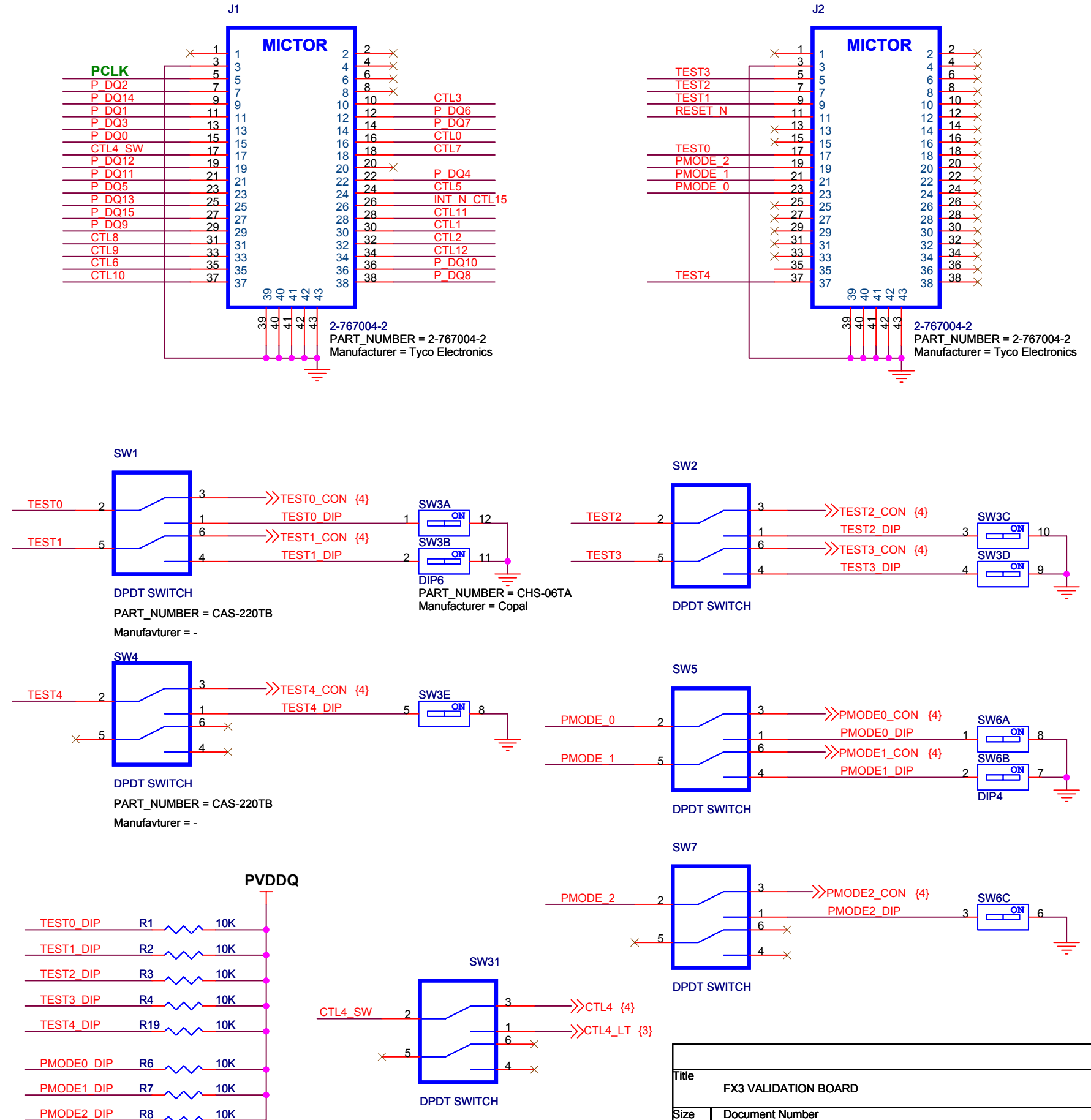
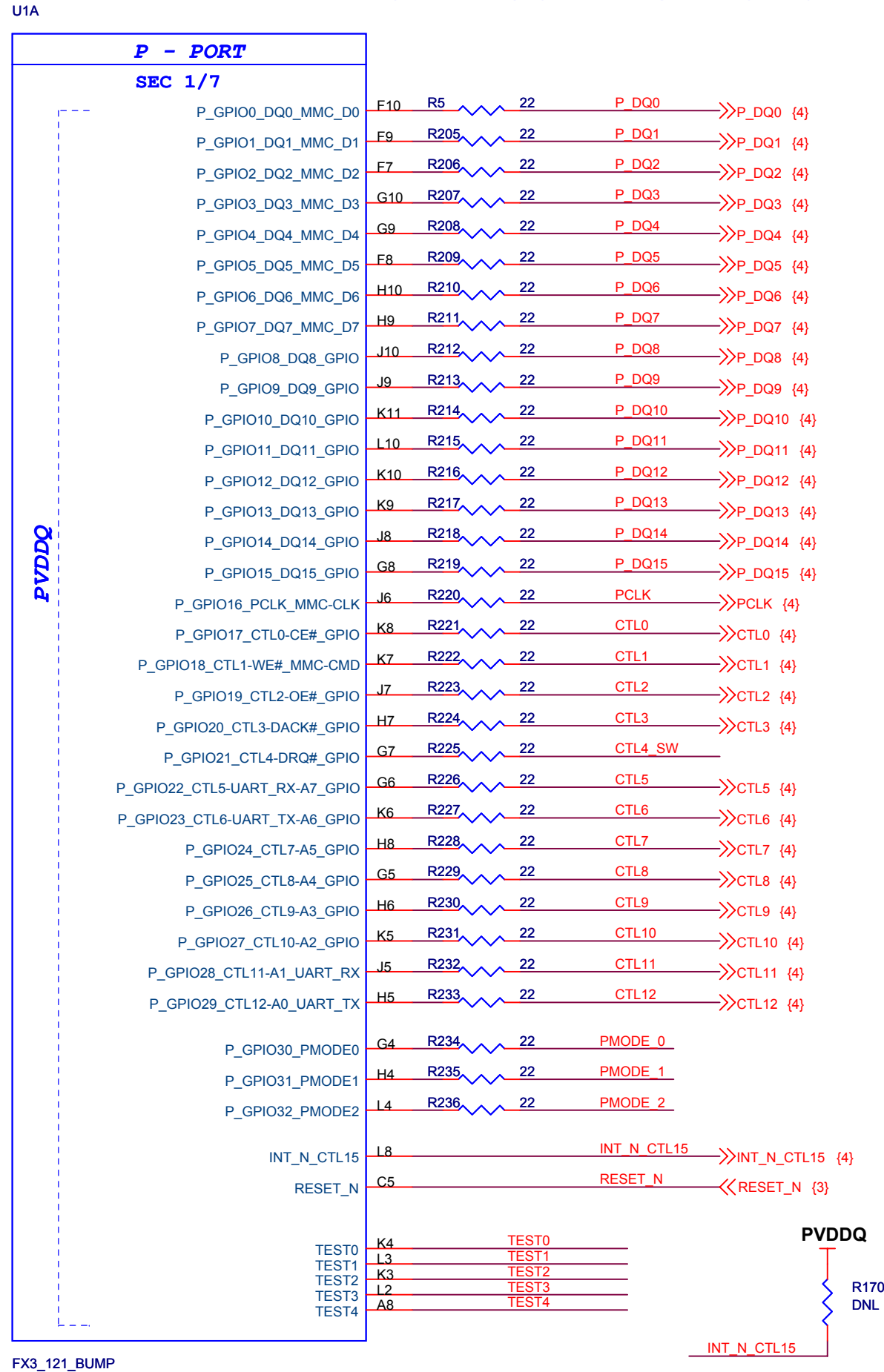


# ***FX3 VALIDATION BOARD***

## ***REV - 1.0***

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# P-PORT CONNECTIONS



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B

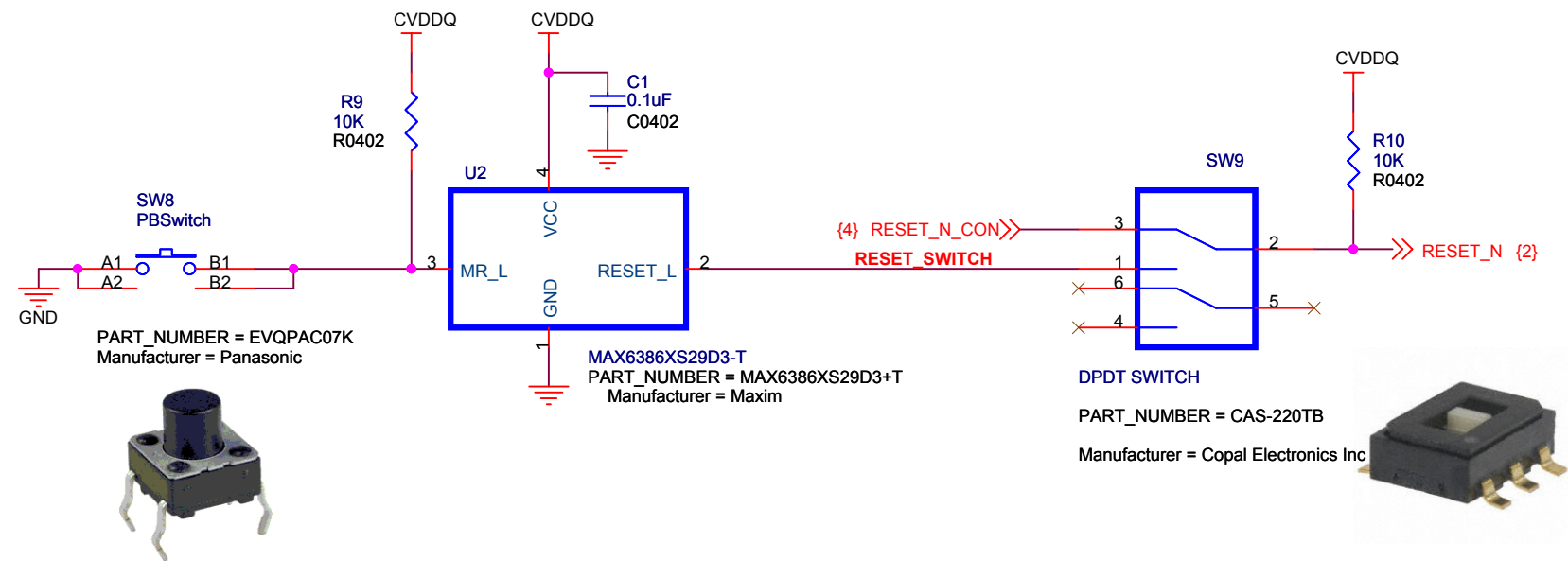
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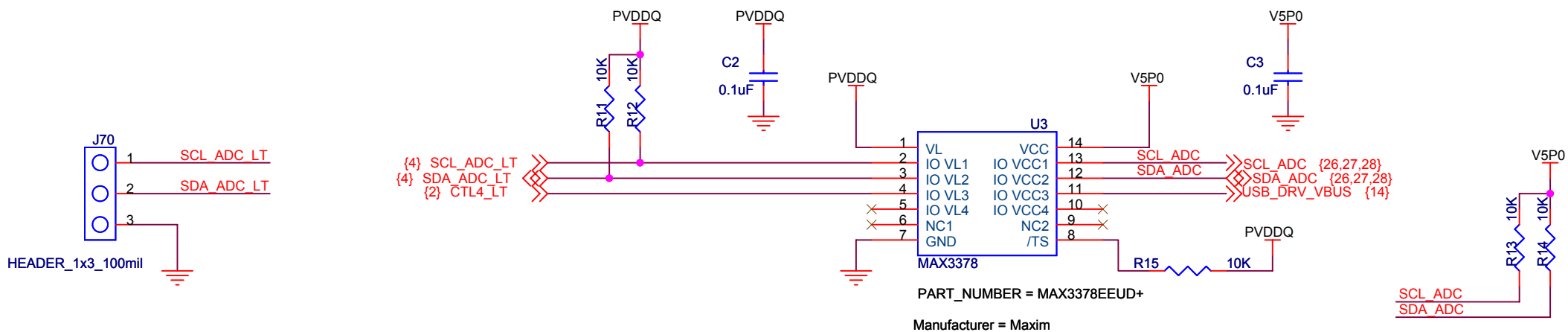
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# P-PORT CONNECTIONS

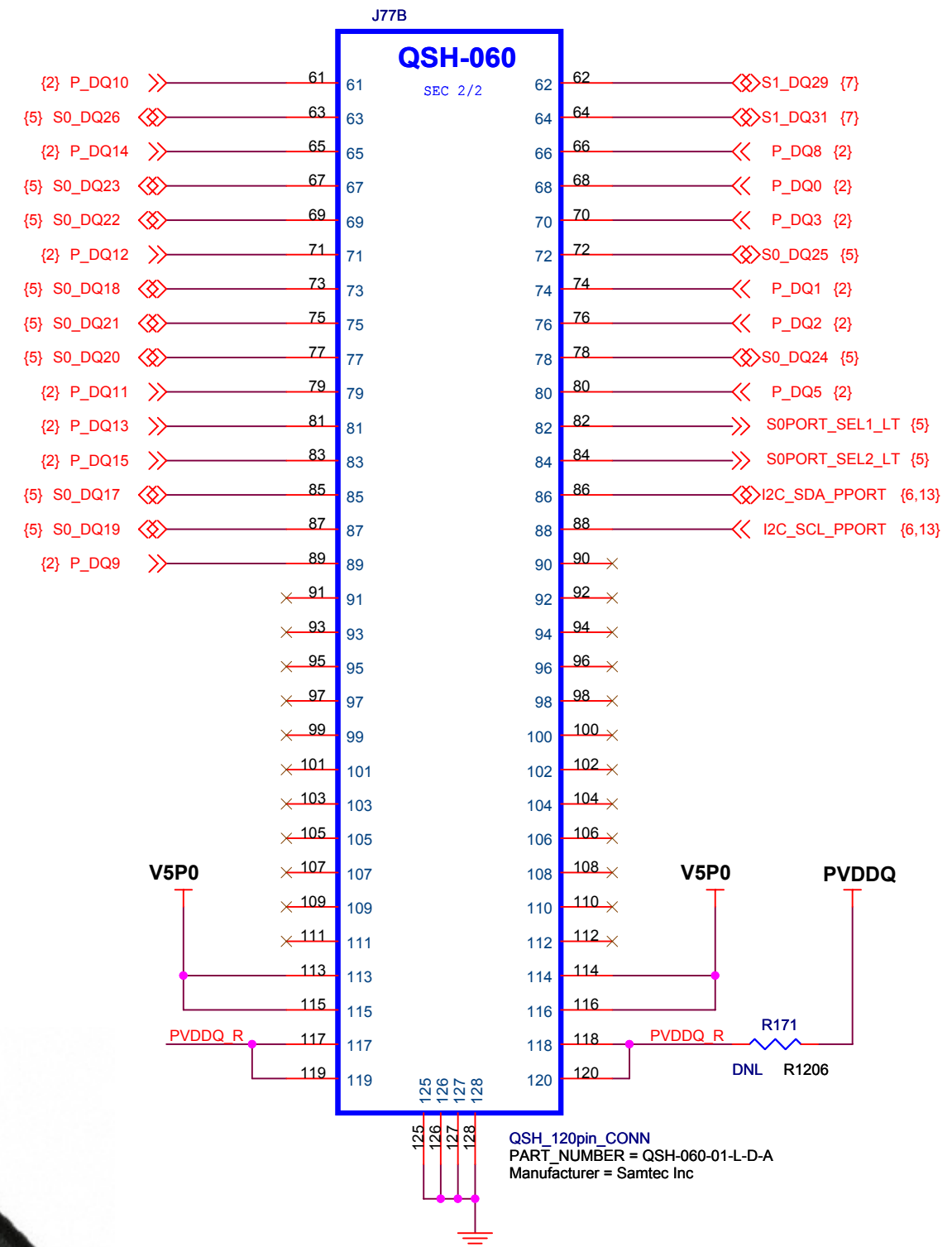
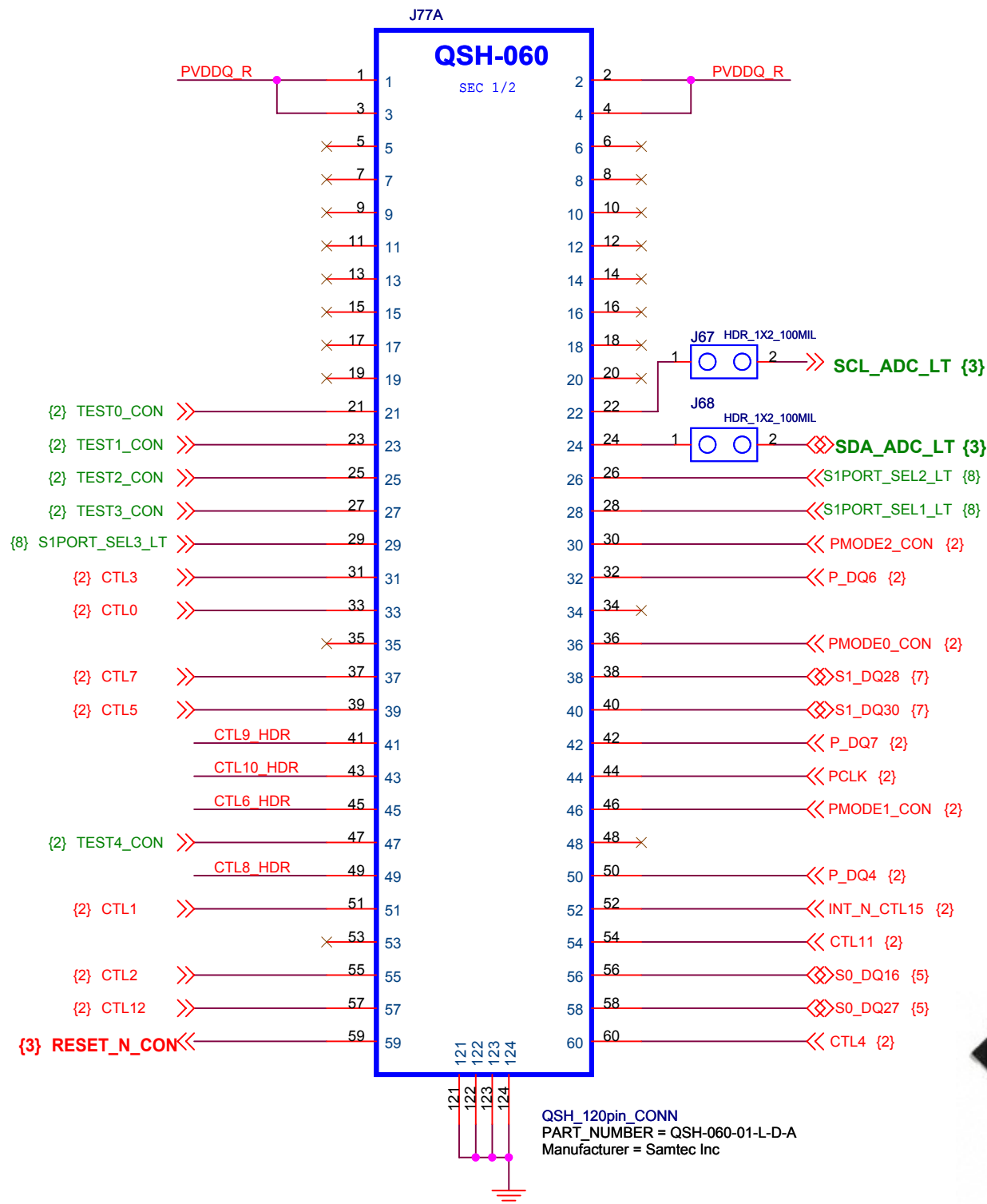
## RESET\_CONNECTION



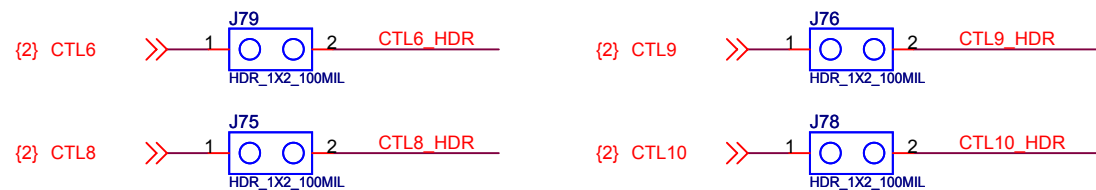
## LEVEL TRANSLATOR FOR CURRENT SENSING ADC - I2C



