



NOTES, UNLESS OTHERWISE SPECIFIED:

- 1. The netname "P3P3V" represents connection to the +3.3V digital power plane.
- 2. The netname "P2P5V" represents connection to the +2.5V digital power plane.
- 3. The netname "P1P8V" represents connection to the +1.8V digital power plane.
- 4. The netname "P1P2V" represents connection to the +1.2V digital power plane.
- 5. The netname "P12V" represents connection to the +12V digital power plane.
- 6. The symbol  represents connection to the digital ground plane.
- 7. The symbol  represents connection to a ground plane isolated from digital ground.
- 8. A "Z" suffix on a signal name indicates an active low signal.
- 9. A "HC_X" suffix on a signal name indicates a high current trace.
The "X" portion is the required current rating in Amps.
- 10. All components with designators "U", "D", "Y" and "Q" are electrostatic discharge sensitive.
- 11. All resistor values are in ohms, 1/16W and 5% unless otherwise specified.

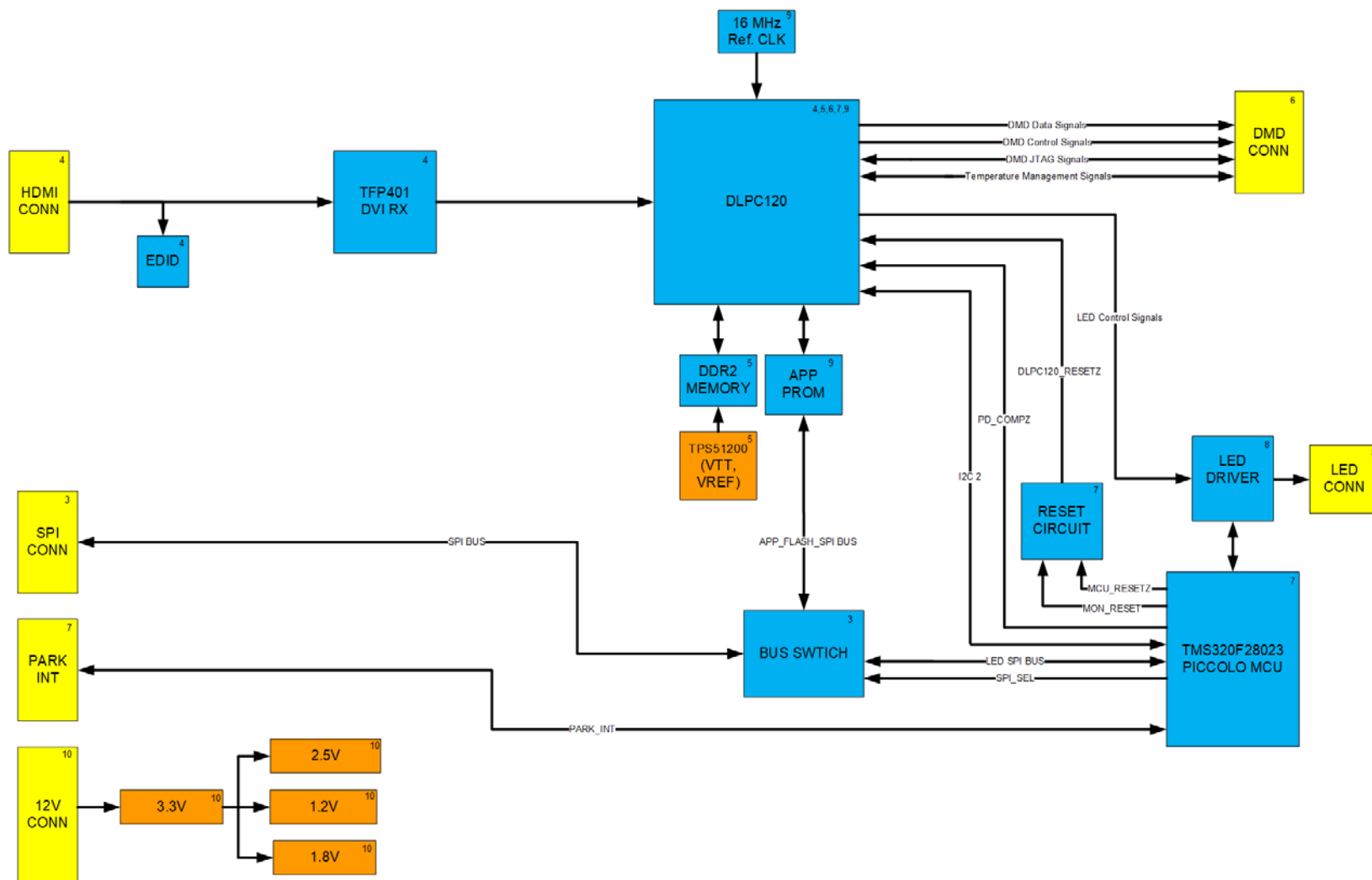


PCB, DLP3034Q1 Controller
TIDA-080006

COMPUTER GENERATED DRAWING. DO NOT REVISE MANUALLY			
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	Initial Board Release	TBD	

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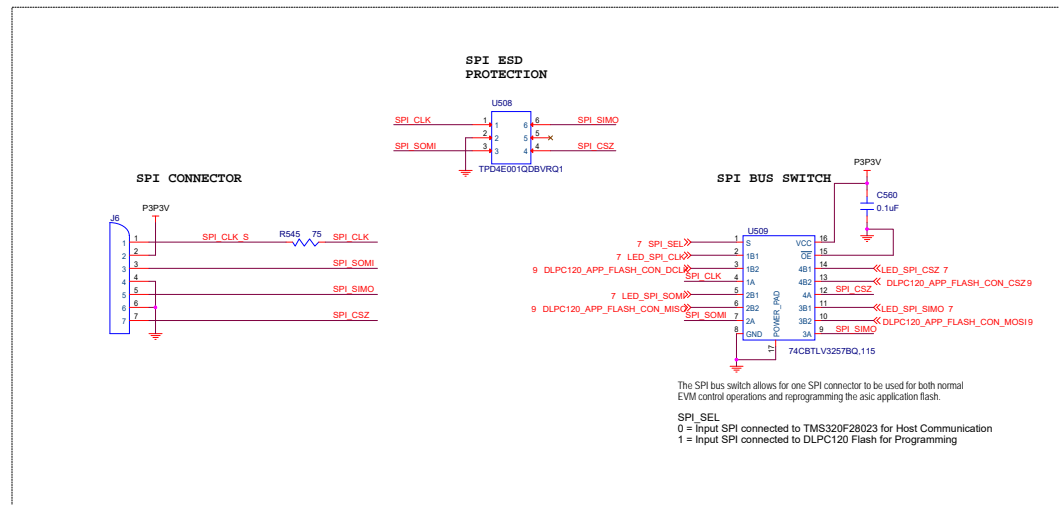
Orderable: NA		Designed for: Public Release		Mod. Date: 2/10/2019		TEXAS INSTRUMENTS http://www.ti.com
TID #: TIDA-080006		Project Title: Transparent window display 405-nm projector electronics				
Number:	Rev: A	Sheet Title: Controller Board Cover sheet				
SVN Rev: Version control disabled		Assembly Variant: NA		SHEET	1 of 10	
Drawn by: George Pawlowski		File: TIDA-080006_Controller.DSN		Size: D		
Engineer: George Pawlowski		Contact: http://www.ti.com				(C) TEXAS INSTRUMENTS 2019



