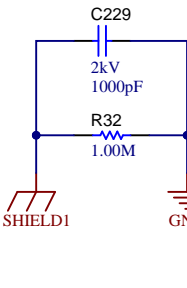
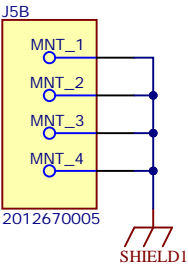
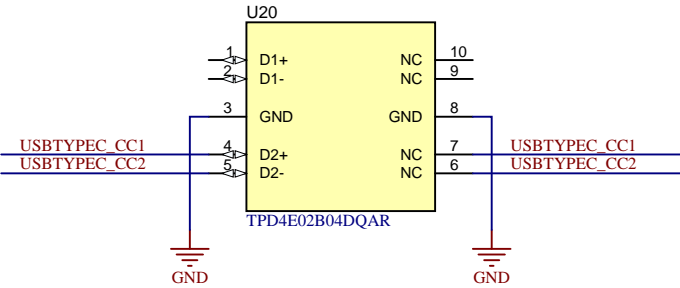
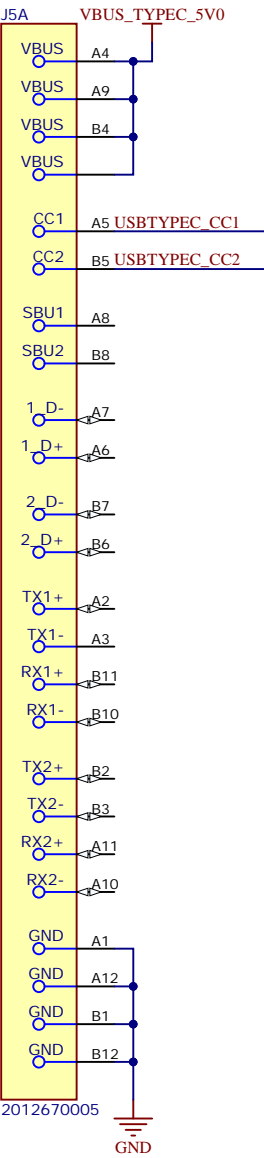
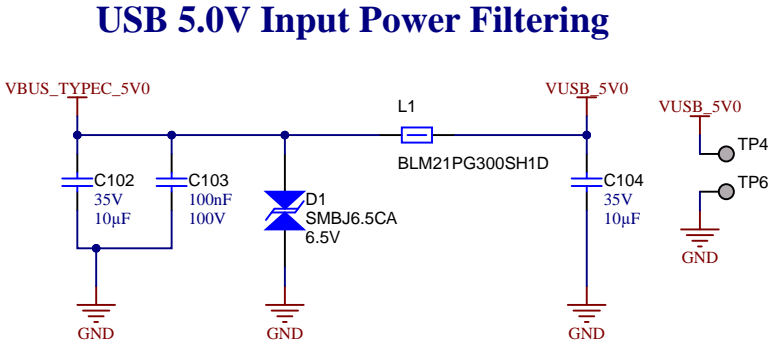
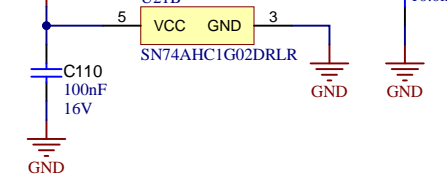


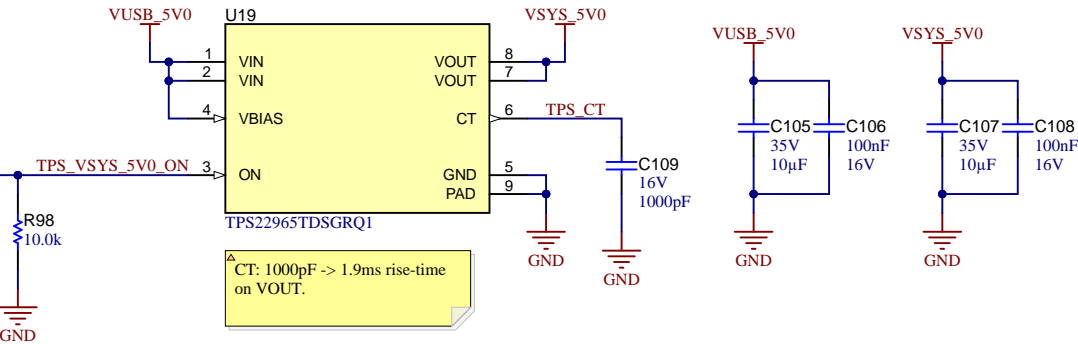
USB Type-C Power Input: 5.0V, 3.1A



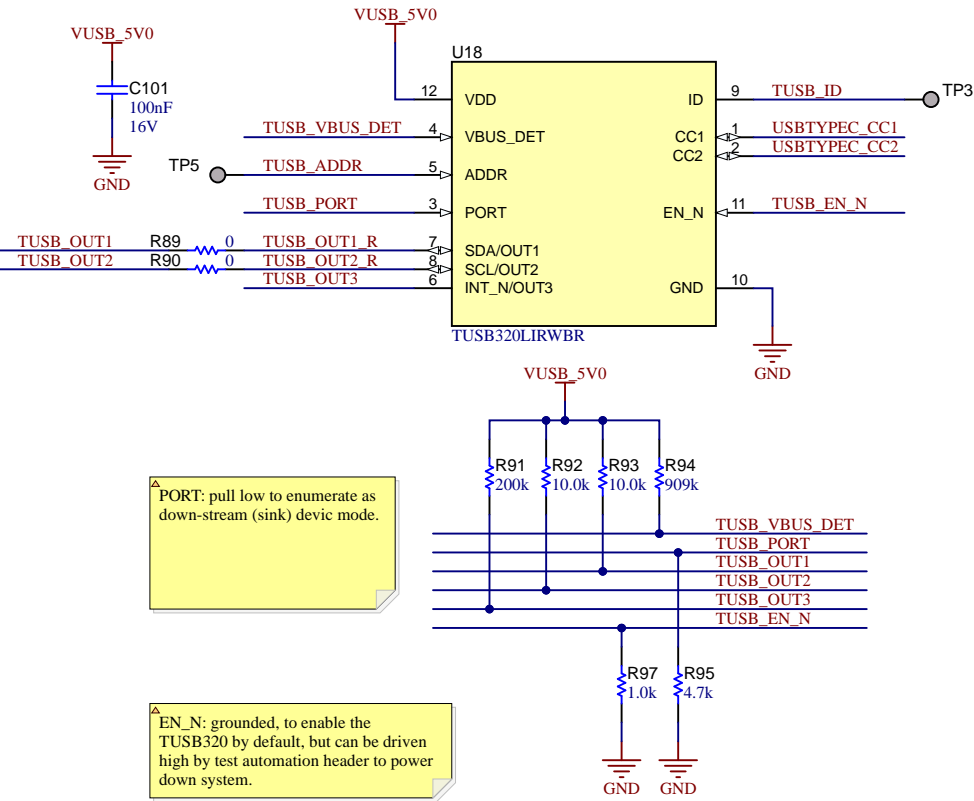
TUSB_OUT[2:1]: both driven low when a 3A source presented to the TUSB320 CC controller.



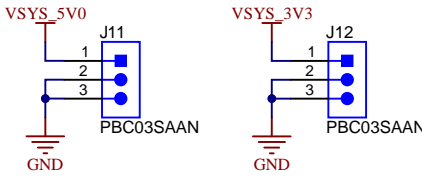
USB 5.0V Input Power Load Switch (4A max)



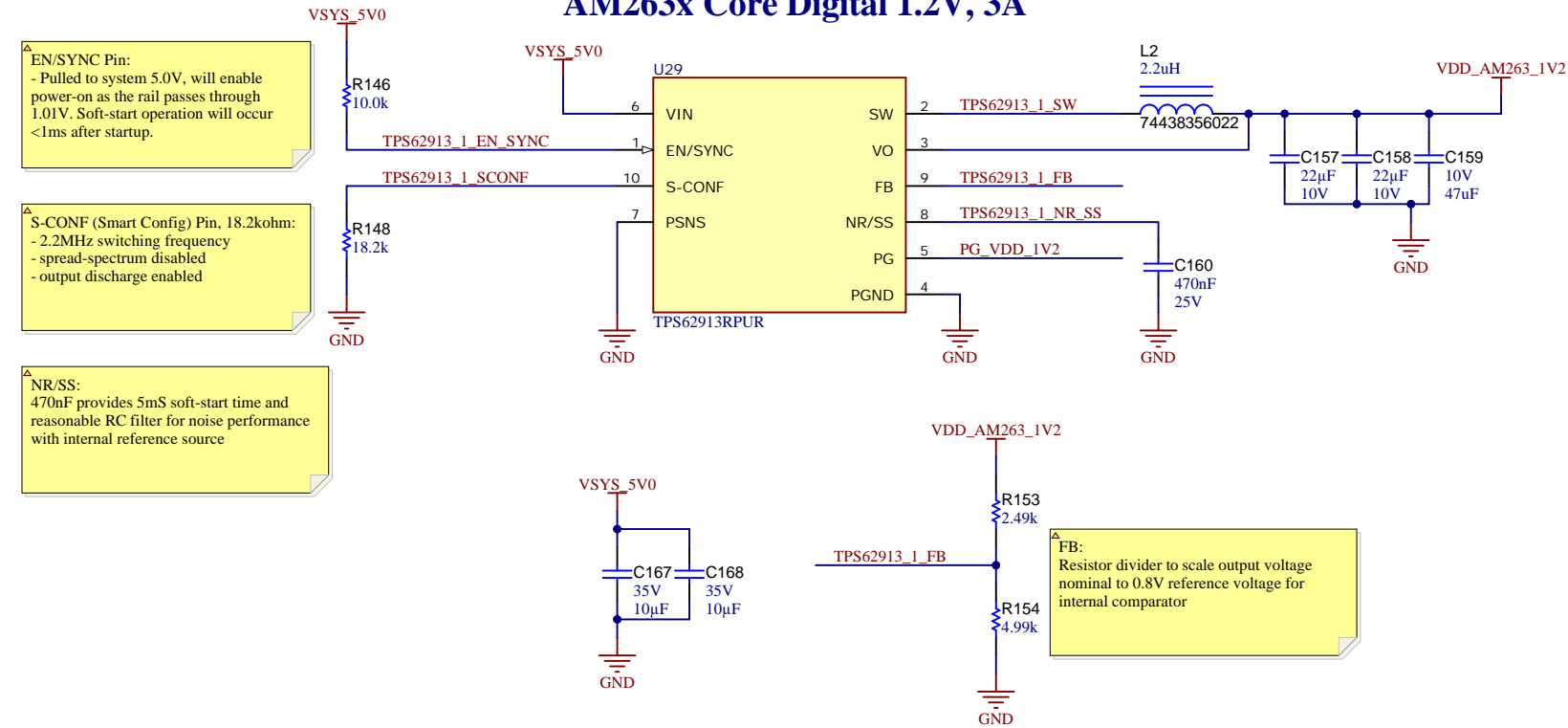
USB Type-C CC Logic Controller



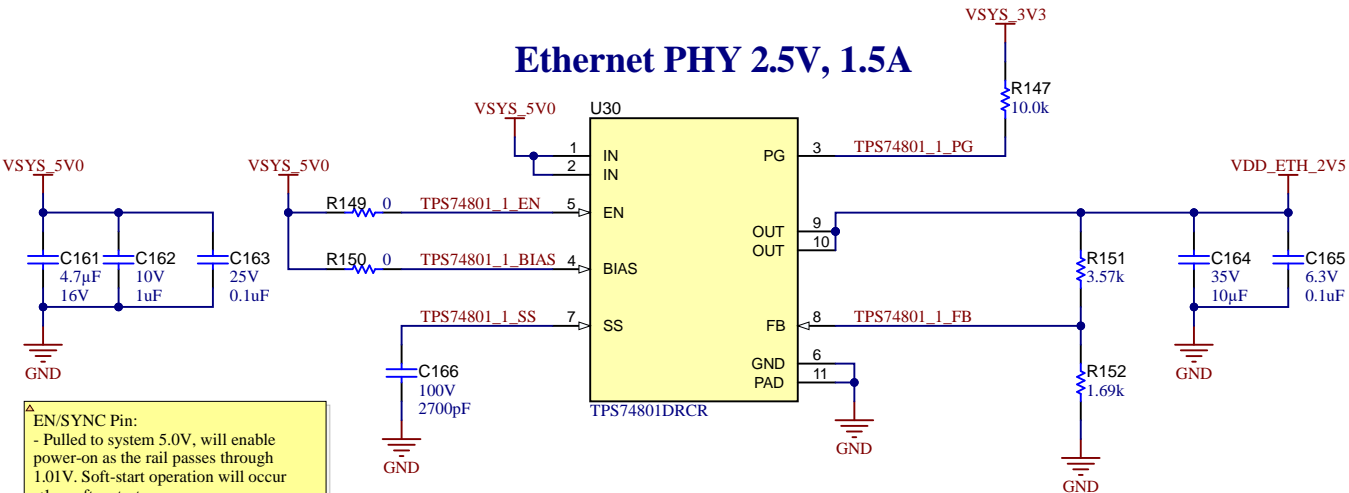
Boosterpack Extended Power



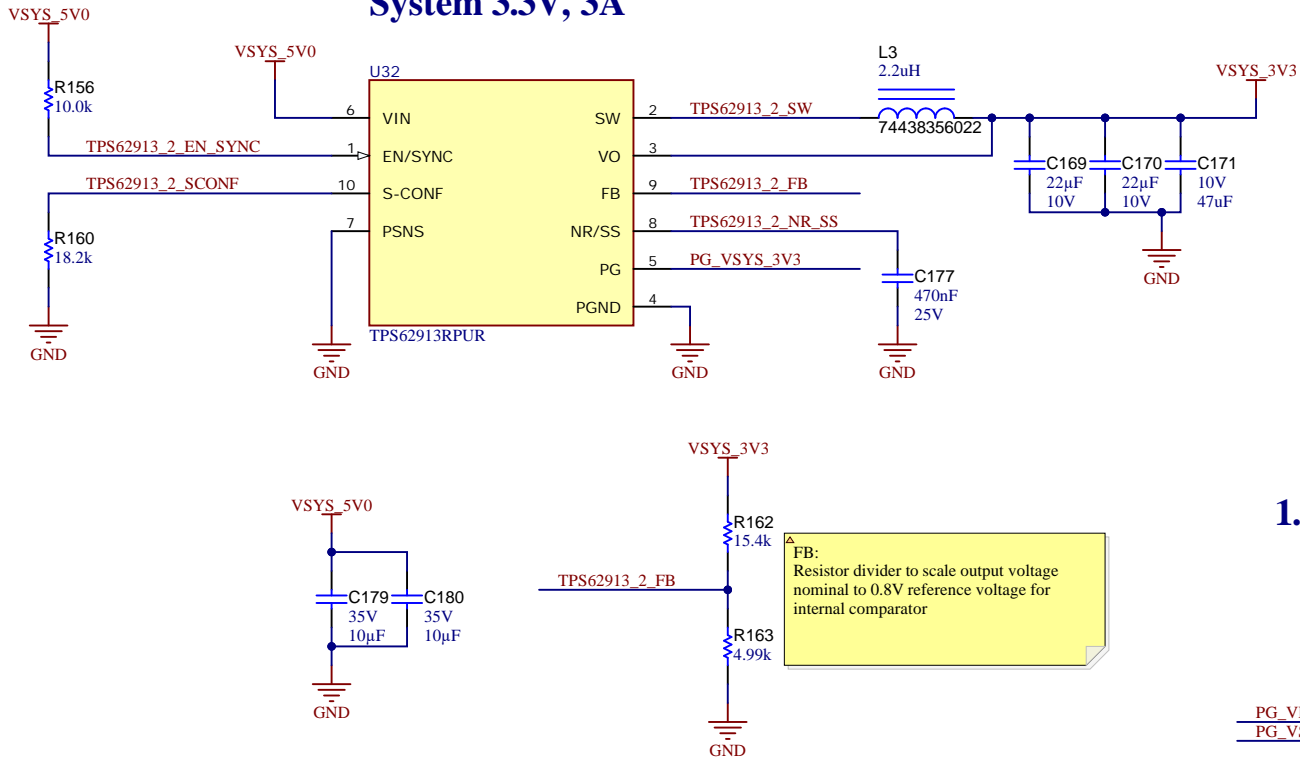
AM263x Core Digital 1.2V, 3A



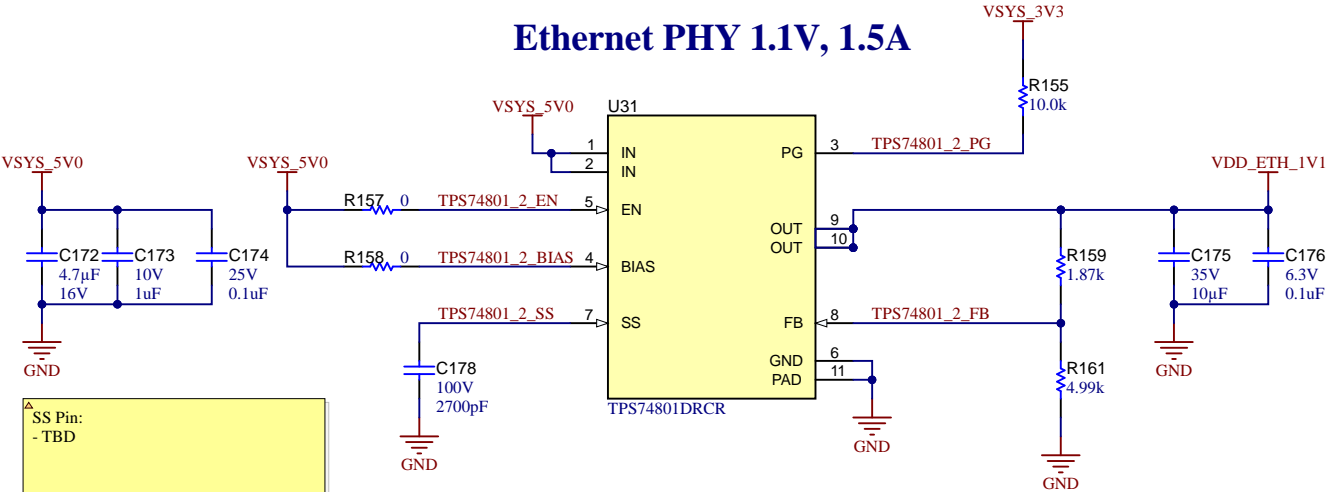
Ethernet PHY 2.5V, 1.5A



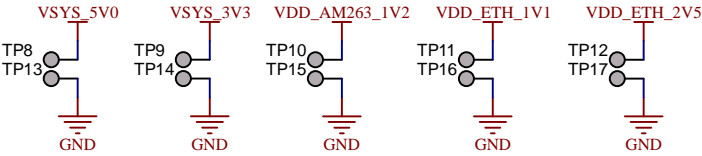
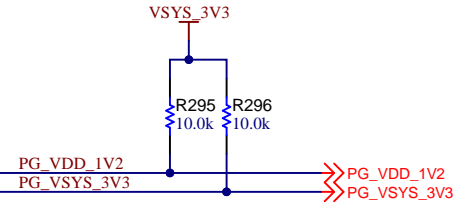
System 3.3V, 3A