# P PORT TO SAMTEC



## GPIO- 23/25-27 HDR OPTION



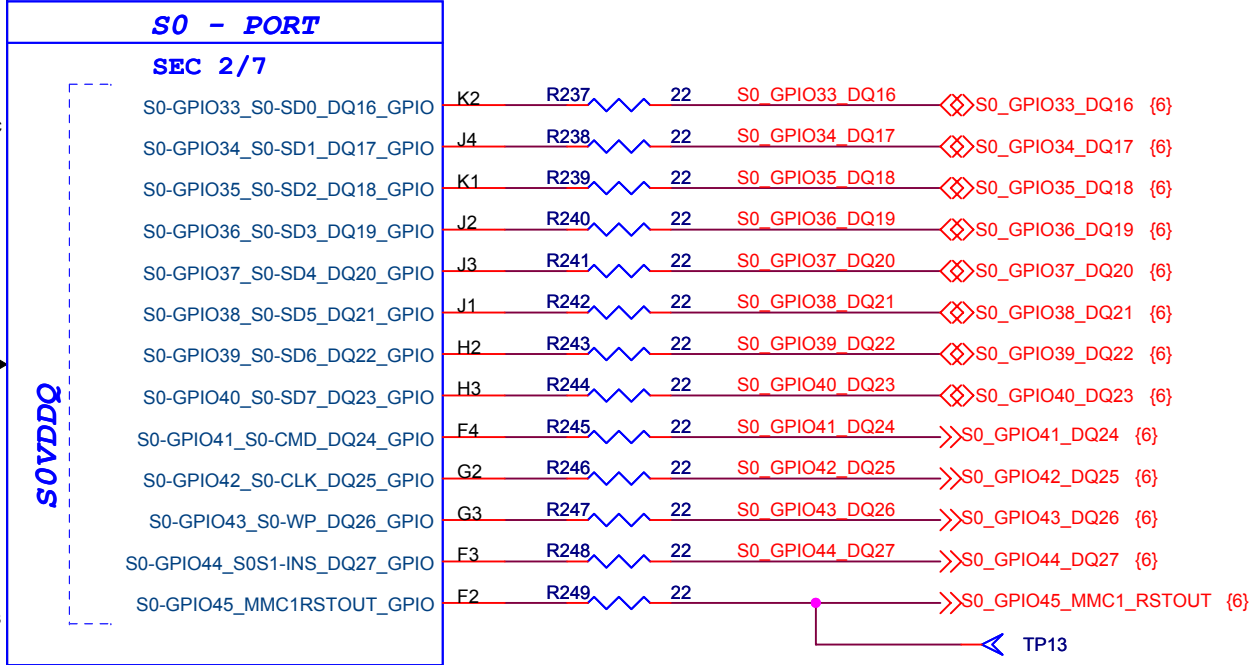
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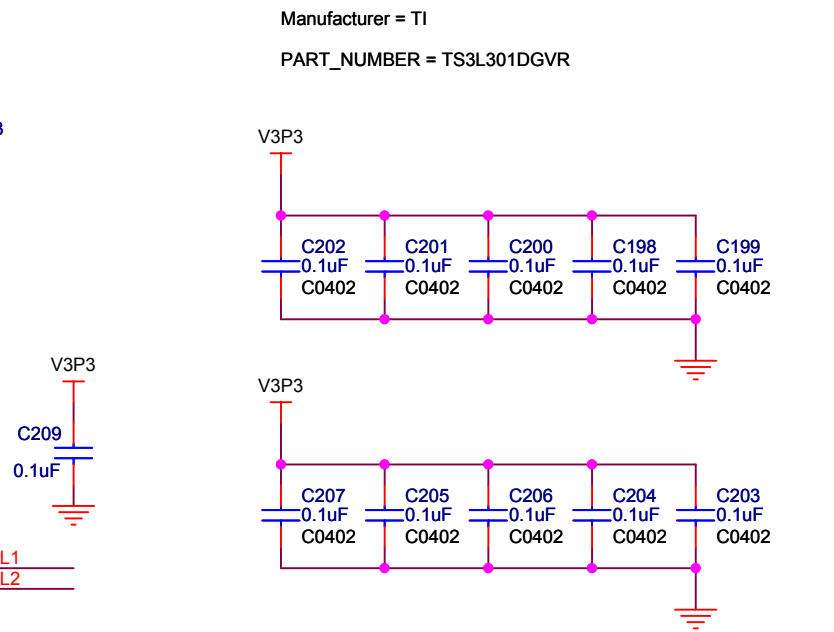
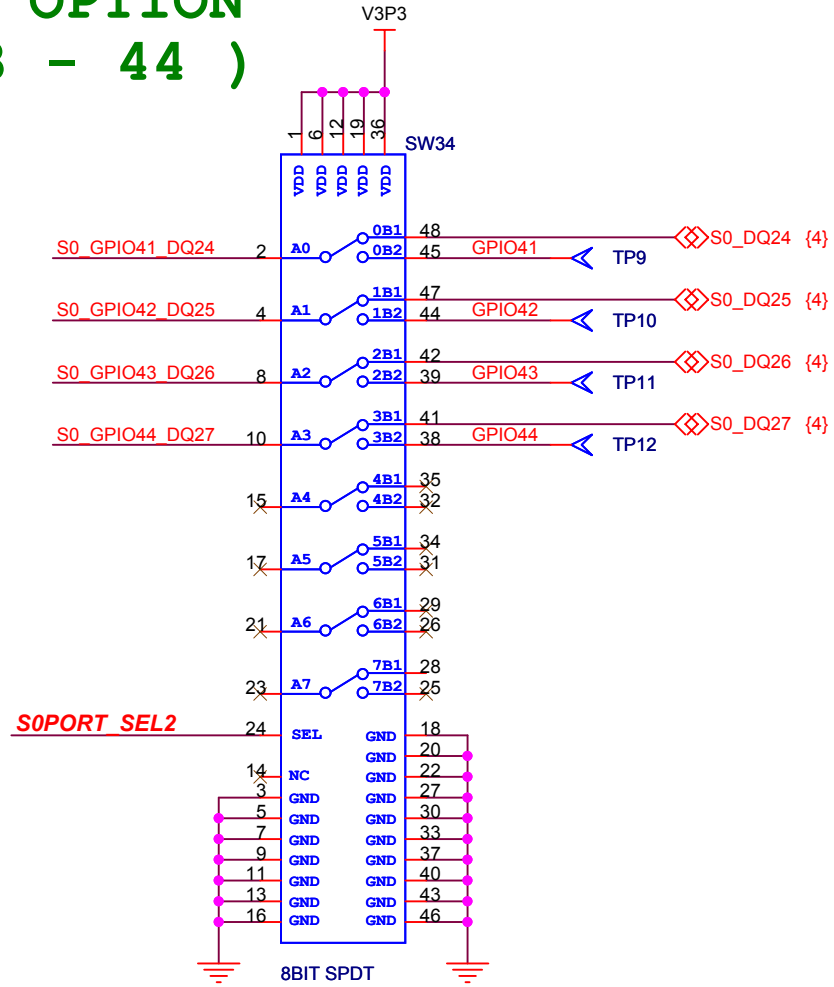
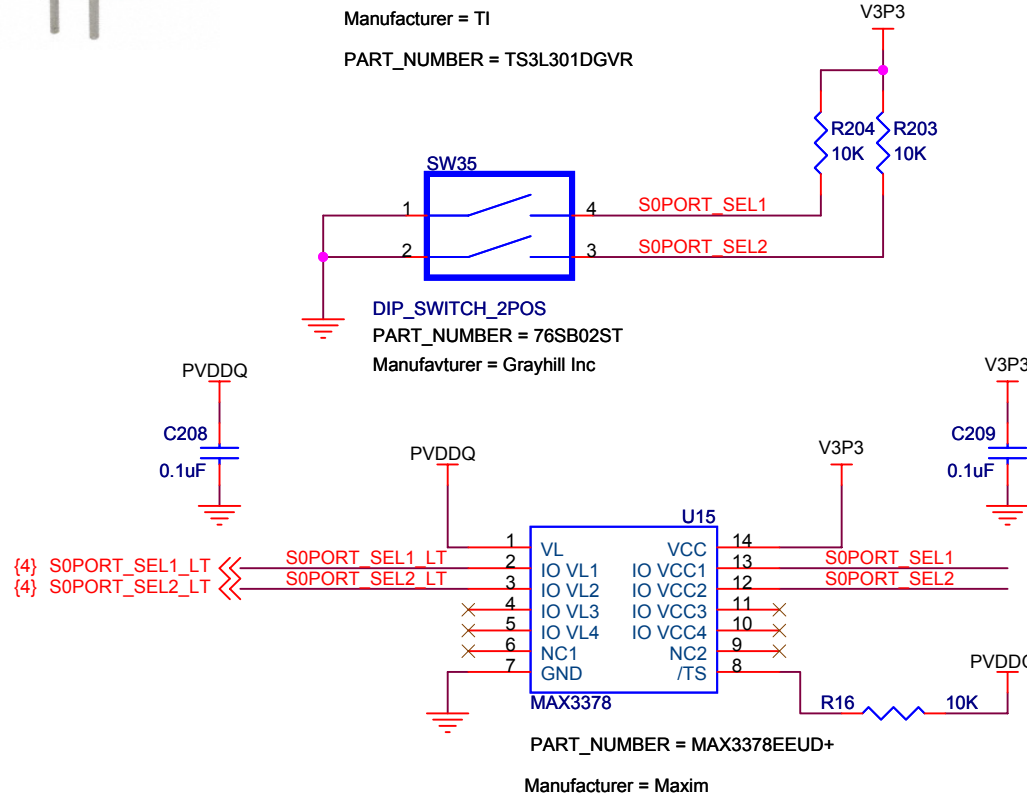
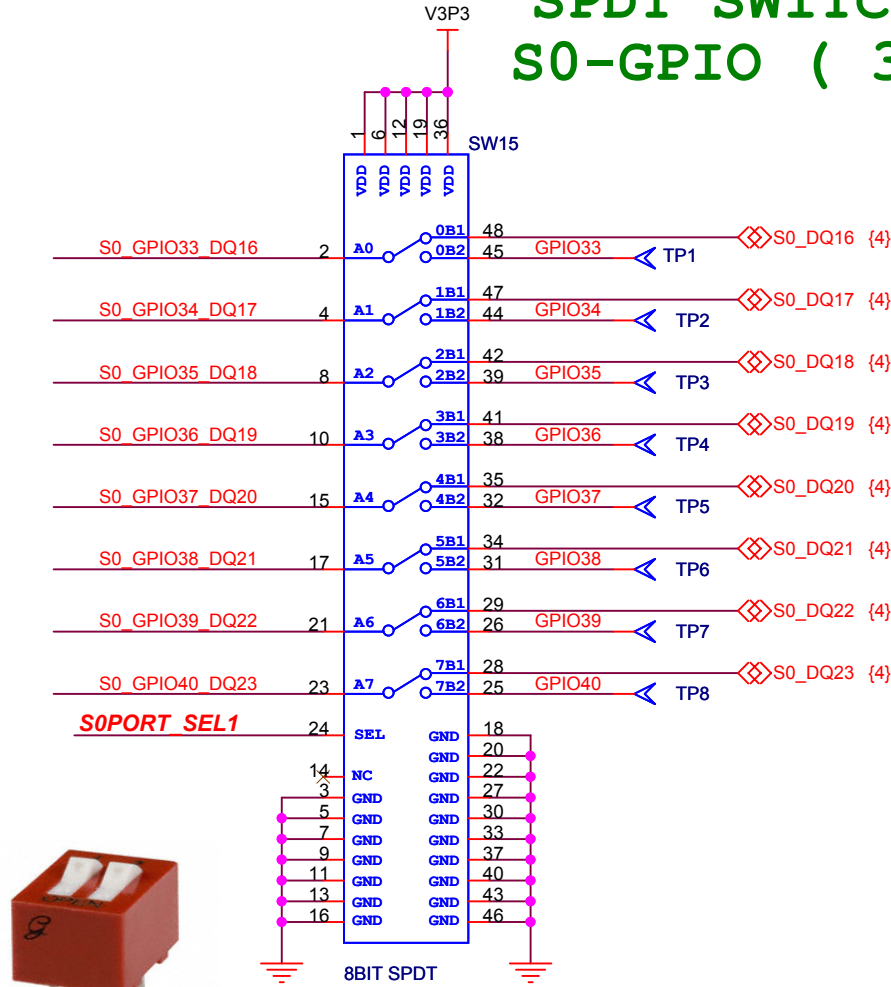
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S0-PORT CONNECTIONS

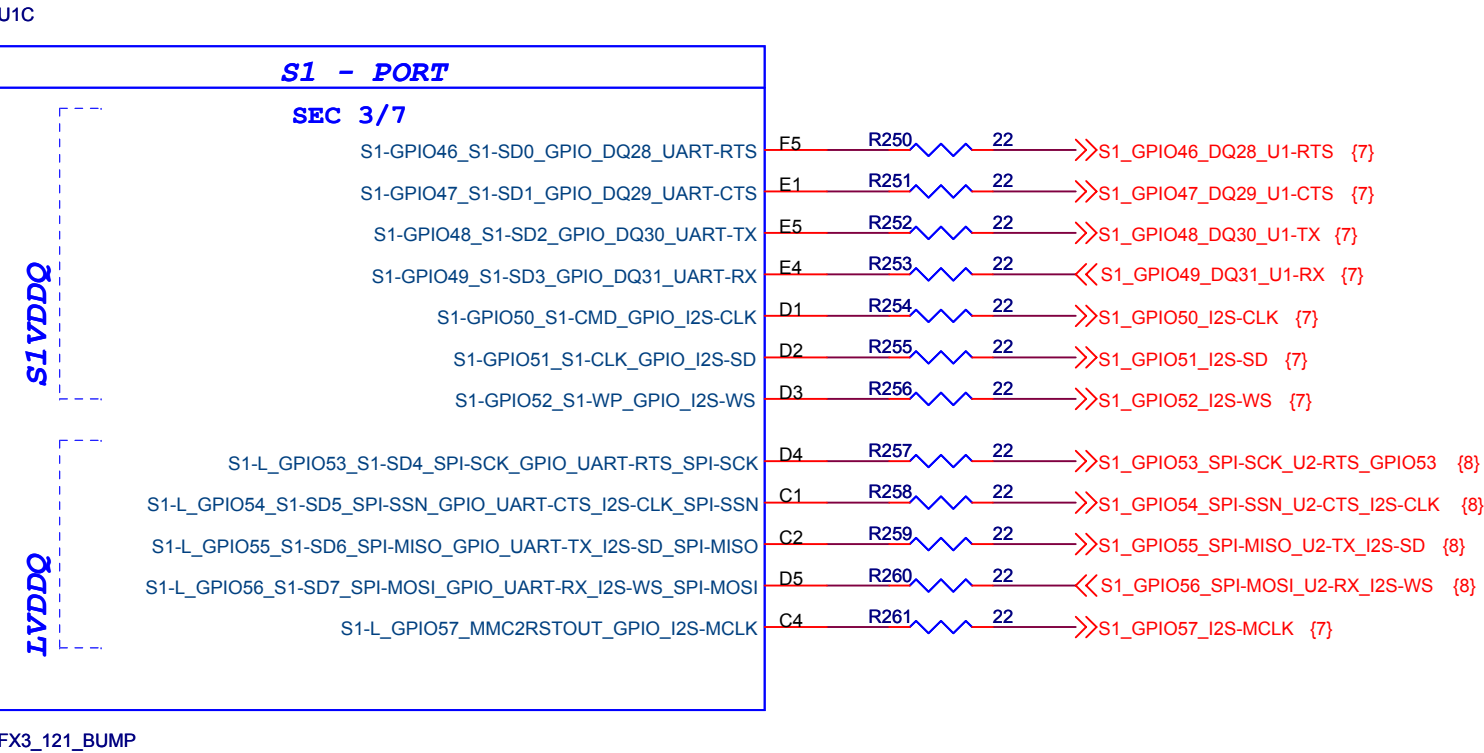


FX3\_121\_BUMP

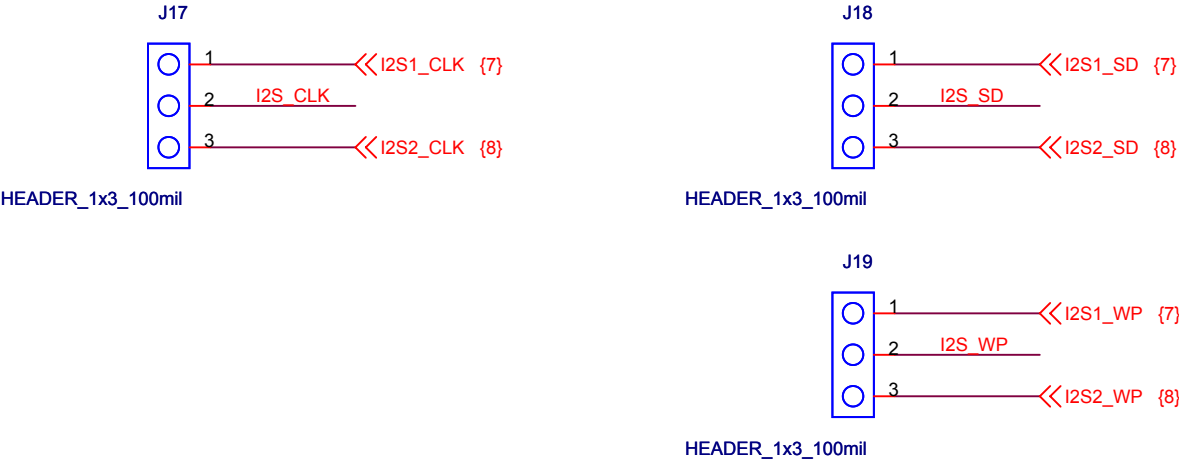
SPDT SWITCH OPTION  
S0-GPIO ( 33 - 44 )