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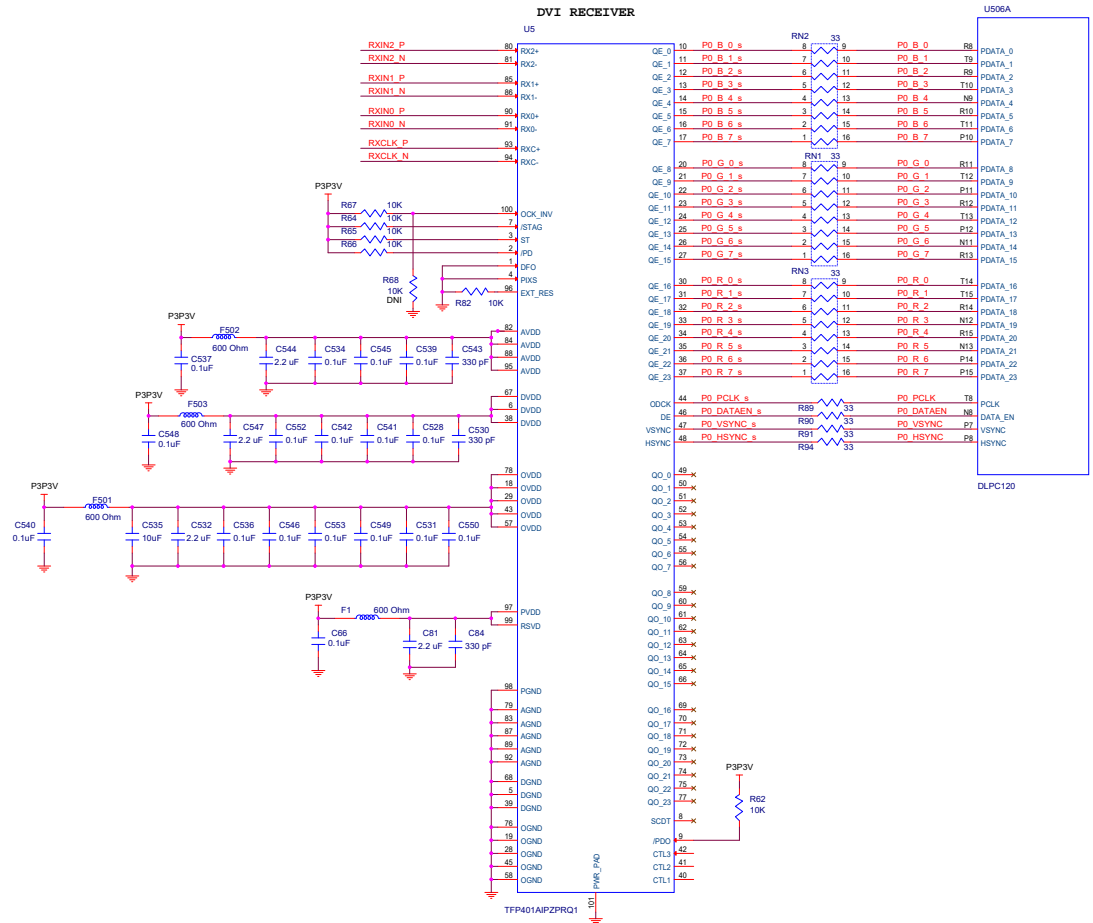
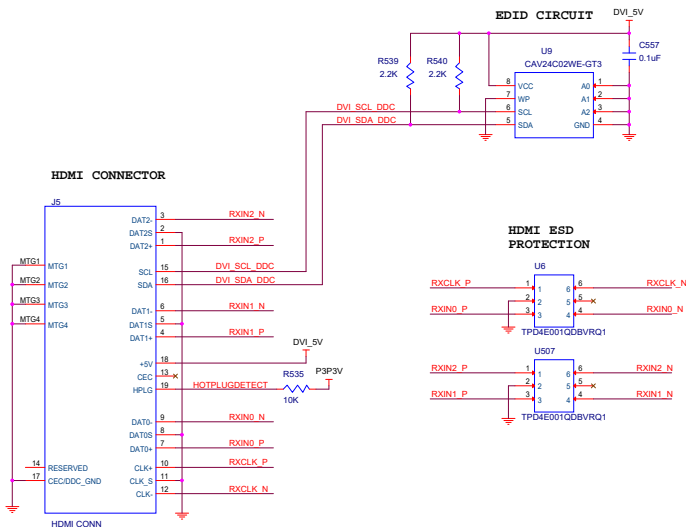
Orderable: NA	Designed for: Public Release	Mod. Date: 2/10/2019	TEXAS INSTRUMENTS http://www.ti.com (C) TEXAS INSTRUMENTS 2019
TID #: TIDA-080006	Rev: A	Project Title: Transparent window display 405-nm projector electronics	
Number:	Rev: A	Sheet Title: Controller Board - Block Diagram	
SVN Rev: Version control disabled	Assembly Variant: NA	SHEET 2 of 10	
Drawn by: George Pawlowski	File: TIDA-080006_Controller.DSN	Size: D	
Engineer: George Pawlowski	Contact: http://www.ti.com		

