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# Microchip Expands dsPIC® DSCs Optimized for Digital Power and Lighting Applications

*New Family of dsPIC33 "GS" Digital Signal Controllers Enable Full Digital Control for Cost-Sensitive Power-Conversion Applications*

CHANDLER, Ariz.--(BUSINESS WIRE)-- Microchip Technology Inc. (NASDAQ: MCHP), a leading provider of microcontroller, analog and Flash-IP solutions, today announced a new family of dsPIC33 "GS" Digital Signal Controllers (DSCs) — the **dsPIC33FJ09GS302** family. This is an expansion of Microchip's **dsPIC**® DSC portfolio that adds lower-cost options for digital-power conversion. The new family of DSCs also brings new features while lowering power consumption, enabling higher efficiency in AC-DC and DC-DC power supplies, HID & LED lighting, solar inverters, and other power conversion applications.

The five-member dsPIC33FJ09GS302 family is optimized for digital-power applications via integrated high-speed ADCs, a zero-wait-state signal processing core, and flexible high-resolution PWMs. These peripherals are integrated for streamlined interoperation, enabling sub-microsecond digital control loops. Other key features of this family include on-chip analog comparators with programmable hysteresis and rail-to-rail operation, and an on-chip PMBus™ address selection current source to reduce external components. These new DSCs offer the lowest power dissipation of any of the GS family members, and are the first available in a 20-pin SSOP package and the even smaller 36-pin VTLA package, which has a 5x5 mm footprint.

"Customer adoption of our dsPIC33 GS family has been outstanding, with design wins in a wide range of power products, globally," said Mitch Obolsky, vice president of Microchip's MCU16 Division. "The new dsPIC33FJ09GS302 family builds upon that success by enabling the efficiency of full digital control in more cost-sensitive, lower-wattage power-conversion applications."

**Development Support**

The new **MPLAB® Starter Kit for Digital Power** (part # DM330017, $129.00), also announced today, allows customers to explore digital power conversion using Microchip's dsPIC33 "GS" architecture in popular digital power-conversion topologies. The Kit includes a buck converter and a boost converter with onboard programmable loads for each, along with an LCD display for voltage, current, temperature and fault conditions. An onboard debugger/programmer with a USB interface is included. Microchip also has a wide range of reference designs, demonstrating various digital power-conversion applications and topologies, such as the recently introduced **Platinum-rated 720W AC-DC** and the **Enhanced Solar Microinverter** reference designs. Microchip's full suite of standard development tools support the dsPIC33FJ09GS302 family, including the **MPLAB®**

**Integrated Development Environment.** For additional resources, visit Microchip's Intelligent Power Design Center at **http://www.microchip.com/power**.

**Packaging, Pricing & Availability**

All five members of the dsPIC33FJ09GS302 family are available today for sampling and volume production, starting $1.54 each, in 10,000-unit quantities. The dsPIC33FJ06GS001 and dsPIC33FJ06GS101A are offered in 18-pin SPDIP and SOIC, as well as 20-pin SSOP packages. The dsPIC33FJ06GS102A, dsPIC33FJ06GS202A and dsPIC33FJ09GS302 are offered in 28-pin SOIC, SSOP, SPDIP and QFN, as well as 36-pin VTLA packages.

For additional information, contact any Microchip sales representative or authorized worldwide distributor, or visit Microchip's Web site at **http://www.microchip.com/get/M52F**. To purchase products mentioned in this press release, go to **microchipDIRECT** or contact one of Microchip's authorized distribution partners.

**Resources**

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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/2WWK**.



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