AHRS1000 Attitude and Heading Reference System (AHRS) is a high performance inertial measurement system, it can measure 3-axis attitude angles (yaw, pitch, roll) for the strap-down carrier. No matter the carrier is moving or static, AHRS1000 can work stably and provide highly precise attitude angles. Each X, Y, Z axis of AHRS1000 is composed of one accelerometer, one gyro, one magnetic sensor. The gyro can provide the accurate 3-axis angular rate, the accurate 3-axis attitude angles can be calculated according to strap-down algorithm, the magnetic sensor and accelerometer can amend the attitude angles continuously, it can realize dynamic error compensation through Kalman filter and complementary filter methods.

In full temperature range (-45°C~+85°C), it adopts digital signal processor (DSP) to adjust, compensate (zero position, installation error), layout of strap-down navigation system and attitude angle calculation, etc. The system enjoys small size, light weight, it is widely applied in movement control system, stability and control for aircraft, ship and vehicle, inertial navigation and guidance, etc.

- 3-axis attitude angle accuracy: 0.5° (static), 2° (dynamic)
- Attitude angle range: yaw ±180°, pitch ±90°, roll ±180°
- Range: acc ±5g, gyro ±300°/s, magnetic ±6gauss (custom design)
- Bandwidth: 200Hz, sampling rate: 5000samples/s
- Data storage capacity: 8GB, wide temperature: -40°C~+85°C
- High stability & reliability, high survivability in harsh environment

**Product Description**

**Typical Applications**

- Unmanned aircraft
- Precision guided weapon
- ROV underwater navigation
- Ship stability & control

**Data Sheet**

Focus on MEMS Inertial Measurement Technologies
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Aerospace Level Quality, Reliable Selection

AHRS1000 Attitude and Heading Reference System

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Skype: skymems

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Focus on MEMS Measurement & Control Technologies, Products include:
### Technical Specs

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