

MEMS Single Axis $\pm 300^\circ/s$ 32-Pin CBGA Tray

Manufacturers	Analog Devices, Inc
Package/Case	CBGA-32
Product Type	Motion & Position Sensors
RoHS	Rohs
Lifecycle	



Images are for reference only

Please submit RFQ for ADXRS642BBGZ or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The ADXRS64x family of low noise, vibration rejecting yaw rate gyroscopes are drop-in performance upgrades to existing designs using the ADXRS62x family.

The ADXRS642 is a drop-in performance upgrade to existing designs of the ADXRS62x family and is rated at $\pm 250^\circ/s$ bringing improved vibration and shock immunity performance.

The ADXRS642 is a complete angular rate sensor (gyroscope) that uses the Analog Devices, Inc., surface-micromachining process to make a functionally complete and low cost angular rate sensor integrated with all of the required electronics on one chip. The manufacturing technique for this device is a patented high volume BiMOS process with years of proven field reliability.

The ADXRS642 is an industrial grade gyroscope that is 100% pin, package, temperature, and function compatible with the ADXRS622 and ADXRS652 – while offering enhanced vibration rejection.

The output signal, RATEOUT (1B, 2A), is a voltage proportional to angular rate about the axis normal to the top surface of the package. The measurement range is a minimum of $\pm 250^\circ/s$. The output is ratiometric with respect to a provided reference supply. Other external capacitors are required for operation.

A temperature output is provided for compensation techniques. Two digital self-test inputs electromechanically excite the sensor to test proper operation of both the sensor and the signal conditioning circuits. The ADXRS642 is available in a $7\text{ mm} \times 7\text{ mm} \times 3\text{ mm}$ BGA chip-scale package.

Features

Complete rate gyroscope on a single chip

Z-axis (yaw rate) response

20°/hour bias stability

0.02°/√second angle random walk

High vibration rejection over wide frequency

10,000 g powered shock survivability

Ratiometric to referenced supply

5 V single-supply operation

See data sheet for additional features

Application

Industrial applications

Inertial Measurement Units

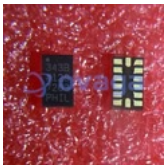
Severe Mechanical Environments

Platform stabilization





Related Products



[ADXL343BCCZ](#)

Analog Devices, Inc
LGA-14



[ADXL103CE](#)

Analog Devices, Inc
CLCC-8



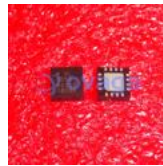
[ADXL357BEZ](#)

Analog Devices, Inc
LCC-14



[ADXL345BCCZ-RL7](#)

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