

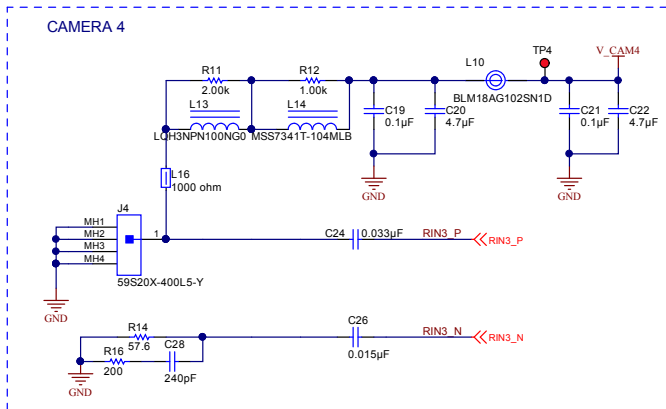
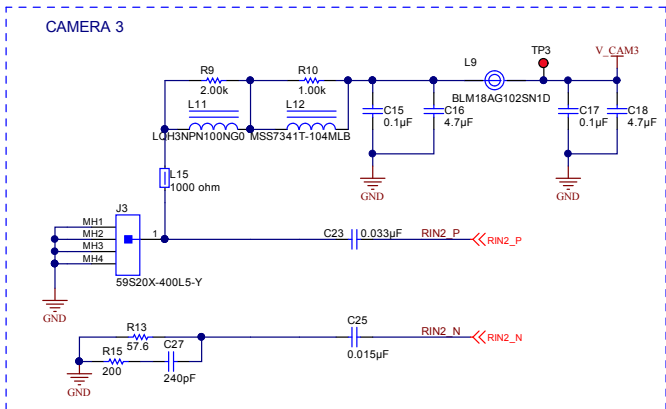
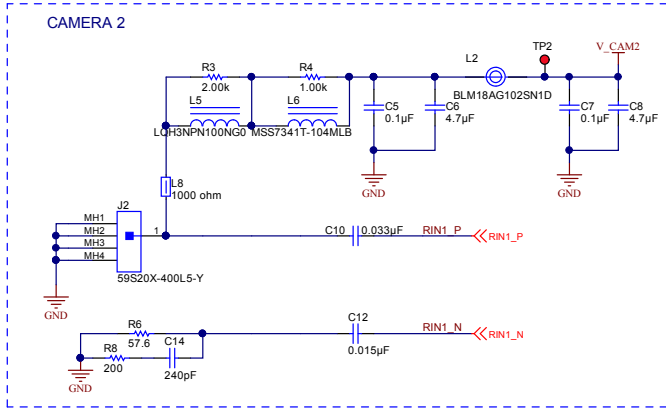
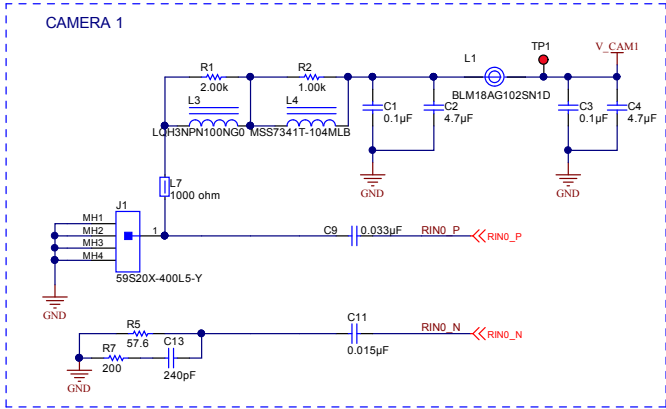
Revision History	
Revision	Notes
E2	Correct errors detailed in E1 errata

Orderable: NO	Designed for: Public Release	Mod. Date: 10/7/2016
TID #: 00455	Project Title: Four Channel Camera Board for TDA2x	
Number: TIDA-00455 Rev: E2.0	Sheet Title: CoverSheet	Sheet: 1 of 10
Drawn By: Brian Shaffer	File: CoverSheet.SchDoc	Size: B
Engineer: Brian Shaffer	Contact: http://www.ti.com/support	

