

AM571X Industrial Development Kit (IDK) EVM
Orderable P/N: TMDXIDK5718
PCB Number: 3M0000
PCB Revision: 1.3
Assembly Number: 4P0052
Assembly Revision: 1.3B

Assembly LOGO

Catalog Processors
AM571x Industrial EVM
REV 1.3A
ASSM PN#:4P0052
SN#:

PCB LOGO:
Texas Instruments



PCB LOGO:
Lead Free



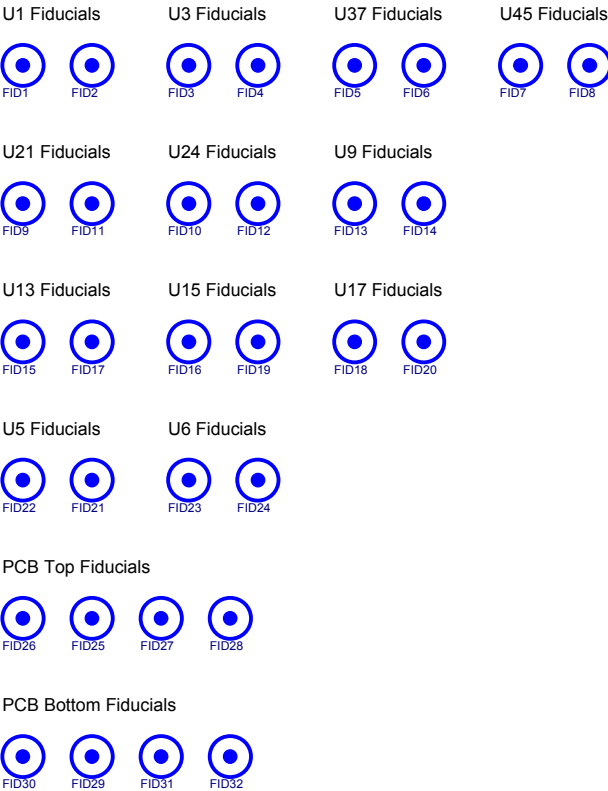
PCB LOGO:
FCC disclaimer

For evaluation only; not
FCC approved for resale

PCB LOGO:
Caution Hot Surface

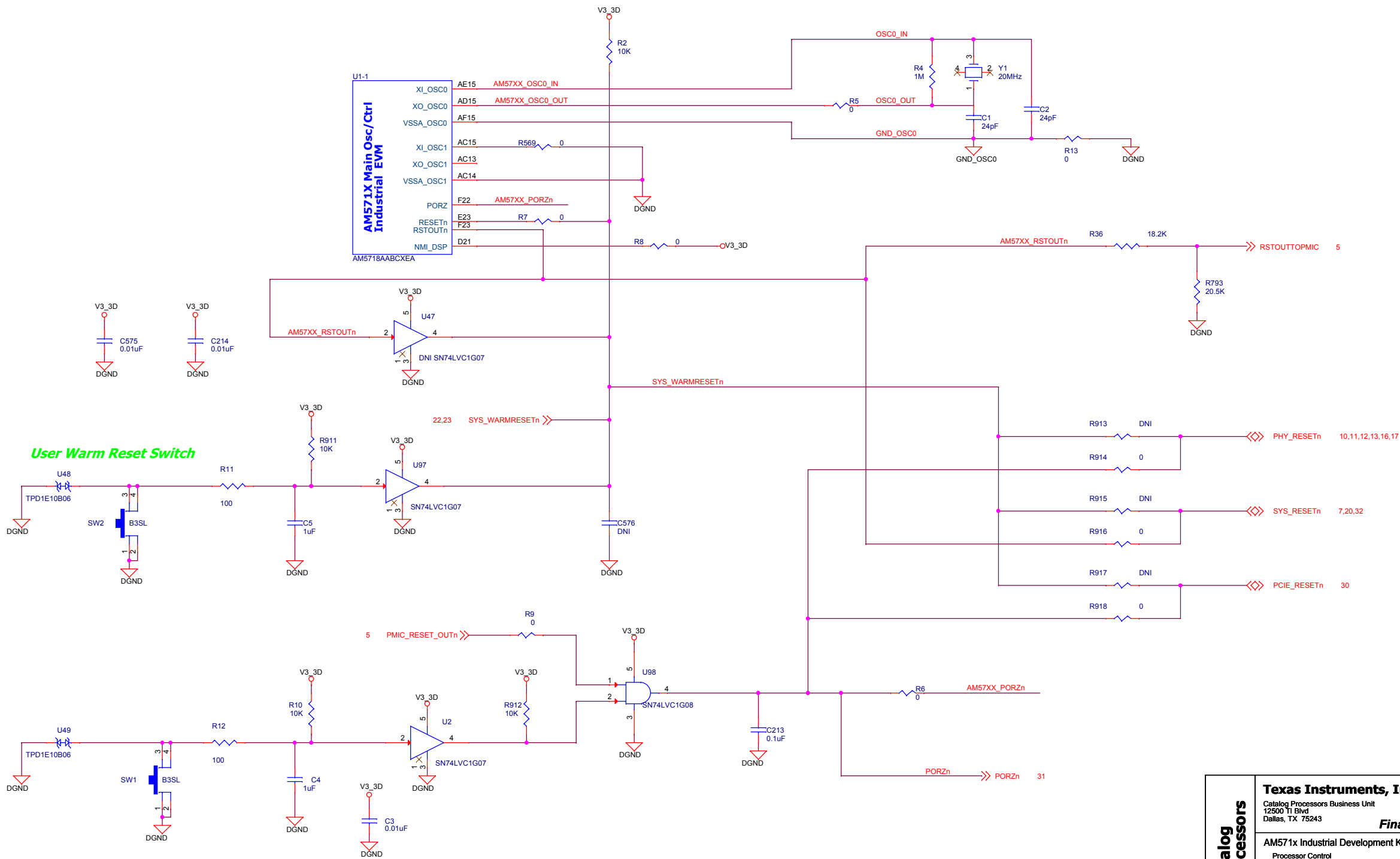


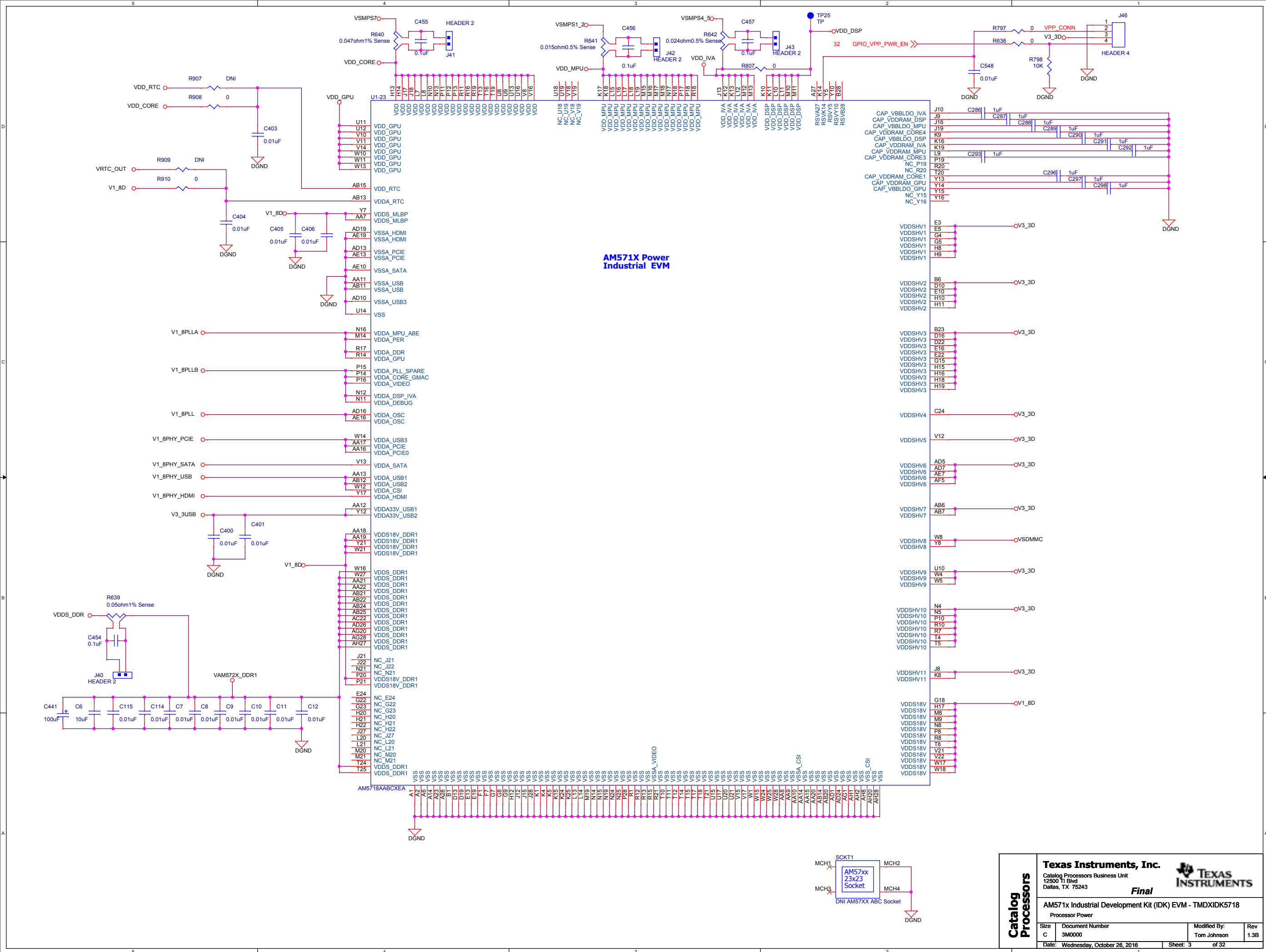
- Assembly Notes:
1. These assemblies are ESD sensitive. ESD precautions shall be observed.
 2. These assemblies must be clean and free from flux and all contaminants. Use of 'no clean flux' is not acceptable.
 3. These assemblies must comply with workmanship standard IPC-A-610 Class 2, unless otherwise specified.
 4. Each finished board will receive a serial number sticker during final testing.
 5. Each finished board will receive a MAC Address sticker during final testing.
 6. Install header shunt M1 (on J49), M2 (on J50) and M3 (on J51) during final testing.

