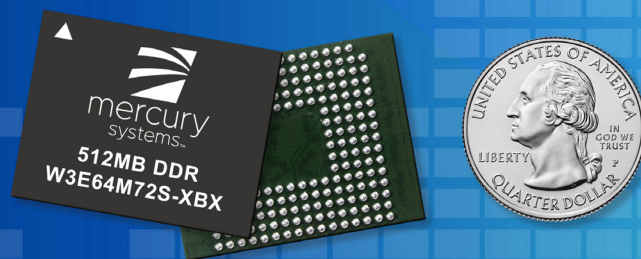


High Density Secure Memory DDR SDRAM

Available From 128MB to 512MB

- **Advanced miniaturization technology**
- **Data transfer speed up to 333 Mb/s**
- **-55 to +125°C operating temperature**
- **Manufactured in a DMEA-trusted US facility**



Mercury Systems' advanced design and packaging techniques miniaturize DDR SDRAM memory in a compact, highly ruggedized package. These devices are ideally suited for military and commercial aerospace applications requiring high-speed DDR memory optimized for size, weight, and power.

Mercury Systems is currently engaging with customers in design opportunities requiring DDR memory performance. To participate in this design program, please contact your Mercury Systems representative or contact us at Secure.Memory@mrcy.com

Product Features

- DDR SDRAM Rate = 333, 266, 200 Mbs
- Core Supply Voltage = 2.5V
- I/O Supply Voltage = 2.5V - (SSTL_2 compatible)
- Bidirectional data strobe (DQS) per byte
- Internal, pipelined, double data rate architecture
- Differential Clock Inputs
- DLL for alignment of DQ and DQS transitions with clock signal
- Four internal banks for concurrent operation (Per DDR SDRAM Die)
- Data Mask (DM) for masking write data per byte
- Programmable IOL/IOH

- Programmable Burst lengths: 2, 4, or 8
- Concurrent Auto Precharge option
- Auto Refresh and Self Refresh Modes

Benefits

- Up to 75% space savings vs discrete chip packages
- Military-grade performance without sacrificing the benefits of DDR3 memory
- Up to 88% component reduction
- 100% burn-in and electrical test for the highest quality assurance
- Available component End of Life management for long-term supply continuity

Package

- 10mm x 12.5mm - 60 plastic ball grid array (PBGA); 13mm x 22mm - 208 PBGA; 21mm x 21mm - 219 PBGA; 32mm x 26mm - 219 PBGA; 32mm x 25mm - 219 PBGA
- 1mm or 1.27mm pitch
- Solder ball composition: Eutectic, lead free upon request
- Moisture Sensitivity Level (MSL): 3

* This product is subject to change without notice.

Mercury Systems is a leading commercial provider of secure sensor and safety-critical processing subsystems. Optimized for customer and mission success, Mercury's solutions power a wide variety of critical defense and intelligence programs.



ACQUIRE



DIGITIZE



PROCESS



STORAGE



EXPLOIT



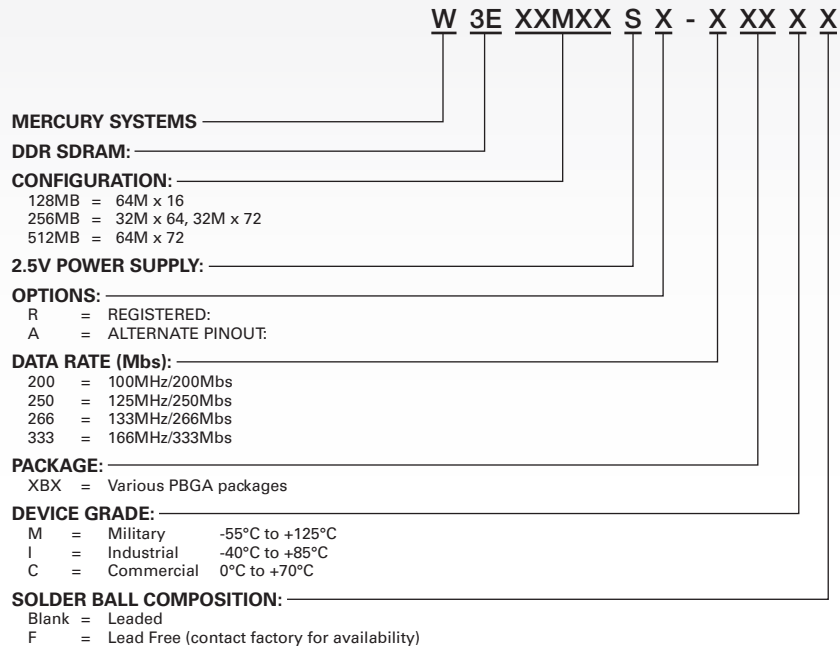
DISSEMINATE

Figure 1 - Part Numbers

DDR SDRAM MCPs

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

Figure 2 - Part Numbering Matrix



Example Part Number: W3E64M72S-333B3M

Need More Help?

Contact Mercury's Secure Memory application engineering team at

secure.memory@mrchy.com

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