

Four-Faith

Industrial Router

IWR405

4G | 5G 5G Redcap | eSIM | PoE | RS232 | RS485 | Dual-SIM | WIFI

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**	
Standard and Band	**LTE FDD:** B1/3/5/7/8/20/28 **LTE TDD:** B38/40/41 **WCDMA:** B1/5/8 **GSM/GPRS/EDGE:** 850/900/1800MHz	**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
	Note: The supported frequency band varies according to the version of the selected region	
Bandwidth	**LTE FDD** 150Mbps DL, 50Mbps UL **LTE TDD** 130Mbps DL, 30Mbps UL **WCDMA:** 384Kbps DL, 384Kbps UL	**5G SASub-6:** 223Mbps DL, 123Mbps UL **LTE:** 195Mbps DL, 105Mbps UL
Hardware System		
Items	**Contents**	
CPU	Industrial-grade CPU	
Flash	32MB	
DDR3	128MB	

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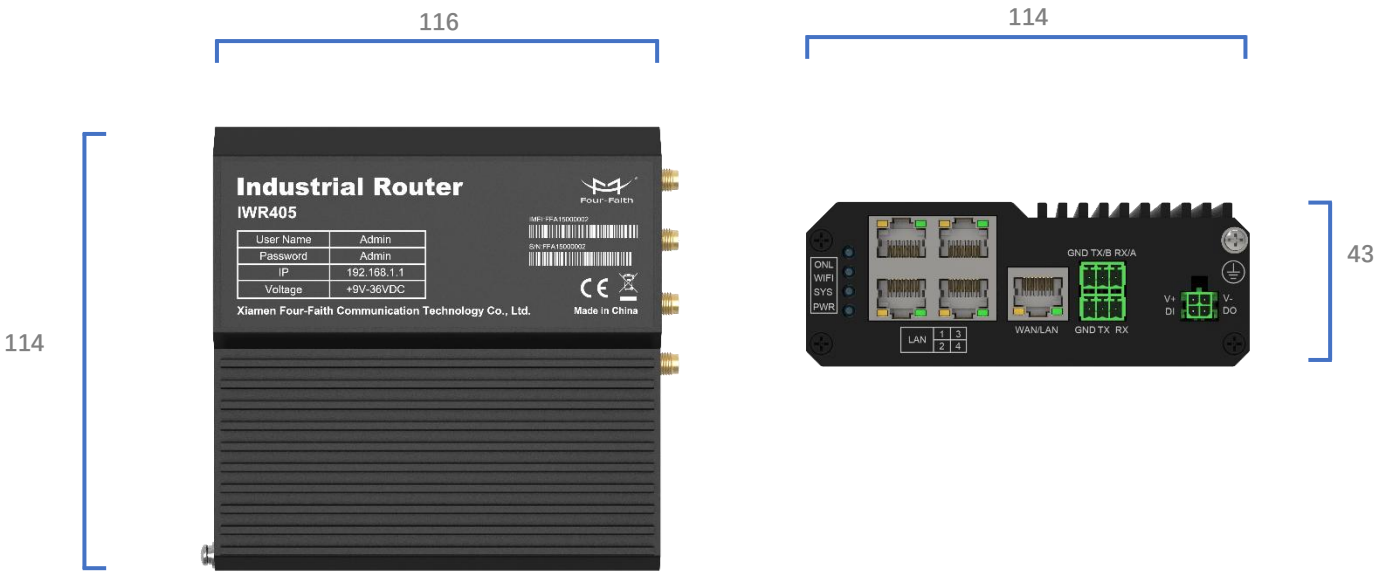


WIFI Specification		
Product	IWR405	IWR405-5R
Items	Contents	
Standard and Band	IEEE802.11b/g/n，2.4G	
Bandwidth	IEEE802.11b/g: 54Mbps (Maximum)，IEEE802.11n: 144Mbps (Maximum)	
Security	Support WEP, WPA, WPA2 and other encrypt methods	
Transmit Power	15 ± 2dBm	
Sensitivity	< -72dBm @ 54Mbps	
Interfaces		
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℃	
Storage Temperature	-40~+85℃	
Relative Humidity	95% (non-condensing)	

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Dimension (mm)



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),**4 x 100M LAN(POE)**, 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, **GPS**
IWR405-5R	**5G Redcap**, 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, **2 x eSIM**, 1 x RS232, 1 x RS485, 1 x DI, 1 x DO, 2.4G WIFI