

Microelectronics

Memories with Extended Temperatures

DDR PERFORMANCE, LAYOUT AND DESIGN BENEFITS

- Reduce board real estate, I/O requirements and memory down routing by up to 70%, permitting additional product options and board design opportunities.
- Save 2–4 PWB layers and cut design time up to four weeks by reducing memory down routing.
- Improve parasitic performance (L, pu, C) at first and second levels with reduced bus capacitance and better signal integrity on the PCB.
- Obtain wider pitch on BGA leads with reduced I/O and routing for easier class-3 PWB rule compliance.
- Minimize maintenance costs with consistent MCP interface, despite part obsolescence issues.

MEMORIES WITH EXTENDED TEMPERATURES

DDR4 SDRAM MCP

Size	Organization	Part Number	Data Rate (Mb/s)	Voltage (V)	Package	Dimensions	Temperature
4 GB	51 x 72	4N512M72T-XB2X	1600--2400	1.2	321 PBGA	13 mm x 20 mm	C, I, M
8 GB	16 x 72	4N1672T-XB2X	1600-2400	1.2	321 PBGA	13 mm x 20 mm	C, I, M
16 GB	26 x 72	4N2672T-XB2X*	1600-2666	1.2	367 PBGA	16 mm x 32 mm	C, I, M

DDR3 SDRAM MCP

Size	Organization	Part Number	Data Rate (Mb/s)	Voltage (V)	Package	Dimensions	Temperature
1 GB	128M x 64	W3J128M64X-XLBX	800-1600	K=1.35, G=1.5	375 PBGA	20.5 mm x 21.5 mm	C, I, M
1 GB	128M x 72	W3J128M72X-XLBX	800-1600	K=1.35, G=1.5	375 PBGA	20.5 mm x 21.5 mm	C, I, M
2 GB	512M x 32	W3J512M32X(T)-XB3X	800-1333	K=1.35, G=1.5	204 PBGA	10 mm x 14.5 mm	C, I, M
2 GB	512M x 32	W3J512M32X-XB3X	800-1600	K=1.35, G=1.5	136 PBGA	10 mm x 14.5 mm	C, I, M
4 GB	512M x 64	W3J512M64X-XLB2X	800-1600	K=1.35, G=1.5	543 PBGA	23 mm x 32 mm	C, I, M
4 GB	512M x 72	W3J512M72X-XLB2X	800-1600	K=1.35, G=1.5	543 PBGA	23 mm x 32 mm	C, I, M
4 GB HD	512M x 72	W3J512M72X(T)-XHDX	800-1600	K=1.35, G=1.5	399 PBGA	14 mm x 21.5 mm	C, I, M
8 GB	16 x 72	W3J1672KT-XLBX	800-1600	K=1.35, G=1.5	543 PBGA	23 mm x 32 mm	C, I, M

DDR2 SDRAM MCP

Size	Organization	Part Number	Data Rate (Mb/s)	Voltage (V)	Package	Dimensions	Temperature
128 MB	64M x 16	W3H64M16E-XB2X	400-667	1.8	79 PBGA	11 mm x 14 mm	C, I, M
256 MB	2 x 64M x 16	W3H264M16E-XSBX	400-667	1.8	79 PBGA	11 mm x 14 mm	C, I, M
256 MB	2 x 64M x 16	W3H264M16E-XB2X	400-667	1.8	79 PBGA	11 mm x 14 mm	C, I, M
256 MB	32M x 64	W3H32M64E-XBX	400-667	1.8	208 PBGA	16 mm x 20 mm	C, I, M
256 MB	32M x 72	W3H32M72E-XBX	400-667	1.8	208 PBGA	16 mm x 20 mm	C, I, M
512 MB	64M x 64	W3H64M64E-XBX	400-667	1.8	208 PBGA	16 mm x 22 mm	C, I, M
512 MB	64M x 72	W3H64M72E-XBX	400-667	1.8	208 PBGA	16 mm x 22 mm	C, I, M
1 GB	128M x 72	W3H128M72E-XSBX	400-667	1.8	208 PBGA	16 mm x 22 mm	C, I, M
1 GB	128M x 72	W3H128M72E-XNBX	400-667	1.8	208 PBGA	16 mm x 22 mm	C, I, M

* Advanced product – This product is developmental, is not qualified and is subject to change or cancellation without notice.

