbps)	DL 130/ UL 30	DL 130/ UL 30	—	DL 130/ UL 30
HSPA+ (Mbps)	DL 21/ UL 5.76	DL 21/ UL 5.76	DL 42/ UL 5.76	DL 42/ UL 5.76
WCDMA (kbps)	DL/ UL 384	DL/ UL 384	DL/ UL 384	DL/ UL 384
EDGE (kbps)	DL/ UL 236.8	DL/ UL 236.8	—	DL 296/ UL 236.8
GPRS (kbps)	DL/ UL 85.6	DL/ UL 85.6	—	DL 107/ UL 85.6
TX power				
LTE-FDD	23dBm±2dB	23dBm±2dB	23dBm±2dB	23dBm±2dB
LTE-TDD	23dBm±2dB	23dBm±2dB	—	23dBm±2dB
WCDMA	24dBm+1/-3dB	24dBm+1/-3dB	24dBm+1/-3dB	24dBm+1/-3dB
PCS1900 (8-PSK)	—	26dBm±3dB	—	26dBm±3dB
DCS1800 (8-PSK)	26dBm±3dB	26dBm±3dB	—	26dBm±3dB
GSM900(8-PSK)	27dBm±3dB	27dBm±3dB	—	27dBm±3dB
GSM850(8-PSK)	—	27dBm±3dB	—	27dBm±3dB
PCS1900	—	30dBm±2dB	—	30dBm±2dB
DCS1800	30dBm±2dB	30dBm±2dB	—	30dBm±2dB
EGSM900	33dBm±2dB	33dBm ±2dB	—	33dBm±2dB
GSM850	—	33dBm ±2dB	—	33dBm±2dB

## Specification

4G Cellular Network	MIR655R-W	MIR655R-W-AU	MIR655R-W-AFX	MIR655R-W-EUX
RX Sensitivity				
LTE-FDD	-98.1dBm@B1 -97.1dBm@B3 -98.9dBm@B5 -97.4dBm@B8	-101dBm@B1 -100.2dBm@B2 -100.9dBm@B3 -101.1dBm@B4 -101.7dBm@B5 -99.9dBm@B7 -100.2dBm@B8 -102.4dBm@B28 -100dBm@B66	-100.5dBm@B2 (10MHz) -99.5dBm@B4 (10MHz) -100.5dBm@B5 (10MHz) -100.5dBm@B12 (10MHz) -100.7dBm@B13 (10MHz) -100.9dBm@B14 (10MHz) -99.6dBm@B66 (10 MHz) -100dBm@B71 (10 MHz)	-101.0dBm@B1(10MHz) -99.5dBm@B3 (10MHz) -99.5dBm@B7 (10MHz) -100dBm@ B8 (10MHz) -101.5dBm@B20 (10MHz) -101dBm@B28A (10MHz)
PCS1900	—	-107dBm	—	
DCS1800	-107dBm	-106.8dBm	—	-109.0 dBm
EGSM900	-109dBm	-108.2dBm	—	-109.0 dBm
GSM850	—	-109.3dBm	—	

## Wi-Fi

Frequency	2.4GHz(2.412GHz~2.484GHz)
TX Power	802.11b: 17dBm~19dBm@11Mbps 802.11g: 15dBm~18dBm@54Mbps 802.11n: 15dBm~18dBm@MCS7 HT20/ 40
RX Sensitivity	802.11b: -91.5dBm~ -87.5dBm@11Mbps(PER<8%) 802.11g: -78dBm~ -74dBm@54Mbps(PER<10%)

## Interface

WAN Port	1×10/100Base-T(X) auto-sensing RJ45 port (Support LAN), support both the full-duplex mode and half-duplex mode, auto-MDI/MDIX, 1.5kV isolation protection
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## Specification

