


NOTES, UNLESS OTHERWISE SPECIFIED:

1. The netname "DMD_P3P3V" represents connection to the +3.3V digital power plane.
2. The symbol  represents connection to the digital ground plane.
3. A "Z" suffix on a signal name indicates an active low signal.
4. All components with designators "U", "D", "Y" and "Q" are electrostatic discharge sensitive.
5. All resistor values are in ohms, 1/16W and 5% unless otherwise specified.

HIGHEST REFERENCE DESIGNATORS USED						
C103	D5	J4	L5	R56	TP31	U7
Q9						



COMPUTER GENERATED DRAWING - DO NOT REVISE MANUALLY			
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	Initial Release	7/15/2020	

BEFORE USING TECHNICAL INFORMATION, THE USER SHOULD CAREFULLY READ THE FOLLOWING TERMS.

The term "Technical Information" includes reference designs, drawings, specifications, and other information relating to TI digital imaging products or applications, contained herein or provided separately in any format or via any medium.

TI is providing Technical Information for the convenience of purchasers of digital imaging products ("Users"), and will not accept any responsibility or liability arising from providing the Technical Information or its use. Any use or reliance on Technical Information is strictly the responsibility of the User.

1. **No Warranty. THE TECHNICAL INFORMATION IS PROVIDED "AS IS".** TI MAKES NO WARRANTIES OR REPRESENTATIONS, EXPRESS, IMPLIED OR STATUTORY, INCLUDING LACK OF VIRUSES, ACCURACY, OR COMPLETENESS. TI DISCLAIMS ANY WARRANTY OF TITLE, ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, QUIET ENJOYMENT, QUIET POSSESSION, AND NON-INFRINGEMENT OF ANY THIRD PARTY INTELLECTUAL PROPERTY RIGHTS WITH REGARD TO THE TECHNICAL INFORMATION OR THE USE OF THOSE MATERIALS.
2. **Warranty for Products Not Affected.** The foregoing exclusion and disclaimer of warranty does not affect or diminish any warranty rights with regard to digital imaging products. Such rights are governed exclusively by the terms of a written and signed purchase agreement with TI.
3. **Limitations and Exclusion of Damages.** IN NO EVENT SHALL TI BE LIABLE FOR ANY ACTUAL, SPECIAL, INCIDENTAL, CONSEQUENTIAL OR INDIRECT DAMAGES, HOWEVER CAUSED, ON ANY THEORY OF LIABILITY AND WHETHER OR NOT TI HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, ARISING IN ANY WAY OUT OF THE TECHNICAL INFORMATION OR THE USE OF THE TECHNICAL INFORMATION.
4. **No Engineering Services.** User is fully responsible for all design decisions and engineering with regard to its products, including decisions relating to application of digital imaging products. By providing Technical Information TI does not intend to offer or provide engineering services or advice concerning User's design. If User desires engineering services, then User should rely on its retained employees and consultants and/or procure engineering services from a licensed professional engineer ("LPE").
5. **Compliance with Export Control Laws.** Unless prior authorization is obtained from the U.S. Department of Commerce, User may not export, re-export, or release, directly or indirectly, any Technical Information, or export, directly or indirectly, any direct product of such Technical Information to any destination or country to which the export, re-export or release of the Technical Information or direct product is prohibited by the Export Administration Regulations of the U.S. Department of Commerce ("EAR").

