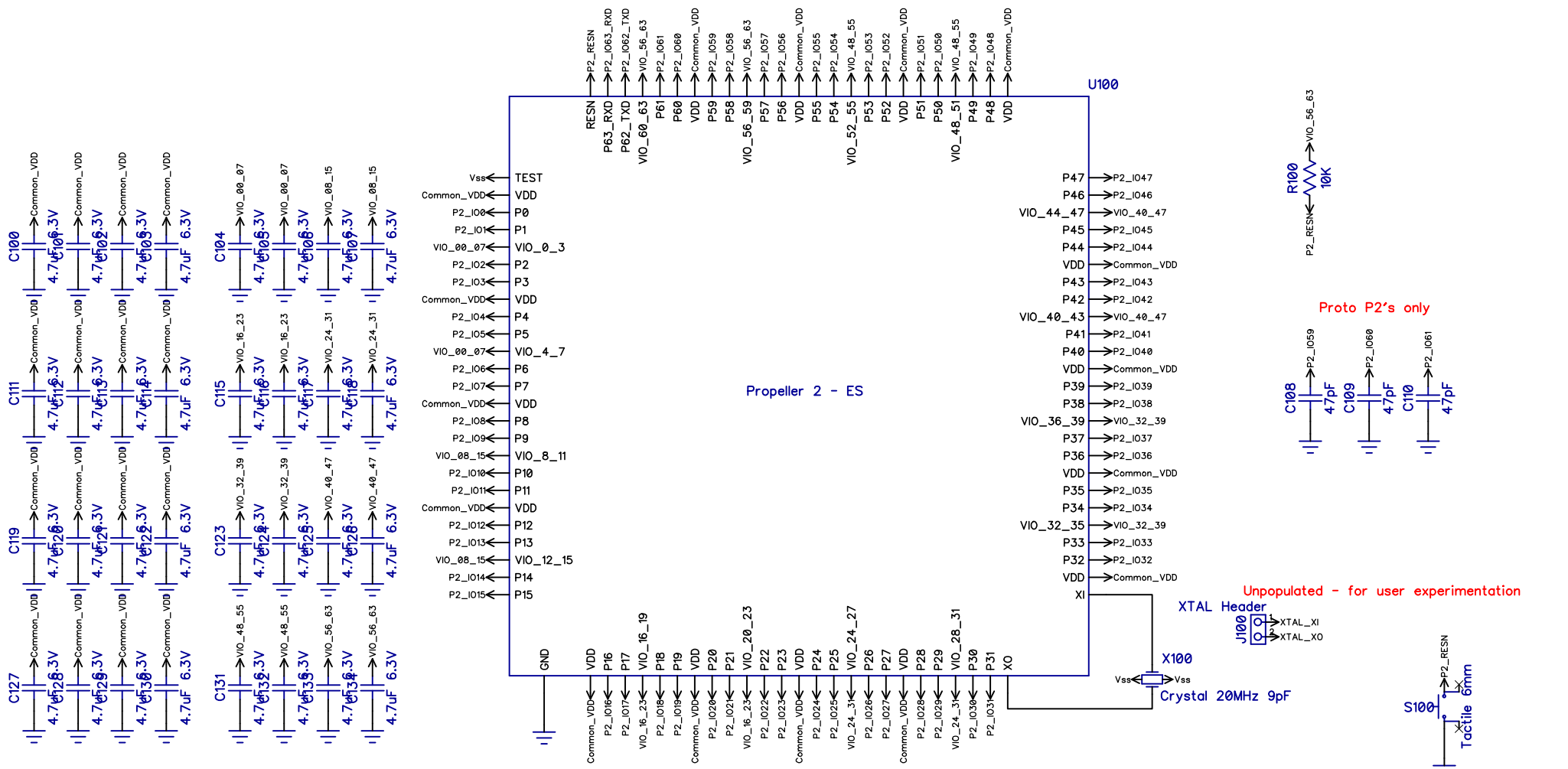


# Microcontroller



## Parallax P2X8C4M64P-ES Evaluation Board

ENGINEERING SAMPLE - NOT FOR RESALE  
PRE-PRODUCTION EVALUATION

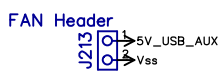
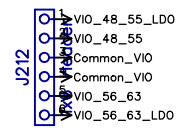
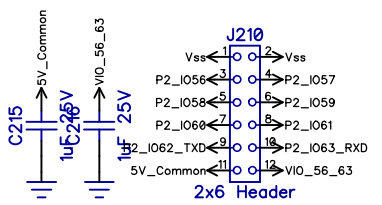
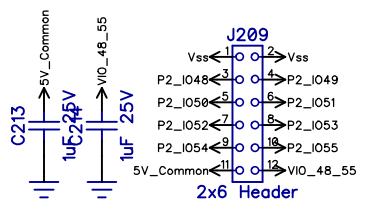
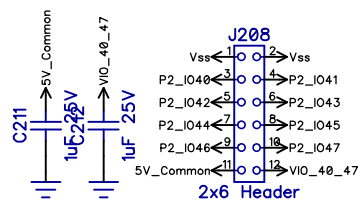
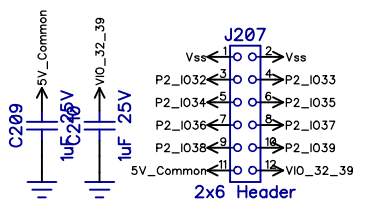
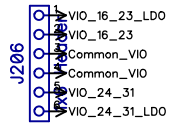
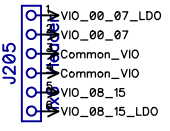
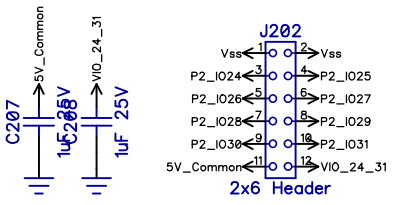
