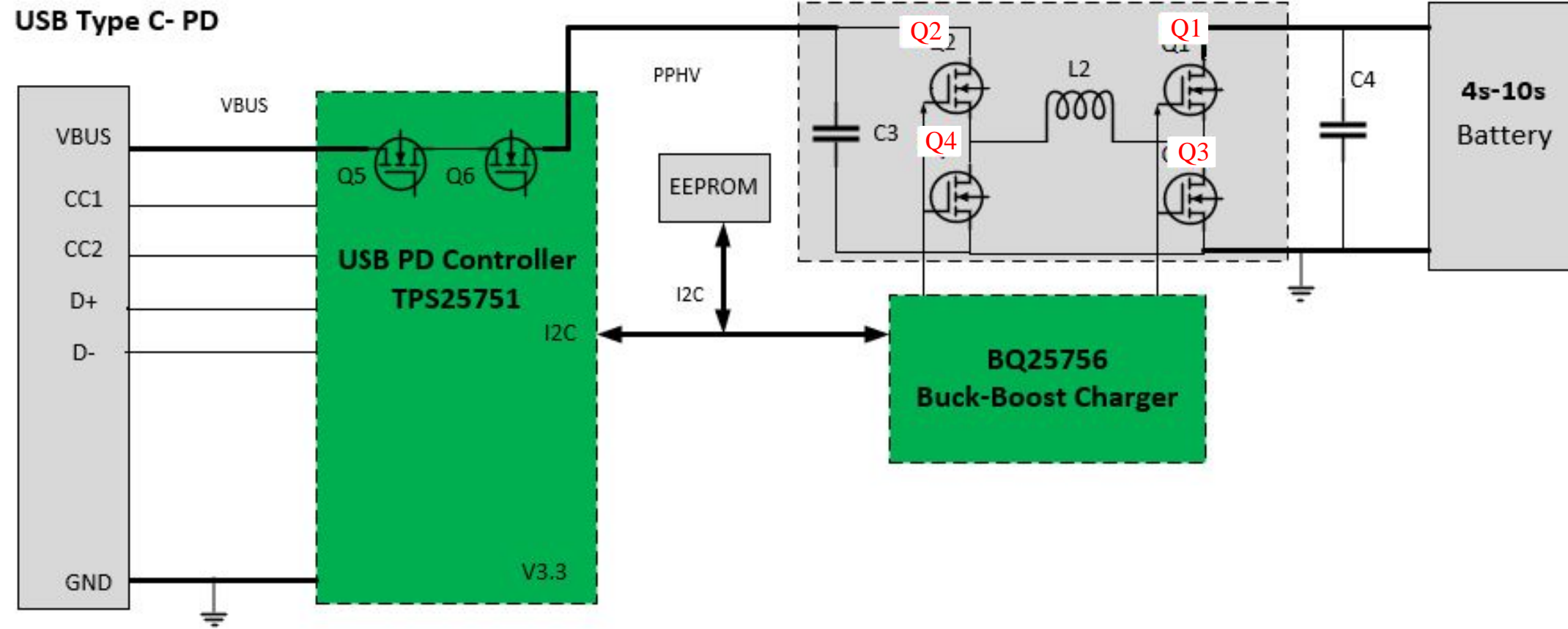


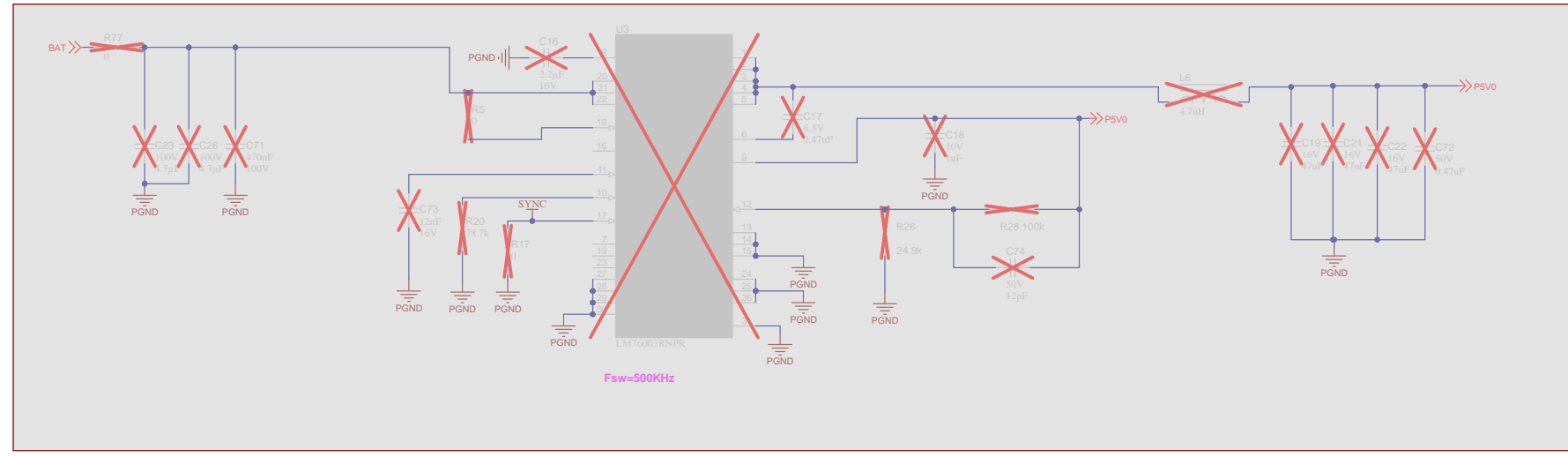
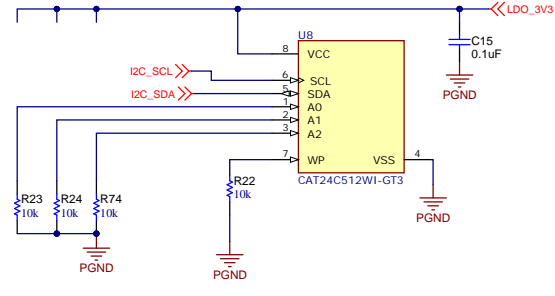
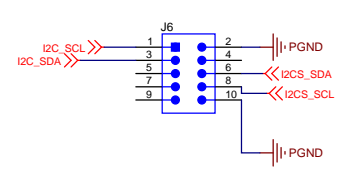
