



- **Flexible, high-performance connectivity**
  - Saves valuable port density, does not require an additional slot in the chassis
  - Easy to install, user configurable
- **Complete range of technology and media options**
  - Fully integrated into select Matrix switches
  - Provides connectivity to FDDI, Gigabit Ethernet, ATM or WAN
  - Available for all media types and connectors including multimode fiber, single mode fiber, UTP and STP
- **Protects investments**
  - Offers a seamless upgrade path to next-generation technologies while protecting investments in modules purchased in the past

## Extend Connectivity Options

*Deploy connectivity in a wide range of networked environments without sacrificing port density or using a slot in the chassis.*

## High-Performance, Flexible Uplink Modules

With these user-configurable interfaces, you can customize configuration of Enterasys Networks™ Matrix solutions to provide additional connectivity, including high-speed backbone connections to FDDI, Fast Ethernet, Gigabit Ethernet, ATM and WAN environments. VHSIM slots incorporate a “backward compatible” design and are capable of accepting new VHSIMs as well as all field-proven HSIMs, ensuring investment protection for uplink modules purchased in the past. You’ll benefit from a seamless upgrade path to next-generation technologies while maintaining your investment in existing equipment. You’ll also extend connectivity and further protect investments while maintaining port density because these uplink options do not require a slot in the chassis.

## Very High-Speed Interface Modules (VHSIM)

**VHSIM-G6**—This Gigabit Ethernet VHSIM offers connectivity provided via hot swappable GPIMS.

**VHSIM-G02**—This Gigabit Ethernet VHSIM provides 2-port RJ45 1000Base-T connectivity.

**VHSIM2-A6DP**—This VHSIM provides a high-performance ATM uplink with Ethernet/Fast Ethernet to ATM forwarding rates up to 500 Mbps. Configure with DS-3, OC-3 or OC-12, coax, multimode fiber, single mode fiber or UTP.

## High-Speed Interface Modules (HSIM)

**HSIM-F6**—This FDDI/Ethernet module provides wire-speed frame translation through ANSI-compliant SMT, MAC, PHY, MMF-PMD, SMF-PMD, and TP-PMD standards. The HSIM-F6 can operate as a Single Attached Station (SAS) or Dual Attached Station (DAS). Total media flexibility is achieved via FDDI port interface modules (FPIMs).



**HSIM-FE6**—This Fast Ethernet high-speed interface module has two FEPIM slots.

**HSIM-G01**—This 1000Base-SX interface offers a high-performance, cost-effective backbone connection via a multimode fiber SC connector. In a full duplex configuration, the maximum short-wave inter-switch link distance is 500 meters.

**HSIM-G09**—This 1000Base-LX interface offers the same affordable backbone connectivity as the HSIM-G01 but via a single mode/multimode fiber SC connector. In a full duplex single mode fiber configuration, it provides a maximum long-wave inter-switch link distance of 3 kilometers.

**HSIM-SSR-600**—This HSIM provides WAN access for customers who have remote facilities. It provides dual SWPIM slots via 10/100 Ethernet.

**HSIM-W84**—This HSIM enables WAN access using fractional T1 or FT1 connections. The module provides four full or fractional T1 WAN interfaces to a variety of wide area technologies. With support for PPP and RFC1490 Frame Relay, this solution offers unmatched speed and throughput capability. Each T1 WAN interface supports up to 32 remote Frame Relay users, via individual PVCs giving the system support for 128 total.

**HSIM-W87**—The HSIM-W87 is a high-speed interface module designed to provide WAN DS3 connectivity, saving money by bundling CSU/DSU and M13 functionality.

**HSIM-A6DP**—This ATM HSIM provides redundant ATM uplinks. Like the FDDI HSIM, the HSIM-A6DP offers media flexibility via ATM port interface modules (APIMs). The dual APIM design allows for redundant connections as one APIM may remain in standby for automatic failover.

#### WAN Port Interface Modules (WPIM)

**WPIM-SY**—This WAN port interface module provides a synchronous DTE interface supporting speeds up to 2.048 Mbps. It supports EIA-RS530A Alt, a standard that specifies the subminiature 26-pin connector.

**WPIM-T1**—This WAN port interface module provides a full/fractional T1 interface with integrated CSU/DSU. It supports Time Division Multiplexing for up to 24 individual channels and an RJ48C interface.

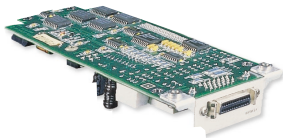
**WPIM-E1**—This WAN port interface module provides a full/fractional E1 interface with integrated NTU (Network Termination Unit), a.k.a. CSU/DSU. It supports Time Division Multiplexing for up to 31 individual channels and an RJ48C interface.

**WPIM-S/T**—This WAN port interface module will automatically back up a primary PPP leased line or Frame Relay connection with ISDN BRI. It supports ISDN call screening, PAP and CHAP authentication, compression, caller ID, dial-on-demand and dynamic bandwidth on demand.

#### Fast Ethernet Port Interface Modules (FEPIM)

**FE-100TX**—This Fast Ethernet port interface module provides one RJ45 connector for category 5 UTP (Cat. 3 UTP for 10 Mbps switching) connectivity at distances up to 100 meters. In addition, the FE-100TX interface supports full duplex operation at either 10 Mbps or 100 Mbps.

