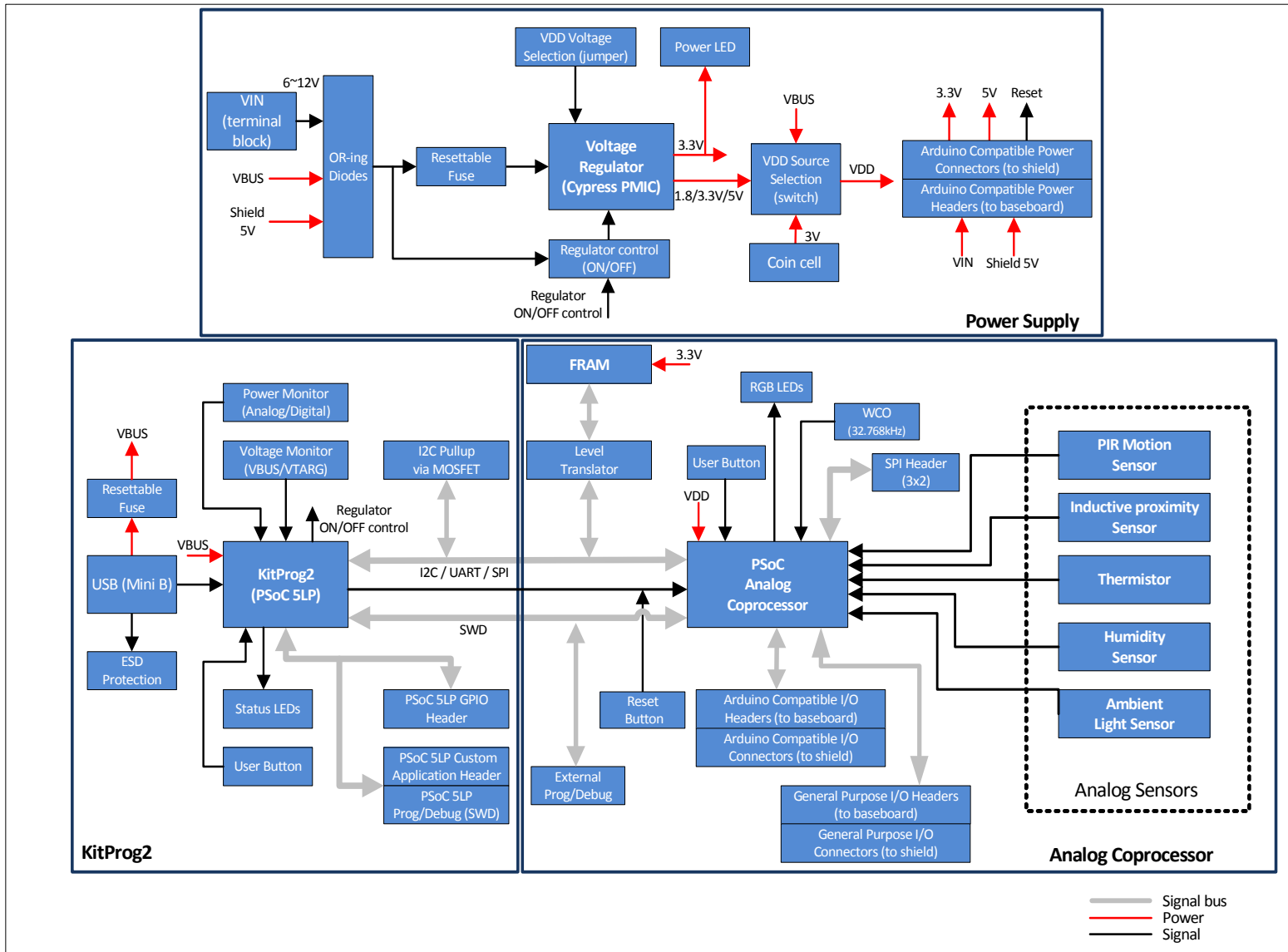


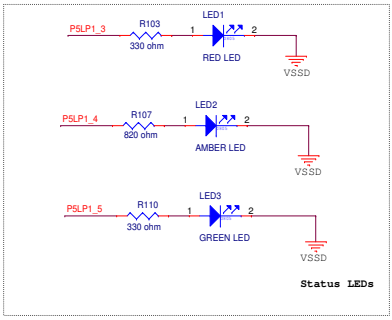
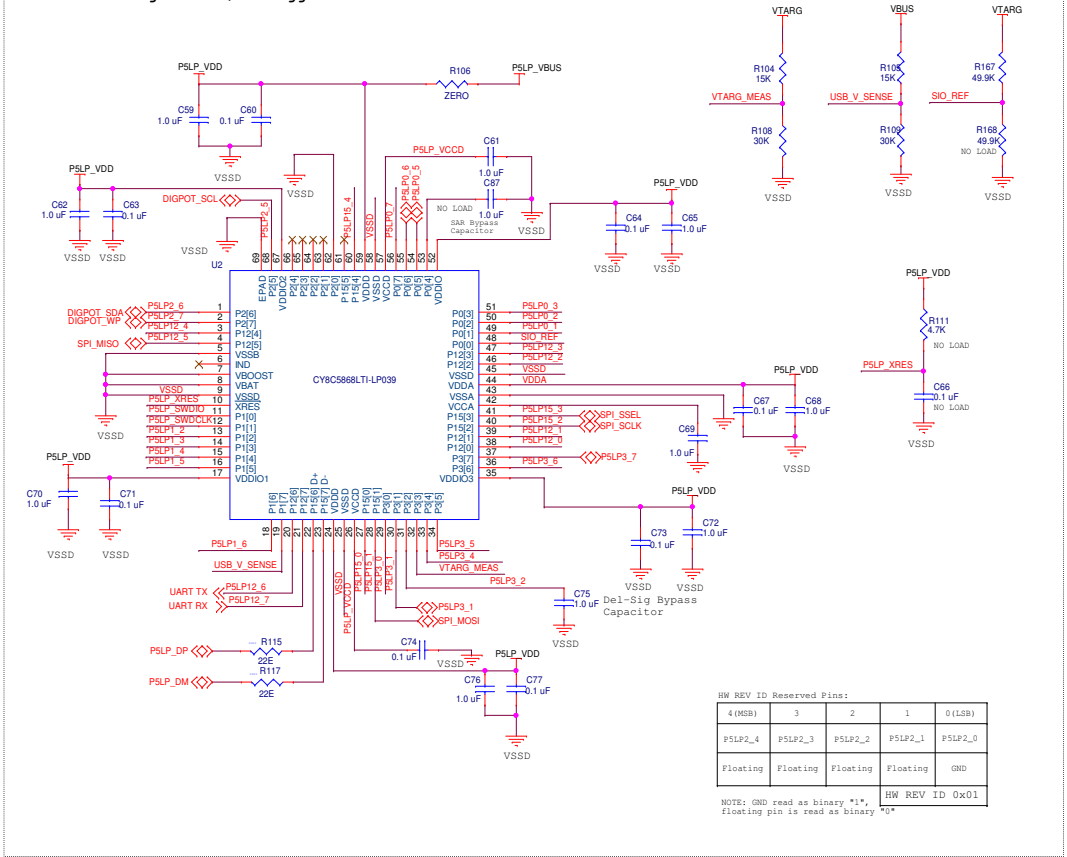
CY8CKIT-048 PSoC Analog Co-Processor Pioneer Kit Functional Block Diagram



