

**CYPRESS ANNOUNCES INTEGRATED HOTLink™ TRANSCEIVERS  
TARGETED AT LOWER-SPEED, POINT-TO-POINT SERIAL APPLICATIONS**

**Integrated CMOS Transmitter, Receiver, and FIFO Provide Space and Power Advantages**

SAN JOSE, Calif., October 18, 1999 -- Cypress Semiconductor Corporation [NYSE:CY] today announced the extension of its popular HOTLink™ family of integrated, point-to-point, serial transceivers with several new single-chip solutions supporting data rates between 50-200 Mbps (5-20 Mbytes/sec.). The new products are integrated HOTLink TX/RX transceivers that provide significant board space, cost, and power advantages compared with conventional four-chip solutions.

The CY7C924DX, targeted at ESCON, and proprietary point-to-point applications, features additional logic to increase ease of use and system performance. The CY7C954DX is a UTOPIA extender for ATM applications, using similar functional blocks as the 924DX but adding an interface compliant with the UTOPIA Level I and II standards to increase design flexibility and reduce time-to-market. The CY7C9689DX, previously announced by Cypress, is a low-power transceiver compatible with Advanced Micro Devices' recently discontinued TAXIchip™ chipset.

“HOTLink DX family brings the benefits of our field-proven HOTLink chipset to a variety of lower-speed applications where parallel interfaces can be replaced with point-to-point serial links,” said Michael Bollesen, strategic marketing manager of Cypress's Datacom Division. “The new devices provide enhanced levels of functionality and integration for customers that don't require original HOTLink's 200-to-400 Mbps transmission speeds. We see datacom, telecom, and mass-storage applications for these products, such as interconnecting workstations, backplanes, servers, mass storage, and video-transmission equipment.”

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“The HOTLink DX transceiver is a good example of why Cypress is poised for solid growth in the fast-growing data communications business,” said Dan McCranie, Cypress’s executive vice president of sales and marketing. “These chips efficiently integrate different technologies—including analog/mixed-signal, specialty memory, logic, and serializing/deserializing (SERDES) functionality—in reusable IP blocks that will form the cornerstones of products that move data efficiently under a variety of high-speed protocols. We plan to combine these IP blocks with our new, high-performance 0.25-micron BiCMOS process technology, enabling us to set our sights on serial, physical-layer transceivers greater than 1 gigabit and solutions for serial backplanes, gigabit Ethernet, Fibre Channel, and OC-48 ATM/SONET.”

All of the new devices include 256 bytes of FIFO memory on both the transmit and receive channels; all are compatible with standard media, including fiber optics, twisted-pair wire, and coaxial cable. The 924DX and 954DX transceivers support 8B/10B encoding standards. The 9689DX supports 4B/5B and 5B/6B TAXIchip and Fiber Distributed Data Interface (FDDI) standards. They incorporate an integrated phase-locked loop (PLL) clock synchronizer, which eliminates the need for external capacitors and resistors, and a built-in self-test to facilitate loop back and link integrity diagnostics.

The CY7C924DX has on-board logic that enables command-and-address processing, multiple loop-thru-modes, and parity generation/checking. These modes allow system designers to easily create control busses, point-to-multipoint networks, serial backplane interconnect, and industrial control networks. The CY7C924DX is also ESCON compliant. This device allows designers to increase port-density as they upgrade their line-cards for RAIDS, directors, and host-adapters.

The CY7C954DX is UTOPIA level 1 and 2-compliant and supports Header Error Correction (HEC) and multi-PHY addressing. This serial interface allows system designers to easily extend their parallel UTOPIA interfaces across backplanes or between systems, supporting distances of up to 100m over copper. It is targeted at applications such as ATM switches, cable-modem head-ends, basestations, xDSL switches and concentrators (DSLAMs), CO switches, access equipment, and other telecom systems that use ATM.

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Cypress has been a leader in the point-to-point market since the introduction of its HOTLink (High-speed Optical Transceiver Link) chipset in 1993. HOTLink technology is recognized as a leading solution for high-speed serial applications such as disk-to-peripheral, server-to-server, generic serial bus/backplane, and video-imaging communications. HOTLink uses an 8B/10B encoding scheme and runs up to 400 Mbps over fiber, coax, and twisted pair media.

**Price and Availability**

The HOTLink DX products are offered in 100-pin TQFP packages. They are sampling now with full production expected in November. In 10,000-unit quantities, they are priced at \$27. Preliminary data sheets are available on Cypress's worldwide web site at [www.cypress.com](http://www.cypress.com).

Cypress Semiconductor Corporation, with international headquarters in San Jose, California, provides a broad range of products for leading data communications, telecommunications, computation, consumer, and industrial-control companies worldwide. Cypress's product line includes data communications products; static RAM and specialty memories; programmable logic devices (PLDs); timing devices (clock chips), and microcontrollers for Universal Serial Bus (USB), the new, plug-and-play interface standard connecting PCs and peripherals.

More than two-thirds of Cypress's sales are into fast-growing datacom/telecom markets and dynamic companies such as Lucent, Cisco, 3Com, Alcatel, Motorola, Ericsson, and Northern Telecom. Cypress is No. 1 in the USB and clock chip markets.

Cypress's shares are listed on the New York Stock Exchange under the symbol CY. The company's worldwide web site is [www.cypress.com](http://www.cypress.com).

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## Press Release

and pricing, product development, commercialization and technological difficulties, and capacity and supply constraints.

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