# WL-R230 4G Router

Industrial 4G LTE Cat4/Cat6 Router

As an upgraded version of our best-selling R210 Industrial cellular router, R230 professional IIoT router maintains its compact and rugged construction, secure and reliable performance, cost-effective price, based on high quality module and state-of-the-art CPU processor, but offers more functionalities. Its rich interfaces including Dual SIM slot, Ethernet 100Mpbs, RS232/485 serial and I/O ports allow users to connect various devices to the Internet.

The R230 performs auto-failover between wired and wireless WAN to ensure uninterrupted connectivity. Users can easily manage thousands of R230 with Wlink RMS, which is a cloud-based system for easy setup, remote monitoring, mass configuration and maintenance. In addition, the R230 is eSIM supported, making it easier to switch from one carrier to another. All these advantages make the R230 an ideal choice for heavy-duty IIoT / M2M applications including remote monitoring, industrial automation, building automation, fleet management, precision farming, oil fields, industrial tanks, water treatment and construction. It is designed to withstand harsh environments and handle a wide temperature range from sub-zero freezing environment to sweltering desert heat.
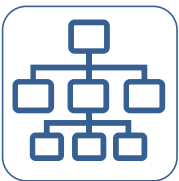
Extensive Interfaces, Enabling Flexible Expansion
Multiple interfaces, including Gigabit Ethernet, RS-232, RS-485, DI/DO. IP-based PLC communication, with support for IPv6, and plug-and-play terminals. GPS tracking and Storage is option to be added on R320.
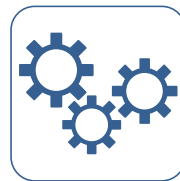
High performance, Industrial-Grade Design
Fan-free design, Robust housing and a wide operating temperature range (−40°C to 70°C). Resilient against strong magnetic interference. Dual power supplies for redundancy, isolated input, and a wide voltage range (9V DC to 60V DC).

Secure and Reliable Network
Support robust security features, such as Multiple VPN – IPSec/OpenVPN/DMVPN/ WireGuard/ ZeroTier/ GRE/PPTP/L2TP, NAT, port forwarding, a stateful firewall and packet filtering, data encryption, Access Control List (ACL) and provide secure, reliable communications.

