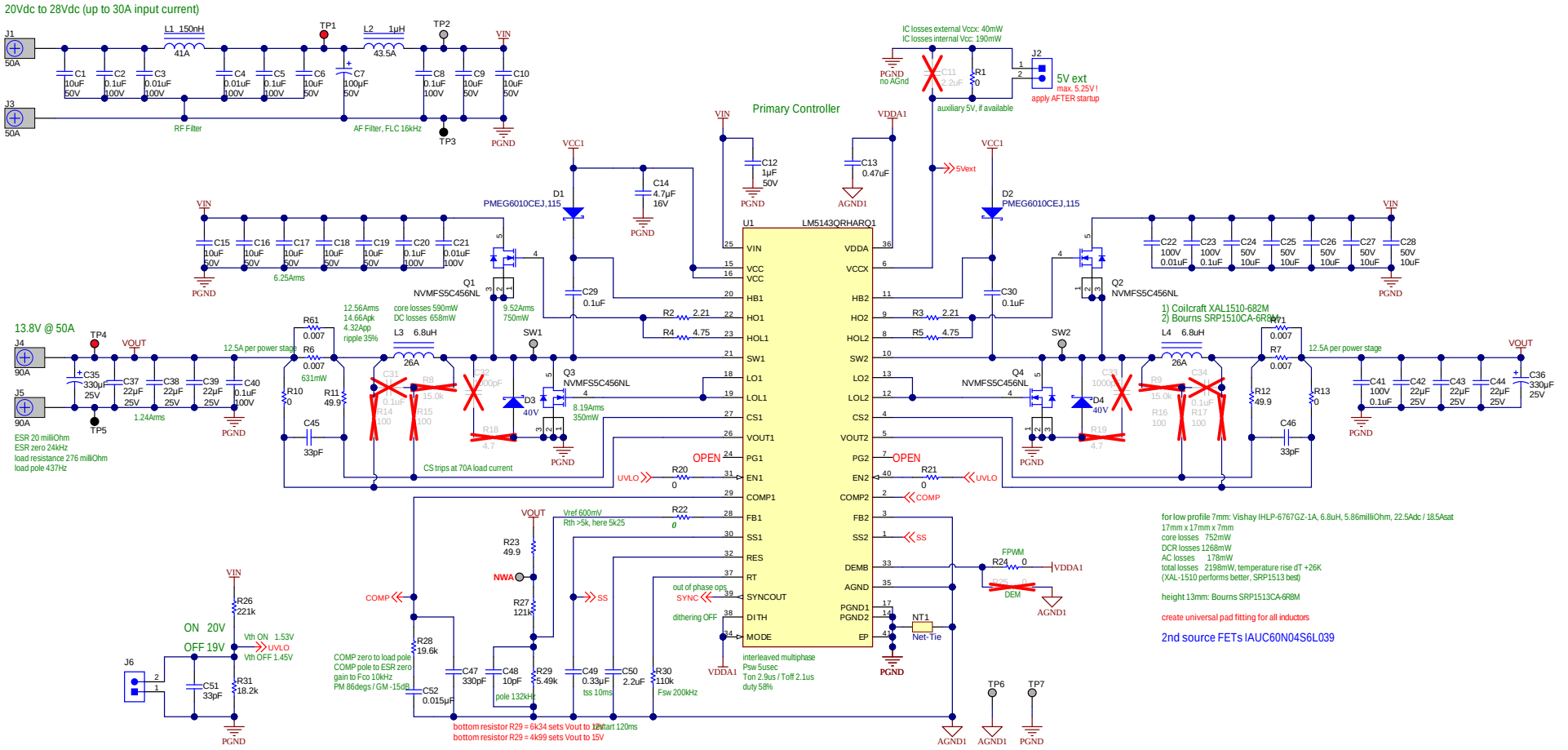

NOTES:

- both controller need similar setup regarding 5Vext and FPWM/DEM
- current sense - either use DCR sensing or use shunt sensing
- calculations done for 24Vin and 50Aout
- system efficiency appr. 98%, expect total losses 14W
- ripple stress on caps is lower due to ripple cancellation by duty close to 50% and interleaved operation 90degs
- R23 for test purposes only

RevB:

- adjusted gate drive to ONsemi FETs, HO=rise=2R21 / HOL=fall=4R75, results in 5V overshoot and -5V undershoot (HO=3R32=no overshoot, if needed, see APPENDIX TEST REPORT)

Orderable: LM5143-Q1-4PHEVM		Designed for: Public Release	Mod. Date: 11/11/2022
TID #: N/A		Project Title: LM5143 4-Phase Buck 690W	
Number: PMP31202	Rev: B	Sheet Title: LM5143 4-Phase Buck 690W	
SVN Rev: Not in version control		Assembly Variant: 001	Sheet: 1 of 2
Drawn By: B. Geck		File: PMP31202RevB-SH1.SchDoc	Size: B
Engineer: B. Geck		Contact: http://www.ti.com/support	

