# ADXL346ACCZ-RL7

Data Sheet

MEMS Accelerometer, Digital, X, Y, Z, ± 2g, ± 4g, ± 8g, ± 16g, 1.7 V, 2.75 V, LGA

| | |
|---|---|
| Manufacturers | Analog Devices, Inc |
| Package/Case | LGA16 |
| Product Type | Motion & Position Sensors |
| RoHS | Rohs |
| Lifecycle | |


Images are for reference only

Please submit RFQ for ADXL346ACCZ-RL7 or Email to us: sales@ovaga.com We will contact you in 12 hours. RFQ

## General Description

The ADXL346 is a small, thin, ultralow power, 3-axis accelerometer 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 ADXL346 is well suited for mobile device applications. It measures the static acceleration of gravity in tilt-sensing applications, as well as dynamic acceleration resulting from motion or shock. Its high resolution (4 mg/LSB) enables measurement of inclination changes of less than 1.0°.

Several special sensing functions are provided. Activity and inactivity sensing detect the presence or lack of motion by comparing the acceleration on any axis with user-set thresholds. Tap sensing detects single and double taps in any direction. Free-fall sensing detects if the device is falling. Orientation detection is capable of concurrent four- and six-position sensing and a user-selectable interrupt on orientation change for 2D or 3D applications. These functions can be mapped individually to either of two interrupt output pins. An integrated, patent pending memory management system with 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.

Low power modes enable intelligent motion-based power management with threshold sensing and active acceleration measurement at extremely low power dissipation.

The ADXL346 is supplied in a small, thin, 3 mm × 3 mm × 0.95 mm, 16-lead, plastic package.

## Features

Ultralow power: as low as 23 µA in measurement mode and 0.2 µA in standby mode at>

Power consumption scales automatically with bandwidth

User-selectable resolutionFixed 10-bit resolutionFull resolution, where resolution increases with g range, up to 13-bit resolution at ±16 g (maintaining 4 mg/LSB scale factor in all g ranges)

Patent pending, embedded memory management system with FIFO technology minimizes host processor load

Single tap/double tap detection

Activity/inactivity monitoring

Freefall detection

Concurrent four- and six-position orientation detection

Supply and I/O voltage range:

1.7 V to 2.75 V

SPI (3- and 4-wire) and I2C digital interfaces

Flexible interrupt modes mappable to either interrupt pin

See data sheet for additional features

## Application

Handsets

Medical instrumentation

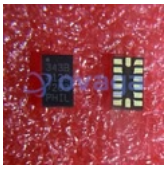
Gaming and pointing devices

Industrial instrumentation

Personal navigation devices

Hard disk drive (HDD) protection

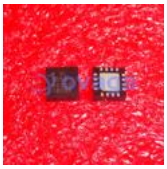

**Related Products**



[ADXL343BCCZ](#)

Analog Devices, Inc

LGA-14



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LFCSP16

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CBGA-32

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16-LFCSP