

AM62x-LOW POWER STARTER KIT EVM

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REV	E2A
VER	2.1

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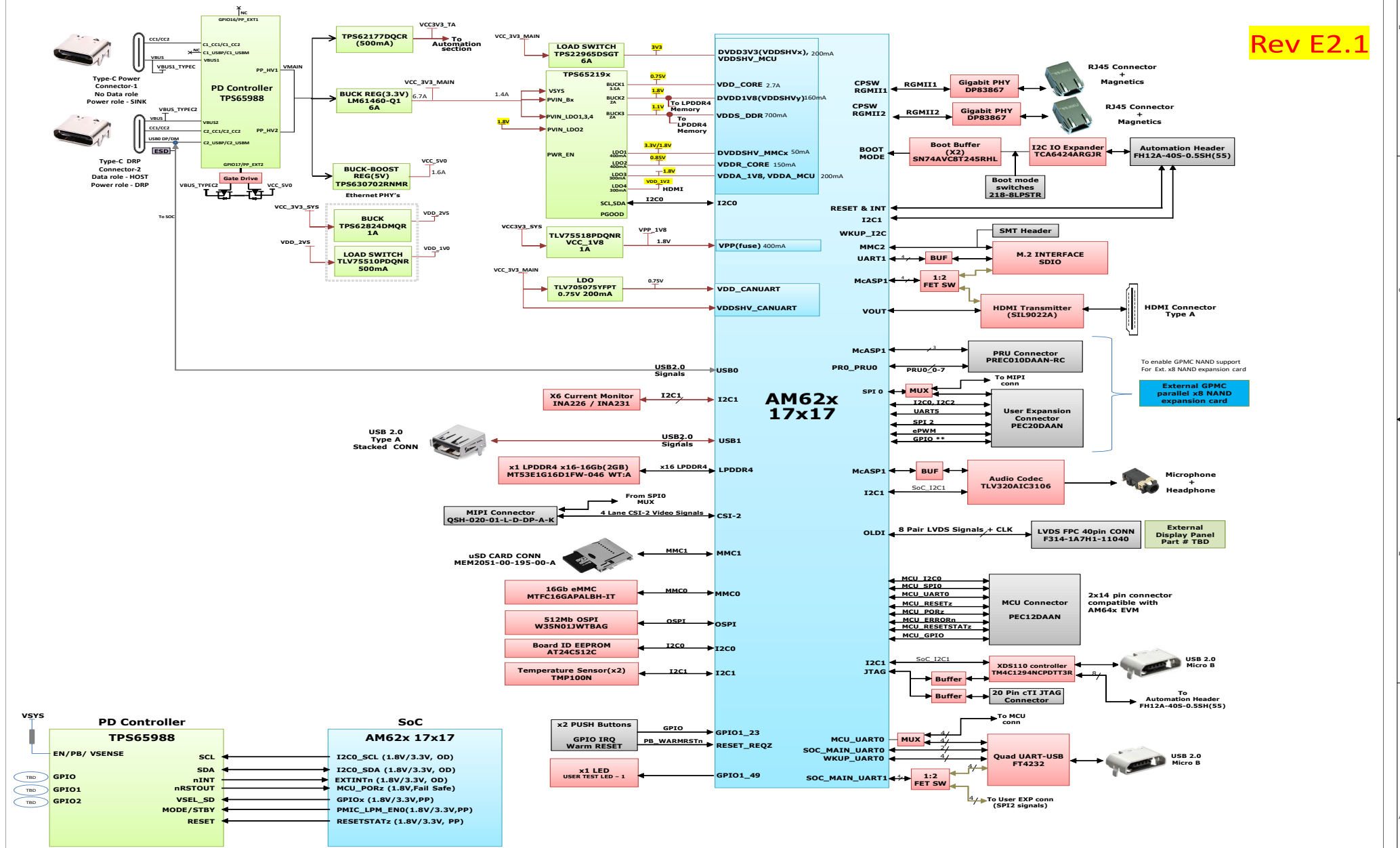
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VER #	DATE	DESCRIPTION OF CHANGES	AUTHOR	REVIEWED BY	APPROVED BY
2.01	13 APR 2023	Drafted from E2 Schematics	Mistral Design Team	Deepak NS	Krishna Prasad A
2.02	13 APR 2023	Added M.2 screw and standoffs (9774015243R, MPMS 002 0005 PH , 3356) Changed the value of R339 resistor to 7.5K Chnaged the U14 part to TPD2E2U06DRL	Mistral Design Team	Deepak NS	Krishna Prasad A

AM62x-LOW POWER SKEVM BLOCK DIAGRAM

Rev E2.1



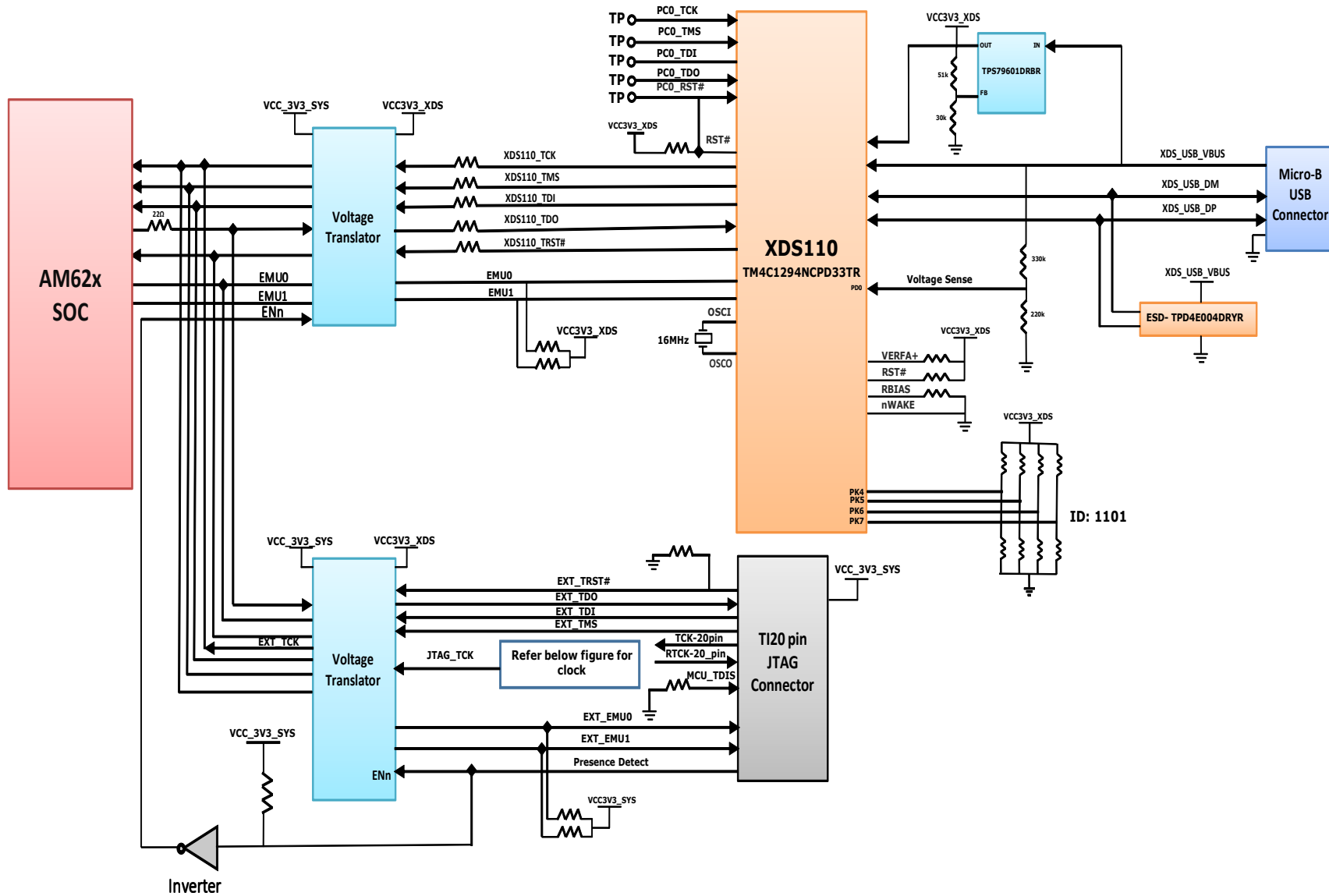
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BLOCK DIAGRAM_XDS110



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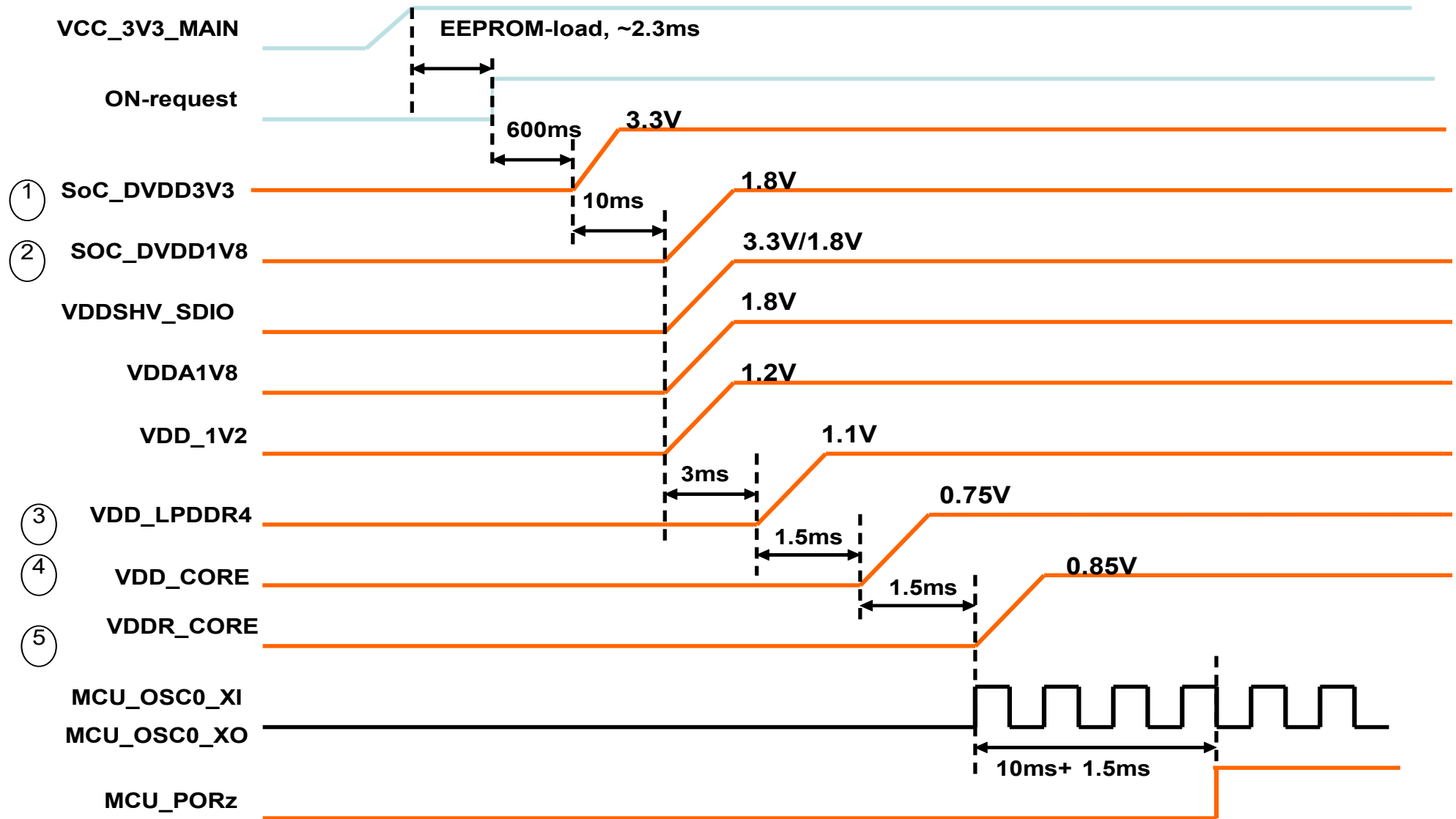
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Rev E2.1



POWER SEQUENCE



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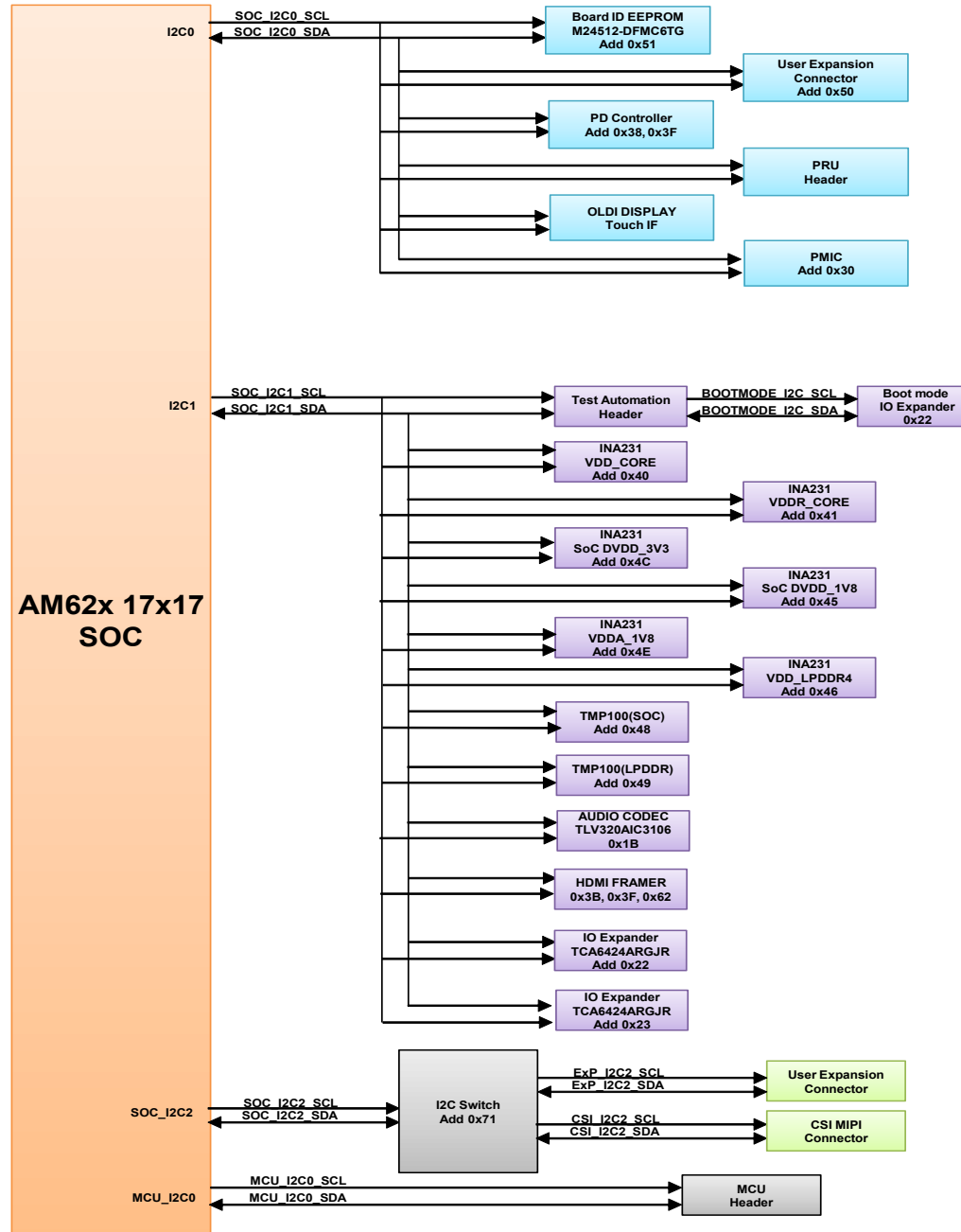


Title POWER SEQUENCE

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I2C TREE

Rev E2.1



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Title 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	VOLTAGE CONNECTED
									ON SOC SIDE	ON SKEVM
1	Enable for WLAN Interface	WLAN_EN	ENABLE	GPIO0_71	MMC2_SDCD	OUTPUT	LOW	HIGH	VDDSHV6	SoC_DVDD1V8
2	WLAN Interrupt	WLAN_IRQ	INTERRUPT	GPIO0_72	MMC2_SDWP	INPUT	HIGH	LOW	VDDSHV6	SoC_DVDD1V8
3	Enable for BT Interface	BT_EN_SOC	ENABLE	MCU_GPIO0_0	MCU_SPI0_CS0	OUTPUT	LOW	HIGH	VDDSHV_MCU	SoC_DVDD3V3
4	CPSW Ethernet PHY Interrupt	CPSW_RGMII_INTn/PRU_INTn	INTERRUPT	GPIO1_31	EXTINTn	INPUT	HIGH	LOW	VDDSHV0	SoC_DVDD3V3
	PRU Connector Interrupt									
5	OSPI Reset Control GPIO	GPIO_OSPI_RSTn	RESET	GPIO0_12	OSPI0_CSn1	OUTPUT	HIGH	LOW	VDDSHV1	SoC_DVDD1V8
6	MCU Header GPIO0_16	MCU_GPIO0_16	GPIO	MCU_GPIO0_16	MCU_MCAN1_RX	NA	NA	NA	VDDSHV_CANUART	SoC_DVDD3V3
7	MCU Header GPIO0_15	MCU_GPIO0_15	GPIO	MCU_GPIO0_15	MCU_MCAN1_TX	NA	NA	NA	VDDSHV_CANUART	SoC_DVDD3V3
8	PMIC Interrupt	PMIC_INT_B	INTERRUPT	GPIO1_31	EXTINTn	INPUT	HIGH	LOW	VDDSHV3	SoC_DVDD3V3
9	IO Expander Interrupt	ETH_CAN_INH_SOC	INTERRUPT	MCU_GPIO0_15	MCU_MCAN1_TX	INPUT	HIGH	LOW	VDDSHV_CANUART	SoC_DVDD3V3
10	TEST GPIO1 from Test Automation Connector/ User Interrupt Push Button									
11	User Test LED 1									
12	CAN_FD_WKUP_SW signal from switch	EXP_GPIO1_22	GPIO	GPIO1_49	MMC1_SDWP	OUTPUT	LOW	HIGH	VDDSHV0	SoC_DVDD3V3
13	CAN_FD_WKUP_HDR_INH signal from header									
14	User EXP Conn GPIO	EXP_GPIO1_22	GPIO	GPIO1_22	UART0_CTSn	NA	NA	NA	VDDSHV0	SoC_DVDD3V3
15	IO Expander Interrupt	GPIO1_23_INTn	INTERRUPT	GPIO1_23	UART0_RTSn	INPUT	HIGH	LOW	VDDSHV0	SoC_DVDD3V3
16	User Interrupt									
17	User EXP Conn GPIO	EXP_GPIO0_14_LT	GPIO	GPIO0_14	OSPI0_CSn3	NA	NA	NA	VDDSHV1	SoC_DVDD1V8
18	PMIC Standby Enable	PMIC_STBY	ENABLE	MCU_GPIO0_22	PMIC_LPM_EN0	OUTPUT	HIGH	HIGH	VDDSHV_CANUART	SoC_DVDD3V3
19	User EXP Conn GPIO	EXP_EHRPWM1_B	GPIO	GPIO1_10	MCASP0_AXR0	NA	NA	NA	VDDSHV0	SoC_DVDD3V3
IO EXPANDER - 01										
1	eMMC Reset control GPIO	GPIO_EMMC_RSTN	RESET	IO EXPANDER-P11		OUTPUT	HIGH	LOW		VCC_3V3_SYS
2	CPSW Ethernet PHY-1 Reset Control GPIO	GPIO_CPSW1_RST	RESET	IO EXPANDER-P01		OUTPUT	HIGH	LOW		VCC_3V3_SYS
3	CPSW Ethernet PHY-2 Reset Control GPIO	GPIO_CPSW2_RST	RESET	IO EXPANDER-P00		OUTPUT	HIGH	LOW		VCC_3V3_SYS
4	SD Card Load Switch Enable	MMC1_SD_EN	ENABLE	IO EXPANDER-P03		OUTPUT	HIGH	LOW		VCC_3V3_SYS
5	SOC eFuse Voltage(VPP=1.8V) Regulator Enable	VPP_LDO_EN	ENABLE	IO EXPANDER-P04		OUTPUT	LOW	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	EXP CONN 5V Power Switch Enable	EXP_PS_5V0_EN	ENABLE	IO EXPANDER-P06		OUTPUT	LOW	HIGH		VCC_3V3_SYS
8	Audio Codec Reset Control GPIO	GPIO_AUD_RSTN	RESET	IO EXPANDER-P10		OUTPUT	HIGH	LOW		VCC_3V3_SYS
9	EXP CONN HAT Board Detection	EXP_HAT_DETECT	DETECTION	IO EXPANDER-P07		INPUT	HIGH	LOW		VCC_3V3_SYS
10	PRU Board Detection	PRU_DETECT	DETECTION	IO EXPANDER-P02		INPUT	HIGH	LOW		VCC_3V3_SYS
11	SOC UART1 Mux Select	UART1_FET_BUF_EN	SELECT	IO EXPANDER-P12		OUTPUT	HIGH	LOW		VCC_3V3_SYS
12	BT UART WKUP Signal	BT_UART_WAKE_SOC	INTERRUPT	IO EXPANDER-P13		INPUT	HIGH	LOW		VCC_3V3_SYS
13	HDMI Transmitter Reset Control GPIO	GPIO_HDMI_RSTN	RESET	IO EXPANDER-P14		OUTPUT	HIGH	LOW		VCC_3V3_SYS
14	Raspberry Pi Camera CSIO GPIO1	CSI_GPIO0	INPUT/OUTPUT	IO EXPANDER-P15		NA	NA	NA		VCC_3V3_SYS
15	Raspberry Pi Camera CSIO GPIO2	CSI_GPIO1	INPUT/OUTPUT	IO EXPANDER-P16		NA	NA	NA		VCC_3V3_SYS
16	OLDI Interrupt	GPIO_OLDI_INT	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		INPUT	HIGH	LOW		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	LOW		VCC_3V3_SYS
22		UART1_FET_SEL	DIRECTION CONTROL	IO EXPANDER-P25		OUTPUT	HIGH	LOW		VCC_3V3_SYS
23	User Test LED 2	IO_EXP_TEST_LED	GPIO	IO EXPANDER-P27		OUTPUT	LOW	HIGH		VCC_3V3_SYS
IO EXPANDER - 02										
1	SoC SPI0_MUX Selection	SPI0_FET_SEL	ENABLE	IO EXPANDER-P20		OUTPUT	LOW	HIGH		VCC_3V3_SYS
2	SoC SPI0_MUX Enable	SPI0_FET_OE	CONTROL	IO EXPANDER-P21		OUTPUT	LOW	LOW		VCC_3V3_SYS
3	OLDI Reset	GPIO_OLDI_RSTn	RESET	IO EXPANDER-P22		OUTPUT	HIGH	LOW		VCC_3V3_SYS
4	PRU Power Switch Enable	PRU_3V3_EN	ENABLE	IO EXPANDER-P23		OUTPUT	LOW	HIGH		VCC_3V3_SYS
5	CSI Regulator Enable (VCC_CSI_IO)	CSI_VLDO_SEL	ENABLE	IO EXPANDER-P26		OUTPUT	LOW	HIGH		VCC_3V3_SYS
6	WLAN Reset control GPIO	SOC_WLAN_SDIO_RST	RESET	IO EXPANDER-P27		OUTPUT	HIGH	LOW		VCC_3V3_SYS
7	Wilink Enable	WL_LT_EN	ENABLE	IO EXPANDER-P10		OUTPUT	LOW	HIGH		VCC_3V3_SYS
8	CSI Reset control GPIO	CSI_RSTZ	RESET	IO EXPANDER-P11		OUTPUT	LOW	HIGH		VCC_3V3_SYS

