

# ARM MPU AM572X Industrial EVM ABC Package


- See the Hardware User Guide for board details
- See the Errata Document for design Issues
- See the PCB Build Specification for PCB Details

PCB1  
AM572x Industrial EVM Bare PCB

Catalog  
Processors

**Texas Instruments, Inc.**

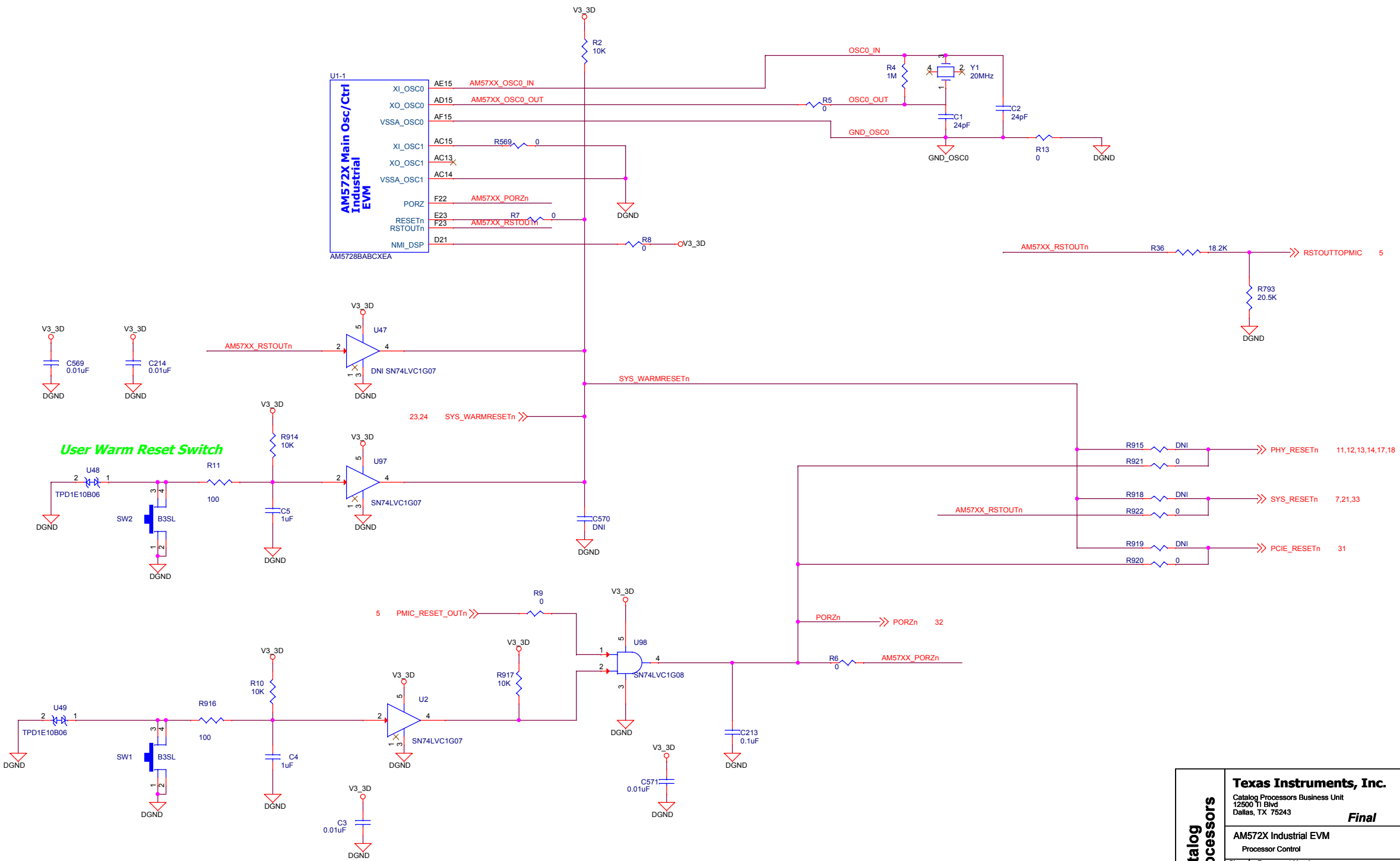
Catalog Processors Business Unit  
12500 TI Blvd  
Dallas, TX 75243

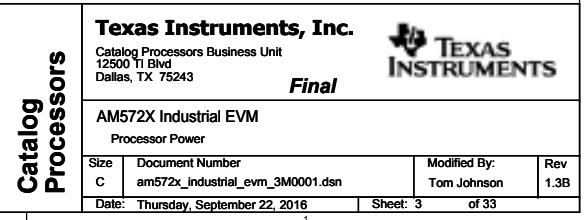


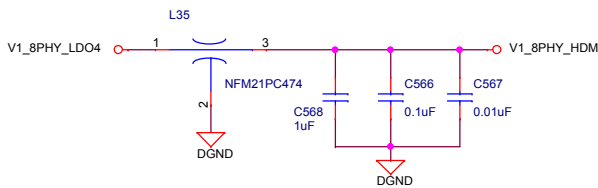
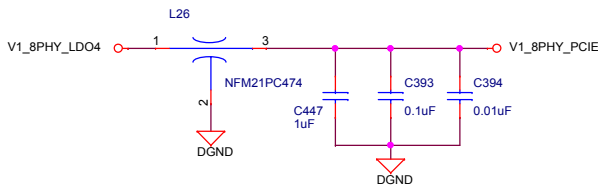
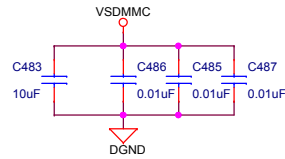
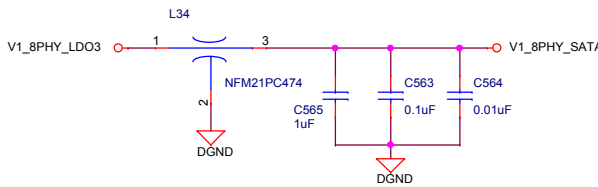
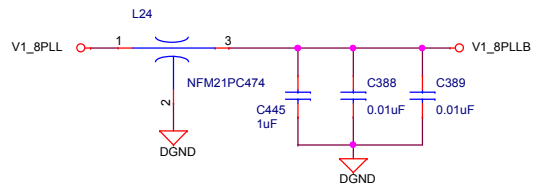
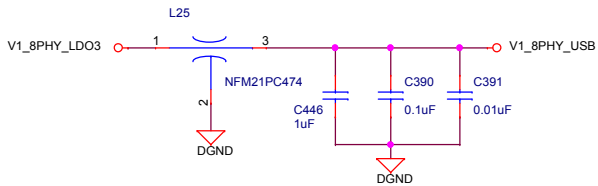
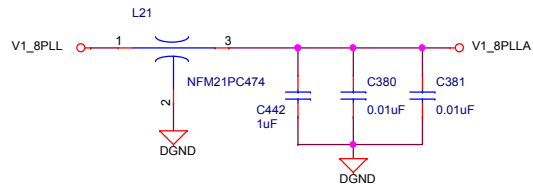
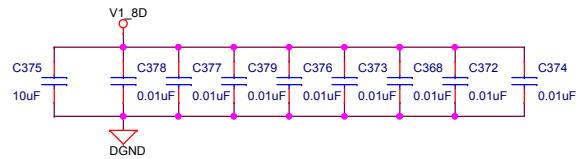
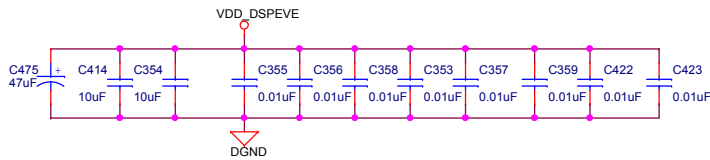
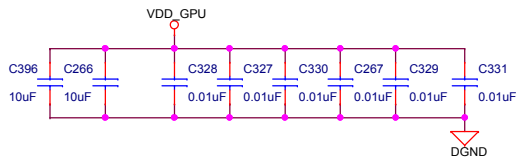
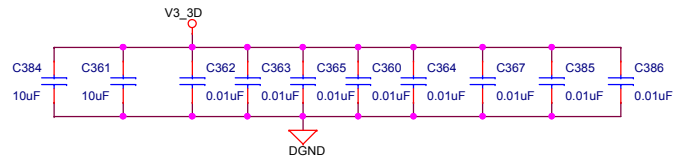
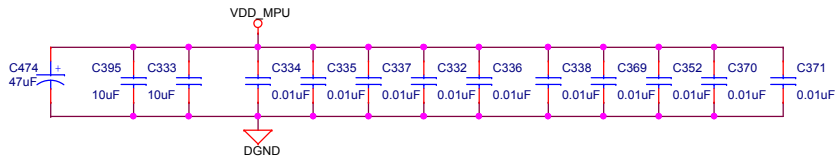
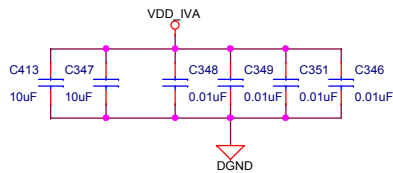
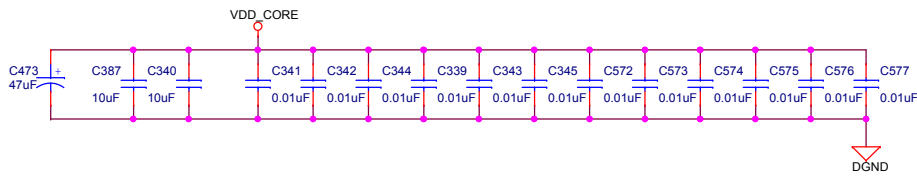
AM572X Industrial EVM

Title Page

Size	Document Number	Modified By:	Rev
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Date: Thursday, September 22, 2016		Sheet: 1	of 33

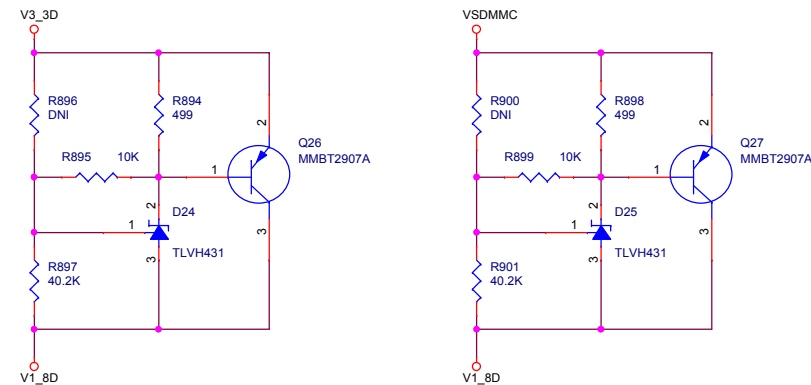




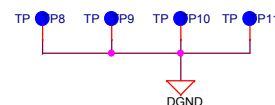
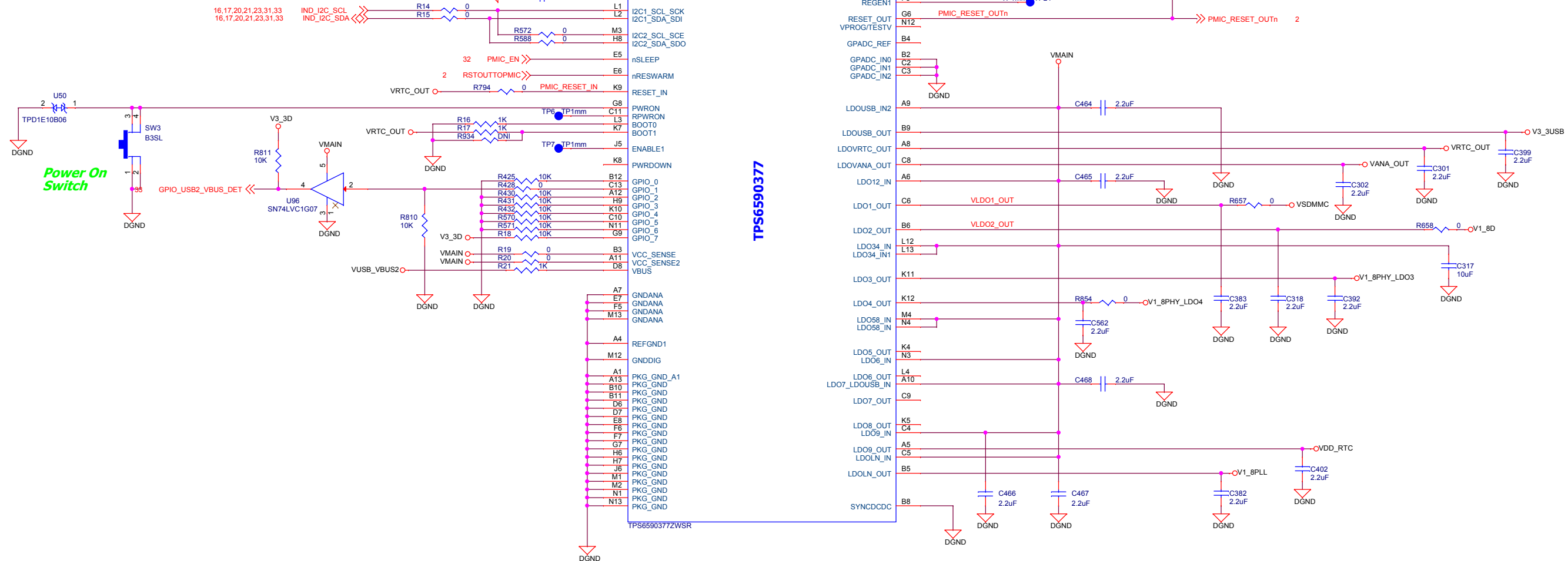


