

MEMS Module, Tri-Axis Gyroscope, Tri-Axis Accelerometer, 3.15 V, 3.45 V, Module, 14 Pins, $\pm 100^\circ/\text{s}$

Manufacturers	Analog Devices, Inc
Package/Case	ML-14
Product Type	Motion & Position Sensors
RoHS	
Lifecycle	



Images are for reference only

Please submit RFQ for ADIS16460AMLZ or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The ADIS16460 iSensor® device is a complete inertial system that includes a triaxial gyroscope and a triaxial accelerometer. Each sensor in the ADIS16460 combines industry leading iMEMS® technology with signal conditioning that optimizes dynamic performance. The factory calibration characterizes each sensor for sensitivity, bias, and alignment. As a result, each sensor has its own dynamic compensation formulas that provide accurate sensor measurements.

The ADIS16460 provides a simple, cost effective method for integrating accurate, multi-axis inertial sensing into industrial systems, especially when compared with the complexity and investment associated with discrete designs. All necessary motion testing and calibration are part of the production process at the factory, greatly reducing system integration time. Tight orthogonal alignment simplifies inertial frame alignment in navigation systems. The SPI and register structures provide a simple interface for data collection and configuration control.

The ADIS16460 is in an aluminum module package that is approximately 22.4 mm × 22.4 mm × 9 mm and has a 14-pin connector interface.

Features

Triaxial digital gyroscope

Measurement range: $\pm 100^\circ/\text{sec}$ (minimum)

$8^\circ/\sqrt{\text{hr}}$ (typical) in-run bias stability

$0.12^\circ/\sqrt{\text{hr}}$ (typical) angle random walk, x-axis

Triaxial digital accelerometer, ± 5 g dynamic range

Autonomous operation and data collection

No external configuration commands required

Fast start-up time

Factory calibrated sensitivity, bias, and axial alignment

Calibration temperature range: $0^\circ\text{C} \leq \text{TA} \leq 70^\circ\text{C}$

Serial peripheral interface (SPI) data communications

Data ready signal for synchronizing data acquisition

Embedded temperature sensor

Programmable operation and control

Automatic and manual bias correction controls

Bartlett window finite impulse response (FIR) filter, variable number of taps

External sample clock options: direct

Single command self test

Single-supply operation: 3.15 V to 3.45 V

2000 g shock survivability

Operating temperature range: -25°C to $+85^\circ\text{C}$

Application

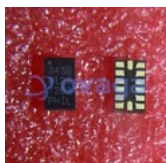
Smart agriculture/construction machinery

Unmanned aerial vehicles (UAVs)/drones, and navigation and payload stabilization

Robotics

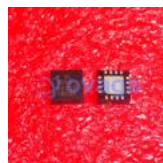
Factory/industrial automation personnel/asset tracking

Related Products



[ADXL343BCCZ](#)

Analog Devices, Inc
LGA-14



[ADXL335BCPZ-RL7](#)

Analog Devices, Inc
LFCSP16



[ADXL103CE](#)

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CLCC-8



[ADIS16488BMLZ](#)

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MSM24



[ADXRS642BBGZ](#)

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CBGA-32



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LGA16



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