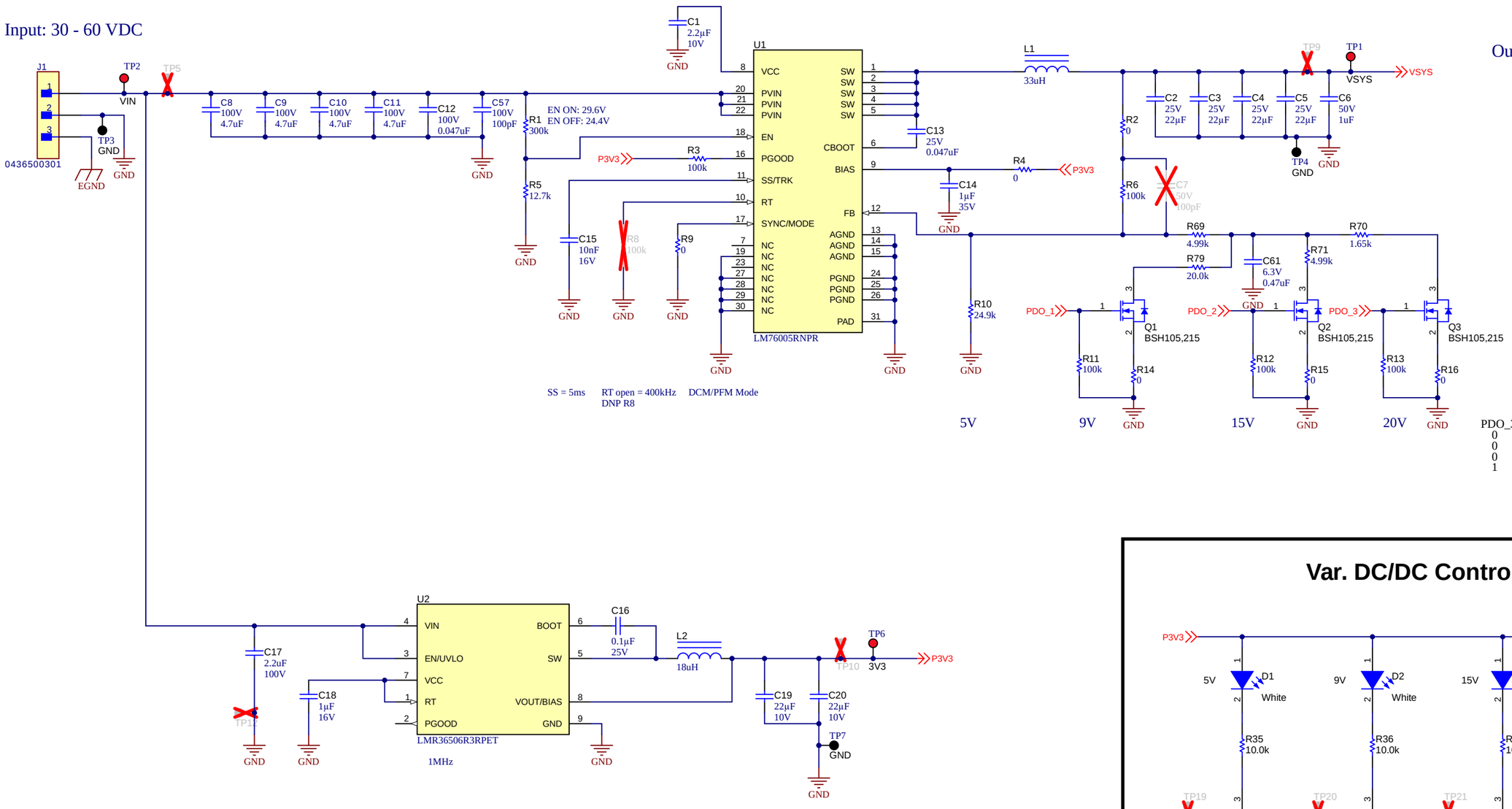
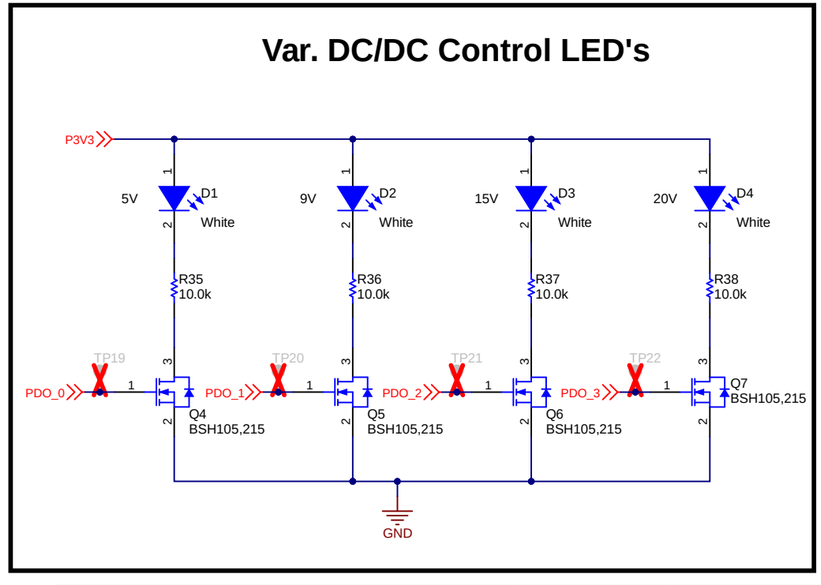
Assembly notes:
1. Parts with designators >100 are added externally to the board
2. The VBUS1 trace under U4 needs to be cut and tied to VBUS2

