

Elpida Intros New 1 Gigabit DDR2 SDRAMs

March 7 2006

Elpida Memory today announced the availability of its second-generation 1 Gigabit DDR2 SDRAMs and six memory modules based on the new devices.

The new devices are built using Elpida's state-of-the-art 90 nm process technology, and they complement Elpida's full line-up of DDR2 devices that are currently in high-volume production. The x16 devices provide a wider data path for digital consumer applications, and the FBGA packages enable thinner memory module designs.

Dual In-line Memory Modules (DIMMs) based on the new devices include Registered and Fully-Buffered DIMMs (FB-DIMMs) for servers, as well as high-density Small Outline DIMMs (SO-DIMMs) for notebook PCs and Unbuffered DIMMs (UDIMMs) for desktop PCs.

"The expansion of our production based on 90 nm process technology enables Elpida to significantly improve the speed yield and packaging options of our high-volume DDR2 products," said Jun Kitano, director of technical marketing for Elpida Memory (USA) Inc. "With this new generation of DDR2, we now offer more device configurations, including x4, x8 and x16, as well as a full line-up of memory modules, including Registered DIMMs, FB-DIMMs, UDIMMs and SO-DIMMs."

The 1 Gigabit DDR2 SDRAM devices are available in four different data rate speeds: 800 Mega bits per second (Mbps), 667 Mbps, 533 Mbps or 400 Mbps. They are organized as either 32 M words x 4 bits x 8 banks, 16 M words x 8 bits x 8 banks, or as 8 M words x 16 bits x 8

banks. The high speed data transfer rate is achieved by its 4-bit prefetch, pipelined architecture. The supply voltage (VDD) is $1.8\text{V} \pm 0.1\text{V}$, and the operating temperature range (T_c) is 0 to 95°C . The devices are available in 68-ball or 92-ball FBGA packages for easy mounting on DIMMs.

Source: Elpida

Citation: Elpida Intros New 1 Gigabit DDR2 SDRAMs (2006, March 7) retrieved 30 April 2024 from <https://phys.org/news/2006-03-elpida-intros-gigabit-ddr2-sdrams.html>

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