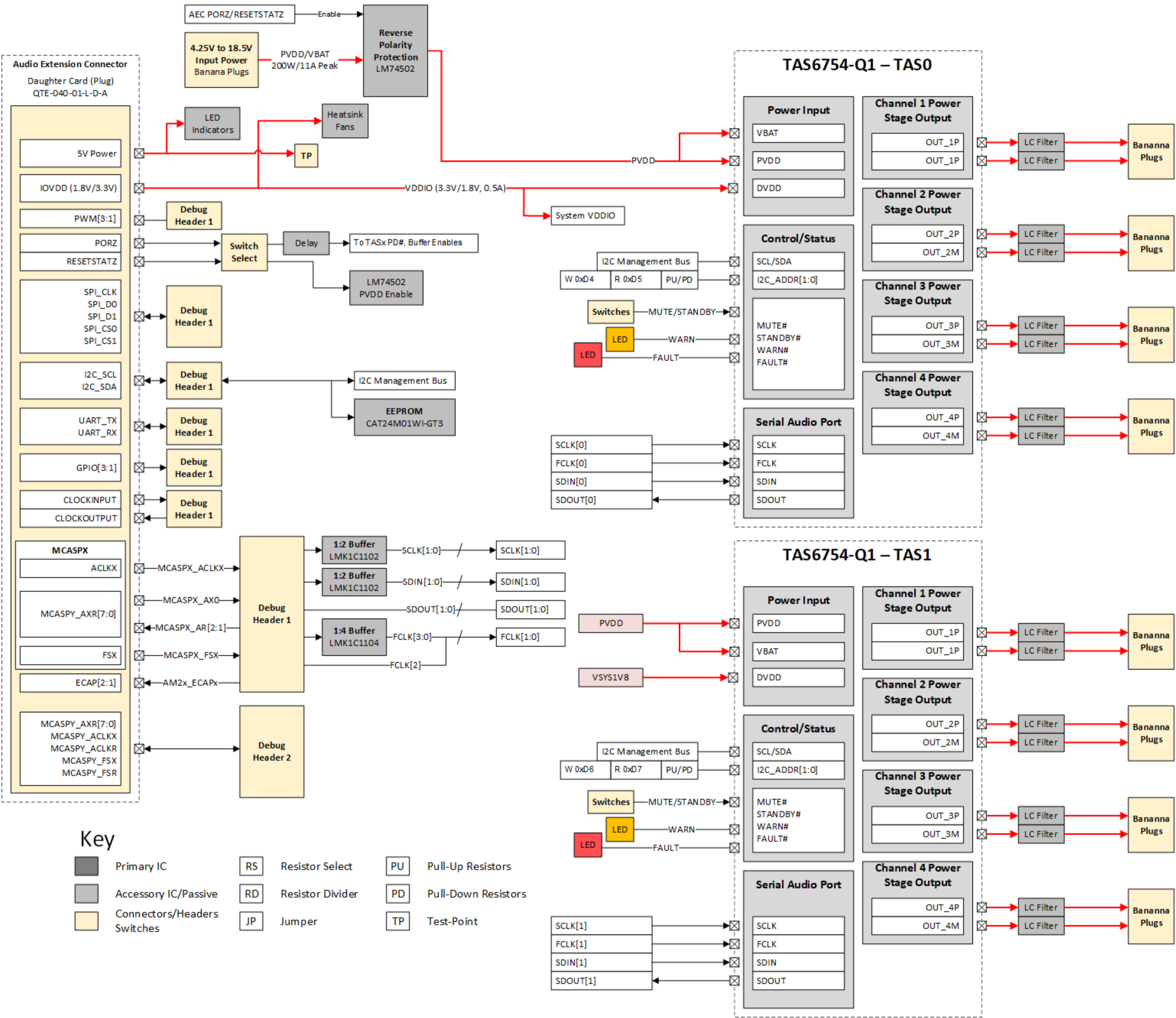


TAS67CD-AEC

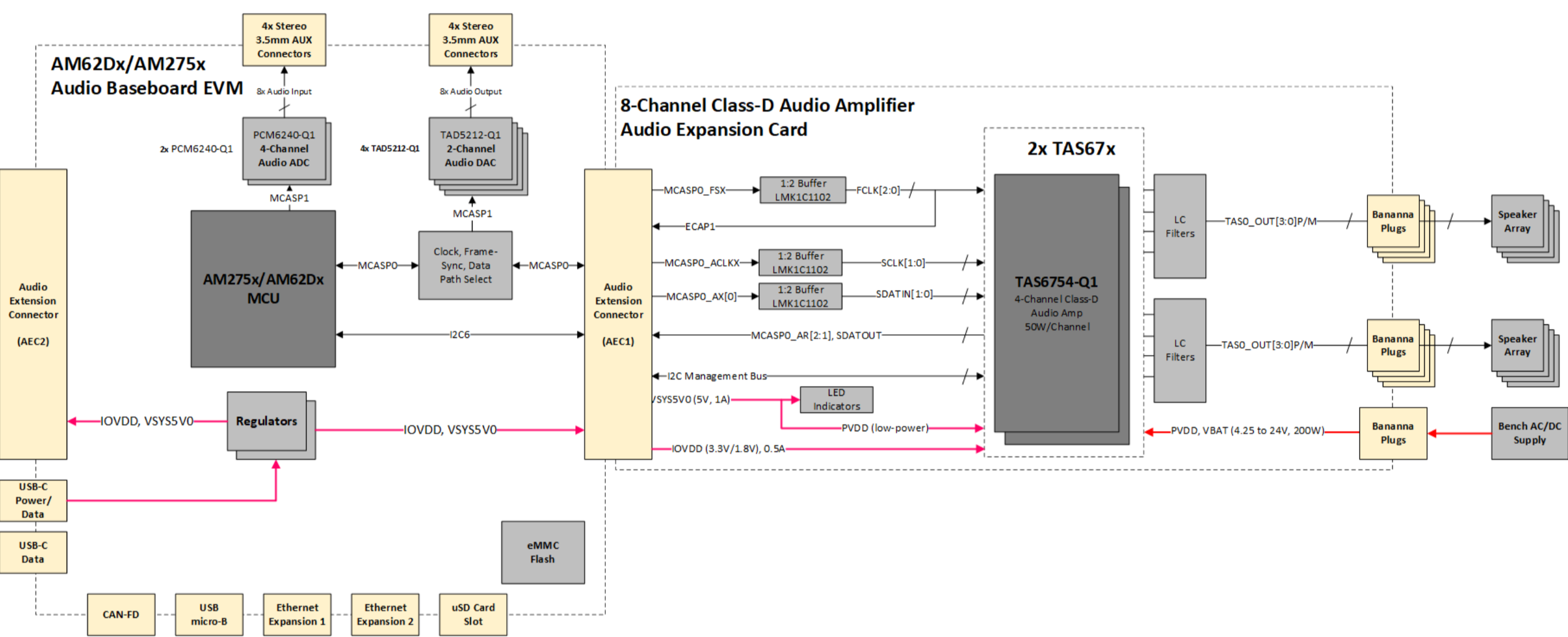
TAS67x Class-D Amplifier Audio Expansion Card

Revision History				
Rev	ECN #	Approved Date	Approved by	Notes
E1	N/A	2024-06-17	a0271760	Initial release
A	N/A	2025-01-28	a0271760	Production release

TAS67DC-AEC System Diagram



AM6x/AM2x Audio Baseboard and TAS67CD-AEC Combined System Diagram



Key			
	Primary IC		Resistor Select
	Accessory IC/Passive		Pull-Up Resistors
	Connectors/Headers		Pull-Down Resistors
	Switches		Jumper
			Test-Point

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Orderable: TAS67CD-AEC	Designed for: Public Release	Mod. Date: 3/14/2025
TID #: N/A	Project Title: TAS67CD-AEC	
Number: PROC191	Rev: A	Sheet Title:
SVN Rev: 26345efab3b4c758dcc5092801d1a00ac30a87 [Locally Modified]		Sheet: 1 of 6
Drawn By:	File: PROC191_Coversheet.SchDoc	Size: B
Engineer: a0271760	Contact: http://www.ti.com/support	

