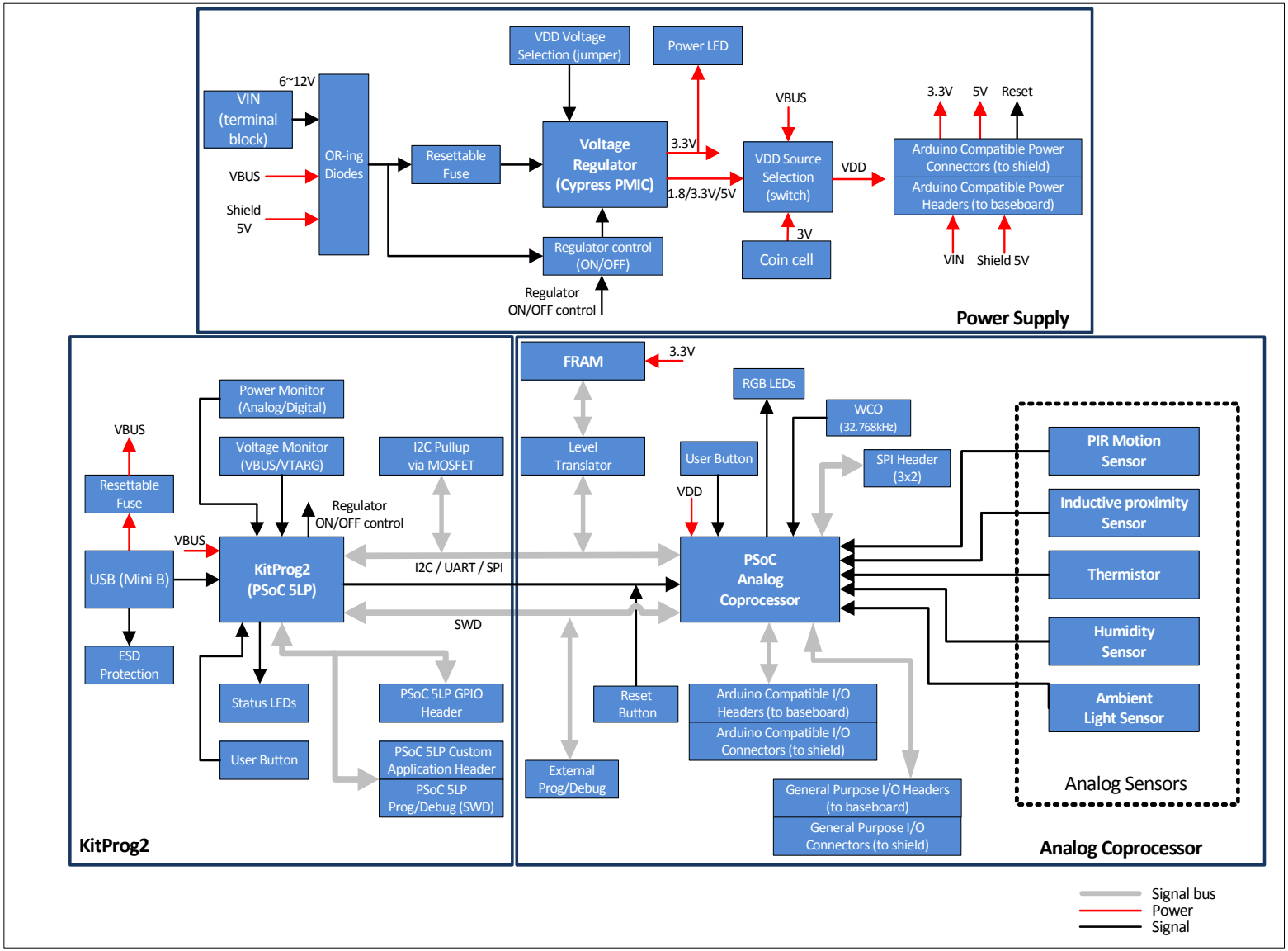
CY8CKIT-048 PSoC Analog Co-Processor Pioneer Kit Funtional Block Diagram

