

# Industrial Router IWR405



## Introduction

IWR405 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, 4 x Ethernet LAN, 1 x Ethernet WAN/LAN, 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

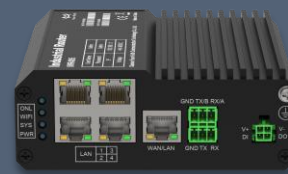
- ▶ EMC Level 3 and above, with strong anti-interference capability
- ▶ Dual SIM card design with complete dropout prevention mechanisms, ensuring the data terminal is always online
- ▶ Ethernet interface with 1.5KV electromagnetic isolation protection
- ▶ RS232/RS485 interfaces with 1.5KV ESD protection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



Standard & Convenience

- ▶ Provides standard RS232 and RS485 ports for direct connection to serial devices
- ▶ 4 x 100M Ethernet ports (POE optional) 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	IWR405	IWR405-5R
Items	Contents	
<b>Standard and Band</b>	<b>LTE FDD:</b> B1/3/5/7/8/20/28 <b>LTE TDD:</b> B38/40/41 <b>WCDMA:</b> B1/5/8 <b>GSM/GPRS/EDGE:</b> 850/900/1800MHz	<b>5G NR SA:</b> 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 <b>LTE FDD:</b> B1/2/3/4/5/7/8/12/13/14/17/18/19/20/25/26/28/30/66/70/71 <b>LTE TDD:</b> B34/38/39/40/41/42/43/48
<b>Bandwidth</b>	<b>LTE FDD</b> 150Mbps DL, 50Mbps UL <b>LTE TDD</b> 130Mbps DL, 30Mbps UL <b>WCDMA:</b> 384Kbps DL, 384Kbps UL	<b>5G SASub-6:</b> 223Mbps DL, 123Mbps UL <b>LTE:</b> 195Mbps DL, 105Mbps UL
Hardware System		
Items	Contents	
<b>CPU</b>	Industrial-grade CPU	
<b>Flash</b>	32MB	
<b>DDR3</b>	128MB	

**Note: The supported frequency band varies according to the version of the selected region**

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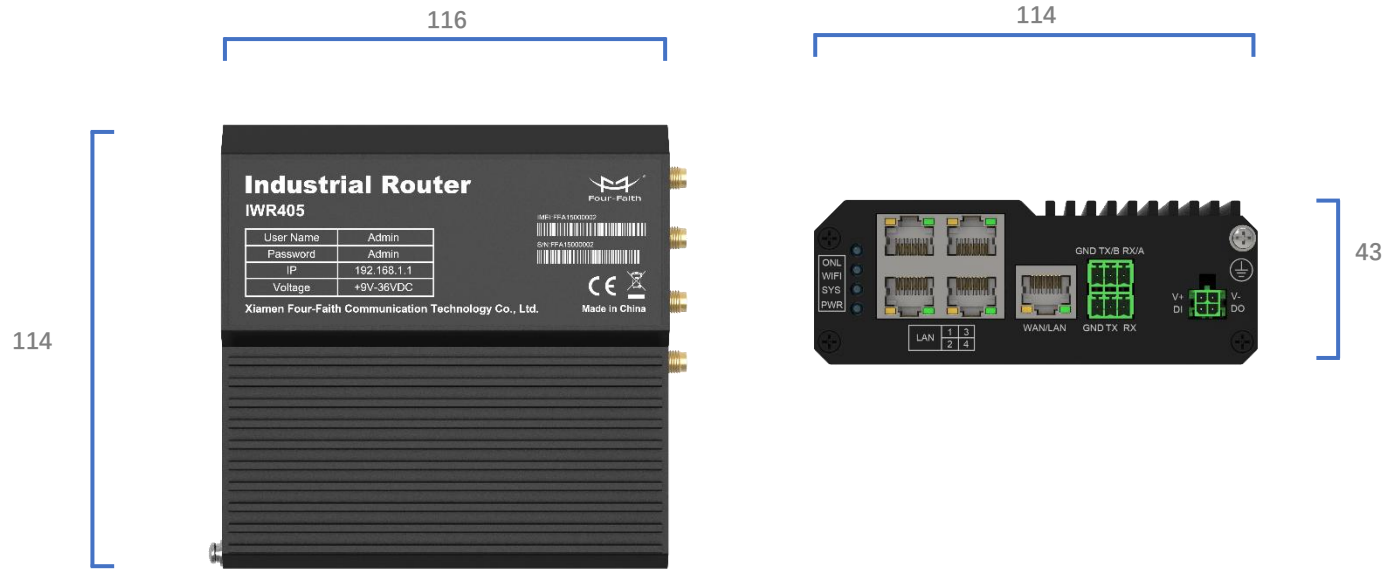


WIFI Specification		
Product	IWR405	IWR405-5R
Items	Contents	
Standard and Band	IEEE802.11b/g/n, 2.4G	
Bandwidth	IEEE802.11b/g: 54Mbps (Maximum), IEEE802.11n: 144Mbps (Maximum)	
Security	Support WEP, WPA, WPA2 and other encrypt methods	
Transmit Power	15 ± 2dBm	
Sensitivity	< -72dBm @ 54Mbps	
Interfaces		
Items	Contents	
WAN/LAN Interface	1 x 10/100M RJ45 ethernet port, adaptive MDI/MDIX, built-in 15KV ESD (Support Passive POE)	
LAN Interface	4 x 10/100M RJ45 ethernet port, adaptive MDI/MDIX, built-in 15KV ESD, POE optional	
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	Standard: Cellular: 2 x antennas, WIFI: 1 x antenna GPS Version: Cellular: 1 x antenna, WIFI: 1 x antenna, GPS: 1 x antenna	
SIM/UIM Slot	2 x Standard 2FF SIM card slot or 2 x eSIM (Optional)	
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	116*114*43mm Excluding antennas and other accessories	
Weight	456.9g	
Operating Temperature	-40~+75°C	
Storage Temperature	-40~+85°C	
Relative Humidity	95% (non-condensing)	

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## Dimension (mm)



114

116

114

43

## Order Information

Model	Description
IWR405	4G, 1 x 100M WAN/LAN (Passive POE), 4 x 100M LAN, 2 x SIM, 1 x RS232, 1 x RS485, 1 x DI, 1 x DO, 2.4G WIFI
IWR405-5P	4G, 1 x 100M WAN/LAN (Passive POE), <b>4 x 100M LAN(POE)</b> , 2 x SIM, 1 x RS232, 1 x RS485, 1 x DI, 1 x DO, 2.4G WIFI
IWR405-GP	4G, 1 x 100M WAN/LAN (Passive POE), 4 x 100M LAN, 2 x SIM, 1 x RS232, 1 x RS485, 1 x DI, 1 x DO, 2.4G WIFI, <b>GPS</b>
IWR405-5R	<b>5G Redcap</b> , 1 x 100M WAN/LAN (Passive POE), 4 x 100M LAN, 2 x SIM, 1 x RS232, 1 x RS485, 1 x DI, 1 x DO, 2.4G WIFI
IWR405-ES	4G, 1 x 100M WAN/LAN (Passive POE), 4 x 100M LAN, <b>2 x eSIM</b> , 1 x RS232, 1 x RS485, 1 x DI, 1 x DO, 2.4G WIFI