MEMORIES WITH EXTENDED TEMPERATURES (CONTINUED)

** Not recommended for new designs.

Registered DDR2 SDRAM MCP

Size	Organization	Part Number	Data Rate (Mb/s)	Voltage (V)	Package	Dimensions	Temperature
1GB	128M x 72	W3H128M72ER-XNBX	400-667	1.8	255 PBGA	21 mm x 23 mm	C, I, M

DDR SDRAM MCP

Size	Organization	Part Number	Data Rate (Mb/s)	Voltage (V)	Package	Dimensions	Temperature
128 MB	64M x 16	W3E64M16S-XBX	200-333	2.5	60 PBGA	10 mm x 12.5 mm	C, I, M
256 MB	32M x 64	W3E32M64S-XB2X	200-333	2.5	219 PBGA	21 mm x 21 mm	C, I, M
256 MB	32M x 64	W3E32M64S-XB3X	200-333	2.5	208 PBGA	13 mm x 22 mm	C, I, M
256 MB	32M x 64	W3E32M64SA-XB2X	200-333	2.5	219 PBGA	21 mm x 21 mm	C, I, M
256 MB	32M x 72	W3E32M72S-XBX	200-333	2.5	219 PBGA	26 mm x 32 mm	C, I, M
256 MB	32M x 72	W3E32M72S-XB3X	200-333	2.5	208 PBGA	13 mm x 22 mm	C, I, M
256 MB	32M x 72	W3E32M72SR-XBX	200-266	2.5	208 PBGA	13 mm x 22 mm	C, I, M
256 MB	512M x 72	W332M72V-XSB2X	100-133	3.3	208 PBGA	16 mm x 22 mm	C, I, M
512 MB	64M x 72	W3E64M72S-XBX	200-266	2.5	219 PBGA	25 mm x 32 mm	C, I, M

SSRAM MCP

Size	Organization	Part Number	Speed (MHz)	Voltage (V)	Package	Dimensions	Temperature
4 MB	512K x 72 NBL	WEDP2512K72V-XBX	100-150	3.3	152 PBGA	17 mm x 23 mm	C, I, M
4 MB	512K x 72 NBL	WEDP2512K72S-XBX	100-150	2.5	152 PBGA	17 mm x 23 mm	C, I, M

SDRAM MCP

Size	Organization	Part Number	Speed (MHz)	Voltage (V)	Package	Dimensions	Temperature
256 MB	32M x 72	W332M72V-XB2X	100-133	3.3	219 PBGA	21 mm x 25 mm	C,I,M

NOR Flash MCP

Size	Organization	Part Number	Speed (ns)	Voltage (V)	Package	Dimensions	Temperature
32 MB	8M x 32	W78M32VP-XBX **	110, 120	3.3	159 PBGA	13 mm x 22 mm	C, I, M
64 MB	8M x 64	W78M64VP-XSBX **	110, 120	3.3	159 PBGA	13 mm x 22 mm	C, I, M
256 MB	64M x 32	W764M32V1-XBX	100, 120	3.3	107 PBGA	14 mm x 17 mm	C, I, M
512 MB	2 x 64M x 32	W7264M32V1-XSBX	110, 120	3.3	107 PBGA	14 mm x 17 mm	C, I, M
1GB	4 x 64M x 32	W7464M32V1-XSBX	110, 120	3.3	107 PBGA	14 mm x 17 mm	C, I, M
1GB	4 x 128M x 16	FV4128M16-XBX	110, 120	3.3	107 PBGA	14 mm x 17 mm	C, I, M

Corporate Headquarters

50 Minuteman Road
 Andover, MA 01810 USA
 +1 978.967.1401 tel
 +1 866.627.6951 tel
 +1 978.256.3599 fax

International Headquarters

Mercury International

Avenue Eugène-Lance, 38
 PO Box 584
 CH-1212 Grand-Lancy 1
 Geneva, Switzerland
 +41 22 884 51 00 tel

Learn more

Visit: mrcy.com



The Mercury Systems logo and the following are trademarks or registered trademarks of Mercury Systems, Inc.: Mercury Systems, Innovation That Matters, and BuiltSECURE. Other marks used herein may be trademarks or registered trademarks of their respective holders. Mercury believes this information is accurate as of its publication date and is not responsible for any inadvertent errors. The information contained herein is subject to change without notice.

