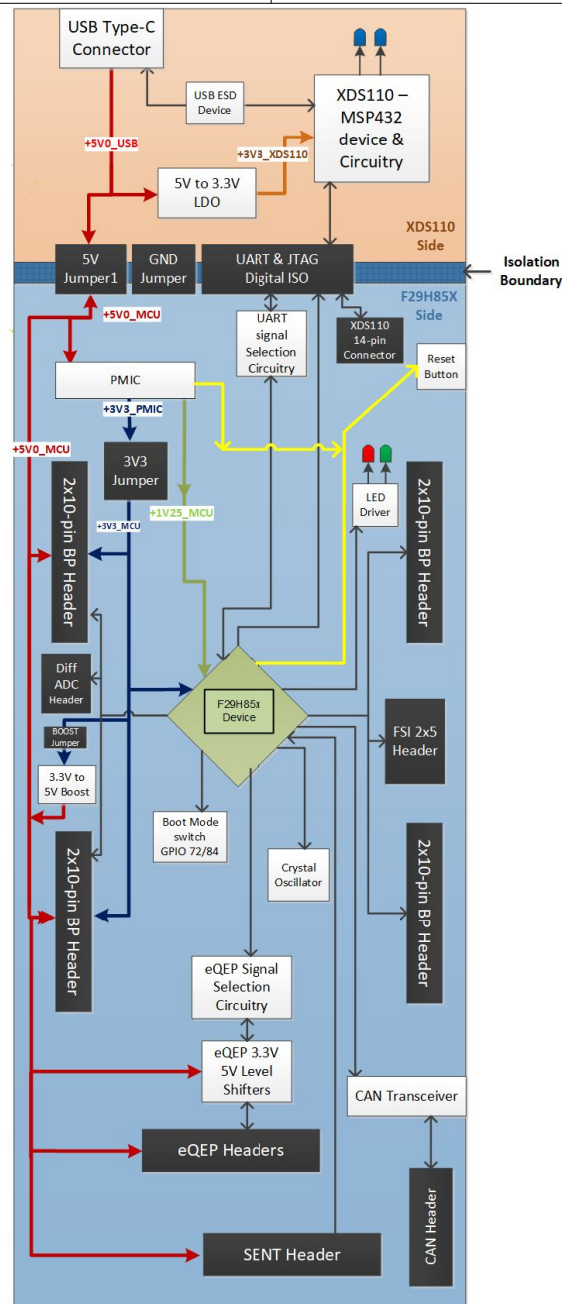


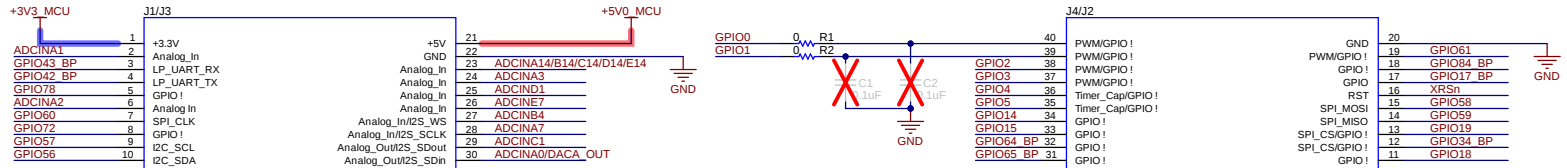
- 1) USB Differential Pairs - 90 Ohm
(A) USB_D_P and USB_D_N
2) ADC Differential pair Impedance Matching - 50 Ohm
(A) ADCINA4A5_P and ADCINA4A5_N
(B) ADCINB3B4_P and ADCINB3B4_N
(C) MCU_A4A5_P and MCU_A4A5_N
(D) MCU_B3B4_P and MCU_B3B4_N
3) CLK Paths - 50 Ohm
(A) X1
(B) X2



