

Microchip Technology Introduces Resistor-Programmable Logic-Output Temperature Switches

Designers Can Stock One Device for Measuring Multiple Temperature Points

CHANDLER, Ariz.--(BUSINESS WIRE)-- Microchip Technology Inc. (NASDAQ:MCHP), a leading provider of microcontroller and analog semiconductors, today announced the [MCP9509](#) and [MCP9510](#) (MCP9509/10) resistor-programmable, logic-output temperature switches. The low-power devices' temperature-switch threshold can be programmed with a single external resistor, meaning designers can stock one device for measuring multiple temperature points by varying the external resistance value. With an operating voltage range of 2.7 - 5.5V and the ability to trigger for temperatures ranging from -40 to 125°C with high accuracy, the MCP9509/10 switches enable better, smaller and less expensive designs.

Many applications require monitoring multiple temperature points within the system. The MCP9509/10 switches monitor temperature based upon user-programmed resistance values. When the programmed temperature threshold is reached, the switches alert the system and the system can react accordingly. User-programmable features, such as 2°C and 10°C (typical) switch hysteresis and output-structure configuration, mean the switches simplify designs and provide more flexibility to the designer. The MCP9509 has a low static operating current of just 30 micro Amperes and provides an open-drain output; while the MCP9510 has a static operating current of only 50 micro Amperes and is offered in three different user-selectable output configurations--active-low push pull, active-high push pull, and active-low open-drain output with an internal 100 kilo Ohm pull-up resistor.

"We are pleased to help designers simplify and customize their designs with this new series of resistor-programmable temperature switches," said Bryan Liddiard, vice president of marketing for Microchip's Analog & Interface Products Division. "These switches provide the functionality needed to accurately measure multiple temperature points in a system, while minimizing design size and cost."

"The MCP9509 and MCP9510 temperature switches complement market trends toward smaller, better, lower-power and less-expensive end products," said John Austin, senior product marketing manager for Microchip's Analog & Interface Products Division. "The devices represent a significant expansion of Microchip's thermal-management product family."

The MCP9509/10 switches are well-suited for battery-powered applications in the industrial (power supplies, wireless handsets and meters, multimeters); automotive (engine-temperature monitoring); medical (pharmaceutical storage-environment temperature control, refrigeration control); appliance (refrigerators and freezers) and consumer markets (PCs and peripherals).

Packaging, Pricing & Availability

The MCP9509 temperature switches are available in a 5-pin SOT-23 package; the MCP9510 in a 6-pin SOT-23 package. Both devices are priced at \$0.61 each, in 10,000-unit quantities. Samples can be ordered today at <http://sample.microchip.com>, and volume-production quantities can be ordered 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/mcp95xx.

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 <http://www.microchip.com>. The Support area provides a fast way to get questions answered; the Sample area offers 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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Tags/Keywords: MCP9509, MCP9510, temperature switch, Microchip, resistor-programmable, logic output

Source: Microchip Technology Inc.