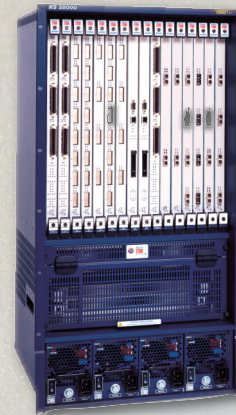# OC-48c/STM-16 Packet over SONET/SDH: RS 38000

OVERVIEW

The Riverstone Networks' Packet over SONET/SDH (POS) modules provide the critical high-speed interconnection from POPs to SONET networks in a seamless fashion. The OC-48c/STM-16 POS modules extend the WAN portfolio of the RS 38000.

SONET/SDH-based networks have been adopted by service providers as the backbone technology of choice for addressing ever-increasing bandwidth demands. Packet over SONET/SDH interfaces for the RS metro router provide increased redundancy, bandwidth utilization, and capacity. With the POS interfaces, all the benefits of the RS metro router are extended to the SONET infrastructure. Access Control List (ACL) based filtering, Layer 4 application aware switching, QoS, and Server Load Balancing are integrated into the base module.

FEATURES

- High-speed Packet over SONET/SDH (POS) OC-48c/STM-16 interfaces provide a cost-effective, high-performance backbone network for service providers
- Supports high-port density with a 1-port OC-48c/STM-16 single-slot linecard, and enables redundancy using 1+1 Automatic Protection Switching
- Supports both SONET and SDH modes with industry standard PPP over SONET/SDH (RFC 1619) and PPP in HDLC-like Framing (RFC 1662) protocol support
- IP-based Weighted Fair Queuing (WFQ), Weighted Random Early Discard (WRED), and Rate Limiting features provide effective congestion management tools for service providers

This module is specially designed for the RS 38000 Chassis.

KEY APPLICATIONS

- Enables connectivity of SONET/SDH and Gigabit Ethernet backbones

- Aggregates traffic directly from geographically-distant POP sites to high-speed Internet backbones

- Provisions billable IP services per user or per application

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

River STONE NETWORKS™

This module is specially designed for the RS 38000 Chassis.

Physical Specifications

Dimensions:	11" x 17" (27.94 cm x 43.18 cm)
Weight:	10.0 lbs. (4.7 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 Relative 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

Module Specifications

Interface Types:	1-port OC-48c/STM-16 Packet over SONET/SDH
Switch/Routing Engine:	RS ASIC Route Engine
Buffer memory:	128 MB per linecard
Layer 2 address table size:	256,000 entries per linecard
Layer 3/4 table size:	512,000 entries per linecard
Route table memory size:	Local hardware route table on each module supports more than 200,000 routes
QoS support:	WFQ, WRED, and per-port/subnet/flow-rate
MTBF (Predicted):	>200,000 hr.
In-band Mgmt:	Remote SNMP and Telnet

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

Ordering Information

Part No.	Product Description
R38-P48EM-01	RS 38000 1-port OC-48c/STM-16 Packet over SONET/SDH module (requires SFPs)
SFP48-01	OC-48/STM-16 1310 nm Short Reach SFP
SFP48-09	OC-48/STM-16 1310 nm Intermediate Reach SFP
SFP48-05	OC-48/STM-16 1310 nm Long Reach SFP
SFP48-07	OC-48/STM-16 1550 nm Long Reach SFP

All products above are available with a light encryption option, to comply with US export laws. For availability and complete ordering information, including specific modules, contact your Riverstone Representative at +1 408.878.6500. You may also visit our website at www.riverstonenet.com

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