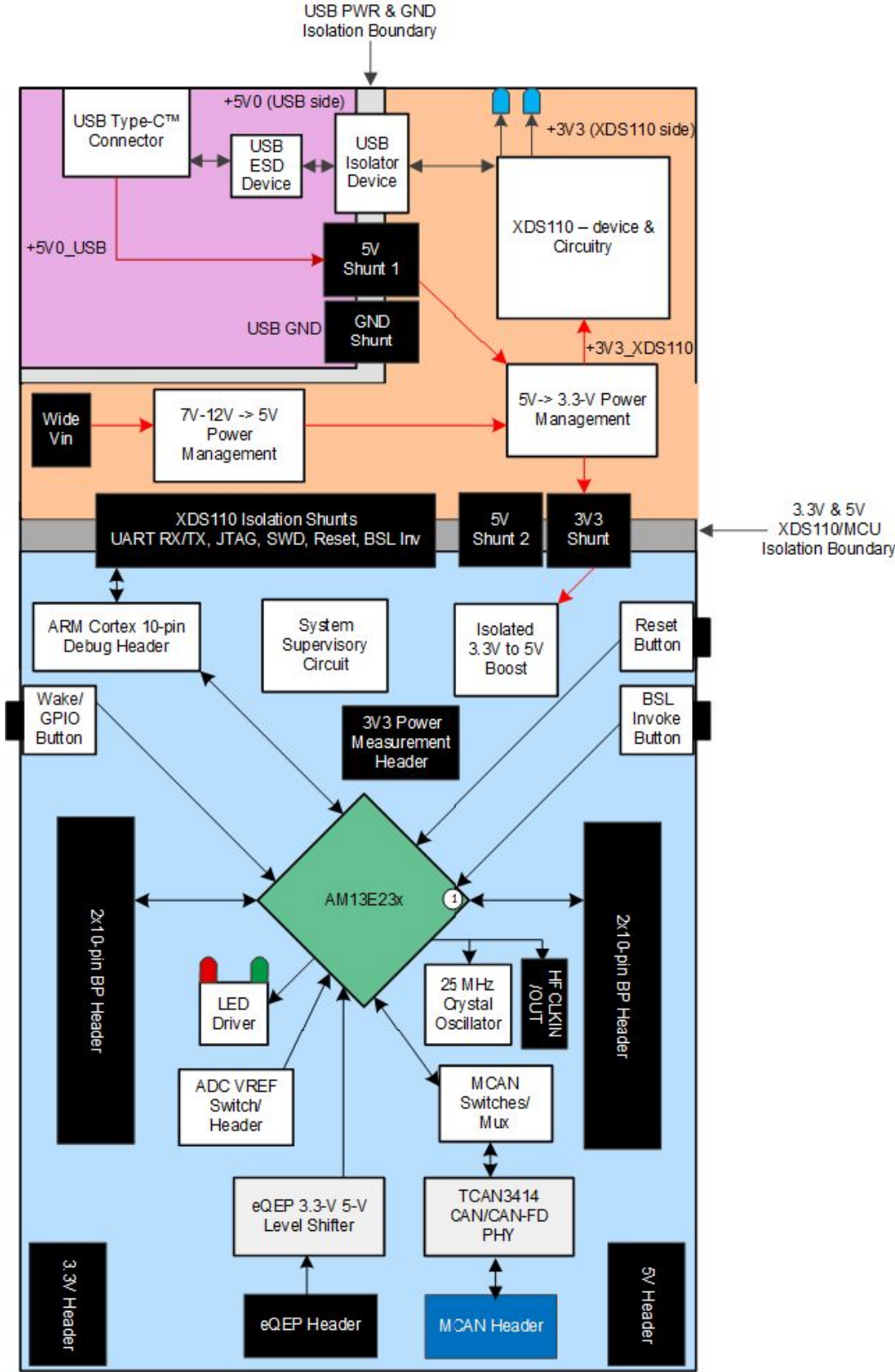


# LP-AM13E230

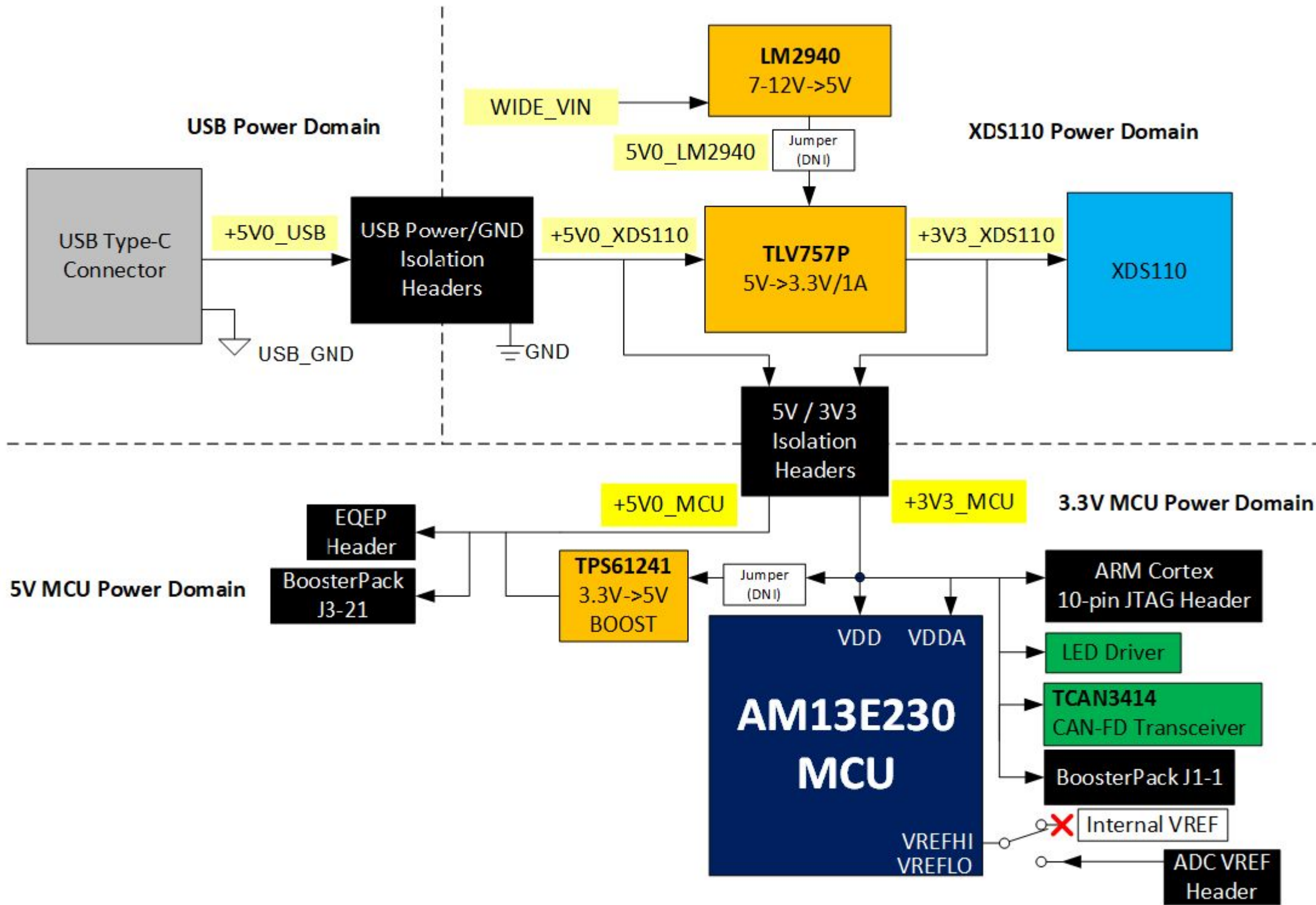
## AM13E230 LaunchPad EVM



Texas Instruments and/or its licensors do not warrant the accuracy or completeness of this specification or any information contained therein. Texas Instruments and/or its licensors do not warrant that this design will meet the specifications, will be suitable for your application or fit for any particular purpose, or will operate in an implementation. Texas Instruments and/or its licensors do not warrant that the design is production worthy. You should completely validate and test your design implementation to confirm the system functionality for your application.

Orderable: <a href="#">ChangeMe in variant</a>	Designed for: <a href="#">Public Release</a>	Mod. Date: 9/4/2025
TID #: <a href="#">N/A</a>	Project Title: <a href="#">LP-AM13E230</a>	
Number: <a href="#">MCU178</a>	Rev: <a href="#">E1</a>	Sheet: 1 of 10
SVN Rev:	Assembly Variant: <a href="#">001</a>	Size: B
Drawn By:	File: <a href="#">MCU178E1_01_BlockDiagram.SchDoc</a>	
Engineer: <a href="#">Brennan Hartigan</a>	Contact: <a href="#">http://www.ti.com/support</a>	