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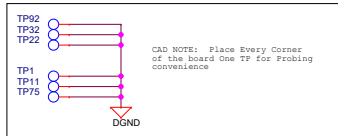
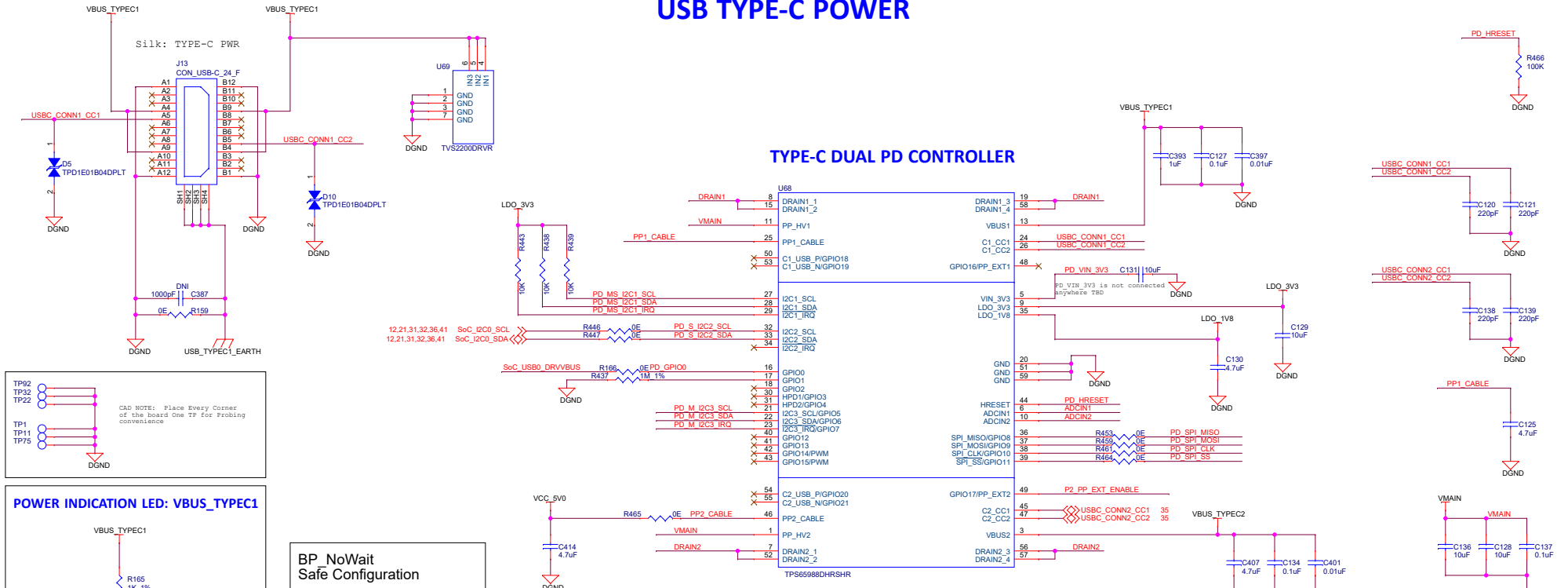


Title GPIO MAPPING TABLE

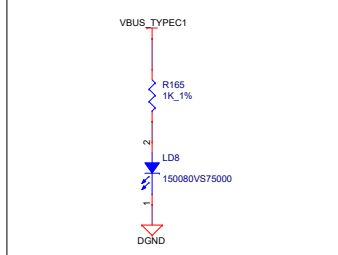
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USB TYPE-C POWER

TYPE-C DUAL PD CONTROLLER

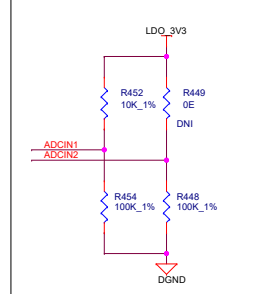


POWER INDICATION LED: VBUS_TYPEC1

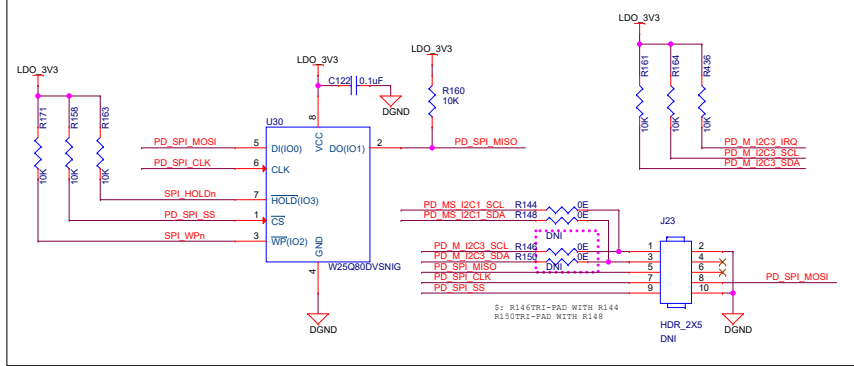


I2C Slave Address	Port1	Port2
I2C2 (Default)	0x38	0x3F
I2C1	0x20	0x24

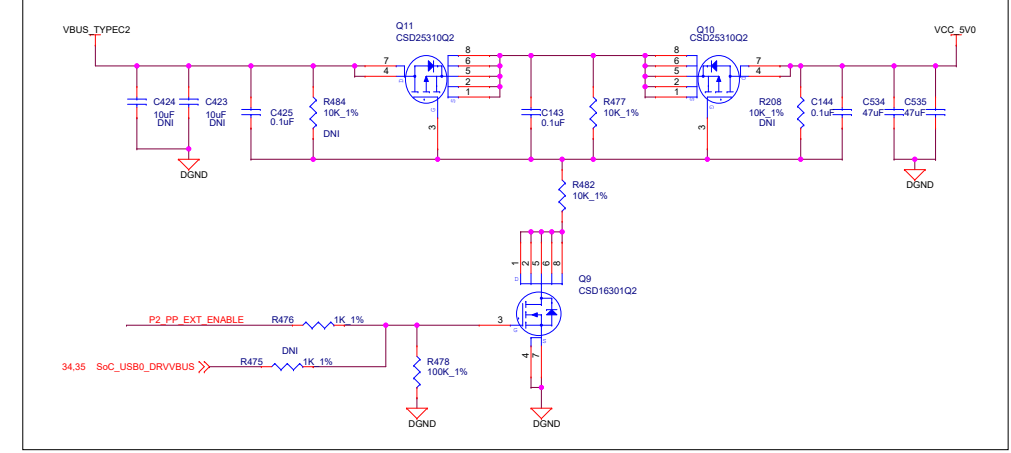
BP_NoWait Safe Configuration



SPI EEPROM & PROGRAMMING HEADER



EXTERNAL POWER PATH FOR SOURCING, 5V/0.5A



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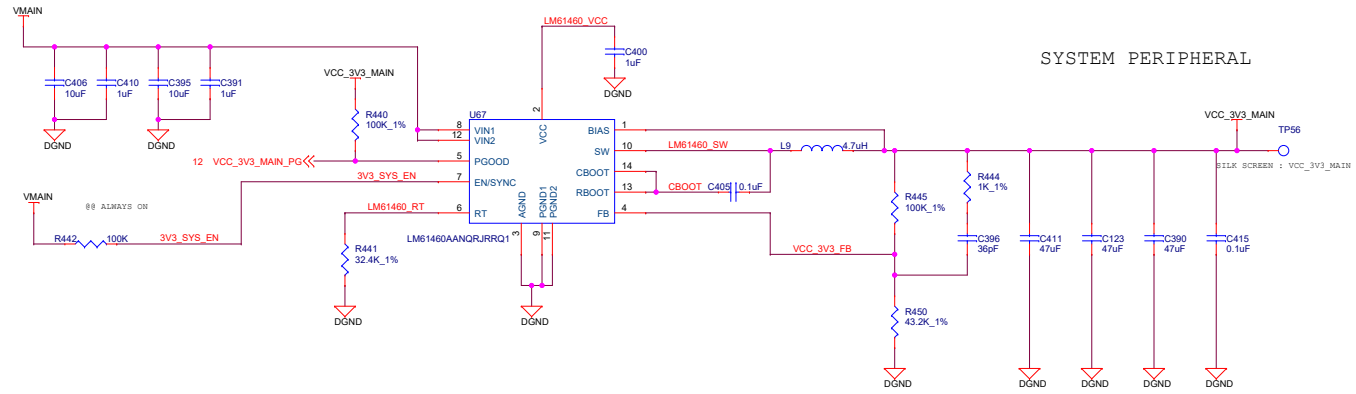


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PERIPHERAL POWER SUPPLY-2

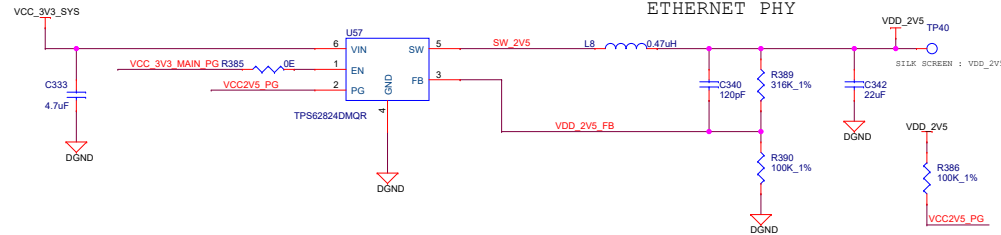
VinMin = 4.5V
VinMax = 15V
Vout = 3.3V @ 6A

3.3V, 6.0AMPS SUPPLY



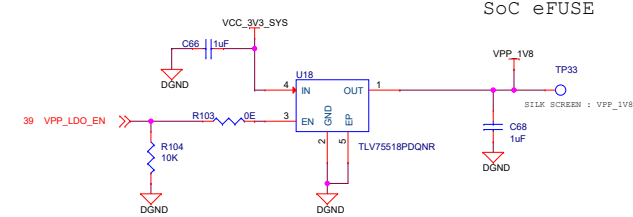
2.5V, 1.0AMPS SUPPLY

ETHERNET PHY



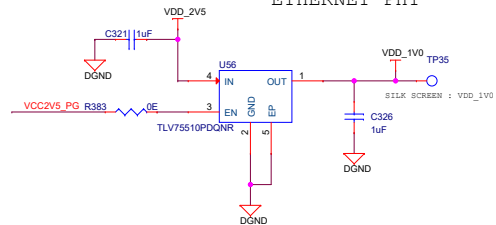
1.8V VPP, 0.5AMPS SUPPLY

SoC eFUSE



1.0V, 0.5AMPS SUPPLY

ETHERNET PHY



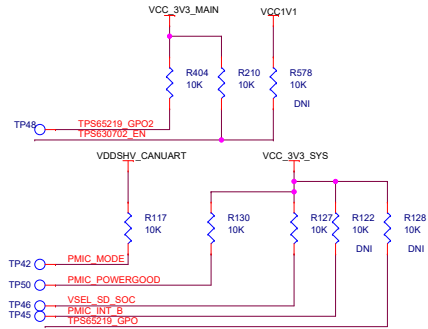
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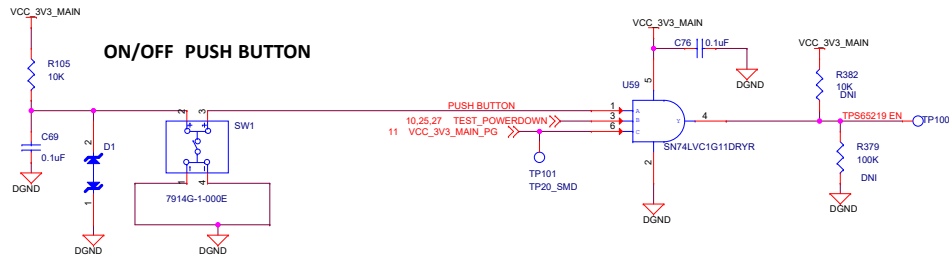
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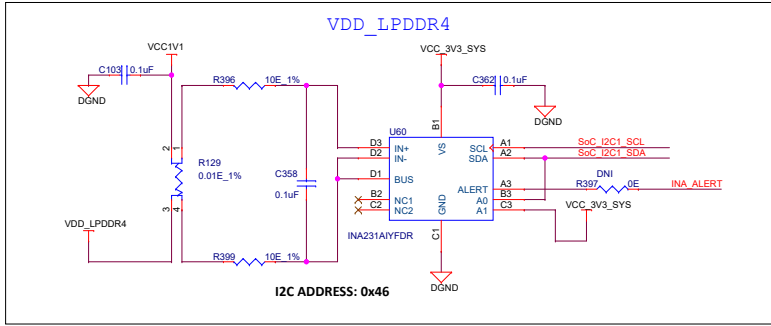
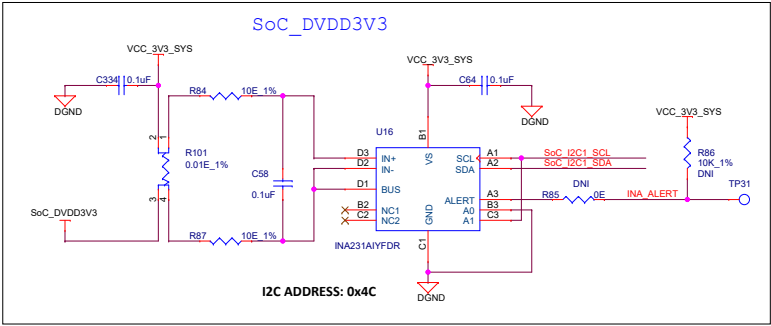
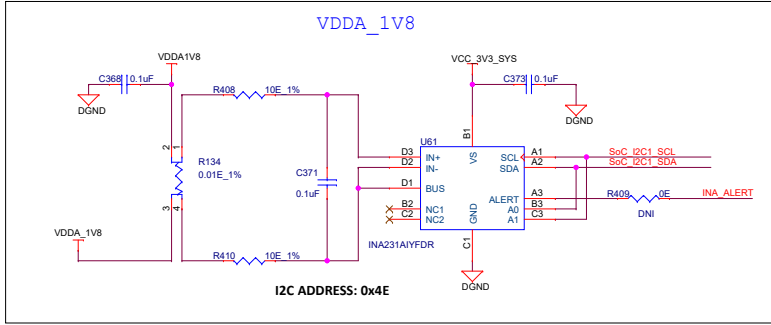
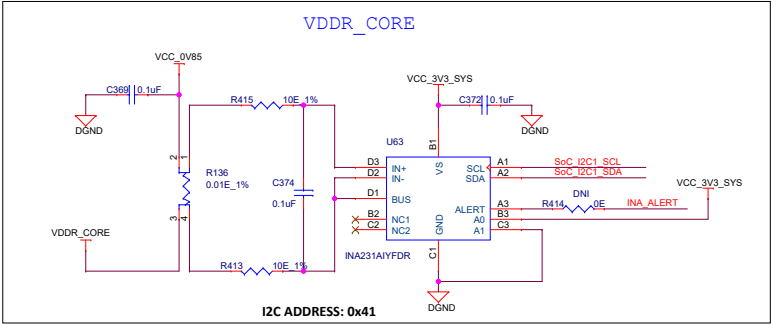
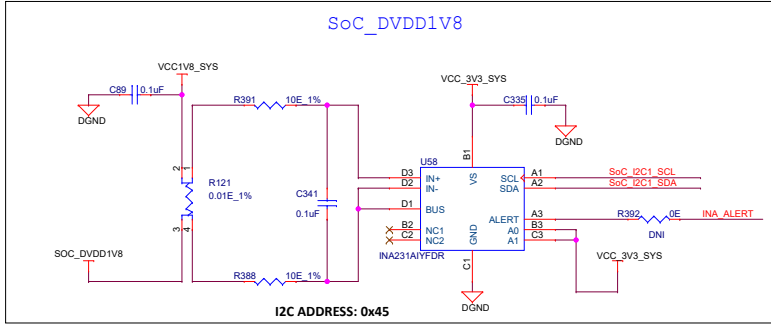
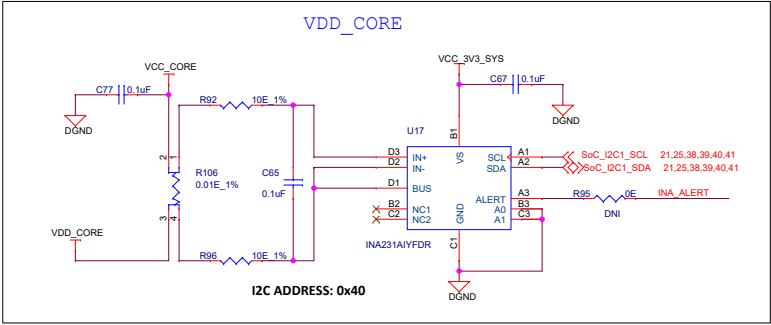
R577	R210	R578	Description
De mount	Mount	De mount	5 V Regulator enabled by VCC_3V3_MAIN
De mount	Demount	Mount	5V Regulator enabled by VCC1V1
Mount	Demount	Demount	5V Regulator enabled by PMIC GP01



ON/OFF PUSH BUTTON



CURRENT MONITORING DEVICES



INA I2C SLAVE ADDRESS		
POWER SOURCE	SUPPLY NET	SLAVE ADDRESS (16 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	4E
VCC1V1	VDD_LPDDR4	46