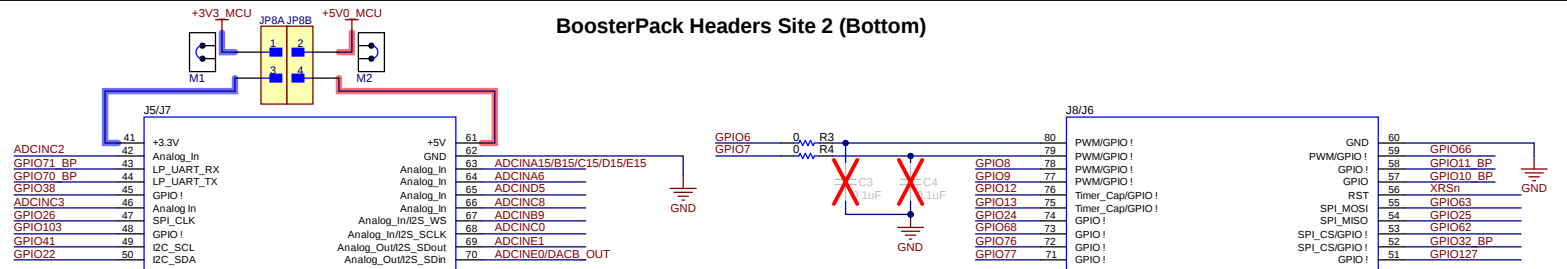
Orderable: LAUNCHXL-F29H85X	Designed for: Public Release	Mod. Date: 3/10/2025	 TEXAS INSTRUMENTS http://www.ti.com © Texas Instruments 2024
TID #: N/A	Project Title: LAUNCHXL-F29H85X	Sheet Title:	
Number: MCU119	Rev: A	Assembly Variant: 001	
SVN Rev: Unknown revision	File: MCU119A_Block_Diagram_SchDoc	Size: B	
Drawn By: Susmitha Bumadi	Contact: http://www.ti.com/support		

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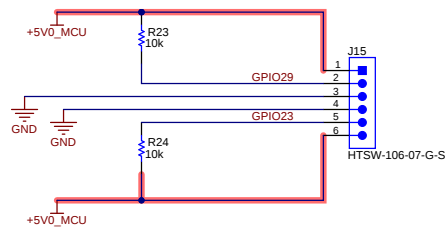
BoosterPack Headers Site 1 (Top)



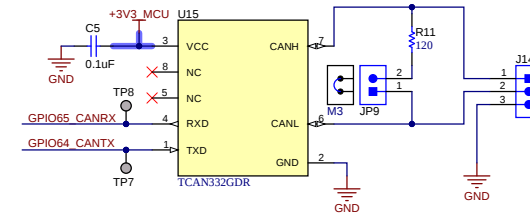
BoosterPack Headers Site 2 (Bottom)