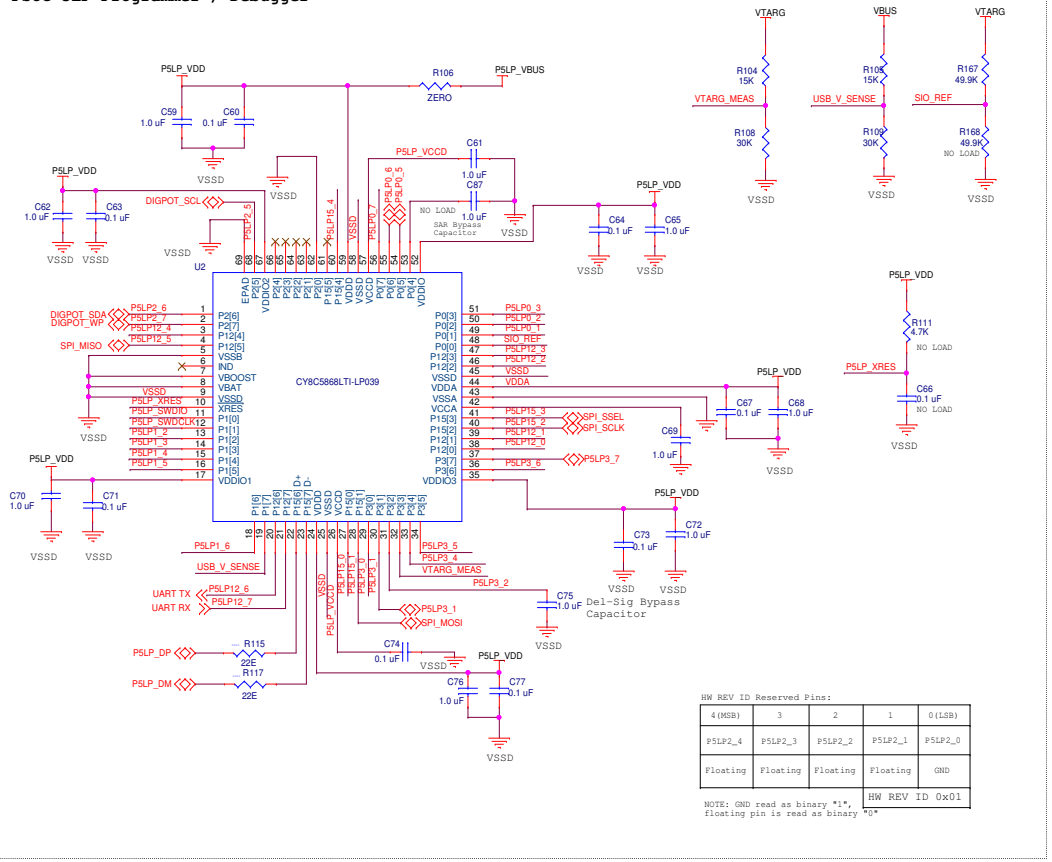


PCA: 121-60297-01
PCB: 600-60319-01
FAB DRW: 610-60294-01
ASSY DRW: 620-60302-01

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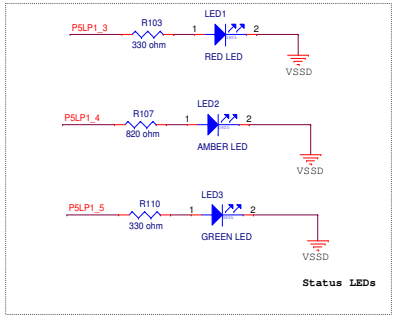
PSoC 5LP Programmer / Debugger



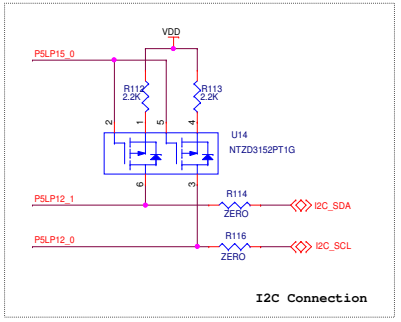
HW REV ID Reserved Pins:

4 (MSB)	3	2	1	0 (LSB)
P5LP2_4	P5LP2_3	P5LP2_2	P5LP2_1	P5LP2_0
Floating	Floating	Floating	Floating	GND
				HW REV ID 0x01

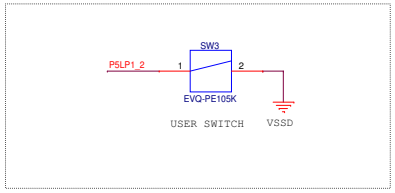
NOTE: GND read as binary "1", floating pin is read as binary "0"



Status LEDs



I2C Connection



USB-Serial Bridge Connections

P5LP12_7 ---------- UART RX
P5LP12_6 ---------- UART TX

P5LP12_0 ---------- I2C SCLK
P5LP12_1 ---------- I2C SDAT
P5LP15_0 ---------- I2C_PULLUP_EN

P5LP12_5 ---------- SPI_MISO
P5LP15_1 ---------- SPI_MOSI
P5LP15_2 ---------- SPI_SCLK
P5LP15_3 ---------- SPI_SS

PSoC Programming Connections

P5LP15_7 ---------- USB_DM
P5LP15_6 ---------- USB_DP
P5LP1_7 ---------- USB_V_SENSE

P5LP12_2 ---------- SWD_IO
P5LP12_3 ---------- SWD_CLK
P5LP12_4 ---------- SWD_XRES

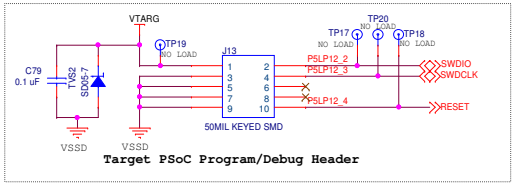
P5LP1_0 ---------- P5LP_SWDIO
P5LP1_1 ---------- P5LP_SWDCLK
XRES ---------- P5LP_XRES

USER Interface Connections

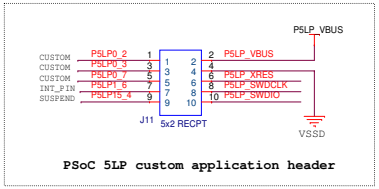
P5LP1_2 ---------- User Switch
P5LP1_3 ---------- Status LED RED
P5LP1_4 ---------- Status LED AMBER
P5LP1_5 ---------- Status LED GREEN

Special Functions Connections

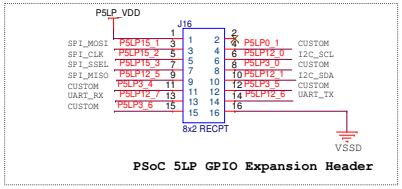
P5LP1_6 ---------- INT_PIN
P5LP15_4 ---------- SUSPEND