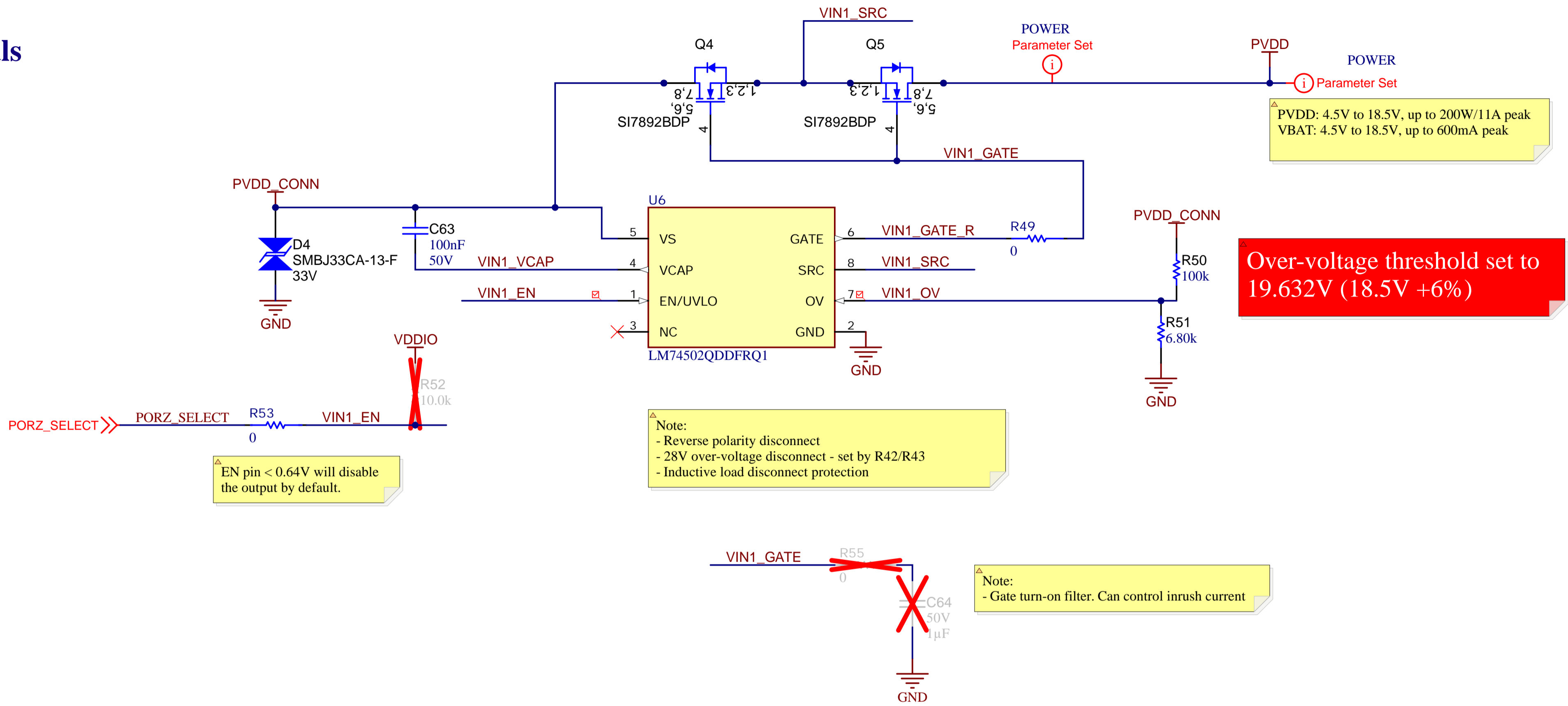
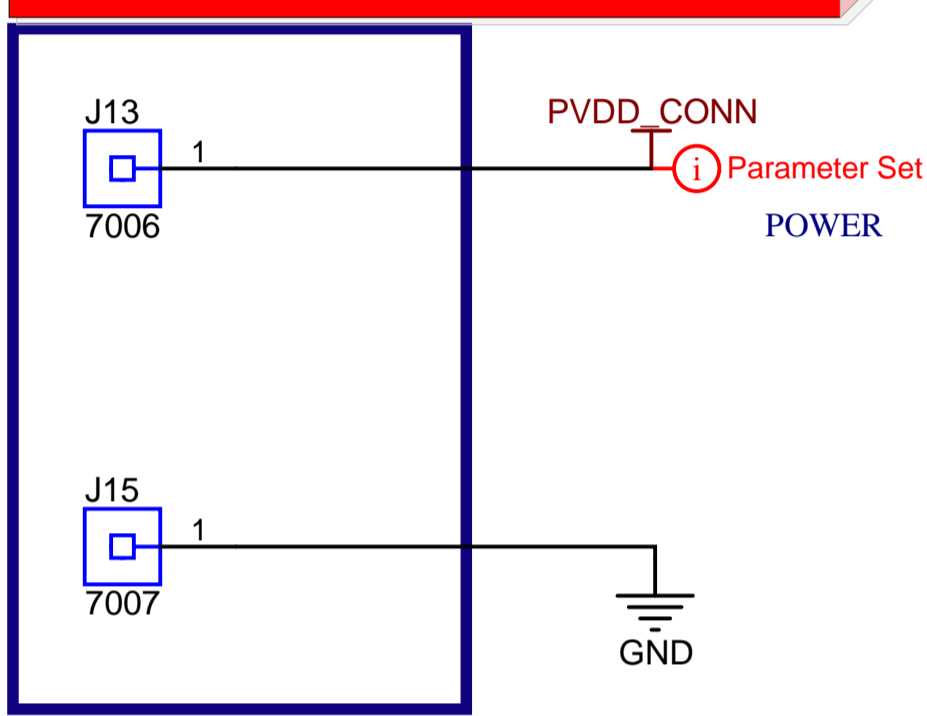
Power

PVDD Reverse Polarity and Overvoltage Protection

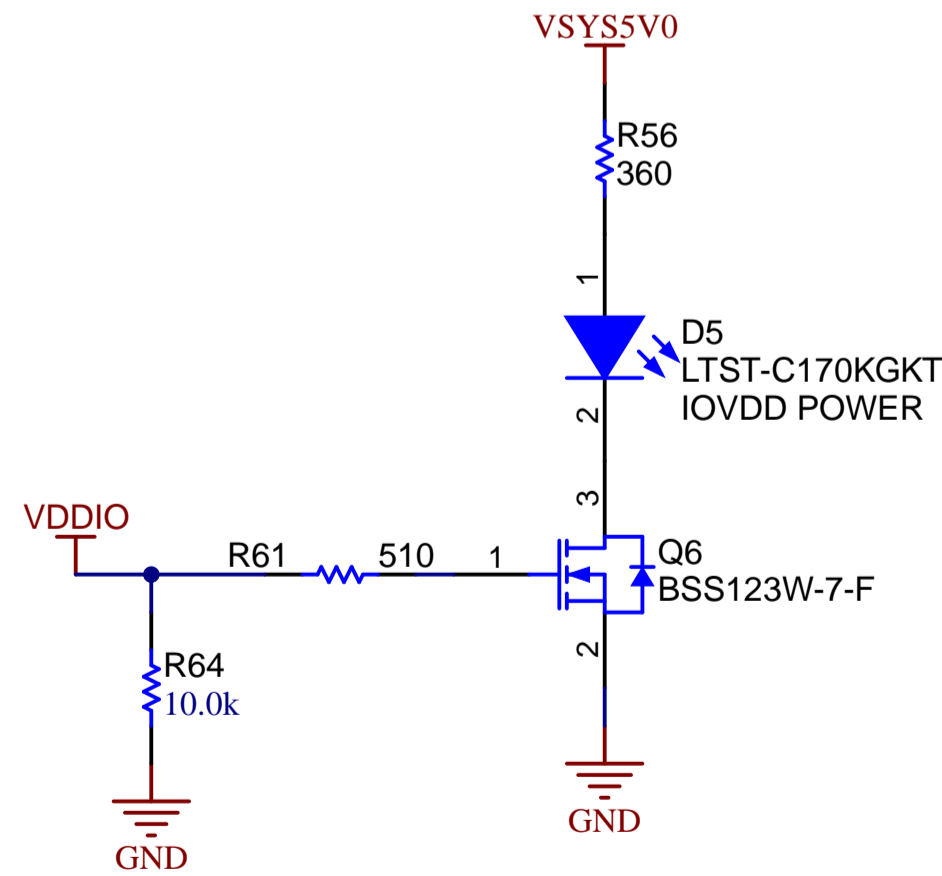
Banana Plug Power Terminals

Keystone 700x, 4mm Banana Plug Terminals

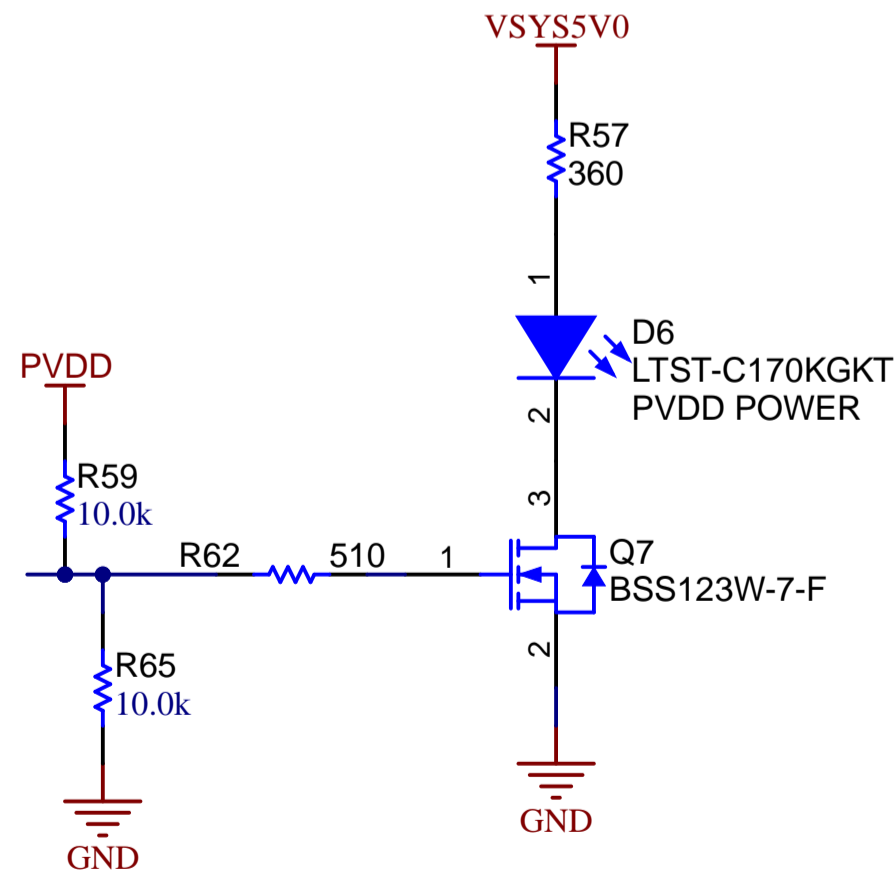
WARNING: OVERVOLTAGE SHUTDOWN OVER 18.5V
15A Peak Current Limit (PVDD)



