

FFD™ 3.5" Ultra320 SCSI

Highest Capacity Flash Disk



M-Systems' Fast Flash Disk (FFD) 3.5" Ultra320 SCSI delivers burst performance of 320 MBytes/sec and read/write performance as high as 40 MBytes/sec. It is equipped with sanitize functionality, and performs fast security erase in just seconds. FFD 3.5" Ultra320 SCSI is a solid-state disk with no moving parts, ideal to meet the reliability requirements of the military and aerospace, video servers, audio servers and broadcasting systems. M-Systems' TrueFFS[®] flash management is embedded in FFD 3.5" Ultra320 SCSI to guarantee data reliability and over 5 million write/erase cycles, far exceeding any comparable flash storage solutions.

M-Systems' FFD 3.5" Ultra320 SCSI is compatible with SCSI-2 and SCSI-3, and is used as a drop-in replacement for rotating mechanical disks.

CAPACITY (GB)

Unformatted: 1, 2, 4, 8, 12, 16, 20, 24, 32, 40, 48, 56, 64, 72, 80, 96, 104, 112, 120, 128, 136, 144, 152, 160, 176, 192, 208, 224, 240, 256, 272, 288, 304, 320, 336, 352

SCSI COMPATIBILITY

Industry Standard SCSI-2, SCSI-3 & CCS; ANSI X3.131-1994; ANSI X3T9.2/85-82; ANSI-INCITS 362-2002; ANSI X3.301-1997; ANSI NCITS-306-1998

PERFORMANCE

Burst Read/Write: 320MBytes/sec
Sustained Read: 40MBytes/sec
Sustained Write: 40MBytes/sec
Access Time: <0.02ms

PHYSICAL

Connector Type: SCA-2 80-pin or 68-pin
Form Factor: 3.5"
Dimensions (mm)
Up to 128GB: 146.1 (L) x 101.5 (W) x 12.7 (H)
Over 128GB: 146.1 (L) x 101.5 (W) x 25.4 (H)
Weight (352GB unit): 525 gr

ENVIRONMENTAL

Operating Temperature
Commercial: 0°C to +70°C
Enhanced: -25°C to +75°C
Extended: -40°C to +85°C
Storage Temperature: -55°C to +95°C
Humidity: 5% to 95% relative, non condensing
Operating Altitude: Up to 80,000 feet
Operating Shock: 1,500G, MIL-STD-810F
Operating Vibration: 16.3G RMS, MIL-STD-810F (random, 20 Hz to 2000 Hz)

POWER

Input Voltage: 5VDC $\pm$ 10%
Power Consumption (32GB unit)
Bus Free/Idle: 1.1A (5.5W)
Read/Write: 1.3A (6.5W)

COMPLIANCE

CE, UL, EN 55022 Class B, CISPR 22 Class B, AS/NZS 3548 Class B, BSMI CNS 13438 Class B, CAN/CSA-V-3/2001.04 (VCCI), FCC Part 15 Class B, EN 61000-3-2, EN 61000-3-3, IEC 61000-4, MIL-STD-810F, Hot-insertion Class 3, Sun Solaris™ Ready

RoHS compatibility

RELIABILITY

MTBF: 840,530 hours for 8GB, based on Telcordia SR-332, GB, 25°C
EDC/ECC: On-the-fly based on BCH algorithm
BER (Bit Error Rate) <10⁻²⁰
Built-In Power-Up Self-Test (BIT)
Manual and automatic self-diagnostics
TrueFFS bad-block management
Data integrity under power cycling

ENDURANCE

Unlimited read
>5,000,000 write/erase cycles
TrueFFS dynamic wear-leveling
>10 years data retention

ENHANCED SECURITY ERASE

Fast security erase in seconds
Sanitize complies with DoD NISPOM 5220.22-M, NSA 130-2, Air Force AFSSI 5020, Army 380-19, Navy NAVSO P-5239-26, IREC (IRIG) 106 and user-defined procedure
Software and hardware interrupt secure erase/sanitize
Auto-resume security erase/sanitize on power-down
Partial/selective security erase
LED indication for security erase/sanitize

USER INTERFACE & CONFIGURATION

Firmware Upgrade: Field upgrade capability
Electrical Interface: 16-bit or 8-bit interface, SE or LVD

WARRANTY

5 years

CUSTOMIZATION

PCB conformal coating
Made in USA
Supports FMF requirements

ORDERING INFORMATION

FFD35-U3S-CCC-T-PXX-P
CCC: Unformatted capacity, 1GB to 352GB
T: Temperature range
Blank – Commercial: 0°C to +70°C
N – Enhanced: -25°C to +75°C
X – Extended: -40°C to +85°C
PXX: Connector type
P80 or P68: 80 or 68-pin
P: Blank - non-RoHS version
P - RoHS-compliant version



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