

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 V_S is a bypass capacitor to reduce supply noise. C2, C3, and C4 at X_{OUT}, Y_{OUT}, and Z_{OUT} 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.

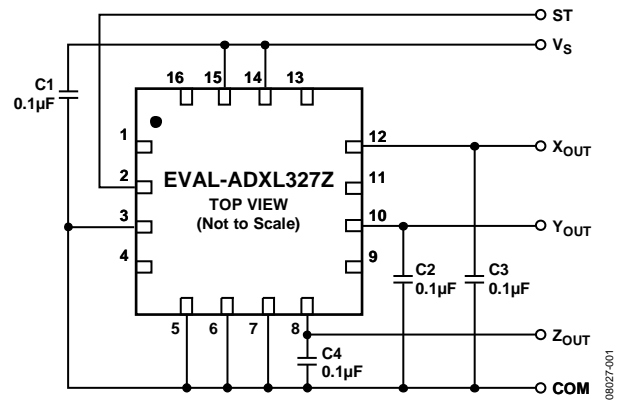


Figure 1. Schematic

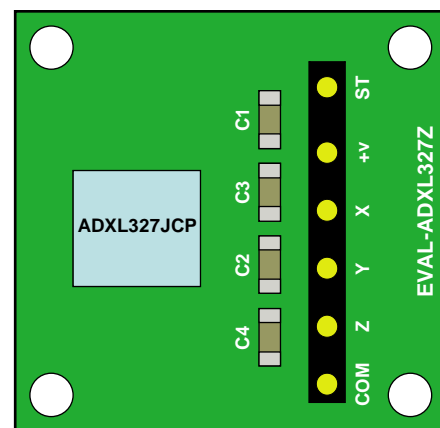


Figure 2. Physical Layout

Rev. PrA

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