



# **EMBEDDED GPS/INS (EGI) NAVIGATION SYSTEM WITH ADVANCED ANTI-JAM PROTECTIONS**

Supporting the most challenging military navigation requirements  
while adding civil interoperability capabilities

**Honeywell**

# EMBEDDED GPS/INS (EGI) WITH ANTI-JAM

Designated to provide maximum flexibility, Honeywell's EGI meets the most challenging military requirements along with civil interoperability capabilities.

Honeywell's EGI family of military aircraft Embedded GPS/INS (EGI) systems are self-contained, all-attitude, tightly-coupled navigation systems providing:

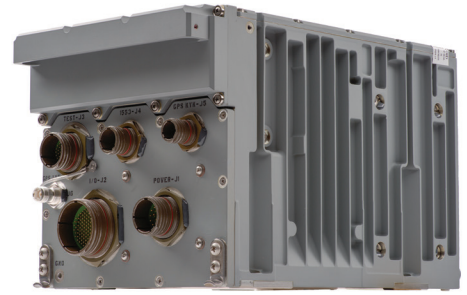
- Outputs of linear and angular acceleration,
- Linear and angular velocity, position,
- Attitude (roll, pitch),
- Platform azimuth,
- Magnetic and true heading, altitude, body angular rates,
- Time tags, Coordinated Universal Time (UTC) synchronized time.

Since the mid 1990's more than 60,000 Honeywell EGIs have been produced and delivered demonstrating the best inertial performance of any EGIs available today for the most challenging navigation, pointing, stabilization, and flight-control applications.

Honeywell's EGIs are integrated with beam forming anti-jam systems that provide superior protection compared to legacy nulling systems in GPS challenged environments.

We also provide a robust civil certifiability to DO-178C and DO-254 enabling much easier certification at the aircraft level for features such as ADS-B, RNP/RNAV, WAAS, and more.

Honeywell's EGI family includes the H-764, in use on most military aircraft, the FALCN, providing all the features and performance of the H-764 in a smaller package, and the H-764 legacy using a larger chassis to maintain commonality with legacy aircraft.



H-764



FALCN



2013 Collier Trophy Industry Team Recipient X-47B Industry Team

PRODUCT	SIZE OPTIONS	WEIGHT	VOLUME
H-764	7"x7"x9.8"	<20lbs	480in <sup>3</sup>
FALCN	6"x6"x9"	12.5lbs	324in <sup>3</sup>
H-764 Legacy	7"x7"x12.75"	22lbs	624in <sup>3</sup>

	FREE INERTIAL	BLENDED INS / GPS SPECS	BLENDED INS / GPS MEASURED
Position	0.2-1.0 nmi/hr CEP	5m SEP	<4m, <1m Horiz. w/dGPS
Velocity	0.5-0.8 m/s (1.5-2.5 ft/sec)	0.01 m/s (0.03 ft/ sec)	<0.003-0.01 m/s (0.01- 0.03 ft/sec)
Heading	0.1 deg	0.015 deg	<0.015 deg
Pitch / Roll	0.05 deg	0.01 deg	<0.01 deg





- Existing footprint can include Radar Altimeter, Multi Mode Receiver (with VOR/ILS/Marker Beacon) and synchro capability
- Available with SAASM, SPS and MCODE
- Available with SBAS
- Available with dGPS integration (1m horizontal and 1.5m vertical accuracy)
- Integrity enhancements:
  - FDE/RAIM (GPS Only)
  - HIGH (Blended)
- Interfaces:
  - Dual 1553, ARINC 429, and RS-422
  - Dual/Quad Ethernet 10/100/1000
  - Synchro/Discrete (ARINC 704)
  - Have Quick/1PPS
- Advanced GPS anti-jam system:
  - Pre-integrated with leading beam forming anti-jam systems
  - BAE DIGAR
  - Chelton DACU
  - IAI ADA
  - Lockheed Martin GSTAR
  - Can be purchased separately or as a package
- Outputs Blended INS/GPS, free inertial and GPS only
- Supports CNS/ATM Mandates
  - ADS-B Blended Position Source with MSO-C145b certification, low latency design and transponder direct connect
  - RNP/RNAV
  - Autonomous LPV
  - SBAS
- Certifiability:
  - DO-178C
  - DO-254 Level A
  - MSO-C145b
- Supports open architectures with flexible interfaces and integration with FACE
- Power: 35 to 60 watts
- MTBF >10,000 hours calculated, >25,000 hours demonstrated in certain applications
- State of the art GG1320 Ring Laser Gyro, 450,000 hours MTBF demonstrated with over 4 Billion accumulated flight hours
- Alignment Modes:
  - Gyrocompass
  - In flight alignment
  - Ship alignment (SINS/AR-57 and in motion)
  - Stored heading / acquisition mode
  - Direct Y and Direct M

## SUPPORTS GPS-CHALLENGED ENVIRONMENTS

- Atomic Clock
- Blended Navigation Assurance
- Third Party Ap SW Host Capability
- Alt Nav Integration



**For more information**

Please visit: [aerospace.honeywell.com](https://aerospace.honeywell.com)

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FUTURE  
IS  
WHAT  
WE  
MAKE IT**

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