

U\_TIDA-010949 Power Optimizer\_Hardware  
 TIDA-010949 Power Optimizer\_Hardware.SchDoc



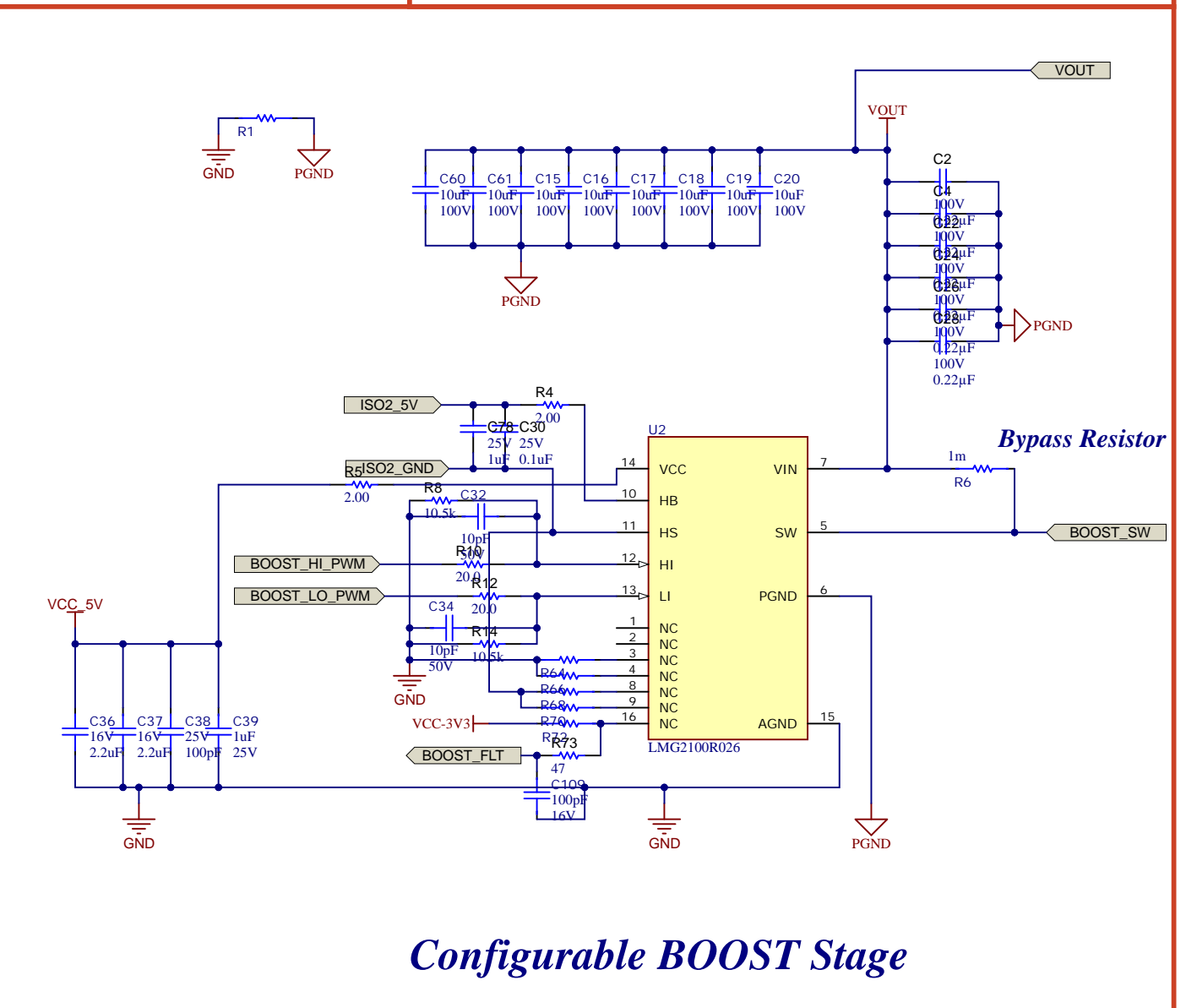
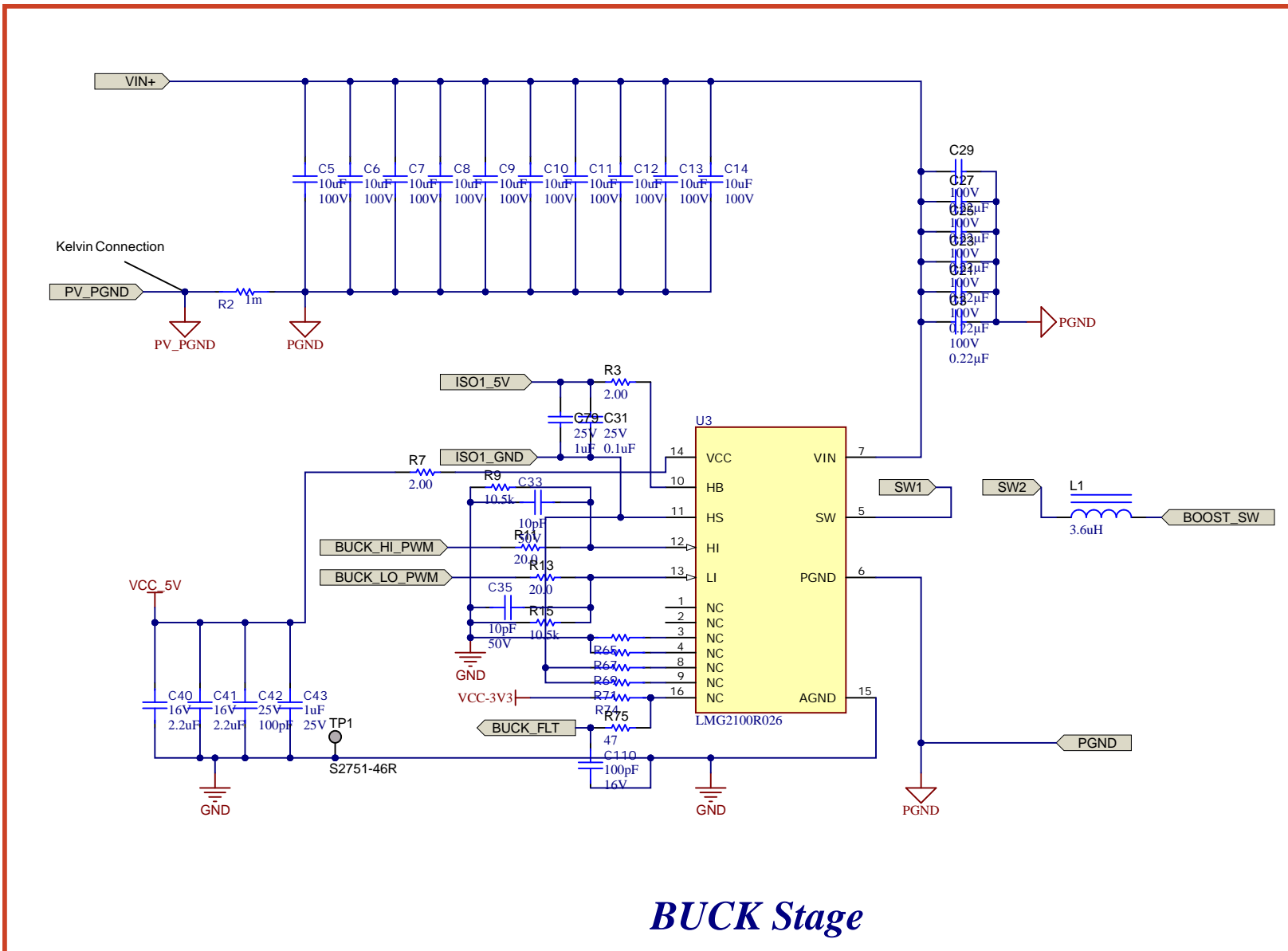
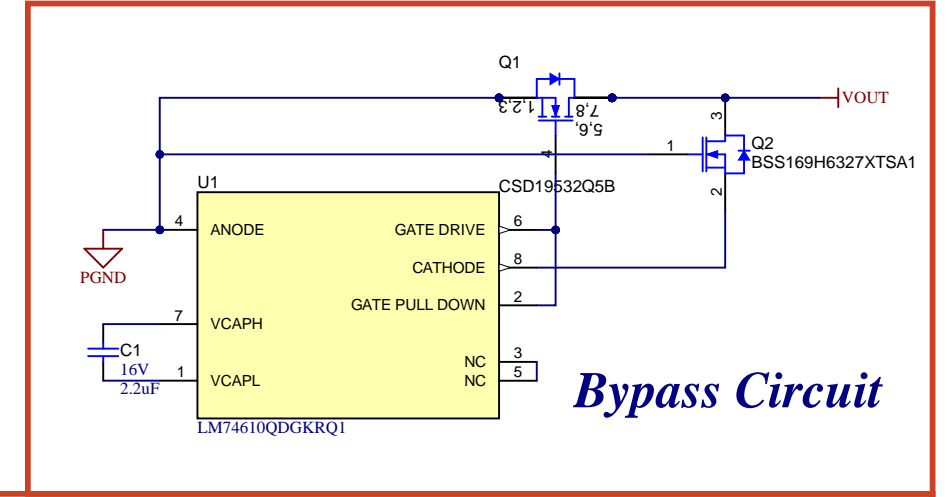
Orderable: <a href="#">ChangeMe in variant</a>	Designed for: <a href="#">Public Release</a>	Mod. Date: 10/9/2024
TID #: TIDA-010949	Project Title: TIDA-010949	
Number: <a href="#">TIDA-010949</a>   Rev: <a href="#">E1</a>	Sheet Title:	
SVN Rev: 5190	Assembly Variant: 001	Sheet: 1 of 8
Drawn By:	File: <a href="#">TIDA-010949 Power Optimizer_Top View.SchDoc</a>	Size: A4
Engineer: <a href="#">Energy Infrastructure Team</a>	Contact: <a href="http://www.ti.com/support">http://www.ti.com/support</a>	



