

# Microchip Technology Debuts 2 MHz, 500 mA Switching Regulator

Low-Power Switcher Provides Adjustable & Fixed Output Voltages, 90% Efficiency and Auto Transition to PWM Mode in TSOT-23 and DFN Packages

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

Microchip Technology Inc. (NASDAQ: MCHP), a leading provider of microcontroller and analog semiconductors, today announced the MCP1603--a 2 MHz, 500 mA switching regulator. This new, low-power switcher provides adjustable and fixed output voltages, under voltage lockout (UVLO) and automatic Pulse-Width-Modulation- (PWM) to Pulse-Frequency-Modulation- (PFM) mode transition--all in Thin SOT-23 (TSOT-23) and 2 mm x 3 mm DFN packages. The MCP1603 is ideal for extending battery life and reducing heat dissipation in a variety of portable, handheld electronic devices.

Microchip has long supported the power-conversion market with its PIC(R) microcontrollers, dsPIC(R) Digital Signal Controllers (DSCs), voltage supervisors, low dropout regulators (LDOs), switching regulators and power drivers. The MCP1603 switching regular extends this support by offering important features like small footprint and high efficiency (90%), which are essential to the rapidly growing handheld and battery-operated device market. The switcher also features low quiescent current of 45 microamperes, standby current of only 100 nA and auto transition from PWM to PFM modes for lower energy use and heat dissipation, as well as longer battery life.

"The release of the MCP1603 switching regulator marks Microchip's continued commitment to the power-conversion market," said Bryan Liddiard, vice president of marketing with Microchip's Analog and Interface Products Division. "With products like the MCP1603, Microchip continues to meet the high efficiency and small product footprint needs of the electronics industry."

Art Eck, senior product marketing manager with Microchip's Analog & Interface Products Division, said of the new device, "The MCP1603 switcher's unique feature set, plus the ability to operate at 100% duty cycle with UVLO, overtemperature and overcurrent protection--as well as internal compensation--mean that very sophisticated designs can be achieved with little effort on the part of the designer."

With an input voltage range of 5.5 to 2.7V and either an adjustable output voltage range of 0.8 to 4.5V or a fixed output voltage range of 1.2V to 3.3V, the MCP1603 switcher covers the entire Li-lon, Li-Polymer, NiCd and NiMH voltage ranges. This means that users can employ these types of batteries in their electronic devices, for extremely efficient operation.

Target applications for the MCP1603 switcher include portable, handheld devices such as portable computers, PDAs, USB-powered devices, digital cameras and +5V or +3.3V

distributed systems.

## **Development Support**

Microchip also announced the MCP1603 Evaluation Board (Part # MCP1603EV) today, which demonstrates using the MCP1603 as a Buck switcher. The board is available now at <a href="https://www.microchipdirect.com">www.microchipdirect.com</a>, at a price of \$25.

## Device Pricing & Availability

The MCP1603 switching regulator is available now in TSOT-23 and 2 mm x 3 mm DFN packages, for \$0.88 each and \$0.95 each, respectively, in 10,000-unit quantities. Samples can be ordered today at <a href="http://sample.microchip.com">http://sample.microchip.com</a>, and orders can be placed today at <a href="http://sample.microchip.com">www.microchipdirect.com</a>.

For further information, contact any Microchip sales representative or authorized worldwide distributor, or visit Microchip's Web site at <a href="https://www.microchip.com/MCP1603">www.microchip.com/MCP1603</a>.

## 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 <a href="https://www.microchip.com">www.microchip.com</a>. 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 <a href="https://www.microchip.com">www.microchip.com</a>.

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