Samsung Electronics Introduces the Industry's Highest Density 8GigaByte DDR DRAM Modules for High-end Servers

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Samsung Electronics Co., Ltd., the world leader in advanced semiconductor memory technology, announced the **industry's highest capacity 8-gigabyte (GB) DDR DRAM module that consists of seventy-two 1-gigabit (Gb) monolithic devices**. Incorporating 0.10-micron process technology, the new DRAM module satisfies the JEDEC standard height of 1.2-inches while maximizing density capacity.

This high-density module is designed for use in high-end servers, workstations, and specialized applications such as videoconference systems processing data in real time, distance medical services, interactive communications, satellite communications, integrated

personal data cards, and 3D graphics. With these types of applications driving the market, industry forecaster IDC expects 1Gb DRAM market to reach US$9.5 billion in 2007 and DRAM demand in high-end servers to record CAGR 52% from 2004 through 2007.

The 8-GB DDR DRAM module is available in two forms of package stack technology; a dual-stack of 1-Gb DDR DRAMs in thin small outline package (TSOP) or a quad-stack of 1-Gb DDR DRAMs in fine-pitch ball grid array (FBGA) package, otherwise referred to as a multi-stack package (MSP). The 1-Gb DDR DRAM TSOP based 8-GB module has thirty-six dual-stack TSOPs placed in two parallel rows of nine on each side of the printed circuit board (PCB).

The new 1-Gb DDR DRAM FBGA based 8-GB module utilizes eighteen quad-stack FBGAs in two rows of nine with one row on each side of the PCB. Samsung's advanced quad-stack FBGA meets the JEDEC standard module specification of 1.2-inch in height by implementing the advanced FBGA package technology thus enabling higher module densities.

Moreover, the development of Samsung FBGA package technology supports the standard FBGA package for DDR2 DRAMs and can immediately be adopted for the next-generation DRAM technology for both higher performance and higher density DRAM modules. This breakthrough stacking technology is expected to play an important role in offering future high-capacity memory solutions.

The 8-GB DDR DRAM modules set another milestone in Samsung's advanced high-density DRAM module technology, following the initial announcements of the 1-Gb DDR DRAM in December 2002 and the 4-GB module in January 2003.

Samsung has already started sampling the 8-GB DDR DRAM modules

to leading server manufacturers.

The original press release can be found here.

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