

LISA-200 FOG AHRS

*Low cost
navigation solution
for retrofits
and new installations.*

**Description**

The Northrop Grumman Italia LISA-200 AHRS, is a lightweight Fiber Optic Gyroscope (FOG) Attitude Heading Reference System (AHRS) based on the state-of-art Northrop Grumman LN-200 Inertial Measurement Unit and Northrop Grumman Italia's 20 years of experience in the design, development, and manufacturing of inertial navigation systems.

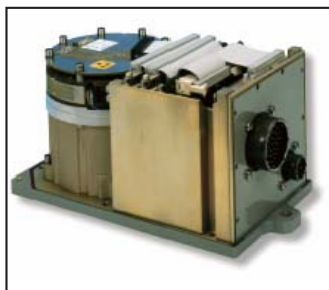
Qualified to DO 160/MIL-STD-810 requirements and certified according to DO 178B, the LISA-200 AHRS is in full production and is in service worldwide on several military rotary and fixed wing aircraft.

The LISA-200 AHRS has been expressly designed in a single box configuration in order to fit in the footprint of old mechanical vertical gyros and to provide ease of installation and fast replacement that is completely transparent to aircraft functions. The availability of several digital and analog interfaces coupled with high maintainability, demonstrated reliability and extreme installation flexibility, make the LISA-200 the best choice for installation on new platforms or for retrofit applications.

The LISA-200 AHRS has been designed with growth capability in mind, allowing it to accept state-of-the-art technology. While the current production unit is based on the highly successful Northrop Grumman LN-200 Fiber Optic IMU, studies have been done on integrating sensors employing different technologies (i.e. Micro Electro-Mechanical Systems).

Due to a modern modular architecture, the LISA-200 AHRS can be provided as a complete system integrated with flight management and control software, control panels and displays and navigation sensors (including GPS, MSU and ADS). This provides operators with the most flexible solution to meet their most stringent requirements.

Product and customer support of all LISA-200 AHRS based systems is provided directly by Northrop Grumman Italia, which has a long track record for delivering and supporting the system on aircraft, helicopters and UAVs.



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General features

Single box AHRS
Size: 7.5 x 4.0 x 4.5 inches
Weight: 4.5 lbs (2 kgs)
Power: 115 VAC or 28 VDC
Power Consumption: 40 watts
Convection cooled through base
Alignment time: 30 seconds
Automatic compass calibration performed in minutes
In-air alignment time: <120 seconds
Mechanical harmonization by software
MTBF: 10,000 hours

Certification

Software: DO-178B, level A
Environment: MIL-STD-810 and DO-160

Outputs

Digital ARINC-429, MIL-STD-1553B, RS-422/485
(Heading, Attitude, Accelerations, Rates, Vertical Velocity)
Synchro ARINC-407 (Heading, Pitch, Roll, 2 Wires Attitude, Interlock for Autopilot)
Analog (Yaw Rate, Validity)

Accuracy

Heading: 0.8°
Attitude: 0.3°
Doppler/AHRS Navigation: < 1% of distance travelled

Growth capability

- GPS** Enhanced position, velocity, attitude and pointing performance.
Simultaneous navigation solutions: hybrid and GPS only.
Offers augmented emergency standby attitude to a standby navigation capability, providing enhanced safety.
- DCP** Digital interface control.
Increased display and control capability.
Night vision compatible.
Improved management and steering functions.
Maintainability, diagnostic and BIT functions.

For more information, please contact:

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