January 28, 2014

# Microchip Introduces New Power Monitoring IC with High-Accuracy Signal Acquisition and Power Calculations

*MCP39F501 Power Monitoring Device Offers Complete, Power Monitoring Functionality Solutions for Consumer, Commercial and Industrial Products*

CHANDLER, Ariz.--(BUSINESS WIRE)-- Microchip Technology Inc. (NASDAQ: MCHP), a leading provider of microcontroller, mixed-signal, analog and Flash-IP solutions, today announced a new power monitoring IC, the **MCP39F501**. This device is a highly integrated, single-phase power-monitoring IC designed for real-time measurement of AC power. It includes two 24-bit delta-sigma ADCs, a 16-bit calculation engine, EEPROM and a flexible two-wire interface. An integrated low-drift voltage reference in addition to 94.5 dB of SINAD performance on each measurement channel allows accurate designs with just 0.1% error across a 4000:1 dynamic range.

The MCP39F501 power monitoring IC allows designers to add power monitoring to their applications with minimal firmware development. Its performance enables designs capable of 0.1% error over a wider dynamic range and superior light load measurement versus current competing solutions. In an effort to improve power management schemes in power-hungry applications, such as data centers, lighting and heating systems, industrial equipment and consumer appliances, power-system designers are driving the need for enhanced power monitoring solutions. This includes requirements for better accuracy across current loads, additional power calculations and event monitoring of various power conditions. The built-in calculations include active, reactive and apparent power, RMS current and RMS voltage, line frequency, power factor as well as programmable event notifications.

The MCP39F501 device enables high-performance, cost-effective designs in the commercial (e.g., server and networking power supplies, power distribution units, lighting systems); consumer (e.g., appliance and smart plugs); and industrial markets (e.g., power meters and industrial equipment), among others. Additionally, the wide operating temperature range from -40°C to +125°C allows the MCP39F501 to be utilized in more extreme environments, such as industrial machinery applications.

“Government regulations, technology innovations and end customer expectations is driving the need for better power monitoring solutions in consumer, commercial and industrial products,” said Bryan J. Liddiard, marketing vice president of Microchip’s Analog and Interface Products Division. “The MCP39F501 will allow our customers to add advanced power monitoring capabilities to their applications with nominal effort.”

**Development Support**

The MCP39F501 is supported by Microchip’s **MCP39F501 Demonstration Board** (Part # ARD00455, $89.99), which is expected to be available on February 14.

**Pricing & Availability**

The MCP39F501 is available now for sampling and volume production in 28-lead QFN 5 mm x 5 mm packages, for $1.82 each, in 5,000-unit quantities.

For additional information, contact any Microchip sales representative or authorized worldwide distributor, or visit Microchip's Web site at **http://www.microchip.com/get/G8CX**. To purchase products mentioned in this press release, go to **microchipDIRECT** or contact one of Microchip's authorized distribution partners.

**Resources**

High-res Images Available Through Flickr or Editorial Contact (feel free to publish):

- Chip Graphic: **http://www.microchip.com/get/WJ6M**
- Block Diagram: **http://www.microchip.com/get/GQRN**

Follow Microchip:

- RSS Feed for Microchip Product News: **http://www.microchip.com/get/TGCE**
- Twitter: **http://www.microchip.com/get/T5GW**
- Facebook: **http://www.microchip.com/get/0L0T**
- YouTube: **http://www.microchip.com/get/2KRM**

**About Microchip Technology**

Microchip Technology Inc. (NASDAQ: MCHP) is a leading provider of microcontroller, mixed-signal 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/3L6R**.

*Note: The Microchip name and logo are registered trademarks of Microchip Technology Incorporated in the U.S.A. and other countries. All other trademarks mentioned herein are the property of their respective companies.*

**Tags / Keywords:** **Power Monitoring**, **Power Measurement**, **AC/DC Supplies**, **SMPS**, **Power Distribution Units**, **Energy Monitoring**, **Energy Measurement**

**Microchip Technology Inc.**
**Editorial Contact:**
Terri Thorson, 480-792-4386
**terri.thorson@microchip.com**
or
**Reader Inquiries:**
1-888-624-7435
**http://www.microchip.com/get/G8CX**

Source: Microchip Technology Inc.