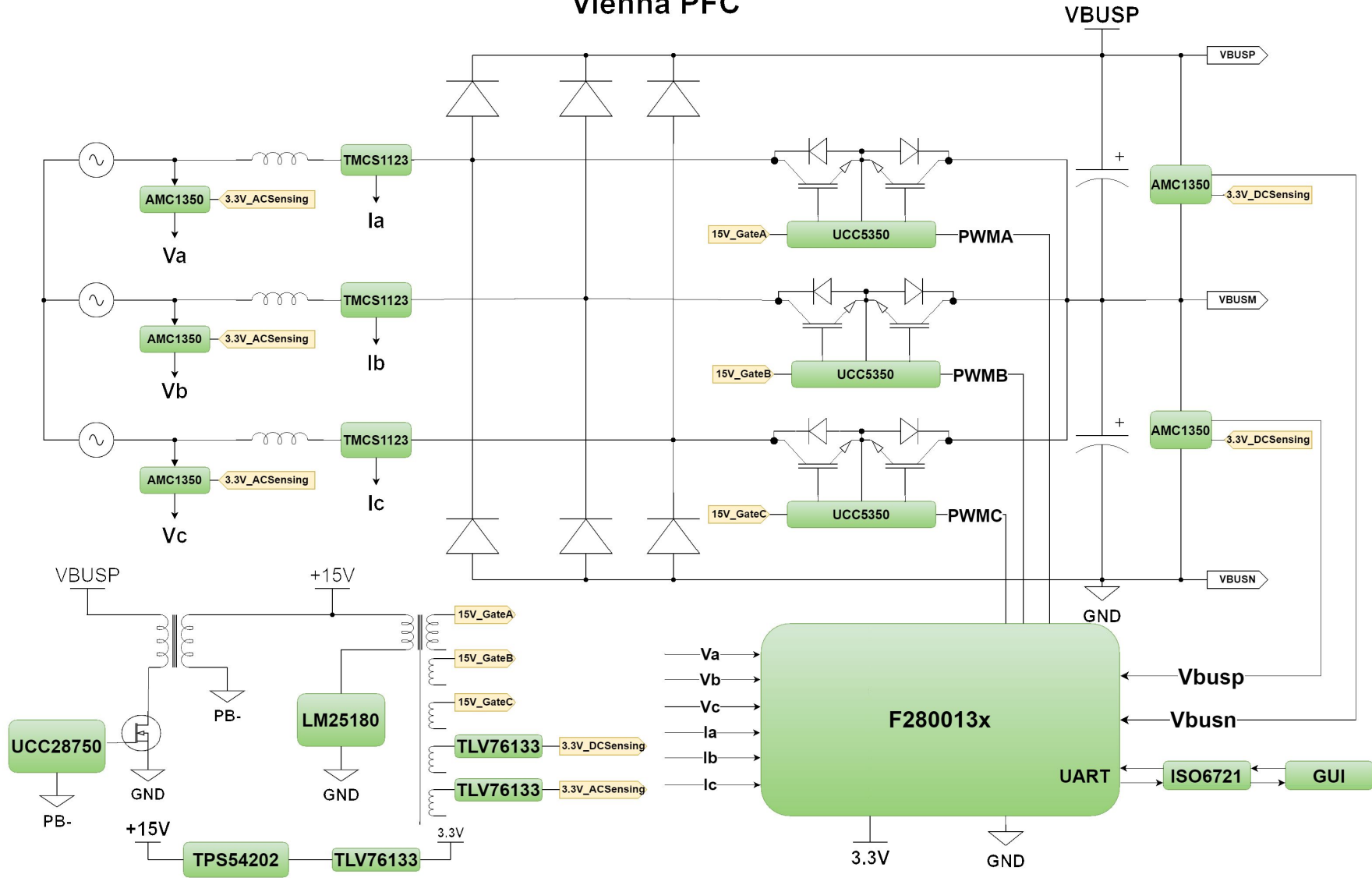


# Vienna PFC



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TID #: <a href="#">TIDA-010257</a>	Project Title: <a href="#">10kW Vienna PFC</a>	
Number: <a href="#">TIDA-010257</a>   Rev: <a href="#">B</a>	Sheet Title: <a href="#">Cover</a>	
SVN Rev: <a href="#">Not in version control</a>	Assembly Variant: <a href="#">001</a>	Sheet: <a href="#">1</a> of <a href="#">11</a>
Drawn By: <a href="#">Hely Zhang</a>	File: <a href="#">Cover_SchDoc</a>	Size: <a href="#">B</a>
Engineer: <a href="#">Hely Zhang</a>	Contact: <a href="#">http://www.ti.com/support</a>	

