# Samsung Ships 40nm-class, 32-Gigabyte Memory Module for Server Applications

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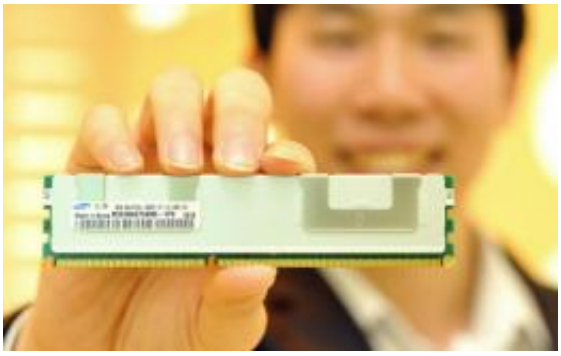

Samsung Electronics announced today that it has begun shipping samples of the industry's highest-density memory module for server systems. The 32 gigabyte (GB) module has been designed for use in advanced servers, which require high-density and high-performance features at low-power consumption levels.

According to Soo-In Cho, president and general manager of Samsung Electronics Memory Division, "Samsung continues to set the pace in advanced memory for high-end server applications by offering 40nm-class 32GB memory modules to reach previously unattainable levels of system capacity.In just 10 months, Samsung has now secured the best competitive advantage with the broadest portfolio of 40nm-class DDR3 based memory solutions in the industry since the 40nm-class DRAM was first produced last July."

Samsung is using the industries highest-density monolithic DDR3 device - a 40-nanometer (nm) class, four gigabit (Gb) DDR3 chip - as the building block for the new 32GB module. This comes just one year after the company announced its 50nm-class 2Gb based, 16GB registered dual inline memory module (RDIMM) last March.

The highly-efficient 32GB RDIMM consists of 36 dual-die 40nm-class 4Gb DDR3 chips that can perform at equal or greater levels to a 40nm-based 16GB RDIMM with no increase in power consumption.

By equipping a dual CPU, two-way server with 32GB modules, a server system can have up to 384GB of memory. This allows for doubling the previously largest density of 192GBs per server with a power increase of less than five percent over that needed for a 16GB module-based system.

In addition, replacing 12 DRAM modules of 16GB density with just six

32GB modules would achieve a 192GB total density, while allowing the DRAM operating speed in a two-way server system to rise by 33 percent from 800 megabit per second (Mbps) to 1,066Mbps, as power is cut by 40 percent.

In high-performance, four-way servers using 16GB modules, one terabyte of DRAM would be commonplace.By using 32GB RDIMMs, Samsung is moving toward providing four-way servers with 2TB of DRAM each, a migration that it believes will spur introduction of diverse software and a broader scale of server applications.

Mass production of the 32GB RDIMM is slated to begin next month.

**More information:** For more information about Samsung Green DDR3, visit www.samsung.com/ddr3

Source: Samsung