Silicon Labs Redefines Smart Home Connectivity with New Concurrent Multiprotocol SoC

MG26 SoCs are now generally available, providing developers with the highest performance and AI/ML capabilities

AUSTIN, Texas, Feb. 26, 2025 /PRNewswire/ -- Silicon Labs (NASDAQ: SLAB), a leader in secure, intelligent wireless technology for a more connected world, today announced that its MG26 family of wireless SoCs is now generally available through Silicon Labs and its distribution partners. As the industry's most advanced, high-performance Matter and concurrent multiprotocol solution to date, the MG26 SoC features double the Flash and RAM of other Silicon Labs multiprotocol devices, advanced AI/ML processing, and best-in-class security to empower developers to design future-proof Matter applications.

"With MG26, we're not just setting a new standard in multiprotocol wireless performance for battery-based, low-power smart home applications—we're redefining what's possible for the future of IoT connectivity with Matter," said Jacob Alamat, Senior Vice President for the Home and Life business unit at Silicon Labs. "This device empowers developers to create smarter, safer, and more powerful solutions in an increasingly connected world."

Further enhancing security through its Custom Part Manufacturing Service (CPMS), Silicon Labs is the only Matter SoC device maker that allows customers to customize their order with their own Matter device attestation certificates (DAC), simplifying and accelerating product launches using Silicon Labs Matter-enabled SoCs while preventing IP theft and counterfeiting.

MG26 SoC Powers Advanced IoT Applications and Matter

The MG26 SoC significantly advances Matter adoption with its concurrent multiprotocol capabilities, enabling integration of various Smart Home and Building devices like LED lighting, switches, sensors, and locks into both Matter and Zigbee networks simultaneously. This allows users to create automations and routines that incorporate more devices across different ecosystem.

In addition, the MG26's AI/ML capabilities using its embedded accelerator also enhance its performance in critical tasks like predictive maintenance, anomaly detection, keyword detection, vision, and more and more applications that span across the IoT. To help developers build devices capable of running advanced IoT applications, the MG26 family offers:

- **Higher compute** in a multicore format with an ARM® Cortex®-M33 CPU and dedicated cores for the radio and security subsystems, freeing up the main core for customer applications.
- **Doubled Flash, RAM, and GPIO capacity** compared to the MG24 device family, allowing IoT device builders to develop advanced edge applications that leverage larger, more accurate machine learning models for improved performance. It also allows for the processing of larger machine learning workloads like higher resolution vision.
- **Embedded AI/ML hardware acceleration**, enabling up to 8x faster processing of machine learning algorithms using as little as 1/6th the power compared to running on the CPU. Silicon Labs' new AI/ML Developer Journey provides an easy on-ramp for developers to start building new models to take advantage of this processing power.
- **Best-in-class security** with Silicon Labs Secure Vault™ and ARM TrustZone, compliant with all Matter security requirements.
  - Using Silicon Labs Custom Part Manufacturing Service, MG26 devices can also be programmed with customer Matter device attestation certificate (DAC), security keys and other features in the fabrication process on demand, further hardening them against vulnerabilities.
  - Secure OTA firmware updates in conjunction with Secure Boot prevent the installation of malicious software and allow for vulnerability patching.
- **Concurrent Multiprotocol,** enabling the ability to run both Zigbee and Matter over Thread at the same time, simplifying SKU management for the product manufacturer and ease of use for the end user.
- **Industry-leading RF performance to energy-efficiency ratio**, with transmission power of up to +19.5 dBm and world-leading receiver sensitivity with ultra-low TX, RX, and sleep currents enable long-life battery-powered IoT devices with superior wireless performance.

Setting the Industry Standard for Developing with Matter

Consumers want Matter devices that are secure, interoperable, and easy to use. Austrian smart lock manufacturer Nuki, which will enter the U.S. market in 2025, chose Silicon Labs as Matter partner for their newest Smart Lock to achieve reliable, efficient connectivity. This is Nuki's first electronic lock that's not only compatible with European doors, but also with US deadbolts. Silicon Labs Matter-ready SoCs enable Nuki's smart locks to operate for extended periods without frequent battery replacements, support various wireless protocols using Matter, and ensure seamless connectivity to home networks.

"Silicon Labs' Matter-ready SoCs enable us to bring super compact, battery-driven devices with parallel support for several communication protocols to the market," said Jürgen Pansy, co-founder and Chief Innovation Officer of Nuki. "Our latest innovation, the award-winning Smart Lock, supports Matter via Thread using Silicon Labs hardware that saves energy and space in the lock's design to allow for additional connectivity integrations like Bluetooth LE and Wi-Fi."

Silicon Labs Leads the Way in Matter Expansion

Since its early announcement in 2024, MG26 has been recognized globally for its impressive capabilities, winning industry awards such as the Embedded Computing Design's Best in Show Award IoT Evolution World's 2024 Product of the Year, and AspenCore World Electronics Achievement Award.

The Matter ecosystem is anticipated to experience significant growth, driven by new device types, enhanced security, and industry collaboration. As the leading semiconductor code contributor to Matter, Silicon Labs is proud to be part of this expansion.

Learn more about how to develop cutting-edge Matter- and AI/ML-enable devices using Silicon Labs below:

- The Silicon Labs Matter Developer Journey
- The Silicon Labs AI/ML Developer Journey
- Register for the March 18 Tech Talk introducing the MG26
- Silicon Labs Wi-Fi SoCs with Matter support: SiWG917

To purchase or get more information on Silicon Labs' MG26 SoCs, clickhere.

About Silicon Labs
Silicon Labs is a trailblazer in wireless connectivity for the Internet of Things. Its integrated hardware and software platform, intuitive development tools, and unmatched ecosystem support make Silicon Labs the ideal long-term partner in building advanced industrial, commercial, and home and life applications. Silicon Labs leads the industry in high performance, low power, and security with support for the broadest set of multi-protocol solutions.

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