

IMUs - Inertial Measurement Units 6 Dof Tactical Grade IMU 8g 450 DPS DNR

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



Images are for reference only

Please submit RFQ for ADIS16497-2BMLZ or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The ADIS16497 is a complete inertial system that includes a triaxis gyroscope and a triaxis accelerometer. Each inertial sensor in the ADIS16497 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 (gyroscope bias). As a result, each sensor has its own dynamic compensation formulas that provide accurate sensor measurements.

The ADIS16497 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 structure provide a simple interface for data collection and configuration control.

The footprint and connector system of the ADIS16497 enable a simple upgrade from the ADIS16375, ADIS16480, ADIS16485, ADIS16488A, and ADIS16490. The ADIS16497 is available in an aluminum package that is approximately 47 mm × 44 mm × 14 mm and includes a standard connector interface.

Applications

Features

Triaxial, digital gyroscope

0.8°/hr in-run bias stability (ADIS16497-1)

0.09°/√

hr

Triaxial, digital accelerometer, ±40

Application

Precision instrumentation, stabilization

Guidance, navigation, control

Avionics, unmanned vehicles

Precision autonomous machines, robotics

g

13 μ

g

Triaxial, delta angle and delta velocity outputs

Factory calibrated sensitivity, bias, and axial alignment

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

0.8°/hr in-run bias stability (ADIS16497-1)

0.09°/√

hr

13 μ

g

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

SPI compatible

Programmable operation and control

Automatic and manual bias correction controls

Configurable FIR filters

Digital I/O: data ready, external clock

Sample clock options: internal, external, or scaled

On demand self test of inertial sensors

Single-supply operation: 3.0 V to 3.6 V

1500

g

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

Automatic and manual bias correction controls

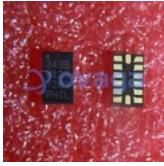
Configurable FIR filters

Digital I/O: data ready, external clock

Sample clock options: internal, external, or scaled

On demand self test of inertial sensors

Related Products



[ADXL343BCCZ](#)

Analog Devices, Inc
LGA-14



[ADXL103CE](#)

Analog Devices, Inc
CLCC-8



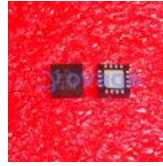
[ADXRS642BBGZ](#)

Analog Devices, Inc
CBGA-32



[ADXL346ACCZ-RL7](#)

Analog Devices, Inc
LGA16



[ADXL335BCPZ-RL7](#)

Analog Devices, Inc
LFCSP16



[ADIS16488BMLZ](#)

Analog Devices, Inc
MSM24



[ADXL357BEZ](#)

Analog Devices, Inc
LCC-14



[ADXL345BCCZ-RL7](#)

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LGA-14