



SILICON LABS

Silicon Laboratories Introduces World's Smallest, Lowest Loss AC Current Sensor

July 30, 2007 12:00 PM EDT

AUSTIN, Texas--(BUSINESS WIRE)--July 30, 2007--Silicon Laboratories Inc. (Nasdaq:SLAB), a leader in high-performance, analog-intensive, mixed-signal ICs, today announced the world's smallest low-loss high-accuracy ac current sensors for a wide range of power applications. The Si8500 family measures up to 20 amps of current for control and protection in power systems and is ideal for a broad range of applications including ac-dc switching power supplies, isolated dc-dc supplies, motor control and electronic ballasts for lighting.

The patent-pending Si8500 integrates the functional equivalent of a current transformer circuit into a tiny 4 x 4 x 1 mm QFN package, including the current transformer, blocking diode, burden resistor and output RC filter, decreasing board space by up to 75 percent and reducing enclosure volume requirements by up to 80 percent. The Si8500 family also integrates temperature and offset compensation circuitry to achieve industry-leading measurement accuracy of +/- 5% with a 2 Vpp full-scale output signal swing. To further save cost and board space, the Si8510 family offers a "ping-pong" output that enables one Si8510 to replace two current transformer circuits in full-bridge applications.

The Si8500 family boosts efficiency and performance in both custom and off-the-shelf ac-dc power supplies. By integrating the current sensor into silicon, the Si8500 architecture provides greater than five times lower series resistance and over two times lower series inductance than traditional discrete implementations. These performance gains translate directly into lower power dissipation, higher efficiency, lower noise and reduced power supply complexity.

The Si8500 family integrates auto-calibration circuitry that improves manufacturability and reliability by eliminating measurement offset and temperature sensitivities found in discrete current sensor implementations. Discrete designs typically use current transformers that suffer from mechanical variations. These variations can cause manufacturability problems related to component placement issues, as well as excessive mechanical tolerances, leading to further manufacturing steps for calibration and proper operation. The Si8500 is also rated to operate from -40 to +125 degrees C in a standard surface mount package, simplifying power supply designs.

"Silicon Labs' current sensors eliminate the need for large current transformers and associated discrete components," said David Breseman, vice president of Silicon Laboratories. "We are continuing to expand our family of power products with unique architectures that use cutting-edge mixed-signal design techniques. Customers recognize that our vast improvements in performance, footprint and efficiency will translate to greater functionality and better performance in a smaller space."

Pricing and Availability

The Si8500 family is sampling now and pricing starts at \$1.49 for 1K pieces.

Silicon Laboratories Inc.

Silicon Laboratories 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 highly integrated, easy-to-use products offers customers significant advantages in performance, size and power consumption. These patented solutions serve a broad set of markets and applications including consumer, communications, computing, industrial and automotive.

Headquartered in Austin, TX, Silicon Labs is a global enterprise with operations, sales and design activities worldwide. The company is committed to contributing to our customers' success by recruiting the highest quality talent to create industry-changing innovations. For more information about Silicon Labs, please visit www.silabs.com.

Cautionary Language

This press release may contain forward-looking statements based on Silicon Laboratories' 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 Laboratories' financial results and cause actual results to differ materially from those in the forward-looking statements, please refer to Silicon Laboratories' filings with the SEC. Silicon Laboratories disclaims any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

Note to editors: Silicon Laboratories, Silicon Labs, the "S" symbol, the Silicon Laboratories logo, and the Silicon Labs logo are trademarks of Silicon Laboratories Inc. All other product names noted herein may be trademarks of their respective holders.

CONTACT: Silicon Laboratories Inc., Austin
Shannon Pleasant, 512-464-9254
shannon.pleasant@silabs.com

SOURCE: Silicon Laboratories Inc.