

July 6, 2015



# Exar 16:1 Sensor Interface Connects Multiple Sensors to MCUs or FPGAs

## XR10910 Simplifies Sensor Conditioning with Integrated MUX, DAC, PGA and LDO

FREMONT, Calif., July 6, 2015 /PRNewswire/ -- Exar Corporation (NYSE: EXAR), a leading supplier of high-performance integrated circuits and system solutions, introduces a highly integrated sensor interface analog front end (AFE) that provides calibration of sensor outputs. The [XR10910](#) offers an onboard 16:1 differential multiplexer, offset correction DAC, programmable gain instrumentation amplifier and voltage reference. This AFE provides 14-bit signal path linearity and is designed to connect multiple bridge sensors to a microcontroller (MCU) or field-programmable gate array (FPGA) with an embedded ADC.

The integrated, DAC provides offset calibration for any offset voltage generated by bridge sensors, improving overall system sensitivity and accuracy. An independent offset value can be set for each of the 16 differential inputs. The XR10910 allows the customer to select from eight fixed-gain settings (from 2V/V to 760V/V) to ensure the amplified sensor signal falls within the optimum input range of the downstream ADC. The integrated LDO provides a regulated voltage to power the sensors and is selectable between 3V and 2.65V for lower voltage compatibility. An I<sup>2</sup>C serial interface provides an easy way to control the XR10910's many functions.

The XR10910 operates from 2.7V to 5V supplies and offers a wide digital supply range of 1.8V to 5V. It typically consumes 457uA of supply current and offers a sleep mode which reduces the supply current to only 45uA.

"The XR10910 provides designers with an easy-to-use sensor interface that integrates high channel count and functionality in a tiny footprint that is lower power than competing solutions," said Dale Wedel, Exar's vice president, high-performance analog products. "Its unique feature set complements modern low cost MCUs in a variety of applications such as force sensing, rebel droids and power monitoring for solar energy and data centers."

The XR10910 is available in a RoHS compliant, green/halogen free, space-saving 6mm x 6mm QFN package. Pricing starts at \$8.10 each for 1,000-piece quantities. For more information, visit [www.exar.com/xr10910](http://www.exar.com/xr10910).

### Summary of features:

- Designed to interface multiple bridge sensors with an MCU or FPGA
- Integrated features simplify sensor conditioning

- 16:1 differential MUX, programmable gain INA, LDO and offset correction DAC
- Eight selectable voltage gains from 2V/V to 760V/V with only  $\pm 0.5\%$  gain error
- 6mm x 6mm QFN-40 package

## **About Exar**

Exar Corporation designs, develops and markets high performance integrated circuits and system solutions for the industrial & embedded systems communications, high-end consumer and infrastructure markets. Exar's broad product portfolio includes analog, display, LED lighting, mixed-signal, power management, connectivity, data management and video processing solutions. Exar has locations worldwide providing real-time customer support. For more information, visit [www.exar.com](http://www.exar.com).

Exar, XR, the Exar logo are registered trademarks and PowerArchitect is a trademark of Exar Corp. All other trademarks are the property of their respective owners.

To view the original version on PR Newswire, visit <http://www.prnewswire.com/news-releases/exar-161-sensor-interface-connects-multiple-sensors-to-mcus-or-fpgas-300108123.html>

SOURCE Exar Corporation