



# Industrial 4G WiFi Router 2-Port Single-SIM

**GP-R520 Series**



INDUSTRIAL NETWORK SOLUTION SPECIALIST  
[WWW.GPSENKE.COM](http://WWW.GPSENKE.COM)



# Introduction

GP-R520 series is an industrial-grade 4G WiFi router with high-adaptability, high-reliability and high-stability. It supports FDD-LTE, TDD-LTE, WCDMA(HSPA+), CDMA2000(EVDO), TD-Scdma 3G/4G mobile network. GP-R550 series provide 1\*Gigabit LAN ports, 1\*Gigabit WAN port, 1\*485/232 and WIFI interface.

GP-R520 series industrial 4G WiFi router widely used in finance, postal, smart grid, charging piles, self-service equipment, intelligent transportation, environmental monitoring, fire monitoring, security monitoring, water conservancy monitoring, public safety, advertising, industrial control, seismic monitoring, meteorological monitoring, instrument monitoring and other industries.

## Main Feature

### Industrial Design

- Adopt High-performance industrial-grade 4G module
- Adopt high-performance industrial-grade 32bit MIPS Processor
- Power supply: +7.5V~+32V DC
- Adopt sheet metal cold-rolled steel shell, which has strong heat dissipation
- Protection Level : IP40 (Can be designed up to IP51)

### Platform Manage

- Support Online Monitoring
- Support Remote Parameter Backup
- Support Remote Parameter Configuration
- Support Remote Device Upgrades
- Support Remote Reboot and Log Query

## Network Feature

- Support Port Traffic Detection
- Support Real-time Link Monitoring
- Support serial port DTU function
- Support MQTT Protocol/Modbus protocol
- Support GPS Positioning (optional function)
- Support Port forwarding, DMZ, and static NAT

## Network Function

- Support 4G network and backward compatible with 3G/2G
- Support Dual-Modular/Dual-SIM load balancing, link backup, link aggregation
- Support WiFi IEEE802.11b/g/n protocol
- Support standard RS-232/485 serial port and supports serial port DTU
- Support hardware WDT and provide anti-drop mechanism
- Support multiple VPN protocols.
- Support DHCP, DDNS, firewall, NAT, and DMZ host functions
- Support ICMP, TCP, UDP, Telnet, SSH, FTP, HTTP, HTTPS, Modbus and etc Network function
- Support SNMP Management Protocol
- Support Reboot

## Stable & Reliable

- ESD protection for all interfaces to prevent electrostatic shocks
- Multiple device self-test mechanisms ensure smooth links and alarms
- Support network signal strength indicator display in three levels
- Adopt software and hardware watchdog and multi-level link detection mechanism
- Support automatic fault detection and automatic recovery to ensure the stable and reliable operation of the equipment.

