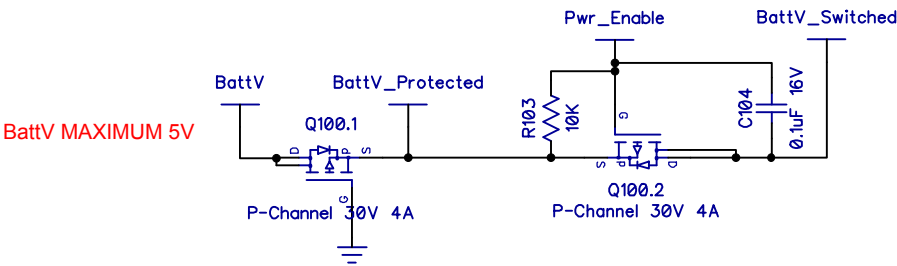
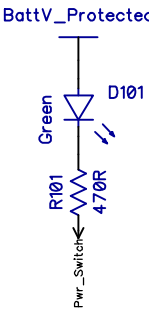


Power

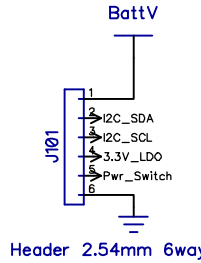
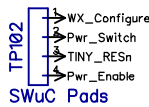
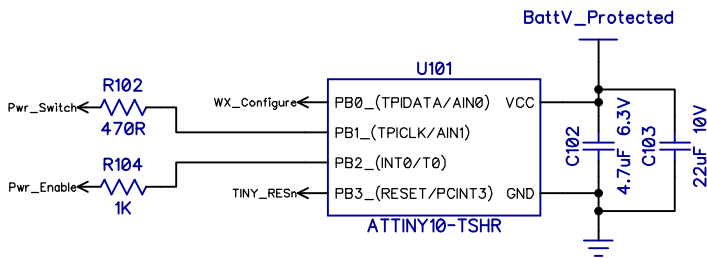
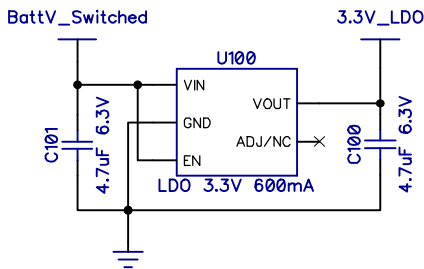
Protection against reverse input voltage
and power enable controlled by switch



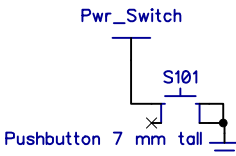
Power Status LED



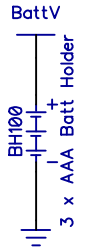
3v3 LDO regulator



Pwr_Switch pin (pull low to turn on device)



