



Geo-hNAV™

Hybrid Dual-GPS / IMU Navigation System

Geo-hNAV™ is a fully integrated hybrid navigation system providing precise orientation information for stationary and slowly moving platforms. Geo-hNAV combines the technologies of Geodetics' Geo-iNAV® inertial navigation system and Geodetics' Geo-Pointer™ dual-antenna heading system. Precise heading is derived using two antennas rigidly mounted on the platform with some separation. The heading information is used as a constraint in the GPS/IMU inertial system. Geo-hNAV™ is offered with many grades of IMU's, is designed to meet a wide range of requirements, and is available for both commercial and military applications:

Geo-hNAV™ Commercial: Designed for civilian navigation applications (no ITAR restrictions)

Geo-hNAV™ SAASM: Designed for applications that have a military SAASM GPS requirement

Geo-hNAV™ Features

- Support for low, medium and high-dynamic platforms
- Available with a wide range of IMU's
- Tight-coupling with Geodetics' Extended Kalman Filter
- Centimeter-level position accuracy (dual-frequency RTK configuration)
- GPS Processing based on Geodetics' Epoch-by-Epoch® technology
- Full post-processing support with Geo-PostProcessing tools
- Mil-spec ruggedization

Geo-hNAV™ Applications

- Geo-Pointing on-board sensors on static, low, and high dynamic platforms, such as aerostats, boats, and tanks
- Camera stabilization
- Antenna pointing
- Weaponry pointing



For all sales and technical-support related questions, please contact Geodetics, Inc. directly via:

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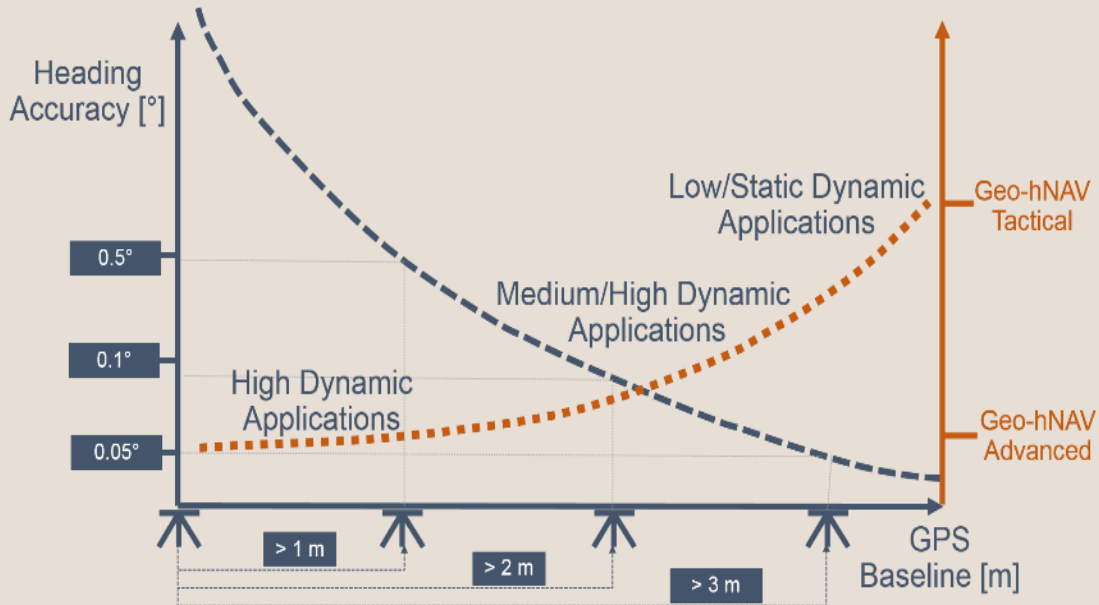
Geo-hNAV™

Product Configuration Options



GEODETICS
INCORPORATED

Precision
In Motion.



Geo-hNAV™ Technical Specifications

Parameter	Commercial Configurations	SAASM Configurations
Size / Weight / Power	40.32 in ³ (4.7x3.9x2.2) / 27.2 oz. / 10 – 30 VDC @ 2 Amps min.	
Environmental	MIL-810E, MIL-461 Compliant	
Temperature Range	Specified: -20°C to +60°C	Operating: -40°C to +70°C
Interfaces	External power connector, 2x TNC GPS antenna connectors, 1 Ethernet data port, 3 RS-232 serial ports, 1PPS output, 4 status LEDs.	External power connector, 2x TNC GPS antenna connector, 1 Ethernet data port, 3 RS-232 serial ports, 1PPS output, 4 status LEDs, SAASM Keyload Connector, SAASM Zeroize button.
Real-Time Data Output	Navigation solutions at up-to 125 Hz. available via Ethernet, RS-232 or optional wireless data-link.	
Data Recording/Logging	Navigation solutions, raw GPS & IMU data (for post-processing with Geo-PostProcessing tools).	
GPS Frequency Tracking	L1/L2	L1/L2 (P/Y Code)
Key Loading	N/A	DS-101
Safety & Diagnostics	Internal safety and monitoring systems. Internal BIT with operator notification.	

¹Accuracy is dependent on antenna baseline separation, GPS satellite system performance, ionospheric conditions, satellite visibility, data-link and other factors.

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