

Hubs

Modules

System 3000 Ethernet/Fast Ethernet Host Modules



Increase Network
Performance

Improve Network
Connectivity

Expand Network
Control

Indicate Network
Status

System 3000™ Ethernet and Fast Ethernet host modules provide standards-based IEEE 802.3-compatible connectivity for the Bay Networks System 3000 intelligent hub platform, bringing powerful 10 megabit-per-second (Mbps) Ethernet and 100 Mbps Fast Ethernet connectivity to System 3000 hubs.

The System 3000 Ethernet and Fast Ethernet host modules occupy a single slot in the Model 3000 Premises concentrator, where they implement 10 Mbps Ethernet or 100 Mbps Fast Ethernet networks in a physical star topology over a building's structured cabling system. System 3000 Ethernet host modules also operate in Model 3030 Department concentrators. The modules operate over one of five Ethernet or three Fast Ethernet backplane segments, offering tremendous configuration flexibility.

The System 3000 Ethernet and Fast Ethernet host modules are compatible with all existing IEEE 802.3 Ethernet-based products, providing seamless integration with any standards-based network. Working with Bay Networks Ethernet and Fast Ethernet hubs, switches, and routers, the System 3000 Ethernet/Fast Ethernet modules contribute to a comprehensive enterprise networking solution.

Benefits

Increase Network Performance

System 3000 Fast Ethernet host modules provide high-speed connectivity to backbones, servers, and power users. By moving high-volume server and power user traffic to Fast Ethernet, throughput is improved in all parts of the network (see Figure 1). Fast Ethernet modules also support segmentation via the three Fast Ethernet backplane segments of the Model 3000 chassis, providing additional bandwidth up to a total of 300 Mbps of performance.

Improve Network Connectivity

Operating over a variety of twisted pair and fiber optic cabling media, the System 3000 Ethernet and Fast Ethernet host modules offer flexible connectivity solutions for nearly any environment. 10BASE-T, 100BASE-TX, and 100BASE-FX standards are supported, providing a perfect fit for any standards-based networking environment.

Expand Network Control

In networks configured with the Optivity® network management system, System 3000 Ethernet and Fast Ethernet host modules provide detailed port- and board-level monitoring and control capabilities, and an additional level of network security can be achieved through Bay Networks secure Ethernet technology. Module identification, configuration, and status information is automatically presented to the network management control console in real time via a graphical user interface.

Indicate Network Status

Each System 3000 Ethernet and Fast Ethernet host module includes front panel LEDs to indicate board status, partitioning, and network management activity. In addition, per-port LEDs report link and partitioning status on an individual basis. The Ethernet modules also include IEEE 802.3-compatible per-port autopartitioning, which disables connections in the event of excessive consecutive collisions, a single collision of excessive length, or jabbering nodes. Ports are automatically reconnected once the fault is corrected.

Features

System 3000 Fast Ethernet Host Modules

Two System 3000 Fast Ethernet host modules are available for supporting high-speed, high-performance connectivity to the System 3000 intelligent hub.

Model 3405 Fast Ethernet Host Module

The Model 3405 Fast Ethernet Host Module is a single-cluster module that offers 12 RJ-45 receptacles for supporting 100BASE-TX network connections over Category 5 unshielded twisted pair (UTP) cabling. The System 3000 supports a maximum of six Model 3405 host modules.

All 12 ports on the Model 3405 can be collectively assigned to one backplane segment, or they can be isolated from the backplane. Steering the host module to a particular segment (or isolating it) can be accomplished locally using jumper settings, or remotely through software.

Model 3475-FX Fast Ethernet Host Module

The Model 3475-FX Fast Ethernet Host Module is a single-cluster module that offers 11 RJ-45 receptacles for supporting 100BASE-TX network connections over Category 5 UTP cabling and one SC-type connector for multimode fiber 100BASE-FX connections.

The 100BASE-FX port is commonly used as a downlink to a 100BASE-T switch or router. The 100BASE-FX port can also be used for direct server or network connections where fiber is required.

System 3000 Ethernet Host Modules

Six different System 3000 Ethernet host modules are available, each supporting different media for any cabling environment.

Model 3308B 10BASE-T Host Module

The Model 3308B 10BASE-T Host Module, working with System 3000 retiming or network management modules, provides a complete 10BASE-T solution for running 10 Mbps Ethernet over UTP wire. The Model 3308B offers 12 RJ-45 modular receptacles to support host connections to IEEE 802.3 10BASE-T-compatible transceivers or network interface cards.

