16 Port Fast Ethernet TX Module: RS 8000 / 8600 Chassis

Overview

Riverstone Networks' next-generation 16-port 10/100 Base-TX module for the RS 8000 and 8600 switch router chassis provides network connectivity through RJ-45 connectors. This module enhances overall network performance by eliminating bottlenecks caused by a single central processor. Additionally, the 16-port 10/100 Base-TX module delivers full-function Layer 2, 3 and 4 switching and routing as well as advanced wire-speed functionality including Network Address Translation (NAT), Server Load Balancing (SLB) and Access Control Lists (ACLs).

The unique capabilities of the Riverstone module's architecture are Hardware Rate Limiting (HRL) and Local Hardware Route Table (LHRT). These features are well suited to address the aggressive needs of Service Providers. HRL includes Port Rate Limiting and Aggregate Rate Limiting which are ideal for Application, Content and Multi-Tenant-Unit Service Providers. These environments require the ability to set up and manage a large number of new connections per second. Local Hardware Route Table (LHRT) enables routing tables to be stored locally on the modules which enhances the connection set up time compared to cache-based routers.

16 Port Fast Ethernet TX Module: RS 8000 / 8600 Chassis

Features

• Hardware Rate limiting including Port Rate Limiting and Aggregate Rate Limiting

• Local Hardware Route Table (LHRT) supporting more than 200,000 routes on each module

• Advanced wire-speed features including Network Address Translation (NAT) and Server Load Balancing (SLB) on every port

• Weighted fair queuing (WFQ) and weighted random early discard (WRED) support

• Wire-speed, standards-based IP routing including BGP-4, OSPF and RIP

Key Applications

• Traffic aggregation for multi-tenant unit buildings, or for content and application hosting environments

• Provision billable IP services per user or per application

• Provision bandwidth from 1 kbps to 100 Mbps

• 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

16 Port Fast Ethernet TX Module (RS 8000 / 8600 Chassis):
Technical Specifications

Technical Specifications

Module Specifications

Switch/Routing Engine:	RS ASIC Route Engine
Buffer Memory:	1 MB per port
Layer 2 Address Table Size:	128,000 entries
Layer 3/4 Table Memory:	16 MB
Layer 3/4 Table Size:	256,000 entries
Route Table Memory Size:	Local route table on each module supports more than 200,000 routes
QoS Support:	WFQ, WRED and per port/subnet/flow rate limiting
MTBF (Predicted):	>200,000 hr.
In-band Mgmt:	Remote SNMP and Telnet

Physical Specifications

Dimensions:	11.00" x7.75"x1.55" (27.94 cm x 19.68 cm x 3.94 cm)
Weight:	3.0 lbs (1.4 kg)

Environmental Specifications

Operating Temp:	+5° to +40°C (41° to 104°F)
Non-Operating Temp:	-30° to +73°C (-22° to 164°F)
Operating Humidity:	15% to 90% (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 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

Interface Specifications:	16 Ports 10/100 Base TX with RJ 45 connectors

IEEE 802.3 10BaseT Characteristics

Segment Length:	IEEE 802.3 10BaseT standards of 100 m (328 ft) per segment using 24-gauge unshielded twisted pair (UTP) cable
Insertion Loss:	11.5 dB between, 5.0 and 10.0 MHz, maximum (This includes the attenuation of the cable, connectors, and patch panel)
Impedance:	Between 85 and 110 ohms

IEEE 802.3u 100BaseTX Characteristics

Segment Length:	IEEE 802.3u 100 BaseTX standards of 100 m (328 ft) per segment using Category 5 24-gauge unshielded twisted pair (UTP) cable
Jitter:	Must not generate more than 1.4 ns
Impedance:	Between 85 and 110 ohms

Ordering Information

Part No.	Product Description
G8M-HTXB2-16	16 Port Fast Ethernet TX Switch Router Module with Hardware Rate Limiting
G8M-HTXA2-08	8 Port Fast Ethernet TX Switch Router Module for the RS 8x000
G8M-HFXA1-08	8 Port Fast Ethernet FX (MMF) Switch Router Module for the RS 8x000
G8M-HFXA9-08	8 Port Fast Ethernet FX (SMF) Switch Router Module for the RS 8x000

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.

Modules are specifically for the RS 8000/8600 chassi