

CAST Expands Memory Controller Line with IP Core for DDR2 SDRAM Devices

DESIGNCON, Santa Clara, CA, January 30, 2007 — Semiconductor intellectual property (IP) provider CAST, Inc. today announced a new IP core that implements a controller for all industry-standard DDR and DDR2 memory devices.

The new DDR2-SDRAM-CTRL IP core handles the interaction between SDRAM chips or DIMMs and the processor or a DMA in a system using that memory. The core significantly simplifies memory management challenges for the developer, implementing all the necessary data management, initialization, and address, and burst handling operations.

A high-performance, pipelined and parallel architecture featuring a three-stage processing queue is designed to always get the most out of available system bandwidth. A clever core architecture splits the system interface into separate control, write-data, and read-data paths for easier integration and faster operation. Flexibility is ensured by making all memory parameters runtime-configurable, including timing, memory size, mobile-SDR support, and auto-refresh policies. Power-saving features include power down and self-refresh modes.

Integration of the core is made easier for developers by delivering it with everything needed to for immediate use: one of two different PHY physical device layers and data path queuing elements (FIFOs). The core itself is available in HDL source code, or as an optimized netlist for FPGAs and structured ASICs.

Initial implementations of the core show it to be competitive in performance and area. For example, it achieved 262 MHz with under 1500 LUs in an Altera Stratix II, and 266 MHz with under 1300 slices in a Xilinx Virtex-4. These figures include the FIFOs and other elements not typically offered within a DDR controller core.

The new core was developed by CAST partner Alma Technologies, based in Greece (see www.alma-tech.com). It joins the other cores in CAST's memory controller line: SDR-SDRAM-CTRL for single data rate mobile SDRAM devices, and NFlashCtrl for NAND flash memory devices.

About CAST, Inc.

CAST provides over 100 popular and standards-based IP cores for ASICs and FPGAs. Privately owned and operating since 1993, CAST has established a reputation for high-quality IP products, simple licensing, and responsive technical support. The company is headquartered near New York City, partners with IP developers around the world, and works with select sales consultants and distributors throughout Europe and Asia.

###

Contacts: Hal Barbour, CAST, Inc., +1 (201) 391-8300 ext. 111, h.barbour@cast-inc.com
Paul Lindemann, Montage Marketing, +1 (603) 490-4985, paul@montmark.com

Nikos Zervas, Alma Technologies, +30 210 6039850, zervas@alma-tech.com

CAST, Inc.

11 Stonewall Court, Woodcliff Lake, NJ 07677

Tel: 201/391-8300 Fax: 201/391-8694 www.cast-inc.com

CAST is a trademark of CAST, Inc. All other trademarks are the property of their respective owners.