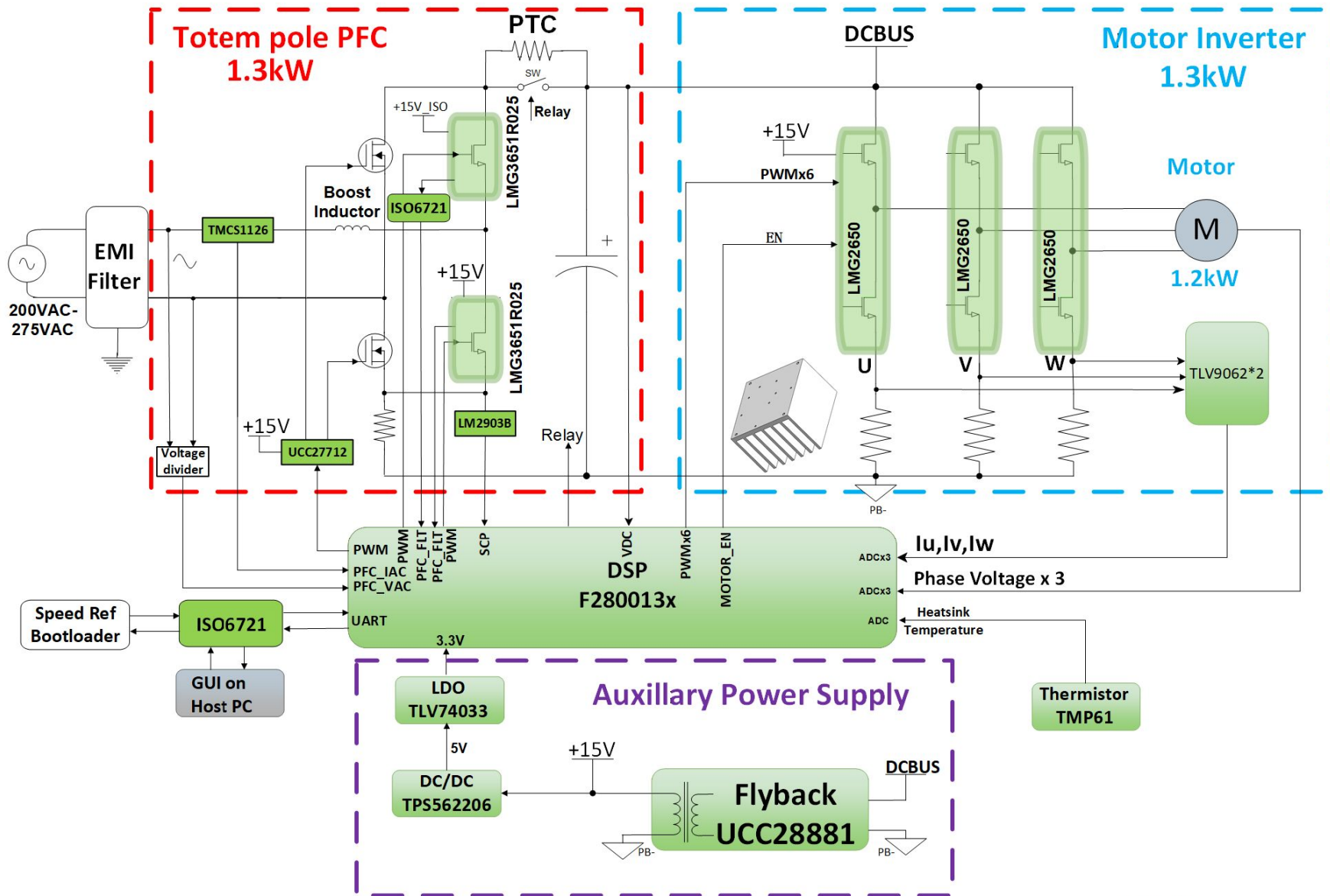


TIDA-010282: TTPL PFC and Motor Inverter with GaN

Revision History

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

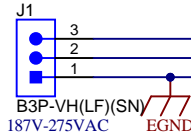


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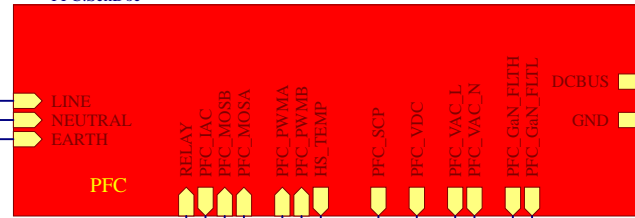
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TID #: TIDA-010282	Project Title: 1.3kW GAN TTPL PFC & MOTOR INVERTER	