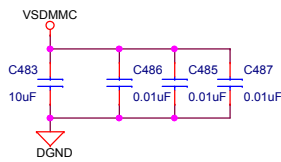
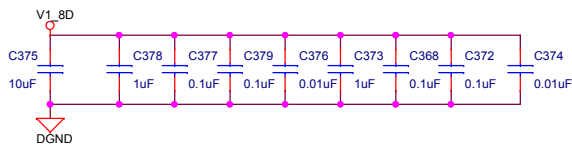
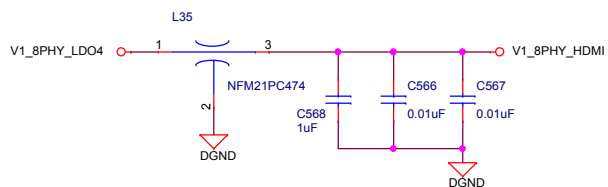
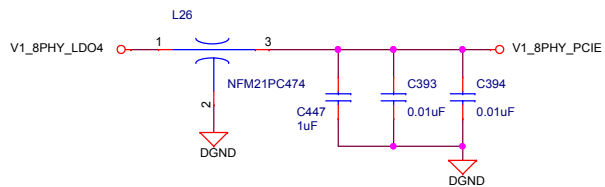
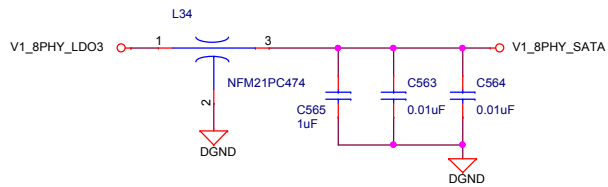
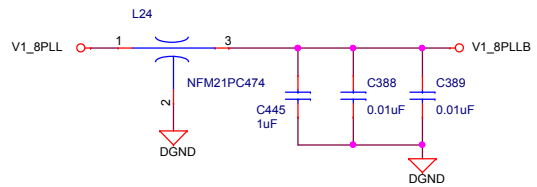
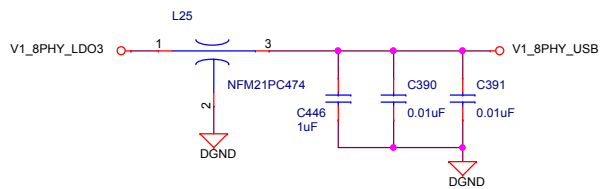
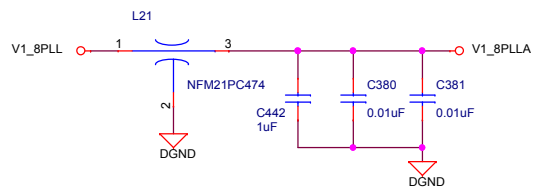
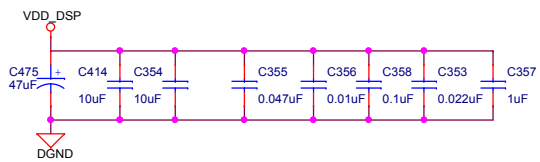
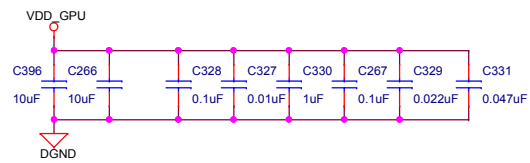
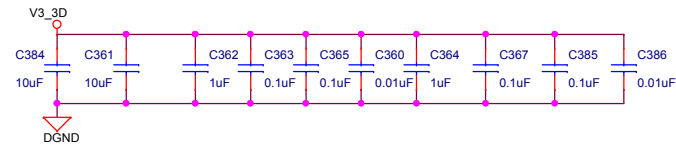
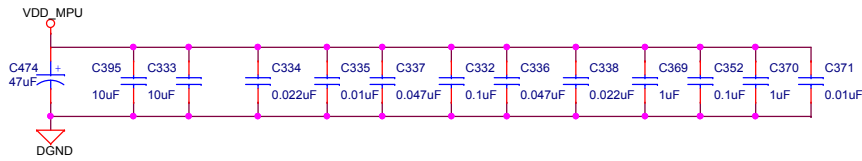
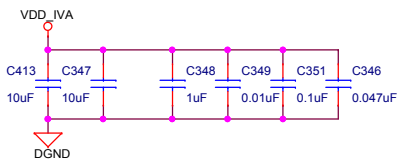
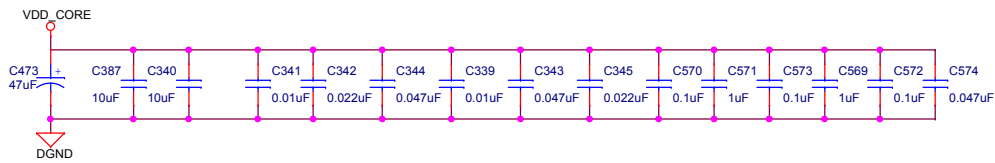


Catalog Processors	Texas Instruments, Inc.		
	Catalog Processors Business Unit 12500 TI Blvd Dallas, TX 75243		
	Final		
	AM571x Industrial Development Kit (IDK) EVM - TMDXIDK5718		
	Title Page		
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Date: Wednesday, October 26, 2016		Sheet: 1	of 32

PCB1
AM571x Industrial EVM Bare PCB

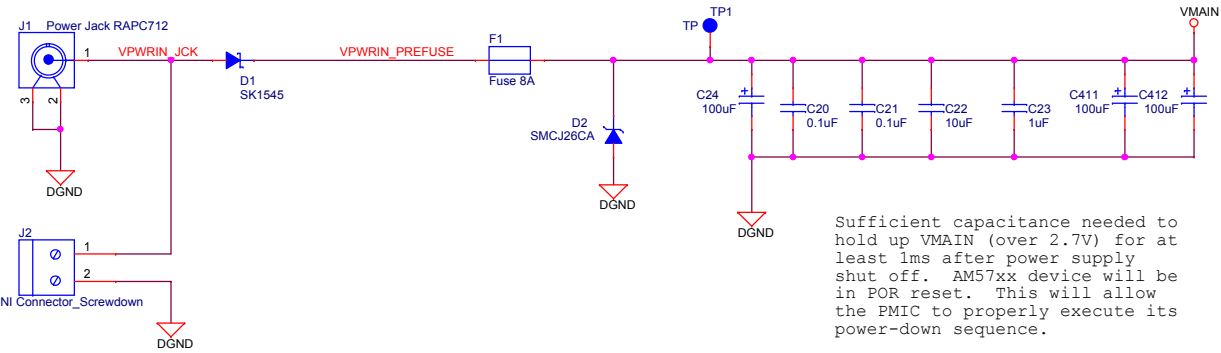




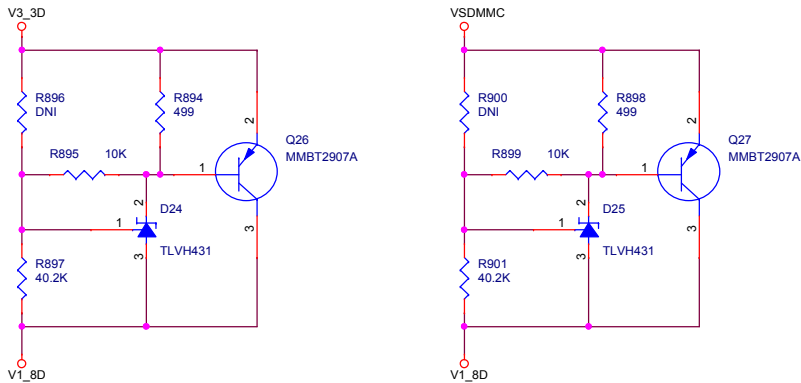


Catalog Processors	Texas Instruments, Inc.		
	Catalog Processors Business Unit 12500 TI Blvd Dallas, TX 75243		
	Final		
	AM571x Industrial Development Kit (IDK) EVM - TMDXIDK5718		
	Processor Power		
Size	Document Number	Modified By:	Rev
C	3M0000	Tom Johnson	1.3B
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Main 5VDC Power Input



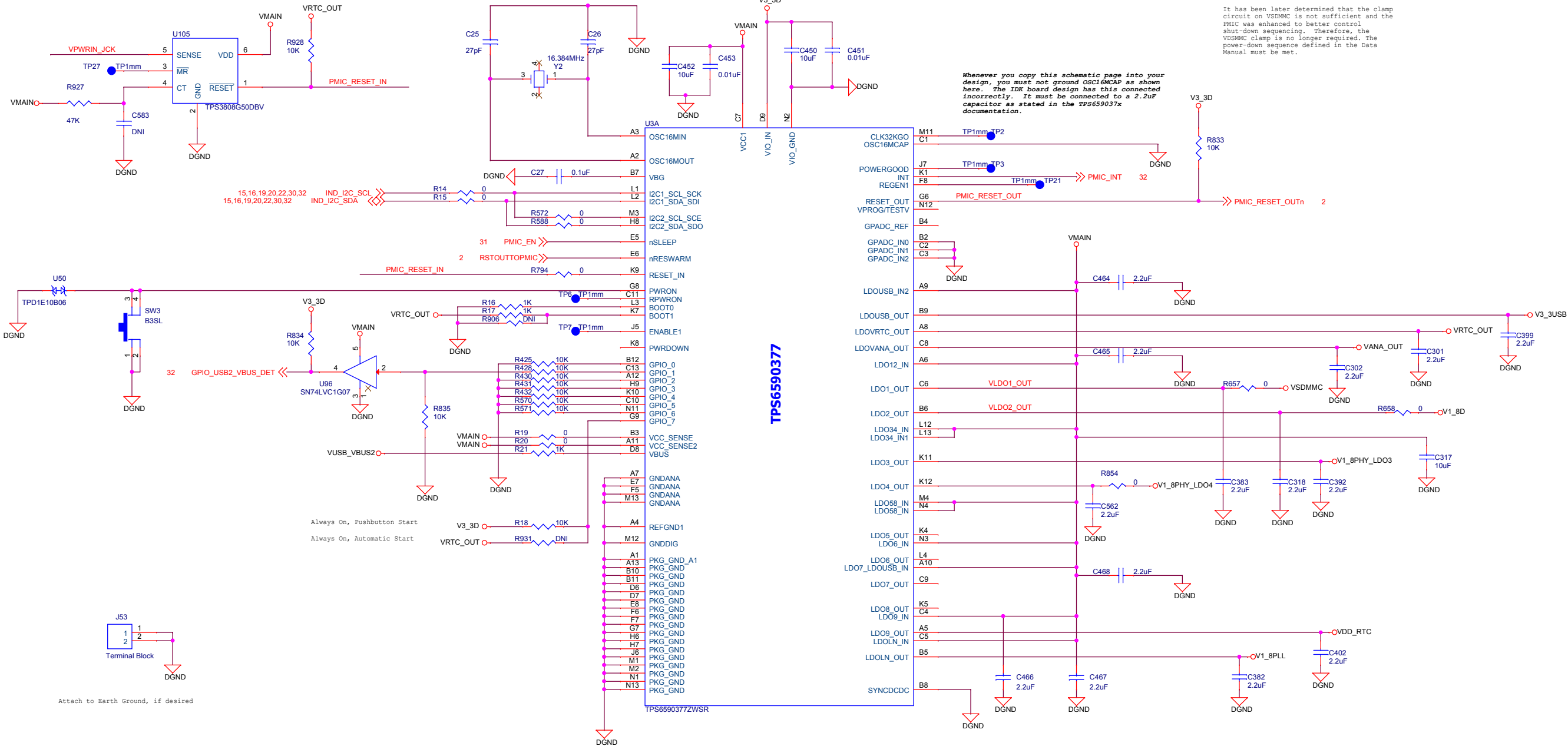
Sufficient capacitance needed to hold up VMAIN (over 2.7V) for at least 1ms after power supply shut off. AM57xx device will be in POR reset. This will allow the PMIC to properly execute its power-down sequence.



