S9922M22E-LTE

RICON S9922M22E-LTE Router by Ricon Mobile Inc. Industrial grade quality, designed and manufactured in accordance with LTE cellular network technology. With embedded cellular module, it is widely used in many cases such as ATM, secure remote office, data collection like connectivity.

Ricon Mobile S9922M22E-LTE Router provides maximum service to customers while RiconApps PnP Zero touch installation option, minimize the need for field service with easy and automatic product installation services. S9922M22E Router consists of Single GSM Module with Dual-SIM hardware type. The throughput value of the S9922M22E Router is up to 200Mbps. One of the unique features of the S9922M22E Router is that it is online and redundant over the network between WAN, WLAN, and LTE network. This feature allows the S9922M22E to provide maximum network availability and reduce the network failures to prevent data losses.

Mobile S9922M22E-LTE Routers are web-based and easily configurable through CLI. In addition, Ricon Management System Controller (RMSC) successfully accomplishes the goal of reducing the maintenance costs with the ability to access all the Ricon products in the same network environment on a web based environment with full control.

RICON

Features

- LTE / 4G / 3G support
- Dual SIM / Multi-SIM
- 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
- Connection timers
- Ping / Uptime Watchdog
- Automation with SMS
- Task definition with script
- MQTT over TLS
- Identity-Based Firewall
- Cloud Access Control (CASB)
- TLS Inspection

Technical specifications

Dimensions and weight

- Height: 135mm
- Width: 105mm
- Depth: 27mm
- Weight: 300gr
- 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 Ping / Uptime Watchdog SMS automation Scripting tasks
SPI Flash	16MB

Interfaces and Configuration

LAN	1 x 10/100BaseT
WAN	1x10/100 BaseT
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 B1/ 3/ 5/ 7/ 8/ 20/ 28 LTE-TDD B38/ 40/ 41 WCDMA B1/ 5/ 8 GSM 900/1800 MHz
SIM Support	2 x U-SIM Cards

Security Features

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

GNSS / GPS Features (Optional)

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

Management Features

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

Cellular Modem Features

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

Wi-Fi

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

Networking Features

Routing

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

Tunnels

IPSec VPN
OpenVPN
L2TP
PPTP
SSTP
GRE Tunneling
DMVPN
Firewall
MAC / IP Filtering
DoS/DDoS Protection
HTTPS / SSH Access

Forwarding

NAT Support
Port Forwarding
DMZ Support

Load Balancing

Per-Package Forwarding Support

Ordering Information & Accessories

S9922M22E-LTE

CAT4 Cellular Radio Interface
1xLAN, 1xWAN Fast Ethernet, 2xSIM Slots
2.4GHz Wi-fi 802.11b/g/n

Defaults

Default Box Contents

1 x S9922M22E-LTE Router Hardware
2 x 3M Antennas for 4G
1 x WiFi antenna for 2.4GHz and 5GHz
1 x 1m. CAT6 Ethernet patch cable
2 x Mounting kit
1 x 12VDC 1.5A 18W Power Supply

98.40 mm

27.80 mm

4G-2   4G-1   WAN/LAN   LAN   RST   PWR   WIFI

136.00 mm
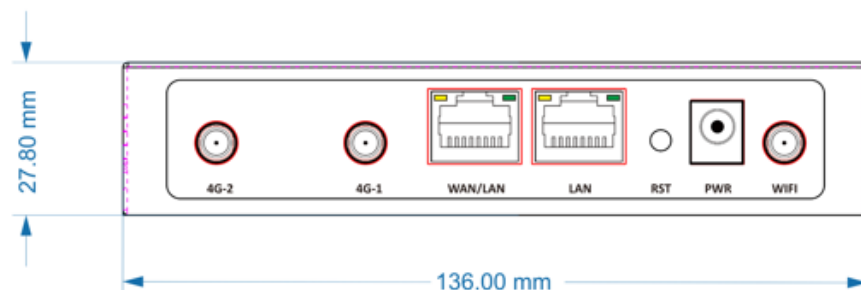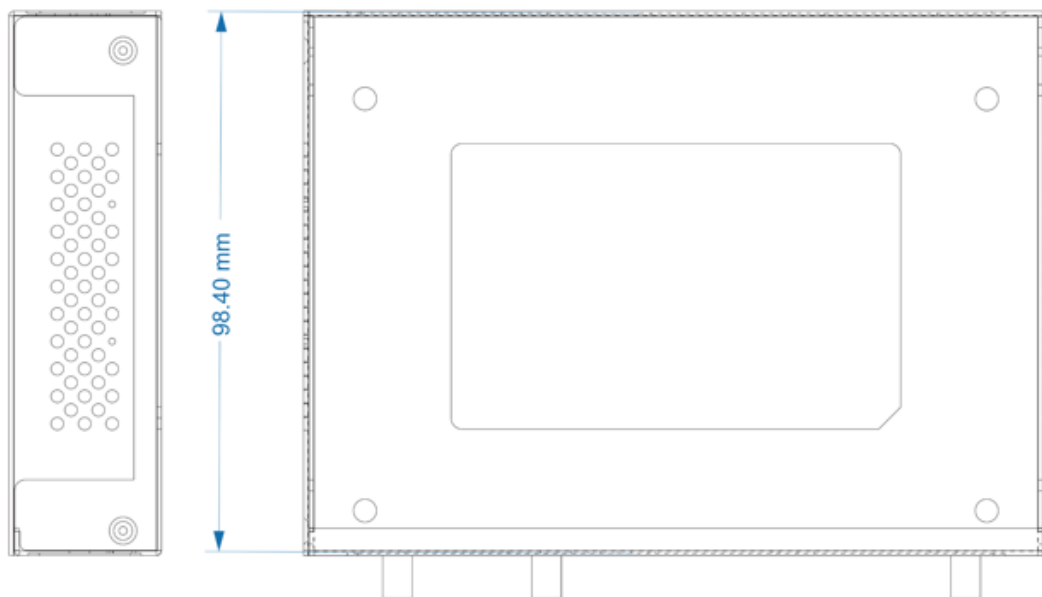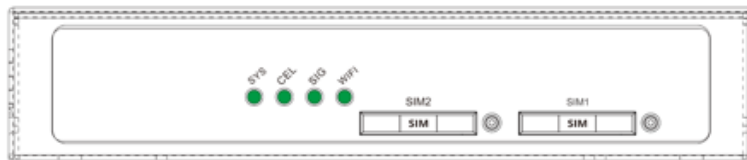
About Ricon

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.

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