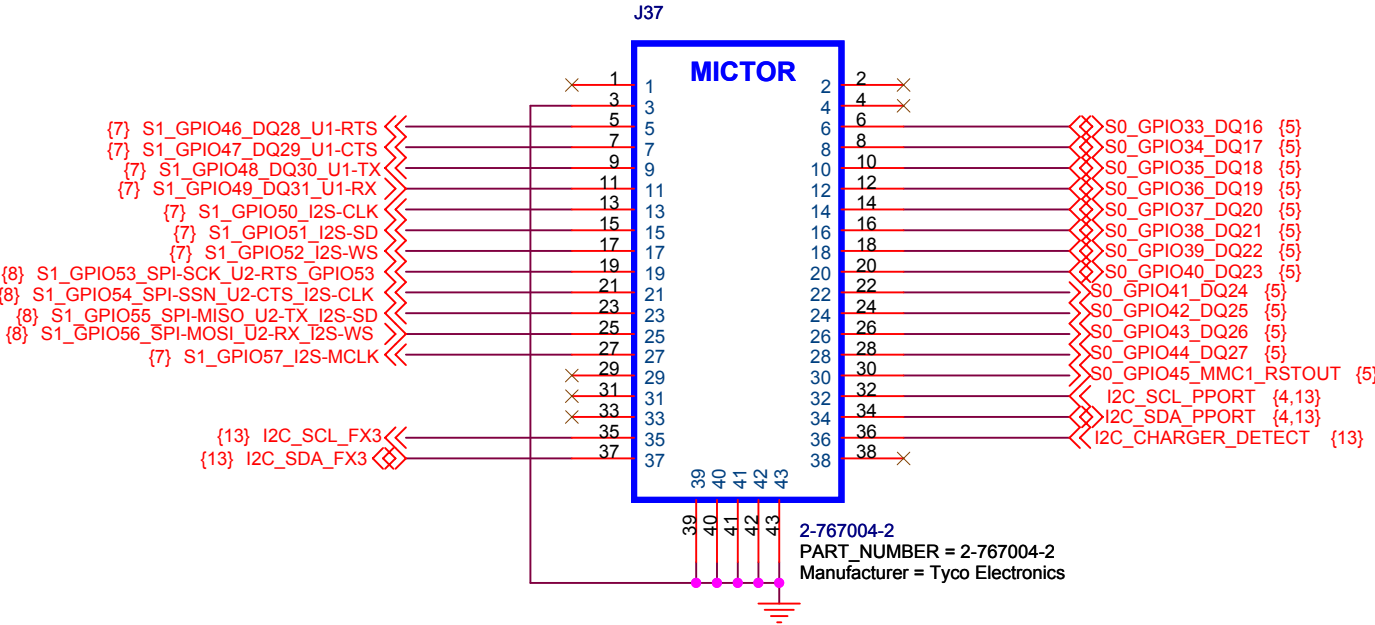
S1-PORT CONNECTIONS



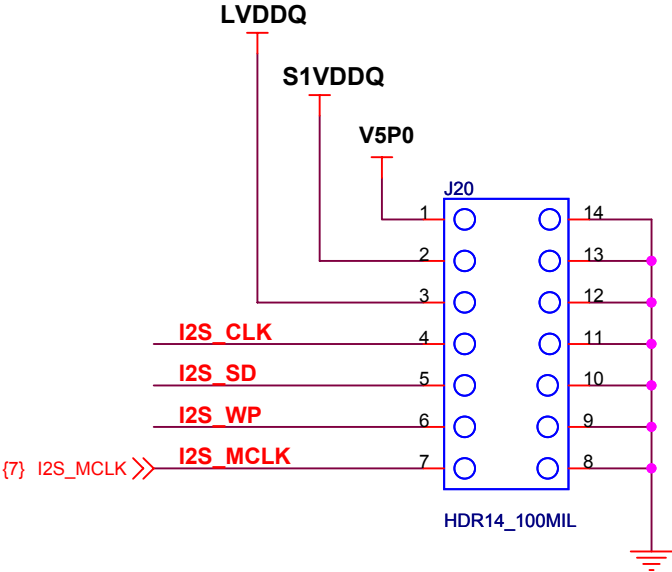
I2S1 / I2S2 SELECTION



S0 & S1-PORT TO MICTOR



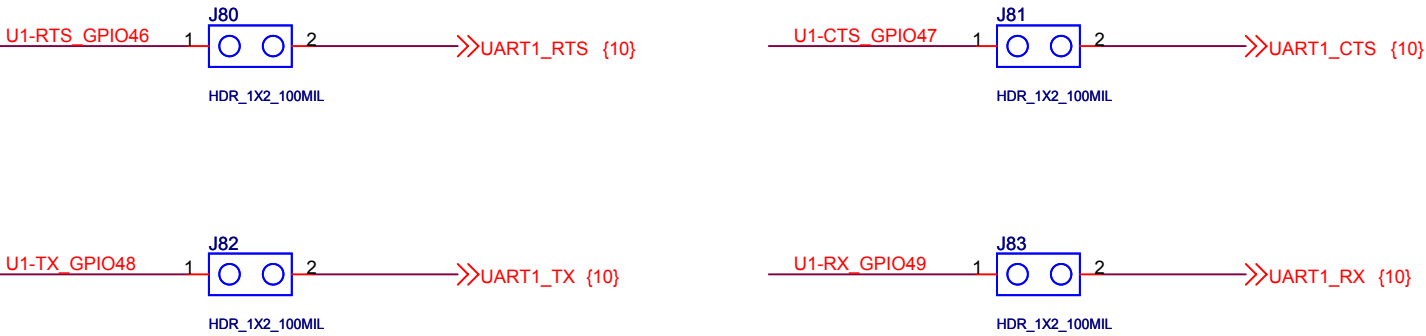
I2S HEADER



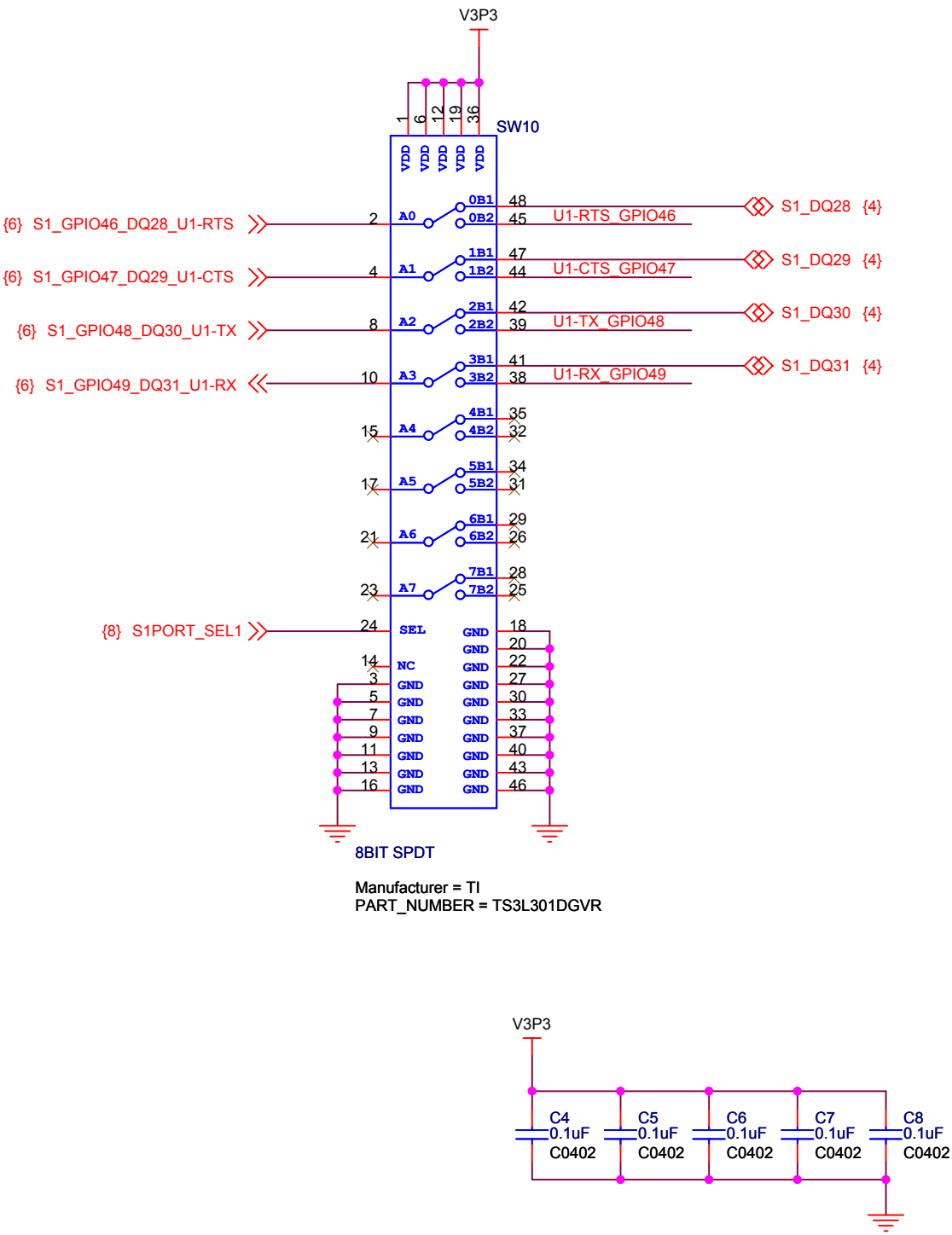
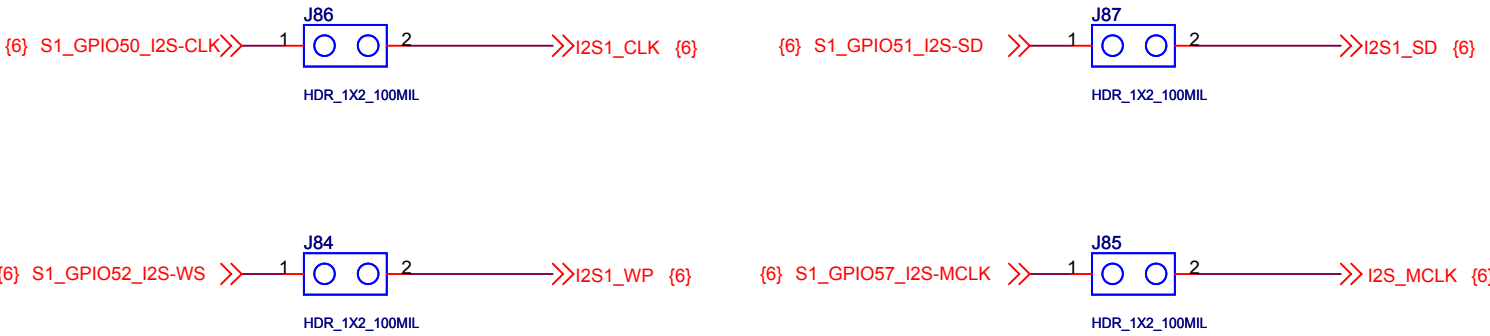
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S1-GPIO (46-52 & 57)  
SPDT SWITCH OPTION

S1-GPIO (46-49) : SD / GPIO / UART1

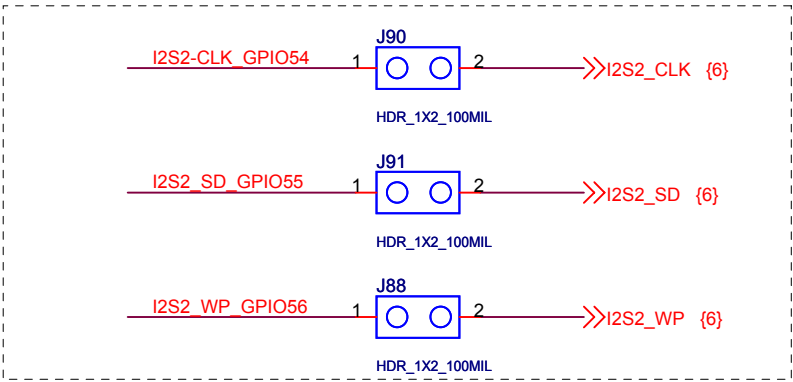
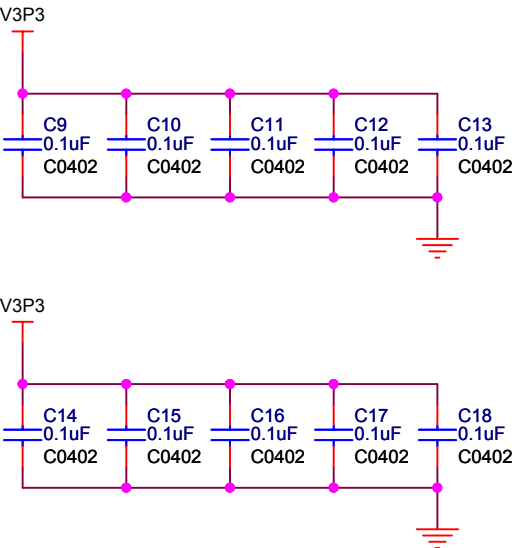
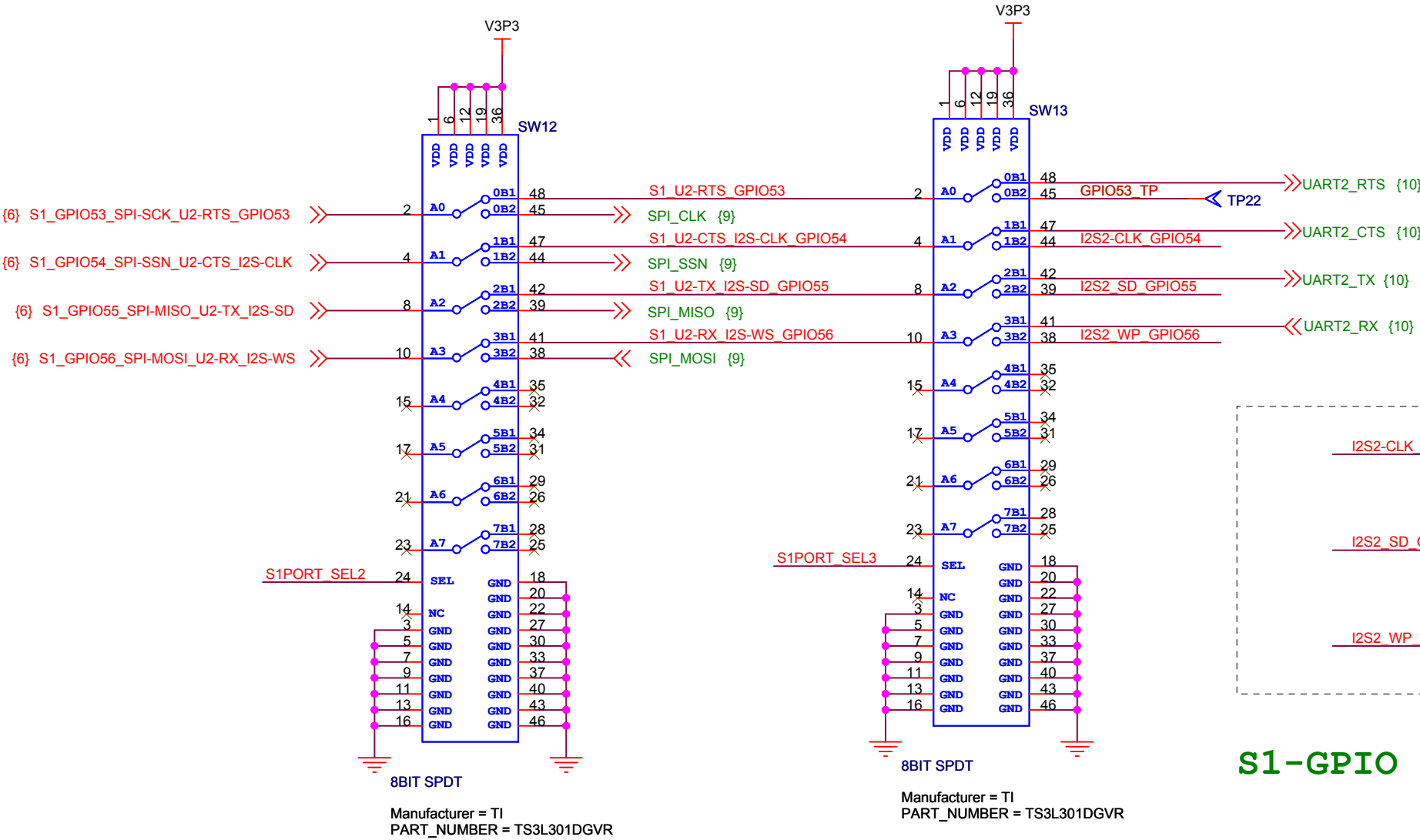


S1-GPIO (50-52 & 57) : SD / GPIO / I2S1

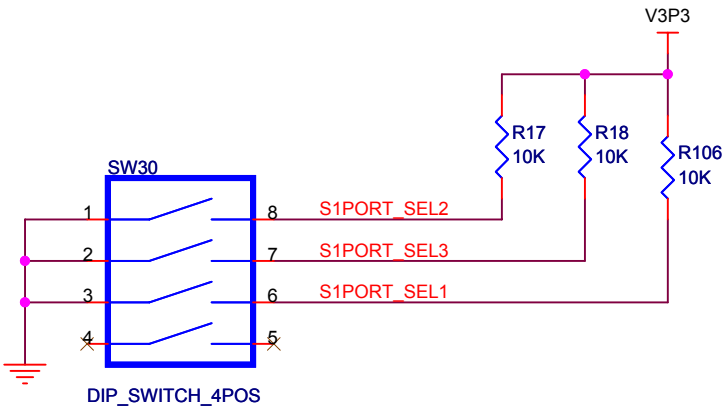




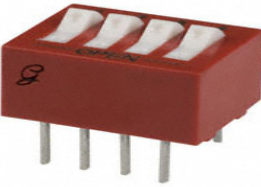
S1-GPIO (53-56) : SPDT SWITCH OPTION



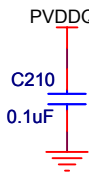
S1-GPIO (53-56) : SD/ GPIO/ UART2/ SPI/ I2S2



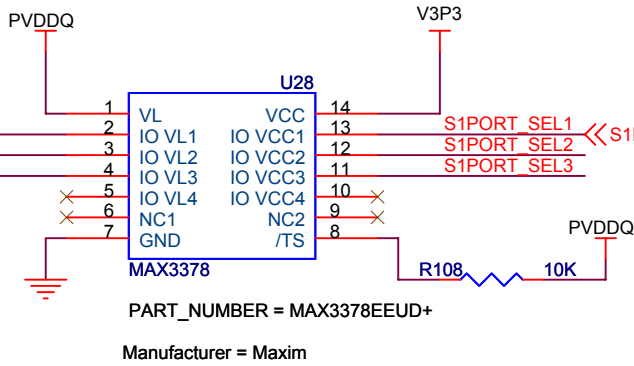
PART\_NUMBER = 76SB04ST  
Manufacturer = Grayhill Inc



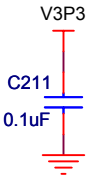
INPUT SEL	INPUT/OUTPUT An	FUNCTION
L	nB <sub>1</sub>	A <sub>n</sub> = nB <sub>1</sub>
H	nB <sub>2</sub>	A <sub>n</sub> = nB <sub>2</sub>



{4} S1PORT\_SEL1\_LT  
{4} S1PORT\_SEL2\_LT  
{4} S1PORT\_SEL3\_LT



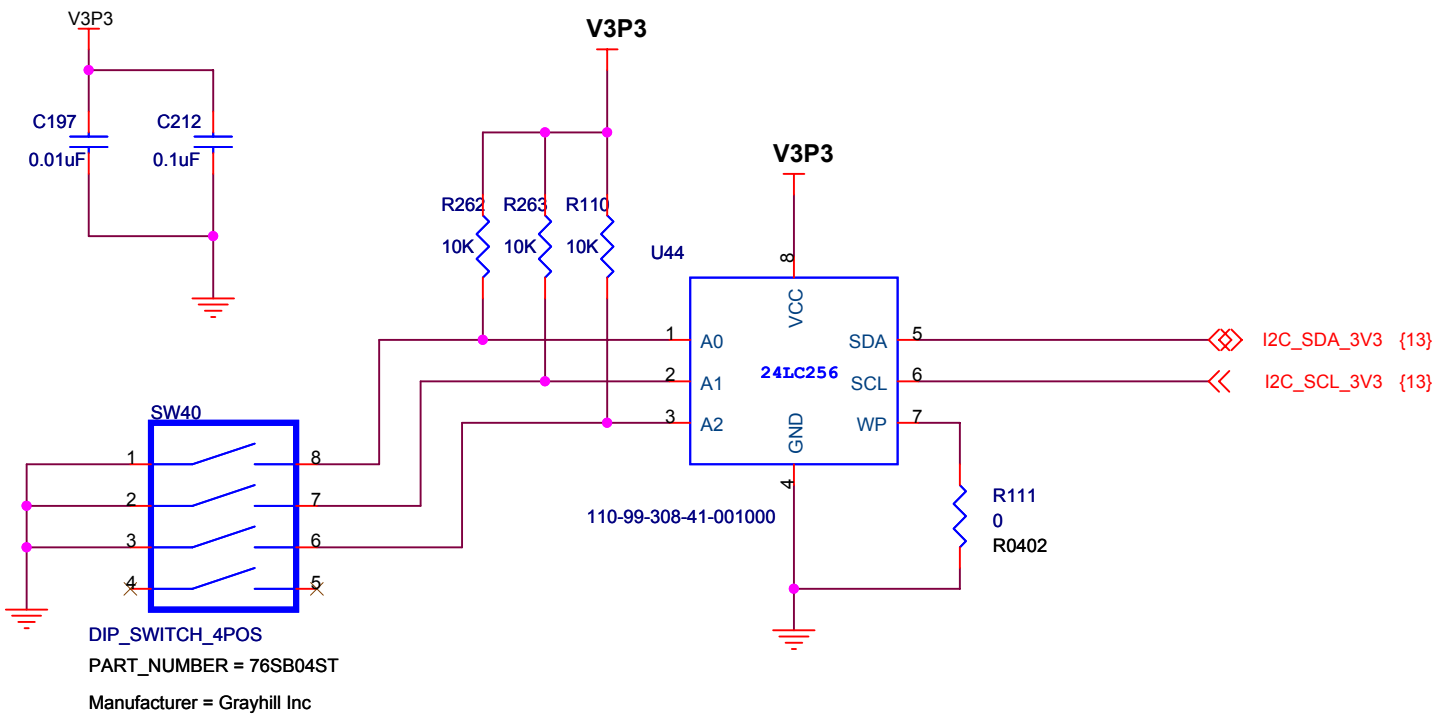
PART\_NUMBER = MAX3378EEUD+  
Manufacturer = Maxim



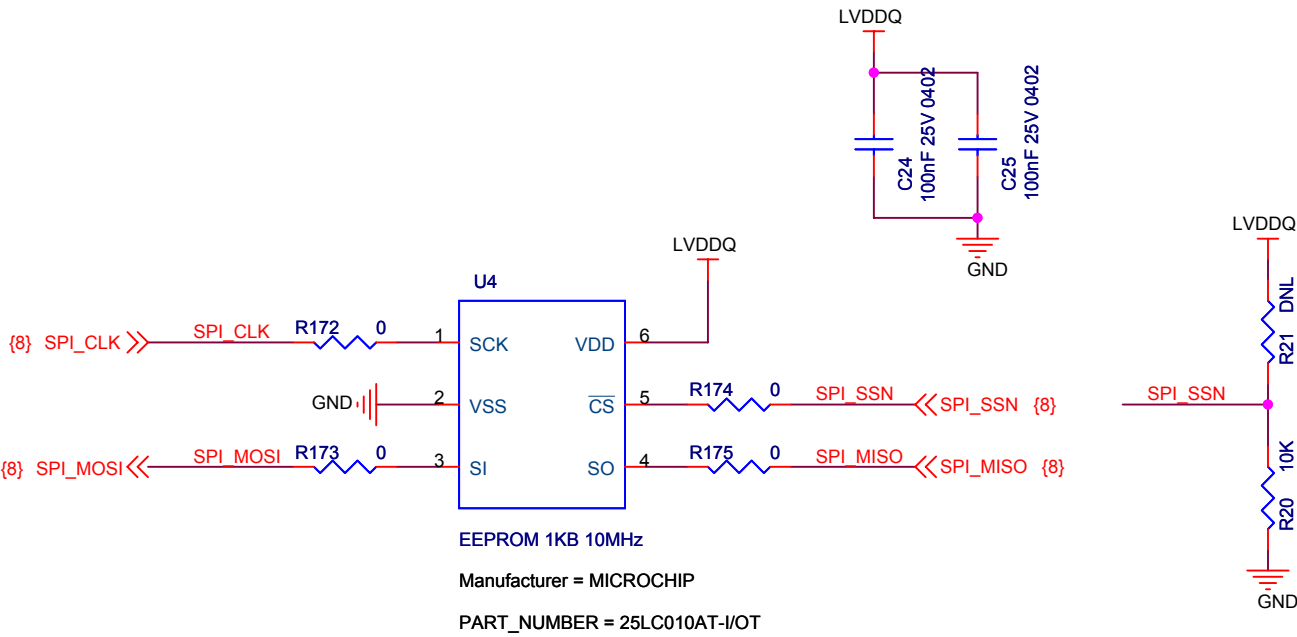
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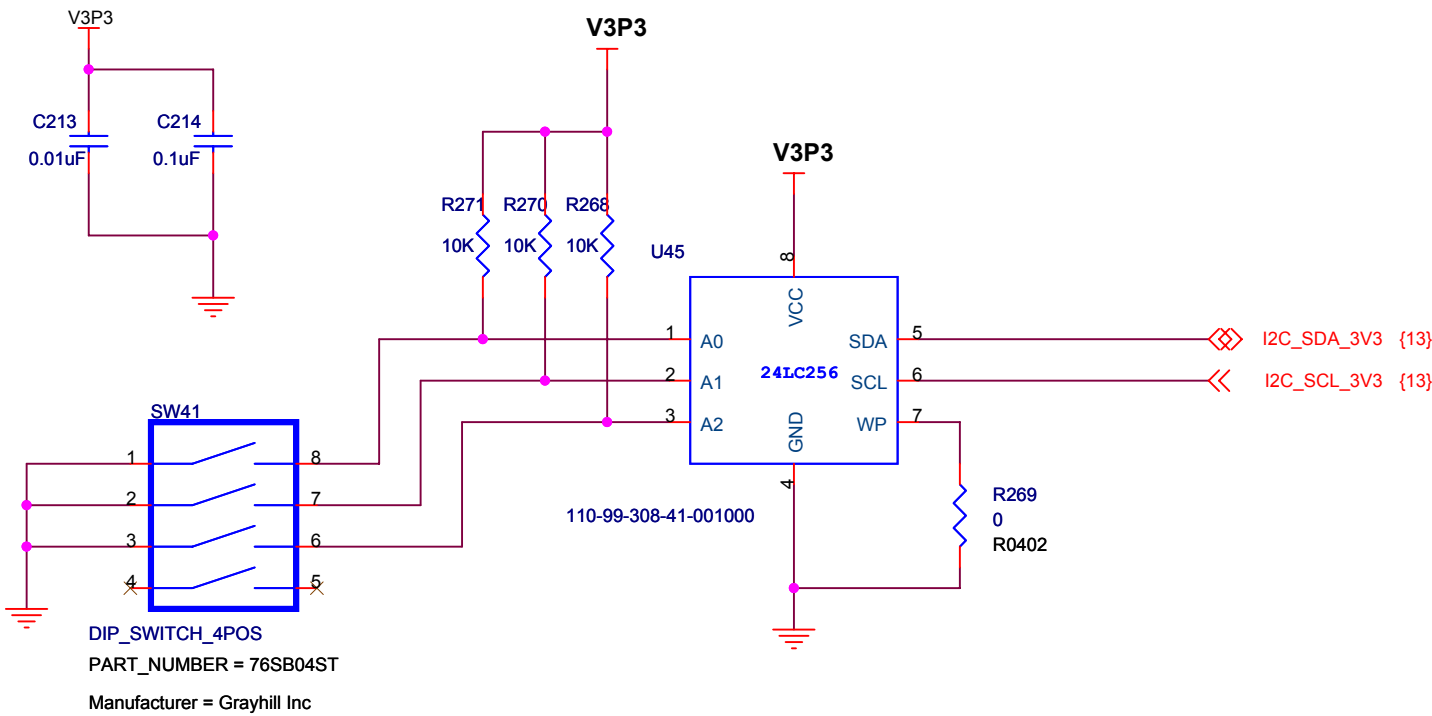
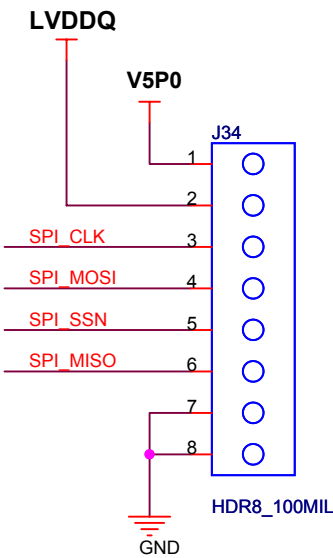
I2C EEPROM



