Technical Specification for SR700 Single Module Dual-SIM 4G Router

VERSION:**V3.0**

XIAMEN KEY-IOT TECHNOLOGY CO., LTD
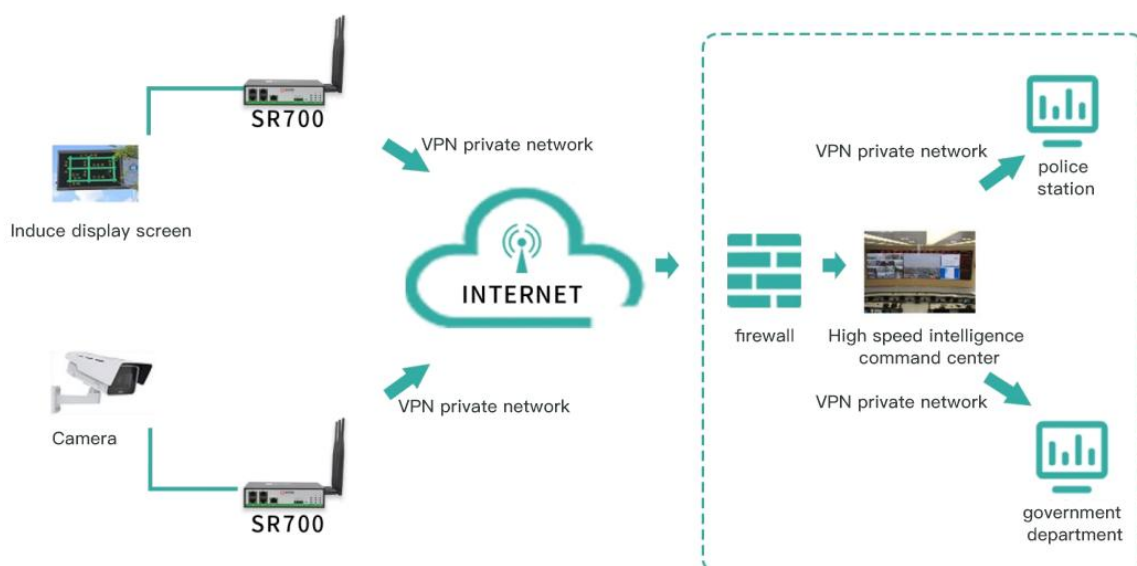
www.key-iot.com

Product Overview

StarRouter 700 (SR700) series products are IoT wireless routers integrating 4G/5G network and Virtual Private Network (VPN) technologies. Equipped with 4G/5G Wireless Wide-Area Network (WWAN) and Wi-Fi Wireless Local-Area Network (WLAN) technologies, this device provides uninterrupted access to multiple network connections. With comprehensive security features and wireless service capabilities, it delivers high-speed and stable data transmission channels for users.

Product Features

- Supports 4G LTE networks, with an optional power-specific 1.8GHz private network

- Supports dual SIM cards with mutual backup functionality (failover)

- Supports DIN rail and desktop mounting

- Supports GPS/BeiDou (optional)

- Supports WLAN (optional)

- Supports failover between wired and wireless connections

- Supports dynamic routing protocols (OSPF, RIP)

- Supports policy-based routing for traffic splitting

- Supports querying and reporting of device status information

- Supports VLAN configuration, including multiple VLANs with tagged and untagged modes

- Supports Linux system for secondary development, with comprehensive development guidelines provided

- Supports SNMP and StarCloud Platform (Device Management Platform)

- Supports multiple VPN protocols: PPTP, L2TP, IPsec, OpenVPN, GRE, GRETAP, VXLAN, etc

