


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	
B	L5 reduction	3/17/2025	

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	Aaron Black		DATE	3/19/2025		TEXAS INSTRUMENTS (C) COPYRIGHT 2025 TEXAS INSTRUMENTS ALL RIGHTS RESERVED					
		ENGR	Aaron Black			3/19/2025							
		BY	Michael McCormick			3/19/2025							
		PRJ											
		QA						TITLE					
								DLPLCR67EVM - DLP041					
NEXT ASSY		USED ON						D	DRAWING NO.		2514417	REV	B
APPLICATION				SW		Cadence 17.2			SCALE		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

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

U1
VREG
3.3V->1.8V

3.3V

U2

DMD Power Supplies

VOFFSET

VBIAS

VRESET

PG_OFFSET

EN_OFFSET

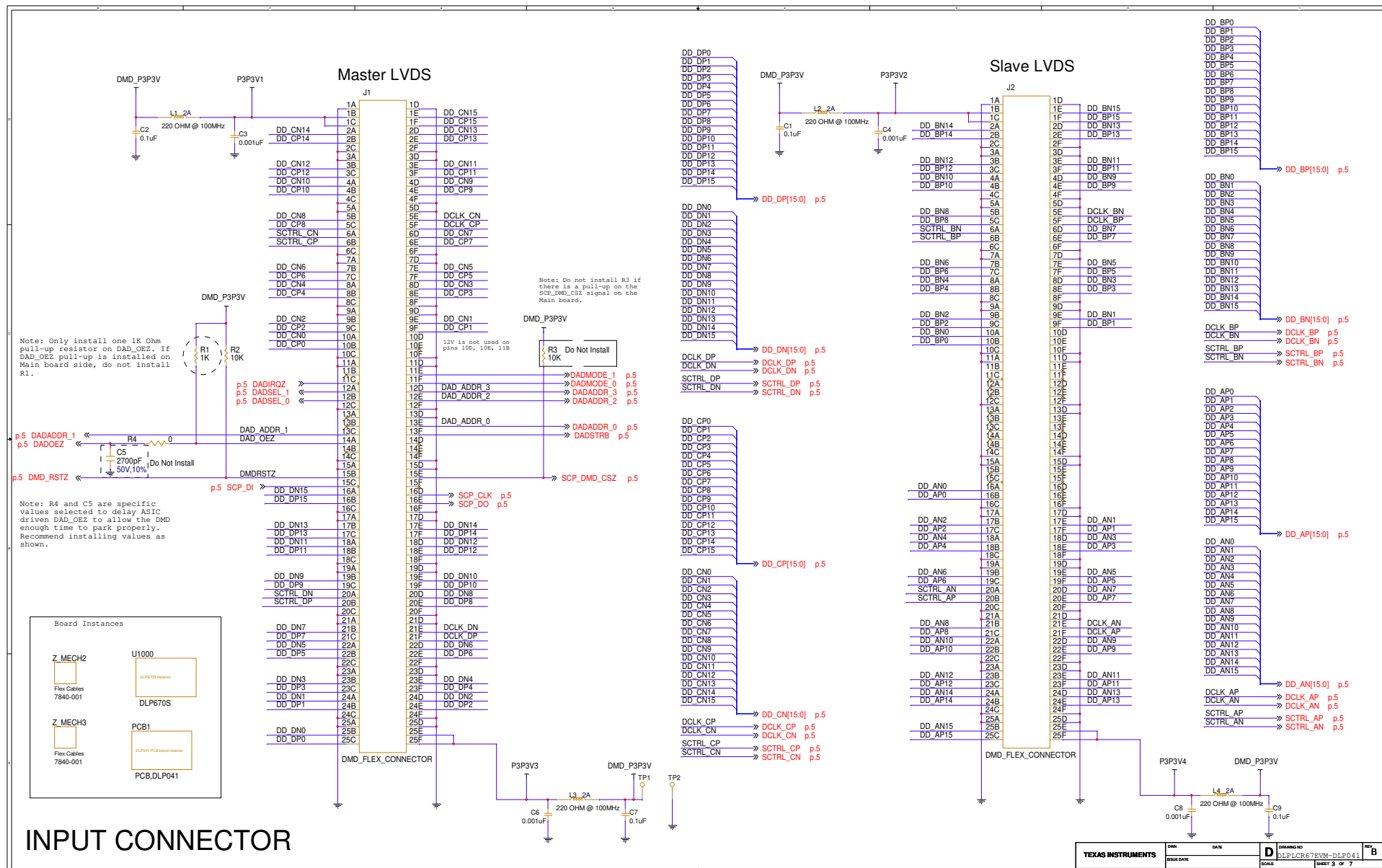
U3

DLP670S

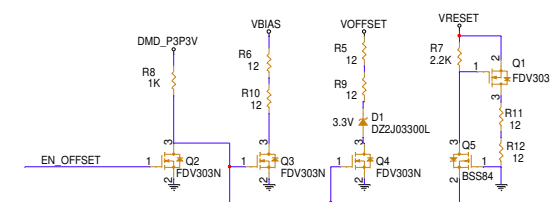
PAGE 3

PAGE 4

PAGE 5 & 6



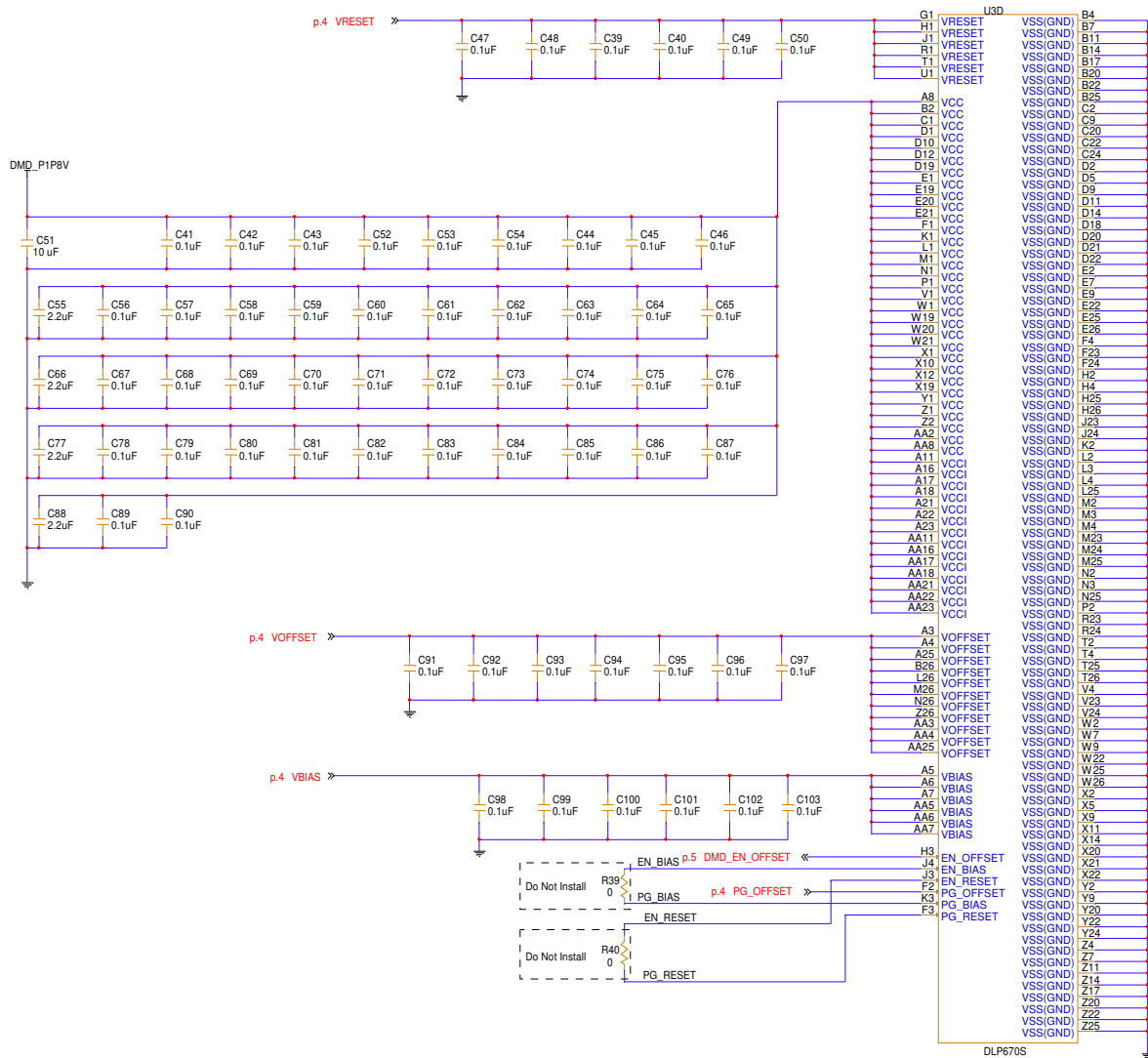
Power Down Circuitry



DMD Power Supplies

TEXAS INSTRUMENTS	OWN	DATE	DRAWING NO.	REV.
	ISSUE DATE			

D	DLPICR67EVM-DIP041	SHEET 4 OF 7



DMD Power/Gnd

IMPORTANT NOTICE FOR TI REFERENCE DESIGNS

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 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 © 2025, Texas Instruments Incorporated