AM64x/AM243x EVM BOARD
PROC101D

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VER	0.1

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TEXAS INSTRUMENTS MISTRAL

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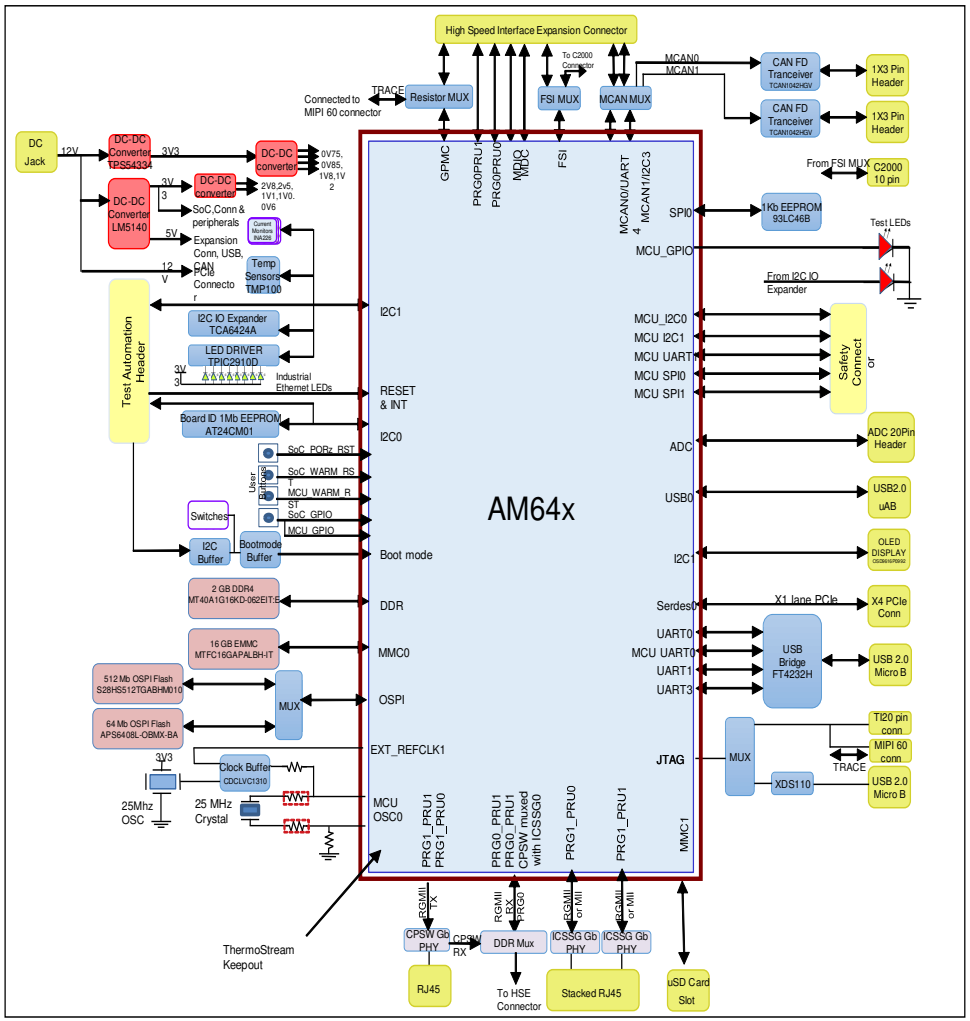
REVISION HISTORY

VER #	DATE	DESCRIPTION OF CHANGES	AUTHOR	REVIEWED BY	APPROVED BY
0.1	08th Jan 2024	Drafted from "PROC101D_SCH" document. Added OSPI RAM(U107) and TS3DDR3812 switch(U106). DDR_VTT_EN_3V3 is driven from the Pin P22 of the IO expander(U91) instead from the SOC(U23)	Mistral Design Team	AJIT MB	AJIT MB

BLOCK DIAGRAM_AM64x_EVM



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Title	BLOCK DIAGRAM_CP BOARD	
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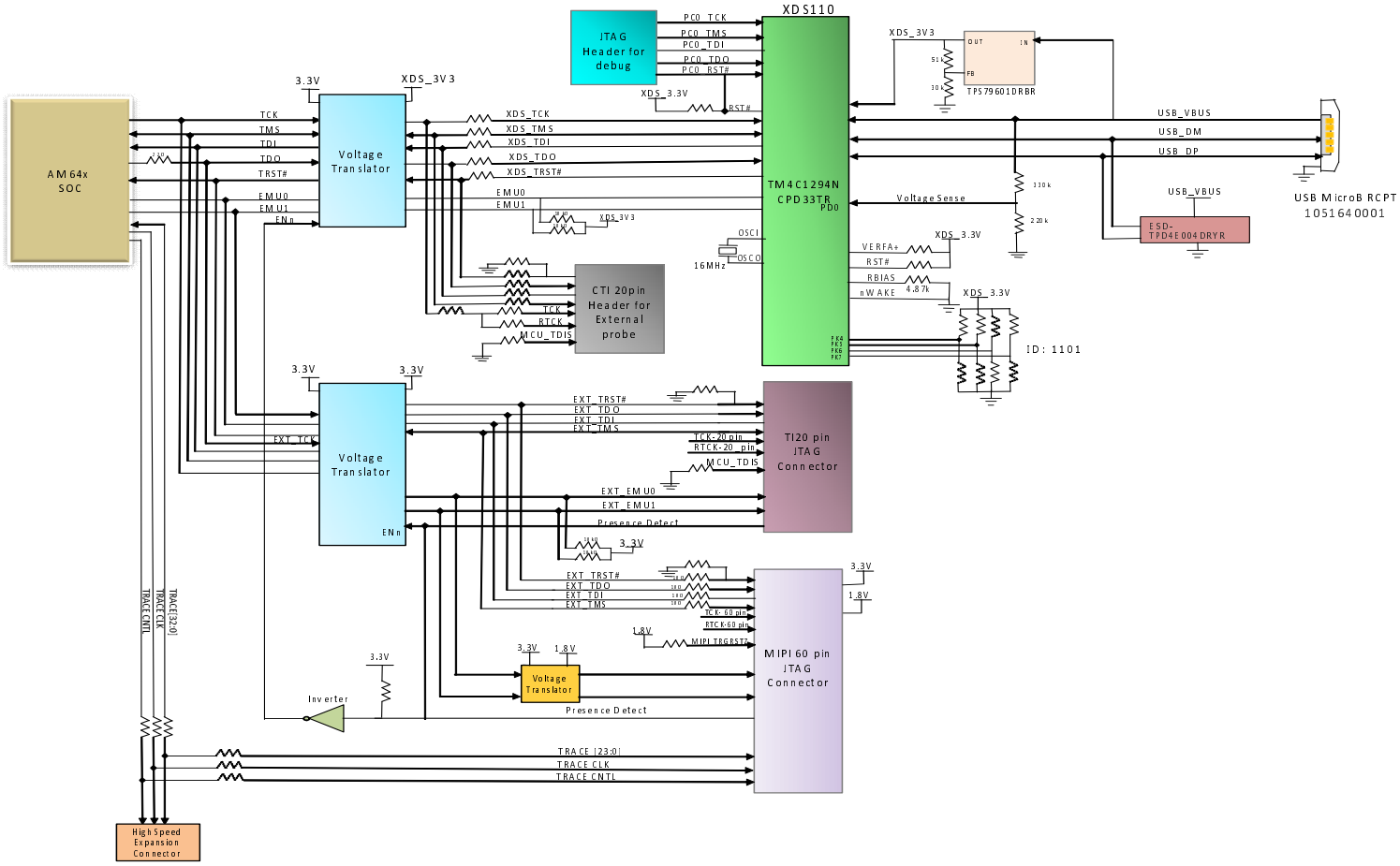
BLOCK DIAGRAM_XDS110



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Title	BLOCK DIAGRAM_XDS110	
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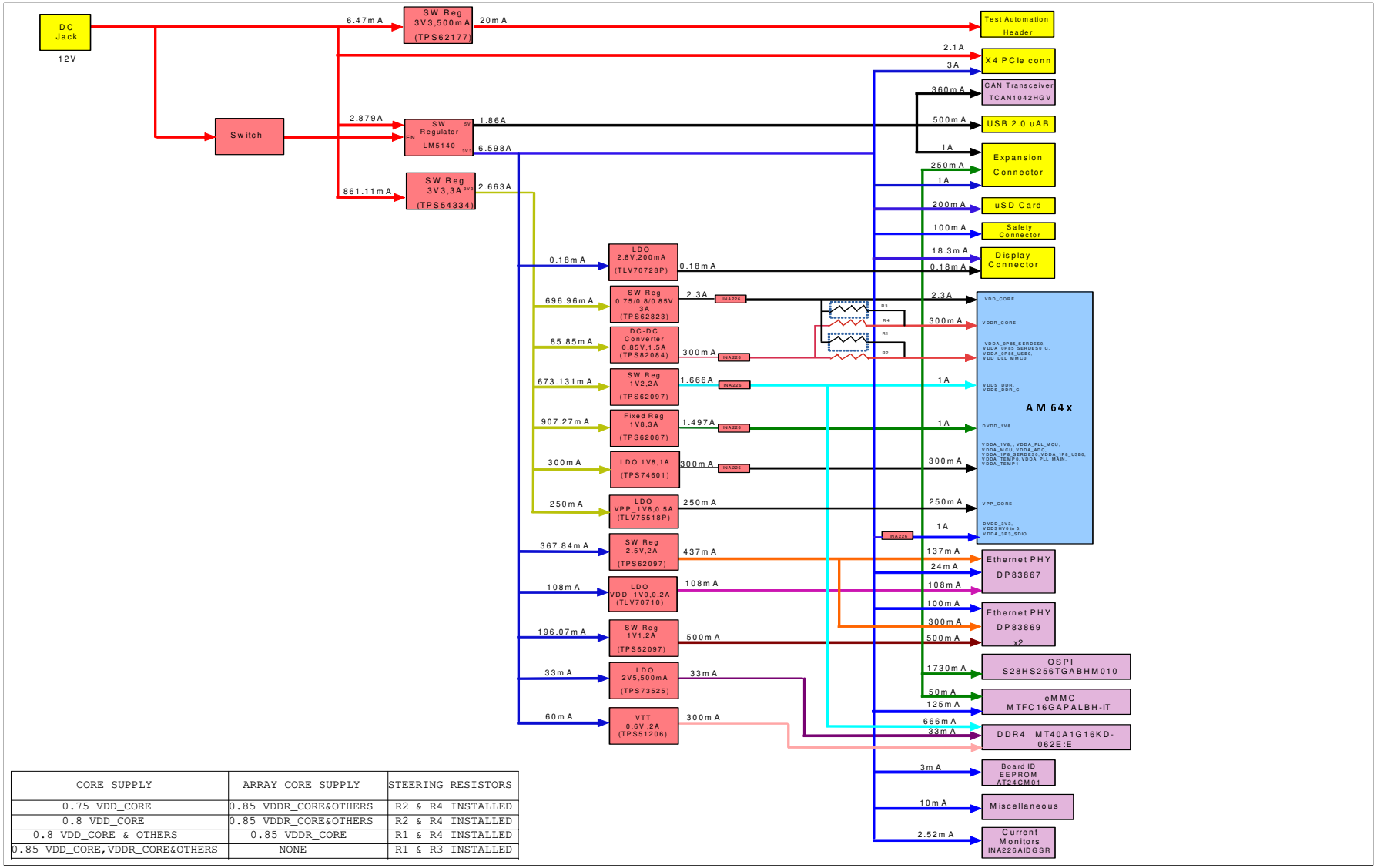
POWER FLOW DIAGRAM



CORE SUPPLY	ARRAY CORE SUPPLY	STEERING RESISTORS
0.75 VDD_CORE	0.85 VDDR_CORE&OTHERS	R2 & R4 INSTALLED
0.8 VDD_CORE	0.85 VDDR_CORE&OTHERS	R2 & R4 INSTALLED
0.8 VDD_CORE & OTHERS	0.85 VDDR_CORE	R1 & R4 INSTALLED
0.85 VDD_CORE,VDDR_CORE&OTHERS	NONE	R1 & R3 INSTALLED

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TEXAS INSTRUMENTS MISTRAL

Title	POWER FLOW DIAGRAM	
Size: C	Variant Name – PROC101D(005) TMDS243EVM	Rev: D
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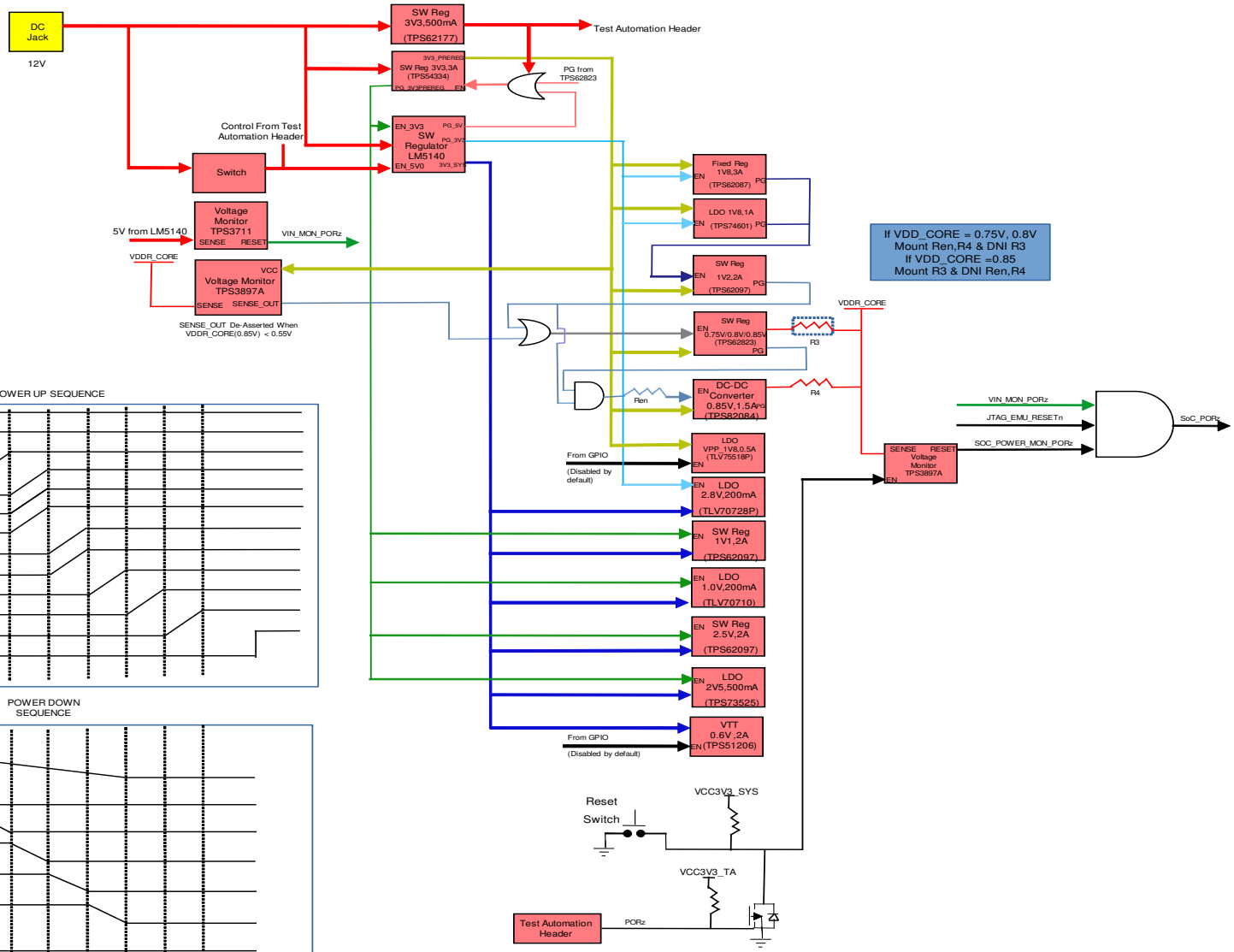
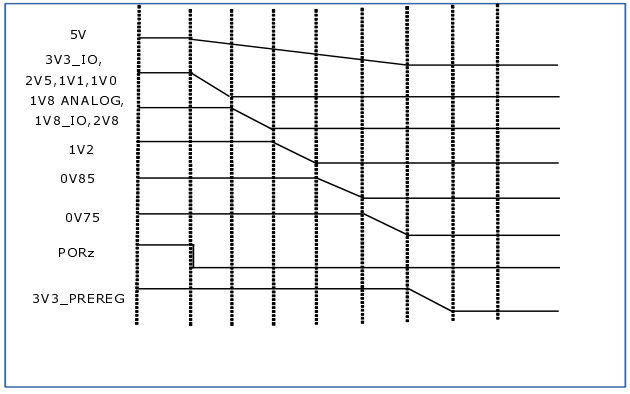
POWER SEQUENCE



POWER UP SEQUENCE

POWER DOWN SEQUENCE



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Title	POWER SEQUENCE		
Size	Variant Name – PROC101D(005) TMDS243EVM		Rev
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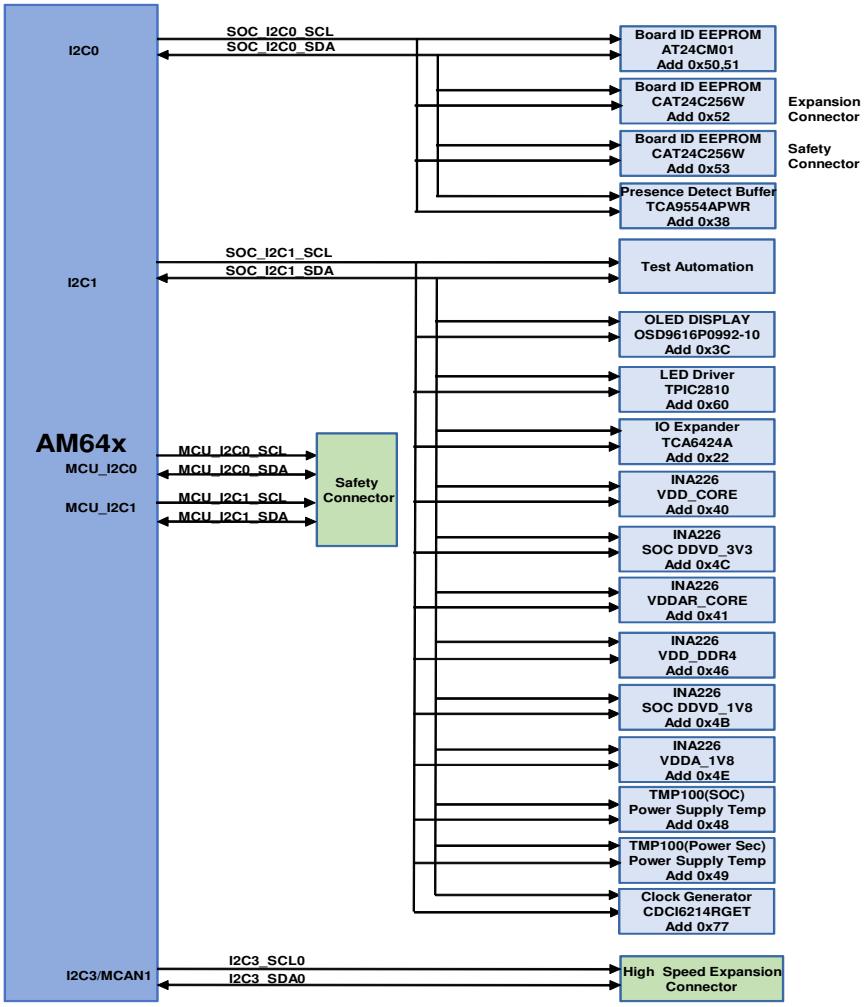
GPIO MAPPING TABLE

S.NO	GPIO DESCRIPTION	GPIO NETNAME	REQUIRED ON	FUNCTIONALITY	GPIO USED	SoC Muxed Signal Name	DIRECTION WITH RESPECT TO CONTROL	DEFAULT STATE	ACTIVE STATE
1	EMMC RESET Control GPIO	GPIO_eMMC_RSTn	GP EVM	Reset	IO EXPANDER- P00		OUTPUT	HIGH	LOW
2	OSPI RESET Control GPIO	GPIO_OSPI_RSTn	GP EVM	Reset	GPIO013	OSPI0_CS2	OUTPUT	HIGH	LOW
3	CPSW RGMII1 RESET Control GPIO	GPIO_CPSW1_RST	GP EVM	Reset	IO EXPANDER- P02		OUTPUT	HIGH	LOW
4	PRG1 RGMII1 Ethernet PHY RESET Control GPIO	GPIO_RGMII1_RST	GP EVM	Reset	IO EXPANDER- P03		OUTPUT	HIGH	LOW
5	PRG1 RGMII2 Ethernet PHY RESET Control GPIO	GPIO_RGMII2_RST	GP EVM	Reset	IO EXPANDER- P04		OUTPUT	HIGH	LOW
6	PRG1 RGMII1 Ethernet PHY Link Detection GPIO	PRG1_ETH1_LED_LINK	GP EVM	Link Detection	PRG1_PRU0_GPO8		INPUT	LOW	HIGH
7	PRG1 RGMII2 Ethernet PHY Link Detection GPIO	PRG1_ETH2_LED_LINK	GP EVM	Link Detection	PRG1_PRU1_GPO8		INPUT	LOW	HIGH
8	CPSW Ethernet PHY Interrupt	CPSW_RGMII_INTn	GP EVM	Interrupt	Connected to PRG1_RGMII_INT via 0E res		INPUT	HIGH	LOW
9	PRG1 Ethernet PHY 1 Interrupt	PRG1_RGMII_INT	GP EVM	Interrupt	GPIO1_70	EXTINTn	INPUT	HIGH	LOW
10	PRG1 Ethernet PHY 2 Interrupt			Interrupt			INPUT	HIGH	LOW
11	PCIe RESET Control GPIO	GPIO_PCIe_RST_OUT	GP EVM	Reset	IO EXPANDER- P05		OUTPUT	LOW	HIGH
12	SD card load switch enable control	MMC1_SD_EN	GP EVM	Load SW Enable	IO EXPANDER- P06		OUTPUT	HIGH	LOW
13	One GPIO is required to control the Mux select between HSE and FSI Connector	FSI_FET_SEL	GP EVM	Mux Seleection	IO EXPANDER- P07		OUTPUT	PREFERABLE	PREFERABLE
14	One GPIO is required to enable Standby mode in CAN tranceiver	MCAN0_STB_3V3	GP EVM	Standby mode selection	IO EXPANDER- P10		OUTPUT	LOW	HIGH
15	One GPIO is required to enable Standby mode in CAN tranceiver	MCAN1_STB_3V3	GP EVM	Standby mode selection	IO EXPANDER- P11		OUTPUT	LOW	HIGH
16	One GPIO is required to control the Mux select between HSE and Ethernet PHY	CPSW_FET_SEL	GP EVM	Mux Seleection	IO EXPANDER- P12		OUTPUT	PREFERABLE	PREFERABLE
17	MDC/MDIO FET Switch Select for Mux	PRG1_RGMII2_FET_SEL	GP EVM	Mux Selection	IO EXPANDER- P14		OUTPUT	PREFERABLE	PREFERABLE
18	VTT 0.6V regulator Enable	VTT_EN	GP EVM	VTT 0.6V regulator Enable	GPIO0_12	OSPI0_CSn1	OUTPUT	LOW	HIGH
19	TEST GPIO1 from Test Automation Connector/ GPIO for GP board push button	TEST GPIO1/GPIO1_43	GP EVM	GPIO for communications with AM64x	GPIO1_43	SPI0_CS1	INPUT	HIGH	LOW
20	TEST GPIO2 from Test Automation Connector	TEST GPIO2	GP EVM	GPIO for communications with AM64x	IO EXPANDER- P15		INPUT	HIGH	LOW
21	OLED Display RESET GPIO	GPIO_OLED_RESETn	GP EVM	Reset	IO EXPANDER- P16		OUTPUT	LOW	HIGH
22	IO Expander Interrupt	IO_EXP_INTn	GP EVM	Interrupt	GPIO1_78	MMC1_SDWP	INPUT	HIGH	LOW
23	VPP 1.8V regulator Enable	VPP_LDO_EN	GP EVM	VPP 01.8V regulator Enable	IO EXPANDER- P17		OUTPUT	LOW	HIGH
24	One GPIO is required to control the Mux select between HSE and CAN Interface	CAN_MUX_SEL	GP EVM	Mux Seleection	IO EXPANDER- P01		OUTPUT	LOW	HIGH
25	User LED	TEST_LED1	GP EVM	Test	IO EXPANDER- P20		OUTPUT	LOW	HIGH
26	User LED	TEST_LED2	GP EVM	Test	MCU_SPI1_CS0	MCU_GPIO0_5	OUTPUT	LOW	HIGH
27	One GPIO to enable the PCIe Clock generator outputs	CDC_OE1/E4	GP EVM	Clock output enable	IO EXPANDER- P21		OUTPUT	HIGH	HIGH

