

# 4G

# Industrial Router IWR202



## Introduction

IWR202 is an industrial-grade router featuring a high-performance processor and wireless module, running on an embedded real-time operating system. It offers versatile connectivity with 1 x RS232, 1 x RS485, 1 x Ethernet LAN, 1 x Ethernet WAN, DI/DO, and Wi-Fi. This router enables seamless data transmission between serial, Ethernet, and Wi-Fi devices. It supports dual SIM cards with intelligent switching for backup, making it perfect for industrial IoT and M2M applications, ensuring reliable and continuous connectivity.



### Industrial-grade Design

- ▶ High-performance industrial-grade CPU
- ▶ High-performance industrial-grade wireless communication module
- ▶ Metal casing, IP30 protection level
- ▶ Wide range power input (DC 5~36V)



### Stability & Reliability

- ▶ EMC Level 3 and above, with strong anti-interference capability
- ▶ Dual SIM card design with complete dropout prevention mechanisms, ensuring the data terminal is always online
- ▶ Ethernet interface with 1.5KV electromagnetic isolation protection
- ▶ RS232/RS485 interfaces with 1.5KV ESD protection
- ▶ SIM card interface with 15KV ESD protection



### Standard & Convenience

- ▶ Provides standard RS232 and RS485 ports for direct connection to serial devices
- ▶ 2 x 100M Ethernet ports for direct connection to Ethernet devices
- ▶ Supports standard network protocols, ensuring strong compatibility
- ▶ Supports remote management, simplifying operations
- ▶ Supports rail and wall-mounted installation for flexible deployment

# Industrial Router

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High Performance

- ▶ Supports multiple VPN protocols including IPsec, OpenVPN, and WireGuard
- ▶ Built-in MQTT gateway, supporting data transparent transmission to HTTP/MQTT/Azure cloud
- ▶ Supports remote management platform and PC client applications
- ▶ Supports SPI firewall
- ▶ Wi-Fi supports multiple encryption methods including WEP, WPA, WPA2 and,etc.
- ▶ Supports multiple network protocols including TCP, UDP, IPv4, DNSS, Telnet
- ▶ Supports mounting remote file systems via SSH protocol
- ▶ Equipped with DDoS protection (SYN flood protection, SSH attack protection, Telnet attack protection)
- ▶ Flexible access control for SSH, Web interface, CLI, and Telnet
- ▶ Supports MODBUS TCP and Modbus RTU status/control
- ▶ Supports MQTT subscription and MQTT publishing
- ▶ Supports bridging and transparent transmission functions

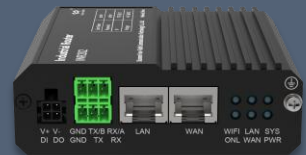
## Product Specification

### Cellular Specification

Model	CAT1	CAT4	CAT6	5G Redcap
Items	Contents			
Standard and Band	LTE FDD: B1/3/7/8/20/28	LTE FDD: B1/3/5/7/8/20/28 LTE TDD: B38/40/41	LTE FDD: B1/3/5/7/8/20/28/32 LTE TDD: B38/40/41(120M)	5G NR SA: n1/2/3/5/7/8/12/13/14/18/20 /25/26/28/30/38/40/41/48/6 6/70/71/ 77/78/79
	GSM: 900/1800MHz	WCDMA: B1/5/8 GSM/GPRS/EDGE: 850/900/1800MHz	WCDMA: B1/5/8	LTE FDD: B1/2/3/4/5/7/8/12/13/14/17/ 18/19/20/25/26/28/30/66/70 /71 LTE TDD: B34/38/39/40/41/42/43/48
Bandwidth	LTE FDD 10Mbps DL, 5Mbps UL GPRS: 85.6kbps DL 85.6kbps UL	LTE FDD 150Mbps DL, 50Mbps UL LTE TDD 130Mbps DL, 30.5Mbps UL WCDMA: 384Kbps DL, 384Kbps UL	LTE : 300Mbps DL, 50Mbps UL WCDMA: 42 Mbps DL, 5.7Mbps UL	5G SASub-6: 223Mbps DL, 123Mbps UL LTE: 195Mbps DL, 105Mbps UL

