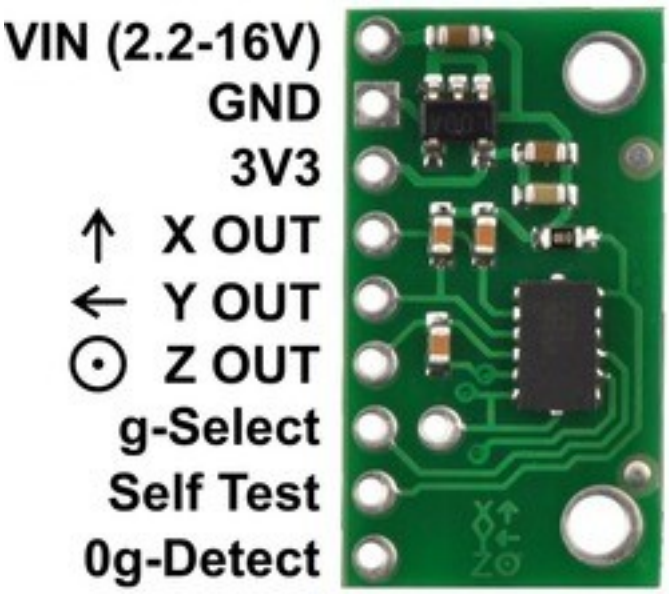
MMA7361L 3-Axis Accelerometer ±1.5/6g with Voltage Regulator

The following information was obtained from http://www.pololu.com/catalog/product/1251

Using the sensor



To power the three-axis accelerometer, connect 2.2-16 V battery or power supply to the VIN pin. Note that this part does not have 5V-tolerant pins, so **external components (such as voltage dividers) are required when interfacing the board's g-Select and Self Test pins with 5V systems**. Connections to the g-Select and Self Test pins are optional; the board will work with these pins disconnected.

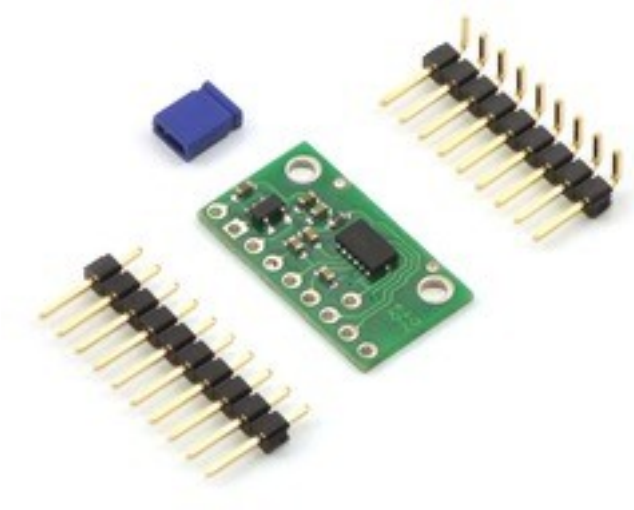
The accelerometer X, Y, and Z outputs are three separate analog voltages centered at half the voltage of the 3V3 pin. Positive accelerations along an axis increase that axis's output voltage above the center voltage and negative accelerations decrease the output voltage below the center voltage. The outputs will always be within the range of 0 to the voltage of the 3V3 pin.

The sensitivity selection pin, g-Select, is internally pulled low, which selects for a default sensitivity of ±1.5g (800 mV/g) on the MMA7361L carrier. Driving the pin high selects for a sensitivity of ±6g (206 mV/g) on the MMA7361L carrier..

The 0g-Detect pin outputs high when all three axes simultaneously detect 0g, which happens when the board is in free-fall.

The Self Test pin is pulled low on the board and can be left disconnected.

Included components



A 10×1 strip of 0.1" header pins, a 9×1 strip of 0.1" right-angle header pins and one shorting block.

Specifications

- Dimensions: 0.5" x 0.9" x 0.09" (1.2×2.3×0.23 cm) (without header pins)
- Operating voltage: 2.2-16 V connected to VIN (all pins besides VIN are not 5V-tolerant)
- Supply current: 0.5 mA
- Output format: 3 analog voltages (one signal for each axis) centered at half the voltage of the 3V3 pin
- Sensitivity range (selectable using g-Select pin):
    - MMA7361L version: ±1.5g (default) or ±6g
- Weight without header pins: 0.025 oz (0.7 g)