

# AM62P STARTER KIT EVM

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|                   |      |
|-------------------|------|
| BOARD REVISION    | E1-1 |
| SCHEMATIC VERSION | 2.0  |

**Note:**  
Verify the DNI components configuration with respect to the SK schematics (Use PDF) after completion of design before board assembly

**Link to Design Collaterals :** <https://e2e.ti.com/support/processors-group/processors/f/processors-forum/1285107/faq-am64x-am62x-am62ax-custom-board-hardware-design---collaterals-for-reference-during-schematic-design-and-schematics-review>

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|                         |                           |               |
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## REVISION HISTORY

|      | VER # | DATE         | DESCRIPTION OF CHANGES  | AUTHOR              | REVIEWED BY | APPROVED BY |
|------|-------|--------------|---|---------------------|-------------|-------------|
| E1   | 0.01  | 20 FEB 2023  | Initial Draft derived from AM62A SK - PROC135E3 schematics  | Mistral Design Team |             |             |
|      | 0.02  | 23 FEB 2023  | Updated power section & PMIC part as per PDN  | Mistral Design Team |             |             |
|      | 0.03  | 24 FEB 2023  | 1. Added pullups on XDS110 side for Test Automation signals<br>2. Added 5V0 sourcing caps to meet USB Specifications  | Mistral Design Team | Nishant     |             |
|      | 0.04  | 27 FEB 2023  | Replaced parts : LPDDR4 (8 GB), eMMC (32 GB with HS400 support), OSPI (512 Mb NOR Flash)  | Mistral Design Team |             |             |
|      | 0.06  | 01 MAR 2023  | Replaced parts : LPDDR4 (8 GB), eMMC (32 GB with HS400 support), OSPI (512 Mb NOR Flash)<br>Added DSI, OLDI, GPMC (x8) connectors & updated respective net connections  | Mistral Design Team | Nishant     |             |
|      | 0.07  | 03 MAR 2023  | Updated PMIC local caps, GPIO connections & assembly variants   | Mistral Design Team |             |             |
|      | 0.08  | 08 MAR 2023  | 1. Updated INA section to include INA228 as default with footprint support for INA231<br>2. INA Kelvin sense resistors moved to PMIC sheet as per modular design requirement  | Mistral Design Team | Nishant     |             |
|      | 0.09  | 15 MAR 2023  | 1. Updated TI review comments<br>2. Updated PMIC connections as per PDN v1.5  | Mistral Design Team | Nishant     |             |
|      | 0.10  | 16 MAR 2023  | Added separate dual LDO for VDDSHV_SDIO, 5V0 headers for OLDI & DSI daughter cards  | Mistral Design Team |             |             |
|      | 0.11  | 20 MAR 2023  | 1. Updated PMIC Enable & GPIO connections<br>2. Modified RC shield connections for RGMII1, RGMII2 & USB Type A connectors   | Mistral Design Team |             |             |
|      | 0.12  | 22 MAR 2023  | 1. Updated TI review comments on PD Controller<br>2. Replaced HDMI_EXT_SWING resistor with 7.5K_5% ohms   | Mistral Design Team | Nishant     |             |
|      | 0.13  | 28 MAR 2023  | Added extra local caps to PMIC Switching outputs as recommended in datasheet  | Mistral Design Team |             |             |
|      | 0.14  | 04 APR 2023  | Modified SoC decaps & added RC circuit for I2C  | Mistral Design Team |             |             |
|      | 0.15  | 07 APR 2023  | 1. Added series resistors for RGMII TX signals<br>2. Swapped DDR DQ & DMI bits  | Mistral Design Team |             |             |
|      | 0.16  | 13 APR 2023  | Implemented review comments from TI   | Mistral Design Team | Nishant     | Ajit        |
|      | 0.17  | 18 APR 2023  | 1. Updated Internal and review comments from TI<br>2. Replaced Oscillator with new LMK6CE series (BAW), OLDI and DSI Connector.   | Mistral Design Team | Nishant     | Ajit        |
|      | 0.18  | 03 MAY 2023  | Modified the 3T decaps as 4 pin IC's and updated a few review comments from TI  | Mistral Design Team | Nishant     |             |
|      | 0.19  | 10 MAY 2023  | Modified the 2T current sense resistor parts to 4T sense similar to AM62A SK  | Mistral Design Team | Nishant     |             |
|      | 0.20  | 16 MAY 2023  | 1. Replaced USB Type A load switch (with OC) & ESD protection device<br>2. Added capacitor to CT pin of VCC_3V3_SYS & VDD_MMCI load switches  | Mistral Design Team | Nishant     | Ajit        |
|      | 0.21  | 24 MAY 2023  | 1. VMON connection modified for PMIC to meet threshold of 3.3V<br>2. Part References Back annotated from PCB file   | Mistral Design Team |             |             |
|      | 0.22  | 16 JUNE 2023 | 1. Updated OPN's for SoC and PMIC<br>2. Removed dip switch for VDD_CORE voltage configuration.<br>3. Replaced HDMI connector part   | Mistral Design Team | Nishant     |             |
|      | 0.23  | 21 JUNE 2023 | 1. Removed shorting jumper for VCC_CORE rail<br>2. Added dip switch control for EMU0 & EMU1 signals   | Mistral Design Team | Nishant     |             |
|      | 0.24  | 23 JUNE 2023 | 1. Modified decaps for VDD_CORE<br>2. Replaced 3T SoC decaps with correct symbol & footprints   | Mistral Design Team | Nishant     |             |
|      | 0.25  | 21 AUG 2023  | 1. Corrected power architecture & sequencing diagrams<br>2. Baselined   | Mistral Design Team | Nishant     | Ajit        |
| E1-1 | 1.1   | 03 OCT 2023  | 1. Modified WP_DISABLE pull to VCC_3V3_MAIN<br>2. Modified PMIC_RSTOUT pull to VCC_3V3_SYS<br>3. Changed Assembly instruction for R280 to Mount<br>4. Changed the PMIC VSENSE voltage from VMAIN to VBUS_TYPEC1 and VBUS_TYPEC2 (dual input) and implemented ORing diode. | Mistral Design Team | Nishant     | Ajit MB     |
|      | 1.2   | 05 OCT 2023  | Few circuits marked DNI as captured in change list document   | Mistral Design Team | Nishant     | Ajit MB     |
|      | 2.0   | 21 NOV 2023  | Baselined   | Mistral Design Team | Nishant     | Ajit MB     |

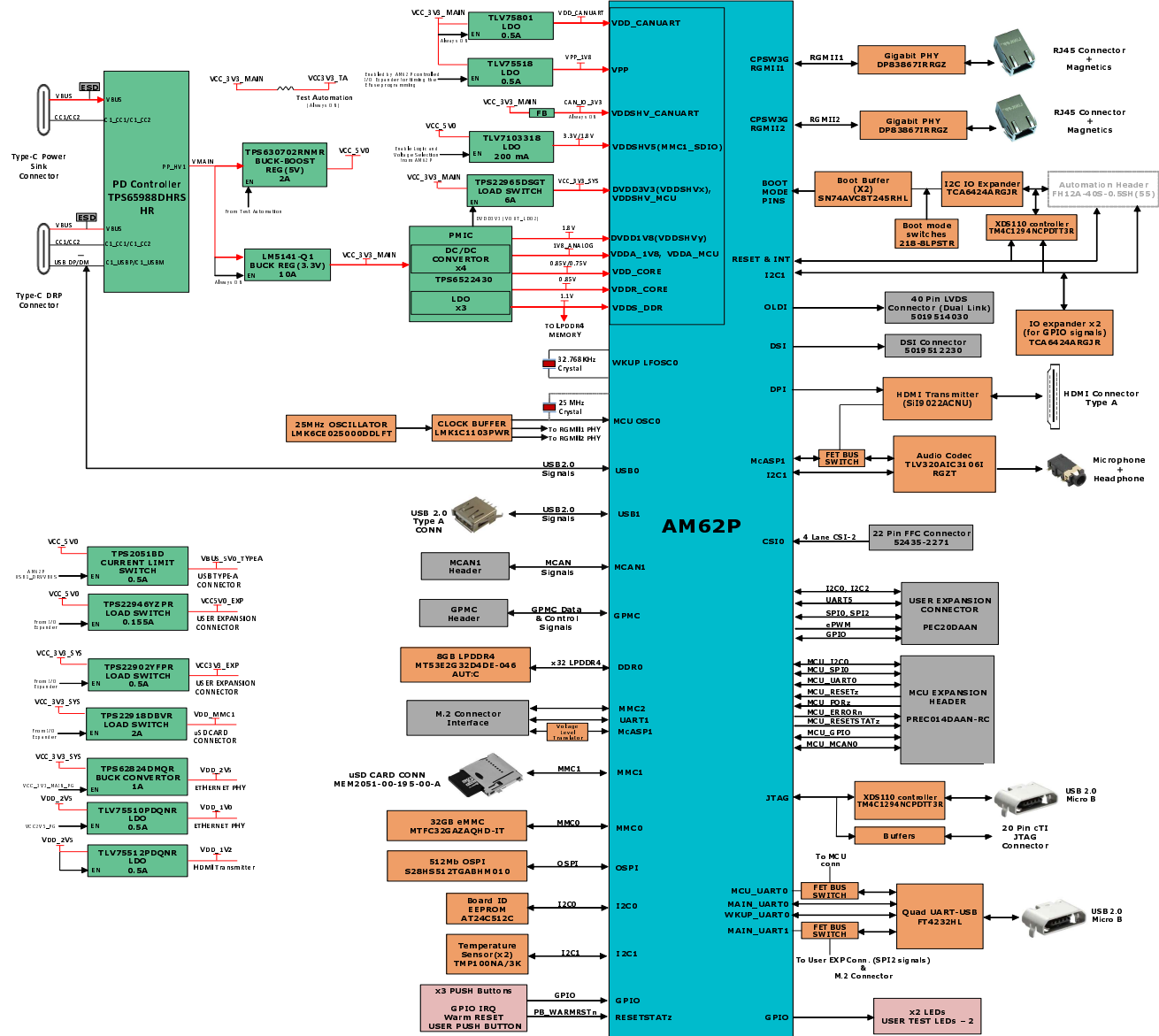
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Title REVISION HISTORY

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# BLOCK DIAGRAM - AM62P SKEVM

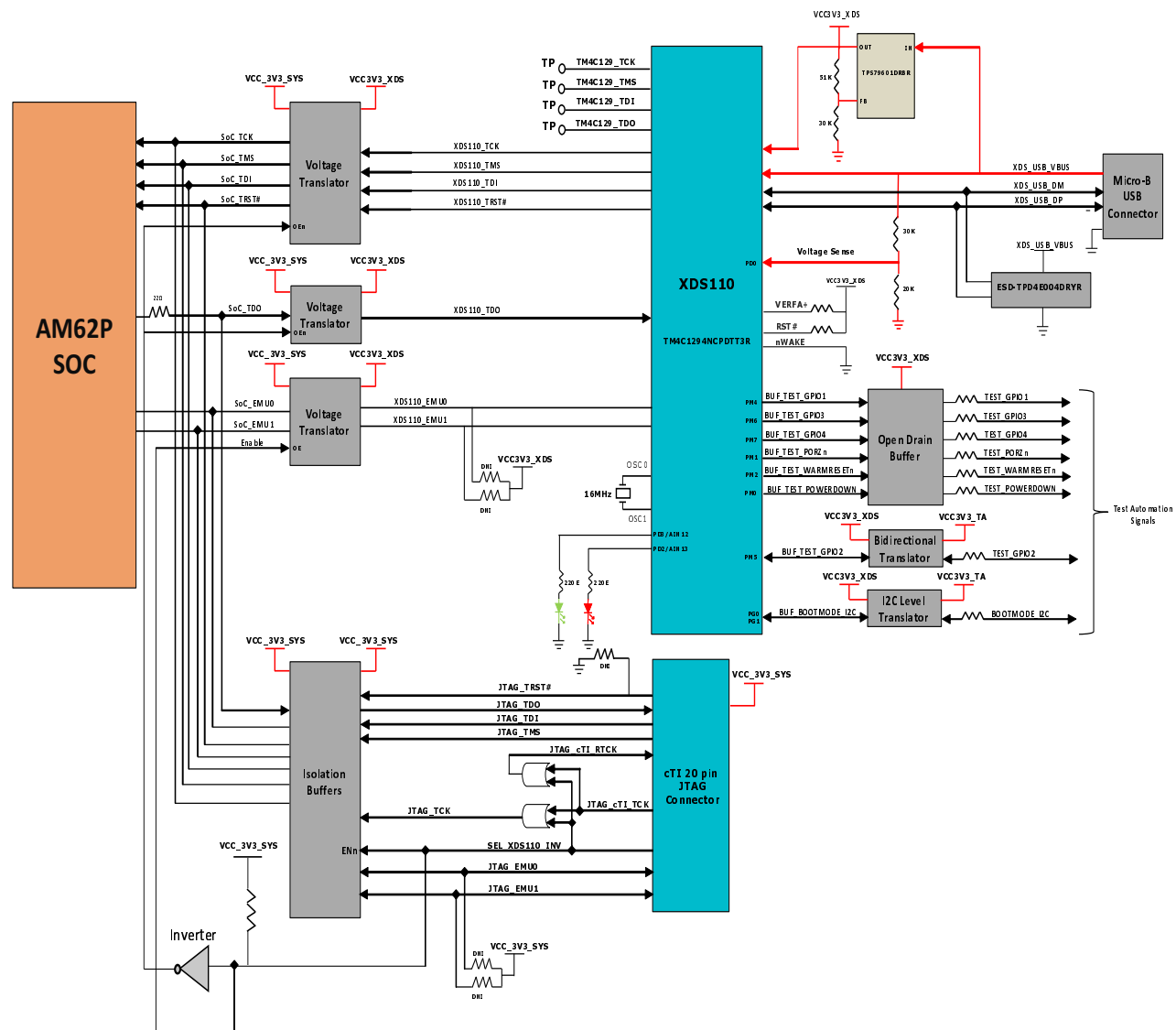


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| Title |                           |  | BLOCK DIAGRAM AM62P_SKEVM |         |
|-------|---------------------------|--|---------------------------|---------|
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# BLOCK DIAGRAM - XDS110



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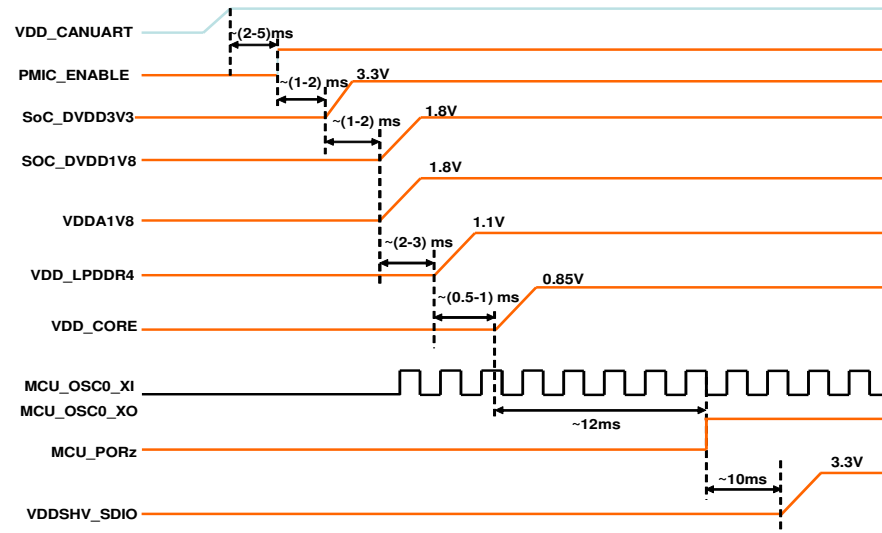
Title BLOCK DIAGRAM\_XDS110

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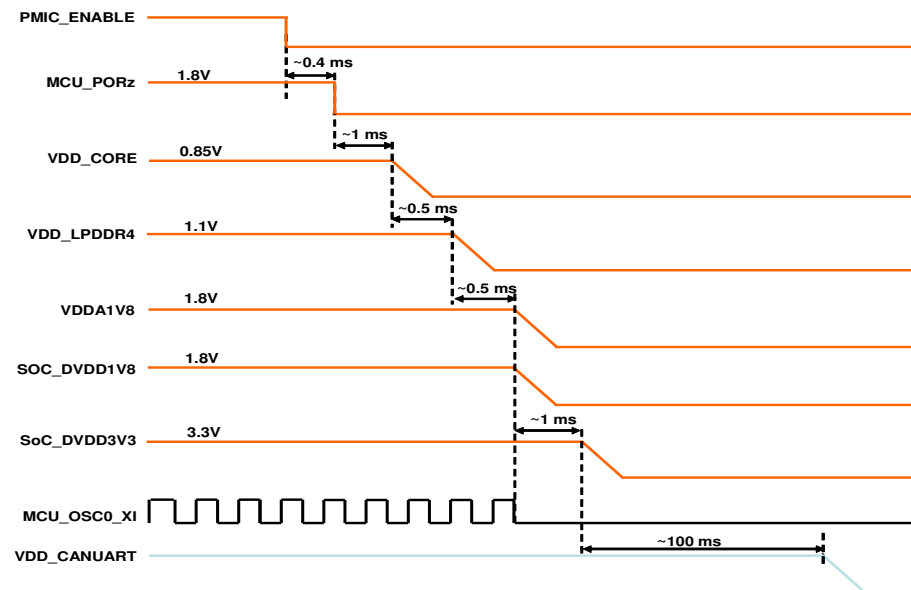


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## POWER UP SEQUENCE



## POWER DOWN SEQUENCE



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Title POWER SEQUENCE

Size PROC164E1-1

Rev

C

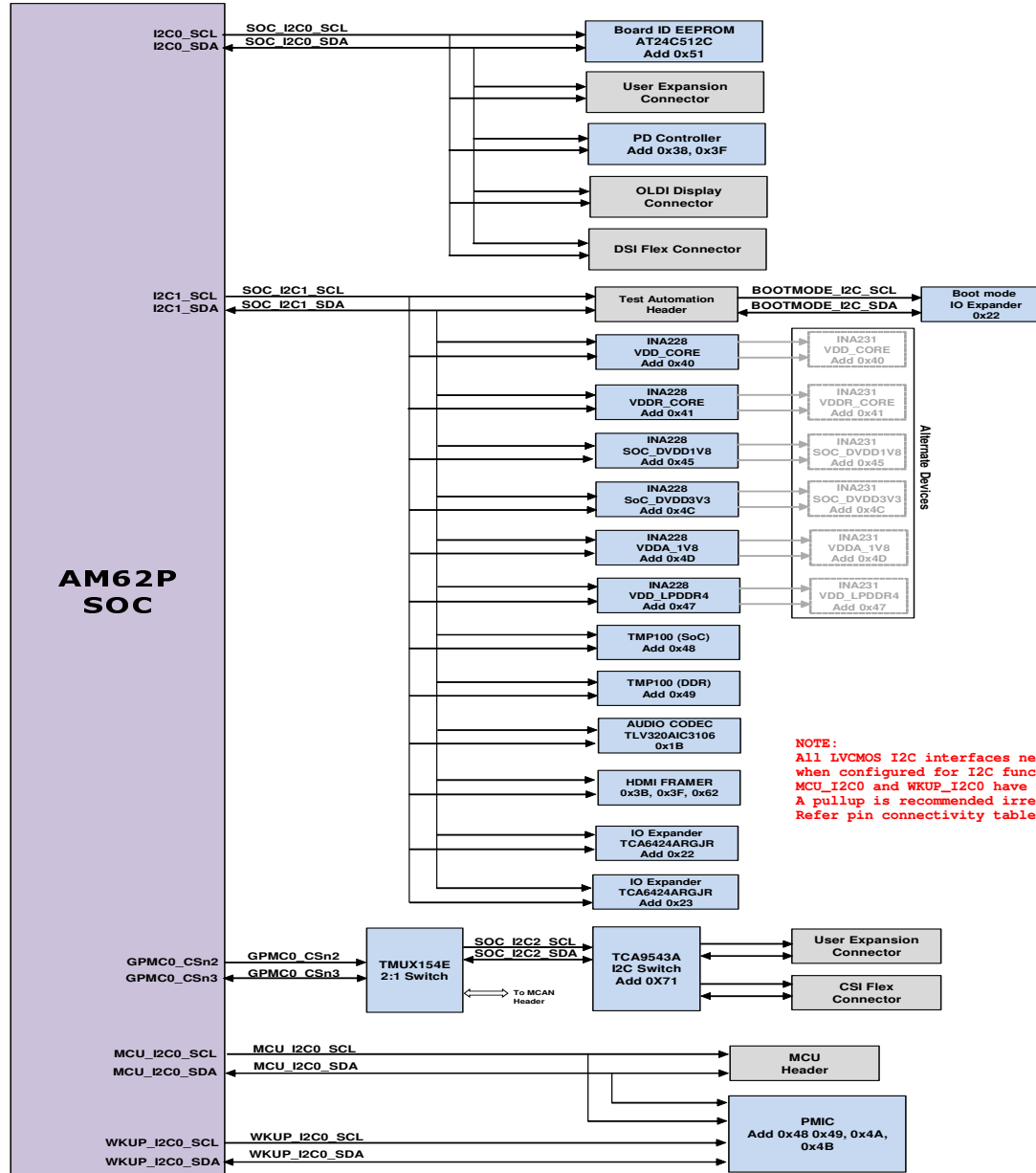
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# I2C TREE



