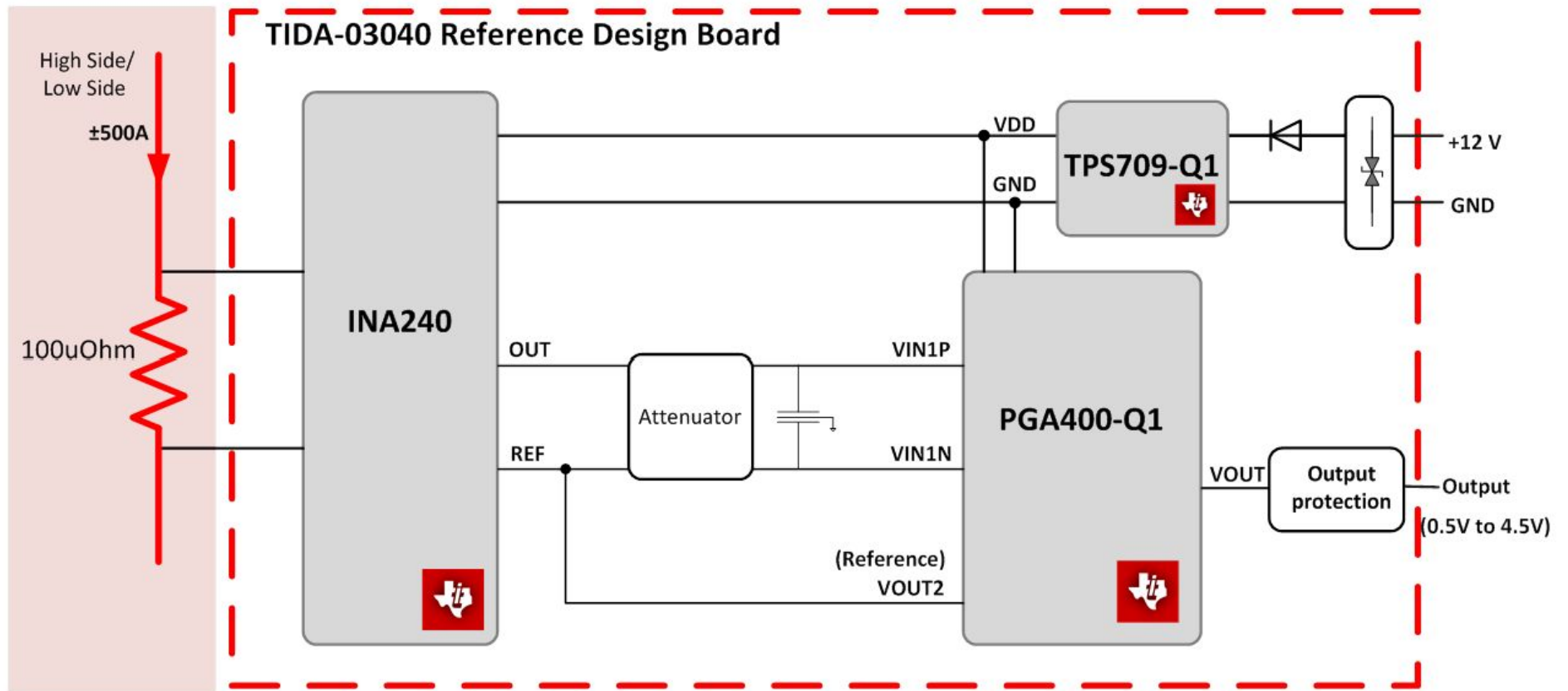


Revision History				
Rev	ECN #	Approved Date	Approved by	Notes
N/A	N/A	N/A	N/A	N/A



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 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: EVM, orderable	Designed for: Public Release	Mod. Date: 3/6/2017
TID #: TIDA-03040	Project Title: TIDA-03040 Automotive Shunt Based +/-500A Cu	
Number: TIDA-03040 Rev: E1	Sheet Title:	
Rev: Version control disabled	Assembly Variant: [No Variations]	Sheet: 1 of 3
Drawn By:	File: CoverSheet_SchDoc	Size: B
Engineer: Sandeep Tallada	Contact: http://www.ti.com/support	