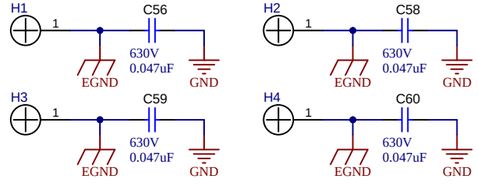
Input: 30 - 60 VDC

Output: 20V / 3A
15V / 3A
9V / 3A
5V / 3A



PDO_3	PDO_2	PDO_1	Output Voltage
0	0	0	5V
0	0	1	9V
0	1	0	15V
1	0	0	20V





CE Mark

LOGO1
DANGER HIGH VOLTAGE

Logo2
CAUTION HOT SURFACE

LBL1
PCB Label
THT-14-423-10
Size: 0.65" x 0.20 "

PCB Number: PMP23300
PCB Rev: B

PCB LOGO
WEEE logo

PCB LOGO
Texas Instruments

PCB LOGO
FCC disclaimer

Orderable: ChangeMe in variant		Designed for: Public Release	Mod. Date: 12/16/2022
TID #: N/A		Project Title: 60W DC-DC USB-C Adapter	
Number: PMP23300	Rev: B	Sheet Title:	
SVN Rev: Not in version control		Assembly Variant: 001	Sheet: 1 of 4
Drawn By:		File: PMP23300_DC-DC_RevB.SchDoc	Size: B
Engineer: B Genereaux		Contact: http://www.ti.com/support	

