

THE VALUE OF PERFORMANCE.

NORTHROP GRUMMAN



LN-260

Advanced Embedded INS/GPS (EGI)



The Northrop Grumman LN-260 is a flight qualified operational form and fit replacement Inertial Navigation System/Global Positioning System (INS/GPS) that can be incorporated with numerous international and domestic Standard Navigation Unit platforms.

Description

The LN-260 is a high performance, low cost INS/GPS that utilizes the state-of-the-art fiber-optic gyroscope (FOG)-based inertial navigation sensor assembly with 24 channel Selective Availability Anti-Spoofing Module (SAASM) GPS. The LN-260 combines all of the latest SAASM capabilities, including enhanced Complementary Navigation Message.

The LN-260 sensor components offer the highest performance and reliability, lightest weight, lowest power INS/GPS available on the market. The non-dithered, low

noise FOG technology eliminates self-induced acceleration and velocity noise. This results in superior navigation and Synthetic Aperture Radar stabilization performance as well as the most accurate target location.

Advantages

Northrop Grumman's proven and lightweight INS/GPS has several advantages over its competitors. Our fiber-optic gyro is developed from the latest, proven fiber-optic technology and weighs less than 26 lb (11.79 kg). The LN-260 is equipped with three independent navigation solutions: blended INS/GPS, INS only and GPS only. Our INS/GPS solution provides more accurate velocity measurements, superior anti-jamming capabilities and has been highly reliable on each of its military platforms.

Growth

This versatile product is easily integrated with several differential GPS applications such as: Starfire™, OmniStar™ and ZNAV™. The LN-260 will harmonize with M-Code when available and is ready to integrate a Joint Precision Approach and Landing System solution. It can also be tightly coupled with a Standard Positioning Service GPS card. This unit has two spare card slots so it can host additional features as the user defines.

Performance			
	INS-Only	INS/GPS Aided (spec)	INS/GPS Aided (Measured)
Position	0.8 nm/hr CEP	15.2 m (49.9 ft) SEP w/PPS	<4m SEP (13.1 ft)
Velocity per Axis X, Y	0.8 m/sec (2.5 ft/sec) per axis	0.015 m/sec (0.05 ft/sec) per axis for continuous state 5 tracking (0-2 g's)	0.015 m/sec (0.05 ft/sec)
Attitude	0.05° per axis	0.05°	0.01°
Heading	0.1°	0.05°	0.02°
Align Time	4 minute (GC), 30 sec (SHDG), 10 minute IFA (PPS GPS)	10 minute IFA (PPS GPS)	10 minute IFA (PPS GPS)

Characteristics	
Power	<47W, MIL-STD-704A, 28 Vdc Primary, 28 Vdc Secondary, <47 W, 26 Vac Synchro Ref
Size*	Length: 14.85 in. (37.72 cm) Width: 7.53 in. (19.13 cm) Height: 7.15 in. (18.16 cm)
Weight	<26 lb (<11.79 kg)
Temperature	-40°C (-40°F) to +71°C (159.8°F)
Cooling	Cooled by forced air
Shock	15g, 11 msec
Vibration	6.8g rms (performance), ±2G sine sweep
Gunfire, Acoustic	MIL-STD-810 aircraft
EMI	MIL-STD-461D, MIL-STD-462D
System BIT Capability	Start-Up BIT, Periodic BIT and Operator Initiated BIT
Control Modes (On-Line, Manual, Backup)	Supports traditional alignment modes including ground, stored heading and moving based alignment. Supports aided and unaided navigation modes. Periodic self-test operates without user intervention.
System MTTR	0.3 hr
MTBF	> 10,485 hours in an Airborne Uninhabited Fighter (AUF) environment
Maintainability	Rack-mounted chassis, full BIT, no intermediate maintenance required, no special tooling or test equipment required
	* Does not include handles and connectors

Features	
WGS-84 Earth Model	Yes
I/O Growth Capability	Yes, the system supports additional serial buses and discrete I/O
Embedded GPS P(Y) Code	Yes, 24-Channel Dual Frequency with DGPS capable
Selective Availability and Anti-Spoofing Protection	Yes, uses a SAASM module in the EGR
Precise Time and GPS Time Mark Outputs	Yes
RAIM and Predictive RAIM Outputs	Yes
KYK Load and Zeroize	Yes (DS-101 & DS-102 Format)
Precise Time and Time Interface	Yes, supports TTFF2 requirements per CI-GRAM-500
Fast Direct Y Code Performance	Yes

For more information, please contact:

Northrop Grumman
Navigation and Maritime Systems
21240 Burbank Boulevard
Woodland Hills, CA 91367 USA
1-866-NGNAVSYS (646-2879)
www.northropgrumman.com

www.northropgrumman.com

© 2013 Northrop Grumman Systems Corporation
All rights reserved.
25515_022013



DS-468-JYC-0213
ePROCS: 13-0268
2013 WH Graphics

THE VALUE OF PERFORMANCE.

NORTHROP GRUMMAN