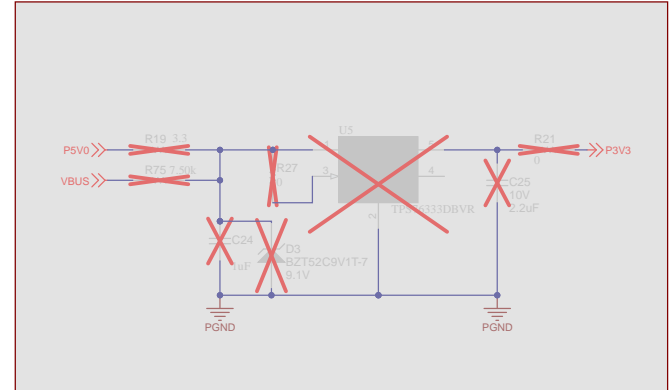
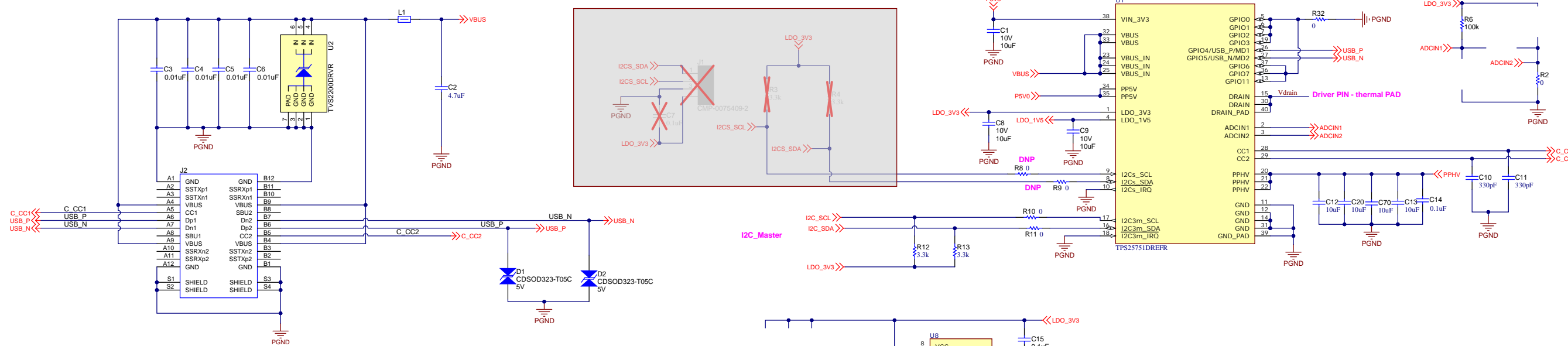
USB 5V/9V/15V/20V
BAT: 4S-10S
Voltage: Max 42V
Pmax=100W