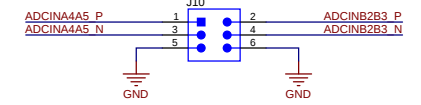
SENT Connector



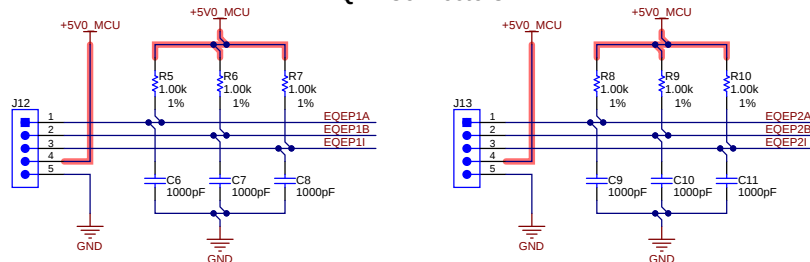
CAN Transceiver & Connector



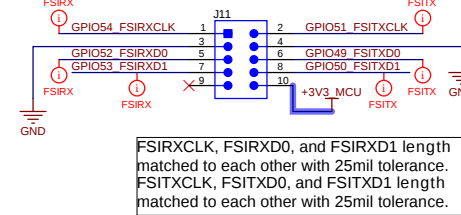
Differential ADC Connector



EQEP Connectors



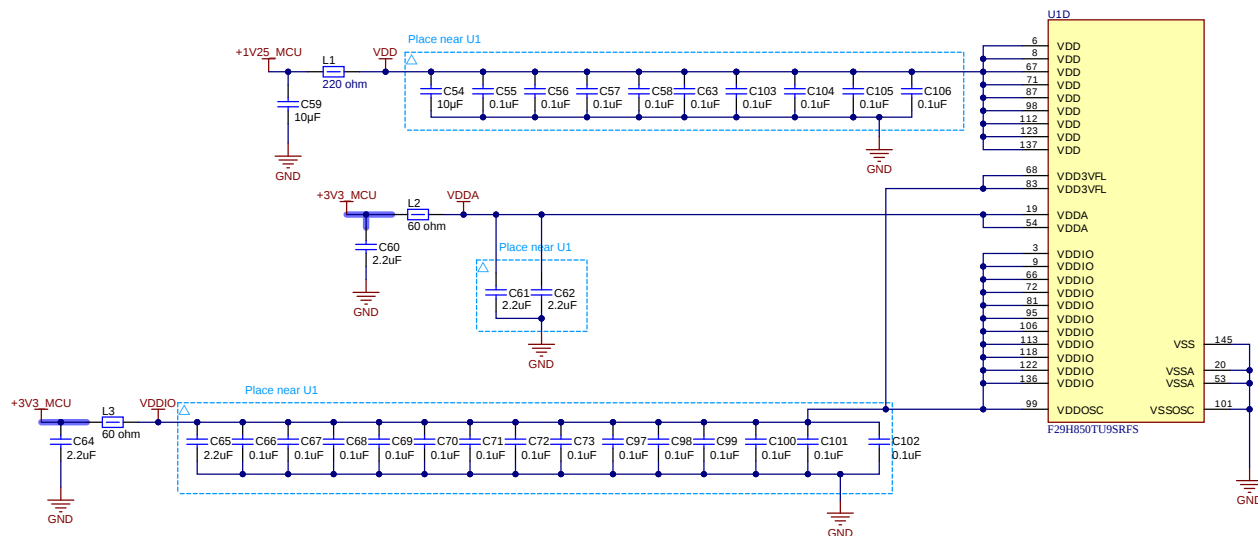
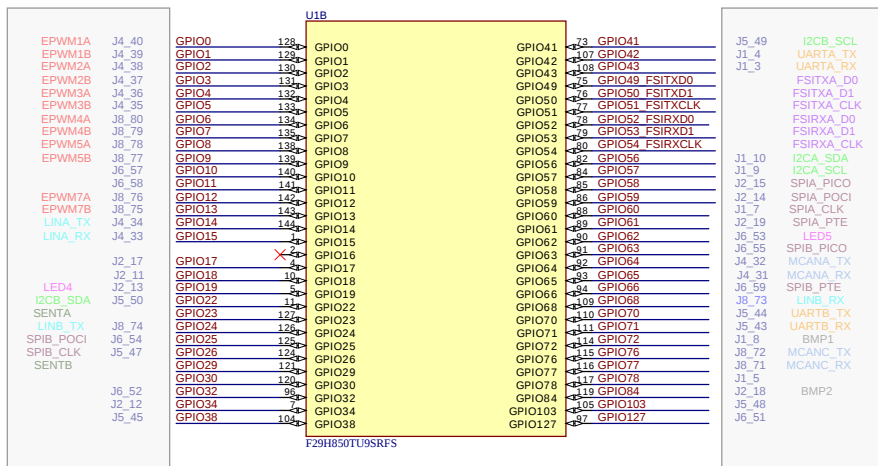
FSI Connector



