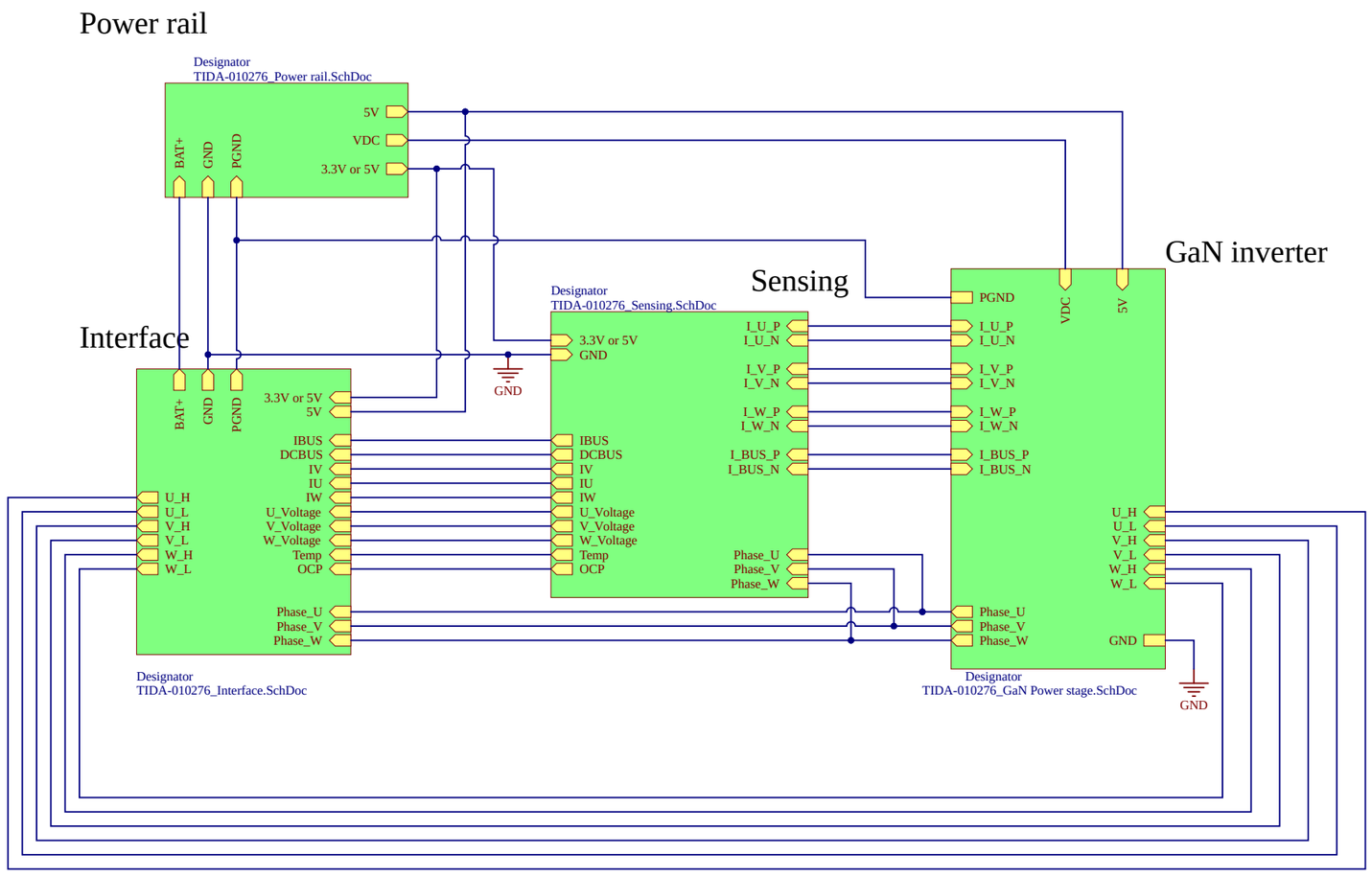
Revision History				
Rev	ECN #	Approved Date	Approved by	Notes
N/A	N/A	N/A	N/A	N/A



