

# QX520

Industrial Dual Band Dual SIM Cellular Router  
5 Eth + 2 SIM + 1 RS232/485

# INTRODUCTION

QX520 series industrial cellular router designed for Internet of Things (IoT) and Machine to Machine(M2M) applications, support wide standard frequency bands such as FDD/TDD LTE, WCDMA, HSUPA, HSPA+, EV-DO, GSM, etc.

QX520 platform equipped with high-performance industrial 32-bit Communications Processor, Dual SIM Slot, 5 Ethernet ports, dedicated serial port(RS232/RS485), Wi-Fi interface, embedded LEDE Linux Operating System, provides safe, high-speed, stable, dual SIM backup connection on 3G/4G network . Which widely used in Video Conference, Financial System, Outdoor Live Broadcast, Emergency Command, Exhibition, Industrial Automation, etc.



## KEY FEATURES

### Industrial-grade Design

- High-performance industrial wireless module
- High-performance industrial 32-bit processor
- Support low-consumption mode, including sleep mode, scheduled online/offline mode
- Metal housing, excellent heat dissipation
- Desktop or Wall mount, Protection degree IP41(Max IP51)
- Wide voltage:7.5V~32V DC(Max36V)

### Stable and Reliable

- Hardware and Software WDT and multi-link detection make it self-recovery from unexpected failure and guarantee reliable communication
- ESD protection, avoid Static Electricity Shock
- LED indicators display the status of Wireless network signal

### Network Characteristics

- Port flux detection

- Link real-time monitoring
- Support APN and VPDN private network access
- Multiple VPN protocols: PPTP, L2TP, IPSec, OPENVPN, N2N, GRE
- Serial port offer Data Transfer Unit(DUT) function and support Modbus RTU to TCP.
- Support multi online trigger ways, including ring, SMS, or data trigger
- Support QOS, UPnP protocol
- Port forwarding
- UDP broadcast relay

### Function Characteristics

- Full bands 4G LTE, compatible with 3G/2G WCDMA GPRS, EDGE
- Failover, Backup, bonding and Load balance between Dual SIM and WAN
- Dual SIM card signal bonding enhance network connection, as multiple link data communication
- Various interface: 1xWAN+4xLAN or 5xLAN, RS232/485 serial port
- Wi-Fi radios, support IEEE802.11b/g/n

- Always keep online, reboot automatically if disconnected to ensure continual connection
- Support SNMP management protocol
- Support DHCP, DDNS, Firewall, NAT, and DMZ host
- Support ICMP, TCP, UDP, Telnet, SSH, FTP, HTTP, HTTPS protocol
- Support standard industrial grade SIM/UIM card
- Support scheduled reboot

