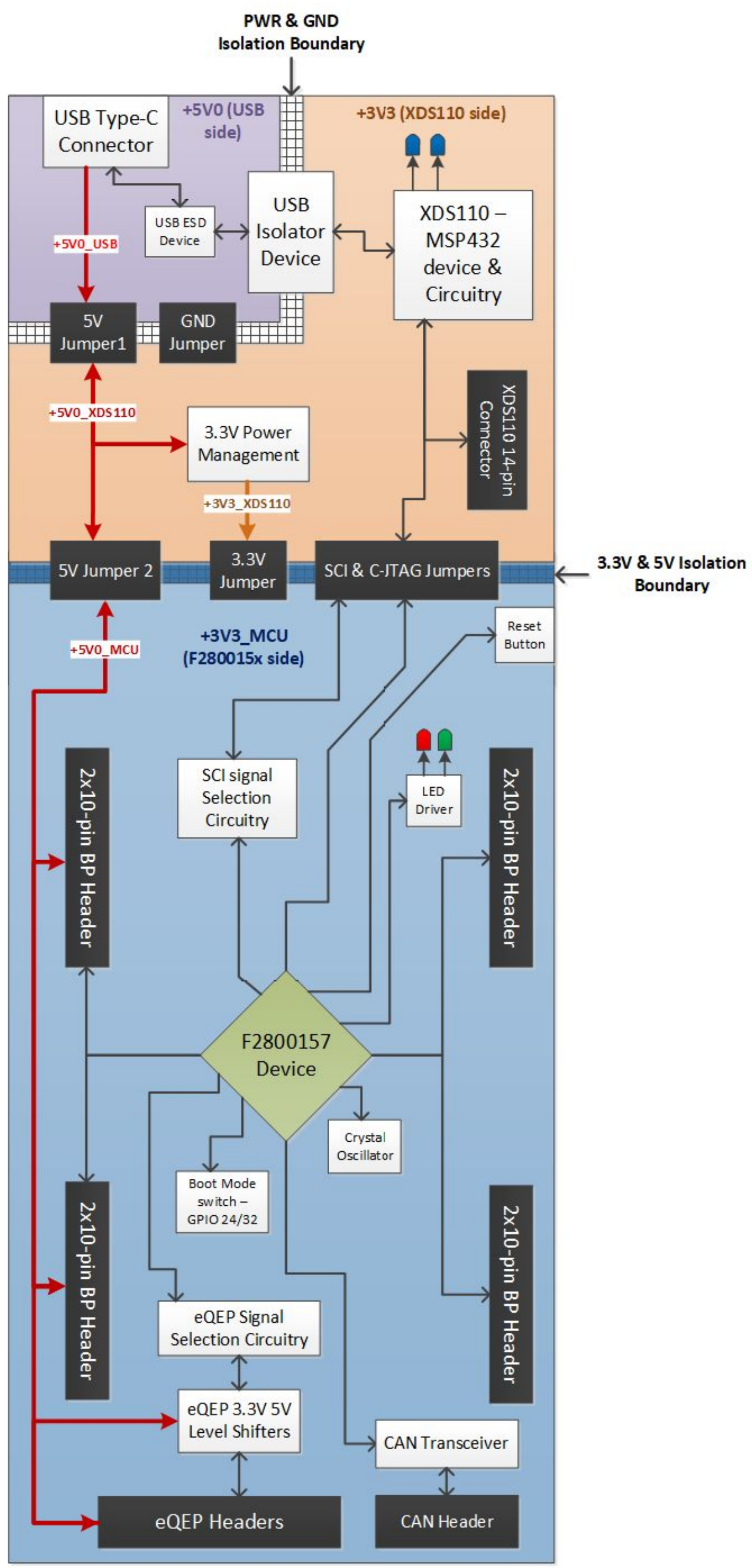

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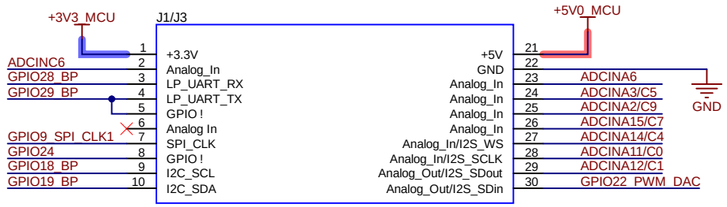
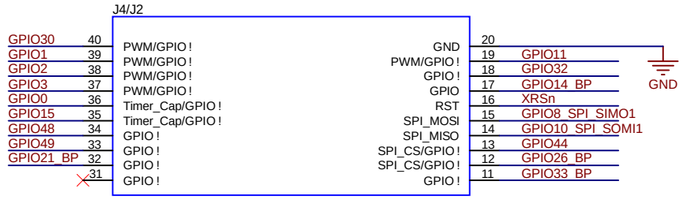
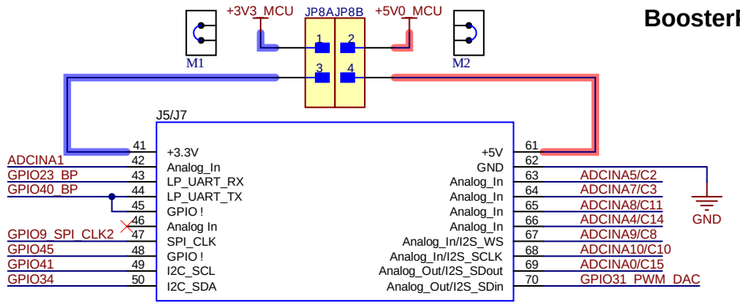
TID #:	Project Title: LAUNCHXL-F2800157		
Number: MCU110 Rev: A	Sheet Title:		
