

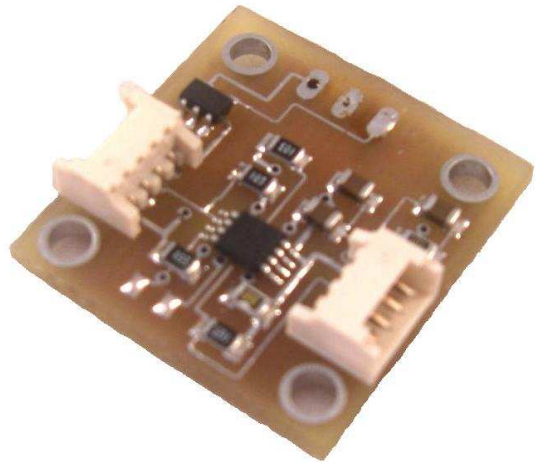
TM1R TWI/I2C Level Shifter with Voltage Regulator

Technical Reference Guide

PCB Rev 1.0



TM1R



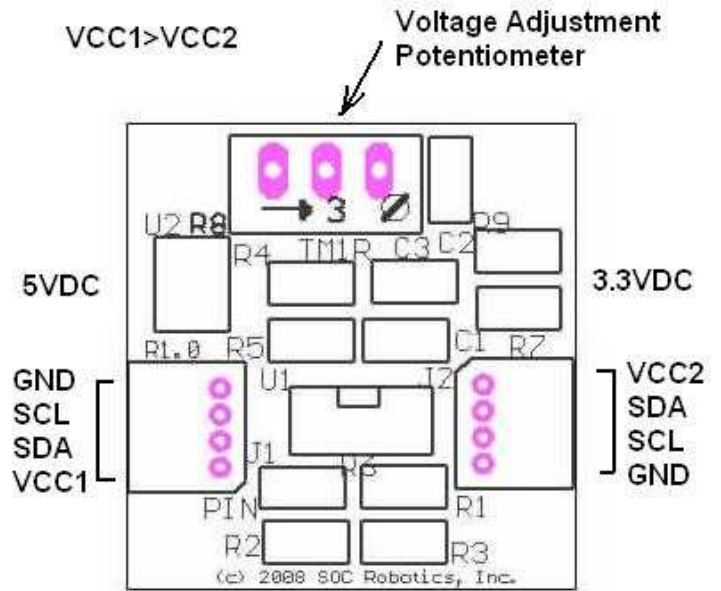
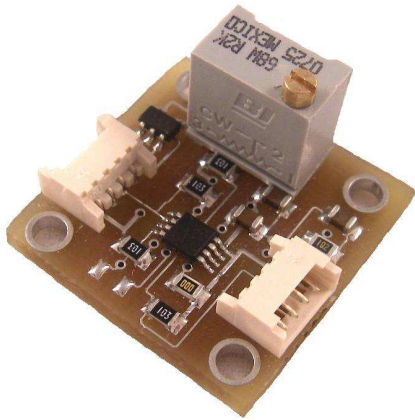
TM1R3.3

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Overview

The TM1R is a TWI I2C level shifter with onboard voltage regulator that allows two I2C buses operating at different voltages to communicate. The TM1R, for example, can allow an I2C bus operating at 5V to connect to a TWI bus operating at 3.3V. The TM1R increases the number of I2C devices that communicate on a single bus to by reducing the total capacitance of the bus.