I2C TREE



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Title	I2C TREE	
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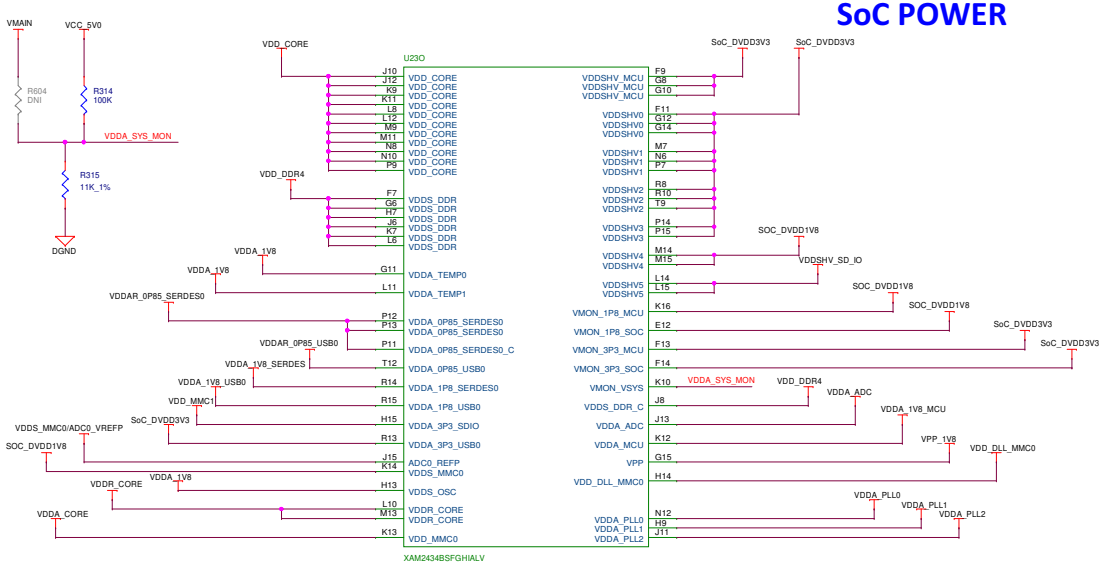
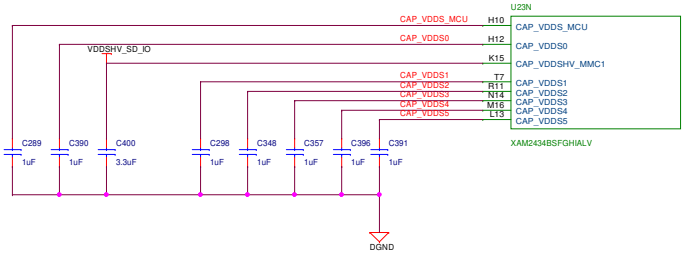
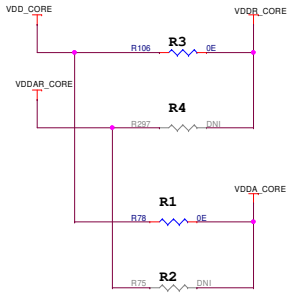
SoC POWER

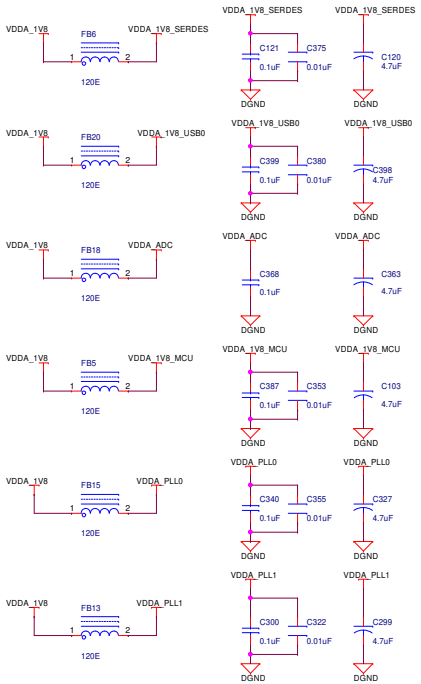


Note:
Mount R699 and DNI R698 when SR2.0 Device is used
Mount R698 and DNI R699 when SR1.0 Device is used

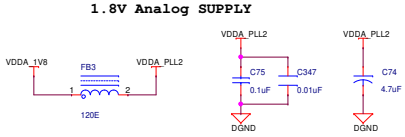




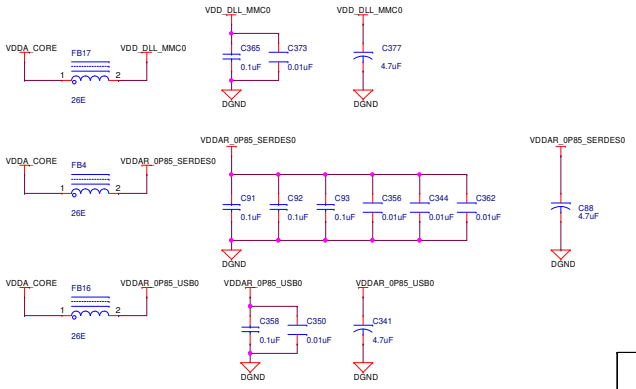
1.8V Analog SUPPLY



1.8V Analog SUPPLY



CORE SUPPLY



CORE SUPPLY	ARRAY CORE SUPPLY	STEERING RESISTORS
0.75 VDD_CORE	0.85 VDDR_CORE&OTHERS	R2 & R4 INSTALLED
0.8 VDD_CORE	0.85 VDDR_CORE&OTHERS	R2 & R4 INSTALLED
0.8 VDD_CORE & OTHERS	0.85 VDDR_CORE	R1 & R4 INSTALLED
0.85 VDD_CORE,VDDR_CORE&OTHERS	NONE	R1 & R3 INSTALLED

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TEXAS INSTRUMENTS MISTRAL

Title	SOC POWER	
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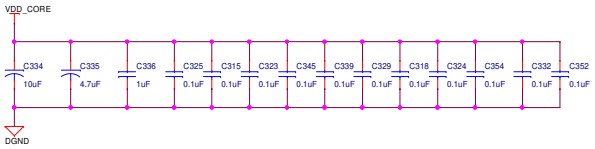
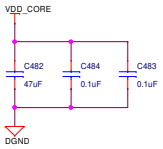
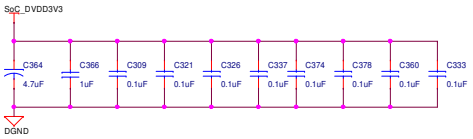
SoC POWER Decaps



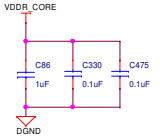
Place one 0.1uF cap near each Pin

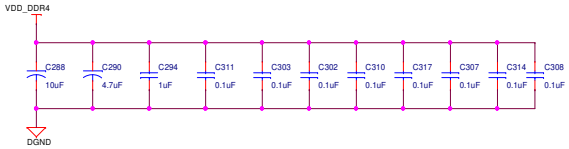


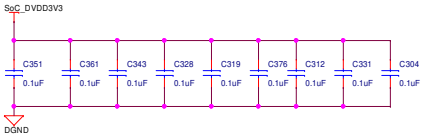
To place after current sense resitor on VDD_CORE plane

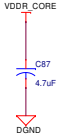


Place one 0.1uF cap near each Pin

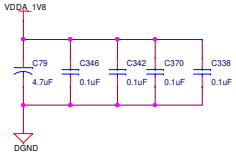




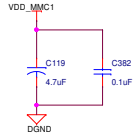




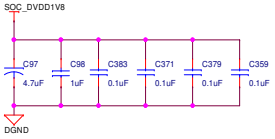
VDD ARRAY CORE

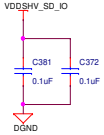


VDDA_3P3_SDIO



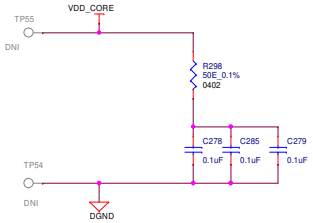
Place one 0.1uF cap near each Pin

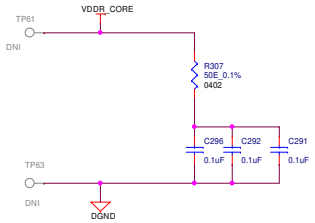




Place one 0.1uF cap near each Pin

Core & Array Core Supply Kelvin Sensing





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Title	SOC POWER CAPS	
Size: C	Variant Name = PROC101D(005) TMDS243EVM	Rev: D
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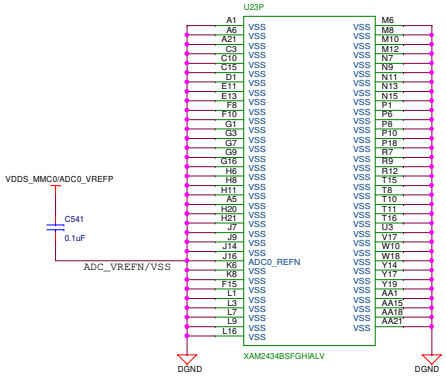
SoC POWER - VSS

CAD Note:
Place CAP C541
between pins
J15 and J16



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Title	SOC VSS	
Size: C	Variant Name = PROC101D(005) TMDS243EVM	Rev: D
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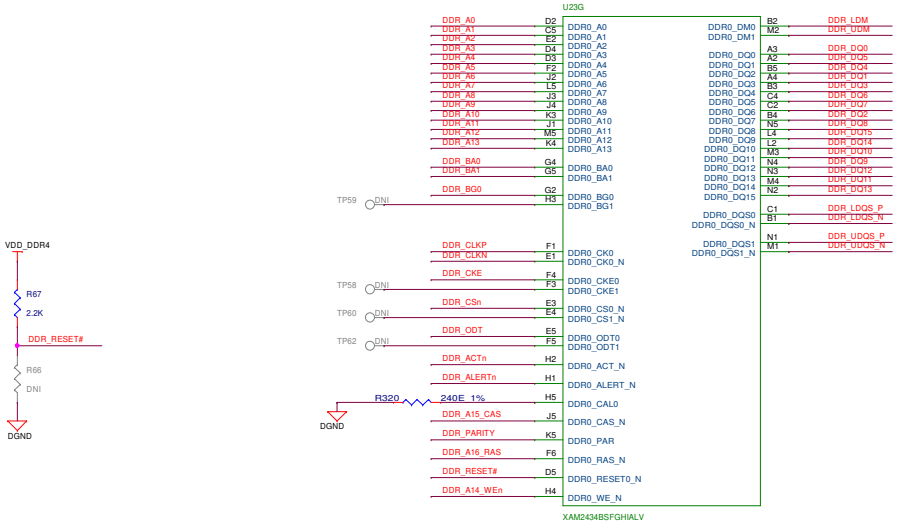
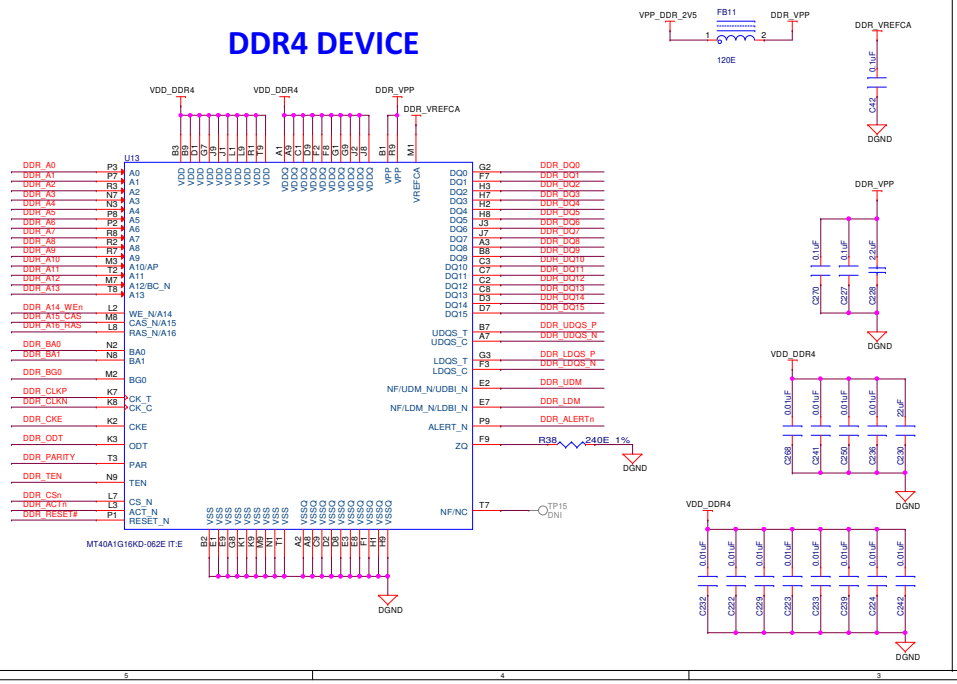
SoC DDR INTERFACE

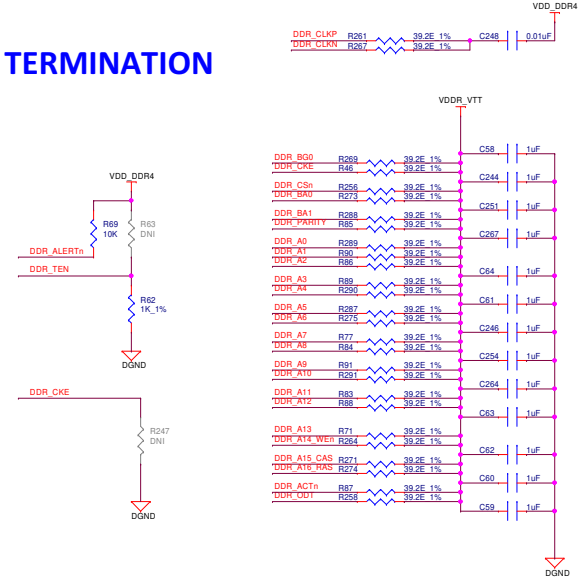


DDR DQ Lines Swapped
With Data Byte

DDR4 DEVICE



DDR TERMINATION



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Title	DDR INTERFACE		
Size	Variant Name – PROC101D(005) TMDS243EVM		Rev
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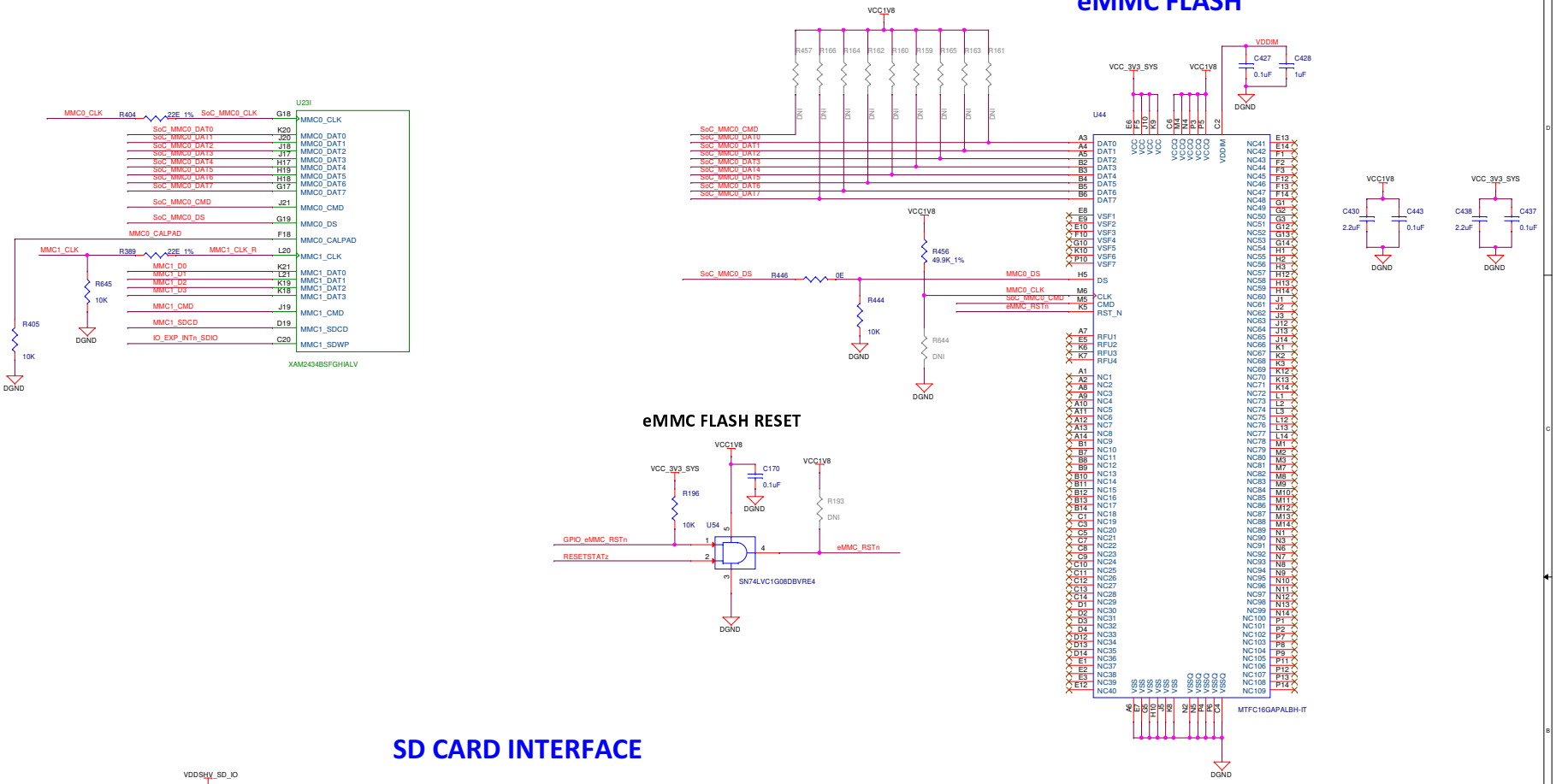
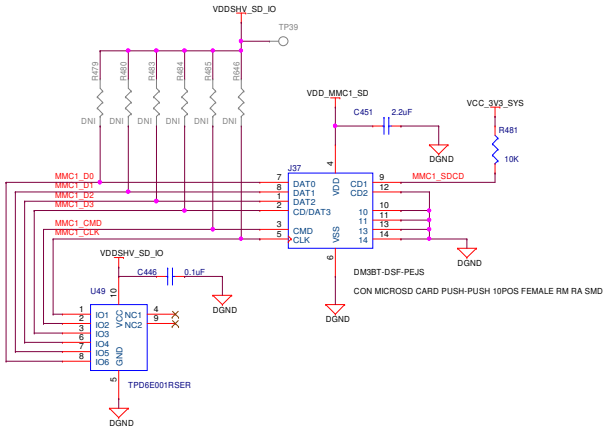
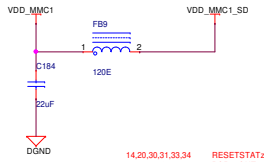
eMMC FLASH

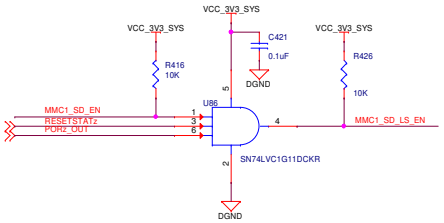


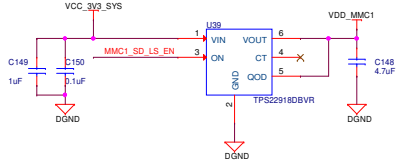
eMMC FLASH RESET

SD CARD INTERFACE









Off Page Connections

From & To IO Expander

33	IO_EXP_INTn_SDIO	IO_EXP_INTn_SDIO
33	GPIO_eMMC_RSTn	GPIO_eMMC_RSTn
33	MMC1_SD_EN	MMC1_SD_EN

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TEXAS INSTRUMENTS MISTRAL

Title	eMMC FLASH_SDCARD INTERFACE	
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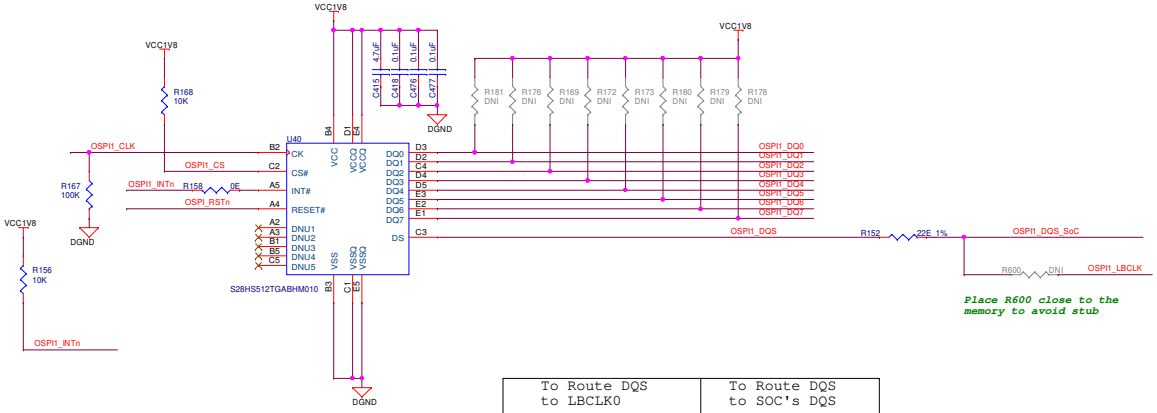
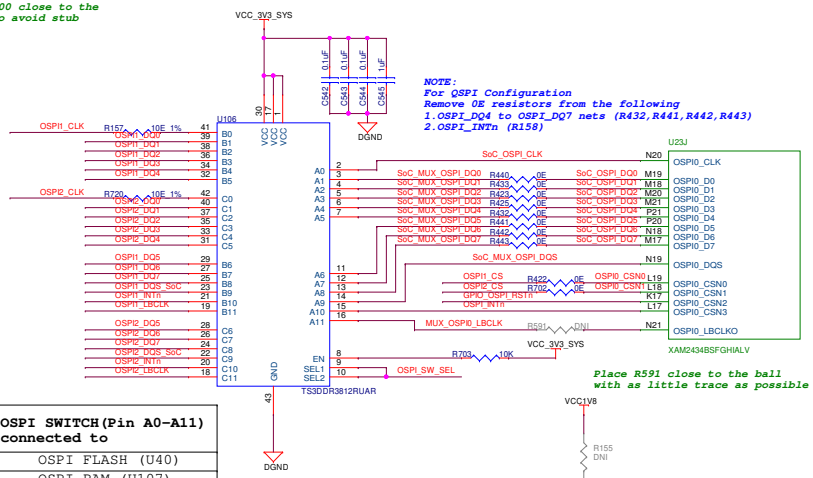
OSPI FLASH



