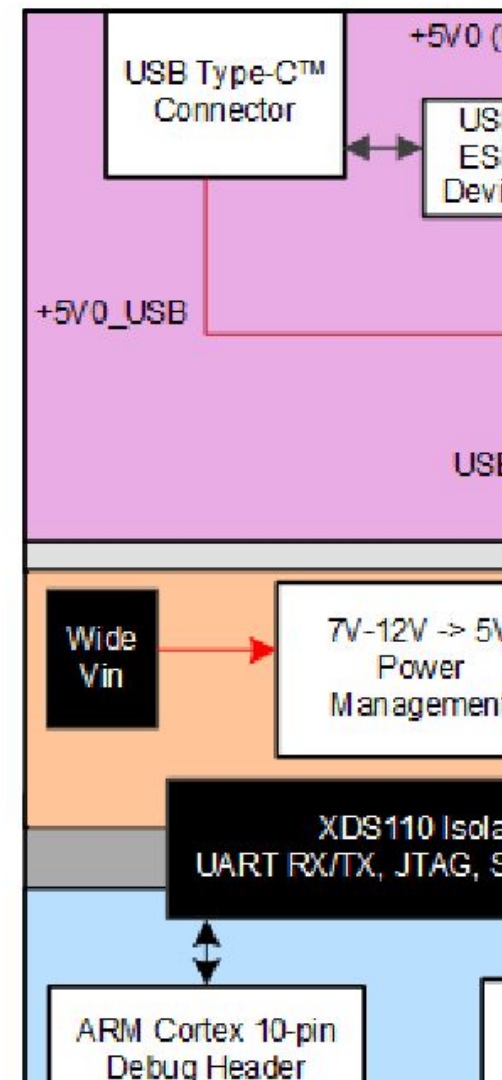


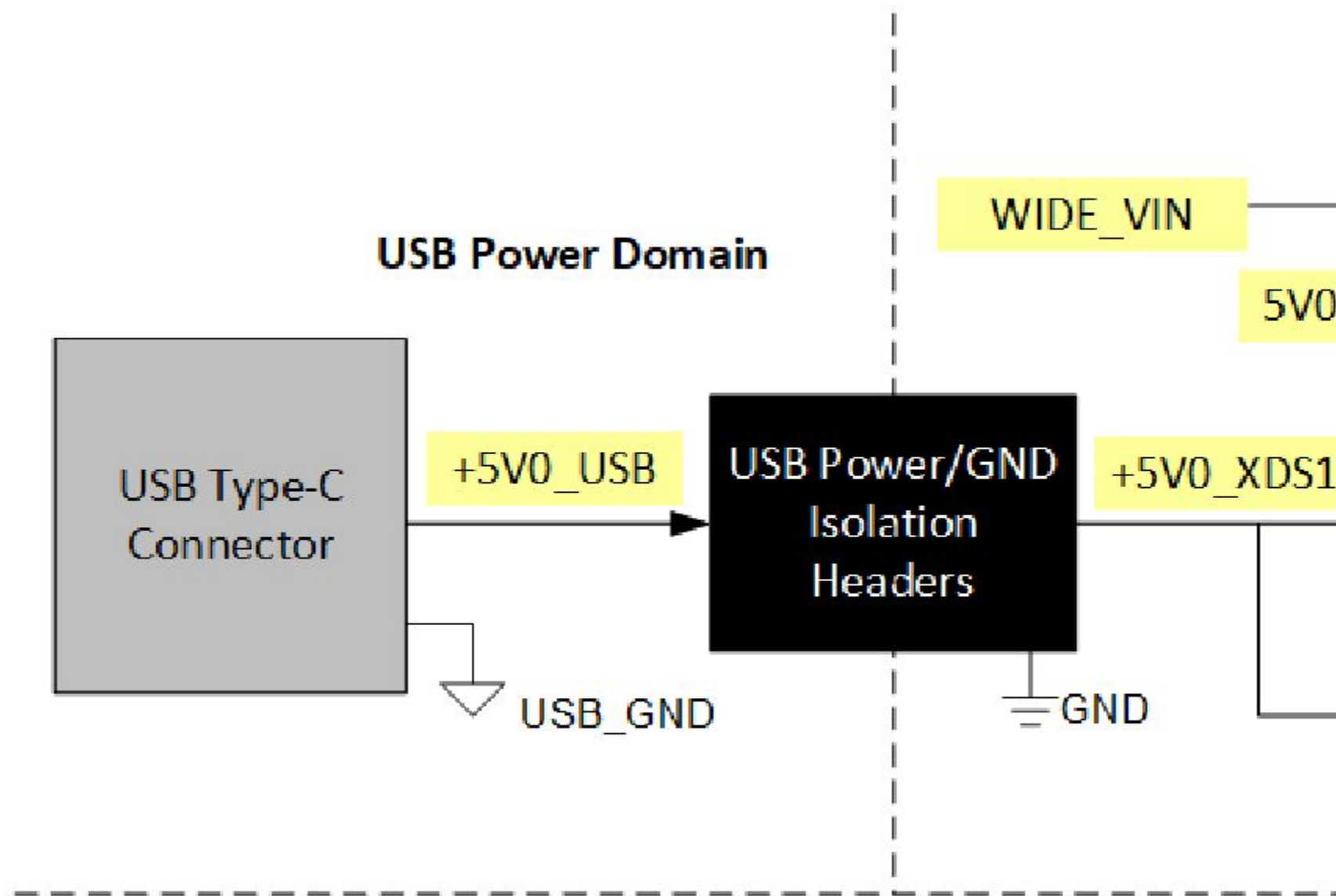
LP-AM13E230

AM13E230 LaunchPad EVM

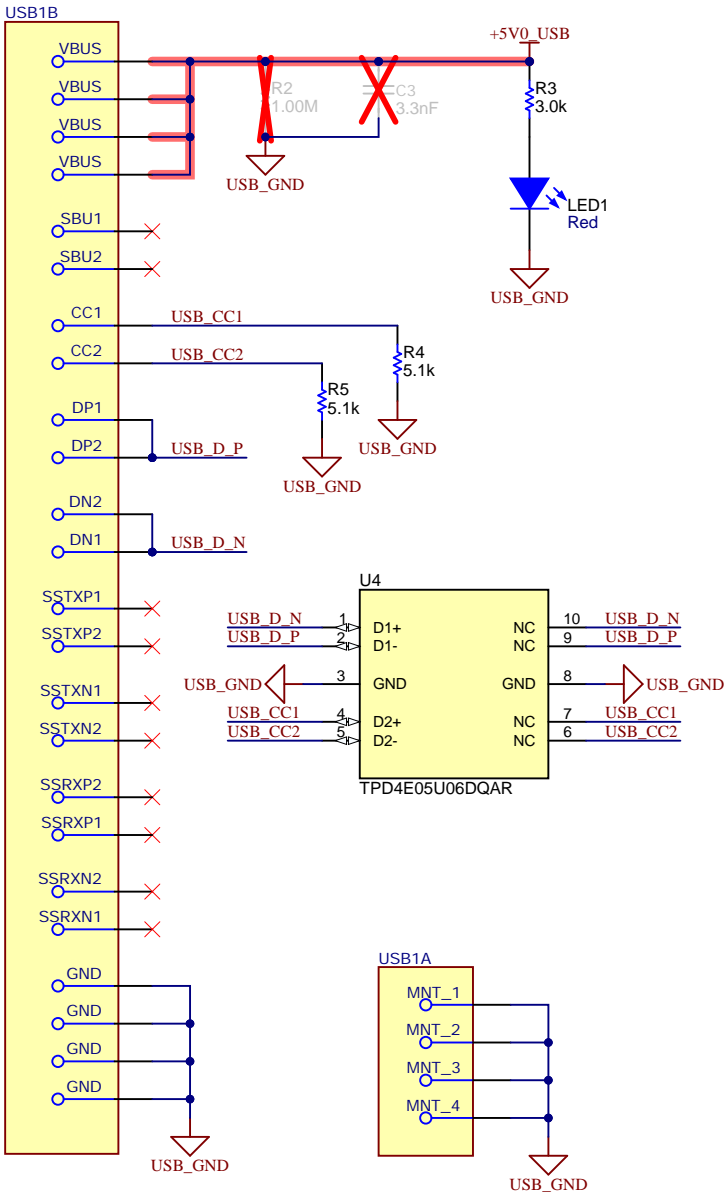
AM13E230



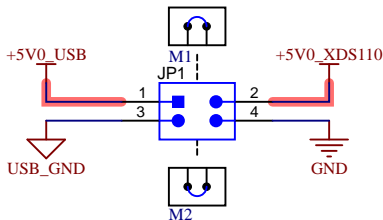
Power Tree



USB-C Connector



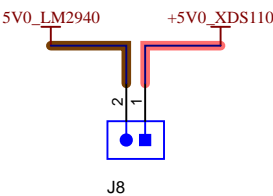
PWR & GND Isolation Boundary



