

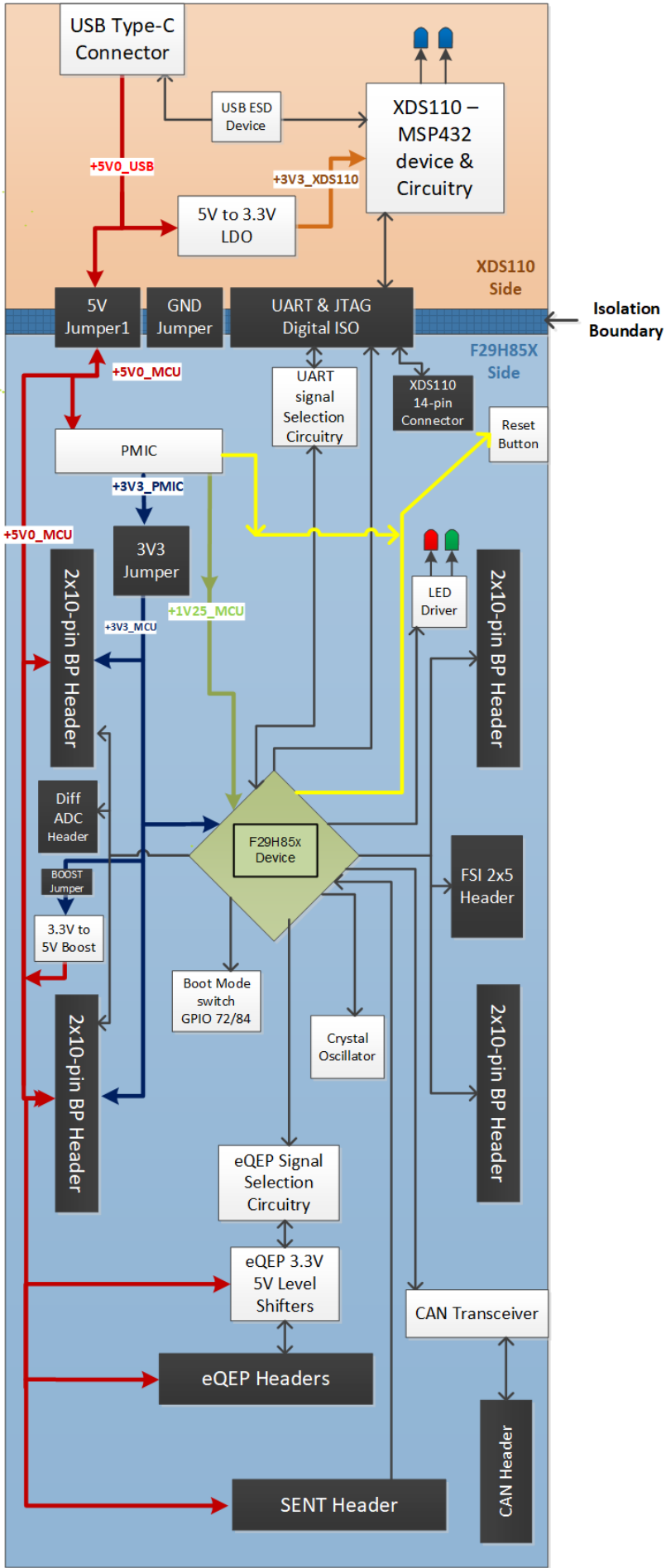
A

B

C

D

- 1) USB Differential Pairs - 90 Ohm  
(A) USB\_D\_P and USB\_D\_N  
2) ADC Differential pair Impedance Matching - 50 Ohm  
(A) ADCINA4A5\_P and ADCINA4A5\_N  
(B) ADCINB3B4\_P and ADCINB3B4\_N  
(C) MCU\_A4A5\_P and MCU\_A4A5\_N  
(D) MCU\_B3B4\_P and MCU\_B3B4\_N  
3) CLK Paths - 50 Ohm  
(A) X1  
(B) X2



Revision History

Rev	ECN #	Approved Date	Approved by	Notes
E1	N/A	N/A	SB	Original engineering release.
A	N/A	June 20, 2025	SB	- Added C15 to U3A VOUT - Changed C28 from 0.1uF to 200pF - Changed GPIO30 connection on U10 - Changed ERRORSTS connection on U10 - Added OPN on U10 - Added R18, R26, and R27 - Added R25 and R28 - Corrected S5 and S6 silkscreen labels in PCB

A

B

C

D

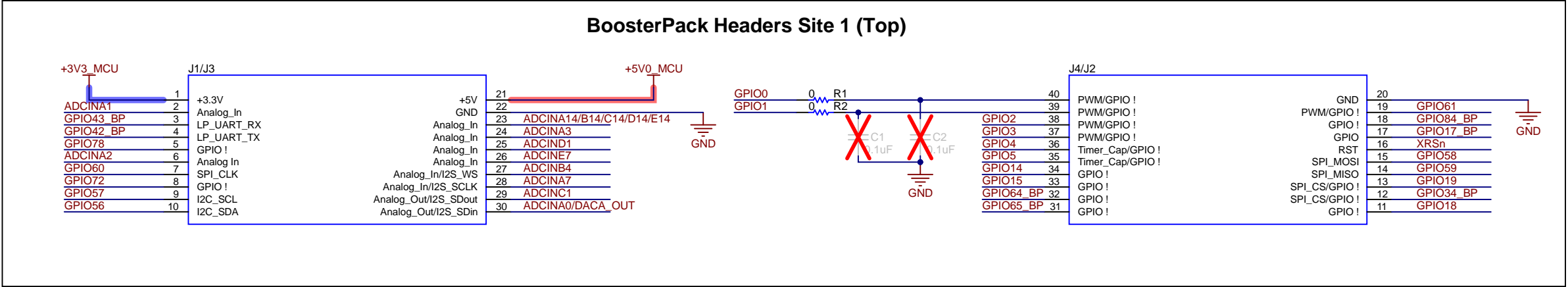
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Orderable: LAUNCHXL-F29H85X	Designed for: Public Release	Mod. Date: 6/20/2025
TID #: N/A	Project Title: LAUNCHXL-F29H85X	
Number: MCU119	Rev: A	Sheet Title:
SVN Rev: Version control disabled	Assembly Variant: 001	Sheet: 1 of 8
Drawn By: Susmitha Bumadi	File: MCU119A_Block_Diagram.SchDoc	Size: B
Engineer: Susmitha Bumadi	Contact: http://www.ti.com/support	