Place R600 close to the memory to avoid stub

To Route DQS to LBCLK0	To Route DQS to SOC's DQS
Mount R591 & R600	Mount R601 & R592
DNI R601 & R592	DNI R591 & R600

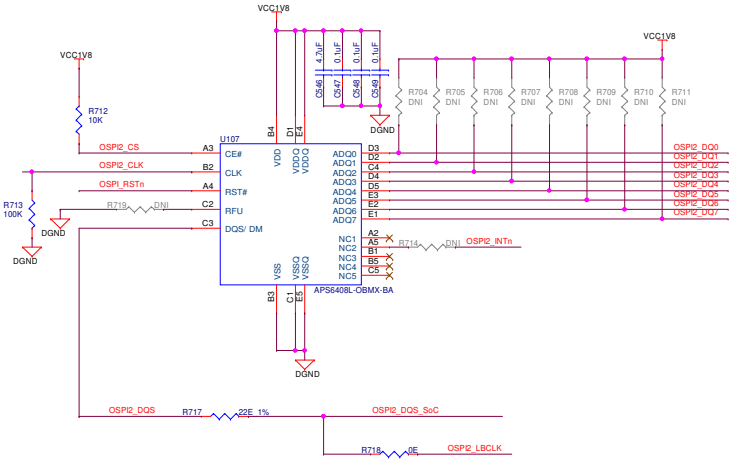
SOC OSPI INTERFACE



Place R591 close to the ball with as little trace as possible

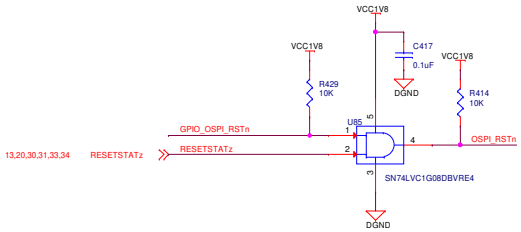
NOTE:
For QSPI Configuration
Remove 0E resistors from the following
1.OSPI_DQ4 to OSPI_DQ7 nets (R432,R441,R442,R443)
2.OSPI_INTn (R158)

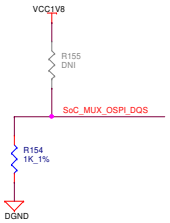
OSPI RAM



OSPI_SW_SEL	OSPI SWITCH(Pin A0-A11) connected to
LOW	OSPI FLASH (U40)
HIGH	OSPI RAM (U107)

OSPI FLASH RESET





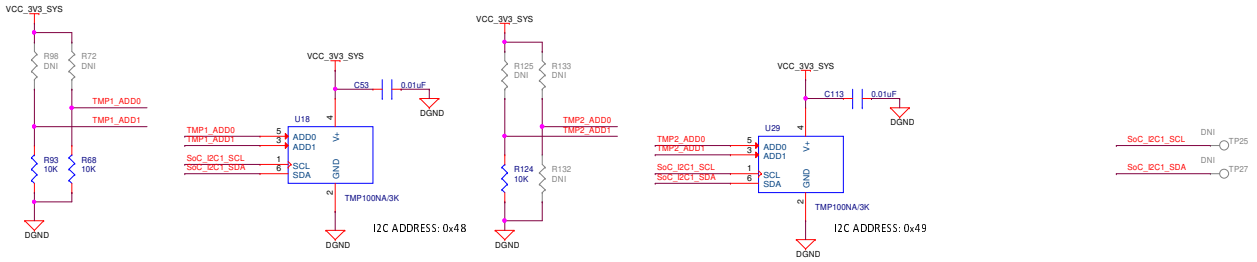
Off Page Connections

OSPI_SW_SEL <<OSPI_SW_SEL 33

Designed for TI by Mistral Solutions Pvt Ltd

Title	OSPI	
Size: C	Variant Name = PROC101D(005) TMDS243EVM	Rev: D
Date: Wednesday, January 10, 2024	Sheet 14 of 40	

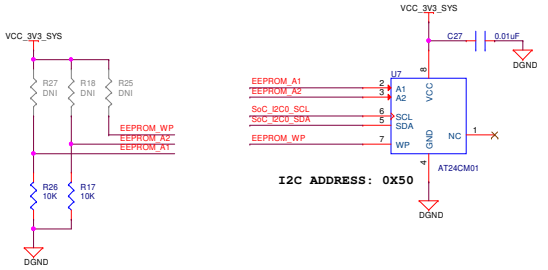
TEMPERATURE SENSOR



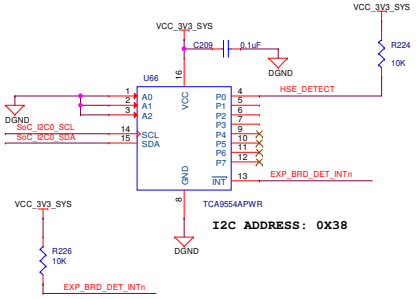
NOTE: PLACE TEMP SENSOR CLOSE TO SoC

NOTE: PLACE TEMP SENSOR CLOSE TO CORE POWER SECTION

BOARD ID EEPROM



BOARD PRESENCE DETECT CIRCUIT

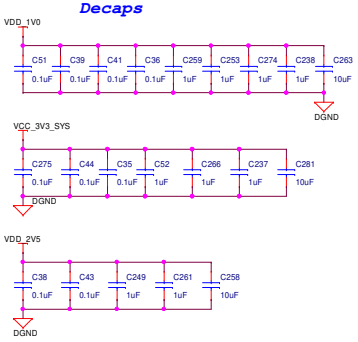


Off Page Connections

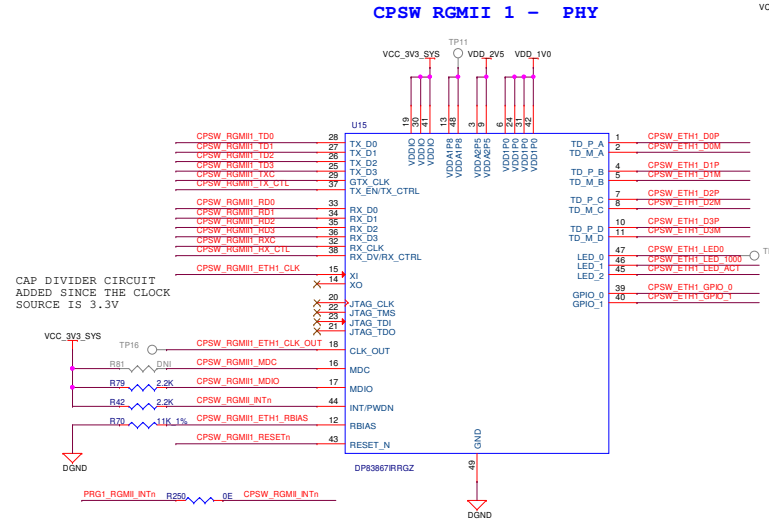
Designed for TI by Mistral Solutions Pvt Ltd

Title	EEPROM,PRESENCE DETECTION & TEMP SENSOR	
Size: C	Variant Name = PROC101D(005) TMDS243EVM	Rev: D
Date: Monday, January 08, 2024	Sheet 15 of 40	

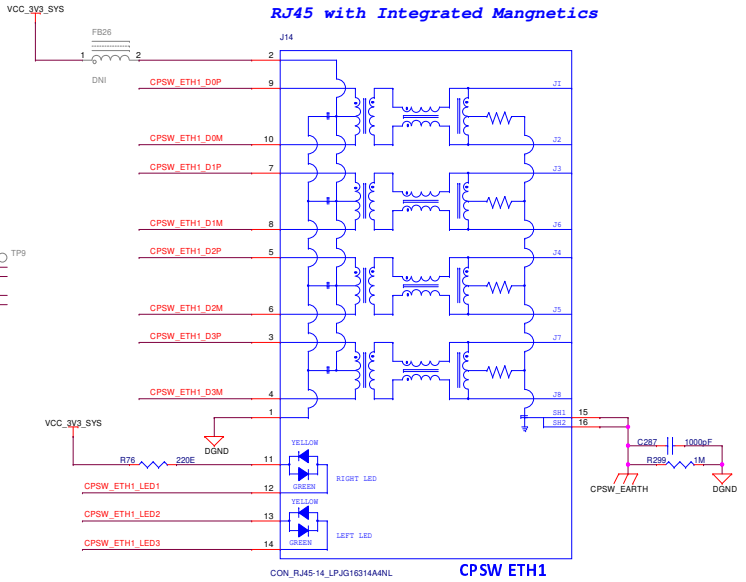
Decaps



CPSW RGMII 1 – PHY

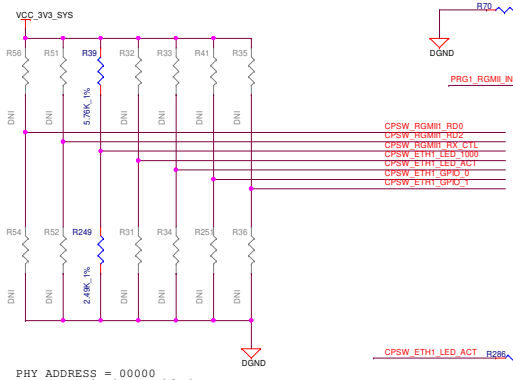


RJ45 with Integrated Mangnetics



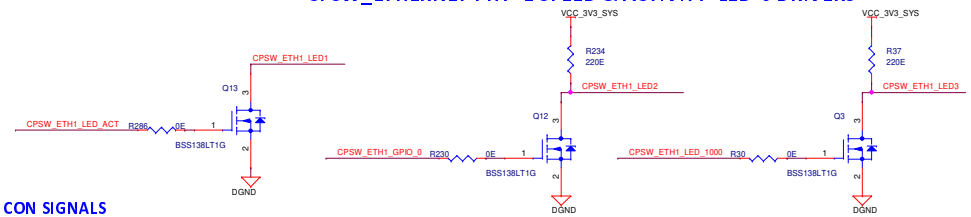
CPSW ETH1 RESET

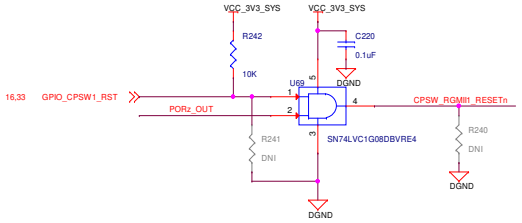
STRAPPING RESISTORS



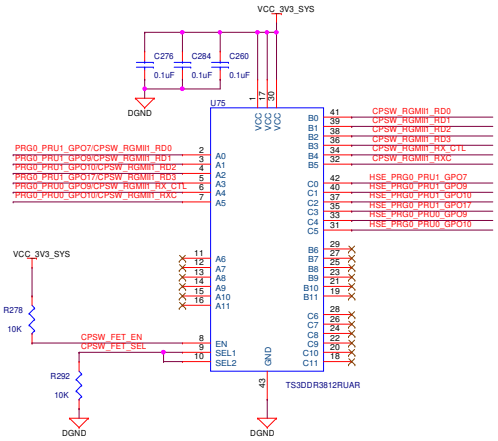
PHY ADDRESS = 00000
Auto-negotiation Enabled
10/100/1000 advertised, Auto-MDI-X
Tx & Rx Clock Skew = 2.0ns

CPSW_ETHERNET PHY- 1 SPEED & ACTIVITY LED 's DRIVERS





CPSW RGMII 1 ETHERNET PHY SIGNALS & HSE CON SIGNALS



TS3DDR3812RUAR Truth Table

EN	SEL1	SEL2	FUNCTION
L	X	X	A0 to A11, B0 to B11, and C0 to C11 are Hi-Z
H	L	L	A0 to A5 = B0 to B5 and A6 to A11 = B6 to B11
H	L	H	A0 to A5 = B0 to B5 and A6 to A11 = C6 to C11
H	H	L	A0 to A5 = C0 to C5 and A6 to A11 = B6 to B11
H	H	H	A0 to A5 = C0 to C5 and A6 to A11 = C6 to C11

Off Page Connections

From Processor

27	PRG0_PRU1_GPO7/CPSW_RGMII1_RD0	PRG0_PRU1_GPO7/CPSW_RGMII1_RD0
27	PRG0_PRU1_GPO9/CPSW_RGMII1_RD1	PRG0_PRU1_GPO9/CPSW_RGMII1_RD1
27	PRG0_PRU1_GPO10/CPSW_RGMII1_RD2	PRG0_PRU1_GPO10/CPSW_RGMII1_RD2
27	PRG0_PRU1_GPO17/CPSW_RGMII1_RD3	PRG0_PRU1_GPO17/CPSW_RGMII1_RD3
27	PRG0_PRU0_GPO9/CPSW_RGMII1_RX_CTL	PRG0_PRU0_GPO9/CPSW_RGMII1_RX_CTL
27	PRG0_PRU0_GPO10/CPSW_RGMII1_RXC	PRG0_PRU0_GPO10/CPSW_RGMII1_RXC

From Processor

27	CPSW_RGMII1_TD0	CPSW_RGMII1_TD0
27	CPSW_RGMII1_TD1	CPSW_RGMII1_TD1
27	CPSW_RGMII1_TD2	CPSW_RGMII1_TD2
27	CPSW_RGMII1_TD3	CPSW_RGMII1_TD3
27	CPSW_RGMII1_TX_CTL	CPSW_RGMII1_TX_CTL
27	CPSW_RGMII1_TXC	CPSW_RGMII1_TXC
13,17,18,20,34	PORz_OUT	PORz_OUT
17,18,34	PRG1_RGMII_INTn	PRG1_RGMII_INTn

From IO Expander

16,33	GPIO_CPSW1_RST	GPIO_CPSW1_RST
33	CPSW_FET_SEL	CPSW_FET_SEL

From Clock Buffer

31	CPSW_RGMII1_ETH1_CLK	CPSW_RGMII1_ETH1_CLK

To HSE Connector

27	HSE_PRG0_PRU1_GPO7	HSE_PRG0_PRU1_GPO7
27	HSE_PRG0_PRU1_GPO9	HSE_PRG0_PRU1_GPO9
27	HSE_PRG0_PRU1_GPO10	HSE_PRG0_PRU1_GPO10
27	HSE_PRG0_PRU1_GPO17	HSE_PRG0_PRU1_GPO17
27	HSE_PRG0_PRU0_GPO9	HSE_PRG0_PRU0_GPO9
27	HSE_PRG0_PRU0_GPO10	HSE_PRG0_PRU0_GPO10

From Processor

17,27	CPSW_RGMII1_MDIO	CPSW_RGMII1_MDIO
17,27	CPSW_RGMII1_MDC	CPSW_RGMII1_MDC

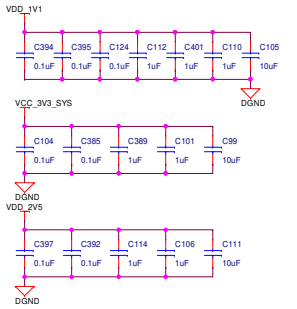
Designed for TI by Mistral Solutions Pvt Ltd

TEXAS INSTRUMENTS MISTRAL

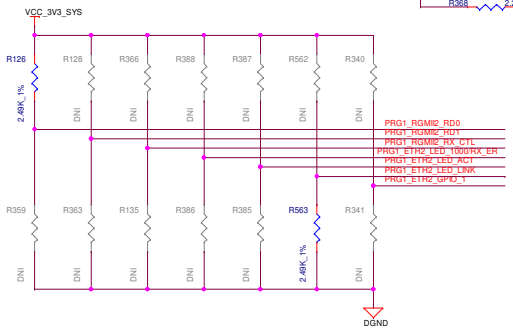
Title	CPSW RGMII_1 ETHERNET PHY	
Size C	Variant Name – PROC101D(005) TMDS243EVM	Rev D
Date: Monday, January 08, 2024	Sheet 16 of 40	

ICSSG1 – RGMII 2

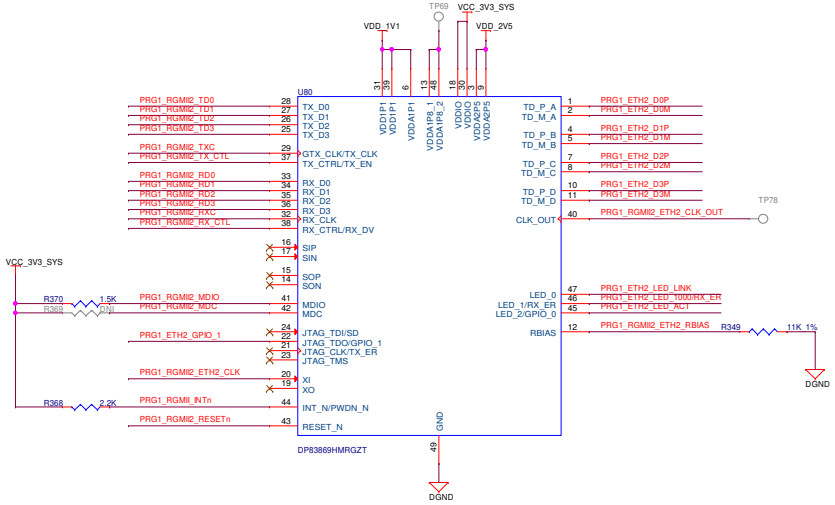
Decaps



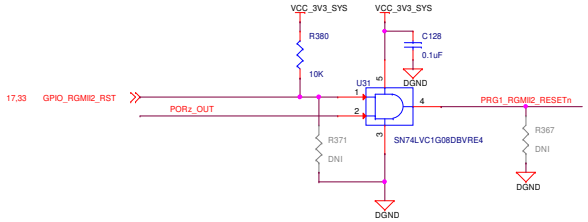
STRAPPING RESISTORS



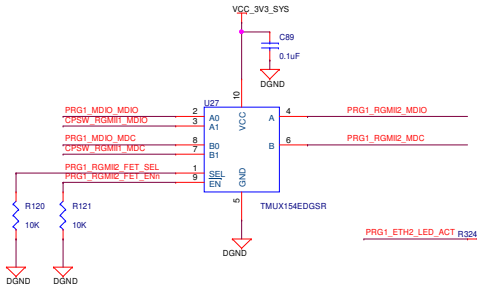
PHY ADDRESS = 00011
Auto-negotiation, 10/100/1000 advertised, Auto-MDI-X
RGMII to Copper (1000BaseT/100Base-TX/10Base-Te)



PRG1 ETH2 RESET



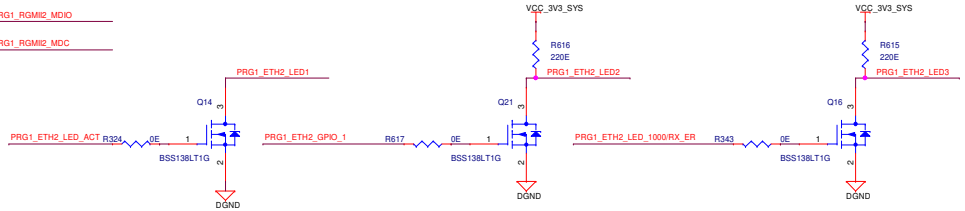
PRG1 MDC/MDIO FET SWITCH



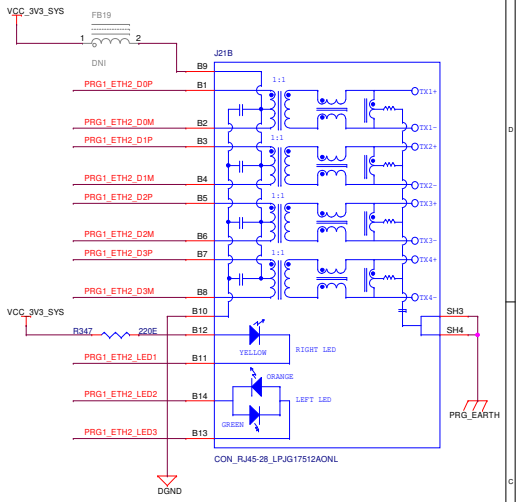
TMUX154EDGSR Truth Table

SEL	$\overline{EN}$	FUNCTION
X	H	Disconnect
L	L	A = A0 B= B0
H	L	A = A1 B = B1

PRG1_ETHERNET - 2 SPEED & ACTIVITY LED 's DRIVERS



Dual RJ45 CON With Integrated Magnetics



Off Page Connections

To Processor	16,18,34	PRG1_RGMII_INTn	PRG1_RGMII_INTn
	27	PRG1_RGMII2_RD0	PRG1_RGMII2_RD0
	27	PRG1_RGMII2_RD1	PRG1_RGMII2_RD1
	27	PRG1_RGMII2_RD2	PRG1_RGMII2_RD2
	27	PRG1_RGMII2_RD3	PRG1_RGMII2_RD3
	27	PRG1_RGMII2_RXC	PRG1_RGMII2_RXC
	27	PRG1_RGMII2_RX_CTL	PRG1_RGMII2_RX_CTL
	27	PRG1_ETH2_LED_LINK	PRG1_ETH2_LED_LINK
	27	PRG1_ETH2_LED_1000/RX_ER	PRG1_ETH2_LED_1000/RX_ER
From Processor	27	PRG1_RGMII2_TD0	PRG1_RGMII2_TD0
	27	PRG1_RGMII2_TD1	PRG1_RGMII2_TD1
	27	PRG1_RGMII2_TD2	PRG1_RGMII2_TD2
	27	PRG1_RGMII2_TD3	PRG1_RGMII2_TD3
	27	PRG1_RGMII2_TXC	PRG1_RGMII2_TXC
	27	PRG1_RGMII2_TX_CTL	PRG1_RGMII2_TX_CTL
	13,16,18,20,34	PORz_OUT	PORz_OUT
	18,27	PRG1_MDIO_MDIO	PRG1_MDIO_MDIO
	18,27	PRG1_MDIO_MDC	PRG1_MDIO_MDC
From CPSW SW	16,27	CPSW_RGMII1_MDIO	CPSW_RGMII1_MDIO
	16,27	CPSW_RGMII1_MDC	CPSW_RGMII1_MDC
From IO Expander	17,33	GPIO_RGMII2_RST	GPIO_RGMII2_RST
	33	PRG1_RGMII2_FET_SEL	PRG1_RGMII2_FET_SEL
From Clock Buffer	31	PRG1_RGMII2_ETH2_CLK	PRG1_RGMII2_ETH2_CLK

