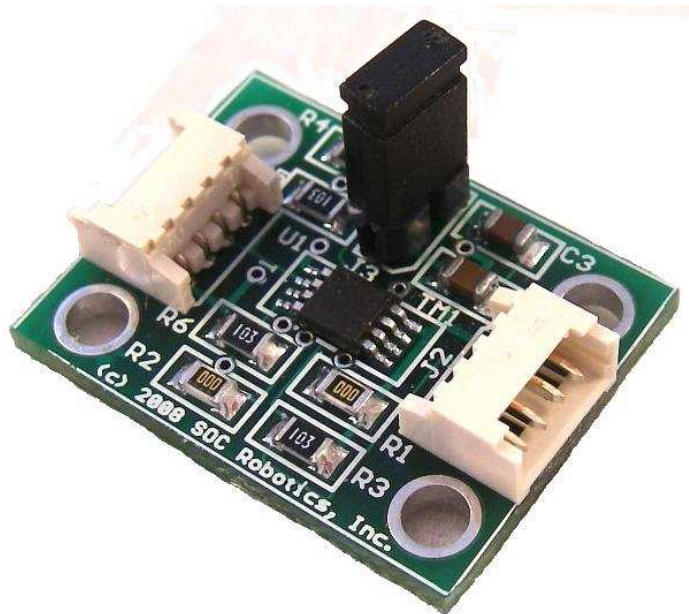


TM1 TWI/I2C Level Shifter

Technical Reference Guide

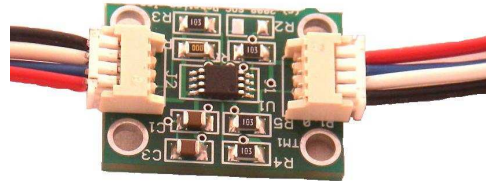
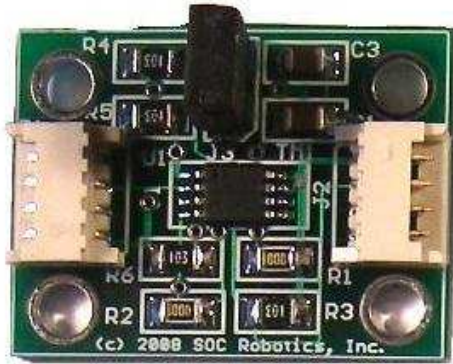
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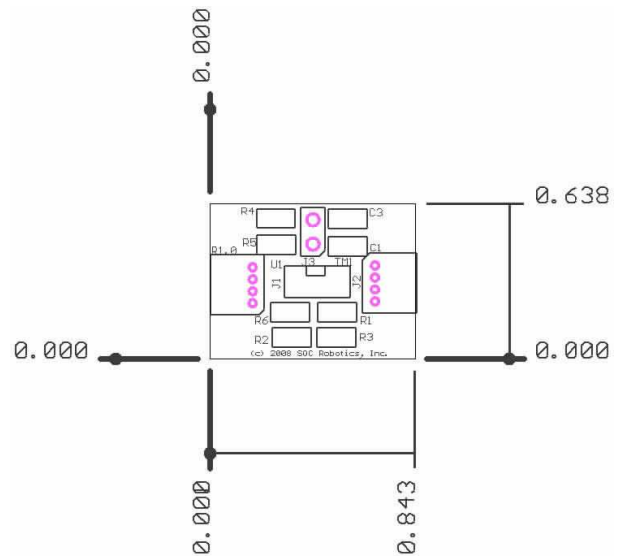
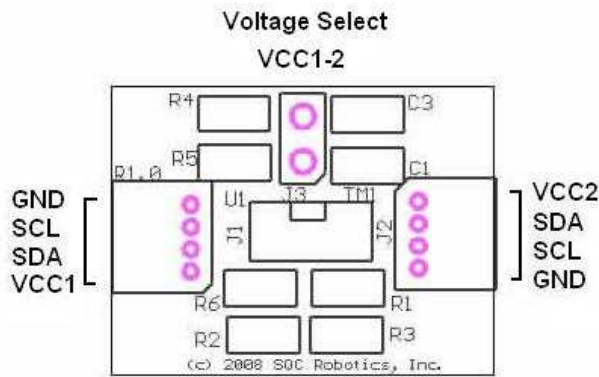
Overview

The TM1 is a TWI I2C level shifter that allows two I2C buses operating at different voltages to communicate. The TM1, for example, can allow an I2C bus operating at 5V to connect to a TWI bus operating at 3.3V. The TM1 increases the number of I2C devices that communicate on a single bus to by reducing the total capacitance of the bus.



The picture below shows the connector pin assignments for the TM1. Either connector can be within the voltage range 2.7-5V. Header J3 allows bus voltage VCC1 to power the other TWI bus VCC2 by installing a shorting jumper. The TM1 uses the Philips PCA9512 chip.

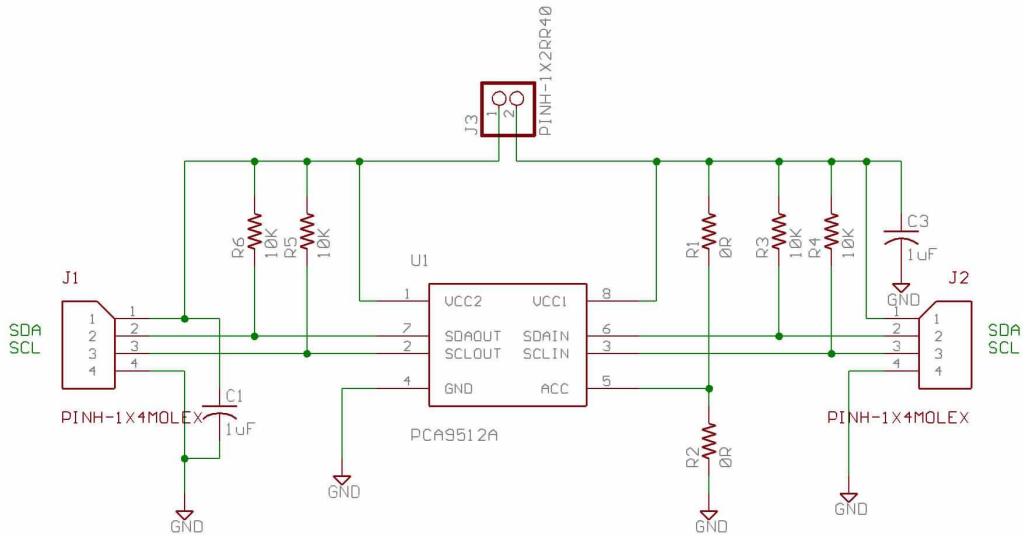
TM1 Connector Pin Assignment



TM1 Circuit Schematic

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<h1>TWI Level Shifter</h1> <h2>TM1</h2> <h3>PCB Rev. 1.0</h3>	
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Document Number: 20080610	REV: A
Date: 3/27/2009 01:07:41p	Sheet: 1/2

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REV:	A