



## Matrix E1™ 1G587-09 Gigabit Distribution Switch

- 6 Gigabit Ethernet ports via mini-GBICs with three modular expansion slots for copper or fiber Fast and Gigabit Ethernet
- Line-rate performance to support bandwidth-intensive applications
- Standards-based switching and routing support
- Superior Quality of Service (QoS) and industry-leading security

### • Mixed fixed-modular platform

- 6 Gigabit Ethernet ports via mini-GBICs with 3 modular expansion slots
- Up to 12 fiber Gigabit Ethernet or half copper/half fiber Gigabit Ethernet configuration

### • Line-rate performance

- 24 Gbps switching capacity; exceeds 16 Mpps switching and routing throughput

### • Switching and routing support

- Spanning Tree; Rapid Reconfiguration Spanning Tree; IEEE 802.1Q VLANs
- IPv4 Routing with RIP, OSPF and VRRP; IP Multicast with IGMP and DVMRP; Link Aggregation; Port Mirroring

### • Superior Quality of Service

- IEEE 802.1p with 4 hardware priority queues/port
- Layer 2, 3, 4 traffic classification
- Hardware-based rate limiting; ToS rewrite support

### • Simplified management

- CLI or embedded web server; NetSight; RMON
- SNMPv3, Telnet Access via SSHv2

### • Industry-leading security

- 802.1X and MAC-based authentication, MAC-based port locking and RADIUS
- DoS prevention and enhanced ACL support

### Multilayer, “Fixed-Modular” Switch for Enterprise Wiring Closet Aggregation

Ideal for networks that require high-performance, high-bandwidth connections and robust multilayer features, the Matrix E1 Gigabit Distribution Switch (GDS) can handle the demanding requirements of bandwidth-intensive enterprise applications such as videoconferencing, distance learning, enterprise resource planning, and disaster recovery as well as simultaneous intranet and Internet connectivity—all at wire speed.

Whether you’re upgrading the network infrastructure or expanding at the distribution layer, the Matrix E1 GDS is ideally suited for wiring closet aggregation or for small to mid-sized network backbones. Wire-speed performance and industry-leading features allow seamless integration into any small or medium business, or large enterprise network.

The Matrix E1 GDS is a 6-port Gigabit Ethernet switch with three expansion slots, which accept a variety of copper and fiber Fast and Gigabit Ethernet expansion modules. All features and functionality are supported on all ports, and any combination of expansion modules may be installed in the base system.

The Matrix E1 GDS performs Layer 2 – Layer 4 packet classification, providing control at the application, port and user levels. With this degree of traffic management, advanced services such as security and prioritization can be used to optimize the network.

The Matrix E1 GDS ships with full Layer 2 and Layer 3 switching capabilities without additional cost. This routing support enables the Matrix E1 GDS to improve overall network functionality, reliability, security and performance from the edge to the distribution/core of the network.

### Superior Security

With built-in security—authentication, encryption and preventive features—the Matrix E1 is set apart from its competition. From MAC address authentication and MAC port locking to RADIUS and IEEE 802.1X authentication support and DoS prevention, the Matrix E1 allows networks to effectively filter out unauthorized users and applications.

### Inherent Flexibility

The flexibility of a mixed fixed-modular platform can easily match network media preferences, whether fiber Fast Ethernet, high-density copper 10/100 or triple-speed 10/100/1000. The Matrix E1 GDS also supports a variety of fiber Gigabit Ethernet expansion modules.

Flexibility also means the physical resiliency of dual integrated power supplies, as well as the virtual resiliency of standards-based switching and routing failover firmware features such as Spanning Tree (802.1D), Rapid Reconfiguration Spanning Tree (802.1w) and VRRP. The physical and logical redundancy make the Matrix E1 GDS the ideal solution for mission-critical networks.

### Leading Management

Managing security and flexibility—whether by inbound or out-of-bound management techniques—allows network administrators to control all the features and functionality of the Matrix switch. From SSH encrypted Telnet management to the full suite of NetSight™ Atlas network management applications, Matrix E1 multilayer switches are easy to install, implement, maintain and troubleshoot.



