Technical Specification for SR510 (5G Router mainly for power)

型号 : SR510
网络 : 5GNR
工作电压 : DC 5V-36V
工作温度 : -35℃-+75℃
网关地址 : 192.168.1.1
用户名 : admin
密码 : admin

VERSION NUMBER: **V2.1**

XIAMEN KEY-IOT TECHNOLOGY CO., LTD

www.key-iot.com

Product Overview

The StarRouter 510 (SR510) series products are IoT wireless router products integrating 4G/5G networks, virtual private networks, and other technologies. With features like dual-network backup for 4G/5G wireless wide area networks, this device provides uninterrupted access to multiple networks, offering users high-speed and stable data transmission channels with comprehensive security and wireless services.

Product Features

- Supports 4G/5G networks

- Supports 5G NR high-speed network

- Supports National Grid encryption (optional)

- Supports multiple DNN (Deep Neural Network)

- Supports dual network ports and dual serial port communication

- Supports rail and desktop installation

- Supports efficient deployment of large-scale device networks

- Supports GPS/Beidou dual-mode time positioning (optional)

- Fully industrialized design, capable of withstanding challenging conditions

- Supports Linux OpenWrt system, facilitating user secondary development, and providing comprehensive secondary development guidelines

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

- Supports SNMP V1/V2/V3 and Star Device Manager Cloud Platform for efficient remote centralized network management

Topology Diagram
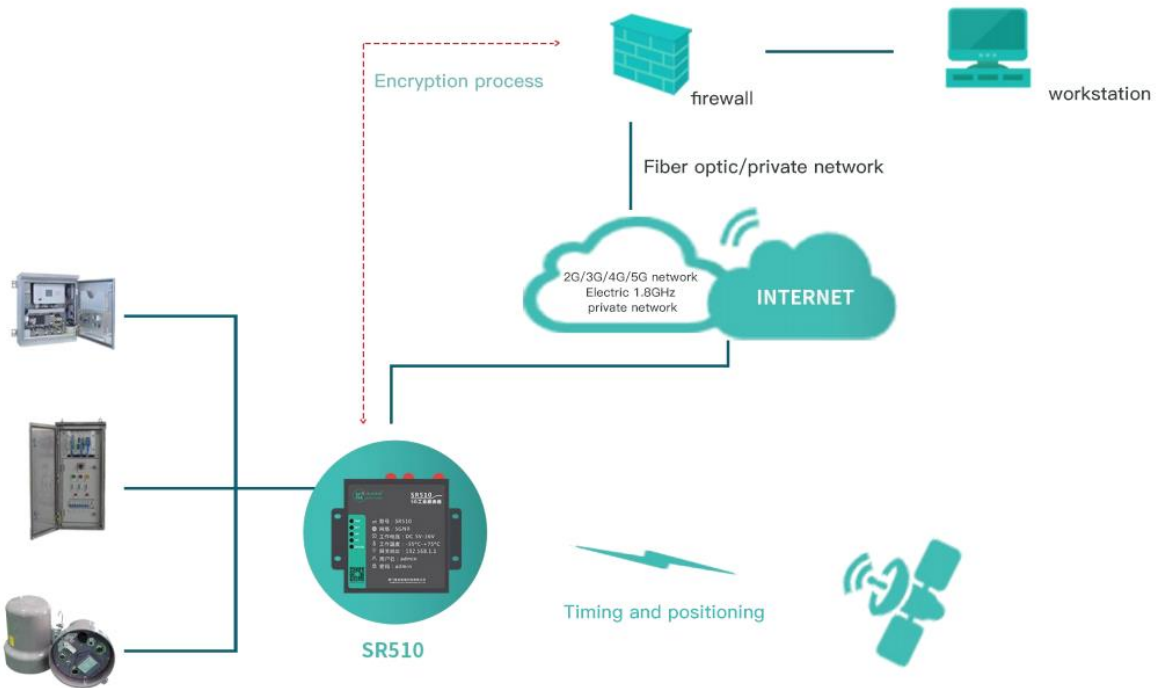
Technical Parameters

Hardware Performance	
Memory	64MB
FLASH	16MB, expandable to 32MB
Network Support	Industrial-grade 5G module
System Time	Time synchronization using NTP technology, with built-in RTC
Interfaces	
LAN Ports	2 (10M/100M adaptive MDI/MDIX port), one of which can be reused as a WAN port
SIM Card Interfaces	2 (drawer-type card slots, supporting 1.8V/3V SIM/UIM cards)
Reset	1 (reset button)
Antenna Interfaces	2 (4G/5G antennas, impedance 50 ohms, SMA male inner pin interface)
	1 (optional, GPS antenna, impedance 50 ohms, SMA inner pin interface)
Power Terminals	1 (2-pin 3.5mm pitch connector)
Serial Ports	1 RS232, 1 RS485 (can be reused as RS232), 3.5mm pitch connector
GPS	GPS time synchronization (optional)
Encryption	Hardware encryption (optional)