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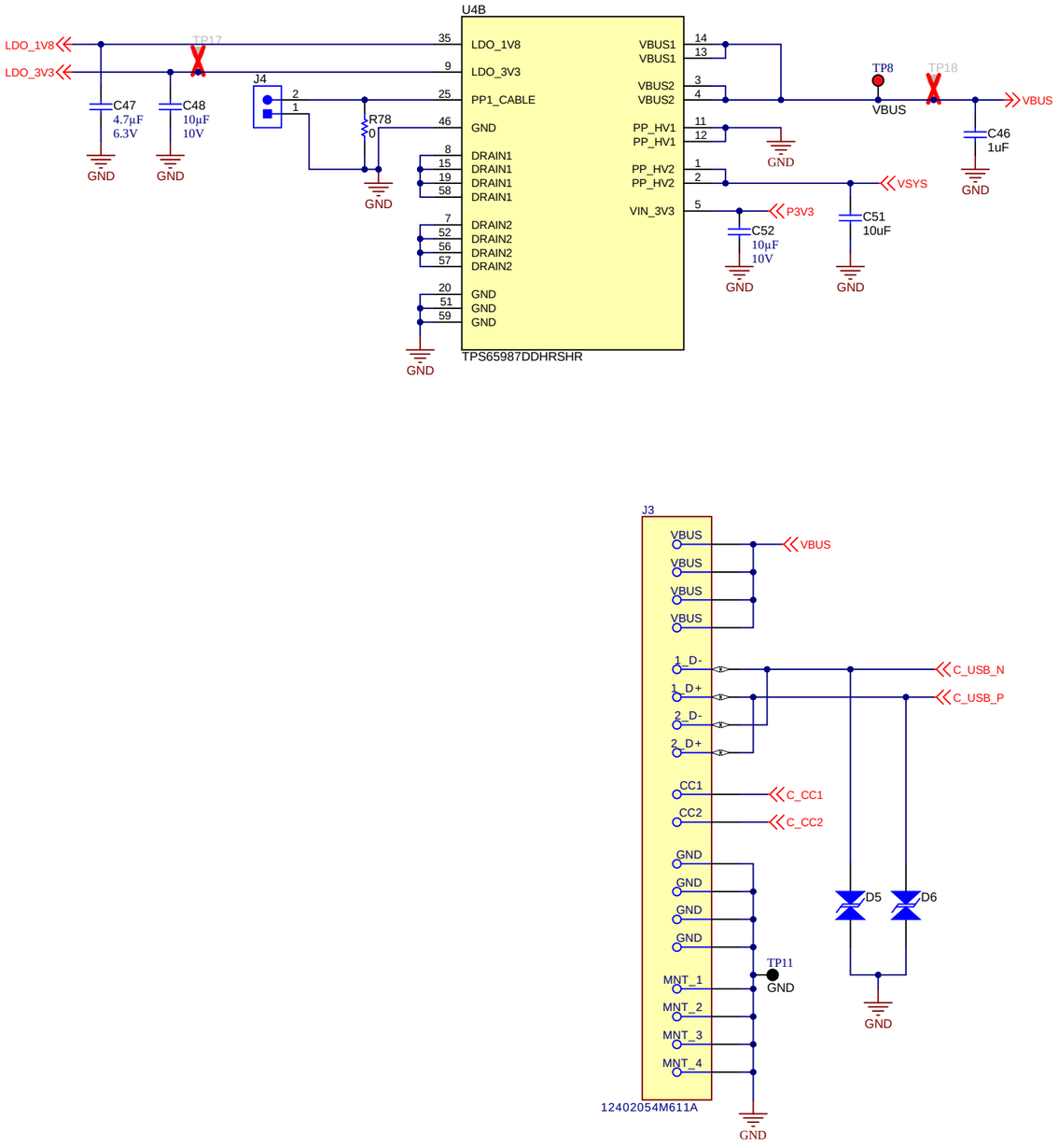