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TID #: TIDA-010276	Project Title: TIDA-010276	
Number: TIDA-010276 Rev: E1	Sheet Title:	
SVN Rev: Not in version control	Assembly Variant: TIDA-010276	Sheet: 1 of 6
Drawn By: Jenson Fang	File: TIDA-010276 Main.SchDoc	Size: B
Engineer: Jenson Fang	Contact: http://www.ti.com/support	

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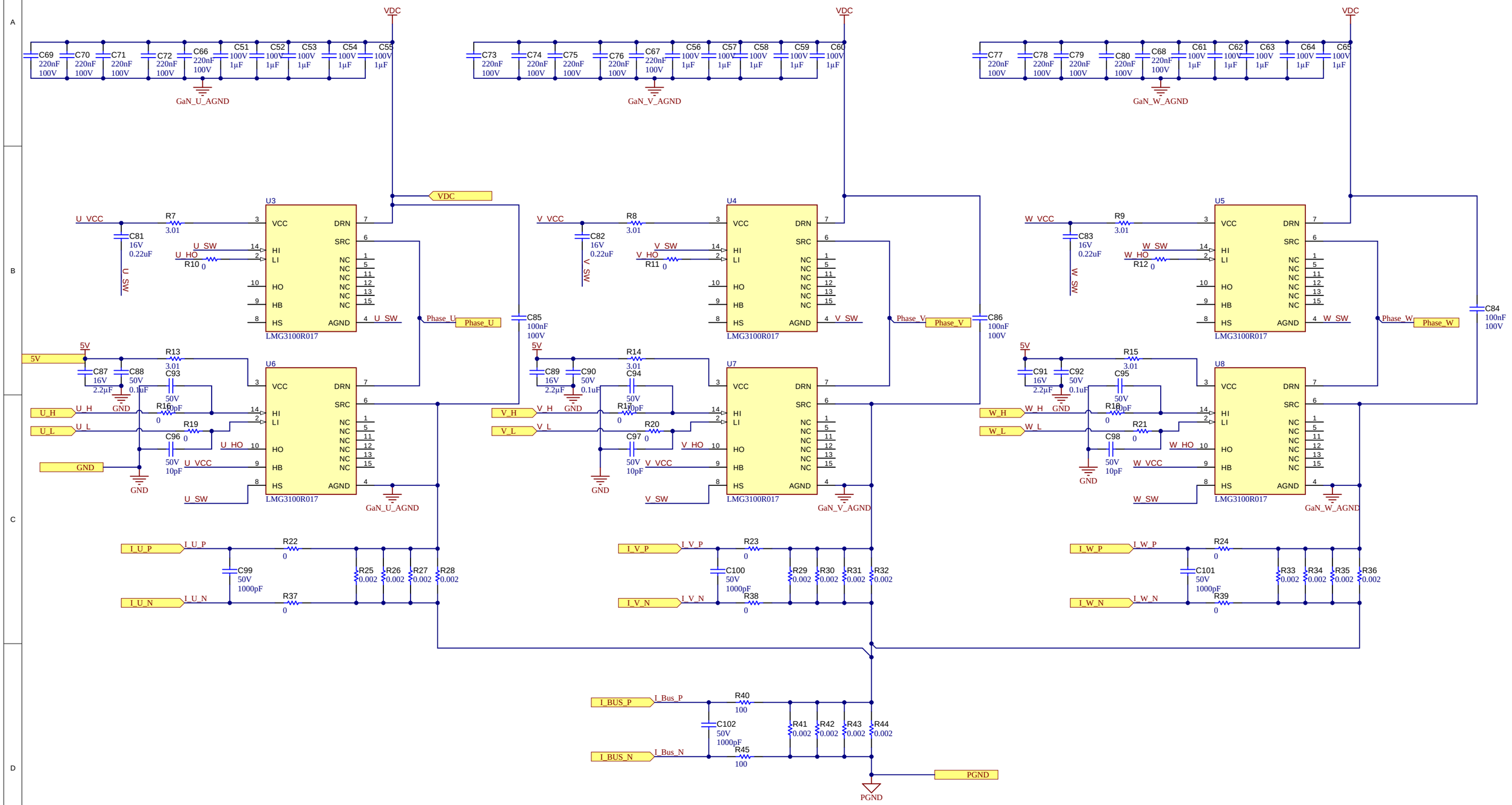

