Silicon Labs Eases Wireless Embedded Design with Next-Generation EZRadio® ICs

Si4455 Transceiver and Si4355 Receiver Provide Exceptional Ease-of-Use and Value with Best-in-Class Sub-GHz Wireless Performance

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AUSTIN, Texas--(BUSINESS WIRE)--Silicon Laboratories Inc. (NASDAQ: SLAB), a leader in high-performance, analog-intensive, mixed-signal ICs, today introduced two next-generation EZRadio® wireless ICs designed to simplify the addition of high-performance wireless connectivity to cost-sensitive embedded applications. The new EZRadio Si4455 transceiver and Si4355 receiver products combine market-leading advances in size, performance and low-power operation with easy-to-use development tools. The EZRadio ICs are well suited for a variety of wireless applications such as remote controls, automotive remote keyless entry (RKE), home and building automation, security and lighting control, wireless sensor networks, and health and fitness devices.

Adding RF connectivity to embedded applications can be a complex, costly and time-consuming process. Silicon Labs’ new EZRadio products make it easy and cost-effective for developers to incorporate bidirectional and one-way RF links into their products without performance trade-offs. By reducing the barriers to wireless development, the EZRadio family can help expand the use of high-performance wireless connectivity in embedded designs.

Covering the 283-350 MHz, 425-525 MHz and 850-960 MHz frequency bands, the Si4x55 devices offer +13 dBm output power and -116 dBm sensitivity, enabling them to deliver significantly better range than other sub-GHz solutions. The devices offer superior out-of-band performance (-56 dB selectivity and -61 dB blocking at 1 MHz offset), making it easier to meet regulatory standards and operate in noisy environments without additional filtering. The Si4x55 devices require minimal external components and are available in the smallest form factor in their class (3 mm x 3mm), making them ideal for cost-sensitive, space-constrained designs.

In addition to providing superior RF performance, the Si4x55 EZRadio products offer industry-leading low-power operation suitable for battery-backed applications. The Si4x55 devices also offer the best standby current in their class (50 nA), an impressive active transmit current of 20 mA at +10 dBm and a low receive current of 10 mA.

While many high-performance wireless ICs can be difficult to configure, the EZRadio products include the GUI-based EZConfig configuration tool, a key part of Silicon Labs’ Wireless Development Studio. EZConfig software eliminates the complex manual configuration process needed for most RF designs, saving time and effort normally required to calculate and verify a lengthy list of radio parameters. Developers simply select from predefined configurations that have been optimized and validated, or they can easily set up their own customized configuration. EZConfig also includes an optional configuration wizard for developers who may be unfamiliar with RF design. The configuration wizard guides developers through a setup process that ultimately recommends a wireless configuration based on the needs of their end application.

“Recognizing the traditional complexity of adding RF connectivity to embedded systems, we designed the new Si4x55 EZRadio wireless ICs and development tools to provide the utmost ease-of-use without sacrificing performance,” said Diwakar Vishakhadatta, vice president and general manager of Silicon Labs’ Wireless Embedded products. “Our EZConfig software makes it easy to add state-of-the-art sub-GHz transceivers and receivers to any application.”

Comprehensive Wireless Development Tools

Silicon Labs offers a variety of demonstration and development kits to accelerate wireless development. Many developers start with a standard LED-based demonstration kit, such as the EZR-LEDK1W kit for one-way wireless connections and the EZR-LEDK2W kit for bidirectional connections. The kits come pre-loaded with demo code enabling developers to begin taking RF measurements right out of the box. For more advanced evaluation, Silicon Labs offers the 4010-AES1W, 4012-LCDK1W and EZR-LCDK2W kits, which come with an LCD screen on the Si4355 or Si4455 evaluation board to display communication link details. The Si4355 and Si4455 daughter cards available with these kits also can be used directly with a compatible Silicon Labs Unified Development Platform (UDP), a test board kit with modular daughter cards that make it easy to test multiple Silicon Labs products in the same environment.

Pricing and Availability

Samples of the Si4x55 EZRadio products are available now. Pricing for the Si4355 receiver starts at $0.99 (USD) in 10,000-unit

quantities, and Si4455 transceiver pricing starts at $1.19 (USD). The Si4x55 products are available in a tiny 3 mm x 3mm QFN package, the industry's smallest footprint for sub-GHz wireless ICs, making the devices attractive for wireless embedded applications requiring small form factors. The Si4355 receiver and Si4455 transmitter are available in a common pin-out that enables a single board layout for both one-way and two-way link applications. The standard EZR-LEDK1W and EZR-LEDK2W kits are priced at $20 and $25 (USD), respectively. For additional Si4x55 EZRadio product information and to purchase samples and development tools, please visit www.silabs.com/EZRadio.

Silicon Laboratories Inc.

Silicon Laboratories is an industry leader in the innovation of high-performance, analog-intensive, mixed-signal ICs. Developed by a world-class engineering team with unsurpassed expertise in mixed-signal design, Silicon Labs' diverse portfolio of patented semiconductor solutions offers customers significant advantages in performance, size and power consumption. For more information about Silicon Labs, please visit www.silabs.com.

Cautionary Language

This press release may contain forward-looking statements based on Silicon Laboratories' current expectations. These forward-looking statements involve risks and uncertainties. A number of important factors could cause actual results to differ materially from those in the forward-looking statements. For a discussion of factors that could impact Silicon Laboratories' financial results and cause actual results to differ materially from those in the forward-looking statements, please refer to Silicon Laboratories' filings with the SEC. Silicon Laboratories disclaims any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

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