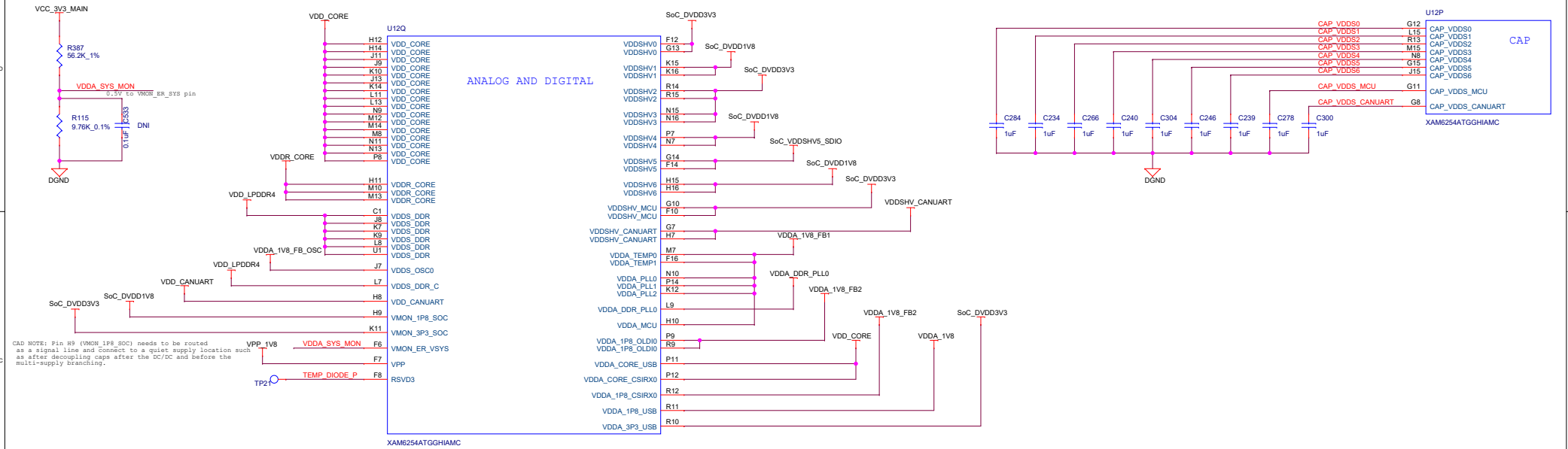
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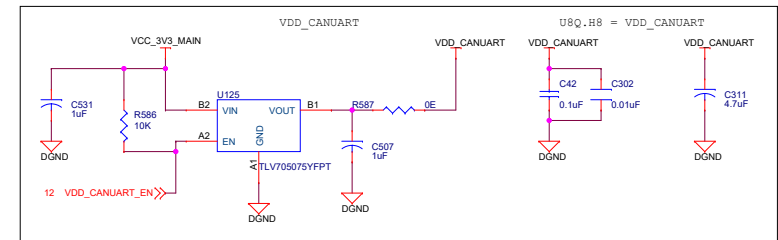
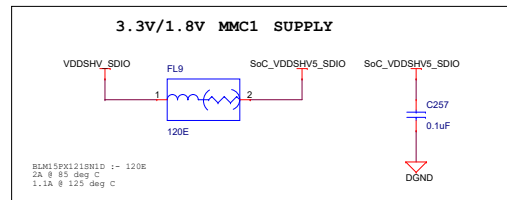
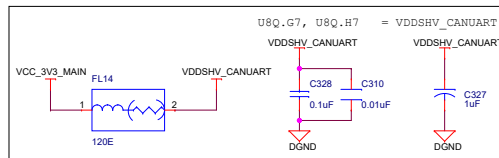
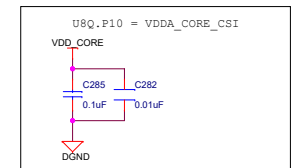
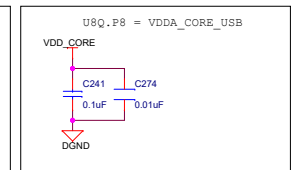
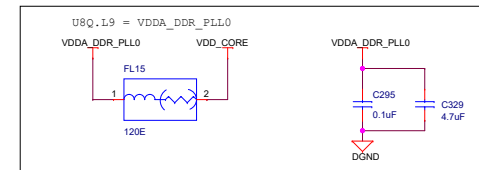
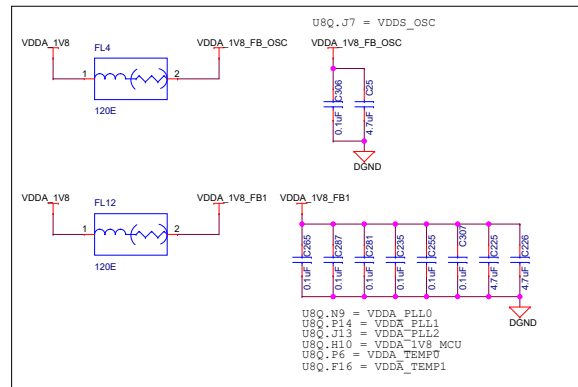
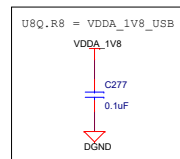
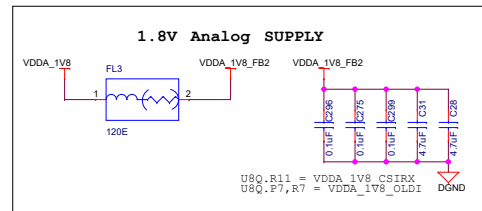
Title CURRENT MONITORING DEVICES

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SOC POWER



CORE SUPPLY



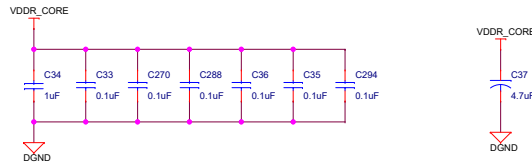
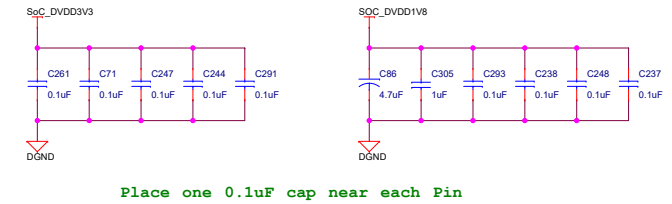
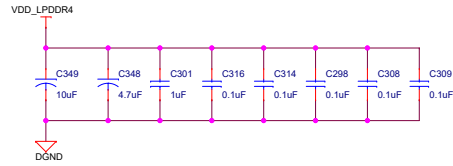
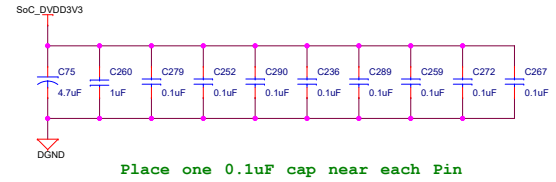
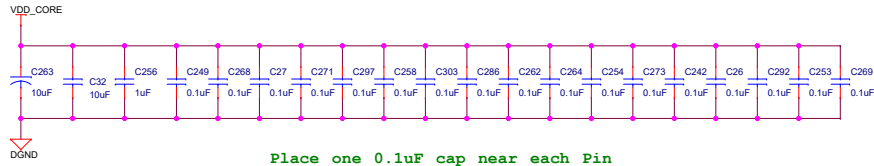
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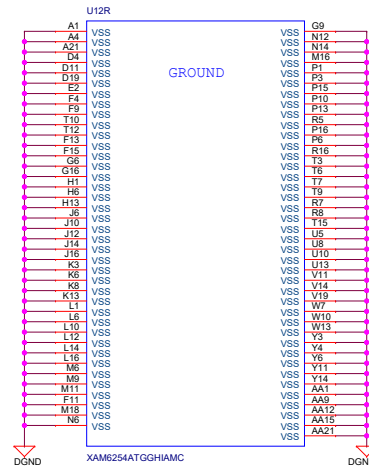
Title	SOC POWER
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SOC POWER DECAPS



SOC VSS



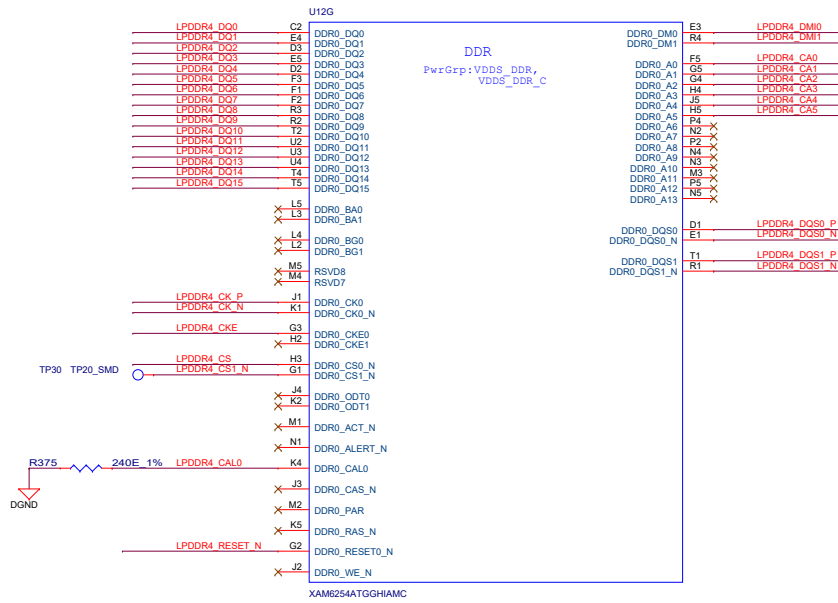
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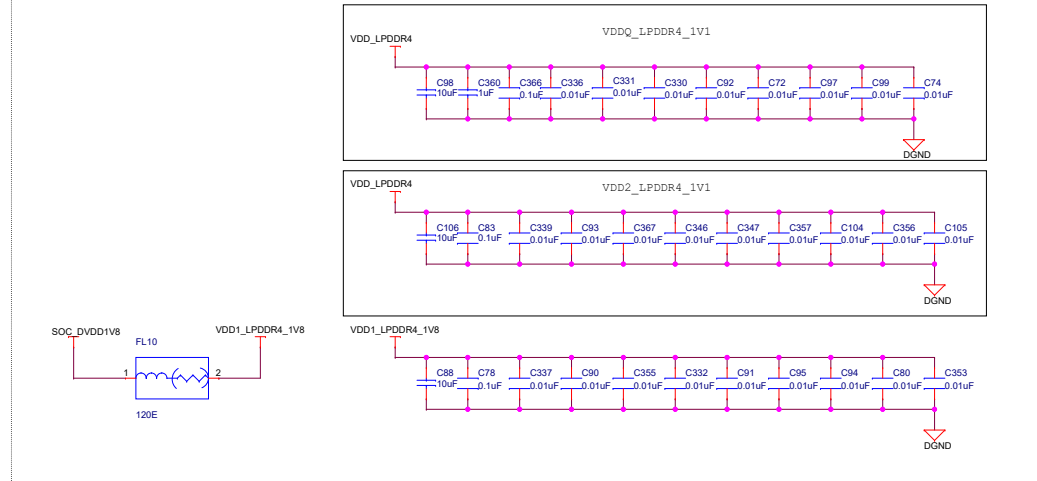
Title SOC POWER CAPS & SOC VSS

Size	Variant Name = PROC124E2A AM62x-LOW POWER SKEVM	Rev
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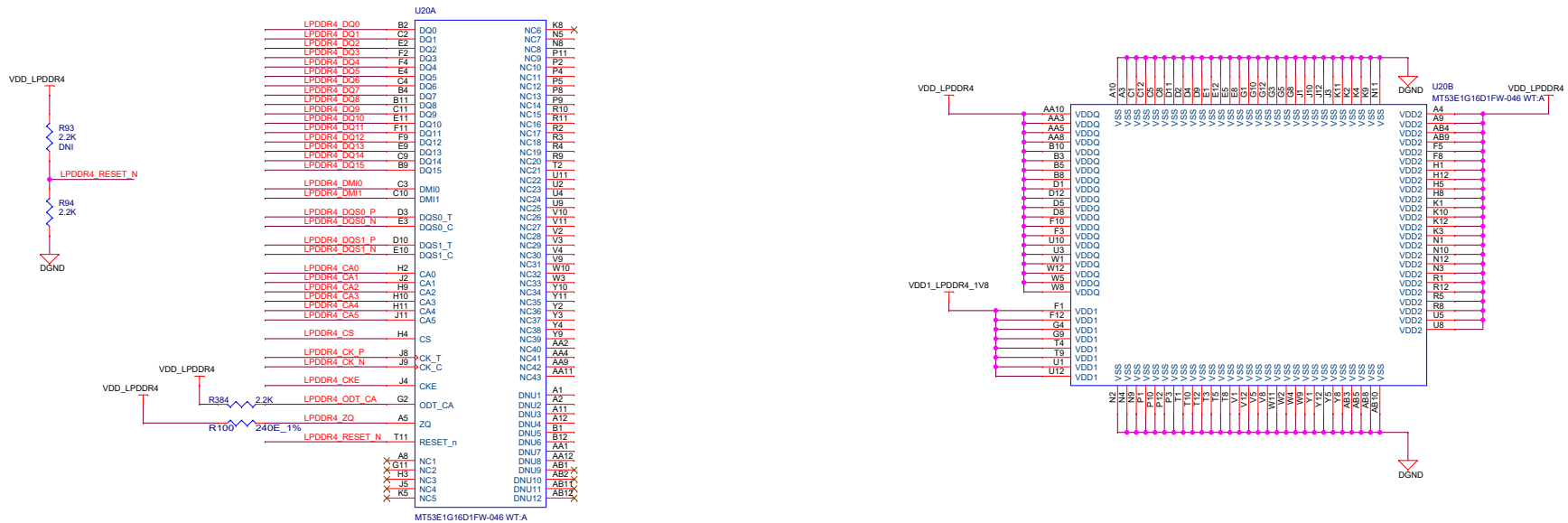
SOC LPDDR4 INTERFACE



LPDDR4 POWER DECAPS



LPDDR4 DEVICE



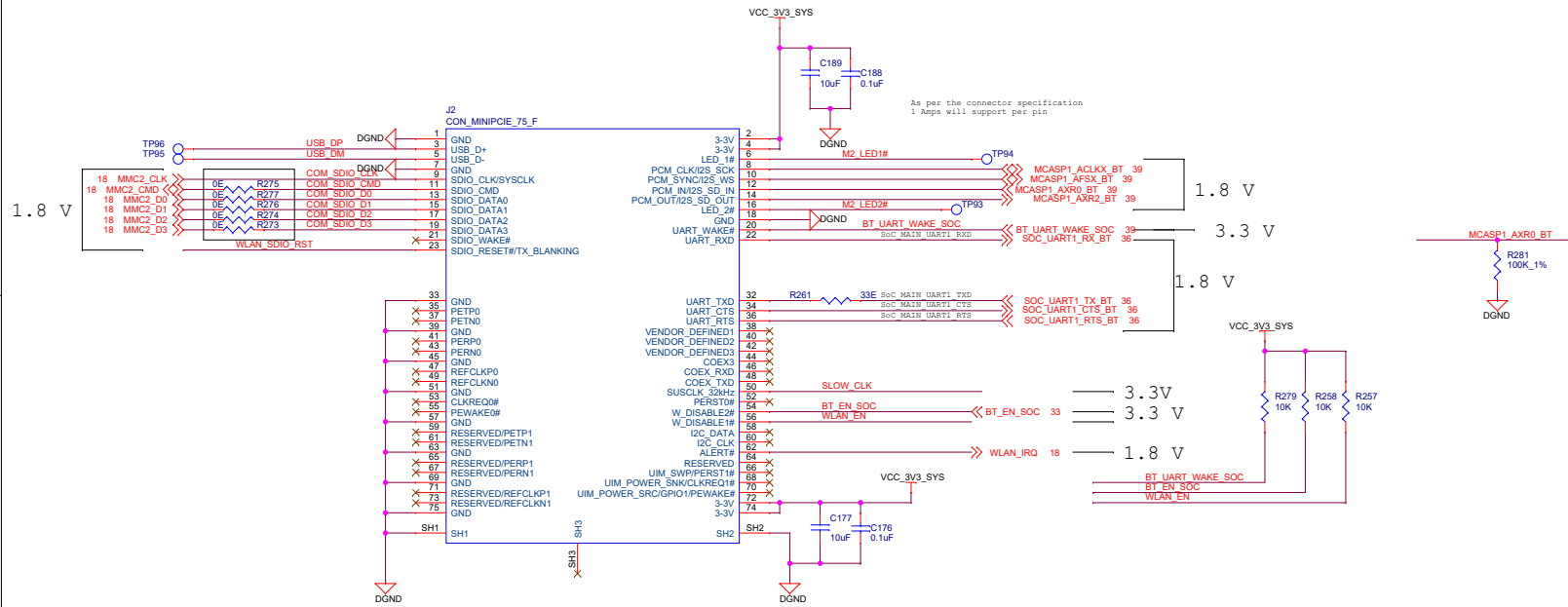
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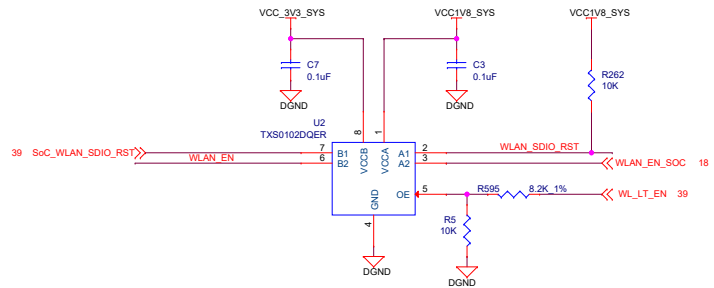
Title	SOC LPDDR4 INTERFACE
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Size	Variant Name = PROC124E2A AM62x-LOW POWER SKEVM	R
C		E
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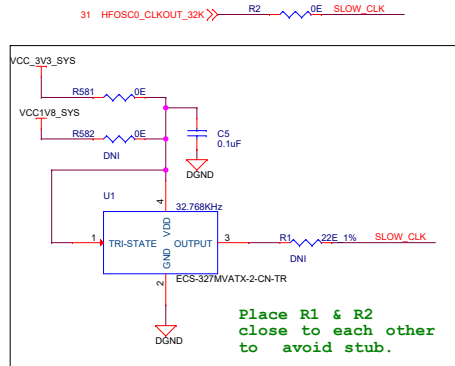
M.2 INTERFACE - SDIO



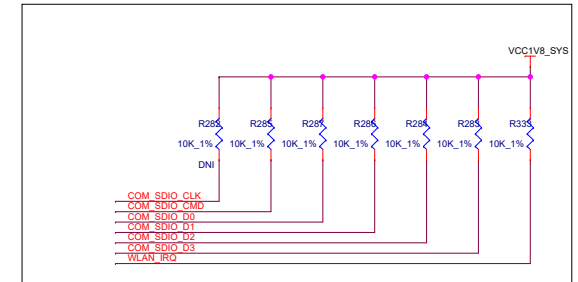
WILINK LEVEL TRANSLATORS



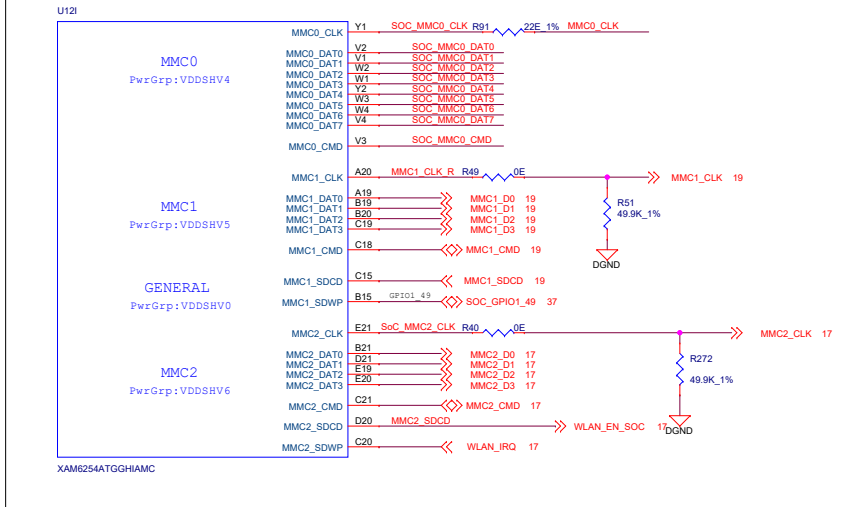
Design Note: WL_LT_EN = Active High



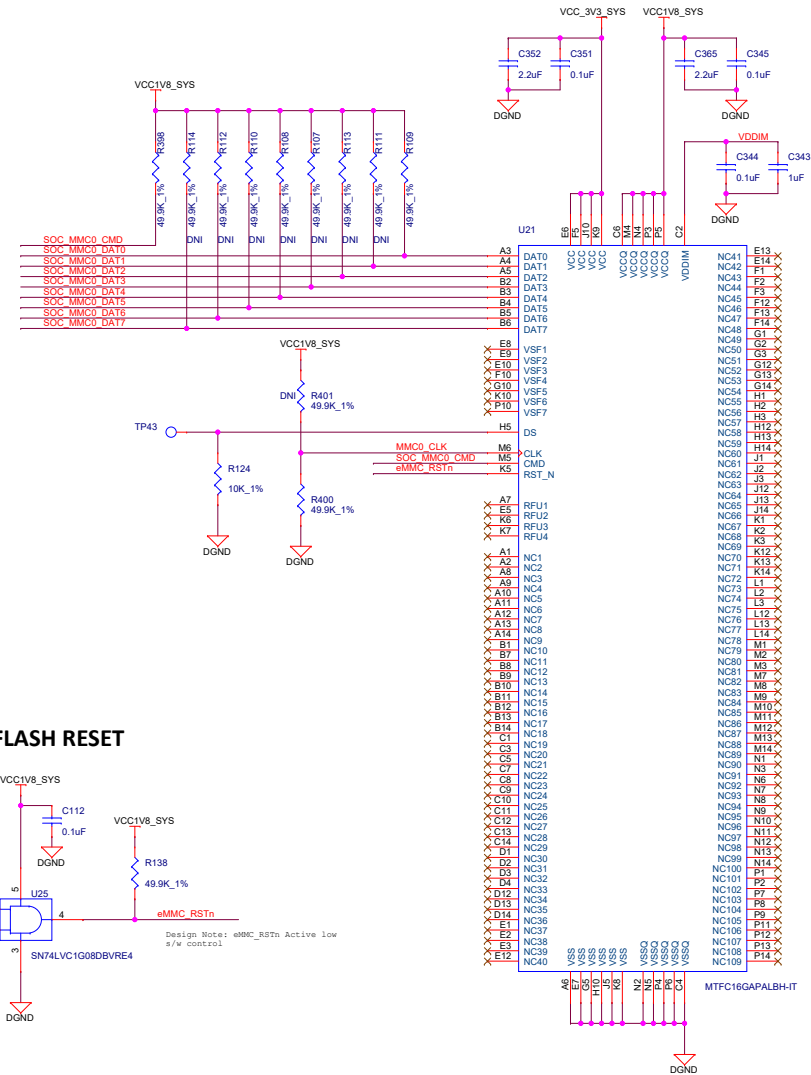
Place R1 & R2 close to each other to avoid stub.



