

ANALOG ACCELEROMETER MODULE (MMA7361LC) – BM006

OPEN SOURCE HARDWARE MODULE



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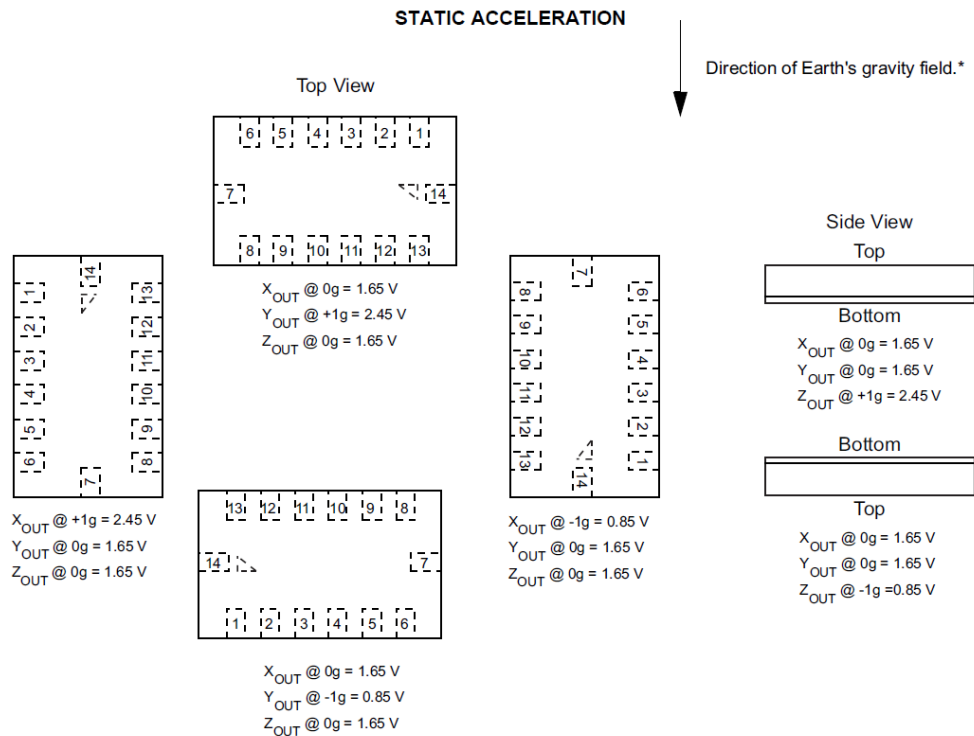
Solutions Cubed is an innovative electronic design firm. We have created successful designs for a myriad of industries including mass produced consumer products, deep-sea robotic components, and encrypted encoders for the banking industry. We love meeting new customers and are interested in hearing about your design needs.

Pin Functions and Notes

#	Name	Maximum Voltage	Notes
1	VIN	24V	Power input: Voltage supply for module.
2	GND	0V	Ground return for the power supply.
3	VDD	3.3V	Power output: 3.3V linear regulator output.
4	0GDET	3.6V	Logic output: Outputs a logic high when all three axes are at 0g.
5	GSEL	3.6V	Logic input: Allows the user to select between two sensitivities. 0 = 1.5g range; 800mV/g 1 = 6g range; 206mV/g
6	STST	3.6V	Logic input: can be used to self-test the device, see part datasheet for details.
7	XOUT	N/A	Analog output: can be used to determine the acceleration and orientation of the module in the X axis direction. Default is 800mV/g.
8	YOUT	N/A	Analog output: can be used to determine the acceleration and orientation of the module in the Y axis direction. Default is 800mV/g.
9	ZOUT	N/A	Analog output: can be used to determine the acceleration and orientation of the module in the Z axis direction. Default is 800mV/g.