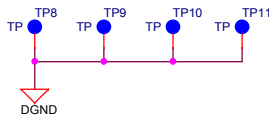
Clamp circuits added to guarantee the 3.3V supplies V3_3D and VSDMMC never become more than 2V above V1_8D during start-up or shut-down.

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.

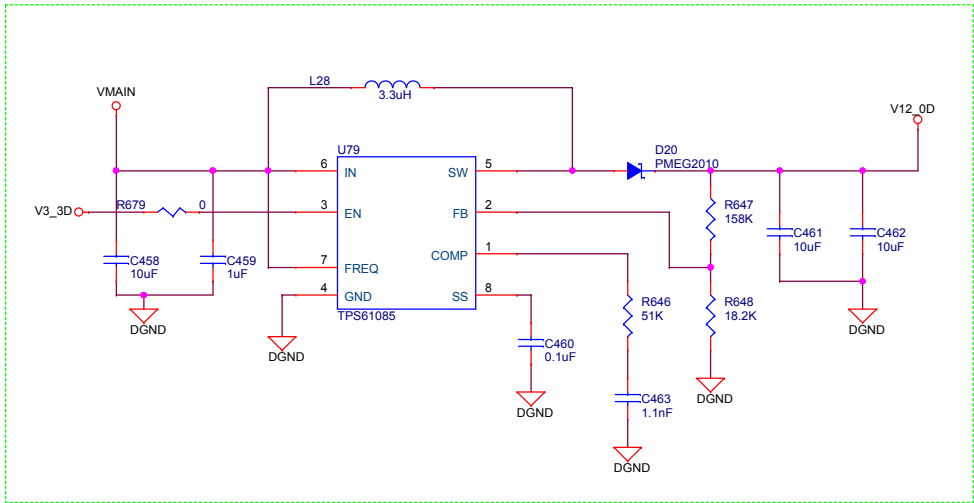
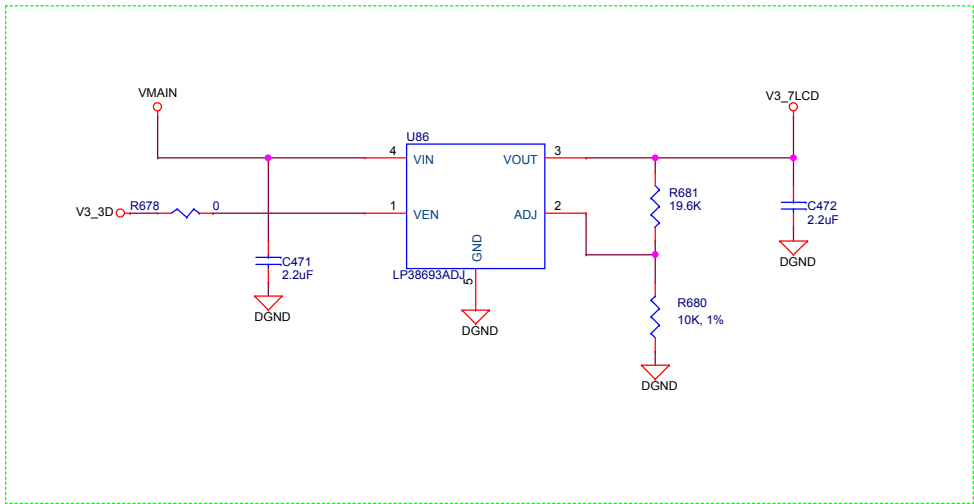
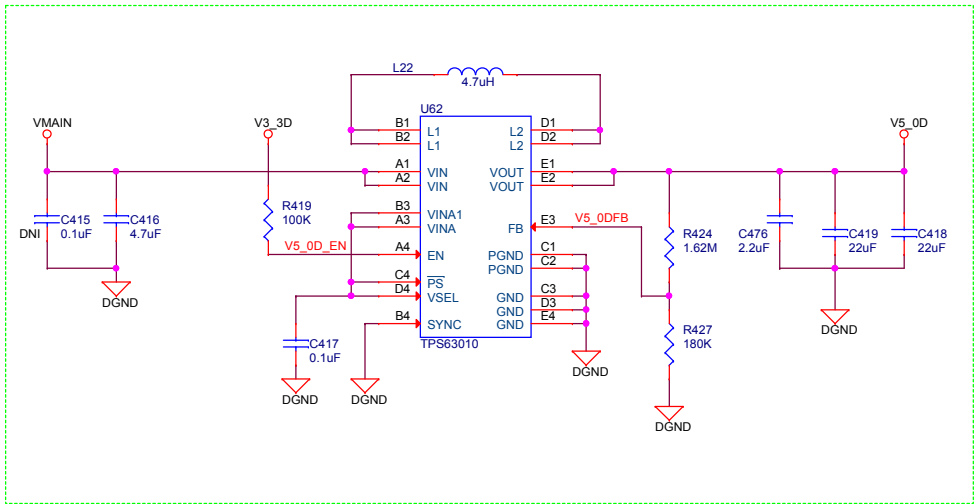
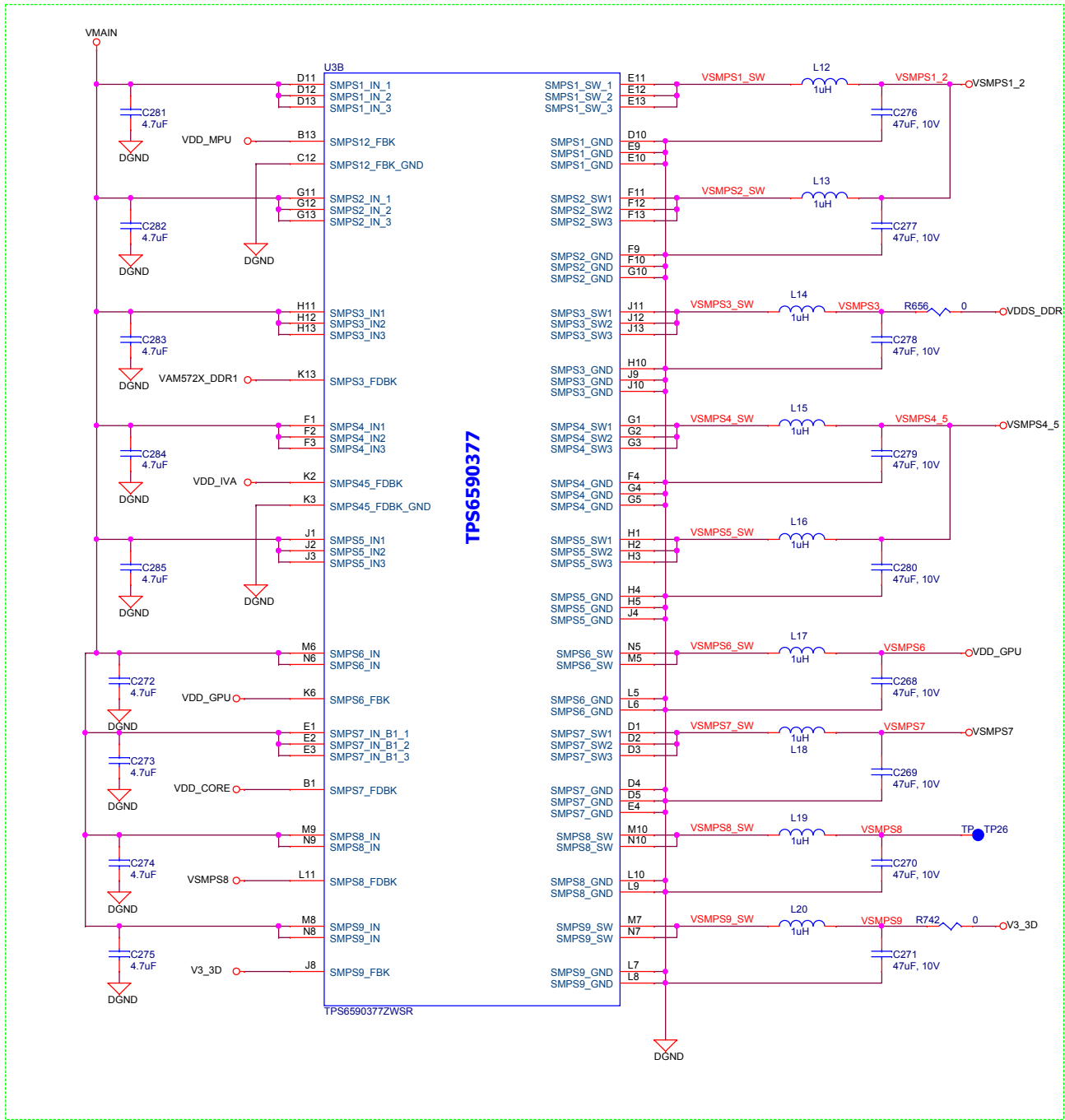
Whenever you copy this schematic page into your design, you must not ground OSC16MCP as shown here. The IDK board design has this connected incorrectly. It must be connected to a 2.2uF capacitor as stated in the TPS659037x documentation.

