

Three-Phase Brushless DC Companion Device Enables Microchip to Offer Complete, Robust Motor System Solutions

MCP8024 Three-Phase Brushless DC Companion Device Provides All Power, Sensing and Protection Functions Needed to Implement a Robust, Highly Efficient Solution

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 three-phase BLDC motor gate driver with power module, the [MCP8024](#). This new device includes functions that power dsPIC[®] Digital Signal Controllers (DSCs) and PIC[®] microcontrollers (MCUs) with capabilities to drive six N-channel MOSFETs. Customers can implement improved performance and high robustness, providing increased efficiency and lowering system cost while reducing time to market.

Watch a short video: <http://www.microchip.com/get/HRKP>

View a brief presentation: <http://www.microchip.com/get/6B5G>

The MCP8024 operates across a wide voltage range of 6V to 28V and can withstand transient voltage up to 48V. The device provides high-integration analog such as three current-sensing operational amplifiers, an over-current comparator, MOSFET drivers and a bidirectional communication interface for a complete motor system design. The configurable driver dead-time management, driver blanking-time control, and Over-Current Limit (OCL) for external MOSFETs offer a significant increase in flexibility. The adjustable step-down DC-to-DC converter powers a broad range of microcontrollers, with the efficiency benefits of a switch-mode power supply. Additionally, the wide operating temperature range from -40°C to +150°C (H-temp) allows the MCP8024 to be utilized in harsh environments, such as automotive under-hood applications.

The MCP8024 is available in thermally enhanced 40-pin QFN 5mm x 5mm and 48-pin TQFP 7mm x 7 mm packages. The MCP8024 is well suited for a broad range of applications in the **automotive** market, such as HVAC blowers and pumps, and the **industrial** market, including fans, motion control and robotics, among others.

“The automotive and industrial markets continue to demand higher performance, higher integration, faster time to market and more flexibility, all in a cost-effective solution,” said Bryan J. Liddiard, marketing vice president of Microchip’s Analog and Interface Products Division. “The integrated voltage regulators, current sensing amplifiers and over-current protection make the MCP8024 an ideal candidate to use with a broad range of MCUs, DSCs and FPGAs. By combining with dsPIC DSCs and PIC microcontrollers, Microchip can help solve customers’ problems and provide complete motor solutions.”

Development Support

The MCP8024 is supported by Microchip's MCP8024 TQFP BLDC Motor Driver Evaluation Board (Part # ADM00557, \$99.00), which is expected to be available on December 20.

Pricing & Availability

The MCP8024 is available now for sampling and volume production in 40-pin QFN 5mm x 5mm and 48-pin TQFP 7mm x 7mm packages, for \$2.61 each, in 10,000-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/RTAS>. To purchase products mentioned in this press release, go to [microchipDIRECT](http://www.microchip.com/get/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/6PLW>
- Block Diagram: <http://www.microchip.com/get/6C16>
- BLDC Motor Driver Evaluation Board: <http://www.microchip.com/get/6AEB>

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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/FEJH>.

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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/RTAS>

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