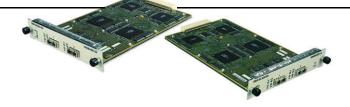# 2 Port Gigabit Ethernet SX / LX Module: RS 2000 Chassis

Overview

Riverstone Networks' Gigabit Ethernet switch router modules for the RS 2000 chassis provide 2-port 1000 Base SX or 1000 Base LX connectivity through SC connectors. These modules are ideal for high-speed connectivity in Service Provider environments where high performance and full-featured capabilities are required.

The RS product family is the only wire-speed Layer 2/3 and 4 switch router product line proven to maintain throughput with features enabled. By implementing all features in hardware, the Riverstone architecture enhances network performance compared with software-based routers. Use Network Address Translation (NAT) to enable flexible addressing or add addresses to the available pool. Turn on Access Control Lists (ACLs) to increase security or use integrated Server Load Balancing (SLB) to improve e-commerce sessions. The Riverstone switch router enables the Service Provider to implement all of these features with no loss in performance.

2 Port Gigabit Ethernet SX / LX Module: RS 2000 Chassis

Features

- Advanced wire-speed features including Network Address Translation (NAT) and Server Load Balancing (SLB) on every port

- Layer 4 application-aware switch routing and extensive QoS support on every port

- Wire-speed, standards-based IP routing including BGP-4, OSPF and RIP

- Full-function, standards-based Layer 2/3 and 4 switching on every port

Key Applications

- Traffic aggregation for multi-tenant unit buildings, or for content and application hosting environments

- Provision billable IP services per user or per application

- Provision bandwidth from 1 kbps to 100 Mbps

- Integrate SLA billing and monitoring packages with real-time port-level flow accounting and full RMON statistics

e.nabling Service Provider Infrastructure

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2 Port Gigabit Ethernet SX / LX Module (RS 2000 Chassis): Technical Specifications

Technical Specifications

Module Specifications

Switch/Routing Engine:	RS ASIC Route Engine
Buffer Memory:	3 MB per port
Layer 2 Address Table Size:	48,000 entries
Layer 3/4 Table Memory:	16 MB
Layer 3/4 Table Size:	256,000 entries
MTBF (Predicted):	>200,000 hours
In-band Mgnt:	Remote SNMP and Telnet

Physical Specifications

Dimensions:	11.00" x 7.75" x 1.55" (27.94 cm x 19.68 cm x 3.94 cm)
Weight:	3.0 lbs (1.4 kg)

Environmental Specifications

Operating Temp:	+5°C to +40°C (41°F to 104°F)
Non-Operating Temp:	-30°C to +73°C (-22°F to 164°F)
Operating Humidity:	15% to 90% (non-condensing)
Power Consumption:	100 to 125 VAC Max or 200 to 250 VAC Max; 50 to 60 Hz

Agency Standards and Specifications

Safety:	Meets the requirements of UL1950, CSA C22.2 No. 950, EN60950, IEC950 and 72/73/EEC
Electromagnetic Compatibility:	Compliant with the requirements of FCC Part 15, CSA C108.8, EN55022, VCCI V-3/93.01, EN50082-1 and 89/336/EEC

Interfaces

2 Port 1000 Base SX with SC connectors
2 Port 1000 Base LX with SC connectors

Fiber Type for 1000 Base SX

	62.5 µm MMF	50 µm MMF
Transmit Power (Minimum):	-9.5 dBm	-9.5 dBm
Receive Sensitivity:	-17 dBm	-17 dBm
Link Power Budget:	7.5 dBm	7.5 dBm

	MMF Fiber Type	Modal Bandwidth @ 850 nm	Range
Operating Range:	62.5 µm	160 MHz/km	2 to 220 m
	62.5 µm	200 MHz/km	2 to 275 m
	50 µm	400 MHz/km	2 to 500 m
	50 µm	500 MHz/km	2 to 550 m

Fiber Type for 1000 Base LX

	62.5 µm MMF	50 µm MMF	10 µm SMF
Transmit Power (Minimum):	-11.5 dBm	-11.5 dBm	-11.0 dBm
Receive Sensitivity:	-19 dBm	-19 dBm	-19 dBm
Link Power Budget:	7.5 dB	7.5 dB	8.0 dB

	MMF Fiber Type	Modal Bandwidth @ 850 nm	Range
Operating Range:	62.5 µm	500 MHz/km	2 to 550 m
	50 µm	400 MHz/km	2 to 550 m
	50 µm	500 MHz/km	2 to 550 m
	10 µm	N/A	2 to 5000 m

Ordering Information

Part No.	Product Description
G2M-GSXA1-02	2 Port Gigabit Ethernet SX Switch Router Module
G2M-GLXA9-02	2 Port Gigabit Ethernet LX Switch Router Module

For complete ordering information, including specific modules, contact your Riverstone representative at **(408) 878-6500**. You may also visit our Website at www.riverstonenet.com.

Modules are specifically for the RS 2000 chassis