

Overview

Metropolitan Service Providers (MSPs) must be able to move quickly to capture customers and provide IP-based services in the new Metro Business Internet. Versatile connectivity and comprehensive traffic shaping enable MSPs to rapidly light up metro buildings and convert raw optical and electrical bandwidth into profitable services.

Riverstone Networks' next-generation Gigabit Ethernet modules for the RS 3000 Optical Metro Access Router provide 16 10/100 Base-TX RJ-45 connectors. They enable MSPs to deliver highly differentiated services directly to the metro access edge using a combination of advanced traffic engineering features such as hardware-based rate limiting, traffic prioritization and filtering, hardware-based accounting, policy-based routing, server-load balancing, and MPLS traffic grooming.

**16-Port 10/100
Base-TX
Modules:
RS 3000 Chassis**

Features

- Hardware Rate Limiting (HRL) by port or aggregate flow allowing pinpoint bandwidth control and dynamic bandwidth provisioning
- Jumbo Frame and hardware fragmentation support for up to 64,000 byte packets to increase data throughput for bulk content providers and media streamers
- Local Hardware Route Table (LHRT) supporting more than 200,000 routes on each module to speed up the connection set-up time for remote subscribers
- Advanced wire-speed features including Network Address Translation (NAT) and Server Load Balancing (SLB) on every port to optimize server usage and implement highly reliable hosting and e-commerce services
- Weighted Fair Queuing (WFQ) and Weighted Random Early Discard (WRED) support to ensure that Service Level Agreements (SLAs) based on QoS policies can be offered and guaranteed
- Multi-Protocol Label Switching (MPLS) at the metro access edge to allow traffic to be identified and forwarded according to the appropriate routing policies

Key Applications

- Delivery of high-bandwidth variable-rate services to metro building tenants and data centers
- Rapid deployment of transparent LAN services over new or installed fiber
- Provisioning of billable IP services based on bandwidth or application usage
- Integration with standard OSS/BSS applications for improved accuracy and granularity of real-time monitoring and billing



16-Port 10/100 Base-TX Module: RS 3000 Chassis

Technical Specifications

Technical Specifications

Module Specifications

Switch/routing engine:	RapidPath™ ASIC Route Engine
Buffer memory:	1 MB per port
Layer 2 address table size:	128,000 entries
Layer 3, 4 table memory:	16 MB
Layer 3, 4 table size:	256,000 entries
Route table memory size:	Local route table on each module supports more than 200,000 routes
QoS support:	WFQ, WRED, and per-port/subnet/flow rate limiting
MTBF (predicted):	>200,000 hours
In-band management:	Remote SNMP and Telnet

Physical Specifications

Dimensions:	11" x 7.75" x 1.55" (27.94 cm x 19.68 cm x 3.94 cm)
Weight:	3 lbs. (1.4 kg)

Environmental Specifications

Operating Temp:	+0° to +40°C (32° to 104°F)
Non-operating temp:	-40° to +70°C (-40° to 158°F)
Operating humidity:	10% to 90% (non-condensing)
Non-operating relative humidity:	5% to 95% maximum (non-condensing)
Altitude, operating and non-operating:	10,000 ft (3,000 m) maximum
Shock and vibration:	GR63

Power Requirements

AC Power	
Input voltage:	100-240 VAC
Input current:	3.0 to 1.5 A
Frequency:	50 to 60 Hz
DC Power	
Input voltage:	-48 to -60 VDC
Input current:	8.0 A

Agency Standards and Specifications

Safety:	Certified 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, EN50082-1, and 89/336/EEC

Interface Specifications

Interface specifications:	16 ports 10/100 Base TX with RJ-45 connectors
---------------------------	---

IEEE 802.3 10BaseT characteristics:

Segment length:	IEEE 802.3u 100BaseTX standards of 100 m (328 ft) per segment using Category 5 24-gauge unshielded twisted pair (UTP) cable
Jitter:	Must not generate more than 1.4 ns
Impedance:	Between 85 and 110 ohms

Ordering Information

Part No.

G3M-HTXB2-16M-GSXB1-02

G3M-GLXB9-02

Product Description

16-port 10/100 Base-TX Switch Router module with Hardware Rate Limiting and Jumbo Frame support

Limiting and Jumbo Frame support

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



Module is specifically for the RS 3000 chassis



River
STONE
NETWORKS™

Riverstone Networks, Inc.

5200 Great America Parkway, Santa Clara, CA 95054 USA

408 / 878-6500 or www.riverstonenet.com

© 2000 Riverstone Networks, Inc. All rights reserved. RS, IA, Intrinsic Persistence Checking, Sticky Ports, and Comprehensive Server Checking are trademarks and service marks of Riverstone Networks. All other product names mentioned herein may be trademarks or registered trademarks of their respective owners. All specifications are subject to change without notice.