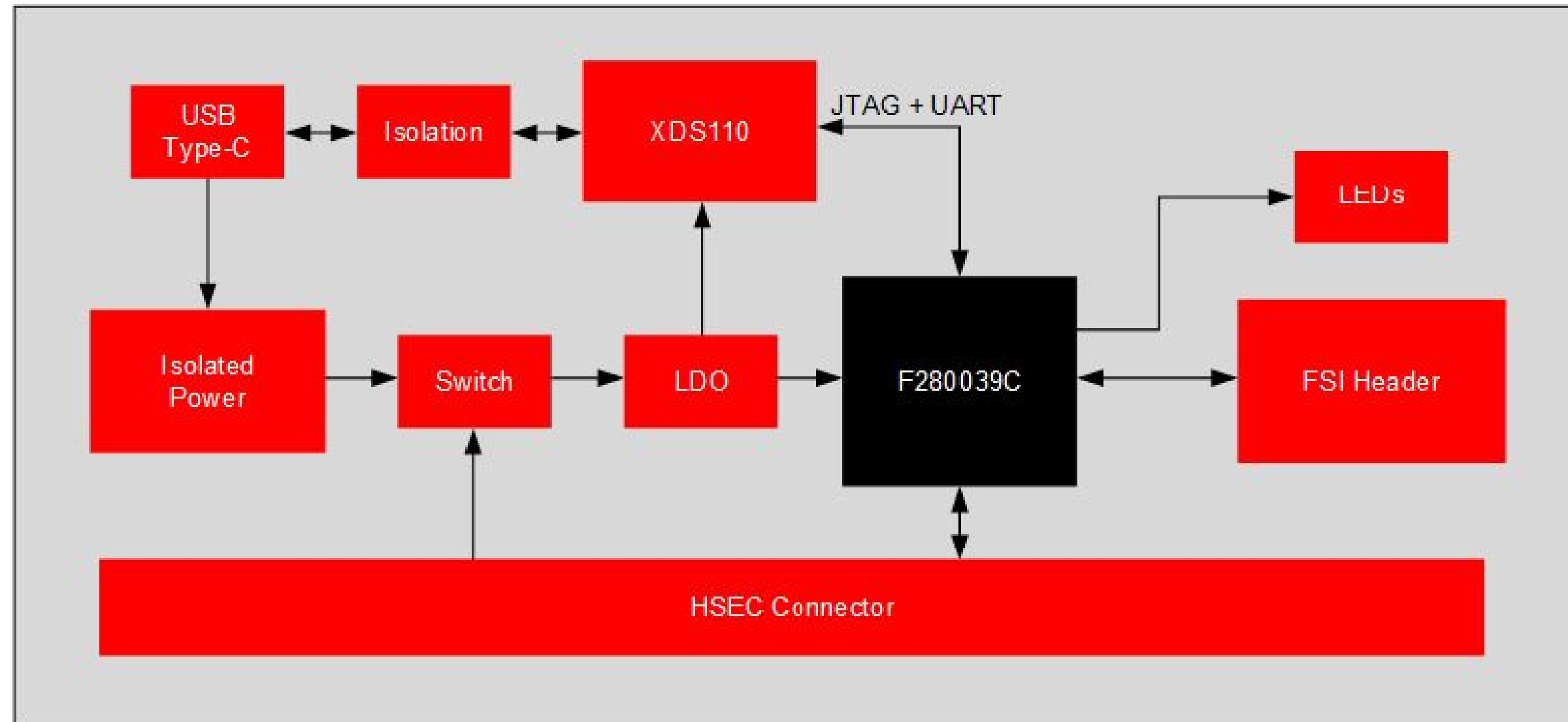


Revision History

Rev	ECN #	Approved Date	Approved by	Notes
E1	N/A	Feb 24, 2021	Review	Initial Draft
A	N/A	May 18, 2021	Review	Release Version
B	N/A	Dec. 1, 2021	Review	Updated ISOUSB111DW resistors Changed C7:A to DNP