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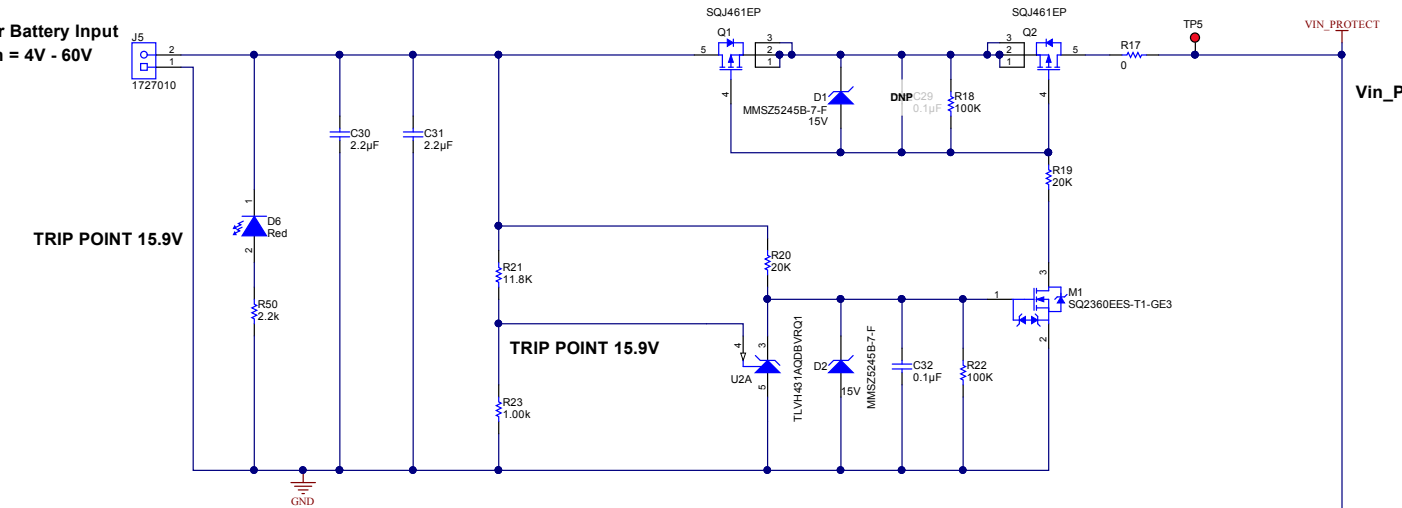


