

# S9980DSL-LTE

Industrial Router/Switch
Datasheet

Efficiency with Innovative Technology



# **Product Overview**

# S9980DSL-LTE SWITCH/ROUTER

RICON S9980DSL-LTE Router is designed and manufactured by Ricon Mobile Inc., it based on fixed ADSL and VDSL chipset and 3G/4.5G(LTE) cellular network technology. With its xDSL capability and 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 S9980DSL-LTE and its powerful features. S9980DSL-LTE Router, supports tradition router functions like VPN, firewall, NAT, SNMP, DHCP. S9980-DSL/LTE supports 3G/4.5G(LTE) as WAN interface, provide up to 300Mbps downstream and 100Mbps upstream WAN bandwidth and up to 150Mbps Wi-Fi bandwidth. S9980DSL-LTE Router comes with single port xDSL supporting ADSL/ADSL2/VDSL/VDSL2 modulations with a physical RJ11 port and single module single SIM hardware type. The unique feature of S9980DSL-LTE Router is network online & backup among WAN, WLAN, 3G/4.5G(LTE) network.

S9980DSL-LTE Router supports Ricon Management System (RMS). By the management system, you can check running info of S9980DSL-LTE Router and configure the router remotely and publish remote updates.

# S9980DSL-LTE Models & Quick Specifications



**S9980DSL-LTE** 4 Gigabit LAN



- 4.5G (LTE) / 3G support, 2.5G / 3G compatibility
- 1 SIM Slot
- Single GSM Module
- 1 Gigabit WAN
- 1 xDSL port (RJ11 input for VDSL / ADSL)
- Throughput Value 400 Mbps
- IEEE802.3 Ethernet
- Supports IEEE802.11b / g / n / ac, 2.4GHz and 5.8GHz wifi bands
- Ricon Management System (RMS)
- 2 LTE MIMO RP-SMA Antennas
- 1 802.11b / g / n WiFi Antenna, 1 802.11ac WiFi Antenna
- Industrial IP64 metal dust proof box
- Rack Mount Kit
- WiFi 5651 Log Support

# **S9980DSL-LTE Product Specifications**

# **Routing Protocols**

- Static Routing
- » RIPv1
- » RIPv2
- >> OSPF
- » BGP >> UPnP
  - **WAN Specificatins**
- >> LTE WAN
- Ethernet WAN
- PTM WAN (VDSL)
- ATM WAN (ADSL)

## Service

- Broadcasting service
- Multicasting service

#### VPN

- IPSec,
- >> VPDN,
- » PPTP,
- » L2TP
- OpenVPN
- DMVPN
- EoGRE
- GRE VPN



# **Specifications**

# S9980DSL-LTE SWITCH/ROUTER

# Cellular Networks (Category 7)

- >> EDGE/GPRS
- » FDD-LTE: Band 1/3/7/8/20
- WCDMA/UMTS/HSPA/HSPA+/CDMA2000 EVDO/CDMA 1x
- Ethernet Standard/IEEE 802.3/IEEE 802.3U

## Wi-Fi



- Standard: IEEE 802.11b / g / n / ac (866 Mbps)
- » AP, client, station, brige mode support
- WEP, WPA and WPA2 encryption with AES-TKIP
- » IEEE 802.11ac 5.8Ghz Wi-Fi support
- SSID Isolation support
- >> Channel management support
- Support 20MHz / 40MHz / 80MHz Beamer
- » 80 Concurrent users

#### Interfaces



- 3 4 Gigabit Ethernet LAN
- 1 Gigabit Ethernet WAN
- 1 ADSL / VDSL port WAN (RJ-11)
- 1 SIM Slot GSM LTE (Active Backup),
- 1 GSM Module
- 2 LTE MIMO RP-SMA Antennas,
- 2 WiFi RP-SMA Antennas (2.4GHz, 5.8GHz)
- 1 WiFi RP-SMA Antenna (2.4GHz, 5.8GHz optional)
- 1 x DC Power socket
- WLAN Button
- **WPS Button**
- Reset Button