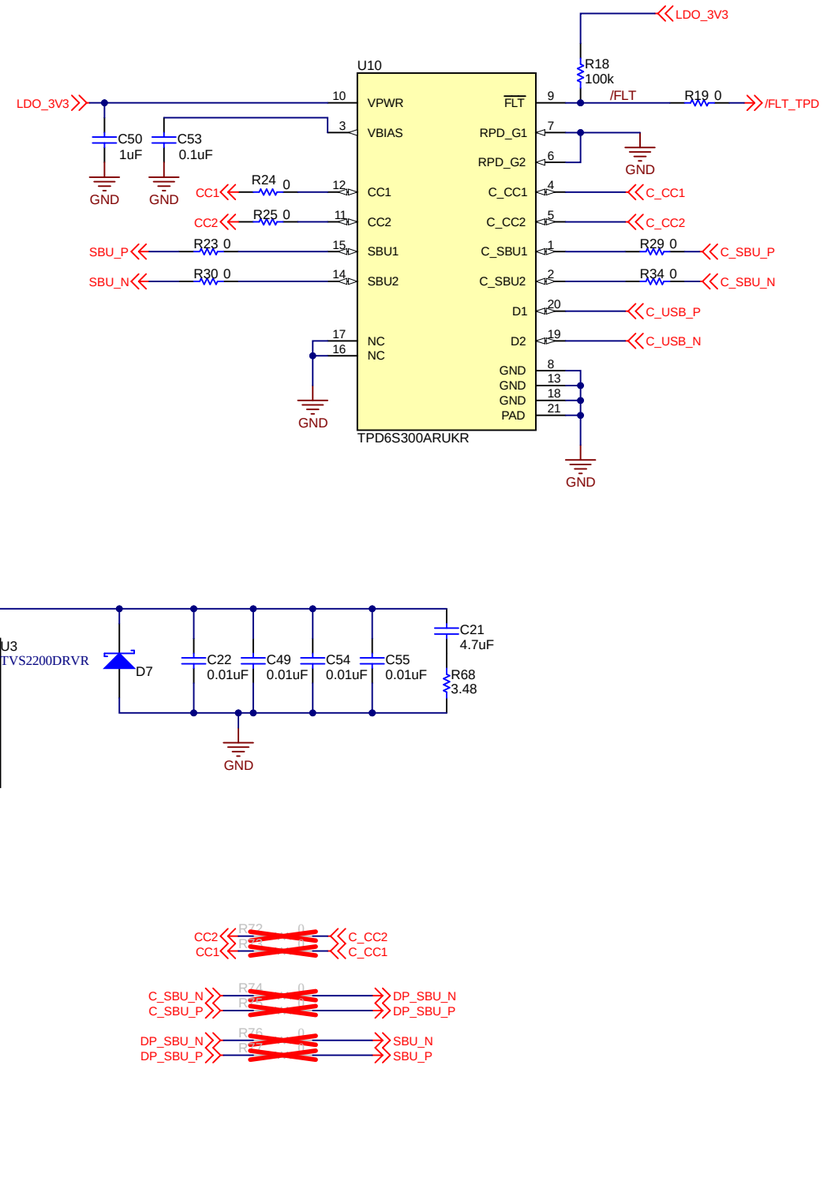
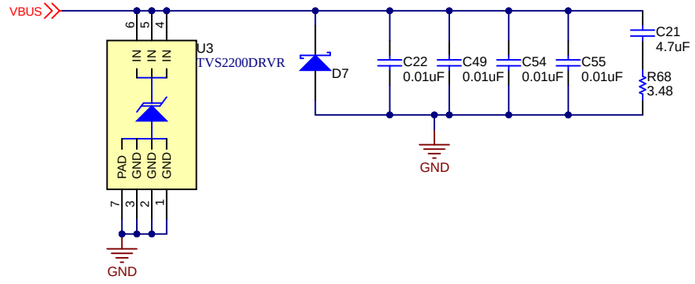
USB PD Power Path