Target PSoC Program/Debug Header



PSoC 5LP custom application header



PSoC 5LP GPIO Expansion Header

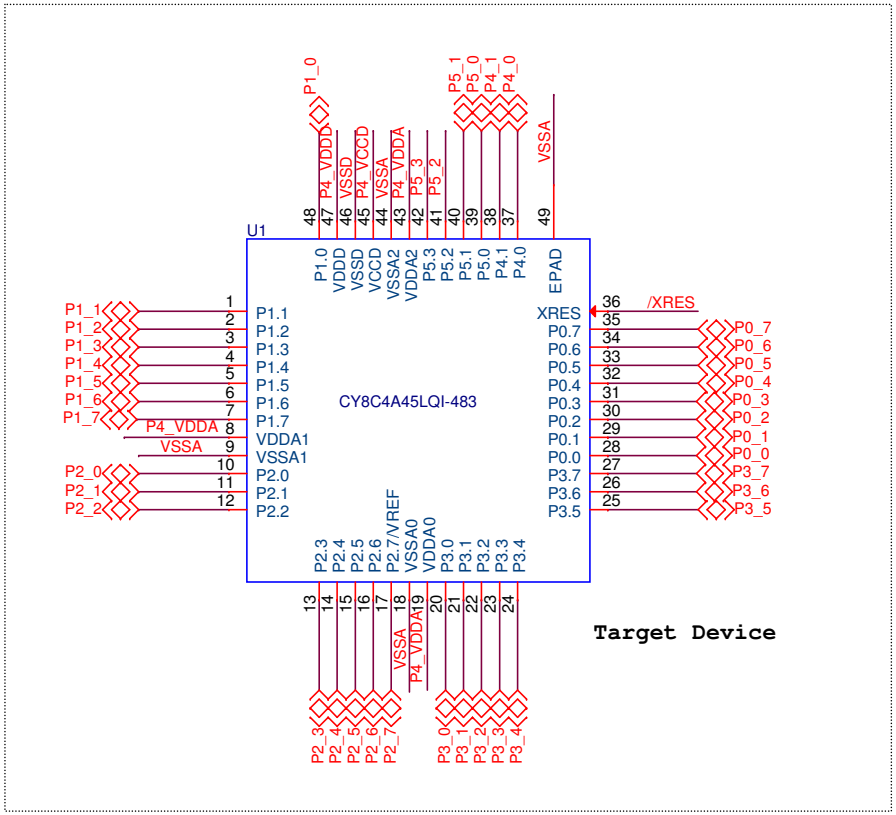
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PCB: 600-60319-01
FAB DRW: 610-60294-01
ASSY DRW: 620-60302-01

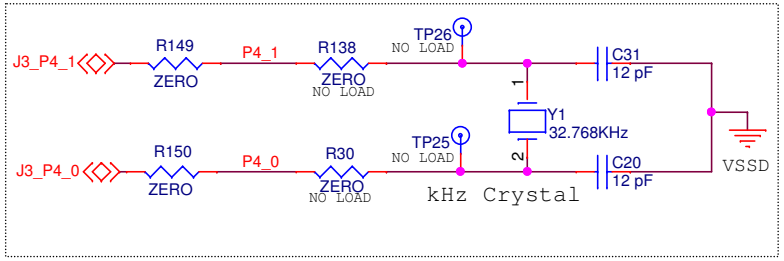
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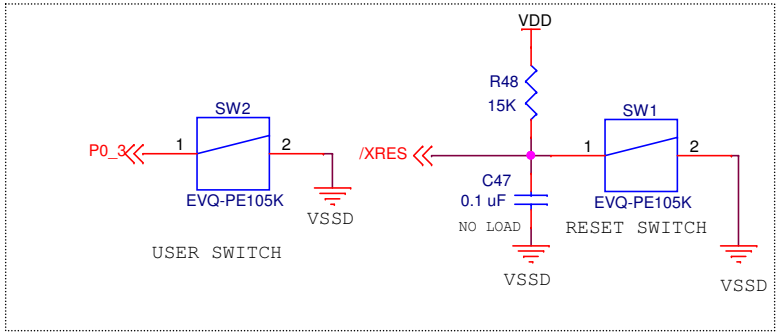
Title: CY8CKIT-048 PSoC Analog Co-Processor Pioneer Kit

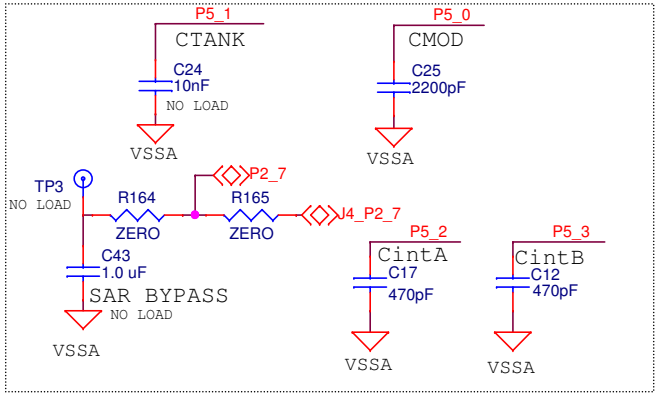
Size	Document Number	Rev
Custom	630-60300-01	06

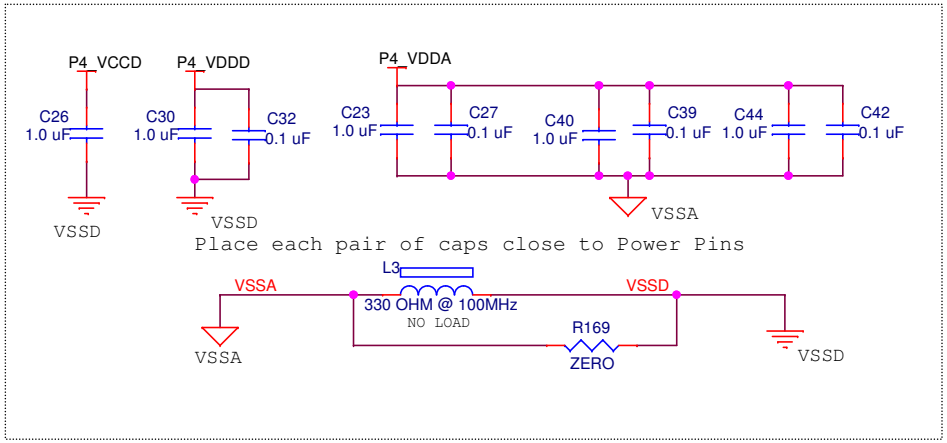
Date: Tuesday, June 07, 2016 Sheet 2 of 11









