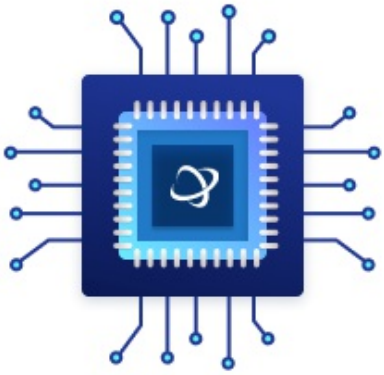
ADIS16445BMLZ

Data Sheet

MEMS Module, Tri-Axis Gyroscope, Tri-Axis Accelerometer, 3.15 V, 3.45 V, Module, 20 Pins

Manufacturers	Analog Devices, Inc
Package/Case	20MSM
Product Type	Motion & Position Sensors
RoHS	
Lifecycle	



Images are for reference only

Please submit RFQ for ADIS16445BMLZ or Email to us: sales@ovaga.com We will contact you in 12 hours. RFQ

General Description

The ADIS16445 iSensor® device is a complete inertial system that includes a triaxial gyroscope and a triaxial accelerometer. Each sensor in the ADIS16445 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 ADIS16445 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 serial peripheral interface (SPI) and register structures provide a simple interface for data collection and configuration control.

The ADIS16445 has a compatible pinout for systems that currently use other Analog Devices, Inc., inertial measurement unit (IMU) products, such as the ADIS16334 or the ADIS16485. The ADIS16445 is packaged in a module that is approximately 24.1 mm × 37.7 mm × 10.8 mm and has a standard connector interface.

Features

Triaxial digital gyroscope with digital range scaling

Axis-to-axis alignment, <0.05°

Triaxial digital accelerometer, ±5 g minimum

Autonomous operation and data collection

No external configuration commands required

175 ms start-up time

Factory calibrated sensitivity, bias, and axial alignment

Calibration temperature range: −40°C to +85°C

SPI-compatible serial interface

Embedded temperature sensor

Programmable operation and control

Automatic and manual bias correction controls

Bartlett window FIR length, number of taps

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

Alarms for condition monitoring

Enable external sample clock input up to 1.1 kHz

Single command self-test

Single-supply operation: 3.15 V to 3.45 V

2000 g shock survivability

Operating temperature range: −40°C to +105°C

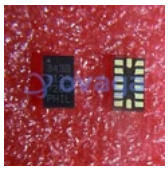
Application

Platform stabilization and control

Navigation

Robotics

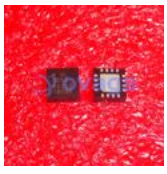
Related Products



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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