SVN Rev: 42c87052b884e9ec54069d[illegible]		Sheet: 1 of 7	
Drawn By:	File: MCU110A_Block_Diagram.SchDoc	Size: B	http://www.ti.com
Engineer: Peter Luong	Contact: http://www.ti.com/support		

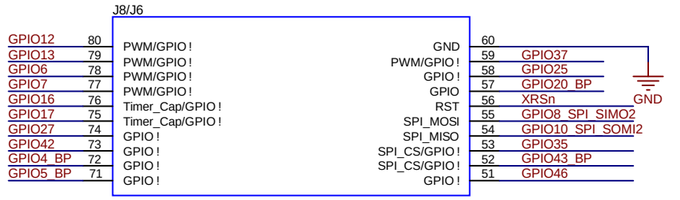
BoosterPack Headers Site 1 (Top)



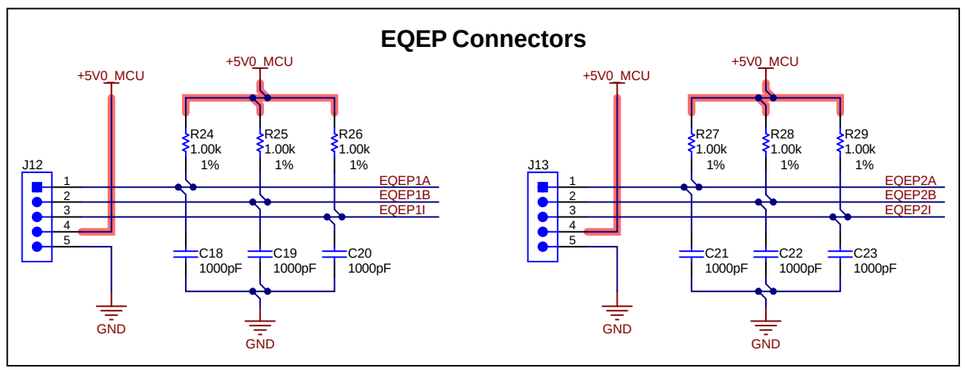


BoosterPack Headers Site 2 (Bottom)