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Indicators	1 Power light (red), 1 network light (green), 1 SIM card light (green), 1 online light (green), 1 GPS/BD signal light (green)
Power Characteristics	
Power Supply	External power adapter (12V 2A)
Operating Voltage	Wide power input DC 9~36V
Standby Power Consumption	80~150mA@12V DC
Operating Power Consumption	150~250mA@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, noise-free
Physical Characteristics	
Chassis	Full metal chassis
Dimensions	Length * width * height 94 * 89 * 27mm (excluding antenna and mounting parts)
Installation Methods	Desktop placement, rail installation, wall-mounted
Weight	Net weight: 0.40KG (excluding antennas and mounting parts)
	Gross weight: 0.70KG (with accessories and packaging box)
Device Security and Reliability	
Security and Reliability	Reverse polarity 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
Certifications	Compliant with CCC, RoHS
MTBF (Mean Time Between Failures)	≥ 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/5G NR
LAN Protocols	Support ARP, Ethernet
WAN Protocols	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
Industrial Protocols	Supports IEC101/104 protocol, supports environmental protection 212 protocol, supports MQTT, MUDBUS, and other industrial protocols
Network Security	

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Firewall	Full state packet inspection (SPI), prevention of denial of service (DoS) attacks, filtering multicast Ping packets, access control lists, URL filtering, port mapping, virtual IP mapping, IP-MAC binding
Data Security	IPsec VPN, L2TP, PPTP, GRE, GRETAP, Vxlan, OPEN VPN, CA certificate
Reliability	
Backup Function	Supports wired, 5G, mutual backup
Link Online Monitoring	Sends heartbeat packets for detection, automatically reconnects after disconnection
Embedded Watchdog	Device self-checking technology, device fault self-repair
Intelligence	
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 speed limit
Configuration Methods	Supports telnet, web, ssh, and console configuration methods
Upgrade Method	Supports web upgrade, supports FOTA (Firmware Over The Air)
Logging Function	Supports local system logs, remote logs, serial port output logs
Network Management Function	Supports Star Device Manager for batch management
Simple network management features	SNMP v1/v2/v3, supports SNMP TRAP function
Traffic Management	Supports setting traffic thresholds, supports traffic statistics and traffic alarm functions
Maintenance Tools	Ping, route tracing
Status Query	System status, modem status, network connection status, route status

Product Interfaces
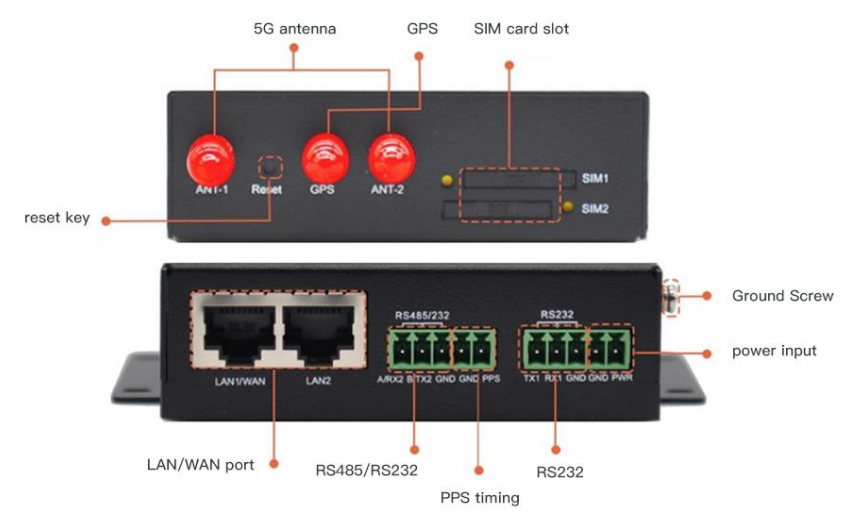
Product Dimensions

单位:mm
unit:mm

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