Car Battery Input
Vin = 4V - 60V

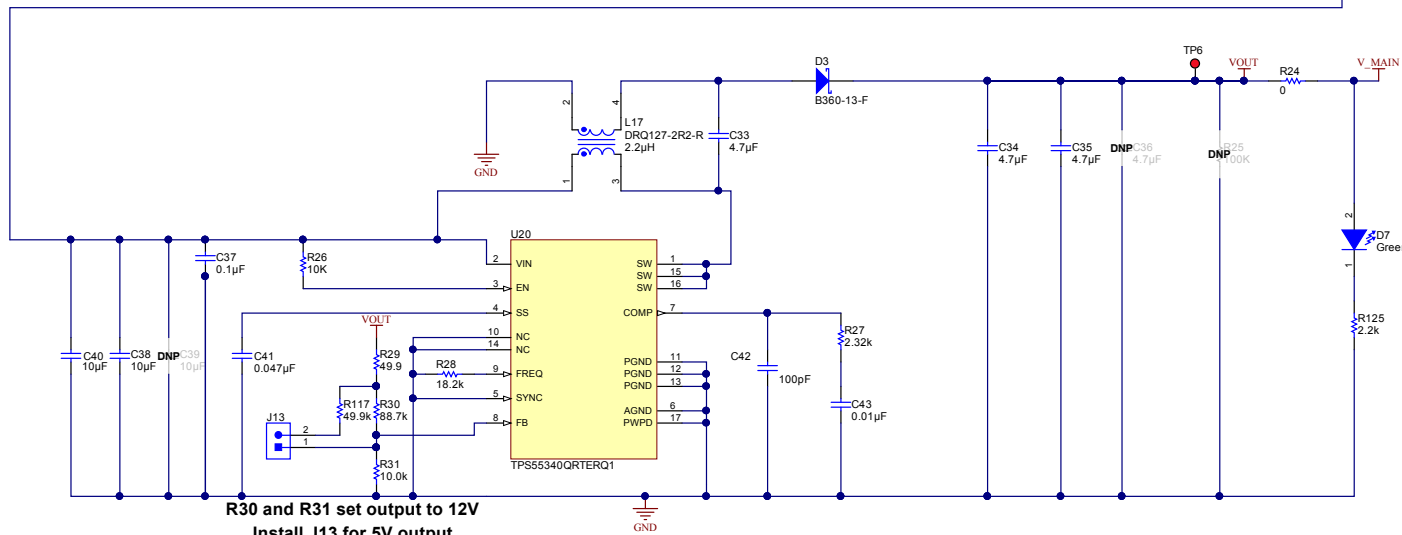
TRIP POINT 15.9V

TRIP POINT 15.9V

Vin_Protect limited to 16V

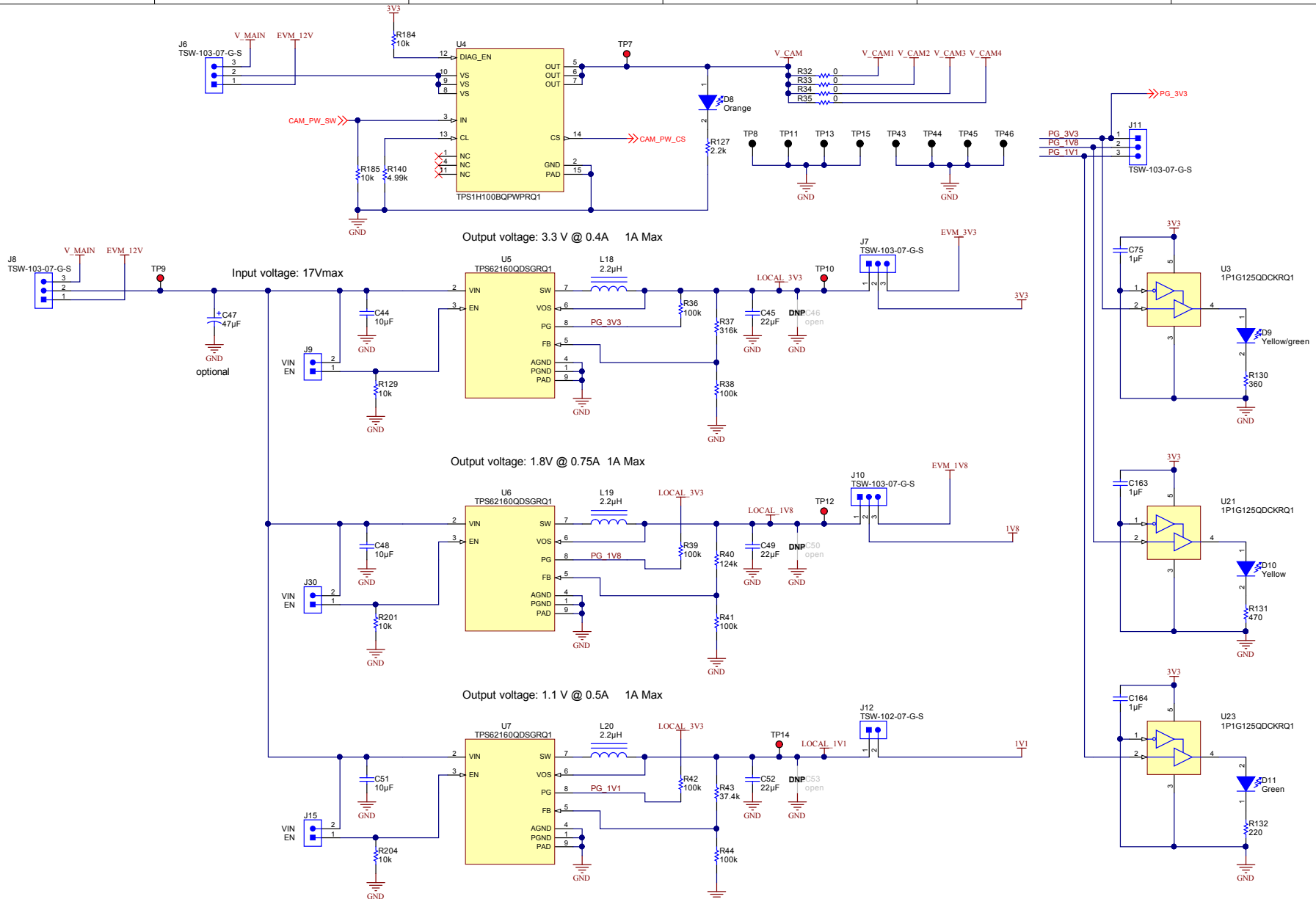


R30 and R31 set output to 12V
Install J13 for 5V output



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TID #: 00455	Project File: Four Channel Camera Board for 1DA2x	
Number: TIDA-00455 Rev: E2.0	Sheet Title: V_Batt_Supply	
SW Rev: Version control disabled	Assembly Variant: 001	Sheet: 3 of 10
Drawn By: Brian Shaffer	File: V_Batt_Supply_SchDoc	Size: B
Engineer: Brian Shaffer	Contact: http://www.ti.com/support	

