

Samsung First to Produce 90nm 1 Gb DDR2 DRAM

June 23 2005

Samsung Electronics Co., Ltd., the world leader in advanced memory technology, today announced that it has begun mass producing a monolithic 1 Gigabit (Gb) DRAM chip using more operationally efficient and performance-enhancing 90 nanometer processing.

Samsung expects 90 nm 1 Gb DRAM will become the leading memory product over the next two years. It has lower power consumption, is much less prone to overheating, provides much greater signal integrity and delivers the best overall performance of any DRAM chip today.

"By rapidly moving to 90 nm production technology in the production of 1 Gb main memory, we are leading the way in attaining the highest density modules afforded by smaller geometries and accompanying manufacturing refinements," said Jon Kang, senior vice president, technical marketing, Samsung Electronics' US sales subsidiary.

The 1 Gb DRAM is a rapidly growing part of Samsung's memory business, both in DDR1 and DDR2 memory chips. By the fourth quarter of this year, the company will be ramping monthly production of 1 Gb DRAM using the 90 nanometer process to 1million units.

Last month, the Samsung 90 nm 1 Gb DDR2 400/533 DRAM chip passed Intel Corporation's supplier component validation testing, after completing the company's own component qualification process.

Further increasing its economies of scale, Samsung has integrated its 90

nm processes to allow the use of a "combo die" methodology for varying production levels of 1 Gb DDR1 and 1 Gb DDR2 by changing mask on occasion. Samsung will manufacture high density modules with x4, x8 and x16 versions of the new 90 nm 1 Gb monolithic device for the server market to take full advantage of 64-bit computing environments.

According to market analyst firm Dataquest, the 1 Gb DRAM market will grow rapidly, from 1.3 billion\$ in 2005 to 17 billion\$ by 2008 at a CAGR of 105%.

Citation: Samsung First to Produce 90nm 1 Gb DDR2 DRAM (2005, June 23) retrieved 3 May 2024 from <https://phys.org/news/2005-06-samsung-90nm-gb-ddr2-dram.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.