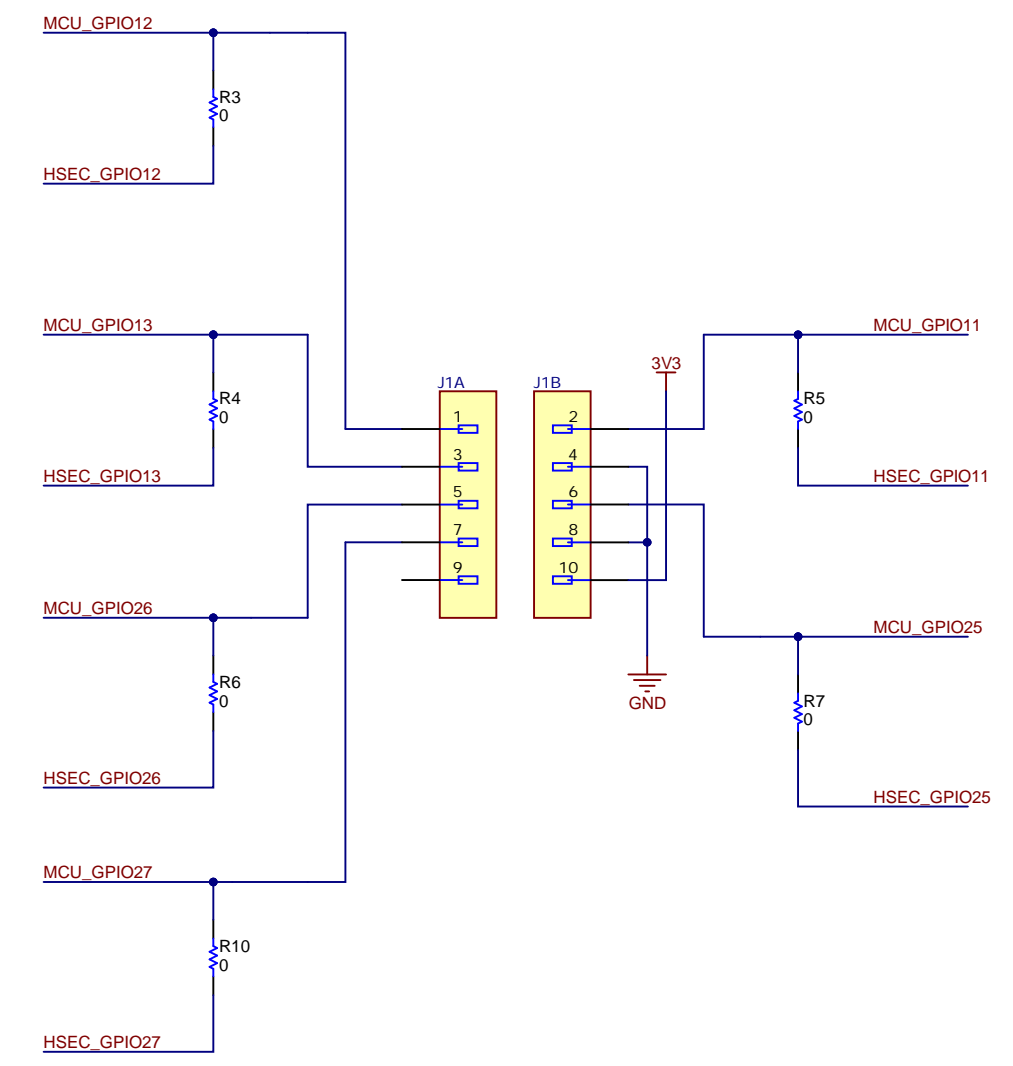
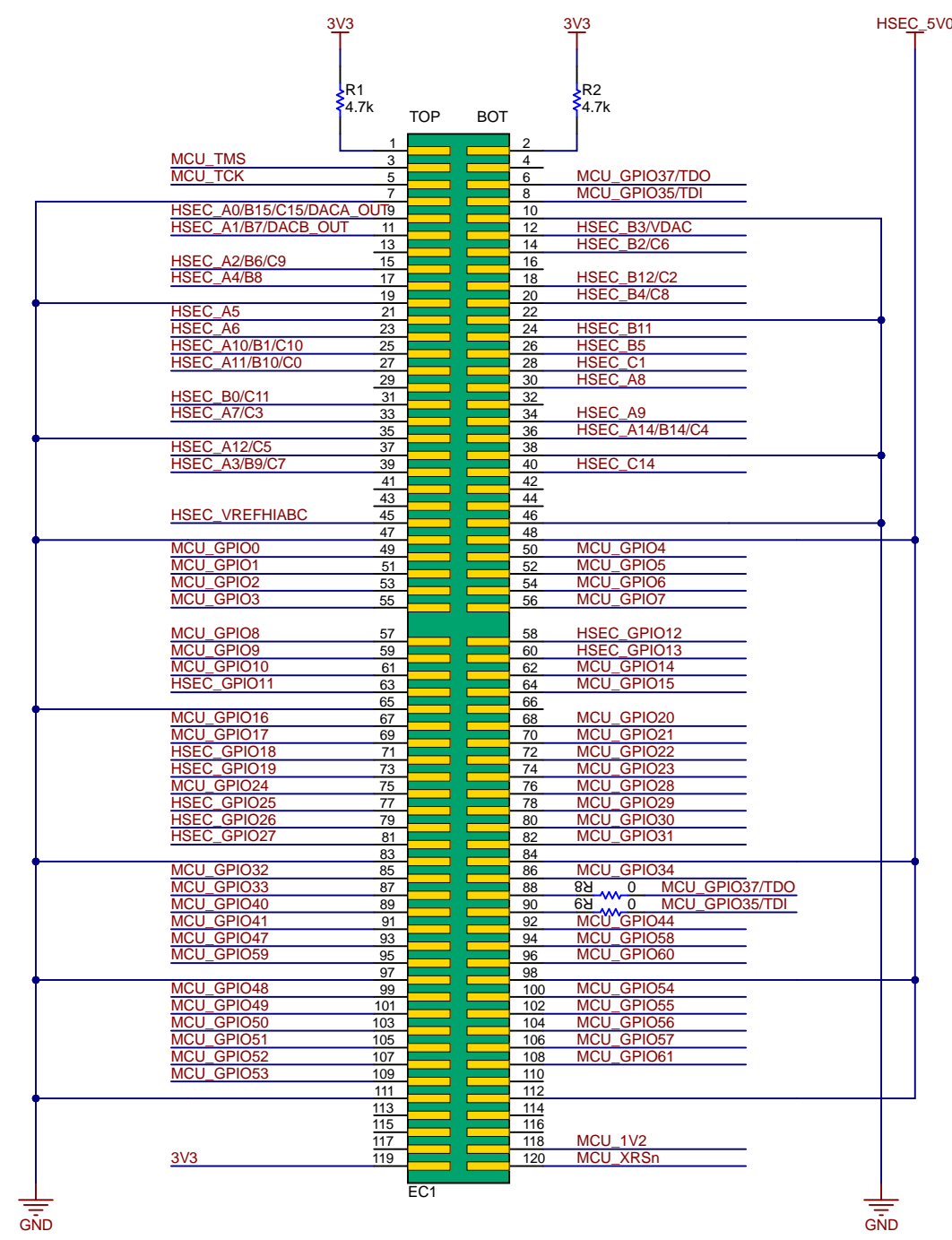


