

Technical Specification for SR500 4G Router (2 LAN)



VERSION:V3.0

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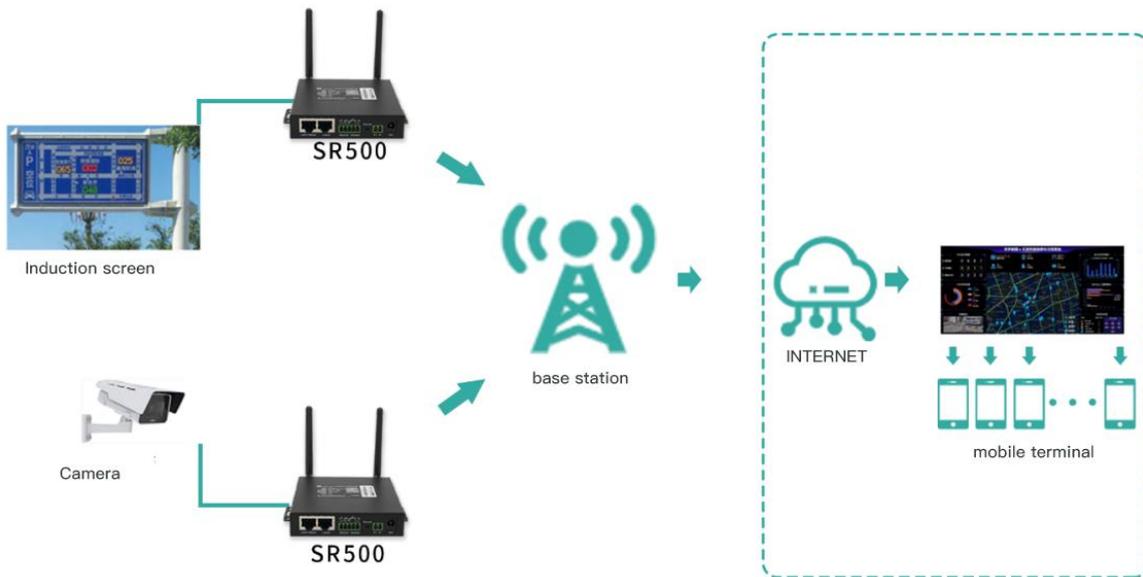
Product Overview

The StarRouter500 LTE Router (SR500) series is an IoT wireless router that integrates 4G networking, Virtual Private Network (VPN), and other cutting-edge technologies into a single device. By leveraging 4G Wireless Wide Area Network (WWAN) and Wi-Fi Wireless Local Area Network (WLAN), it delivers uninterrupted multi-network connectivity, ensuring high-speed, stable data transmission for users.

Product Features

- Supports 4G LTE network with optional Power 1.8 GHz dedicated network
- Supports DIN rail or desktop installation
- Supports GPS/Beidou positioning (optional)
- Supports WLAN(optional)
- Supports Failover between wired and wireless networks
- Supports Dynamic routing: OSPF and RIP
- Supports Policy-based routing with traffic diversion capabilities
- Supports Device status query and reporting for real-time monitoring
- Supports Multiple VLANs (tagged/untagged modes)
- Supports Linux OS for secondary development, with comprehensive development guides provided
- SNMP support and integration with StarCloud Platform (STAR DEVICE MANAGER)
- Multi-VPN protocols: PPTP, L2TP, IPSEC, OpenVPN, GRE, GRE-TAP, VXLAN

Topology Diagram



Technical Parameter

Hardware Performance

Memory	64MB
FLASH	16MB (expandable to 32MB)
WIFI (Optional)	2.4G supports 802.11b/g/n, maximum rate 150Mbps
Network Support	Industrial-grade 4G module, supports seven-mode full network
System Time	NTP technology for time synchronization, with built-in RTC

Interfaces

WAN Port	1 Software-Configurable LAN/WAN Multipurpose Port (10/100Mbps)
LAN Port	1 Auto-MDI/MDIX Ethernet Port (10/100Mbps)
SIM Card Interface	1 (Drawer type card slot, supports 1.8V/3V SIM/UIM cards)
Reset	1 (Reset button)
Antenna Interface	1 main 4G antenna interface with 50Ω impedance and SMA female chassis mount connector 1 multiplexed antenna interface (optional), default-configured for Wi-Fi antenna use (50Ω impedance, SMA chassis mount). It can be switched to a 4G diversity antenna for optional 4G signal enhancement
DC Power	1 (DC power socket 2.1mm inner core)
Power Terminal	1 (2-pin 3.81mm spacing connector)