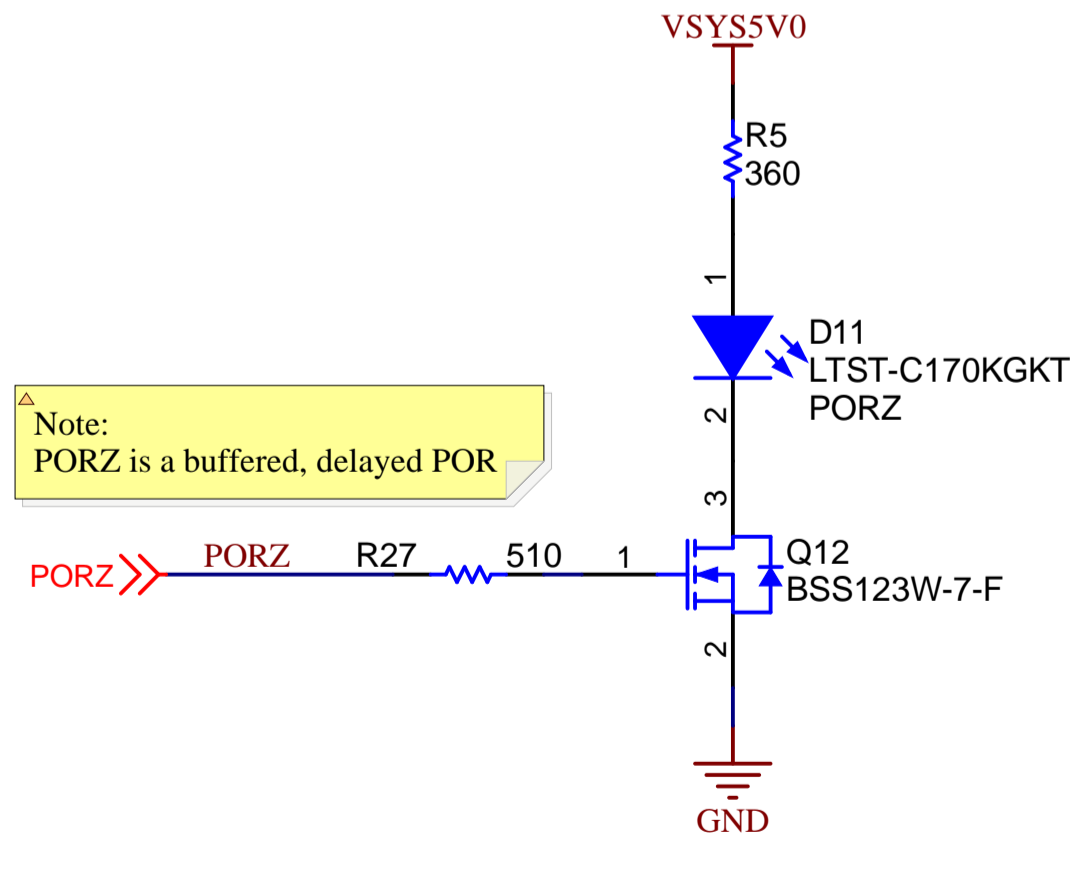
IOVDD Status LED



PVDD Status LED

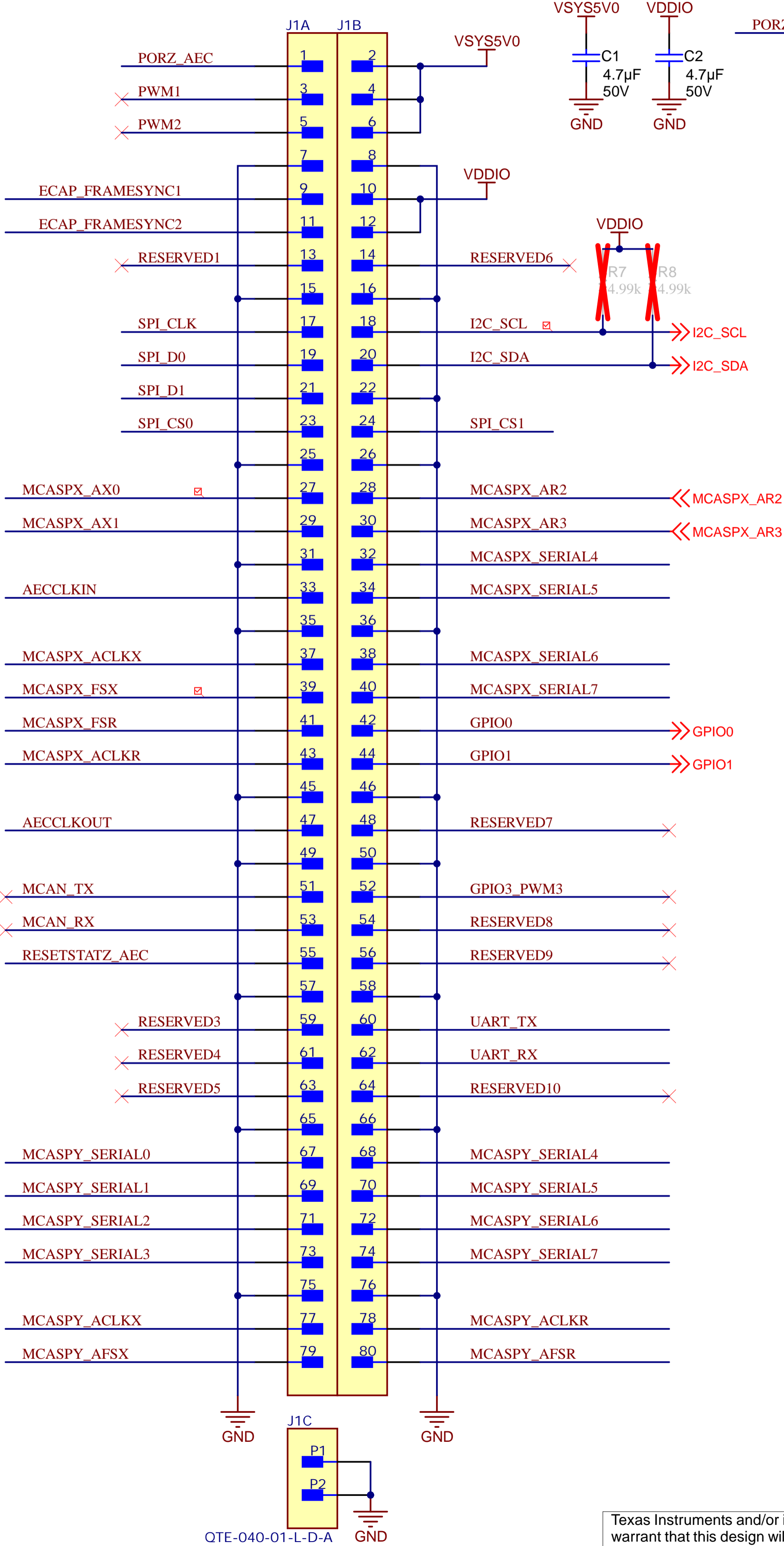


PORZ Status LED



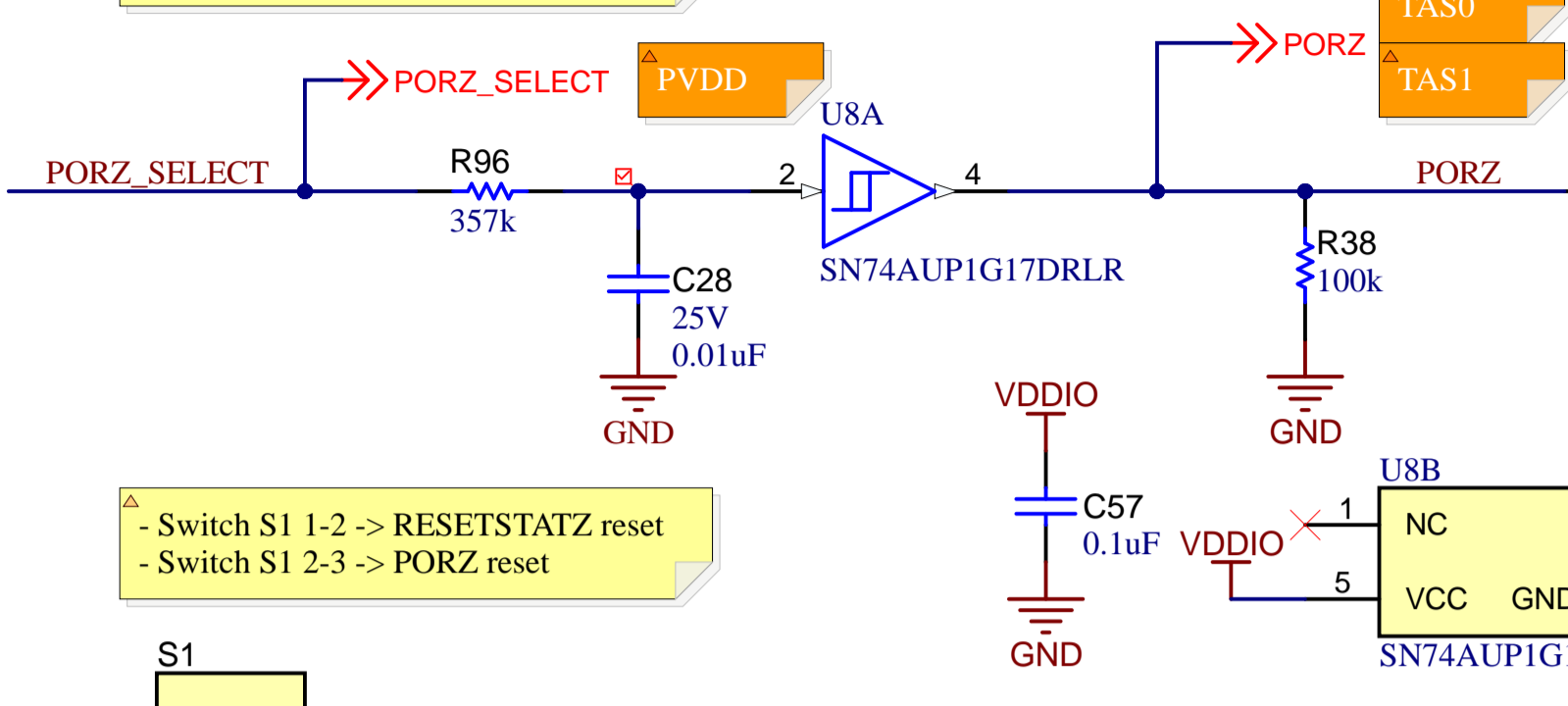
Audio Expansion Connector

Audio Expansion Connector QTE-040-01-L-D-A

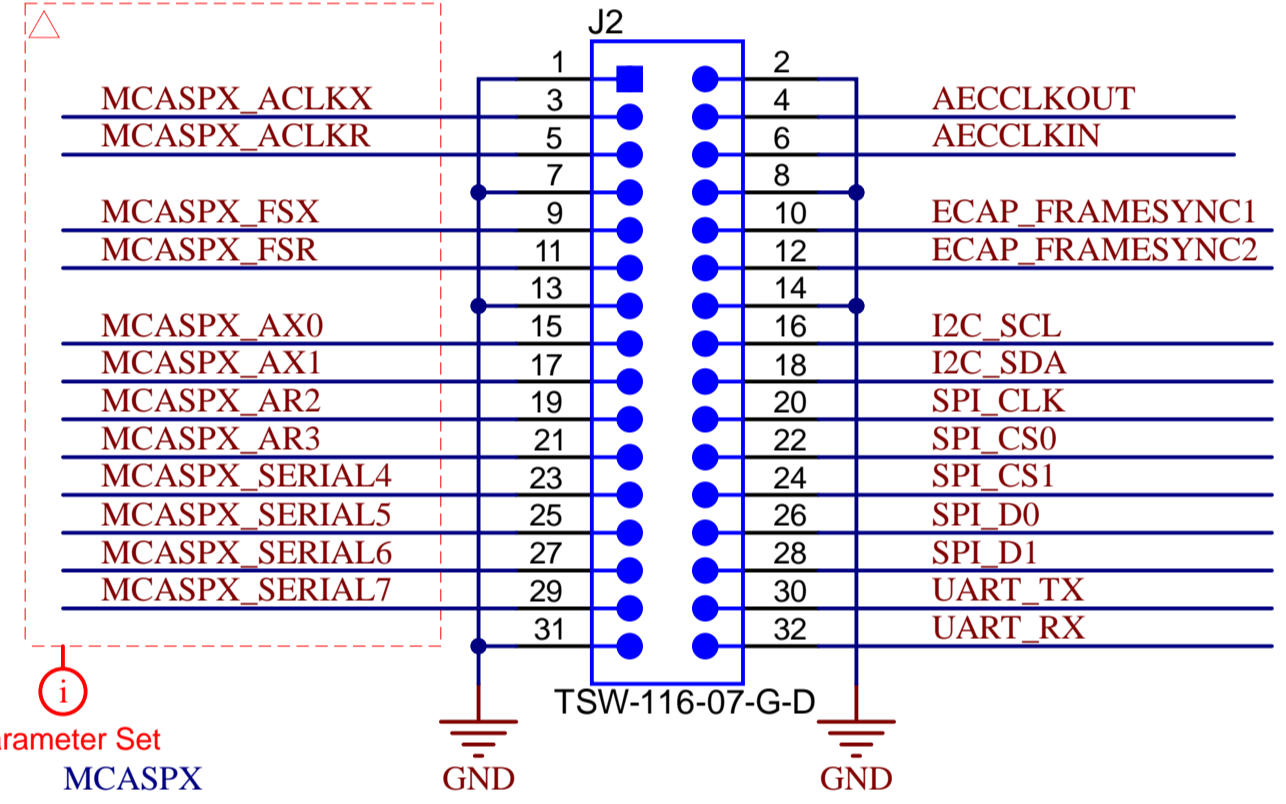


R96, C28 are PORZ RC Delay:
- Creates GND to 0.9V delay of 2.5mS

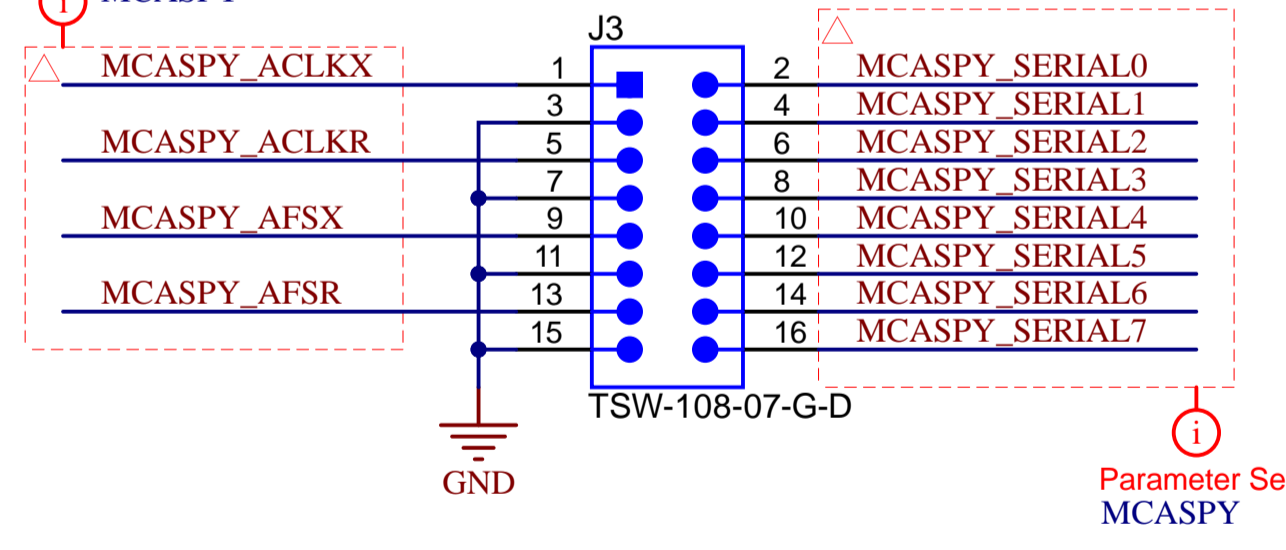
PORZ Buffer



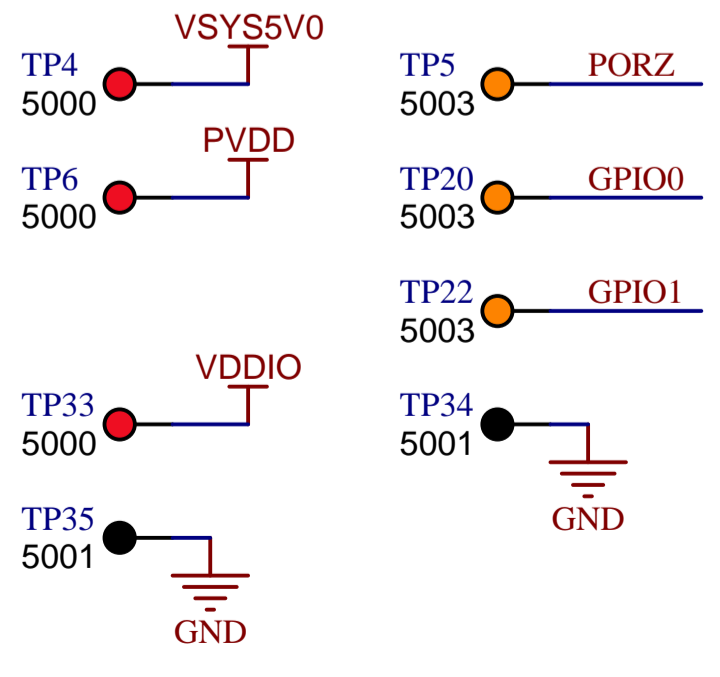
Debug Header 1



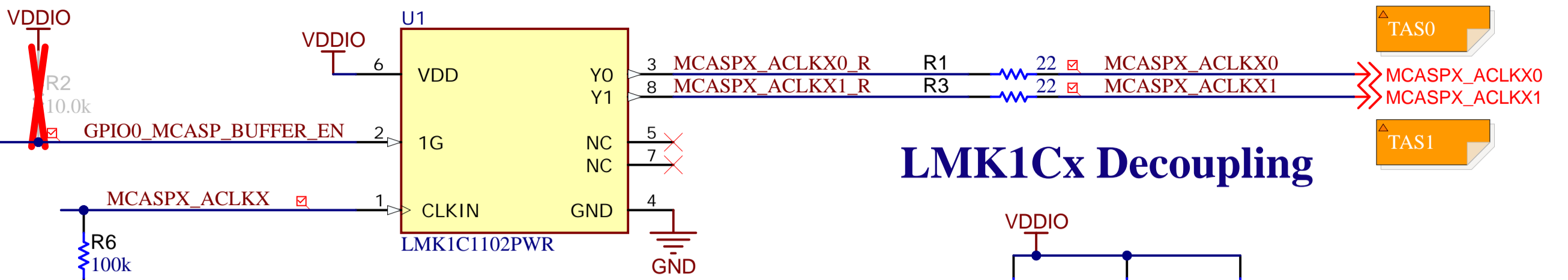
