

PowerPC™ 7410E AltiVec™/2M Byte SSRAM Multi-Chip Package

Optimum Density and Performance in One Package

WED3C7410E16M-400BX* Features

- A 400 MHz 7410 AltiVec™ μ Processor
- 16 Mbit of Synchronous pipeline burst SRAM configured as 256Kx72 (L2 Cache)
- 7410E Voltage: 1.8V (Core)/2.5V (I/O) for commercial, industrial and military applications
- Extended temperature modules
- SSRAM Voltage: 2.5V (S) or 3.3V (Blank)
- Optional, high-performance MPX bus interface
- Implementation of AltiVec™ Instruction Set

Performance Features

- Maximum Core Frequency: 400 MHz
- Maximum L2 Cache Frequency: 200 MHz
- Maximum 60x Bus Frequency: 100 MHz

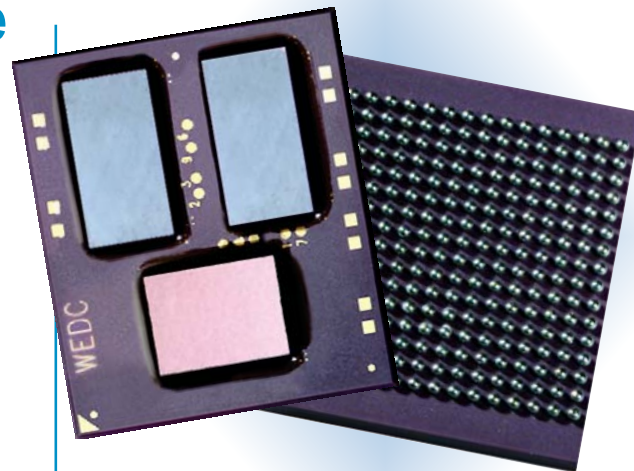
Package

Mounted on a 25x21mm, 255 CBGA, 525mm sq.

- Multilayer ceramic interposer, AI2O3
 - 21mm x 25mm BGA
 - 21mm x 25mm CGA (optional/developmental)
- High reliability flip chip attach
 - C4 process on 7410 & SSRAM
 - JEDEC level 2 underfill optimized for ceramic bond
 - Lowest possible inductance, chip interconnect technology
 - Highest possible chip density for reduced interposer dimension

Density Comparison

	Discrete Approach	Actual Size WED3C7410E16M-400BX	S A V I N G S
Area	$625\text{mm}^2 + 2 \times 352\text{mm}^2 = 1329\text{mm}^2$	525mm^2	60%
I/O Count	$360 \text{ BGA} + 200 \text{ TQFP} = 560$	255 CBGA	54%



Benefits

- 60% space savings
- Reduced ball count from 560 down to 255; reduced PWB density, reduced PWB cost
- 54% I/O Reduction
- Reduced PWB routing density, results in reduced PWB cost
- Eliminates high-speed memory board design
- Suitable for hi-rel applications
- Scalable and expandable
- Footprint compatible with WED3C750A8M-200BX and WED3C7558M-300BX
- Upgradeable

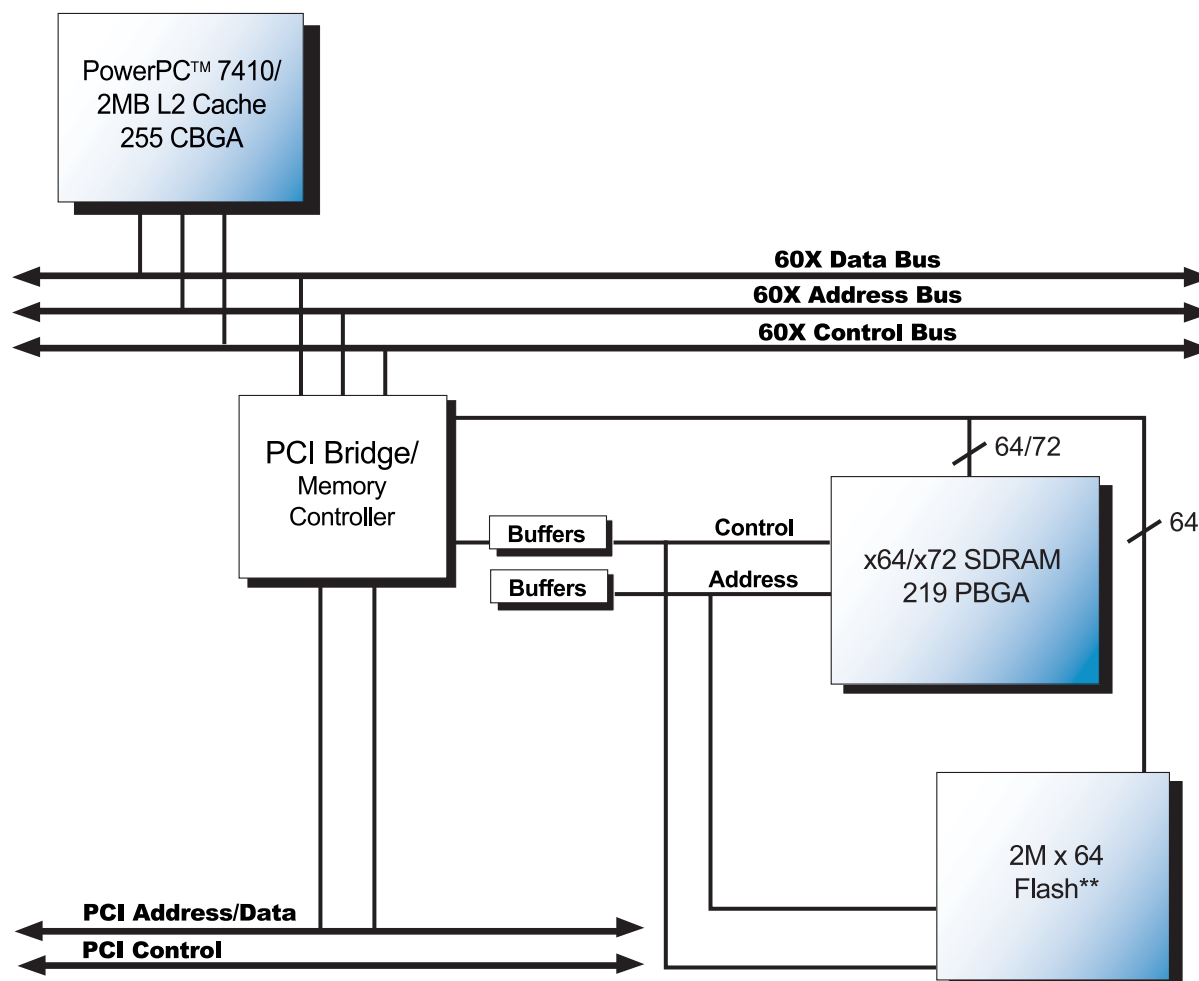
For more information, visit our web site at www.whiteedc.com/powerpc or call 602-437-1520 and ask for applications support.

* Preliminary flyer describes a product that is not fully qualified or characterized and is subject to change without notice.
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PowerPC™ 7410 AltiVec™ System Block Diagram



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** Density suggested for example purposes only. Other densities available; contact factory.

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