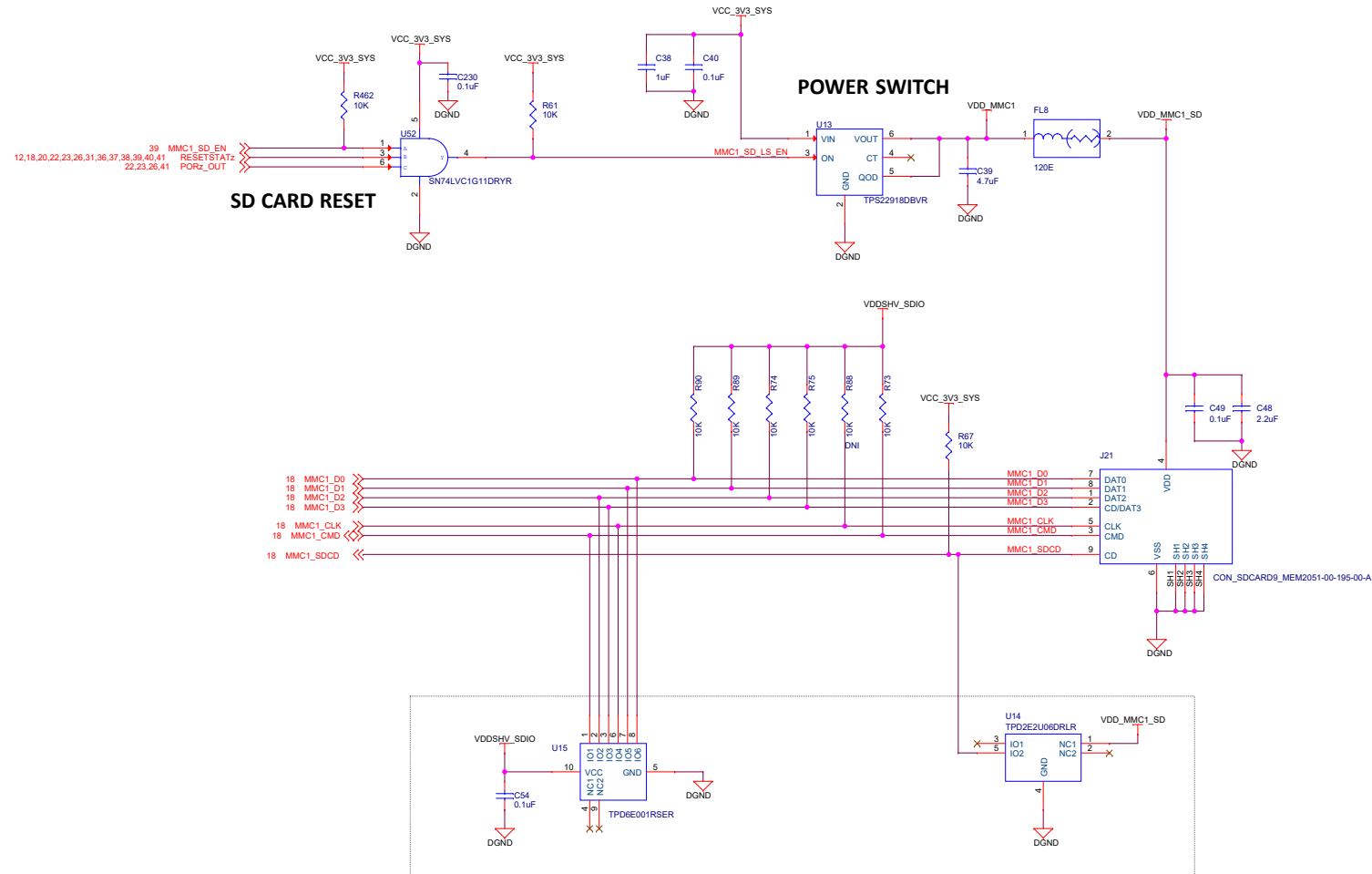
SOC - MMC Interface



eMMC FLASH



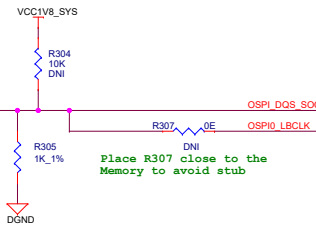
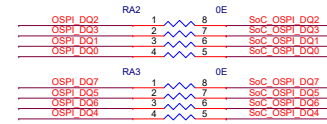
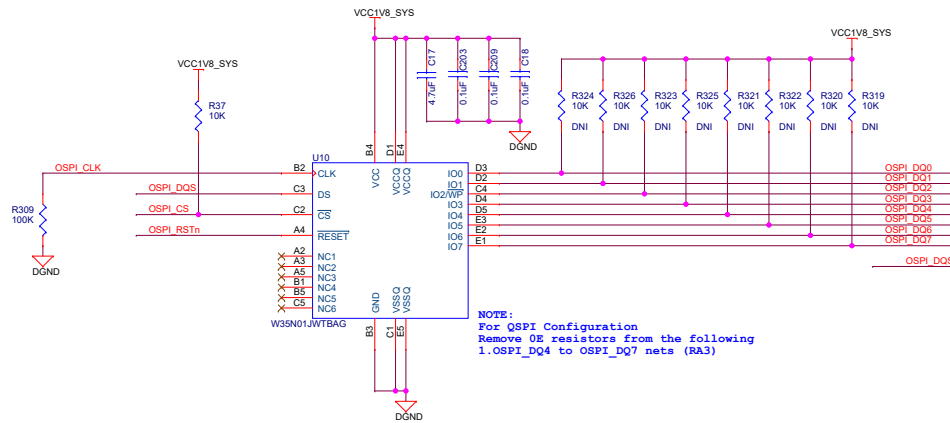
SD CARD INTERFACE



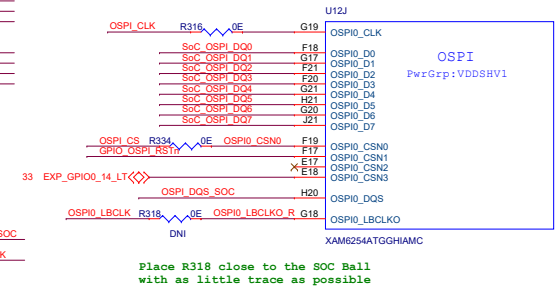
Place near SD Card Connector
Pin Functions

PIN			I/O	DESCRIPTION
NAME	DRL	DKK		
IO1	3	1	I/O	The IO1 and IO2 pins are an ESD protected channel. Connect these pins to the data line as close to the connector as possible.
IO2	5	2	I/O	
NC	1, 2	—	-	This pin is not connected and is left floating, grounded, or connected to VCC.
GND	4	3	G	The GND (ground) pin is connected to ground.

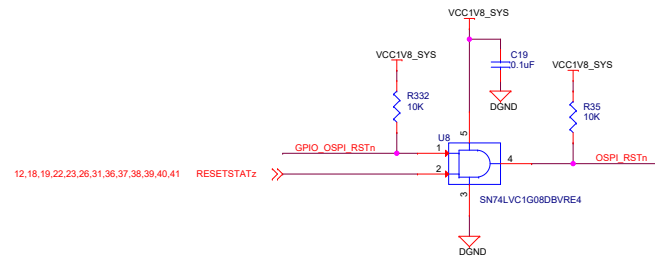
OSPI FLASH



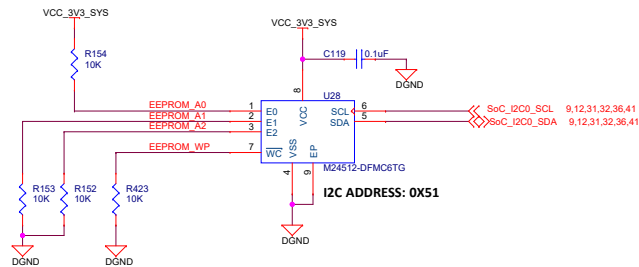
SOC OSPI INTERFACE



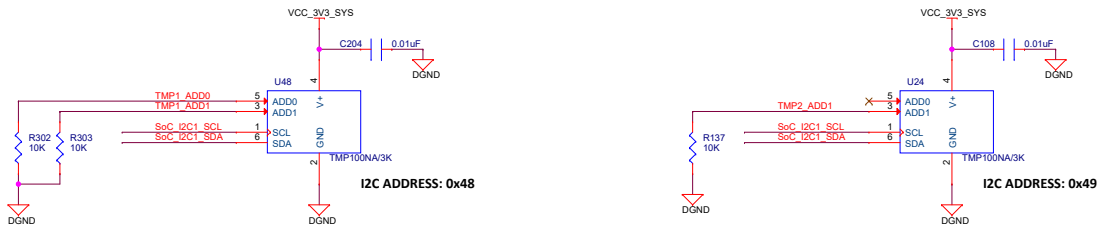
OSPI FLASH RESET



BOARD ID EEPROM



TEMPERATURE SENSORS



CAD NOTE: PLACE TEMP SENSOR U80 CLOSE TO SoC

CAD NOTE: PLACE TEMP SENSOR U81 CLOSE TO DDR4

13,25,38,39,40,41 SoC_I2C1_SCL
13,25,38,39,40,41 SoC_I2C1_SDA
Silk: SOC_I2C1

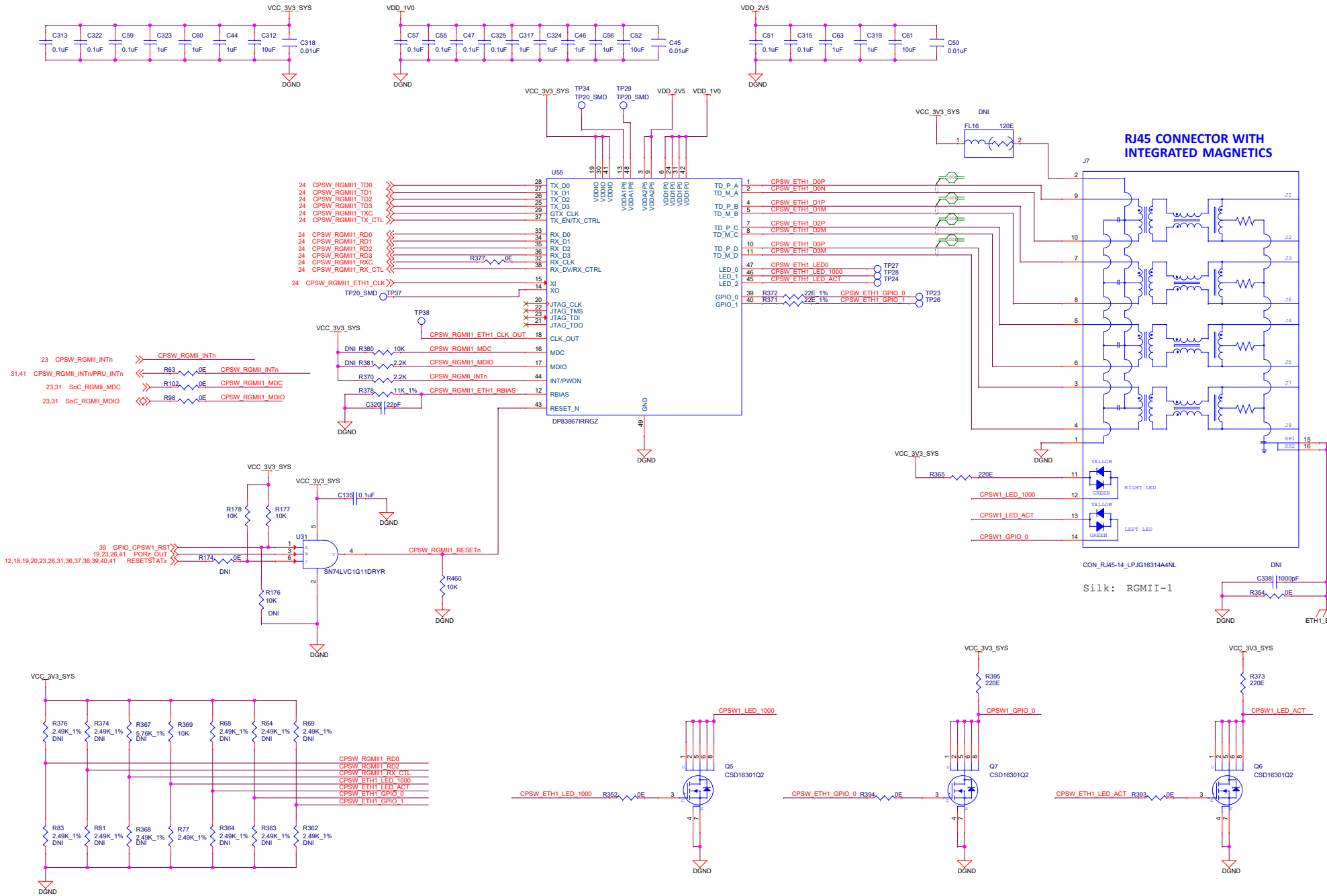
Designed for TI by Mistral Solutions Pvt Ltd



Title BOARD ID EEPROM & TEMPERATURE SENSORS

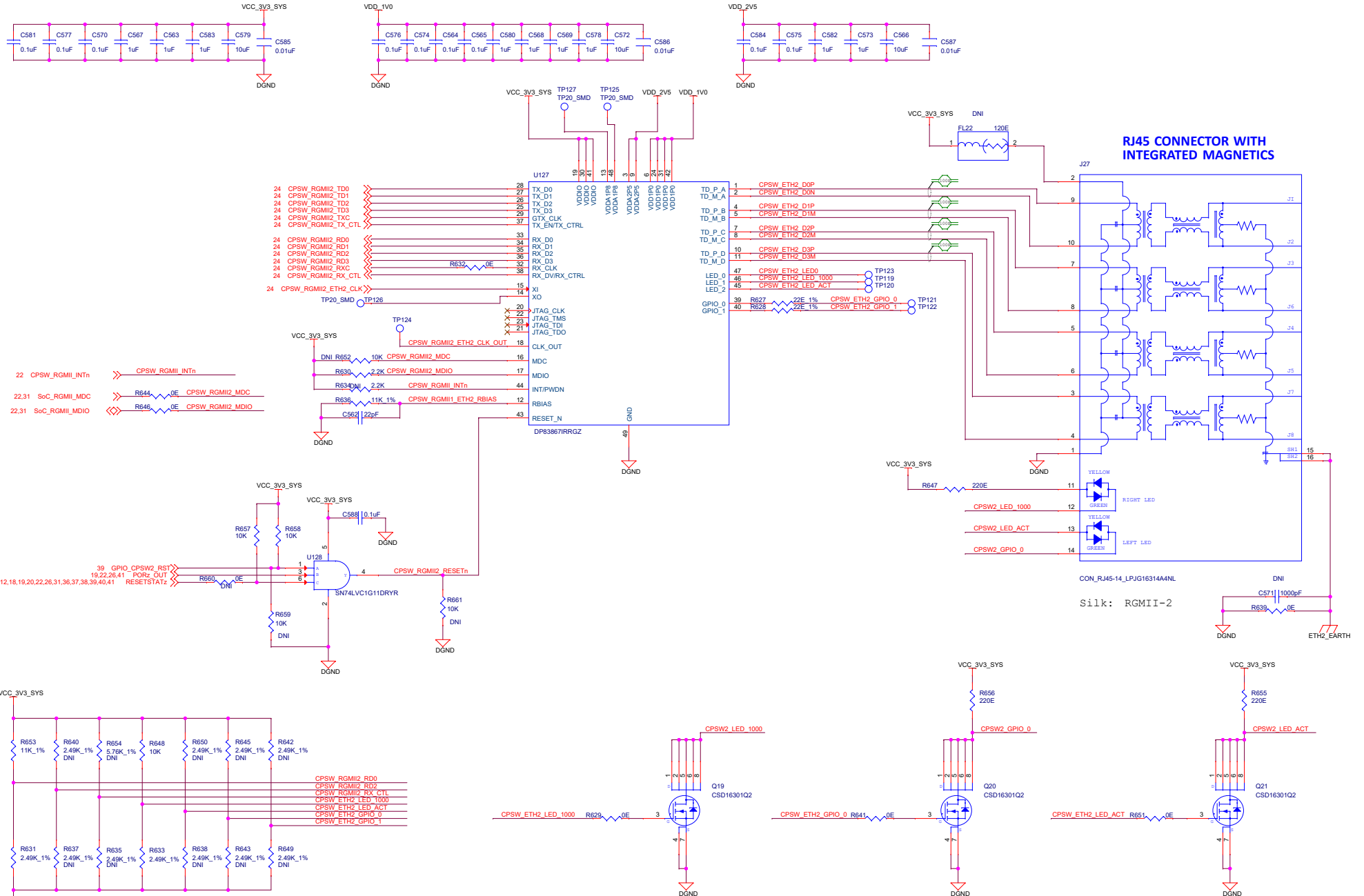
Size	PROC124E2A AM62x-LOW POWER SKEVM	Rev
C		E2A
Date:	Thursday, April 13, 2023	Sheet 21 of 44

CPSW RGMII 1 - PHY



PHY ADDRESS = 0000
 Auto-Negotiation Disabled
 10/100/1000 advertised, Auto-MDI-X
 Tx Clock Skew = 0ns
 Rx Clock Skew = 2ns

CPSW RGMII 2 - PHY



Designed for TI by Mistral Solutions Pvt Ltd

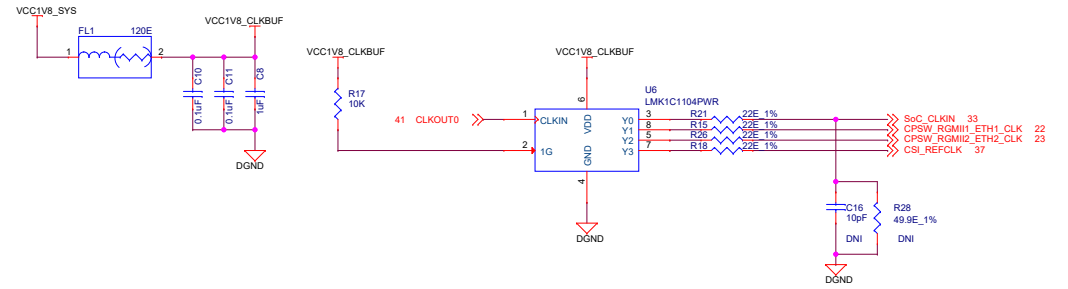


Title CPSW RGMII_1 ETHERNET PHY

Size	Rev
C	E2A
Date: Thursday, April 13, 2023	Sheet 23 of 44



ETHERNET PHY CLOCK BUFFER



Designed for TI by Mistral Solutions Pvt Ltd

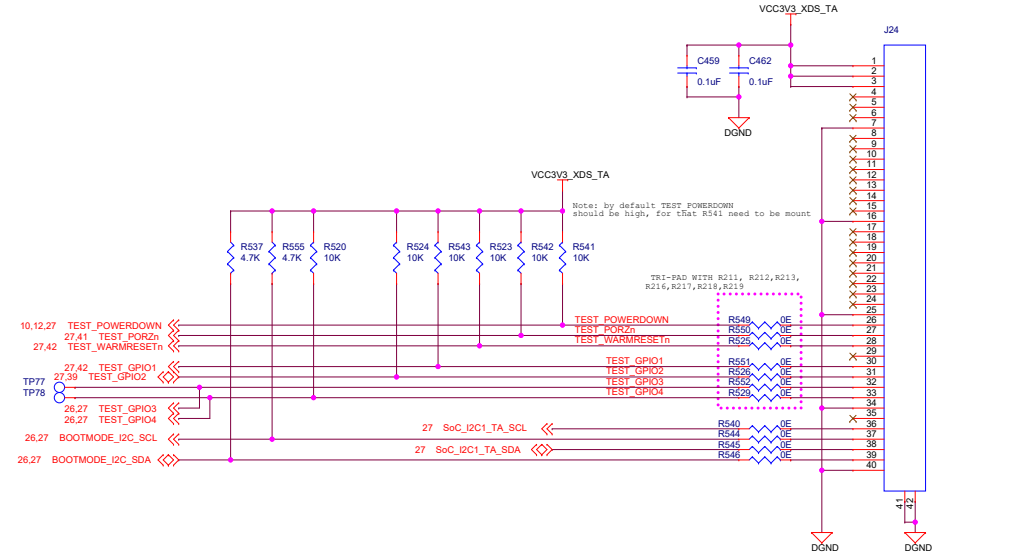
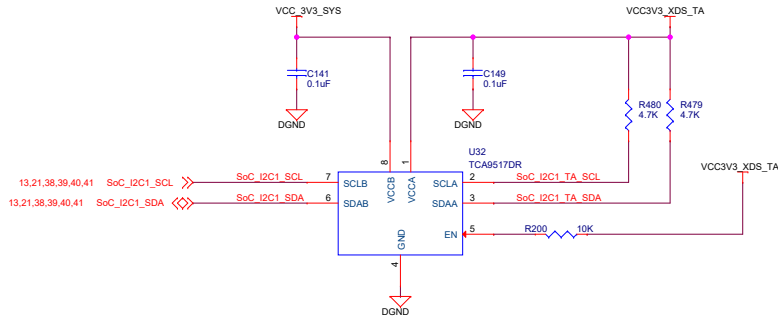


Title ETHERNET PHY CLOCK BUFFER & LED DRIVER

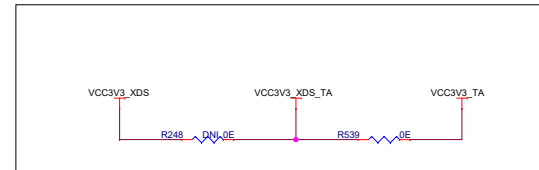
Size	Rev
C	E2A
Date: Thursday, April 13, 2023	Sheet 24 of 44

40-PIN TEST AUTOMATION HEADER

I2C BUS BUFFER

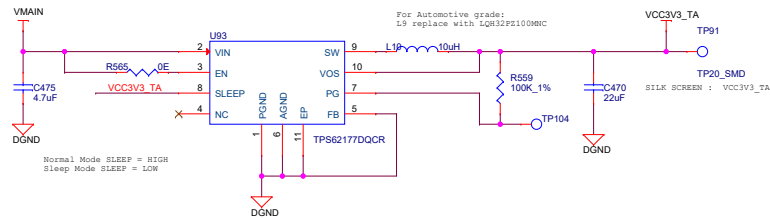


CON_FLEX_40X1_FH12A-40S-0.5SH
Silk: AUTOMATION HDR



TEST AUTOMATION BOARD POWER

VinMin = 4.75V
VinMax = 24V
Vout = 3.3V @ 0.5A



TEST AUTOMATION GPIO MAPPING

SIGNAL NAME	DESCRIPTION	Direction WRT CTRL	Internal/ External 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