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# GPIO MAPPING TABLE

| SL NO.         | GPIO DESCRIPTION                              | GPIO NETNAME            | FUNCTIONALITY     | GPIO USED       | PACKAGE/SIGNAL NAME | DIRECTION WITH RESPECT TO CONTROL | DEFAULT STATE | ACTIVE STATE | VOLTAGE DOMAIN ON SOCSIDE | VOLTAGE RAIL CONNECTED ON SKEWM |
|----------------|---|-------------------------|-------------------|-----------------|---------------------|-----------------------------------|---------------|--------------|---------------------------|---------------------------------|
| 1              | Enable for WLAN Interface                     | WLAN_EN                 | ENABLE            | GPIO0_71        | MMC2_SD_CD          | OUTPUT                            | LOW           | HIGH         | VDDSHV6                   | 50_C_DVDD1V8                    |
| 2              | WLAN Interrupt                                | WLAN_IRQ                | INTERRUPT         | GPIO0_72        | MMC2_SD_WP          | INPUT                             | HIGH          | LOW          | VDDSHV6                   | 50_C_DVDD1V8                    |
| 3              | MCU Interrupt                                 | MCU_INTn                | INTERRUPT         | MCU_GPIO0_0     | MCU_SPIO_CS0        | INPUT                             | HIGH          | LOW          | VDDSHV_MCU                | 50_C_DVDD3V3                    |
| 4              | CPSW Ethernet PHY Interrupt                   | CPSW_RGMII_INTn         | INTERRUPT         | GPIO1_31        | EXTINTn             | INPUT                             | HIGH          | LOW          | VDDSHV0                   | 50_C_DVDD3V3                    |
| 5              | OSPI Reset Control GPIO                       | GPIO_OSP_RSTn           | RESET             | GPIO0_12        | OSPI_CSn1           | OUTPUT                            | HIGH          | LOW          | VDDSHV1                   | 50_C_DVDD1V8                    |
| 6              | OSPI Interrupt                                | OSPI_INTn               | INTERRUPT         | GPIO0_13        | OSPI_CSn2           | INPUT                             | HIGH          | LOW          | VDDSHV1                   | 50_C_DVDD1V8                    |
| 7              | MCU Header GPIO0_16                           | MCU_GPIO0_16            | GPIO              | MCU_GPIO0_16    | MCU_MCAN1_RX        | NA                                | NA            | NA           | VDDSHV_CANUART            | CAN_IO_3V3                      |
| 8              | MCU Header GPIO0_15                           | MCU_GPIO0_15            | GPIO              | MCU_GPIO0_15    | MCU_MCAN1_TX        | NA                                | NA            | NA           | VDDSHV_CANUART            | CAN_IO_3V3                      |
| 9              | PMIC Interrupt                                | PMIC_INTn               | INTERRUPT         | GPIO0_31        | EXTINTn             | INPUT                             | HIGH          | LOW          | VDDSHV0                   | 50_C_DVDD3V3                    |
| 10             | CAN-FD fast wake up signal from switch        | CAN_FD_WKUP_SW_BNH      | INTERRUPT         | MCU_GPIO_15     | MCU_MCAN1_TX        | INPUT                             | HIGH          | LOW          | VDDSHV_CANUART            | CAN_IO_3V3                      |
| 11             | CAN-FD fast wake up signal from MCU Header    | CAN_FD_WKUP_HBR_INH     |                   |                 |                     |                                   |               |              |                           |                                 |
| 12             | User test LED control signal                  | SOC_GPIO1_49            | ENABLE            | GPIO1_49        | MMC1_SDWP           | OUTPUT                            | LOW           | HIGH         | VDDSHV0                   | 50_C_DVDD3V3                    |
| 13             | IO Expander Interrupt                         | GPIO1_23_INTn           | INTERRUPT         | GPIO1_23        | UART0_RTSn          | INPUT                             | HIGH          | LOW          | VDDSHV0                   | 50_C_DVDD3V3                    |
| 14             | User Interrupt                                |                         |                   |                 |                     |                                   |               |              |                           |                                 |
| 15             | Low power mode enable                         | PMIC_LPM_EN0            | ENABLE            | MCU_GPIO0_22    | PMIC_LPM_EN0        | OUTPUT                            | HIGH          | LOW          | VDDSHV_CANUART            | CAN_IO_3V3                      |
| 16             | SD Card I/O Voltage Selection                 | VSEL_SD_SOC             | SELECTION         | GPIO0_31        | GPMMC_CLK           | OUTPUT                            | NA            | NA           | VDDSHV2                   | 50_C_DVDD3V3                    |
| IO EXPANDER-01 |   |                         |                   |                 |                     |                                   |               |              |                           |                                 |
| 1              | Interrupt from OLDF display                   | OLD_INTn                | INTERRUPT         | IO EXPANDER-P00 |                     | INPUT                             | HIGH          | LOW          |                           | VCC_3V3_SYS                     |
| 2              | x8 NAND Card Presence Detect                  | x8_NAND_DETECT          | DETECTION         | IO EXPANDER-P01 |                     | INPUT                             | HIGH          | LOW          |                           | VCC_3V3_SYS                     |
| 3              | MCASP1 Enable and Direction Control           | UART1_FET_SEL           | DIRECTION CONTROL | IO EXPANDER-P02 |                     | OUTPUT                            | HIGH          | -            |                           | VCC_3V3_SYS                     |
| 4              | SD Card Load Switch Enable                    | MMC1_SD_EN              | ENABLE            | IO EXPANDER-P03 |                     | OUTPUT                            | HIGH          | HIGH         |                           | VCC_3V3_SYS                     |
| 5              | SOC eFuse Voltage (VPP+1.8V) Regulator Enable | VPP_EN                  | ENABLE            | IO EXPANDER-P04 |                     | OUTPUT                            | NA            | HIGH         |                           | VCC_3V3_SYS                     |
| 6              | EXP CONN 3.3V Power Switch Enable             | EXP_PS_3V3_EN           | ENABLE            | IO EXPANDER-P05 |                     | OUTPUT                            | LOW           | HIGH         |                           | VCC_3V3_SYS                     |
| 7              | SOC UART1 Mux Select                          | UART1_FET_BUF_EN        | ENABLE            | IO EXPANDER-P06 |                     | OUTPUT                            | HIGH          | LOW          |                           | VCC_3V3_SYS                     |
| 8              | EXP CONN HAT Board Detection                  | EXP_HAT_DETECT          | DETECTION         | IO EXPANDER-P07 |                     | INPUT                             | HIGH          | LOW          |                           | VCC_3V3_SYS                     |
| 9              | DS1 display GPIO0                             | DS1_GPIO0               | GPIO              | IO EXPANDER-P10 |                     | BIDIRECTIONAL                     | NA            | NA           |                           | VCC_3V3_SYS                     |
| 10             | DS1 display GPIO1                             | DS1_GPIO1               | GPIO              | IO EXPANDER-P11 |                     | BIDIRECTIONAL                     | NA            | NA           |                           | VCC_3V3_SYS                     |
| 11             | OLDF to HDMI Card Device ID Interrupt         | OLD_IDID                | INTERRUPT         | IO EXPANDER-P12 |                     | INPUT                             | HIGH          | LOW          |                           | VCC_3V3_SYS                     |
| 12             | BT UART WKUP Signal                           | BT_UART_WKUP_SOC_3V3    | INTERRUPT         | IO EXPANDER-P13 |                     | INPUT                             | HIGH          | LOW          |                           | VCC_3V3_SYS                     |
| 13             | USB Type A overcurrent indicator              | USB_TYPEA_OC_INDICATION | INTERRUPT         | IO EXPANDER-P14 |                     | INPUT                             | HIGH          | LOW          |                           | VCC_3V3_SYS                     |
| 14             | Raspberry Pi Camera CSI0 GPIO0                | CSI_GPIO0               | INPUT/OUTPUT      | IO EXPANDER-P15 |                     | BIDIRECTIONAL                     | NA            | NA           |                           | VCC_3V3_SYS                     |
| 15             | Raspberry Pi Camera CSI0 GPIO2                | CSI_GPIO1               | INPUT/OUTPUT      | IO EXPANDER-P16 |                     | BIDIRECTIONAL                     | NA            | NA           |                           | VCC_3V3_SYS                     |
| 16             | WLAN Alert Interrupt                          | WLAN_ALERTn             | INTERRUPT         | IO EXPANDER-P17 |                     | INPUT                             | HIGH          | LOW          |                           | VCC_3V3_SYS                     |
| 17             | HDMI Interrupt                                | HDMI_INTn               | INTERRUPT         | IO EXPANDER-P20 |                     | INPUT                             | HIGH          | LOW          |                           | VCC_3V3_SYS                     |
| 18             | TEST GPIO2 from Test Automation Connector     | TEST_GPIO2              | GPIO              | IO EXPANDER-P21 |                     | NA                                | HIGH          | NA           |                           | VCC_3V3_SYS                     |
| 19             | MCASP1 Enable and Direction Control           | MCASP1_FET_EN           | ENABLE            | IO EXPANDER-P22 |                     | OUTPUT                            | LOW           | LOW          |                           | VCC_3V3_SYS                     |
| 20             |   | MCASP1_BUF_BT_EN        | ENABLE            | IO EXPANDER-P23 |                     | OUTPUT                            | LOW           | HIGH         |                           | VCC_3V3_SYS                     |
| 21             |   | MCASP1_FET_SEL          | DIRECTION CONTROL | IO EXPANDER-P24 |                     | OUTPUT                            | HIGH          | -            |                           | VCC_3V3_SYS                     |
| 22             | DS1 to HDMI Card Device ID Interrupt          | DS1_IDID                | INTERRUPT         | IO EXPANDER-P25 |                     | INPUT                             | HIGH          | LOW          |                           | VCC_3V3_SYS                     |
| 23             | Power Delivery I2C Interrupt Request          | PD_I2C_IRQ              | INTERRUPT         | IO EXPANDER-P26 |                     | INPUT                             | HIGH          | LOW          |                           | VCC_3V3_SYS                     |
| 24             | User Test LED 2                               | IO_EXP_TEST_LED         | GPIO              | IO EXPANDER-P27 |                     | OUTPUT                            | LOW           | HIGH         |                           | VCC_3V3_SYS                     |
| IO EXPANDER-02 |   |                         |                   |                 |                     |                                   |               |              |                           |                                 |
| 1              | M.2 module Bluetooth LDO Enable               | BT_EN_SOC               | ENABLE            | IO EXPANDER-P00 |                     | OUTPUT                            | HIGH          | HIGH         |                           | VCC_3V3_SYS                     |
| 2              | EXP CONN 5V Power Switch Enable               | EXP_PS_5V0_EN           | ENABLE            | IO EXPANDER-P01 |                     | OUTPUT                            | LOW           | HIGH         |                           | VCC_3V3_SYS                     |
| 3              | Wlink Enable                                  | WL1_IT_EN               | ENABLE            | IO EXPANDER-P10 |                     | OUTPUT                            | HIGH          | HIGH         |                           | VCC_3V3_SYS                     |
| 4              | Soc I2C2 & MCAN MUX Selection                 | Soc_I2C2_MCAN_SEL       | CONTROL           | IO EXPANDER-P20 |                     | OUTPUT                            | HIGH          | -            |                           | VCC_3V3_SYS                     |
| 5              | HDMI Transmitter Reset Control GPIO           | GPIO_HDMI_RSTn          | RESET             | IO EXPANDER-P21 |                     | OUTPUT                            | HIGH          | LOW          |                           | VCC_3V3_SYS                     |
| 6              | CPSW Ethernet PHY-1 Reset Control GPIO        | GPIO_CPSW_1_RST         | RESET             | IO EXPANDER-P22 |                     | OUTPUT                            | HIGH          | LOW          |                           | VCC_3V3_SYS                     |
| 7              | CPSW Ethernet PHY-2 Reset Control GPIO        | GPIO_CPSW_2_RST         | RESET             | IO EXPANDER-P23 |                     | OUTPUT                            | HIGH          | LOW          |                           | VCC_3V3_SYS                     |
| 8              | OLDF display Reset control GPIO               | GPIO_OLDF_RSTn          | RESET             | IO EXPANDER-P24 |                     | OUTPUT                            | HIGH          | LOW          |                           | VCC_3V3_SYS                     |
| 9              | Audio Codec Reset Control GPIO                | GPIO_AUD_RSTn           | RESET             | IO EXPANDER-P25 |                     | OUTPUT                            | HIGH          | LOW          |                           | VCC_3V3_SYS                     |
| 10             | eMMC Reset control GPIO                       | GPIO_EMMC_RSTn          | RESET             | IO EXPANDER-P26 |                     | OUTPUT                            | HIGH          | LOW          |                           | VCC_3V3_SYS                     |
| 11             | WLAN Reset control GPIO                       | SOC_WLAN_SDIO_RST       | RESET             | IO EXPANDER-P27 |                     | OUTPUT                            | HIGH          | LOW          |                           | VCC_3V3_SYS                     |

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Title GPIO MAPPING TABLE

|       |                             |       |         |
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# USB TYPE-C POWER

## TYPE-C DUAL PD CONTROLLER

## EXTERNAL POWER PATH FOR SOURCING, 5V/0.5A

## SPI EEPROM & PROGRAMMING HEADER

## POWER INDICATION LED: VBUS\_TYPEC1

## BP\_NoWait Safe Configuration

| I2C Slave Address | Port1 | Port2 |
|-------------------|-------|-------|
| I2C2 (Default)    | 0x38  | 0x3F  |
| I2C1              | 0x20  | 0x24  |

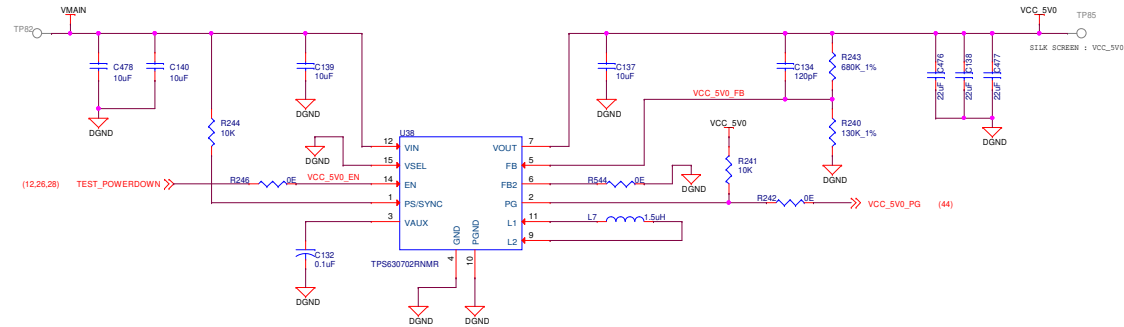
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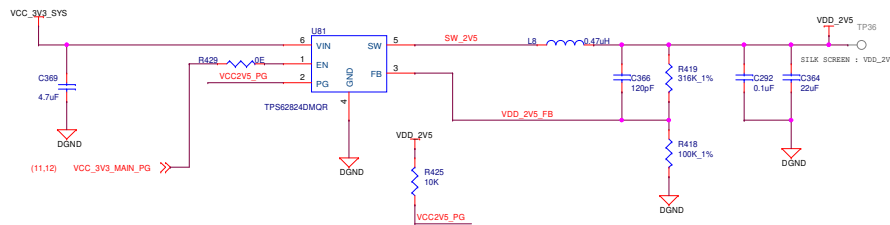
| Title |                             |       | USB TYPE-C |
|-------|-----------------------------|-------|------------|
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# PERIPHERAL POWER SUPPLY-1

VinMin = 4.5V  
VinMax = 15V  
Vout = 5V @ 2A



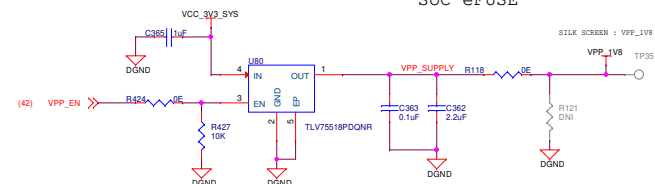
## 2.5V (ETHERNET PHY), 1.0AMPS SUPPLY



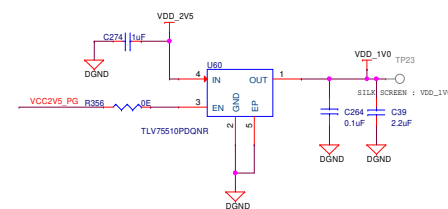
## 1.8V VPP (eFUSE), 0.5AMPS SUPPLY

Note: Ok to use VCC\_3V3\_MAIN

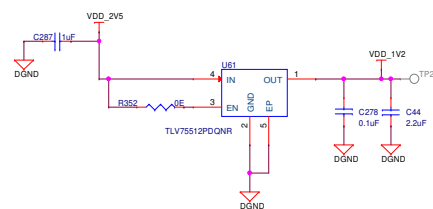
SoC eFUSE



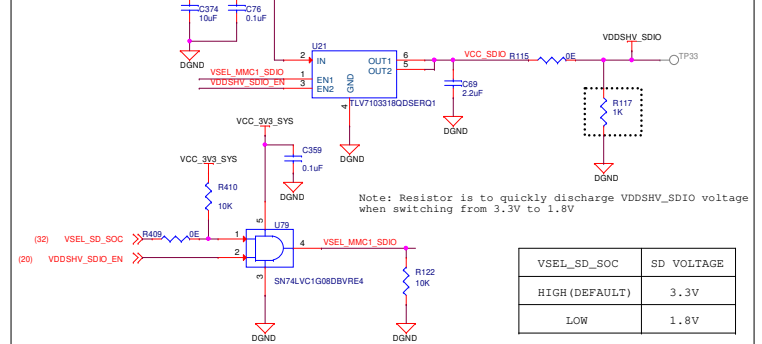
## 1.0V (ETHERNET PHY), 0.5AMPS SUPPLY



## 1.2V (HDMI), 0.5AMPS SUPPLY



## 3.3V/1.8V SD CARD IO SUPPLY



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Title PERIPHERAL POWER SUPPLY-1

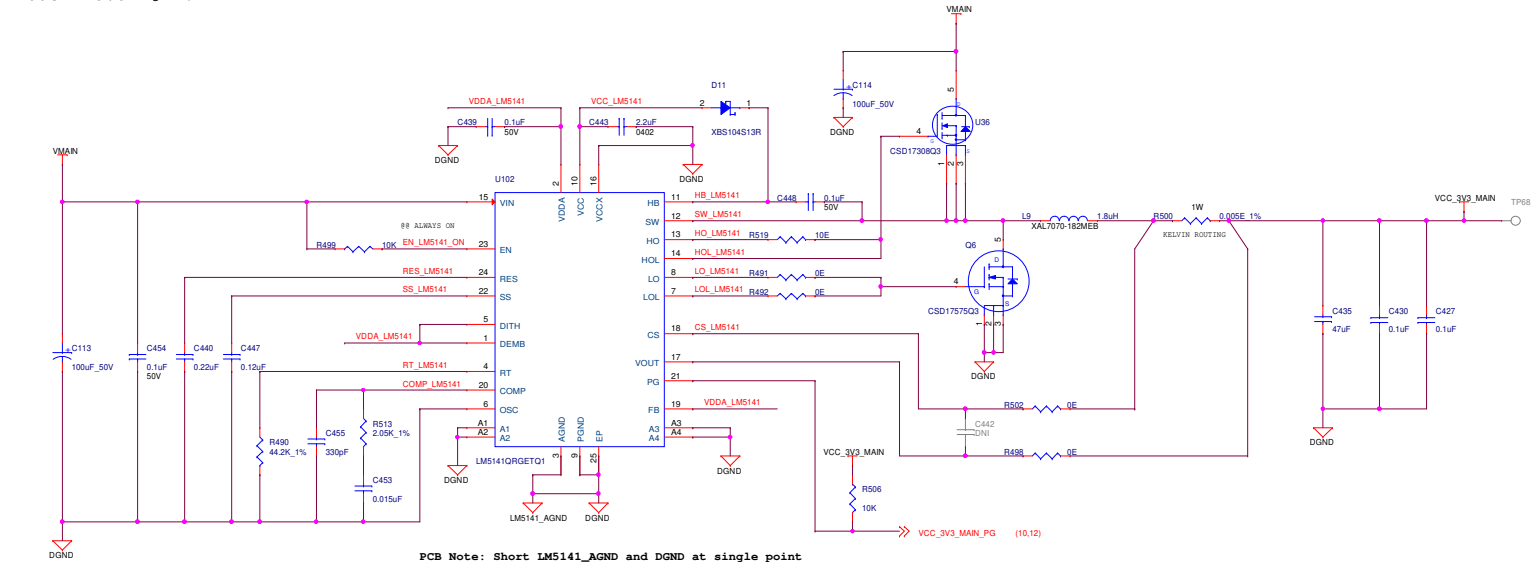
| Size  | Rev                       |
|-------|---------------------------|
| C     | PROC164E1-1               |
| Date: | Friday, December 01, 2023 |

