Configurable Sensor AFE Products Simplify Design, Speed Time-to-Market

National Semiconductor Corp. today introduced two configurable sensor analog front-end (AFE) integrated circuits (ICs) with unique technology that work together with new tools to fast-track signal path designs for a variety of sensors from major global manufacturers.

The configurable sensor AFE ICs and WEBENCH® Sensor AFE Designer enable the design engineer to select a sensor, design and configure the solution and download configuration data to the sensor AFE. A typical sensing application that today may require several boards and up to 25 components is reduced to just one of National's ICs. Weeks or months to create a sensor system design is reduced to just minutes using National's new products and tools. Sensor systems today are used in every major industry for critical monitoring and control applications. These systems are shrinking in size, must consume less power and have higher reliability.

The first in a family of products, National's two configurable sensor AFE products are each customized to a specific sensor application and have a variety of features, including programmable current sources, voltage reference options and adjustable sample rates. The LMP91000 is the industry's first fully configurable, low-power potentiostat that provides a complete, integrated signal path solution between a sensor and analog-to-digital converter (ADC). The LMP90100 is the industry's first multi-channel, low power, 24-bit sensor AFE with true continuous background calibration and diagnostics for high performance transmitter and transducer applications.

The WEBENCH Sensor AFE Designer includes technical specifications for hundreds of temperature, pressure and chemical sensors. The database features products from Omega Engineering, Inc., Honeywell Sensing & Control, Tempco Electric Heater Corp. and All Sensors Corp.

For more information or to order samples and an evaluation board, visit http://bit.ly/LMP91000 [1]

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