

# AM26x SOM BOARD

## TABLE OF CONTENT

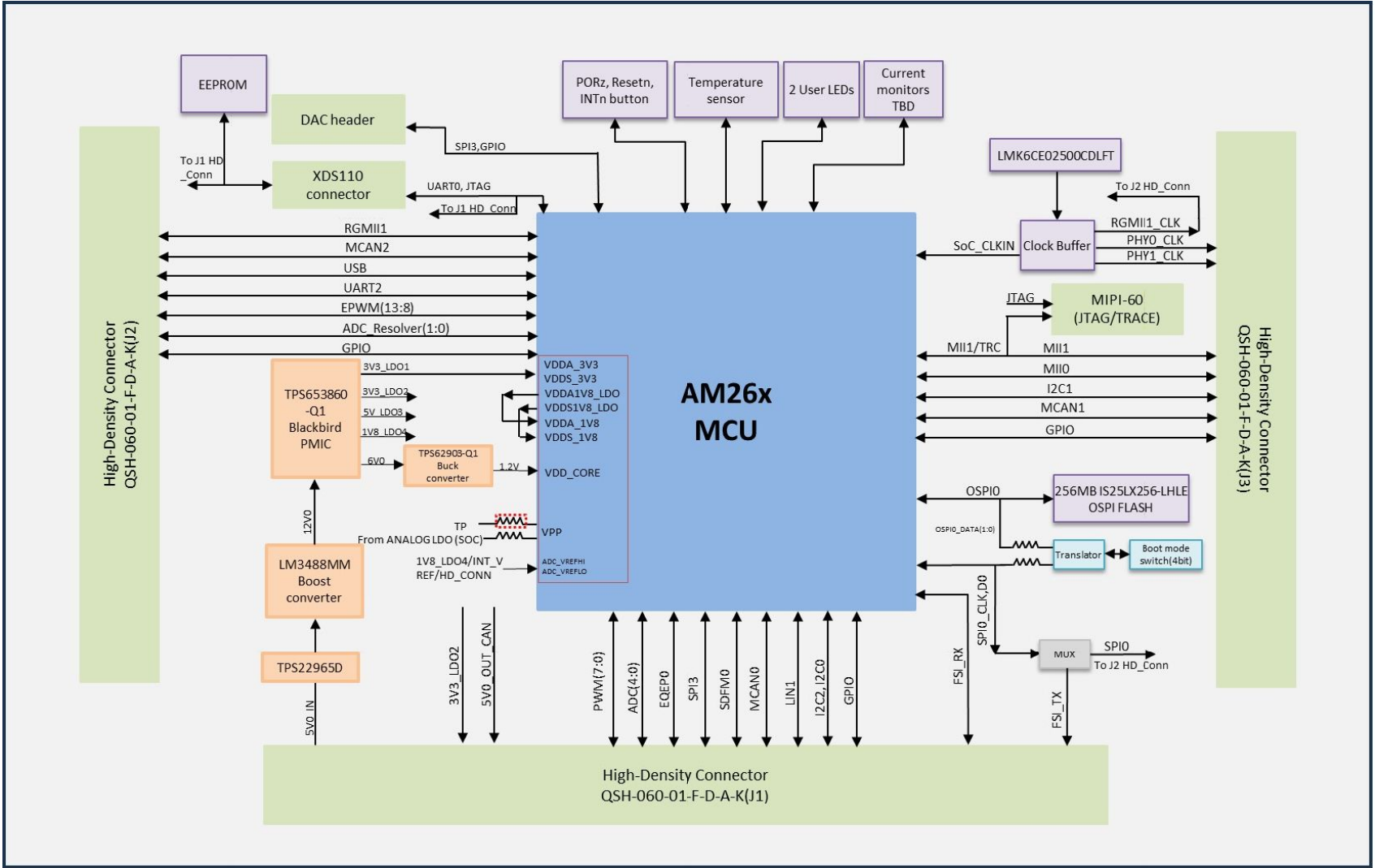
PAGE	CONTENTS
1	TABLE OF CONTENTS
2	REVISION HISTORY
3	SYSTEM BLOCK DIAGRAM
4	POWER ARCHITECTURE
5	CLOCK ARCHITECTURE
6	FET AND BOOST SECTION
7	PMIC AND BUCK SECTION
8	MCU POWER CAPS SECTION
9	EPWM SECTION
10	SDFM, JTAG SECTION
11	OSPI, BOOTMODE SECTION
12	ADC SECTION
13	DAC SECTION
14	CLOCK, LED, CURRENT MONITOR AND TEMPERATURE SENSOR SECTION
15	RESET CIRCUIT
16	HIGH DENSITY CONNECTOR J1 & J2
17	HIGH DENSITY CONNECTOR J3 & J4
18	MIPI, EMULATION AND DAC CONNECTOR
19	EVM HARDWARE

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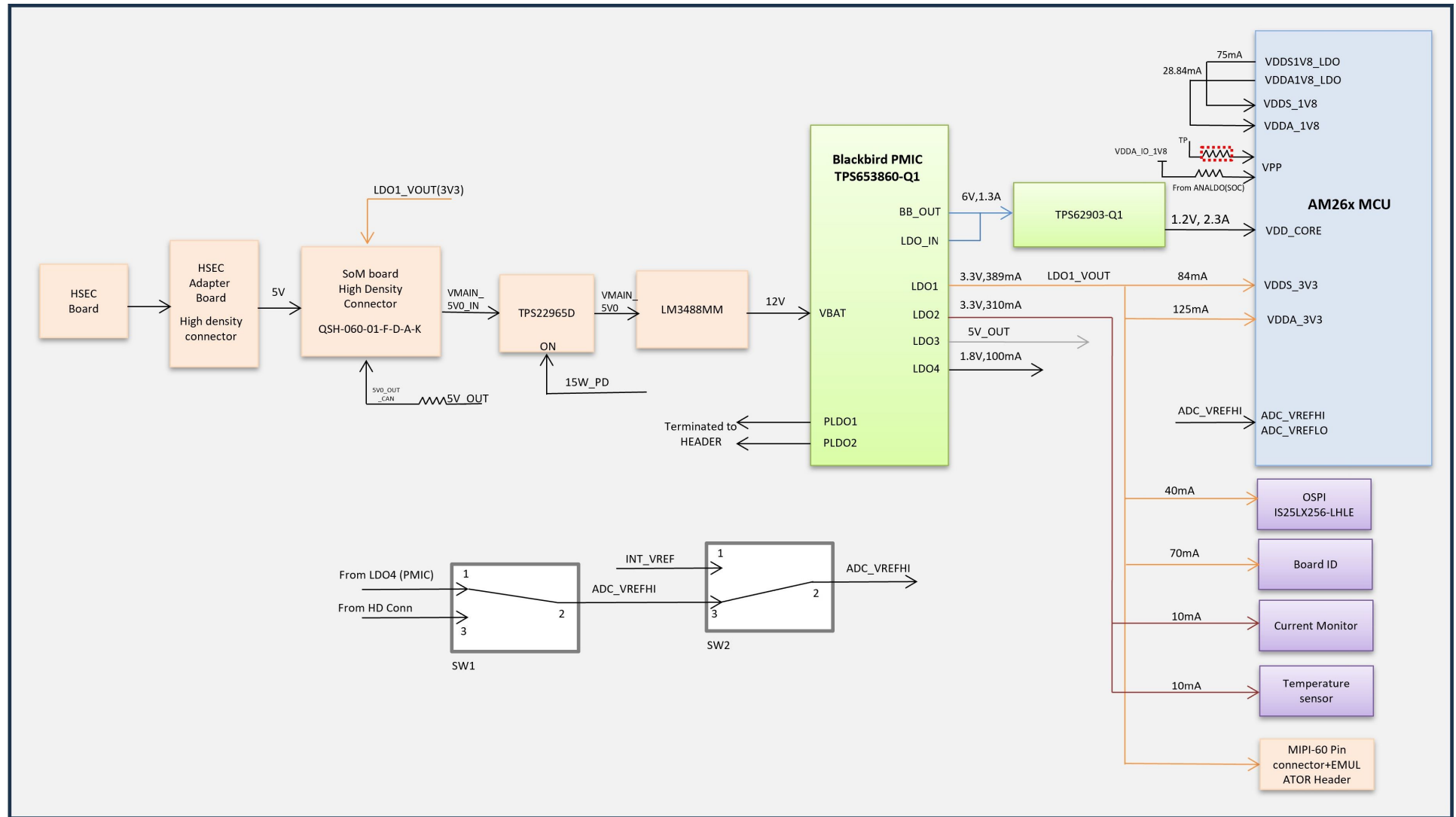
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# AM26x SOM SYSTEM BLOCK DIAGRAM



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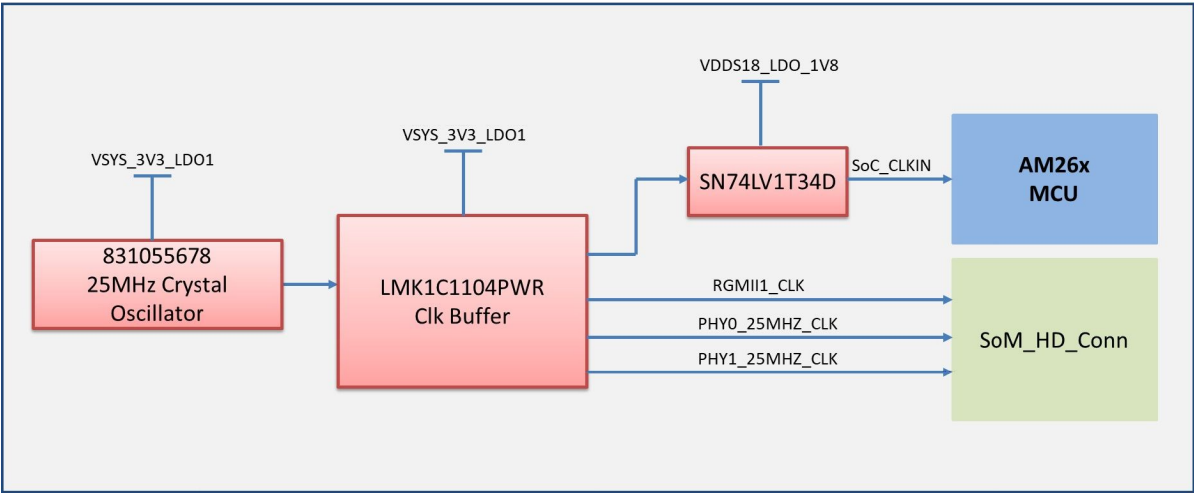
# POWER ARCHITECTURE OF AM26x\_CC\_SOM