Sheet 10 of 47

## PERIPHERAL POWER SUPPLY-2

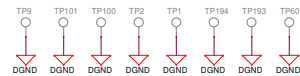
3.3V, 10.0 AMPS SUPPLY

VinMin = 4.5V  
VinMax = 15V  
Vout = 3.3V @ 10A



(34) ETH\_CAN\_NH\_PREREG >> EN LM5141 ON

### GND TEST POINTS



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Title PERIPHERAL POWER SUPPLY-2

Size PROC164E1-1

C

Date: Thursday, November 16, 2023

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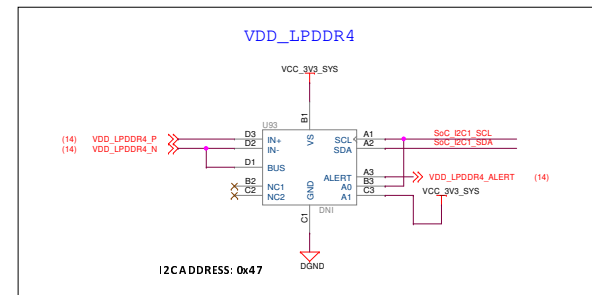
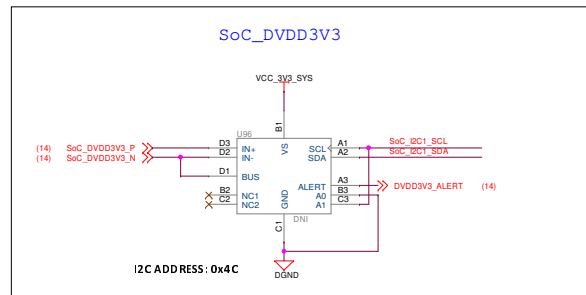
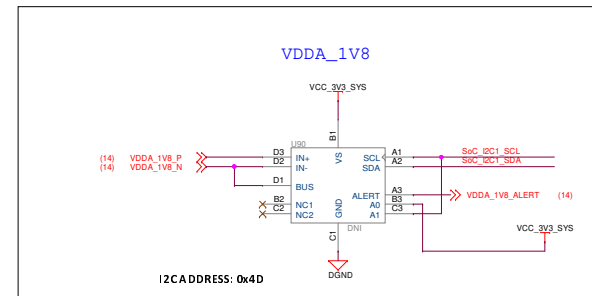
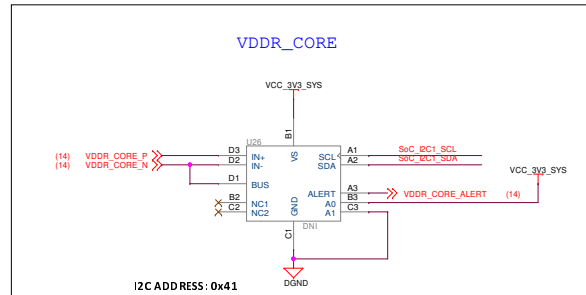
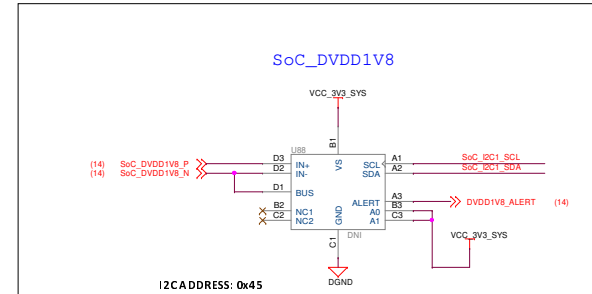
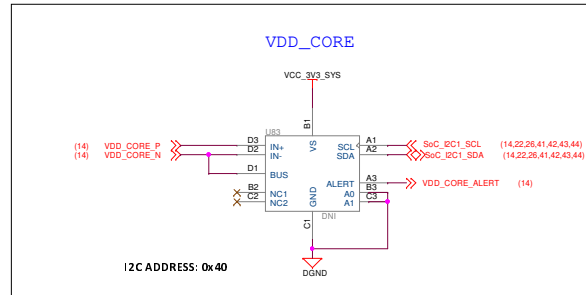
Rev

E1-1





# CURRENT MONITORING DEVICES - 1



| INA I2C SLAVE ADDRESS |             |                        |
|-----------------------|-------------|------------------------|
| POWER SOURCE          | SUPPLY NET  | SLAVE ADDRESS (IN HEX) |
| VCC_CORE              | VDD_CORE    | 40                     |
| VCC_OV85              | VDDR_CORE   | 41                     |
| VCC_3V3_SYS           | SoC_DVDD3V3 | 4C                     |
| VCC_1V8               | SoC_DVDD1V8 | 45                     |
| VDDA1V8               | VDDA_1V8    | 4D                     |
| VCC1V1                | VDD_LPDDR4  | 47                     |

Note: The design supports current/voltage measurements using either INA228 or INA231. INA228 will be populated on the the SK (Implemented via stacked PCB footprint).

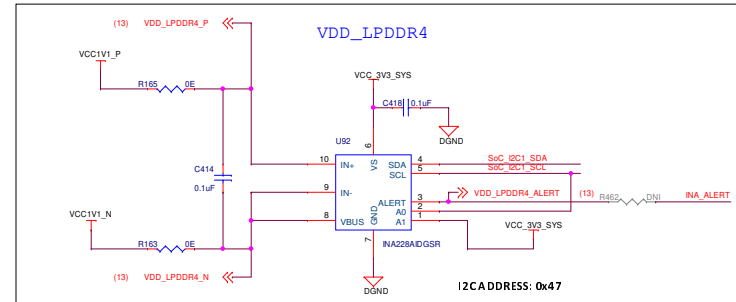
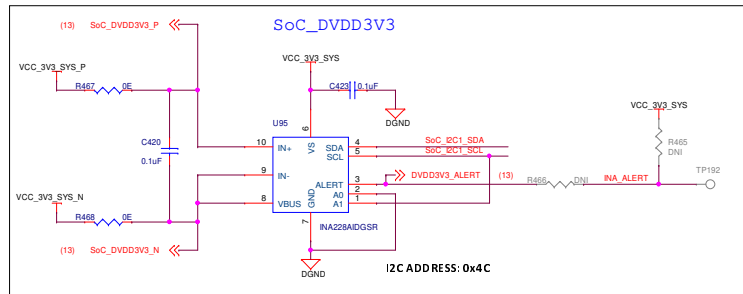
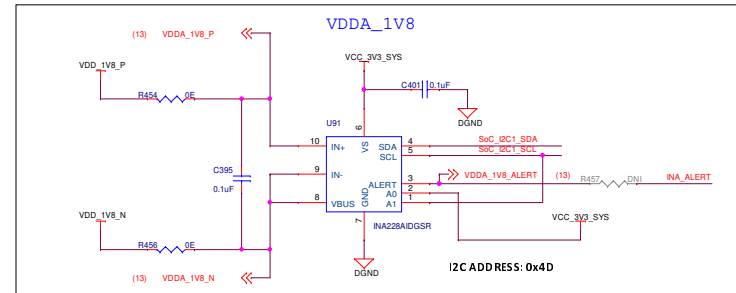
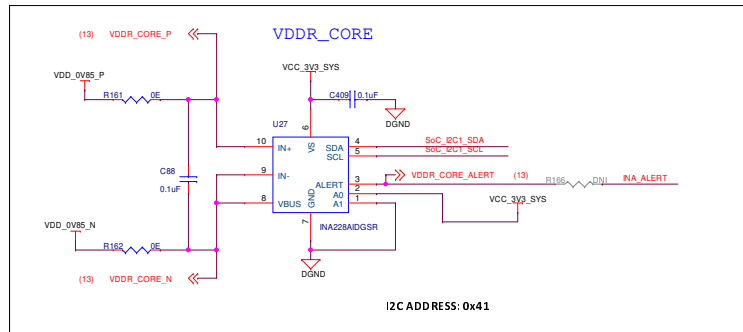
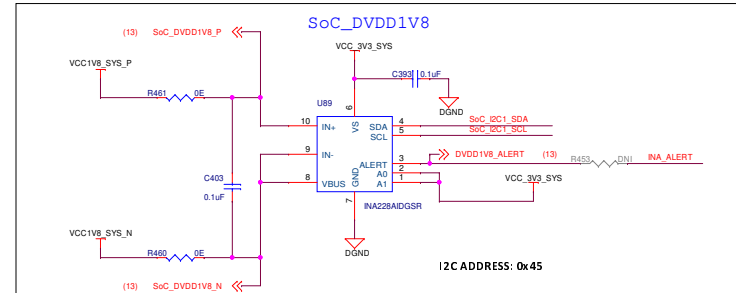
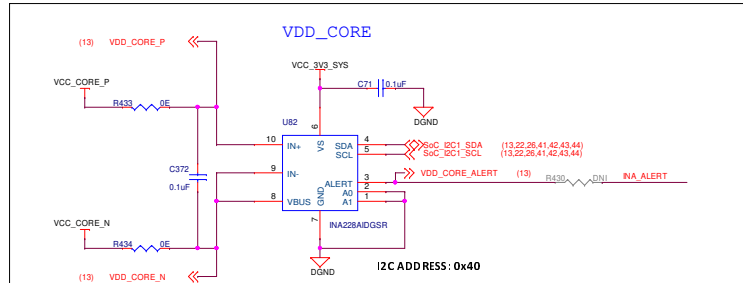
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Title CURRENT MONITORING DEVICES - 1

| Size  | Rev                         |
|-------|-----------------------------|
| C     | PROC164E1-1                 |
| Date: | Thursday, November 16, 2023 |
| Sheet | 13 of 47                    |

## CURRENT MONITORING DEVICES - 2



Note: The design supports current/voltage measurements using either INA228 or INA231. INA228 will be populated on the the SK (Implemented via stacked PCB footprint).

| INA I2C SLAVE ADDRESS |             |                        |
|-----------------------|-------------|------------------------|
| POWER SOURCE          | SUPPLY NET  | SLAVE ADDRESS (IN HEX) |
| VCC_CORE              | VDD_CORE    | 40                     |
| VCC_OV85              | VDDR_CORE   | 41                     |
| VCC_3V3_SYS           | SoC_DVDD3V3 | 4C                     |
| VCC_1V8               | SoC_DVDD1V8 | 45                     |
| VDDA_1V8              | VDDA_1V8    | 4D                     |
| VCCIV1                | VDD_LPDDR4  | 47                     |

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Title CURRENT MONITORING DEVICES - 2

| Size  | Rev                         |
|-------|-----------------------------|
| C     | PROC164E1-1                 |
| Date: | Thursday, November 16, 2023 |
| Sheet | 14 of 47                    |

**SOC POWER**

**1.8V Analog SUPPLY**

**3.3V/1.8V MMC1 SUPPLY**

**CORE SUPPLY**

| Rev  | Date                      | By | Check | Appr |
|------|---------------------------|----|-------|------|
| E1-1 | Friday, December 01, 2023 |    |       |      |



TEXAS  
INSTRUMENTS

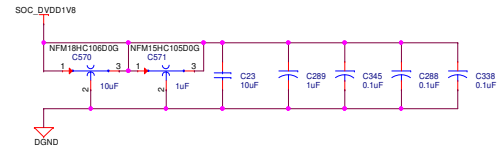
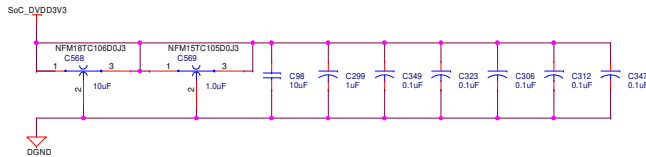
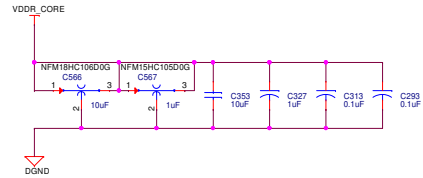
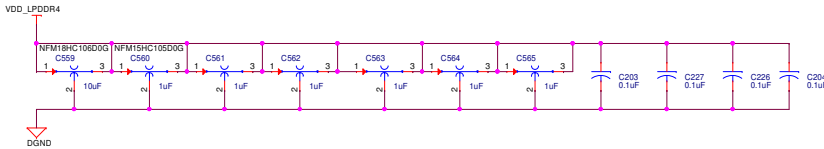
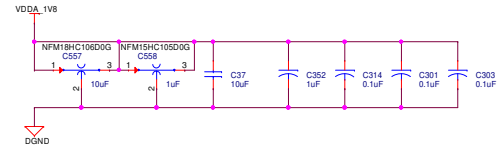
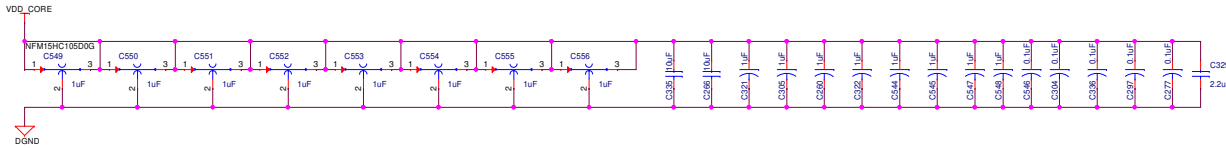


MISTRA

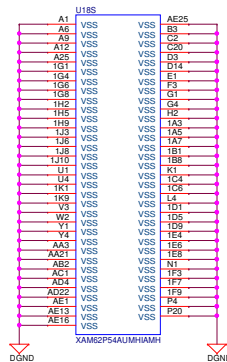
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|------|-------------|
| Size | PROC164E1-1 |
| C    |             |

|       |                           |       |    |    |    |
|-------|---------------------------|-------|----|----|----|
| Date: | Friday, December 01, 2023 | Sheet | 15 | of | 47 |
|-------|---------------------------|-------|----|----|----|

# SOC POWER DECAPS



## SOC VSS



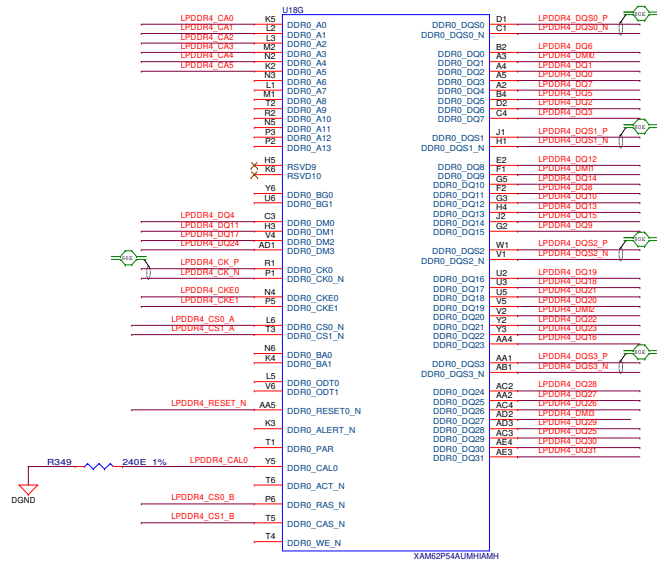
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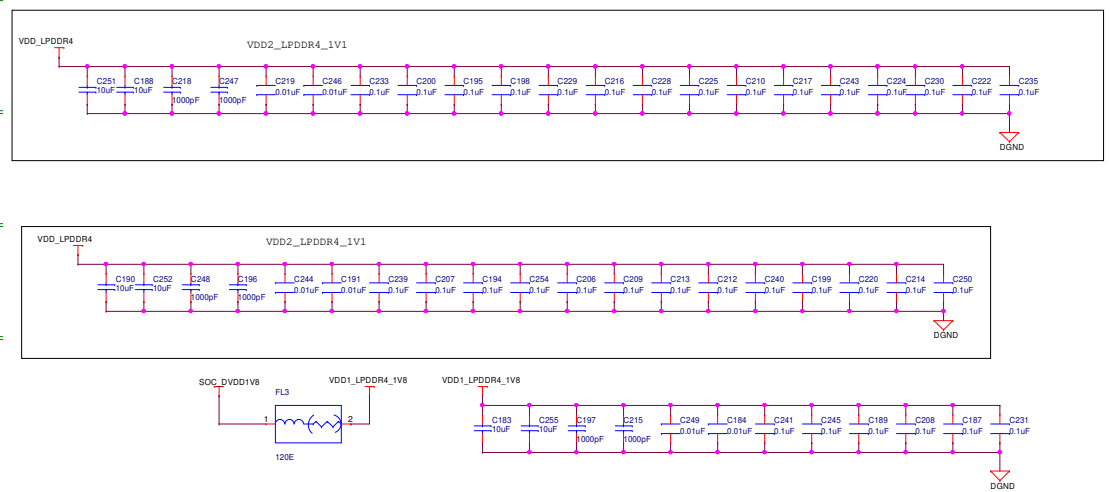
Title SOC POWER CAPS & SOC VSS

| Size  | Rev                         |
|-------|-----------------------------|
| C     | PROJ164E1-1                 |
| Date: | Thursday, November 16, 2023 |
| Sheet | 16 of 47                    |