Kitted / Manual fit items



Parallax Inc.
599 Menlo Drive
Rocklin, CA 95765

(916) 624-8333
<http://www.parallax.com/>

BlocklyProp BadgeWX

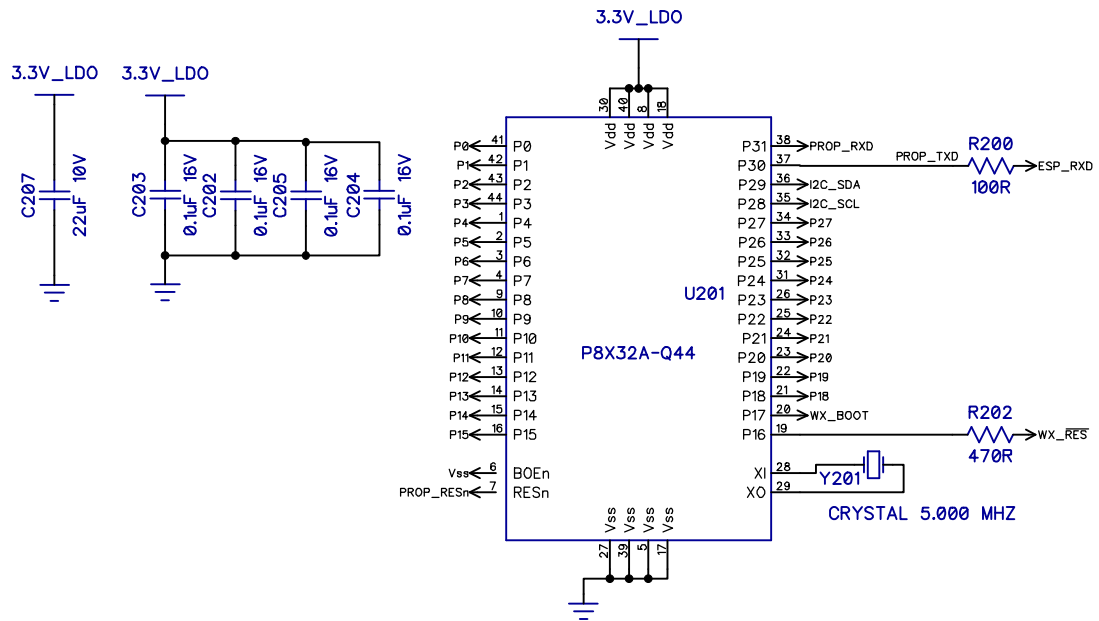
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Part Number: 20300
Revision: B