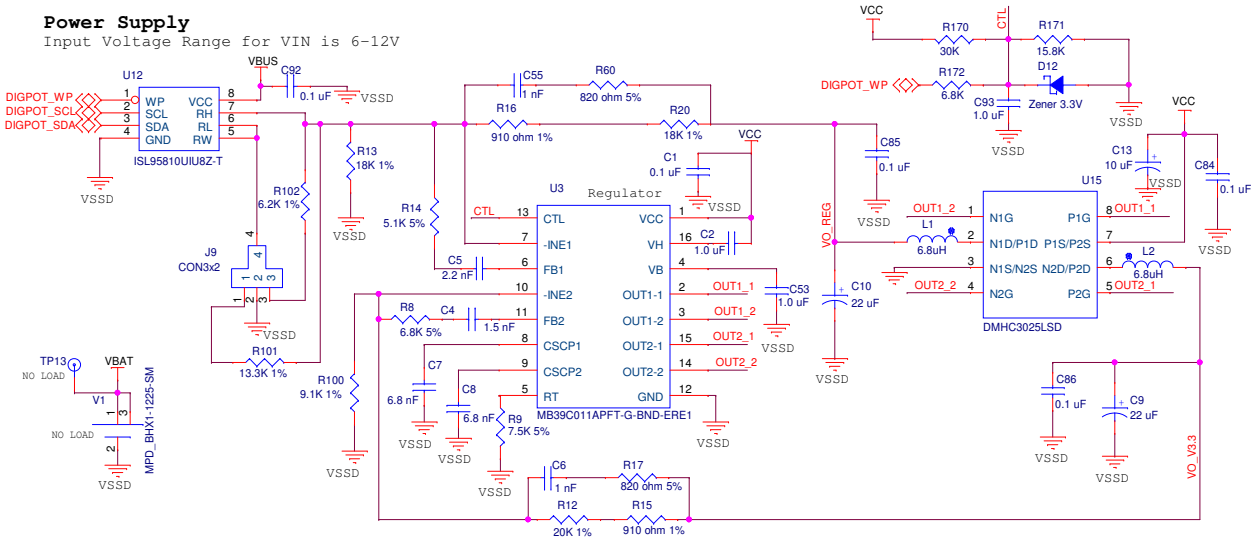


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PCB: 600-60319-01
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ASSY DRW: 620-60302-01

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Title: CY8CKIT-048 PSoC Analog Co-Processor Pioneer Kit		
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Power Supply

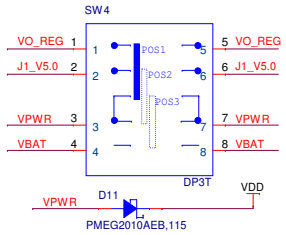
Input Voltage Range for VIN is 6-12V



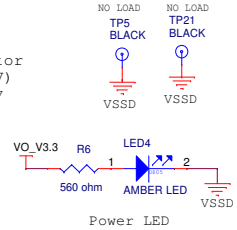
Power Selection

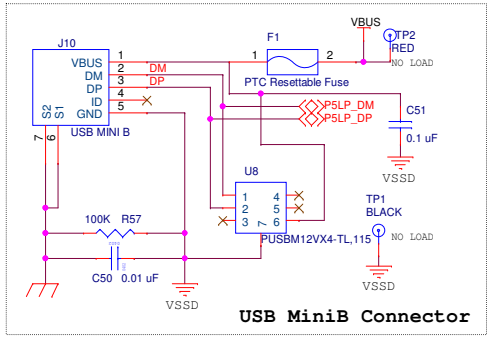
VOLTAGE SELECTION JUMPER SETTINGS

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

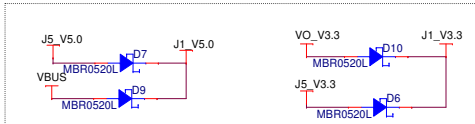


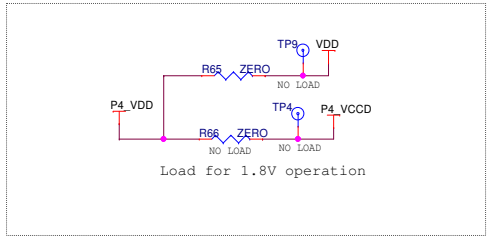
POS1 -- Regulator
POS2 -- USB (5V)
POS3 -- Battery





