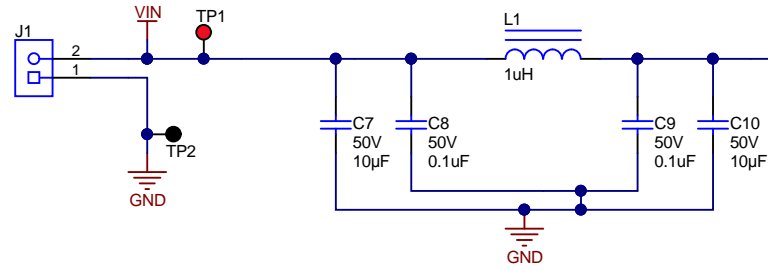
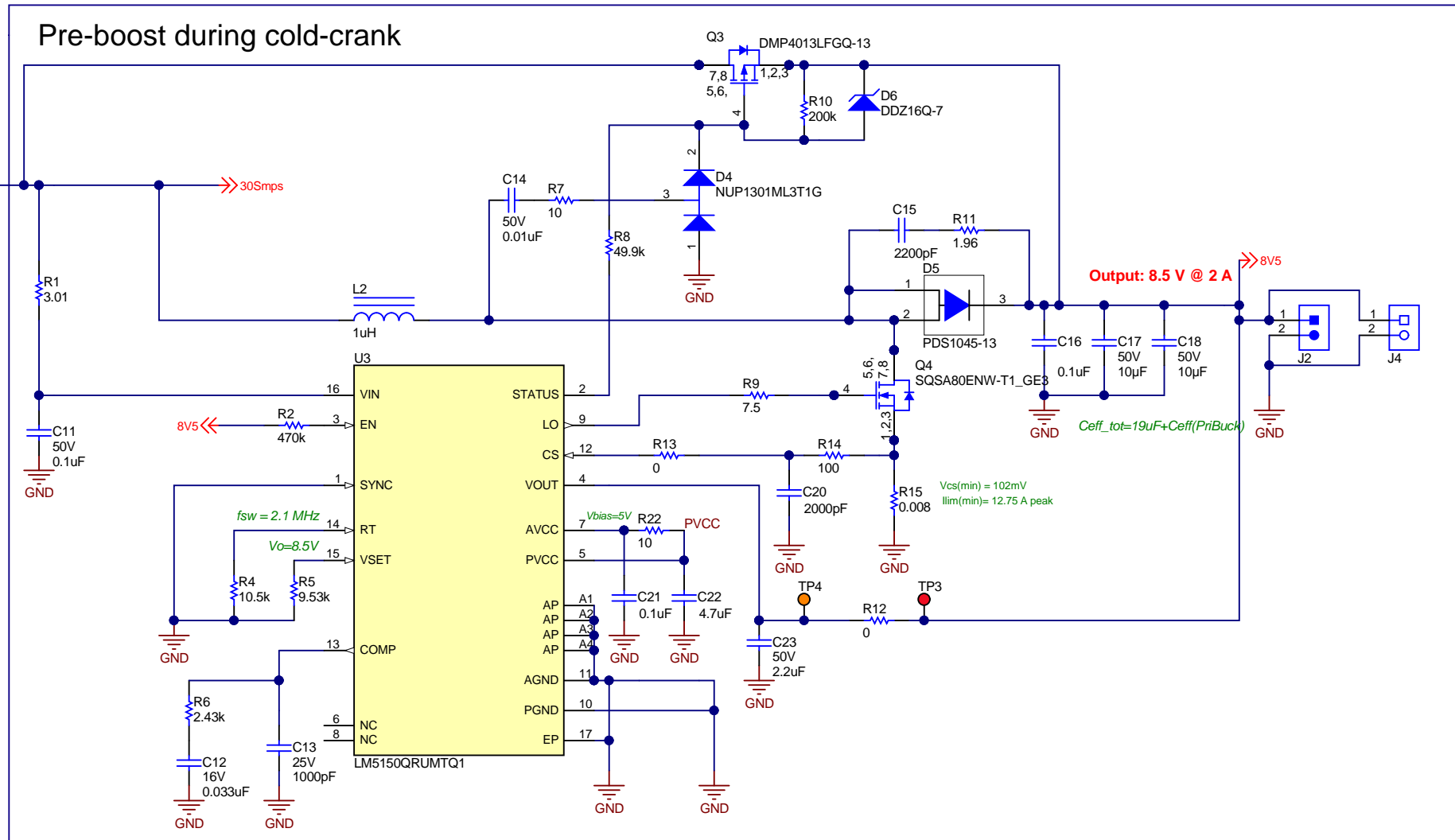