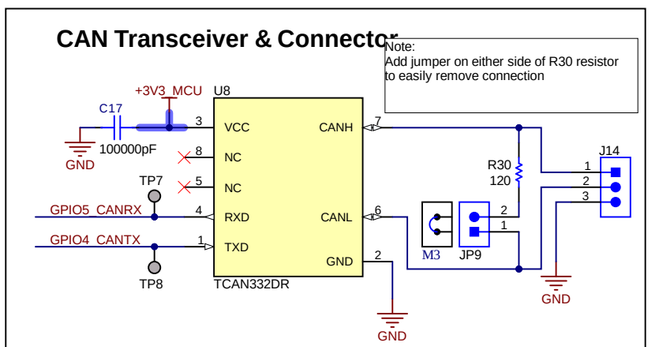




EQEP Connectors



CAN Transceiver & Connector



Orderable: LAUNCHXL-F2800157		Designed for: Public Release	Mod. Date: 3/17/2023
TID #:		Project Title: LAUNCHXL-F2800157	
Number: MCU110	Rev: A	Sheet Title:	
SVN Rev: 42c87052b884e9ec54069			Sheet: 2 of 7
Drawn By:		File: MCU110A_Connectors.SchDoc	Size: B
Engineer: Peter Luong		Contact: http://www.ti.com/support	

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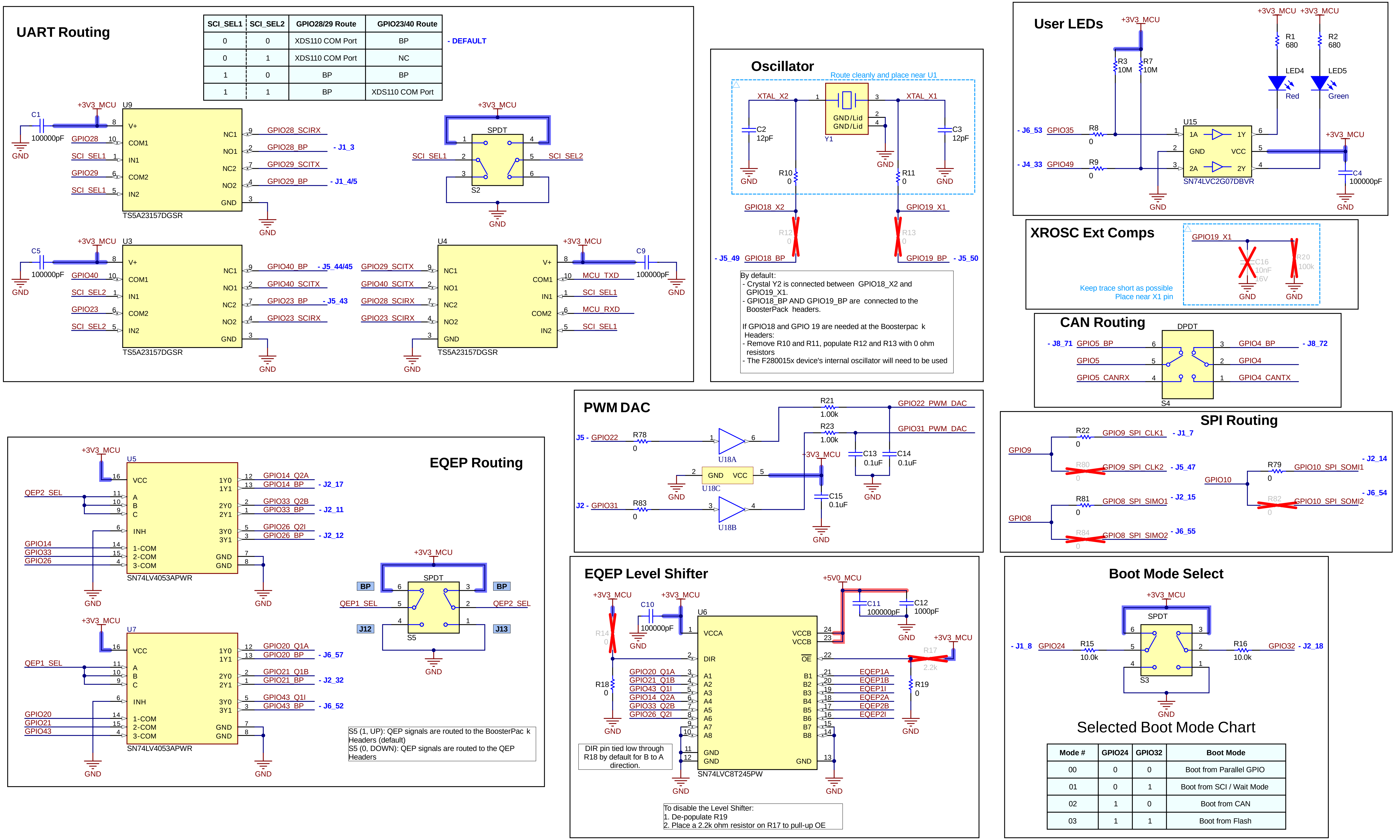