Number: TIDA-010282	Rev: C	Sheet Title:
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 1 of 7
Drawn By:	File: Cover.SchDoc	Size: B
Engineer: Hely Zhang	Contact: http://www.ti.com/support	http://www.ti.com

MAIN

AC INPUT



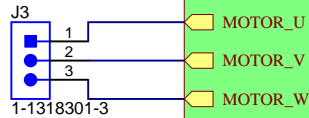
U_PFC
PFC.SchDoc



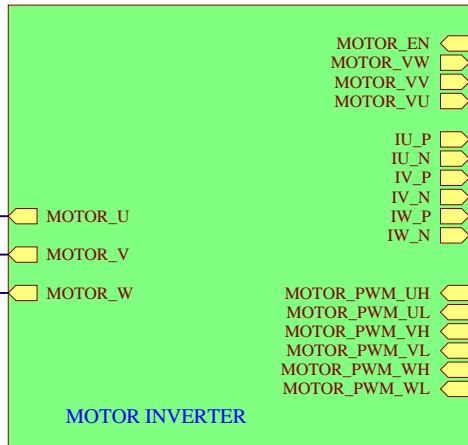
U_Aux
Aux.SchDoc



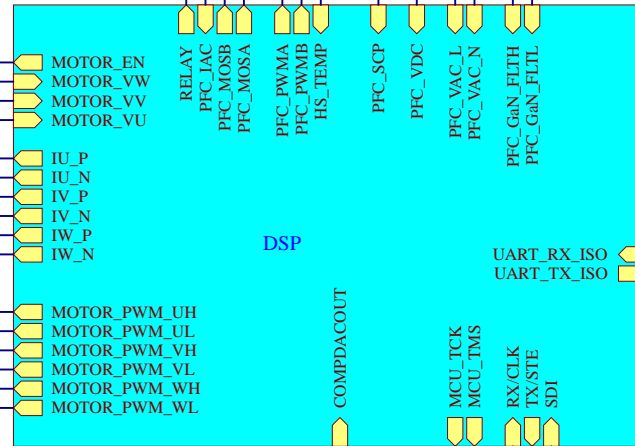
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Hardware.SchDoc