Ethernet PHY 1.1V, 1.5A



1.2V, 3.3V Power-Good



A



C



□

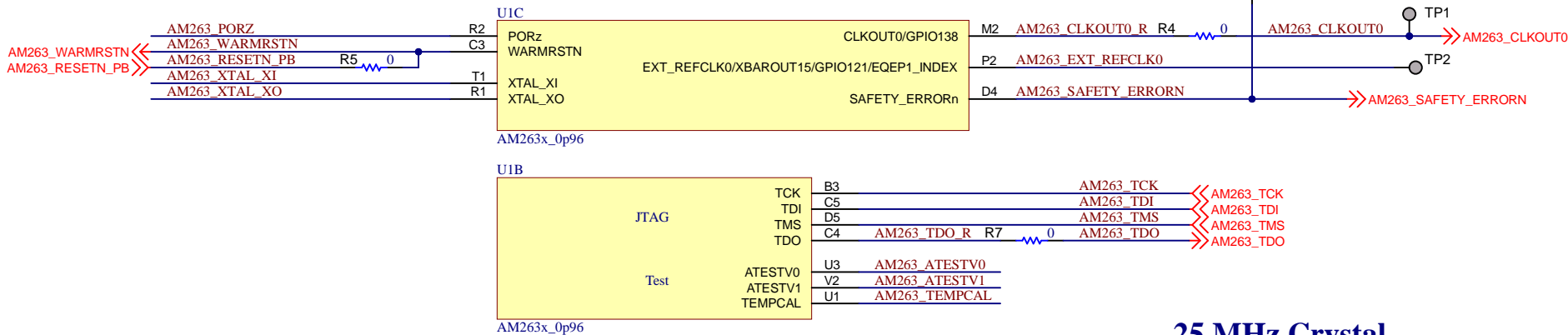
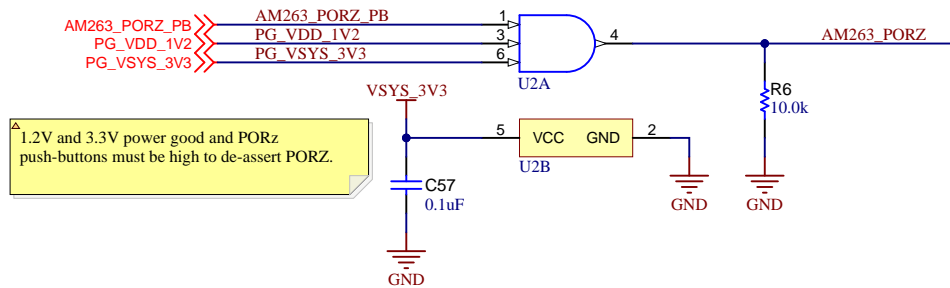


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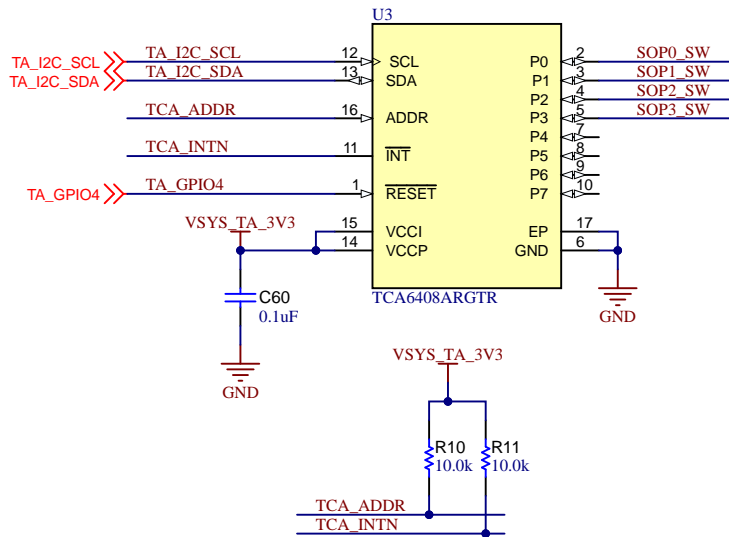
1

AM263x Clock, Reset, Boot, JTAG

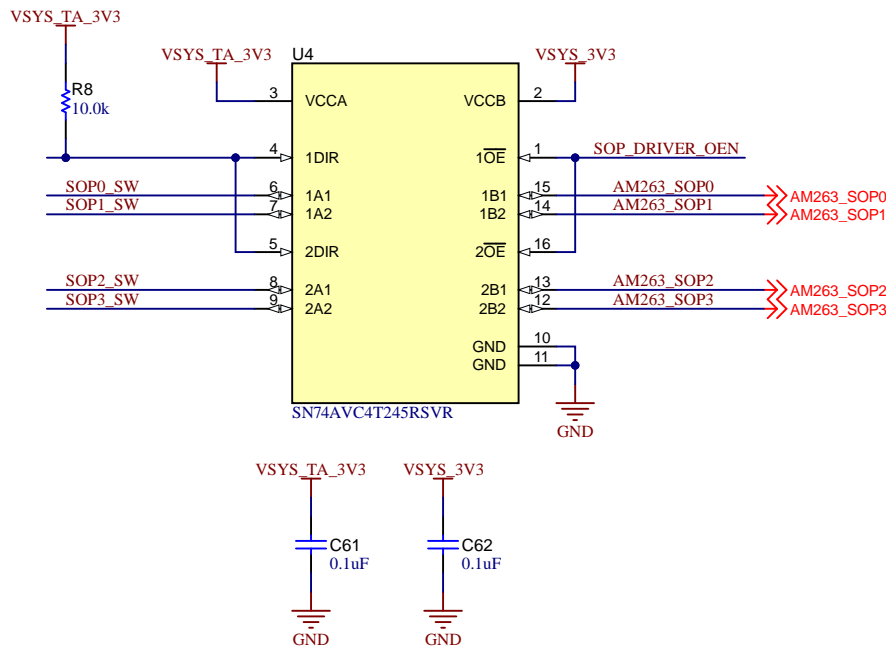
POR Generation



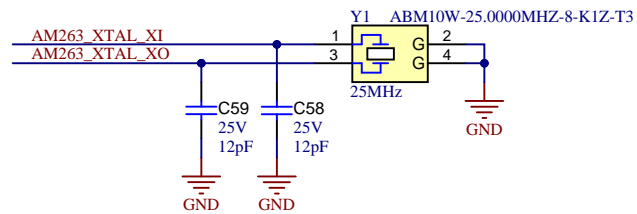
Test Automation SOP Select



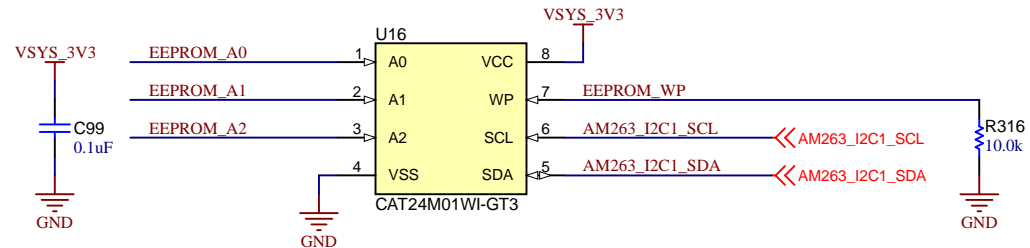
SOP State Driver



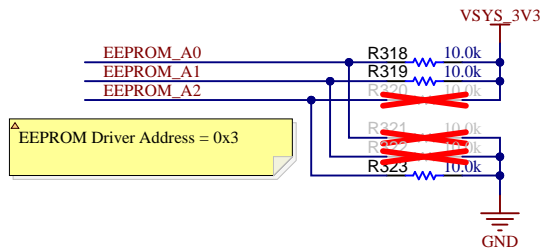
25 MHz Crystal



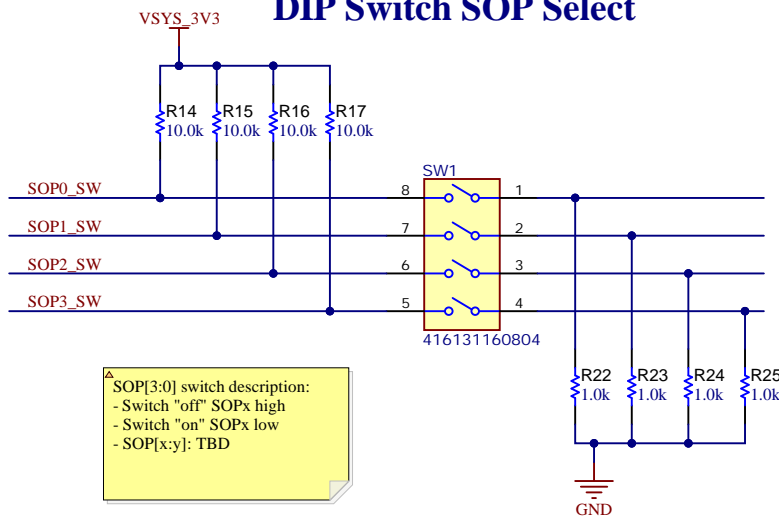
Board ID EEPROM



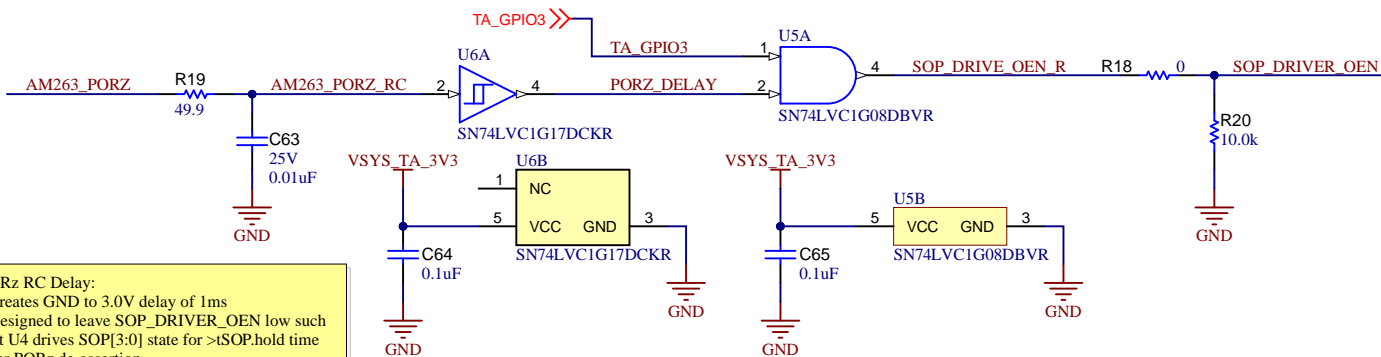
EEPROM Address



DIP Switch SOP Select



PORz SOP Driver RC Delay



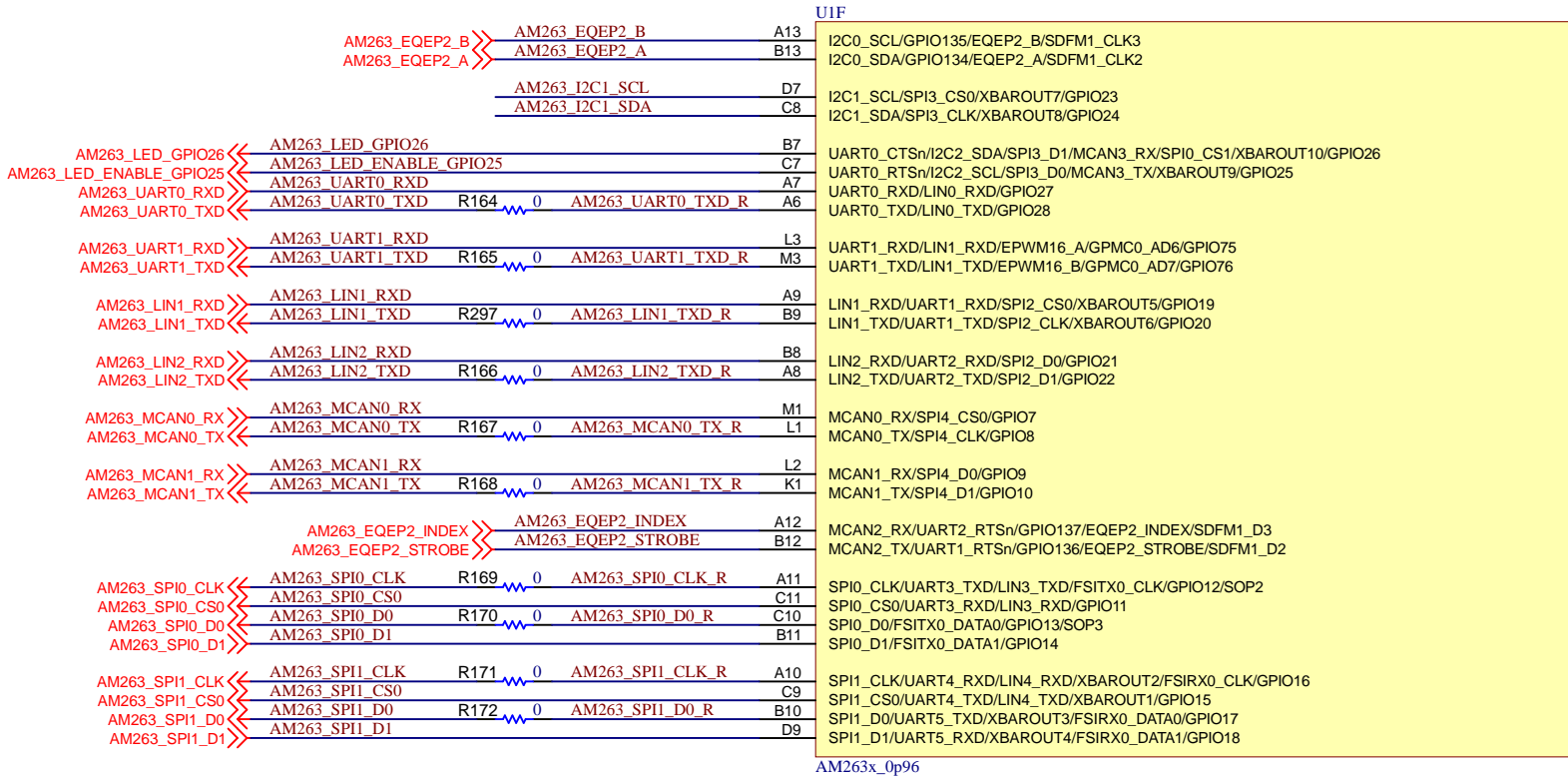
PORz RC Delay:
- Creates GND to 3.0V delay of 1ms
- Designed to leave SOP_DRIVER_OEN low such that U4 drives SOP[3:0] state for >tSOP.hold time after PORz de-assertion

PORz	TA_GPIO3	SOFTWARE Control from Test Automation HBR
HIGH	LOW	Enabled
HIGH	HIGH	Disabled

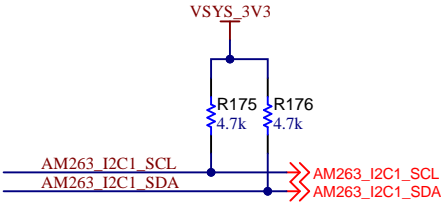
Orderable:	Designed for:	Mod. Date: 1/25/2022
TID #: N/A	Project Title: AM263x Launchpad	
Number: PROC111	Rev: E2	Sheet Title:
SVN Rev:	Assembly Variant: 001	Sheet: 5 of 24
Drawn By: a0271760	File: PROC111_AM263x_2_Clock_Reset_Boot_JTAG_SchDoc	
Engineer: a0271760	Contact:	

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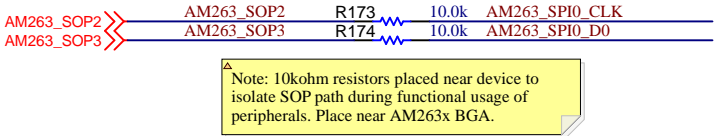
AM263x Serial Connectivity