PCA: 121-60297-01
 PCB: 600-60319-01
 FAB DRW: 610-60294-01
 ASSY DRW: 620-60302-01

| | | |
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| Title | | |
| CY8CKIT-048 PSoC Analog Co-Processor Pioneer Kit | | |
| Size | Document Number | Rev |
| A4 | 630-60300-01 | 06 |
| Date: | Tuesday, June 07, 2016 | Sheet 1 of 11 |

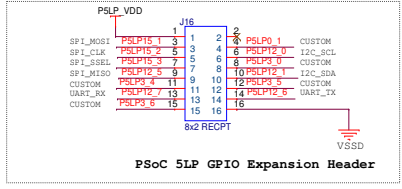
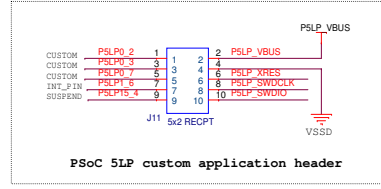
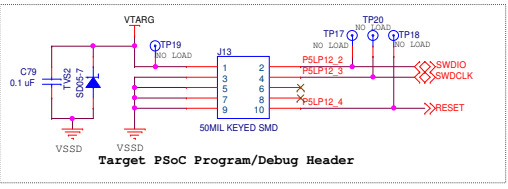
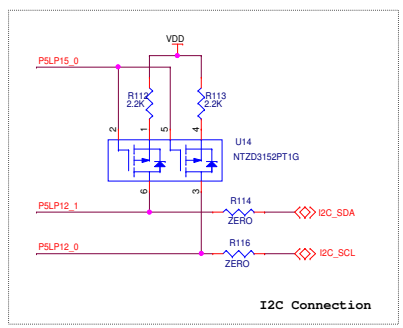
PSoc 5LP Programmer / Debugger



- PSoc Programming Connections**
- PSLP15_7 ----- USB_DM
 - PSLP15_6 ----- USB_DP
 - PSLP1_7 ----- USB_V_SENSE
 - PSLP12_2 ----- SWD_IO
 - PSLP12_3 ----- SWD_CLK
 - PSLP12_4 ----- SWD_XRES
 - PSLP1_0 ----- P5LP_SWDIO
 - PSLP1_1 ----- P5LP_SWCLK
 - XRES ----- P5LP_XRES

