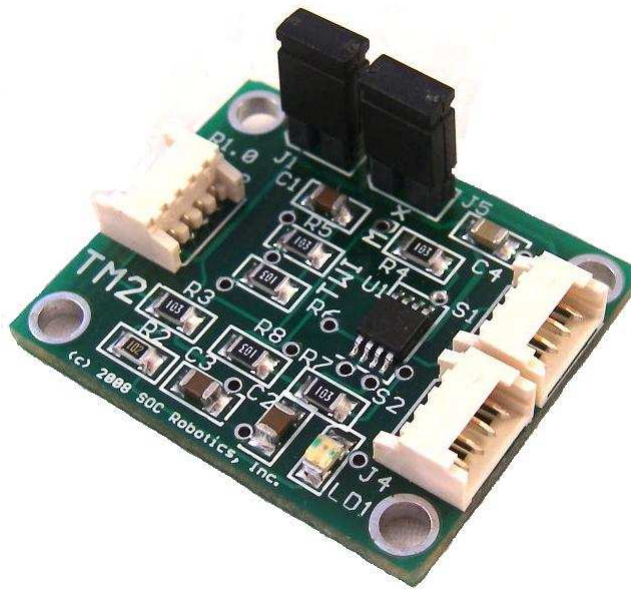


# TM5 TWI/I2C 5 Channel Hub Level Shifter

## Technical Reference Guide

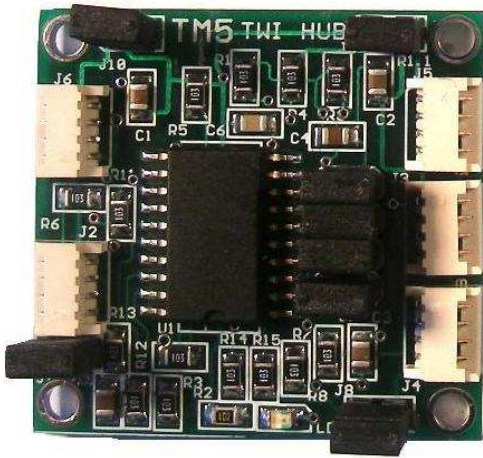
PCB Rev 1.0



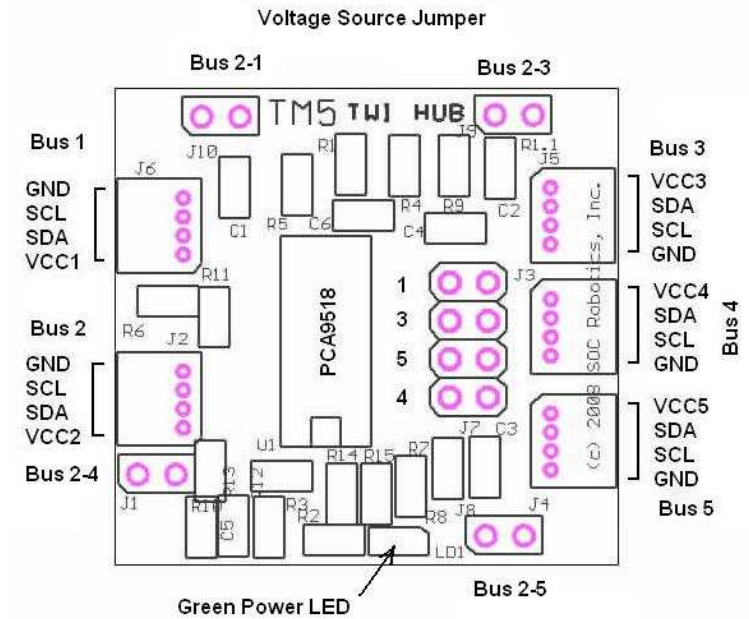
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**Overview**

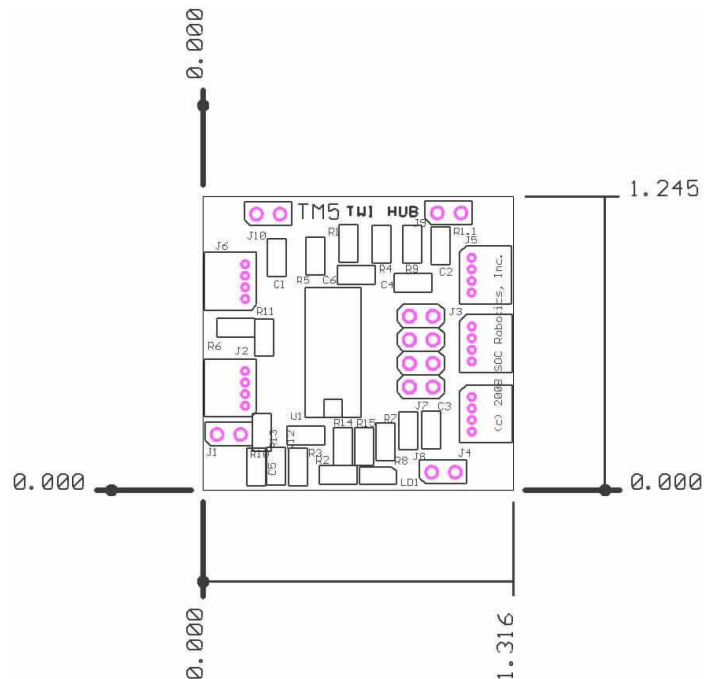
The TM5 is a TWI I2C 5 channel level shifting hub that allows five I2C buses operating at different voltages to communicate. The TM5, for example, allows an I2C bus operating at 5V to connect to a TWI bus operating at 3.3V. The TM5 increases the number of I2C devices that communicate on a single bus by reducing the total capacitance of the bus. The TM5 is based on the Philips PCA9518 chip – consult the PCA9518 datasheet for detail operating characteristics. Four two pin headers allow the voltage on Bus 2 to feed power to the other four buses on an individual bus basis by installing shorting jumpers. See the TM5 Connector Pin assignment picture for header identification.