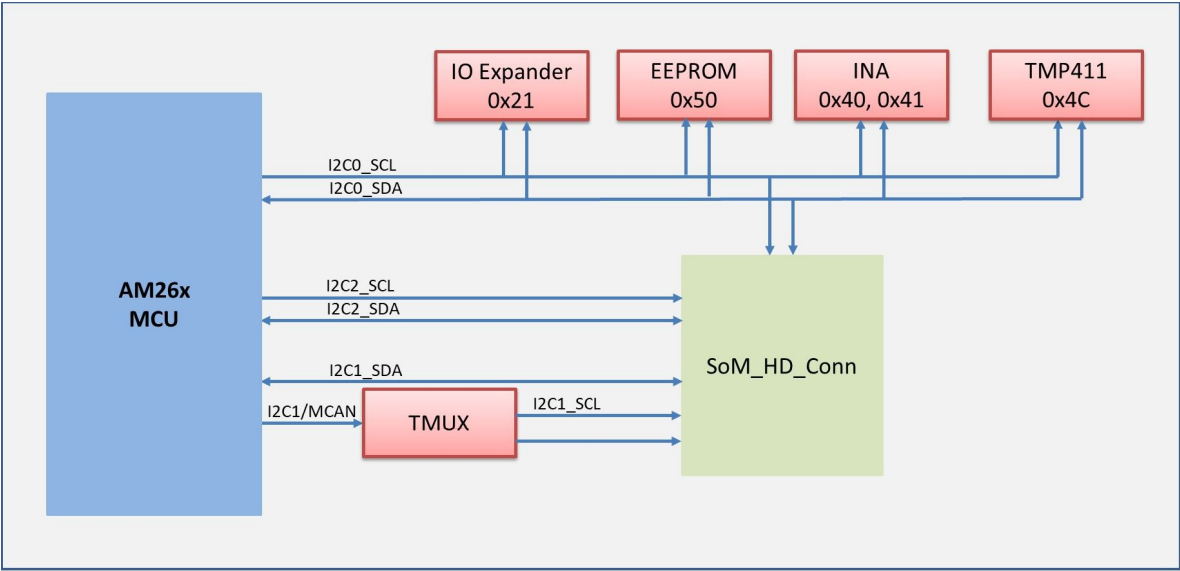
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CLOCK ARCHITECTURE OF AM26x SOM



I2C TREE DIAGRAM OF AM26x SOM



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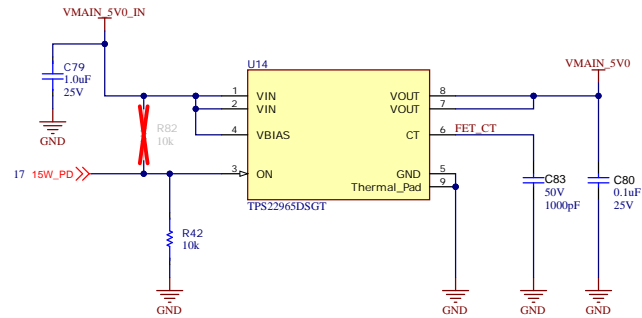
## GPIO MAPPING TABLE OF AM26x SOM

S.NO	GPIO DESCRIPTION	GPIO	PIN NAME	FUNCTIONALITY	NET NAME	ACTIVE STATE
1	Reset to OSPI	GPIO66	GPIO66/EPWM11_B	Reset	OSPI0_RESET_OUTn	LOW
2	R- opt between HD_Conn and PMIC_DIAG_OUT	GPIO138	CLKOUT0	GPIO	MCU_GPIO138	PREFERABLE
3	Error signal from OSPI0	GPIO65	GPIO65/EPWM11_A	Error Signal	OSPI0_ECS	LOW
4	R-opt btw HD CONN and USER LED1	GPIO1	QSPI0_CSn1	GPIO	MCU_GPIO1	PREFERABLE
5	Select line for I2C1/MCAN1 mux and Terminated to SoM HD Conn	GPIO82	MMC0_D3	MUX Selection	MCAN1_RX/I2C1_SCL	PREFERABLE
6	Terminated to HD CONN	GPIO73	PR1_PRU1_GPO2	GPIO	MCU_GPIO73	PREFERABLE
7	Terminated to HD CONN	GPIO119	PR0_PRU1_GPIO19	GPIO	MCU_GPIO119	PREFERABLE
8	Terminated to HD CONN	GPIO120	PR0_PRU1_GPIO18	GPIO	MCU_GPIO120	PREFERABLE
9	Interrupt signal for RGMII1	GPIO90	PR0_PRU0_GPO8	Interrupt	RGMII1_INTn	LOW
10	Interrupt signal to SoC from push button	GPIO128	SDFM0_CLK3	Interrupt	MCU_INTn	LOW
11	Terminated to HD CONN	GPIO126	SDFM0_CLK2	GPIO	MCU_GPIO126	PREFERABLE
12	Terminated to HD CONN	GPIO71	PR1_PRU1_GPIO0	GPIO	MCU_GPIO71	PREFERABLE
13	Terminated to HD CONN	GPIO37	RGMII1_TD0	GPIO	RGMII1_TD0	PREFERABLE
14	R- option between HD_Conn and PMIC_INTn	GPIO121	EXT_REFCLK0	GPIO	MCU_GPIO121	PREFERABLE
15	R-opt btw USER_LED0 & HD_Conn	GPIO124	SDFM0_CLK1	GPIO	MCU_GPIO124	PREFERABLE
<b>IO EXPANDER</b>						
16	Select line for PMIC_SPI1/FSIRX0		P0	MUX Selection	PMIC_SPI1/FSIRX0_MUX_SEL	PREFERABLE
17	Select line for ADC0_AIN0/DAC_OUT_MUX_SEL		P1	MUX Selection	ADC0_AIN0/DAC_OUT_MUX_SEL	PREFERABLE
18	Reset signal for MII		P2	Reset	MII_RST#	LOW
19	Reset signal for RGMII1		P3	Reset	RGMII1_RST	LOW
20	Select line for PMIC_SPI0/FSITX0		P4	MUX Selection	SPI0/FSITX0_MUX_SEL	PREFERABLE
21	Select line for SPI3		P5	MUX Selection	SPI3_MUX_SEL	PREFERABLE
22	Select line on HSEC adapter board		P6	MUX Selection	IOEXP_OUT_P6	PREFERABLE
23	Select line on HSEC adapter board		P7	MUX Selection	IOEXP_OUT_P7	PREFERABLE

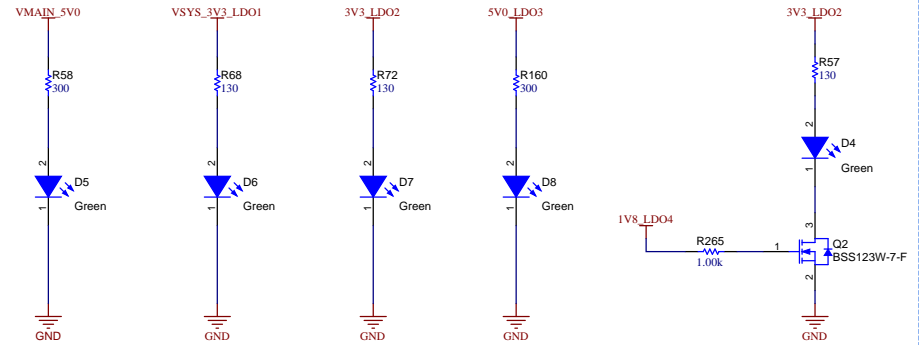
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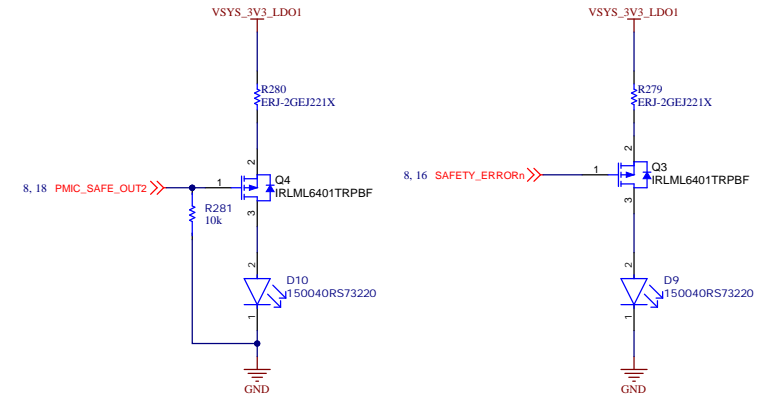
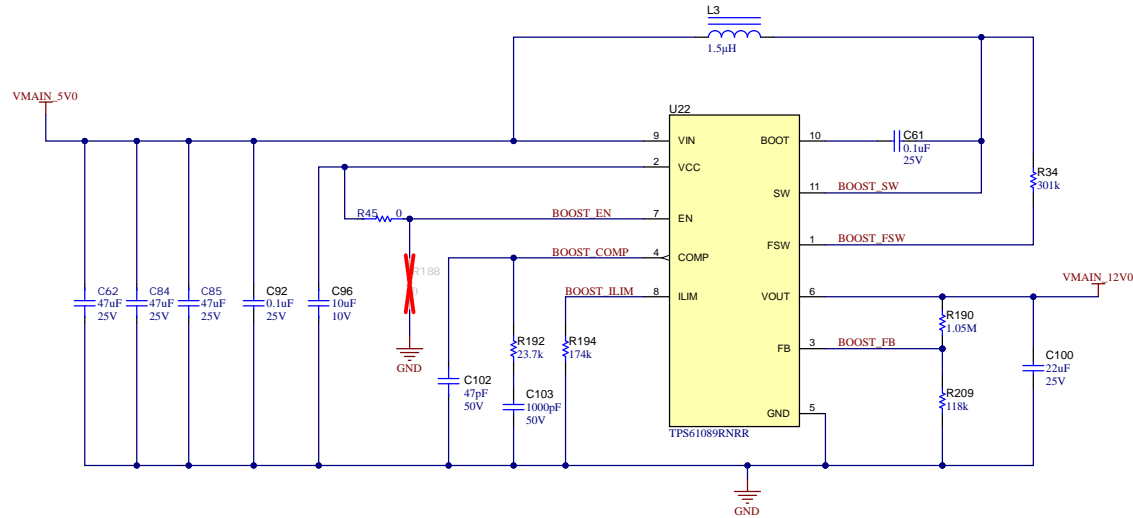
## POWER FET SWITCH