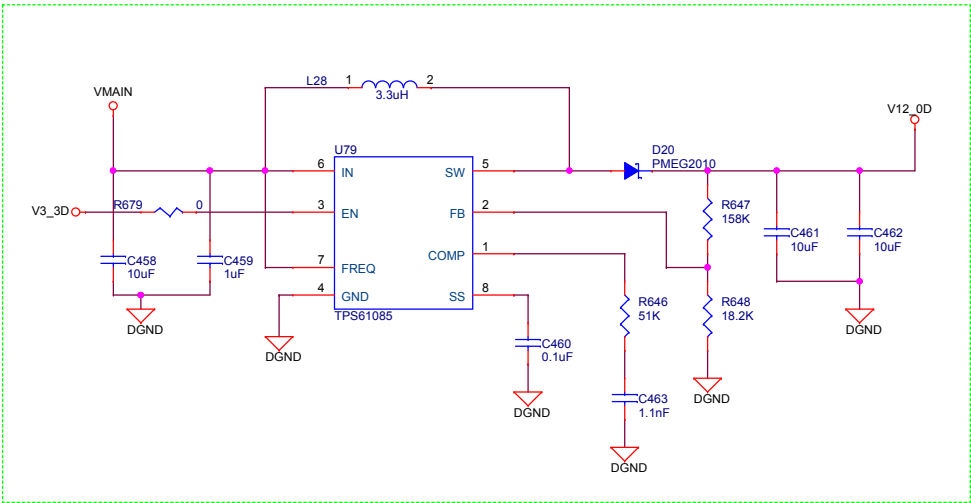
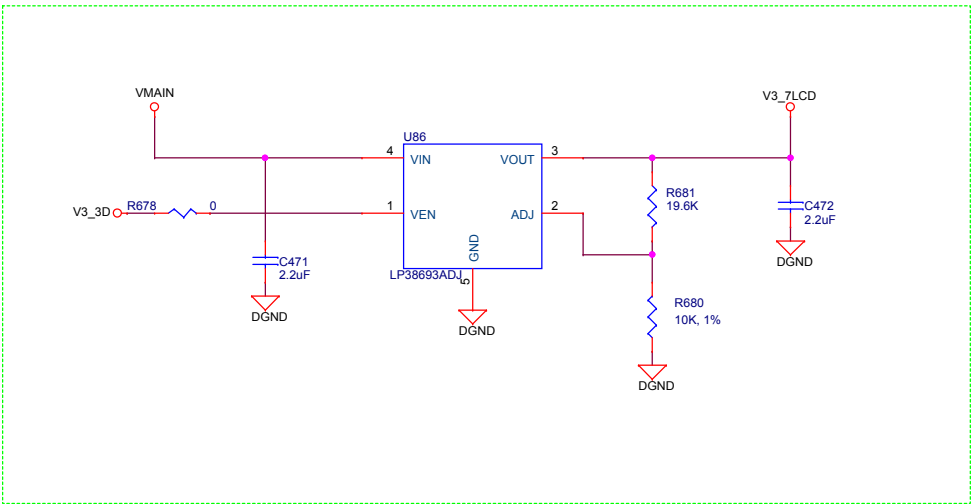
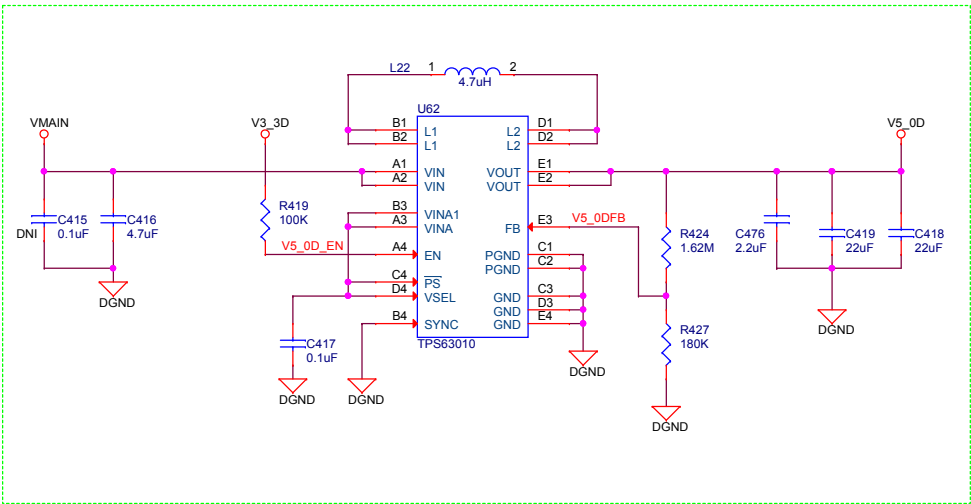
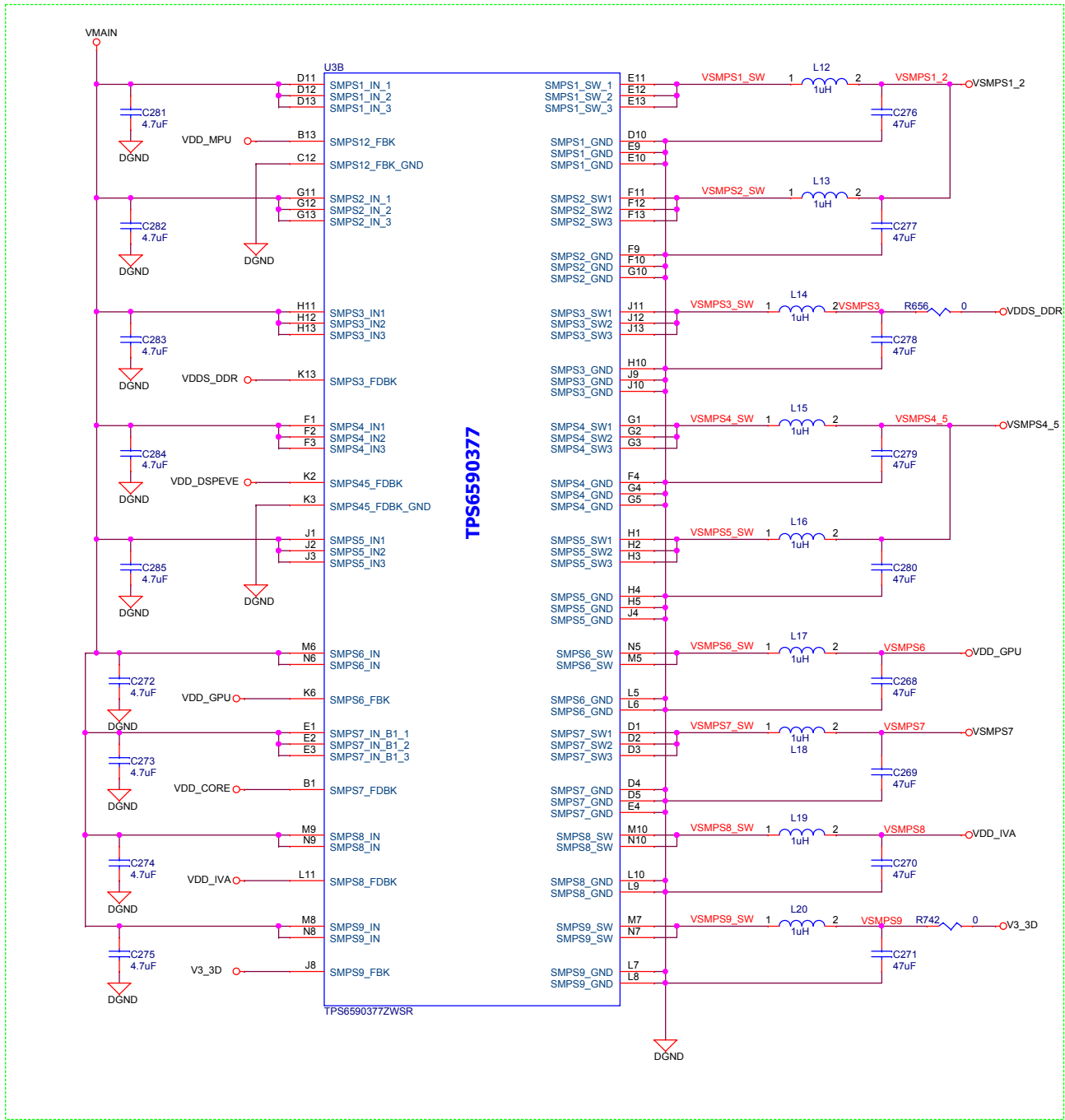
**Main 5VDC Power Input**

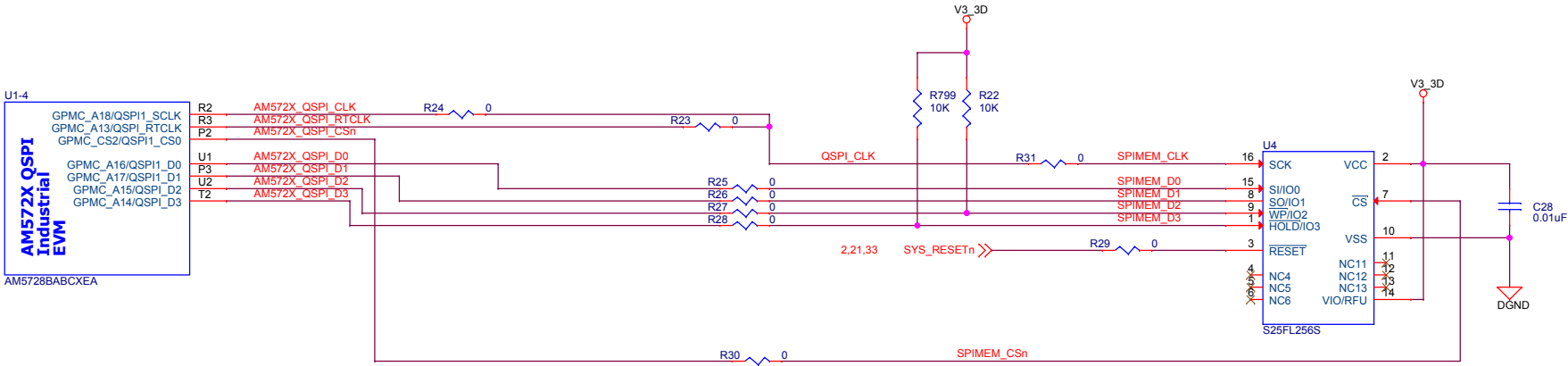
The schematic illustrates the power input section of the board. It features two input sources: a Power Jack (J1, RAPC712) and a DNI Connector (J2, Screwdown). The power from J1 is connected to pin 1 of the VPWRIN\_JCK connector. The power from J2 is connected to pin 1 of the DNI Connector\_Screwdown. Both inputs feed into a network of decoupling capacitors (C20, C21, C22, C23, C24, C411, C412) and a fuse (F1, 8A) to ensure stable 5VDC supply to the VMAIN pin. The ground reference is DGND.