SPI EEPROM

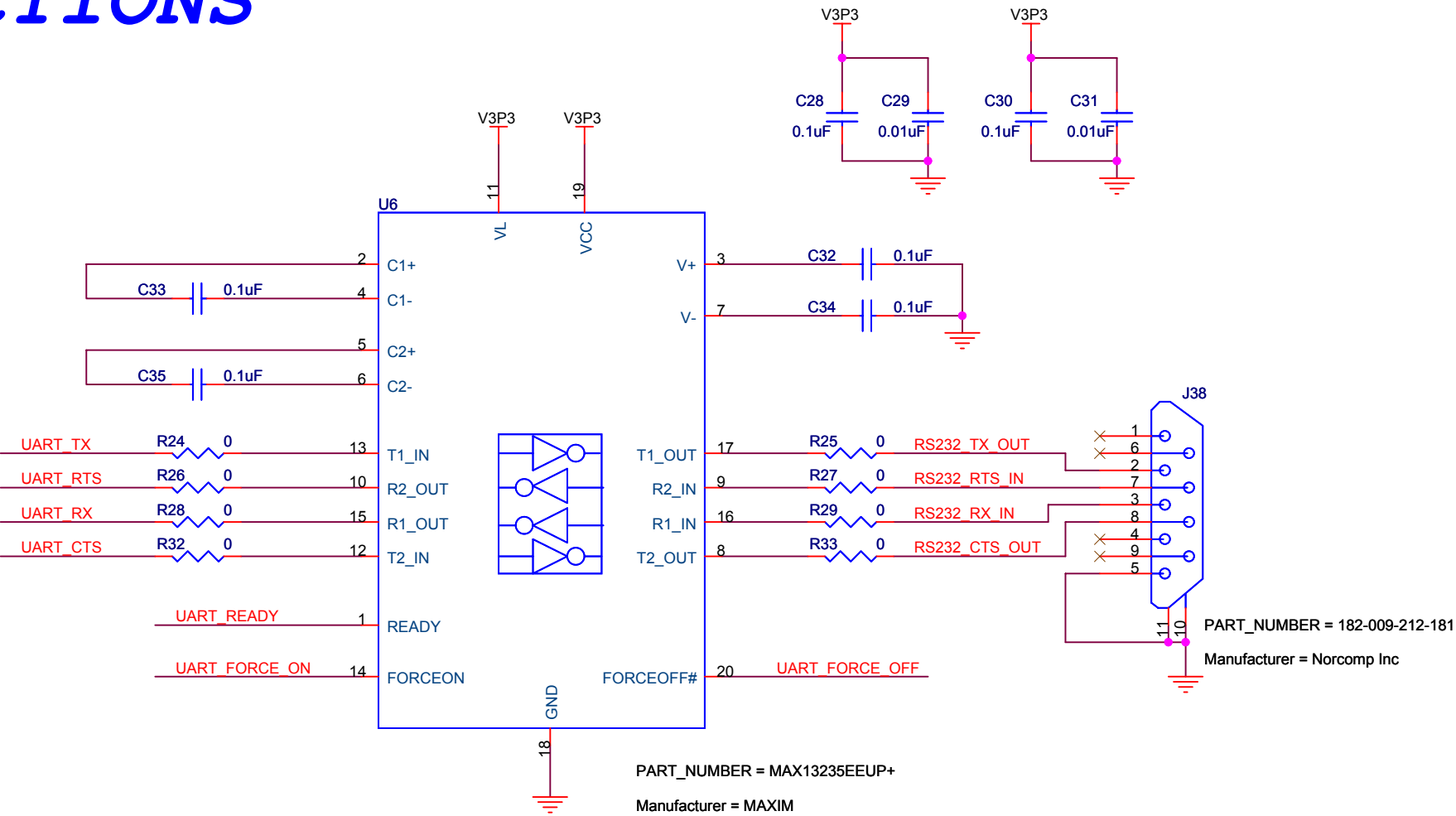
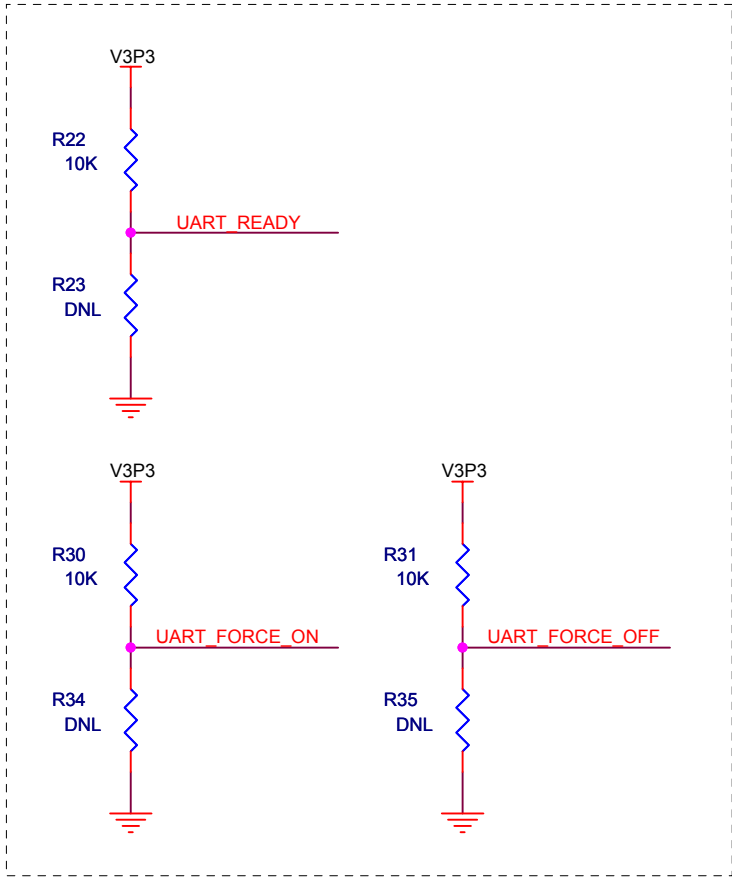


SPI HEADER

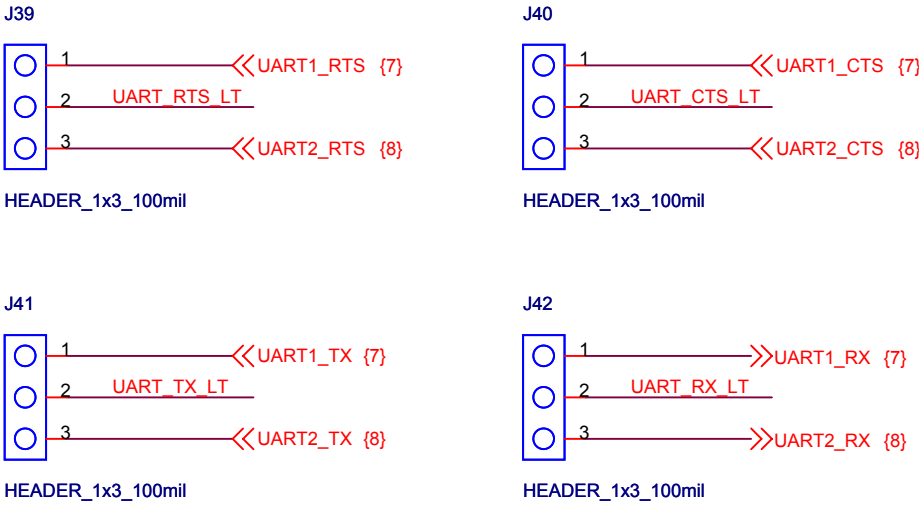


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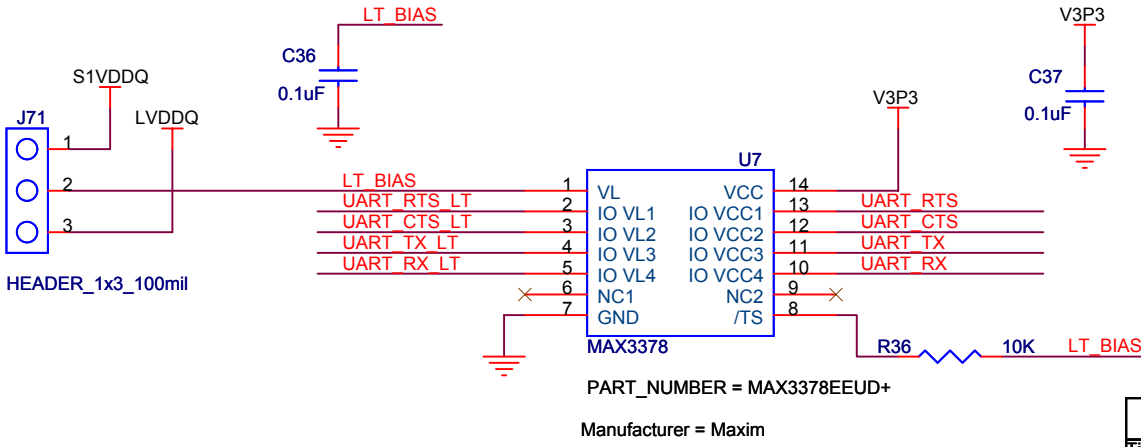
# S1 UART CONNECTIONS



## UART 1 / UART 2 SELECTION

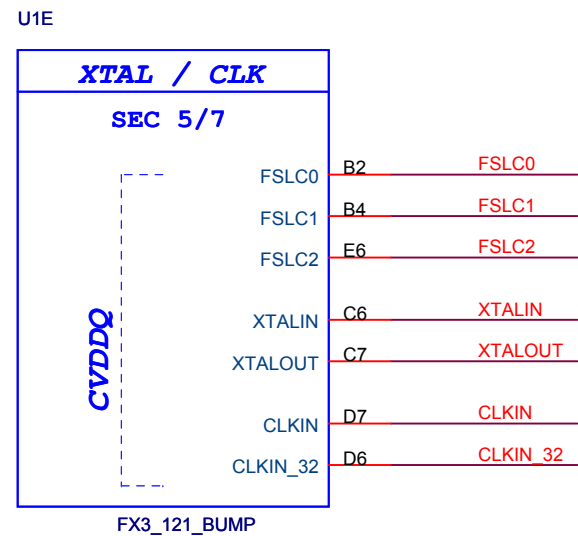


## LEVEL TRANSLATOR

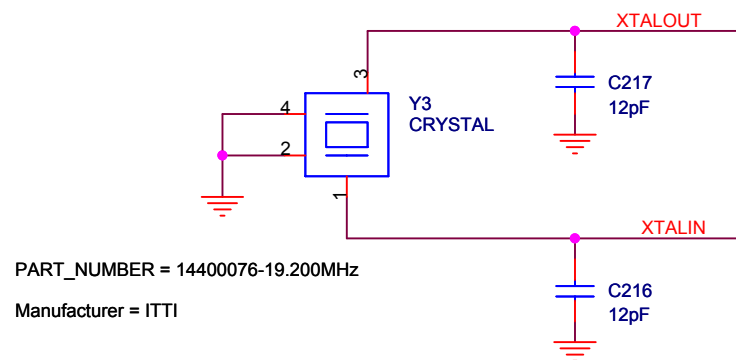


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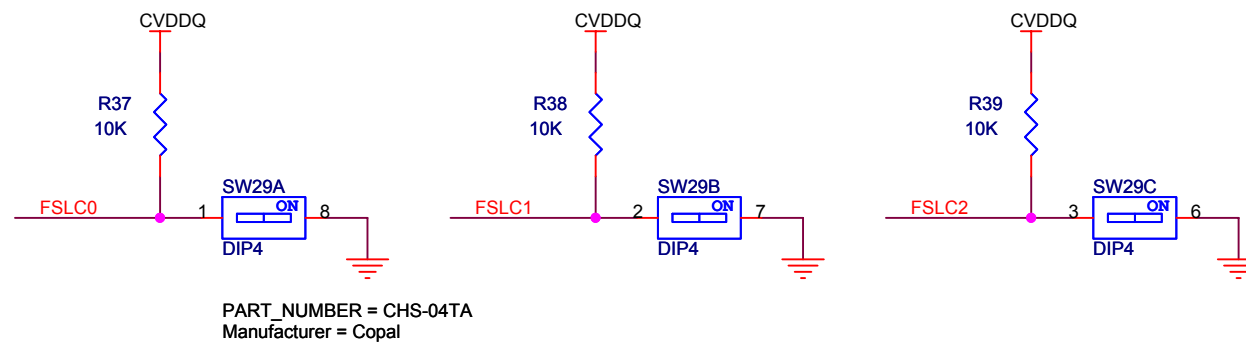
# CLOCK SIGNALS



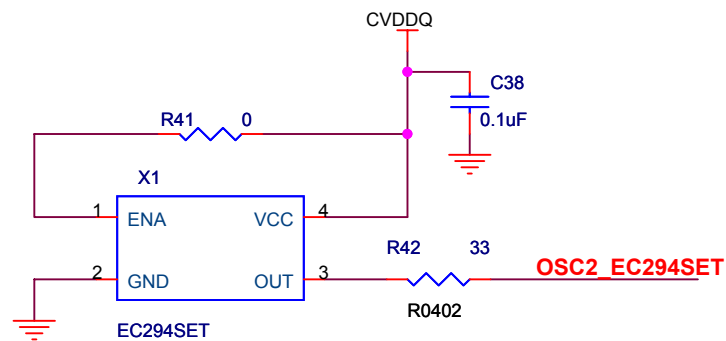
## CRYSTAL



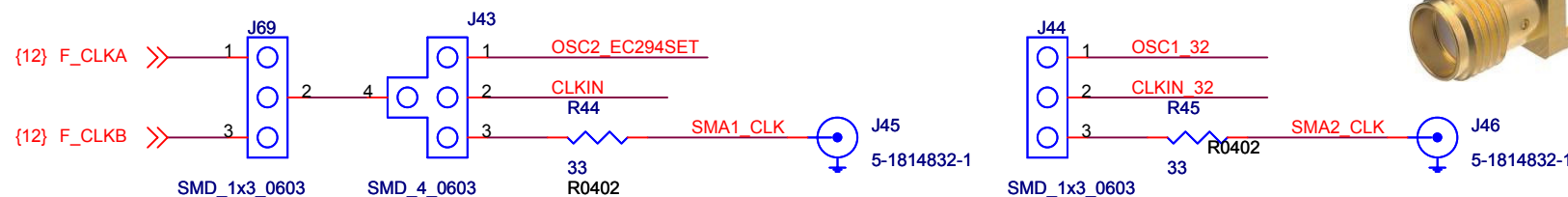
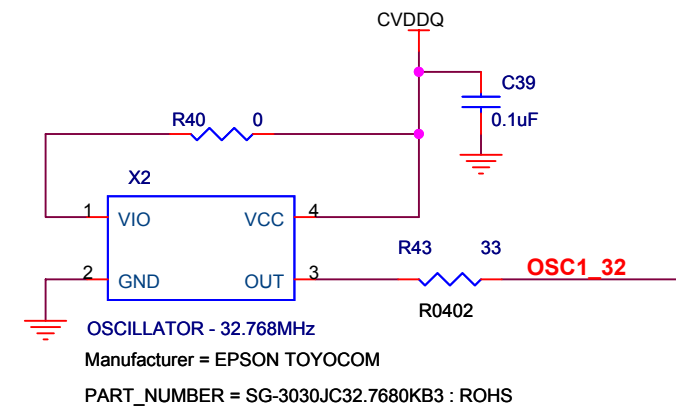
## FSLC [0..2]



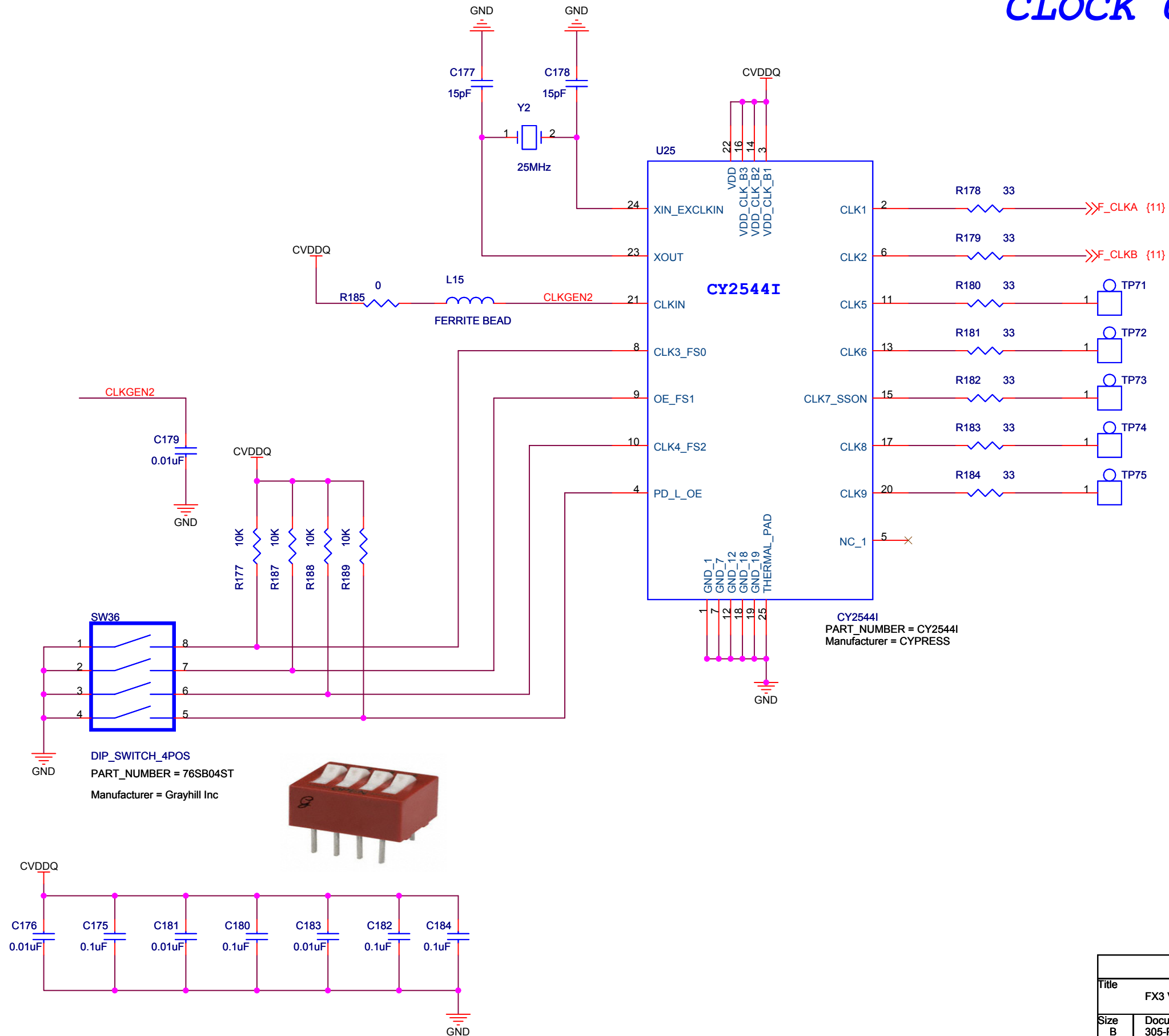
## CLOCK IN



## CLOCK IN\_32

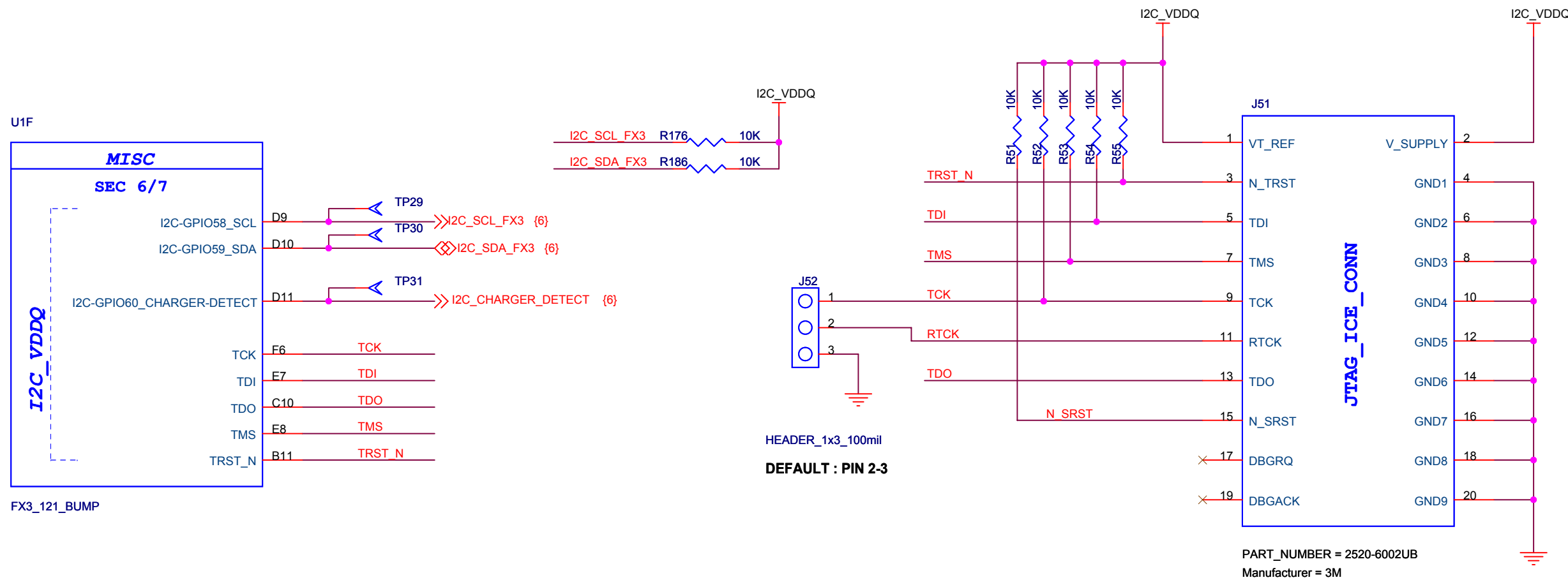


# CLOCK GENERATOR

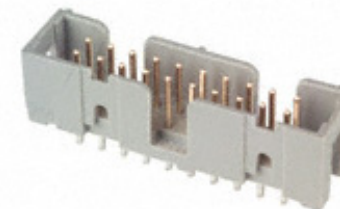
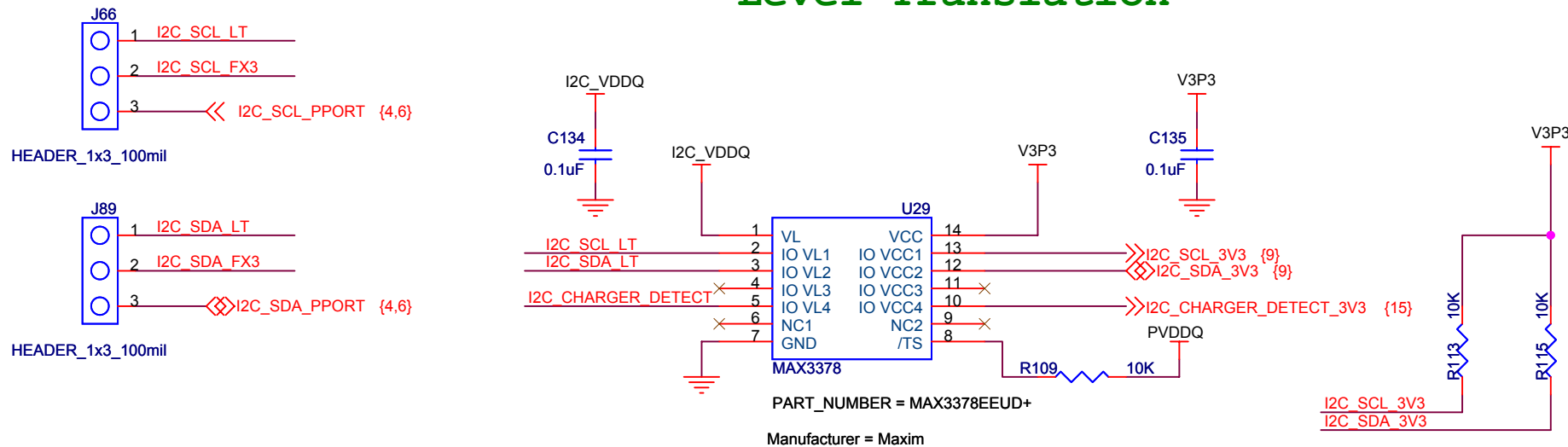