Proctection Circuit





Orderable: ChangeMe in variant		Designed for: Public Release	Mod. Date: 12/16/2022
TID #: N/A		Project Title: 60W DC-DC USB-C Adapter	
Number: PMP23300	Rev: B	Sheet Title:	
SVN Rev: Not in version control		Assembly Variant: 001	Sheet: 2 of 4
Drawn By:		File: PMP23300_PD_Power_RevB.SchDoc	Size: B
Engineer: B Genereaux		Contact: http://www.ti.com/support	

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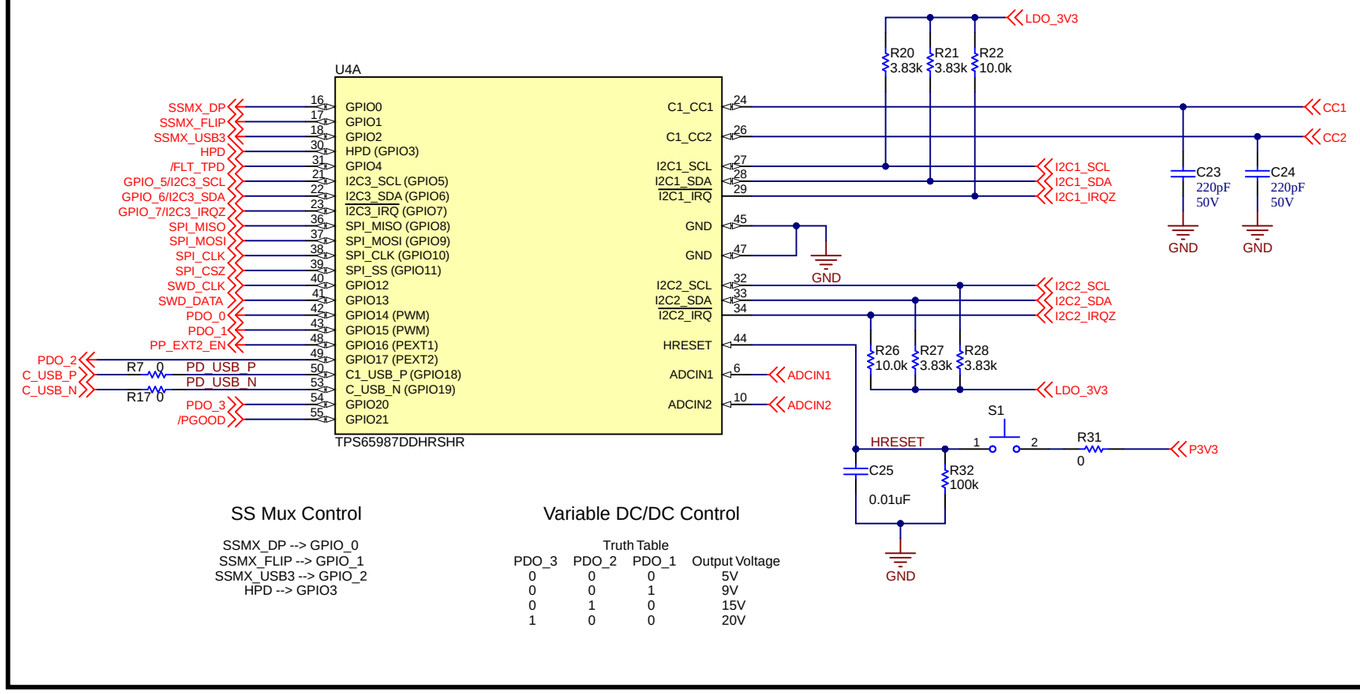
USB PD Controller



SS Mux Control

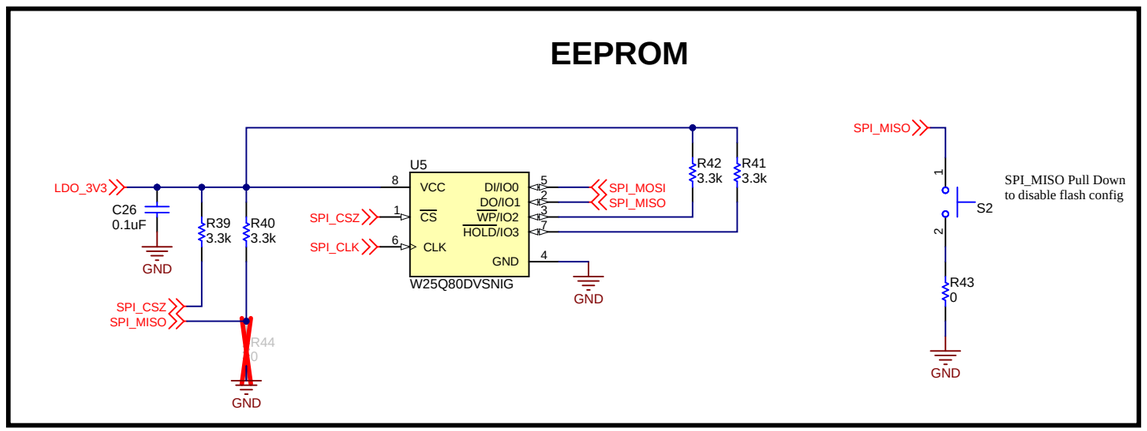
SSMX_DP --> GPIO_0
SSMX_FLIP --> GPIO_1
SSMX_USB3 --> GPIO_2
HPD --> GPIO3

