

IDE 4000

Cost-Effective Flash Disk



M-Systems' IDE 4000 is a 1.8" and 2.5" solid-state flash disk with no moving parts. IDE 4000 provides capacities up to 8192MB (8GB) with an improved cost structure, while supporting both ATA PIO and DMA transfer modes. Designed for telecommunications, public safety, military and aerospace and Point Of Sale (POS) systems, IDE 4000 is a true drop-in replacement for rotating mechanical disks where top reliability is required.

M-Systems' IDE 4000 is a solid-state flash disk that offers a cost-effective alternative to high-maintenance hard drives.

CAPACITY

Unformatted (MBytes): 128, 256, 384, 512, 640, 768, 1024, 1280, 1536, 1792, 2048, 2560, 3072, 3584, 4096, 5120, 6144, 7168, 8192

IDE COMPATIBILITY

Industry Standard ATA-3

PERFORMANCE

Burst Read/Write:	16.6 MBytes/sec
Sustained Read:	3.8 MBytes/sec
Sustained Write:	3.4 MBytes/sec
Access time:	<0.1ms

PHYSICAL

Form factor:	1.8", 2.5"
Mounting:	Industry standard
Case dimensions (mm)	
1.8":	76.3(L) X 51(W) X 8.6(H)
2.5":	100.2 (L) X 69.85 (W) X 7.4(H)
Weight	
1.8":	<30 g/0.03 kg for 8192MB unit
2.5":	<90 g/0.09 kg for 8192MB unit

ENVIRONMENTAL

Operating temperature	
Commercial:	0°C to +70°C
Extended/Industrial:	-40°C to +85°C
Storage temperature:	-55°C to +95°C
Humidity:	8% to 95% relative, non-condensing
Operating altitude:	80,000 feet
Operating shock:	1,000 G (half sine 0.5 ms)
Operating vibration:	15G RMS

POWER

Input voltage:	3.3-5VDC
Power consumption for 8192MB unit:	
Idle/Sleep mode:	<30mW
Read/Write mode:	<130mW

COMPLIANCE

UL, CE, FCC Part 15 Class B, EN 55022 Class B, CISPR 22 Class B (MIC), V-3/2001.04 Class B (Japan), AS/NZS 3548 Class B (Australia/NZ), BSMI CNS 13438 Class B (Taiwan), CAN/CSA-CISPR 22-96 Class B (Canada), CFR 47 FCC Class B, EN 55024, EN 61000 (EMC)

RELIABILITY

MTBF: 1,470,873 hours for 8192MB, based on Telcordia SR-332, GB, 25°C
On-the-fly EDC/ECC
Built-in power-up self-test (BIT)

ENDURANCE

Read unlimited
On-the-fly controller wear-leveling
2,000,000 write/erase cycles
10 years data retention

USER INTERFACE & CONFIGURATION

Interface:	16-bit
Master/Slave mode:	Jumper setting
Cable selection:	Jumper setting
ATA transfer modes:	PIO 0-4, DMA 0-2
Firmware upgrade:	Field upgrade capability
Drivers:	None required

WARRANTY

3 years

CUSTOMIZATION

PCB conformal coating

ORDERING INFORMATION

IDE 4000 1.8": IDE-4K-18-CCCC-T
IDE 4000 2.5": IDE-4K-25-CCCC-T
CCCC: Unformatted capacity (MB) 128 to 8192
T: Temperature range
 Blank – Commercial: 0°C to +70°C
 X – Extended: -40°C to +85°C