



Efficiency Through Innovative Technology



# **Product Overview**

# S9922M



RICON S9922M Router is designed and manufactured by Ricon Mobile Inc., it based on 3G/LTE cellular network technology with industrial class quality. With its embedded cellular module, it widely used in multiple case like ATM connection, remote office security connection, data collection. etc. This document introduced how to use S9922M and its powerful features. S9922M Router, supports tradition router functions like VPN, firewall, NAT, SNMP, DHCP. S9922M supports 3G/LTE as WAN interface, provide up to 300Mbps downstream and 150Mbps upstream WAN bandwidth and up to 150Mbps Wi-Fi bandwidth. S9922M Router comes with Single module Single SIM hardware type. The unique feature of S9922M Router is network online & backup among WAN, WLAN, 3G/LTE network.

S9922M Router supports Ricon Management System (RMS). By the management system, you can check running info of S9922M Router and configure the router remotely and publish remote updates.

### **S9922M Models & Quick Specifications**



S9922M-LTE



- LTE/3.5G support, 2.5G/3G compliance
- Interface : 2 x LAN (1 x LAN/WAN Combo)
- 1 x SIM Slots (Passive Backup)
- Single GSM Module
- LTE+/LTE/DC-HSPA+/HSPA+/HSPA/WCDMA/2G
- WEB UI/CLI/SNMP/Telnet/SSH
- Ricon Management System (RMS)
- Component-level Industrial Design
- 2x2 LTE MIMO SMA Antenna
- 802.11b/g/n Wi-Fi



S9922M-3G



- 2.5G/3G support
- Interface : 2 x LAN (1 x LAN/WAN Combo)
- 1 x SIM Slots (Passive Backup)
- Single GSM Module
- DC-HSPA+/HSPA+/HSPA/WCDMA/2G
- WEB UI/CLI/SNMP/Telnet/SSH
- Ricon Management System (RMS)
- Component-level Industrial Design
- 1x2 3G MIMO SMA Antenna
- 802.11b/g/n Wi-Fi

# **Specifications**

## S9922M

### **Cellular Networks**



- >> EDGE/GPRS
- **Ethernet Standard**
- FDD-LTE/TDD-LTE
- WCDMA/UMTS/HSPA/HSPA+/CDMA2000 EVDO/CDMA 1x
- IEEE 802.3
- IEEE 802.3U

#### Wi-Fi



- Standard: IEEE 802.11b/g/n
- AP, client, station, Bridge mode support
- WEP, WPA and WPA2 encryption w/AES-TKIP
- » IEEE 802.11ac Optional 5Ghz Wi-Fi support
- SSID Isolation support
- Channel manuplation support
- 20Mhz/40Mhz beamer support

#### **Interfaces**



- 1 x 10/100BaseT LAN Interface (MDI-X)
- 1 x 10/100BaseT WAN/LAN Interface
- 2 x SMA-K antenna connector (MIMO)
- 1 x Standard SIM/R-UIM Interface
- 1 x Reset Switch
- 1 x WPS Switch
- )> 1 x TF Card Interface
- 1 x DC Power socket
- 1 x Terminal Row (With Connections Below:)
- 2 x GPIO x 2 Interface

#### **Indicators**



- 3G/4G1: RF Indicator
- >> SIG1: GSM Module 1 Signal Attachment
- » DATA: Connection Establishment
- » RUN : System O/S Health
- >> WLAN: Wireless LAN Connection
- >> WAN: Wide Area Network Cable Connection Status
- >> LAN: Local Area Cable Connection Status (Lan1~Lan4)

#### **Power**



- On Idle: 80mA + 12VDC
- Single Module Power Consumption: <5W
- Power Feed: 5 36VDC

### **Physical Specs**



- Dimensions: 100mm x 98mm x 25mm (including antenna)
- Weight: 290 gr.
- Industrial Alloy Metal Housing

#### Certifications



<b>&gt;&gt;</b>	Health	EN 62311
<b>&gt;&gt;</b>	Safety	EN 60950 - 1+A11+A1+A12
<b>&gt;&gt;</b>	EMC	EN 301-489-1/-7/-17/-24
		EN 55022, EN 55024
<b>&gt;&gt;&gt;</b>	Radio	EN 301 511
		EN 301 908-1/-2
		EN 300 328
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# **Functional Features**

# S9922M





### **Temperature Recognition**

- >> Operation Temp.:-20°C to+70°C
- >> Store Temp: -40°C~+85°C
- » Related humidity:<95 (noncondensing)</p>

#### **VPN**

- » IPSec
- >> PPTP/L2TP client
- >> GRE/IPIP

### **Device Management**

- >> Local or remote web browser (IE v8 or above)
- » CLI/Telnet command
- » RMS Ricon Management System (optional)
- SSH config (optional)

### **Multiple Links Connection Insurance**

SIM/WAN backup

### Firewall & Filtering

- » IP packet/Domain/MAC Filter
- » NAT
- » DMZ

#### **Feature**

- Support OpenWrt
- » Support feature customize with API
- >> CPU: 580MHz
- » SDRAM: DDR2 256 MB
- >> Flash: 128MB

### **Routing Protocols**

- Static route
- » RIPv2 / OSPF dinamic route



### **Device Features**

# S9922M







### **Multiple Working Modes**

- >> LED monitor
- >> Support WEB, CLI, SSH, multiple parameter management
- » Data trigger online/offline
- LCP/ICMP/flow/heartbeat check, ensure network usability

#### **Ultra Secure Data Transmission**

- VPN support GRE/ L2TP/ PPTP/ IPSec/ OpenVPN
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- Supports DHCP Server
- SNMP network management, NTP support, GPS clock support
- » OSPF, RIP, BGP optional
- » Optional QoS (Quality of Service) smart control base on protocol, application,IP subnet

### **Easy Maintenance Operation**

- Support local /remote firmware and patch upgrade
- » Support parameter backup and import, Support encryption
- Support CFE firmware upgrade (Never about crash when doing upgrade )
- » Support Console port maintenance
- » Support smart switch when using multiple server
- » Local/Remote log for easy debugn

#### **Full Network Mode**

- YAG(TD-LTE/FDD LTE), DS-HSPA+, HSPA+, HSPA, WCDMA, EVDO, TD-SCDM,CDMA1x, EDGE/GPRS
- >> WAN, WLAN, SIM1 multiple way network
- WLAN AP/station/repeater, 802.11n(802.11ac optional), at most 300Mbps
- >> 1 LAN port
- >> WAN support ADSL(PPPoE), static IP, DHCP client
- Support VPDN, APN private network
- >> 802.11b/g/n(ac optional) Wi-Fi optional, WPS key
- Supports DNS proxy and Dynamic DNS (DDNS)

### **RMS Ricon Management System**

- >> Great monitor capability
- » Remote terminal management maintenance
- Check status of internet at any time
- » GIS showing device location
- Debug remotely
- >> Flow static and analyze

### EMC4 Industrial Design, Stable and Durable

- » Aluminum shell, IP30 protection
- System security isolation, Particularly suitable for the application of industrial control field
- Wide range power supply (DC 5-36V)
- Support WDT
- Antenna lightning protection
- SIM/UIM port: 15KV ESD protection
- **>>** Power port: reverse-voltage and overvoltage protection
- >> Ethernet port: 1.5KV magnetic isolation protection