Variable DC/DC Control

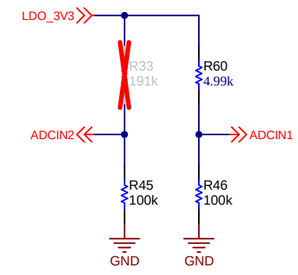
Truth Table

PDO_3	PDO_2	PDO_1	Output Voltage
0	0	0	5V
0	0	1	9V
0	1	0	15V
1	0	0	20V

EEPROM



ADCIN1:2 Resistor Divider Setting



Orderable: ChangeMe in variant	Designed for: Public Release	Mod. Date: 5/30/2023
TID #: N/A	Project Title: 60W DC-DC USB-C Adapter	
Number: PMP23300 Rev: B	Sheet Title:	
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 3 of 4
Drawn By:	File: PMP23300_PD_Control_RevB.SchDoc	Size: B
Engineer: B Genereaux	Contact: http://www.ti.com/support	

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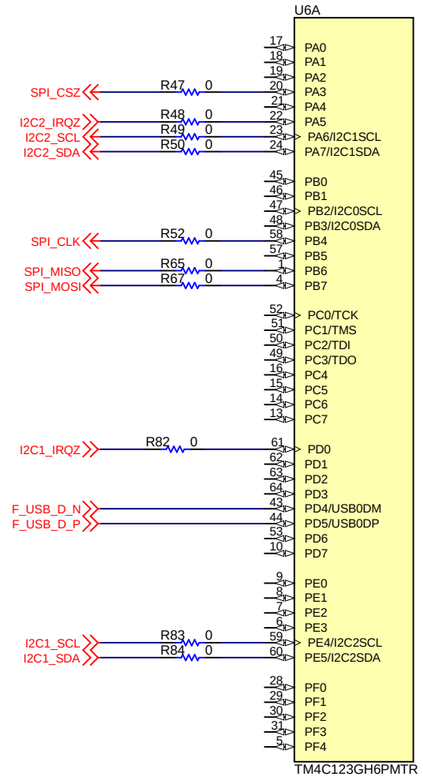
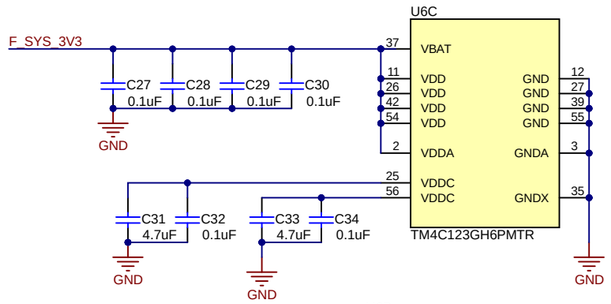
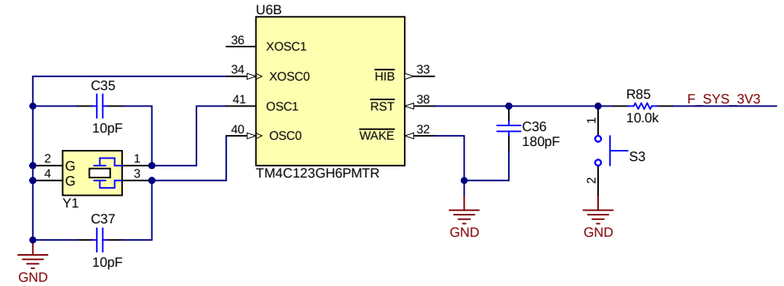
TIVA Chip