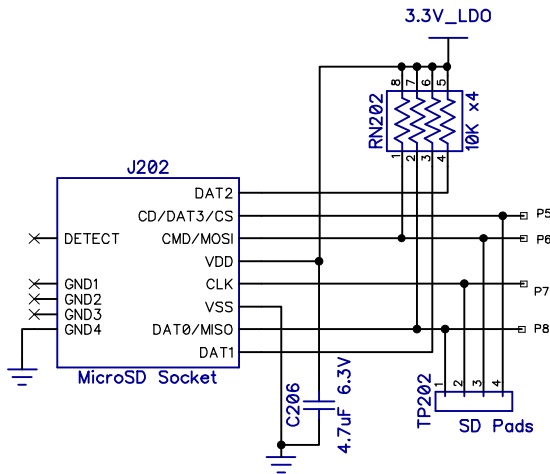
Last Update: 06 Jun 2018

Microcontroller and Memory

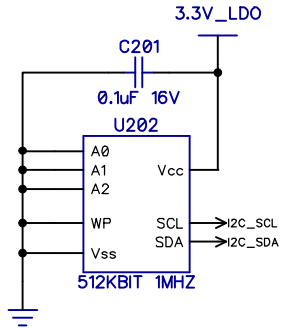
Propeller microcontroller



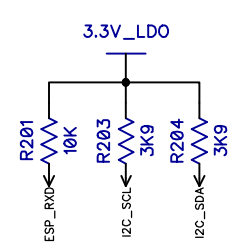
MicroSD Card Socket



EEPROM

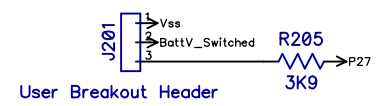


Pullups

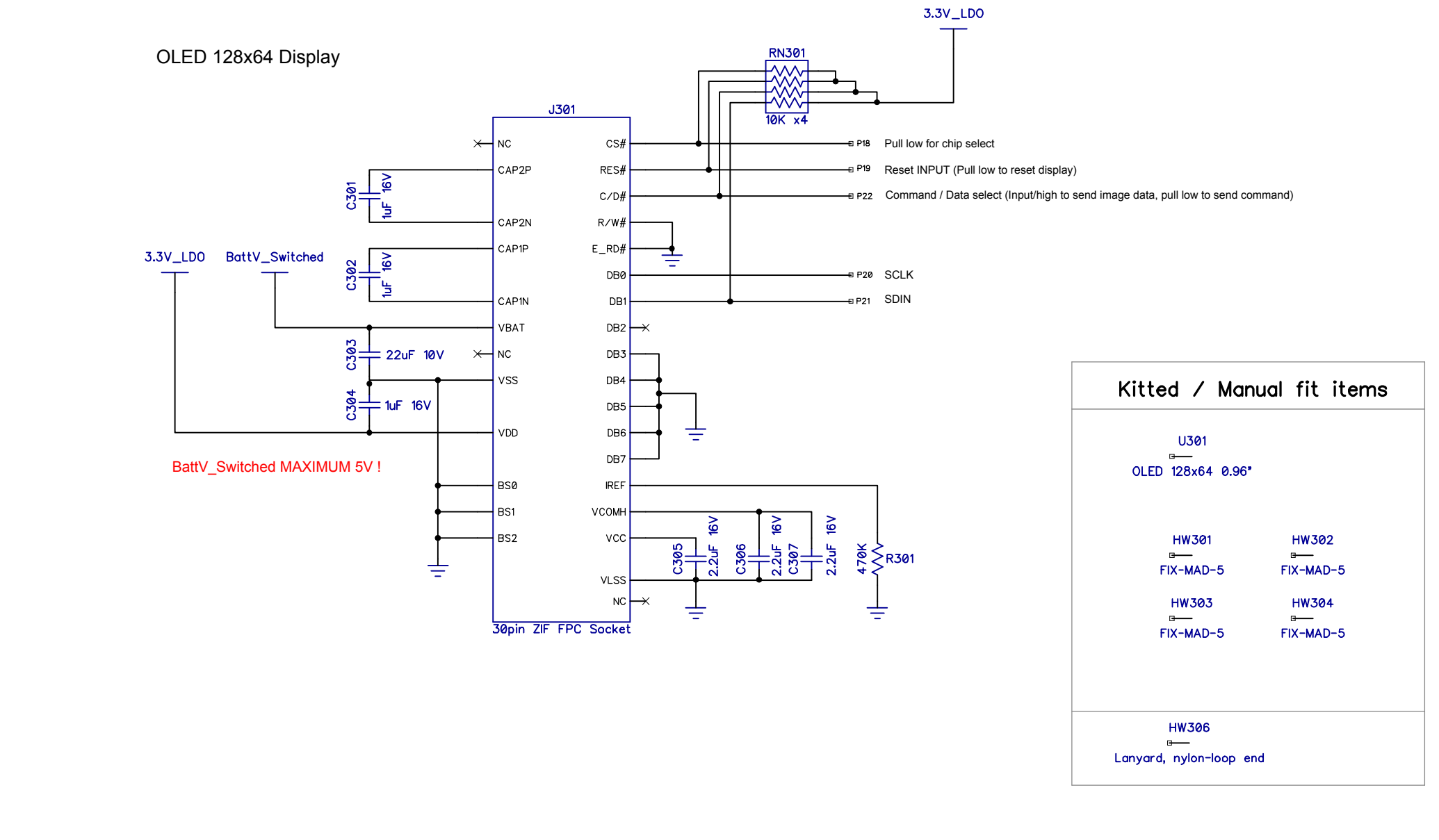


SD Test Pads

BRW (BattV)



