Silicon Labs Sensor Development Kits Accelerate Internet of Things System Design

New Environmental and Biometric Kits Showcased at IIC-China Bring "Click-and-Run" Simplicity to IoT and Wearable Applications

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SHENZHEN, China--(BUSINESS WIRE)--Silicon Labs (NASDAQ: SLAB), a leader in high-performance, analog-intensive, mixed-signal ICs, today introduced two economical, easy-to-use development kits to accelerate the design of environmental and biometric sensing applications for a wide range of Internet of Things (IoT) products. Target applications for the kits include home security systems, smart thermostats, smoke detectors, weather stations, smart watches, fitness bands, heart-rate earphones and other wearable products. Silicon Labs is demonstrating the new environmental and biometric sensing development kits at its booth in the IoT/Wearable Zone in Hall 4 at IIC-China in Shenzhen this week.

Silicon Labs' SLSTK3201A environmental sensing development kit streamlines the process of developing IoT products that sense relative humidity (RH), temperature, ultraviolet (UV) light, ambient light, proximity and human gestures. The development kit combines an EFM32™ Zero Gecko microcontroller (MCU) starter kit with a sensor expansion board. The kit also features a gesture-controlled weather station application that tracks RH, temperature and UV index. Complete source code is available from Silicon Labs' Simplicity Studio™ development platform, substantially reducing application development time.

Silicon Labs' new biometric sensing development platform makes it easier to measure heart rate and blood oxygen level (Sp02), as well as UV index, relative humidity and temperature. The platform includes the BIOMETRIC-EXP-EVB expansion card featuring Silicon Labs' Si114x optical sensors and Si701x/2x humidity and temperature sensors. The sensor card plugs directly into Silicon Labs' EFM32 Wonder Gecko MCU starter kit. Silicon Labs also offers an optional wearable-form-factor HRM-GGG-PS board that supports wrist-based heart rate monitoring and connects to the biometric sensor card through an I^2C mini-flex cable.

The biometric demonstration firmware for the EFM32 Wonder Gecko starter kit is available at no charge at www.silabs.com/biometric-exp-evb. The library module includes a heart rate algorithm with source configuration files, eliminating the need to develop biometric sensor drivers from scratch.

The environmental and biometric sensing kits operate on coin-cell batteries, demonstrating the industry-leading ultra-low power consumption of Silicon Labs' MCU and sensor IC products for battery-powered IoT and wearable applications. Each sensor expansion card features Silicon Labs' TS3310 boost dc/dc converter to help minimize energy consumption.

"Highly accurate, ultra-low-power environmental and biometric sensing capabilities are as critical to today's IoT and wearable applications as energy-friendly MCUs and standards-based wireless connectivity," said Ross Sabolcik, vice president and general manager of Silicon Labs' Analog, Power and Sensor products. "Silicon Labs' sensor ICs offer the state of the art in humidity, temperature, ambient light, UV index and proximity sensing for the IoT. We enable developers to simplify their designs and speed time to market with an array of plug-and-play development kits coupled with our Simplicity Studio software tools."

About Silicon Labs' Environmental/Biometric Sensors

The award-winning Si701x/2x relative humidity and temperature sensors combine a single-chip, mixed-signal IC with a proven technique for measuring humidity using a polymer dielectric film. The integrated CMOS design ensures long-term reliability and superior ease of use, reducing manufacturing cost and complexity. An optional, factory-installed filter cover provides added protection against sensor contamination throughout the device's entire lifetime. The Si701x/2x sensors offer best-in-class low-power consumption and exceptional RH sensing precision.

The Si1132/4x optical sensors are the industry's first single-chip digital UV index sensor ICs designed to track UV sun exposure, heart rate and blood oximetry for wearable and smartphone products. The devices also provide ambient light and infrared (IR) proximity sensing capabilities for health and fitness applications. Conventional UV sensors combine UV-sensitive photodiodes with an external MCU, ADC and signal processing firmware. Silicon Labs is the first to combine all of this functionality into a single-chip, low-power solution offered in a small 2 mm x 2 mm package to help reduce the design's footprint and bill of material (BOM) cost.

Pricing and Availability

The SLSTK3201A environmental sensing kit containing the EFM32 Zero Gecko starter kit and sensor expansion board is available today for $109. The BIOMETRIC-EXP-EVB expansion card is available today for $50, and the EFM32WG-STK3800 Wonder Gecko starter kit is priced at $79. The optional HRM-GGG-PS wearable wrist-based heart rate monitor board is available now for $50. (All kit prices USD MSRP.) Silicon Labs offers a variety of additional dedicated sensor development boards for developers who want to evaluate the company's environmental and optical sensors in more detail. For more information about Silicon Labs' sensors and to order samples and development kits, please visit www.silabs.com/sensors.

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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