To supply the system 5V from the USB Type-C connector, populate the jumper on JP1-5V0.

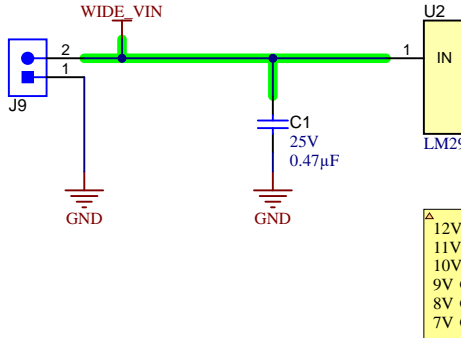
To supply the system using the Wide Vin header J9, DNI the jumper on JP1-5V0 and populate it on J8.

Wide Vin Supply Jumper

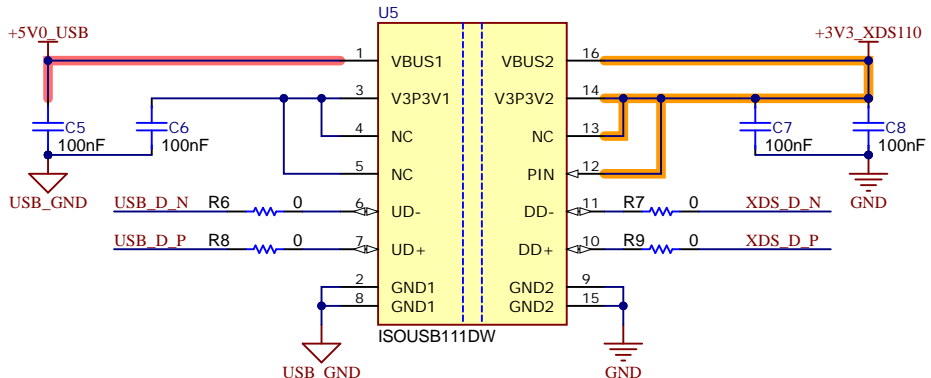


If supplying the system from J8 and debugging over the USB-C, also remove the jumper on JP1-GND.

