MEMS GYROSCOPE

TAMG210

High-Precision Three-Axis MEMS Gyroscope

±400 °/s · 0.05 °/√h · RS422 2000 Hz · 44.8 × 38.6 mm



The TAMG210 is a three-axis MEMS gyroscope for industrial-grade measurement and control. Full-temperature compensation is applied to zero-point, scale factor, non-orthogonal errors and acceleration-related terms.

A measurement range of ±400 °/s, angular random walk of 0.05 °/√h and RS422 output at 2000 Hz support dynamic motion tracking and real-time control in a rugged metal housing.

KEY FEATURES

- Three-axis angular rate measurement, ±400 °/s
- Zero drift < 0.3 °/h (Allan, 25 °C)
- Angular random walk ≤ 0.05 °/√h
- RS422 output at 2000 Hz
- Full-temperature compensation
- Rugged machined housing, < 45 g

AT A GLANCE

Parameter	Value
Measuring range	±400 °/s
Zero drift	< 0.3 °/h (Allan @ 25 °C)
Angular random walk	≤ 0.05 °/√h
Interface	RS422, 2000 Hz
Supply / power	5 V ± 0.2 V / ≤ 1 W
Dimensions / weight	44.8 × 38.6 × 14.5 mm / < 45 g

APPLICATIONS

- Industrial attitude and motion control
- Platform stabilisation
- Inertial navigation and guidance
- Robotics and automation
- Antenna and sensor pointing

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TECHNICAL SPECIFICATIONS

Parameter	Specification
Measuring range	±400 °/s
Zero drift	< 0.3 °/h (Allan @ 25 °C)
Zero-drift stability	≤ 3 °/h (full temperature)
Zero-offset repeatability	≤ 3 °/h (full temperature)
Angular random walk	≤ 0.05 °/√h
Noise	0.05 °/s (30 Hz)
Orthogonal error	≤ 0.05 %
Bandwidth	≥ 250 Hz
Scale factor nonlinearity	≤ 200 ppm
Data update rate	2000 Hz
Interface	RS422
Power supply	5 V ± 0.2 V
Power consumption	≤ 1 W
Operating temperature	−40 °C to +85 °C
Dimensions	44.8 × 38.6 × 14.5 mm
Weight	< 45 g

• Configuration and data protocol are documented in the user manual.
• Custom ranges and interfaces are available on request.

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QUALITY, COMPLIANCE & SUPPORT

- Designed and tested against the applicable IEC / ITU-R / NMEA standards for the product family
- Functional test and calibration before shipment
- CE / FCC / CCS certification in progress for selected models
- Standard warranty against manufacturing defects; period confirmed per product
- Technical documentation and configuration tools supplied for integration
- Engineering support for custom firmware, connectors and cabling

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COMMERCIAL INFORMATION

ORDERING & CUSTOMISATION

MOQ	10 units for standard models; confirmed for custom configurations
Lead time	2–4 weeks for standard models; confirmed for custom or volume orders
Payment	T/T; other terms by agreement
Samples	Evaluation samples available
Customisation	Firmware configuration, connector, cable assembly, labelling and packaging to your specification

PACKING & DELIVERY

Packing	Anti-static bag, foam and export carton; palletised on request
Shipping	Express (DHL / FedEx / UPS), air freight or sea freight — quoted per order
Origin	Xi'an, China
Documentation	Datasheet, user manual, pinout and test data on request

ABOUT HAISITEK

Founded in Xi'an in April 2015, Haisi Measurement and Control Technology Co., Ltd. develops and manufactures MEMS inertial sensors, inertial navigation systems and AIS communication products. In-house R&D covers sensor calibration, full-temperature compensation, RF design and embedded firmware.

- In-house R&D, calibration and production
- Full-temperature calibration and compensation
- Custom configuration, connectors and cabling
- Documentation and integration support

RELATED PRODUCTS

IMU313C
Compact 6-Axis MEMS Inertial Measurement Unit

IMU300
High-Precision 6-Axis MEMS IMU

IMU400
High-Precision 6-Axis MEMS IMU with RS422 Output

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Inertial sensors, IMU / INS and AIS modules since 2015.

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