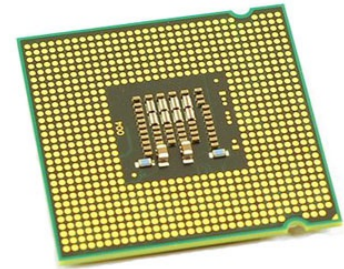


Nanopower, 3-Axis, ± 2 g/ ± 4 g/ ± 8 g Digital Output MEMS Accelerometer

Manufacturers	Analog Devices, Inc
Package/Case	12-terminal LGA (2.2 mm x 2.3 mm x 0.87 mm)
Product Type	Motion & Position Sensors
RoHS	
Lifecycle	



Images are for reference only

Please submit RFQ for ADXL367BCCZ-RL7 or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com). We will contact you in 12 hours.

[RFQ](#)

General Description

The ADXL367 is an ultralow power, 3-axis microelectromechanical systems (MEMS) accelerometer that consumes only 0.89 μ A at a 100 Hz output data rate and 180 nA when in motion-triggered wake-up mode. Unlike accelerometers that use power duty cycling to achieve low power consumption, the ADXL367 does not alias input signals by undersampling, but samples the full bandwidth of the sensor at all data rates.

The ADXL367 always provides 14-bit output resolution. 8-bit formatted data is offered for more efficient single-byte transfers when a lower resolution is sufficient. 12-bit formatted data is also provided for ADXL362 design compatibility. Measurement ranges of ± 2 g, ± 4 g, and ± 8 g are available, with a resolution of 0.25 mg/LSB on the ± 2 g range.

In addition to its ultralow power consumption, the ADXL367 has many features to enable true system level power reduction. It includes a deep multimode output first in, first out (FIFO), a built-in micropower temperature sensor, an internal analog-to-digital converter (ADC) for synchronous conversion of an additional analog input with interrupt capability, single-tap and double-tap detection that can operate at any output data rate with only an added 35 nA of current, and a state machine to prevent a false triggering. In addition, the ADXL367 has provisions for external control of the sampling time and/or an external clock.

The ADXL367 operates on a wide 1.1 V to 3.6 V supply range, and can interface, if necessary, to a host operating on a separate supply voltage. The ADXL367 is available in a 2.2 mm \times 2.3 mm \times 0.87 mm package.

APPLICATIONS

Features

- Supply voltage range
- Single-cell battery operation: 1.1 V to 3.6 V
- Internal power supply regulation for high PSRR
- Ultralow power

Application

- 24/7 Always on sensing
- Industrial
- Digital Healthcare
- Prosumer

0.89 μA at 100 Hz ODR, 2.0 V supply

180 nA motion activated wake-up mode

40 nA standby current

High resolution: 0.25 mg/LSB

Built-in features for system level power savings

Single-tap and double-tap detection with only 35 nA of added current

Adjustable threshold sleep and wake-up modes for motion activation

Autonomous interrupt processing, without need for microcontroller intervention, to allow the rest of the system to be turned off completely

Single-cell battery operation: 1.1 V to 3.6 V

Internal power supply regulation for high PSRR

0.89 μA at 100 Hz ODR, 2.0 V supply

180 nA motion activated wake-up mode

40 nA standby current

Single-tap and double-tap detection with only 35 nA of added current

Adjustable threshold sleep and wake-up modes for motion activation

Autonomous interrupt processing, without need for microcontroller intervention, to allow the rest of the system to be turned off completely

Deep 512 sample embedded FIFO minimizes host processor load

Awake state output enables implementation of motion activated switch

Low noise to 170 $\mu\text{g}/\sqrt{\text{Hz}}$

Acceleration sample synchronization via external trigger

On-chip temperature sensor

Internal two-pole antialias filter

SPI (4-wire) and I

2

C digital interfaces

Small and thin 2.2 mm \times 2.3 mm \times 0.87 mm package

Deep 512 sample embedded FIFO minimizes host processor load

Hearing aids

Vital signs monitoring devices

Motion-enabled power save switches

Motion-enabled metering devices

Smart watch with single-cell operation

Smart homes

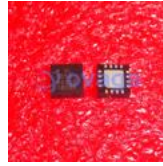
Awake state output enables implementation of motion activated switch

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](#)

Analog Devices, Inc
LCC-14



[ADXL346ACCZ-RL7](#)

Analog Devices, Inc
LGA16



[ADXL345BCCZ-RL7](#)

Analog Devices, Inc
LGA-14