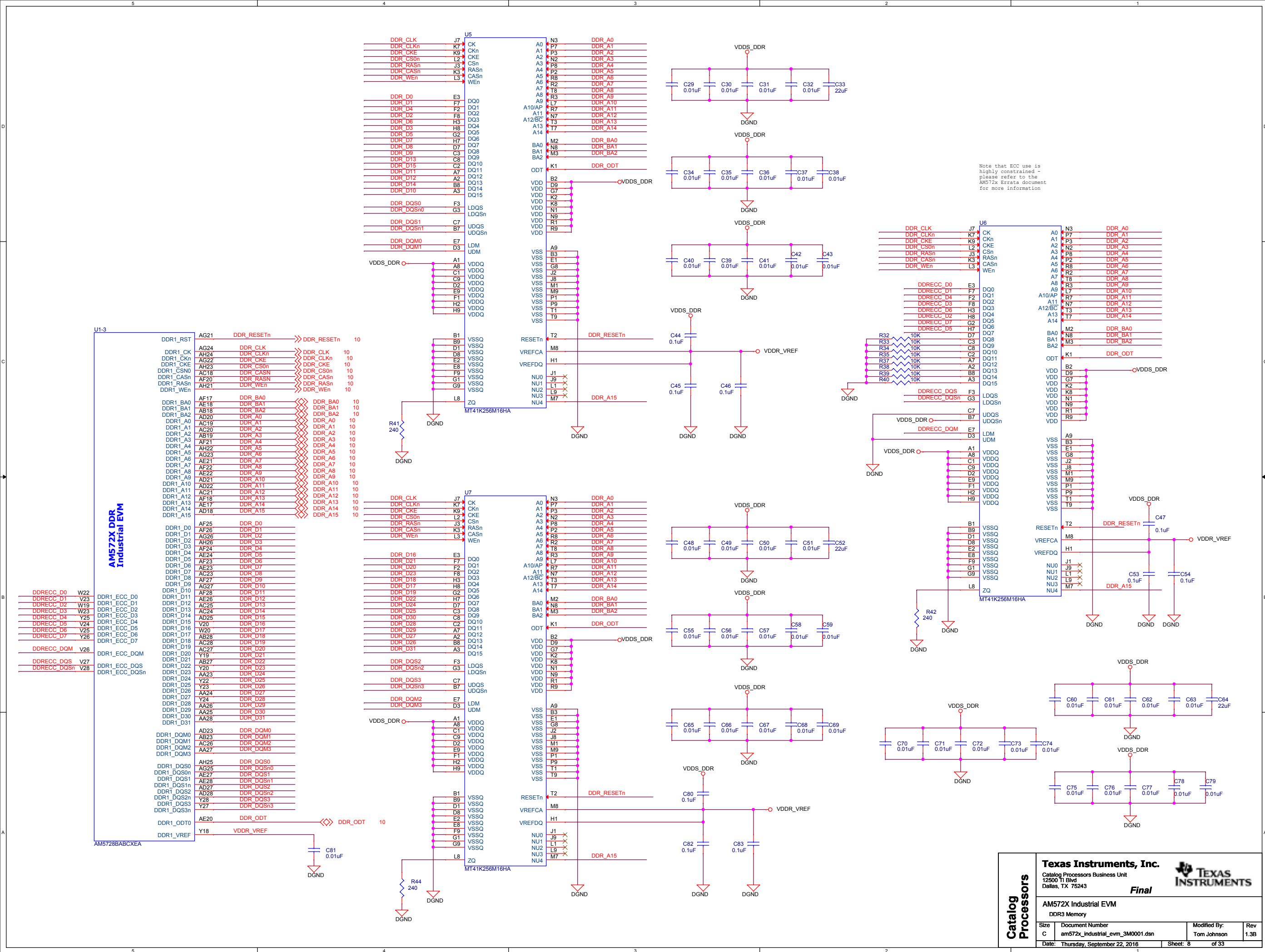


It has been later determined that the clamp circuit on VSDMMC is not sufficient and the PMIC was enhanced to better control shut-down sequencing. Therefore, the VSDMMC clamp is no longer required. The power-down sequence defined in the Data Manual must be met.

[illegible]



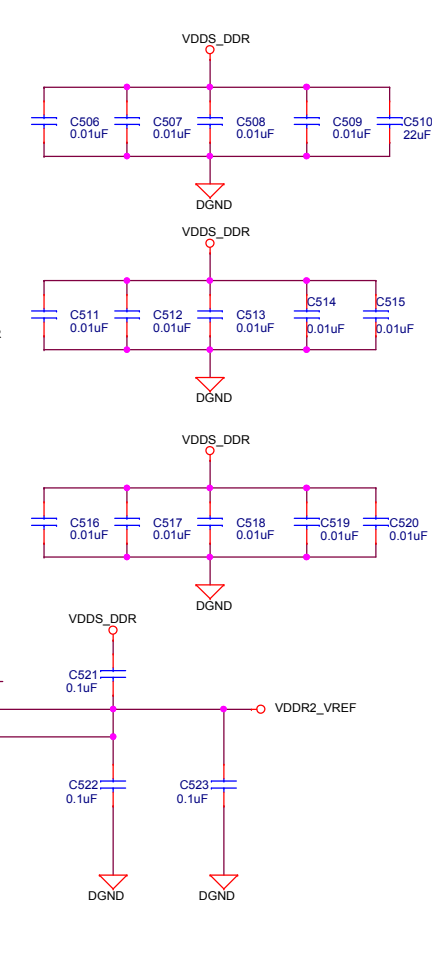
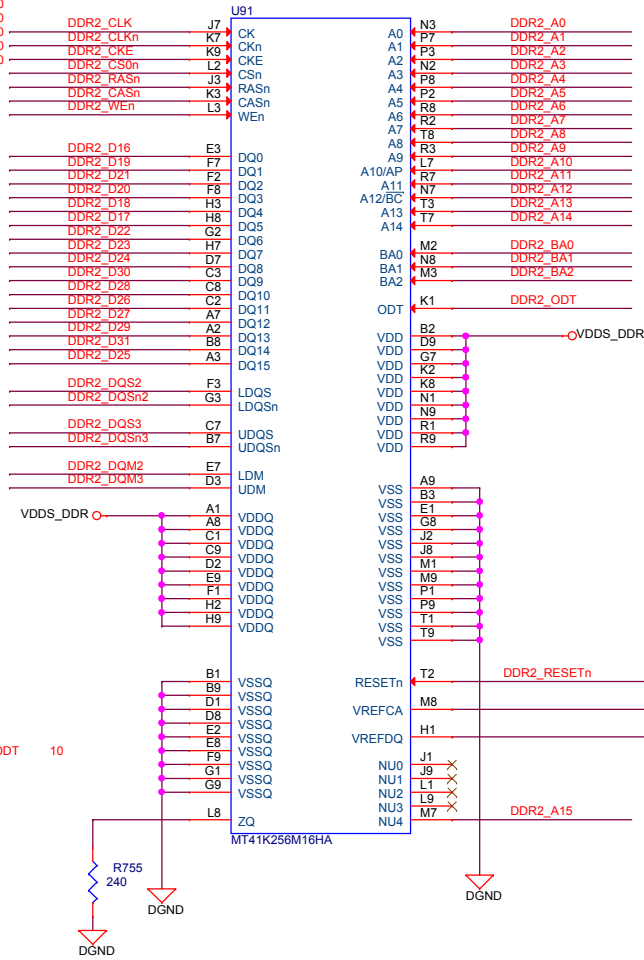
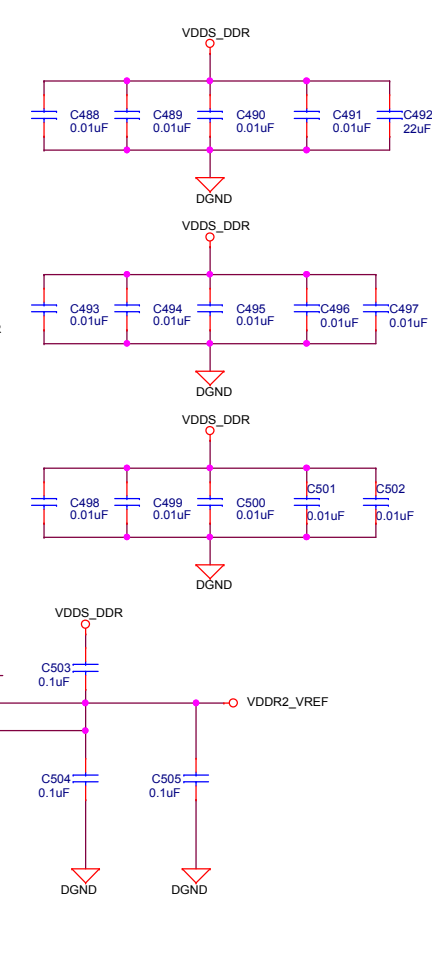
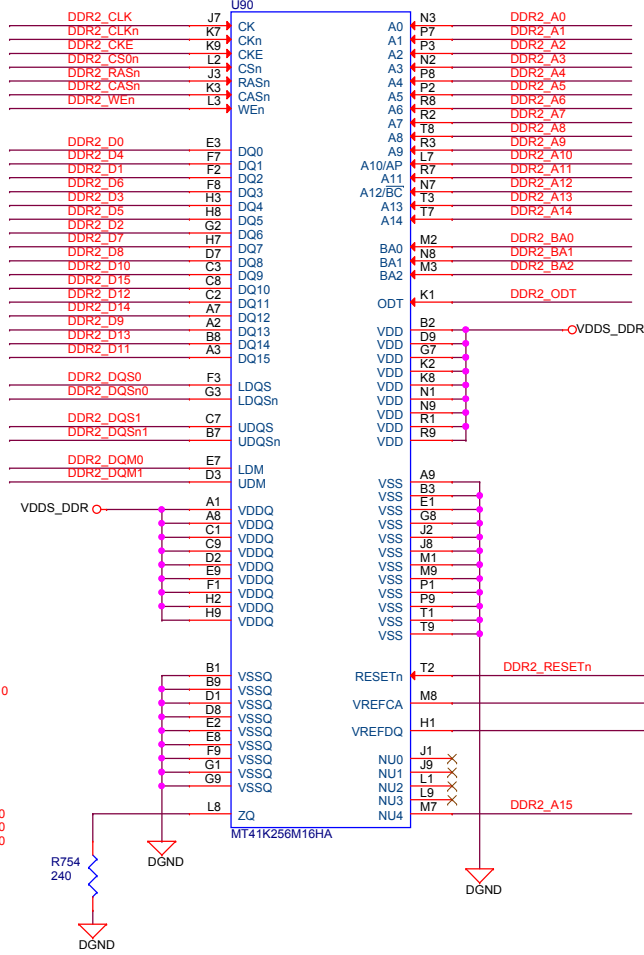
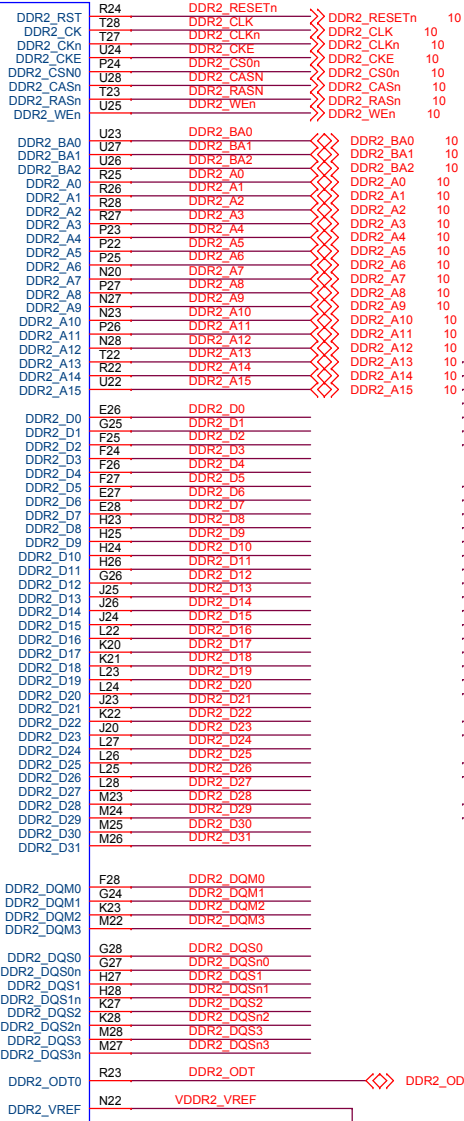