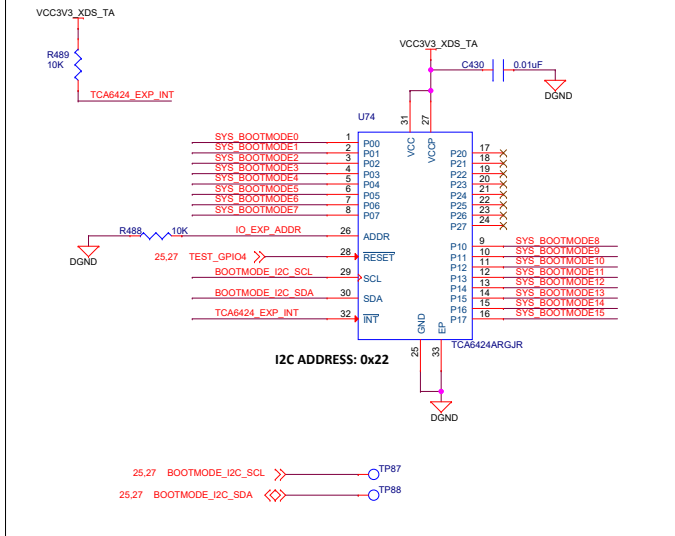
Designed for TI by Mistral Solutions Pvt Ltd



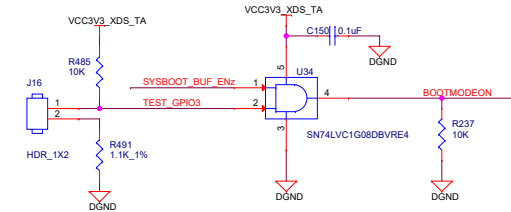
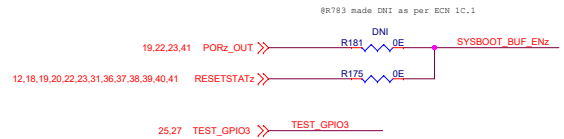
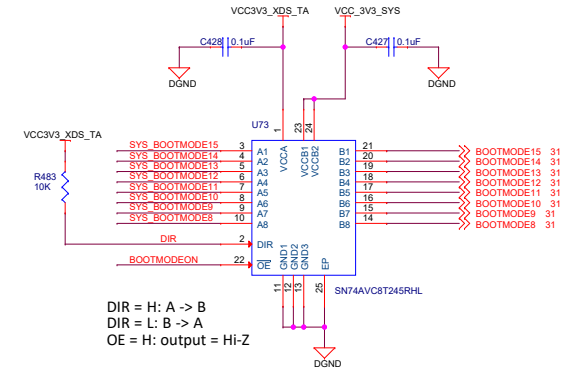
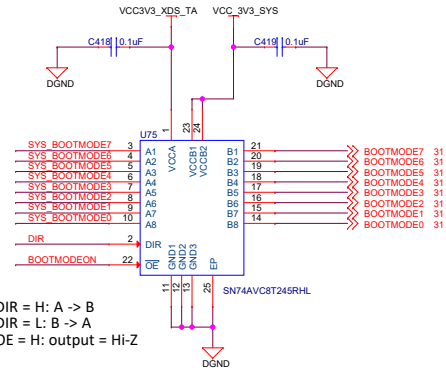
Title TEST AUTOMATION

Size	PROC124E2A AM62x-LOW POWER SKEVM	Rev
C		E2A
Date:	Thursday, April 13, 2023	Sheet 25 of 44

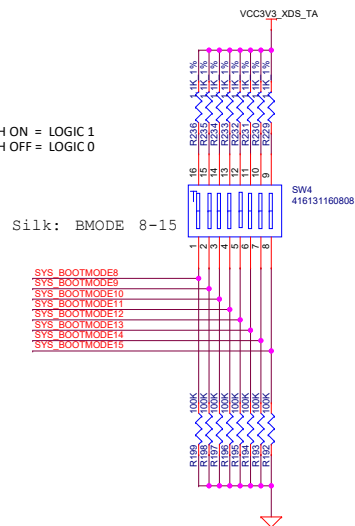
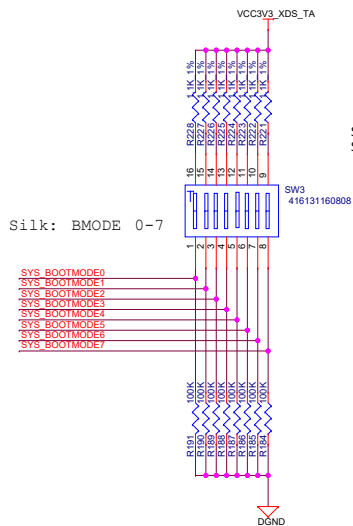
BOOTMODE IO EXPANDER



BOOT MODE BUFFERS



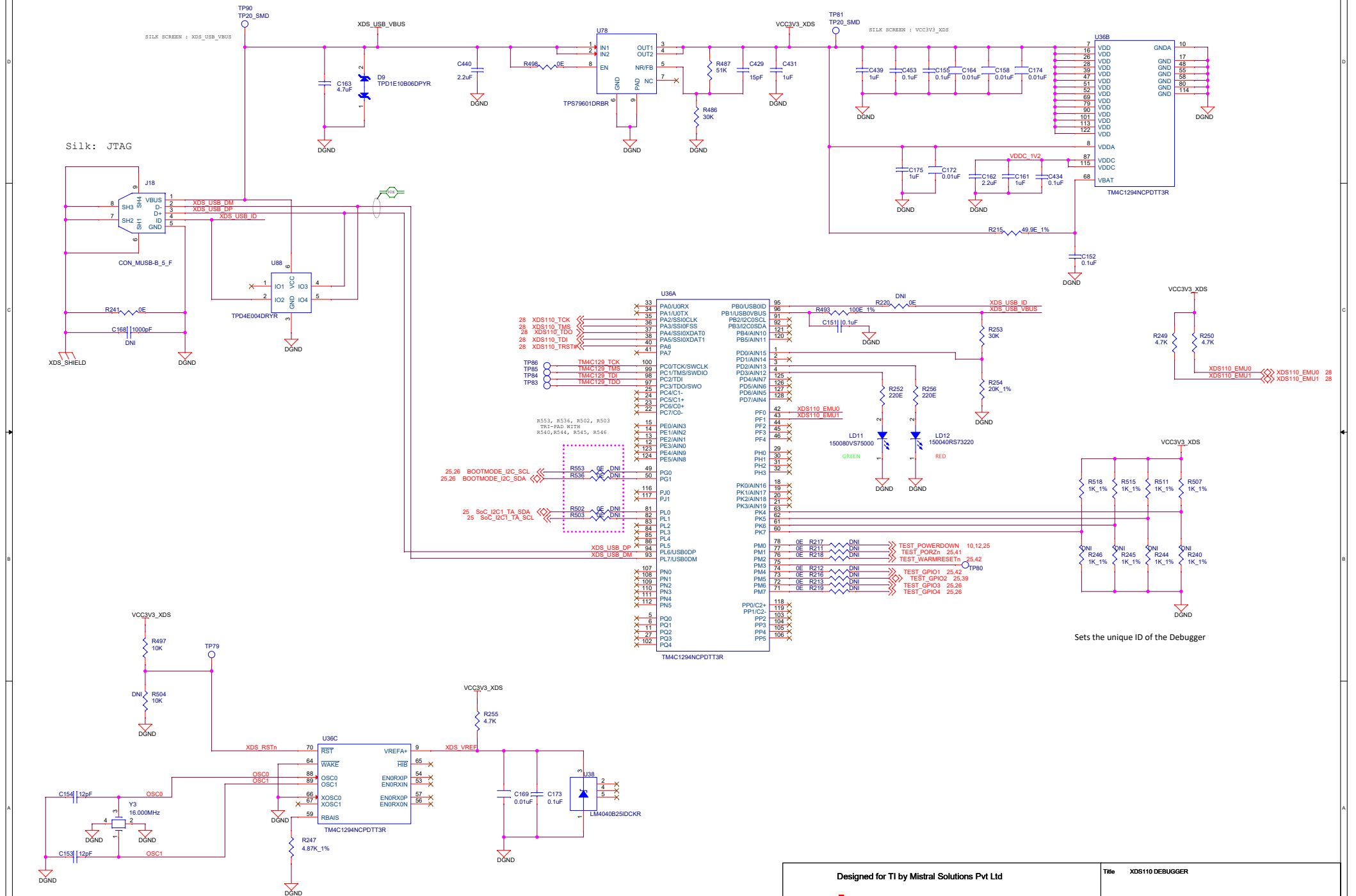
BOOT MODE SWITCHES



BOOT MODES SUPPORTED

1. OSPI
2. MMC1 - SD CARD
3. UART
4. eMMC
5. BACKUP BOOT OPTION

XDS110 DEBUGGER

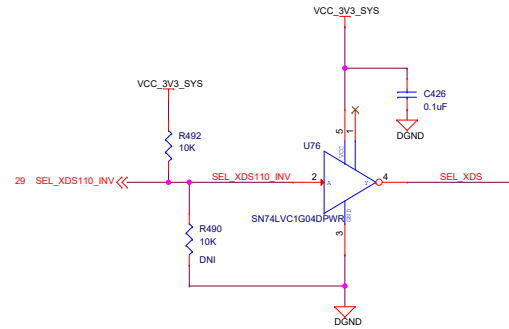
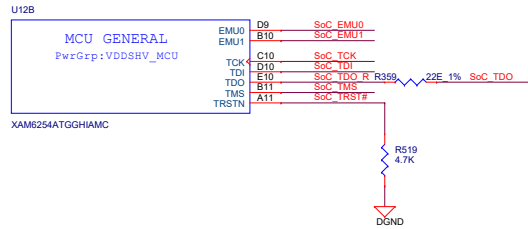


Designed for TI by Mistral Solutions Pvt Ltd

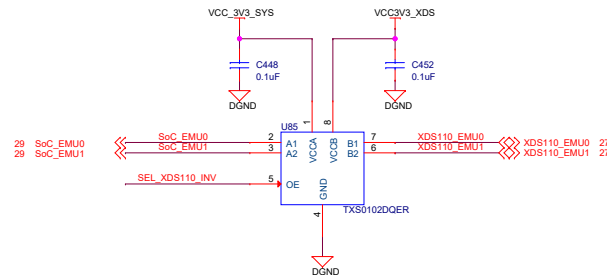
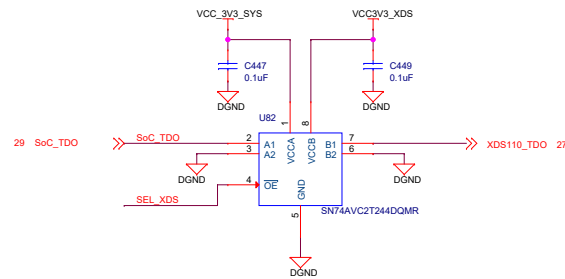
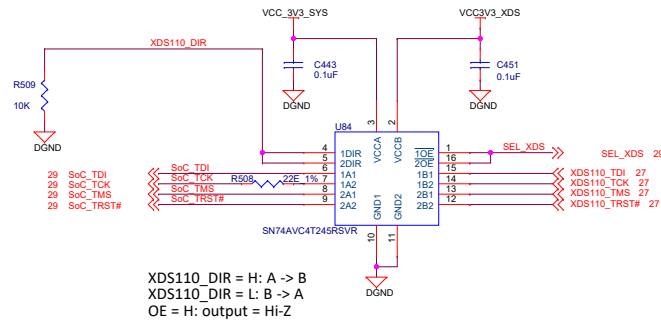


Title				XDS110 DEBUGGER			
Size		PROC124E2A AM62x-LOW POWER SKEVM				Rev	
C						E2A	
Date: Thursday, April 13, 2023				Sheet 27 of 44			

JTAG SOC SECTION



BUFFER XDS110



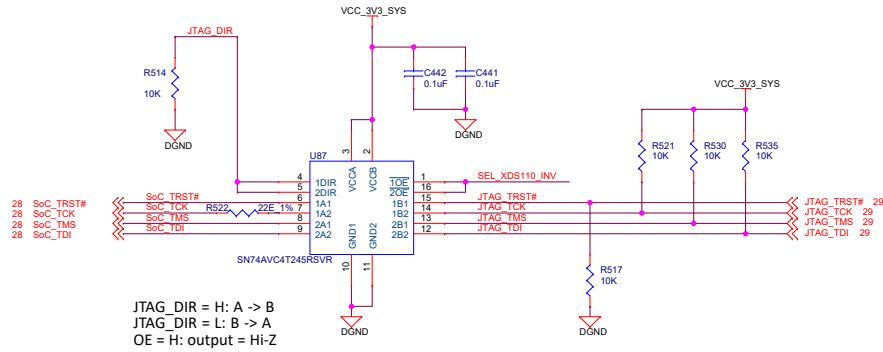
Designed for TI by Mistral Solutions Pvt Ltd



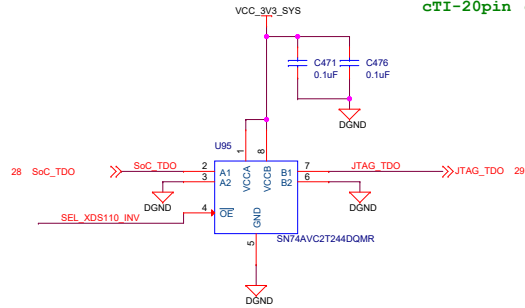
Title JTAG BUFFER

Size	PROC124E2A AM62x-LOW POWER SKEVM	Rev
C		E2A
Date:	Thursday, April 13, 2023	Sheet 28 of 44

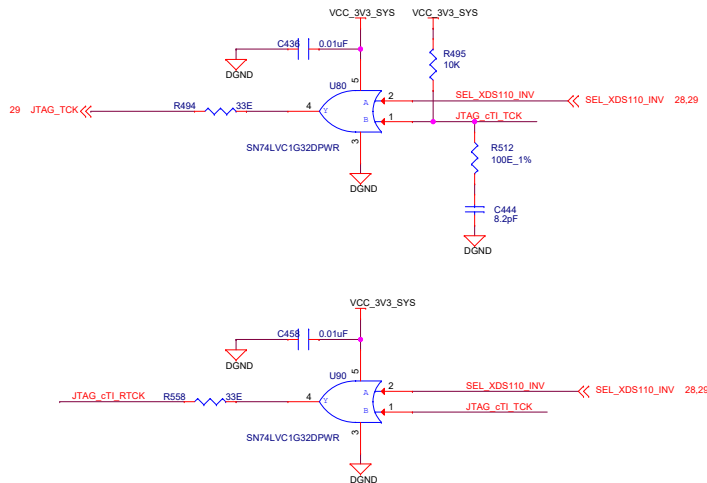
cTI20 JTAG BUFFERS



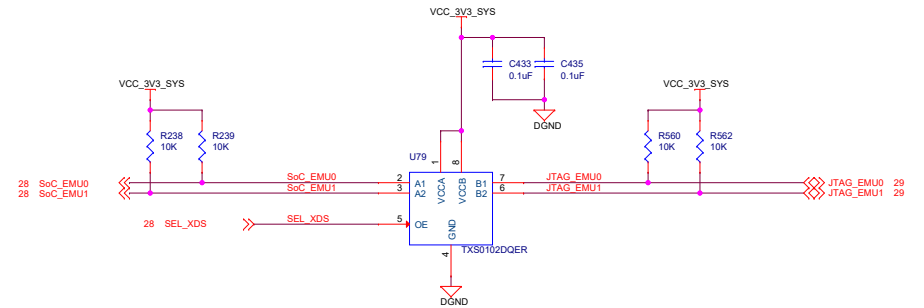
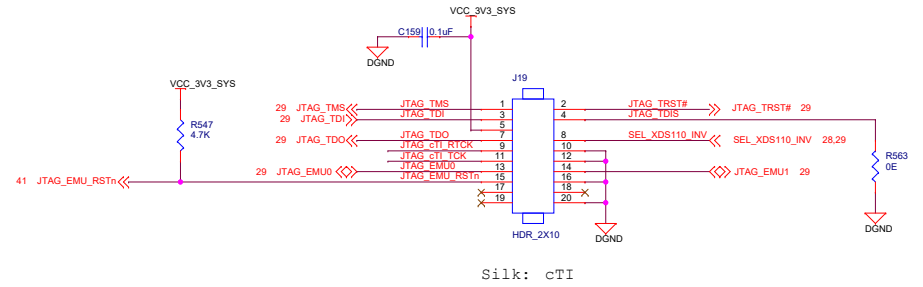
CAD NOTE: Buffers U99 and U101 need to be placed closer to the cTI-20pin connector J11 to reduce Stub length of the JTAG signals.



JTAG CLOCK BUFFER



JTAG 20 PIN cTI CONNECTOR



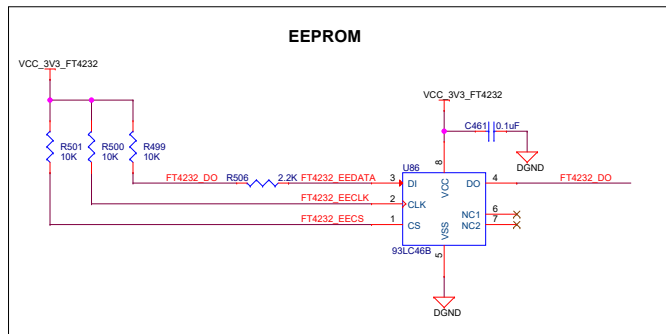
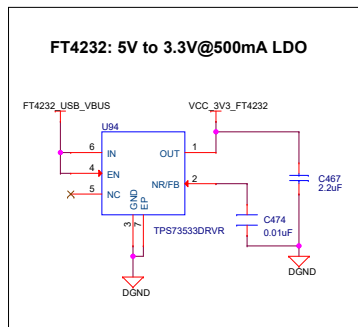
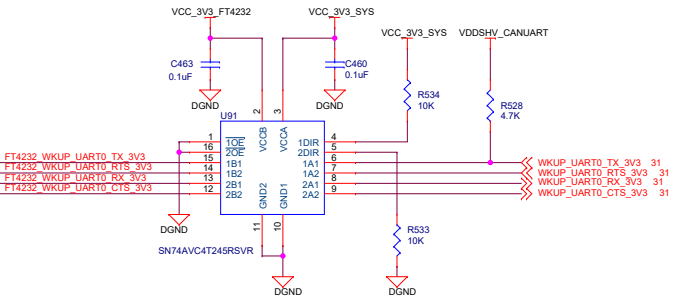
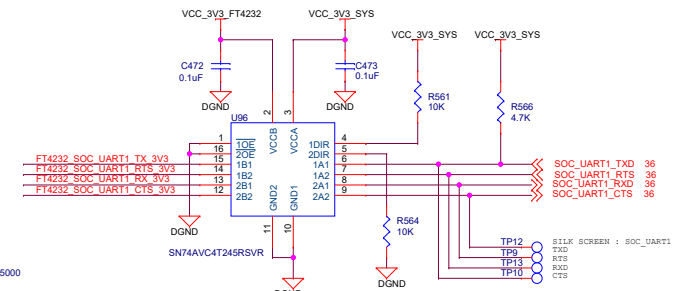
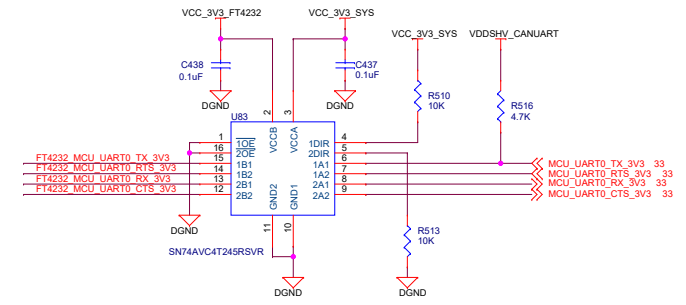
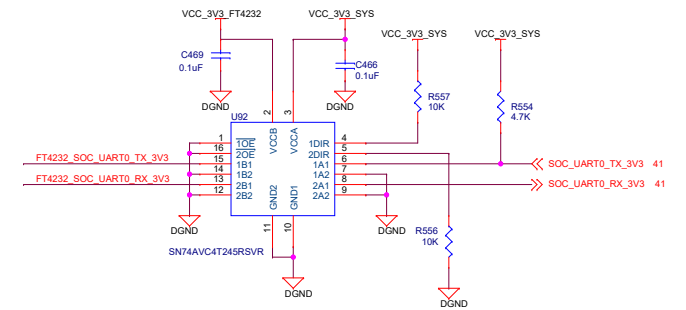
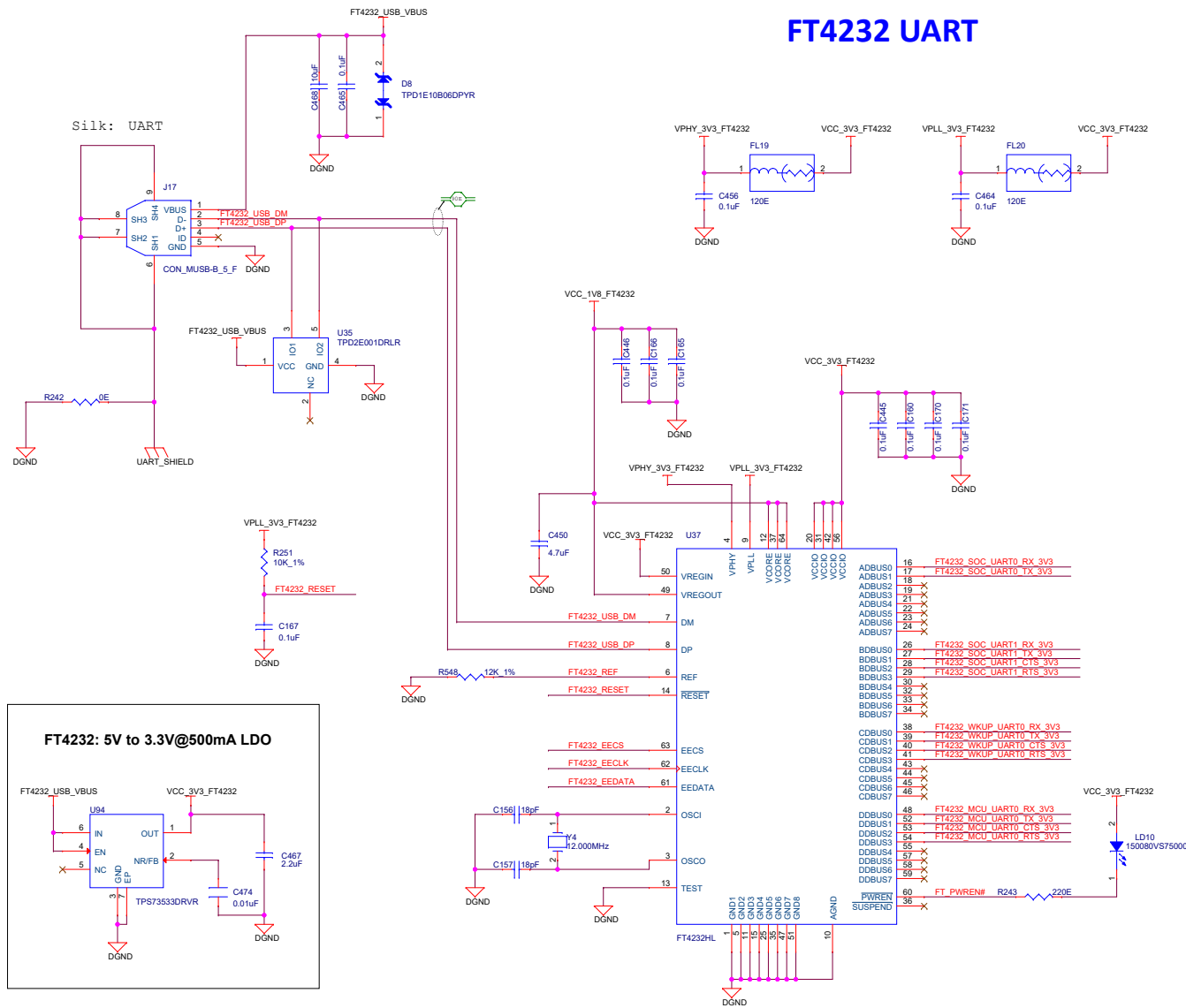
Designed for TI by Mistral Solutions Pvt Ltd



