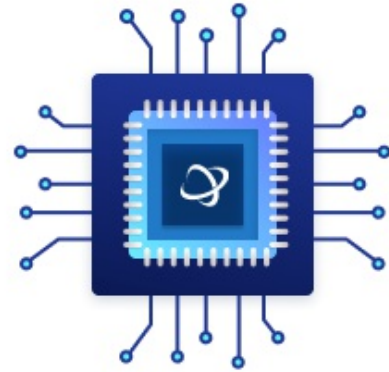


Freedom Inertial Sensor Digital Output 5V 24-Pin Tray

Manufacturers	Analog Devices, Inc
Package/Case	24ML
Product Type	Motion & Position Sensors
RoHS	Rohs
Lifecycle	



Images are for reference only

Please submit RFQ for ADIS16364BMLZ or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The ADIS16364 iSensor® is a complete inertial system that includes a triaxis gyroscope and triaxis accelerometer. Each sensor in the ADIS16364 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 -20°C to +70°C.

The ADIS16364 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.

The ADIS16364 uses a compatible pinout and the same package as the ADIS1635x family. Therefore, systems that currently use the ADIS1635x family can upgrade their performance with minor firmware adjustments in their processor designs.

This compact module is approximately 23 mm × 23 mm × 23 mm and provides a flexible connector interface that enables multiple mounting orientation options.

Features

Triaxis digital gyroscope with digital range scaling

Tight orthogonal alignment: $<0.05^\circ$

Triaxis digital accelerometer: ± 5 g

Autonomous operation and data collection

No external configuration commands required

Start-up time: 180 ms

Sleep mode recovery time: 4 ms

Factory-calibrated sensitivity, bias, and axial alignment

Calibration temperature range: -20°C to $+70^\circ\text{C}$

SPI-compatible serial interface

Wide bandwidth: 330 Hz

Embedded temperature sensor

Programmable operation and control

Automatic and manual bias correction controls

Bartlett window, FIR filter length, number of taps

Digital I/O: data ready, alarm indicator, general-purpose

Alarms for condition monitoring

Sleep mode for power management

DAC output voltage

Enable external sample clock input: up to 1.2 kHz

Single-command self-test

Single-supply operation: 4.75 V to 5.25 V

2000 g shock survivability

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

Application

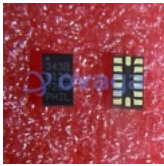
Medical instrumentation

Robotics

Platform controls

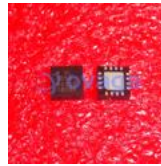
Navigation

Related Products



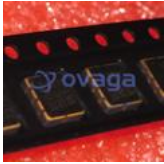
[ADXL343BCCZ](#)

Analog Devices, Inc
LGA-14



[ADXL335BCPZ-RL7](#)

Analog Devices, Inc
LFCSP16



[ADXL103CE](#)

Analog Devices, Inc
CLCC-8



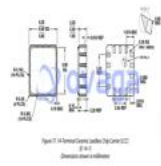
[ADIS16488BMLZ](#)

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CBGA-32



[ADXL357BEZ](#)

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LCC-14



[ADXL346ACCZ-RL7](#)

Analog Devices, Inc
LGA16



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Analog Devices, Inc
LGA-14