**TM5 Connector Pin Assignment**



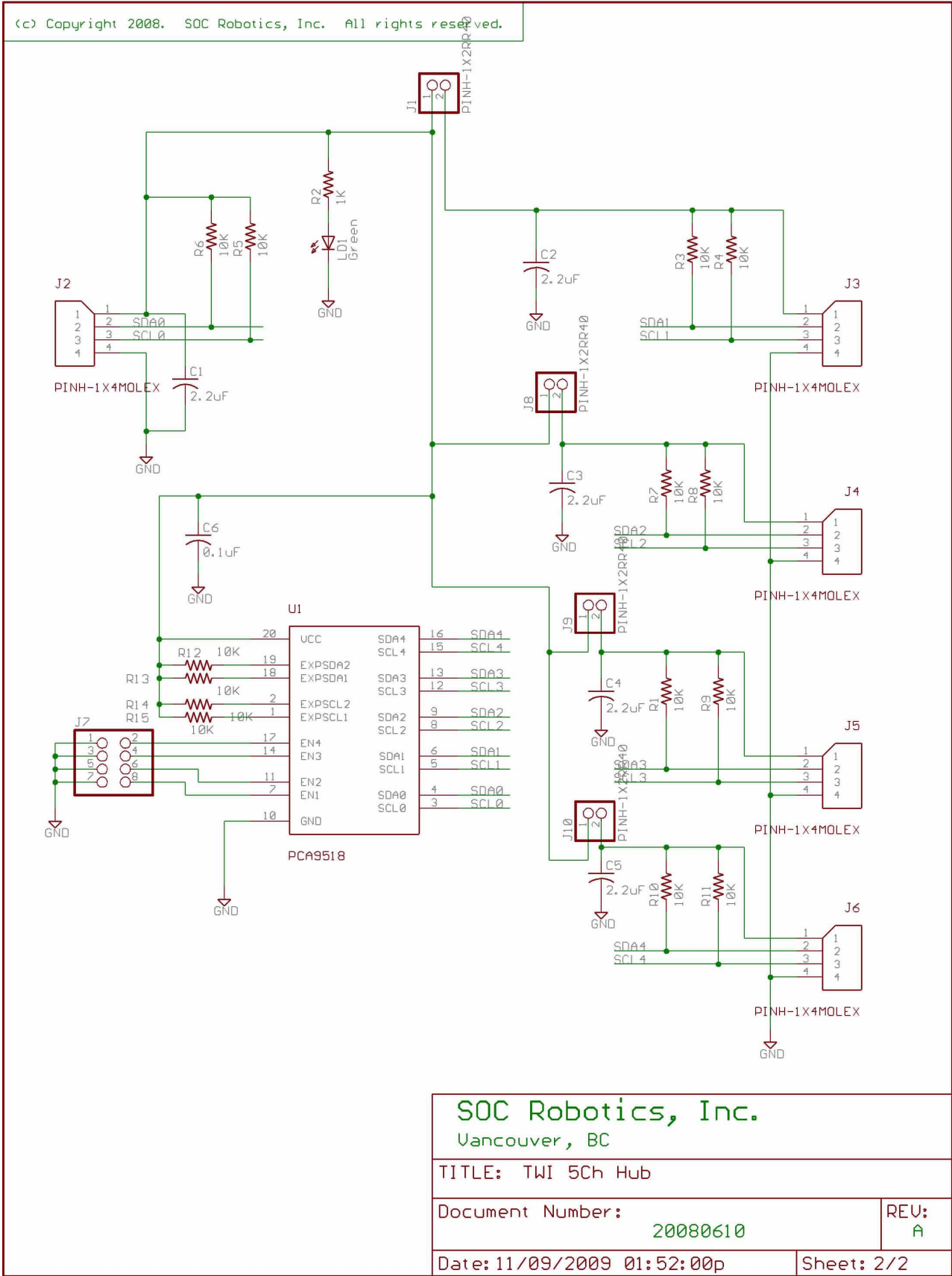
Dimensions in inches.



## TM5 Circuit Schematic

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<p>TWI 5Ch Hub</p> <p>TM5</p> <p>PCB Rev. 1.0</p>	
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<p>Date: 11/09/2009 01:52:00p</p>	<p>Sheet: 2/2</p>