Serial Port	1 x RS-232 port 1 x RS-485 port 5-pin terminal block with 3.5mm pitch spacing
Indicators	8 power indicators and status indicators (Power, System, LAN1, LAN2, SIM, Online, WIFI, 3G/4G)
Power Characteristics	
Power	External power adapter (12V 1A)
Operating Voltage	Wide power input DC 5-36V (expandable to 5-60V)
Standby Power Consumption	80~100mA@12V DC
Operating Power Consumption	150~250mA@12V DC
Operating Conditions	
Operating Temperature	-35~+75°C (-31~+167°F)
Storage Temperature	-40~+85°C (-40~+185°F)
Operating Humidity	5%~95% (non-condensing)
Device Ventilation	Natural heat dissipation, no noise
Physical Characteristics	
Casing Material	Metal housing
Dimensions	Length * width * height 100 * 100 * 23mm (excluding antenna and installation components)
Installation Methods	Desktop, DIN rail, wall-mounted
Weight	Net weight: 0.32KG (excluding antenna and installation components) Gross weight: 0.65KG (with accessories and packaging box)
Device Safety and Reliability	
Safety and Reliability	Power reverse protection, overvoltage protection, overcurrent protection; Ethernet interface built-in 1.5KV electromagnetic isolation protection; RS232/RS485 interface built-in 15KV ESD protection; SIM/UIM card interface built-in 15KV ESD protection
Protection Level	IP30
Certification	Complies with CCC, Rohs
MTBF	≥100,000 hours
Software Features	
Network Access	Supports APN VPDN
Access Authentication	Supports CHAP/PAP authentication
Network Modes	GSM/GPRS/EDGE,LIMITS/HSPA+/EVDO/TD-SCDMA/TD-LTE/FDD LTE
LAN Protocol	Support ARP,Ethernet
WAN Protocol	Supports static IP, DHCP, PPPoE, PPP
IP Applications	Supports Ping、Trace、 DHCP Server、 DHCP Relay、 DHCP Client、 DNS relay、 DDNS、 Telnet
IP Routing	Supports static routing, dynamic routing protocols (OSPF, RIP), and policy-based routing
NAT Functionality	Supports network address translation

Network Security

Firewall

Full-state packet inspection (SPI), prevent denial of service (DoS) attacks, filter multicast Ping packets, access control lists, URL filtering, port mapping, virtual IP mapping, IP-MAC binding

Data Security

IPsec VPN/L2TP/PPTP/GRE /OPEN VPN

Reliability

Backup Functionality

Supports link backup(failover)

Online Link Detection

Sends heartbeat packets for detection and automatically reconnects when disconnected

Built-in Watchdog

Device self-checking technology, device fault self-repair

WLAN (Optional)

Protocol Standard

IEEE 802.11b/g/n

Rate

Supports 150Mbps

Security Features

Open system, shared key, WPA/WPA2 authentication, WEP/TKIP/AES encryption

Working Modes

AP、 Client Mode(WiFi STA)

Transmission Distance

100m(Actual transmission distance depends on the environment)

Intelligent Features

Integrated DTU Functionality

Supports TCP, UDP transparent transmission mode, TCP Server mode, supports Modbus RTU to Modbus TCP bridge, supports DCUDP, DCTCP mode

Network Management

QoS Management

Supports bandwidth limitation, IP throttling

Configuration Methods

Supports Telnet, Web, SSH, and Console configuration methods

Upgrade methods

Supports Web upgrade, FOTA upgrade method

Logging Functionality

Supports local system logs, remote logs, serial port output logs

Network Management Functionality

Support KEY-IOT Device Manager "Cloud Device Management" platform, batch management

Simple Network Management Protocol(Optional)

Supports SNMP v1, v2, and v3, and SNMP TRAP

Traffic management

Supports traffic threshold setting, traffic statistics, and traffic alert functionality

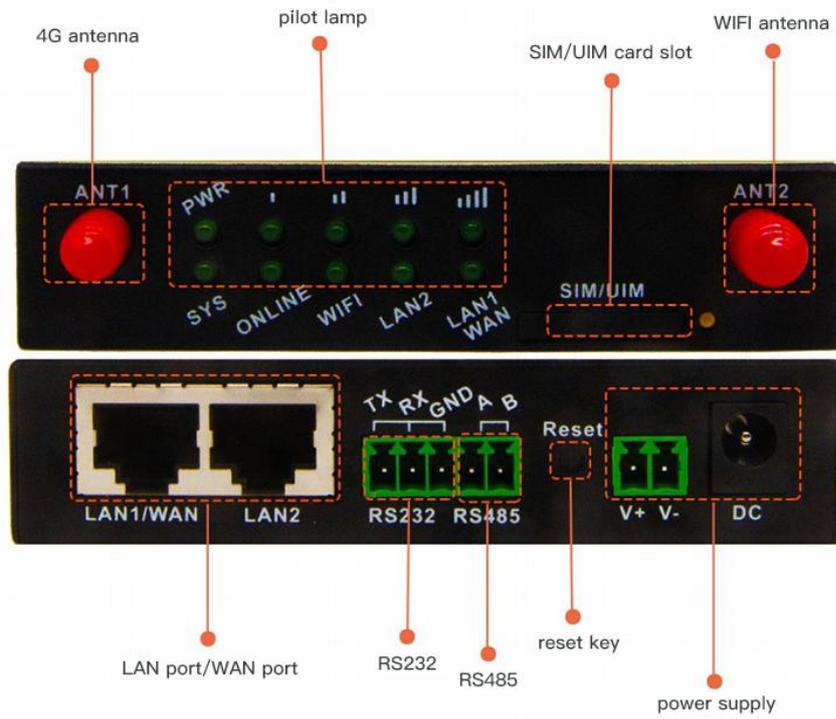
Maintenance Tools

Ping, Traceroute

Status Inquiry

System status, modem status, network connection status, route status

Product Interfaces



Product Interfaces

单位:mm

unit:mm

