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Microchip Technology Announces High-Resolution, Low-Power Delta-Sigma Analog-to-Digital Converters (ADCs)

Multi-Channel Devices Provide Low-Power Operation of 36 micro Amperes Per 18-bit Conversion

CHANDLER, Ariz.--(BUSINESS WIRE)--

Microchip Technology Inc. (NASDAQ: MCHP), a leading provider of microcontroller and analog semiconductors, today announced a new series of low-power, high-resolution Delta-Sigma Analog-to-Digital Converters (ADCs). The MCP3422, MCP3423 and MCP3424 (MCP3422/3/4) ADCs provide 18-bits of resolution and consume only 135 micro Amperes at 3V continuous conversion. The multi-channel devices have an integrated voltage reference, Programmable Gain Amplifier (PGA) and oscillator onboard, and are available in packages as small as a 2 mm x 3 mm DFN. They are ideal for portable measurement applications in the industrial, medical, consumer and automotive markets, among others.

The MCP3422/3/4 ADCs' low current consumption enables the end application to use less power, which results in longer battery life. With their integrated PGA, voltage reference and oscillator, the ADCs eliminate the need for numerous external components, providing a smaller overall design footprint and making it easy for designers to create smaller applications.

"Microchip continues to expand its line of high-resolution, low-power Delta-Sigma ADCs," said Bryan Liddiard, vice president of marketing with Microchip's Analog and Interface Products Division. "With constant pressures on manufacturers to provide smaller products that last longer on smaller batteries, low-power components available in tiny packages are essential."

"The MCP3422/3/4 ADCs address these needs by not only providing high resolution, but also multiple input channels and integrated VREF, PGA and oscillator," continued Trent Butcher, product marketing manager with Microchip's Analog and Interface Products Division.

Example applications for which the MCP3422/3/4 ADCs are appropriate include those in the industrial (portable weigh scales, instrumentation, handheld meters and multimeters); medical (portable heart-rate monitors, blood-pressure monitors and glucose meters); consumer (weigh scales, handheld meters); and automotive markets (sensor interfaces, fuel gauges), among others.

Development Tool Support

Microchip also announced the MCP3424 Evaluation Board today (Part # MCP3424EV), to help designers get started using the new ADCs in their designs. The board enables the user to evaluate the performance of the MCP3424 ADC by interfacing to the PICkit(TM) Serial Analyzer (Part # DV164122). It is available at microchipDIRECT (www.microchipdirect.com) today, for $15.

Device Packaging, Pricing & Availability

The MCP3422 ADC is available today in 8-pin SOIC, MSOP and 2 mm x 3 mm DFN packages, for $2.06 each in 10,000-unit quantities. The MCP3423 ADC is available today in 10-pin MSOP and 3 mm x 3 mm DFN packages, for $2.22 each in 10,000-unit quantities. The MCP3424 ADC is available today in 14-pin TSSOP and SOIC packages, for $2.80 each in 10,000-unit quantities. Free samples of all of the devices can be ordered today, at http://sample.microchip.com. Production quantities of the devices can be purchased today at microchipDIRECT (www.microchipdirect.com).

For further information, contact any Microchip sales representative or authorized worldwide distributor, or visit Microchip's Web site at www.microchip.com/mcp342X.

Microchip Customer Support

Microchip is committed to supporting its customers by helping design engineers develop products faster and more efficiently. Customers can access four main service areas at www.microchip.com. The Support area provides a fast way to get questions answered; the Sample area offers free evaluation samples of any Microchip device; microchipDIRECT provides 24-hour pricing, ordering, inventory and credit for convenient purchasing of all Microchip devices and development tools; finally, the Training area educates customers through webinars, sign-ups for local seminar and workshop courses, and information about the annual MASTERs events held throughout the world.

About Microchip Technology

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

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Photos, Block Diagram and Application Circuit Diagram available through editorial contact

Source: Microchip Technology