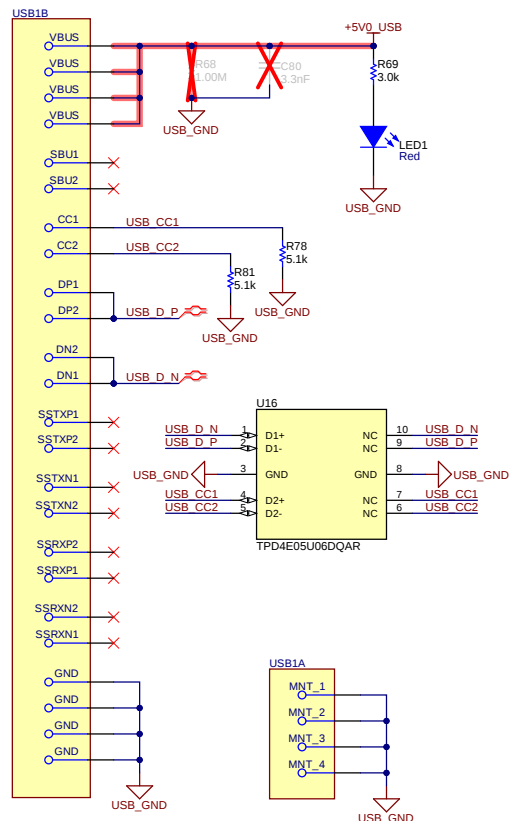
FSIRXCLK, FSIRXD0, and FSIRXD1 length matched to each other with 25mil tolerance. FSITXCLK, FSITXD0, and FSITXD1 length matched to each other with 25mil tolerance.

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F29H85x Device



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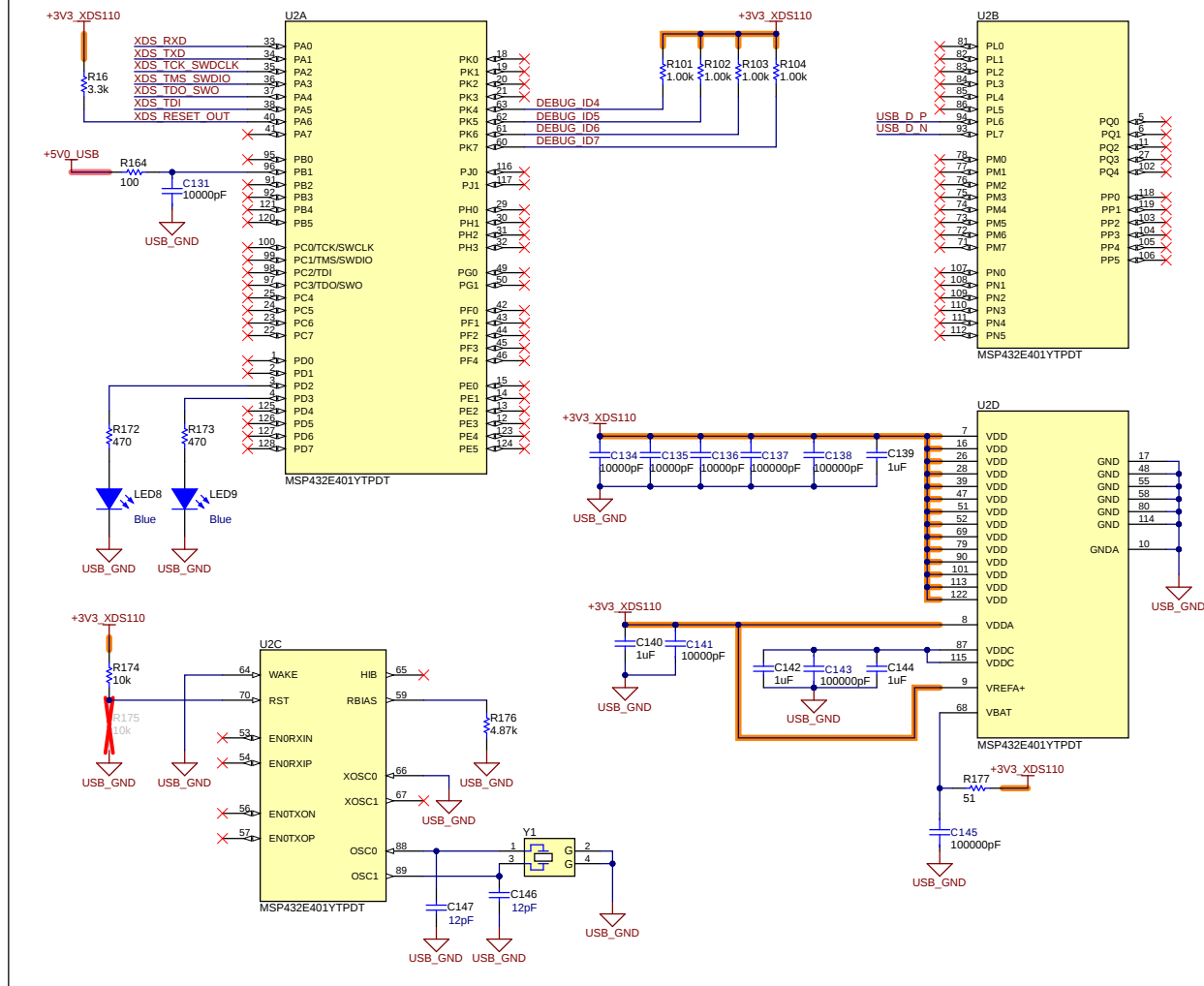


