

Sensor Platforms, Inc., Introduces the SSP1492 Sensor Signal Processor IC at Sensors Expo 2005

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Sensor Platforms, Inc., a Santa Rosa, California-based fabless semiconductor company dedicated to providing IC solutions to the sensor industry, today announced the availability of its SSP1492 Sensor Signal Conditioning Integrated Circuit here at the Sensors Expo.

The SSP1492 provides a low cost, low power, flexible sensor signal drive, acquisition and processing platform that enables effortless development, cost effective manufacturing, and improved time-to-market of sensor applications. It utilizes highly innovative proprietary technologies that enable direct and simultaneous interfacing to a broad selection of sensor-element types. The SSP1492 is the only monolithic IC solution that exists on the market today that simultaneously works with multiple resistive, capacitive, inductive, voltage, and pulsed sensor elements (both MEMS and bulk-based) using the same chip.

A high speed pipelined 8051 micro-controller core and up to 15 sensor input channels allow for highly flexible multi-sensor configurations, especially where applications call for the collaborative processing of multiple mixed sensor inputs. Additional features include two powerful hardware math engines and a software floating-point engine for high order output linearization and temperature compensation, a band-gap voltage regulator for power source stability, and an SPI/I2C serial data communication protocol for interfacing to a host processor. An on-board RC oscillator with an external clock option for high accuracy applications, data EEPROM for non-volatile storage of factory calibration coefficients and user settings, and user-customizable firmware memory space further enhance performance, flexibility, and product development cost.

In addition to standard sensor applications, the SSP1492's low operating voltage of down to 2.3 volts, low power consumption and its hardware-based SPI/I2C serial data interface also makes it ideally suited to high volume, battery-powered consumer and commercial applications, where cost, size, power consumption and time to market are the critical factors that dictate success or failure.

George Hsu, President and Chief Executive Officer, stated, "We're the only semiconductor company with the sole mission of enabling the development and commercialization of sensor applications. Our unique technology has successfully worked with numerous sensors in areas as diverse as pressure, temperature, acceleration, magnetism, tilt, gas, light, force, strain, position, and so forth. Our initial customers have found our unique technology tremendously useful, especially in contemplating new applications. They no longer need to engage in the costly and time consuming process of custom designing and producing an IC for a specific sensor or application.

"I believe that the sensor industry is at a crossroads in its development as the world goes increasingly digital and mobile. The opportunities at this juncture are enormous. There were over 650 cell phones sold worldwide last year, not to mention countless laptops, PDA's, GPS's and general consumer products. No one can predict where the next killer sensor application will surface. We can only be prepared and ready when the next window appears."

Mr. Hsu continued: "As sensor manufacturers and system integrators plan their application development to address their customers' ever-changing requirements, the SSP1492 is a huge piece of the puzzle, providing an instant IC solution meeting their cost, size, power consumption, and performance specifications. In offering the SSP1492, Sensor Platforms has ensured that sensor manufacturers and system integrators are prepared to meet the challenges of tomorrow by having a unique and powerful sensor signal processor chip available to them today. The bottom line is that we can provide the customer with the best of both worlds ... ASIC performance at standard part prices and with immediate availability. More specifically, the adoption of the SSP1492 solution can reduce application development time by up to 90%, eliminate costly non-recurring engineering, and improve sensor performance with up to 24-bit resolution."

Devices are available as 4.3mm x 4.3mm square bare die, in 80-pin ball grid array (BGA), as well as in 80 pin quad-flat package (QFP). Universal Sensor Evaluation kits are available, and include a USB interface, user-programmable ROM, and development/system software analysis tools. The user need only supply the sensor element and as few as three external passive components to create a smart sensor solution within a few hours for quick and easy evaluation.

Price and Delivery

The SSP1492 Sensor Signal Processor is available in die and packaged form as well as in an evaluation kit. Unit die prices are \$3.65 in 10,000-piece quantities. QFP packaged parts are \$4.15 and BGA packaged parts are \$4.15 in 10,000-piece quantities. The evaluation board is available at \$399 and is in stock.

Source: Business Wire