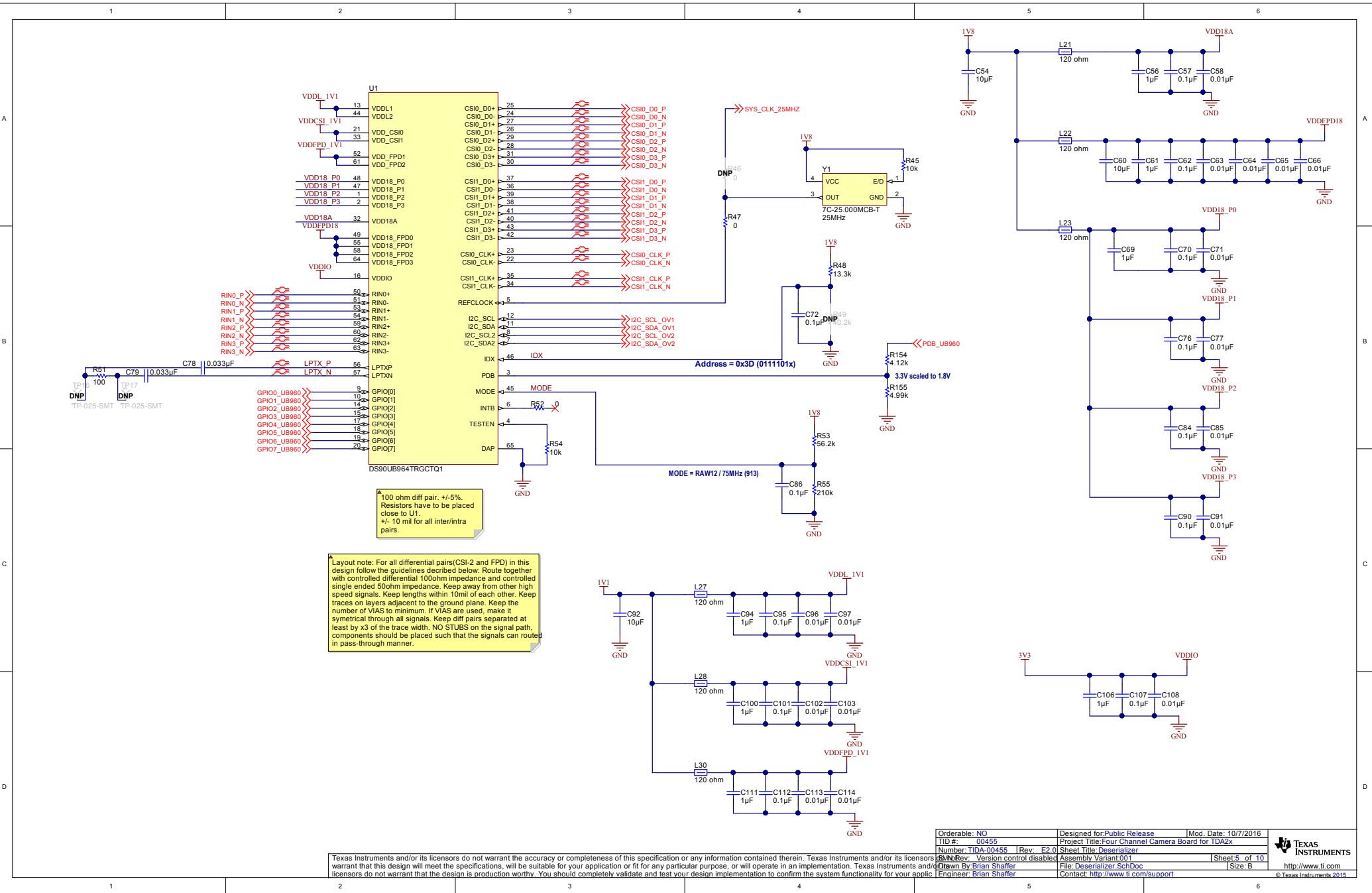
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TID #: 00455	Project Title: Four Channel Camera Board for TDA2x	
Number: TDA-00455 Rev: E2.0	Sheet Title: Camera_Switch_and_Bucks	
Assembly Variant: 001	Sheet 4 of 10	
Drawn By: Brian Shaffer	File: Camera_Switch_and_Bucks.SchDoc	Size: B
Engineer: Brian Shaffer	Contact: http://www.ti.com/support	