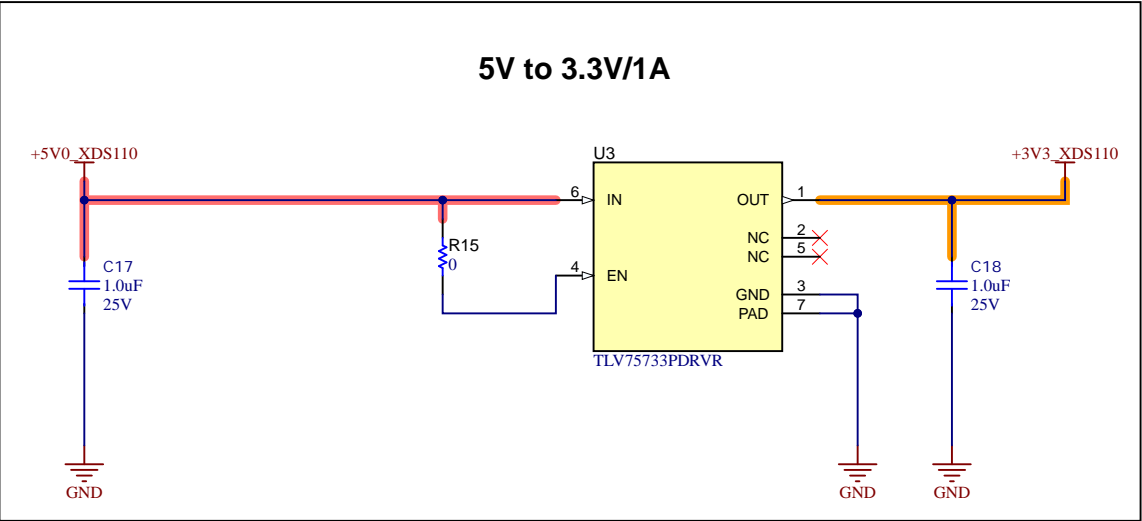
Wide Vin



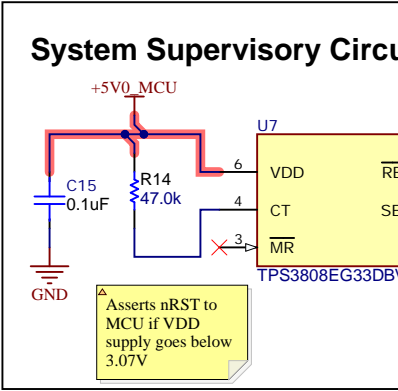
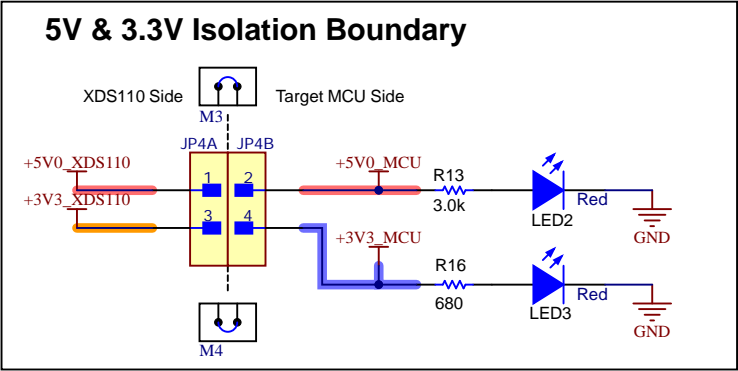
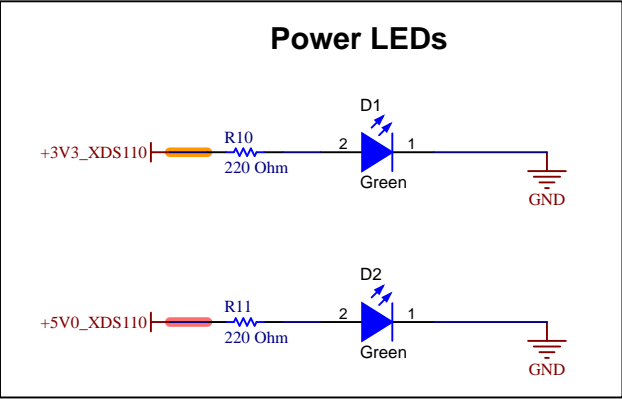
USB Isolation