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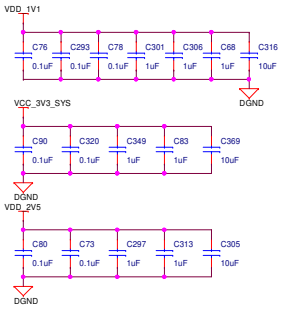
TEXAS INSTRUMENTS MISTRAL

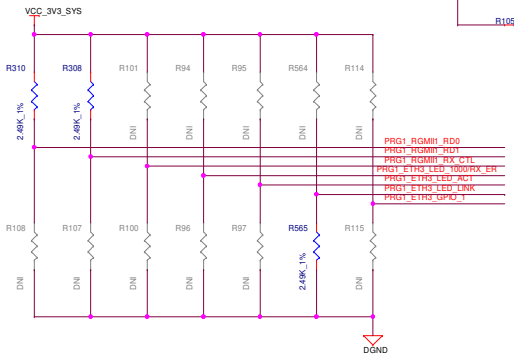
Title	ICSSG1 RGMII_2 ETHERNET PHY		
Size	C	Variant Name – PROC101D(005) TMDS243EVM	Rev D
Date:	Monday, January 08, 2024	Sheet 17 of 40	

ICSSG1 – RGMII 1

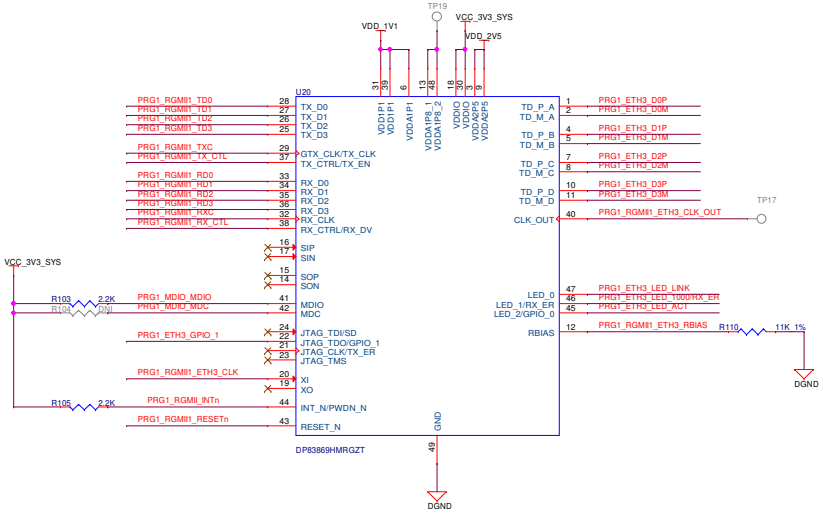
Decaps



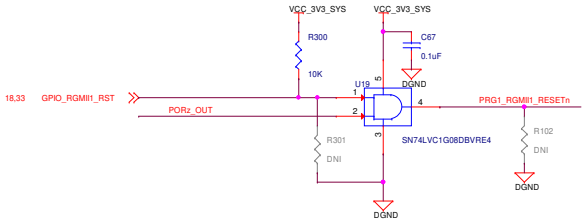
STRAPPING RESISTORS



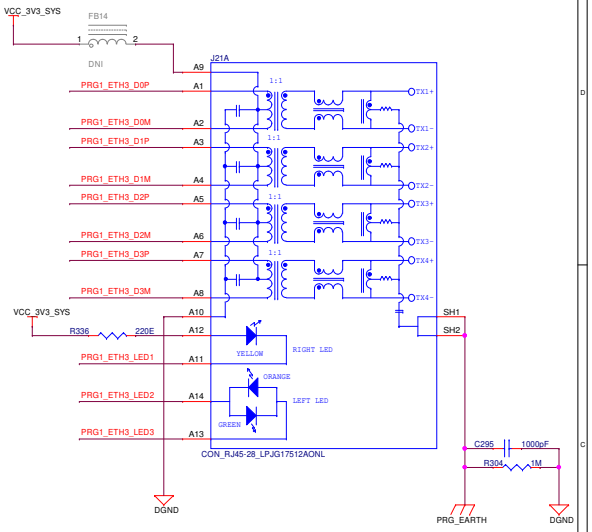
PHY ADDRESS = 01111
Auto-negotiation, 10/100/1000 advertised, Auto-MDI-X
RGMII to Copper (1000BaseT/100Base-TX/10Base-Te)



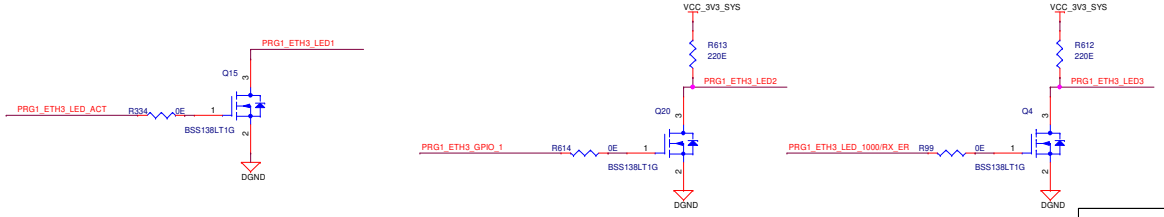
PRG1 ETH2 RESET



Dual RJ45 CON With Integrated Magnetics



PRG1_ETHERNET - 3 SPEED & ACTIVITY LED 's DRIVERS



Off Page Connections

To Processor

16,17,34	PRG1_RGMII1_INTn	PRG1_RGMII1_INTn
27	PRG1_RGMII1_RD0	PRG1_RGMII1_RD0
27	PRG1_RGMII1_RD1	PRG1_RGMII1_RD1
27	PRG1_RGMII1_RD2	PRG1_RGMII1_RD2
27	PRG1_RGMII1_RD3	PRG1_RGMII1_RD3
27	PRG1_RGMII1_RXC	PRG1_RGMII1_RXC
27	PRG1_RGMII1_RX_CTL	PRG1_RGMII1_RX_CTL
13,16,17,20,34	PORz_OUT	PORz_OUT
27	PRG1_ETH3_LED_LINK	PRG1_ETH3_LED_LINK
27	PRG1_ETH3_LED_1000/RX_ER	PRG1_ETH3_LED_1000/RX_ER

From Processor

27	PRG1_RGMII1_TD0	PRG1_RGMII1_TD0
27	PRG1_RGMII1_TD1	PRG1_RGMII1_TD1
27	PRG1_RGMII1_TD2	PRG1_RGMII1_TD2
27	PRG1_RGMII1_TD3	PRG1_RGMII1_TD3
27	PRG1_RGMII1_TXC	PRG1_RGMII1_TXC
27	PRG1_RGMII1_TX_CTL	PRG1_RGMII1_TX_CTL

From Processor (MDC & MDIO Pins are common to both ICSSG PHY, This to be verified)

17,27	PRG1_MDIO_MDIO	PRG1_MDIO_MDIO
17,27	PRG1_MDIO_MDC	PRG1_MDIO_MDC

From IO Expander

18,33	GPIO_RGMII1_RST	GPIO_RGMII1_RST

From Clock Buffer

31	PRG1_RGMII1_ETH3_CLK	PRG1_RGMII1_ETH3_CLK

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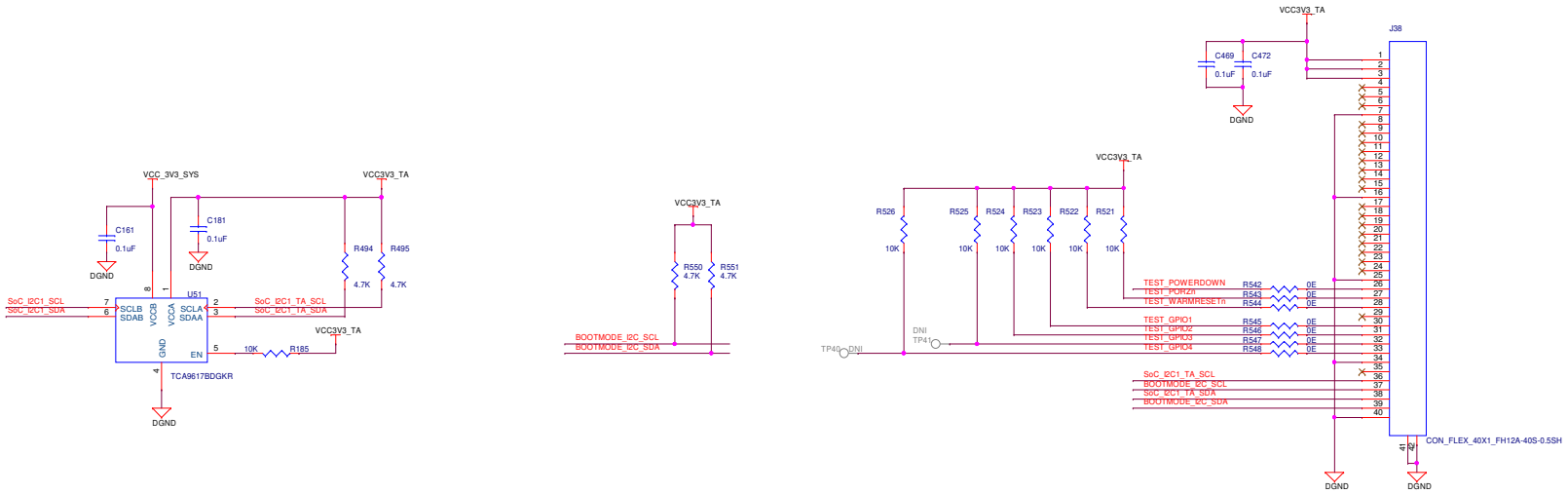
TEXAS INSTRUMENTS MISTRAL

Title	ICSSG2 RGMII_1 ETHERNET PHY	
Size C	Variant Name – PROC101D(005) TMDS243EVM	Rev D
Date: Monday, January 08, 2024	Sheet 18 of 40	

TEST AUTOMATION

40-PIN AUTOMATION HEADER



TEST AUTOMATION GPIO MAPPING

SIGNAL NAME	DESCRIPTION	Direction WRT CTRL	Internal/ External PU/PD states
TEST_POWERDOWN	Used to Power down the OVP Circuit	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 GPIO0_13_INTn Pin	OUTPUT	External Pullup
TEST_GPIO2	Connected to I/O 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 IO Expander	OUTPUT	External Pullup

Off Page Connections

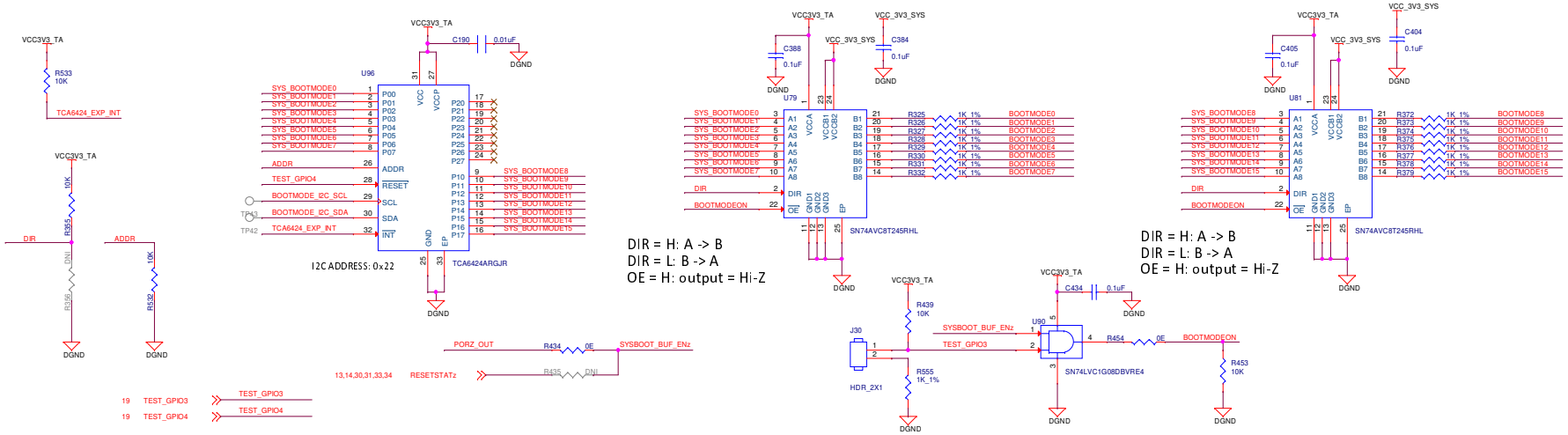
To Processor	15,21,29,30,31,32,33	SoC_I2C1_SCL	SoC_I2C1_SCL
	15,21,29,30,31,32,33	SoC_I2C1_SDA	SoC_I2C1_SDA
To Bootmode Buffer	20	BOOTMODE_I2C_SCL	BOOTMODE_I2C_SCL
	20	BOOTMODE_I2C_SDA	BOOTMODE_I2C_SDA
To Debounce Ckt	35	TEST_PORZn	TEST_PORZn
To High Side SW	37	TEST_POWERDOWN	TEST_POWERDOWN
To Debounce Ckt	35	TEST_WARMRESETn	TEST_WARMRESETn
To Debounce Ckt	35	TEST_GPIO1	TEST_GPIO1
To IO Expander	33	TEST_GPIO2	TEST_GPIO2
To EN Boot Mode Buffer	20	TEST_GPIO3	TEST_GPIO3
To RST Boot Mode Buffer	20	TEST_GPIO4	TEST_GPIO4

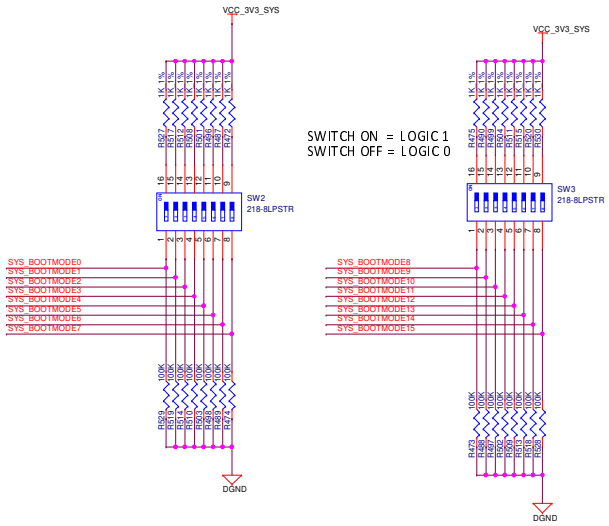
Designed for TI by Mistral Solutions Pvt Ltd

TEXAS INSTRUMENTS MISTRAL

Title	TEST AUTOMATION	
Size	Variant Name – PROC101D(005) TMDS243EVM	Rev
C		D
Date: Monday, January 08, 2024	Sheet 19 of 40	

BOOT MODE BUFFER & SWITCHES





BOOT MODES SUPPORTED

1. OSPI
2. MMC1 - SD CARD
3. MMC0 - eMMC
4. CPSW Ethernet Slave
5. USB Host
6. USB Device
7. UART
8. Ethernet

Off Page Connections

From Processor

28	BOOTMODE0	BOOTMODE0
28	BOOTMODE1	BOOTMODE1
28	BOOTMODE2	BOOTMODE2
28	BOOTMODE3	BOOTMODE3
28	BOOTMODE4	BOOTMODE4
28	BOOTMODE5	BOOTMODE5
28	BOOTMODE6	BOOTMODE6
28	BOOTMODE7	BOOTMODE7
28	BOOTMODE8	BOOTMODE8
28	BOOTMODE9	BOOTMODE9
28	BOOTMODE10	BOOTMODE10
28	BOOTMODE11	BOOTMODE11
28	BOOTMODE12	BOOTMODE12
28	BOOTMODE13	BOOTMODE13
28	BOOTMODE14	BOOTMODE14
28	BOOTMODE15	BOOTMODE15
13,16,17,18,34	PORz_OUT	PORz_OUT

From Test Automation Header

19	BOOTMODE_I2C_SCL	BOOTMODE_I2C_SCL
19	BOOTMODE_I2C_SDA	BOOTMODE_I2C_SDA

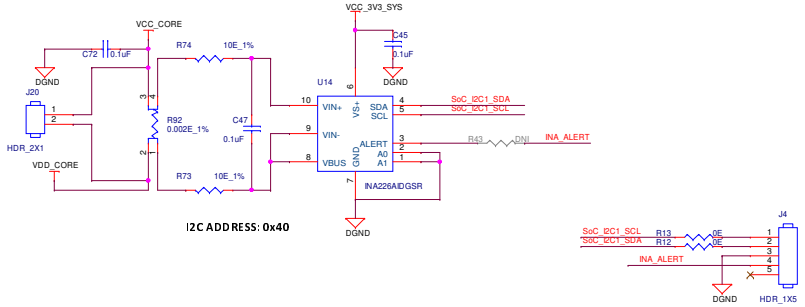
Designed for TI by Mistral Solutions Pvt Ltd

TEXAS INSTRUMENTS MISTRAL

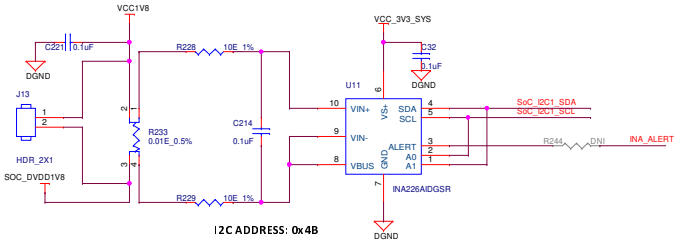
Title	BOOT MODE BUFFER & SWITCHES	
Size	Variant Name – PROC101D(005) TMDS243EVM	Rev
C		D
Date:	Monday, January 08, 2024	Sheet 20 of 40

CURRENT MONITORING DEVICES

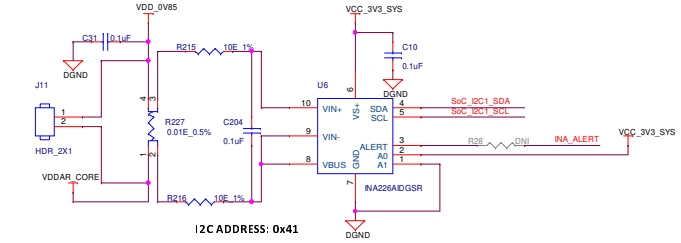
VDD_CORE



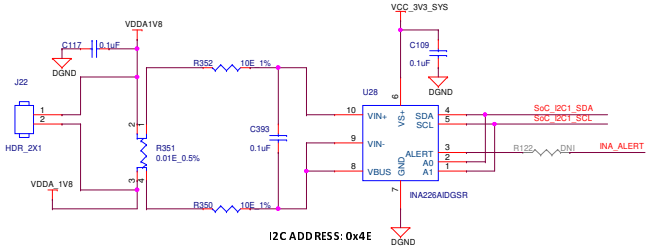
SoC_DVDD1V8



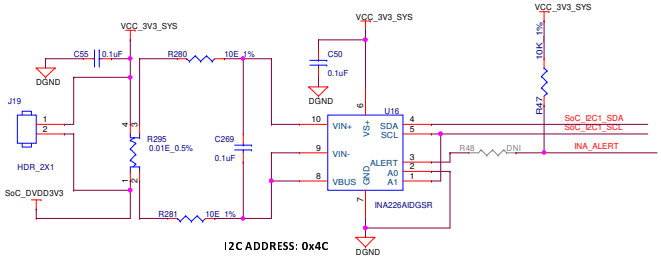
VDDAR_CORE



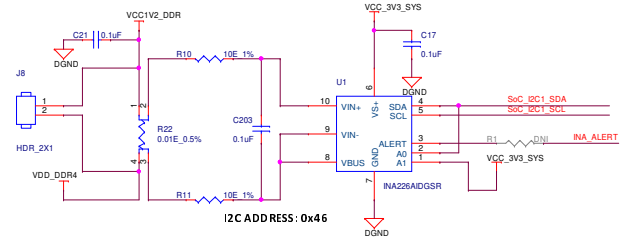
VDDA_1V8



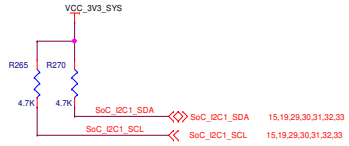
SoC_DVDD3V3



VDD_DDR4



INA I2C SLAVE ADDRESS		
POWER SOURCE	SUPPLY NET	SLAVE ADDRESS (IN HEX)
VCC_CORE	VDD_CORE	40
VDD_0V85	VDDAR_CORE	41
VCC_3V3_SYS	SoC_DVDD3V3	4C
VCC1V8	SoC_DVDD1V8	4B
VDDA1V8	VDDA_1V8	4E
VCC1V2_DDR	VDD_DDR4	46



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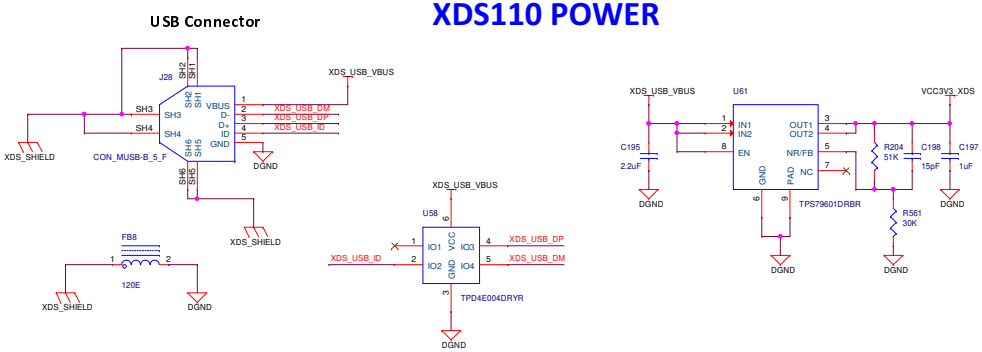
TEXAS INSTRUMENTS

