New Wireless Platform Enables Next-Generation Connected Products to Scale the IoT

-- Silicon Labs SoCs and Software Optimize Smart Home and Industrial IoT Applications with Best-in-Class Security and RF Performance --

AUSTIN, Texas, April 22, 2019 /PRNewswire/ -- Silicon Labs (NASDAQ: SLAB) has introduced the next generation of its Wireless Gecko platform, Series 2, designed to make Internet of Things (IoT) products more powerful, efficient and reliable. Building on the leading RF and multiprotocol capabilities of the Wireless Gecko portfolio, Series 2 delivers the industry's most versatile and scalable IoT connectivity platform. The initial Series 2 products include small-form-factor system-on-a-chip (SoC) devices with a dedicated security core and an on-chip radio delivering 2.5X the wireless range of competing solutions.

IoT developers routinely face product design tradeoffs around wireless range, power consumption, size, security and cost. The Series 2 wireless connectivity portfolio simplifies IoT product design with highly-integrated SoC options and reusable software that make RF communication more dependable and energy efficient. Series 2 helps developers optimize system cost and performance for a wide range of smart home, commercial and industrial IoT applications.

"As the adoption and diversity of IoT devices continue to grow, developers seek flexible connectivity solutions that help them quickly bring differentiated products to market while reducing cost and design complexity," said Matt Johnson, Senior Vice President and General Manager of IoT products at Silicon Labs. "Series 2 improves multiple design elements, including wireless performance, software reuse, RF communication reliability and enhanced security to speed development, deployment and adoption of the IoT."

The first products in Silicon Labs' Series 2 portfolio include EFR32MG21 SoCs supporting multiprotocol, Zigbee®, Thread and Bluetooth® mesh networking, and EFR32BG21 SoCs dedicated to Bluetooth Low Energy and Bluetooth mesh. These SoCs provide ideal solutions for line-powered IoT products including gateways, hubs, lights, voice assistants and smart electric meters.

Series 2 SoCs provide developers with unmatched system design advantages:

- *Best-in-class RF performance* with +20 dBm output power and up to +124.5 dB link budget
- *Robust wireless radio* with improved blocking performance
- *Powerful processing* with an 80 MHz Arm® Cortex®-M33 core with TrustZone technology
- *Low active current* (50.9 µA/MHz) to meet stringent green energy requirements, a benefit of manufacturing on low-power 40 nm process technology
- *Industry's smallest multiprotocol SoCs* in a 4 mm x 4 mm QFN package
- *Lower BOM count and system cost* with fewer matching components and no need for external inductors or power amplifiers
- *Flexible pre-certified modules* based on EFR32xG21 SoCs planned for Q3

Secure by Design
EFR32xG21 SoCs provide enhanced security features that enable developers to implement robust security in connected products:

- *A dedicated security core* enables faster, lower-power encryption than software techniques.
- *A true random number generator (TRNG)* strengthens device cryptography.
- *Secure boot loading* ensures authenticity of firmware images and over-the-air updates.
- *Secure debug access control* helps OEMs prevent unauthorized access to end products.

Future pin- and software-compatible Wireless Gecko Series 2 SoCs and modules with additional dedicated security technologies will enable developers to create next-generation connected products with enhanced security features, helping to increase consumer trust and drive mass IoT adoption.

With Series 2, designers can bring secure, next-generation IoT products to market by taking advantage of Silicon Labs' Simplicity Studio integrated development environment (IDE). The Simplicity Studio IDE accelerates time-to-market with a suite of tools, including a unified wireless development kit, SDKs, energy profiler, patented network analysis, application demos and mobile apps.

Pricing and Availability

Samples and production quantities of the EFR32MG21 and EFR32BG21 SoCs are available now in a compact 4 mm x 4 mm QFN32 package. The Wireless Gecko starter kit mainboard and EFR32xG21 radio boards are also available now. Contact your local Silicon Labs sales representative or authorized distributor for EFR32xG21 SoC and development kit pricing. For additional information, visit silabs.com/series-2.

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Connect with Silicon Labs
Silicon Labs PR Contact: Dale Weisman +1-512-532-5871, dale.weisman@silabs.com
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