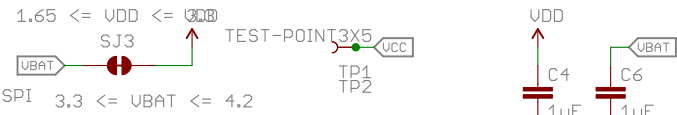


Jumpers for I2C / SPI Select. Defaults to SPI

Power Supply

The OLED requires a 1.65-3.3V supply for its logic circuits (VDD) and a 7-7.5V supply for its display circuitry (UCC). Fortunately, it features a charge-pump boost converter to generate a 7U supply (UCC) from 3.3-4.2V. The charge-pump input voltage is taken from the VBAT line.

SJ3, closed by default, shorts the UDD and VBAT lines. This way the same supply you're using to power the logic can be boosted for the UCC supply as well. In this case, your UDD supply should be around 3.3V.

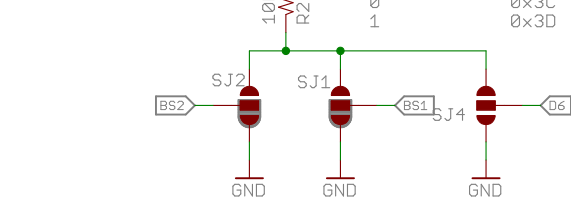


UCC (7.0-7.5V) will be generated by on-board DC-DC converter, as long as C3 and C2 are present. It's boosted up from UDD.
 UDD current < 300 uA
 UCC current (Internally generated) = 5.8-20.9mA
 UCC current (Externally supplied) = 1.7-6.9mA

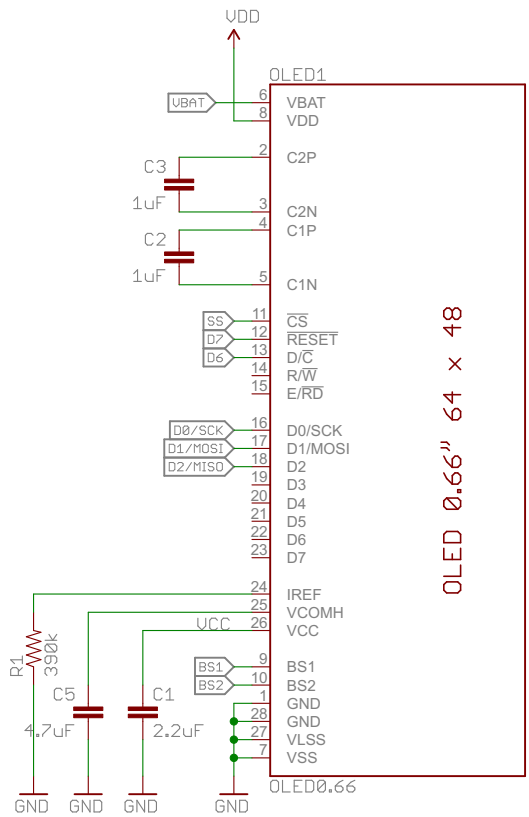
Interface selection

The SSD1306 can be controlled via SPI, I2C, or a parallel interface. Use the BS1 & BS2 jumpers to select the interface. The breakout defaults to SPI (BS1 & BS2 to GND).

Interface	BS1	BS2	In I2C mode, D/C sets the lower bit of the 7-bit address. Short it one way or the other. Default is 0.
SPI	0	0	0
I2C	0	1	0
8-bit (6800)	0	1	0
8-bit (8080)	1	1	1



The D/C jumper should be open if SPI or parallel interfaces are used. In I2C mode, those interfaces this pin determines whether incoming signals are data or command.



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TITLE: Photon_Micro_OLED_Shield_v10

Design by: Ben Leduc-Mills

REU: v10

Date: 5/29/2015 7:43:12 AM

Sheet: 1/1