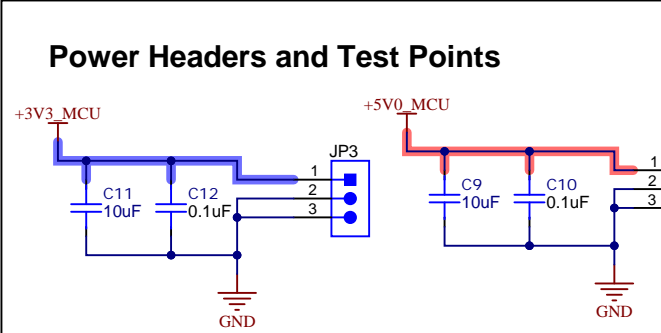
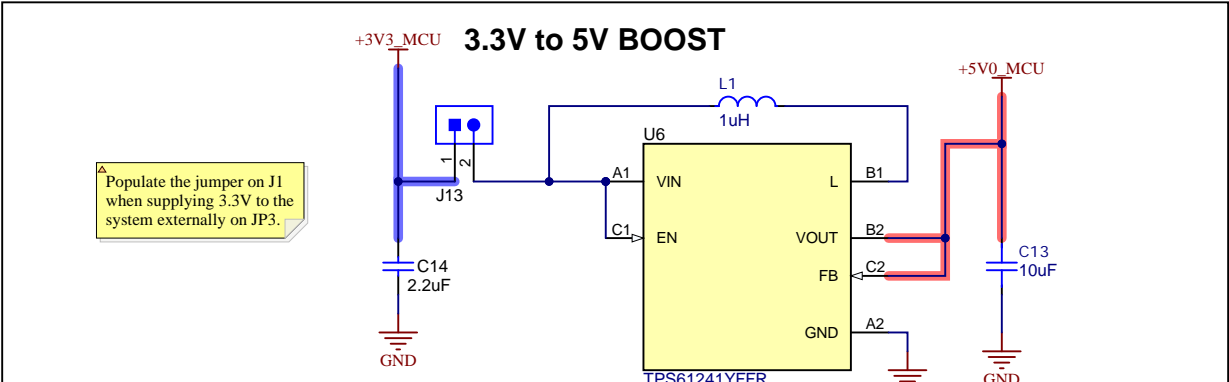
A



