Reduce operating costs with spectacular reliability

Lowest cost of ownership with thin and light MEMS AHRS

Honeywell
Honeywell’s new AH-1000 is a Micro Electro Mechanical System (MEMS) Attitude and Heading Reference System (AHRS) designed to serve as the AHRS of choice for commercial aerospace primary or secondary attitude and heading systems.

The AH-1000 AHRS has been designed to provide unparalleled reliability and performance with significantly reduced size and weight compared to similar systems. This allows the AH-1000 to provide the lowest total cost of ownership experience for an ARINC-705 AHRS.

**Benefits**
- ARINC-705 AHRS capability in a smaller and lighter form factor, significantly less than comparable systems, reduces operational costs
- Extraordinarily reliable with estimated >30,000 hour Mean Time Between Failure (MTBF)
- Most accurate attitude and heading MEMS AHRS available on the market today including TSO C5f for directional gyro mode
- Full digital interface using proven Honeywell Aerospace MEMS technology
- Interfaces with Honeywell’s KMG7010 3-axis solid state magnetometer
- Aircraft Personality Module (APM) stores aircraft-specific information, installation options, and calibration data

**Characteristics**

**Attitude Operational Modes (2)**
- Normal Mode with TAS aiding, and Basic Mode without TAS aiding
- Attitude (Dynamic)
  - 1.0 degree normal mode
  - 2.0 degree basic mode
- Attitude (Static)
  - 0.5 degree normal mode
  - 1.0 degree basic mode

**Heading Operational Modes (2)**
- Magnetic Mode:
  - Heading slaved to magnetic sensor, and
  - Free drift directional gyro (DG) mode
- Heading (Dynamic)
  - 2.0 degree magnetic mode
  - 10.0 degree/hour DG mode (5 degree/hour typical DG mode)
- Alignments (2)
  - On-ground alignments of 15 seconds, and
  - In-Air quick alignment of 5 seconds

**Reliability**
- >30,000 hour MTBF

**Certifications**
- Suitable for applications requiring Design Assurance Level (DAL) A
- Software – DO-178B Level A (maintenance Level D)
- Hardware – DO-254 Level A
- Environmental – DO-160F
- TSO/ETSO: TSO C3e, C4c, C5f, C6e (ETSO C3d, C4c, C5e, C6e)

**Interfaces**
- ARINC 429 and discrete I/O
- CAN bus (magnetometer)
- I²C (Aircraft Personality Module)

**Connector**
- Standard MIL-DTL-38999 Type III circular

**Size**
- 2.5 x 5.0 x 7.8 inches (97 cubic inches)
- 63.5 x 127 x 198.12 mm (1598 cubic cm)

**Weight**
- 3.2 lbs (1.45 kg)

**Power**
- 12W max @ 28 VDC (8W typical)

**Cooling**
- Passive

Accuracies are two sigma or 95%