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 (VCC). Fortunately, it features a charge-pump boost converter to generate a 7V supply (VCC) from 3.3-1.2V. The charge-pump input voltage is taken from the VBAT line.

The VDD and VBAT lines are shorted together by default. This way the same supply you're using to power the logic can be boosted for the VCC supply as well. In this case, your VDD supply should be around 3.3V.

$$1.65 \leq VDD \leq 3.3$$
$$3.3 \leq VBAT \leq 4.2$$

VCC (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 VBAT.

- VDD current < 300 μA
- VCC current (Internally generated) = 5.8-20.9mA
- VCC current (externally supplied) = 1.7-6.9mA

Interface selection

In I2C mode, D/C sets the lower bit of the 7-bit address. Short it one way or the other.

<table>
<thead>
<tr>
<th>D/C</th>
<th>I2C Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0x3C</td>
</tr>
<tr>
<td>1</td>
<td>0x30</td>
</tr>
</tbody>
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TITLE: Qwiic_OLED_Breakout_NO_T

Design by: Joel Bartlett

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