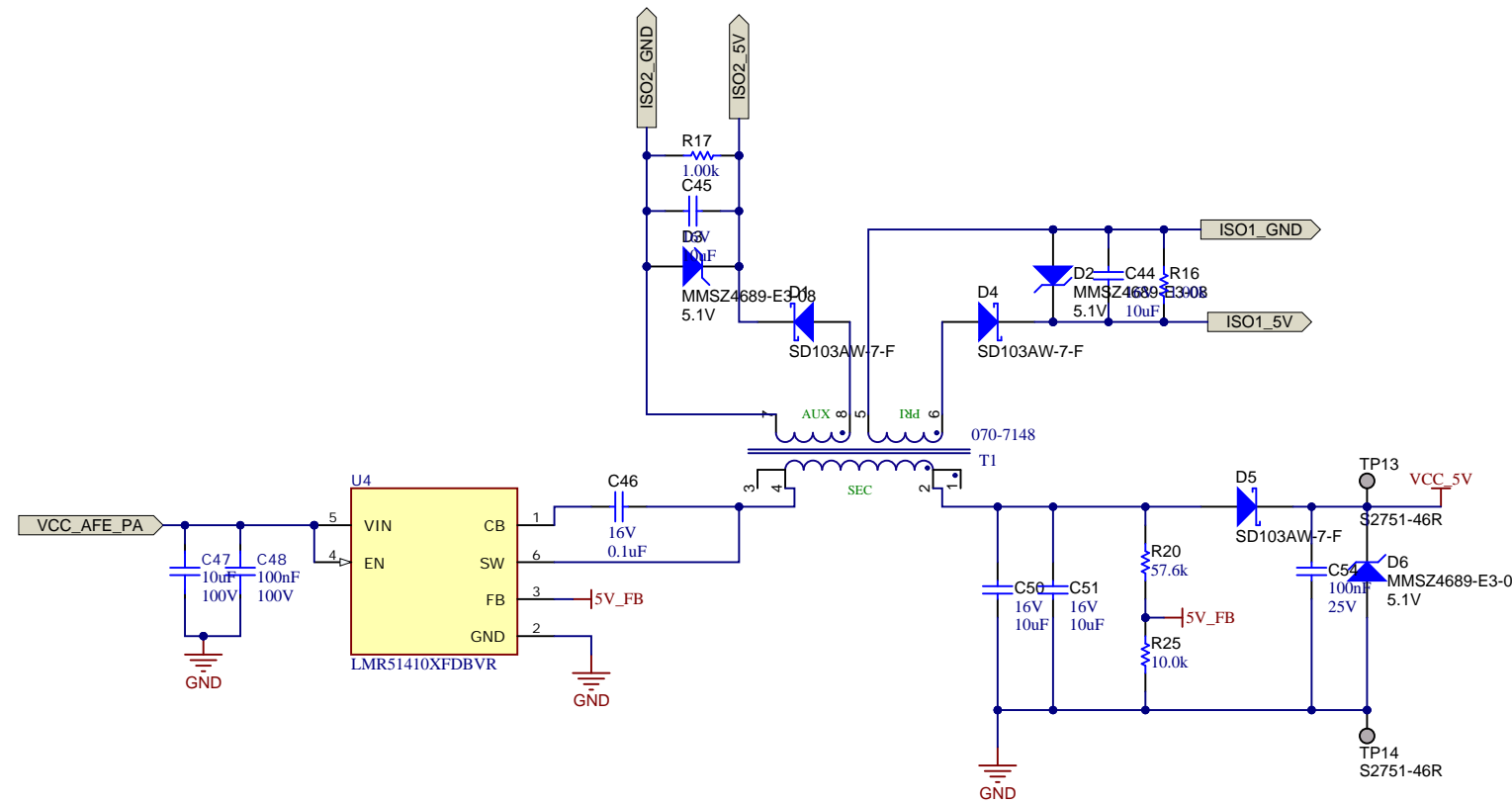
Texas Instruments and/or its licensors do not warrant the accuracy or completeness of this specification or any information contained therein. Texas Instruments and/or its licensors do not warrant that this design will meet the specifications, will be suitable for your application or fit for any particular purpose, or will operate in an implementation. Texas Instruments and/or its licensors do not warrant that the design is production worthy. You should completely validate and test your design implementation to confirm the system functionality for your application.