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# JTAG CONNECTIONS

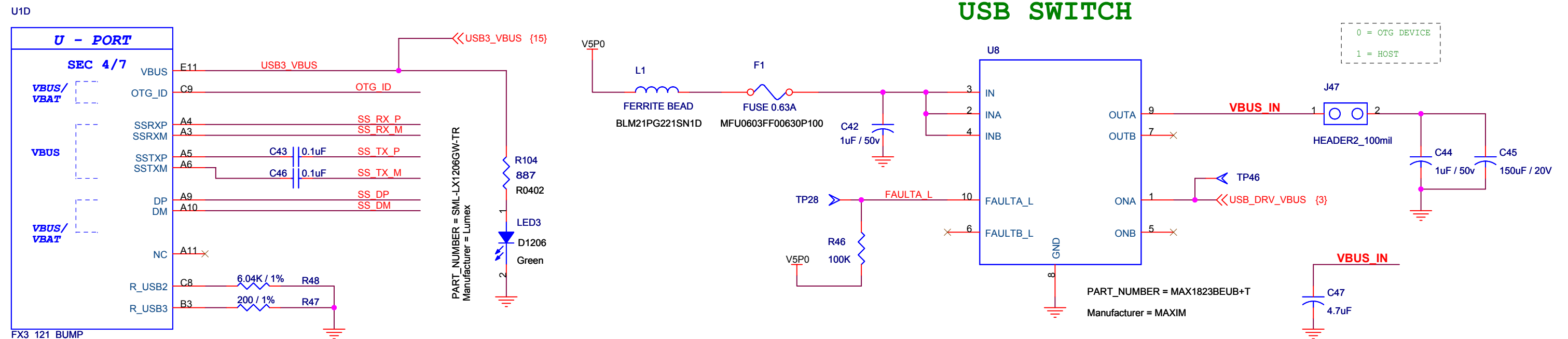


## Level Translation

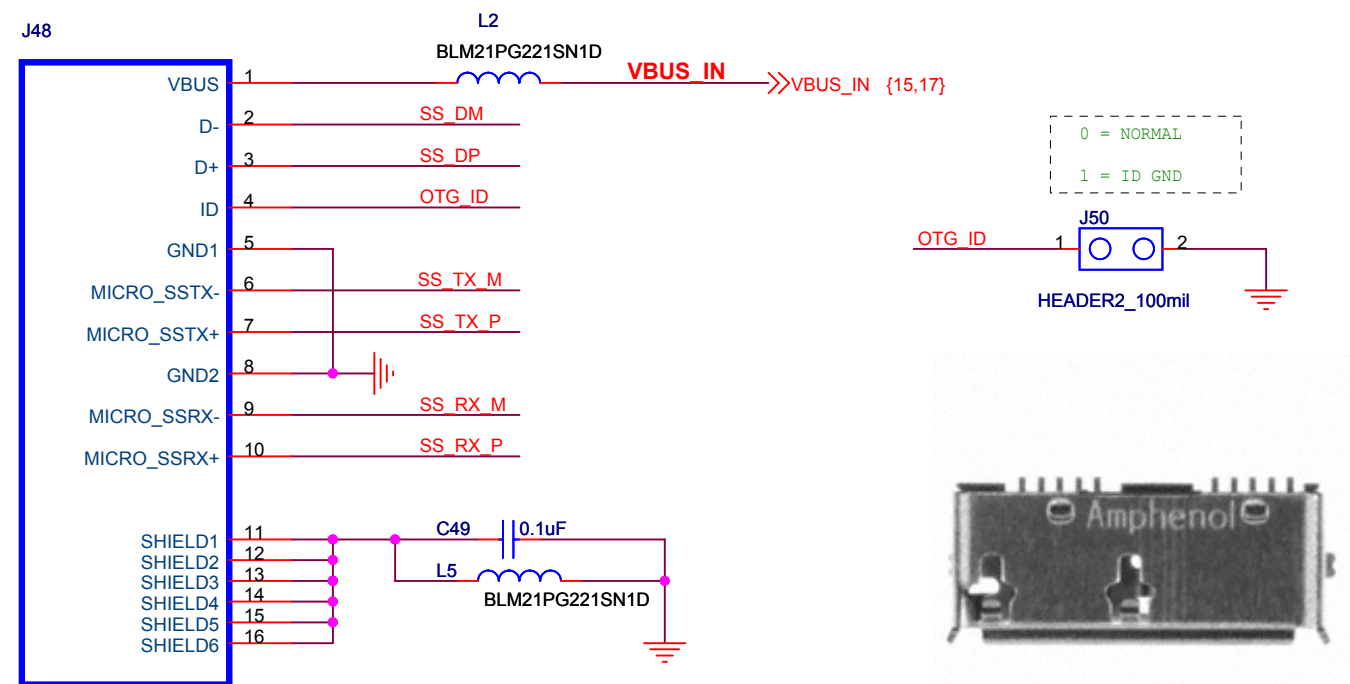


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# USB CONNECTIONS



## USB3.0 MICRO -TYPE B



GSB343133HR  
Manufacturer = Amphenol  
PART\_NUMBER = GSB343133HR

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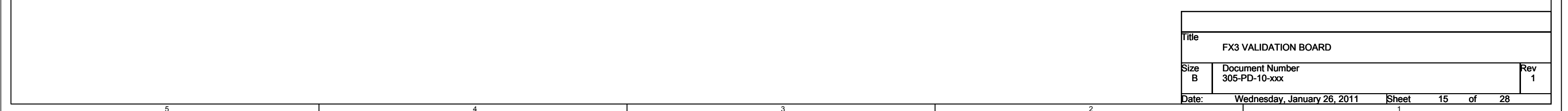
## USB Positive Overvoltage Protection Controller

The diagram illustrates the circuit for the USB Positive Overvoltage Protection Controller (U37). The IC, labeled U37, is an NCP361SNT1G from ON Semiconductor. It is configured as follows:

- Pin 1 (IN):** Connected to the VBUS\_IN signal line, which is also connected to a 1uF capacitor (C185) to ground.
- Pin 2 (GND):** Connected to ground.
- Pin 3 (EN\_L):** Connected to ground.
- Pin 4 (FLAG):** Connected to a 1M resistor (R190) and then to the VBUS\_IN signal line.
- Pin 5 (OUT):** Connected to the USB3\_VBUS signal line, which is also connected to a 1uF capacitor (C186) to ground.

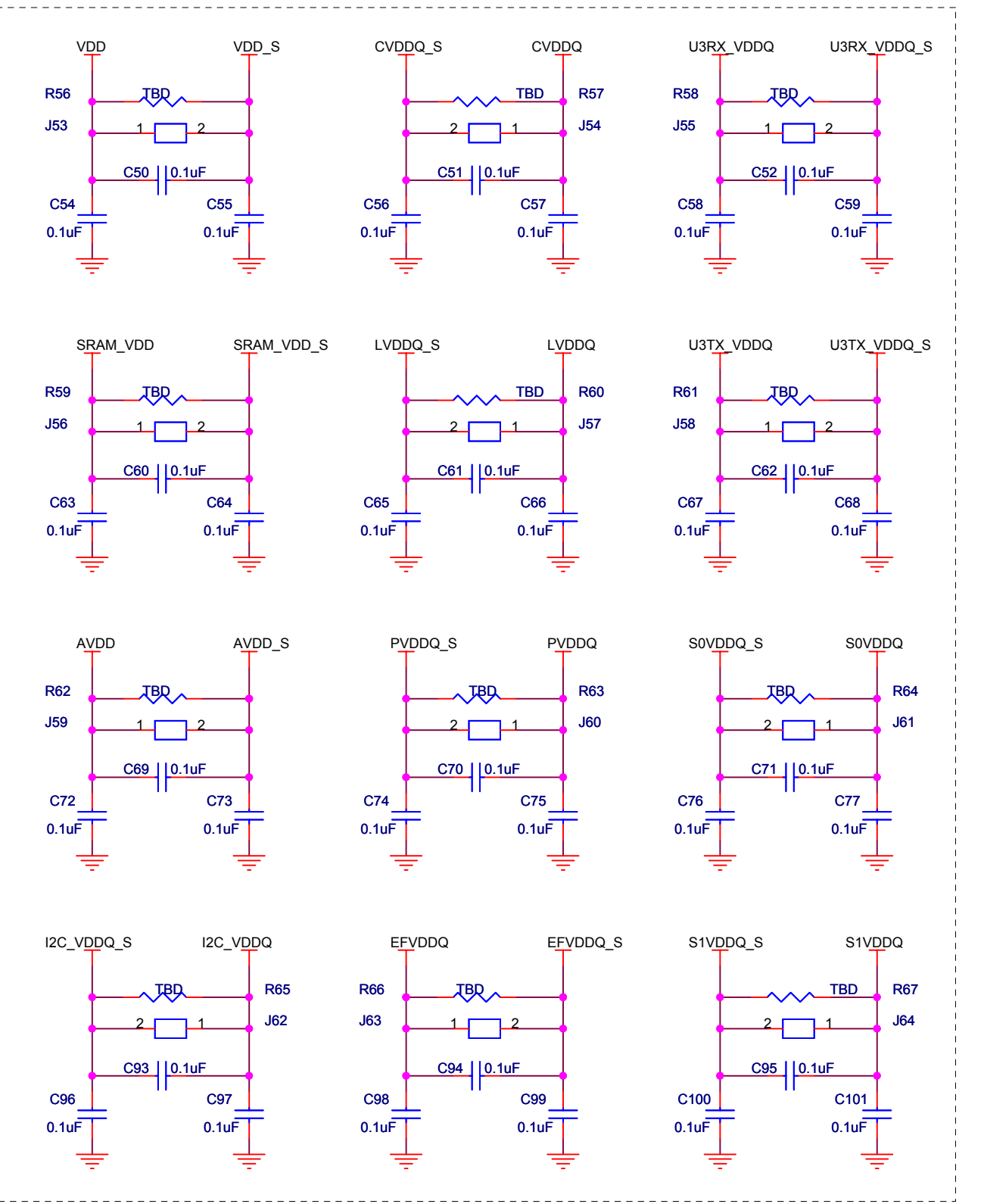
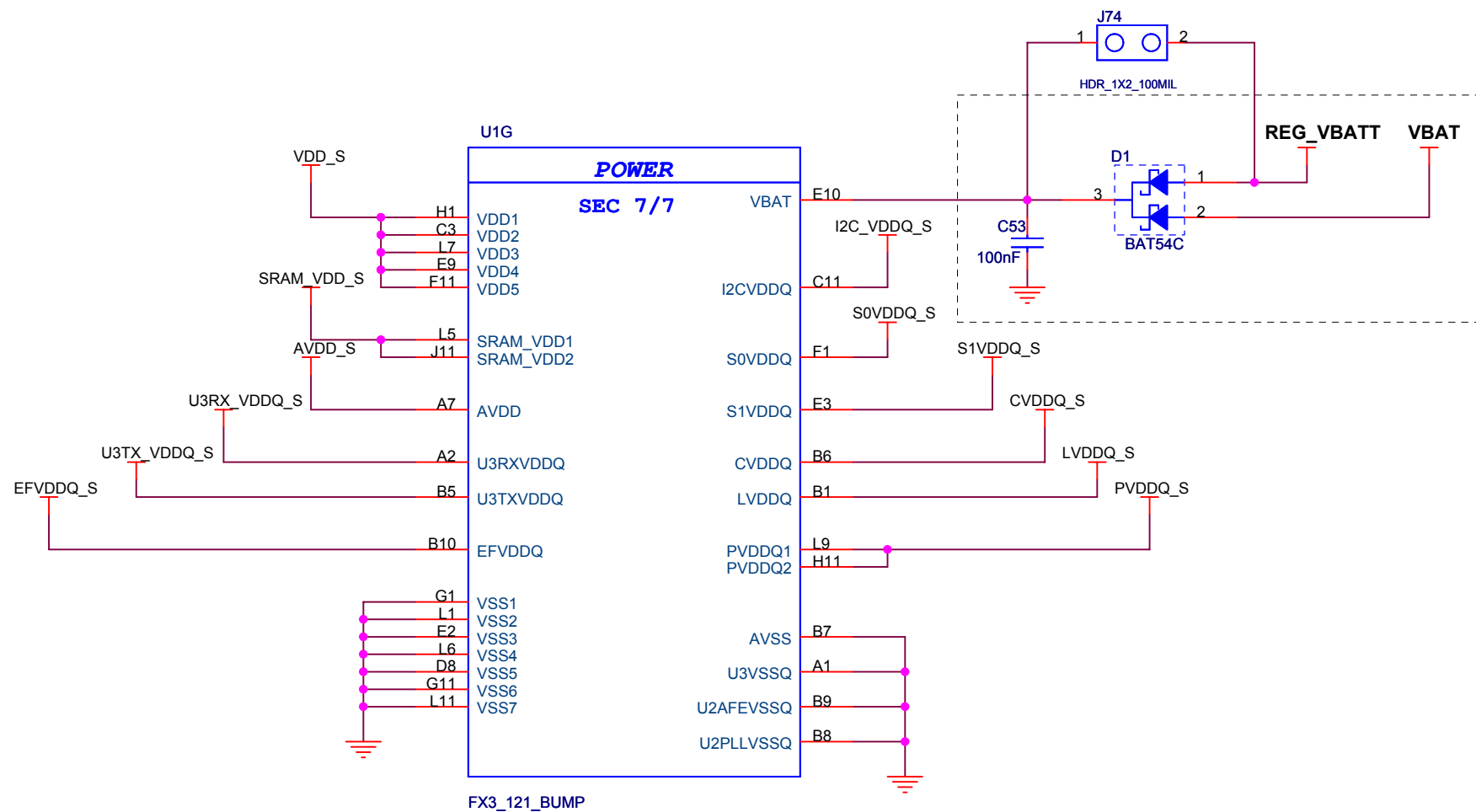
Below the IC symbol, the following information is provided:

- U37
- NCP361SNT1G
- PART\_NUMBER = NCP361SNT1G
- Manufacturer = ON Semiconductor