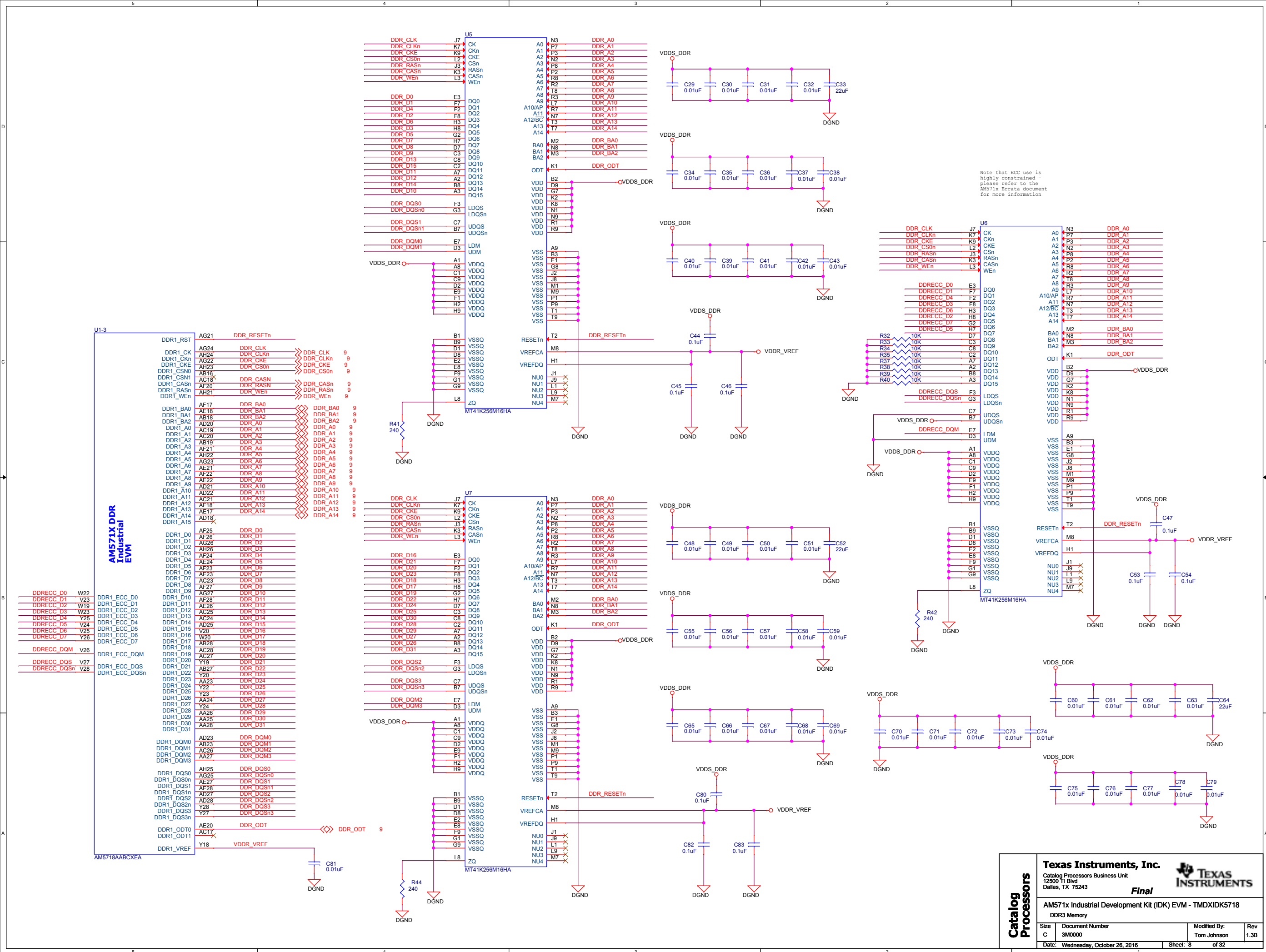


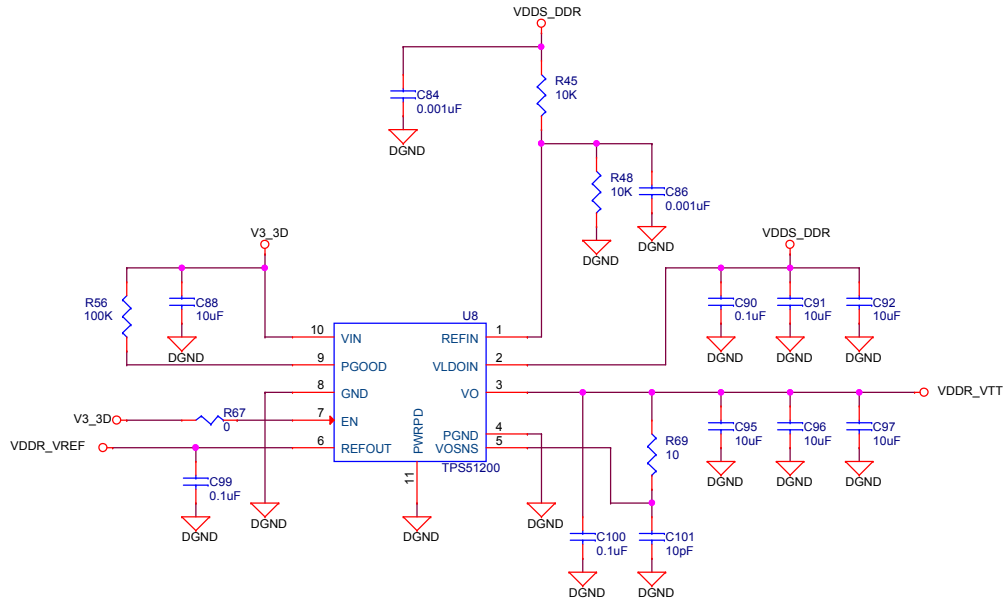
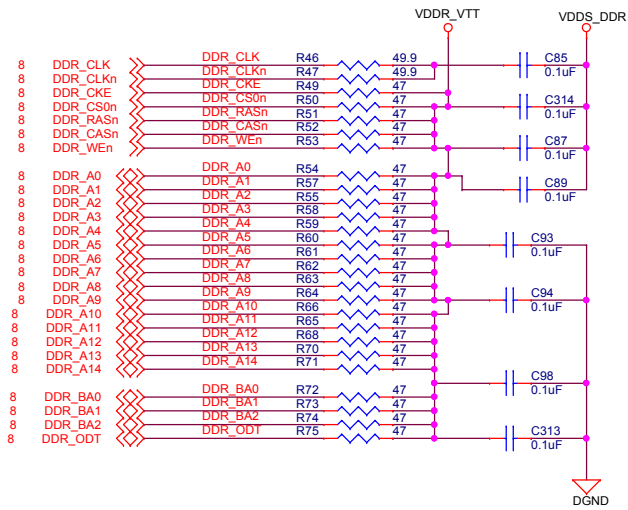
TPS6590377

