

Xilinx Enters Into Joint Venture for Foundry Capacity

In a joint venture with United Microelectronics Corporation (UMC) and others, Xilinx has invested a 25% equity stake in a semiconductor manufacturing facility in Hsin Chu City, Taiwan.

Xilinx is one of more than 100 semiconductor companies that use independent silicon "foundries" rather than their own wafer fabrication facilities. Being "fabless" allows the company to focus on what Xilinx does best — the design and marketing of programmable logic devices. Xilinx transcends the scope of traditional customer-supplier relationships by employing its own process experts, who work closely with our foundry partners in the development and implementation of process technology improvements.

The Taiwan facility will ensure a steady and reliable supply of product as the demand for programmable logic devices continues to grow. Starting its two-year ramp up cycle in early 1996, the factory

will produce eight-inch wafers using submicron CMOS processes. In the meantime, UMC will provide Xilinx with interim capacity at its other facilities in Taiwan.

Xilinx will maintain its existing foundry partnerships with Seiko Epson, Yamaha, Taiwan Semiconductor Manufacturing Company (TSMC) and IC Works. While the UMC investment marks the first time Xilinx has taken an equity position in a foundry, it is not the first Xilinx investment involving its foundry partners. For example, in early 1994, Xilinx helped fund Seiko Epson's expansion of an IC facility in Sakata, Japan.

"This new venture ensures foundry capacity of leading-edge process technologies to meet the rising demand for FPGAs," noted Xilinx CEO Bernie Vonderschmitt. "This agreement, combined with our other foundry partnerships, favorably positions the company to meet customer demand to the end of the decade." ♦

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while the USERCODE function allows the user to "program in" information such as version numbers, assembly locations, or dates as part of the manufacturing process.

Flash Process Technology

An easy-to-use, integrated design and programming environment allows designers to implement multiple design iterations per day. This can translate into a need to support hundreds, and perhaps thousands, of program-erase cycles. Flash process technology provides this capability, with margin to spare. The Xilinx proprietary FastFLASH Technology is the industry's first 5-volt flash technology developed specifically for CPLD applications. It is an extension of industry-standard flash memory technology, and offers the proven reliability of 10,000 program-erase cycles — a factor of up to 100 times more than competing ISP CPLDs.

The benefits of flash technology extend beyond program-erase endurance. The flash memory cell provides the basic programmable "switch" in the XC9500 CPLDs. The size of the flash memory cell is about 1/3 that of other non-volatile technologies, allowing the implementation of many more "switches" in the same chip area. These added resources lead to improved routability and pin-locking capability.

In-system programmability is an increasingly important requirement for CPLDs. The needs of ISP CPLD users extend beyond easier handling of PQFP packages to more complete support of "the total product life cycle." The architecture, process technology and development tools of the XC9500 FastFLASH family meet these needs, allowing users to take full advantage of the flexibility of ISP technology. ♦