



Micron Technology Reduces Data Center Power Consumption with New Aspen Memory Family of Energy-Efficient Products

April 17, 2007 at 12:00 AM EDT

Boise, Idaho , Tuesday, April 17, 2007 – Micron Technology, Inc., today introduced its new Aspen Memory® family of energy-efficient products, featuring the industry's first low-voltage (LV) DDR2 DRAM in reduced chip count (RCC) memory modules. These new products, the first in the Aspen Memory family, are specifically designed to lower server power consumption. Micron will continue to grow its Aspen Memory product family, which will impact a variety of applications where power is an issue including data center servers and laptops.

"There is currently a push in the IT server industry to reduce the vast amount of power consumed by data centers. To truly be effective, the issue of power consumption should be examined from all technology levels in a data center server system – all the way down to the silicon level," said Brian Shirley, vice president of Micron's memory group. "Our new Aspen Memory modules provide customers with the lowest power memory solution available in the industry, with no loss in performance."

According to a recent study conducted by Jonathan Koomey with the Lawrence Berkeley National Laboratory (LBL) and funded by Advanced Micro Devices (AMD), enterprise data center servers, such as the mega-computers that power the Internet or those used to house financial institution customer data, consumed 123 billion kilowatt-hours worldwide in 2005. That includes the overhead for power delivery and cooling of the servers. Based on Koomey's analysis, Micron estimates the portion attributed to the memory to be 25 billion kilowatt-hours. By implementing Micron's new Aspen Memory modules, data centers could reduce system memory power consumption by approximately 24 percent, which is a reduction of six billion kilowatt-hours.

Based on today's typical energy rates, this reduction could result in total annual savings of \$300 million. To better illustrate the point, these savings would be equivalent to the electricity used annually by about 500,000 households. Support for Micron's calculations can be found in a white paper on its website at www.micron.com/innovations/energy_efficient.

The DDR2 components that are used in servers today typically operate at 1.8-volts. By employing Micron's leading process technology, as well as several innovative circuit designs, Micron is able to lower DDR2 voltage to an industry leading 1.5-volts. Additionally, by upgrading to Micron's new 1 gigabit-based RCC modules from 512 megabit-based modules, memory power can be reduced even further, providing a total savings of up to 50 percent.

"There are several factors driving the need for increased memory in today's data center server systems, such as the growth of virtualization technologies and multi-core data processors," said IDC analyst Shane Rau. "Because of these advanced technologies, we predict memory power consumption will continue to grow well into 2010, and a typical data center server system will use approximately 14.8 gigabytes of memory."

Availability and More Information

Micron's LV DDR2 DRAM in reduced chip count RCC memory modules, the first in the Aspen Memory family, are available now for OEM customers. More information is available on Micron's Website at www.micron.com/innovations/energy_efficient, which also includes a video interview about memory power consumption in data center server systems with Dean Klein, Micron's vice president of market development. Additionally, Micron has started a blog on its Website at saveenergy.micronblogs.com, providing a forum to discuss energy efficiency issues facing the technology industry.

About Micron

Micron Technology, Inc., is one of the world's leading providers of advanced semiconductor solutions. Through its worldwide operations, Micron manufactures and markets DRAMs, NAND flash memory, CMOS image sensors, other semiconductor components, and memory modules for use in leading-edge computing, consumer, networking, and mobile products. Micron's common stock is traded on the New York Stock Exchange (NYSE) under the MU symbol. To learn more about Micron Technology, Inc., visit <http://www.micron.com/>.

Related Links

[Micron Media Center](#)
[Energy Efficient Innovations](#)

Contacts

Kirstin Bordner
Micron Technology, Inc.
+1 (208) 599-0184/mobile
+1 (208) 368-5487/direct
kbordner@micron.com