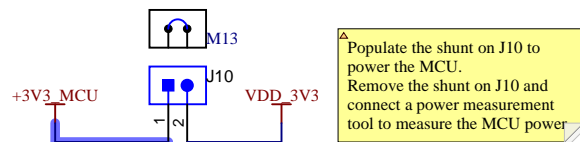
B



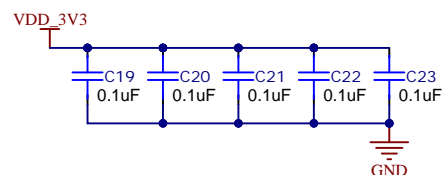
C



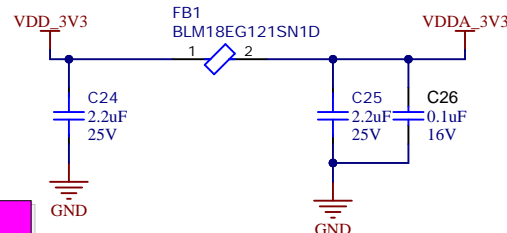
Power Isolation / Measurement Jumper



VDD 3V3 Digital



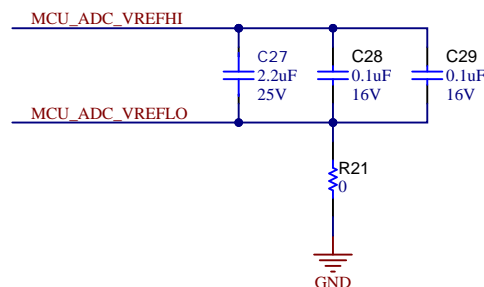
VDDA 3V3 Analog



MCU Supply TPs

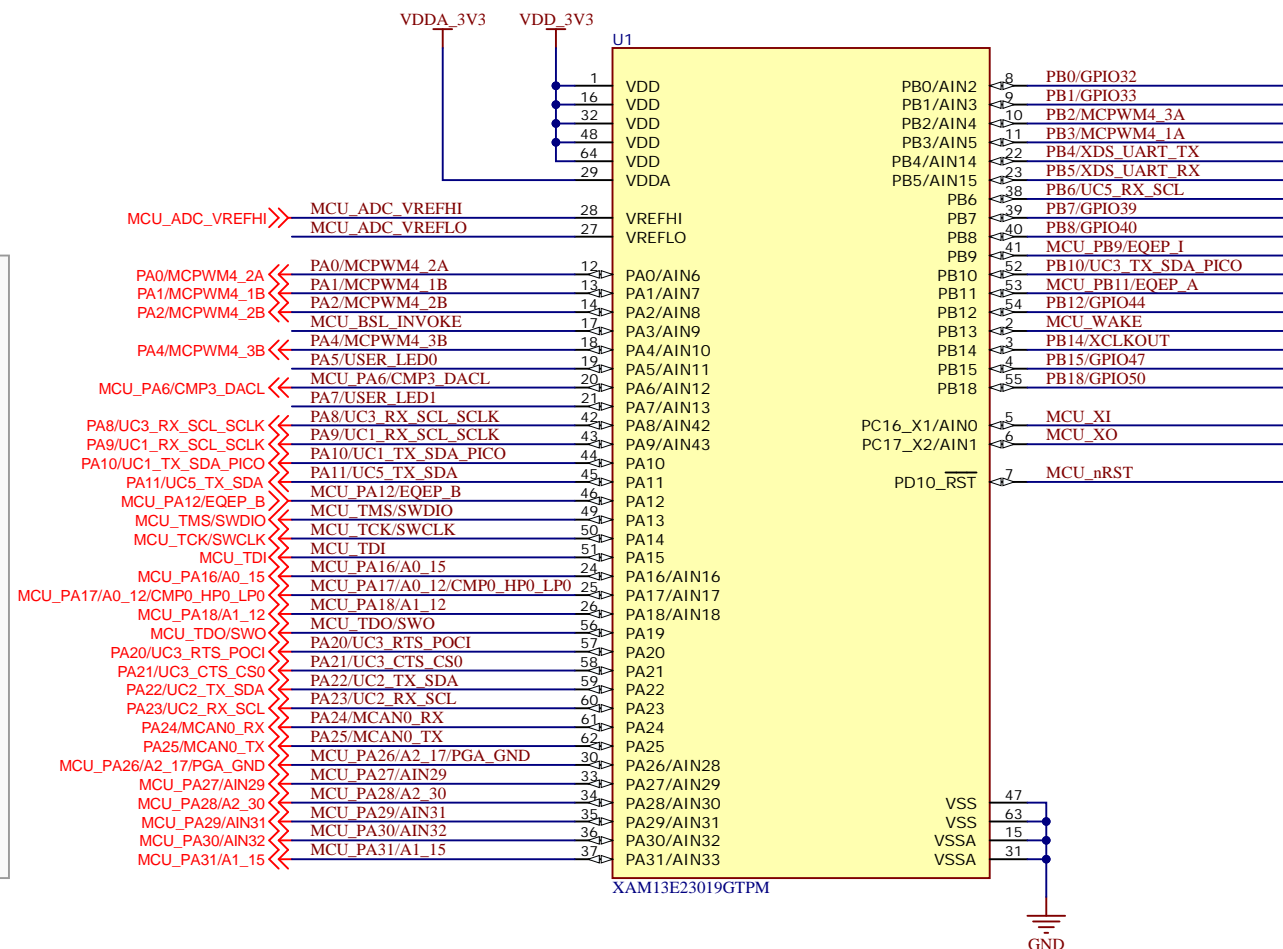


ADC VREF



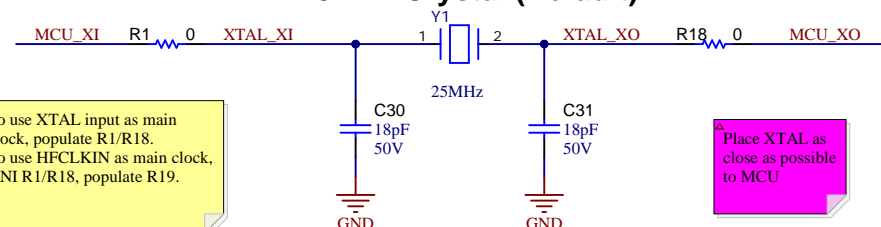
MCPWM	J4_38
MCPWM	J4_39
MCPWM	J4_37
MCPWM	J4_35
DAC	J3_30
SPI CLK	J1_7
UART RX	J1_3
UART TX	J1_4
I2C SDA	J1_10
ADC	J3_23
ADC/CMP	J3_26
ADC	J3_24
SPI POCI	J2_14
SPI CS	J2_19
LIN TX	J4_34
LIN RX	J4_33
CAN RX	J4_31
CAN TX	J4_32
ADC/PGA GND	J1_2
ADC/PGA IN	J3_27
ADC	J3_25
ADC/PGA IN	J3_29
ADC/PGA IN	J3_28
ADC	J1_6

AM13E230 MCU



Clocks

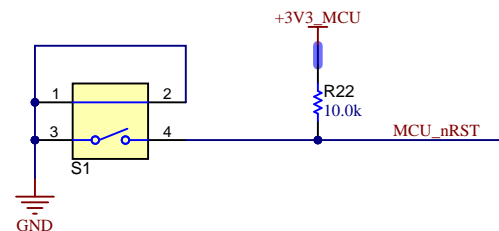
25MHz Crystal (Default)



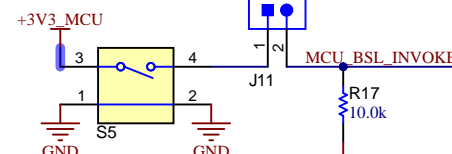
High-Frequency

External Clock Output

MCU Reset

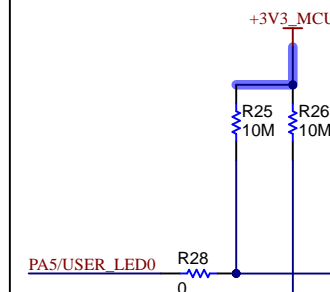


Wake/User Input



BSL Invoke

Populate J11 to invoke BSL through hardware.