Power Headers and Test Points

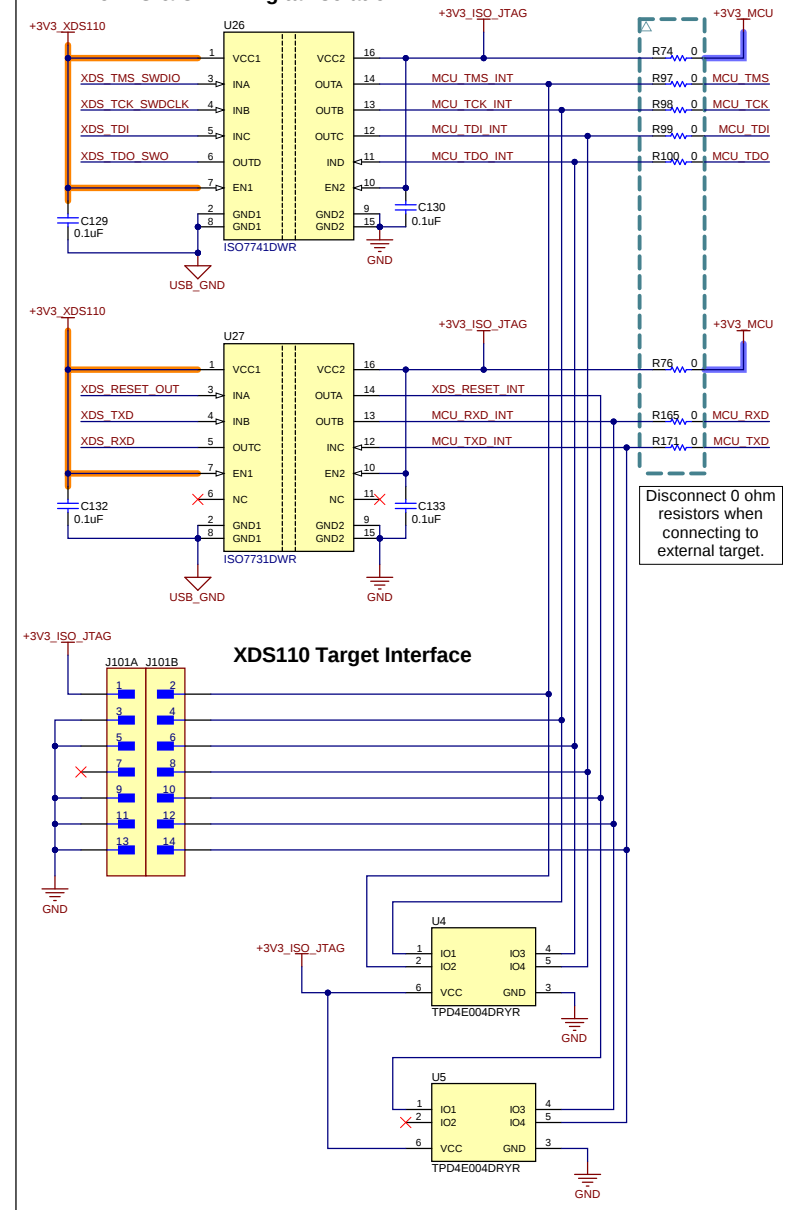
The diagrams illustrate the power distribution and decoupling for a microcontroller. Each circuit includes a 3V3_MCU and 5V0_MCU header, decoupling capacitors (C74, C75, C76, C77, C78, C79, C80, C81, C82), and test points (TP1, TP2, TP3, TP4, TP5, TP6).

