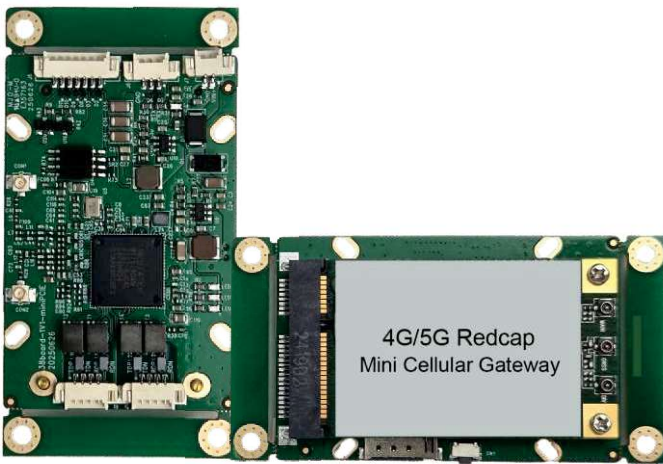


# WLINK<sup>®</sup>

## WL-ER120 4G/5G Router

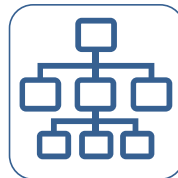


WL-ER120 is a compact, high-performance embedded 5G RedCap/4G router designed to address key challenges in size, weight, and power consumption. WL-ER120 is equipped with two 100Mbps Ethernet ports, two IO ports, and one TTL serial port, providing users with a stable data connection. In addition, ER120 also supports SIM card expansion to meet customer requirements for SIM card installation. Both Wi-Fi hotspot and GNSS functions are optional. ER120, as an embedded router, is an ideal choice for IP cameras, fleet tracking, remote healthcare, CNC, and access management applications.



### Compact Design

Small footprint and low-power operation make the WL-ER120 easy to integrate into existing systems.



### Versatile Connectivity

Multiple interfaces including Ethernet, TTL, IO, and SIM expansion interfaces. IP-based PLC communication, with support for IPv6, and plug- and-play terminals. 802.11b/g/n Wi-Fi and GNSS tracking are optional.



### Secure and Reliable Network

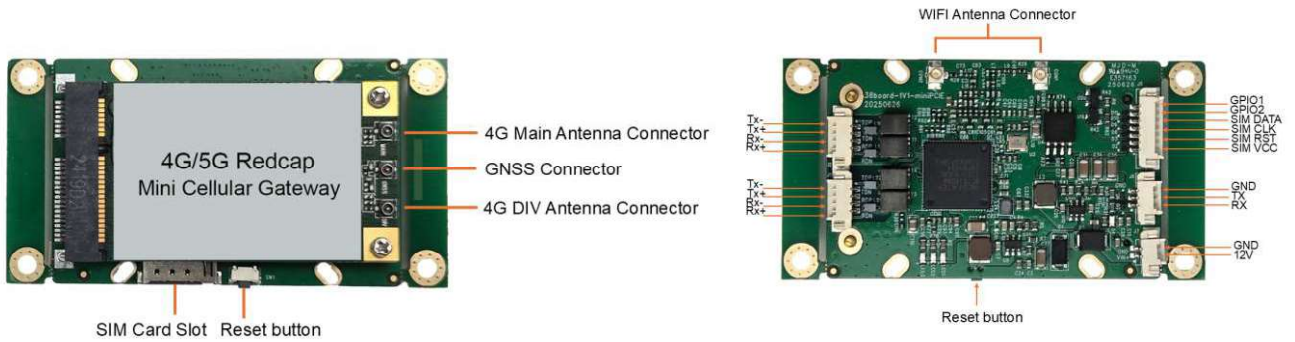
Support robust security features, such as Wireguard, Zerotier, PPTP/L2TP, OpenVPN, IPsec, Port forwarding, a stateful firewall and packet filtering, data encryption, Access Control List (ACL)