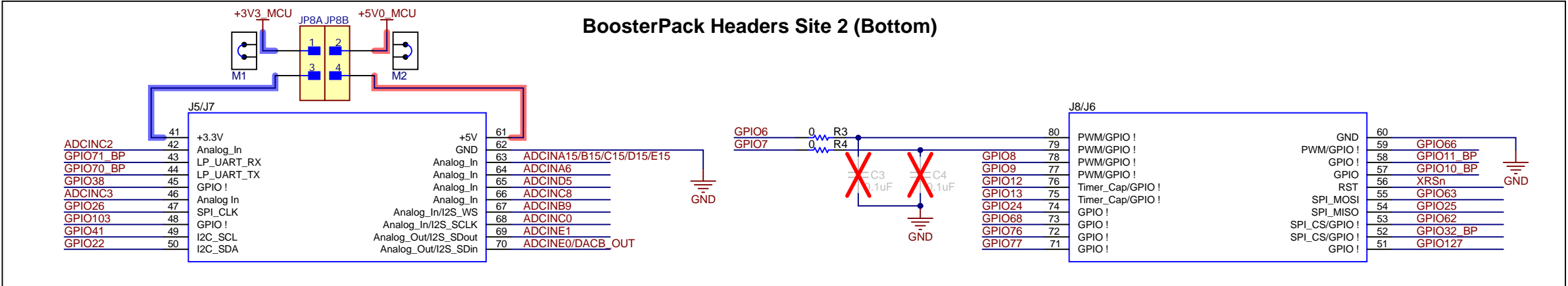
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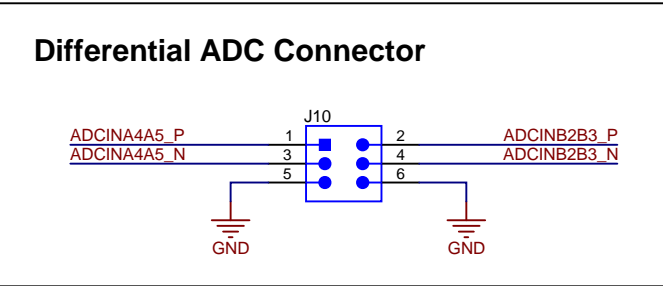
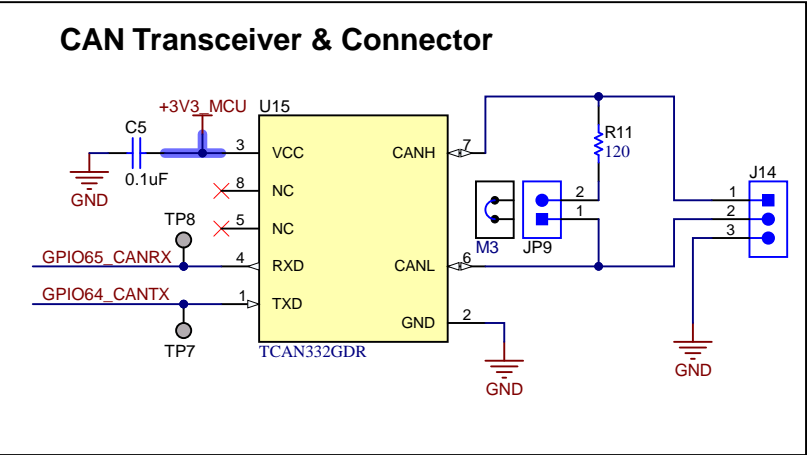
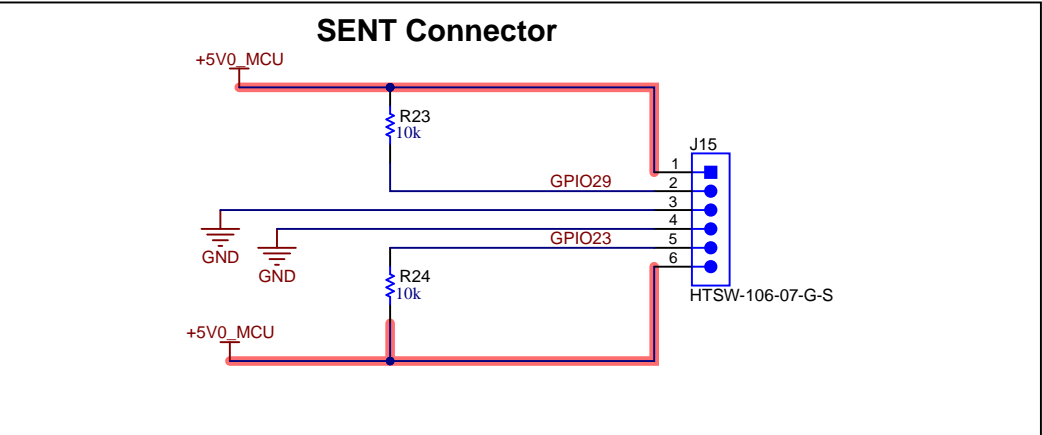
A



