Technical Specification

for SR800-D Dual Moduel
Dual SIM Industrial 5G Router

VERSION:**V3.1**

XIAMEN KEY-IOT TECHNOLOGY CO., LTD

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Product Overview

StarRouter 800-D (SR800-D) series products are IoT wireless routers integrating dual 5G networks and Virtual Private Network (VPN) technologies. Equipped with 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 Dual module Dual 5G network

- Supports ESIM

- Supports 5G module band locking and network mode locking

- Supports GPS/BeiDou (Optional)

- Supports WLAN (Optional)

- Supports 5G LAN (Optional)

- Supports bridge mode, enabling direct IP assignment from 5G dial-up to connected devices (optional)

- Supports failover between wired and dual 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

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- Supports SNMP and StarCloud Platform (Device Management Platform)

- Supports multiple VPN protocols: PPTP, L2TP, IPsec, OpenVPN, GRE, GRETAP, VXLAN, etc
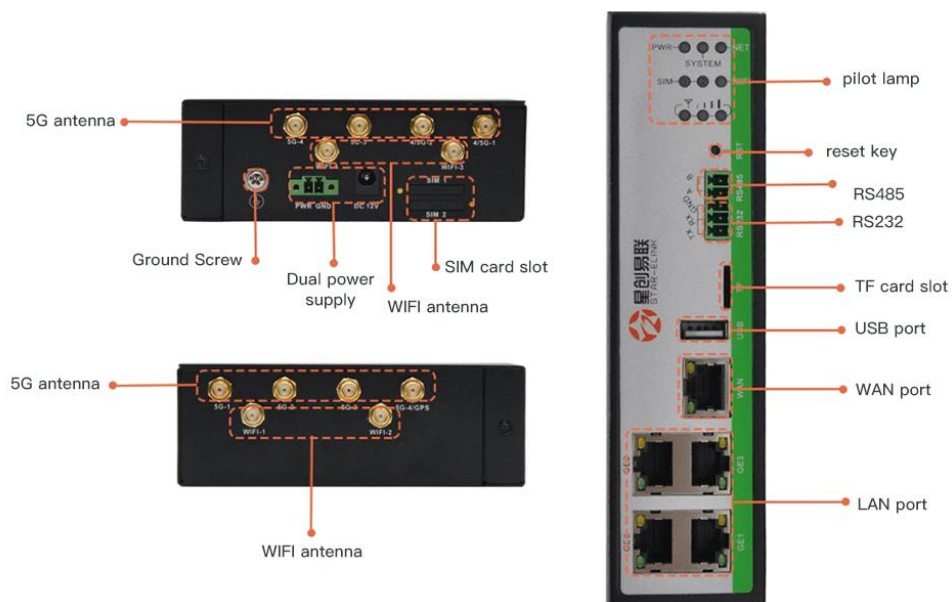
Topology Diagram
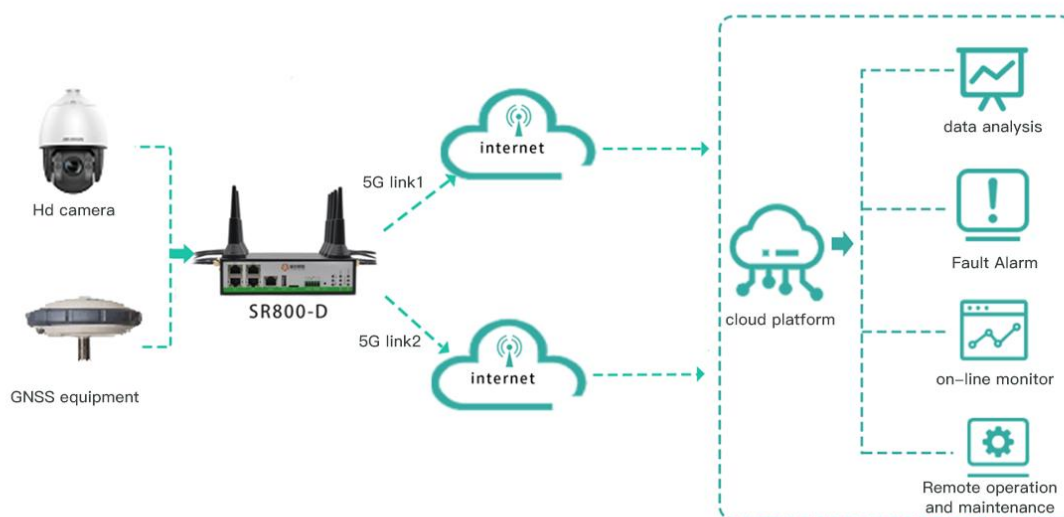
Technical Parameter

Hardware Performance	
Memory	512MB，expandable to 1G
FLASH	EMMC 4G，expandable to 8G
WIFI（Optional）	Supports 2.4G/5.8G dual-band, theoretical maximum speed of 866.7Mbps. Optional WIFI 6, theoretical maximum speed of 1774Mbps
Network Support	Two Industrial-grade 5G module or One Industrial-grade 5G module + One Industrial-grade 4G module
System Time	Time synchronization using NTP technology, with built-in RTC

Interface	
WAN Port	1 (10M/100M/1000M adaptive MDI/MDIX port), LAN/WAN Configurable
LAN Port	4 (10M/100M/1000M adaptive MDI/MDIX port)
SIM 卡接口	2 slots (drawer-type card slot, supporting 1.8V/3V SIM/UIM cards)
Reset	1 个(Reset button)
Antenna Interface	8 Ports 4G/5G antenna, 50-ohm impedance, SMA female head interface
	2 Ports 2.4G/5.8G antenna, 50-ohm impedance, SMA interface,optional 4 ports
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 2A)
Operating Voltage	Wide power input DC 9~36V (expandable to 9-60V)
Standby Power Consumption	350~400mA@12V DC
Operating Power Consumption	450-600mA@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：0.93KG (excluding antenna and installation accessories)
	Gross weight：1.65KG (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/TDD-LTE/FDD-LTE/5GNR SA/NSA
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	全 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/CA Certificate
Reliability	
Backup Functionality	Supports failover among wired, Dual 5G, 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/ac/ax(Optional)
Rate	Supports up to 1774M
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)
Intelligent Features	
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 Mode	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	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

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Product Interface

5G antenna
Ground Screw
Dual power supply
WIFI antenna
SIM card slot
5G antenna
WIFI antenna
pilot lamp
reset key
RS485
RS232
TF card slot
USB port
WAN port
LAN port

Product Dimension

单位:mm
unit:mm

7.12 13
12
7.01
218
20
21.5 22.5

126
21.50
44
15.4

166
7
12
44
38.2