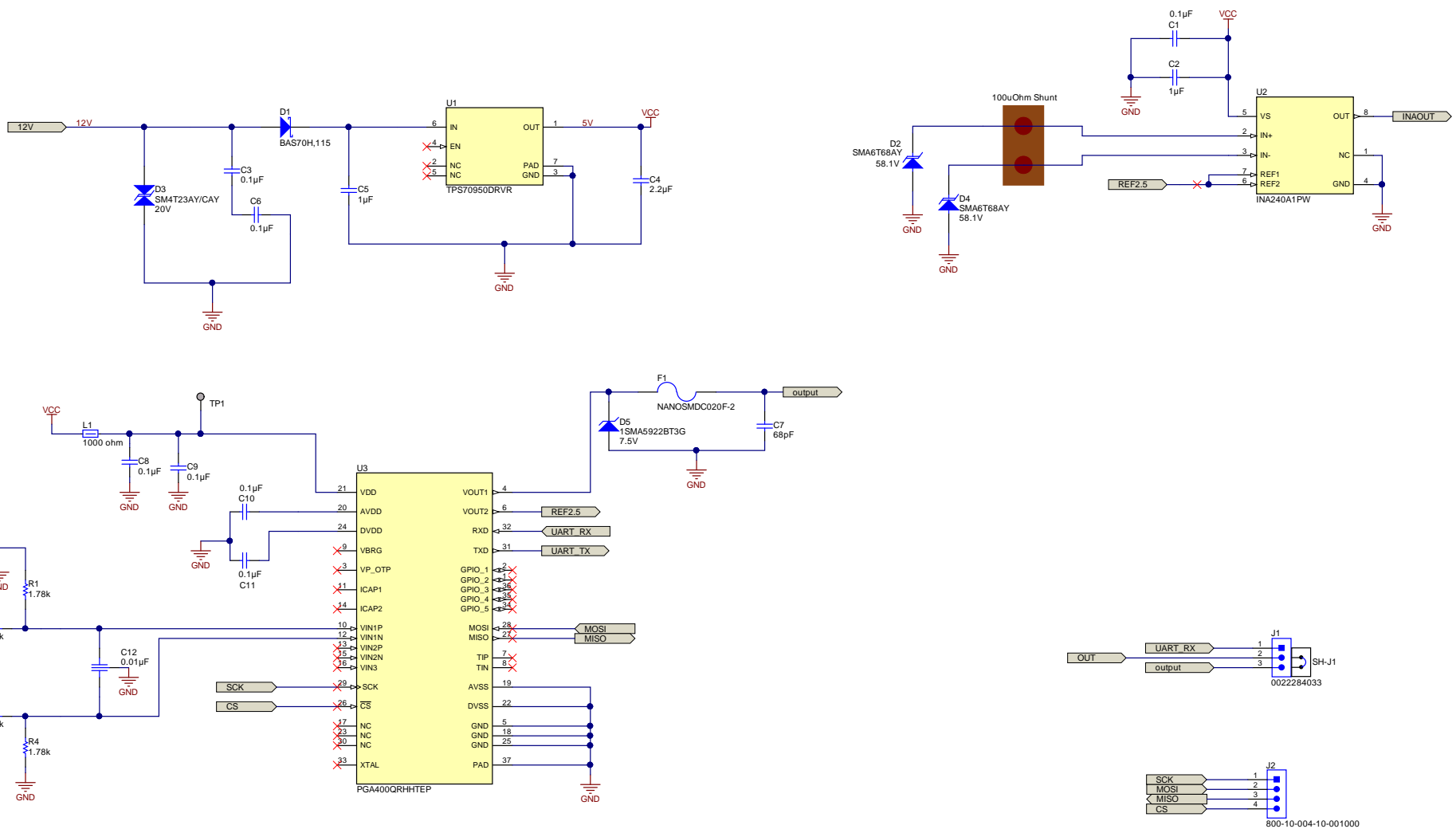


sign

D

B

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 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: EVM, orderable	Designed for: Public Release	Mod. Date: 2/21/2017
TID #: TIDA-03040	Project Title: TIDA-03040 Automotive Shunt Based +/-500A Cu	Sheet: 2 of 3
Number: TIDA-03040 Rev: E1	Sheet Title: TIDA-03040 Automotive Shunt Based +/-500A Cu	File: BlankSheet_SchDoc
Drawn By: Sandeep Tallada	Engineer: Sandeep Tallada	Contact: http://www.ti.com/support

© Texas Instruments 2016



PCB Number: TIDA-03040
PCB Rev: E1

PCB LOGO
Pb-Free Symbol
PCB LOGO
FCC disclaimer

You should delete the nylon screws/standoffs and/or the bump-ons as needed for your design (or substitute other parts from Hardware.IntLib). Bump-ons are cheaper, but provide less clearance.

Deleting anything else from this page may result in your EVM submission being rejected (until you add them back).

Update the Label Text in the Label Table as needed for each Assembly Variant.

You should delete this note too.

Variant/Label Table	
Variant	Label Text
001	ChangeMe!
002	ChangeMe!

