

DiskOnChip Millennium Plus

64MByte in 69-Ball BGA Package



Description

M-Systems is announcing a new member of the DiskOnChip Millennium Plus family: 64MByte (512Mbit) capacity in 69-ball BGA package.

Ordering Information and Availability

The table below shows the ordering information and availability of all DiskOnChip Plus family members, including the new DiskOnChip Millennium Plus 64MByte device.

Capacity	Package	Voltage	Temperature Range ¹	Order Information	Availability ²
16MByte (128Mbit)	TSOP-I 48-pin	Core: 3.3V I/O: 3.3V or 1.8V	Commercial	MD2811-D16-V3Q18	ES – Now MP – Sep 2002
			Extended	MD2811-D16-V3Q18-X	
	BGA 69-ball 9x12mm		Commercial	MD3831-D16-V3Q18	
			Extended	MD3831-D16-V3Q18-X	
32MByte (256Mbit)	TSOP-I 48-pin	Core and I/O: 3.3V	Commercial	MD2811-D32-V3	MP – Now
			Extended	MD2811-D32-V3-X	
	BGA 69-ball 9x12mm		Commercial	MD3831-D32-V3	MP – Now
			Extended	MD3831-D32-V3-X	
64MByte (512Mbit)	BGA 69-ball 9x12mm	Core and I/O: 3.3V	Commercial	MD3331-D64-V3	ES – Now MP – Sep 2002
			Extended	MD3331-D64-V3-X	

1. Commercial (0°C - 70°C), Extended (-40°C - 85°C)

2. ES – Engineering Samples; MP – Mass Production

Compatibility

Software

All DiskOnChip Millennium Plus versions are compatible with TrueFFS version 5.1 and higher. No software modifications are required when migrating between capacities.

Hardware

The DiskOnChip Millennium Plus 64MB consist of two stacked 32MB devices, and is therefore fully hardware compatible with the DiskOnChip Millennium Plus 32MB.

An identical pin/ball assignment exists in all capacities to enable flexible scalability. When migrating between capacities, note the following differences:

1. In DiskOnChip Millennium Plus 16MB, additional modes were added (e.g. Asynchronous Boot mode). These modes are not supported in the 32MB/64MB products.
2. In DiskOnChip Millennium Plus 16MB, a 1.8V I/O voltage option was added to the existing 3.3V voltage option. The voltage used is auto-detected by the device. No additional glue logic is required.
3. There are minor timing differences between the products. To design your board to meet the timing requirements of both capacities, please refer to the DiskOnChip Millennium Plus data sheet for detailed timing specifications.

4. There are minor differences in power consumption between the devices. Please refer to the DiskOnChip Millennium Plus data sheet for detailed specifications.

Future Products

Future DiskOnChip G3 products will be available in 7x10mm BGA packages. Please refer to the Application Note *AP-DOC-067 Preparing your PCB Footprint for the DiskOnChip BGA Migration Path* in order to make your design forward-compatible with future products.

How to Contact Us

Please contact your M-Systems' representative or visit M-Systems web site (www.m-sys.com) for any further information or assistance.

Esther Spanjer

DiskOnChip Product Manager

E-mail: esther.spanjer@m-sys.com