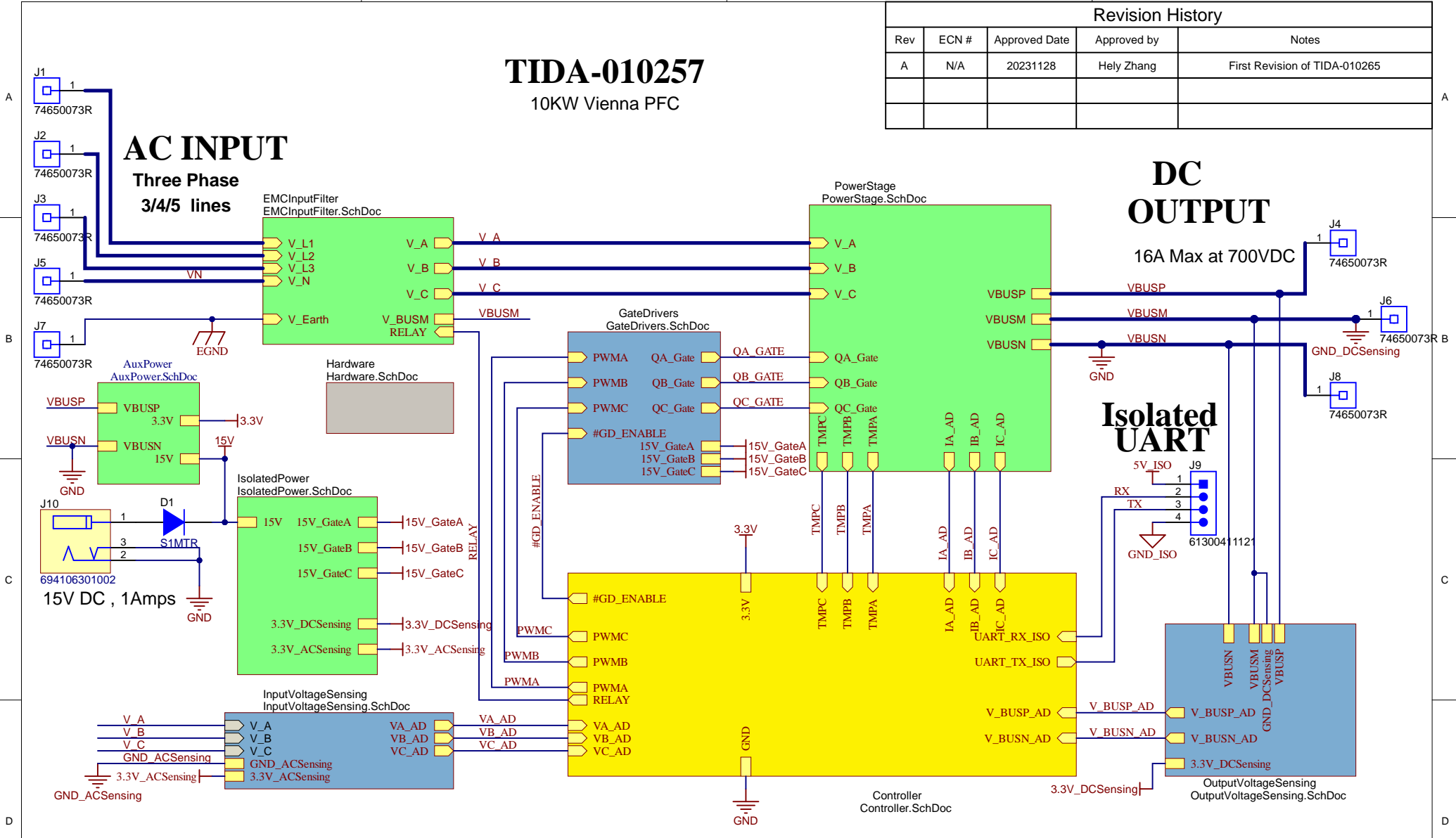


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# TIDA-010257

## 10KW Vienna PFC

Revision History				
Rev	ECN #	Approved Date	Approved by	Notes
A	N/A	20231128	Hely Zhang	First Revision of TIDA-010265

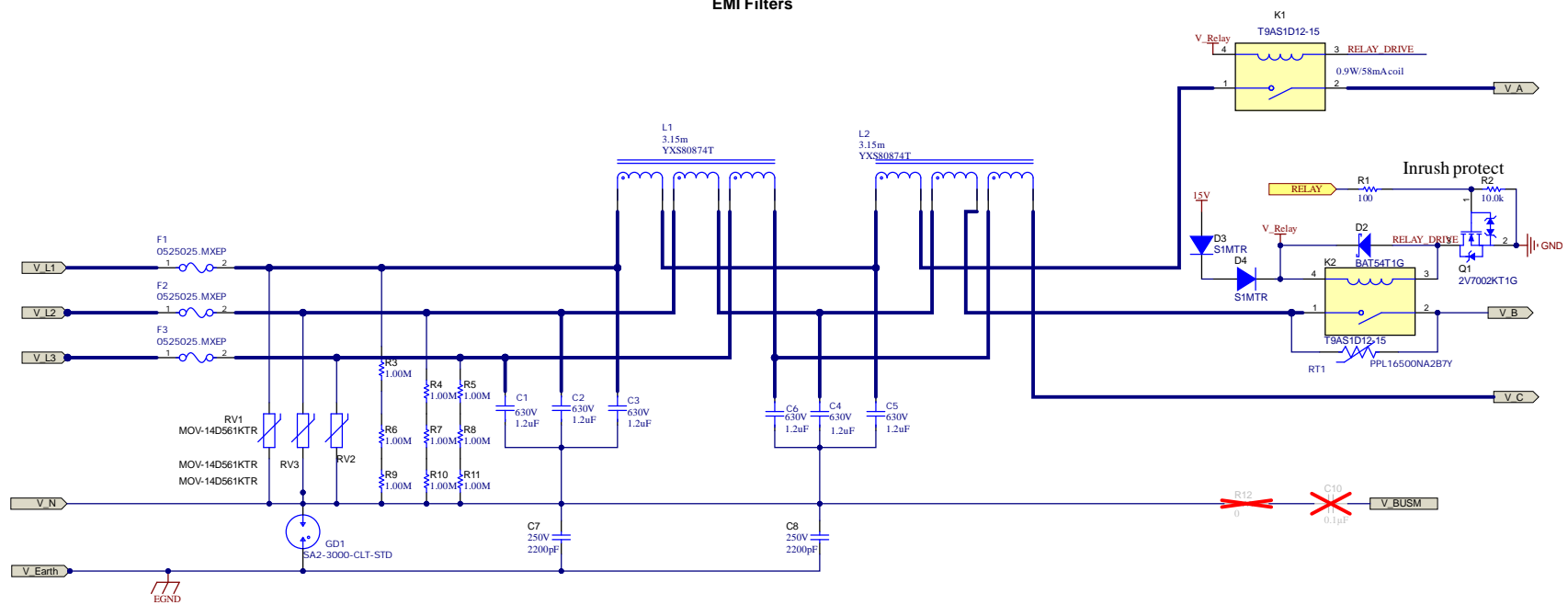


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TID #: TIDA-010257	Project Title: 10kW Vienna PFC	
Number: TIDA-010257   Rev: B	Sheet Title: Cover Page	
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 2 of 11
Drawn By: Manish Bhardwaj	File: Main.SchDoc	Size: A4
Engineer: Hely Zhang	Contact: <a href="http://www.ti.com/support">http://www.ti.com/support</a>	



