

Silicon Labs Bluetooth Module and Development Tools Shrink Size and Complexity of Low-Power Wireless Designs

Pre-Certified Blue Gecko BGM113 Module with Embedded Software Stack Fits Small-Footprint Bluetooth® Low-Energy Applications

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AUSTIN, Texas--([BUSINESS WIRE](#))--[Silicon Labs](#) (NASDAQ: SLAB) has introduced a fully integrated, pre-certified Bluetooth® module that gives developers an optimal combination of small footprint, ease of use and low-energy technology for short-range wireless applications. Based on Silicon Labs’ [Blue Gecko wireless system-on-chip](#) (SoC) device with energy-friendly Gecko MCU technology, the new Blue Gecko BGM113 module provides a small-form-factor Bluetooth 4.1-compliant connectivity solution with 3 dBm output power for applications typically requiring up to a 50 meter range. Backed by Silicon Labs’ best-in-class development software including the battery-extending [Energy Profiler](#) tool, the BGM113 module is an ideal choice for space- and energy-sensitive RF applications such as smartphone accessories, wearable sports and fitness products, wireless locks and point-of-sale devices.

Get all the details about Silicon Labs’ Blue Gecko BGM113 module including pricing and availability, Bluetooth stack, development tools and data sheets at www.silabs.com/BGM113.

The BGM113 module combines a 2.4 GHz Blue Gecko wireless SoC and a high-efficiency chip antenna into a complete, ready-to-use system. BGM113 modules are pre-loaded with Silicon Labs’ Bluetooth 4.1-compliant software stack and are field-upgradable using device firmware upgrades to Bluetooth 4.2 and beyond. The BGM113 module frees developers from complex RF design or protocol decisions, allowing them to focus on the end applications. As a pre-certified solution, the module minimizes the time, effort and risk required for FCC/CE/IC certifications in North America and Europe and certifications for Japan and South Korea.

The BGM113 module is footprint-compatible with Silicon Labs’ popular [BLE113 Bluetooth module](#). This compatibility enables customers to migrate to an ARM Cortex-M4 Bluetooth platform with higher application processing power and lower power consumption while opening a path for Bluetooth 4.2 upgrades. The BGM113 module also complements Silicon Labs’ larger footprint, higher output [BGM111 module](#), giving developers the flexibility to create wireless designs with the optimal combination of cost, size and energy budget.

Silicon Labs’ Blue Gecko modules and SoCs have similar technical features and identical software and application programming interfaces (APIs). This compatibility makes it easy to migrate from modules to SoCs in wireless designs with full software reuse and minimal bill of materials (BOM) cost and software development effort.

“If form factor and ease of Bluetooth development matter to you, then Silicon Labs’ new Blue Gecko module is the right choice for your wireless application,” said Riku Mettälä, senior marketing director for module products at Silicon Labs. “Backed by our industry-leading Simplicity Studio wireless development tools, the pre-certified BGM113 module provides a compact, industry-standard footprint for Bluetooth low-energy applications where size, cost and time to market are key concerns.”

The BGM113 module is supported by Silicon Labs’ [Simplicity Studio™ development platform](#) and wireless software development kit (SDK). Using the familiar BASIC-like syntax of Silicon Labs’ BGScript™ scripting language, developers can create Bluetooth applications quickly without adding external MCUs to run the application logic. Application code can be executed on the BGM113 module, eliminating the need for an external MCU, which reduces system cost and board space and speeds time to market. Additional Simplicity Studio tools include an Energy Profiler allowing developers to optimize energy consumption and extend battery life and a Desktop Network Analyzer providing full visibility of all wireless networking activity.

Blue Gecko BGM113 Module Key Features

- Best-in-class module size: 9.2 mm x 15.8 mm x 1.83 mm
- Output power: up to +3 dBm supporting range of up to 50 meters
- Integrated Silicon Labs Bluetooth 4.1/4.2 software stack
- Blue Gecko SoC combining a 2.4 GHz transceiver with a 40 MHz ARM Cortex-M4 core and 256 kB flash and 32 kB RAM
- Energy-efficient Bluetooth solution consuming 8.7 mA (peak receive mode) and 8.8 mA @ 0 dBm (peak transmit mode)
- Hardware cryptography accelerator supporting advanced AES, ECC and SHA algorithms

- Rapid time to market with global certifications (FCC, CE, IC, Korea, Japan)
- Easy-to-use development tools: Simplicity Studio, Energy Profiler, BGScript
- Worldwide application engineering support

Pricing and Availability

Pre-production samples of the BGM113 Blue Gecko module are available now for engineering evaluation and prototyping, and volume quantities are planned for Q2. BGM113 module pricing begins at \$4.17 (USD) in 10,000-unit quantities. The SLWSK6101B Blue Gecko wireless starter kit, priced at \$99 (USD MSRP), and free SDK are available now. To order BGM113 Blue Gecko module samples and starter kits, please visit www.silabs.com/BGM113.

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