



SATA 2.5"

E2A3GL

When Size and Performance Matter
 Enhanced Productivity and System Performance



Ideal for Storage Applications in:

- Enterprise Systems
- Desktop and Mobile 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™ SATA 2.5-inch SSD

The future of storage is solid state, and BiMICRO Networks, Inc. brings you the most advanced solid state disk (SSD) solution with the E-Disk® Altima™ series. Powered by BiMICRO's proprietary "Enhanced Datamover and Storage Accelerator" (EDSA™) flash I/O controller and "Logical Unifier of Extensive Transfer Arrays" (LUNETATM) 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.

BiMICRO Networks E-Disk® Altima™ SATA 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™ SATA offers 300 MB/sec burst rate and storage capacities of up to 300 GB.

Increased High Speed Performance

- 300 MB/sec Burst Rate

Highest Storage Capacities

- 2.5-inch: 8 to 300 GB*

**Up to 20 GB at 9.5 mm height*

Industry Standard SATA Interface

- No Device Driver Required
- Completely Bootable
- SATA 3.0 Gbps Support
- Hot Plug Support
- Spread Spectrum Clocking
- Link Power Management

Unparalleled Operational Capabilities

- Pure Solid State/Non-Volatile
- 1,500 Gs Operating Shock
- -40 to +85°C
- 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

SPECIFICATIONS FOR  SATA 2.5" Flash Disk and Solid State Disk Storage Solutions

Performance Specifications:

Burst Rate*	300 MB/sec
Fully Associative Cache	Up to 64 MB

*150 MB/sec only at Industrial temperature

Environmental Specifications:

Operating Temperature	Commercial	0 to 70 °C
	Industrial	-40 to +85 °C
Non Operating Temperature		-45 to +90 °C
Max Temperature Change Rate		3 C°/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	5 VDC (±5%)
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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

Compatibility/Compliance:

Serial ATA Compatibility	SATA Rev. 2.6
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:

Write Endurance	8 GB
	38.36 years @ 100 GB/day Erase/Write Cycles
Read Endurance	Unlimited

Physical Specifications:

Form Factor	2.5"	
Storage Capacity*	8 to 300 GB	
Dimension	Width	2.75 in (69.85 mm)
	Length	3.955 in (100.45 mm)
	Height**	0.374 in (9.50 mm) to 1.000 in (25.40 mm)
Weight**	3.016 oz (85.50 gm) to 9.065 oz (257.00 gm)	
Mounting Considerations	HDD Industry Standard, All Orientations	
Connector	Device Serial Attachment Connector (SATA Rev. 2.6, 15-Feb-2007)	

*1 GB = 1,024 MBytes; Up to 20 GB at 9.5 mm height

**Heights and weights are approximate. Contact your Sales Representative for the specific configurations and tolerance levels.

Product Part Number:

Part Number Options	E2A003G + XXXXY + TGM + AC
XXXX: Capacity (GB) <i>Last digit denotes single decimal number</i> (e.g. 0080G = 8.0 GB, 3000G = 300.0 GB)	9.5 mm Height: 8, 20 >9.5 mm Height: 116, 208, 300
Y: Capacity Unit*	G: Gigabytes
T: Temperature	C: Commercial (0 to 70 °C) I: Industrial (-40 to +85 °C)
G: PowerGuard®	N: No PowerGuard® Option 1: Save Mode on Power Down 2: Erase Mode on Power Down 3: Standby Erase 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	E2A003G0080GCNLRN

*1 GB = 1,024 MBytes

BitMICRO's product specifications and engineering development objectives are subject to change at anytime without prior notice. All information provided herein is provided for design comparison and reference purposes only.

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One gigabyte, or GB, equals 1,073,741,824 bytes when referring to solid state disk capacity. Formatted capacity will vary based on various factors, such as type of operating system, file sizes, file formats, optional features, and application software.

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