**FE-100FX**—This Fast Ethernet port interface module provides one industry standard duplex SC connector allowing for multimode fiber optic connections including fiber optic cable of 50/125, 62.5/125, 100/140 micron. The FE-100FX supports both 100 Mbps half-duplex and 200 Mbps full duplex operation.



**FE-100F3**—This Fast Ethernet port interface module provides Fast Ethernet connectivity over single mode fiber, supporting connections up to 20 km (full duplex) and 5 km (half duplex).

### FDDI Port Interface Modules (FPIM)

**FPIM-00**—This FDDI port interface module has one multimode fiber port and MIC connectors.

**FPIM-01**—This FDDI port interface module has one multimode fiber port and SC connectors.

**FPIM-02**—This FDDI port interface module has one unshielded twisted pair port and RJ45 connectors.

### ATM Port Interface Modules (APIMs)

**APIM-21**—This ATM port interface module uses 155 Mbps SONET OC3 multimode fiber and an SC connector.

**APIM-22**—This ATM port interface module uses 155 Mbps SONET category 5 UTP and an RJ45 connector.

**APIM-29**—This ATM port interface module uses 155 Mbps SONET OC3 single mode fiber and an SC connector.

**APIM-67**—This ATM port interface module uses 45 Mbps DS3 coaxial cable and a BNC connector.

**VAPIM-31**—This OC12 ATM port interface module has one multimode fiber port via an SC connector. (Use with the VHSIM-A6 DP only.)

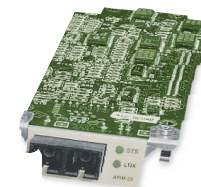
**VAPIM-39**—This OC12 ATM port interface module has one single mode fiber (short reach) port via an SC connector. (Use with the VHSIM-A6 DP only.)

**VAPIM-39LR**—This OC12 ATM port interface module has one single mode fiber (long reach) port via an SC connector. (Use with the VHSIM-A6 DP only.)

### Gigabit Port Interface Modules for the Matrix E5 (5PIMs)

**5PIM-G06**—This Gigabit port interface module provides two Gigabit uplink ports using GBIC connectors.

**5PIM-G02**—This Gigabit port interface module provides two 10/100/1000Base-TX uplink ports using RJ45 connectors.



## ORDERING INFORMATION

### VHSIM-G6

Gigabit Ethernet VHSIM, connectivity provided via hot swappable GPIMs

### VHSIM-G02

2-port RJ45 1000Base-T VHSIM

### VHSIM2-A6DP

45Mbps - 622Mbps ATM VHSIM

### HSIM-F6

FDDI high-speed interface module; supports two FPIMs, both purchased separately

### HSIM-FE6

Fast Ethernet high-speed interface module with two FEPIM slots; purchase FEPIMs separately

### HSIM-G01

Gigabit Ethernet high-speed interface module for any HSIM host system; single port support via P802.3z 1000Base-SX (Short-wave) MMF SC

### HSIM-G09

Gigabit Ethernet high-speed interface module for any HSIM host system; single port support via P802.3z 1000Base-LX (Long-wave) MMF/SMF SC

### HSIM-SSR-600

High-speed interface module with dual SWPIM slots, 10/100 Ethernet, CRS

### HSIM-W84

4-port WAN high-speed interface module; supports four T1 interfaces via four RJ48C interfaces and IP/IPX routing

### HSIM-W87

Wide area network high-speed interface module; supports a fully fractionalized DS3 interface via dual coaxial connectors

### HSIM-A6DP

ATM HSIM. Supports two APIMs, purchased separately

### WPIM-SY

WAN port interface module with a synchronous DTE interface

### WPIM-T1

WAN port interface module with a full/fractional T1 interface with integrated CSU/DSU

### WPIM-E1

WAN port interface module with a full/fractional E1 interface with integrated NTU (Network Termination Unit), a.k.a. CSU/DSU

### WPIM-S/T

WAN port interface module

### FE-100TX

Fast Ethernet port interface module, cat 5 UTP 100Base-TX via RJ45 port

### FE-100FX

Fast Ethernet port interface module, multimode fiber, SC connectors

### FE-100F3

Fast Ethernet port interface module, single mode fiber via SC connectors

### FPIM-00

FDDI port interface module with one multimode fiber port, MIC connectors

### FPIM-01

FDDI port interface module with one multimode fiber port, SC connectors

### FPIM-02

FDDI port interface module with one unshielded twisted pair port, RJ45 connectors

### APIM-21

ATM port interface module, 155 Mbps SONET OC3 multimode fiber, SC connector

### APIM-22

ATM port interface module, 155 Mbps SONET category 5 UTP, RJ45 connector

### APIM-29

ATM port interface module, 155 Mbps SONET OC3 single mode fiber, SC connector

### APIM-67

ATM port interface module, 45 Mbps DS3 coaxial cable, BNC connector

### VAPIM-31

OC12 ATM port interface module, 1 MMF port via SC connector (Use with VHSIM-A6DP only.)

### VAPIM-39

OC12 ATM port interface module, 1 SMF port (short reach) via SC connector (Use with VHSIM-A6DP only.)

### VAPIM-39LR

OC12 ATM port interface module, 1 SMF port (long reach) via SC connector (Use with VHSIM-A6DP only.)

### 5PIM-G06

2-port GBIC uplink module for the Matrix E5

### 5PIM-G02

2-port 10/100/1000Base-TX uplink module for the Matrix E5

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