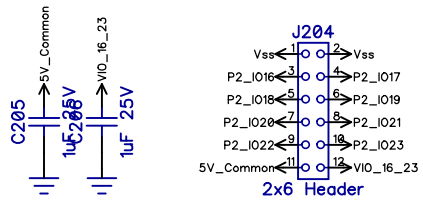
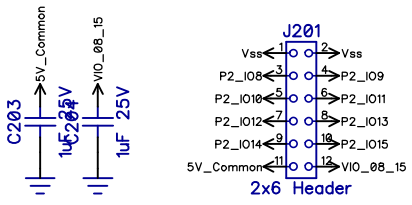
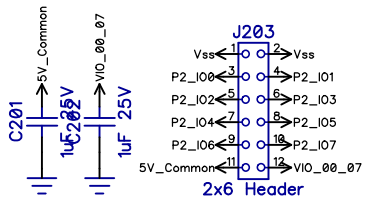
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# I/O Headers



- HW201  
CONN SHUNT
- HW202  
CONN SHUNT
- HW203  
CONN SHUNT
- HW204  
CONN SHUNT
- HW205  
CONN SHUNT
- HW206  
CONN SHUNT
- HW207  
CONN SHUNT
- HW208  
CONN SHUNT
- HW209  
CONN SHUNT
- HW210  
CONN SHUNT

## Parallax P2X8C4M64P-ES Evaluation Board

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Part Number: 64000-ES  
 Revision: A1