UART Routing

SCI_SEL1	SCI_SEL2	GPIO28/29 Route	GPIO23/40 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 GPIO18_X2 and GPIO19_X1.
- GPIO18_BP AND GPIO19_BP are connected to the BoosterPack headers.

If GPIO18 and GPIO 19 are needed at the Boosterpac k Headers:
- Remove R10 and R11, populate R12 and R13 with 0 ohm resistors
- The F280015x device's internal oscillator will need to be used

EQEP Routing

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

EQEP Level Shifter

DIR pin tied low through R18 by default for B to A direction.

To disable the Level Shifter:
1. De-populate R19
2. Place a 2.2k ohm resistor on R17 to pull-up OE

Boot Mode Select

Selected Boot Mode Chart

Mode #	GPIO24	GPIO32	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

Orderable: LAUNCHXL-F2800157
TID #:
Number: MCU110 Rev: A
SVN Rev: 42c87052b884e9ec54069dda58e8cdfdaea16290
Drawn By:
Engineer: Peter Luong
Designed for: Public Release
Mod. Date: 3/17/2023
Project Title: LAUNCHXL-F2800157
Sheet Title:
Sheet: 3 of 7
File: MCU110A_AltRouting_Misc.SchDoc
Size: B
Contact: http://www.ti.com/support
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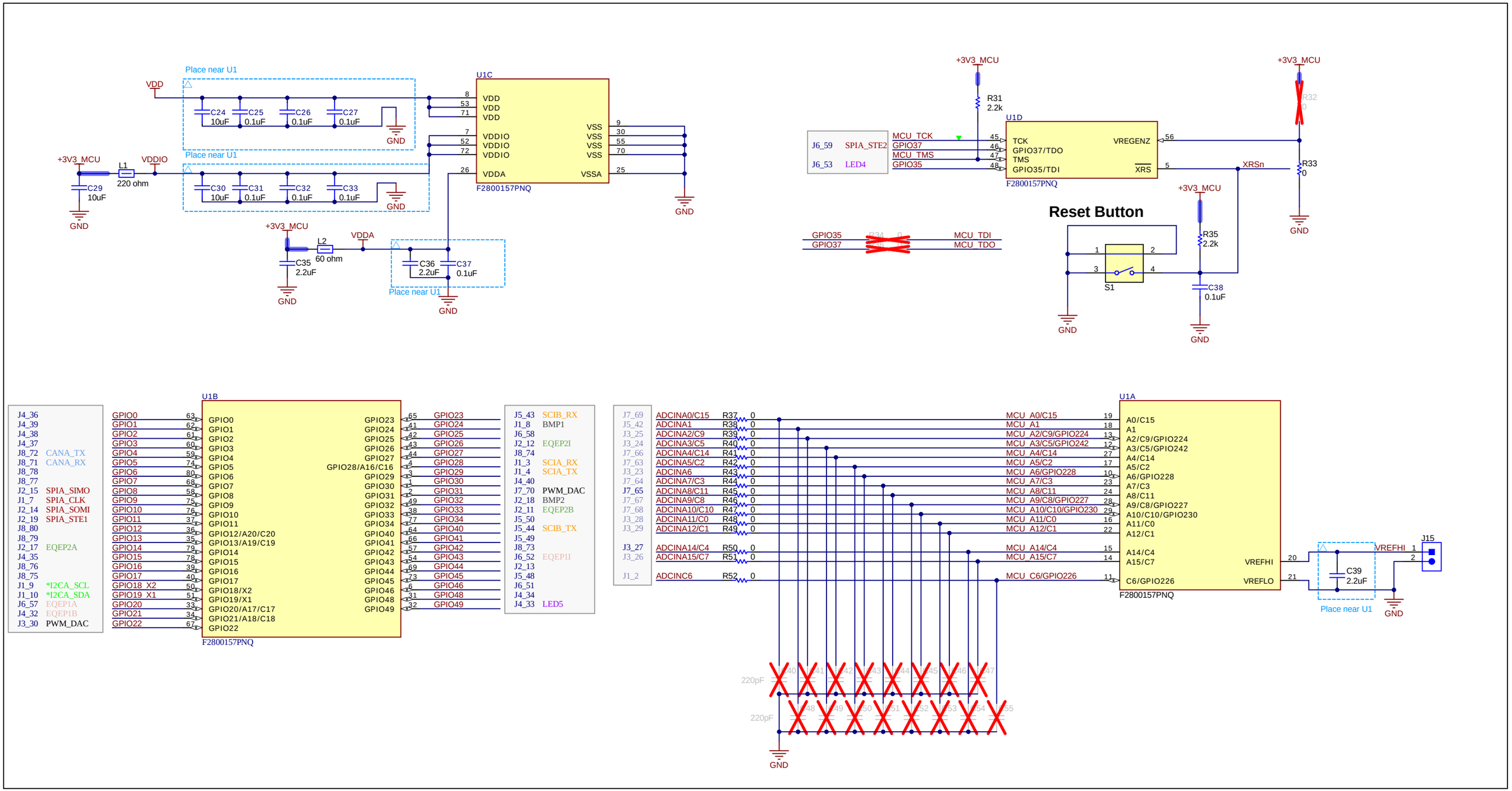
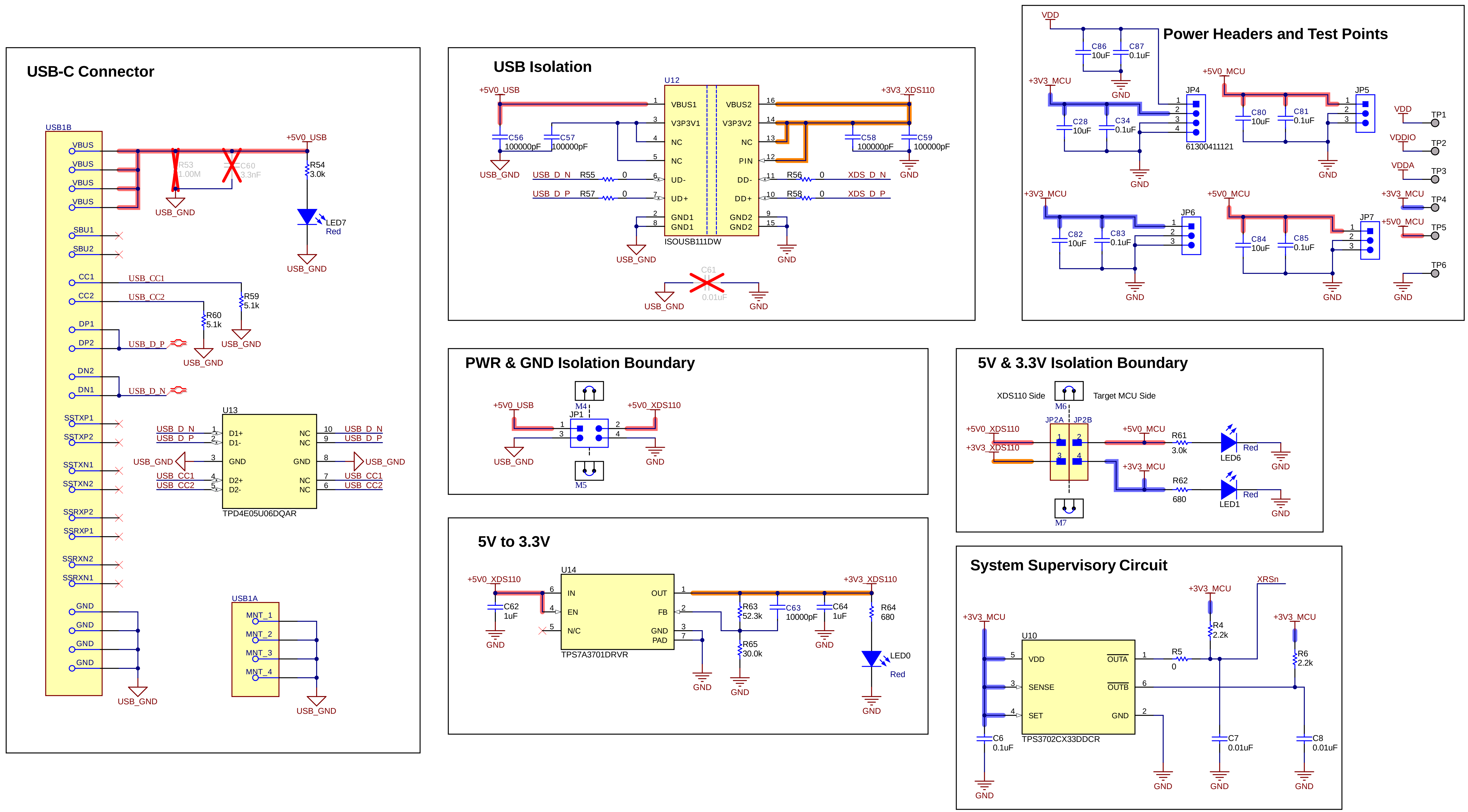