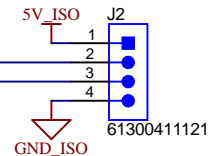
MOTOR OUTPUT



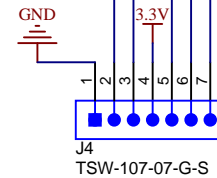
U_IPM_Comp
Inverter.SchDoc



U_DSP_PFC
Connector.SchDoc



ISO UART

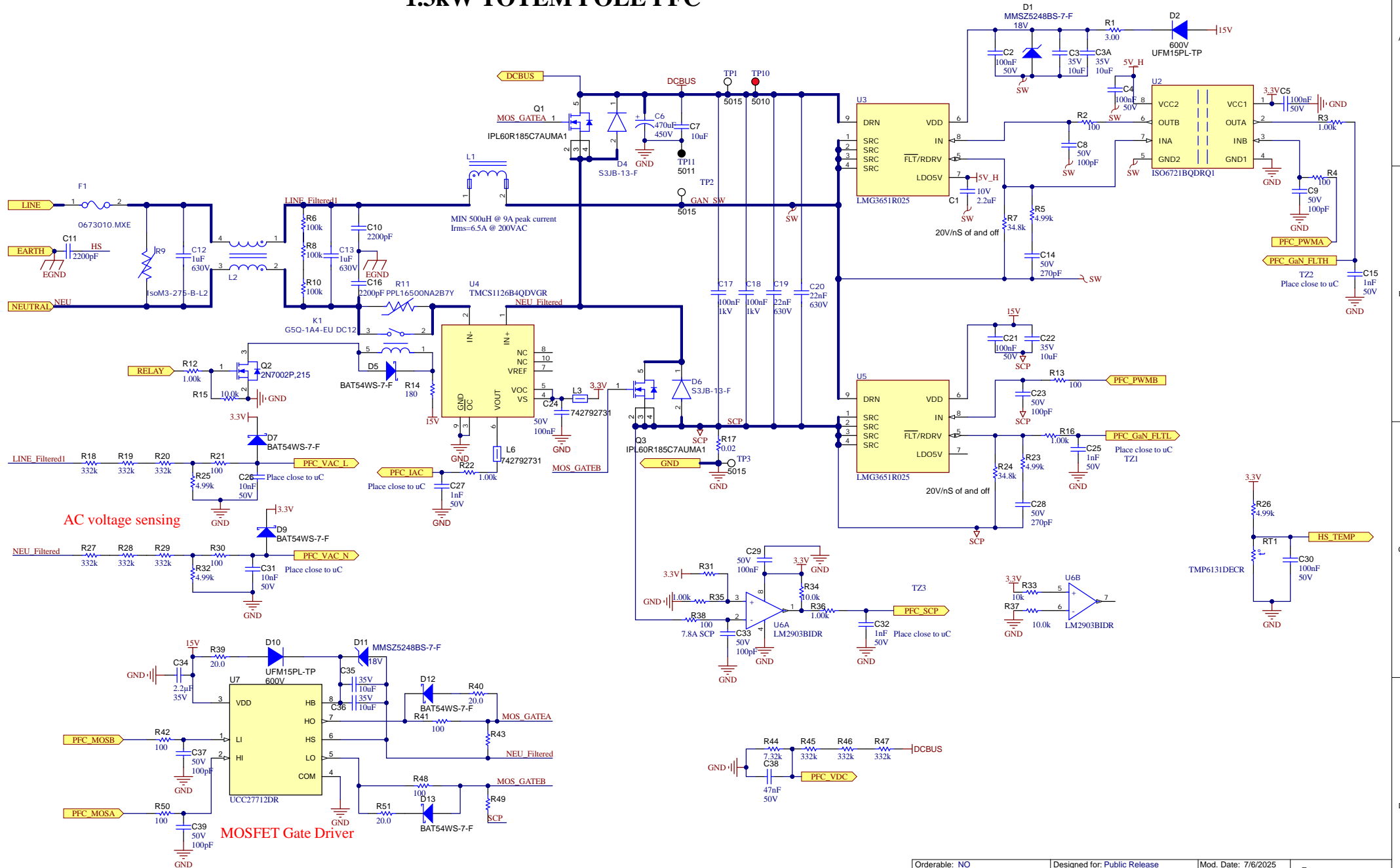


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Orderable: NO	Designed for: Public Release	Mod. Date: 12/19/2024
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Number: TIDA-010282	Rev: C	Sheet: 2 of 7
SVN Rev: Not in version control	Assembly Variant: 001	Size: A4
Drawn By: HELY ZHANG	File: main.SchDoc	
Engineer: Hely Zhang	Contact: http://www.ti.com/support	