OWN	Amy White	DATE	3/9/2015	TEXAS INSTRUMENTS <small>(C) COPYRIGHT 2015 TEXAS INSTRUMENTS ALL RIGHTS RESERVED</small>	
ENGR	Amy White	DATE	3/9/2015		
SVST					
PRJ	John O'Connor	DATE	3/9/2015		
DA				TITLE	DLPCR67EVM - DLP041
NEXT ASSY		USED ON		D	DRAWING NO. 2514417
APPLICATION		SCALE	Cadence 16.6	REV	A
					SHEET 1 of 7

J1 & J2

Input Flex
Connector

From
Slave
ASIC

From
Master
ASIC

A/B DMD DATA (DD_AP[15:0], DD_AN[15:0], DD_BP[15:0], DD_BN[15:0])
A/B DMD CLK (DCLK_AP, DCLK_AN, DCLK_BP, DCLK_BN)
A/B SCTRL (SCTRL_AN, SCTRL_AP, SCTRL_BN, SCTRL_BP)

C/D DMD DATA (DD_CP[15:0], DD_CN[15:0], DD_DP[15:0], DD_DN[15:0])
C/D DMD CLK (DCLK_CP, DCLK_CN, DCLK_DP, DCLK_DN)
C/D SCTRL (SCTRL_CN, SCTRL_CP, SCTRL_DN, SCTRL_DP)

DAD CONTROL (STROBE, MODE[1:0], SEL[1:0], ADDR[3:0], OEZ)

SCP CONTROL (CLK, DO, DI, ENZ, IRQZ)