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XDS110 Device



JTAG & UART Digital Isolation



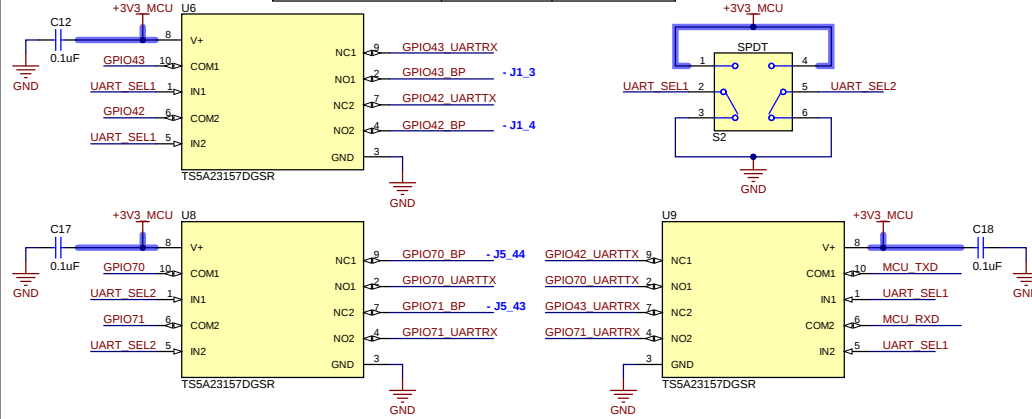
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Orderable: LAUNCHXL-F29H85X	Designed for: Public Release	Mod. Date: 2/27/2025
TID #: N/A	Project Title: LAUNCHXL-F29H85X	
Number: MCU119	Rev: A	Sheet Title:
SVN Rev: Unknown revision	Assembly Variant: 001	Sheet 6 of 8
Drawn By: Susmitha Bumadi	File: MCU119A_XDS110_MCU_SchDoc	Size: B
Engineer: Susmitha Bumadi	Contact: http://www.ti.com/support	

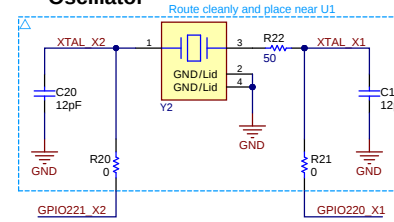
UART Routing

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

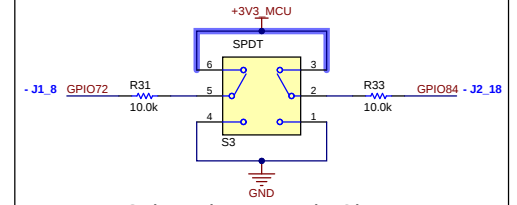


Oscillator



By default:
- Crystal Y2 is connected between GPIO221_X2 and GPIO220_X1.