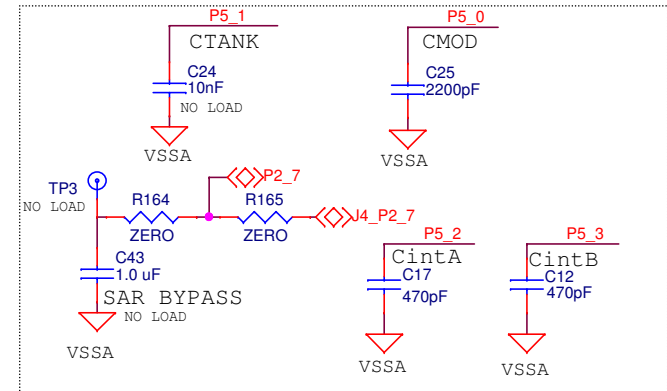
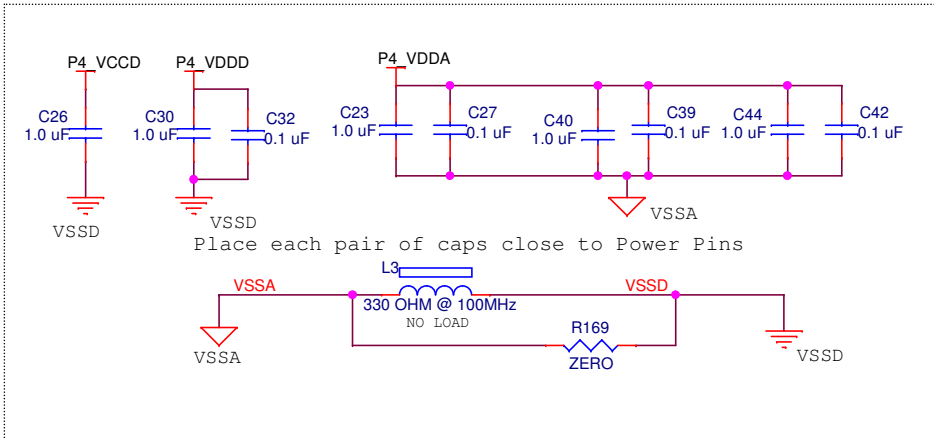
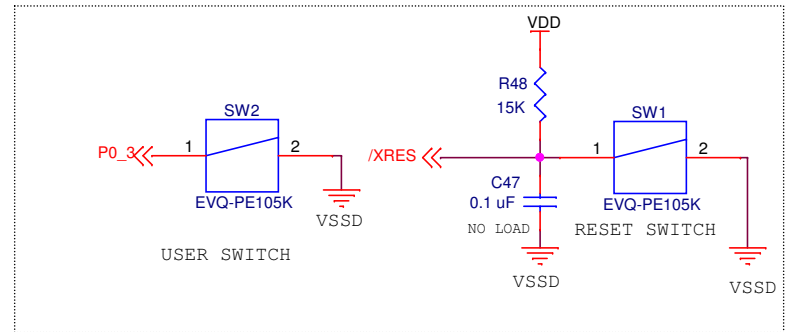
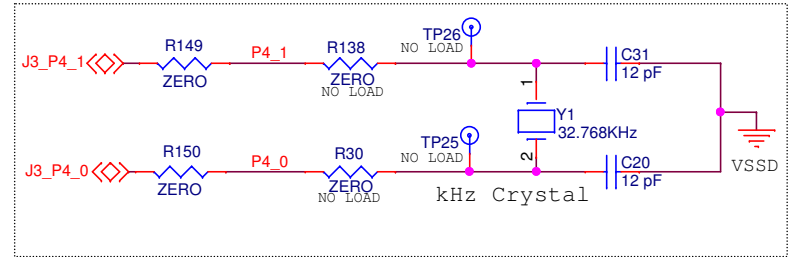
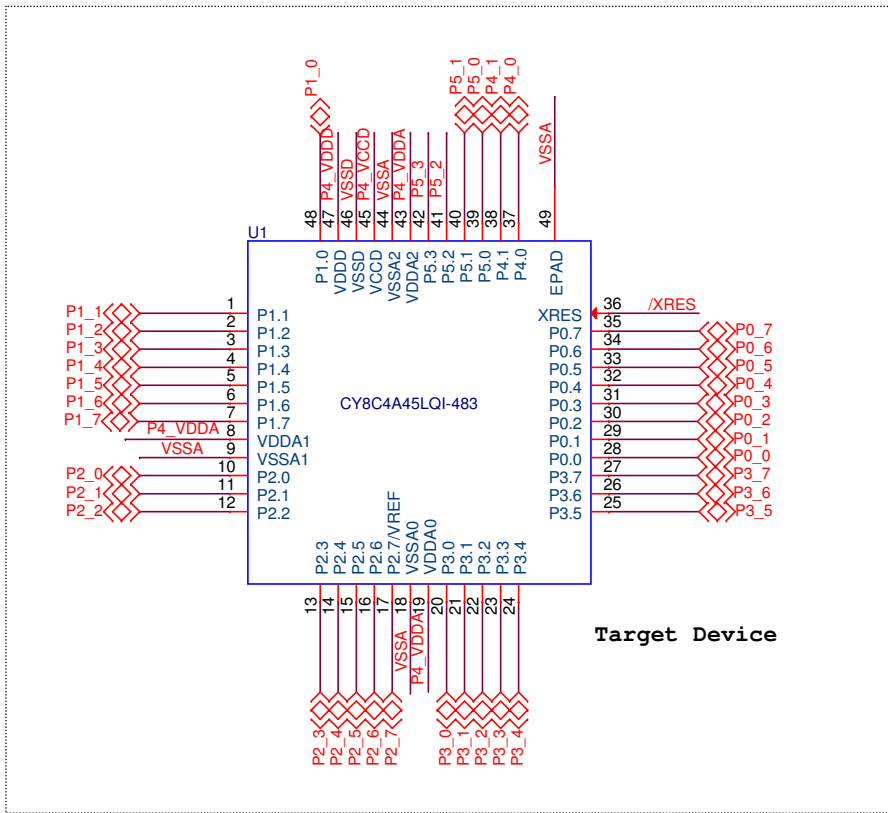
- USER Interface Connections**
- PSLP1_2 ----- User Switch
 - PSLP1_3 ----- Status LED RED
 - PSLP1_4 ----- Status LED AMBER
 - PSLP1_5 ----- Status LED GREEN

- Special Functions Connections**
- PSLP1_6 ----- INT_PIN
 - PSLP15_4 ----- SUSPEND



PCB: 121-60297-01
 PCB: 600-60319-01
 FAB DRW: 610-60294-01
 ASSY DRW: 620-60302-01

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| File: CY8CKIT-048 PSoc Analog Co-Processor Pioneer Kit | | | |
| Size | Document Number | Rev | |
| Custom | 630-60300-01 | 06 | |
| Date: | Tuesday, June 07, 2016 | Sheet | 2 of 11 |

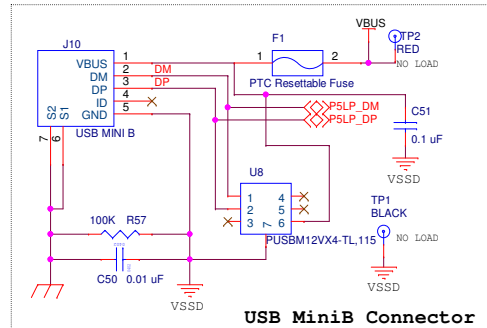
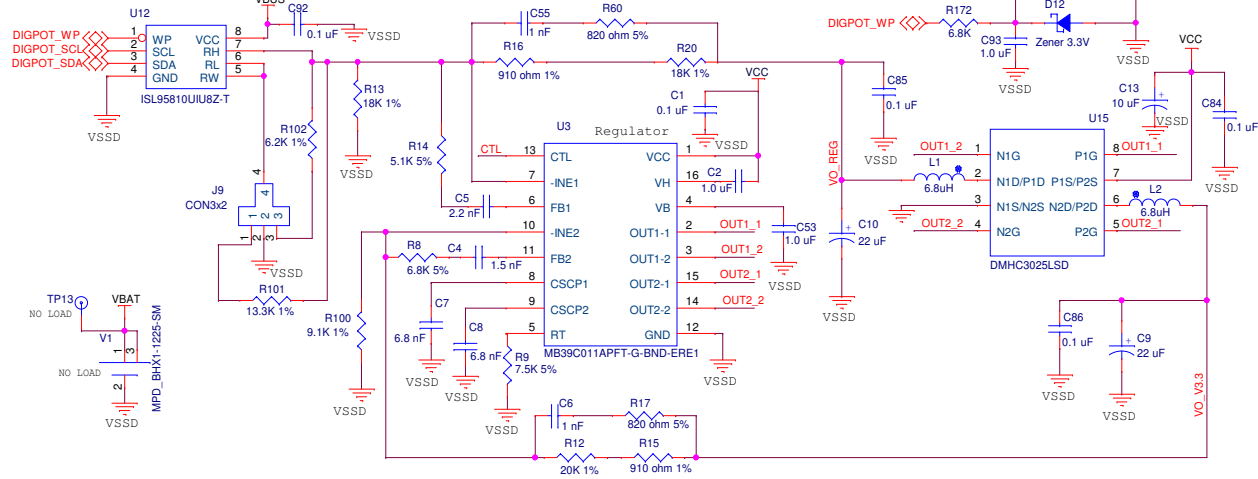