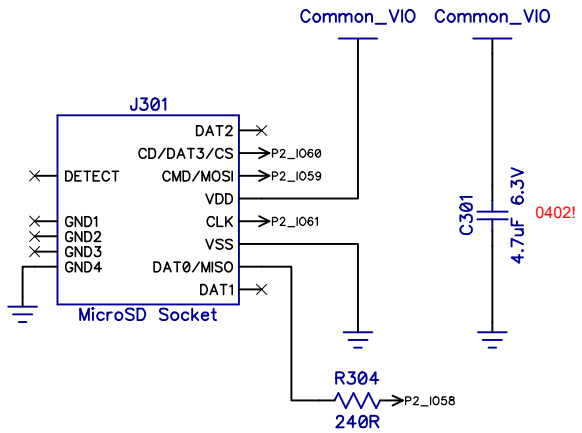
Last Update: 07 Nov 2018

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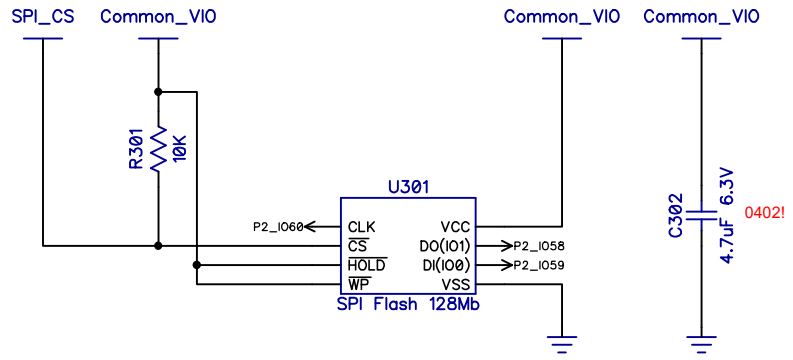
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# Memory

## MicroSD



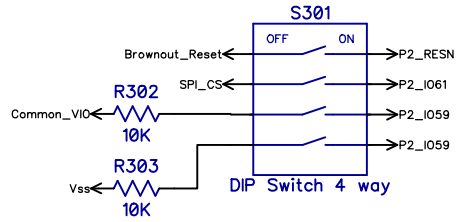
## SPI Flash



Boot Memory	P61 (output)	P60 (output)	P59 (output)	P58 (input)
SPI flash	CSn	CLK	DI	DO
SD card	CLK	CSn	DI	DO

Boot Serial	P63 (input)	P62 (output)
Serial	RX	TX

## Boot options and brownout enable switch



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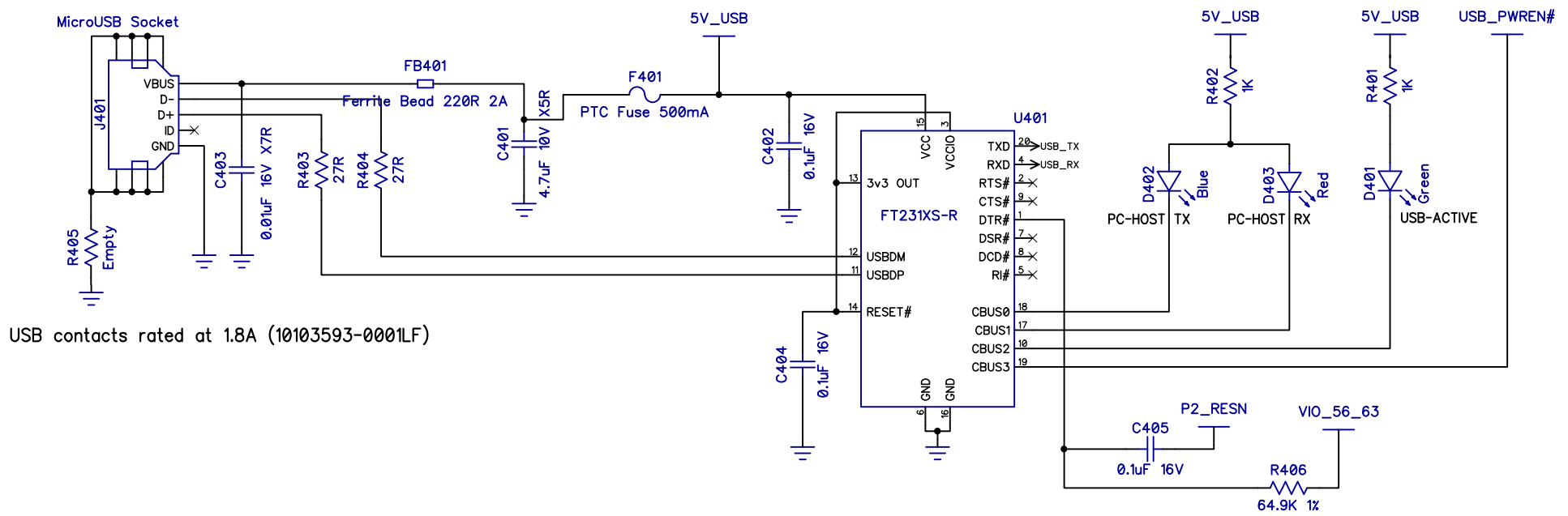
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# USB