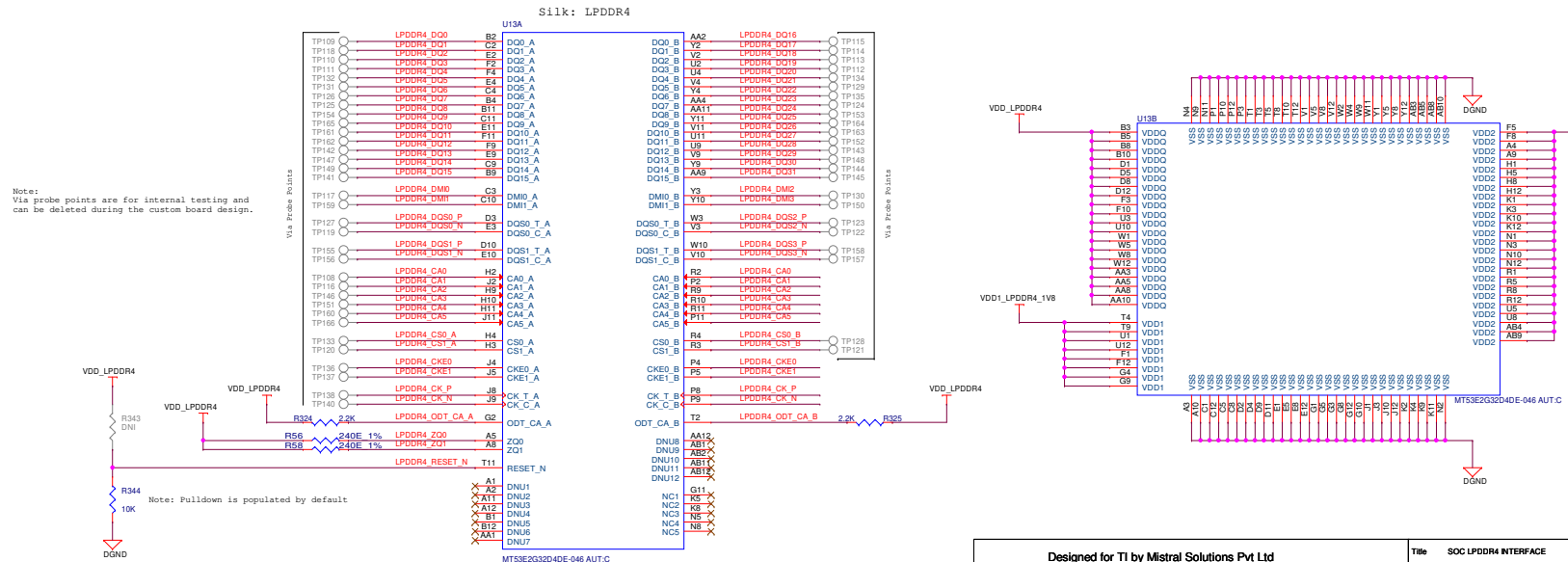
## SOC LPDDR4 INTERFACE



## LPDDR4 POWER DECAPS



## LPDDR4 DEVICE

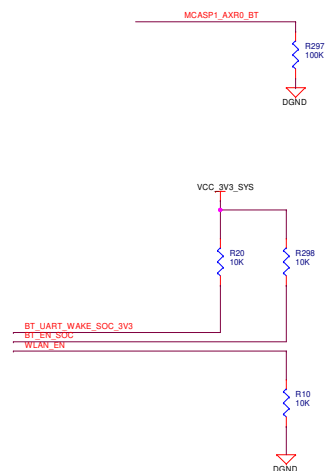
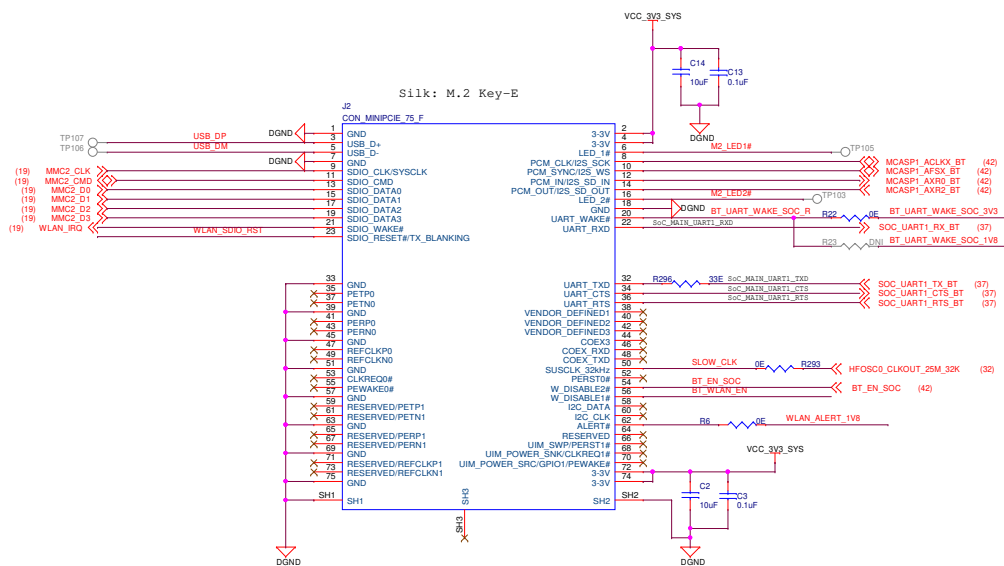


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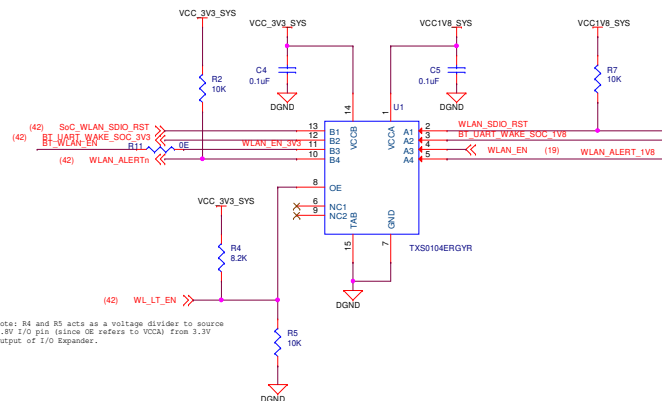
|       |                      |
|-------|----------------------|
| Title | SOC LPDDR4 INTERFACE |
|-------|----------------------|

|       |                           |                |
|-------|---------------------------|----------------|
| Size  | PROC164E1-1               | Rev            |
| C     |                           | E1-1           |
| Date: | Friday, December 01, 2023 | Sheet 17 of 47 |

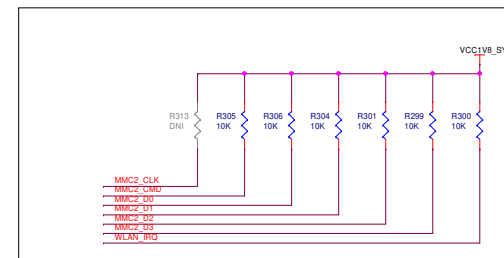
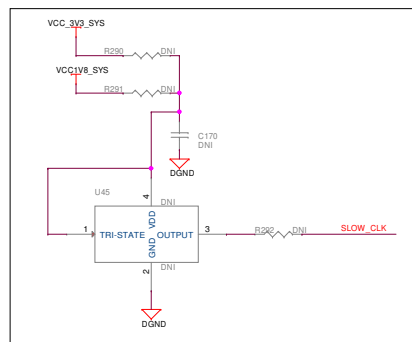
## M.2 INTERFACE - SDIO



## M.2 LEVEL TRANSLATOR



Note: R4 and R5 acts as a voltage divider to source 1.8V I/O pin (since OE refers to VOCCA) from 3.3V output of I/O Expander.



OE provision on MMC0\_CLK Recommended for signal integrity

The diagram illustrates the timing and signal integrity setup for the MMC0\_CLK signal. It shows the connection from the U18U component to the SoC pins and the external components used for signal conditioning.

**SoC Pin Connections:**

- MMC0\_CLK:** Connected to A66 (SOC MMC0\_CLK) and R355 (OE).
- MMC0\_DS:** Connected to A65 (SOC MMC0\_DS).
- MMC0\_DATA0:** Connected to A67 (SOC MMC0\_DATA0).
- MMC0\_DATA1:** Connected to A67 (SOC MMC0\_DATA1).
- MMC0\_DATA2:** Connected to A68 (SOC MMC0\_DATA2).
- MMC0\_DATA3:** Connected to A65 (SOC MMC0\_DATA3).
- MMC0\_DATA4:** Connected to A66 (SOC MMC0\_DATA4).
- MMC0\_DATA5:** Connected to A67 (SOC MMC0\_DATA5).
- MMC0\_DATA6:** Connected to A68 (SOC MMC0\_DATA6).
- MMC0\_DATA7:** Connected to A68 (SOC MMC0\_DATA7).
- MMC0\_CMD:** Connected to A68 (SOC MMC0\_CMD).
- MMC0\_CALPAD:** Connected to A65 (SOC MMC0\_CALPAD).
- MMC1\_CLK:** Connected to J24 (MMC1\_CLK\_R) and R464 (OE).
- MMC1\_DATA0:** Connected to H21 (MMC1\_D0 (20)).
- MMC1\_DATA1:** Connected to H22 (MMC1\_D1 (20)).
- MMC1\_DATA2:** Connected to H22 (MMC1\_D2 (20)).
- MMC1\_DATA3:** Connected to H25 (MMC1\_D3 (20)).
- MMC1\_CMD:** Connected to H20 (MMC1\_CMD (20)).
- MMC1\_SDCD:** Connected to D23 (MMC1\_SDCD (20)).
- MMC1\_SDPW:** Connected to K21 (SOC GPIO1\_49 (36)).
- MMC2\_CLK:** Connected to D24 (SoC MMC2\_CLK) and R315 (OE).
- MMC2\_DATA0:** Connected to K23 (MMC2\_D0 (18)).
- MMC2\_DATA1:** Connected to K22 (MMC2\_D1 (18)).
- MMC2\_DATA2:** Connected to L20 (MMC2\_D2 (18)).
- MMC2\_DATA3:** Connected to L21 (MMC2\_D3 (18)).
- MMC2\_CMD:** Connected to K24 (MMC2\_CMD (18)).
- MMC2\_SDCD:** Connected to J25 (WLAN\_EN (18)).
- MMC2\_SDPW:** Connected to J26 (WLAN\_RQ (18)).

**External Components:**

- R406 (10K):** Pull-up resistor for MMC1\_CLK.
- R436 (10K):** Pull-up resistor for MMC2\_CLK.
- DGND:** Ground connection for MMC1\_CMD, MMC1\_SDCD, and MMC2\_CMD.

**Legend:**

- Red lines: SOC pins
- Blue lines: U18U pins
- Green lines: External components
- Black lines: Internal connections

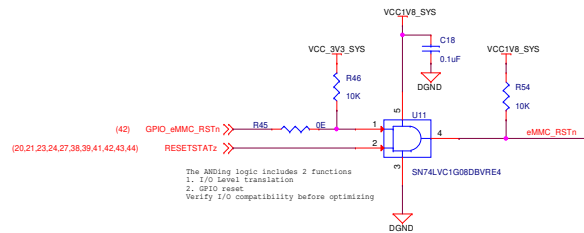
**Timing Diagram:**

The timing diagram shows the relationship between the MMC0\_CLK signal and the MMC1\_CLK and MMC2\_CLK signals. The MMC0\_CLK signal is shown as a red trace, and the MMC1\_CLK and MMC2\_CLK signals are shown as blue traces. The diagram indicates that the MMC1\_CLK and MMC2\_CLK signals are derived from the MMC0\_CLK signal through a series of buffers and drivers.

**Notes:**

- Place R406 and R316 near to the SoC (U18U).

## eMMC FLASH RESET



External pullups for MMC0 are optional and DNI  
Internal Pulls are enabled by default  
for the MMC0 interface

VCC1V8\_SYS

VCC3V3\_SYS

VCC1V8\_SYS

SOC MMC0 CMD

SOC MMC0 DAT0

SOC MMC0 DAT1

SOC MMC0 DAT2

SOC MMC0 DAT3

SOC MMC0 DAT4

SOC MMC0 DAT5

SOC MMC0 DAT6

SOC MMC0 DAT7

VCC1V8\_SYS

R335 DNI

SOC MMC0 DS

R337 DNI

R339

MMC0 DS R

MMC0 CLK

SOC MMC0 CMD

MMC0 RST\_N

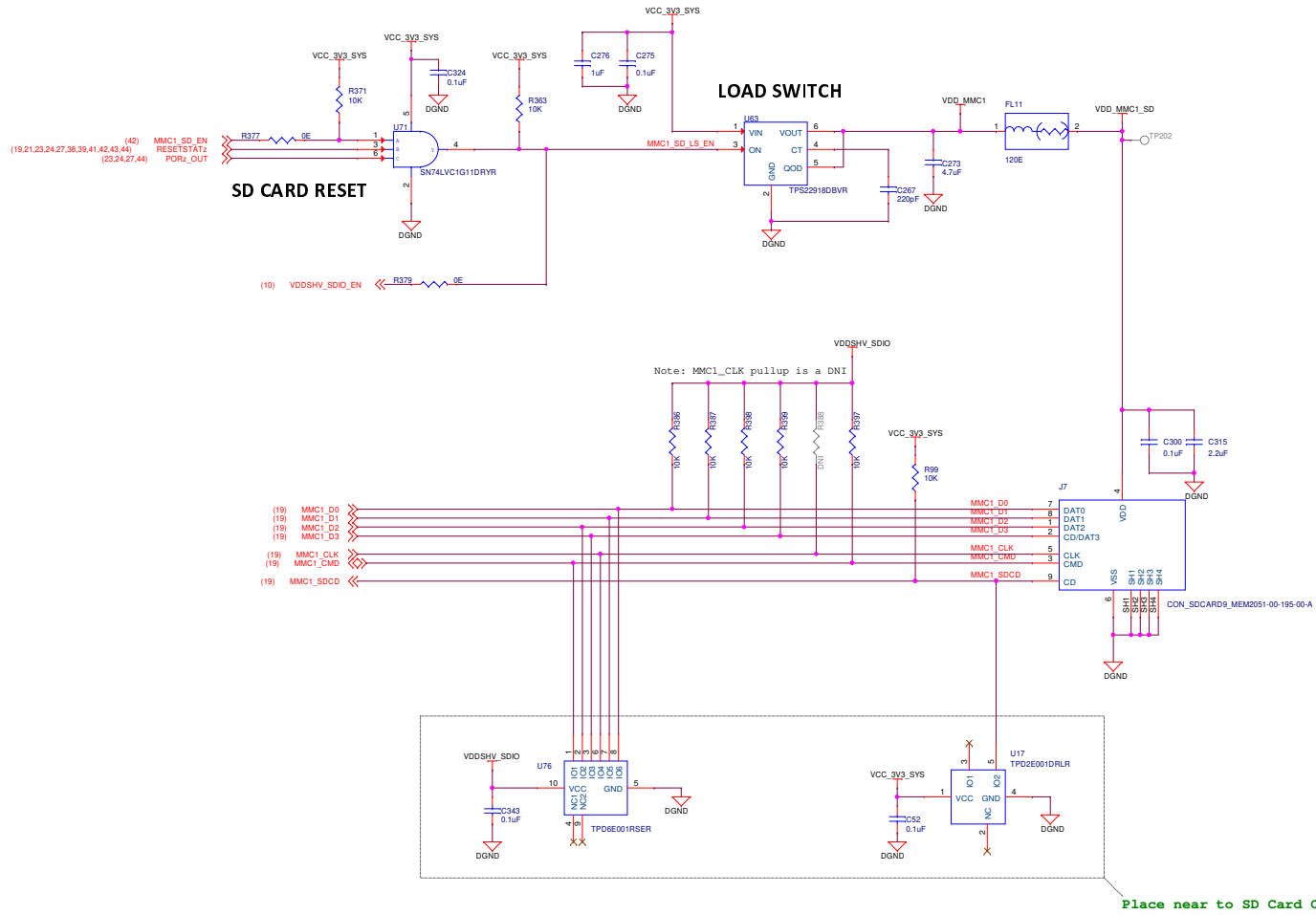
R33 DNI

R54

SN74VC1G08DBVR04

MT7232GAZQ0-IT

## SD CARD INTERFACE



Place near to SD Card Connector

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|       |                   |
|-------|-------------------|
| Title | SD CARD INTERFACE |
|-------|-------------------|

|      |             |
|------|-------------|
| Size | PROC164E1-1 |
| G    |             |

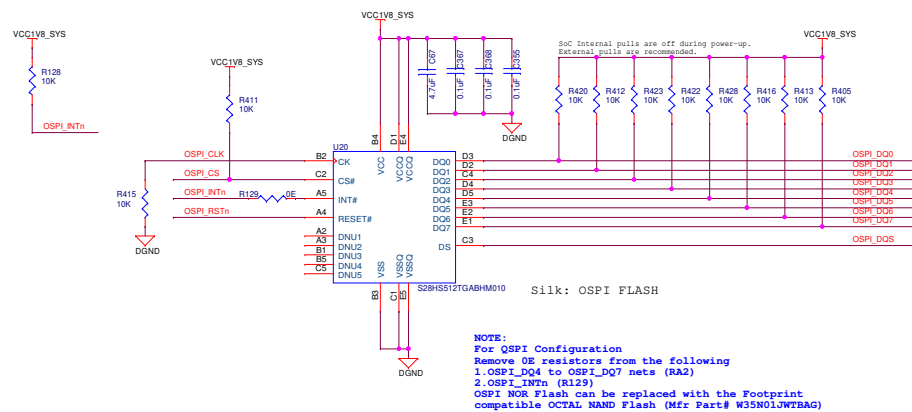
|     |
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| Rev |
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|       |                           |       |    |    |    |
|-------|---------------------------|-------|----|----|----|
| Date: | Friday, December 01, 2023 | Sheet | 20 | of | 47 |
|-------|---------------------------|-------|----|----|----|

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## OSPI FLASH

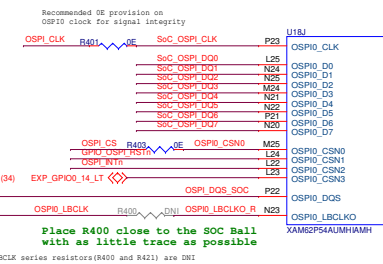


Place RA3 & RA2 closer to Memory

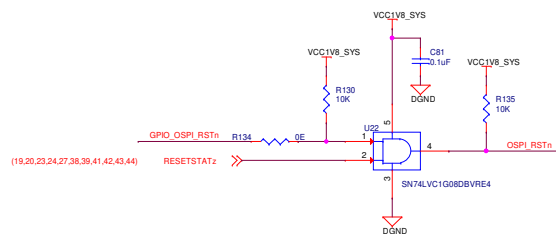


These series resistors are for enabling OSPI and QSPI  
These are specific to SK and optional if the interface is fixed

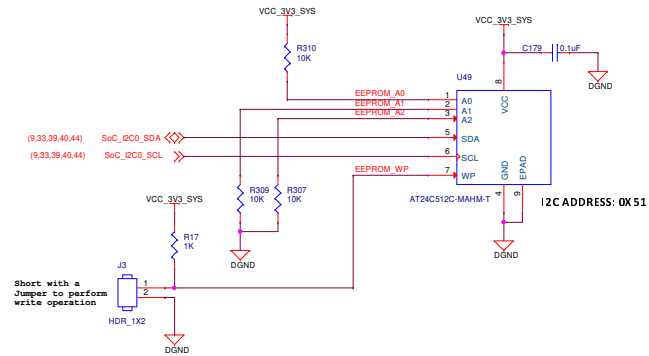
## SOC OSPI INTERFACE



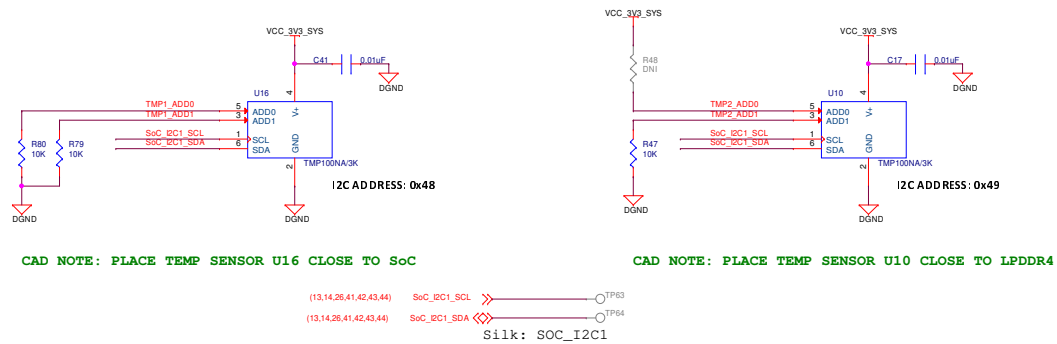
## OSPI FLASH RESET



## BOARD ID EEPROM



## TEMPERATURE SENSORS

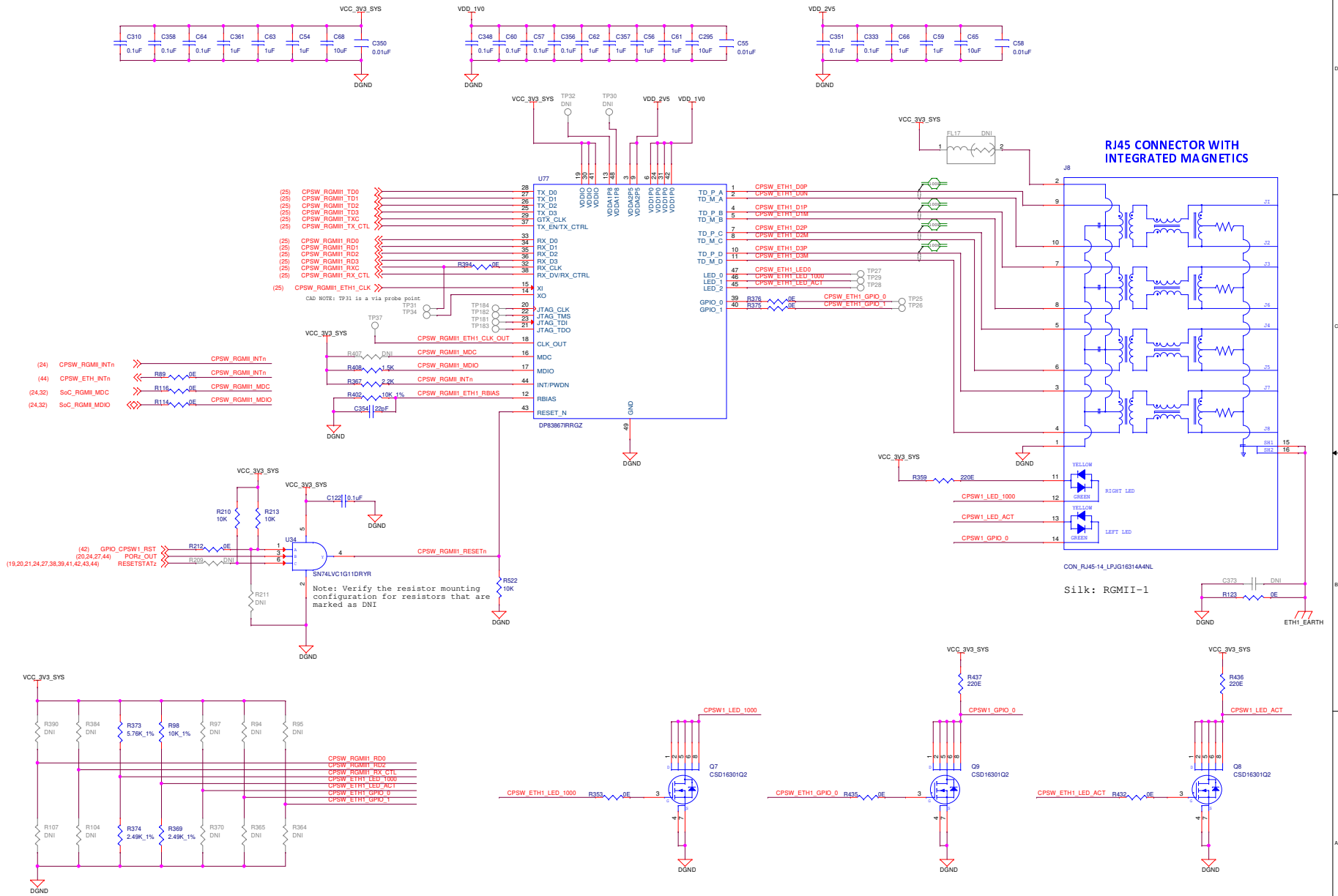


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| Title                                 |                             |       |          |
|---------------------------------------|-----------------------------|-------|----------|
| BOARD ID EEPROM & TEMPERATURE SENSORS |                             |       |          |
| Size                                  | Rev                         |       |          |
| C                                     | PROC164E1-1                 |       | E1-1     |
| Date:                                 | Thursday, November 16, 2023 | Sheet | 22 of 47 |