Revision History				
Rev	ECN #	Approved Date	Approved by	Notes
N/A	N/A	N/A	N/A	N/A



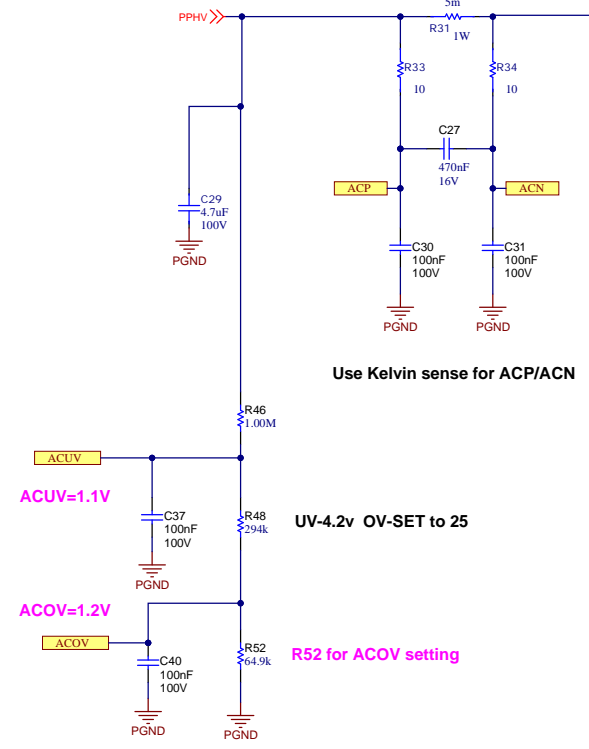
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Orderable: ChangeMe in variant	Designed for: Public Release	Mod. Date: 8/8/2023	
TID #: PMP41083	Project Title: 100W USB Type C		
Number: PMP41083	Rev: E1	Sheet Title:	
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 1 of 4	
Drawn By:	File: 100W SBD SchDoc	Size: A2	http://www.ti.com
Engineer: Max Wang	Contact: http://www.ti.com/support		© Texas Instruments, 2018