Easy to and deploy and mount
Support various of mounting way includes DIN Rail Mount, Rack Mount and Desktop etc.
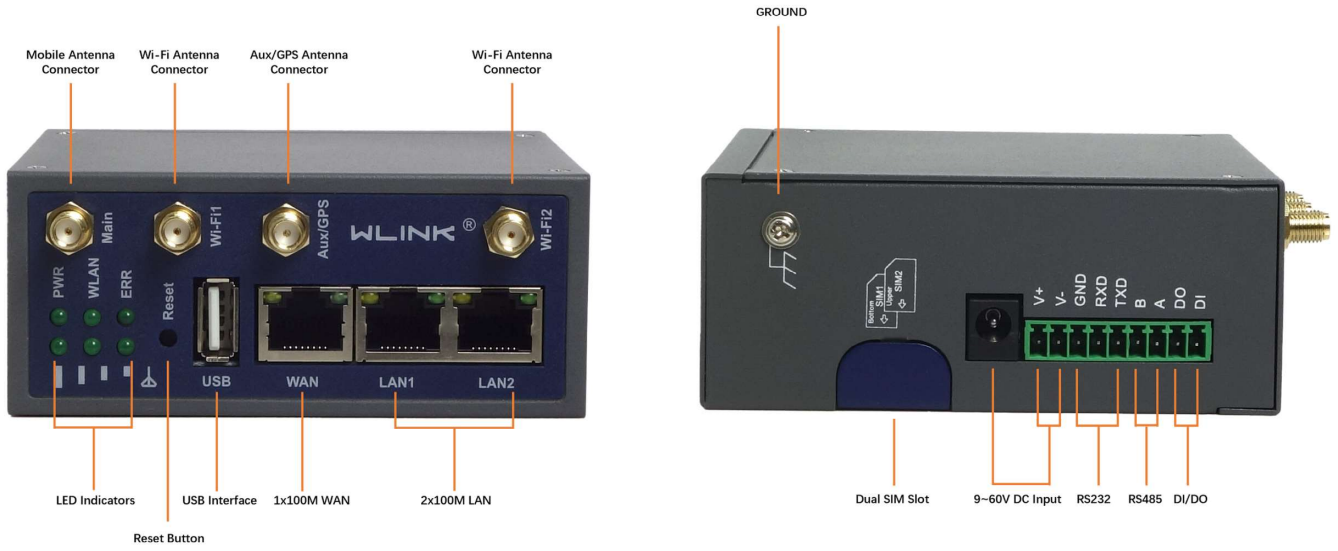
Various Network Protocol
Supports Modbus RTU, TCP, HTTPS, MQTT, TR-069, SNMPv3 and IPv6 protocol, make the router satisfy with different network demand.
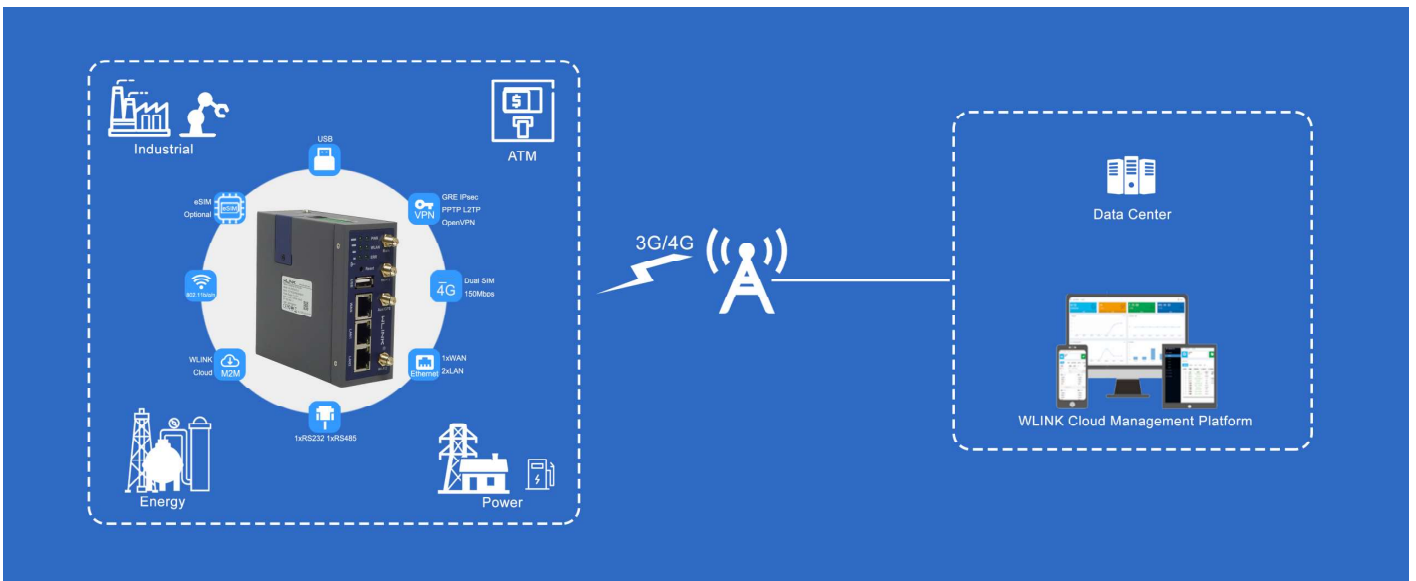
eSIM optional
Flexible choice for different carriers, making it easier to switch from one carrier to another.

