# Industrial Router
## IWR202

**4G**

**Four-Faith**

**4G** | **5G** 5G Redcap | **Din-Rail** | **VPN**

**RS232** | **RS485** | **Dual-SIM** | **WIFI**

## 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

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▶ 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

**High Performance**

## Product Specification

| Cellular Specification | | |
|---|---|---|
| **Model** | **CAT6** | **5G Redcap** |
| **Items** | **Contents** | |
| **Standard and Band** | **LTE FDD:** B1/3/5/7/8/20/28/32 <br> **LTE TDD:** B38/40/41(120M) <br> **WCDMA:** B1/3/5/8 | **5G NR SA:** n1/2/3/5/7/8/12/13/14/18/20/25/26/28/30/38/40/41/48/66/70/71/ 77/78/79 <br> **LTE FDD:** B1/2/3/4/5/7/8/12/13/14/17/18/19/20/25/26/28/30/66/70/71 <br> **LTE TDD:** B34/38/39/40/41/42/43/48 |
| **Bandwidth** | **LTE :** 300Mbps DL, 50Mbps UL <br> **WCDMA:** 42 Mbps DL, 5.7Mbps UL | **5G SASub-6:** 223Mbps DL, 123Mbps UL <br> **LTE:** 195Mbps DL, 105Mbps UL |
| Hardware System | | |
| **Items** | **Contents** | |
| **CPU** | Industrial-grade CPU | |
| **Flash** | 32MB | |
| **DDR3** | 128MB | |

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## WIFI Specification

| Product | CAT6 | 5G Redcap |
|---|---|---|
| **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, 1xDO | |
| LED Indicators | "PWR", "Online", "LAN", "WAN", "WIFI", "SYS" | |
| Antenna Interface | Cellular: 2 x Standard SMA female antenna interface, characteristic impedance: 50 Ω WIFI: 1 x Standard SMA male antenna interface, characteristic impedance: 50 Ω | |
| SIM/UIM Slot | 2 x Standard 2FF SIM card slot | |
| 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℃ | |
| Storage Temperature | -40~+85℃ | |
| Relative Humidity | 95% (non-condensing) | |

## Dimension (mm)

91.4

92.4

92.4

31

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| User Name | admin |
|---|---|
| Password | admin |
| IP | 192.168.1.1 |
| Voltage | +9V~36VDC |

Xiamen Four-Faith Communication Technology Co., Ltd.        Made in China
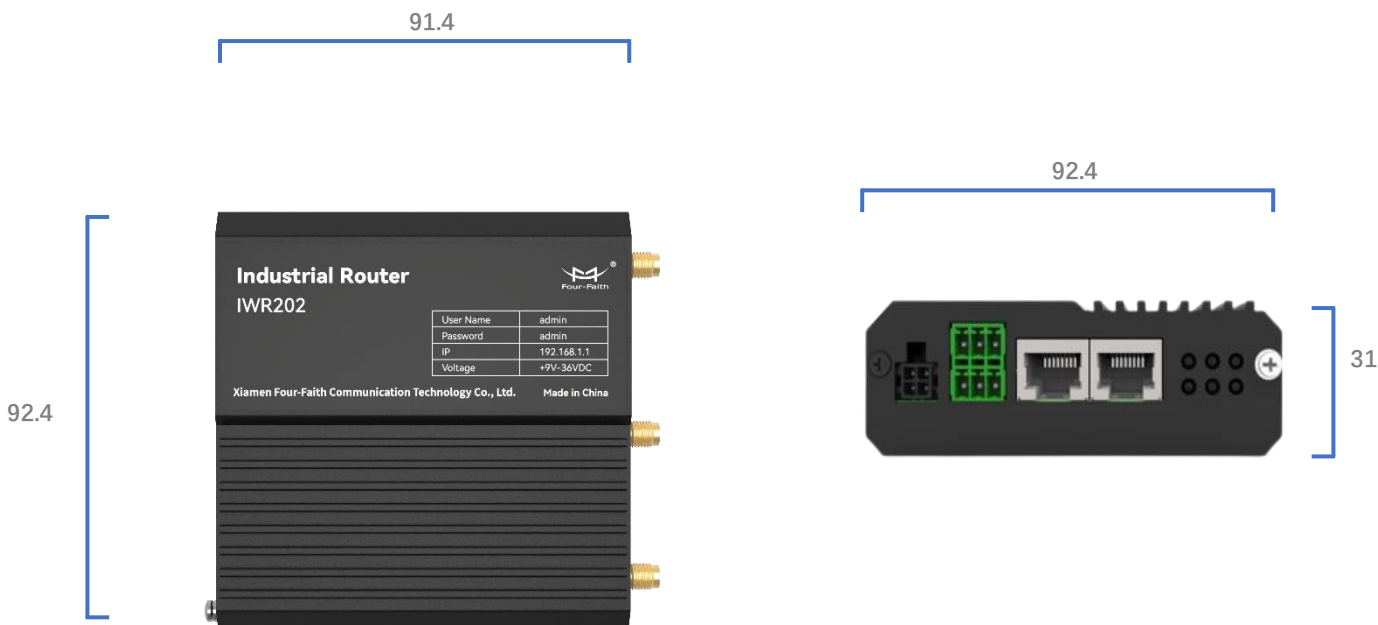
## Order Information

| Model | Description |
|---|---|
| IWR202 | 4G(CAT-6), 2 x SIM, 1 x RS232, 1 x RS485, 1 x DI, 1 x DO, 2.4G WIFI |
| IWR202-5R | 5G Redcap, 2 x SIM , 1 x RS232, 1 x RS485, 1 x DI, 1 x DO, 2.4G WIFI |

**IWR202 CAT4 Version Coming Soon**