I2C1 Pull-Up

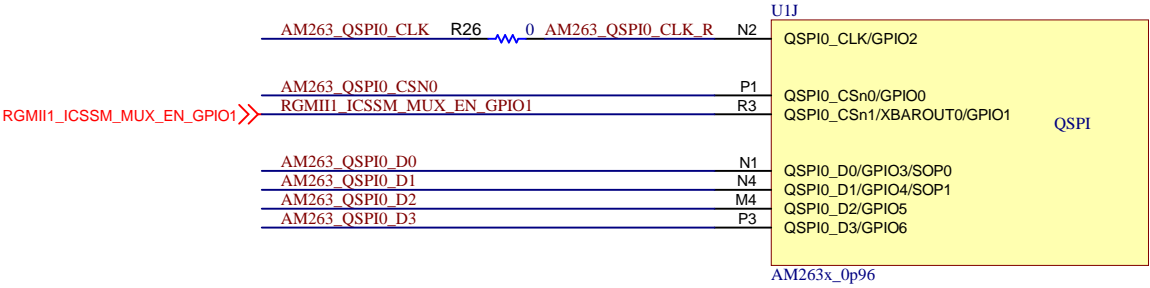
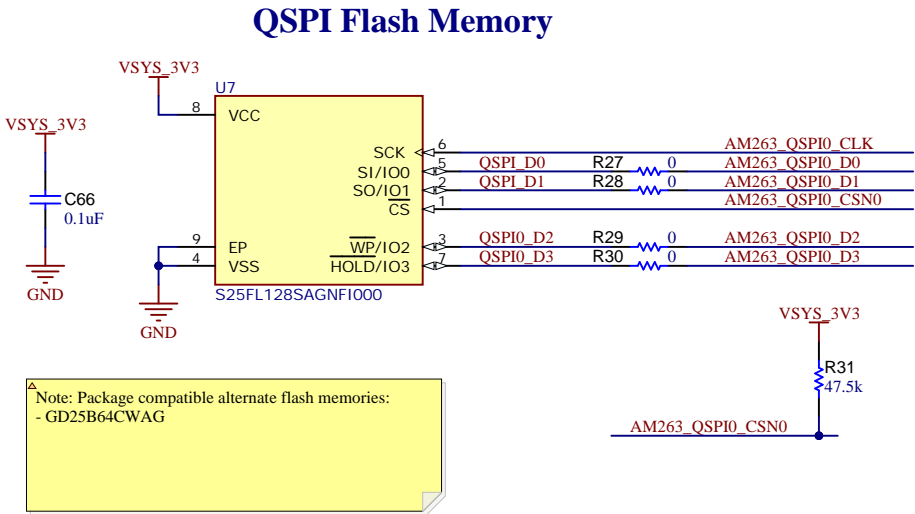


AM263x SOP[3:2]

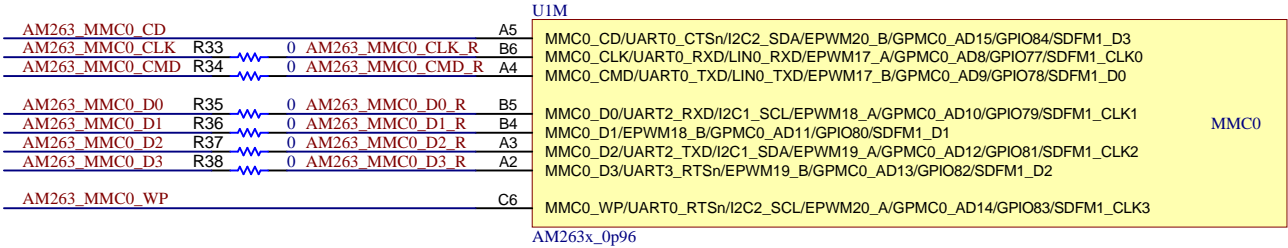


AM263x QSPI and MMC

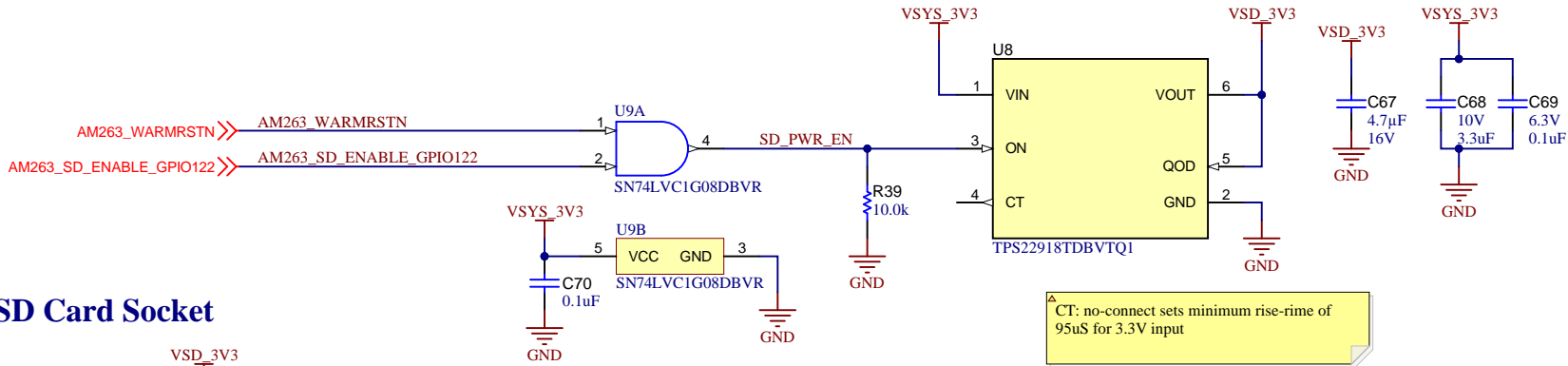
AM263x QSPI0



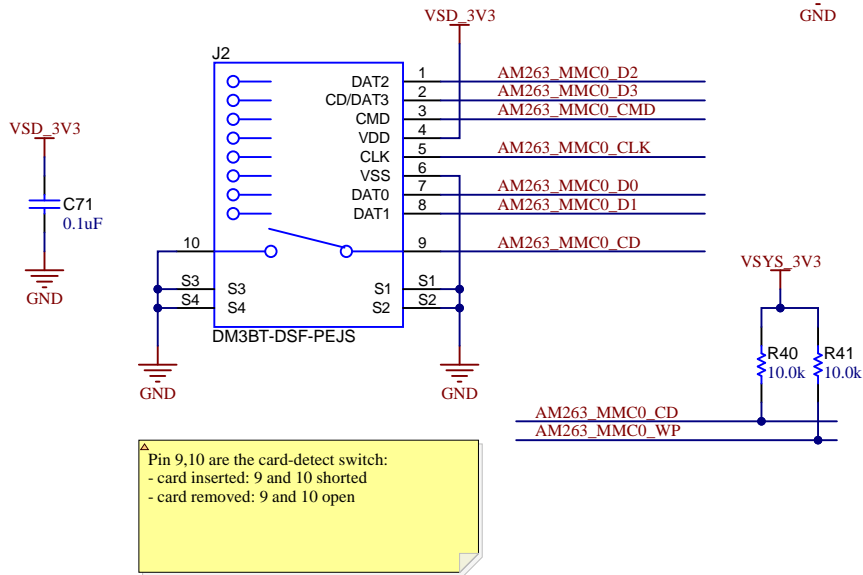
AM263x MMC0



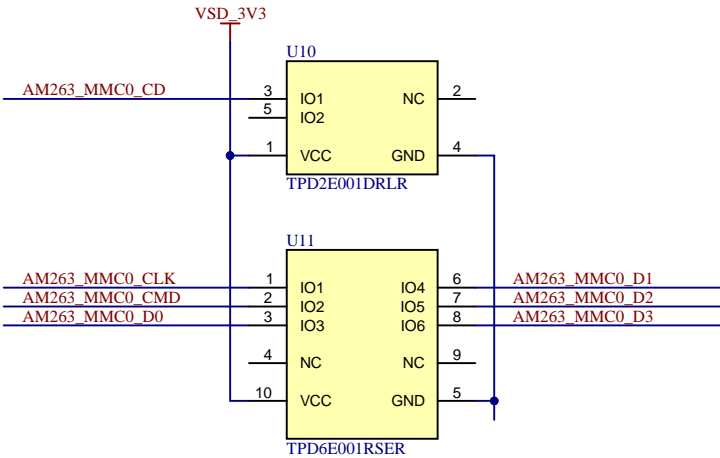
Micro-SD Power Switch



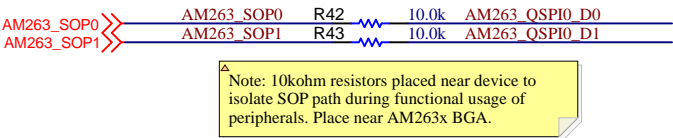
Micro-SD Card Socket



Micro-SD ESD



AM263x SOP[1:0]



AM263x ADC and DAC

A

B

C

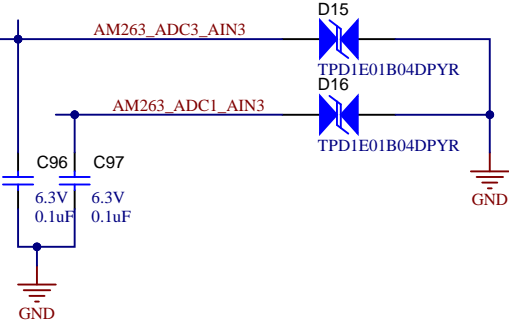
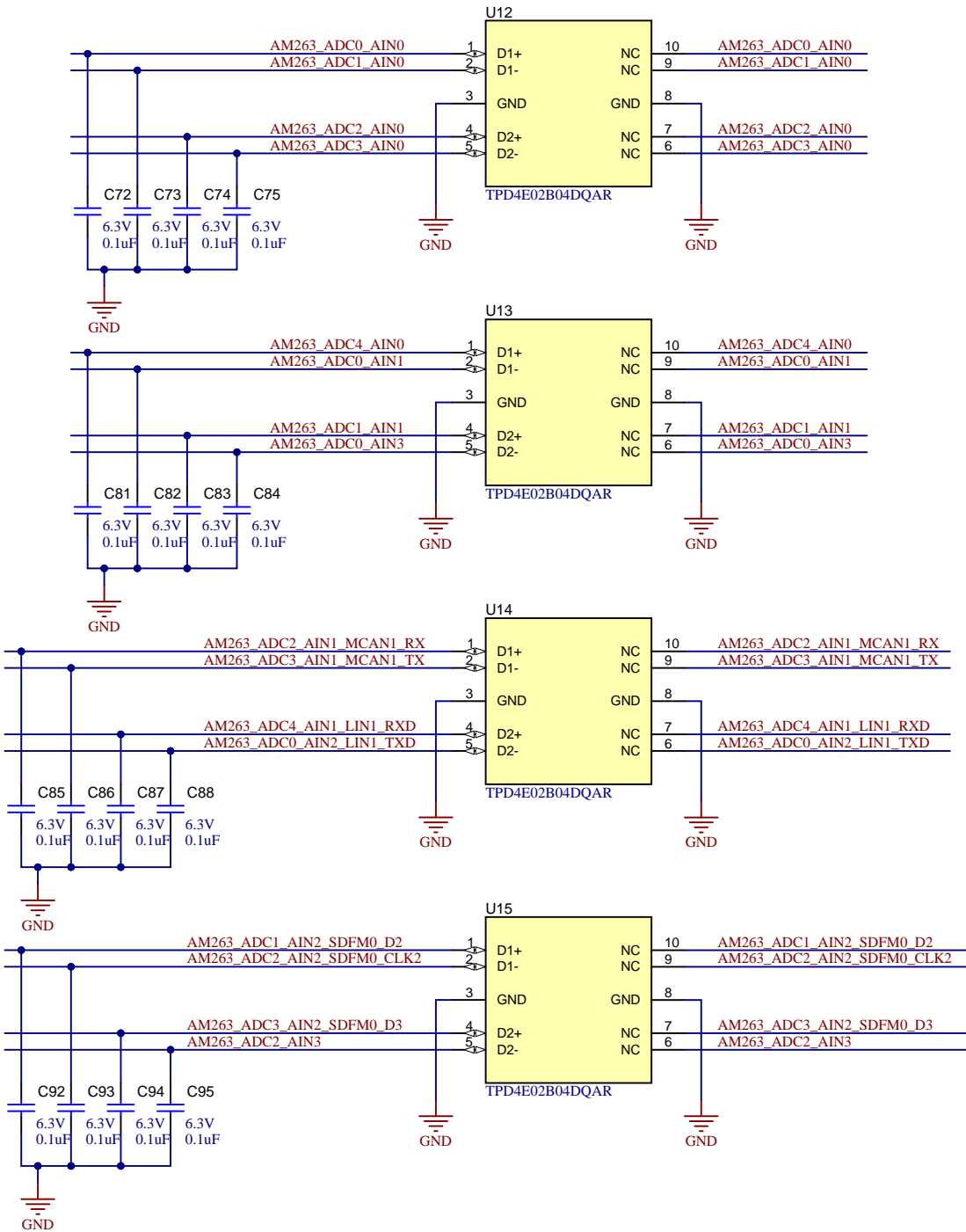
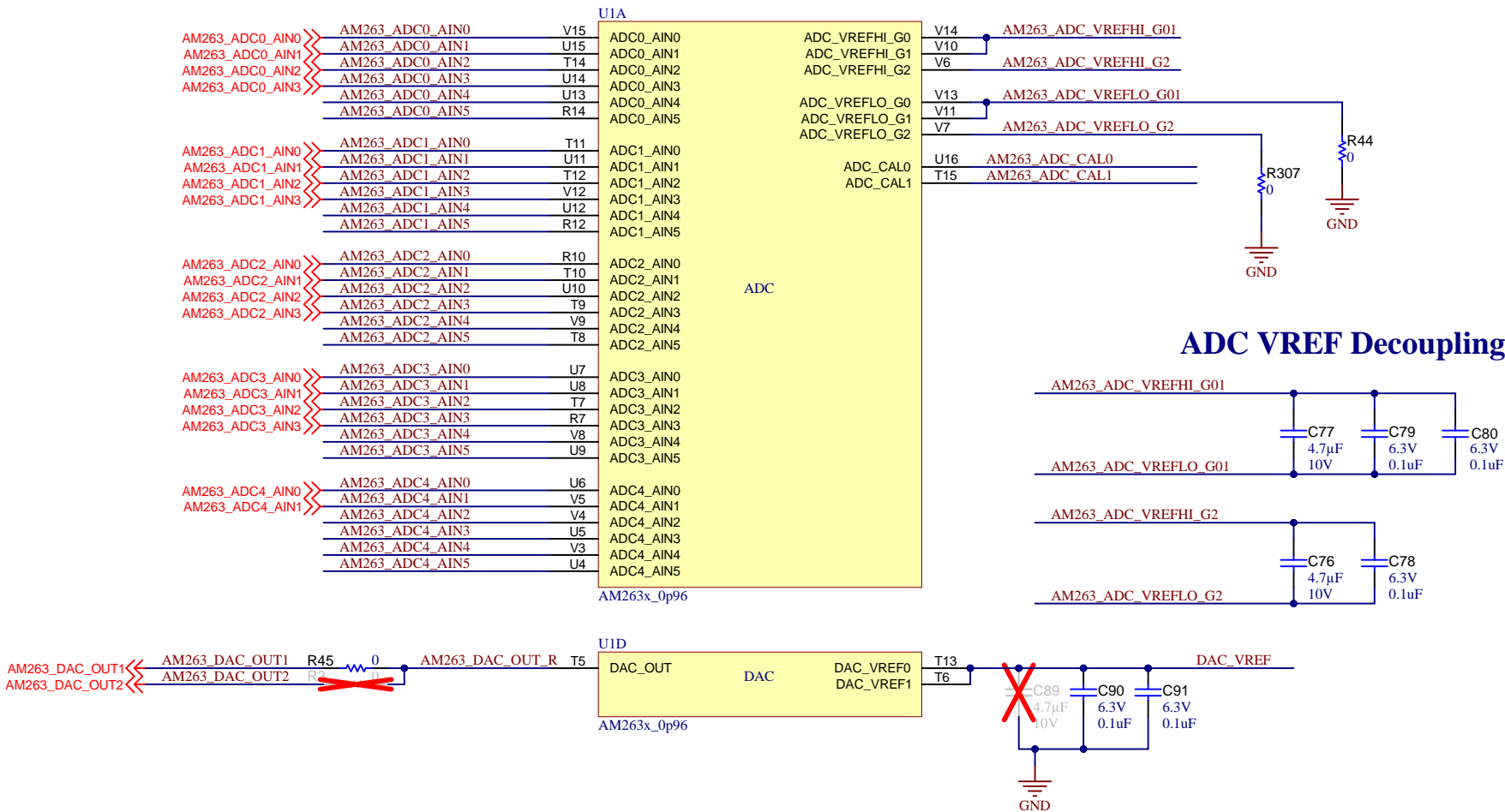
D