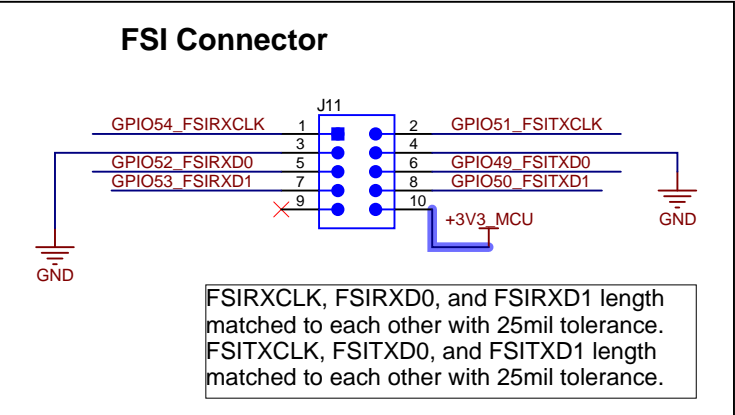
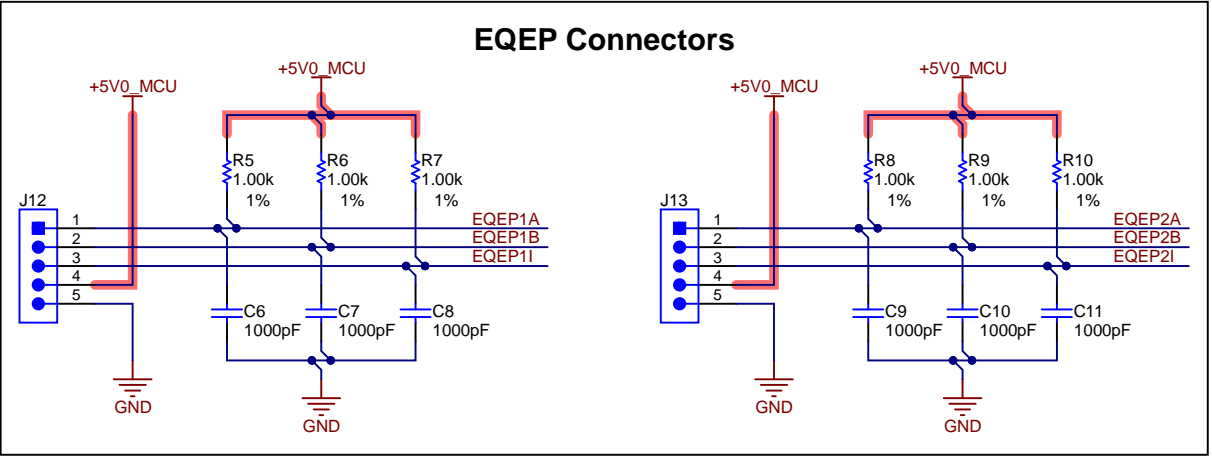
B