LAN Port	4×10/100Base-T(X) auto-sensing RJ45 ports, support both the full-duplex mode and half-duplex mode, 1.5kV isolation protection
Serial Port	1×RS485 port, 5-pin 5.08mm pitch terminal blocks (occupy 3 pins), 300bps-230400bps baud rate
Antenna Connector	1/2 SMA-K (external thread internal hole) antenna interfaces for connecting 4G cellular antennas, 2 SMA-K antenna interfaces for connecting 2.4GHz Wi-Fi antennas
SIM Slot	1×dual Nano SIM slots, dual card single standby
Button	One-click restart and factory reset
Status LEDs	Power, running, Internet, serial port connection, 4G LTE, signal strength, copper port connection
Power Supply	
Input Voltage	DC 9~36V
Power Consumption	<7W@DC24V(full load)
Connection	5-pin 5.08mm pitch terminal blocks, power occupies 2 pins
Reverse Polarity Protection	Support
Physical Characteristic	
Dimensions	140×35×100 mm (DIN rail mounting clip excluded)
Installations	Easy installation on 35mm DIN rails
IP code	IP40
Weight	0.5kg (antenna excluded)
Working Environment	
Operating Temp	-40°C~+70°C
Storage Temp	-40°C~+85°C
Relative Humidity	5%~95% (non-condensing)
Industrial Standard	

## ☒ Specification

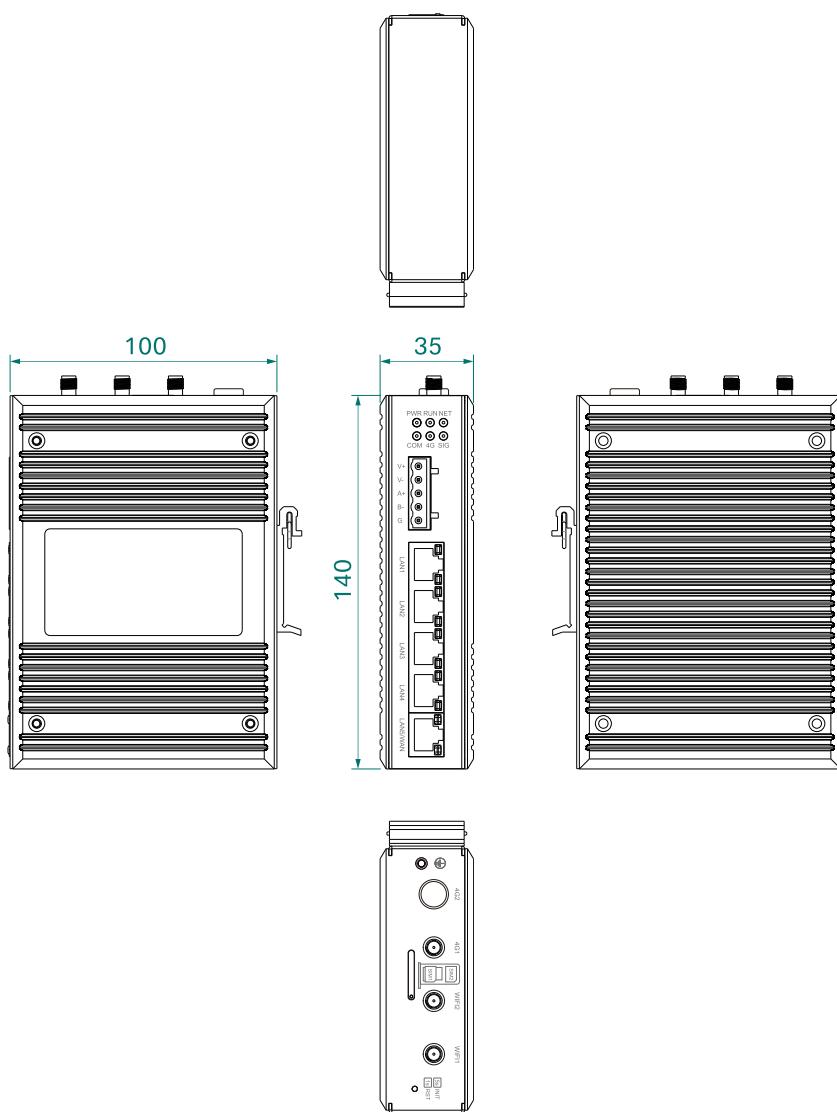
EMC	IEC 61000-4-2(ESD): Level 4 IEC 61000-4-5(Surge): Level 3 IEC 61000-4-4(EFT): Level 4
Certification	CE, FCC, RoHS