## LED



## BOOST CONVERTER - 12V0

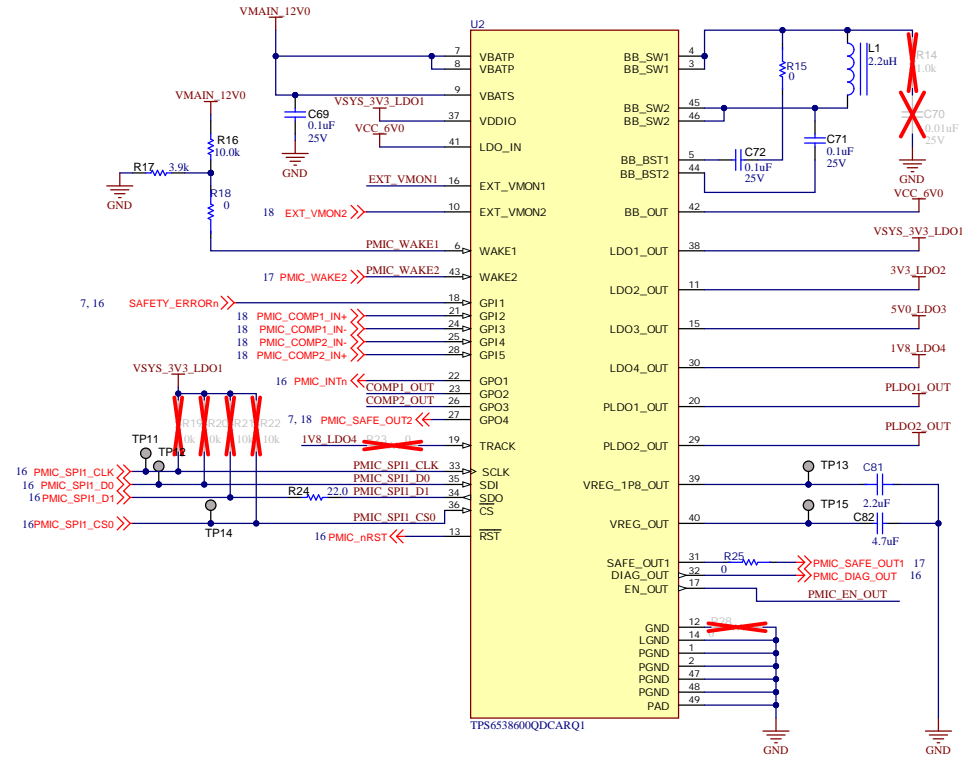


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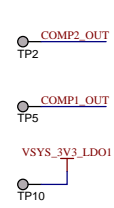
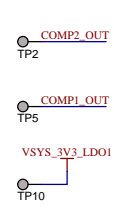
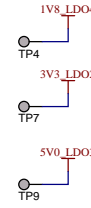
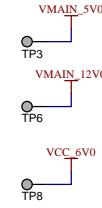
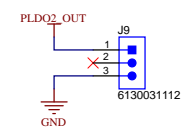
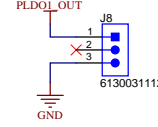
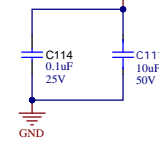
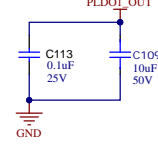
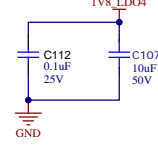
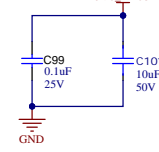
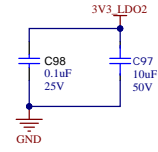
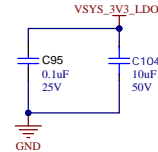
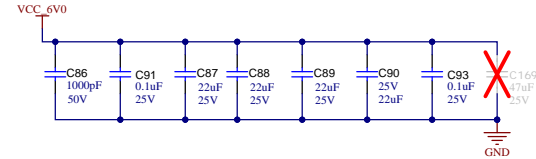
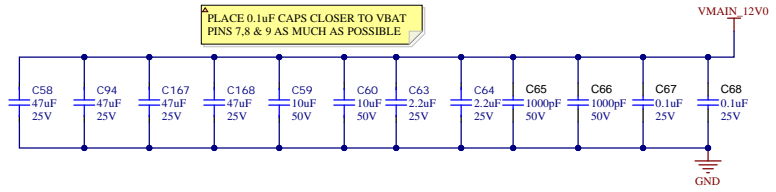
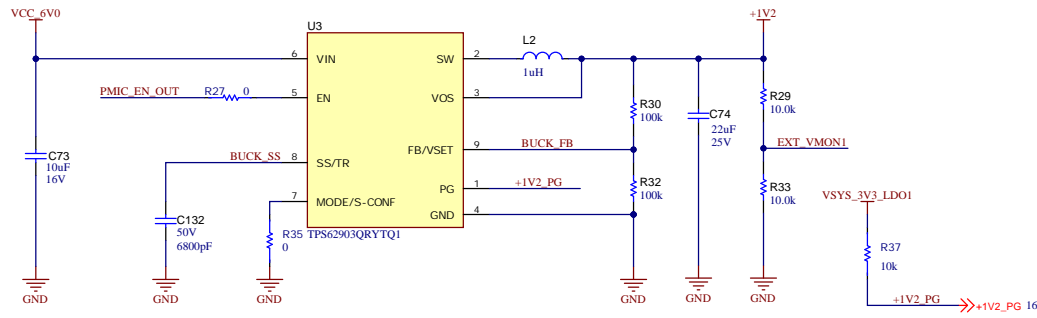


## TPS653860 PMIC



## BUCK CONVERTER - 1V2

S-CONE:  
- 2.2MHz switching frequency  
- Dynamic mode change active  
- Output discharge enabled



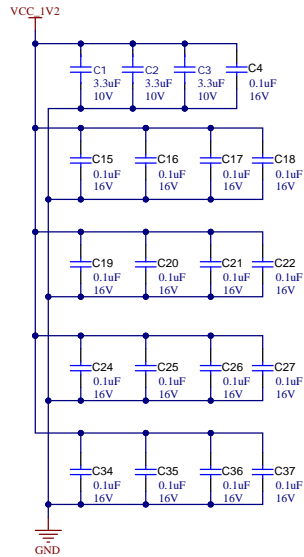
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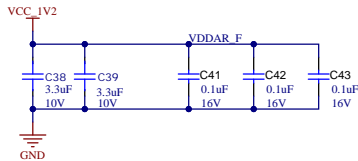




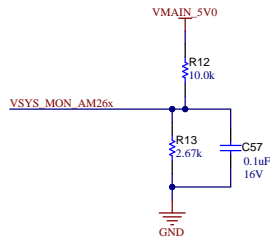
## VDD 1V2 Core Digital



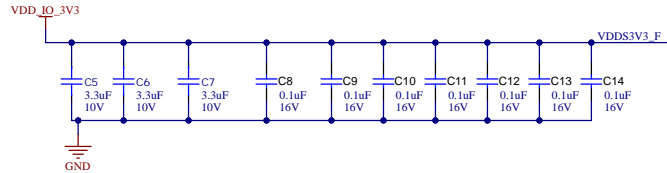
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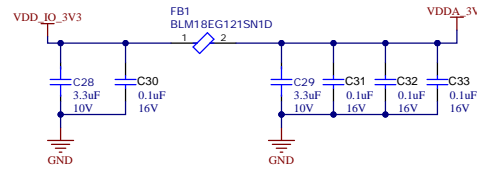
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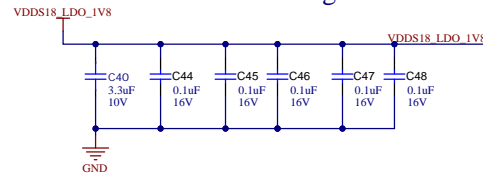
## VDDS 3V3 Digital



