

Timing Specification Update for DiskOnChip Plus 16/32MB with 1.8-3V I/O Voltage



Description

M-Systems announces some timing specification changes for DiskOnChip Plus 16/32MB devices with 1.8-3V I/O voltage. These changes are required *only* for customers preparing a hardware design that provides future compatibility with DiskOnChip G3 products.

The following timing requirements are affected:

- Standard Interface
 - Read cycle, Trec(OE)
 - Write cycle, Trec(WE)
- Multiplexed Interface
 - Write cycle, tsu(AVD-WE)

For details, refer to the specifications below.

Ordering Information

Table 1 lists the ordering information for all DiskOnChip Plus 16/32MB devices that are affected by the new timing specifications.

Table 1: Affected DiskOnChip Products

Capacity		Package	Product Name	Ordering Info	Temperature Range
Mbit	MByte				
128	16	TSOP-I	DiskOnChip Millennium Plus	MD2811-D16-V3Q18	Commercial
128	16	TSOP-I	DiskOnChip Millennium Plus	MD2811-D16-V3Q18-X	Extended
128	16	9x12 mm BGA	DiskOnChip Millennium Plus/ Mobile DiskOnChip Plus	MD3831-D16-V3Q18	Commercial
128	16	9x12 mm BGA	DiskOnChip Millennium Plus/ Mobile DiskOnChip Plus	MD3831-D16-V3Q18-X	Extended
256	32	9x12 mm BGA	Mobile DiskOnChip Plus	MD3331-D32-V3Q18-X	Extended

Standard Interface Timing Specifications

Table 2: Read Cycle

Symbol	Description	Status	VCCQ=VCC VCC=2.7-3.6V		VCCQ=1.65-1.9V VCC=2.7-3.6V		Units
			Min	Max	Min	Max	
Trec (OE)	OE# negated to start of next cycle	Old	18		18		ns
		New	20		20		

Table 3: Write Cycle

Symbol	Description	Status	VCCQ=VCC VCC=2.7-3.6V		VCCQ=1.65-1.9V VCC=2.7-3.6V		Units
			Min	Max	Min	Max	
Trec (WE)	WE# ↑ to start of next cycle	Old	18		18		ns
		New	20		20		

Multiplexed Interface Timing Specifications

Table 4: Write Cycle

Symbol	Description	Status	VCCQ=VCC VCC=2.7-3.6V		VCCQ=1.65-1.9V VCC=2.7-3.6V		Units
			Min	Max	Min	Max	
tsu(AVD-WE)	AVD# ↓ to WE# ↓ setup time	Old	-4		-4		ns
		New	4		4		

Note: Read cycle timing for multiplexed interfaces has not changed.

Compatibility

Customers that want to prepare their hardware design for future DiskOnChip G3 products must use the updated timing specifications. Customers that want to design their board for one of the current DiskOnChip Plus 16/32MB devices may use the original timing specifications.

Note: The *DiskOnChip Millennium Plus 16/32/64MB* and *Mobile DiskOnChipPlus 16/32MB* data sheets contain the updated timing specifications.

How to Contact Us

Please contact your M-Systems representative or visit the DiskOnChip web page on the M-Systems website (www.m-sys.com) for any further information or assistance.

Esther Spanjer

DiskOnChip Product Manager

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