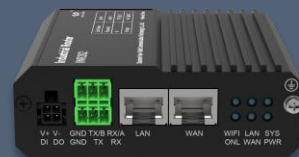
# Industrial Router

# IWR202



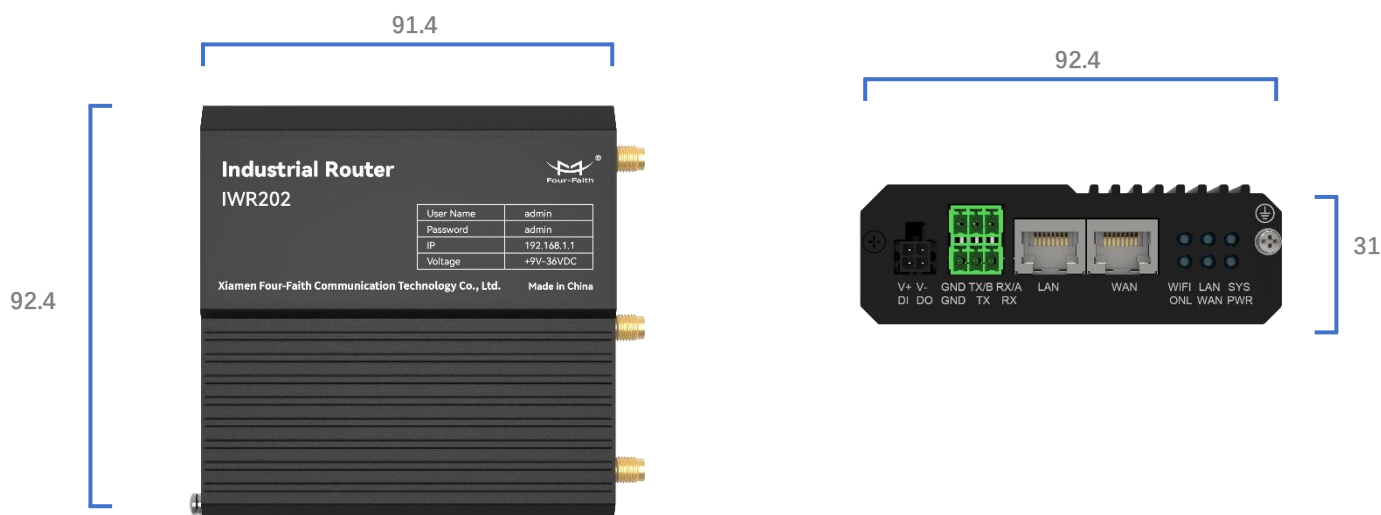
Hardware System	
Product	CAT1      CAT4      CAT6      5G Redcap
Items	Contents
CPU	Industrial-grade CPU
Flash	32MB
DDR3	128MB
WIFI Specification	
Items	Contents
Standard and Band	IEEE802.11b/g/n, 2.4G
Bandwidth	IEEE802.11b/g: 54Mbps (Maximum), IEEE802.11n: 144Mbps (Maximum)
Security	Support WEP, WPA, WPA2 and other encrypt methods
Transmit Power	15 ± 2dBm
Sensitivity	< -72dBm @ 54Mbps
Interfaces	
Items	Contents
WAN Interface	1 x 10/100M RJ45 ethernet port, adaptive MDI/MDIX, built-in 15KV ESD
LAN Interface	1 x 10/100M RJ45 ethernet port, adaptive MDI/MDIX, built-in 15KV ESD (Support Passive POE)
Serial	1 x RS232, 1 x RS485 serial interface with built-in 15KV ESD
I/O	1xDI (0–6V low, 8–30V high), 1xDO (open collector, 30V/50mA)
LED Indicators	“PWR”, “Online”, “LAN”, “WAN”, “WIFI”, “SYS”
Antenna Interface	Cellular: 1 x antenna      Cellular: 2 x antennas WIFI: 1 x antenna      WIFI: 1 x antenna
SIM/UIM Slot	2 x Standard 2FF SIM card slot (Compatible with eSIM)
Power Interface	Standard 4 pin terminal block interface, with built-in phase-reversal and over-voltage protection
Reset Button	Can reset router’s configuration to default factory setting by this button
Power Consumption	
Items	Contents
Standard	DC 12V/1.5A
Voltage Range	DC 9~36V
Operating Current	<1.2A (12V)
Physical Properties	
Items	Contents
Casing	Aluminum metal casing, IP30 protection level
Dimensions	91.4x92.4x31mm (excluding antennas and mountings)
Weight	200g
Operating Temperature	-40~+75°C
Storage Temperature	-40~+85°C
Relative Humidity	95% (non-condensing)

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GPS (Optional)	
<b>Product</b>	<b>4G CAT4</b>
<b>Items</b>	<b>Contents</b>
<b>Standard</b>	GPS, GLONASS, BeiDou/Compass, Galileo, QZSS
<b>Current Consumption</b>	GNSS fixing: 62mA GNSS tracking: 62mA Standby: 33mA
<b>Time to First Fix</b>	Cold start: 45s Warm start: 40s Hot start: 5s
<b>Sensitivity</b>	Fixing: -145dbm Tracking: -156dbm
<b>Positional Accuracy</b>	GNSS Signal @-130dBm: <3m

## Dimension (mm)



## Order Information

Model	Description
<b>IWR202</b>	4G(CAT-4), 2 x SIM, 1 x RS232, 1 x RS485, 1 x DI, 1 x DO, 2.4G WIFI, 1 x Cellular Antenna, 1 x WIFI Antenna
<b>IWR202-C1</b>	4G(CAT-1), 2 x SIM, 1 x RS232, 1 x RS485, 1 x DI, 1 x DO, 2.4G WIFI, 1 x Cellular Antenna, 1 x WIFI Antenna
<b>IWR202-C6</b>	4G(CAT-6), 2 x SIM, 1 x RS232, 1 x RS485, 1 x DI, 1 x DO, 2.4G WIFI, 2 x Cellular Antennas, 1 x WIFI Antenna
<b>IWR202-5R</b>	5G Redcap, 2 x SIM, 1 x RS232, 1 x RS485, 1 x DI, 1 x DO, 2.4G WIFI, 2 x Cellular Antennas, 1 x WIFI Antenna
<b>IWR202-GNSS</b>	4G(CAT-4), 2 x SIM, 1 x RS232, 1 x RS485, 1 x DI, 1 x DO, 2.4G WIFI, GPS, 1 x Cellular Antenna, 1 x WIFI Antenna, 1 x GPS Antenna
<b>IWR202-ESIM</b>	4G(CAT-4), 2 x eSIM, 1 x RS232, 1 x RS485, 1 x DI, 1 x DO, 2.4G WIFI, 1 x Cellular Antenna, 1 x WIFI Antenna