Rambus Unveils New Innovations for Main Memory

Innovations Advance Power Efficiency and Performance for Future Computing Products

LOS ALTOS, Calif., May 26, 2009 (BUSINESS WIRE) -- Rambus Inc. (NASDAQ:RMBS), one of the world's premier technology licensing companies specializing in high-speed memory architectures, today unveiled a set of innovations that can advance computing main memory beyond current DDR3 data rate limits to 3200Mbps. These innovations, available for licensing, build on Rambus' award-winning designs and include patented and patent pending technologies. Through this collection of innovations, designers can achieve higher memory data rates, higher effective throughput, better power efficiency and the increased capacity necessary for future computing applications.

"Product advancements in multi-core computing, virtualization and chip integration put ever-increasing demands on the memory sub-system, a key performance limiter in today's performance computing systems," said Craig Hampel, Rambus Fellow. "This collection of breakthrough innovations from Rambus allows for memory systems that are better suited for the bandwidth and workloads of these throughput-oriented multi-core processors, increasing the design and solution space for future main memory to enable a new generation of computing platforms."

The Rambus key innovations to advance the main memory roadmap include:

- FlexPhase™ Technology -- introduced in the XDR™ memory architecture, can enable higher data rates compared to direct strobing technology used in DDR3;
- Near Ground Signaling -- supports high performance at greatly reduced IO power, allowing operation at 0.5V while still maintaining robust signal integrity;
- FlexClocking™ Architecture -- introduced in Rambus' Mobile Memory Initiative, reduces clocking power by eliminating the need for a DLL or PLL on the DRAM;
- Module Threading -- increases memory efficiency and reduces DRAM core power, and when combined with Near Ground Signaling and FlexClocking technology, can cut total memory system power by over 40%;
- Dynamic Point-to-Point (DPP) -- provides a path for capacity upgrades without compromising performance through robust point-to-point signaling.

Details of these innovations and how they reduce limitations found in current memory solutions have been captured in a whitepaper, "Challenges and Solutions for Future Main Memory" that is available for download at www.rambus.com.

Rambus licenses its broad portfolio of patented innovations for use in its leadership and industry-standard chip interface solutions, as well as industry defined interfaces.

About Rambus Inc.

Rambus is one of the world's premier technology licensing companies specializing in the invention and design of high-speed memory architectures. Since its founding in 1990, the Company's patented innovations, breakthrough technologies and renowned integration expertise have helped industry-leading chip and system companies bring superior products to market. Rambus' technology and products solve customers' most complex chip and system-level interface challenges enabling unprecedented performance in computing, communications and consumer electronics applications. Rambus licenses both its world-class patent portfolio as well as its family of leadership and industry-standard interface products. Headquartered in Los Altos, California, Rambus has regional offices in North Carolina, India, Germany, Japan, and Taiwan. Additional information is available at www.rambus.com.

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Rambus has issued and/or pending patent applications relevant to technologies discussed in this press release.

SOURCE: Rambus Inc.

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