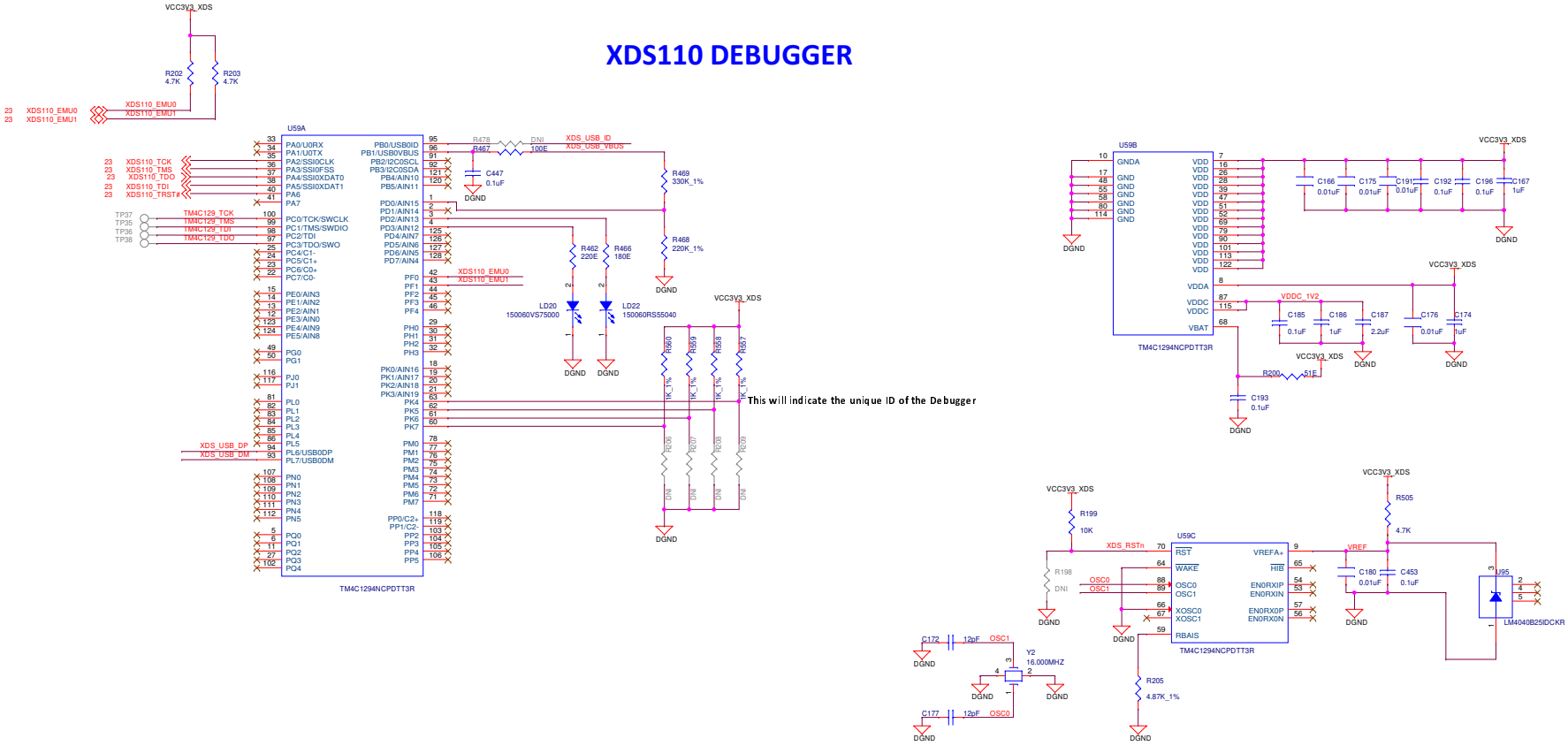
MISTRAL

Title	CURRENT MONITORING DEVICES	
Size	Variant Name – PROC101D(005) TMDS243EVM	Rev
C		D
Date: Monday, January 08, 2024	Sheet 21 of 40	

XDS110 POWER



XDS110 DEBUGGER

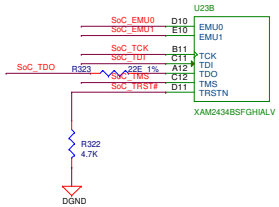


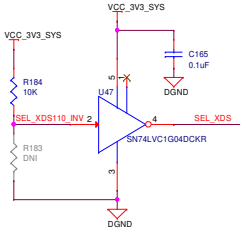
Designed for TI by Mistral Solutions Pvt Ltd

Title	XDS110 DEBUGGER	
Size	Variant Name – PROC101D(005) TMDS243EVM	Rev
C		D
Date:	Monday, January 08, 2024	Sheet 22 of 40

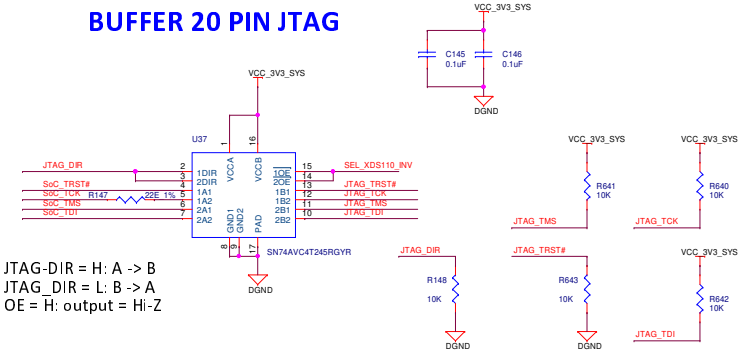
JTAG BUFFER

JTAG SoC SECTION



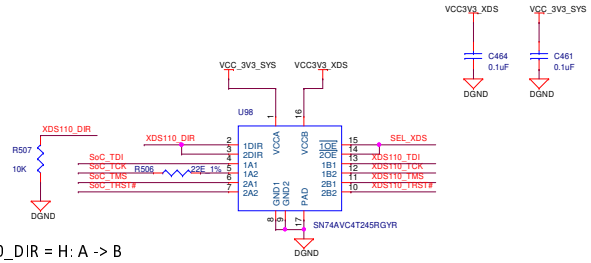


BUFFER 20 PIN JTAG



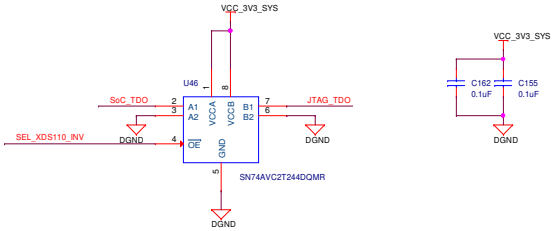
JTAG-DIR = H: A -> B
JTAG_DIR = L: B -> A
OE = H: output = Hi-Z

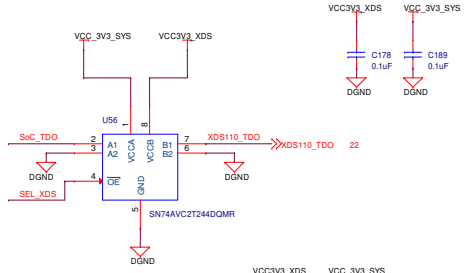
BUFFER XDS110

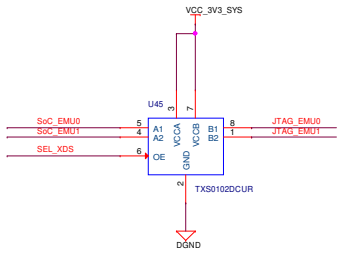


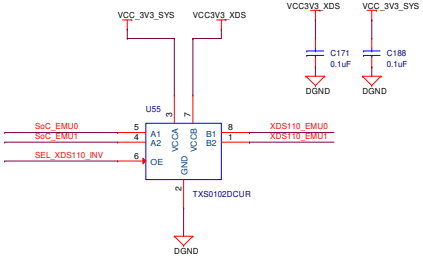
XDS110_DIR = H: A -> B
XDS110_DIR = L: B -> A
OE = H: output = Hi-Z

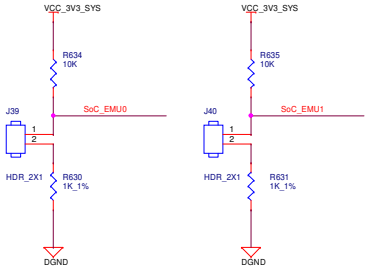
Placement of Buffers U37,U46,U56 and U98
to be changed to reduce
Stub length of the JTAG signals.
These buffers need to be placed closer
to the cTI-20pin connector -J25











Off Page Connections

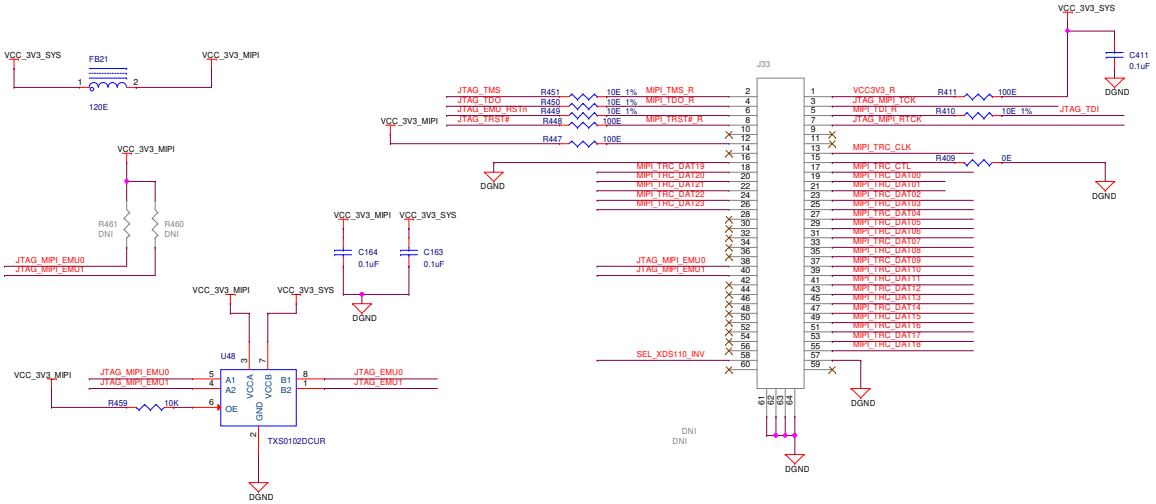
From XDS1100 Debugger

24	SEL_XDS110_INV	SEL_XDS110_INV
24	JTAG_EMU0	JTAG_EMU0
24	JTAG_EMU1	JTAG_EMU1
22	XDS110_TDI	XDS110_TDI
22	XDS110_TCK	XDS110_TCK
22	XDS110_TMS	XDS110_TMS
22	XDS110_TRST#	XDS110_TRST#
24	JTAG_TDI	JTAG_TDI
24	JTAG_TCK	JTAG_TCK
24	JTAG_TMS	JTAG_TMS
24	JTAG_TRST#	JTAG_TRST#
24	JTAG_TDO	JTAG_TDO
22	XDS110_EMU0	XDS110_EMU0
22	XDS110_EMU1	XDS110_EMU1

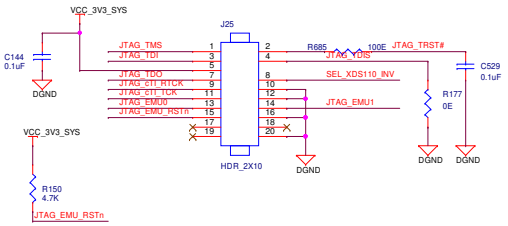
Designed for TI by Mistral Solutions Pvt Ltd

Title	JTAG BUFFER	
Size: C	Variant Name – PROC101D(005) TMDS243EVM	Rev: D
Date: Monday, January 08, 2024	Sheet 23 of 40	

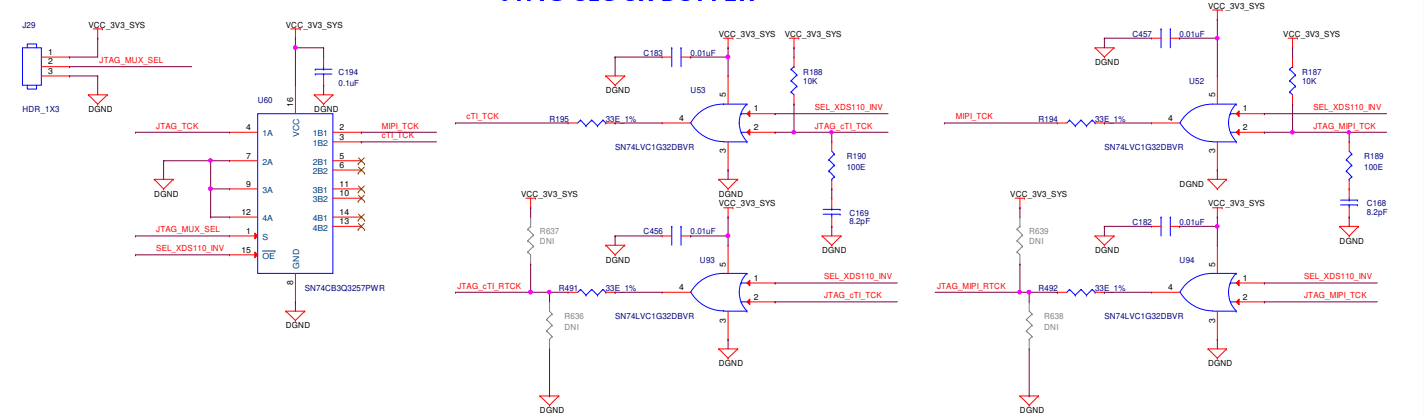
MIPI 60 PIN CONNECTOR



JTAG 20 PIN cTI CONNECTOR



JTAG CLOCK BUFFER



Off Page Connections

From JTAG Buffer

- SEL_XDS110_INV
- JTAG_TDO
- JTAG_EMU0
- JTAG_EMU1
- JTAG_TDI
- JTAG_TCK
- JTAG_TMS
- JTAG_TRST#
- JTAG_EMU_RSTn

From SoC GPMC

- MIPI_TRC_DAT05
- MIPI_TRC_DAT04
- MIPI_TRC_DAT03
- MIPI_TRC_DAT02
- MIPI_TRC_DAT01
- MIPI_TRC_DAT00
- MIPI_TRC_CTL
- MIPI_TRC_CLK
- MIPI_TRC_DAT11
- MIPI_TRC_DAT10
- MIPI_TRC_DAT09
- MIPI_TRC_DAT13
- MIPI_TRC_DAT12
- MIPI_TRC_DAT08
- MIPI_TRC_DAT07
- MIPI_TRC_DAT06
- MIPI_TRC_DAT21
- MIPI_TRC_DAT20
- MIPI_TRC_DAT19
- MIPI_TRC_DAT18
- MIPI_TRC_DAT17
- MIPI_TRC_DAT16
- MIPI_TRC_DAT15
- MIPI_TRC_DAT14
- MIPI_TRC_DAT23
- MIPI_TRC_DAT22

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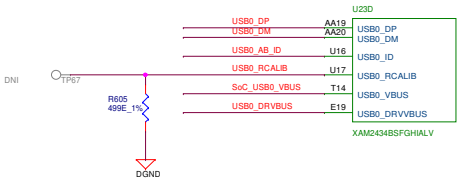
TEXAS INSTRUMENTS

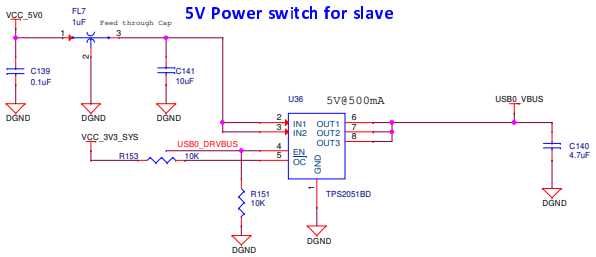
MISTRAL

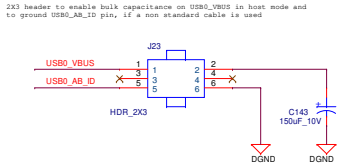
Title	MIPI60 PIN CONNECTOR	
Size	Variant Name – PROC101D(005) TMDS243EVM	Rev
C		D
Date: Monday, January 08, 2024	Sheet 24 of 40	

USB 2.0 INTERFACE

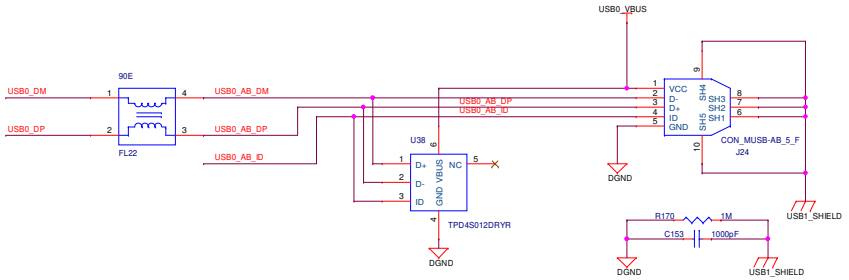


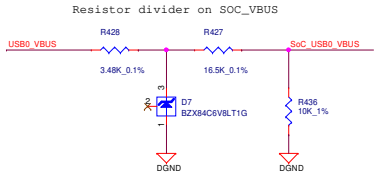
5V Power switch for slave





Micro USB 2.0 AB Connector





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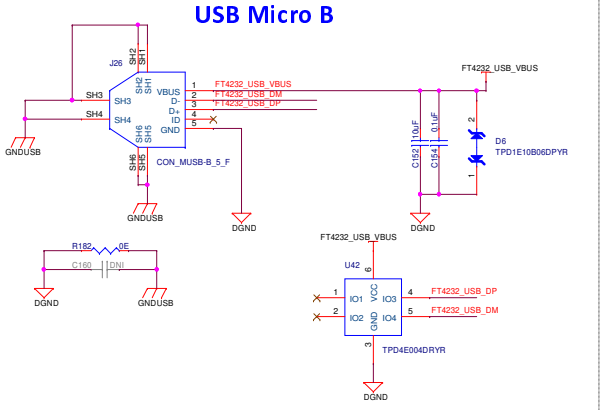
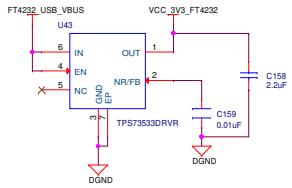
Title	USB 2.0 INTERFACE	
Size: C	Variant Name – PROC101D(005) TMDS243EVM	Rev: D
Date: Monday, January 08, 2024	Sheet 25 of 40	

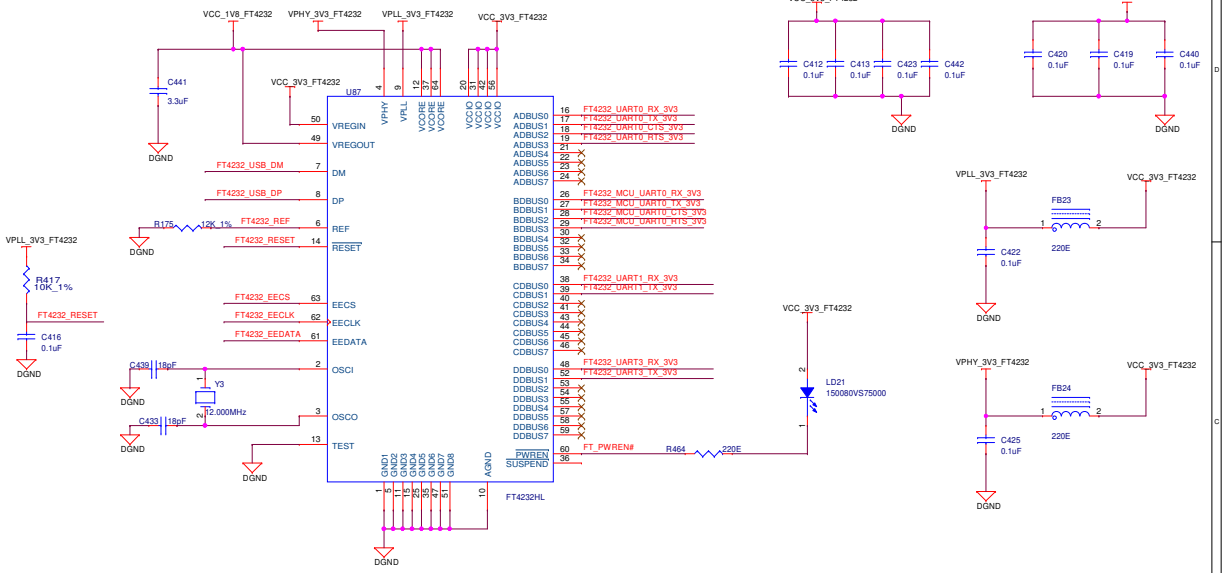
FT4232 UART

USB Micro B

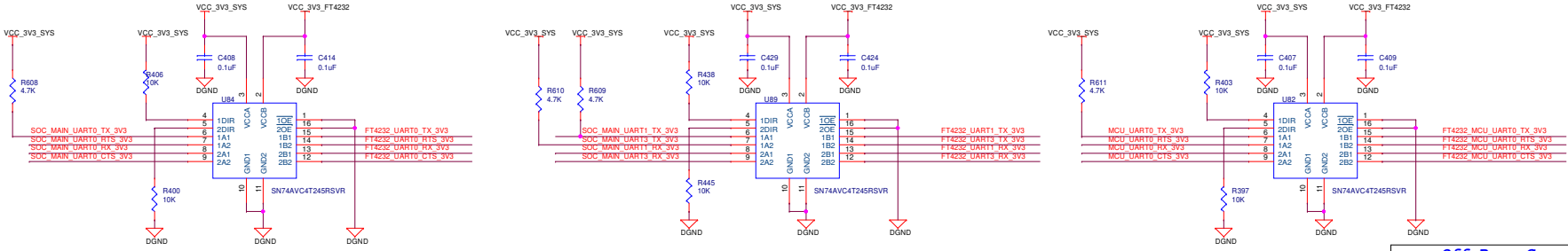


FT4232: 5V to 3.3V@500mA LDO

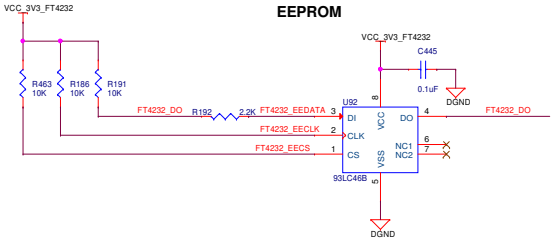




FT4232 LEVEL TRANSLATOR



EEPROM



Off Page Connections

SOC_MAIN_UART0_RX_3V3 → SOC_MAIN_UART0_RX_3V3 29
SOC_MAIN_UART0_TX_3V3 → SOC_MAIN_UART0_TX_3V3 29
SOC_MAIN_UART0_RTS_3V3 → SOC_MAIN_UART0_RTS_3V3 29
SOC_MAIN_UART0_CTS_3V3 → SOC_MAIN_UART0_CTS_3V3 29

