

Nothing Stands  
Between You  
and Your Data

# EV-1000

*The Ultimate in High-Performance, Scalable RAID Network Storage Systems*



**THE MEGADRIVE™ EV-1000™ RAID SYSTEM FROM DATA DIRECT NETWORKS™** is a high-performance, fault-tolerant, multi-terabyte storage solution optimized for image-intensive Digital Media environments including post-production, HDTV, visual simulation, animation, broadcast, image databases, medical imaging, Internet/Intranet applications, and on-line transaction processing (OLTP).

Based on the multiple award-winning MegaDrive™ Ultra E-8 disk array, the EV-1000 Ultra SCSI or Fibre Channel RAID System provides Digital Media professionals with massive *cross-scalability* (scalability in terms of both performance and capacity). The EV-1000's broad capacity range is derived from its controller design which supports configurations from a minimum of 2 drive modules and seamlessly scales to a maximum of 70 drive modules per controller set. With support for both 3.5" 9GB and 18GB drive modules, the EV-1000 offers from 45GB to over 1 Terabyte of on-line, fault-tolerant storage.

EV-1000 performance can be scaled nearly as easily as capacity. EV-1000 systems with Ultra SCSI host connections can be upgraded from single controller to dual controllers or from one controller set to multiple controller sets--progressively doubling throughput performance. Just as easily, the EV-1000 controller(s) can be field upgraded to Fibre Channel host connections, again, more than doubling throughput performance. This massive cross-scalability allows the EV-1000 to easily meet your current needs and provide investment protection as you expand the system.

## PRODUCT CONFIGURATION

The modular and massively cross-scalable design of the EV-1000 allows for a variety of configuration options:



- Single or Dual, Ultra SCSI or Fibre Channel, RAID Controller unit (single controller installations are field-upgradable to a dual controller configuration)
- Choice of Ultra SCSI or Fibre Channel host connections (Ultra SCSI host connections can be field upgraded to Fibre Channel host connections)
- Up to 10 Enterprise Differential ER-8 storage systems per 44U rack enclosure
- Choice of 3.5" 9GB and 18GB, 7200 and 10,000RPM Enterprise drive modules
- Choice of controller Cache configuration from 16MB up to 128MB (per controller)
- Windows NT-based System Management Console
- Deskside or rackmount storage chassis
- Host card adapters and cabling
- Fibre Channel hubs, switches, and Network Data Director (NDD)

**Twice the speed** of the previous generation, the MegaDrive Family of network storage products from DataDirect Networks offers you the fastest performance in Fibre Channel or Ultra2 SCSI technology. From the desktop E-8 LVD with 160MB/sec. throughput to the EV-5000 Fibre Channel Network RAID System with 200MB/sec. system performance capable of scaling to 2GB/sec., the MegaDrive Family comprises the fastest, cross-scalable storage solutions for image-intensive applications, Internet applications and heavy-duty on-line transaction processing (OLTP).

By following the DataDirect Networks' Technology Roadmap of doubling performance every year, all DataDirect Networks customers have access to an upgrade path that offers the highest levels of availability and scalability in the industry while maintaining your initial storage investment. This performance growth path has in three short years made the MegaDrive E-8 the de facto storage solution in Digital Media, imaging, and high performance network computing. And doubling in performance every year, the MegaDrive Family of high-speed network storage solutions is fast becoming a standard in Enterprise-wide networking as well.

The MegaDrive Family represents a complete line of high-performance, fault-tolerant, modular storage solutions providing unbeatable performance today with unlimited upgrade potential tomorrow.

## SPECIFICATIONS

### EV-1000 RAID SYSTEM FEATURES:

- Data throughput rates of up to 80MB/sec with Ultra SCSI and 200MB/sec with FC-AL
- On-line data storage up to 1.26TB
- Hardware-based level 0, 1, 3, and 5 RAID support
- Simultaneous support of RAID levels 0, 1, 3, and 5
- Supports both Fibre Channel and Ultra SCSI host connections
- House up to 10 ER-8 rackmount storage units in each 44U tower rack system
- Dedicated System Management Console
- Optional cache mirroring for dual controller configurations
- Active/Active and Active/Passive dual-controller support
- Up to 128MB optional cache memory support per controller
- TCP/IP and SNMP communication support via Ethernet ports
- Independent serial configuration and monitoring ports for easy system diagnostics