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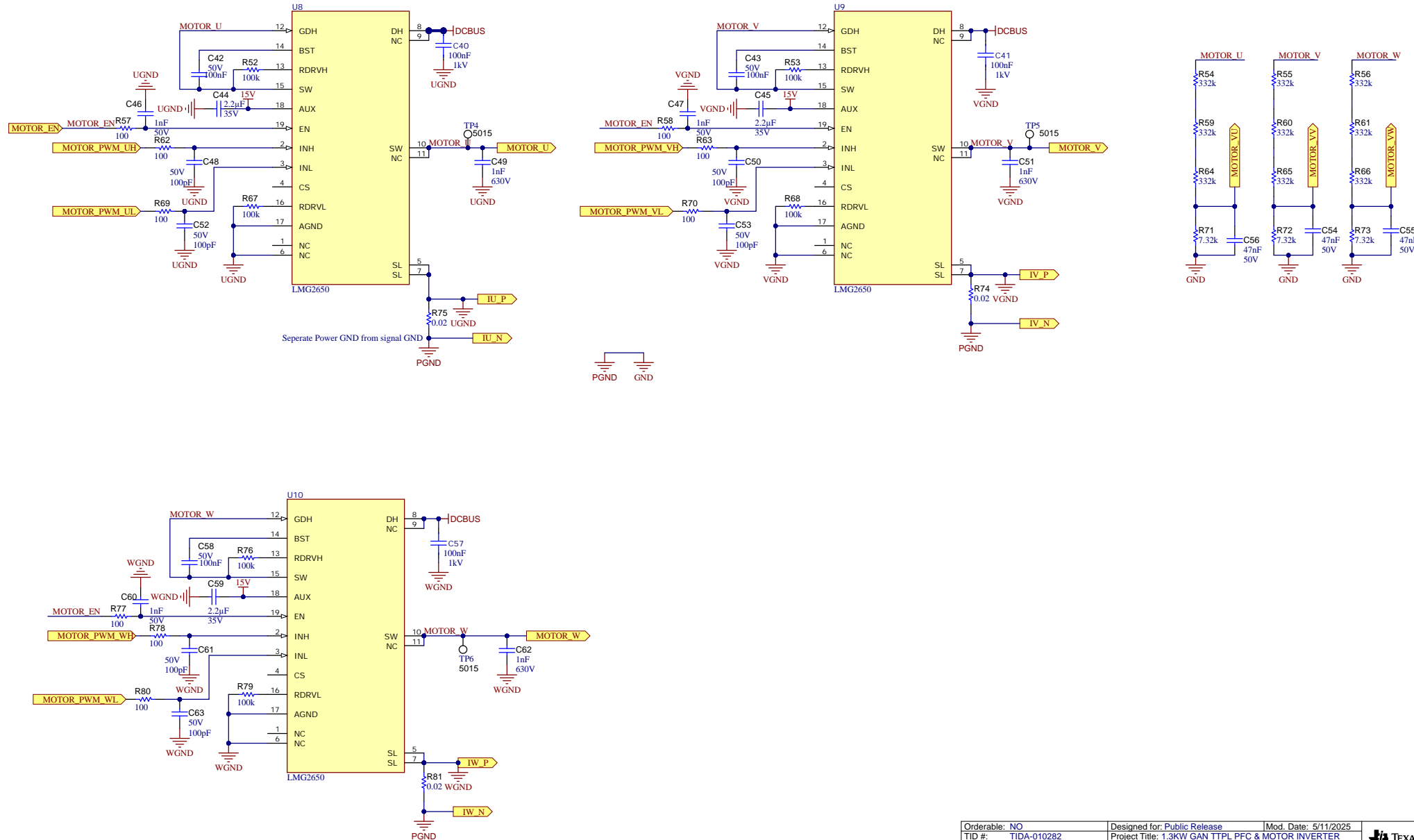
1.3kW TOTEM POLE PFC



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Orderable: NO	Designed for: Public Release	Mod. Date: 7/6/2025	
TID #: TIDA-010282	Project Title: 1.3KW Gan TIPL PFC & MOTOR INVERTER		
Number: TIDA-010282 Rev: C	Sheet Title: PFC		
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 3 of 7	
Drawn by: Hely Zhang	File: PFC_SchDoc	Size: A3	
Engineer: Hely Zhang	Contact: http://www.ti.com/support		http://www.ti.com © Texas Instruments 2024