Title JTAG 20 PIN cTI CONNECTOR

Size	Rev
C	E2A
Date: Thursday, April 13, 2023	Sheet 29 of 44

FT4232 UART



Designed for TI by Mistral Solutions Pvt Ltd



Title	FT4232 UART TO USB BRIDGE
-------	---------------------------

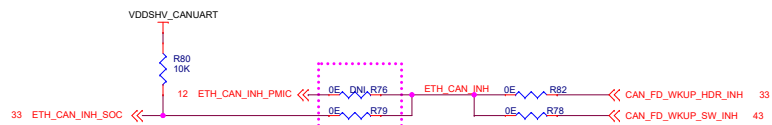
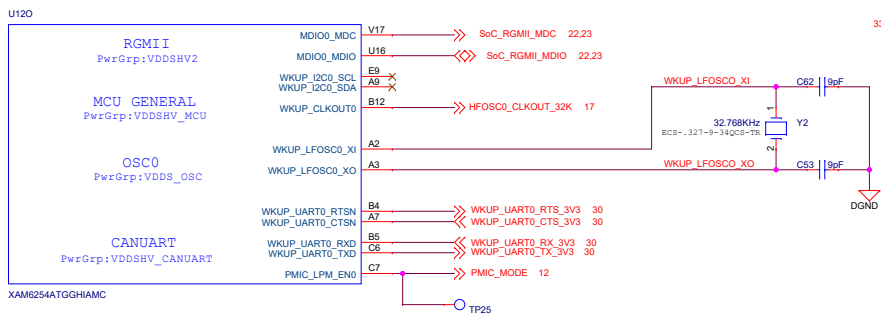
Size	PROC124E2A, AM62x LOW POWER SKEWM
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C			E
Date: Thursday, April 13, 2023		Sheet 30 of 44	

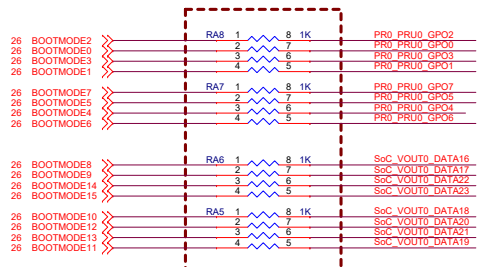
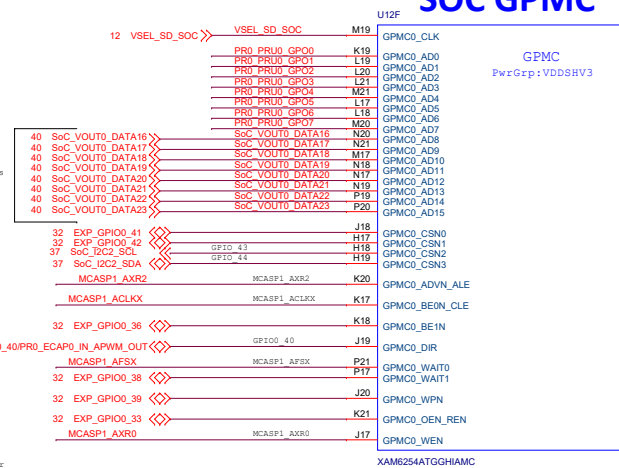
Rev

4

SOC WKUP DOMAIN

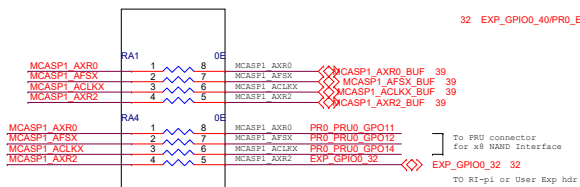


SOC GPMC



NOTE: 1.1K Resistors are used to isolate the BOOTMODE control logic after the value is latched

Cad Note: Place such that stubs are minimum.
useTRIPAD ACTION

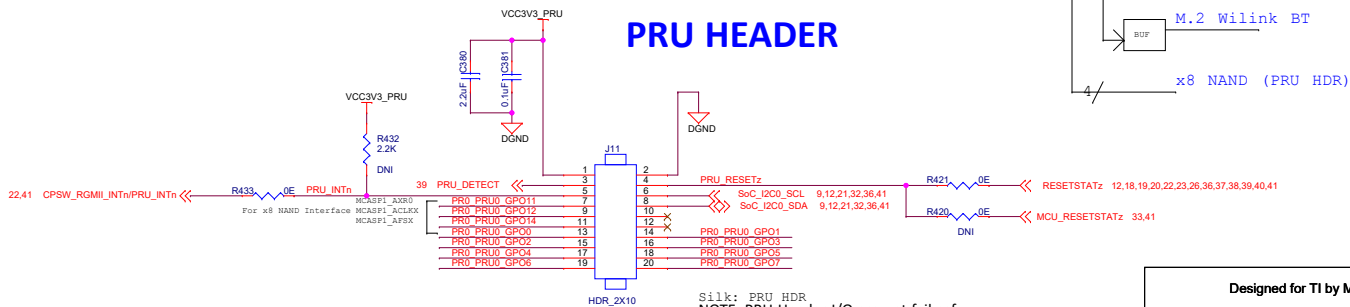


To FRU connector
for x8 NAND Interface

XP_GPIO0_32 32

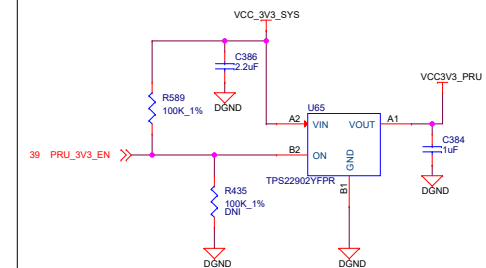
TO RI-pi or User Exp

PRU HEADER



Silk: PRU HDR
NOTE: PRU Header I/O are not fail-safe and shall not be driven when AM62x Starter Kit is not powered.

POWER SWITCH FOR PRU HEADER



3V3 supply of PRU Header is limited to sourcing 500mA max.

Designed for TI by Mistral Solutions Pvt Ltd

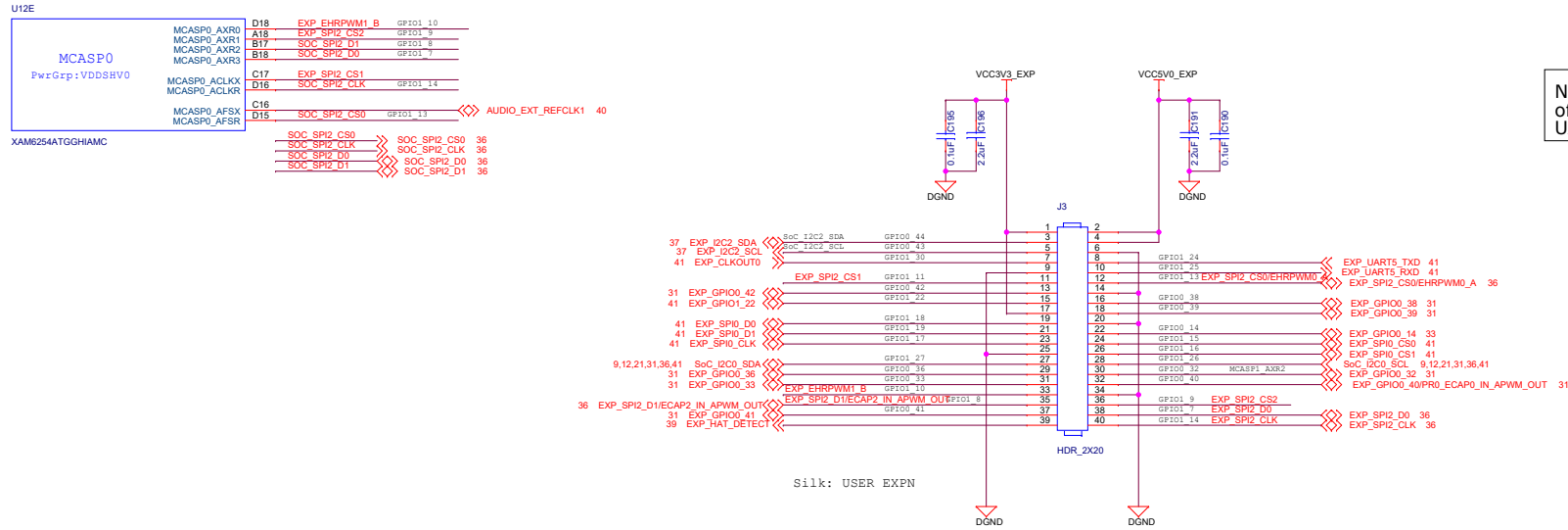


Title	PRU HEADER
-------	------------

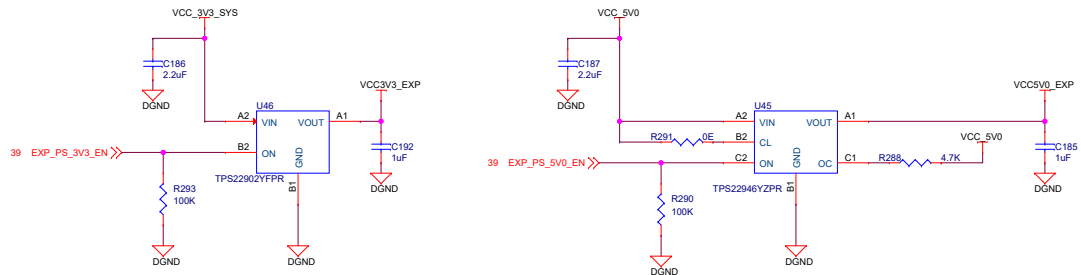
Size	PROC124E2A AM62x-LOW POWER SKEVM
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C		
Date:	Thursday, April 13, 2023	Sheet 31 of 44

USER EXPANSION CONNECTOR



POWER SWITCHES FOR USER EXPANSION CONNECTOR



NOTE:

AM62x 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 AM62x 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.

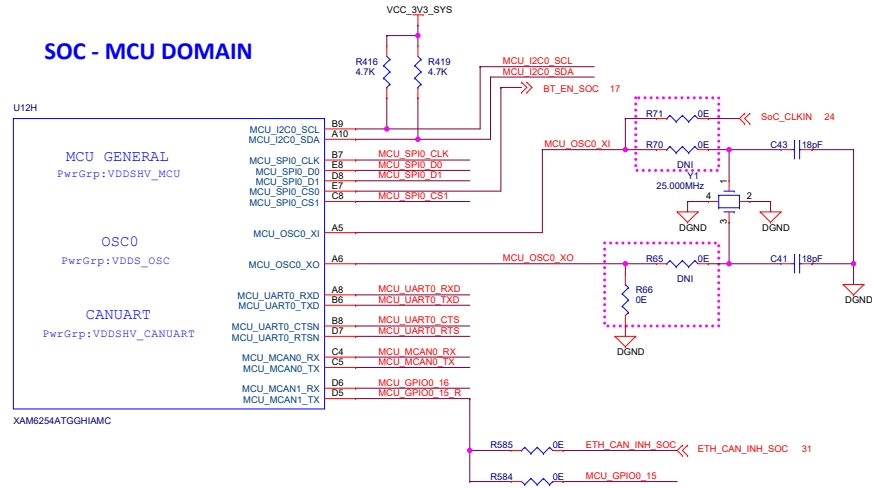
Designed for TI by Mistral Solutions Pvt Ltd



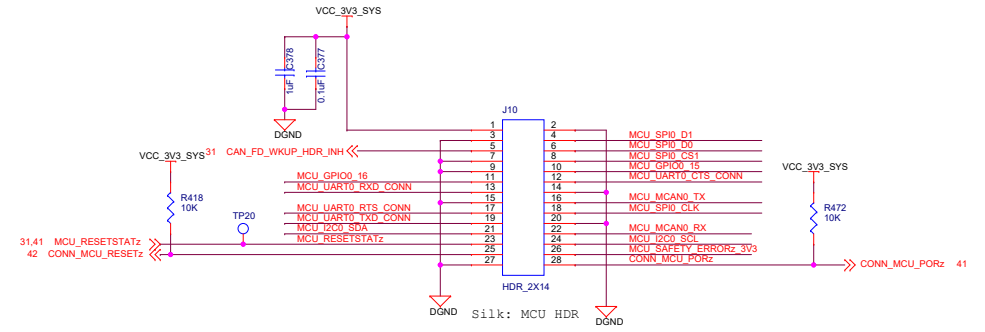
Title USER EXPANSION CONNECTOR

Size	Rev
C	E2A
Date: Thursday, April 13, 2023	Sheet 32 of 44

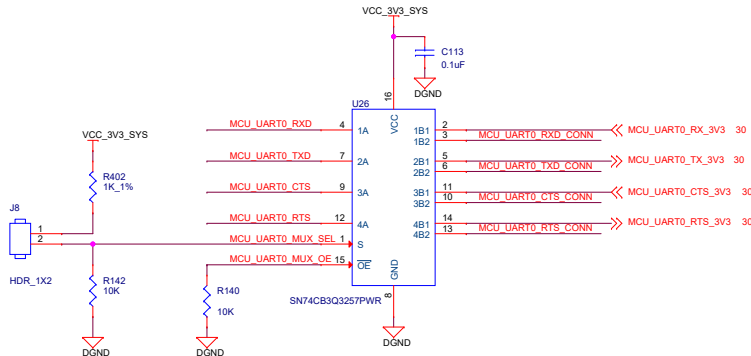
SOC - MCU DOMAIN



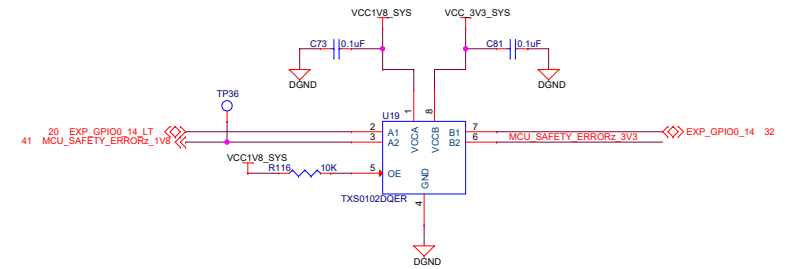
MCU HEADER



MCU_UART0 MUX



OEn	SEL	INPUT/OUTPUT An	
L	L (DEFAULT)	An=nB1	SOC - FT4232
L	H	An=nB2	SOC - MCU HEADER



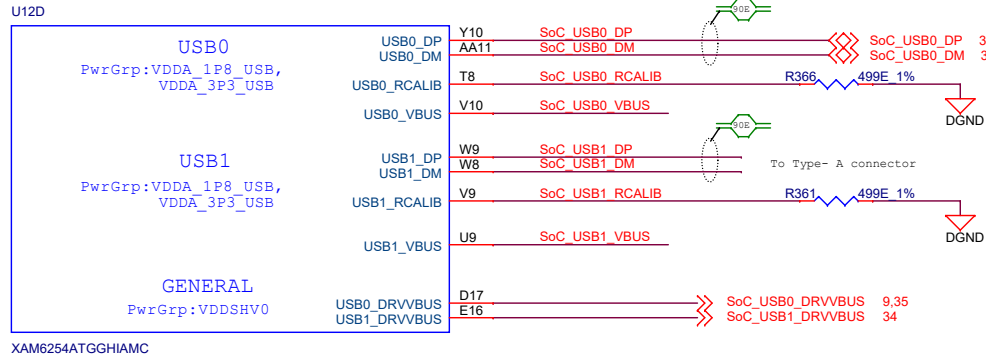
Designed for TI by Mistral Solutions Pvt Ltd



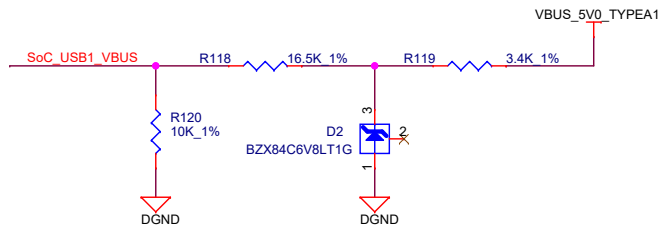
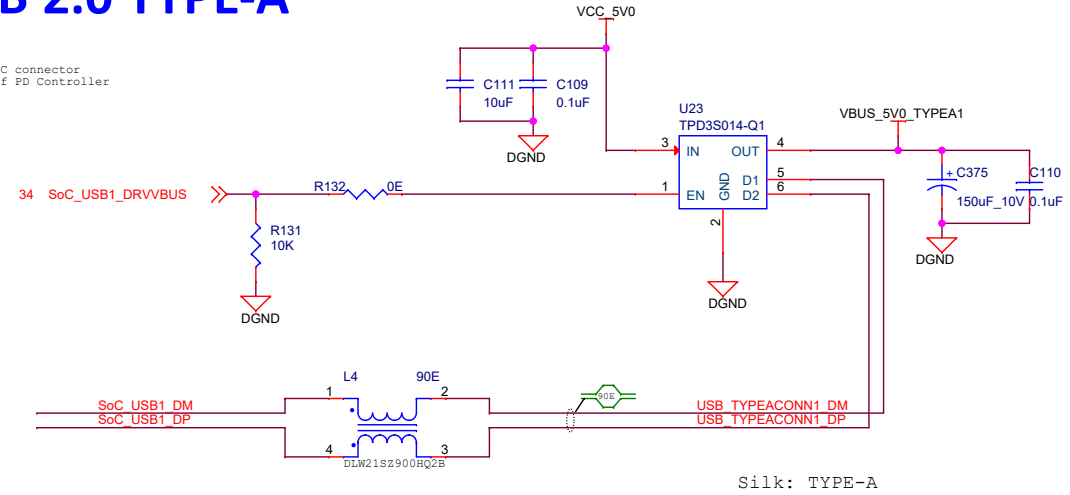
Title MCU HEADER

Size	PROC124E2A AM62x-LOW POWER SKEVM	Rev	E2A
C			
Date:	Thursday, April 13, 2023	Sheet	33 of 44

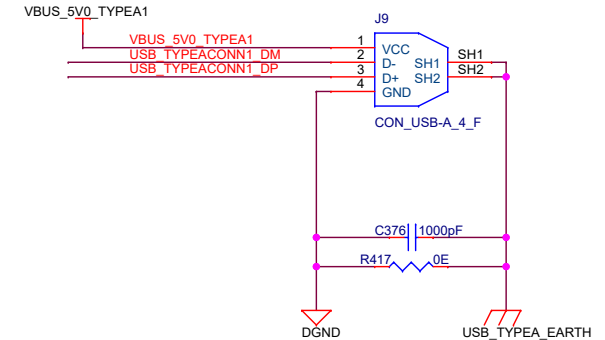
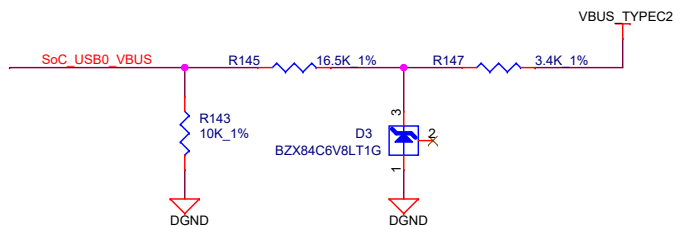
USB 2.0 TYPE-A