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

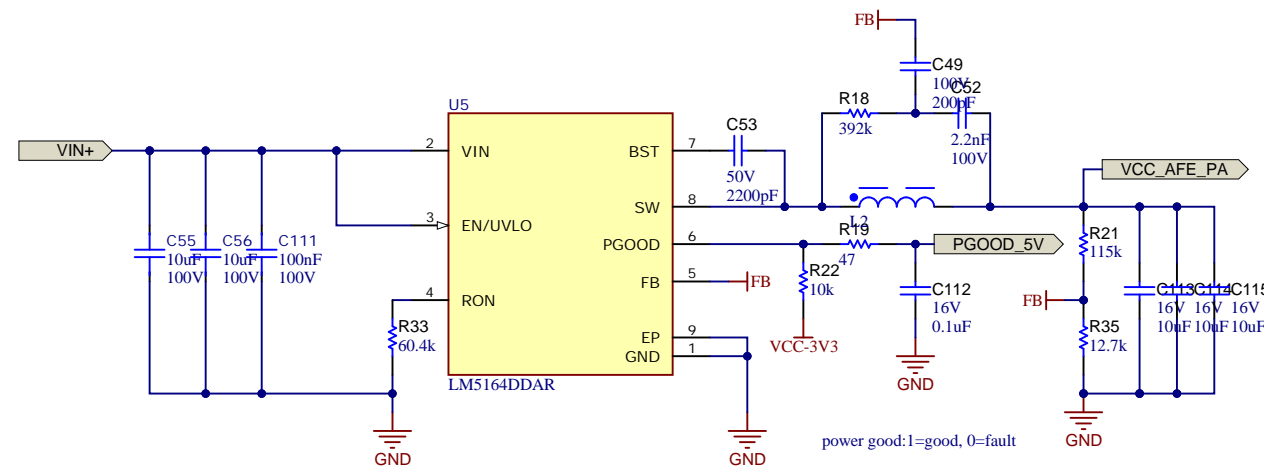
# Power Stage



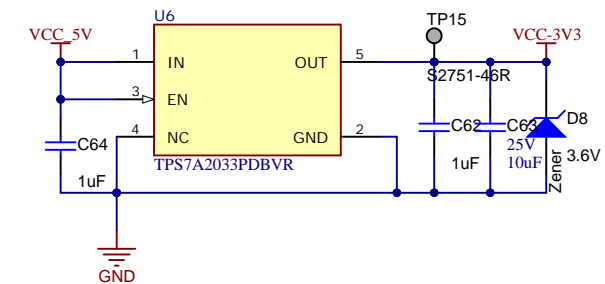
# Aux Power



**Fly-Buck for 2\*LMG2100's ISO power and Non-ISO 5V**



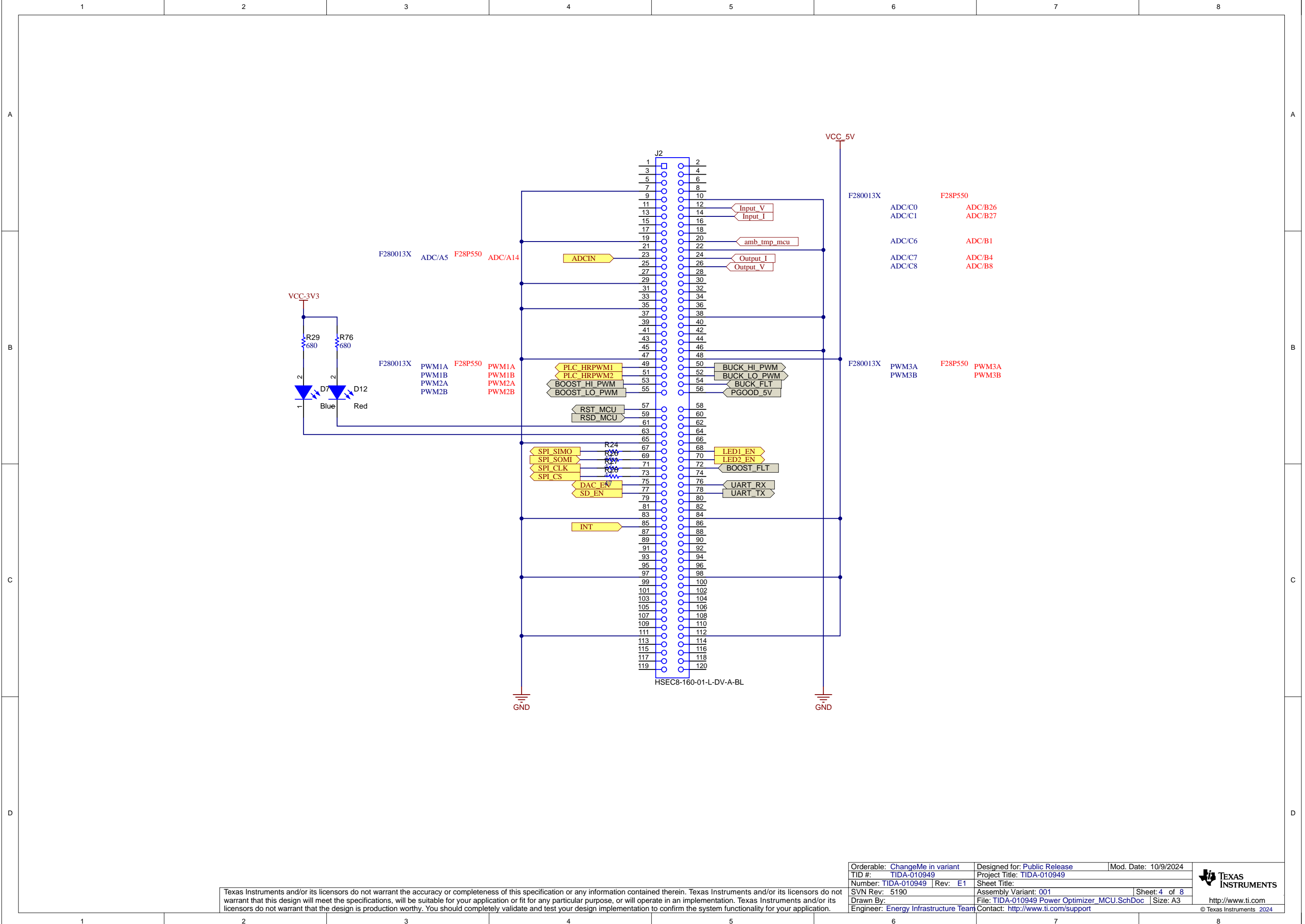
**BUCK CONVERTER FOR AFE031's PA**



**LDO for 3.3V**

Texas Instruments and/or its licensors do not warrant the accuracy or completeness of this specification or any information contained therein. Texas Instruments and/or its licensors do not warrant that this design will meet the specifications, will be suitable for your application or fit for any particular purpose, or will operate in an implementation. Texas Instruments and/or its licensors do not warrant that the design is production worthy. You should completely validate and test your design implementation to confirm the system functionality for your application.

Orderable: ChangeMe in variant	Designed for: Public Release	Mod. Date: 10/9/2024	
TID #: TIDA-010949	Project Title: TIDA-010949	Sheet: 3 of 8	
Number: TIDA-010949	Rev: E1	File: TIDA-010949 Power Optimizer_Aux.SchDoc	Size: A3
SVN Rev:	Assembly Variant: 001	Engineer: Energy Infrastructure Team	Contact: <a href="http://www.ti.com/support">http://www.ti.com/support</a>
Drawn By:			© Texas Instruments 2024

