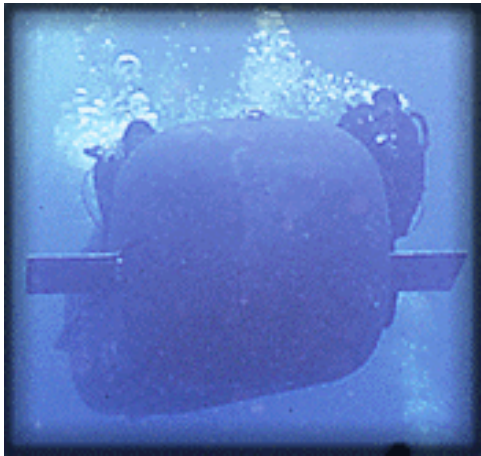


AUNS-605 Advanced Underwater Navigation System



- **ACCURATE SUBSURFACE NAVIGATION**
- **OPEN ARCHITECTURE FOR SENSOR INPUTS**
- **RUGGED AND WATERPROOF TO 40 METERS**
- **SUPPORTED BY MISSION PLANNING SOFTWARE**

The AUNS-605 Subsea Navigation System demonstrates RJE International's commitment to supply vehicle navigation solutions for both military and commercial applications.

Using "dead-reckoning" as a means of calculating positions fixes, the AUNS-605 takes in data from a of off-the-self sensors to provide real time navigation solutions. The AUNS-605 can work with a wide variety of sensors including; GPS, DVL (Doppler Velocity Log), Inertial Navigation Systems, Gyro Compasses, Tilt and Roll Sensors, Pressure Sensors, Sonars (Forward Looking or SideScan), and Shaft Sensors.

All necessary electronics and the Pentium based single board computer (SBC) are housed in a rugged anodized aluminum housing. Sealed connectors, mounted on the housing, are used to access the various external sensors that provide data to the SBC.

A version of SeaGenie Software is used as the operational firmware for the AUNS-605. Its unique and flexible architecture provides for pre-mission planning and post-mission management, sensor data acquisition and analysis, and real time navigation solutions. In addition, the system's software provides several additional features including: predefine alarms, digitized maps and photos, sonar display, and data logging.

The operator's interface is through the SEAL Command Display Unit (CDU). By utilizing an 8.5" (22cm) sunlight readable full color LCD display and piezo-electric function keys the SEAL CDU provides full and easy access to all of the AUNS-605 command and control functions. Its unique design provides a reliable and easy-to-use single point for the operator to navigate, pilot, and control a subsea vehicle. Additional SEAL CDUs' can be integrated into the AUNS-605 architecture to provide separate a station for co-pilots.

The AUNS-605 is an example of the strength in our capability to offer navigation solutions for subsurface vehicles. Whether it is a diver propulsion vehicle, SDV, or manned submersible, RJE International can supply the hardware and software to give you a total integrated solution. This technology is supported by Oceana Integrated Technologies, a leader in manufacturing ruggedized command and control platforms, computers, and customized software for military and commercial customer worldwide. Call today and let us offer you a cost effective navigation solution for your vehicle.

RJE International, Inc.
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SPECIFICATIONS

Mechanical

Dimensions
Electronic Module 35cm(H)x30cm(W)x61cm(D)
 14.8"(H)x12"(W)x24"(D)

SEAL CDU 20cm(H)x33cm(W)x11cm(D)
 7.9"(H)x13.0"(W)x4.3(D)

Weight

Electronic Module
In Air 38 Kg (86 lbs.)
In Water 6 Kg (16 lbs.)
SEAL CDU
In Air 6.5 Kg (17 lbs.)
In Water 1 Kg (2.6 lbs.)

Housing Material Anodized Aluminum
Switches Piezo Ceramic

Environmental

Depth Rated 40m (120 ft.)
Operating Temperature -15°C to 55°C
 (5°F to 131°F)
Storage Temperature -20°C to 60°C
 (-4°F to 140°F)
Shock, Vibration To Mil-Std-810E

Performance

Speed Range 0-18 Knots
Speed Accuracy 0.1 Knots
Altimeter Range 1-200 meter
Altimeter Accuracy 1% RMS
Depth Accuracy ± 0.2 meter RMS

Pitch/Roll Accuracy 1° RMS
Position Accuracy
Surface Mode GPS 2-20 meters
Subsurface Gyro/DVL ±30 meters RMS after 1hr.
 @ 2 knots (Gyro @ 0.7° RMS)

Onboard Board Computer (Dual Processors)

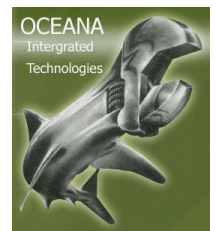
Processor Pentium M[®]
Memory 20 GB
RAM 256 MB
Inputs (6)RS232 and/or RS-422 I/O
Mission Data ASCII Format

Sensors

Heading Sensor
Accuracy <0.5° to 1.5° RMS
Pitch and Roll
Range ± 40°
Accuracy ± 0.4° @Tilt< 20°
 ± 0.6° @Tilt≥ 20°
Repeatability ± 0.2°
Resolution ± 0.1°
GPS
Channel L1, C/A Code, 12ch
Accuracy < 8 Meters (90%)
Acquisition
Reacquisition < 2 sec (90%)
Hot Start < 13 sec (90%)
Cold Start < 84 sec (90%)

Power

External 22-32 VDC
Power 180 watts



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