

SCK-KR-05101

Robotics Starter Kit Carrier Card

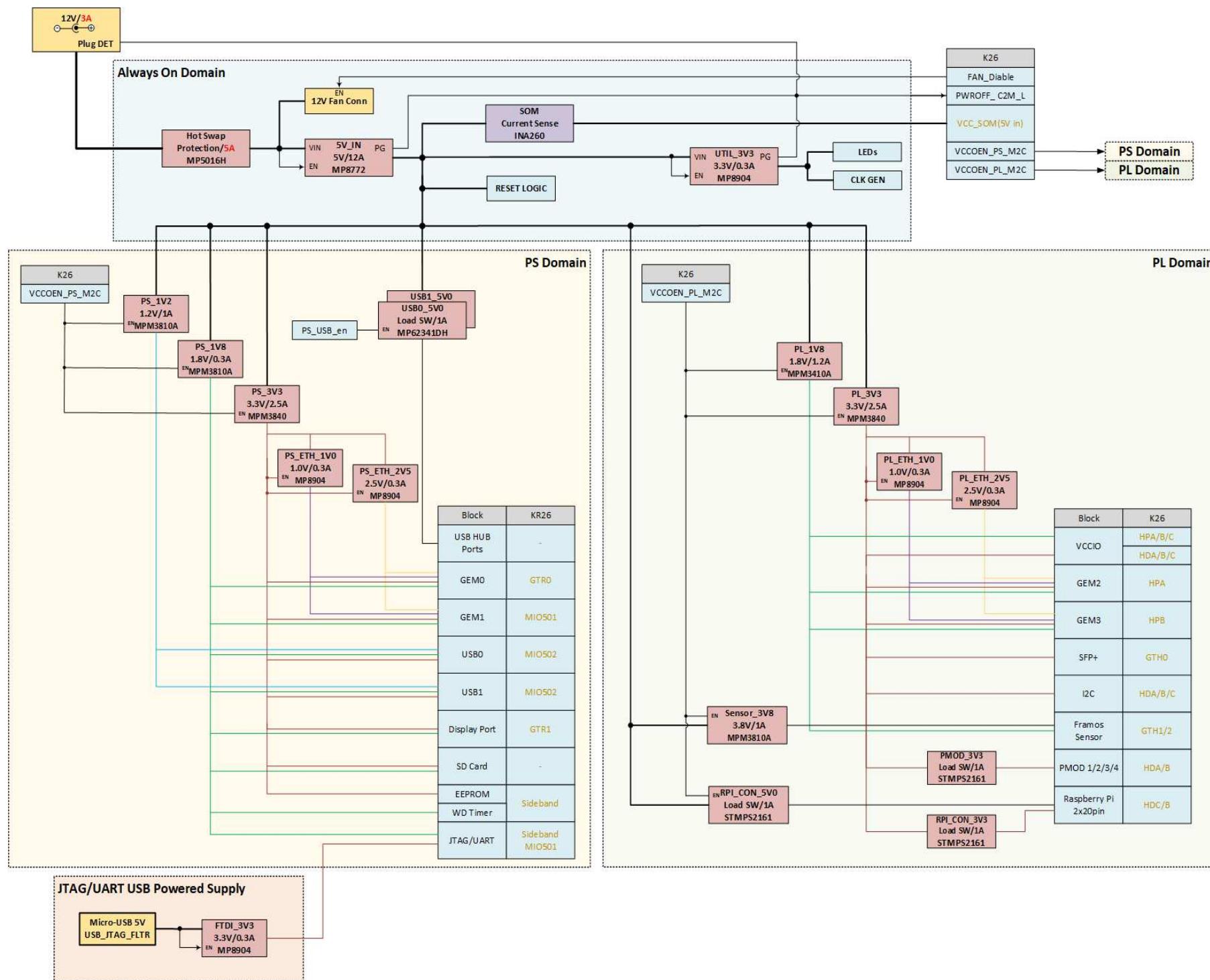
NOTICE: These schematics are made available for users who are working with this specific Xilinx board and should not be considered an optimal board design reference. This board was designed for evaluation purposes with components that are potentially more complex and costly than would be used in an end customer system. Users are encouraged to leverage the Xilinx design guidelines as the optimal starting point for new board designs.

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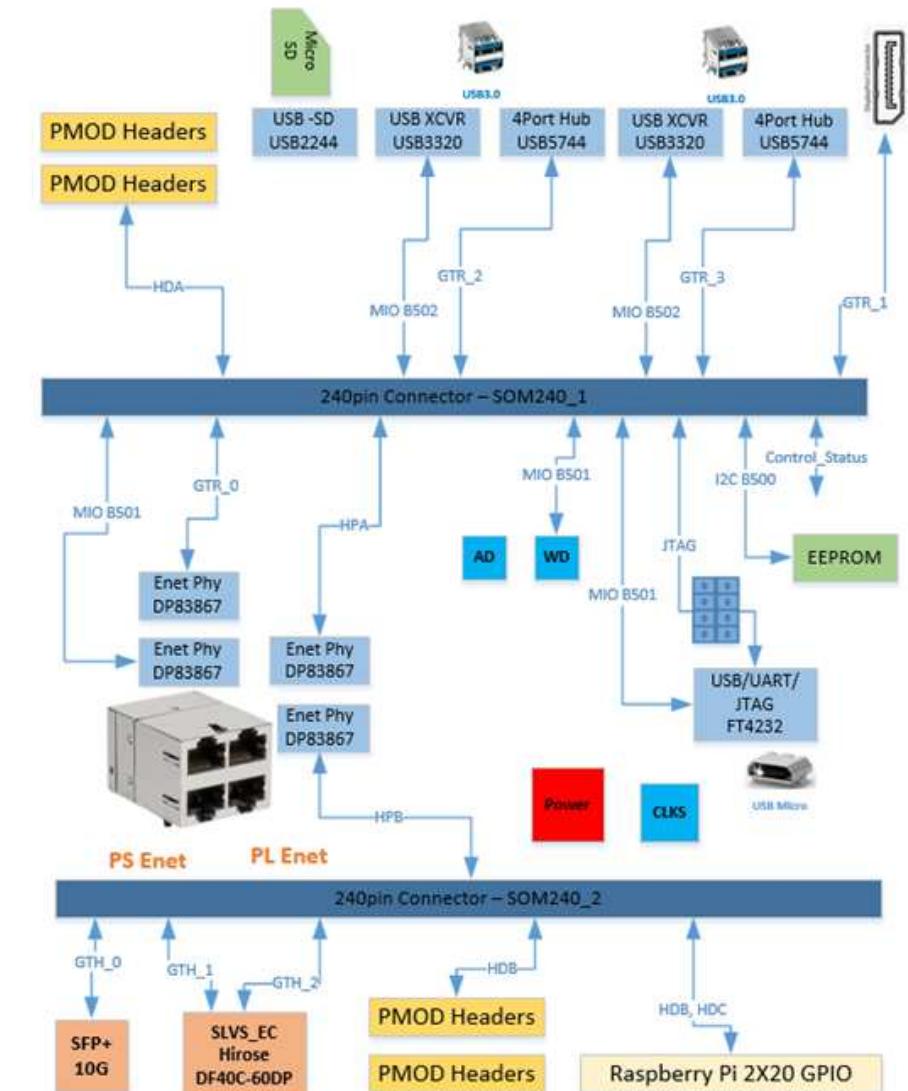
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 XILINX 2100 LOGIC DRIVE SAN JOSE CA	SKIT	
Title: SCK-KR 01 - Title Page		
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POWER BLOCK DIAGRAM



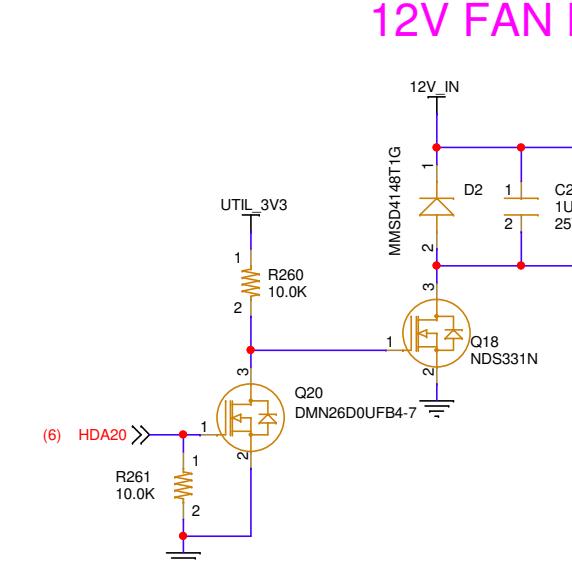
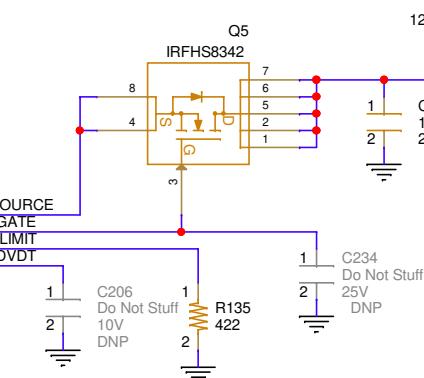
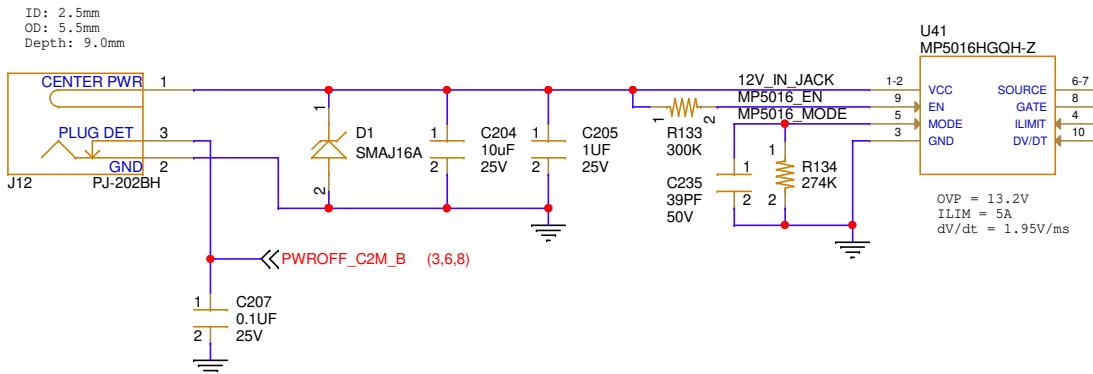
PERIPHERAL BLOCK DIAGRAM



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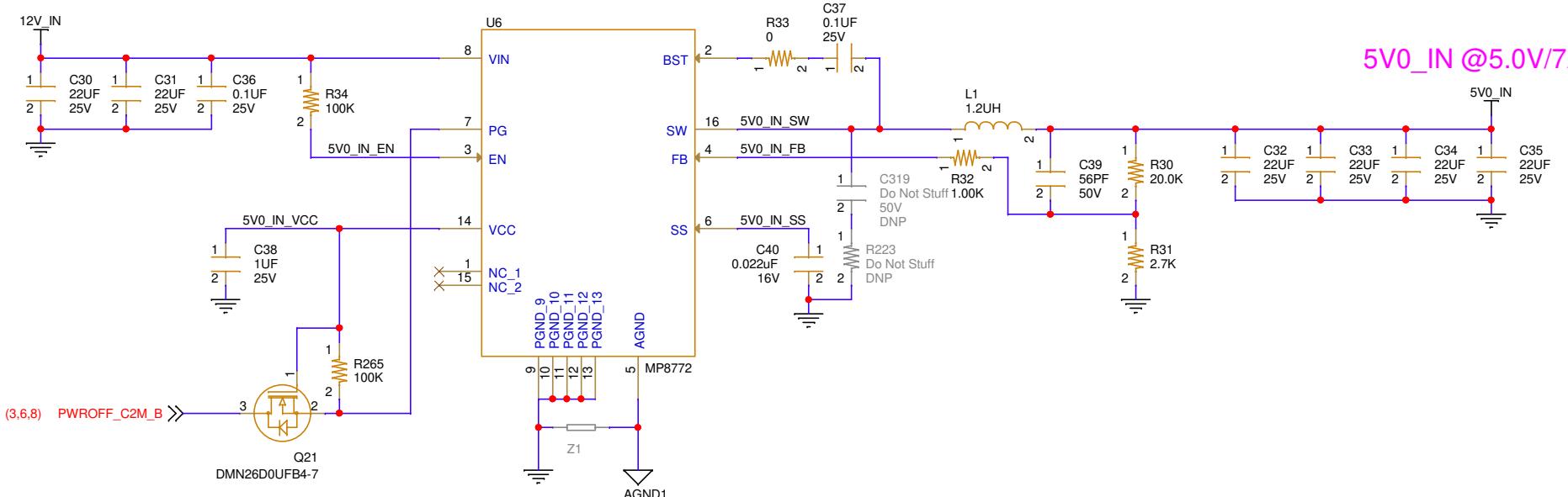
Title: **SCK-KR**
02 - Block Diagram

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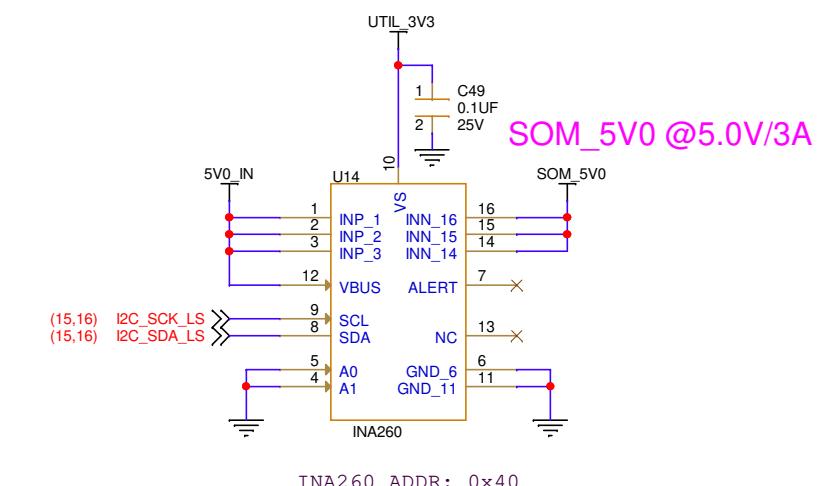


