



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' high-performance ATM module for the RS 3000 Optical Metro Access Router supports up to two physical interface cards with a choice of T-3/E-3 and OC-3c (MMF and SMF) interfaces offering a wide range of multi-rate services. Such versatile connectivity means MSPs can gain crucial first-mover advantage in deploying services to metro customers over existing ATM cell-based infrastructures. The module enables 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.

2-Port OC-3c ATM Switch Router Module: RS 3000 Chassis

Features

- Transparent LAN Services allow any RS 3000 Ethernet circuits to be mapped across ATM VCs thus extending Ethernet circuits across the metro area
- Extensive range of interchangeable ATM physical interface options provide flexibility and upgrade ability for service provider customers
- Support for 16 Virtual Paths (VPs) and 4,096 Virtual Circuits (VCs) per port with per-VC traffic shaping allows QoS policies to be implemented using ATM traffic classes
- Support for RFC 1483 encapsulation for bridged and routed protocols over PVCs with the support for RFC 2225 classical IP allows interoperation with existing ATM backbone networks
- Fully SNMP manageable with support for AToM MIB (RFC 1695) and AToM MIB extensions allows integration with standard ATM management platforms

Key Applications

- Provide transparent LAN and virtual leased line type of services by Service Providers with ATM backbone
- Guaranteeing the transport of voice, video, and data over Metropolitan Area Networks
- Creating tiered services with customized SLAs using traffic shaping (UBR, VBR, CBR), hardware-based rate limiting, and QoS policies

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2-Port OC-3c ATM Switch Router Module: RS 3000 Chassis

Technical Specifications

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Module Specifications

| | |
|-------------------------|--|
| Max. number of VCs/VPs: | 16 VPs per port, 4K VCs per port, bi-directional |
| AAL type: | AAL5 |
| Traffic classes: | UBR, paced UBR, nrt-VBR, CBR |
| Traffic shaping: | Per VC and VP traffic shaping configurable on every port |
| Statistics: | Per-VC ingress and egress statistics maintained |
| Encapsulations: | LLC/SNAP and VC mux routed packet encapsulation |
| MTBF (predicted): | >200,000 hours |

Physical Specifications

| | |
|-------------|--|
| Interfaces: | 2-port ATM OC-3c module |
| 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 |

Interface Specifications

| Part Number | AIC-67 | AIC-77 | AIC-21 | AIC-29IR |
|------------------------------------|------------|----------------------|-------------|----------------|
| Port Density | 1 DS-3/T3 | 1 E-3 | 1 OC-3c MMF | 1 OC-3c SMF-IR |
| Line Rate | 45 Mbps | 34 Mbps | 155 Mbps | 155 Mbps |
| Framing | C-bit, M23 | ITU G.832, ITU G.751 | SONET OC-3 | SONET OC-3 |
| Connector | BNC | BNC | SC | SC |
| Wavelength | — | — | 1310 nm | 1310 nm |
| Transmit Power (min dbm) | — | — | -20 | -15 |
| Receive Power (min dBm) | — | — | -31 | -28 |
| Max. Reach | 137 m | 200 m | 2 km | 15 km |

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 |

RFCs/MIBs

| | |
|----------|---|
| RFC 1483 | Routed and bridged encapsulation over PVC |
| RFC 1585 | SONET |
| RFC 1695 | AToM MIB |
| RFC 2225 | Classical IP over ATM (CLIP) |
| RFC 2495 | DS-1 |
| RFC 2496 | DS-3 |

Ordering Information

| Part No. | Product Description |
|--------------|--|
| G3M-A03BM-02 | 2-port ATM base module with 2 slots for Physical Interface Cards |
| AIC-67 | 1-port DS-3/T3 Physical Interface Card (Coax) |
| AIC-77 | 1-port E-3 Physical Interface Card (Coax) |
| AIC-21 | 1-port OC-3c MMF Physical Interface Card |
| AIC-29IR | 1-port OC-3c SMF-IR Physical Interface Card |

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



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