# Power Tree



Texas Instruments and/or its licensors do not warrant the accuracy or completeness of this specification or any information contained therein. Texas Instruments and/or its licensors do not warrant that this design will meet the specifications, will be suitable for your application or fit for any particular purpose, or will operate in an implementation. Texas Instruments and/or its licensors do not warrant that the design is production worthy. You should completely validate and test your design implementation to confirm the system functionality for your application.

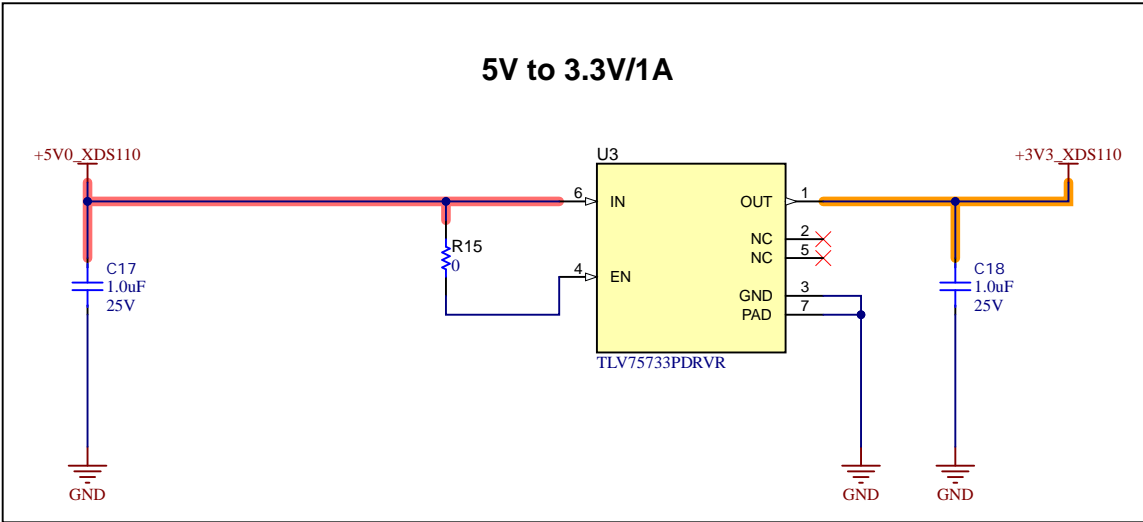
Orderable: <a href="#">ChangeMe in variant</a>	Designed for: <a href="#">Public Release</a>	Mod. Date: 9/4/2025
TID #: <a href="#">N/A</a>	Project Title: <a href="#">LP-AM13E230</a>	
Number: <a href="#">MCU178</a>	Rev: <a href="#">E1</a>	Sheet: 2 of 10
SVN Rev:	Assembly Variant: <a href="#">001</a>	Size: B
Drawn By:	File: <a href="#">MCU178E1_02_PowerTree.SchDoc</a>	
Engineer: <a href="#">Brennan Hartigan</a>	Contact: <a href="#">http://www.ti.com/support</a>	