Debug Header 2



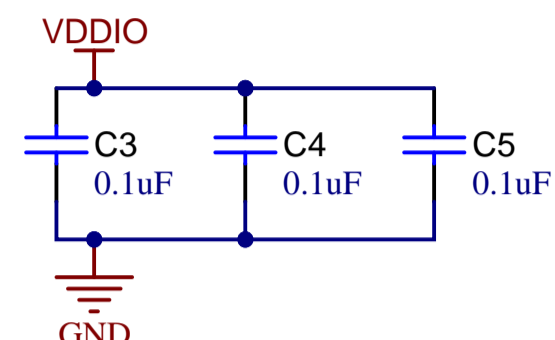
Debug Hooks



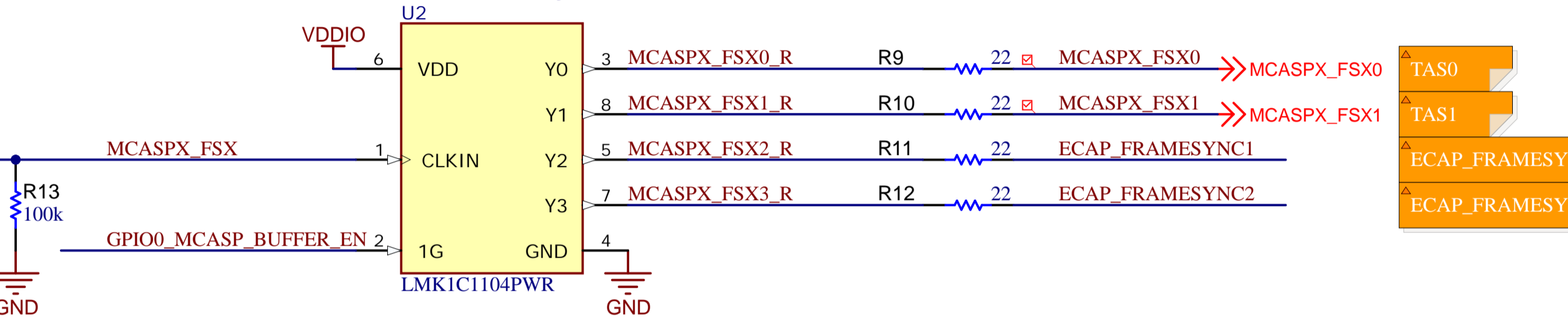
MCASP Bit-Clock Buffer 1:2



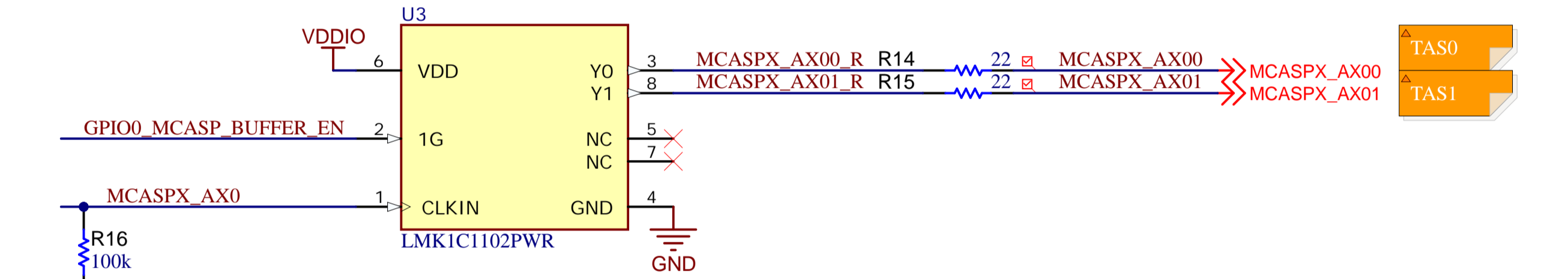
LMK1Cx Decoupling



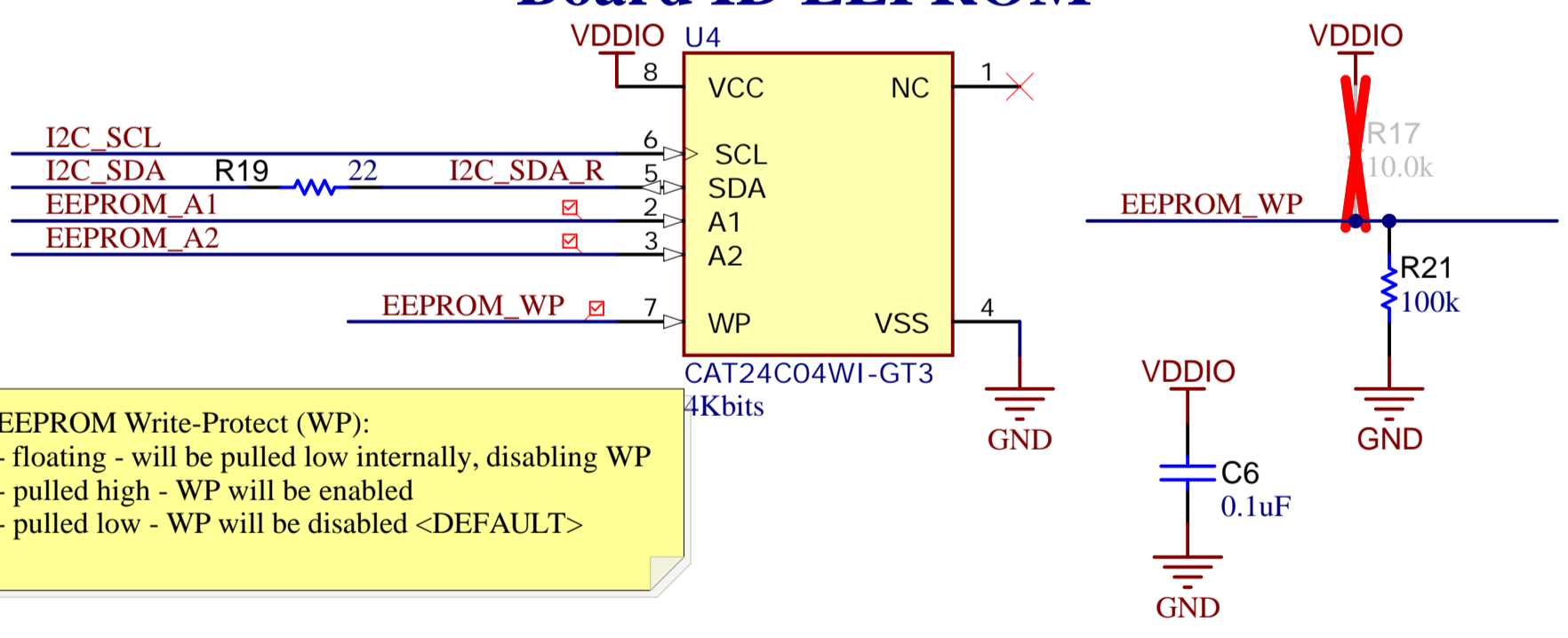
MCASP Frame-Sync Buffer 1:4



MCASP TX0 Data Buffer 1:2



Board ID EEPROM



Board ID EEPROM Address

EEPROM 7-Bit Device Addresses = 0x54/0x55 (not including R/W# bit)
EEPROM 8-Bit Write Addresses = 0xA8/0xAA
EEPROM 8-Bit Read Addresses = 0xA9/0xAB