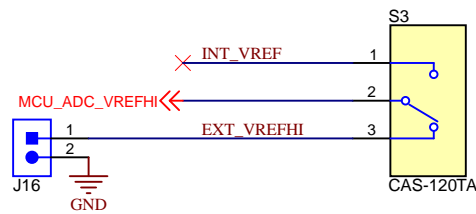


A

B

C

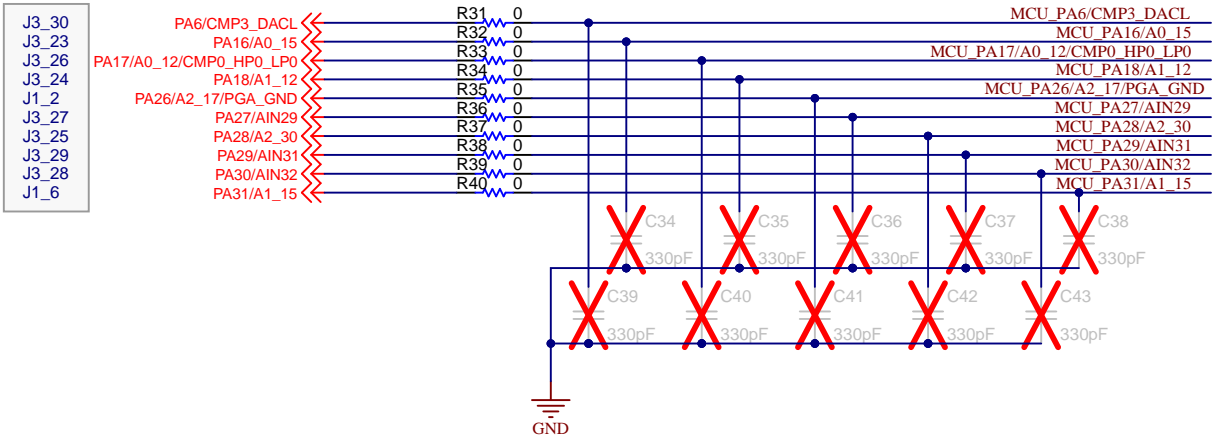
ADC VREF DIP SWITCH



ADC VREF VOLTAGE SELECTION (S3)

SW POSITION	SUPPLY SELECTION
PIN 1-2 DEFAULT	Select internal reference voltage
PIN 2-3	Selects external reference voltage

Analog RC Filters

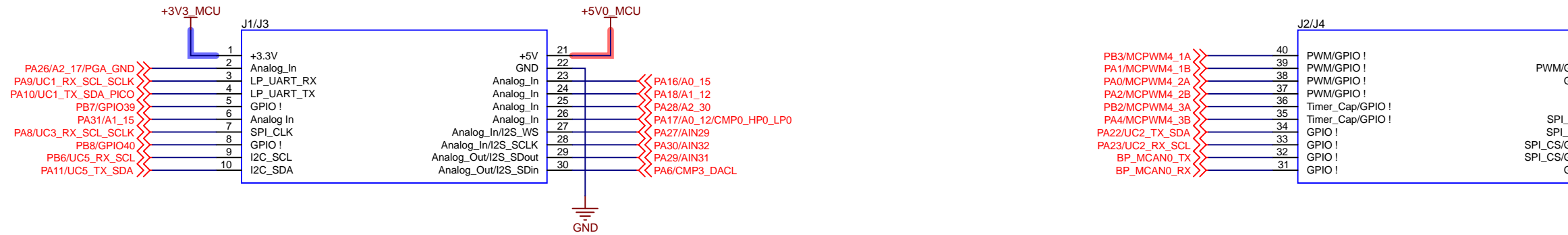


A

B

C

BoosterPack Headers



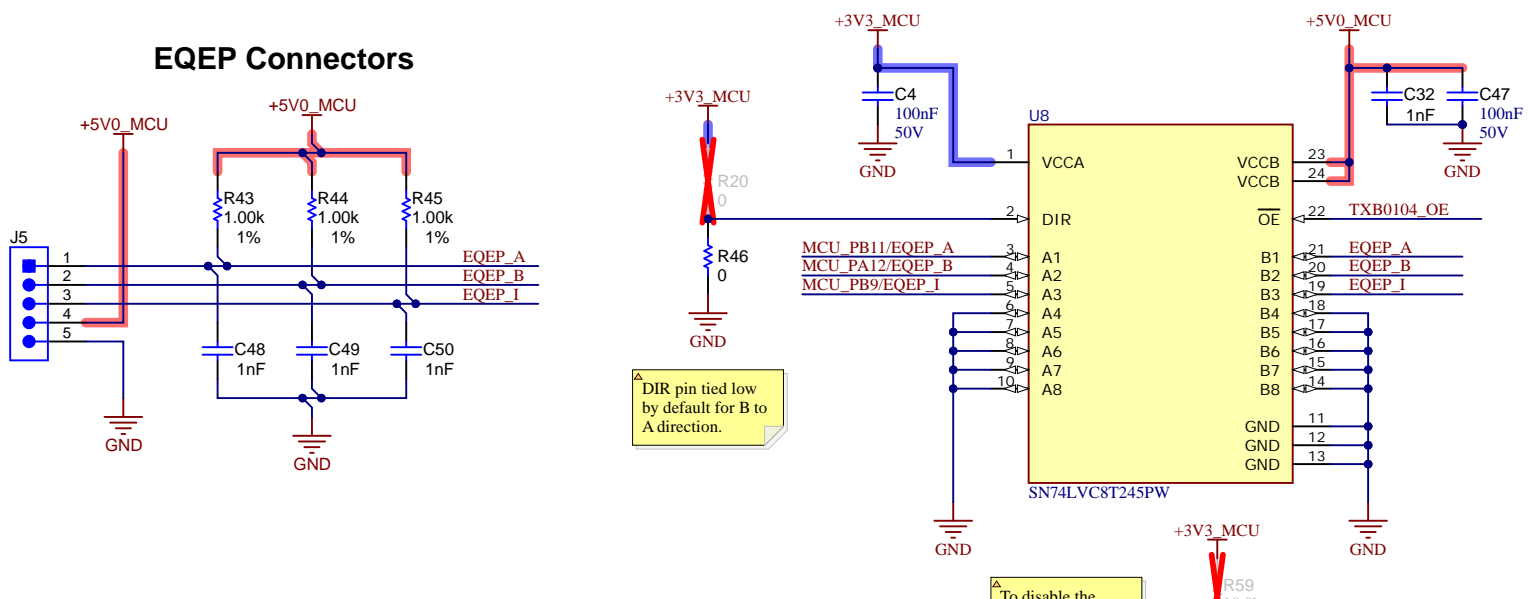
The analog signals routed to J3 pins 27-29 have the following intended analog mux use cases:

J3-27: A0_14 / A1_14 / PGA0_P4 / PGA2_P0 / CMP1_HP2_LP2

J3-28: A0_5 / A2_27 / PGA1_P5 / PGA2_P5 / CMP2_HP3_LP3

J3-29: A2_5 / PGA1_P4 / CMP0_HP2_LP2

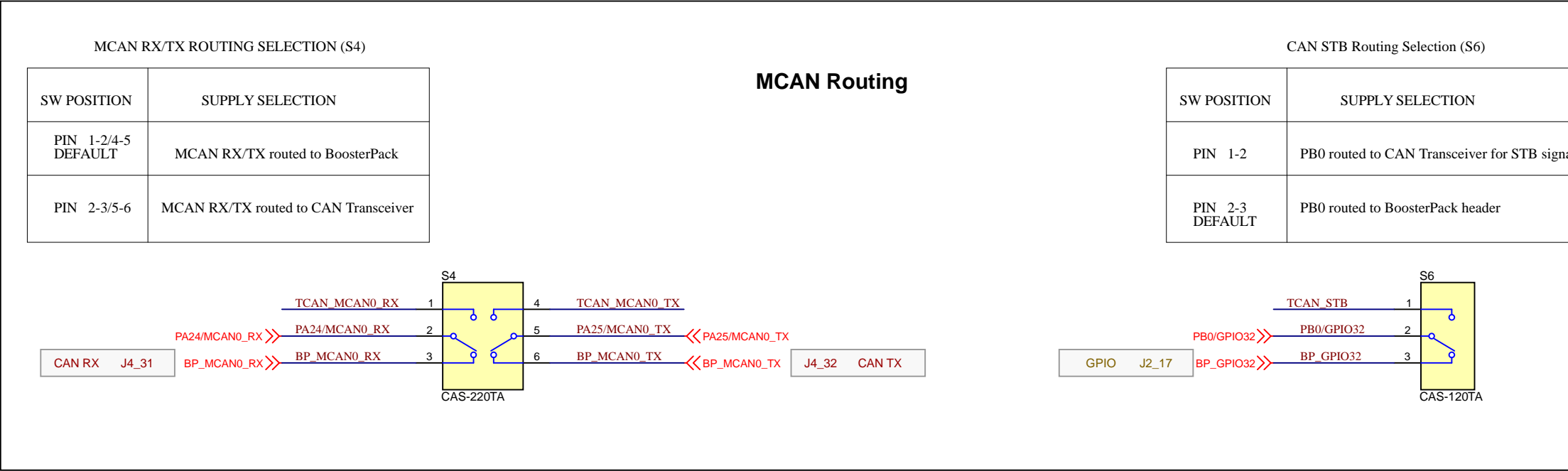
EQEP Level Translator (B->A)