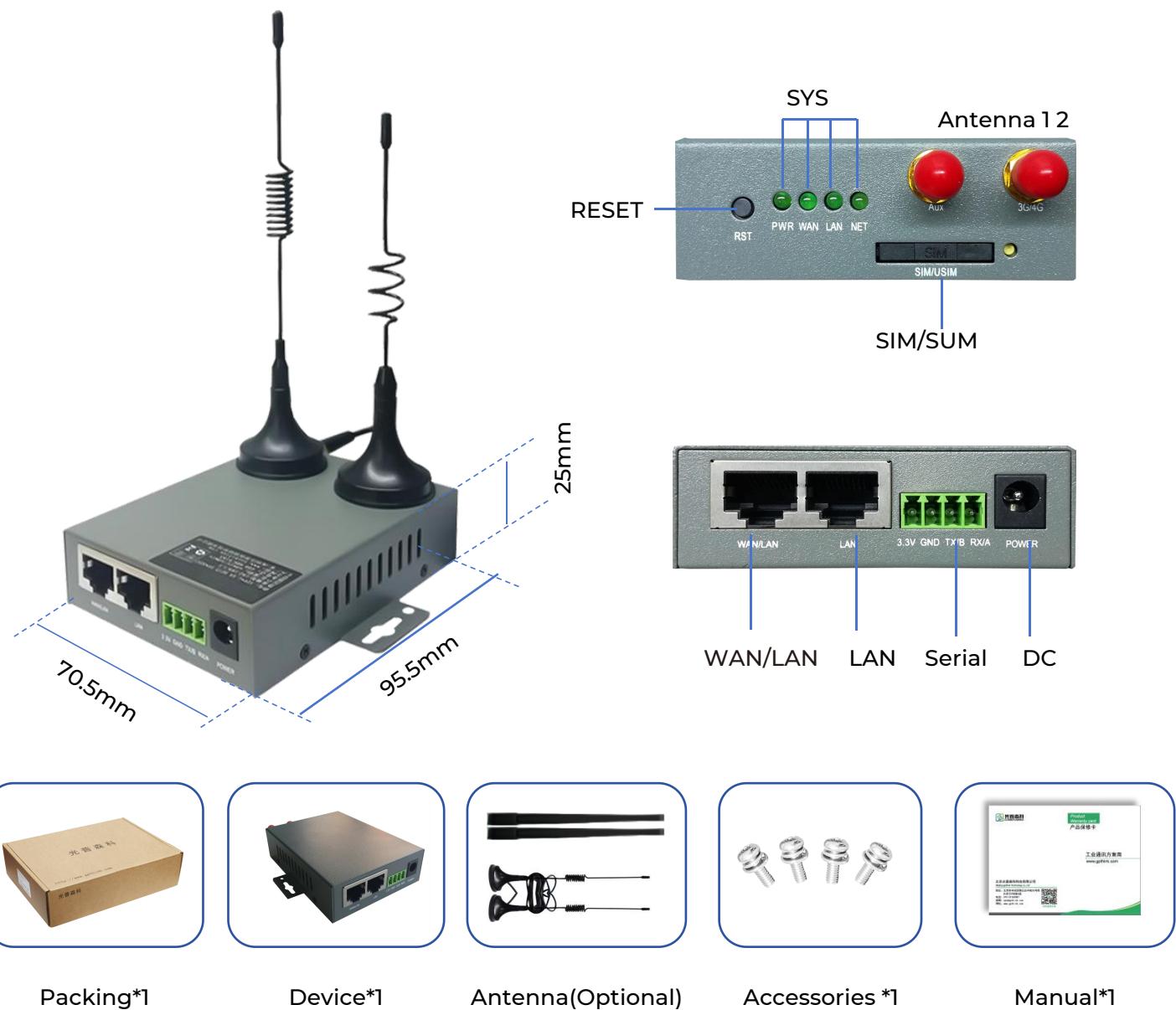
## Software Parameter

|          |                       |  |
|----------|-----------------------|--|
| Function | Working Mode          | Wired/Wireless/Compatible Mode   |
|          | WiFi                  | AP/ Client Mode  |
|          | Router                | Support PPPOE/ staticIP/ dynamicIP   |
|          | Serial Server         | Support DTU Transmission<br>Support TCPserver/TCPclient<br>Support UDP<br>Support Modbus Protocol  |
|          | VPN                   | GRE, PPTP, L2TP, IPsec, EOIP, openVPN, N2N   |
|          | Management            | Local Deploy/Remote Deploy   |
|          | Extended Function     | Support GPS Positioning <b>【Optional】</b><br>Support internal storage expansion, 2GB-32GB <b>【Optional】</b>  |
|          | Wireless Module       | Industrial-grade 4G module   |
| 4G       | Frequency             | FDD-LTE (Band1/3/5   B1/3/5/7/8/20   B2/4/5/12/13/17/25/26)<br>TDD-LTE (Band38、Band39、Band40、Band41)<br>HSPA (850/900/1900/2100MHz) /GSM850/900/1800/1900MHz<br>EV-DO (800MHz) 、 TD-Scdma (Band34、 Band39) |
|          | Theoretical Bandwidth | FDD/TDD LTE: UL 50Mbps/DL 100Mbps<br>HSPA+: UL 5.76Mbps/DL 21Mbps<br>EVDO: UL 1.8Mbps/DL 3.1Mbps   |
|          | Consumption           | 2.3W   |
|          | Receiving Sensitivity | -108dBm@10MHzQPSK  |
| WiFi     | Frequency             | Support IEEE802.11 b/g/n   |
|          | Rate                  | 2.4G : 150Mbps (Optional)  |
|          | Security Encryption   | Support WEP, WPA, WPA2 and other encryption methods<br>WPS Optional  |
|          | Transmit Power        | 16-17dBm (11g) , 18-20dBm (11b) 15dBm(11n)   |
|          | Receiving Sensitivity | <-72dBm@54Mbps   |
|          | GPS                   | Optional   |

## Hardware Parameter

|                             |   |   |
|-----------------------------|---|---|
| Size                        | 95.5mm × 70.5mm × 25mm  |   |
| Weight                      | 210g  |   |
| Port                        | WAN   | 1 x Eth port, Auto adapt MDI/MDIX, Built in 1.5KV ESD                     |
|                             | LAN   | 1 x Eth port, Auto adapt MDI/MDIX, Built in 1.5KV ESD                     |
|                             | Serial Server   | Support RS-232/RS485 (Default RS-232)                                     |
|                             | Indicator   | “PWR”、“WAN”、“LAN”、“NET”   |
|                             | Antenna   | 1× SMA Female Antenna (3G/4G Antenna Port)<br>1×Aux/GPS (Optional)        |
|                             | SIM/UIM   | Standard Drawer Type(1 x SIM slot)<br>1.8V/3V SIM/UIM,15KV ESD protection |
| Reset Button                | 1×Reset Button  |   |
| CPU                         | 650MHz Dual-Core  |   |
| FLASH                       | 16MB  |   |
| RAM                         | 128MB   |   |
| Working/Storage Temperature | -40°C ~ 80°C/-45°C ~ 85°C   |   |
| Working/Storage Humidity    | 5%~95% (non-Condensation)   |   |
| IP Protection               | IP40 Protection, Electromagnetic shielding, windproof, sunproof, shockproof and heat dissipation design |   |
| Power                       | DC7.5V~32V (Standard: DC12V/1.5A)<br>Built-in power supply instantaneous overvoltage protection         |   |

## Appearance & Accessories



Packing\*1

Device\*1

Antenna(Optional)

Accessories \*1

Manual\*1

## Model Selection

| Model     | GP-R520-232 | GP-R520-W-232 | GP-R520-485 | GP-R520-W-485 | Custom |
|-----------|-------------|---------------|-------------|---------------|--------|
| 4G-FDD    | ●           | ●             | ●           | ●             | ○      |
| 4G-TDD    | ●           | ●             | ●           | ●             | ○      |
| 2.4G Wifi | -           | ●             | -           | ●             | ○      |
| RS232     | ●           | ●             | ●           | -             | ○      |
| RS485     | -           | -             | ●           | ●             | ○      |

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