Orderable: N/A	Designed for: Public Release	Mod. Date: 12/5/2024	
TID #: TIDA-010276	Project Title: TIDA-010276		
Number: TIDA-010276 Rev: E1	Sheet Title:		
SVN Rev: Not in version control	Assembly Variant: TIDA-010276	Sheet: 2 of 6	
Drawn By: Jenson Fang	File: TIDA-010276_GaN power stage.SchDoc	Size: B	
Engineer: Jenson Fang	Contact: http://www.ti.com/support		

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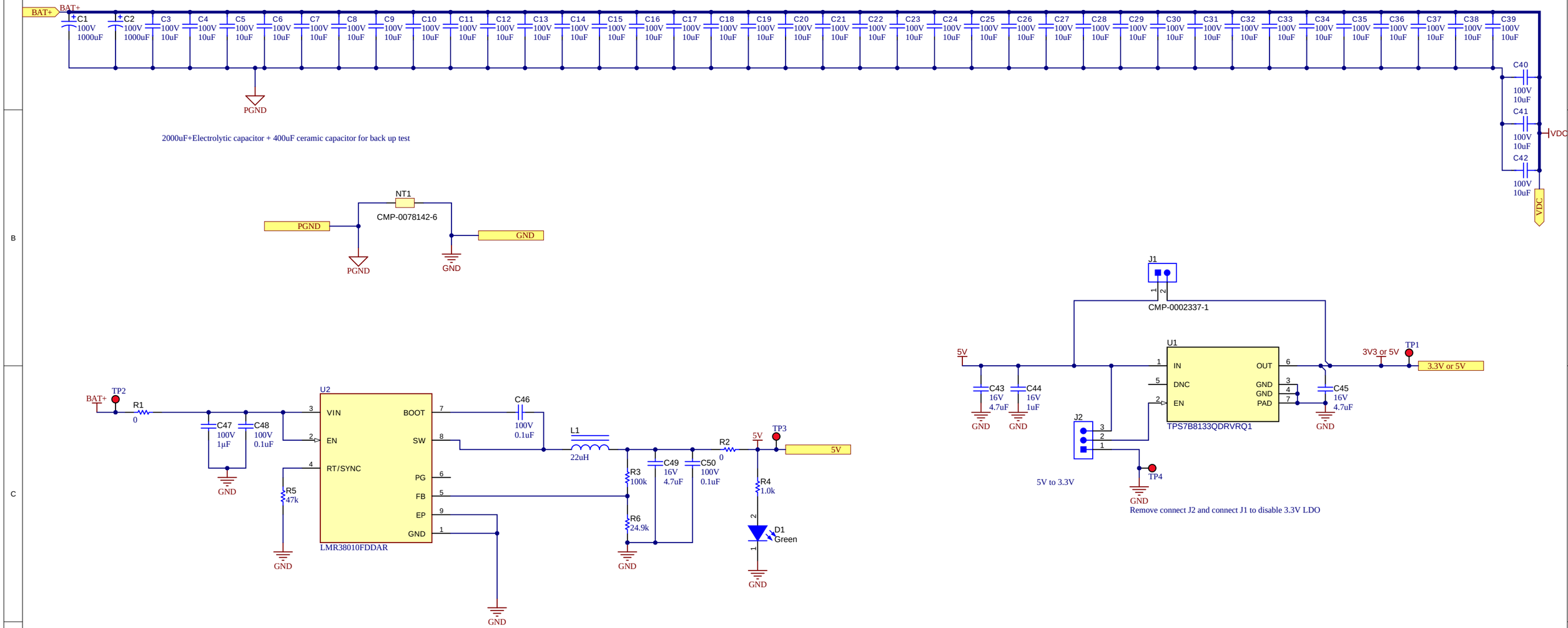

