AdaptNav™

Adaptive Sensor Fusion Algorithm

A New Paradigm for Navigation Sensors!

Best-in-class AdaptNav™ and AdaptNav II™ adaptive algorithms for the Sparton GEDC-6 and AHRS-8 outperform traditional Kalman filter based approaches by providing real-time optimization of product performance when used in varying magnetic and dynamic operating environments. AdaptNav™ opens the door to optimized sensor system performance and a simplified approach to platform-specific customization.

Feature Benefits

So what are AdaptNav™ and AdaptNav II™, and why are they extraordinary?

- Sparton AdaptNav™ adaptive algorithms provide real-time (non-linear) sensor heading optimizations when used in varying magnetic and dynamic operating environments, offering unparalleled orientation accuracy under the most challenging conditions.
- Our proprietary AdaptNav™ algorithms look at the system dynamics of the sensor environment in real-time and make adjustments based on optimal sensor reliability modeling.
- AdaptNav™ improves on traditional Kalman filter based approaches by not requiring a dynamic profile to be preselected. No need to pre-select operational environment or use 'trial and error' parameter settings prior to deployment in the sensor application, eliminating the guesswork often associated with many Kalman filter based implementations.
- The AdaptNav II™ adaptive algorithm builds upon the AdaptNav™ feature functionality and provides revolutionary real-time noise characterizations used for drift compensation of heading, pitch and roll when in electrically and mechanically noisy environments (applicable to AHRS-8 only). 'Noisy' environments include magnetic materials in proximity of the navigation sensor, batteries, electric motors and high-current carrying wires as well as vibration, or vibratory rotation.
- AdaptNav™ and AdaptNav II™ assures an exceptional out-of-box experience, facilitating ease of use in the target application after completion of in-field calibration

Want to Learn More?

Please visit us on our web site at www.spartonnavex.com for more information on Sparton's entire line of navigation sensor solutions.

5612 Johnson Lake Rd • Deleon Springs, FL • 32130
800.824.0682 • 386.985.4631
www.sparton.com/ne • www.spartonnavex.com