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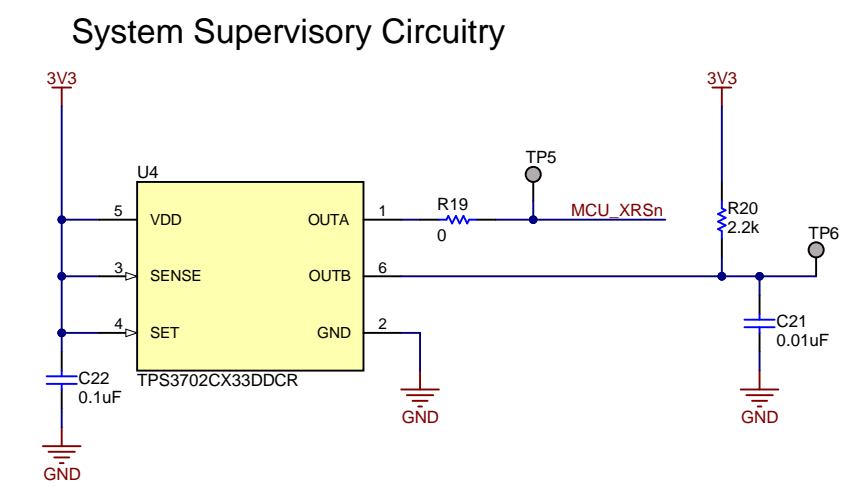
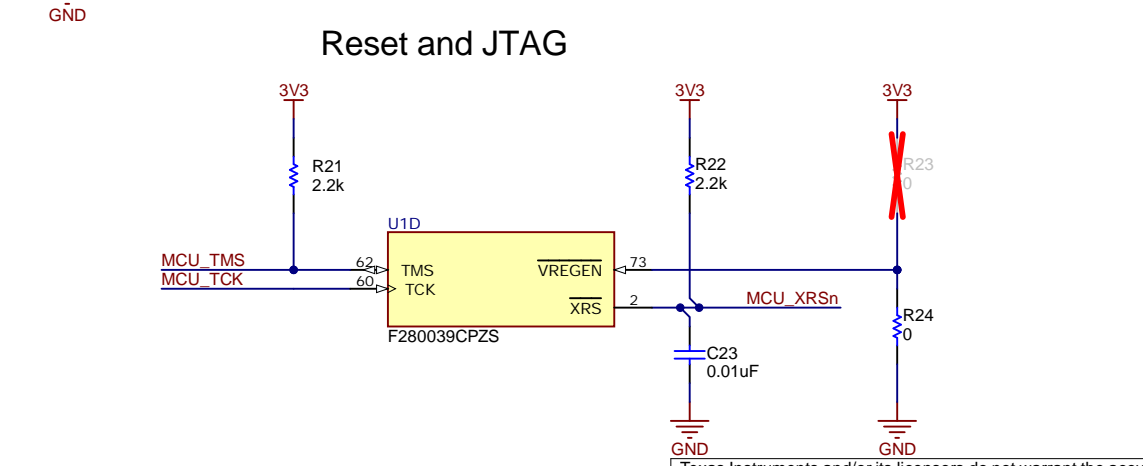
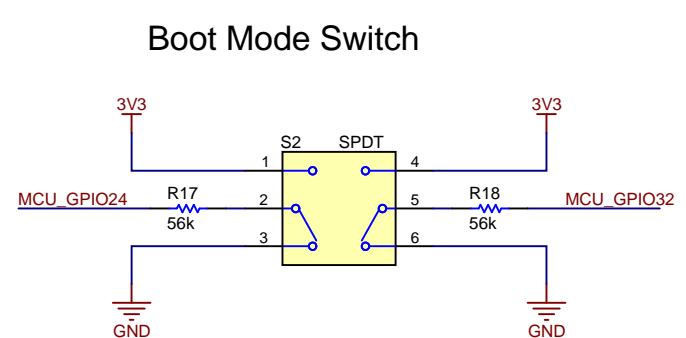
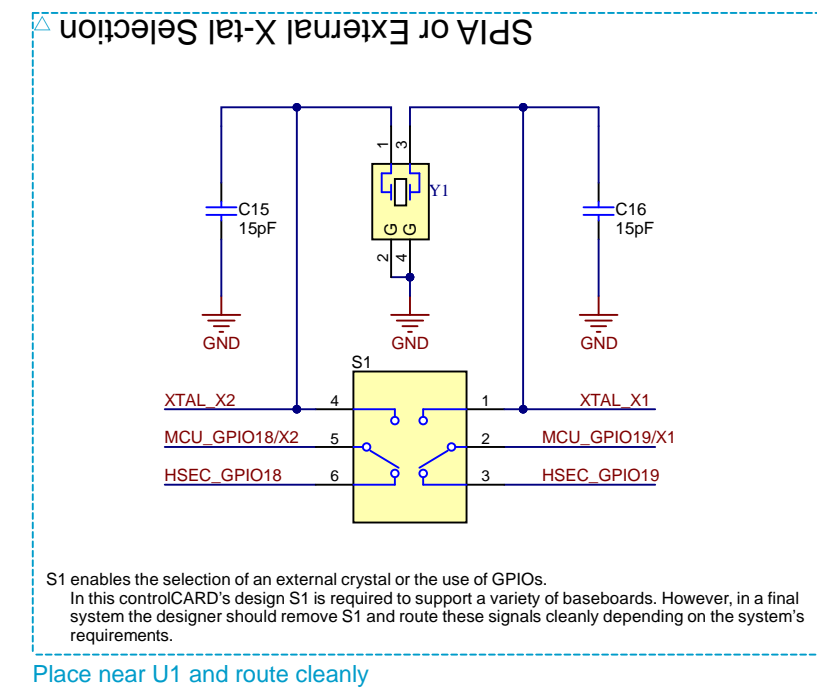
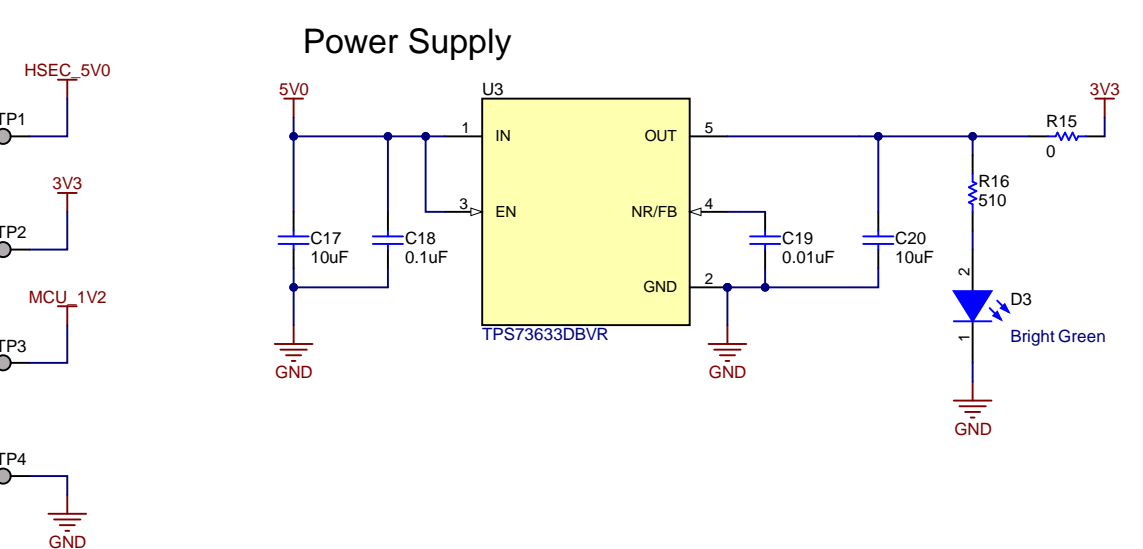
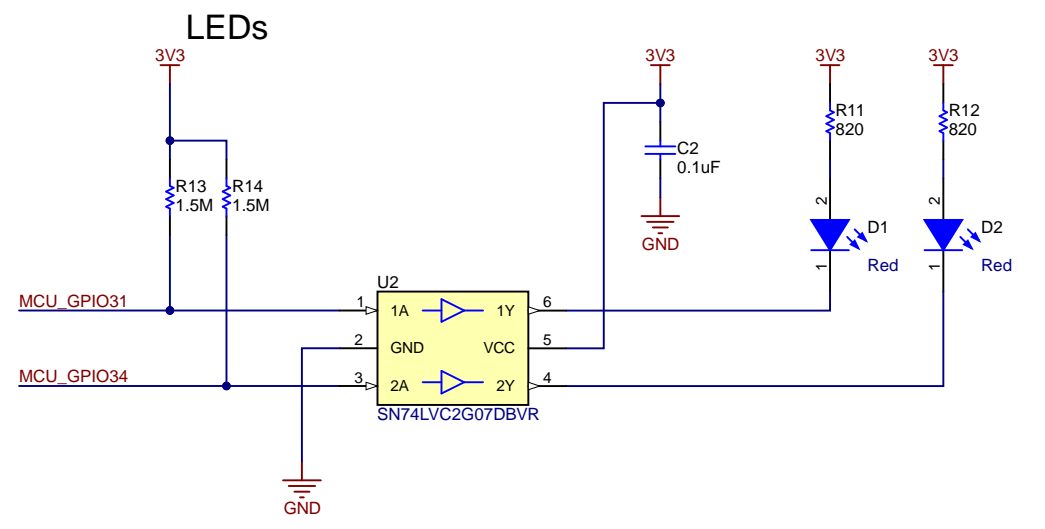
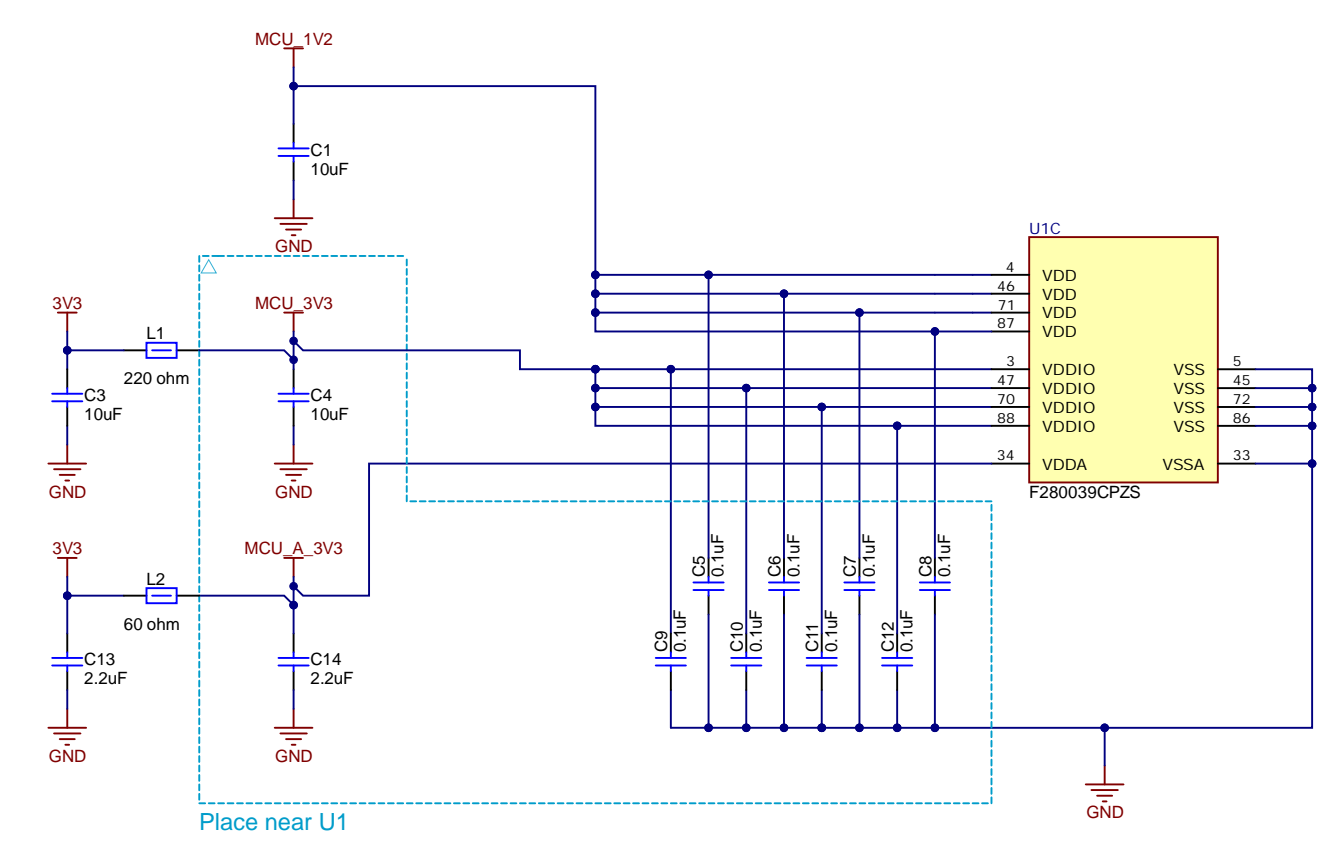
J1 has been updated over previous designs. Pins 9 and 10 were added enabling power to the connector. Additionally Pins 2 and 6, previously GND, have been repurposed to enable the full 3 pin FSI communication. The user can shunt HSEC GPIO11 and HSEC GPIO25 to ground if backwards compatibility is required.

