


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.



		OWN	OSCAR GUERRA	DATE	6/17/2023	<b>TEXAS INSTRUMENTS</b> <small>© COPYRIGHT 2003 TEXAS INSTRUMENTS ALL RIGHTS RESERVED</small>	
		ENGR				TITLE	
		BY				DLP480RE DMD Board	
		PRJ				REV	
		QA				C	
NEXT ASSY	USED ON					D	DRAWING NO
APPLICATION		SW	DLP103				SHEET 1 of 8

J500

HPC FMC CONNECTOR

From  
Secondary  
Controller

From  
Primary  
Controller

PAGE 3

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[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

U7

DMD Power Supplies

PAGE 4

U10, U11, U12  
Level Translators  
3.3V->1.8V

VOFFSET

VBIAS

VRESET

PG\_OFFSET

EN\_OFFSET

U8

DLP480RE

PAGE 5 & 6

TEXAS INSTRUMENTS

DESIGNED BY Oscar Gutierrez DATE 6/17/2022

ISSUE DATE

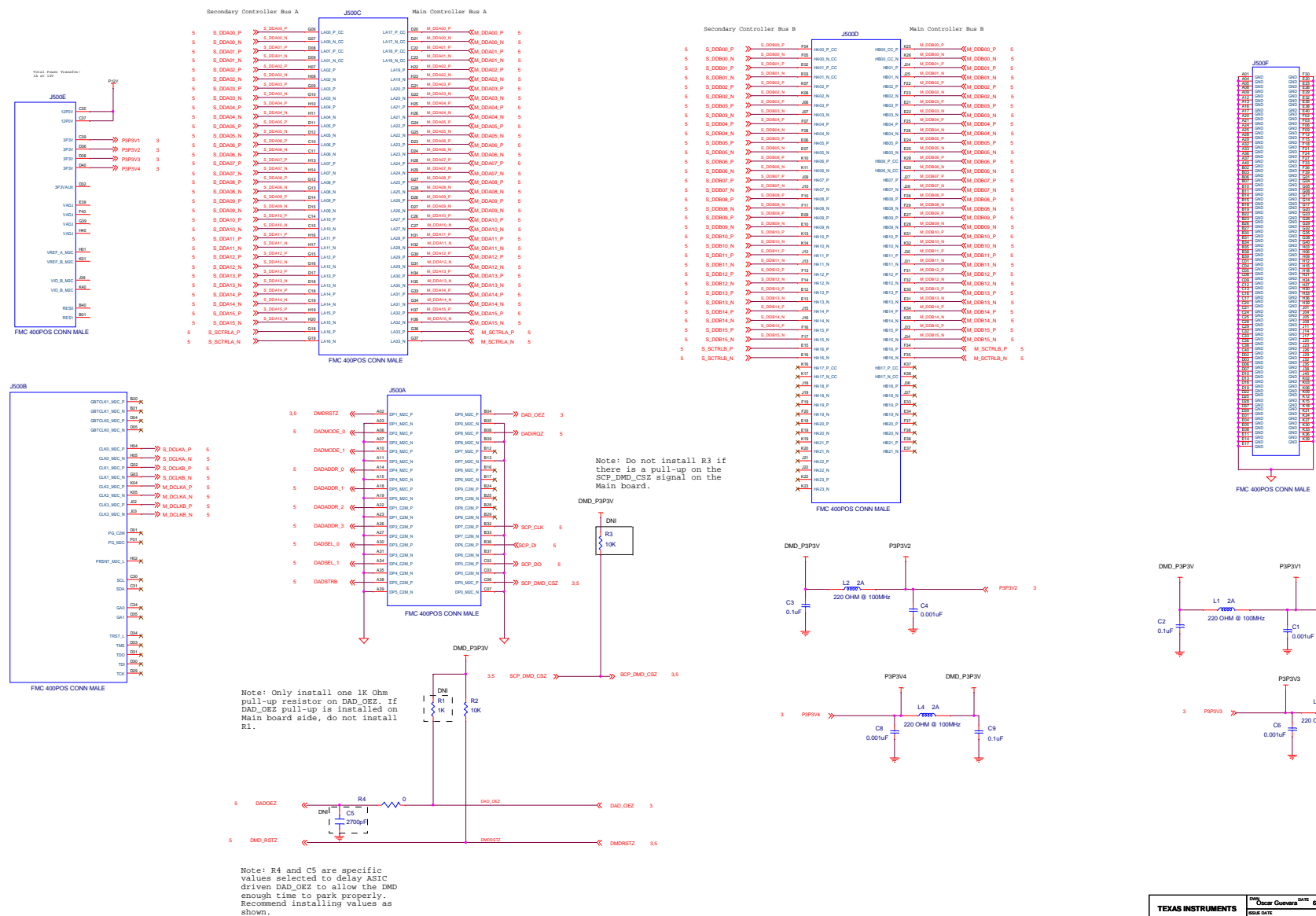
SCALE

SHEET 2 OF 8

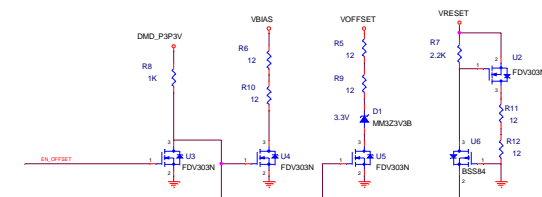
D DLP103

REV

C

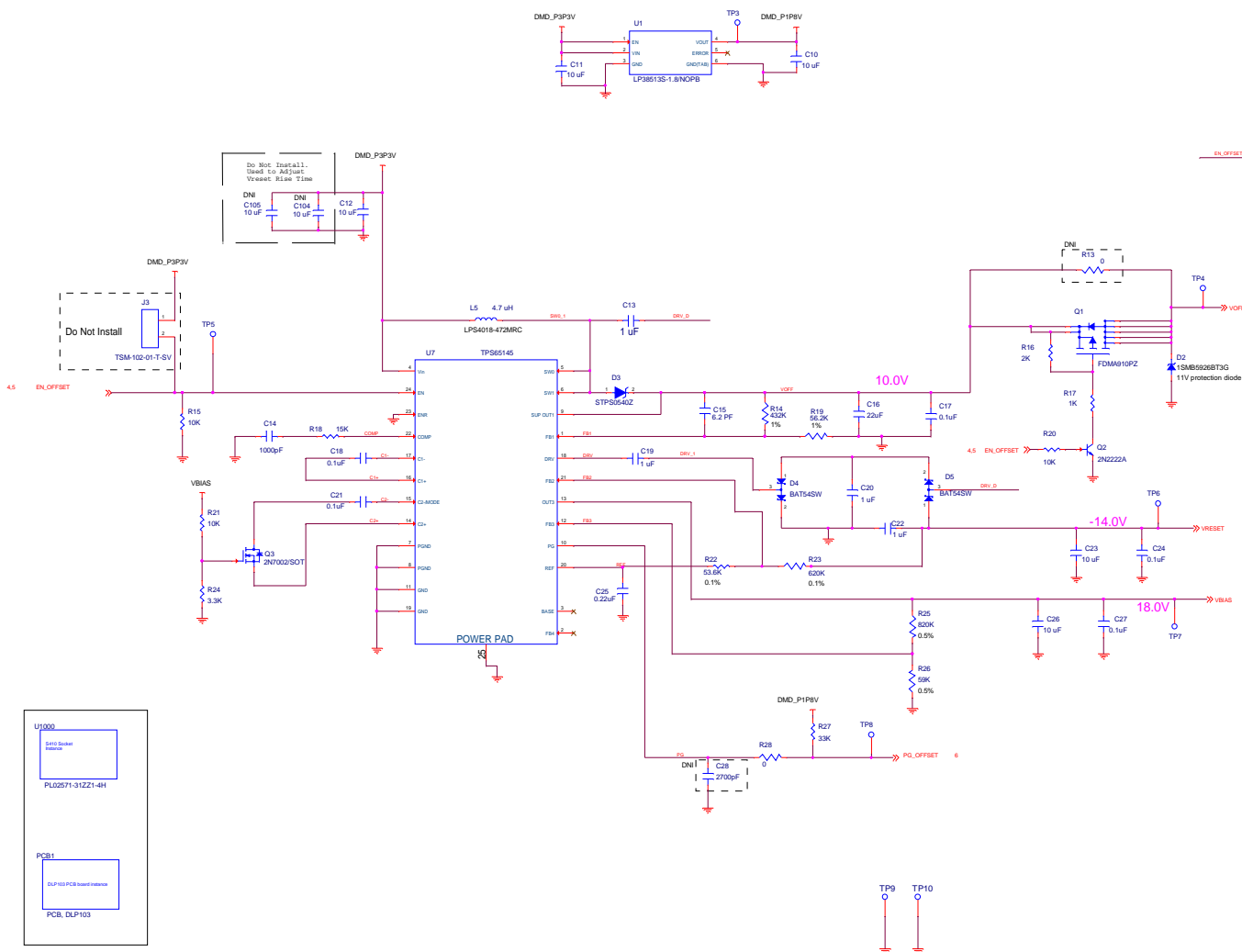


## Power Down Circuitry



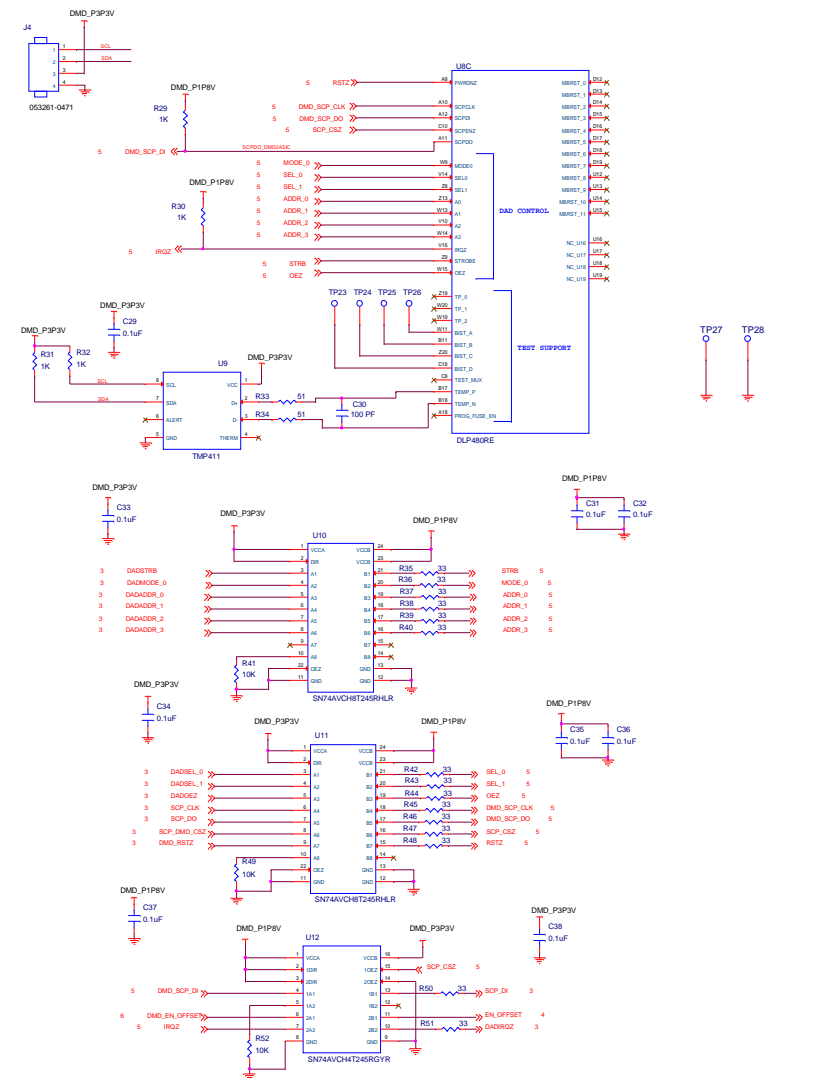
## DMD Power Supplies

TEXAS INSTRUMENTS	DESIGNER	DATE	DRAWING NO.	REV.