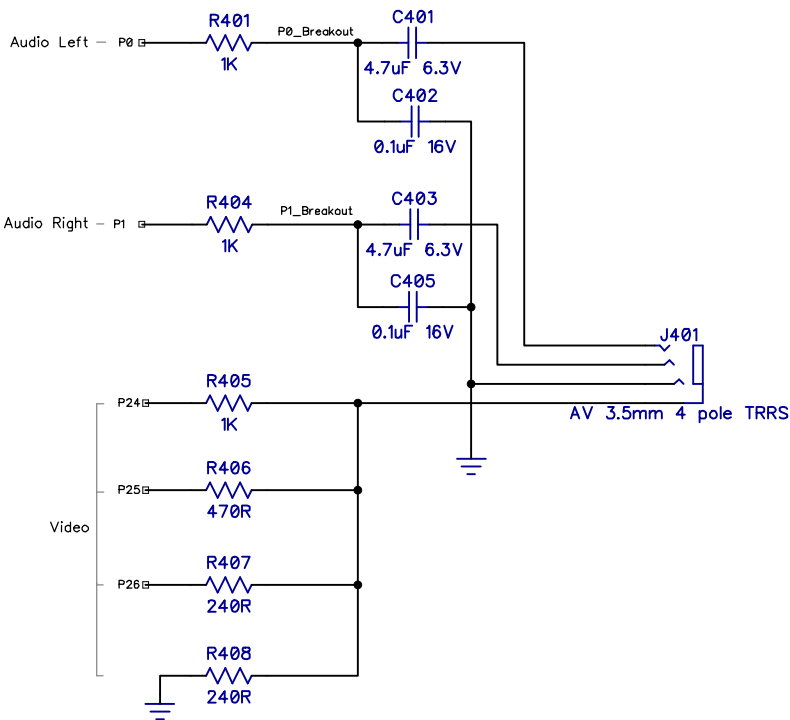
Display



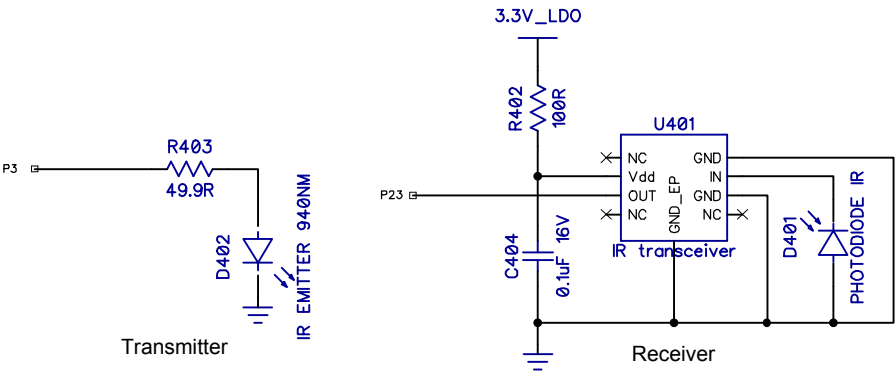
| Kitted / Manual fit items | |
|----------------------------------|--------------------|
| U301 OLED 128x64 0.96" | |
| HW301 FIX-MAD-5 | HW302 FIX-MAD-5 |
| HW303 FIX-MAD-5 | HW304 FIX-MAD-5 |
| HW306 Lanyard, nylon-loop end | |

IR and AV

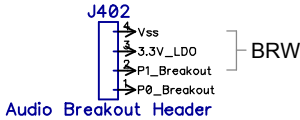
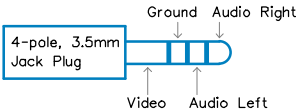
Stereo Audio & Composite Video



Infrared Communications



Pinout for Audio Video connector J401



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<http://www.parallax.com/>

BlocklyProp BadgeWX

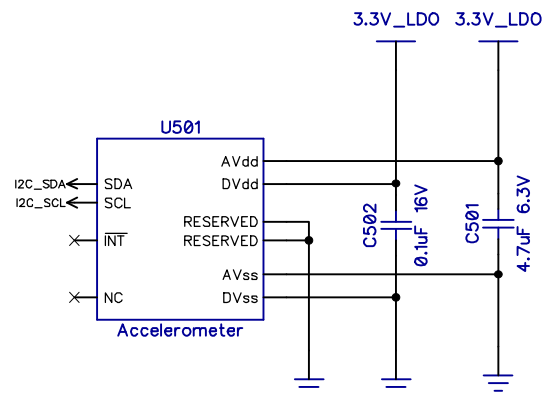
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Part Number: 20300
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Last Update: 06 Jun 2018

