Accelerometer and Temperature Digital Output 2V 16-Pin LGA T/R

Manufacturers	Analog Devices, Inc
Package/Case	LGA-16
Product Type	Motion & Position Sensors
RoHS	
Lifecycle	
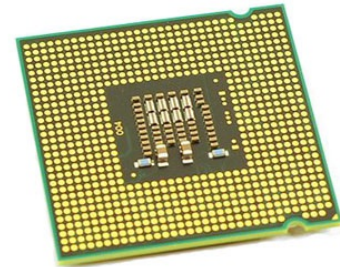
Images are for reference only

Please submit RFQ for ADXL363BCCZ-RL7 or Email to us: sales@ovaga.com We will contact you in 12 hours. RFQ

General Description

The ADXL363 is an ultralow power, three-sensor combination consisting of a 3-axis MEMS accelerometer, a temperature sensor, and an on-board analog-to-digital converter (ADC) input for synchronous conversion of an external signal. The entire system consumes less than 2 μA at a 100 Hz output data rate and 270 nA when in motion triggered wake-up mode.

The ADXL363 communicates via a serial port interface (SPI) and always provides 12-bit output resolution for all three sensors.

The ADXL363 temperature sensor operates with a scale factor of 0.065°C/LSB (typical). Acceleration and temperature data can be stored in a 512-sample multimode first in, first out (FIFO) buffer, allowing up to 13 sec of data to be stored.

In addition to the accelerometer and temperature sensor, the ADXL363 also provides access to an internal ADC for synchronous conversion of an additional analog input.

The ADXL363 operates on a wide 1.6 V to 3.5 V supply range, and can interface, if necessary, to a host operating on a separate, lower supply voltage. The ADXL363 is available in a 3 mm × 3.25 mm × 1.06 mm package.

Features

Accelerometer, temperature sensor, and provision for third analog sensor input

All sensors sampled synchronouslyUp to 400 Hz ODRSamples can be synchronized to external trigger

Ultralow power1.95 µA at 100 Hz ODR, 2.0 V supply, all sensors on270 nA at 6 Hz motion activated wake-up mode10 nA standby current

12-bit resolution for all sensorsAcceleration scale factor down to 1 mg/LSB Temperature scale factor: 0.065°C/LSB (typical)

Built-in features for motion-based system level power savingsAdjustable threshold sleep/wake 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 embedded FIFO minimizes host processor loadAwake state output enables implementation of standalone, motion activated switch

Wide supply and I/O voltage ranges: 1.6 V to 3.5 VOperates off 1.8 V to 3.3 V railsPower can be derived from coin cell battery

SPI digital interface
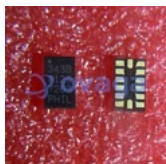
Small and thin 3 mm × 3.25 mm × 1.06 mm package

Application

Home healthcare devices

Wireless sensors

Motion enabled metering devices

Related Products

ADXL343BCCZ
Analog Devices, Inc
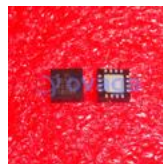LGA-14

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