



## S9980DSL-LTE



## Features

- LTE / 4G / 3G support
- Dual SIM / Multi-SIM
- Failover/Failback
- IPSec VPN
- OpenVPN
- WireGuard
- GRE Tunneling
- Firewall
- MAC / IP Filtering
- DoS/DDoS Protection
- HTTPS / SSH Access
- Static & Dynamic Routing
- BGP
- VRF / VLAN
- NAT / Port Forwarding / DMZ
- DHCP Server / Client
- Bridging / Passthrough
- Policy-based Routing (PBR)
- Web GUI (HTTPS)
- CLI (SSH / Telnet)
- Syslog / Event Log
- OTA Firmware Update
- SMS Command
- Cloud Management Platform
- WPA2 / WPA3
- MAC Filtering
- WPS / Wi-Fi Scheduling
- Gigabit Ethernet ports
- USB Port
- 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: 230mm
- Width: 150mm
- Depth: 40mm
- Weight: 822gr

### Environmental

- Idle: 80mA + 12VDC
- Single Module Power Consumption: <7W

## General specifications

|             |                                                                                      |
|-------------|--------------------------------------------------------------------------------------|
| CPU         | ARMv7 Processor rev 1 (v7l)                                                          |
| Memory      | 512MB                                                                                |
| HW Watchdog | Connection schedulers<br>Ping / Uptime Watchdog<br>SMS automation<br>Scripting tasks |
| SPI Flash   | 64MB                                                                                 |

## Interfaces and Configuration

|             |                               |
|-------------|-------------------------------|
| LAN         | 4x1000 Mbps                   |
| WAN         | 1 x 10/100/1000 BaseT(MDI-X)  |
| 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            | 2 x U-SIM Cards                                                                                         |

## 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                                                                  |
| 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 | SIM Slot selection<br>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              | TR5120                                                                                                                                                                                                                                                                           |
| Wi-Fi Specifications | Wi-Fi Radio: 2.4 GHz + 5 GHz dual-band, up to 80 MHz<br>Wi-Fi Standards: IEEE 802.11 a/b/g/n/ac (WiFi 4 & WiFi 5)<br>Channel Bandwidth Support: 20/40/80 MHz<br>2.4 GHz Maximum Data Rate: ~300 Mbps (1x1 MIMO, 40 MHz)<br>5 GHz Maximum Data Rate: ~867 Mbps (1x1 MIMO, 80 MHz) |
| MIMO                 | 2.4 GHz Band: 2x2 MIMO                                                                                                                                                                                                                                                           |
| 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

|              |                                                                                                                          |
|--------------|--------------------------------------------------------------------------------------------------------------------------|
| S9980DSL-LTE | CAT4 Cellular Radio Interface<br>4xLAN Gigabit, 1xWAN Gigabit, 2xSIM Slots<br>1xxDSL<br>2.4GHz-5GHz Wi-fi 802.11b/g/n/ac |
|--------------|--------------------------------------------------------------------------------------------------------------------------|

## Defaults

|                      |                                                                                                                                                                                                |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Default Box Contents | 1 x S9980DSL-LTE Router Hardware<br>2 x 3M Antennas for 4G<br>2 x WiFi antenna for 2.4GHz and 5GHz<br>1 x 1m. CAT6 Ethernet patch cable<br>2 x Mounting kit<br>1 x 12VDC 1.5A 18W Power Supply |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|



## About Ricon

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