

**Overview**

Riverstone Networks 2-port channelized DS3 line card extends the application-aware switch routing benefits of the RS 8000/8600 to the WAN. The line card supports PPP, MLPPP and Frame Relay. 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-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.

This 2-port channelized DS3 line card for the RS 8000/8600 platform supports internal CSU/DSU. The channelization feature allows the user to access all 28 DS1 individually. The MLPPP feature supports nxT1 bundling.

Riverstone DS1/E1 and DS3/E3 WAN technology forms a very powerful aggregation solution. The solution leverages telco T1 leased line service for the remote and DS3 colocation service for the hub. It is an ideal match for Metropolitan Service Providers (MSPs) to quickly deploy metropolitan infrastructure for the MTU/MDU market segment.

**Multirate  
WAN Module:  
RS 8000/8600  
Channelized DS3  
Line Card**

**Features**

- 2-port channelized DS3 line card (112 DS1) with BNC connectors
- Channelized DS3 supporting 28 DS1
- M13 or C-bit parity framing
- Support ANSI T1.102, 107, and 404 standards
- DSX-3 statistics available for diagnostic
- Loopback and diagnostic
- Integrated CSU/DSU
- Support FR, PPP, MLPPP
- MLPPP for nxT1 bundling feature
- 802.1Q VLAN
- Weighed Fair Queuing
- Weighed Random Early Discard
- QoS
- Hot swap support

**Key  
Applications**

- Provide highly scalable DS1 aggregation at the hub, ideal for the MTU/MDU market segment
- nxT1 bundling feature increases accessing speed to the backbone
- Rapid deployment of WAN infrastructure by leveraging existing telco leased line service
- Flexible connectivity to minimize subscriber churn
- Extends the benefits of wire-speed Layer 4 application-aware switch routing to the WAN
- 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**



# Multirate WAN: RS 8000/8600 Channelized DS3 Line Card Technical Specifications

## Technical Specifications

### Line Card Specifications

MTBF (predicted): >200,000 hours

Connector type: BNC connector

Interface standard: ANSI T1.404, channelization support only

No. of DS3 port: 2

Framing: M13, C-bit

Line code: B3ZS

### Physical

Dimensions: 11" x 17" (27.94 cm x 43.18 cm)

Weight: 3 lbs

### 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

### Agency Standards and Specifications

Safety: Certified 1950, 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

### IETF Standards Support

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.

G8M-CT3BB-02

### Product Description

2-port channelized DS3 line card

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).



Module is specifically for the RS 8000/8600 chassis



### Riverstone Networks, Inc.

5200 Great America Parkway, Santa Clara, CA 95054 USA

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

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