e-disk® ALTIMA™

Ultra320 SCSI 3.5”

E3S320EL

When Size and Performance Matter

Enhanced Productivity and System Performance

Ideal for Storage Applications in:

- Enterprise Systems
- Server Computing
- Database and OLTP Applications
- Business Intelligence/Decision Support
- Video-On-Demand
- Military and Aerospace
- Imaging Applications
- Industrial Automation
- Real-Time Data Acquisition
- Control and Instrumentation

E-Disk ® Altima™ Ultra320 SCSI 3.5-inch SSD

The future of storage is solid state, and BiTMICRO Networks, Inc. brings you the most advanced solid state disk (SSD) solution with the E-Disk® Altima™ series. Powered by BiTMICRO's proprietary "Enhanced Datamover and Storage Accelerator" (EDSA™) flash I/O controller and "Logical UNifier of Extensive Transfer Arrays" (LUNETA™) memory flash interface ASICs, E-Disk® Altima™ SSDs utilize high-density flash memory chips to create massive storage capacities in standard disk drive form factors. What's more, flash memory-based E-Disk® Altima™ SSDs boost system performance by eliminating seek time and latency for faster I/O and sustained transfer rates. With no moving parts, E-Disk® Altima™ SSDs set the bar for storage reliability, durability and endurance in all types of operating environments.

BiTMICRO Networks E-Disk® Altima™ SCSI products offer optimum solution to address ever growing storage capacity requirements and performance demands of today's computing applications. It is designed without device driver requisites, making it easy to install and operate. Armed with patented FlashBus™ technology, E-Disk® Altima™ Ultra320 SCSI 320 MB/sec burst rate and storage capacities of up to 1.1 TB.

Increased High Speed Performance

- 320 MB/sec Burst Rate

Highest Storage Capacities

- 3.5-inch: 20 GB to 1.1 TB*

**Up to 464 GB at 1-inch height*

Industry Standard SCSI Interface

- No Device Driver Required
- Up to Ultra320 SCSI Wide
- Completely Bootable

Unparalleled Operational Capabilities

- Pure Solid State/Non-Volatile
- 1,500 Gs Operating Shock
- -40 to +85ºC
- 120,000 ft Altitude

Data Security Features

- DataSentinel
- PowerGuard®
- securErase®
- Write Protect

Compliance

- EMC: FCC, AS/NZS, ICES, VCCI, EN55022, EN55024
- Safety: UL, CSA and EN
- EU RoHS 2002/95/EC

BiTMICRO®

SPECIFICATIONS FOR e-disk® ALTIMA™ Ultra320 SCSI 3.5”

Flash Disk and Solid State Disk Storage Solutions

Performance Specifications:

Burst Rate	320 MB/sec
Fully Associative Cache	Up to 256 MB

Environmental Specifications:

Operating Temperature	**Commercial**	0 to 70 ºC
	Industrial	-40 to +85 ºC
Non Operating Temperature		-45 to +90 ºC
Max Temperature Change Rate		3 Cº/min
Humidity		5 to 95% (Non-Condensing)
Shock (Operating)		1,500 G
Vibration (Operating)		16.4 G rms
Altitude		-1,200 to 120,000 ft
Airflow		None Required

Power Requirements:

Input Voltage	5V (± 5%) or 5V/12V (± 5%), Auto-Detect*

**Auto-detect determines input voltage upon power-up whether it is 5V only or 5V and 12V dual supply. This feature allows the drive to operate at different supply voltages without the need to manually set the drive to the available input voltage.*

Reliability:

Bit Error Rate	$<10^{-27}$
Data Reliability	Built-in EDC/ECC Based on BCH Algorithm Corrects up to 9 Random Bit Errors per 528-Byte Block; Detects up to 10 Bit Errors
Data Integrity	10 years
Diagnostics	Built-In Power-Up Self Test Self-Monitoring Diagnostics Database

Physical Specifications:

Form Factor		3.5”
Storage Capacity*		20 GB to 1.1 TB
Dimension	**Width**	4.0 in (101.6 mm)
	Length	5.75 in (146.1 mm)
	Height**	0.536 in (13.61 mm) to 1.788 in (45.41 mm)
Weight**		9.630 oz (273.00 gm) to 29.394 oz (833.30 gm)
Mounting Considerations		HDD Industry Standard, All Orientations
Connector		80-Pin SCA-2 Hot Swappable SE/LVD (SCSI 16-Bit)

**1 GB = 1,024 MBytes; 1 TB = 1,024 GBytes; Up to 464 GB at 1-inch height*
***Heights and weights are approximate. Contact your Sales Representative for the specific configurations and tolerance levels.*

Compatibility/Compliance:

SCSI Compatibility	ANSI SCSI-2 Standard X3.131-1994 ANSI SCSI-3 Standard X3T10/1071D ANSI SCSI-3 Standard X3T10/142D ANSI SCSI-3 Standard X3T10/1302D ANSI SCSI-3 Standard X3T10/1365D
EMC Compliance	ICES-003 Issue 4, February 7, 2004 Class A VCCI V-3/2008.04 and V-4/2007.04 Class A AS/NZS CISPR 22: 2006 Class A EN 55022: 2006 – Emissions EN 55024:2003 - Immunity
Safety Compliance	UL 60950 -1 CSA C22.2 No. 60950 -1 EN 60950 -1
Supported Security Erase Standards	NISPOM DoD 5220.22-M, NSA 130-2, Air Force AFSSI 5020, Army 380-19, IRIG-106
RoHS Compliance	EU RoHS 2002/95/EC

Endurance:

	20 GB
Write Endurance	76.71 years @ 100 GB/day Erase/Write Cycles
Read Endurance	Unlimited

Product Part Number:

Part Number Options	E3S320E + XXXXY + TGM + AC
XXXX: Capacity *Last digit denotes single decimal number* (e.g. 0920G = 92.0 GB, 0011T = 1.1 TB)	<=1” Height GB: 20, 44, 92, 276, 464 >1” Height GB: 648, 832 TB: 1.0, 1.1
Y: Capacity Unit*	G: Gigabytes T: Terabytes
T: Temperature	C: Commercial (0 to 70 ºC) I: Industrial (-40 to +85 ºC)
G: PowerGuard®	N: No PowerGuard® Option 1: Save Mode on Power Down**
M: Media Type	L: Large Block SLC NAND Flash
A: Casing	R: Rugged Casing
C: Coating	N: No Conformal Coating (Default) A: Acrylic Conformal Coating S: Silicone Conformal Coating
Example	**E3S320E0920GC1LRN**

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***Available up to 464 GB*

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