© Texas Instruments 2025



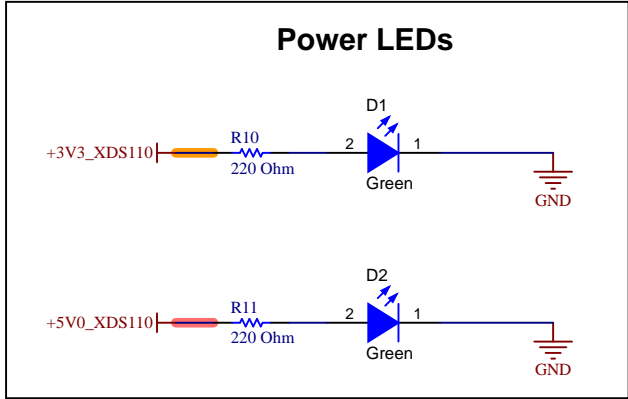


A

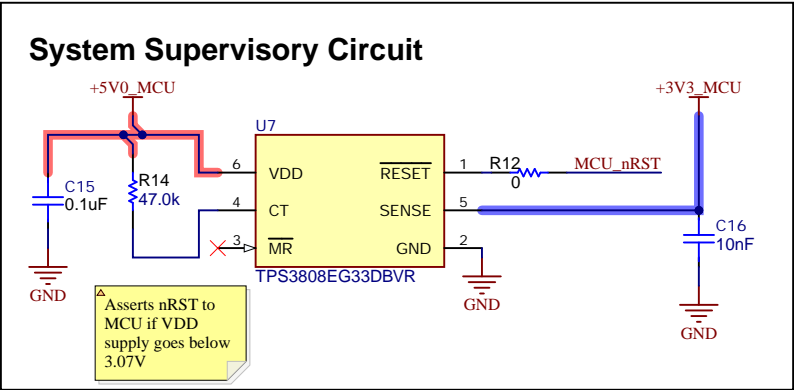
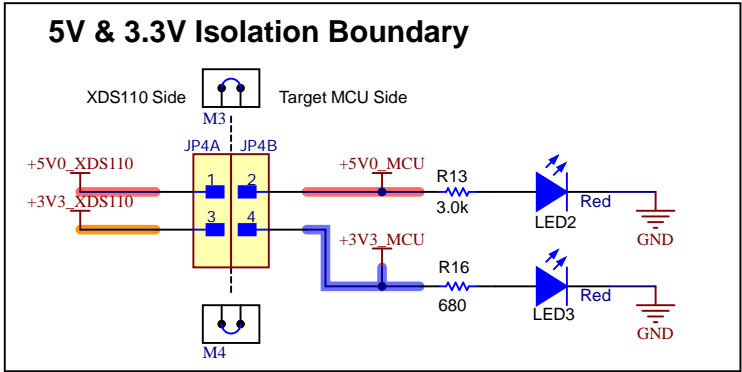


A

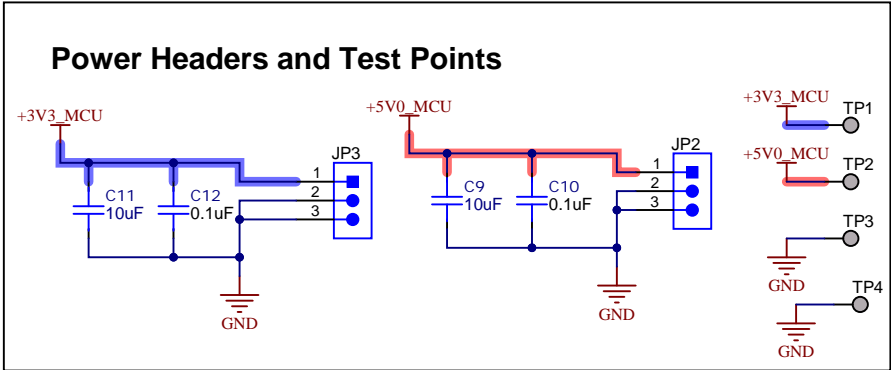
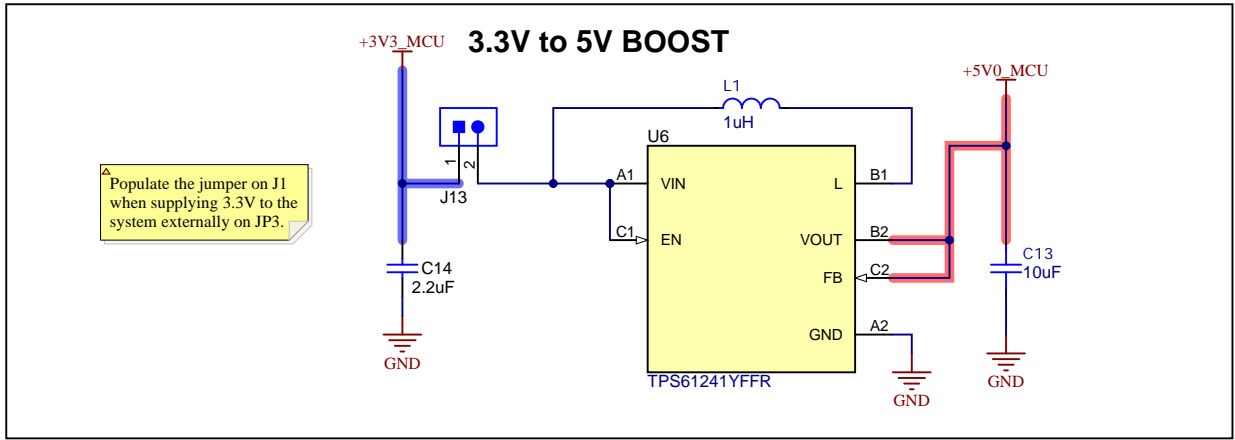
B



B

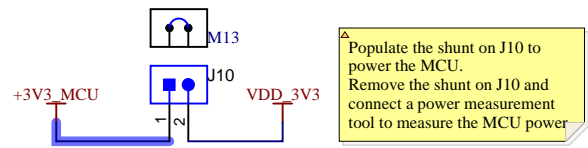


C



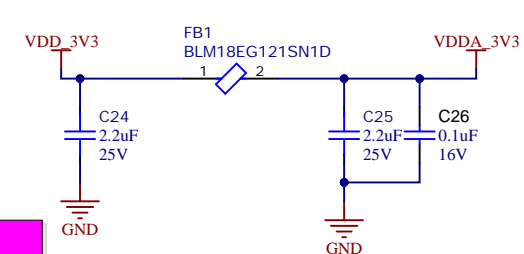
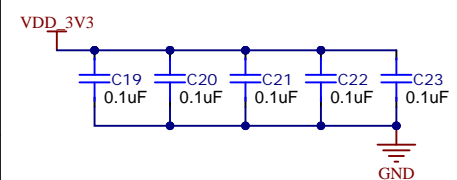
D