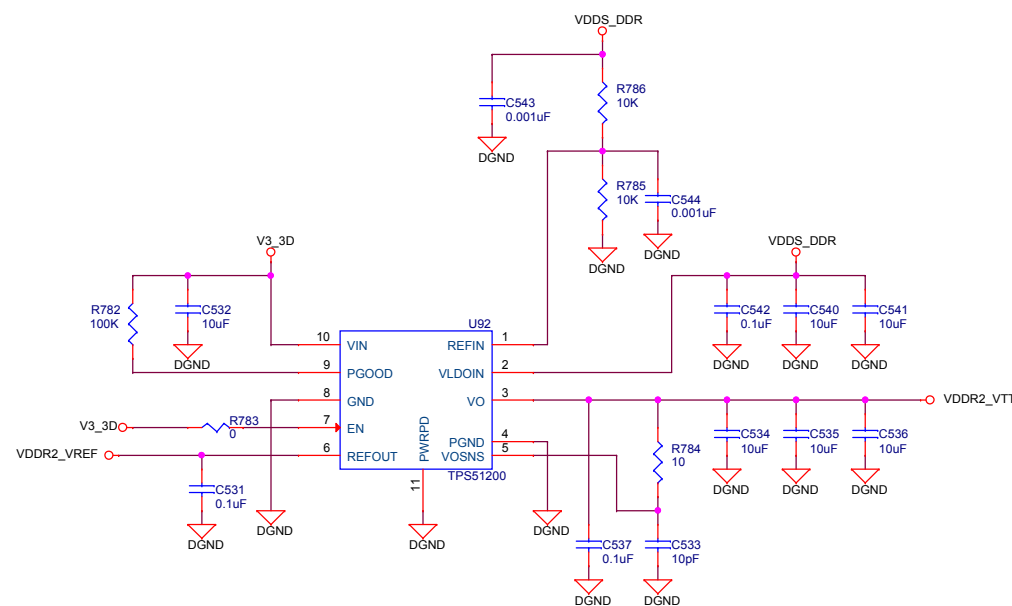
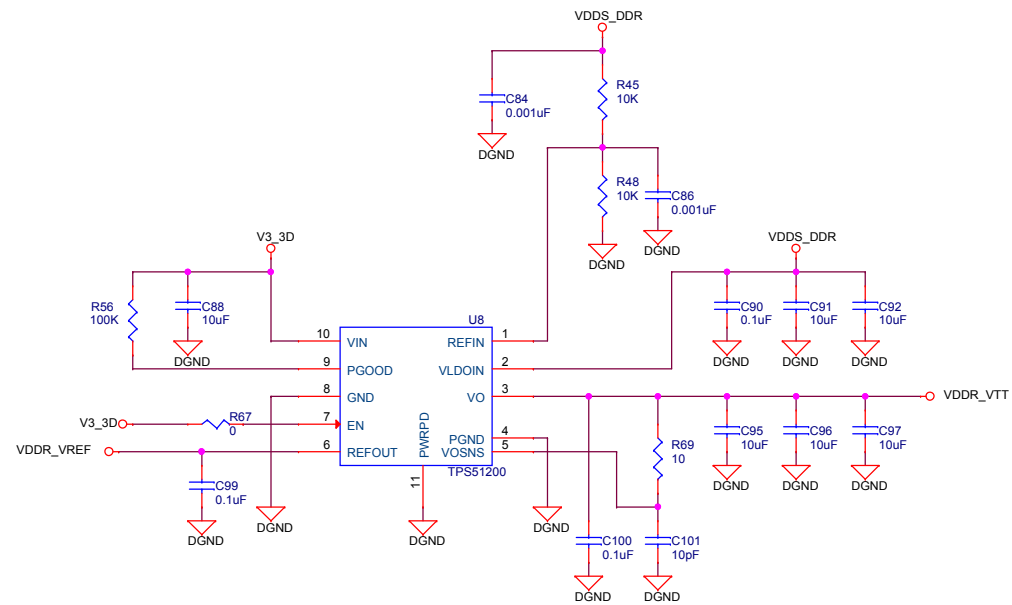
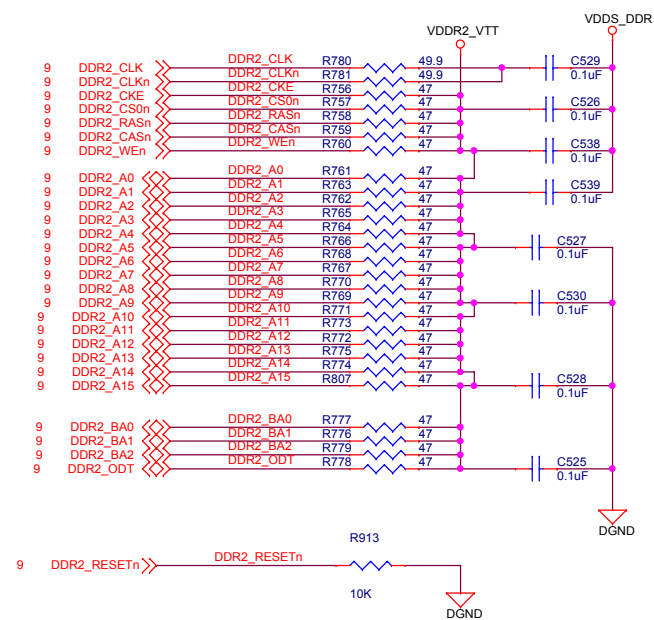
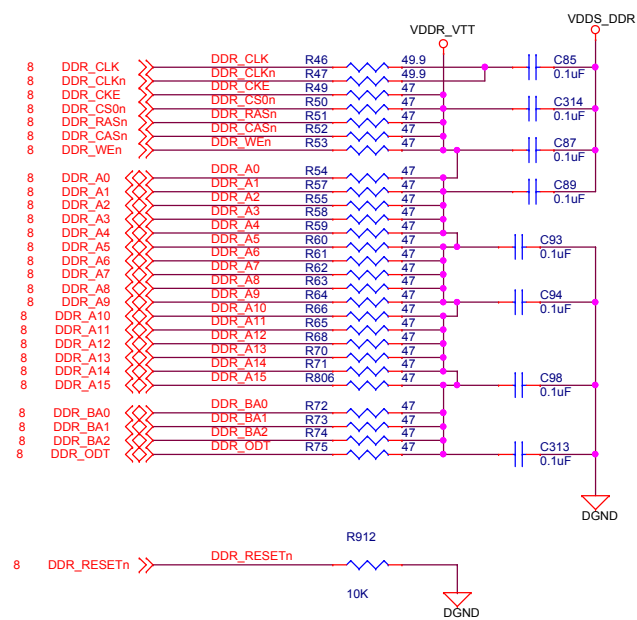