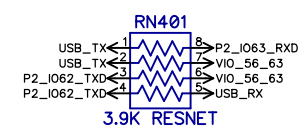


USB contacts rated at 1.8A (10103593-0001LF)

## FTDI Configuration

- CBUS0 = RXLED#
- CBUS1 = TXLED#
- CBUS2 = PWREN#
- CBUS3 = PWREN#
- DTR = Inverted
- USB Config / MaxPower = 500mA
- Enable "Battery Charger Enable" option
- Manufacturer = Parallax Inc
- Product Description = Propeller 2 QuickStart Rev A
- Verify max desc. length, and bcd param

increase to 100K if pulse not shapely  
- will be impacted by internal and possible external pup at RESN



Pull-up serial bus to prevent floating-state terminal chars  
Include series to prevent parasitic power in either direction

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Parallax P2X8C4M64P-ES Evaluation Board  
  
**ENGINEERING SAMPLE - NOT FOR RESALE**  
**PRE-PRODUCTION EVALUATION**

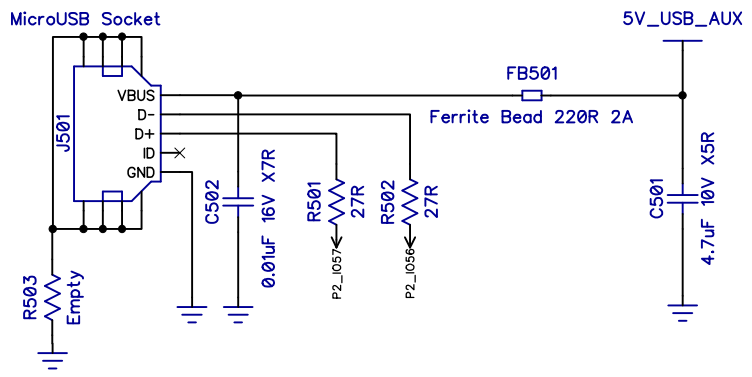
Part Number: 64000-ES  
Revision: A1

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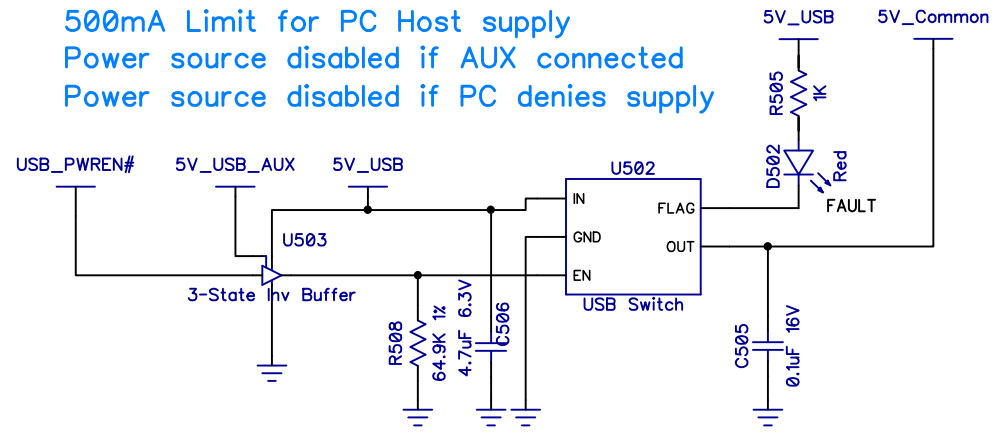
# USB Aux, Logic and Limit