# CPSW3G RGMII 1 - PHY



PHY ADDRESS = 00000  
Auto-negotiation Enabled  
10/100/1000 advertised, Auto-MDI-X  
Tx Clock Skew = 0ns  
Rx Clock Skew = 2ns

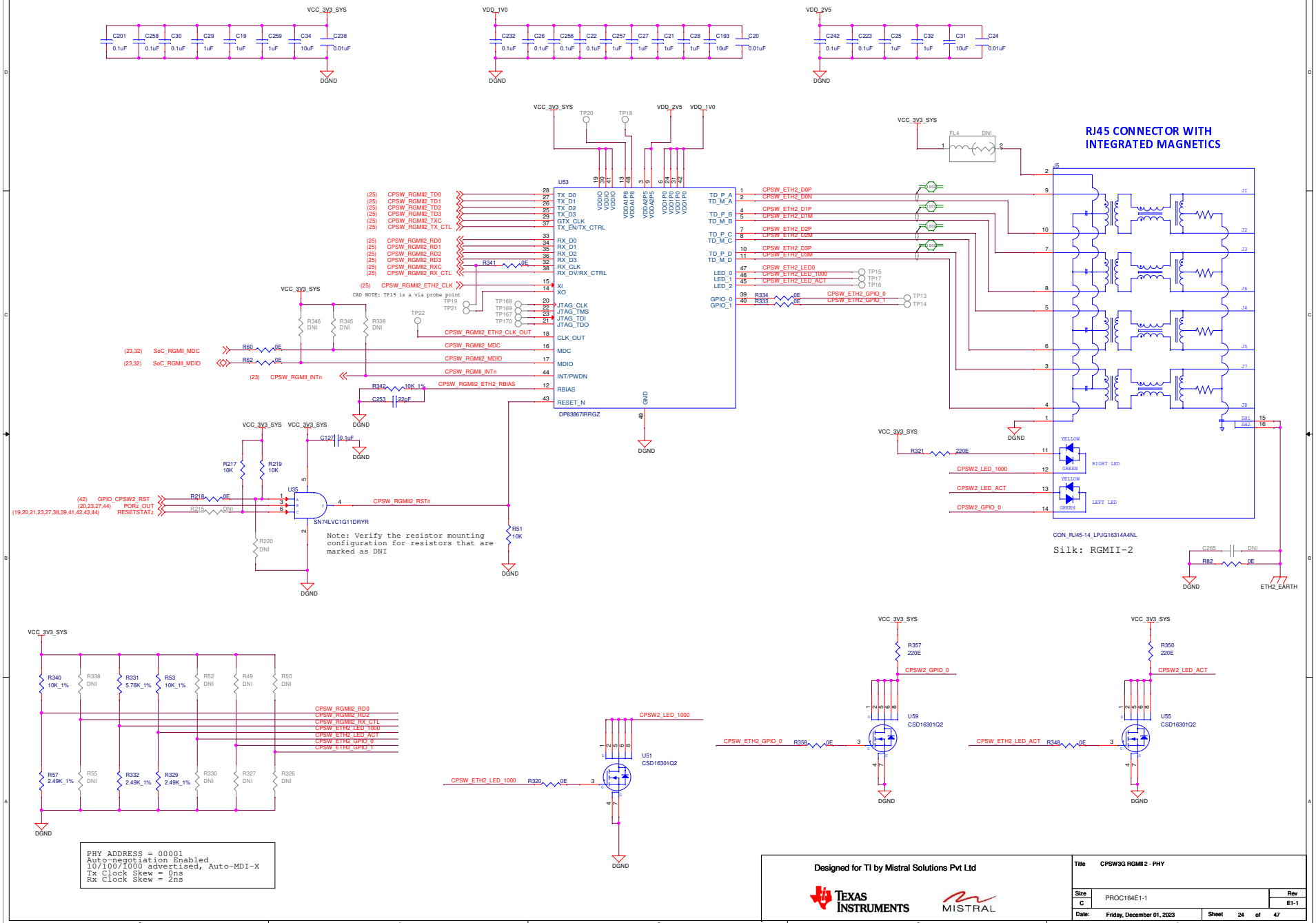
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Title CPSW3G RGMII 1 - PHY

| Size                            | Rev            |
|---------------------------------|----------------|
| C                               | PROC164E1-1    |
| Date: Friday, December 01, 2023 | Sheet 23 of 47 |

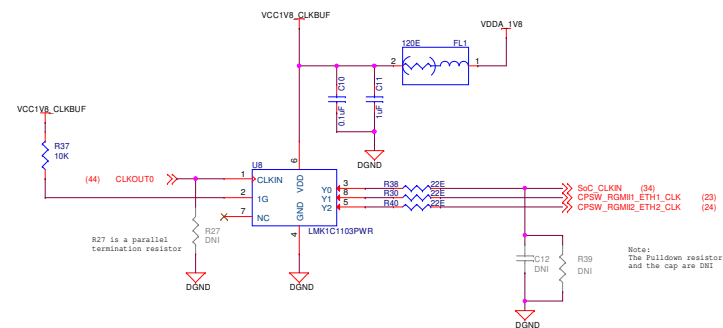
# CPSW3G RGMII 2 - PHY



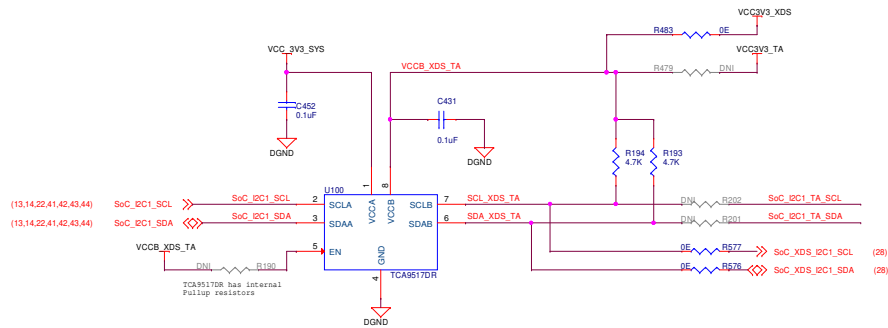
## SOC CPSW3G ETHERNET INTERFACE



## SOC & ETHERNET PHY CLOCK BUFFER



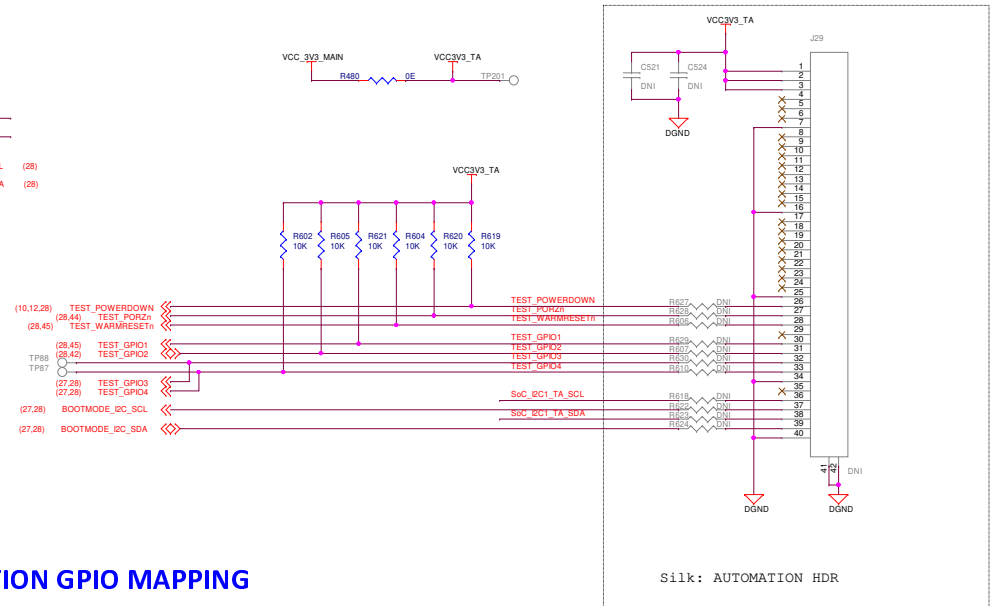
## I2C BUS BUFFER



### TA Header Configuration

Mount : R201, R202, R479  
Demount: R483, R576, R577

## 40-PIN TEST AUTOMATION HEADER



## TEST AUTOMATION GPIO MAPPING

| SIGNAL NAME     | DESCRIPTION  | Direction WRT CTRL | Internal/<br>External<br>PU/PD states |
|-----------------|--|--------------------|---------------------------------------|
| TEST_POWERDOWN  | Used to Power down the EVM                         | OUTPUT             | External Pullup                       |
| TEST_PORZn      | Used to Reset the SoC PORz                         | OUTPUT             | External Pullup                       |
| TEST_WARMRESETn | Used to Reset the SoC Warmreset                    | OUTPUT             | External Pullup                       |
| TEST_GPIO1      | Used to Generate the interrupt on SOC_GPIO1_23 Pin | OUTPUT             | External Pullup                       |
| TEST_GPIO2      | Connected to IO Expander to Communicate with SOC   | OUTPUT             | External Pullup                       |
| TEST_GPIO3      | Used to Enable the BOOTMODE Buffer                 | OUTPUT             | External Pullup                       |
| TEST_GPIO4      | Used to Reset the Bootmode I2C IO Expander         | OUTPUT             | External Pullup                       |

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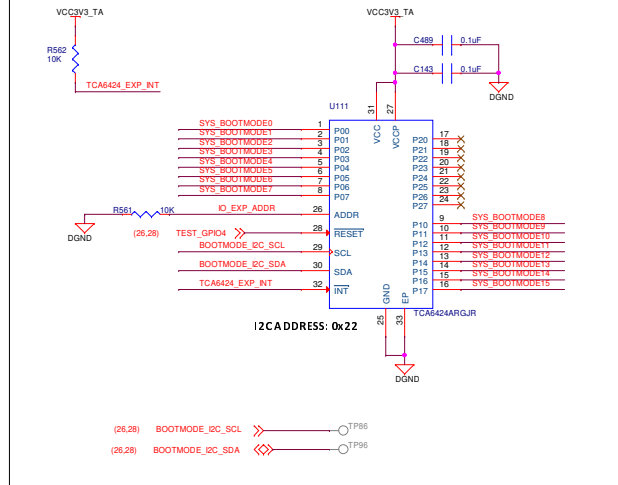


Title TEST AUTOMATION

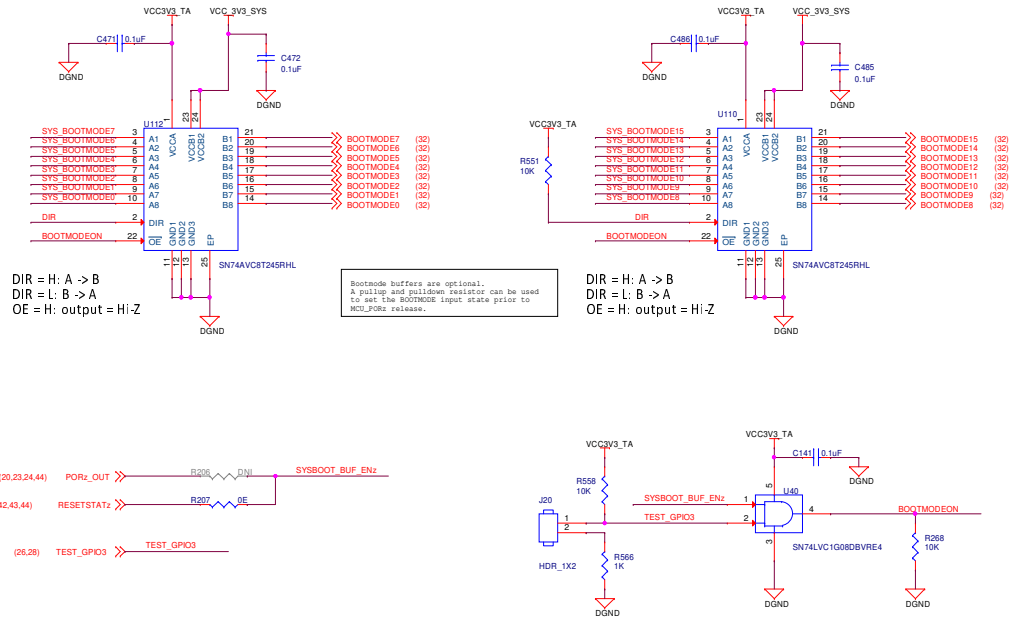
| Size  | Rev                         |
|-------|-----------------------------|
| C     | PROC164E1-1                 |
| Date: | Thursday, November 16, 2023 |
| Sheet | 26 of 47                    |

Rev  
E1-1

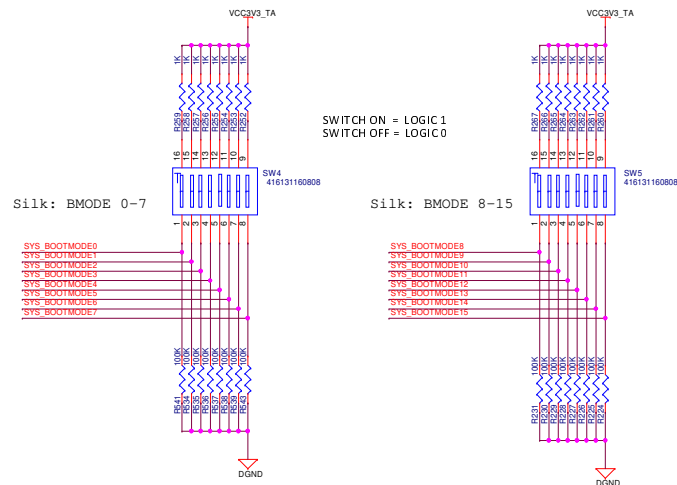
## BOOTMODE IO EXPANDER



## BOOT MODE BUFFERS



## BOOT MODE SWITCHES



### BOOT MODES SUPPORTED

1. OSPI
2. MMC1 - SD CARD
3. UART
4. eMMC
5. ETHERNET
6. USB0 DFU
7. USB0 MS

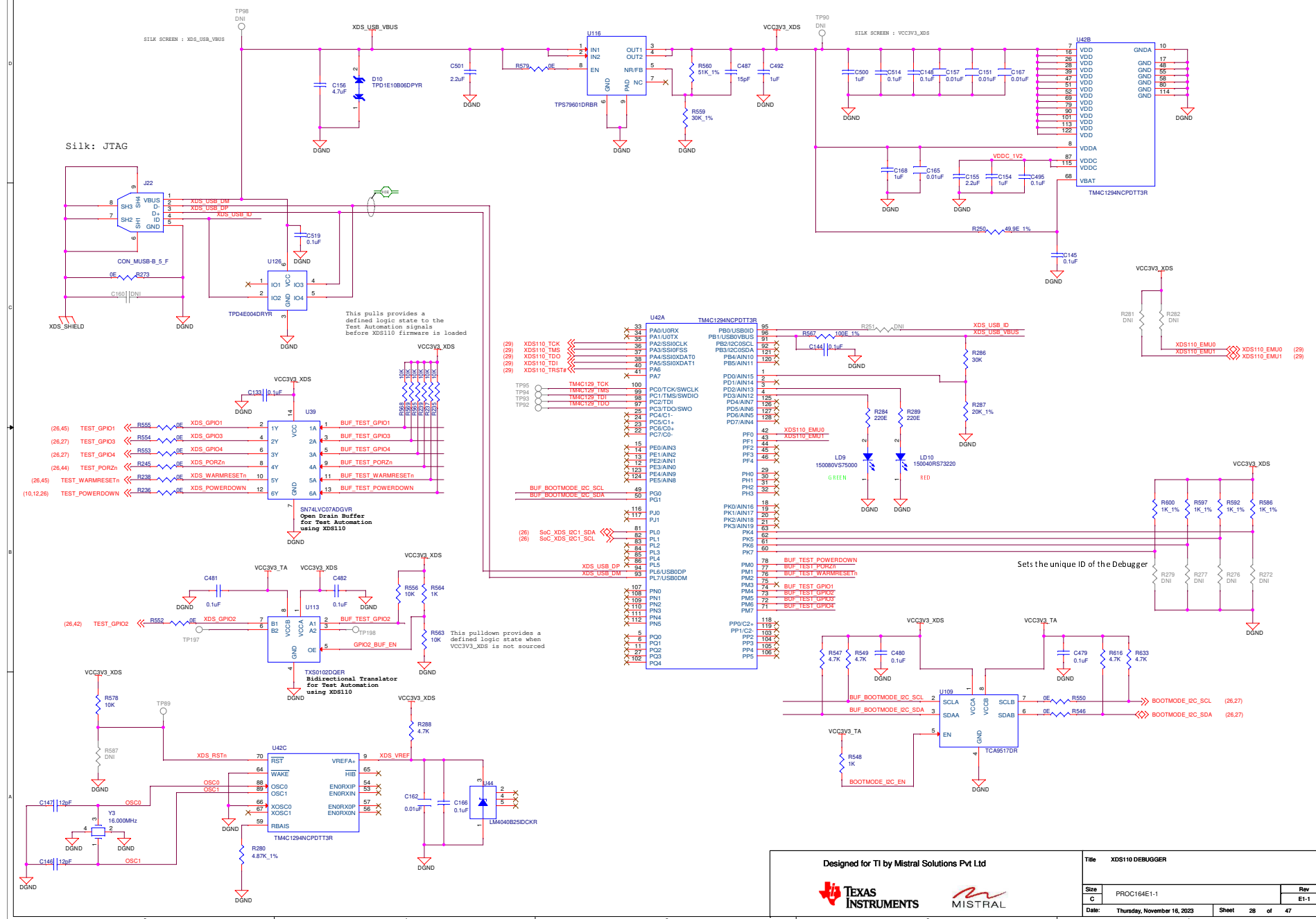
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Title BOOT MODE BUFFER & SWITCHES

| Size  | Rev                       |
|-------|---------------------------|
| C     | PROC164E1-1               |
| Date: | Friday, December 01, 2023 |
| Sheet | 27 of 47                  |