Input (nominal): 13.5 V @ 1.25 A  
 cold crank:  $V_{IN(min)} = 3.2\text{ V}$  @ 6.03 A  
 load dump:  $V_{IN(max)} = 40\text{ V}$

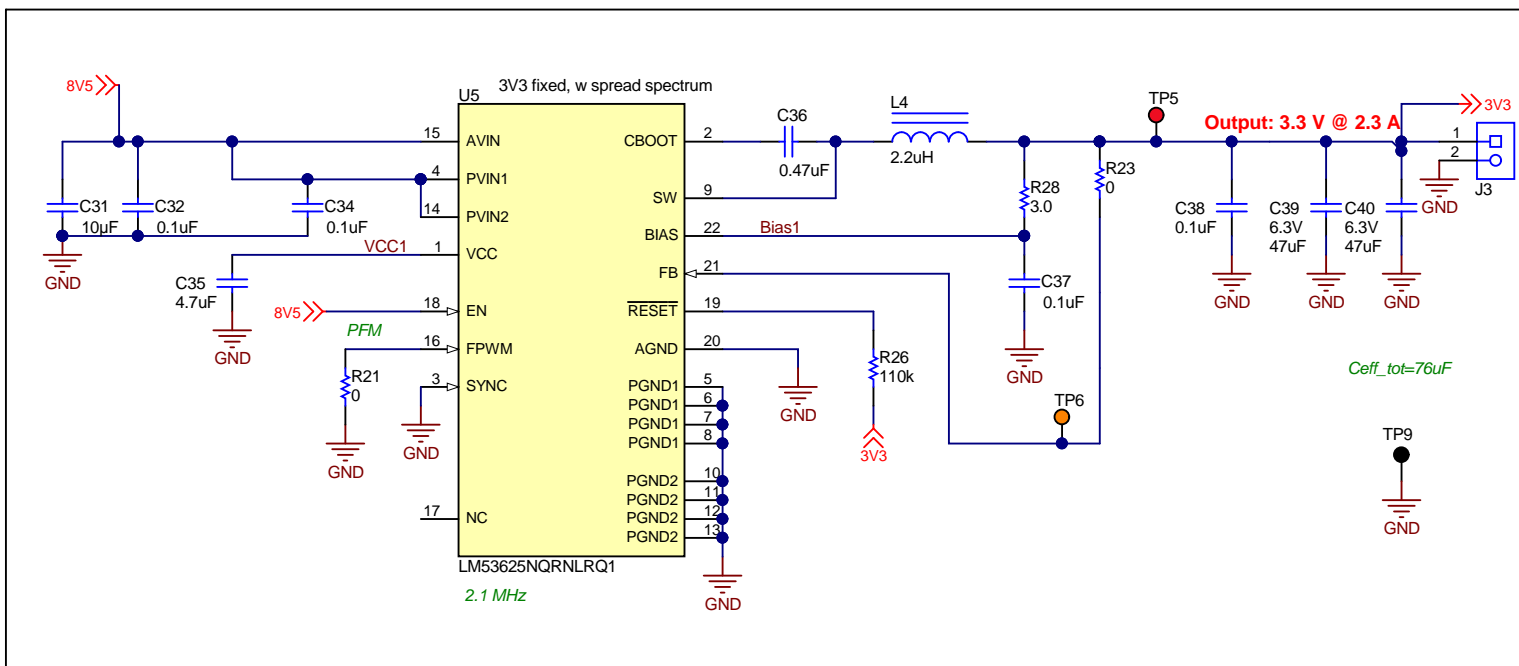
### Input Filter



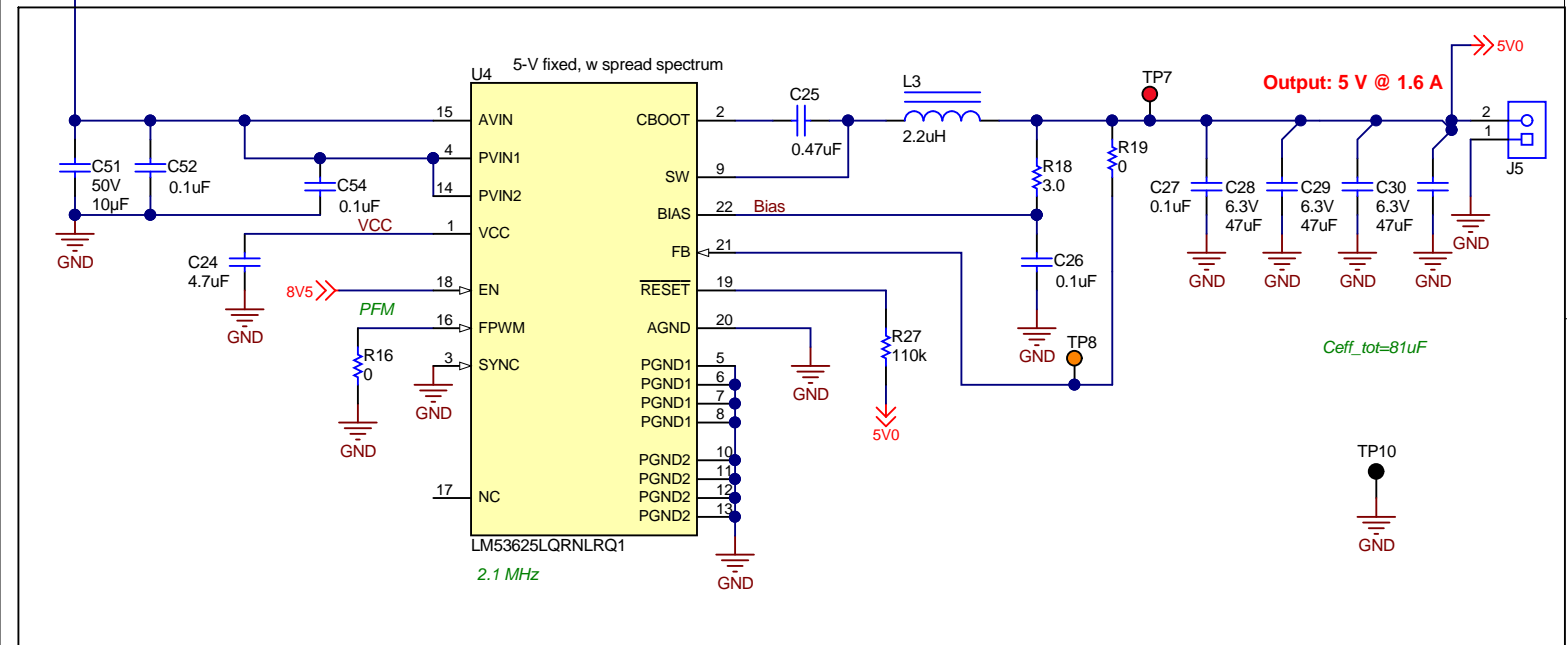
### Pre-boost during cold-crank



### Primary Buck 3V3

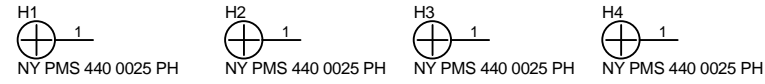


### Primary Buck 5V0



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: 1/23/2019
TID #: N/A	Project Title: Automotive Front-End Power Supply	
Number: PMP30548	Rev: A	Sheet Title:
SVN Rev: Version control disabled	Assembly Variant: 001	Sheet: 2 of 3
Drawn By:	File: PMP30548wLRevA.SchDoc	Size: B
Engineer: I.Weiss	Contact: <a href="http://www.ti.com/support">http://www.ti.com/support</a>	© Texas Instruments 2018




PCB Number: PMP30548  
 PCB Rev: A

ZZ1  
 Label Assembly Note  
 This Assembly Note is for PCB labels only

ZZ2  
 Assembly Note  
 These assemblies are ESD sensitive, ESD precautions shall be observed.

ZZ3  
 Assembly Note  
 These assemblies must be clean and free from flux and all contaminants. Use of no clean flux is not acceptable.

ZZ4  
 Assembly Note  
 These assemblies must comply with workmanship standards IPC-A-610 Class 2, unless otherwise specified.