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Orderable: N/A	Designed for: Public Release	Mod. Date: 1/22/2025
TID #: TIDA-010276	Project Title: TIDA-010276	
Number: TIDA-010276 Rev: E1	Sheet Title:	
SVN Rev: Not in version control	Assembly Variant: TIDA-010276	Sheet: 3 of 6
Drawn By: Jenson Fang	File: TIDA-010276_Power rail.SchDoc	Size: B
Engineer: Jenson Fang	Contact: http://www.ti.com/support	

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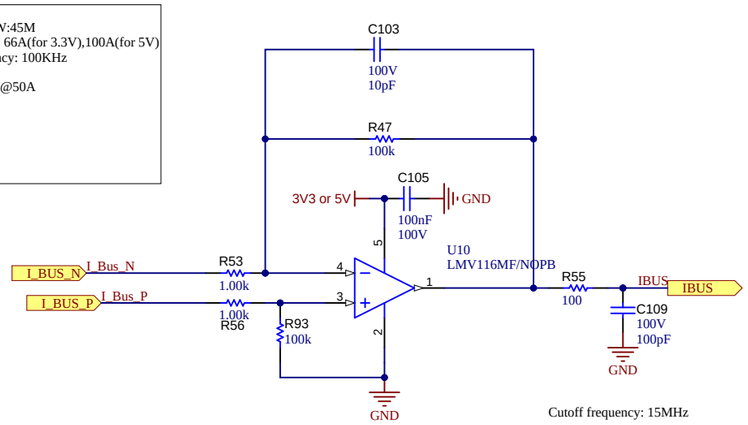
Bus current sensing

Shunt: 0.5mΩ
Gain:100,GBW:45M
Current range: 66A(for 3.3V),100A(for 5V)
Cutoff frequency: 100KHz

Power: 1.25W@50A

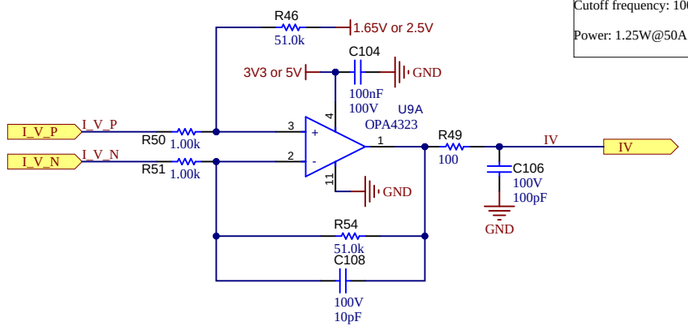


Cutoff frequency: 15MHz

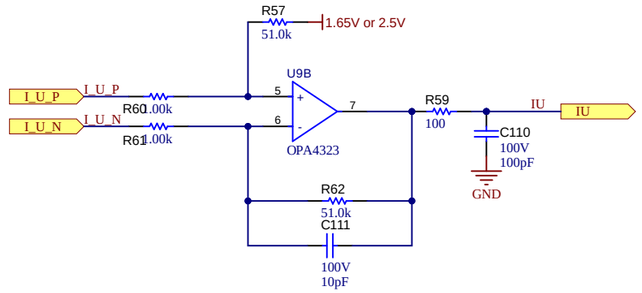
Phase Current sensing

Shunt: 0.5mΩ
Gain:51
Current range:
±64.7A(for 3.3V,0.5mohm),
±98A(for 5V,0.5mohm),
Cutoff frequency: 100KHz

Power: 1.25W@50A

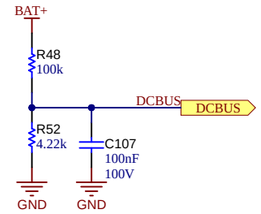


If you need to achieve 100A peak on a 3.3V MCU, change Gain to 33.