12V FAN HEADER

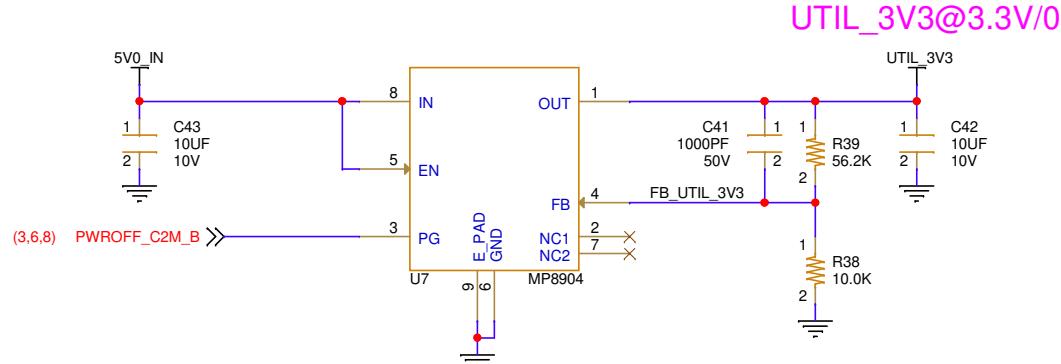
5V0_IN ALWAYS ON REGULATOR



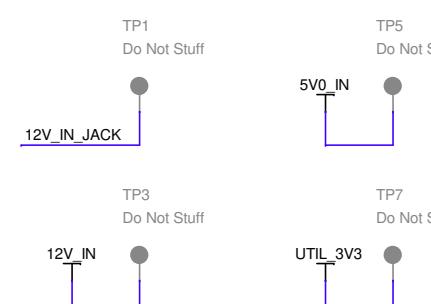
SOM 5V0 CURRENT MONITOR



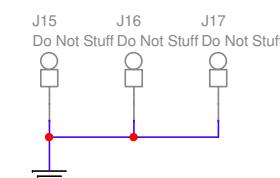
UTIL 3V3 ALWAYS ON REGULATOR



POWER TEST POINTS



GROUND LOOPS

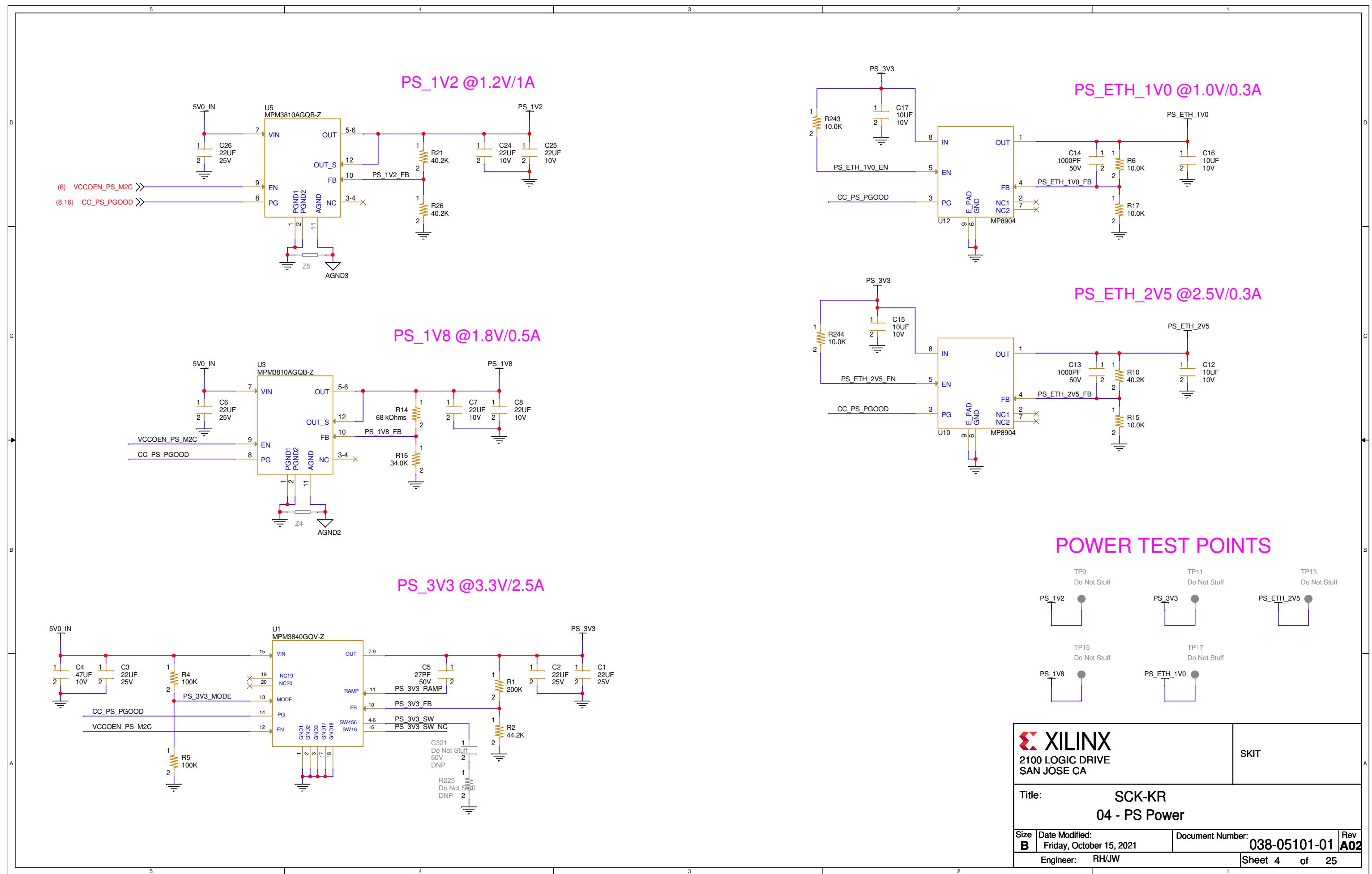


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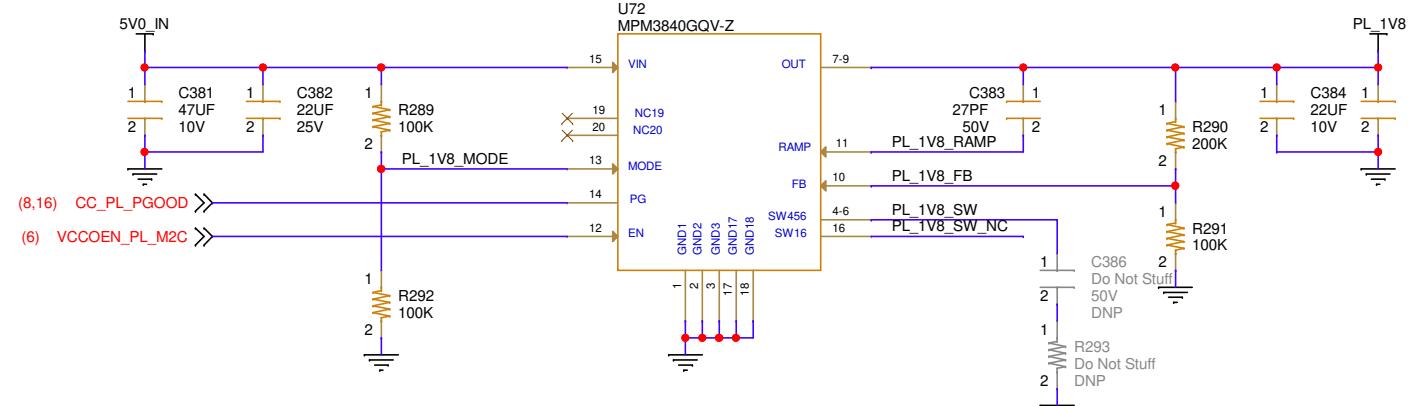
SKIT

Title: SCK-KR
03 - Always On Pwr. Fan Header

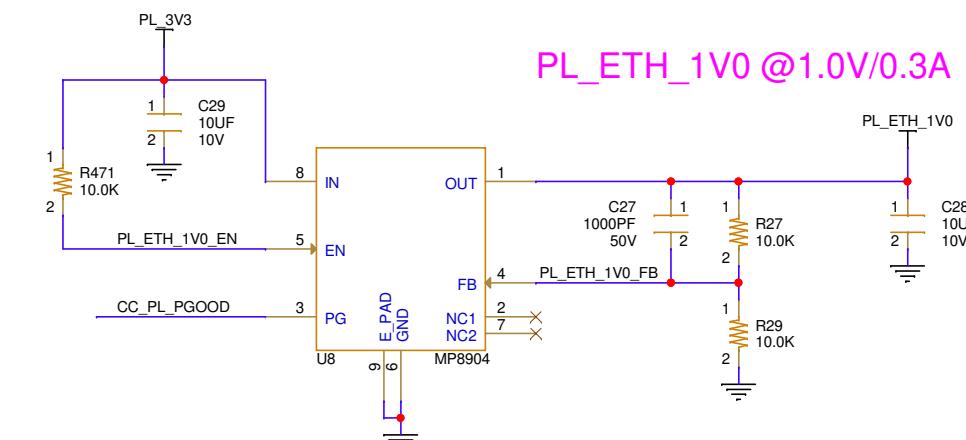
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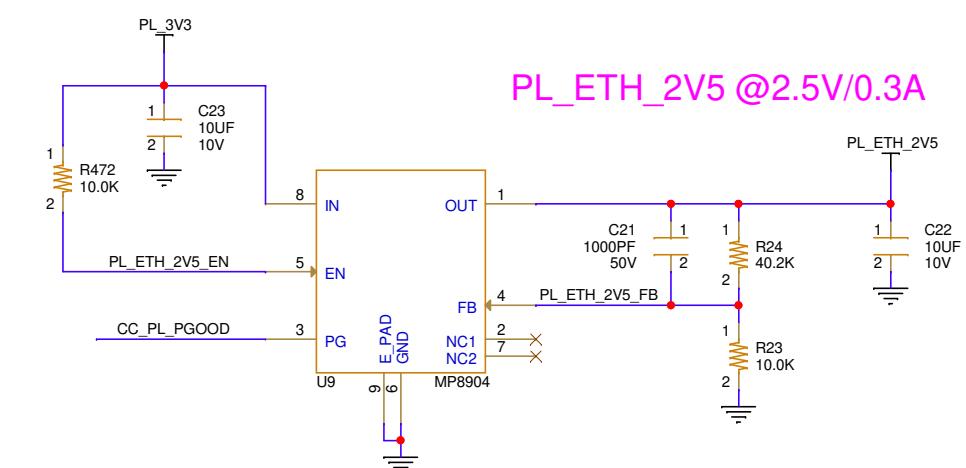
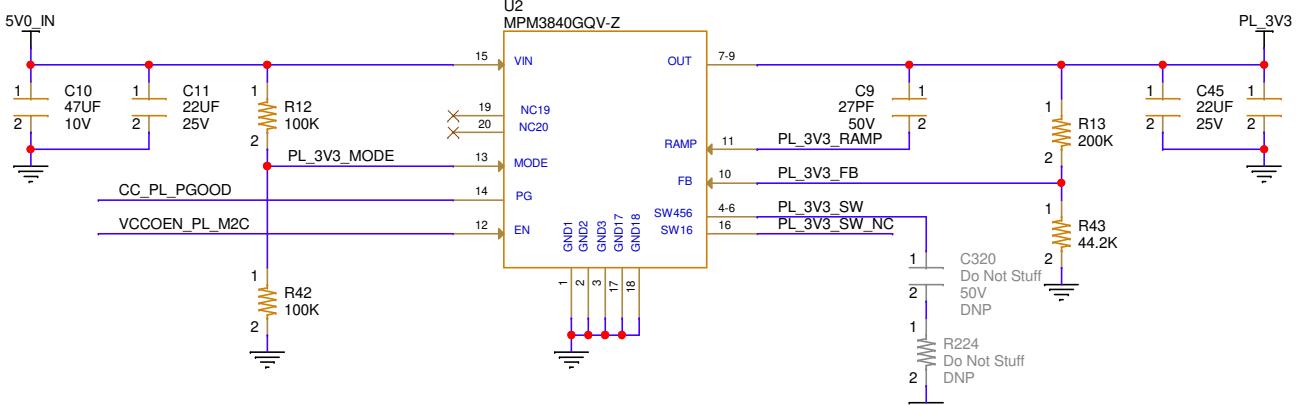
PL_1V8 @1.8V/1.4A