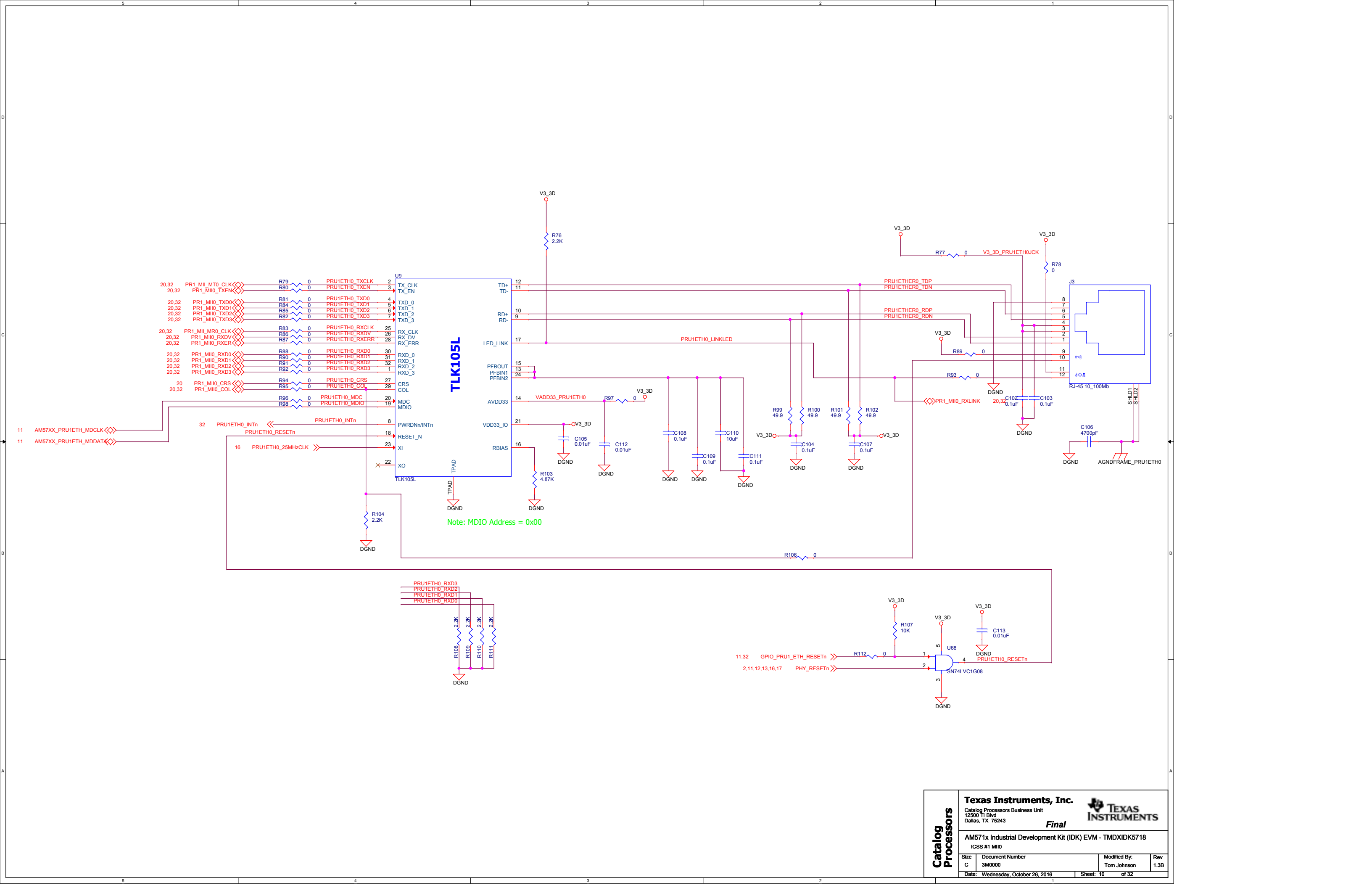


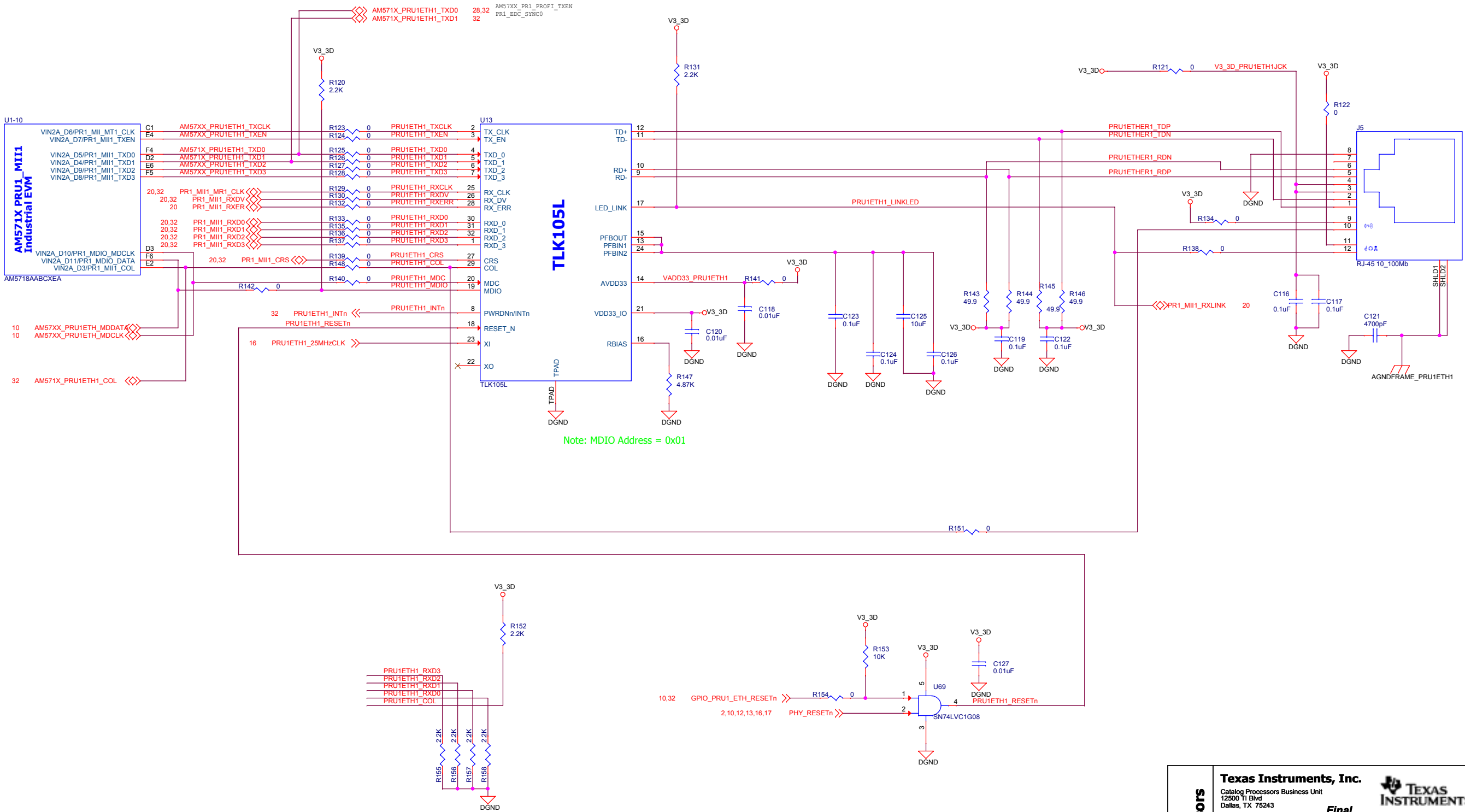
Catalog Processors	Texas Instruments, Inc.			
	Catalog Processors Business Unit 12500 TI Blvd Dallas, TX 75243			
	Final			
	AM571x Industrial Development Kit (IDK) EVM - TMDXIDK5718			
	Power			
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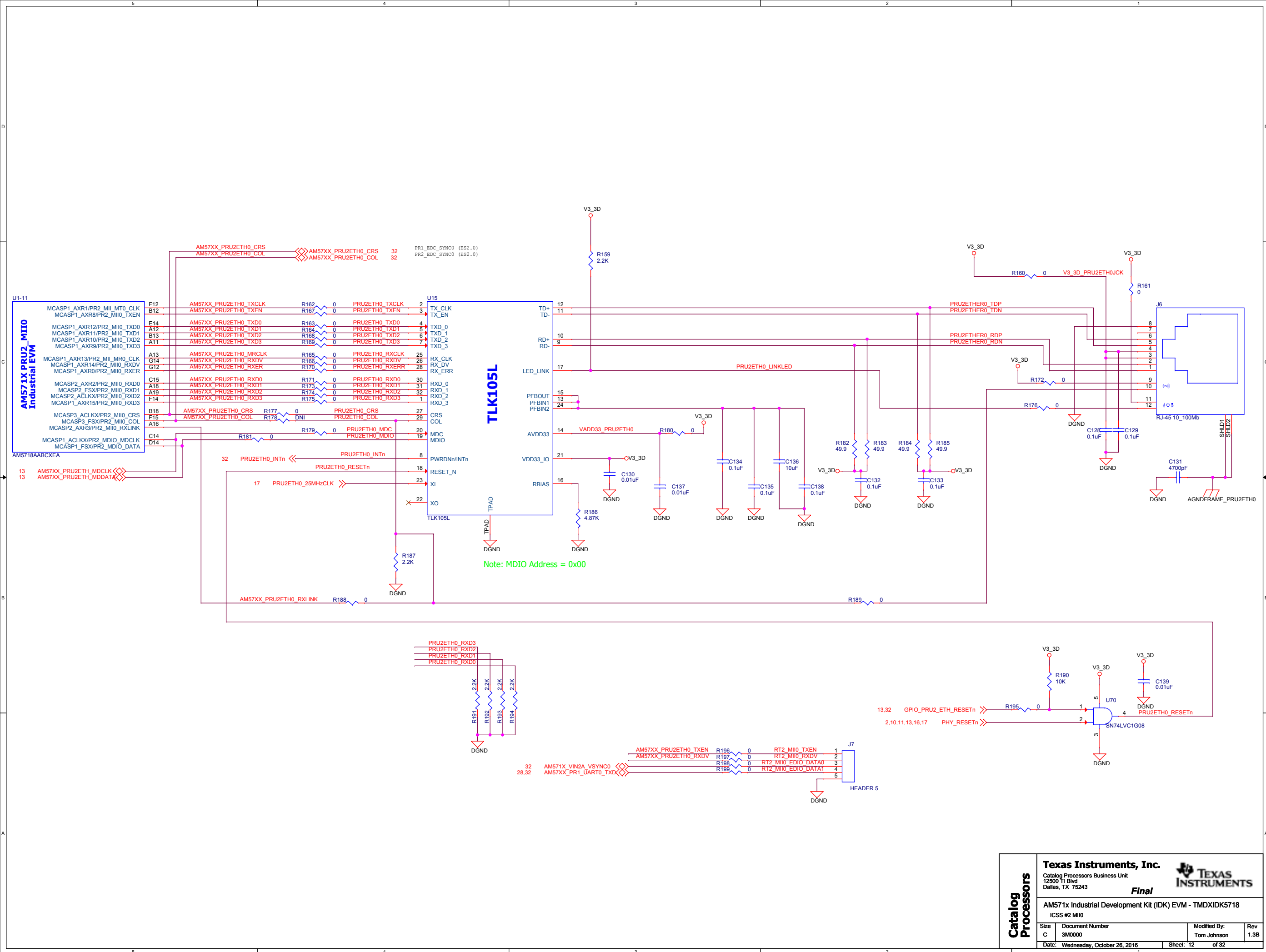