C



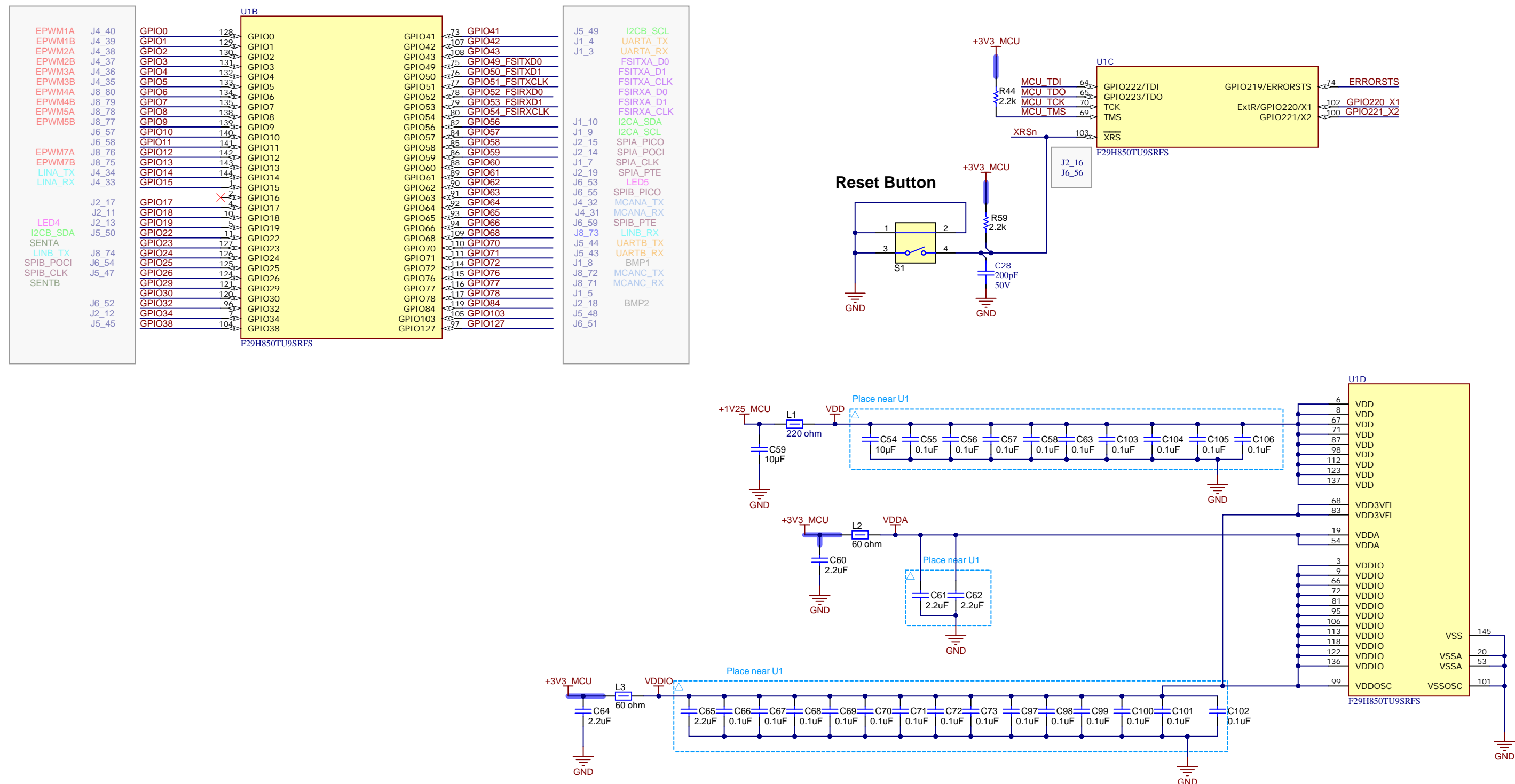
D



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Number: MCU119	Rev: A	Sheet Title:
SVN Rev: Version control disabled	Assembly Variant: 001	Sheet: 2 of 8
Drawn By: Susmitha Bumadi	File: MCU119A_Connectors.SchDoc	Size: B
Engineer: Susmitha Bumadi	Contact: <a href="http://www.ti.com/support">http://www.ti.com/support</a>	

