



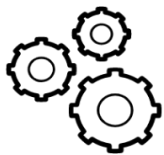
Industrial 4G Router

IR1000 Series

Introduction

IR1000 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, IR1000 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, IR1000 Series is capable of providing wire-speed network with low power consumption and ultra-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 monitoring
- ▶ Parameter configuration
- ▶ Equipment upgrade or reboot
- ▶ log query, parameter backup



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High Performance

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

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 mode
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,580Mhz
Memory	16MB Flash,64MB DDR2 RAM



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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+1x RS485
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&5Vtype port&2Pin terminal block 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	90×70×26mm
Weight	About 260g
Mounting	Desktop or wall or Din-rail mounting

Environmental

Operating Temperature	-30~+70°C
Storage Temperature	-40~+80°C
Relative Humidity	0% to 95% (No condensation)



Din-rail
mounting



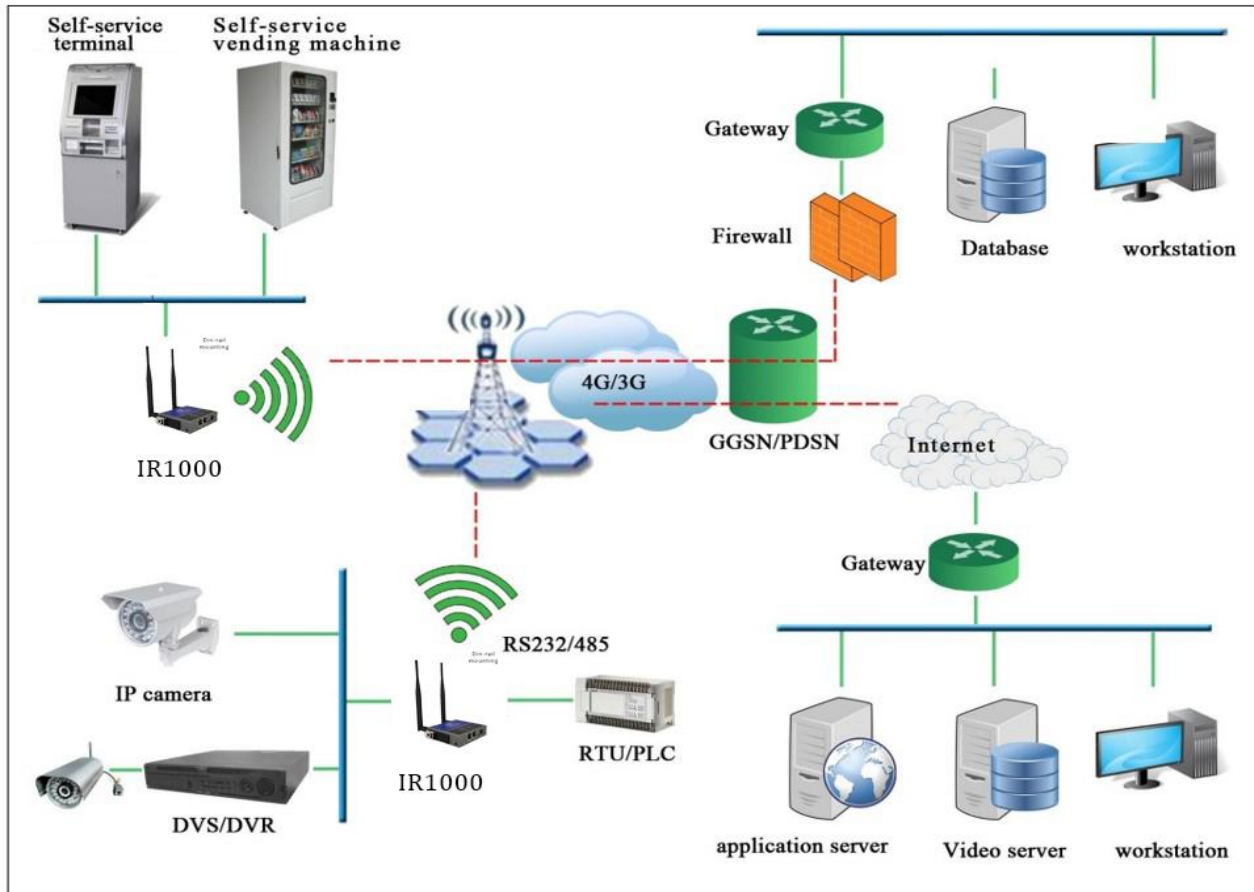
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Network Diagram



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Industrial 4G Router IR1000 Series



Catalog

Series	Model	Frequency Band	Applicable Countries	Specification
IR1000	ZR1721S (Wifi) ZR1720S (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	WiFi:IEEE802.11b/g/n Frequency 2.4Ghz EthernetPort:RJ45,1x10/100Mbps WAN+1x10/100Mbps LAN Serial Port:RS232+RS485(DTU) 1 Sim card slot(Nano card) Support VPN protocol SupportDHCP,DDNS,firewall,NAT,DMZ Support strong WDT, self-recovery, schedule reboot function, keeping always online Antenna:1x3dBi 4G Antenna(SMA),1x3dBi WiFi Antenna
	ZR1721E (Wifi) ZR1720E (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	
	ZR1721N (Wifi) ZR1720N (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	
	ZR1721A (Wifi) ZR1720A (No Wifi)	FDD:B1/3/5/7/8/28 TDD:B40 WCDMA:B1/5/8 GSM:850/900/1800/1900	Australia/New Zealand/Taiwan	
	ZR1721V (Wifi) ZR1720V (No Wifi)	FDD:B2/4/5/7/8/28 TDD:B40 WCDMA:B2/5/8 GSM:850/900/1800/1900	Latin America	
	ZR1721G (Wifi) ZR1720G (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	Globe	



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