Power Isolation / Measurement Jumper

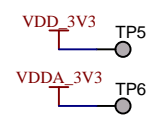


VDD 3V3 Digital

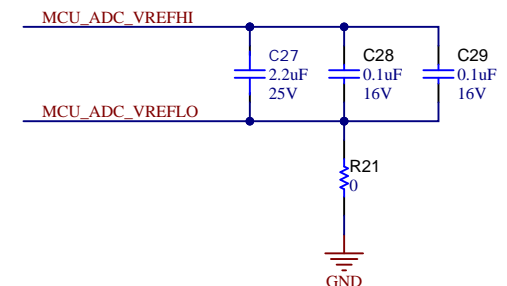
VDDA 3V3 Analog



MCU Supply TPs

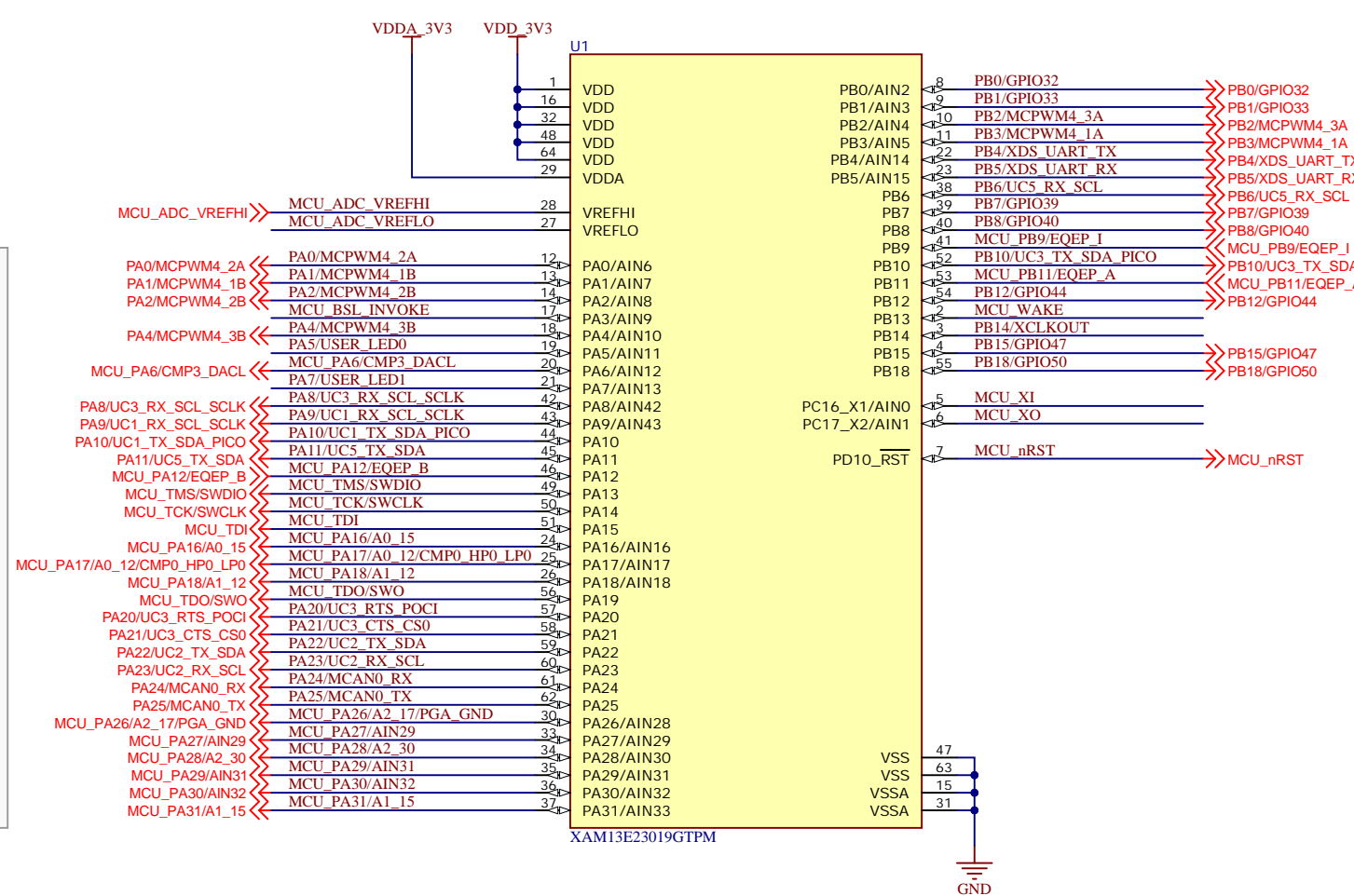


ADC VREF



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

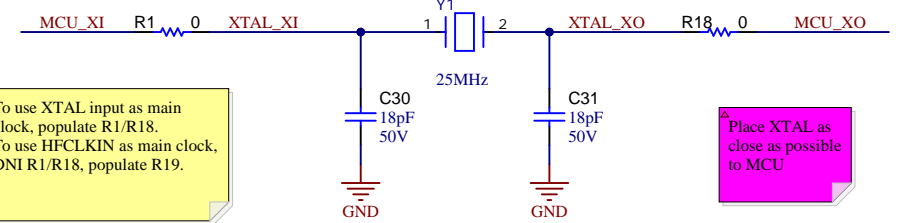
AM13E230 MCU



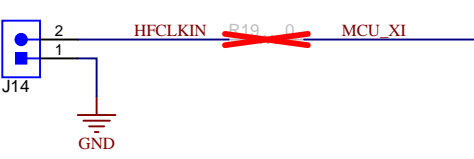
J2_17	GPIO
J2_18	GPIO
J4_36	MCPWM
J4_40	MCPWM
J1_9	I2C SCL
J1_5	GPIO
J1_8	GPIO
J2_15	SPI PICO
J2_11	GPIO
J2_13	GPIO
J2_12	GPIO
J2_16	nRST

Clocks

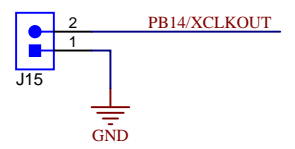
25MHz Crystal (Default)



