LTN-101 FLAGSHIP™ GNADIRU

LTN-101 FLAGSHIP™ meets or exceeds FAA navigation, attitude, heading and air data accuracy requirements.

The LTN-101FLAGSHIP™ is an integrated global navigation, air data, inertial reference unit (GNADIRU) that has redefined industry standards for laser inertial navigation systems.

Introduced in 1992, FLAGSHIP™ has established an exceptional reliability on such commercial aircraft as the Airbus wide and narrow body families, Canadair Regional Jet, CL604, and the Saab 2000.

SERVICES

- Northrop Grumman offers for sale serviceable spare units and parts
- Unit overhaul & repair
- Subassembly overhaul & repair
- Software updates, including MagVar updates
- In-field operations for software updates
- Advanced exchanges
- Aircraft on ground support 24 hours a day 365 days a year

SYSTEM PERFORMANCE

- Accuracy
  - <2.0 NMI/HR, 95%, CEP pure inertial

- Reliability
  - >16,000 operating hours MTBF

TECHNOLOGY

Performance and reliability of the FLAGSHIP™ is based on a series of design innovations:

- Four Mode Laser Gyro (FLAG)
- Software/Hardware Implemented Partitioning (SHIP)
- Fault containment

FLAGSHIP™ LOWERS OWNERSHIP COSTS THROUGH:

- Increased functionality and flexibility
  - Integrated GPS and air data
  - ARINC704/738/743 compatible without modification
- Proven reliability
  - Exceptional Mean Time Between Failure (MTBF) reliability record
  - Minimal false removals
- Enhanced maintainability
  - Advanced built-in test to Level II
  - In-flight fault diagnostics
  - System and module BIT history storage

NORTHROP GRUMMAN

FOUR MODE LASER GYRO (FLAG)

The patented FLAG combines three 18 cm Zero-lock™ Laser Gyroscopes in a single cavity. Undithered and 40-percent smaller than conventional ring laser gyros, FLAG means long gyro life, high accuracy and reliability, and reduced costs.

SOFTWARE/HARDWARE IMPLEMENTED PARTITIONING (SHIP)

SHIP organizes major system functions such as GPS, inertial reference, and air data in modules, ranks them by criticality, and isolates them from all other modules in both execution and memory access. This approach eliminates corruption of one function by another and contains functional loss due to a fault.

FAULT CONTAINMENT

Fault containment ensures minimal functional loss in the event of a fault by prohibiting its propagation throughout the system.

PHYSICAL SPECIFICATIONS

Physical	ADIRU	MSU
Weight		
(lb)	28.5	2.2
(kgm)	12.6	1
Size (in.)		
Width	4MCU	5.75 (14.6 cm)
Height	4MCU	3.0 (7.6 cm)
Length	4MCU	3.5 (8.9 cm)
Power		
(W)	61	2.7

FOR MORE INFORMATION, PLEASE CONTACT:

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