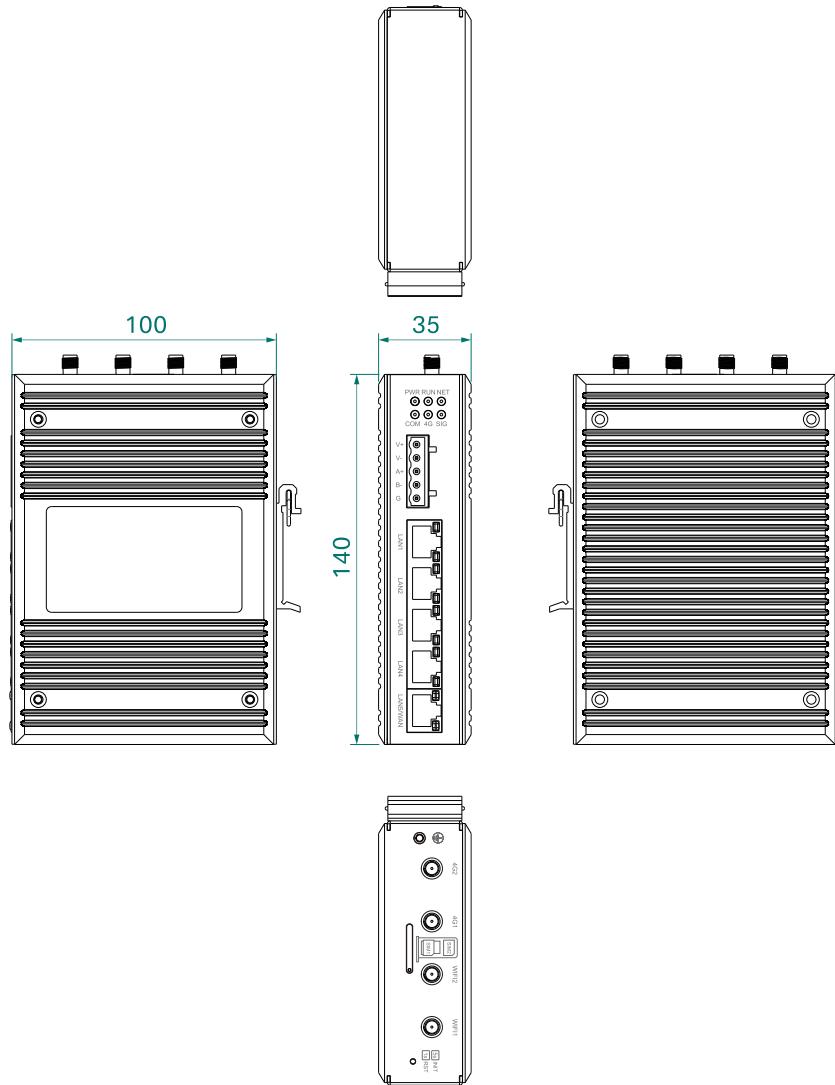
## Dimensions

Unit: mm

- MIR655R-W



- MIR655R-W-AU, MIR655R-W-AFX, MIR655R-W-EUX





## Ordering Information

Standard Model	10/100M WAN Port	10/100M LAN Port	RS485 Port	4G Antenna	2.4GHz Antenna	Region	Input Voltage
MIR655R-W	1	4	1	1	2	China Mainland	DC 9~36V
MIR655R-W-AU	1	4	1	2	2	Australia	
MIR655R-W-AFX	1	4	1	2	2	North America	
MIR655R-W-EUX	1	4	1	2	2	Europe	



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