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: EVM_orderable	Designed for: Public Release	Mod. Date: 2/27/2017
TID #: TIDA-03040	Project Title: TIDA-03040 Automotive Shunt Based +/-500A Cu	
Number: TIDA-03040 Rev: E1	Sheet Title:	Sheet: 3 of 3
Rev: Version control disabled	Assembly Variant: [No Variations]	Size: B
Drawn By: Engineer: Sandeep Tallada	File: EVM_Hardware_SchDoc	Contact: http://www.ti.com/support

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 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 2016



1 2 3 4 5 6

Layer	Name	Material	Thickness	Constant	Board Layer Stack
1	Top Overlay				
2	Top Solder	Solder Resist	0.40mil	3.5	
3	Top Layer	Copper	1.40mil		
4	Dielectric1	FR-4	59.20mil	4.8	
5	Bottom Layer	Copper	1.40mil		
6	Bottom Solder	Solder Resist	0.40mil	3.5	
7	Bottom Overlay				

Z21 ■ Install label in silkscreened box after final wash. Text shall be 8 pt font. Text shall be per the Label Table in the PDF schematic.
 Z22 ■ These assemblies are ESD sensitive, ESD precautions shall be observed.
 Z23 ■ These assemblies must be clean and free from flux and all contaminants. Use of no clean flux is not acceptable.
 Z24 ■ These assemblies must comply with workmanship standards IPC-A-610 Class 2, unless otherwise specified.

For evaluation only, not FCC approved for resale.

DESIGN INFORMATION

MIN. TRACK WIDTH: 8 MIL
 MIN. CLEARANCE: 0.2 mm
 MIN. VIA PAD SIZE: 24 MIL

MINIMUM ANNULAR RING 0.05mm (2MIL) EXTERNAL
 PER IPC-D-275 CLASS 2 LEVEL C
 REGISTRATION TOLERANCES: METAL +/- 5 MIL HOLES +/- 3 MIL
 HOLE SIZE TOLERANCE (UNLESS OTHERWISE SPECIFIED): +/- 3 MIL

MATERIAL:
 FR-408 FR-4 High Tg OTHER _____
 THICKNESS: 62 MIL (1.6mm) +/-10% OTHER _____
 TOLERANCE: ANSI IPC-6012 TYPE 3 CLASS 2
 OTHER +/- _____
 BOW & TWIST: ANSI IPC-6012 TYPE 3 CLASS 2
 OTHER +/- _____

DRILLING:
 REFERENCE: AS SHOWN NC_DRILL FILES
 PTH COPPER THICKNESS: 20-30 um OTHER _____

BOARD FINISH:
 SILKSCREEN: TOP BOTTOM
 SILKSCREEN COLOR: WHITE OTHER _____
 SOLDER RESIST COLOR: GREEN OTHER _____
 MATTE SEMI-GLOSS

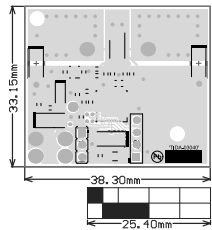
SURFACE FINISH: IMMERSION GOLD (ENIG) ENIG
 IMM. TIN/SILVER OR EQUIV OTHER _____

ARRAY/PANEL: CUT AND TRIM PER M1 BOARD OUTLINE
 N.C. ROUTE V. SCORE

CERTIFICATION: MATERIALS AND WORKMANSHIP FOR ALL PCBs TO MEET OR EXCEED THE REQUIREMENTS OF:
 ANSI IPC-A-600F CLASS -> 1 2 3
 RoHS OTHER PER ORDER

ALL BOARDS MUST MEET OR EXCEED UL94-V0 REQUIREMENTS.
 PCB MUST BEAR THE UL94V-0 UL REGISTERED MATERIAL ID NUMBER

ADDITIONAL REQUIREMENTS:
 MICROSECTION: YES
 BARE BOARD ELEC. TEST: NONE REQUIRED PER ORDER



COMPONENTS MARKED 'DNP' SHOULD NOT BE POPULATED.
 ASSEMBLY VARIANT: _____
 [No Variations]



PROJECT TITLE: TIDA-03040_Automotive Shunt Based +/-500A Current Sensor Reference Design

DESIGNED FOR: Public Release

FILE NAME: PCB_PcbDoc

ENGINEER: Sandeep Tallada LAYOUT BY: Sandeep Tallada

SCALE: 1.00 ALTIM DESIGNER VERSION: 16.0.1.132

PCB REFERENCE NUMBER: TIDA-03040	DATE: 08/08/2018	DESIGNED BY: Sandeep Tallada	DESIGNED FOR: Public Release
LAYER NAME = Top Overlay	TID #: 0100A08040	FILE NAME: PCB_PcbDoc	SCALE: 1.00
PLATTEN: 1	COMPOSITE: 1	GENERATED BY: 3-62261213	DATE: 08/08/2018