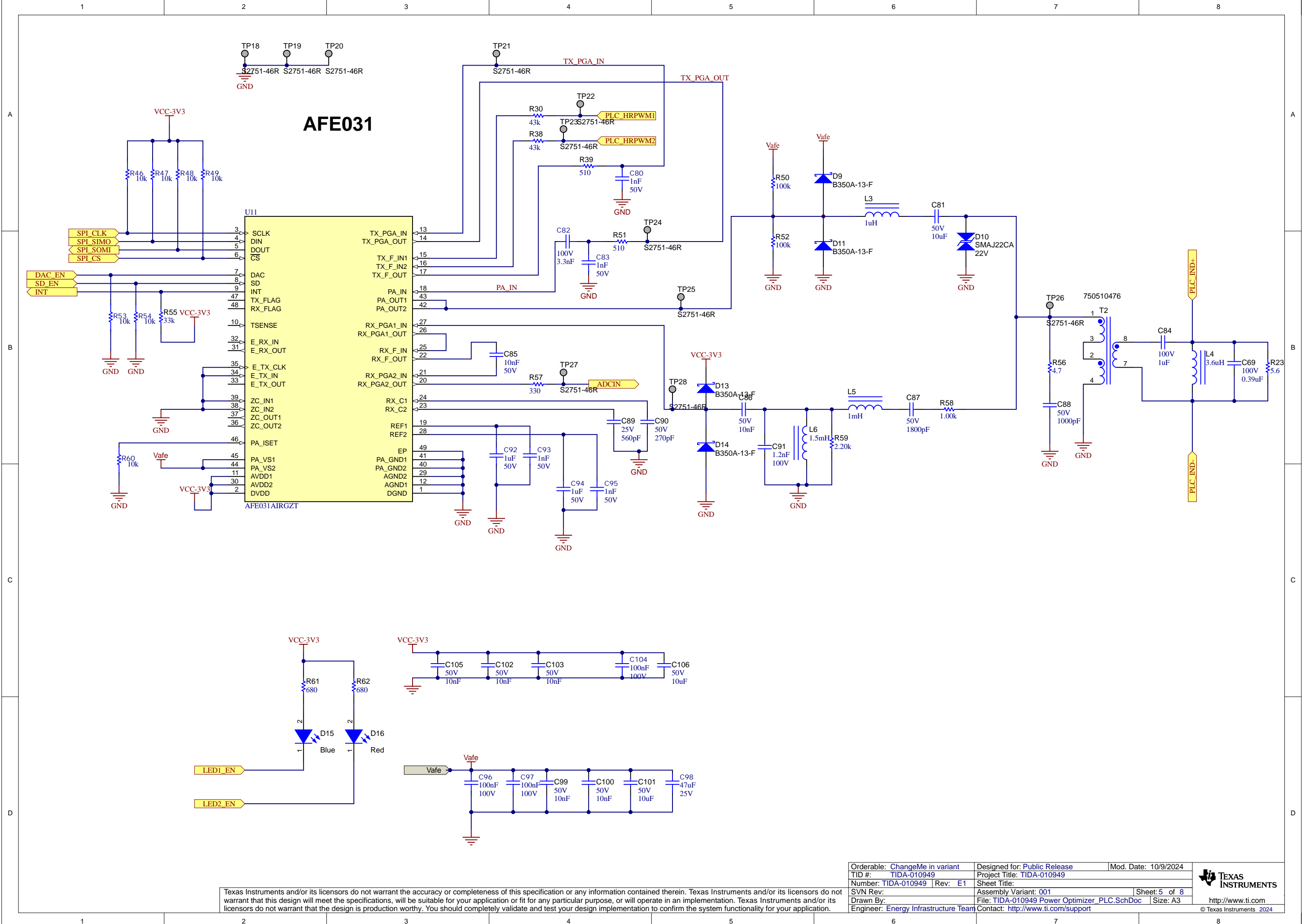


Texas Instruments and/or its licensors do not warrant the accuracy or completeness of this specification or any information contained therein. Texas Instruments and/or its licensors do not warrant that this design will meet the specifications, will be suitable for your application or fit for any particular purpose, or will operate in an implementation. Texas Instruments and/or its licensors do not warrant that the design is production worthy. You should completely validate and test your design implementation to confirm the system functionality for your application.

Orderable: <a href="#">ChangeMe in variant</a>	Designed for: <a href="#">Public Release</a>	Mod. Date: 10/9/2024
TID #: TIDA-010949	Project Title: TIDA-010949	
Number: TIDA-010949	Rev: E1	Sheet Title:
SVN Rev: 5190	Assembly Variant: 001	Sheet: 4 of 8
Drawn By:	File: TIDA-010949 Power Optimizer_MCU.SchDoc	Size: A3
Engineer: <a href="#">Energy Infrastructure Team</a>	Contact: <a href="http://www.ti.com/support">http://www.ti.com/support</a>	<a href="http://www.ti.com">http://www.ti.com</a>



© Texas Instruments 2024

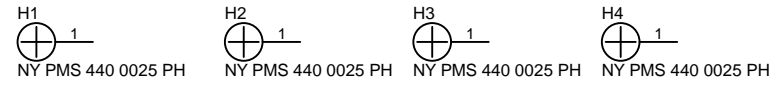


Texas Instruments and/or its licensors do not warrant the accuracy or completeness of this specification or any information contained therein. Texas Instruments and/or its licensors do not warrant that this design will meet the specifications, will be suitable for your application or fit for any particular purpose, or will operate in an implementation. Texas Instruments and/or its licensors do not warrant that the design is production worthy. You should completely validate and test your design implementation to confirm the system functionality for your application.

Orderable: ChangeMe in variant	Designed for: Public Release	Mod. Date: 10/9/2024
TID #: TIDA-010949	Project Title: TIDA-010949	
Number: TIDA-010949	Rev: E1	Sheet Title:
SVN Rev:	Assembly Variant: 001	Sheet: 5 of 8
Drawn By:	File: TIDA-010949 Power Optimizer PLC.SchDoc	Size: A3
Engineer: Energy Infrastructure Team	Contact: <a href="http://www.ti.com/support">http://www.ti.com/support</a>	



