







The first 9-axis sensor system for mobile devices that provides instant heading information - without gyro drift or magnetic distortion.

The new SpacePoint® 9-axis sensor system is the first complete 9-axis sensor system that provides the accuracy and responsiveness needed for handheld gaming and location based applications.

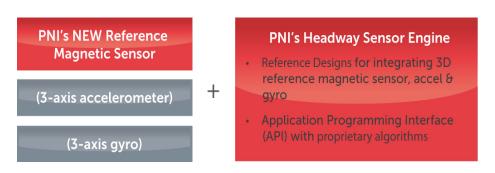
With SpacePoint, sensor outputs from accelerometers, gyroscopes, and magnetometers is fused and filtered by the proprietary Headway Sensor Engine<sup>TM</sup> to deliver pinpoint heading accuracy, attitude and signal reliability. And, unlike currently available 9-axis systems, it eliminates gyro drift and susceptibility to magnetic distortion and anomalies without the need for user calibration. So game play is immersive and longer. Compass heading is reliable so navigation is accurate. And direction is precise enabling true augmented reality applications. All this without frequent user-calibration frustrations.



9-axis sensor system

The SpacePoint 9-axis sensor system with the Headway Sensor Engine provides for greater accuracy, more reliability and better data integration of 9-axis sensor outputs than individual, stand-alone sensors or partially integrated 6-axis systems. It contains complex sensor-fusion algorithms to rapidly execute the motion processing applications from sensor data to enable the functionality and accuracy demanded by today's smartphones and mobile handsets.

Unlike the low-pass filtering used in standard motion processing algorithms, SpacePoint with Headway is the result of over 20 years of motion sensor algorithm development. It includes customizable features that can be optimized by OEMs as needed for specific customer applications and designs. With SpacePoint, customers are freed from investing time and money in complex, internal algorithm development. So SpacePoint enables shorter design cycles, better implementation and higher performance to meet the new application requirements of smartphones and mobile handsets.



The SpacePoint 3D Sensor System consists of 3 separate sensors that are driven by PNI's Headway Sensor Engine.

A complete Space Point® Sensor System requires:

- Three 3-axis sensors
  - PNI's new patented Reference Magnetic Sensor RM3000
  - A 3-axis accelerometer
  - A 3-axis gyro
- SpacePoint's Headway Sensor Engine software, including Hardware Reference Design

## **FEATURES**

- Requires a 9-axis sensor system
  (3-axis magnetometer, 3-axis gyroscope, 3-axis accelerometer)
- Digital outputs are quaternion, heading, pitch, roll, linear acceleration, gravity, and pointer Hpos & Vpos
- Operating system support for Windows, MacOS, Linux including Andriod and Embedded Linux
- Platform support for x86, OMAP, Cortex-Mx, ARMx

For ordering information and most current specifications, please visit www. pnicorp.com

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9-AXIS (3:3:3)



MAGNETIC IMMUNITY



MOTION TRACKING



LOW LATENCY

PNI SENSOR CORPORATION is America's leader in the exacting science of making complex inertial sensors work together in small consumer devices. Building on decades of patented research, PNI offers today's most reliable integrated sensor systems, enabling pinpoint accurate heading and pointing applications unencumbered by magnetic distortion and gyro drift.

Serving a demanding, wideranging list of industries (including such clients as the US Military, General Motors, Ford and iRobot), PNI's U.S. based team of physicists, engineers, researchers and quality control experts can help speed your time to market and ensure marketplace success with algorithm and application support. Nimble and responsive, PNI offers a multitude of sensors and the sensor engineering talent to help integrate them into the next mobile, gaming or personal computing device.