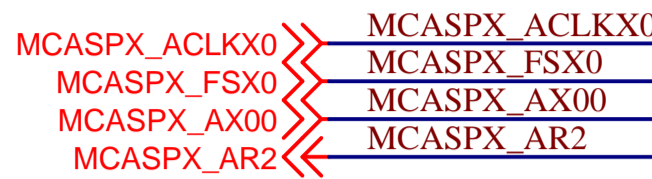
Address[7:4] = 0xA = 0b1010 (fixed)
Address[3:2] = A[2:1] = 0x2 = 0b10 (pull defined)
Address[1] = LSB internal address bit, a8 = 0b1, or 0b0 (responds to either)
Address[0] = R/W# bit

1	0	1	0	A ₂	A ₁	a ₈	R/W
---	---	---	---	----------------	----------------	----------------	-----

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TAS6754-Q1 Class-D Amplifier - TAS0

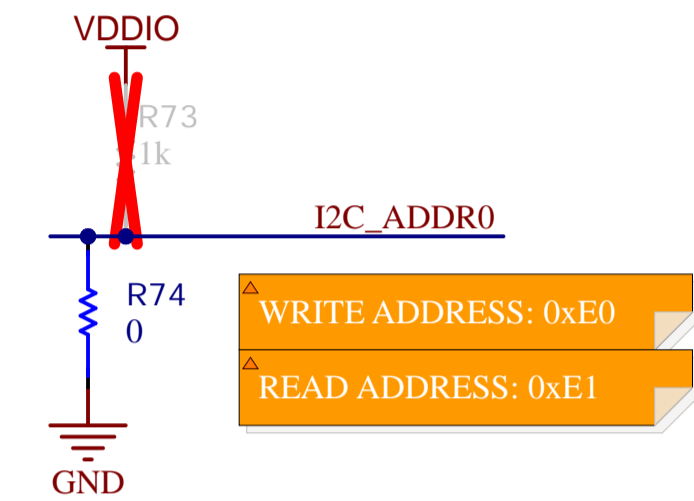
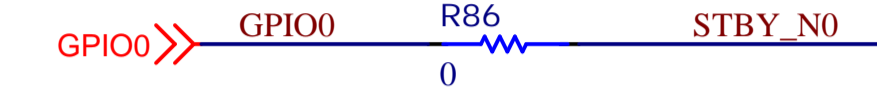
MCASP TDM