### **Indicators**



- » Power Led
- » xDSL Led
- WAN Led
- » NET Led
- >> LAN1~4 Led
- >> Wifi Led
- » acWiFi Led
- >> WPS LED
- >> Signal Level 1~4 Led
- )> ITF Led
- SIM Led

#### **Power**



- » Idle: 80mA + 12VDC
- Single Module Power Consumption: <7W</p>

# Physical Specification



- >> Dimensions: 230mm x 150mm x 40mm
- » Weight: 892 gr. (Including antennas)
- >> Working Temperature: -35°C~+75°C
- » Relative Humidity: <95 (non-condensing)</p>

# **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 debugnma

# (RMS) Ricon Yönetim Sistemi

- Excellent monitor capability
- » Remote terminal management maintenance
- Checking the internet status at any time
- » Display of GIS device location (optional)
- » Remote debugging
- >> Flow static and analysis
- >> ZTP (Zero Touch Provisioning) remote with RiconApps integrated automatic setup support

# 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
	Safety EMC









# **Functional Features**

# S9980DSL-LTE SWITCH/ROUTER

# **Device Management**

- Local or remote web browser (IE v8 or above)
- » CLI/Telnet command
- M2M management platform(optional)
- SSH config (optional)

# **Multiple Working Modes**

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

# Full Network Mode

- \* 4G(TD-LTE/FDD LTE), DS-HSPA+, HSPA+, HSPA, WCDMA, EVDO, TD-SCDM,CDMA1x, EDGE/GPRS
- WLAN AP/station/repeater, 802.11n(802.11ac optional), at most 300Mbps, 2.4GHz & 5GHz
- >> 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)
- Device works as master or slave with the configuration in compliance with the RFC VRRP
- >> 4 VLANs (Tagged / Untagged Support)
- » Loopback IP address support
- >> SNMPv2, TR069
- » DHCP Server, DHCP Relay

# **Software Specifications**

- Configuration: Auto channel scanning and selection Configurable BS profiles (frequency, bandwidth)
- Docal WEB GUI: The Web GUI utilizes HTTPs for logging on to the device, it's easy to control the device.
- Debug Mode: RSSI level Packet error rate CINR, Dynamic Tx power Modulation
- » Encryption/Decryption: AES SNOW3G NULL
- » MIMO: 2x2 SU-MIMO, Transmission Mode4(Close-loop spatial multiplexing)PDSCH, 2\*2 close-loop spatial multiplexing should be supported.
- » Beam forming (4.5G): Transmission Mode 7
- >> Power Control(4.5G): DL Power Control UL Power Control
- » Device Management: Web Access (Local)
- » Support TR069 managment

# Firewall & Filtering

- » IP packet/Domain/MAC Filter
- » NAT
- » DMZ
- » Port Forwarding, DMZ support; Firewall for URL filter,
- » MAC filter, Dos;
- >> WAN Access Control;
- Support PIN and PUK based SIM card security;
- » Remote access control (HTTP)
- >> Telnet (CLI)

#### **Feature**

- Support OpenWrt
- » UDP/TCP management port and API
- » CPU: 88MP1826
- » RAM: 256 MB
- » Flash: 16Mb
- SIM/WAN backup

# **System Specification**

- >> DL: 300 Mbps
- >> UL: 100 Mbps
- » RxDiversity support
- Built-in MIMO antenna (Optional External)
- >> Transmit: 4Tx
- » Receive: 4Rx
- Equlization support
- Support IP an PPP TYPE; Support PAP/CHA authentication

## **Ultra Secure Data Transmission**

- >> VPN support VPDN/L2TP/PPTP/IPSec/OpenVPN
- >> IPSec over PPTP/L2TP
- 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
- » NAT mode/Routed mode