PCA: 121-60297-01
 PCB: 600-60319-01
 FAB DRW: 610-60294-01
 ASSY DRW: 620-60302-01

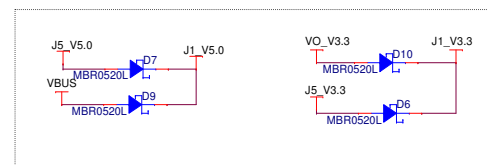
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Power Supply

Input Voltage Range for VIN is 6-12V



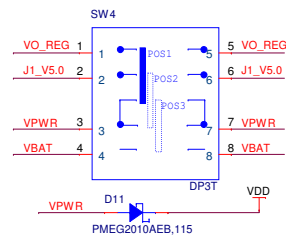
USB MiniB Connector



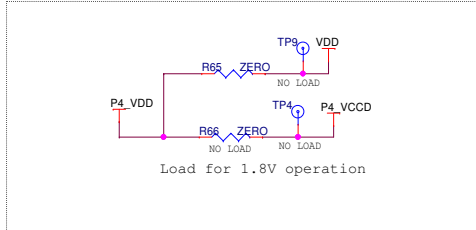
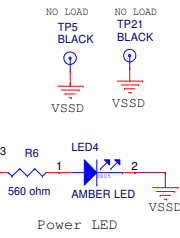
Power Selection

VOLTAGE SELECTION JUMPER SETTINGS

| JUMPER SETTING | O/P VOLTAGE | MODE |
|----------------|-------------|--------|
| SHORT 4 & 2 | 1.8V-3.3V | PROGM. |
| SHORT 3 & 2 | 5.0V | MANUAL |
| SHORT 1 & 2 | 3.3V | MANUAL |
| REMOVE JUMPER | 1.8V | MANUAL |



POS1 -- Regulator
 POS2 -- USB (5V)
 POS3 -- Battery



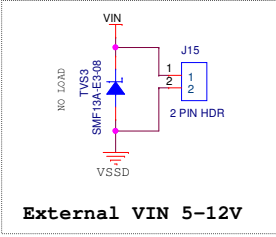
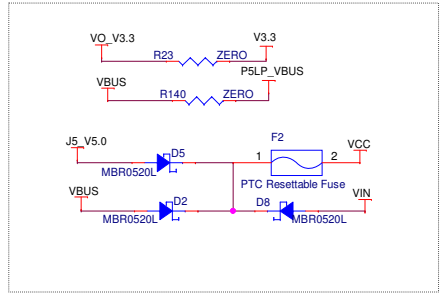
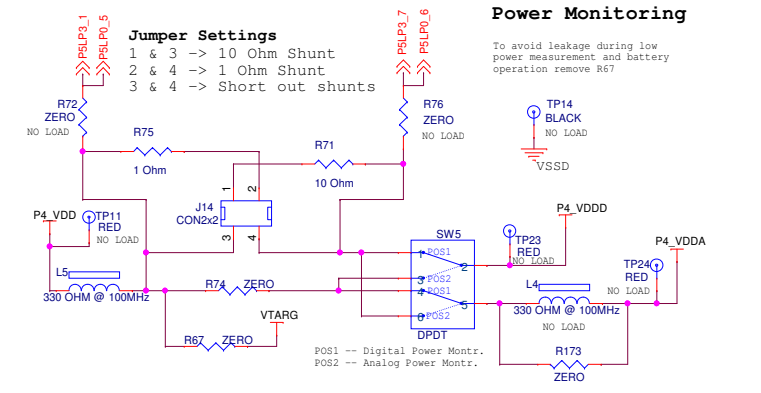
Load for 1.8V operation

Jumper Settings

- 1 & 3 -> 10 Ohm Shunt
- 2 & 4 -> 1 Ohm Shunt
- 3 & 4 -> Short out shunts

Power Monitoring

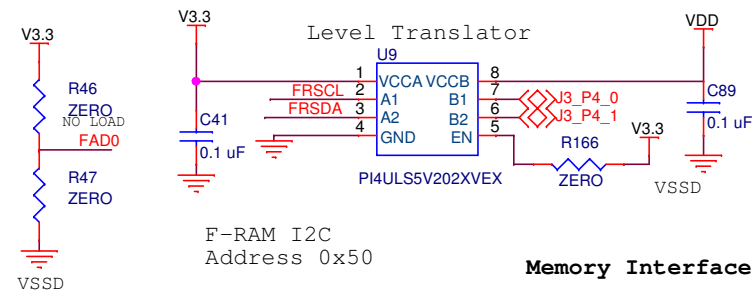
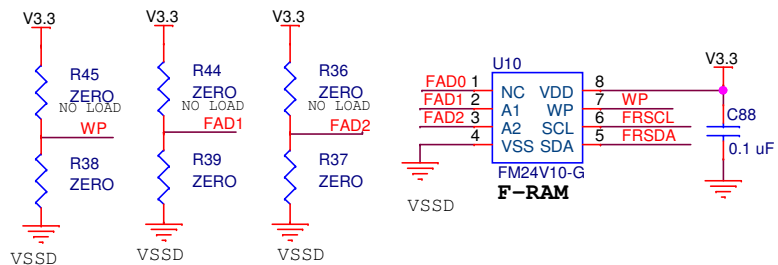
To avoid leakage during low power measurement and battery operation remove R67



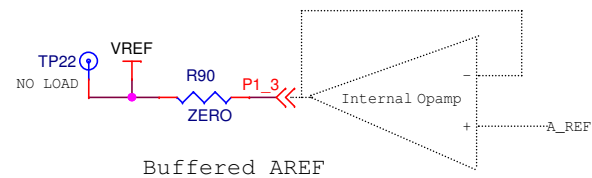
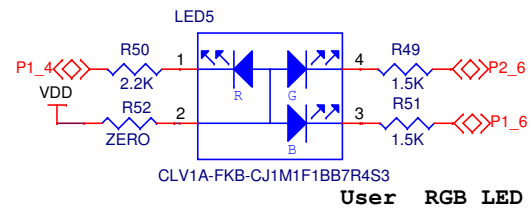
External VIN 5-12V

