# Industrial 4G Router

ZR2000 Series

ZLWL®

Introduction

ZR2000 Series is an industrial cellular router with embedded intelligent software features that are designed for multifarious M2M/IoT applications. Supporting global WCDMA and 4G LTE, ZR2000 Series provides drop-in connectivity for operators and makes a giant leap in maximizing uptime.

Adopting high-performance and low-power consumption industrial grade CPU and wireless module, ZR2000 Series is capable of providing wire-speed network with low power consumption andultra-small package to ensure the extremely safe and reliable
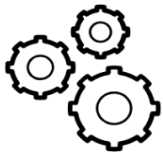
Industrial-grade Design

- ▶ 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 mornitoring
- ▶ Parameter configuration
- ▶ Equipment upgrade or reboot
- ▶ log query, parameter backup

Industrial 4G Router ZR2000 Series

▶ 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, EOIP

▶ Support SNMP, ICMP, TCP/IP, UDP, Telnet, FTP, HTTP, HTTPS network protocol

▶ Support scheduled reboot

▶ Support QOS, DMZ,Port forwarding, DDNS,Repeater,Static NAT,firewall, link

High Performance

▶ Serial port offer Data Transfer Unit(DTU) function

▶ Support Modbus RTU/TCP, Serial Passthrough,MQTT Protocol

▶ Support APN and VPDN private network access

▶ WIFI Support 802.11b/g/n/. Support AP/Client/Routing/Repeat Mode

▶ Built-in network traffic monitoring and diagnostic tool for easy

Product Specification

cellular Parameter	
Wireless Module	Industrial-grade wireless communication module
Standard Frequency	Refer to the catalog(Global bands,customized.)
Theoretical Bandwidth	FDD LTE:150(DL)/50(UL)Mbps | FDD LTE:112(DL)/10(UL)Mbps HSPA+:5.76/21Mbps
Transmit Power	2.3W
Receiving Sensitivity	<-109dBm
WIFI Parameter	
Frequency	Support IEEE802.11b/g/n, 2.4G, support AP & STA mode
Security Encryption	Support WEP, WPA, WPA2 and other encryption methods
Transmit Power	16-17dBm(11g),18-20dBm(11b),15dBm (11n)
Receiving Sensitivity	<-72dBm@54Mpbs
Hardware	
CPU	Industrial-grade 32-bit MIPS processor,650Mhz
Memory	16 MB Flash, 128MB DDR3 RAM

Industrial 4G Router ZR2000 Series

Interfaces

WAN	1xEthernet interface,Auto MDI/MDIX, built-in 1.5KV electromagnetic isolation protection,can be converted to LAN
LAN	1xEthernet interface（RJ45）,Auto MDI/MDIX, built-in 1.5KV electromagnetic isolation protection
Serial Port	1xRS232(default)/RS485(optional), Baud rate:
Serial Port Parameter	Baud Rate: 110~115200bps; Data bit: 6~8; Stop bit:1~2; Flow Control: None; Parity: None, Odd, Even, Mark, Space
Indicators	"WAN", " LAN", "WLAN", "NET" four indicating lamps, the "NET" is a color indicator (red: network signal is poor; Orange: network signal is general; green: network signal is good)
Antenna	2 standard SMA antenna interface (WIFI and 3G/4G), 50ΩSMA, GPS(optional)
SIM/UIM	Standard drawer type user card interface ,Support 1.8V/3V SIM/UIM card built-in 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/1A
Range	7.5V-32V
Consumption	2.3W

Physical Characteristics

Housing	Metal
Dimensions	95.5×70.5×25mm(3.75x2.77x0.98in)
Weight	About 430g
Mounting	Desktop or wall mounting

