

IMU2000

IMU2000 Miniature High Overload Resistance MEMS Inertial Measurement Unit



Main Features

- High Stability, High Reliability, High Accuracy, High Survivability in Harsh Environment, Fully Calibrated
- Range: Acc $\pm 10g$, Gyro $\pm 400^\circ/s$, Magnetic $\pm 6\text{gauss}$
- Bias stability: Gyro $80^\circ/h$, Acc $0.005g$
- Overload Resistance: $10000g$, IP67 Protection
- Wide Temperature: $-40^\circ\text{C} \sim +85^\circ\text{C}$,
- Small Size: $45 \times 40 \times 40\text{mm}$

IMU2000 Miniature High Overload Resistance MEMS Inertial Measurement Unit adopts the newest MEMS technologies, it is a new type of micro inertial measurement unit which enjoys high reliability, high stability, and adjustment in harsh environment. The system is composed of micro accelerometer, micro gyroscope, magnetic sensor and high-performance information processing circuit, it is mainly used to measure 3D linear acceleration and 3D angular acceleration, if combined with navigation processing circuit, more inertial parameters including position, speed, attitude and other parameters can be calculated.

Compared with traditional inertial measurement system, this system enjoys smaller size, lighter weight, lower cost, and lower power consumption, faster start-up, and higher reliability, better dynamic adjustment, etc. it is widely applied in automotive testing, unmanned control, aircraft navigation and control, control & stabilization, measurement & testing, target drone, underwater systems, payloads fields.

- ✓ 12-Step Quality Control, Super Reliability, More Functions
- ✓ Adopting Original Big Brand Component, High-class Material, Competitive Price

- ✓ Real Actual Precise after Calibration, Perfect Performance
- ✓ Successful Applications in Tens of Fields, More than 1000 Customers are Using

Typical Applications



Precision Weapon



Space Rocket



Target Drone



Underwater System

Super Reliability & Performance

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MEMS Acc
INS

MEMS Gyro
GNSS/INS

IMU
E-compass

Vertical Gyro
Inclinometer

AHRS
FOG

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Focus on MEMS Measurement & Control Technologies, Products include:

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Technical Specifications

| Technical Specs | | | |
|---------------------|-----------------|--------------------|------------------------|
| Name | | Specs | Remarks |
| Range | accelerometer | ±10g | support custom service |
| | gyroscope | ±400°/s | support custom service |
| | magnetic sensor | ±6gauss | support custom service |
| Resolution | accelerometer | ≤0.01g | |
| | gyroscope | ≤0.5°/s | |
| | magnetic sensor | 0.001gauss | |
| Bias stability | accelerometer | 0.005g | 1σ standard |
| | gyroscope | 80°/h | 1σ standard |
| Bias repeatability | accelerometer | 0.005g | 1σ standard |
| | gyroscope | 80°/h | 1σ standard |
| Bandwidth | | 40Hz | |
| Cross coupling | | ≤0.5% | |
| Power supply | | 3.3V | |
| Output interface | | 0~3V analog output | |
| Weight | | 80g | |
| Demension | | 45*40*40mm | |
| Working temperature | | -40~+85°C | |
| Overload resistance | | 10,000g | |