

Four-Faith

Industrial Router

IWR202

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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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 **GSM:** 900/1800MHz	**LTE FDD:** B1/3/5/7/8/20/28 **LTE TDD:** B38/40/41 **WCDMA:** B1/5/8 **GSM/GPRS/EDGE:** 850/900/1800MHz	**LTE FDD:** B1/3/5/7/8/20/28/32 **LTE TDD:** B38/40/41(120M) **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 **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

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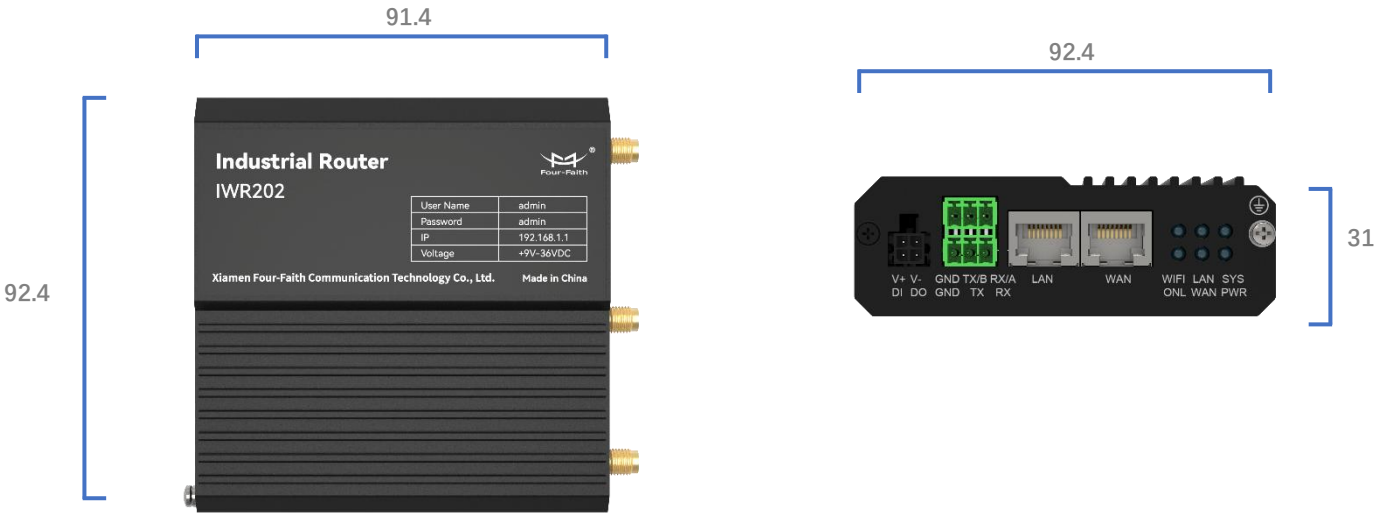
Hardware System				
Product	CAT1	CAT4	CAT6	5G Redcap
Items	Contents			
CPU	Industrial-grade CPU			
Flash	32MB			
DDR3	128MB			
WIFI Specification				
Items	Contents			
Standard and Band	IEEE802.11b/g/n，2.4G			
Bandwidth	IEEE802.11b/g: 54Mbps (Maximum)，IEEE802.11n: 144Mbps (Maximum)			
Security	Support 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 WIFI: 1 x antenna	Cellular: 2 x antennas 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℃			
Storage Temperature	-40~+85℃			
Relative Humidity	95% (non-condensing)			

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

Dimension (mm)



Order Information

Model	Description
IWR202	4G(CAT-4), 2 x SIM, 1 x RS232, 1 x RS485, 1 x DI, 1 x DO, 2.4G WIFI, 1 x Cellular Antena, 1 x WIFI Antenna
IWR202-C1	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
IWR202-C6	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
IWR202-5R	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
IWR202-GNSS	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 Antena, 1 x WIFI Antenna, 1 x GPS Antenna
IWR202-ESIM	4G(CAT-4), 2 x eSIM, 1 x RS232, 1 x RS485, 1 x DI, 1 x DO, 2.4G WIFI, 1 x Cellular Antena, 1 x WIFI Antenna