SPI INPUT BLOCK



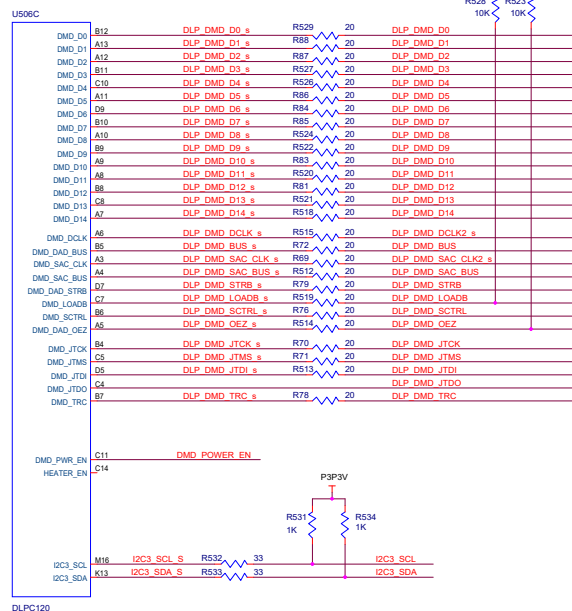
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TID #: TIDA-080006	Project Title: Transparent window display 405-nm projector electronics	Rev: A	
Number:	Sheet Title: Controller Board - SPI Input	Assembly Variant: NA	
SVN Rev: Version control disabled	File: TIDA-080006_Controller.DSN	SHEET 3 of 10	
Drawn by: George Pawlowski	Contact: http://www.ti.com	Src: D	