1	FSI-RX0	2	FSI-RX1/GND
3	FSI-RXCLK	4	GND
5	FSI-TX0	6	FSI-TX1/GND
7	FSI-TXCLK	8	GND
9	KEY	10	3V3

Pin 9 of J1 is cutoff to key the connector



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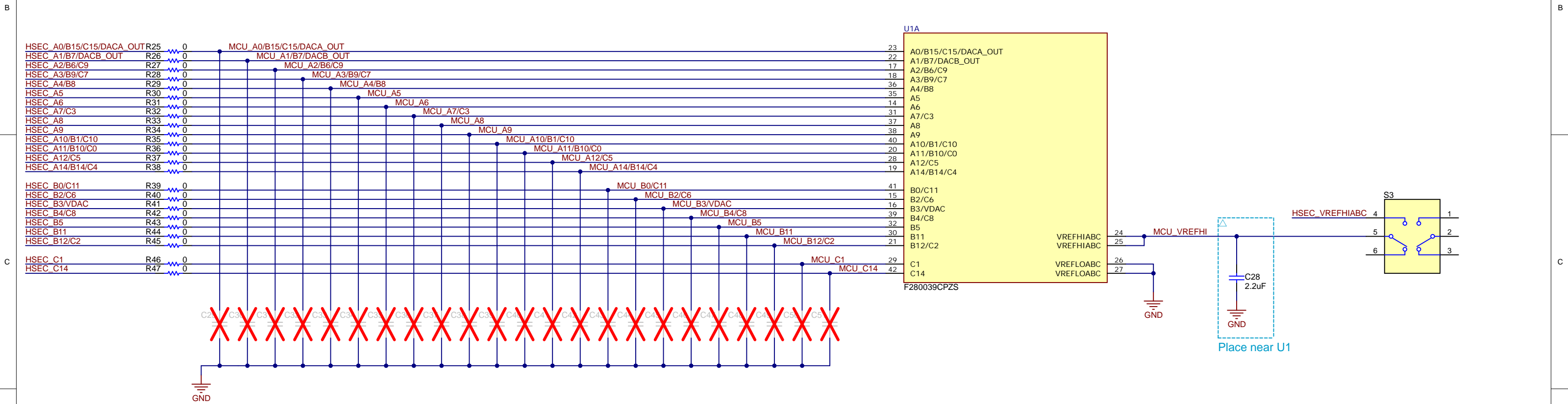
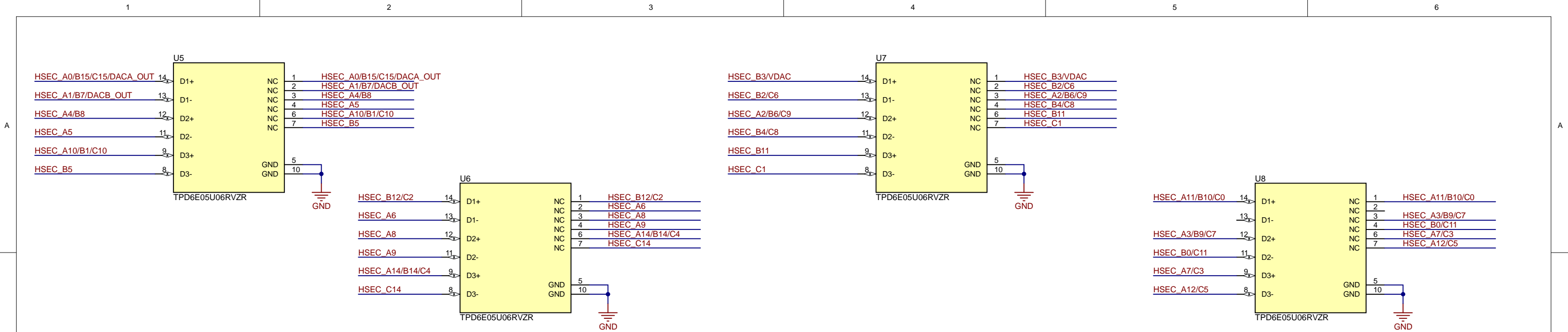


Boot Mode Selection Chart

(S2: UP is '1', DOWN is '0')

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

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S3 is the analog configuration switch

Position 1 - ON
 - ADC should be configured to disable the internal reference and instead a reference voltage should be attached to HSEC pin 45

