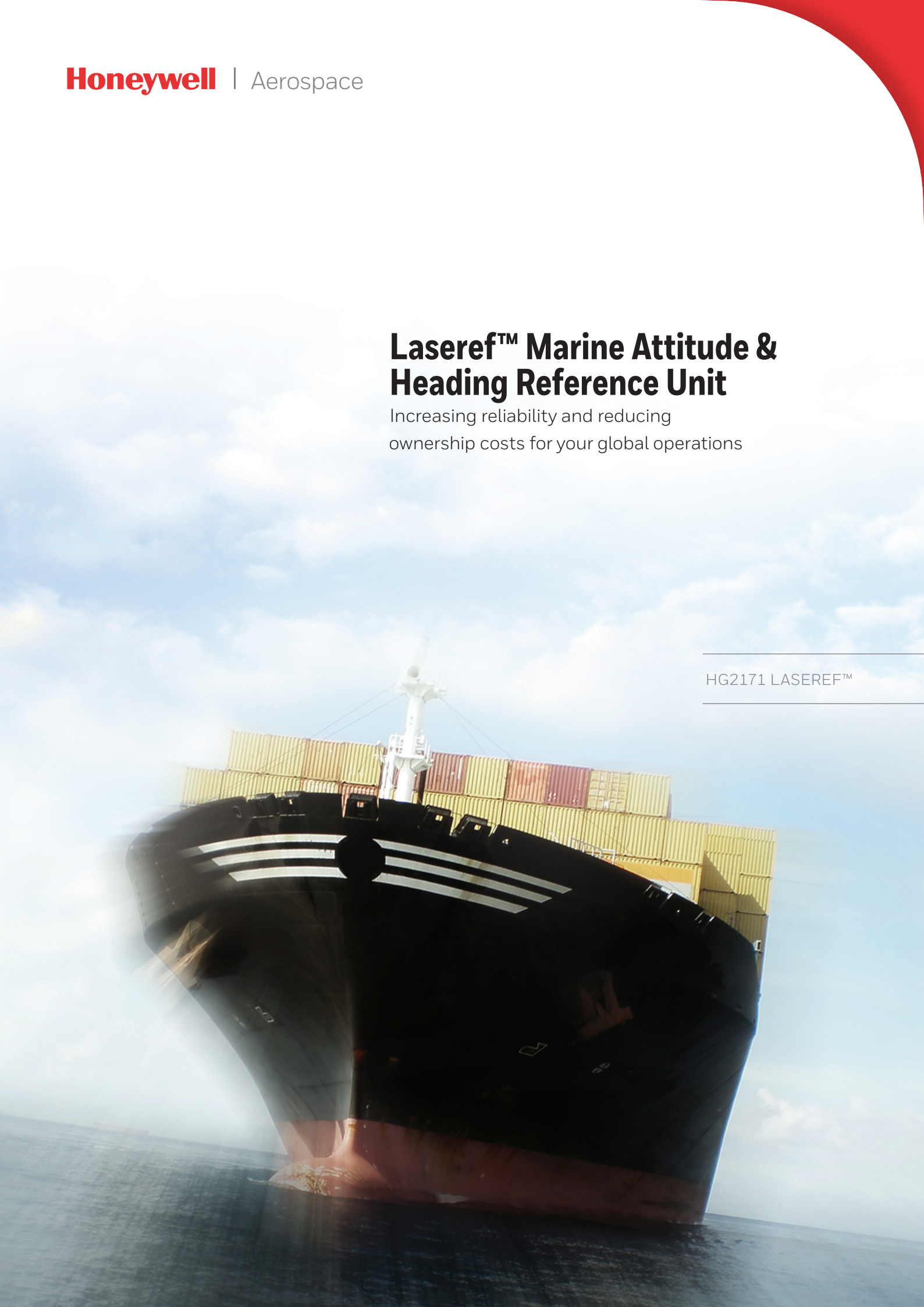
Honeywell | Aerospace

Laseref™ Marine Attitude & Heading Reference Unit

Increasing reliability and reducing ownership costs for your global operations

HG2171 LASEREF™



HONEYWELL HG2171 LASEREF™ MARINE ATTITUDE & HEADING REFERENCE SYSTEM

Product Description

Honeywell's Laseref™ Marine Attitude and Heading Reference System (AHRS) is a self-contained reference system that provides high accuracy heading, pitch, roll, heave, and rate-of-turn data. This system utilizes a Hybrid Kalman filter to seamlessly integrate inertial measurements with GPS to provide increased accuracy performance.

The Laseref™ Marine AHRS is based on the highly successful commercial aviation Laseref™ product family, with over 300 million operating hours and 60,000 deliveries. This system utilizes Honeywell's high accuracy Ring Laser Gyros and Quartz Accelerometers, which eliminates the need for expensive maintenance, calibration, and refurbishment. With a mean time between failures (MTBF) of over 60,000 hours, the Laseref ™ Marine AHRS has an expected lifetime of 3-4 times longer than mechanical gyros. Users will benefit from a low lifetime ownership costs.

Key Attributes

- **Demonstrated Reliability** – 3-4 times longer lifetime than mechanical gyros
- **Solid-State Sensors** – Eliminates need for expensive calibration refurbishment, and routine maintenance
- **Operator-Free Alignment in Motion Feature** – Minimizes crew workload and operational delays
- **Web Interface** – Allows for simple installation and controls
- **Commercially Exportable Components**– Available for purchase nearly anywhere in the world
- **Hassle-Free Upgrades** – Simple conversions to a Marine Inertial Navigation System
- **Small Size and Weight** – Ideal for virtually all marine applications
- **Electronic Mounting Tray Alignment** – Reduces installation costs
- **Ethernet and National Marine Electronics Association (NMEA)** – Common interfaces for simple connectivity

Applications

- Multibeam Survey
- Large Vessel Guidance
- Platform Stabilization
- Dynamic Positioning
- Autonomous Underwater Vehicles
- Remotely Operated Vehicles

Performance

True heading (GPS Aided).....0.05 deg (1σ)

Pitch/Roll.....0.01 deg (1σ)

Heave ..... 5 cm or 5% (Whichever is greater)

Physical Characteristics

Size.....6.4H x 6.5W x 6.4L

Weight.....9.1 lbs

Power

Power (Typical) .....18 Watts

Environmental

Temperature Operating (Min) .....-40° C

Temperature Operating (Max) ..... 70° C

Operation

Alignment Time.....4 Min

MTBF .....> 60,000 hrs

Vibration .....2.2 g sine

Interfaces

I/O Hardware .....Ethernet

I/O Protocols .....NMEA + Others

Certification

IMO, Wheelmark.....Certified

Technology

Gyro Technology .....Digital RLG

Accel Technology .....Quartz

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