

The word "CAST" is rendered in large, bold, red 3D block letters. The background of the entire top section is a blue-tinted image of a circuit board with various components and a circular inset showing a magnified view of a chip.

News

CAST and Innovative Semiconductors Combine IP for Integrated USB-OTG Solution

*Flexible host/device controller IP core and silicon-proven PHY transceiver macrocell
available together in pre-verified configuration*

June 7, 2004 (DAC) San Diego, California — Semiconductor intellectual property (IP) providers CAST, Inc. and Innovative Semiconductors, Inc. today announced a new relationship under which they will deliver a complete, easy-to-use package for physically implementing USB 2.0 On-The-Go (OTG) connections in a variety of electronic products.

The new offering combines the CAST CUSB2-OTG core with the Innovative SL210 USB 2.0 OTG mixed signal PHY hard macro core. This gives designers the functionality of CAST's host/device controller core and the silicon-proven mixed-signal circuitry of Innovative's physical layer transceiver together in a tested, ready-to-implement configuration.

The new package is available next month for several ASIC technologies, and includes full documentation and a complete test environment that helps designers verify the functionality and compliance of their OTG implementation. Customers may contact either company for more technical and pricing information.

About USB 2.0 On-The-Go

The CAST/Innovative USB-OTG package fully conforms to the USB Implementer Forum's 2001 OTG supplement to the USB 2.0 specification.

USB OTG promises to build on the popularity of USB (Universal Serial Bus) by making it even easier to connect digital products. Whereas USB needs a computer host to manage the connection to one or more devices (a master-slave protocol), OTG gives every device enough host capabilities so they can be directly interconnected. Users will be able to, for example, connect their OTG-equipped camera directly to a printer for photos or to a cell phone for Internet sharing, without the use of a computer. (See www.everythingusb.com/usbonthego for more information.)

The CAST CUSB2-OTG IP Core

CAST's core implements a port that can serve as either a master or a slave when connected to another USB device. Its efficient design features special hardware for the host negotiation protocol (HNP), session request protocol (SRP), and other time-critical functions. Designers can take advantage of the core's FIFO interfaces, and can program up to 16 IN and OUT endpoints to further optimize the core for their specific application. The CUSB2-OTG core includes a flexible, user-programmable general interface to 8/16/32-bit microprocessors. It communicates with the Innovative PHY through a standard USB Transceiver Macrocell+ (UTMI+) interface.

The Innovative SL210 USB 2.0 OTG PHY Transceiver Core

Innovative's transceiver core eliminates the challenges of mixed-signal design for USB-OTG by combining an analog front end with a digital back end in a silicon-proven hard macrocell. Using standard digital CMOS technology, the full-featured PHY includes an on-chip oscillator, termination resistor, DP/DM short circuit protection, and on-chip OTG comparators. It supports power down mode, and can handle data line VBUS pulsing session requests. The SL210 builds on Innovative's portfolio of USB 2.0 certified products, which have been ported to many processes and incorporated in hundreds of customer products.

About Innovative Semiconductors, Inc.

Innovative's mixed-signal products have gained acceptance among some of the world leaders in the consumer and computer markets. Innovative's licensees include 3dfx, Agilent, Conexant, Creative Technology, Evans & Sutherland, Honeywell, IBM, Infineon, JPL, LSI Logic, Mitel, Motorola, National Semiconductor, NVIDIA, Oki, S3, Samsung, Siemens, STMicroelectronics, Trident and Tvia. Innovative's technology has been designed in a variety of applications ranging from PCs, PC peripherals, Internet appliances, and set-top boxes to satellites. The company is a member of the USB-IF, TSMC IP Alliance Program and UMC IP Program. For more information about Innovative, visits www.isi96.com.

About CAST, Inc.

CAST provides about 100 popular and standards-based IP cores for ASICs and FPGAs. Privately owned and operating since 1993 with a focus on making IP practical and affordable, CAST has established a reputation for high-quality IP products, simple licensing, and responsive technical support. The company is headquartered near New York City, has a European office in the UK, and works with an international network of IP developers and distributors. # # #

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