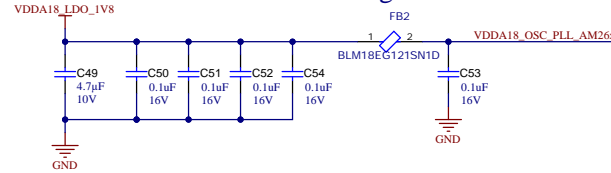
## VDDS 3V3 Analog



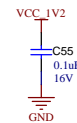
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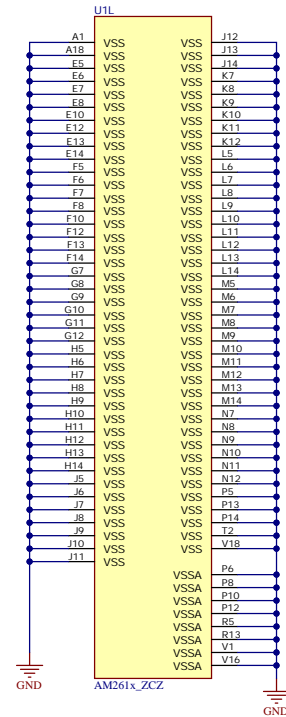
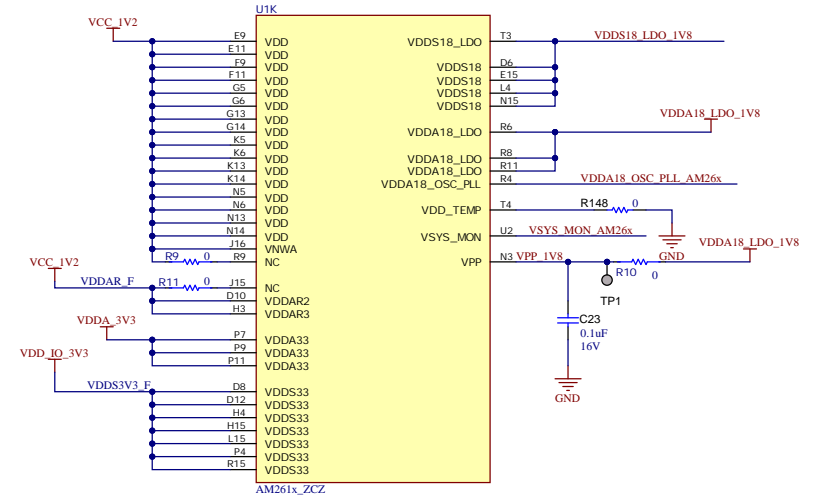
## VDDA 1V8 Analog



## VDD\_F 1V2



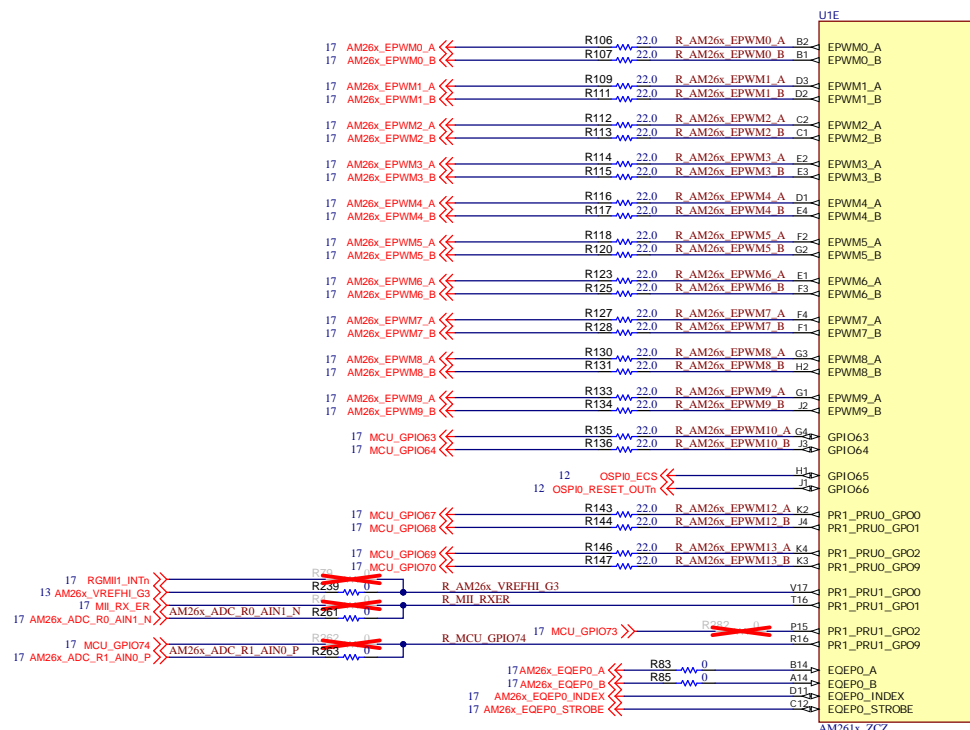
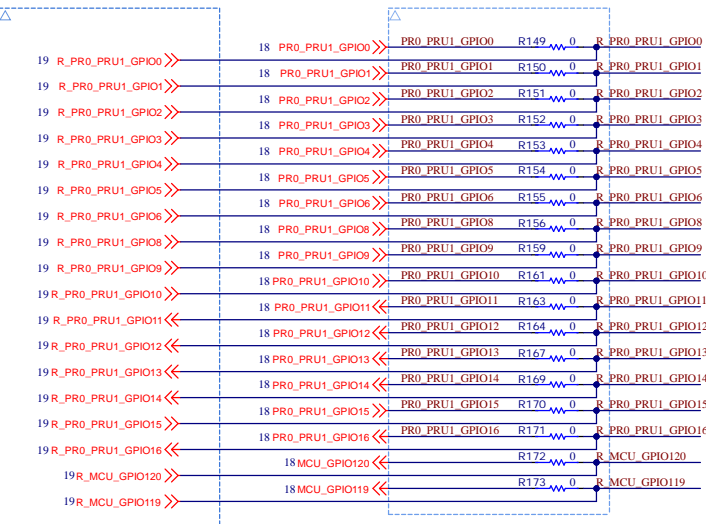
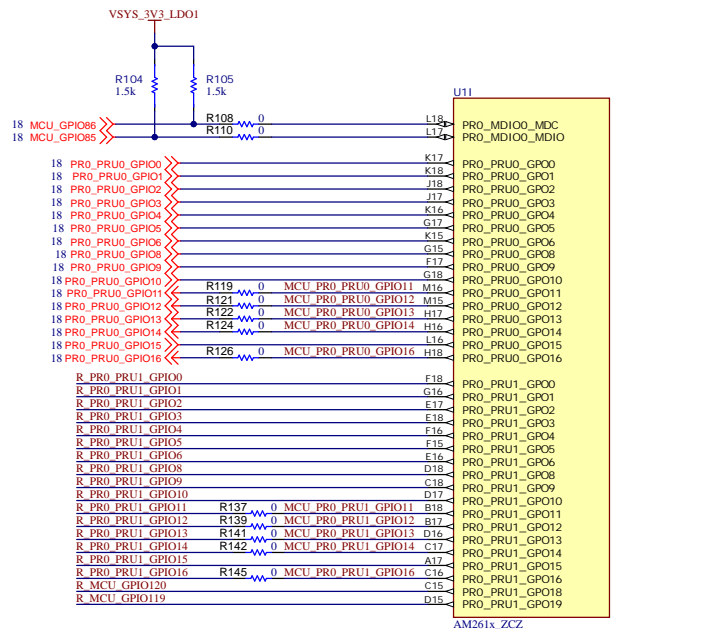
## AM26x MCU



