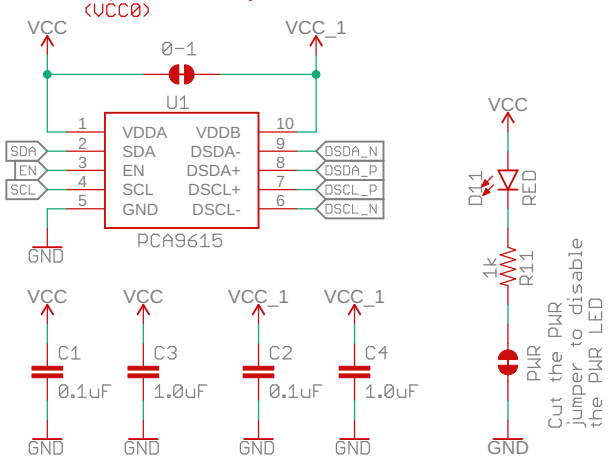
I2C -> Differential I2C

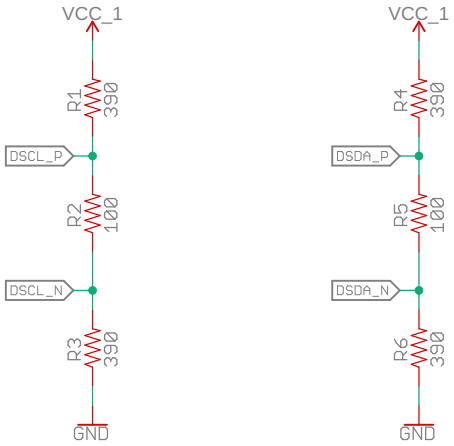
VIN: 3.0-5.5V

Cut 0-1 Jumper to provide separate voltage to VCC1 and VCC (VCC0)



VCC: I2C-bus side power supply (2.3V-5.5V)
VCC1: Differential side power supply (3.0V-5.5V)

Differential I2C Termination Resistors



Depending on load and distance requirements, there are several different ways to power the Midpoint/Endpoint combo.

The default option powers the entire system using 3.3V, in this configuration, the BP jumper is closed and both sides of the PSEL jumper are open.

To power the VCC_1 rail with 5V (The PCA9615 operates better at this voltage), the BP jumper must be opened. Then close the "1" side of the PSEL jumper. Also ensure that 5V is connected on the VCC_1 pin on the Qwiic Endpoint

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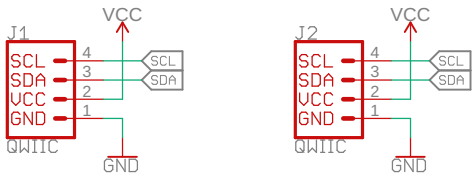
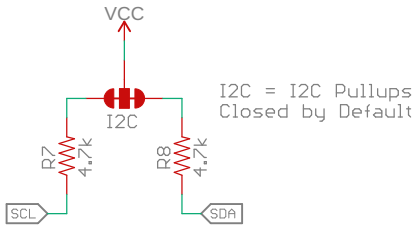
If many devices need to be powered, it is possible to send up to 36V over the green pair. To do this, connect 36V and ground to the Qwiic Endpoint. Also make sure that the BP jumper is cut/open. Make sure the 1 side of the PSEL jumper is open and close the 2 side of the PSEL jumper

Qwiic Connectors

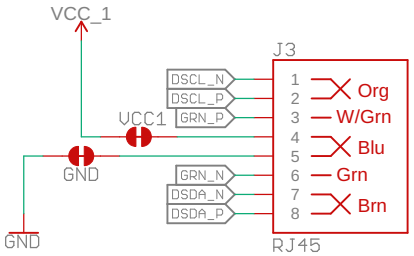


I2C Pullups



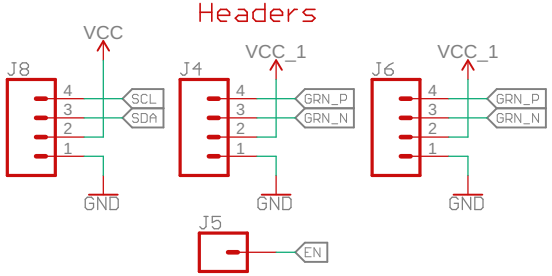
I2C = I2C Pullups Closed by Default

RJ-45 Connector



Cut traces on VCC1 and GND jumpers to disconnect VCC1 and GND from cable.

Headers



open hardware sparkfun qwiic

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TITLE: SparkFun_QwiicBus_Endpoint

Design by: Joel Bartlett
Revision By: Andy England

REV: v11

Date: 2/19/2021 12:30 PM

Sheet: 1/1