A

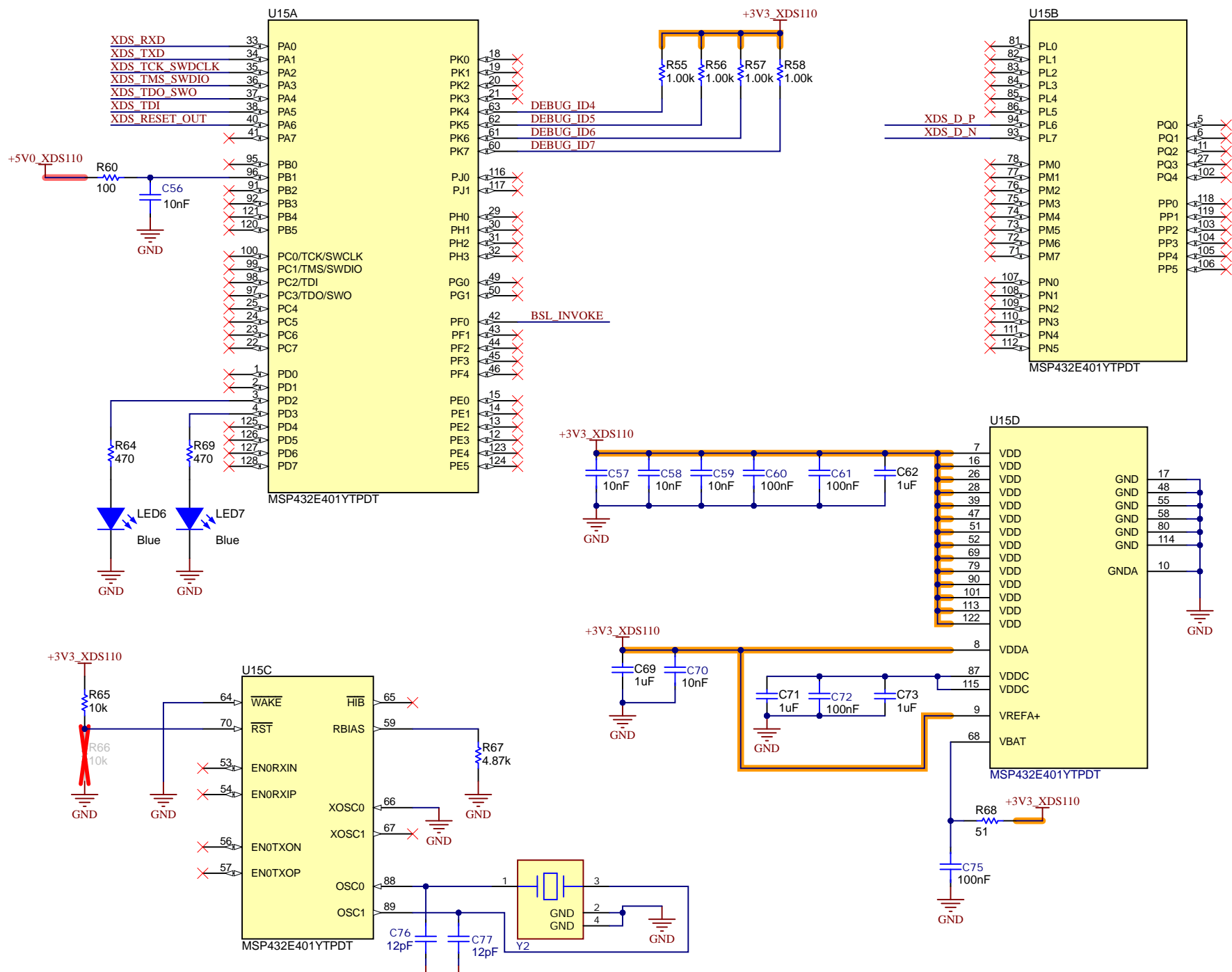
B

C



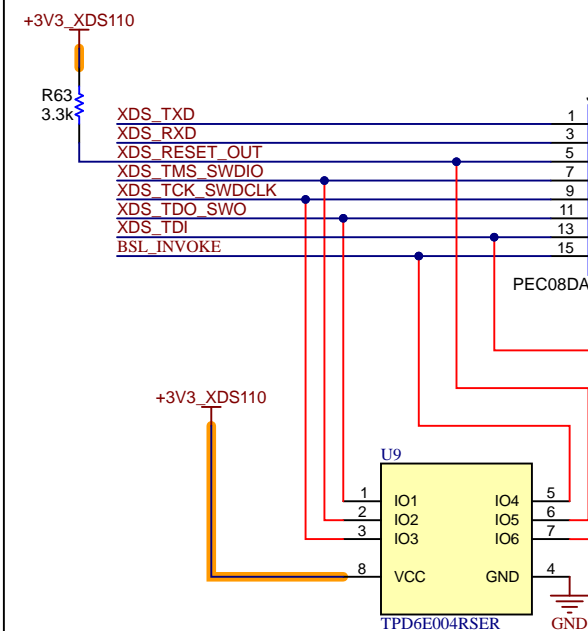
D

XDS110 Device



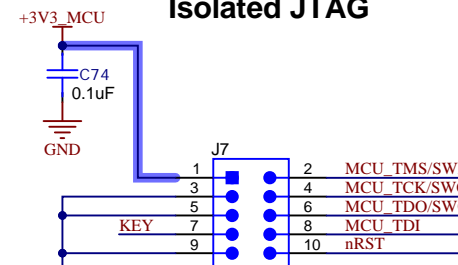
XDS110

XDS110 Signal



To debug the onboard XDS110, the TMS and TXD pins are used for serial communication. The RXD and TXD pins are used for error detection.

Isolated JTAG



	1	2	3	4	5
A	<div><div><div><div><div><div></div><div>FID1</div></div><div><div></div><div>FID2</div></div><div><div></div><div>FID3</div></div></div><div><div><div></div><div>FID4</div></div><div><div></div><div>FID5</div></div><div><div></div><div>FID6</div></div></div></div><div><div>PCB Number: MCU178</div><div>PCB Rev: E1</div></div></div></div>	<div><div><div><div><div></div><div>MH1</div></div><div><div></div><div>MH2</div></div></div><div><div><div></div><div>MH3</div></div><div><div></div><div>MH4</div></div></div></div><div><div>Logo1</div><div>PCB</div><div>LOGO</div><div>Texas Instruments</div></div><div><div>Logo2</div><div>PCB</div><div>LOGO</div><div>FCC disclaimer</div></div><div><div>Logo4</div><div>PCB</div><div>LOGO</div><div>Texas Instruments</div></div></div> <div><div><div><div></div><div>CE Logo1</div></div></div></div>	<div><div><div><div><div></div><div>H1</div></div><div><div></div><div>MAE-10</div></div></div><div><div><div></div><div>H2</div></div><div><div></div><div>MAE-10</div></div></div></div></div>		
B					
C	<div><div><div>ZZ1</div><div>Assembly Note</div><div>These assemblies are ESD sensitive, ESD precautions shall be observed.</div></div><div><div><div>ZZ2</div><div>Assembly Note</div><div>These assemblies must be clean and free from flux and all contaminants. Use of no clean flux is not acceptable.</div></div><div><div><div>ZZ3</div><div>Assembly Note</div><div>These assemblies must comply with workmanship standards IPC-A-610 Class 2, unless otherwise specified.</div></div></div></div></div>				