

Elpida's 512 Megabit XDRTM DRAM Provides Industry-Leading Data Transfer Rate

March 30 2005

3.2 GHz Operation Enables 6.4 Gigabytes per second (GB/s) Bandwidth within a Single Device

Elpida Memory, Inc., Japan's leading global supplier of Dynamic Random Access Memory (DRAM), today announced the availability of 512 Megabit XDRTM DRAM devices in sample quantities. The new devices operate at 3.2 GHz, providing an industry-leading data transfer rate of 6.4 Gigabytes per second (GB/s) within a single device for digital consumer electronics applications. The XDR DRAM architecture offers the highest performance, next-generation memory available for applications such as digital televisions and home servers that require high bandwidth to support high-end graphics, superb digital imaging and advanced multimedia. XDR DRAM is based on the XDR memory interface technology developed by Rambus Inc.

"Industry demand for memory bandwidth in next-generation digital consumer electronics such as high-definition digital television and 3-D graphics applications is growing rapidly as more content becomes available and as processor performance becomes more robust," said Jun Kitano, director of Technical Marketing for Elpida Memory (USA). "Elpida believes that XDR memory has tremendous potential in a wide variety of multimedia applications. Our 512 Megabit XDR DRAM is an ideal solution to provide maximum performance with a minimum number of devices allowing customers to save valuable board space."

"As a key supplier of XDR DRAM, Elpida plays a critical role in delivering this innovative new technology to market," said Rich Warmke, director of marketing at Rambus. "With a roadmap providing an order of magnitude increase in DRAM bandwidth over today's best-in-class commodity DRAMs, XDR DRAM is well-positioned to establish itself as the high-speed memory solution of choice."

Elpida 512 Megabit XDR DRAM - Technical Details

Elpida's 512 Megabit XDR DRAM (Part number: EDX5116ABSE) devices are organized as 4M words x 16-bits x 8 banks and with 2.4, 3.2, 4.0 GHz operation, they offer more than 4 times the peak bandwidth of the latest DDR2 standard memory adopted in PC applications. The new devices are manufactured using Elpida's 0.10-micron process technology and are available in 104-pin FBGA packages.

To support both high speed and robust data transfer, the devices utilize advanced Rambus-specific features such as Differential Rambus Signal Level (DRSL) interface, which minimizes the signal swing and noise, and Octal Data Rate (ODR) which transfers 8 bits per clock cycle to achieve 3.2 GHz operation even with the commonly used 400 MHz clock. The 512 Megabit XDR devices also feature programmable on-chip termination, adaptive impedance matching, dynamic request scheduling and zero overhead refresh.

Availability

Elpida's 512 Megabit XDR DRAM devices (Part number: EDX5116ABSE) are currently sampling to customers. Volume production is expected in the second half of 2005.

Citation: Elpida's 512 Megabit XDRTM DRAM Provides Industry-Leading Data Transfer Rate (2005, March 30) retrieved 19 April 2024 from <https://phys.org/news/2005-03-elpida-megabit-xdrtm-dram-industry-leading.html>

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