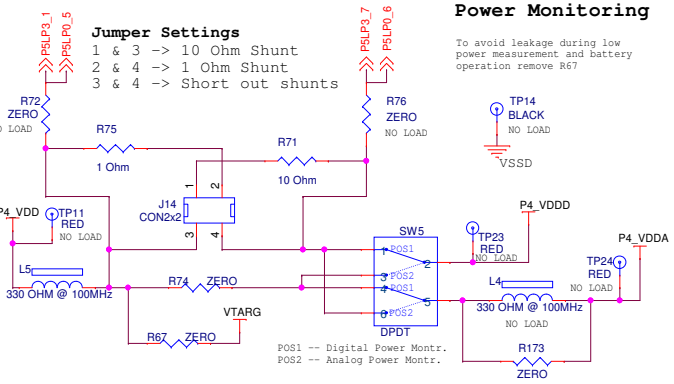
USB MiniB Connector

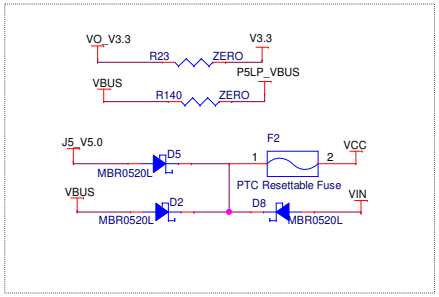


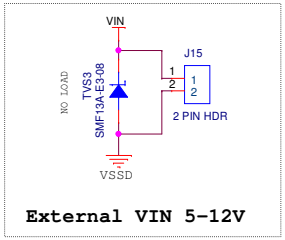


Load for 1.8V operation

Power Monitoring



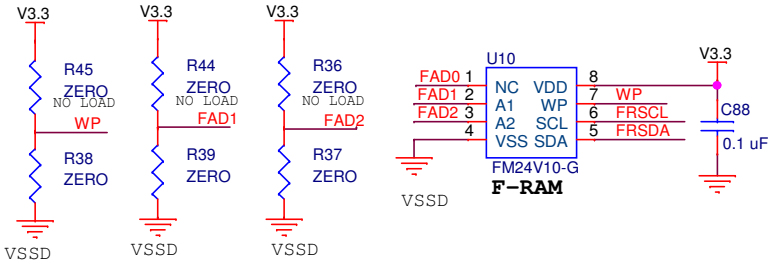


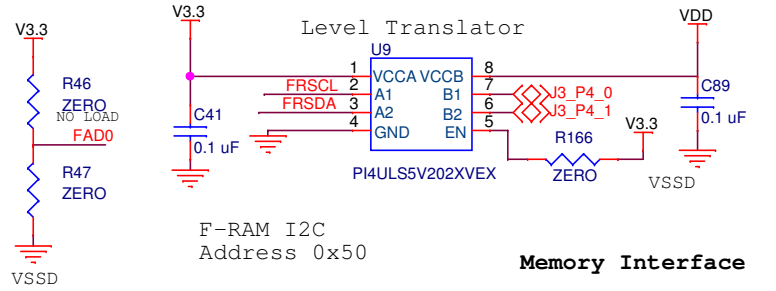


External VIN 5-12V

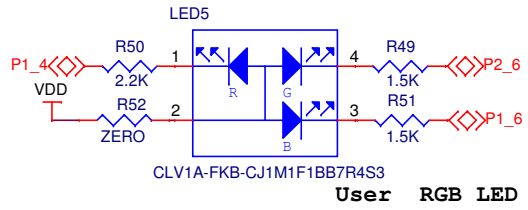
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FAB DRW: 610-60294-01
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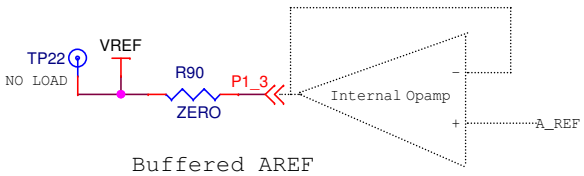
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Title	CY8CKIT-048 PSoC Analog Co-Processor Pioneer Kit
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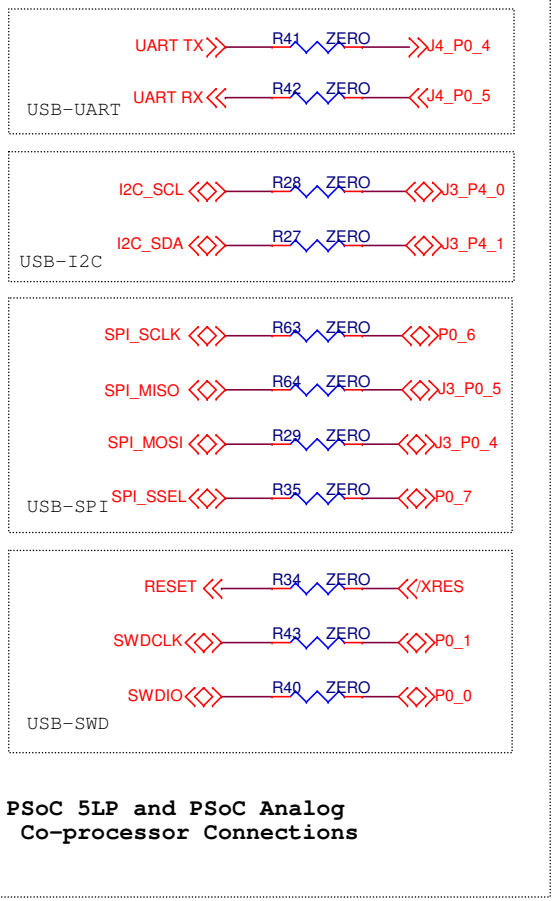
The F-RAM FM24V10 on the CY8CKIT-048 is compatible with all I2C-based F-RAM devices from Cypress (FM24Vxx, FM24CLxx, and CY15BxxxJ parts). The F-RAM parts with more than 64 KB size support only four addresses (four devices of the same type on the same I2C bus); resistors connected to A1 (R44/R39) and 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.