## USB Aux power socket and P2 USB data

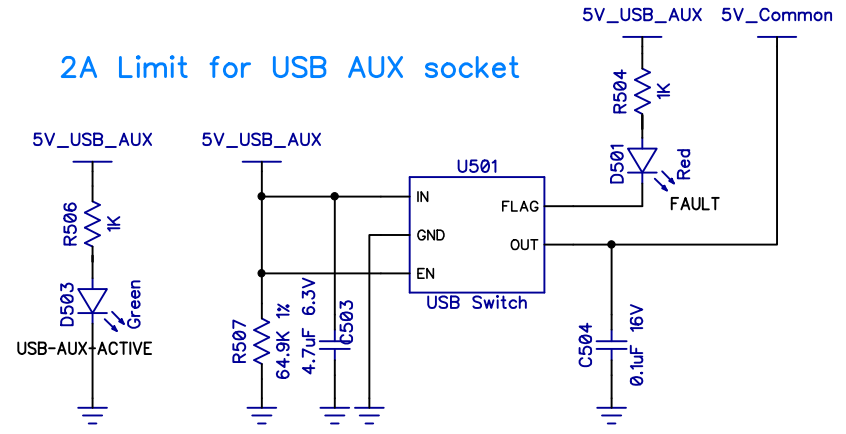


USB contacts rated at 1.8A (10103593-0001LF)

## 500mA Limit for PC Host supply Power source disabled if AUX connected Power source disabled if PC denies supply



## 2A Limit for USB AUX socket



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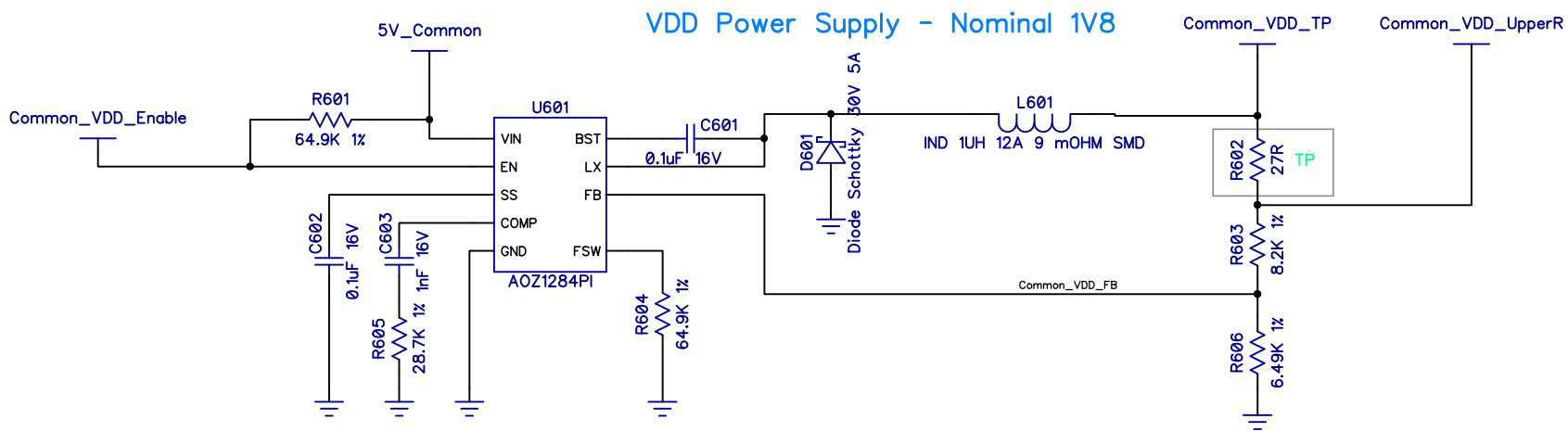
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PRE-PRODUCTION EVALUATION**

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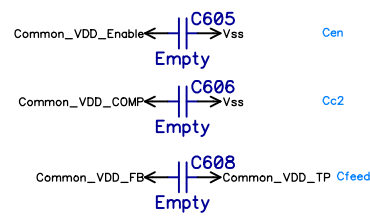
Part Number: 64000-ES  
Revision: A1

Last Update: 07 Nov 2018

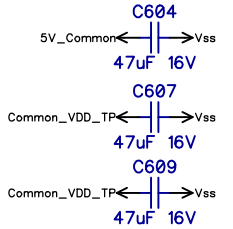
# Common VDD 1V8



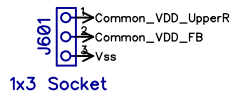
## Optional / Tuning Caps



## Bulk Caps

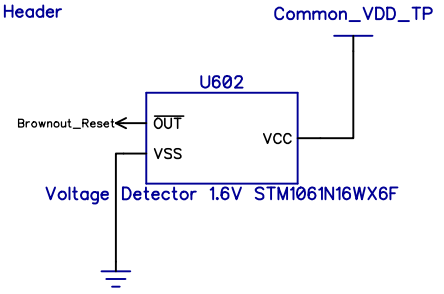
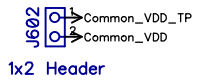