MOTOR INVERTER

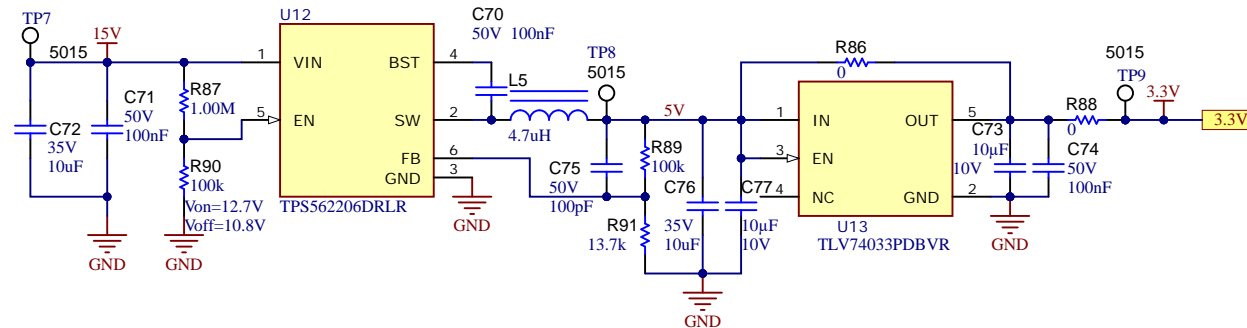
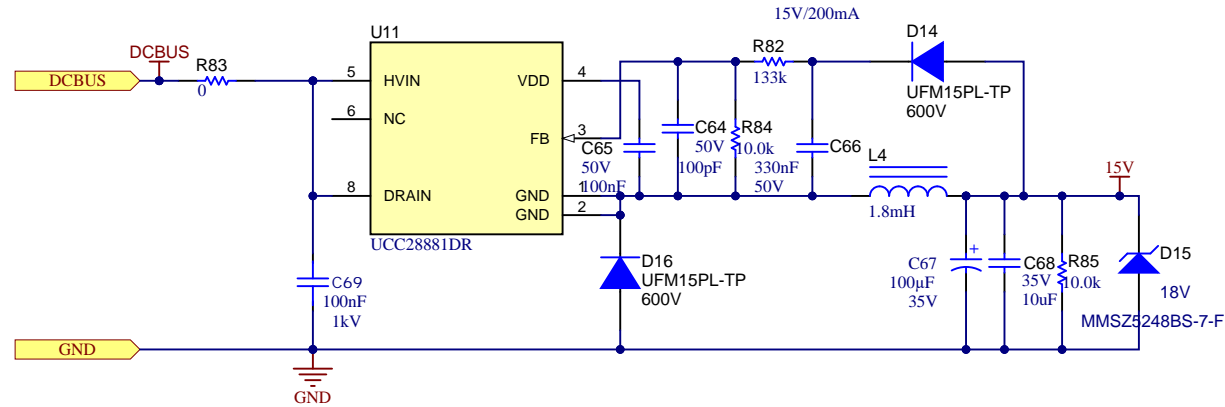


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Orderable: NO	Designed for: Public Release	Mod. Date: 5/11/2025
TID #: TIDA-010282	Project Title: 1.3kW GAN TTPL PFC & MOTOR INVERTER	
Number: TIDA-010282	Rev: C	Sheet Title: IPM
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 4 of 7
Drawn By: Hely Zhang	File: Inverter_SchDoc	Size: A3
Engineer: Hely Zhang	Contact: http://www.ti.com/support	

