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Microchip Integrates Sub-GHz Wireless Transmitter with 8-bit PIC® MCU to Simplify Secure Remote Keyless Entry Designs

Single-Chip Architecture Provides eXtreme Low Power MCU, 418/434/868 MHz RF Transmitter and KEELOQ® Technology for a Broad Range of Remote-Access Applications

CHANDLER, Ariz.--(BUSINESS WIRE)-- Microchip Technology Inc. (NASDAQ: MCHP), a leading provider of microcontroller, analog and Flash-IP solutions, today announced the **PIC12LF1840T48A**—the first in a family of single-chip devices that integrate an eXtreme Low Power (XLP), 8-bit PIC® microcontroller with a sub-GHz RF transmitter. The PIC12LF1840T48A's combination of features in a single, 14-pin TSSOP package makes it ideal for space-, power- and cost-constrained applications, such as remote keyless entry fobs for automobiles, garage doors and home security systems, as well as a broad range of other home and building automation systems. Additionally, the device is optimized to run Microchip's royalty-free **KEELOQ® advanced code-hopping technology**, a proven security technology used worldwide by leading manufacturers.

In addition to being optimized for secure wireless communication, the PIC12LF1840T48A is designed to maximize battery life via an extremely low operating voltage of 1.8V. Furthermore, the XLP microcontroller has extremely low sleep current consumption, and is efficiently integrated with the transmitter to enable fast wake-up and send functionality that takes full advantage of the MCU's 8 MIPS operation.

"Microchip has built on our knowledge and experience in security and authentication to provide a new level of integrated performance and low power consumption," said Steve Caldwell, director of Microchip's Wireless Products Division. "By combining our XLP PIC12LF1840 microcontroller with a highly efficient sub-GHz RF transmitter, we are now able to provide a complete single-chip remote control solution with KEELOQ security capabilities."

Development Support

The **AN1393 Using the PIC12LF1840T48A Microcontroller With Integrated Sub-GHz Transmitter** application note is available for download today, to assist engineers in developing their remote-control designs.

Pricing & Availability

The PIC12LF1840T48A is available in a 14-pin TSSOP package, for $1.06 each in 10,000-unit quantities. **Samples** are available today, and **volume production** is expected in January. For additional information, contact any Microchip sales representative or authorized

worldwide distributor, or visit Microchip's Web site at **http://www.microchip.com/get/K4KF**. To purchase products mentioned in this press release, go to **microchipDIRECT** or contact one of Microchip's authorized distribution partners.

About Microchip Technology

Microchip Technology Inc. (NASDAQ: MCHP) is a leading provider of microcontroller, analog and Flash-IP solutions, providing low-risk product development, lower total system cost and faster time to market for thousands of diverse customer applications worldwide. Headquartered in Chandler, Arizona, Microchip offers outstanding technical support along with dependable delivery and quality. For more information, visit the Microchip website at **http://www.microchip.com/get/RSEC**.

High-res Photo and Block Diagram Available Through Flickr or Editorial Contact (feel free to publish):

- **Photo: http://www.microchip.com/get/FN1T**
- **Block Diagram: http://www.microchip.com/get/CSUF**

Tags / Keywords: Single-Chip, Integrated, RKE, Remote Keyless Entry, Remote Control, Security, Authentication, Code Hopping, Algorithm, Wireless, RF, Transmitter, Microcontroller, MCU

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