PCA: 121-60297-01
 PCB: 600-60319-01
 FAB DRW: 610-60294-01
 ASSY DRW: 620-60302-01

| | | |
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| Size A3 | Document Number 630-60300-01 | Rev 06 |
| Date: Tuesday, June 07, 2016 | Sheet 4 of 11 | |

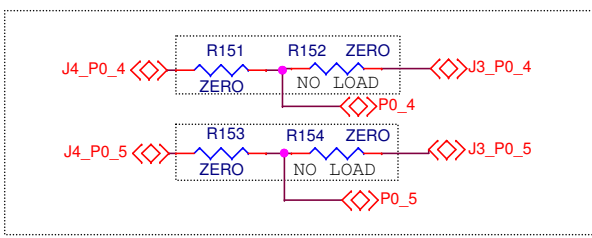
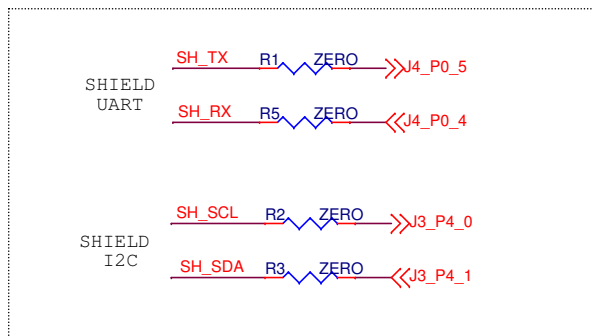
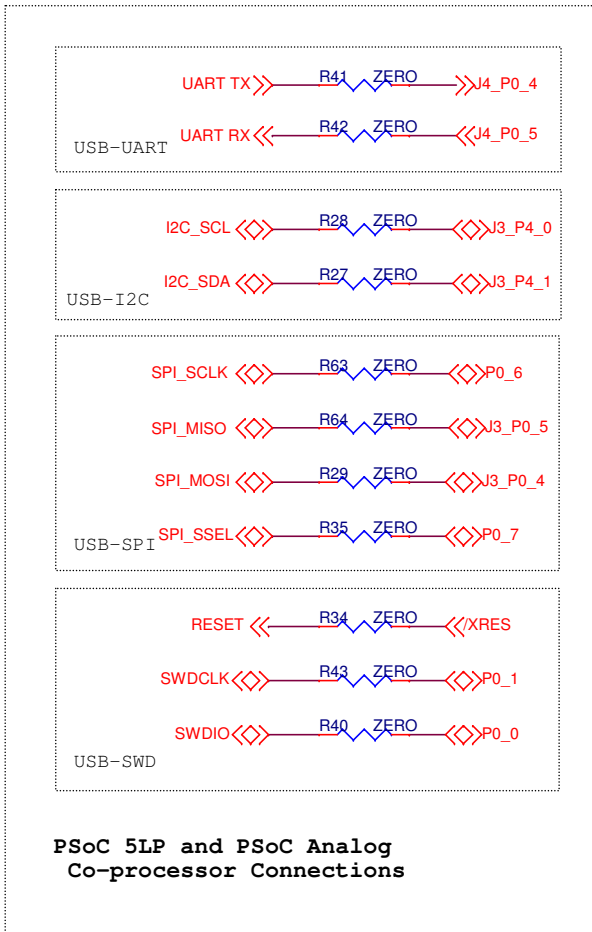


The F-RAM FM24V10 on the CY8CKIT-048 is compatible with all I2C-based F-RAM devices from Cypress (FM24Vxx, FM24CLxx, and CY15BxxxJ parts). The F-RAM parts with more than 64 KB size support only four addresses (four devices of the same type on the same I2C bus); resistors connected to A1 (R44/R39) and A2 (R36/ R37) pins can be used to select any of the four addresses. The F-RAM parts with less than 64 KB and FM24CLxx parts support eight addresses; resistors connected to A0 (R46/R47), A1 (R44/R39) and A2 (36/ R37) pins can be used to select one of the eight addresses.

