

### FEATURES

- 3-axis sensing**
- Small, low-profile package**  
4 mm × 4 mm × 1.45 mm LFCSP
- Low power**  
180  $\mu$ A at  $V_s = 1.8$  V (typical)
- Single-supply operation**  
1.8 V to 3.6 V
- 10,000 g shock survival**
- Excellent temperature stability**
- BW adjustment with a single capacitor per axis**
- RoHS/WEEE lead-free compliant**

### APPLICATIONS

- Cost-sensitive, low power, motion- and tilt-sensing applications**
  - Mobile devices
  - Gaming systems
  - Disk drive protection
  - Image stabilization
  - Sports and health devices

### GENERAL DESCRIPTION

The ADXL330 is a small, thin, low power, complete 3-axis accelerometer with signal conditioned voltage outputs, all on a single monolithic IC. The product measures acceleration with a minimum full-scale range of  $\pm 3 g$ . It can measure the static acceleration of gravity in tilt-sensing applications, as well as dynamic acceleration resulting from motion, shock, or vibration.

The user selects the bandwidth of the accelerometer using the  $C_x$ ,  $C_y$ , and  $C_z$  capacitors at the  $X_{OUT}$ ,  $Y_{OUT}$ , and  $Z_{OUT}$  pins. Bandwidths can be selected to suit the application, with a range of 0.5 Hz to 1600 Hz for X and Y axes, and a range of 0.5 Hz to 550 Hz for the Z axis.

The ADXL330 is available in a small, low profile, 4 mm × 4 mm × 1.45 mm, 16-lead, plastic lead frame chip scale package (LFCSP\_LQ).

### FUNCTIONAL BLOCK DIAGRAM

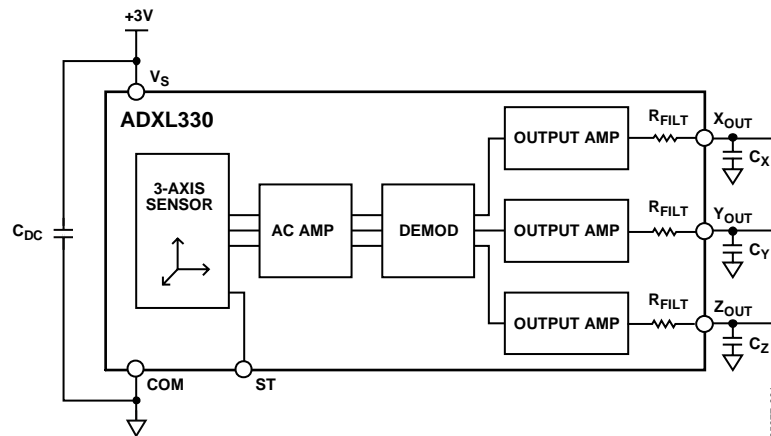


Figure 1.

#### Rev. A

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