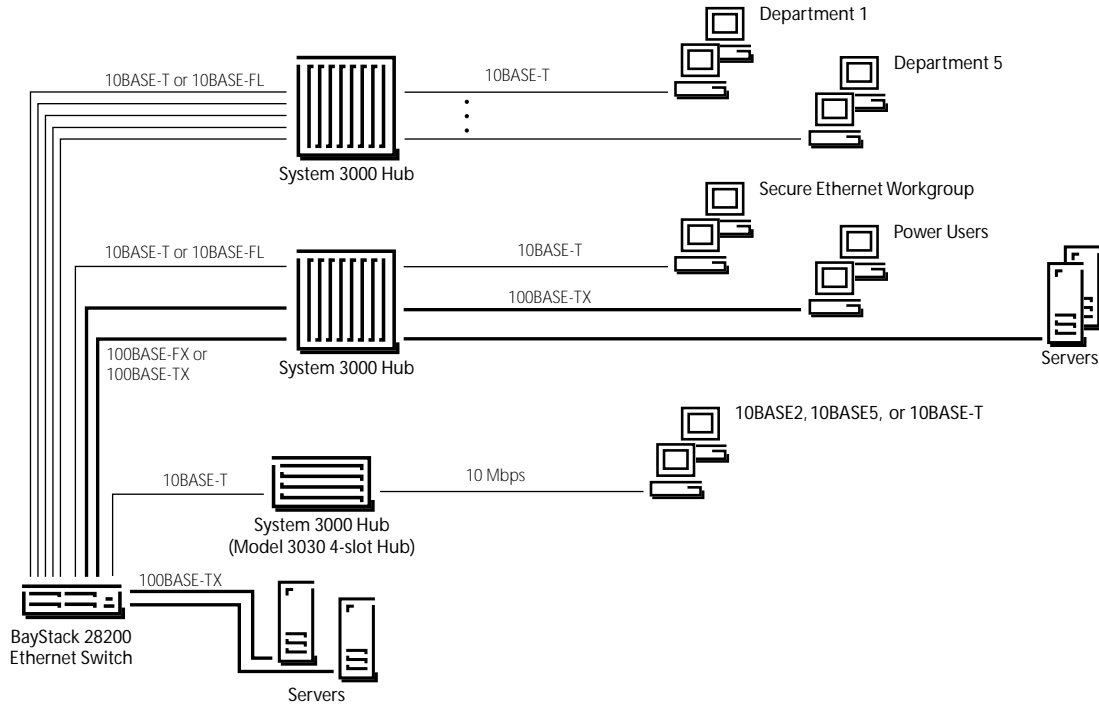
Model 3307HD High-Density 10BASE-T Host Module

The Model 3307HD High-Density 10BASE-T Host Module expands the functionality of the Model 3307 with two 50-pin connectors supporting a total of 24 ports. This provides up to 264 ports in a Model 3000 and up to 72 ports in a Model 3030 concentrator. This module also provides an RJ-45 modular receptacle for simple connections to other 10BASE-T ports, internetworking devices, or LAN analyzers.

Model 3368 Secure 10BASE-T Host Module

The Model 3368 secure 10BASE-T Host Module protects Ethernet data traffic from eavesdropping and unauthorized access in common departmental 10BASE-T networks. Working with the Optivity network management system and System 3000 Ethernet network management modules, the Model 3368 guards against unwanted intrusions, configuration

Figure 1 | System 3000 Ethernet and Fast Ethernet Modules



changes, and eavesdropping by converting Ethernet's broadcast-based "party line" into a direct person-to-person communications link. The module offers 12 RJ-45 modular receptacles to support Ethernet host connections to transceivers or network interface cards compatible with IEEE 802.3 10BASE-T requirements.

Model 3304A 10BASE-T Fiber Optic Host Module The Model 3304A 10BASE-F Fiber Optic Host Module supports eight IEEE 802.3 10BASE-F-compatible fiber optic ports with ST fiber connectors. All Model 3304A 10BASE-F ports can be configured to support redundant fiber links, providing additional reliability for mission-critical networks.

Model 3301 10BASE2 Thinnet Host Module The Model 3301 Thinnet Host Module offers eight BNC ports to support host stations utilizing IEEE 802.3 10BASE2-compatible connections. The Model 3301 enables computers equipped with 10BASE2-compatible ports, adapter cards, or transceivers to be arranged in a fully managed, physical star topology.

System 3000 Retiming Modules System 3000 retiming modules satisfy the IEEE 802.3 repeater specification, electrically completing the hub's backplane and data status buses. Two System 3000 retiming modules are available.

