Silicon Labs' Breakthrough Ultra-Low Power Wi-Fi 6 and Bluetooth LE 5.4 Modules Supercharge Device Deployment

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New SiWx917Y Modules Offer Plug-and-Play Simplicity with Global RF Certifications

AUSTIN, Texas, Dec. 3, 2024 /PRNewswire/ -- Today Silicon Labs (NASDAQ: SLAB), a leader in secure, intelligent wireless technology for a more connected world, announced the SiWx917Y ultra-low power Wi-Fi® 6 and Bluetooth® Low Energy (LE) 5.4 modules.

As an extension of the successful Series 2 platform, these modules are designed to help device makers streamline the complex development and certification process for Wi-Fi 6 devices. The new SiWx917Y modules deliver breakthrough power efficiency while providing robust wireless connectivity, advanced security, and a full-featured application processor, reducing design challenges, product size, costs, and time-to-revenue for device makers. Pre-certified for global regulatory standards and equipped with an optimized antenna, the SiWx917Y modules eliminate the need for lengthy RF optimization and certifications.

"Wi-Fi for IoT has evolved significantly, creating exciting opportunities for innovation. To help end device makers accelerate their full potential, we developed the SiWx917Y Wi-Fi 6 modules," announced Irvind Ghai, Vice President of Wi-Fi Solutions at Silicon Labs. "These pre-certified modules offer a streamlined solution, enabling manufacturers to easily integrate cutting-edge connectivity into their devices and focus on actual solution differentiation while reducing development costs."

The modules are ideal for low-power Wi-Fi applications across industries, including smart homes, building automation, healthcare devices, industrial sensors, and asset tracking.

Versatile and Efficient SiWx917Y Modules Deliver Cutting-Edge Wireless Capabilities

The SiWx917Y modules integrate Wi-Fi 6, Bluetooth LE 5.4, an ARM Cortex-M4 application processor, a wireless network processor, large memory, and a rich set of peripherals in a compact 16 x 21 x 2.3 mm package. Key features include:

- Ultra-low power Wi-Fi 6 connectivity with intelligent power management
- Dual-core architecture with dedicated application and wireless processors
- Support for Matter protocol over Wi-Fi
- Integrated antenna, RF pin and worldwide RF certifications
- Multiple configurations and operational for design flexibility

The modules' intelligent power management enables connected sleep mode with as low as 20µA current with Target Wake Time (TWT) and 60-second keep-alive interval. This allows IoT devices like smart locks, thermostats, smart cameras, video doorbells, and industrial sensors to achieve multi-year battery life. The integrated ARM Cortex-M4 processor, large memory, and peripherals also enable sophisticated edge processing capabilities.

The module supports two operational modes: SiWG917Y for SoC (Wireless MCU) mode so customers can execute all application code in the Module's ARM Cortex-M4 core, and SiWN917Y for NCP mode (Network Co-processor) so customers can execute their application on a separate MCU while the Wi-Fi module manages communication functions.

Meeting the Growing Demands for IoT Connectivity

The explosive growth of IoT devices is driving the need for more efficient and secure Wi-Fi solutions. With Wi-Fi-enabled low-power IoT applications increasing by up to one billion units annually, device makers face the challenge of integrating robust connectivity while addressing concerns about energy efficiency, security, and ease of development.

Availability

The SiWx917Y modules are now generally available for purchase. For more information on Silicon Labs' SiWG917Y and SiWN917Y Wi-Fi 6 and Bluetooth LE modules, click here.

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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