

Silicon Labs Multiband Wireless Gecko SoCs Break New Ground in the IoT

Industry's First Multiband, Multiprotocol SoCs Support 2.4 GHz and Sub-GHz Connectivity and a Choice of Standards-Based and Proprietary Protocols

"The IoT is a very dynamic market, with new applications, use cases, protocols and frequency band options emerging and driving explosive growth of connected device products"

AUSTIN, Texas--([BUSINESS WIRE](#))--Expanding its [Wireless Gecko portfolio](#), [Silicon Labs](#)(NASDAQ: SLAB) has launched the industry's first multiband, multiprotocol wireless system-on-chip (SoC) devices for the Internet of Things (IoT) market. The new multiband Wireless Gecko SoCs enable developers to use the same multiprotocol device for operation in 2.4 GHz and multiple sub-GHz bands, simplifying connected device designs, reducing cost and complexity, and speeding time to market. Multiband Wireless Gecko SoCs are ideal for IoT connectivity products in application areas such as building and home automation, smart metering, security, health and fitness monitoring, connected lighting, electronic shelf labels and asset tracking.

The multiband Wireless Gecko SoCs are designed to support standards-based and proprietary 2.4 GHz protocols for short-range connectivity and proprietary sub-GHz protocols for long-range connectivity. A single hardware design can support multiple connectivity scenarios based on the firmware/software running on the SoC. This flexible architecture enables developers to work with one set of software tools while supporting proprietary stacks and standard protocols such as ZigBee®, Thread and Bluetooth® low energy. The Wireless Gecko SoCs also enable developers to future-proof their designs. Next-generation connected device products can embed a combination of protocols such as Bluetooth to commission and configure devices with a smartphone or tablet and sub-GHz protocols to communicate over long-range star networks.

Get all the details about Silicon Labs' multiband Wireless Gecko portfolio including pricing and availability, development tools and data sheets at www.silabs.com/wirelessgecko.

The new multiband, multiprotocol Wireless Gecko portfolio features three SoC families optimized for real-world IoT use cases and the most popular wireless protocols:

- Mighty Gecko family – Supports ZigBee, Thread and Bluetooth low energy connectivity at 2.4 GHz and proprietary protocols in both 2.4 GHz and sub-GHz bands
- Blue Gecko family – Supports Bluetooth low energy connectivity at 2.4 GHz and proprietary protocols in both 2.4 GHz and sub-GHz bands
- Flex Gecko family – Supports flexible proprietary wireless protocols in 2.4 GHz and sub-GHz bands for diverse applications

"The IoT is a very dynamic market, with new applications, use cases, protocols and frequency band options emerging and driving explosive growth of connected device products," said Daniel Cooley, senior vice president and general manager of IoT products at Silicon Labs. "Multiband, multiprotocol Wireless Gecko SoCs meet the needs of today's fast-changing IoT market by giving developers the flexibility to choose the right standards-based or proprietary wireless technologies and frequency bands for their connected device designs."

Software Stacks and Tools for IoT Developers

Silicon Labs' [Simplicity Studio development environment](#) offers an extensive library of software tools and access to protocol stacks to simplify connected device designs. Silicon Labs provides certified, market-proven ZigBee, Thread and Bluetooth low energy stacks for 2.4 GHz connectivity use cases, as well as new wireless software for proprietary wireless networks. Silicon Labs' radio abstraction interface layer (RAIL) software eases the complexity of proprietary development by simplifying radio configuration and enabling developers to migrate their application code across all Wireless Gecko SoCs.

Silicon Labs' latest wireless networking software is the Connect stack for proprietary applications. Optimized for low-power devices, this full-featured, IEEE 802.15.4-based stack supports sub-GHz and 2.4 GHz frequency bands and regulatory compliance across geographic regions. Connect software abstracts low-level details of network formation and radio configuration, enabling developers to focus on their applications. Connect provides software portability across devices and platforms, allows developers to customize stack features, and includes sample applications that give developers a starting point for their designs. The Connect stack supports reliable point-to-point, star and extended star network topologies; many combinations of radio modulation, frequencies and data rates; all MAC layer functions such as scanning, network forming and joining; multiple devices types; and encryption and authentication of data packets.

Pricing and Availability

Samples of multiband Wireless Gecko SoCs are available now in 5 mm x 5 mm QFN32 and 7 mm x 7 mm QFN48 packages; production quantities are planned for Q3 2016. USD pricing in 100,000-unit quantities begins at \$2.98 for multiband Mighty Gecko SoCs; \$2.74 for multiband Blue Gecko SoCs; \$2.70 for multiband Flex Gecko SoCs; and \$2.05 for sub-GHz Flex Gecko SoCs. The SLWSTK6000A Mighty Gecko Mesh Development Kit is priced at \$499. The SLWSTK6020A Blue Gecko Starter Kit is priced at \$99. The SLWSTK606x Flex Gecko Wireless Starter Kits are priced at \$276 each. Multiband radio boards that plug into the Wireless Gecko starter kit main boards are priced at \$49 each. (All kits USD MSRP.) To order multiband Wireless Gecko SoC product samples and development kits, visit www.silabs.com/wirelessgecko.

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Silicon Labs

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