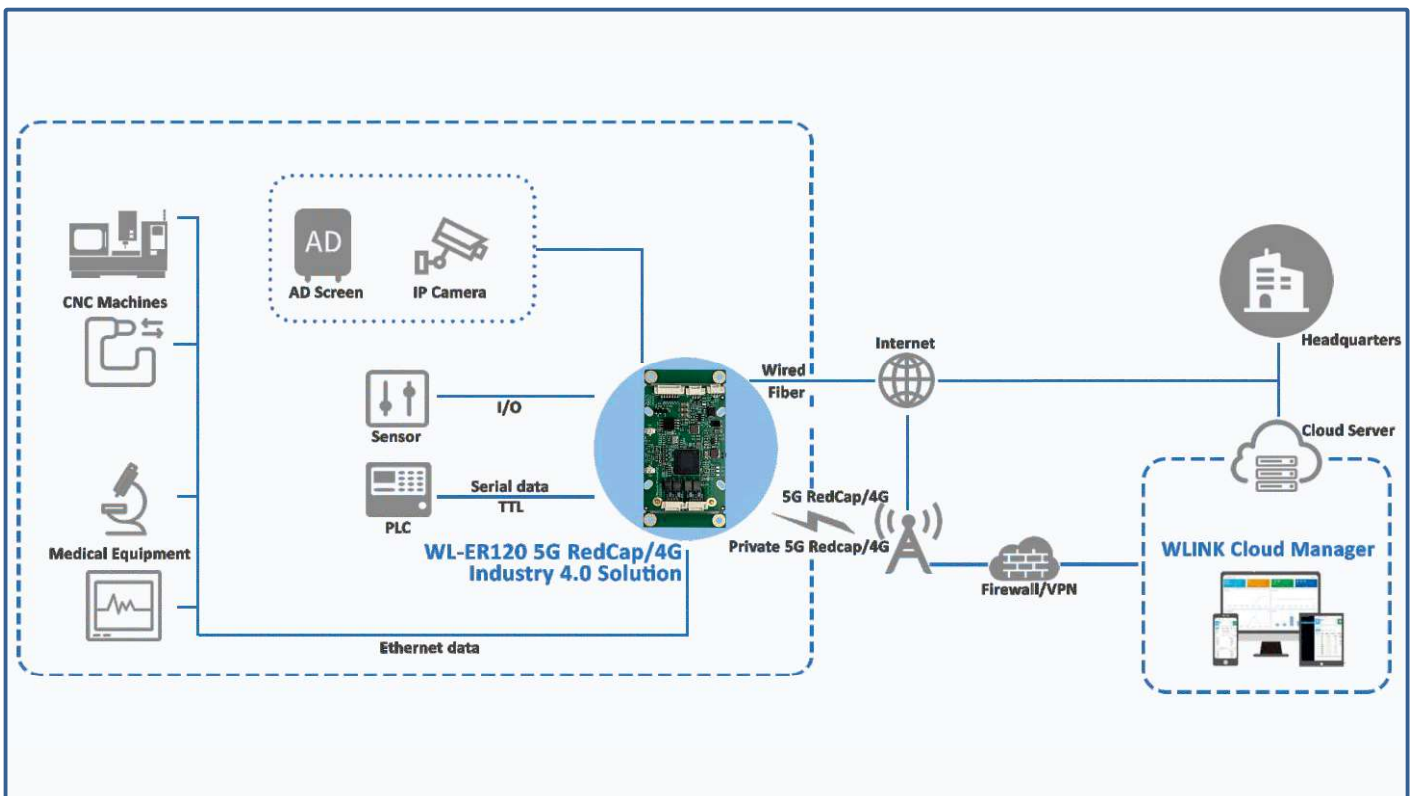
### Cloud-Based Platform Management

ER120 can be managed via a cloud management platform which provide easy setup, centralized configuration, network analysis and maintenance of large installations.

## Interface Diagram



## Typical Application



# Specification

Physical			
<b>Network</b>	5G RedCap/LTE-A/LTE/LTE CAT1 HSPA/WCDMA/UMTS EDGE/GPRS	<b>Hardware System</b>	MIPS 580MHz CPU 128Mb Flash 512Mb DDR2 RAM Hardware Watchdog
<b>Interface</b>	2x 10/100M Ethernet Port (4Pins,1.35mm) 1x TTL 2x IO 1x Nano SIM Socket(4Pins Expansion,1.35mm) 1x DC Power Socket(2Pins,1.35mm) 2x SMA-K(Female) 4G Antenna, 2x SMA-RP Wi-Fi Antenna(Optional) 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 Indicator</b>	PWR LAN1~2 NET	<b>WLAN(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 +5V~24V SIM/R-UIM Card: 1.8V/3V Idle: 160mA@+12VDC Online: 255mA@+12VDC	<b>Others</b>	Galvanized metal with grounding Screw Dimension: 58mm x38mm x 10.8mm (not including antenna) Weight: 23g (not including accessories) Operating temperature: -30°C to +75°C Storage temperature: -40°C to +85°C Relative humidity: 0%~95% (non-condensing) Guarantee: two years
<b>Compliance</b>	FCC, CE, RoHS, CCC	<b>Package</b>	1x WL-ER120 Router 2x 4G Magnetic antenna 1x Ethernet cable (4-pin to 4-pin, 1.35mm)
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>	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 WLINK M2M Management Platform	<b>WLAN</b>	IEEE 802.11b/g/n, AP, Wireless Client and Ethernet Bridge modes WiFi user 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

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