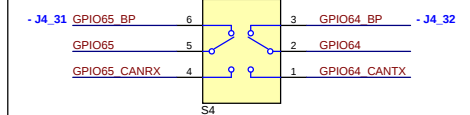
Boot Mode Select



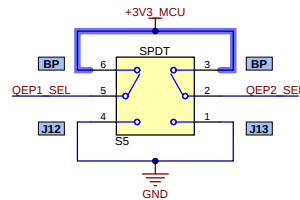
Selected Boot Mode Chart

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

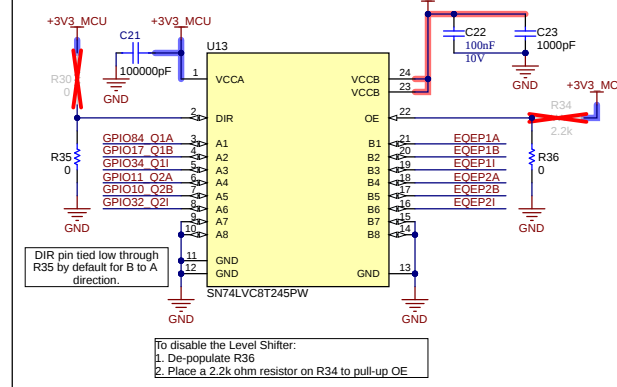
CAN Routing



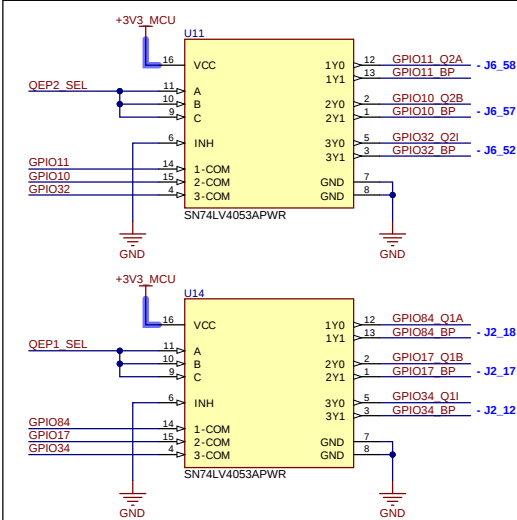
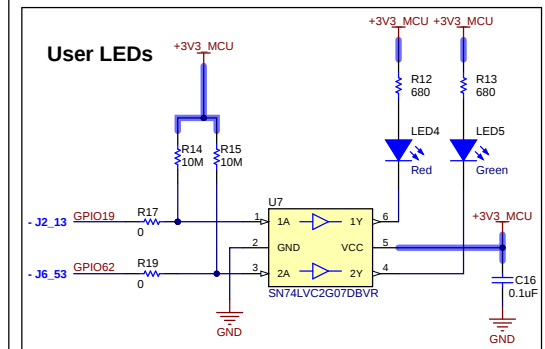
EQEP Routing



EQEP Level Shifter



User LEDs



S5 (1, UP): QEP signals are routed to the BoosterPack Headers (default)
S5 (0, DOWN): QEP signals are routed to the QEP Headers

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Orderable: LAUNCHXL-F29H85X
TID #: N/A
Number: MCU119
SVN Rev.: Unknown revision
Drawn By: Susmitha Bumadi
Engineer: Susmitha Bumadi
Designed for: Public Release
Project Title: LAUNCHXL-F29H85X
Sheet Title:
Assembly Variant: 001
File: MCU119A_AllRouting_Misc_SchDoc
Contact: <http://www.ti.com/support>
Mod. Date: 2/27/2025
Sheet: 7 of 8
Size: B
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PCB Number: MCU119
PCB Rev: A



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ZZ1

Assembly Note

These assemblies are ESD sensitive, ESD precautions shall be observed.

ZZ2

Assembly Note

These assemblies must be clean and free from flux and all contaminants. Use of no clean flux is not acceptable.

ZZ3

Assembly Note

These assemblies must comply with workmanship standards IPC-A-610 Class 2, unless otherwise specified.

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TID #: N/A	Project Title: LAUNCHXL-F29H85X	
Number: MCU119	Rev: A	Sheet Title:
SVN Rev: Unknown revision	Assembly Variant: 001	Sheet: 8 of 8
Drawn By: Susmitha Bumadi	File: MCU119A_Hardware_SchDoc	Size: B
Engineer: Susmitha Bumadi	Contact: http://www.ti.com/support	

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