AdaptNav™

Adaptive Sensor Fusion Algorithms

Description

Best-in-class AdaptNav II™ adaptive algorithms for the Sparton GEDC-6E 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 II™ opens the door to optimized sensor system performance and a simplified approach to platform-specific customization.

Features

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

1. Sparton AdaptNav II™ 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.

2. Our AdaptNav II™ algorithms look at the system dynamics of the sensor environment in real-time and make adjustments based on optimal sensor reliability modeling.

3. AdaptNav II™ improves on traditional Kalman filter based approaches by not requiring a dynamic profile to be preselected. There is no need to pre-select operational environment or use 'trial and error' parameter settings prior to deployment in the sensor application. This eliminates the guesswork often associated with many Kalman filter based implementations.

4. 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 GEDC-6E, AHRS-8 only). 'Noisy' environments include magnetic materials in proximity of the inertial system: batteries, electric motors, and high-current carrying wires as well as vibration, or vibratory rotation.

5. AdaptNav II™ assures an exceptional out-of-the-box experience, facilitating ease of use in the selected application after completion of in-field calibration.

Please visit us at www.spartonnavex.com for additional information on the Sparton Navigation and Exploration line of inertial systems.
For more information and detailed specifications scan QR code.
For support, please e-mail: productsupport@sparton.com

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