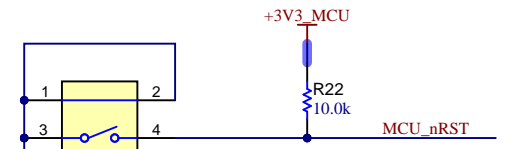
High-Frequency Oscillator Input



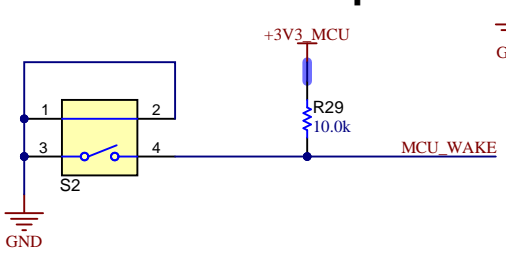
External Clock Output



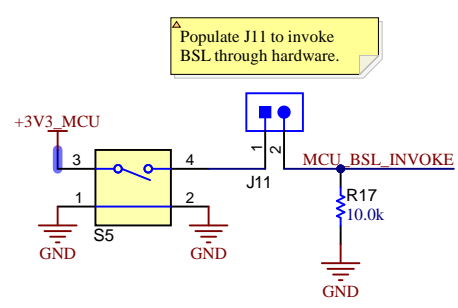
MCU Reset



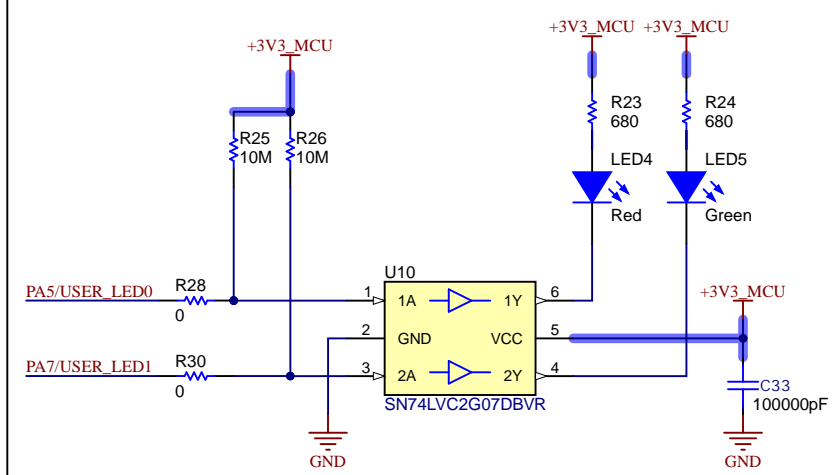
Wake/User Input



BSL Invoke



User LEDs



Texas Instruments and/or its licensors do not warrant the accuracy or completeness of this specification or any information contained therein. Texas Instruments and/or its licensors do not warrant that this design will meet the specifications, will be suitable for your application or fit for any particular purpose, or will operate in an implementation. Texas Instruments and/or its licensors do not warrant that the design is production worthy. You should completely validate and test your design implementation to confirm the system functionality for your application.