Interface Diagram

Top interface (front panel):
- Mobile Antenna Connector
- Wi-Fi Antenna Connector
- Aux/GPS Antenna Connector
- Wi-Fi Antenna Connector
- GROUND

Main | Wi-Fi1 | Aux/GPS | Wi-Fi2

WLINK ®

PWR WLAN ERR | Reset | USB | WAN | LAN1 LAN2

- LED Indicators
- Reset Button
- USB Interface
- 1x100M WAN
- 2x100M LAN

Side interface:
- Dual SIM Slot
- 9~60V DC Input
- RS232
- RS485
- DI/DO

SIM1 Upper / SIM2 Bottom

V+ V- GND RXD TXD B A DO DI

Typical Application

- Industrial
- ATM
- USB
- eSIM Optional
- GRE IPsec PPTP L2TP OpenVPN
- 802.11b/g/n
- 4G Dual SIM 150Mbps
- WLINK Cloud M2M
- 1xWAN 2xLAN Ethernet
- 1xRS232 1xRS485
- Energy
- Power
- 3G/4G
- Data Center
- WLINK Cloud Management Platform

Specification

Physical

Network	LTE-A/LTE/LTE CAT1 HSPA/WCDMA/UMTS EDGE/GPRS	**Hardware System**	MIPS 580MHz CPU 256Mb Flash 1024Mb DDR2 RAM Hardware Watchdog 16~256GB Storage Optional eSIM Optional
Interface	3x 10/100M Ethernet Port (2x LAN, 1x WAN Configurable) 1x RS232(TTL Optional), 1x RS485 1x USB 3x IO 2x SIM Slots 1x DC Power Socket(DC5.5*2.1mm) 1x DC(2 Pins plugs) 2x SMA-K(Female) 4G Antenna, 2x SMA-RP Wi-Fi Antenna 1x Reset	**GPS(Optional)**	GPS Sensitivity: -160dBm GPS Accuracy: 2.5m CEP Update Rate: 1Hz@5Hz Time to First Fix: Cold Status 27s, Hot status 1s. Protocol: NMEA-0183 2.3V
LED Indicators	PWR Signal WLAN ERR LAN (LAN1, LAN2, WAN)	**Wi-Fi(Optional)**	IEEE 802.11 b/g/n 300Mbps(2T2R) Output Power 11n HT40 MCS7: 15dBm, 11b CCK: 18dBm, 11g OFDM: 15dBm Sensitivity 300Mbps: -65dBm 54Mbps: -73dBm 11Mbps: -86dBm
Consumption	Voltage: DC +9~60V (standard 12V/1.5A power adapter) SIM/R-UIM Card: 1.8V/3V Idle: 160mA@+12VDC Online: 255mA@+12VDC	**Other**	Galvanized metal with grounding Screw Dimension: 102mm x 100mm x 42mm (not including antenna) Weight: 350g (not including accessories) Operation temperature: -30~+75℃ Store temperature: -40~+85℃ Related humidity: 0~95% (non-condensing) Guarantee: two years
Compliance	FCC CE RoHS CCC	**Package Content**	1x WL-R230 Router 2x Wi-Fi antenna 2x 4G Magnetic antenna 1x Ethernet Cable 1x Power Supply Adapter 1x Din-rail Kit

