

Samsung samples industry's first 16-gigabyte server modules based on DDR4 memory technology

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Samsung Electronics today announced that it has begun sampling the industry's first 16-gigabyte (GB) double data rate-4 (DDR4), registered dual inline memory modules (RDIMMs), designed for use in enterprise server systems.

“By launching these new high-density DDR4 modules, Samsung is embracing closer technical cooperation with key CPU and server companies for development of next-generation green IT systems,” said Wanhoon Hong, executive vice president, [memory](#) sales & marketing, [Samsung Electronics](#). “Samsung will also aggressively move to establish the premium memory market for advanced applications including

enterprise server systems and maintain the competitive edge for Samsung Green Memory products, while working on providing 20 nanometer (nm) class* based DDR4 [DRAM](#) in the future.”

Using 30nm-class* process technology, Samsung sampled new 8GB and 16GB DDR4 modules in June, in addition to providing them to major CPU and controller makers. The modules will bring the highest density and performance levels to premium enterprise server systems. Samsung previously introduced the industry’s first 30nm-class 2GB DDR4 module in December, 2010.

Employing new circuit architecture for computing systems, DDR4 technology boasts the highest performance among memory products available for today’s computing systems, which by next year will reach twice the current 1,600 megabits per second (Mbps) of DDR3 based modules. Also, by processing data far more efficiently at a mere 1.2 volts, Samsung’s DDR4 modules will reduce power consumption by approximately 40 percent compared to its predecessor DDR3 modules operating at 1.35V.

Samsung will keep working on completion of the JEDEC (Joint Electron Device Engineering Council) standardization of DDR4 technologies and product specifications, which is expected to be accomplished by August.

The company said it will work closely with its customers including server OEMs, as well as CPU and controller makers, to expand the market base for high-density DDR4 modules, of which it plans to begin volume production next year. It also is set to expand the overall premium memory market with its most advanced 20nm-class based DDR4 DRAM products, which will be available sometime next year at densities up to 32GB..

[Samsung](#) has been leading the advancement of DRAM technology ever

since it developed the industry's first DDR DRAM in 1997. In 2001, it introduced the first DDR2 DRAM, and in 2005, announced the first DDR3 using 80nm-class* [technology](#).

Provided by Samsung

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