Feature
Name: the ADXL345 module (three-axis acceleration of gravity)
Use the chip: the ADXL345
Power supply: 3-5v
Means of communication: the IIC / SPI communication protocol
Measuring range: ± 2g ± 16g
Schematics, manuals and reference documentation of relevant data 51, the AVR, the Arduino microcontroller test code 3-axis, ± 2g / ± 4g / ± 8g / ± 16g Digital acceleration module
The ADXL345 is a compact, slim, low-power three-axis accelerometer can be high Acceleration up to ± 16 g high-resolution (13) measurements. The number of digital output According to 16-bit binary twos complement format, Can access through the SPI (3 or 4-wire) or I2C digital interface.
The ADXL345 is suitable for mobile device applications. It can tilt sensing applications Measure the static acceleration of gravity, you can also measure movement or impact caused by dynamic and Speed. It has high resolution (4 mg / LSB), capable of measuring about 0.25 ° tilt Angle changes. ADXL345 digital output acceleration timing, without the need for Analog to digital converter, thus saving system cost and board space.
In addition, The ADXL345 is a small, thin, ultra-low-power 3-axis accelerometer with a resolution of (13), measuring range of ± 16g. The digital output data of 16 binary Complement format, through the SPI (3 or 4-wire) or I2C digital interface access. The ADXL345 is suitable for mobile device applications. It can tilt sensing applications To measure the static acceleration of gravity, can measure the movement or impact cause of action State acceleration.
High-resolution (3.9mg/LSB), capable of measuring less than 1.0 ° Tilt angle change.
The device offers a variety of special detection. Active and inactive detection pass Had relatively arbitrary axis acceleration threshold set by the user to detect whether the transport The move occurred. Percussion detection function can be detected in any direction of a single vibration and dual vibration For. The free-fall detection can detect whether the device is falling. These Functions can be independently mapped to two interrupt output pins. Is in the process Please patented integrated memory management system uses a 32 FIFO (FIFO) buffer can be used to store data, which will host processor load Minimize and reduce overall system power consumption.
Low-power mode to support the movement-based intelligent power management, and thus very low Power consumption threshold sensing and acceleration measurement.
ADXL345 3 mm × 5 mm × 1 mm, 14-pin small, ultra-thin plastic Package.