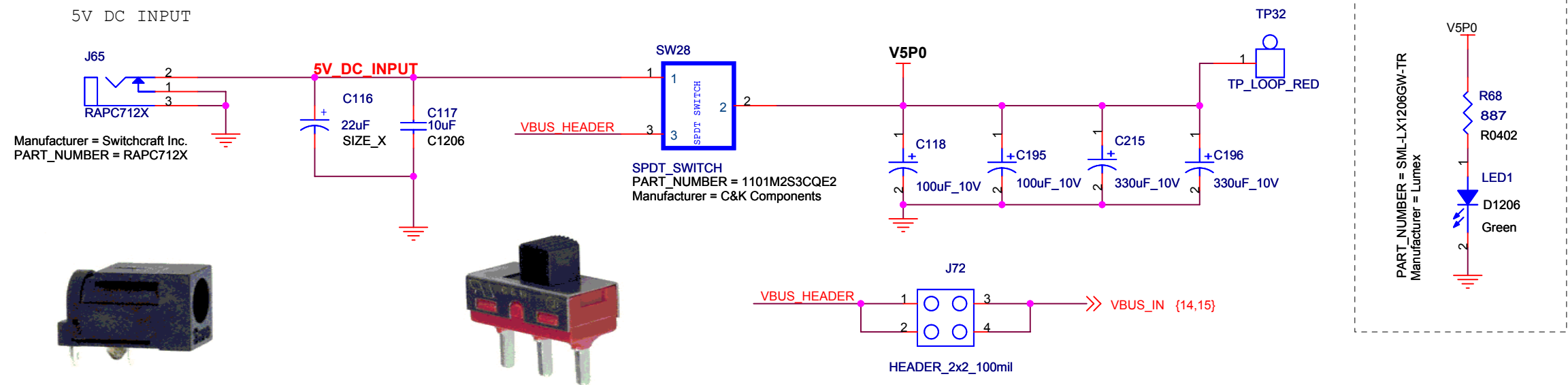


# FX3 POWER & DECOUPLING

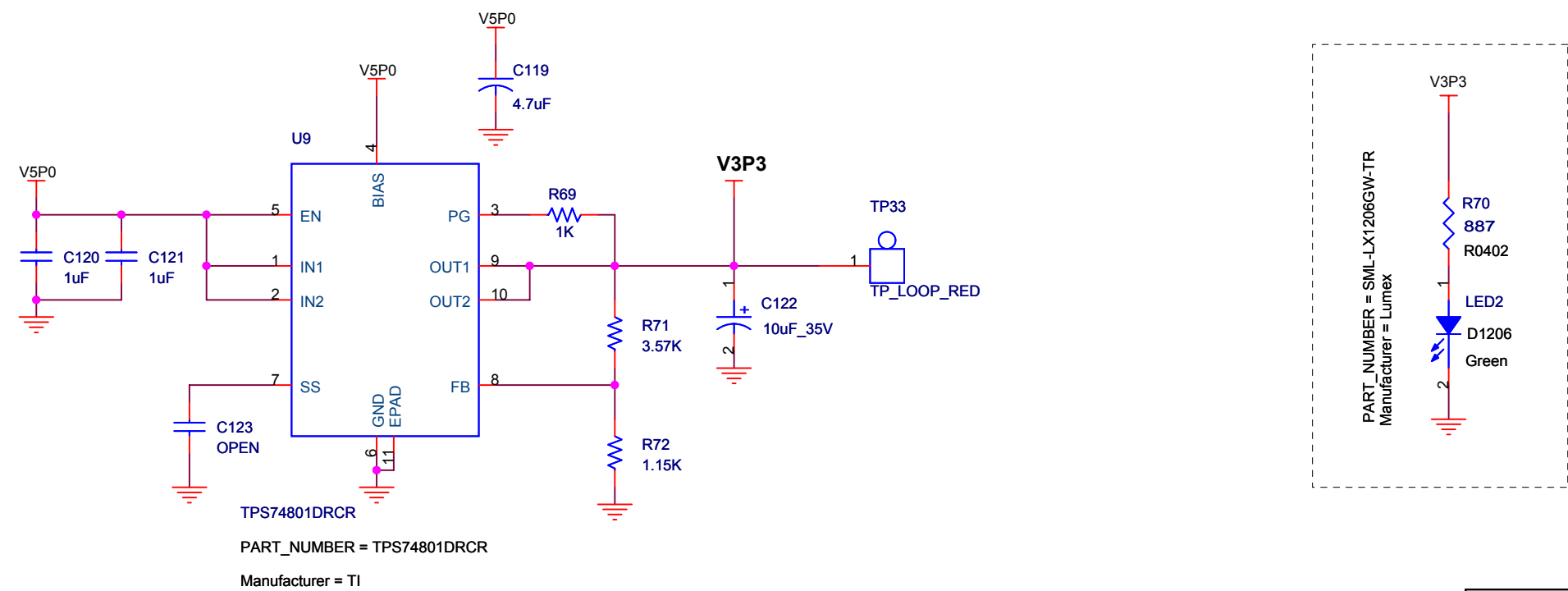


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5V - DC INPUT POWER



3.3V @ 1.5A REGULATOR



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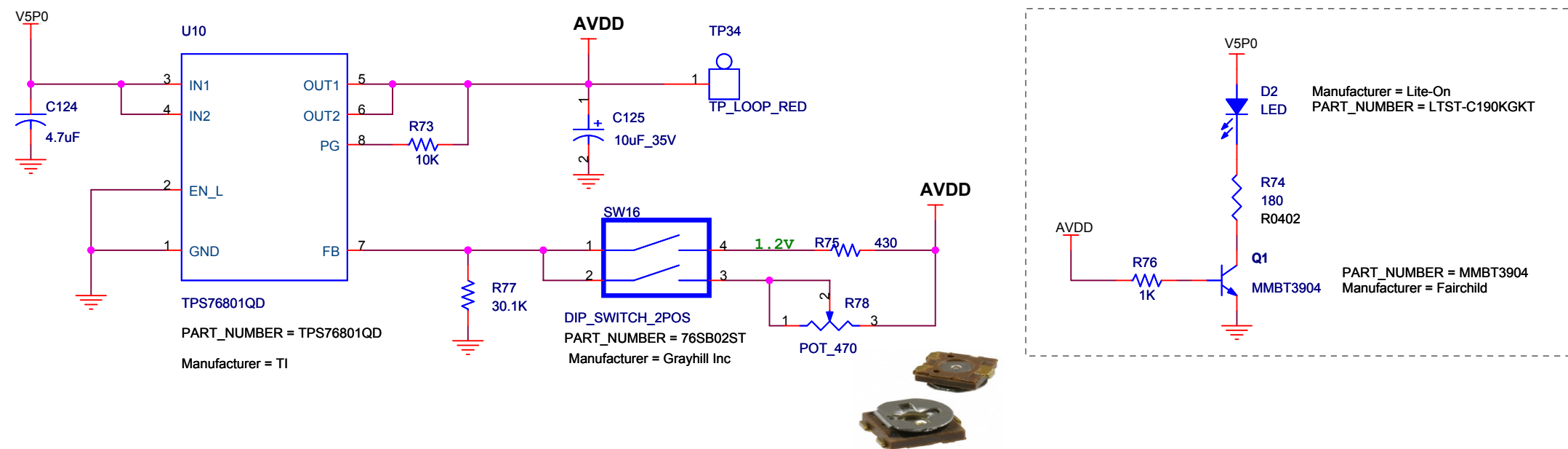
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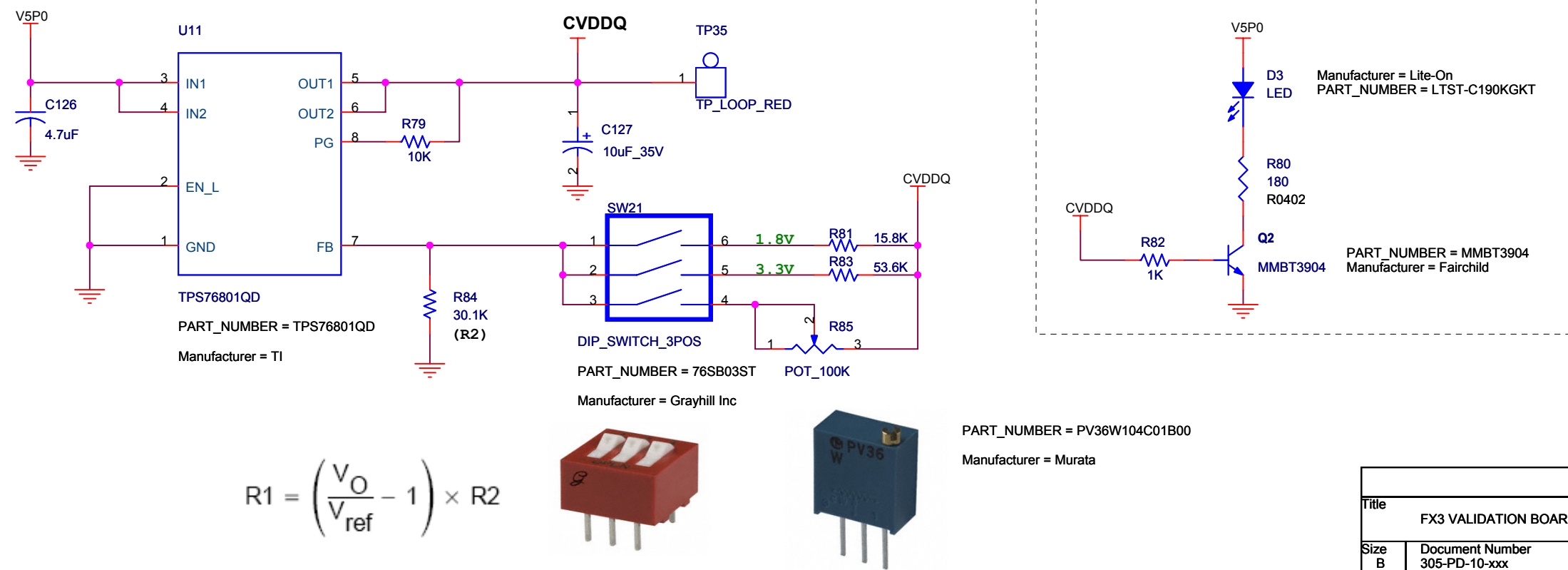
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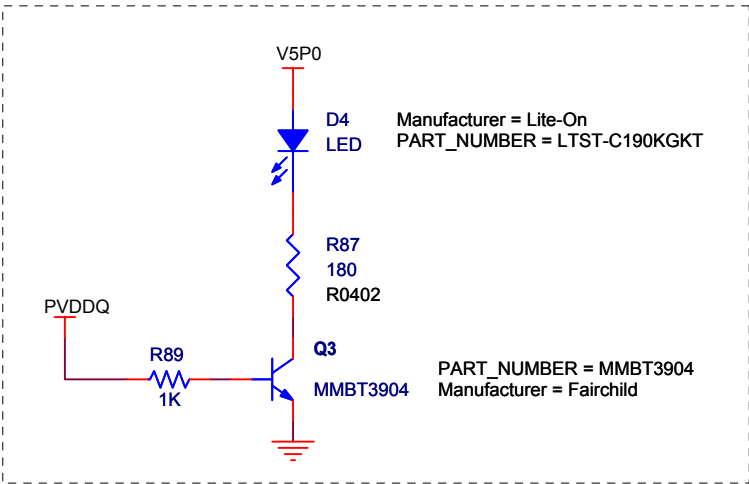
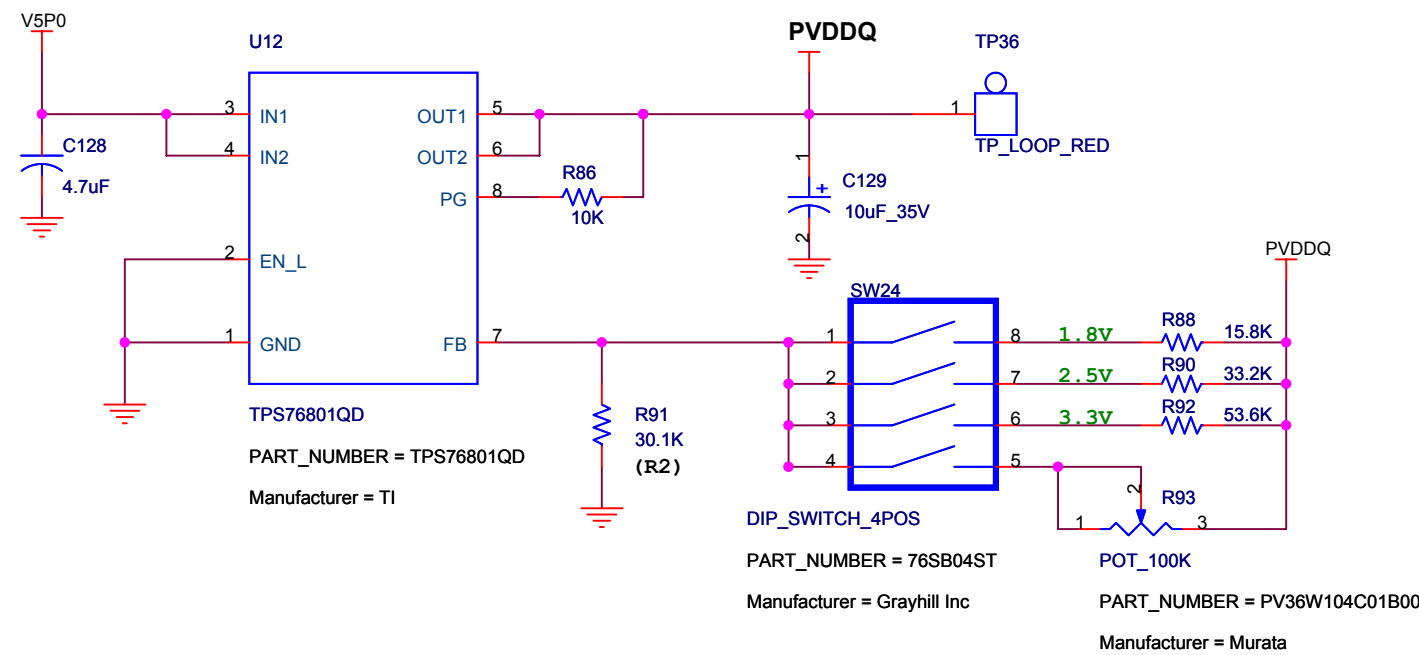
# AVDD (1.2V @ 1A) REGULATOR



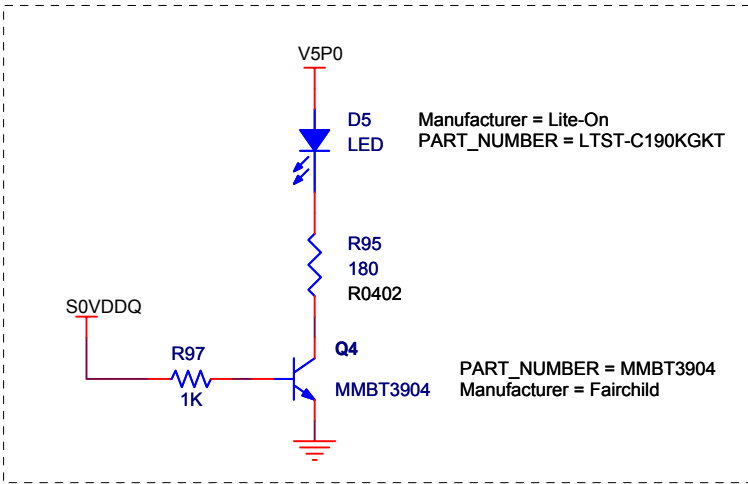
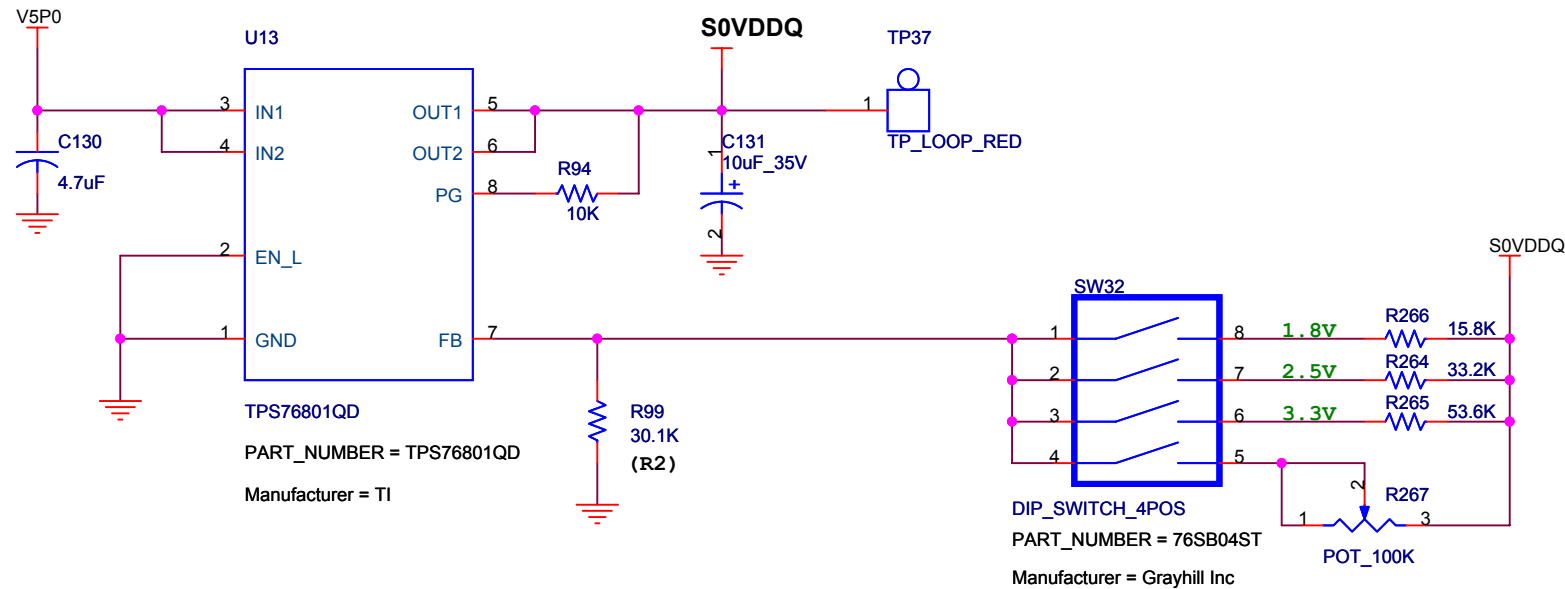
# CVDDQ (1.8/3.3V @ 1A) REGULATOR



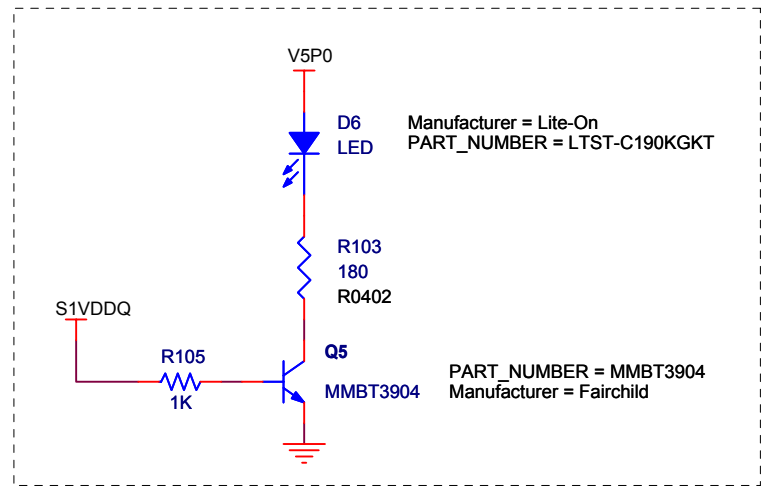
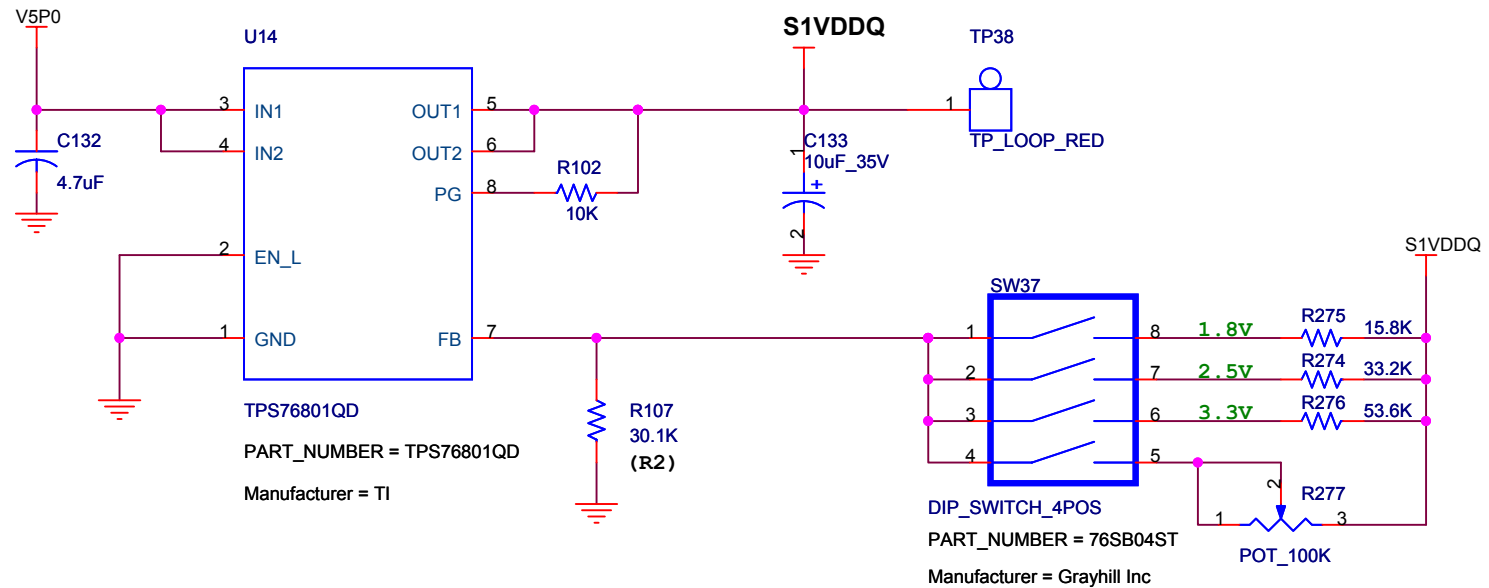
PVDDQ (1.8/2.5V/3.3V @ 1A) REGULATOR



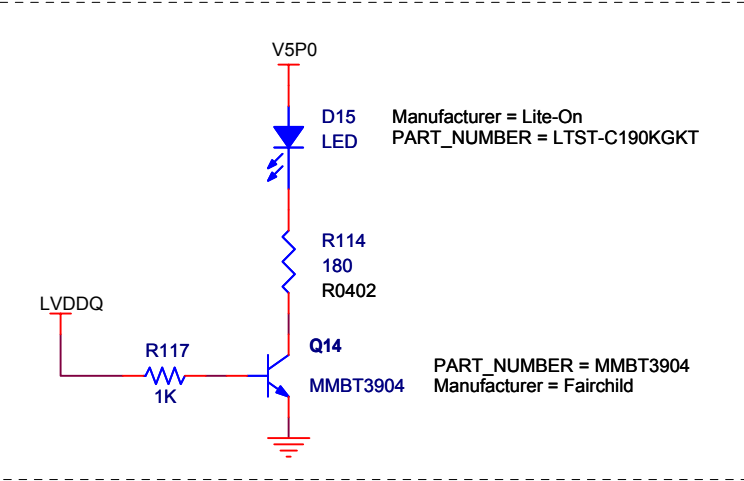
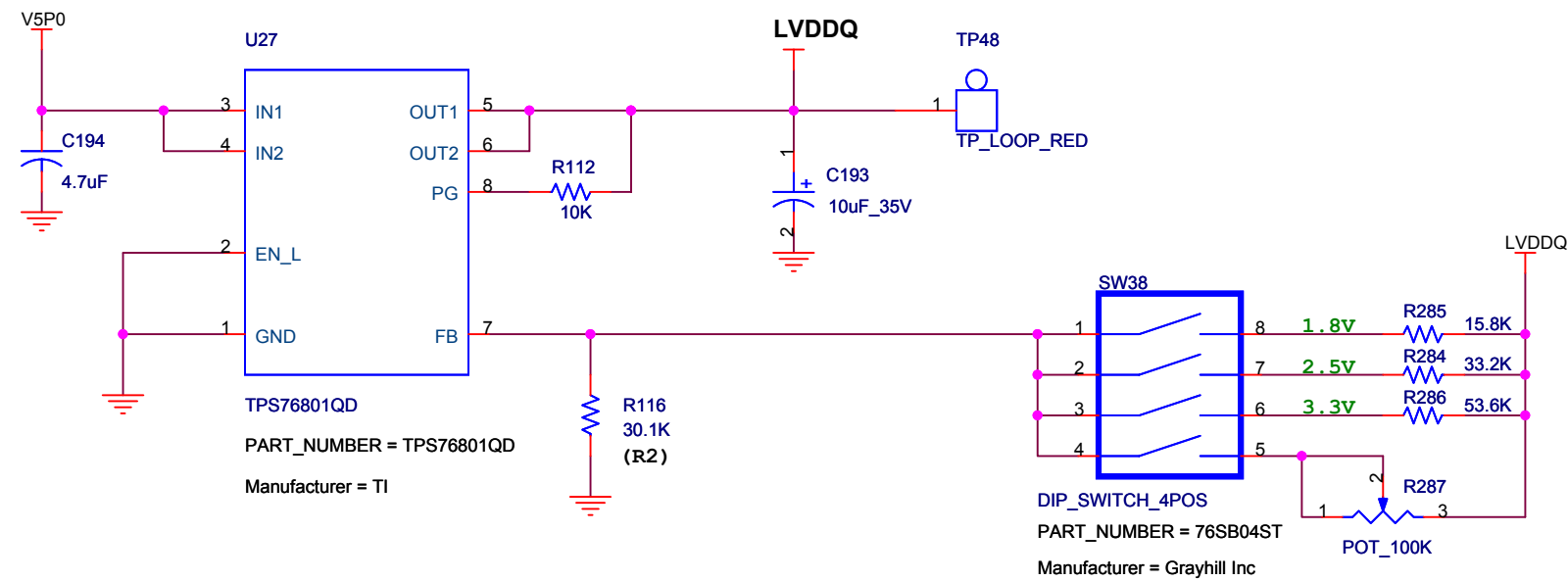
S0VDDQ (1.8/2.5V/3.3V @ 1A) REGULATOR



# S1VDDQ (1.8/2.5V/3.3V @ 1A) REGULATOR



# LVDDQ (1.8/2.5V/3.3V @ 1A) REGULATOR



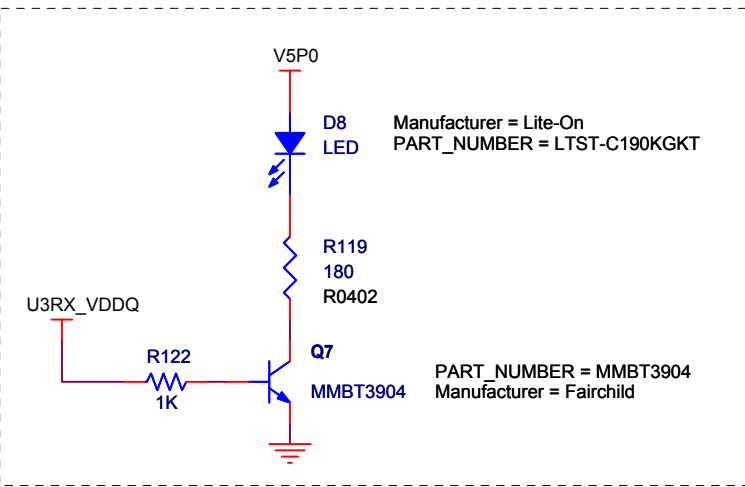
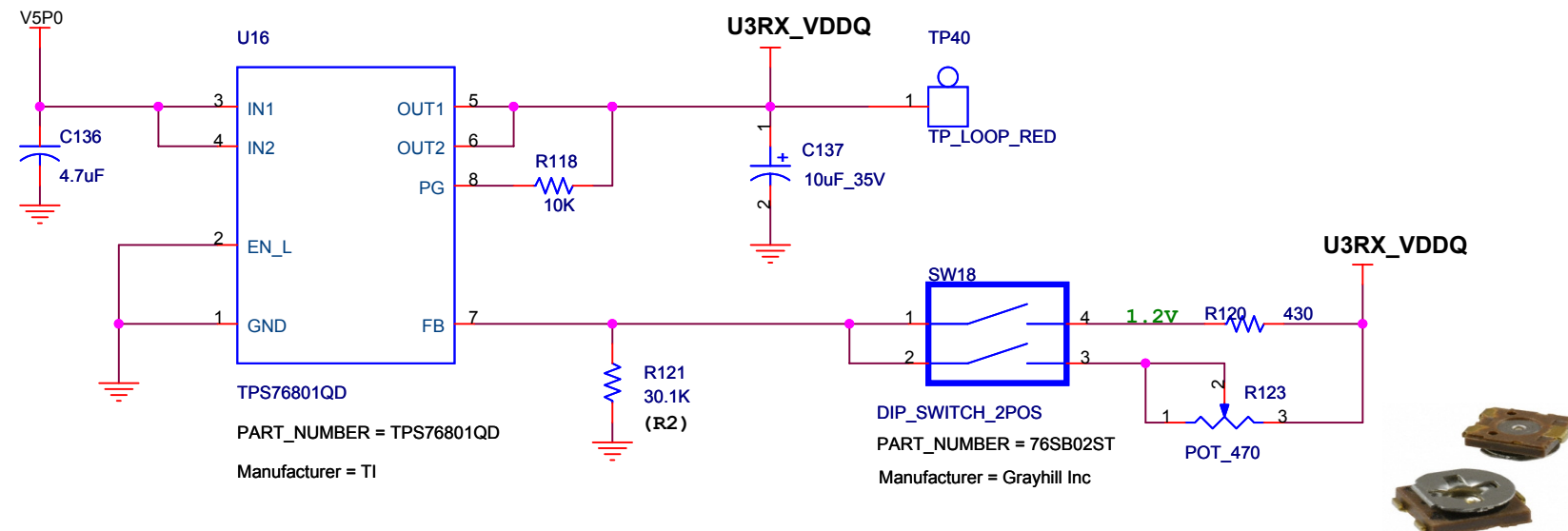
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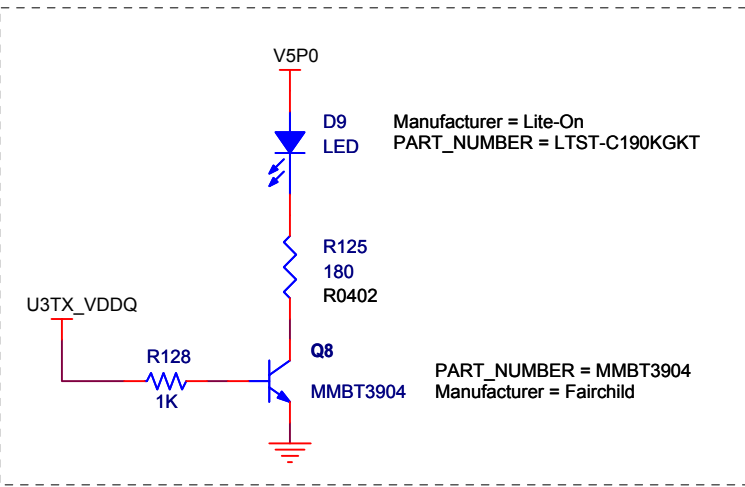
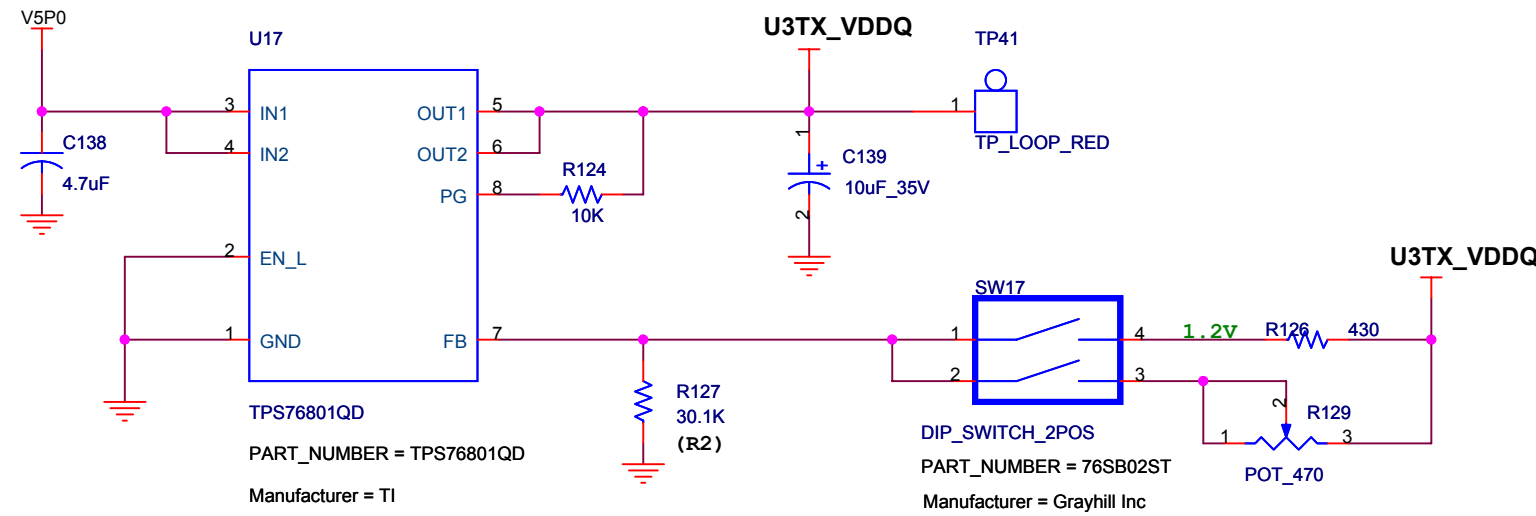
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# U3RX\_VDDQ (1.2V @ 1A) REGULATOR

