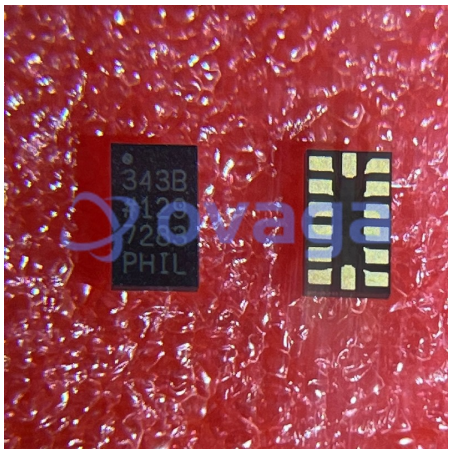
ADXL343BCCZ

Data Sheet

MEMS Accelerometer, 3-Axis, Digital, X, Y, Z, ± 2g, ± 4g, ± 8g, ± 16g, 2 V, 3.6 V, LGA

Manufacturers	Analog Devices, Inc
Package/Case	LGA-14
Product Type	Motion & Position Sensors
RoHS	Rohs
Lifecycle	



Images are for reference only

Please submit RFQ for ADXL343BCCZ or Email to us: sales@ovaga.com We will contact you in 12 hours. RFQ

General Description

The ADXL343 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°C) enable use of the accelerometer even in harsh environments.

The ADXL343 measures acceleration with high resolution (13-bit) measurement at up to ±16g. Digital output data is formatted as 16-bit twos complement and is accessible through either an SPI (3- or 4-wire) or I2C digital interface. The ADXL343 can measure the static acceleration of gravity in tilt-sensing appli-cations, 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. 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 ADXL343 is supplied in a small, thin, 3 mm × 5 mm × 1 mm, 14-terminal, plastic package.

Applications
Handsets

Gaming and pointing devices

Personal navigation devices

Hard disk drive (HDD) protection

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, and free-fall detection trivial User-adjustable thresholds Interrupts independently mappable to two interrupt pins

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

Wide supply voltage range: 2.0 V to 3.6 V I/O voltage 1.7 V to VS

Wide operating temperature range (−40°C to +85°C)

10,000 g shock survival

Small, thin, Pb free, RoHS compliant 3 mm × 5 mm × 1 mm LGA package

Application

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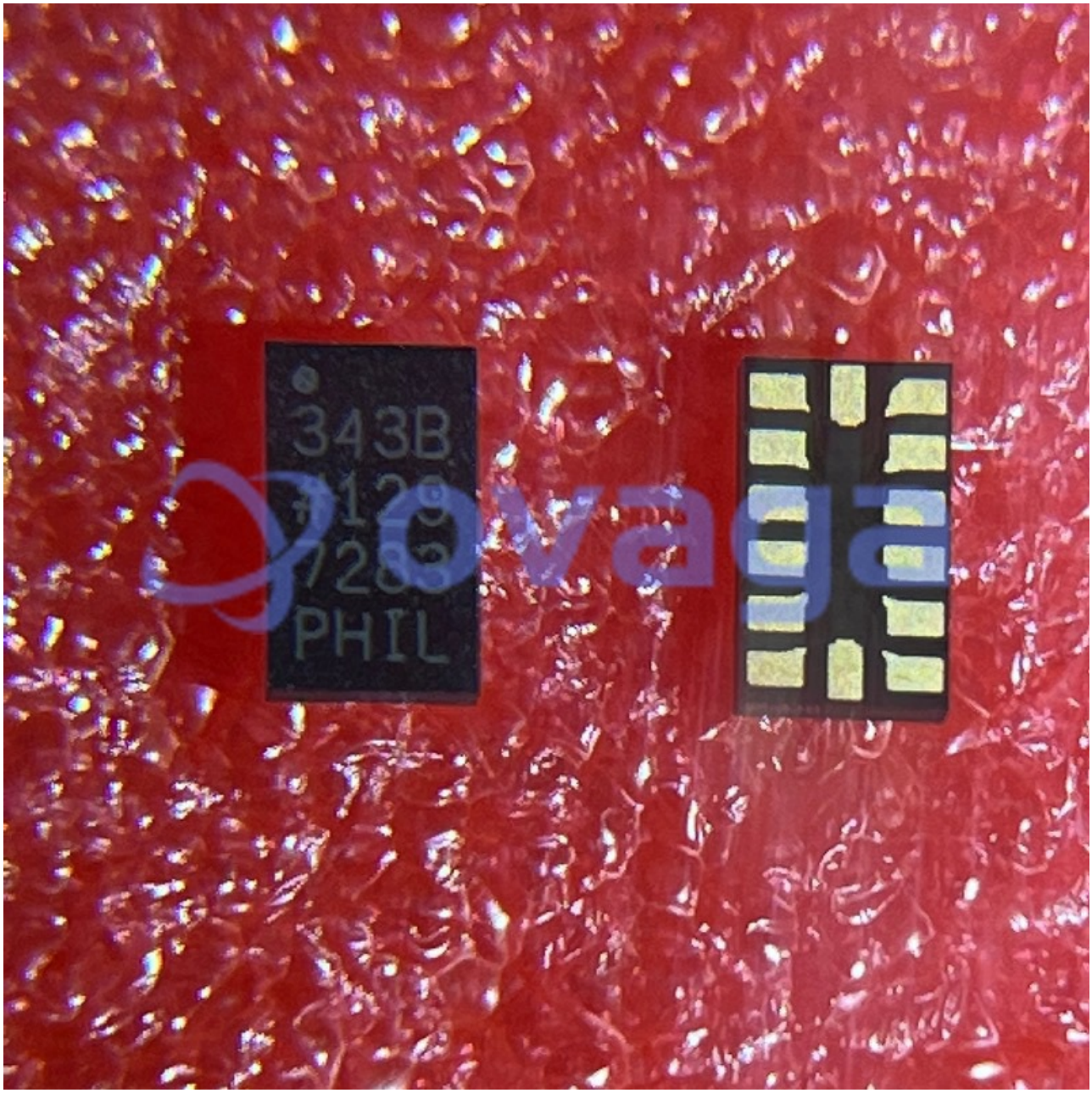
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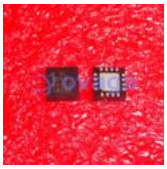
Related Products



[ADXL335BCPZ-RL7](#)

Analog Devices, Inc

LFCSP16

[ADXL103CE](#)

Analog Devices, Inc

CLCC-8

[ADIS16488BMLZ](#)

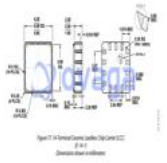
Analog Devices, Inc

MSM24

[ADXRS642BBGZ](#)

Analog Devices, Inc

CBGA-32



[ADXL357BEZ](#)

Analog Devices, Inc

LCC-14

[ADXL346ACCZ-RL7](#)

Analog Devices, Inc

LGA16

ADXL345BCCZ-RL7

Analog Devices, Inc

LGA-14

ADXL325BCPZ-RL7

Analog Devices, Inc

16-LFCSP