## F29H85x Device





A

B

C

D

A

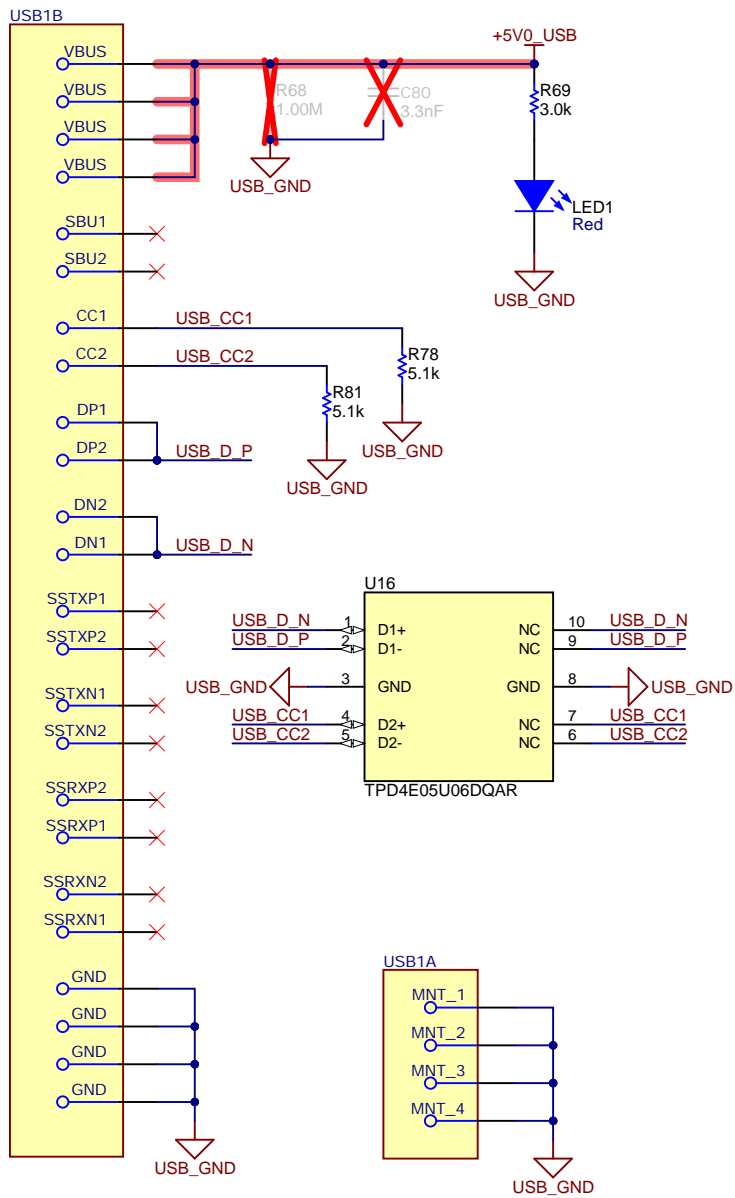
B

C

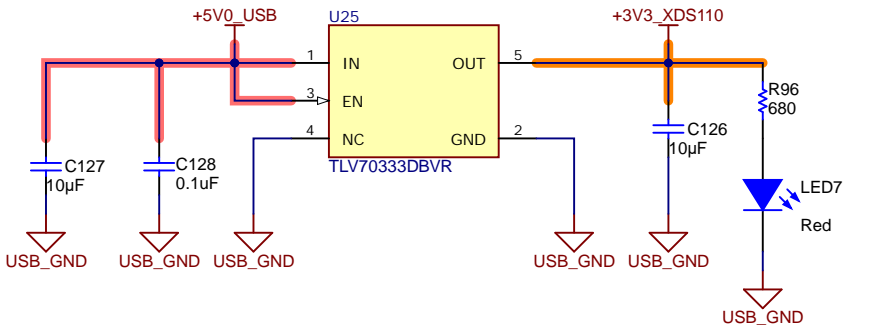
D

Emulation Side

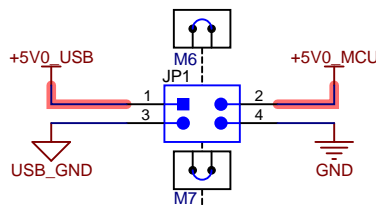
USB-C Connector



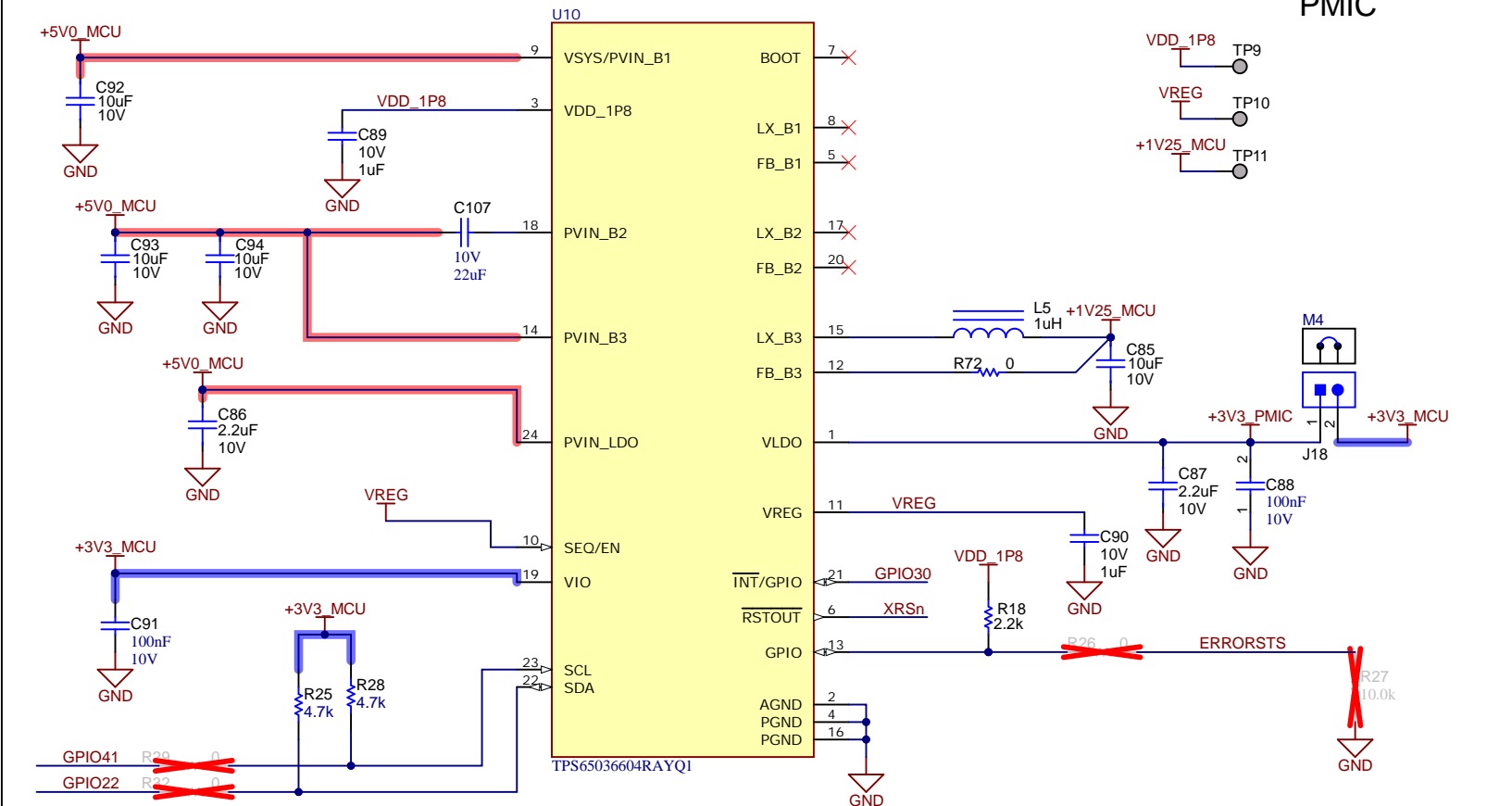
5V to 3.3V (XDS)



