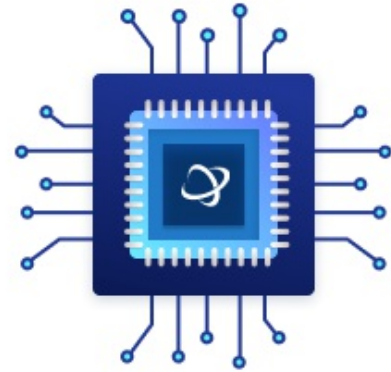


Inertial Sensor Digital Output 3.3V Automotive 24-Pin Tray

Manufacturers	Analog Devices, Inc
Package/Case	MSM24
Product Type	Motion & Position Sensors
RoHS	Rohs
Lifecycle	



Images are for reference only

Please submit RFQ for ADIS16375BMLZ or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The ADIS16375 iSensor® is a complete inertial system that includes a triaxis gyroscope and triaxis accelerometer. Each sensor in the ADIS16375 combines industry-leading iMEMS® technology with signal conditioning that optimizes dynamic performance. The factory calibration characterizes each sensor for sensitivity, bias, alignment, and linear acceleration (gyro bias). As a result, each sensor has its own dynamic compensation formulas that provide accurate sensor measurements over a temperature range of -40°C to +105°C.

The ADIS16375 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. An improved SPI interface and register structure provide faster data collection and configuration control.

This compact module is approximately 44 mm × 47 mm × 14 mm and provides a flexible connector interface that enables multiple mounting orientation options.

Features

Triaxis digital gyroscope, $\pm 300^\circ/\text{sec}$

Tight orthogonal alignment: 0.05°

Triaxis digital accelerometer: $\pm 18\text{ g}$

Delta-angle/velocity calculations

Wide sensor bandwidth: 330 Hz

High sample rate: 2.460 kSPS

Autonomous operation and data collection

No external configuration commands required

Startup time: 500 ms

Factory calibrated sensitivity, bias, and axial alignment

Calibration temperature range: -40°C to $+85^\circ\text{C}$

SPI-compatible serial interface

Embedded temperature sensor

Programmable operation and control

Automatic and manual bias correction controls

4 FIR filter banks, 120 configurable taps

Digital I/O: data-ready, alarm indicator, external clock

Alarms for condition monitoring

Power-down/sleep mode for power management

Enable external sample clock input: up to 2.25 kHz

Single-command self test

Single-supply operation: 3.3 V

2000 g shock survivability

Operating temperature range: -40°C to $+105^\circ\text{C}$

Application

Precision instrumentation

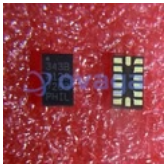
Platform stabilization and control

Industrial vehicle navigation

Downhole instrumentation

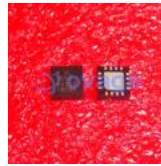
Robotics

Related Products



[ADXL343BCCZ](#)

Analog Devices, Inc
LGA-14



[ADXL335BCPZ-RL7](#)

Analog Devices, Inc
LFCSP16



[ADXL103CE](#)

Analog Devices, Inc
CLCC-8



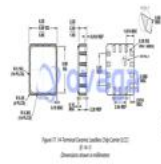
[ADIS16488BMLZ](#)

Analog Devices, Inc
MSM24



[ADXRS642BBGZ](#)

Analog Devices, Inc
CBGA-32



[ADXL357BEZ](#)

Analog Devices, Inc
LCC-14



[ADXL346ACCZ-RL7](#)

Analog Devices, Inc
LGA16



[ADXL345BCCZ-RL7](#)

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LGA-14