© Texas Instruments 2024



PCB Number: TIDA-010949  
 PCB Rev: E1

PCB LOGO  
 Texas Instruments



PCB LOGO  
 FCC disclaimer

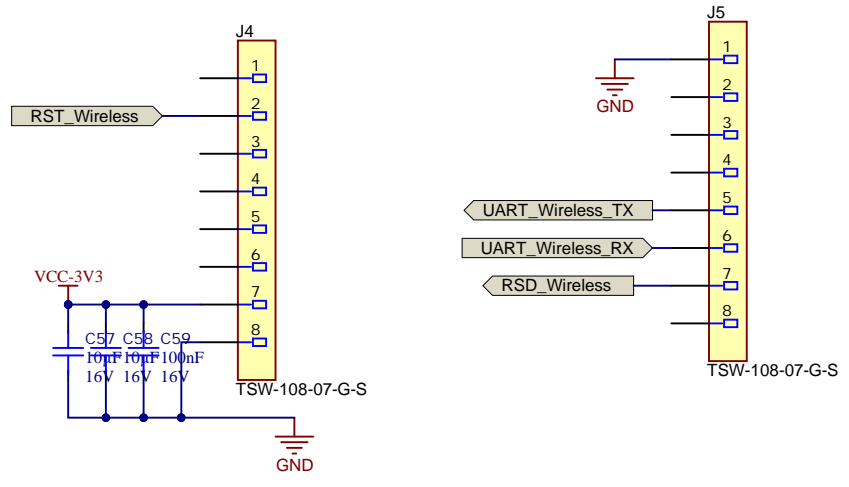
PCB LOGO  
 WEEE logo

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

Orderable: <a href="#">ChangeMe in variant</a>	Designed for: <a href="#">Public Release</a>	Mod. Date: 6/18/2024
TID #: <a href="#">TIDA-010949</a>	Project Title: <a href="#">TIDA-010949</a>	
Number: <a href="#">TIDA-010949</a>	Rev: <a href="#">E1</a>	Sheet Title:
SVN Rev:	Assembly Variant: <a href="#">001</a>	Sheet: <a href="#">6</a> of <a href="#">8</a>
Drawn By:	File: <a href="#">TIDA-010949 Power Optimizer_Hardware.SchDoc</a>	Size: B
Engineer: <a href="#">Energy Infrastructure Team</a>	Contact: <a href="http://www.ti.com/support">http://www.ti.com/support</a>	

Texas Instruments and/or its licensors do not warrant the accuracy or completeness of this specification or any information contained therein. Texas Instruments and/or its licensors do not warrant that this design will meet the specifications, will be suitable for your application or fit for any particular purpose, or will operate in an implementation. Texas Instruments and/or its licensors do not warrant that the design is production worthy. You should completely validate and test your design implementation to confirm the system functionality for your application.

