# Silicon Labs Mixed-Signal MCUs Simplify Full-Speed USB Connectivity

April 13, 2011 11:00 AM EDT

*High-Performance USB MCU Families Reduce Cost and Complexity for Consumer, Industrial and Medical Applications*

AUSTIN, Texas--(BUSINESS WIRE)-- Silicon Laboratories Inc. (NASDAQ: SLAB), a leader in high-performance, analog-intensive, mixed-signal ICs, today introduced two USB microcontroller (MCU) families that provide the industry's fastest, easiest and most economical path to USB connectivity. Expanding on Silicon Labs' popular USB MCU portfolio, the new C8051F38x and C8051T62x/32x USB MCU families are ideal for a wide range of applications such as home automation systems, thermostats, USB dongles, smart card readers, GPS localizers, touch panels, sensor data loggers, portable medical devices, weigh scales, USB speakers, serial communication bridges, games and electronic toys.

With more than two billion USB devices sold each year, the demand for easy-to-deploy USB solutions continues to rise. Adding this universal but complex interface to space-constrained, cost-sensitive embedded products can be challenging for developers lacking USB software expertise. A leading supplier of USB MCUs and smart interface ICs, Silicon Labs developed the new USB MCU families to simplify the addition of USB connectivity to embedded designs. The families, which include 22 products with flash and one-time-programmable (OTP) options, feature a full-speed USB 2.0 interface engine, outstanding processing performance and USB throughput, best-in-class precision analog functionality, and an innovative clock recovery capability to enable crystal-less USB operation for reduced component count and BOM cost.

The C8051F38x MCU family's enhanced analog/mixed-signal capabilities enable developers to implement high-performance USB connectivity without the extra cost of using a high-end MCU. The flash-based F38x devices are pin- and code-compatible with Silicon Labs' existing C8051F34x USB MCUs for easy migration while offering an additional I2C interface, a higher performance analog-to-digital converter (ADC), lower power consumption and additional timers.

The C8051T62x/32x OTP MCUs are ideal for cost-sensitive USB applications without sacrificing performance and features. The scalable T62x/32x family enables developers to select the most convenient set of digital and analog peripherals optimized for their application needs and cost targets. The OTP-based USB MCUs provide many of the same peripherals and similar functionality available from Silicon Labs' flash-based devices but at a reduced cost.

The F38x and T62x/32x families include USB MCUs featuring a high-performance ADC that enables high precision measurements, eliminating the cost of using external ADCs. The on-chip ADC and high-speed comparators perform up to five times faster than competitive offerings, easing development of analog-intensive applications such as sensor data loggers, weigh scales, gaming controls and blood pressure monitors.

"We continue to see strong demand for our USB solutions because we enable easy, cost-effective USB connectivity better than any other MCU supplier," said Mark Thompson, vice president of Silicon Labs' Embedded Mixed-Signal products. "The combination of our high-performance processing cores, crystal-less operation and precision analog functionality simplifies embedded designs and reduces component count and BOM cost without sacrificing performance."

**Comprehensive USB MCU development support**

Silicon Labs' comprehensive USB MCU development ecosystem includes USBXpress® software, code examples and USB development kits that reduce cost and development time. The C8051F380DK development kit enables real-time code development and evaluation of the C8051F38x family. The C8051T620DK and C8051T622DK kits enable real-time code development and evaluation of the C8051T62x/32x family. The TOOLSTICK381DC daughter card provides a simple, economical development tool that allows designers to develop and debug application firmware directly on a target USB MCU.

**Pricing and availability**

Samples and production quantities of the C8051F38x and C8051T62x/32x USB MCUs are available now in space-saving 4 mm x 4 mm and 5 mm x 5 mm QFN packages. Pricing begins at $2.12 in 10,000-unit quantities for the F38x flash-based devices and $1.07 for the T62/32x OTP MCUs. The C8051F380DK development kit is available for $99, and the C8051T620DK and C8051T622DK kits are both priced at $129. The TOOLSTICK381DC daughter card is available for $9.90. (All prices are in USD.) For more information about the new USB MCU families, visit www.silabs.com/pr/usbmcu.

**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 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 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.



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Source: Silicon Laboratories Inc.