Environmental

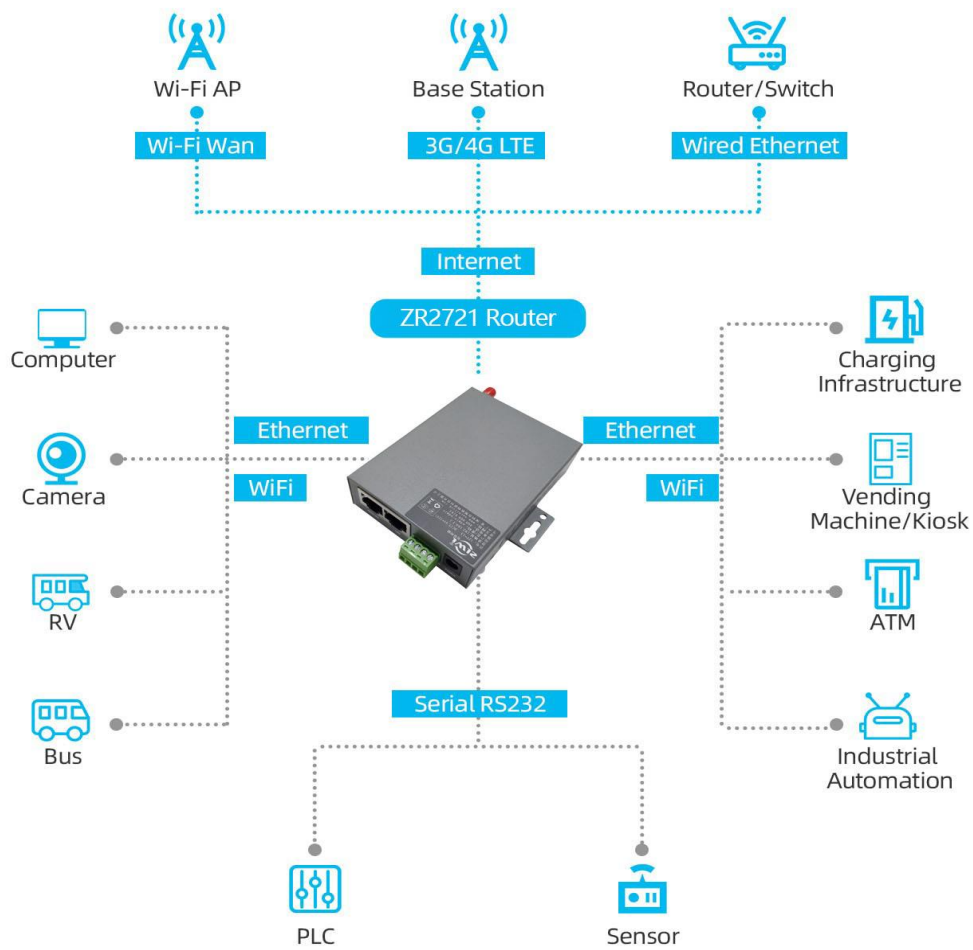|	
Operating Temperature	-30~+75℃
Storage Temperature	-40~+85℃
Relative Humidity	0% to 95% (No condensation)

ZR2000 Structure diagram
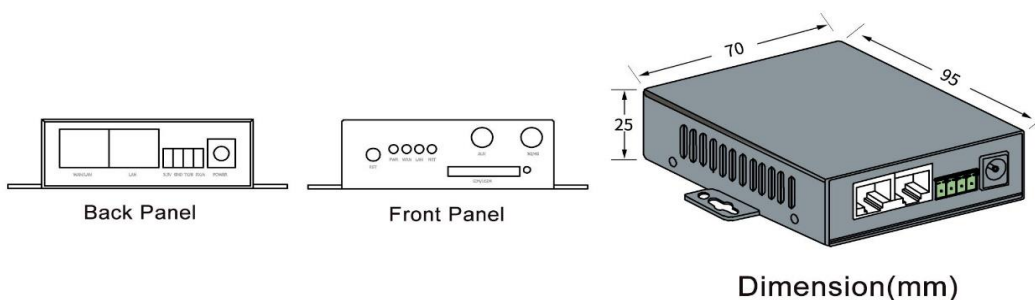
Back Panel

Front Panel

Dimension(mm)

Network Diagram

Networking

Wi-Fi AP	Base Station	Router/Switch
Wi-Fi Wan	3G/4G LTE	Wired Ethernet

Internet

ZR2721 Router

Computer	Charging Infrastructure
	Ethernet
Camera	Vending Machine/Kiosk
	WiFi
RV	ATM
Bus	Industrial Automation

Serial RS232

PLC	Sensor

Order Form

Series	Model	Fruquency Band	Applicable Countries
ZR2000	ZR2721S (WIFI) ZR2720S (No WIFI)	TDD-LTE:B38/B39/B40/B41 FDD-LTE:B1/B3/B5/B8 UMTS:B1/B8 TD-SCDMA:B34/B39 EVDO:BC0 CDMA1x:BC0 GSM:B3/B8 GSM:B2/B3/B5/B8	Mainland China
	ZR2721E (WIFI) ZR2720E (No WIFI)	LTE FDD: B1/B3/B7/B8/B20/B28A LTE TDD: B38/B40/B41 WCDMA: B1/B8 GSM: B3/B8	Europe/Middle Asia/Africa/Korea/Thailand/India
	ZR2721N (WIFI) ZR2720N (No WIFI)	1.FDD:B2/4/5/12/13/17/B18/B25/26 TDD:B41 WCDMA:B2/4/5 EVDO:BC0/1 GSM:850/1900 2.LTE FDD: B2/B4/B5/B12/B13/B14/B66/B71 WCDMA: B2/B4/B5	North America
	ZR2721A (WIFI) ZR2720A (No WIFI)	FDD:B1/3/5/7/8/28 TDD:B40 WCDMA:B1/5/8 GSM:850/900/1800/1900	Australia/New Zealand/Taiwan
	ZR2721V (WIFI) ZR2720V (No WIFI)	FDD:B2/4/5/7/8/28 TDD:B40 WCDMA:B2/5/8 GSM:850/900/1800/1900	Latin America
	ZR2721G (WIFI) ZR2720G (No WIFI)	LTE-TDD: B34/B38/B39/B40/B41 LTEFDD:B1/B2/B3/B4/B5/B7/B8/B12/B13/B18/B19/B20/B25/B26/B28/B66 UMTS/HSPA+ :B1/B2/B4/B5/B6/B8/B19 GSM/GPRS/EDGE:850/900/1800/1900MHz	Global