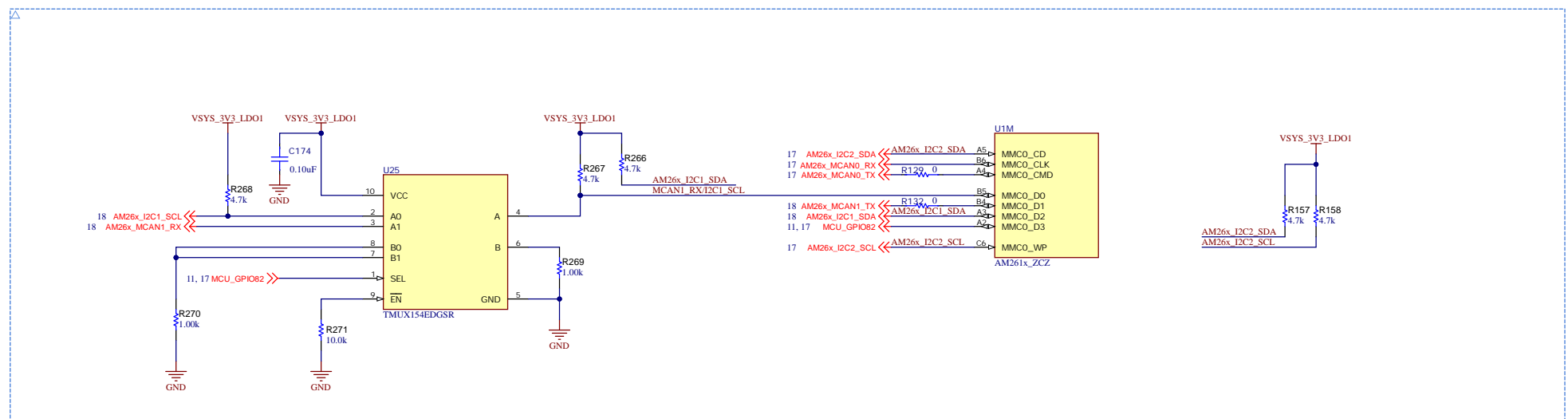
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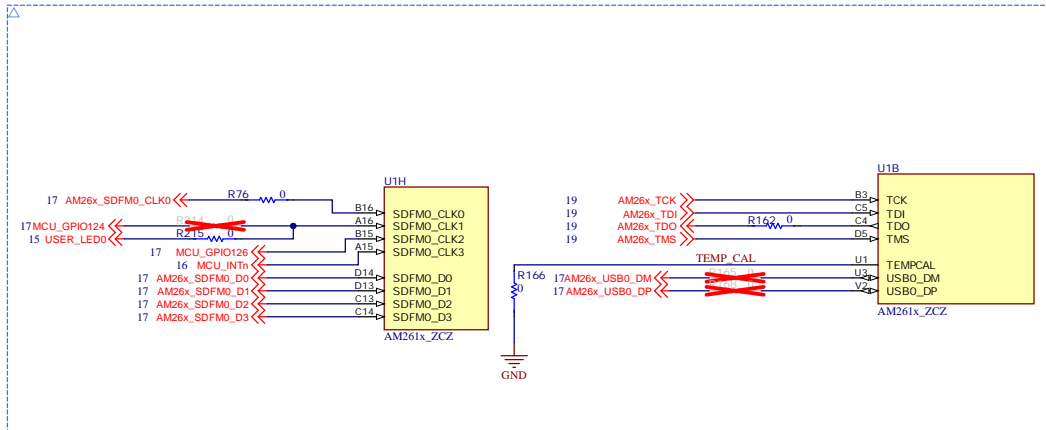
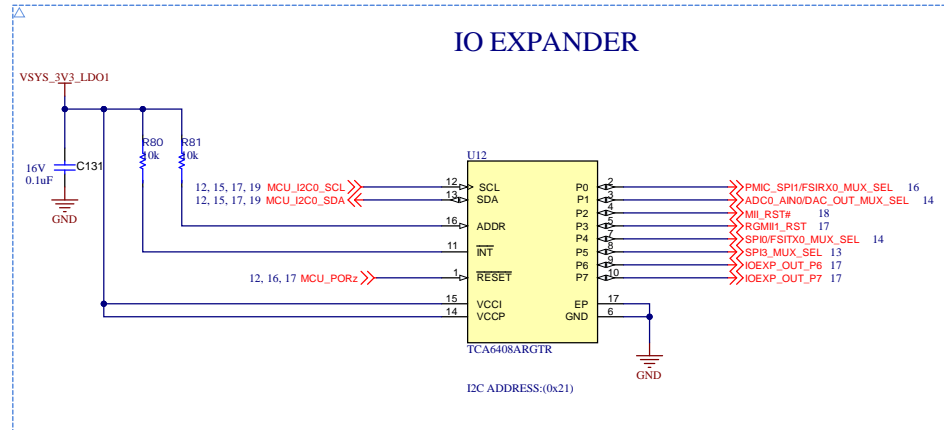




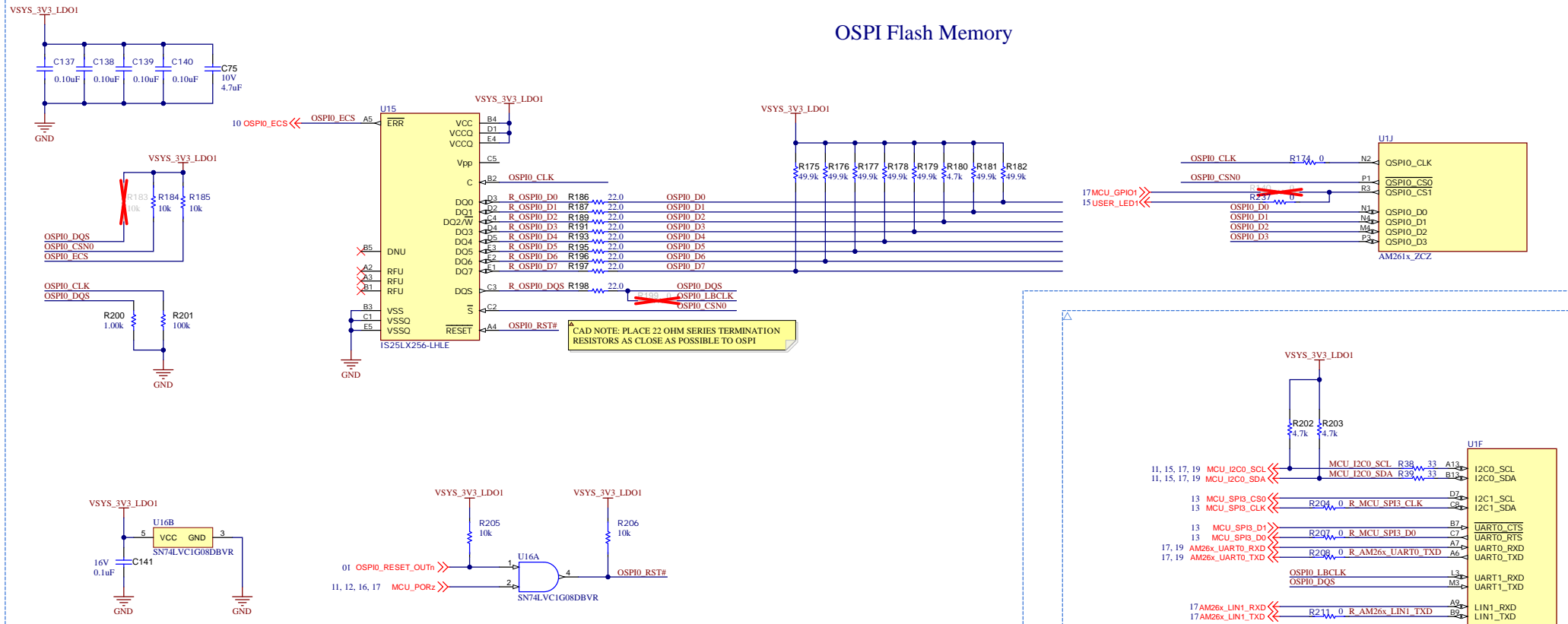
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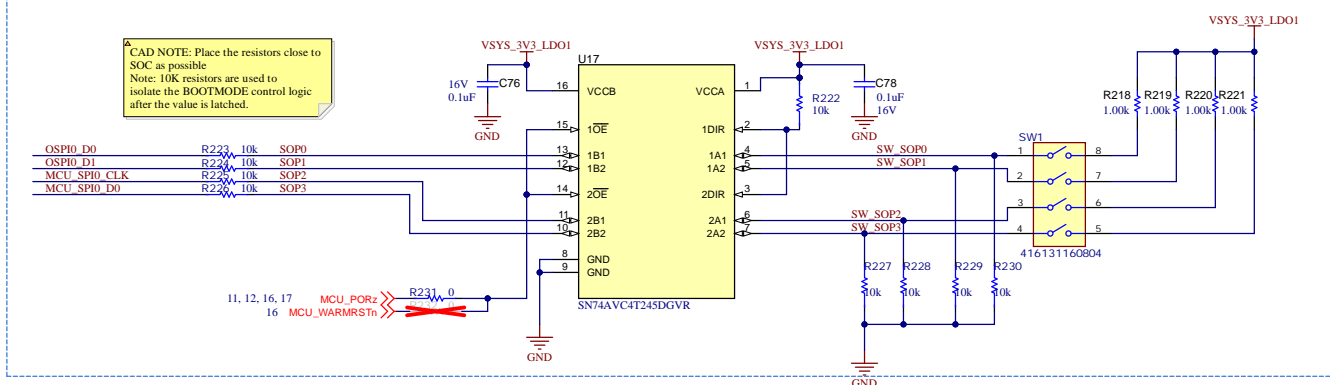
# IO EXPANDER