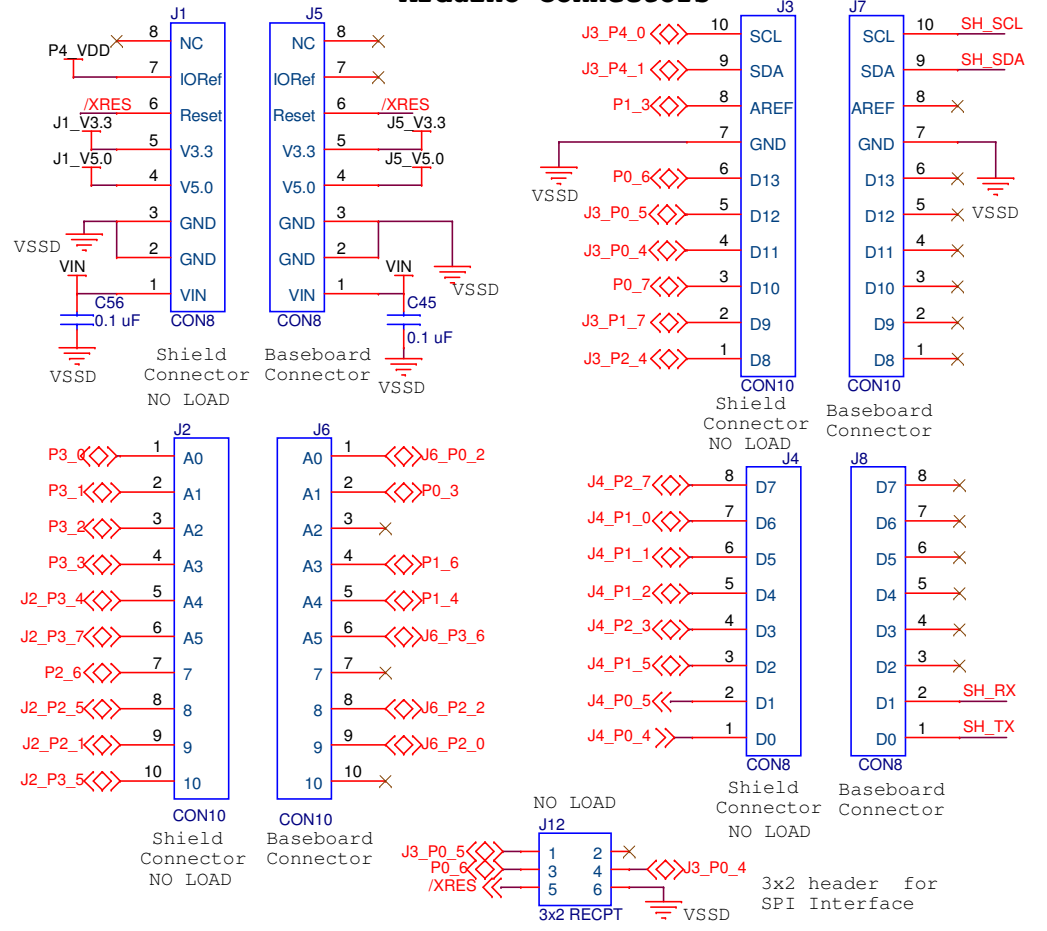


PCA: 121-60297-01
 PCB: 600-60319-01
 FAB DRW: 610-60294-01
 ASSY DRW: 620-60302-01

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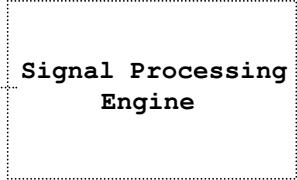
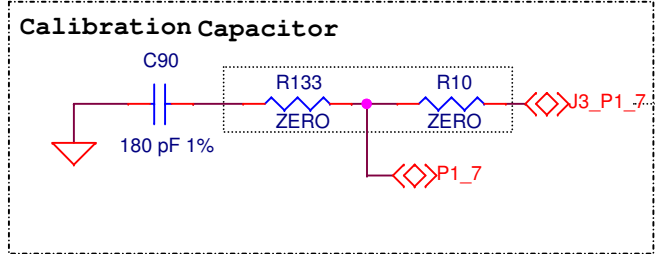
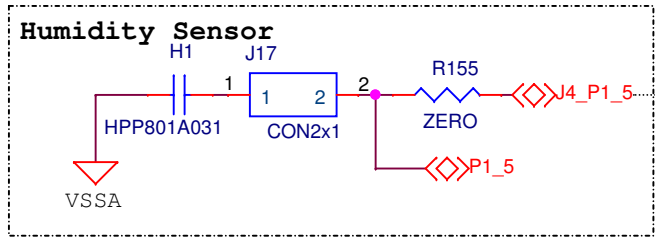


Arduino Connectors



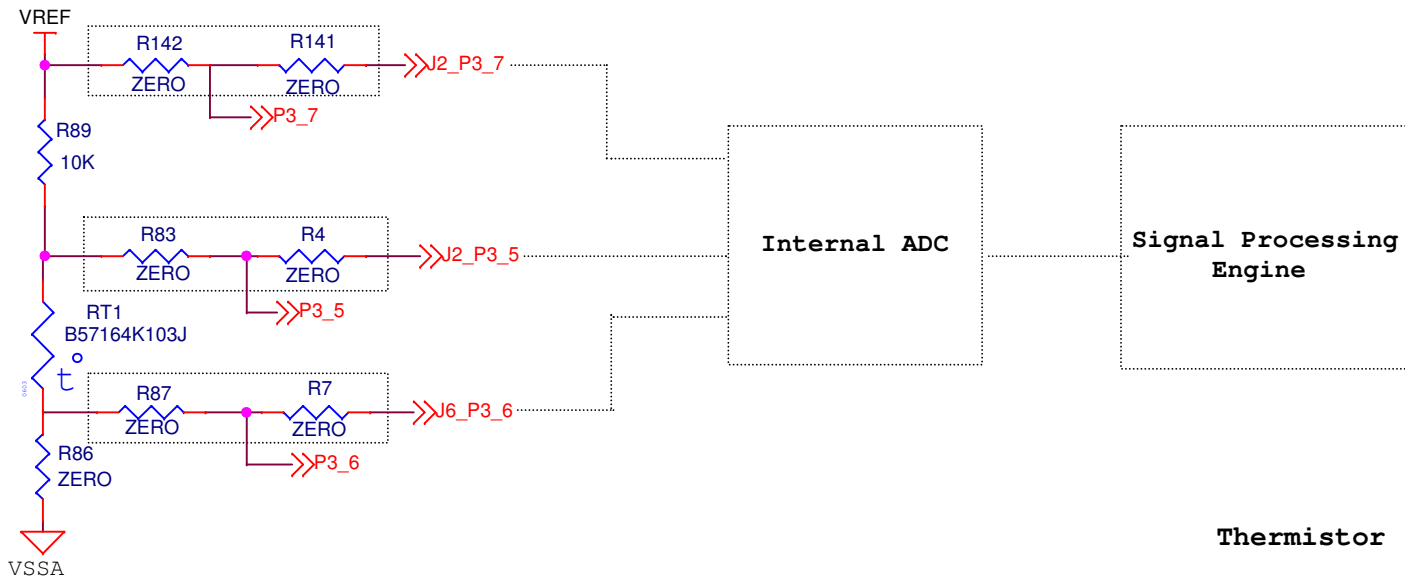
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 PCB: 600-60319-01
 FAB DRW: 610-60294-01
 ASSY DRW: 620-60302-01