### Cloud-Based Platform Management

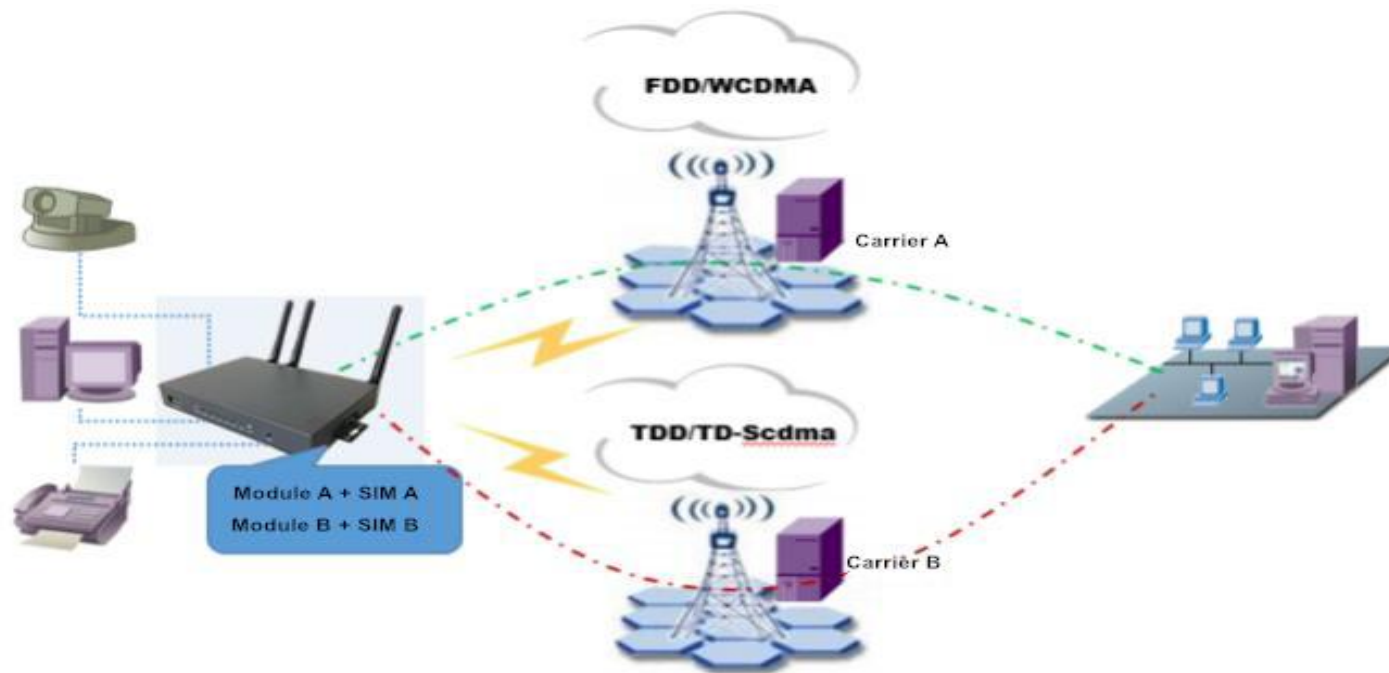
- Remote parameter configuration
- Remote parameter backup
- Remote reboot and log query
- Remote device upgrades
- On-line monitoring

### Extensions

- Support GPS/Beidou positioning (Optional)
- Support WAN port, wired and wireless mutual backup (Optional)
- WiFi advertising (Optional)
- Storage extension, 2GB to 64GB (Optional)

## APPLICATION

|                                  |   |
|----------------------------------|---|
| <b>Retail</b>                    | ATM, POS(Point-of-Sale), Vending Machine, Lottery Machine, Branch network, Digital Signage  |
| <b>Transportation</b>            | Wi-Fi on Board(Bus, Yacht, Train), Vehicle video surveillance, Fleet tracking, Bus Advertising  |
| <b>Energy</b>                    | Digital Oil Field, Coal Mine, Solar, Smart Grid   |
| <b>Smart City</b>                | Charging station, Water conservancy, Traffic, Street lighting, Security monitoring equipment, Guest and employee Wi-Fi, Environment monitoring, Video Surveillance, Smart Parcel Locker, Building and process automation controllers, IP cameras and access controllers |
| <b>Industry &amp; Enterprise</b> | Telco infrastructure controllers, Automation controllers, Remote PLC, Remote AMR, Remote Monitoring and control, Remote data loggers, flow meters and sensing equipment (Telemetry, Tanking, Fire alarm, Meteorological monitoring), remote offices                     |



## SPECIFICATION

|                       |  |
|-----------------------|--|
| <b>Cellular</b>       |  |
| Theoretical Bandwidth | FDD LTE:50/150Mbps HSPA:5.76/21Mbps EVDO:1.8/3.1Mbps                                 |
| Transmit Power        | <24dBm   |
| Receiving Sensitivity | <-109dBm   |
| <b>Wi-Fi</b>          |  |
| Standard              | IEEE802.11b/g/n, Max up to 150Mbps   |
| Security encryption   | WEP, WPA, WPA2, Optional WPS function  |
| Transmit Power        | 16-17dBm(11g), 18-20dBm(11b), 15dBm(11n)   |
| Receiving Sensitivity | <-72dBm@54Mbps   |
| <b>Interface</b>      |  |
| LAN                   | 4×Ethernet interface(RJ45), Auto MDI/MDIX, built-in ESD                              |
| WAN                   | 1×Ethernet interface(RJ45), Auto MDI/MDIX, built-in ESD, WAN can be converted to LAN |
| Serial Port           | 1×RS232(optional RS485)port  |
| LED Indicators        | With "PWR",4×" LAN", "WAN", "WiFi", "SIM1", "SIM2" indicator lamps                   |
| Antenna Interface     | 4 standard SMA antenna interface (2×4G, WIFI, AUX/GPS), 50ΩSMA                       |