Topology Diagram

Technical Parameters

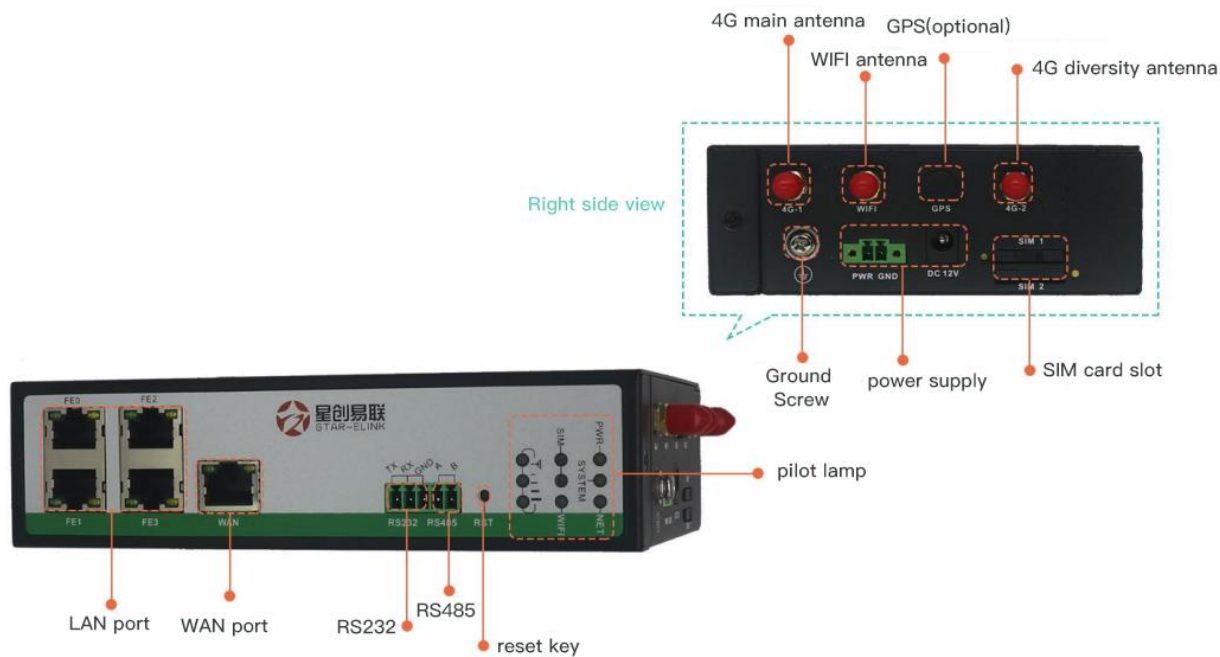| Hardware Performance	
Memory	128MB
FLASH	16MB
WIFI（Optional）	2.4G supports 802.11b/g/n, with a maximum speed of 150Mbps
Network Support	Industrial-grade 4G modules, supporting seven-mode networks
System Time	Time synchronization using NTP technology, with built-in RTC
Interfaces	
WAN Port	1 Port (10M/100M adaptive MDI/MDIX port) LAN/WAN Configurable
LAN Port	4 Ports (10M/100M adaptive MDI/MDIX port)
Antenna Interface	2 slots (drawer-type card slot, supporting 1.8V/3V SIM/UIM cards)
Reset	1 (reset button)
Antenna Interface	2 Ports (4G antenna, 50-ohm impedance, SMA female inner hole interface)
	1 Ports (2.4G antenna, 50-ohm impedance, SMA inner pin interface)
Power Interface	1 x 2-pin connector with 3.81mm pitch, 1 x DC barrel jack

Serial Port	1 RS232 port, 1 RS485 port, and a 5-pin terminal block connector with 3.5mm pitch
Indicators	9 (1 PWR indicator, 1 SYS indicator, 3 signal strength indicators, sim1, sim2, 1 WiFi indicator, 1 NET indicator)

Power Characteristics

Power	External power adapter (12V 1A)
Operating Voltage	Wide power input DC 5~36V (expandable 5-60V)
Standby Power Consumption	150~170mA@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

Casing Material	Metal housing
Dimensions	Length*width*height 166*126*44mm (excluding antenna and installation accessories)
Installation Method	Desktop placement, DIN rail installation, wall mounting
Weight	Net weight：0.75KG （excluding antenna and installation accessories）
	Gross weight：1.20KG （with accessories and packaging box）

Device Safety and Reliability

Safety 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
Certification	Complies with CCC, Rohs
MTBF	≥100,000 hours

Software Features

Network Access	Supports APN VPDN
Access Authentication	Supports CHAP/PAP authentication
Network Mode	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 static routing, dynamic routing protocols (OSPF, RIP), and policy-based routing
NAT Functionality	Supports network address translation
Industrial Protocols	Supports MQTT, MODBUS, and other industrial protocols

Network Security	
Firewall	Full-state packet inspection (SPI), prevent denial of service (DoS) attacks, filter multicast Ping packets, access control lists, URL filtering, port
Data Security	IPsec VPN/L2TP/PPTP/GRE /OPEN VPN/CA Certificate
Reliability	
Backup Functionality	Supports failover among wired, 4G, and Wi-Fi connections
Online Link Detection	Supports heartbeat detection and automatic reconnection upon disconnection
Built-in Watchdog	Device self-checking technology, device fault self-repair
WLAN(Optional)	
Protocol Standard	IEEE 802.11b/g/n
Rate	Supports 150Mbps
Safety Features	Open system, shared key, WPA/WPA2 authentication, WEP/TKIP/AES encryption
Working Modes	AP and Client（WiFi STA)
Transmission Distance	100m(The actual transmission distance depends on the environment)
智能化	
Integrated DTU Functionality	Supports TCP, UDP transparent transmission mode, TCP Server mode, supports Modbus RTU to Modbus TCP bridge, support DCUDP, DCTCP mode
Network Management	
QoS management	Supports bandwidth limitation, IP rate limiting
Configuration method	Supports Telnet, WEB, SSH, and Console configurations
Upgrade Mode	Supports WEB upgrade and FOTA upgrade
Logging Functionality	Supports local system logs, remote logs, and 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, supports traffic statistics and traffic alarm functionality
Maintenance tools	Ping，Route tracing
Status Query	System status, modem status, network connection status, route status

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Product Interfaces

Right side view

4G main antenna
GPS(optional)
WIFI antenna
4G diversity antenna
Ground Screw
power supply
SIM card slot

LAN port   WAN port   RS232   RS485   reset key   pilot lamp

Product Dimensions

单位:mm
unit:mm