Position 1 - OFF
 - ADC should use the internal voltage reference

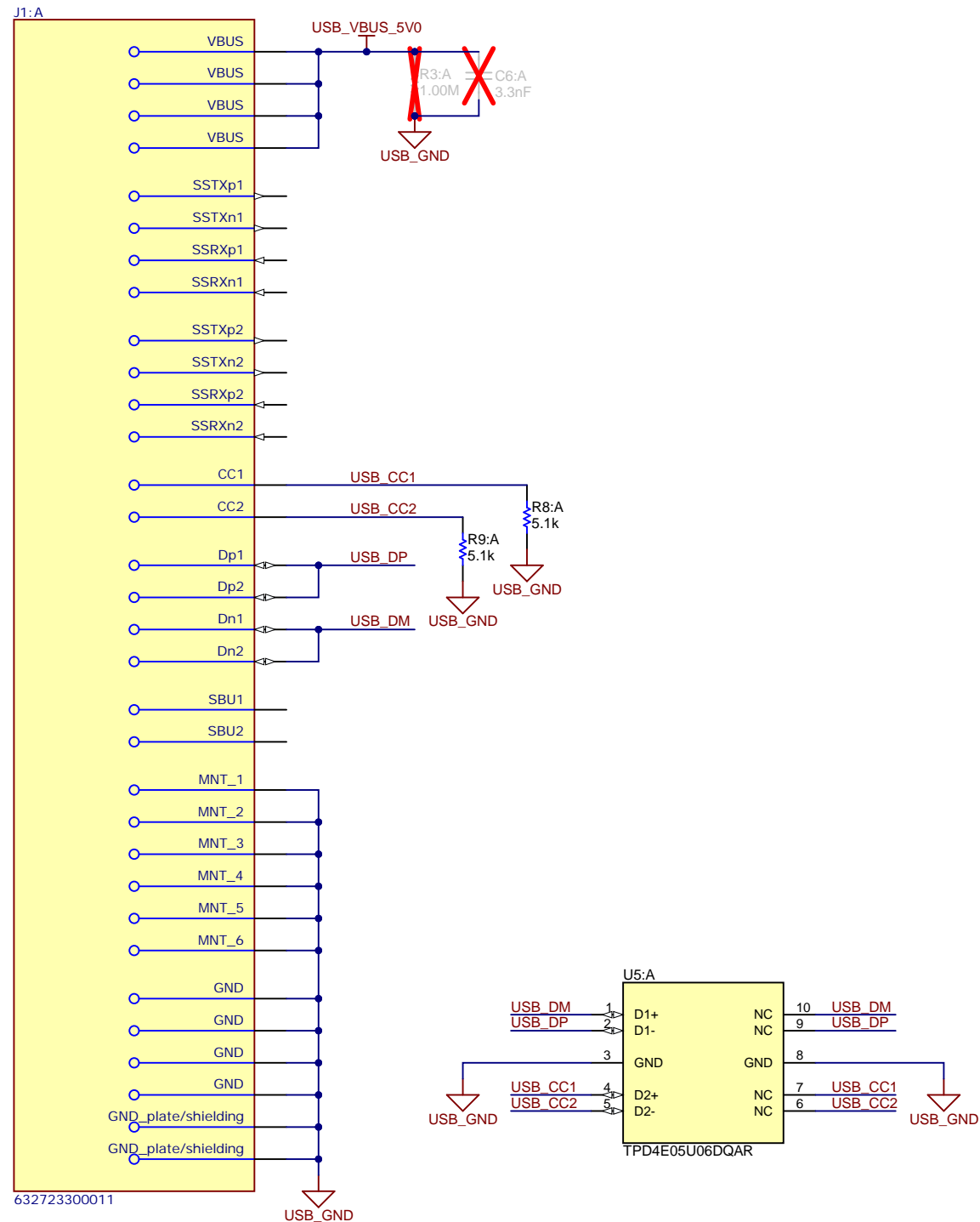
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Orderable: TMDSCNCD280039C	Designed for: Public Release	Mod. Date: 7/28/2022
TID #: N/A	Project Title: F28003x controlCARD	
Number: MCU100	Rev: B	Sheet Title:
SVN Rev: Version control disabled	Assembly Variant: 001	Sheet: 4 of 8
Drawn By: Cody Watkins	File: MCU100B_ADC.SchDoc	Size: B
Engineer: Cody Watkins	Contact: http://www.ti.com/support	

