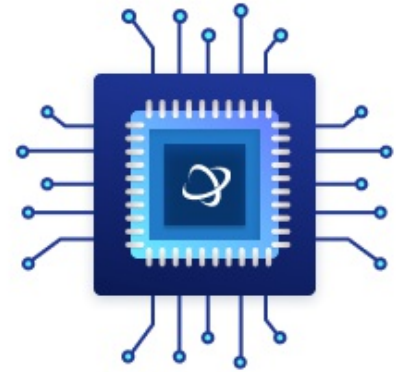


MEMS Accelerometer, 3-Axis, Digital, X, Y, Z, $\pm 2g \pm 4g \pm 8g \pm 16g$, 1.7 V, 2.75 V, LGA

Manufacturers	Analog Devices, Inc
Package/Case	3 mm x 3 mm x 0.95 mm
Product Type	Motion & Position Sensors
RoHS	Rohs
Lifecycle	



Images are for reference only

Please submit RFQ for ADXL344ACCZ-RL7 or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The ADXL344 is a versatile 3-axis, digital-output, low g MEMS accelerometer. Selectable measurement range and bandwidth and configurable, built-in motion detection make it suitable for sensing acceleration in a wide variety of applications. Robustness to 10,000 g of shock and a wide temperature range (-40°C to $+85^{\circ}\text{C}$) enable use of the accelerometer even in harsh environments.

The ADXL344 measures acceleration with high resolution (13-bit) measurement at up to $\pm 16\text{ g}$. Digital output data is formatted as 16-bit twos complement and is accessible through either a SPI (3- or 4-wire) or I2C digital interface. The ADXL344 can measure the static acceleration of gravity in tilt-sensing applications, as well as dynamic acceleration resulting from motion or shock. Its high resolution (3.9 mg/LSB) enables measurement of inclination changes less than 1.0° .

Several special sensing functions are provided. Activity and inactivity sensing detect the presence or lack of motion. Tap sensing detects single and double taps in any direction. Free-fall sensing detects if the device is falling. Orientation detection reports four- and six-position orientation and can trigger an interrupt upon change in orientation. These functions can be mapped individually to either of two interrupt output pins.

An integrated memory management system with a 32-level first in, first out (FIFO) buffer can be used to store data to minimize host processor activity and lower overall system power consumption.

The ADXL344 is supplied in a small, thin, $3\text{ mm} \times 3\text{ mm} \times 0.95\text{ mm}$, 16-terminal, plastic package.

Features

Multipurpose accelerometer with 10- to 13-bit resolution for use in a wide variety of applications

Digital output accessible via SPI (3- and 4-wire) and I2C

Built-in motion detection features make tap, double-tap, activity, inactivity, orientation, and free-fall detection trivial User-adjustable thresholds Interrupts independently mappable to two interrupt pins

Low power operation down to 23 μ A and embedded FIFO for reducing overall system power

Wide supply and I/O voltage range: 1.7 V to 2.75 V

Wide operating temperature range (-40°C to $+85^{\circ}\text{C}$)

10,000 g shock survival

Small, thin Pb free, RoHS compliant 3 mm \times 3 mm \times 0.95 mm LGA package

Application

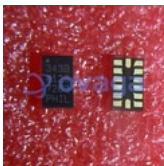
Handsets

Gaming and pointing devices

Personal navigation devices

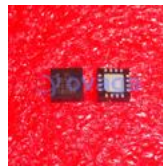
Hard disk drive (HDD) protection

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](#)

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LCC-14



[ADXL346ACCZ-RL7](#)

Analog Devices, Inc
LGA16



[ADXL345BCCZ-RL7](#)

Analog Devices, Inc
LGA-14