NORTHROP GRUMMAN

LTN-92 Laser Gyro INS

The LTN-92 laser gyro INS meets RNP-10 and B-RNAV requirements now and offers a path to full CNS/ATM compliance over the next decade

Ring Laser Gyro Technology

The LTN-92 Inertial Navigation System (INS) is the world's leading laser gyro replacement for the mechanical INSs used on many military transport and commercial aircraft, including "classic" B747's, DC-10's and L-1011's. The LTN-92 uses three ring laser gyros, force rebalanced accelerometers, and three high-speed digital microprocessors to provide an advanced technology, all-attitude, worldwide navigation system offering up to five times the reliability of mechanical inertial navigation systems. The system's ability to manage internal navigation bulk data storage allows for comprehensive worldwide flight planning.

CNS/ATM Growth

Many of the world's leading airlines have chosen the LTN-92 as a cost-effective means of complying with Communication, Navigation, Surveillance/Air Traffic Management (CNS/ATM) navigation requirements. The LTN-92 laser gyro INS meets RNP-10 and B-RNAV requirements now and offers a growth path to full CNS/ATM compliance over the next decade.

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Features and Benefits

- **RNP-10 Accuracy for 12.5 Hours Unaided**
  - Radio updating not required
  - GPS updating not required
- **Automatic Position Updating**
  - Meets Eurocae B-RNAV
  - Allows for automatic position updating using VOR, TACAN, DME, and GPS
- **GPS Integration**
  - GPS receiver interface available via LTN-92 GPS interface module (GPSIM)
  - Certified with external ARINC 743A GPS remote control
- **Growth to CNS/ATM Requirements**
  - Growth option with FMS/GPS and ARINC 739 MCDU
  - AIME™ growth option to meet RNP 0.3 worldwide, 24 hours per day without external GPS augmentation
- **Installation and Design**
  - STC packages available for retrofit
  - C-IV or LTN-72 equipped aircraft can be modified to LTN-92 in as little as 4 hours
  - Form, fit, function replacement for most ARINC 561 gimballed INSs
  - Provides digital 2 x 5 radio autotuning
  - Installation allows for MAG/TRUE switching
- **Maintains CAT II/III Certification**
  - Does not disturb existing Autoland certifications
- **Military Options**
  - Interfaces with 1553 bus
  - Option to function as either 1553 remote terminal or 1553 bus controller
  - Interfaces with P-code GPS including 3A and MAGR
  - Provides in-motion alignment during taxi and in flight
  - Special mission guidance for Search, CARP, and Tanker Orbit
- **Reduced Cost of Ownership**
  - Up to five times the reliability of gimballed systems
  - Minimizes delays and in-flight diversion costs
  - Reduces maintenance costs
- **Other Features**
  - Provides SATCOM antenna stabilization
  - Supports Heads Up Guidance attitude stabilization and flight path vector generation
  - Stabilizes WX and search radars
  - Interfaces with EFIS

LTN-92 Technical Specifications

PHYSICAL	INU	CDU	MSU	MCDU
Weight (lb)	57.0 (25.8 kg)	5.0 (2.3 kg)	1.0 (0.4 kg)	6.75 (3.1 kg)
Size (in.)				
• Width	10.12 (26.7 cm)	5.75 (14.6 cm)	5.75 (14.6 cm)	5.0 (12.7 cm)
• Height	8.62 (21.9 cm)	4.50 (11.4 cm)	1.50 (3.8 cm)	7.1 (18.0 cm)
• Length	19.98 (50.7 cm)	6.20 (15.7 cm)	2.0 (5.1 cm)	6.0 (15.2 cm)
Power (W)	200	25	Negligible	42

For more information, please contact:
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