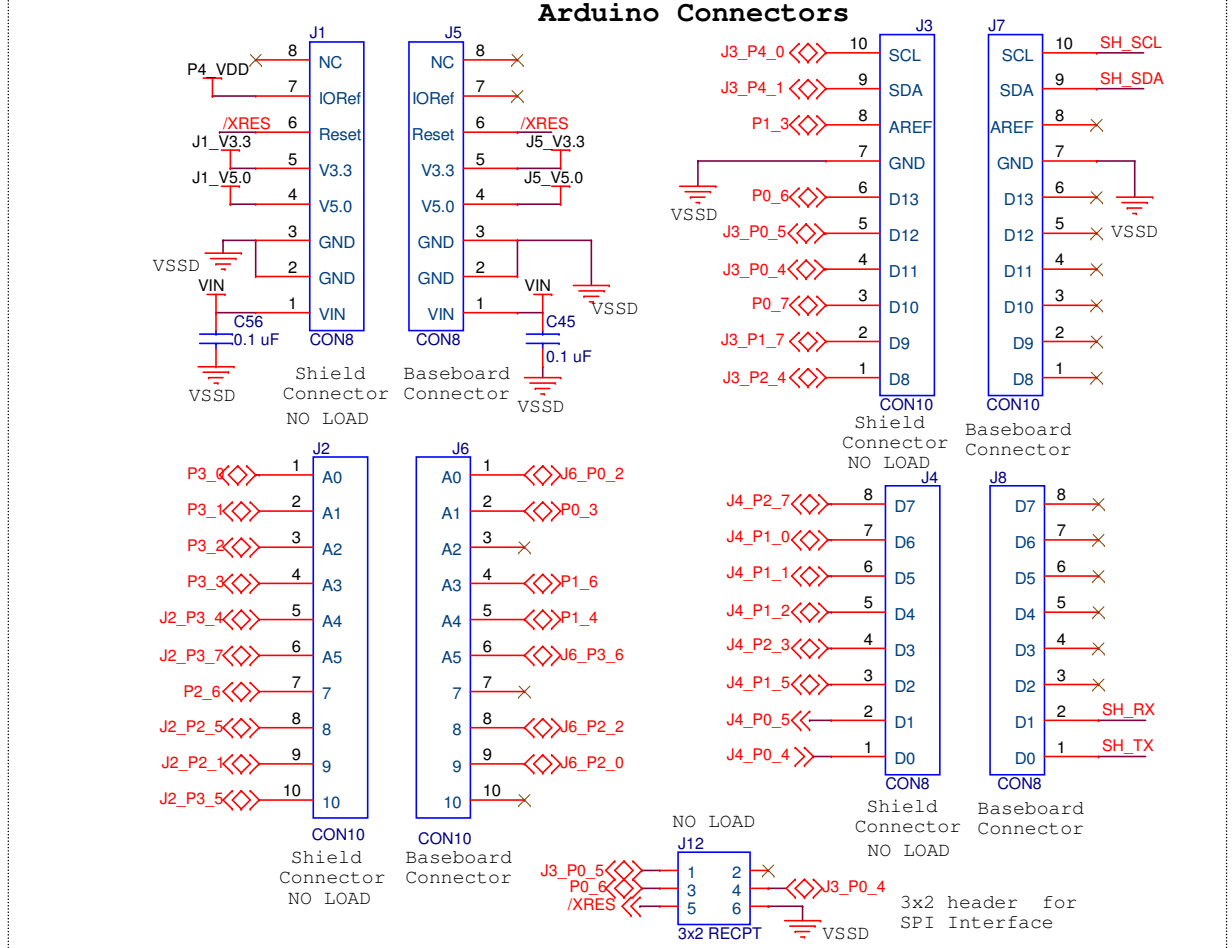


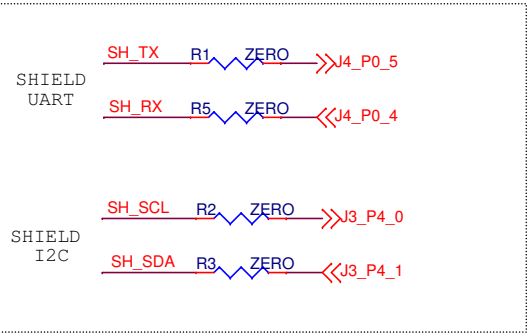
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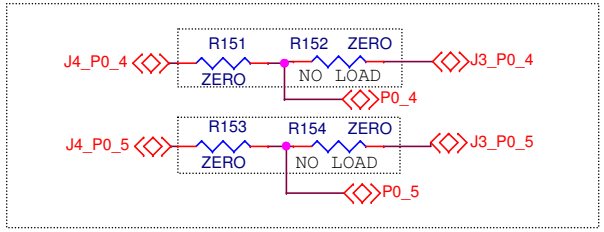
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Size: A4	Document Number: 630-60300-01	Rev: 06
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PSoC 5LP and PSoC Analog Co-processor Connections