### EMI Filters

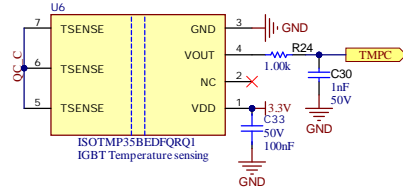
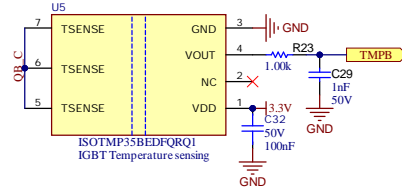
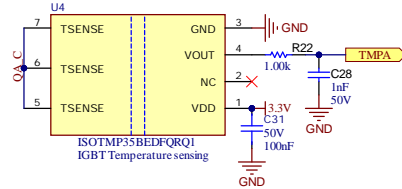
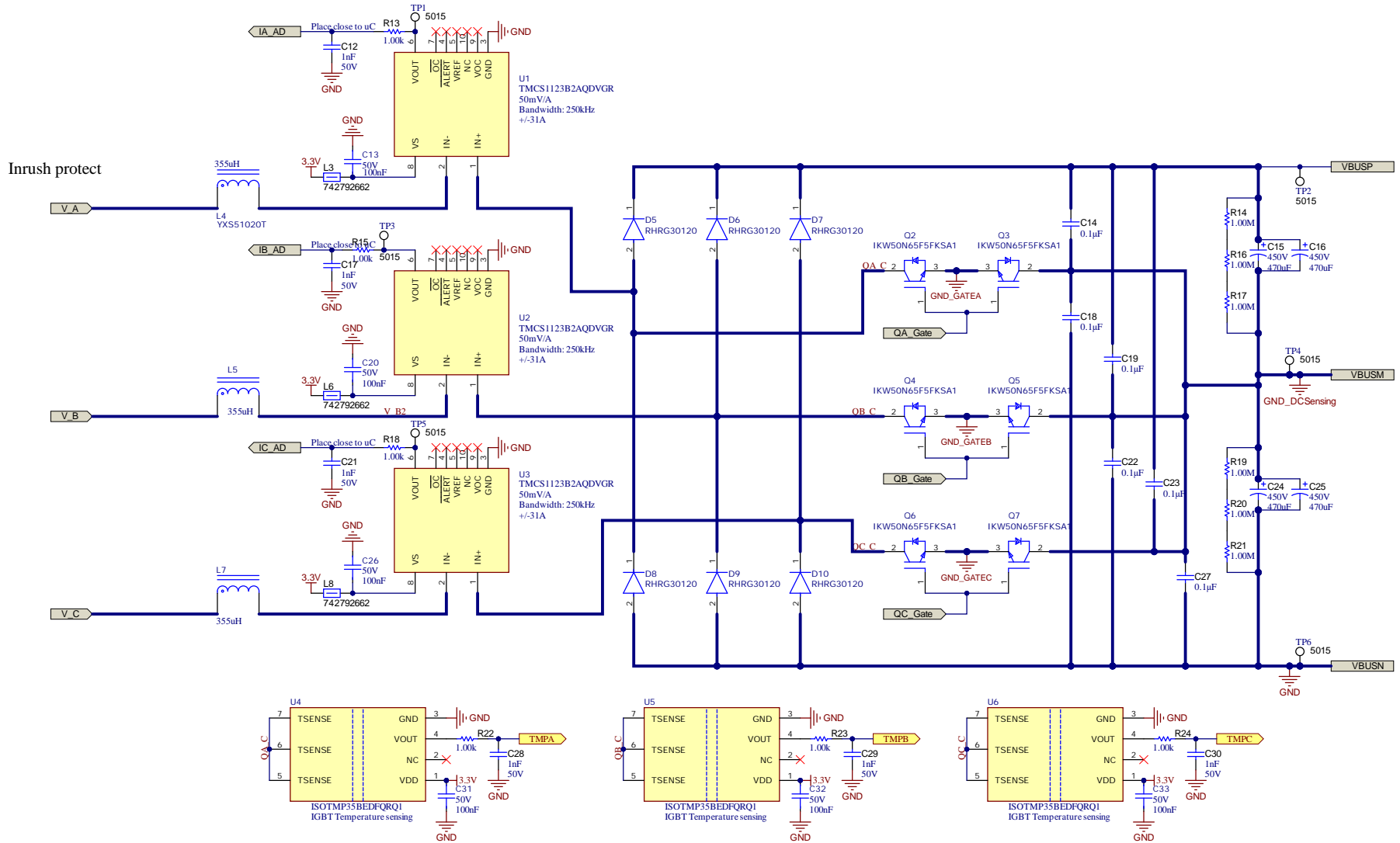


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TID #: TIDA-010257	Project Title: 10kW Vienna PFC	
Number: TIDA-010257   Rev: B	Sheet Title: EMC Input Filter	
SVN Rev.: Not in version control	Assembly Variant: 001	Sheet: 3 of 11
Drawn By:	File: EMCInputFilter_SchDoc	Size: B
Engineer: Hely Zhang	Contact: <a href="http://www.ti.com/support">http://www.ti.com/support</a>	



