

New Low-Pin, Hi-Speed USB transceiver interface endorsed by leading USB connectivity providers

USB transceiver interface makes it easier for designers of advanced semiconductor solutions to create high-speed connections for digital products

San Jose, Calif., March 1, 2004 – Leading Universal Serial Bus (USB) connectivity providers including ARC International, Conexant, Mentor Graphics, Philips, Standard Microsystems Corporation (SMSC), and TransDimension Inc. developed and announced a new USB transceiver interface called UTMI+ Low Pin Interface (ULPI). These companies are the founding members of the ULPI working group. In addition, Cypress, Synopsys and Motorola have recently verified the specification and joined the group. ULPI allows chip and system designers to connect a Hi-Speed USB transceiver to USB core logic embedded in application-specific integrated circuits (ASICs) and systems-on-chip (SoCs). The ULPI specification covers USB host, device and On-the-Go (OTG) implementations.

Today, USB is the most widely deployed connection interface for quick transfers of information on PCs, printers, digital cameras, personal digital assistants (PDAs), MP3 players, cell phones, monitors, and other digital consumer electronics products. USB allows consumers to easily establish high-speed connections between products to transfer digital files such as pictures, multimedia content and data.

By using the ULPI standard interface instead of proprietary interfaces, ASIC and SoC designers will reduce design time, simplify testing and ensure interoperability with USB transceivers. ULPI specifies a 12-pin interface between host, device and OTG functionality on an ASIC or SoC and an external USB transceiver. As a result, more USB functionality can be integrated, leading to a reduction in the pin-count of the transceiver from 100 pins to approximately 30.

“The ULPI standard will accelerate Hi-Speed USB adoption across all markets, especially in the fast-growing connected consumer segment where USB’s ease of use is important,” said Batuhan Okur, chairman of the ULPI working group and USB product manager at Philips Semiconductors.

The companies endorsing the ULPI specification are a cross-section of semiconductor and intellectual property (IP) providers who, in concert, created a comprehensive system solution for Hi-Speed USB functionality.

“ULPI helps customers reduce cost, risk and time-to-market,” said Wouter Suverkropp, worldwide marketing manager, Peripherals, ARC International.

“Mentor believes the ULPI specification will enable a higher level of interoperability among USB components and much needed flexibility for system designers,” said Michael Kaskowitz, general manager, Intellectual Property Division, Mentor Graphics.

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“By enabling low pin-count transceiver connectivity, ULPI technology will allow designers to aggressively drive process technology advancements without redesigning analog blocks, serving to reduce overall systems costs,” said Steve Nelson, vice president, Connectivity Products Marketing, SMSC.

“The addition of ULPI to our technology portfolio will enable us to provide our customers with cost-effective, industry-standard USB 2.0 PHYs in a compact package, and also enhance our home network processor portfolio with USB 2.0 support,” said Chee Kwan, vice president, Broadband Access Products, Conexant.

“The entire market should benefit from an interface that promises a large market of discrete solutions, as well as an accelerated path for those pursuing integration,” said Mike Holt, vice president, Marketing, TransDimension Inc.

The ULPI standard is available immediately for royalty-free licensing. For additional information, please contact ulpi@philips.com.

About ULPI Consortium

The ULPI Consortium was founded by ARC International, Conexant, Mentor Graphics, Philips, Standard Microsystems Corporation (SMSC) and TransDimension Inc. The ULPI interface was formed to allow chips and systems designers to connect a Hi-Speed USB transceiver to USB core logic embedded in application-specific integrated circuits (ASICs) and systems-on-chip (SoCs). The ULPI specification covers USB host, device and On-the-Go (OTG) implementations.

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