

ComL™ Devices from Cypress are Industry's Fastest Bus Interface and Backplane Chips

- New Performance Levels for Bus Interface and Backplane Devices
- New Devices Boost Performance of Internet Routers, Switches, PCs, etc.
- Configurable Interfaces Include Support for LVCMOS, LVPECL and LVDS

San Jose, Calif., April 24, 2001 - The Timing Technology Division of Cypress Semiconductor (NYSE: CY) today announced the industry's fastest bus interface and backplane chips. The new devices offer up to 20 percent faster data transfer rates and increase the speed at which data moves between line cards, and from motherboards to add-in cards.

The ComL™ series operate at data transfer rates up to 1.6 Gbps, and will boost the performance of a wide variety of systems including Internet routers, optical switches, PCs, workstations, servers, enterprise networks, central office equipment, cellular base stations, etc.

The new series includes multiplexed-differential, line drivers that provide redundant links for serial backplanes, 20-bit wide, tri-state buffers and clock distribution buffers with fanouts of 1:10, 1:8 and 1:4. The devices offer configurable inputs that match industry standard interfaces including LVCMOS (Low Voltage CMOS), LVDS (Low Voltage Differential Signaling) and regular differential (Complementary I/O Signal Pair). The LVDS output drivers are configurable to support standard drive (1.2 ns rise and fall times), and high drive (less than 500 ps rise and falls times).

According to Mark Sherwood, Director, New Business Development, "Our ComL Series will play a crucial role in the electronics industry because of their wide-spread use in the path of critical data which moves between subsystems such as line cards. Much of the data that flows through the Internet will pass through these types of devices. These high performance devices will help get Internet information to its destination faster."

Multiplexed-Differential Line Drivers (i.e., Crosspoint Switches)

The multiplexed-differential, line drivers (i.e., crosspoint switches) and receivers are ideal for driving redundant serial backplane connections. In the event that one of the lines fails, the second line can be used as an alternate path for the data. The devices support clock speeds of up to 800 MHz which provides a 1.6 Gbps data transfer rate when clocking on both edges.

The chips use the LVDS interface of inputs and outputs. This interface provides a minimum differential output voltage of 247 mV into a 100 ohm load and receipt of as little as 100 mV signals with up to 1 V of DC offset between transmitter and receiver. Configured as a 2X2 crosspoint, the device can route, split and repeat signals up to 800 MHz (i.e., 1.6 Gbps data transfer rate).

20-Bit Buffers (Differential to LVDS)

The 20-bit differential to LVDS buffer (i.e., DL8520) is used in wide-bus applications that move data out of or into a line or add-in card. The device is ideal for both level translations from single ended to LVDS and/or for the distribution of LVDS-based clock signals.

The device offers inputs that can be configured as LVDS, LVCMOS or LVPECL interfaces. The 20 output drivers are configured as LVDS. The output enable logic supports tri-state for

the output channels, and a low propagation delay of (i.e., less than 2 ns) which supports very high-speed transfers clocking up to 800 Mhz (i.e., 1.6 Gbps data transfer rate). This performance is 20 percent faster than the industry standard.

1:10, 1:8 and 1:4 Clock Fanout and Distribution Buffers

These buffers feature versions with one single-ended input and ten singled-ended LVCMOS outputs, versions with one configurable input (i.e., LVCMOS, LVPECL or LVDS) and eight LVDS outputs (standard or high drive) and versions with one configurable input (i.e., LVCMOS, LVPECL or LVDS) and four LVDS outputs (standard or high drive).

These devices are important for distributing clock signals across backplanes. The large fanout from a single input reduces loading on the input clock.

In the 1:10 fanout version, the LVCMOS type outputs dynamically adjust for variable impedance matching and eliminate the need for series damping resistors and reduce overall noise. These devices are available in versions with outputs that can be disabled to tri-state or set to always on.

Availability and Price

These devices are sampling now, except for the ComL-DL8520AA and the ComL-DT8520AA which will be sampling in August. Prices are for quantities of 1,000.

Reader Contact

Sales Department, Cypress Semiconductor, 525 Los Coches Street, Milpitas, CA 95035. Phone: 408-263-6300 Fax: 408-263-6571 Web site: www.cypress.com or www.imicorp.com. In February 2001, Cypress Semiconductor acquired IMI Corporation, a leading supplier of frequency and timing generators.

About Cypress

Cypress Semiconductor is "Driving the Communications Revolution"™ by providing high-performance integrated circuit solutions to fast-growing markets, including data communications, telecommunications, computation, consumer products, and industrial control. With a focus on emerging communications applications, Cypress's product portfolios include networking-optimized and micropower static RAMs; high-bandwidth multi-port and FIFO memories; high-density programmable logic devices; timing technology solutions; and controllers for Universal Serial Bus (USB). Cypress is No. 1 in the USB and clock chip markets.

More than two-thirds of Cypress's sales come from fast-growing communications markets and dynamic companies such as Alcatel, Cisco, Ericsson, Lucent, Motorola, Nortel Networks, and 3Com. Cypress's ability to mix and match its broad portfolio of intellectual property enables targeted, integrated solutions for high-speed systems that feed bandwidth-hungry Internet applications. Cypress aims to become the preferred silicon supplier for Internet switching systems and for every Internet data stream to pass through at least one Cypress IC.

Cypress employs more than 4,400 people worldwide with international headquarters in San Jose, California. Its shares are listed on the New York Stock Exchange under the symbol CY. More information about Cypress is accessible electronically on the company's worldwide Web site at <http://www.cypress.com> or by CD-ROM (call 1-800-858-1810).

"Safe Harbor" Statement under the Private Securities Litigation Reform Act of 1995:

Statements herein that are not historical facts are "forward-looking statements" involving risks and uncertainties, including by not limited to: the effect of global economic conditions, shifts in supply and demand, market acceptance, the impact of competitive products and pricing, product development, commercialization and technological difficulties, and capacity and supply constraints. Please refer to Cypress's Securities and Exchange Commission filings for a discussion of such risks.

"Driving the Communications Revolution" is a trademark of Cypress Semiconductor. ComL is a trademark of IMI Corporation.