# Power Stage



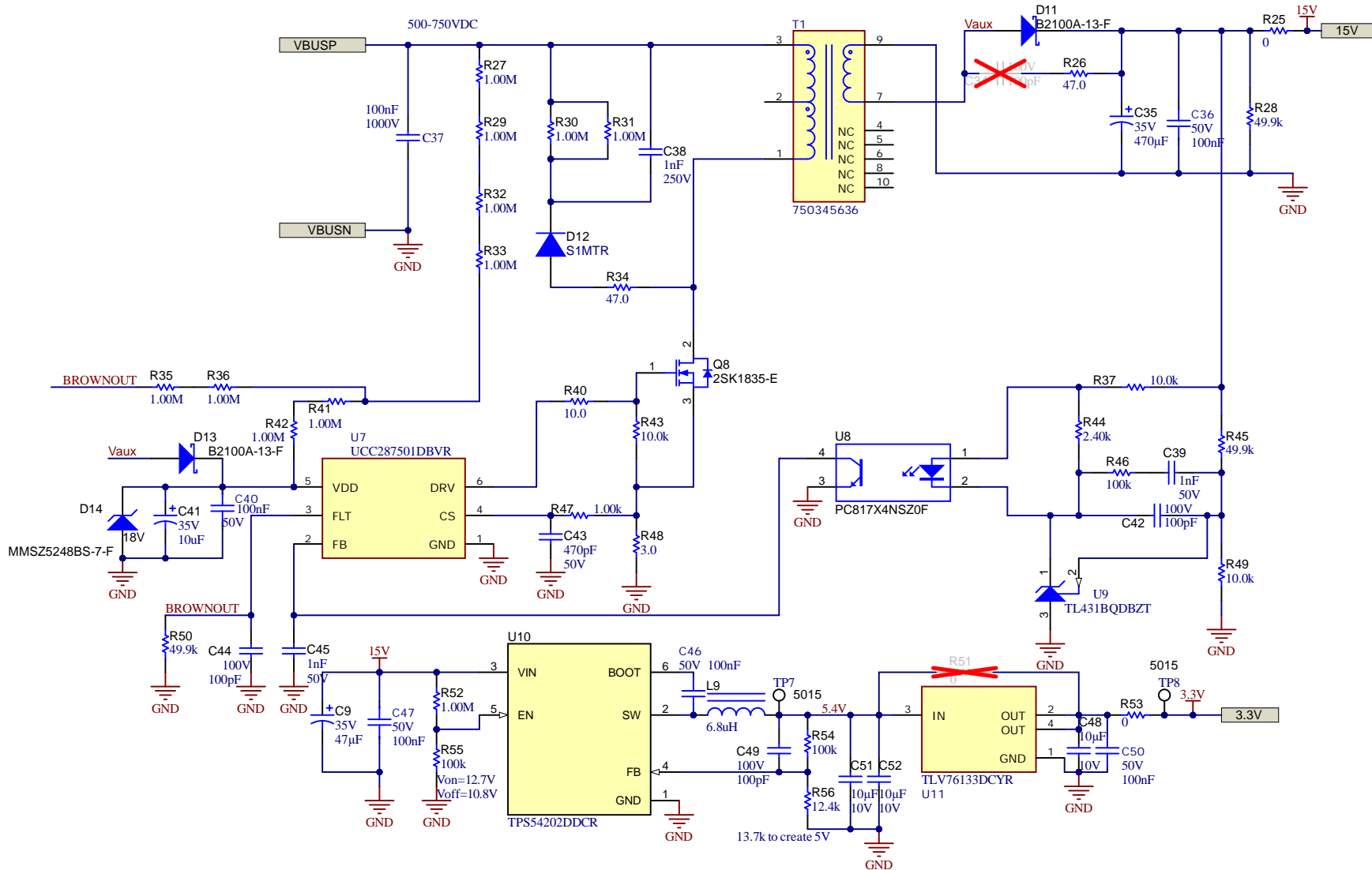
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Orderable: ChangeMe in variant	Designed for: Public Release	Mod. Date: 12/12/2024
TID #: TIDA-010257	Project Title: 10kW Vienna PFC	
Number: TIDA-010257   Rev: B	Sheet Title: Power Stage	
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 4 of 11
Drawn By: Hely Zhang	File: PowerStage.SchDoc	Size: A3
Engineer: Hely Zhang	Contact: <a href="http://www.ti.com/support">http://www.ti.com/support</a>	