Motion Sensor

3-Axis Orientation / Motion Detection Sensor



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BlocklyProp BadgeWX

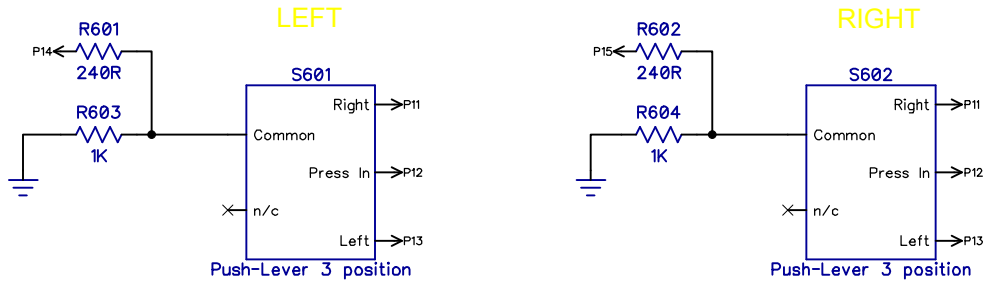
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Part Number: 20300
Revision: B

Last Update: 06 Jun 2018

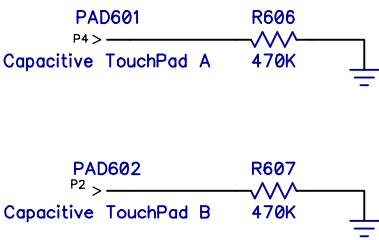
Buttons

Rocker Buttons



Wired like a keypad:
assert P11,12,13 and read P14,15

Capacitive Touch Pads



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BlocklyProp BadgeWX

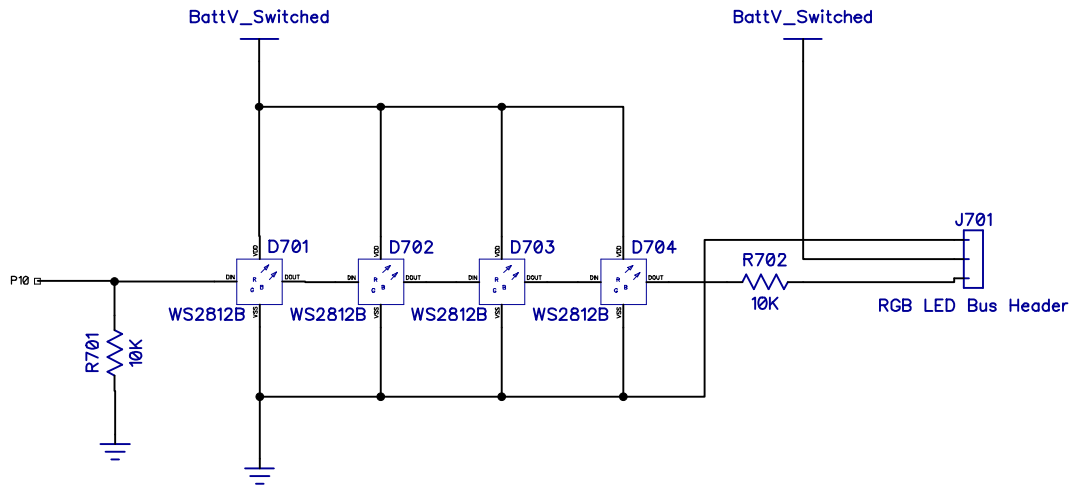
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Part Number: 20300
Revision: B