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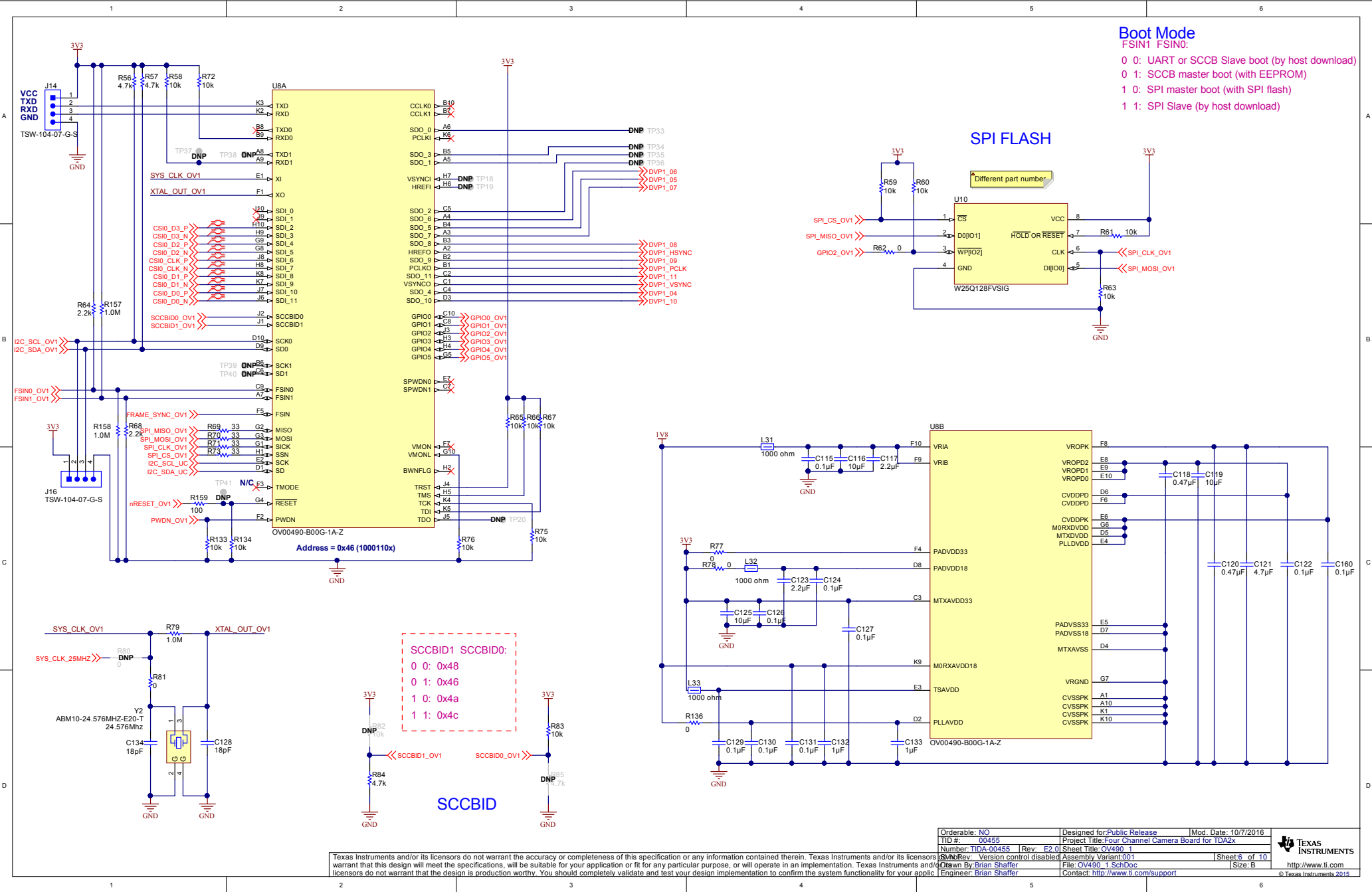


100 ohm diff pair, +/-5%. Resistors have to be placed close to U1. +/- 10 mil for all inter/intra pairs.

Layout note: For all differential pairs(CSI-2 and FPD) in this design follow the guidelines described below. Route together with controlled differential 100ohm impedance and controlled single ended 50ohm impedance. Keep away from other high speed signals. Keep lengths within 10mil of each other. Keep traces on layers adjacent to the ground plane. Keep the number of VIAS to minimum. If VIAS are used, make it symmetrical through all signals. Keep diff pairs separated at least by x3 of the trace width. NO STUBS on the signal path, components should be placed such that the signals can route in pass-through manner.

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TID #: 00455	Project Title: Four Channel Camera Board for TDA2x	
Number: TIDA-00455 Rev: E2.0	Sheet Title: Deserializer	
Assembly Variant: 001	Assembly Variant: 001	Sheet: 5 of 10
Drawn By: Brian Shaffer	File: Deserializer_SchDoc	Size: B
Engineer: Brian Shaffer	Contact: http://www.ti.com/support	

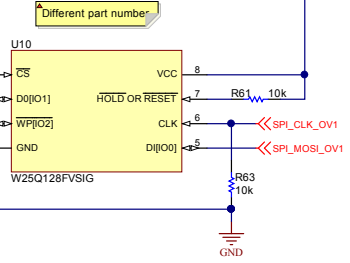
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Boot Mode
 FSIN1 FSIN0:

- 0 0: UART or SCCB Slave boot (by host download)
- 0 1: SCCB master boot (with EEPROM)
- 1 0: SPI master boot (with SPI flash)
- 1 1: SPI Slave (by host download)

