

## Overview

The RS 32000 Fast Ethernet switch router modules enable high-density aggregation of 10 or 100 Mbps Ethernet connectivity. This includes aggregating server farms in managed server environments, provisioning links to colocation customers, and connecting to legacy access devices. There are two versions of the module, a 24-port version equipped with RJ-45s for quick connectivity, or for higher density a 32-port version is available using RJ-21 Telco connectors for fanning out to patch panels.

The RS 32000 Fast Ethernet switch router modules support the Business enabling Quality of Service (*e*-QoS) feature set for provisioning tiered levels of service to customers. They also support the internet Business Intelligence Gathering (iBIG) feature set for supplying accounting and billing information for *e*-QoS services.

## 24/32 Port Fast Ethernet FX Module: RS 32000 Chassis

### Features

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- High-density, wire-speed, full- or half-duplex connectivity
- Select the port density you need between 24 ports and 32 ports
- Supports *e*-QoS feature set for provisioning tiered levels of services
- Supports iBIG features for providing billing and accounting information

## Key Applications

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- Traffic aggregation of legacy edge access devices, high-density colocation links, and managed data center server farms
  - Integrate iBIG billing and monitoring with real-time port-level flow accounting and full RMON statistics
  - Provision billable *e*-QoS IP services per user or per application

# 24/32 Port Fast Ethernet FX Module (RS 3200 Chassis): Technical Specifications

## Technical Specifications

### Module Specifications

MTBF (Predicted): >200,000 hr.

Interface Types: 24 RJ-45 connectors or  
3 RJ-21 connectors fanning out to  
32 Fast Ethernet ports

### Physical Specifications

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

Weight: 10.0 lbs. (4.7 kg)

### Environmental Specifications

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

Non-Operating Temp: -30° to +90°C (-22° 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 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

### IETF Standards Support

RFC 1058  
RFC 1105  
RFC 1157  
RFC 1163  
RFC 1213  
RFC 1253  
RFC 1256  
RFC 1265  
RFC 1266  
RFC 1267  
RFC 1293  
RFC 1332  
  
RFC 1349  
  
RFC 1397  
RFC 1490  
  
RFC 1519  
RFC 1548  
RFC 1552  
  
RFC 1570  
RFC 1573  
RFC 1583  
RFC 1631  
RFC 1638  
RFC 1656  
  
RFC 1657  
RFC 1661  
RFC 1662  
RFC 1723  
RFC 1771  
RFC 1772  
RFC 1812  
RFC 1966  
RFC 1990  
RFC 1997  
RFC 2096  
RFC 2131  
RFC 2225  
RFC 2236  
  
RFC 2391

RIP v1  
BGP  
SNMPv1  
BGP-2  
MIB-2  
OSPF v2 MIB  
ICMP Router Discover Message  
BGP Protocol Analysis  
Experience with the BGP Protocol  
BGP-3  
Inverse ARP  
PPP Internet Protocol Control  
Protocol (IPCP)  
Type of Service in the Internet  
Protocol Suite  
BGP Default Route Advertisement  
Multiprotocol Interconnect  
over Frame Relay  
CIDR  
The Point-to-Point Protocol (PPP)  
The PPP Internetwork Packet Exchange  
Control Protocol (IPXCP)  
PPP LCP Extensions  
Evolution of the Interfaces Group of MIB-II  
OSPF v2  
IP Network Address Translator  
PPP Bridging Control Protocol (BCP)  
BGP-4 Protocol Document Roadmap  
and Implementation Experience  
BGP-4 Definitions of Managed Objects  
PPP (Point-to-Point Protocol)  
PPP in HDLC-like Framing  
RIP v2  
BGP-4  
Application of BGP in the Internet  
Router Requirements  
BGP Route Reflection  
PPP Multi-Link Protocol  
BGP Communities Attribute  
IP Forwarding MIB  
Dynamic Host Configuration Protocol  
Classical IP and ARP over ATM  
Internet Group Management Protocol,  
Version 2  
Load Sharing using IP Network Address  
Translation (Load Balance)

### IETF Standards MIB Support

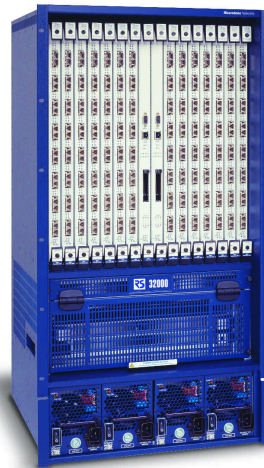
RFC 1471  
RFC 1472  
RFC 1473  
RFC 1474  
RFC 1493  
  
RFC 1643  
RFC 1654  
RFC 1724  
RFC 1757  
  
RFC 1850  
RFC 2011  
RFC 2021  
  
RFC 2096  
RFC 2115  
RFC 2233  
RFC 2271  
RFC 2618

PPP LCP (Link Control Protocol)  
PPP Security Protocol  
PPP IP NCP (Network Control Protocol)  
PPP Bridge NCP  
Definitions of Managed Objects  
for Bridges  
Ethernet Like Interface MIB  
BGP4 MIB  
RIPv2 MIB  
Remote Network Monitoring (RMON)  
Management Information Base  
OSPF and OSPF Trap MIB  
Internet Protocol using SMIv2  
Remote Network Monitoring Version 2  
(RMON 2)  
IP Forwarding MIB  
Frame Relay DTE using SMIv2  
Interfaces Group using SMIv2  
SNMP Management Frameworks  
Radius Authentication Client

## Ordering Information

Part No.	Product Description
R32-HTXC2-24	24 Port Fast Ethernet Switch Router Module using RJ-45 Connectors
R32-HTXC3	32 Port Fast Ethernet Switch Router Module (fanned out from 3 RJ-21 Connectors)

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 3200 chassis



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