A

B

C

D



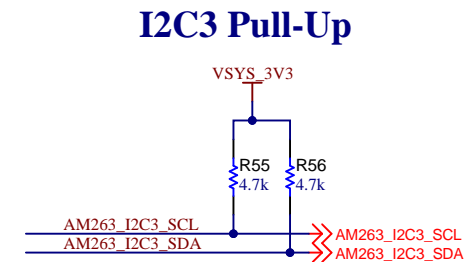
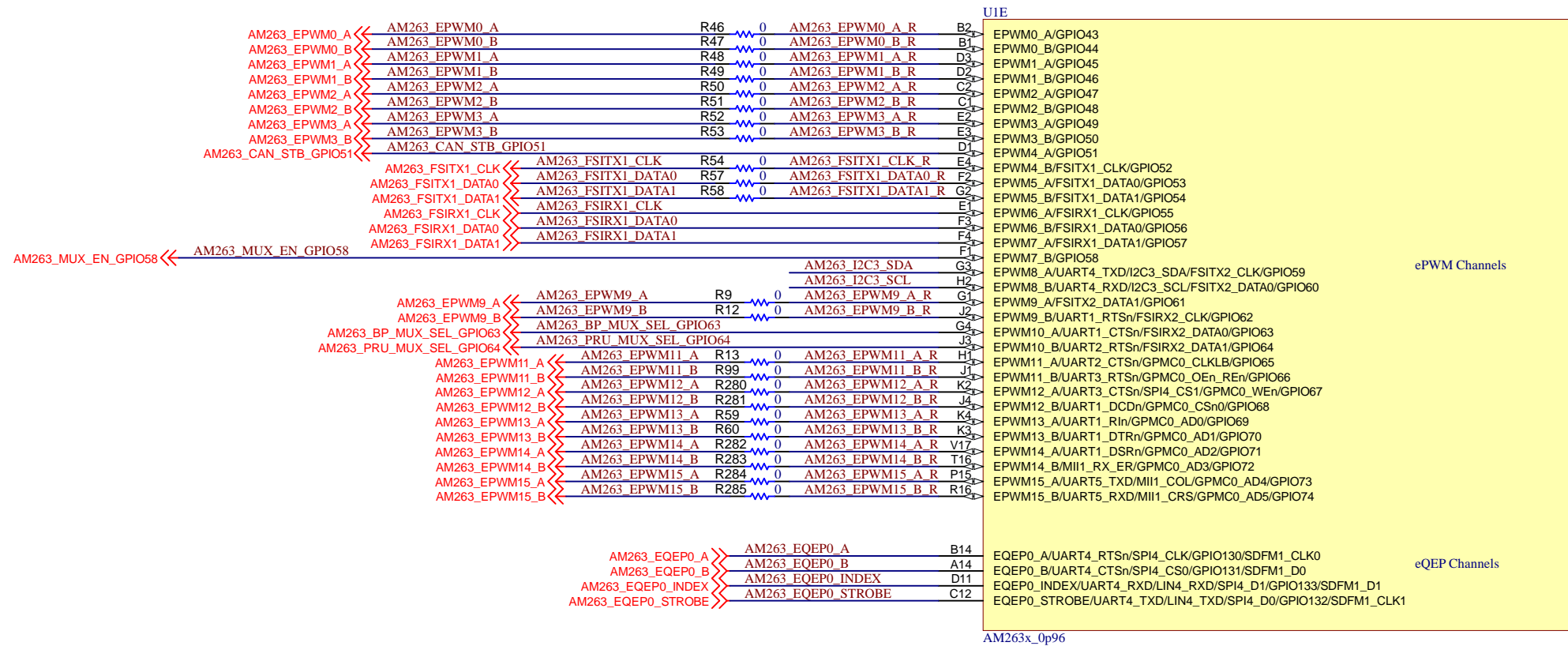
DAC VREF Switch Select - 1.8V VREF must be provided for AM263x comparators to function

- Select pins 1-2 select AM263x 1.8V analog LDO output as DAC VREF (default)
- Select pins 2-3 select external 1.8V VREF (if any provided)

DAC VREF Switch Select

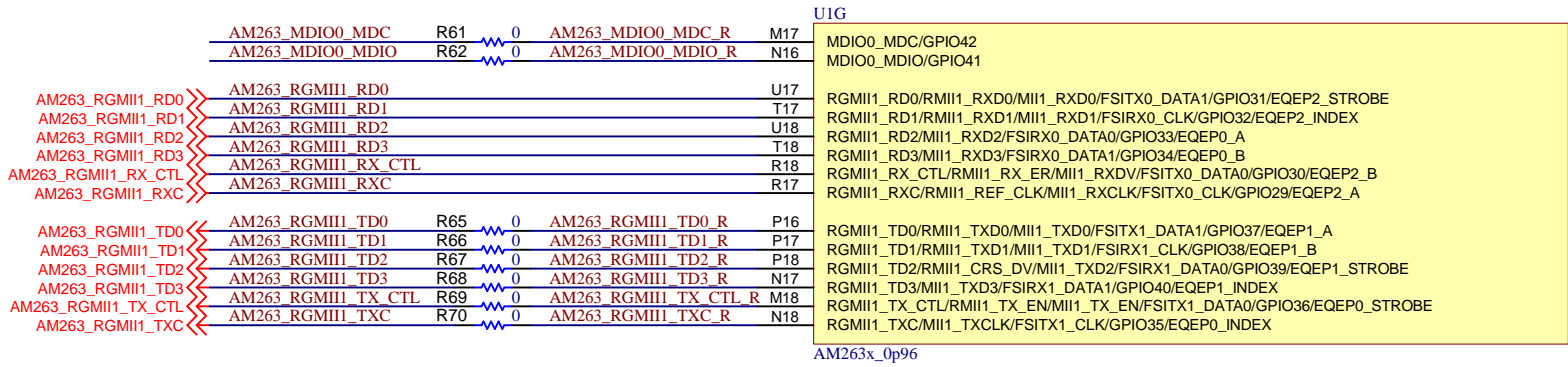
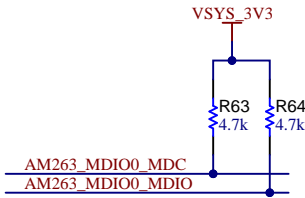
- Switch in 1-2 position allows AM263x on-die ADC VREF (default) for VREFG0/G1
- Switch in 2-3 position selects external 1.8V VREF (if any provided) for VREFG0/G1
- Switch in 4-5 position allows AM263x on-die ADC VREF (default) for VREFG2
- Switch in 5-6 position selects external 1.8V VREF (if any provided) for VREFG2

AM263x ePWM, eQEP, FSI

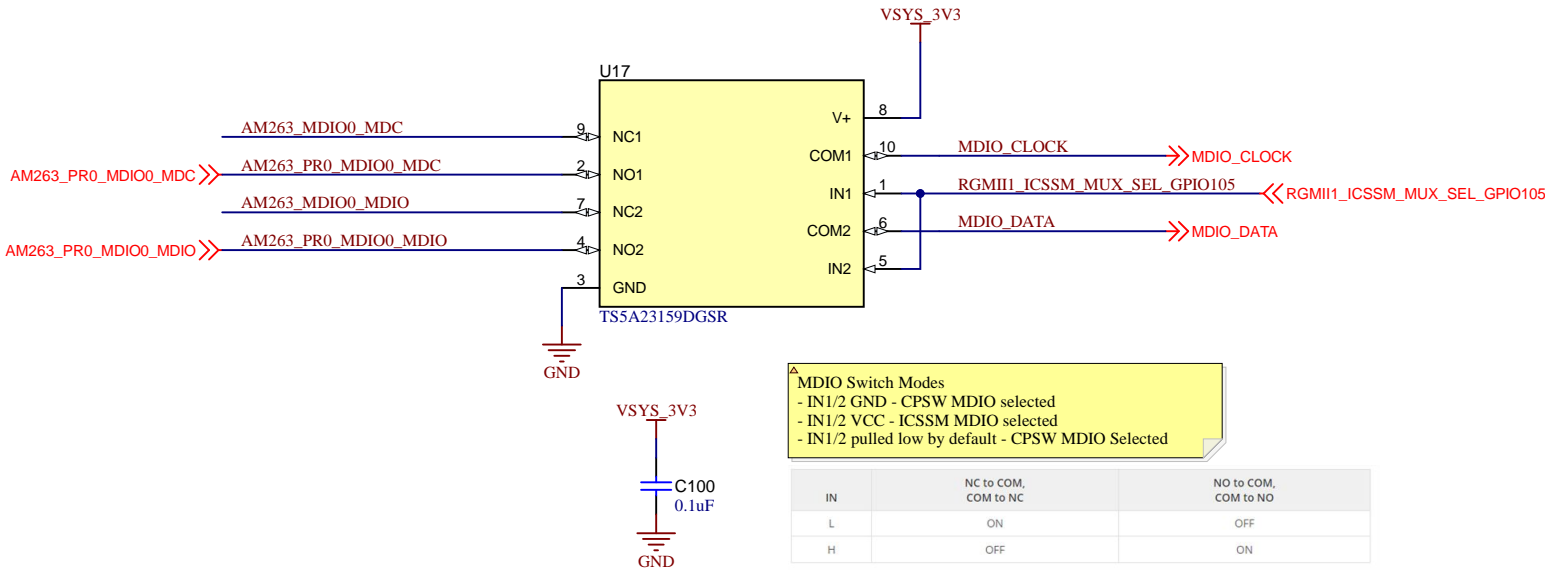


AM263x CPSW - RGMII1 and MDIO

CPSW MDIO Pull-Up

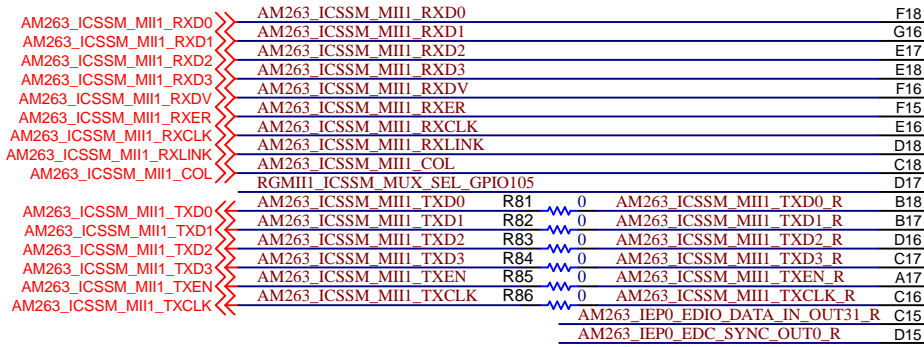
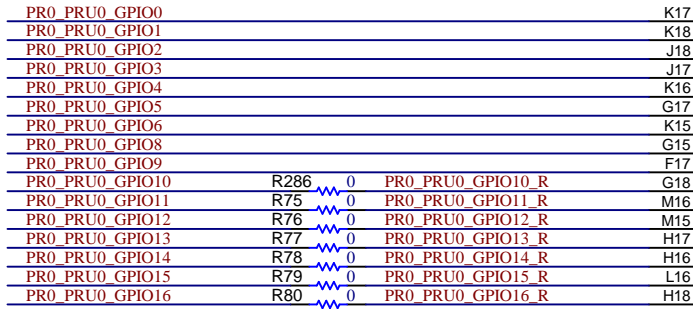
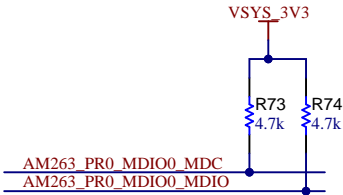


CPSW/ICSSM MDIO Switch



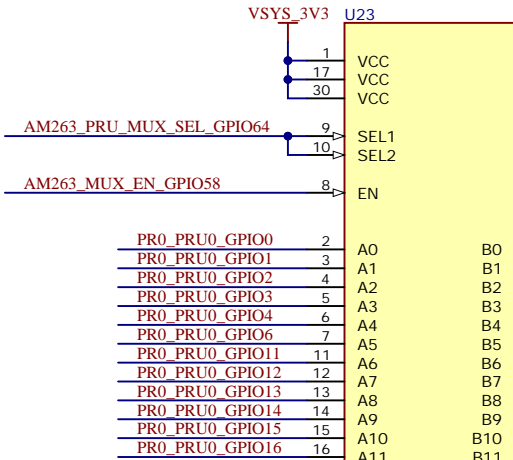
AM263x PR0 PRU0 and PRU1

ICSSM MDIO Pull-Up

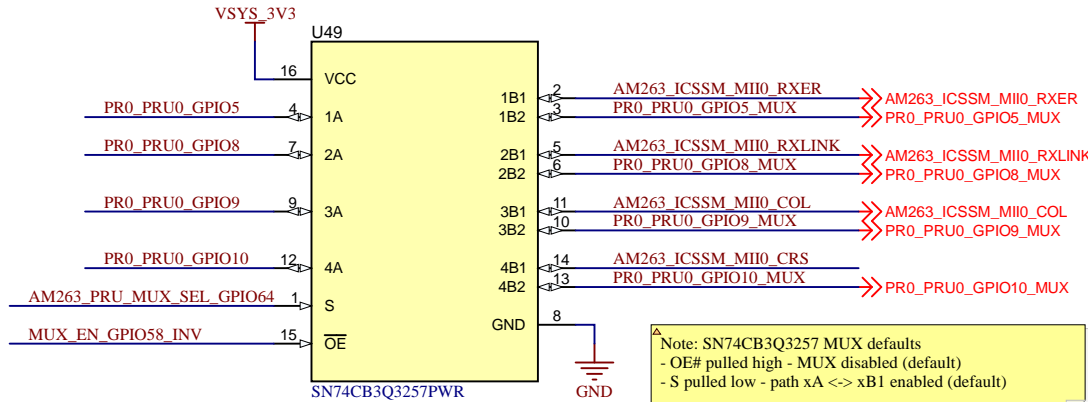


PR0_PRU0 PHY #2 / Boosterpack MUX

EN	SEL1	SEL2	FUNCTION
L	X	X	A ₀ to A ₁₁ , B ₀ to B ₁₁ , and C ₀ to C ₁₁ are Hi-Z
H	L	L	A ₀ to A ₅ = B ₀ to B ₅ and A ₆ to A ₁₁ = B ₆ to B ₁₁
H	L	H	A ₀ to A ₅ = B ₀ to B ₅ and A ₆ to A ₁₁ = C ₆ to C ₁₁
H	H	L	A ₀ to A ₅ = C ₀ to C ₅ and A ₆ to A ₁₁ = B ₆ to B ₁₁
H	H	H	A ₀ to A ₅ = C ₀ to C ₅ and A ₆ to A ₁₁ = C ₆ to C ₁₁

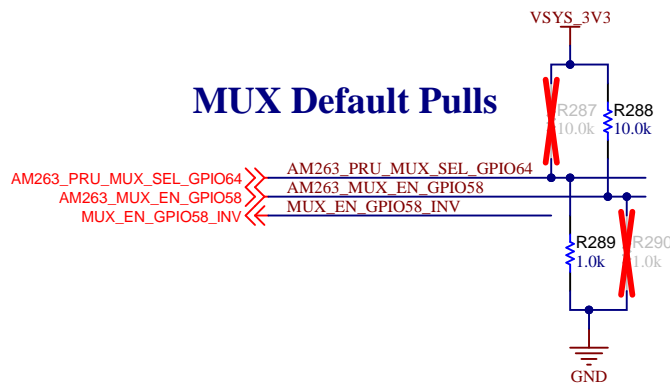


Note: TS3DDR MUX defaults
- EN# pulled high - MUX disabled (default)
- SEL pulled low - path A <-> B enabled (default)

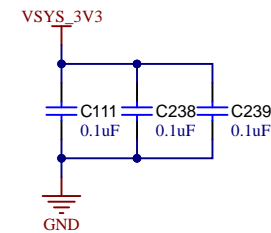


Note: SN74CB3Q3257 MUX defaults
- OE# pulled high - MUX disabled (default)
- S pulled low - path xA <-> xB1 enabled (default)

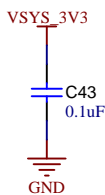
MUX Default Pulls



MUX Decoupling



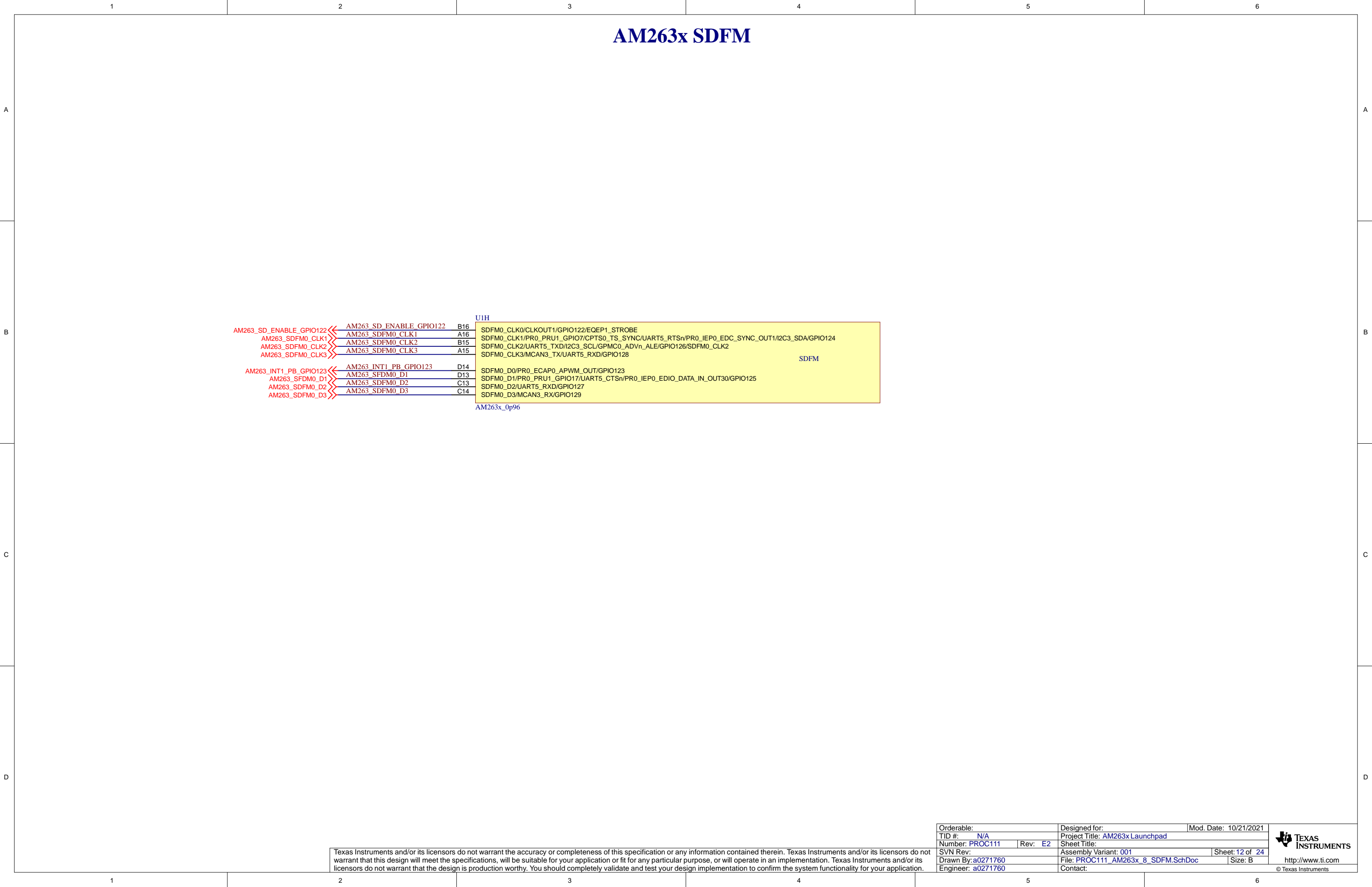
MUX Decoupling



INPUTS		INPUT/OUTPUT A	FUNCTION
OE	S		
L	L	B1	A port = B1 port
L	H	B2	A port = B2 port
H	X	Z	Disconnect