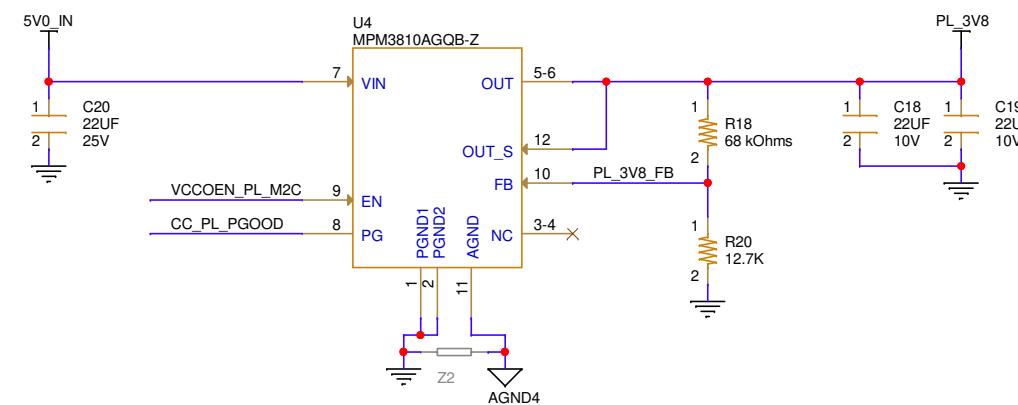
PL_ETH_1V0 @1.0V/0.3A



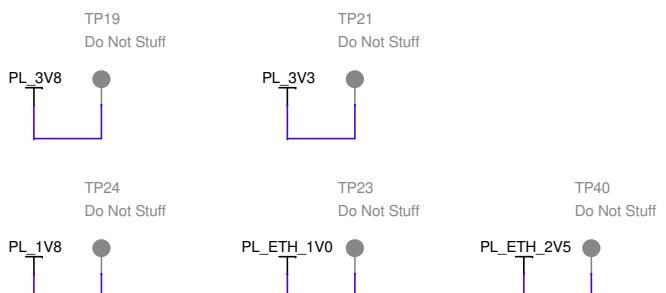
PL_3V3 @3.3V/3A



PL_3V8 @3.8V/1.0A



POWER TEST POINTS



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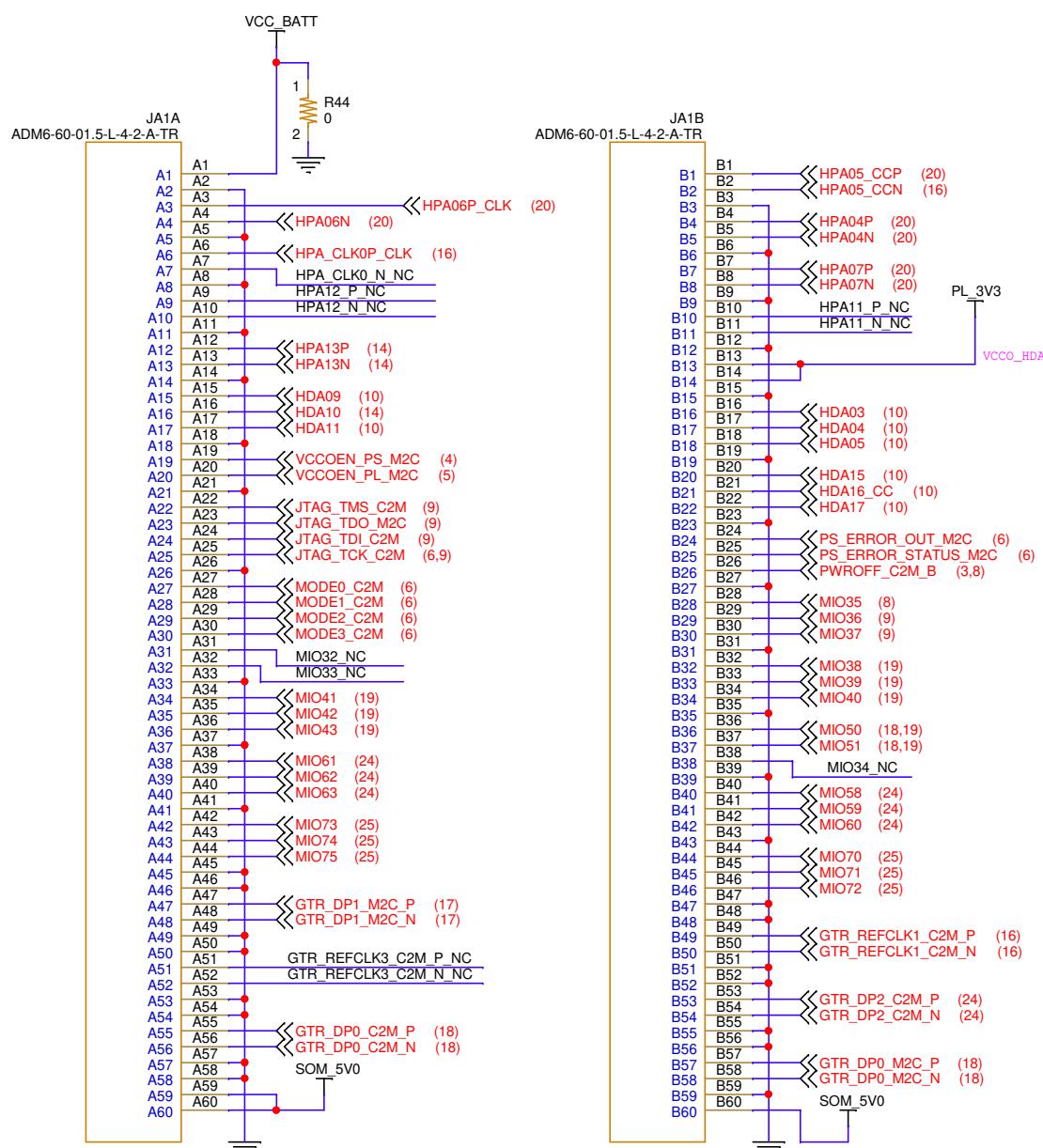
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SKIT

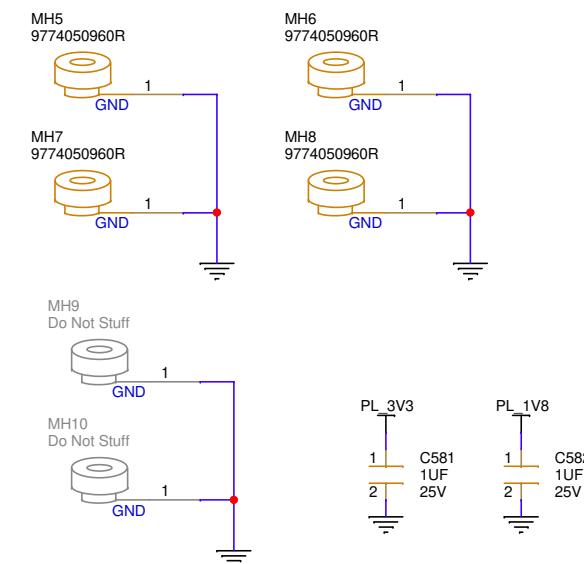
Title: **SCK-KR**
05 - PL Power

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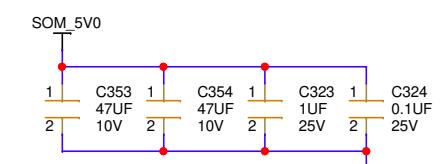
SOM240_1 CONNECTOR



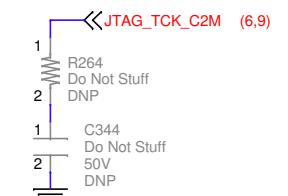
SOM STANDOFFS



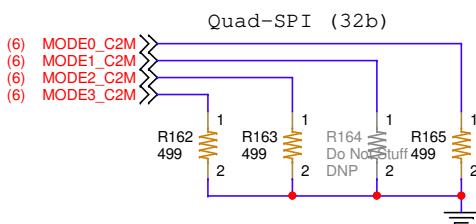
SOM_5V0 Connector Decoupling



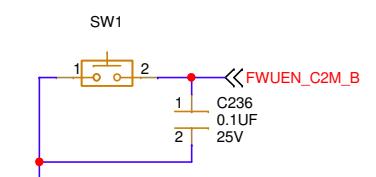
TCK TERM



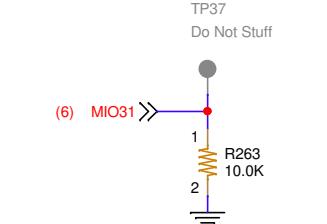
MODE PINS



FWUEN BUTTON



SHUTDOWN



PS_ERROR_OUT/STATUS TEST POINTS



XILINX

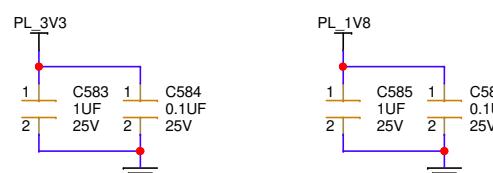
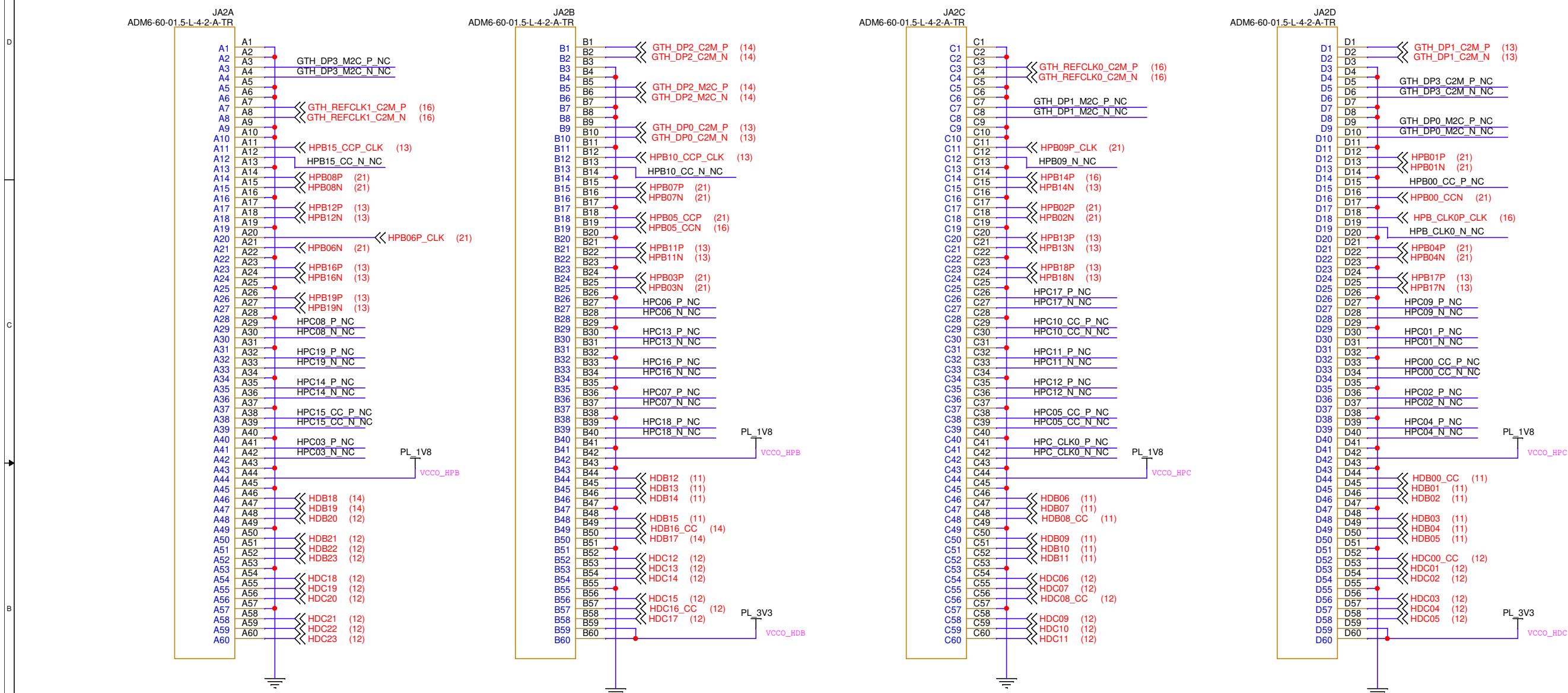
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06 - SOM240_1 Connector

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SOM240_2 CONNECTOR



FOUR CORNER MOUNTING HOLES



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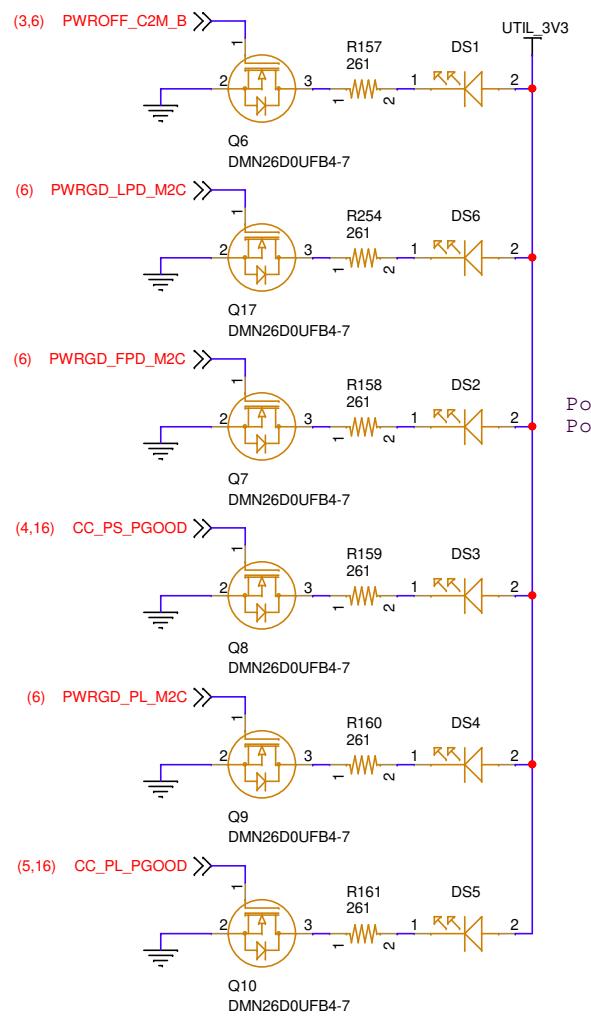
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Title: SCK-KR
07 - SOM240_2 Connector

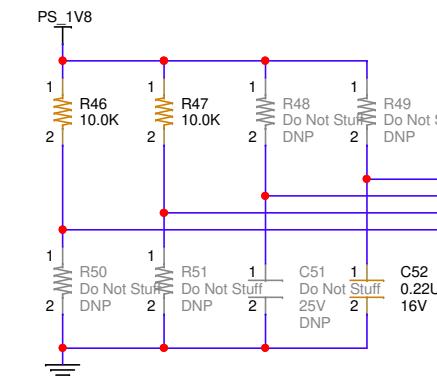
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POWER STATUS LEDS

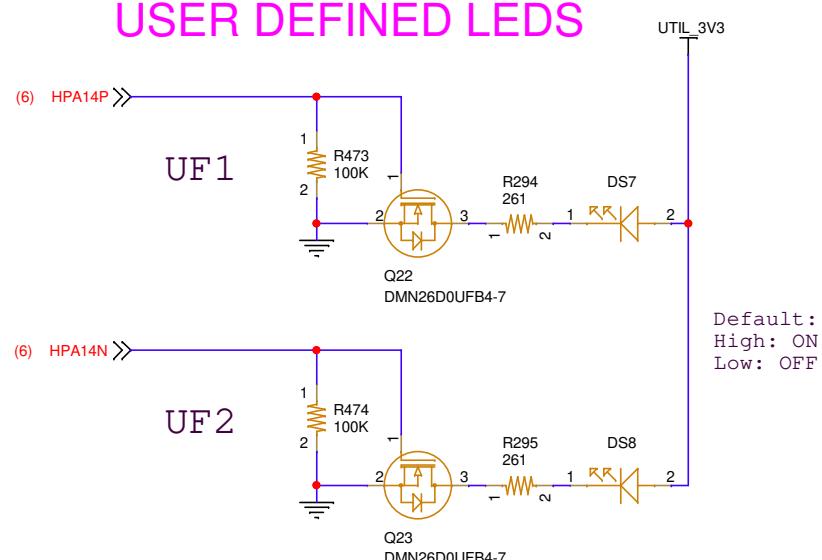


WATCHDOG TIMER



Watchdog Timer Settings:
Lower Boundary (Twdl max) = 920 ms
Upper Boundary (Twdu min) = 1360 ms
Reset Delay time (Trst min) = 635 ms