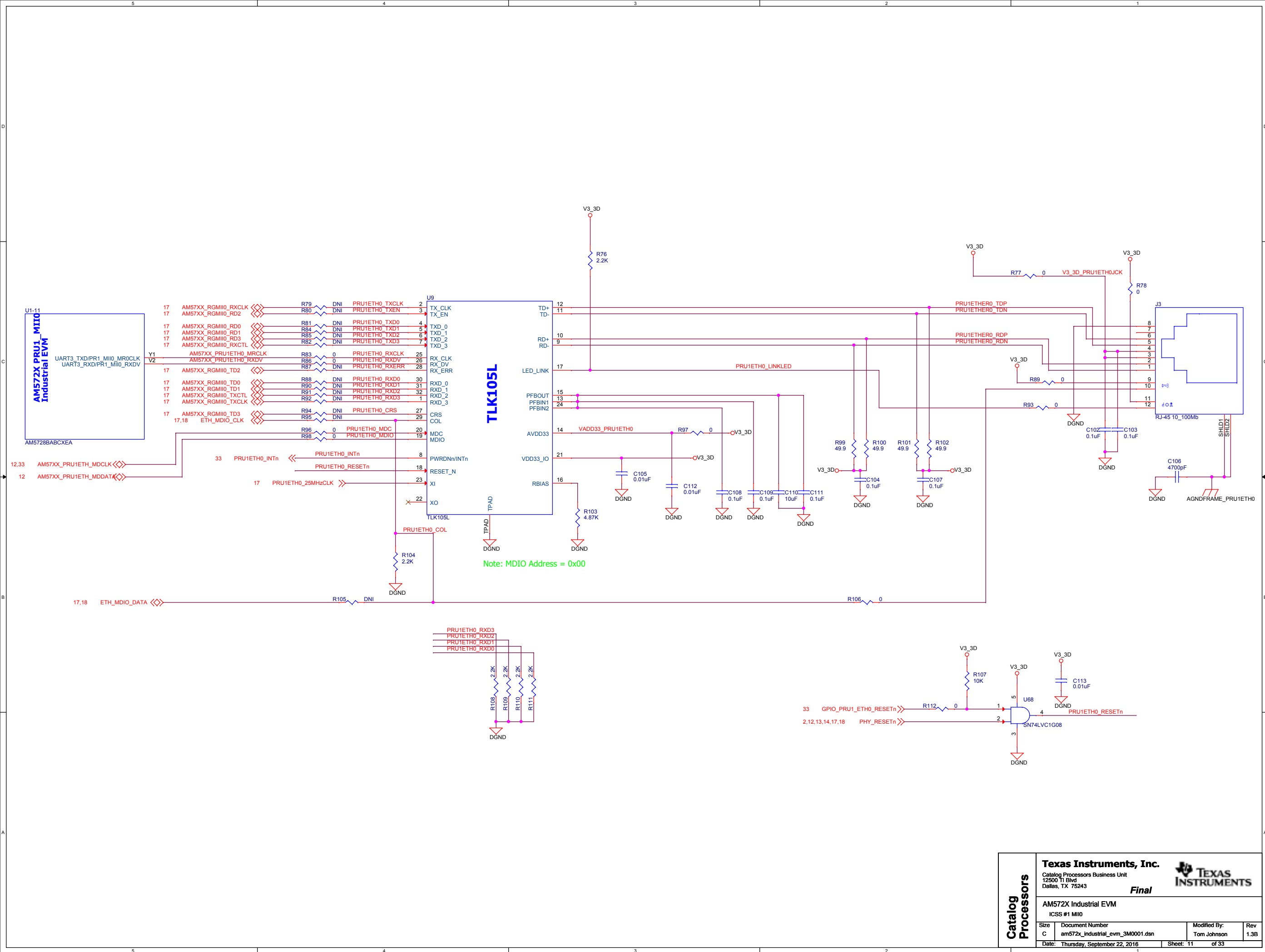


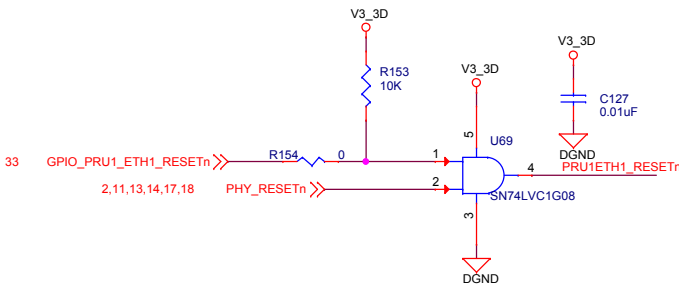
U1-26

AM572X DDR #2  
Industrial EVM







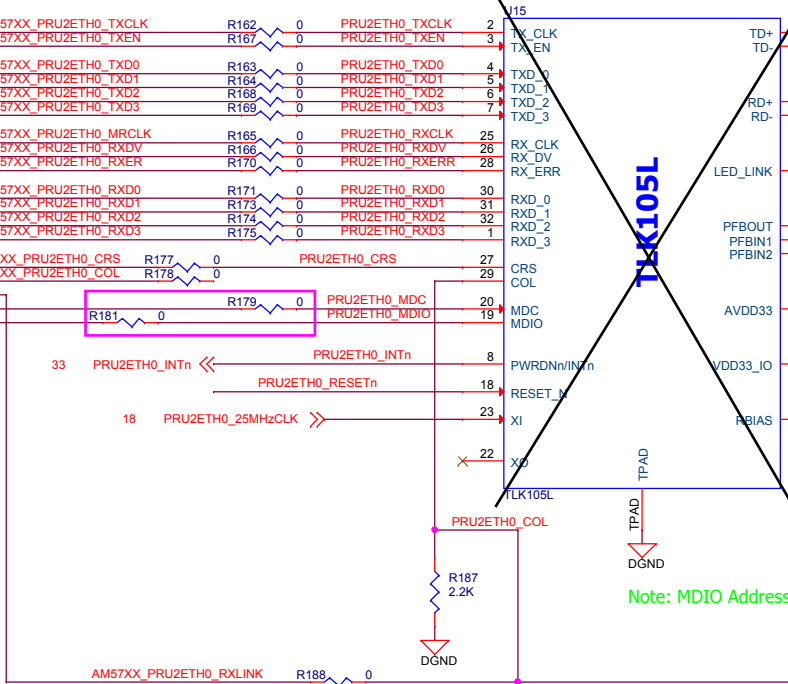


U1-13  
**AM572X PRU2\_MII0**  
Industrial EVM

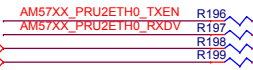
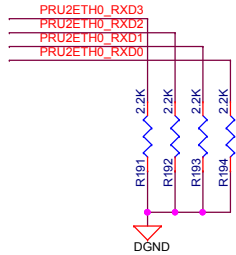
MCASP1_AXR1/PR2_MII0_CLK	F12	AM57XX_PRU2ETH0_TXCLK	R162	0	PRU2ETH0_TXCLK	2
MCASP1_AXR8/PR2_MII0_TXEN	B12	AM57XX_PRU2ETH0_TXEN	R167	0	PRU2ETH0_TXEN	3
MCASP1_AXR12/PR2_MII0_TXD0	E14	AM57XX_PRU2ETH0_TXD0	R163	0	PRU2ETH0_TXD0	4
MCASP1_AXR11/PR2_MII0_TXD1	A12	AM57XX_PRU2ETH0_TXD1	R164	0	PRU2ETH0_TXD1	5
MCASP1_AXR10/PR2_MII0_TXD2	B13	AM57XX_PRU2ETH0_TXD2	R168	0	PRU2ETH0_TXD2	6
MCASP1_AXR9/PR2_MII0_TXD3	A11	AM57XX_PRU2ETH0_TXD3	R169	0	PRU2ETH0_TXD3	7
MCASP1_AXR13/PR2_MII0_MR0_CLK	A13	AM57XX_PRU2ETH0_MRCLK	R165	0	PRU2ETH0_RXCLK	25
MCASP1_AXR14/PR2_MII0_RXDV	G14	AM57XX_PRU2ETH0_RXDV	R166	0	PRU2ETH0_RXDV	26
MCASP1_AXR0/PR2_MII0_RXER	G12	AM57XX_PRU2ETH0_RXER	R170	0	PRU2ETH0_RXERR	28
MCASP2_AXR2/PR2_MII0_RXD0	C15	AM57XX_PRU2ETH0_RXD0	R171	0	PRU2ETH0_RXD0	30
MCASP2_FSR/PR2_MII0_RXD1	A18	AM57XX_PRU2ETH0_RXD1	R173	0	PRU2ETH0_RXD1	31
MCASP2_ACLKX/PR2_MII0_RXD2	A19	AM57XX_PRU2ETH0_RXD2	R174	0	PRU2ETH0_RXD2	32
MCASP1_AXR15/PR2_MII0_RXD3	F14	AM57XX_PRU2ETH0_RXD3	R175	0	PRU2ETH0_RXD3	1
MCASP3_ACLKX/PR2_MII0_CRS	B18	AM57XX_PRU2ETH0_CRS	R177	0	PRU2ETH0_CRS	27
MCASP3_FSR/PR2_MII0_COL	F15	AM57XX_PRU2ETH0_COL	R178	0	PRU2ETH0_COL	29
MCASP2_AXR3/PR2_MII0_RXLINK	A16					
MCASP1_ACLKX/PR2_MDIO_MDCLK	C14					
MCASP1_FSR/PR2_MDIO_DATA	D14					

AM5728BABCXEA

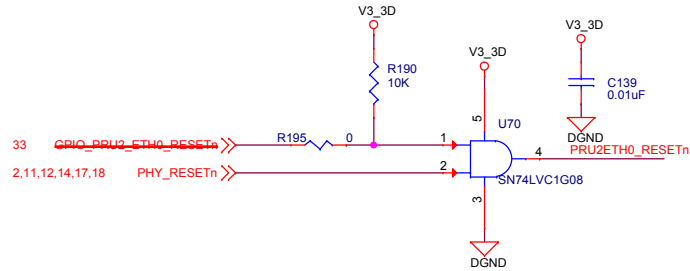
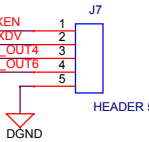
14 AM57XX\_PRU2ETH0\_MDCLK  
14 AM57XX\_PRU2ETH0\_MDDATA



Note: MDIO Address = 0x00



Real-Time Development Header



Catalog  
Processors

**Texas Instruments, Inc.**

Catalog Processors Business Unit  
12500 TI Blvd  
Dallas, TX 75243

**Final**



AM572X Industrial EVM

ICSS #2 MII0

Size  
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Document Number  
am572x\_industrial\_evm\_3M0001.dsn

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Tom Johnson

Rev  
1.3B

Date: Thursday, September 22, 2016

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U1-14  
AM572X PRU2\_MII1  
Industrial EVM

AM5728BABCXEA

13 AM57XX\_PRU2ETH\_MDCLK  
13 AM57XX\_PRU2ETH\_MDDATA

A

5

V3\_3D

R201

2.2K

AC5

AB4

AC6

AC7

AC4

AD4

AC9

AC3

B19

AB5

AB8

AD6

AC8

E17

D18

C17

R223

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R221

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R222

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R224

49.9

R225

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R226

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R227

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R228

4.87K

R231

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R230

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R232

2.2K

R233

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R235

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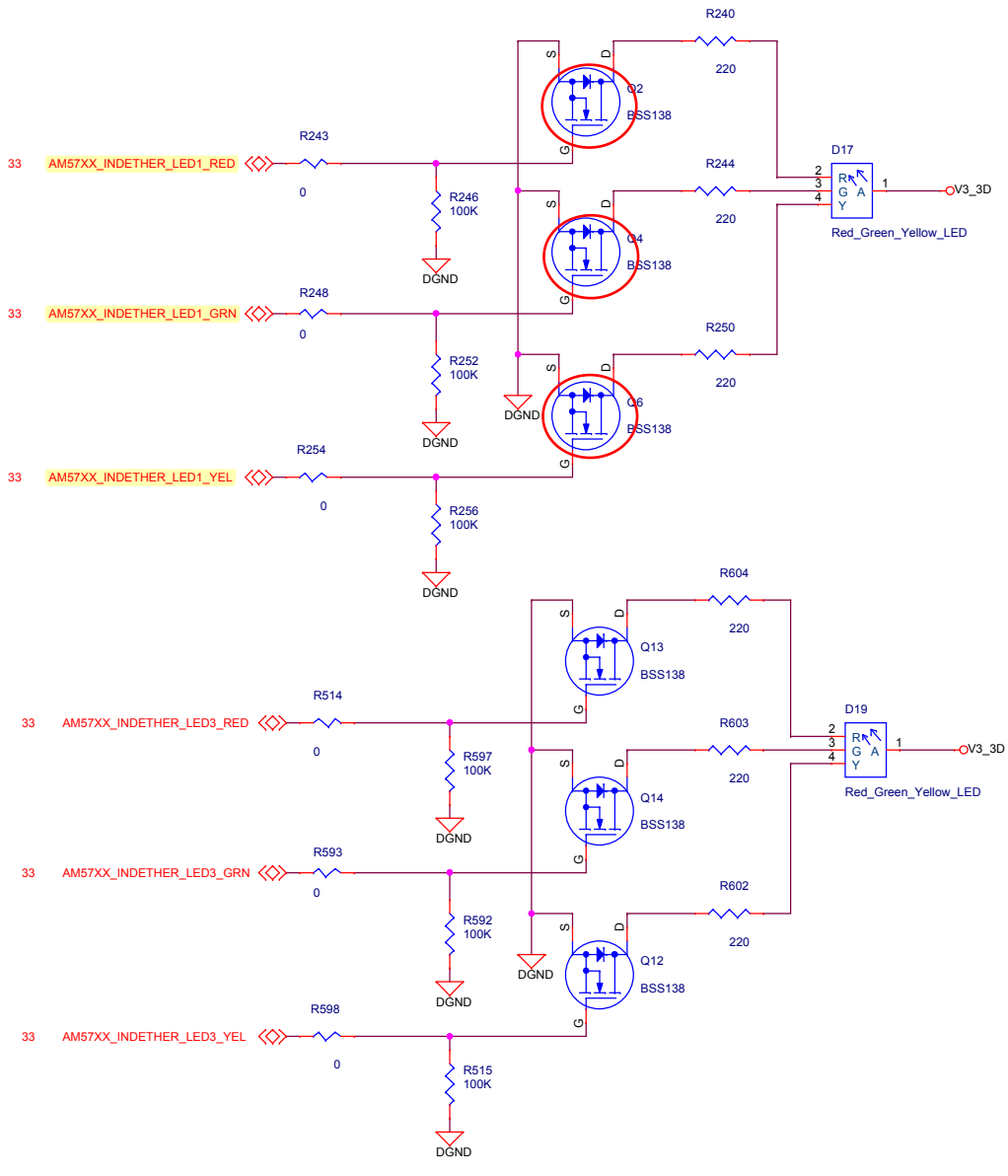
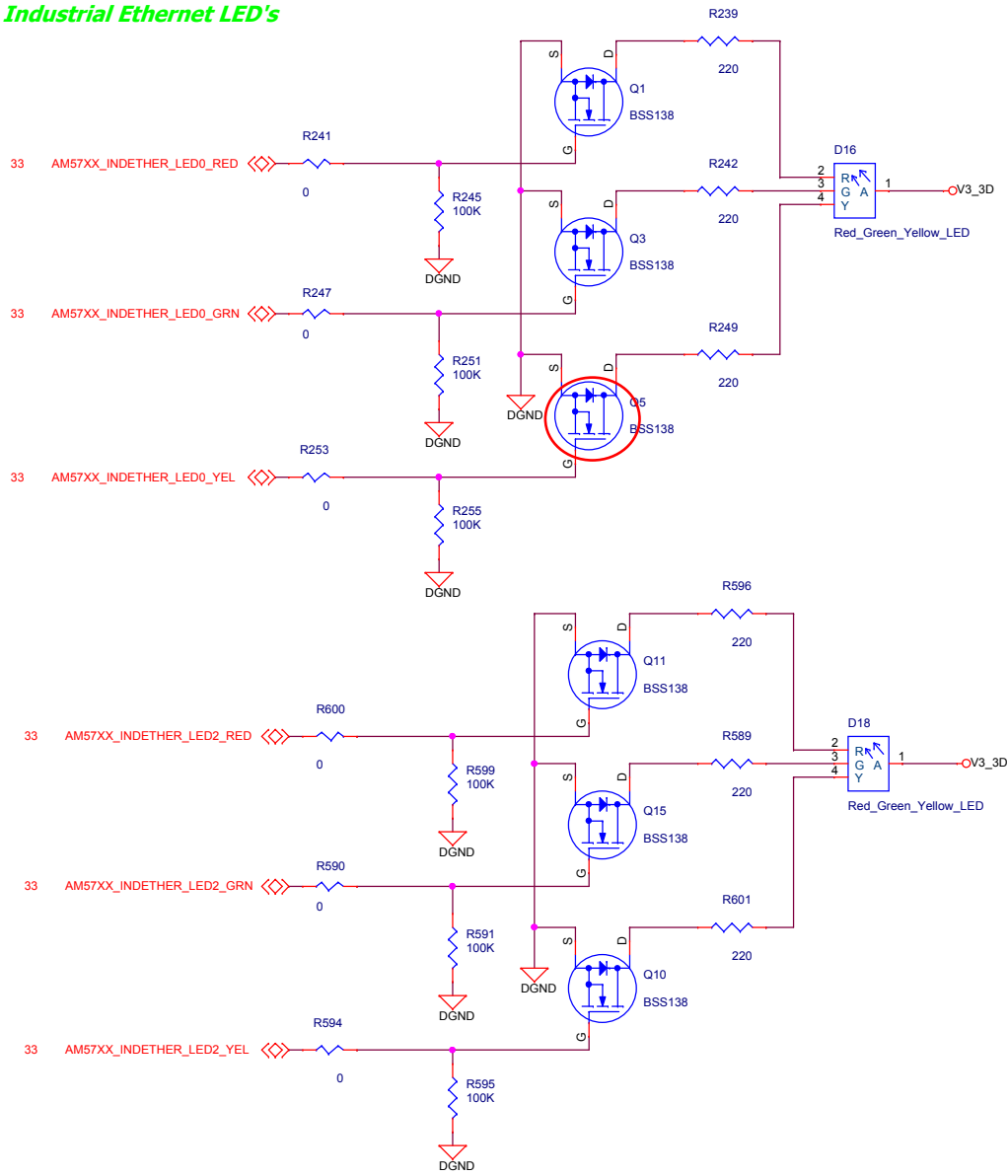
R371