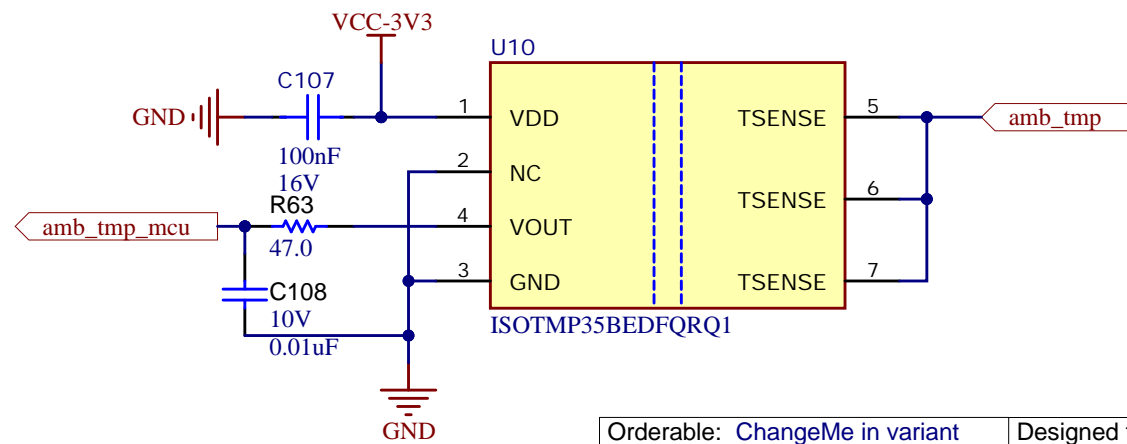
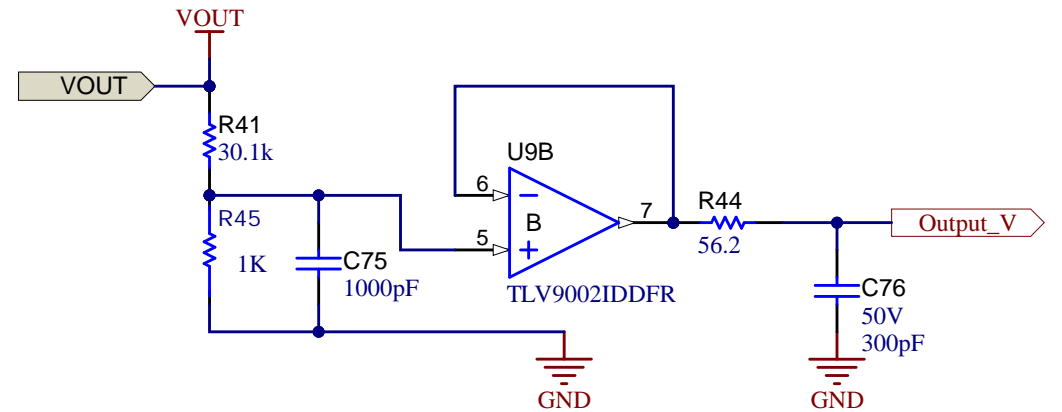
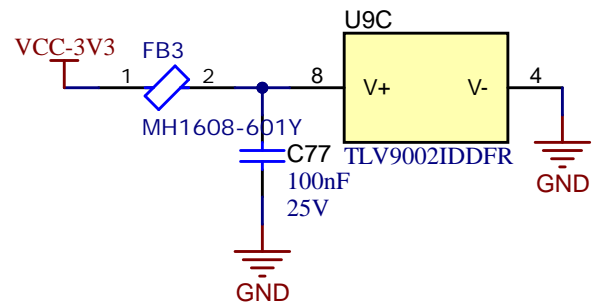