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# Auxillary Power Supply

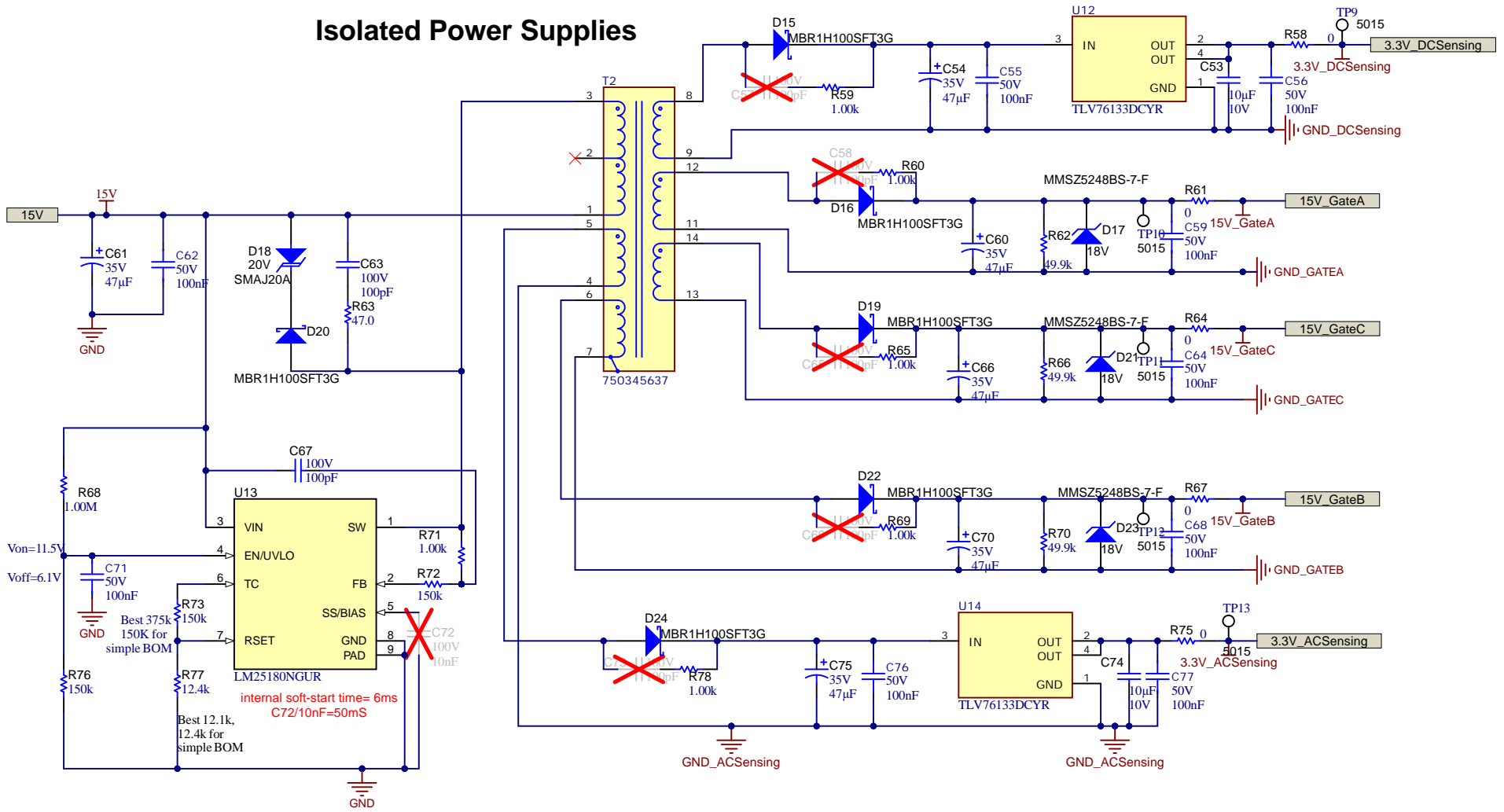
Vout = 15V @ 0.7A (avg)



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TID #: TIDA-010257	Project Title: 10kW Vienna PFC	
Number: TIDA-010257	Rev: B	Sheet Title: Auxillary Power Supply
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 5 of 11
Drawn By: Hely Zhang	File: AuxPower_SchDoc	Size: A4
Engineer: Hely Zhang	Contact: <a href="http://www.ti.com/support">http://www.ti.com/support</a>	

# Isolated Power Supplies



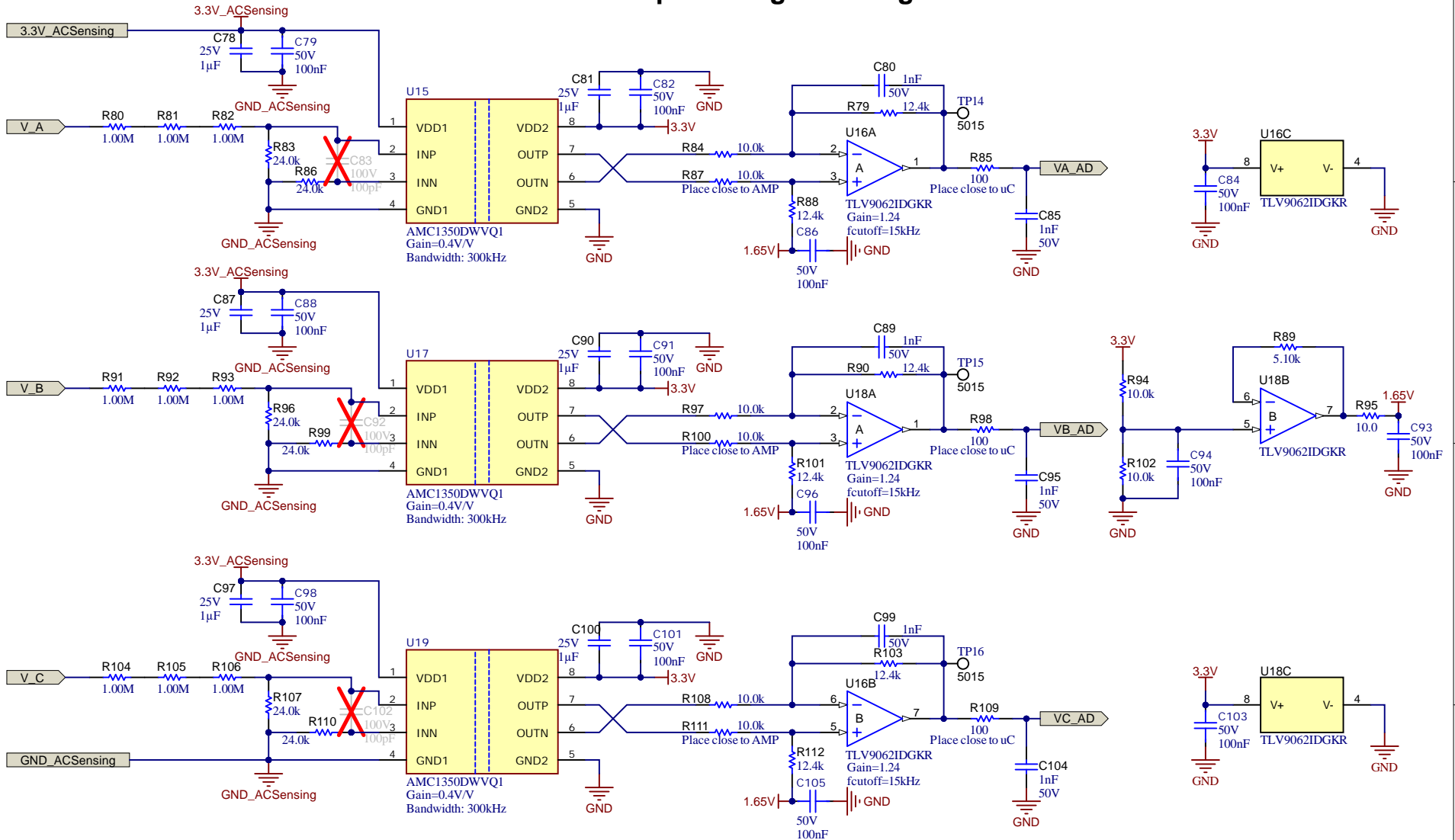
internal soft-start time= 6ms  
C72/10nF=50mS

