NORTHROP GRUMMAN

LTN-2012
Global Navigation Sensor System (GNSS) Sensor Unit

Global Navigation Sensor System (GNSS) designed for the commercial aviation industry

Designed for the commercial aviation industry, Northrop Grumman's LTN-2012 Global Navigation Sensor System (GNSS) is a twelve channel, L1 CA Code, continuously tracking ARINC 743 GNSS sensor. Designed for a full range of airborne applications, the LTN-2012's superior performance, reliability and application flexibility ensure pinpoint navigation and growth to precision operations. The LTN-2012's intelligently designed growth path will help operators reduce installation and certification costs. Future applications include curved path approaches, CAT 1 approaches, and reduced minimums for non-precision approaches.

The LTN-2012 has been developed to meet RTCA 178B Level B, RTCA DO-208, and RTCA DO-217 (SCAT-1) requirements to allow for FAA certification by OEM integrators. The LTN-2012 operates in automonous and differential modes, making it useful for all phases of flight, including precision approach. It also features RF interference resistance.

The LTN-2012 is integrated with various airborne navigation equipment and has demonstrated excellent performance in flight tests conducted by ground reference station manufacturers.

Features

- Supports entire range of aviation applications from Internal Reference System/Global Positioning System (IRS/GPS) to Automatic Dependent Surveillance (ADS) and Terrain Awareness and Warning System (TAWS)
- Complies with ARINC 743 and DO-160D
- Growth capability to Wide Area Augmentation Systems (WAAS), Global Navigation Satellite System (GLONASS), and differential GNSS
- All-in-view satellite tracking
- MTBF of 40,000 hours

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Technical Specifications

Time to First Fix (50 to 95%)

- Hot Start 13 to 16 sec
- Warm Start 37 to 45 sec
- Cold Start 67 to 90 sec

Position Accuracy

- Horizontal (95%) 10 meters
- Vertical (95%) 17 meters
- Position Latency 70 ms

Velocity Accuracy

- Horizontal (95%) 0.1 knot
- Vertical (95%) 0.1 knot

Dynamics (limits)

- Acceleration 10 g
- Altitude 18,293 meters
- Vibration RTCA DO-160C

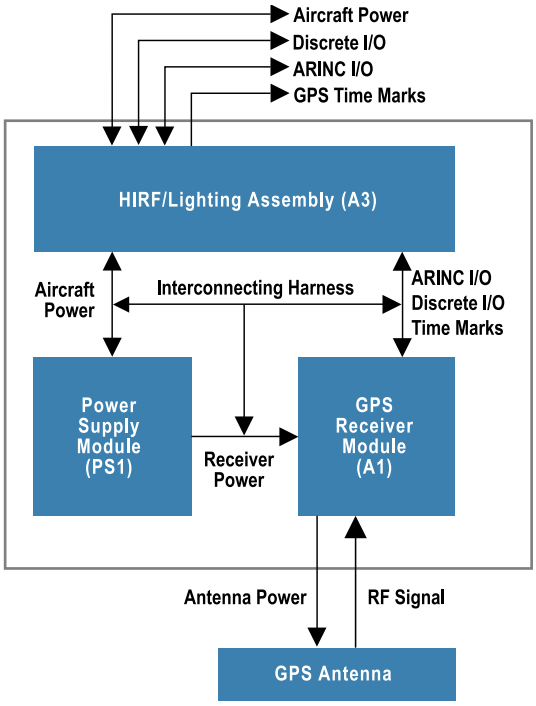
Dimension and Weight

- Size 21.50 x 23.95 x 6.25 cm
- Weight 1.64 kg

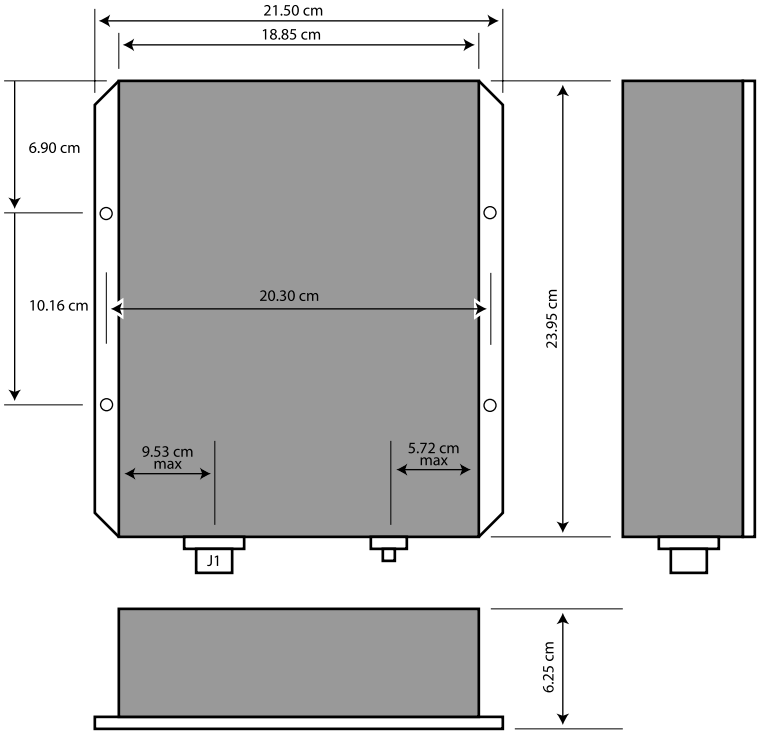
Power requirements

- Power consumption LTN-2012 receiver <3.0 W
LTN-2012 antenna <0.3 W
- Voltage 28 V

Hardware Partitioning



Outline and Mounting



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