DESCRIPTION
The EVAL-ADXL327Z is a simple evaluation board that allows quick evaluation of the performance of the ADXL327 three-axis accelerometer. The EVAL-ADXL327Z has a 6-pin, 0.1 inch spaced header for access to all power and signal lines that the user can attach to a prototyping board (breadboard) or wire using a standard plug. Four holes are provided for mechanical attachment of the EVAL-ADXL327Z to the ADXL327.

The dimensions of the EVAL-ADXL327Z are 20 mm × 20 mm with mounting holes set 15 mm × 15 mm at the corners of the printed circuit board (PCB).

CIRCUIT DESCRIPTION
The schematic of the EVAL-ADXL327Z is shown in Figure 1. Analog bandwidth can be set by changing the C2, C3, and C4 capacitors. See the ADXL327 data sheet for a complete description of the operation of the accelerometer.

The part layout of the EVAL-ADXL327Z is shown in Figure 2. The EVAL-ADXL327Z has four factory installed 100 nF capacitors. C1 at VS is a bypass capacitor to reduce supply noise. C2, C3, and C4 at XOUT, YOUT, and ZOUT are filter capacitors to set the bandwidth to 50 Hz (see Figure 1). Many applications require a different bandwidth, in which case the user can change C2, C3, and C4 as appropriate.

SPECIAL NOTES ON HANDLING
The EVAL-ADXL327Z is not reverse polarity protected. Reversing the +V supply and ground pins can cause damage to the ADXL327.

Dropping the EVAL-ADXL327Z on a hard surface can generate acceleration greater than 1000 g, which may exceed the data sheet absolute maximum limits. See the ADXL327 data sheet for more information.