Ricon Mobile

S9922M22E

4.5G Industrial Router
Datasheet

RICON MOBILE INC.

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S9922M22E-LTE Industrial Router

RICON S9922M22E 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 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 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.

S9922M22E Quick Specifications

S9922M22E-LTE

- 2 x 10/100TBase Ethernet LAN Interface
- 1 x 10/100TBase Ethernet WAN Interface (WAN/LAN Combo)
- 2 x SIM Slots (Active/Passive Backup)
- Single GSM Module
- (4.5G)LTE+/LTE/DC-HSPA+/HSPA+/HSPA/(3G)WCDMA/2G
- WEB UI/CLI/SNMP/Telnet/SSH
- Ricon Management System Controller (RMSC)
- Component-level Industrial Design
- 2x2 LTE MIMO SMA Antenna
- 802.11b/g/n Wi-Fi

S9922M22E Router Technical Specification

Interface

- » 2 x 10/100BaseT LAN interface (MDI-X)
- » 1 x 10/100BaseT WAN/LAN combo interface
- » 1 x LTE GSM Data Wan interface (single GSM module)
- » 2 x SMA-K antenna connector (MIMO)
- » 2 x Standard SIM/R-UIM slot
- » 1 x Reset switch
- » 1 x WPS switch
- » 1 x DC Power socket

Indicator

- » RF1:   RF indicator for SIM1 slot
- » RF2:   RF indicator for SIM2 slot
- » NET: GSM registration
- » SYS: System O/S health
- » WiFi: Wireless LAN connection
- » WAN: WAN cable connection status
- » LAN: LAN cable connection status (LAN1~LAN2)

Power

- » On Idle: 80mA + 12VDC
- » Single Module Power Consumption : <5W
- » Power Feed : 5 - 35VDC 1,5A

Physical Specs

- » Dimensions   :135mm x 101mm x 127mm
- » Weight   :300 gr.
- » Industrial aluminum alloy metal housing
- » IP54 case

S9922M22E-LTE Industrial Router

Cellular Network

» EDGE/GPRS
» FDD-LTE/TDD-(4.5G)LTE
» (3G)WCDMA/UMTS/HSPA/HSPA+ CDMA2000 EVDO/CDMA
» LTE-FDD: B1/B3/B5/B7/B8/B20
» LTE-TDD: B38/B40/B41
» WCDMA: B1/B5/B8; GSM/EDGE: B3/B8

Wi-Fi

» Standard: IEEE 802.11b/g/n
» AP, Client, Station, Bridge, WAN Mode
» WEP, WPA and WPA2 encryption w/AES-TKIP
» SSID isolation support
» Channel manipulation support
» 20Mhz/40Mhz beamer support

Temperature Recognition

» Operation Temp.   :40℃ ~+ 75℃
» Shelf Temp   :-40℃~+85℃
» Related humidity   :%95 (non-condensing)

VPN

» IPSec
» PPTP/L2TP client
» GRE/IPIP
» OpenVPN
» ETHoGRE

Device Management

» Local or remote via Web UI (IE v8 or above)
» CLI/Telnet command line
» RMSC (optional)
» SSH
» SNMPv2, SNMPv2c, SNMP
» SMS

Failover

» Dual SIM single module for cold backup
» Single SIM/EWAN active/active backup, load balancing
» LTE(4.5G) failover to DC-HSPA+/HSPA+/HSPA (3.5G)
» LTE(4.5G) failover to WCDMA (3G)
» WCDMA (3G) failover to EDGE/GPRS (2.5G/2G)

Firewall & Filtering

» IP packet/Domain/MAC filter
» NAT/NAPT/PAT
» DMZ
» Port Forwarding
» Port Triggering

Hardware Features

» CPU   :ARM Cortex Quad Core
» SDRAM   :DDR2 256 MB
» Flash   :64MB
» TF Card   :Up To 32MB

Certifications

»	Health	EN 62311
»	Safety	EN 60950 - 1+A11+A1+A12
»	EMC	EN 301-489-1/-7/-17/-24
		EN 55022, EN 55024
»	Radio	EN 301 511
		EN 301 908-1/-2
		EN 300 328

Industry Canada   Industrie Canada

Canada

PTCRB

CE FC E57 RoHS

UL Certified Power Supply

S9922M22E-LTE Industrial Router

Routing Protocols

» Static Routing (w/Policy based source routing)
» RIP/OSPF/MPLS dynamic routing
» VRRP (hardware failover)
» BGP/M-BGP

Integration & Compliance

» Data API
» RiconApps Installation Application
» SNMP MIBs (customized)
» Data trigger online/offline
» RiconApps CLI tools

Ultra Secure Data Transmission

» VPN support GRE/L2TP/PPTP/IPSec/OpenVPN
» GRE over IPSec, IPSec over PPTP/L2TP
» Supports DHCP Server, Client and Relay
» SNMP network management, NTP, GSM clock support
» OSPF, RIP, BGP over encrypted tunnel modes
» QoS（Quality of Service）with DSCP smart control base on protocol, application,IP subnet

Easy Maintenance Operation

» Local/remote firmware and patch upgrade support
» Parameter backup, config import and encryption support
» FOTA firmware update support
» Smart switch support when using multiple servers
» Easy to debug local/remote system logs
» DHCPD client access logs (local/remote)

Network Connection Features

» 4G(TD-LTE/FDD LTE), DS-HSPA+, HSPA+, HSPA, WCDMA, EVDO, TD-SCDM,CDMA, EDGE/GPRS
» WAN, WLAN, SIM1\SIM2 multiple WAN network connectivity
» WLAN AP/station/repeater, 802.11n, with up-to 300Mbps speed
» EWAN support for xDSL(PPPoE), static IP, DHCP client or WiFi
» Support for corporate APN private network
» 802.11b/g/n Wi-Fi LAN / WAN modes
» Supports DNS proxy and Dynamic DNS (DDNS)

RMSC Ricon Management Controller

» Excellent monitoring features
» Data flow details per WAN Interface
» Instant statistics data for all environment
» Adjustable SLA Levels
» SLA based live alarm control thresholds
» Bulk remote configuration
» Remote configuration with scheduler
» Remote terminal management maintenance for firmware
» Live configuration comparison on the air
» Display of GIS device location (optional with GPS add-on)
» Remote debugging and troubleshooting tools
» Flow statistics and analysis
» Automatic installation and configuration standardization

EMC4.0 Industrial Design

» Aluminum alloy enclosure, IP54 protection
» System security isolation, particularly suitable for the application of industrial control fields (rugged)
» Wide power range（DC 5-35V）
» 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

CONTACT

RICON GLOBAL OFFICES

RICON MOBILE INC. (HQ)
1100 Burloak Drive,
Suite 300
Burlington, Ontario
L7L 6B2
Phone: +1 905 921 31 22
www.riconmobile.com

RICON ITALY
Via Tiziano Nr. 32 20145 Milano (MI) ITALY
www.riconmobile.com/it
riconitaly@riconmobile.com
Phone: +39 335 5444061

RICON ILETISIM A.Ş.
Resitpasa Mah. ITU ARI 3 Teknokent
No:4- Z101
Maslak / Istanbul / Türkiye
riconturkiye@riconmobile.com
Phone: +90-212-346-2600