Note: for shaded part, it can be removed

From USB Port: 5-20V



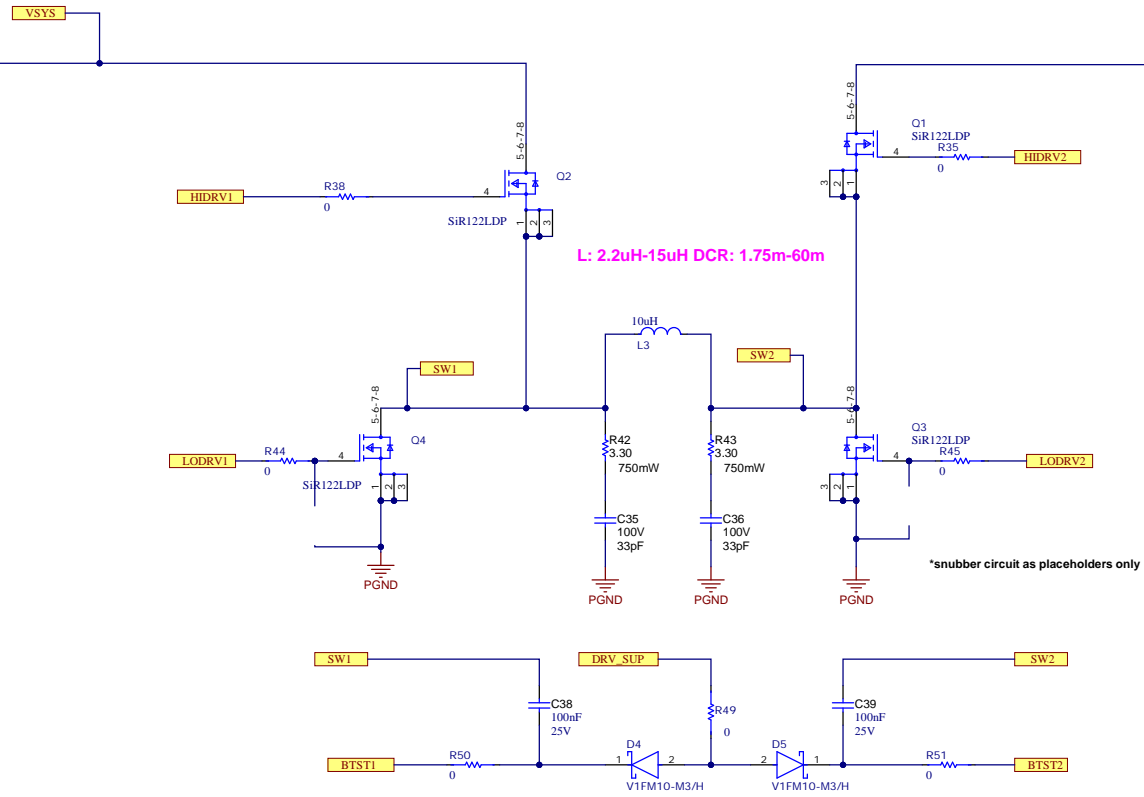
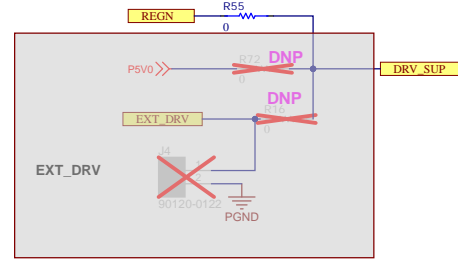
Use Kelvin sense for ACP/ACN