USER DEFINED LEDS



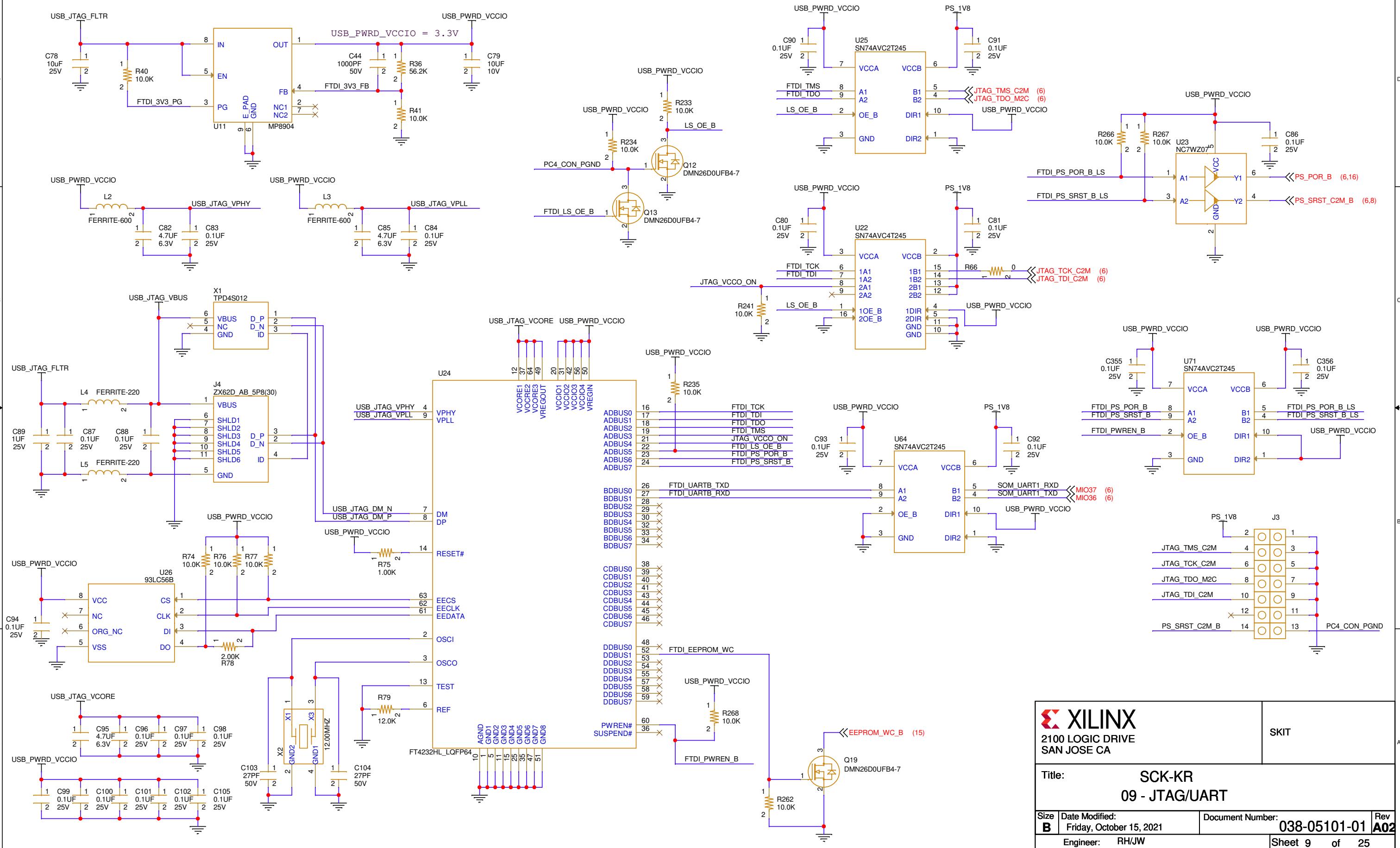
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Title: SCK-KR
08 - WD, LEDs

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FTDI JTAG/UART

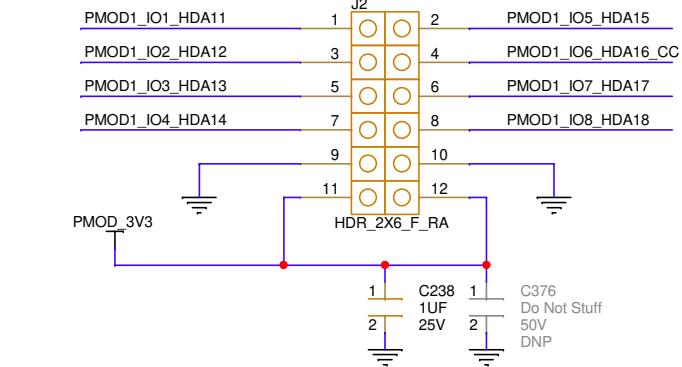
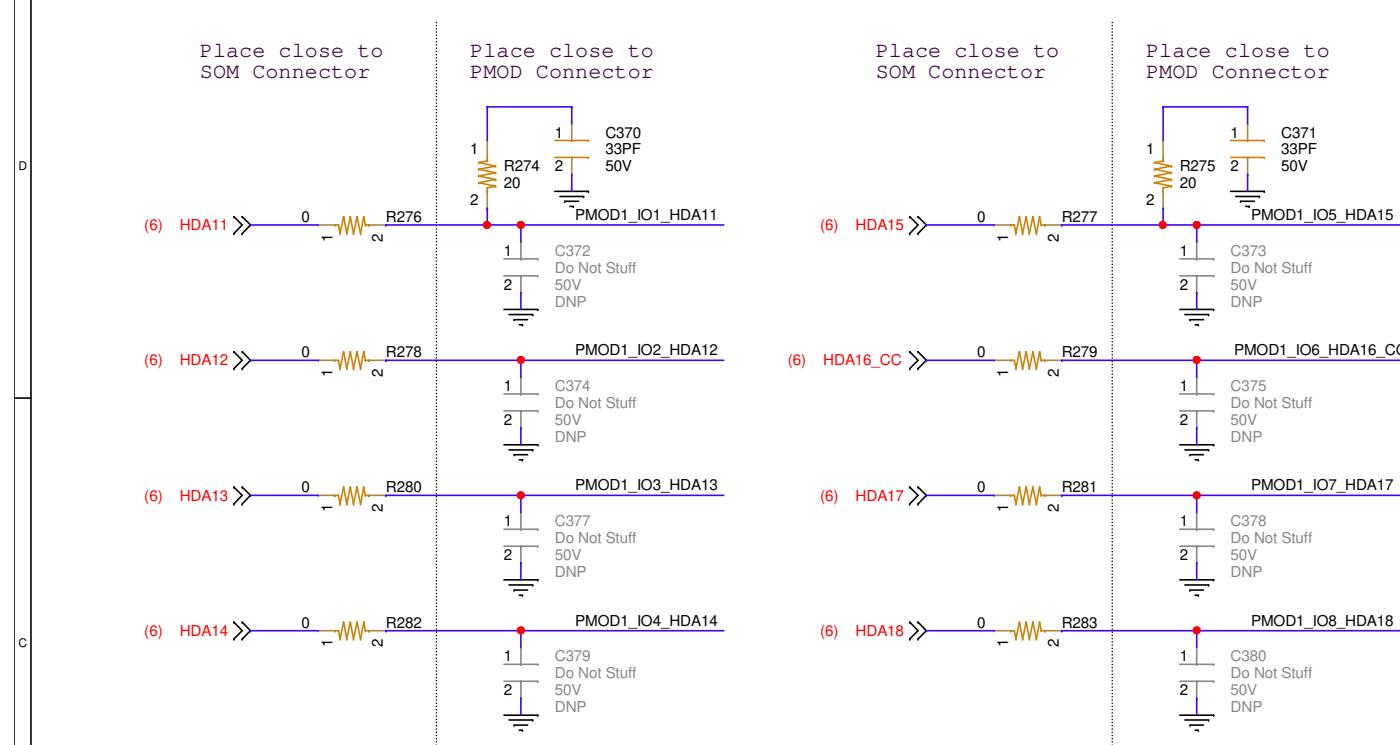


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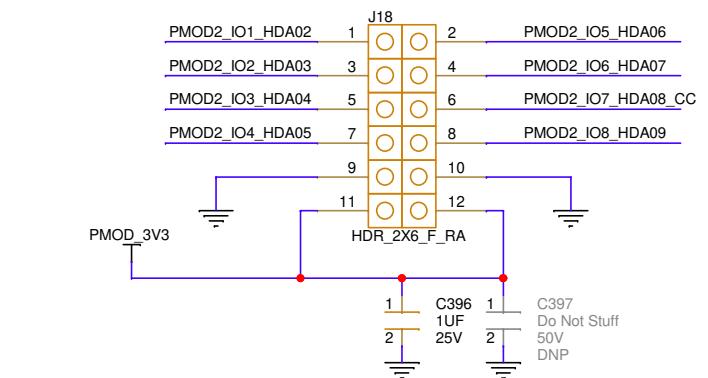
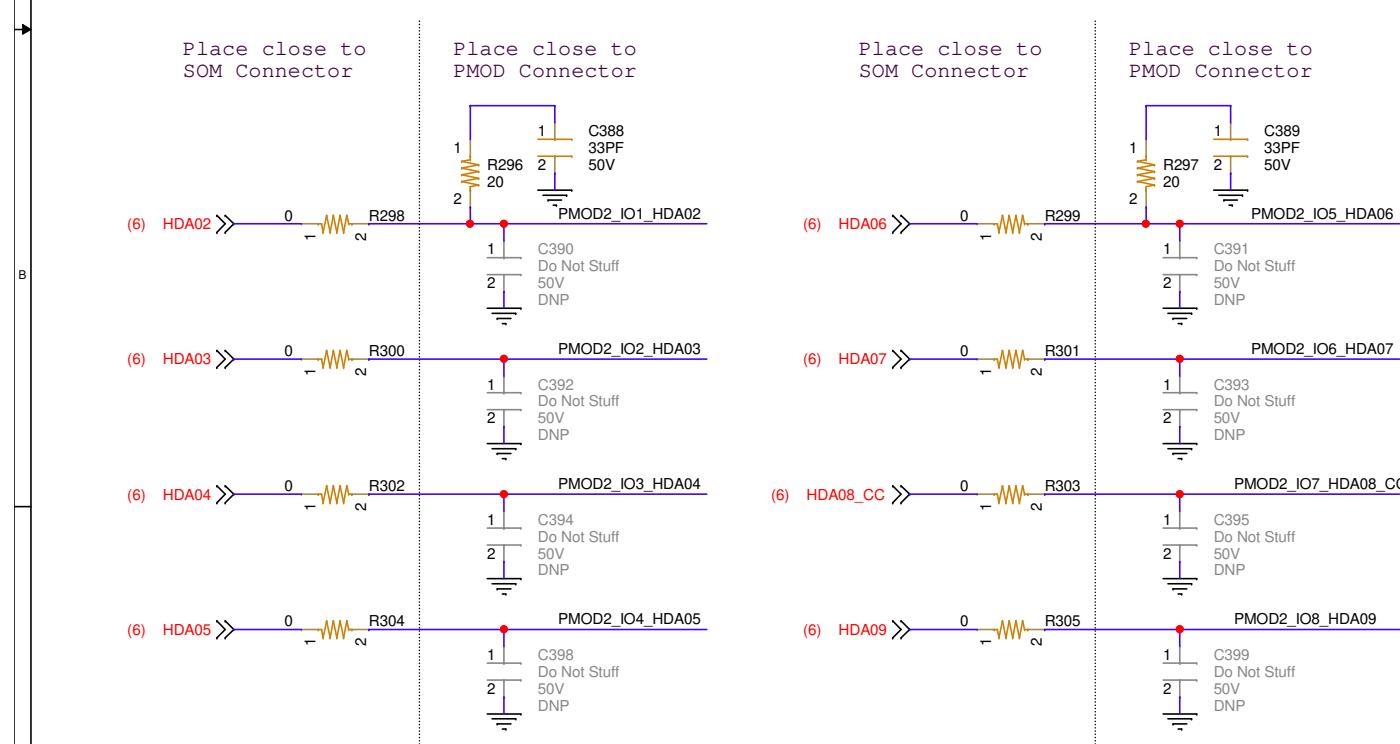
Title: SCK-KR
09 - JTAG/UART

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PMOD #1



PMOD #2



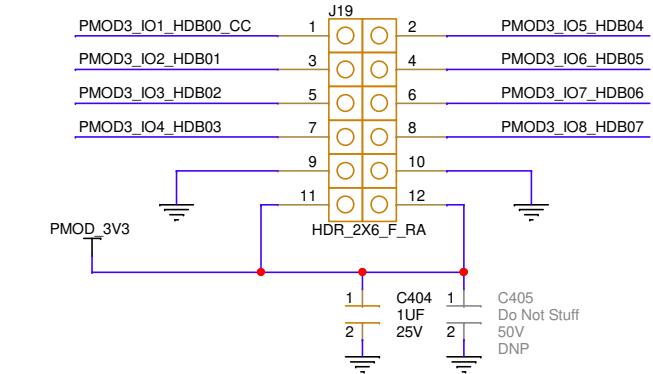
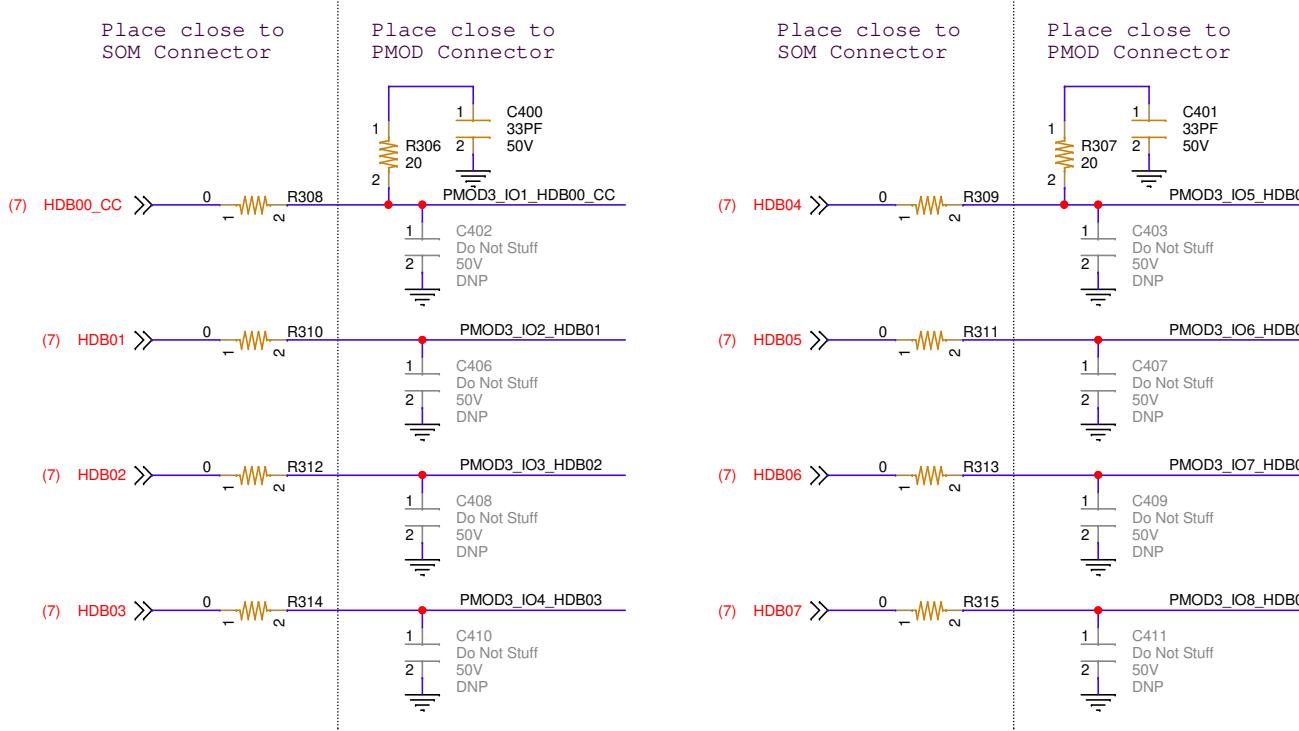
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SKIT