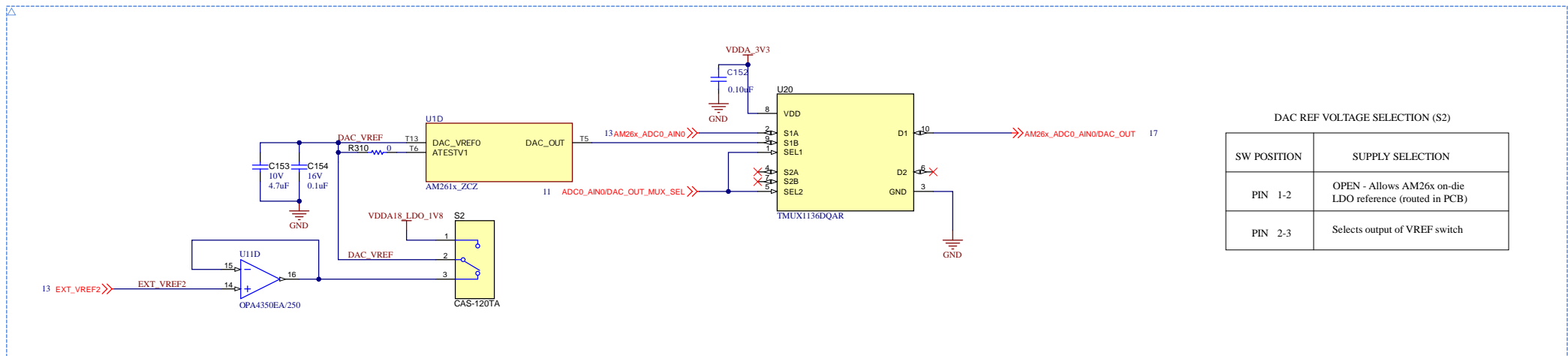
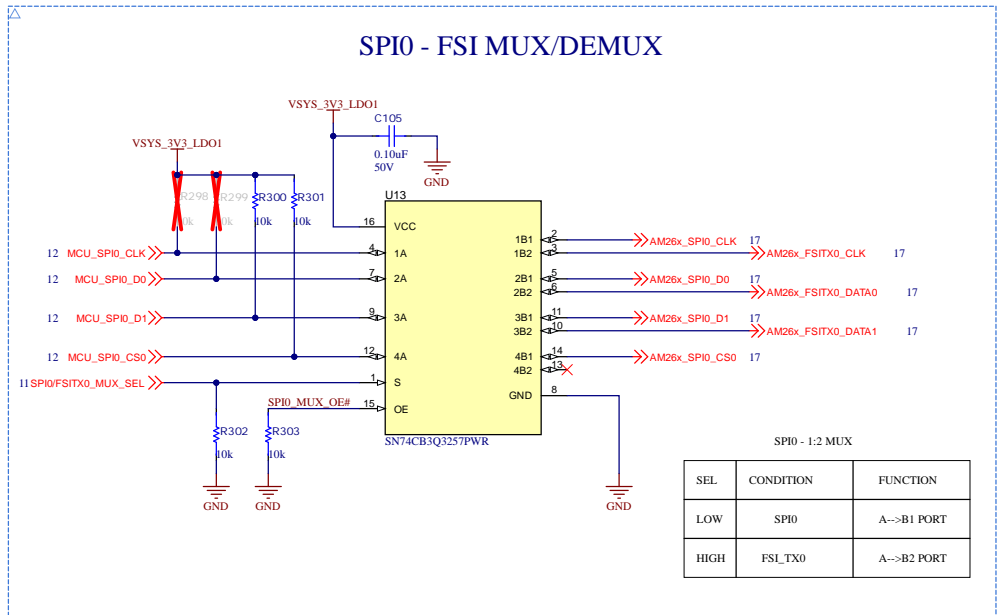
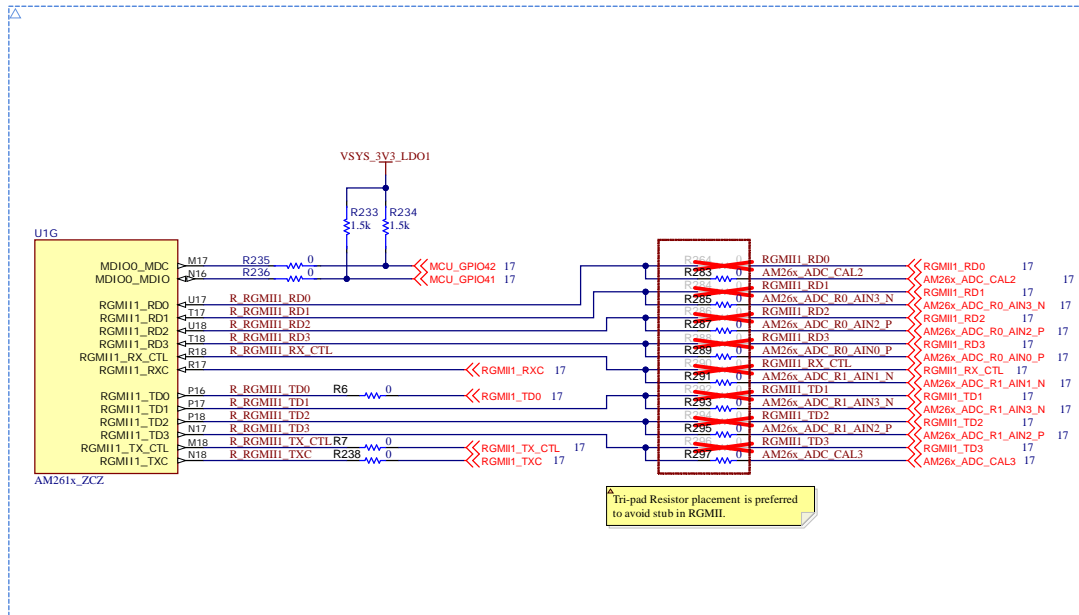
## OSPI Flash Memory



## Bootmode section

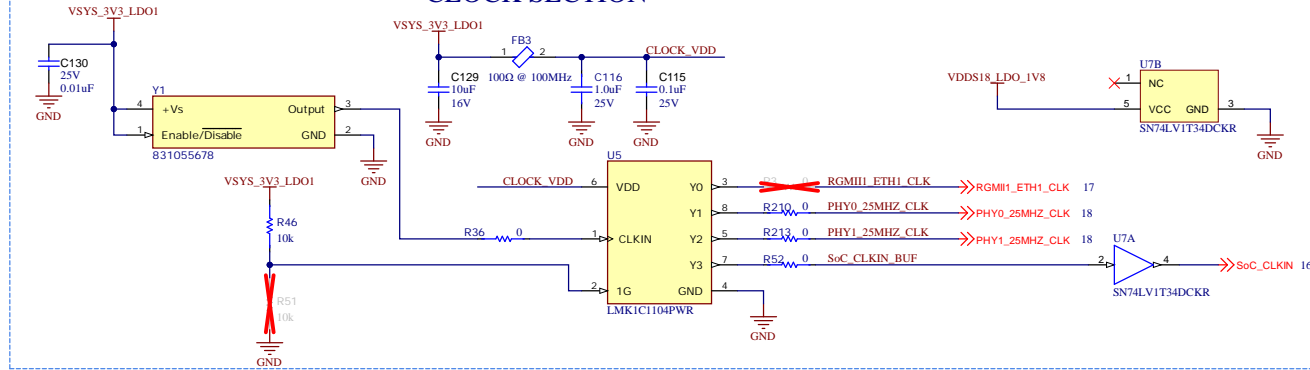




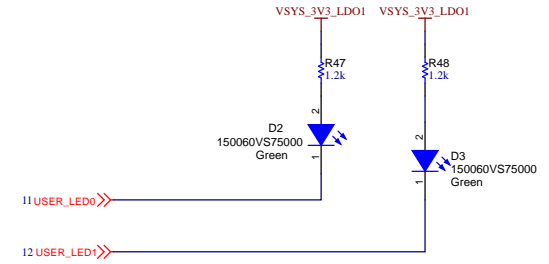


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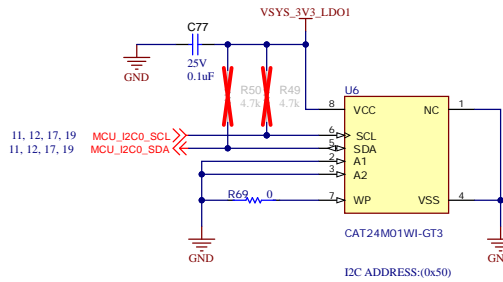
## CLOCK SECTION



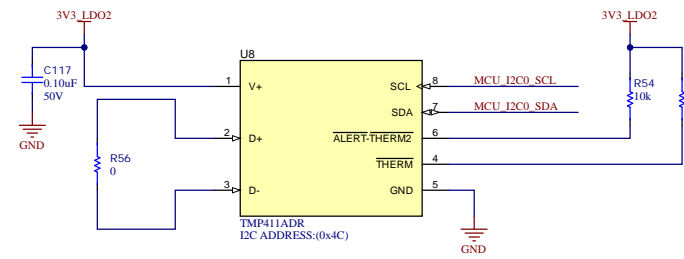
## User LEDs



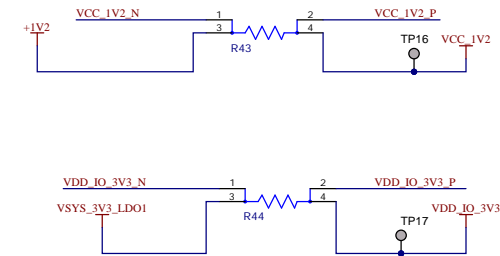
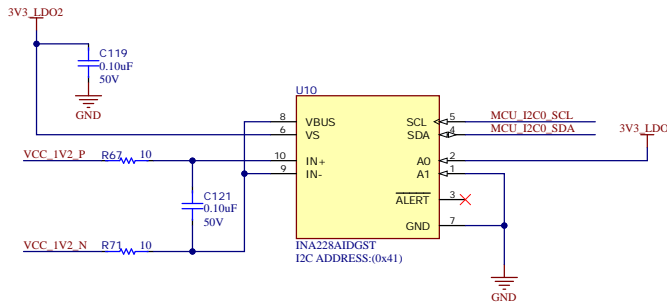
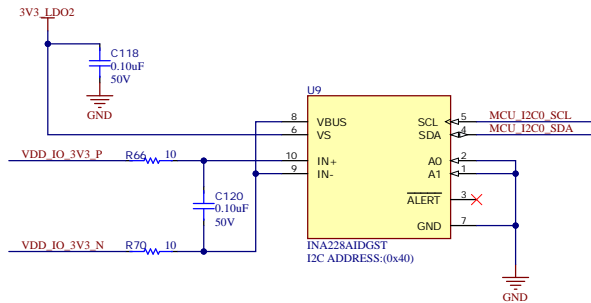
## EEPROM