ACUV=1.1V

ACOV=1.2V

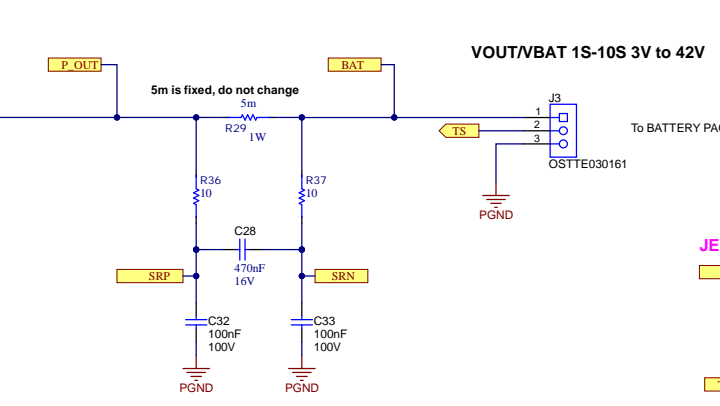
UV-4.2v OV-SET to 25

R52 for ACOV setting



L: 2.2uH-15uH DCR: 1.75m-60m

*snubber circuit as placeholders only



Use Kelvin sense for SRP/SRN

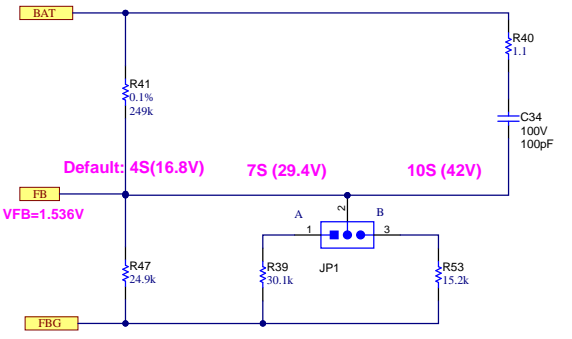
VOUT/BAT 1S-10S 3V to 42V

JEITA compliance

Place 10K resistor across Ts pin to normal Temp if NTC is not available here

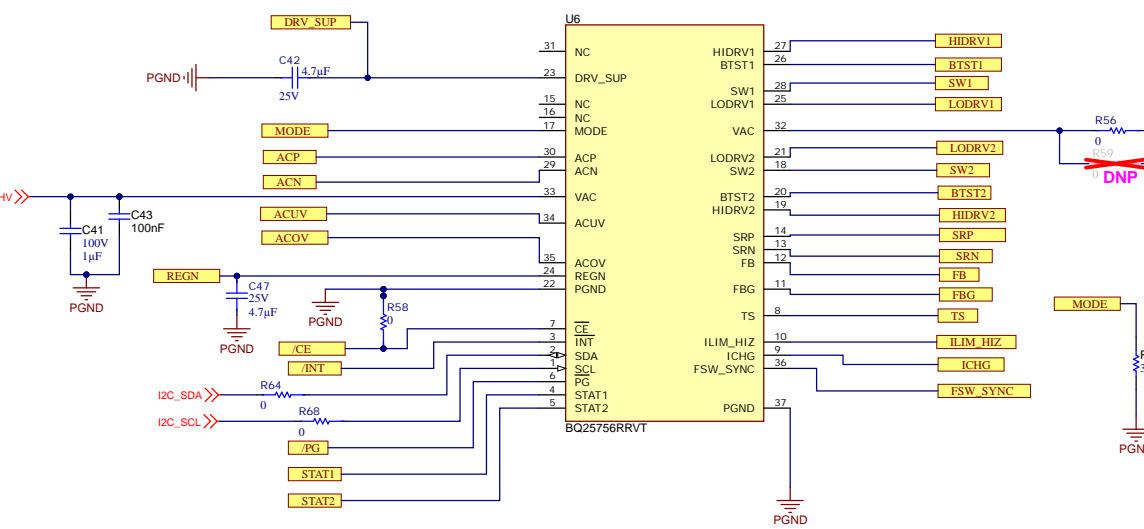
4S/7S/10S BAT Selection Table

	VBAT
Default	4S(16.8V)
JP_A	7S(29.4V)
JP_B	10S(42V)



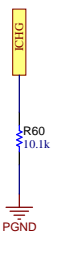
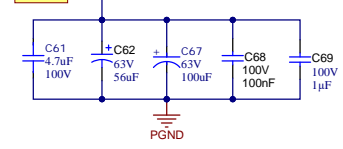
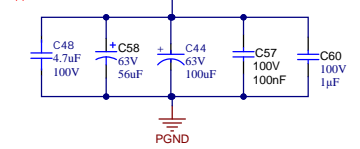
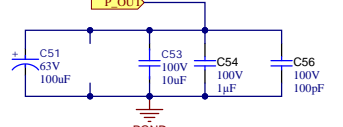
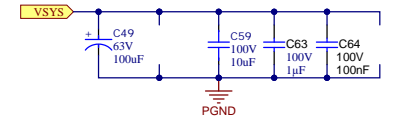
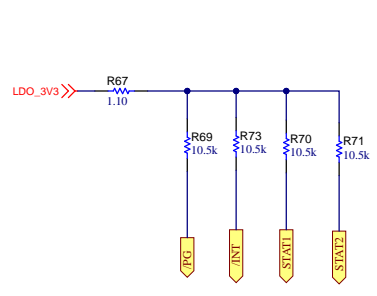
Default: 4S(16.8V) 7S (29.4V) 10S (42V)

VFB=1.536V



Set fsw to 300KHz

ILIM=KLIM/RLIM
KLIM=50A*Kohm for 2m Input Current Sense
KLIM=20A*Kohm for 5m Input Current Sense



ICHG=KICHG/RCHG
KICHG=50A*Kohm

Note: for shaded part, it can be removed

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1 2 3 4 5 6 7 8

A

A

B

B

C

C

D

D

PCB Number: PMP41083
PCB Rev: E1

PCB
LOGO
Texas Instruments

PCB
LOGO
FCC disclaimer

Variant/Label Table	
Variant	Label Text
001	ChangeMe!
002	ChangeMe!

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.

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Orderable: ChangeMe in variant	Designed for: Public Release	Mod. Date: 6/12/2023	
TID #: PMP41083	Project Title: 100W USB Type C		
Number: PMP41083 Rev: E1	Sheet Title: Assembly Variant: 001		
SVN Rev: Not in version control	File: 100W USB Type C Charger_Hardware.SchDoc	Sheet: 4 of 4	
Drawn By: Max Wang	Contact: http://www.ti.com/support		http://www.ti.com
			© Texas Instruments, 2018

1 2 3 4 5 6 7 8

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