### EV-1000 COMPONENT FEATURES:

#### ER-1000 RAID Controller:

- Supports RAID levels 0, 1, 3, and 5
- Optional Fibre Channel daughtercard support
- Four 72-pin SIMM sockets for storage cache RAM (up to 128MB)
- ANY number of disk modules between 2 and 70 supported
- Multiple drive groups from 5 to 70 disk modules supported
- Multiple LUN's per drive group supported (up to 32 total)
- Mix and match RAID levels, any level per drive group
- Active/Active dual controller supported (double performance by striping controllers)
- Active/Passive dual controller supported (host software required)
- Mirrored cache capability
- Global spares capability
- Two latching handles for simple and secure hot swap
- Internal PCI bus for DMA transfers

#### ER-1000 Controller Unit:

- 19" rackmount (4U) hardware RAID Controller Unit supports one or two RAID controllers
- High-reliability data paths and connection ports between host, RAID controllers, and disks
- Five Ultra Wide Differential SCSI ports (68-pin) to drives
- Ultra Wide Differential SCSI ports (68-pin) to host and termination
- Serial RS-232 diagnostic port (one for each controller)
- Ethernet control ports (AUI 15-pin), SNMP capable (one per controller)
- SCSI ID jumper sets (one per controller)
- DC power connector for cache RAM battery backup
- Modular, redundant cooling fans
- Two modular, redundant, hot-swappable power supplies

#### ER-1000 Controller Unit: (Continued)

- Two AC power switches & power cords
- Two rear panel power supply LED's
- Two controller status LED's
- Power LED and power supply fault LED
- Fan fault LED
- Controller fault LED
- Fast write LED

#### ER-8 Rackmount Dual-Channel Differential Storage Systems

- One to ten ER-8 configurations supported
- Single or dual loop Fibre Channel
- Single or dual channel Ultra Wide Differential SCSI
- Supports up to eight 3.5" (9GB or 18GB) Ultra Wide SCSI disk modules per ER-8
- Modular, redundant cooling fans
- Two modular, redundant, hot-swappable power supplies
- Two AC power switches and power cords
- Front panel status LED's

#### Enterprise Drive Modules

- 3.5" (9GB and 18GB) Ultra Wide SCSI disk modules supported
- Minimum of five disk modules required
- 70 disk modules maximum supported

#### CS-1 System Management Console

(optional for Windows NT host-attached systems)

- Pentium-based PC, low-profile case
- Keyboard and mouse
- 32MB RAM
- Floppy disk drive and quad-speed CD-ROM
- Monitor
- Microsoft NT Server 4.0
- Ethernet Network Card w/ 10Base2 + 10BaseT, automatic media detect
- AC power cord and AC power extension for monitor

#### Rack Cabinets and Cabling

##### **RK-24UB Deskside Cabinet (24U)**

- Supports configuration of three or five ER-8's, and one ER-1000 Controller Unit

##### **RK-44UB Full-Height Cabinet (44U)**

- Supports configurations of three, five, eight or ten ER-8's, and one ER-1000 Controller Unit

#### **Cabling**

- Differential SCSI cables
- 10Base2 ThinNet RG-58 cables
- Ethernet 10Base2 ThinNet BNC Transceiver
- BNC "T" connectors
- DB9 to DB15 serial cables

#### **Host Card Options**

- Fibre Channel
  - Single or Dual Loop GIO, HIO and XIO
  - Single or Dual Loop S-BUS
  - Single or Dual Loop PCI-to-FC
- Ultra SCSI
  - Single or Dual Channel Differential PCI-to-SCSI

For an authorized dealer near you, call **1.800.322.4744** or visit [www.datadirectnet.com](http://www.datadirectnet.com)  
e-mail: [sales@datadirectnet.com](mailto:sales@datadirectnet.com)

**DataDirect Networks, Inc.**  
9201 Oakdale Ave.,  
Chatsworth, CA 91311  
818.700.7600 phone  
818.700.7601 fax

#### **OFFICES:**

**Northern California**  
650.592.5240

**New York**  
914.371.6732

**Chicago**  
847.588.0607

**D.C./Southeast**  
410.203.9801

**Boston**  
781.545.5842

**International**  
818.700.7600

**France Office**  
011.33.1.44.85.97.02

**London Office**  
011.44.171.353.5469

**Latin America**  
516.225.0813

**Federal Government**  
301.845.7600

**West Coast OEM**  
303.814.1134

**East Coast OEM**  
603.898.8812