## XDS110 DEBUGGER



Designed for TI by Mistral Solutions Pvt Ltd



|       |                 |
|-------|-----------------|
| Title | XDS110 DEBUGGER |
|-------|-----------------|

|      |  |
|------|--|
| Size |  |
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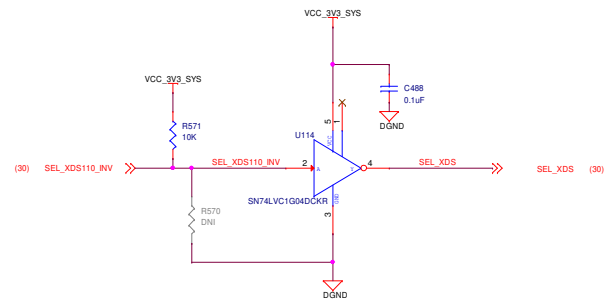
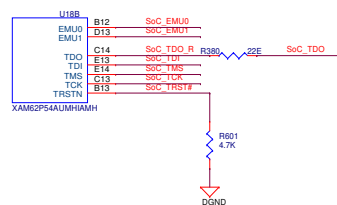
Date: Thursday, November 16, 2023

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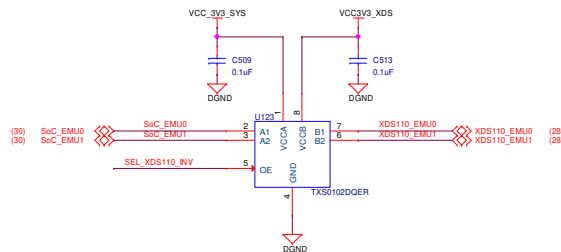
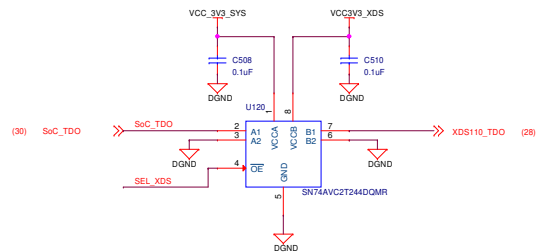
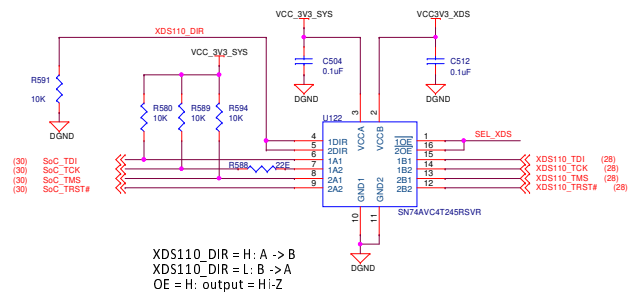
47



## JTAG SOC SECTION



## BUFFER XDS110



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Title JTAG BUFFER

Size PROC164E1-1

C

Date: Thursday, November 16, 2023

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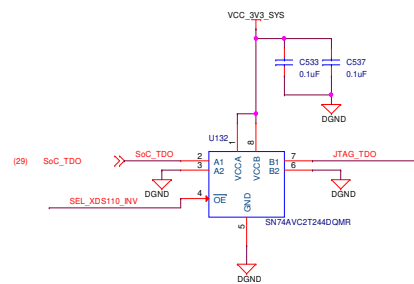
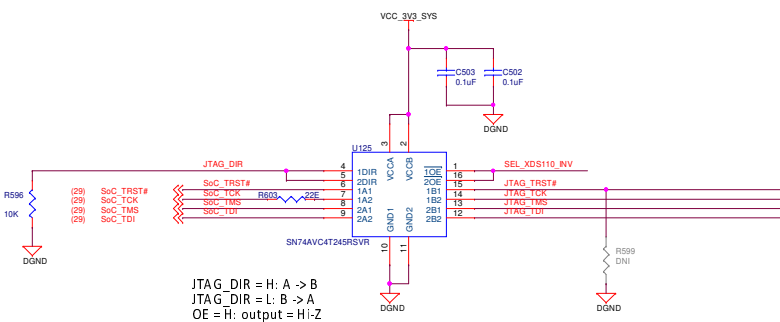
of

47

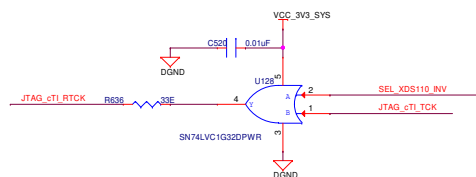
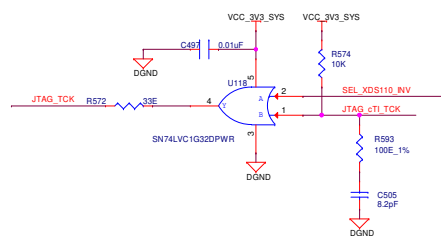
Rev

E1-1

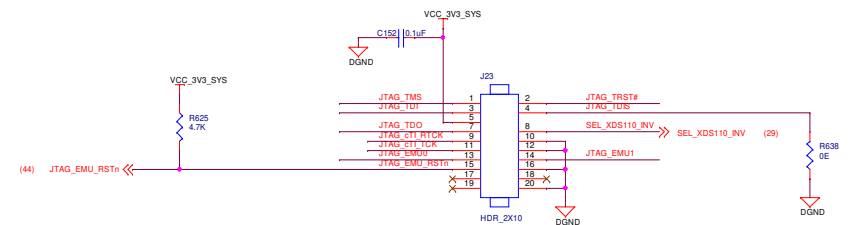
## cTI20 JTAG BUFFERS



## JTAG CLOCK BUFFER

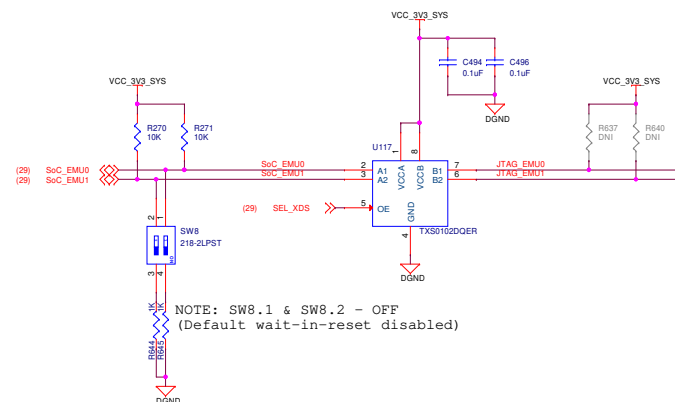


## JTAG 20 PIN cTI CONNECTOR



Silk: cTI

Add an external ESD protection to provide system level ESD protection



NOTE: SW8.1 & SW8.2 - OFF  
(Default wait-in-reset disabled)

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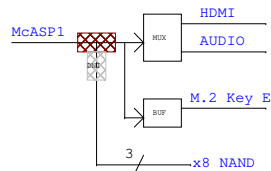
|       |                           |
|-------|---------------------------|
| Title | JTAG 20 PIN cTI CONNECTOR |
|-------|---------------------------|

|       |                           |       |          |
|-------|---------------------------|-------|----------|
|       |                           |       |          |
| Size  | PROC164E1-1               | Rev   |          |
| C     |                           | E1-1  |          |
| Date: | Friday, December 01, 2023 | Sheet | 30 of 47 |



Note : RC is used for slew rate control when the I2C interface is pulled to 3.3V supply  
A pullup is recommended irrespective of the IO configuration

| (16) VSEL_S0_S0C            |                  | VSEL_S0_S0C      | U25 |                  |
|-----------------------------|------------------|------------------|-----|------------------|
|                             |                  | GPIMCO_A09       | I22 | GPIMCO_CLK       |
|                             |                  | GPIMCO_A01       | I21 | GPIMCO_A00       |
|                             |                  | GPIMCO_A02       | I20 | GPIMCO_A01       |
|                             |                  | GPIMCO_A03       | I21 | GPIMCO_A02       |
|                             |                  | GPIMCO_A04       | I20 | GPIMCO_A03       |
|                             |                  | GPIMCO_A05       | I21 | GPIMCO_A04       |
|                             |                  | GPIMCO_A06       | I24 | GPIMCO_A05       |
|                             |                  | GPIMCO_A07       | I25 | GPIMCO_A06       |
| (43)                        | S0C_VOUT0_DATA16 | S0C_VOUT0_DATA16 | A25 | GPIMCO_A07       |
| (43)                        | S0C_VOUT0_DATA17 | S0C_VOUT0_DATA17 | A26 | GPIMCO_A08       |
| (43)                        | S0C_VOUT0_DATA18 | S0C_VOUT0_DATA18 | A27 | GPIMCO_A09       |
| (43)                        | S0C_VOUT0_DATA19 | S0C_VOUT0_DATA19 | A28 | GPIMCO_A10       |
| (43)                        | S0C_VOUT0_DATA20 | S0C_VOUT0_DATA20 | A29 | GPIMCO_A11       |
| (43)                        | S0C_VOUT0_DATA21 | S0C_VOUT0_DATA21 | W24 | GPIMCO_A12       |
| (43)                        | S0C_VOUT0_DATA22 | S0C_VOUT0_DATA22 | W25 | GPIMCO_A13       |
| (43)                        | S0C_VOUT0_DATA23 | S0C_VOUT0_DATA23 | W26 | GPIMCO_A14       |
| (43)                        | S0C_VOUT0_DATA24 | S0C_VOUT0_DATA24 | W27 | GPIMCO_A15       |
| (33)                        | EXP_GPIOD_41     | EXP_GPIOD_41     | T33 | GPIMCO_CS#0      |
| (33)                        | EXP_GPIOD_42     | EXP_GPIOD_42     | T34 | GPIMCO_CS#1      |
|                             |                  | GPIMCO_CS#0      | I25 | GPIMCO_CS#2      |
|                             |                  | GPIMCO_CS#1      | I26 | GPIMCO_CS#3      |
|                             |                  | MCASP1_A0R2      | R25 |                  |
|                             |                  | MCASP1_A0CLK     | R26 | GPIMCO_ADV_N_ALE |
| (33)                        | EXP_GPIOD_36     | EXP_GPIOD_36     | T24 | GPIMCO_BEON_CLE  |
| 0_40_PRPO_ECAPP_N_APFWL_OUT |                  | GP105_40         | P25 | GPIMCO_DIR       |
|                             |                  | MCASP1_A0FX      | A24 | GPIMCO_WAIT0     |
| (33)                        | EXP_GPIOD_38     | EXP_GPIOD_38     | A24 | GPIMCO_WAIT1     |
| (33)                        | EXP_GPIOD_39     | EXP_GPIOD_39     | P24 | GPIMCO_WPN       |
|                             |                  | MCASP1_A0R0      | R25 |                  |
|                             |                  | T24              | T25 | GPIMCO_WEN       |
| (33)                        | EXP_GPIOD_33     | EXP_GPIOD_33     | T24 | GPIMCO_OEN_REN   |

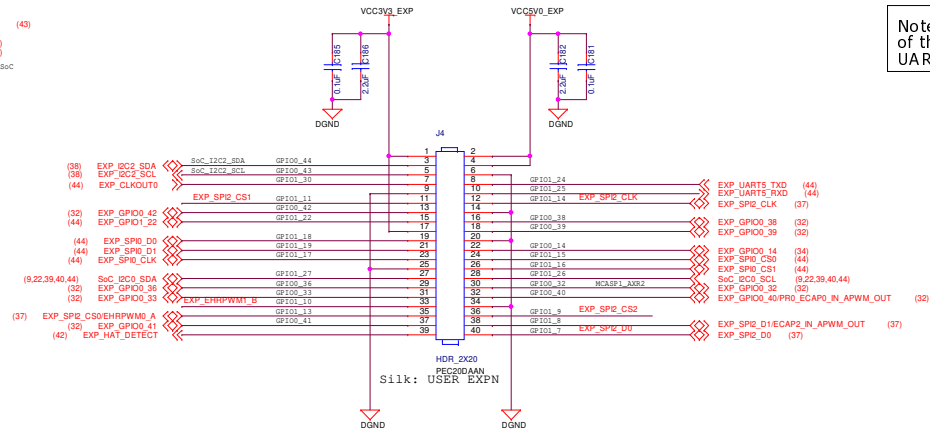
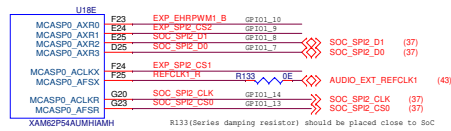


|      |            |      |   |   |   |    |                  |
|------|------------|------|---|---|---|----|------------------|
| (27) | BOOTMODE0  | RA8  | 1 | 2 | 8 | 1K | GPINC0_A0        |
| (27) | BOOTMODE1  |      | 2 | 7 | 8 |    | GPINC0_A1        |
| (27) | BOOTMODE2  |      | 3 | 6 | 8 |    | GPINC0_A2        |
| (27) | BOOTMODE3  |      | 4 | 5 | 8 |    | GPINC0_A3        |
| (27) | BOOTMODE7  | RA4  | 1 | 2 | 8 | 1K | GPINC0_A7        |
| (27) | BOOTMODE8  |      | 2 | 7 | 8 |    | GPINC0_A6        |
| (27) | BOOTMODE9  |      | 3 | 6 | 8 |    | GPINC0_A5        |
| (27) | BOOTMODE4  |      | 4 | 5 | 8 |    | GPINC0_A4        |
|      |            |      |   |   |   |    |                  |
| (27) | BOOTMODE5  | RA51 | 1 | 2 | 8 | 1K | SSC_VOUT0_DATA16 |
| (27) | BOOTMODE6  |      | 2 | 7 | 8 |    | SSC_VOUT0_DATA17 |
| (27) | BOOTMODE9  |      | 3 | 6 | 8 |    | SSC_VOUT0_DATA18 |
| (27) | BOOTMODE11 |      | 4 | 5 | 8 |    | SSC_VOUT0_DATA19 |
|      |            |      |   |   |   |    |                  |
| (27) | BOOTMODE12 | RA7  | 1 | 2 | 6 | 1K | SSC_VOUT0_DATA20 |
| (27) | BOOTMODE13 |      | 2 | 7 | 6 |    | SSC_VOUT0_DATA21 |
| (27) | BOOTMODE14 |      | 3 | 6 | 6 |    | SSC_VOUT0_DATA22 |
| (27) | BOOTMODE15 |      | 4 | 5 | 6 |    | SSC_VOUT0_DATA23 |

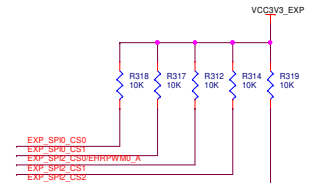
NOTE: 1K Resistor at the output of the buffer is recommended when the bootmode pins are used for alternate functions

Pulls are placed on the add-on card.

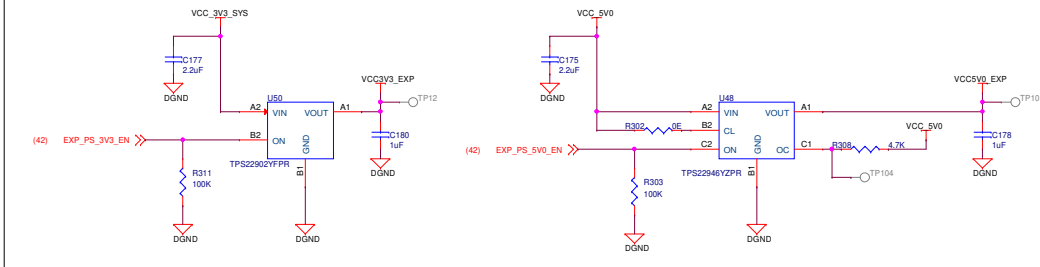
## USER EXPANSION CONNECTOR



Note: Expansion boards should take care of the null modem connectivity for the UART signals (cross-over of Rx and Tx)



## LOAD SWITCHES FOR USER EXPANSION CONNECTOR



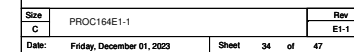
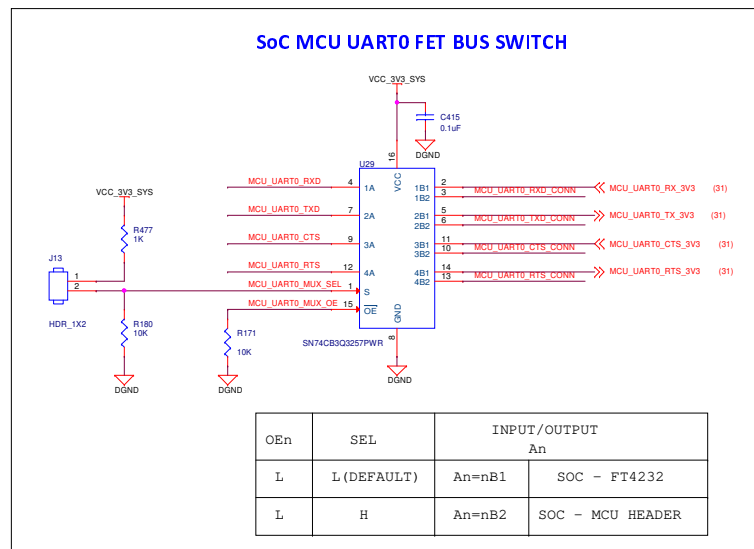
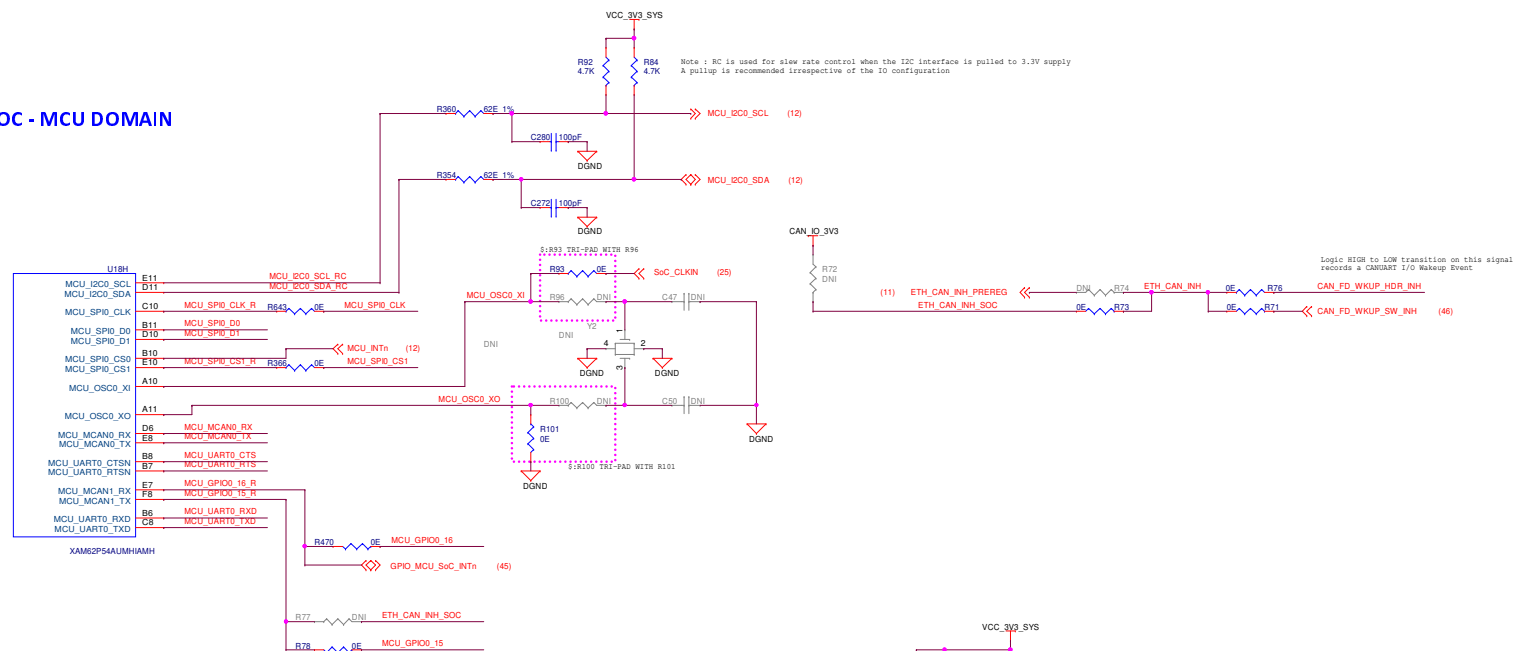
**NOTE:**

AM62P Starter Kit shall not be powered through the 5V0 or 3V3 pins on the 40-pin User Expansion Connector.

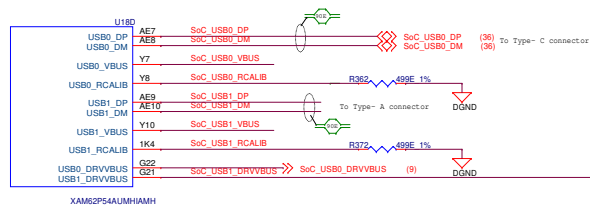
User Expansion Connector I/O are not fail-safe and shall not be driven when AM62P Starter Kit is not powered.