Software

Operating System	WLINK OS based Linux	**Firewall**	SNAT/DMZ Port Forwarding IP Filter Mac Filter Key Word Filter Domain Name Filter
Network Protocol	IPv4/v6, PPPoE, UDP, TCP, ICMP, NTP, DHCP, Modbus, HTTP/HTTPS, UPNP, SNMPv3, TR069, DDNS,Telnet/SSH, MQTT	**Network Monitoring**	Ethernet Ports Status ICMP Check Traceroute Data Capture Bandwidth Graph Data Traffic Graph System Debugging Log
VPN	CRE Tunnel Zerotier VPN Wireguard VPN Client and Sever supported OpenVPN: TLS1.2, Encryption as DES, RC2, BF,3DES, CAST5,AES,SEED 45 encryption methods PPTP/L2TP: Client mode, L2TPv3 supported IPSec: GRE Over IPsec, L2TP over IPsec, Two tunnels Failover, IKEv1, IKEv2, DES, 3DES, AES128, AES192, AES256 multiple encryption methods supported. DMVPN: mGRE, NHRP, IPsec	**Network Features**	Dual-SIM Failover WAN/4G Failover Serial Port Client/Server Applications AT command over IP VRRP VLAN IP Passthrough Bandwidth Management Static Routing/Policy Routing RIPV2/OSPF/BGP Dynamic Routing
Router Management	Local/Remote GUI Telnet/SSH SNMP v3/TR069 USB Troubleshooting, configuration and upgrade firmware WLINK M2M Management Platform	**WLAN Mode**	IEEE 802.11b/g/n, AP, Wireless Client and Ethernet Bridge modes WiFi usersup to 128 simultaneous connections Wi-Fi Hotspot Wireless Black/White List Multi-SSID WPA Personal WPA2 Personal WPA/WPA2 Personal AES, TKIP, Auto Cipher modes

Ordering Information

Partial Order Number List

Part No.	4G/4G+	3G	SIM	Category	DL	UL	WiFi	Region	GPS/GNSS
WL-R230-LA	FDD-LTE: B1/B3/B5/B7/B8/B20 TDD-LTE: B38/40/41	B1/B5/B8	Two	Cat4	150M	50M	802.11b/g/n	Asia Europe Africa	
WL-R230-LA-g									√
WL-R230-LFX	FDD-LTE: B1/B3/B7/B8/B20/B28A TDD-LTE: B38/40/41	B1/B8	Two	Cat4	150M	50M	802.11b/g/n	Asia Europe Africa	
WL-R230-LFX-g									√
WL-R230-LF	FDD-LTE: B1/B3/B5/B7/B8/B20 TDD-LTE: B38/40/41	B1/B5/B8	Two	Cat4	150M	50M	802.11b/g/n	Asia Europe Africa	
WL-R230-LF-g									√
WL-R230-LF1	FDD-LTE: B1/B2/B3/B4/B5/B7/B8/B28 TDD-LTD: B40	B1/B2/B5/B8	Two	Cat4	150M	50M	802.11b/g/n	Australia Brazil	
WL-R230-LF1-g									√
WL-R230-LF2	FDD-LTE: B2/B4/B5/B12/B13/B14/B66/B71	B2/B4/B5	Two	Cat4	150M	50M	802.11b/g/n	North America FirstNet	
WL-R230-LF2-g									√
WL-R230-LF3	FDD-LTE B2/B4/B5/B12/B17	B1/B6/B8/B19	Two	Cat4	150M	50M	802.11b/g/n	Japan	
WL-R230-LF3-g									√
WL-R230-LG	LTE-FDD: B1/2/3/4/5/7/8/ 12/13/18/19/20/25/26/28 LTE-TDD: B38/39/40/41	B1/B2/B4/B5/ B6/B8/B19	Two	Cat4	150M	50M	802.11b/g/n	Global	
WL-R230-LG-g									√
WL-R230-LF6	FDD-LTD: B1/B3/B5/B7/B8/B20/B28/B32 TDD-LTD: B38/ B40 /B41	B1/B3/B5/B8	Two	Cat6	300M	50M	802.11b/g/n	Asia Europe Africa Australia	
WL-R230-LF6-g									√
WL-R230-LF7	FDD-LTD: B2/B4/B5/B7/B12/B13/ B17/B25/B26/B29/B30/B66 TDD-LTD: B40	B2/B4/B5	Two	Cat6	300M	50M	802.11b/g/n	America	
WL-R230-LF7-g									√

Note:
1. If request other frequency band model, please consult wlink sale person or local distributor.
2. Please consult WLINK or local distributor if request GPS or Storage.
3. Please cosnult WLINK or local distributor if request special features
4. The above list only includes partial available models, please consult wlink sale person if can't find a suitable one.