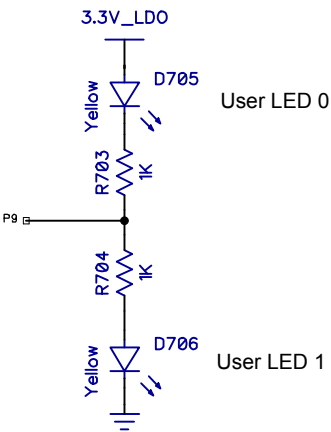
Last Update: 06 Jun 2018

Leds

RGB Leds and LED Bus Header



Status LED's

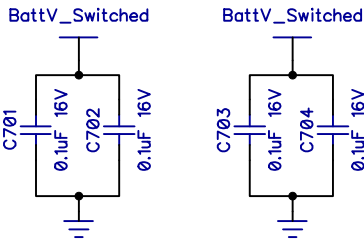


P9 = low for led0, P9 = high for led1, P9 = input for LED's off

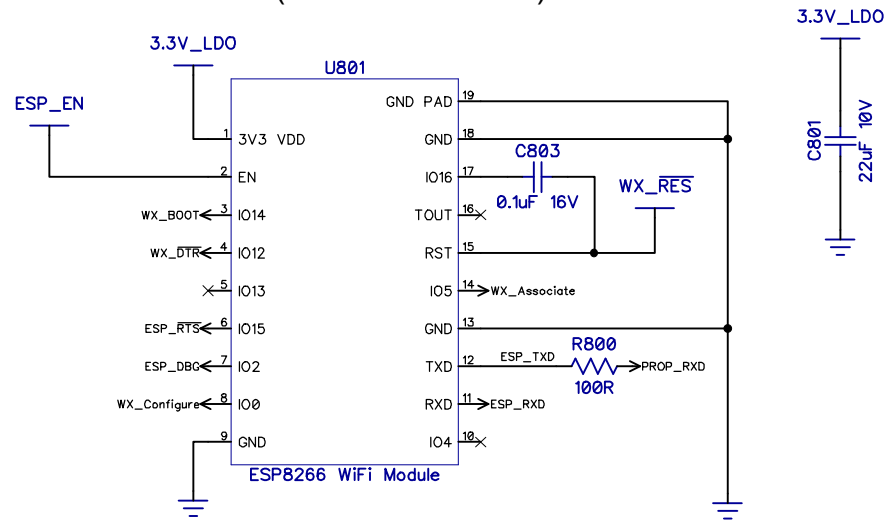
BattV_Switched is 3.5 to 4.5 range, so DIN high 3.2V max (ie. 3.3V drive ok)

External power recommended for external RGB LEDs!
Do not connect more than 4 external RGB modules when using Badge power

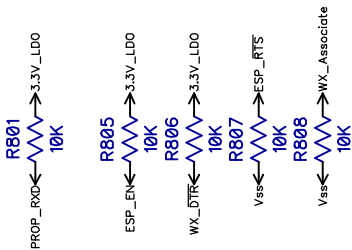
RGB bypass capacitors



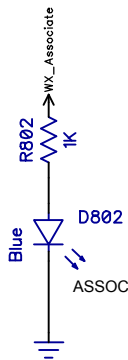
ESP-8266 WiFi Module (ESP-WROOM-02)



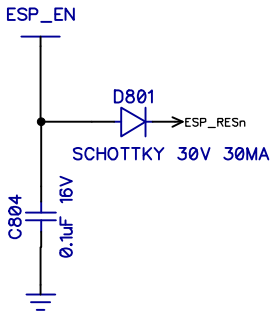
Pull-up / pull-down resistors



WiFi status LED

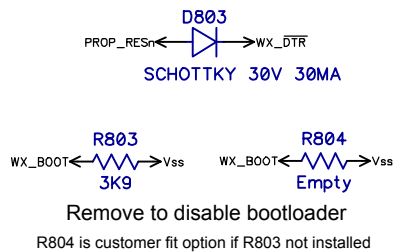


Reset feature

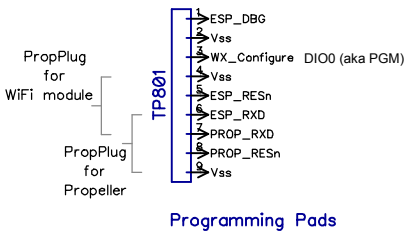


EN/DTR hold-low timing cap for PropPlug compatibility (ESP module requires minimum 100uS reset pulse)

SIP 0.1" Breakout pads



Remove to disable bootloader
R804 is customer fit option if R803 not installed



When programming Propeller, short ESP_RESn to VSS
When programming WiFi, short PROP_RESn and WX_Configure to VSS