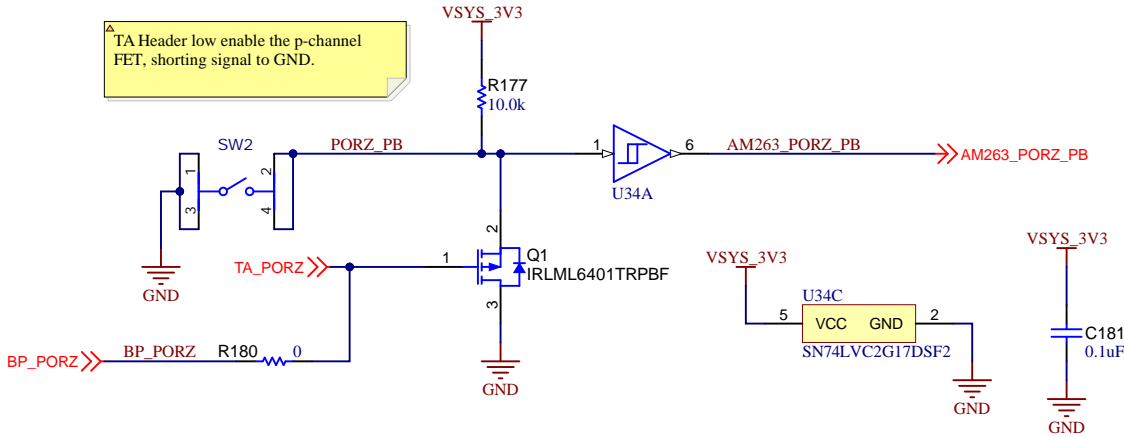
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Orderable:	Designed for:	Mod. Date: 1/24/2022
TID #: N/A	Project Title: AM263x Launchpad	
Number: PROC111	Rev: E2	Sheet Title:
SVN Rev:	Assembly Variant: 001	Sheet: 11 of 24
Drawn By: a0271760	File: PROC111_AM263x_7_PRU.SchDoc	Size: B
Engineer: a0271760	Contact:	

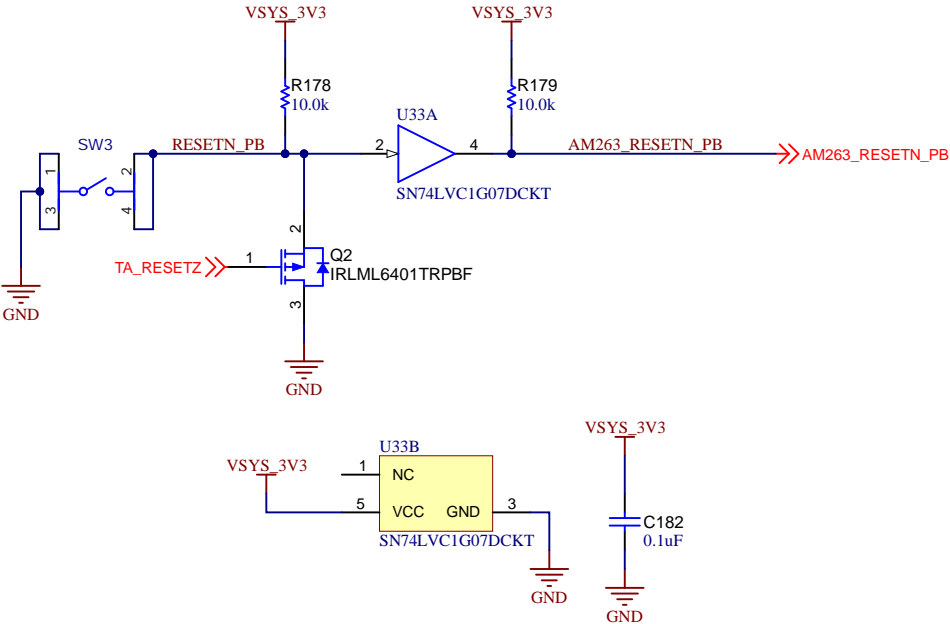


Push-Buttons

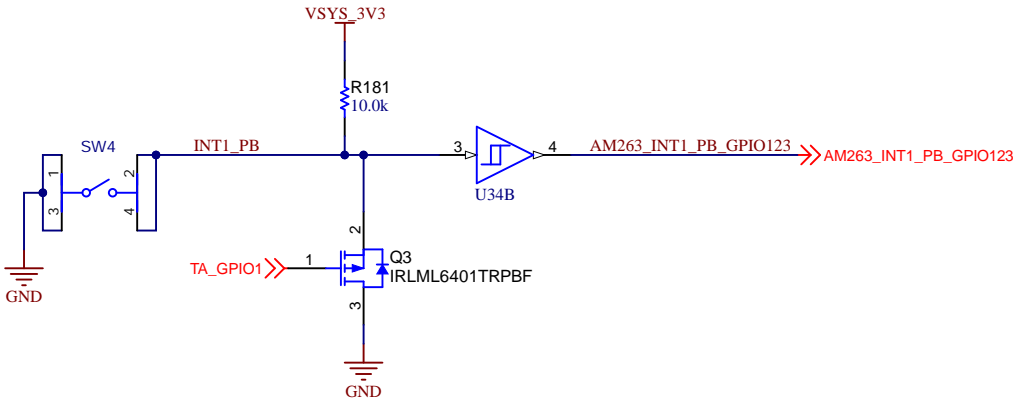
PORZ Push-Button and Test Automation



RESETZ Push-Button and Test Automation



INT1 Push-Button and Test Automation



A

B

C

D

A

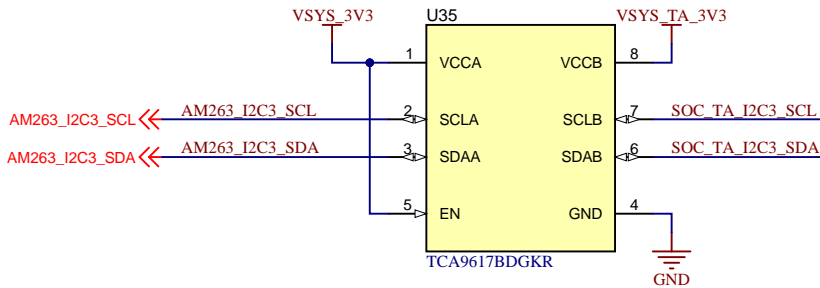
B

C

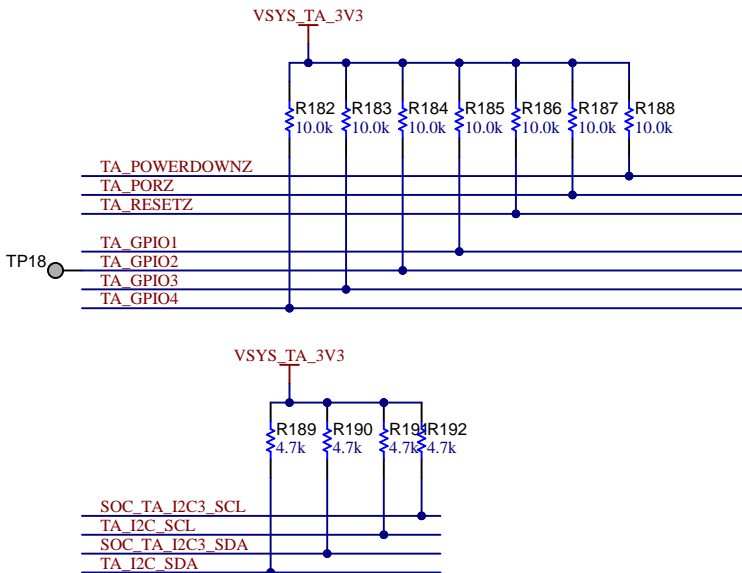
D

SIGNAL NAME	DESCRIPTION	Direction WRT CTRL	Internal/ External PU/PD states
TA_POWERDOWN	Used to Power down the system	OUTPUT	External Pullup
TA_PORZn	Used to Reset the SoC PORs	OUTPUT	External Pullup
TA_RESETz	SoC Warmreset	OUTPUT	External Pullup
TA_GPIO1	Interrupt to SOC	OUTPUT	External Pullup
TA_GPIO2	Used to Enable or Disable 1.2V Regulator	OUTPUT	External Pullup
TA_GPIO3	Used to Enable the BOOTMODE Buffer	OUTPUT	External Pullup
TA_GPIO4	Used Reset Bootmode IO Exp	OUTPUT	External Pullup

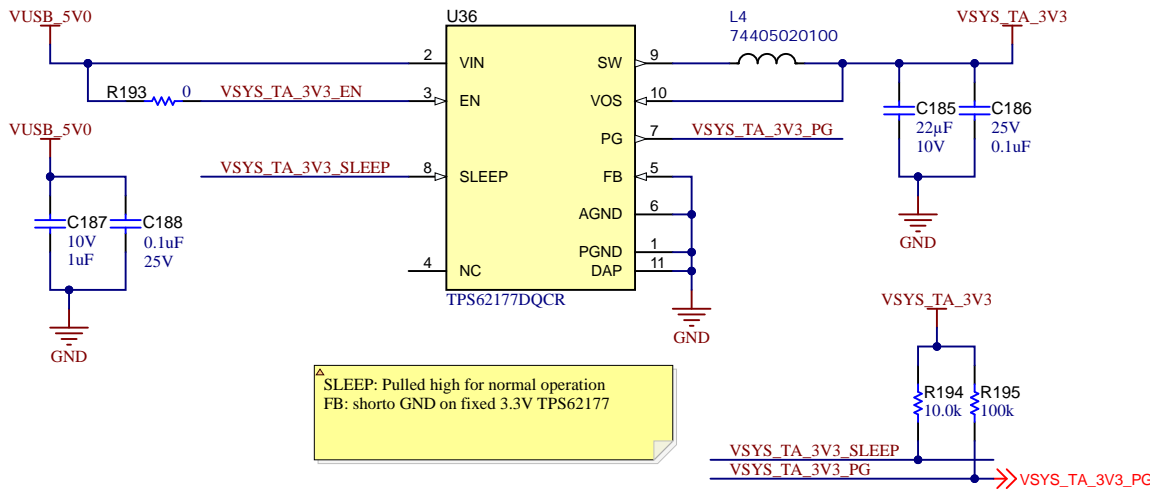
Test Automation I2C Power Isolation



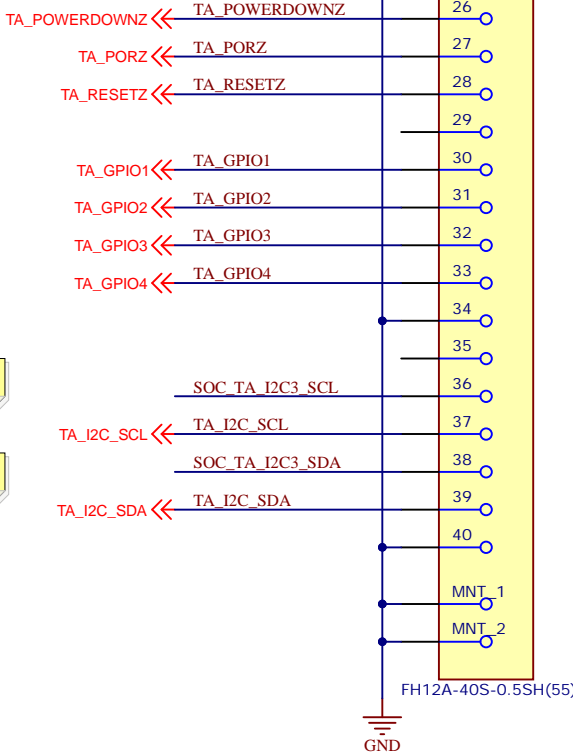
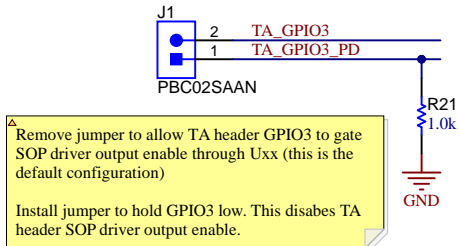
Test Automation Header



Test Automation 3.3V, 500mA Supply



Test-Automation PORz Override



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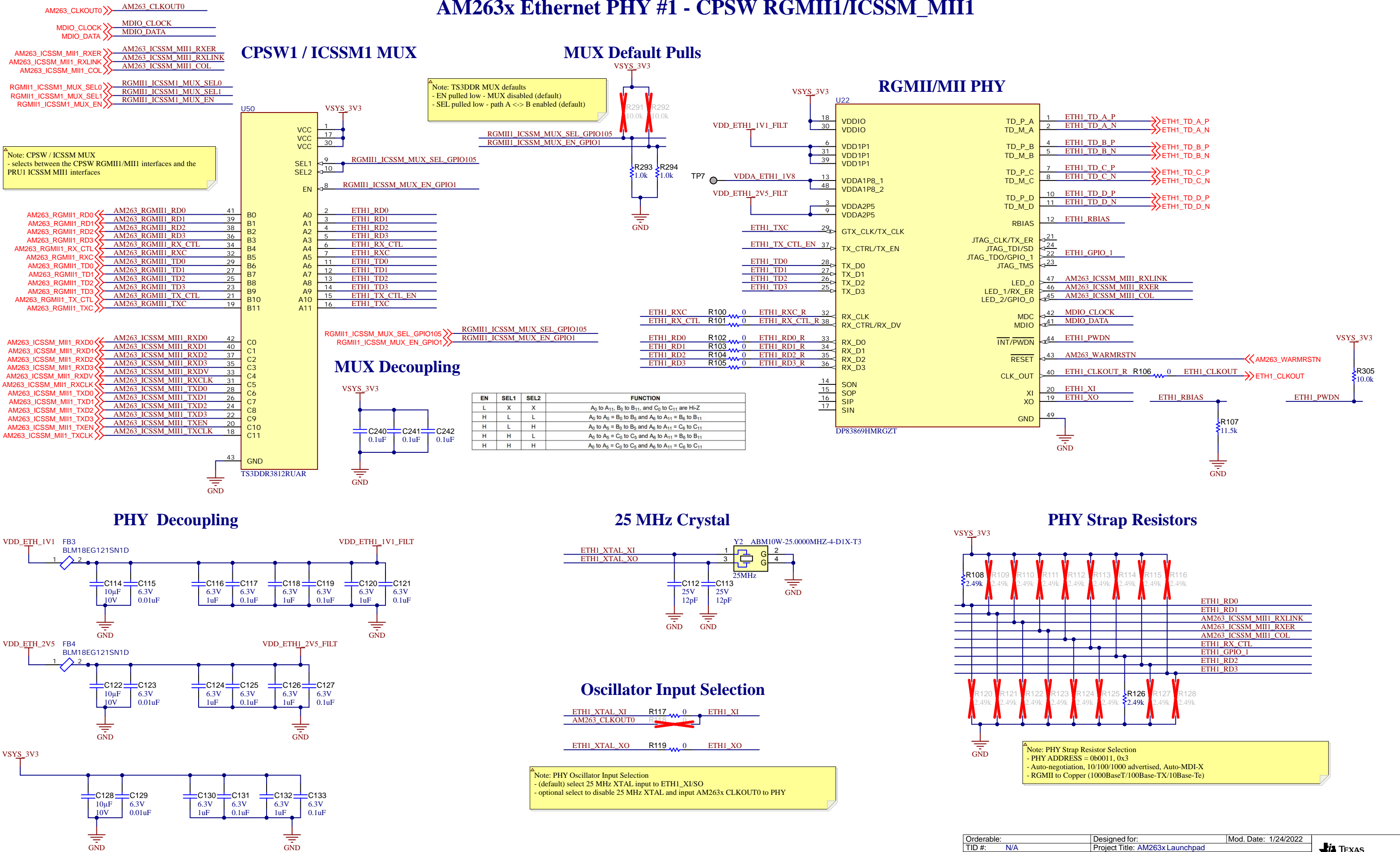
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TID #: N/A	Project Title: AM263x Launchpad	
Number: PROC111	Rev: E2	Sheet Title:
SVN Rev:	Assembly Variant: 001	Sheet: 14 of 24
Drawn By: a0271760	File: PROC111_Test_Automation.SchDoc	Size: B
Engineer: a0271760	Contact:	