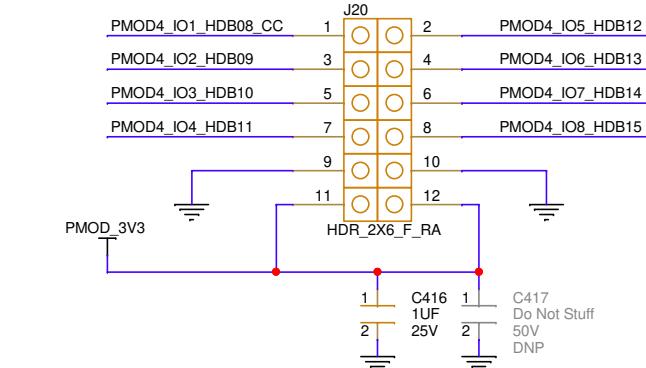
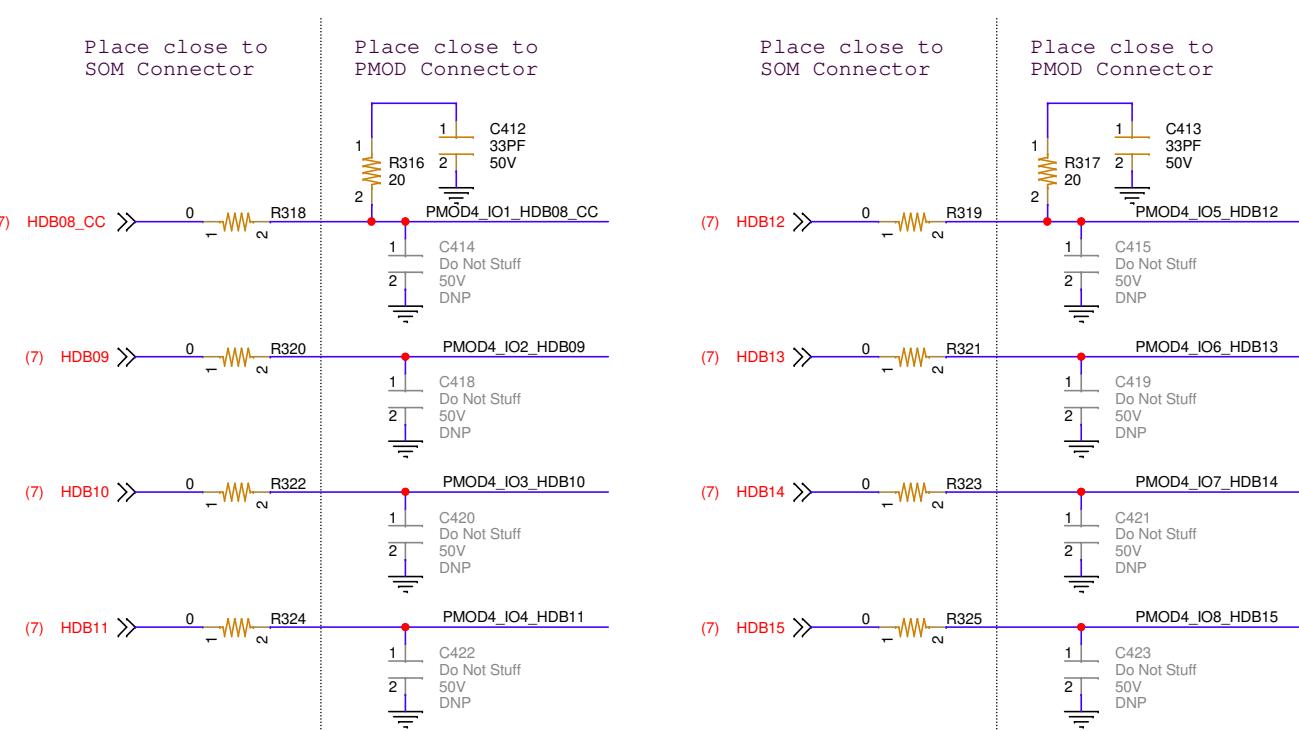
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10 - PMOD1&2

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PMOD #3



PMOD #4



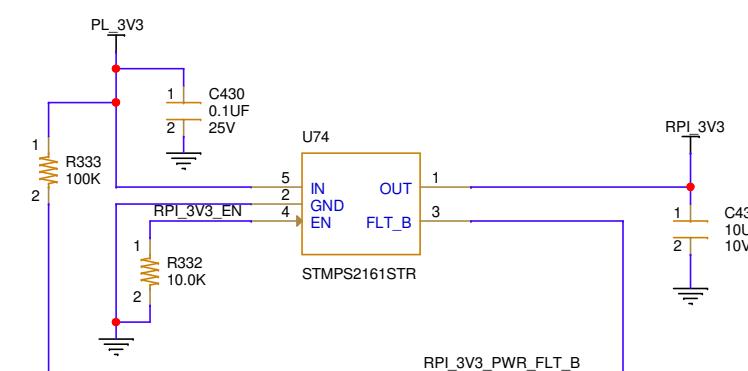
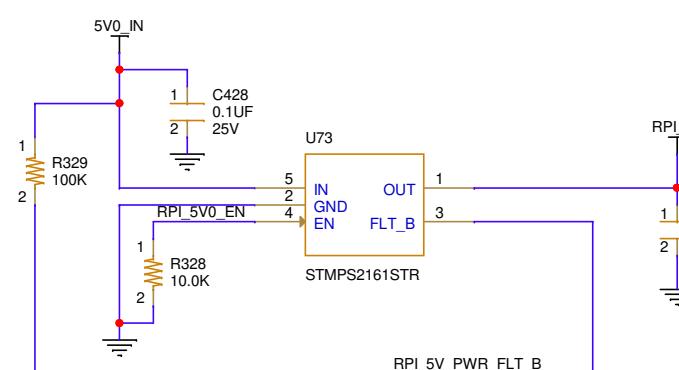
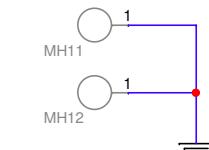
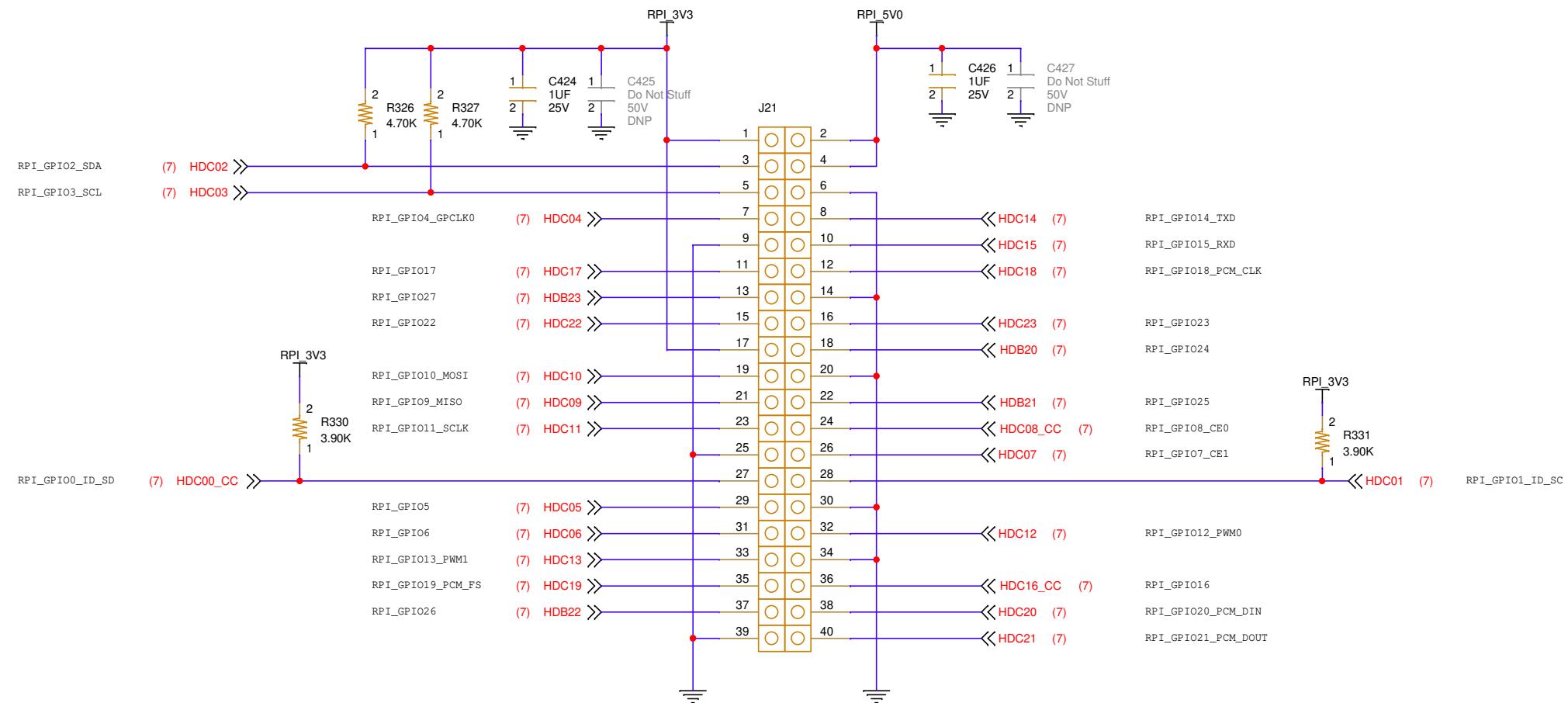
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11 - PMOD3&4

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Raspberry Pi Expansion Header



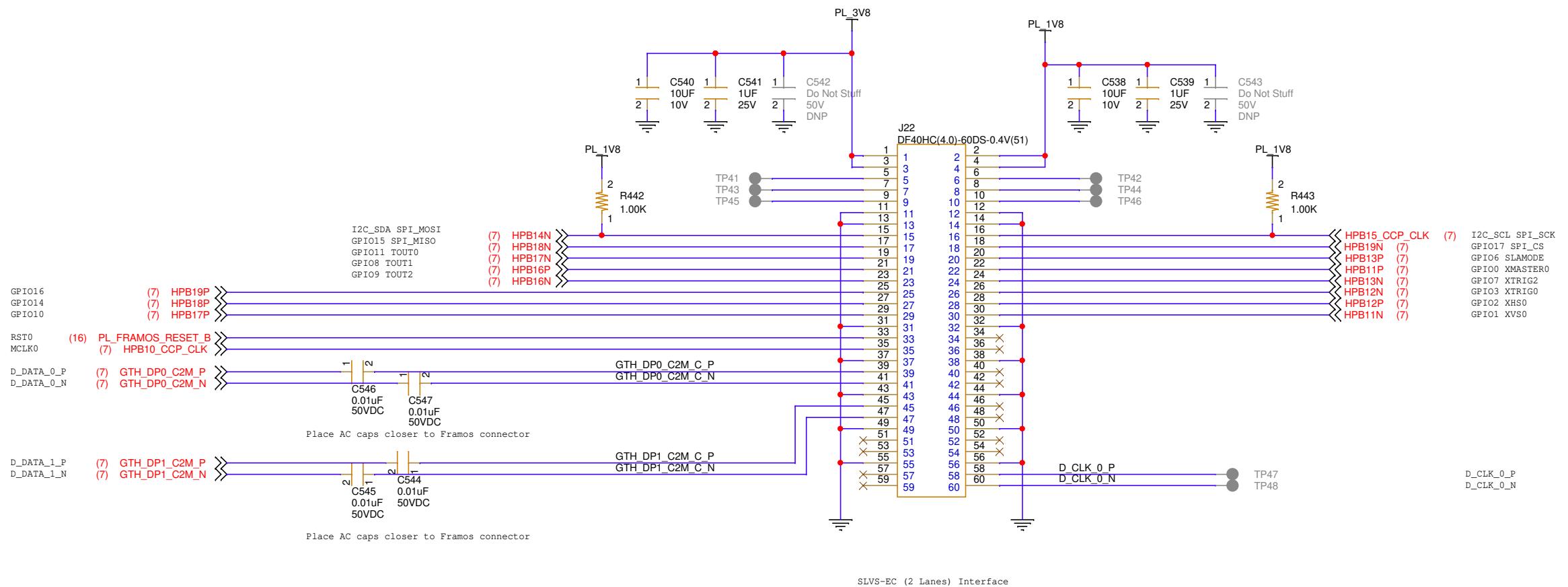
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12 - RPI Expansion CONN

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Framos FPA SLVS-EC

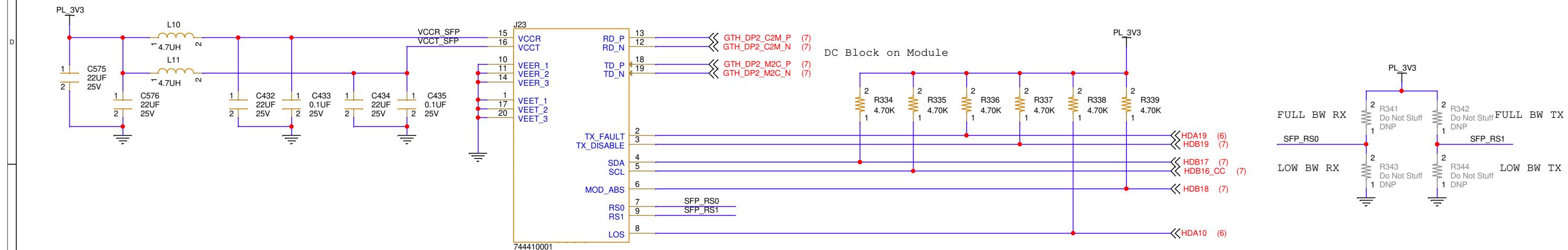


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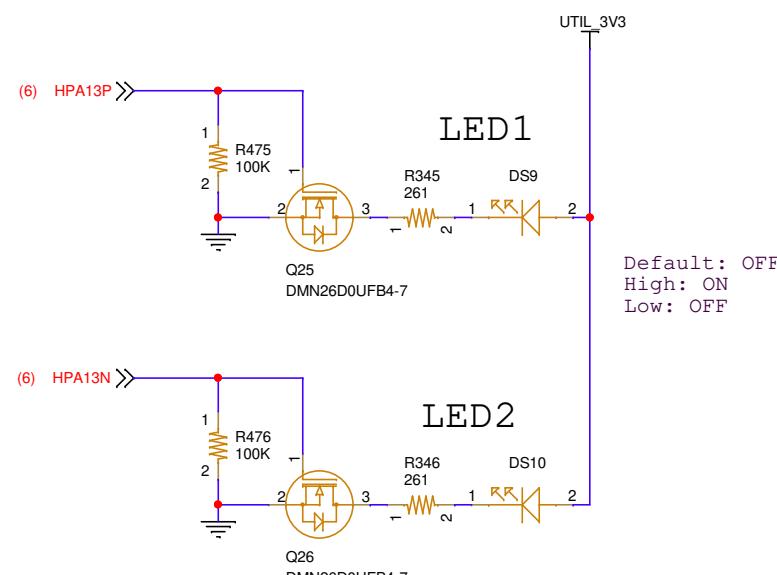
Title: **SCK-KR**
13 - Framos CONN