DMD_RSTZ

U1
VREG
3.3V->1.8V

3.3V

U2

DMD Power Supplies

U5, U6, U7
Level Translators
3.3V->1.8V

VOFFSET

VBIAS

VRESET

PG_OFFSET

EN_OFFSET

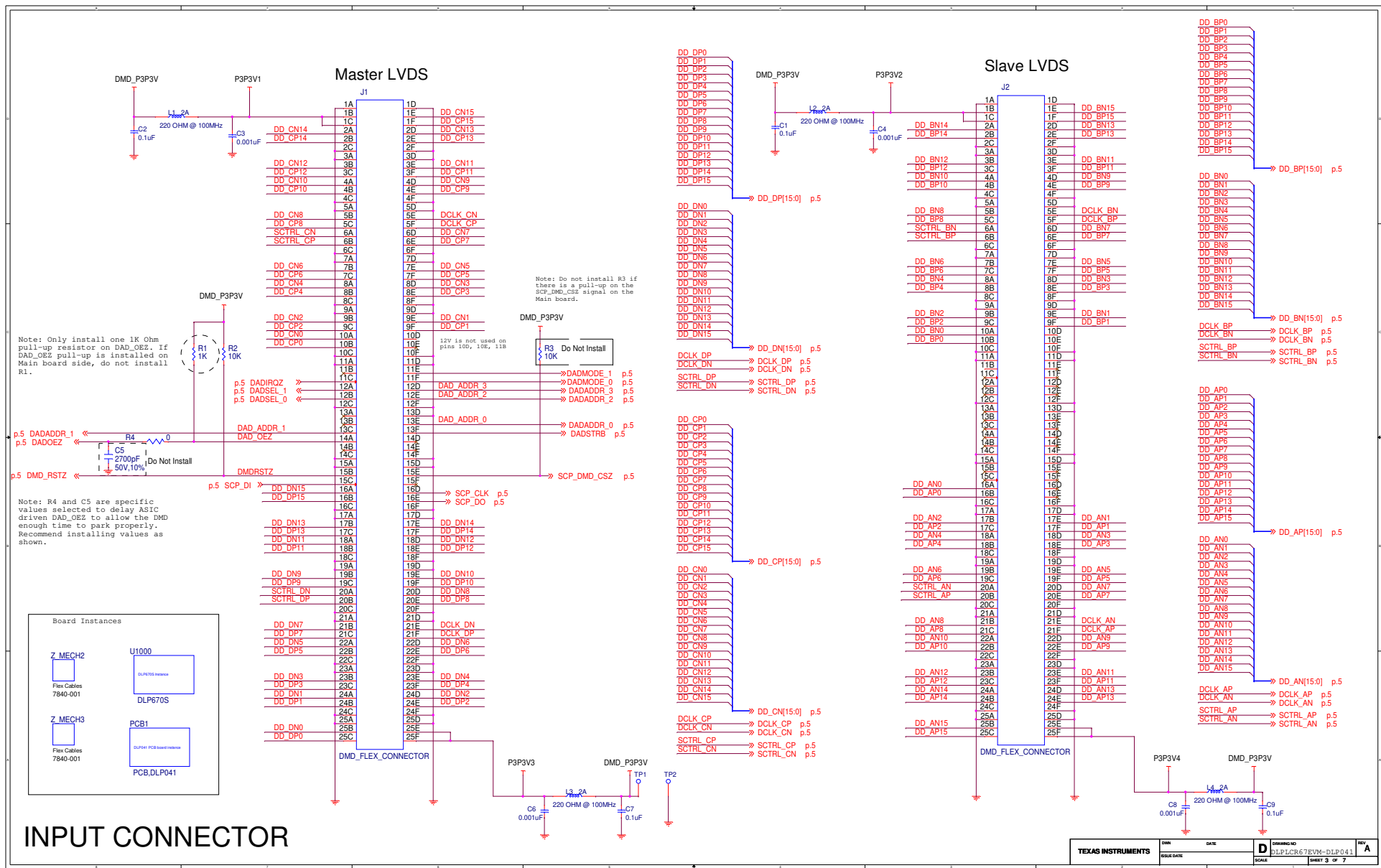
U3

DLP670S

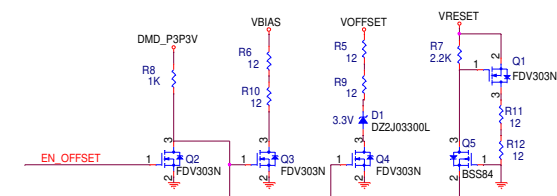
PAGE 3

PAGE 4

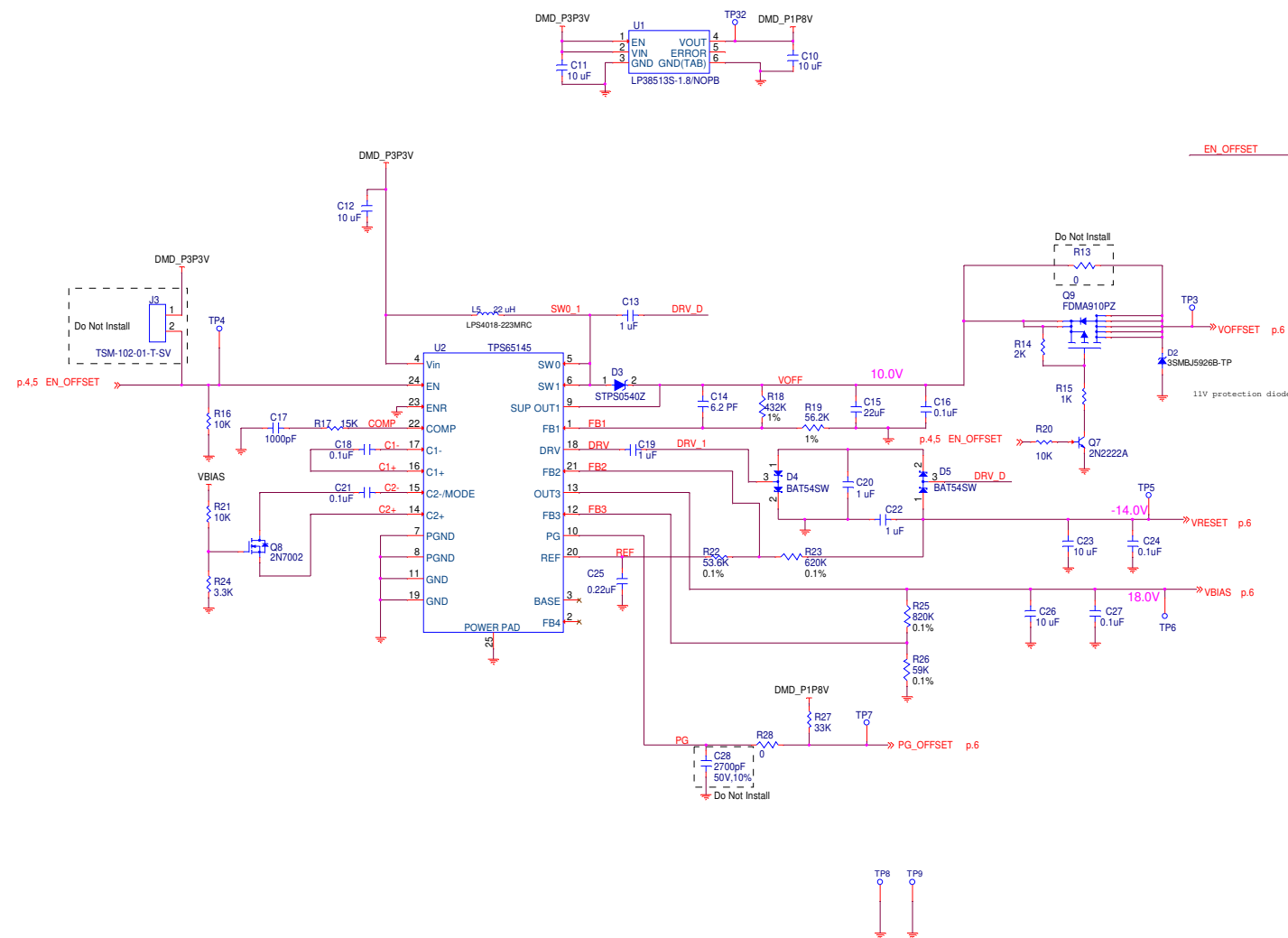
PAGE 5 & 6



Power Down Circuitry

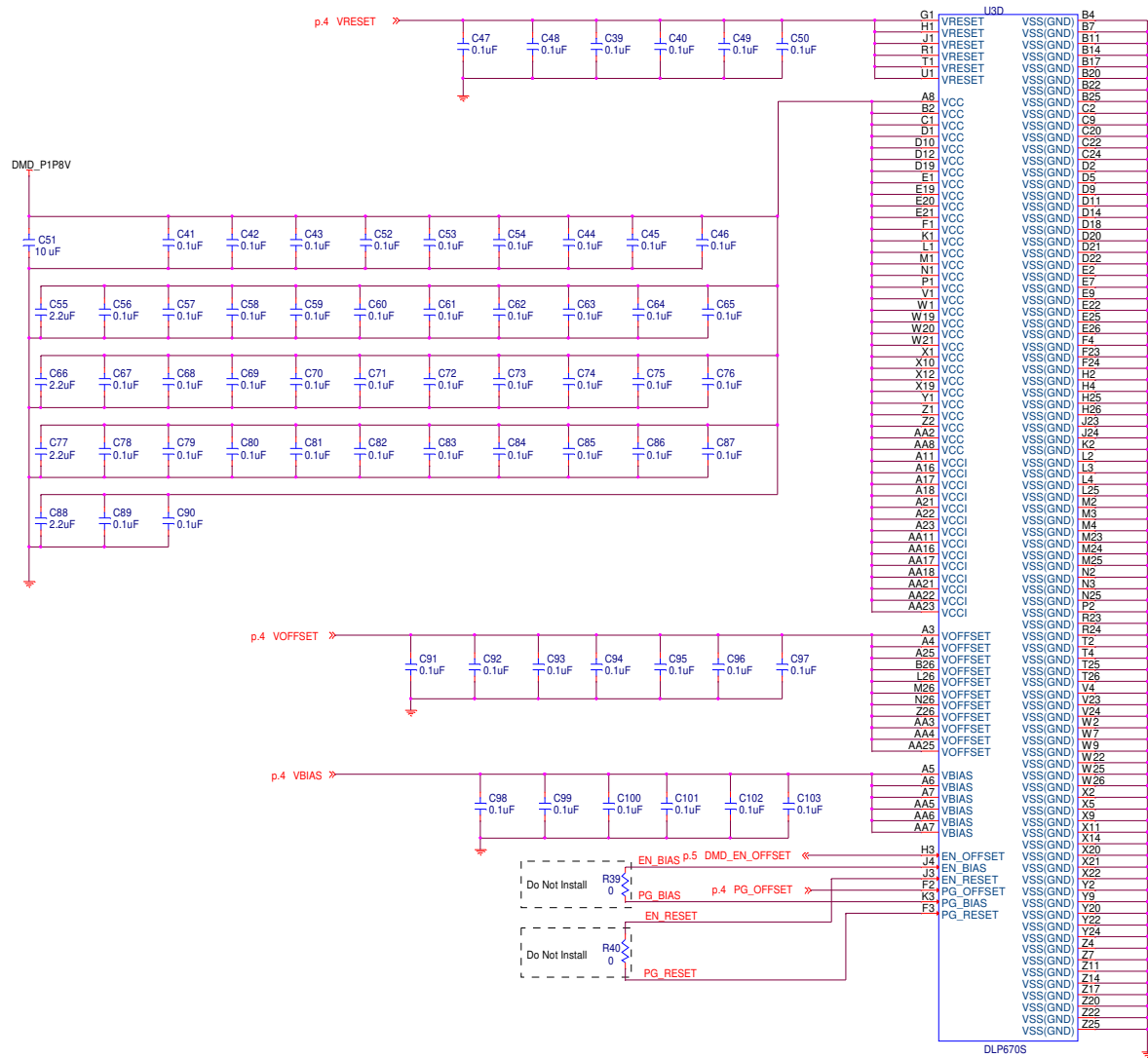


DMD Power Supplies



TEXAS INSTRUMENTS	OWN	DATE	DRAWING NO. D01PLCR67EVM-DIP041	REV. A
	ISSUE DATE			

SCALE: 1:1 SHEET 4 OF 7



DMD Power/Gnd

IMPORTANT NOTICE FOR TI REFERENCE DESIGNS

Texas Instruments Incorporated ("TI") reference designs are solely intended to assist designers ("Buyers") who are developing systems that incorporate TI semiconductor products (also referred to herein as "components"). Buyer understands and agrees that Buyer remains responsible for using its independent analysis, evaluation and judgment in designing Buyer's systems and products.