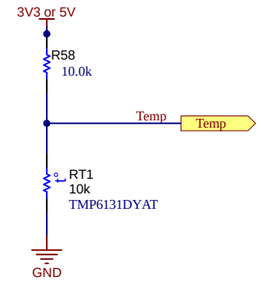


Bus voltage sensing

80V (abs max) scaled to 3.3V
80V->3.23V, 48V->1.94V
,36V ->1.45V
Cutoff frequency: 397Hz

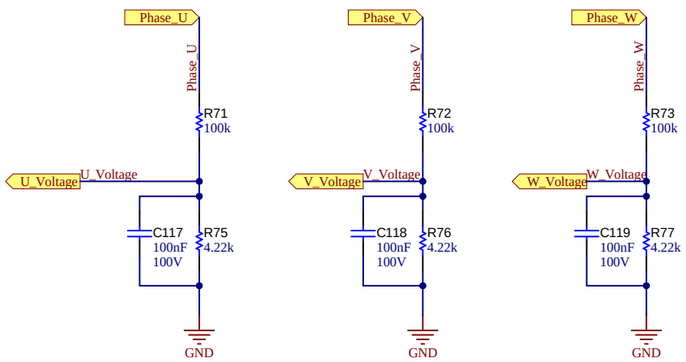


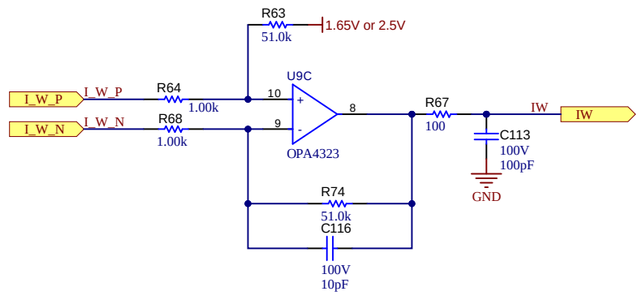
TMP sensing

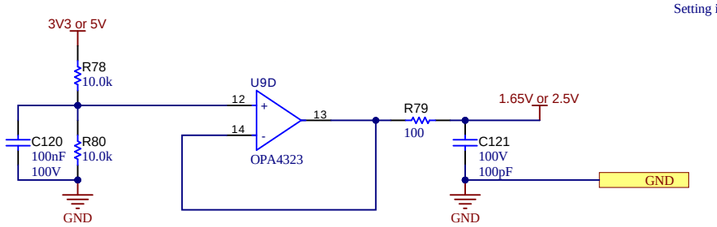


Phase Voltage sensing

80V (abs max) scaled to 3.3V
80V->3.23V, 48V->1.94V ,36V

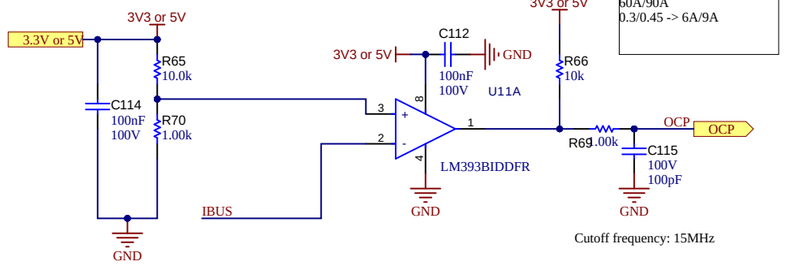






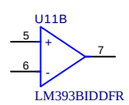
Overcurrent Protection

3V/4.5V trigger ->+
60A/90A
0.3/0.45 -> 6A/9A



Cutoff frequency: 15MHz

Setting in 6A/9A OCP only for functional check, Please set to 60A if the OCP function is normal



