

±1000°/Sec Precision Angular Rate Sensor

Manufacturers	<a href="#">Analog Devices, Inc</a>
Package/Case	24-Lead SMD (35.6mm x 44mm x 13.8mm)
Product Type	Motion & Position Sensors
RoHS	
Lifecycle	



Images are for reference only

Please submit RFQ for ADIS16137BMLZ or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

## General Description

The ADIS16137 iSensor® is a high performance, digital gyroscope sensing system that operates autonomously and requires no user configuration to produce accurate rate sensing data. It provides performance advantages with its low noise density, wide bandwidth, and excellent in-run bias stability, which enable applications such as platform control, navigation, robotics, and medical instrumentation.

This sensor system combines industry leading iMEMS® technology with signal conditioning that optimizes dynamic performance. The factory calibration characterizes the entire sensor signal chain for sensitivity and bias over a temperature range of -40°C to +85°C. As a result, each ADIS16137 has its own unique correction formulas to produce accurate measurements upon installation. For some systems, the factory calibration eliminates the need for system level calibration and greatly simplifies it for others.

The ADIS16137 provides data at rates of up to 2048 SPS and offers an averaging/decimation filter structure for optimizing noise/bandwidth trade-offs. The serial peripheral interface (SPI) and user register structure provide easy access to configuration controls and calibrated sensor data for embedded processor platforms.

The 36 mm × 44 mm × 14 mm package provides four holes for simple mechanical attachment, using M2 (or 2-56 standard size) machine screws along with a standard 24-lead, dual row, 1 mm pitch connector that supports electrical attachment to a printed circuit board (PCB) or cable system. It is package and pin compatible with the ADIS16133, ADIS16135 and ADIS16136.

## Features

Digital gyroscope system,  $\pm 1000^\circ/\text{sec}$  measurement range

In-run bias stability,  $2.8^\circ/\text{hour}$

Autonomous operation and data collection  
No external configuration commands required  
Start-up time: 245 ms  
Sleep mode recovery: 2.5 ms

Factory calibrated sensitivity and bias

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

SPI-compatible serial interface

Wide bandwidth: 400 Hz

Embedded temperature sensor

See datasheet for additional features

## Application

Precision instrumentation

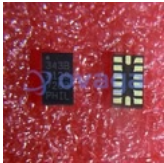
Platform stabilization and controls

Industrial vehicle navigation

Downhole instrumentation

Robotics

## Related Products



### [ADXL343BCCZ](#)

Analog Devices, Inc  
LGA-14



### [ADXL103CE](#)

Analog Devices, Inc  
CLCC-8



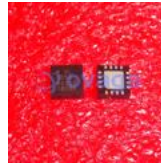
### [ADXRS642BBGZ](#)

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CBGA-32



### [ADXL346ACCZ-RL7](#)

Analog Devices, Inc  
LGA16



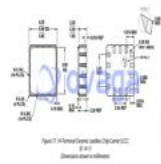
### [ADXL335BCPZ-RL7](#)

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### [ADIS16488BMLZ](#)

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### [ADXL357BEZ](#)

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LCC-14



### [ADXL345BCCZ-RL7](#)

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