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TID #: TIDA-010257	Project Title: 10kW Vienna PFC	
Number: TIDA-010257	Rev: B	Sheet Title: Board Bias Power Supply
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 6 of 11
Drawn By: Manish Bhardwaj	File: IsolatedPower.SchDoc	Size: A4
Engineer: Hely Zhang	Contact: <a href="http://www.ti.com/support">http://www.ti.com/support</a>	



# AC Input Voltage Sensing

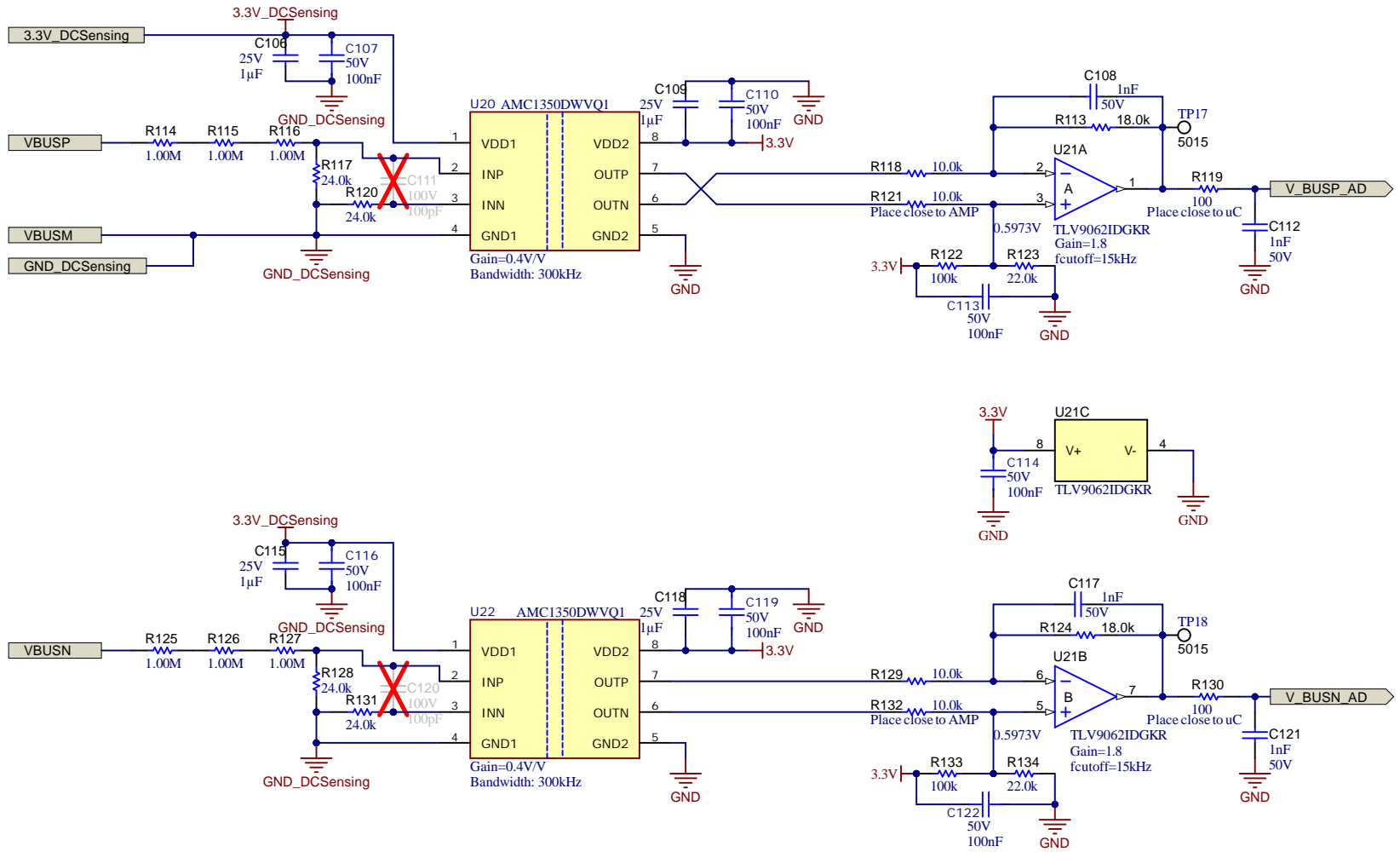


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TID #: TIDA-010257	Project Title: 10kW Vienna PFC	
Number: TIDA-010257   Rev: B	Sheet Title: Input Voltage Sensing	
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 7 of 11
Drawn By: Hely Zhang	File: InputVoltageSensing.SchDoc	Size: A4
Engineer: Hely Zhang	Contact: <a href="http://www.ti.com/support">http://www.ti.com/support</a>	