5V supply of User Expansion Connector is limited to sourcing 155mA max.

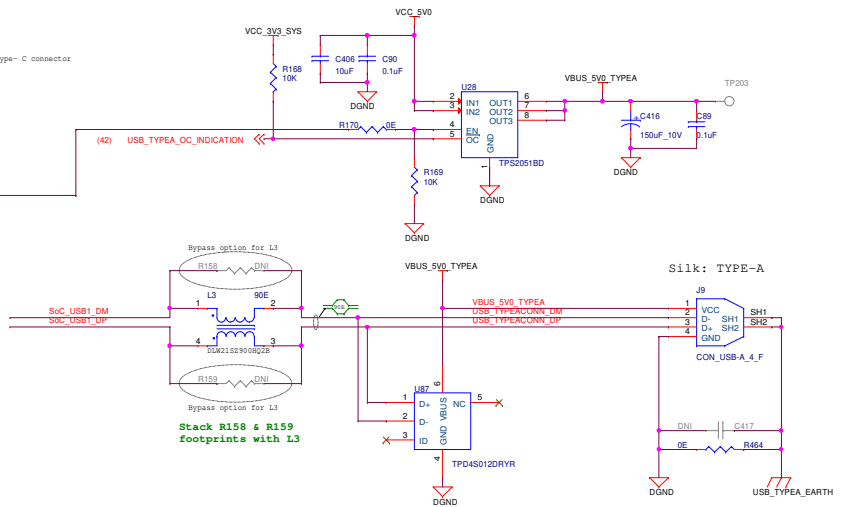
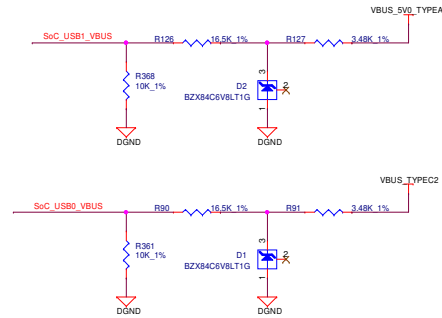
3V3 supply of User Expansion Connector is limited to sourcing 500mA max.



# USB1 TYPE-A



Note: Refer data sheet USB VBUS Design Guidelines section.



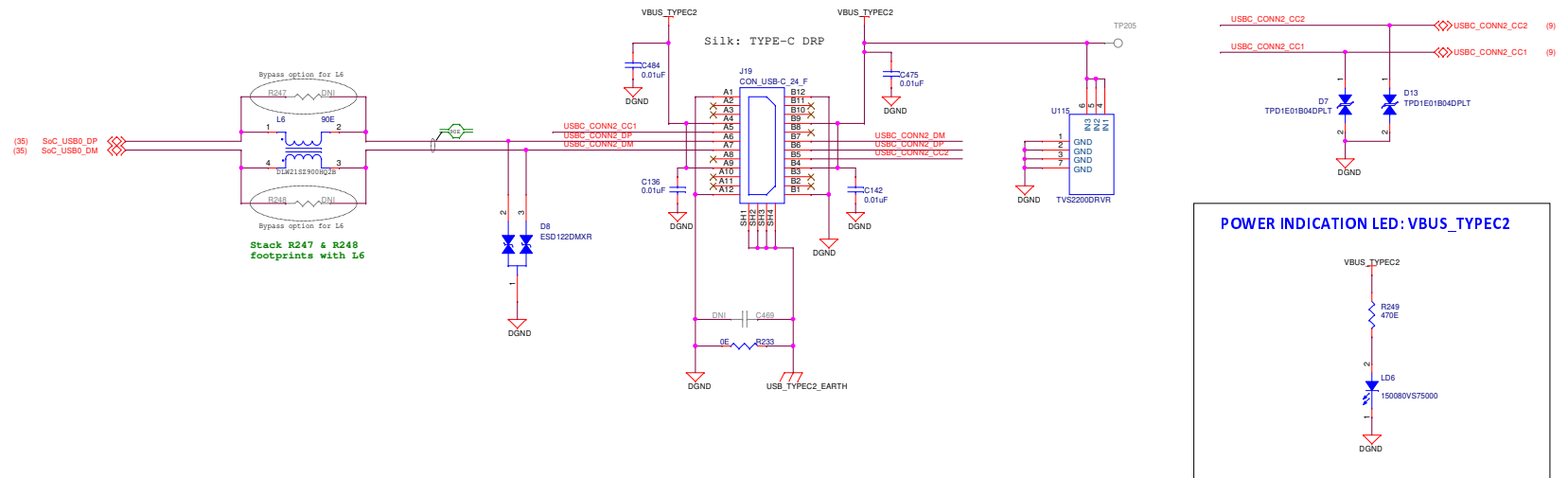
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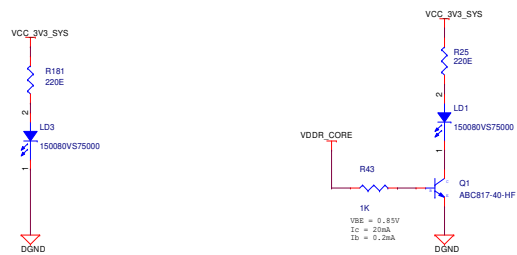
Title USB1 TYPE-A

| Size  | Rev                       |
|-------|---------------------------|
| C     | PROC164E1-1               |
| Date: | Friday, December 01, 2023 |
| Sheet | 35 of 47                  |

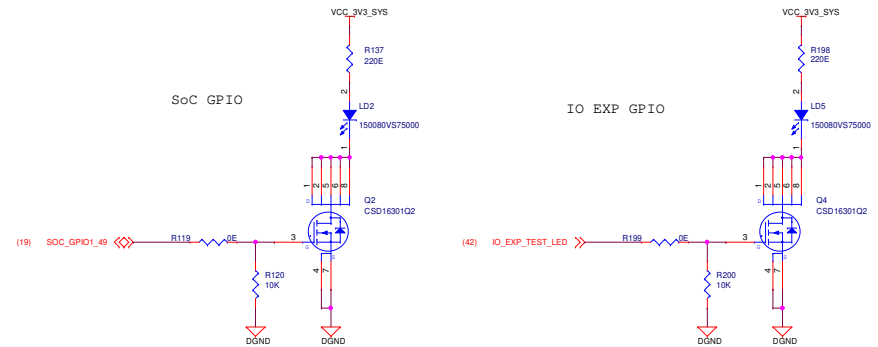
## USB0 TYPE-C DRP



## POWER RAIL LEDS

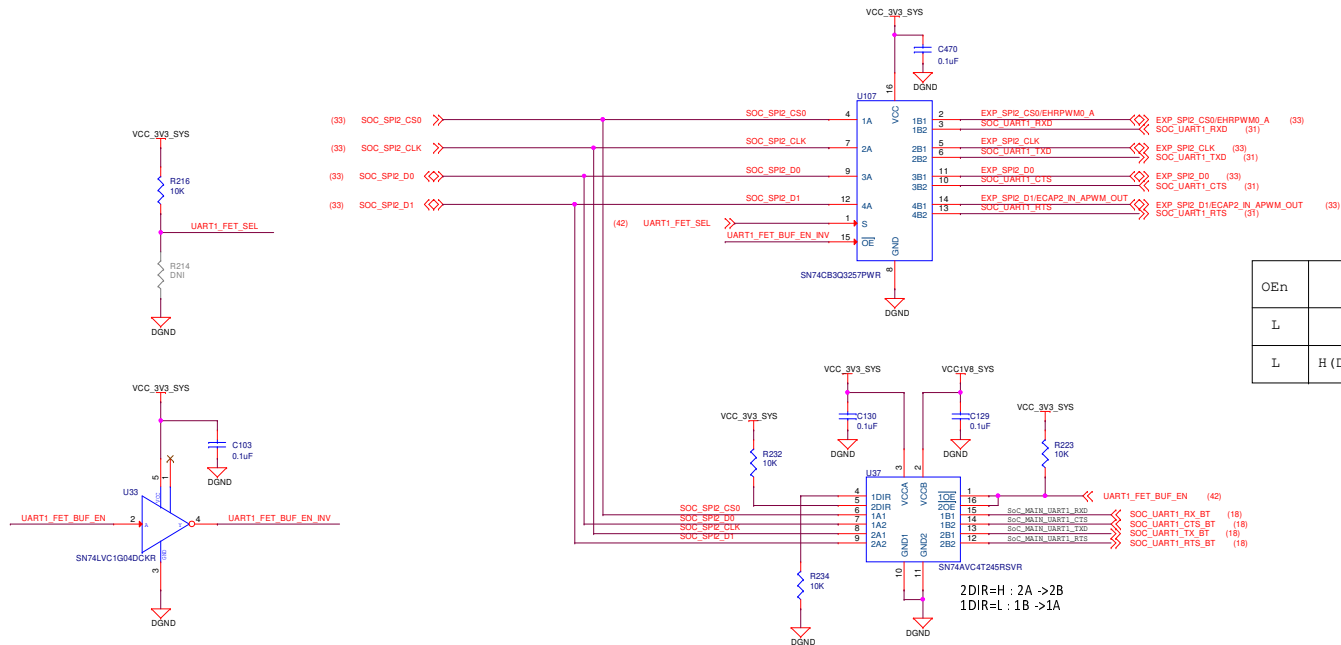


## USER TEST LEDS





# SoC MAIN UART1 FET BUS SWITCH & VOLTAGE LEVEL TRANSLATOR



| OEn | SEL         | INPUT/OUTPUT<br>An |                |
|-----|-------------|--------------------|----------------|
| L   | L           | An=nB1             | SOC - EXP CONN |
| L   | H (DEFAULT) | An=nB2             | SOC - FT4232   |

2DIR=H : 2A ->2B  
1DIR=L : 1B ->1A

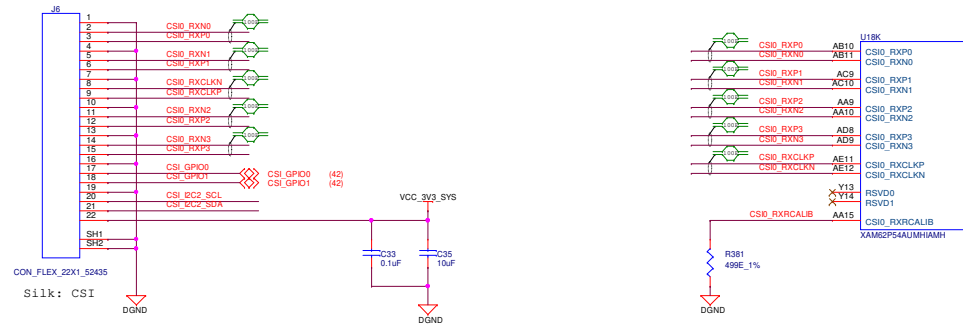
Designed for TI by Mistral Solutions Pvt Ltd



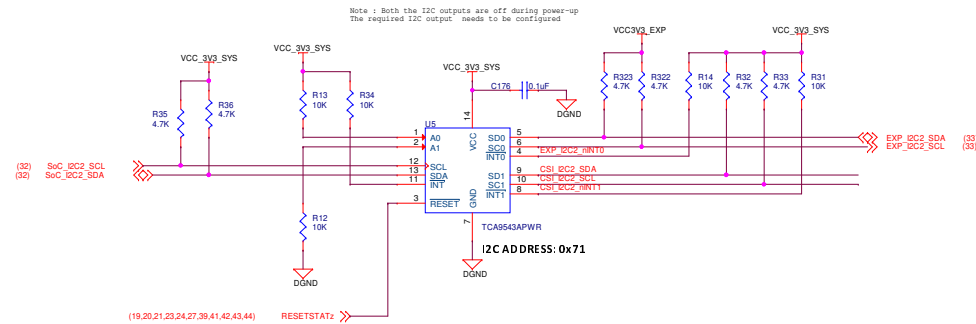
Title SoC UART1 FET SWITCH & BUFFER

| Size  | Rev                       |
|-------|---------------------------|
| C     | PROC164E1-1               |
| Date: | Friday, December 01, 2023 |
| Sheet | 37 of 47                  |

## SOC CSI INTERFACE



## I2C SWITCH FOR SoC MAIN I2C2



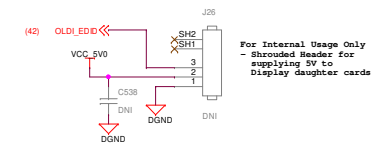
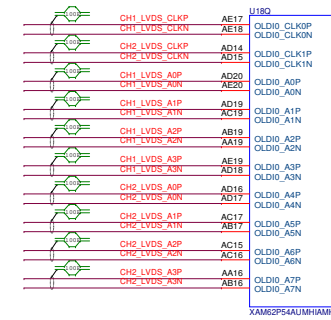
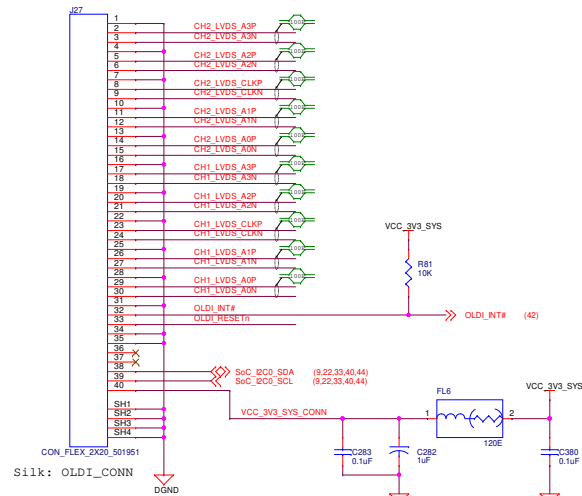
Designed for TI by Mistral Solutions Pvt Ltd



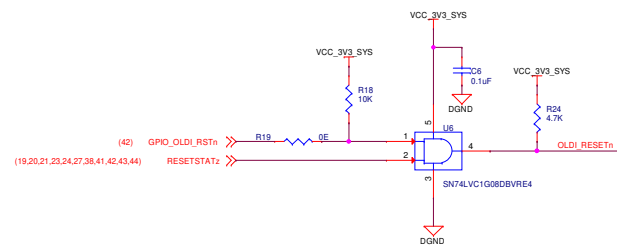
Title SOC CSI INTERFACE

| Size  | Rev                       |
|-------|---------------------------|
| C     | PROC164E1-1               |
| Date: | Friday, December 01, 2023 |
| Sheet | 38 of 47                  |

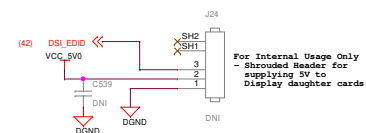
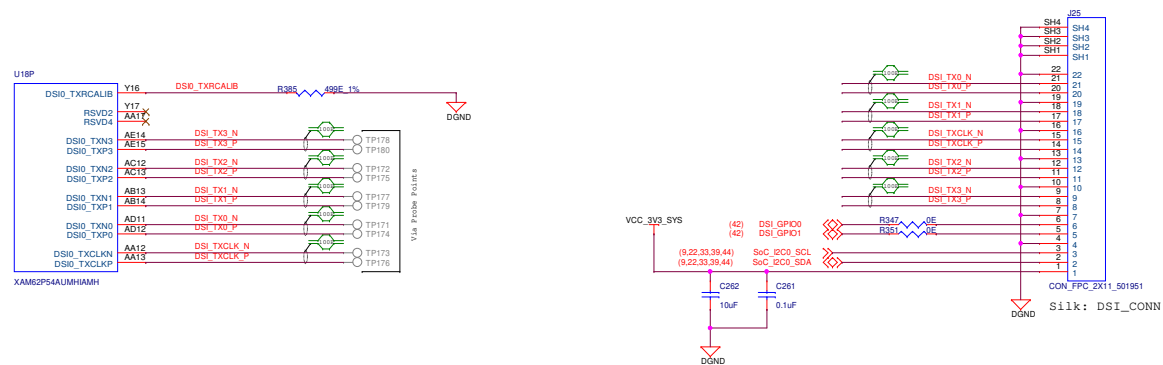
## SOC OLDI INTERFACE



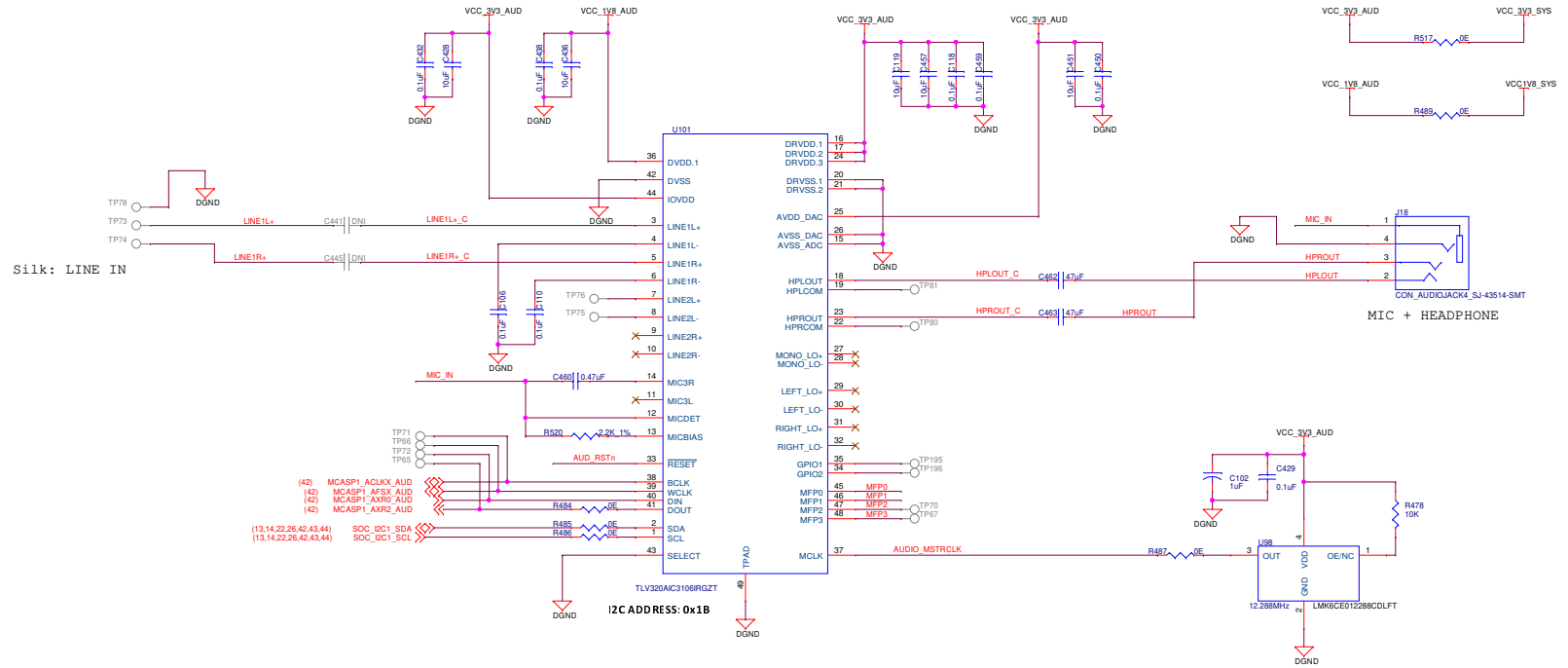
## OLDI RESET



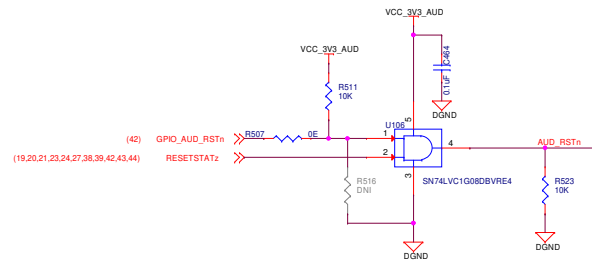
## SOC DSI INTERFACE



# AUDIO CODEC

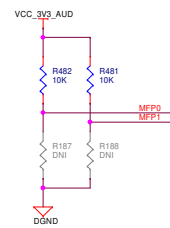


## AUDIO CODEC RESET



## CODEC I2C ADDRESS SELECTION

| MFP0 | MFP1 | Device Address |
|------|------|----------------|
| 0    | 0    | 0x18           |
| 0    | 1    | 0x19           |
| 1    | 0    | 0x1A           |
| 1    | 1    | 0x1B           |



