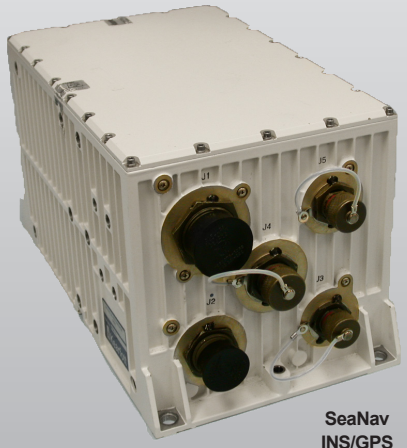
Fiber Optic Gyro Sea Navigation Solutions

Kearfott
a subsidiary of Astronautics



SeaNav
INS/GPS

Complete System or Kit Solutions

Kearfott's Fiber Optic Gyro Sea Navigation (FOG SeaNav) offers navigation-grade performance suited for high-accuracy navigation, pointing, and platform stabilization applications. Availability in both kit and chassis configurations ensures a form factor compatible with unmanned underwater vehicles, remotely operated vehicles, and surface vessels and platforms. The FOG SeaNav is acoustically silent, offers exceptional life and reliability, and has a commercial export classification that will streamline procurement and mission planning.

Composed of industry leading fiber optic gyroscopes paired with Kearfott's field-proven MOD VIIA accelerometers and navigation software with decades of successful at-sea usage, the FOG SeaNav offers proven capability and excellent reliability. It is also capable of interfacing with standard marine platform navigation-aiding sensors—like Doppler velocity logs, GNSS receivers, and pressure depth sensors—enabling integration on virtually any platform.

Features & Benefits

- Precision Attitude & Navigation Determination
- Modular Kit Architecture
- Flexibility to Meet Operational Requirements
- Commercial Export Classification (ECCN 7A003.a.1)

Fiber Optic Gyro SeaNav Product Specifications

System Characteristics	*FOG SeaNav*	*FOG SeaNav Kit*
Size	540 in^3 (8,849 cm^3)	160 in^3 (2,622 cm^3)
Dimensions	7 in x 7 in x 11 in (17.8 cm x 17.8cm x 28 cm) (total volume)	IMU: 6.2 in x 5.78 in x 3.78 in (15.5 cm x 13.6 cm x 9.8 cm) CCAs: 5.35 in x 4.25 in x 1.115 in (13.6 cm x 10.8 cm x 2.8 cm)
Weight	< 20 lbs (9.07 kg)	< 8.0 lbs (3.63 kg)
Power	< 25 W @ 28 VDC	< 25 W +15 V, -15 V, +5 V
Operational Ranges	*FOG SeaNav*	*FOG SeaNav Kit*
Acceleration	< 25 g	< 25 g
Attitude (Roll, Pitch, Azimuth)	Unlimited	Unlimited
Attitude Rate	> 600°/s	> 600°/s
Temperature	-40 to 71°C (-40 to 160°F)	-40 to 71°C (-40 to 160°F)
Navigation/Attitude Performance Characteristics[1]	*FOG SeaNav*	*FOG SeaNav Kit*
Position Accuracy - GPS Aided - Velocity Log Aided - Free Inertial	 10 m, CEP 0.1 % DT, CEP 0.8 nm/hr	 10 m, CEP 0.1 % DT, CEP 0.8 nm/hr
Velocity Accuracy - GPS Aided - Velocity Log Aided	 0.05 m/sec, RMS 0.05 m/sec, RMS	 0.05 m/sec, RMS 0.05 m/sec, RMS
Heading Accuracy	0.5 mils * sec (lat), RMS	0.5 mils * sec (lat), RMS
Roll/Pitch Accuracy	0.5 mils, RMS	0.5 mils, RMS

Kearfott | GUIDANCE & NAVIGATION DIVISION
+1.973.785.6000
marketing@kearfott.com
19 Chapin Road, Building C
Pine Brook, NJ 07058