Technical Specification SR500 4G Router (2 LAN)

VERSION NUMBER: **V2.3**

XIAMEN KEY-IOT TECHNOLOGY CO., LTD

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Product Overview

      The StarRouter500 LTE ROUTER (SR500) series products are wireless router products for the Internet of Things that integrate 4G networks, virtual private networks, and other technologies. With 4G wide-area wireless networks and Wi-Fi wireless local area networks, this device provides uninterrupted access to various networks, offering users high-speed and stable data transmission channels with comprehensive security and wireless services.

Product Features

- Supports WLAN (optional)

- Supports 2 Ethernet ports

- Supports DIN rail and desktop installation

- Supports wired and wireless backup

- Efficiently completes large-scale device network deployments

- Industrial-grade design, capable of withstanding challenging conditions

- Supports 4G LTE CAT4 high-speed network, optional power 1.8GHz private network

- Supports Linux OpenWrt system, facilitating user secondary development with comprehensive secondary development guides

- Supports various VPN functions: PPTP, L2TP, IPSEC, OPENVPN, GRE, GRETAP, Vxlan, etc

- Supports SNMP and Star Device Manager (Star Cloud) platform for efficient remote centralized network management

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Topology Diagram
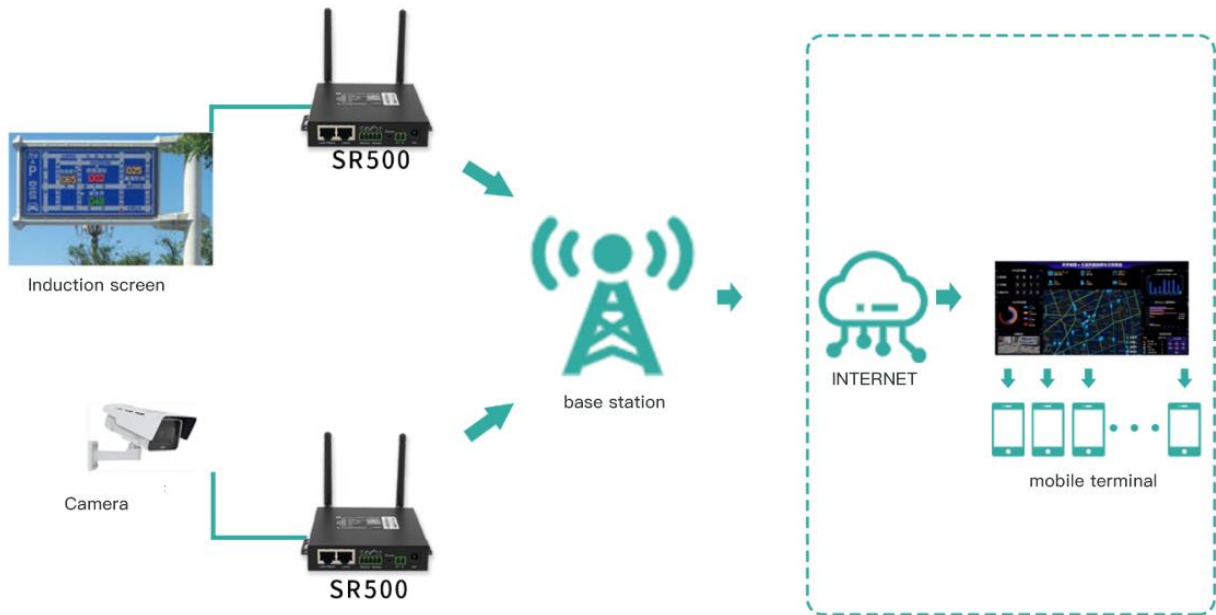
Technical Parameters