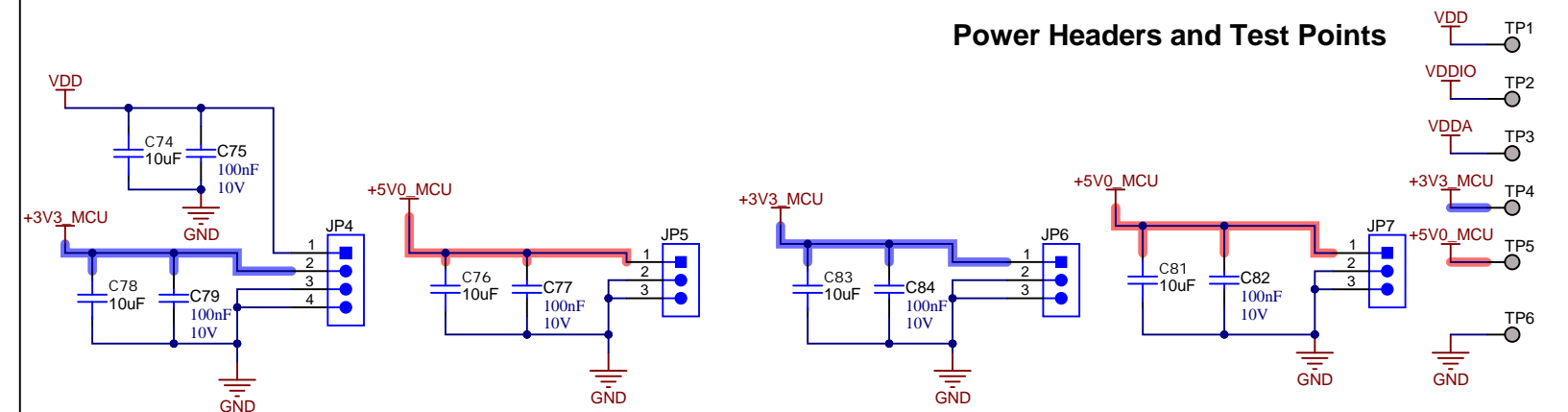
PWR & GND Isolation Boundary



C2000 Side



Power Headers and Test Points



A

B

C

D

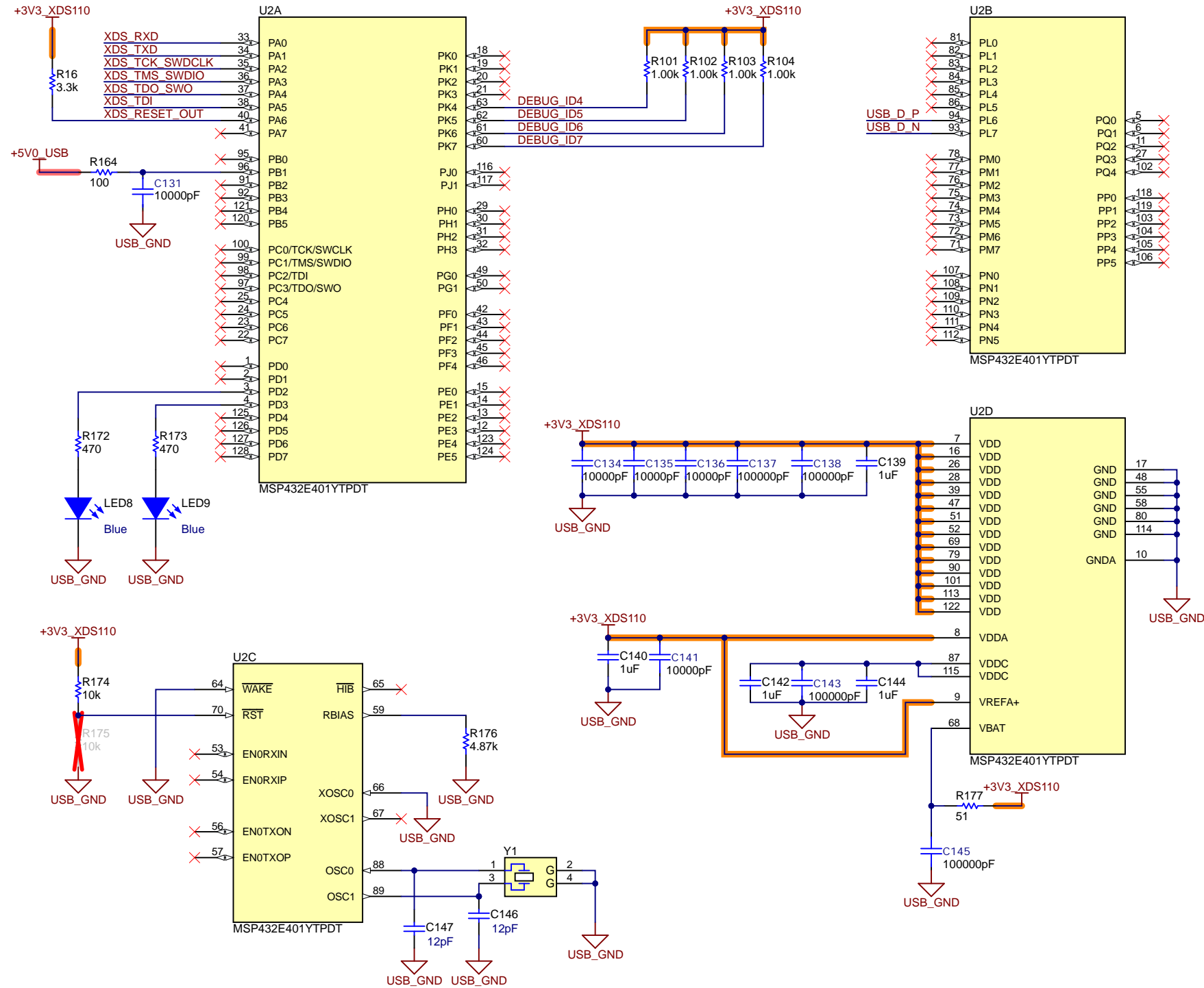
A

B

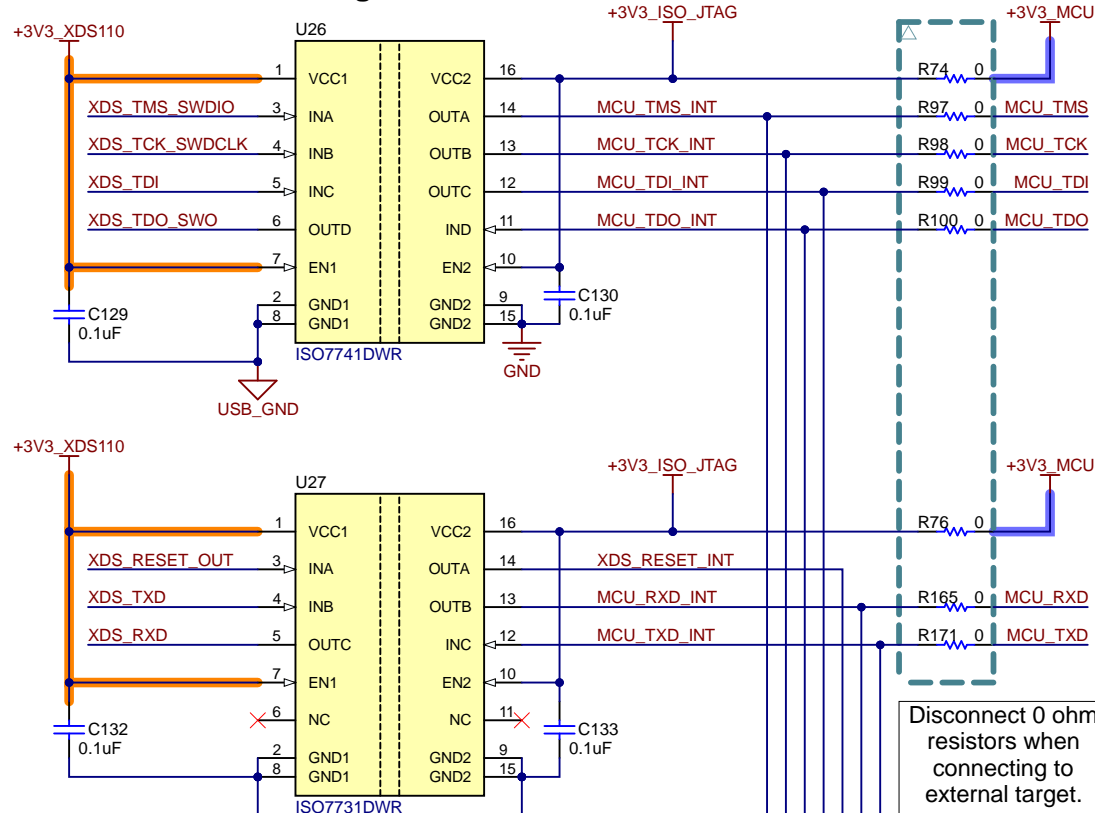
C

D

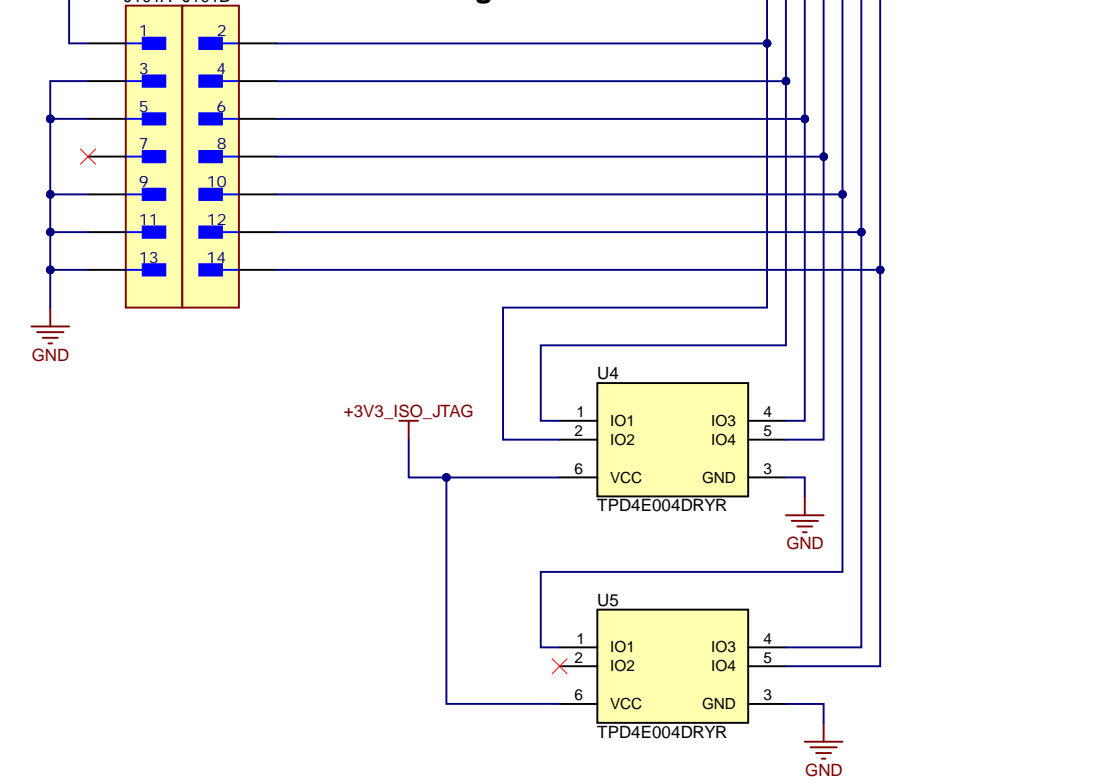
### XDS110 Device



### JTAG & UART Digital Isolation



### XDS110 Target Interface

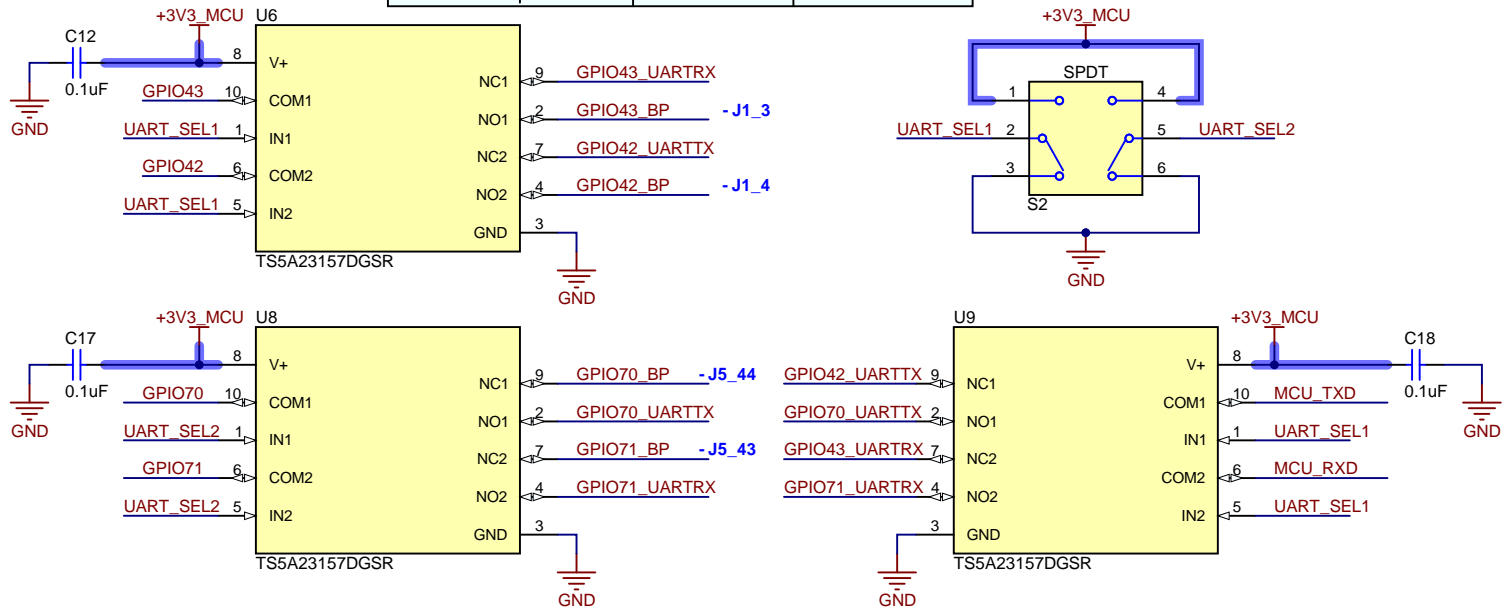