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AUX POWER SUPPLIEES



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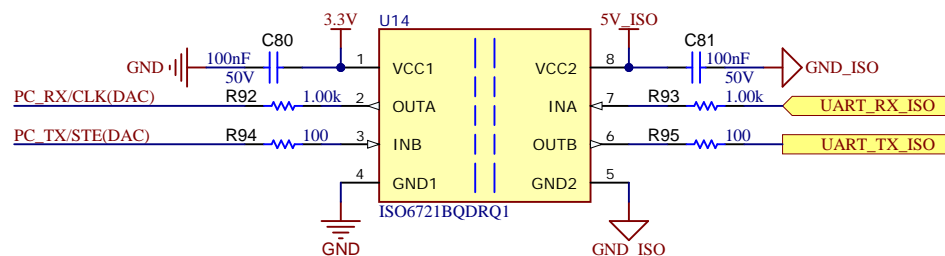
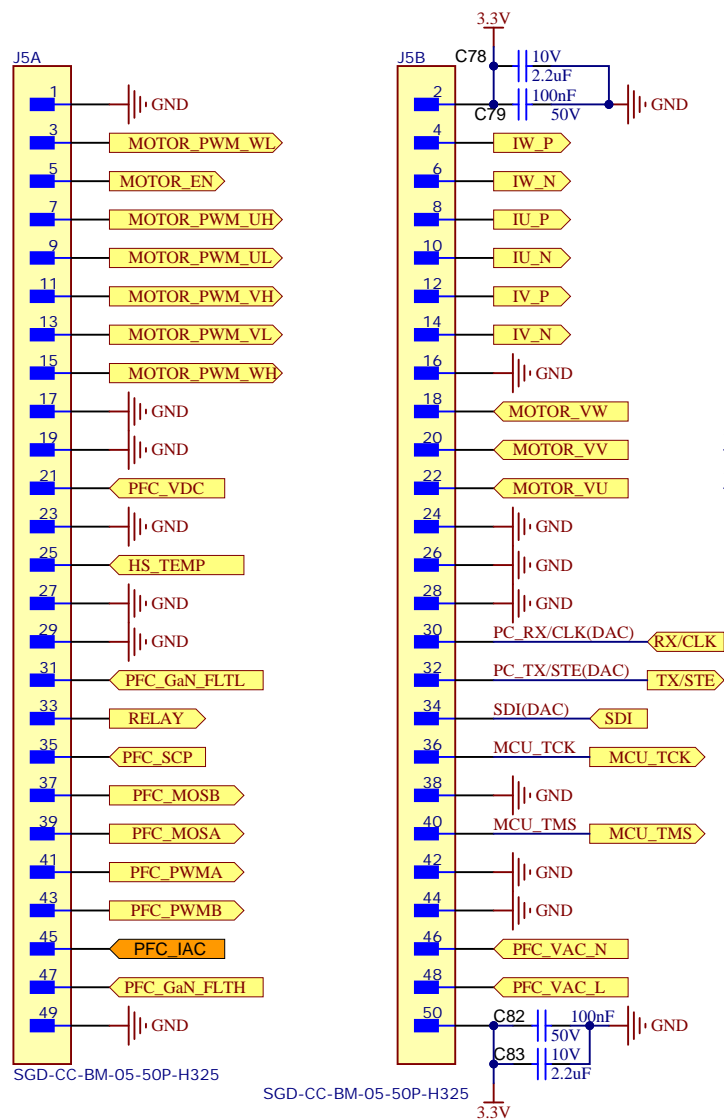
Orderable: NO	Designed for: Public Release	Mod. Date: 4/29/2025
TID #: TIDA-010282	Project Title: 1.3KW GAN TTPL PFC & MOTOR INVERTER	
Number: TIDA-010282	Rev: C	Sheet Title: Aux
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 5 of 7
Drawn By: Hely Zhang	File: Aux.SchDoc	Size: A4
Engineer: Hely Zhang	Contact: http://www.ti.com/support	