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	LAN1 can be configured as 1 WAN port
LAN port	2 (10M/100M adaptive MDI/MDIX ports)
SIM card interface	1 (drawer type card slot, supports 1.8V/3V SIM/UIM cards)
Reset	1 (reset button).
Antenna interface	1 (3G/4G antenna, impedance 50 ohms, SMA female inner hole interface)
	1 (2.4G antenna, impedance 50 ohms, SMA inner hole interface).
DC power	1 (DC power socket 2.1mm inner core)
Power terminal	1 (2-pin 3.81mm spacing connector)
Console	1 (5-pin 3.5mm spacing connector, 1 RS232/1 RS485)

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	150~230mA@12V DC
Operating power consumption	250~310mA@12V DC

Operating Conditions

Operating temperature	-35~+75℃ (-31~+167℉)
Storage temperature	-40~+85℃ (-40~+185℉)
Operating humidity	5%~95% (non-condensing)
Device ventilation	Natural heat dissipation, no noise

Physical Characteristics

Enclosure	All-metal enclosure
Dimensions	Length * width * height 100 * 100 * 23mm (excluding antenna and installation components)
Installation methods	Desktop, DIN rail, wall-mounted
Weight	Net weight: 0.30KG (excluding antenna and installation components)
	Gross weight: 0.60KG (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	Compliant 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, LIMTS/HSPA+/EVDO, TD-SCDMA/TD-LTE/FDD LTE
LAN protocol	Supports 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 routing
NAT function	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

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Data Security	IPsec VPN/L2TP/PPTP/GRE /OPEN VPN/CA certificate
Reliability	
Backup function	Supports link backup
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 operating modes
Transmission distance	100m (actual transmission distance depends on the environment)
Intelligent Features	
Integrated DTU function	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	Supports batch management on the Star Device Manager (Star Cloud) platform
Simple network management functionality	Supports SNMP v1/v2/v3, supports SNMP TRAP function
Traffic management	Supports traffic threshold setting, traffic statistics, and traffic alert functionality
Maintenance Tools	Ping, route tracing
Status Inquiry	System status, modem status, network connection status, route status

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Product Interfaces
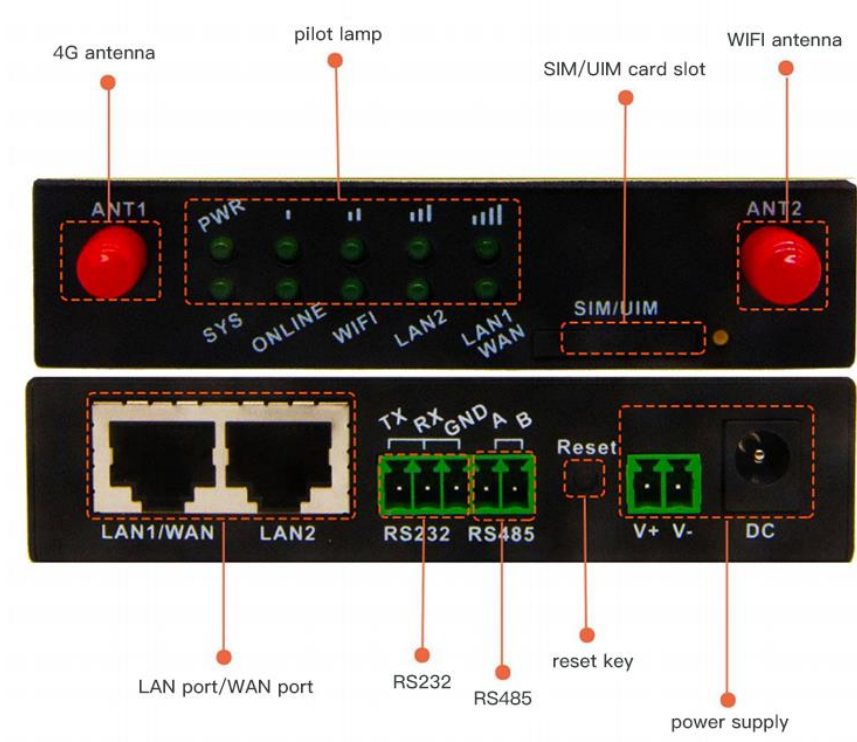
Product Dimensions

单位:mm
unit:mm