To Type- C connector
Port: 2 of PD Controller



Note: Recommended VBUS circuit for USB connector. Supports 5V-30V VBUS



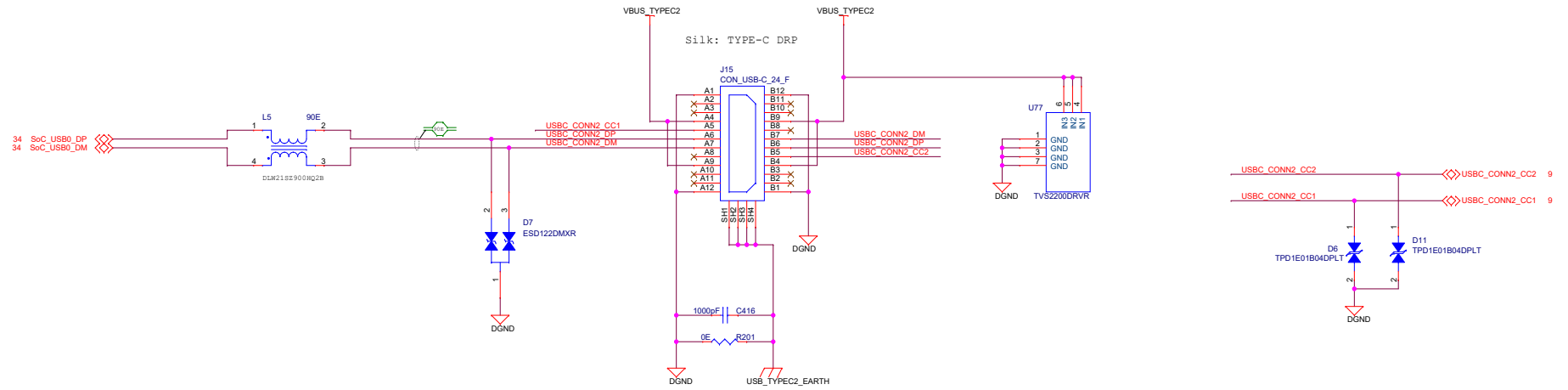
Designed for TI by Mistral Solutions Pvt Ltd



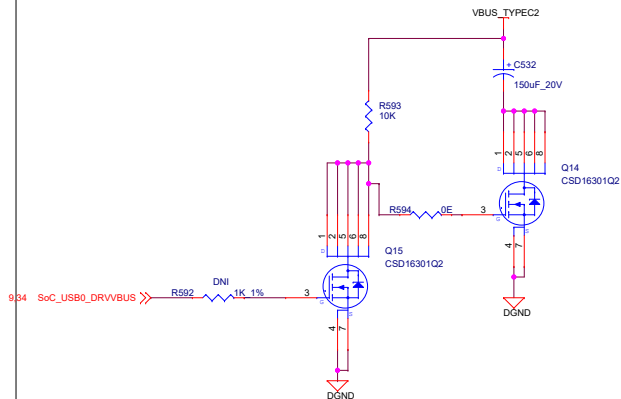
Title USB 2.0 TYPE-A

Size	Rev
B	E2A
Date: Thursday, April 13, 2023	Sheet 34 of 44

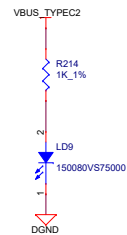
USB 2.0 TYPE-C DRP



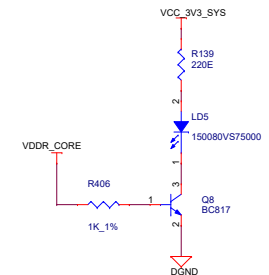
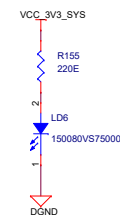
MOSFET SWITCH FOR ADDITIONAL CAPACITANCE



POWER INDICATION LED: VBUS_TYPEC2



POWER RAIL LEDS



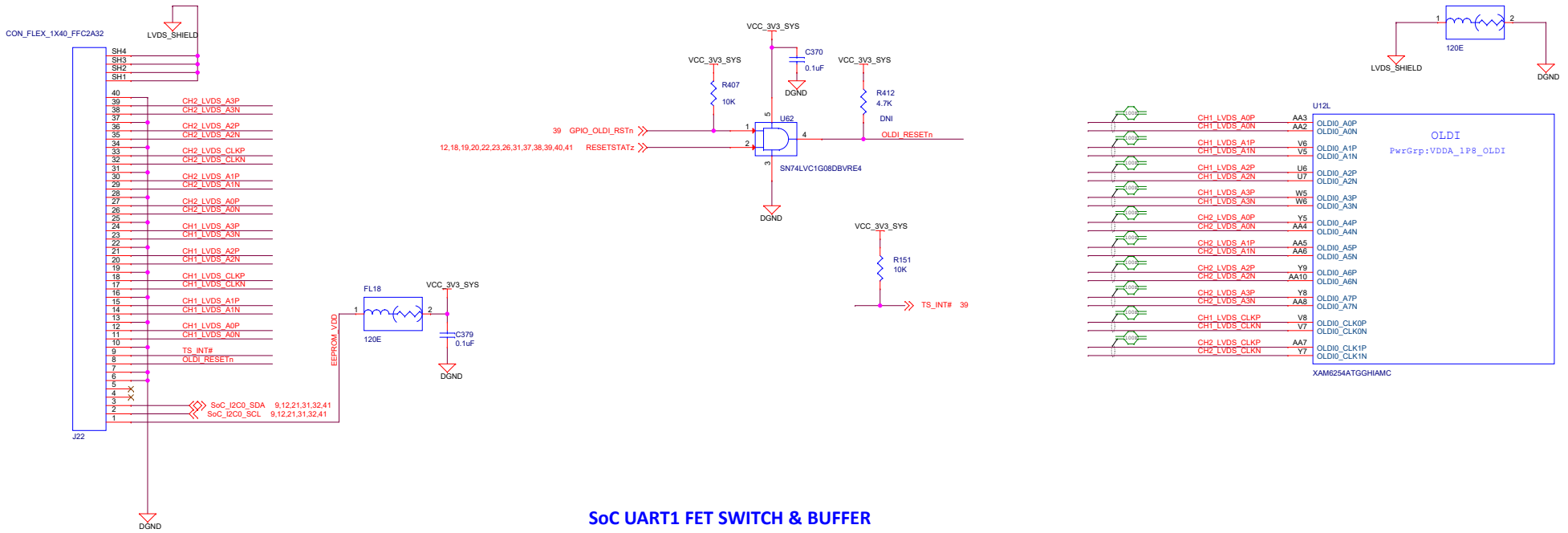
Designed for TI by Mistral Solutions Pvt Ltd



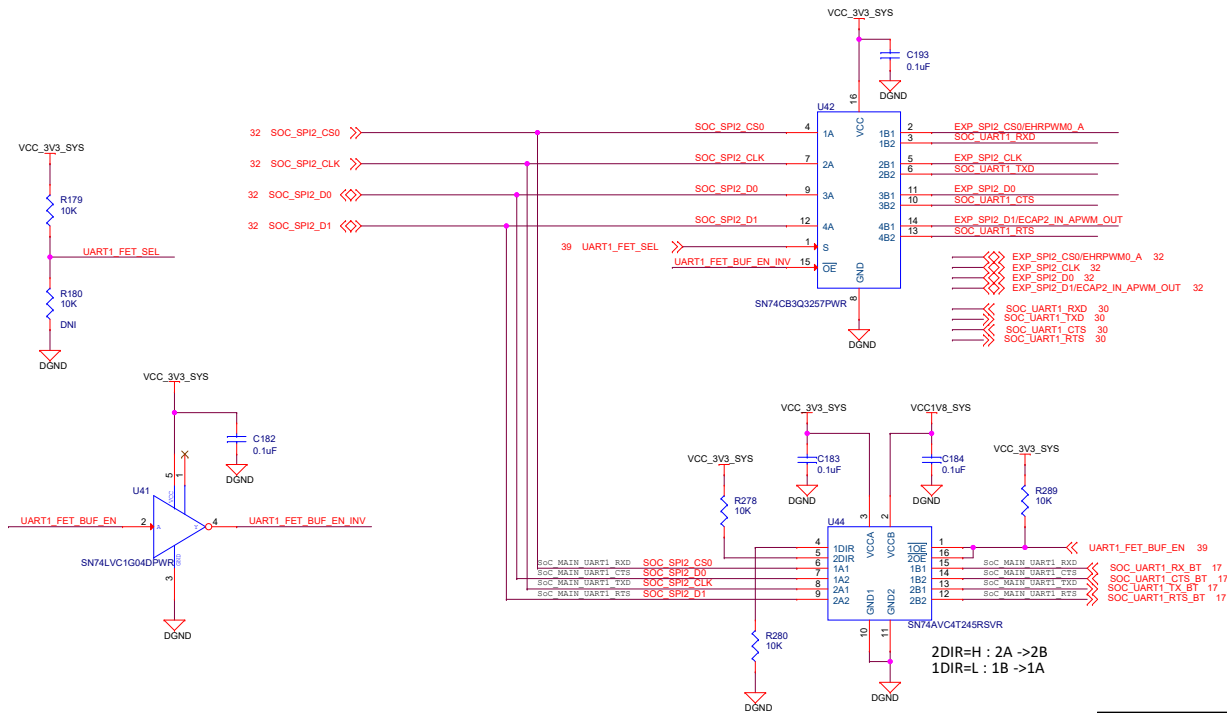
Title USB TYPE-C DRP

Size	PROC124E2A AM62x-LOW POWER SKEVM	Rev
C		E2A
Date:	Thursday, April 13, 2023	Sheet 35 of 44

OLDI DISPLAY INTERFACE



SoC UART1 FET SWITCH & BUFFER



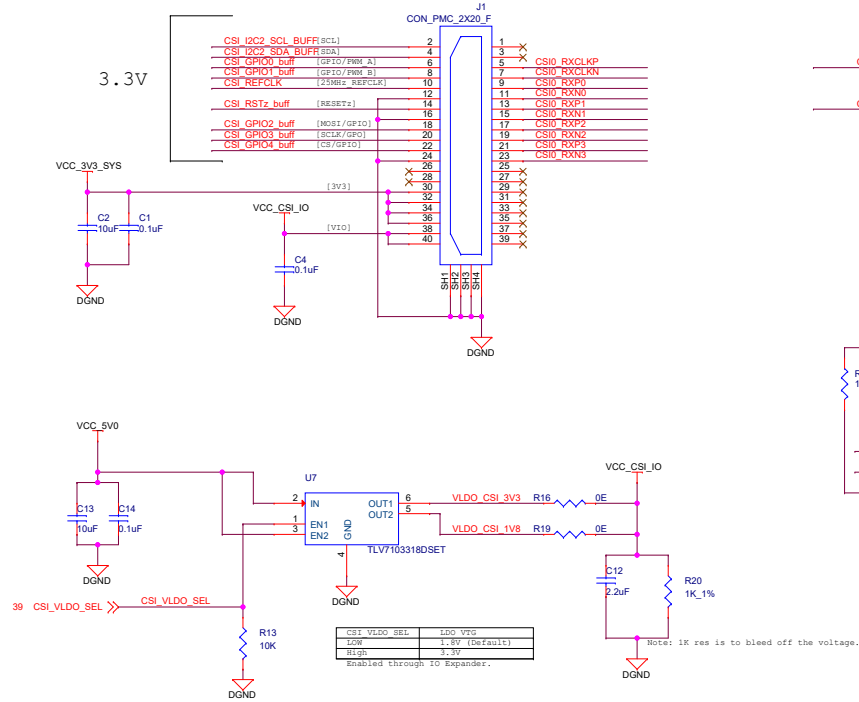
OEn	SEL	INPUT/OUTPUT An	
L	L	An=nB1	SOC - EXP CONN
L	H (DEFAULT)	An=nB2	SOC - FT4232



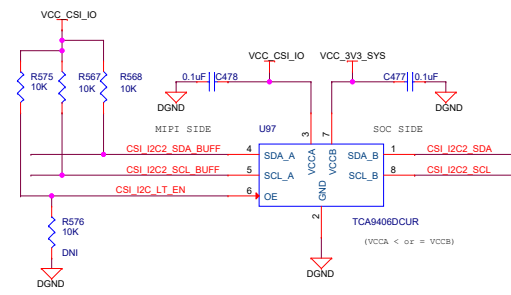
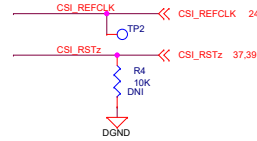
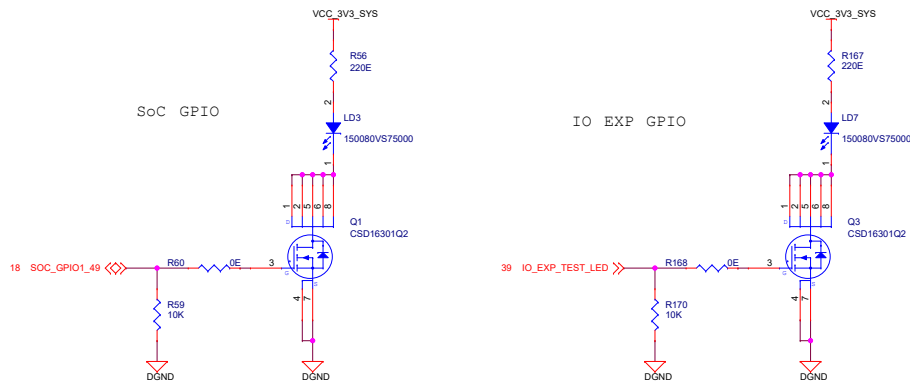
CSI INTERFACE

MIPI Connector

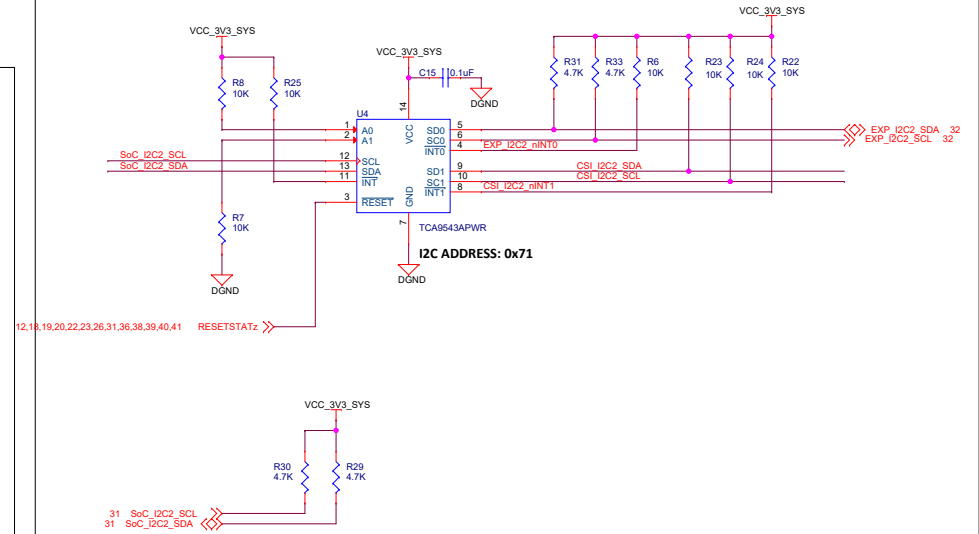
Silk: CSI0 EXP



USER TEST LEDs



I2C SWITCH FOR SoC_I2C2



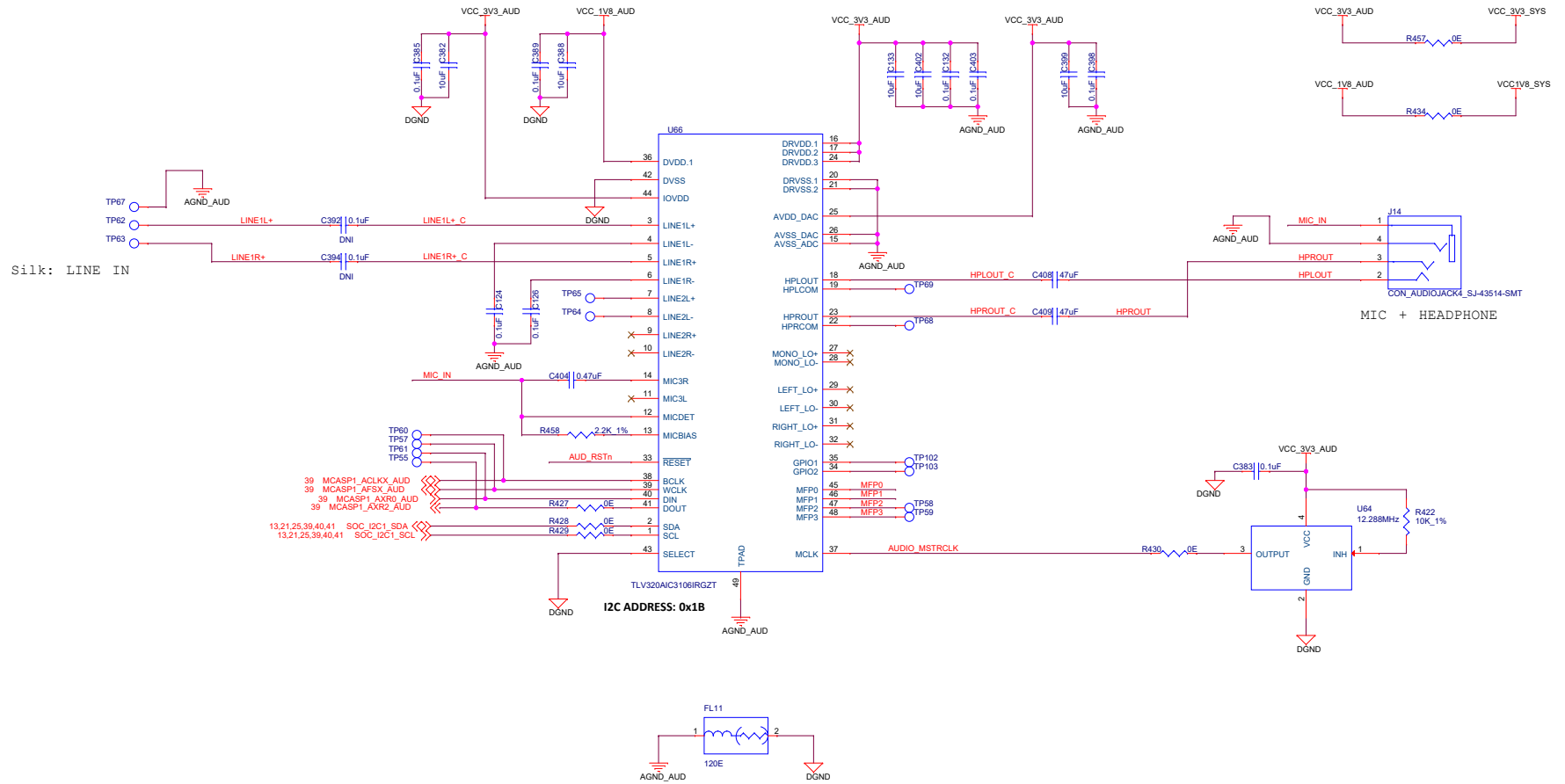
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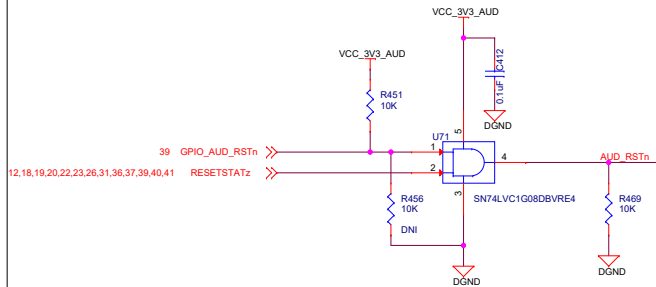
Title CSI INTERFACE & USER TEST LEDs

