



Overview

Riverstone Networks' high-speed serial interface (HSSI) module extends the application-aware switch routing benefits of the RS 2000 family to the WAN. The RS HSSI interface supports PPP, MLPPP and Frame Relay at speeds up to 52 Mbps for T3/E3 applications. Detailed accounting information can be gathered using per-PVC wire-speed RMON, enabling confirmation of committed information rates (CIRs).

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 based 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.

2 Port WAN HSSI Module: RS 2000 Chassis

Features

- Extends the benefits of wire-speed Layer-4 application-aware switch routing to the WAN
- Strict adherence to PPP, MLPP and Frame Relay standards
- Unique per-PVC wire-speed RMON provides statistics to enable better understanding of network traffic and confirmation of committed information rates (CIRs).
- Traffic shaping per PVC enables custom queuing and prioritization for enhancing Quality of Service
- 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 metro 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

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2 Port WAN HSSI Module (RS 2000 Chassis): Technical Specifications

Technical Specifications

Module Specifications

Switch/Routing Engine:	RS ASIC Route Engine
DRAM Supported:	32 MB
Maximum Link Speed:	STS-1 or 52 Mbps per port
Cyclic Redundancy Check (CRC) :	16-bit
Maximum PVC/DLCI Support:	200 per port
MBTF (Predicted):	>200,000 hours
WAN Interface Types:	EIA/TIA-612/613

Physical Specifications

Dimensions:	8.5" x 11" (21.59 cm x 27.94 cm)
Weight:	2 lb. (0.91 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)

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

HSSI Connector:	50-pin connector supporting one HSSI interface
Line Rate:	Up to 8 Mbps

RFCs/MIB and IEEE Standards

RFC No.	Title
RFC 1332	PPP Internet Protocol Control Protocol (IPCP)
RFC 1471	Managed Objects for the LCP of PPP
RFC 1473	Managed Objects for the IP NCP of PPP
RFC 1490	Multiprotocol Interconnect over Frame Relay
RFC 1548	The Point-to-Point Protocol (PPP)
RFC 1552	The PPP Internetwork Packet Exchange Control Protocol (IPXCP)
RFC 1570	PPP LCP Extensions
RFC 1638	PPP Bridging Control Protocol (BCP)
RFC 1661	PPP
RFC 1662	PPP in HDLC-like Framing
RFC 1990	PPP Multi-Link Protocol

Ordering Information

Part No.	Product Description
G2M-HSIAC-02	2 Port HSSI interface module
SYS-HSSI-CAB	HSSI Cable

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.



Module is specifically for the RS 2000 chassis



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