A

A

B

B

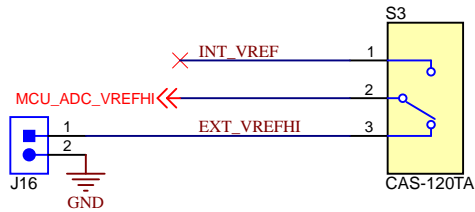
C

C

D

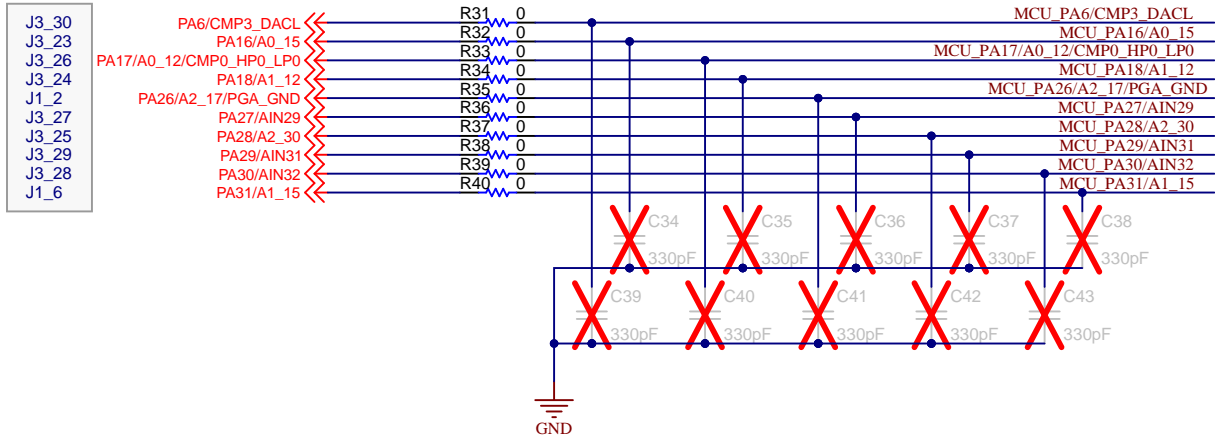
D

## 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

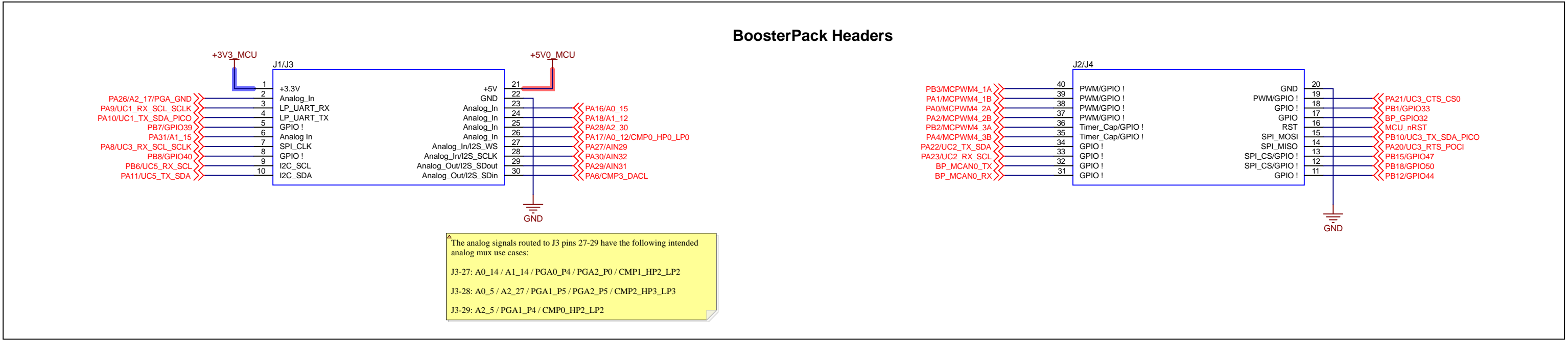


A

B

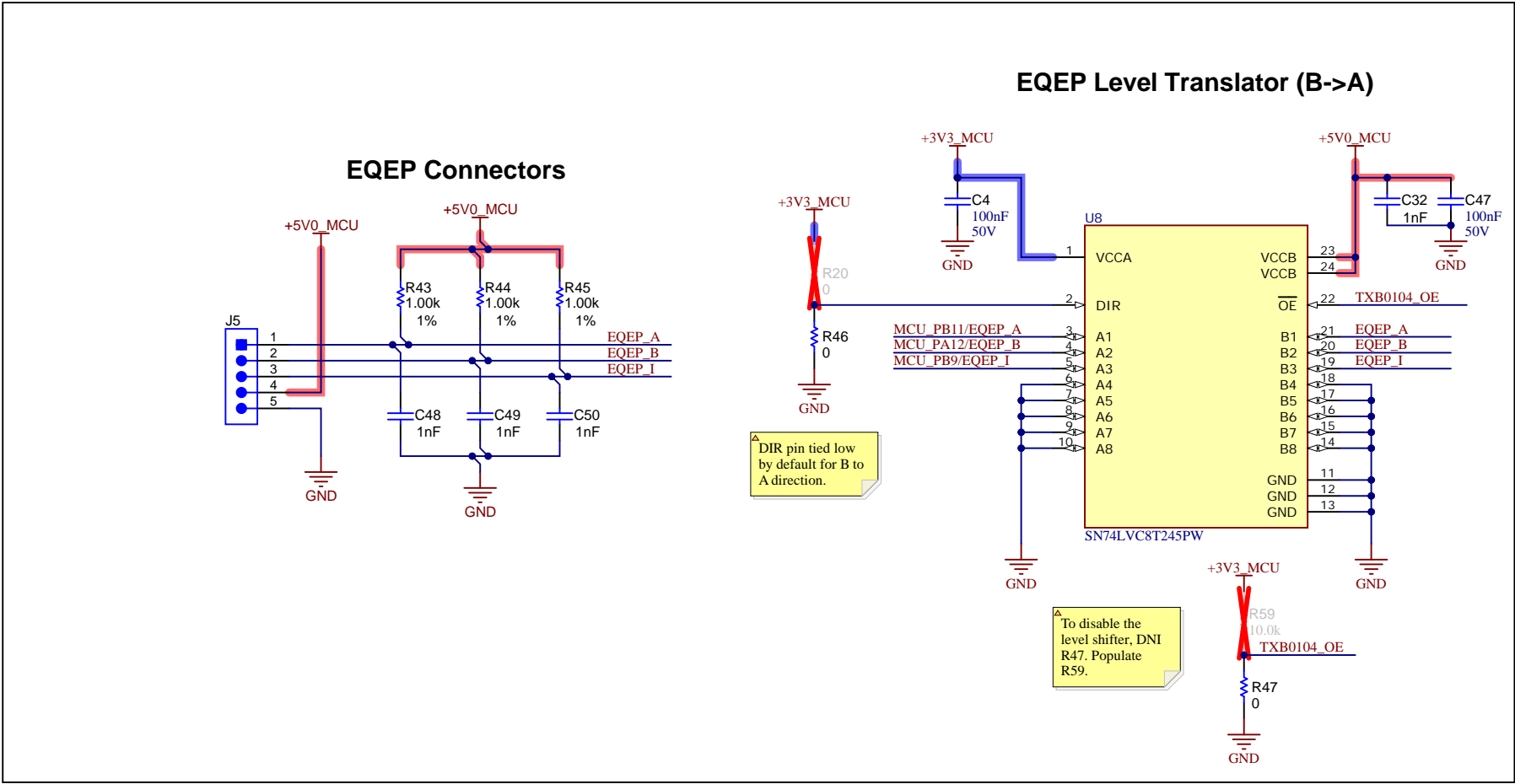
A

B



C

C



D

D

Texas Instruments and/or its licensors do not warrant the accuracy or completeness of this specification or any information contained therein. Texas Instruments and/or its licensors do not warrant that this design will meet the specifications, will be suitable for your application or fit for any particular purpose, or will operate in an implementation. Texas Instruments and/or its licensors do not warrant that the design is production worthy. You should completely validate and test your design implementation to confirm the system functionality for your application.

