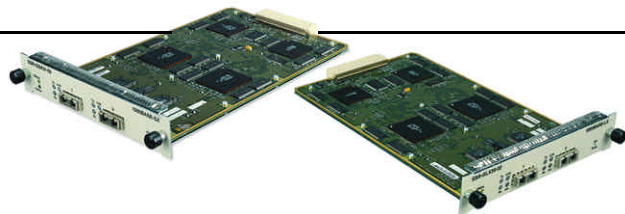


## WAN Serial Interface Modules: RS 2000 Chassis

*with Compression and Encryption*



### Overview

Riverstone Networks' 2-port and 4-port Serial interface modules extend the application-aware switch routing benefits of the RS 2000 to the WAN. The RS Serial module supports PPP, MLPPP and Frame Relay at speeds up to 8 Mbps for T1/E1 applications. Detailed accounting information can be gathered using per-PVC wire-speed RMON, enabling confirmation of committed information rates (CIRs). Hardware-based Compression (2 to 1) immediately reduces fixed costs while hardware-based Encryption adds security – both can be implemented with no impact on WAN bandwidth.

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. Additionally, congestion control is achieved across the WAN through flow rate limiting together with Weighted Random Early Discard (WRED) and Weighted Fair Queuing (WFQ). Prioritization policies can be extended from WAN to LAN environments enabling resource allocation to specific groups of users or application flows.

### WAN Serial Interface Modules with Compression & Encryption: RS 2000 Chassis

#### Features

- Extends the benefits of wire-speed Layer 4 application-aware switch routing to the WAN
- Hardware-based Compression increases the data rate and Encryption enhances security without degrading the WAN link
- Strict adherence to PPP, MLPPP and Frame Relay standards
- Unique per-PVC wire-speed RMON provides statistics to enable better understanding of network traffic and confirmation of CIRs
- Traffic shaping per PVC enables custom queuing and prioritization for enhancing Quality of Service (QoS)
- Intelligent congestion control across the WAN through flow-based rate limiting, Weighted Random Early Discard (WRED) and Weighted Fair Queuing (WFQ)

### Key Applications

- Enable rapid deployment of transparent LAN Services in Metropolitan Area Network environments
- Aggregate existing T1 / T3 customers without loss of performance
- Maximize revenue by provisioning WAN bandwidth into fixed increments for billing based on usage
- Integrate SLA billing and monitoring packages with real-time port-level flow accounting and full RMON statistics

*e. nabling*  
Service Provider  
Infrastructure



**River**  
**STONE**  
NETWORKS™

# WAN Serial Interface Modules (RS 2000 Chassis): Technical Specifications

*with Compression and Encryption*

## Technical Specifications

### Module Specifications

Switch/Routing Engine: RS ASIC Route Engine

DRAM Supported: 32 MB

Maximum Link Speed: 8 Mbps per port

Cyclic Redundancy Check (CRC) : 16-bit

Maximum PVC/DLCI Support: 200 per port

Maximum Compression Histories: 64 per line card

Encryption Support: DES, Triple-DES, SHA-1, RC4 & with 168-bit keys

MTBF (Predicted): >200,000 hours

WAN Interface Types: EIA/TIA-612/613

### Physical Specifications

Dimensions: 7.5" x 11" (19.05 cm x 27.94 cm)

Weight: 1 lb. (0.45 kg)

### Environmental Specifications

Operating Temp: 0°C to +40°C (32°F to 104°F)

Non-operating Temp: -30°C to +90°C (-22°F to 194°F)

Operating Humidity: 5% to 95% (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 UL19 EN60950, EC950 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

Serial Connector: 60-pin D shell supporting 2 serial ports per connector

Line Rate: Up to 8 Mbps

### RFCs/MIB and IEEE Standards

**RFC No.** RFC 1490  
**Title** Multiprotocol Interconnect Over Frame Relay

RFC 1471 Managed Objects for the LCP of PPP

RFC 1473 Managed Objects for the IP NCP of PPP

RFC 1661 PPP

RFC 1662 PPP in HDLC-like Framing

RFC 1332 PPP Internet Protocol Control Protocol (IPCP)

RFC 1548 The Point-to-Point Protocol (PPP)

RFC 1570 PPP LCP Extensions

RFC 1638 PPP Bridging Control Protocol (BCP)

RFC 1990 PPP Multi-Link Protocol

RFC 1552 The PPP Internetwork Packet Exchange Control Protocol (IPXCP)

## Ordering Information

Part No.	Product Description
G2M-SERAC-02	2 Port Serial Interface Module
G2M-SECAC-04	4 Port Serial Interface Module with Compression
G2M-SCEAC-04	4 Port Serial Interface Module with Compression and Encryption

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](http://www.riverstonenet.com).



Modules are specifically for the RS 2000 chassis



### Riverstone Networks, Inc.

5200 Great America Parkway, Santa Clara, CA 95054 USA

408 / 878-6500 or [www.riverstonenet.com](http://www.riverstonenet.com)

© 2000 Riverstone Networks, Inc. All rights reserved. Internet Appliance and IA are registered trademarks of Cabletron Systems, Inc. All other trademarks are properties of their respective owners. All specifications are subject to change without notice.