## Common\_VDD Override



Insert fixed value parallel resistance or variable resistor here

## Current Test Point



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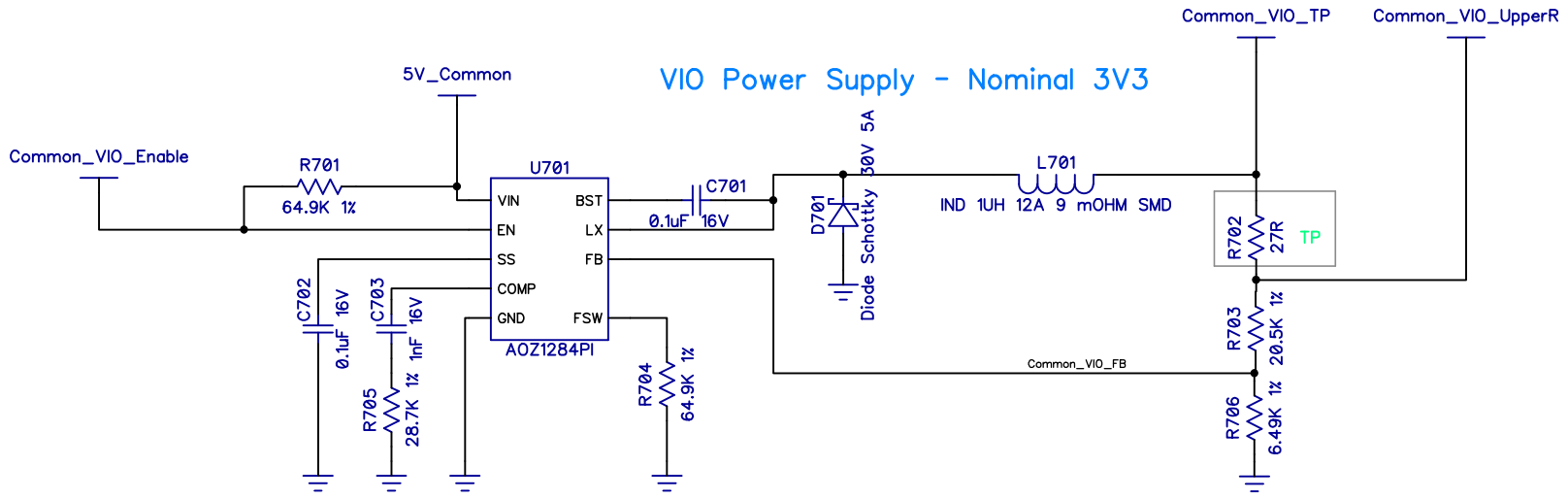
**ENGINEERING SAMPLE - NOT FOR RESALE**  
**PRE-PRODUCTION EVALUATION**

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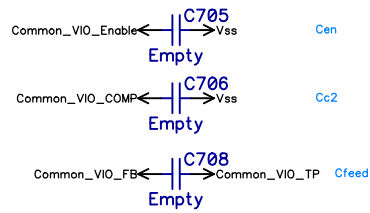
Part Number: 64000-ES  
Revision: A1