## TEMPERATURE SENSOR



## CURRENT MONITORS

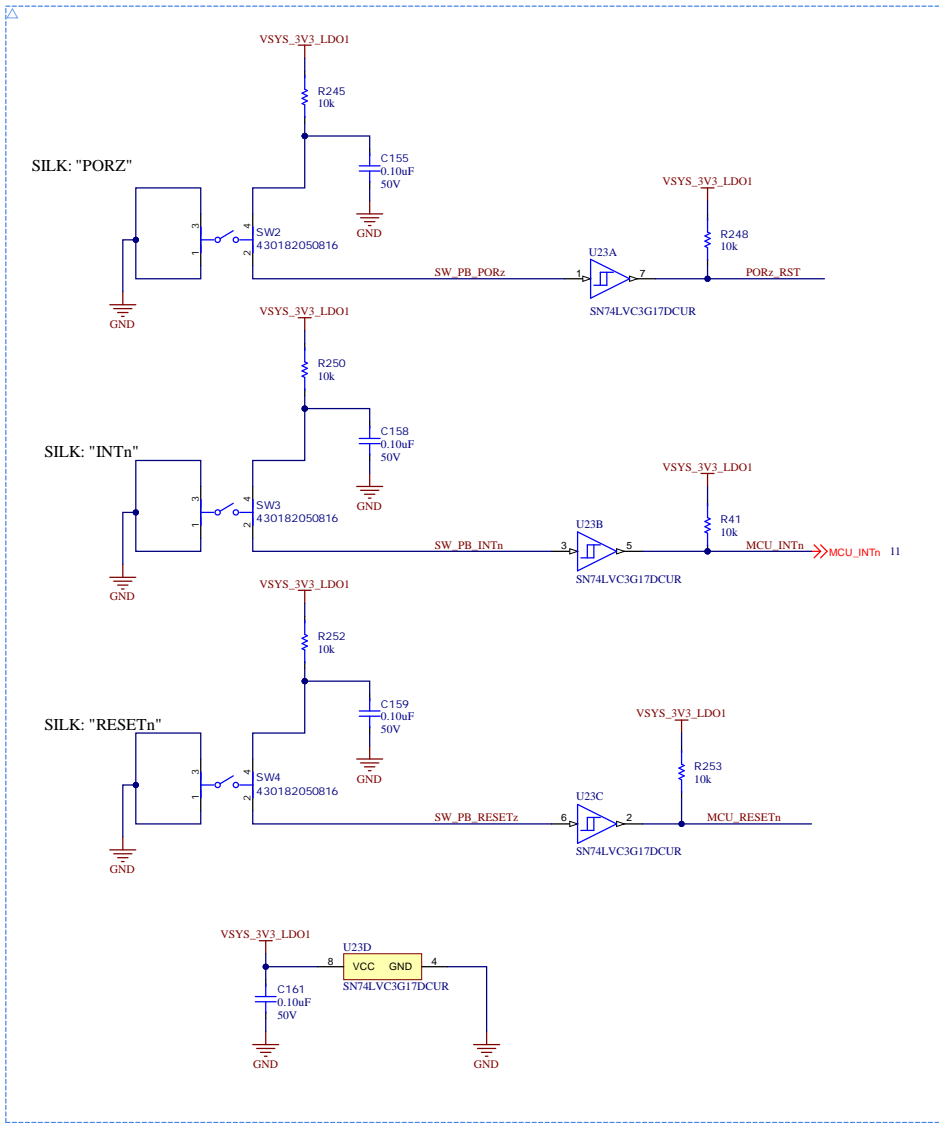


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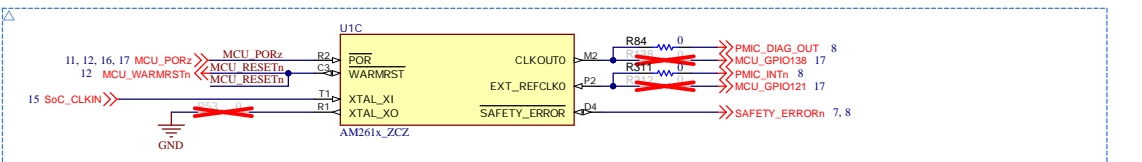
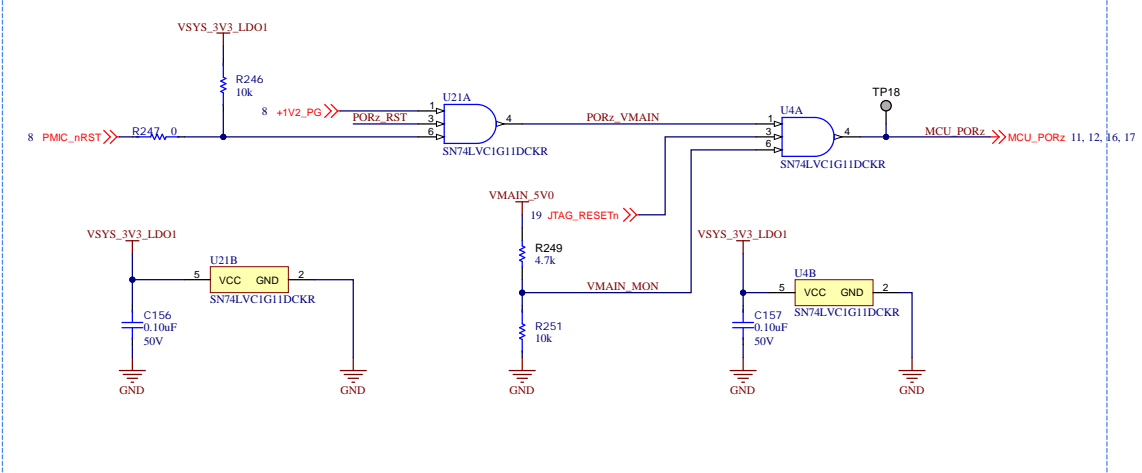
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TID #: N/A	Project Title: AM26x SOM	
Number: PROC195-002 Rev: E1	Sheet Title:	
SVN Rev: Unknown revision	Assembly Variant: PROC195E1(002) AM263P	Sheet: 15 of 20
Drawn By: Texas Instruments	File: PROC195_CLK_LED_CURRENT_MON_TEMP_SOM_SchDoc	http://www.ti.com
Engineer:	Contact:	