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TID #: TIDA-010276	Project Title: TIDA-010276	
Number: TIDA-010276 Rev: E1	Sheet Title:	
SVN Rev: Not in version control	Assembly Variant: TIDA-010276	Sheet: 4 of 6
Drawn By: Jenson Fang	File: TIDA-010276_Sensing.SchDoc	Size: B
Engineer: Jenson Fang	Contact: http://www.ti.com/support	

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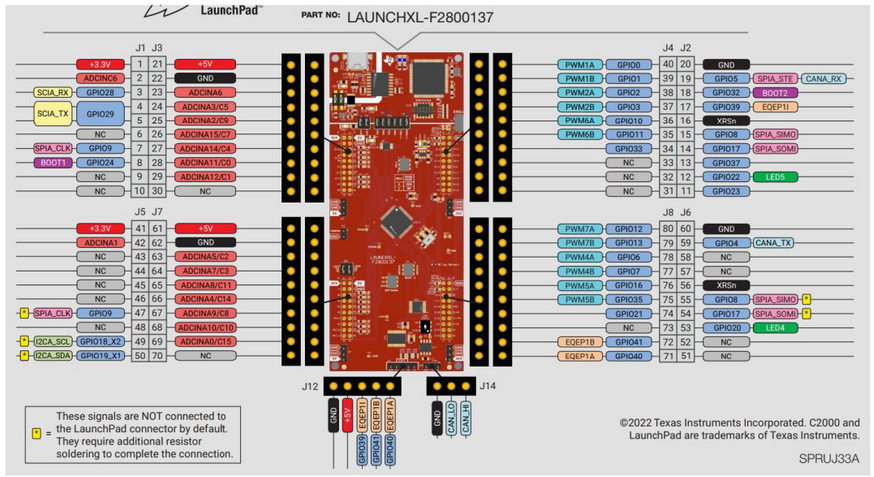