## DC Output Voltage Sensing

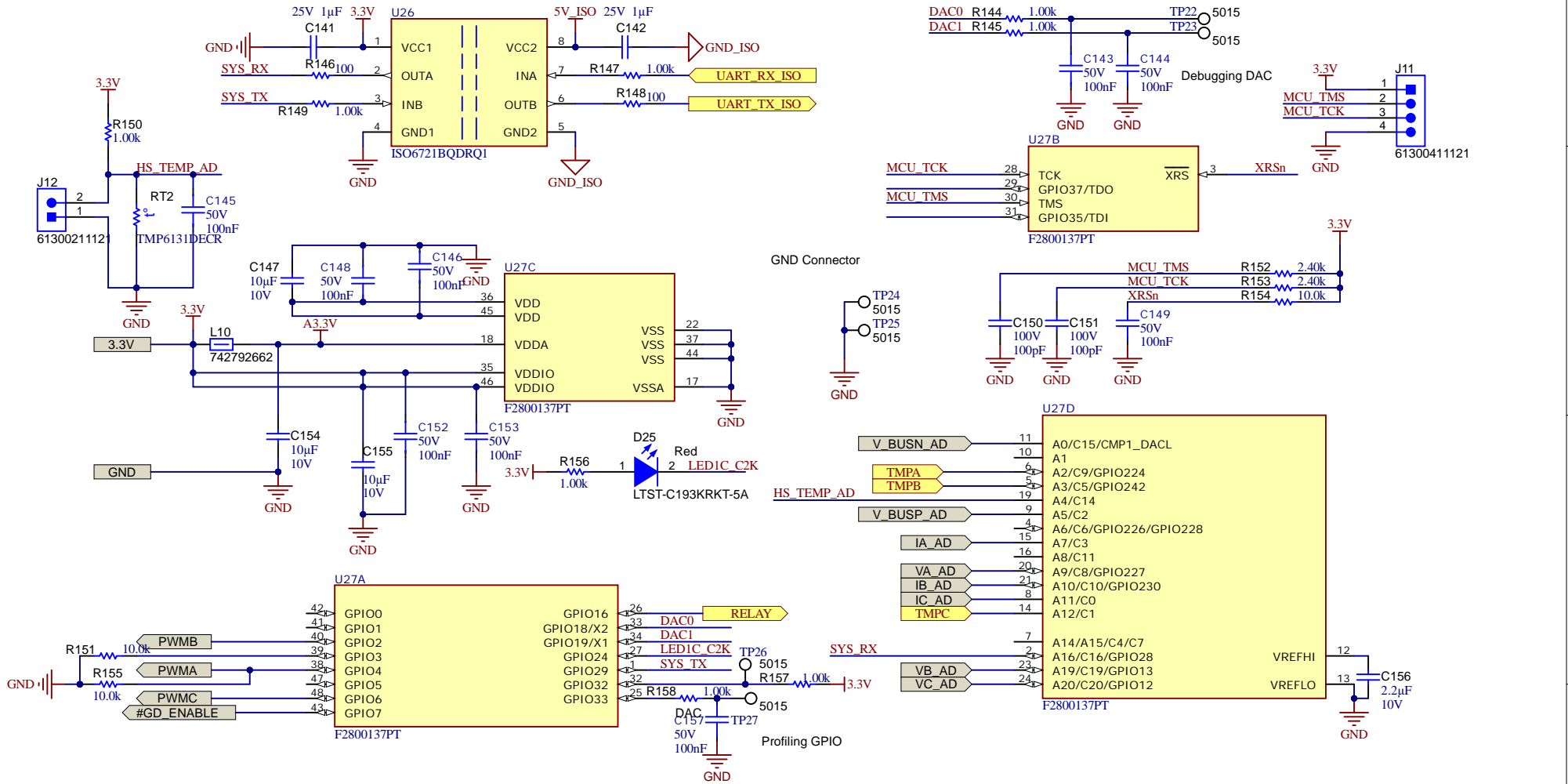


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Orderable: <a href="#">ChangeMe</a> in variant	Designed for: <a href="#">Public Release</a>	Mod. Date: 8/23/2024
TID #: TIDA-010257	Project Title: 10kW Vienna PFC	
Number: TIDA-010257   Rev: B	Sheet Title: OutputVoltageSensing	
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 8 of 11
Drawn By: Hely Zhang	File: OutputVoltageSensing_SchDoc	Size: A4
Engineer: Hely Zhang	Contact: <a href="http://www.ti.com/support">http://www.ti.com/support</a>	