TI reference designs have been created using standard laboratory conditions and engineering practices. **TI has not conducted any testing other than that specifically described in the published documentation for a particular reference design.** TI may make corrections, enhancements, improvements and other changes to its reference designs.

Buyers are authorized to use TI reference designs with the TI component(s) identified in each particular reference design and to modify the reference design in the development of their end products. HOWEVER, NO OTHER LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE TO ANY OTHER TI INTELLECTUAL PROPERTY RIGHT, AND NO LICENSE TO ANY THIRD PARTY TECHNOLOGY OR INTELLECTUAL PROPERTY RIGHT, 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 components or services are used. Information published by TI regarding third-party products or services does not constitute a license to use such products or services, or a warranty or endorsement thereof. Use of such information 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 REFERENCE DESIGNS ARE PROVIDED "AS IS". TI MAKES NO WARRANTIES OR REPRESENTATIONS WITH REGARD TO THE REFERENCE DESIGNS OR USE OF THE REFERENCE DESIGNS, EXPRESS, IMPLIED OR STATUTORY, INCLUDING ACCURACY OR COMPLETENESS. TI DISCLAIMS ANY WARRANTY OF TITLE AND ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, QUIET ENJOYMENT, QUIET POSSESSION, AND NON-INFRINGEMENT OF ANY THIRD PARTY INTELLECTUAL PROPERTY RIGHTS WITH REGARD TO TI REFERENCE DESIGNS OR USE THEREOF. TI SHALL NOT BE LIABLE FOR AND SHALL NOT DEFEND OR INDEMNIFY BUYERS AGAINST ANY THIRD PARTY INFRINGEMENT CLAIM THAT RELATES TO OR IS BASED ON A COMBINATION OF COMPONENTS PROVIDED IN A TI REFERENCE DESIGN. IN NO EVENT SHALL TI BE LIABLE FOR ANY ACTUAL, SPECIAL, INCIDENTAL, CONSEQUENTIAL OR INDIRECT DAMAGES, HOWEVER CAUSED, ON ANY THEORY OF LIABILITY AND WHETHER OR NOT TI HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, ARISING IN ANY WAY OUT OF TI REFERENCE DESIGNS OR BUYER'S USE OF TI REFERENCE DESIGNS.