Orderable: <a href="#">ChangeMe in variant</a>	Designed for: <a href="#">Public Release</a>	Mod. Date: 12/19/2018	 TEXAS INSTRUMENTS <a href="http://www.ti.com">http://www.ti.com</a> © Texas Instruments 2018
TID #: N/A	Project Title: <a href="#">Automotive Front-End Power Supply</a>		
Number: <a href="#">PMP30548</a>	Rev: <a href="#">A</a>	Sheet: 3 of 3	
SVN Rev: <a href="#">Version control disabled</a>	Assembly Variant: <a href="#">001</a>	Size: B	
Drawn By:	File: <a href="#">PMP30548wLRevA_Hardware.SchDoc</a>	Contact: <a href="http://www.ti.com/support">http://www.ti.com/support</a>	
Engineer: <a href="#">I.Weiss</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.

## IMPORTANT NOTICE AND DISCLAIMER

TI PROVIDES TECHNICAL AND RELIABILITY DATA (INCLUDING DATASHEETS), 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, 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 ([www.ti.com/legal/termsofsale.html](http://www.ti.com/legal/termsofsale.html)) or other applicable terms available either on [ti.com](http://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.

Mailing Address: Texas Instruments, Post Office Box 655303, Dallas, Texas 75265  
Copyright © 2019, Texas Instruments Incorporated