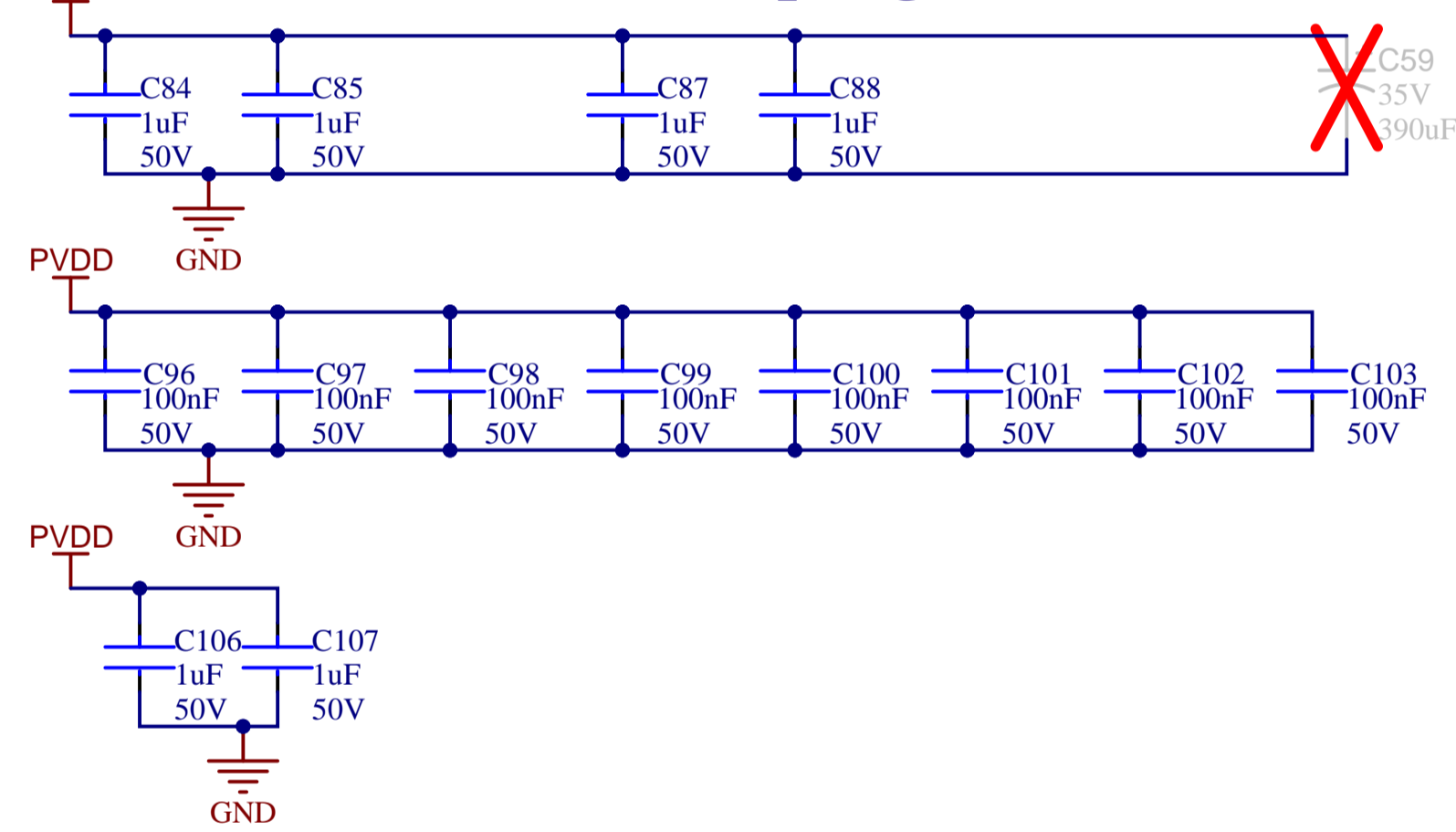
I2C Management



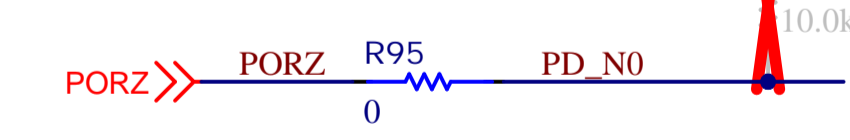
GPIO Control



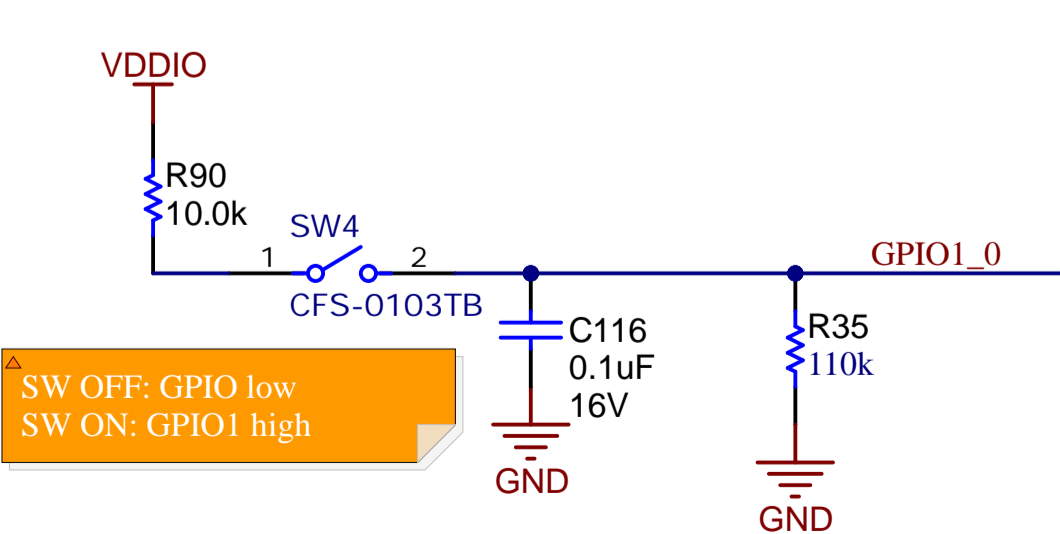
TAS67 Decoupling



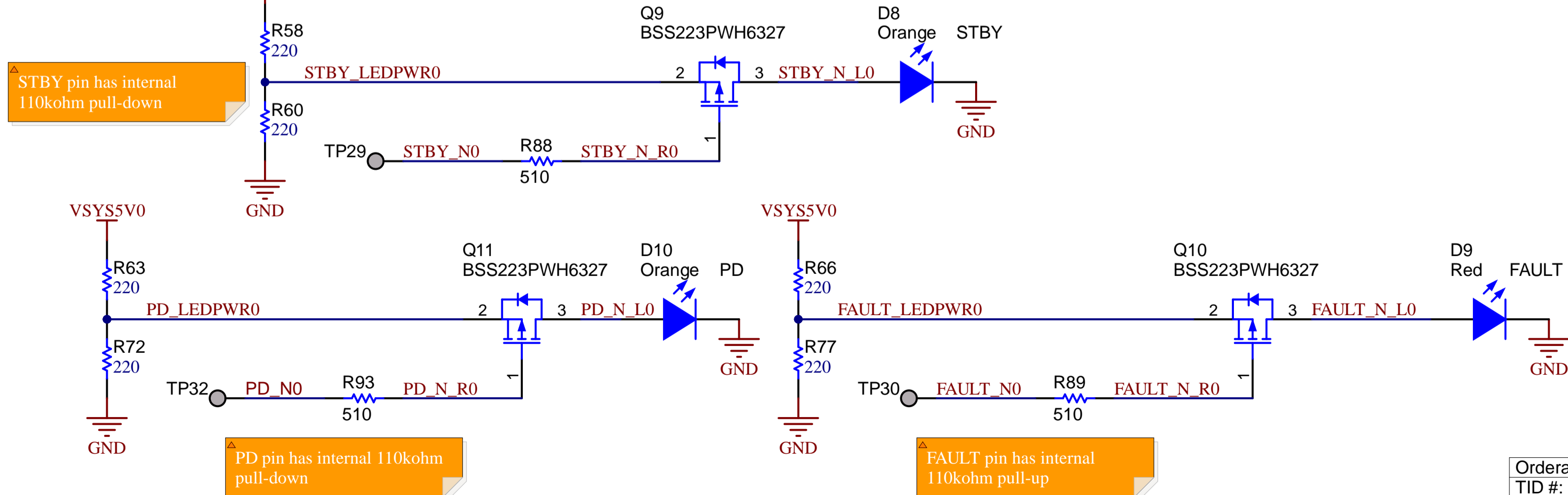
PORZ Enable



GPIO1 Switch

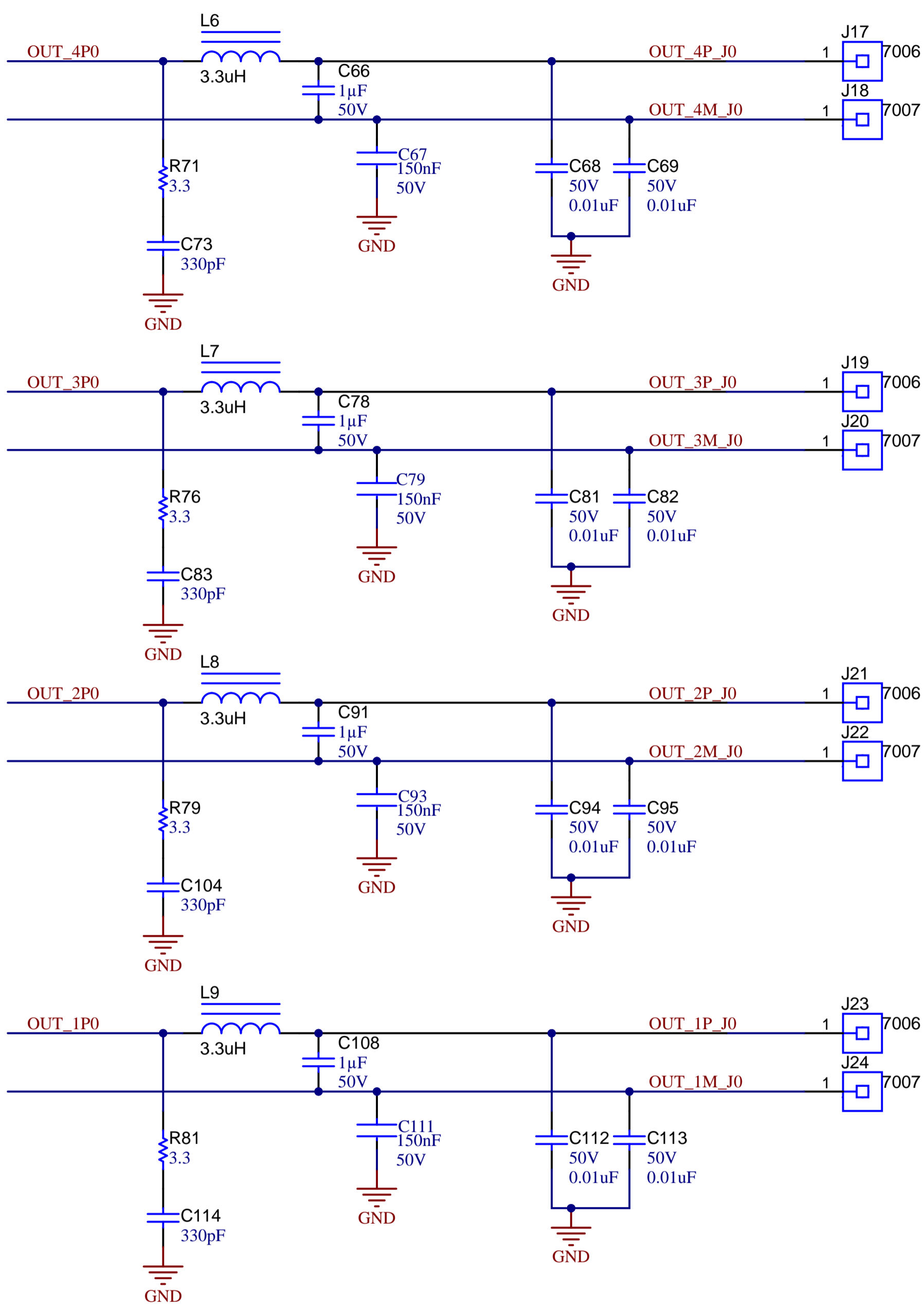


LED Indicators



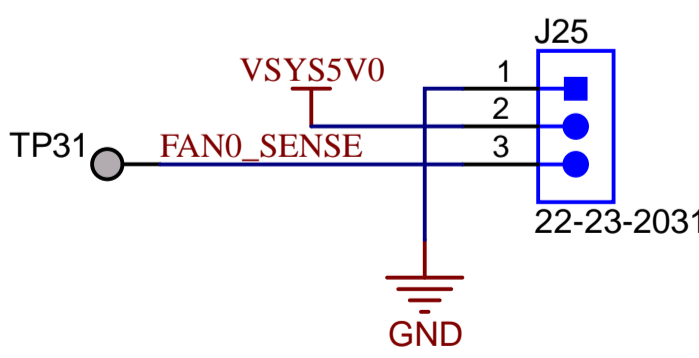
Bananna Plug Output Terminals

Keystone 700x, 4mm Banana Plug Terminals



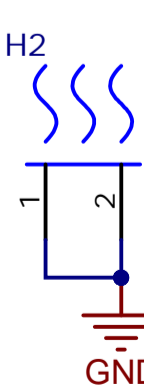
Fan Connector

Molex 22-23-2031



Heatsink

ATS-TI10P-1918-C1-R0



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Orderable: TAS67CD-AEC	Designed for: Public Release	Mod. Date: 3/13/2025
TID #: N/A	Project Title: TAS67CD-AEC	
Number: PROC191	Rev: A	Sheet Title:
SVN Rev:	Assembly Variant: 001	Sheet: 4 of 6
Drawn By:	File: PROC191_TAS0.SchDoc	Size: B
Engineer: a0271760	Contact: http://www.ti.com/support	

TAS6754-Q1 Class-D Amplifier - TAS1

MCASP TDM

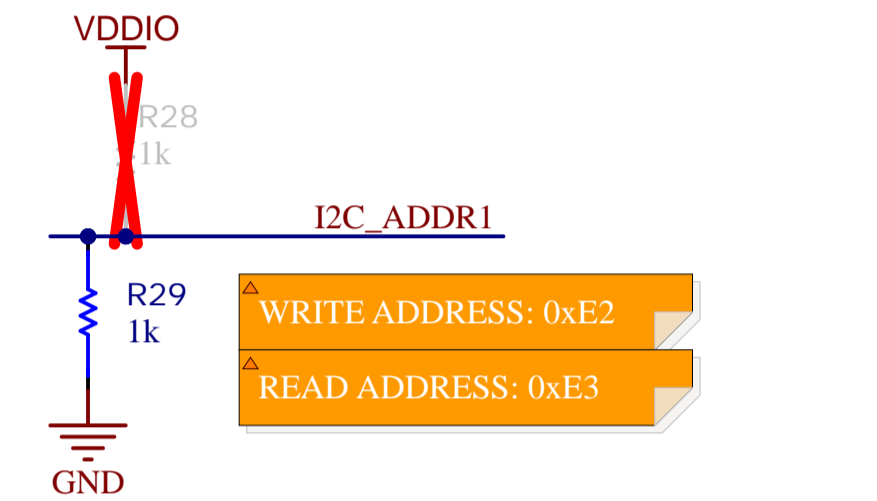
MCASPX_ACLKX1
MCASPX_FSX1
MCASPX_AX01
MCASPX_AR3