A

A

B

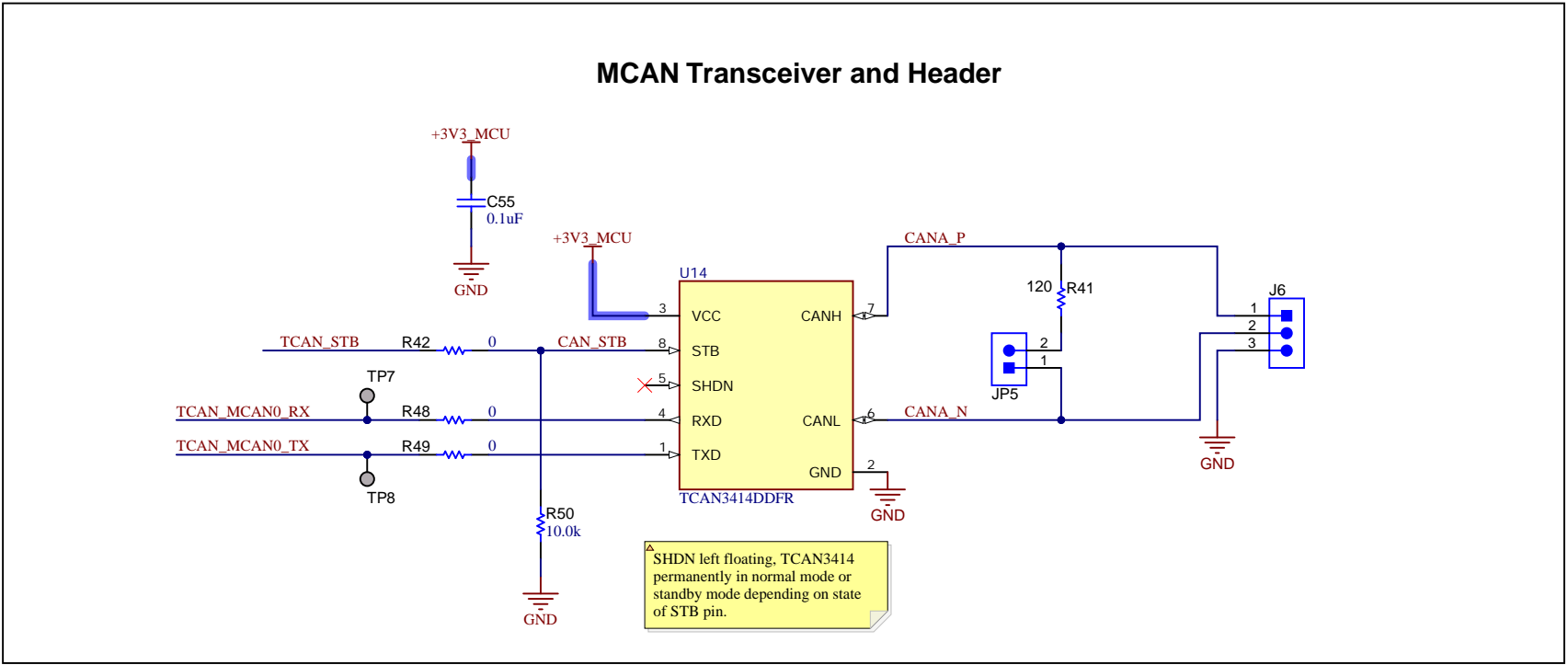
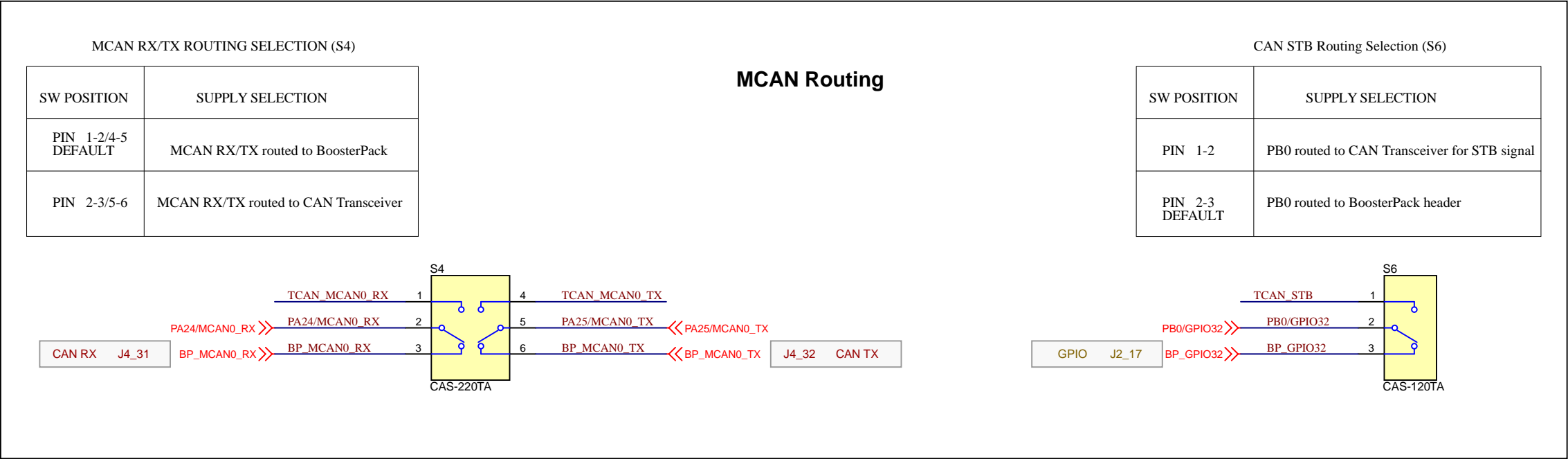
B