Last Update: 07 Nov 2018

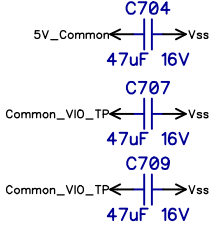
# Common VIO 3V3



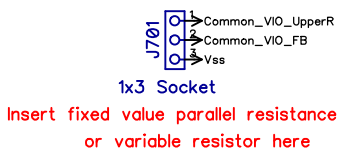
### Optional / Tuning Caps



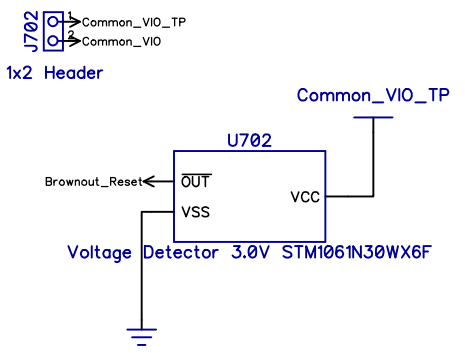
### Bulk Caps



### Common\_VIO Override



### Current Test Point



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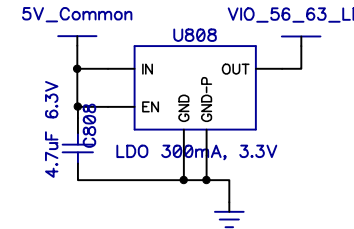
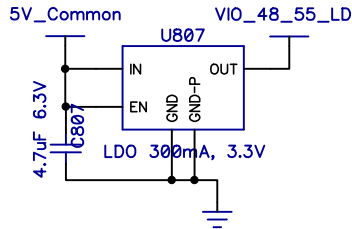
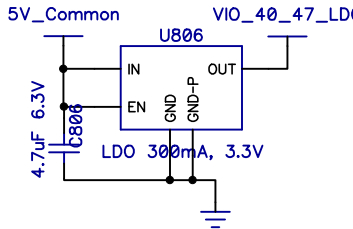
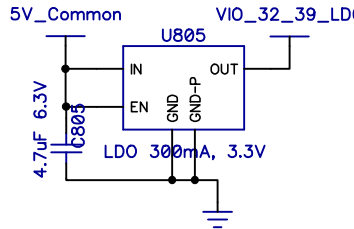
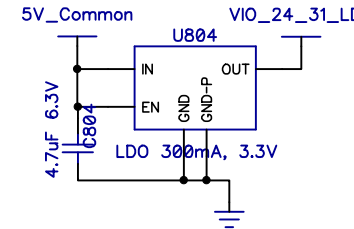
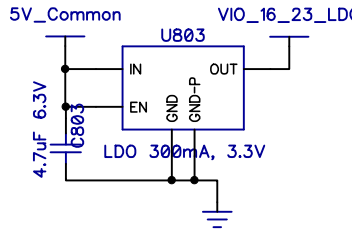
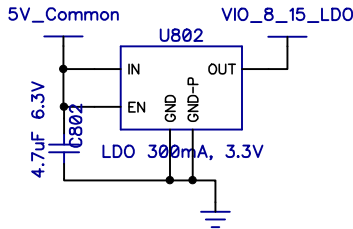
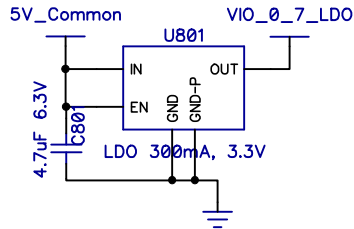
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# LDO 3V3

4.7uF : DC Bias 5.0V, CapChange kb. 82% (0.8uF)  
 4.7uF : DC Bias 3.3V, CapChange kb. 75% (1.2uF), ESR 200MHz kb. 0.03ohm  
 0.1uF : DC Bias 3.3V, CapChange kb. 9% (0.09uF), ESR 200MHz kb. 0.05ohm



Note: LDO output caps at P2

Parallax P2X8C4M64P-ES Evaluation Board  
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**PRE-PRODUCTION EVALUATION**