Orderable: LAUNCHXL-F2800157		Designed for: Public Release	Mod. Date: 3/17/2023
TID #:		Project Title: LAUNCHXL-F2800157	
Number: MCU110	Rev: A	Sheet Title:	
SVN Rev: 42c87052b884e9ec54069			Sheet: 4 of 7
Drawn By:		File: MCU110A_F2800157_Device.SchDoc	Size: B
Engineer: Peter Luong		Contact: http://www.ti.com/support	



Orderable: LAUNCHXL-F2800157	Designed for: Public Release	Mod. Date: 3/17/2023
TID #:	Project Title: LAUNCHXL-F2800157	
Number: MCU110 Rev: A	Sheet Title:	
SVN Rev: 42c87052b884e9ec54069d...		Sheet: 5 of 7
Drawn By:	File: MCU110A_USB_and_Power.SchDoc	Size: B
Engineer: Peter Luong	Contact: http://www.ti.com/support	

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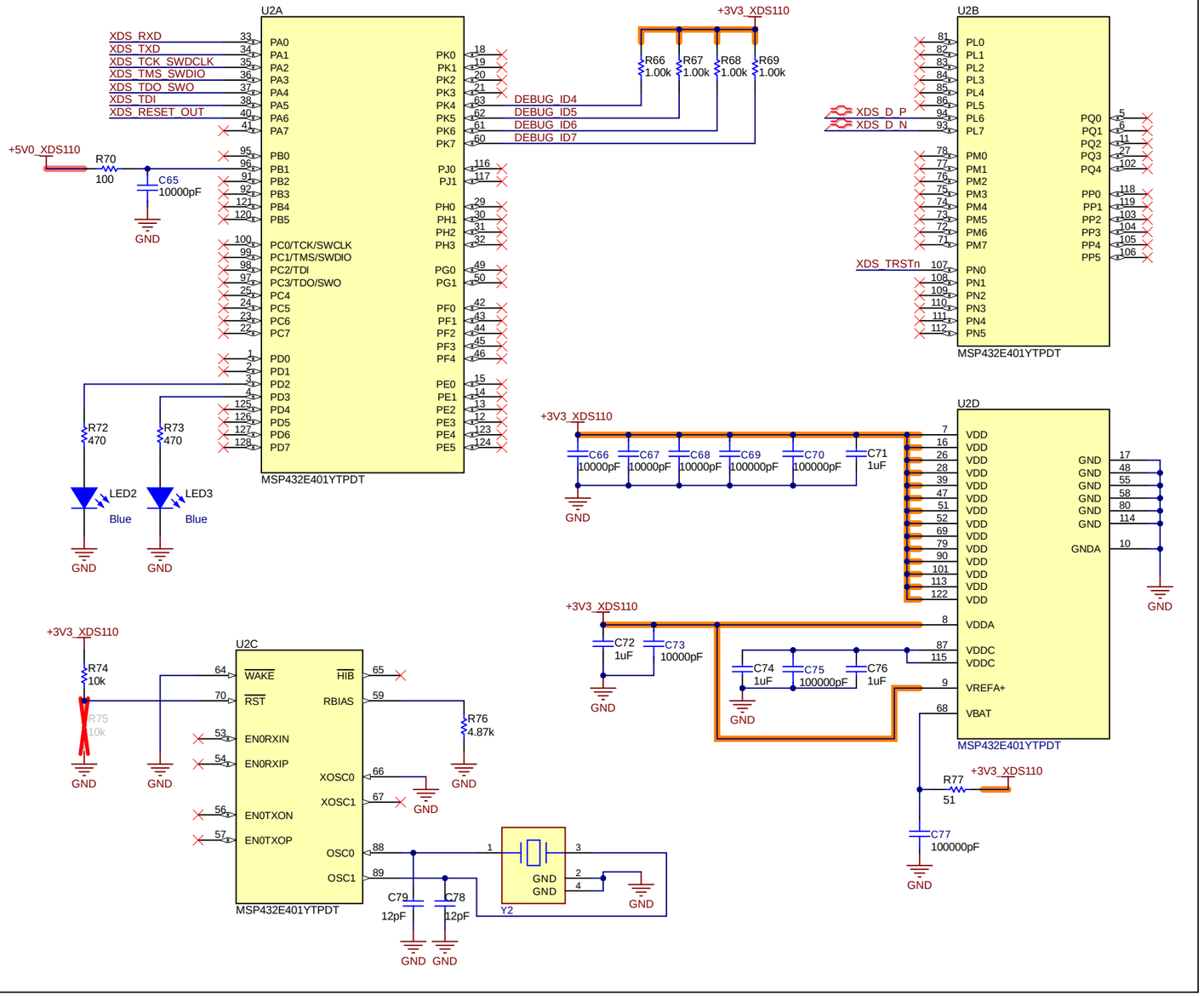
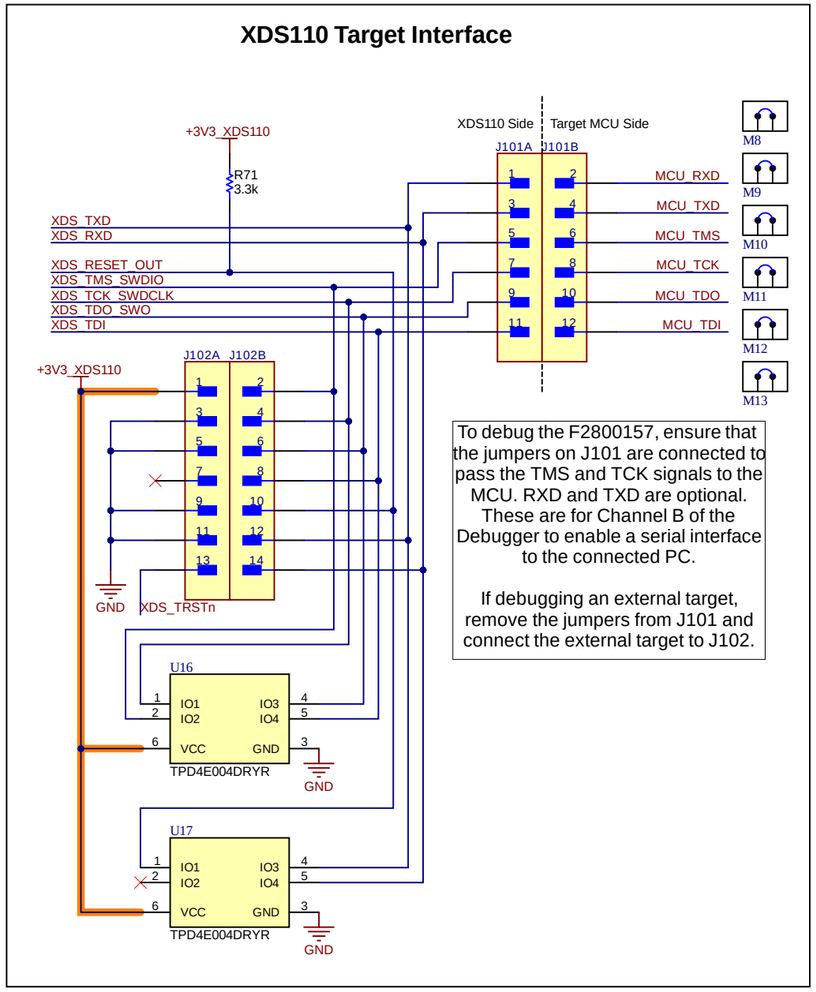
XDS110 Device



