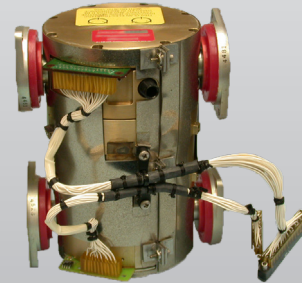


SeaNav
INS/GPS



T16

Complete System or Kit Solutions

Kearfott's Sea Navigation (SeaNav) products provide accurate navigation, pointing, and platform stabilization capabilities. Availability in both kit and chassis configurations ensures a form factor compatible with unmanned underwater vehicles, remotely operated vehicles, and surface vessels and platforms alike. The SeaNav family serves two performance segments, satisfying high-end tactical and navigation-grade requirements, and its commercial export classification streamlines procurement and mission planning.

Composed of Kearfott's monolithic ring laser gyroscope, which offers an unparalleled performance-to-volume ratio, and navigation software with decades of successful at-sea usage, the SeaNav is a field-proven system. The SeaNav is 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
- ✓ Flexibility to Meet Operational Requirements
- ✓ Modular Kit Architecture
- ✓ Commercial Export Classification (ECCN 7A003.a.1)

SeaNav Product Specifications

<i>System Characteristics</i>	<i>SeaNav-16</i>	<i>SeaNav-24</i>	<i>Sea Kit-16</i>	<i>Sea Kit-24</i>
Size	540 in ³ (8,849 cm ³)	540 in ³ (8,849 cm ³)	58 in ³ (950 cm ³)	128 in ³ (2,098 cm ³)
Dimensions	7 in x 7 in x 11 in (17.8 cm x 17.8cm x 28 cm) (total volume)	7 in x 7 in x 11 in (17.8 cm x 17.8cm x 28 cm) (total volume)	ISA: 3.3 in Dia x 5.2 in L (8.4 cm x 13.2 cm) CCAs: 5.35 in x 4.25 in x 1.115 in (13.6 cm x 10.8 cm x 2.8 cm) HVPS: 3.61 in x 1.1 in x 0.91 in (9.17 cm x 2.8 cm x 2.31 cm)	ISA: 4.5 in Dia x 6.3 in L (11.4 cm x 16.0 cm) CCAs: 5.35 in x 4.25 in x 1.115 in (13.6 cm x 10.8 cm x 2.8 cm) HVPS: 3.61 in x 1.1 in x 0.91 in (9.17 cm x 2.8 cm x 2.31 cm)
Weight	< 16 lbs (7.26 kg)	< 20 lbs (9.07 kg)	3.0 lbs (1.36 kg)	8.5 lbs (3.86 kg)
Power	< 30 W @ 28 VDC	< 30 W @ 28 VDC	< 30 W +15 V, -15 V, +5V	< 30 W +15 V, -15 V, +5V
<i>Operational Ranges</i>	<i>SeaNav-16</i>	<i>SeaNav-24</i>	<i>Sea Kit-16</i>	<i>Sea Kit-24</i>
Acceleration	< 25 g	< 25 g	< 25 g	< 25 g
Attitude (Roll, Pitch, Azimuth)	Unlimited	Unlimited	Unlimited	Unlimited
Attitude Rate	> 300°/s	> 300°/s	> 300°/s	> 300°/s
Temperature	-40 to 55°C (-40 to 131°F)	-40 to 55°C (-40 to 131°F)	-40 to 55°C (-40 to 131°F)	-40 to 55°C (-40 to 131°F)
Interface	RS-422, RS-232	RS-422, RS-232	RS-422, RS-232	RS-422, RS-232
<i>Navigation/Attitude Performance Characteristics¹</i>	<i>SeaNav-16</i>	<i>SeaNav-24</i>	<i>Sea Kit-16</i>	<i>Sea Kit-24</i>
Position Accuracy - GPS-aided - Velocity Log-aided - Free Inertial	10 m, CEP 0.5 % DT, CEP 6 nm/hr, CEP	10 m, CEP 0.1 % DT, CEP 0.8 nm/hr, CEP	10 m, CEP 0.5 % DT, CEP 6 nm/hr, CEP	10 m, CEP 0.1 % DT, CEP 0.8 nm/hr, CEP
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	0.05 m/sec, RMS 0.05 m/sec, RMS	0.05 m/sec, RMS 0.05 m/sec, RMS
Heading Accuracy	5.0 mils * sec (lat), RMS	0.5 mils * sec (lat), RMS	5.0 mils * sec (lat), RMS	0.5 mils * sec (lat), RMS
Roll/Pitch Accuracy	0.5 mils, RMS	0.5 mils, RMS	0.5 mils, RMS	0.5 mils, RMS

¹ Performance specifications are subject to completion of 15-minute alignment.