SPI FLASH



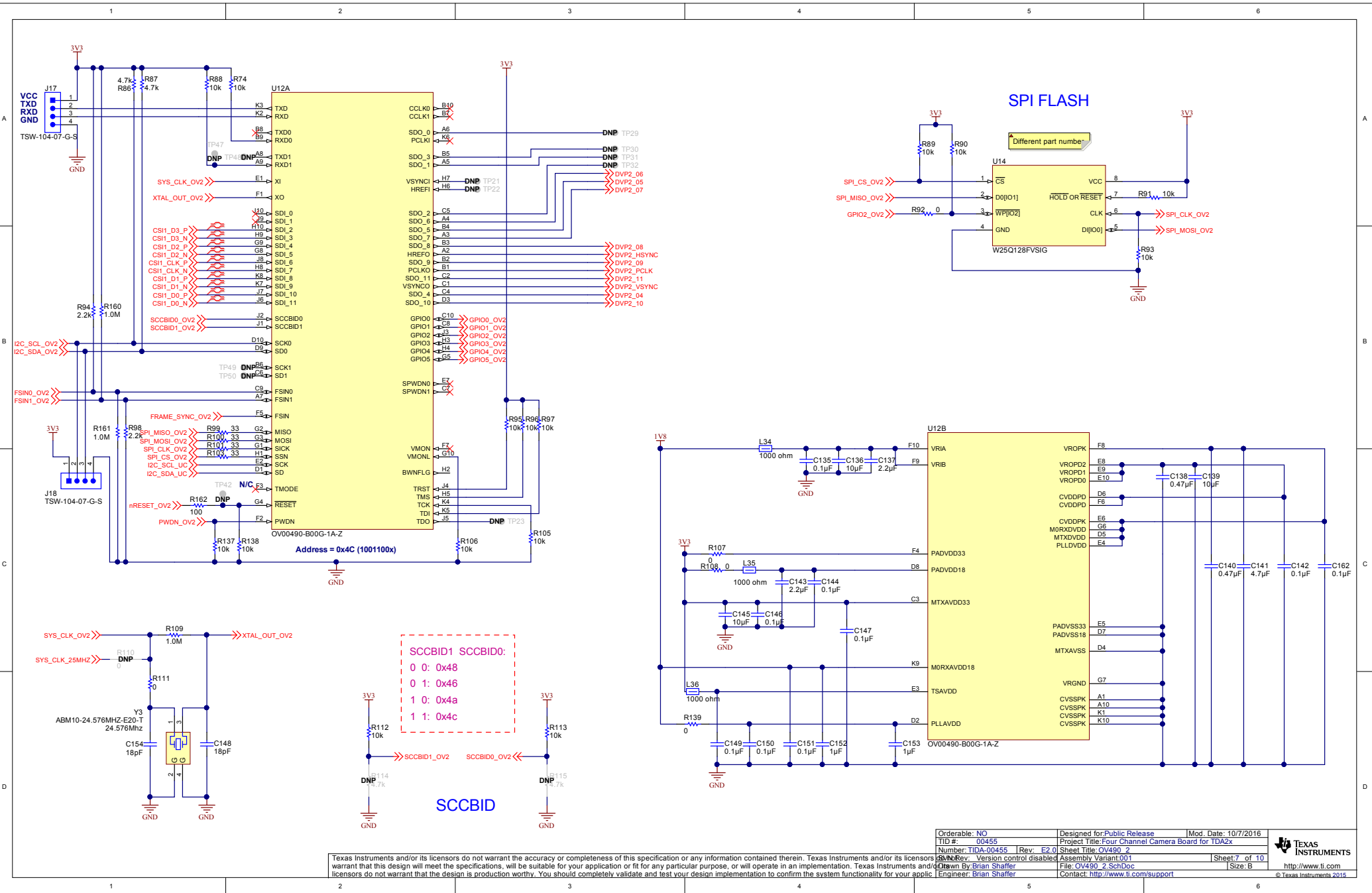
SCCBID1 SCCBID0:

- 0 0: 0x48
- 0 1: 0x46
- 1 0: 0x4a
- 1 1: 0x4c

SCCBID

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TID #: 00455	Project File: Four Channel Camera Board for 1DA2x	
Number: TDA-00455 Rev: E2.0	Sheet Title: OV490_1	
Assembly Variant: 001	Sheet: 6 of 10	
Drawn By: Brian Shaffer	File: OV490_1_SchDoc	Size: B
Engineer: Brian Shaffer	Contact: http://www.ti.com/support	