# Controller

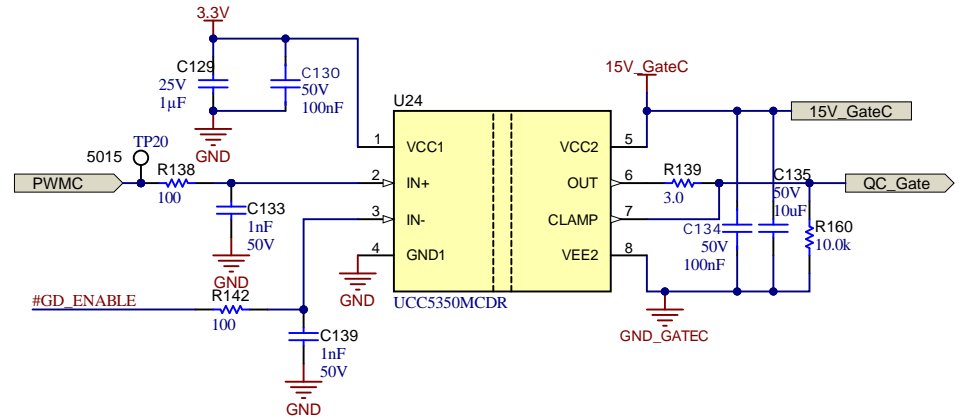
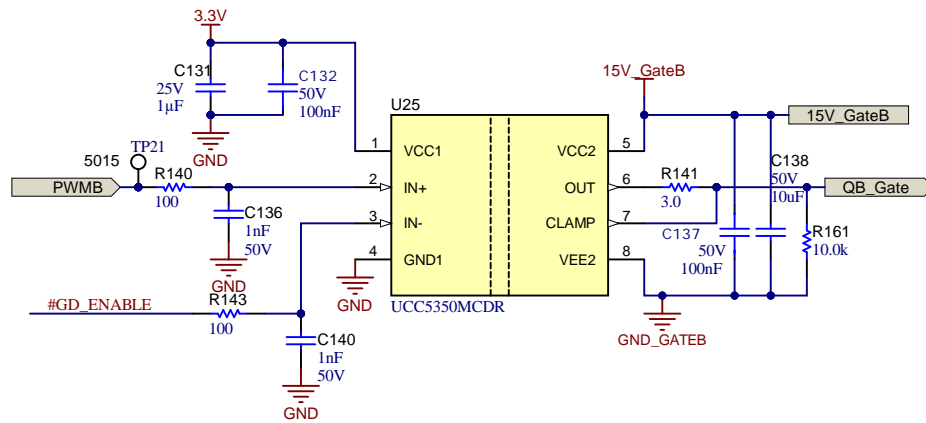
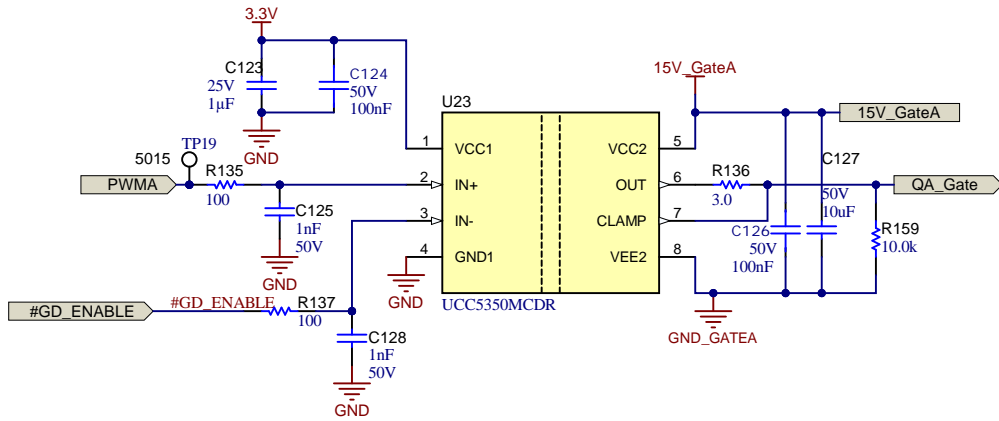


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TID #: TIDA-010257	Project Title: 10kW Vienna PFC	
Number: TIDA-010257	Rev: B	Sheet Title: Controller
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 9 of 11
Drawn By: Hely Zhang	File: Controller.SchDoc	Size: A4
Engineer: Hely Zhang	Contact: <a href="http://www.ti.com/support">http://www.ti.com/support</a>	



# Gate Drivers



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TID #: TIDA-010257	Project Title: 10kW Vienna PFC	
Number: TIDA-010257   Rev: B	Sheet Title: Gate Drivers	
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 10 of 11
Drawn By: Hely Zhang	File: GateDrivers.SchDoc	Size: A4
Engineer: Hely Zhang	Contact: <a href="http://www.ti.com/support">http://www.ti.com/support</a>	





PCB Number: TIDA-010257  
PCB Rev: B

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CAUTION HOT SURFACE



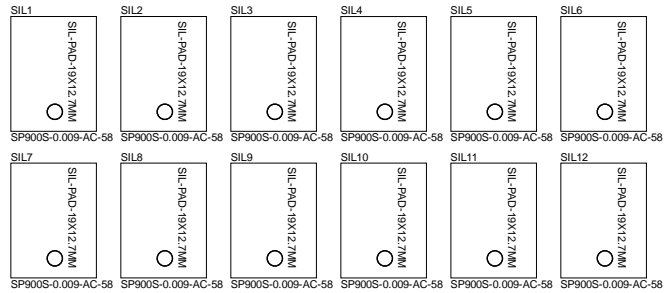
DANGER HIGH VOLTAGE



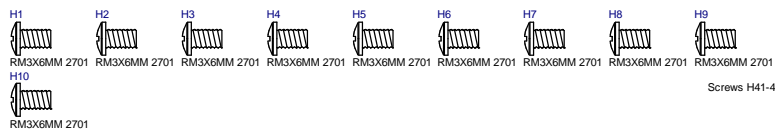
CAUTION HOT SURFACE



DANGER HIGH VOLTAGE



Insulator pads for the switches and diodes to mount on the heat sink



Screws H41-46 and spacers H12-H15, H47 are used to mount the board on the heatsink



Socket Head Screws to mount the switches and diodes on the heat sink

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TID #: TIDA-010257	Project Title: 10kW Vienna PFC	
Number: TIDA-010257   Rev: B	Sheet Title: EVM Hardware	
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 11 of 11
Drawn By: Manish Bhardwaj	File: Hardware.SchDoc	Size: B
Engineer: Heiy Zhang	Contact: <a href="http://www.ti.com/support">http://www.ti.com/support</a>	



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