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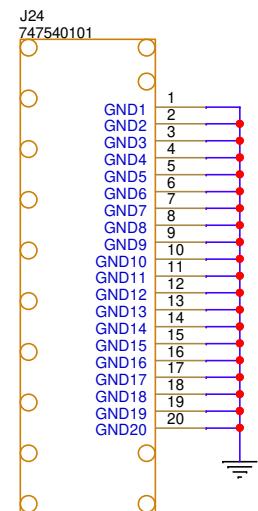
SFP+ Connector



SFP+ LEDs



SFP+ Cage



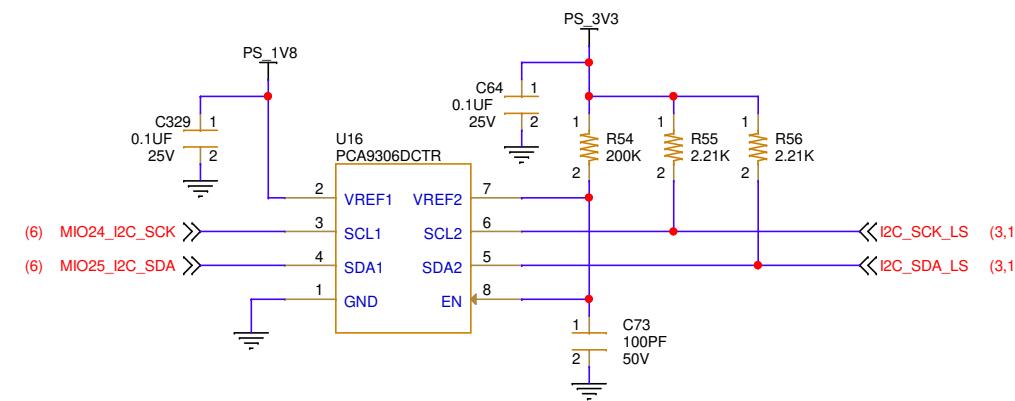
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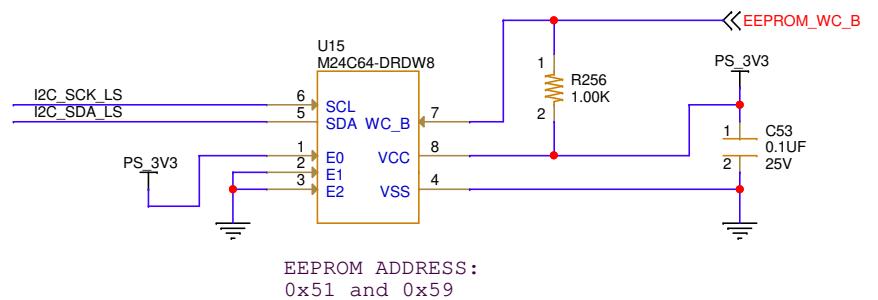
Title: SCK-KR
14 - SFP+

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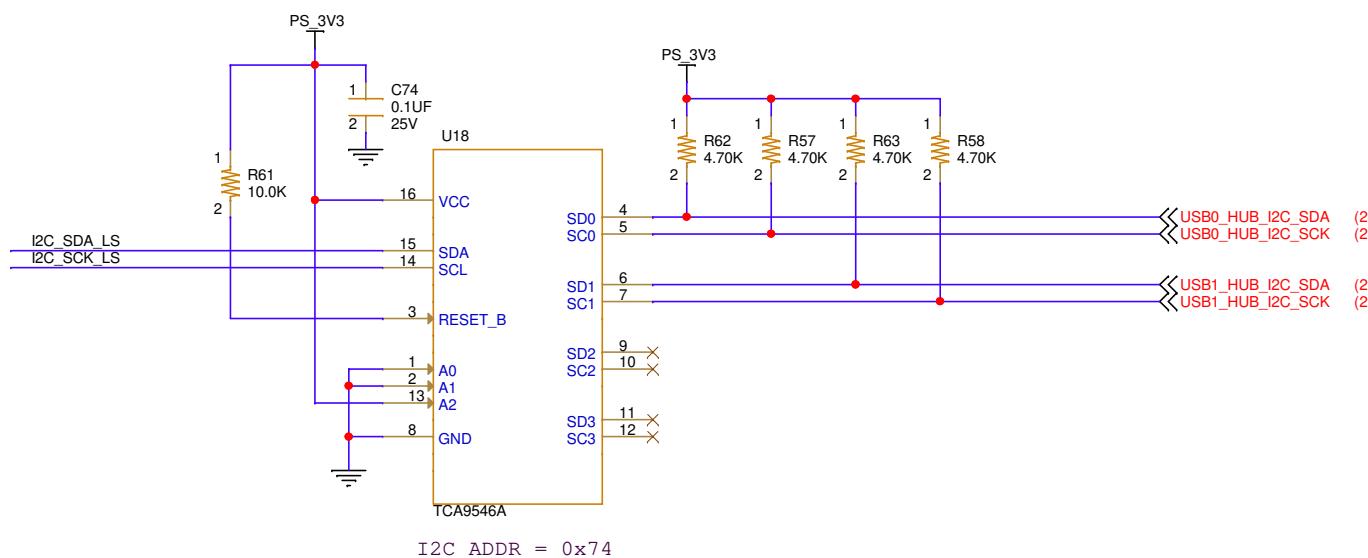
MIO I2C LEVEL SHIFTER



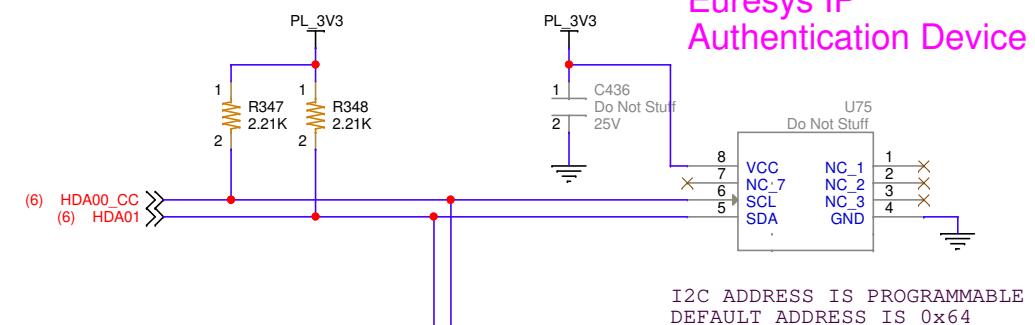
SYSTEM EEPROM



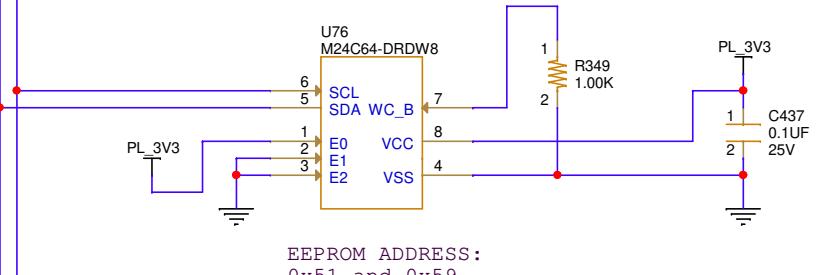
MIO I2C SWITCH



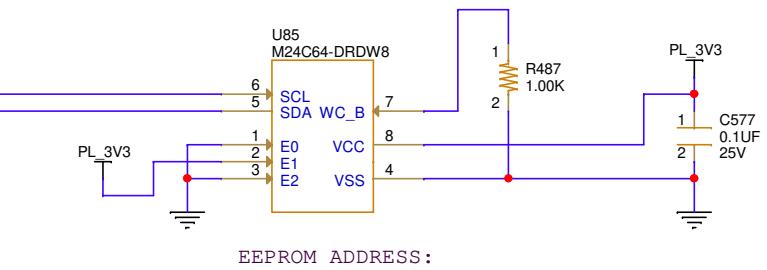
Euresys IP Authentication Device



Euresys IP EEPROM



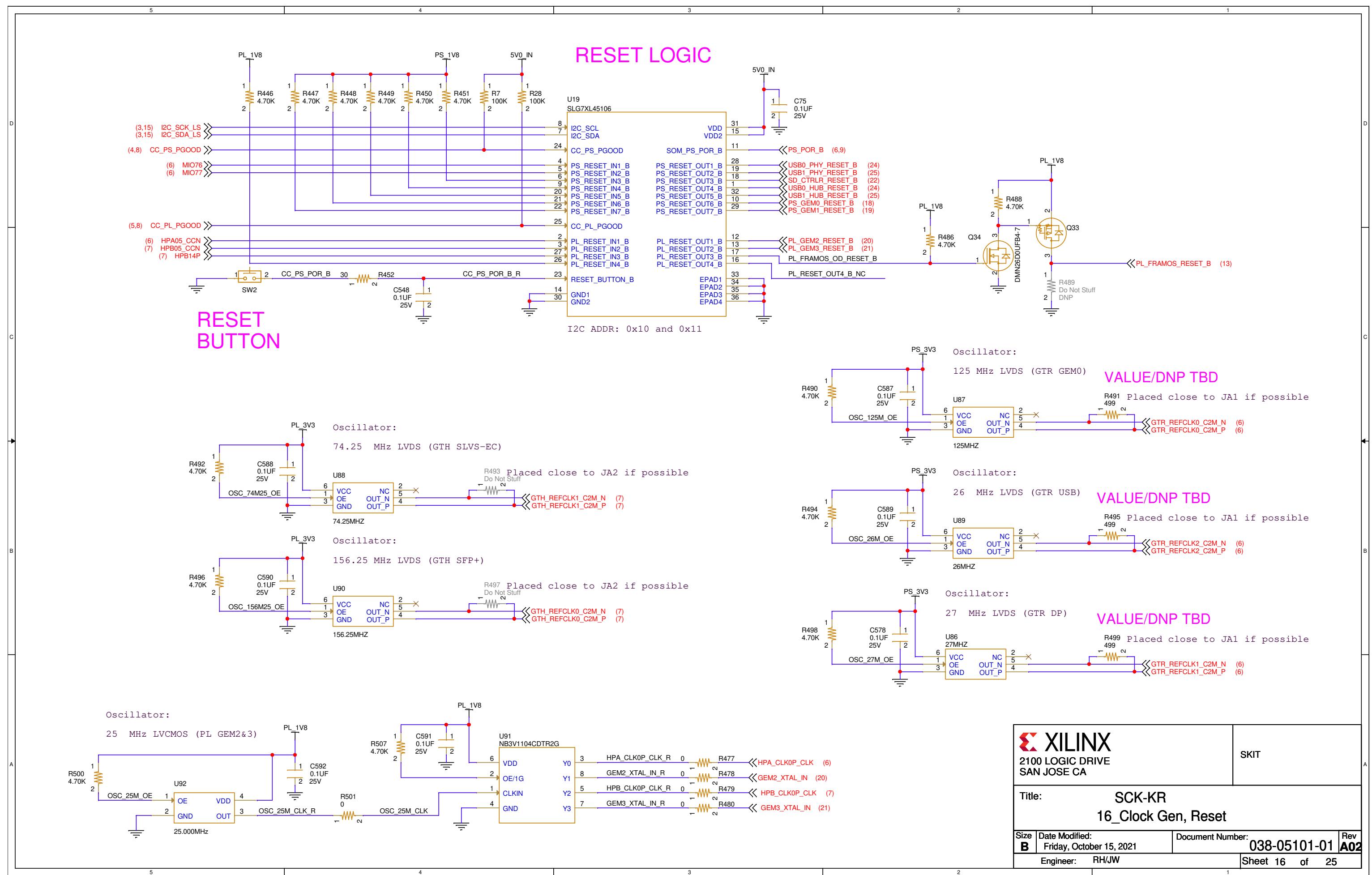
EtherCAT IP EEPROM



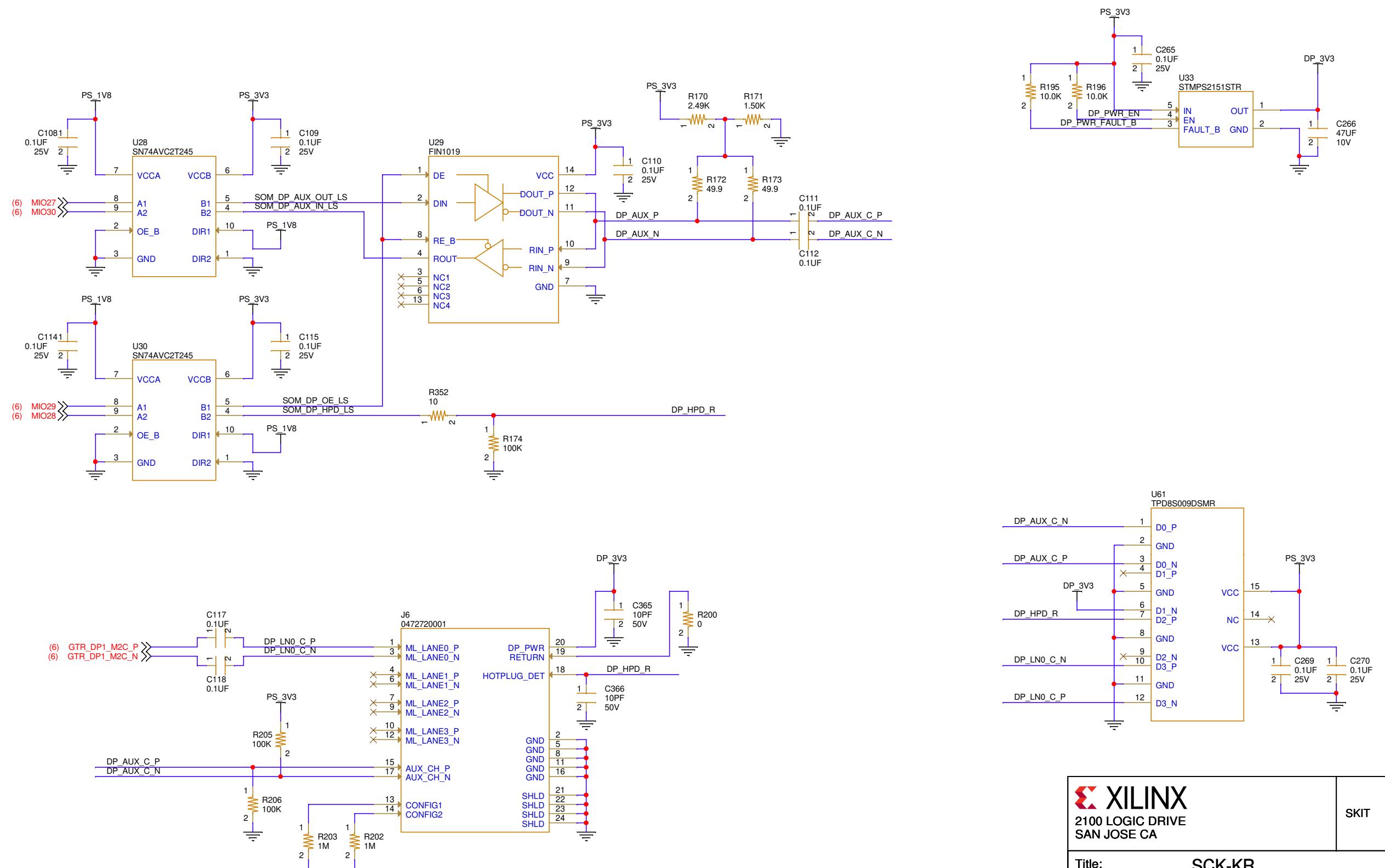
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15 - I2C, EEPROM