XDS110 Target Interface



To debug the F2800157, ensure that the jumpers on J101 are connected to pass the TMS and TCK signals to the MCU. RXD and TXD are optional. These are for Channel B of the Debugger to enable a serial interface to the connected PC.

If debugging an external target, remove the jumpers from J101 and connect the external target to J102.

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SVN Rev: 42c87052b884e9ec54069[illegible]6201			Sheet: 6 of 7
Drawn By:		File: MCU110A_XDS110_MCU.SchDoc	Size: B
Engineer: Peter Luong		Contact: http://www.ti.com/support	

FID1 FID2 FID3

FID4 FID5 FID6

MH1 MH2

MH3 MH4

PCB Number: MCU110
PCB Rev: A

Logo1
PCB
LOGO
Texas Instruments

CE Logo1

Logo2
PCB
LOGO
FCC disclaimer

Logo3
PCB
LOGO
WEEE logo

Logo4
PCB
LOGO
Texas Instruments

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.

Orderable: LAUNCHXL-F2800157		Designed for: Public Release	Mod. Date: 3/17/2023
TID #:		Project Title: LAUNCHXL-F2800157	
Number: MCU110	Rev: A	Sheet Title:	
SVN Rev:		Assembly Variant: 001	Sheet: 7 of 7
Drawn By:		File: MCU110A_Hardware.SchDoc	Size: B
Engineer: Peter Luong		Contact: http://www.ti.com/support	

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