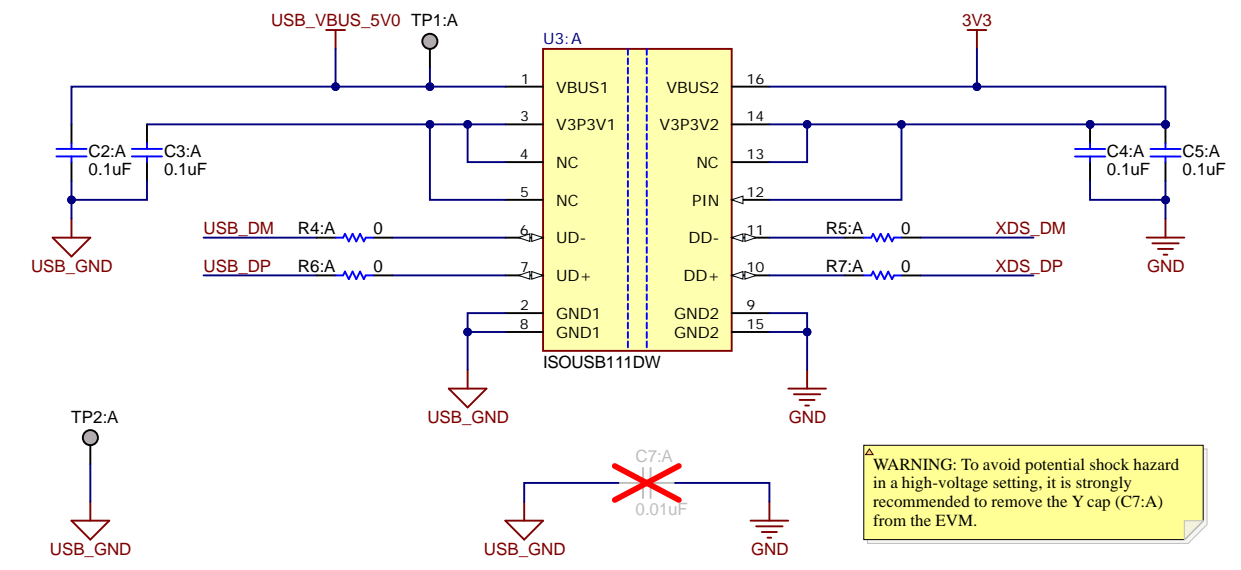


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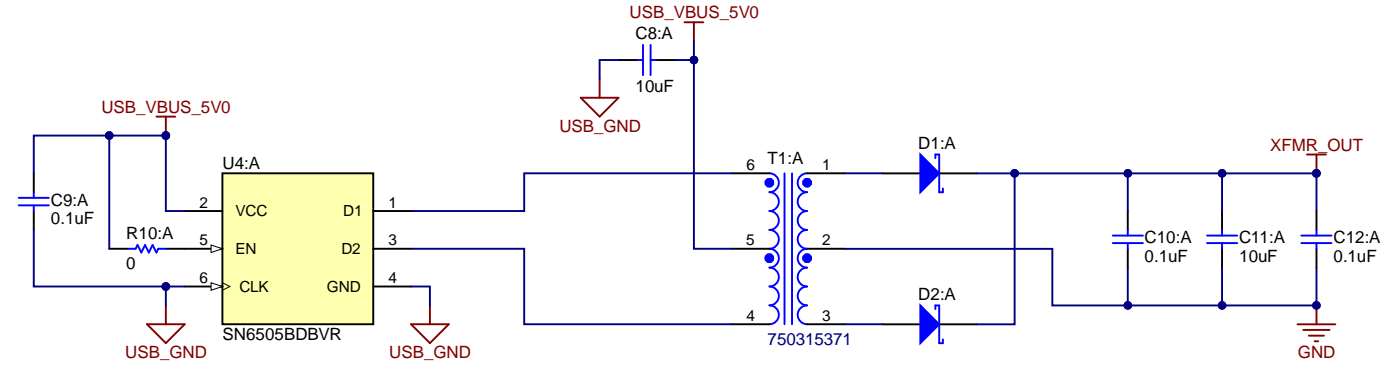
USB Connector