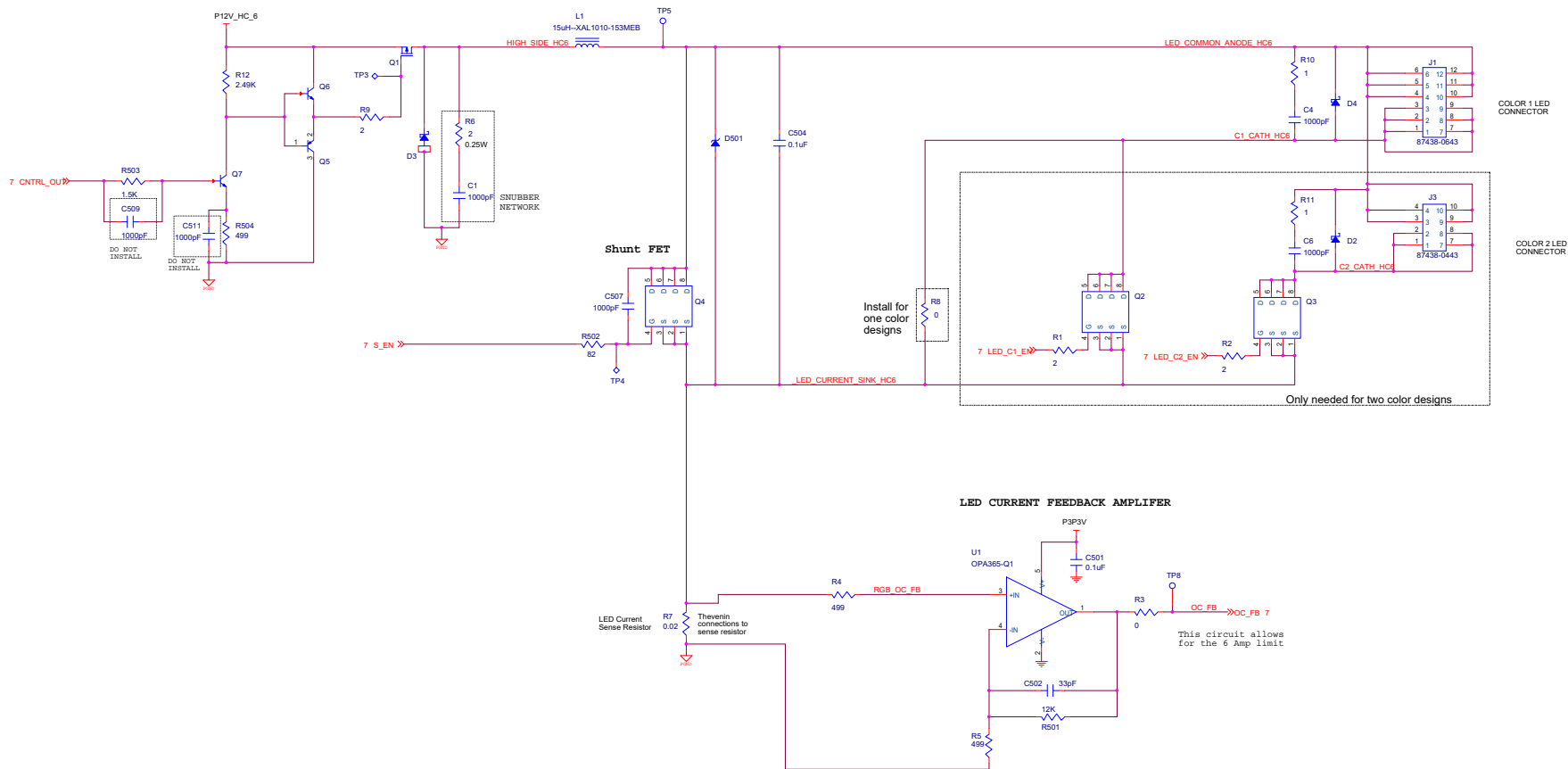


Orderable: NA	Designed for: Public Release	Mod. Date: 2/10/2019	TEXAS INSTRUMENTS
TID #: TIDA-080006	Project Title: Transparent window display 405-nm projector electronics		
Number:	Rev: A	Sheet Title: Controller Board - Video I/F	
SVN Rev: Version control disabled	Assembly Variant: NA	SHEET 4 of 10	http://www.ti.com
Drawn by: George Pawlowski	File: TIDA-080006_Controller.DSN	Src: D	
Engineer: George Pawlowski	Contact: http://www.ti.com		(C) TEXAS INSTRUMENTS 2019

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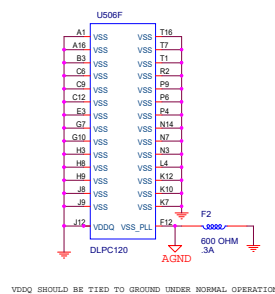
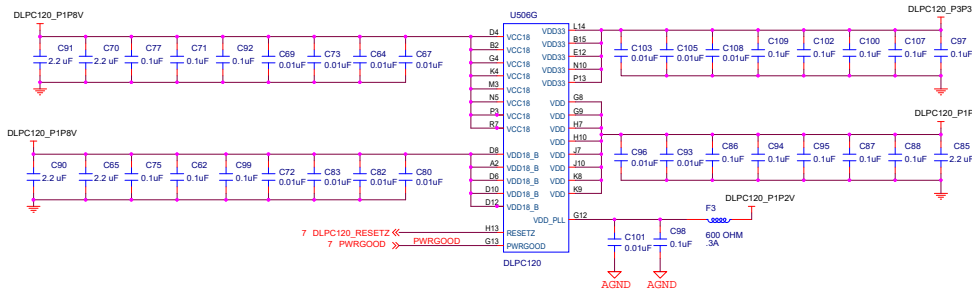
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TID #:		TIDA-080006				
Project Title:		Transparent window display 405-nm projector electronics				
Number:		Rev: A				
Sheet Title:		Controller Board - DMD I/F		SHEET 6 of 10		http://www.ti.com
SVN Rev:		Version control disabled		Assembly Variant: NA		
Drawn by:		George Pawlowski		File: TIDA-080006_Controller.DSN		
Engineer:		George Pawlowski		Contact: http://www.ti.com		



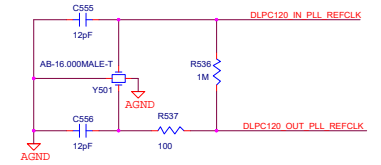
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TID #: TIDA-080006		Project Title: Transparent window display 405-nm projector electronics				
Number:		Rev: A		Sheet Title: Controller Board - LED Driver		
SVN Rev: Version control disabled		Assembly Variant: NA		SHEET 8 of 10		
Drawn by: George Pawlowski		File: TIDA-080006_Controller.DSN		Src: D		
Engineer: George Pawlowski		Contact: http://www.ti.com				

