

# Elpida develops 4-Gigabit DDR2 mobile RAM operating at 1.2V and 1066Mbps

April 7 2011

---

Elpida Memory today announced that it has developed a 4-gigabit DDR2 Mobile RAM that employs state-of-the-art 30nm process. This new Mobile RAM features a low operating voltage of 1.2V, achieves a 1066Mbps high-speed data transfer rate, and uses roughly 30% less operating current compared with stacking two of Elpida's 40nm 2-gigabit products. Through sophisticated circuit design and advanced process technology, this product achieves the world's smallest class in chip size for a 4-gigabit LPDDR2. In addition, it is an eco-friendly DRAM equipped with a low power feature that targets mobile devices such as smart phones and tablet PCs by contributing to extended operating times of battery-powered devices.

Currently, the rapidly expanding market for smart phones and tablet PCs is striving to expand the features of its operating systems. As a result, the ideal density of DRAMs is also rapidly on the rise, and there is an increasing need for high density DRAMs – 8-gigabit for high-end [smart phones](#) and 16-gigabit for high-end tablet PCs. At the same time, there is a strong demand for smaller, thinner, and lighter [DRAM](#) packages, and attention is being focused on advanced package technologies such as Package on Package (PoP) and Multi Chip Package (MCP).

Elpida plans to ship the new DDR2 Mobile RAM as PoP, FBGA packages, and as a bare chip for MCPs. The company's PoP and FBGA packages fully leverage die-stacking technology to provide an extensive line-up of 8-gigabit to 16-gigabit products that can meet a variety of customer needs. The new 4-gigabit DDR2 Mobile RAM achieves the

thinnest package yet at 0.8mm (in the case of an 8-gigabit product consisting of two stacked 4-gigabit chips), which meets the need for DRAM that is not only higher density, but also thinner packages.

Sample shipments of the new 4-gigabit DDR2 Mobile RAM will begin in April, and mass production is scheduled to start at Elpida's Hiroshima Plant in June of this year. Production is also planned at Rexchip Electronics Corporation in order to guarantee a stable product supply.

Source: Elpida

Citation: Elpida develops 4-Gigabit DDR2 mobile RAM operating at 1.2V and 1066Mbps (2011, April 7) retrieved 25 April 2024 from <https://phys.org/news/2011-04-elpida-gigabit-ddr2-mobile-ram.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.