



## Industrial 5G Router

### ZR9000 Series

#### Introduction

ZR9000 is a wireless communication router for the Internet of Things (IoT), it uses a high-performance industrial level 32-bit communication processor and wireless module, embedded with the real-time operating system as the software platform, and using 3G/4G/5G cellular network to provide users with wireless long-distance large data transmission function.



#### Industrial-grade Design

- ▶ High performance industrial-grade wireless communication module
- ▶ High performance industrial grade 32-bit MIPS processor
- ▶ Use plate metal CRS shell, heat dissipation is good
- ▶ Low power consumption and low heat generation
- ▶ Support Desktop or Wall mount installation
- ▶ Wide power input range:7.5V~32V DC



#### Stability&Reliability

- ▶ Hardware and Software WDT design
- ▶ Built-in 1.5KV electromagnetic isolation protection for Ethernet interface
- ▶ Always keep online, reboot automatically if disconnected to ensure continual connection
- ▶ RS232/RS485(optional)interface power and data isolation



#### Cloud platform remote management

- ▶ Remote online monitoring
- ▶ Parameter configuration
- ▶ Equipment upgrade or reboot
- ▶ log query, parameter backup



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- Failover, Backup and Load balance between WAN and Cellular network
  - Multiple WAN connection methods, include Static IP/DHCP/PPPOE
  - Support VPN client: PPTP, L2TP, IPSec, OPENVPN, N2N, GRE
  - Support DHCP, DDNS, Firewall, NAT, and DMZ host
  - Support ICMP, TCP/IP, UDP, Telnet, SSH, FTP, HTTP, HTTPS network protocol
  - Support scheduled reboot
- High Performance**
- Support QOS, UPnP protocol, Port forwarding, UDP broadcast relay
  - Serial port offer Data Transfer Unit(DTU) function
  - Support APN and VPDN private network access
  - WIFI Support 802.11b/g/n. Support AP/Client/Routing/Repeat Mode
  - Support Modbus TCP &Modbus RTU and SNMP industry protocol

## Product Specification

### cellular Parameter

Wireless Module	Industrial-grade wireless communication module 5G NR: n1/n2/n3/n5/n7/n8/n20/n28/n41/n66/n71/n77/n78/n79
Frequency	LTE:B1/B2/B3/B4(66)/B5(18/19/26)/B7/B8/B12(17)/B13/B14/B20/B25 /B26/B28/B29/B30/B38/B39/B40/B41/B42/B43/ B46/ B48/B71
Theoretical Bandwidth	5G NR: DL 3.4Gbps, UL 350Mbps LTE Cat20: DL 2.0Gbps, UL 150Mbps HSPA+: DL 42Mbps, UL 5.76Mbps
Transmit Power	<23dBm
Receiving Sensitivity	<-109dBm

### WIFI Parameter

Frequency	Support IEEE802.11b/g/n, 2.4G, support AP mode Support IEEE802.11ac, 2.4G, support AP mode IEEE802.11b/g: 54Mbps
Bandwidth	IEEE802.11n: 300Mbps IEEE802.11ac: 866Mbps
Security Encryption	Support WEP, WPA, WPA2 and other encryption methods

Transmit Power	16-17dBm(11g),18-20dBm(11b),15dBm (11n)
Receiving Sensitivity	<-72dBm@54Mbps

### Hardware

CPU	Industrial-grade 32-bit MIPS processor,880Mhz
Memory	16MB Flash,256MB DDR3 RAM



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## Interfaces

WAN	1 x 1000M Eth M12 port, auto adapt MDI/MDIX, built in 1.5KV ESD
LAN	14x 1000M Eth M12 port, auto adapt MDI/MDIX, built in 1.5KV ESD
Serial Port	1xRS232(default)/RS485(optional) Baud rate : 110-115200bit/s
Indicators	"PWR", "WIFI", "WAN", "LAN1", "LAN2", "LAN3", "LAN4", "SIM1", "SIM2"
Antenna	Cellular: 4 x SMA female, characteristic impedance 50 ohms WIFI: 4 x SMA female, characteristic impedance 50 ohms (GPS optional)
SIM/UIM	Standard drawer type(2 x SIM slot), 1.8V/3V SIM/UIM,15KV ESD protection
Power	Standard 3.5mm terminal block interface, with built-in phase-reversal and over-voltage protection
Reset Button	Restore the router's parameter configuration to factory values

## Power Supply

Standard	DC12V/1.5A
Range	7.5V-32V
Consumption	2.3W

## Physical Characteristics

Housing	Metal IP30
Dimensions	152×100×25mm
Weight	About 670g((Does not include antenna and mounting parts))
Mounting	Desktop or wall mounting

## Environmental

Operating Temperature	-30~+75°C
Storage Temperature	-40~+85°C
Relative Humidity	0% to 95% (No condensation)



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## Network Diagram



## Order Information

Model	Description
ZR9721S	Cellular (5G NR), 2.4G/5G WIFI, SIM*2



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