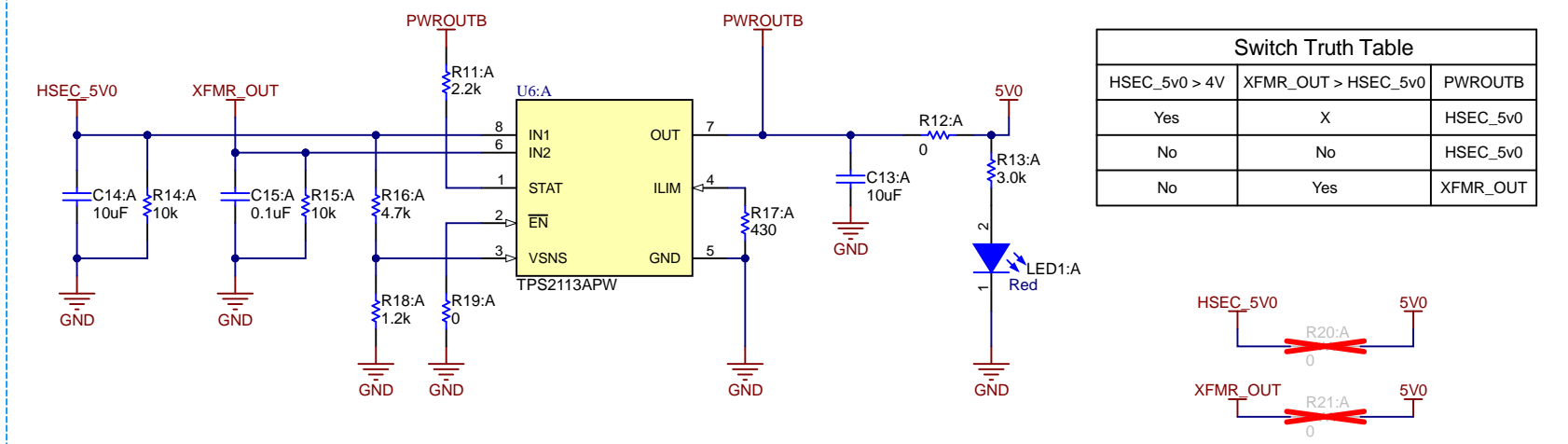
Isolation Boundary

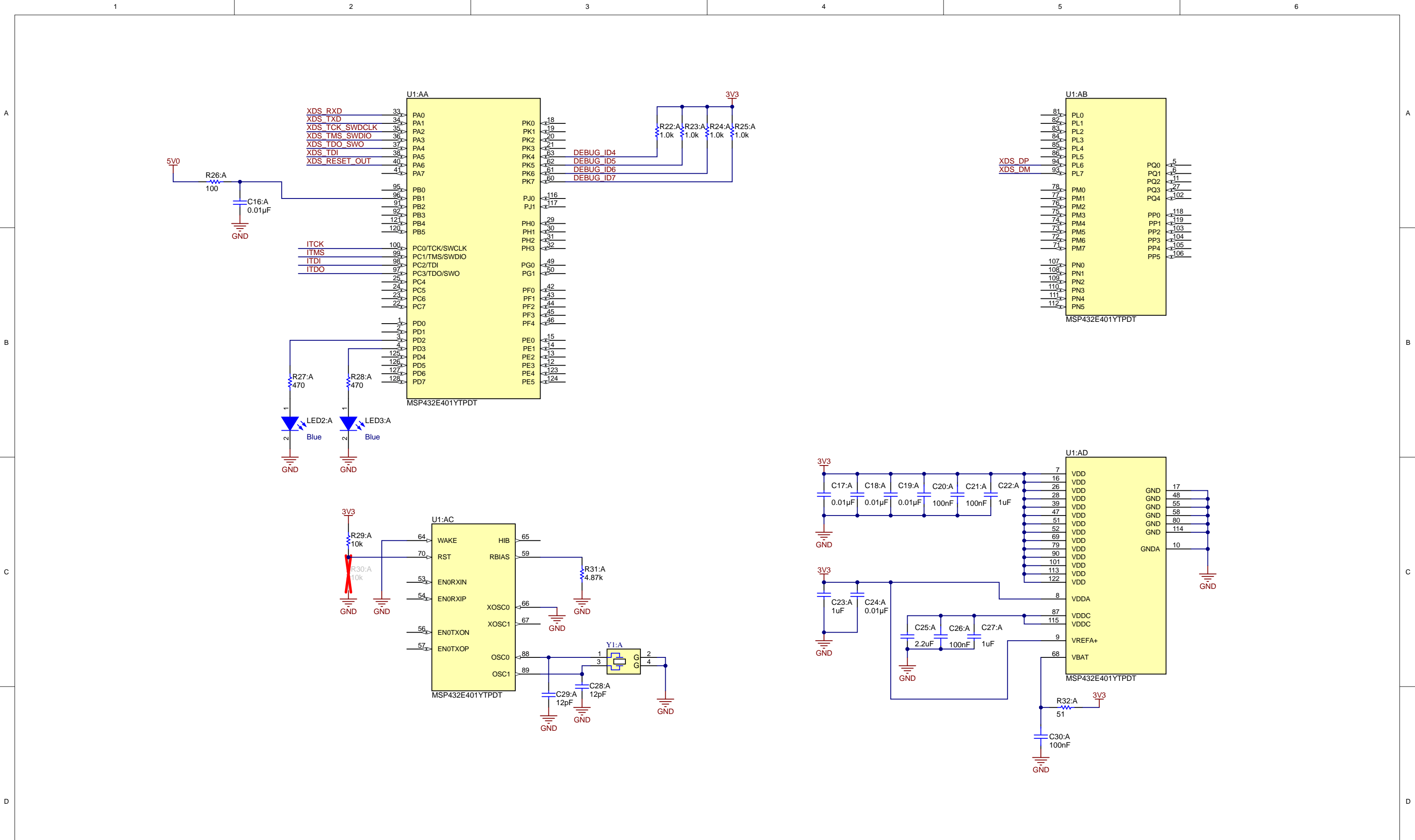


USB Isolated Power



Power Selection Switch





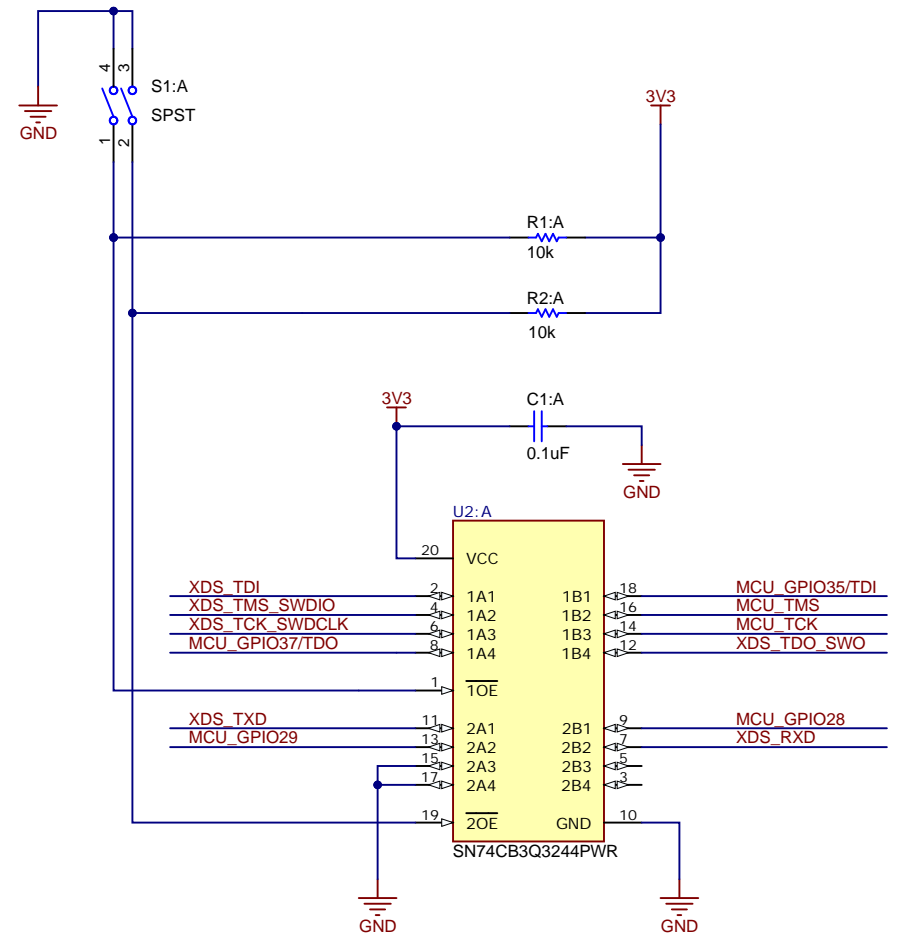
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Orderable: TMDSCNCD280039C	Designed for: Public Release	Mod. Date: 7/28/2022
TID #: N/A	Project Title: F28003x controlCARD	
Number: MCU100	Rev: B	Sheet Title:
SVN Rev: Version control disabled	Assembly Variant: 001	Sheet: 6 of 8
Drawn By: Gus Martinez	File: MCU100B_XDS110_MCU.SchDoc	Size: B
Engineer: Cody Watkins	Contact: http://www.ti.com/support	



S1:A - Emulation & GPIO28 Switch

POS 1 ON: Use XDS110 emulator that is on the cCARD
 POS 1 OFF: Boot from FLASH/peripheral (see boot mode switch) OR use emulator on baseboard
 POS 2 ON: GPIO-28 will be controlled by the USB-to-UART adapter on the XDS110 emulator MCU
 POS 2 OFF: GPIO-28 can be controlled by a pin in HSEC connector



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PCB Number: MCU100
PCB Rev: B

PCB LOGO
Texas Instruments



PCB LOGO
FCC disclaimer

PCB LOGO
WEEE logo

Variant/Label Table	
Variant	Label Text
001	TMDSCNCD280039C

LBL1
PCB Label

THT-14-423-10
Size: 0.65" x 0.20 "

ZZ1
Label Assembly Note
This Assembly Note is for PCB labels only

ZZ2
Assembly Note
These assemblies are ESD sensitive, ESD precautions shall be observed.

ZZ3
Assembly Note
These assemblies must be clean and free from flux and all contaminants. Use of no clean flux is not acceptable.

ZZ4
Assembly Note
These assemblies must comply with workmanship standards IPC-A-610 Class 2, unless otherwise specified.

ZZ5
Assembly Note
Clip off KEY pin 9 of J1 connector header

Orderable: TMDSCNCD280039C	Designed for: Public Release	Mod. Date: 7/28/2022
TID #: N/A	Project Title: F28003x controlCARD	
Number: MCU100	Rev: B	Sheet Title:
SVN Rev: Version control disabled	Assembly Variant: 001	Sheet: 8 of 8
Drawn By: Cody Watkins	File: MCU100B_Hardware.SchDoc	Size: B
Engineer: Cody Watkins	Contact: http://www.ti.com/support	



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