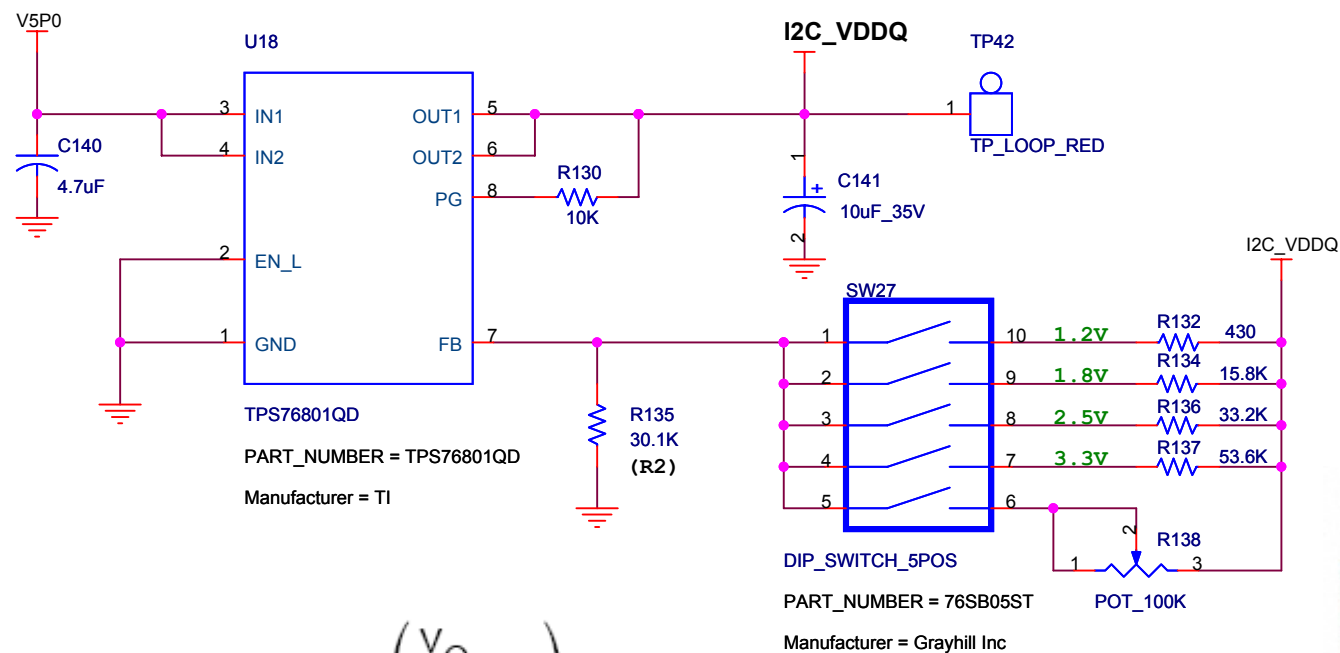


# U3TX\_VDDQ (1.2V @ 1A) REGULATOR

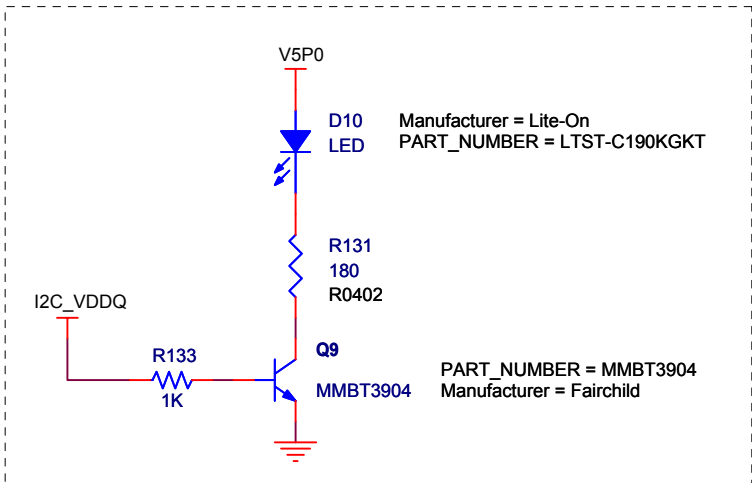




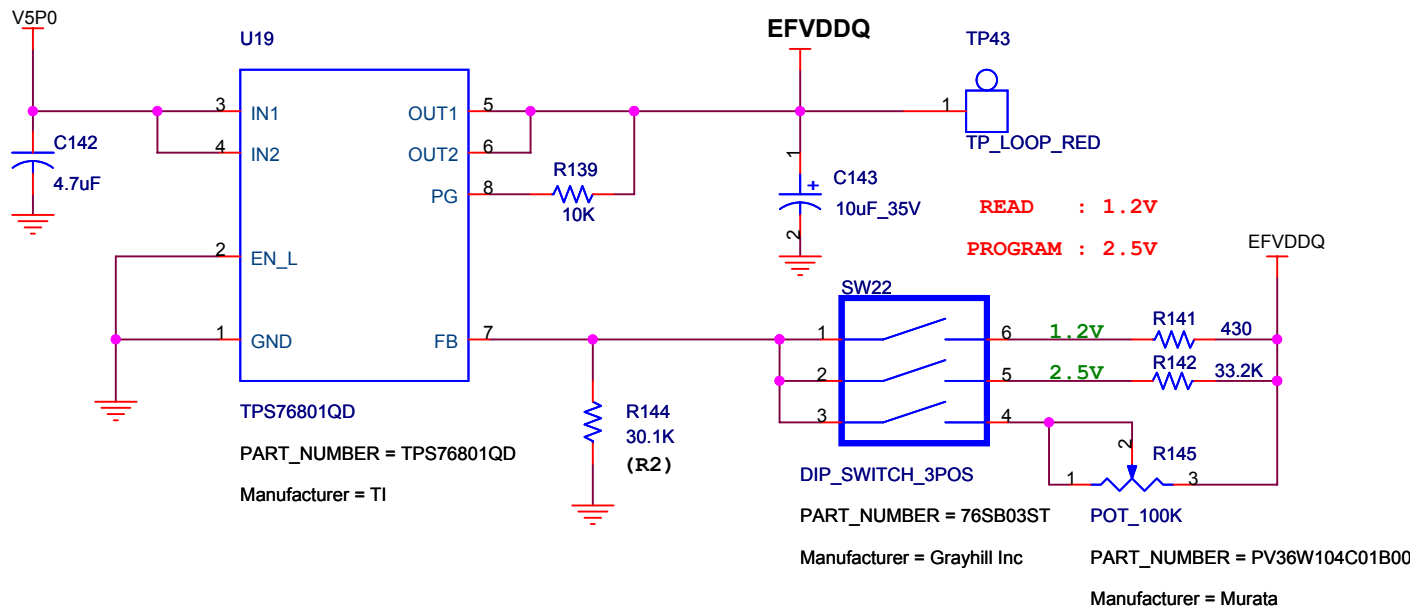
I2C\_VDDQ (1.2/1.8/2.5V/3.3V @ 1A) REGULATOR



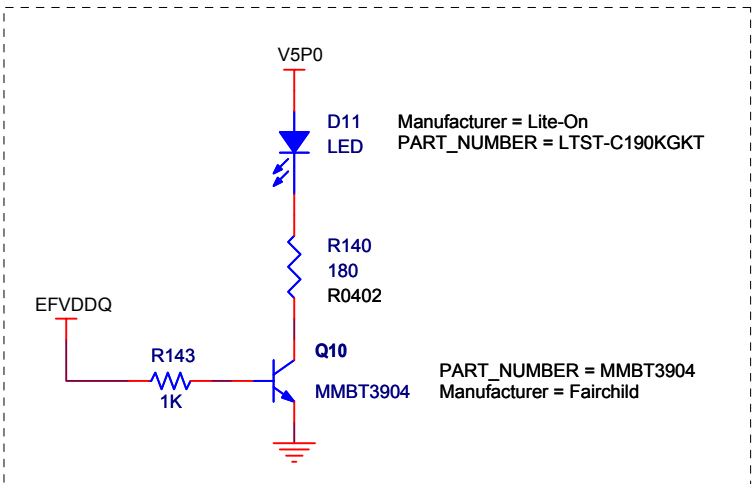
$$R1 = \left( \frac{V_O}{V_{ref}} - 1 \right) \times R2$$



EFVDDQ (1.2/2.5V @ 1A) REGULATOR

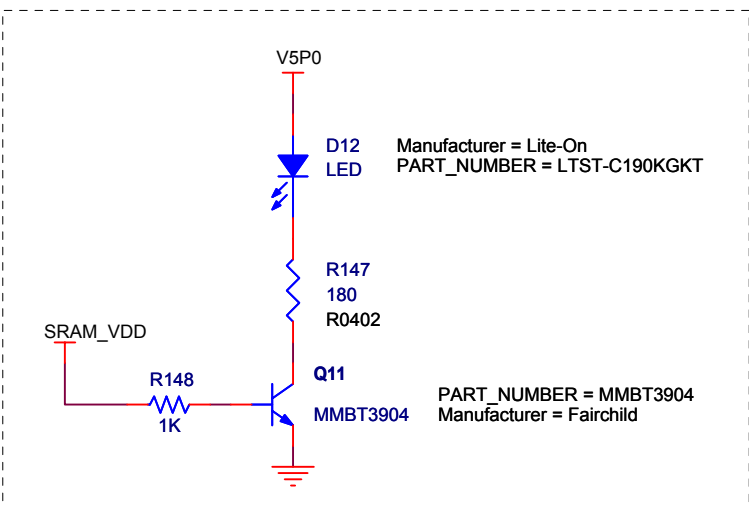
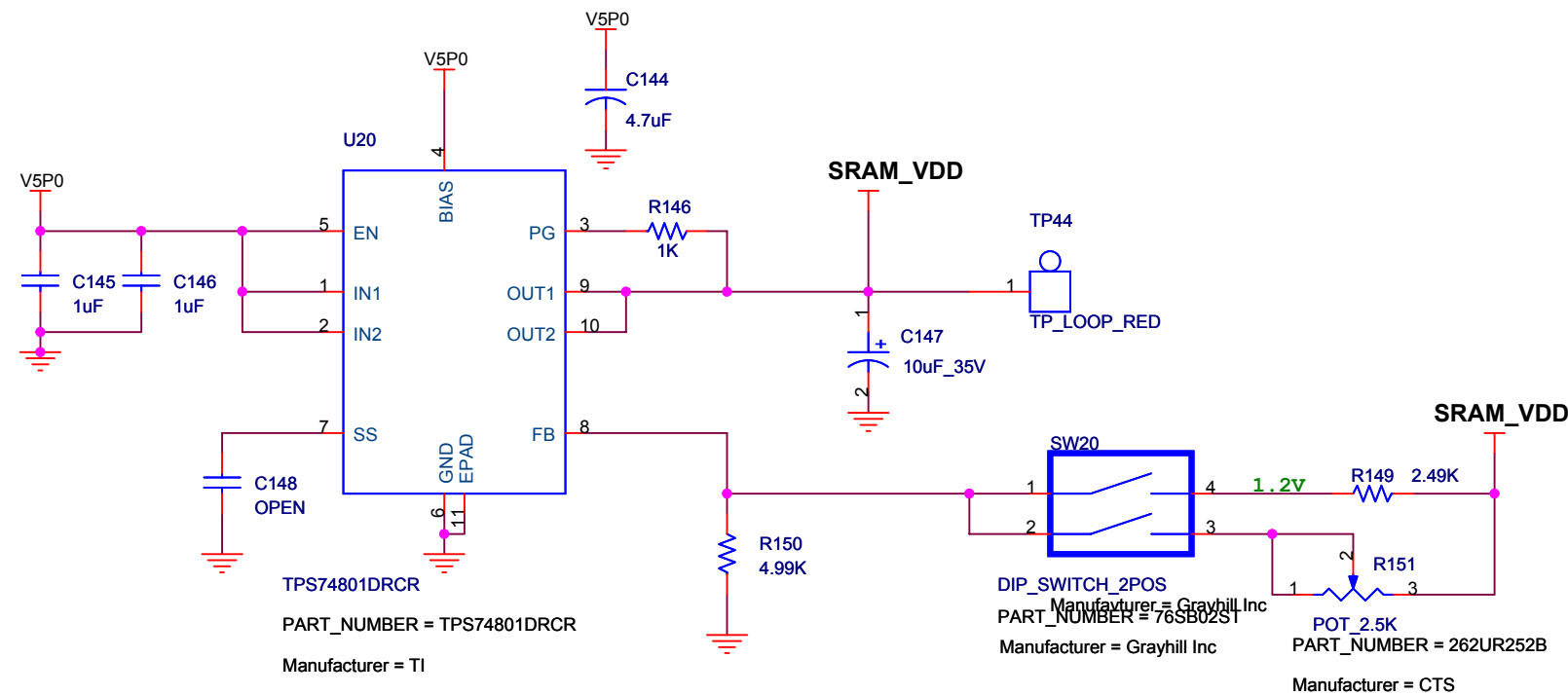


$$R1 = \left( \frac{V_O}{V_{ref}} - 1 \right) \times R2$$

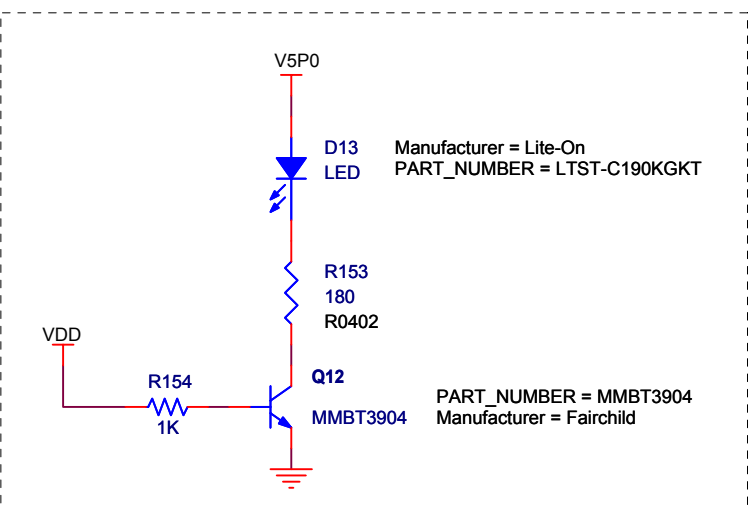
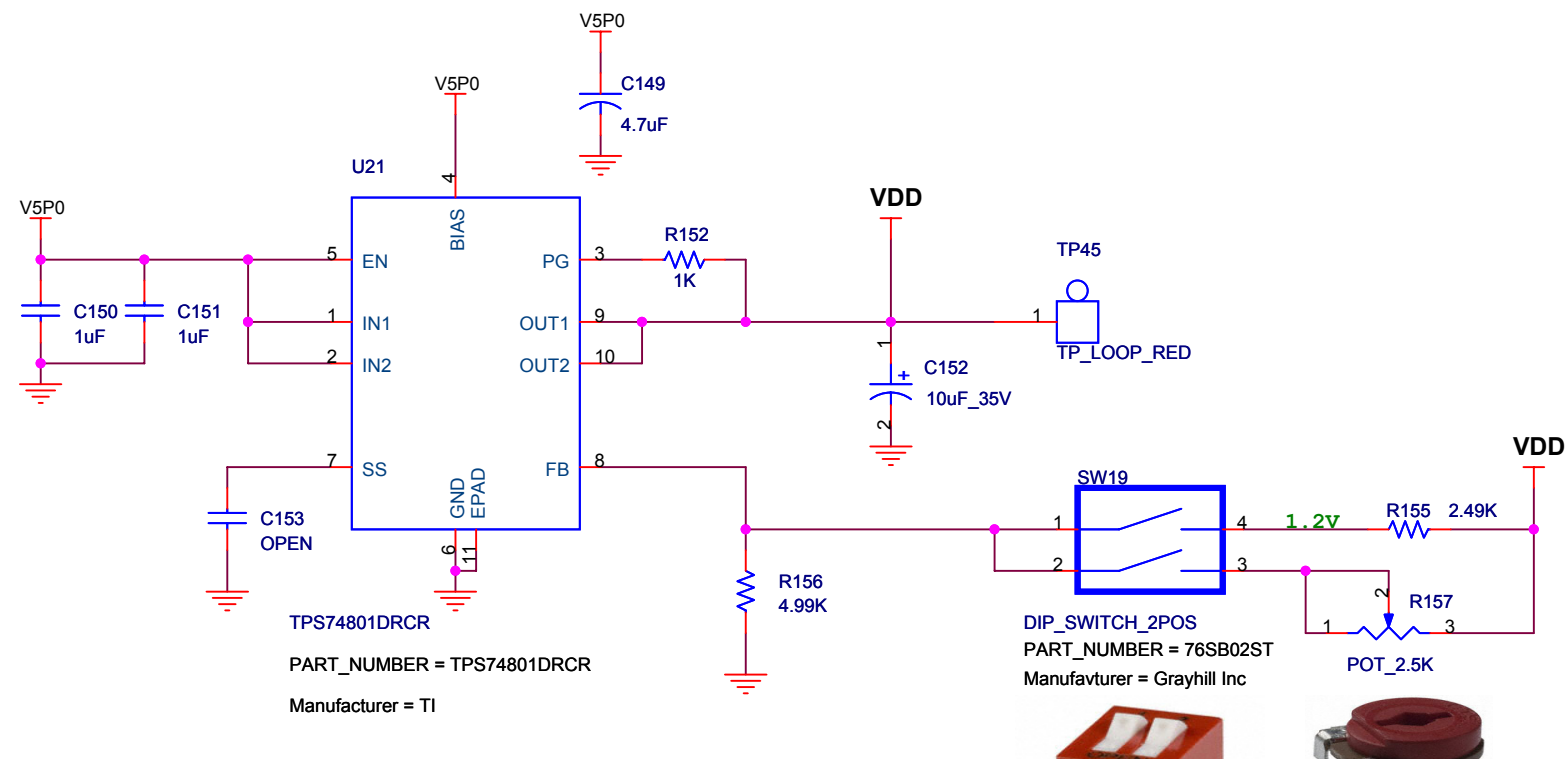


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# SRAM\_VDD (1.2V @ 1.5A) REGULATOR

