Highly Integrated Sensor Solution for Portable Devices Based on the Windows® 8 Operating System

Freescale Semiconductor announces its support of Microsoft® Windows® 8 sensor requirements with a fully enabled 12-axis sensor development reference platform. Freescale's sensor solution will be demonstrated June 5-9 at Computex in Taipei, Taiwan; June 6-7 at Sensors Expo in Rosemont, Illinois; and June 18-21 at the Freescale Technology Forum in San Antonio, Texas. General availability for the Freescale platform is planned for Q3 2012.

“In the extremely competitive and fast-paced mobile computing market, customers need comprehensive, quickly deployable solutions,” said Seyed Paransun, Vice President and general manager of Freescale's Sensor & Actuator Solutions Division. “Freescale's sensor solution for Windows 8-based portable devices is engineered to dramatically reduce system complexity by seamlessly providing critical hardware and software components, thereby enabling customers to rapidly apply their distinct differentiation and unleash unbounded user experiences.”

Included in the Freescale 12-axis sensor platform are the Xtrinsic MMA8451Q 3-axis accelerometer, Xtrinsic MAG3110 3-axis magnetometer, Xtrinsic MPL3115A2 precision altimeter, pressure and temperature sensor and an analog ambient light sensor. A selection of compatible gyroscopes are also supported. Setting Freescale apart from the competitive field is the additional integration of Freescale's ColdFire+ MCF51JU128VHS microcontroller. The ColdFire device acts as a sensor hub and couples with Freescale's sensor fusion software to efficiently combine, configure and process the sensor data to the requirements of the Windows 8 operating system. Built with an acute focus on standby power consumption, overall power consumption and cost effectiveness, the reference platform communicates

with the host PC via USB using standard HID drivers.

The Freescale 12-axis sensor reference platform leverages the strengths of the individual sensors to synthesize data such as motion, location, ambient light and human proximity into an integrated whole, resulting in more accurate, reliable and sensitive device performance. The platform offloads sensor fusion tasks from the host processor to the Freescale sensors, which allows for more customizable, power-efficient solutions.

“Achieving successful sensor fusion is increasingly essential as the number of sensors in mobile devices continues to rise,” said Jérémie Bouchaud, director and senior principal analyst, MEMS and Sensors at IHS. “Smart sensor fusion is especially critical for devices combining an accelerometer, a gyroscope and a compass. By 2016 IHS estimates that 1.2 billion handsets, tablets and laptops will be equipped with these three sensors together, up from 249 million in 2011.”

A proven leader in sensing solutions

Expanding on its more than 30-year heritage of sensor innovation, Freescale's Xtrinsic sensing solutions are designed with the right combination of high-performance sensing capability, processing capacity and customizable software to help deliver smart, differentiated sensing applications. With Xtrinsic sensing solutions, Freescale's vision is to offer a diverse and differentiated product portfolio to meet the expanding needs of the automotive, consumer and industrial segments. Xtrinsic solutions offer distinct blends of functionality and intelligence designed to help customers differentiate and win in highly competitive markets.

http://www.freescale.com [1]

Posted by Sara Cohen, Editorial Intern

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