MCU_UART0_RX_3V3 → MCU_UART0_RX_3V3 34
MCU_UART0_TX_3V3 → MCU_UART0_TX_3V3 34
MCU_UART0_RTS_3V3 → MCU_UART0_RTS_3V3 34
MCU_UART0_CTS_3V3 → MCU_UART0_CTS_3V3 34

SOC_MAIN_UART1_RX_3V3 → SOC_MAIN_UART1_RX_3V3 29
SOC_MAIN_UART1_TX_3V3 → SOC_MAIN_UART1_TX_3V3 29
SOC_MAIN_UART3_TX_3V3 → SOC_MAIN_UART3_TX_3V3 29
SOC_MAIN_UART3_RX_3V3 → SOC_MAIN_UART3_RX_3V3 29

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TEXAS INSTRUMENTS MISTRAL

Title	FT4232 UART TO USB BRIDGE	
Size C	Variant Name = PROC101D(005) TMDS243EVM	Rev D
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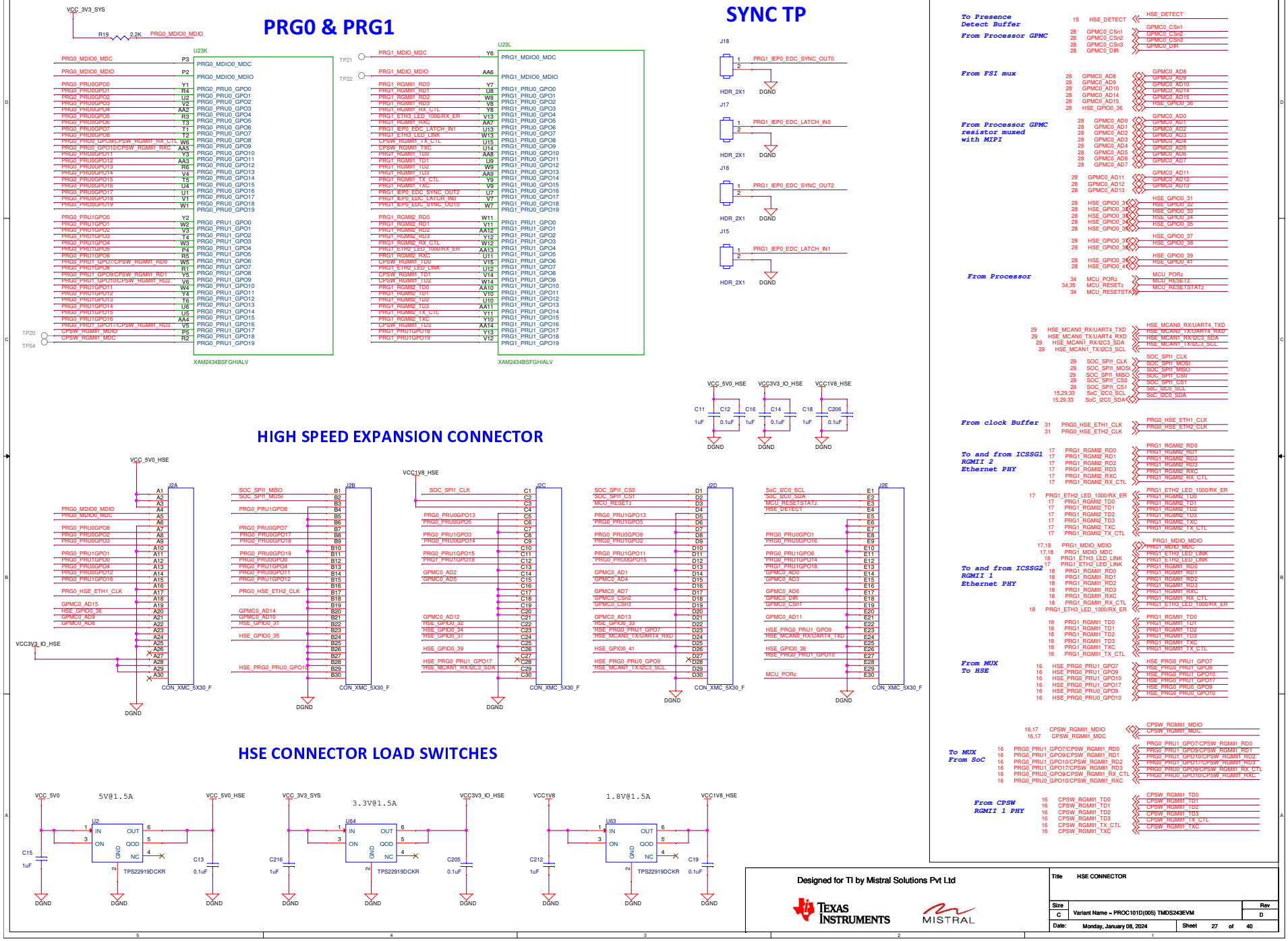
PRG0 & PRG1
SYNC TP
HIGH SPEED EXPANSION CONNECTOR
HSE CONNECTOR LOAD SWITCHES
Off Page Connections
U23K
U23L
XAM2434BSFGHIALV
TPS22919DCKR
CON_XMC_5X30_F
5V@1.5A
3.3V@1.5A
1.8V@1.5A
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TEXAS INSTRUMENTS
MISTRAL
Title HSE CONNECTOR
Size C
Variant Name = PROC101D(005) TMDS243EVM
Rev D
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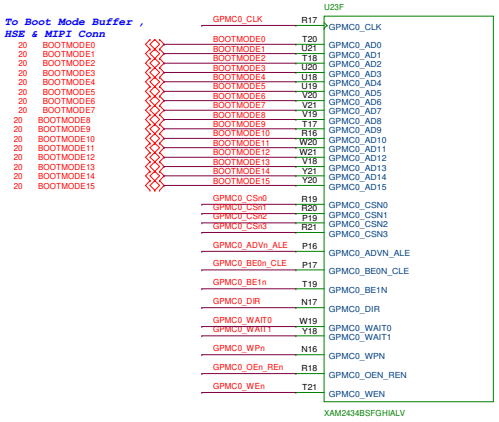
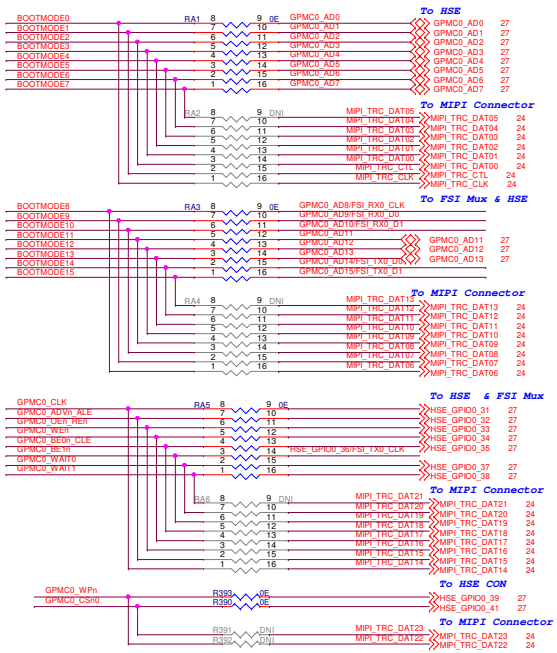
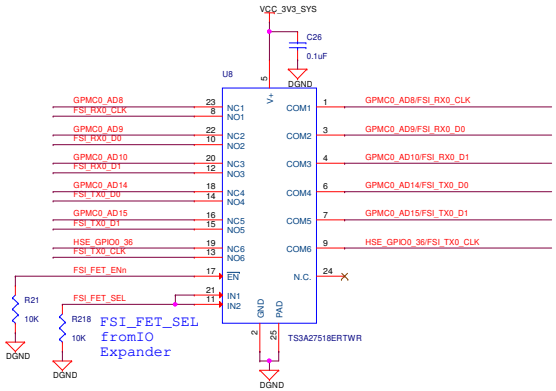
GPMC

0- Ohm Res MUX between HSE Connector and TRACE Functionality
-For HSE Connector RA1 , RA3 , RA5 , R393 & R390 Should be installed and RA2, RA4 ,RA6 , R391& R392 Should be DNI'd.
-For TRACE RA2, RA4 ,RA6 , R391& R392 Should be installed and RA1 , RA3 , RA5 , R393 & R390 Should be DNI'd.

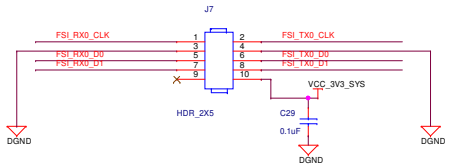




GPMC TO FSI & HSE CONNECTOR



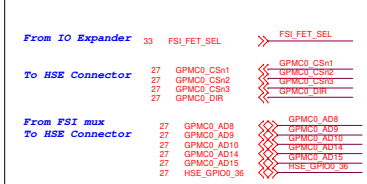
FSI CONNECTOR



TS3A27518ERTWR Truth Table

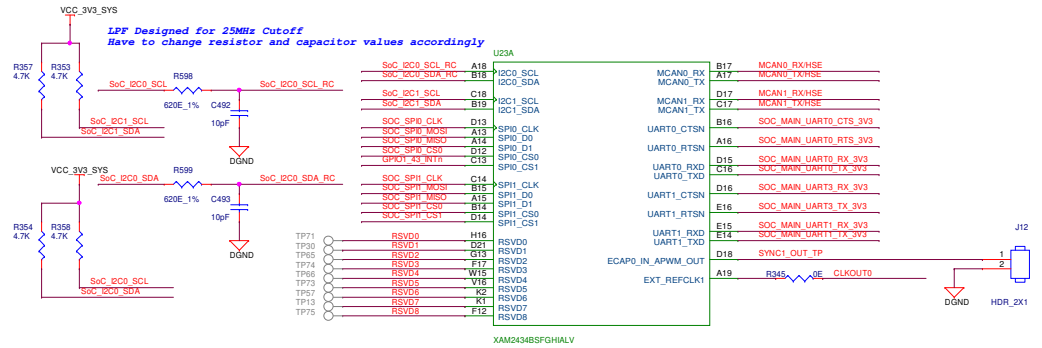
EN#	IN1	IN2	NC1/2/3 TO COM1/2/3 & COM1/2/3 TO NC1/2/3	NC4/5/6 TO COM14/5/6 & COM4/5/6 TO NC4/5/6	NO1/2/3 TO COM1/2/3 & COM1/2/3 TO NO1/2/3	NO4/5/6 TO COM14/5/6 & COM4/5/6 TO NO4/5/6
H	X	X	OFF	OFF	OFF	OFF
L	L	L	ON	ON	OFF	OFF
L	H	L	OFF	ON	ON	OFF
L	L	H	ON	OFF	OFF	ON
L	H	H	OFF	OFF	ON	ON

Off Page Connections

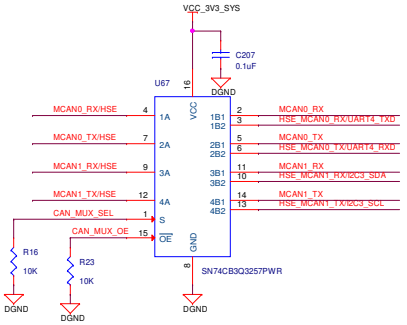


Designed for TI by Mistral Solutions Pvt Ltd

Title	GPMC	
Size	Variant Name – PROC101D(005) TMDS243EVM	Rev
C		D
Date:	Monday, January 08, 2024	Sheet 28 of 40

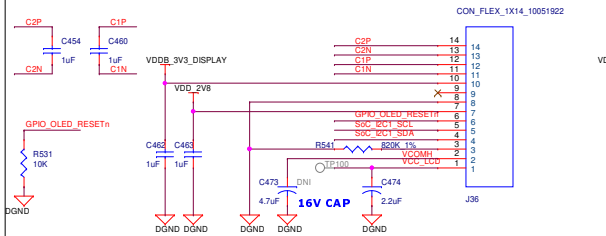


HSE/CAN MUX

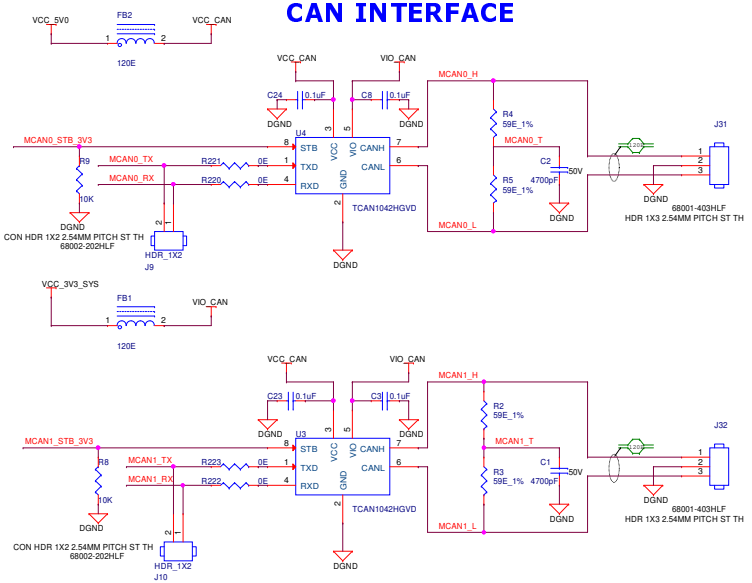


DISPLAY CONNECTOR

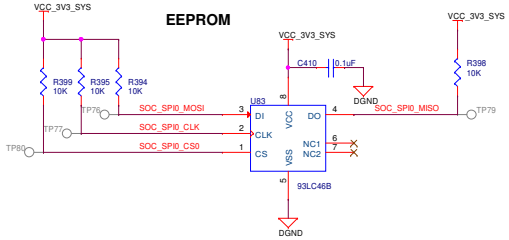
DISPLAY



CAN INTERFACE



SPI EEPROM



Off Page Connections

From Debounce Circuit

From IO Expander

To HSE Connector

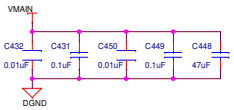
To Clock Buffer

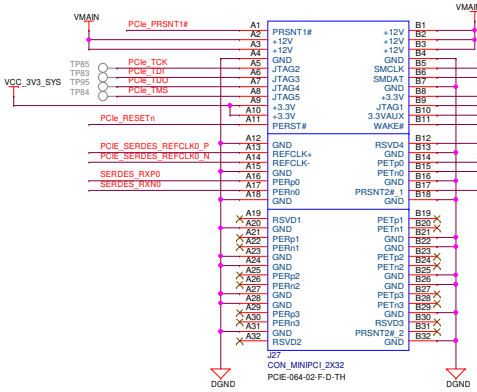
To FT4232 Bridge

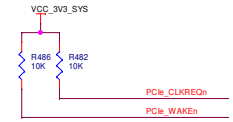
PROC101D(005) TMDS243EVM

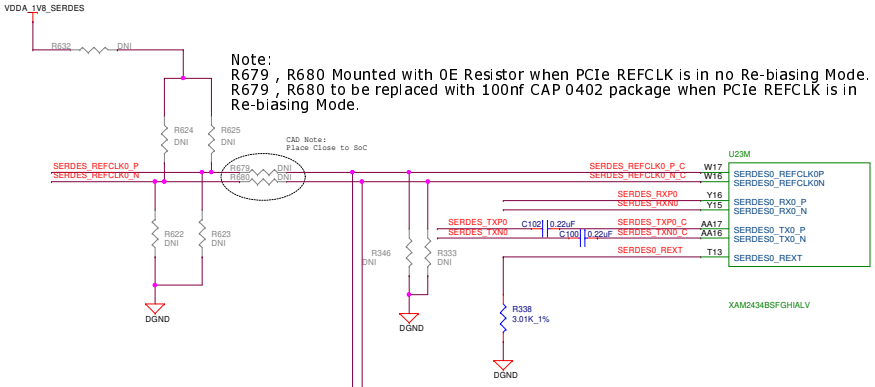
Project : <Project Name>	Designed for TI by Mistral Solutions Pvt Ltd	Title: CAN & DISPLAY INTERFACE	
		Size: C	Document Number: MS_TI_MAXIE_APPLICATION_CARD_SCH_REVA	Rev: D
		Date: Monday, January 08, 2024	Sheet 29 of 40	

x4 Lane PCIe Connector



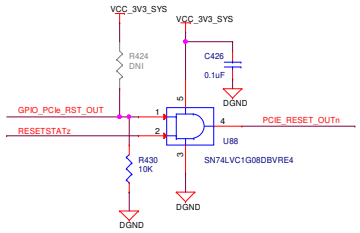




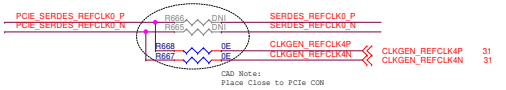


Note:
R679 , R680 Mounted with 0E Resistor when PCIe REFCLK is in no Re-biasing Mode.
R679 , R680 to be replaced with 100nf CAP 0402 package when PCIe REFCLK is in Re-biasing Mode.

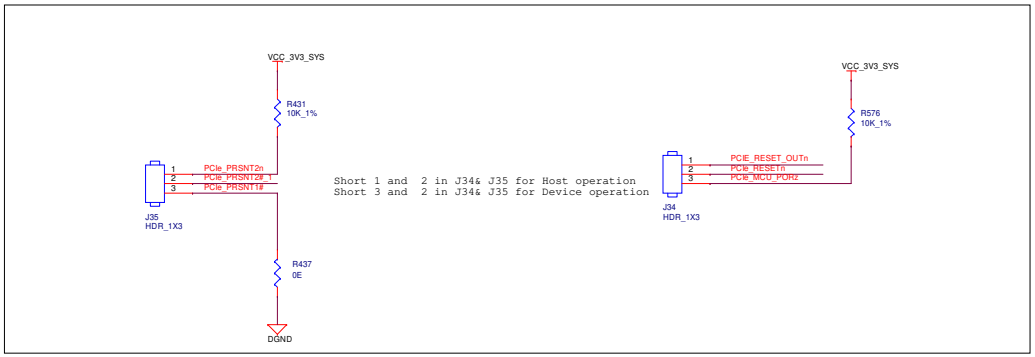
PCIe Reset



CLOCK SELECTION



RC OR EP MODE SELECTION



Off Page Connections

PCIe_MCU_PORz	PCIe_MCU_PORz	34
GPIO_PCIe_RST_OUT	GPIO_PCIe_RST_OUT	33
RESETSTATz	RESETSTATz	13,14,20,31,33,34
SoC_I2C1_SCL	SoC_I2C1_SCL	15,19,21,29,31,32,33
SoC_I2C1_SDA	SoC_I2C1_SDA	15,19,21,29,31,32,33

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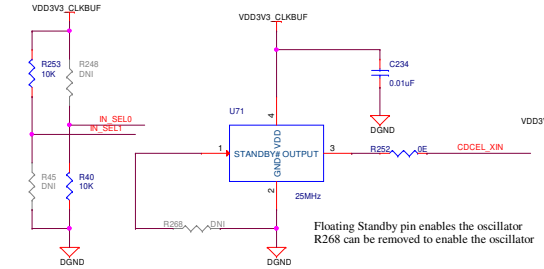
TEXAS INSTRUMENTS MISTRAL

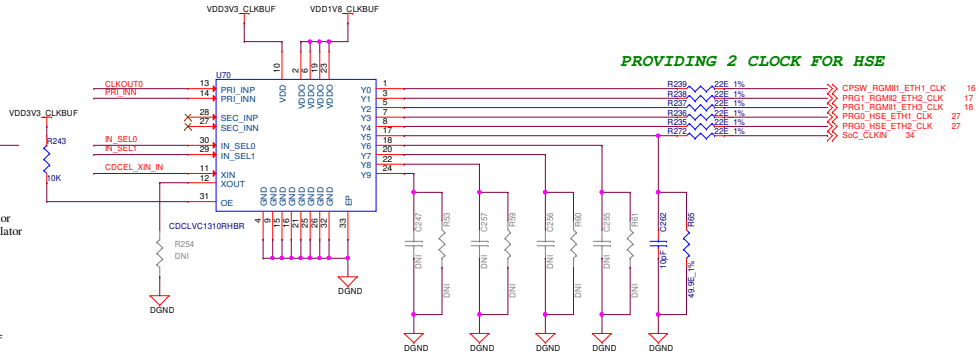
Title	PCIe INTERFACE	
Size: C	PROC101D(005) TMDS243EVM	Rev: D
Date: Monday, January 08, 2024	Sheet 30 of 40	

REFERENCE INPUT SELECTION

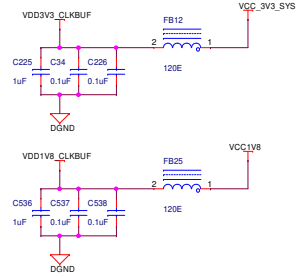


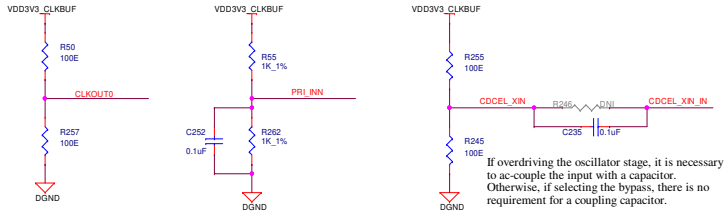
Floating Standby pin enables the oscillator
R268 can be removed to enable the oscillator

ETHERNET PHY CLOCK BUFFER



PROVIDING 2 CLOCK FOR HSE



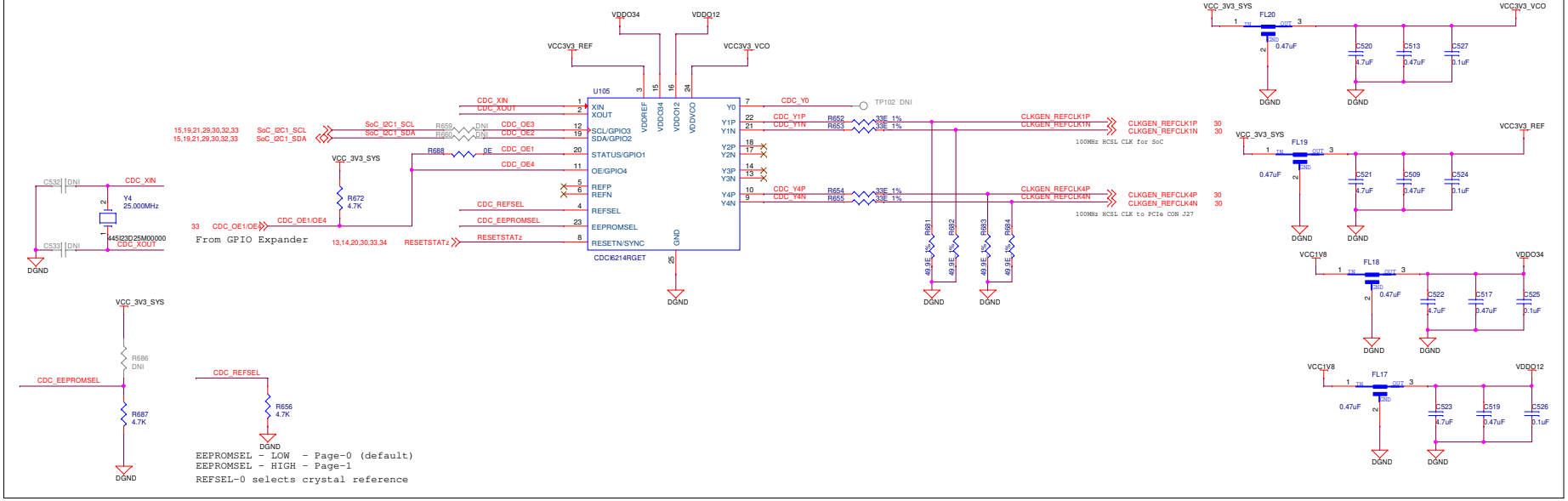


If overdriving the oscillator stage, it is necessary to ac-couple the input with a capacitor. Otherwise, if selecting the bypass, there is no requirement for a coupling capacitor.