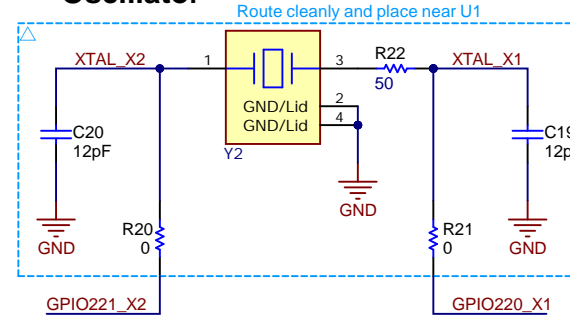
## UART Routing

UART_SEL1	UART_SEL2	GPIO42/43 Route	GPIO70/71 Route
0	0	XDS110 COM Port	BP
0	1	XDS110 COM Port	NC
1	0	BP	BP
1	1	BP	XDS110 COM Port

- DEFAULT

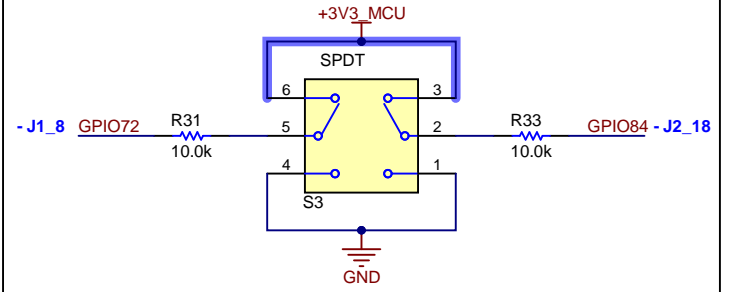


## Oscillator



By default:  
- Crystal Y2 is connected between GPIO221\_X2 and GPIO220\_X1.

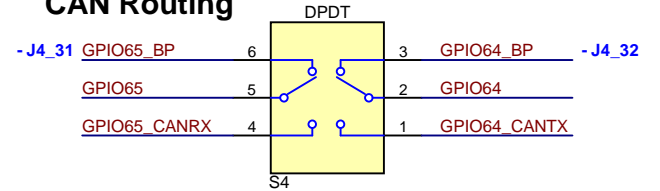
## Boot Mode Select



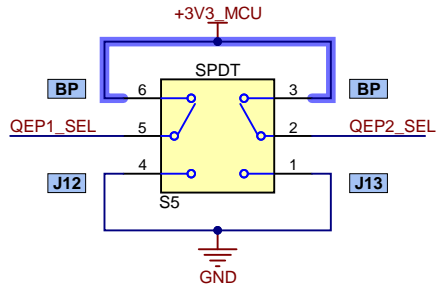
## Selected Boot Mode Chart

Mode #	GPIO72	GPIO84	Boot Mode
00	0	0	Boot from Parallel GPIO
01	0	1	Boot from SCI / Wait Mode
02	1	0	Boot from CAN
03	1	1	Boot from Flash

## CAN Routing



## EQEP Routing



## EQEP Level Shifter