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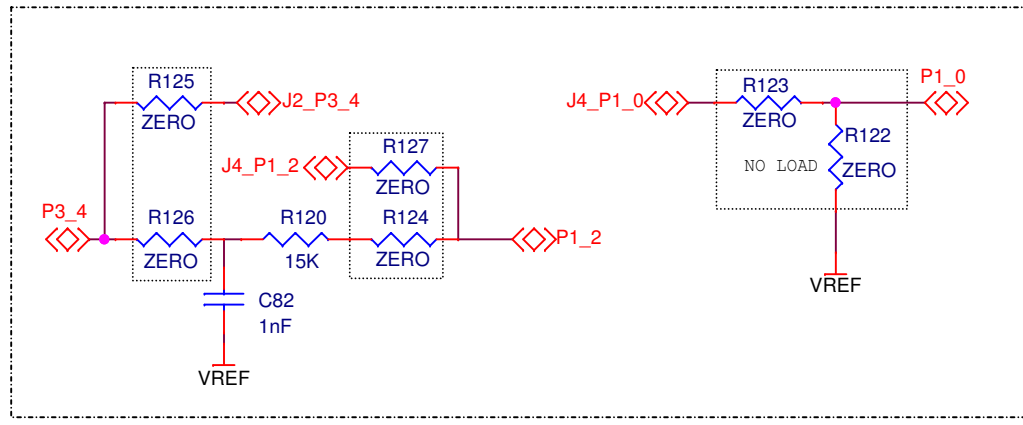
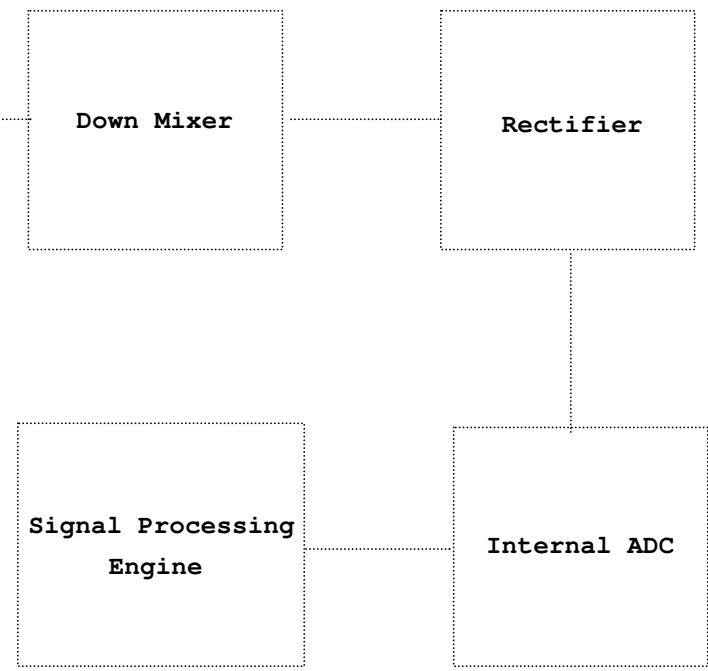
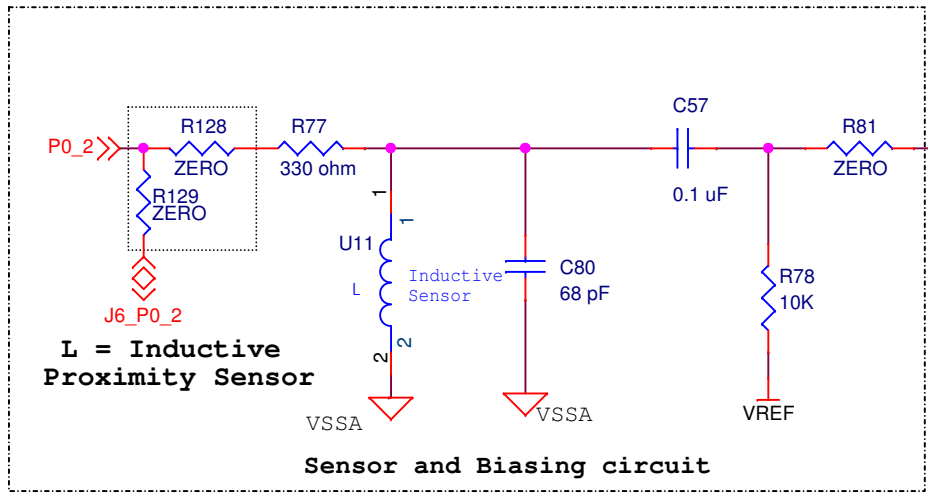
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 PCB: 600-60319-01
 FAB DRW: 610-60294-01
 ASSY DRW: 620-60302-01

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| | 2 | 1 |



PCA: 121-60297-01
 PCB: 600-60319-01
 FAB DRW: 610-60294-01
 ASSY DRW: 620-60302-01

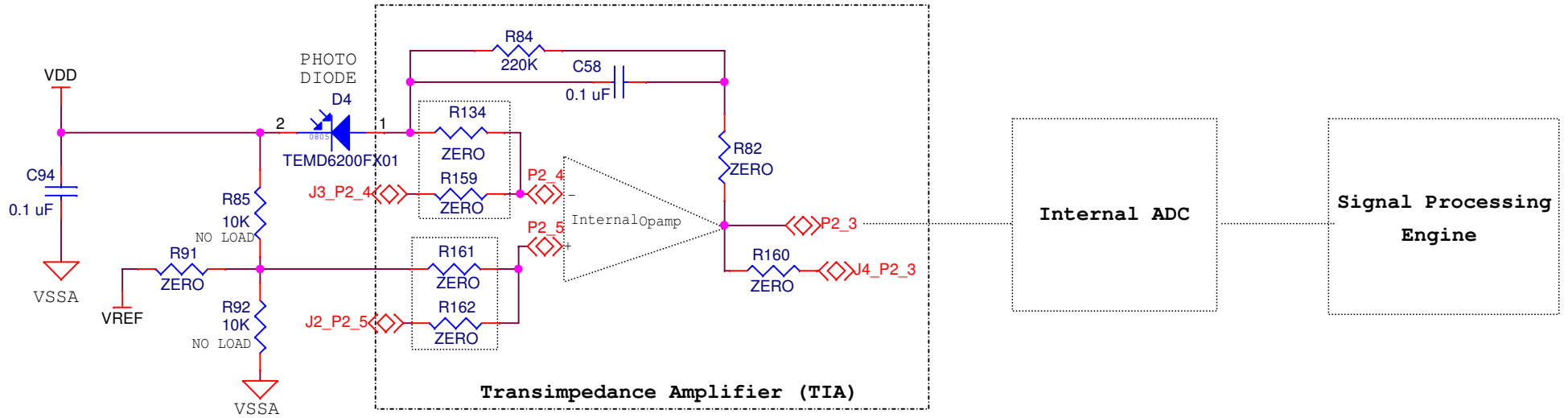
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PCA: 121-60297-01
 PCB: 600-60319-01
 FAB DRW: 610-60294-01
 ASSY DRW: 620-60302-01

