Silicon Labs Introduces Industry's Smallest, Most Power-Efficient PCI Express Clocks

New PCIe Clock Generators Ease Power Consumption and Design Complexity for Consumer, Embedded, Storage, Server and Communications Applications

"The adoption of the PCIe interface standard in applications beyond network storage and servers has driven the need for small size, high integration and ultra-low power consumption in PCIe clock solutions"

AUSTIN, Texas--(BUSINESS WIRE)--Silicon Labs (NASDAQ: SLAB), a leader in high-performance, analog-intensive, mixed-signal ICs, has expanded its industry-leading PCI Express (PCIe) timing solution portfolio with new one- and two-output PCIe clock generators that offer the smallest footprint and lowest power in the market. Designed to meet the stringent specifications of the PCIe Generation 1/2/3 standards, the Si52111 and Si52112 clock generator ICs target high-volume consumer, embedded, communications and enterprise applications where board space, power consumption and system cost are critical concerns.

Silicon Labs' Si5211x clock generators are especially well-suited for space-constrained, power-sensitive consumer electronics products such as digital still cameras that require industry-standard PCIe connectivity. Addressing the small form factor requirements of these consumer applications, the Si5211x clocks are available in a 3 mm x 3 mm 10-pin TDFN package – the smallest package available in the PCIe timing market. These ultra-low-power clock generators offer up to eight times lower current consumption (less than 15 mA) than competing devices, making it easier for designers to meet green power regulations while enhancing system reliability. The devices also meet PCIe jitter requirements with up to 50 percent margin, enabling a lower bit error rate to further improve reliability.

In addition to offering power savings and improved jitter margin, the Si5211x clock generators use an innovative push-pull output buffer technology. Compared to existing solutions in the market today, the Si5211x PCIe clock generators integrate all termination and reference resistors on chip, eliminating the need for additional external components. These highly integrated devices are designed to help system designers reduce the bill of materials, board space requirements and design complexity. Most competing solutions require up to four resistors per output clock, as well as a current source reference resistor. As an added benefit, on-chip integration of these resistors enables the designer to lay out a clean transmission line from the output of the Si5211x IC to the input of the receiver, simplifying board design and removing discontinuities in the clock transmission lines that can otherwise degrade signal integrity.

"The adoption of the PCIe interface standard in applications beyond network storage and servers has driven the need for small size, high integration and ultra-low power consumption in PCIe clock solutions," said Mike Petrowski, vice president and general manager of Silicon Labs' timing products. "Silicon Labs is addressing these application requirements with the industry's smallest and lowest power PCIe clock generators available. Despite their tiny size, the Silicon Labs PCIe clock generators pack a lot of integrated features into a single-chip solution that greatly enhances signal integrity."

As a leading "one-stop-shop" supplier of timing ICs, Silicon Labs offers the industry's broadest range of PCIe-compliant clocking solutions. Silicon Labs' expanded PCIe timing portfolio includes both off-the-shelf clock generators and clock buffers for power- and cost-sensitive PCIe applications, as well as web-customizable clock generator/buffers for FPGA- and SoC-based designs requiring various differential clock formats that also comply with the PCIe standard.

Pricing and Availability

Production quantities of Silicon Labs' Si5211x PCIe clock generators are available now in a choice of 1 and 2 PCIe outputs. Pricing in 10,000-unit quantities ranges from $0.53 to $0.91 (USD). Silicon Labs offers easy-to-use evaluation platforms to accelerate PCIe application development. The Si52112-B4-EVB dual-output PCIe clock generator evaluation board is priced at $100 (USD MSRP).

For more information about Silicon Labs' PCIe clock generator and buffer portfolio and to order samples and development boards, visit www.silabs.com/pci-express-clocks.

Silicon Labs

Silicon Labs is an industry leader in the innovation of high-performance, analog-intensive, mixed-signal ICs. Developed by a world-class engineering team with unsurpassed expertise in mixed-signal design, Silicon Labs' diverse portfolio of patented semiconductor solutions offers customers significant advantages in performance, size and power consumption. For more information about Silicon Labs, please visit www.silabs.com.

Cautionary Language

This press release may contain forward-looking statements based on Silicon Labs' current expectations. These forward-looking statements involve risks and uncertainties. A number of important factors could cause actual results to differ materially from those in the forward-looking statements. For a discussion of factors that could impact Silicon Labs' financial results and cause actual results to differ materially from those in the forward-looking statements, please refer to Silicon Labs' filings with the SEC. Silicon Labs disclaims any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

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