



AIM-4930R

MEMS Inertial Sensor

The AIM-4930R is a high-performance, cost-effective six-axis MEMS inertial sensor. It can be configured with different hardware and software options according to user requirements. It is widely used in agriculture, AUVs, robotics, surveying, stabilization platforms, UAVs, and unmanned ground vehicles. Featuring industry-standard communication interfaces, it is compact, lightweight, and low-power, allowing easy integration into various architectures.



- **Standardized size and interface protocols for easier replacement and integration**
- **Smaller than fiber optic gyros, lower power consumption, and a more cost-effective alternative**
- **Long service life, proven reliability, and dependable performance in harsh dynamic environments**
- **Full-temperature calibration with advanced compensation and correction**

Application Scenarios



Mobile Mapping



Rail Inspection



High-Precision
Underwater Navigation

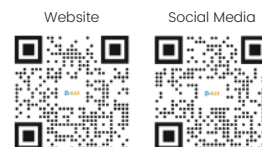


UAVs



Port Surveying

AIM-4930R



— Gyroscope

Measurement Range (°/s)	±400	Full Temperature Bias (°/h, 3 σ)	≤2
Bias Stability (°/h, 10 s smoothing)	≤0.5	Bias Instability (°/h, Allan, typ)	≤0.05
Bias Repeatability (°/h)	≤0.3	Angle Random Walk (°/√h)	≤0.02
Scale Factor Nonlinearity (ppm)	≤100	Cross Coupling (rad)	≤0.001
Bandwidth (Hz)	≥200		

— Accelerometer

Measurement Range (g)	±30	Full Temperature Bias (mg, 3 σ)	≤2
Bias Stability (μg, 10 s smoothing)	≤50	Bias Instability (μg, Allan, typ)	≤30
Bias Repeatability (μg)	≤50	Velocity Random Walk (m/s/√h)	≤0.03
Scale Factor Nonlinearity (ppm, ±1 g)	≤100	Cross Coupling (rad)	≤0.001
Bandwidth (Hz)	≥200		

— Physical Characteristics

Power Supply (V)	5~12	Steady-State Power Consumption (W)	≤2
Startup Time (s)	≤2	Update Rate (Hz, max)	2000
Dimensions (mm × mm × mm)	64.8 × 47 × 35.3	Weight (g)	130 ± 10 g

— Environmental Conditions

Operating Temperature (°C)	-40 ~ +80	Storage Temperature (°C)	-55 ~ +85
Vibration (g, RMS)	20~2000 HZ, 6.06	Shock (g)	500 g / 1ms