I2C Management

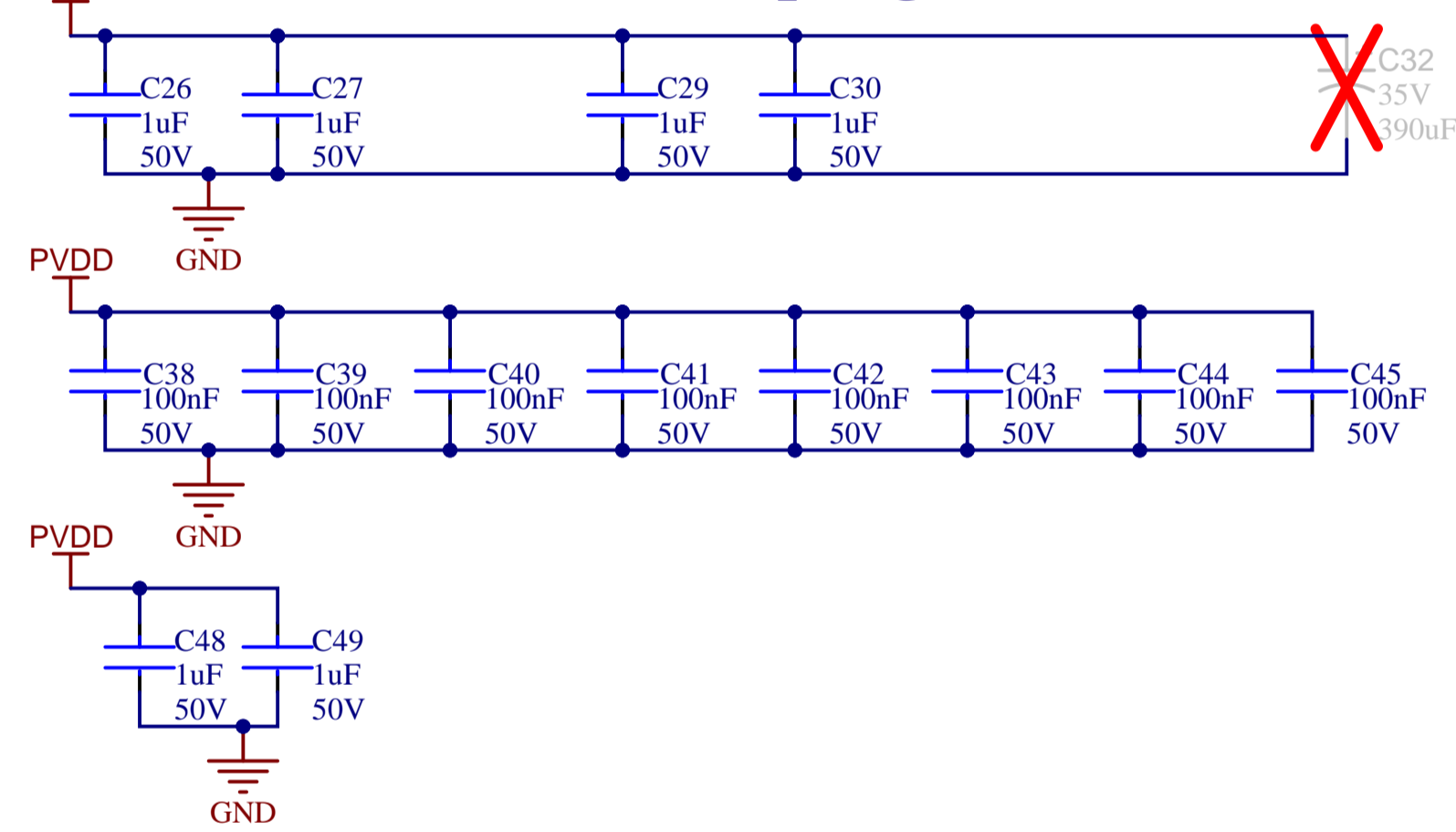
I2C_SCL
I2C_SDA

GPIO Control

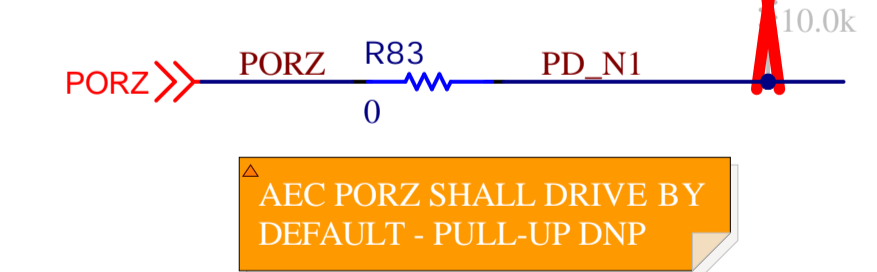
GPIO1
STBY_N1



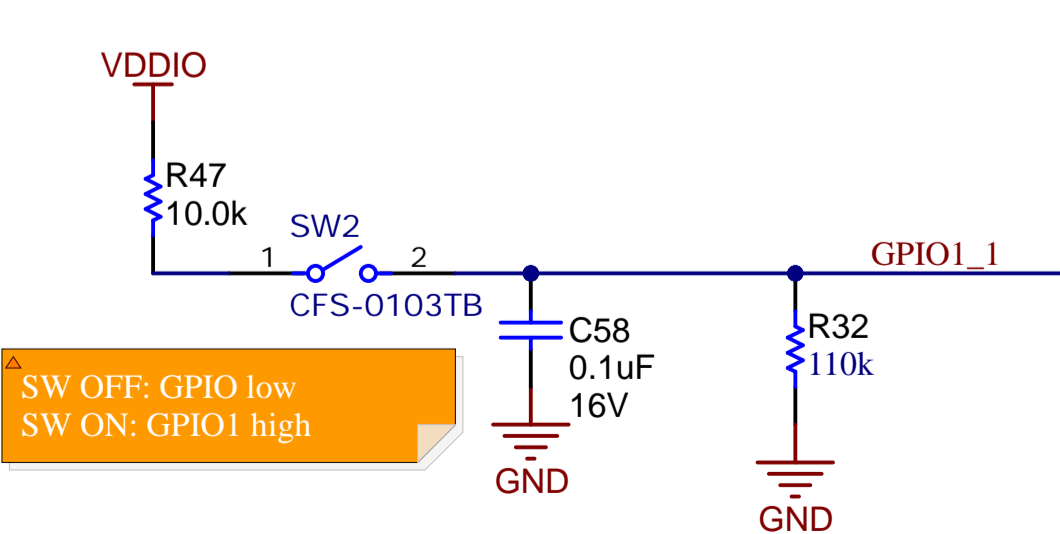
TAS67 Decoupling



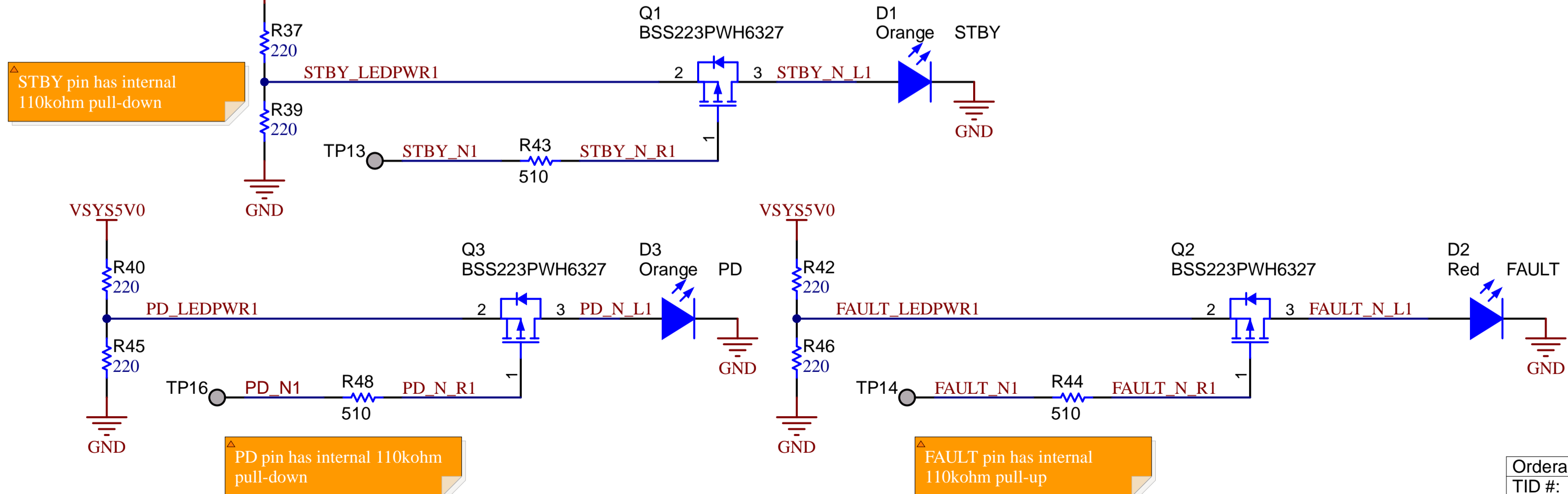
PORZ Enable



GPIO1 Switch

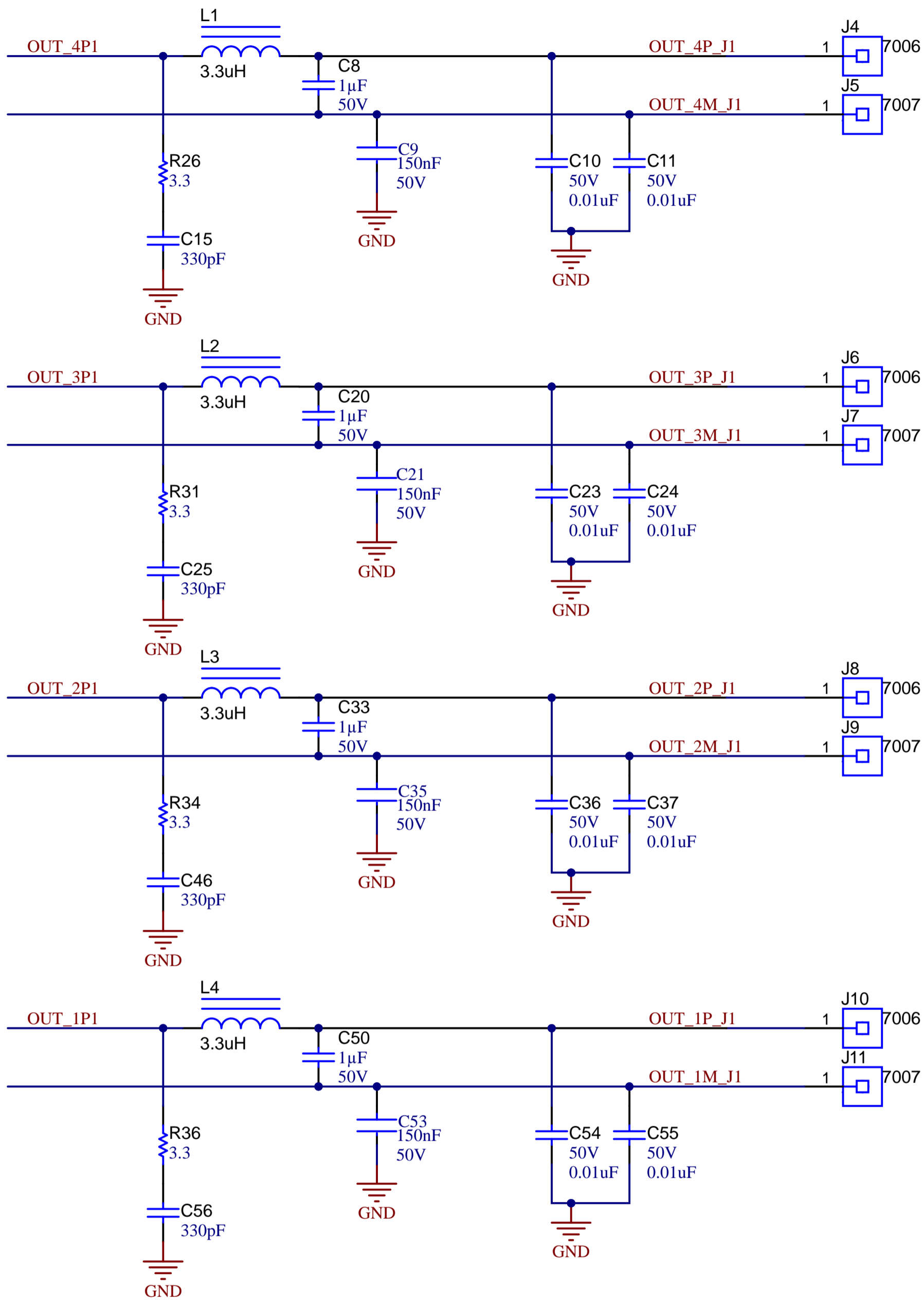


LED Indicators



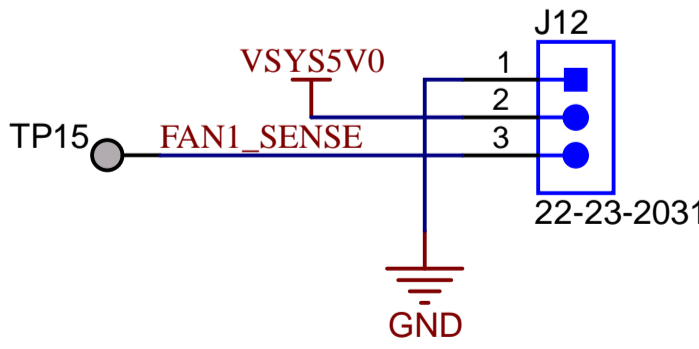
Bananna Plug Output Terminals

Keystone 700x, 4mm Banana Plug Terminals



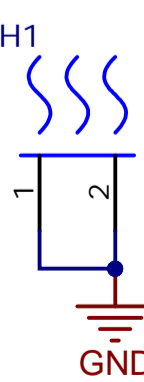
Fan Connector

Molex 22-23-2031



Heatsink

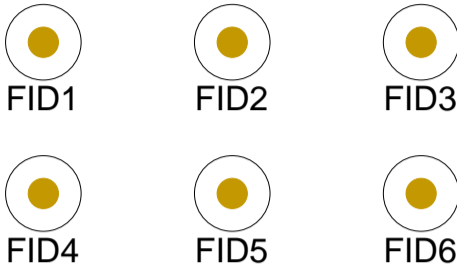
ATS-TI10P-1918-C1-R0



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Orderable: TAS67CD-AEC	Designed for: Public Release	Mod. Date: 3/13/2025
TID #: N/A	Project Title: TAS67CD-AEC	
Number: PROC191	Rev: A	Sheet Title:
SVN Rev:	Assembly Variant: 001	Sheet: 5 of 6
Drawn By:	File: PROC191_TAS1.SchDoc	Size: B
Engineer: a0271760	Contact: http://www.ti.com/support	

Hardware, Logos, Assembly Notes



PCB Number: PROC191
PCB Rev: A

PCB
LOGO
Texas Instruments



PCB
LOGO
FCC disclaimer

PCB
LOGO
WEEE logo

ZZ2

Assembly Note

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

ZZ3

Assembly Note

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


ZZ4

Assembly Note

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

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Orderable: TAS67CD-AEC		Designed for: Public Release		Mod. Date: 2/7/2025		
TID #: N/A		Project Title: TAS67CD-AEC				
Number: PROC191		Rev: A	Sheet Title:			
SVN Rev:		Assembly Variant: 001			Sheet: 6 of 6	
Drawn By:		File: PROC191_Hardware.SchDoc			Size: B	
Engineer: a0271760		Contact: http://www.ti.com/support				

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