AM263x Ethernet PHY #1 - CPSW RGMII1/ICSSM_MII1

CPSW1 / ICSSM1 MUX

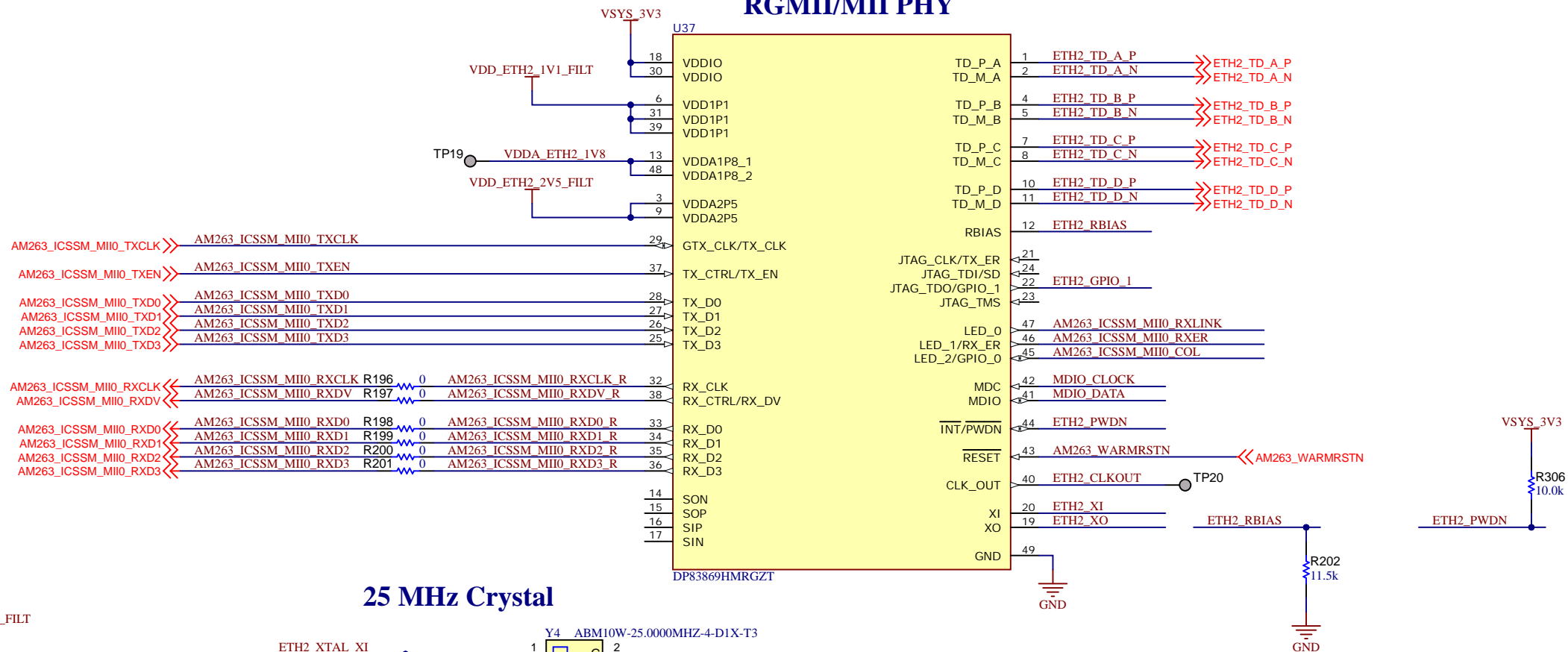
MUX Default Pulls

RGMII/MII PHY

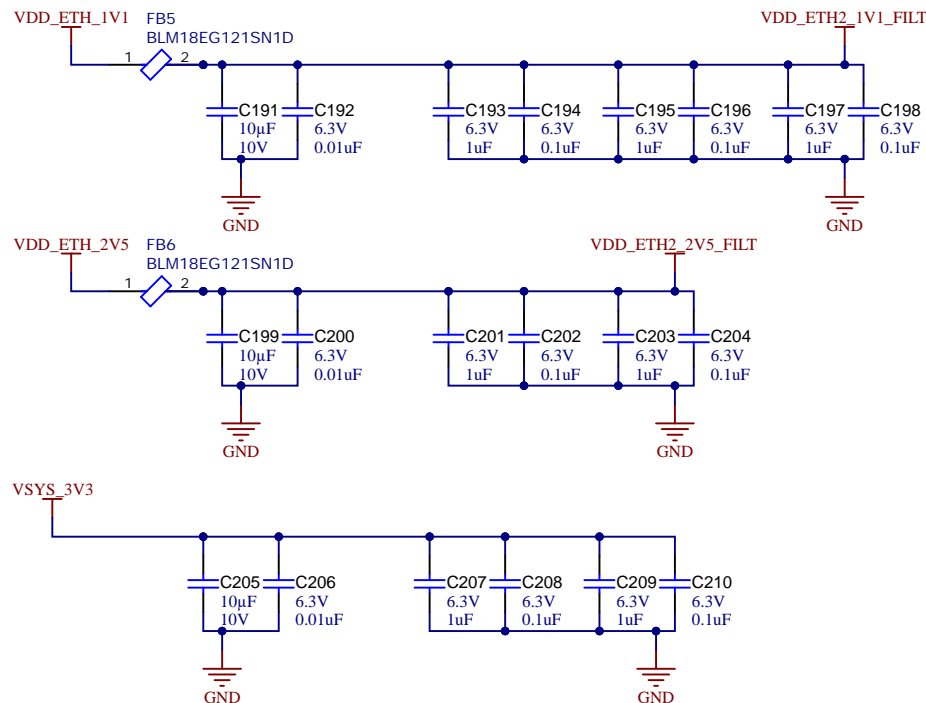


AM263x Ethernet PHY #2 - CPSW RGMII2/ICSSM_MII0

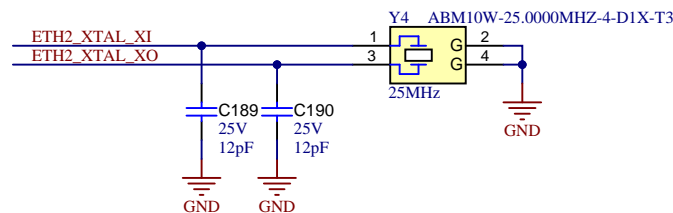
Note: CPSW / ICSSM Pinmux On AM263x
- selects between the CPSW RGMII2/MII2 interfaces and the PRU1 ICSSM MII0 interfaces



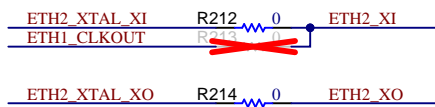
PHY Decoupling



25 MHz Crystal



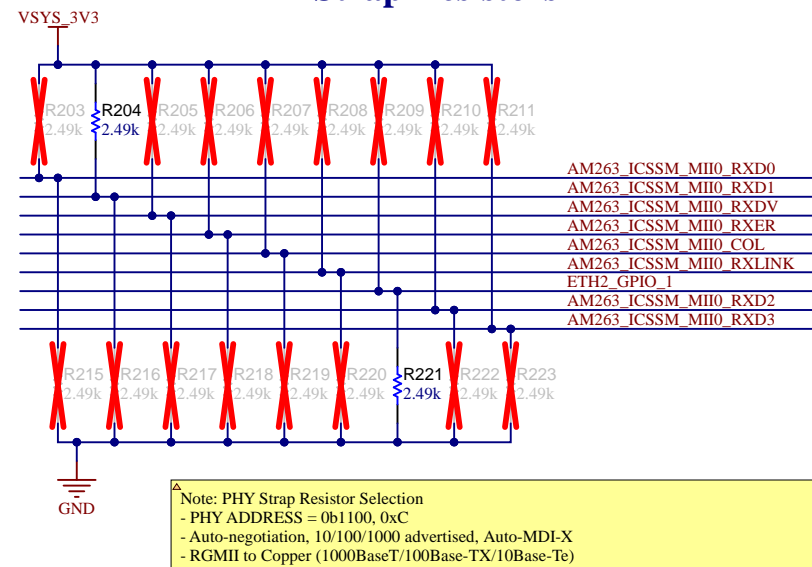
Oscillator Input Selection



△ Note: PHY Oscillator Input Selection

- (default) select 25 MHz XTAL input to ETH2_XI/SO
- optional select to disable 25 MHz XTAL and input CLK_OUT from PHY1

PHY Strap Resistors

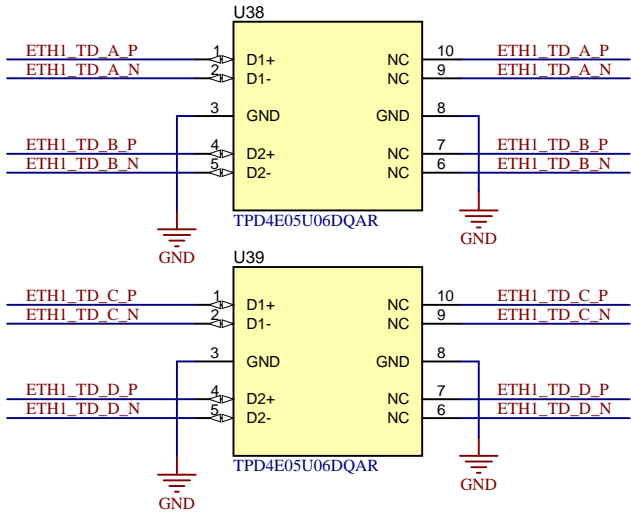


Note: PHY Strap Resistor Selection

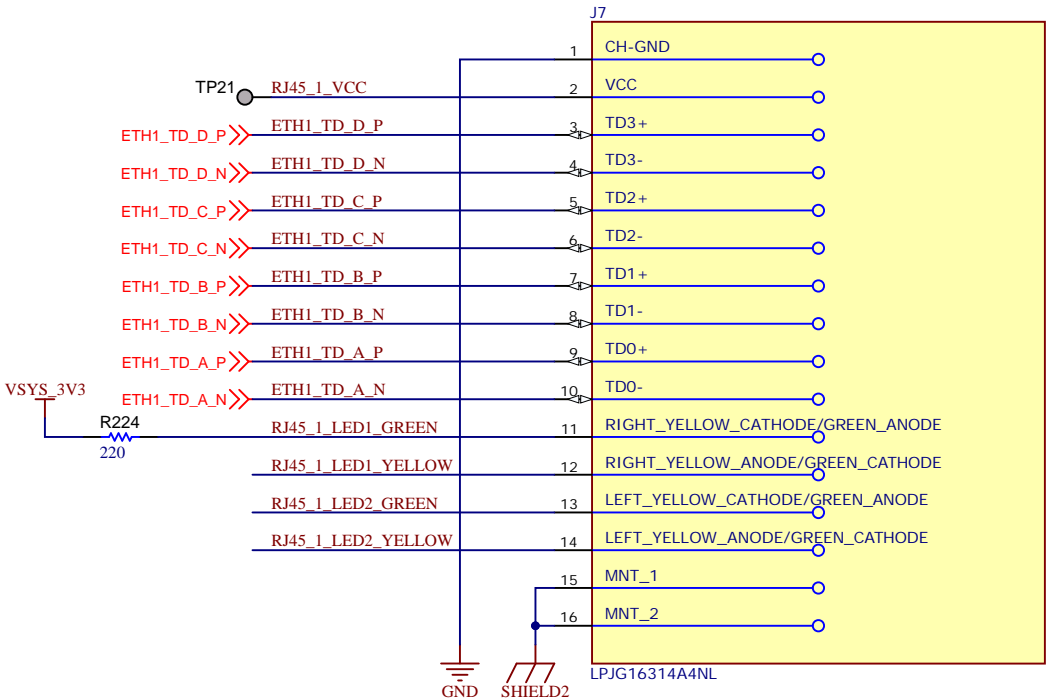
- PHY ADDRESS = 0b1100, 0xC
- Auto-negotiation, 10/100/1000 advertised, Auto-MDI-X
- RGMII to Copper (1000BaseT/100Base-TX/10Base-Te)

AM263x Ethernet PHY #1 - RJ-45 Jack

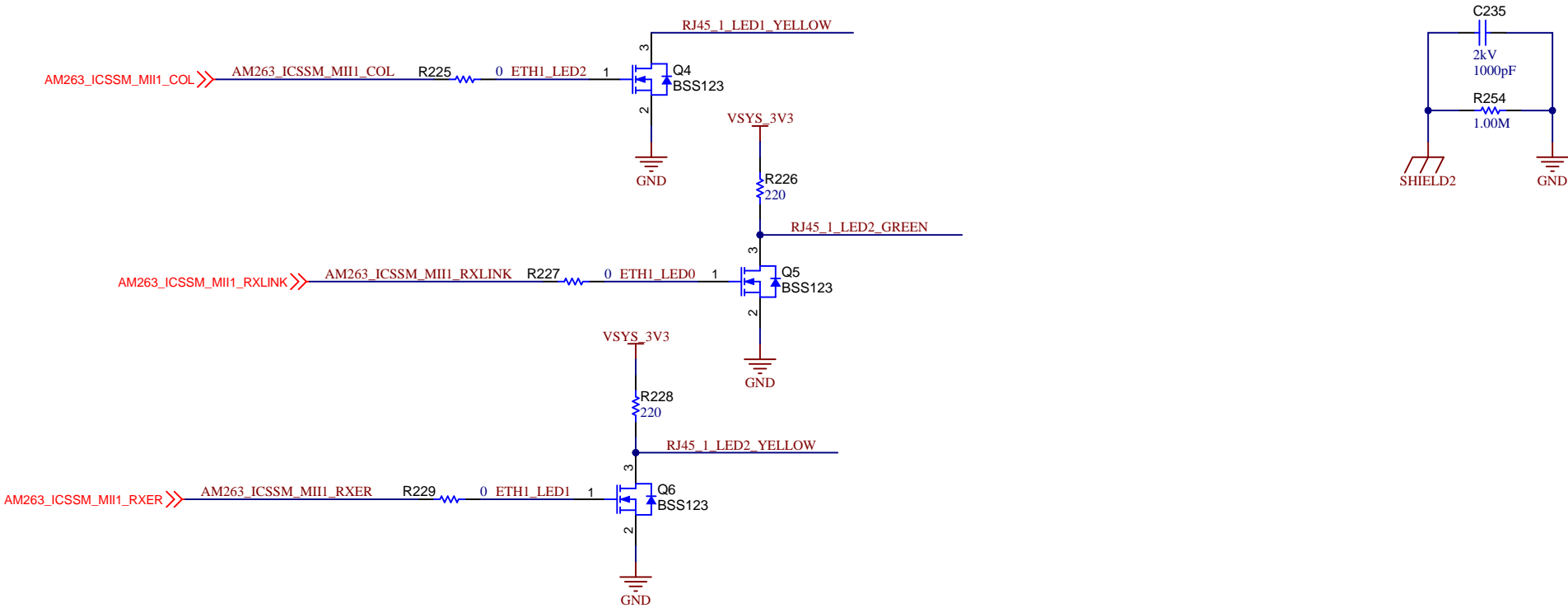
RJ-45 ESD Protection



RJ-45 Jack #1



RJ-45 LED Drivers

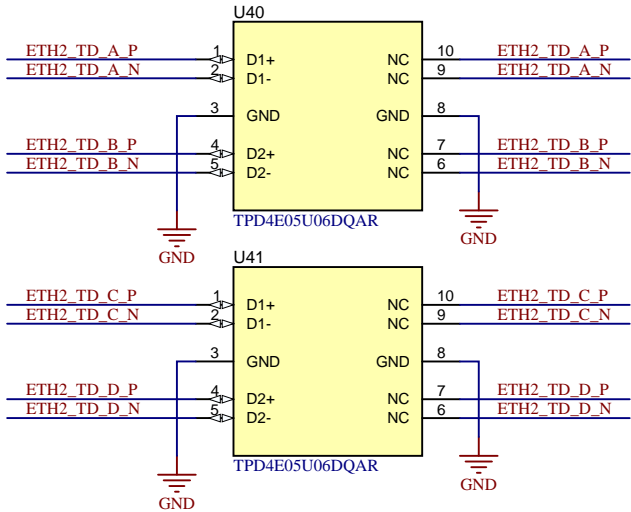


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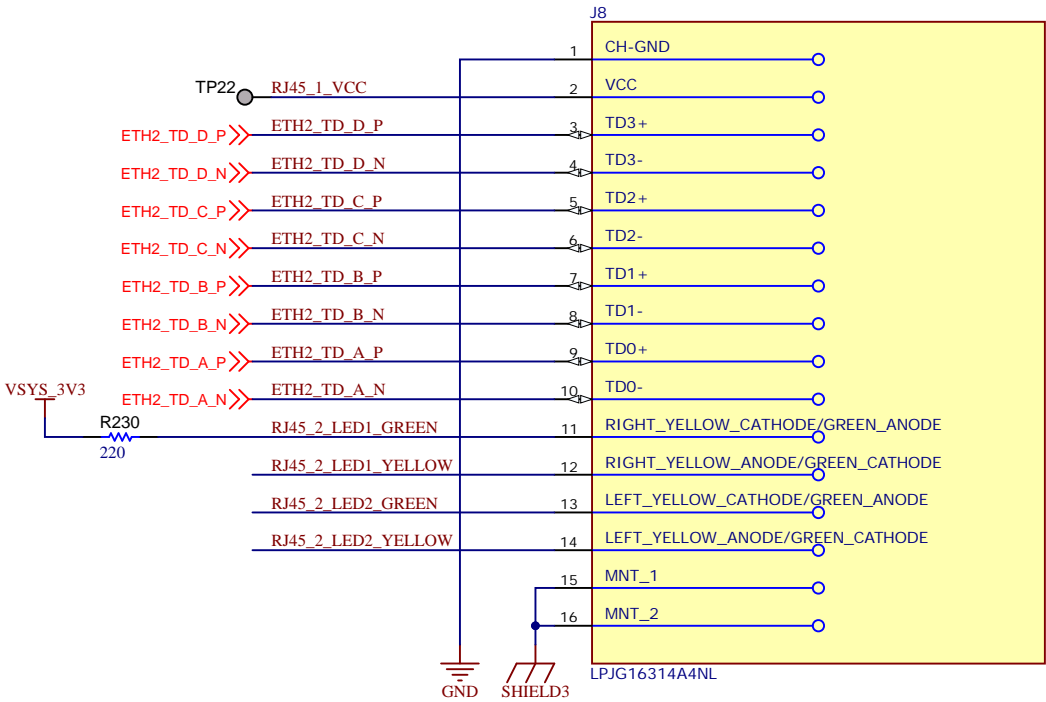
Orderable:	Designed for:	Mod. Date: 9/23/2021
TID #: N/A	Project Title: AM263x Launchpad	
Number: PROC111	Rev: E2	Sheet Title:
SVN Rev:	Assembly Variant: 001	Sheet: 17 of 24
Drawn By: a0271760	File: PROC111_Ehernet_RJ45_1.SchDoc	Size: B
Engineer: a0271760	Contact:	