## Specifications

### Technical Specifications

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#### Switching Mode

Store and forward

#### Switching Bandwidth

24 Gbps

#### Routing Throughput

16 Mpps

#### MAC Address Capacity

64,000

#### VLAN Capacity

4,094

#### Flash Memory

8 MB

#### DRAM

64 MB

#### Power System

AC Input Power (auto-sensing)

85 VAC – 264 VAC

#### Heat Dissipation

156 BTU/hr maximum

#### ACVA Rating

50 ACVA maximum

#### System LED Indicators

Power Supply Status

CPU Status

Port Status (link and activity)

#### System MTBF

>121,000 hours predicted

#### Media Type Supported

Base System

1G587-09: 6 mini-GBIC ports, 3 expansion slots

### Expansion Modules

1H-8FX: 8 100Base-FX MTRJ ports

1H-16TX: 16 10/100 RJ45 ports

1G-2TX: 2 10/100/1000 RJ45 ports

1G-2MGBIC: 2 Mini-GBIC slots

### Management Access

In band: SNMP, HTTP, Telnet, SSH

Out of band: Serial RS-232 COM port

### Physical Specifications

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#### Dimensions

8.9 cm (3.5") H x 44.45 cm (17.5") W x 43.9 cm (17.3") D

#### Rack Unit Height

2

#### Weight

8.75 kg (19.23 lb)

### Environmental Specifications

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#### Operating Temperature

5° C to +40° C (41° F to 104° F)

#### Non-Operating Temperature

-30° C to 73° C (-22° F to 164° F)

#### Operating Humidity

5% to 90% RH, non-condensing

### Agency and Standards Specifications

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#### Safety

UL 60950, CSA 60950, EN 60950, EN 60825 and IEC 60950

#### Electromagnetic Compatibility

47 CFR Parts 2 and 15, CSA C108.8, EN 555022, EN 55024, EN 61000-3-2, EN 61000-3-3, AS/NZS CISPR 22, and VCCI V-3

#### IEEE Standards

IEEE 802.3

IEEE 802.1D

IEEE 802.1p

IEEE 802.1Q

IEEE 802.1w

IEEE 802.1X

## Ordering Information

### 1G587-09

Matrix E1 6-port Gigabit Ethernet (mini-GBIC) standalone Gigabit Distribution Switch (GDS) with three option slots

### Expansion Modules

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#### 1H-8FX

Expansion module with 8 100FX MMF MTRJ ports for the Matrix E1 WS/GWS

#### 1H-16TX

Expansion module with 16 10/100 RJ45 ports for the Matrix E1 WS/GWS

#### 1G-2TX

Expansion module with 2 10/100/1000 RJ45 ports for the Matrix E1 WS/GWS

#### 1G-2MGBIC

Expansion module with 2 Mini-GBIC slots for the Matrix E1 WS/GWS

### Mini-GBIC Modules

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#### MGBIC-LC01

Mini-GBIC with 1000Base-SX port via LC connector

#### MGBIC-LC03

Mini-GBIC with 1000Base-SX (long-haul 2 km) over multimode fiber via LC connector

#### MGBIC-LC09

Mini-GBIC with 1000Base-LX port via LC connector

#### MGBIC-MT01

Mini-GBIC with 1000Base-SX port via MTRJ connector

#### MGBIC-02

Mini-GBIC with 1000Base-TX port via RJ45 connector

#### MGBIC-08

Mini-GBIC with 1000Base-LX/LH (long-haul 70 km) port via LC connector

#### Notes:

1. Expansion slots accept any combination of expansion modules.
2. Only the expansion modules listed in this data sheet are supported by Matrix E1 switches.
3. All ports, including all expansion ports, support all Matrix E1 firmware features, including Layer 3 routing.

## Warranty

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As a customer-centric company, Enterasys is committed to providing the best possible workmanship and design in our product set. In the event that one of our products fails due to a defect in one of these factors, we have developed a comprehensive warranty that protects you and provides a simple way to get your products repaired as soon as possible.

## Service and Support

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Enterasys understands that superior service and support is a critical component of *Networks that Know*.™ The Enterasys **SupportNet Portfolio**—a suite of innovative and flexible service and support offerings—completes the Enterasys solution. SupportNet offers all the post-implementation support services you need—online, onsite or over the phone—to maintain your network availability and performance.

## Additional Information

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For additional information on the Matrix visit [enterasys.com/products/switching](http://enterasys.com/products/switching)

## Contact Information

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Contact Enterasys Sales at **877-801-7082** or [enterasys.com/corporate/contact/contact-sales.html](http://enterasys.com/corporate/contact/contact-sales.html)

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