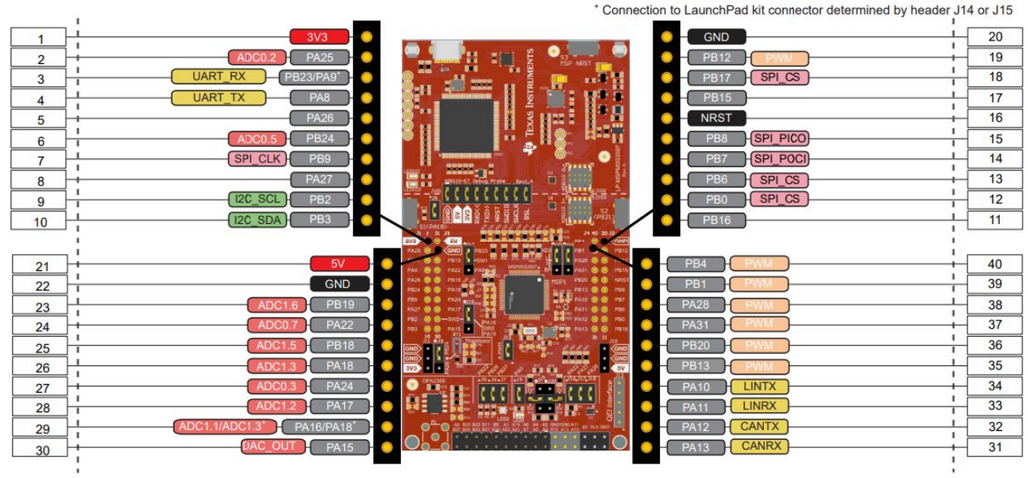

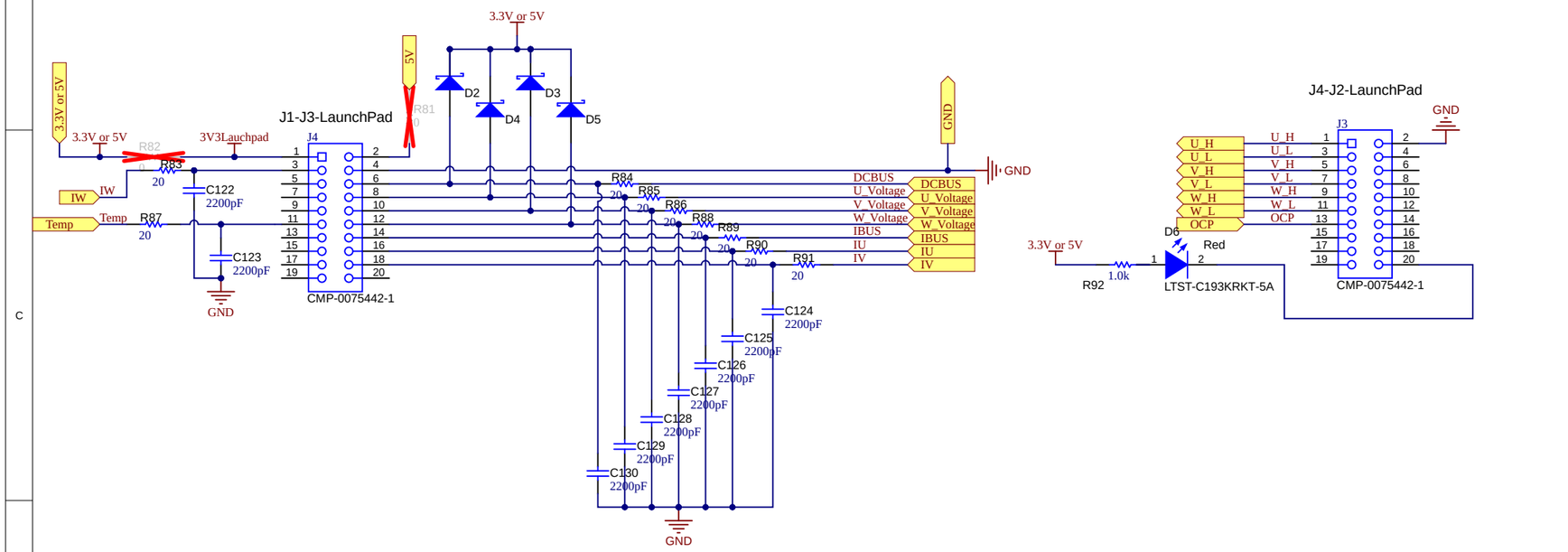

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Orderable: N/A	Designed for: Public Release	Mod. Date: 4/11/2025
TID #: TIDA-010276	Project Title: TIDA-010276	
Number: TIDA-010276 Rev: E1	Sheet Title:	
SVN Rev: Not in version control	Assembly Variant: TIDA-010276	Sheet: 5 of 6
Drawn By: Jenson Fang	File: TIDA-010276_Interface.SchDoc	Size: B
Engineer: Jenson Fang	Contact: http://www.ti.com/support	

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MP6 970130365

MP7 970130365

MP8 970130365

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FID1

FID2

FID3

PCB Number: TIDA-010276
PCB Rev: E1

PCB LOGO
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CE Mark

PCB LOGO
FCC disclaimer

PCB LOGO
WEEE logo

CAUTION HOT SURFACE

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

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Orderable: N/A	Designed for: Public Release	Mod. Date: 4/11/2025
TID #: TIDA-010276	Project Title: TIDA-010276	
Number: TIDA-010276 Rev: E1	Sheet Title:	
SVN Rev: Not in version control	Assembly Variant: TIDA-010276	Sheet: 6 of 6
Drawn By: Jenson Fang	File: TIDA-010276_Hardware.SchDoc	Size: B
Engineer: Jenson Fang	Contact: http://www.ti.com/support	

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