|                       |   |
|-----------------------|---|
| SIM/UIM slot          | 2×SIM/UIM card mounting plate to protect falling. 1.8V/3V automatic detection |
| Power Input           | 7.5V-32V(standard DC12V/1A), built-in power transient overvoltage protection  |
| Reset Button          | Reset configuration parameter to default values                               |
| <b>Power Supply</b>   |   |
| Standard power        | DC 12V/1A   |
| <b>Physic</b>         |   |
| CPU                   | 560MHz  |
| Flash/RAM             | 128Mb/512Mb   |
| Shell                 | metal plate shell   |
| Dimension             | 152×104×25mm  |
| Weigh                 | About 425g  |
| <b>Environmental</b>  |   |
| Operating Temperature | -30 to 70°C   |
| Storage Temperature   | -40 to 85°C   |
| Relative Humidity     | < 95% no coagulation  |
| Approval              | CCC,CE  |

## ORDERING INFORMATION (Model: QX520)

| Part Number | Bands   | Region   | Wi-Fi | GPS |
|-------------|---|--|-------|-----|
| QX520-N     | FDD-LTE:B2/4/5/12/13/17/25/26 (1900/1700/850/700/1900MHz)<br>TD-LTE:B41 (2500MHz)<br>WCDMA:B2/4/5 (1900/1700/850MHz)<br>EVDO:BCO/1 (800/1900MHz) ; GSM:850/1900                           | North America  |       |     |
| QX520-NW    |   |  | √     |     |
| QX520-NG    |   |  |       | √   |
| QX520-NWG   |   |  | √     | √   |
| QX520-E     | TDD-LTE:B38/B40/B41 (2600/2300/2500MHz)<br>FDD-LTE:B1/B3/B5/B7/B8/B20 (2100/1800/850/2600/900/800MHz)<br>WCDMA:B1/B5/B8 (2100/850/900MHz)<br>GSM:B3/B8 (1800/900MHz)                      | Europe,Middle<br>East, Africa,Korea,<br>Thailand,Southeast<br>Asia |       |     |
| QX520-EW    |   |  | √     |     |
| QX520-EG    |   |  |       | √   |
| QX520-EWG   |   |  | √     | √   |
| QX520-A     | TDD-LTE:B40 (2300MHz)<br>FDD-LTE:B1/B2/B3/B4/B5/B7/B8/B28 (2100/1900/1800/1700/850/2600/900/700MHz)<br>WCDMA:B1/B2/B5/B8 (2100/1900/850/900MHz)<br>GSM:B2/B3/B5/B8 (1900/1800/850/900MHz) | Australia,New<br>Zealand,Latin<br>America,Taiwan                   |       |     |
| QX520-AW    |   |  | √     |     |
| QX520-AG    |   |  |       | √   |
| QX520-AWG   |   |  | √     | √   |
| QX520-C     | FDD-LTE:B1/B3/B5 (2100/1800/850MHz)<br>TD-LTE:B38/B39/B40/B41 (2600/1900/2300/2500MHz)<br>WCDMA:B1 (2100MHz)<br>TD-SCDMA:B34/B39 (2000/1900MHz); CDMA/EVDO:BCO (800MHz); GSM:900/1800     | China Mainland   |       |     |
| QX520-CW    |   |  | √     |     |
| QX520-CG    |   |  |       | √   |
| QX520-CWG   |   |  | √     | √   |

### Note:

1. If request other frequency band model, please consult sale person
2. Please specify when order if request other optional features