Off Page Connections

From SoC — CLKOUT0 — CLKOUT0 29

PCIe Clock HCSL (100MHz)



EEPROMSEL - LOW - Page-0 (default)
EEPROMSEL - HIGH - Page-1
REFSEL-0 selects crystal reference

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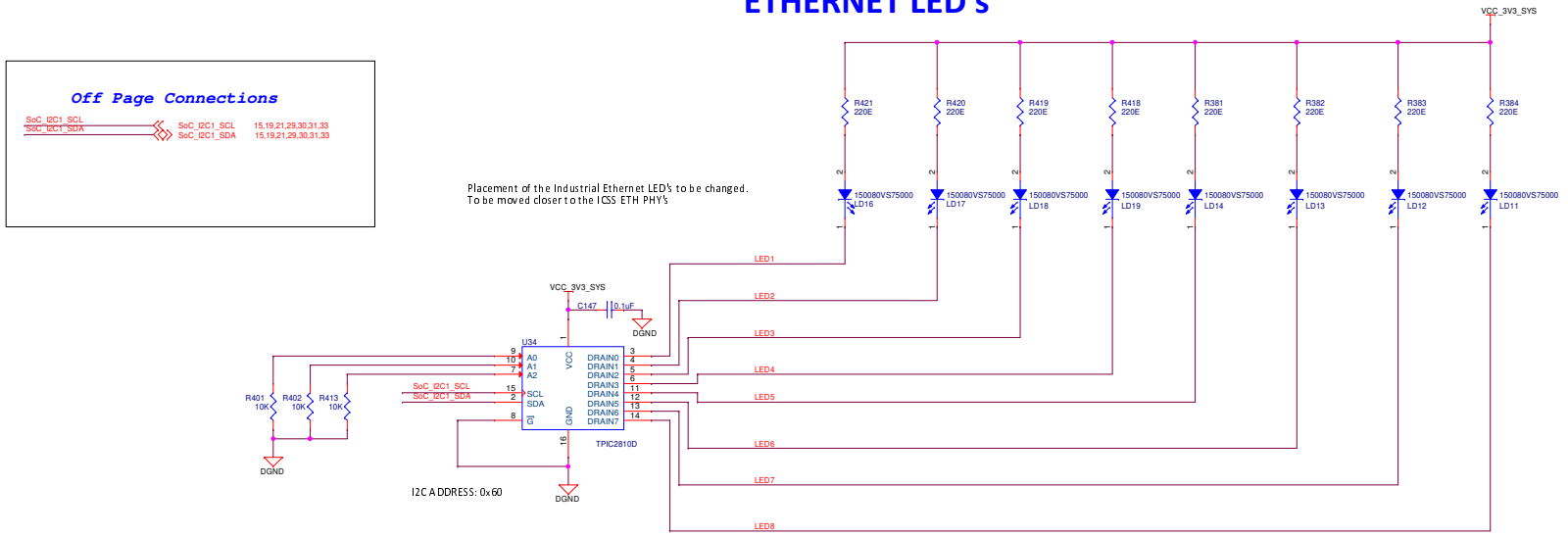
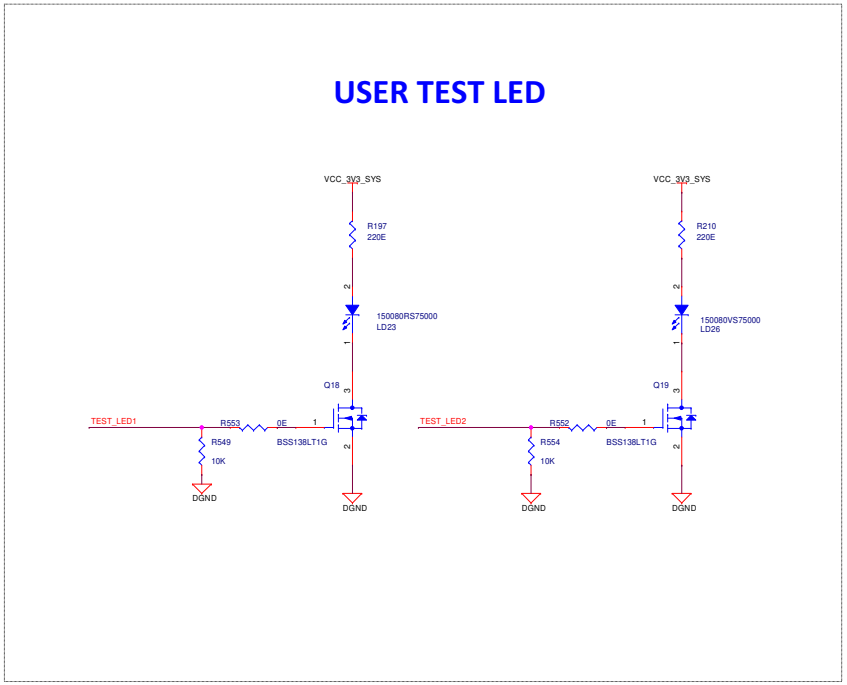
Title	ETHERNET PHY & PCIe CLOCK GENERATOR	
Size C	Variant Name – PROC101D(005) TMDS243EVM	Rev D
Date: Monday, January 08, 2024	Sheet 31 of 40	

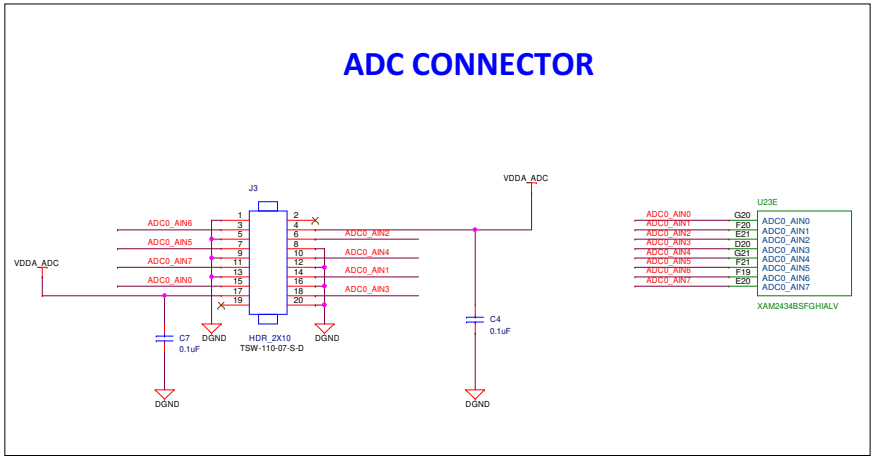
ETHERNET LED's

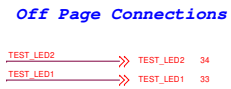


USER TEST LED



ADC CONNECTOR

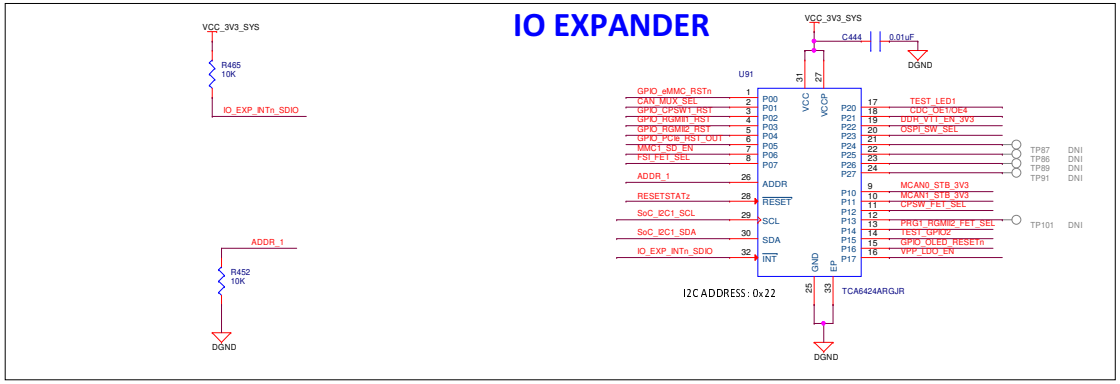




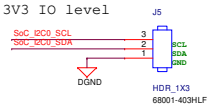
Designed for TI by Mistral Solutions Pvt Ltd

Title	ETHERNET LEDs	
Size	Variant Name – PROC101D(005) TMDS243EVM	Rev
C		D
Date:	Monday, January 08, 2024	Sheet 32 of 40

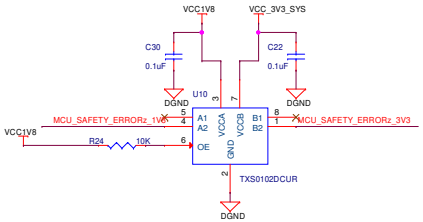
IO EXPANDER



I2C TEST HEADER



LEVEL TRANSLATOR



Off Page Connections

OSPI_SW_SEL — OSPI_SW_SEL 14
GPIO_eMMC_RSTn — GPIO_eMMC_RSTn 13
GPIO_PCIe_RST_OUT — GPIO_PCIe_RST_OUT 30
GPIO_CPSW1_RST — GPIO_CPSW1_RST 16
GPIO_RGMII1_RST — GPIO_RGMII1_RST 18
GPIO_RGMII2_RST — GPIO_RGMII2_RST 17

MMC1_SD_EN — MMC1_SD_EN 13
FSI_FET_SEL — FSI_FET_SEL 28

MCAN1_STB_3V3 — MCAN1_STB_3V3 29
MCAN0_STB_3V3 — MCAN0_STB_3V3 29
CPSW_FET_SEL — CPSW_FET_SEL 16

PRG1_RGMII2_FET_SEL — PRG1_RGMII2_FET_SEL 17
TEST_GPIO2 — TEST_GPIO2 19
GPIO_OLED_RESETn — GPIO_OLED_RESETn 29
VPP_LDO_EN — VPP_LDO_EN 38

CAN_MUX_SEL — CAN_MUX_SEL 29
TEST_LED1 — TEST_LED1 32
CDC_OE1/OE4 — CDC_OE1/OE4 31
RESETSTATz — RESETSTATz 13,14,20,30,31,34

SoC_I2C1_SDA — SoC_I2C1_SDA 15,19,21,29,30,31,32
SoC_I2C1_SCL — SoC_I2C1_SCL 15,19,21,29,30,31,32

SoC_I2C0_SDA — SoC_I2C0_SDA 15,27,29
SoC_I2C0_SCL — SoC_I2C0_SCL 15,27,29

From Safety Connector — MCU_SAFETY_ERRORz_3V3 — MCU_SAFETY_ERRORz_3V3 34

From SoC OSPI Section — DDR_VTT_EN — DDR_VTT_EN

To Processor — MCU_SAFETY_ERRORz_1V8 — MCU_SAFETY_ERRORz_1V8 34
To VTT Reg — DDR_VTT_EN_3V3 — DDR_VTT_EN_3V3 39
To SoC MMC — IO_EXP_INTn_SDIO — IO_EXP_INTn_SDIO 13

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TEXAS INSTRUMENTS MISTRAL

Title	IO EXPANDER	
Size: C	Variant Name = PROC101D(005) TMDS243EVM	Rev: D
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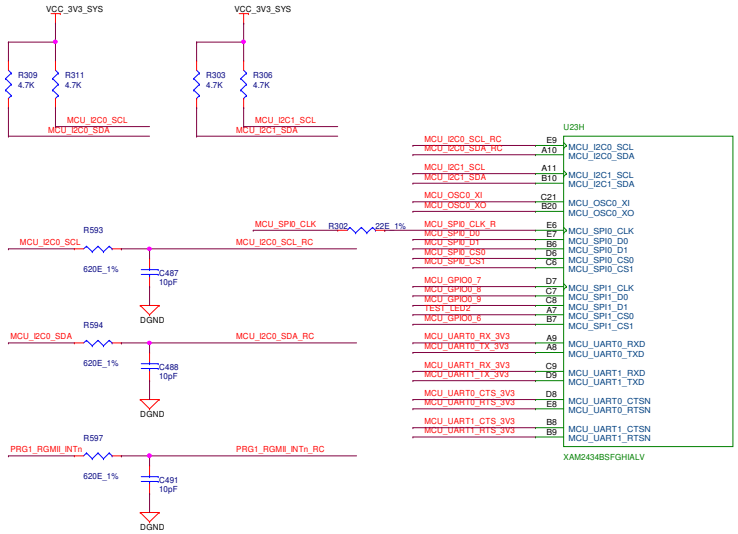
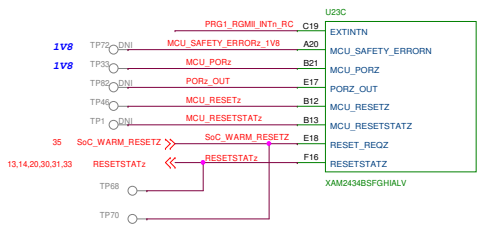
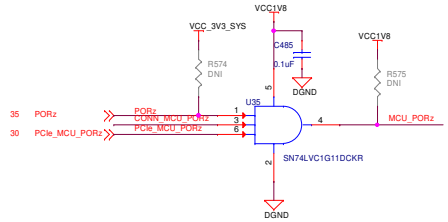
MCU_GENERAL

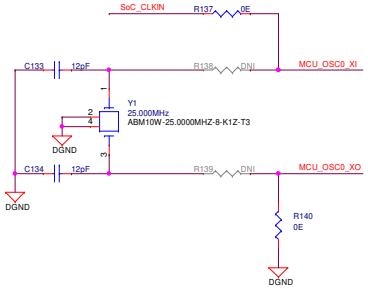


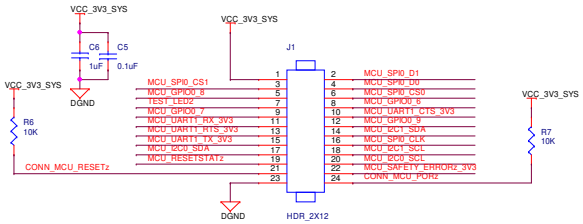


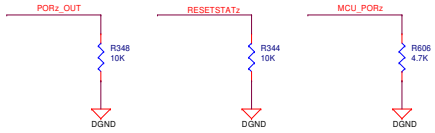


SAFETY CONNECTOR

LPF Designed for 25MHz Cutoff
Have to change resistor and capacitor values accordingly

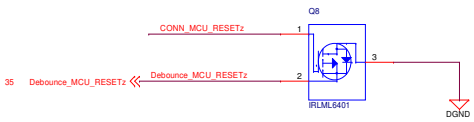


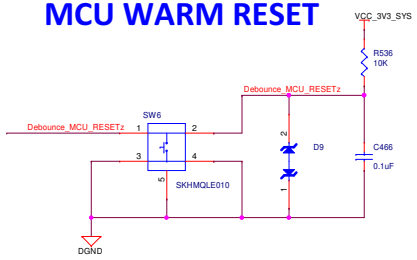




pull-down resistor on PORz_OUT is provided to keep the signal low until the processor is released from reset during the power-up seqence

MCU WARM RESET





Off Page Connections

To HSE Connector

To level translator
From Level Translator

To Boot Mode Section

From ICSSG Phy1&2

To User LED
From Push button
Switch

MCU_PORz	MCU_PORz	27
MCU_RESETz	MCU_RESETz	27,35
MCU_RESETSTATz	MCU_RESETSTATz	27
MCU_SAFETY_ERRORz_3V3	MCU_SAFETY_ERRORz_3V3	33
MCU_SAFETY_ERRORz_1V8	MCU_SAFETY_ERRORz_1V8	33
PORz_OUT	PORz_OUT	13,16,17,18,20
PRG1_RGMII_INTn	PRG1_RGMII_INTn	16,17,18
TEST_LED2	TEST_LED2	32
MCU_GPIO0_6	MCU_GPIO0_6	35
SoC_CLKIN	SoC_CLKIN	31
MCU_UART0_TX_3V3	MCU_UART0_TX_3V3	26
MCU_UART0_RX_3V3	MCU_UART0_RX_3V3	26
MCU_UART0_CTS_3V3	MCU_UART0_CTS_3V3	26
MCU_UART0_RTS_3V3	MCU_UART0_RTS_3V3	26

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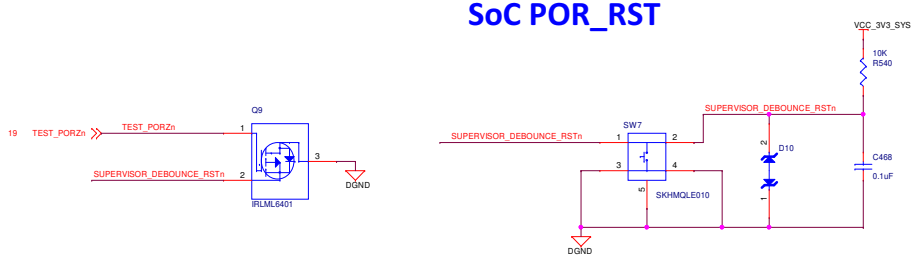
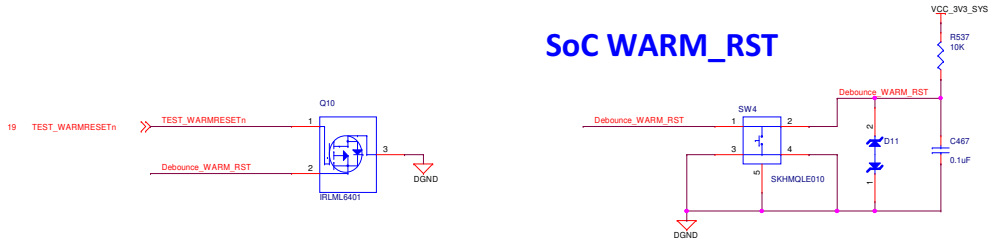
TEXAS INSTRUMENTS MISTRAL

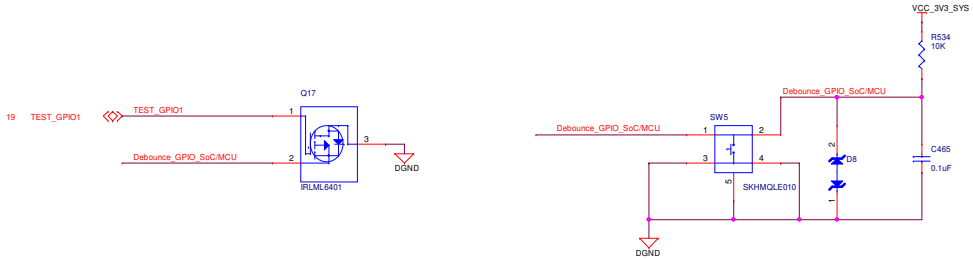
Title	MCU GENERAL & SAFETY CONNECTOR	
Size	Variant Name – PROC101D(005) TMDS243EVM	Rev
C		D
Date:	Monday, January 08, 2024	Sheet 34 of 40

SoC POR_RST

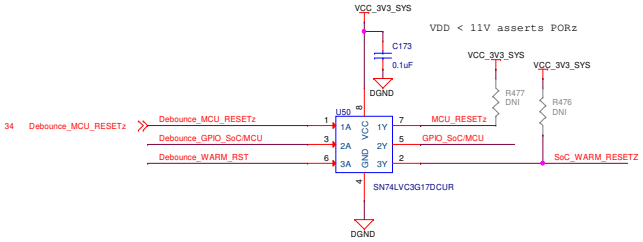


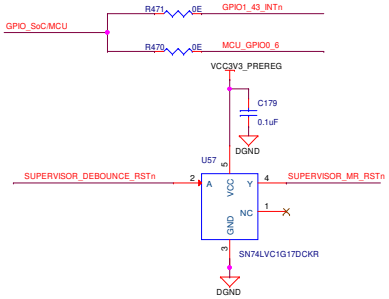
SoC WARM_RST



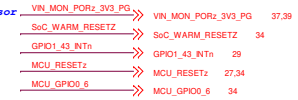


DEBOUNCE CIRCUIT



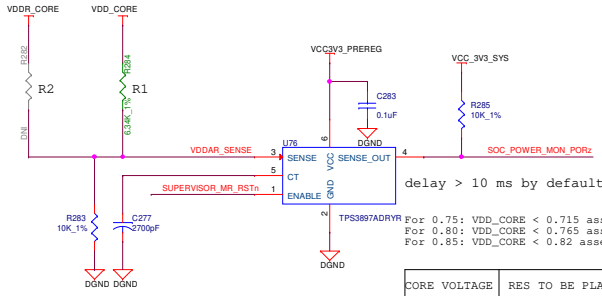


Off Page Connections



VOLTAGE SUPERVISOR

Core Voltage Monitor (VDDAR_CORE/VDD_CORE)

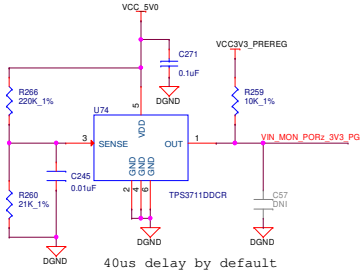


delay > 10 ms by default

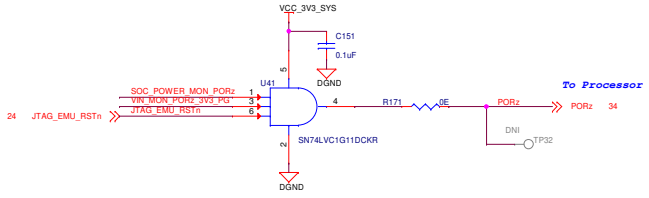
For 0.75: VDD_CORE < 0.715 assert PORz
For 0.80: VDD_CORE < 0.765 asserts PORz
For 0.85: VDD_CORE < 0.82 asserts PORz

CORE VOLTAGE	RES TO BE PLACED
0.75V	R1 = 4.3K
0.80V	R2 = 5.23K
0.85V	R2 = 6.34K

5V OUTPUT MONITOR (VCC_5V0)