Model 3333 AUI Retiming Module The Model 3333 AUI Retiming Module provides an Attachment Unit Interface (AUI) port for maximum flexibility when connecting to other concentrators or network equipment.

Model 3334-ST FOIRL Retiming Module The Model 3334-ST FOIRL Retiming Module provides a fiber optic port with FOIRL-compatible signaling for bayonet-type ST connections to an FOIRL-compatible ST port on a System 3000 Ethernet host module.

Technical Specifications

Technical specifications for the System 3000 Ethernet/Fast Ethernet host modules are shown in Table 1.

Table 1 | System 3000 Ethernet/Fast Ethernet Host Modules Technical Specifications

Data Rate	
10BASE-T	10 Mbps Manchester encoded IEEE 802.3
100BASE-T	100 Mbps with 4B/5B coding scheme
Standards Support	
	IEEE 802.3 AUI
	IEEE AUI (for connections via 10BASE5)
	IEEE 802.3i 10BASE-T
	IEEE 802.3i 10BASE2
	IEEE 802.3i 10BASE-F
	IEEE 802.3i FOIRL
	IEEE 802.3u 100BASE-T
Physical Dimensions	
	(H) 14.97 in. x (W) 1.19 in. x (D) 10.59 in. [(H) 38.02 cm x (W) 3.02 cm x (D) 26.89 cm]
Environmental Specifications	
Operating Temperature	5° to 40°C
Storage Temperature	-29° to 65°C
Operating Humidity	90% max relative humidity
Storage Humidity	90% max relative humidity
Operating Altitude	10,000 ft (3,048 m), 40°C max
Storage Altitude	25,000 ft (7,620 m), 40°C max
Free Fall/Drop	ISO 4180-2, NISTA 1A
Vibration	IEC 68-2-6/34
Shock/Bump	IEC 68-2-27/29
Thermal Rating (max)	
Model 3307, Model 3308B	11 W (37 Btu/hr)
Model 3333	14 W (48 Btu/hr)
Model 3304A, Model 3307HD, Model 3368HD	17 W (58 Btu/hr)
Model 3334-ST	26 W (95 Btu/hr)
Model 3301	30 W (100 Btu/hr)
Model 3405	37 W (41 Btu/hr)
Model 3475-FX	37 W (51 Btu/hr)
Weight	
Model 3308B	2.7 lbs (1.2 kg)
Model 3368, Model 3307, Model 3304A, Model 3333, Model 3307HD	2.2 lbs (1.0 kg)
Model 3301	2.6 lbs (1.2 kg)
Model 3334-ST	2.5 lbs (1.1 kg)
Model 3405 and Model 3475-FX	4.2 lbs (1.9 kg)

Table 1 | System 3000 Ethernet/Fast Ethernet Host Modules Technical Specifications (continued)

Electromagnetic Emissions	
Meets Requirements of	FCC Part 15, Subpart J, Class A and B EN 55 022 (CISPR 22: 1985), Class B General License VDE 0871, Class B (AmtsblVfg 243/1991, 46/1992) VCCI Class 1 ITE
Electromagnetic Susceptibility	
Electrostatic Discharge (ESD)	IEC 801-2, Level 2/4
Radiated Electromagnetic Field	IEC 801-3, Level 2
Electrical Fast Transient/Burst	IEC 801-4, Level 2/3
Electrical Surge	IEC 801-5, Level 1/3
Safety Agency Approvals	
	UL Listed (UL 1950) CSA certified (CSA 22.2 #950) TUV licensed (EN 60 950)

Ordering Information

Ordering information for the System 3000 Ethernet/Fast Ethernet host modules is shown in Table 2.

Table 2 | System 3000 Ethernet/Fast Ethernet Host Modules Ordering Information

Order Number	Description
3301	Model 3301 Thinnet Ethernet Host Module
3304A	Model 3304A 10BASE-F Fiber Optic Ethernet Host Module
3307HD	Model 3307HD 24-Port 10BASE-T Host Module with two 50-pin Telco D Connectors and MDI-X Port
3308B	Model 3308B 10BASE-T Ethernet Host Module
3333	Model 3333 Ethernet Retiming Module with AUI Port
3334-ST	Model 3334-ST Ethernet Retiming Module with ST FOIRL Fiber Port
3368	Model 3368 BaySecure 10BASE-T Ethernet Host Module
AC2204001	Model 3405 Fast Ethernet Host Module with 12 100BASE-TX ports
AC2204002	Model 3475-FX Fast Ethernet Host Module with 11 100BASE-TX ports and one 100BASE-FX port



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