1 2 3 4 5 6

IMPORTANT NOTICE FOR TI DESIGN INFORMATION AND RESOURCES

Texas Instruments Incorporated ("TI") technical, application or other design advice, services or information, including, but not limited to, reference designs and materials relating to evaluation modules, (collectively, "TI Resources") are intended to assist designers who are developing applications that incorporate TI products; by downloading, accessing or using any particular TI Resource in any way, you (individually or, if you are acting on behalf of a company, your company) agree to use it solely for this purpose and subject to the terms of this Notice.

TI's provision of TI Resources does not expand or otherwise alter TI's applicable published warranties or warranty disclaimers for TI products, and no additional obligations or liabilities arise from TI providing such TI Resources. TI reserves the right to make corrections, enhancements, improvements and other changes to its TI Resources.

You understand and agree that you remain responsible for using your independent analysis, evaluation and judgment in designing your applications and that you have full and exclusive responsibility to assure the safety of your applications and compliance of your applications (and of all TI products used in or for your applications) with all applicable regulations, laws and other applicable requirements. You represent that, with respect to your applications, you have all the necessary expertise to create and implement safeguards that (1) anticipate dangerous consequences of failures, (2) monitor failures and their consequences, and (3) lessen the likelihood of failures that might cause harm and take appropriate actions. You agree that prior to using or distributing any applications that include TI products, you will thoroughly test such applications and the functionality of such TI products as used in such applications. TI has not conducted any testing other than that specifically described in the published documentation for a particular TI Resource.

You are authorized to use, copy and modify any individual TI Resource only in connection with the development of applications that include the TI product(s) identified in such TI Resource. NO OTHER LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE TO ANY OTHER TI INTELLECTUAL PROPERTY RIGHT, AND NO LICENSE TO ANY TECHNOLOGY OR INTELLECTUAL PROPERTY RIGHT OF TI OR ANY THIRD PARTY IS GRANTED HEREIN, including but not limited to any patent right, copyright, mask work right, or other intellectual property right relating to any combination, machine, or process in which TI products or services are used. Information regarding or referencing third-party products or services does not constitute a license to use such products or services, or a warranty or endorsement thereof. Use of TI Resources may require a license from a third party under the patents or other intellectual property of the third party, or a license from TI under the patents or other intellectual property of TI.

TI RESOURCES ARE PROVIDED "AS IS" AND WITH ALL FAULTS. TI DISCLAIMS ALL OTHER WARRANTIES OR REPRESENTATIONS, EXPRESS OR IMPLIED, REGARDING TI RESOURCES OR USE THEREOF, INCLUDING BUT NOT LIMITED TO ACCURACY OR COMPLETENESS, TITLE, ANY EPIDEMIC FAILURE WARRANTY AND ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND NON-INFRINGEMENT OF ANY THIRD PARTY INTELLECTUAL PROPERTY RIGHTS.

TI SHALL NOT BE LIABLE FOR AND SHALL NOT DEFEND OR INDEMNIFY YOU AGAINST ANY CLAIM, INCLUDING BUT NOT LIMITED TO ANY INFRINGEMENT CLAIM THAT RELATES TO OR IS BASED ON ANY COMBINATION OF PRODUCTS EVEN IF DESCRIBED IN TI RESOURCES OR OTHERWISE. IN NO EVENT SHALL TI BE LIABLE FOR ANY ACTUAL, DIRECT, SPECIAL, COLLATERAL, INDIRECT, PUNITIVE, INCIDENTAL, CONSEQUENTIAL OR EXEMPLARY DAMAGES IN CONNECTION WITH OR ARISING OUT OF TI RESOURCES OR USE THEREOF, AND REGARDLESS OF WHETHER TI HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

You agree to fully indemnify TI and its representatives against any damages, costs, losses, and/or liabilities arising out of your non-compliance with the terms and provisions of this Notice.

This Notice applies to TI Resources. Additional terms apply to the use and purchase of certain types of materials, TI products and services. These include; without limitation, TI's standard terms for semiconductor products (<http://www.ti.com/sc/docs/stdterms.htm>), [evaluation modules](#), and [samples](http://www.ti.com/sc/docs/sampterm.htm) (<http://www.ti.com/sc/docs/sampterm.htm>).

Mailing Address: Texas Instruments, Post Office Box 655303, Dallas, Texas 75265
Copyright © 2017, Texas Instruments Incorporated