

## S9922MC-LTE



**RICON S9922MC-LTE Router** by Ricon Industrial grade quality, designed and manufactured in accordance with 3G/LTE cellular network technology. With the embedded cellular module, It is widely used in many cases such as ATM connection, remote office security connection, data collection etc.

**Ricon S9922MC Router** provides maximum service to customers while Zero touch-SMS installation minimizes the need for field service with easy and automatic product installation service. S9922MC Router, Single Module Single SIM hardware type. The best throughput value of the S9922MC Router is 200 Mbps. The unique feature of the S9922MC Router is that it is online and redundant over the network between WAN, WLAN, 3G / LTE network. This feature allows the S9922MC to provide maximum network availability and reduce the likelihood of network failure to prevent losses due to network failures.

## Features

- LTE / 4G / 3G support
- Failover/Failback
- IPSec VPN
- OpenVPN
- L2TP / PPTP
- GRE Tunneling
- DMVPN
- Firewall
- MAC / IP Filtering
- DoS/DDoS Protection
- HTTPS / SSH Access
- Static & Dynamic Routing
- BGP
- OSPF / RIP
- VLAN
- NAT / Port Forwarding / DMZ
- DHCP Server / Client
- Bridging / Passthrough
- Policy-based Routing (PBR)
- Web GUI (HTTPS)
- CLI (SSH / Telnet)
- SNMP
- Syslog / Event Log
- OTA Firmware Update
- SMS Command
- Cloud Management Platform
- Wi-Fi 4
- WPA2
- MAC Filtering
- Serial Port (RS232/RS485)
- Connection Timers
- Ping / Uptime Watchdog
- Automation with SMS
- Task definition with script
- Modbus TCP / MQTT
- MQTT over TLS
- Identity-Based Firewall
- Cloud Access Control (CASB)
- TLS Inspection

## Technical specifications

### Dimensions and weight

- Height: 75mm
- Width: 60mm
- Depth: 28mm
- Weight: 190gr
- Industrial aluminum metal body
- IP30 protection

### Environmental

- Idle: 80mA + 12VDC
- Single Module Power Consumption: <5W
- Power Supply: 5 - 35VDC

### Certified

- **ATEX Zone 1 & 21 Certified** II 2G Ex db IIB T6 Gb / II 2D Ex tb IIIC T85°C Db (No: ICR/VC/HM2512206)

## General specifications

|             |                                                                                      |
|-------------|--------------------------------------------------------------------------------------|
| CPU         | MT7628AN                                                                             |
| Memory      | 128MB                                                                                |
| HW Watchdog | Connection schedulers<br>Ping / Uptime Watchdog<br>SMS automation<br>Scripting tasks |
| SPI Flash   | 16MB                                                                                 |

## Interfaces and Configuration

|             |                                 |
|-------------|---------------------------------|
| LAN         | 1 x 10/100BaseT(MDI-X)          |
| WAN         | 1 x WAN Fast Ethernet(optional) |
| DHCP Server | DHCP Server/Client/Relay, DNS   |

## Cellular Specifications

|                        |                                                                                                         |
|------------------------|---------------------------------------------------------------------------------------------------------|
| Cellular Modem Module  | EC200A-EU                                                                                               |
| Module Type            | PCIE                                                                                                    |
| Region                 | Global                                                                                                  |
| Chipset                | UNISOC 8910DM                                                                                           |
| Category               | LTE: Cat.4                                                                                              |
| Cellular Bands (SDX62) | LTE-FDD<br>B1/ 3/ 5/ 7/ 8/ 20/ 28<br>LTE-TDD<br>B38/ 40/ 41<br>WCDMA<br>B1/ 5/ 8<br>GSM<br>900/1800 MHz |
| SIM Support            | 1 x U-SIM Slot                                                                                          |

## Security Features

|          |                                                                                   |
|----------|-----------------------------------------------------------------------------------|
| Firewall | Identity-Based Firewall<br>Cloud Access Control (CASB)<br>TLS Inspection          |
| Filters  | Access restriction<br>Restricting wireless access                                 |
| Misc     | Security logging<br>Security alarms<br>Packet capture logging (Dump to file pcap) |

## GNSS / GPS Features (Optional)

|                           |                                                                                                                               |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| Chipset                   | ATGM336D                                                                                                                      |
| Supported Bands           | GPS/ QZSS: L1 C/A, L5<br>GLONASS: L1<br>Galileo: E1, E5a<br>BDS: B1I, B2a                                                     |
| Default Constellations    | GPS + GLONASS + Galileo + BDS + QZSS                                                                                          |
| Number of Concurrent GNSS | 4 + QZSS                                                                                                                      |
| Protocols                 | OSPF Routing protocols<br>RIP Routing protocols<br>WPA2 Wi-Fi encryption protocols<br>Industrial data communication protocols |
| SBAS                      | WAAS, EGNOS, MSAS and GAGAN                                                                                                   |

## Management Features

|                                                        |                                                                                                                                        |
|--------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Management Interfaces                                  | Web GUI (HTTPS)<br>CLI (SSH / Telnet)<br>SNMP<br>Syslog / Event Log<br>OTA Firmware Update<br>SMS Command<br>Cloud Management Platform |
| Version Management                                     | Image Checksum<br>Active version and backup version<br>Auto rollback feature when remote upgrade fails                                 |
| Accounts Management                                    | Integrated Admin/Guest accounting<br>TACACS/TACACS+, Radius Auth. models                                                               |
| Retrievable Parameters<br>WEB UI / CLI / TR-069 / SNMP | CLI Command-line access<br>SNMP Remote monitoring and management<br>Web-based graphical interface management                           |