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DISPLAY PORT

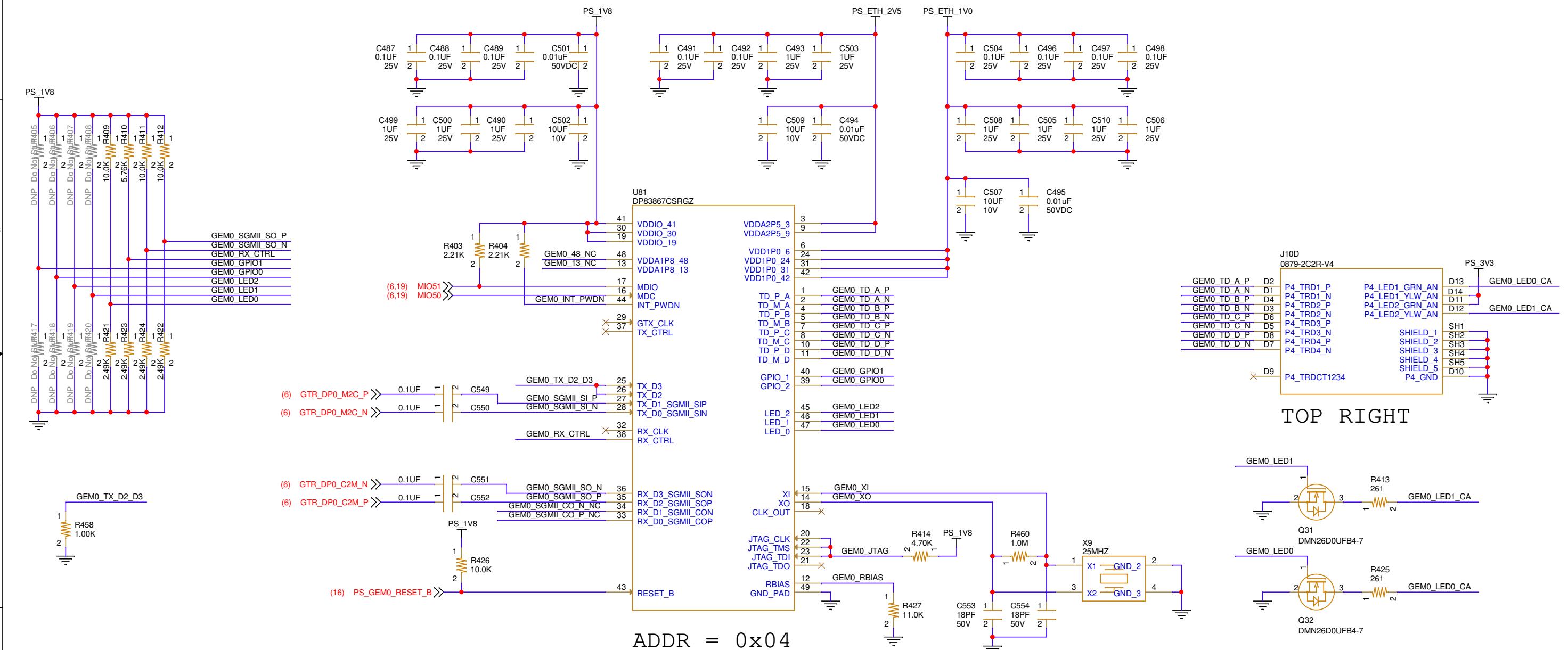


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17_DisplayPort

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PS GEM0 SGMII ETHERNET



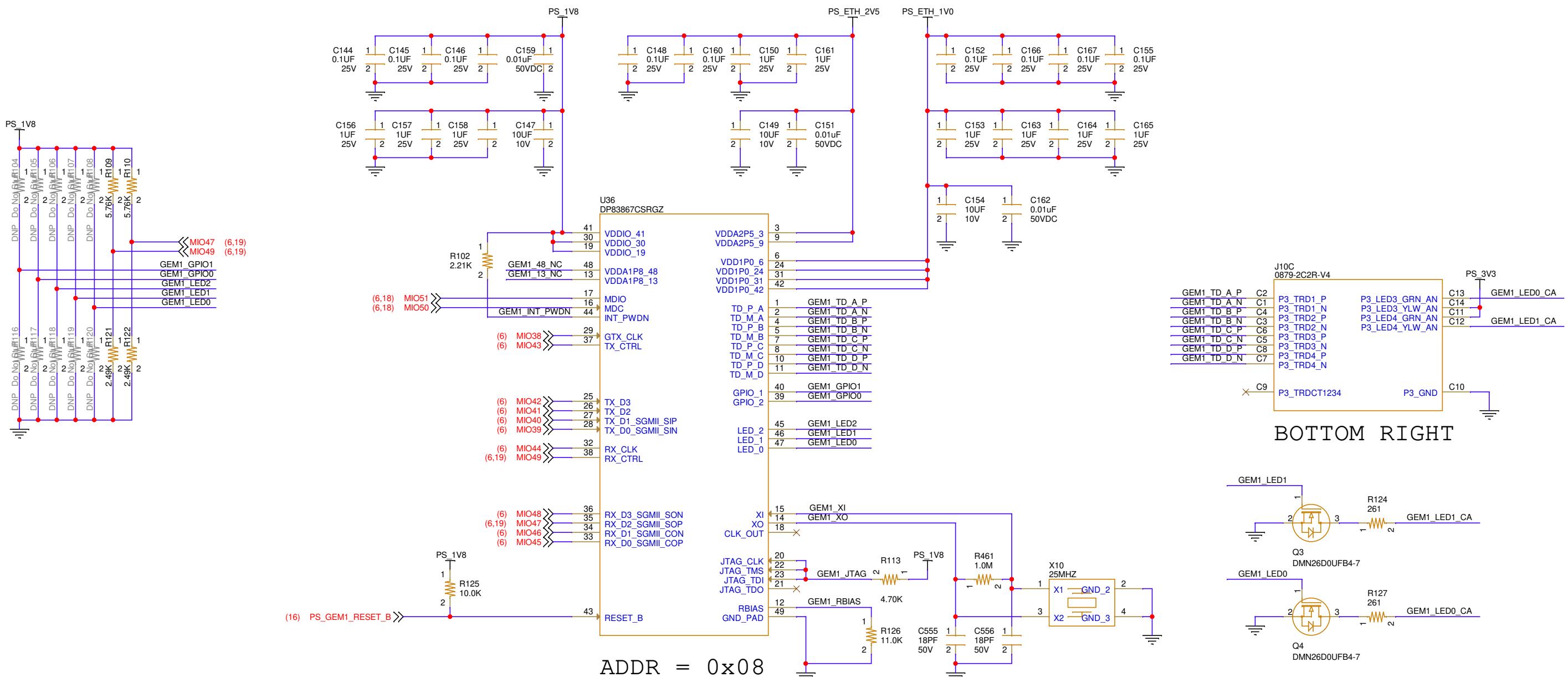
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18_PS_GEM0

