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**VIRTUAL PERIPHERALS, EXPANDED DEVELOPMENT SYSTEM  
FOR SX SERIES MICROCONTROLLER NOW SHIPPING**

*Virtual Peripherals, SX Key System, To Be Demonstrated at ESC/Chicago*

Santa Clara, Calif. – March 30, 1998 – Scenix Semiconductor, Inc. today announced the availability on its World Wide Web site of the first elements in a library of “virtual peripherals” to be used in designing with its SX Series of high-performance 8-bit microcontrollers. Scenix and its partner, Parallax, Inc., also announced that an expanded version of the SX Key Development System for the SX Series is now shipping in volume. Parallax expects that it will ship more than 750 SX Key systems within the next four weeks.

In addition to an SX Key module and development software, the expanded system includes an evaluation board and the first four elements in the virtual peripheral library. Designers will use the library elements to implement peripheral functions in software using the SX Series.

The SX Series 8-bit microcontroller and SX Key Development System will be shown in the Scenix Semiconductor booth (#1828) at the Embedded Systems Conference/Chicago, March 31 - April 2, 1998.

The SX Series is the most powerful 8-bit microcontroller on the market for embedded applications. Its performance of up to 50 MIPS (million instructions per second) and deterministic interrupt handling allow designers to implement a variety of peripheral functions without adding silicon, and without degrading overall system performance. The SX Key development software contains an editor, assembler, programmer and debugger to provide the

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comprehensive in-circuit development, emulation and programming capabilities that make this possible.

“The SX Key is an integral part of the SX Series package, and we’re pleased that it and the chip itself are ramping into volume production at the same time,” said Stephan Thaler, vice president of marketing at Scenix. “This easy-to-use tool and the growing set of software modules will enable designers to fully exploit the power and flexibility of the SX and cut their time to market with highly integrated, cost-effective embedded MCUs.

“To further enhance the SX Series flexibility, we intend to quickly fill the virtual peripherals library with as many functions as possible. Equally important, we’ll make guidelines available for designers to develop and use their own virtual peripherals, expanding their ability to rapidly create controllers that are fully tailored to their requirements.”

According to Chip Gracey, president of Parallax, “Working with Scenix to develop the SX Key has been very exciting for us. The level of performance of the SX Series, and the fact that it’s flash memory-based, give it unequalled capabilities and flexibility. In creating a development system to take advantage of those features, we believe that we’re helping give 8-bit embedded microcontroller designers a viable alternative to the 16- and 32-bit architecture upgrade path.”

### **Virtual Peripherals Library**

With 50 MIPS of processing power available, the SX Series can perform a wide range of peripheral functions in software without decreasing system performance. For example, implementing a 19.2 kbps UART (universal asynchronous receiver/transmitter) and an 8 kHz/8-bit ADC (analog-to-digital converter) with the SX Series requires less than 100 lines of code and consumes approximately 8 MIPS of processing power, leaving 42 MIPS to run applications or perform even more peripheral functions. By comparison, the processing power available with the average competitor’s microcontroller totals less than 8 MIPS.

Scenix Semiconductor and its partners are developing a library of virtual peripherals that will be included in the SX Key Development System and made available for downloading as freeware from the World Wide Web. The first four such peripherals that are available both with the SX

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Key and, as of April 1, on the Scenix Web site are: an 8-bit ADC; a 16-bit free-running timer; a PWM output; and a 19.2 kbps RS-232 UART.

Additional virtual peripherals will be made available on the Scenix Web site during the first half of April. These will include: a fast 1-bit ADC with oversampling; a multi-channel UART; an I<sup>2</sup>C master; an analog bar graph; a direct LCD drive; and a keyboard scanner.

A special Web site is being created that will contain all of the virtual peripherals and application notes relating to using them. Accessible from the Scenix home page ([www.scenix.com](http://www.scenix.com)), this site will continue to be updated and expanded as new peripherals and application notes become available.

### **Price and Availability**

The expanded SX Key Development System is available now at a price of \$249. The hardware consists of a 0.5-inch x 1.5-inch module having a four-pin header socket and six-foot mini-coax cable with a host serial connector. It eliminates the need for a bond-out chip or external power supply for in-circuit emulation, and can program an SX chip without a separate programmer unit. The development software runs on a personal computer under Windows<sup>®</sup> 95, has on-line help and requires only a serial port to communicate with the SX Key hardware. Debugging functions provided include symbolic and source-level viewing and single-step, breakpoint, and asynchronous-break at full speed across the entire frequency and voltage range of the SX chip.

In addition to the module and software that were announced in September 1997, the expanded SX Key package includes an evaluation board, five virtual peripherals, two sample SX chips and a users manual.

### **About Scenix Semiconductor**

Scenix Semiconductor, Inc. is headquartered in Santa Clara, Calif. Founded in 1996, the company's mission is to deliver high-performance, cost-effective, easy-to-use single-chip solutions for embedded systems. Scenix announced the SX Series family of microcontrollers in August 1997 and shipped the first production parts in late December 1997. In early 1998, the

company completed a \$7.6 million round of venture financing. Additional information on Scenix and the SX Series products can be found on the Web, at <[www.scenix.com](http://www.scenix.com)>.

**About Parallax, Inc.**

Headquartered in Rocklin, Calif., Parallax, Inc. is a leading manufacturer of BASIC Stamp single-board computers, and SX and PIC development tools. Additional information can be found at its Web site, at <[www.parallaxinc.com](http://www.parallaxinc.com)>.

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