TI reserves the right to make corrections, enhancements, improvements and other changes to its semiconductor products and services per JESD46, latest issue, and to discontinue any product or service per JESD48, latest issue. Buyers should obtain the latest relevant information before placing orders and should verify that such information is current and complete. All semiconductor products are sold subject to TI's terms and conditions of sale supplied at the time of order acknowledgment.

TI warrants performance of its components to the specifications applicable at the time of sale, in accordance with the warranty in TI's terms and conditions of sale of semiconductor products. Testing and other quality control techniques for TI components are used to the extent TI deems necessary to support this warranty. Except where mandated by applicable law, testing of all parameters of each component is not necessarily performed.

TI assumes no liability for applications assistance or the design of Buyers' products. Buyers are responsible for their products and applications using TI components. To minimize the risks associated with Buyers' products and applications, Buyers should provide adequate design and operating safeguards.

Reproduction of significant portions of TI information in TI data books, data sheets or reference designs is permissible only if reproduction is without alteration and is accompanied by all associated warranties, conditions, limitations, and notices. TI is not responsible or liable for such altered documentation. Information of third parties may be subject to additional restrictions.

Buyer acknowledges and agrees that it is solely responsible for compliance with all legal, regulatory and safety-related requirements concerning its products, and any use of TI components in its applications, notwithstanding any applications-related information or support that may be provided by TI. Buyer represents and agrees that it has all the necessary expertise to create and implement safeguards that anticipate dangerous failures, monitor failures and their consequences, lessen the likelihood of dangerous failures and take appropriate remedial actions. Buyer will fully indemnify TI and its representatives against any damages arising out of the use of any TI components in Buyer's safety-critical applications.

In some cases, TI components may be promoted specifically to facilitate safety-related applications. With such components, TI's goal is to help enable customers to design and create their own end-product solutions that meet applicable functional safety standards and requirements. Nonetheless, such components are subject to these terms.

No TI components are authorized for use in FDA Class III (or similar life-critical medical equipment) unless authorized officers of the parties have executed an agreement specifically governing such use.

Only those TI components that TI has specifically designated as military grade or "enhanced plastic" are designed and intended for use in military/aerospace applications or environments. Buyer acknowledges and agrees that any military or aerospace use of TI components that have **not** been so designated is solely at Buyer's risk, and Buyer is solely responsible for compliance with all legal and regulatory requirements in connection with such use.

TI has specifically designated certain components as meeting ISO/TS16949 requirements, mainly for automotive use. In any case of use of non-designated products, TI will not be responsible for any failure to meet ISO/TS16949.

Mailing Address: Texas Instruments, Post Office Box 655303, Dallas, Texas 75265
Copyright © 2014, Texas Instruments Incorporated

TEXAS INSTRUMENTS	OWN	DATE	D	DRAWING NO	REV A
	ISSUE DATE			DLPLCR67EVM-DLP041	
			SCALE	SHEET 7 OF 7	