Part Number: 64000-ES  
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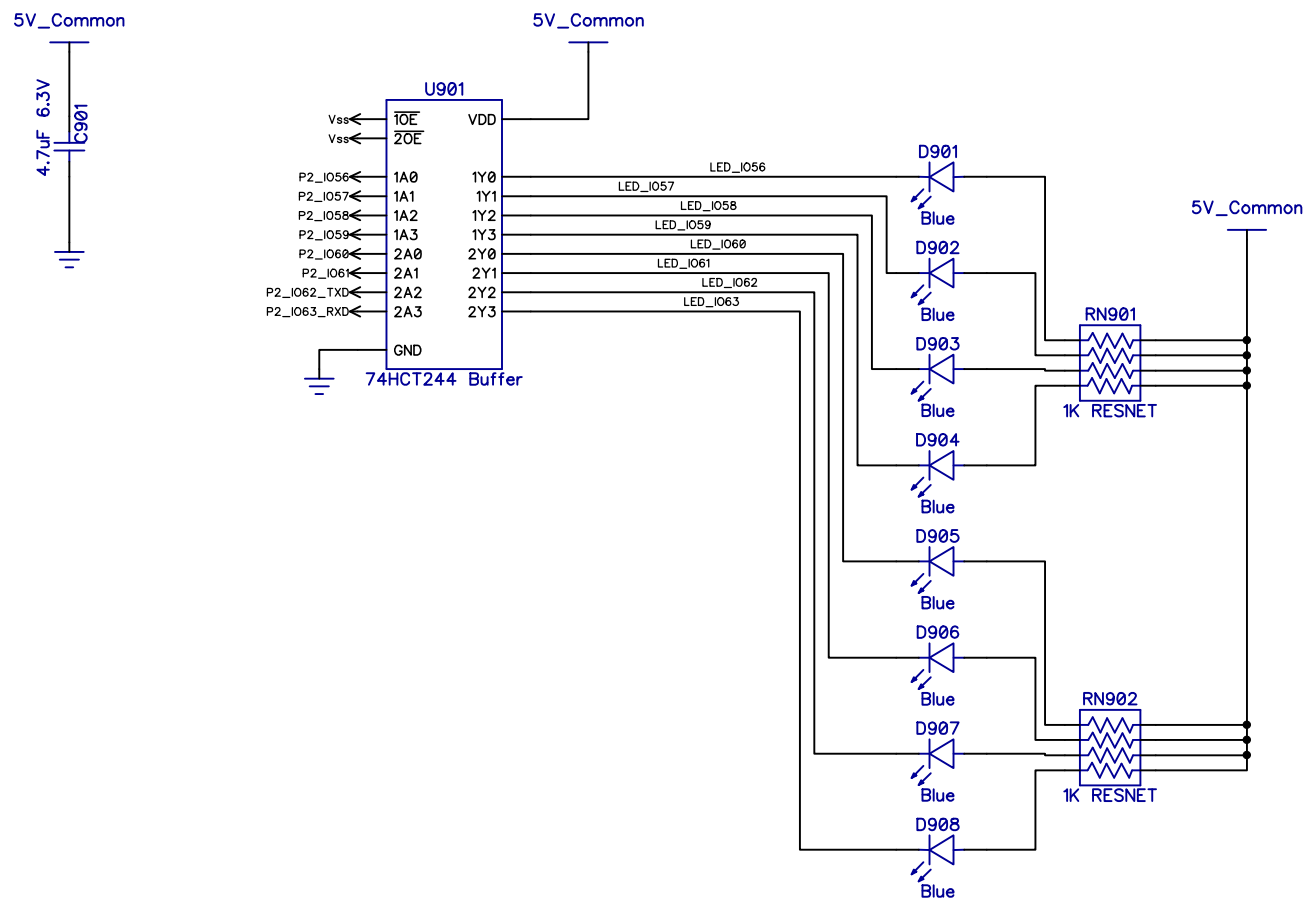
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# LEDs



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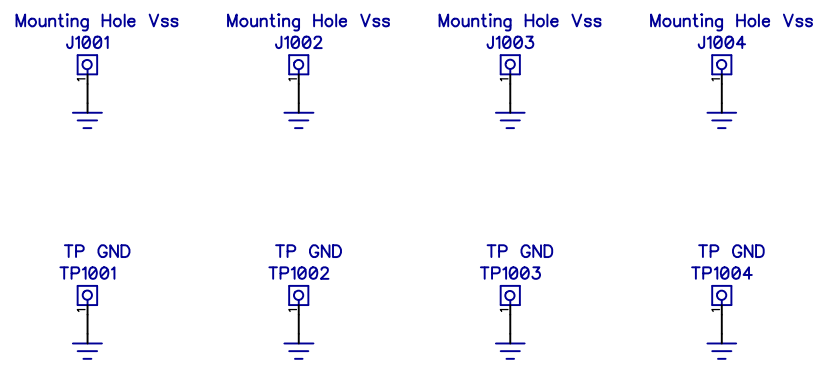
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# Mount Holes



PCB  
PCB for P2 Eval Board

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