

EmbedDisk- Embedded to the extreme temp

EmbedDisk Module IDE/ATA SERIALS

Unbeatable Serial EmbedDisk

The Extreme-Temp EmbedDisk is unbeatable in today's embedded module market. With a maximum capacity of 2 GB and its exceptional temperature resistance, the EmbedDisk is a cost effective IDE/ATA solution with an extremely compact low profile. It incorporates solid-state and flash-based features. This new storage product functions as a standalone solution or as an embedded plug and play component in a system.



Superior Embedding

This unit has exceptional ruggedness and a wide operating temperature range. It has no moving parts and is 100% IDE compatible with no special drivers or flash file managers required. It's ideal as a direct drop-in replacement for conventional rotating storage which is prone to short production life and often fails in mobile computing and industry environments where temperature fluctuations, shock, vibration, dust, moisture and magnetic fields are present.

Dependable and secure

One the EmbedDisk exceptional benefits are implementation with a custom IDE flash controller with multi-tasking technology. A proprietary integrated error detection and correction, re-mapping and wear-leveling technology with power hold-up circuit greatly improves data reliability. Its cost effectiveness and low-power operation satisfy applications requiring high performance and reliability. Advanced PIO modes and multi sector transfer modes are supported, as well as LBA addressing.

Product Highlight

- 16MB to 2 GB uncompressed capacity
- Pure -40°C to +85°C industrial temp range
- 3.3 / 5.0 volt, low power operation
- Unitized 40/44 pin IDE
- 22-bit ECC for exceptional data reliability
- Completely solid state – no moving parts
- Entirely bootable for current embedded O/S
- 1000G operating shock
- 15G operating vibration
- 16.6 MB/s burst R/W rate
- 10 year data integrity



SPECIFICATIONS FOR EMBEDDISK MODULE IDE/ATA

SERIALS PHYSICAL SPECIFICATIONS

Bus Interface	ATA Compatibility
Connector	44-Pin/44-Pin IDE/ATA ANSI Standards
Storage capacity	16MB to 2.0 GB
Sector size	512 bytes
Drive Number	Drive 0 or 1

PERFORMANCE SPECIFICATIONS

Media Transfer Rate	16.6 Mbytes/sec burst
Read Transfer Rate	7 Mbytes/sec sustained
Write Transfer Rate	1.6 Mbytes/sec sustained
BIOS Setup	PIO Mode 4

ENVIRONMENTAL SPECIFICATION

Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +95°C
Humidity	5 ~ 95% non-condensing
Shock (Operating)	1000G
Vibration (Operating)	15G
Airflow	None Required

RELIABILITY SPECIFICATION

MTBF	App. 1 Million hours
ECC	22-bit
Data Integrity	10 years

POWER REQUIREMENTS

Input Voltage		DC +3.3V±5%	DC +5.0V±10%
Power Consumption	Read @31.5 mA	0.11 watts	0.15 watts
	Write @ 27.6 mA	0.09 watts	0.19 watts
	Stand By @ 16.2 mA	0.05 watts	0.08 watts
	Sleep @3.9 mA	0.013 watts	0.02 watts



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