

# WLINK<sup>®</sup>

## WL-R230 4G Router

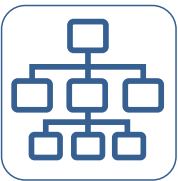
### Industrial 4G LTE Cat4/Cat6 Router



As an upgraded version of our best-selling R210 industrial cellular router, the R230 professional IIoT router retains its compact and rugged design, secure and reliable performance, and cost-effective pricing. Built with a high-quality module and a state-of-the-art CPU processor, it also introduces enhanced functionalities. Its versatile interfaces, including dual SIM slots, 100Mbps Ethernet, RS232/485 serial ports, and I/O ports, enable seamless connectivity for a wide range of devices to the Internet.

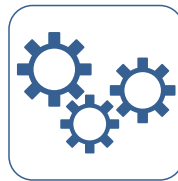
The R230 features auto-failover between wired and wireless WAN to ensure uninterrupted connectivity. Users can efficiently manage thousands of R230 devices through Wlink RMS, a cloud-based platform designed for easy setup, remote monitoring, mass configuration, and maintenance. Additionally, the R230 supports optional eSIM functionality (not default), simplifying carrier switching. These features make the R230 an ideal solution for demanding IIoT and M2M applications, such as remote monitoring, industrial automation, building automation, fleet management, precision farming, oil fields, industrial tanks, water treatment, and construction.

Engineered to endure harsh environments, the R230 operates reliably across a wide temperature range, from sub-zero freezing conditions to extreme desert heat.



#### Extensive Interfaces, Enabling Flexible Expansion

Variety of interfaces, including Ethernet, RS-232, RS-485, and DI/DO ports. It supports IP-based PLC communication and plug-and-play terminals for effortless setup. Optional GPS tracking and storage expansion further enhance its capabilities. The USB port provides flexibility for upgrades, configuration, and log exporting, ensuring adaptability to evolving needs.



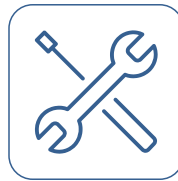
#### High performance, Industrial-Grade Design

Built to thrive in demanding environments, the R230 features a fan-free design, robust housing, and an impressive operating temperature range of -40°C to 70°C. It excels in resilience, withstanding strong magnetic interference and offering dual power supplies for redundancy. Its isolated input and wide voltage range ensure reliable performance in even the toughest conditions.



#### Secure and Reliable Network

Advanced security features, including support for multiple VPN protocols such as IPSec, OpenVPN, DMVPN, WireGuard, ZeroTier, GRE, PPTP, and L2TP. It also incorporates NAT, port forwarding, a stateful firewall, and packet filtering to safeguard your network. With data encryption, Access Control Lists (ACL), and robust access controls.



#### Easy Deployment and Mounting

Designed for versatility, the R230 supports multiple mounting options, including DIN rail, rack, and desktop configurations. Whether in industrial settings or remote locations, installation is quick and hassle-free.



#### Support for Various Network Protocols

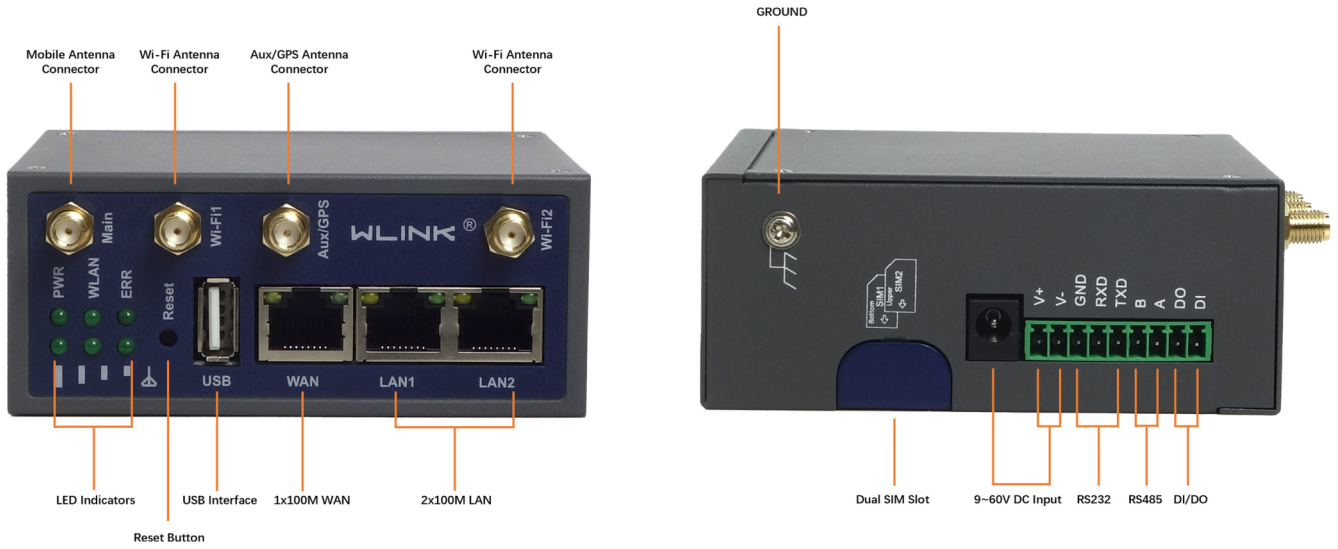
Compatible with a wide range of protocols, including Modbus RTU/TCP, HTTPS, MQTT, TR-069, SNMPv3, and IPv6. This versatility ensures seamless integration into diverse network environments, meeting the unique demands of your applications.