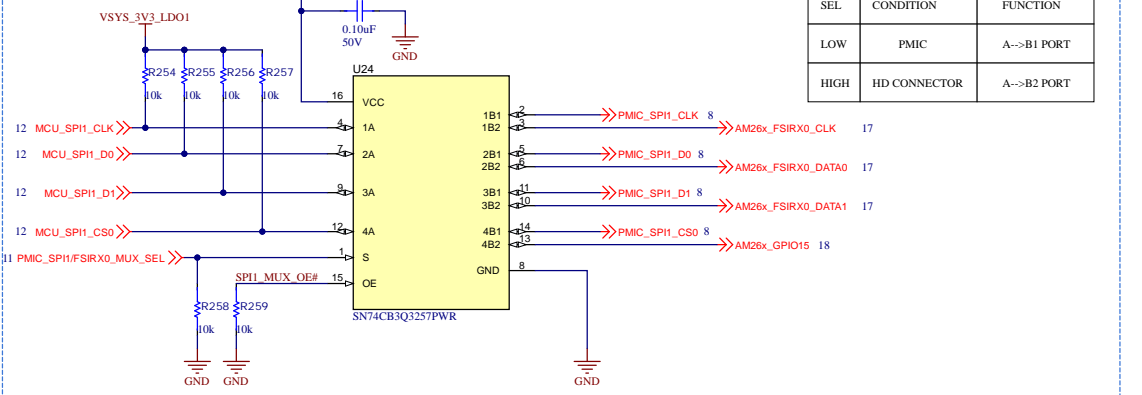
RESET CIRCUIT



MCU\_PORz



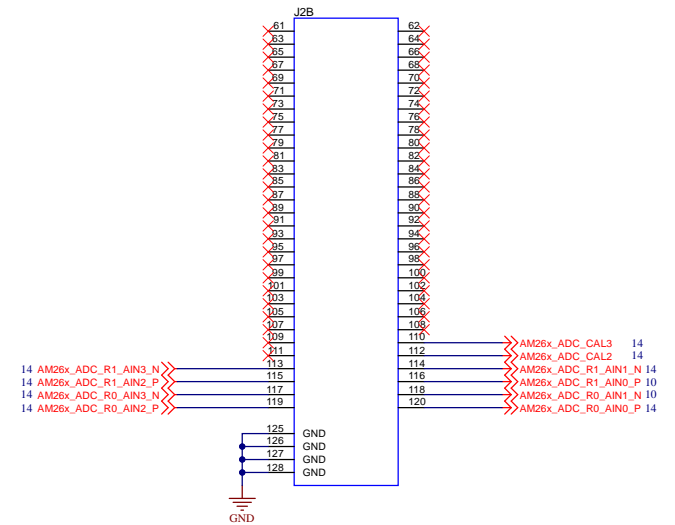
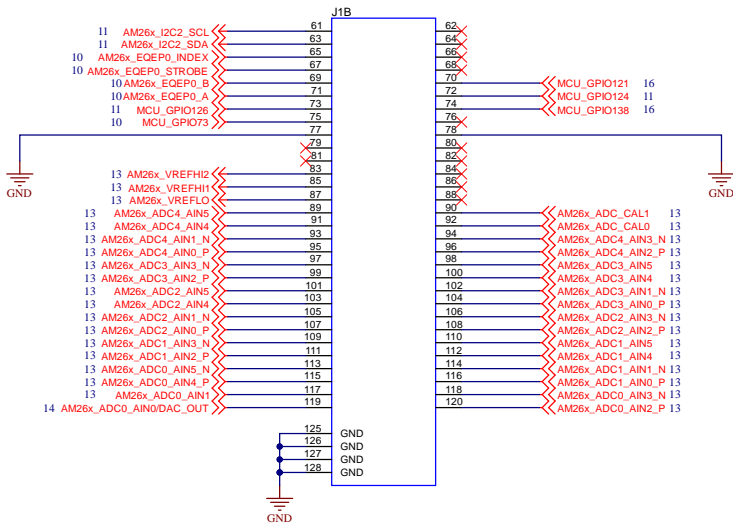
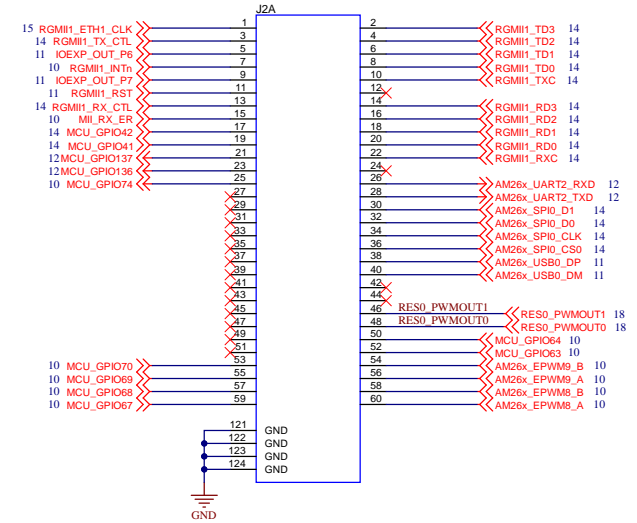
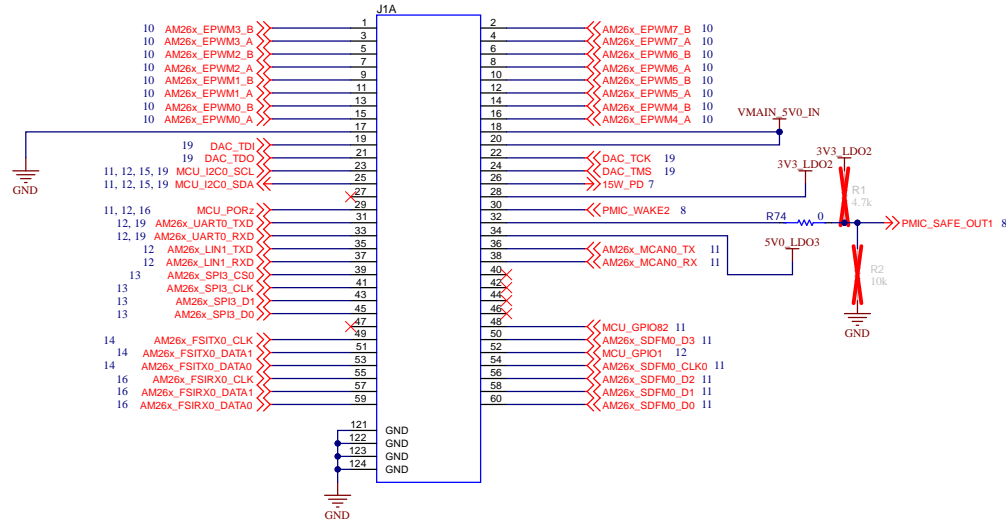
PMIC SPI MUX/DEMUX



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# HIGH\_DENSITY\_CONNECTOR J1

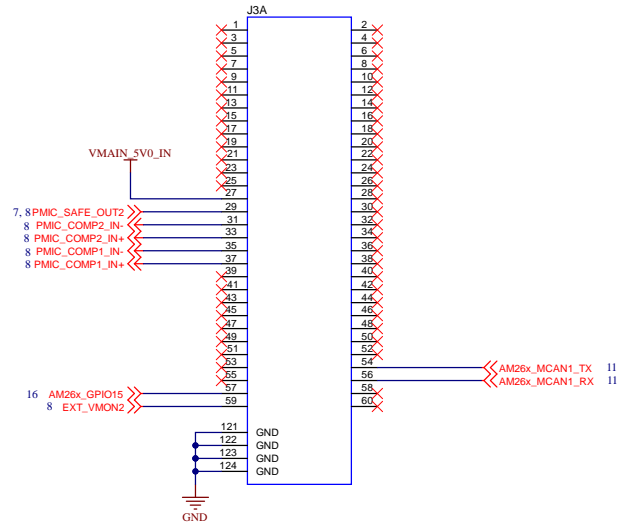
# HIGH\_DENSITY\_CONNECTOR J2



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Orderable: AM263P-SOM-EVM	Designed for: Public Release	Mod. Date: 25-06-2024
TID #: N/A	Project Title: AM26x SOM	
Number: PROC195-002 Rev: E1	Sheet Title:	
SVN Rev: Unknown revision	Assembly Variant: PROC195E1(002)_AM263P	Sheet: 17 of 20
Drawn By: Texas Instruments	File: PROC195_High_density_conn_1_2.SchDoc	Size: B
Engineer:	Contact:	

## HIGH\_DENSITY\_CONNECTOR J3

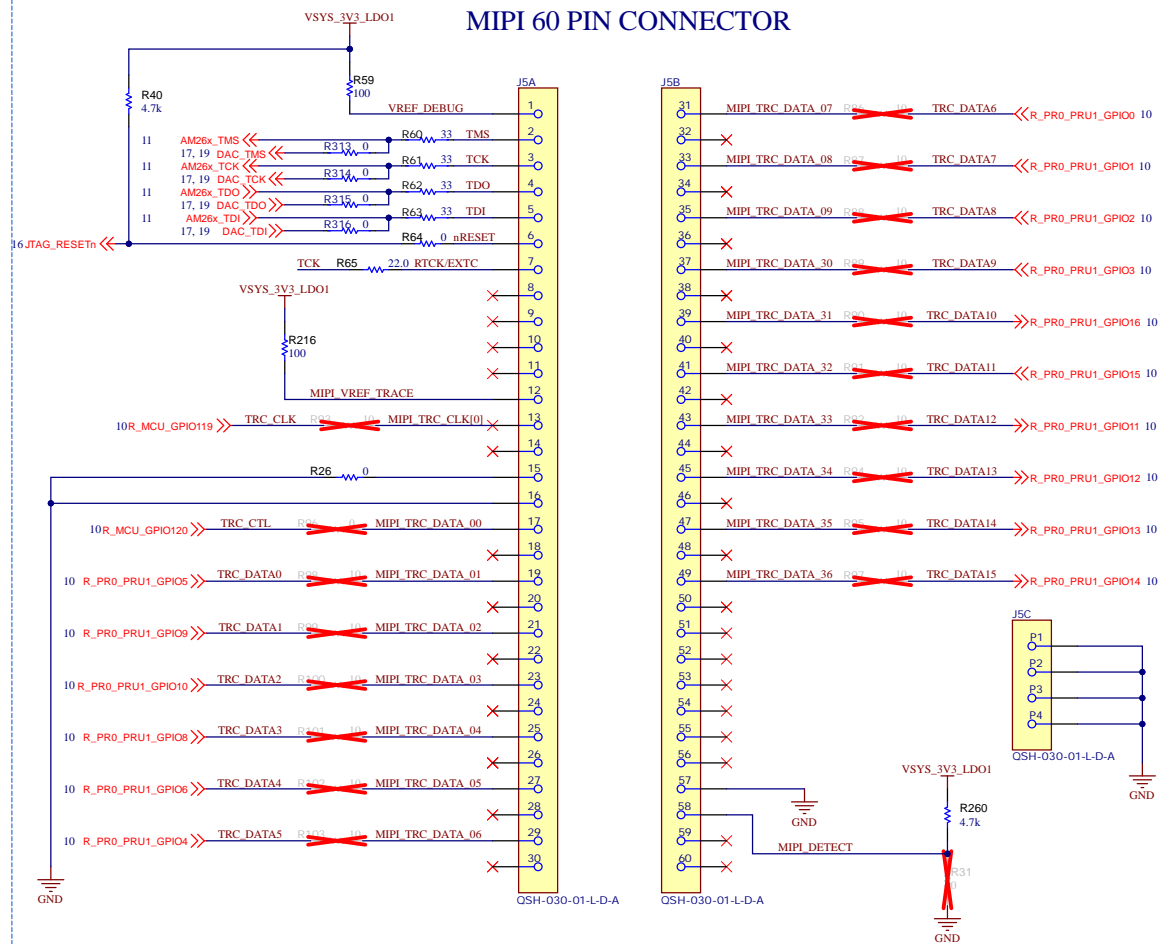


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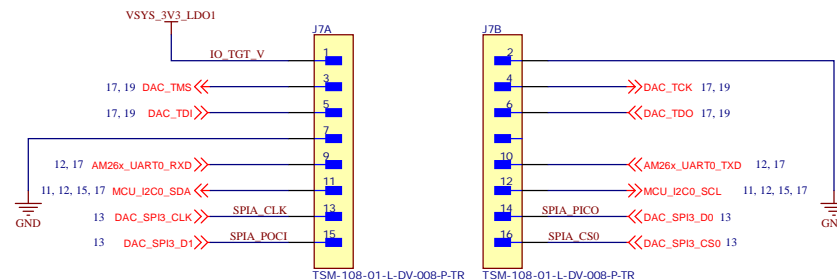
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TID #: N/A	Project Title: AM26x SOM	
Number: PROC195-002 Rev: E1	Sheet Title:	
SVN Rev: Unknown revision	Assembly Variant: PROC195E1(002) AM263P	Sheet: 18 of 20
Drawn By: Texas Instruments	File: PROC195_High_density_conn3_4.SchDoc	Size: B
Engineer:	Contact:	

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## MIPI 60 PIN CONNECTOR



## EMULATOR HEADER, DAC HEADER



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Orderable: AM263P-SOM-EVM	Designed for: Public Release	Mod. Date: 05-06-2024
TID #: N/A	Project Title: AM26x SOM	
Number: PROC195-002 Rev: E1	Sheet Title:	
SVN Rev: Unknown revision	Assembly Variant: PROC195E1(002)_AM263P	Sheet: 19 of 20
Drawn By: Texas Instruments	File: PROC195_MIP1 Emulation_conn.SchDoc	Size: B
Engineer:	Contact:	



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