## Cellular Modem Features

|                               |                                                                                                                                   |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| APN Data Services             | Dynamic APN support<br>SIM PIN management<br>Bridge Mode Support                                                                  |
| Modem Interface Configuration | Full band-scan<br>Modem Band-Lock<br>Auto/On-Demand dial<br>Enable/Disable Radio<br>Pppd and DHCP dialing options                 |
| Modem Failover                | Support fail-over on interface drop.<br>Support fail-over on traffic flow interruptions<br>Support Automatic connection recovery. |

## Wi-Fi

|                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Chipset              | MT7628AN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Wi-Fi Specifications | Wi-Fi Radio : 1x1 MIMO / 20/40 MHz<br>Frequency Band : 2.4 GHz only<br>Client Capacity : Up to ~32 concurrent clients (depends on firmware/device)<br>Wi-Fi Standard (2.4 GHz) : IEEE 802.11 b/g/n<br>MIMO Configuration : 1x1<br>Channel Bandwidth : 20/40 MHz<br>Modulation : BPSK, QPSK, 16-QAM, 64-QAM<br>Tx Output Frequency Range : 2400–2483.5 MHz<br>Maximum Data Rate : Up to 150 Mbps (with 40 MHz channel)<br>Security Protocols : WEP, WPA, WPA2 (AES/TKIP)<br>Total Wi-Fi Throughput : Up to ~150 Mbps (ideal conditions, 802.11n, 40 MHz) |
| Region               | Global                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Wireless Security    | Protocols: WEP, WPA, WPA2<br>Encryption: AES, TKIP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Mode                 | Accesspoint, WiFi Client (Station) modes supported<br>**MU-MIMO is supported with both modes above<br>**2x2 DL MIMO is supported with both modes above                                                                                                                                                                                                                                                                                                                                                                                                  |

## Networking Features

|         |                                                                                                                                                                             |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Routing | Static Routing ,Dynamic Routing<br>BGP<br>OSPF / RIP<br>VLAN<br>NAT / Port Forwarding / DMZ<br>DHCP Server / Client<br>Bridging / Passthrough<br>Policy-based Routing (PBR) |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|         |                                                                                                                                                       |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tunnels | IPSec VPN<br>OpenVPN<br>L2TP<br>PPTP<br>SSTP<br>GRE Tunneling<br>DMVPN<br>Firewall<br>MAC / IP Filtering<br>DoS/DDoS Protection<br>HTTPS / SSH Access |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------|

|            |                                               |
|------------|-----------------------------------------------|
| Forwarding | NAT Support<br>Port Forwarding<br>DMZ Support |
|------------|-----------------------------------------------|

|                |                                |
|----------------|--------------------------------|
| Load Balancing | Per-Package Forwarding Support |
|----------------|--------------------------------|

## Ordering Information & Accessories

|             |                                                                                                      |
|-------------|------------------------------------------------------------------------------------------------------|
| S9922MC-LTE | CAT4 Cellular Radio Interface<br>1xLAN, 1xWAN Fast Ethernet, 1xSIM Slots<br>2.4GHz Wi-fi 802.11b/g/n |
|-------------|------------------------------------------------------------------------------------------------------|

## Defaults

|                      |                                                                                                                                                                                                        |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Default Box Contents | 1 x S9922MC-LTE Router Hardware<br>1 x 3M Antennas for 4G<br>1 x WiFi antenna for 2.4GHz and 5GHz<br>1 x 1m. CAT6 Ethernet patch cable<br>1 x DIN-Rail mounting kit<br>1 x 12VDC 1.5A 18W Power Supply |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|





## About Ricon

At Ricon, we create technology that brings the communication handy.

As a 22 years B2B technology innovation company, we are designing networks that sense, think and act across mobile, fixed and cloud networks.

Service providers, enterprises and partners worldwide trust Ricon to deliver secure, reliable and sustainable networks today – and work with us to create the digital services and applications of the future.

© 2025 Ricon

|                                                                                                                                                                                                                                |                                                                                                                                                                                                         |                                                                                                                                                                                                              |                                                                                                                                                                             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Ricon Canada Office (HQ)</b><br>5063 North Service Road<br>Burlington Ontario L7L 5H6<br>Canada<br><a href="mailto:riconrequest@riconmobile.com">riconrequest@riconmobile.com</a><br>+1 (905) 921-3122<br>+1 (905) 336-2450 | <b>Ricon Turkey Office</b><br>Ahi Evran Cad. No: 21<br>Polaris Plaza Kat: 6-8<br>Maslak İstanbul<br><a href="mailto:riconturkiye@riconmobile.com">riconturkiye@riconmobile.com</a><br>+90 212 346 26 00 | <b>Ricon Turkey Office ITU</b><br>Reşitpaşa Mah. ITU ARI 3<br>Teknokent No:4-Z101<br>Sarıyer İstanbul<br><a href="mailto:riconturkiye@riconmobile.com">riconturkiye@riconmobile.com</a><br>+90 212 346 26 00 | <b>Ricon Italy Office</b><br>Via Gaetano Negri 8<br>20123 Milano<br>Italy<br><a href="mailto:riconitaly@riconmobile.com">riconitaly@riconmobile.com</a><br>+39 335 195 0686 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|