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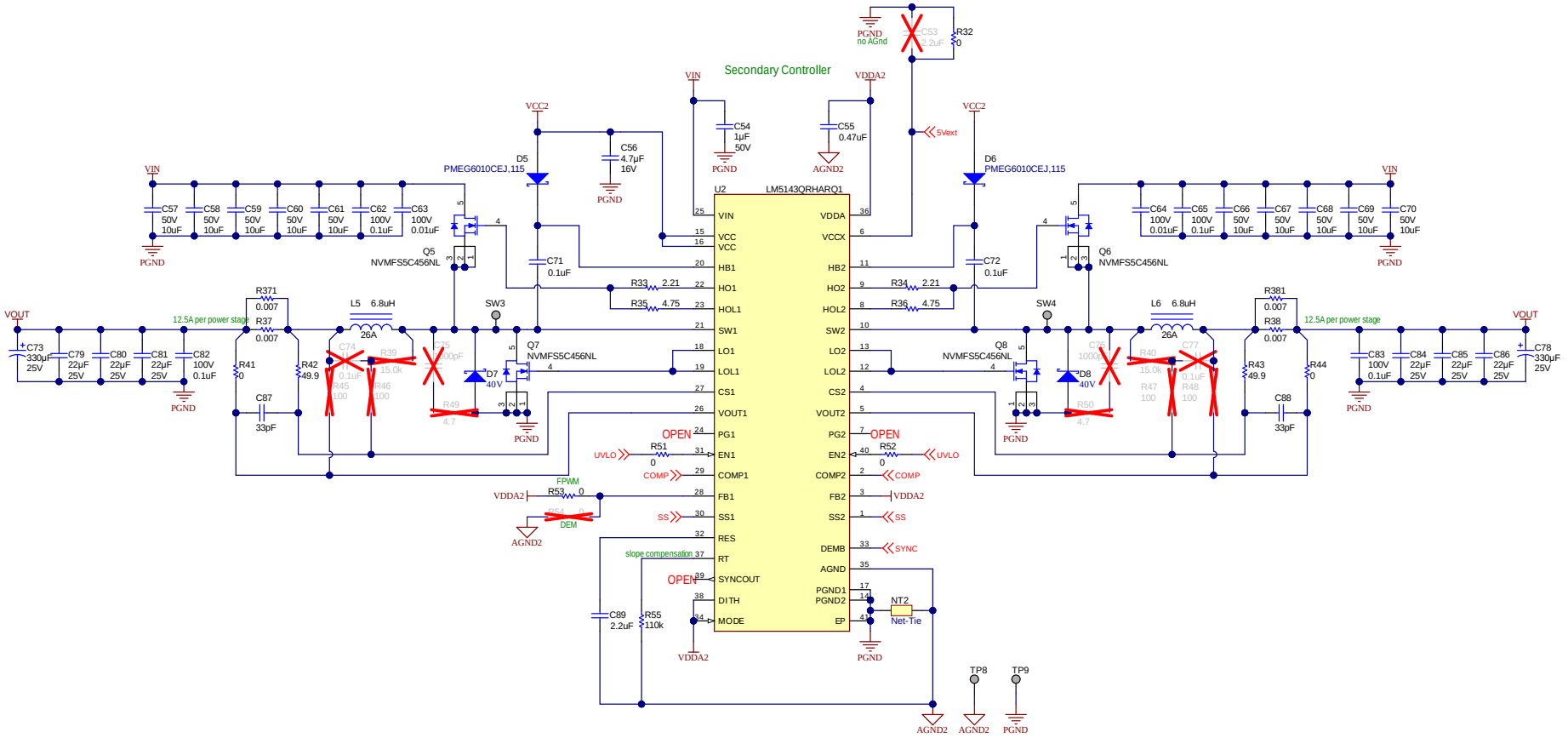

PCB approx. 150 mm × 125 mm, needs heat sink (Pv 14 W)

PCB Number: PMP31202
PCB Rev: A3

Orderable: LM5143-Q1-4PHEVM		Designed for: Public Release	Mod. Date: 11/11/2022
TID #: N/A		Project Title: LM5143 4-Phase Buck 690W	
Number: PMP31202	Rev: B	Sheet Title: LM5143 4-Phase Buck 690W	
SVN Rev: Not in version control		Assembly Variant: 001	Sheet: 2 of 2
Drawn By: B. Geck		File: PMP31202RevB-SH2.SchDoc	Size: B
Engineer: B. Geck		Contact: http://www.ti.com/support	

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