User Notes/Tips

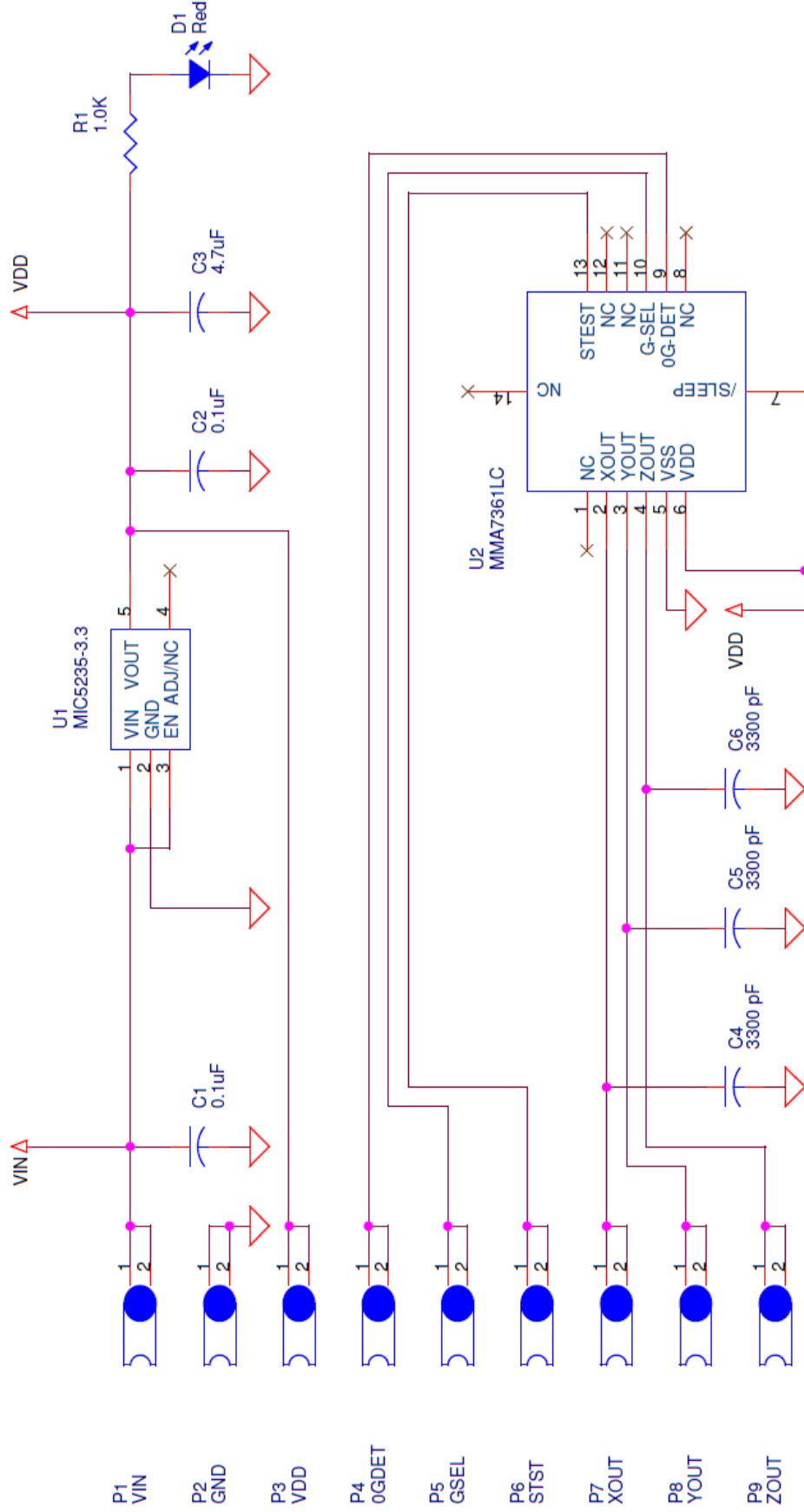
- For additional information on the MMA7361LC analog accelerometer visit Freescale's web site and review the datasheet.
- Visit www.solutions-cubed.com for application notes related to this module.
- The majority of the current this module draws is used to light the LED, D1. Removing this LED or its current limiting resistor (R1), will reduce the current by VDD-2/1000 mA.
- 10 MΩ or higher is recommended on XOUT, YOUT and ZOUT to prevent loss due to the voltage divider relationship between the internal 32kΩ resistor and the measurement input impedance.



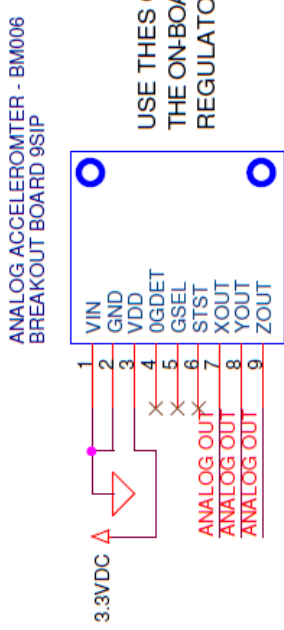
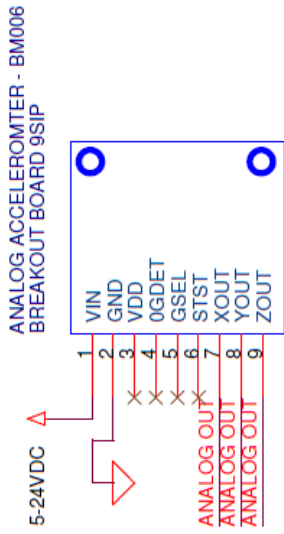
* When positioned as shown, the Earth's gravity will result in a positive 1g output.

**ANALOG ACCELEROMETER MODULE (MMA7361LC) –
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User Datasheet**

November 2012



BASIC CONNECTIONS 5V SYSTEM



USE THIS CONNECTION IF
THE ON-BOARD 3.3V
REGULATOR IS NOT NEEDED.

ARDUINO CONNECTIONS