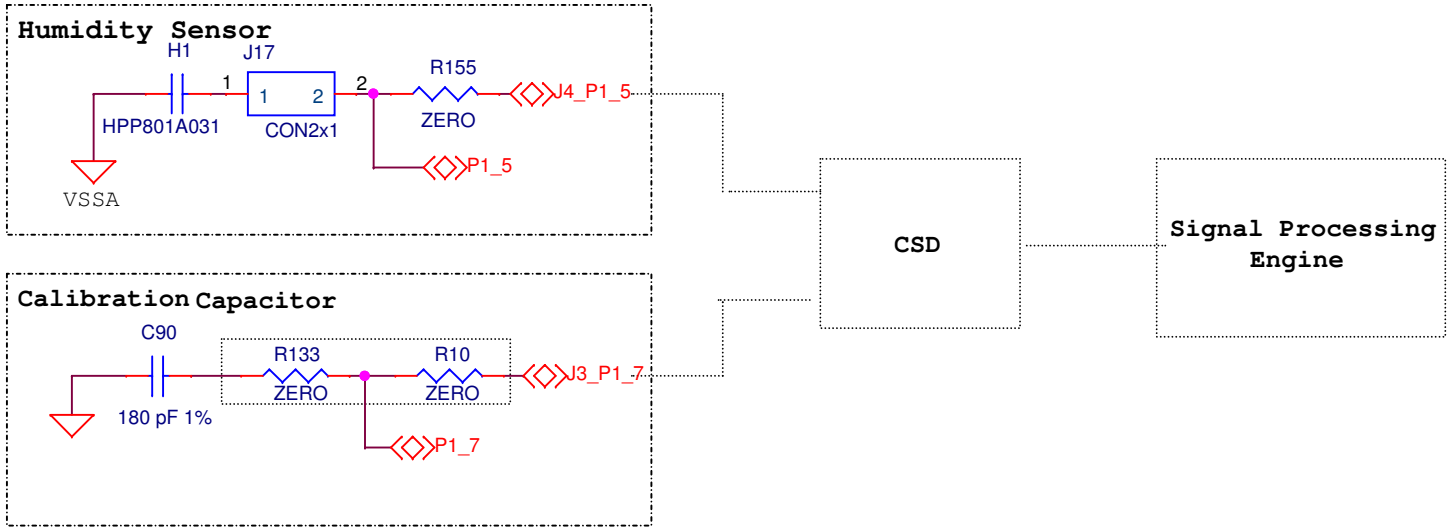




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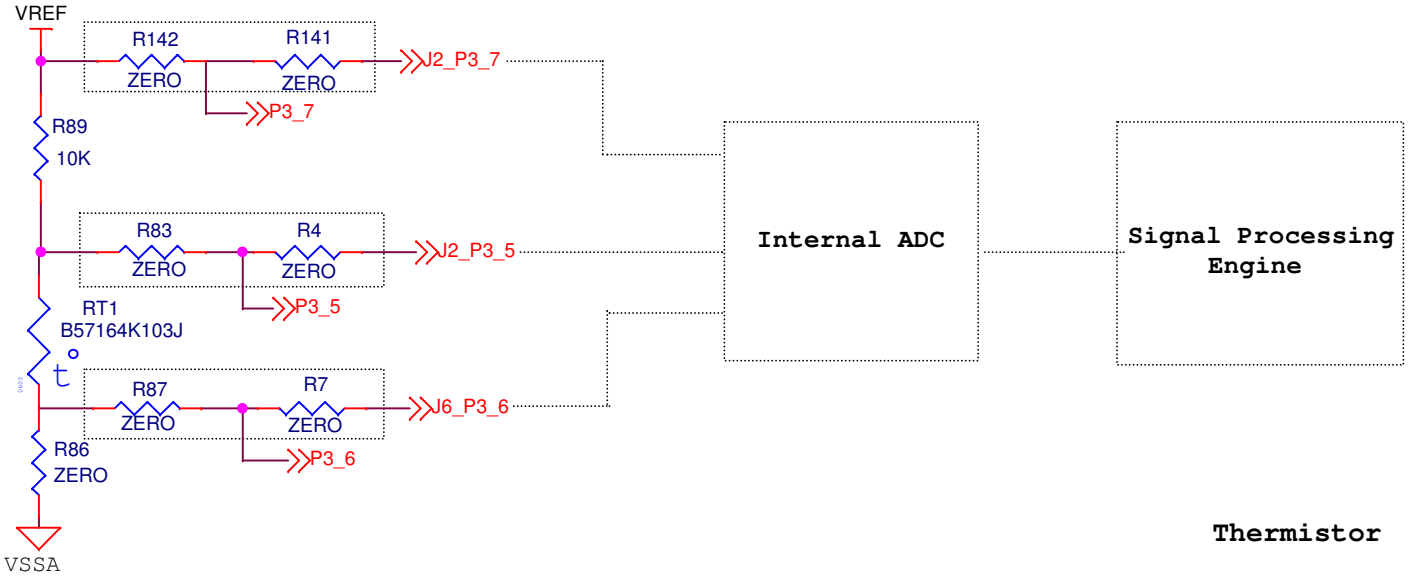
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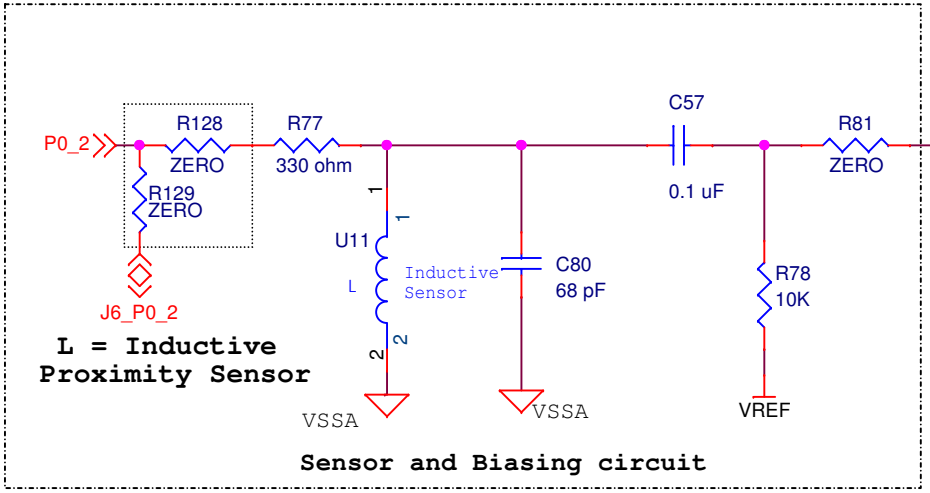
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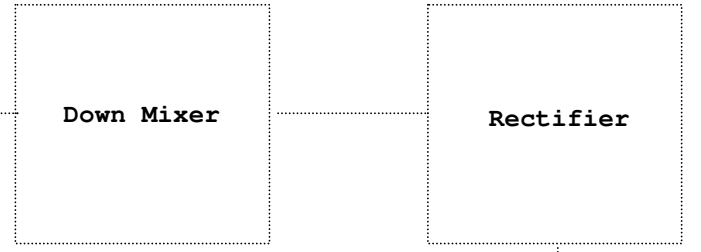