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Title AUDIO CODEC

Size PROC164E1-1

C

Date: Thursday, November 16, 2023

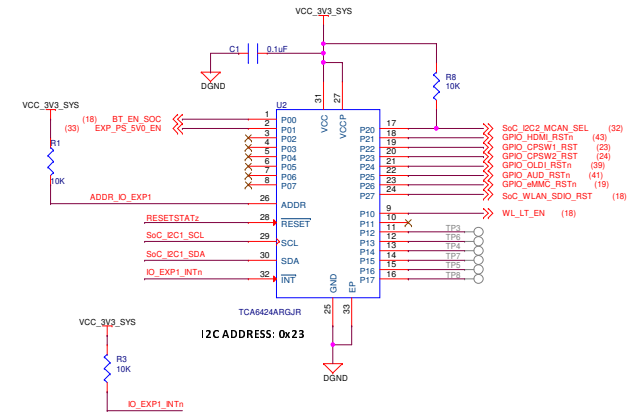
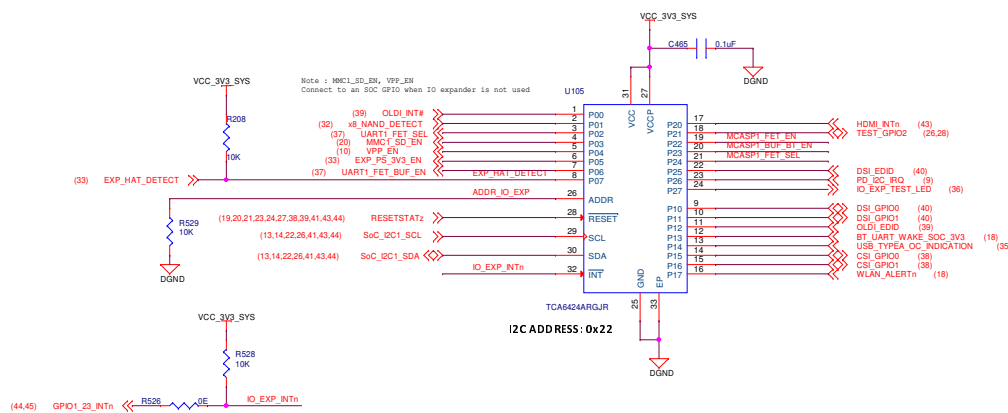
Sheet 41

of 47

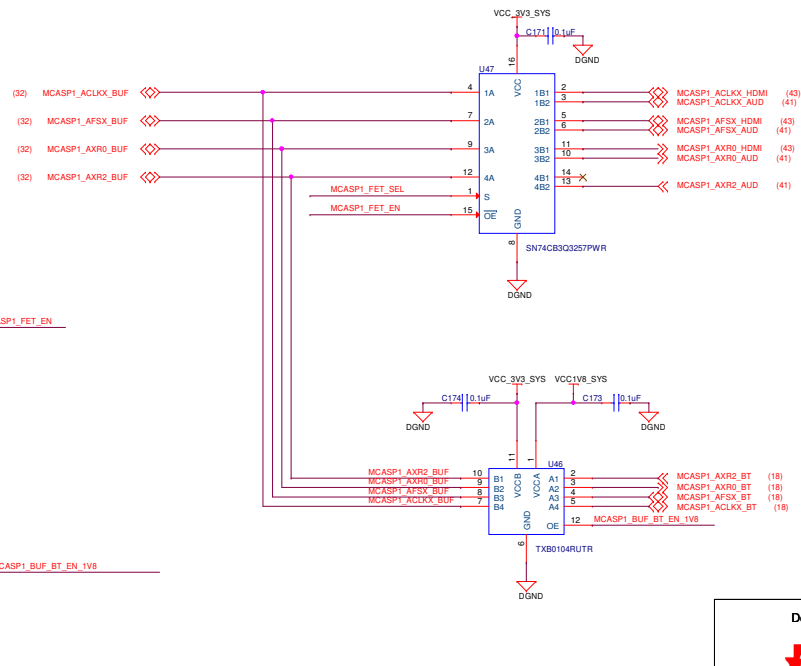
Rev

E1-1

## IO EXPANDER

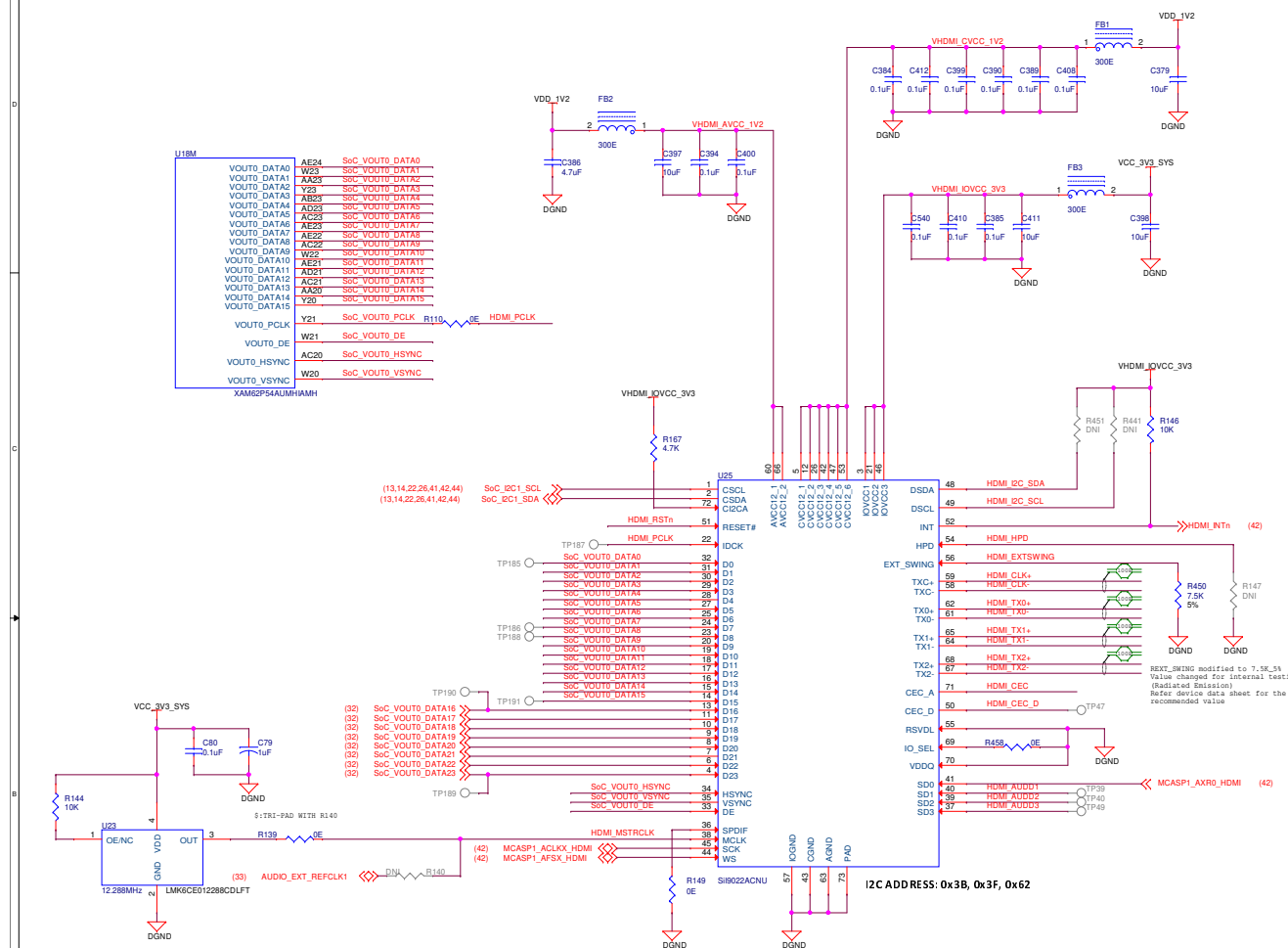


## SOC MAIN McASP1 FET BUS SWITCH & VOLTAGE LEVEL TRANSLATOR

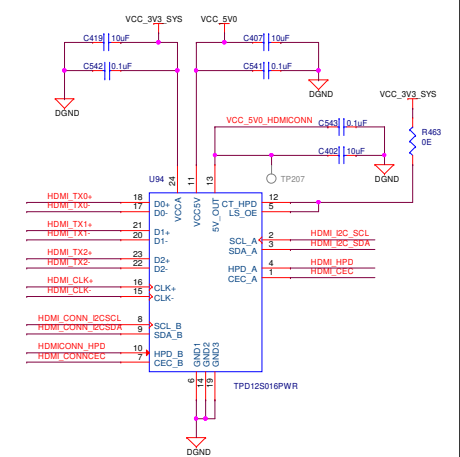


| OEn | SEL         | INPUT/OUTPUT<br>An |                |
|-----|-------------|--------------------|----------------|
| L   | H (DEFAULT) | An=nB2             | MCASP1 - CODEC |
| L   | L           | An=nB1             | MCASP1 - HDMI  |

## HDMI INTERFACE

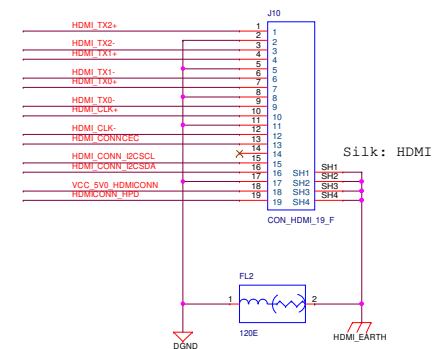


## HDMI ESD DEVICE

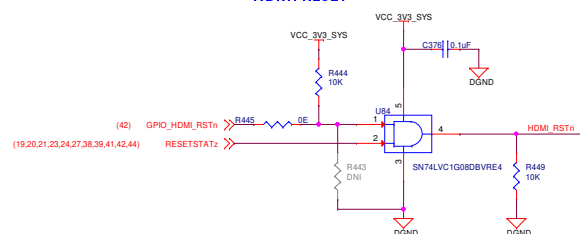


NOTE:  
TPD12S016PWR has integrated pullup or pulldown resistors on the I2C and HPD lines hence no external pullup or pulldown required.

## HDMI CONNECTOR



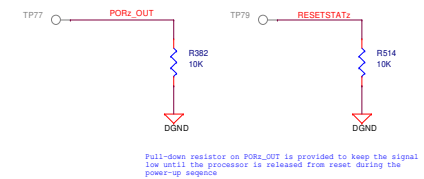
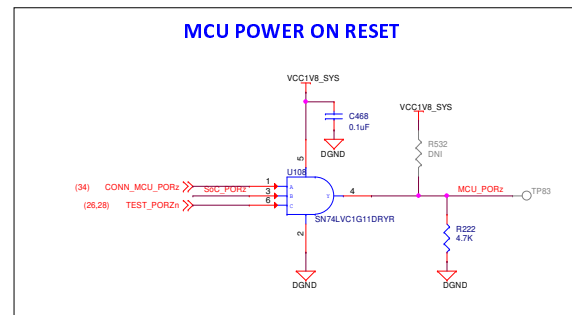
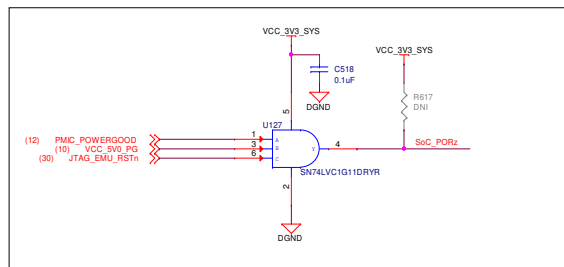
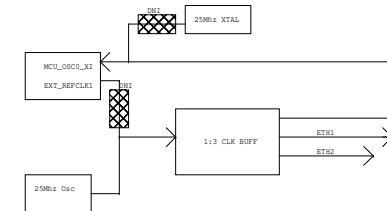
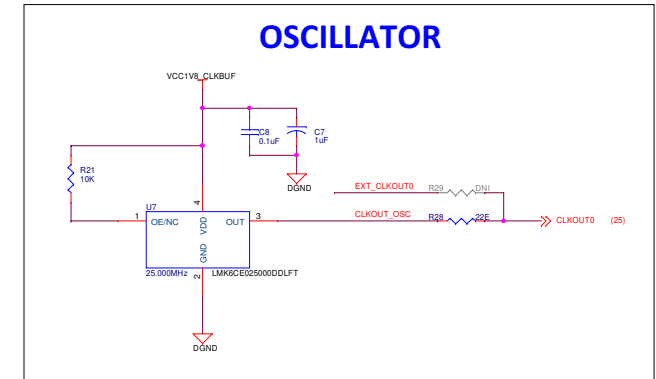
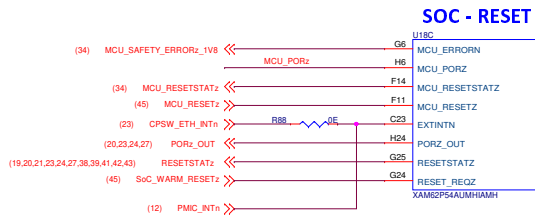
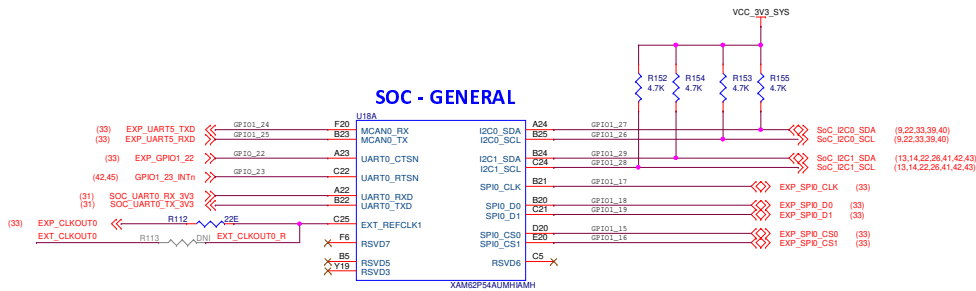
## HDMI RESET



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|       |  |             |                             |                |  |                |  |
|-------|--|-------------|-----------------------------|----------------|--|----------------|--|
| Title |  |             |                             | HDMI INTERFACE |  |                |  |
| Size  |  | PROC164E1-1 |                             |                |  | Rev            |  |
| C     |  |             |                             |                |  | E1-1           |  |
| Date: |  |             | Thursday, November 16, 2023 |                |  | Sheet 43 of 47 |  |



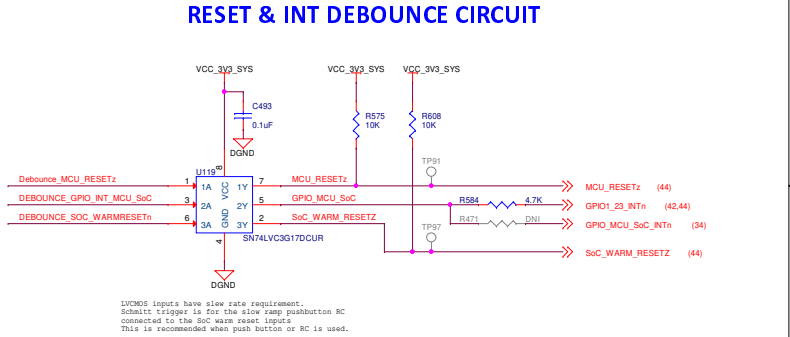
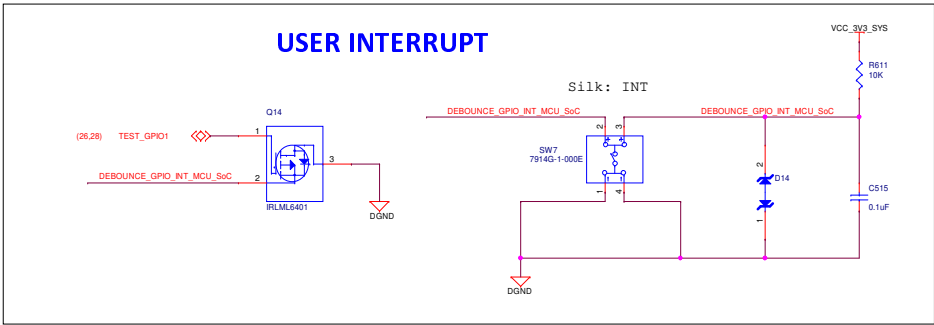
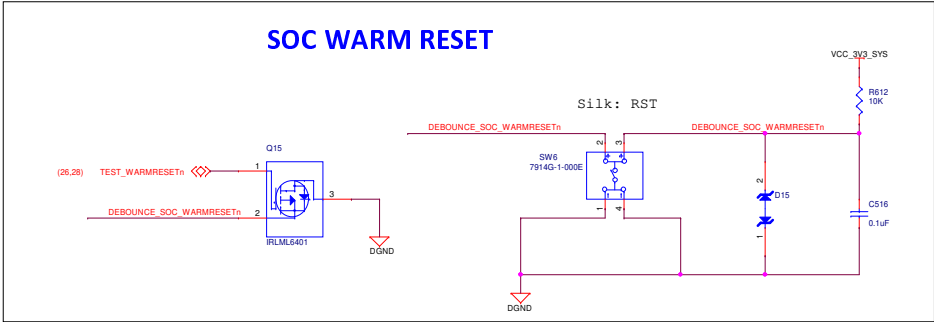
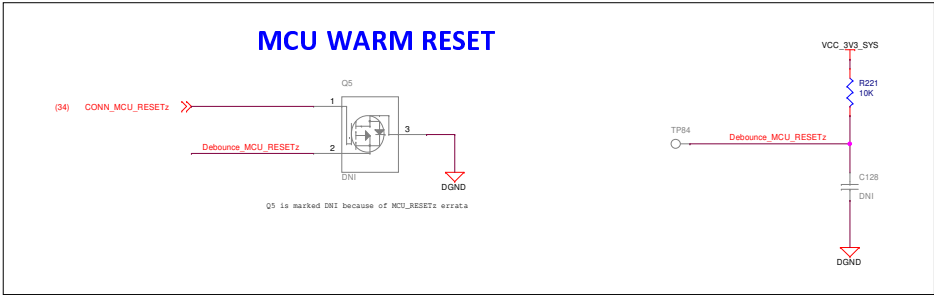
Designed for TI by Mistral Solutions Pvt Ltd



| Title                       |             |    |
|-----------------------------|-------------|----|
| OSCILLATOR                  |             |    |
| Size                        | Rev         |    |
| C                           | PROC164E1-1 |    |
| Date:                       | Sheet       | of |
| Thursday, November 16, 2023 | 44          | 47 |



SOC RESET



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| Title |                           |       | RESET    |
|-------|---------------------------|-------|----------|
| Size  | PROC164E1-1               | Rev   |          |
| C     |                           |       | E1-1     |
| Date: | Friday, December 01, 2023 | Sheet | 45 of 47 |

## CAN-FD FAST WAKE UP SW

The left diagram illustrates a mechanical switch-based wake-up circuit. A signal labeled "Silk: RST" controls a switch SW3 (7914G-1-000E). The switch is connected to a 0.1uF capacitor (C100) and a 10K resistor (R183) to a CAN\_IO\_3V3 supply. A diode (D5) is connected in parallel with the capacitor. The right diagram shows an electronic implementation using a 5K74LVC3G17DCUR Schmitt trigger (U32). The input is connected to a 0.1uF capacitor (C105) and a 10K resistor (R183) to CAN\_IO\_3V3. The output is connected to a 10K resistor (R197) and a 0.1uF capacitor (C100) to ground. The output signal is labeled "CAN\_FD\_WKUP\_SW\_INH".

## HARDWARE SCHEMATICS

### ASSEMBLY NOTES

1. All MSL components should be baked as per JEDEC standard.
2. PCB should be baked at 120 degree for 8 hours.
3. Board assembly must comply with workmanship standards. IPC-A-610 Class 2, unless otherwise specified
4. These assemblies are ESD sensitive, ESD precautions shall be observed.
5. These assemblies must be clean and free from flux and all contaminants. Use of no clean flux is not acceptable.
6. Provide serial numbers to the assembled boards for identification.
7. The assembled board are wrapped in ESD Covers(individual) and packed securely before shipment.

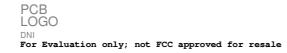
### BARE PCB



### AM62P SOCKET



### LOGOs



### JUMPERS



### FIDUCIALS



### LABELS

#### Board Serial No.



#### Assembly Revision



### SCREW & WASHER FOR PCIe M.2



### HOUSING & CRIMP FOR DSI AND OLDI HEADER



HOUSING



CRIMP

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Title: HARDWARE SCHEMATICS

| Size  | Rev                         |
|-------|-----------------------------|
| C     | E1-1                        |
| Date: | Thursday, November 16, 2023 |

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