

**Features**

- Capacities up to 8GB
- Small form factor for embedded applications
- IDE interface
- 2 million write/erase cycles
- Sustained throughput up to 10MB/s
- Low power consumption
- Engineered for harsh environments
- Industrial operating temperature ranges
- Automatic bad block management
- Configurable vendor ID/Product ID (VID/PID)
- MTBF: Over 4 million hours
- 5-year warranty
- RoHS Compliant

Mach1 FlashDisk Module

**Industrial Grade Solid State Storage****SimpleTech is a global leader in Solid State Flash Storage and Memory (DRAM) Solutions.**

At SimpleTech, our world-class memory and storage products allow you to offer superior solutions to your markets. Whether you choose standard or custom solutions, SimpleTech will meet your requirements to exact specification. Your time-to-market requirements are achieved without delay or compromise. From our dock to yours, you can expect an uncompromising commitment to quality and service found nowhere else.

SimpleTech: "Meeting the Evolving Needs of OEM Customers Worldwide™"

SimpleTech Flash Disk Modules provide non-volatile, solid-state storage in a compact design perfectly suited for embedded applications. Built-in wear leveling algorithms, on-the-fly ECC, and over two million write/erase cycles give you superior data integrity and reliability. Available with industry standard IDE interface; Application software compatibility is ensured as no proprietary software drivers are required.

At the heart of all SimpleTech industrial grade solid state storage products is a proprietary controller that incorporates an advanced dynamic wear leveling algorithm in combination with 5 bit EDC / 4 bit ECC delivering exceptional endurance and reliability.

With no moving parts, SimpleTech flash disk modules are inherently more rugged and reliable than rotating hard drives. New applications for flash disk modules are rapidly emerging due to the low cost per megabyte. Most applications running embedded operating systems such as VxWorks, Windows, XP/embedded, and Linux do not have large data storage requirements, and a cost savings can be immediately realized.

SimpleTech also offers value-added services like customized form factors, testing, custom firmware, software imaging, controlled bill of materials, customer-specific labeling and serialization.

IDE Product Key (M Controller)

Part #: **SLFDM(xx)(zzz)-(xxx)(M/G)M1U(I)**

xx = Pin
 xxx = Capacity
 M/G = Megabyte/Gigabyte
 I = Industrial Temperature
 U = RoHS Compliant

zzz = IDE Connector Orientation:

V (Vertical), **H** (Horizontal),
LPV (Low profile vertical), **LPH** (Low profile horizontal)

ex. **SLFDM40H-512MM1U(I)** =

512MB 40Pin Flash Disk Module (Horizontal)

SLFDM44LPV-8GM1U(I) =

8GB 44Pin Flash Disk Module (Low profile vertical)

Specifications

INTERFACE TRUE IDE (40/44 pin)

CAPACITY 128MB to 8GB

PERFORMANCE

Data Transfer Rate

Sustained Read/Write Up to 10MB/sec

Burst Read/Write Up to 16.7MB/sec

POWER CONSUMPTION

Typical Power Consumption

Sleep Current 2mA

Read Current 60mA - 70mA

Write Current 65mA - 75mA

ENVIRONMENTAL

Operating Temperature

Commercial 32°F to 158°F (0°C to 70°C)

Industrial -40°F to 185°F (-40°C to 85°C)

Storage Temperature

-40°F to 185°F (-40°C to 85°C)

Operating Vibration

15 G, 10-2000 Hz @ 147 meter/sec

Operating Shock

1000 G, 4903.3 meter/sec

RELIABILITY

Data Write/Erase Endurance 2 million cycle min.

Data Reliability 1 in 10¹⁴ bits read

Data Retention 10 years

PHYSICAL

Length 2.00 to 2.19 in. (50.80 to 55.63 mm)

Width 0.88 to 1.58 in. (22.35 to 40.13 mm)

Applications

• Instrumentation

• Data Recorders

• Medical Equipment

• Avionics Systems

• Machine Automation

• Electronic Kiosks

• Telecommunications

• Networking Equipment

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