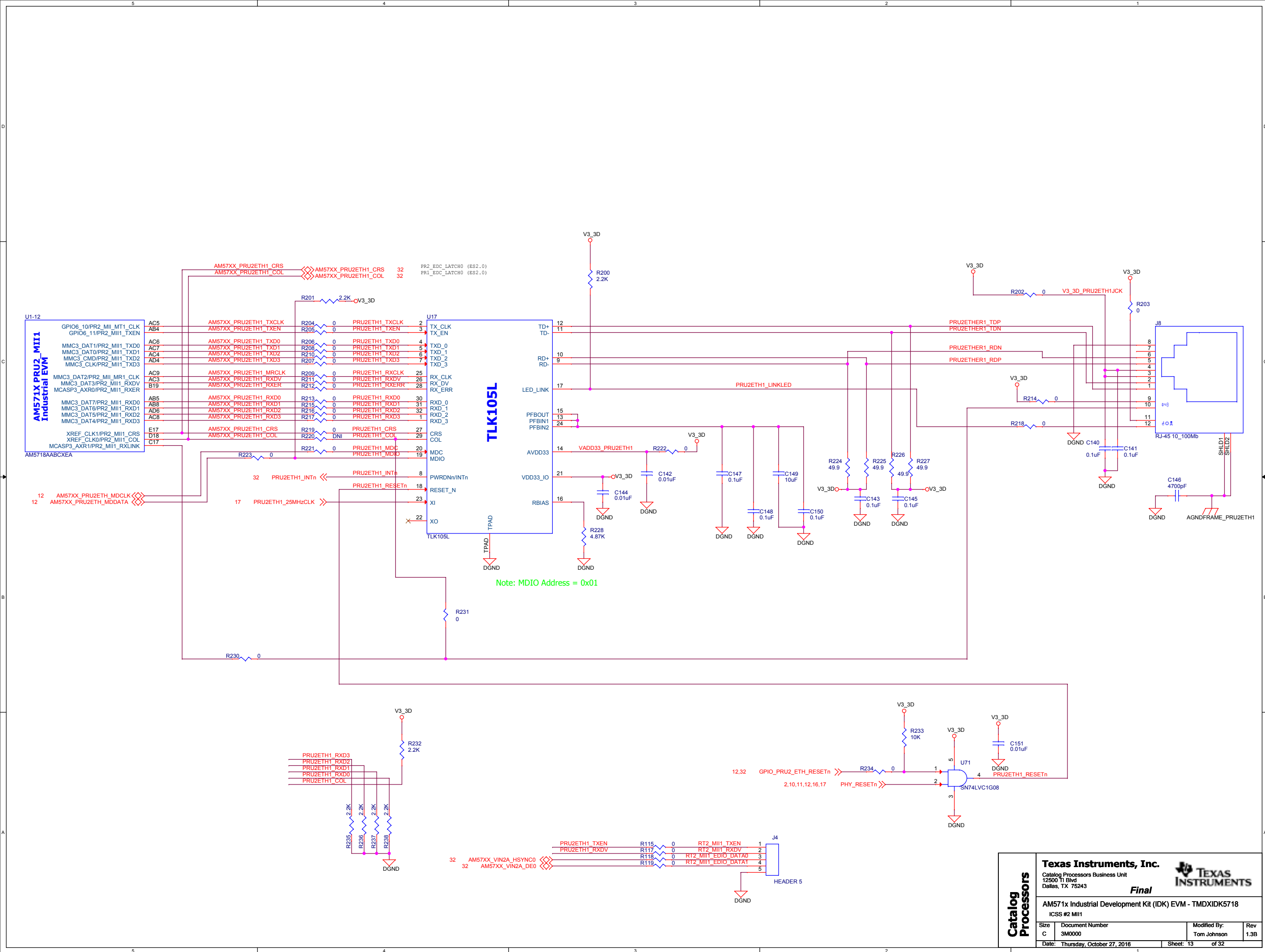




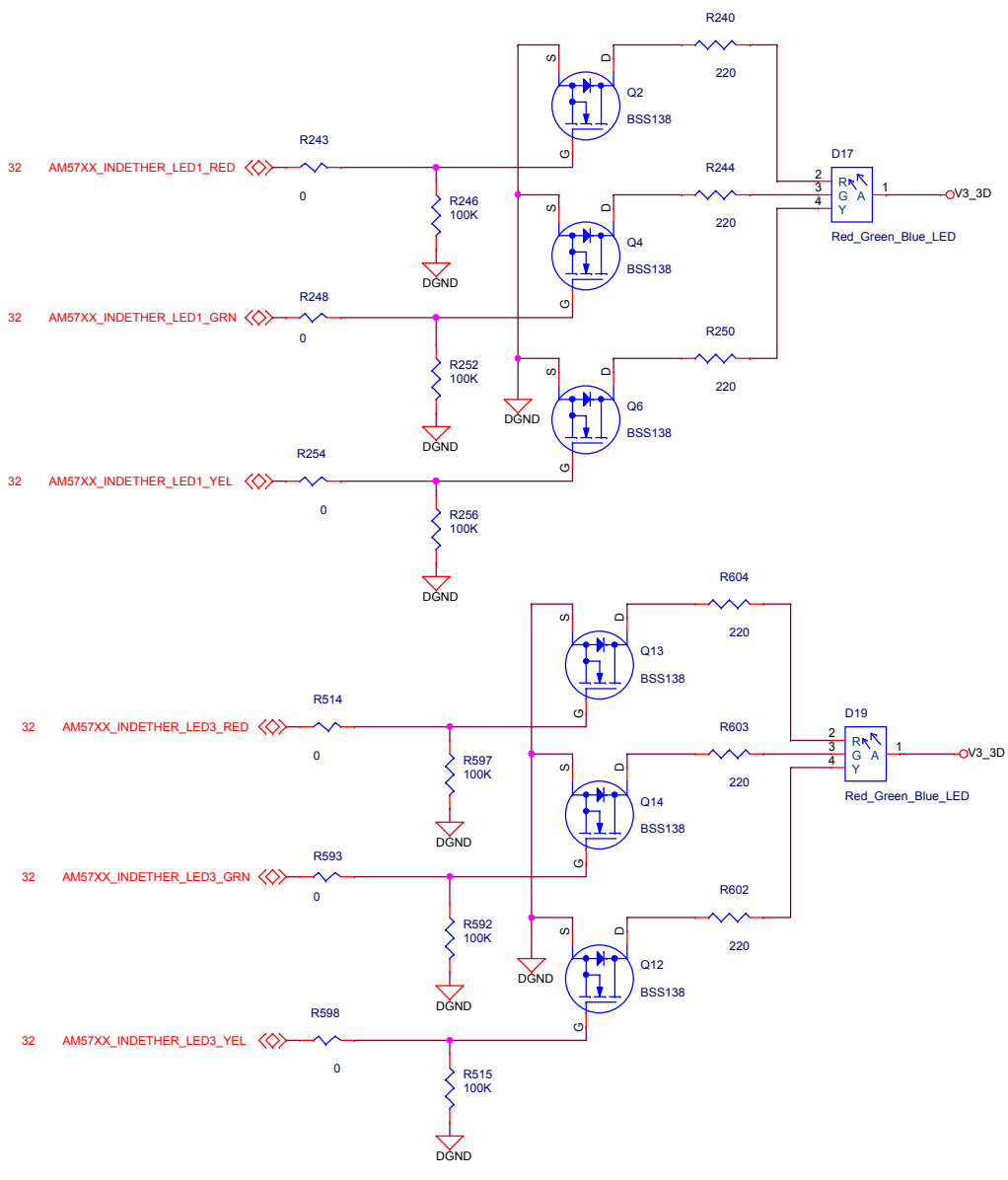
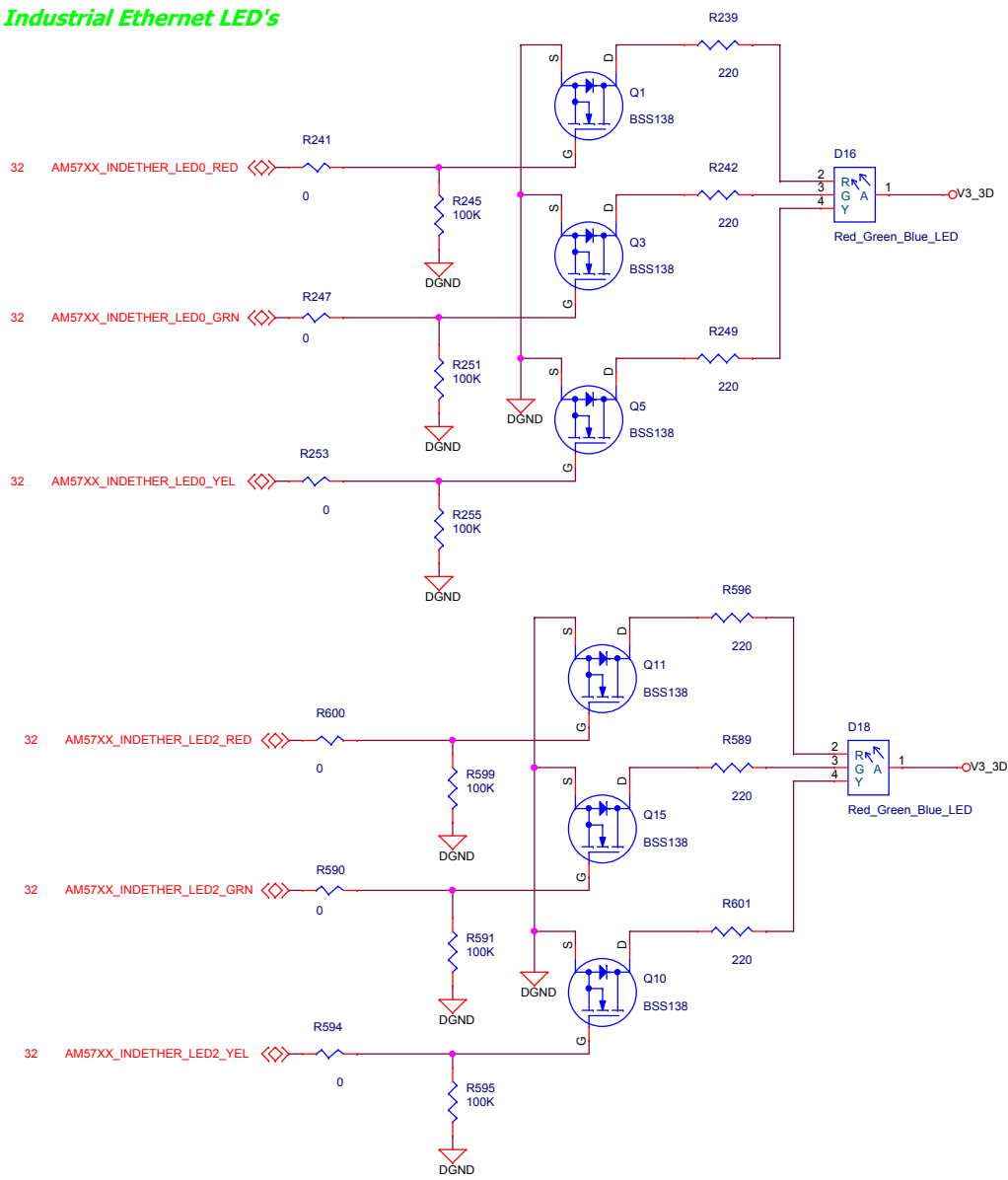




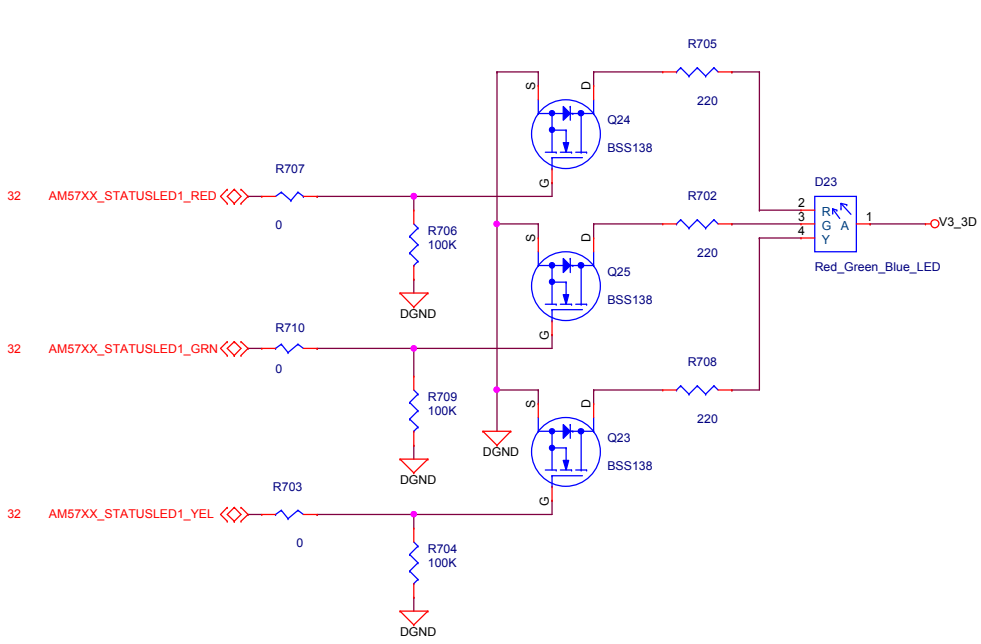
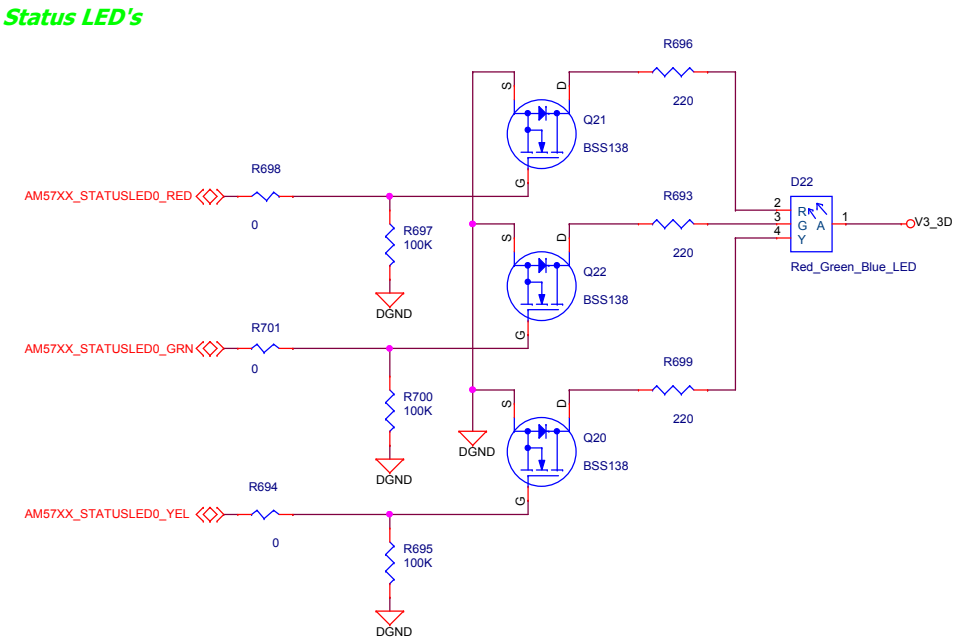




Industrial Ethernet LED's



Status LED's



U1-22

**AM571X Camera #1
Industrial EVM**

AM5718AABCXEA

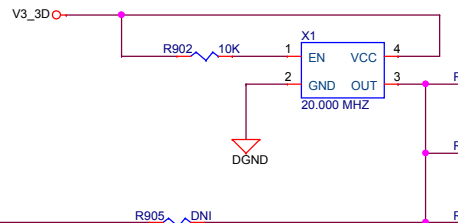
- GPMC_A10/VIN1B_CLK1
- GPMC_A9/VIN1B_VSYNC1
- GPMC_A8/VIN1B_HSYNC1
- GPMC_A11/VIN1B_DE1
- GPMC_A12/VIN1B_FLD1
- GPMC_A0/VIN1B_D0
- GPMC_A1/VIN1B_D1
- GPMC_A2/VIN1B_D2
- GPMC_A3/VIN1B_D3
- GPMC_A4/VIN1B_D4
- GPMC_A5/VIN1B_D5
- GPMC_A6/VIN1B_D6
- GPMC_A7/VIN1B_D7
- XREF_CLK3/CLKOUT3

- N9 AM57XX_VIN1B_PCLK
- R4 AM57XX_VIN1B_VSYNC
- N7 AM57XX_VIN1B_HSYNC
- P9 AM57XX_VIN1B_DE
- P4 AM57XX_VIN1B_FLD
- R6 AM57XX_VIN1B_DATA0
- T9 AM57XX_VIN1B_DATA1
- T6 AM57XX_VIN1B_DATA2
- T7 AM57XX_VIN1B_DATA3
- P6 AM57XX_VIN1B_DATA4
- R9 AM57XX_VIN1B_DATA5
- R5 AM57XX_VIN1B_DATA6
- P5 AM57XX_VIN1B_DATA7
- C23 AM57XX_CLKOUT3

