

## **Boston Circuits Unveils Details of the gCORE™ 16 Multicore Processor at In-Stat Fall Microprocessor Forum**

*Revolutionary new “Grid on Chip” architecture delivers PC level performance and flexibility at embedded level cost, power, size*

**Fall Processor Forum – San Jose, Calif. – Oct. 10, 2006** – Boston Circuits, Inc (“BCI”) today will unveil the technical details behind the architecture of the new gCORE processor family at In-Stat’s prestigious Fall Microprocessor Forum. In development since early 2005, the gCORE16 integrates sixteen 32-bit RISC processor cores and key system peripherals such as PCI Express, USB, and video interfaces on a single chip, making it an ideal main processor for embedded multimedia applications such as IPTV media centers, network displays and projectors, and color printers and copiers. Boston Circuits’ engineers have focused on three key innovations to make the chip more powerful, easier to use, and less costly than previously available solutions:

- **“Grid on Chip” architecture**, implements a high-speed on-chip network as the interconnect between processor cores and other system elements. This produces on-chip data bandwidth in excess of 500GB/s, scalability for hundreds of processor cores in the future, while keeping the chip on a small and low power die.
- **“Multicore Virtualization”**, takes the complexity of multi-core software and moves it into hardware. An on-chip “Time Machine” handles scheduling, resource allocation, and object synchronization dynamically, simplifying the software development process while minimizing latency and overhead.
- **“Smart Memory Controller”**, improves the efficiency of off-chip memory operations by incorporating intelligence directly into the DDR2 memory controller to handle often used operations such as memory moves.

“By leveraging technology provided by industry partners, and focusing on solving the key problems that our customers face, we have been able to deliver a

completely new architecture in a very short time” said Hiro Kataoka, President and CEO, Boston Circuits. “We are now providing FPGA based development kits to lead customers and the initial response has been extremely positive.”

"The gCORE processor's on-chip 'time machine' addresses directly the problem of thread scheduling in multi-core processors" noted In-Stat Principal Analyst and Senior Editor Max Baron. "We need to see more innovations like this helping the industry exploit multicore architectures to the fullest."

**About Boston Circuits Inc.**

Founded in 2005 by a team of semiconductor, software, and multimedia experts, Boston Circuits, Inc. provides multi-core processors for use in home and office multimedia devices. The Company’s unique “Grid on Chip” architecture and “Time Machine” technology deliver the performance, flexibility, and ease of use of a desktop processor, at the cost, power consumption, and size of an embedded system on chip; giving device manufacturers the opportunity to create groundbreaking multimedia products. The Company is based in Burlington, MA and has an office in Yokohama, Japan.

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**About Microprocessor Forum**

Microprocessor Forum is configured to both educate engineers and showcase the latest product announcements. Every presentation made at Microprocessor Forum describes challenges encountered by chip designers and outlines the real world solutions that were implemented to overcome those challenges. Every session is developed to address the primary concerns of OEM and SoC designers today. Presentations are solicited and hand picked by In-Stat’s analysts to provide marketing-free, quantitative technical information geared toward both educating engineers and showcasing the latest product announcements. In its 18th year, Microprocessor forum delivers on technical content, unprecedented networking and real world solutions to the challenges that face today’s design engineers.

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<http://www.in-stat.com/FallMPF/06>