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PS GEM1 RGMI Ethernet

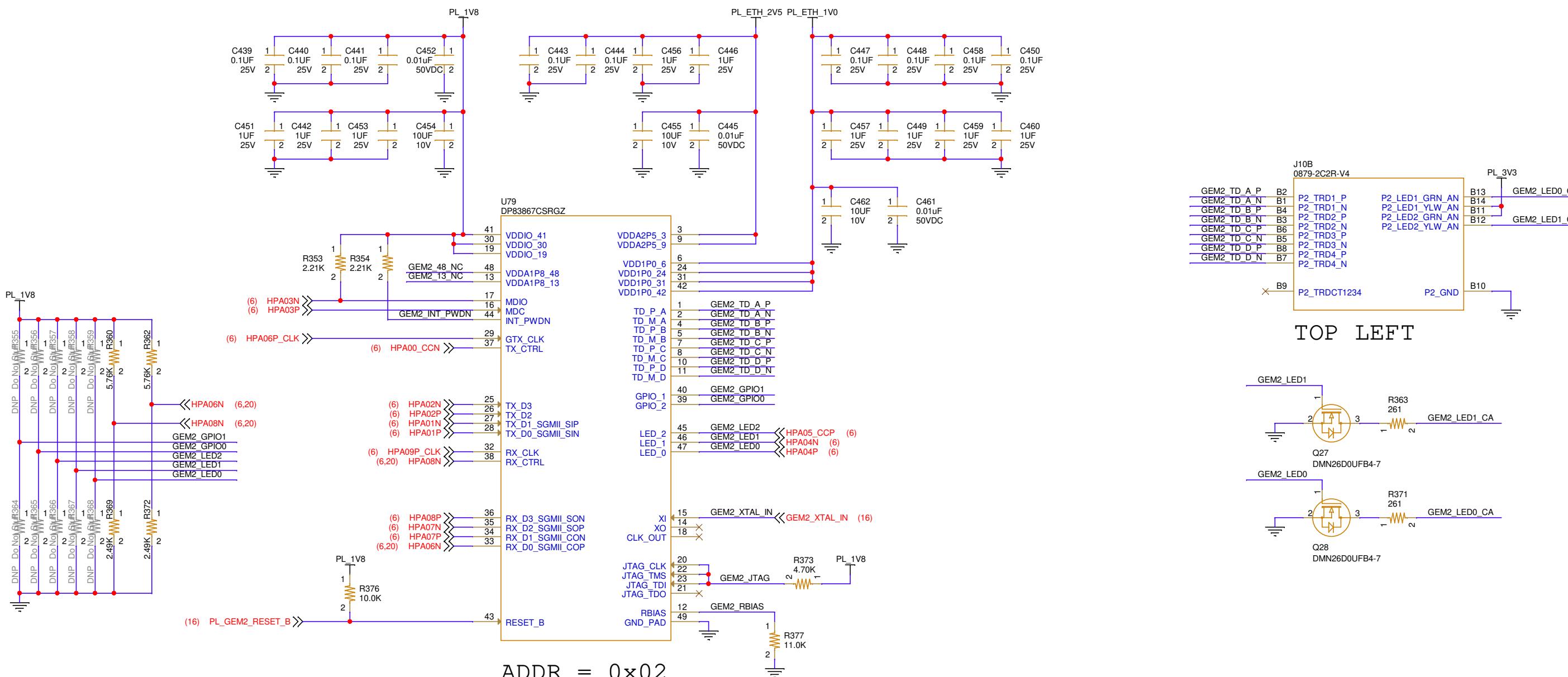


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19_PS_GEM1

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PL GEM2 RGMI^I ETHERNET



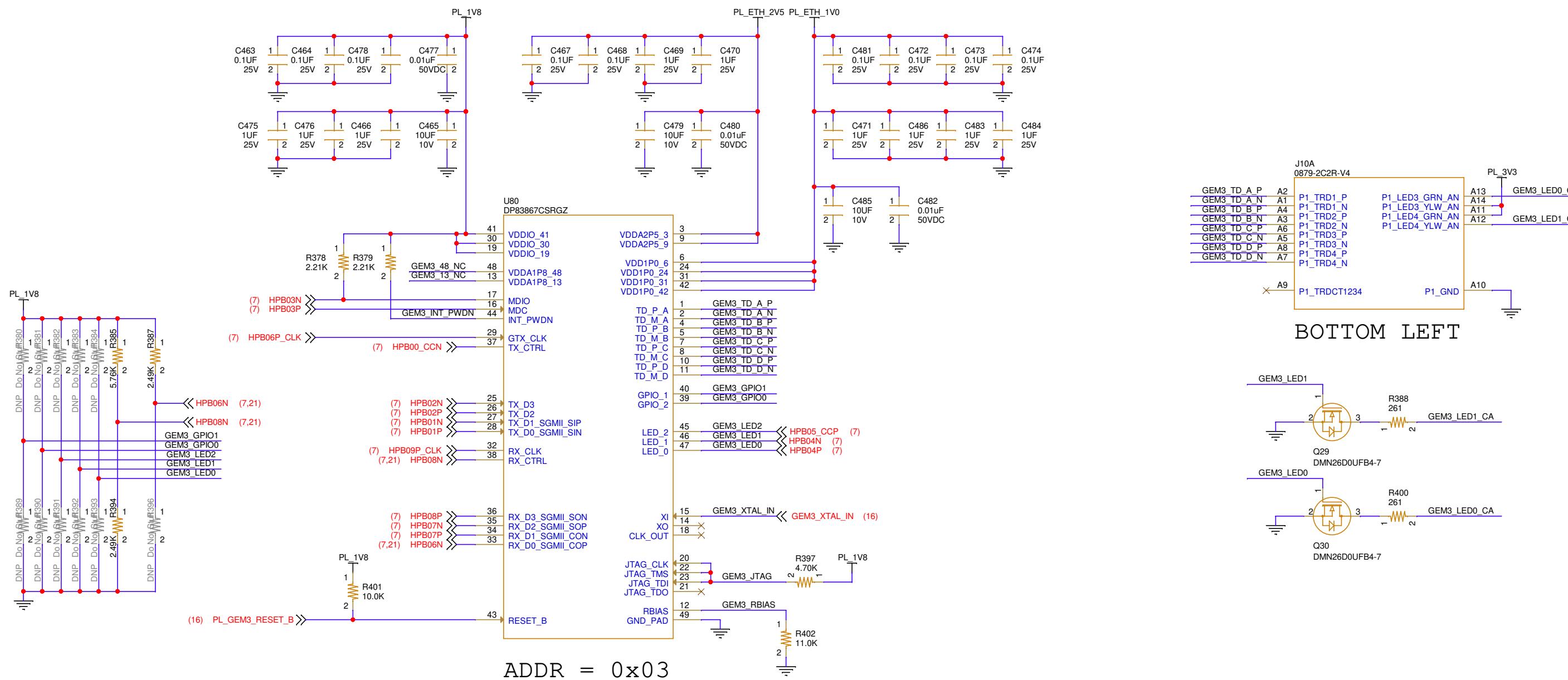
ADDR = 0x02



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20 PL GEM2

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PL GEM3 RGMII ETHERNET



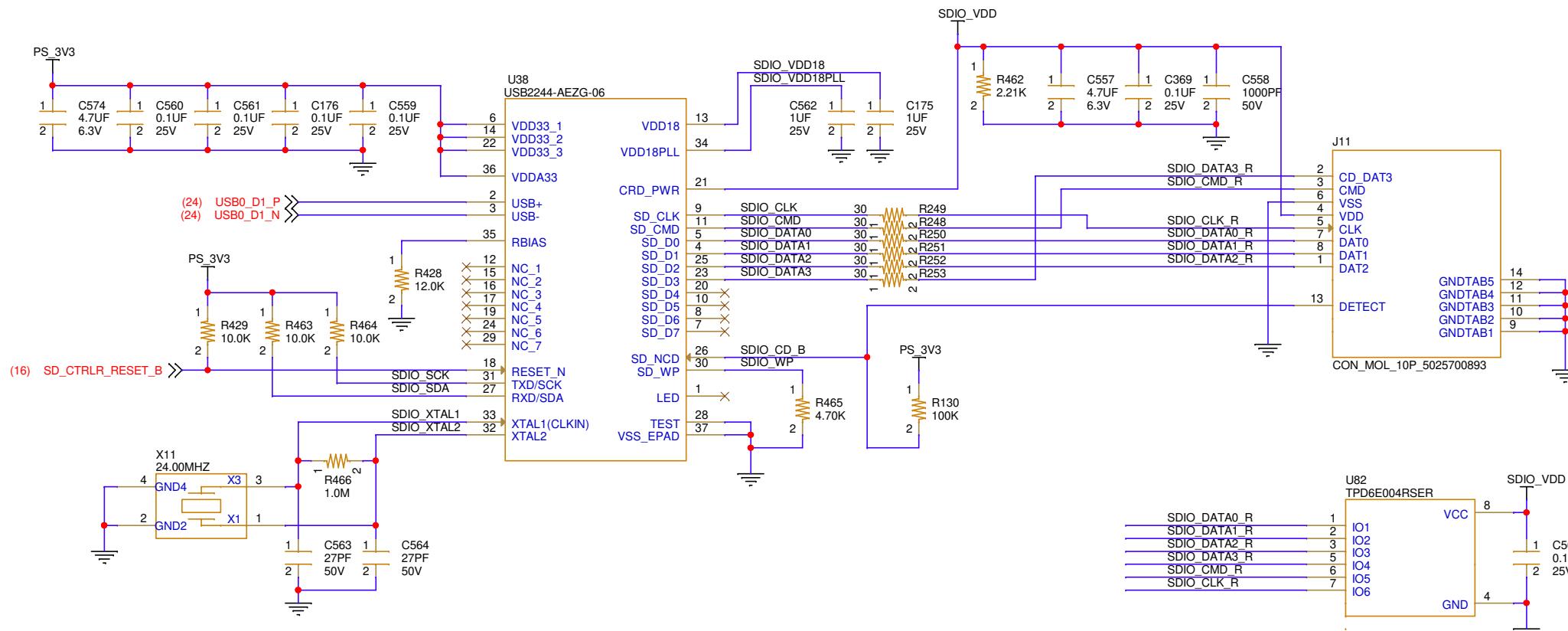
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21_PL_GEM3

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SD 2.0

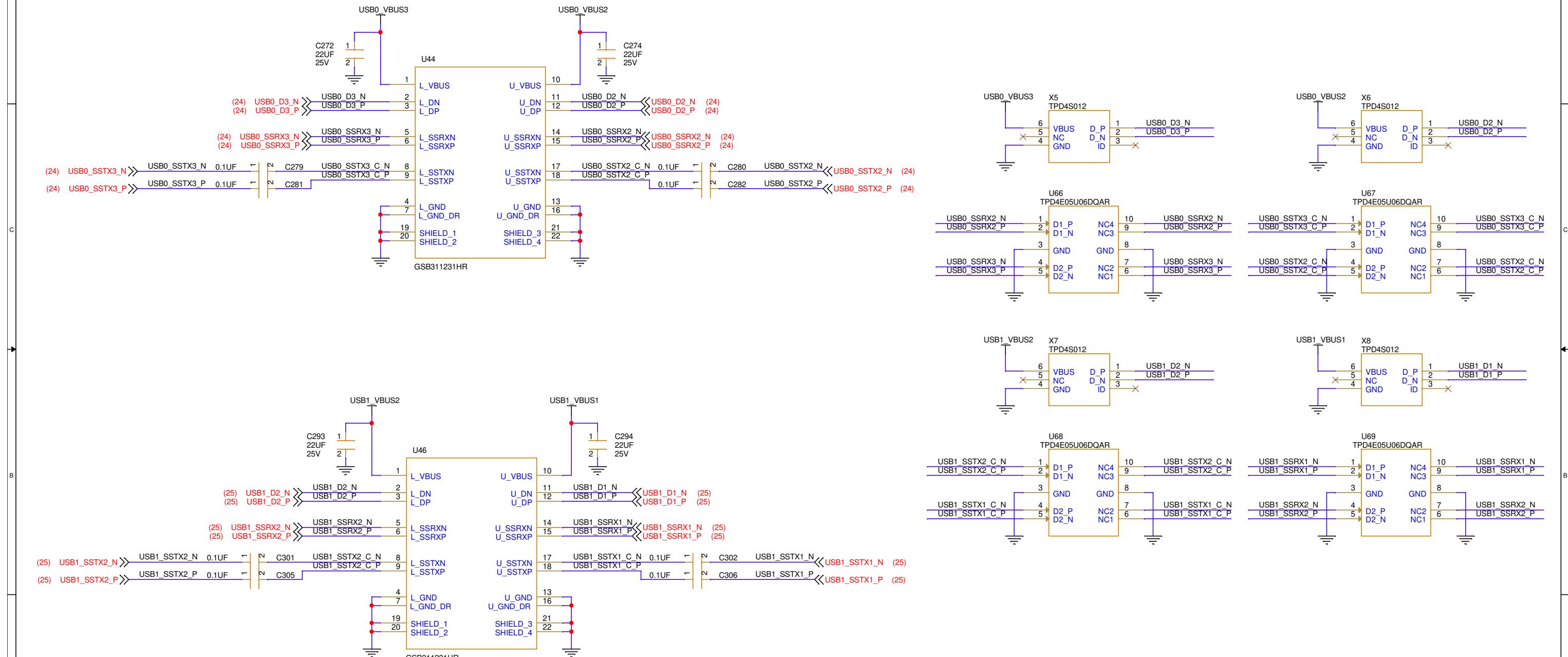


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Title: SCK-KR
22_SD Card

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USB CONNECTORS



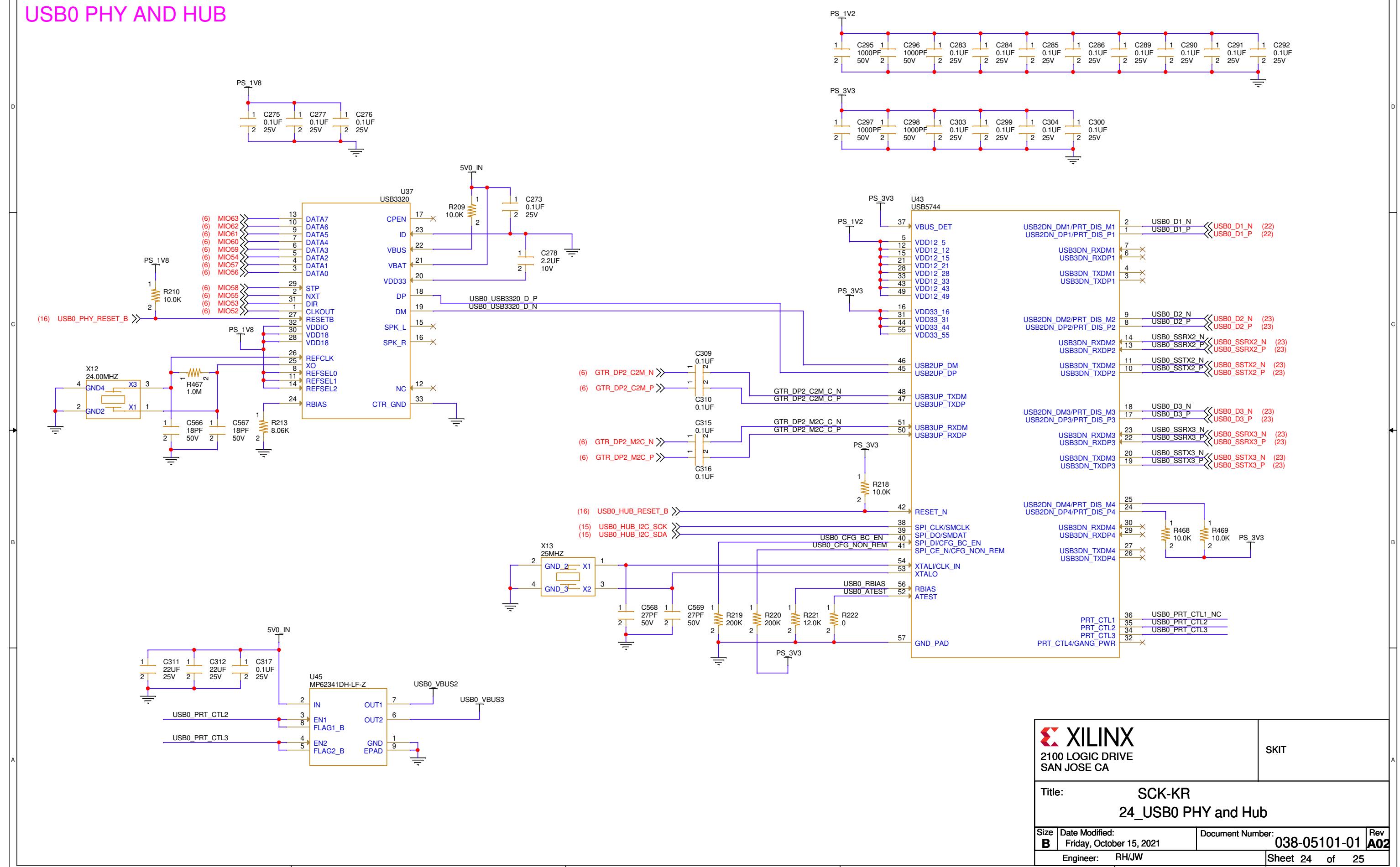
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Title: **SCK-KR**
23_USB Connectors

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USB0 PHY AND HUB



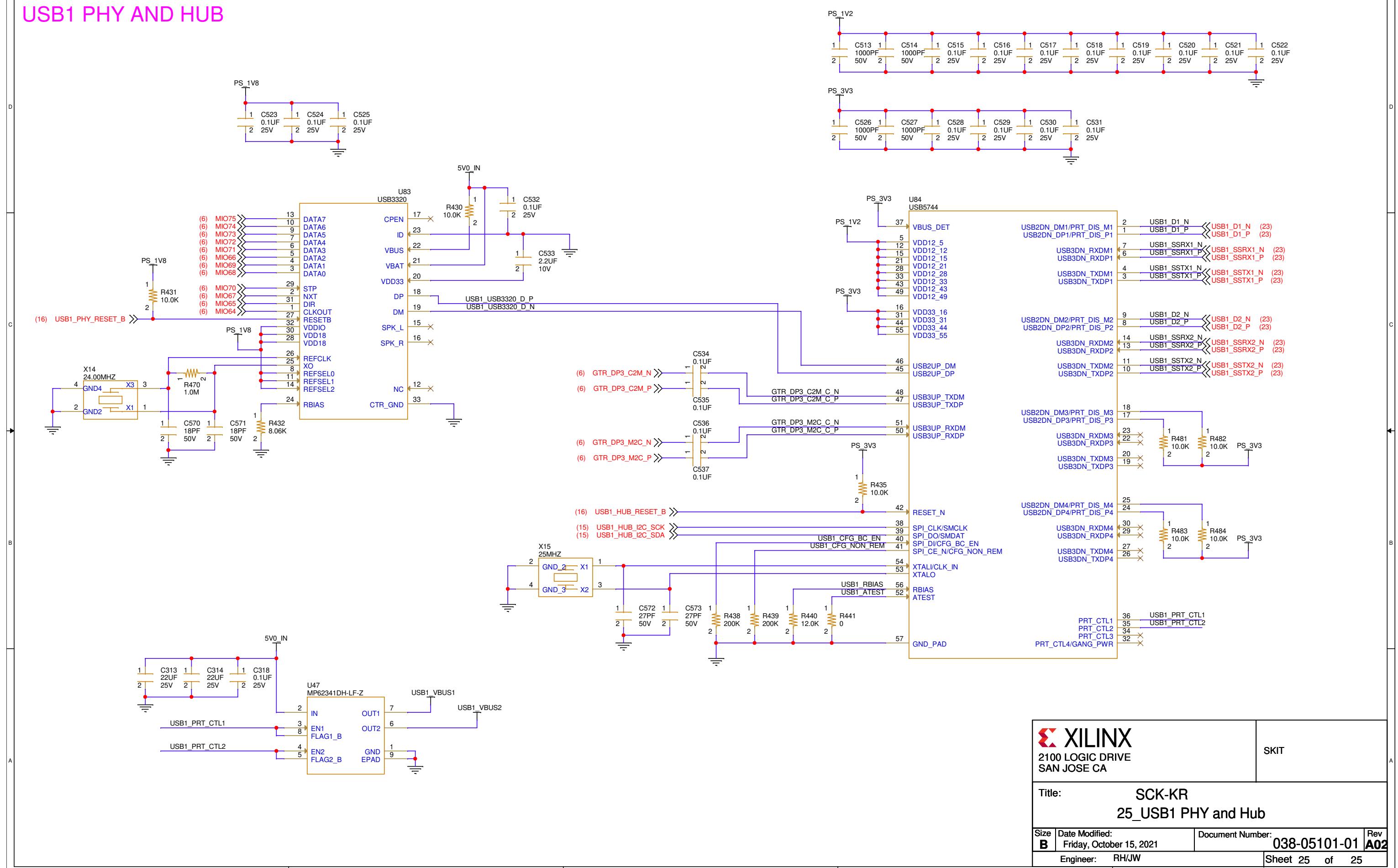
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SKIT

Title: **SCK-KR**
24_USB0 PHY and Hub

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USB1 PHY AND HUB



XILINX
2100 LOGIC DRIVE
SAN JOSE CA

Title: SCK-KR
25_USB1 PHY and Hub

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