AM263x Ethernet PHY #2 - RJ-45 Jack

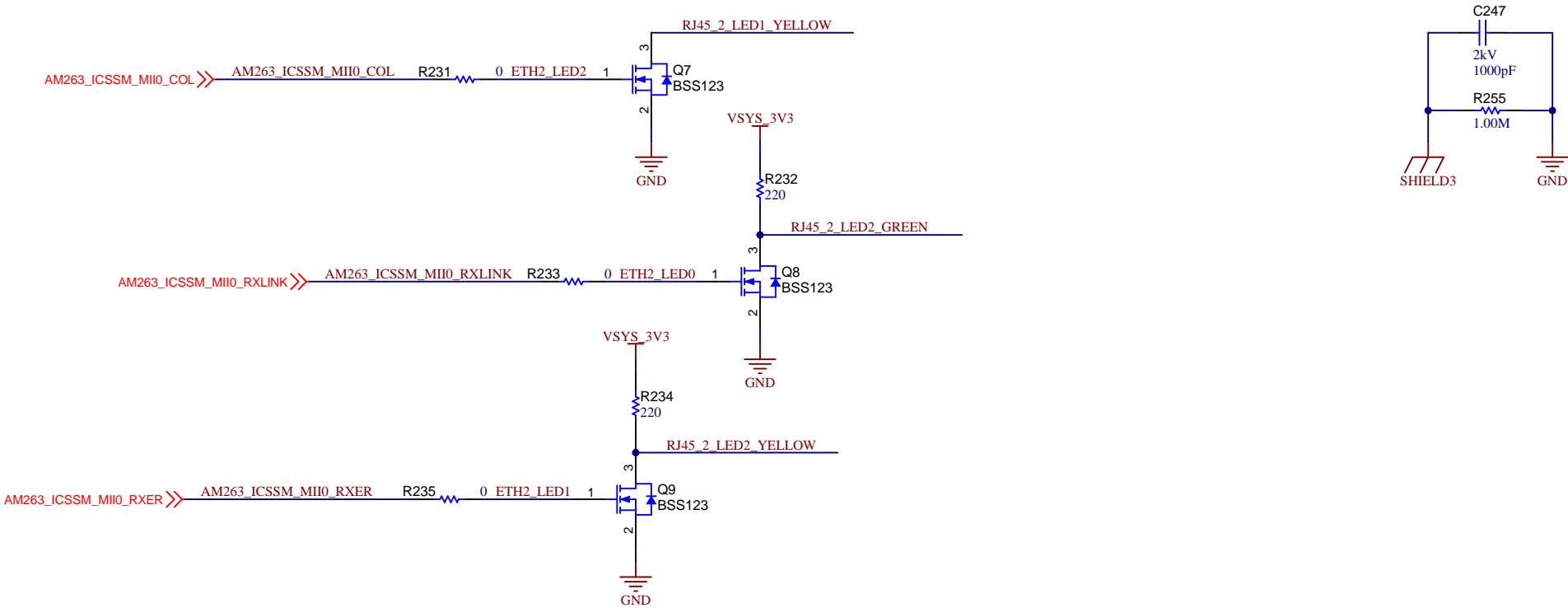
RJ-45 ESD Protection



RJ-45 Jack #2



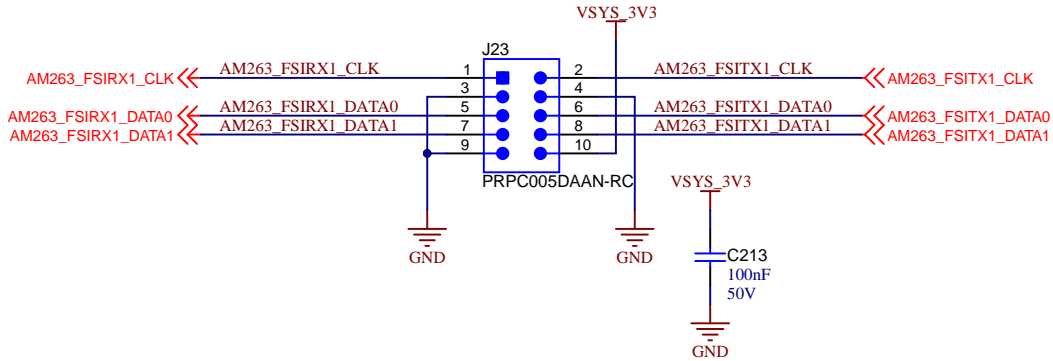
RJ-45 LED Drivers



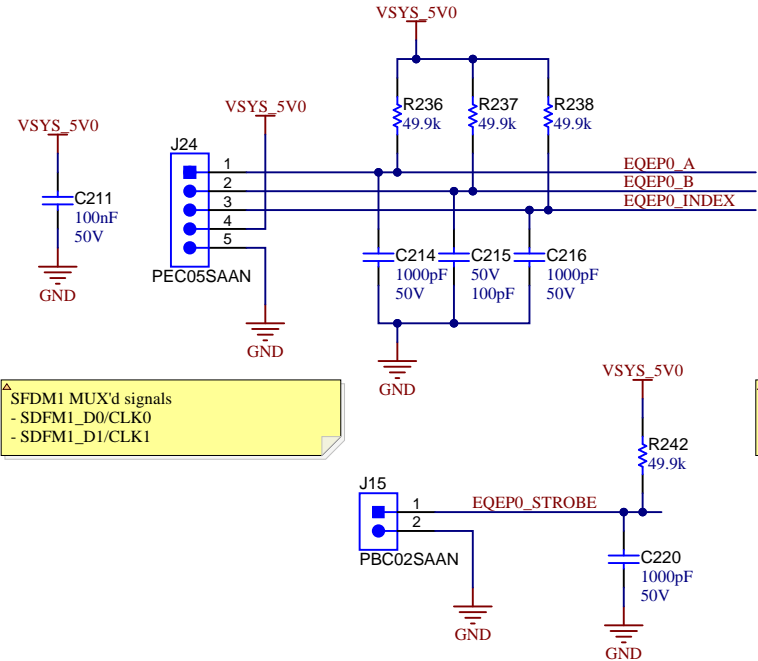
Breakout Headers

FSI Header

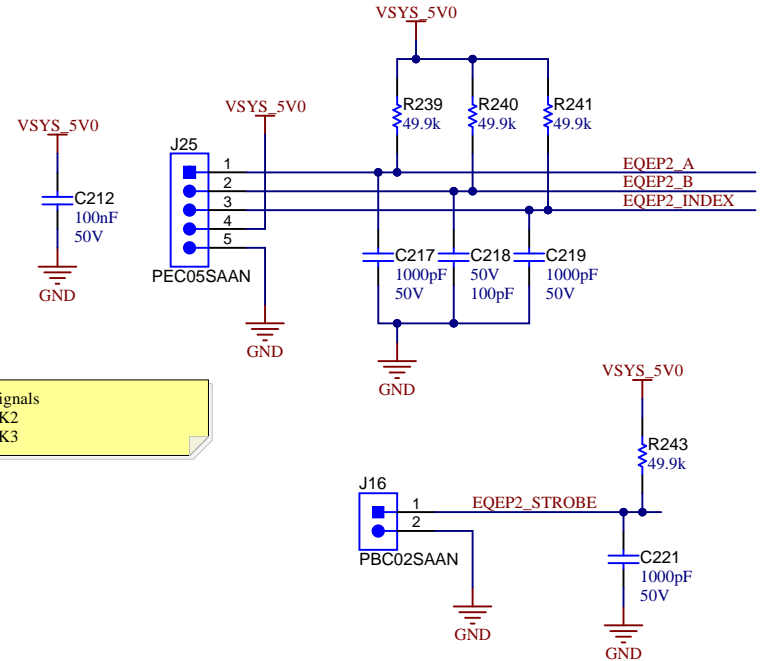
C2000 LP Style FSI Breakout



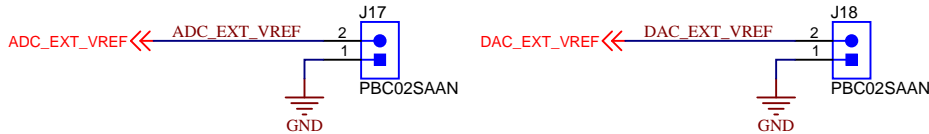
eQEP0/SFDM1 Headers



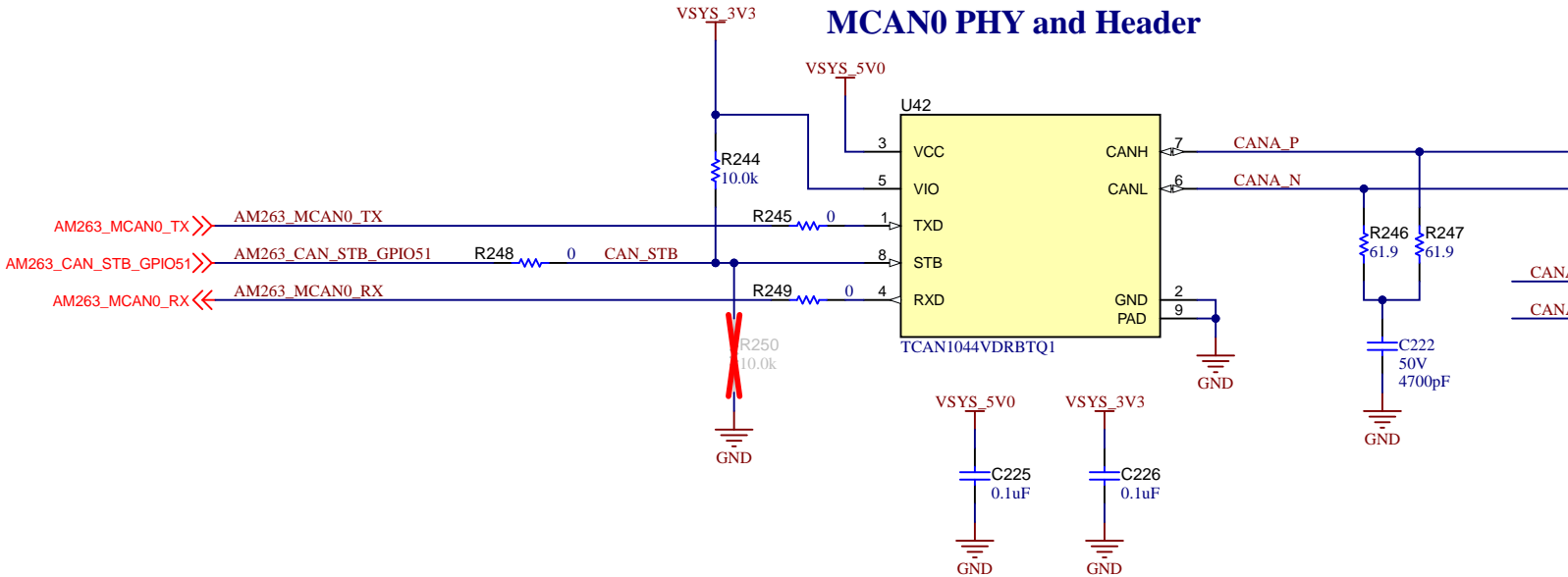
eQEP2/SFDM2 Headers



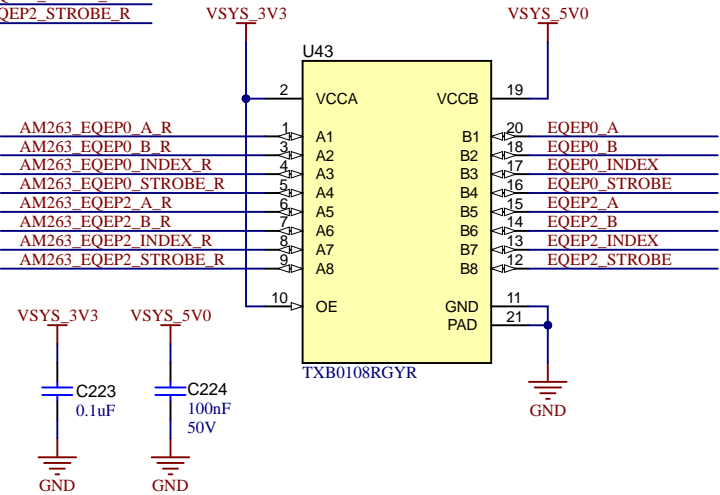
ADC/DAC External VREF Header



MCAN0 PHY and Header



eQEP Bi-Directional Level Translator

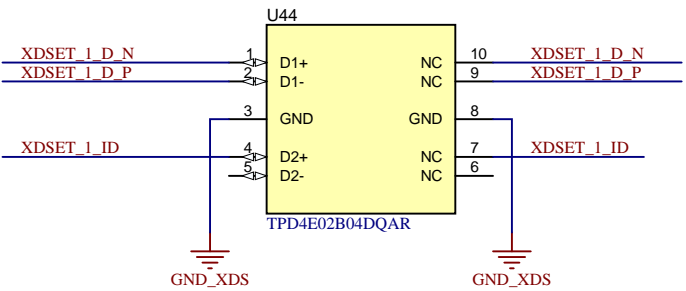


AM263_EQEP0_A	AM263_EQEP0_A	R328	33.2	AM263_EQEP0_A_R
AM263_EQEP0_B	AM263_EQEP0_B	R329	33.2	AM263_EQEP0_B_R
AM263_EQEP0_INDEX	AM263_EQEP0_INDEX	R330	33.2	AM263_EQEP0_INDEX_R
AM263_EQEP0_STROBE	AM263_EQEP0_STROBE	R331	33.2	AM263_EQEP0_STROBE_R
AM263_EQEP2_A	AM263_EQEP2_A	R332	33.2	AM263_EQEP2_A_R
AM263_EQEP2_B	AM263_EQEP2_B	R333	33.2	AM263_EQEP2_B_R
AM263_EQEP2_INDEX	AM263_EQEP2_INDEX	R334	33.2	AM263_EQEP2_INDEX_R
AM263_EQEP2_STROBE	AM263_EQEP2_STROBE	R335	33.2	AM263_EQEP2_STROBE_R

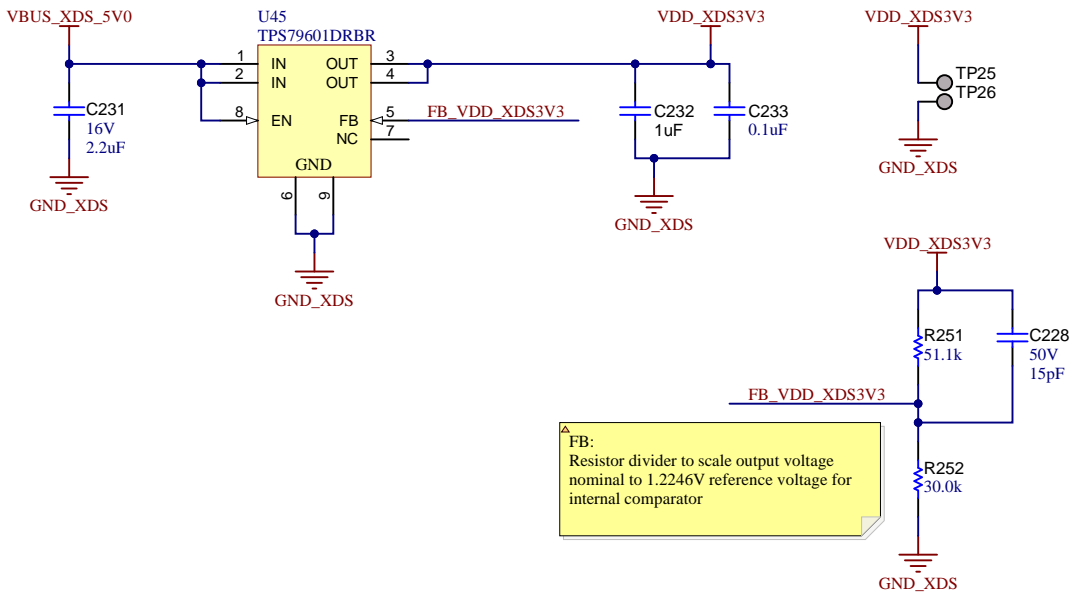
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Orderable:	Designed for:	Mod. Date:
TID #:	Project Title:	2/3/2022
Number: PROC111	Rev: E2	Sheet Title:
SVN Rev:	Assembly Variant: 001	Sheet: 20 of 24
Drawn By: a0271760	File: PROC111_Breakout_Headers.SchDoc	Size: B
Engineer: a0271760	Contact:	

