Silicon Labs Introduces ISOpro Family With More Than 70 Low Power, High Performance Digital Isolators

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ISOpro Family Offers Industry's First 6-channel Isolator, Highest Data Rates and Bidirectional Solutions for I2C, SMBus and PMBus Applications

AUSTIN, Texas--(BUSINESS WIRE)--May. 11, 2009-- Silicon Laboratories Inc. (Nasdaq: SLAB), a leader in high-performance, analog-intensive, mixed-signal ICs, today introduced the Si84xx ISOpro digital isolator family, the industry's first to support as many as six unidirectional isolation channels capable of data rates up to 150 Mbps. Offering space-efficient packaging options, a choice of isolation ratings up to 2.5 kV_{RMS} and the industry's most highly integrated I ^{2}C isolators, the ISOpro family delivers unsurpassed system design flexibility for use in applications such as power supplies, motor control systems, hybrid electric vehicles, industrial networking, medical and consumer products.

Building on Silicon Labs' patented CMOS-based isolation technology, the ISOpro family offers flexible solutions to simplify isolation design challenges, with unprecedented performance and best-in-class reliability:

- Support for the highest data rate in the industry at 150 Mbps across the widest temperature range: -40 to +125 °C, making the devices suitable in a wide variety of industrial applications.
- Jitter performance of less than 250 ps (peak) is more than two times lower than competitive offerings. Low jitter is critical to enabling robust and reliable performance essential for minimizing data transmission errors and bit-error-rates (BERs).
- Industry-leading electro-static discharge (ESD) performance of 4 kV human body model (HBM), 2 kV charged device model (CDM) and 400 V machine model (MM) to enable the highest reliability in harsh application environments.
- Over 25 kV/us of common mode transient immunity (CMTI) and up to 50 V/m of electric field immunity to provide robust performance and safe operation in applications such as switch mode power supplies, motor control and industrial networking.

For systems with bidirectional communications ports, such as Power over Ethernet (PoE) power sourcing equipment (PSE), switch mode power supplies (SMPS) and isolated SMBus or PMBus interfaces, the ISOpro family includes single-chip, I^{2}C-compatible isolators. The Si8400 provides bidirectional isolated channels on both the serial data (SDA) and serial clock (SCL) lines, combining the I^{2}C transmit and receive lines to reduce BOM cost and complexity. The Si8405 offers two additional independent unidirectional channels for system signals such as a reset or interrupt, eliminating ten or more discrete components and the need for additional isolators on the PCB. In addition, the Si8400 and Si8405 support bus speeds of up to 1.7 Mbps, nearly twice as fast the competition, and I^{2}C clock stretching to simplify the design task of matching bus speeds.

Efficiency continues to be a critical consideration for designers when estimating their power budgets. With typical power consumption of less than 1.7 mA at 10 Mbps and less than 4 mA at 100 Mbps, the ISOpro family offers up to four times lower power consumption than competitive solutions. In addition, the devices feature an optional 200 µA energy-efficient "sleep mode" to reduce quiescent power by more than 3 times over the closest competitor. The Si84xx also features typical propagation delays of less than 10 ns that are 65 percent lower than optocoupler-based solutions. Low propagation delays enable higher bandwidths in closed loop systems and higher data rates in communication links.

"Isolators are a critical safety component in many switch mode power supplies, hybrid electric vehicles, lighting, motor control, communications and other power subsystems. Silicon Labs is proud to offer best-in-class isolator technology to meet all the isolation design challenges of these systems," said Dave Bresemann, vice president of Silicon Labs. "With 70 new ISOpro digital isolator products, Silicon Labs gives system designers maximum flexibility in their design without sacrificing performance."

Pricing and Availability

Samples of the ISOpro Si84xx one- and two-channel devices are available in narrow body (NB) SOIC-8 packages; the 3, 4, 5 and 6-channel devices are available in NB SOIC-16 and wide body (WB) SOIC-16 packages. Pricing for the Si84xx devices starts at $0.59 in high volume, and full production is scheduled for Q2 2009. To order, please visit www.silabs.com/power.

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.

Source: Silicon Laboratories Inc.

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