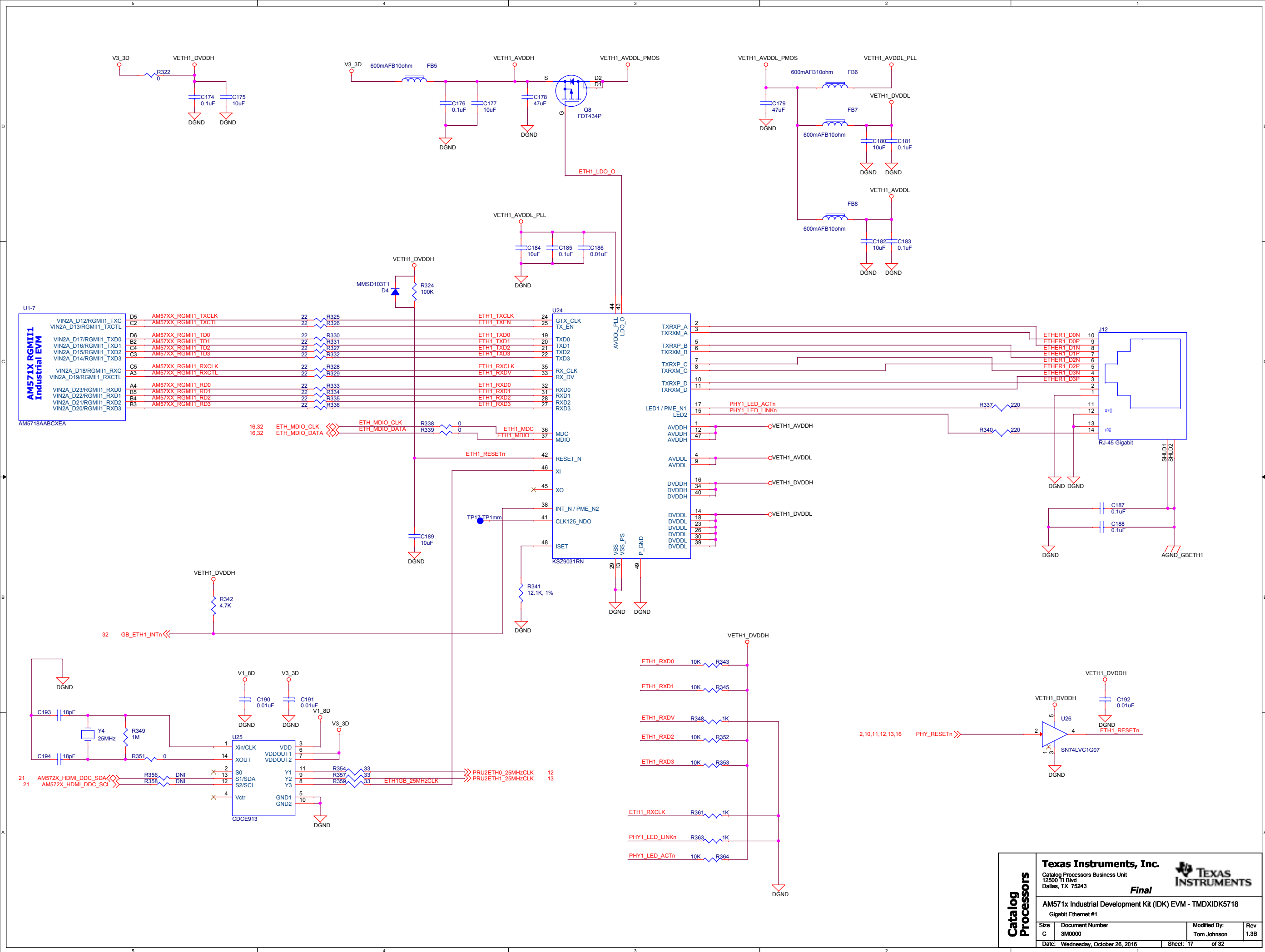
- AM57XX_VIN1B_DATA0 R260 0
- AM57XX_VIN1B_DATA1 R261 0
- AM57XX_VIN1B_DATA2 R263 0
- AM57XX_VIN1B_PCLK R265 0
- AM57XX_VIN1B_DATA3 R267 0
- AM57XX_VIN1B_DATA4 R269 0
- AM57XX_VIN1B_DATA5 R271 0
- AM57XX_VIN1B_DATA6 R273 0

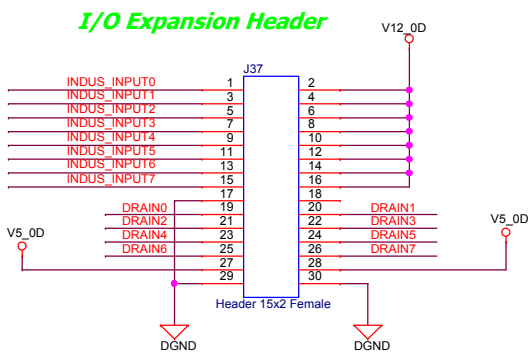
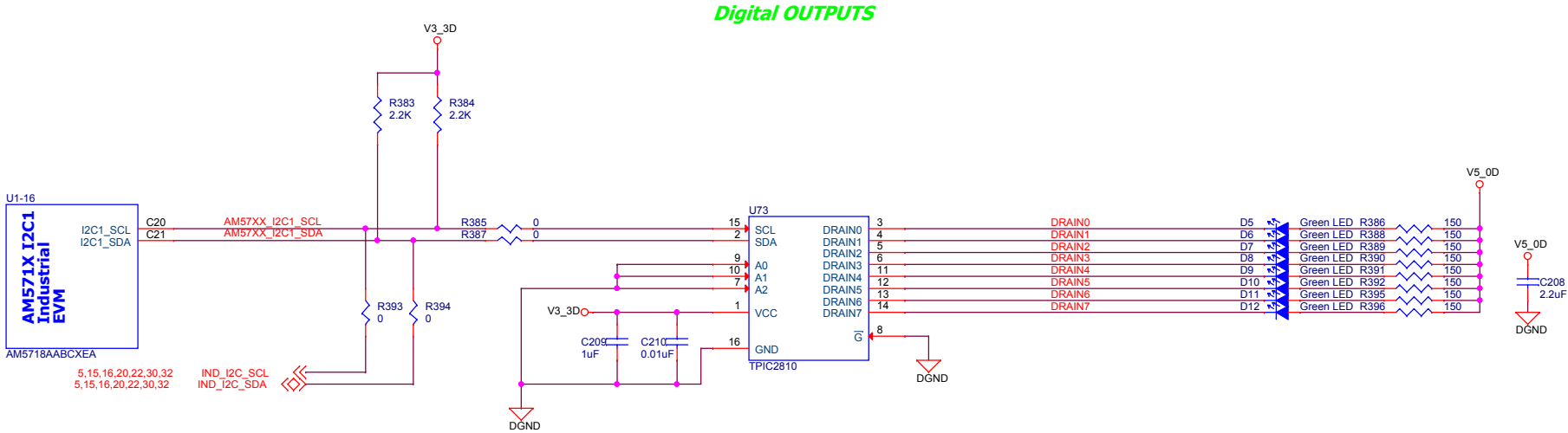
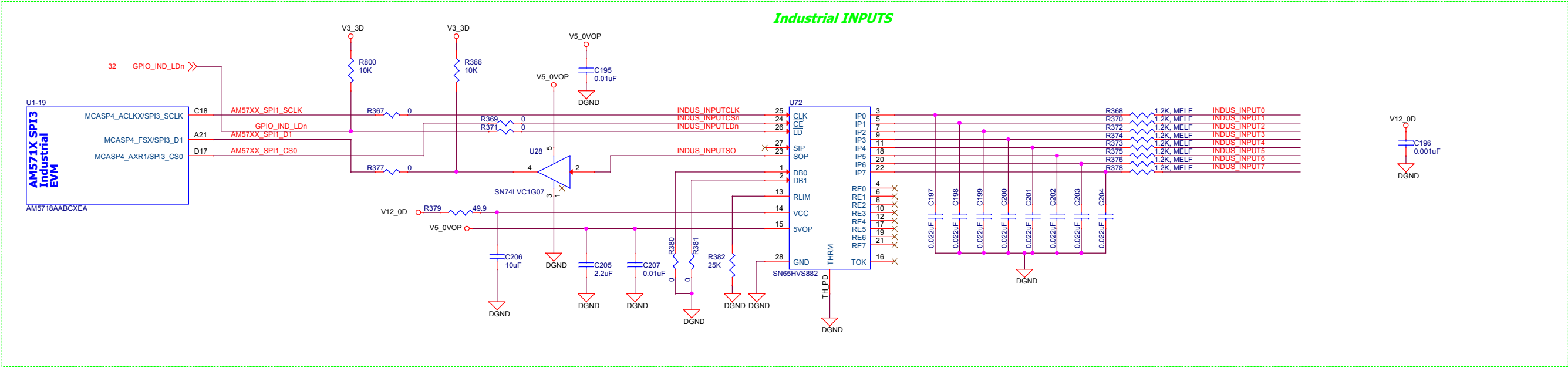
- CAM1_DATA0
- CAM1_DATA1
- CAM1_DATA2
- CAM1_PCLK
- CAM1_DATA3
- CAM1_DATA4
- CAM1_DATA5
- CAM1_WEN