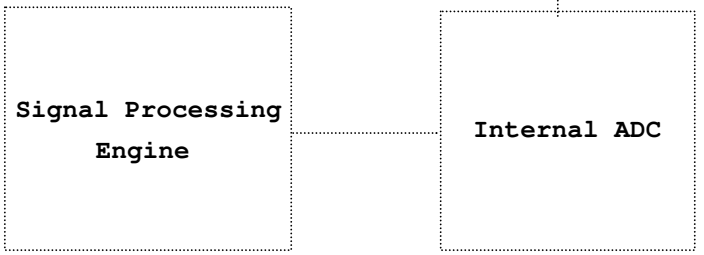
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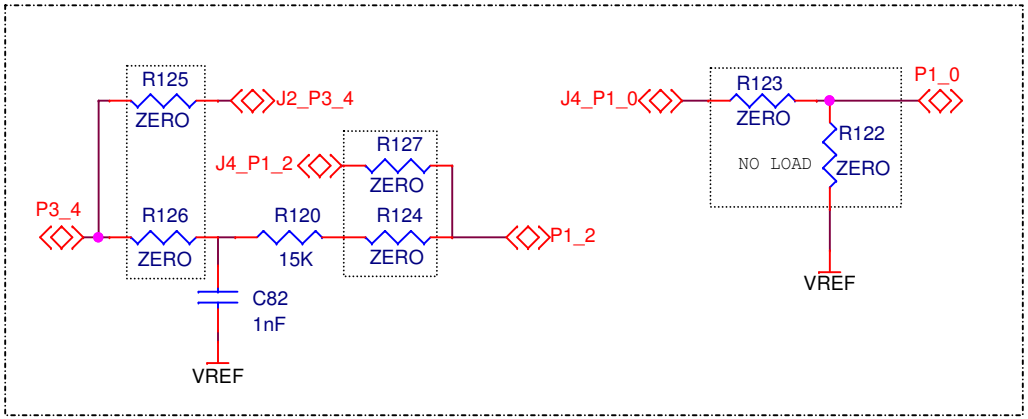
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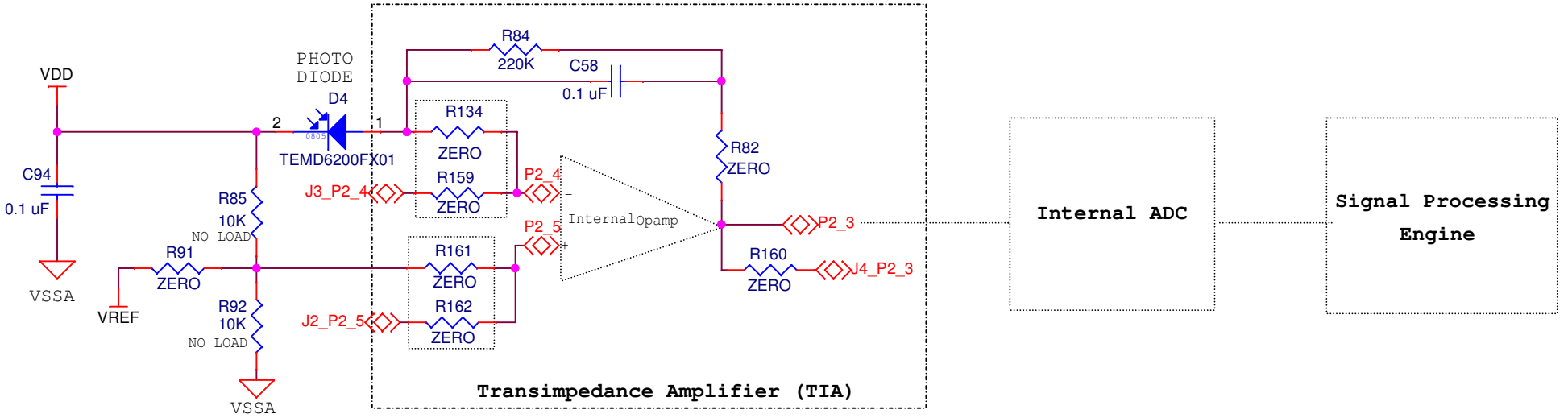
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Ambient Light Sensor

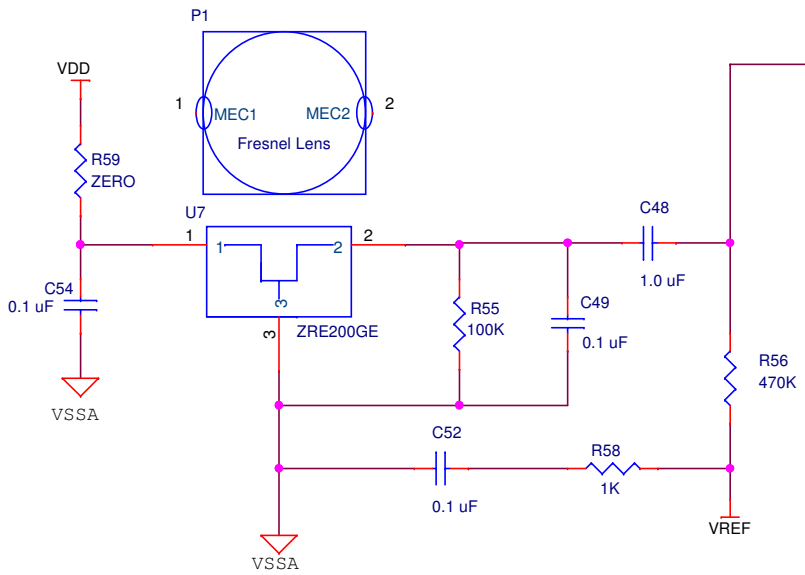


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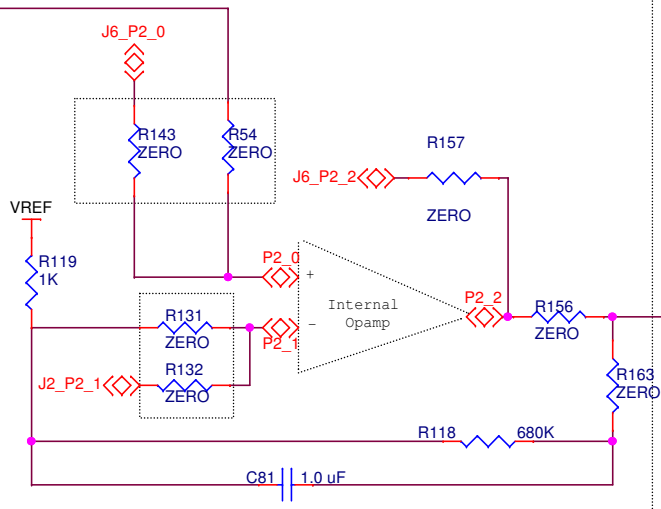
Title: CY8CKIT-048 PSoC Analog Co-Processor Pioneer Kit		
Size: A	Document Number: 630-60300-01	Rev: 06
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Passive circuit to bias the
PIR signal to Vref

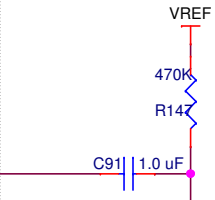


PIR Motion Sensor

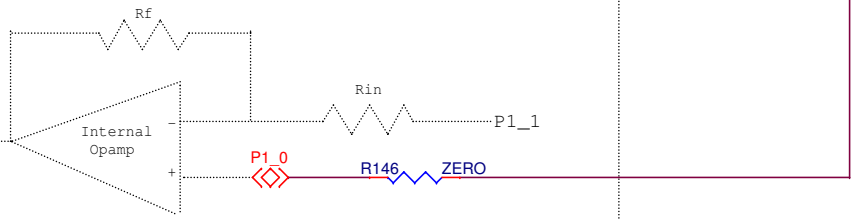
First stage amplifier



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
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Date: Tuesday, June 07, 2016	Sheet 11 of 11	