	Oscar Guzman	6/17/2022		
	ISSUE DATE		D	C
			DLP103	
			2024	

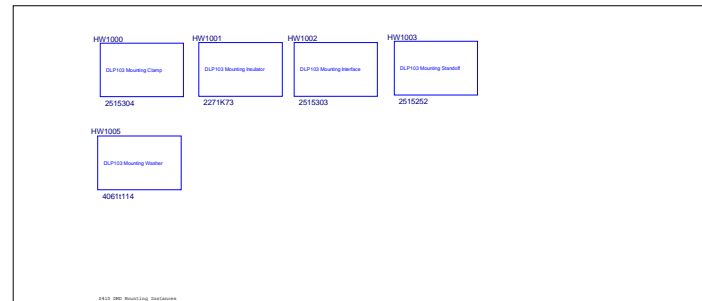
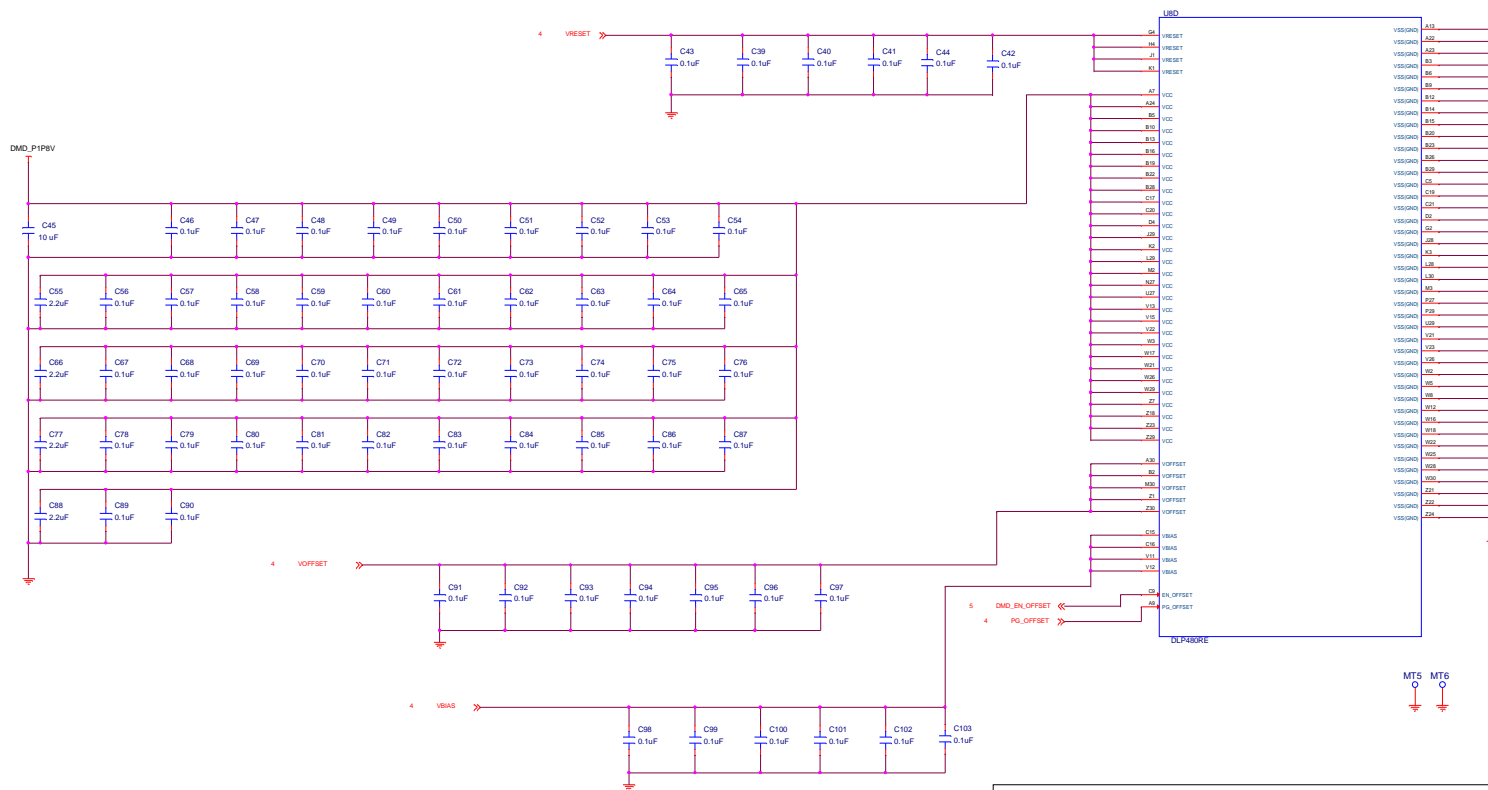


U1000  
24V10 Buck  
Regulator  
PL02571-012Z1-4H

PCB1  
DLP103 PCB Board Release  
PCB, DLP103



TEXAS INSTRUMENTS	DWN Oscar Guevara DATE 6/17/2022	D	DRAWING NO DLP103		REV C
	ISSUE DATE		SCALE	SHEET 5 OF 8	



## DMD Power/Gnd

TEXAS INSTRUMENTS	DATE	6/17/2022	DRAWING NO.	DLP103	REV.	C
	ISSUE DATE					

SHEET 6 OF 8

Revision A:  
Initial Release

Revision B:  
R25 tolerance changed from 0.5% to 0.1%  
R26 tolerance changed from 0.5% to 0.1%

Revision C:  
Removed J1 & J2 Flex Cable Interface  
Added J500 FMC Connector

**TEXAS INSTRUMENTS**

DWN	Oscar Guevara	DATE	6/17/2022
ISSUE DATE			

**B**

DRAWING NO	DLP103
------------	--------

**EV**  
**C**

SCALE	SHEET 7 OF 8
-------	--------------

### 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 © 2023, Texas Instruments Incorporated

TEXAS INSTRUMENTS	DWN	Oscar Guevara	DATE	6/17/2022	C	DRAWING NO		DLP103	REV	C
	ISSUE DATE					SCALE		SHEET 8 OF 8		