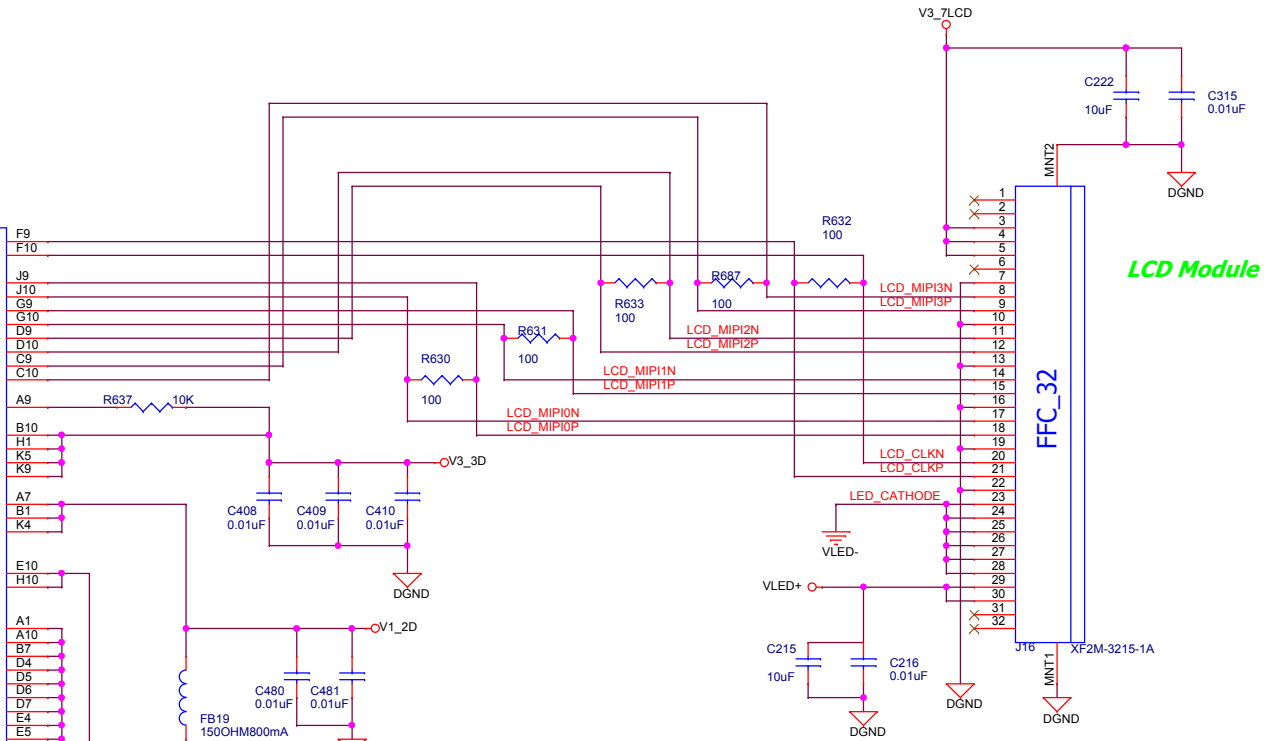
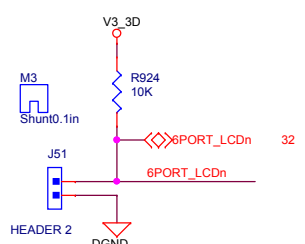
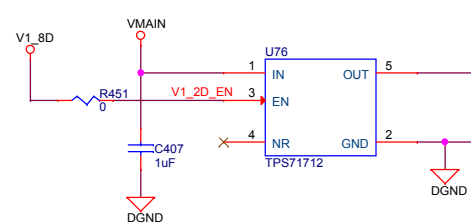
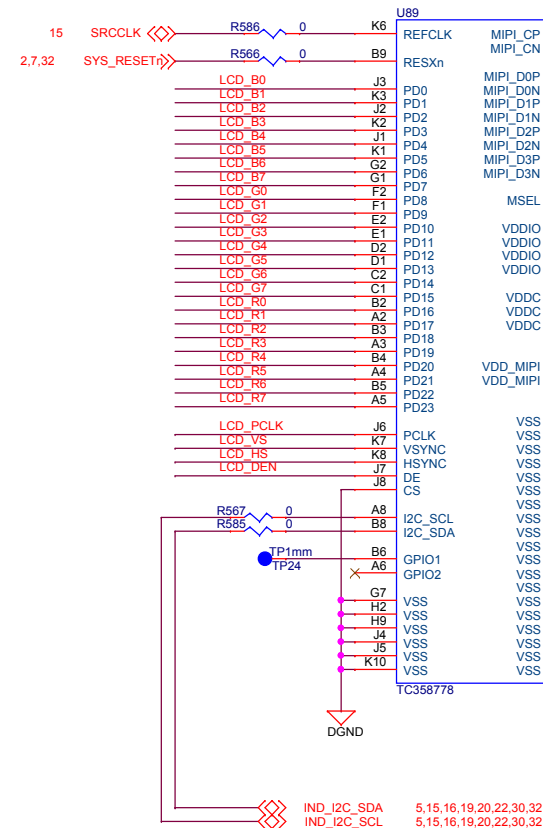
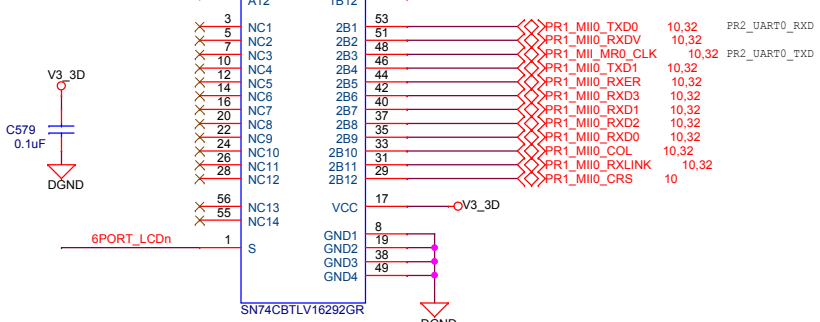
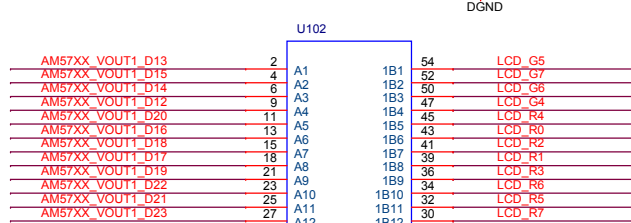
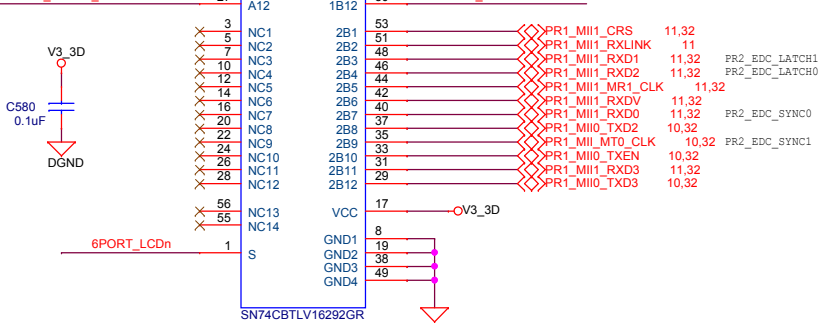
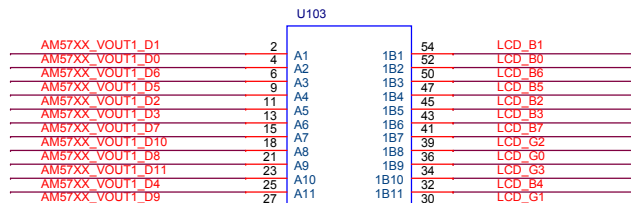
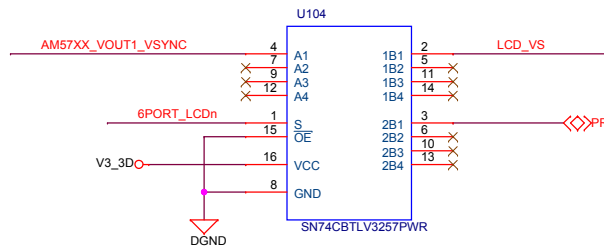
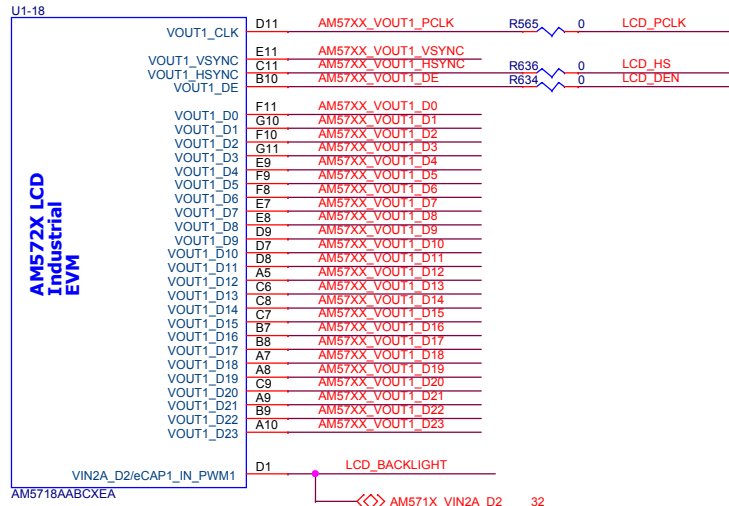
- CAM1_VSYNC R257 0
- CAM1_HSYNC R258 0
- CAM1_DATA6 R262 0
- CAM1_DATA7 R264 0
- CAM1_GIO0
- CAM1_GIO1
- CAM1_FIELD R274 0
- R275 0
- R277 0
- CAM_ENn 32
- IND_I2C_SCL 5,16,19,20,22,30,32
- IND_I2C_SDA 5,16,19,20,22,30,32



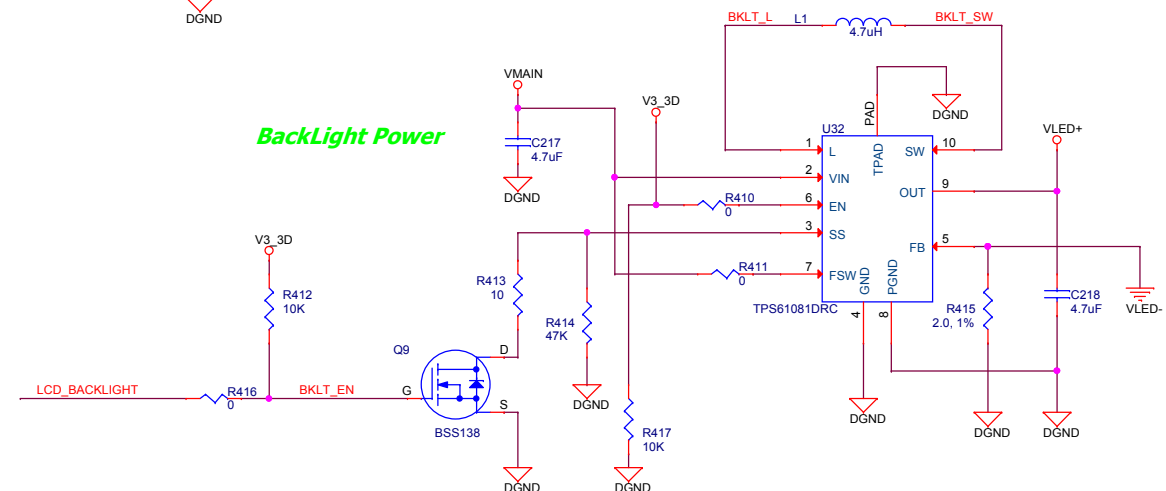
HDQ net not connected correctly.
R300 should connect directly to
XREF_CLK3/CLKOUT3 pin on SOC







BackLight Power



Catalog Processors	Texas Instruments, Inc.		
	Catalog Processors Business Unit 12500 TI Blvd Dallas, TX 75243		
	Final		
	AM571x Industrial Development Kit (IDK) EVM - TMDXIDK5718		
	LCD & Touchscreen		
Size	Document Number	Modified By:	Rev
C	3M0000	Tom Johnson	1.3B
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Catalog Processors

Texas Instruments, Inc.

Catalog Processors Business Unit
12500 TI Blvd
Dallas, TX 75243

Final

AM571x Industrial Development Kit (IDK) EVM - TMDXIDK5718
Debug/Configuration

Size C	Document Number 3M0000	Modified By: Tom Johnson	Rev 1.3B
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