The TIVA, Aardvark Connector, and Micro-b portions of the design are optional provided there is an alternate way to program the SPI Flash(U5).
The TIVA and Micro-b connector allow you to directly program the PD controller SPI Flash on the board using the TPS6598X GUI, and provides additional debug and accessability features that are useful during inital design.
The Aardvark Connector provides similar functionality, primarily the ability to program the SPI flash, and I2C access to the PD controller to read/write to registers.

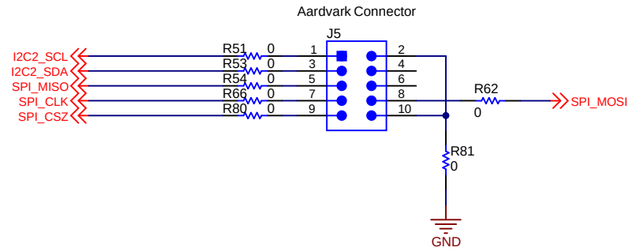
The only required production feature is the ability to program the PD controller SPI Flash(U5). If you have an alternate way to program it, you can remove the TIVA portion of the design and the Aardvark connector. Typically, the SPI Flash will be flashed during board assembly.





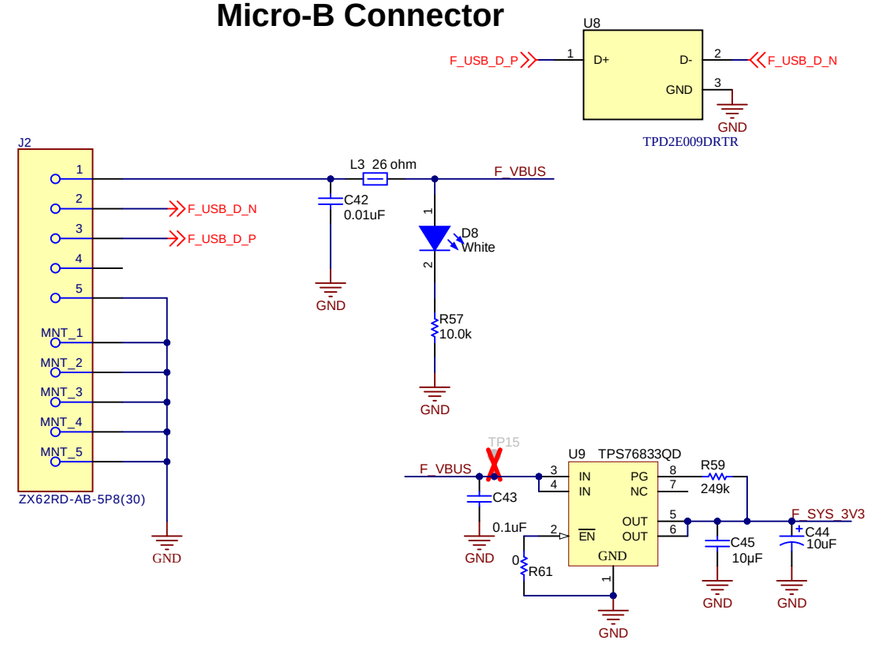


Aardvark Connector



The Micro-B connector is optional, and is only used with the TIVA. Read the comments in the TIVA section.

Micro-B Connector



Orderable: ChangeMe in variant		Designed for: Public Release	Mod. Date: 6/2/2023
TID #: N/A		Project Title: 60W DC-DC USB-C Adapter	
Number: PMP23300	Rev: B	Sheet Title:	
SVN Rev: Not in version control		Assembly Variant: 001	Sheet: 4 of 4
Drawn By:		File: PMP23300_TIVA_RevB.SchDoc	Size: B
Engineer: B Genereaux		Contact: http://www.ti.com/support	

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