USB Mini-B ESD Protection

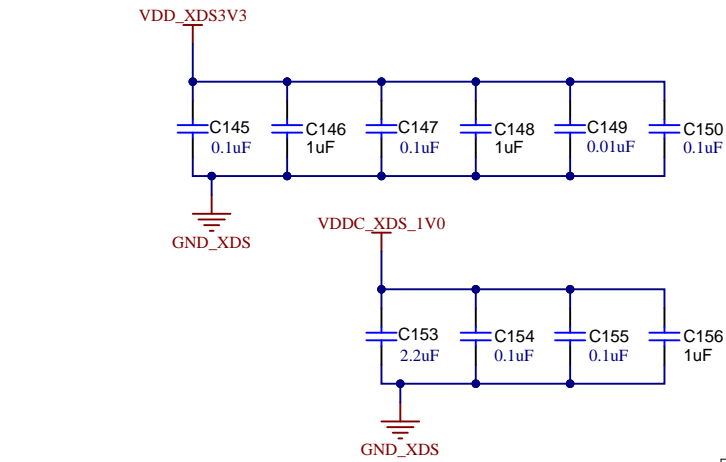
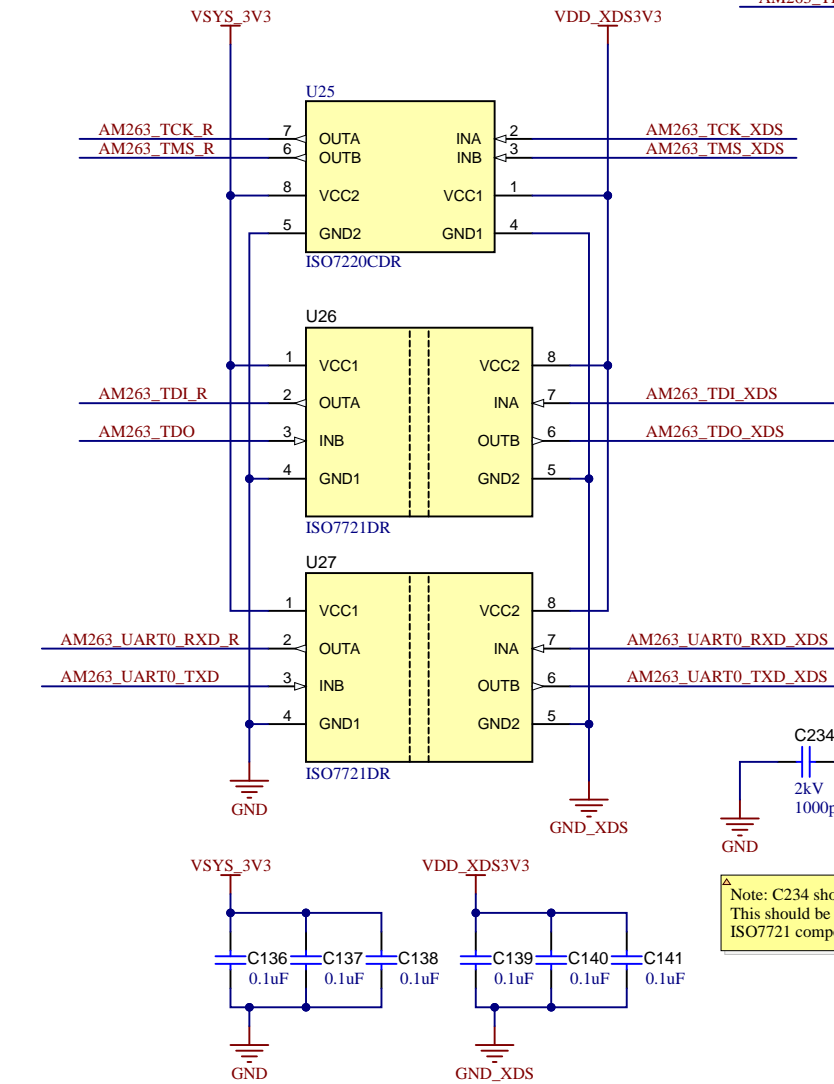
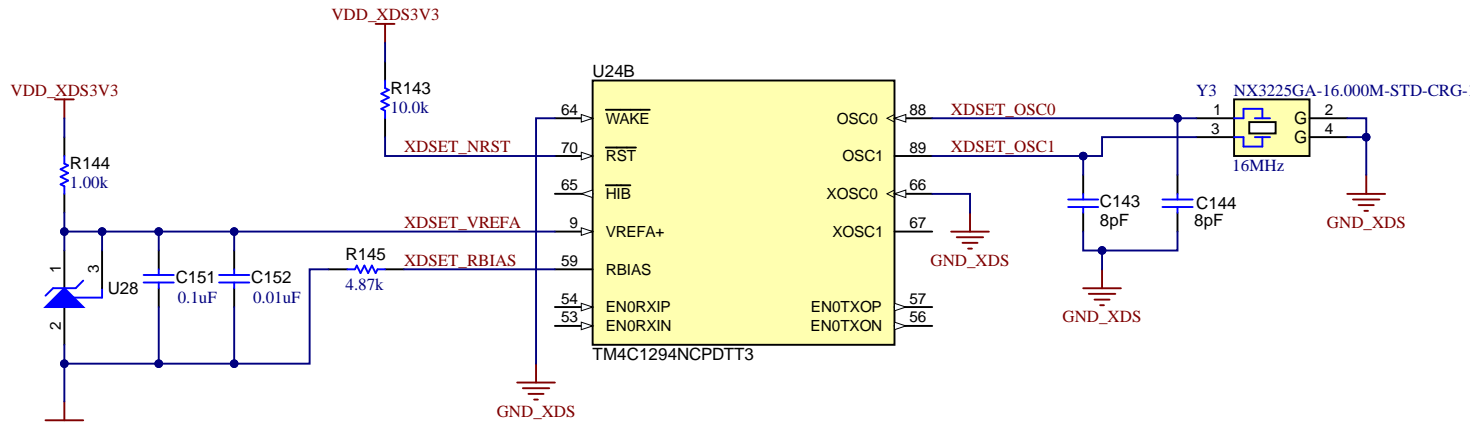
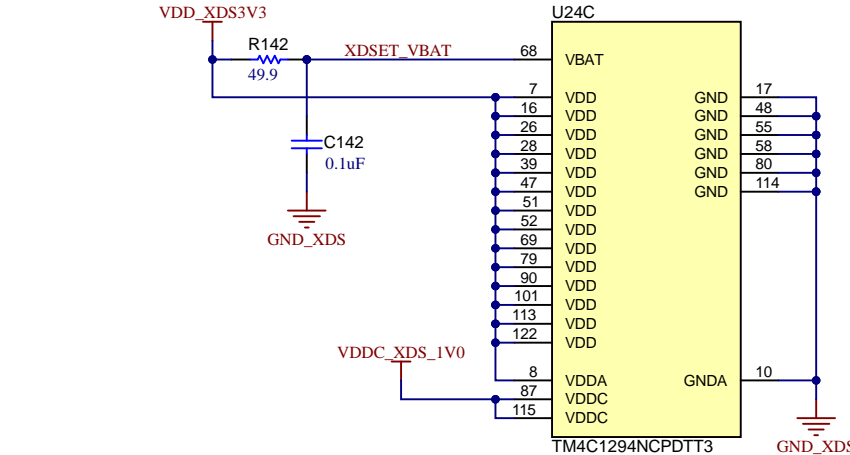
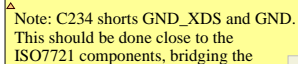
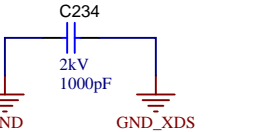
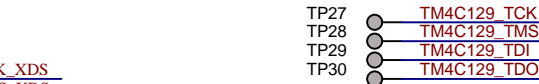


XDS110 3.3V LDO



XDS110 Collateral

AM263_TCK <-- AM263_TCK R324 33.2 AM263_TCK_R
 AM263_TMS <-- AM263_TMS R325 33.2 AM263_TMS_R
 AM263_TDI <-- AM263_TDI R326 33.2 AM263_TDI_R
 AM263_TDO <-- AM263_TDO
 AM263_UART0_RXD <-- AM263_UART0_RXD R327 33.2 AM263_UART0_RXD_R
 AM263_UART0_TXD <-- AM263_UART0_TXD
 XDSET_1_ID <-- XDSET_1_ID



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Orderable:	Designed for:	Mod. Date: 10/14/2021
TID #: N/A	Project Title: AM263x Launchpad	
Number: PROC111	Rev: E2	Sheet Title: XDS110 JTAG/USB-to-UART Bridge
SVN Rev:	Assembly Variant: 001	Sheet 22 of 24
Drawn By: a0271760	File: PROC111_XDS110_2_SchDoc	Size: B
Engineer: a0271760	Contact:	

System LED Indicators

A

B

C

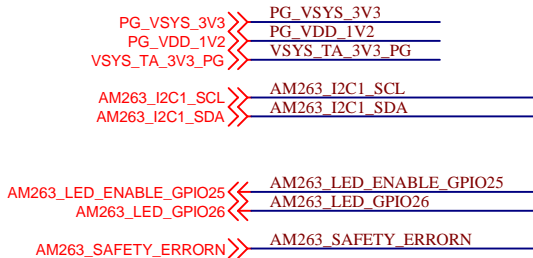
D

A

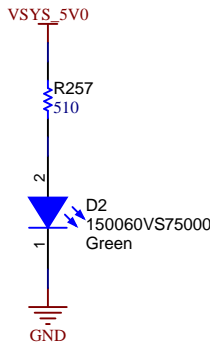
B

C

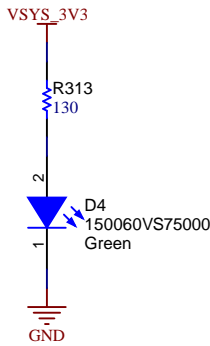
D



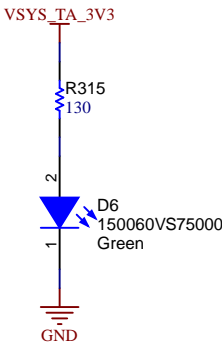
System 5.0V



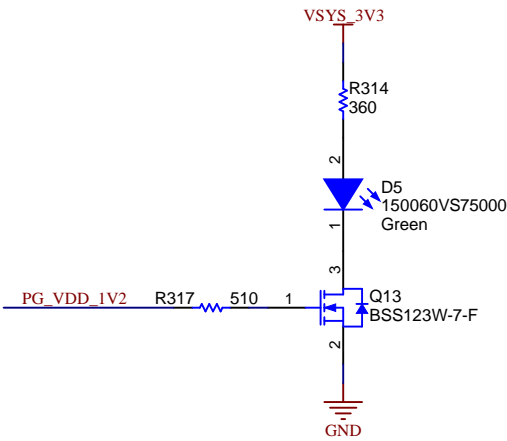
System 3.3V



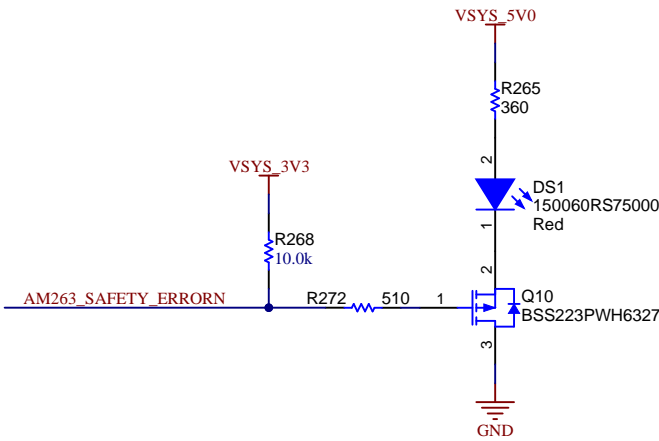
Test Automation 3.3V



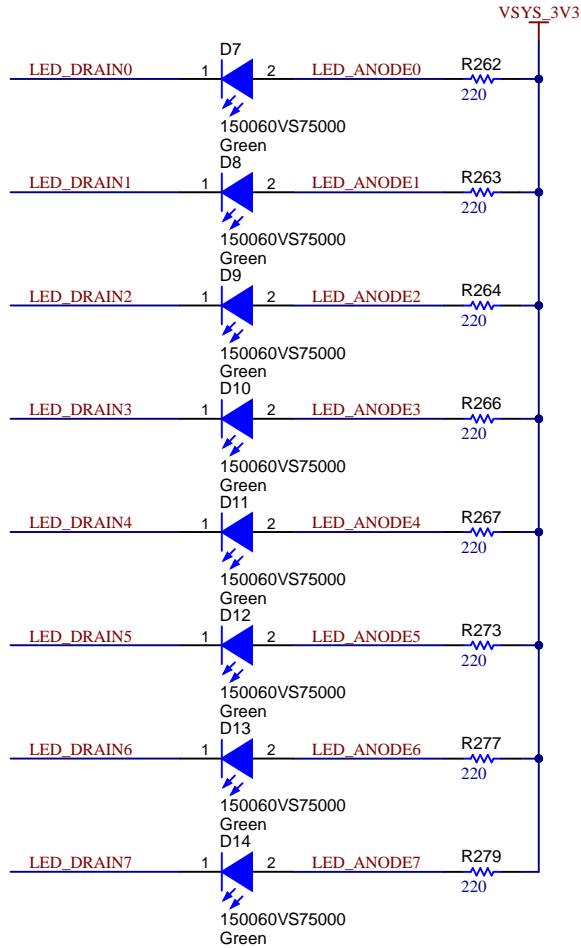
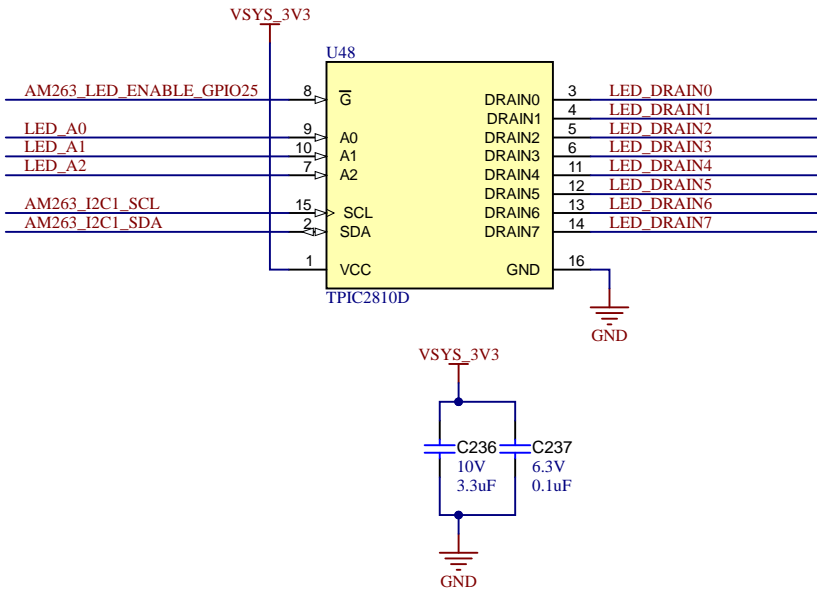
AM263x 1.2V



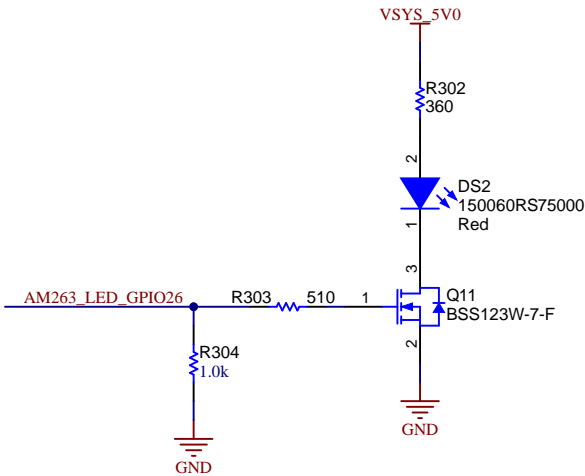
AM263x Safety Error



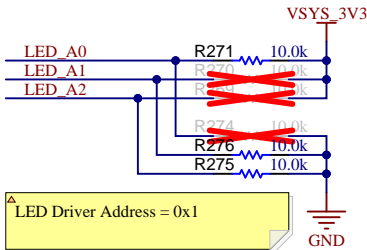
Industrial LED Driver



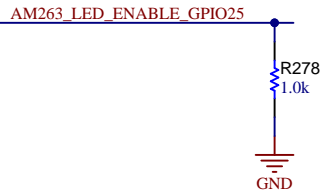
AM263x GPIO LED



LED Driver Address



LED Driver Enable



System Hardware, Notes, Labels



PCB Number: PROC111
PCB Rev:

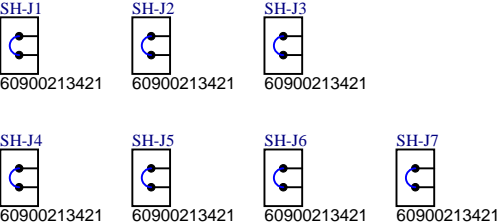
PCB
LOGO
Texas Instruments



PCB
LOGO
FCC disclaimer

PCB
LOGO
WEEE logo

Selection Jumpers



LBL1
PCB Label
THT-14-423-10
Size: 0.65" x 0.20 "

ZZ1
Label Assembly Note
This Assembly Note is for PCB labels only

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.