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Ambient Light Sensor



PCA: 121-60297-01
 PCB: 600-60319-01
 FAB DRW: 610-60294-01
 ASSY DRW: 620-60302-01

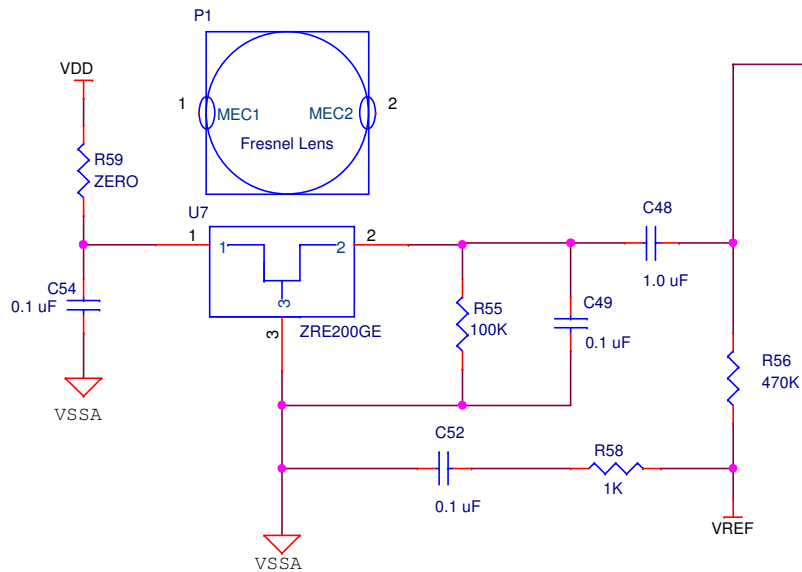
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Title
CY8CKIT-048 PSoC Analog Co-Processor Pioneer Kit

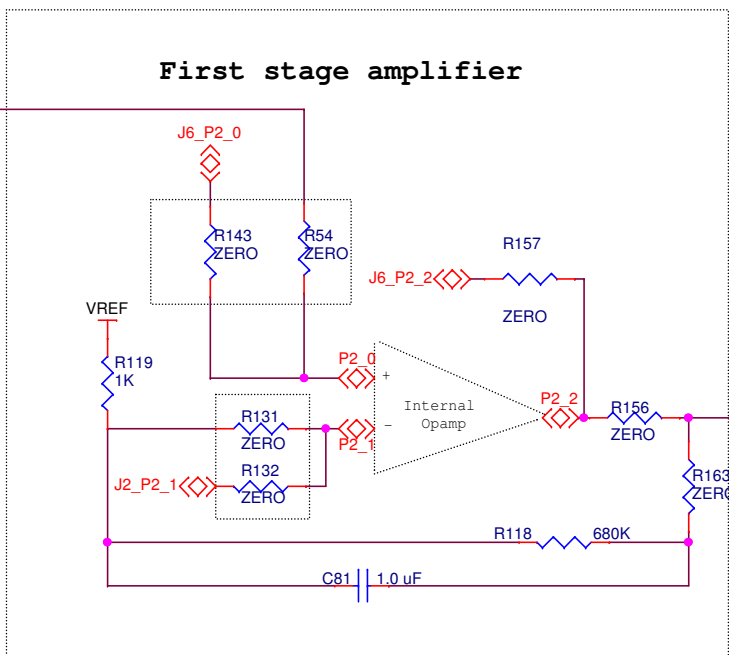
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| Size A | Document Number 630-60300-01 | Rev 06 |
|-----------|--|------------------|

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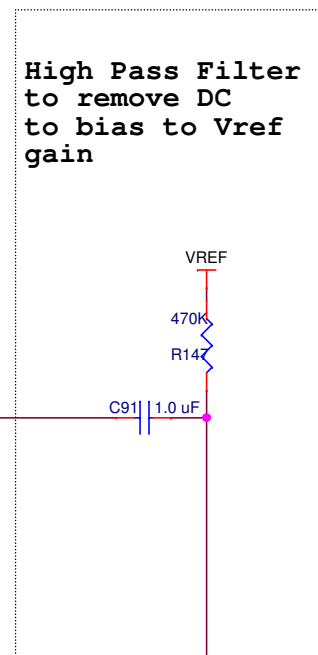
Passive circuit to bias the PIR signal to Vref



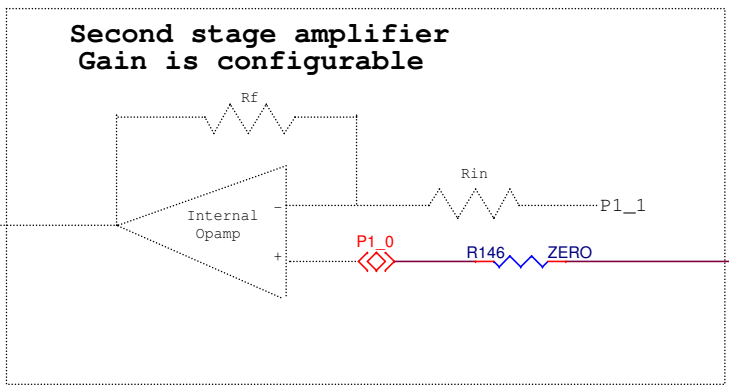
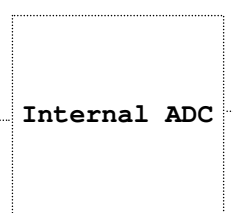
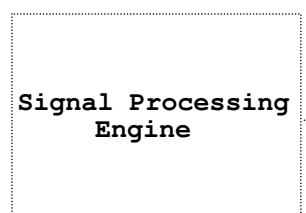
PIR Motion Sensor



First stage amplifier



High Pass Filter to remove DC to bias to Vref gain



**Second stage amplifier
Gain is configurable**

Signal Processing Engine

Internal ADC

P1_2

PCA: 121-60297-01
 PCB: 600-60319-01
 FAB DRW: 610-60294-01
 ASSY DRW: 620-60302-01

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