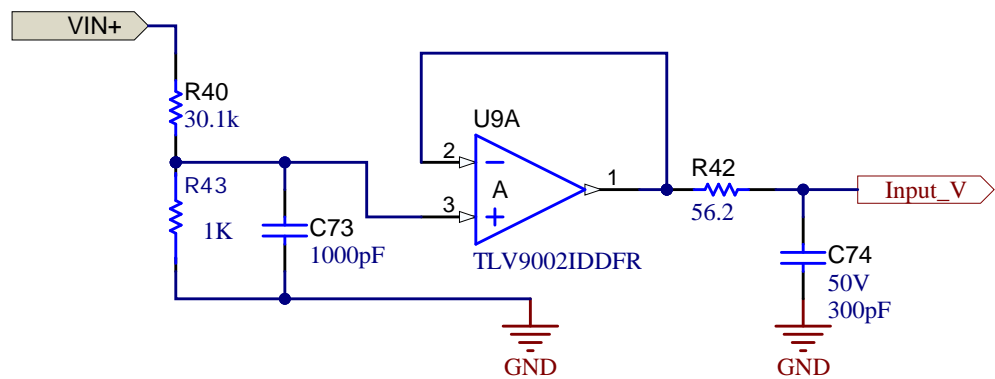
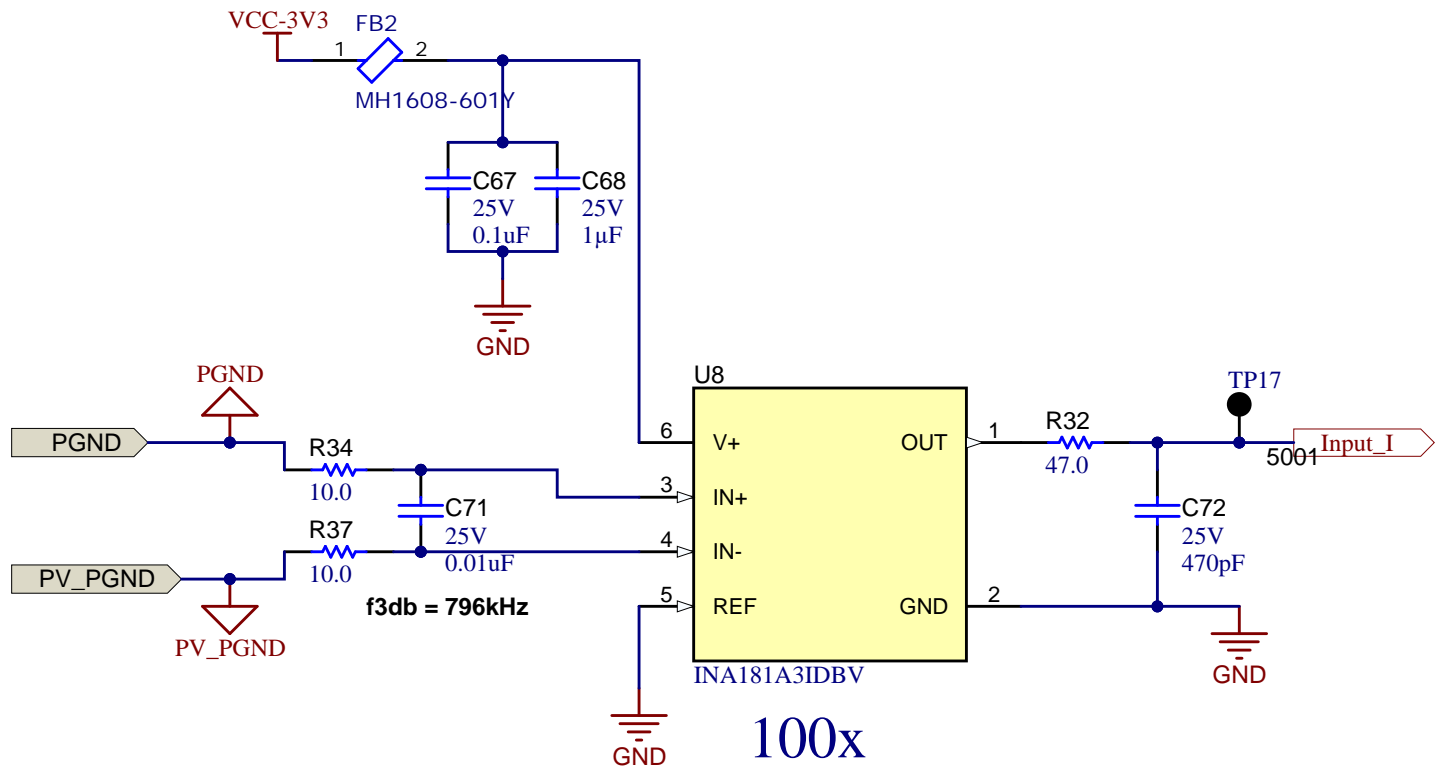
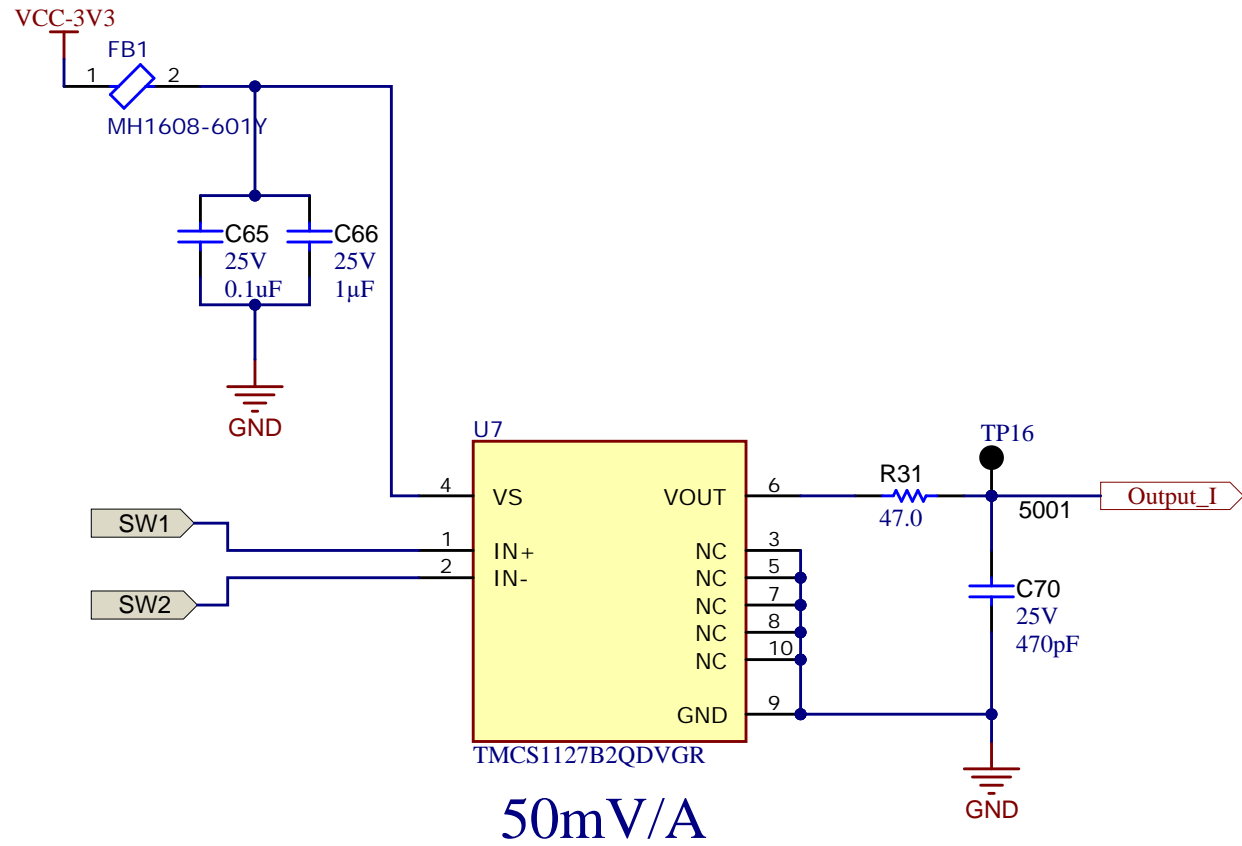