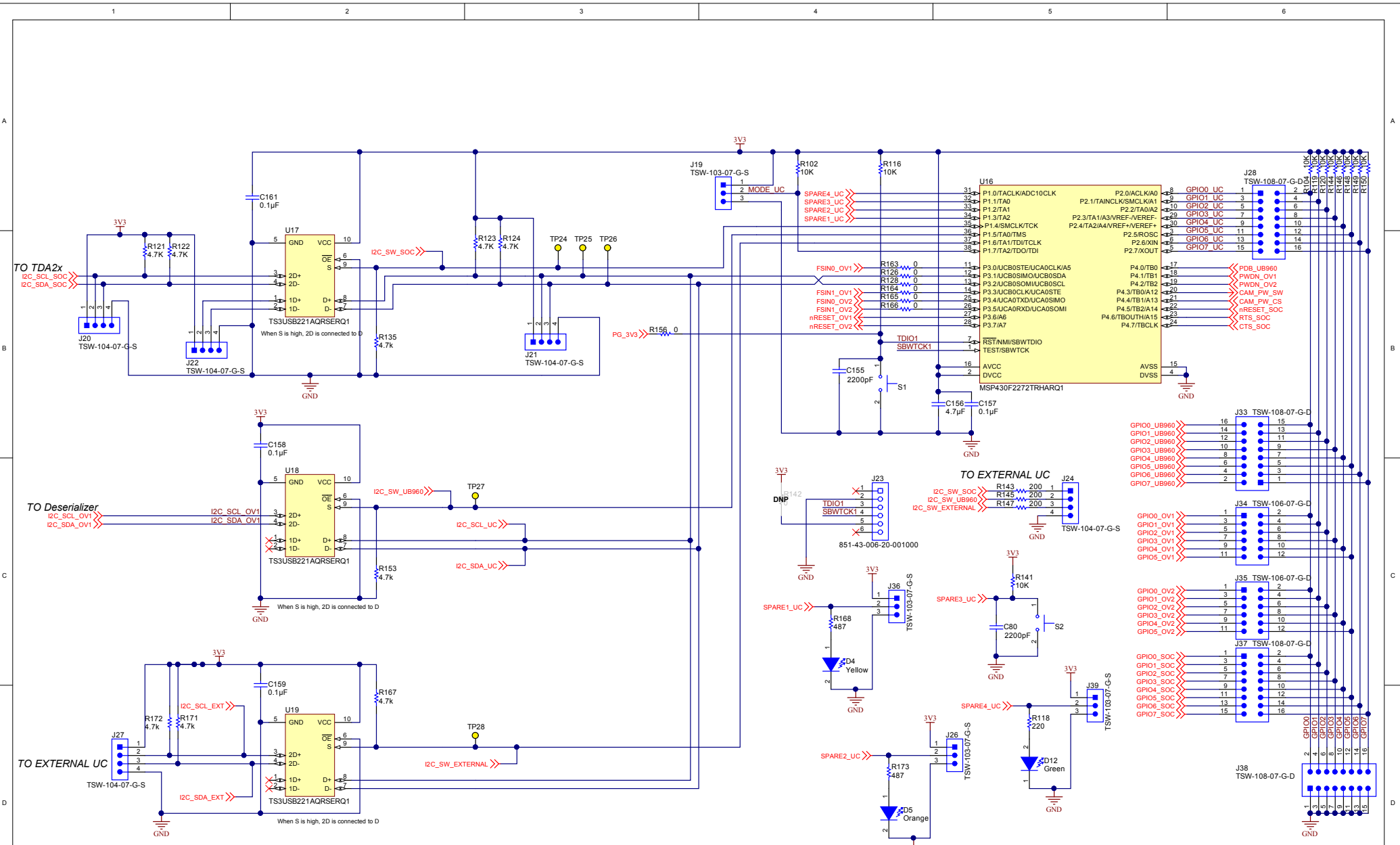
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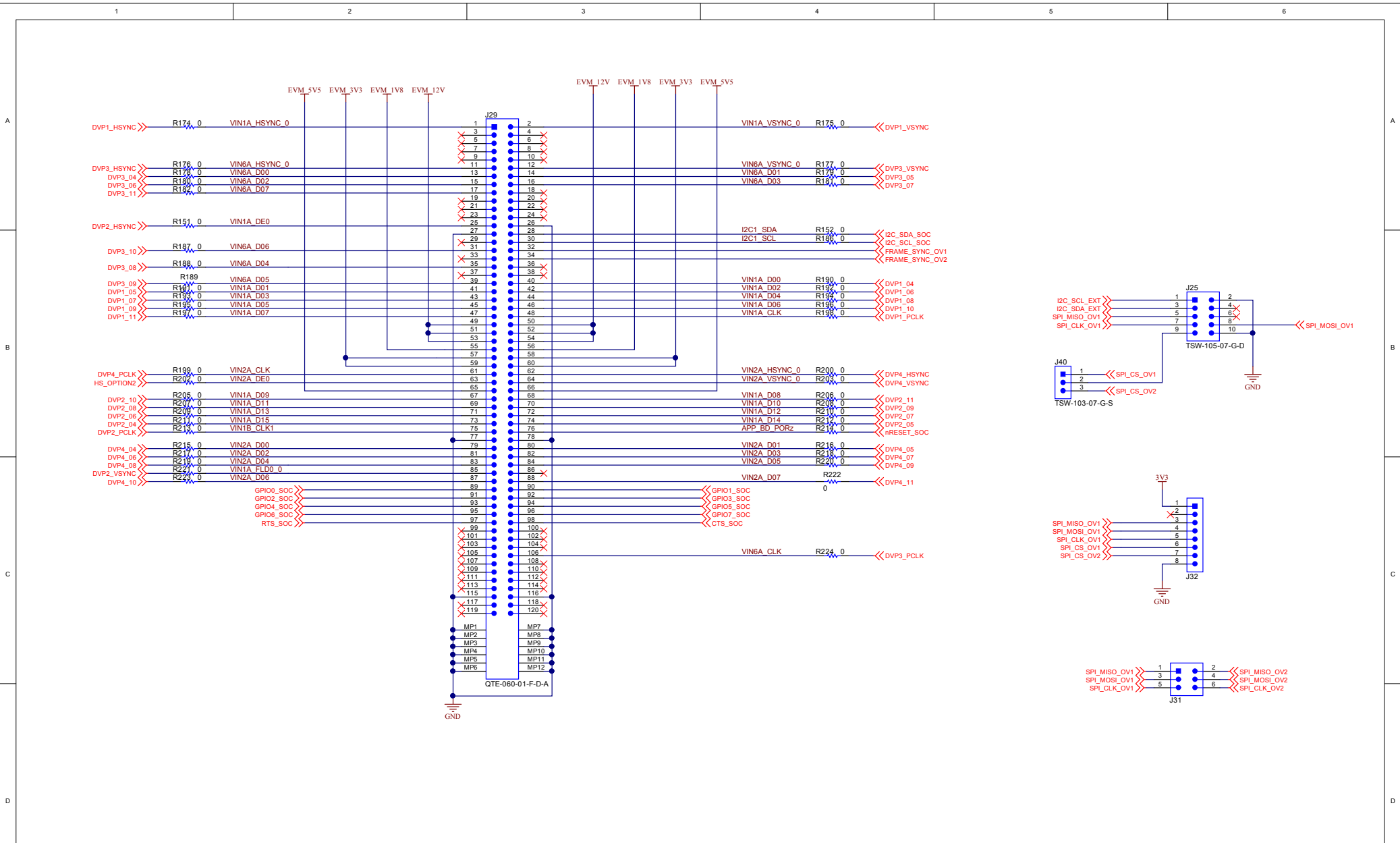
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TID #: 00455	Project Title: Four Channel Camera Board for TDA2x	
Number: TDA-00455 Rev: E2.0	Sheet Title: OV490_2	
Rev: Version control disabled	Assembly Variant: 001	Sheet: 7 of 10
Drawn By: Brian Shaffer	File: OV490_2_SchDoc	Size: B
Engineer: Brian Shaffer	Contact: http://www.ti.com/support	