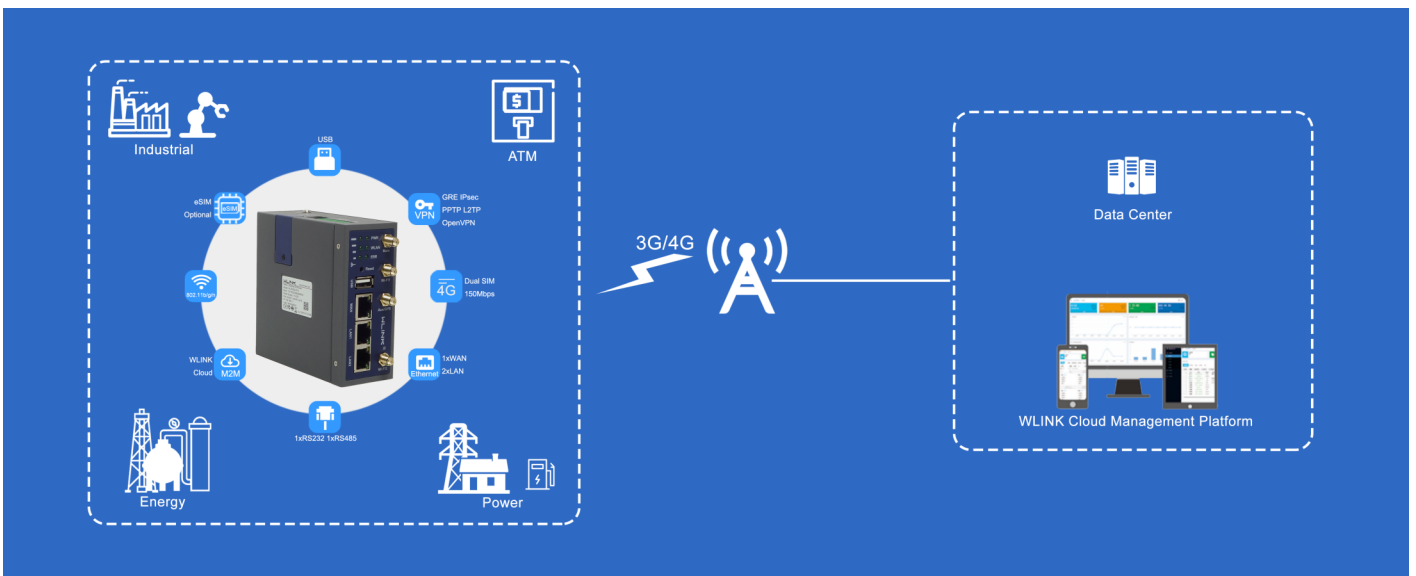
#### Optional eSIM for Enhanced Flexibility

With optional eSIM support, the R230 offers the freedom to switch carriers effortlessly. This feature provides greater flexibility and convenience, making it an ideal choice for global deployments.

# Interface Diagram



# Typical Application



## Specification

### Physical

<b>Network</b>	LTE-A/LTE/LTE CAT1 HSPA/WCDMA/UMTS EDGE/GPRS	<b>Hardware System</b>	MIPS 580MHz CPU 256Mb Flash 1024Mb DDR2 RAM Hardware Watchdog 16~256GB Storage Optional eSIM Optional
<b>Interface</b>	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	<b>GPS(Optional)</b>	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
<b>LED Indicators</b>	PWR Signal WLAN ERR LAN (LAN1, LAN2, WAN)	<b>Wi-Fi(Optional)</b>	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
<b>Consumption</b>	Voltage: DC +9~60V (standard 12V/1.5A power adapter) SIM/R-UIM Card: 1.8V/3V Idle: 160mAh+12VDC Online: 255mAh+12VDC	<b>Other</b>	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
<b>Compliance</b>	FCC CE RoHS CCC	<b>Package Content</b>	1x WL-R230 Router 2x Wi-Fi antenna 2x 4G Magnetic antenna 1x Ethernet Cable 1x Power Supply Adapter 1x Din-rail Kit

### Software

<b>Operating System</b>	WLINK OS based Linux	<b>Firewall</b>	SNAT/DMZ Port Forwarding IP Filter Mac Filter Key Word Filter Domain Name Filter
<b>Network Protocol</b>	IPv4/v6, PPPoE, UDP, TCP, ICMP, NTP, DHCP, Modbus, HTTP/HTTPS, UPNP, SNMPv3, Tr069, DDNS, Telnet/SSH, MQTT	<b>Network Monitoring</b>	Ethernet Ports Status ICMP Check Traceroute Data Capture Bandwidth Graph Data Traffic Graph System Debugging Log
<b>VPN</b>	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	<b>Network Features</b>	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
<b>Router Management</b>	Local/Remote GUI Telnet/SSH SNMP v3/TR069 USB Troubleshooting, configuration and upgrade firmware WLINK M2M Management Platform	<b>WLAN Mode</b>	IEEE 802.11b/g/n, AP, Wireless Client and Ethernet Bridge modes WiFi users up 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									
WL-R230-LA-g								Africa	
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	√
WL-R230-LFX-g								Europe	
								Africa	
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	√
WL-R230-LF-g								Europe	
								Africa	
WL-R230-LF1	FDD-LTE: B2/B4/B5/B12/B13/B14/ B66/B71	B1/B2/B5/B8	Two	Cat4	150M	50M	802.11b/g/n	Australia	√
WL-R230-LF1-g								Brazil	
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	√
WL-R230-LF2-g								America	
								FirstNet	
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	√
WL-R230-LF6-g								Europe	
								Africa	
								Australia	
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 wink sale person or local distributor.
2. Please consult WLINK or local distributor if request GPS or Storage.
3. Please consult WLINK or local distributor if request special features
4. The above list only includes partial available models, please consult wink sale person if can't find a suitable one.

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