2.2K

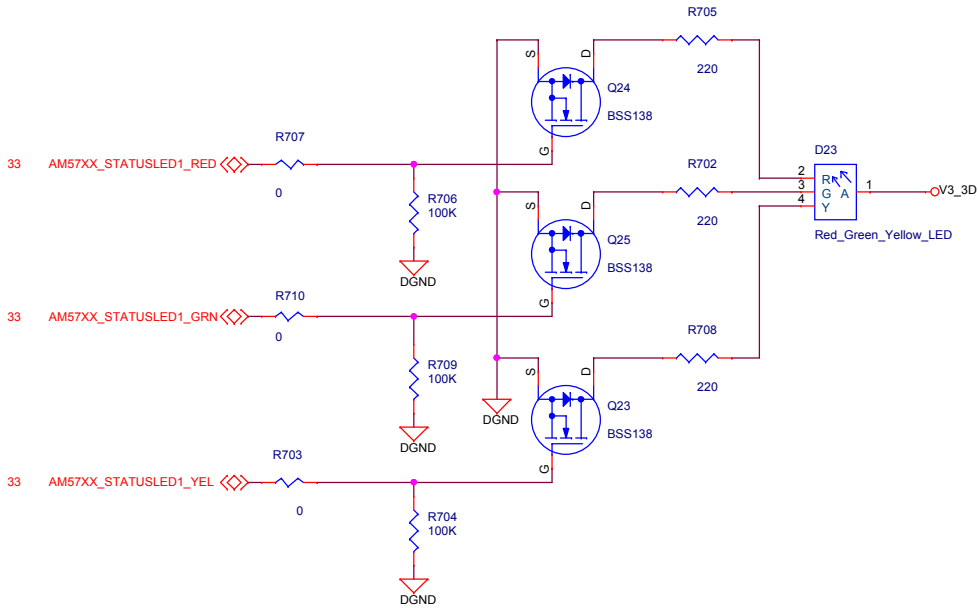
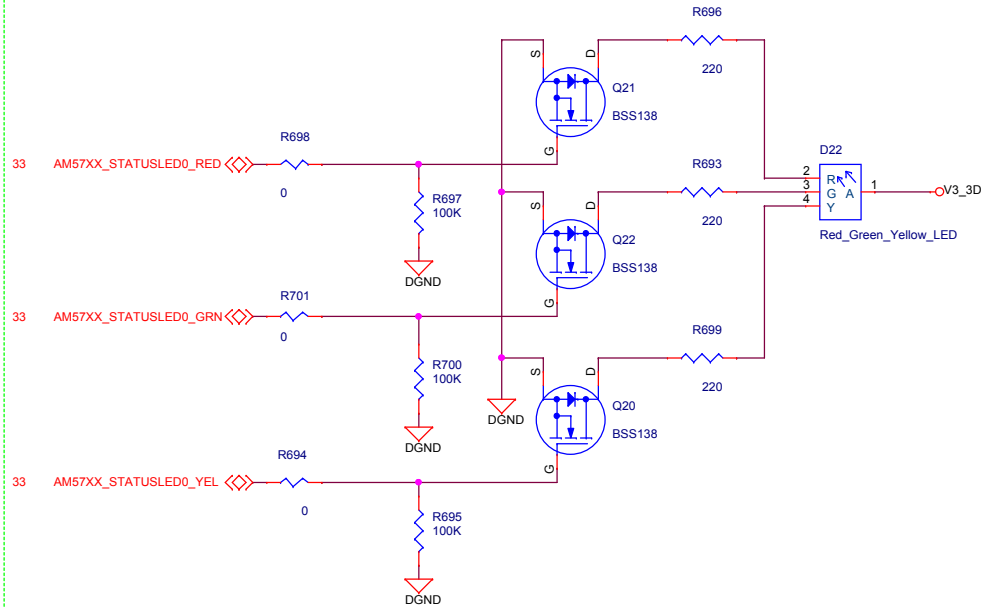
R372

2.2K

Industrial Ethernet LED's



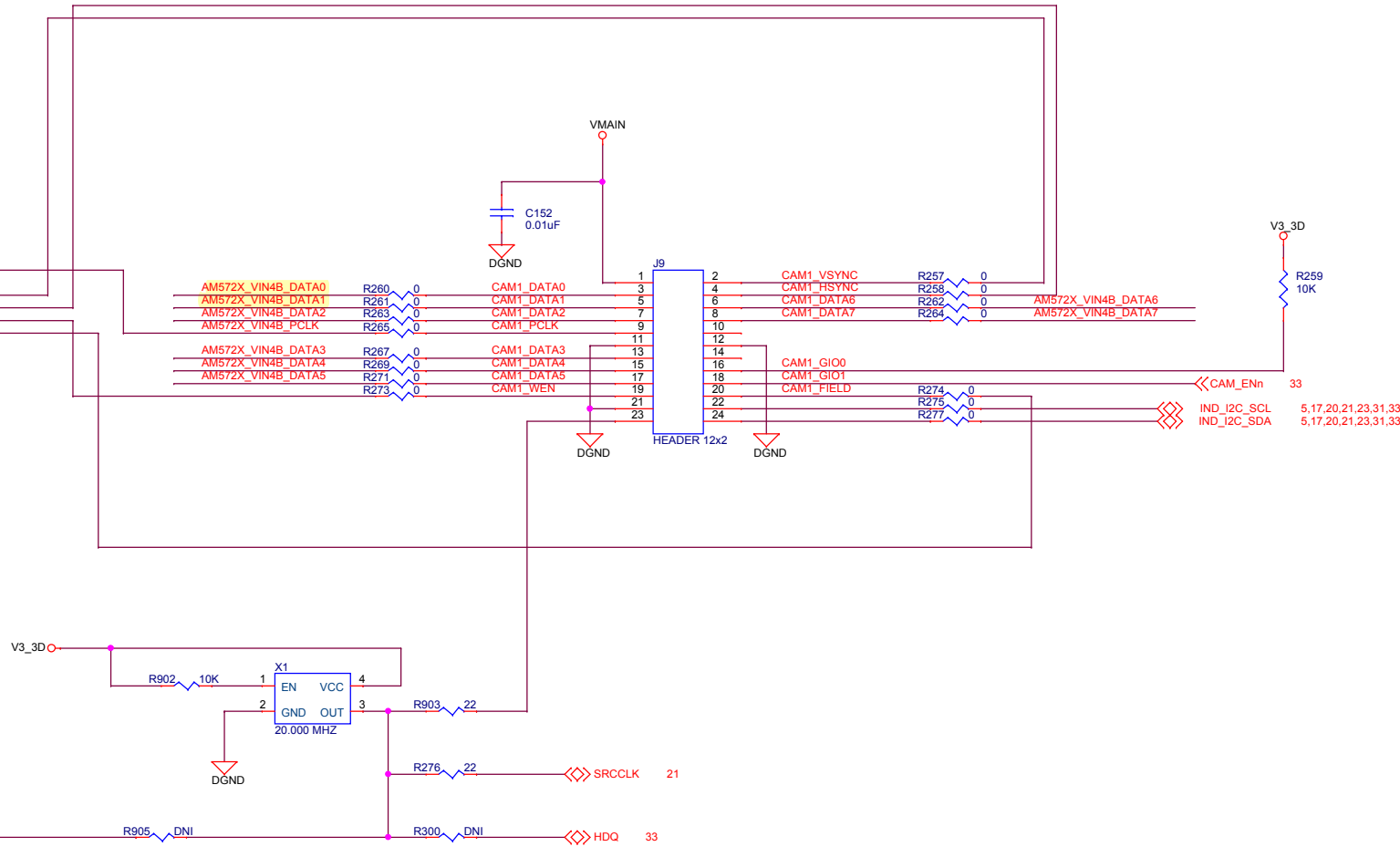
Status LED's



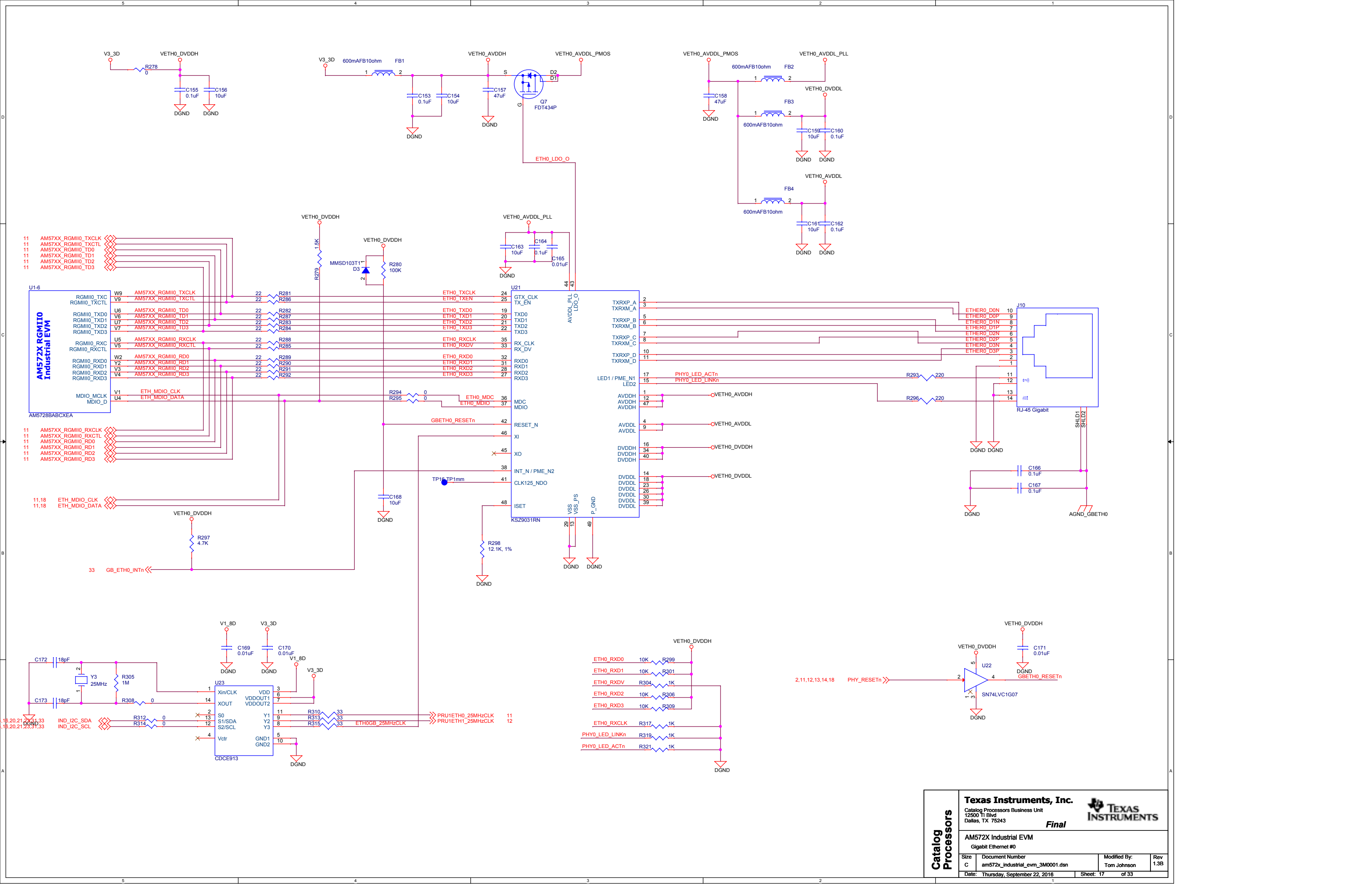
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**AM572X Camera #1  
Industrial EVM**  
AM5728BABCXEA