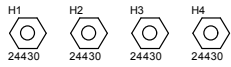


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 TID #: 00455 | Project Title: Four Channel Camera Board for TDA2x
 Number: TDA-00455 | Rev: E2.0 | Sheet Title: UC
 SWN Rev: Version control disabled | Assembly Variant: 001 | Sheet: 8 of 10
 Warrant that this design will meet the specifications, will be suitable for your application or fit for any particular purpose, or will operate in an implementation. Texas Instruments and 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 applic | Drawn By: Brian Shaffer | File: uc.SchDoc | Size: B
 Engineers: Brian Shaffer | Contact: <http://www.ti.com/support> | © Texas Instruments 2016



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TID #: 00455	Project Title: Four Channel Camera Board for TDA2x	Sheet Title: TDA2x Connector Assembly Variant 001	
Number: TDA-00455 Rev: E2.0	Drawn By: Brian Shaffer	File: TDA2x Connector SchDoc	Sheet: 9 of 10
Number: TDA-00455 Rev: E2.0	Assembly Variant: 001	Contact: http://www.ti.com/support	Size: B
Engineer: Brian Shaffer			© Texas Instruments 2016



PCB Number: TIDA-00455
PCB Rev: E2

PCB
LOGO
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LOGO
Pb-Free Symbol

ZZ1

Assembly Note

These assemblies are ESD sensitive, ESD precautions shall be observed.

ZZ2

Assembly Note

These assemblies must be clean and free from flux and all contaminants. Use of no clean flux is not acceptable.

ZZ3

Assembly Note

These assemblies must comply with workmanship standards IPC-A-610 Class 2, unless otherwise specified.

Orderable: NO	Designed for: Public Release	Mod. Date: 10/7/2016
TID #: 00455	Project Title: Four Channel Camera Board for TDA2x	
Number: TIDA-00455 Rev: E2.0	Sheet Title: Hardware	Sheet: 10 of 10
Drawn By: Brian Shaffer	File: Hardware.SchDoc	Size: B
Engineer: Brian Shaffer	Contact: http://www.ti.com/support	

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