

NEW PRODUCT NEWS



SENtral

Sensor Fusion Hub
First ultra low-power integrated circuit to make 9-axis motion sensing extremely accurate in real world conditions while dramatically reducing processing power use of the host CPU.

Major advance makes sensor fusion for **mobile devices** precise, practical and a real **power-savior**.

What's the news? The Sentral Sensor Fusion Hub is the first inertial sensor hub made for mobile devices. Carrying top-of-the-line sensor fusion algorithms on an extremely low-power integrated circuit, it dramatically reduces power usage by offloading sensor management and fusion work from less efficient host CPUs onto an ultra low-power IC tailor-made for motion processing. And it reduces the need for complex algorithm development and calibration.

Why is it needed? Increasing use of gyroscopes, accelerometers and magnetic sensors is enabling greater functionality across a wide spectrum of mobile devices and applications. Yet effective fusion of these sensors often drains valuable host CPU power needed for other functions.

Why is adding sensors hard? For many OEM's, working out the subtleties of sensor integration, signal enhancement, calibration, magnetic interference, sensor drift and power consumption has

proven to be time consuming, difficult and expensive work. Additionally, the job of managing and "fusing" data from these multiple sensors is left to the host CPU, eating up valuable power and space, even if the algorithms prove to work.

Sentral makes it work. By managing all three sensors, Sentral outputs heading and accurate absolute and relative motion tracking data – all with more accuracy and reliability than you've ever experienced. Using "constant calibration" technology, it polls the individual sensors, integrating, fusing and filtering their data with state-of-the-art patented Kalman filter algorithms. Created and designed by sensor fusion experts with more than 20 years of real world experience, Sentral's output is fast, accurate and very reliable.

Sentral is a power-savior. Used in small form factor devices, it makes your sensors work better and frees up valuable CPU power in mobile applications.

The Sentral IC is ultra low power, consuming less than 1% of the power of standard CPUs performing the task of sensor fusion. Plus it's tiny.

Works with the sensors you use. The Sentral Sensor Fusion Hub makes it practical because it supports a wide variety of gyroscopes, accelerometers and magnetic sensors from multiple vendors. It doesn't require you to change out to new sensors.

Made with real world expertise. Sentral's fusion technology is custom engineered by PNI Sensor, a leading expert in high end sensor fusion, and is built on a tailor-made ultra low-power IC from EM Microelectronic, the proven experts in producing ultra-low power microelectronic components.

For more information, see PNICorp.com or EMMicroelectronic.com

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