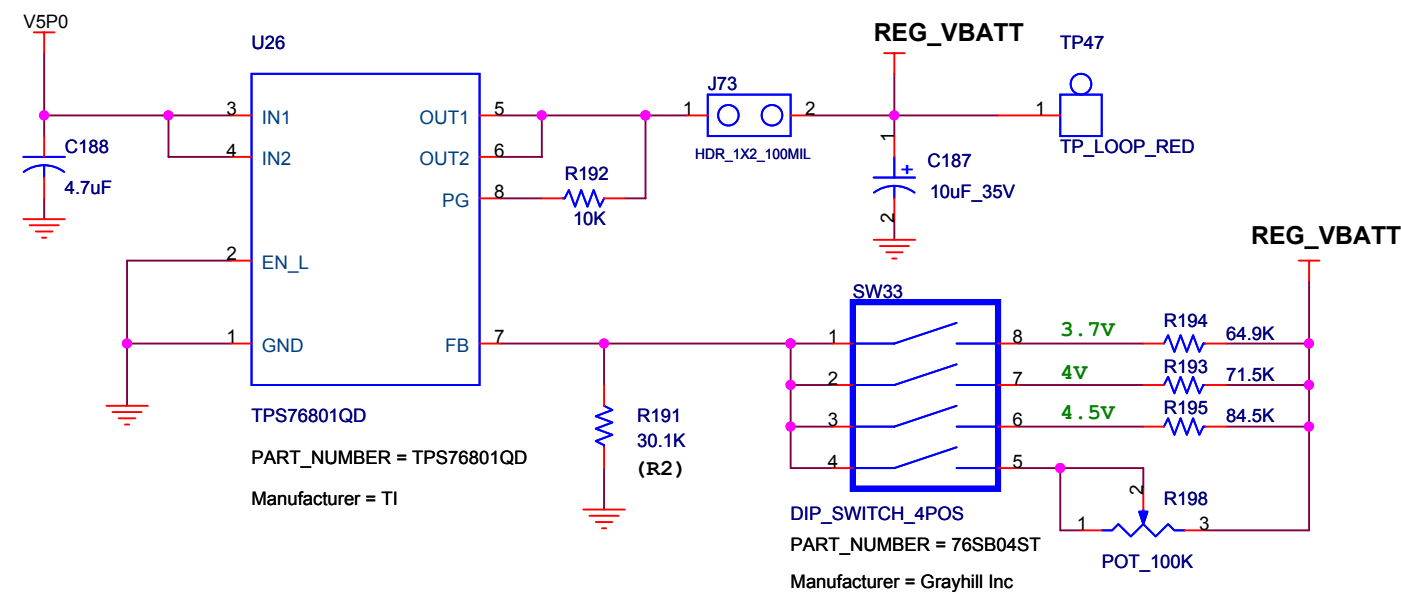


# VDD (1.2V @ 1.5A) REGULATOR

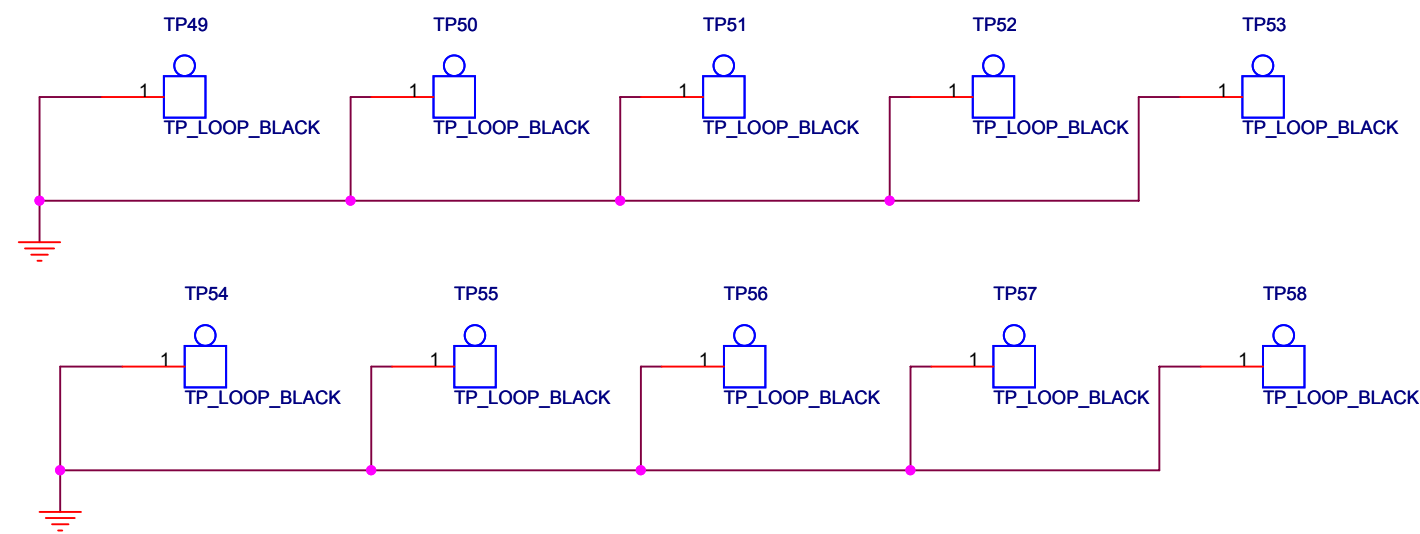
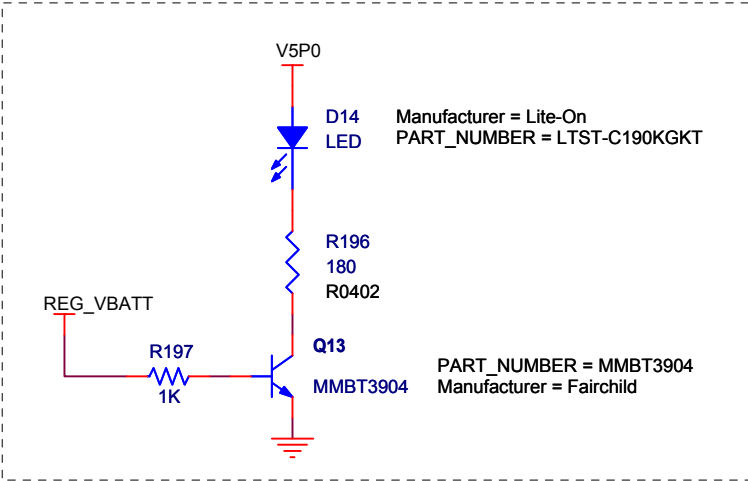
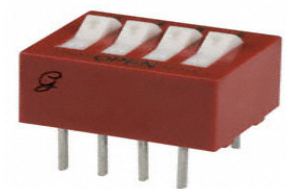


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# REG\_VBATT (3.7 / 4V / 4.5V @ 1A) REGULATOR



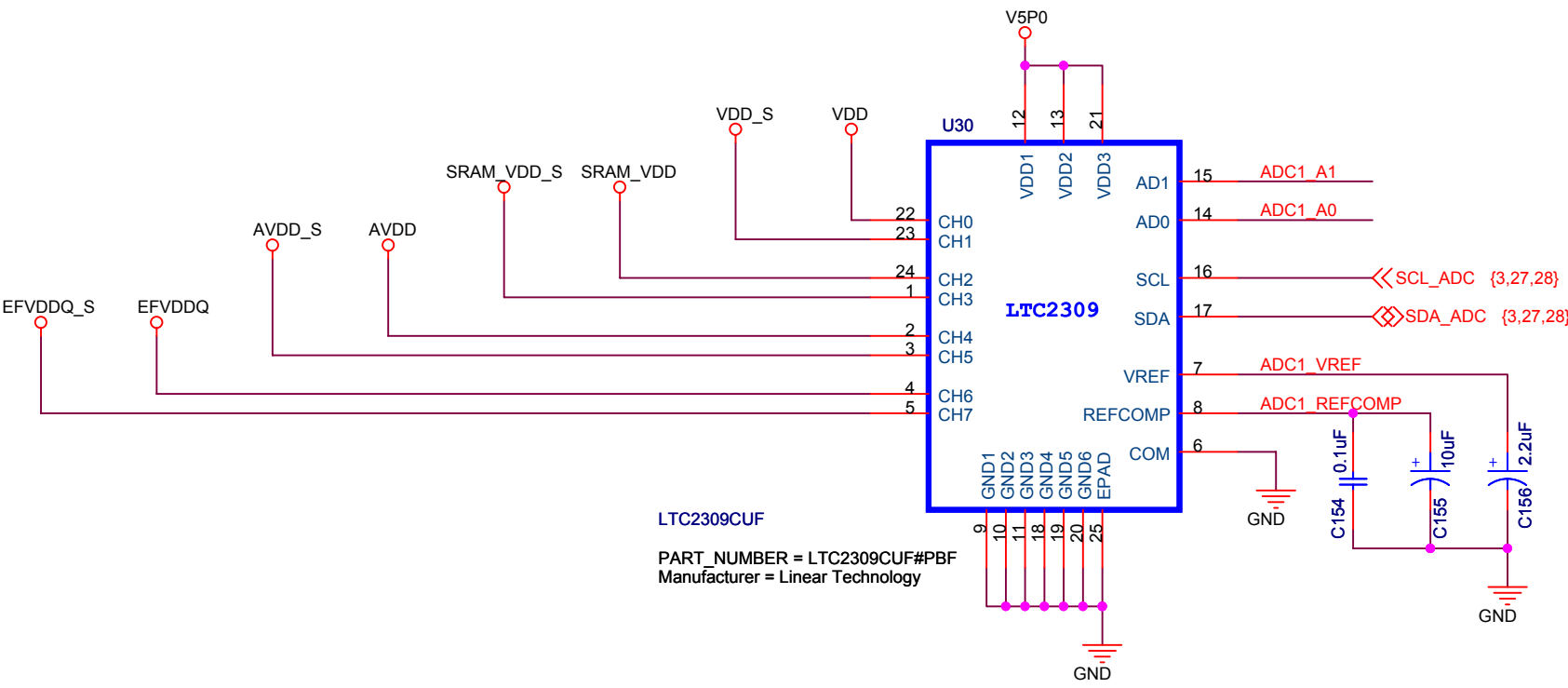
$$R1 = \left( \frac{V_O}{V_{ref}} - 1 \right) \times R2$$



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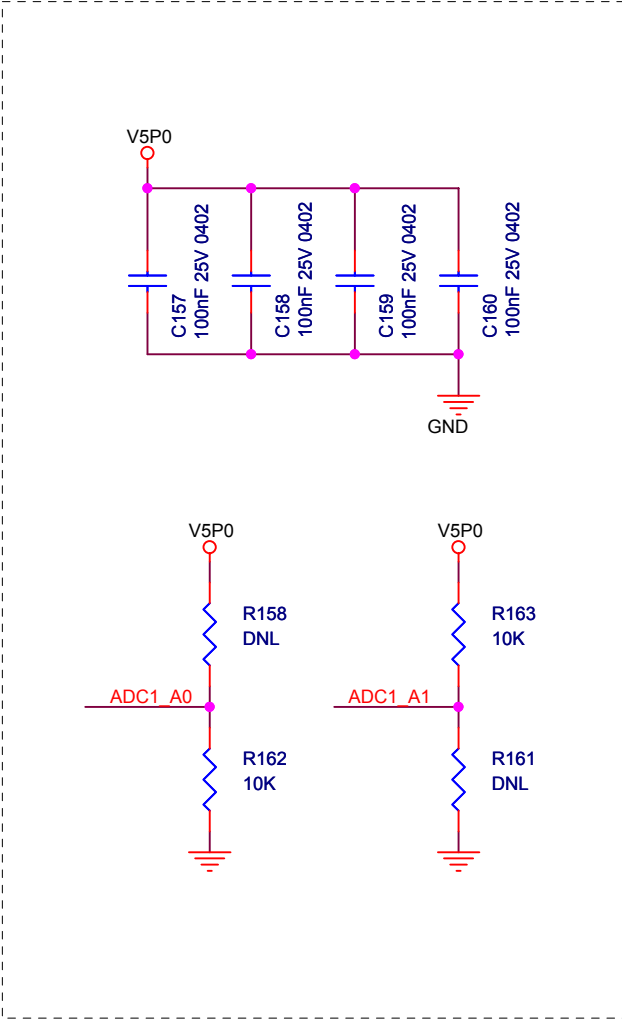
CURRENT SENSING ADC - 1

VDD / SRAM\_VDD / AVDD / EFVDDQ



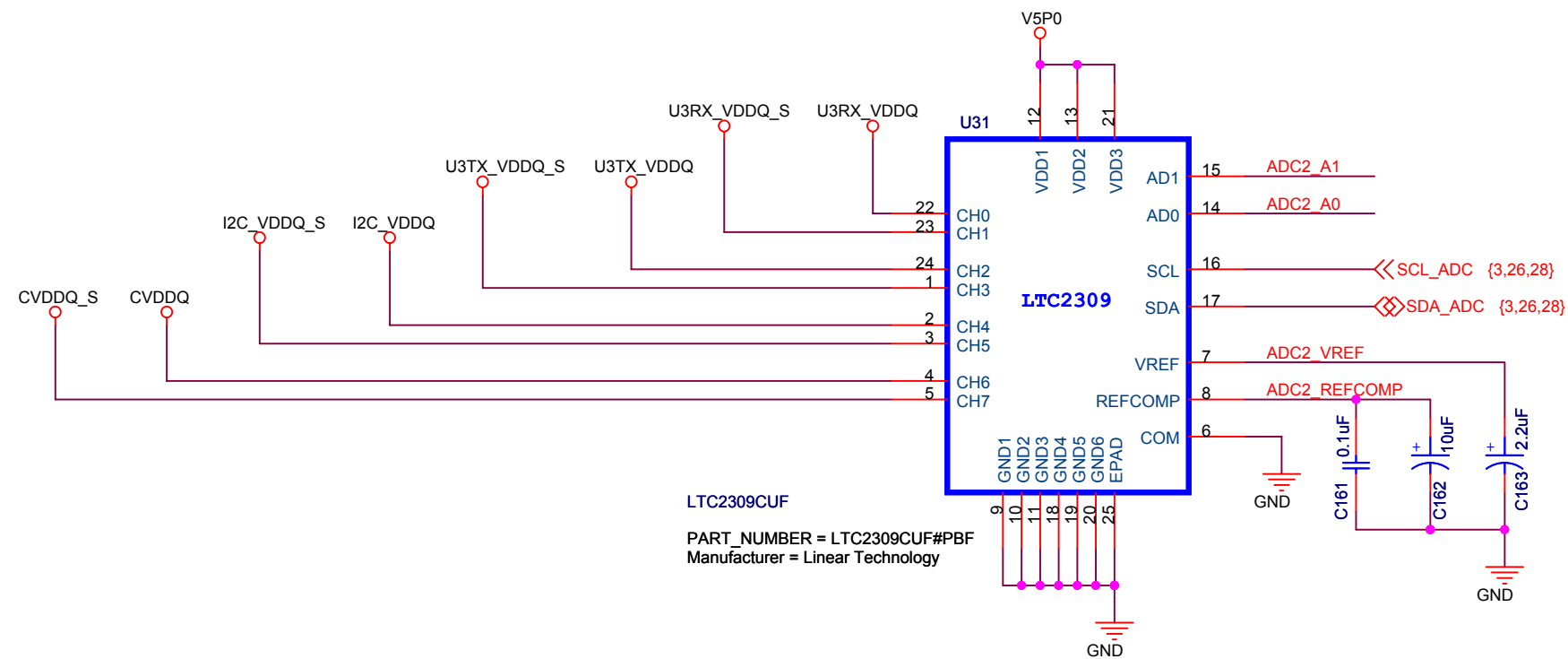
I2C ADDRESS

AD0	AD1	ADDRESS						
0	1	0	0	1	1	0	1	0



# CURRENT SENSING ADC - 2

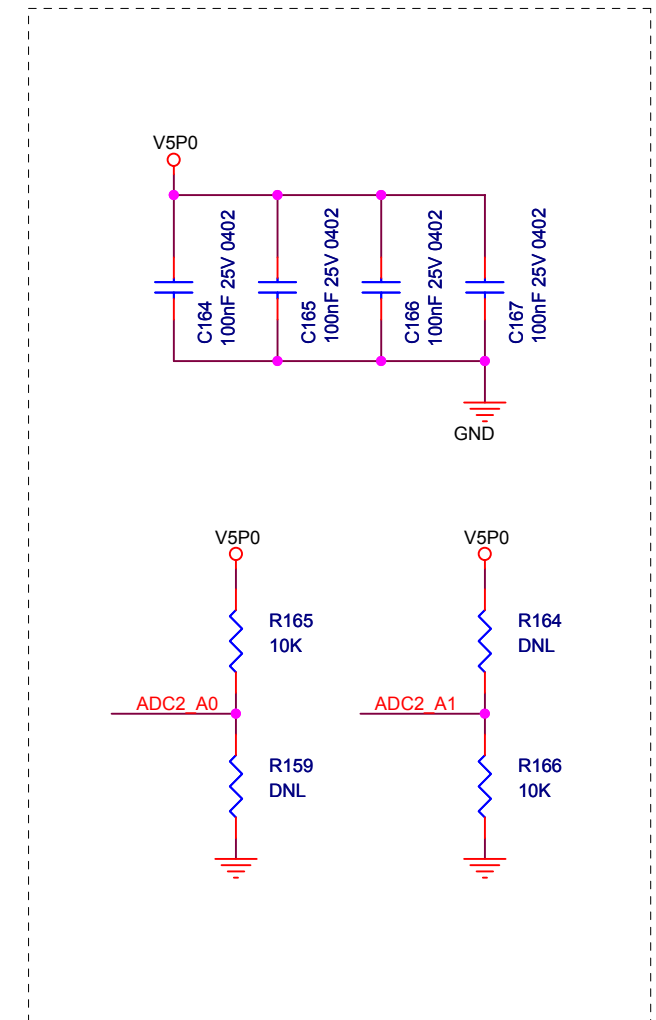
CVDDQ / I2C\_VDDQ / U3RX\_VDDQ / U3TX\_VDDQ



LTC2309CUF  
PART\_NUMBER = LTC2309CUF#PBF  
Manufacturer = Linear Technology

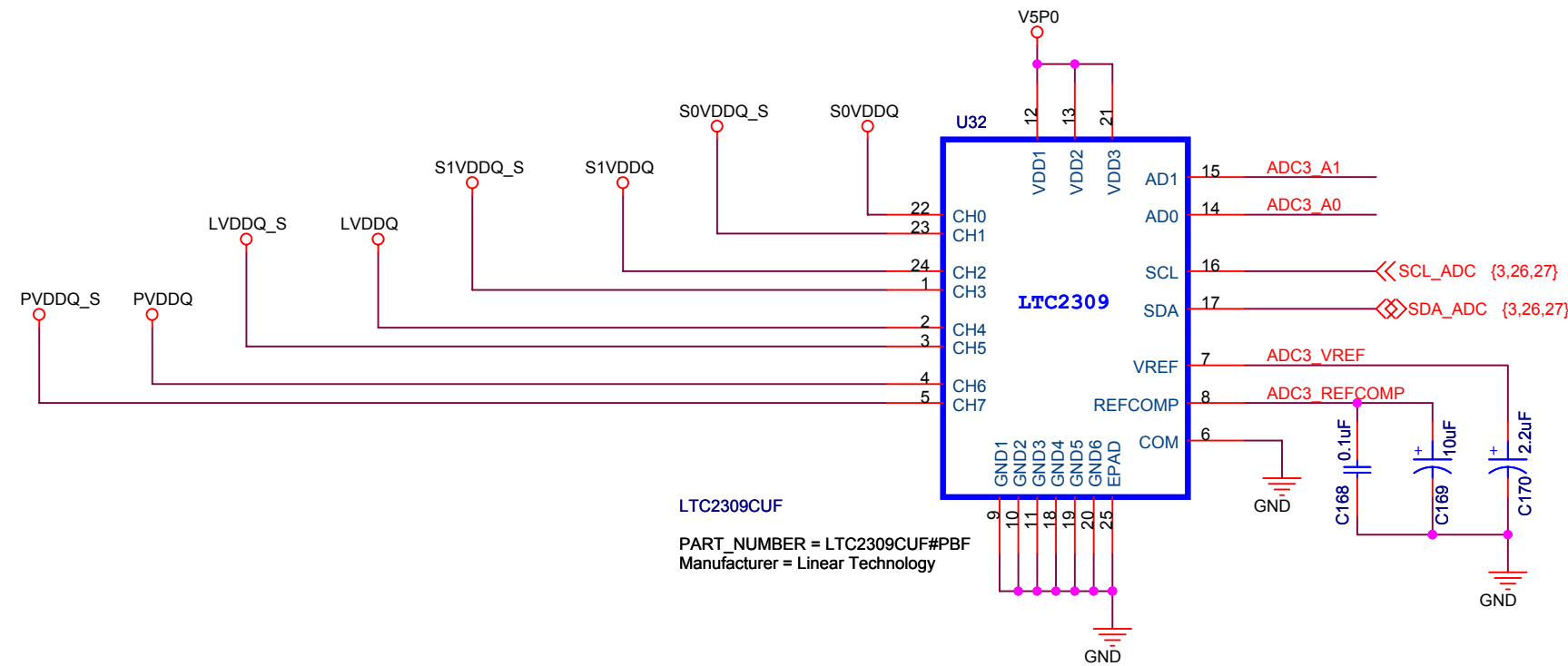
## I2C ADDRESS

AD0	AD1	ADDRESS						
1	0	0	0	0	1	0	1	0



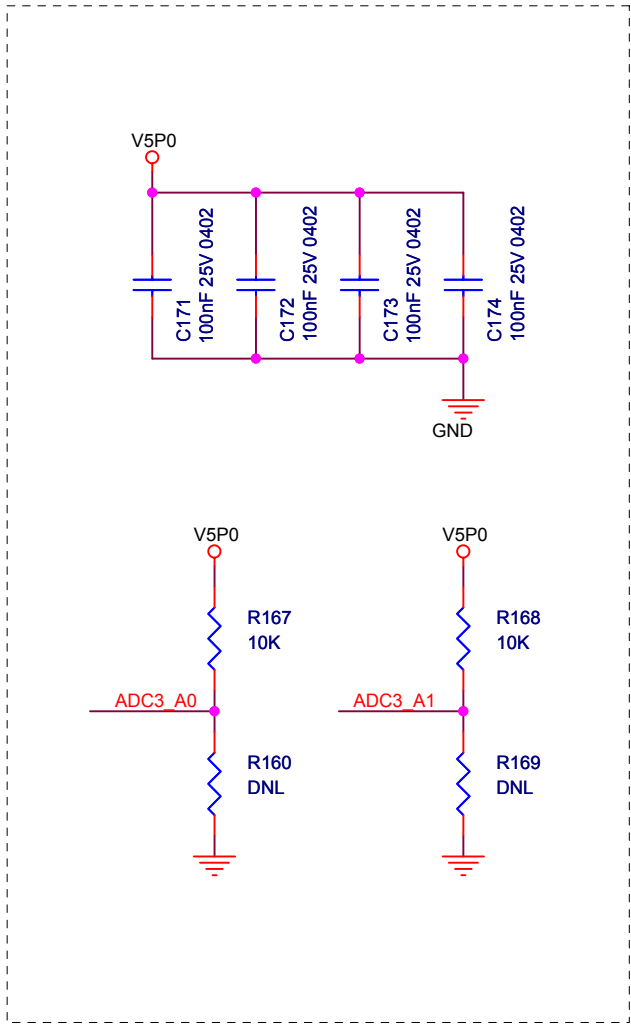
# CURRENT SENSING ADC - 3

PVDDQ / LVDDQ / S0VDDQ / S1VDDQ



## I2C ADDRESS

AD0		AD1		ADDRESS				
1	1	0	1	0	1	0	0	0



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Date: Wednesday, January 26, 2011

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