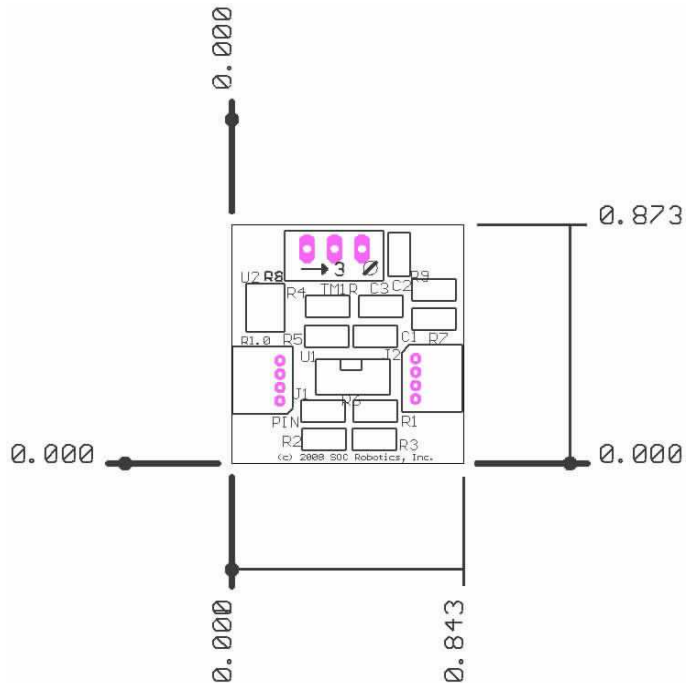
TM1R Pin Assignments



The TM1R supplies the voltage for VCC2 by dropping the voltage at VCC1 to a level set by the Voltage Potentiometer.

The TM1R is available with a fixed output voltage of 3.3V. This part is designated TM1R3.3. The maximum current output of the FAN2500 voltage regulator is 50ma.

The TM1R uses the Philips PCA9512 I2C level shifting chip.



TM1R Circuit Schematic

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TWI Level Shifter With Voltage Regulator

TM1R

PCB Rev. 1.0

SOC Robotics, Inc.
Vancouver, BC

TITLE: TWI Level Shift Reg

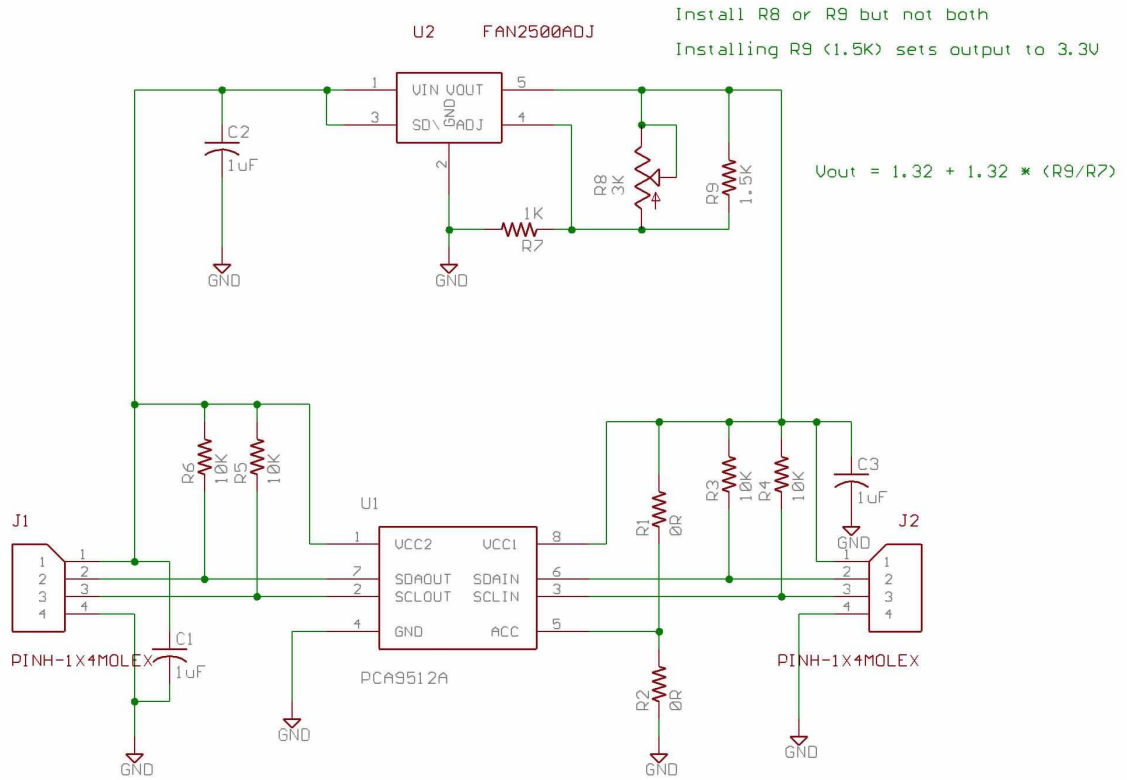
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