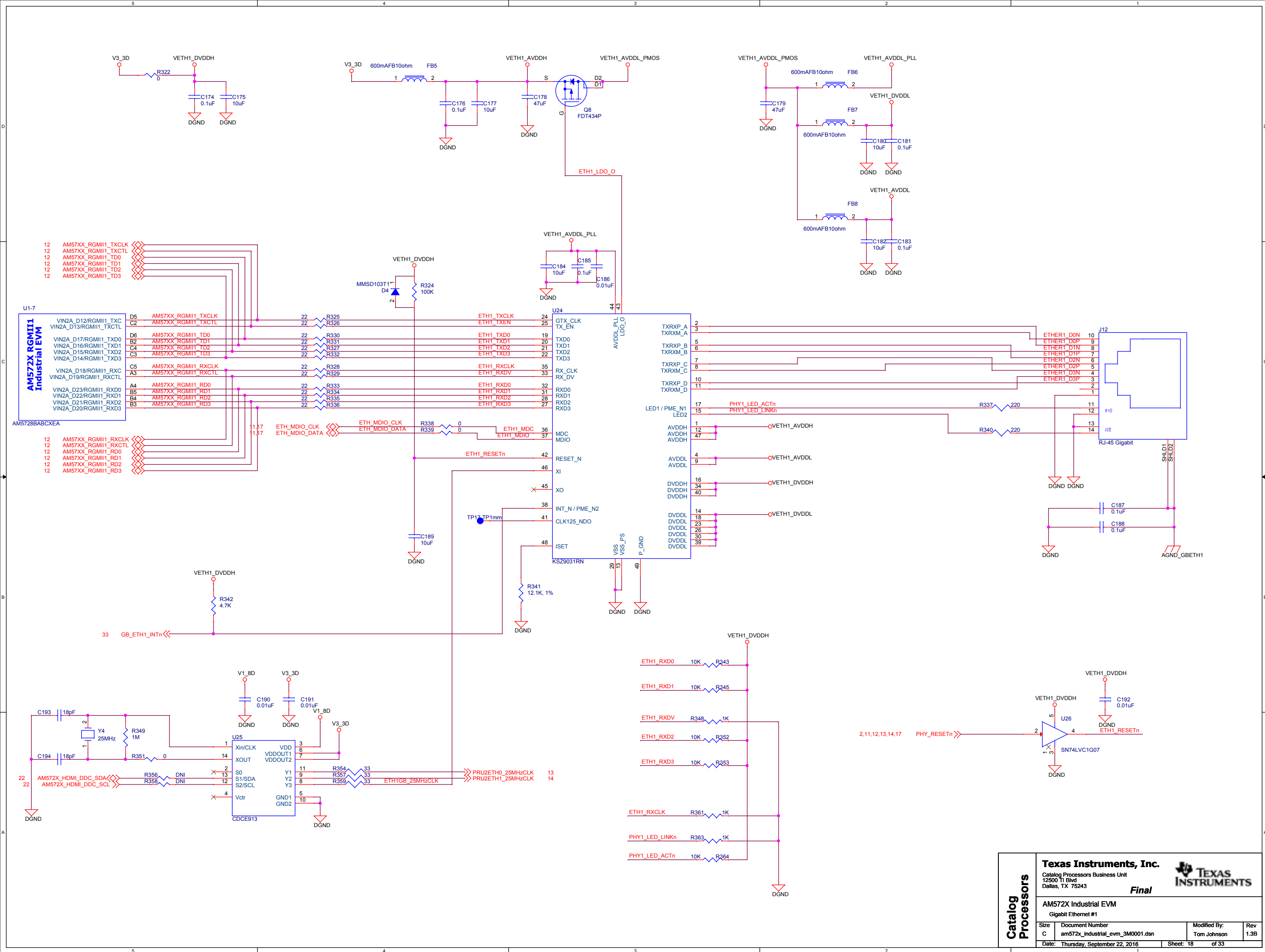
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- GPMC\_A9/VIN4B\_VSYNC1
- GPMC\_A8/VIN4B\_HSYNC1
- GPMC\_A11/VIN4B\_DE1
- GPMC\_A12/VIN4B\_FLD1
- GPMC\_A0/VIN4B\_D0
- GPMC\_A1/VIN4B\_D1
- GPMC\_A2/VIN4B\_D2
- GPMC\_A3/VIN4B\_D3
- GPMC\_A4/VIN4B\_D4
- GPMC\_A5/VIN4B\_D5
- GPMC\_A6/VIN4B\_D6
- GPMC\_A7/VIN4B\_D7
- XREF\_CLK3/CLKOUT3

- N9 AM572X\_VIN4B\_PCLK
- R4 AM572X\_VIN4B\_VSYNC
- N7 AM572X\_VIN4B\_HSYNC
- P9 AM572X\_VIN4B\_DE
- P4 AM572X\_VIN4B\_FLD
- R6 AM572X\_VIN4B\_DATA0
- T9 AM572X\_VIN4B\_DATA1
- T6 AM572X\_VIN4B\_DATA2
- T7 AM572X\_VIN4B\_DATA3
- P6 AM572X\_VIN4B\_DATA4
- R9 AM572X\_VIN4B\_DATA5
- R5 AM572X\_VIN4B\_DATA6
- P5 AM572X\_VIN4B\_DATA7





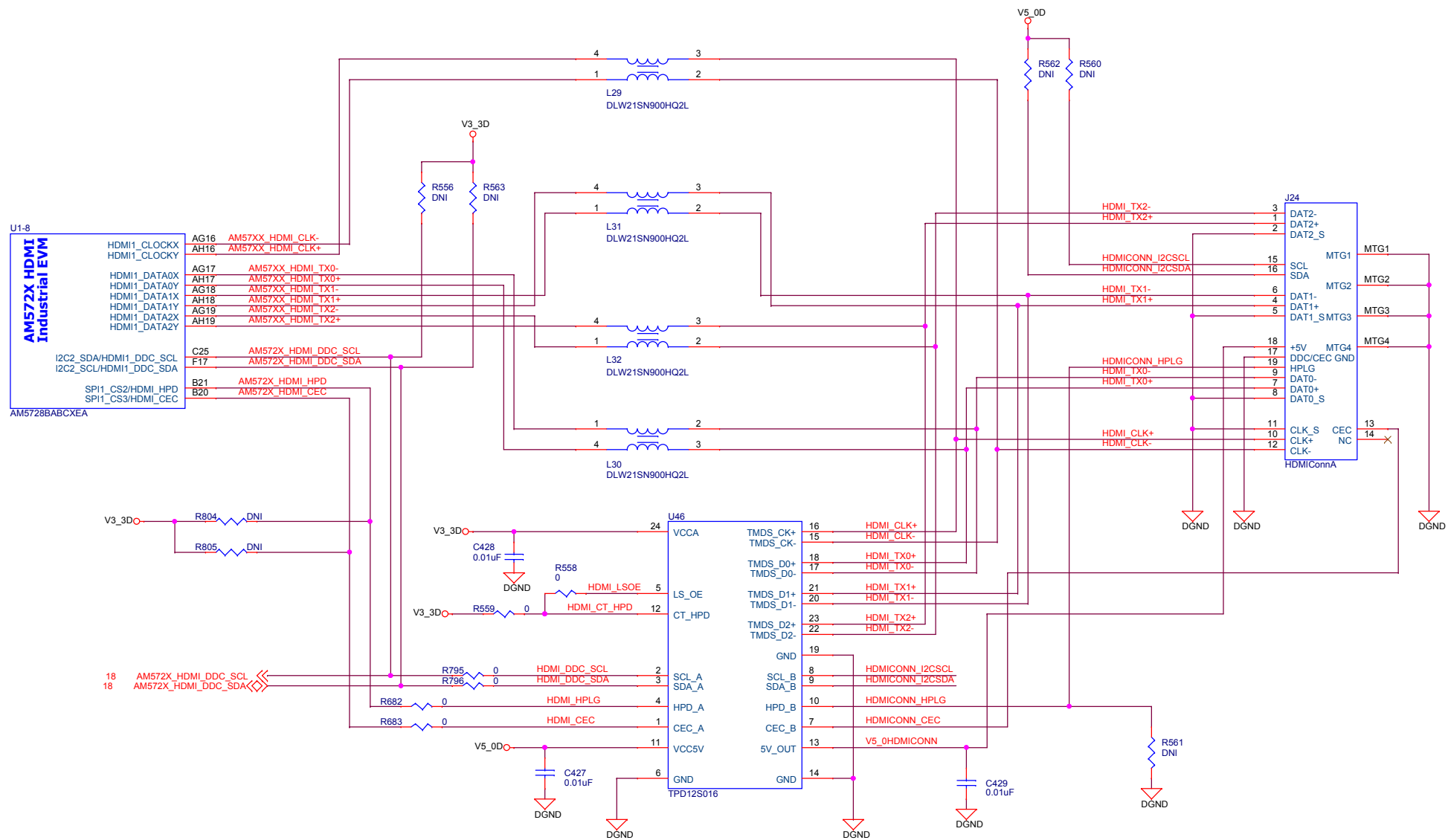














## Catalog Processors

**Texas Instruments, Inc.**

**Catalog Processors Business Unit**  
12500 TI Blvd  
Dallas, TX 75243

**Final**

## AM572X Industrial EVM

### Debug/Configuration

Size	Document Number
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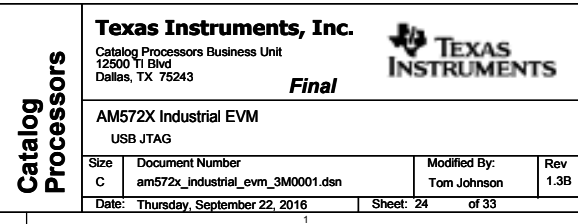
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**Modified By:**

Tom Johnson

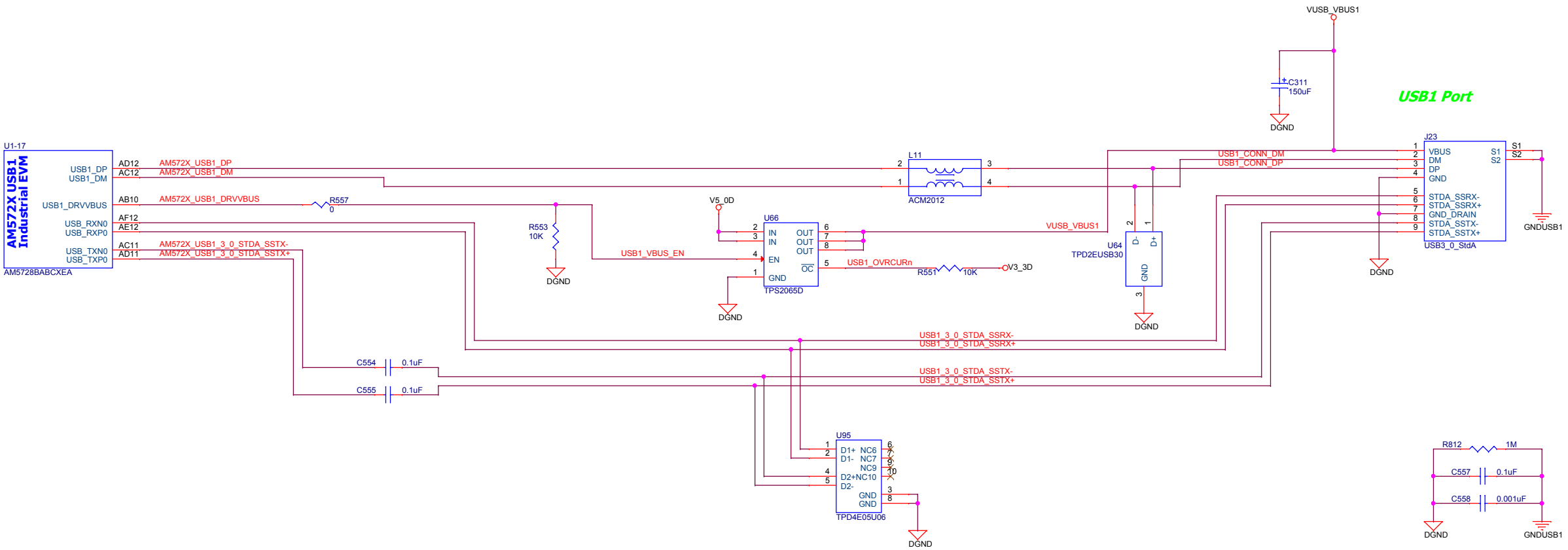
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### 1.3B