C

C

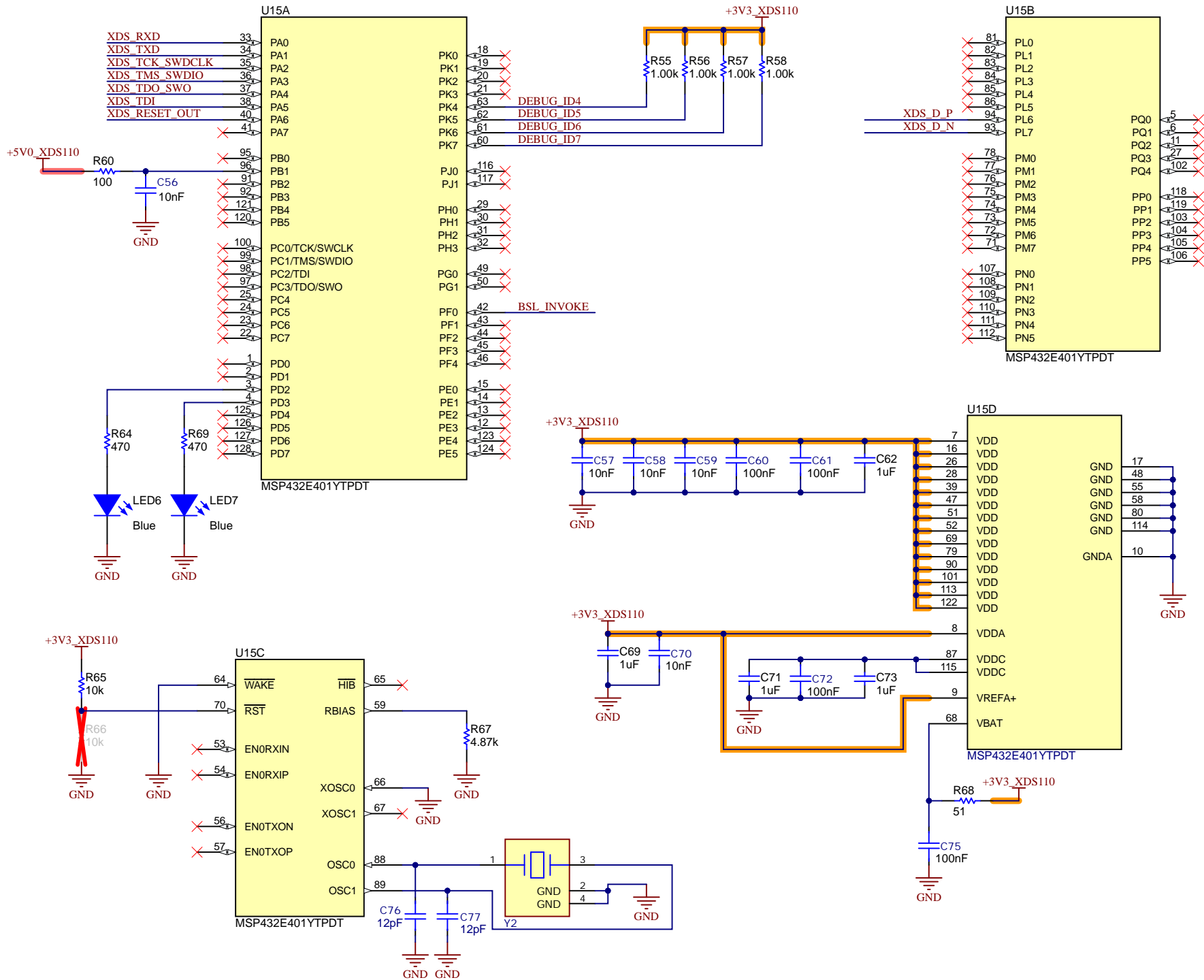
D

D

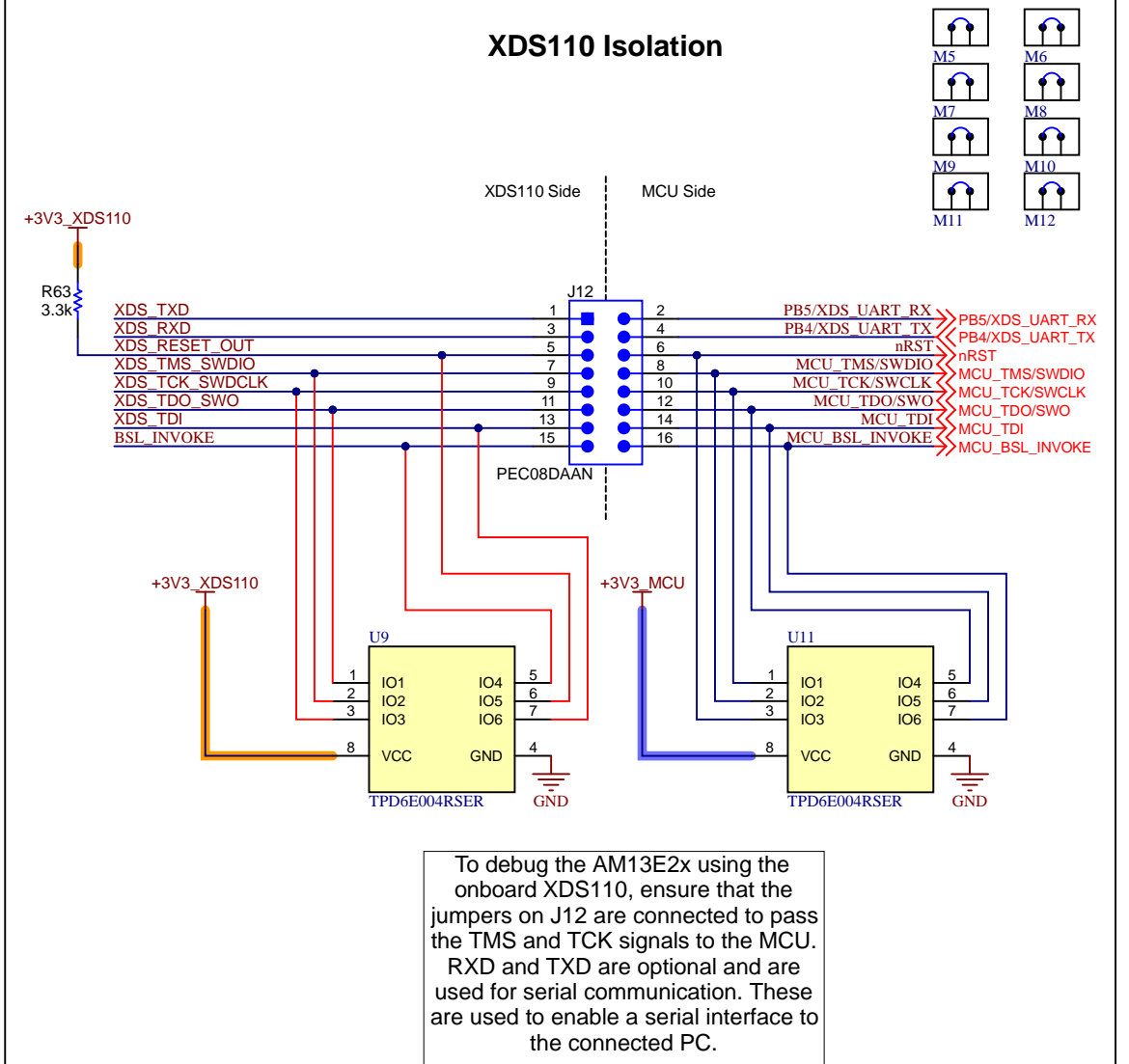




## XDS110 Device



## XDS110 Isolation



## Isolated JTAG

