



■ **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

|                            |                                      |
|----------------------------|--------------------------------------|
| <b>INTERFACE</b>           | TRUE IDE (40/44 pin)                 |
| <b>CAPACITY</b>            | 128MB to 8GB                         |
| <b>PERFORMANCE</b>         |                                      |
| Data Transfer Rate         |                                      |
| Sustained Read/Write       | Up to 10MB/sec                       |
| Burst Read/Write           | Up to 16.7MB/sec                     |
| <b>POWER CONSUMPTION</b>   |                                      |
| Typical Power Consumption  |                                      |
| Sleep Current              | 2mA                                  |
| Read Current               | 60mA - 70mA                          |
| Write Current              | 65mA - 75mA                          |
| <b>ENVIRONMENTAL</b>       |                                      |
| 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             |
| <b>RELIABILITY</b>         |                                      |
| Data Write/Erase Endurance | 2 million cycle min.                 |
| Data Reliability           | 1 in 10 <sup>14</sup> bits read      |
| Data Retention             | 10 years                             |
| <b>PHYSICAL</b>            |                                      |
| 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
- Medical Equipment
- Machine Automation
- Telecommunications
- Data Recorders
- Avionics Systems
- Electronic Kiosks
- Networking Equipment

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