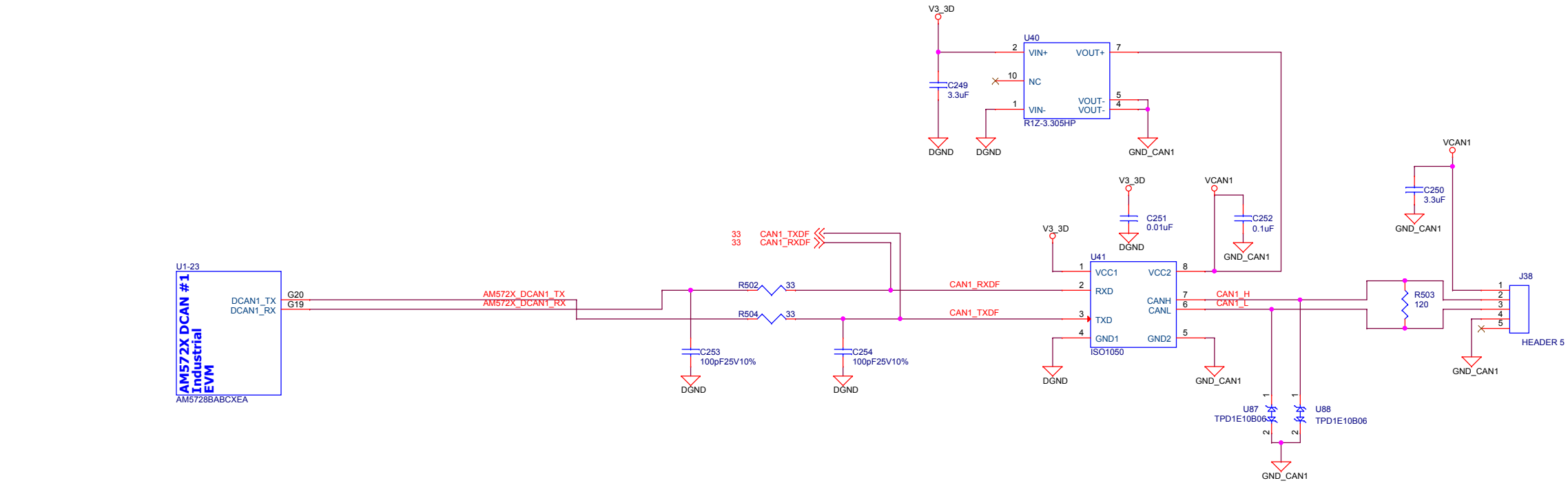


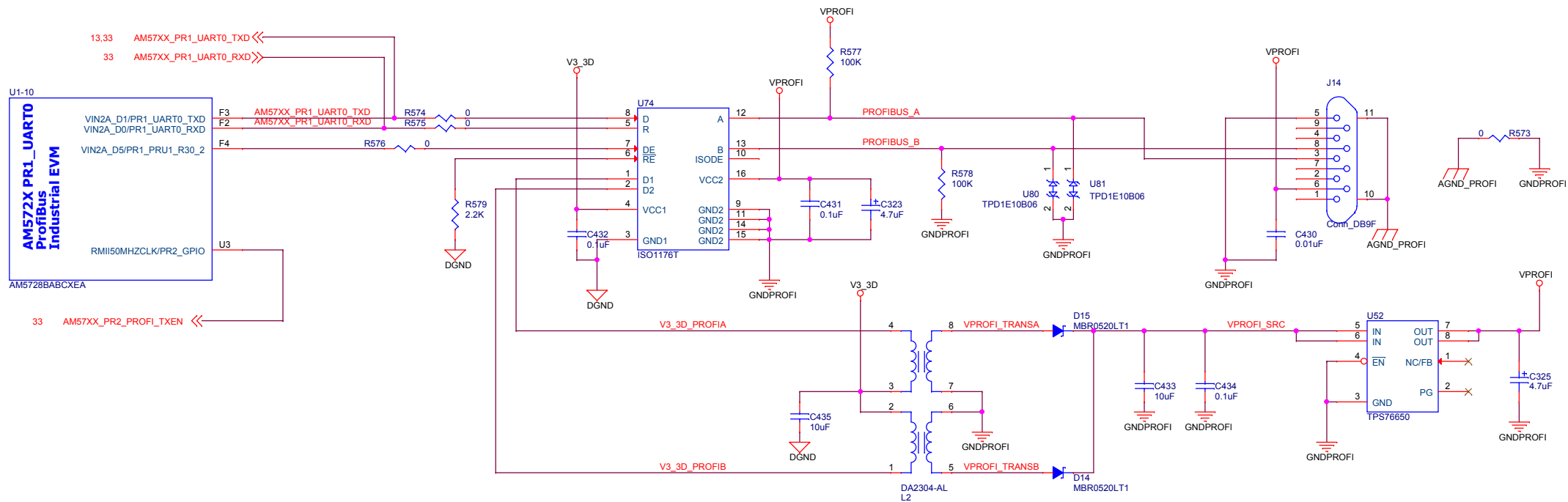


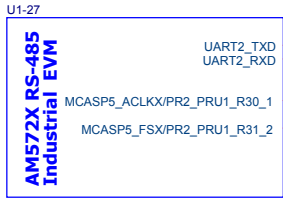




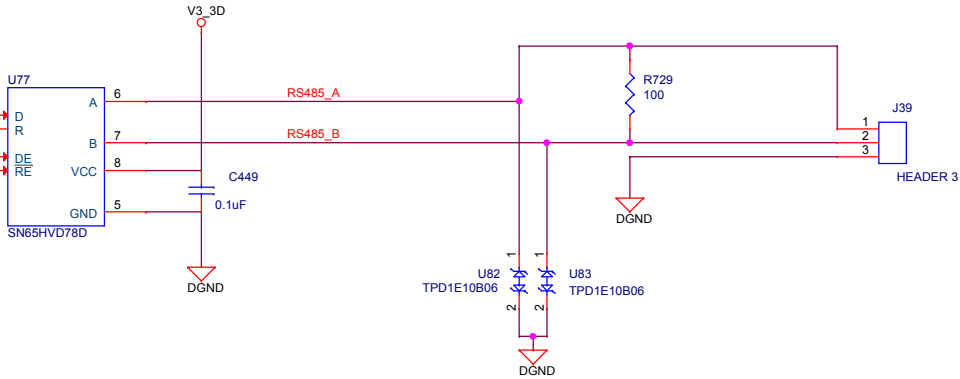




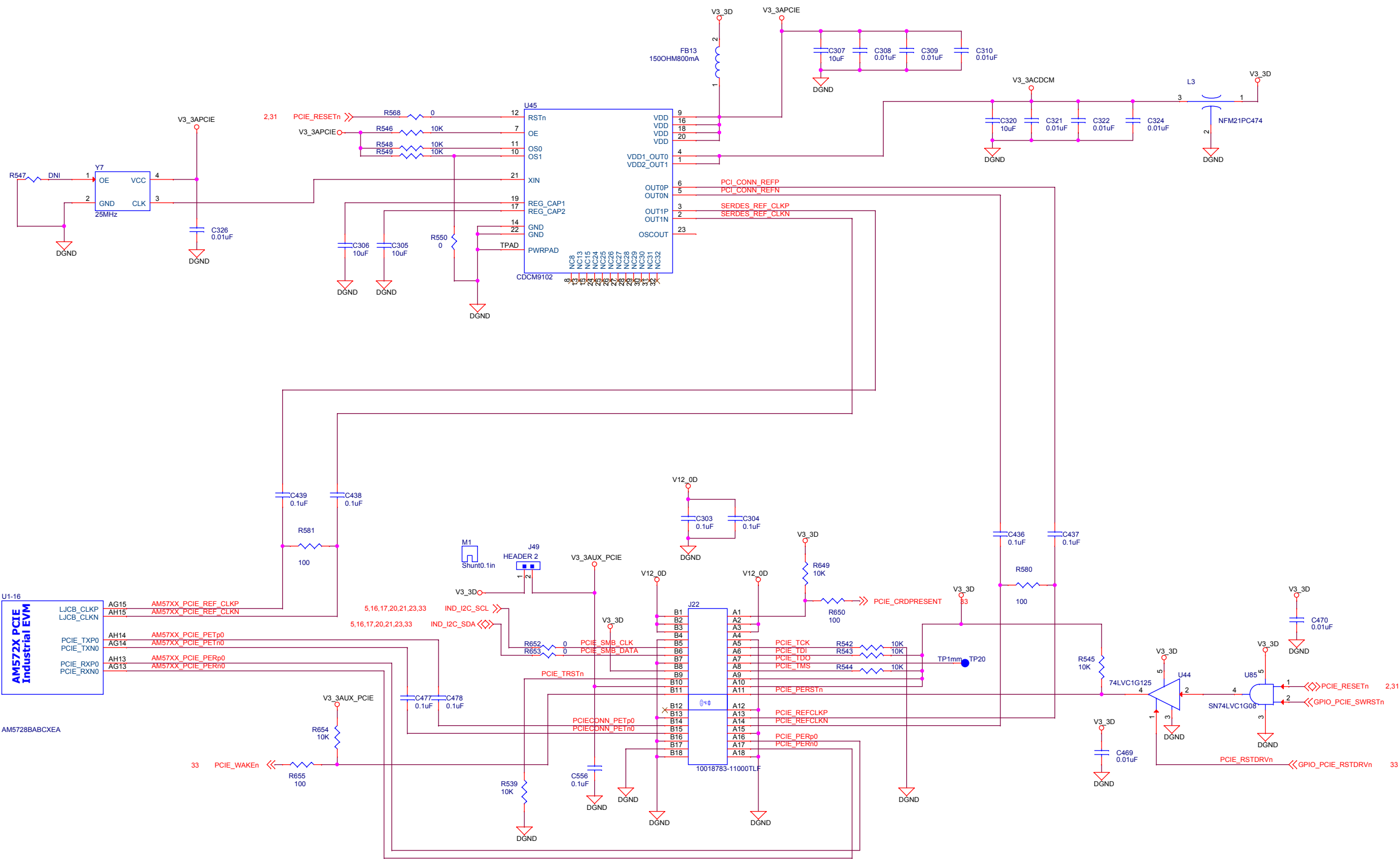




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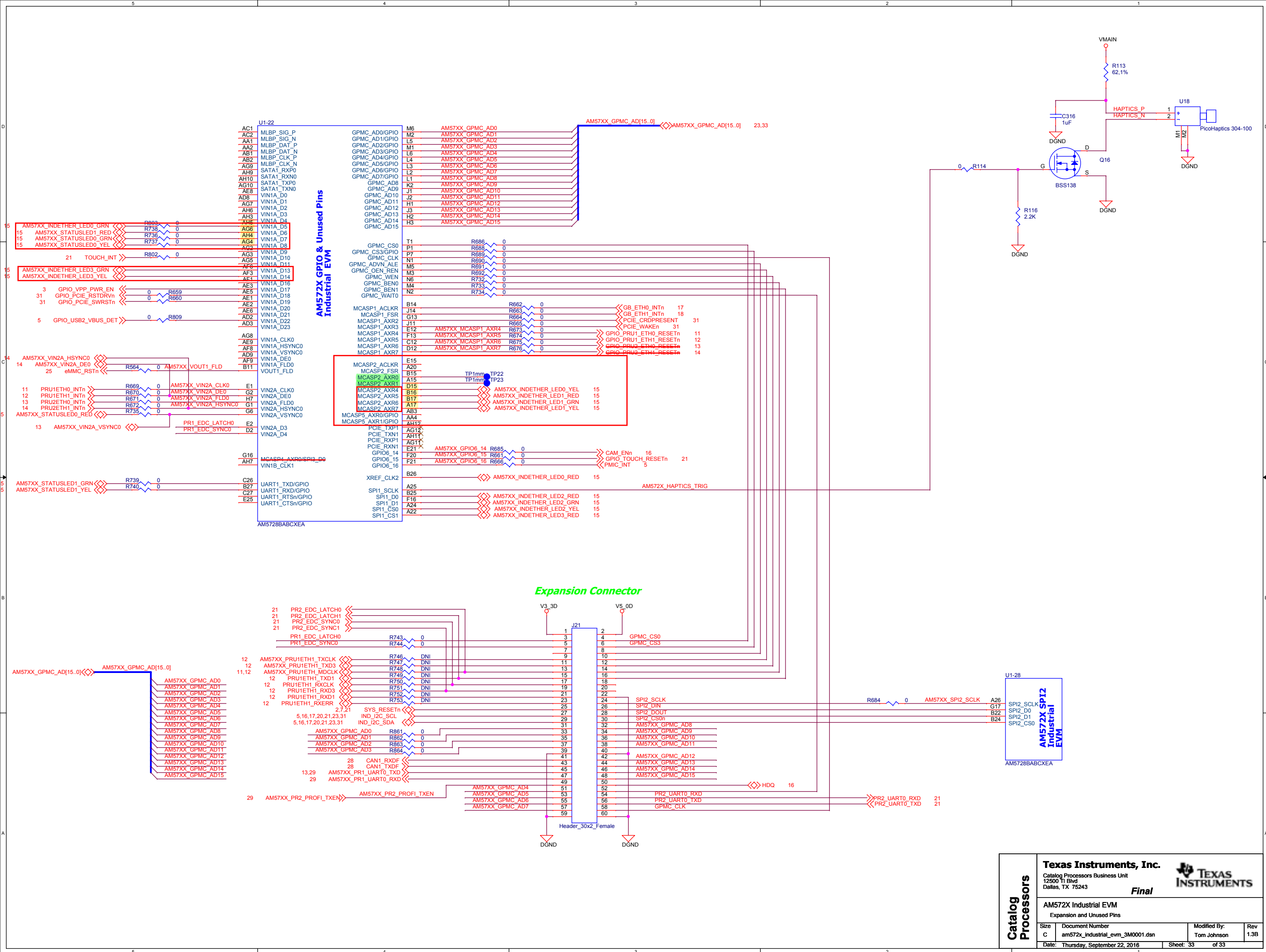


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