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New 45V, Zero-drift Operational Amplifier Provides Ultra-high Precision Plus EMI Filtering

Wide operating range and on-chip EMI filtering minimizes the increasing influence of high- frequency interference

CHANDLER, Ariz., Jan. 15, 2019 (GLOBE NEWSWIRE) -- The rapid expansion of wireless capabilities, such as Wi-Fi®- and Bluetooth-enabled applications, is increasing high-frequency noise in our livable space and work environments. To allow designers to provide improved performance while more easily managing an increasingly difficult environment, Microchip Technology Inc. **(Nasdaq: MCHP)** today announced the **MCP6V51 zero-drift operational amplifier**. The new device provides ultra-high-precision measurement while minimizing the increasing influence of high-frequency interference by offering a wide operating range and on-chip electromagnetic interference (EMI) filters.

The growth of industrial control and factory automation has led to an uptick in the number of sensors that need to be monitored, and the MCP6V51 amplifier is designed to provide accurate, stable data from a variety of sensors. The self-correcting zero-drift architecture of the MCP6V51 enables ultra-high Direct Current (DC) precision, providing a maximum offset of ±15 microvolts (µV) and only ±36 nanovolts per degree Celsius (nV/°C) of maximum offset drift. Ideal for applications such as factory automation, process control and building automation, the MCP6V51 also supports an extremely wide operating voltage range, from 4.5V to 45V.

With the proliferation of wireless sensors and capabilities, high-frequency interference within sensitive analog measurement is becoming a critical consideration. The additional on-chip EMI filtering within the MCP6V51 provides protection from these unwanted and unpredictable interference sources.

“Microchip is often thought of as a microcontroller company, but we have industry-leading analog to augment our total system solution for the industrial space,” said Bryan J. Liddiard, vice president of Microchip’s mixed-signal and linear business unit. “The combination of a complex chopper-stabilized architecture and a higher-voltage process technology makes these devices challenging from a design and manufacturing standpoint. Microchip is a company that can do it—and do it well.”

Programmable logic controllers and distributed control systems utilized within industrial automation run on a variety of voltage rails, such as 12V, 24V and 36V. The MCP6V51 offers the flexibility to support a wide range of supply voltages and includes overhead to account for supply transients by supporting an operating range up to 45V.

Development Tools
For evaluation, the 8-Pin SOIC/MSOP/TSSOP/DIP Evaluation Board (Part # SOIC8EV) is a

blank PCB that allows the operation of Microchip Technology's 8-pin devices to be easily evaluated. Each device pin is connected to a pull-up resistor, a pull-down resistor, an in-line resistor, and a loading capacitor. The PCB pads allow through-hole or surface mount connectors to be installed to ease connection to the board. Additional passive component footprints are on the board to allow simple circuits to be implemented.

Pricing and Availability
The MCP6V51 is available today for sampling and volume production in both 5-lead SOT-23 and 8-lead MSOP packages. Prices begin at $0.98 USD per 10,000 units for the SOT-23-5 package.

For additional information, contact any Microchip sales representative or authorized worldwide distributor, or visit Microchip's website. To purchase products mentioned here, visit our **purchasing portal** or contact one of Microchip's authorized distribution partners.

Resources
High-res images available through Flickr or editorial contact (feel free to publish):

- Application image: **www.flickr.com/photos/microchiptechnology/32441137968/sizes/l**
- Chip graphic: **www.flickr.com/photos/microchiptechnology/32441139208/sizes/l**

About Microchip Technology
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