DLPC120 POWER

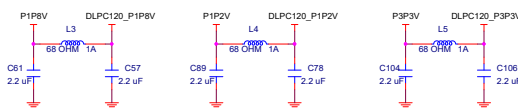


DLPC120 PLL REFERENCE CLOCK CIRCUITS

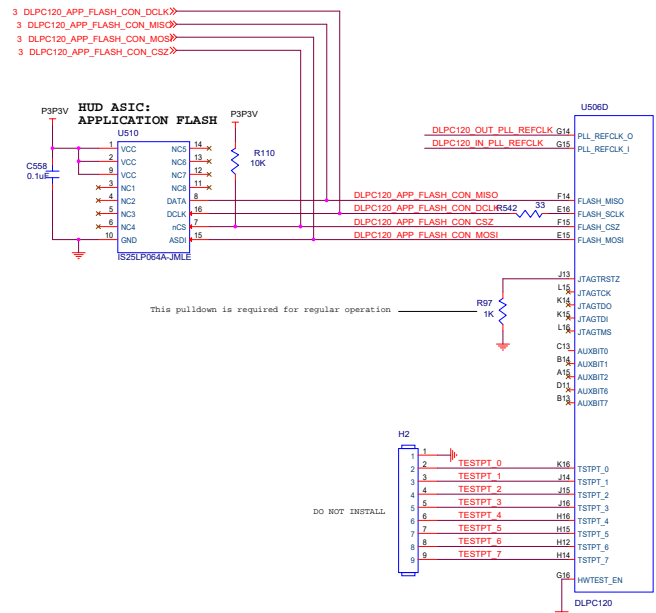


Place Circuit as Close as Possible to the ASIC.

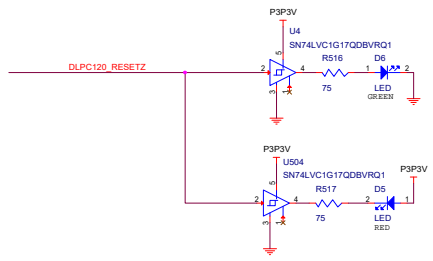
ASIC EMC FILTER



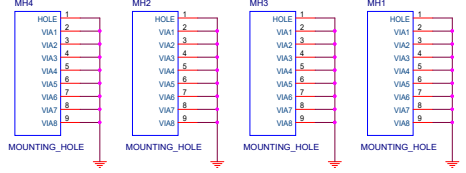
DLPC120 TEST AND CONFIGURATION INTERFACES



SYSTEM POWER/RESET INDICATORS



PBC MOUNTING HOLES



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TID #: TIDA-080006	Project Title: Transparent window display 405-nm projector electronics		
Number: Rev: A	Sheet Title: Controller Board - DLPC120 Config & Power		
SVN Rev: Version control disabled	Assembly Variant: NA	SHEET 9 of 10	http://www.ti.com
Drawn by: George Pawlowski	File: TIDA-080006_Controller.DSN	Src: D	
Engineer: George Pawlowski	Contact: http://www.ti.com		(C) TEXAS INSTRUMENTS 2019

[illegible]

The schematic shows the internal connections of the TLV70625QDDCQ1 voltage regulator. The input pin (IN) is connected to a P3P3V supply through capacitor C538 (0.1µF). The output pin (OUT) is connected to a P2P5V supply through capacitors C526 (0.1µF) and C525 (2.2µF). The enable pin (EN) is connected to ground through capacitor C527 (0.01µF). The NR pin is also connected to ground.

[illegible]

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TID #:		TIDA-080006							
Project Title:		Transparent window display 405-nm projector electronics							
Number:		Rev: A							
Sheet Title:		Controller Board - Power							
SVN Rev:		Version control disabled		Assembly Variant:		NA	SHEET	10 of 10	
Drawn by:		George Pawlowski		File:		TIDA-080006 Controller DSN		Size:	D
Engineer:		George Pawlowski		Contact:		http://www.ti.com			