Texas Instruments and/or its licensors do not warrant the accuracy or completeness of this specification or any information contained therein. Texas Instruments and/or its licensors do not warrant that this design will meet the specifications, will be suitable for your application or fit for any particular purpose, or will operate in an implementation. Texas Instruments and/or its licensors do not warrant that the design is production worthy. You should completely validate and test your design implementation to confirm the system functionality for your application.

Orderable: <a href="#">ChangeMe in variant</a>	Designed for: <a href="#">Public Release</a>	Mod. Date: 10/9/2024
TID #: <a href="#">TIDA-010949</a>	Project Title: <a href="#">TIDA-010949</a>	
Number: <a href="#">TIDA-010949</a>	Rev: <a href="#">E1</a>	Sheet Title:
SVN Rev:	Assembly Variant: <a href="#">001</a>	Sheet: <a href="#">7</a> of <a href="#">8</a>
Drawn By:	File: <a href="#">TIDA-010949 Power Optimizer_Wireless.SchDoc</a>	Size: <a href="#">B</a>
Engineer: <a href="#">Energy Infrastructure Team</a>	Contact: <a href="#">http://www.ti.com/support</a>	





Texas Instruments and/or its licensors do not warrant the accuracy or completeness of this specification or any information contained therein. Texas Instruments and/or its licensors do not warrant that this design will meet the specifications, will be suitable for your application or fit for any particular purpose, or will operate in an implementation. Texas Instruments and/or its licensors do not warrant that the design is production worthy. You should completely validate and test your design implementation to confirm the system functionality for your application.

Orderable: <a href="#">ChangeMe in variant</a>	Designed for: <a href="#">Public Release</a>	Mod. Date: 10/9/2024
TID #: <a href="#">TIDA-010949</a>	Project Title: <a href="#">TIDA-010949</a>	
Number: <a href="#">TIDA-010949</a>	Rev: <a href="#">E1</a>	Sheet Title:
SVN Rev:	Assembly Variant: <a href="#">001</a>	Sheet: <a href="#">8 of 8</a>
Drawn By:	File: <a href="#">TIDA-010949 Power Optimizer_Sampling.SchDoc</a>	Size: <a href="#">A4</a>
Engineer: <a href="#">Energy Infrastructure Team</a>	Contact: <a href="#">http://www.ti.com/support</a>	





## IMPORTANT NOTICE AND DISCLAIMER

TI PROVIDES TECHNICAL AND RELIABILITY DATA (INCLUDING DATA SHEETS), DESIGN RESOURCES (INCLUDING REFERENCE DESIGNS), APPLICATION OR OTHER DESIGN ADVICE, WEB TOOLS, SAFETY INFORMATION, AND OTHER RESOURCES "AS IS" AND WITH ALL FAULTS, AND DISCLAIMS ALL WARRANTIES, EXPRESS AND IMPLIED, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT OF THIRD PARTY INTELLECTUAL PROPERTY RIGHTS.

These resources are intended for skilled developers designing with TI products. You are solely responsible for (1) selecting the appropriate TI products for your application, (2) designing, validating and testing your application, and (3) ensuring your application meets applicable standards, and any other safety, security, regulatory or other requirements.

These resources are subject to change without notice. TI grants you permission to use these resources only for development of an application that uses the TI products described in the resource. Other reproduction and display of these resources is prohibited. No license is granted to any other TI intellectual property right or to any third party intellectual property right. TI disclaims responsibility for, and you will fully indemnify TI and its representatives against, any claims, damages, costs, losses, and liabilities arising out of your use of these resources.

TI's products are provided subject to [TI's Terms of Sale](#) or other applicable terms available either on [ti.com](https://www.ti.com) or provided in conjunction with such TI products. TI's provision of these resources does not expand or otherwise alter TI's applicable warranties or warranty disclaimers for TI products.

TI objects to and rejects any additional or different terms you may have proposed.

Mailing Address: Texas Instruments, Post Office Box 655303, Dallas, Texas 75265  
Copyright © 2024, Texas Instruments Incorporated