

## CAST Expands System IP Offerings with Embedded Internet and USB Subsystems

*Pre-Integrated, Pre-Verified IP Subsystems to be Demonstrated at  
DATE 2008 Exhibit in Munich*

**Woodcliff Lake, NJ, March 6, 2008** — Silicon Intellectual Property (IP) provider CAST, Inc. today announced the availability of embedded subsystems that make it easier to integrate Internet connectivity or a USB controller in system-on-chip (SoC) designs.

The two new system IP products combine IP cores for an 8051 processor with an Ethernet MAC controller core and with a hi-speed USB 2.0 device controller core. Verified TCP/IP and USB software stacks are also included, and a development board is available for each subsystem. Similar products have been available as physical chips, but as high-level, reusable IP cores these subsystems offer greater flexibility and easier system integration.

“With IP use now mainstream, smart designers are moving up from individual cores to larger, more complete blocks of ready-to-use IP,” Said Hal Barbour, president of CAST. “These functional subsystems join our platforms and other System IP products in giving designers a new level of productivity, helping them complete products quicker and right the first time.”

### **About the Subsystem Products**

Both subsystems use a fast, configurable, easy-to-program CAST 8051 8-bit processor core that has been successfully used in hundreds of customer products.

The **Embedded Internet Subsystem** combines the processor with a CAST 10/100 Mbps Ethernet MAC core and a TCP/IP stack from CMX Systems, Inc. The compact, parameterized MAC core uses a Media Independent Interface (MII) to the system, and includes hardware acceleration of the tedious Internet Protocol checksum control

process for faster throughput. The CMX-Micronet™ TCP/IP stack is optimized for use with processors like the 8051, and successfully used in many embedded systems.

The **Embedded USB Subsystem** combines the 8051 processor with a CAST USB 2.0 full- and hi-speed device controller core and a USB software stack optimized for the subsystem's 8-bit architecture. (A USB 1.1 full-speed version is also available.)

The USB core works with standard UTMI PHYs from multiple vendors, has achieved USB-IF certification, and has been successfully used in numerous customer designs. The full-featured USB software stack is scalable, configurable, and efficient, requiring as little as 14 kBytes of memory for a simple application. Designers program the subsystem through a simple standard interface (DAPI), shielding them from the intricacies of USB controller hardware. Several included sample systems further shorten a designer's learning curve.

Both subsystems are available now, and are suitable for a wide variety of applications in portable devices and other products. They were developed by CAST partner Evatronix SA in Poland. Development boards implementing the subsystems will be demonstrated live at CAST's booth at DATE 2008 in Munich, March 11-13. For more information, please see:

- Development partner Evatronix SA — <http://www.evatronix.pl/>
- Embedded Internet Subsystem datasheet — <http://www.cast-inc.com/subsystems/r8051xc-mac-l/>
- USB Controller Subsystem datasheet — <http://www.cast-inc.com/subsystems/r8051xc-cusb2/>
- TCP/IP stack provider CMX Systems, Inc. — <http://www.cmx.com/micronet.htm>

## 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.

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