1

2

3

4



Ver. B:
1. swip PFC_MOSA and PFC_MOSB at J1

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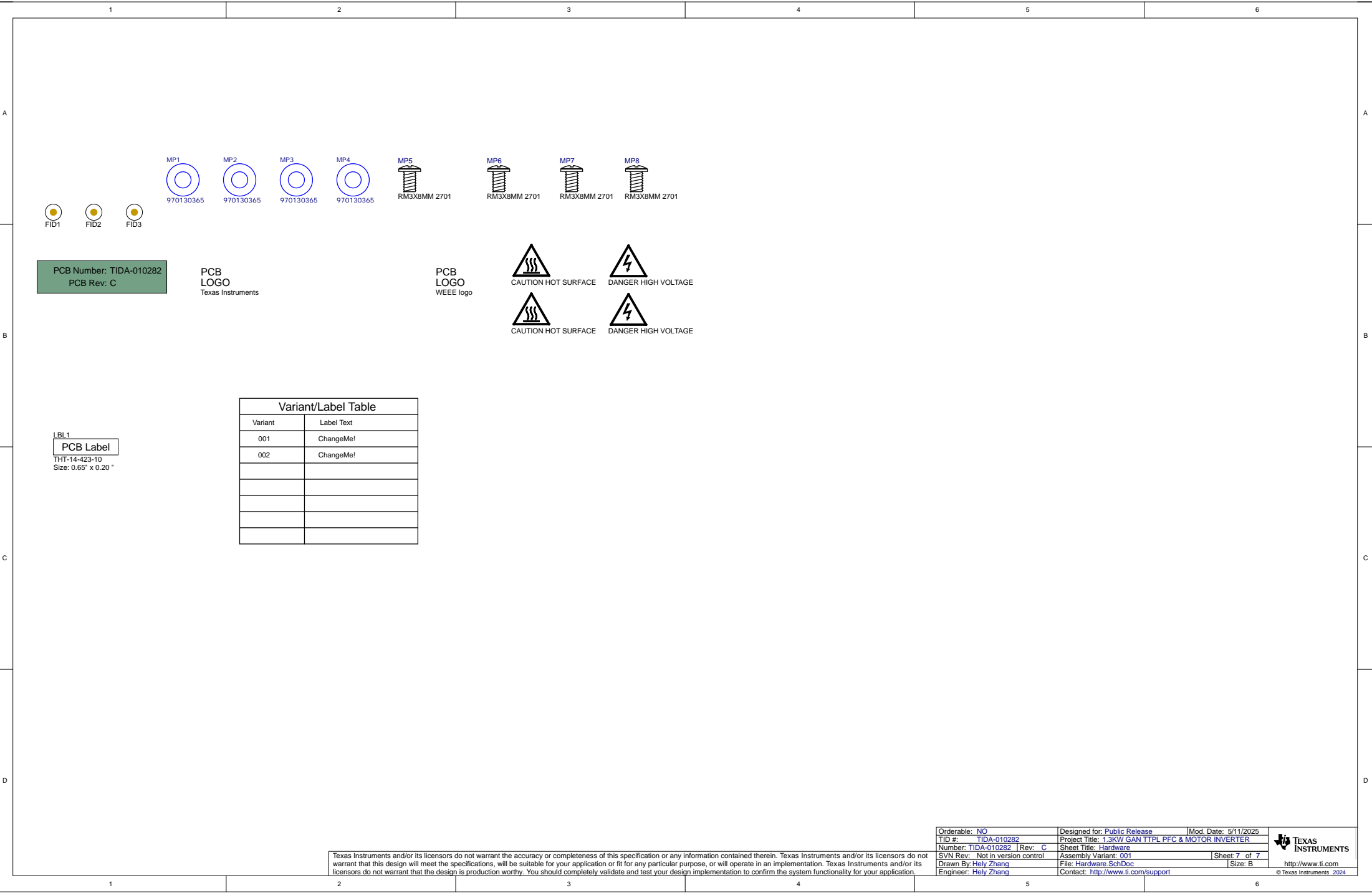
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Number: TIDA-010282	Rev: C	Sheet: 6 of 7
SVN Rev: Not in version control	Assembly Variant: 001	Size: A4
Drawn By: Hely Zhang	File: Connector.SchDoc	
Engineer: Hely Zhang	Contact: http://www.ti.com/support	

1

2

3

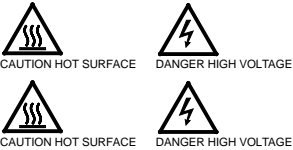
4



PCB Number: TIDA-010282
PCB Rev: C

PCB
LOGO
Texas Instruments

PCB
LOGO
WEEE logo




Variant/Label Table

Variant	Label Text
001	ChangeMe!
002	ChangeMe!

LBL1
PCB Label
TH1-14-423-10
Size: 0.65" x 0.20"

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Orderable: NO	Designed for: Public Release	Mod. Date: 5/11/2025	 TEXAS INSTRUMENTS
TID #: TIDA-010282	Project Title: 1.3KW GAN TTPL PFC & MOTOR INVERTER		
Number: TIDA-010282 Rev: C	Sheet Title: Hardware		
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 7 of 7	
Drawn By: Hely Zhang	File: Hardware_SchDoc	Size: B	
Engineer: Hely Zhang	Contact: http://www.ti.com/support		http://www.ti.com © Texas Instruments 2024