40us delay by default
VDD < 4.6 asserts PORz



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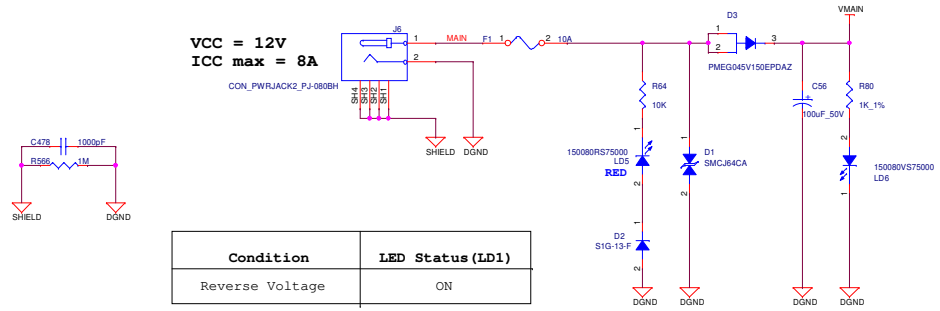
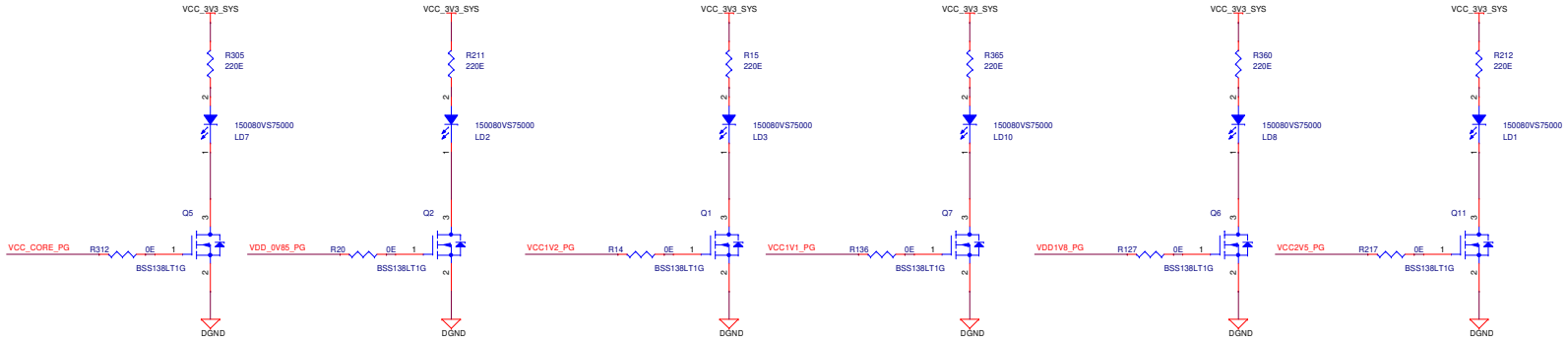
Title	DEBOUNCE CIRCUIT & VOLTAGE SUPERVISOR	
Size C	Variant Name = PROC101D(005) TMDS243EVM	Rev D
Date: Monday, January 08, 2024	Sheet 35 of 40	

MAIN INPUT 12V DC



Condition	LED Status (LD1)
Reverse Voltage	ON

POWER INDICATION LED's



Ground test points

Off Page Connections

VCC_CORE_PG	VCC_CORE_PG 37,38
VDD_0V85_PG	VDD_0V85_PG 38
VCC1V2_PG	VCC1V2_PG 38
VCC1V1_PG	VCC1V1_PG 39
VDD1V8_PG	VDD1V8_PG 38
VCC2V5_PG	VCC2V5_PG 39

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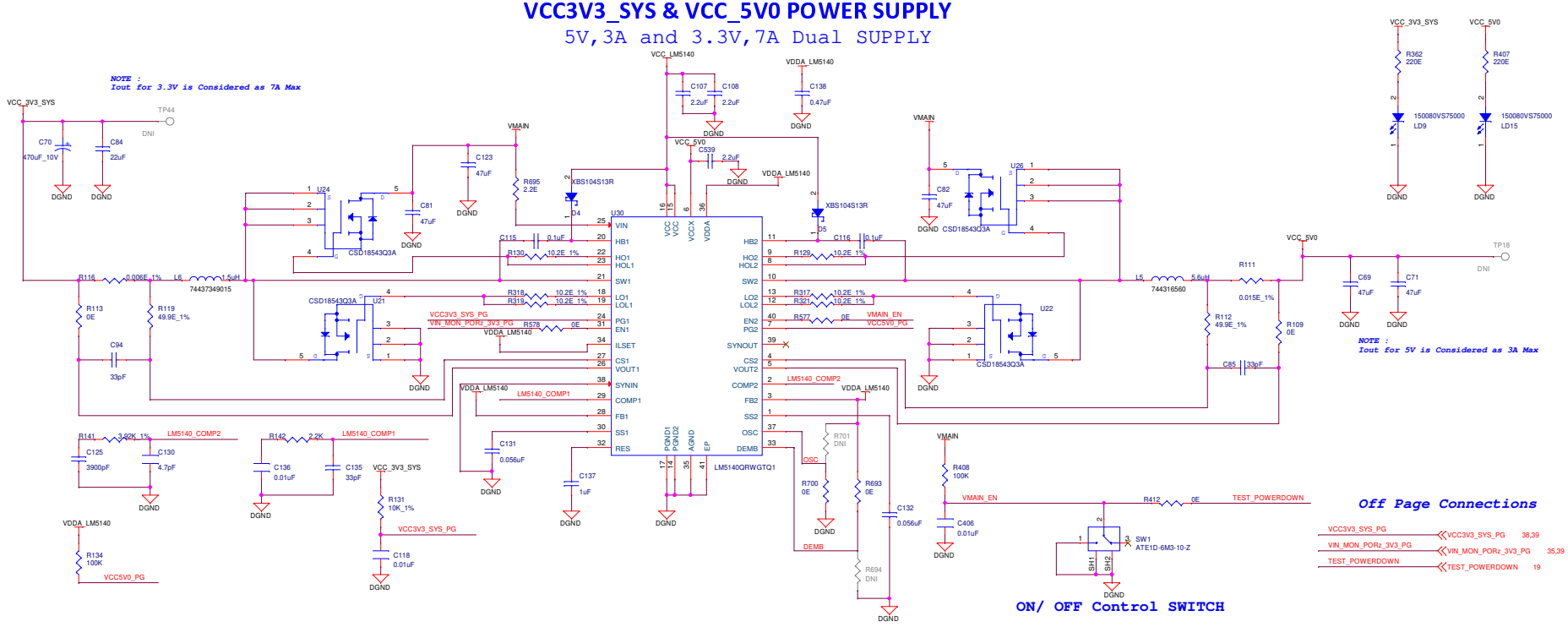
TEXAS INSTRUMENTS

MISTRAL

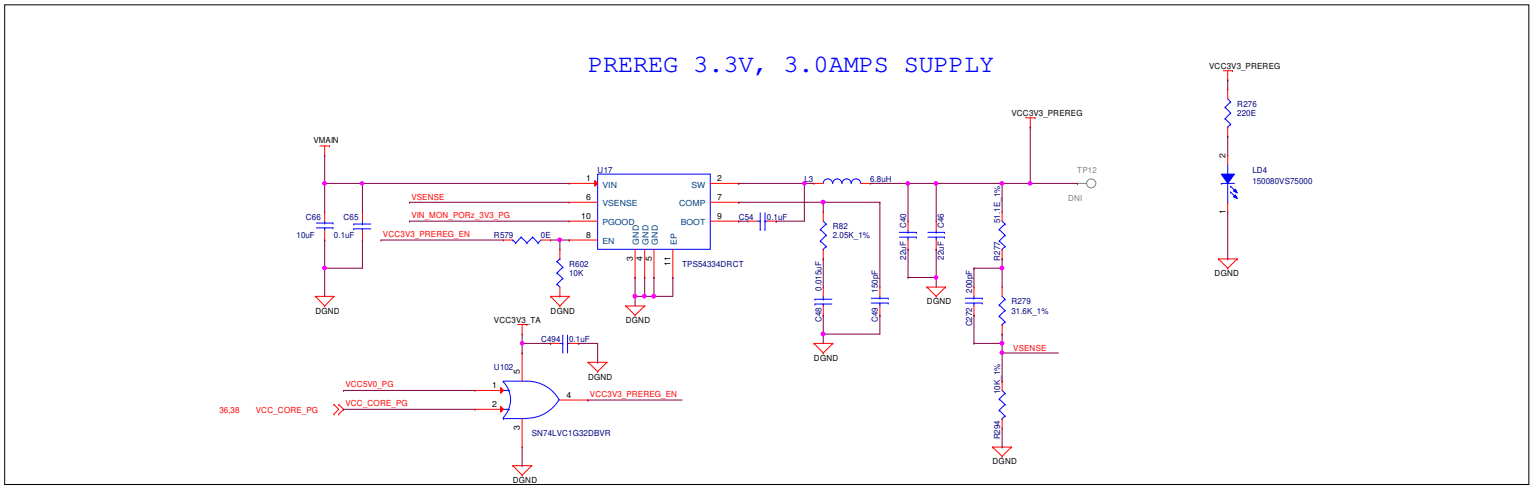
Title	MAIN 12V POWERSUPPLY	
Size	Variant Name – PROC101D(005) TMDS243EVM	Rev
C		D
Date:	Monday, January 08, 2024	Sheet 36 of 40

VCC3V3_SYS & VCC_5V0 POWER SUPPLY

5V,3A and 3.3V,7A Dual SUPPLY



PREREG 3.3V, 3.0AMPS SUPPLY



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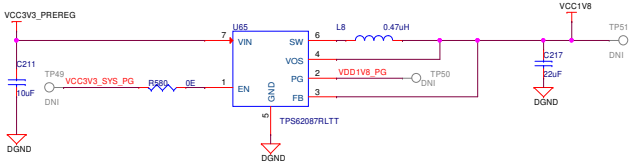
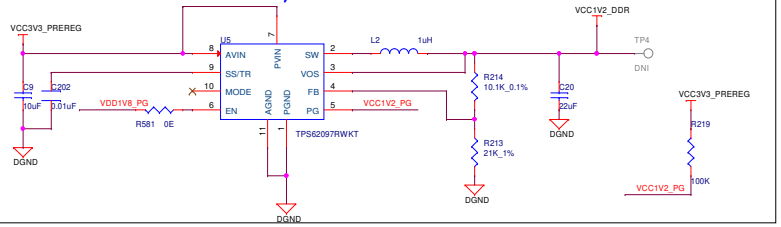
Title	DUAL & PREREG REGULATOR	
Size	Variant Name – PROC101D(005) TMDS243EVM	Rev
C		D
Date: Monday, January 08, 2024	Sheet 37 of 40	

SoC POWER SUPPLY

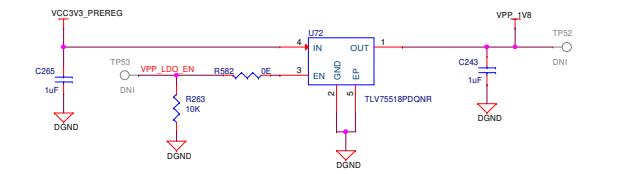
1.8V IO, 3.0AMPS SUPPLY



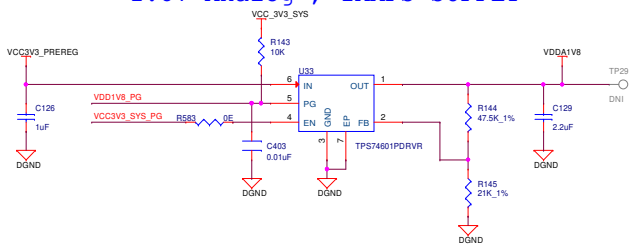
1.2V, 2.0AMPS SUPPLY



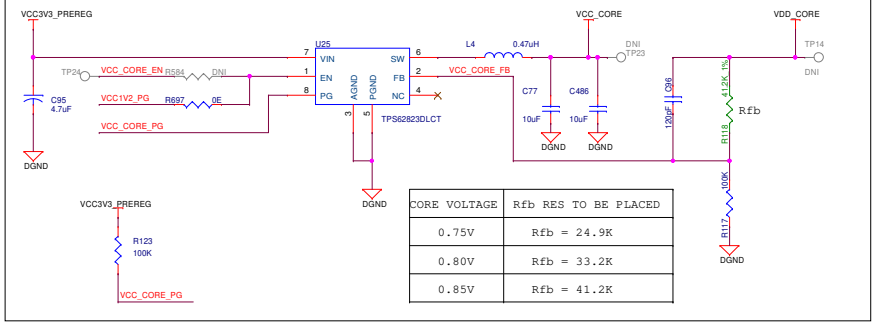
1.8V VPP, 0.15AMPS SUPPLY



1.8V Analog , 1AMPS SUPPLY

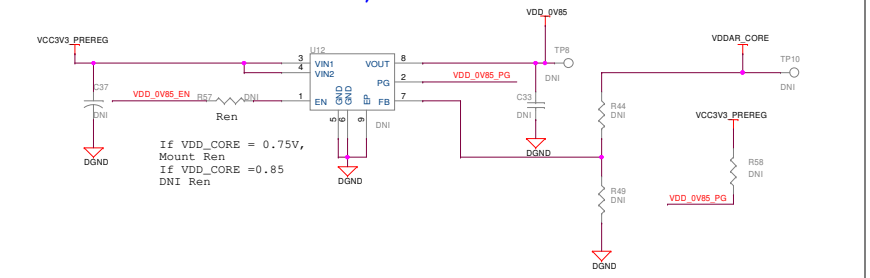


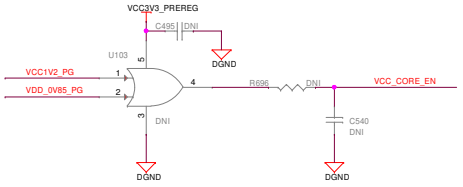
0.75 / 0.8 /0.85V, 3.0AMPS SUPPLY

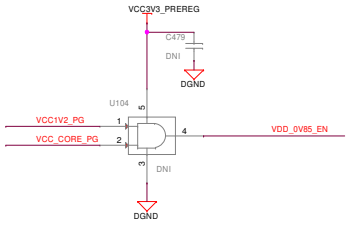


CORE VOLTAGE	Rfb RES TO BE PLACED
0.75V	Rfb = 24.9K
0.80V	Rfb = 33.2K
0.85V	Rfb = 41.2K

0.85 V, 1.5AMPS SUPPLY







Off Page Connections

36,37	VCC_CORE_PG	VCC_CORE_PG
36	VDD_0V85_PG	VDD_0V85_PG
36	VCC1V2_PG	VCC1V2_PG
36	VDD1V8_PG	VDD1V8_PG
33	VPP_LDO_EN	VPP_LDO_EN
35,37,39	VIN_MON_PORz_3V3_PG	VIN_MON_PORz_3V3_PG
37,39	VCC3V3_SYS_PG	VCC3V3_SYS_PG

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TEXAS INSTRUMENTS MISTRAL

Title	SoC POWER SUPPLY	
Size C	Variant Name = PROC101D(005) TMDS243EVM	Rev D
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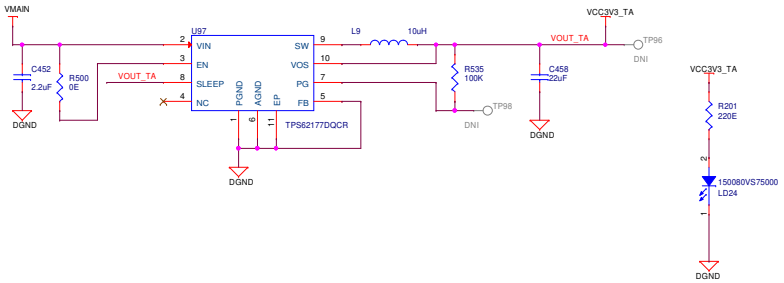
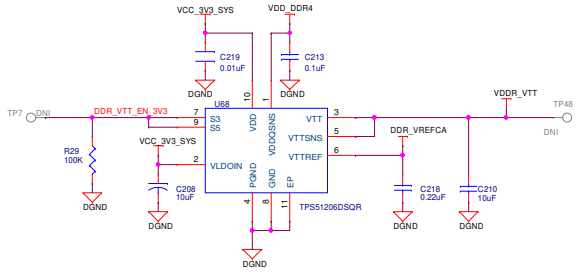
PERIPHERAL POWER SUPPLY

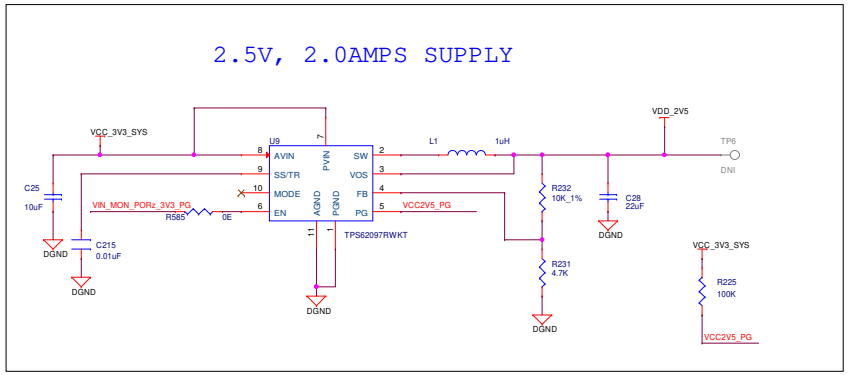
TEST AUTOMATION BOARD POWER



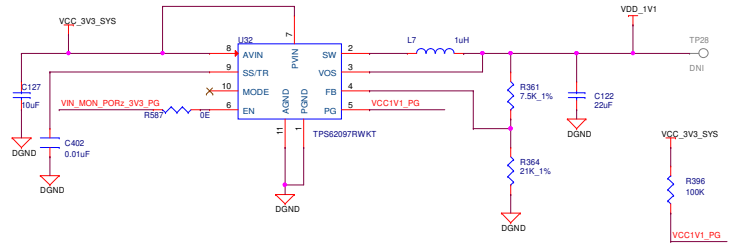
VTT SUPPLY FOR DDR4



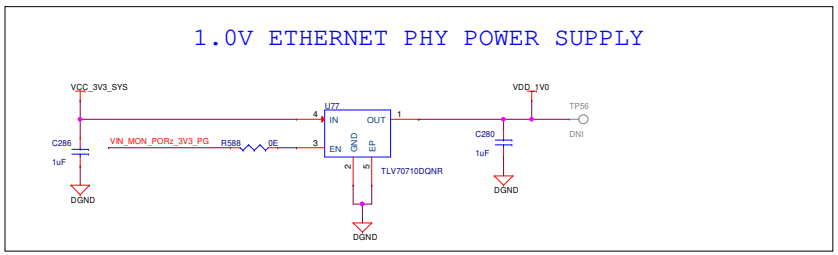
2.5V, 2.0AMPS SUPPLY



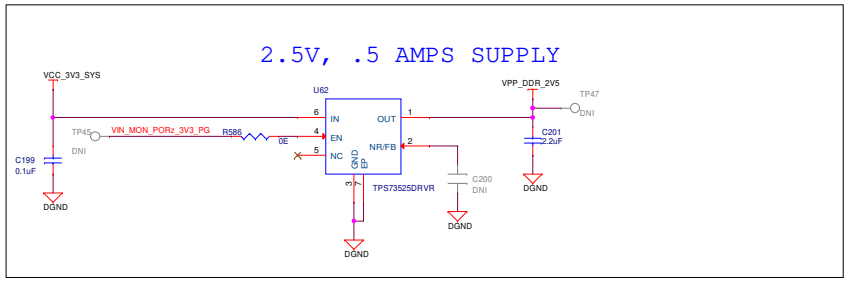
1.1V ETHERNET PHY POWER SUPPLY



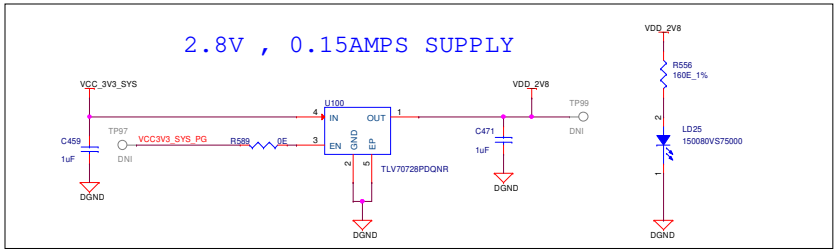
1.0V ETHERNET PHY POWER SUPPLY



2.5V, .5 AMPS SUPPLY



2.8V , 0.15AMPS SUPPLY



Off Page Connections

33	DDR_VTT_EN_3V3	DDR_VTT_EN_3V3
36	VCC2V5_PG	VCC2V5_PG
36	VCC1V1_PG	VCC1V1_PG
37,38	VCC3V3_SYS_PG	VCC3V3_SYS_PG
35,37	VIN_MON_PORz_3V3_PG	VIN_MON_PORz_3V3_PG

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Title	PERIPHERAL POWER SUPPLY		
Size	Variant Name – PROC101D(005) TMDS243EVM		Rev
C			D
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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.

STANDOFFs

MH1 MH2 MH3 MH4 MH5 MH6

970300151 970300151 970300151 970300151 970300151 970300151

SCREWS

MH13 MH14 MH15 MH16 MH17 MH18

29300 29300 29300 29300 29300 29300

MH19 MH20 MH21 MH22 MH23 MH24

29304 29304 29304 29304 29304 29304

JUMPERs

ACC1 ACC2 ACC3 ACC7

SPC02SYAN SPC02SYAN SPC02SYAN SPC02SYAN

ACC8 ACC14 ACC15 ACC4

SPC02SYAN SPC02SYAN SPC02SYAN MNT-103-BK-G

WASHER's

M10 M11 M12 M13 M14 M19

4692 4692 4692 4692 4692 4692

FIDUCIALS

FID1 FID2 FID3

DNI DNI DNI

RUBBER FEET

M1 M2 M3 M4 M5 M6

728 728 728 728 728 728

TI EVM FLYERS

ACC11 ACC12

SZZC019I SSZZ027

Socket & Processor as Accessories

ACC10 ACC13

DNI DNI

BARE PCB

PROC101

PROC101D

LABELS

Board Serial No.

LBL1 PCB LABEL DNI

Assembly Revision

LBL3 PCB LABEL DNI

ORDERABLE PART NO

LBL2 PCB LABEL DNI

Orderable part number

Variant	Label Text
001	TMDS64GPEVM
002	TMDS243GPEVM
003	TMDS64HSEVM
004	TMDS64EVM
005	TMDS243EVM

LOGOs

PCB LOGO DNI — Texas Instruments

PCB LOGO DNI — For Evaluation only; not FCC approved for resale

PCB LOGO DNI — WEEE Mark

PCB LOGO DNI — CE Mark

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Title	HARDWARE SCHEMATICS	
Size C	Variant Name – PROC101D(005) TMDS243EVM	Rev D
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