Size	Rev
C	E2A
Date: Thursday, April 13, 2023	Sheet 37 of 44

AUDIO CODEC

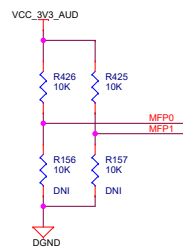


AUDIO CODEC RESET



CODEC I2C ADDRESS SELECTION

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



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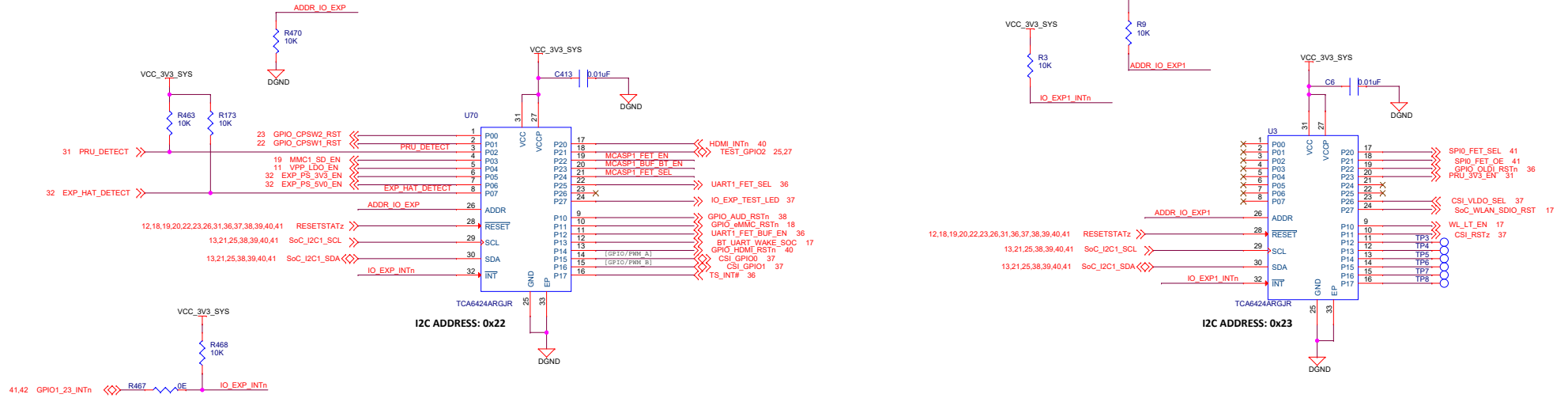
Title	AUDIO CODEC
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Size	PROC124E2A AM62x-LOW POWER SKEVM
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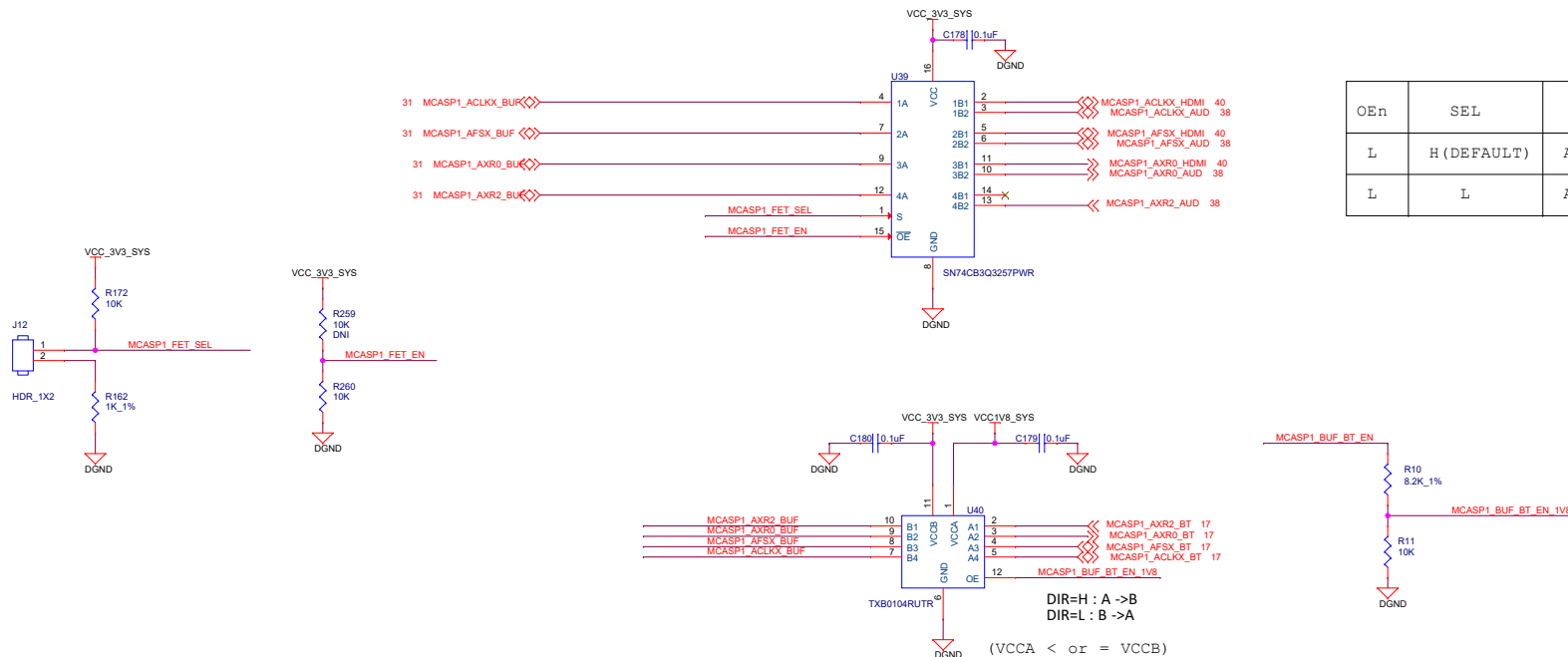
C			E2
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Rev
E2A

IO EXPANDER



McASP1 FET SWITCH & BUFFER



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

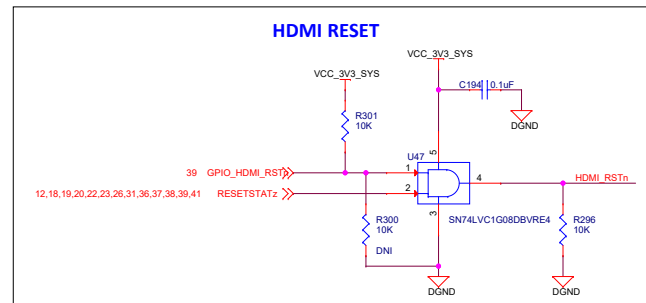
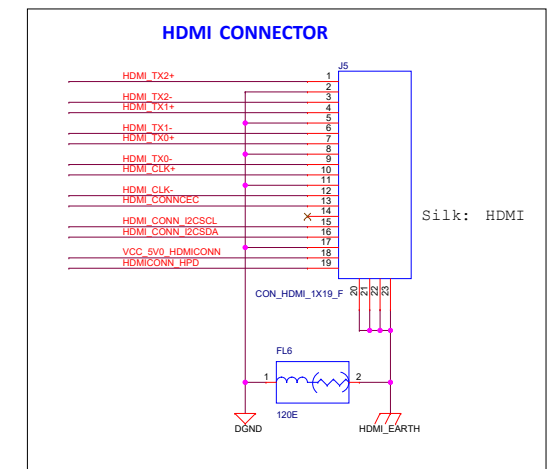
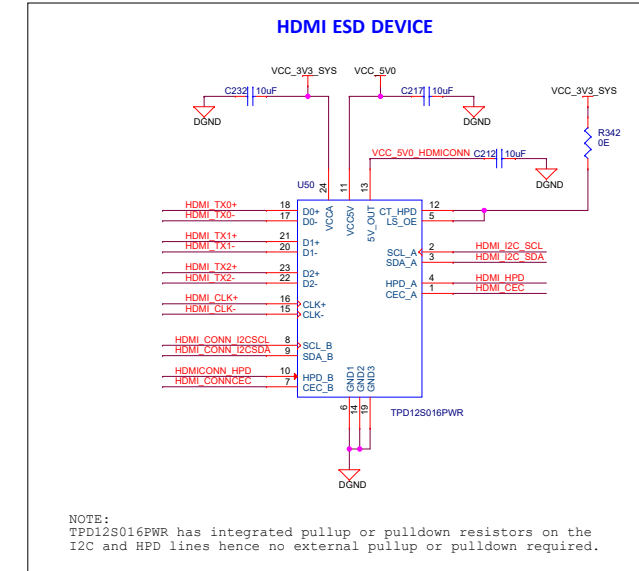
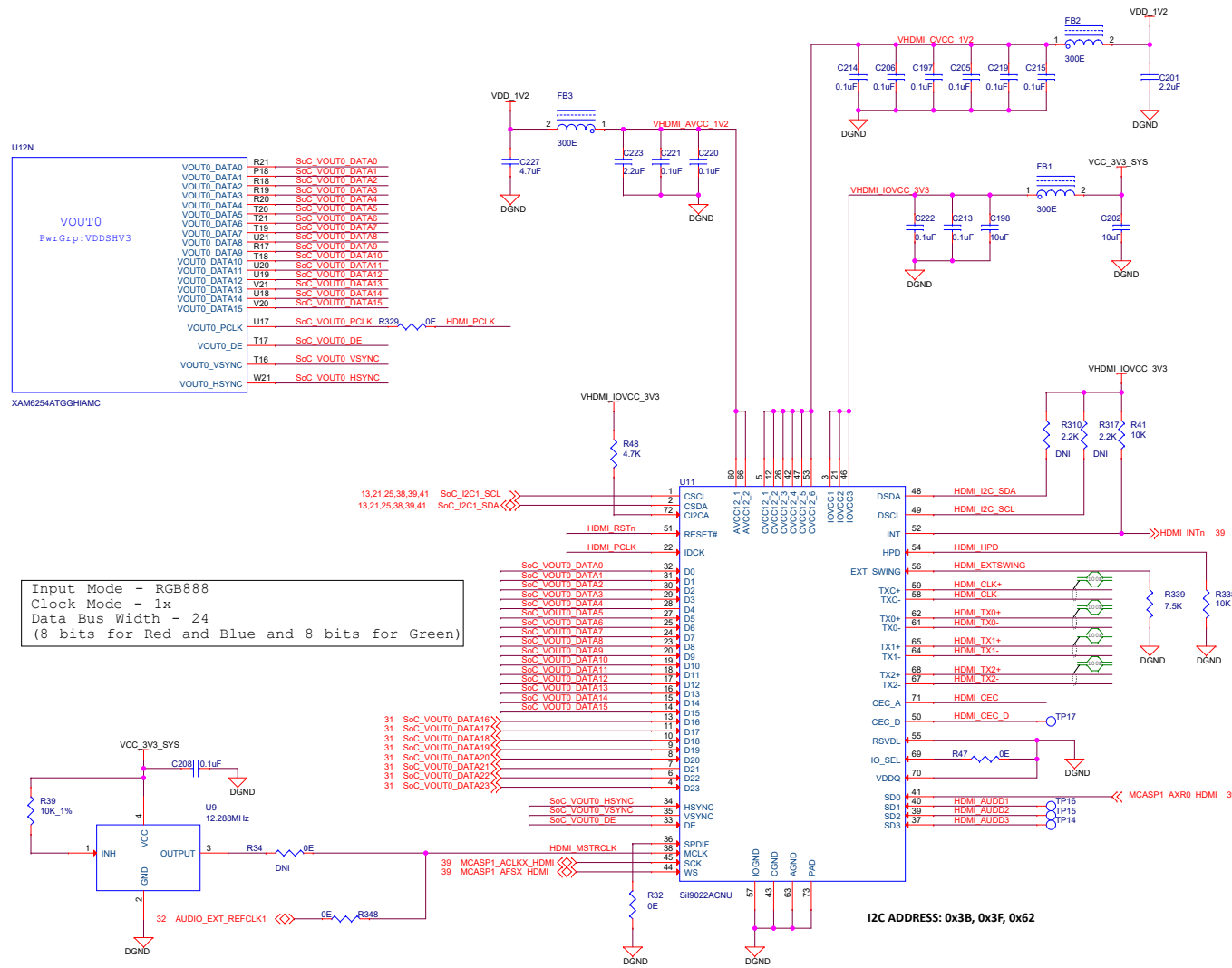
Designed for TI by Mistral Solutions Pvt Ltd



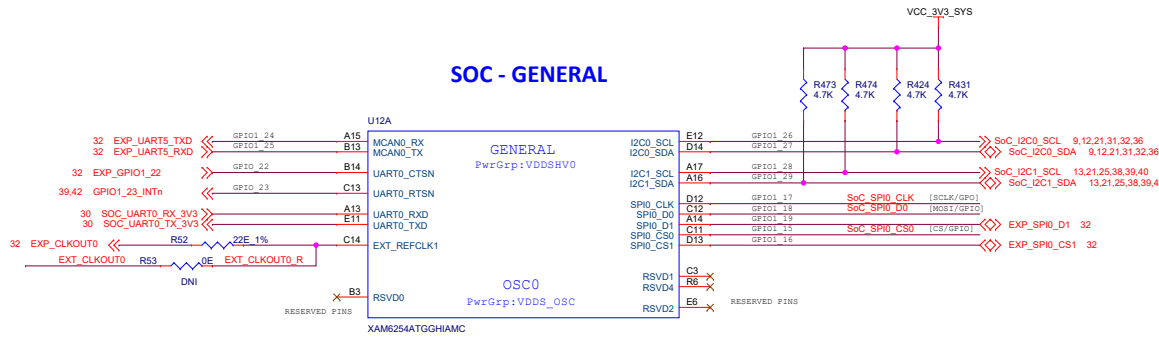
Title IO EXPANDER

Size	PROC124E2A AM62x-LOW POWER SKEVM	Rev	E2A
C			
Date:	Thursday, April 13, 2023	Sheet	39 of 44

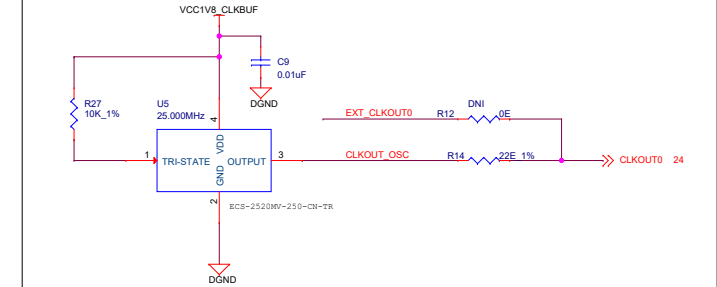
HDMI INTERFACE



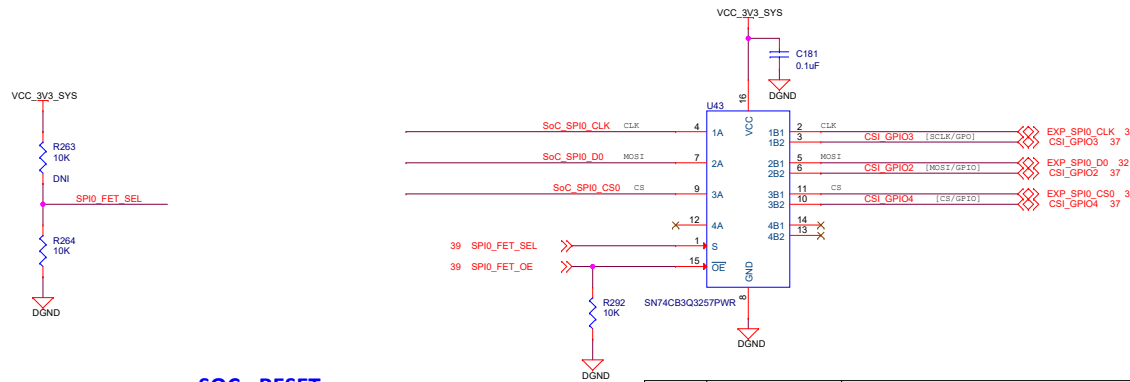
SOC - GENERAL



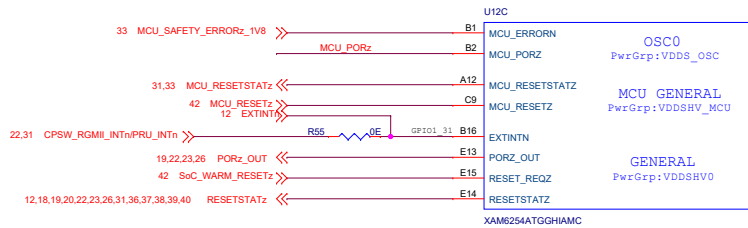
OSCILLATOR



SoC SPI0 FET SWITCH



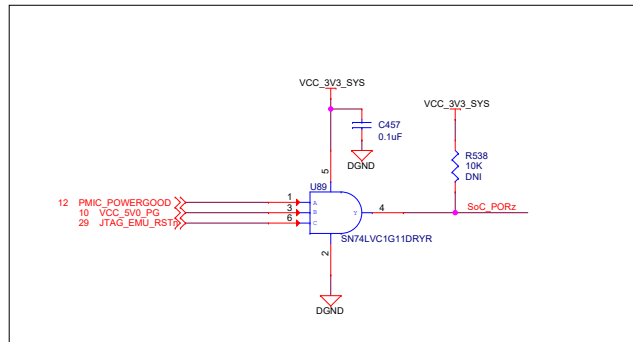
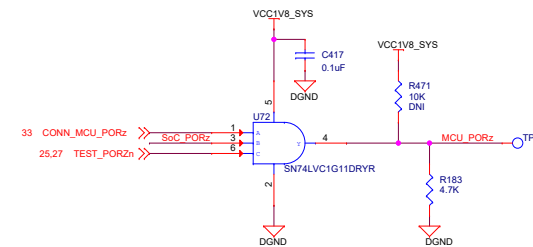
SOC - RESET



OEn	SEL	INPUT/OUTPUT	
		An	
L	L (DEFAULT)	An=nB1	EXP HDR
L	H	An=nB2	MIPI CSI

Pull-down resistor on PORz_OUT is provided to keep the signal low until the processor is released from reset during the power-up sequence

MCU POWER ON RESET



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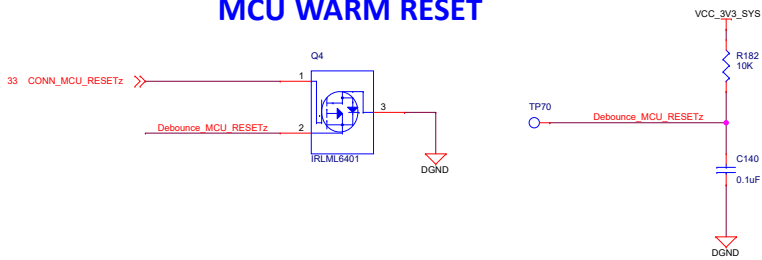


Title OSCILLATOR

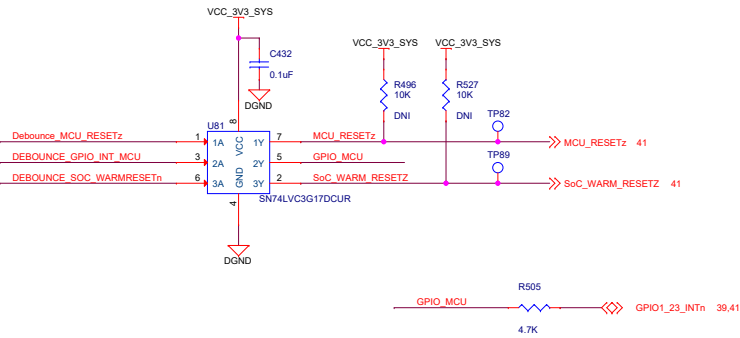
Size	PROC124E2A AM62x-LOW POWER SKEVM	Rev	E2A
C			
Date:	Thursday, April 13, 2023	Sheet	41 of 44

RESET

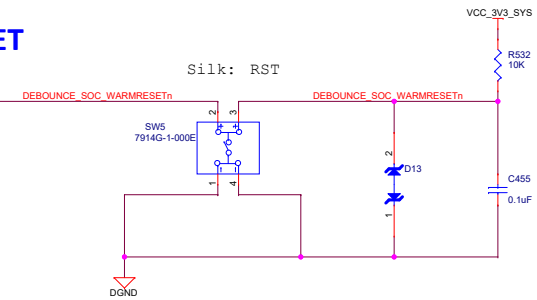
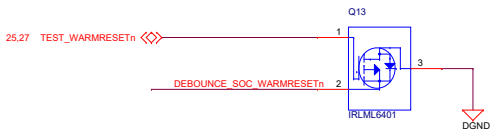
MCU WARM RESET



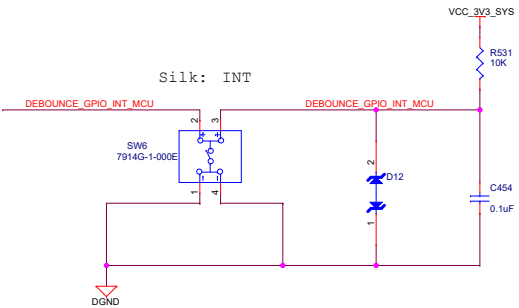
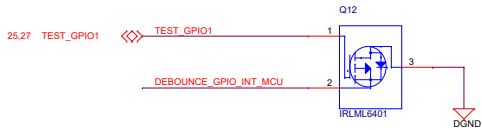
DEBOUNCE CIRCUIT



SOC WARM RESET



USER INTERRUPT

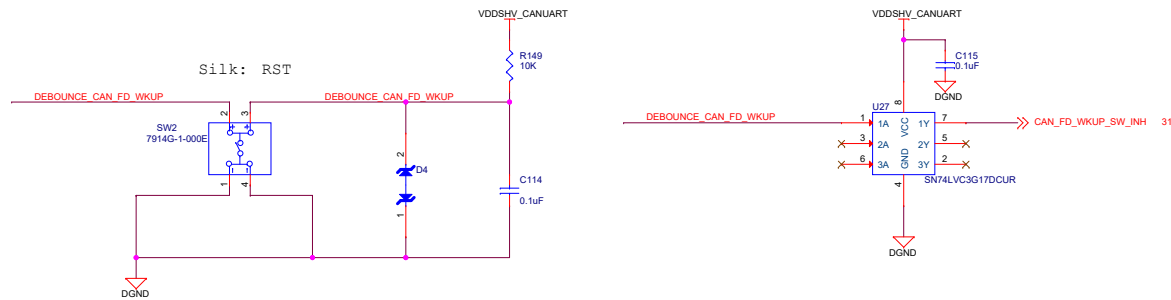


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Title			RESET
Size	PROC124E2A AM62x-LOW POWER SKEVM		Rev
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CAN-FD FAST WAKE UP SW



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Title CAN FD WKUP SW

Size	PROC124E2A AM62x-LOW POWER SKEVM	Rev
C		E2A
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HARDWARE SCHEMATICS

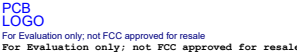
ASSEMBLY NOTES

- 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



LOGOs



JUMPERS



FIDUCIALS



LABELS

Board Serial No.



Assembly Revision



SCREW & WASHER FOR PCIe M.2

