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Microchip's Energy-Measurement Analog Front End Has Two 24-bit ADCs with Industry's Best Accuracy; Low Power & High-Speed Modes

AFE Features Accuracy of 94.5 dB SINAD and 106.5 dB THD for Better Energy-Metering and Power-Monitoring Performance

CHANDLER, Ariz.--(BUSINESS WIRE)-- Microchip Technology Inc. (NASDAQ: MCHP), a leading provider of microcontroller, analog and Flash-IP solutions, today announced its next-generation **energy-measurement analog front end** (AFE), the **MCP3911**, which features two 24-bit, delta-sigma ADCs that operate at 3V with industry-leading accuracy of 94.5 dB SINAD and 106.5 dB THD. This provides better **energy-meter** and power-monitoring performance by accurately measuring from start-up to maximum current, and enables faster calibration during production. Four different power modes offer the flexibility of enabling either extremely low-power designs, to 0.8 mA per channel, or designs for higher-speed signals and harmonic content. The extended temperature range allows operation from -40°C to +125°C.

The MCP3911 also features 2.7 to 3.6V analog and digital operation, which simplifies the interface by running off of the same power rail as the microcontroller. An internal, low-temperature-coefficient voltage reference, along with PGAs on each channel, further enables metering and monitoring designs.

As the global energy-metering infrastructure is being upgraded and the power-monitoring market is growing, designers of energy-measurement and other signal-acquisition applications are looking for ways to increase performance while lowering costs. Microchip is meeting these needs with the industry's most accurate AFEs, which reduce power consumption with their low-power modes and reduce costs by decreasing the number of required power rails and external components.

"With this expansion of our industry-leading line of energy-measurement analog front ends, Microchip is enabling the rapidly growing global adoption of high-performance smart meters," said Bryan J. Liddiard, marketing vice president of Microchip's **Analog and Interface Products Division**. "The combination of the world's best accuracy with our extensive PIC® microcontroller portfolio provides designers with the tools they need to create the best performing energy meters and power monitors at the lowest cost."

Development Support

Microchip also announced a tool that enables development with these new AFEs. The **MCP3911 Evaluation Board for 16-bit MCUs** (part # ADM00398, $79.99) is available today, via **microchipDIRECT** (**http://www.microchip.com/get/VFFT**).

Pricing & Availability

The **MCP3911** is available today for samples and volume production, in 20-pin SSOP and QFN packages. Pricing ranges from $1.40 to $1.43 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/XA2A**. 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/LV02**.

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

- **Photo: http://www.microchip.com/get/22NJ**
- **Block Diagram: http://www.microchip.com/get/EDGV**
- **Evaluation Board: http://www.microchip.com/get/H9XU**

Tags / Keywords: Energy Measurement, Analog Front End, High Accuracy, Energy Metering, Power Monitoring, ADC, 24-bit ADC, Low Power, High Speed

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