Honeywell

H-764 ADVANCED CONFIGURABLE EGI (ACE)
INERTIAL NAVIGATION SYSTEM

Supporting Communication, Navigation, Surveillance/Air Traffic Management (CNS/ATM) and Joint Precision Approach and Landing System (JPALS)

H-764 ACE

Designed to meet the evolving tri-service requirements of CNS/ATM and JPALS while supporting platform missionization including expansion slots for future growth

System Features

- Meets DoD Tri-Service GPS/INS requirements
- Uses Honeywell's Digital Laser Gyro (DLG)
- Two expansion slots to meet a wide variety of applications
- SAASM-based, all-in-view GPS Receiver with FDE/RAIM per RTCA/DO-229 and a C/A-P(Y) switch to support civil interoperability
- Flexible hardware and software system architecture for ease of missionization
- Reliable BIT isolation reduces and simplifies maintenance
- Power PC-based microprocessor, 1553 Bus and RS-422 buses on one card
- Triple nav solutions (Pure Inertial, GPS-only, and blended GPS/INS)
- CNS/ATM availability solutions:
  - Protection Of Blended Solution (POBS™) (<RNP 4.0)
  - Honeywell Inertial/GPS Hybrid (HIGH™) Integrity (<RNP 0.1)
- Built-in interface for USAF Standard CDU simplifies integration
- Over 13,000 H-76Gs delivered to Tri-Service platforms
- Optional Multi-Mode Receiver providing ILS, VOR and Marker Beacon with growth to LAAS & JPALS
- Option for enhanced position and velocity accuracies

System Characteristics

Blended GPS/INS Performance

- Position Accuracy (SEP): <10 m
- Velocity Accuracy (rms): <0.05 m/s

Pure INS Performance

- Position Accuracy (CEP): <0.8 nmi/hr
- Velocity Accuracy (rms): < 1.0 m/s

Alignment Time

- Gyrocompass: 4 minutes
- Stored Heading: 30 seconds
- In Air Align: <10 minutes

Operating Ranges

- Attitude: Unlimited
- Angular Rate: ±420 deg/sec
- Acceleration: ±21g's (all axis)
- Angular Accel: +1,500 deg/sec/sec

MTBF

- >6,500 hours

Power Requirements

- +28 Vdc operation: 40 watts
- MMR Power Supply: 10 watts

Thermal Operating Range

- Passive Cooling: -54°C to 71°C (+95°C for 30 minutes)

Interfaces

- Standard: 1553B (RT or BC) and RS-422 serial data buses
- Optional: Synchro, analog, discrete, ARINC-429

Form Factor**

- 7 x 7 x 9.8" (7 x 8.3 x 9.8" with MMR)

Weight**

- 18.5 lbs. (23.5 lbs. with MMR)

Installation***

- Choice of rack-mounted (additional 2 lbs.) or hard-mounted (bolted to vehicle)

Multi-Mode Receiver Option

- Replaces top cover of current configuration
- Protected Instrument Landing System (Localizer & Glide Slope Operations)
- VHF Omnirange (VOR)
- Marker Beacon, VOR
- Growth to include LAAS & JPALS
- Qualified to Military EMI & Environmental Levels
- Developed in accordance with DO-178B Level A

* Alignment time dependent upon maneuvers performed during alignment

** SNU 84-1 EGI configuration available (7 x 8.3 x 12.75") featuring four spare card slots

*** These parameters are application and configuration dependent

Honeywell Aerospace
13350 U.S. Highway 19 North
Clearwater, FL 33764-7290
Tel: 727.539.4130
www.honeywell.com

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